

# 1. MIPAS Daily Report for level 1 products

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## [1.2 Product Quality Indicators](#)

## [1.3 Physical Quality Indicators](#)

## [1.4 ADF monitoring](#)

### 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	v1.41 08-11-2010
Time of report generation	13FEB2012 01:50:36
Data source version	MIPAS/5.06-R
Processing scope for products	18JAN2012 00:00:00 to 19JAN2012 00:00:00
Start time of first product within scope	17JAN2012 23:55:05
Stop time of last product within scope	19JAN2012 00:59:04
Total number of level 1 products	15
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.

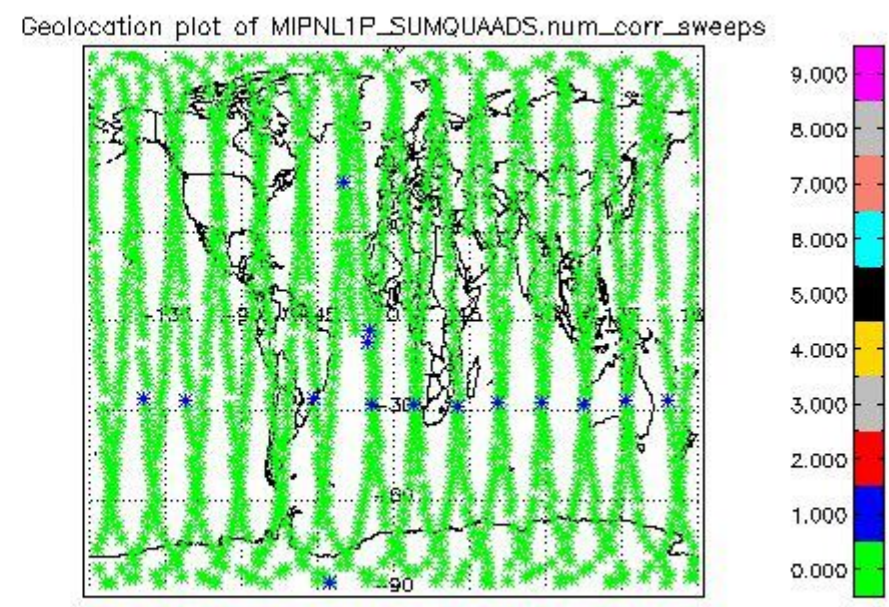
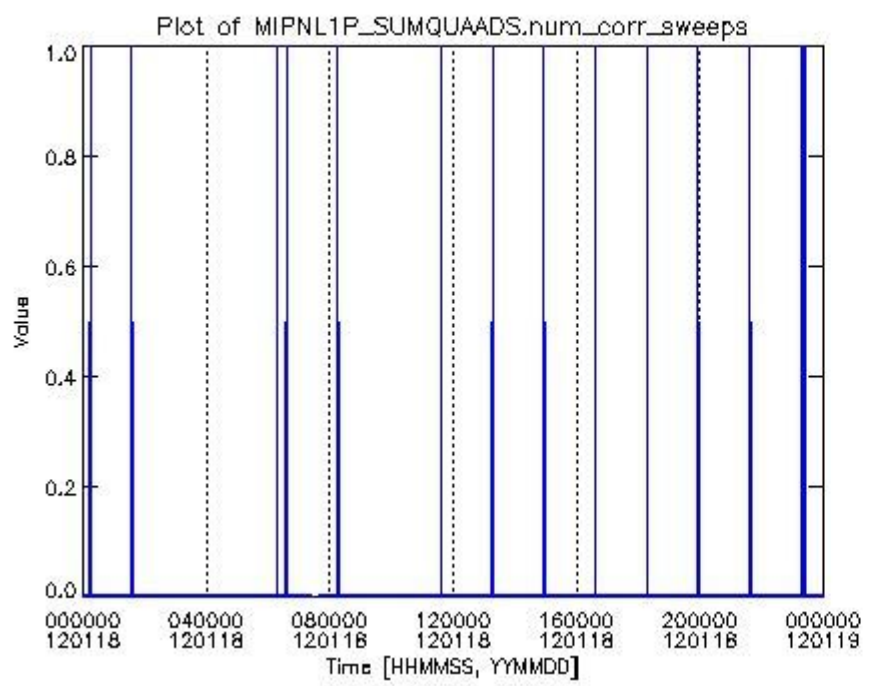
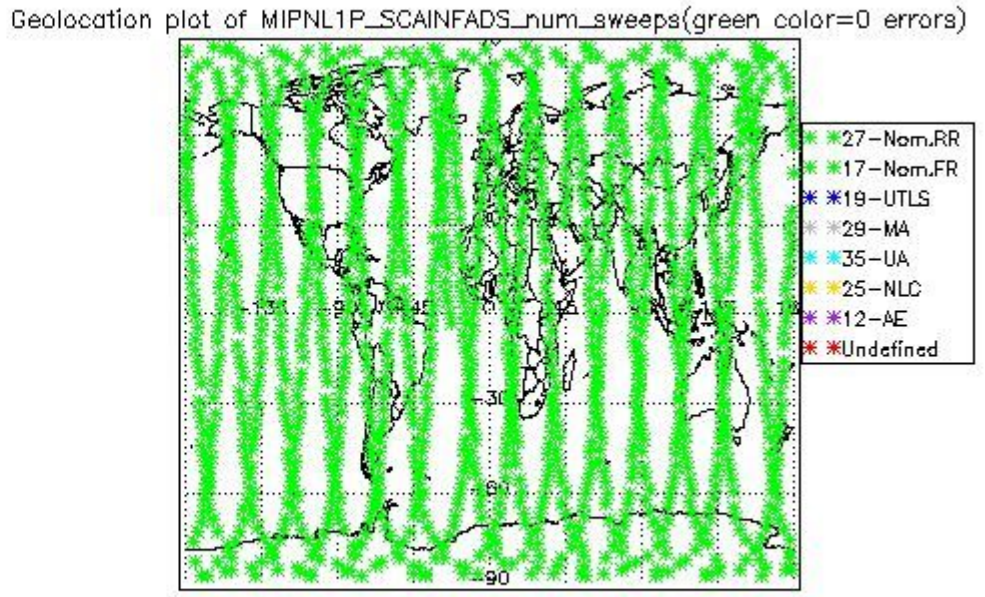
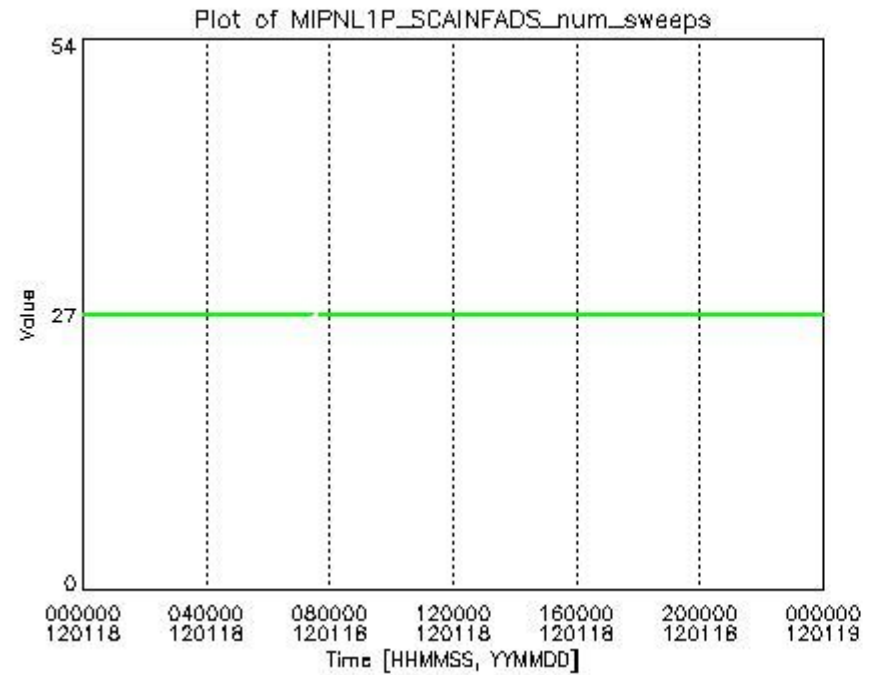
Products are linked to a corresponding server directory for view/download. Note: Link access may be restricted by security settings of your internet browser or firewall.

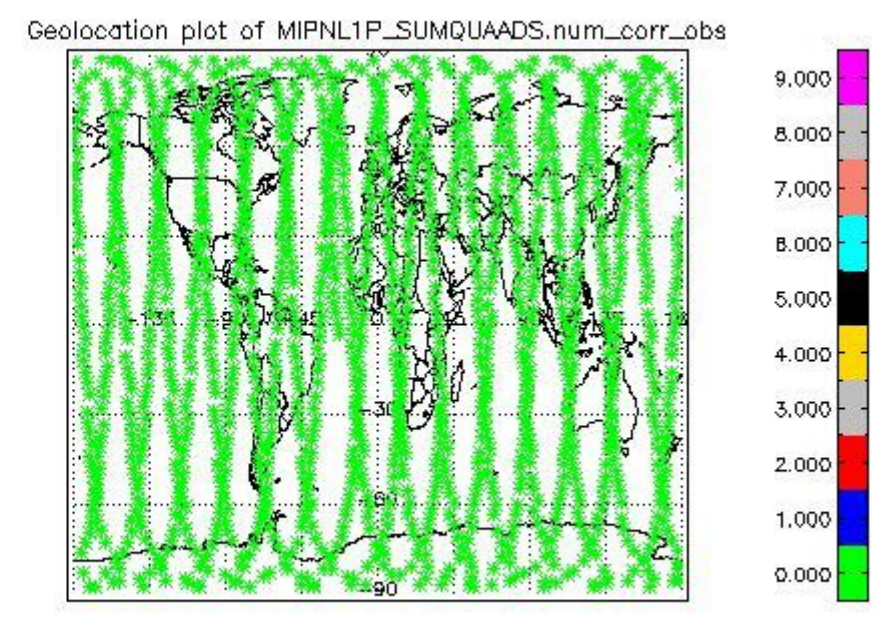
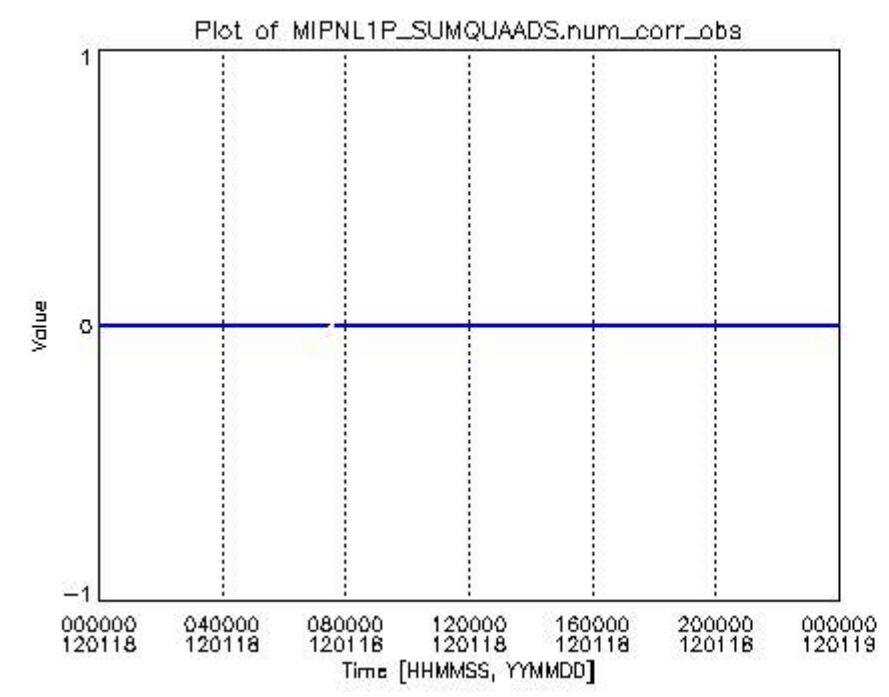
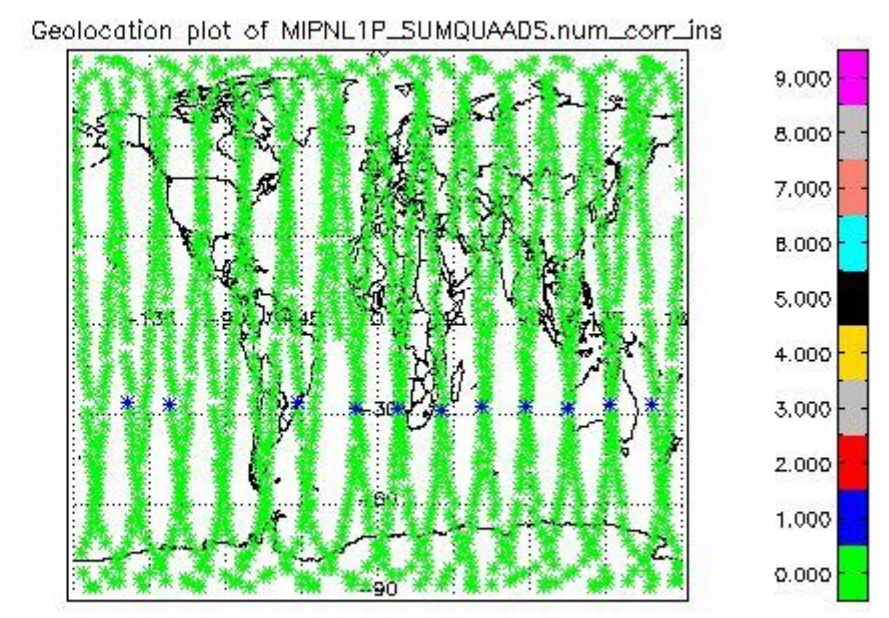
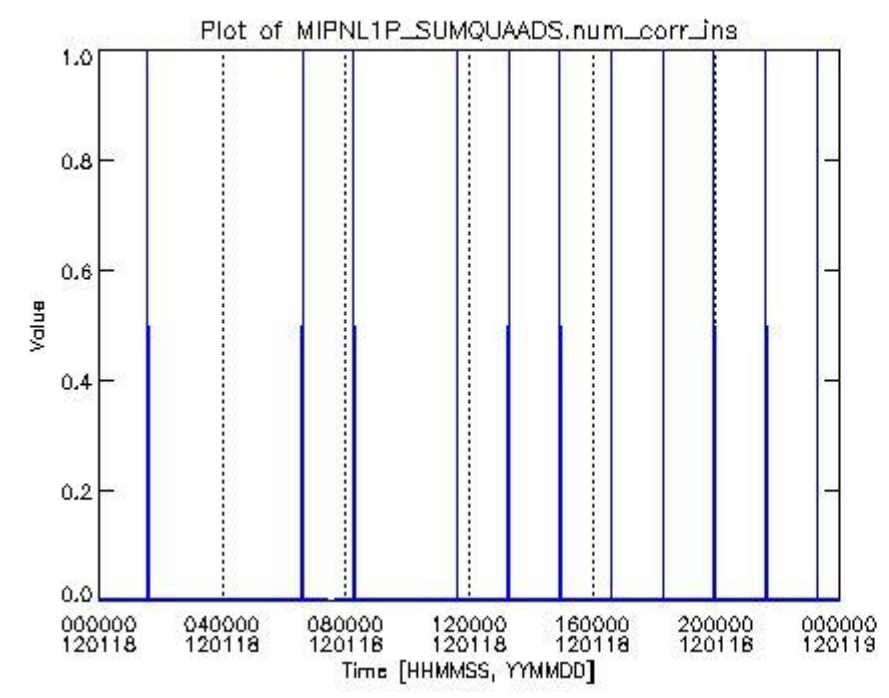
#	Product name	Start time	Stop time	Prod err	Slice position (prod/tot)	#sweeps SPH
0	<a href="#">MIP_NL__1PRDPA20120117_235505_000060443110_00390_51697_6584.N1</a>	17JAN2012 23:55:05	18JAN2012 01:35:49	0	0/0	27
1	<a href="#">MIP_NL__1PRDPA20120118_013555_000060153110_00391_51698_6586.N1</a>	18JAN2012 01:35:55	18JAN2012 03:16:09	0	0/0	27
2	<a href="#">MIP_NL__1PRDPA20120118_031515_000060153110_00392_51699_6589.N1</a>	18JAN2012 03:15:15	18JAN2012 04:55:29	0	0/0	27
3	<a href="#">MIP_NL__1PRDPA20120118_045605_000060153110_00393_51700_6592.N1</a>	18JAN2012 04:56:05	18JAN2012 06:36:19	0	0/0	27
4	<a href="#">MIP_NL__1PRDPA20120118_063625_000060203110_00394_51701_6595.N1</a>	18JAN2012 06:36:25	18JAN2012 08:16:45	0	0/0	27
5	<a href="#">MIP_NL__1PRDPA20120118_081651_000059543110_00395_51702_6598.N1</a>	18JAN2012 08:16:51	18JAN2012 09:56:04	0	0/0	27
6	<a href="#">MIP_NL__1PRDPA20120118_095640_000060153110_00396_51703_6601.N1</a>	18JAN2012 09:56:40	18JAN2012 11:36:54	0	0/0	27
7	<a href="#">MIP_NL__1PRDPA20120118_113700_000060153110_00397_51704_6602.N1</a>	18JAN2012 11:37:00	18JAN2012 13:17:14	0	0/0	27
8	<a href="#">MIP_NL__1PRDPA20120118_131721_000059833110_00398_51705_6605.N1</a>	18JAN2012 13:17:21	18JAN2012 14:57:04	0	0/0	27
9	<a href="#">MIP_NL__1PRDPA20120118_145710_000060153110_00399_51706_6608.N1</a>	18JAN2012 14:57:10	18JAN2012 16:37:24	0	0/0	27
10	<a href="#">MIP_NL__1PRDPA20120118_163730_000060153110_00400_51707_6611.N1</a>	18JAN2012 16:37:30	18JAN2012 18:17:44	0	0/0	27
11	<a href="#">MIP_NL__1PRDPA20120118_181751_000059833110_00401_51708_6612.N1</a>	18JAN2012 18:17:51	18JAN2012 19:57:33	0	0/0	27
12	<a href="#">MIP_NL__1PRDPA20120118_195740_000060153110_00402_51709_6619.N1</a>	18JAN2012 19:57:40	18JAN2012 21:37:54	0	0/0	27
13	<a href="#">MIP_NL__1PRDPA20120118_213800_000060153110_00403_51710_6636.N1</a>	18JAN2012 21:38:00	18JAN2012 23:18:14	0	0/0	27
14	<a href="#">MIP_NL__1PRDPA20120118_231821_000060443110_00404_51711_6621.N1</a>	18JAN2012 23:18:21	19JAN2012 00:59:04	0	0/0	27

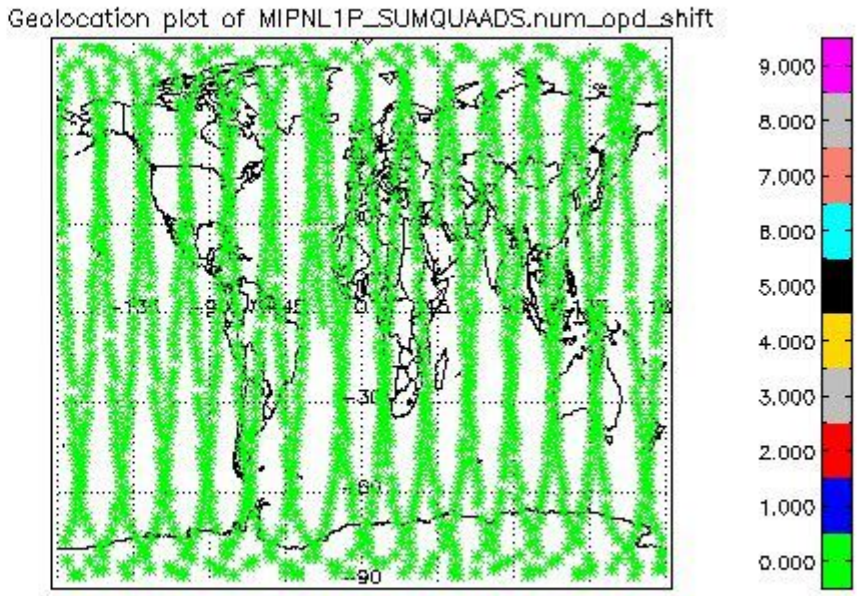
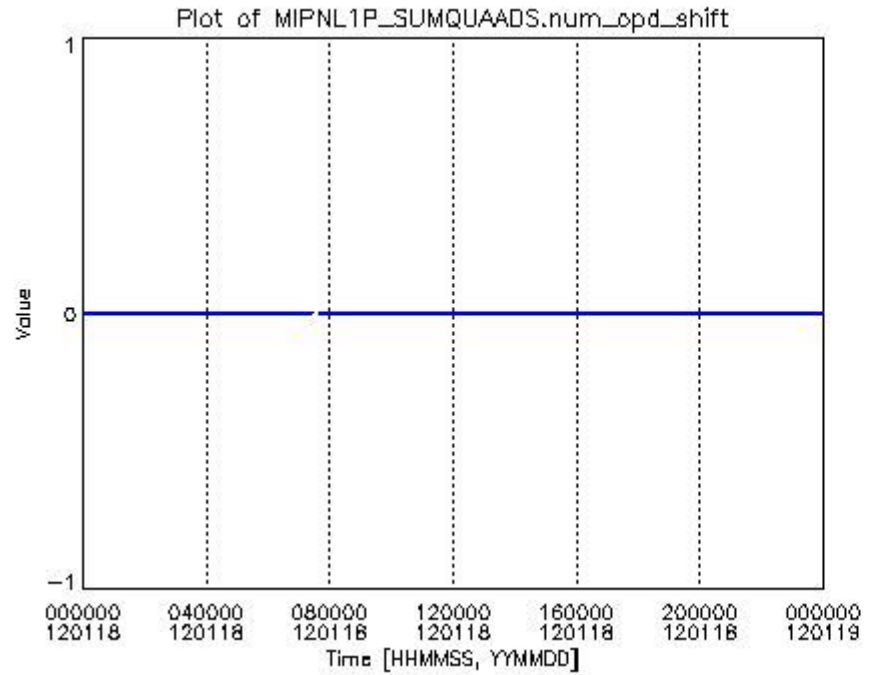
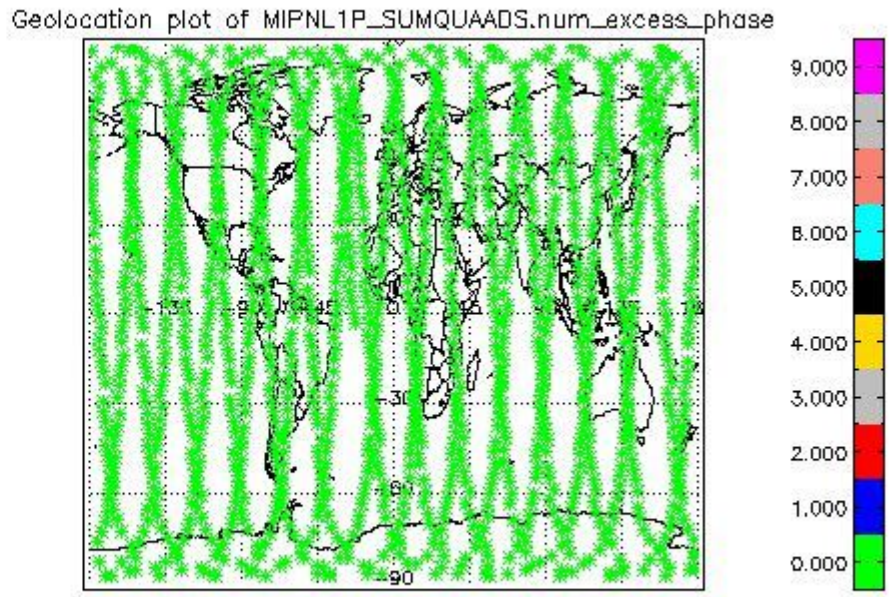
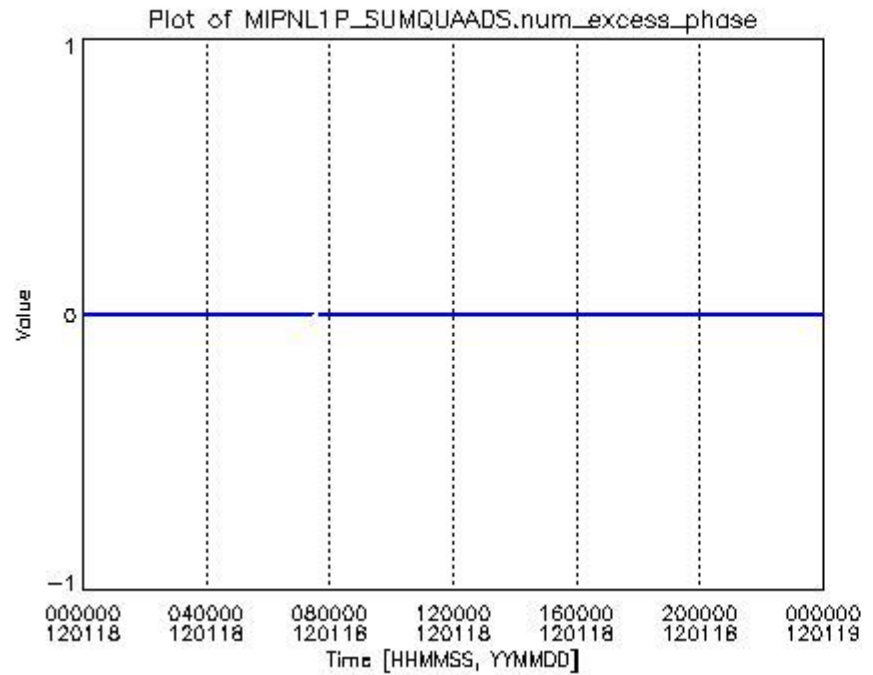
### 1.2 Product Quality Indicators

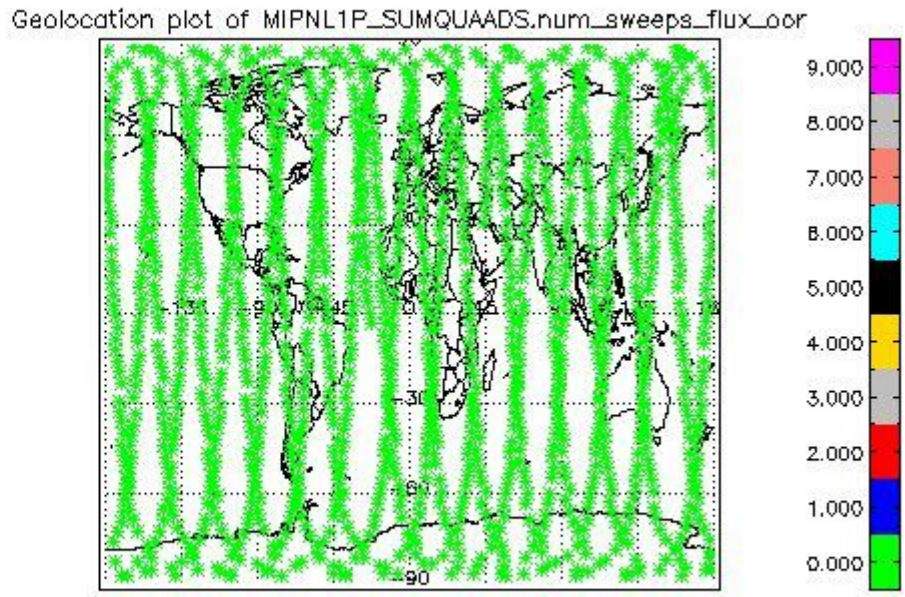
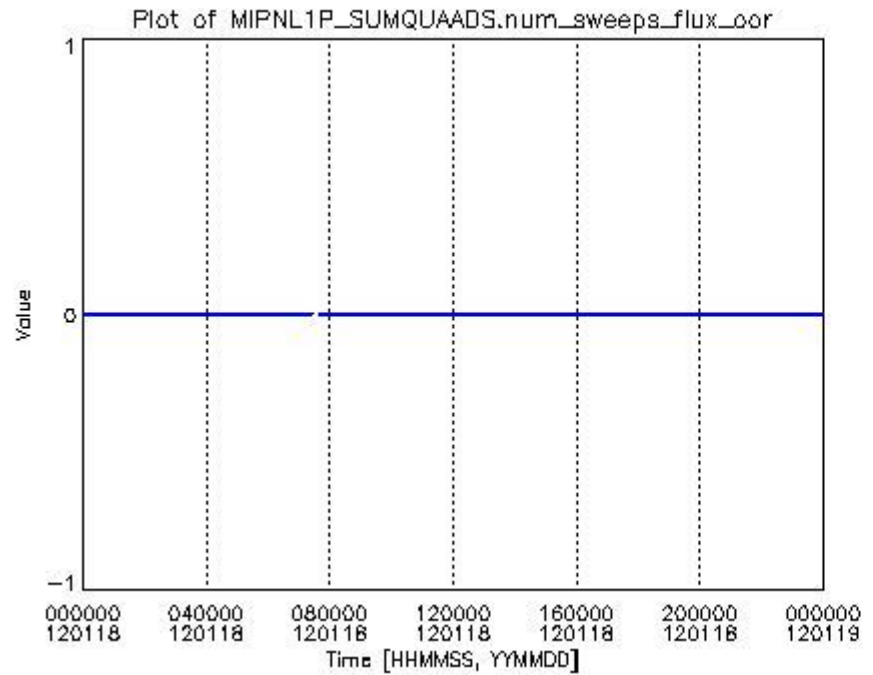
This report contains an analysis on product quality related parameters within the MIP\_NL\_\_1P product.

#### 1.2.1 Trends and geolocation of Summary Quality and Scan Information ADS

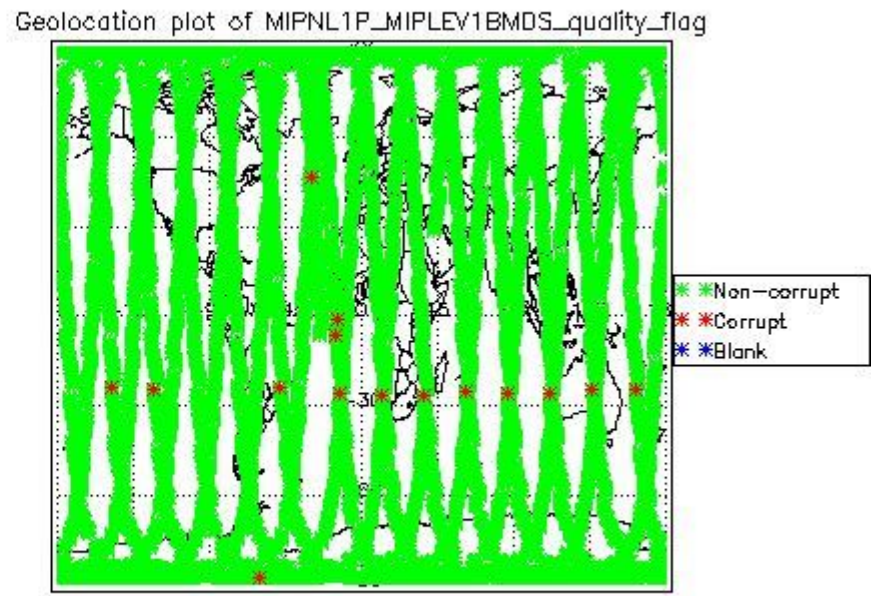
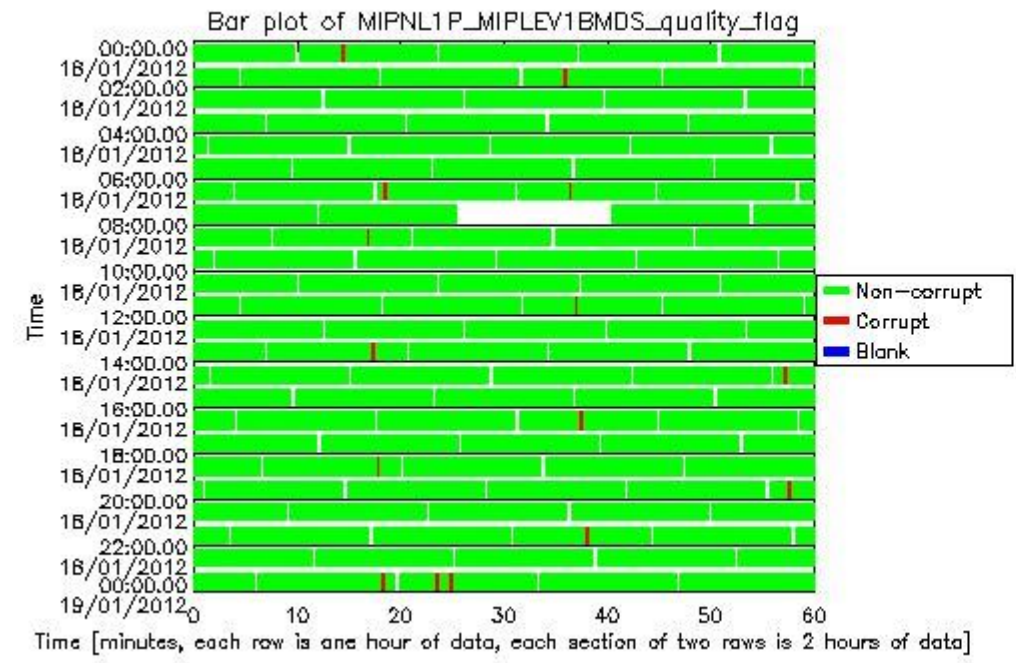


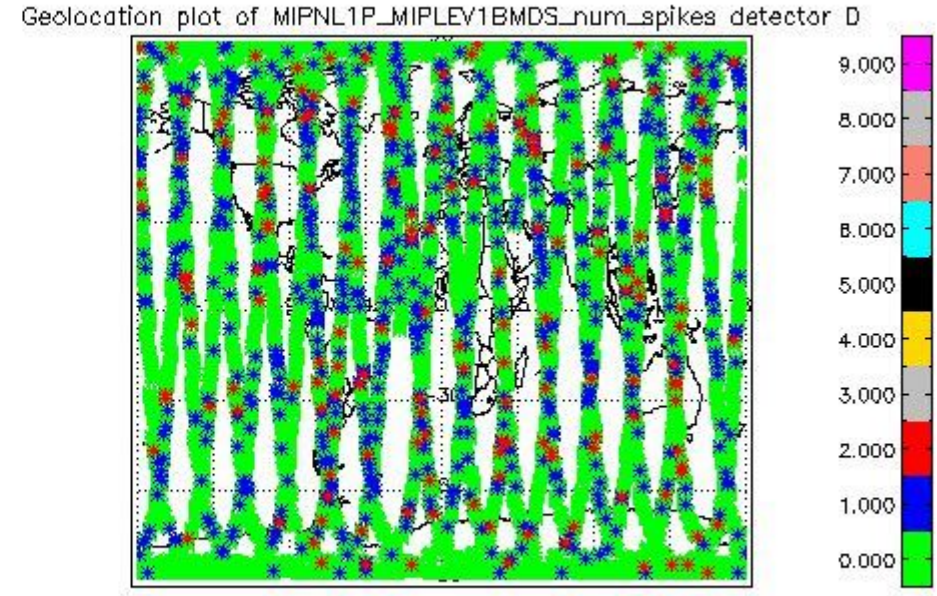
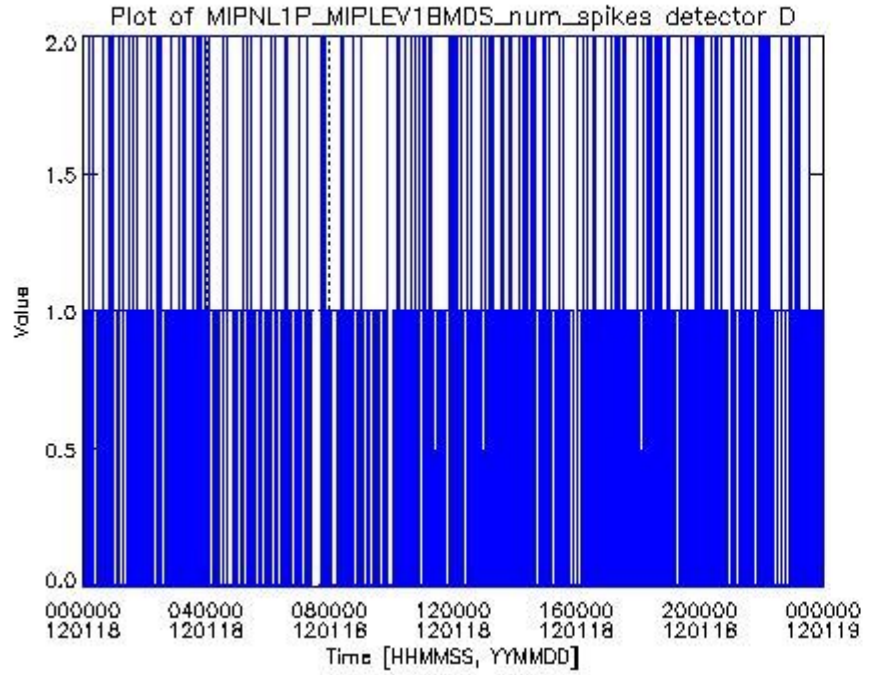
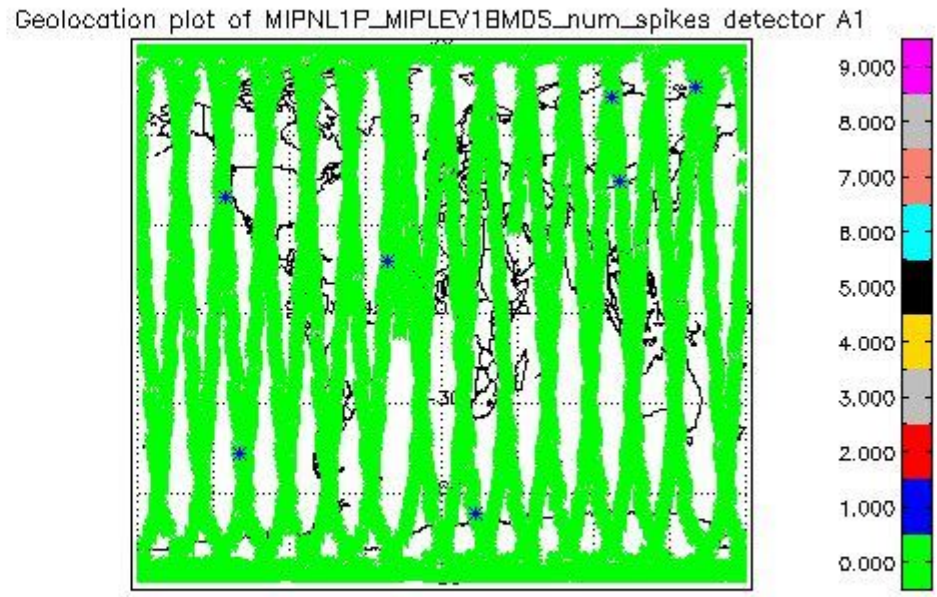
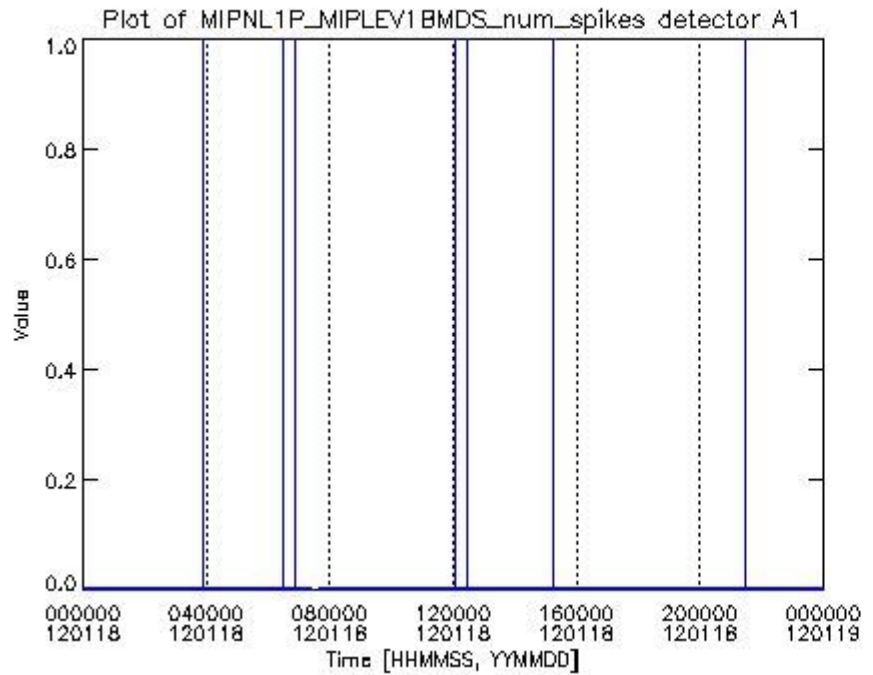


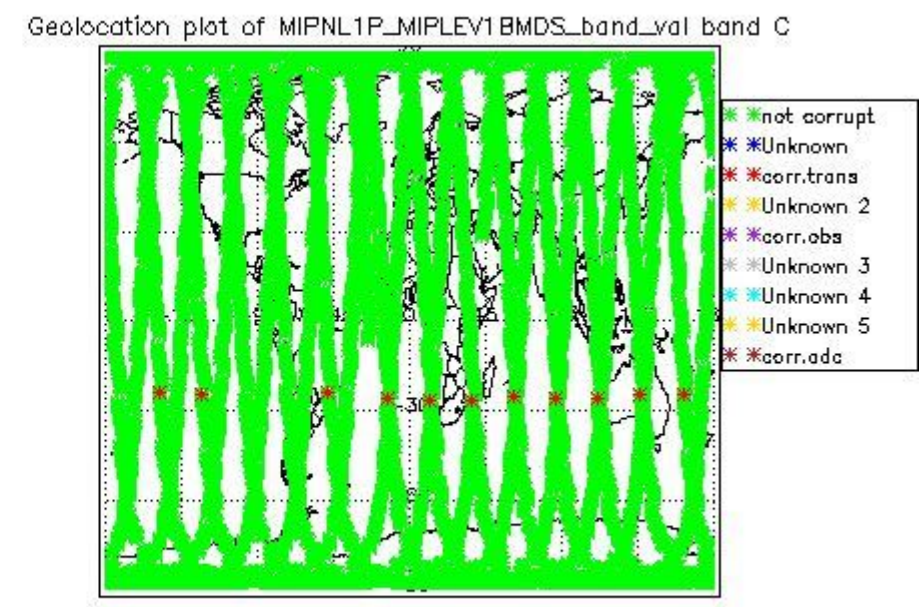
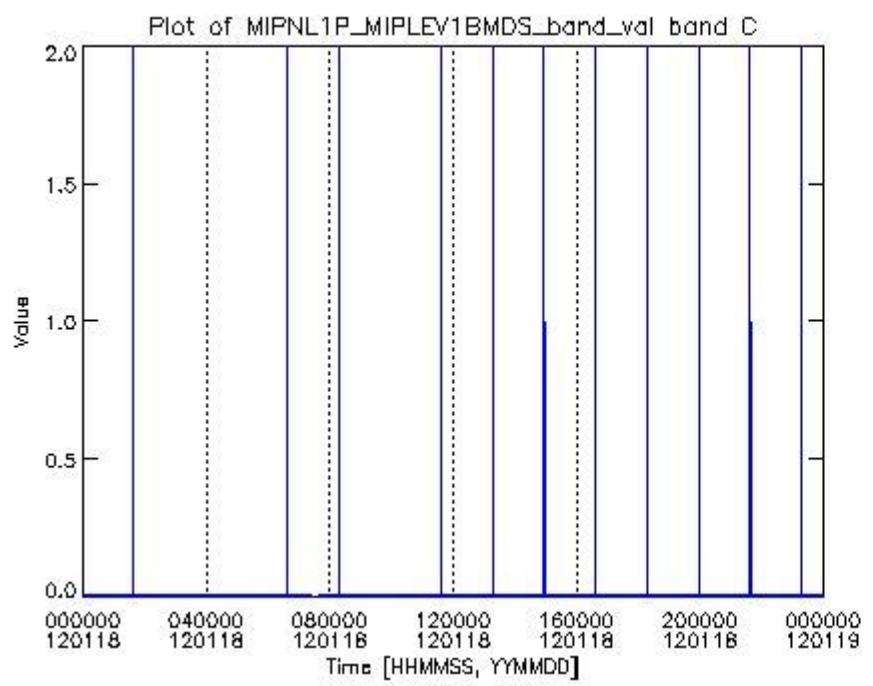
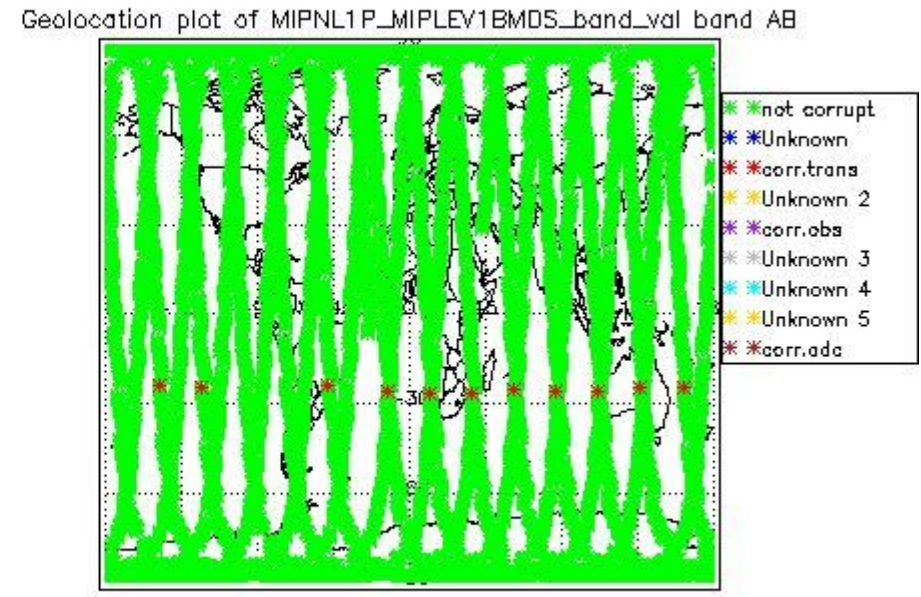
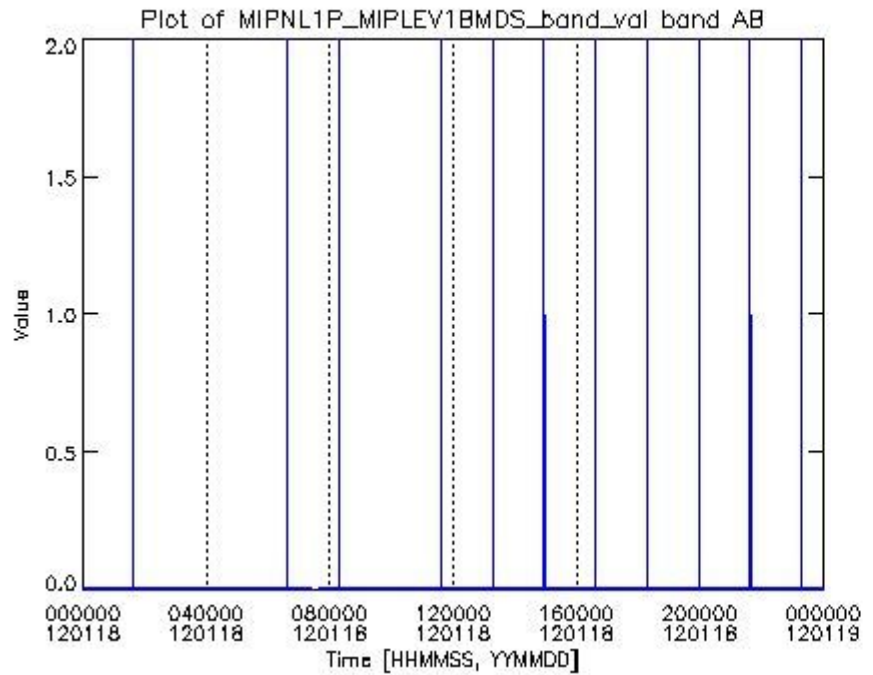


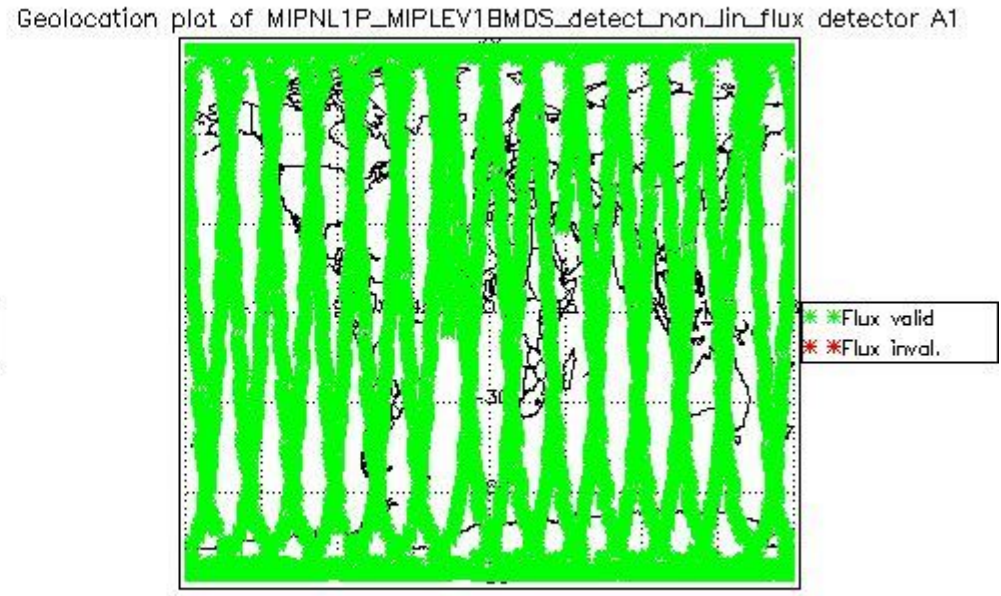
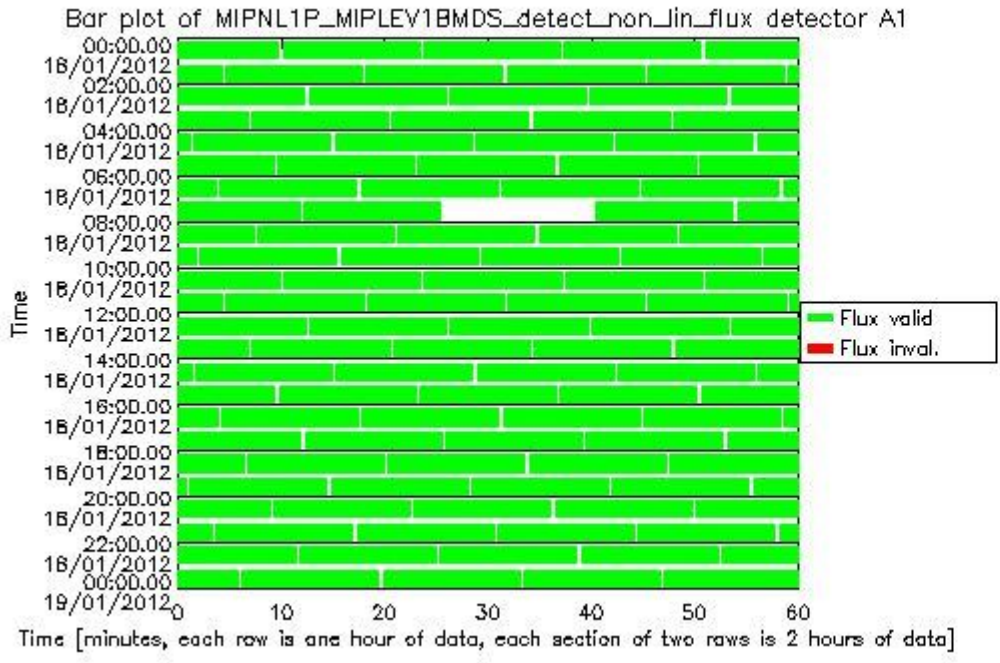
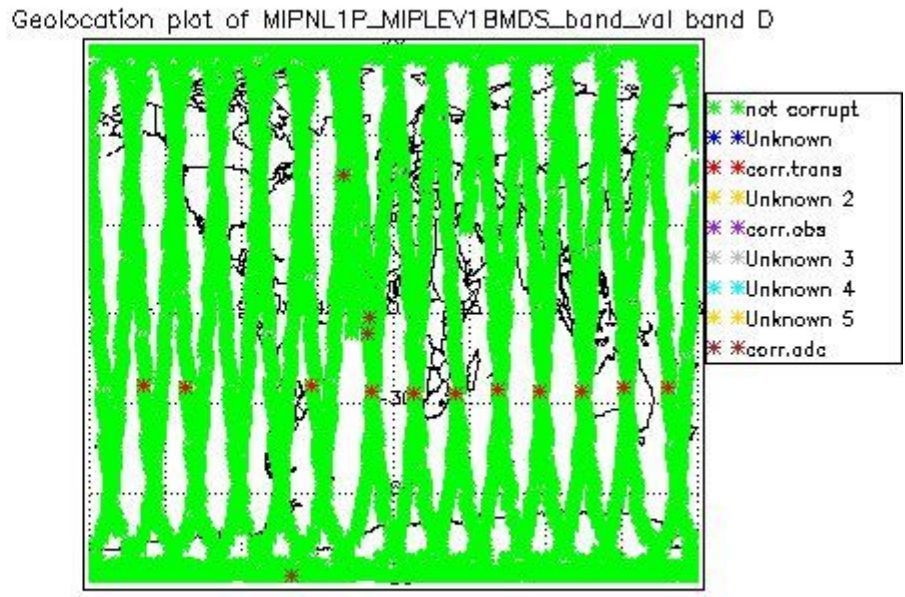
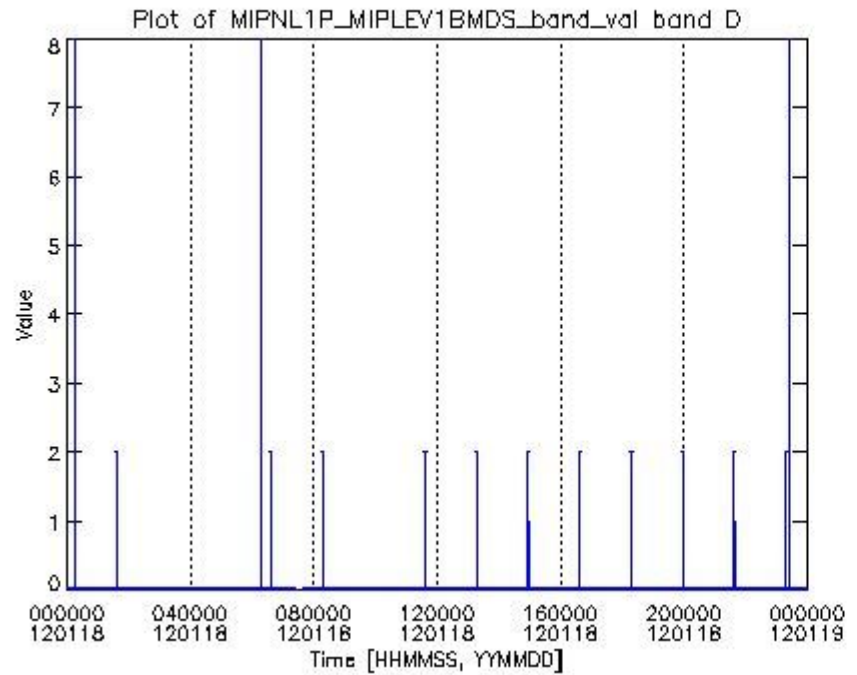


1.2.2 Trends and geolocation of MIPAS LEVEL 1 MDS

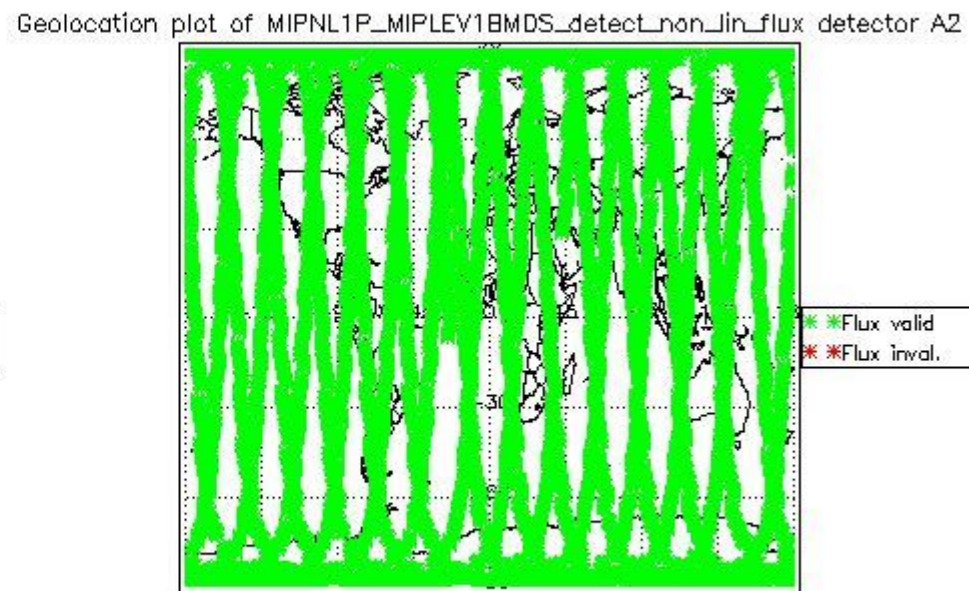
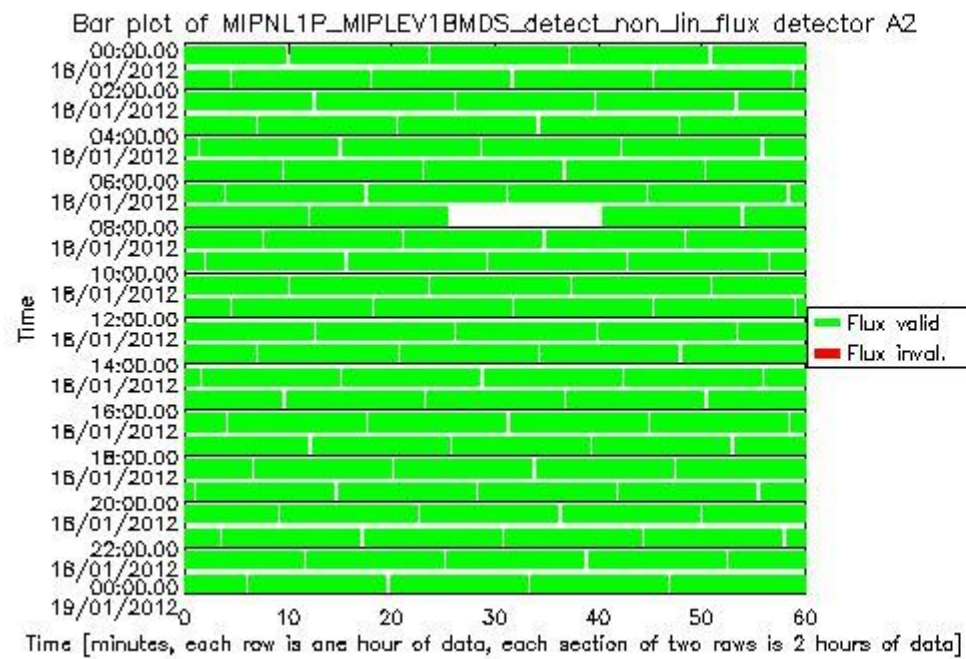












### 1.2.3 Scan information ADS

The following plots each contain 100 squares. Each square contains one NESR-scan (from MIPNL1P\_SCAINFADS\_nesr\_data).

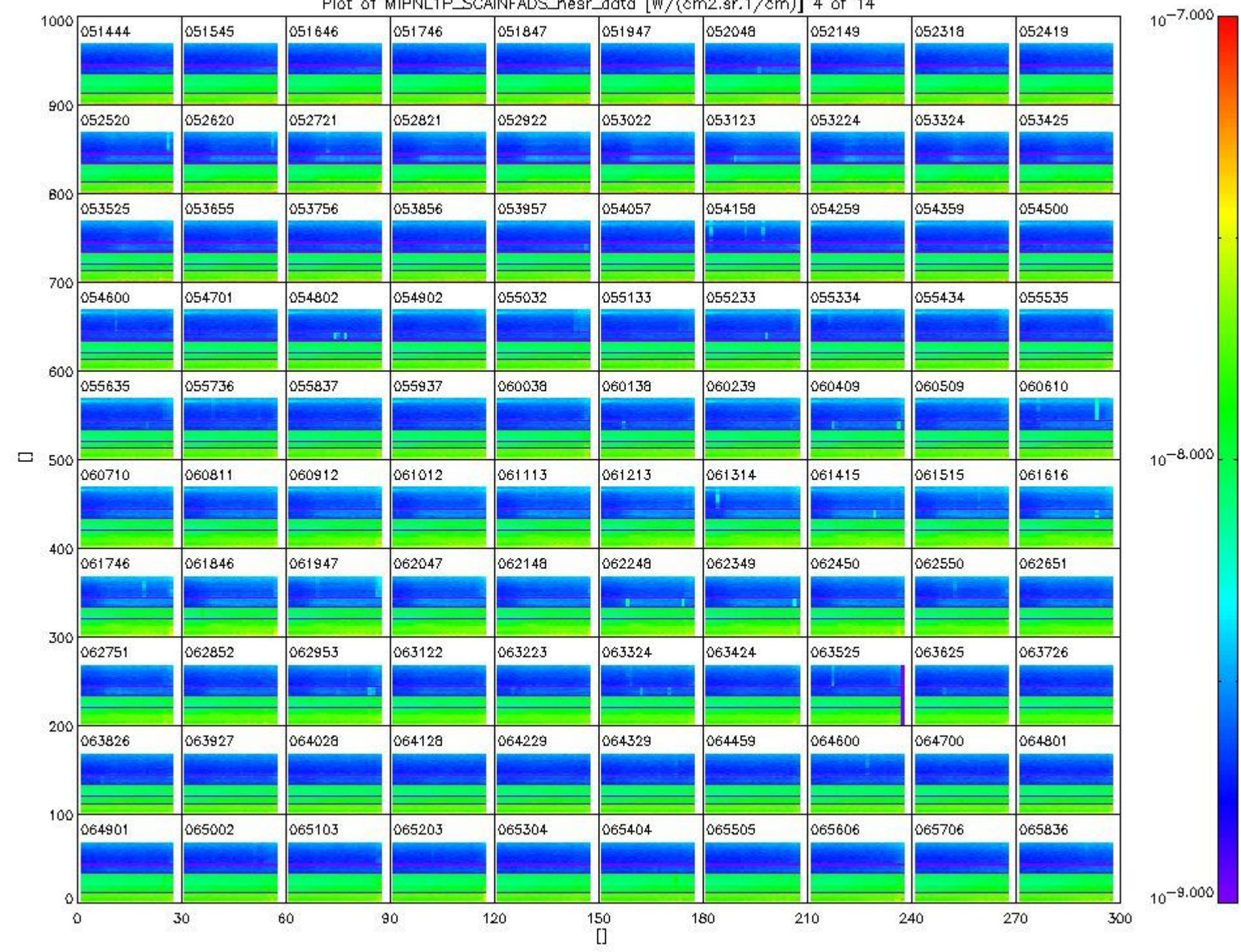
The horizontal axis represents the sweep ID (starts at 1).

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

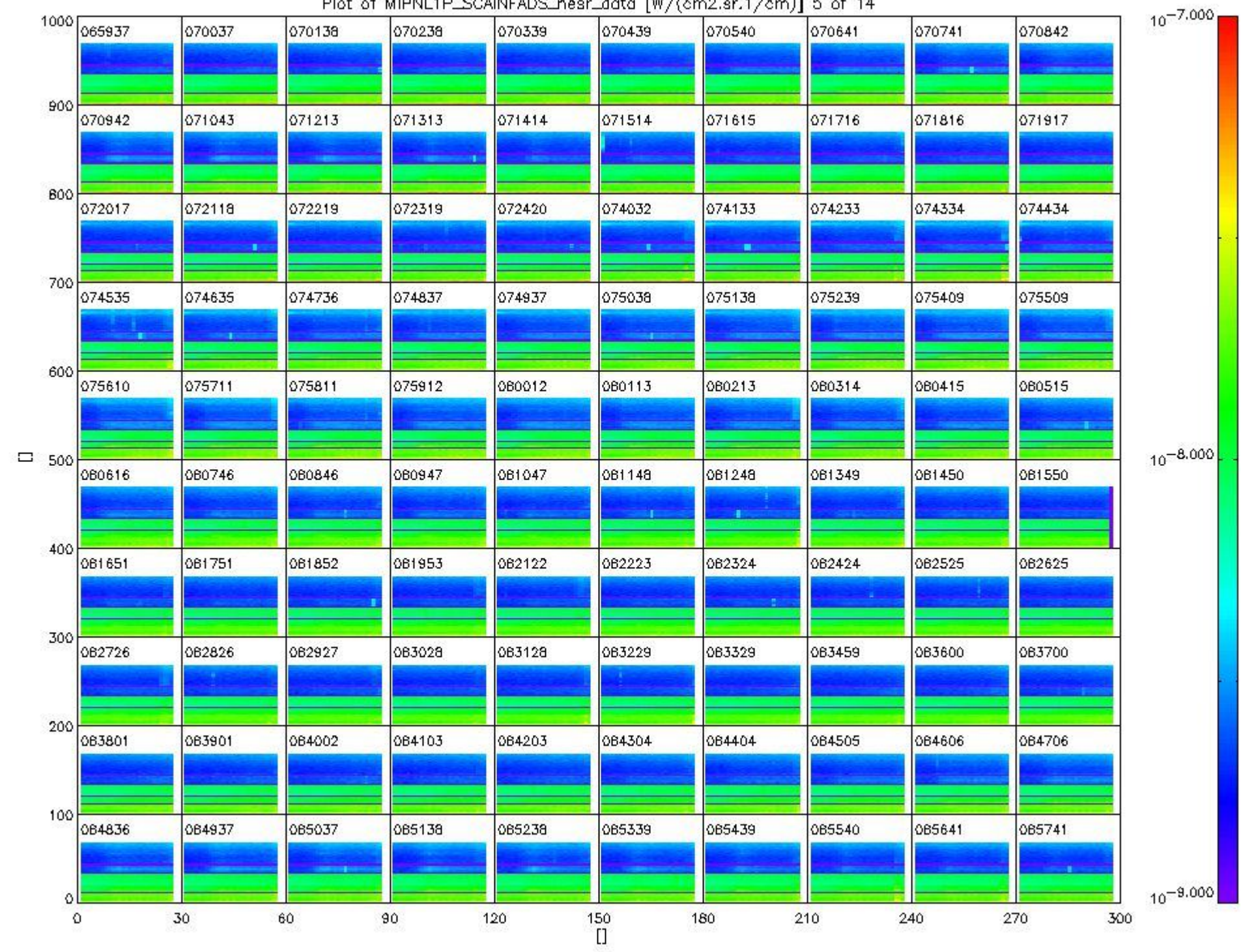
The data values themselves are indicated by colours (as indicated on the right of the plot). Please refer to the plot header for data units.



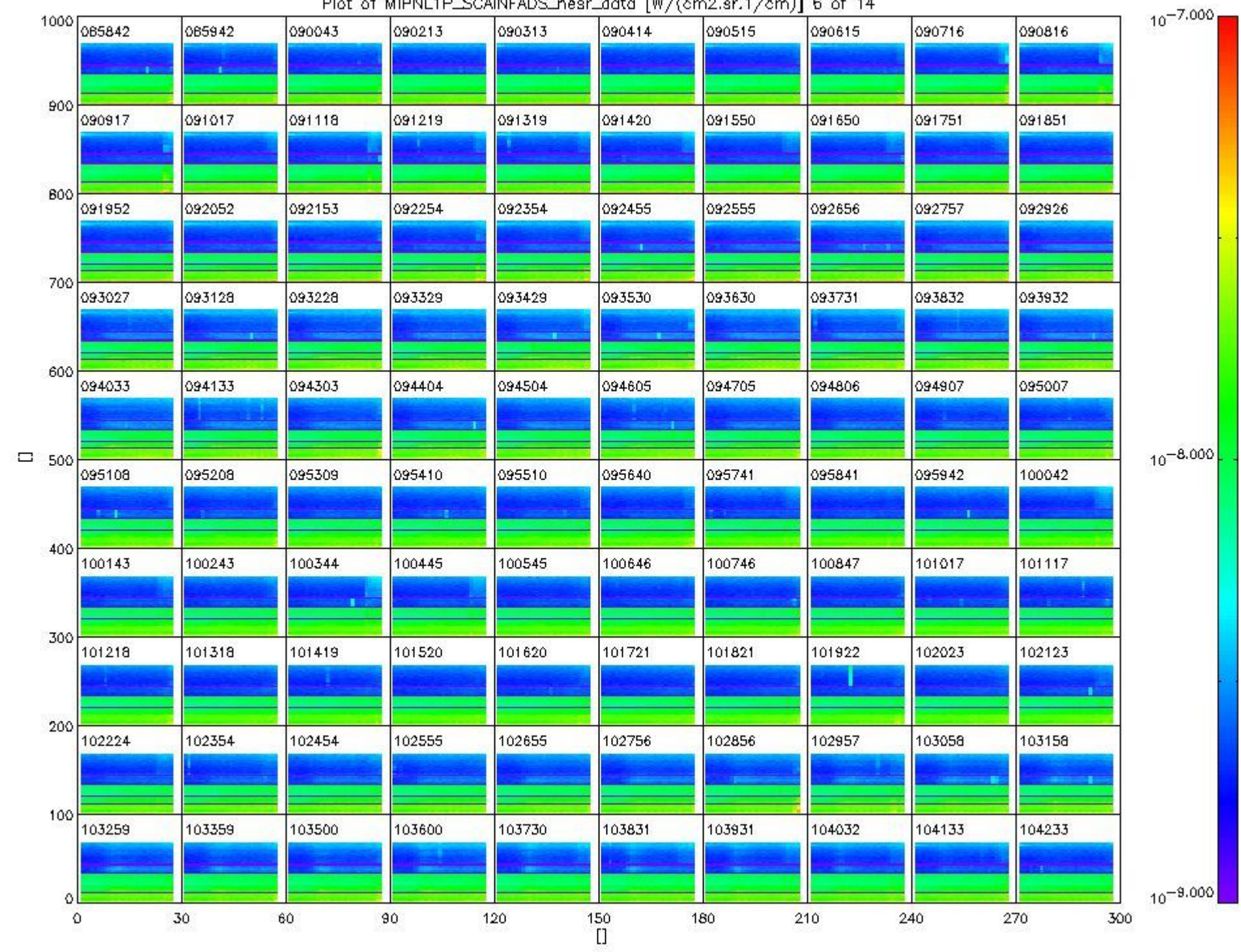
Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm2.sr.1/cm)] 4 of 14



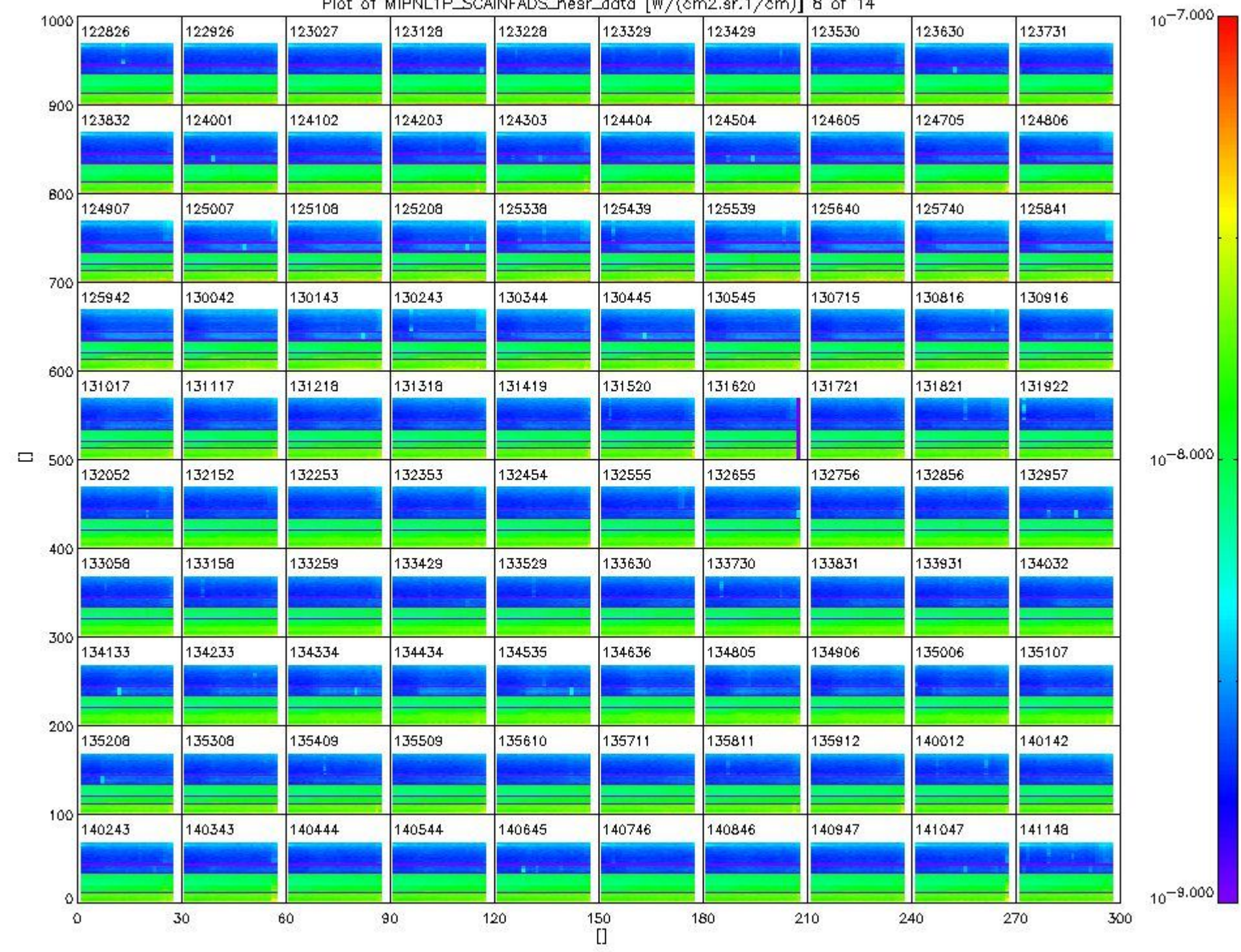
Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm2.sr.1/cm)] 5 of 14



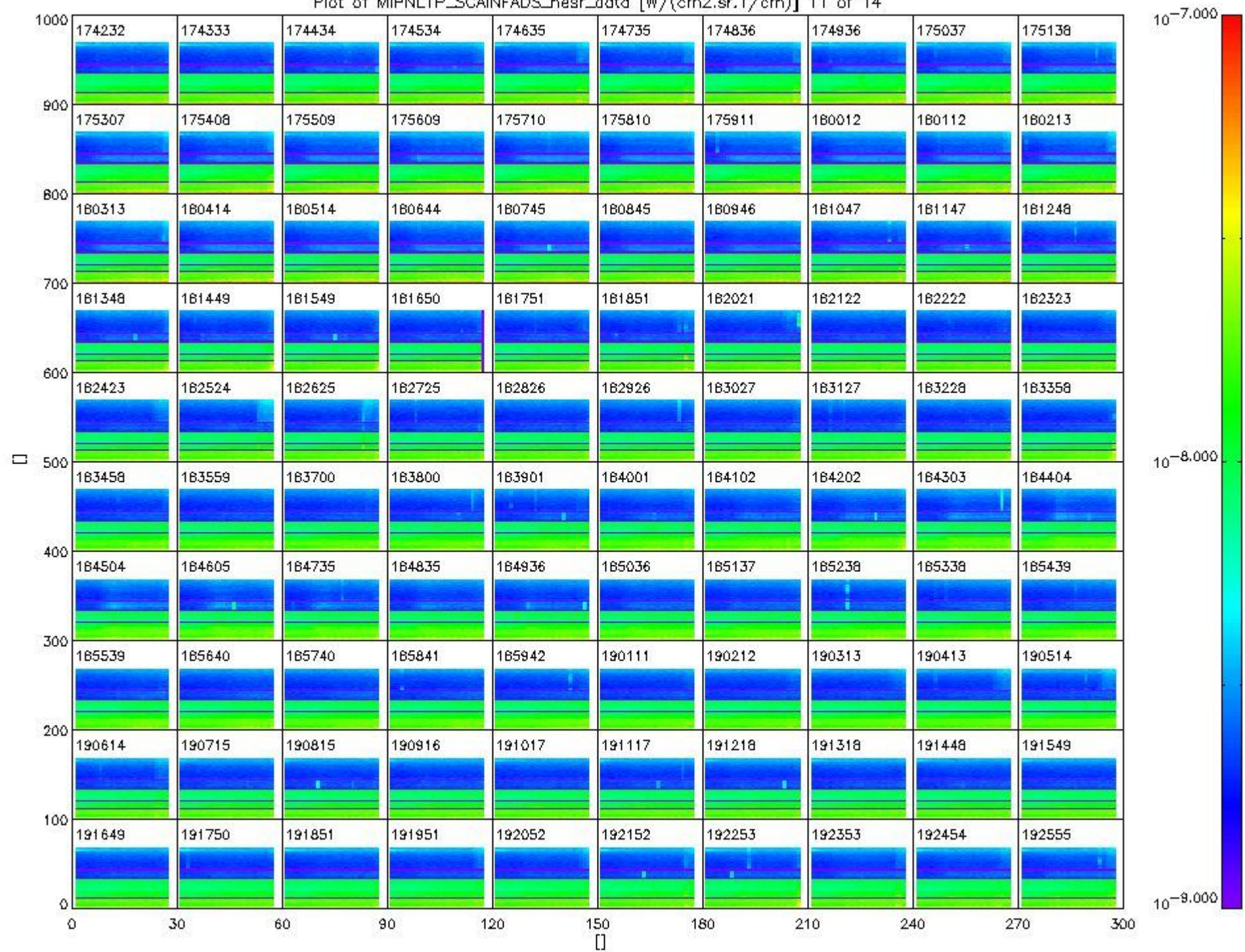
Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm2.sr.1/cm)] 6 of 14

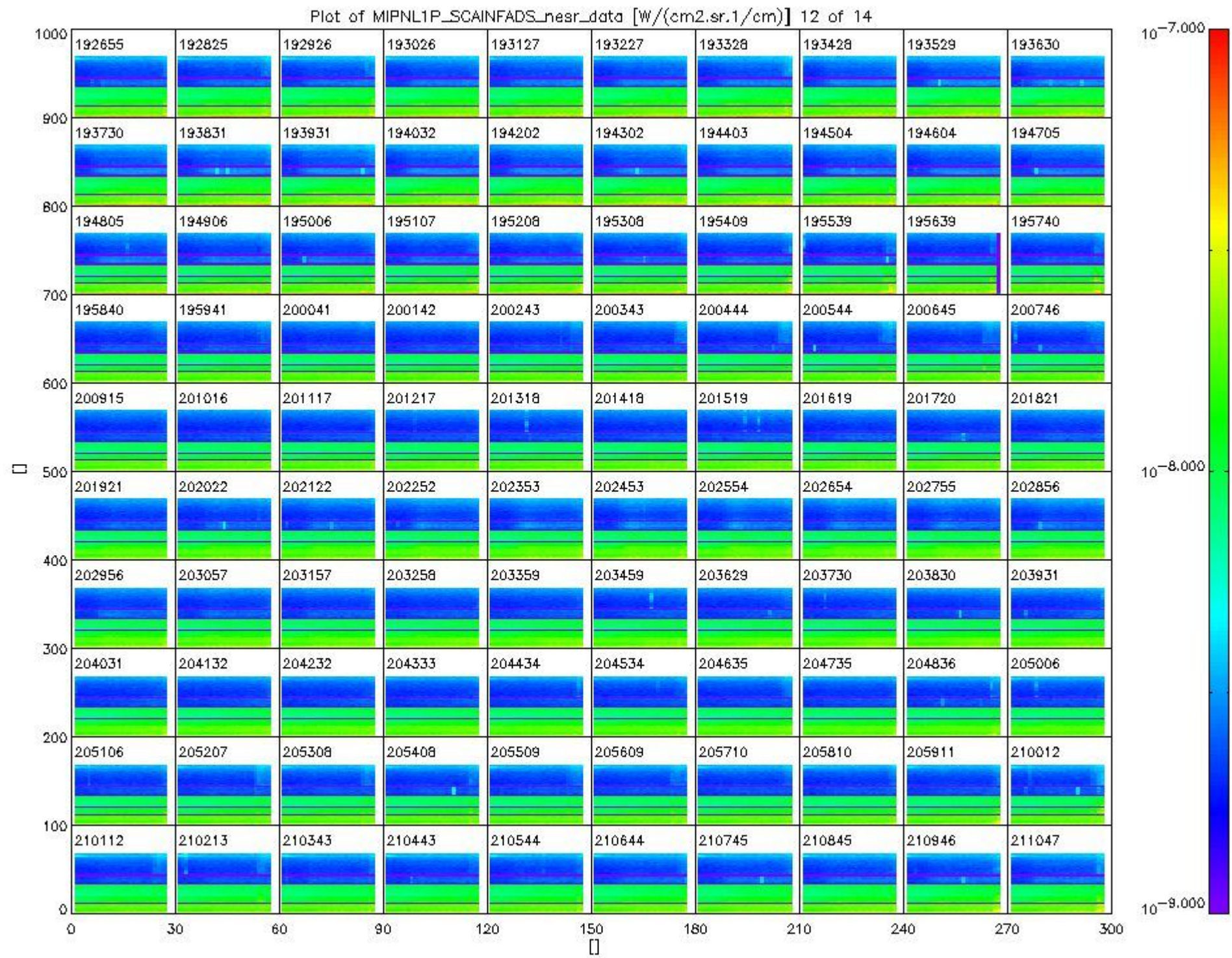


Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm2.sr.1/cm)] 8 of 14



Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm<sup>2</sup>.sr.1/cm)] 11 of 14



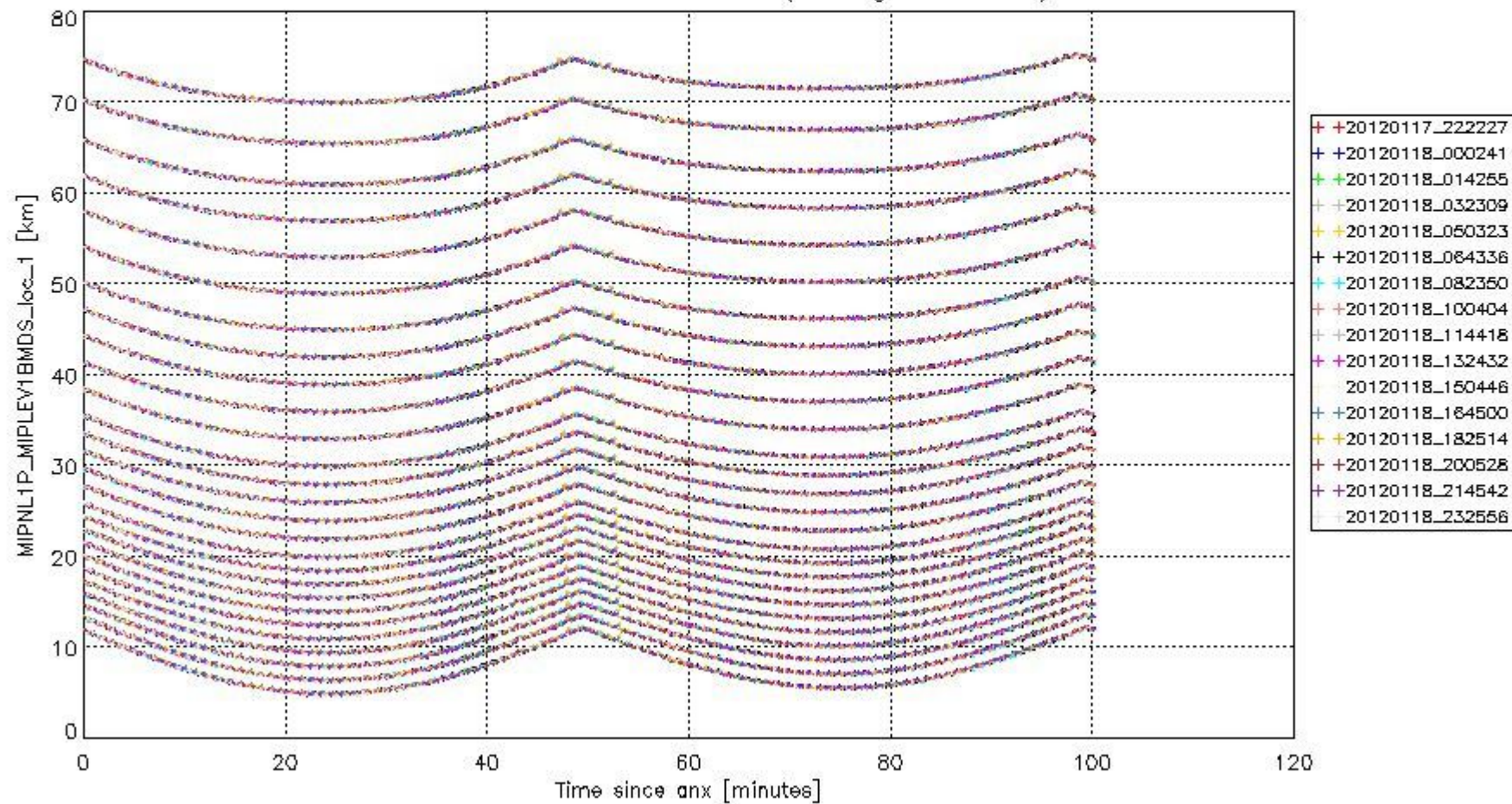


### 1.3 Physical Quality Indicators

#### 1.3.1 Tangent altitude



Plot of MIPNL1P\_MIPLEV1BMD5\_loc\_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)

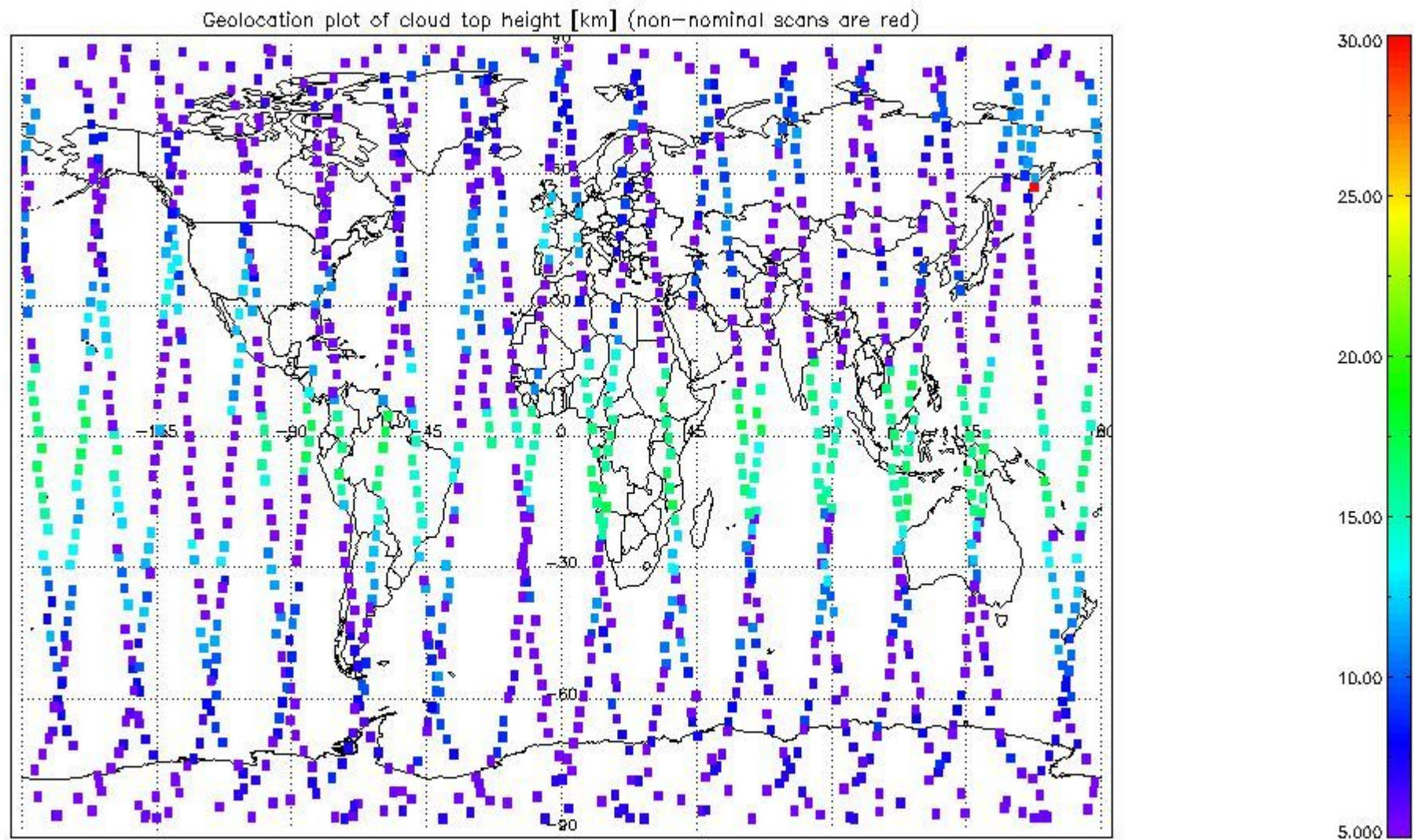
The non-nominal scans mentioned in the plots are scans that are rejected by the cloud top height algorithm for several reasons:

- 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





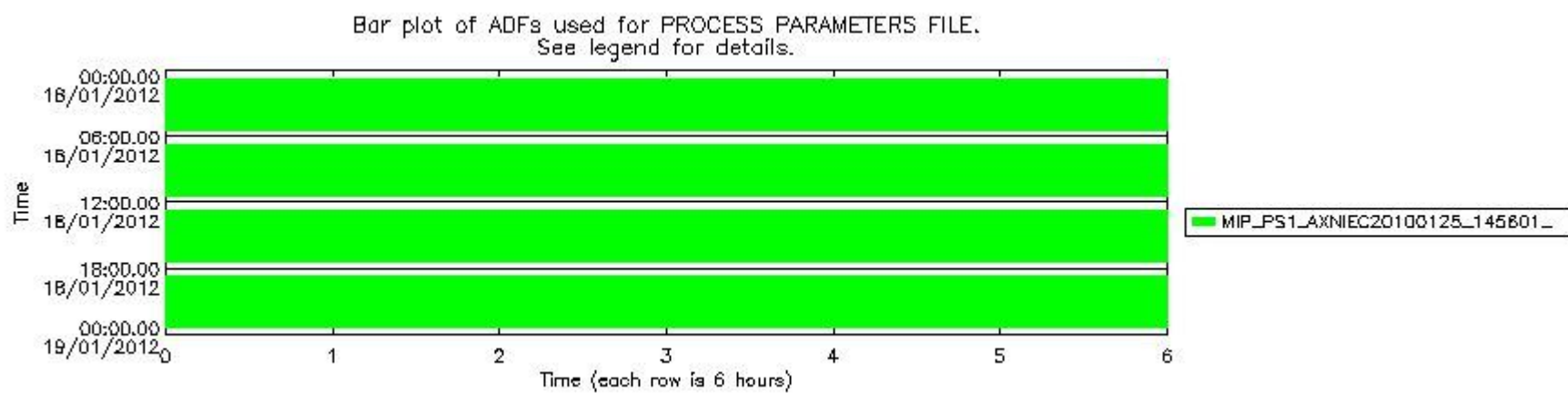
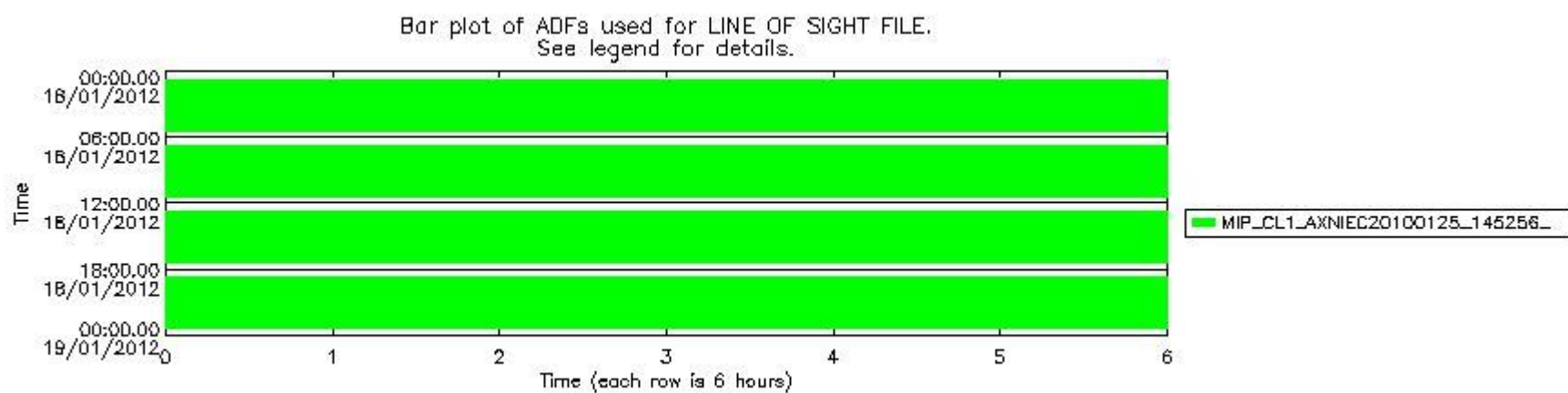
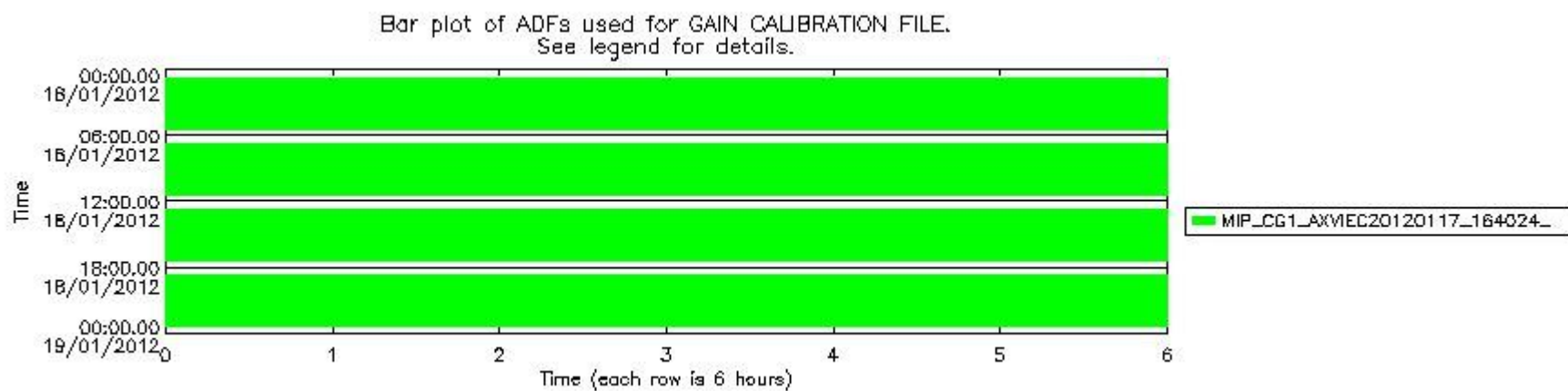


### 1.4 ADF monitoring

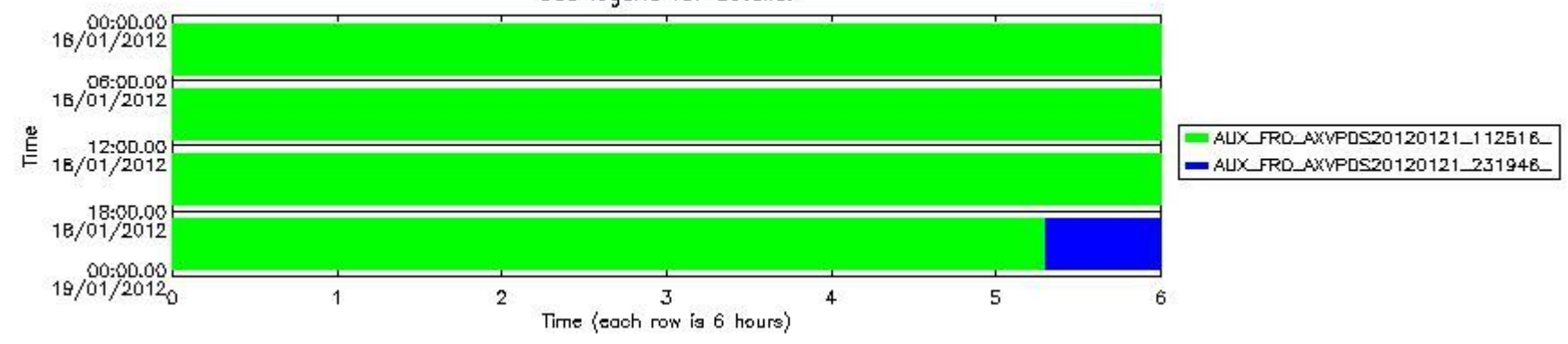
Number	ADF
0	AUX_FRO_AXVPDS20120121_112516_20120117_221000_20120120_005000
1	AUX_FRO_AXVPDS20120121_231946_20120118_221000_20120121_005000
2	MIP_CA1_AXNIEC20100125_145055_20100122_000000_20150122_000000
3	MIP_CG1_AXVIEC20120117_164024_20120112_000000_20170112_000000
4	MIP_CL1_AXNIEC20100125_145256_20100122_000000_20150122_000000
5	MIP_CO1_AXVIEC20120117_164252_20120112_000000_20170112_000000
6	MIP_CS1_AXVIEC20120117_164621_20120112_000000_20170112_000000
7	MIP_MW1_AXNIEC20100125_145445_20100122_000000_20150122_000000
8	MIP_PS1_AXNIEC20100125_145601_20100122_000000_20150122_000000

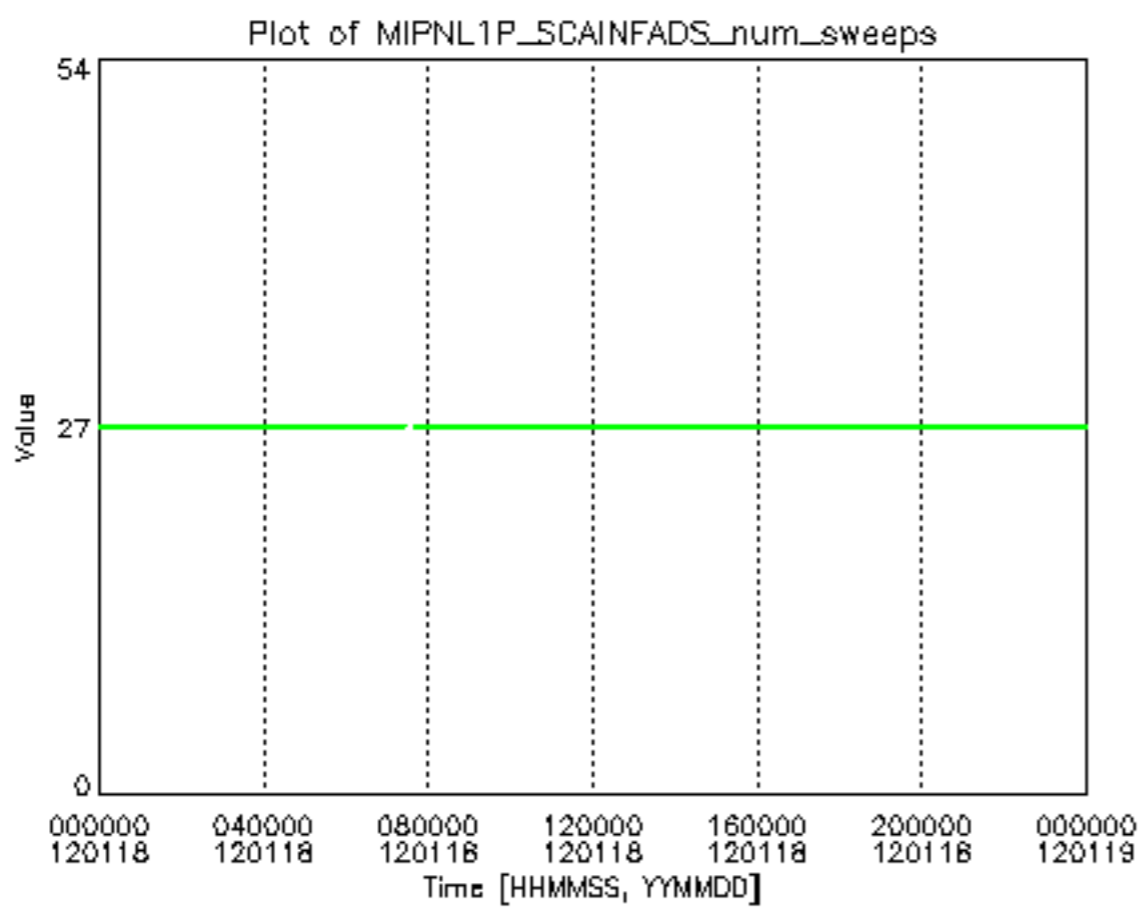
Number	Product name	#CS1	#CG1	#CL1	#CA1	#CO1	#MW1	#PS1	#FPO
0	MIP_NL_1PRDPA20120117_235505_000060443110_00390_51697_6584.N1	6	3	4	2	5	7	8	0
1	MIP_NL_1PRDPA20120118_013555_000060153110_00391_51698_6586.N1	6	3	4	2	5	7	8	0
2	MIP_NL_1PRDPA20120118_031515_000060153110_00392_51699_6589.N1	6	3	4	2	5	7	8	0
3	MIP_NL_1PRDPA20120118_045605_000060153110_00393_51700_6592.N1	6	3	4	2	5	7	8	0
4	MIP_NL_1PRDPA20120118_063625_000060203110_00394_51701_6595.N1	6	3	4	2	5	7	8	0
5	MIP_NL_1PRDPA20120118_081651_000059543110_00395_51702_6598.N1	6	3	4	2	5	7	8	0
6	MIP_NL_1PRDPA20120118_095640_000060153110_00396_51703_6601.N1	6	3	4	2	5	7	8	0
7	MIP_NL_1PRDPA20120118_113700_000060153110_00397_51704_6602.N1	6	3	4	2	5	7	8	0
8	MIP_NL_1PRDPA20120118_131721_000059833110_00398_51705_6605.N1	6	3	4	2	5	7	8	0
9	MIP_NL_1PRDPA20120118_145710_000060153110_00399_51706_6608.N1	6	3	4	2	5	7	8	0

10	MIP_NL__1PRDPA20120118_163730_000060153110_00400_51707_6611.N1	6	3	4	2	5	7	8	0
11	MIP_NL__1PRDPA20120118_181751_000059833110_00401_51708_6612.N1	6	3	4	2	5	7	8	0
12	MIP_NL__1PRDPA20120118_195740_000060153110_00402_51709_6619.N1	6	3	4	2	5	7	8	0
13	MIP_NL__1PRDPA20120118_213800_000060153110_00403_51710_6636.N1	6	3	4	2	5	7	8	0
14	MIP_NL__1PRDPA20120118_231821_000060443110_00404_51711_6621.N1	6	3	4	2	5	7	8	1

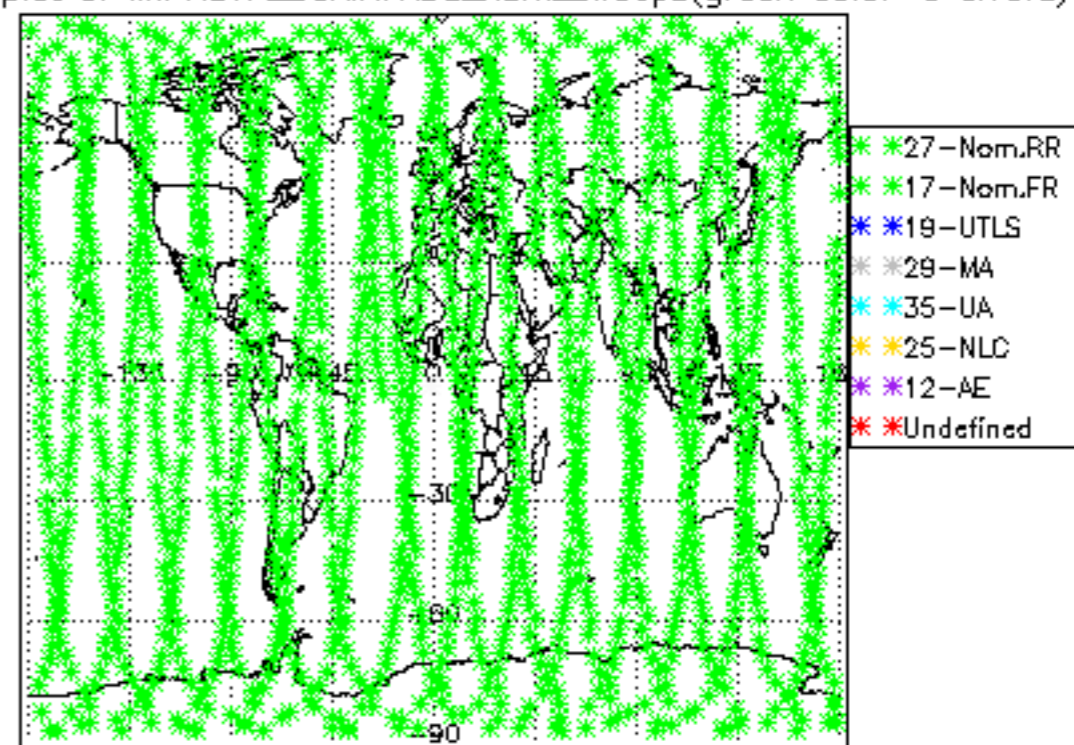


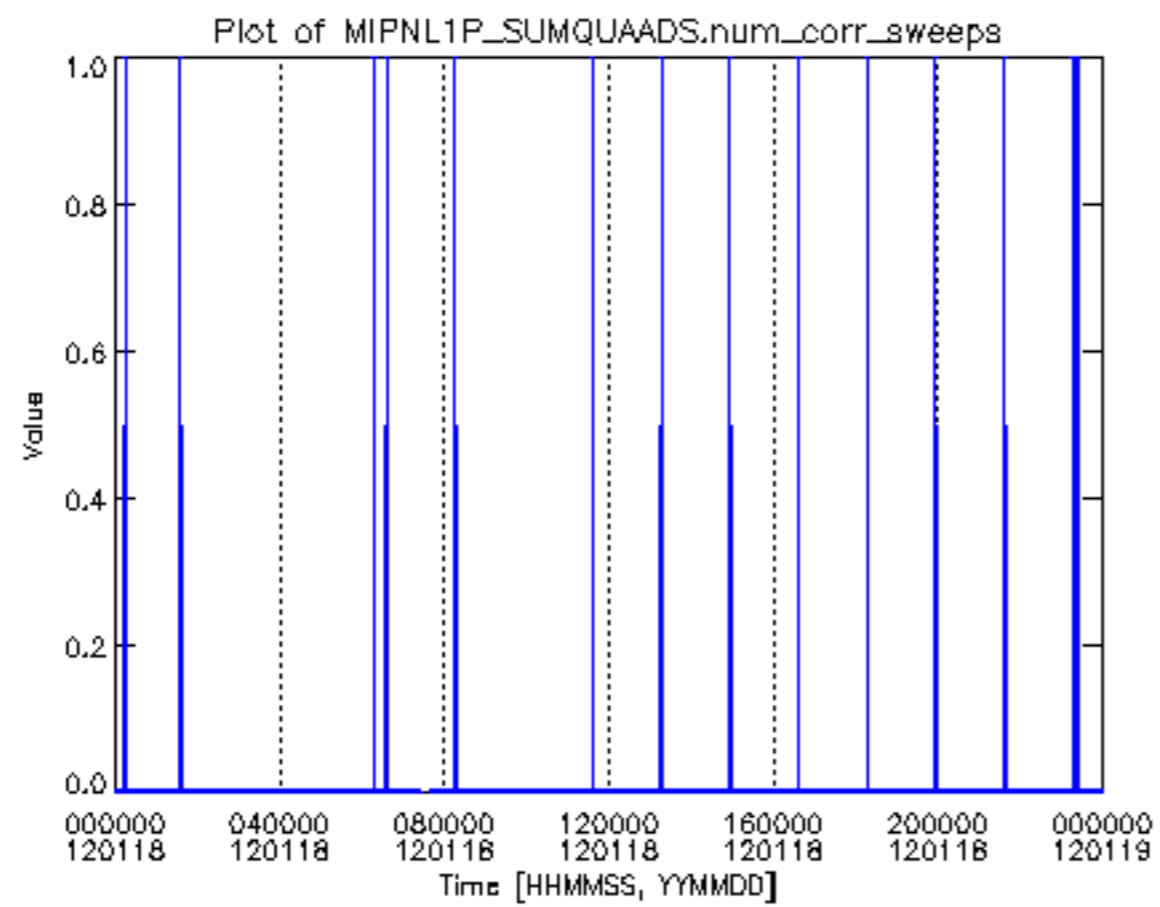
Bar plot of ADFs used for ORBIT DATA FILE.  
See legend for details.



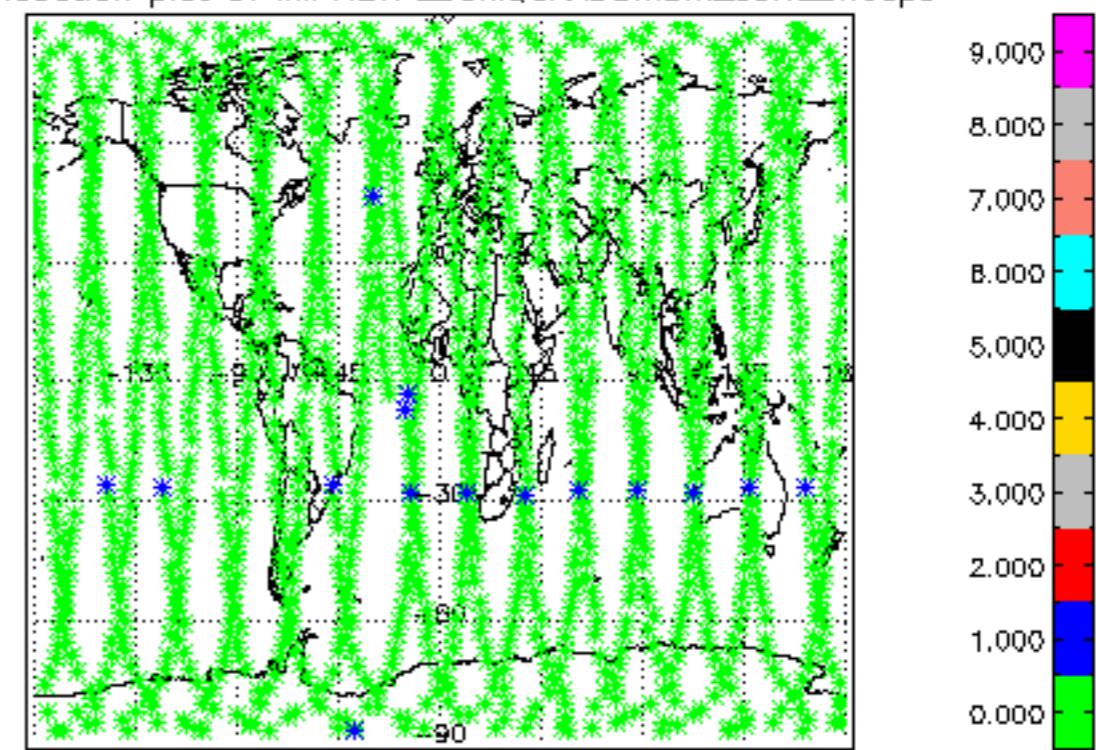


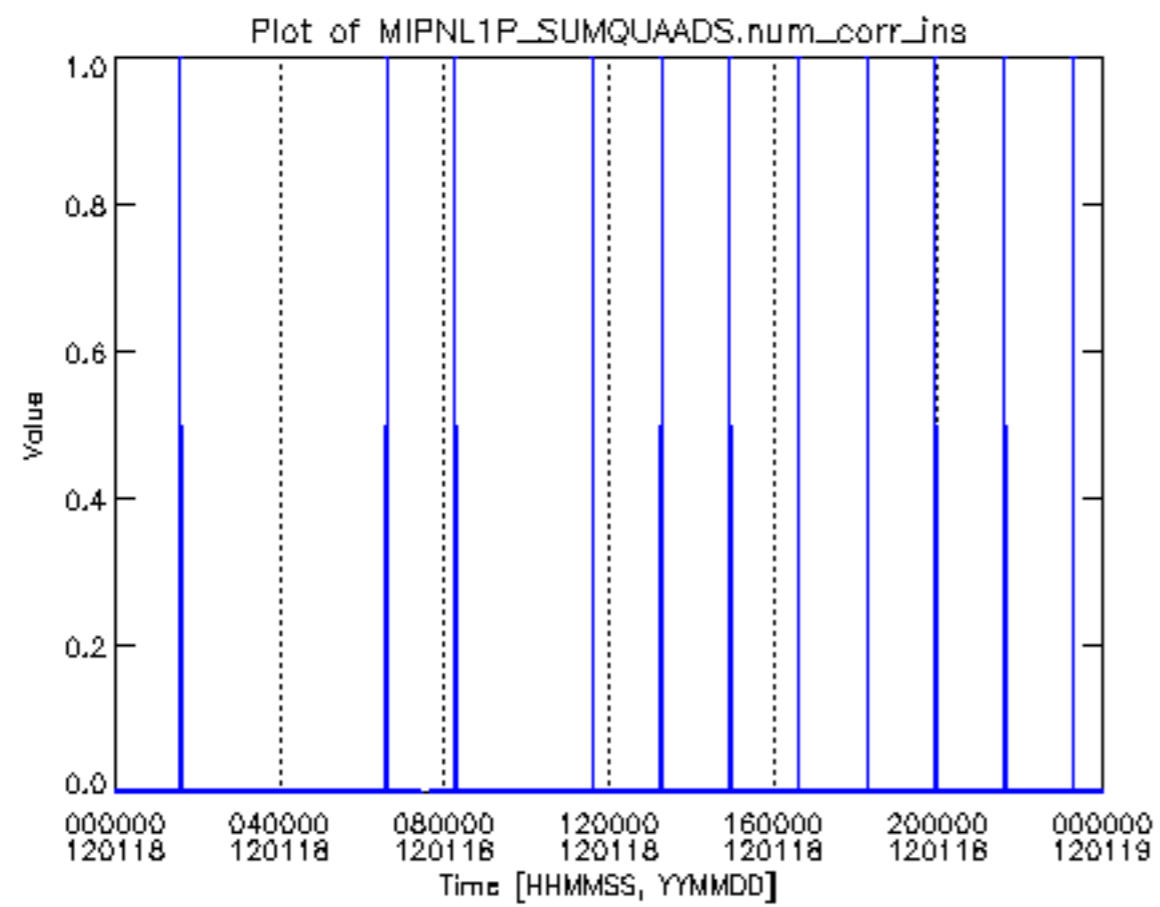
Geolocation plot of MIPNL1P\_SCAINFADS\_num\_sweeps (green color=0 errors)



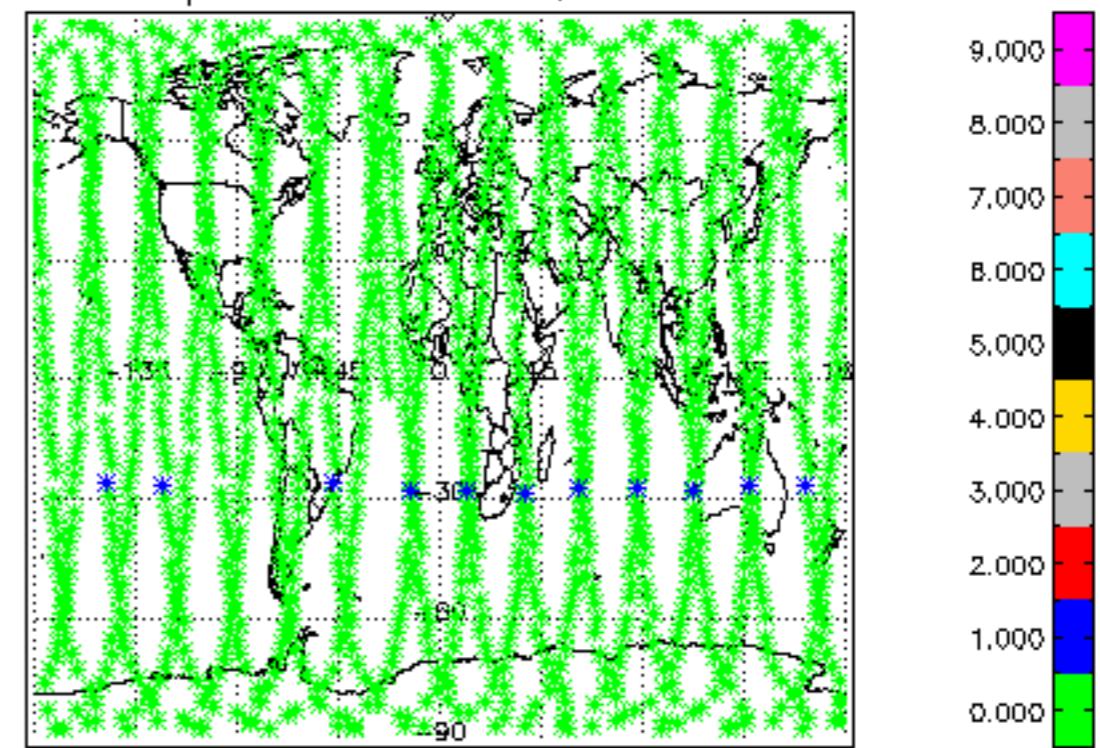


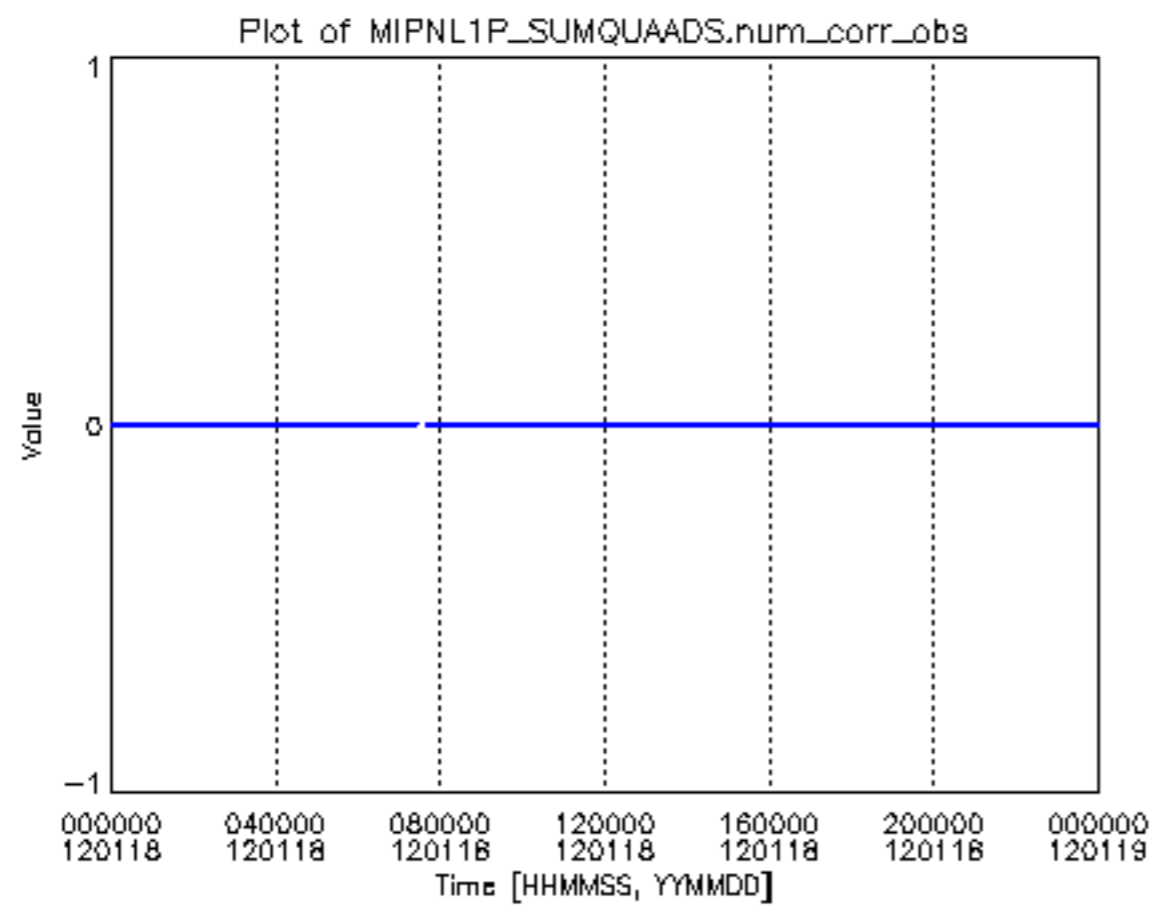
Geolocation plot of MIPNL1P\_SUMQUAADS.num\_corr\_sweeps



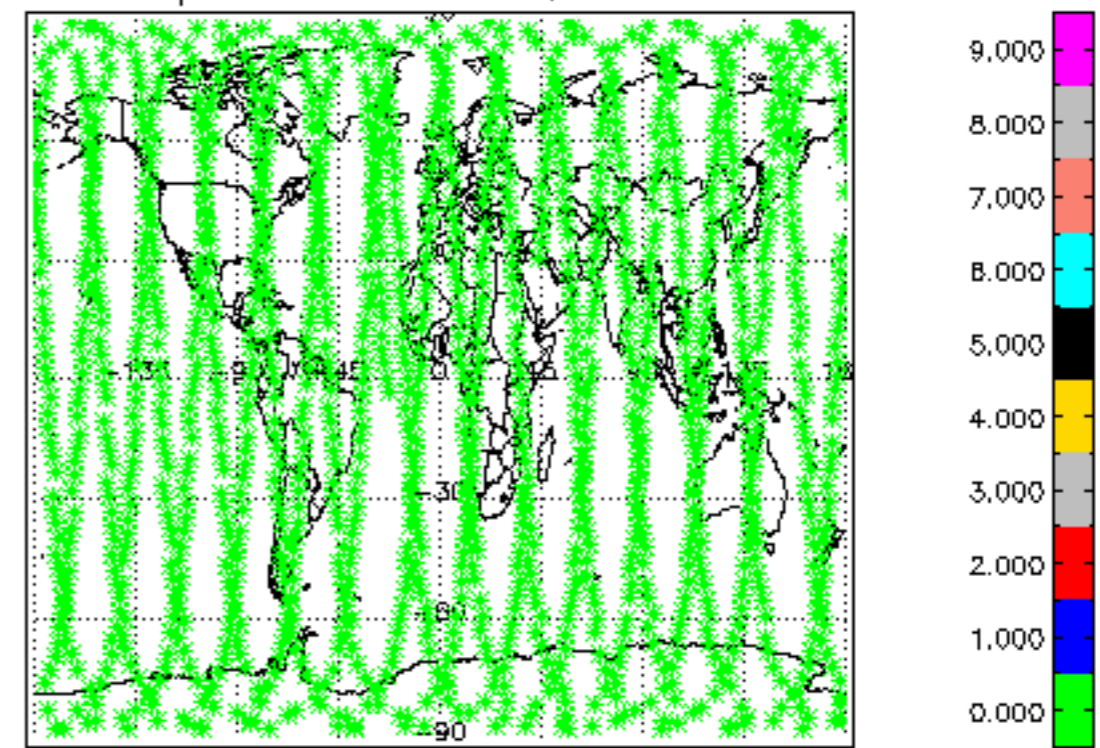


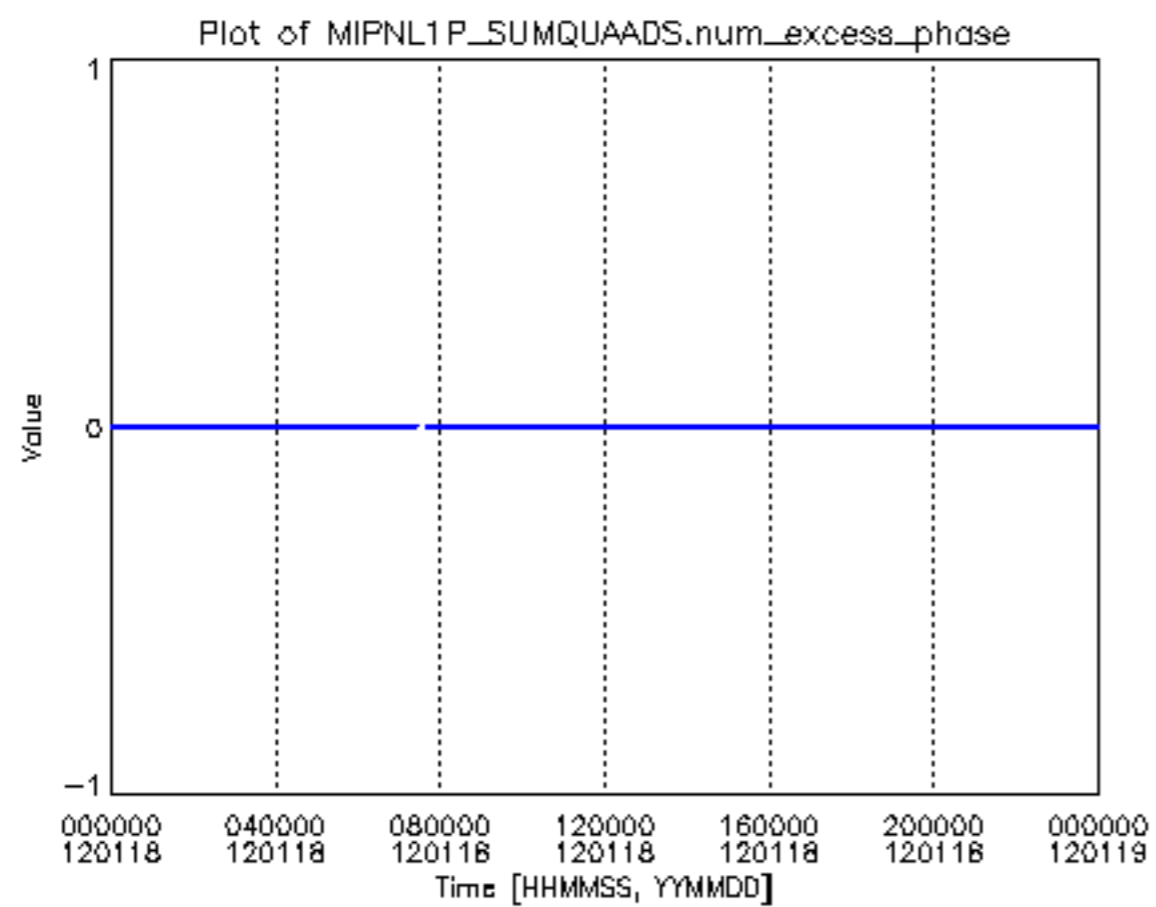
Geolocation plot of MIPNL1P\_SUMQUAADS.num\_corr\_ins



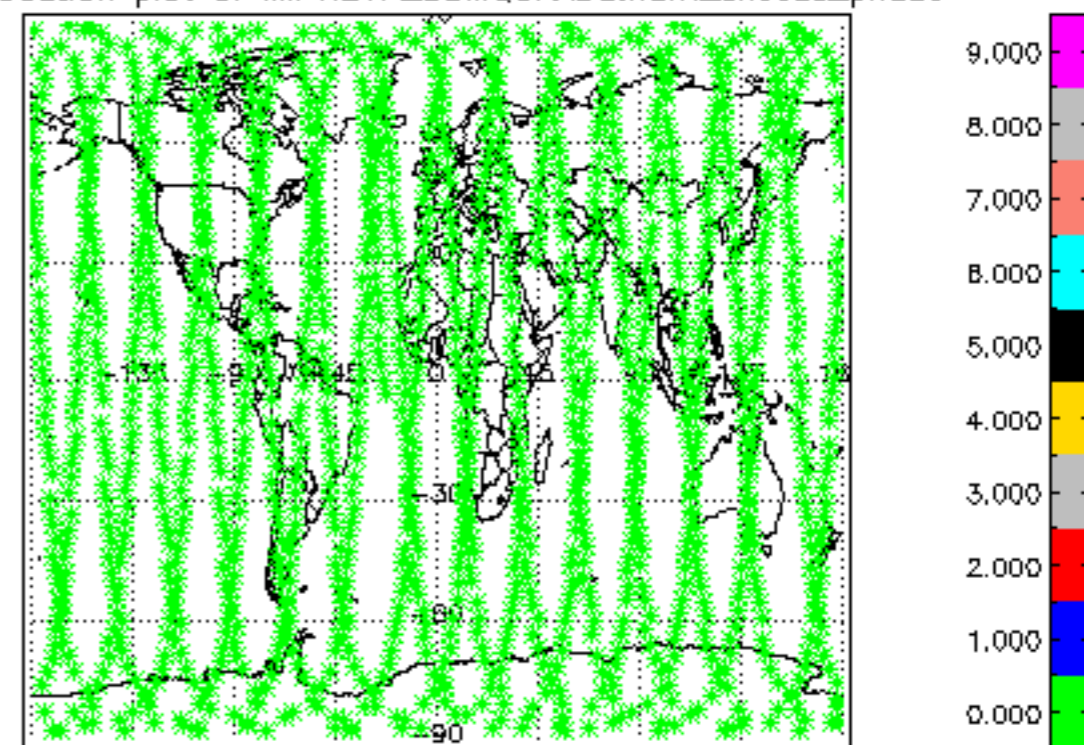


Geolocation plot of MIPNL1P\_SUMQUAADS.num\_corr\_obs

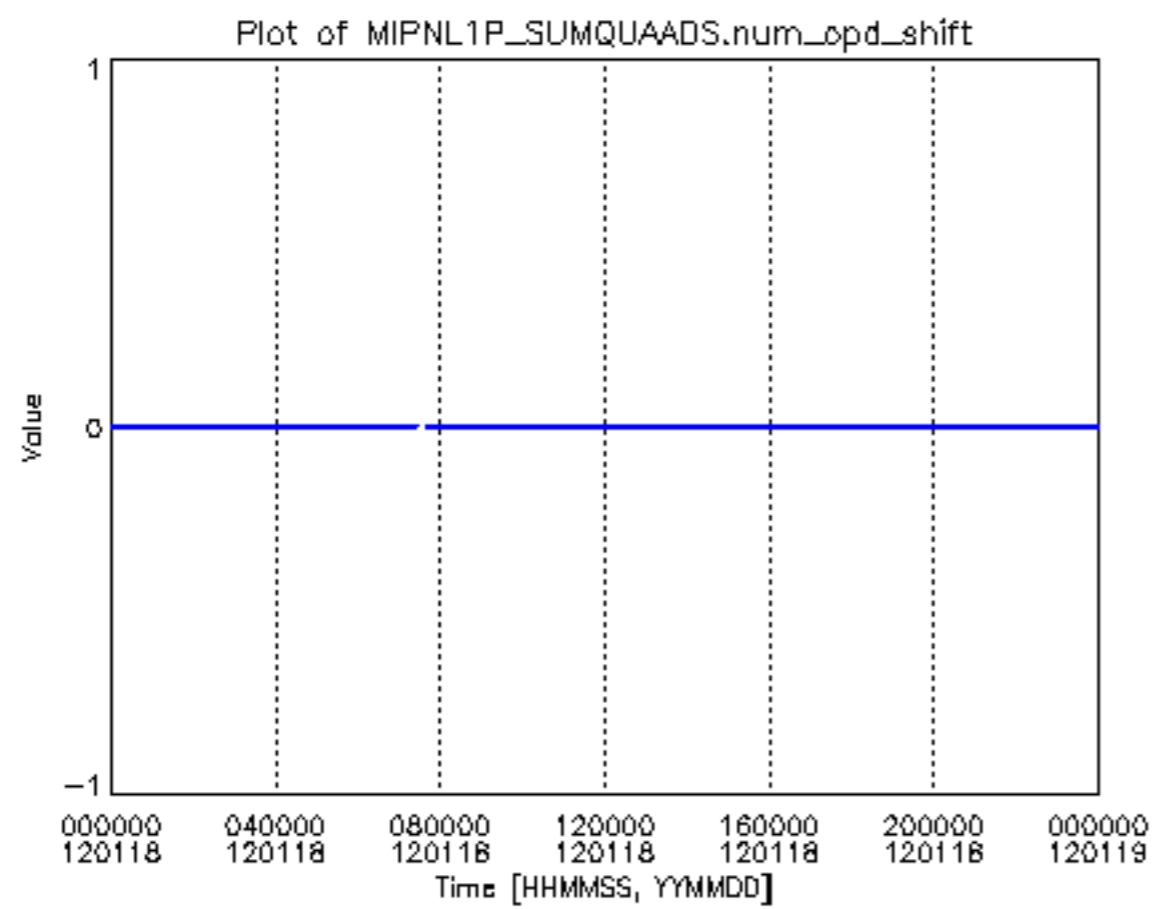




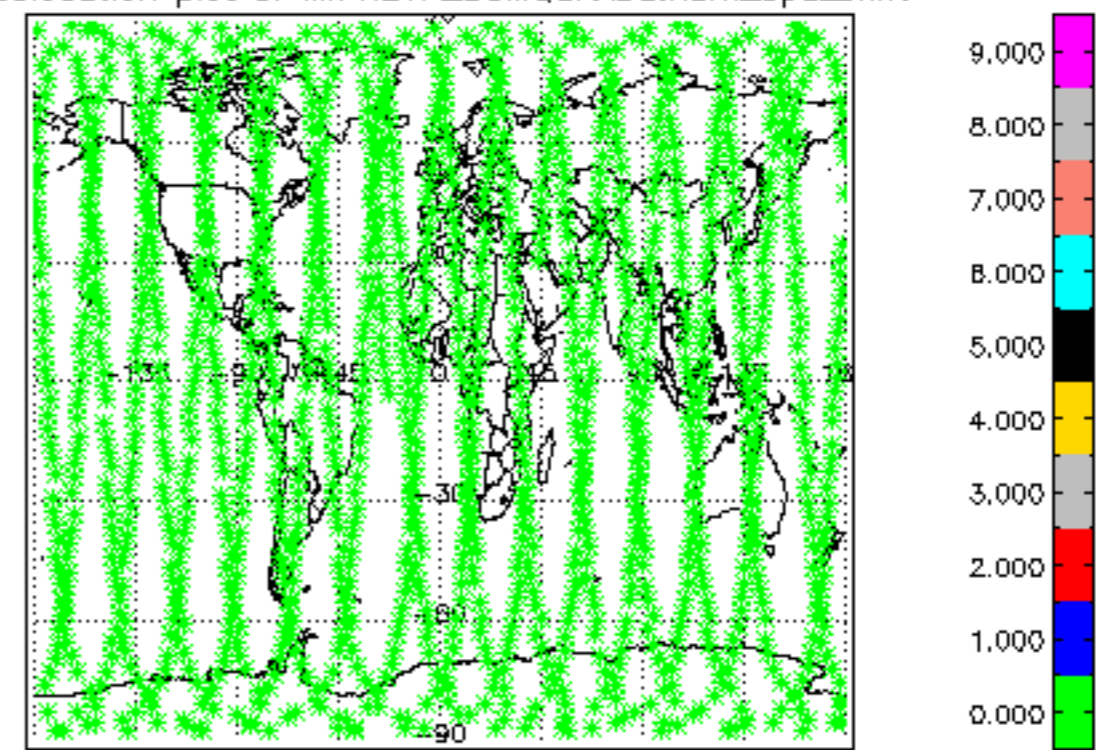
Geolocation plot of MIPNL1P\_SUMQUAADS.num\_excess\_phase

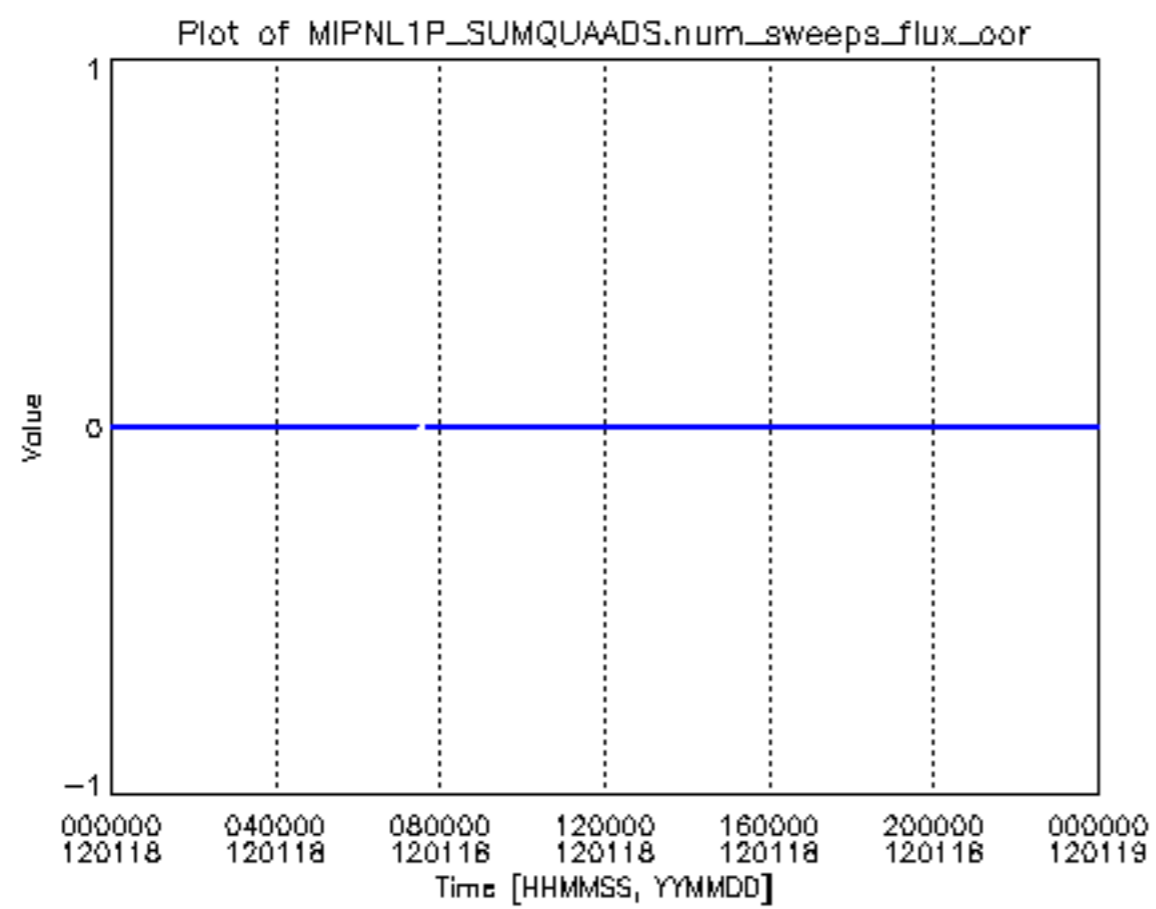




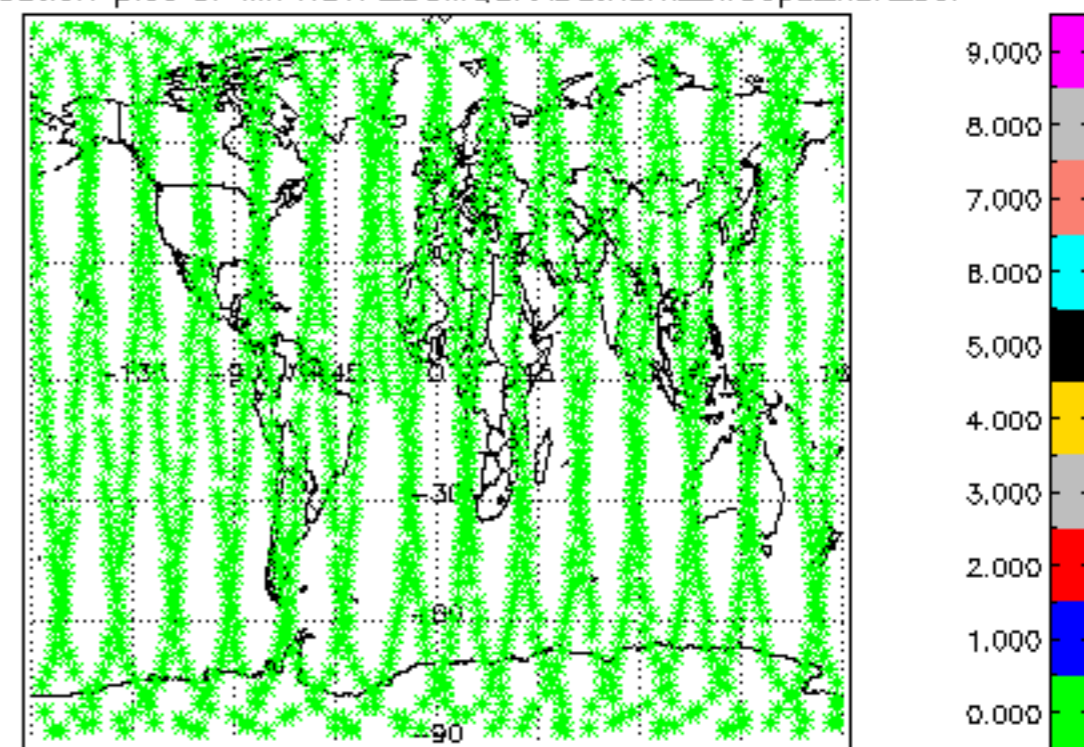


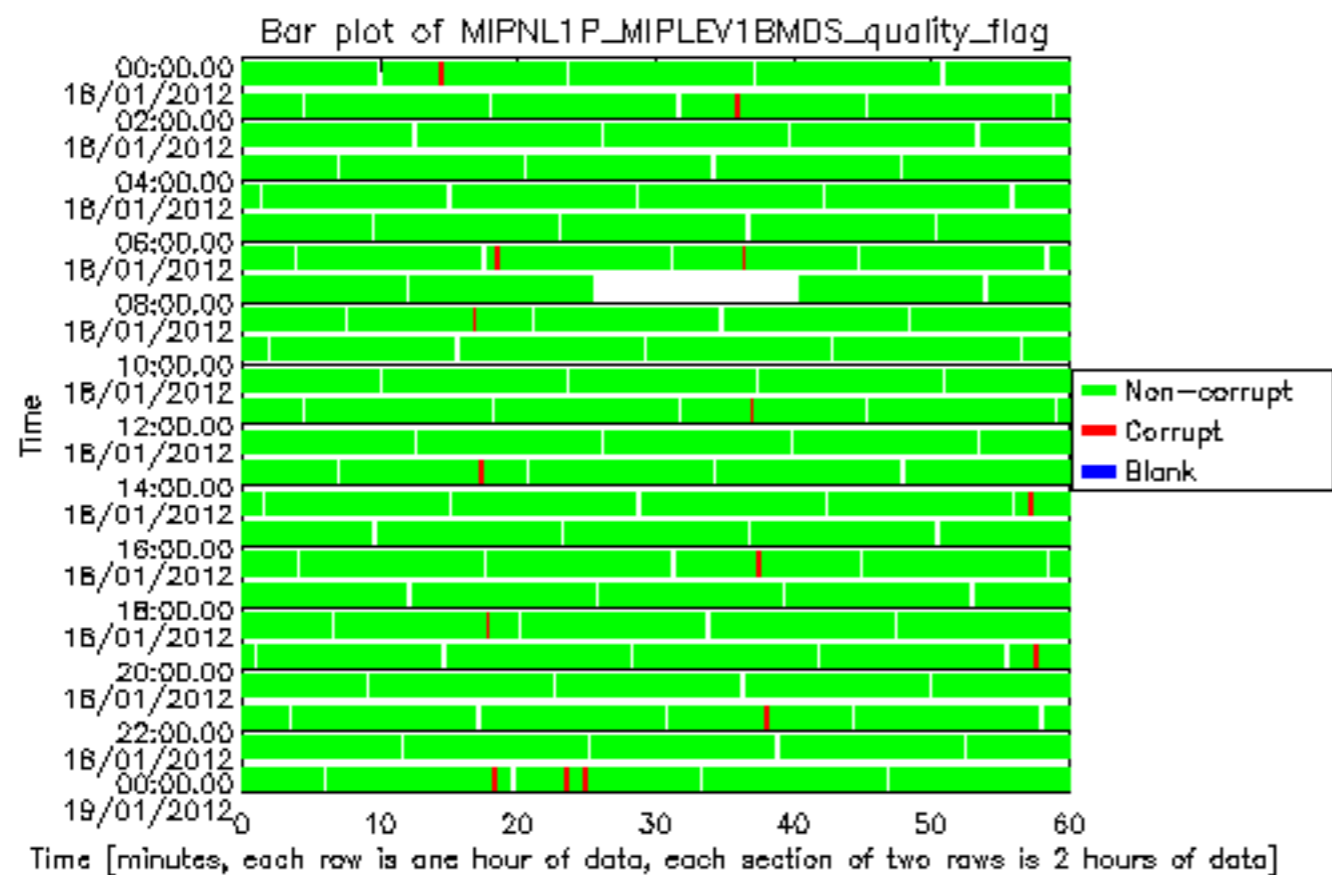
Geolocation plot of MIPNL1P\_SUMQUAADS.num\_opd\_shift



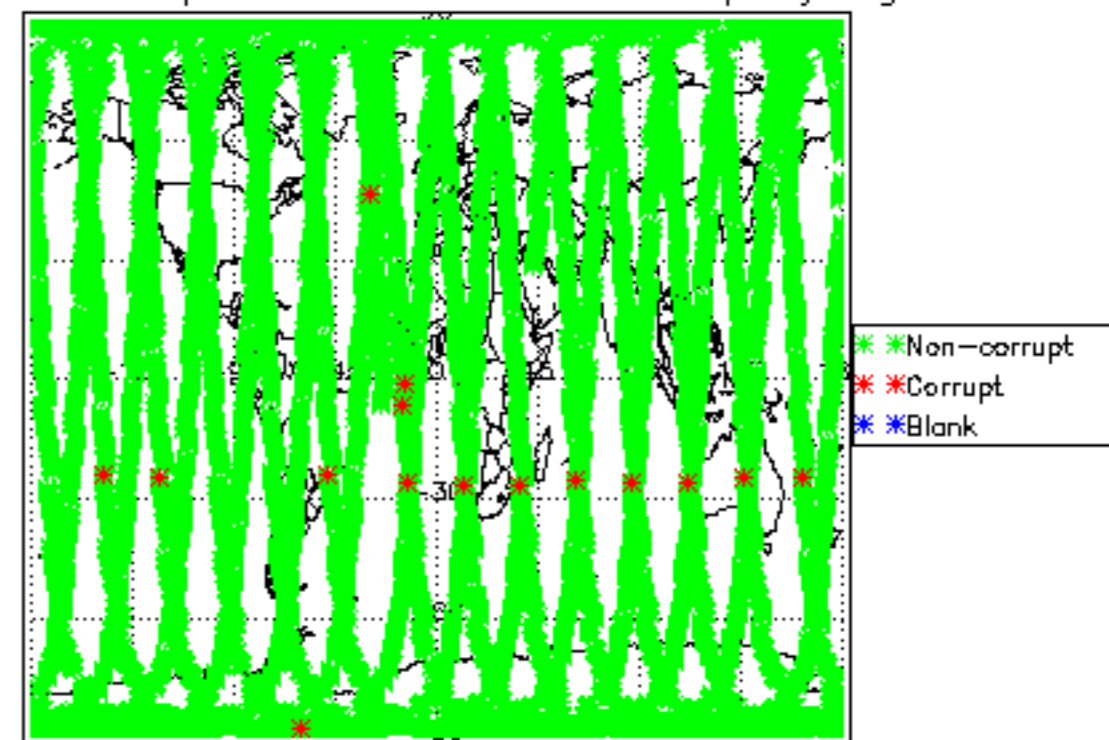


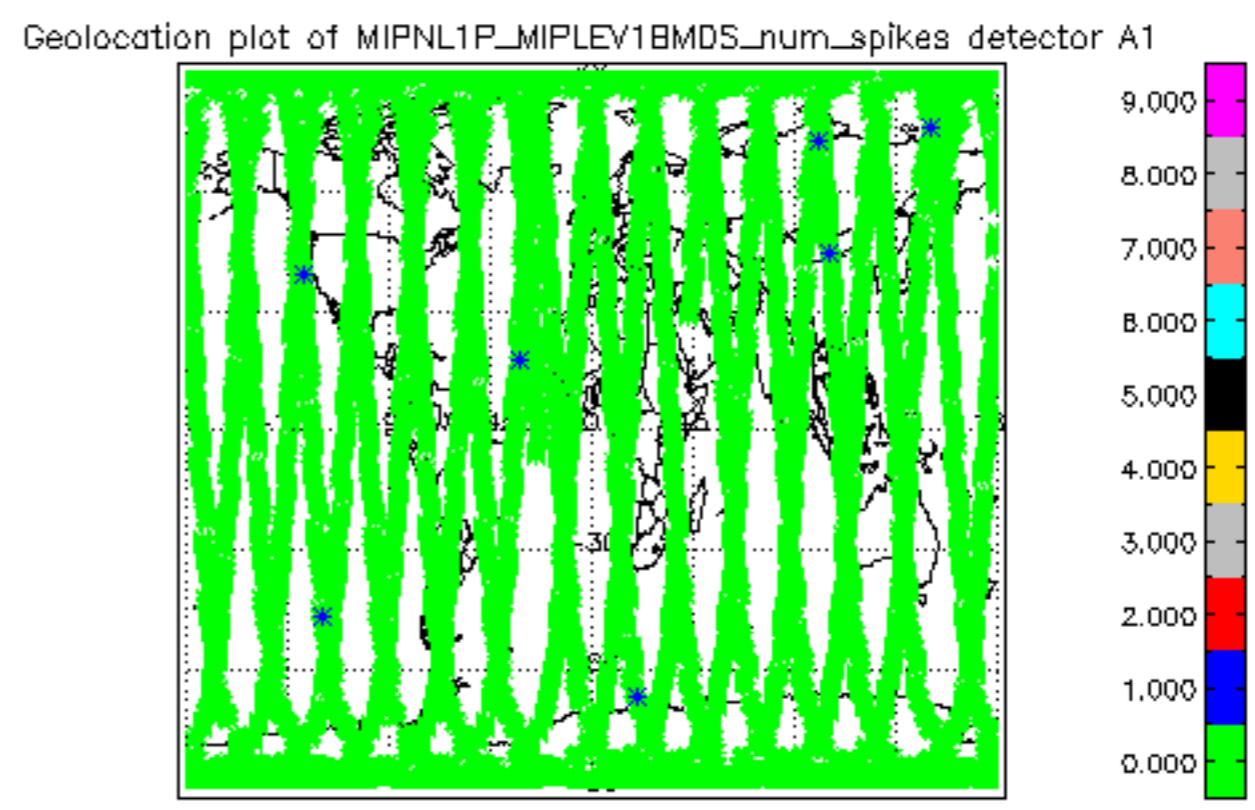
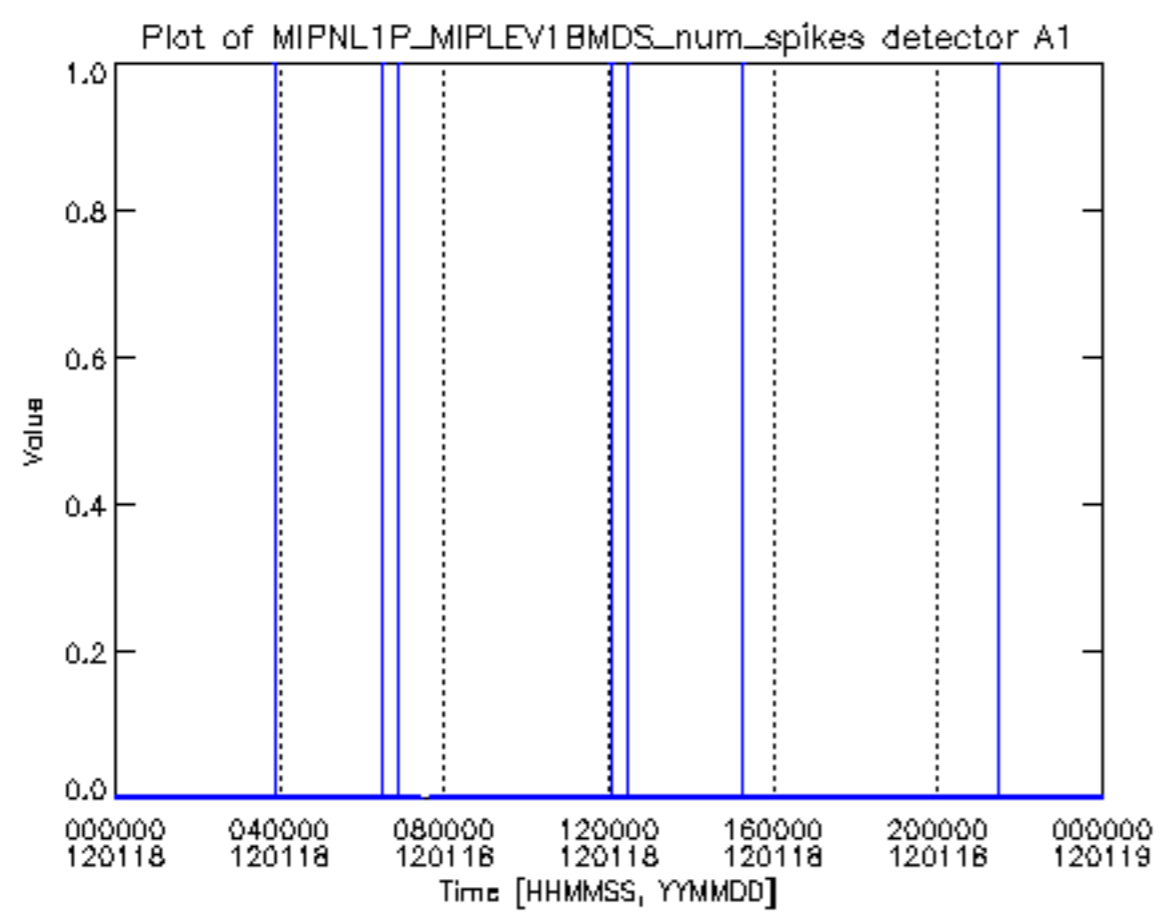
Geolocation plot of MIPNL1P\_SUMQUAADS.num\_sweeps\_flux\_oor

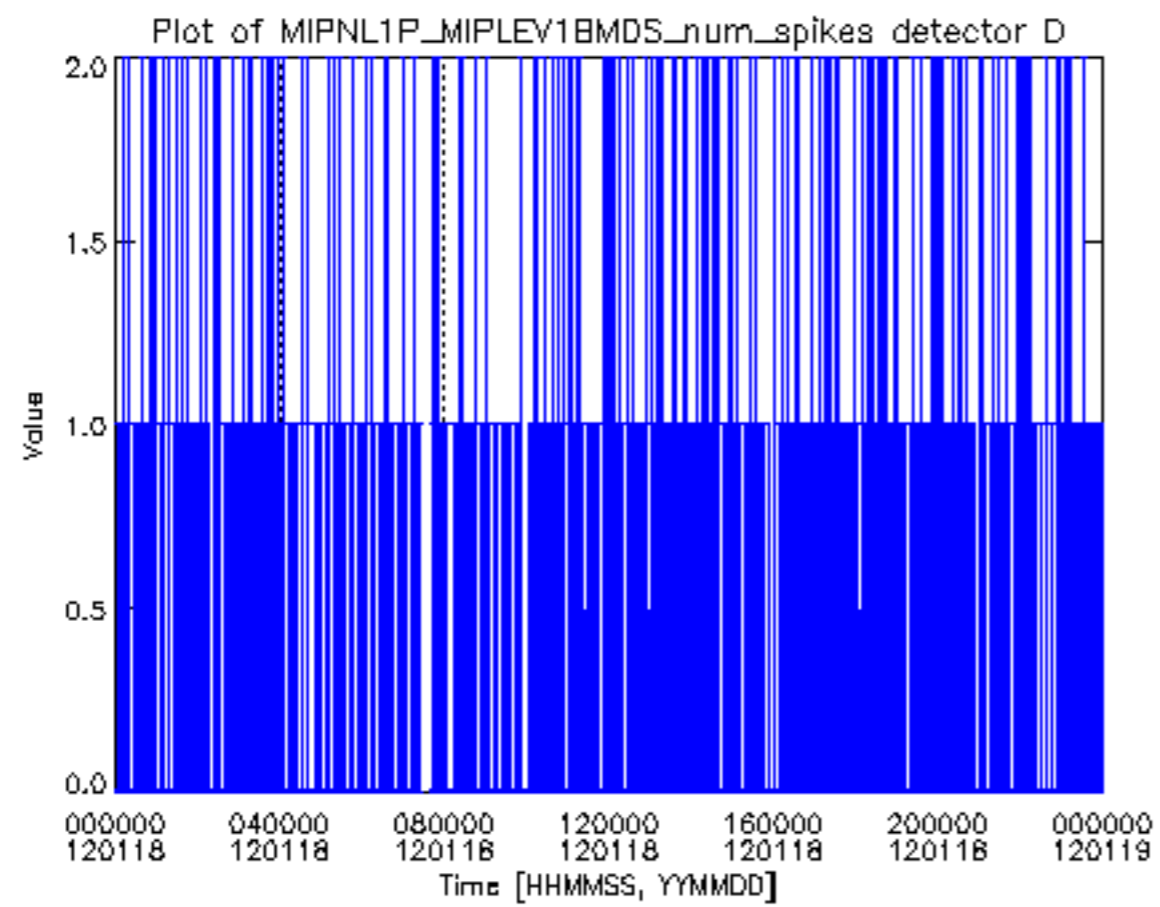




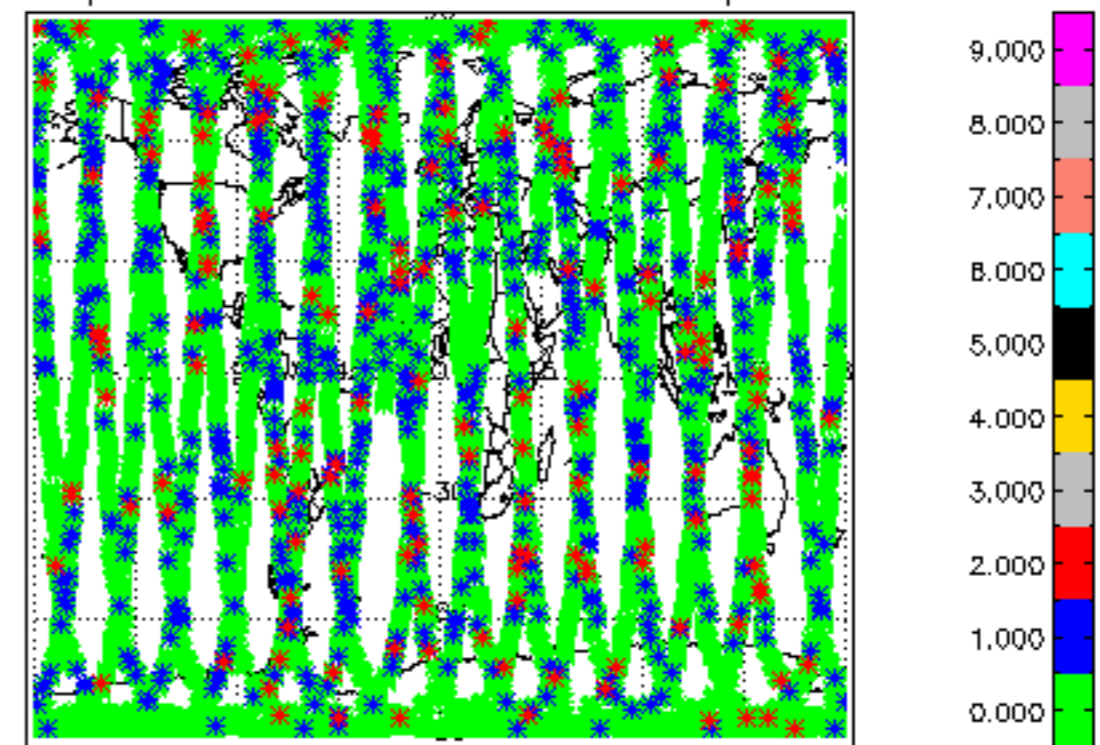
Geolocation plot of MIPNL1P\_MIPLEV1BMDS\_quality\_flag

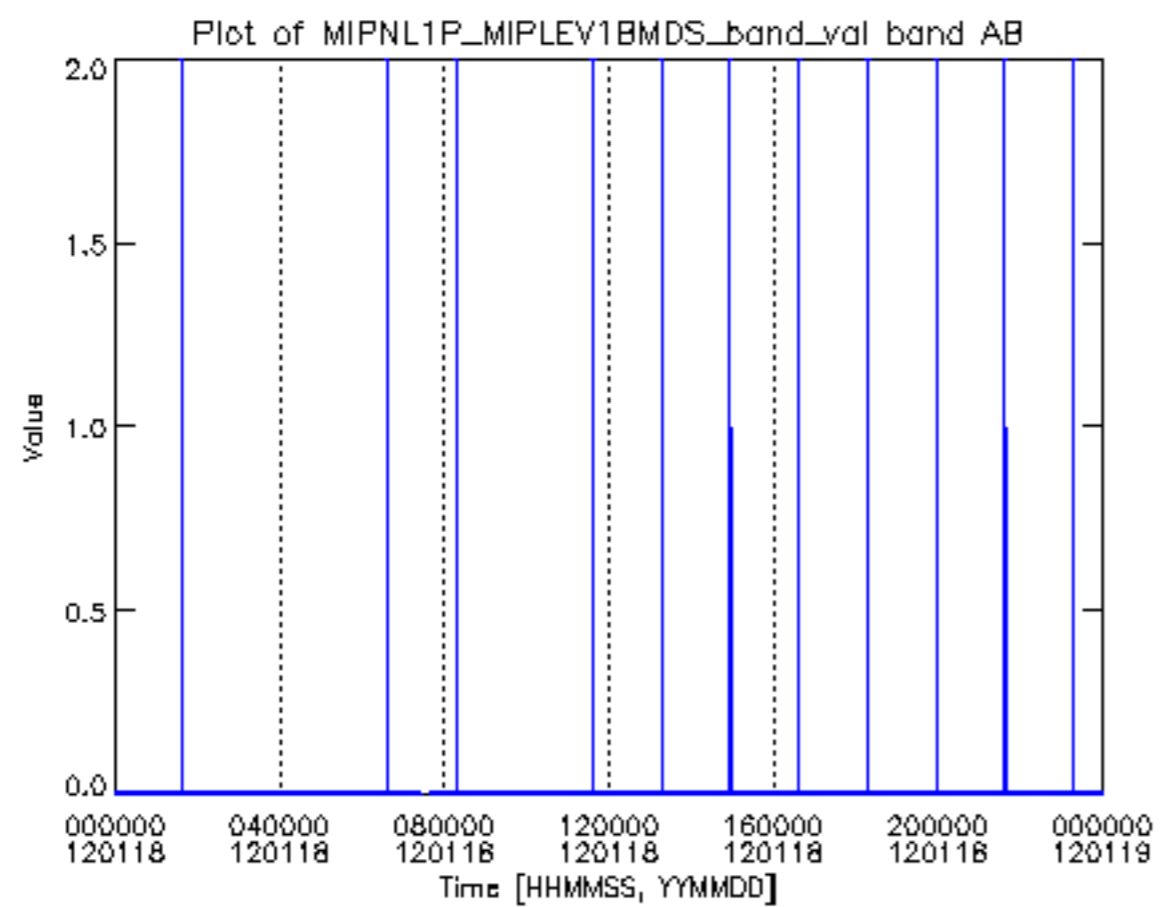




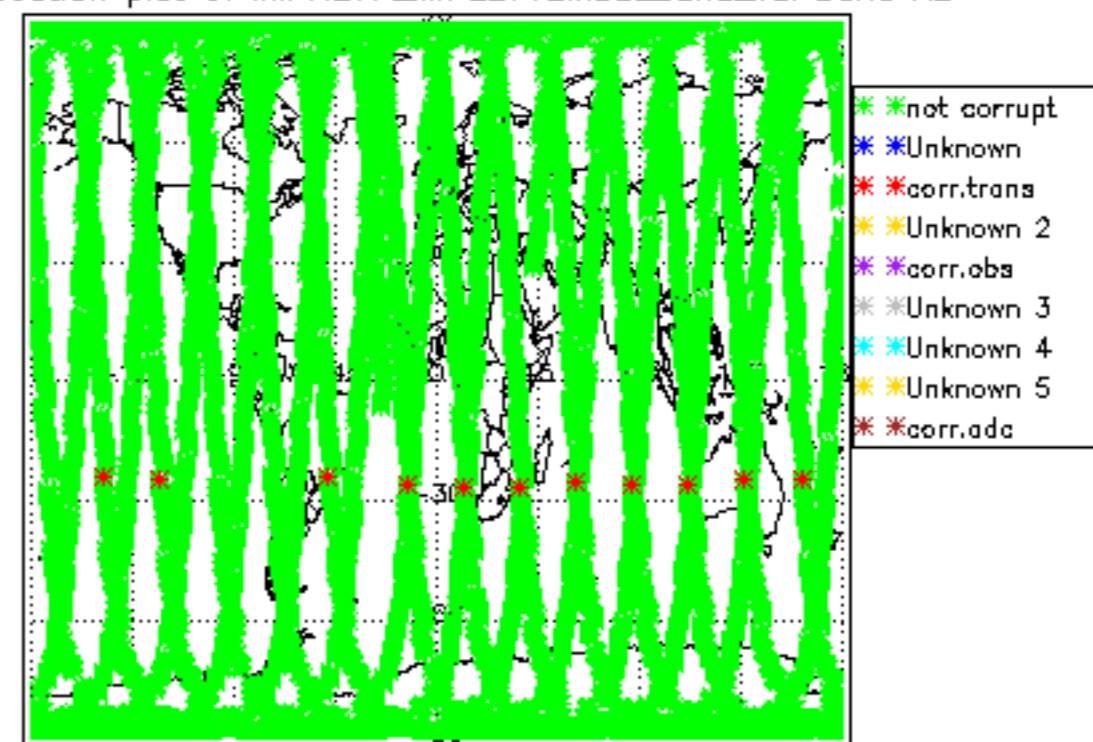


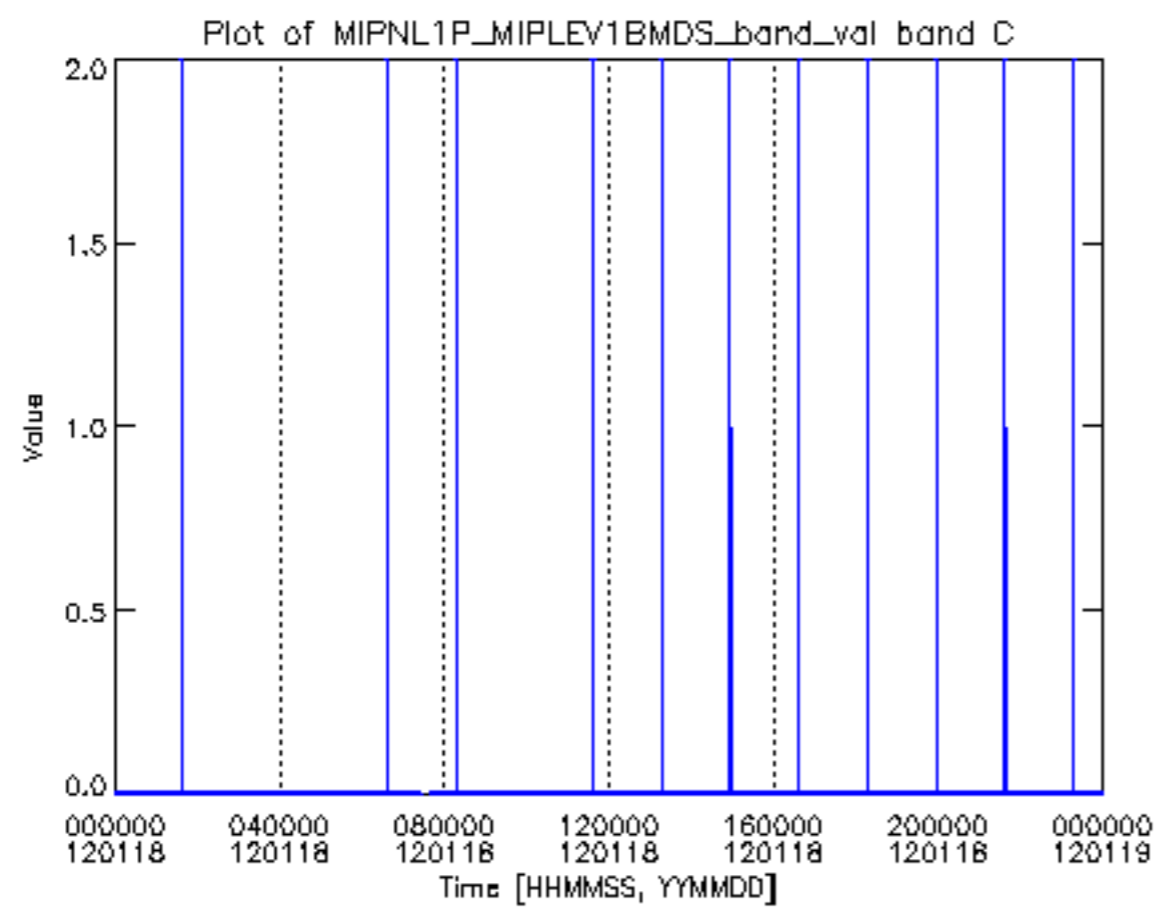
Geolocation plot of MIPNL1P\_MIPLEV1BMDS\_num\_spikes detector D



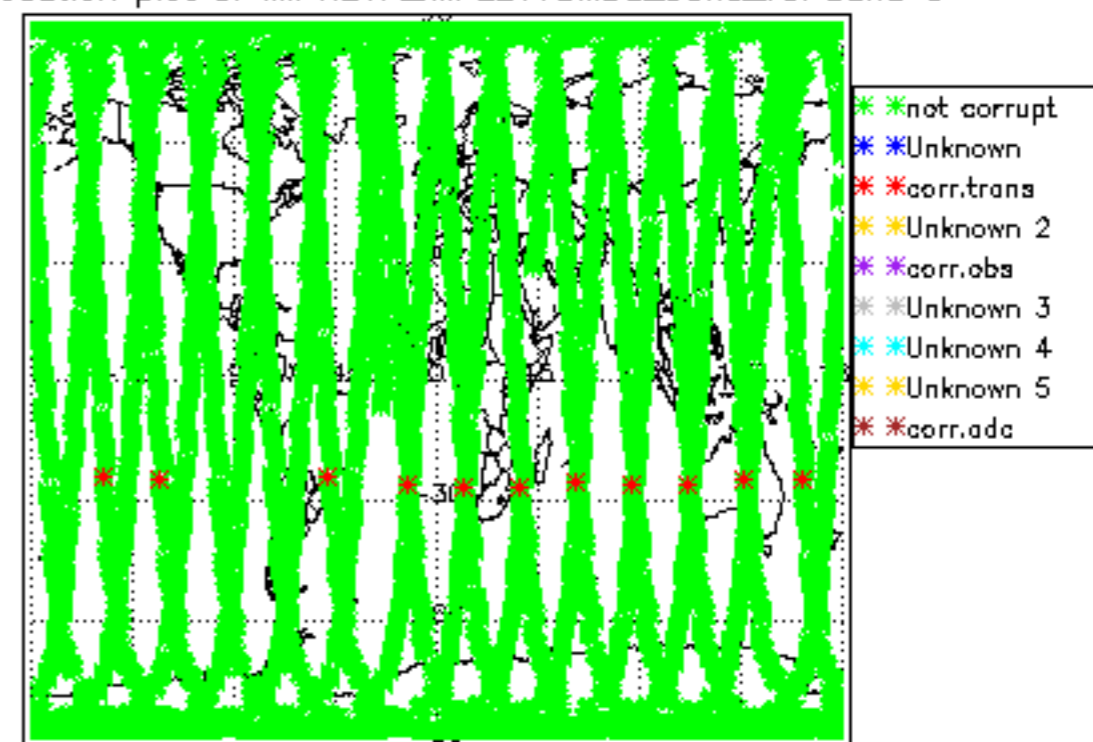


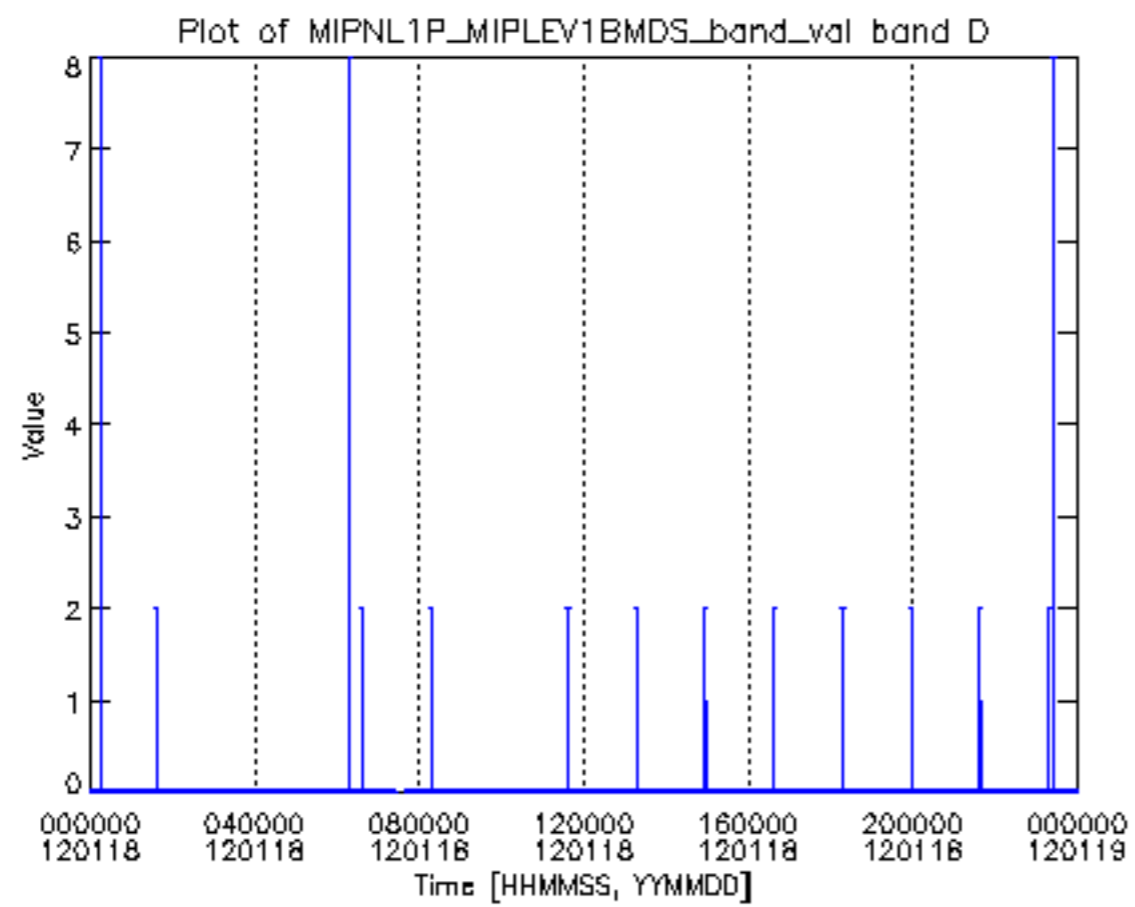
Geolocation plot of MIPNL1P\_MIPLEV1BMDS\_band\_val band AB



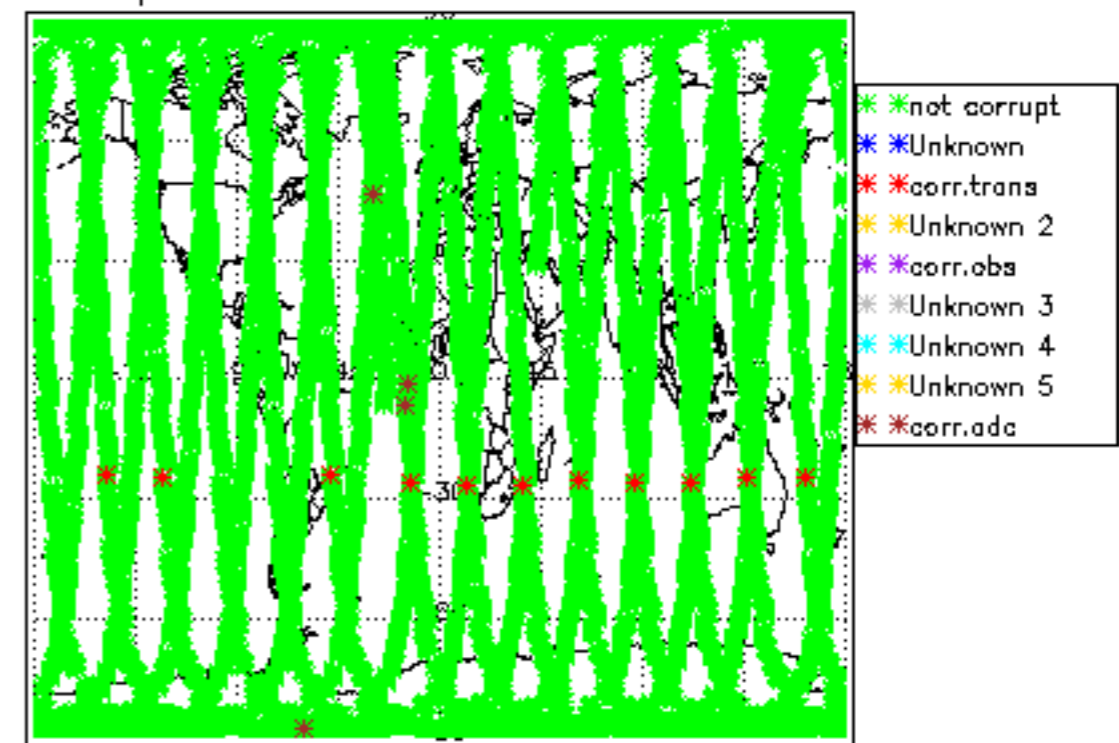


Geolocation plot of MIPNL1P\_MIPLEV1BMDS\_band\_Lval band C



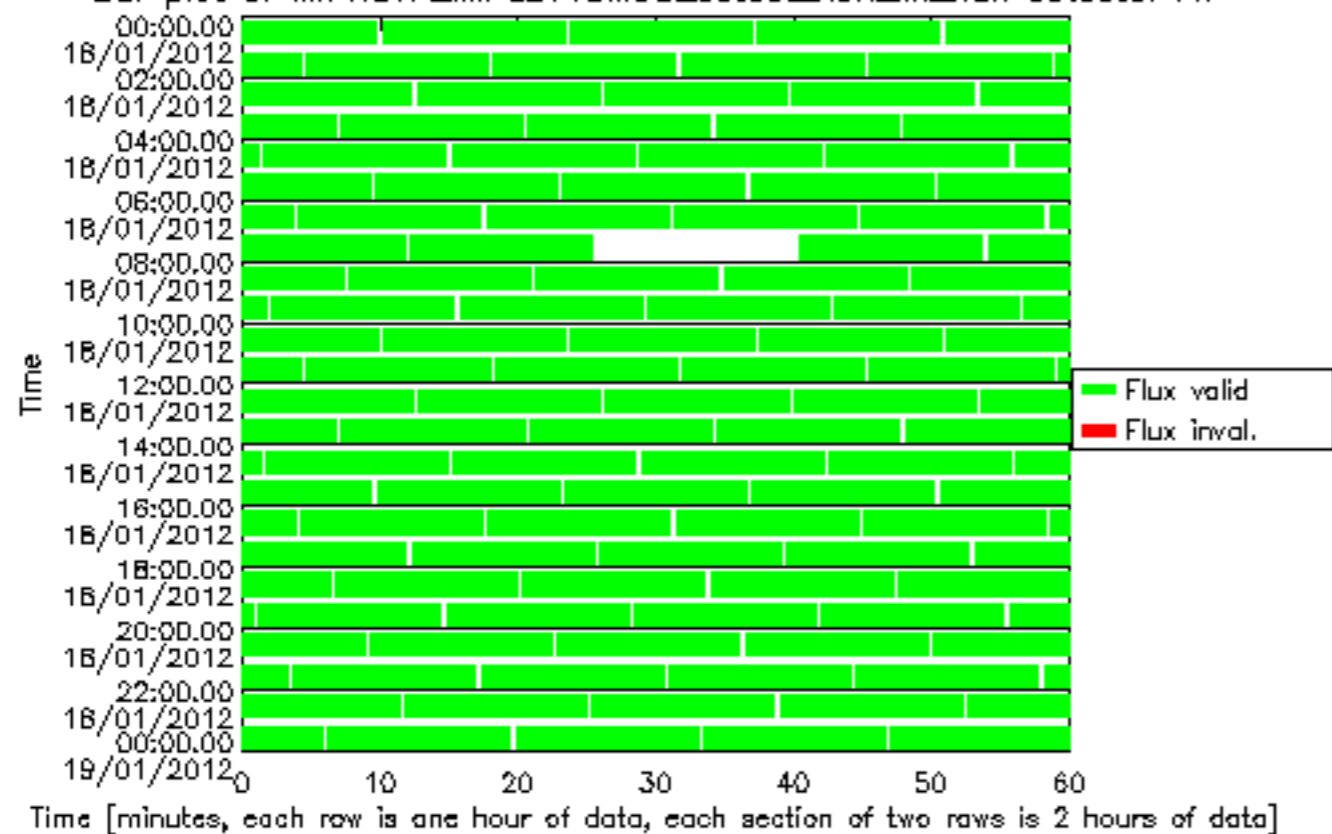


Geolocation plot of MIPNL1P\_MIPLEV1BMDS\_band\_val band D

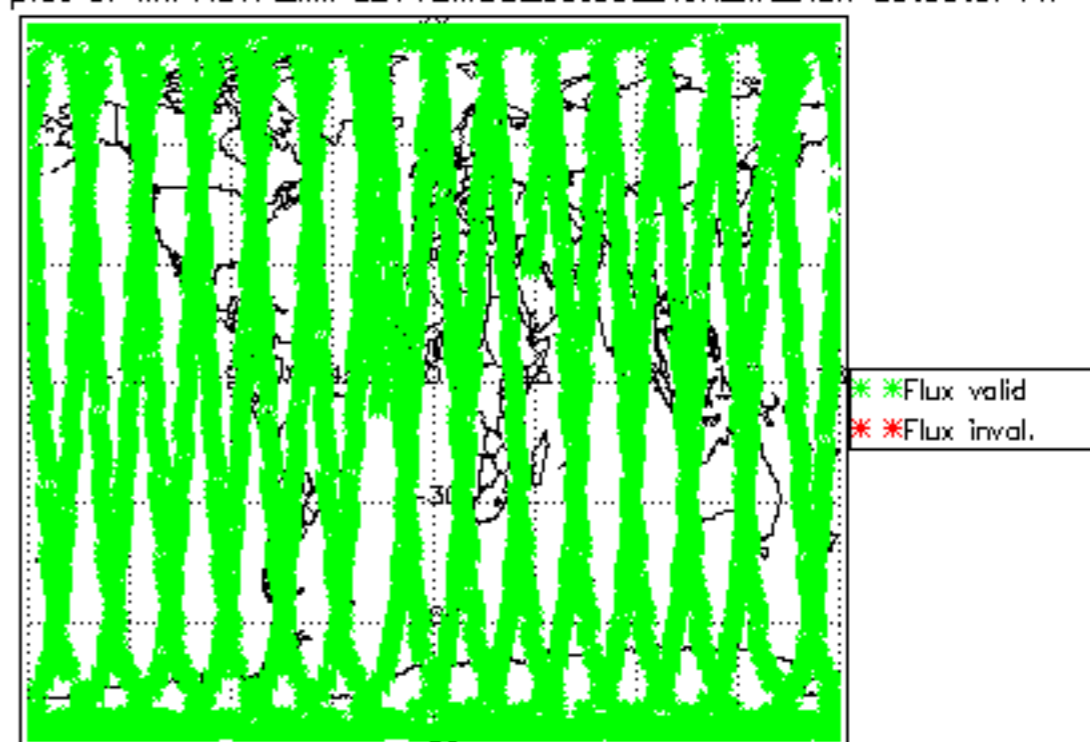




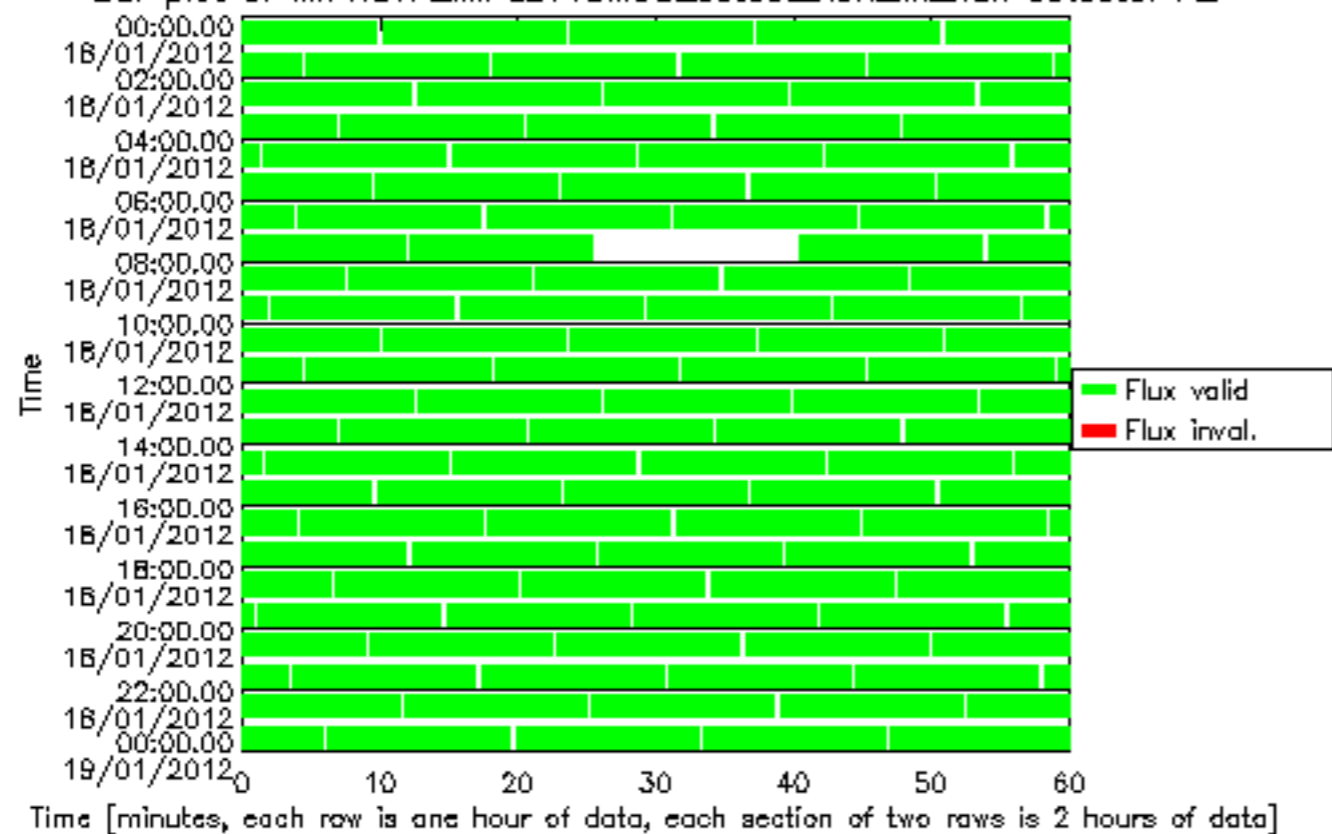
Bar plot of MIPNL1P\_MIPLEV1BMDS\_detect\_non\_lin\_flux detector A1



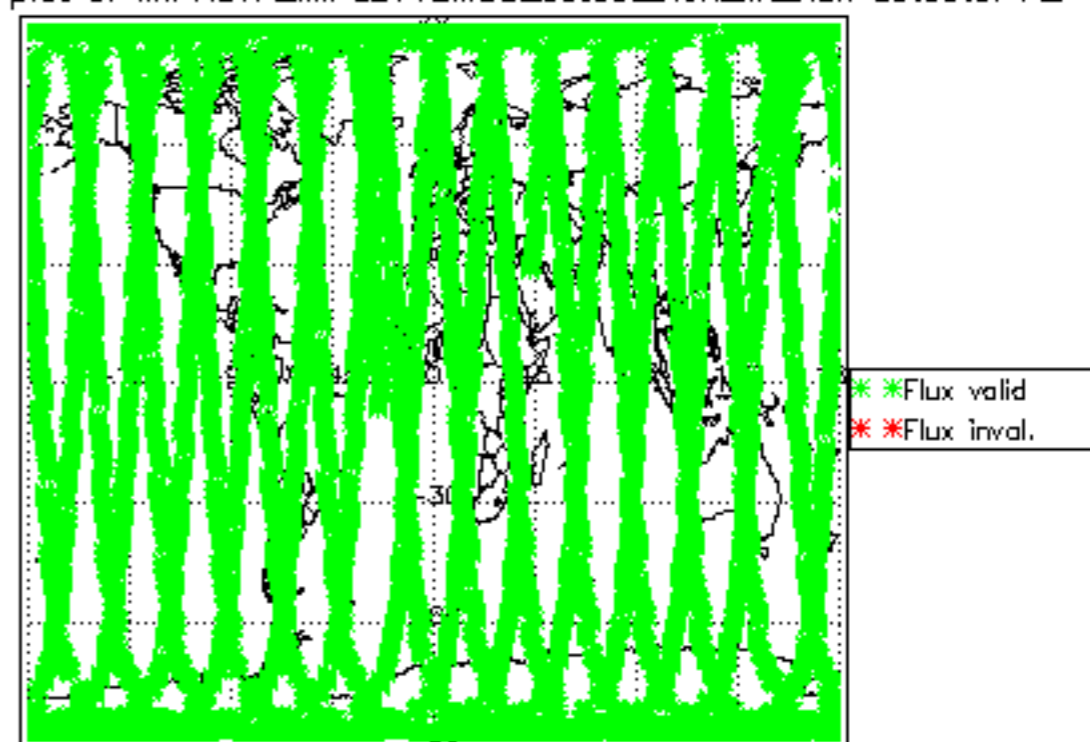
Geolocation plot of MIPNL1P\_MIPLEV1BMDS\_detect\_non\_lin\_flux detector A1



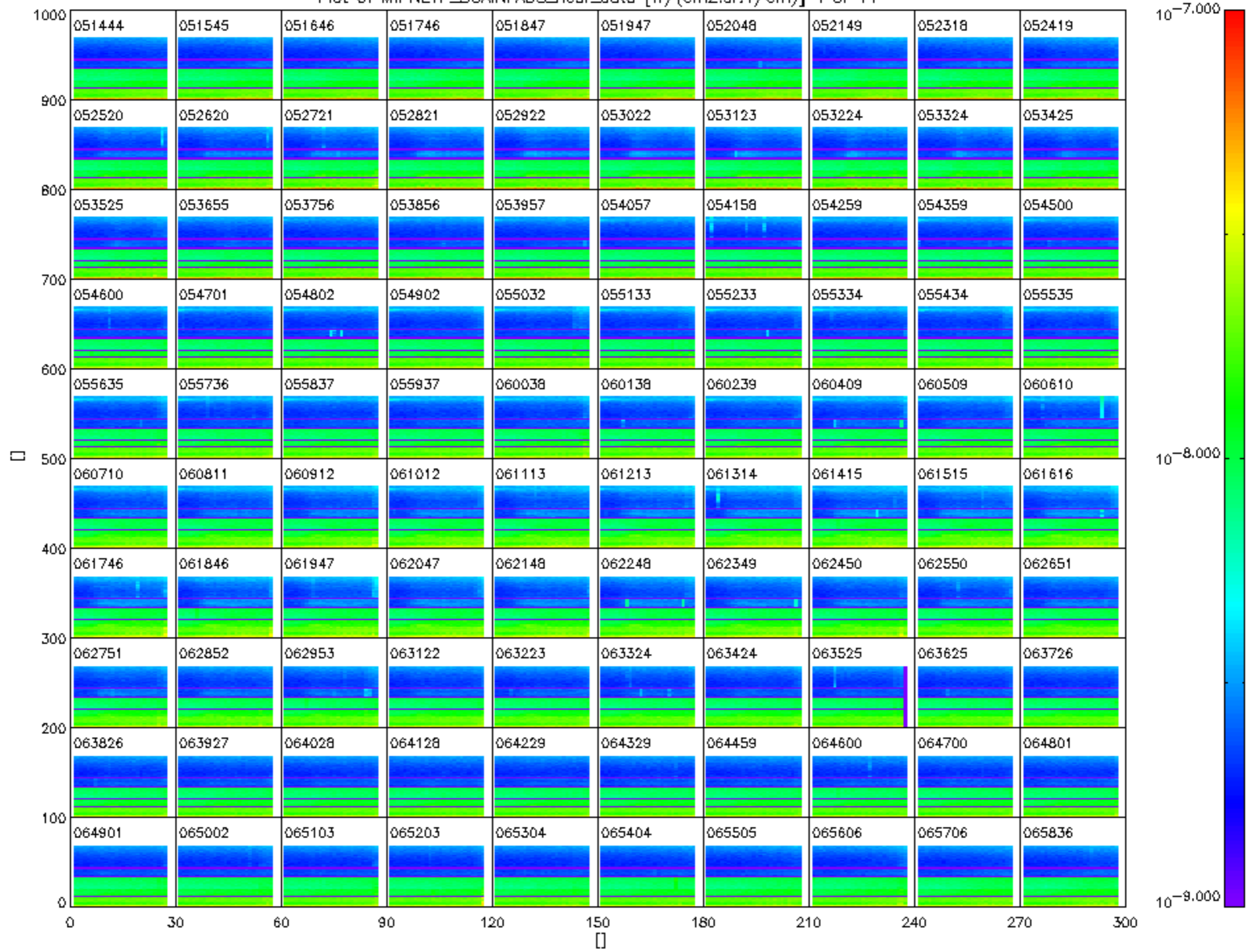
Bar plot of MIPNL1P\_MIPLEV1BMDS\_detect\_non\_lin\_flux detector A2



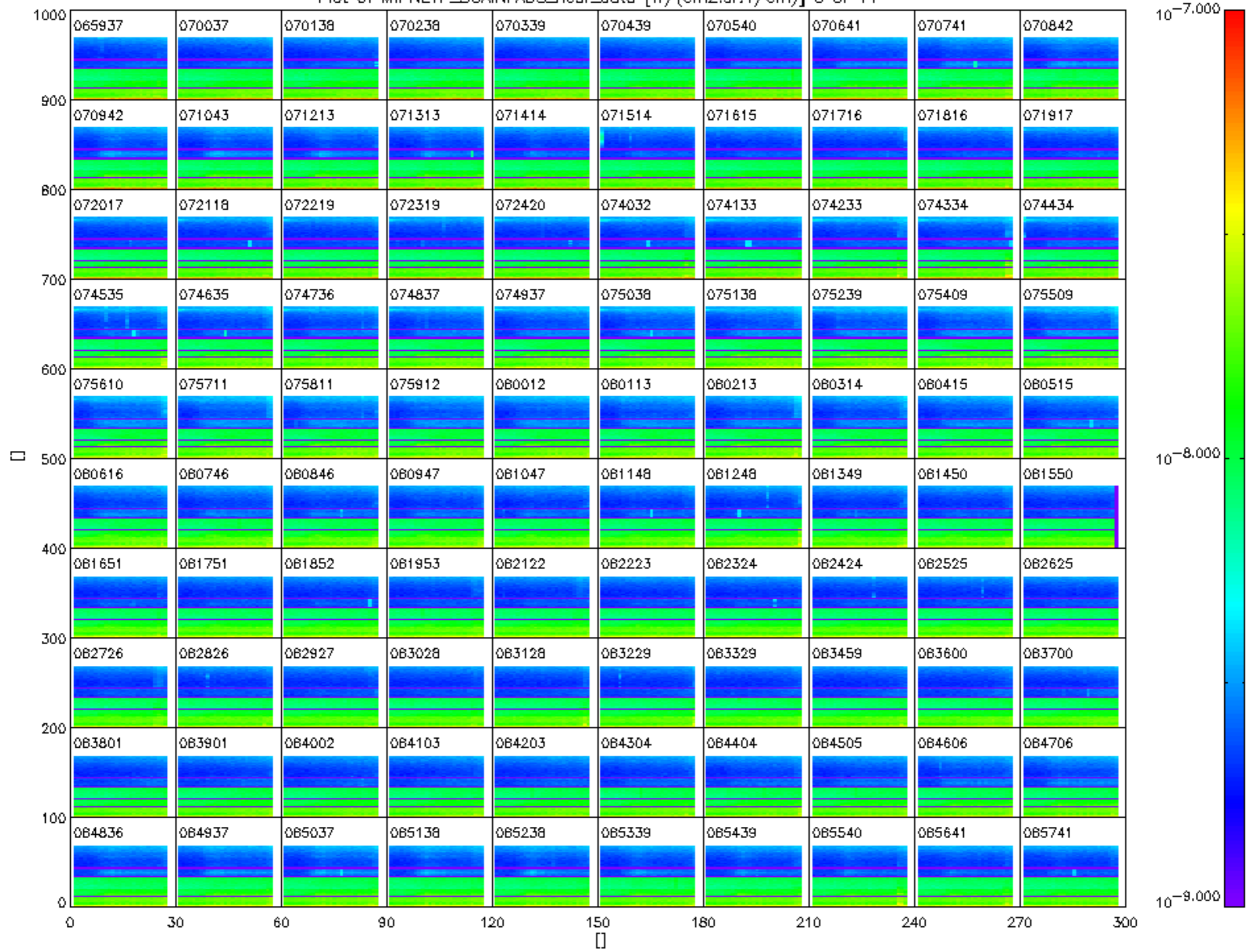
Geolocation plot of MIPNL1P\_MIPLEV1BMDS\_detect\_non\_lin\_flux detector A2



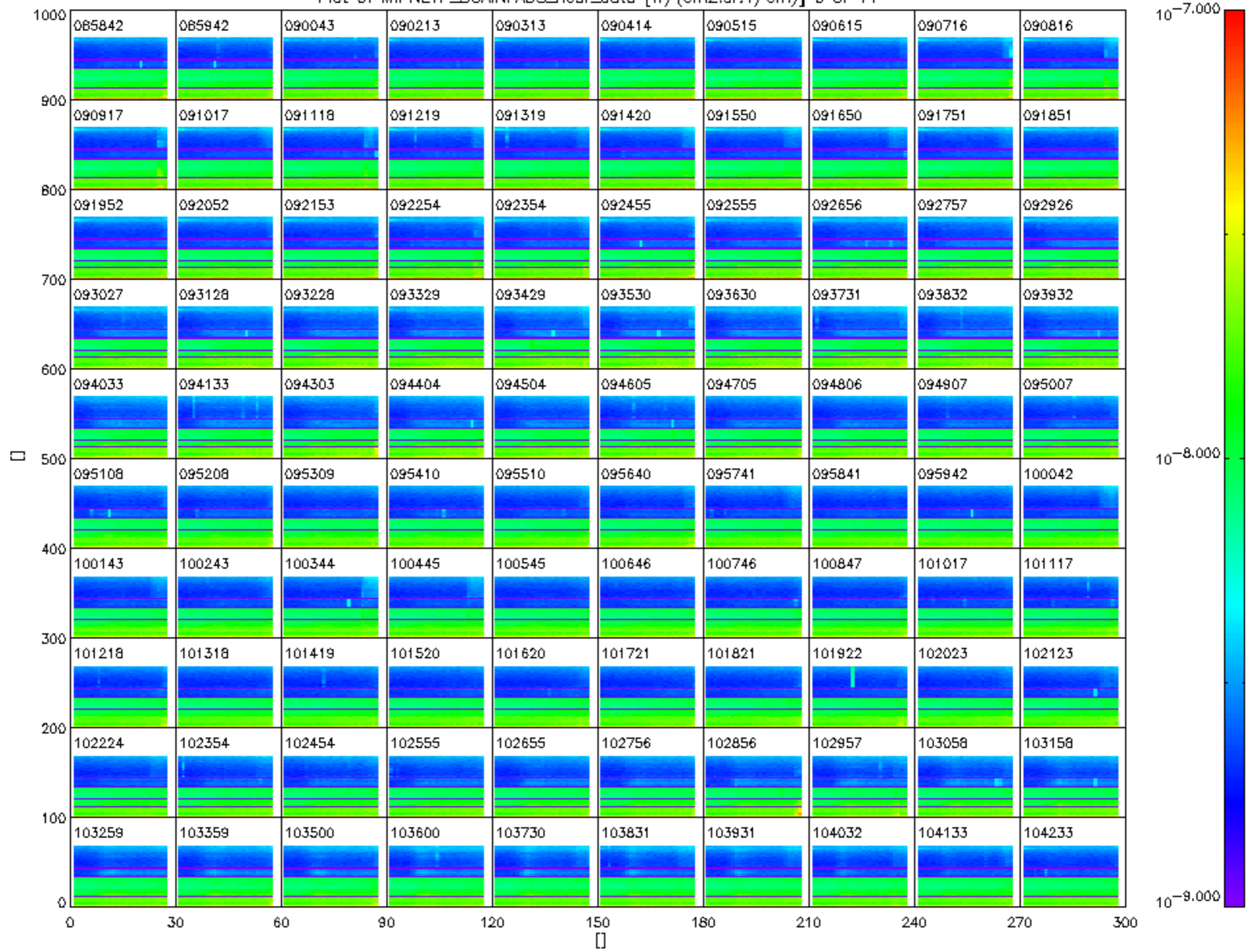
Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm<sup>2</sup>.sr.1/cm)] 4 of 14



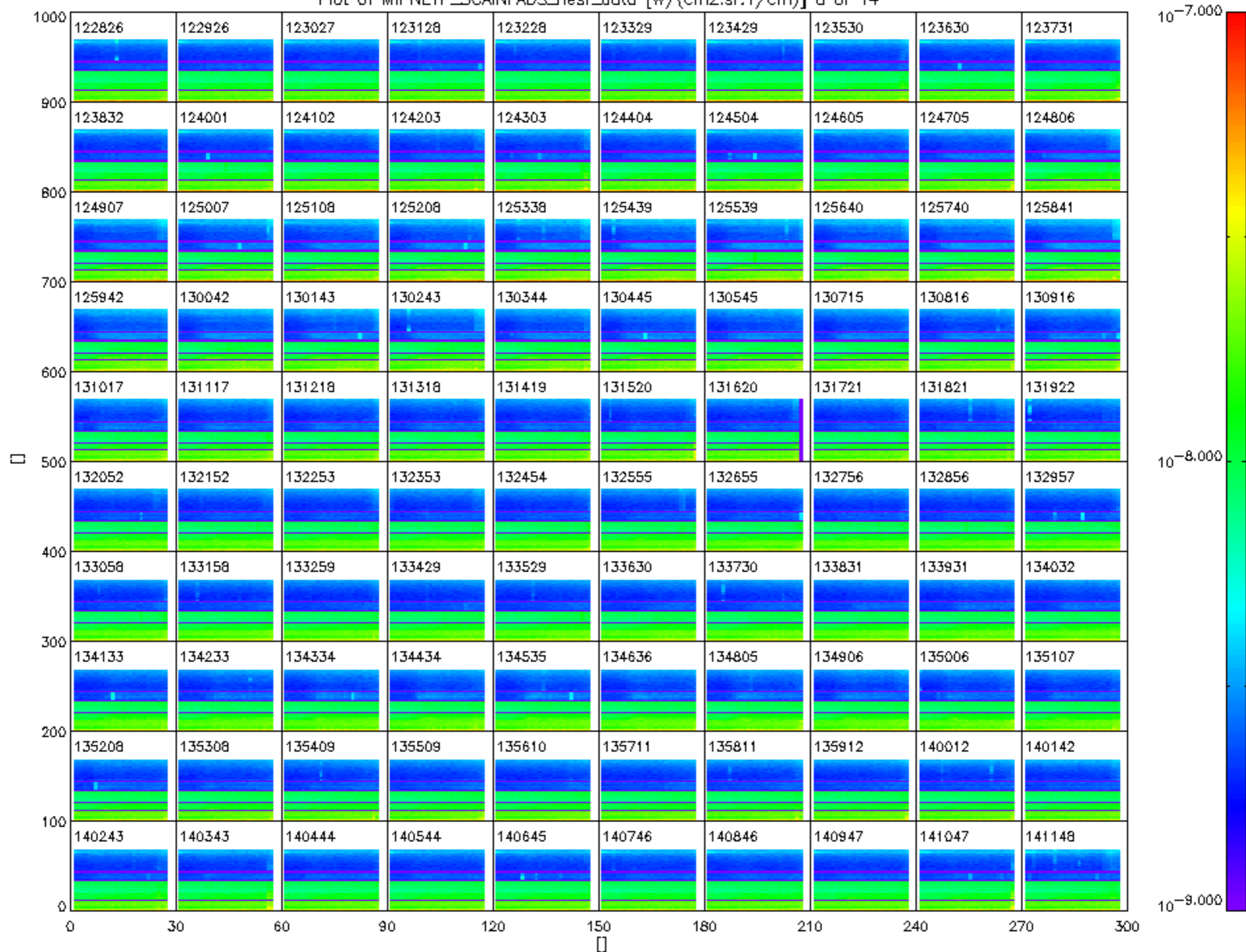
Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm2.sr.1/cm)] 5 of 14



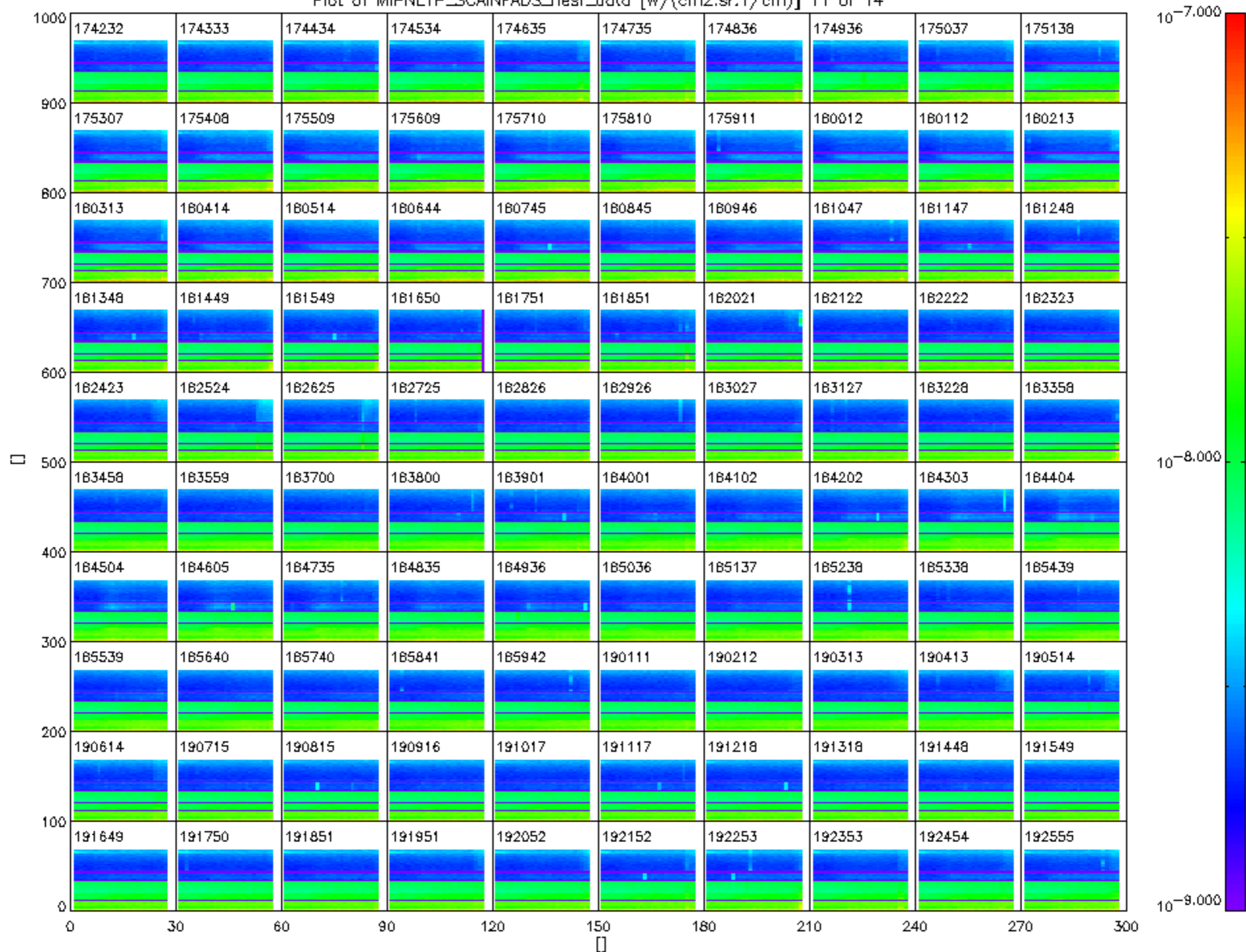
Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm<sup>2</sup>.sr.1/cm)] 6 of 14



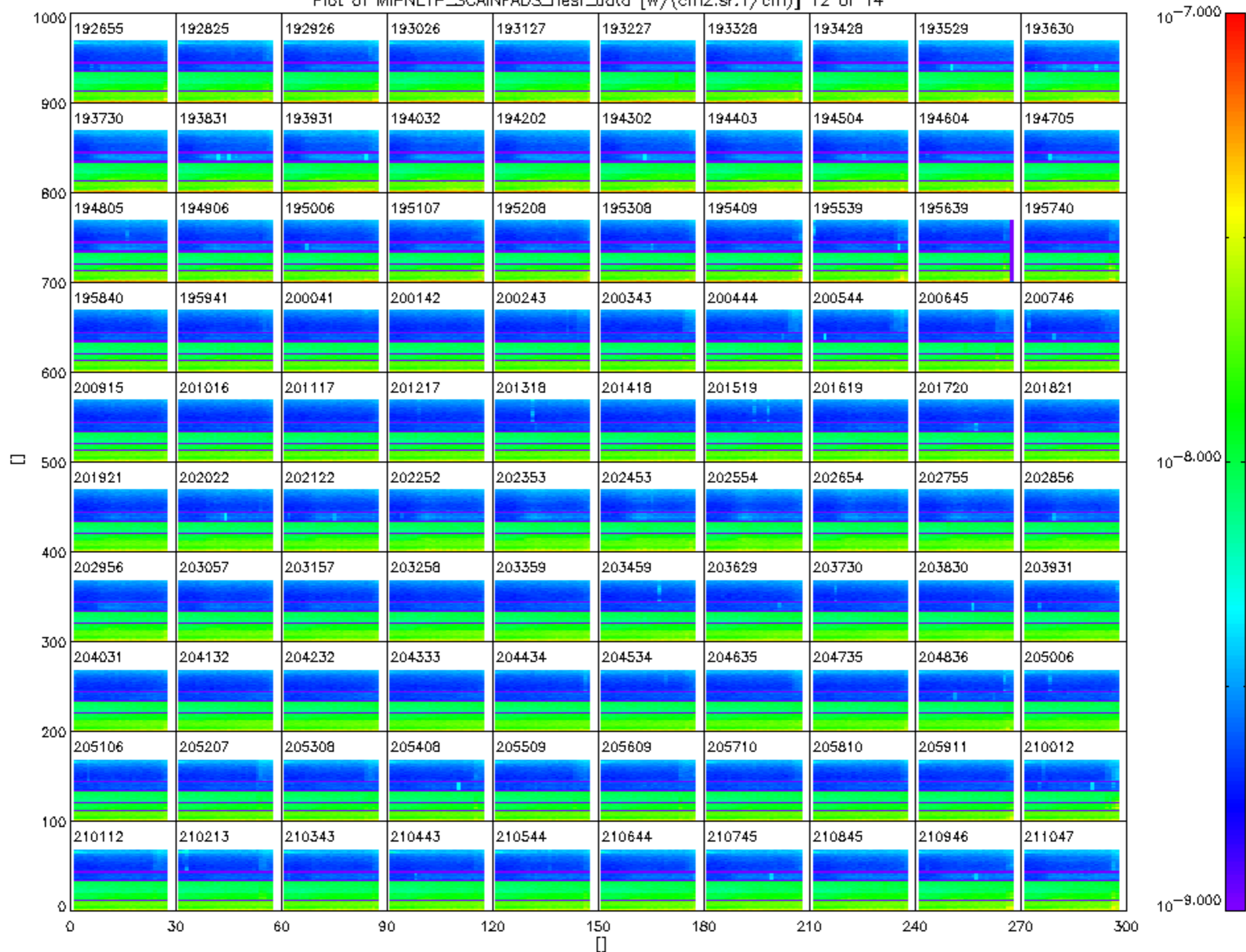
Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm<sup>2</sup>.sr.1/cm)] 8 of 14



Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm<sup>2</sup>.sr.1/cm)] 11 of 14

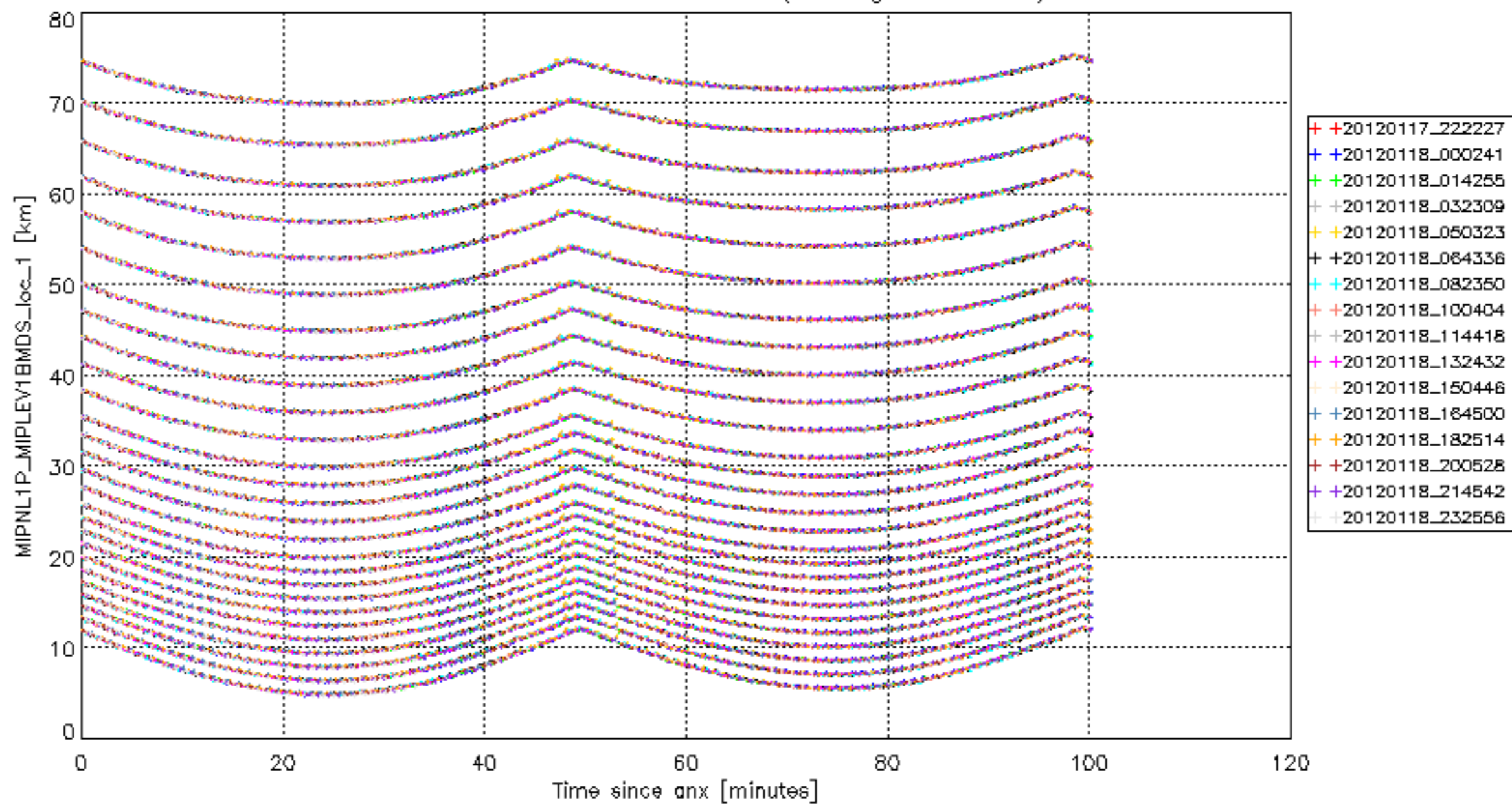


Plot of MIPNL1P\_SCAINFADS\_near\_data [W/(cm<sup>2</sup>.sr.1/cm)] 12 of 14





Plot of MIPNL1P\_MIPLEV1BMDS\_Joc\_1 against relative time within orbit.  
 The colours indicate distinct orbits (see legend for anx).



Geolocation plot of cloud top height [km] (non-nominal scans are red)

