

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	v1.31 02-08-2006
Time of report generation	23NOV2006 00:25:00
Data source version	MIPAS/4.67-P
Processing scope for products	18OCT2006 00:00:00 to 19OCT2006 00:00:00
Start time of first product within scope	18OCT2006 02:13:54
Stop time of last product within scope	18OCT2006 22:26:25
Total number of level 1 products	7
Number of level 1 products with errors	5

1.1.2 Summary per product

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

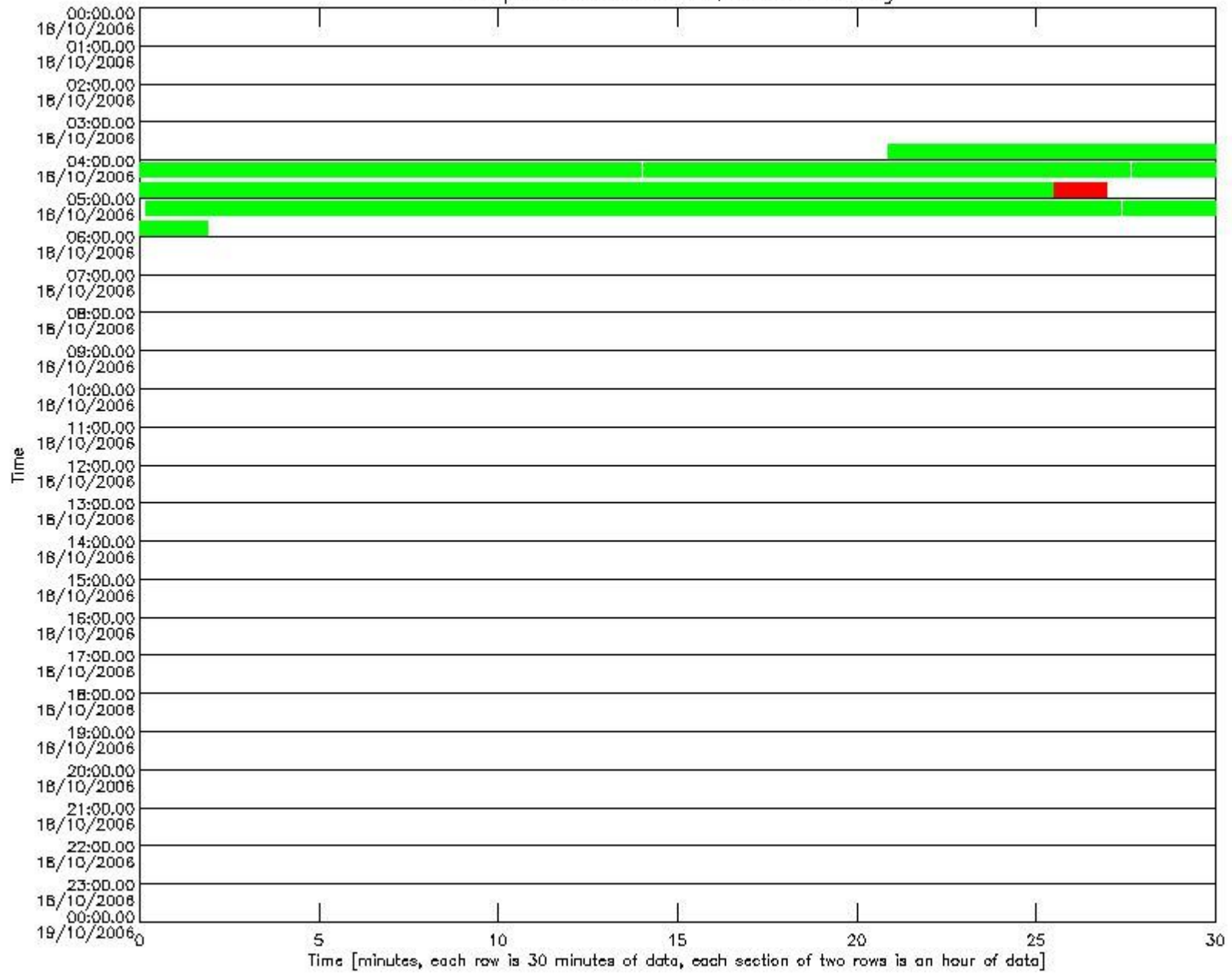
#	Product name	Start time	Stop time	Prod err	Slice position (prod/tot)
0	MIP_NL__1PPDPA20061018_021354_000057502052_00118_24220_1038.N1	18OCT2006 02:13:54	18OCT2006 03:49:44	1	0/0
1	MIP_NL__1PPDPA20061018_035051_000060302052_00119_24221_1029.N1	18OCT2006 03:50:51	18OCT2006 05:31:21	1	0/0
2	MIP_NL__1PPDPA20061018_053127_000005402052_00120_24222_1063.N1	18OCT2006 05:31:27	18OCT2006 05:40:26	1	0/0
3	MIP_NL__1PPDPA20061018_103654_000057512052_00123_24225_1050.N1	18OCT2006 10:36:54	18OCT2006 12:12:44	1	0/0
4	MIP_NL__1PPDPA20061018_135426_000005402052_00125_24227_1064.N1	18OCT2006 13:54:26	18OCT2006 14:03:25	1	0/0
5	MIP_NL__1PPDPA20061018_185954_000057502052_00128_24230_1049.N1	18OCT2006 18:59:54	18OCT2006 20:35:43	0	0/0
6	MIP_NL__1PPDPA20061018_221726_000005402052_00130_24232_1057.N1	18OCT2006 22:17:26	18OCT2006 22:26:25	0	0/0

1.2 Product Quality Indicators

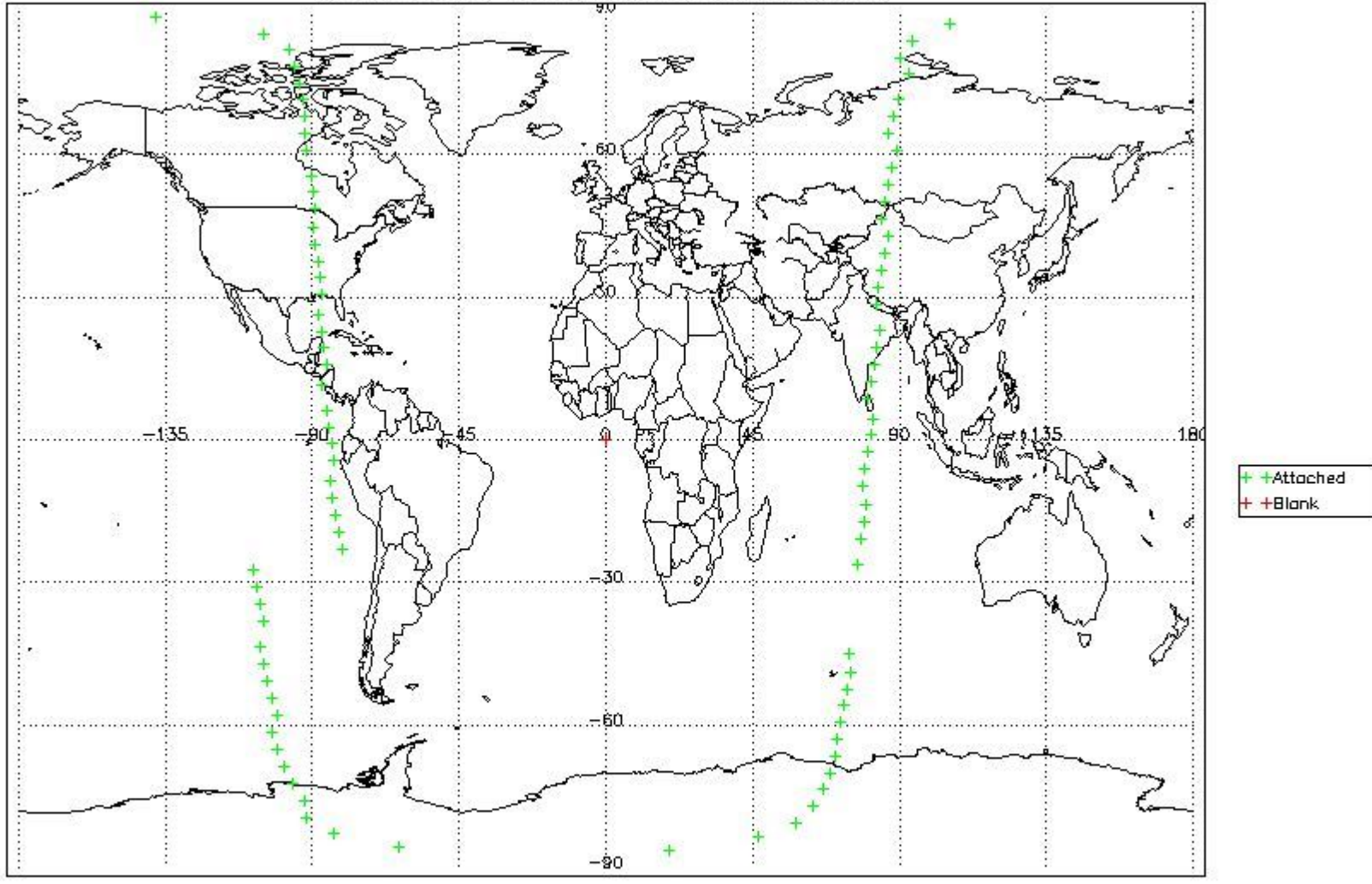
This report contains an analysis on product quality related parameters within the MIP_NL__1P product.

1.2.1 Trends and geolocation of Summary Quality ADS

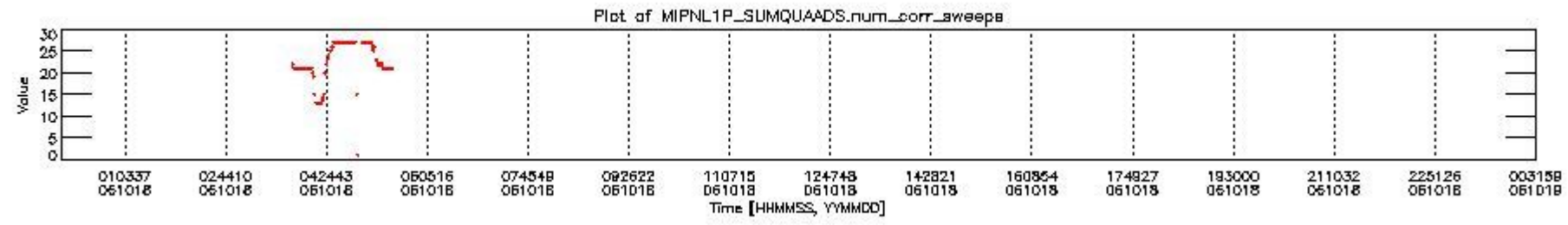
Bar plot of MIPNL1P_SUMQUAADS.attach_flag



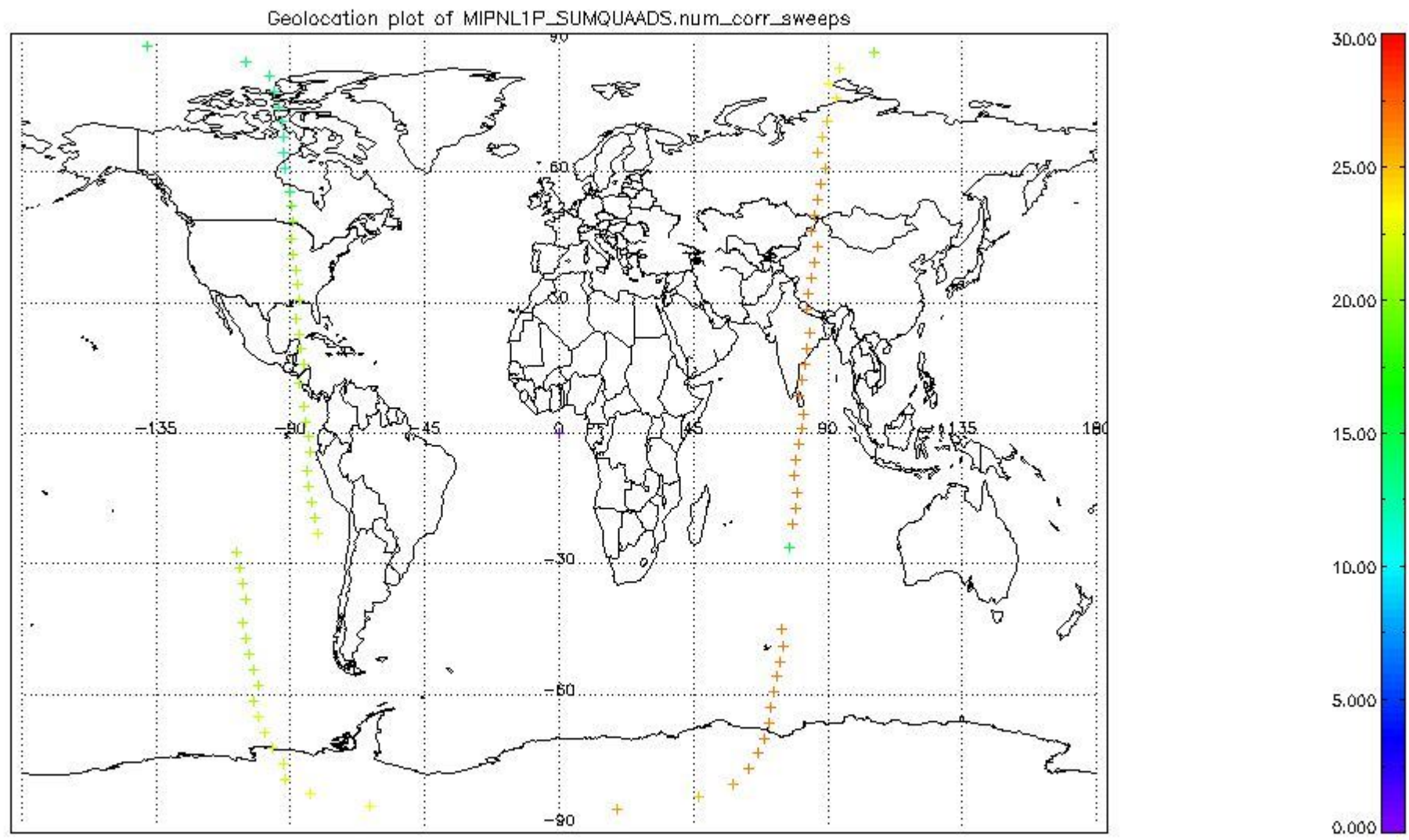
Geolocation plot of MIPNL1P_SUMQUAADS.attach_flag



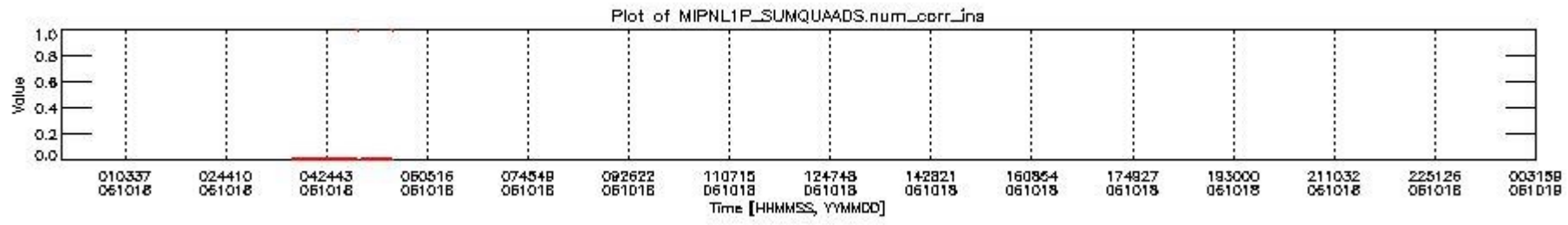
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_1.PNG



mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_2.PNG

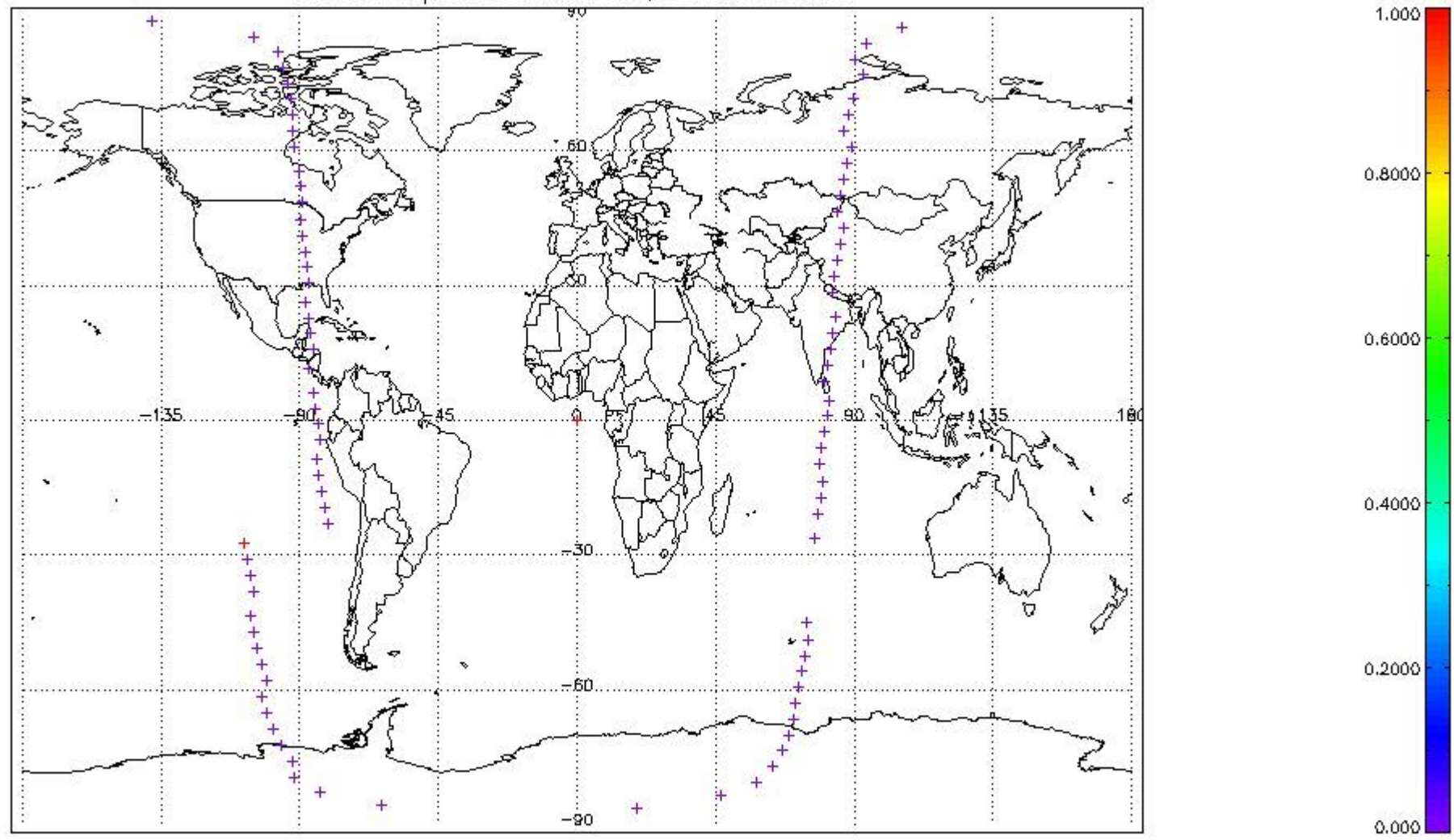


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_3.PNG

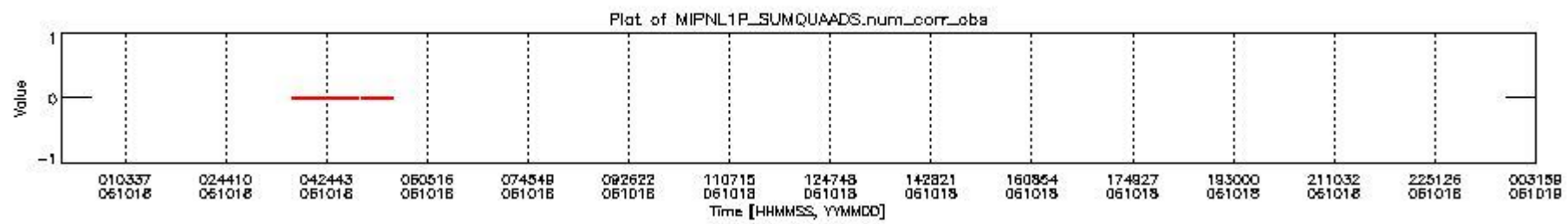


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_4.PNG

Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_ins

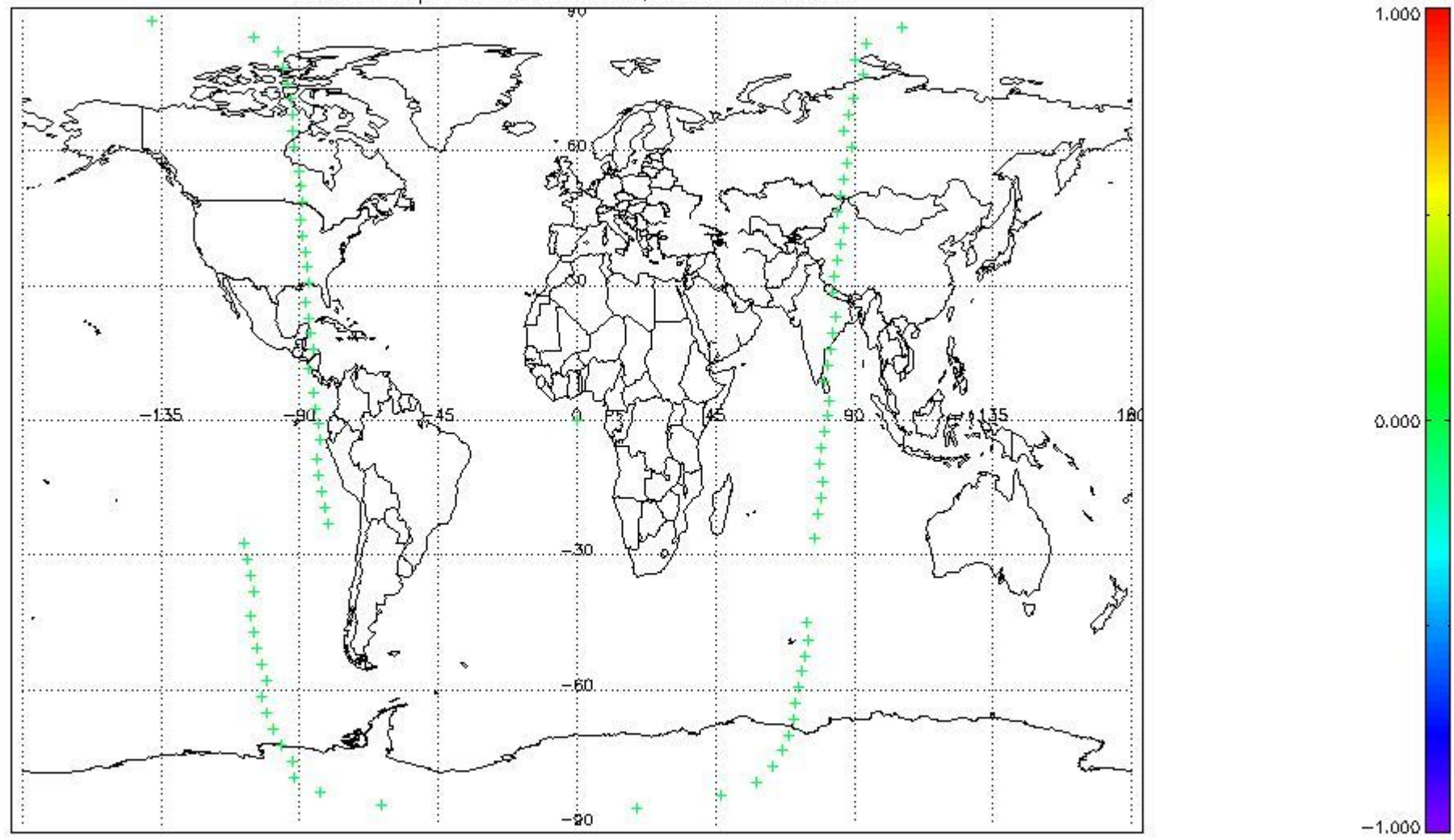


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_5.PNG

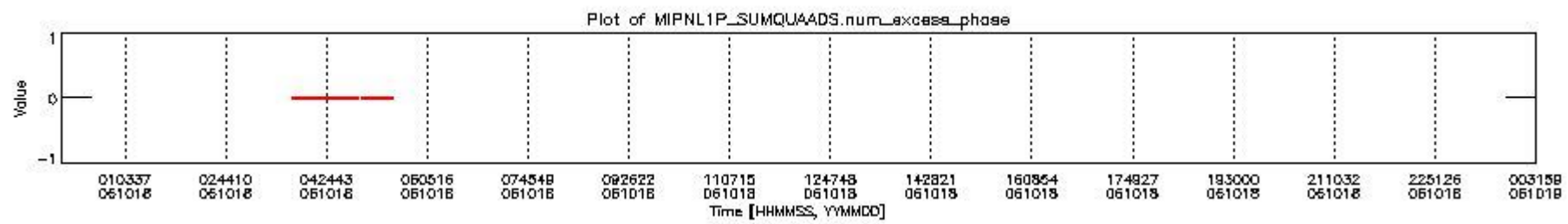


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_6.PNG

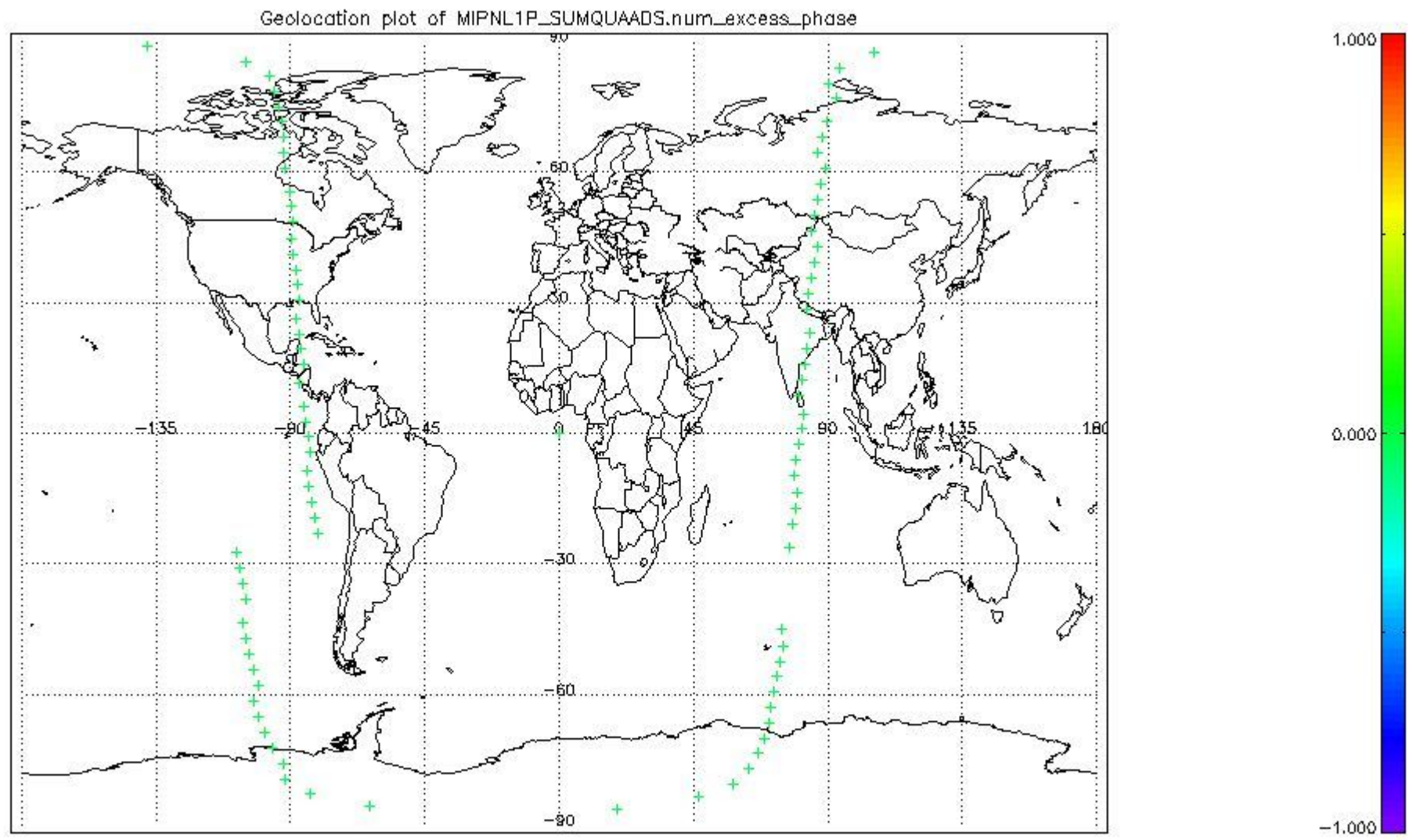
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_obs



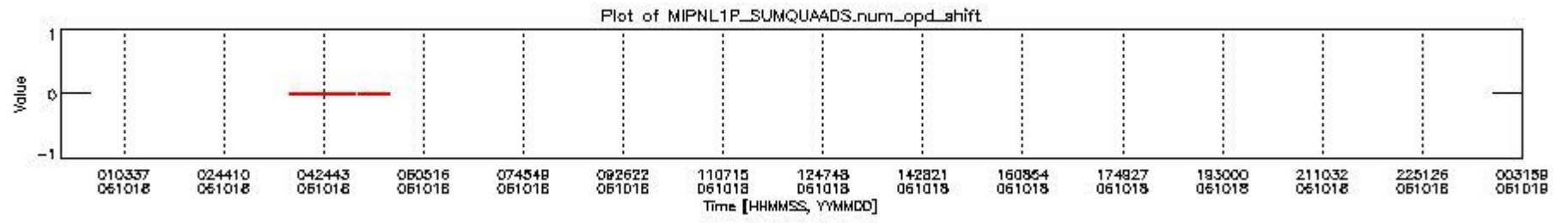
mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_7.PNG



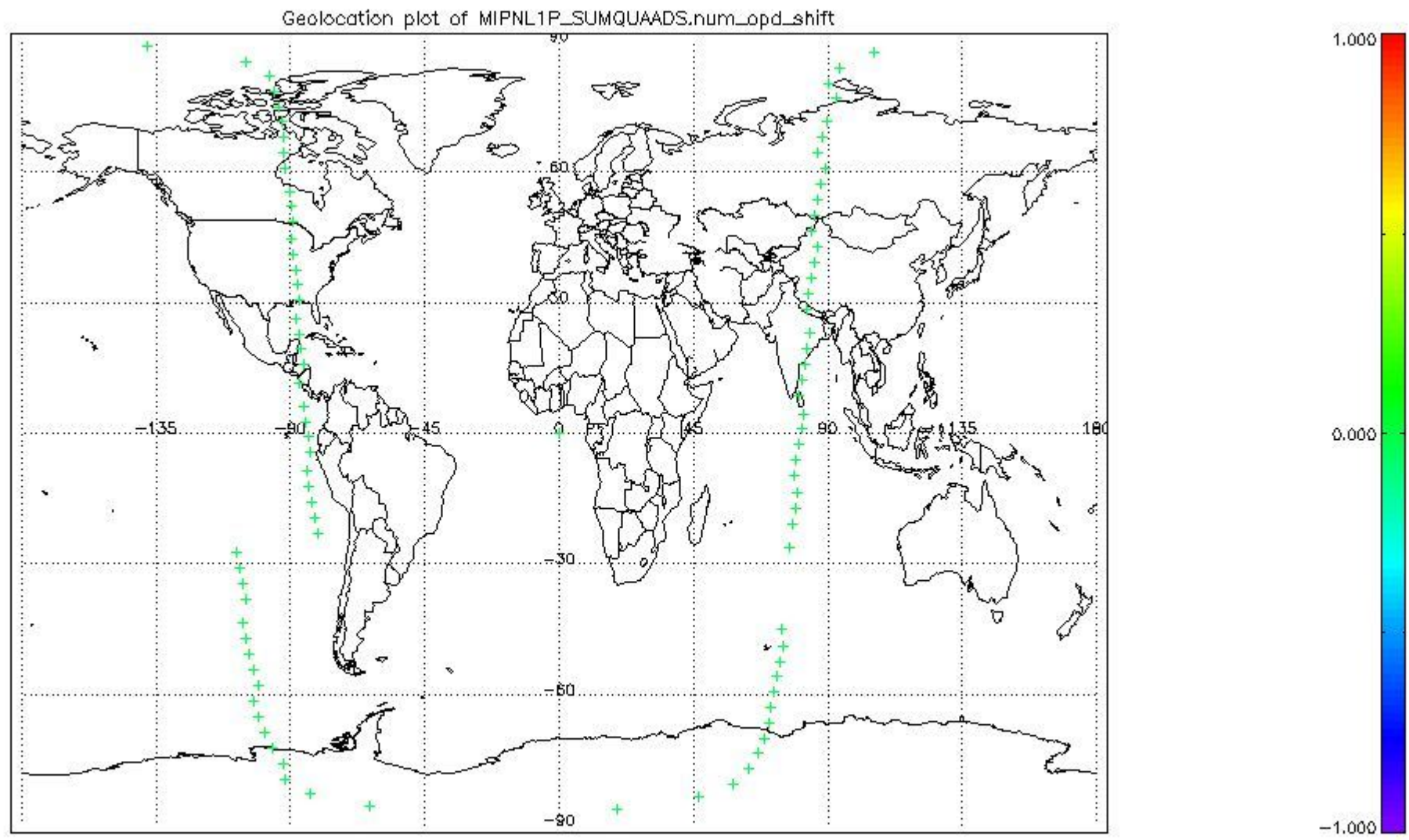
mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_8.PNG



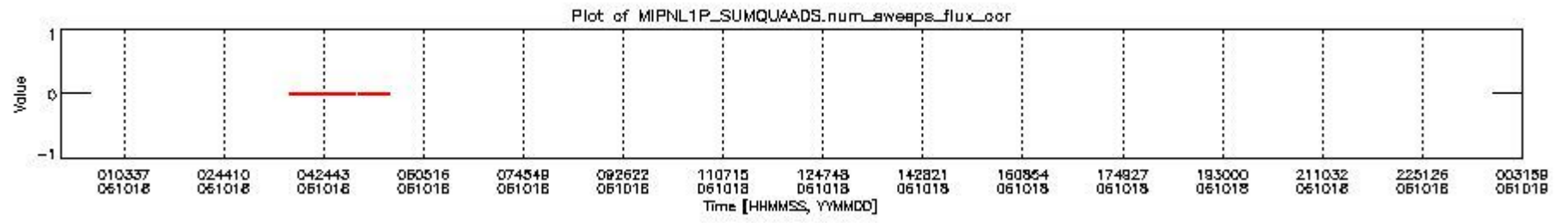
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_9.PNG



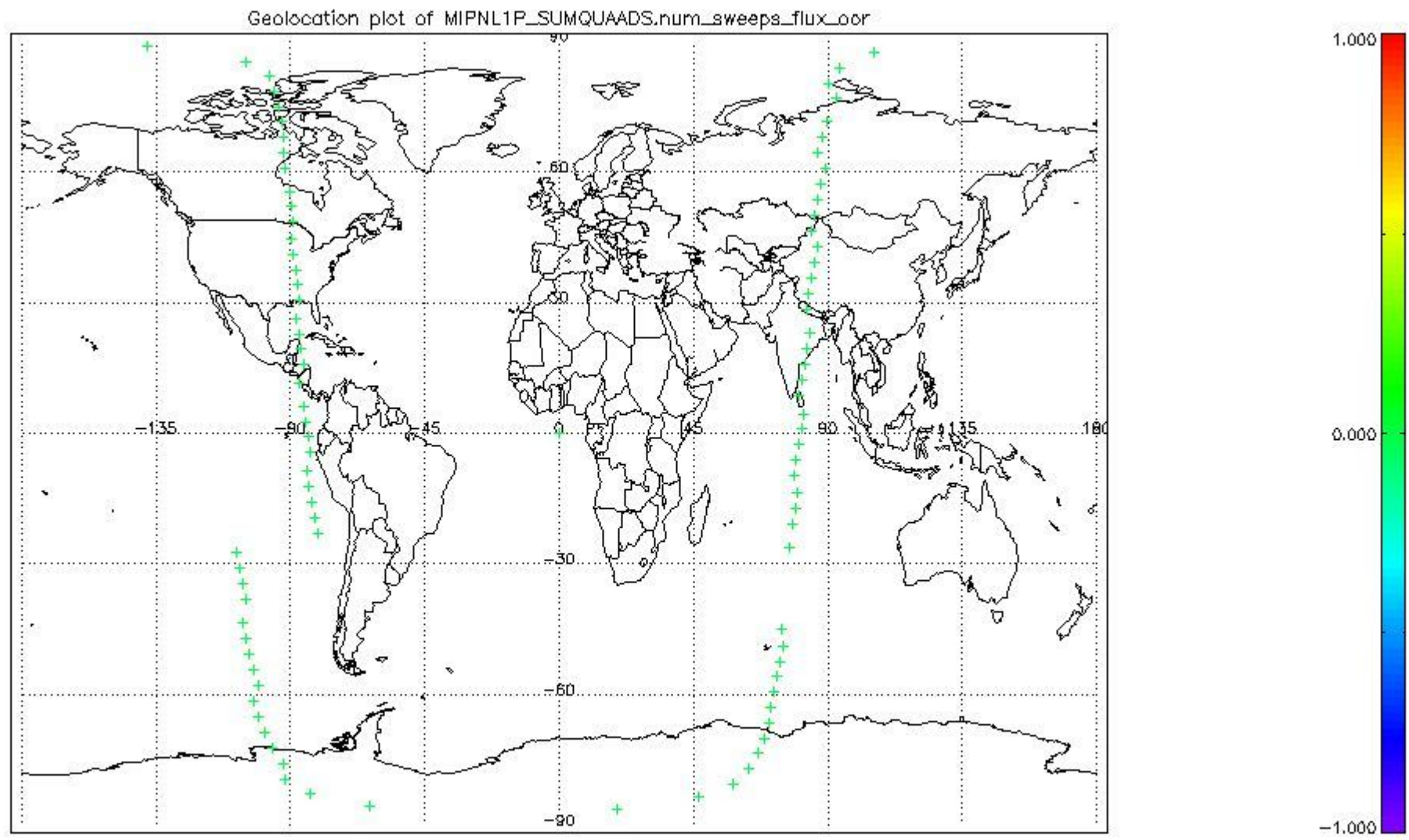
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_10.PNG



mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_11.PNG



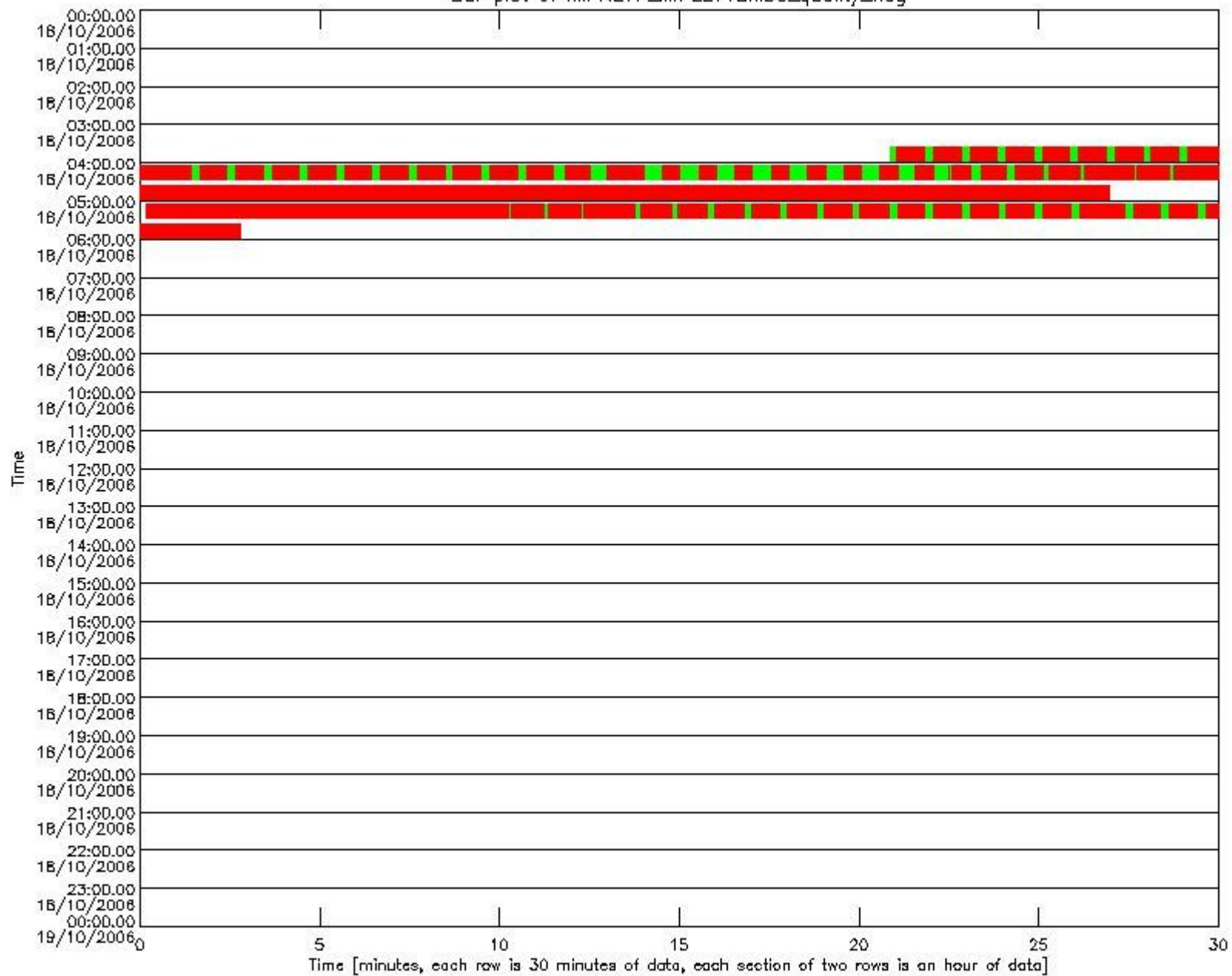
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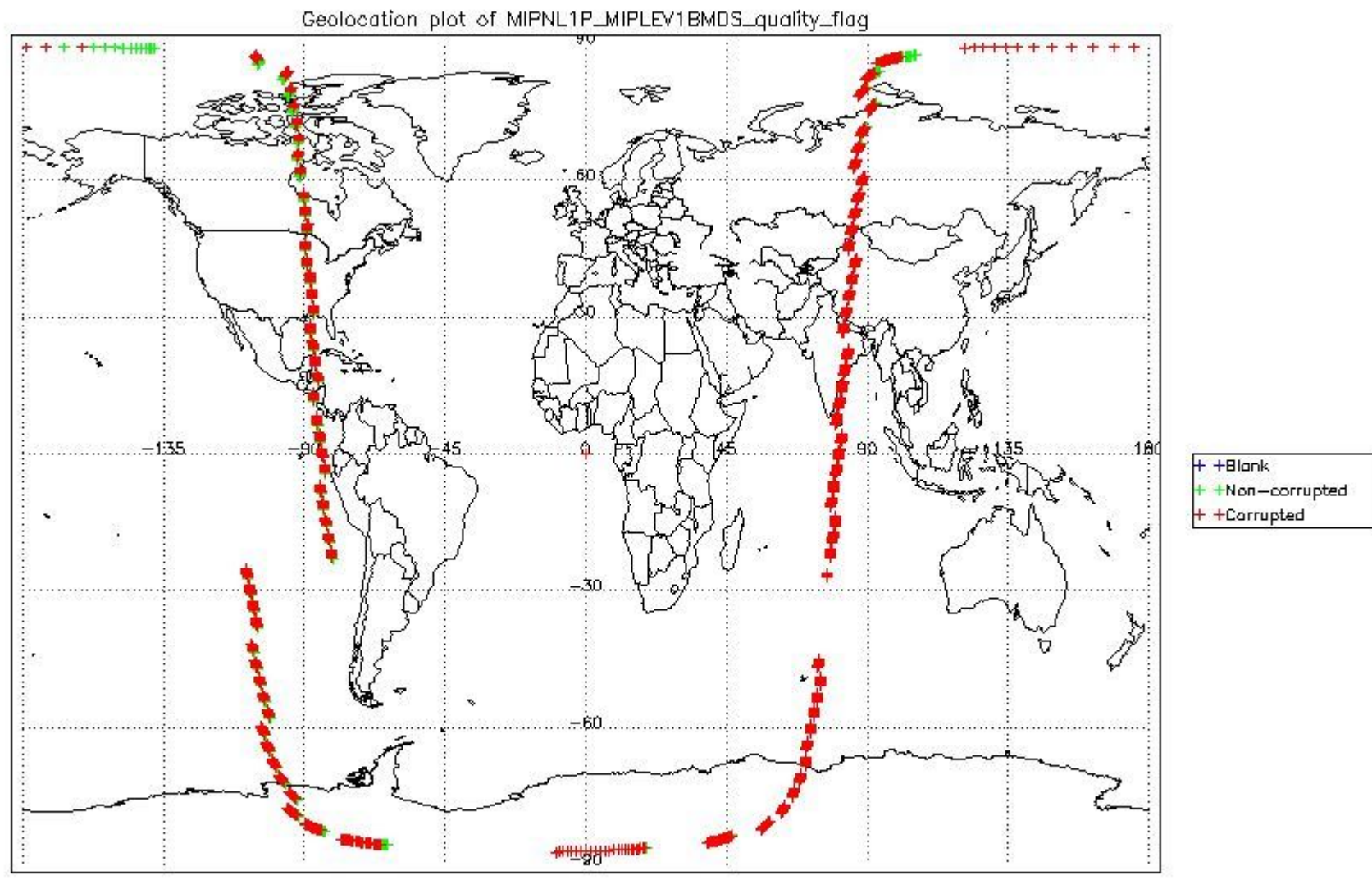


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_13.PNG

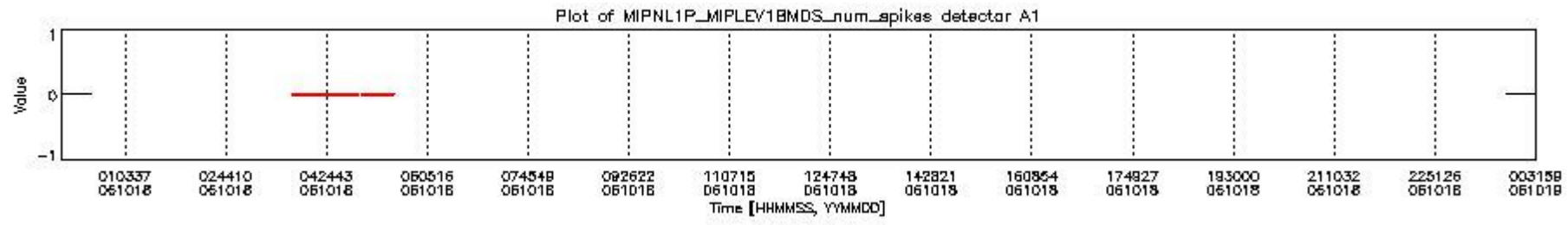
1.2.2 Trends and geolocation of MIPAS LEVEL 1 MDS

Bar plot of MIPNL1P_MIPLEV1BMDS_quality_flag



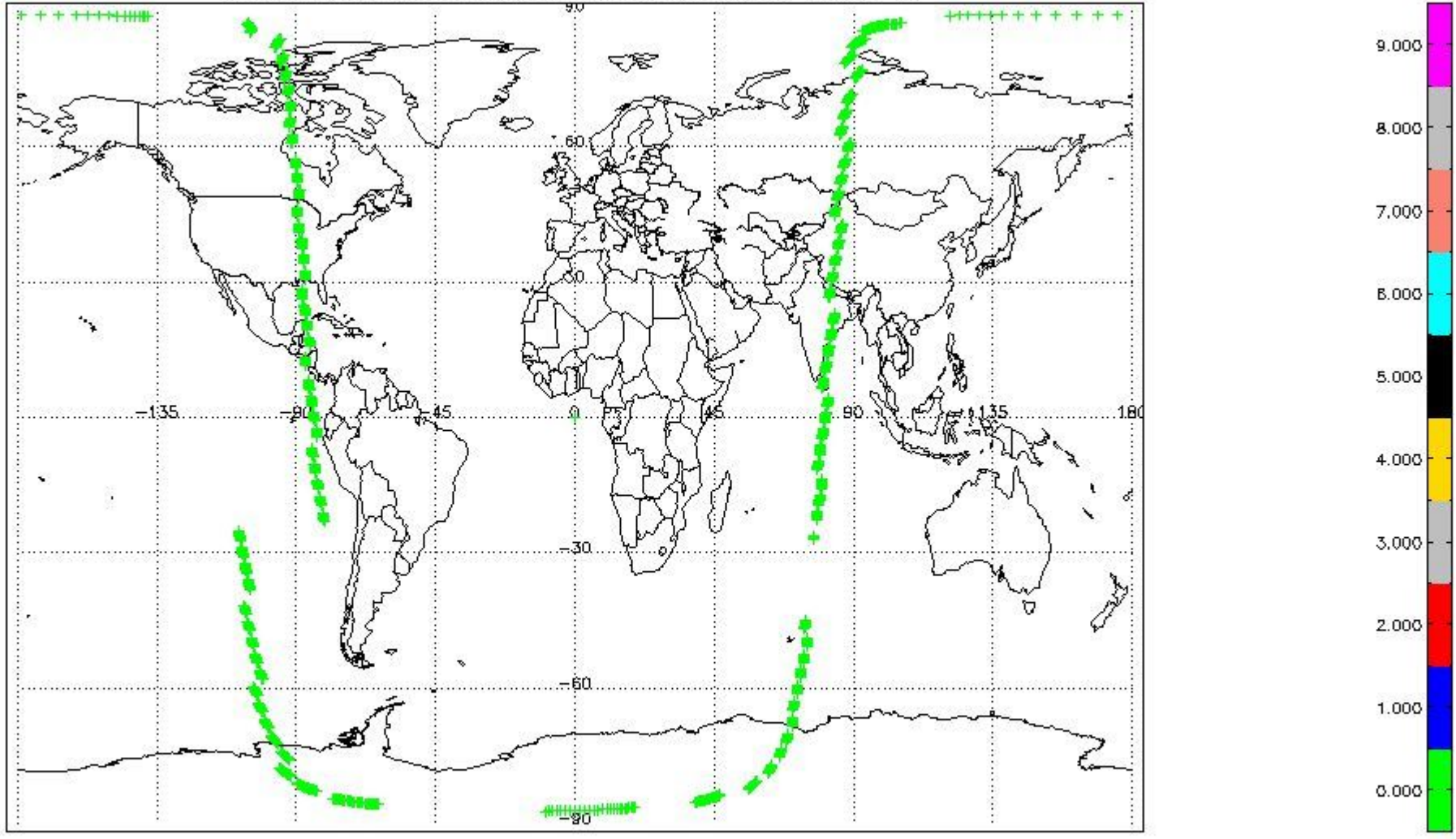


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_15.PNG

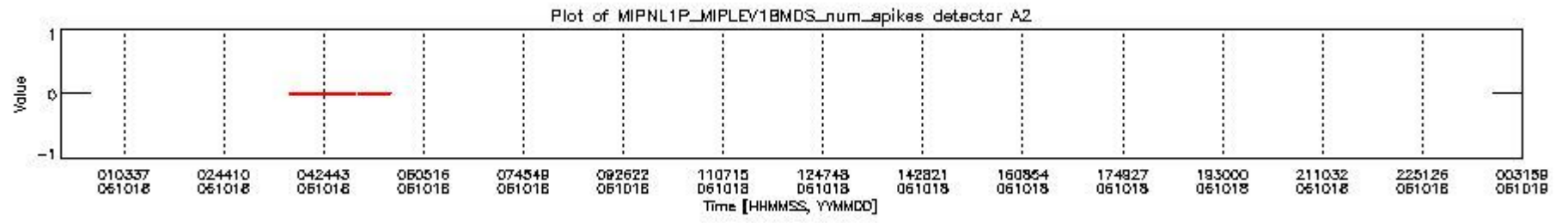


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_16.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A1

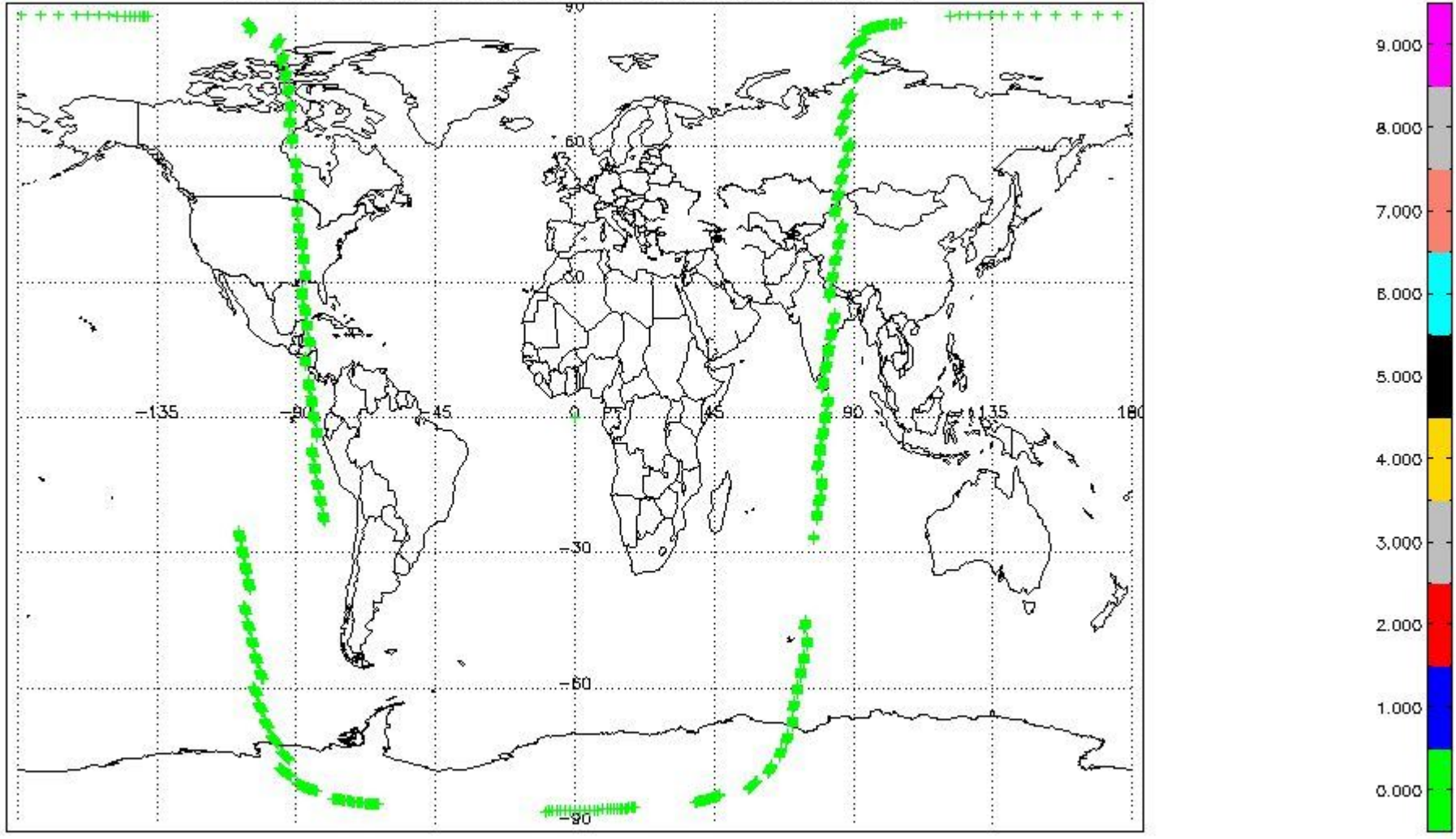


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_17.PNG

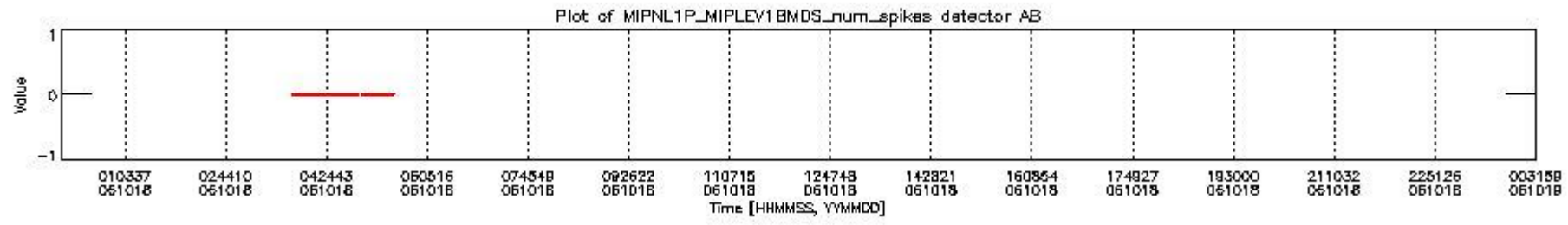


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_18.PNG

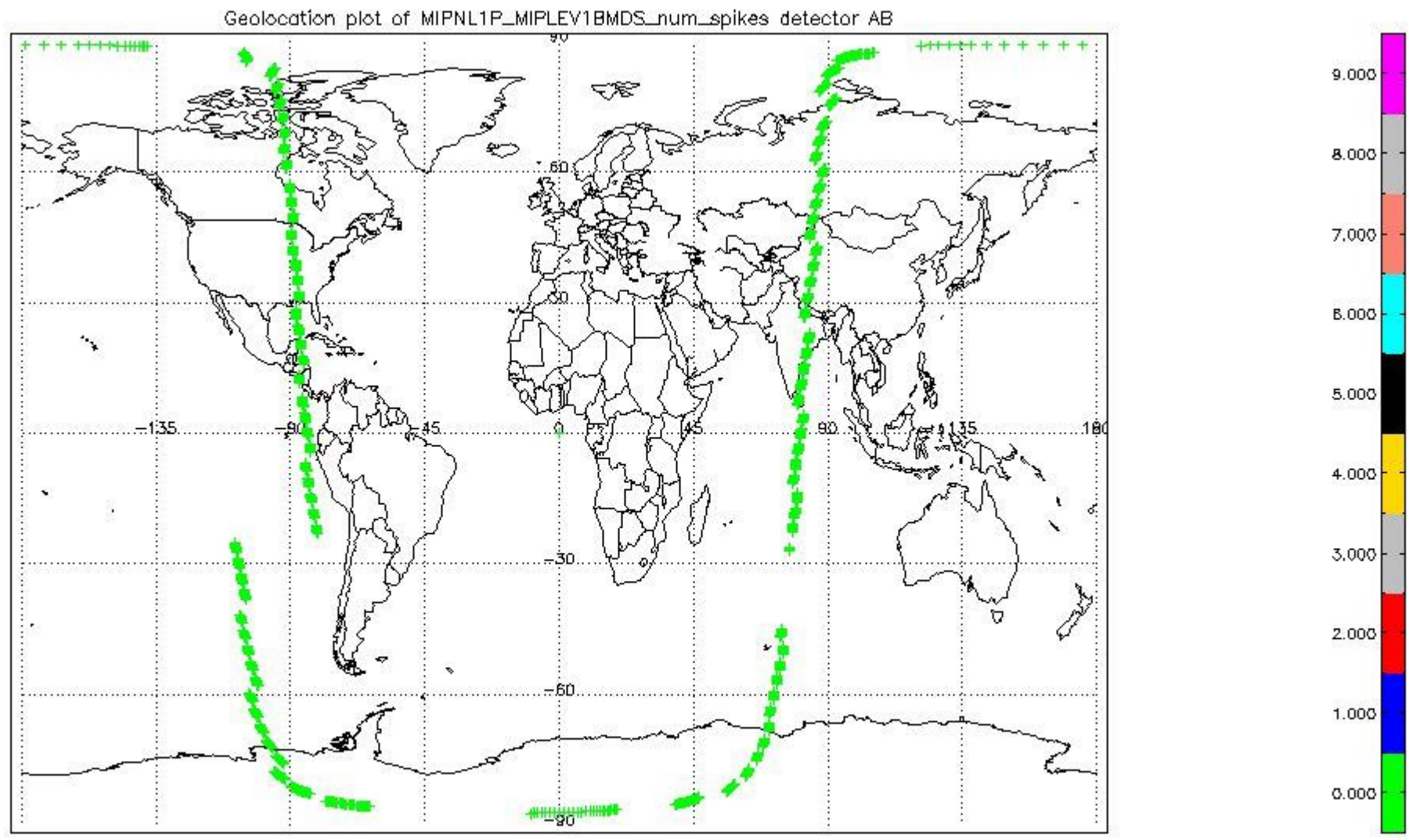
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A2



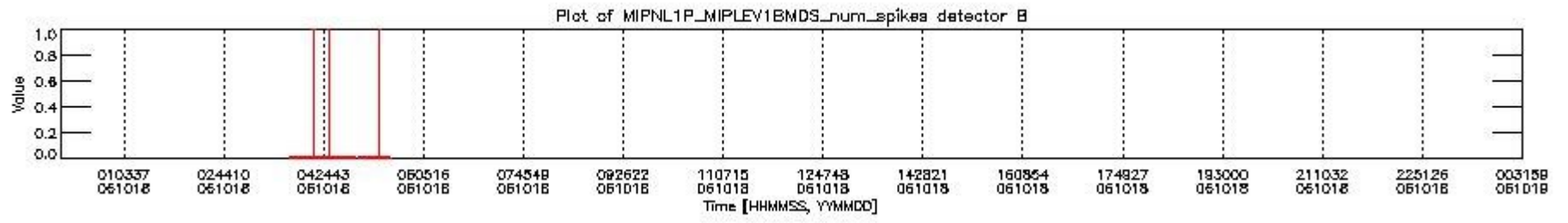
mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_19.PNG



mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_20.PNG

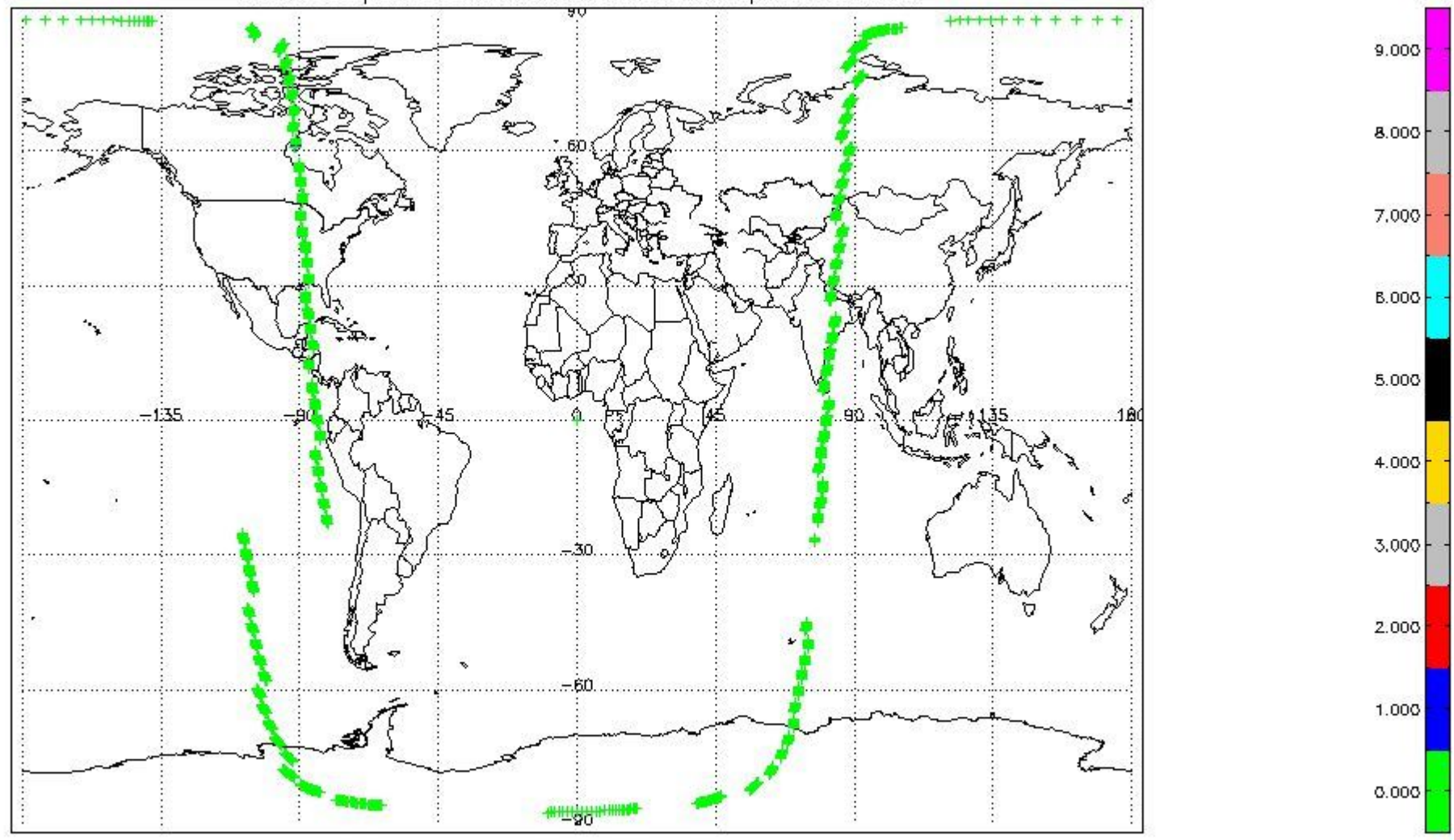


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_21.PNG



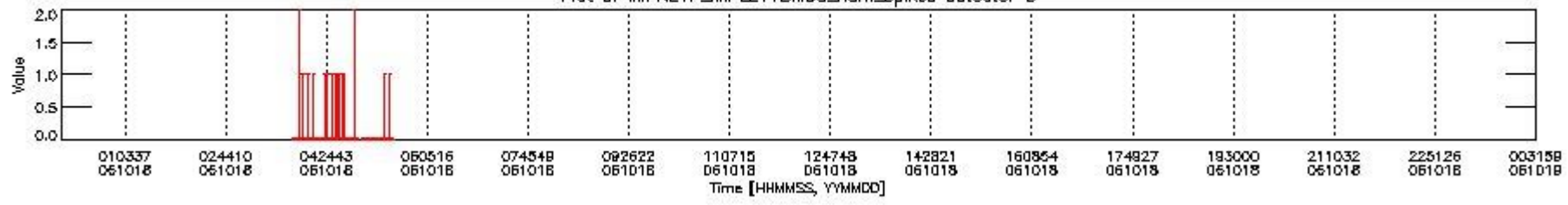
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_22.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector B



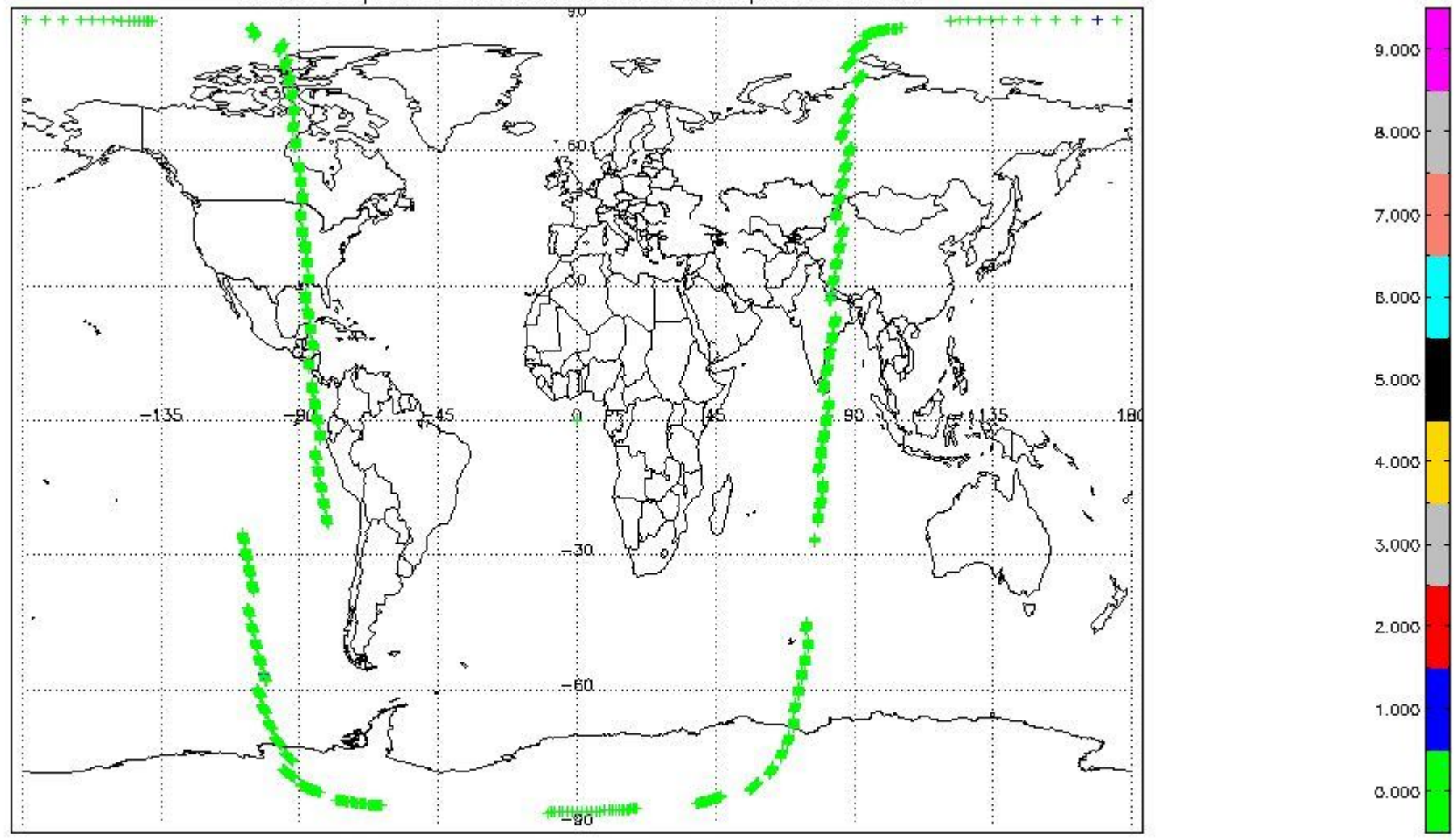
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_23.PNG

Plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector C



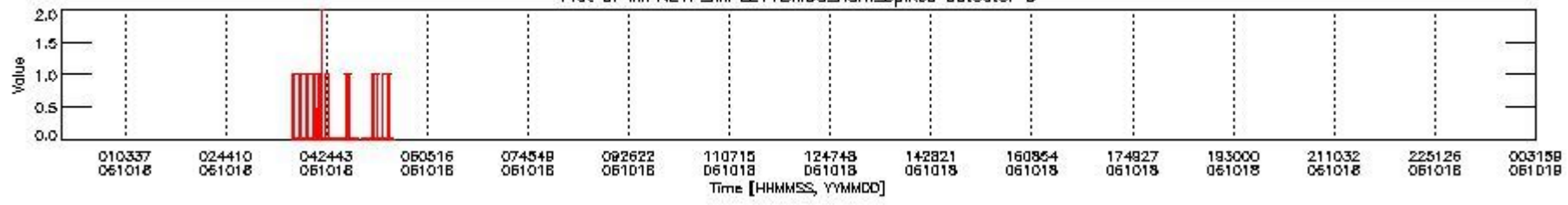
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_24.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector C



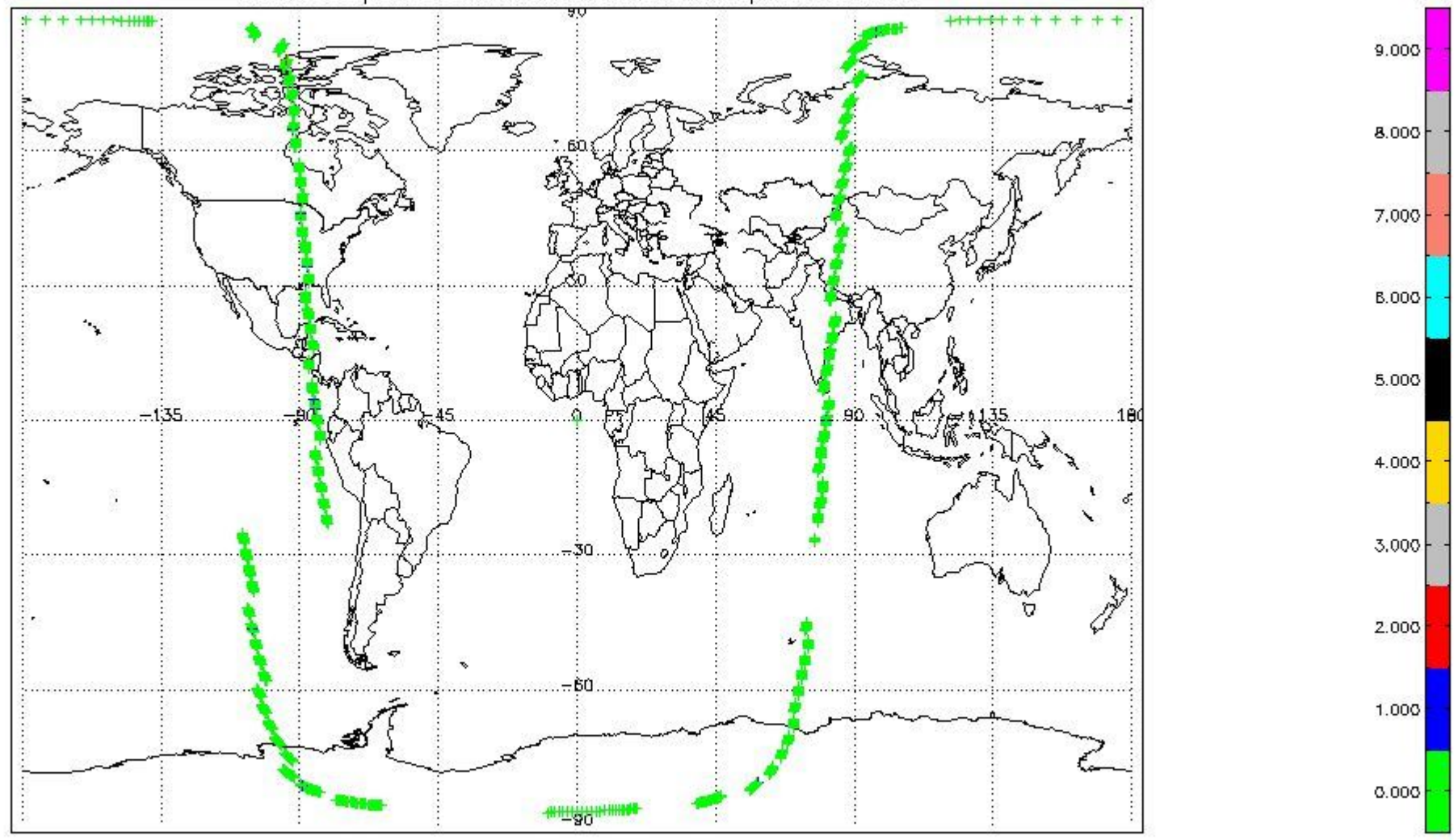
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_25.PNG

Plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector D

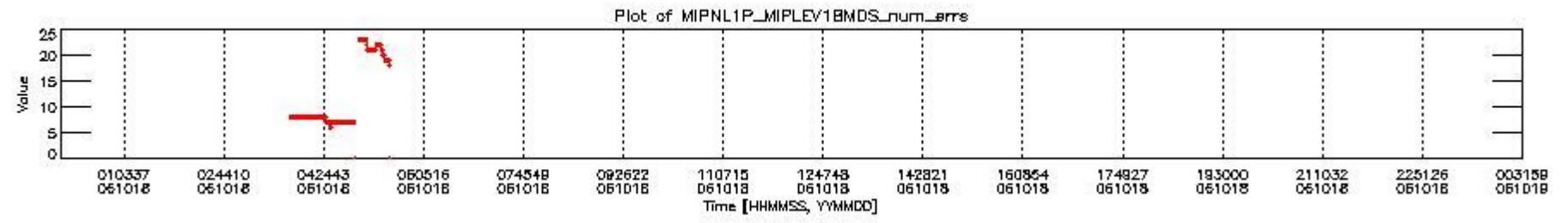


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_26.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector D

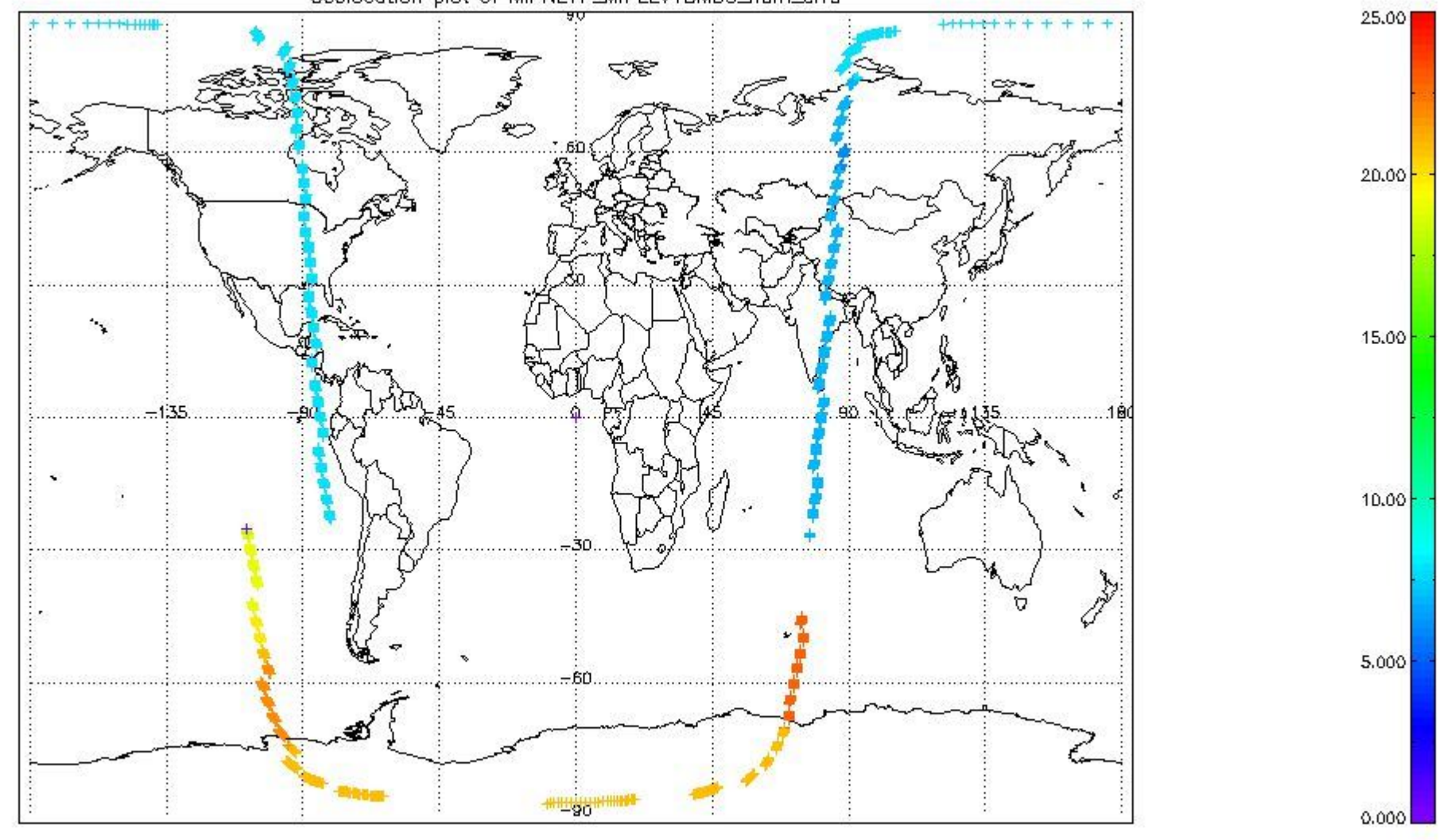


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_27.PNG

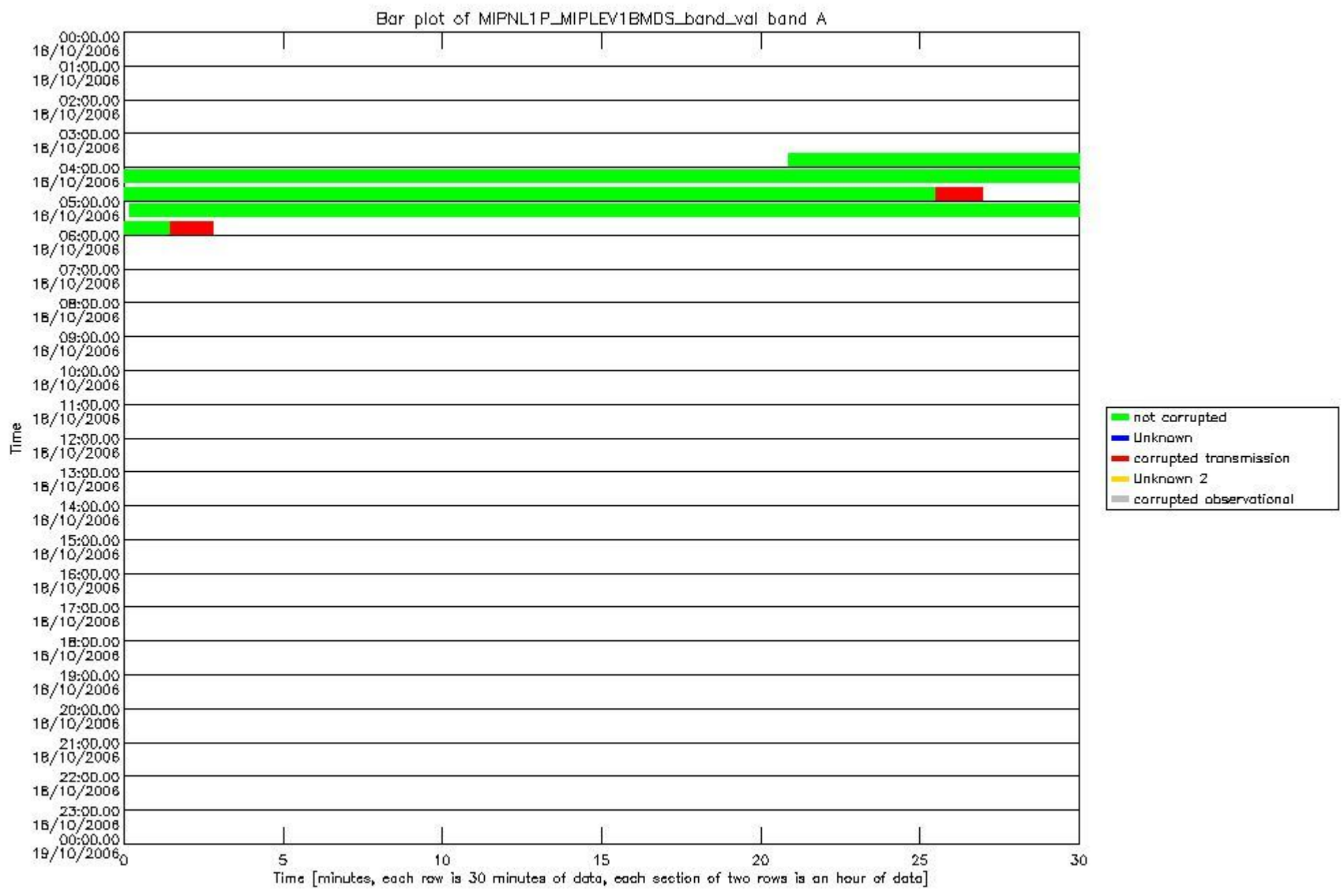


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_28.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_errs

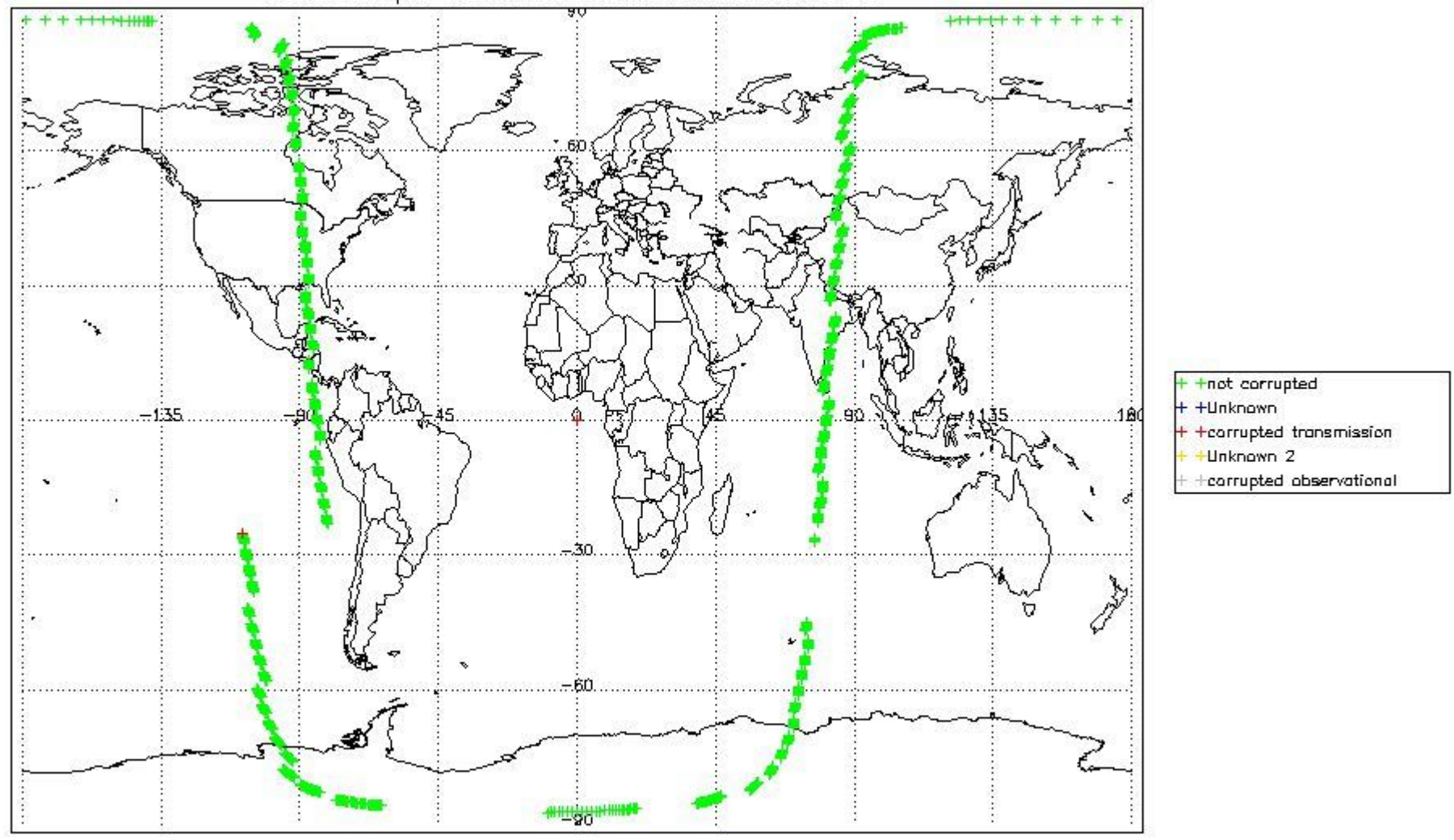


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_29.PNG

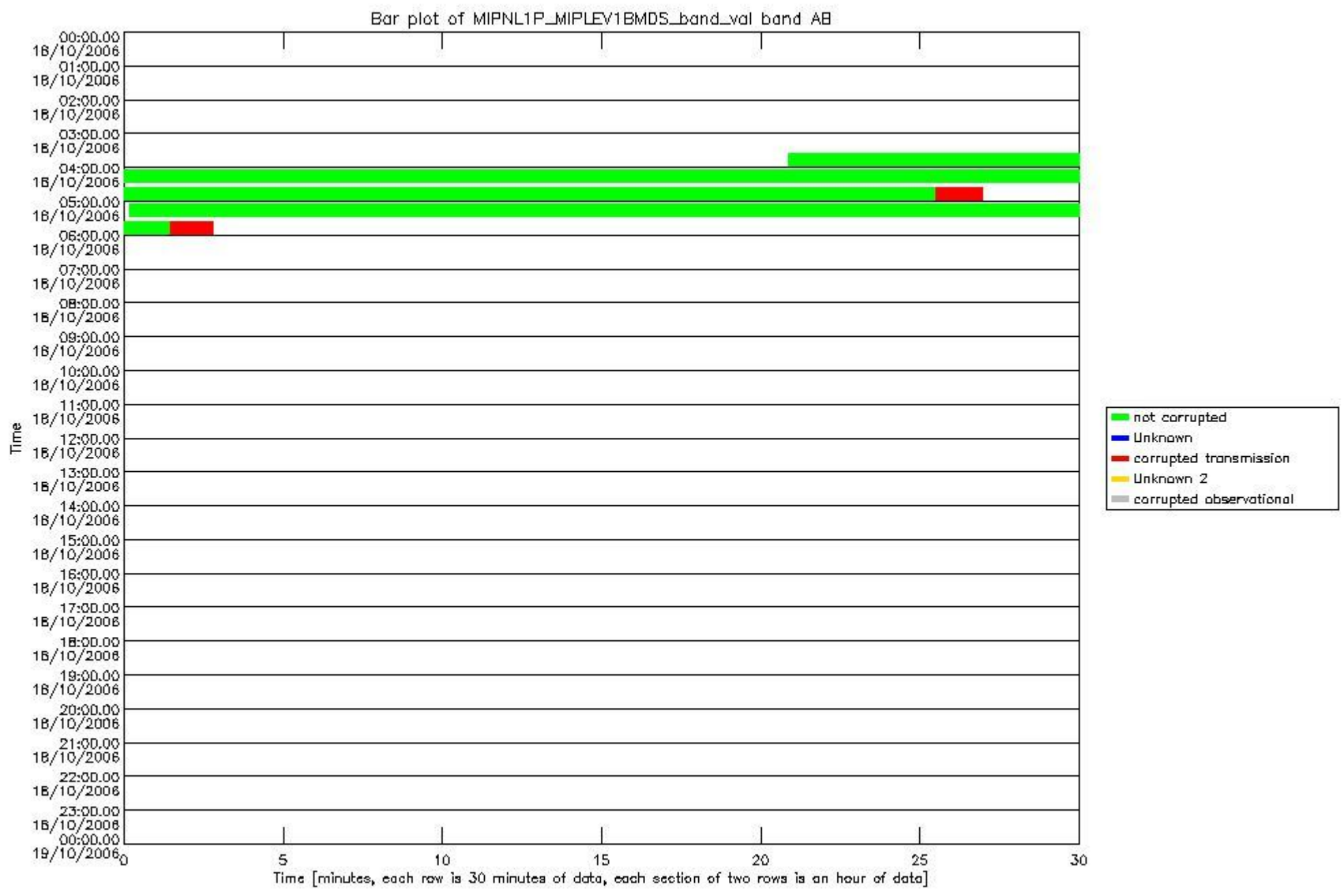


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_30.PNG

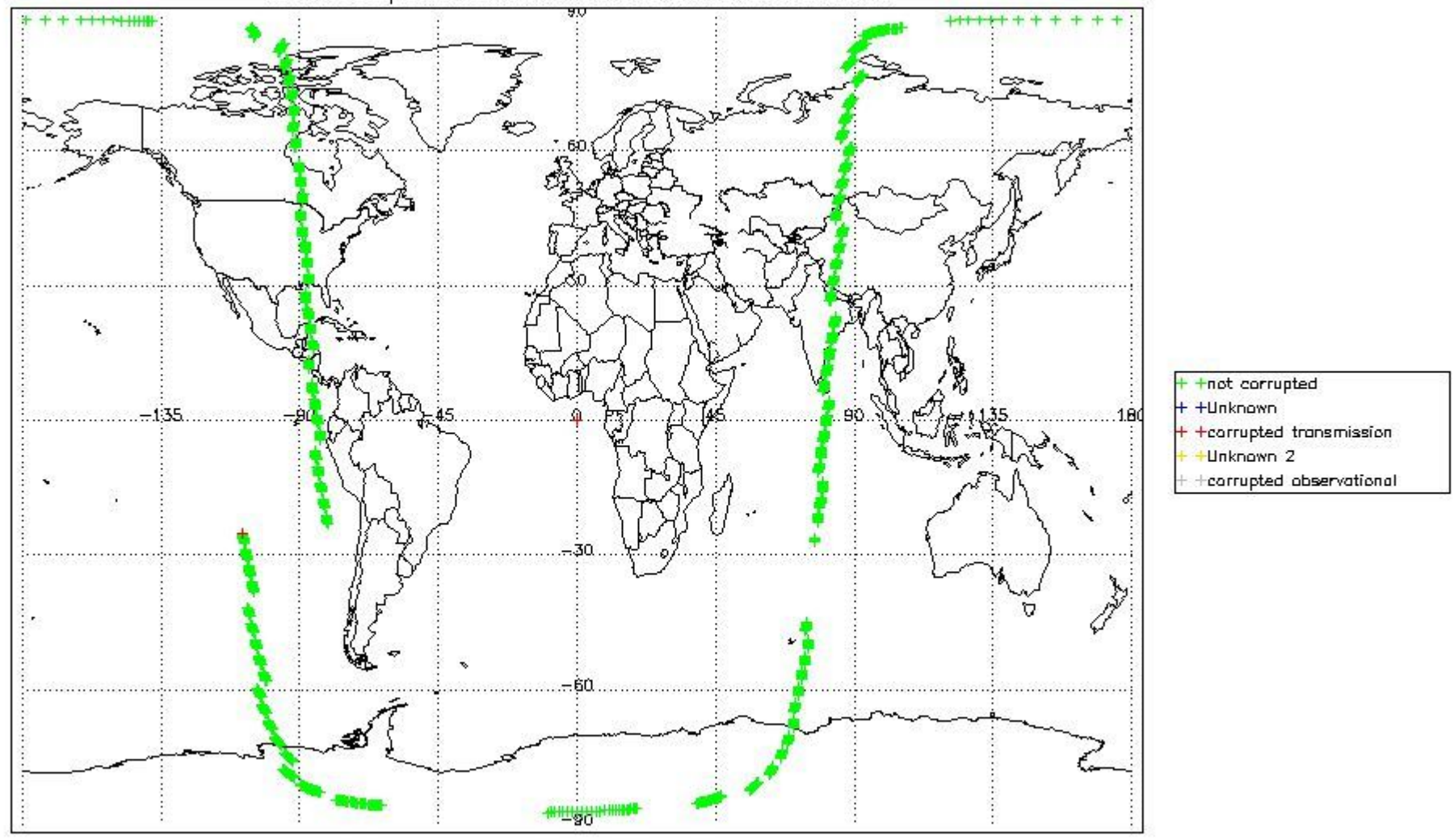
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band A



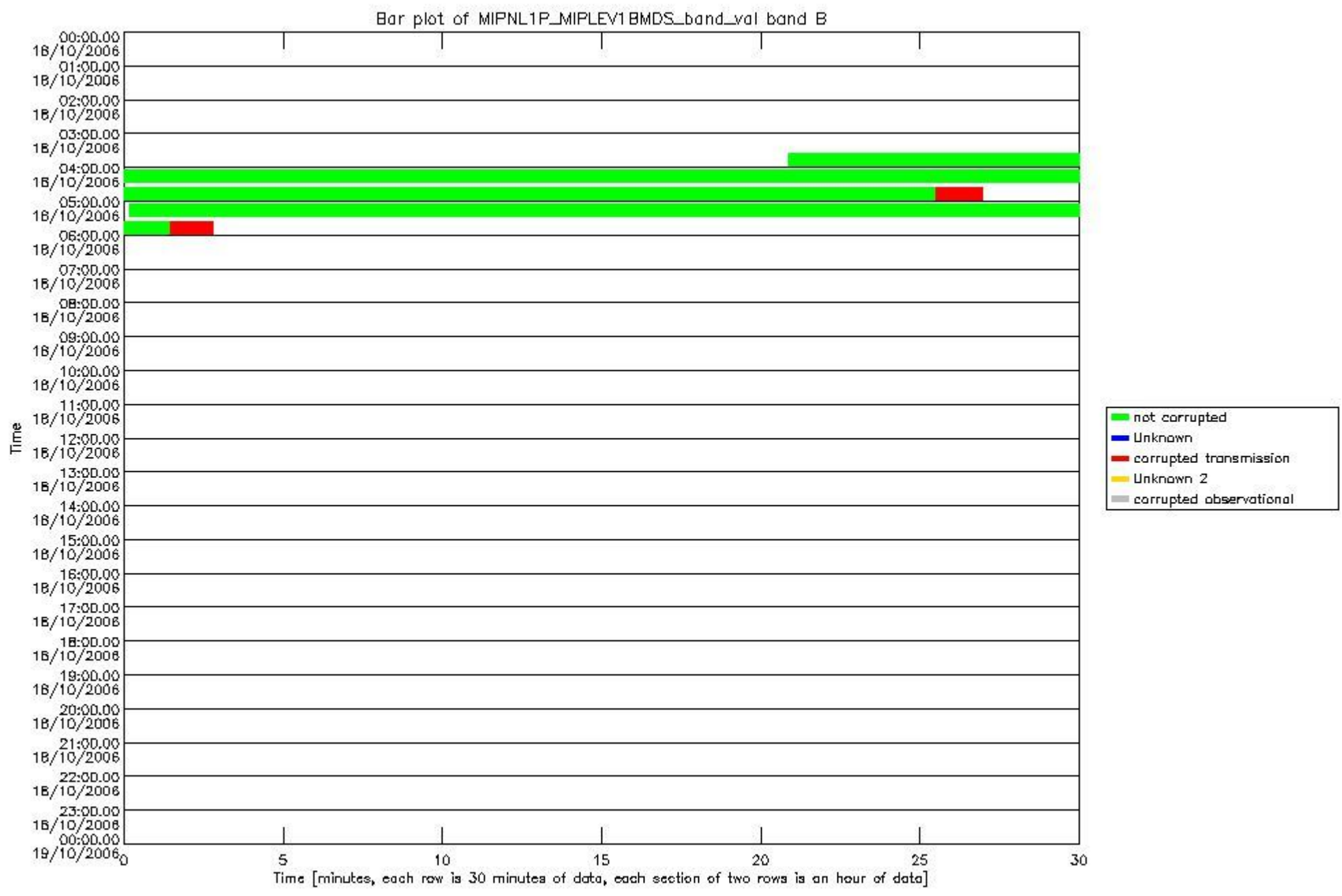
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_31.PNG



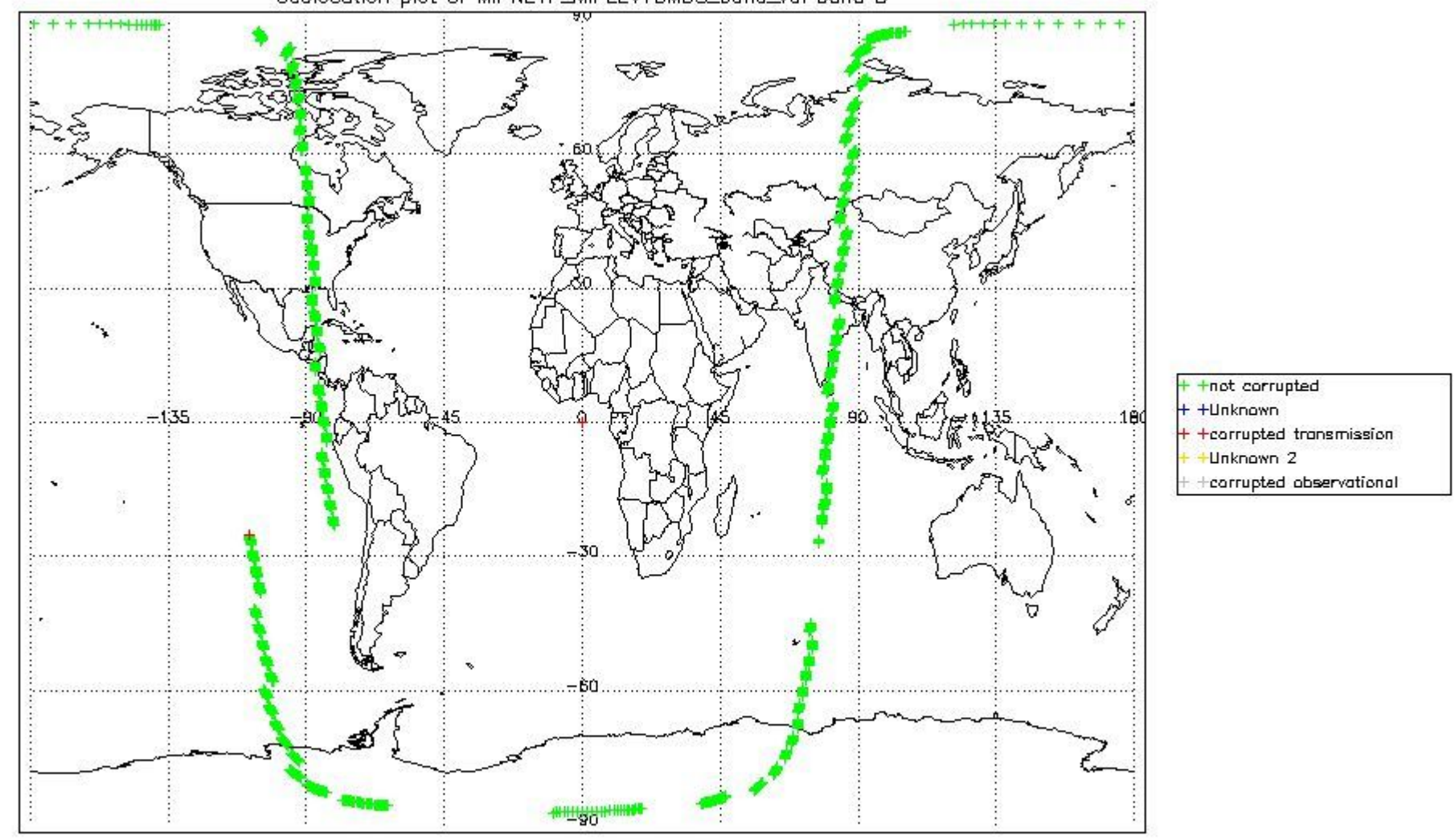
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band AB



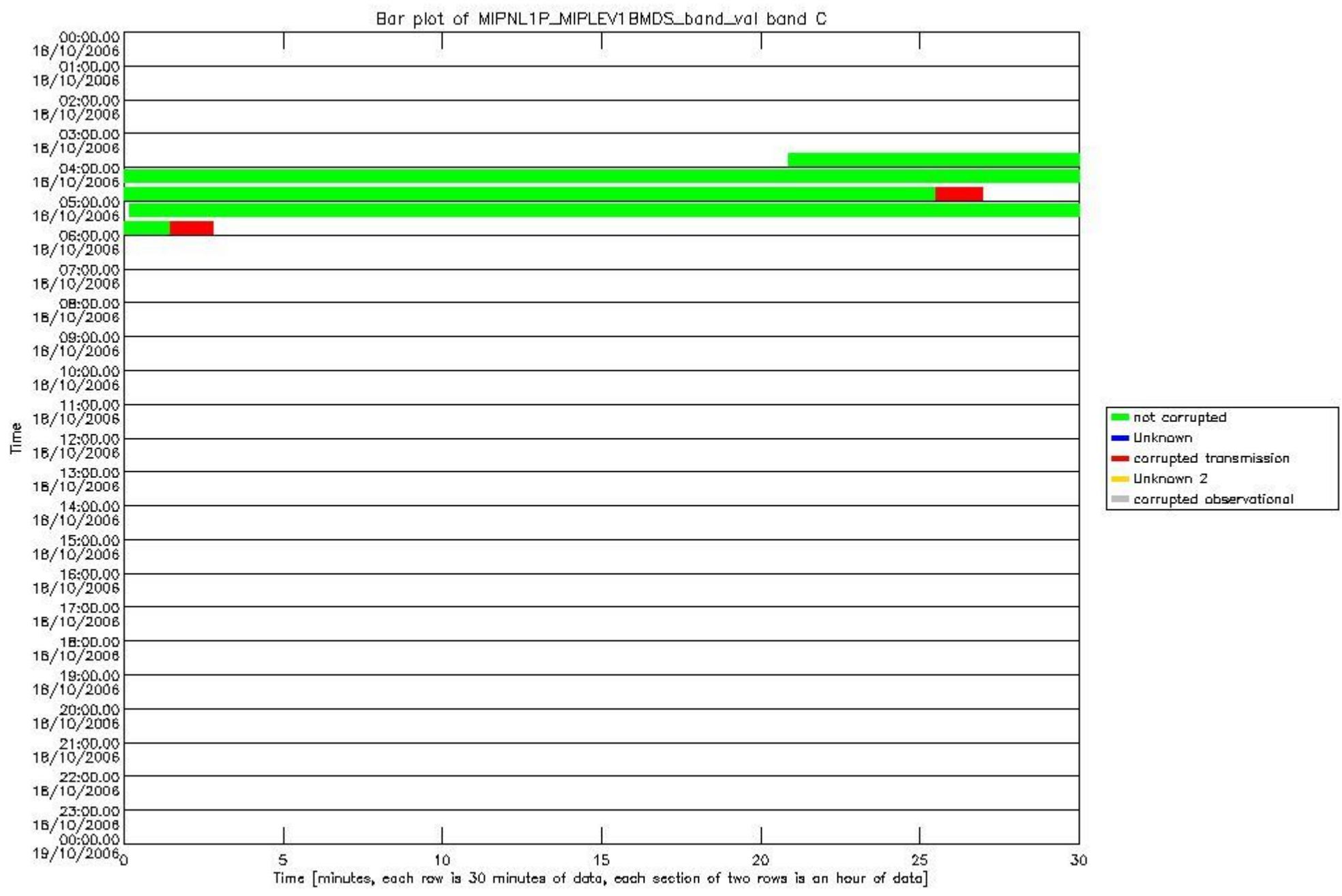
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_33.PNG



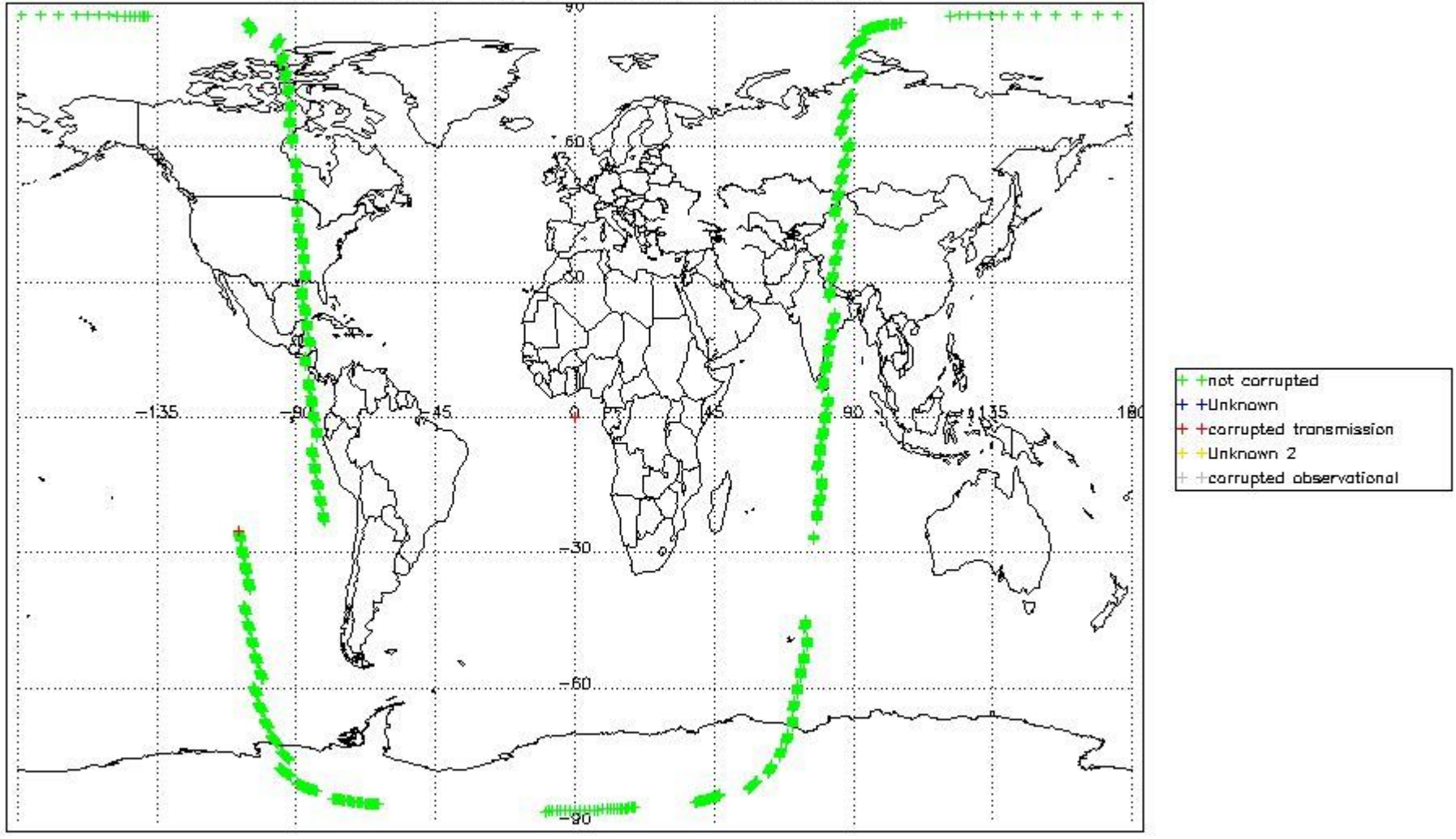
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band B



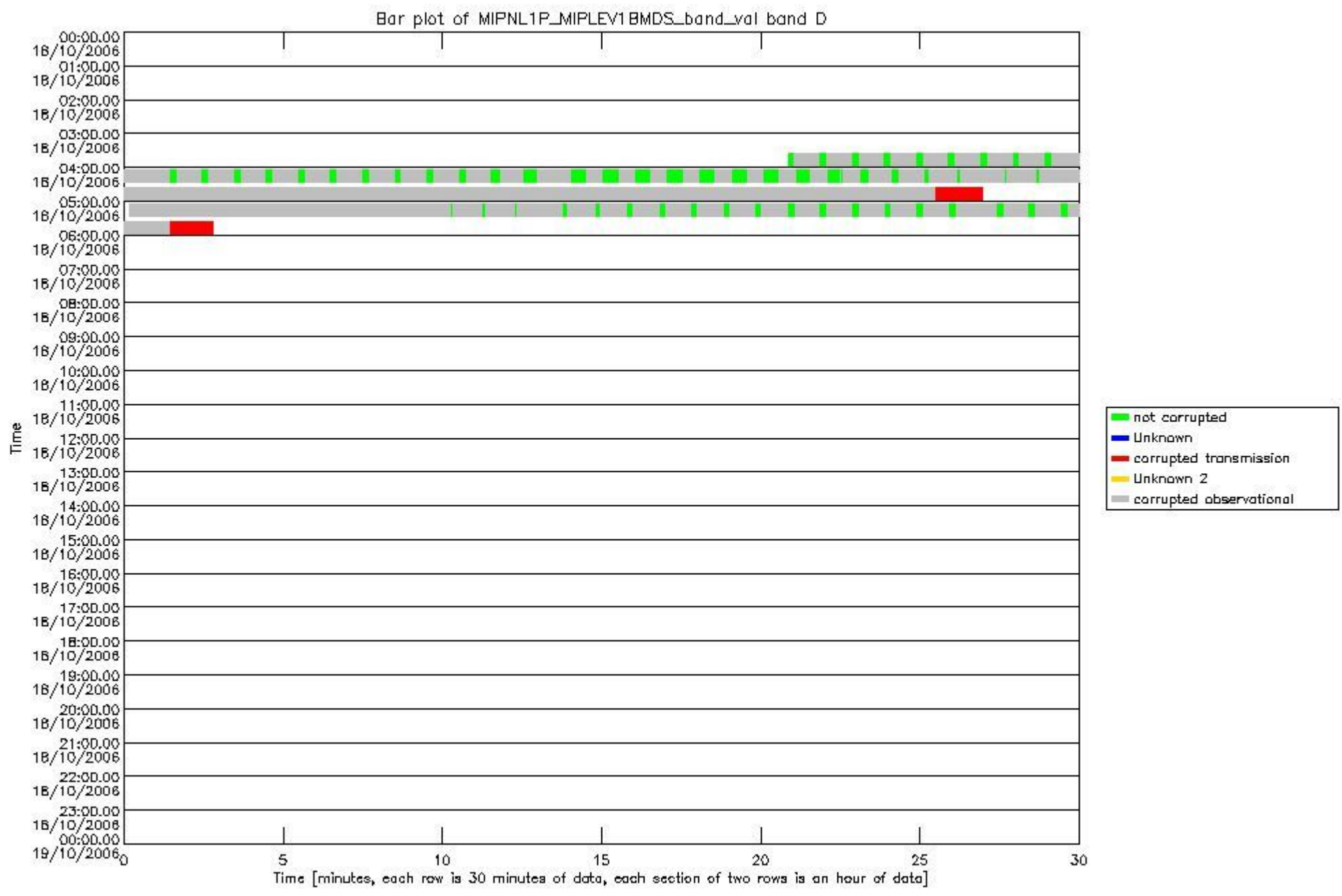
mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_35.PNG



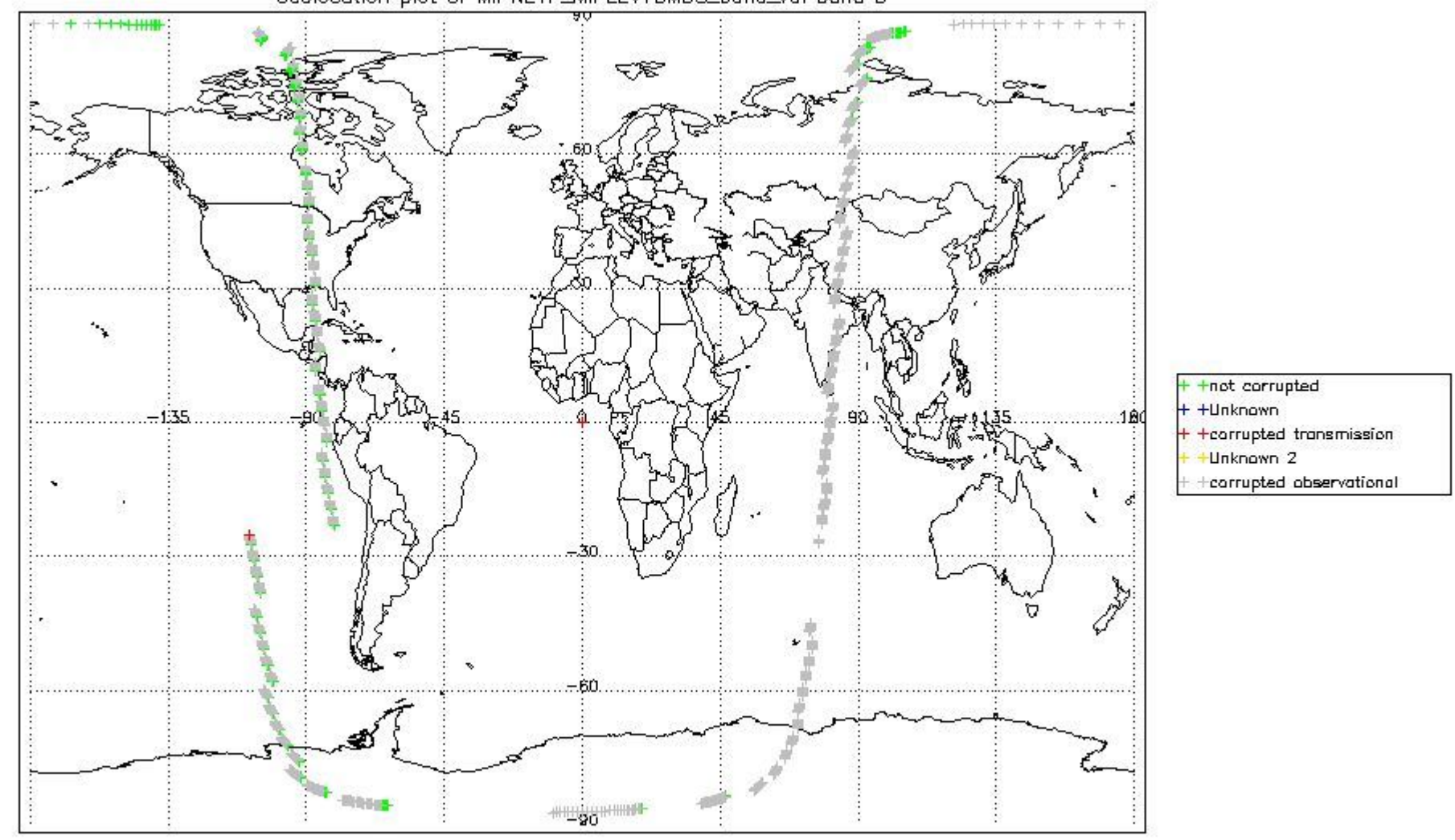
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band C



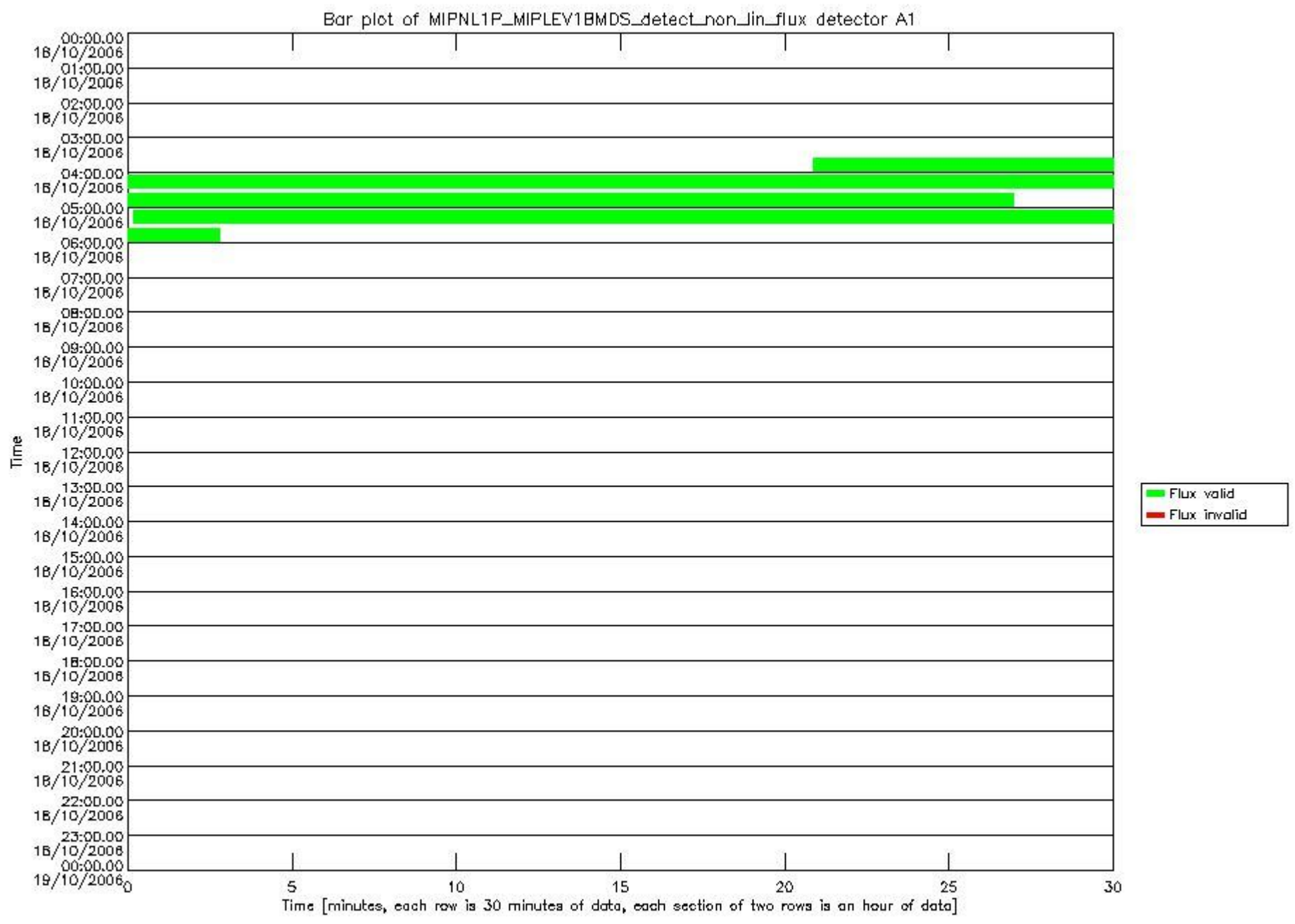
mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_37.PNG



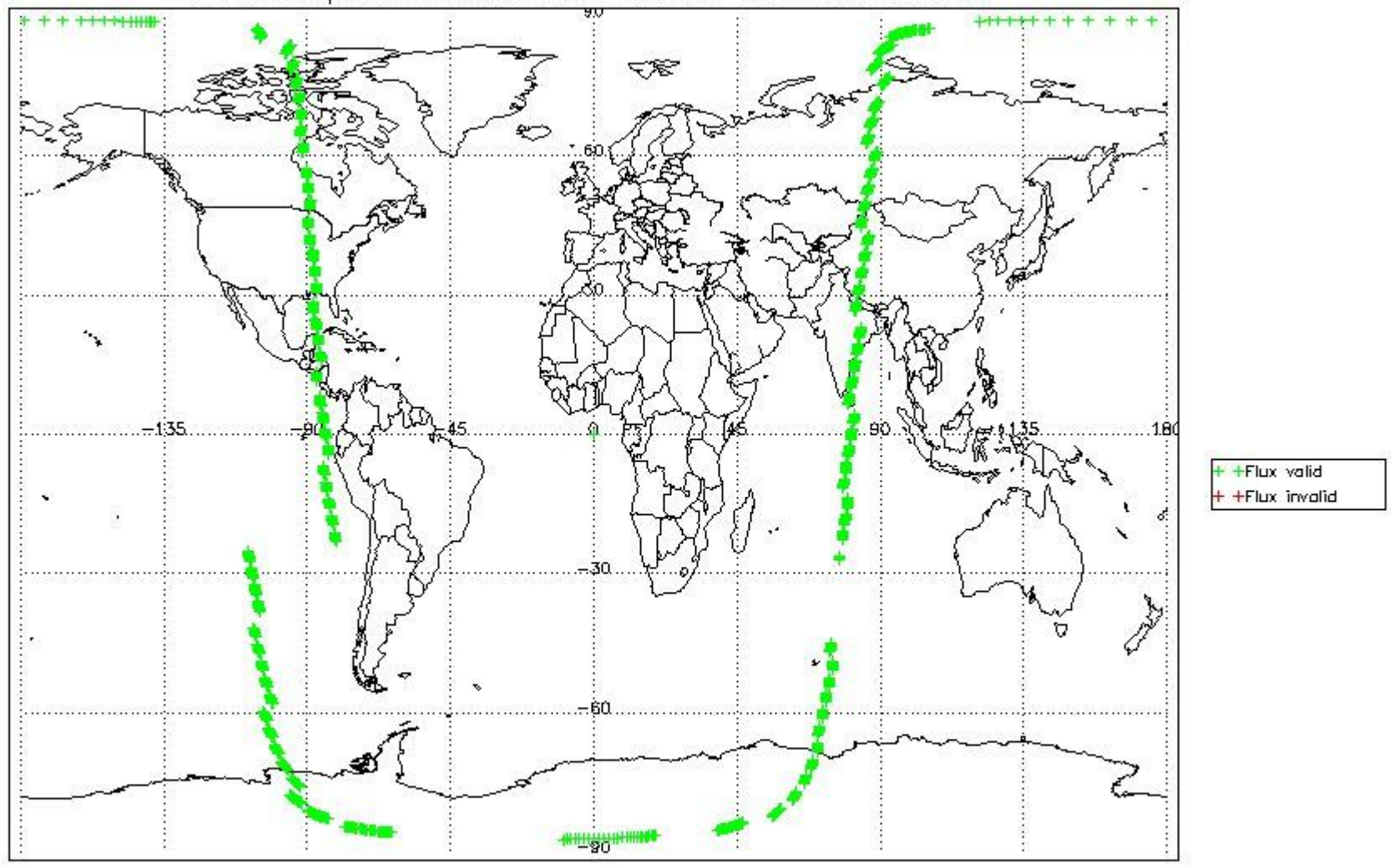
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band D



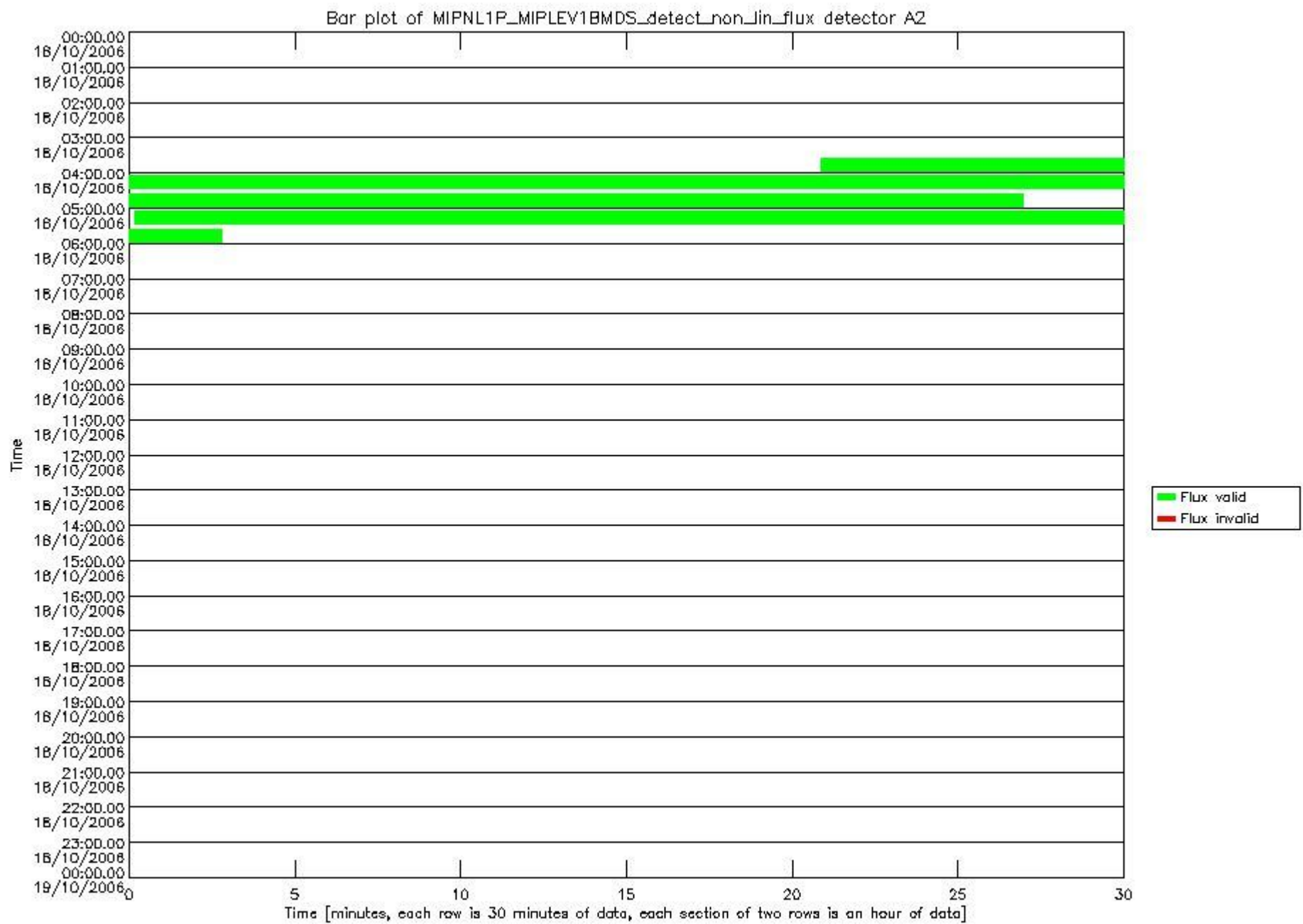
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_39.PNG



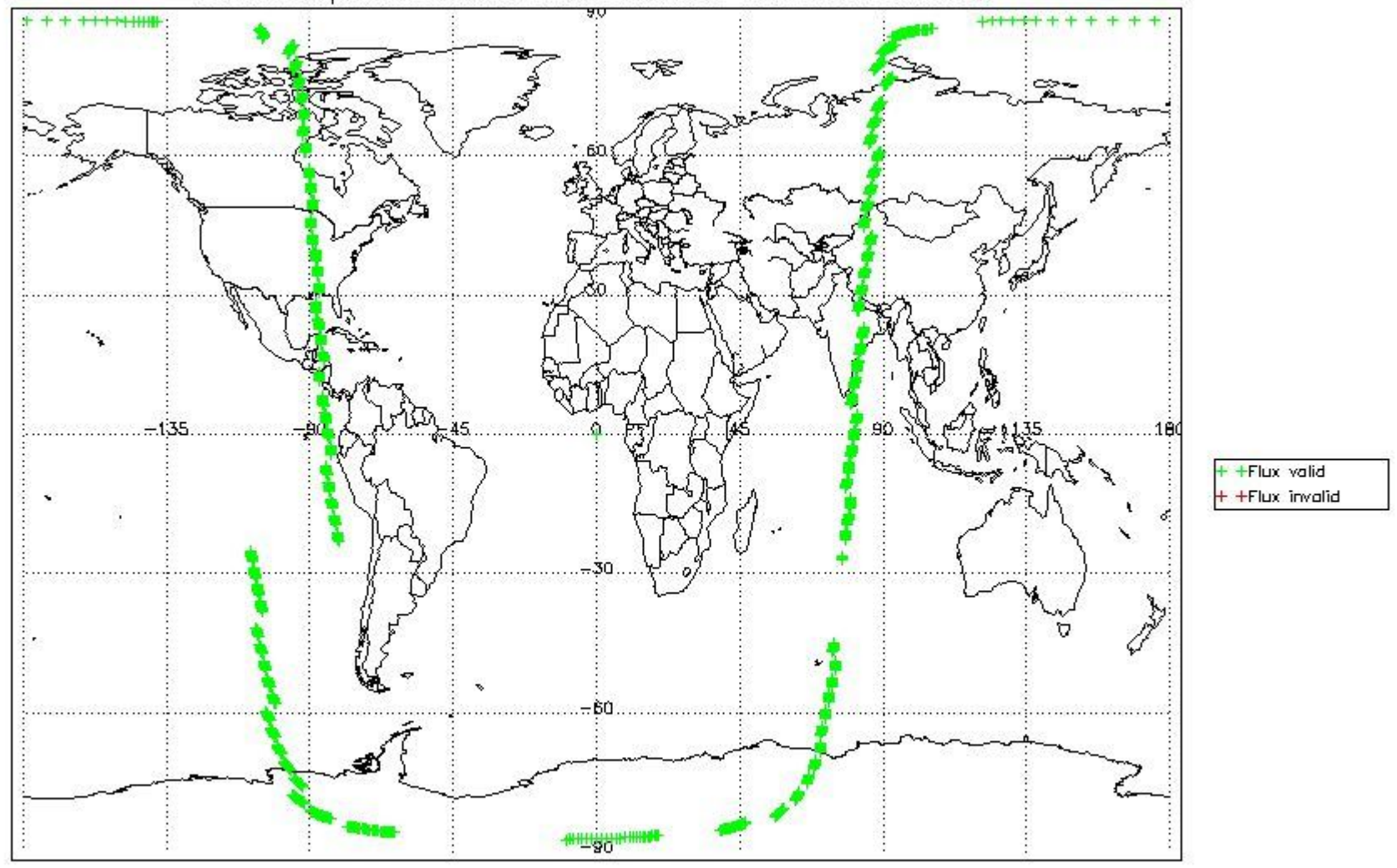
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A1



mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_41.PNG

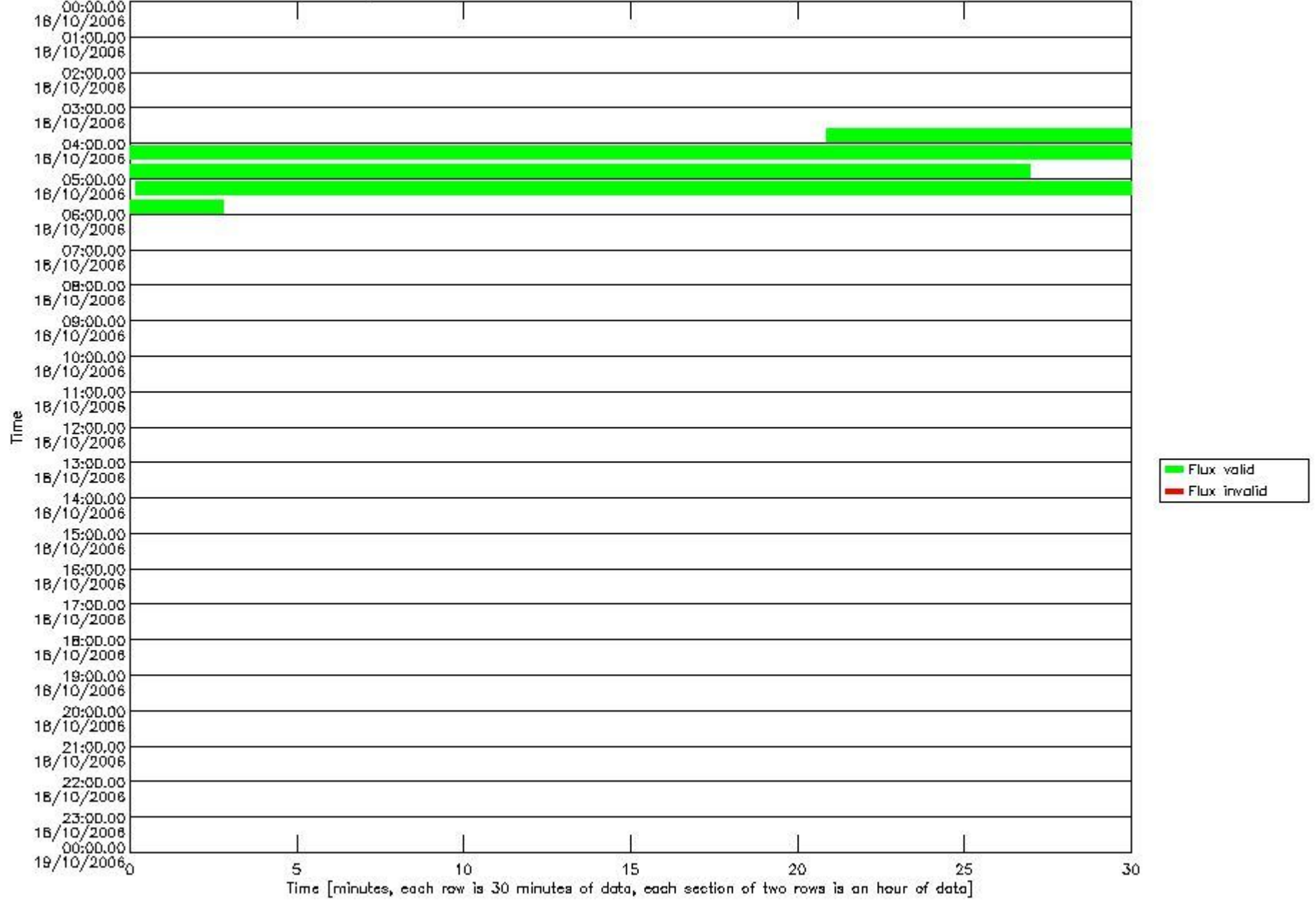


Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A2

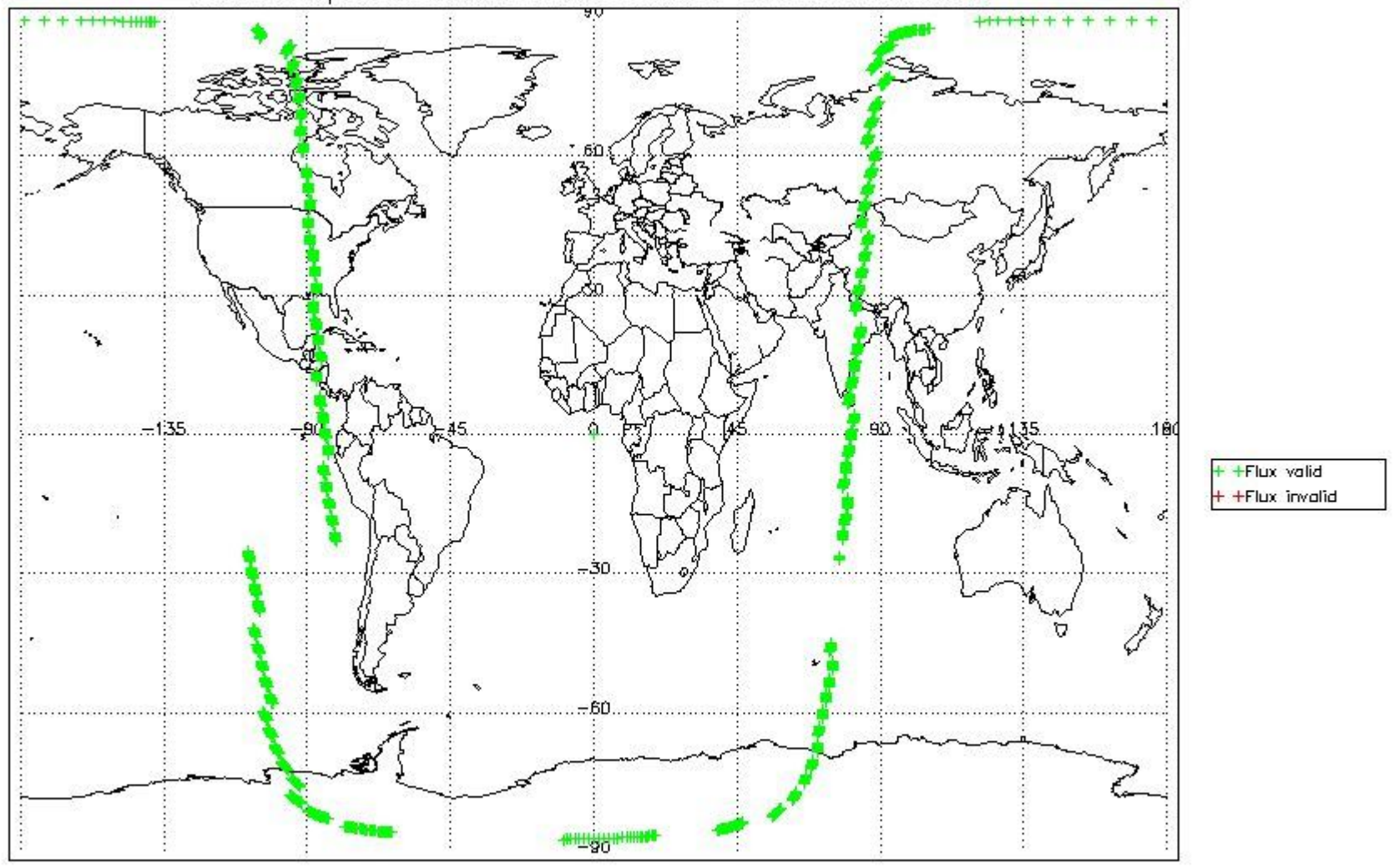


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_43.PNG

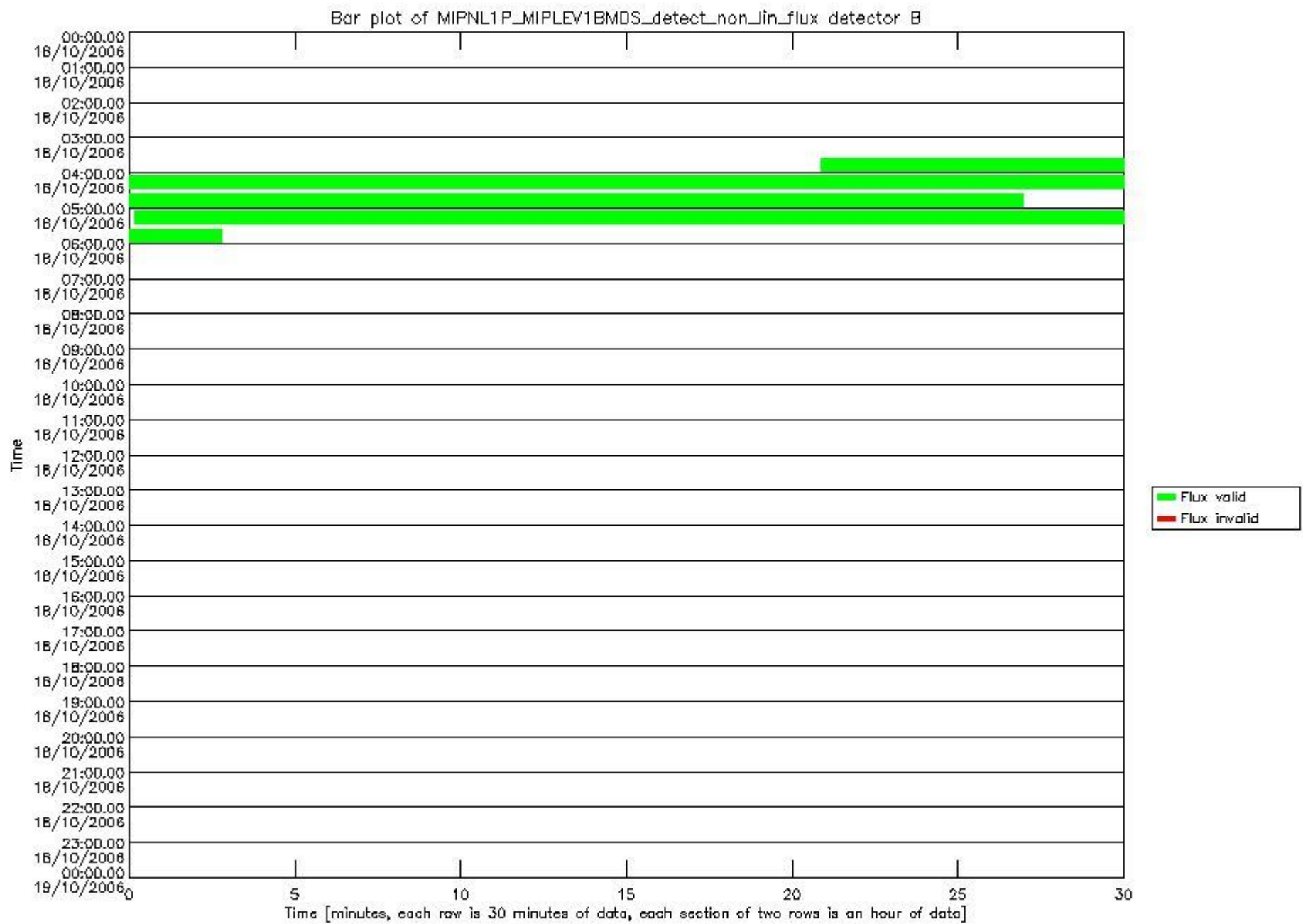
Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector AB

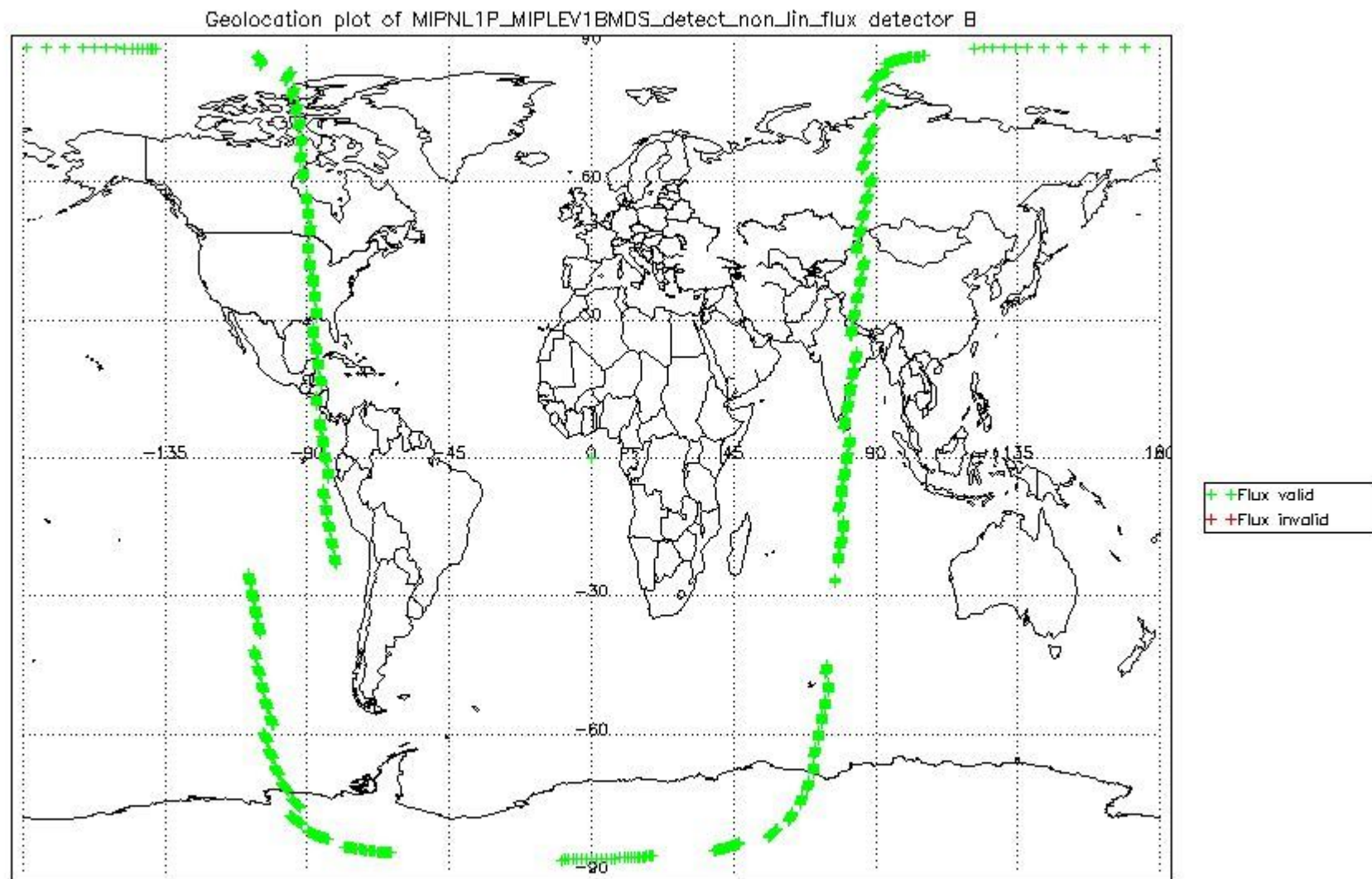


Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector AB



mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_45.PNG





mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_47.PNG

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). A maximum of 19 sweeps per scan can be displayed.

The vertical axis shows the NESR data point index (starts at 0), which relates to wavenumber. A maximum of 200 wavenumber-points per NESR-measurement can be displayed.

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.

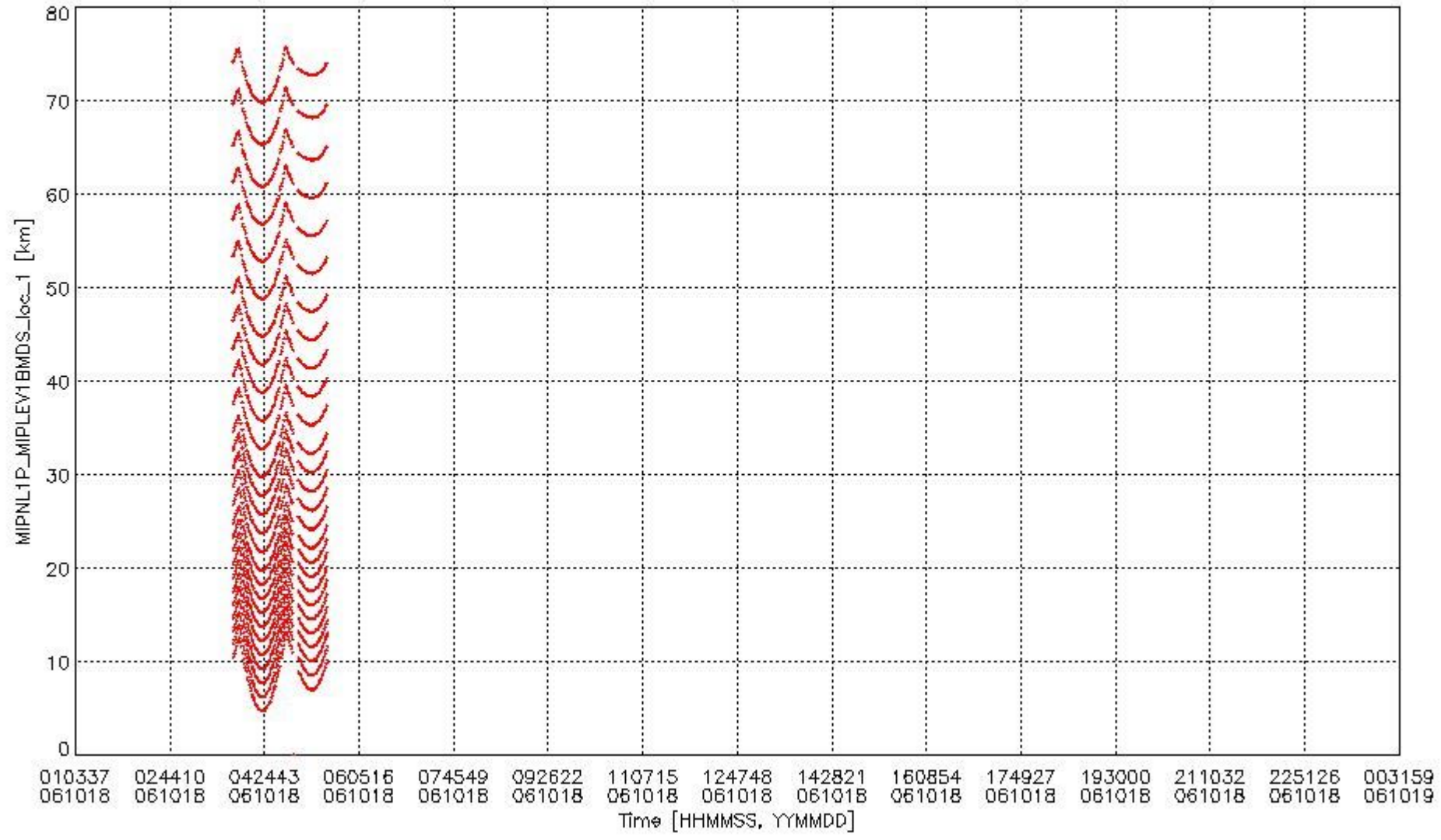


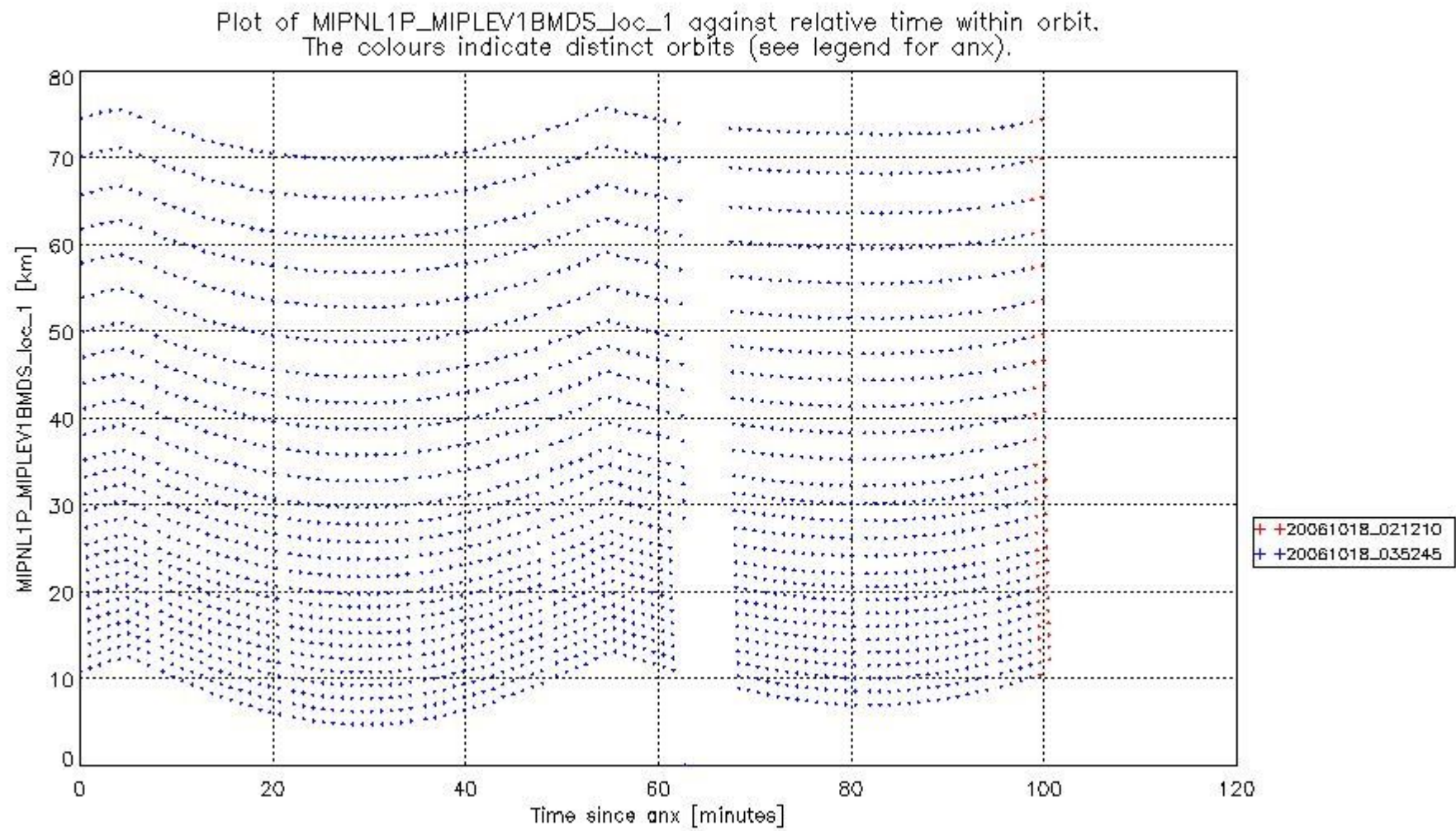
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_48.PNG

1.3 Physical Quality Indicators

1.3.1 Tangent altitude

Plot of MIPNL1P_MIPLEV1BMDS_loc_1 against time.
The vertical grid lines indicate estimated anx events.





mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_50.PNG

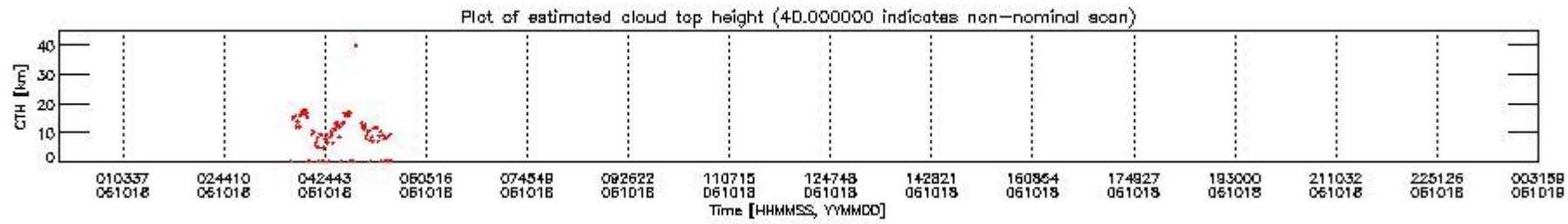
1.3.2 Cloud top height

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)

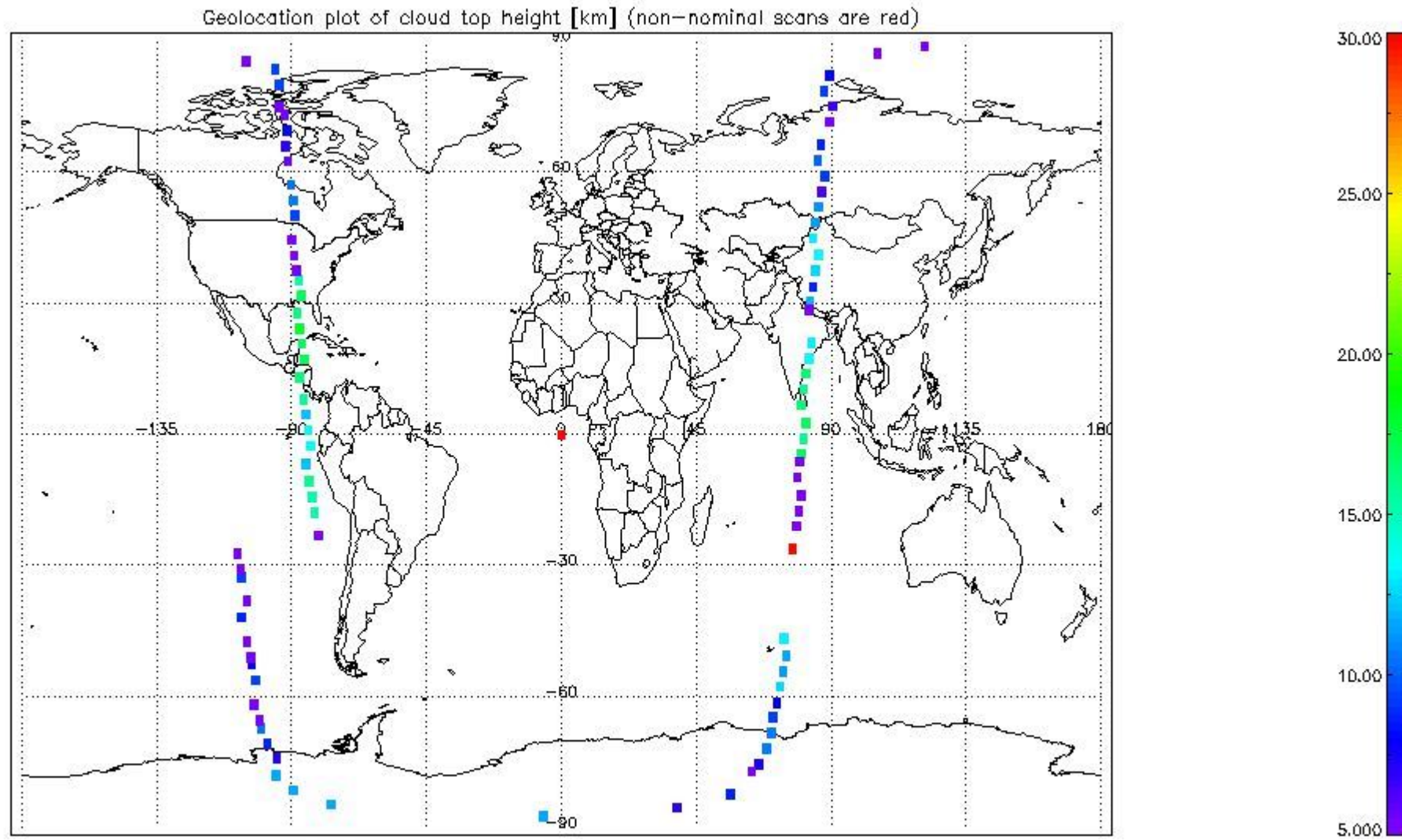
The non-nominal scans mentioned in the plots are scans that are rejected by the cloud top height algorithm for several reasons:

- Unconsidered instrument mode. The algorithm only considers nominal (39169) and special event (39172) instrument modes.
- Incomplete scan (missing sweeps)

Item	Value
Microwindow 1 description	Average of band A pixels 1651-1680
Microwindow 2 description	Average of band A pixels 2357-2390
cloud index threshold (mw1/mw2)	1.8000000
Tangent height limit	40.000000



mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_51.PNG



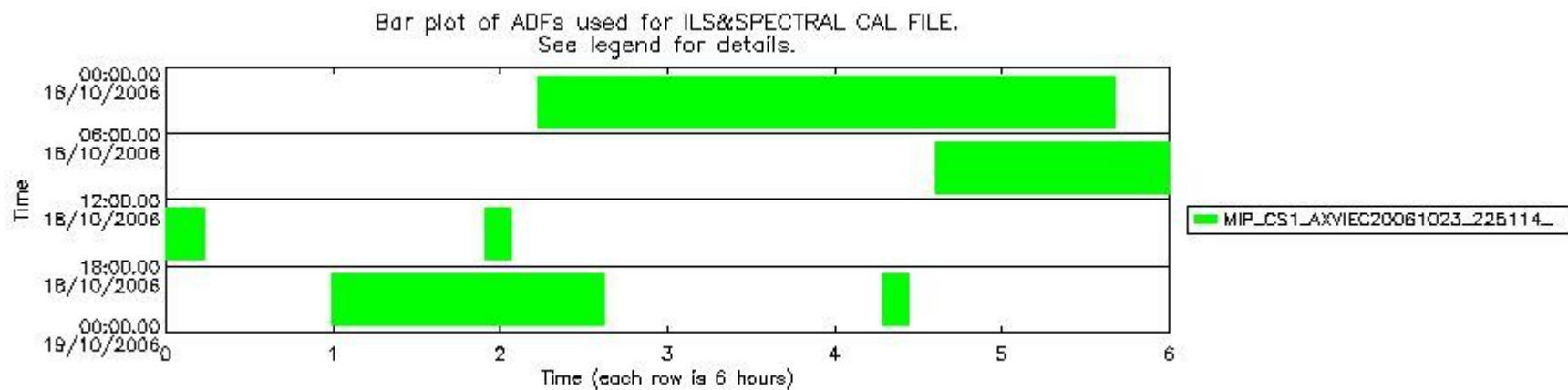
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_52.PNG

1.4 ADF monitoring

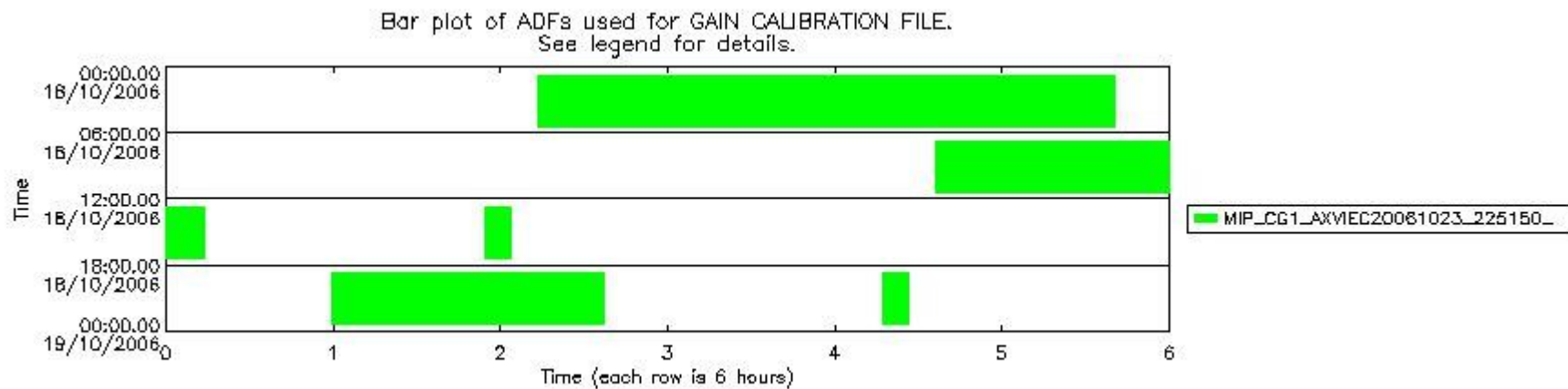
Number	ADF
0	AUX_FRO_AXVPDS20061020_231318_20061017_221000_20061020_005000
1	AUX_FRO_AXVPDS20061022_002333_20061018_221000_20061021_005000
2	MIP_CA1_AXVIEC20050627_094412_20040809_000000_20090809_000000
3	MIP_CG1_AXVIEC20061023_225150_20061018_000000_20111018_000000
4	MIP_CL1_AXVIEC20050420_152028_20050420_095747_20100420_095747
5	MIP_CO1_AXVIEC20061023_225115_20061018_000000_20111018_000000
6	MIP_CS1_AXVIEC20061023_225114_20061018_000000_20111018_000000

7	MIP_MW1_AXVIEC20050627_094928_20040809_000000_20090809_000000
8	MIP_PS1_AXVIEC20050627_100609_20040809_000000_20090809_000000

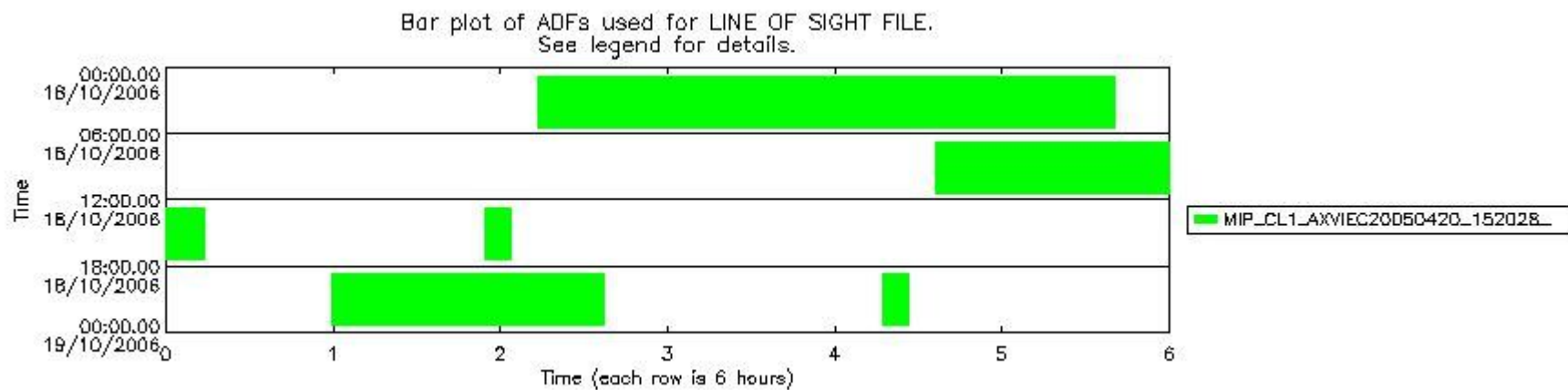
Number	Product name	#CS1	#CG1	#CL1	#CA1	#CO1	#MW1	#PS1	#FPO
0	MIP_NL_1PPDPA20061018_021354_000057502052_00118_24220_1038.N1	6	3	4	2	5	7	8	0
1	MIP_NL_1PPDPA20061018_035051_000060302052_00119_24221_1029.N1	6	3	4	2	5	7	8	0
2	MIP_NL_1PPDPA20061018_053127_000005402052_00120_24222_1063.N1	6	3	4	2	5	7	8	0
3	MIP_NL_1PPDPA20061018_103654_000057512052_00123_24225_1050.N1	6	3	4	2	5	7	8	0
4	MIP_NL_1PPDPA20061018_135426_000005402052_00125_24227_1064.N1	6	3	4	2	5	7	8	0
5	MIP_NL_1PPDPA20061018_185954_000057502052_00128_24230_1049.N1	6	3	4	2	5	7	8	0
6	MIP_NL_1PPDPA20061018_221726_000005402052_00130_24232_1057.N1	6	3	4	2	5	7	8	1



mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_53.PNG

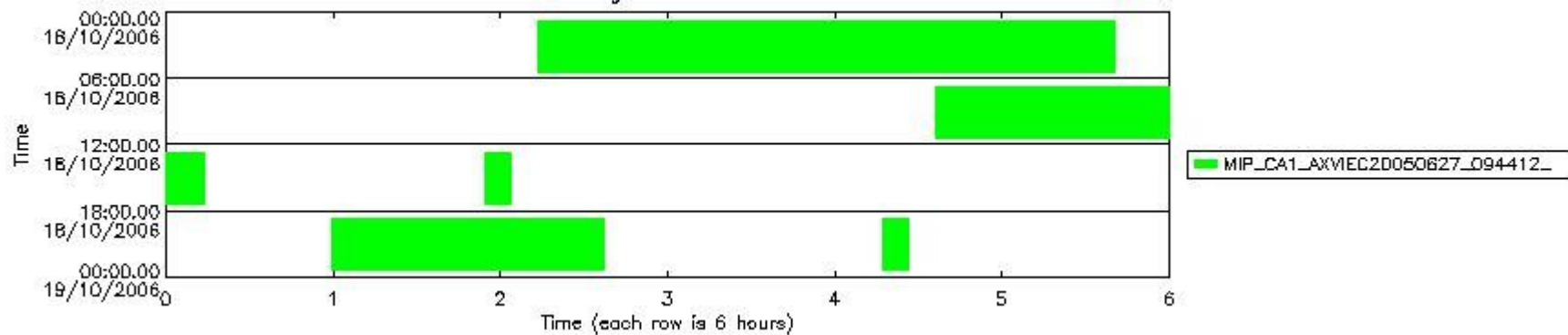


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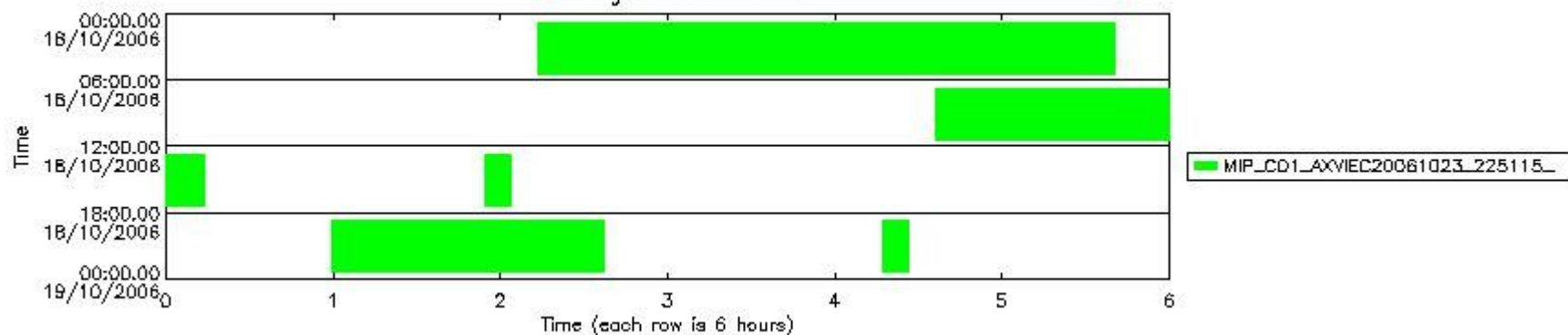
mipas_daily_report_level1_OFI_MIPAS_4_67_P_20061018_55.PNG

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



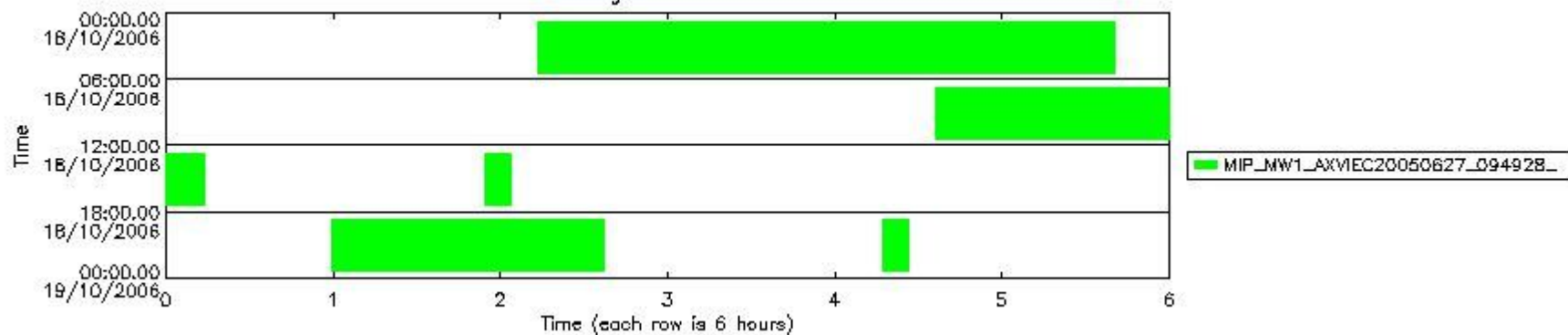
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Bar plot of ADFs used for OFFSET VALIDATION FILE.
See legend for details.



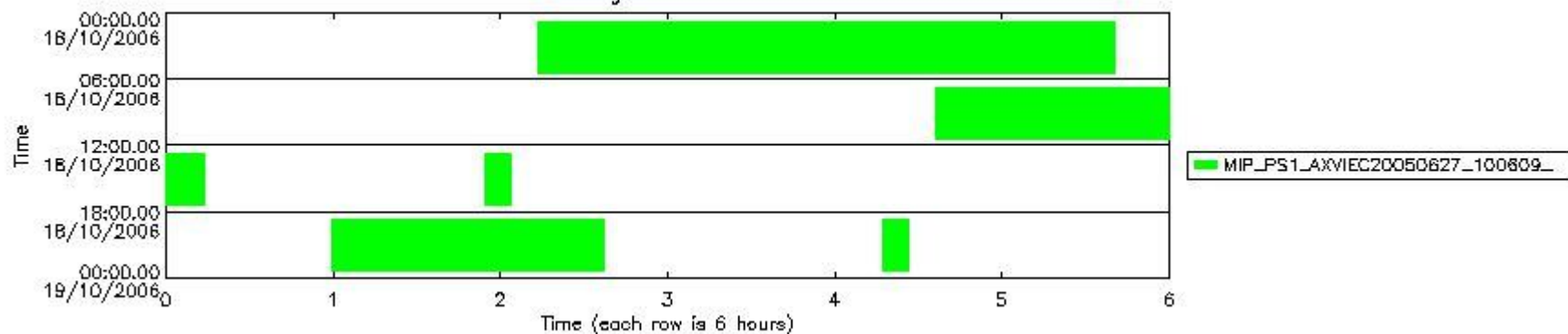
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_57.PNG

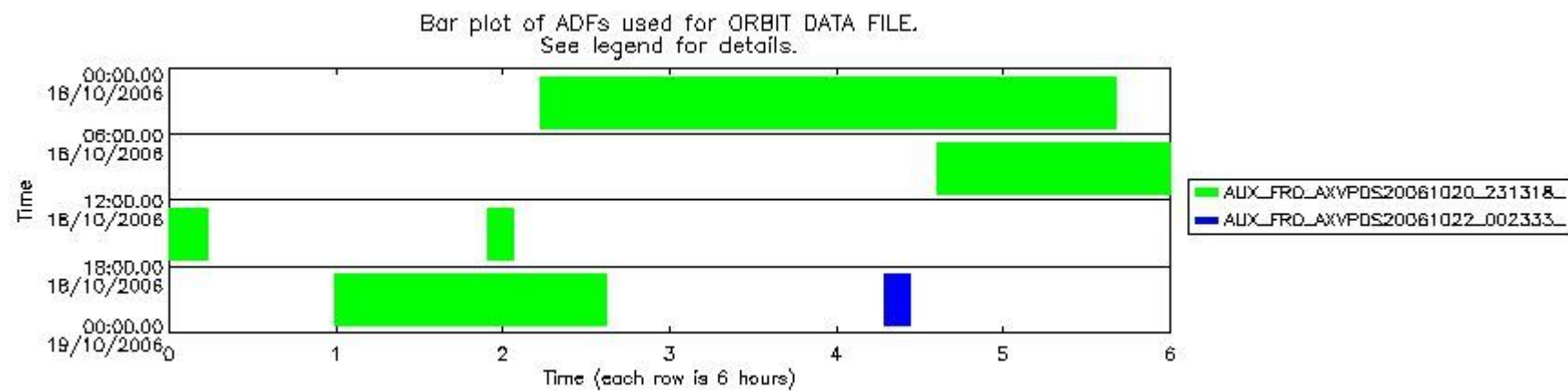
Bar plot of ADFs used for MICROWINDOWS FILE.
See legend for details.



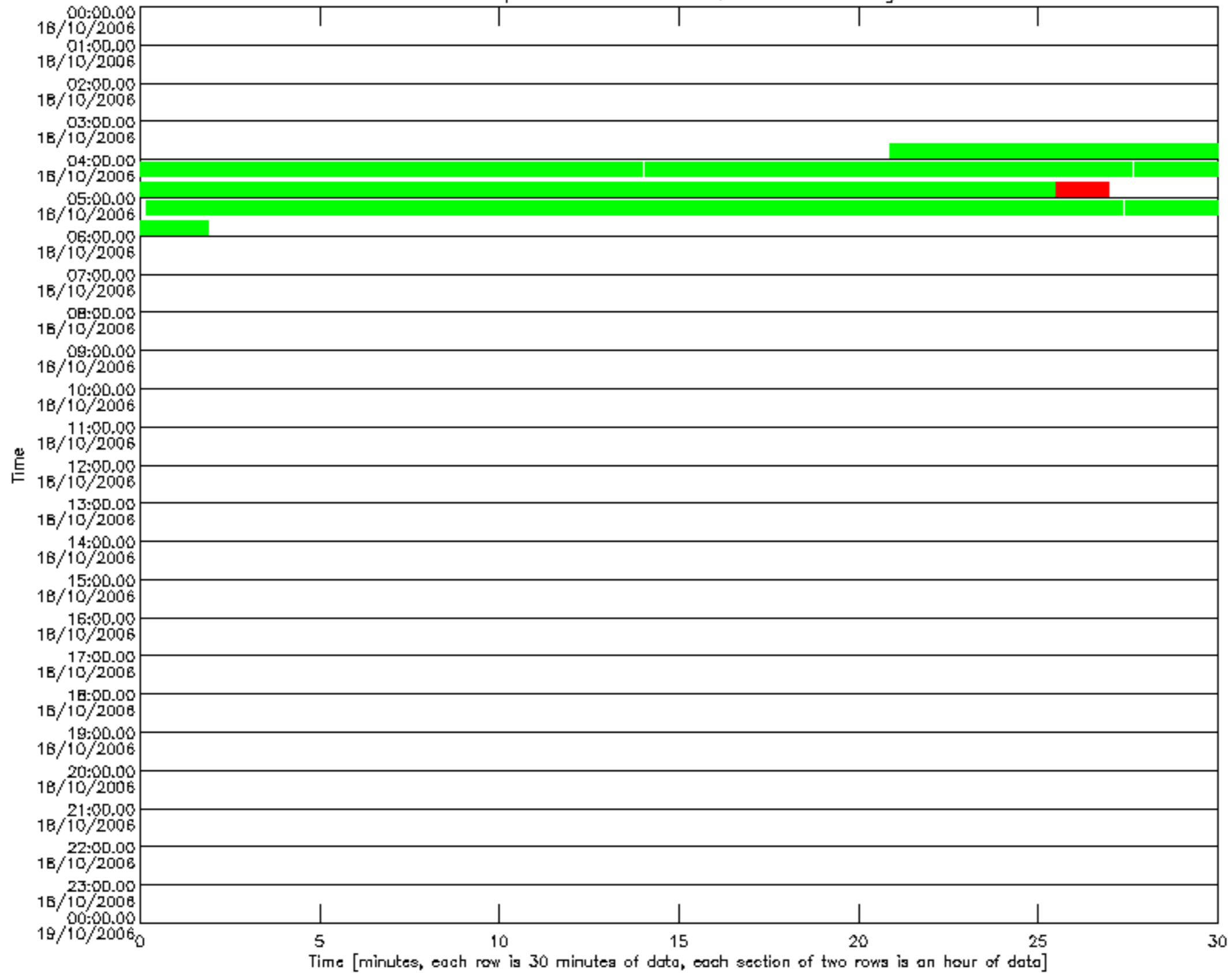
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20061018_58.PNG

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

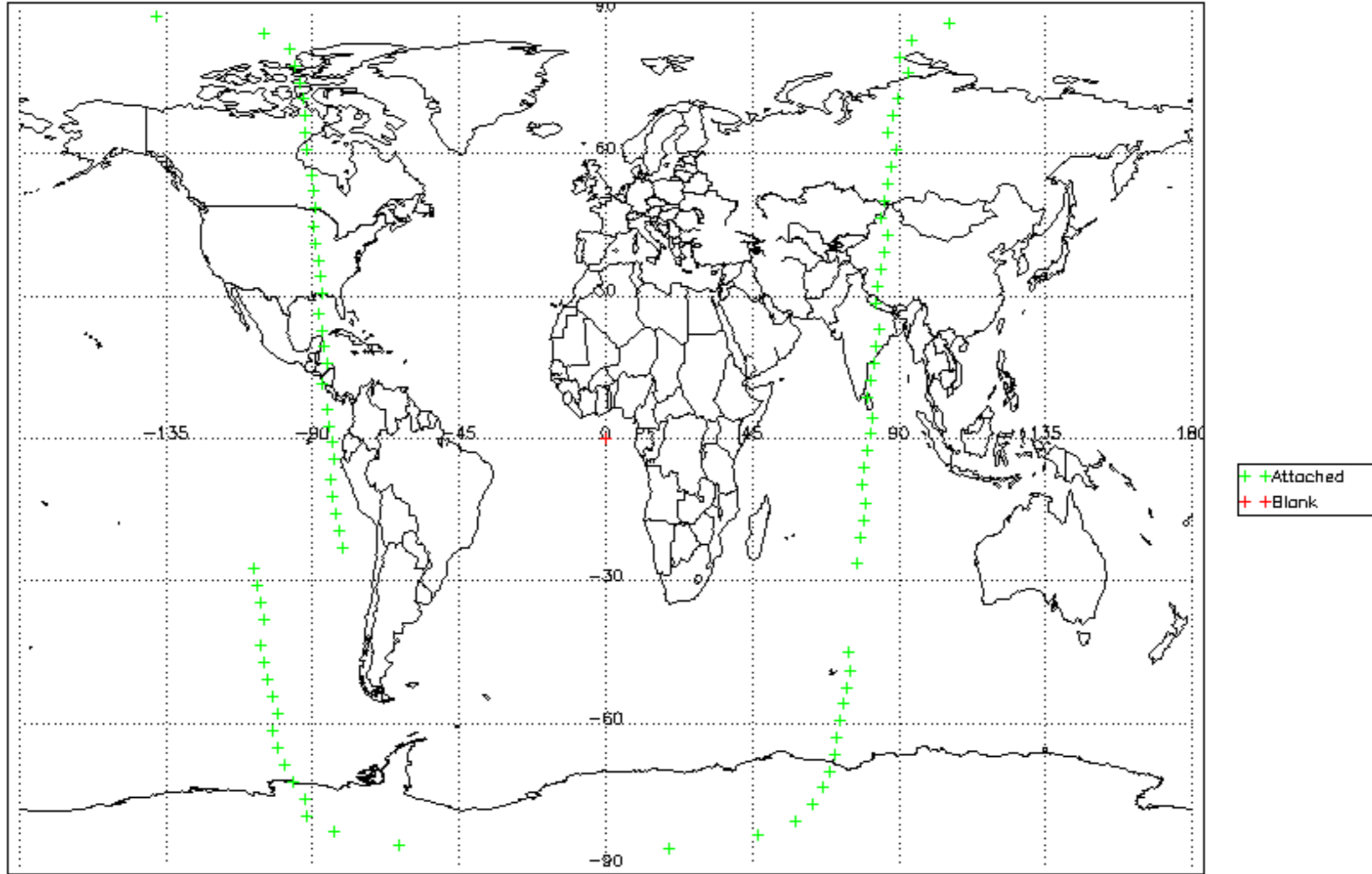


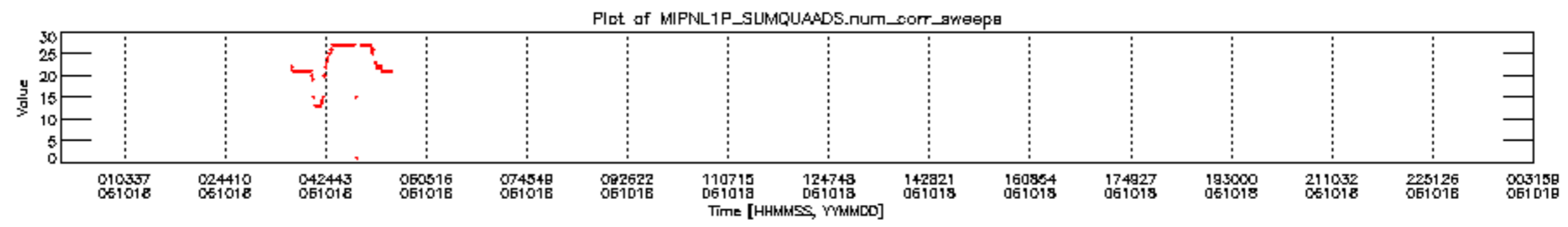


Bar plot of MIPNL1P_SUMQUAADS.attach_flag

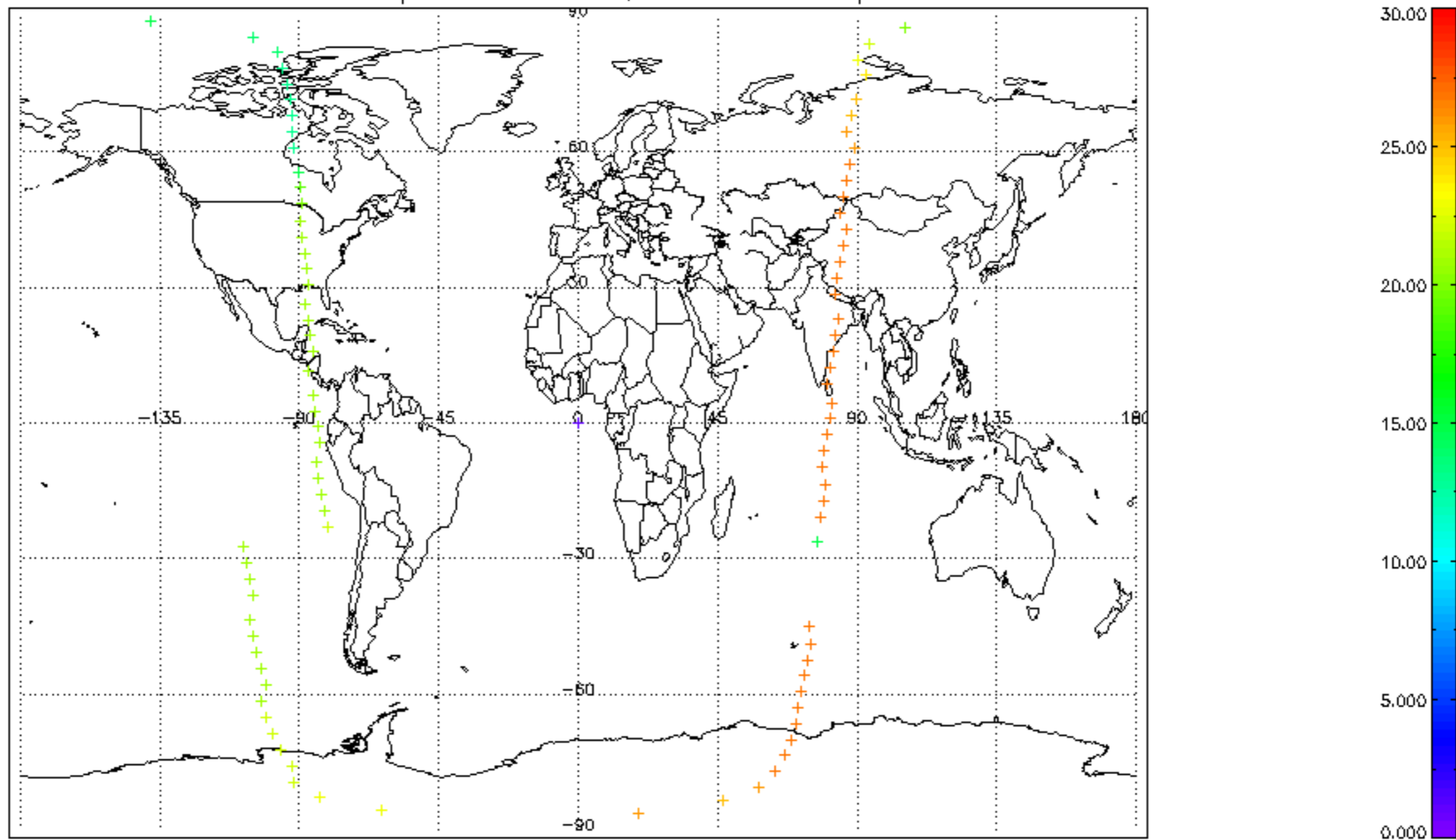


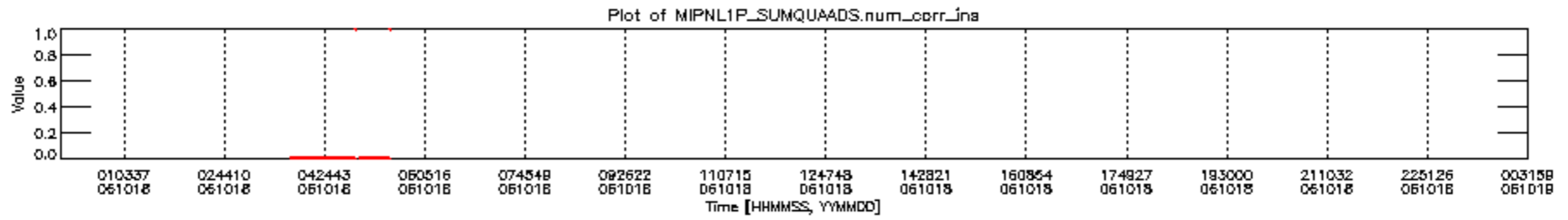
Geolocation plot of MIPNL1P_SUMQUAADS.attach_flag



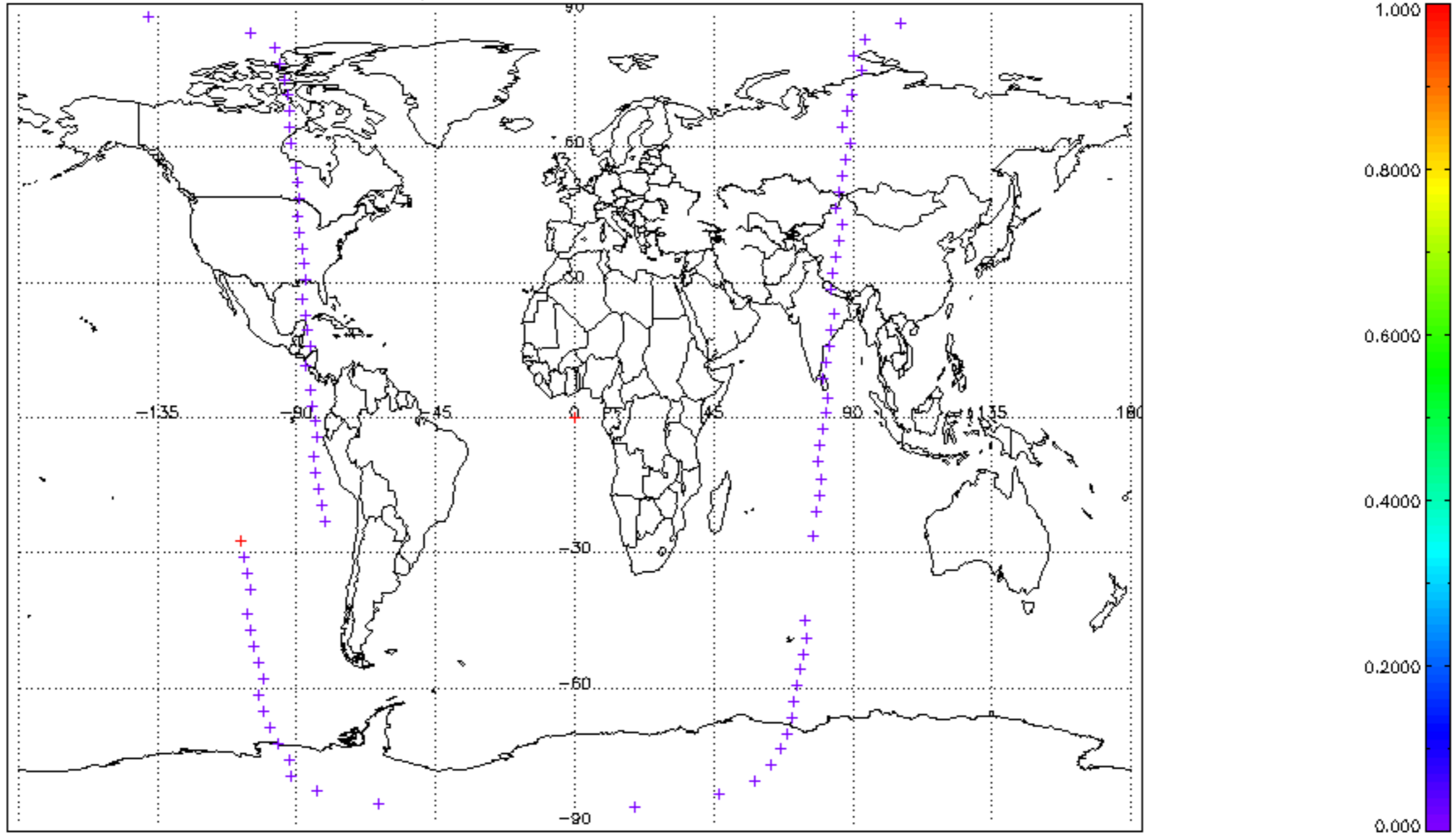


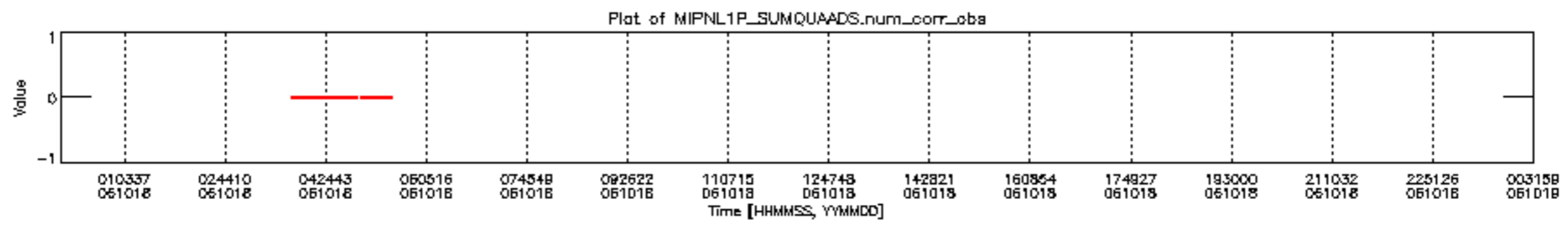
Geolocation plot of MIPNL1P_SUMQUADS.num_corr_sweeps



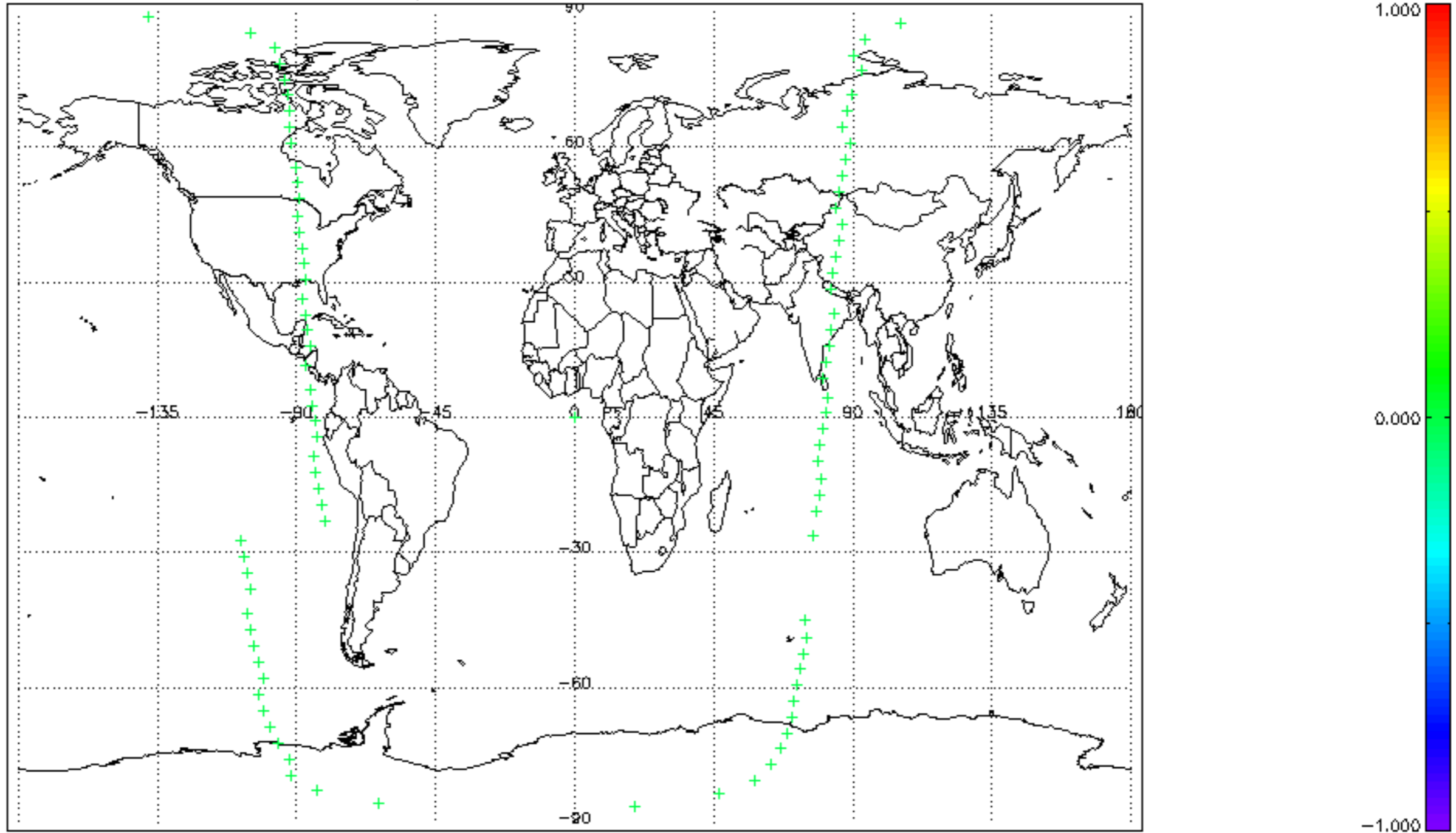


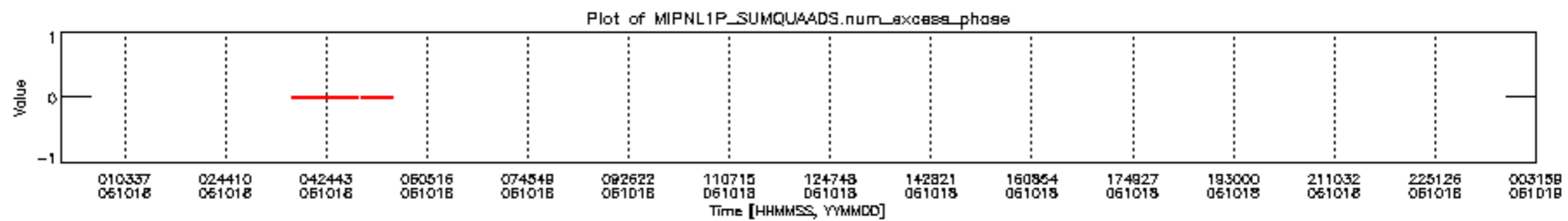
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_ins



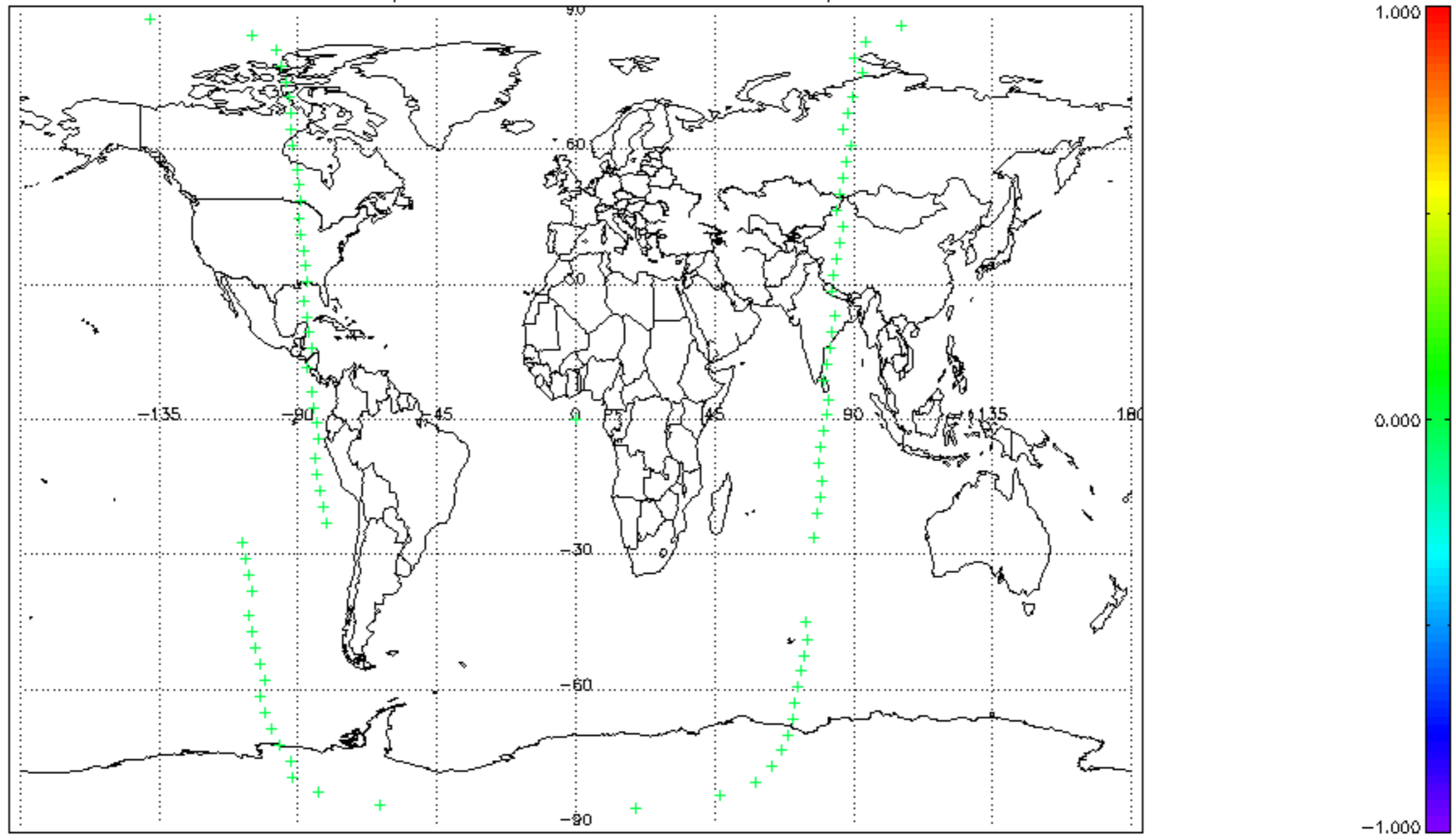


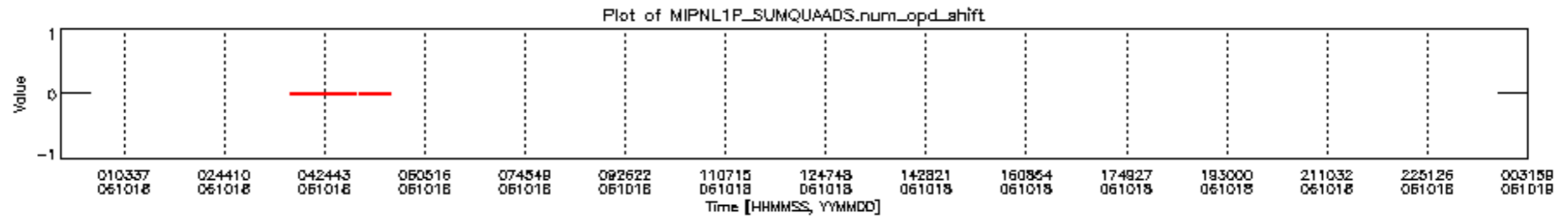
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_obs



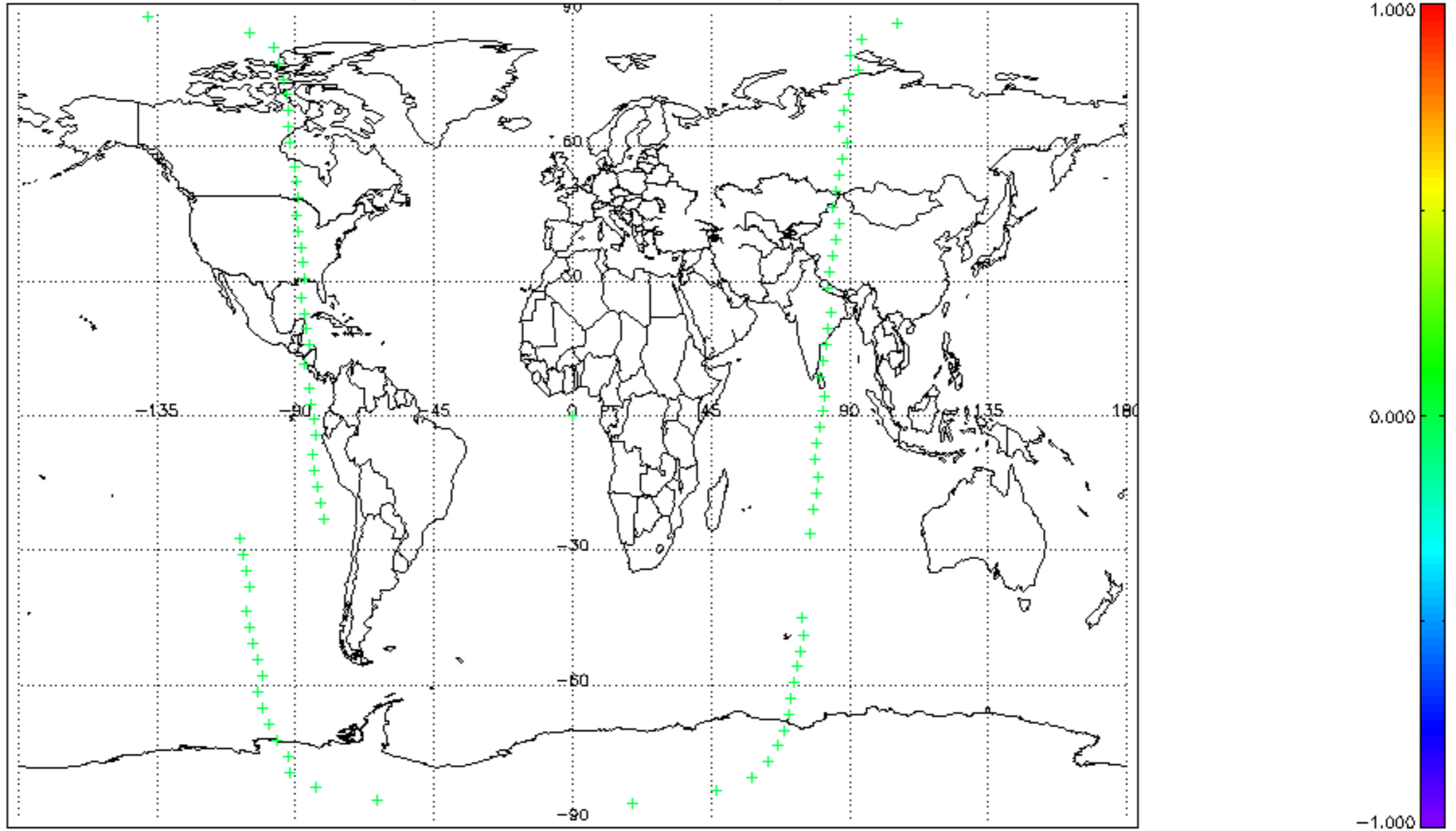


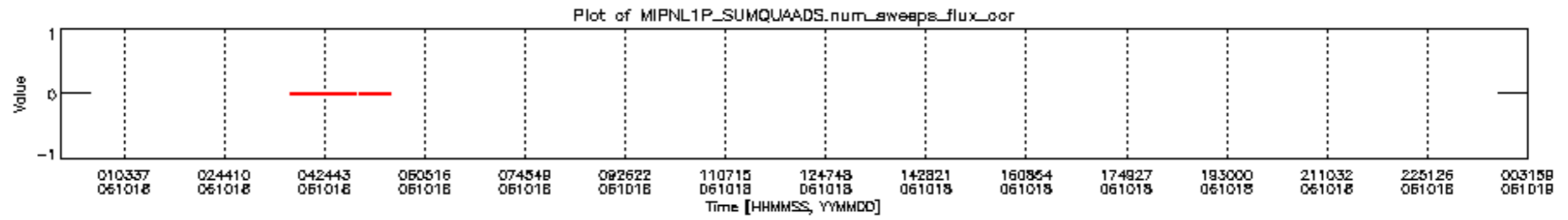
Geolocation plot of MIPNL1P_SUMQUAADS.num_excess_phase



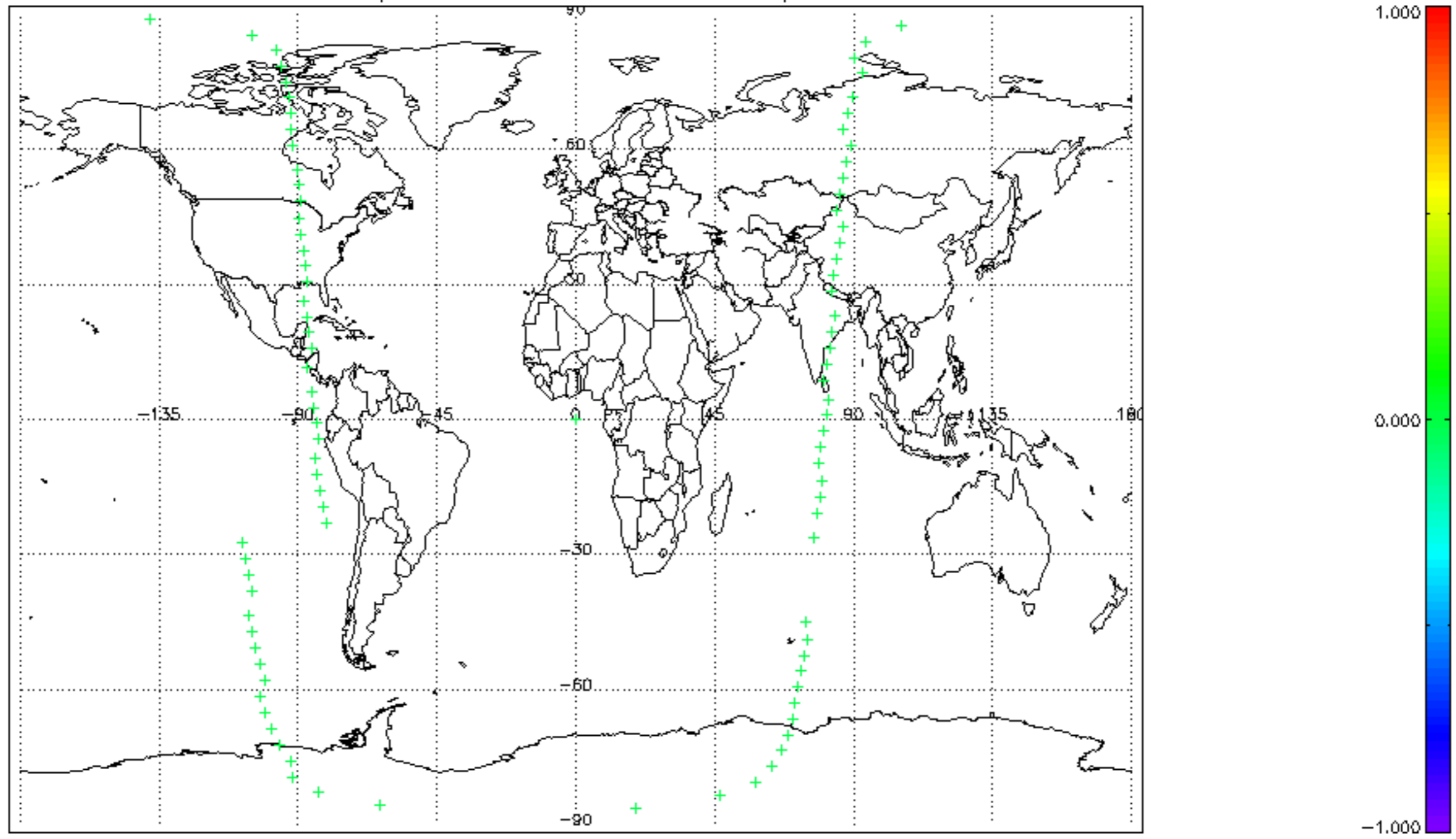


Geolocation plot of MIPNL1P_SUMQUAADS.num_opd_shift

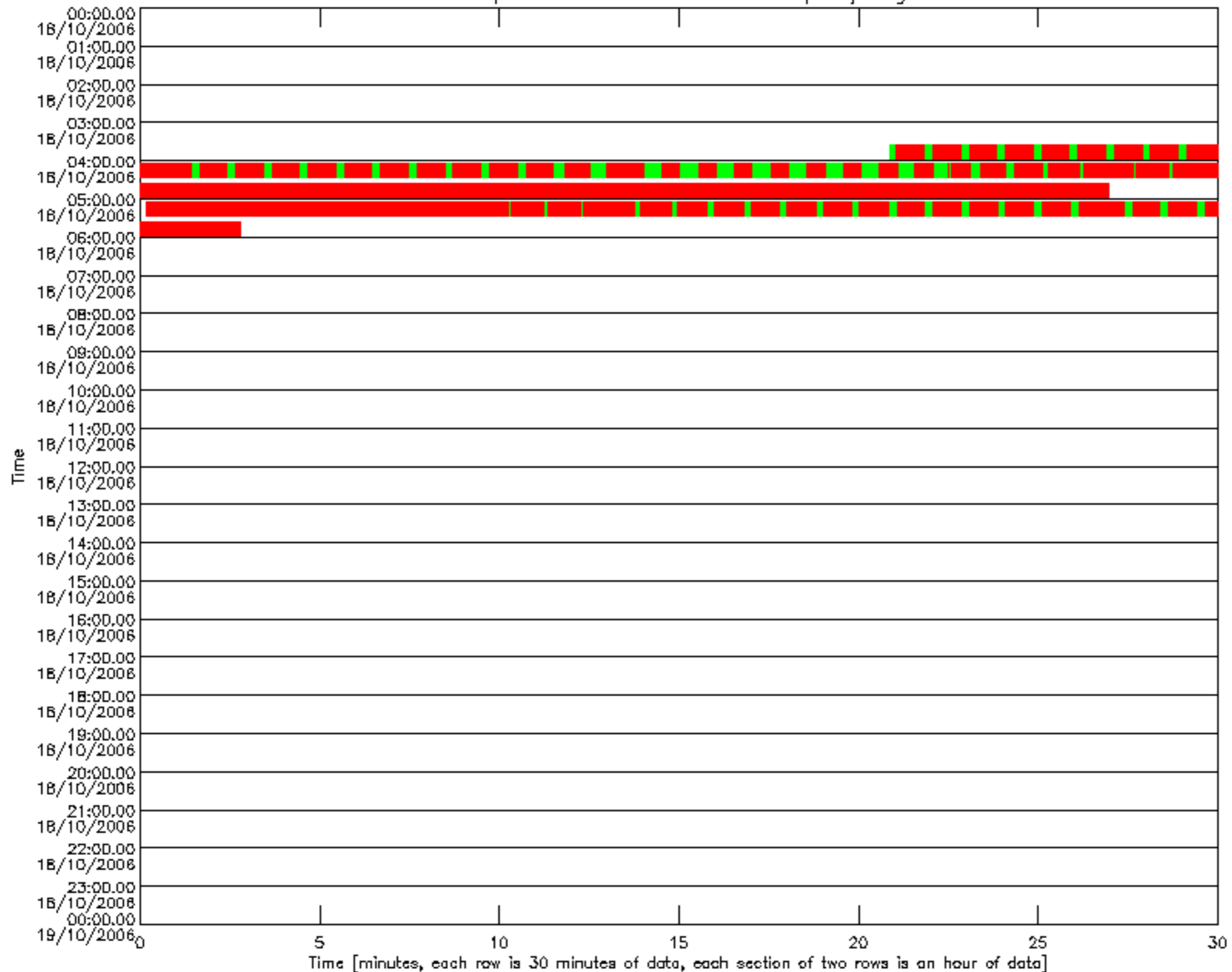




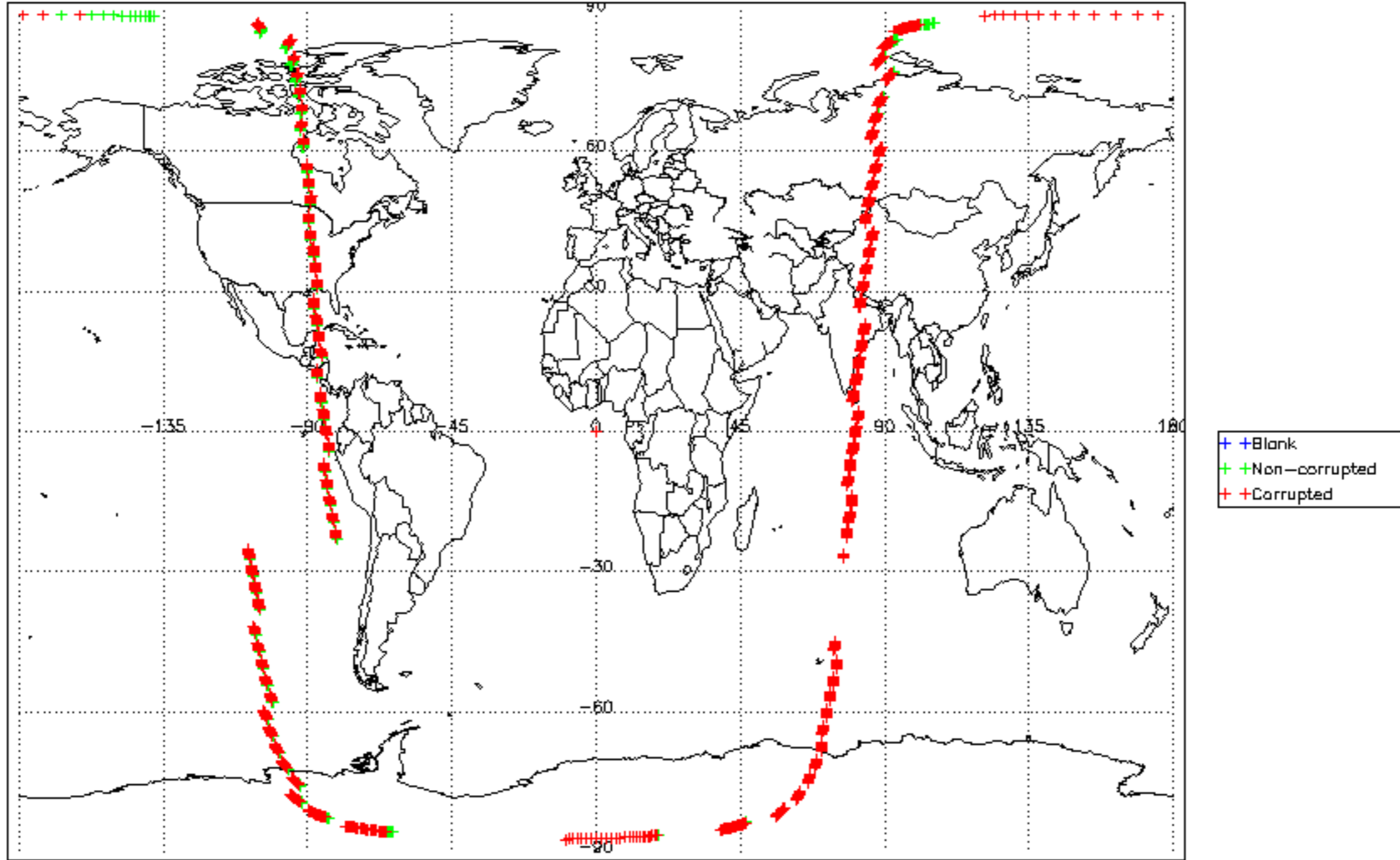
Geolocation plot of MIPNL1P_SUMQUADS.num_sweeps_flux_oor

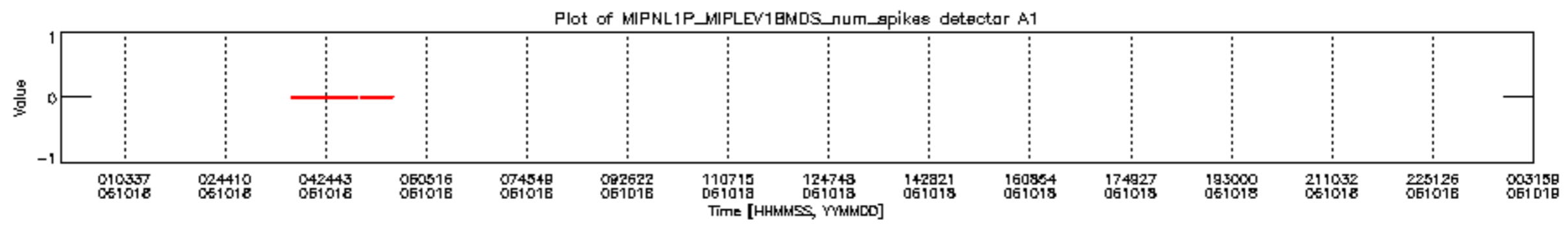


Bar plot of MIPNL1P_MIPLEV1BMDS_quality_flag

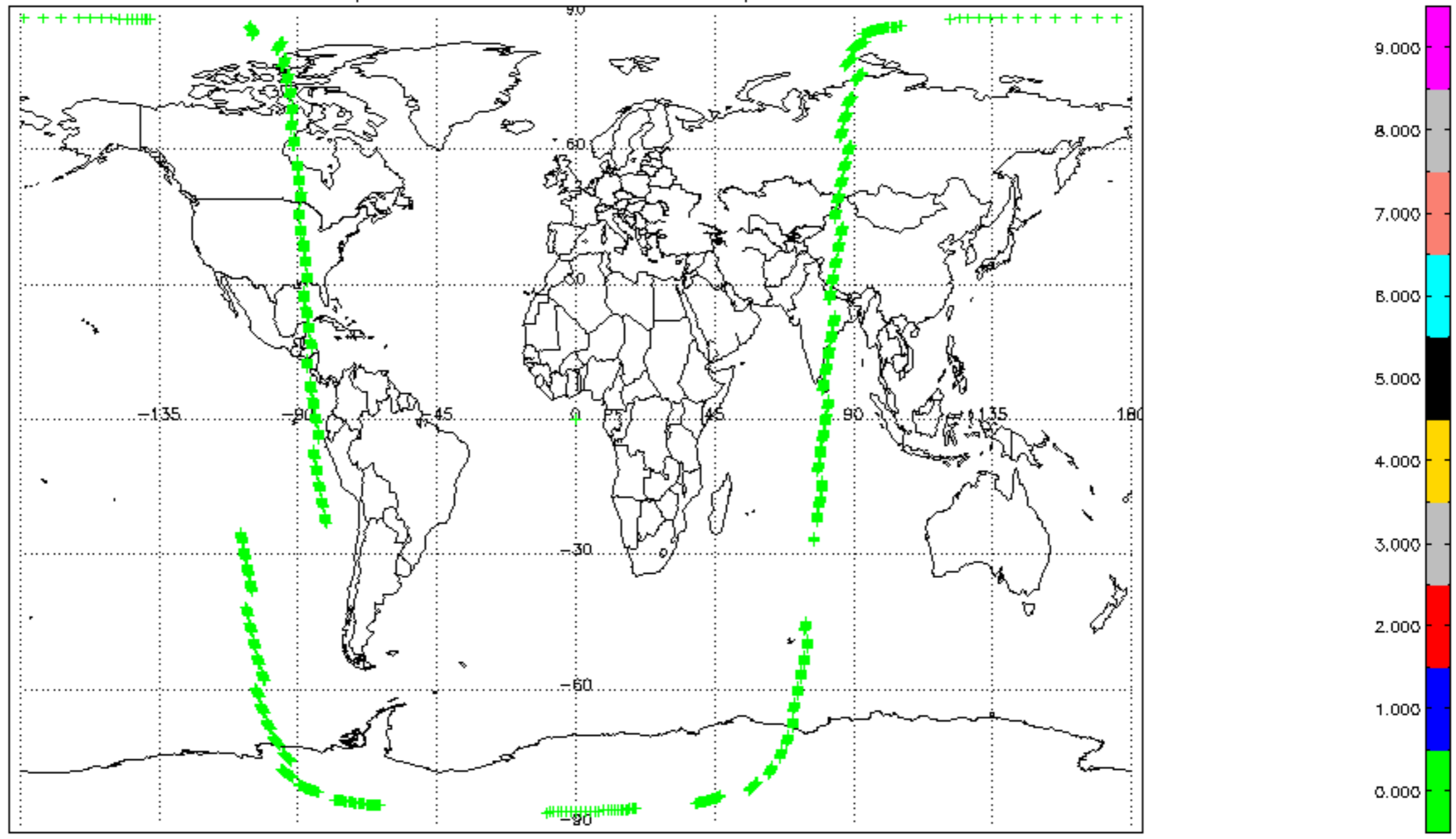


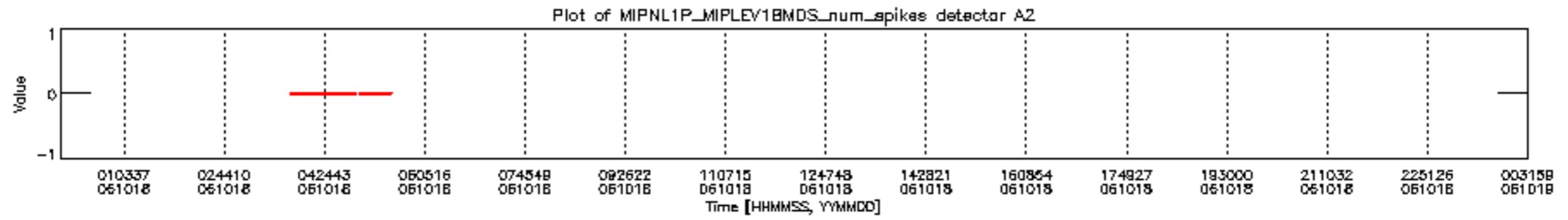
Geolocation plot of MIPNL1P_MIPLEV1BMDS_quality_flag



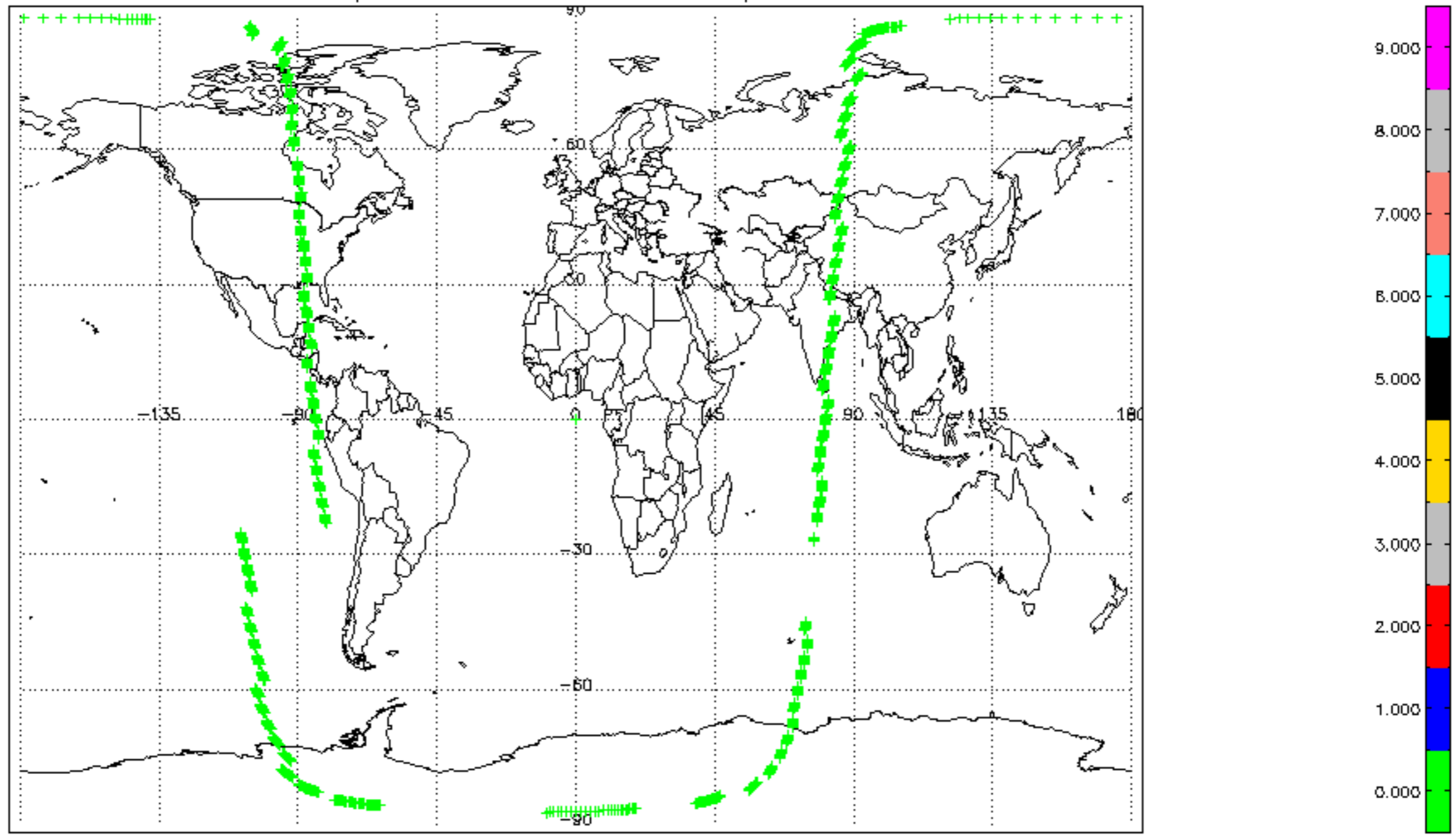


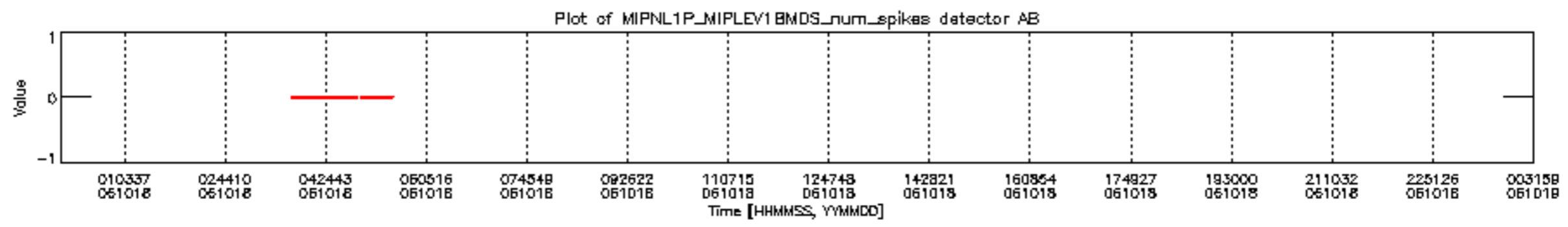
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A1



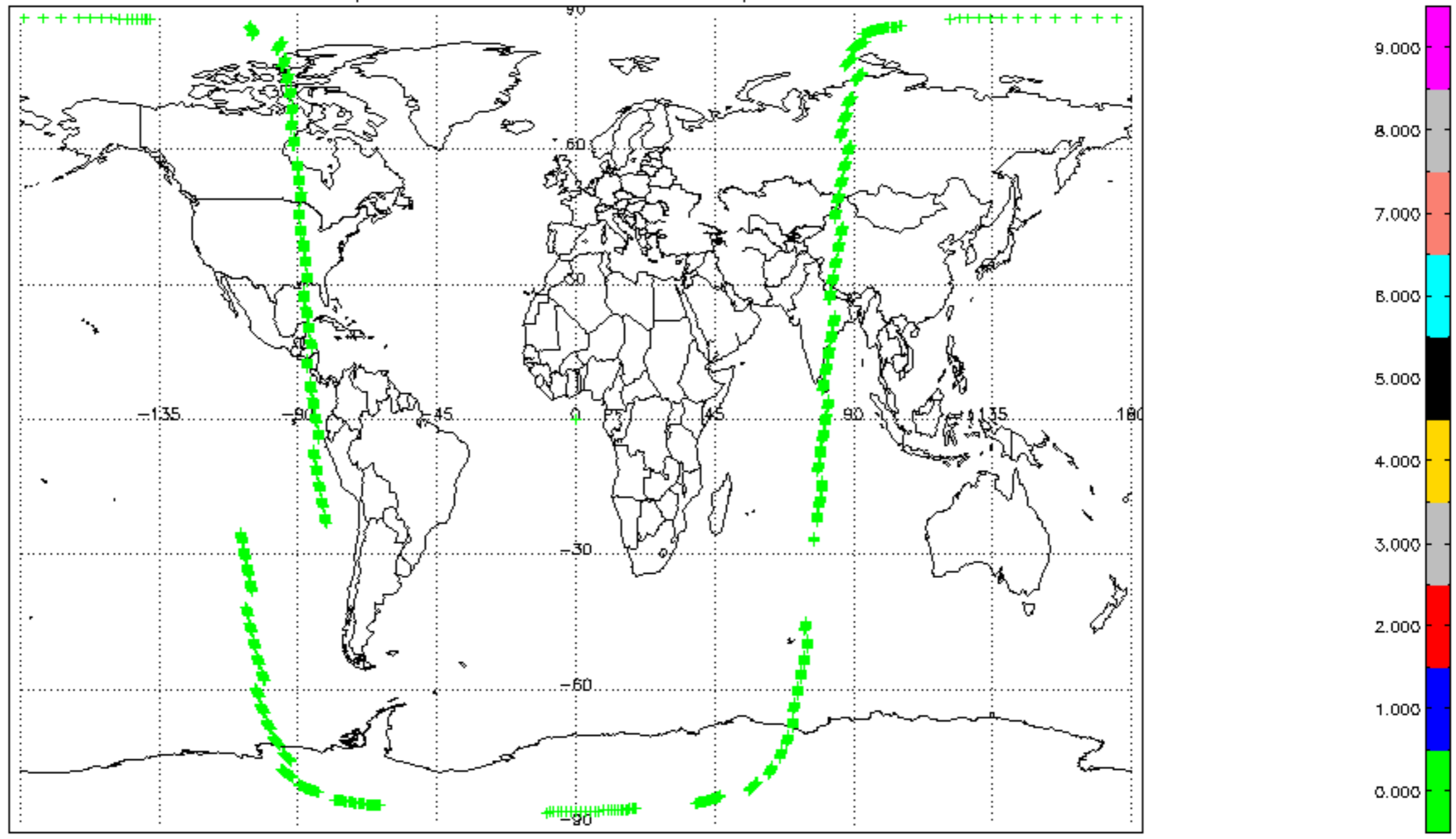


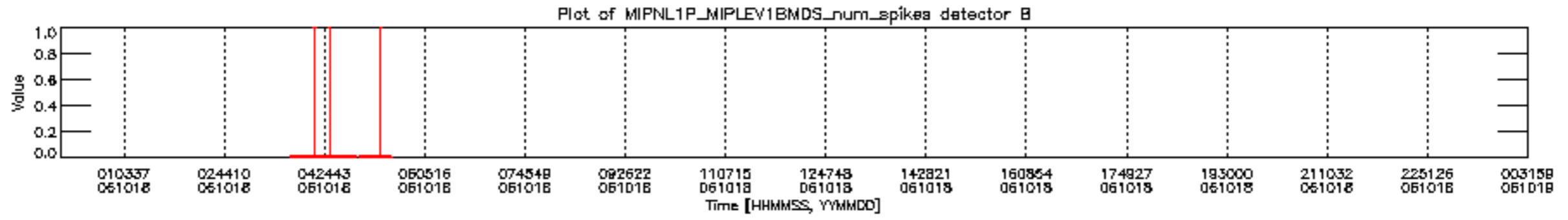
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A2



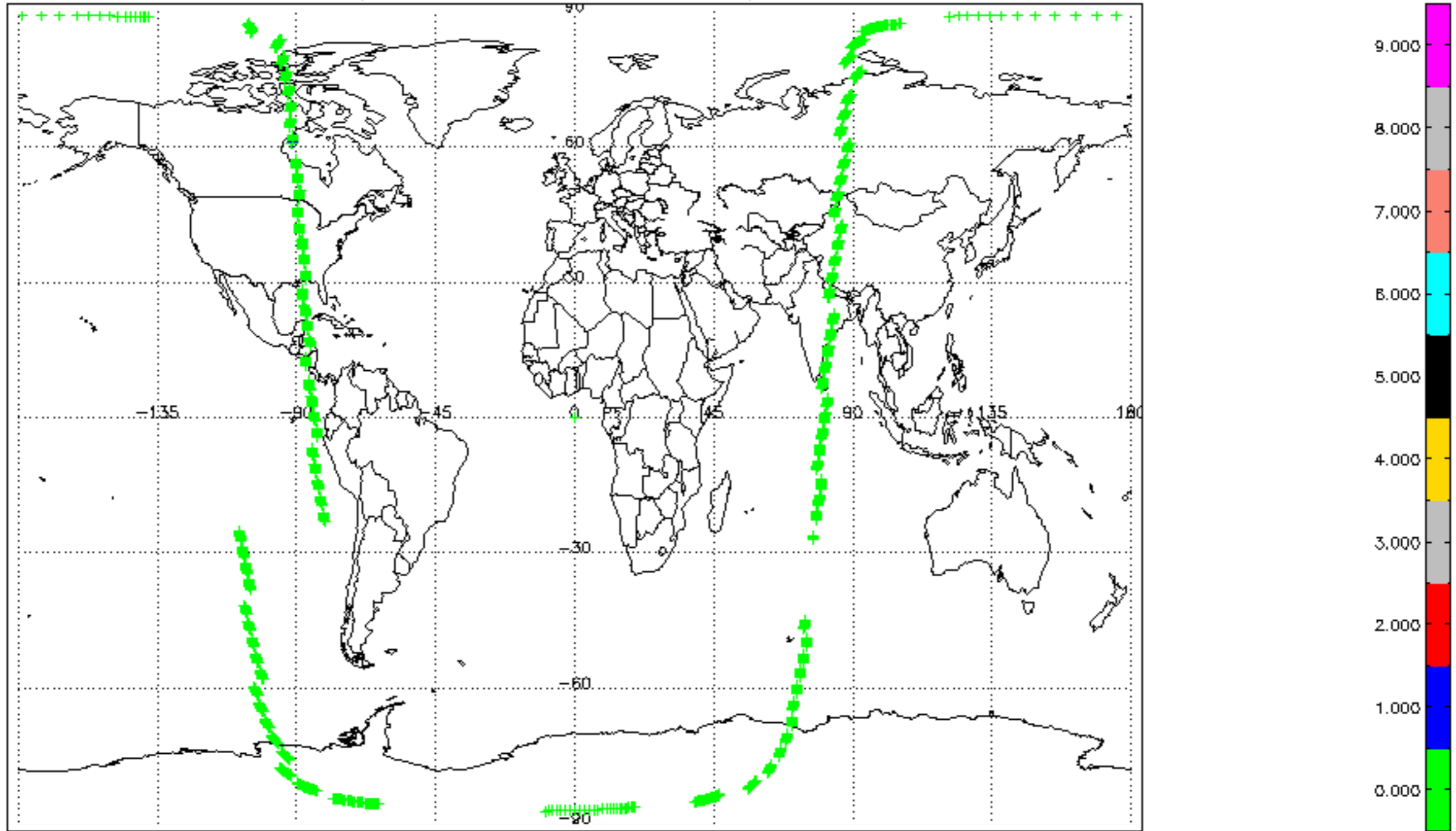


Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector AB

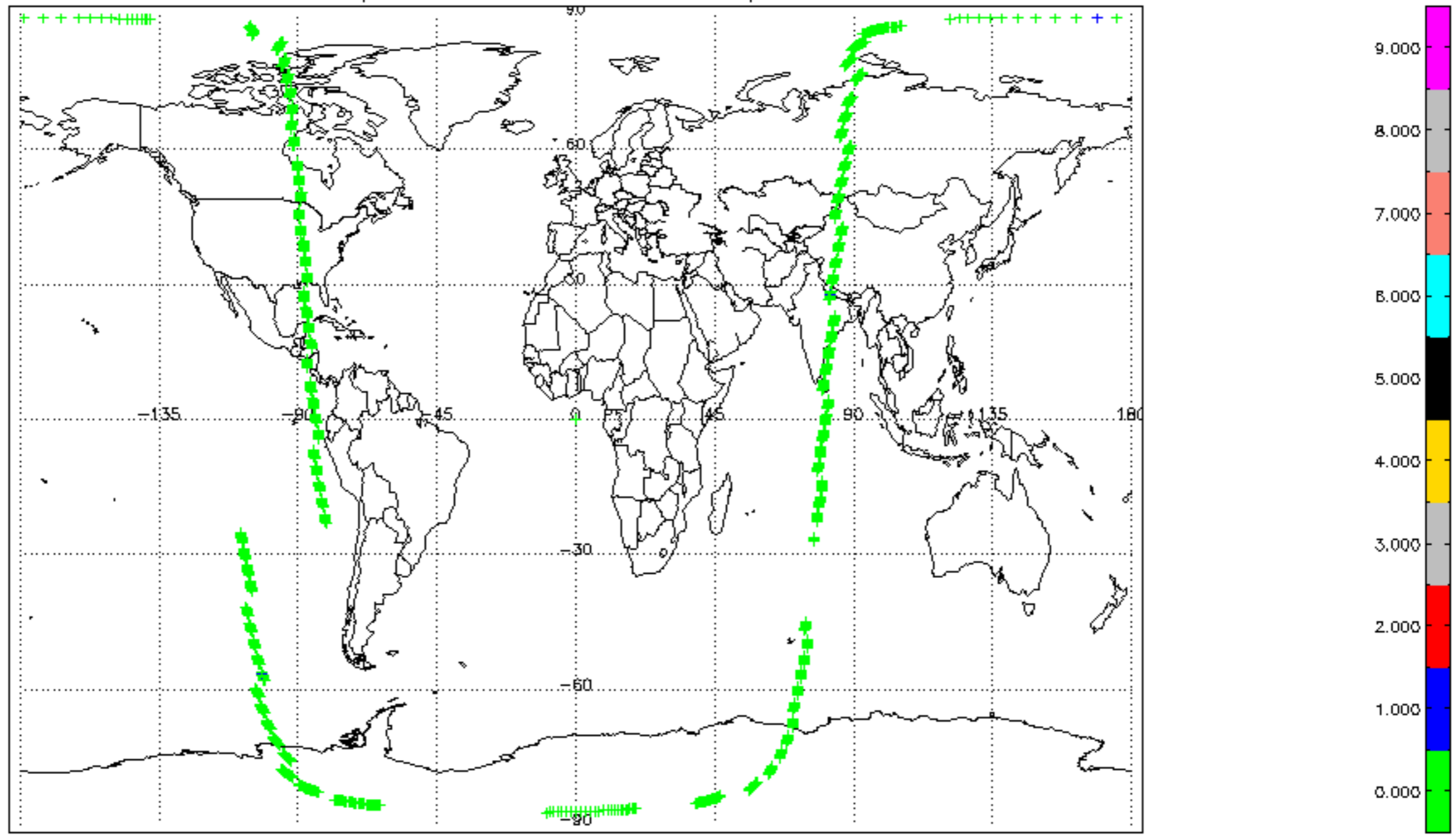


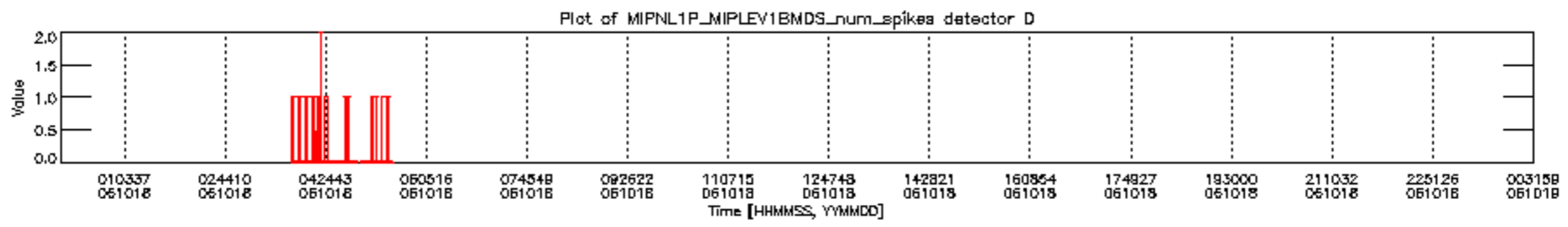


Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector B

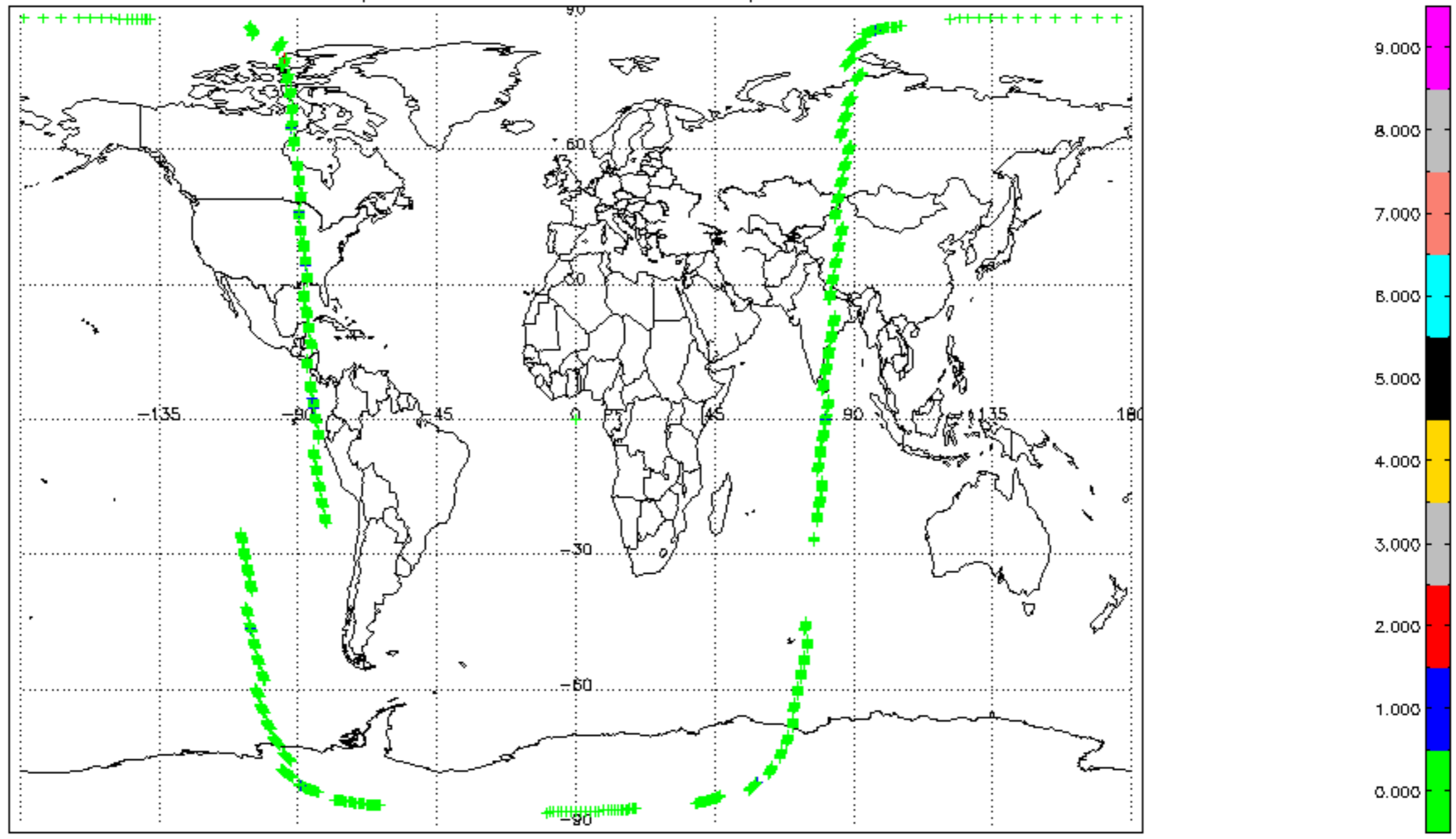


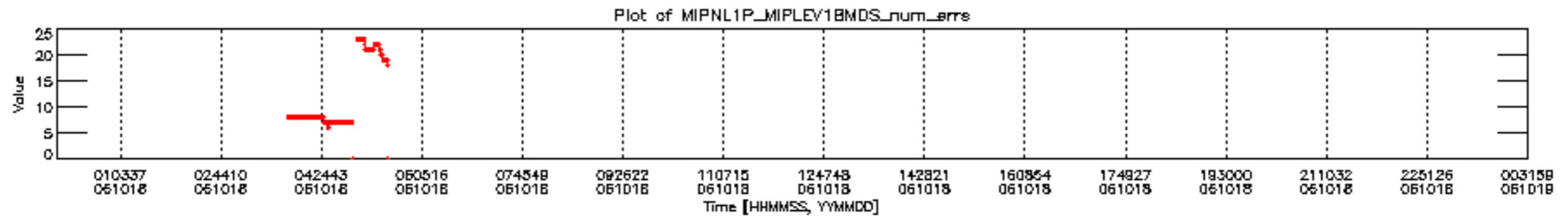
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector C



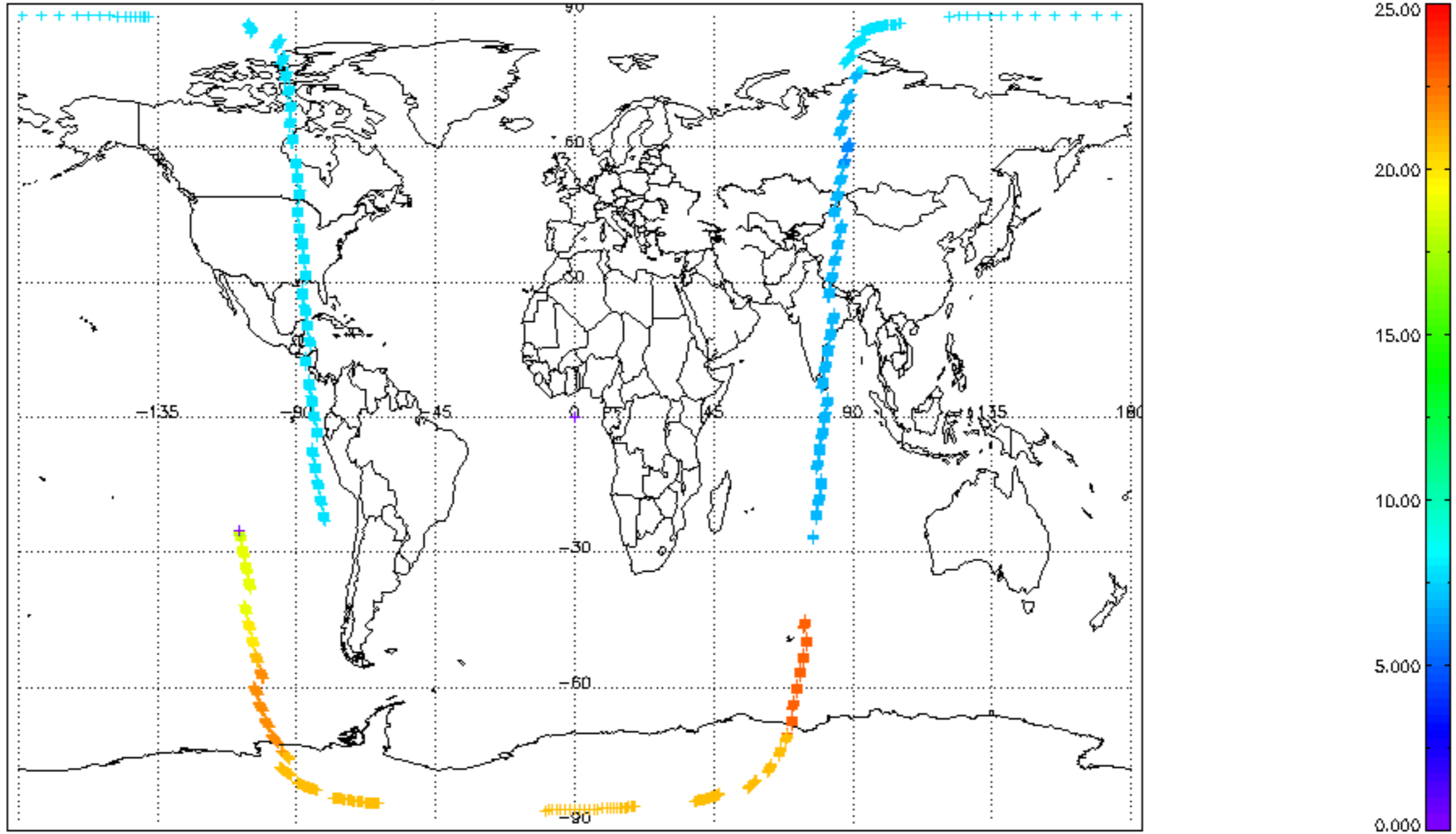


Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector D

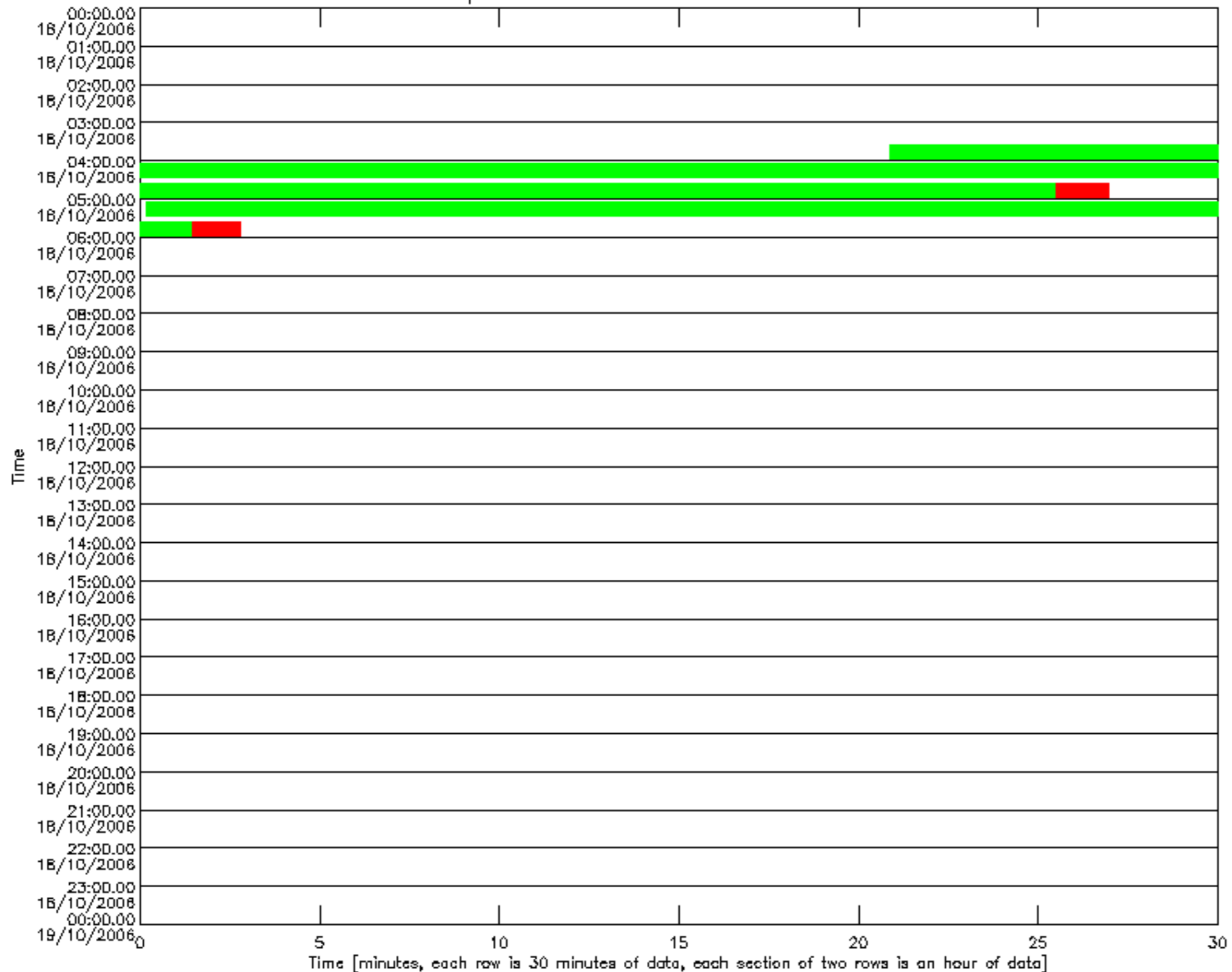




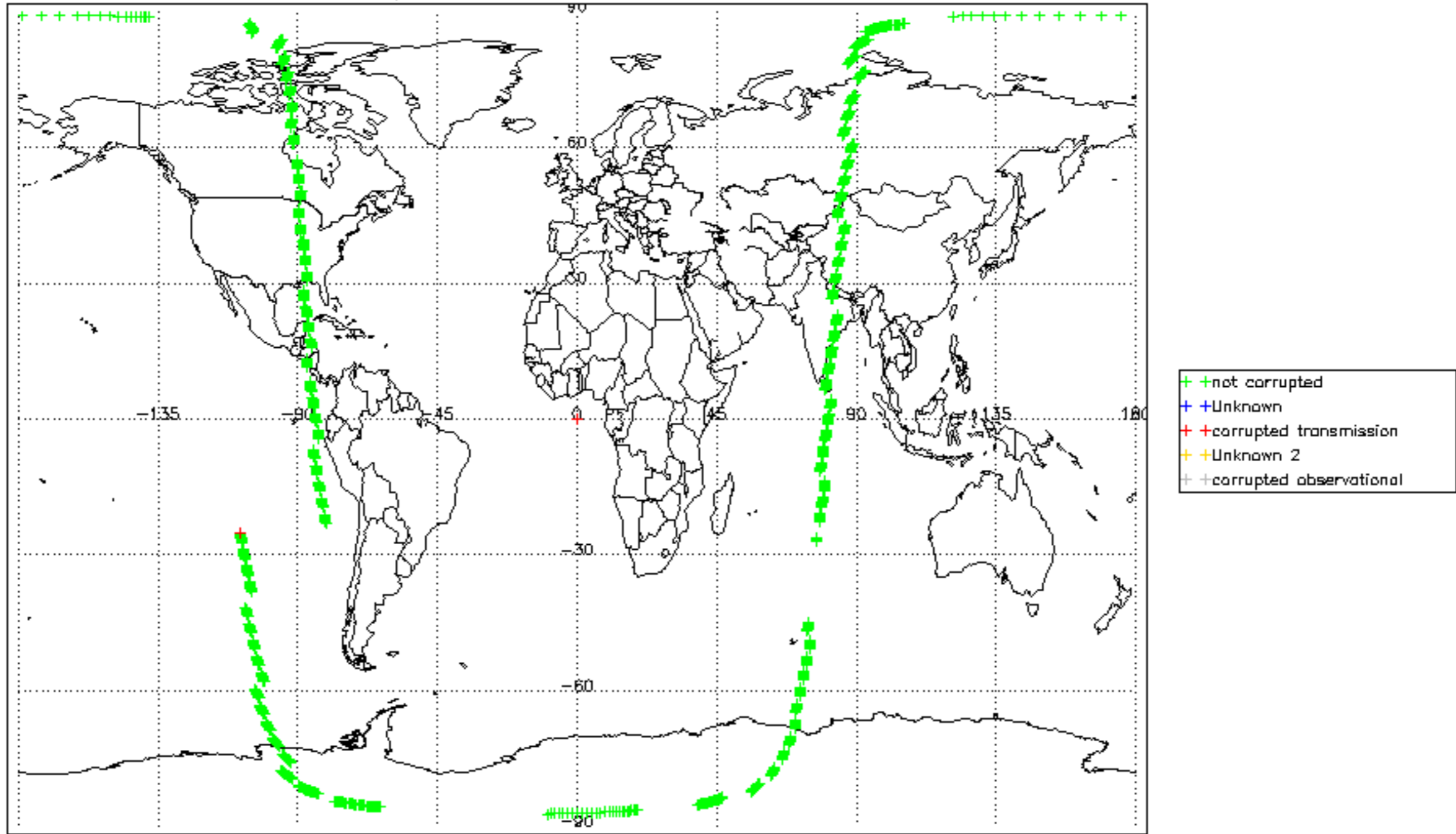
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_errs



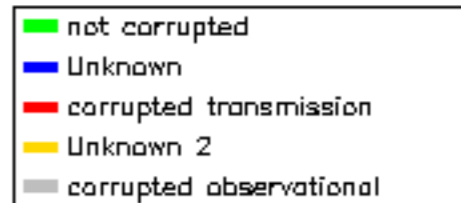
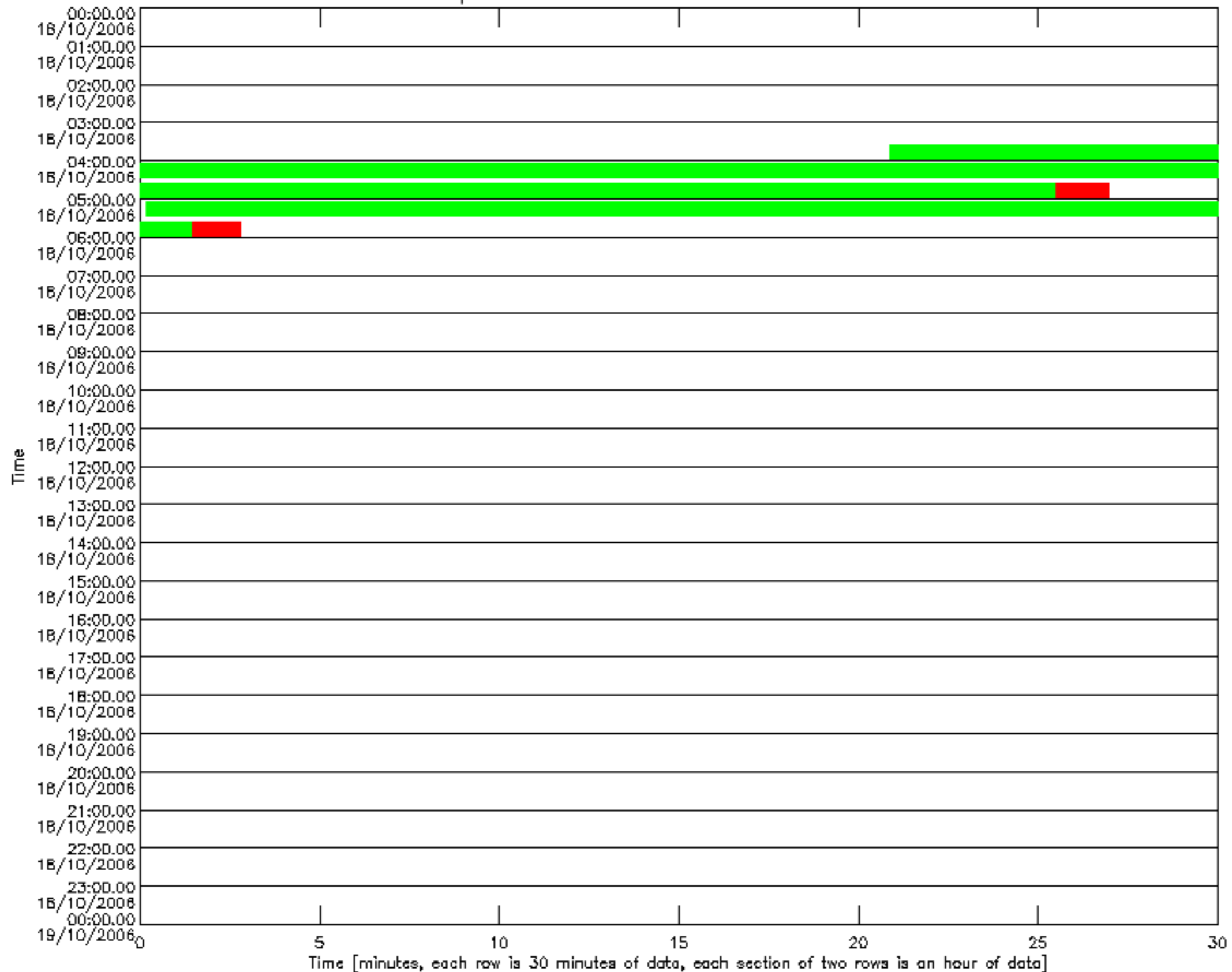
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band A



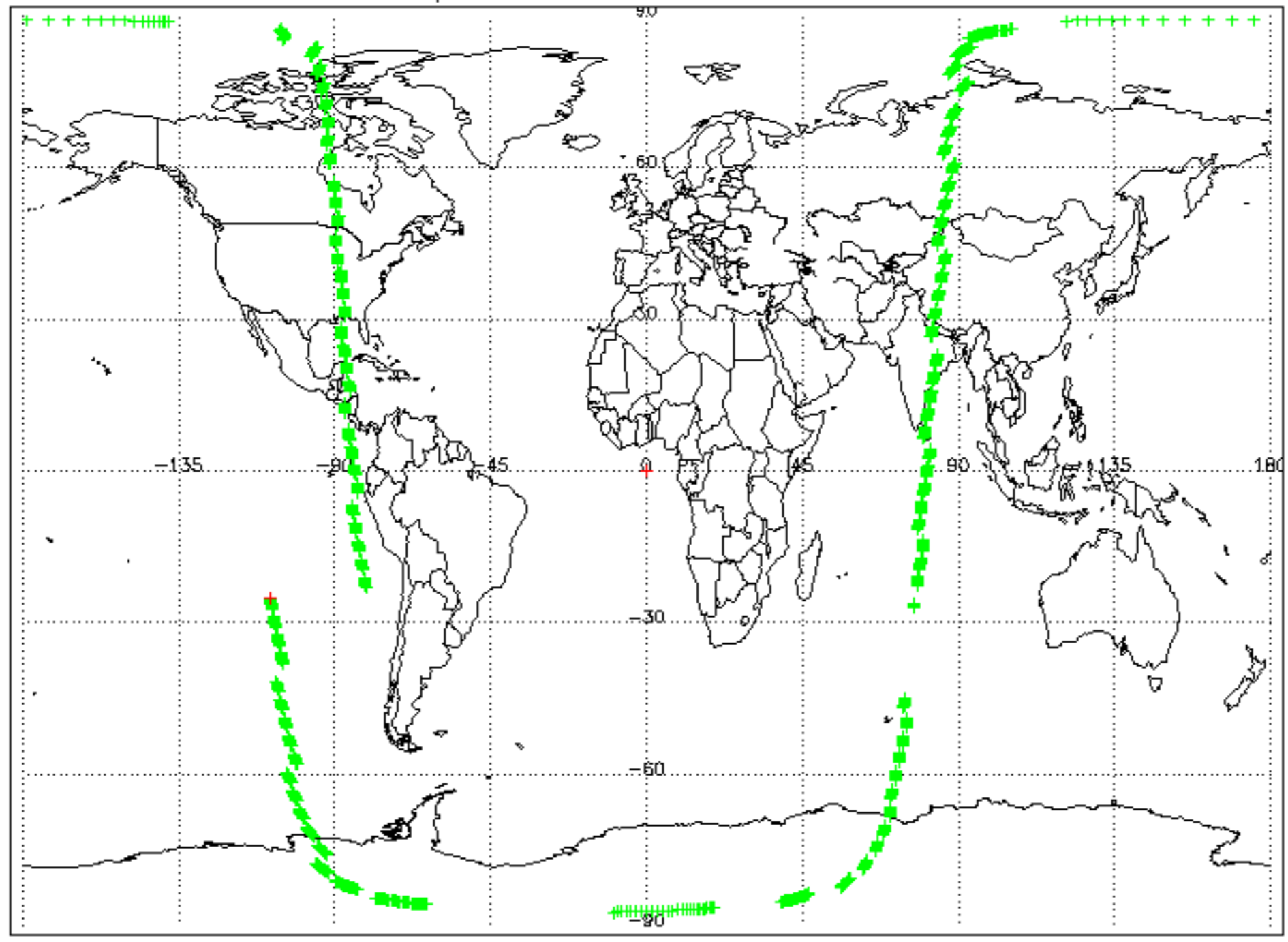
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band A



Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band AB

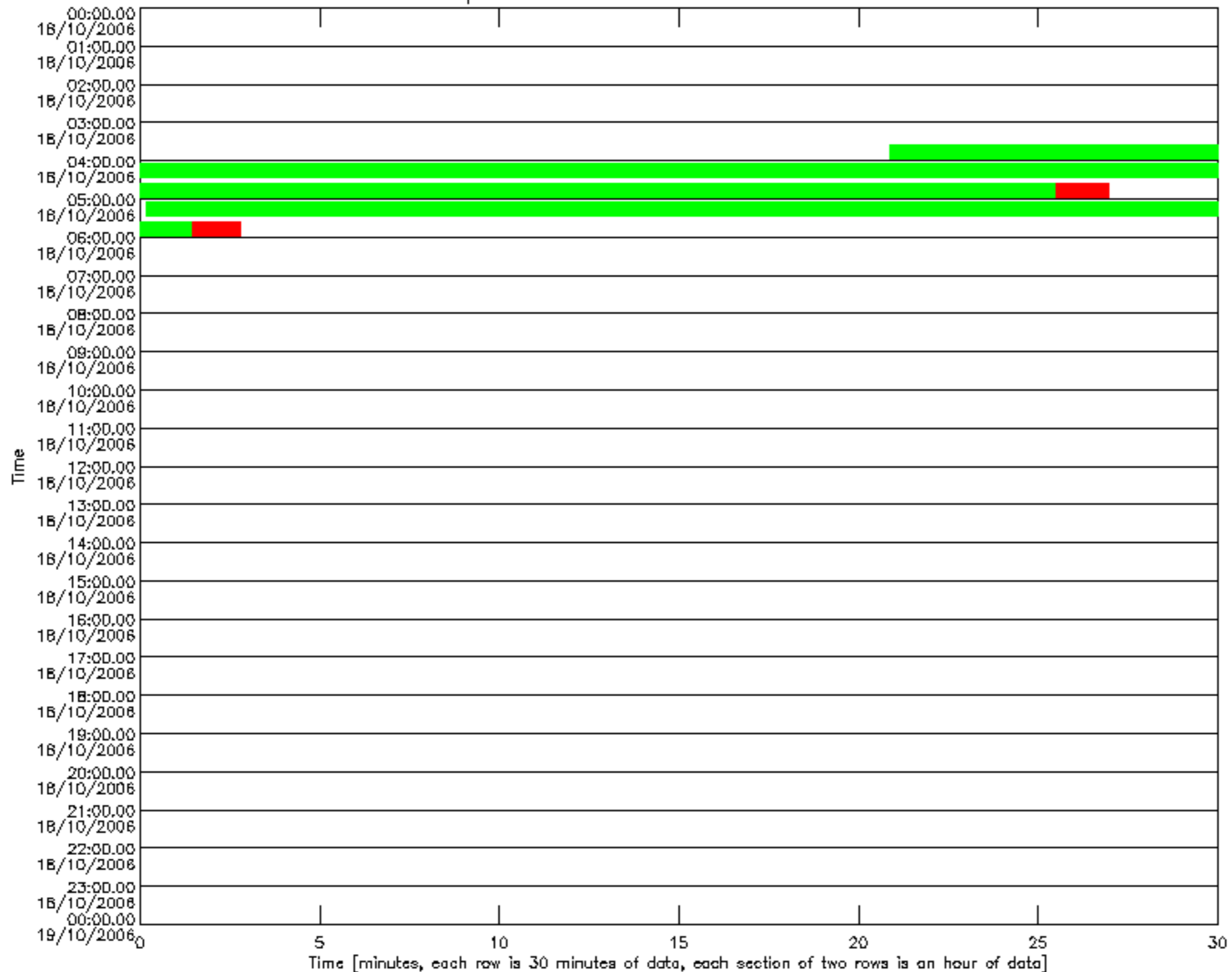


Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band AB

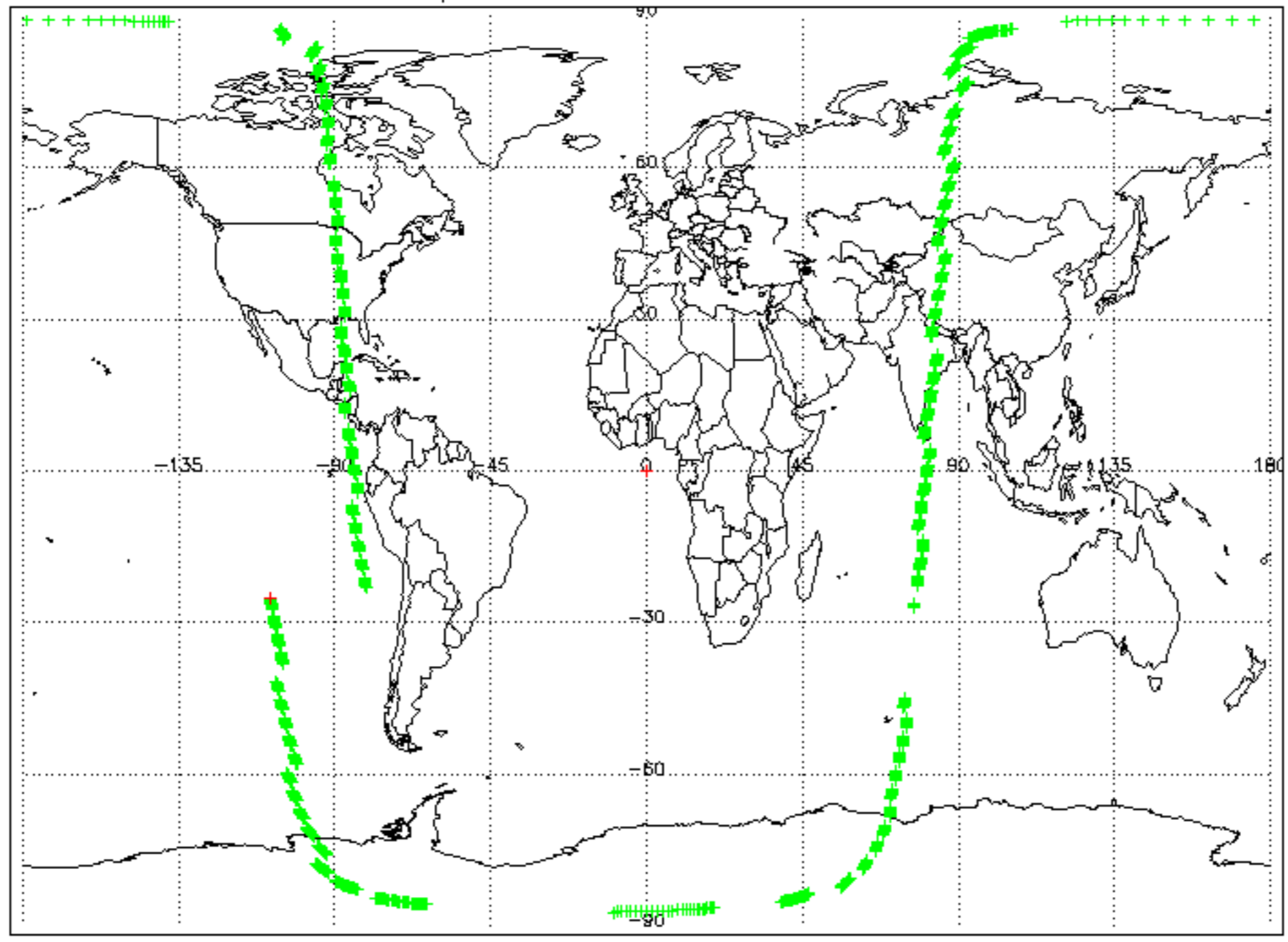


- + not corrupted
- + Unknown
- + corrupted transmission
- + Unknown 2
- + corrupted observational

Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band B

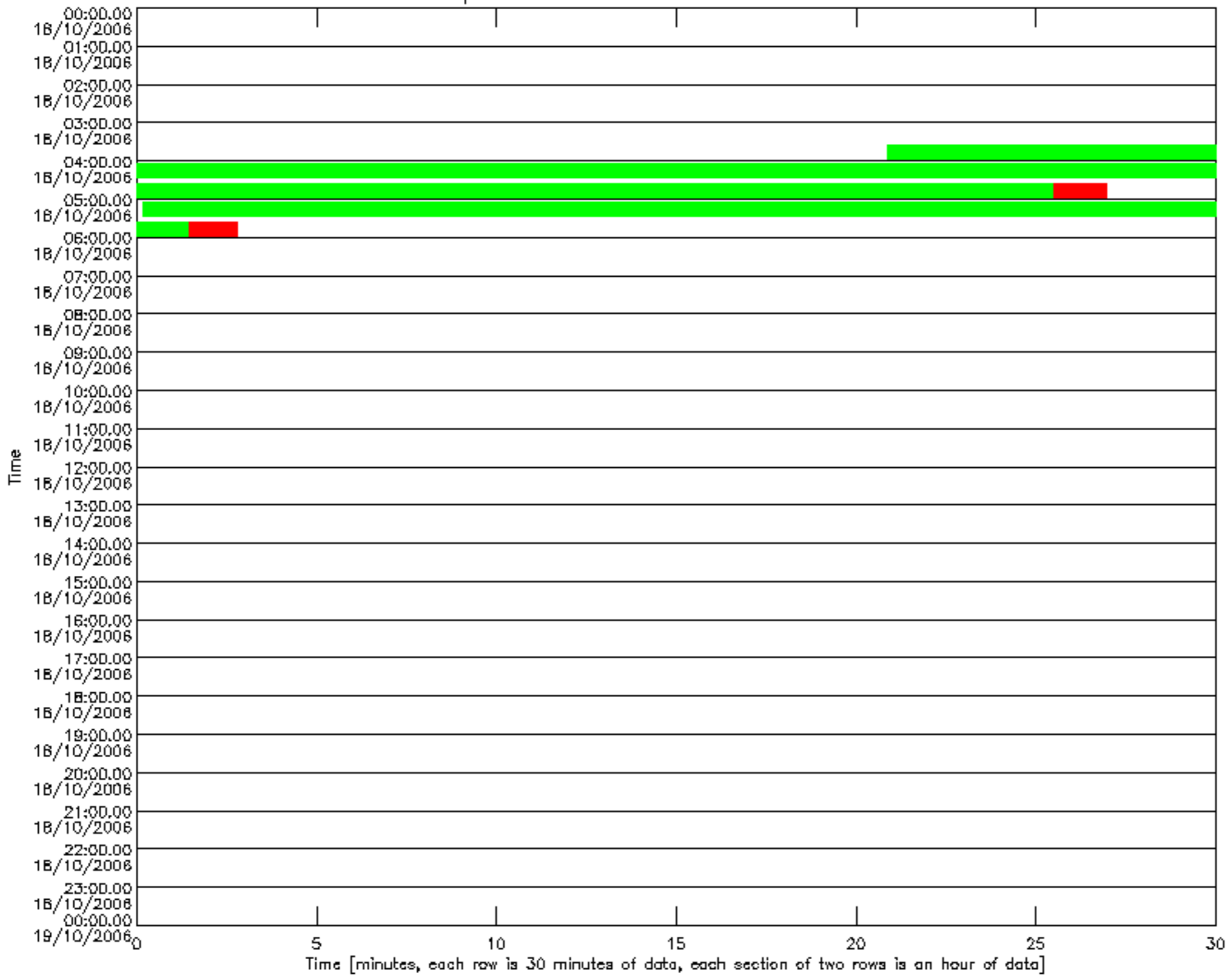


Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band B

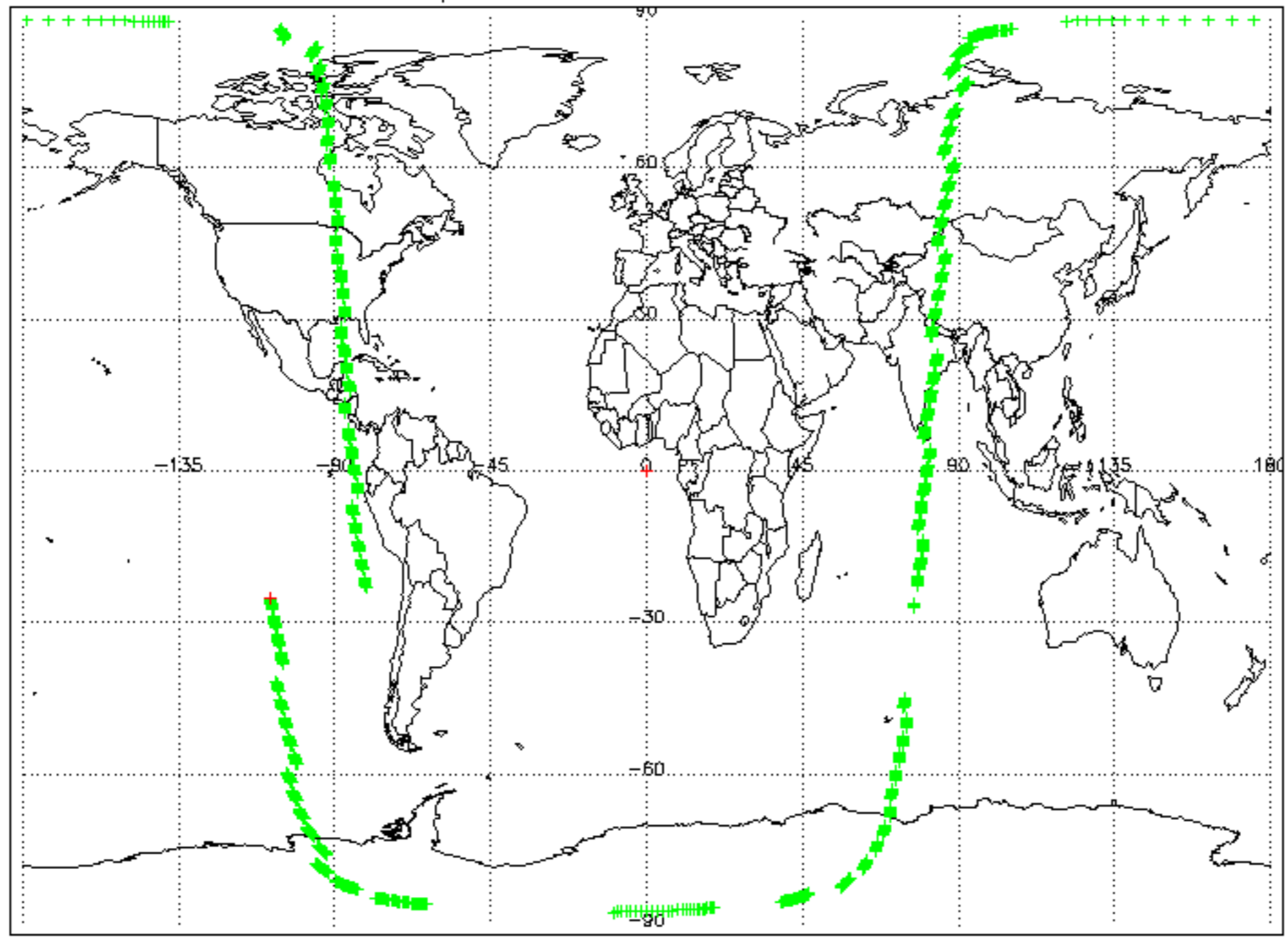


- + not corrupted
- + Unknown
- + corrupted transmission
- + Unknown 2
- + corrupted observational

Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band C

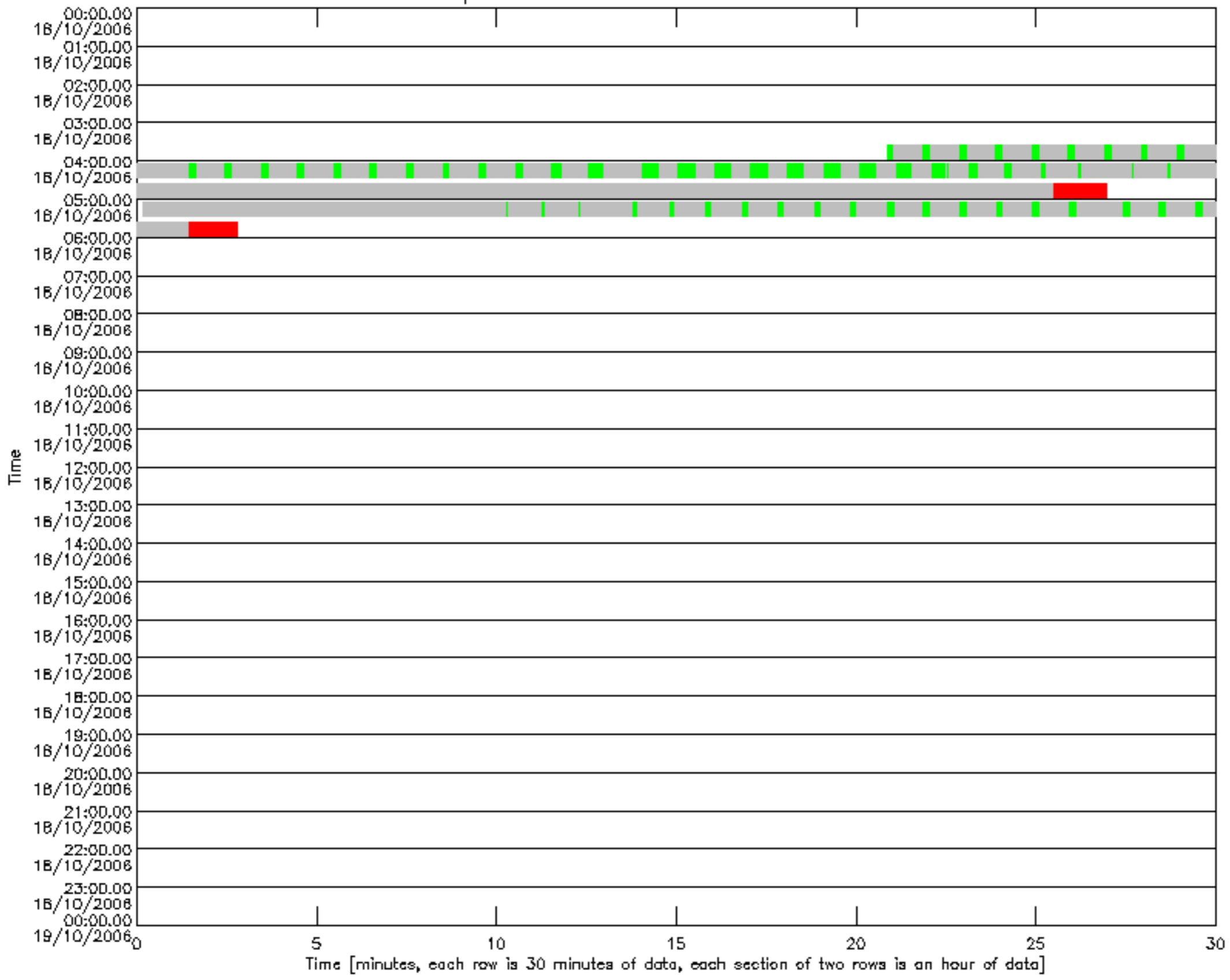


Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band C

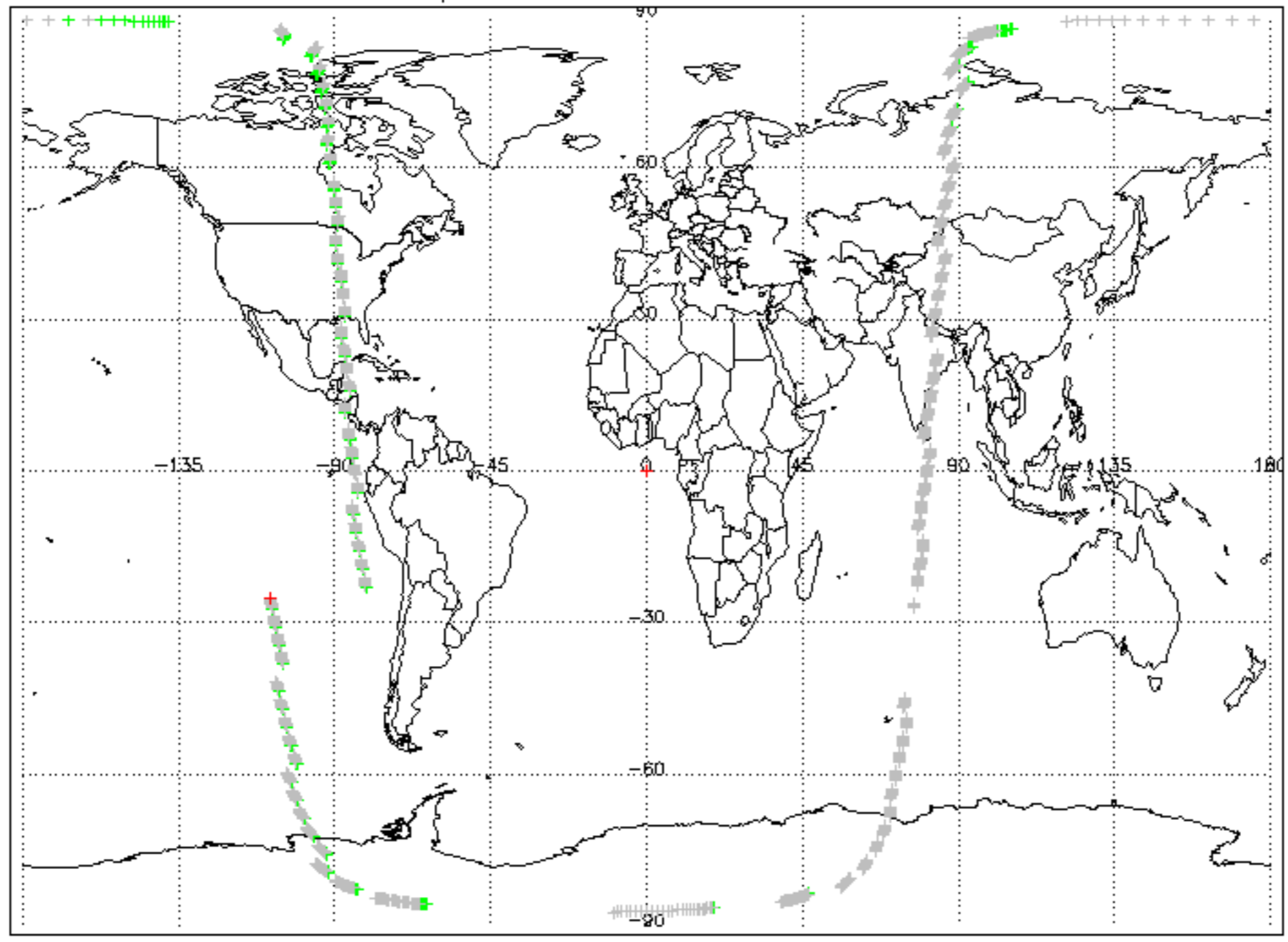


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Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band D

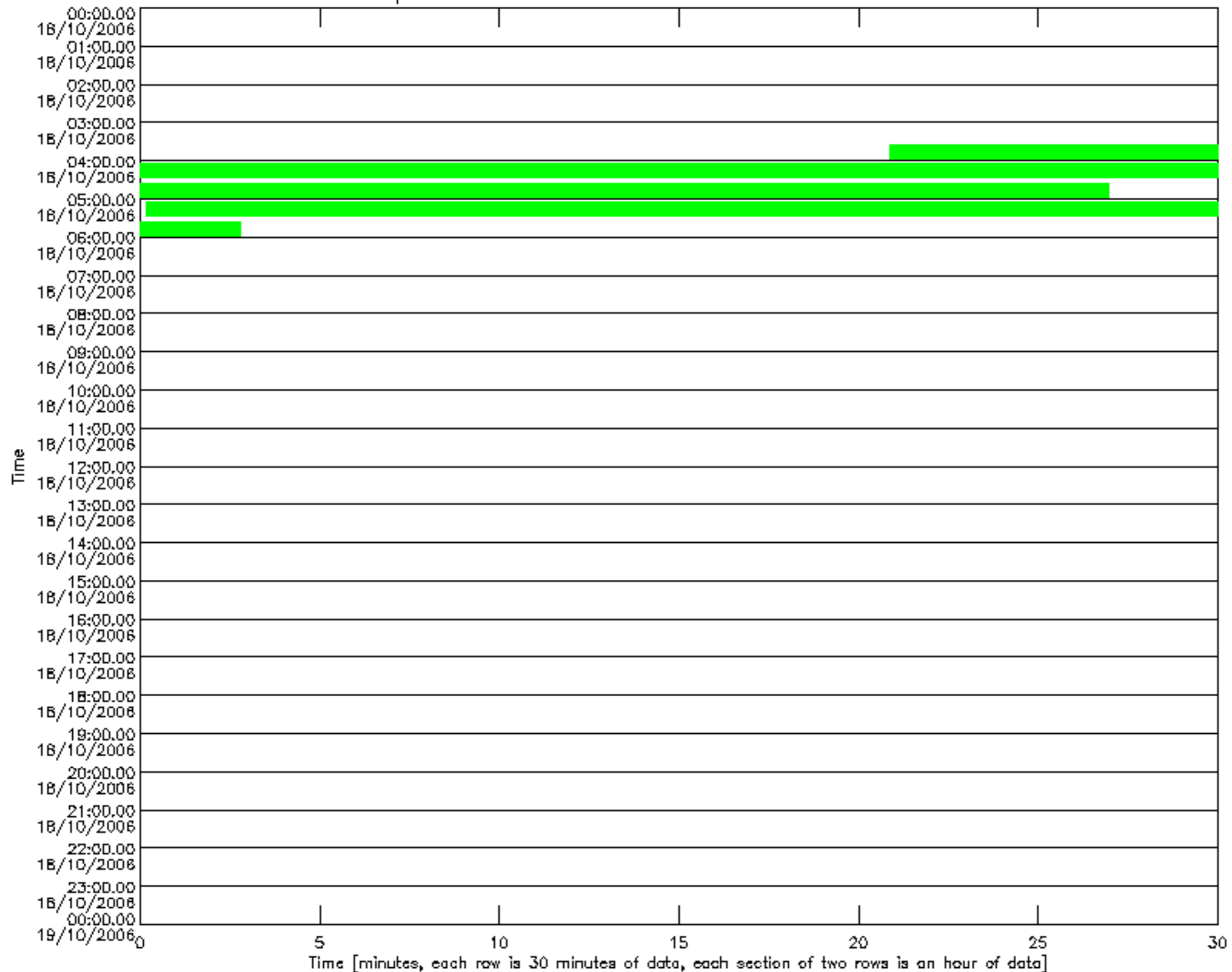


Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band D



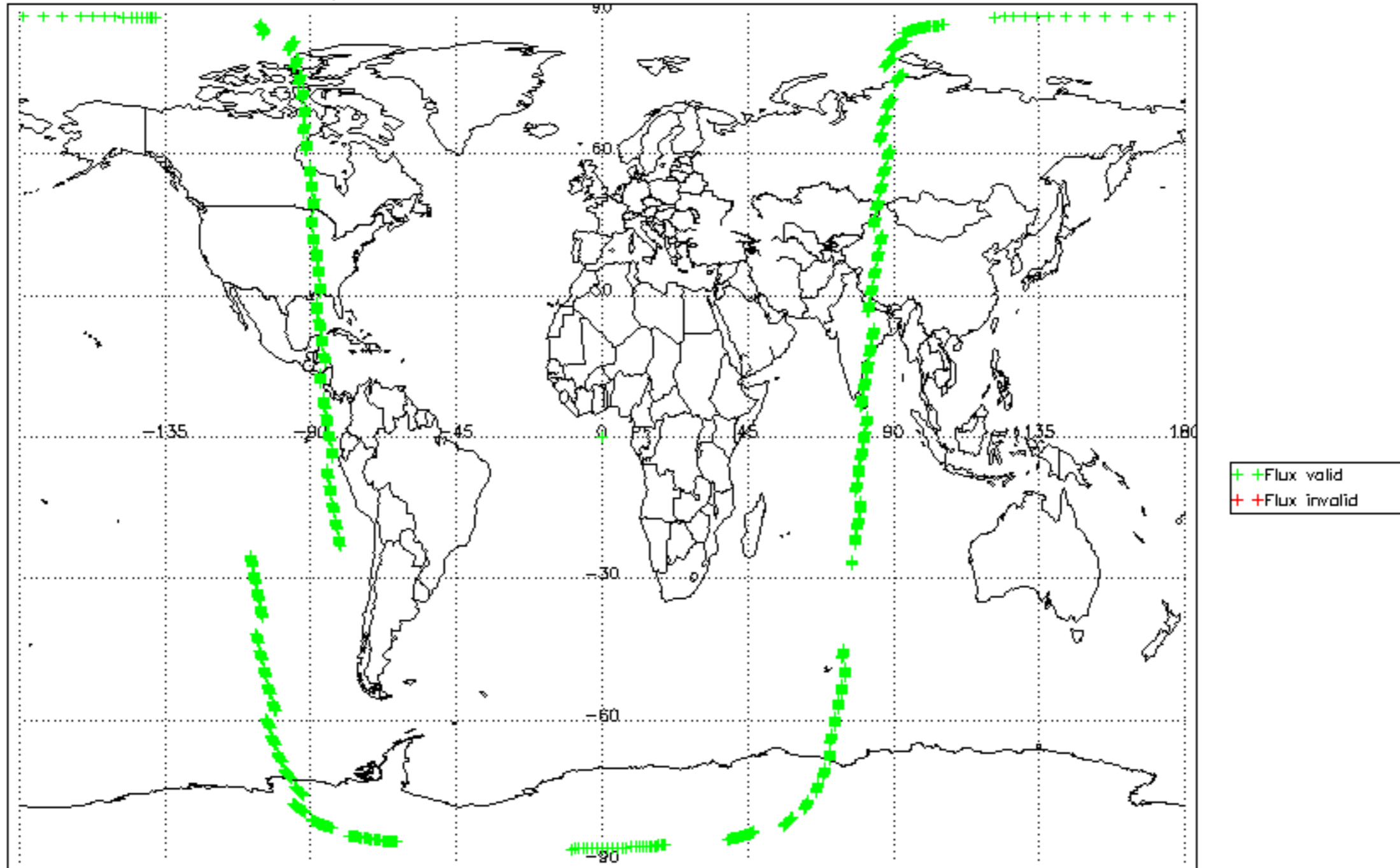
- + not corrupted
- + Unknown
- + corrupted transmission
- + Unknown 2
- + corrupted observational

Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A1

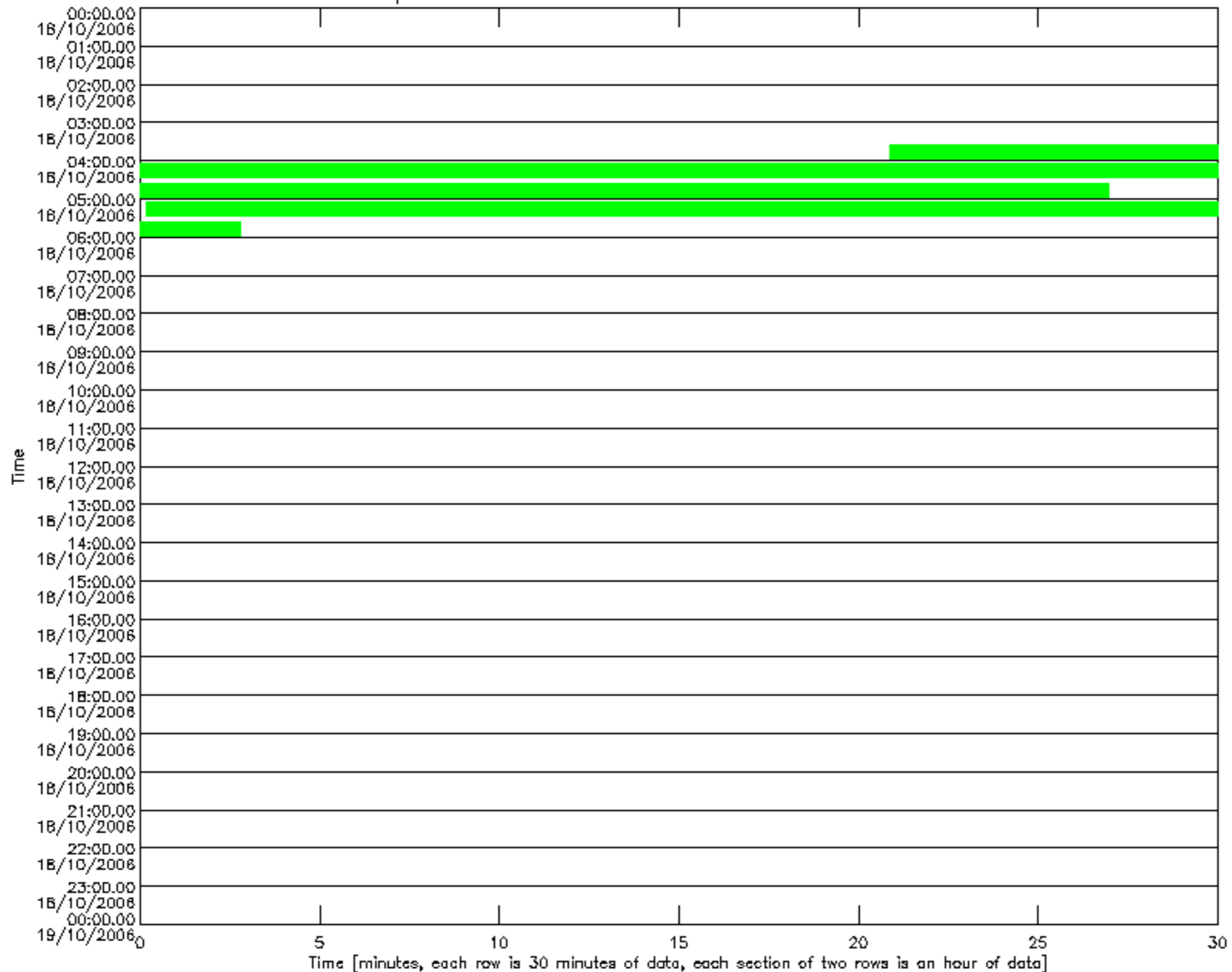


■ Flux valid
■ Flux invalid

Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_Jin_flux detector A1

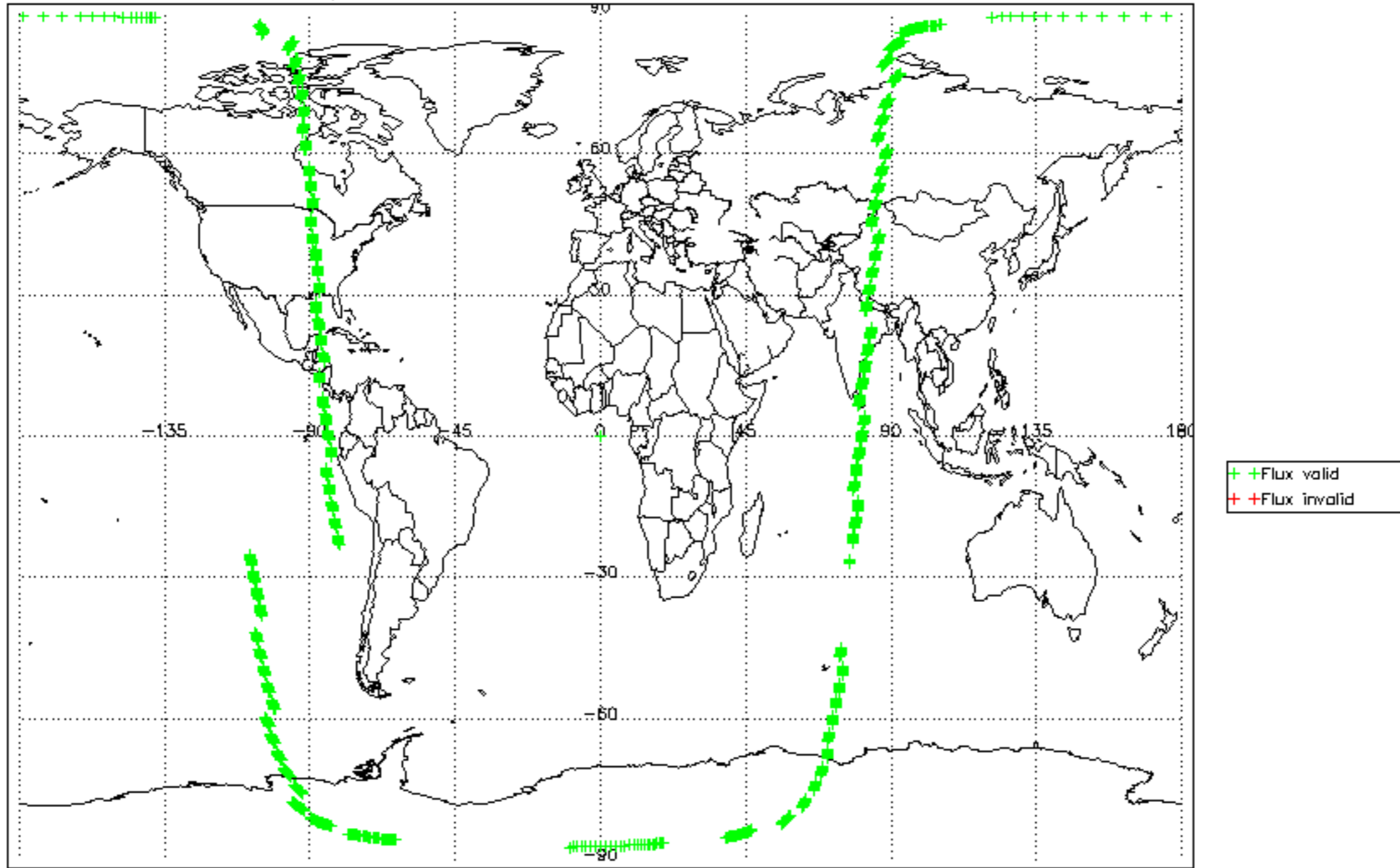


Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A2

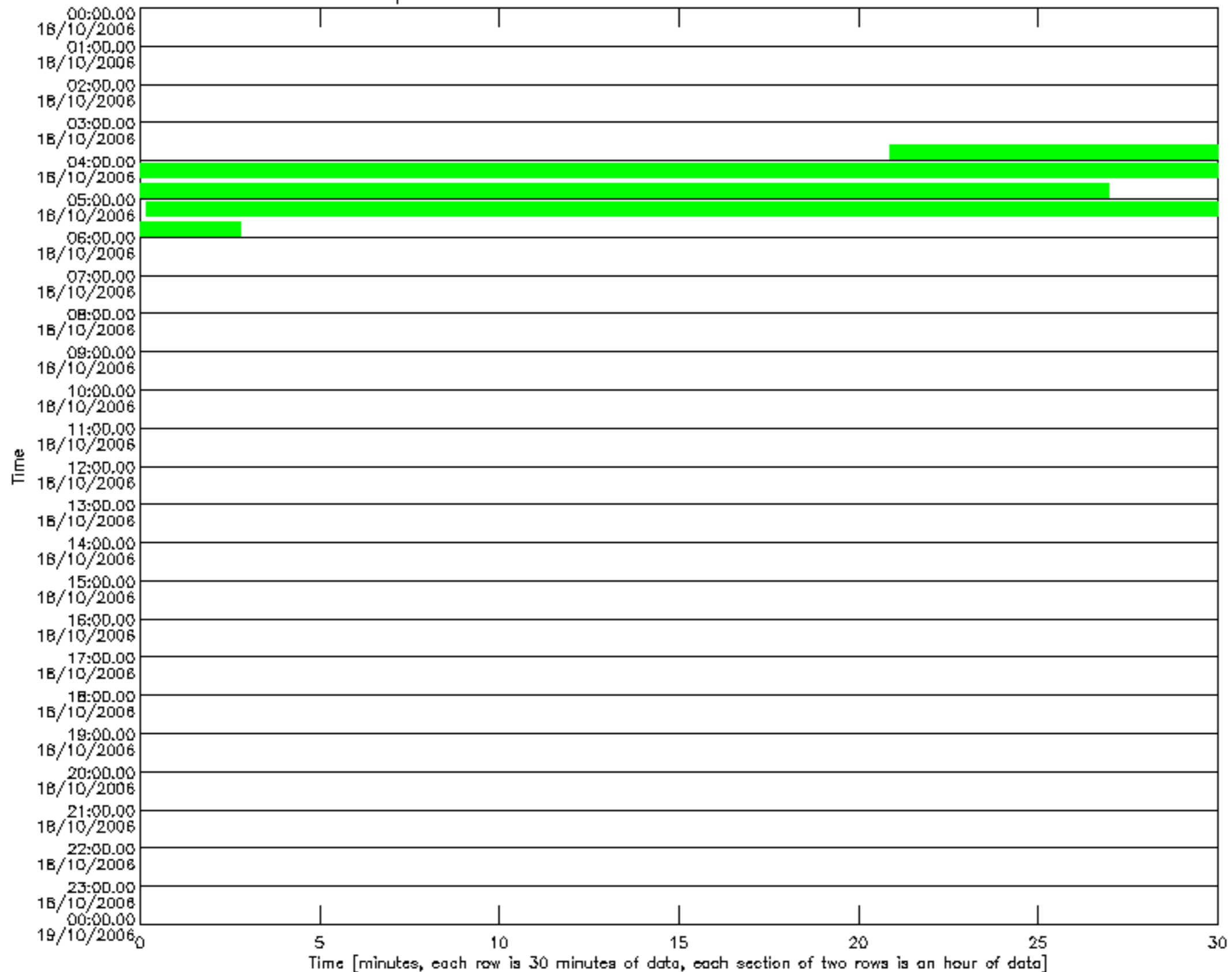


■ Flux valid
■ Flux invalid

Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_jin_flux detector A2

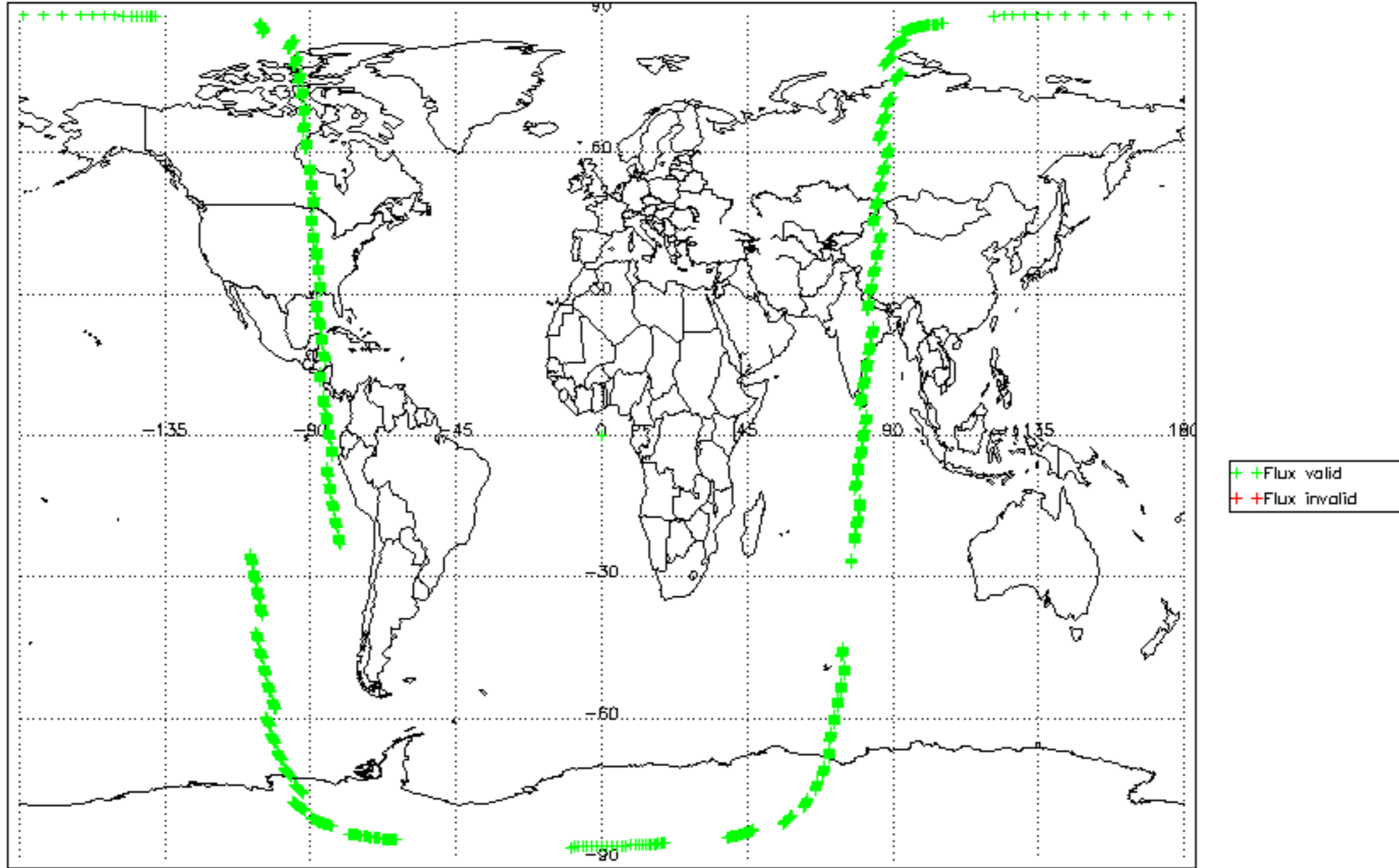


Bar plot of MIPNL1P_MIPLEV1 BMDS_detect_non_lin_flux detector AB

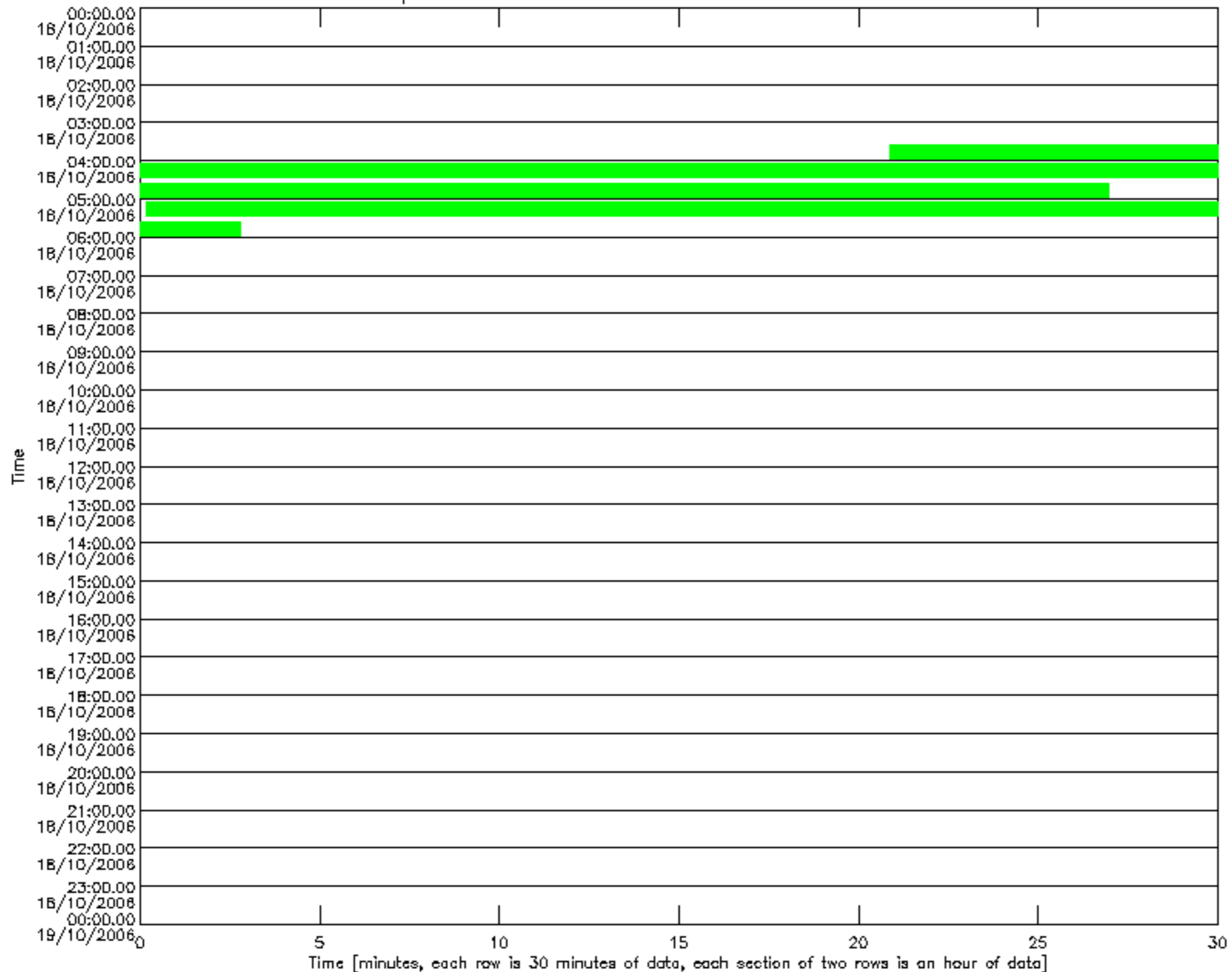


■ Flux valid
■ Flux invalid

Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector AB

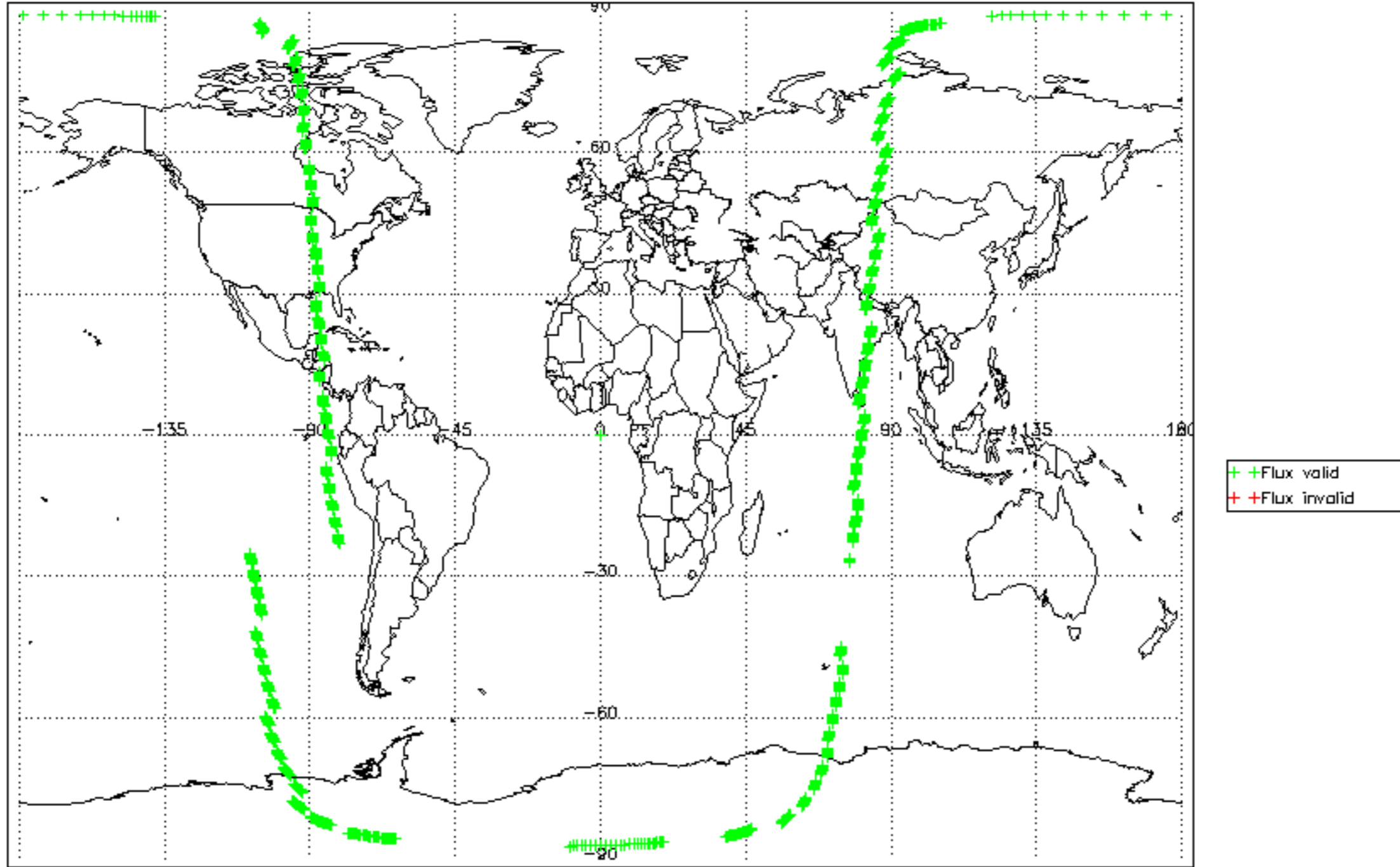


Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector B

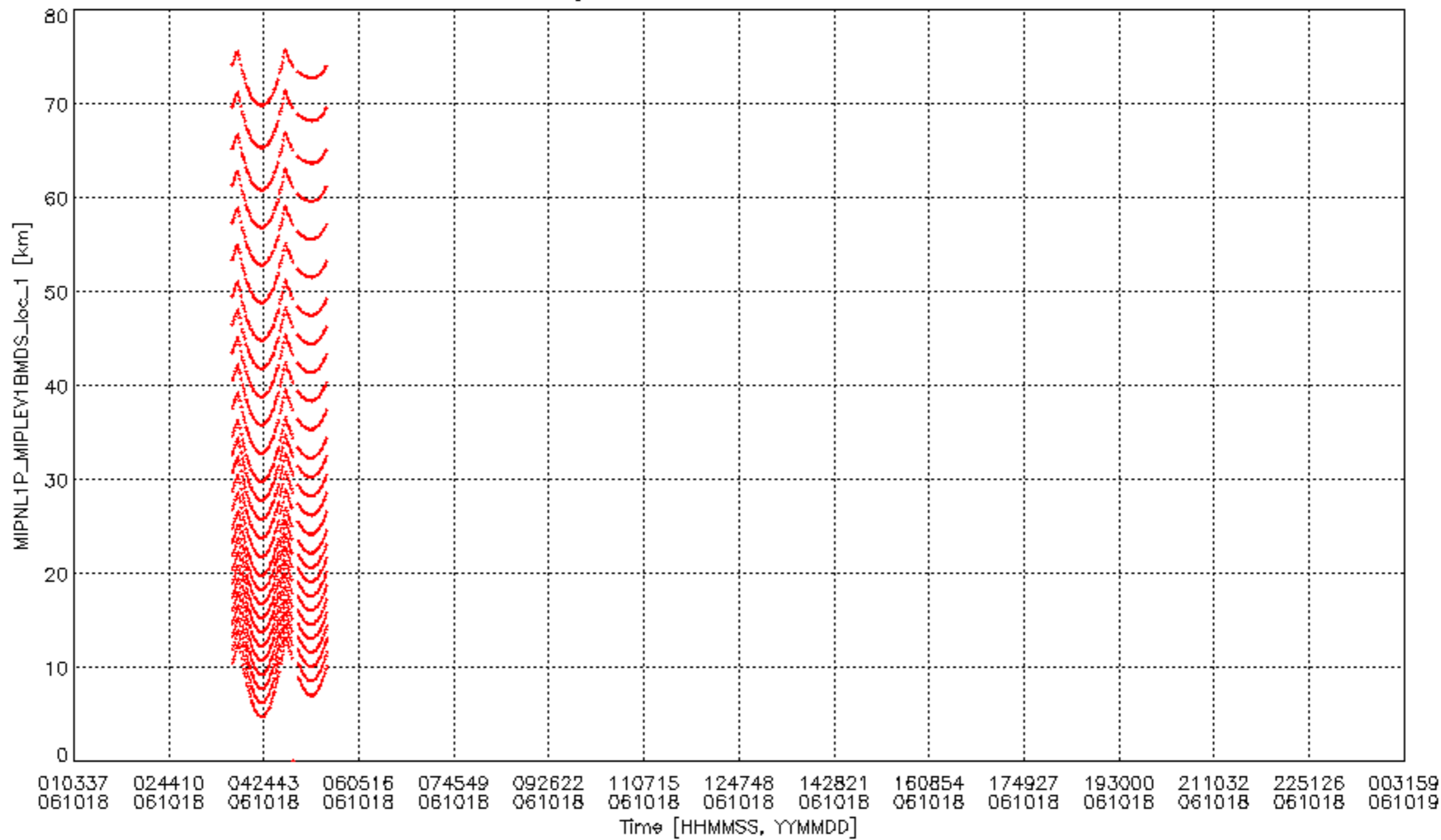


■ Flux valid
■ Flux invalid

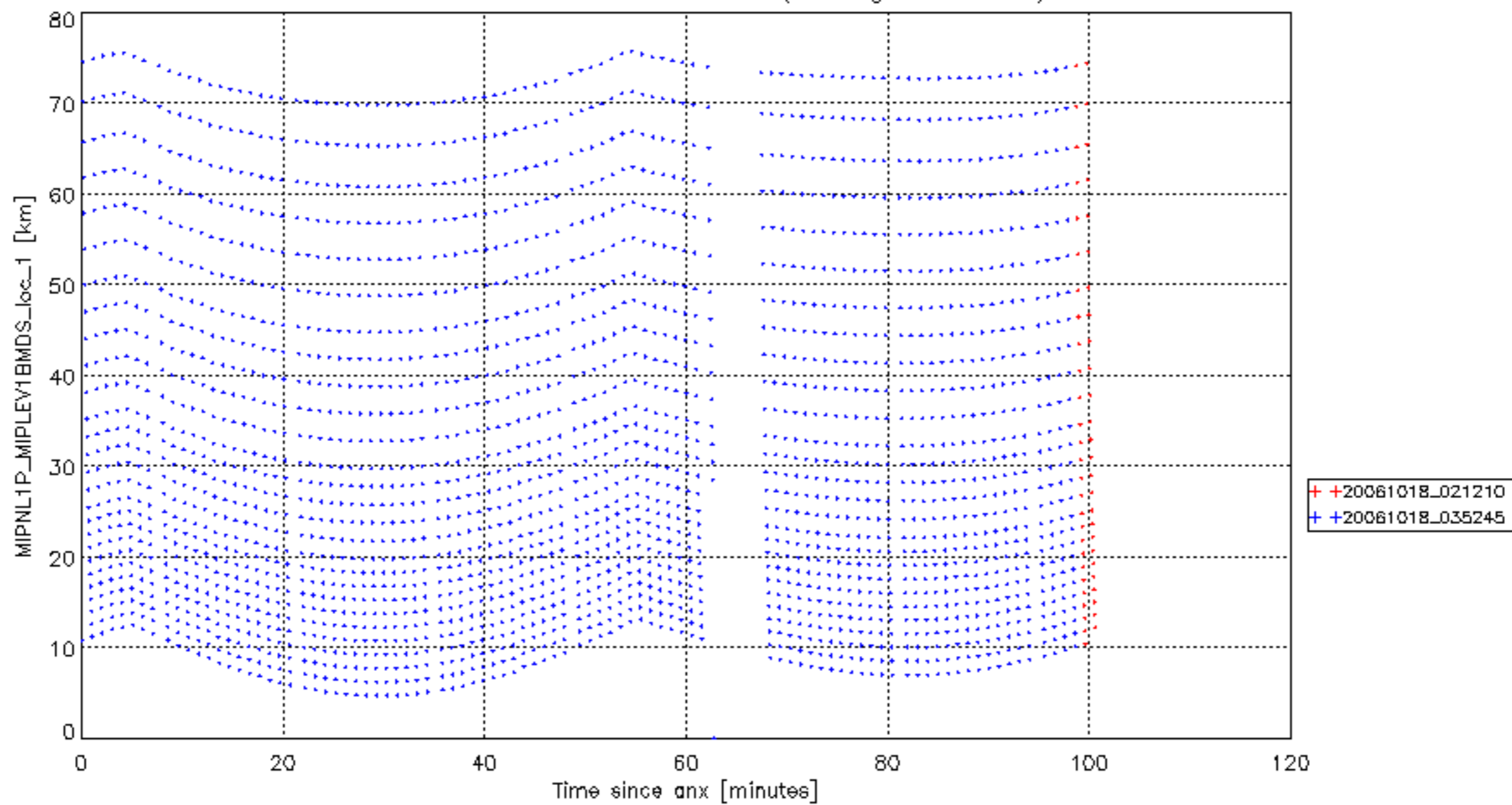
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_Jin_flux detector B

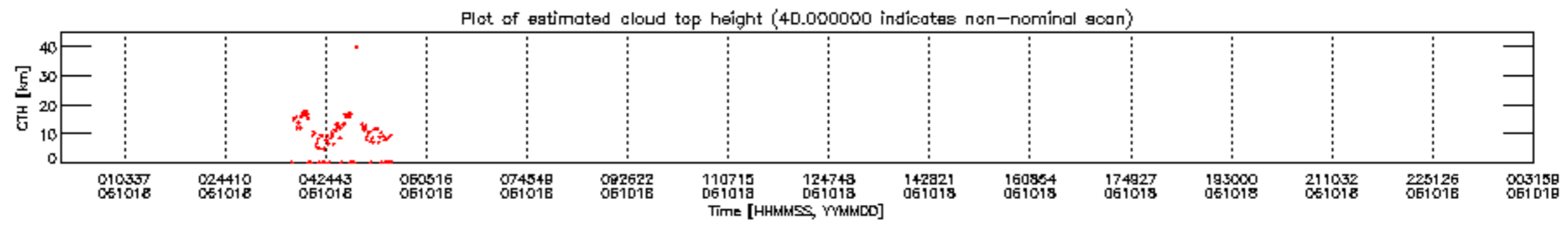


Plot of MIPNL1P_MIPLEV1BMDS_loc_1 against time.
The vertical grid lines indicate estimated anx events.



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)

