

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 | 20AUG2006 04:11:32 |
| Data source version | MIPAS/4.65-P |
| Processing scope for products | 15JUL2006 00:00:00 to 16JUL2006 00:00:00 |
| Start time of first product within scope | 15JUL2006 06:54:08 |
| Stop time of last product within scope | 15JUL2006 06:57:03 |
| Total number of level 1 products | 1 |
| 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.

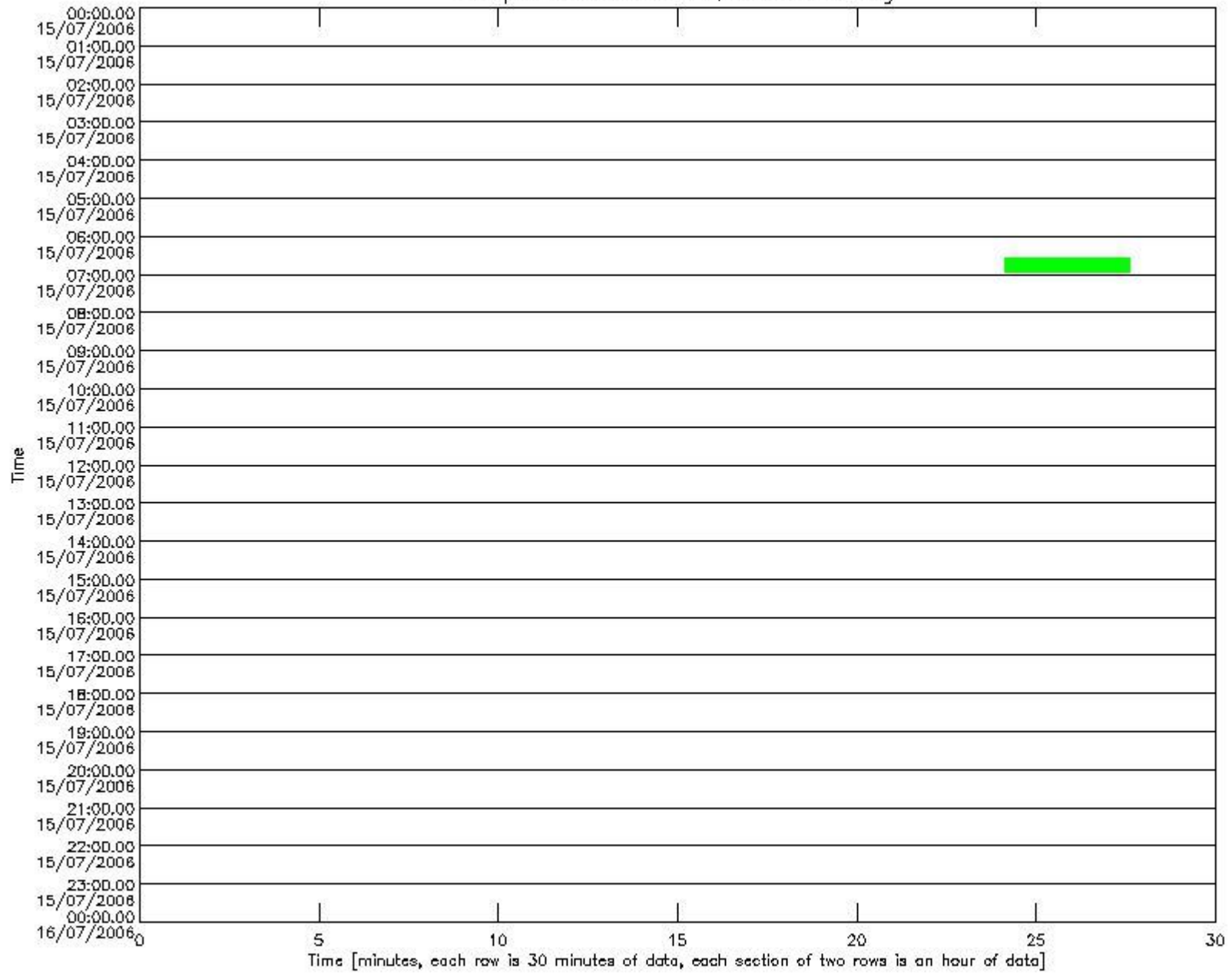
| # | Product name | Start time | Stop time | Prod err | Slice position (prod/tot) |
|---|--|--------------------|--------------------|----------|---------------------------|
| 0 | MIP_NL__1PPDPA20060715_065408_000001762049_00263_22862_0289.N1 | 15JUL2006 06:54:08 | 15JUL2006 06:57:03 | 0 | 0/0 |

1.2 Product Quality Indicators

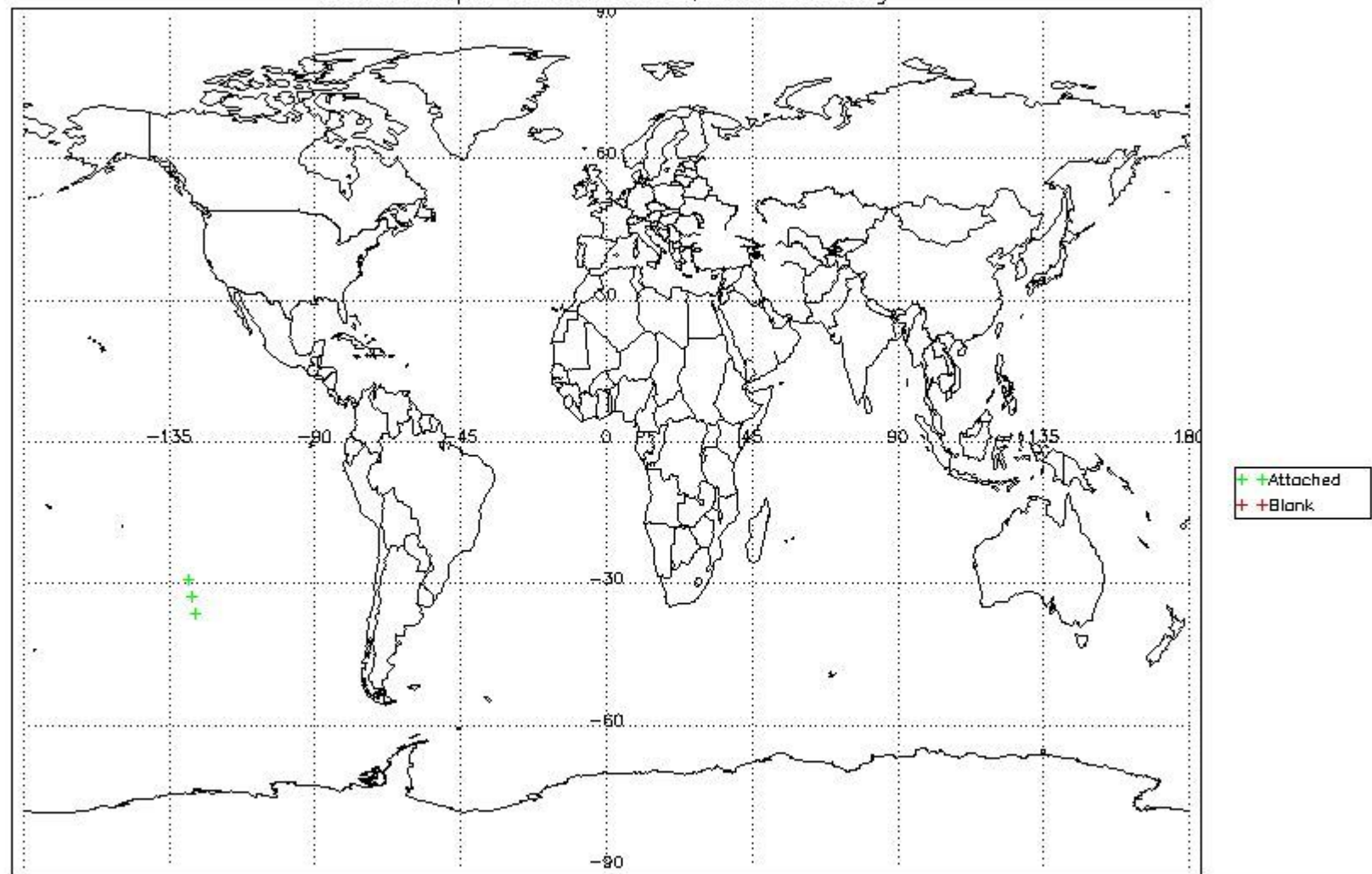
This report contains an analysis on product quality related parameters within the MIP_NL__1P product.

1.2.1 Trends and geolocation of Summary Quality ADS

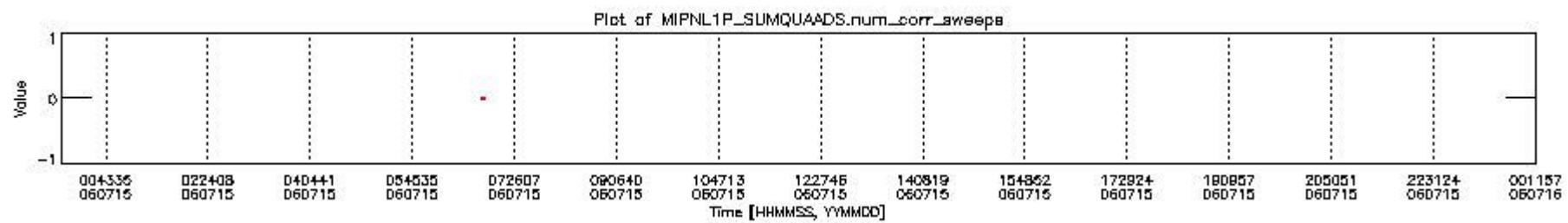
Bar plot of MIPNL1P_SUMQUAADS.attach_flag



Geolocation plot of MIPNL1P_SUMQUADS.attach_flag

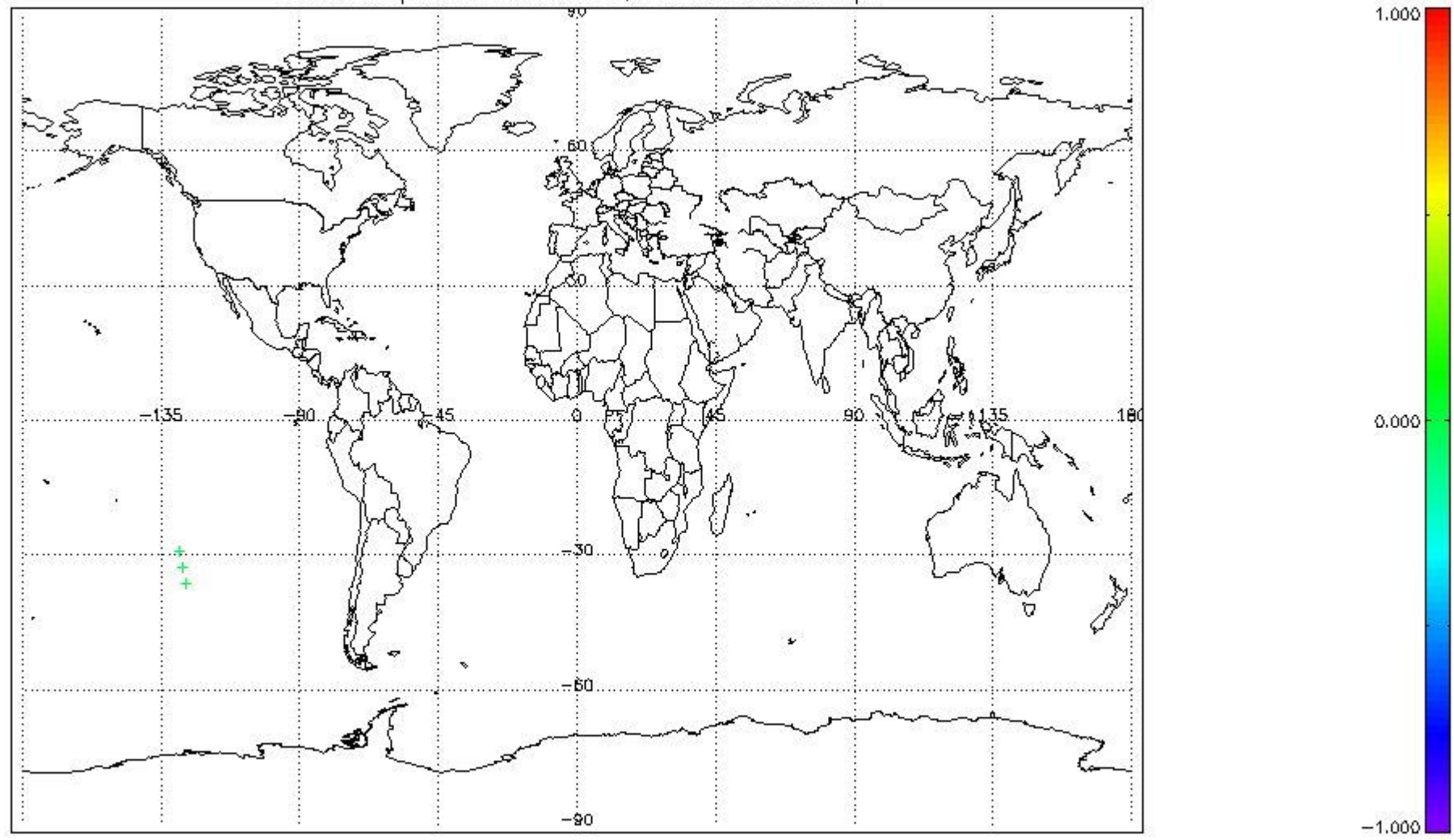


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_1.PNG

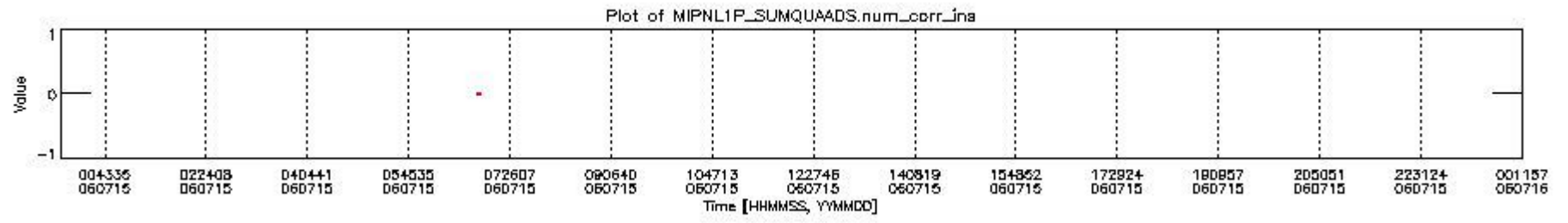


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_2.PNG

Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_sweeps

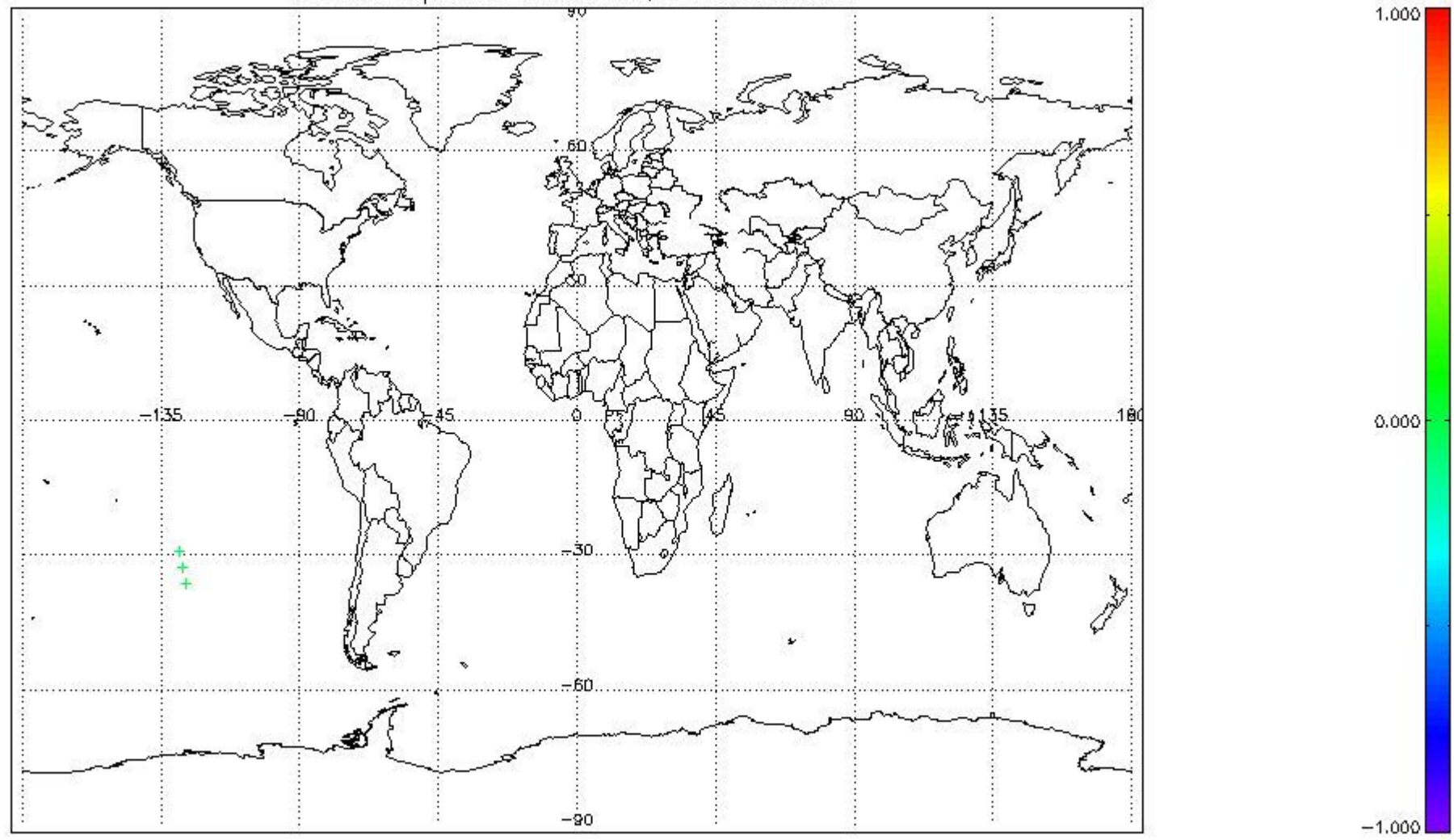


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_3.PNG

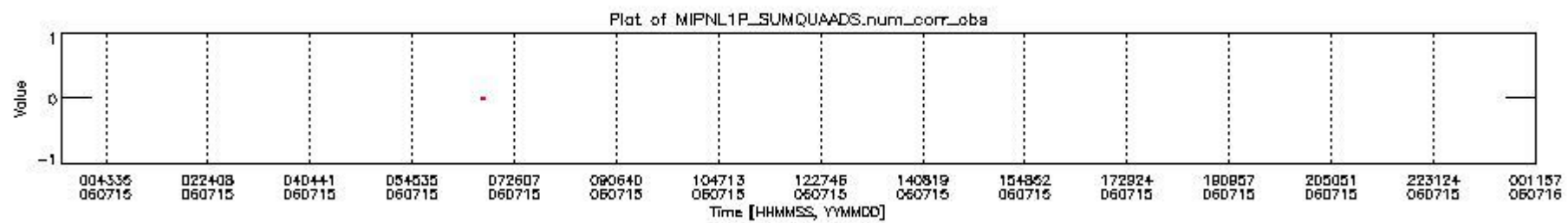


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_4.PNG

Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_ins

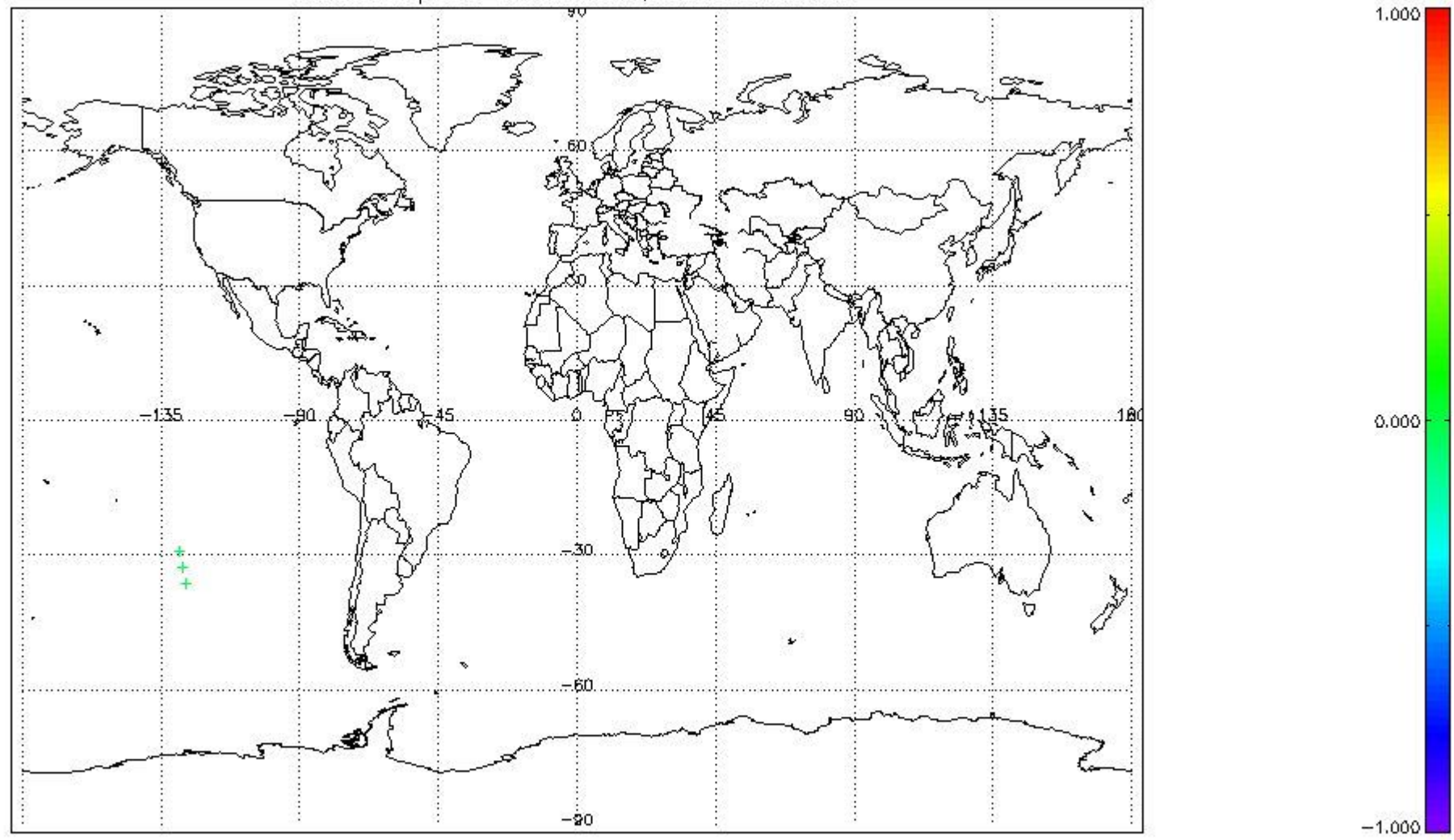


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_5.PNG

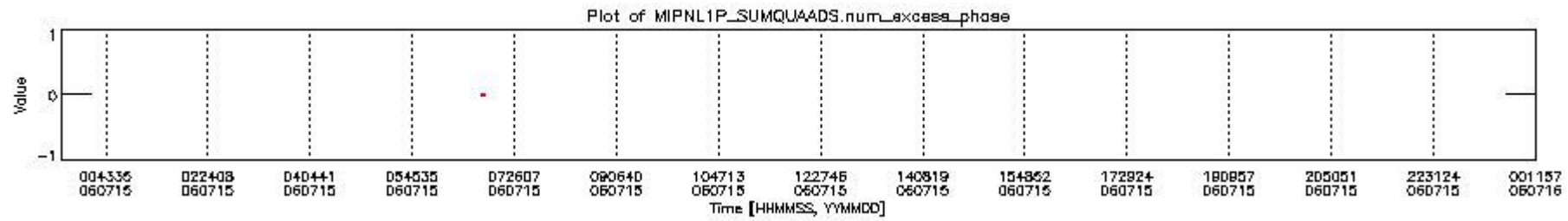


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_6.PNG

Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_obs

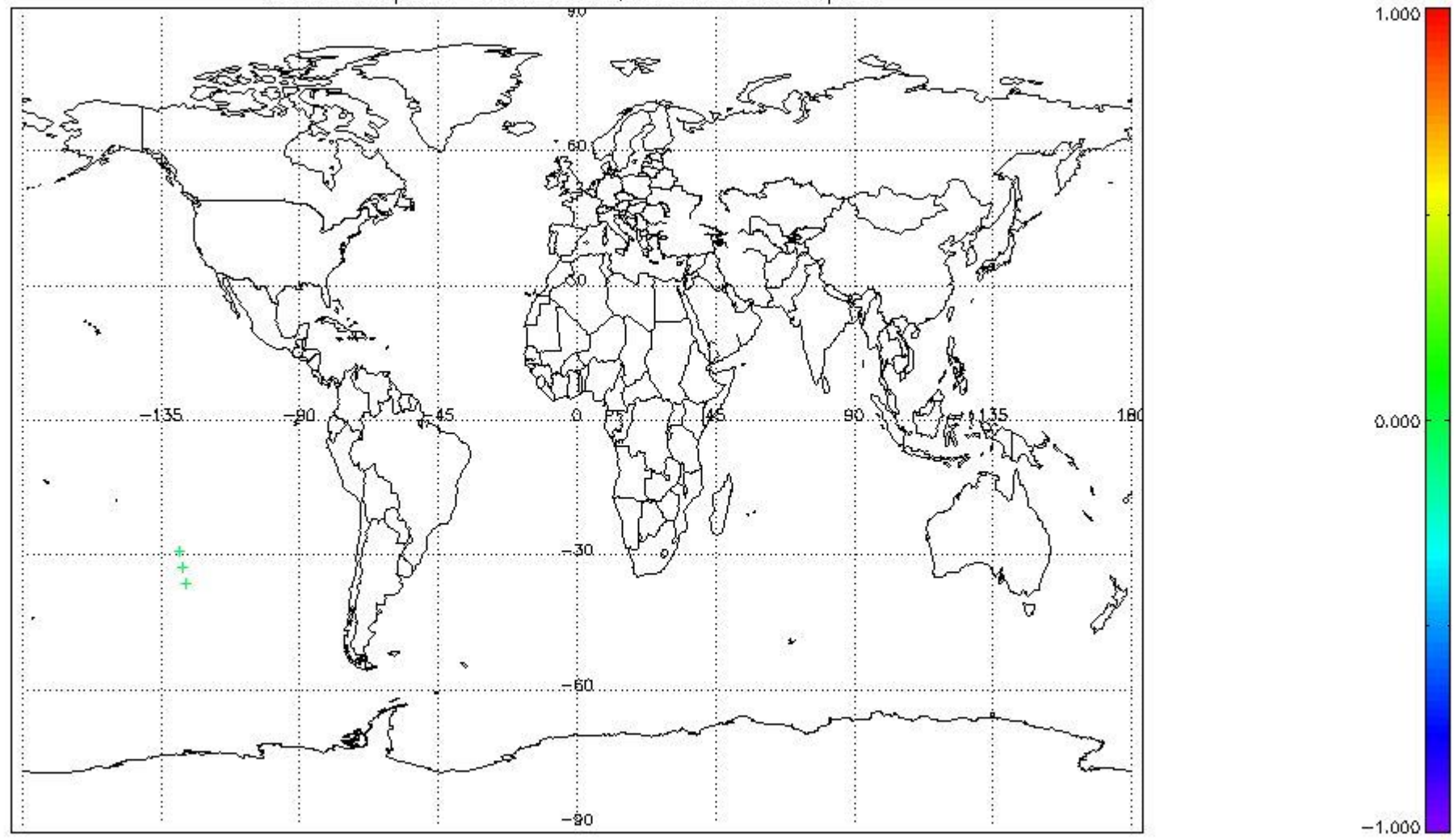


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_7.PNG

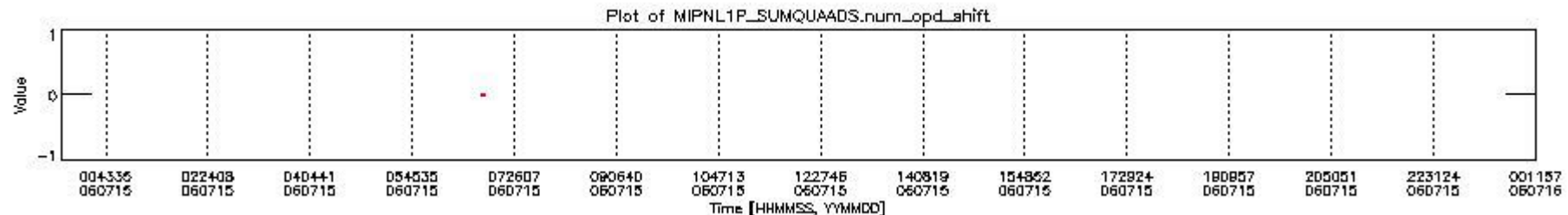


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_8.PNG

Geolocation plot of MIPNL1P_SUMQUAADS.num_excess_phase

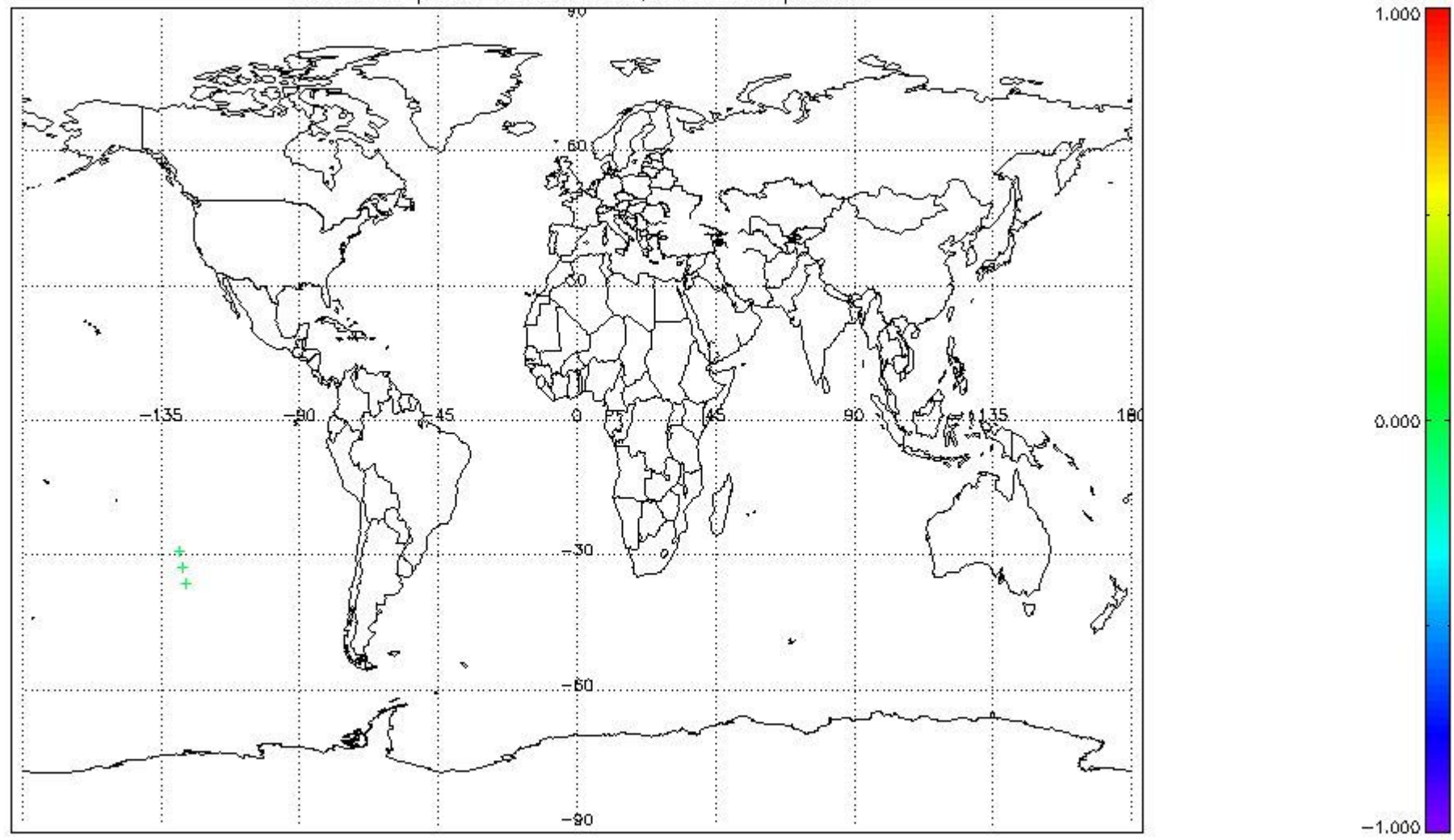


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_9.PNG

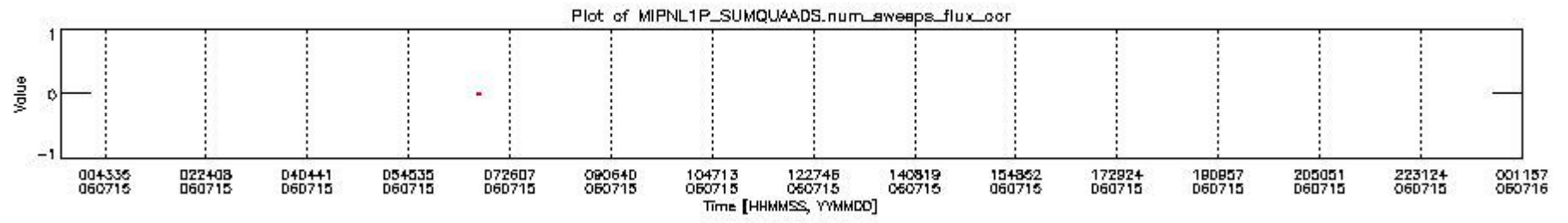


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_10.PNG

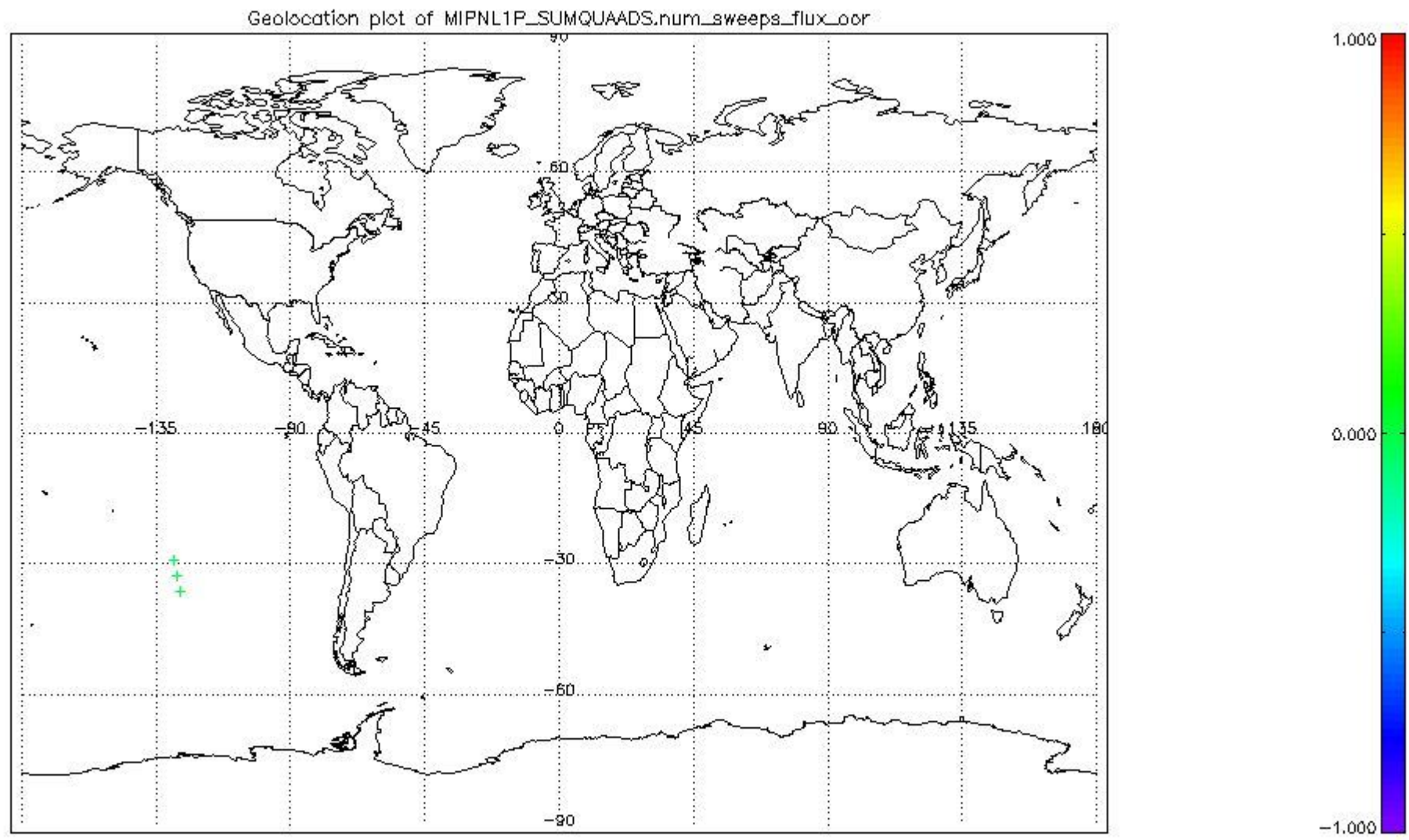
Geolocation plot of MIPNL1P_SUMQUAADS.num_lopd_shift



mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_11.PNG



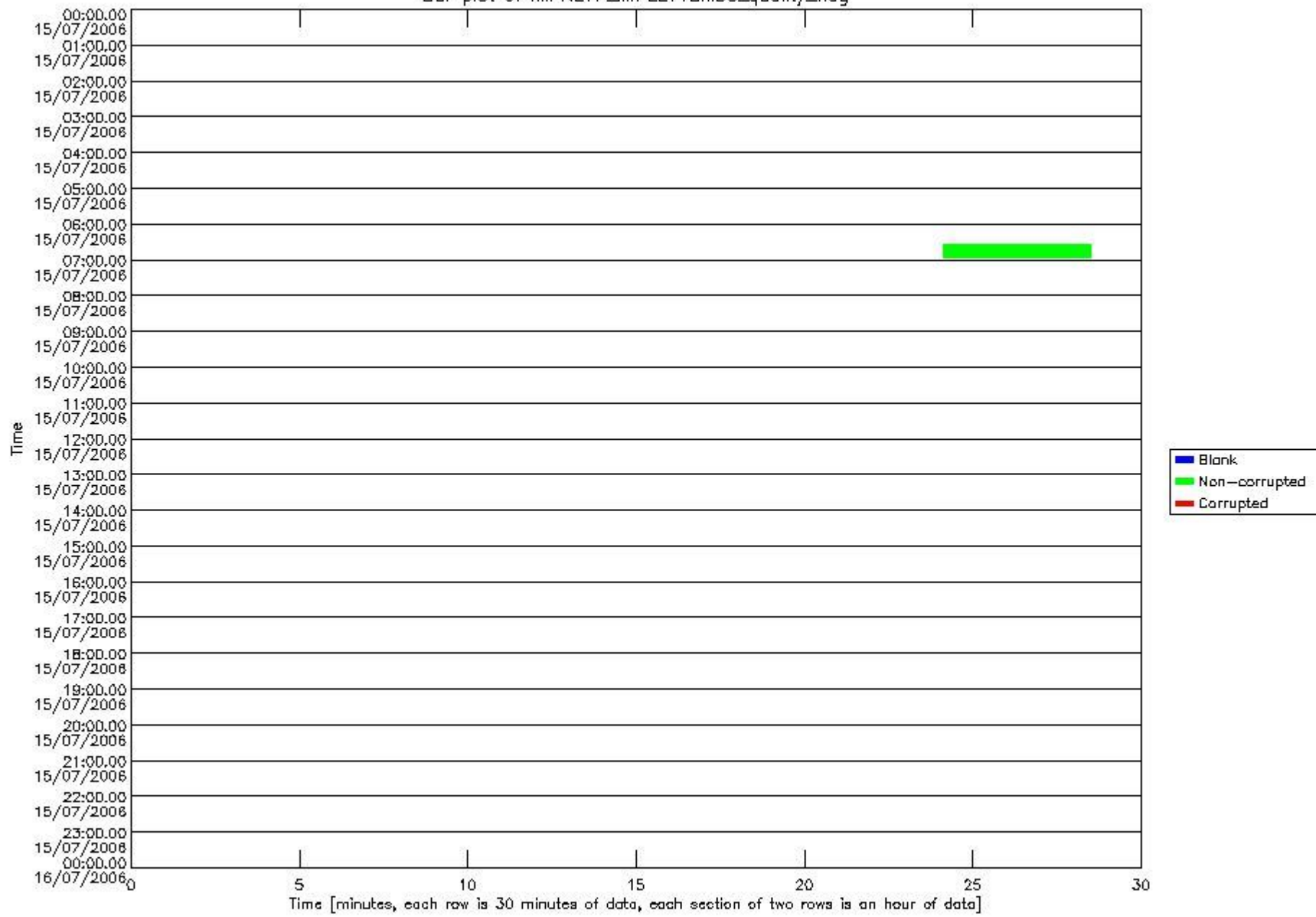
mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_12.PNG



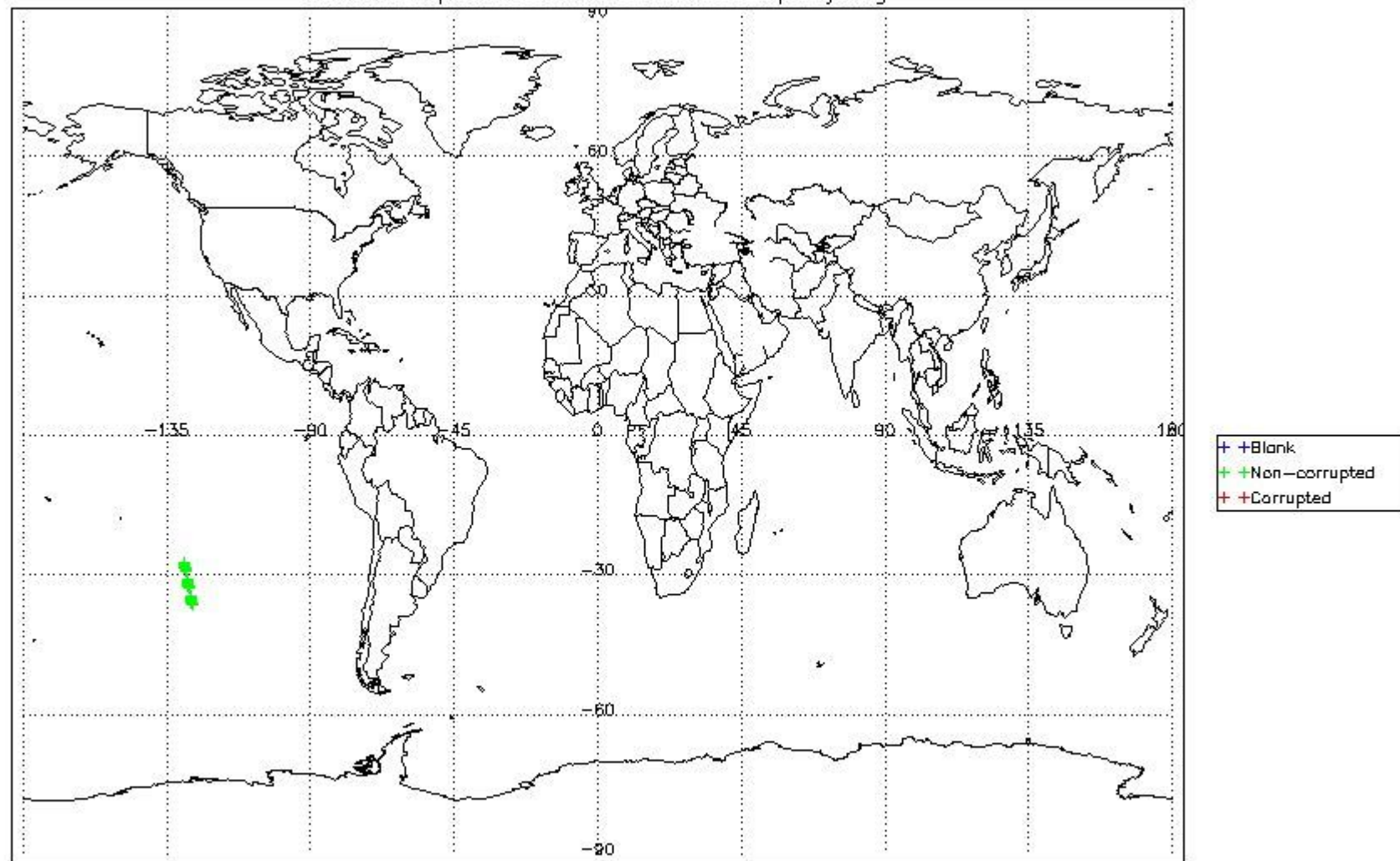
mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_13.PNG

1.2.2 Trends and geolocation of MIPAS LEVEL 1 MDS

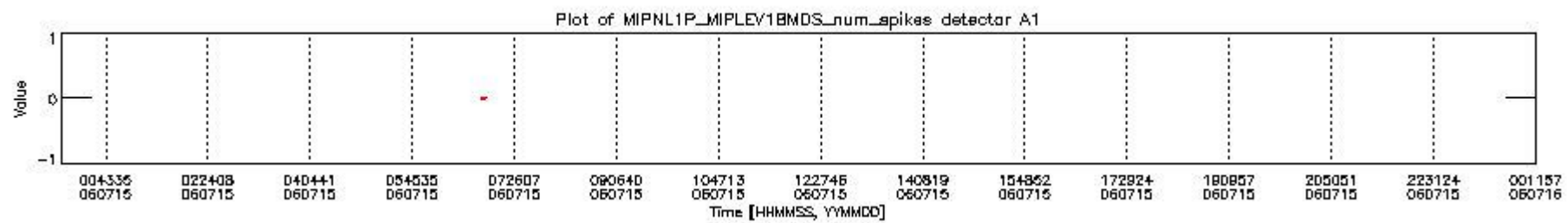
Bar plot of MIPNL1P_MIPLEY1BMDS_quality_flag



Geolocation plot of MIPNL1P_MIPLEV1BMDS_quality_flag

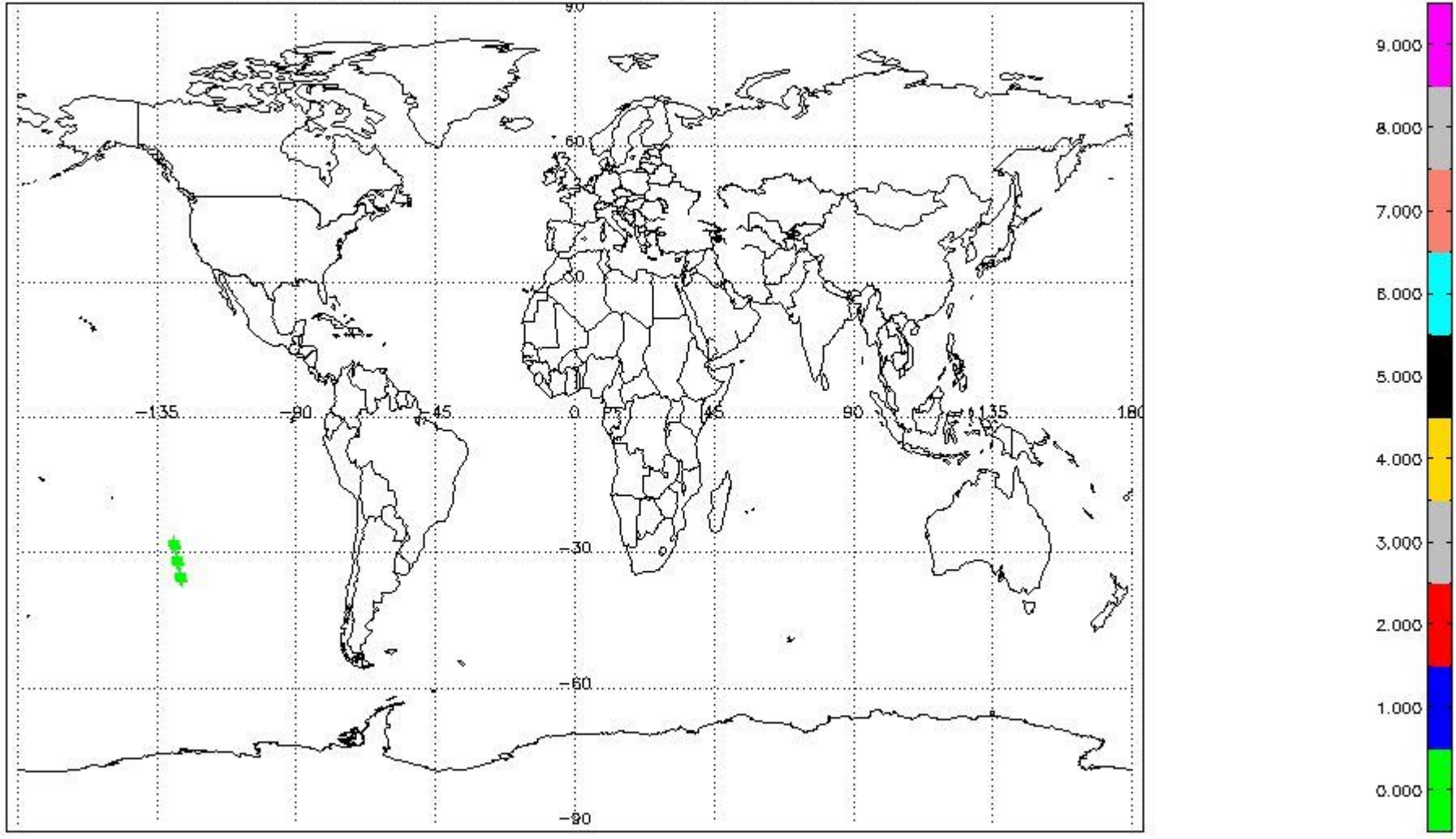


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_15.PNG

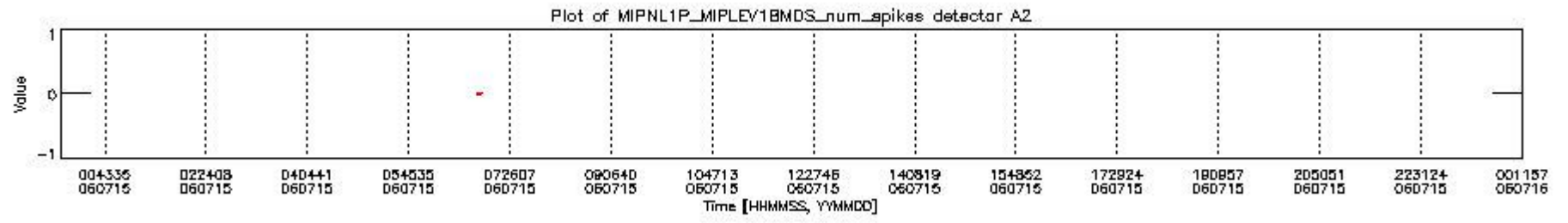


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_16.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A1

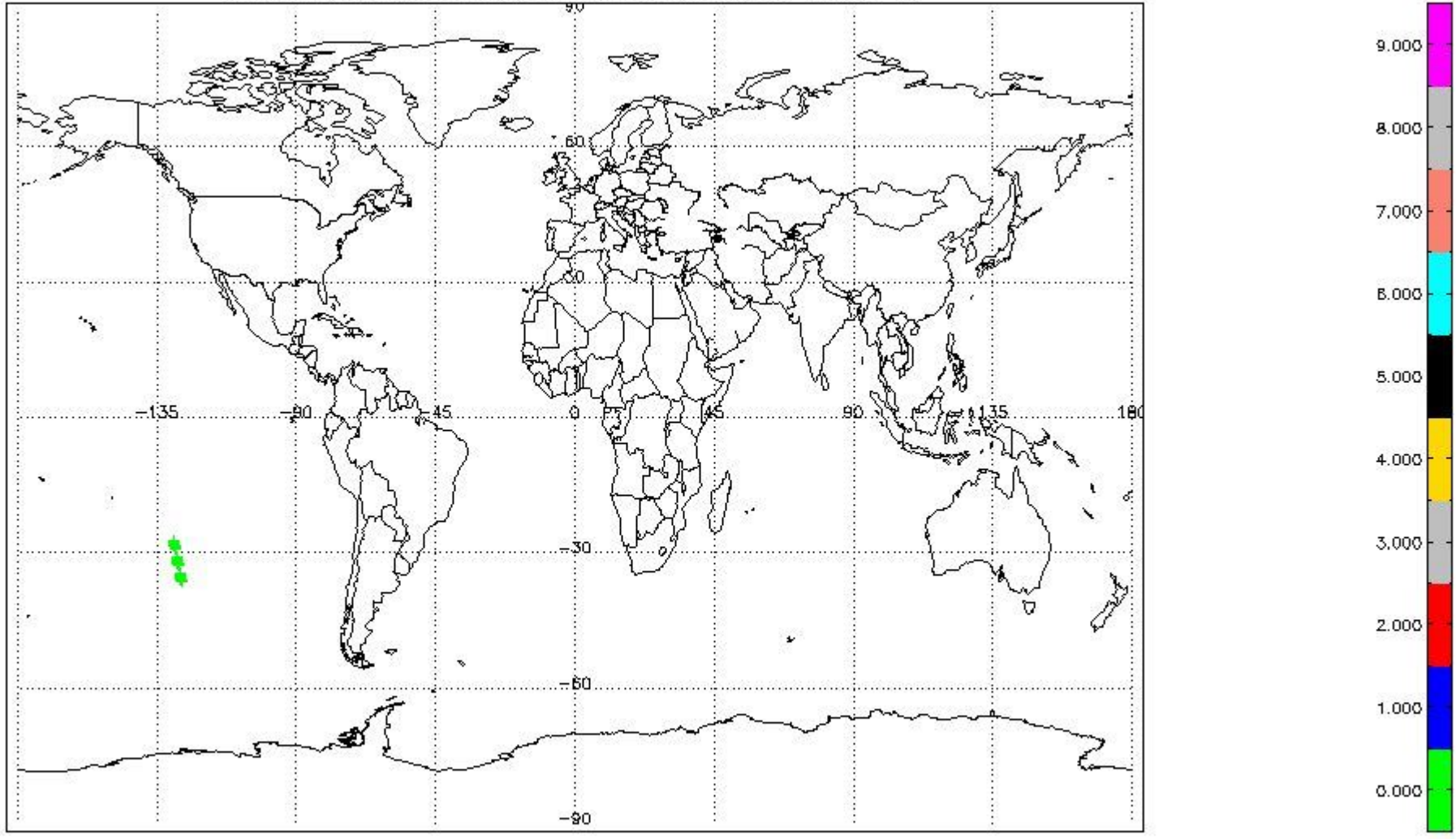


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_17.PNG

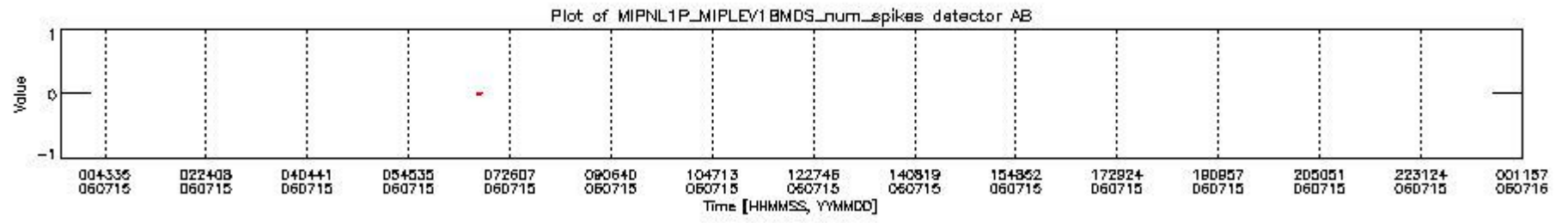


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_18.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A2

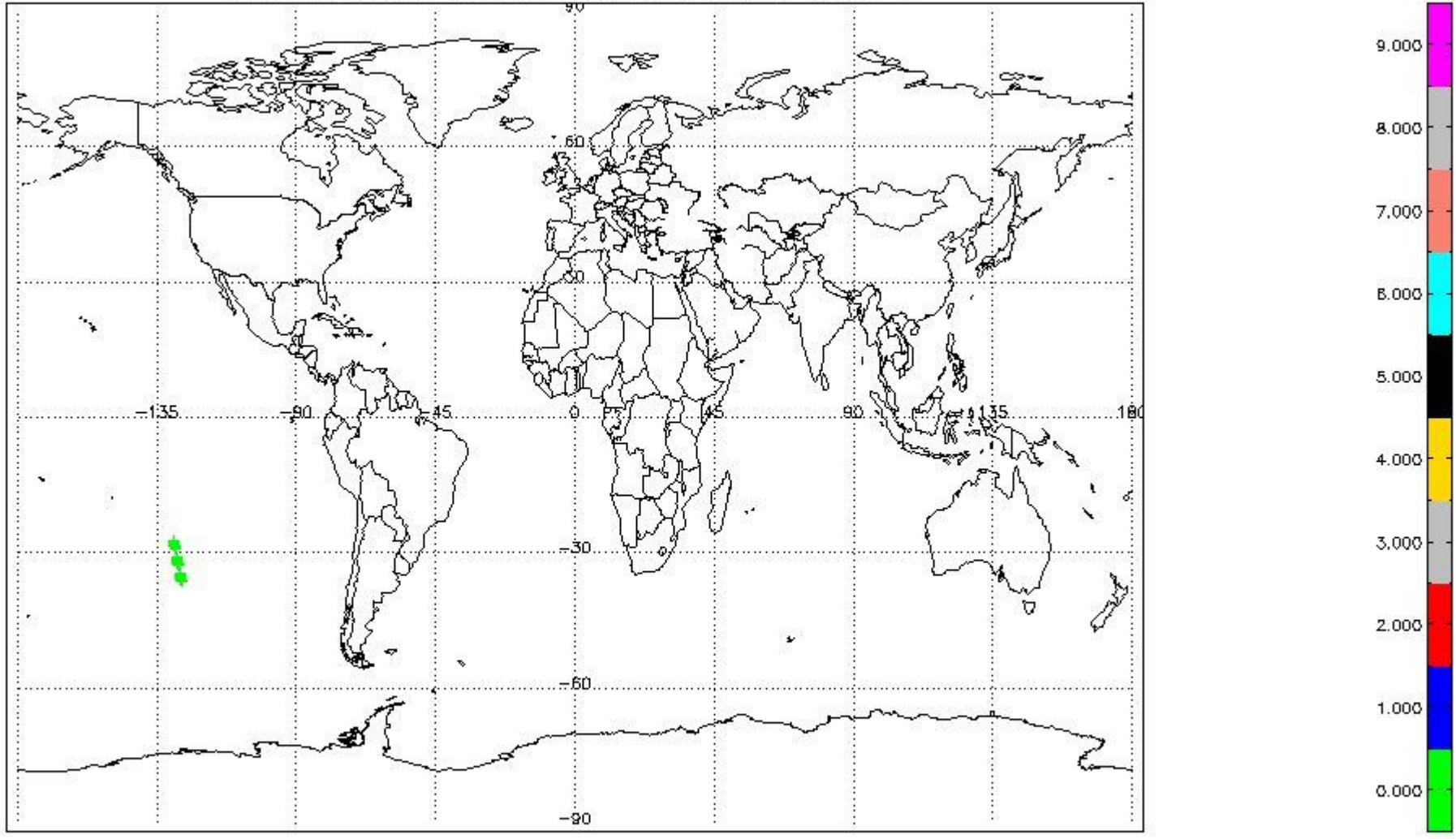


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_19.PNG

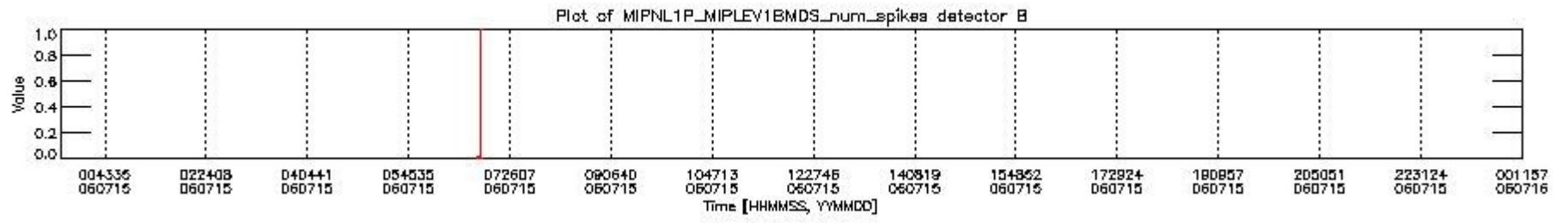


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_20.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector AB

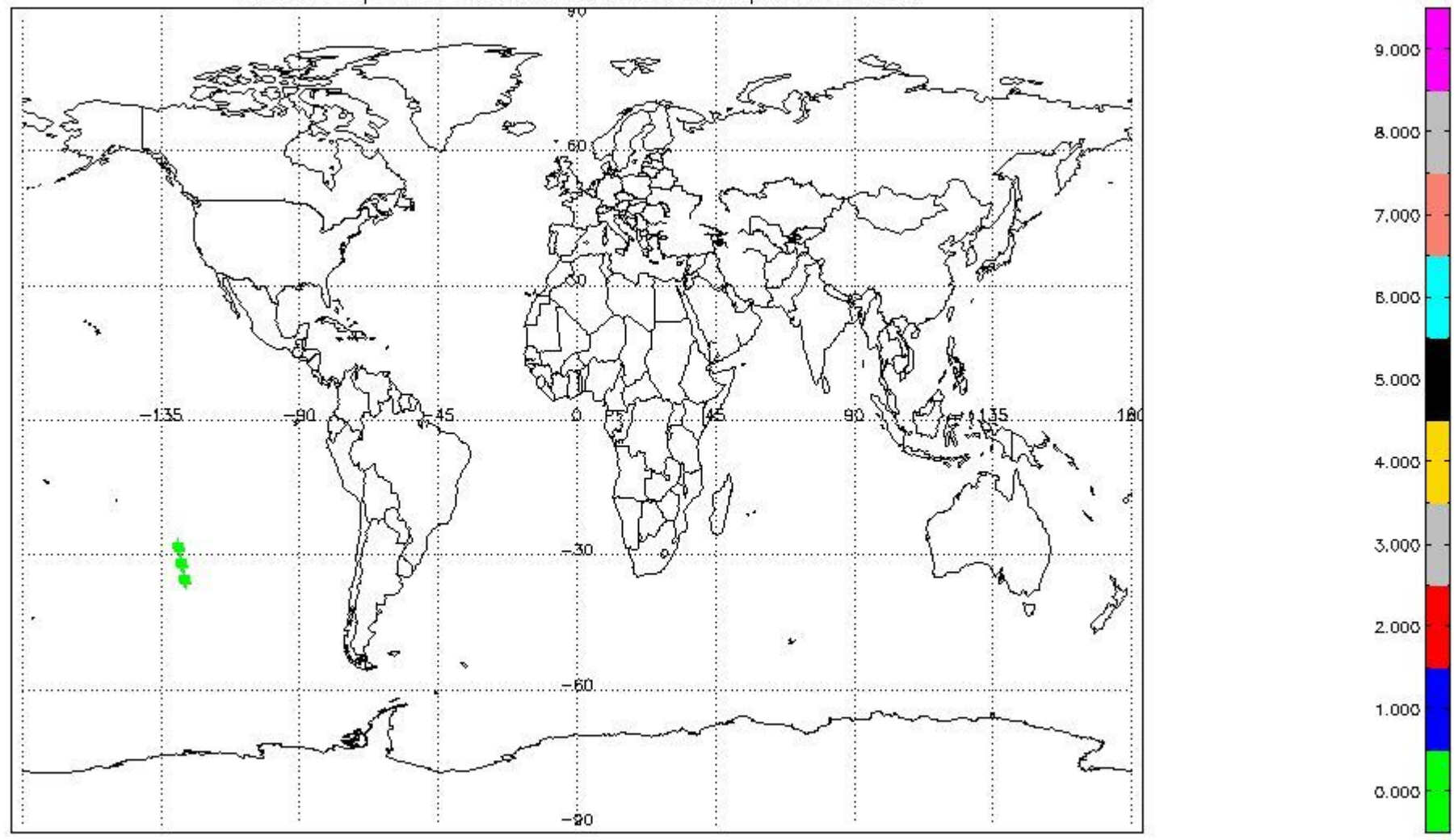


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_21.PNG

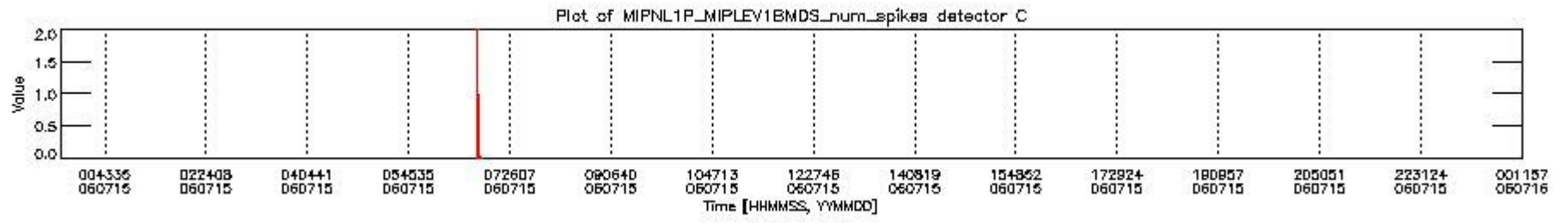


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_22.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector B

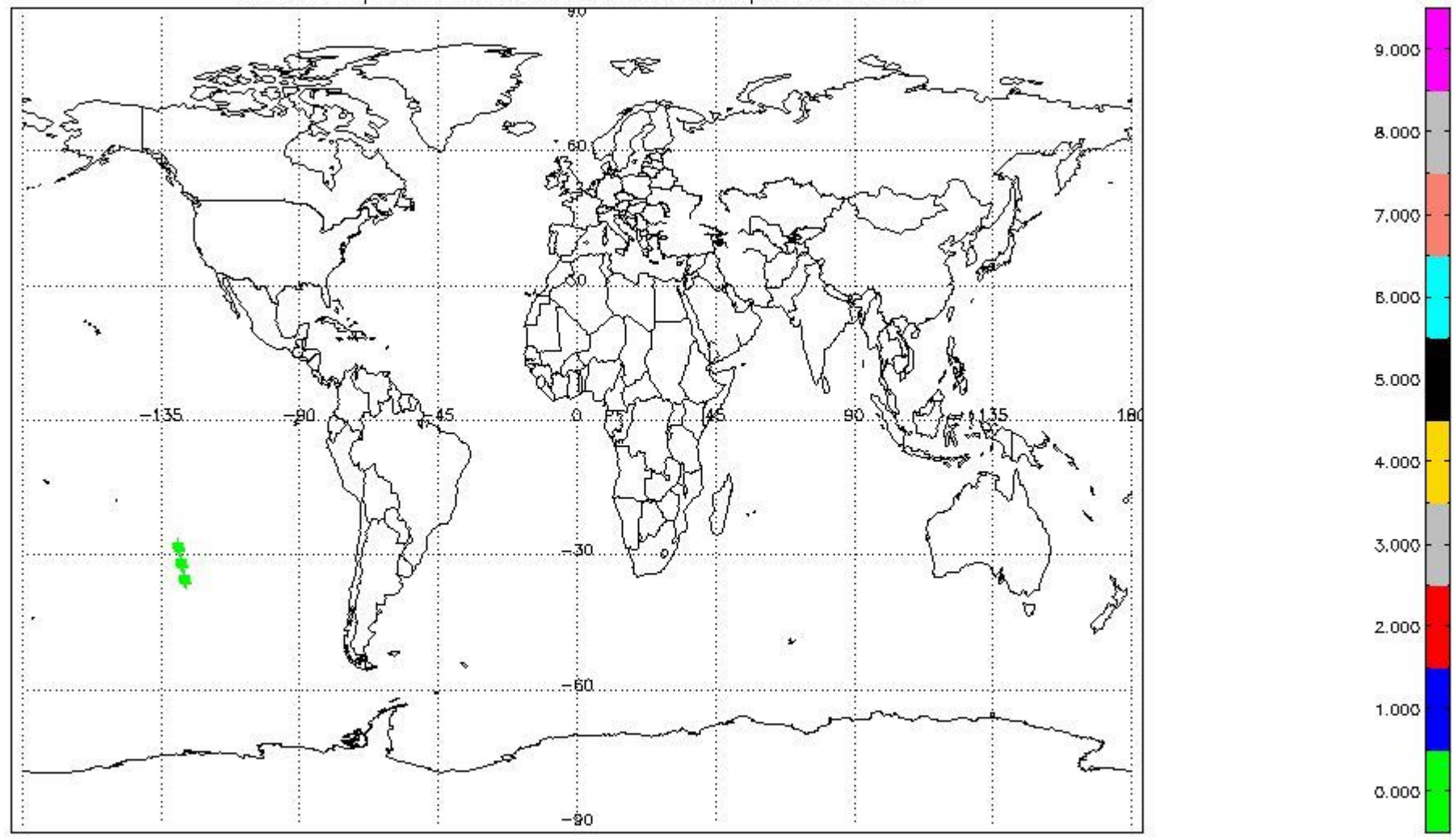


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_23.PNG

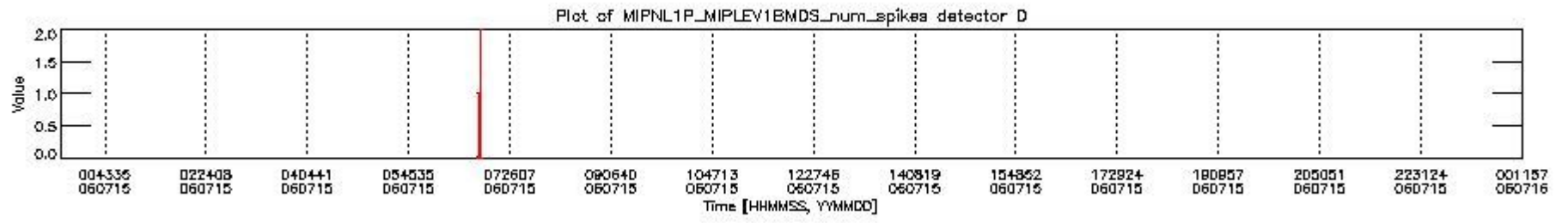


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_24.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector C

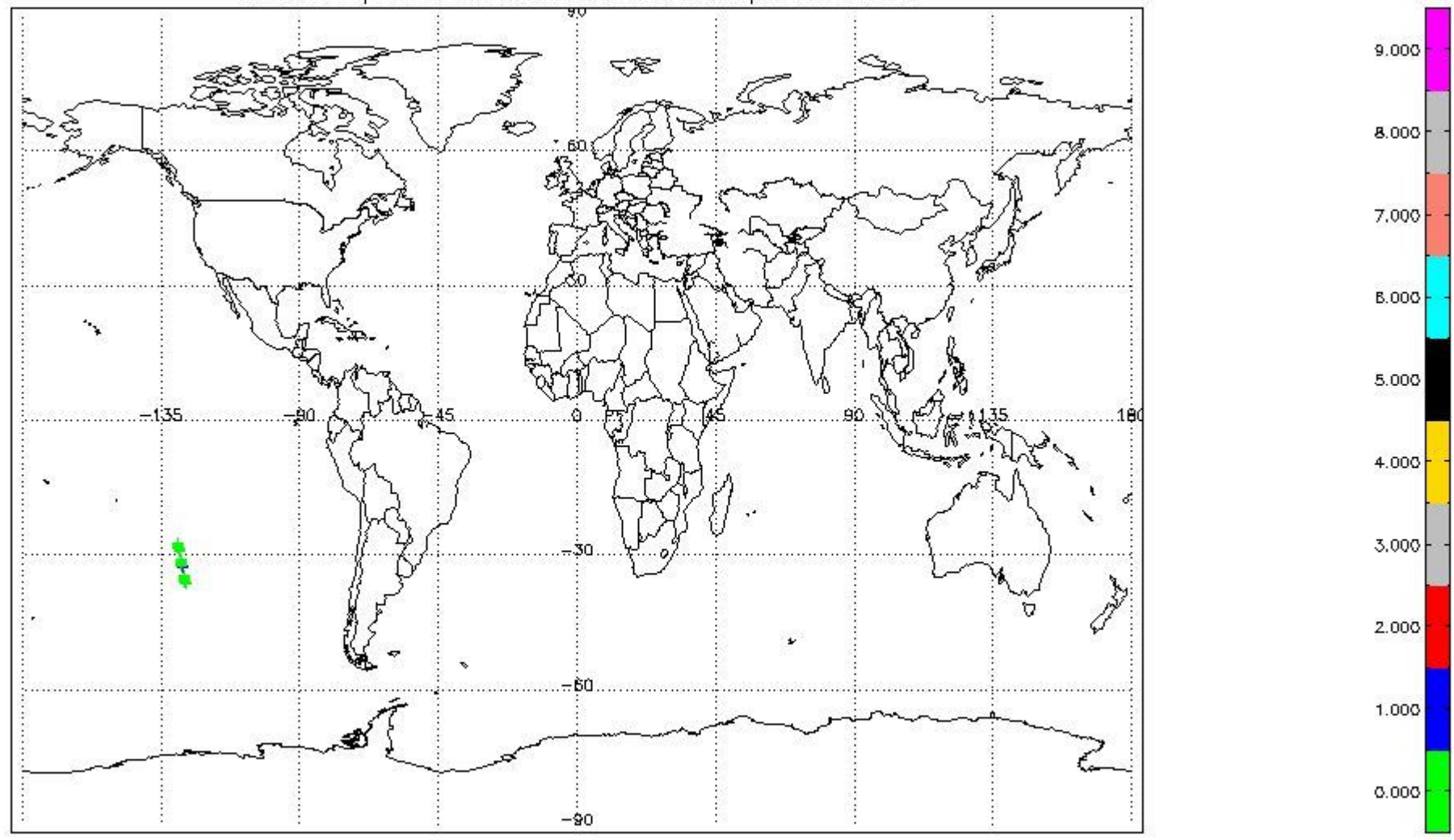


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_25.PNG

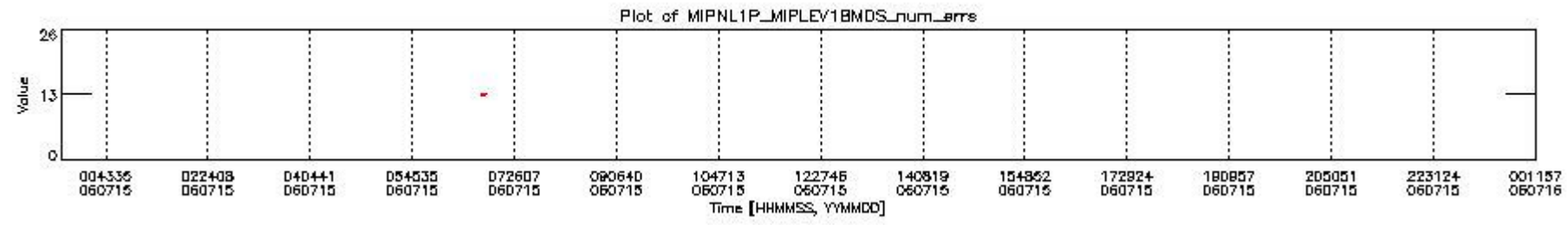


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_26.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector D

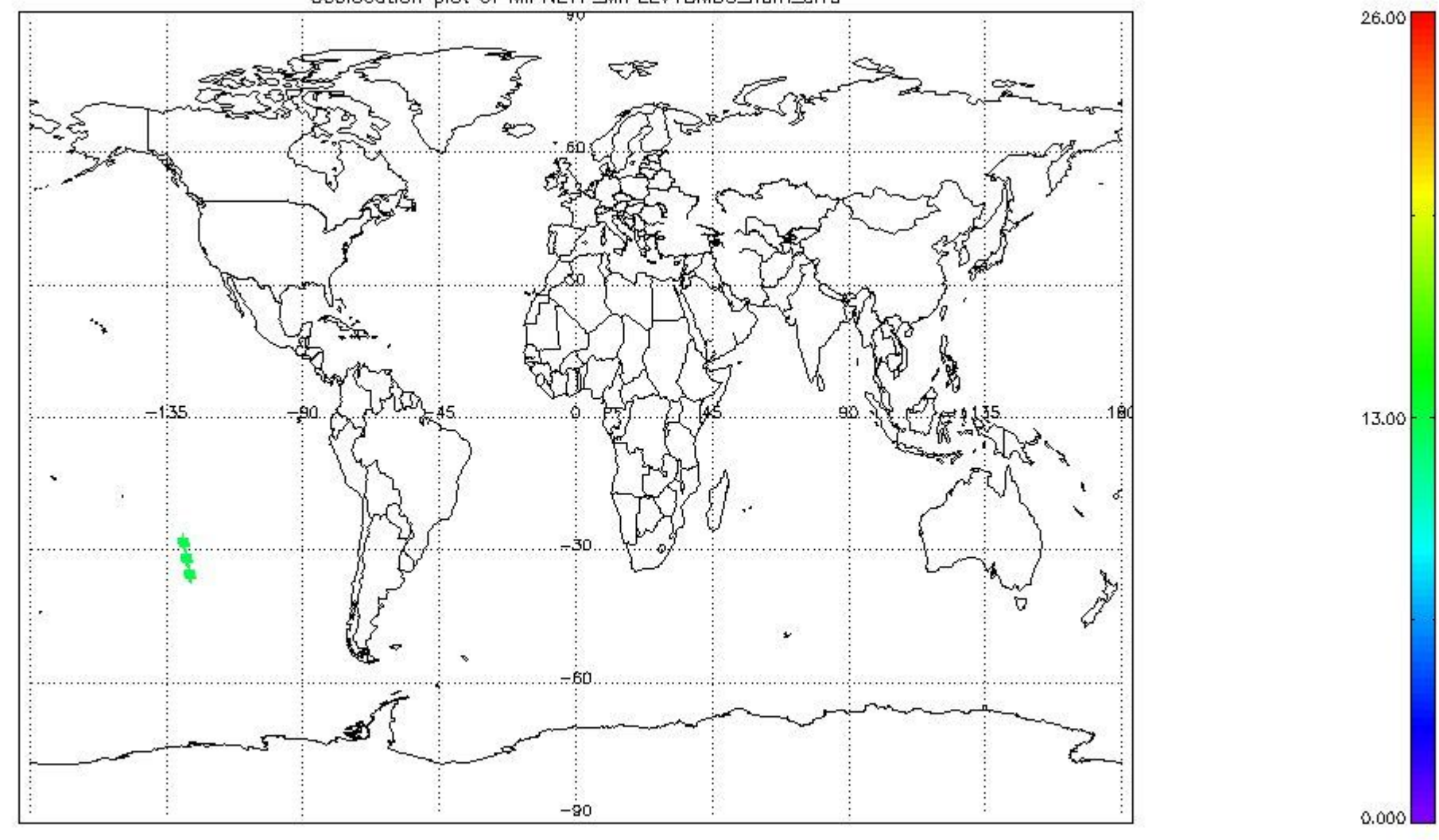


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_27.PNG

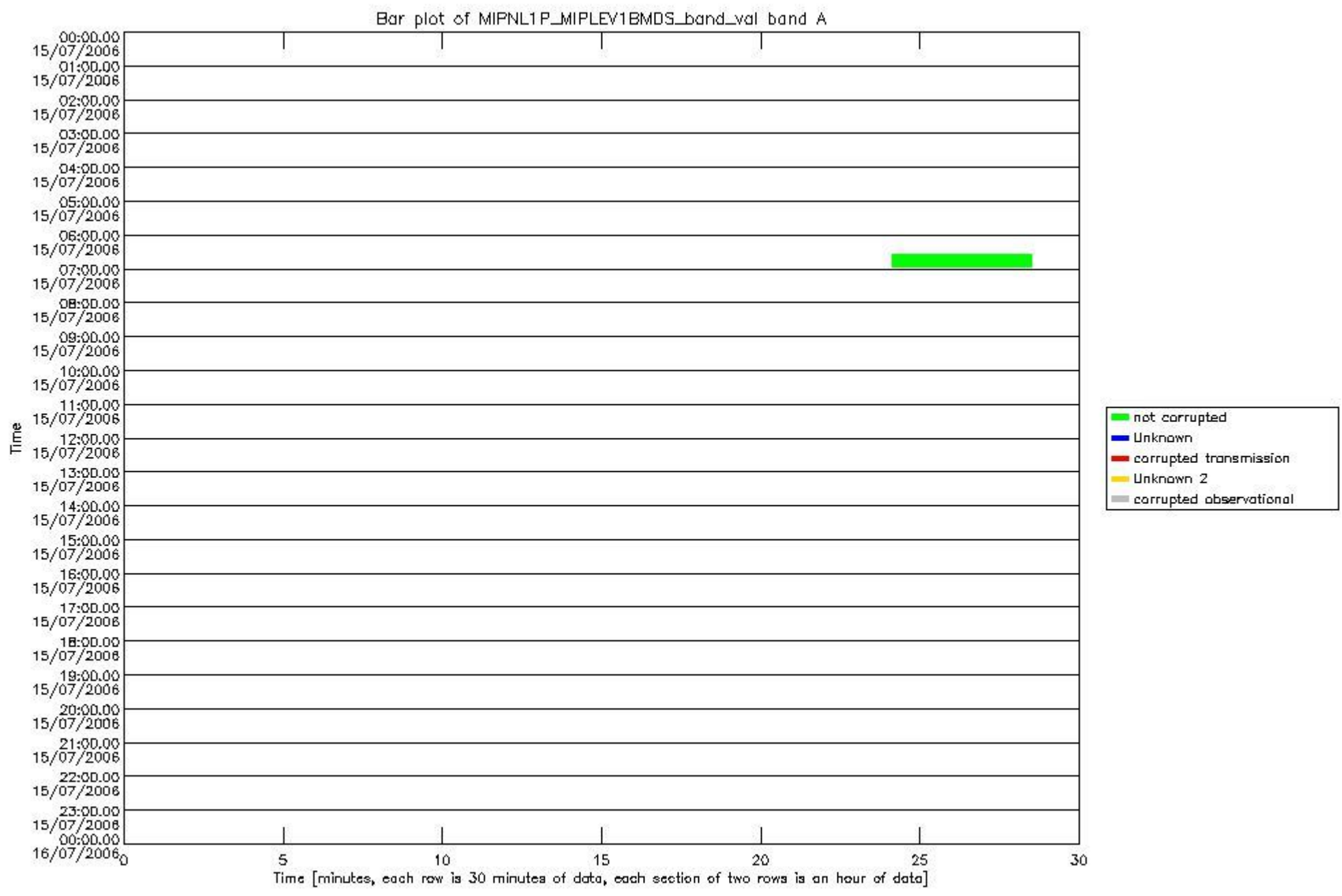


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_28.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_errs

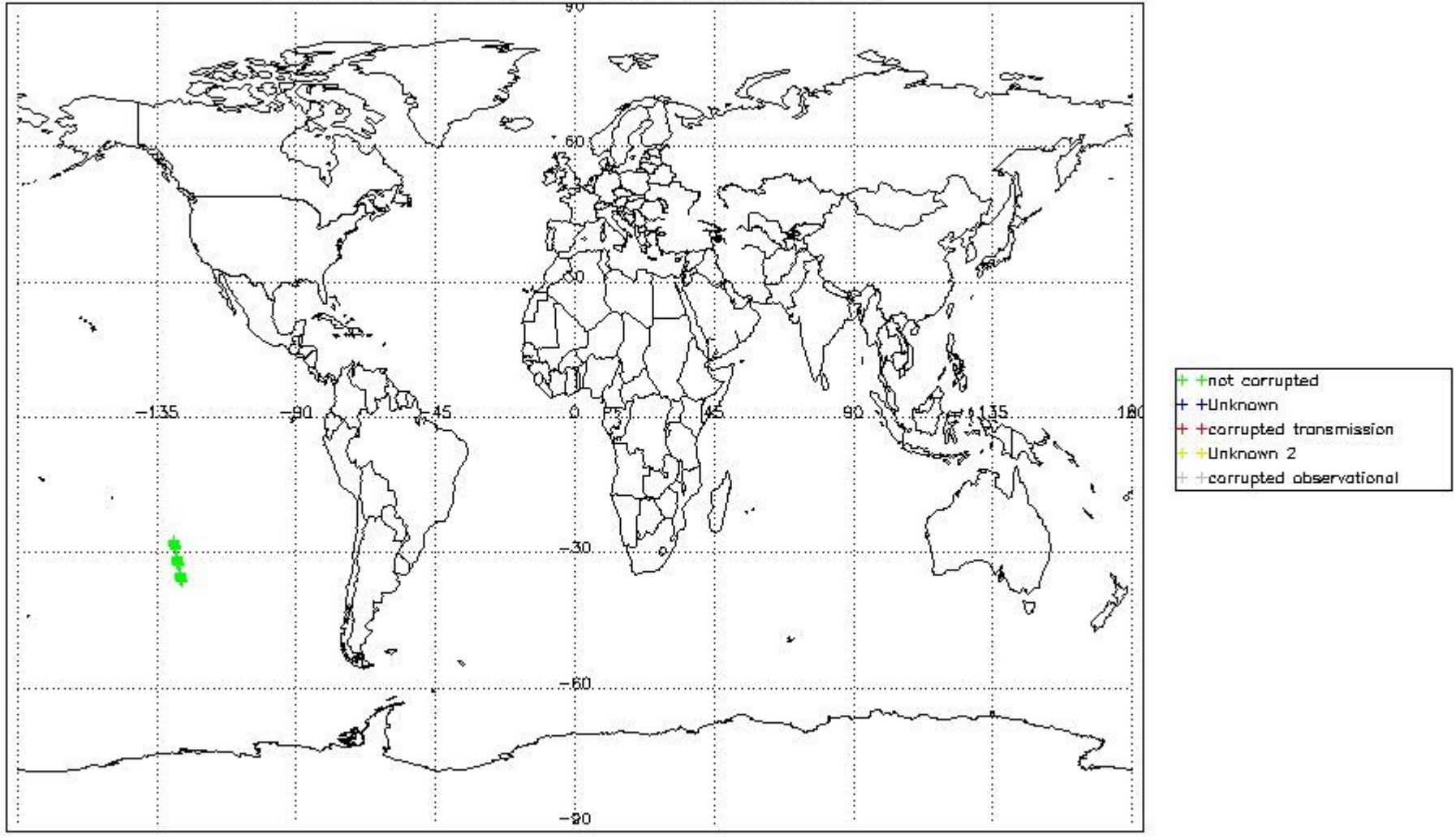


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_29.PNG

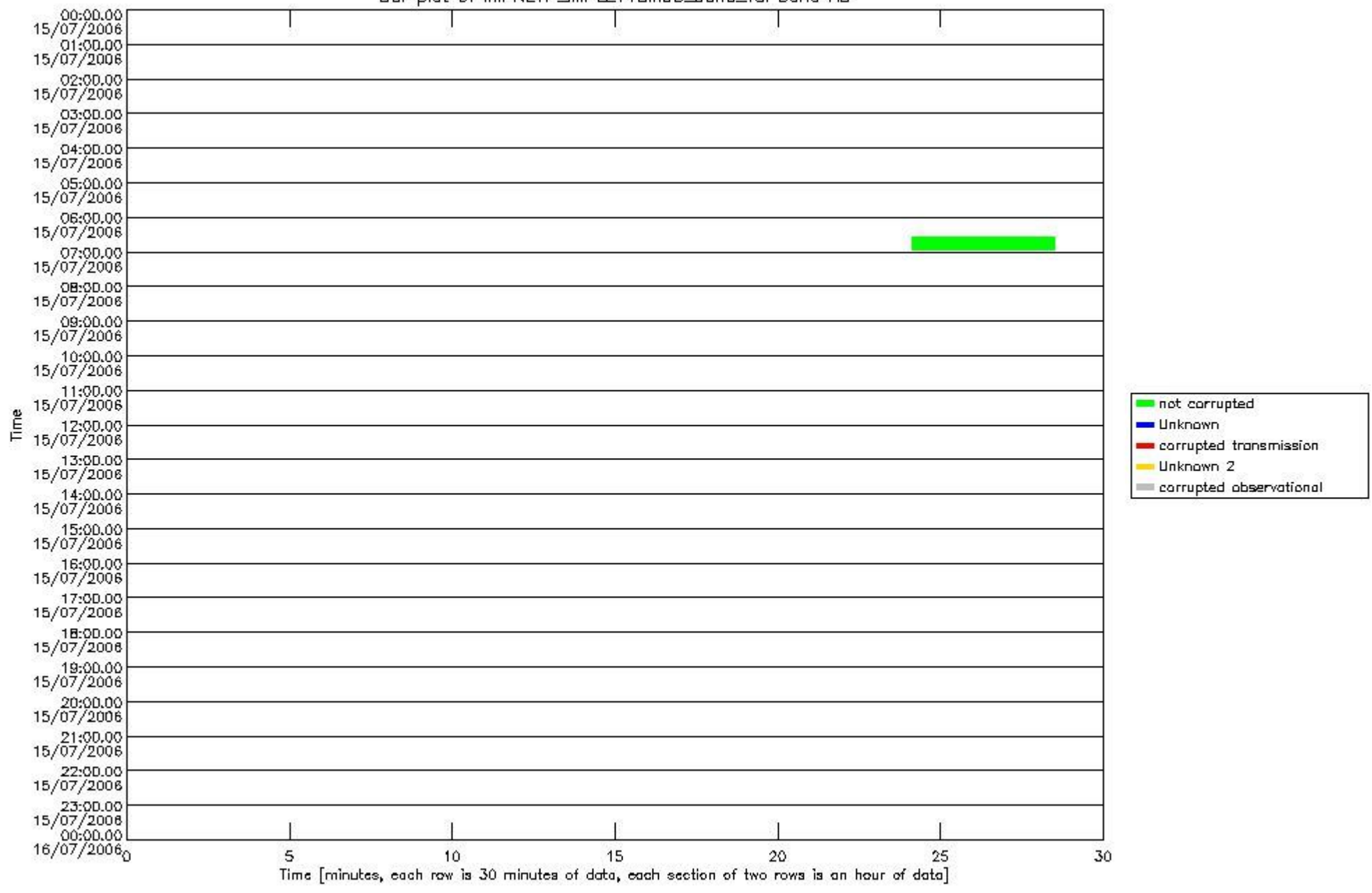


mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_30.PNG

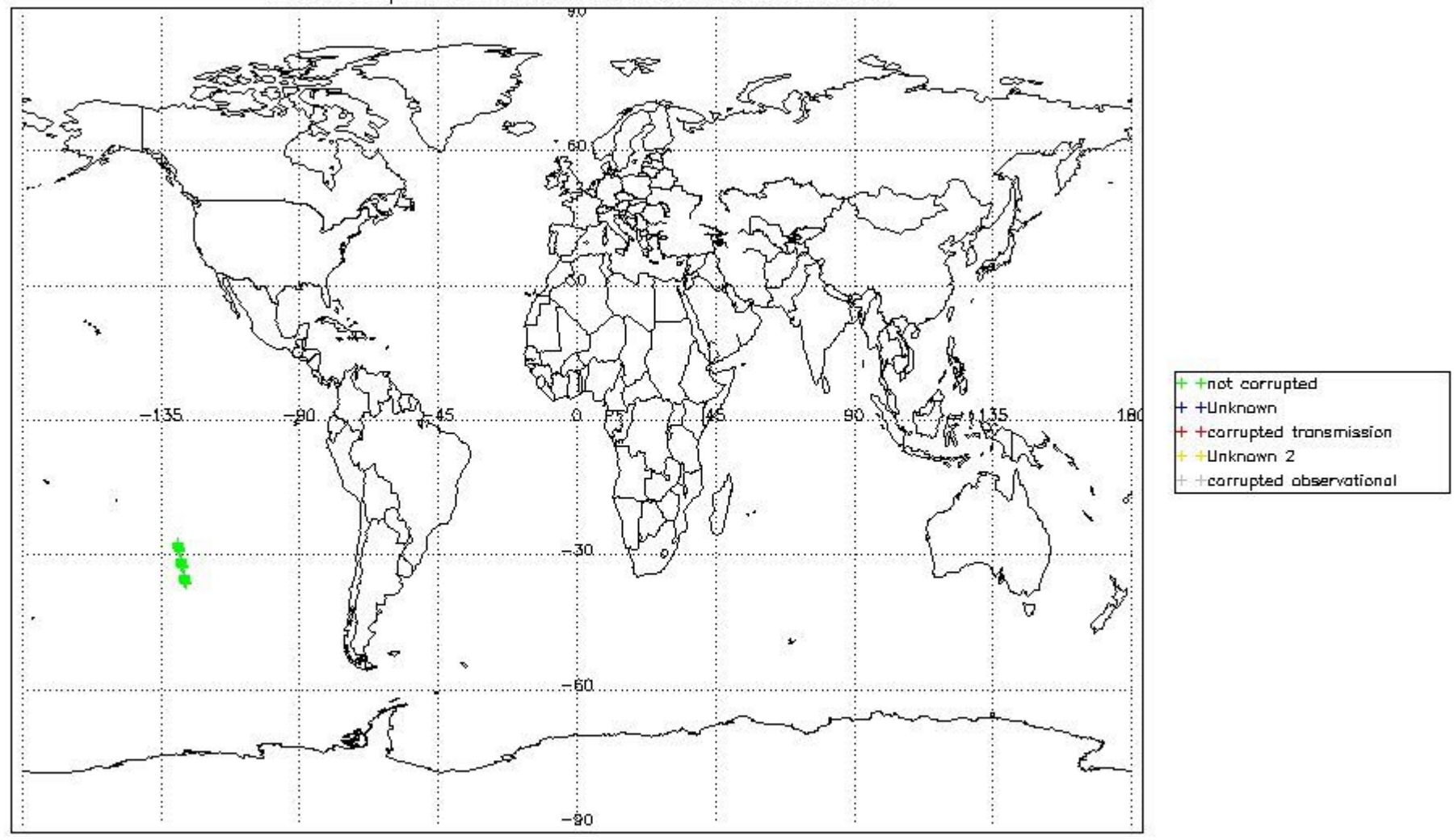
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band A

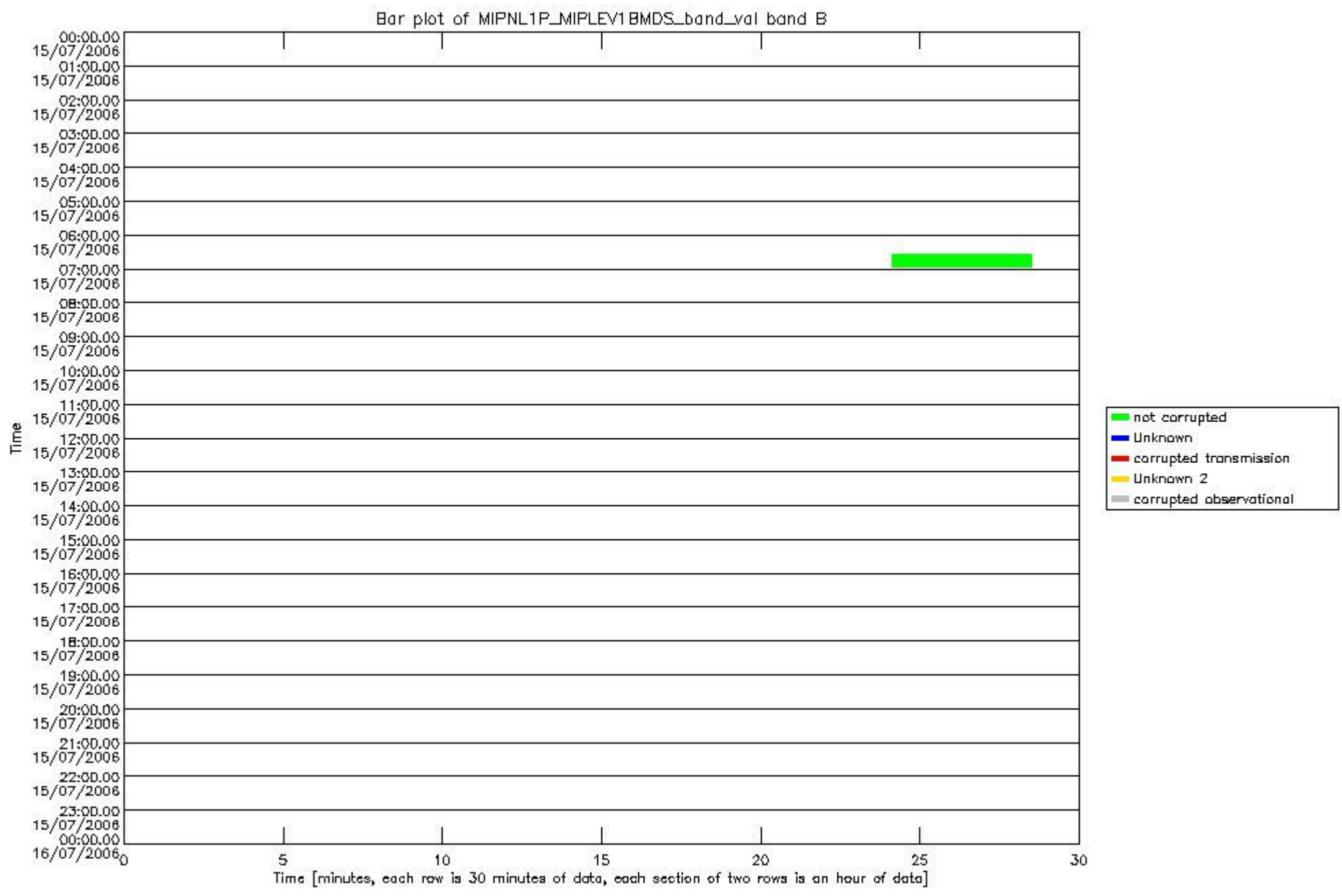


Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band AB



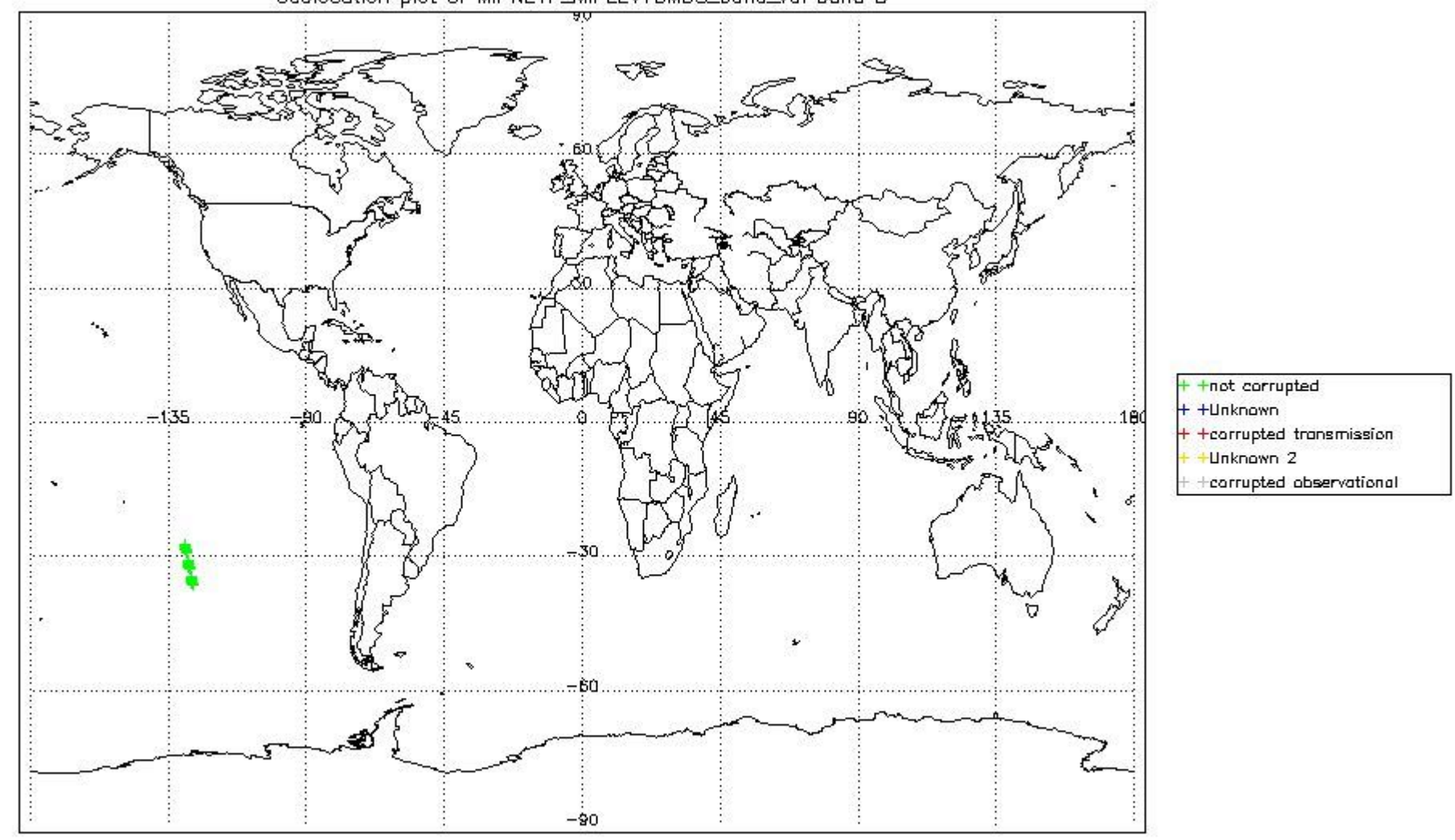
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band AB

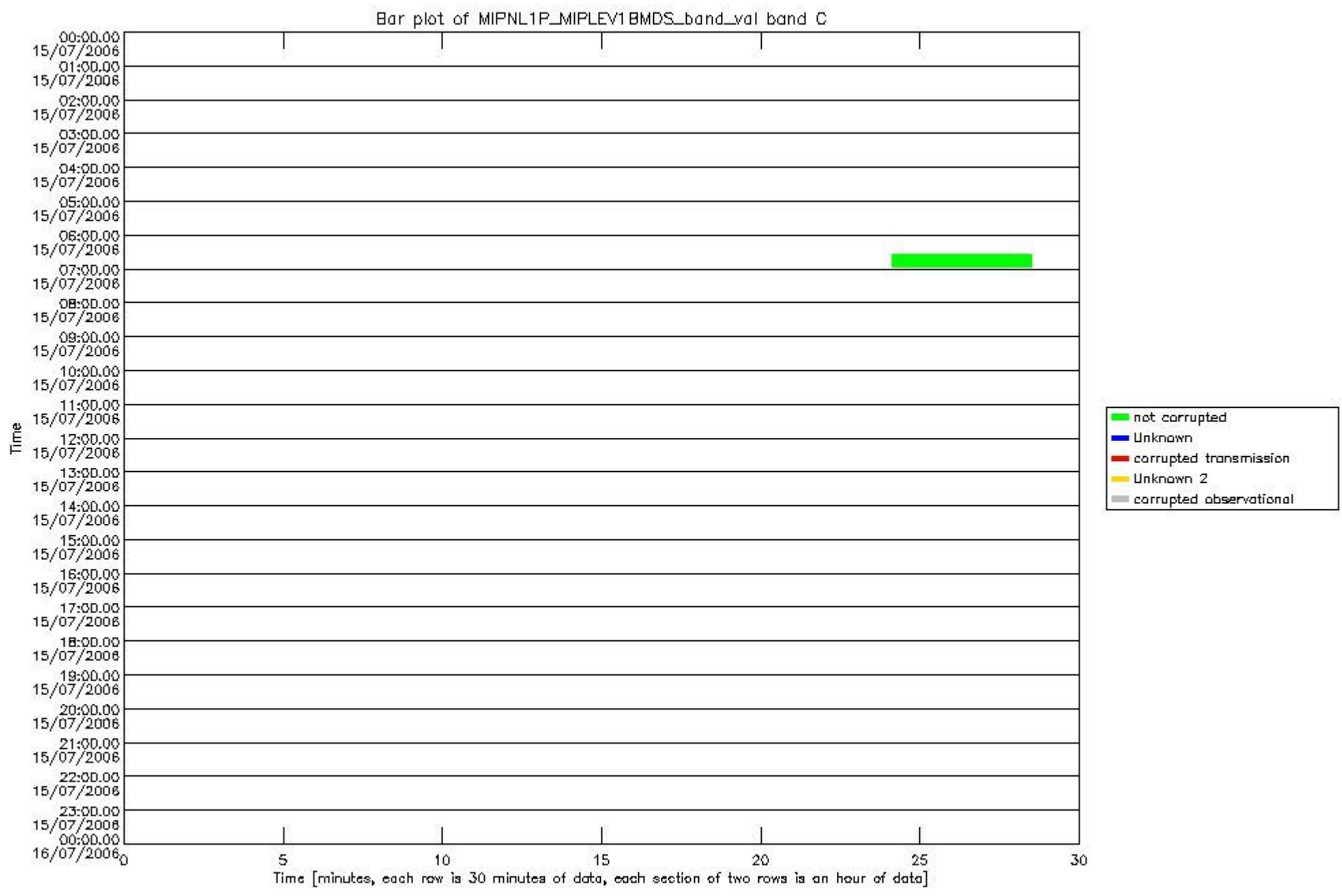




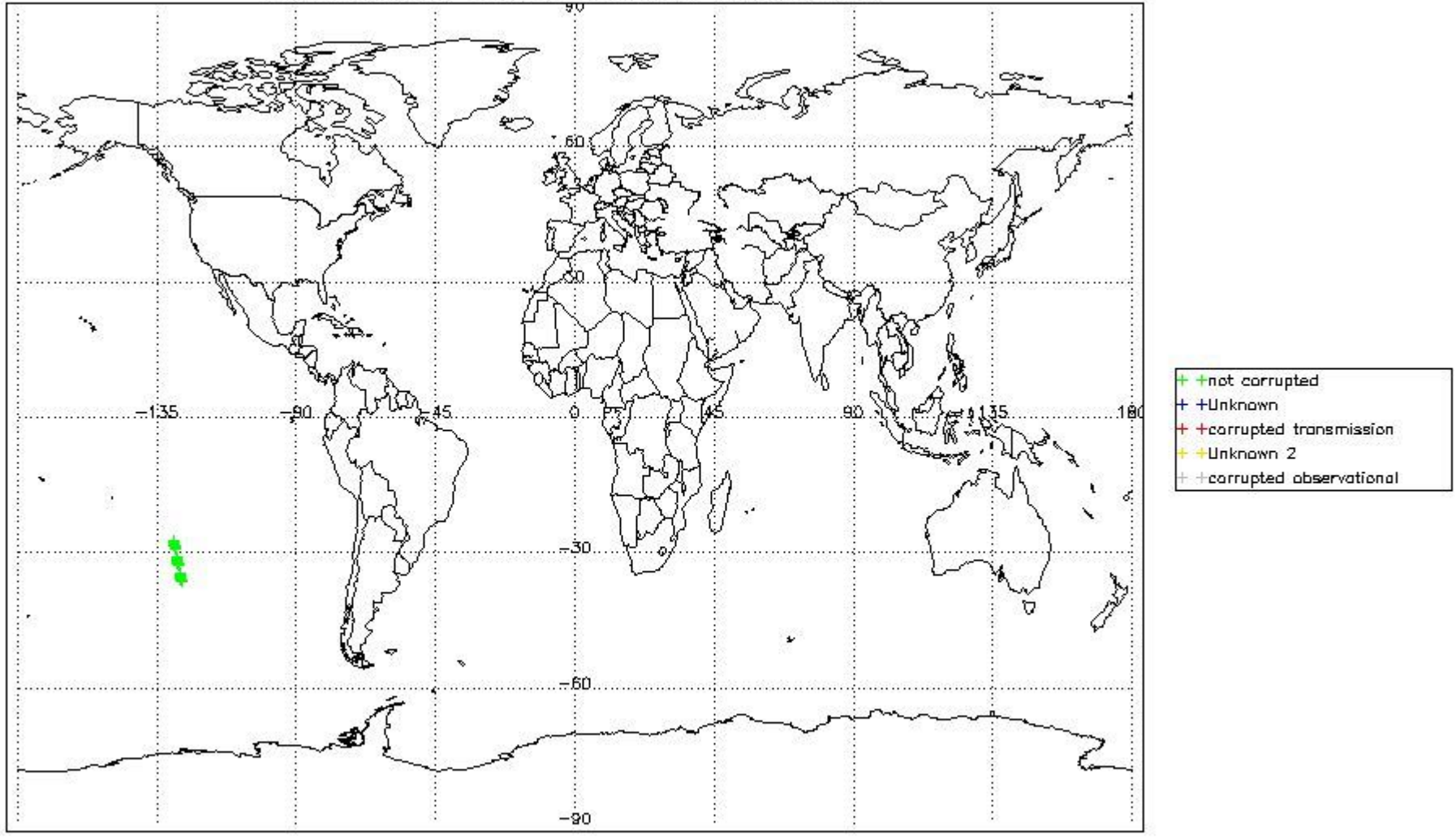
mipas_daily_report_level1_OFI_MIPAS_4_65_P_20060715_34.PNG

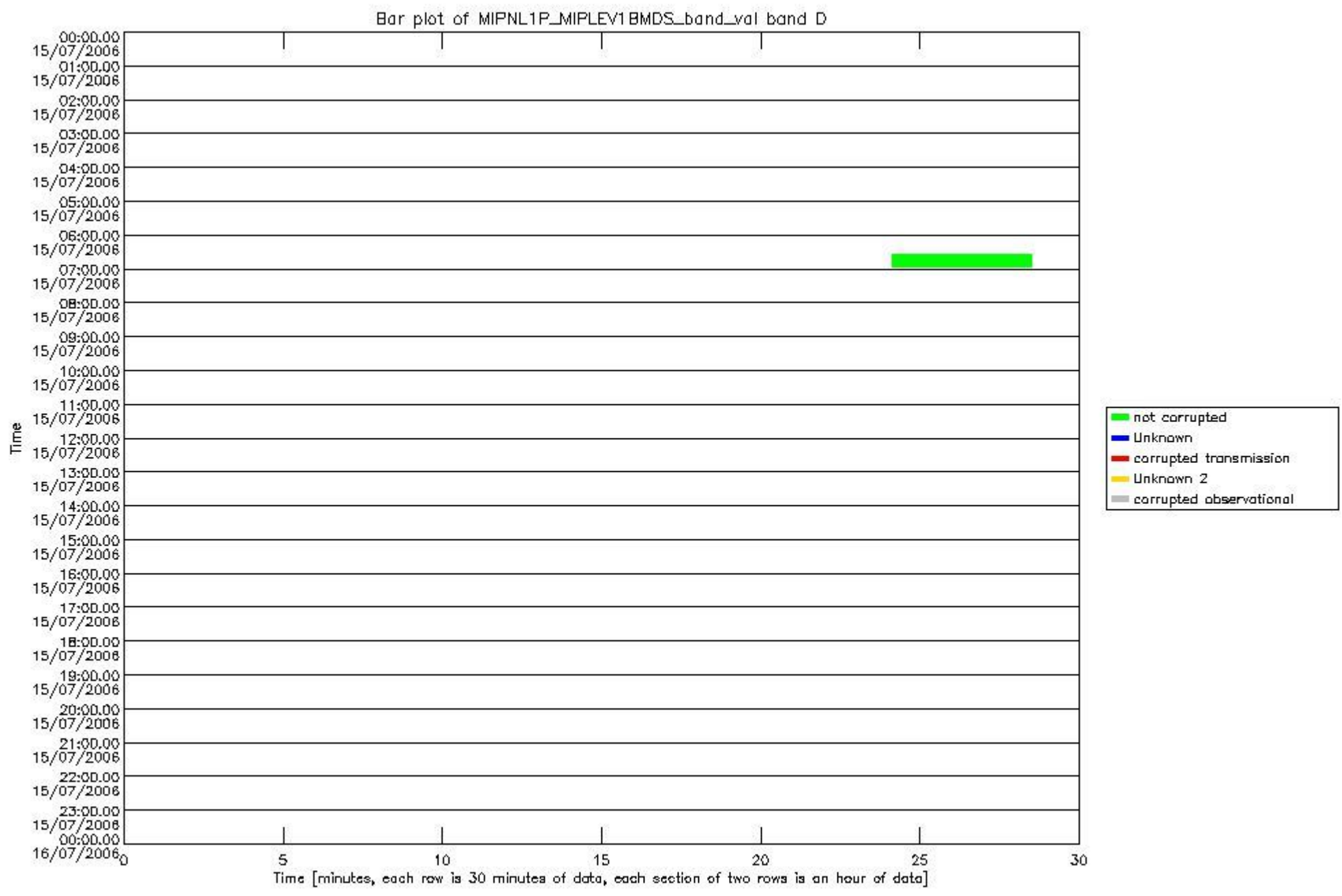
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band B



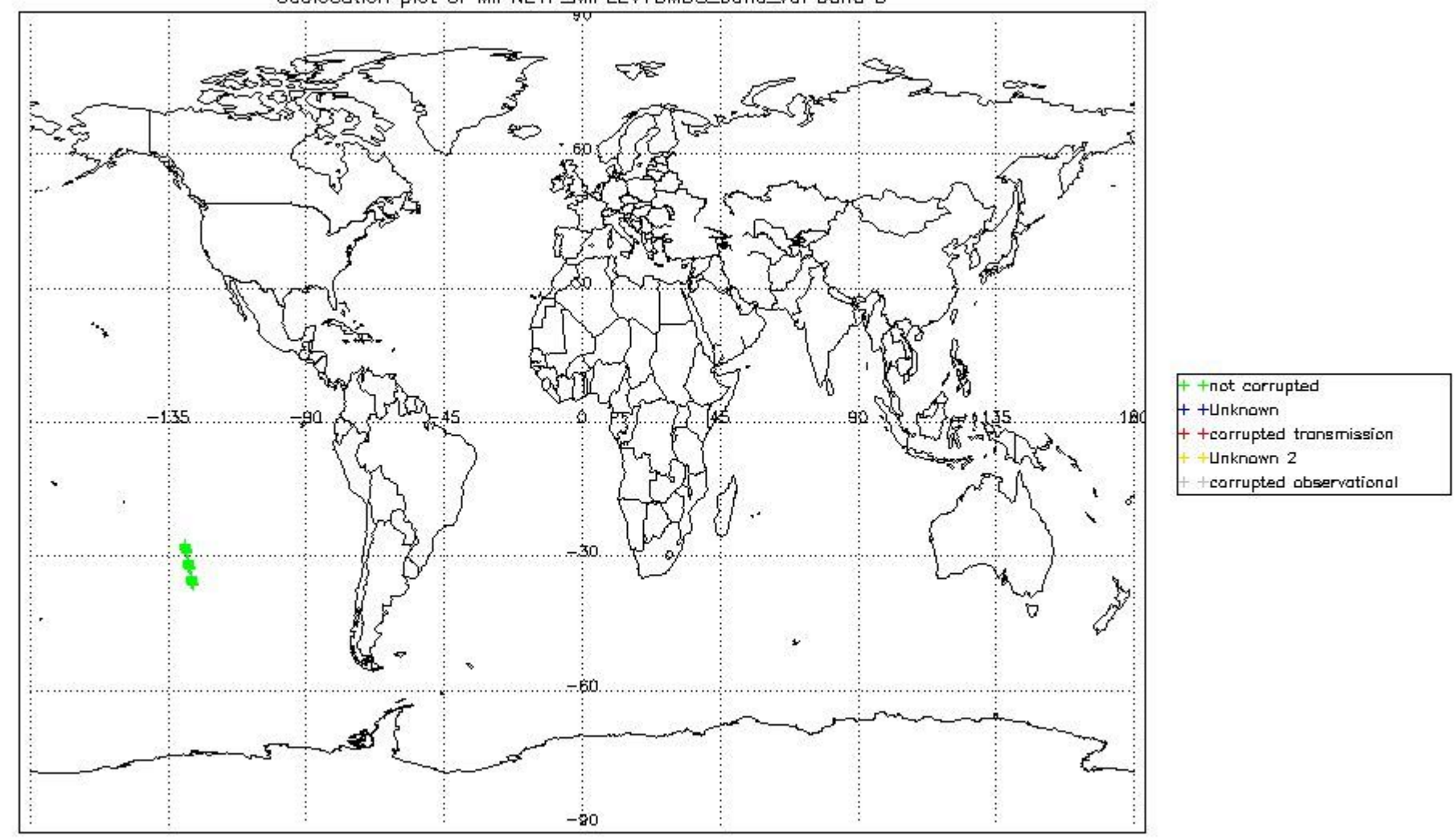


Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band C

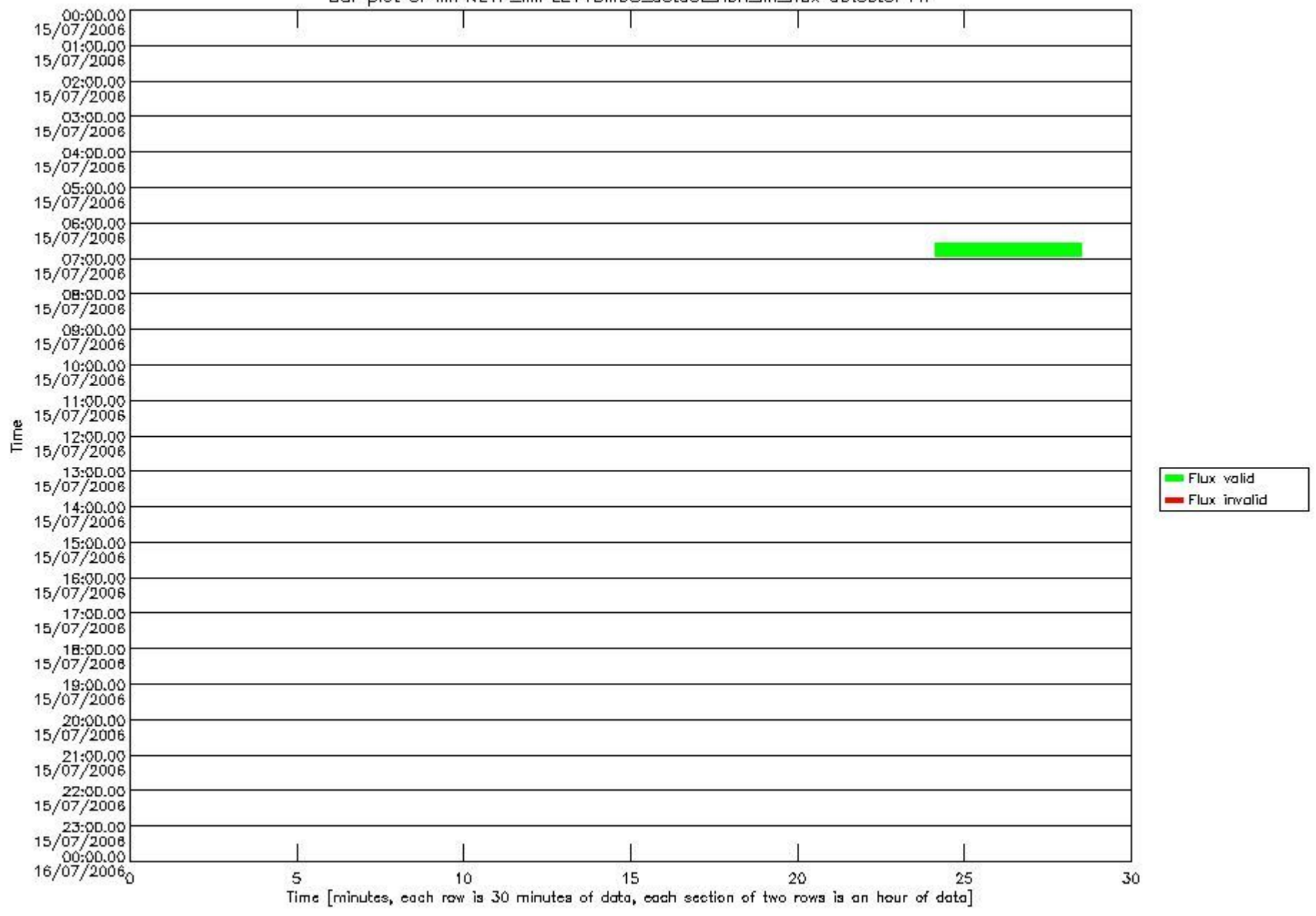




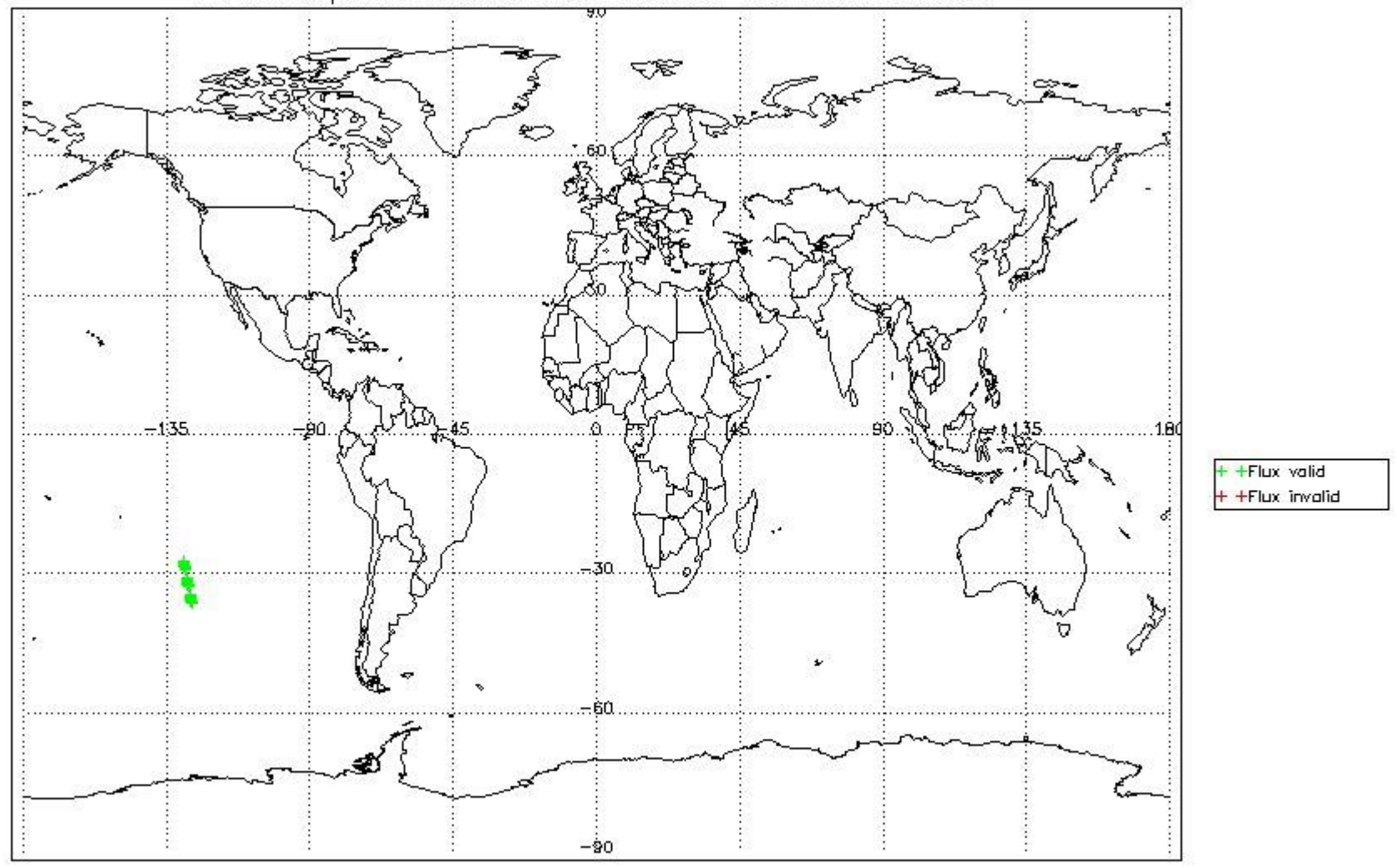
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band D



Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_jin_flux detector A1

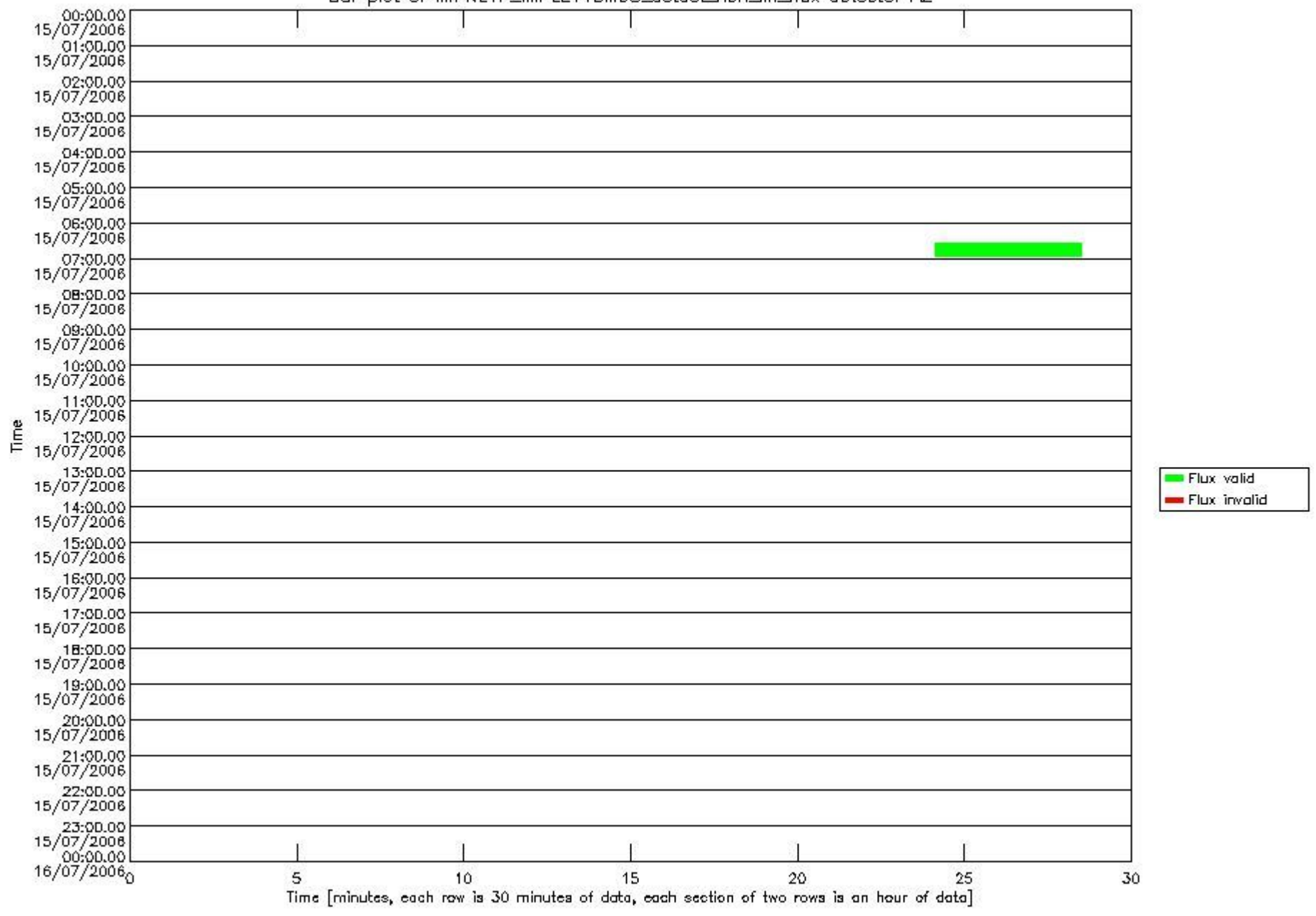


Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A1

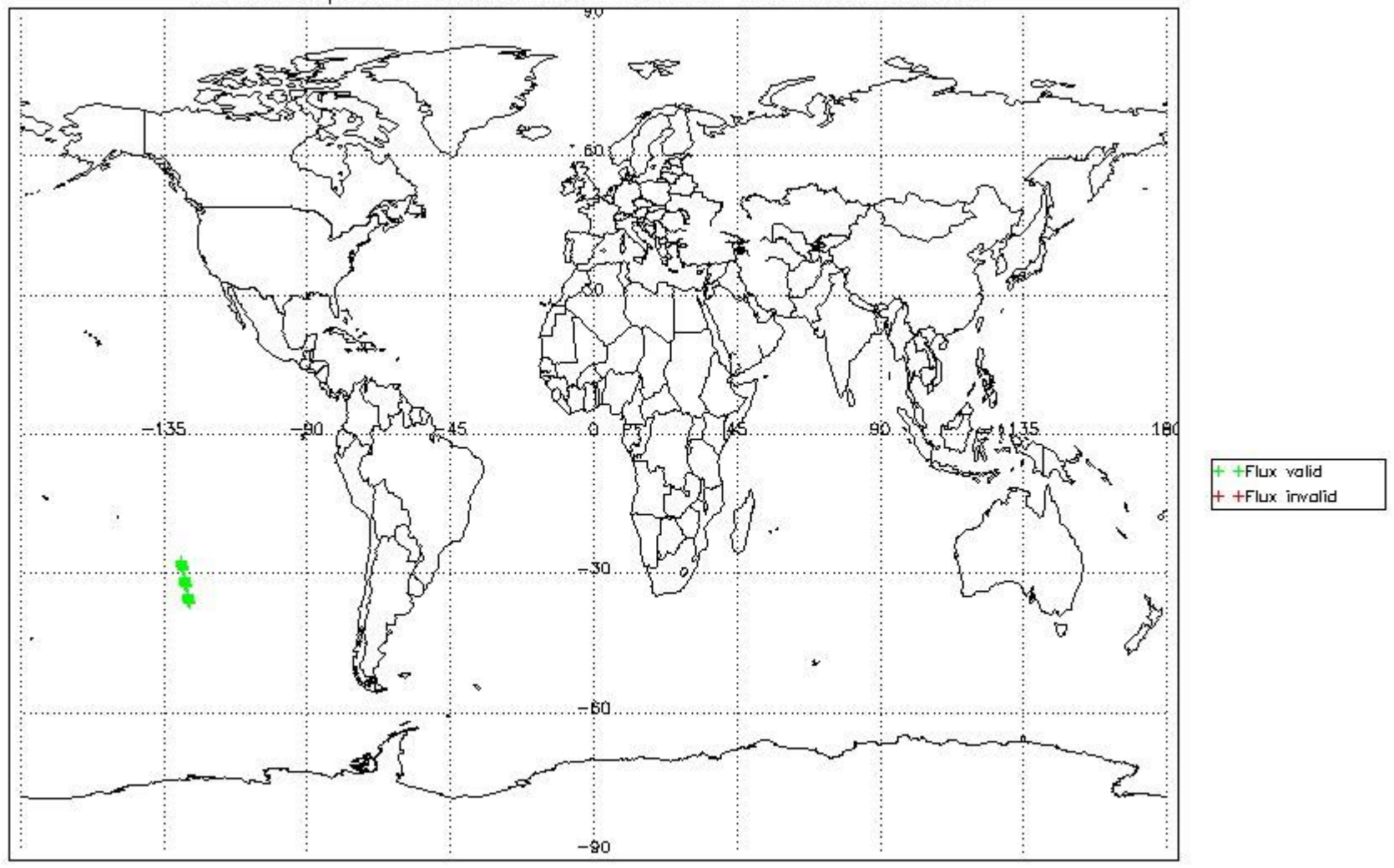


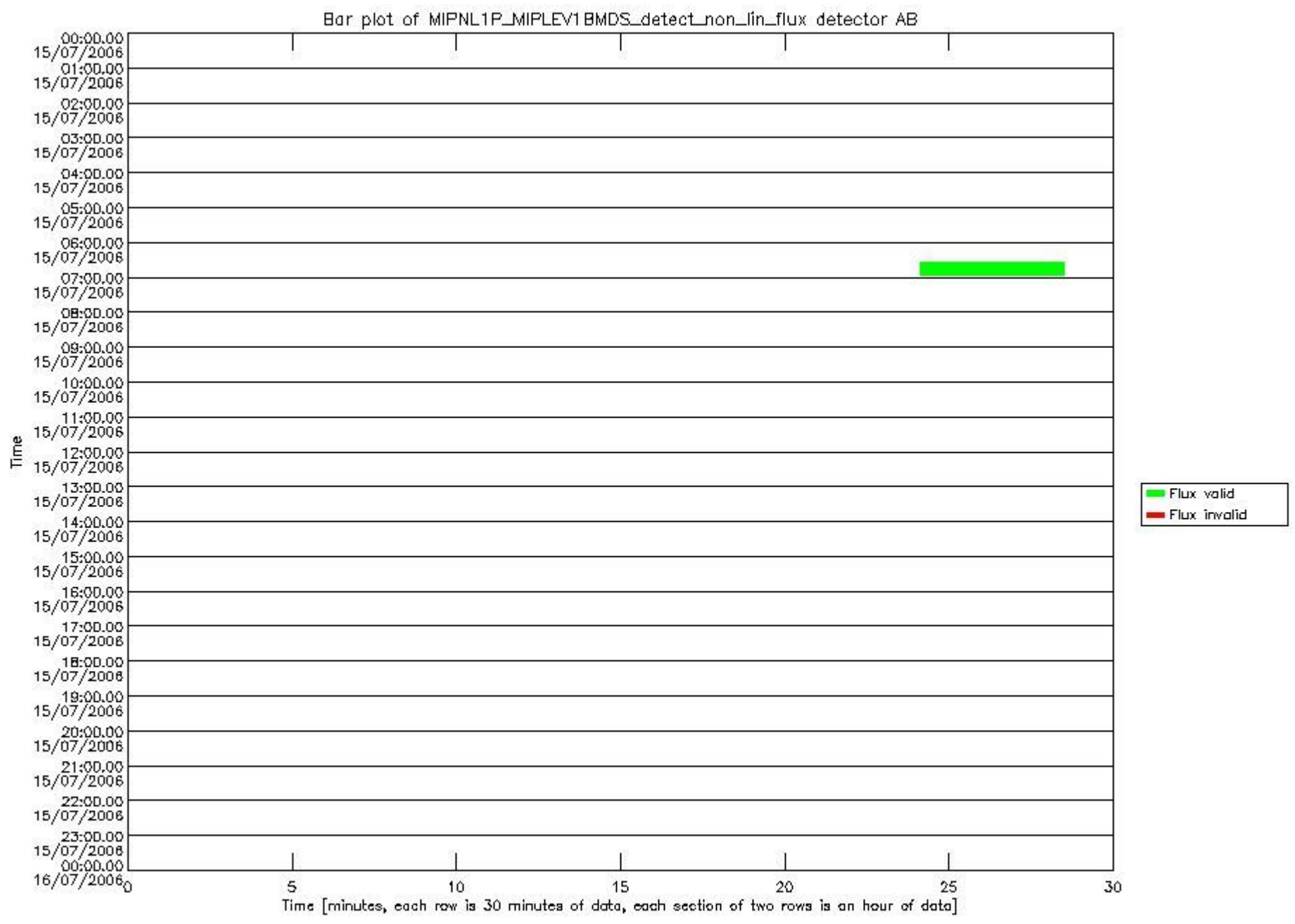
mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_41.PNG

Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_jin_flux detector A2

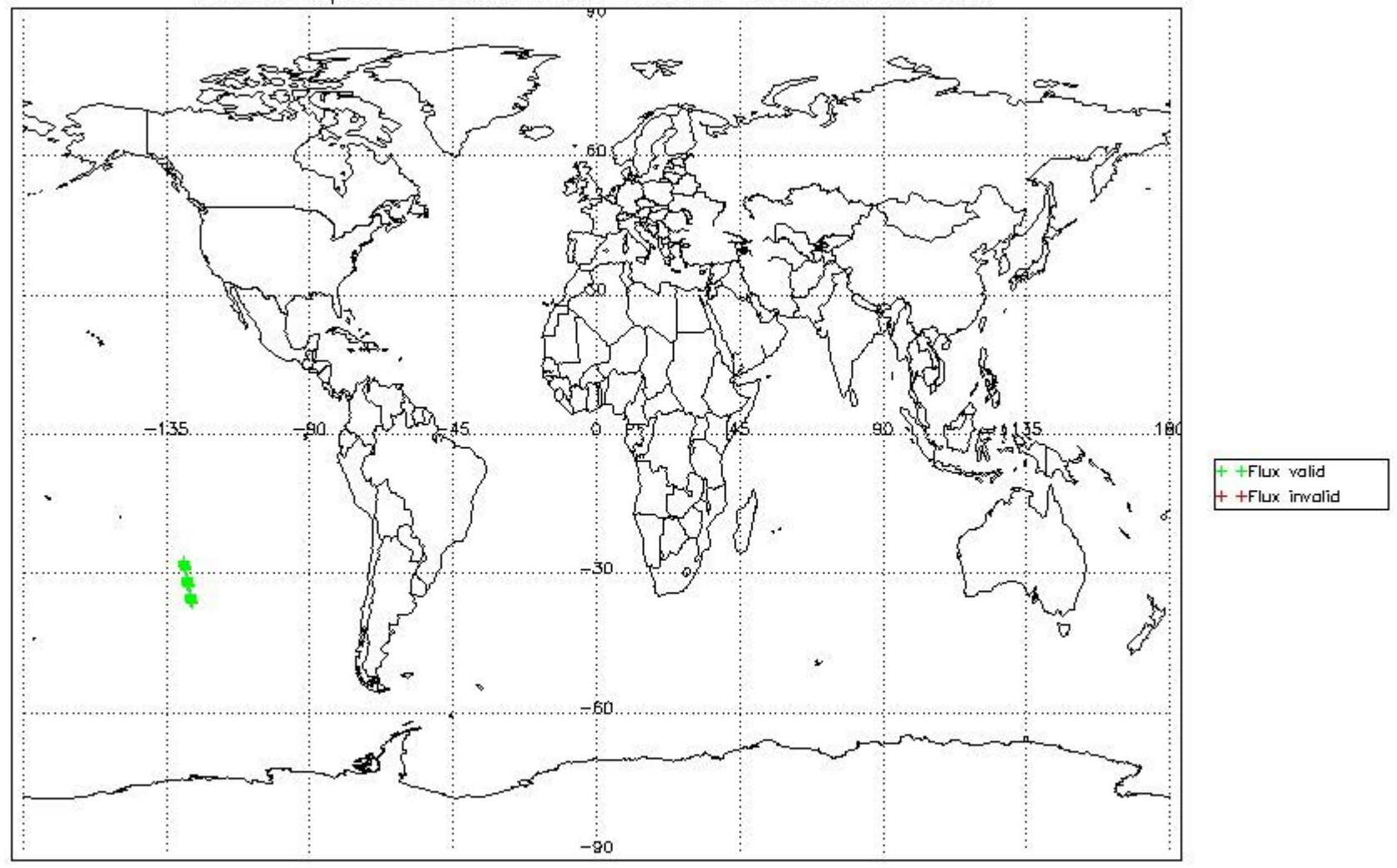


Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A2

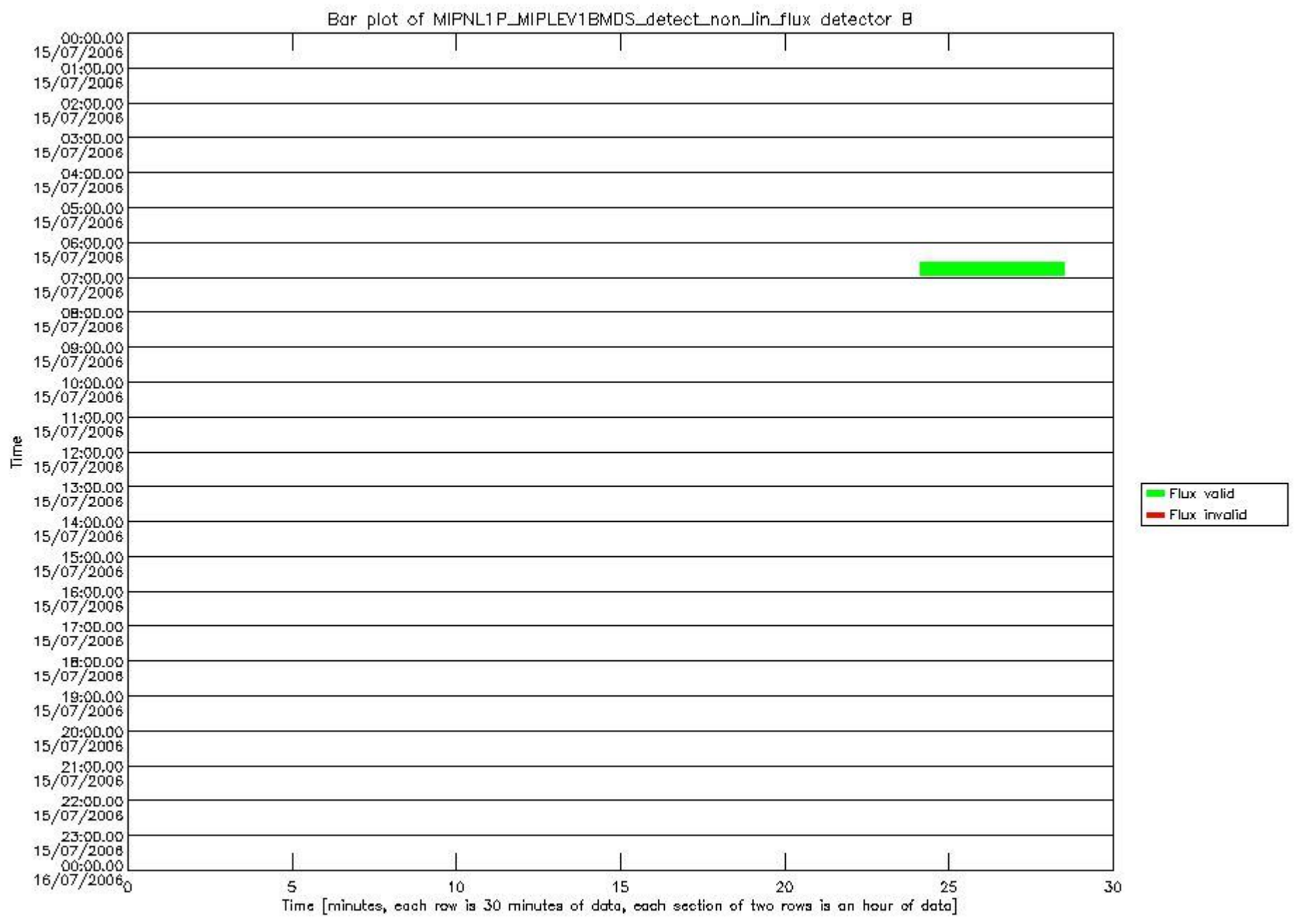




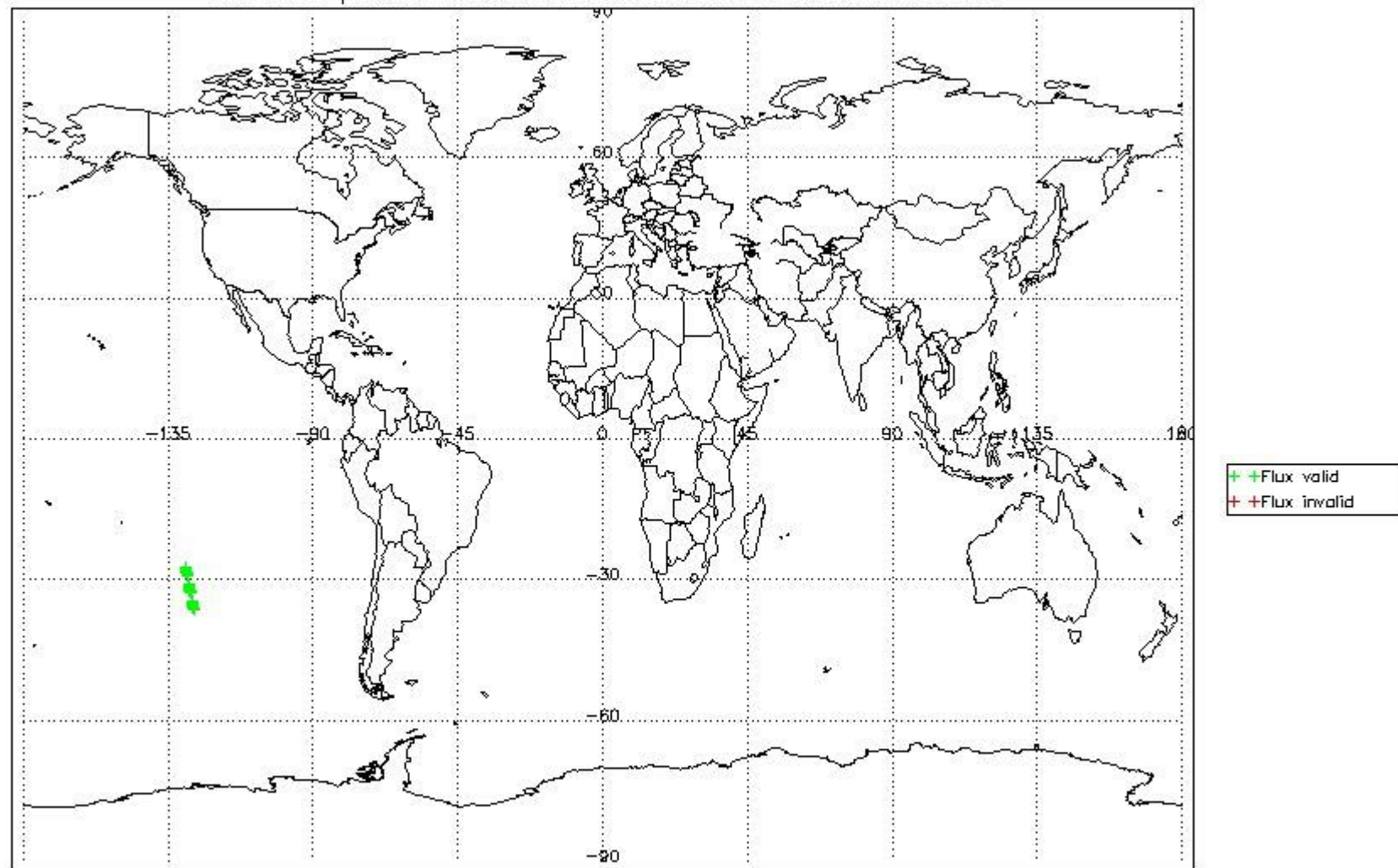
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector AB



mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_45.PNG



Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector B



mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_47.PNG

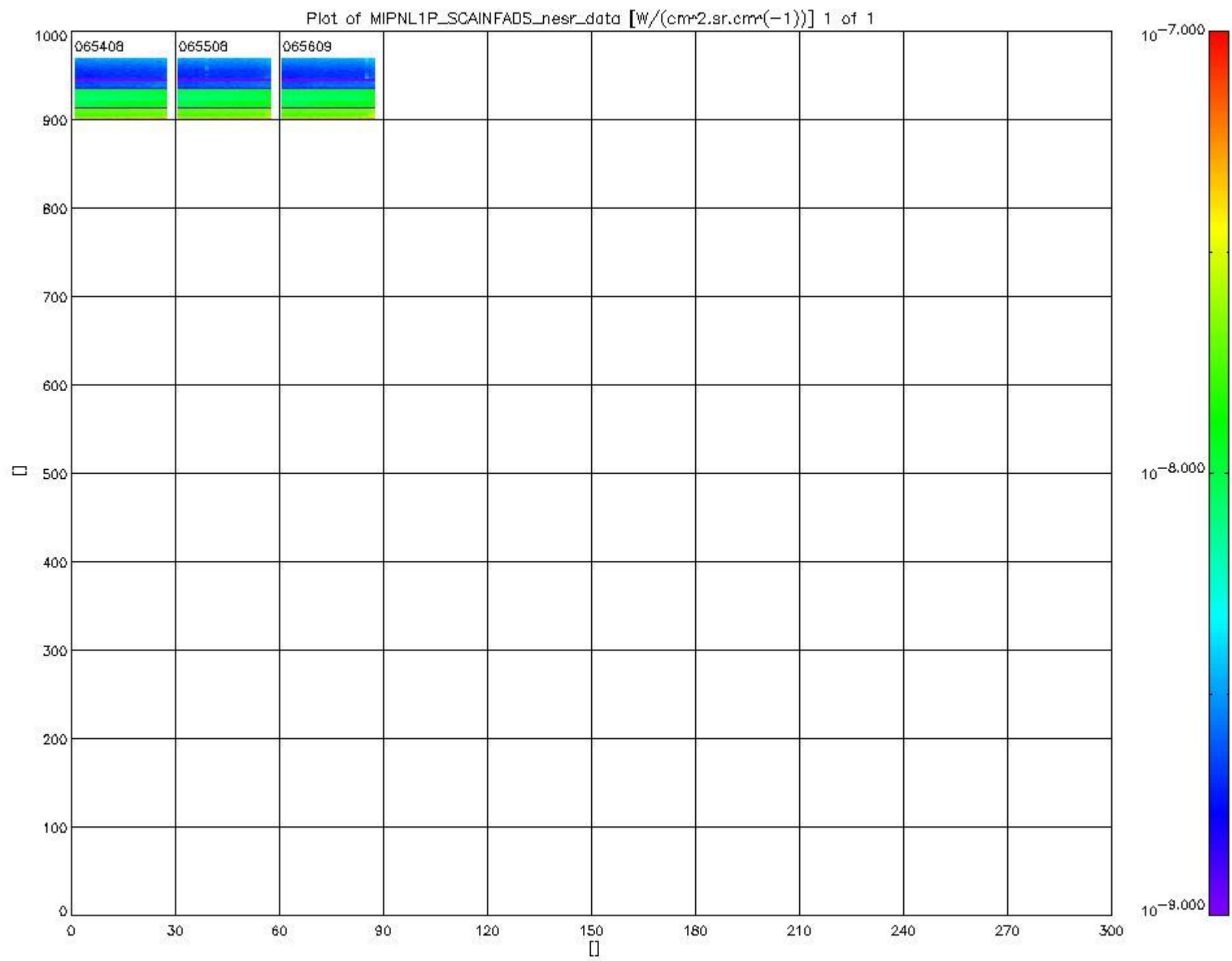
1.2.3 Scan information ADS

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.

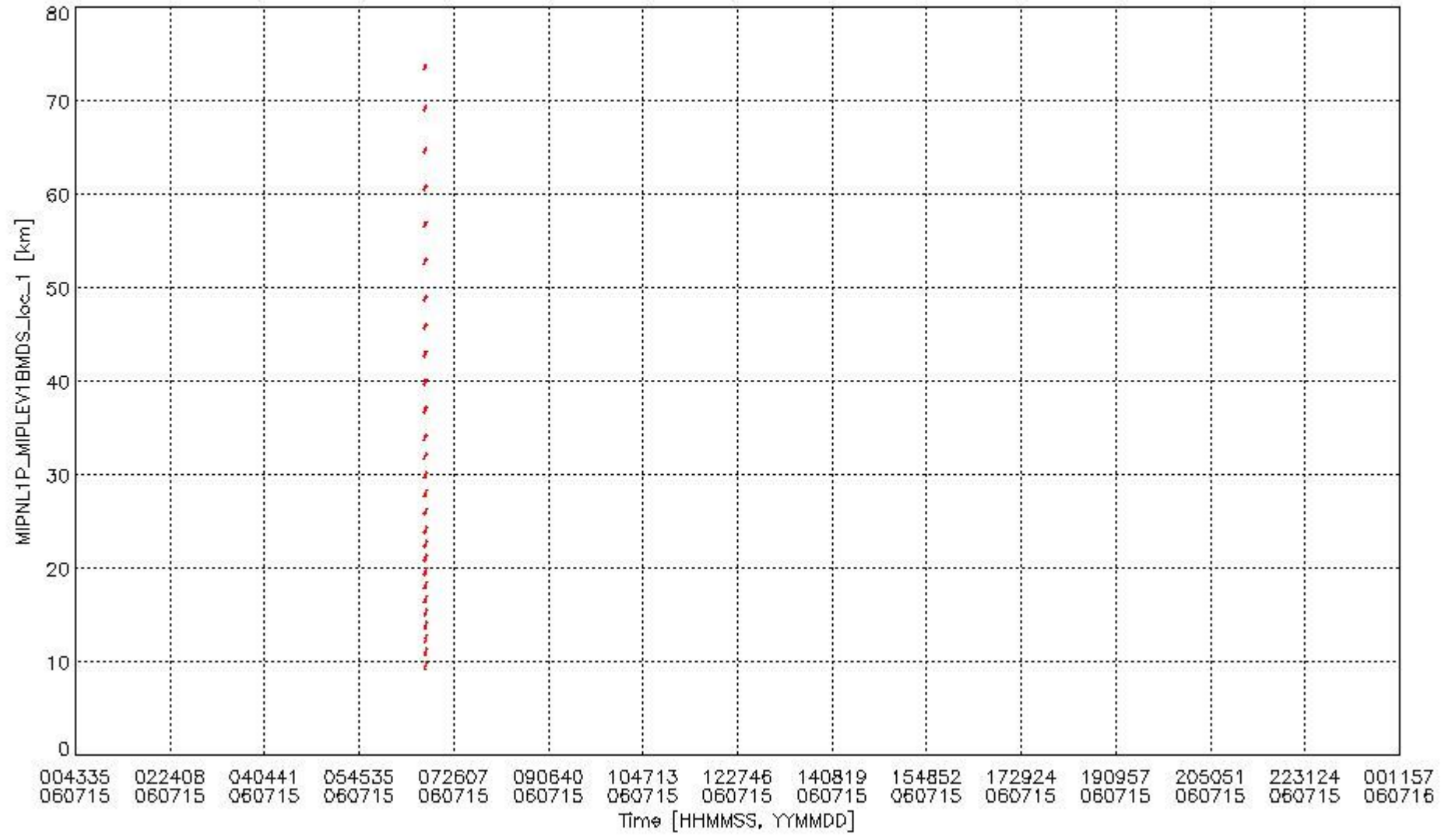


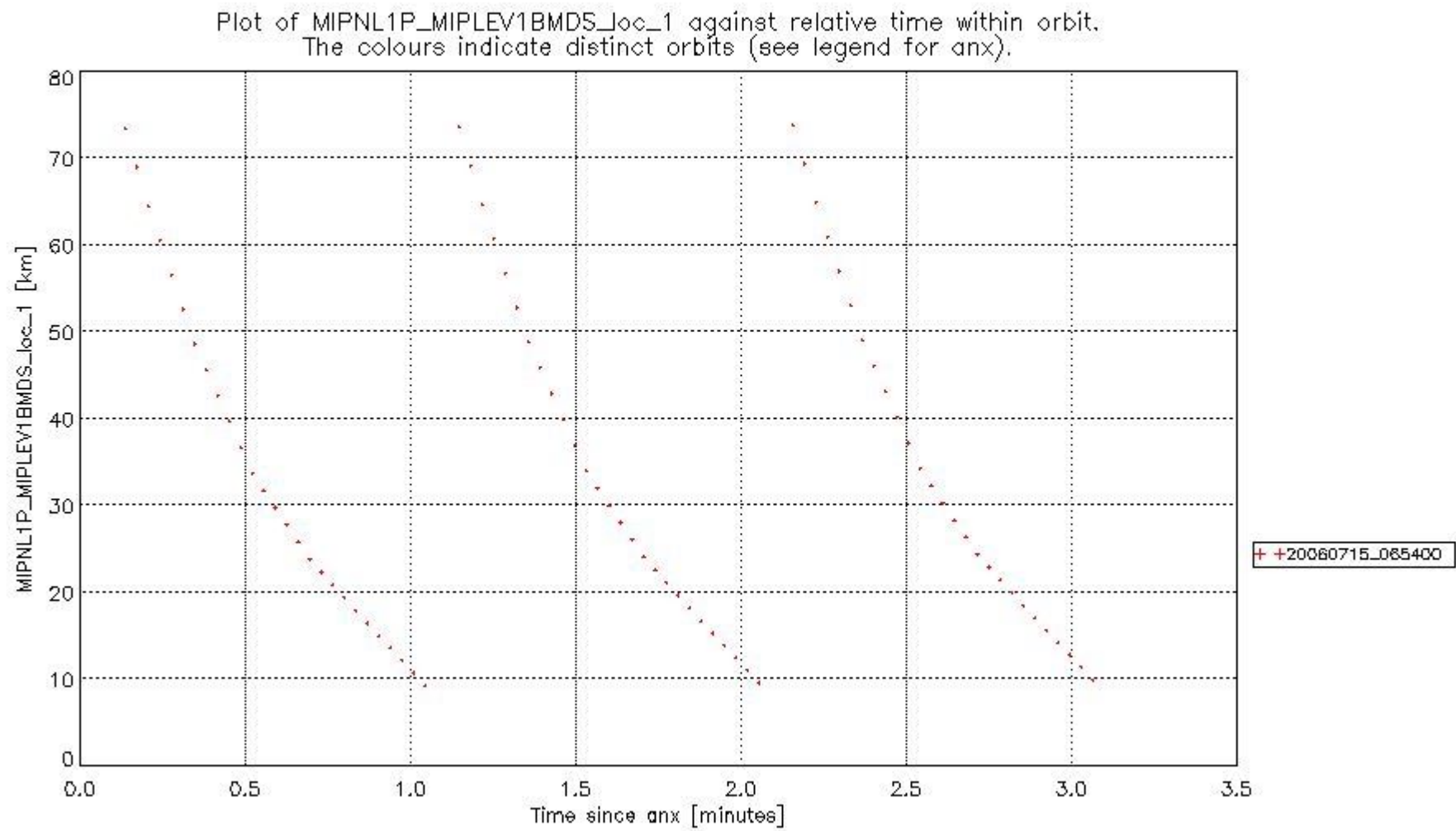
mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_48.PNG

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_65_P_20060715_50.PNG

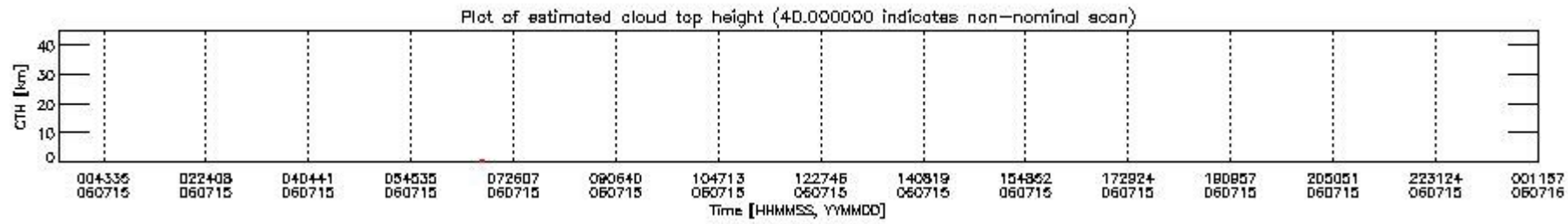
1.3.2 Cloud top height

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)

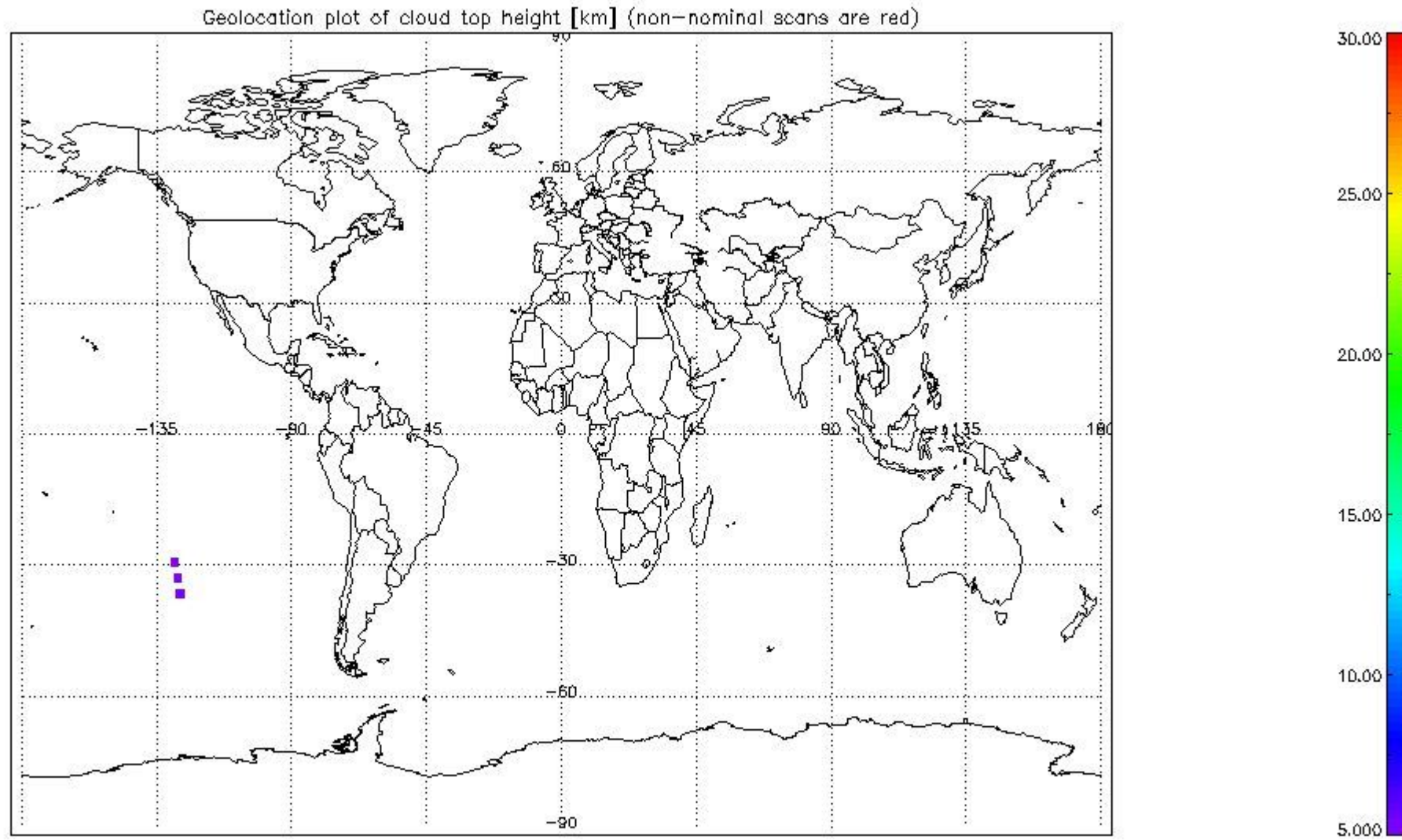
The non-nominal scans mentioned in the plots are scans that are rejected by the cloud top height algorithm for several reasons:

- 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_65_P_20060715_51.PNG

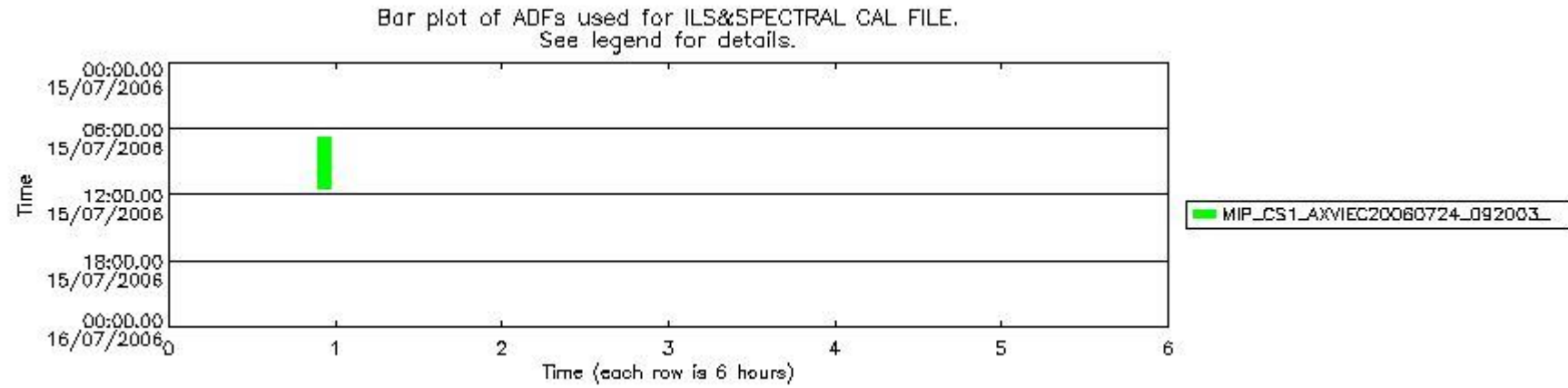


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_52.PNG

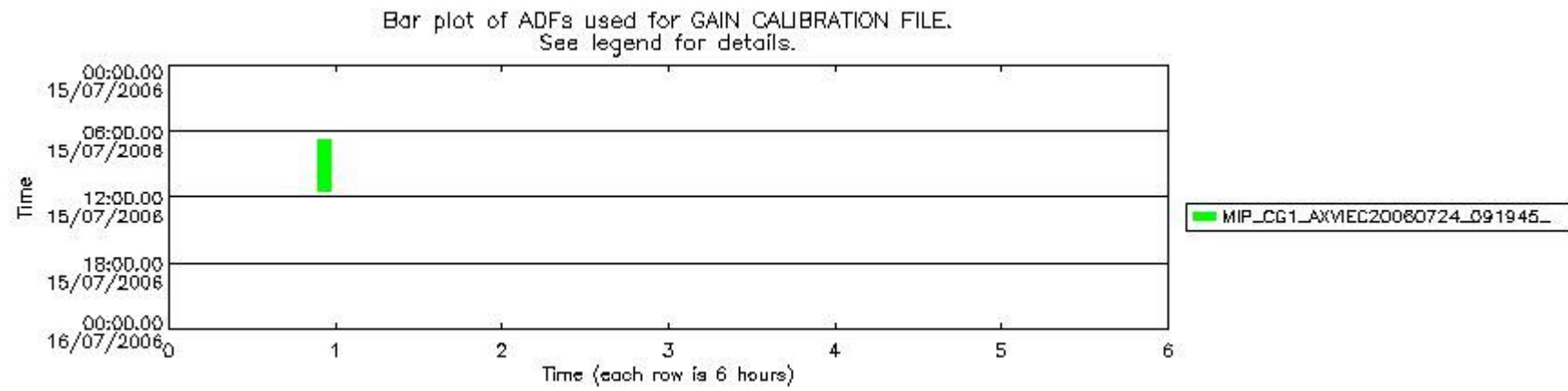
1.4 ADF monitoring

| Number | ADF |
|--------|---|
| 0 | AUX_FRO_AXVPDS20060717_223432_20060714_221000_20060717_005000 |
| 1 | MIP_CA1_AXVIEC20050627_094412_20040809_000000_20090809_000000 |
| 2 | MIP_CG1_AXVIEC20060724_091945_20060712_000000_20110712_000000 |
| 3 | MIP_CL1_AXVIEC20050420_152028_20050420_095747_20100420_095747 |
| 4 | MIP_CO1_AXVIEC20060724_091656_20060712_000000_20110712_000000 |
| 5 | MIP_CS1_AXVIEC20060724_092003_20060712_000000_20110712_000000 |
| 6 | MIP_MW1_AXVIEC20050627_094928_20040809_000000_20090809_000000 |

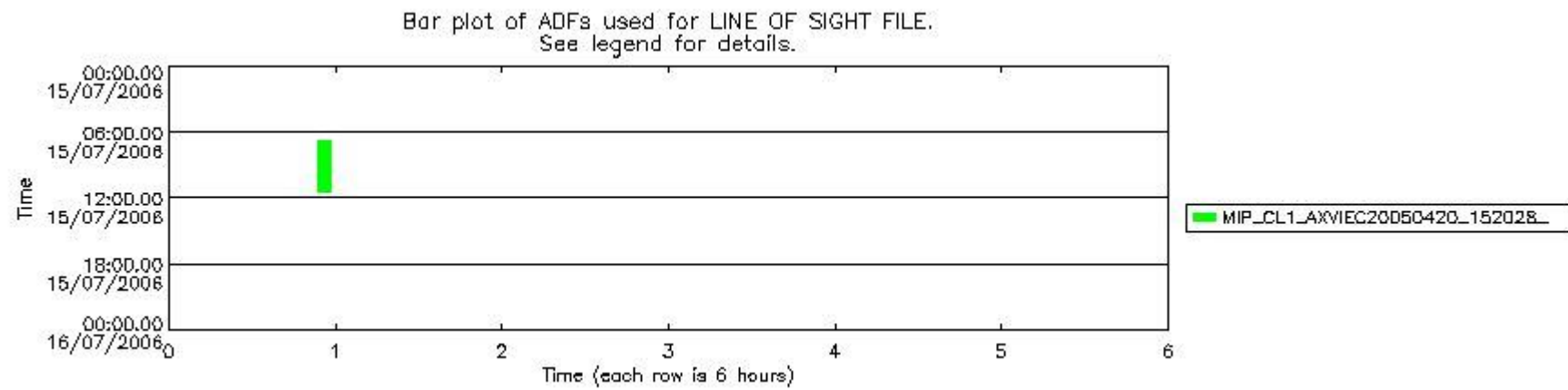
| Number | Product name | #CS1 | #CG1 | #CL1 | #CA1 | #CO1 | #MW1 | #PS1 | #FPO |
|--------|--|------|------|------|------|------|------|------|------|
| 0 | MIP_NL__1PPDPA20060715_065408_000001762049_00263_22862_0289.N1 | 5 | 2 | 3 | 1 | 4 | 6 | 7 | 0 |



mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_53.PNG

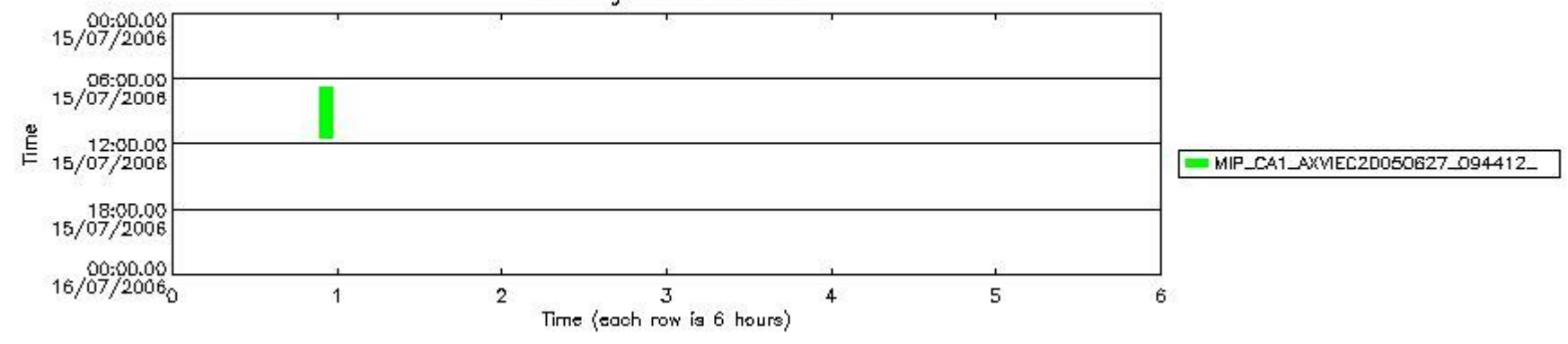


mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_54.PNG



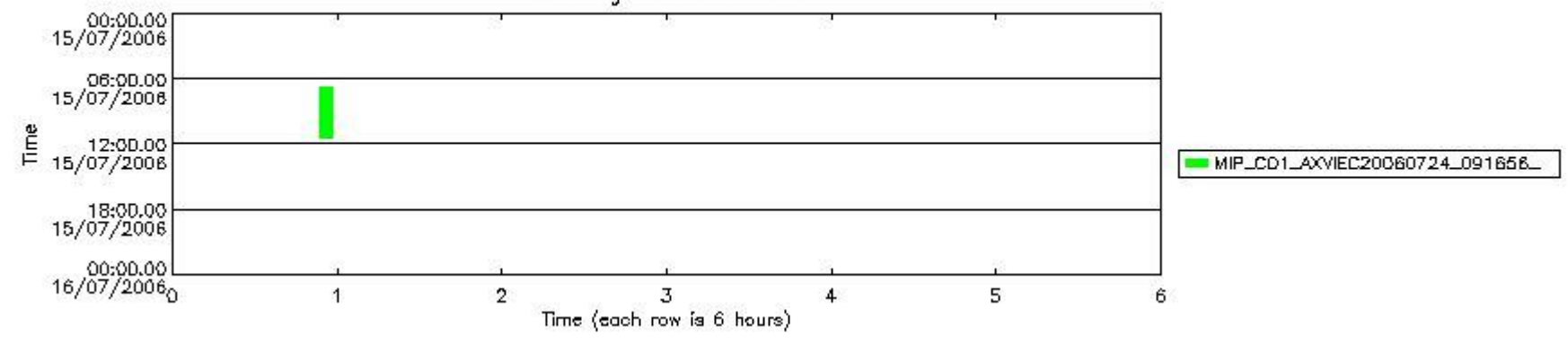
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Bar plot of ADFs used for INSTRUMENT CHAR FILE.
See legend for details.



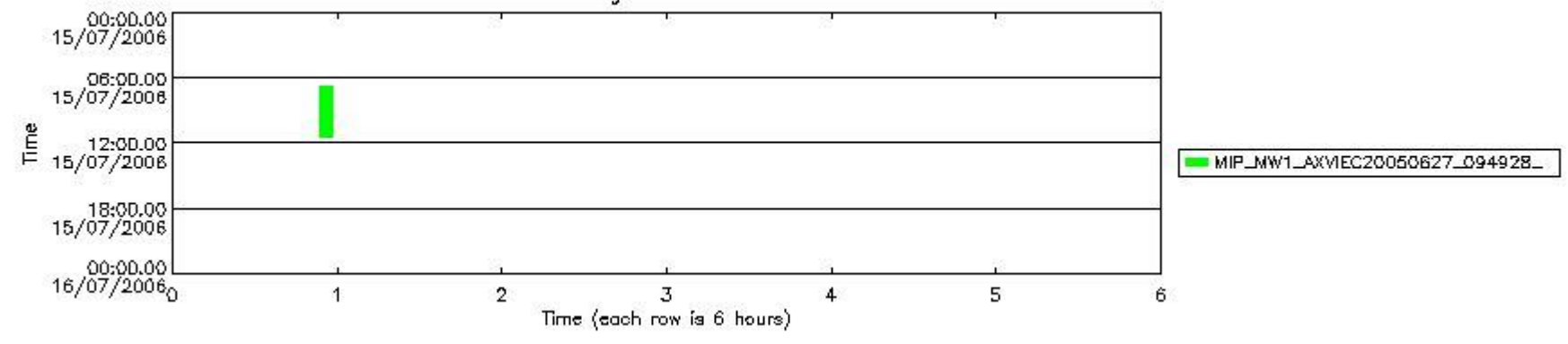
mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_56.PNG

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



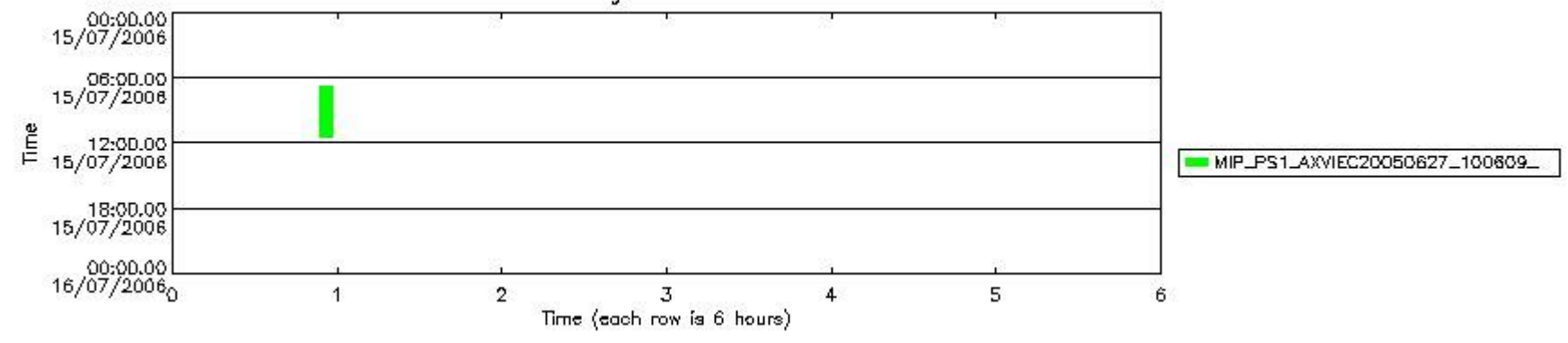
mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_57.PNG

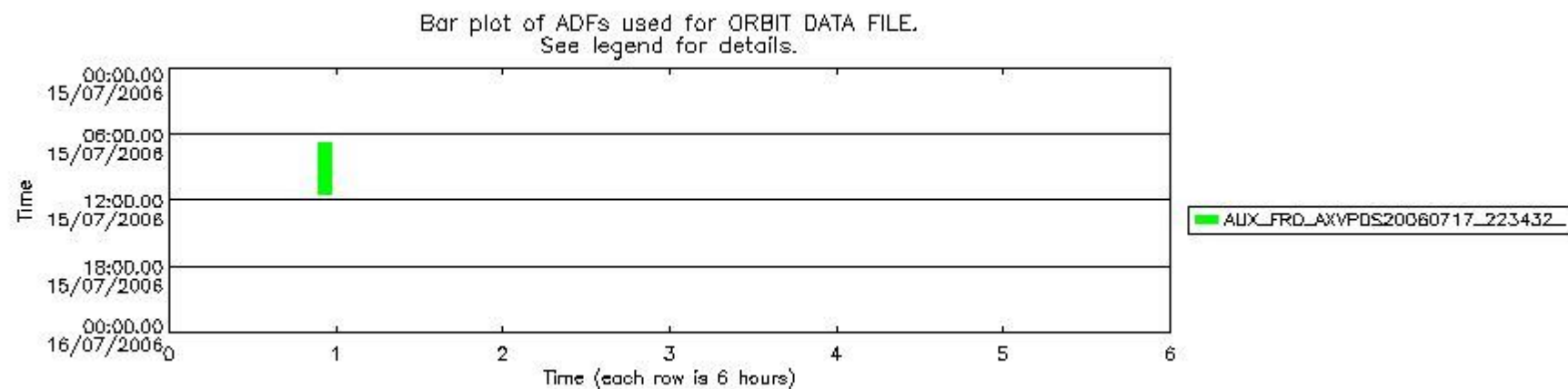
Bar plot of ADFs used for MICROWINDOWS FILE.
See legend for details.



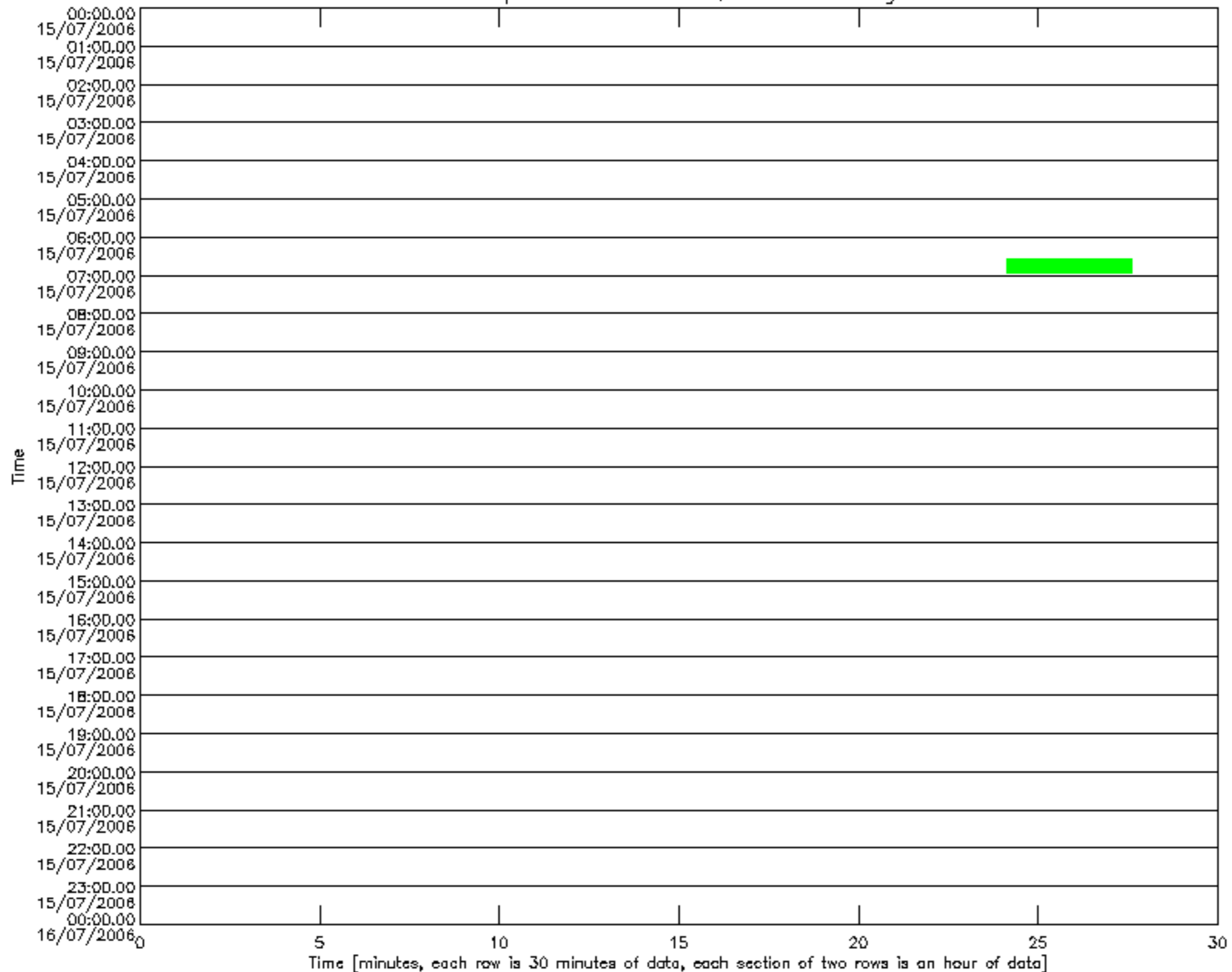
mipas_daily_report_level1_OFL_MIPAS_4_65_P_20060715_58.PNG

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

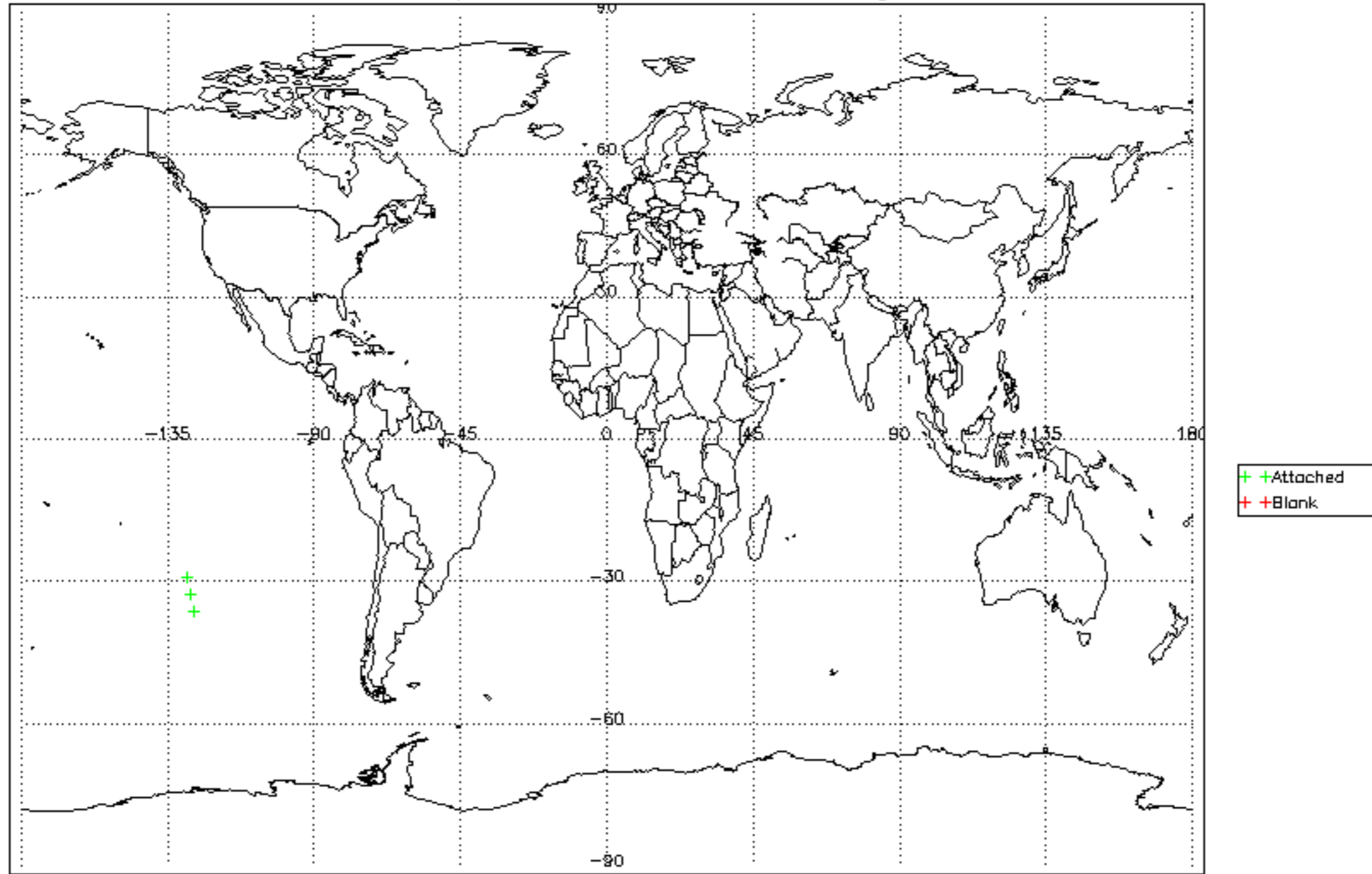


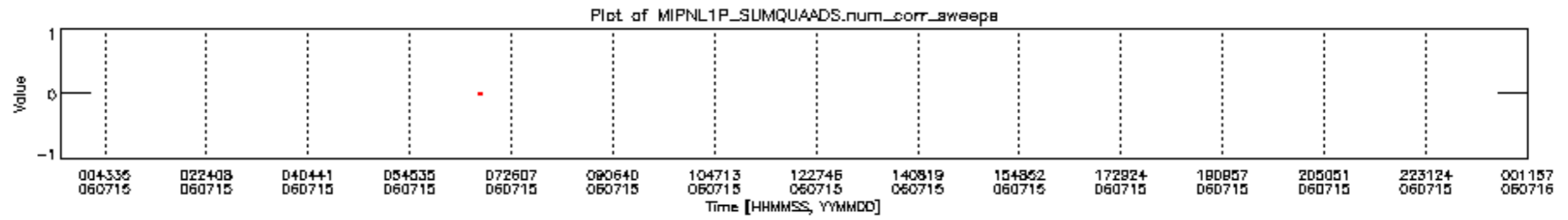


Bar plot of MIPNL1P_SUMQUAADS.attach_flag

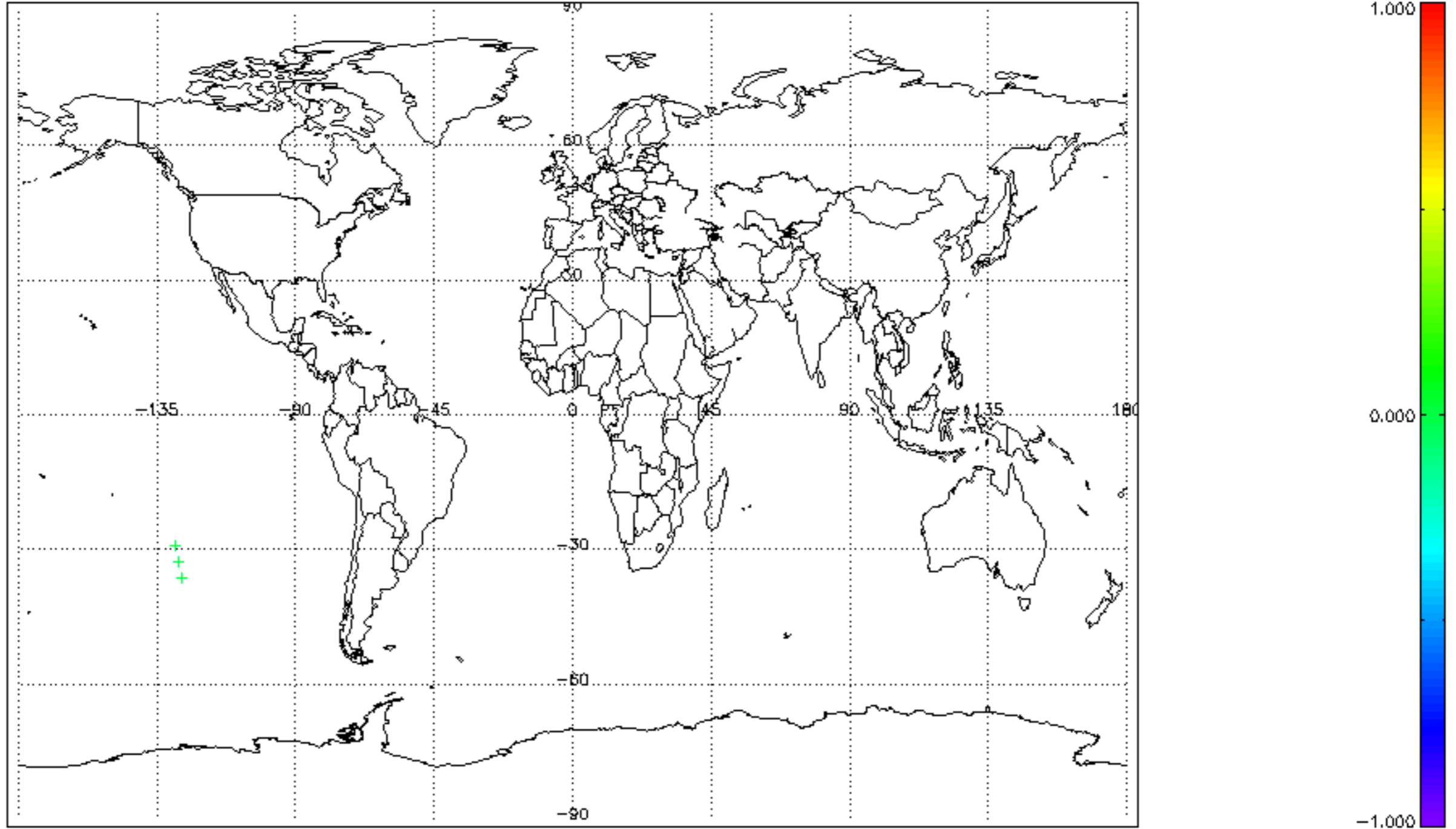


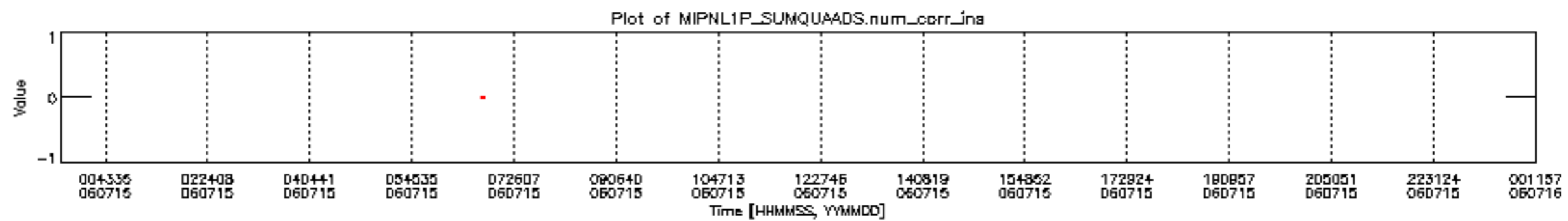
Geolocation plot of MIPNL1P_SUMQUAADS.attach_flag



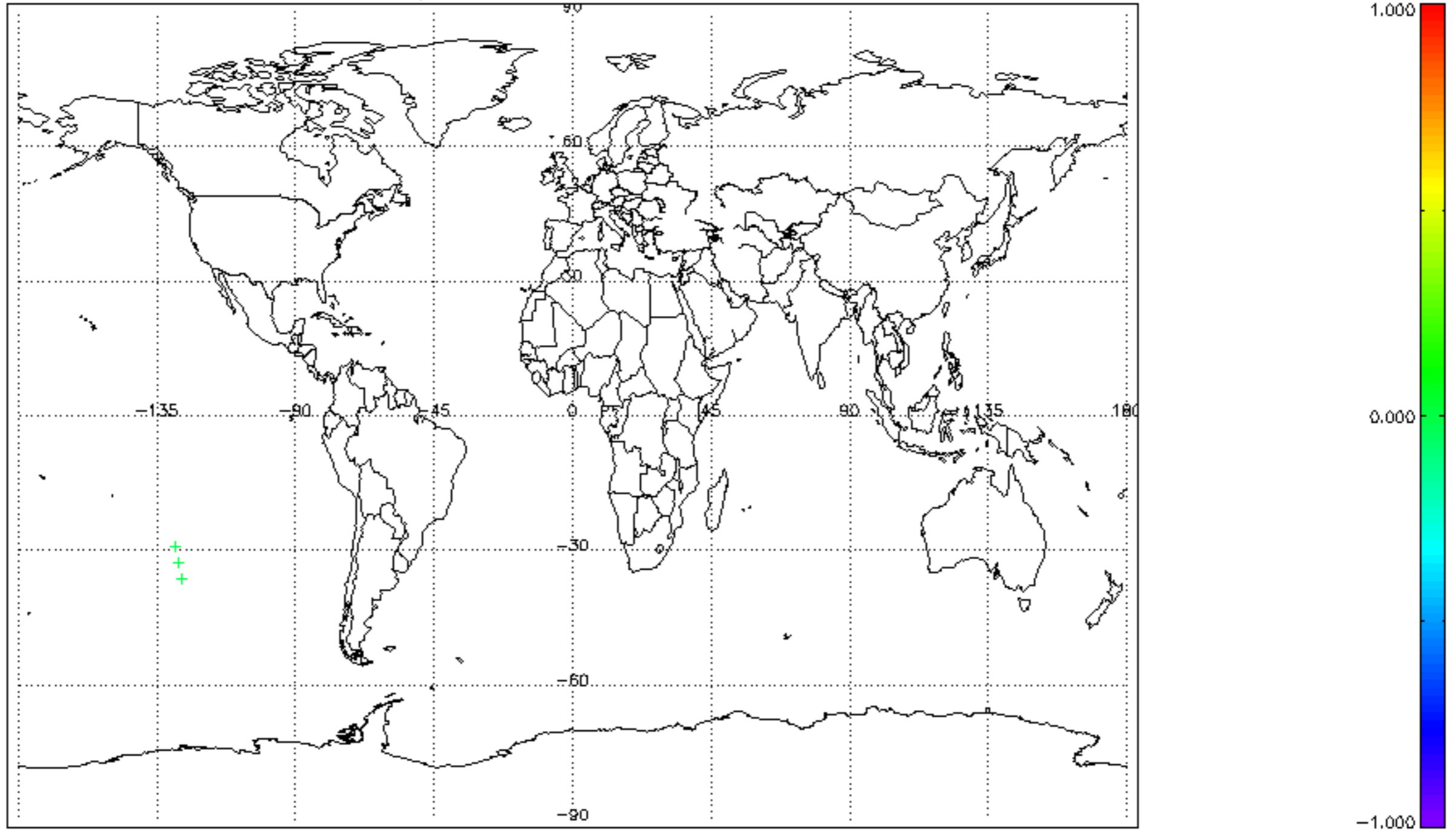


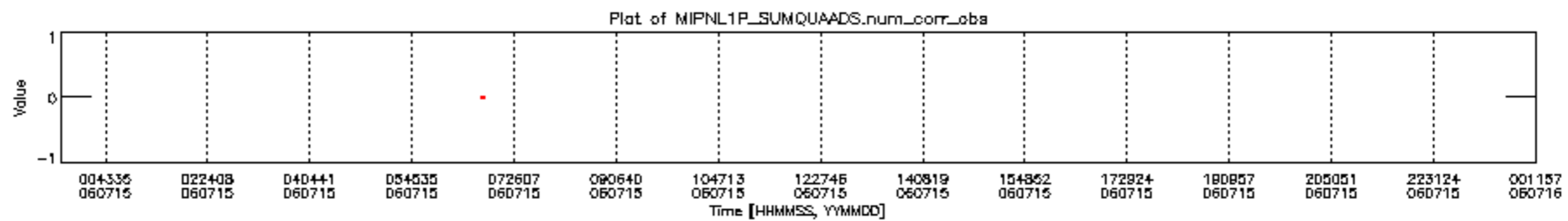
Geolocation plot of MIPNL1P_SUMQUADS.num_corr_sweeps



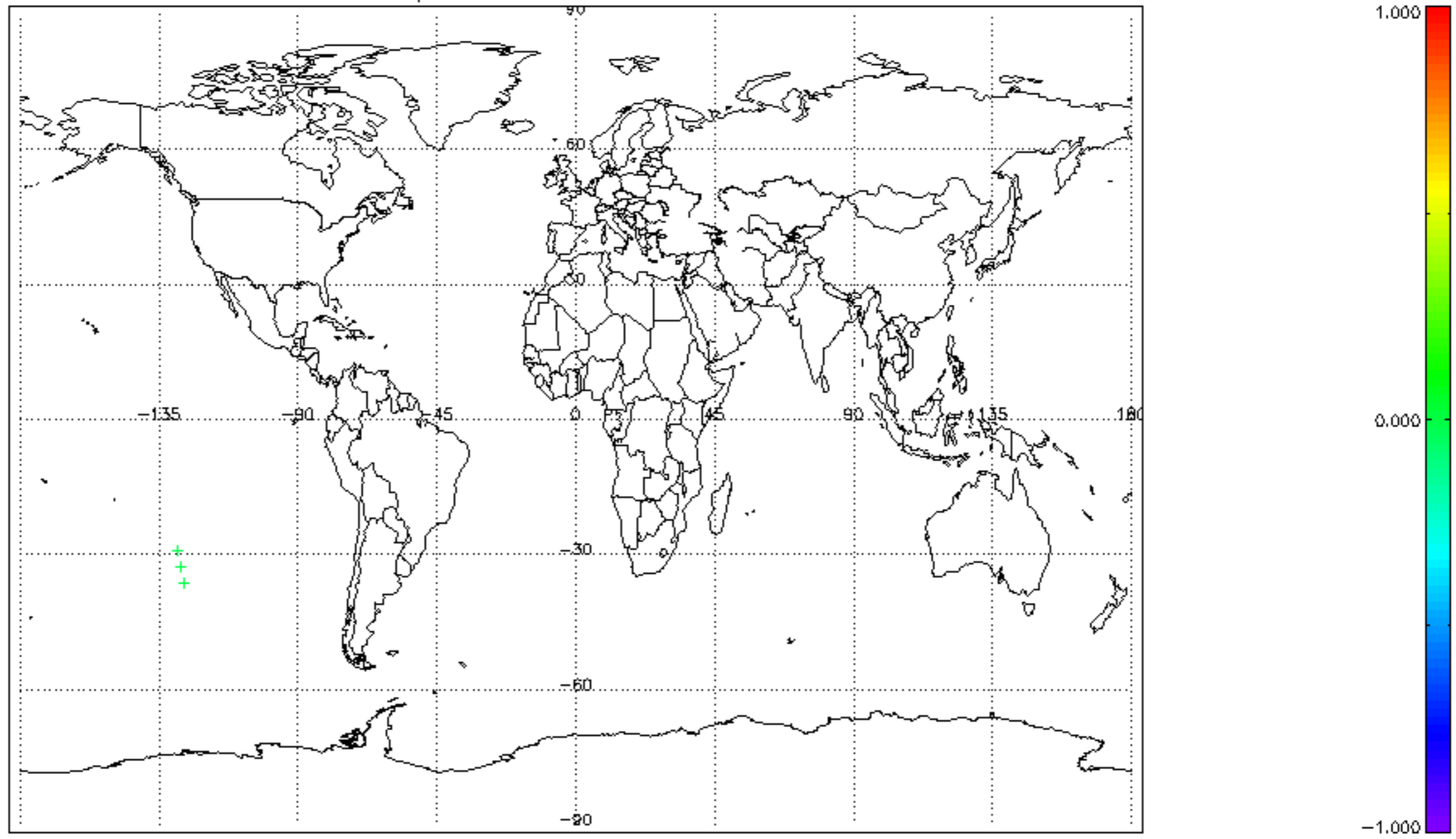


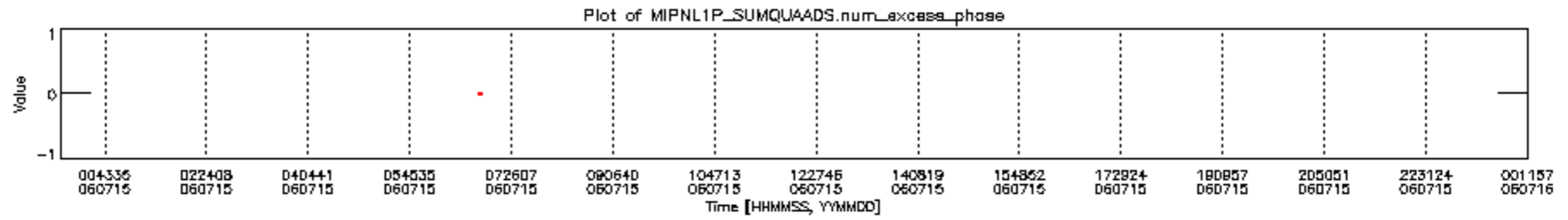
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_ins



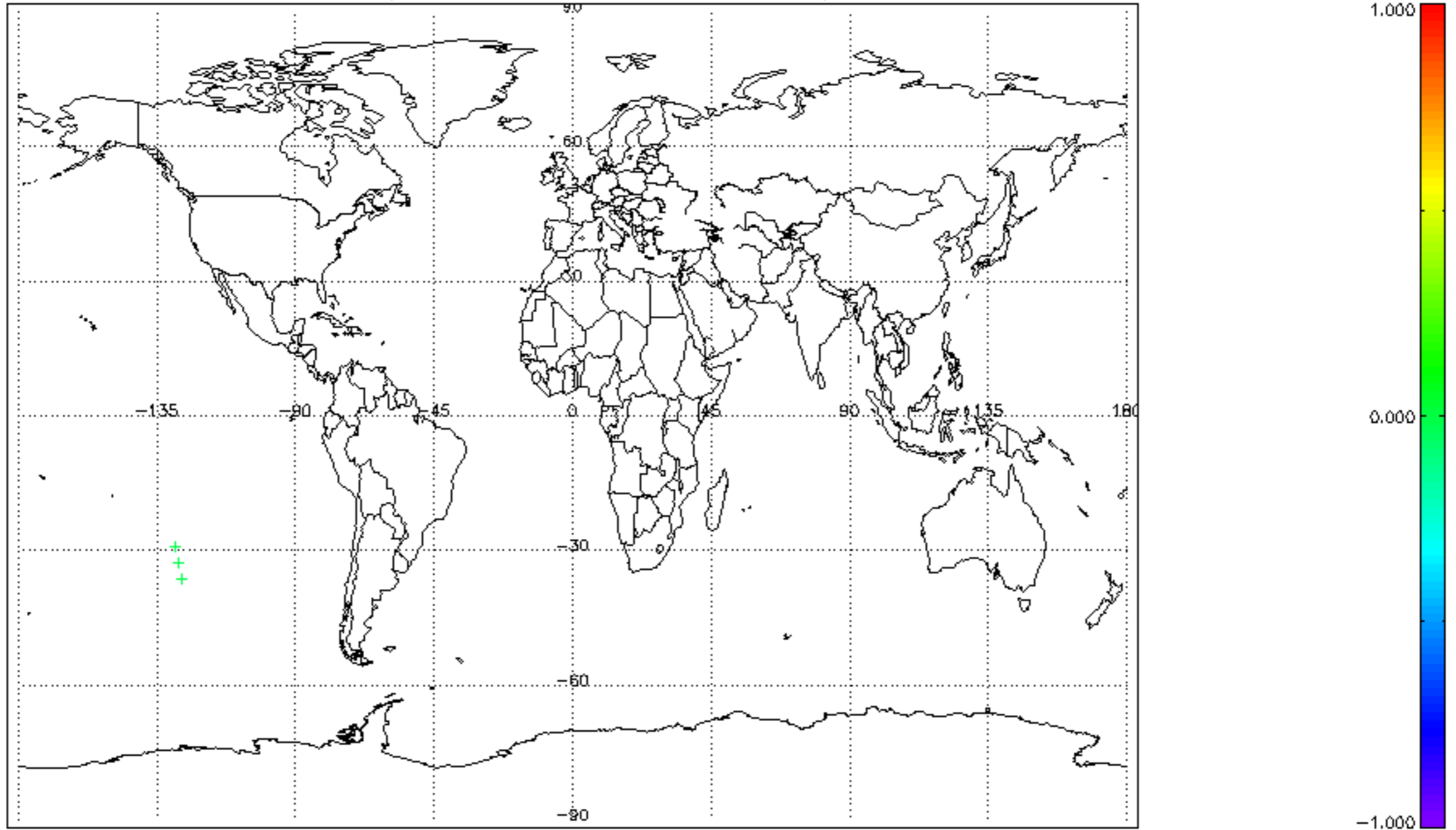


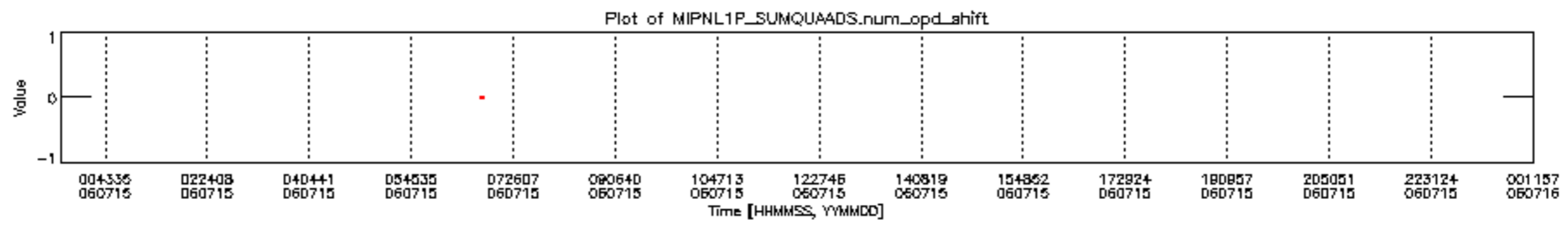
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_obs



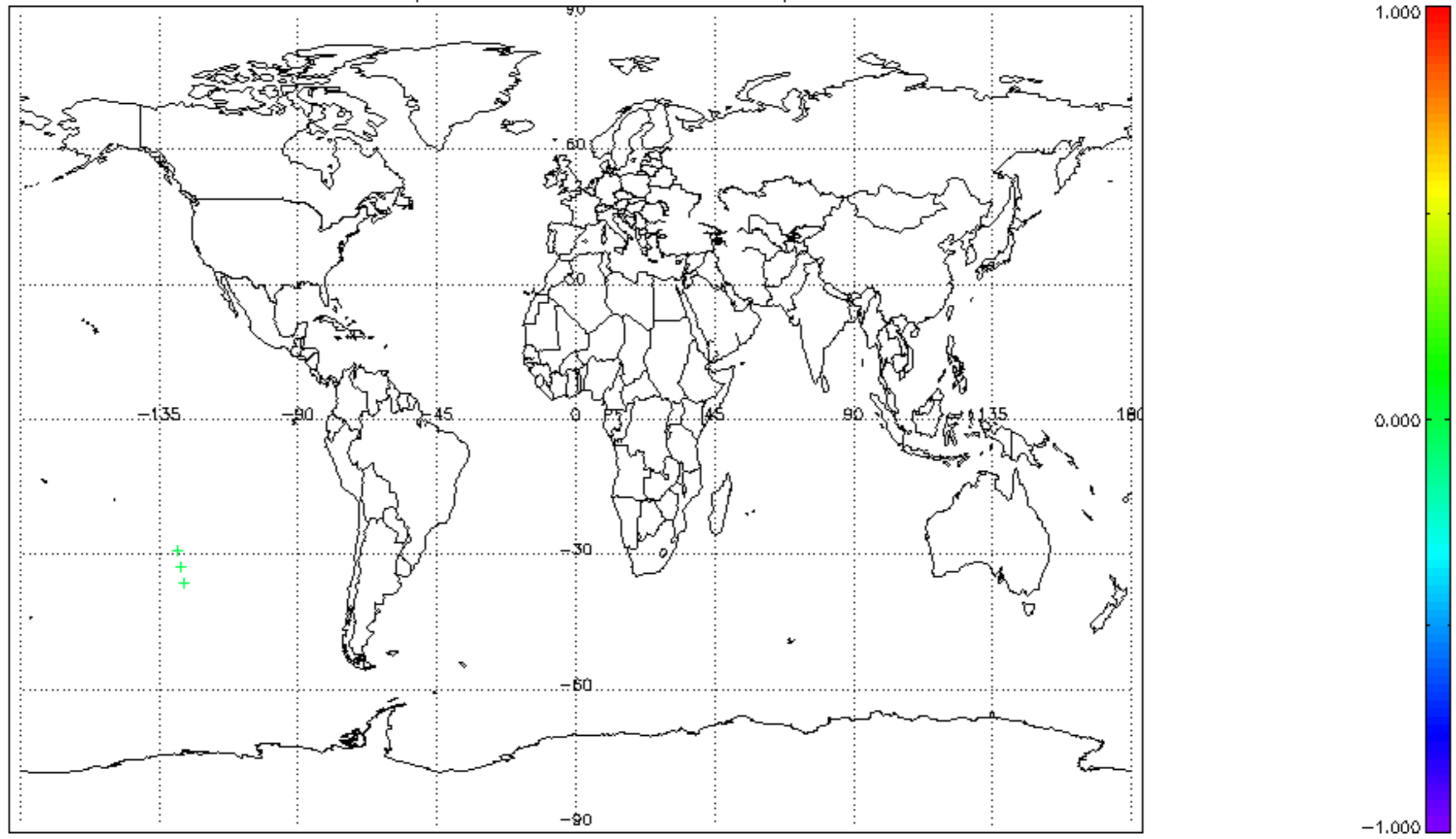


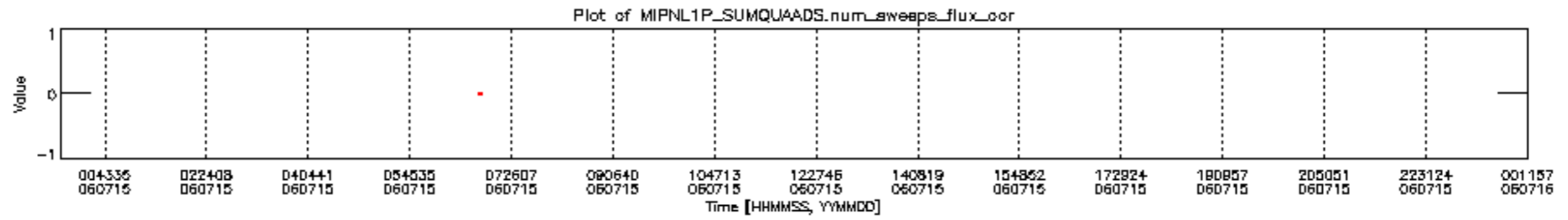
Geolocation plot of MIPNL1P_SUMQUAADS.num_excess_phase



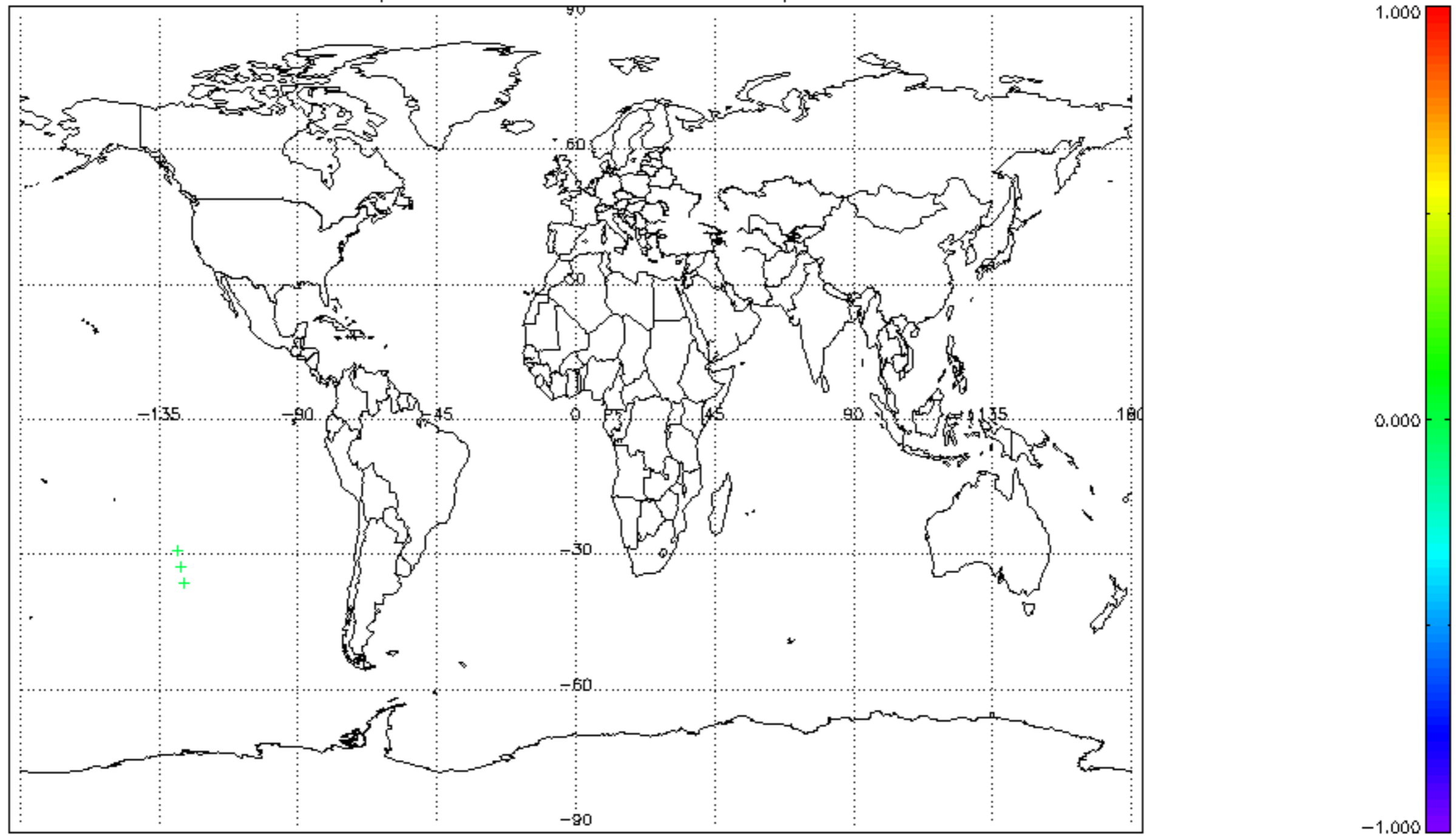


Geolocation plot of MIPNL1P_SUMQUAADS.num_opd_shift

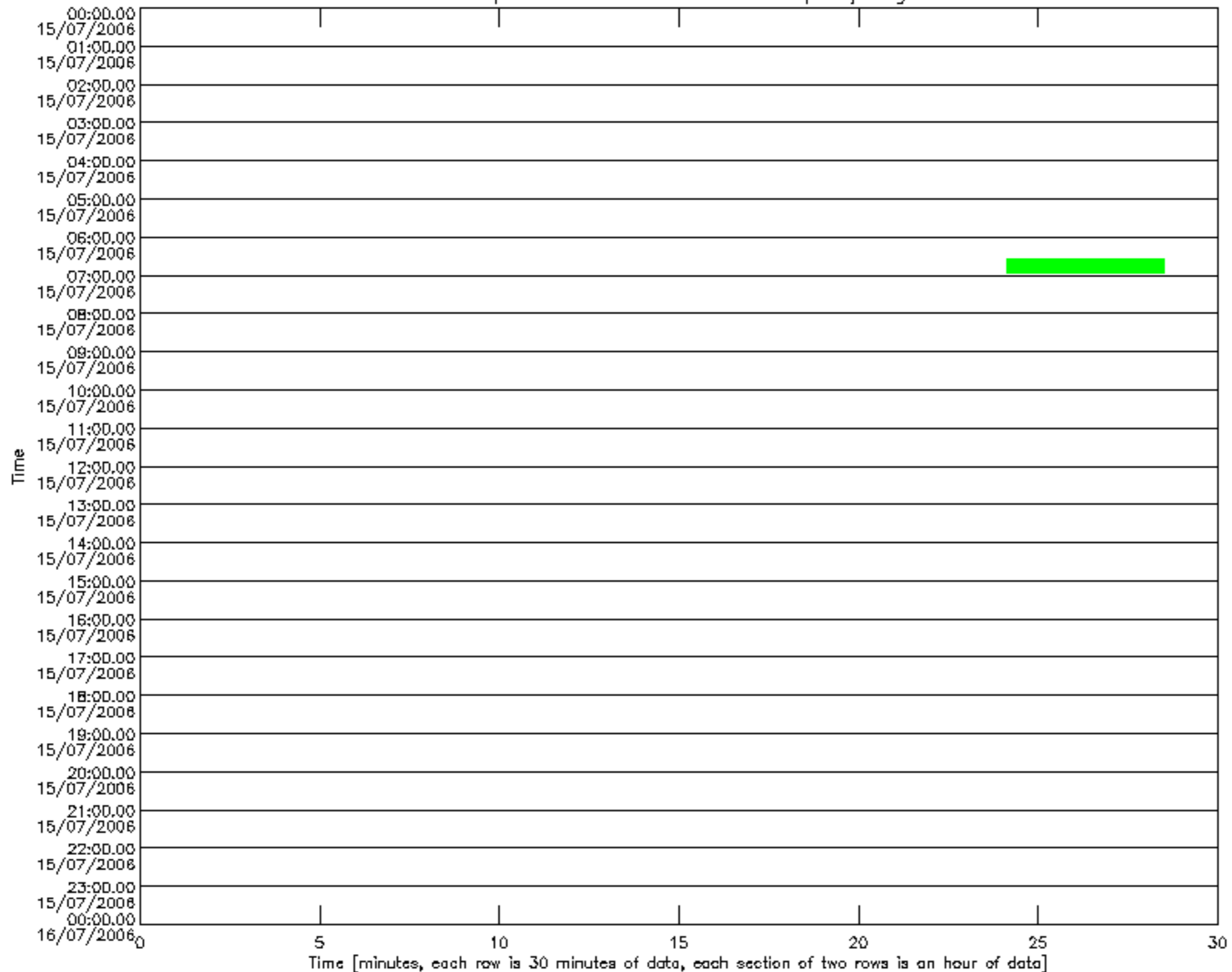




Geolocation plot of MIPNL1P_SUMQUAADS.num_sweeps_flux_oor

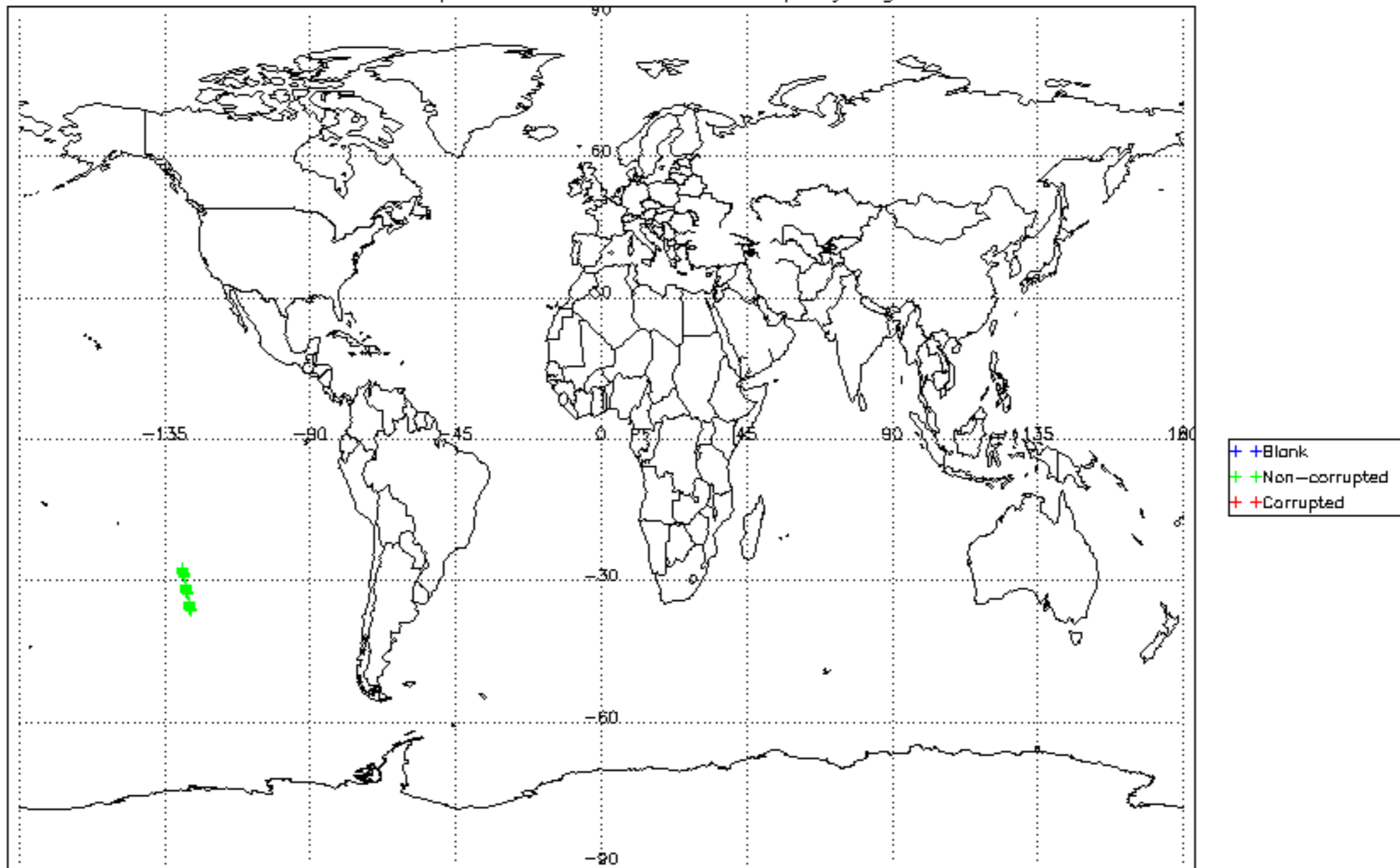


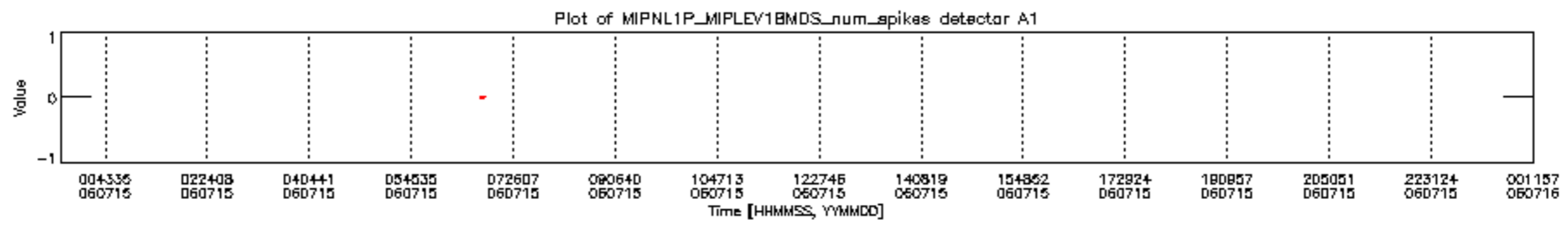
Bar plot of MIPNL1P_MIPLEV1BMDS_quality_flag



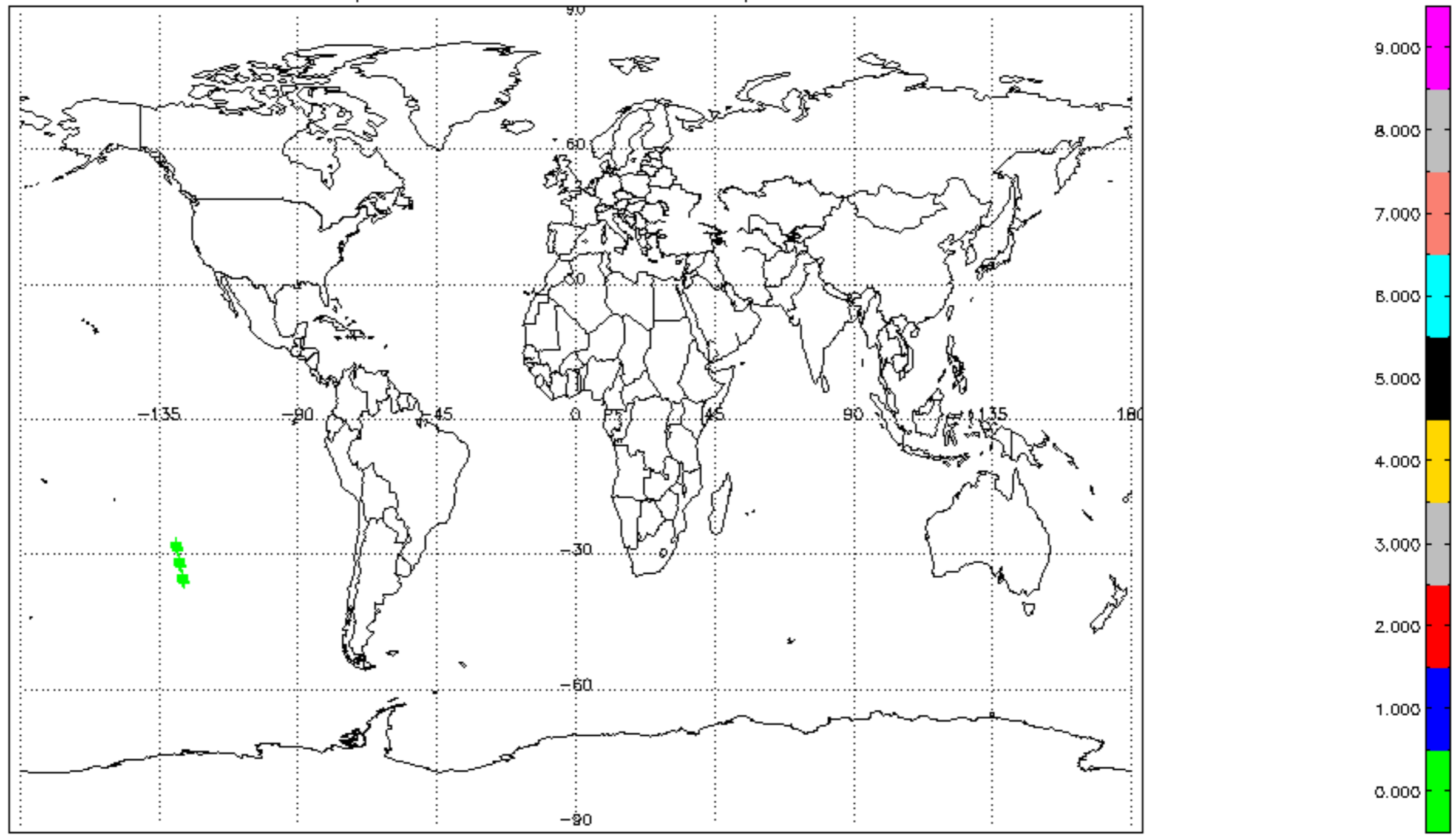
Blank
Non-corrupted
Corrupted

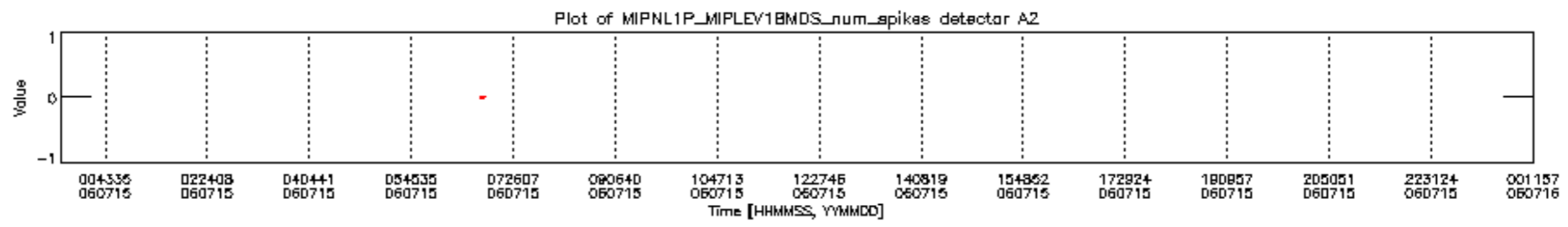
Geolocation plot of MIPNL1P_MIPLEV1BMDS_quality_flag



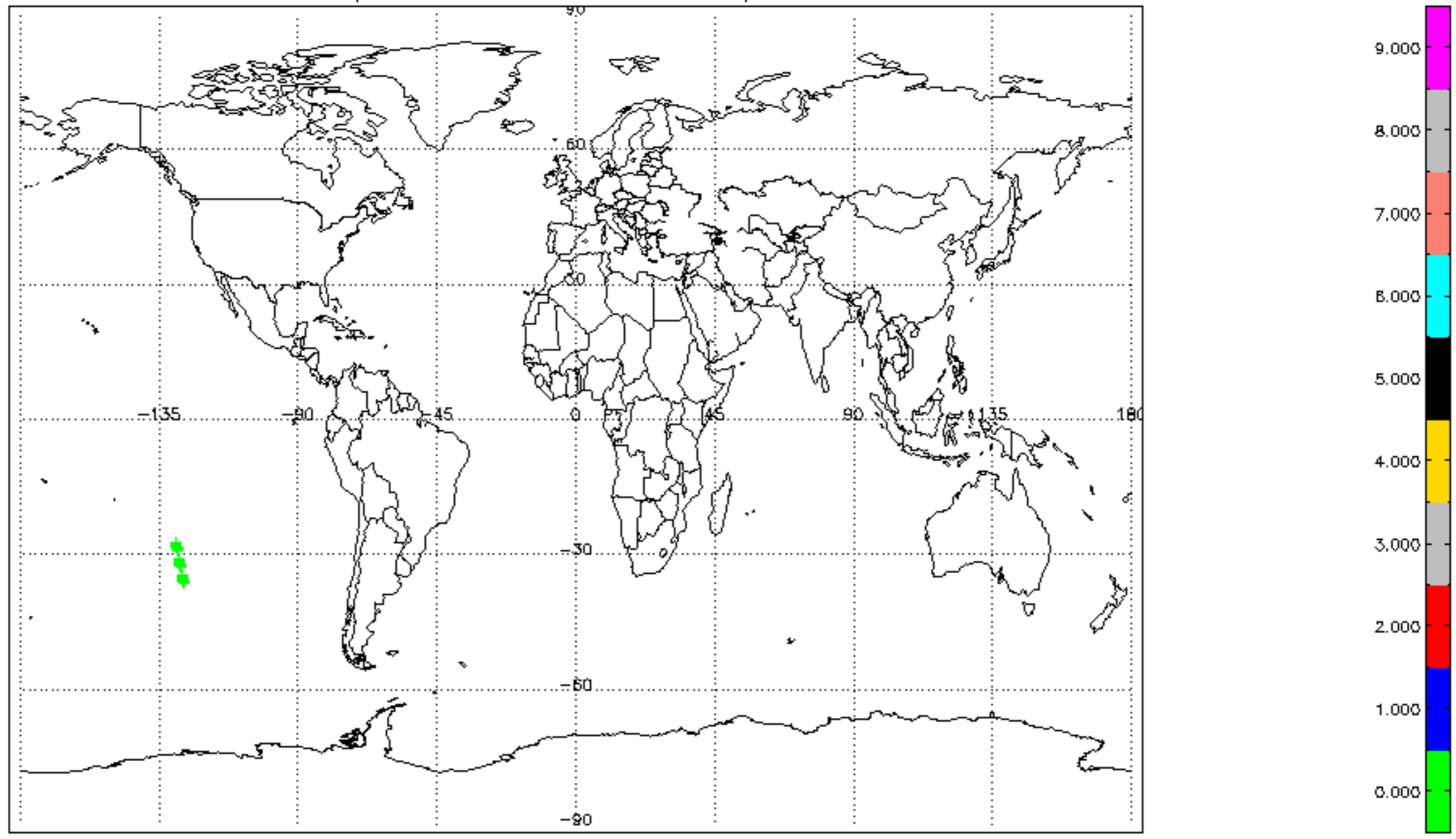


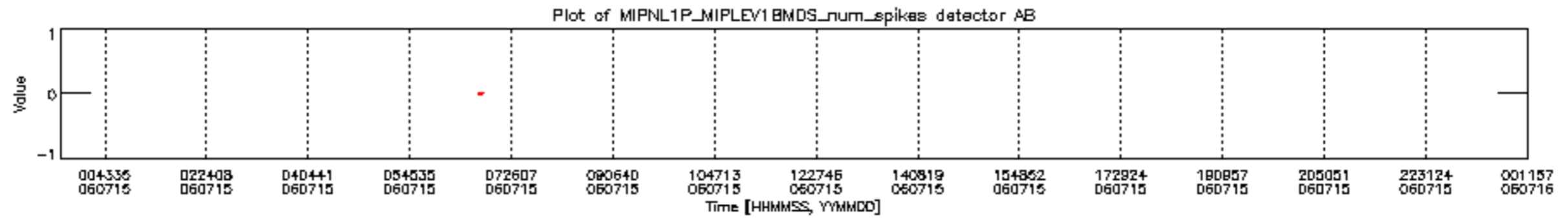
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A1



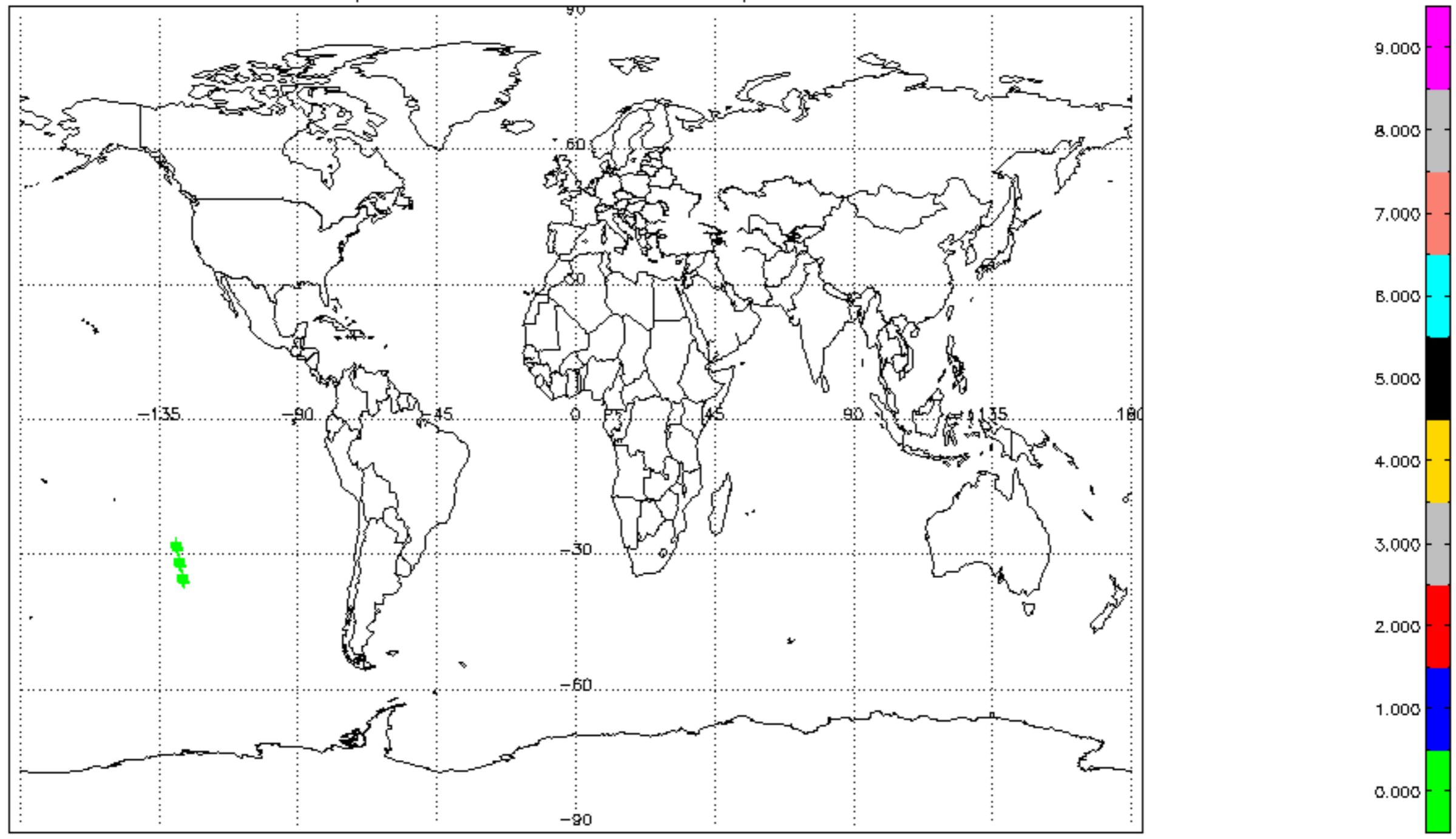


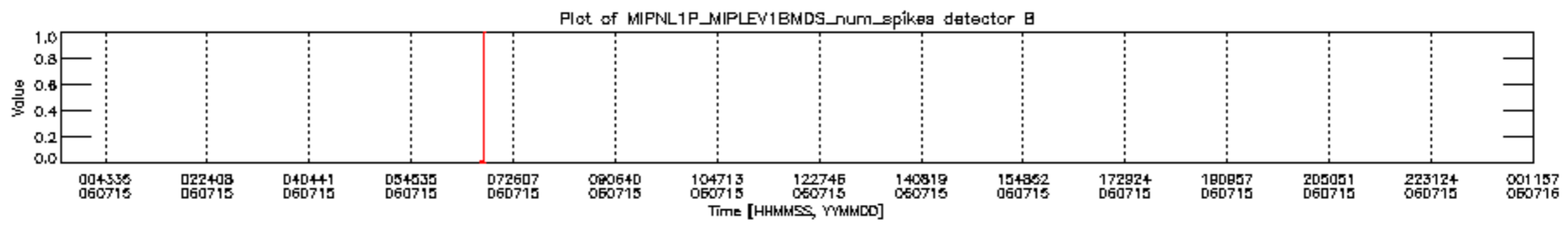
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A2



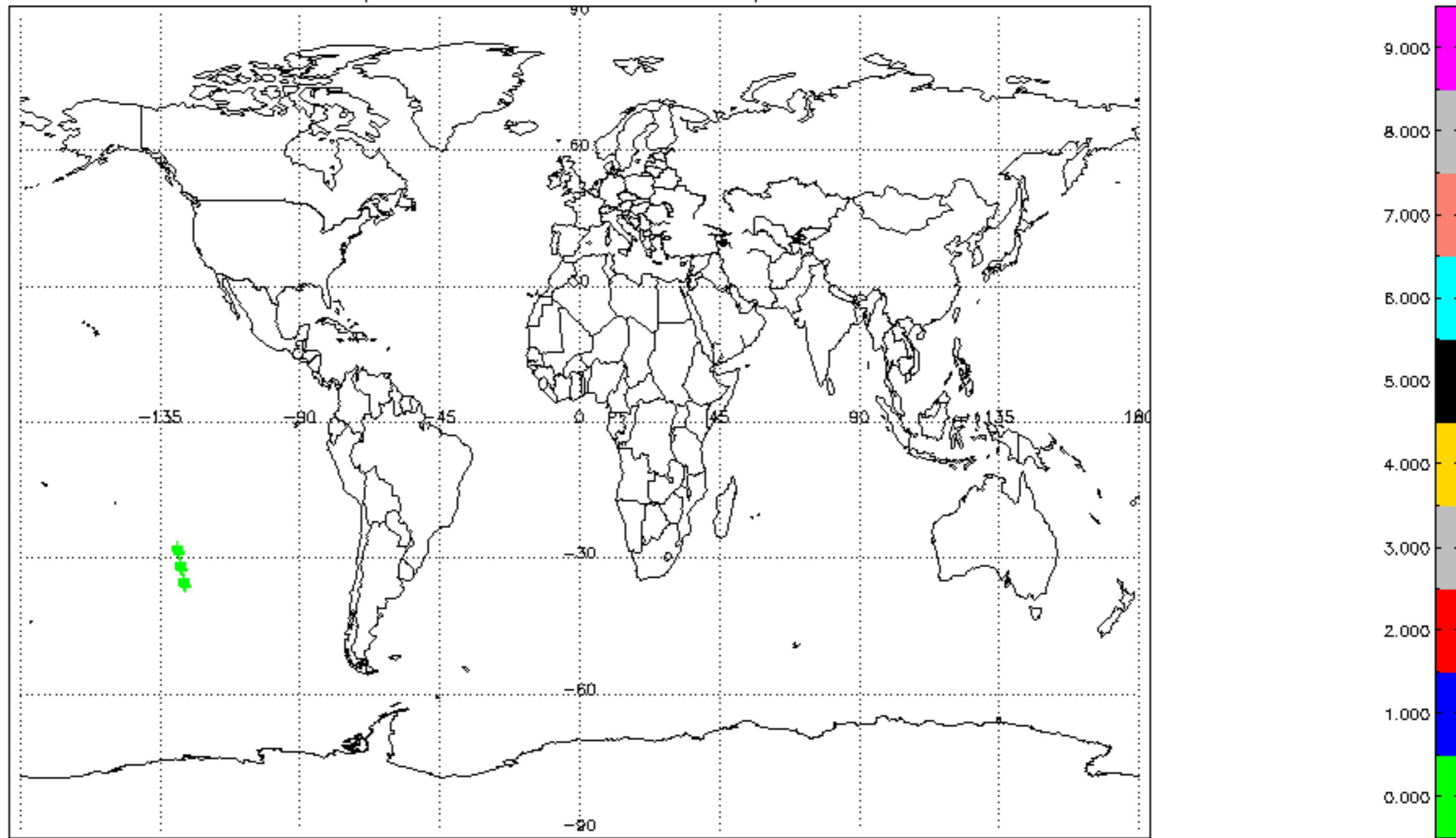


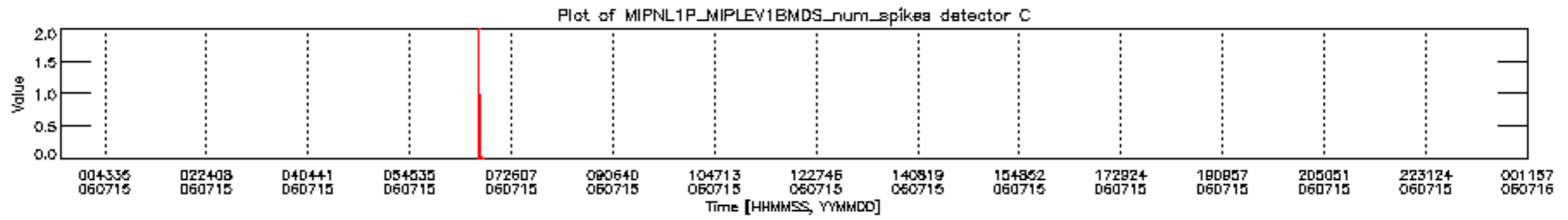
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector AB



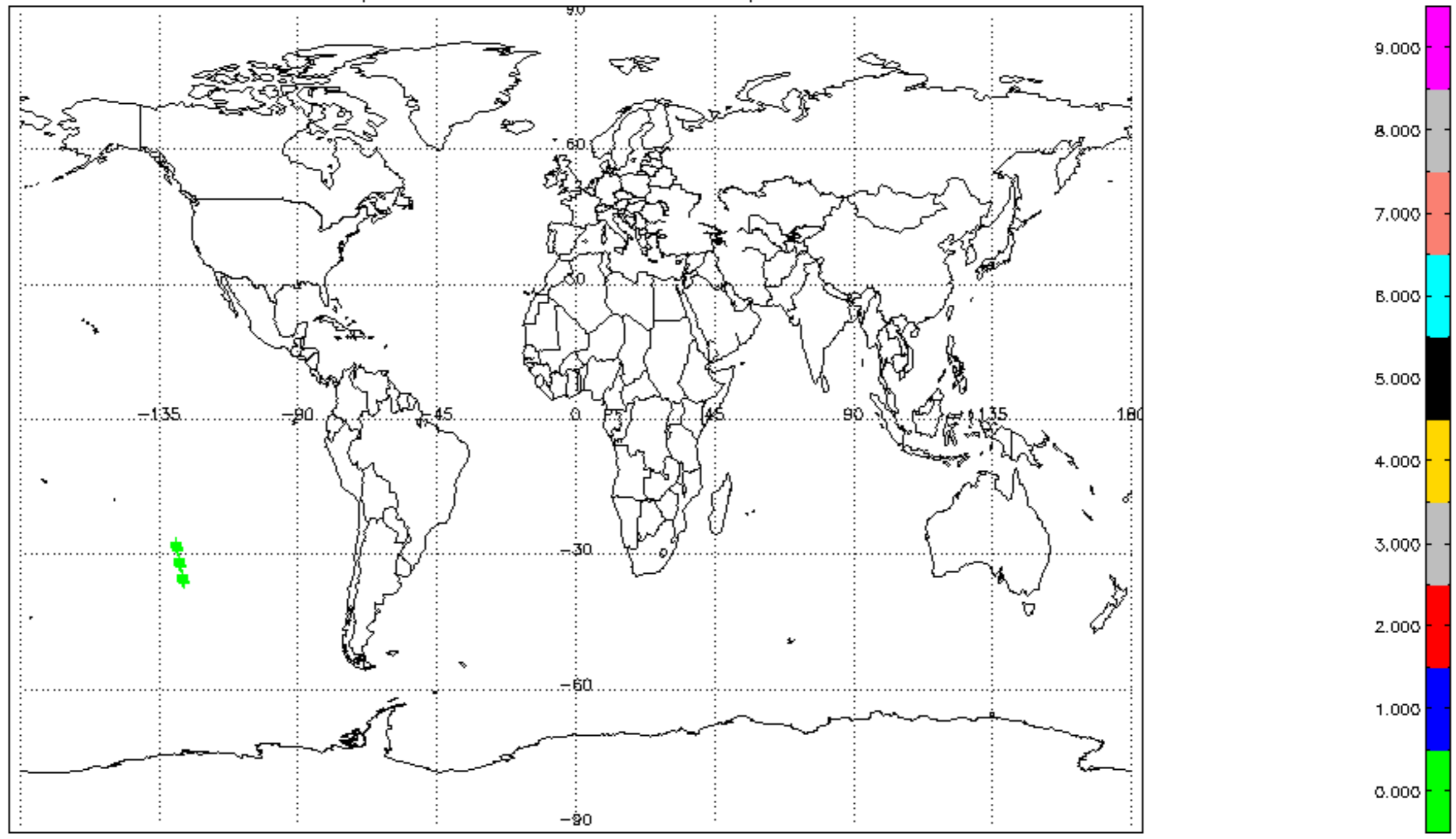


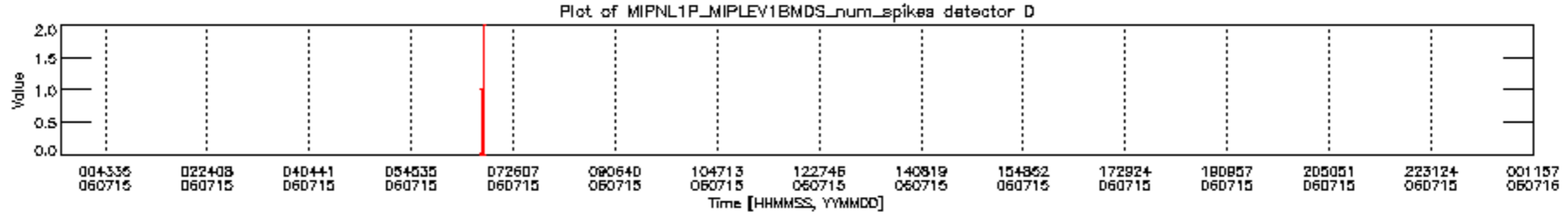
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector B



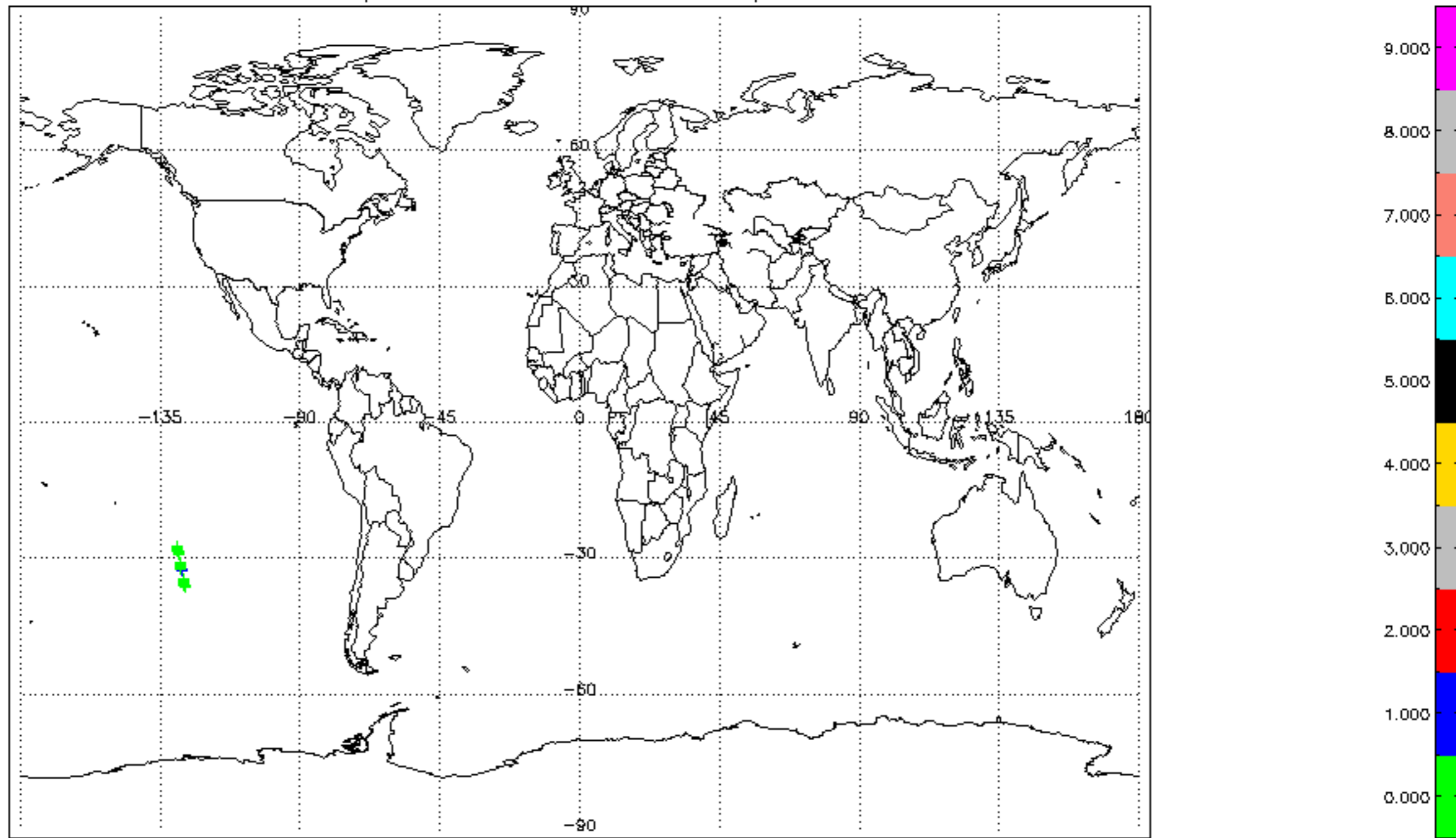


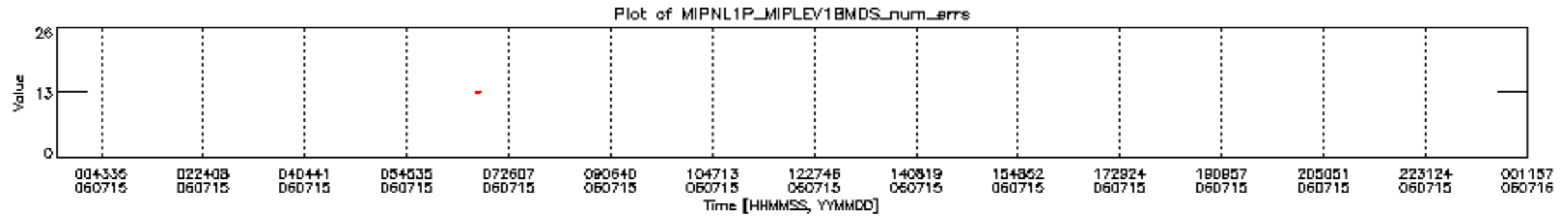
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector C



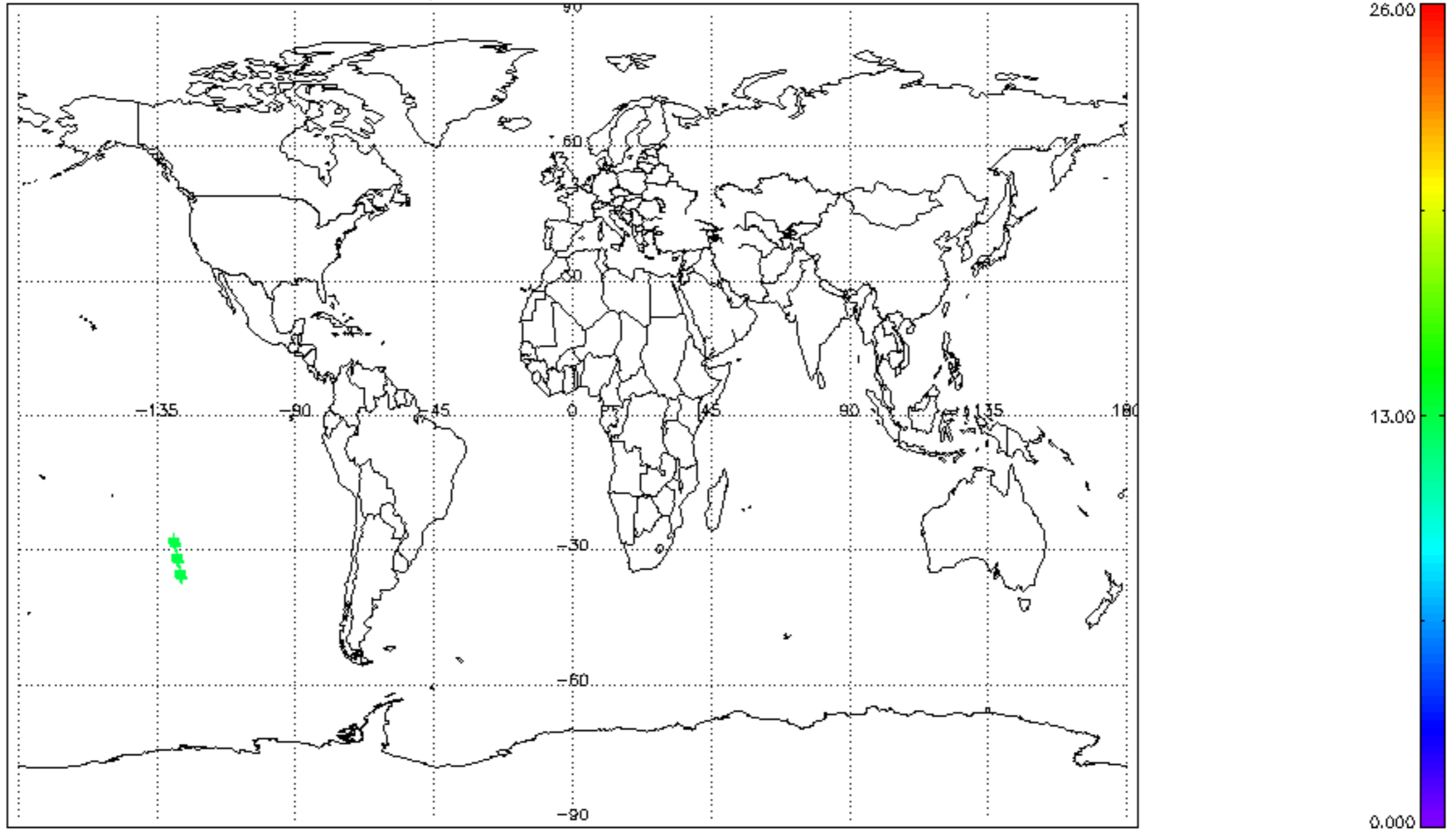


Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector D

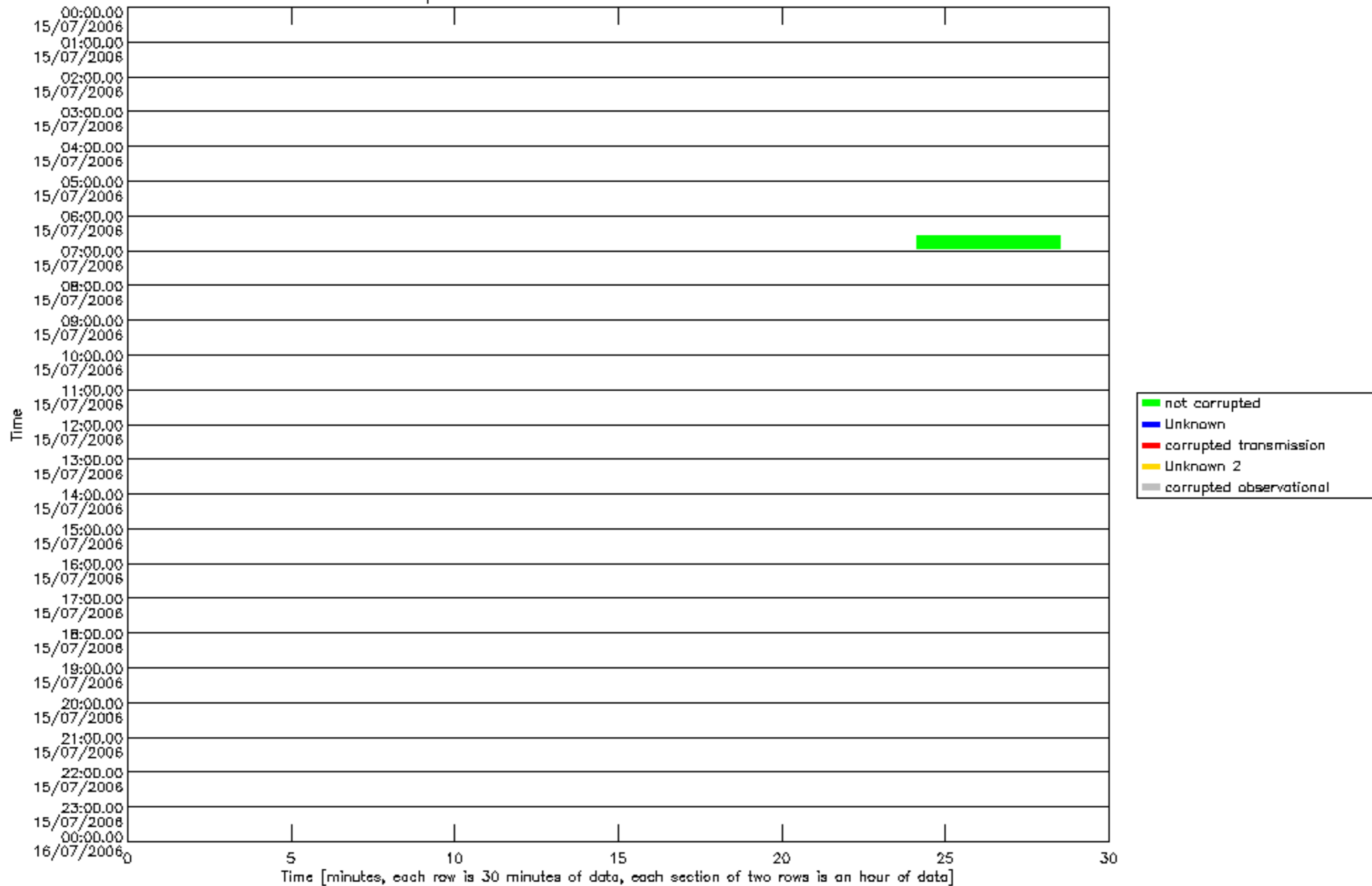




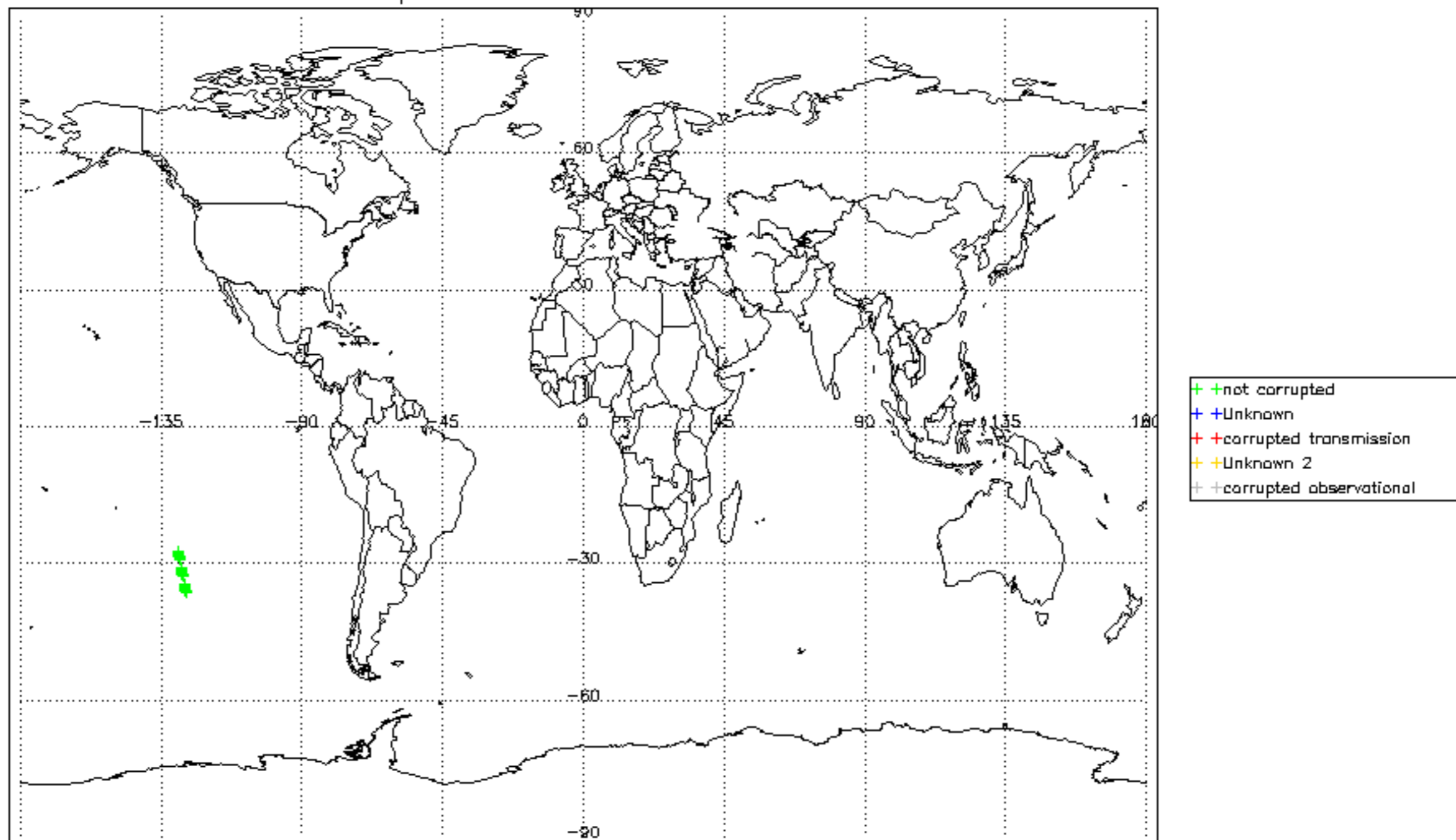
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_errs



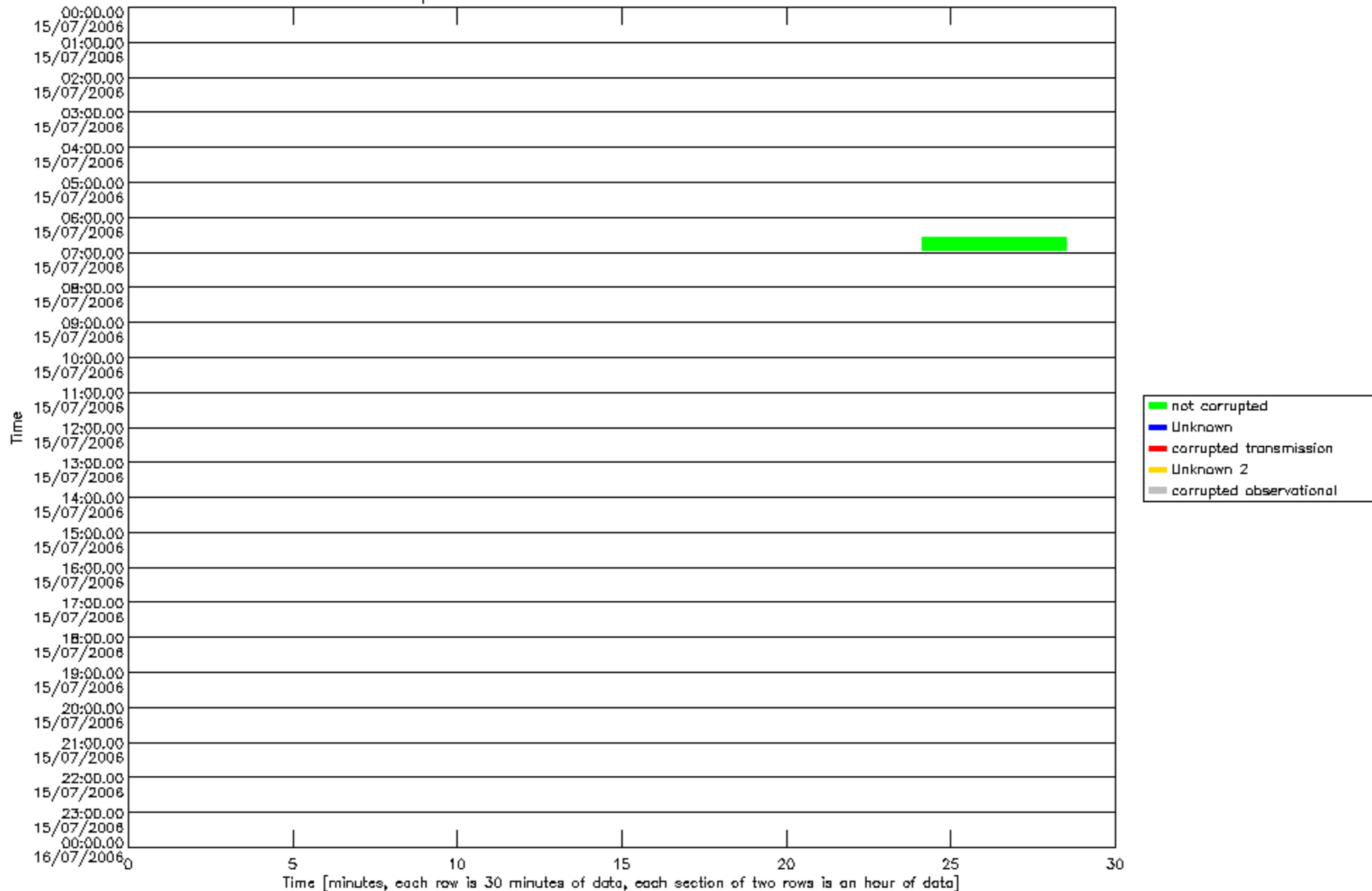
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band A



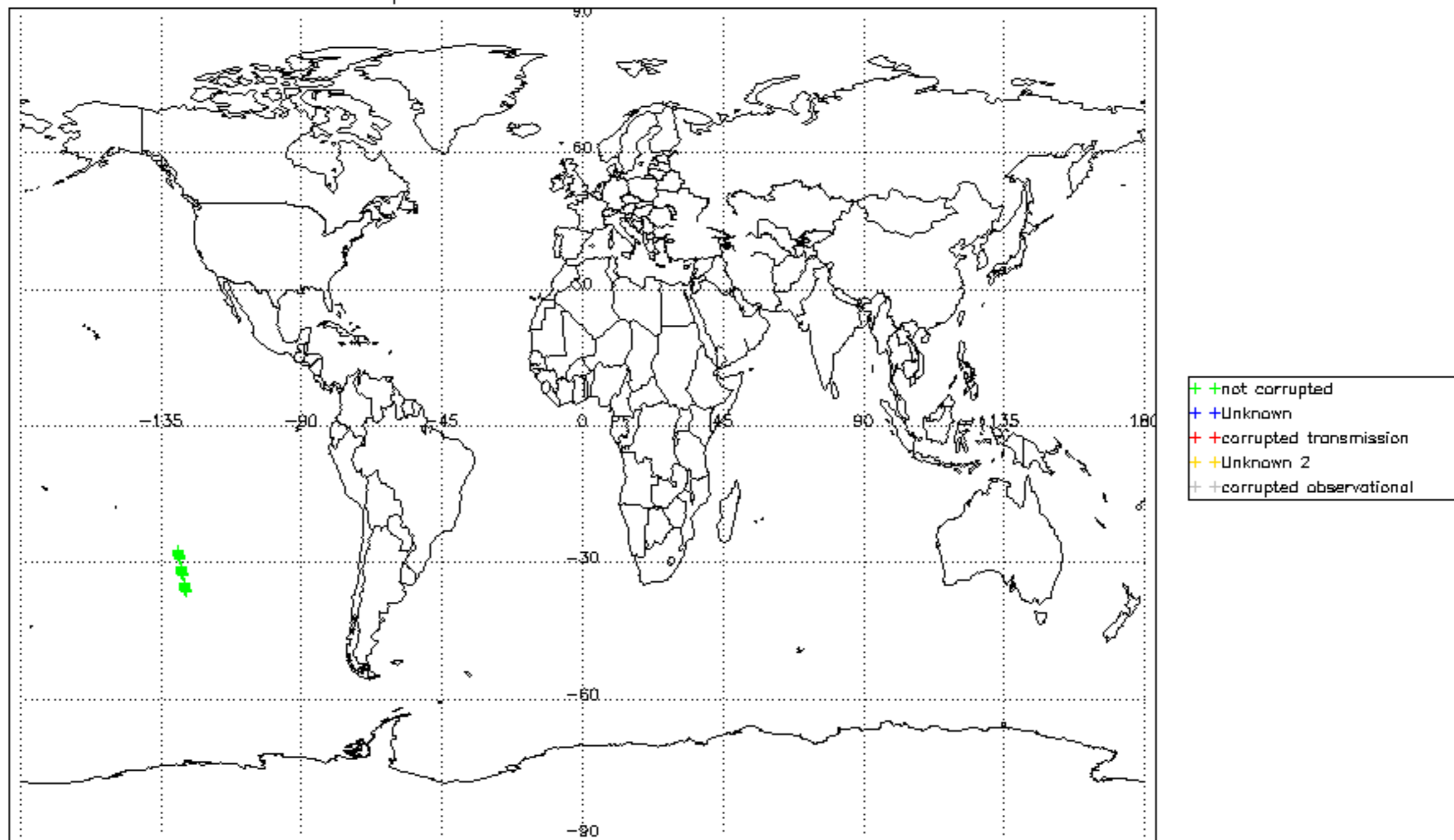
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band A



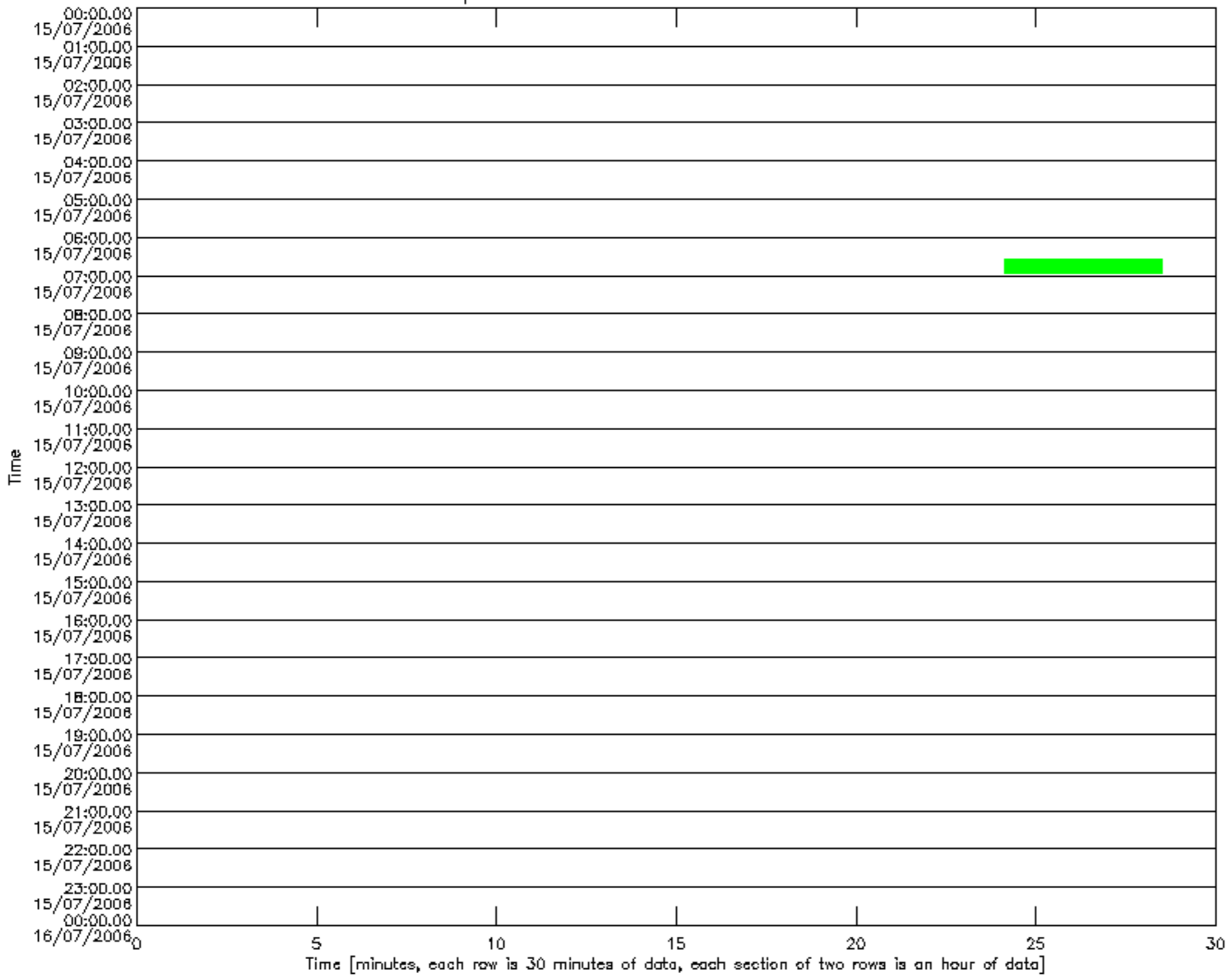
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band AB



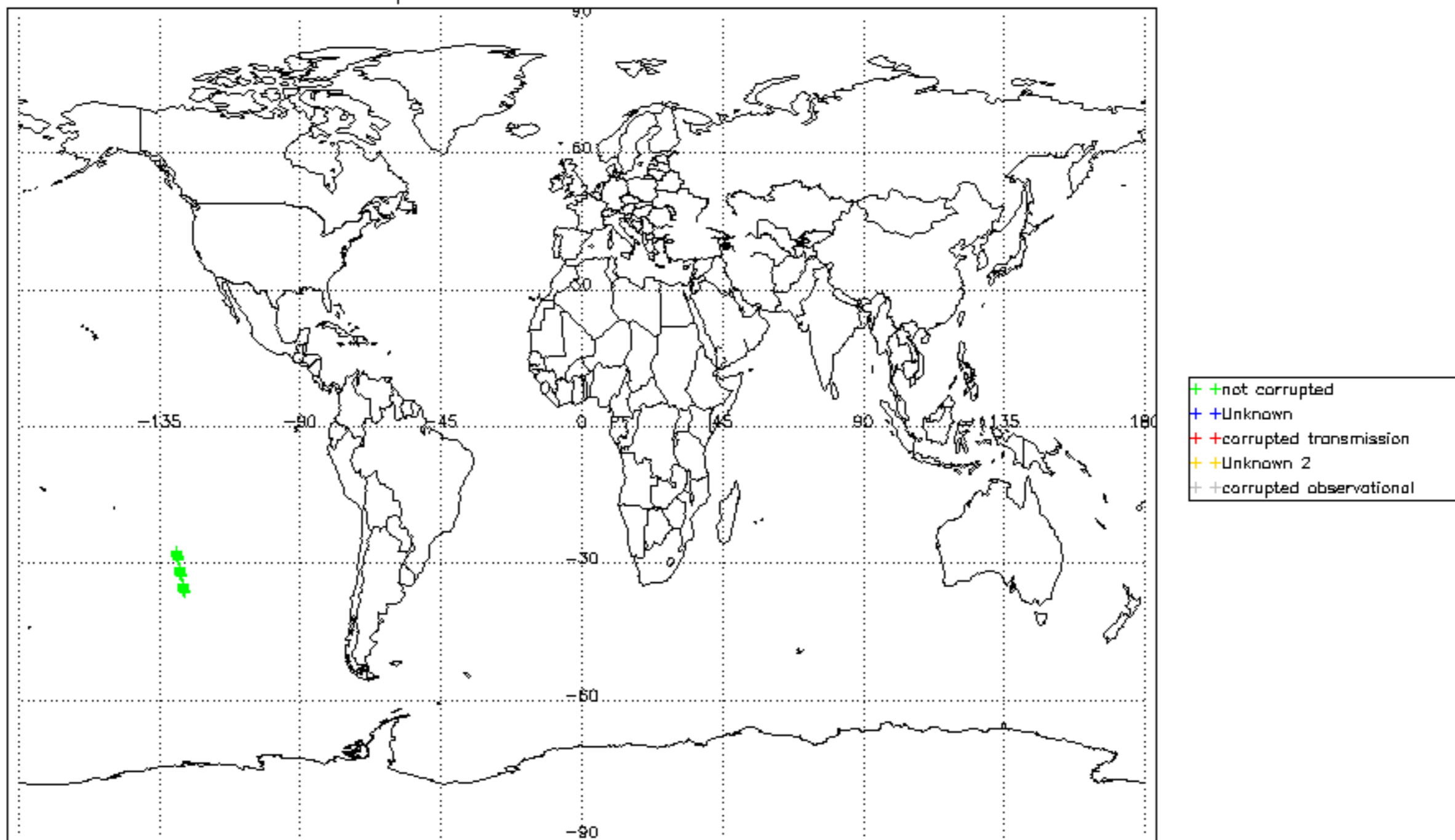
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band AB



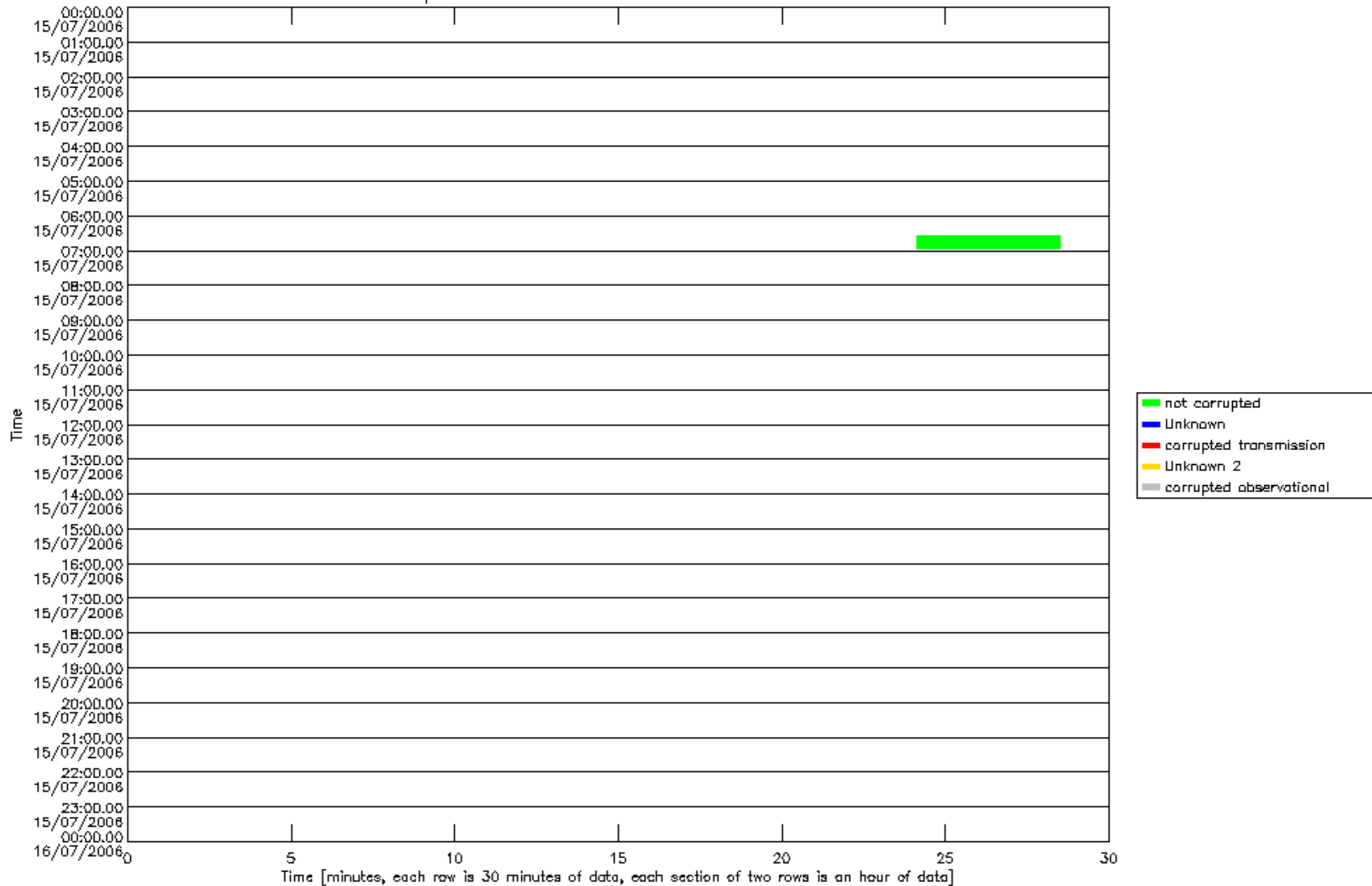
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band B



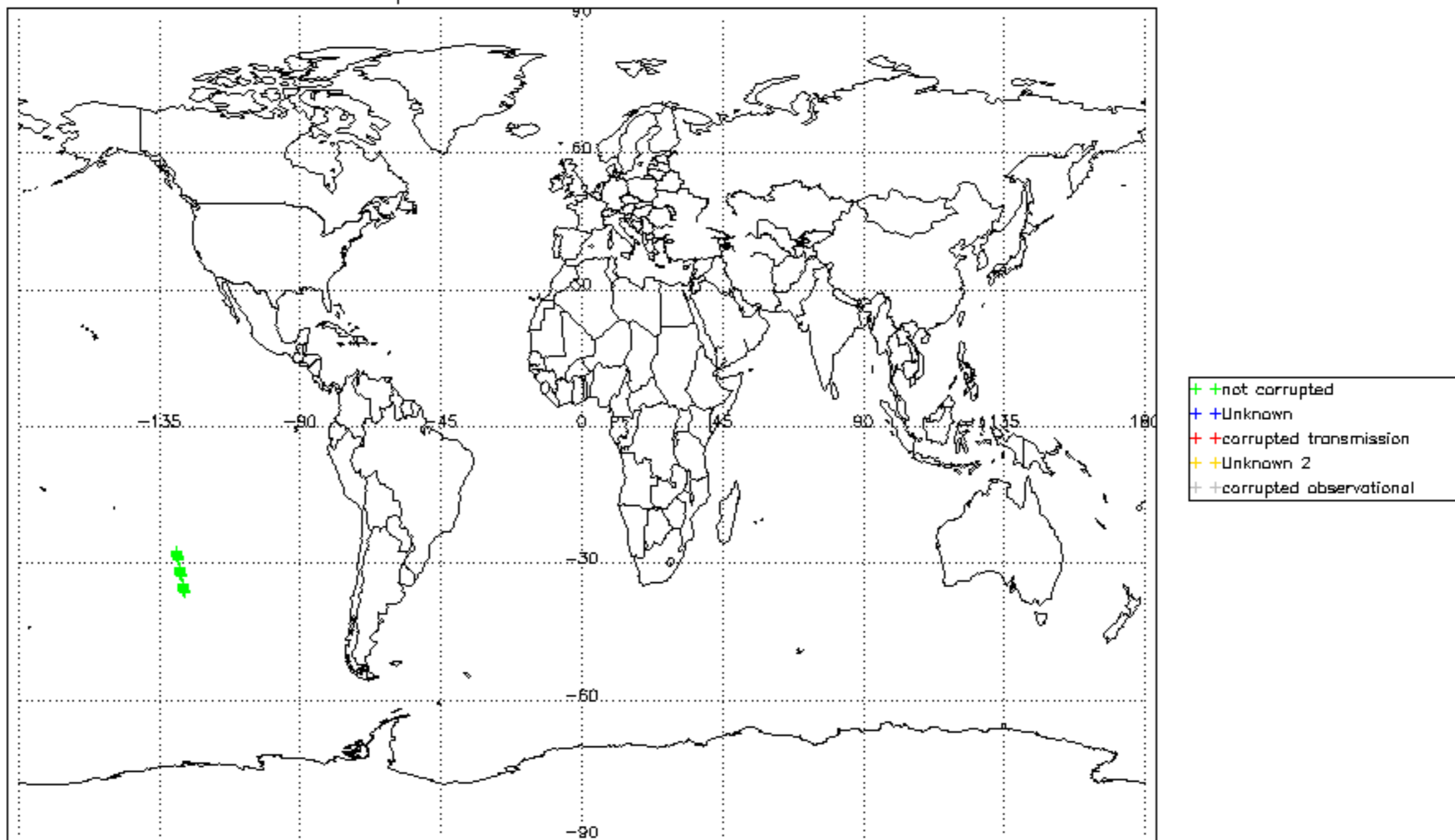
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band B



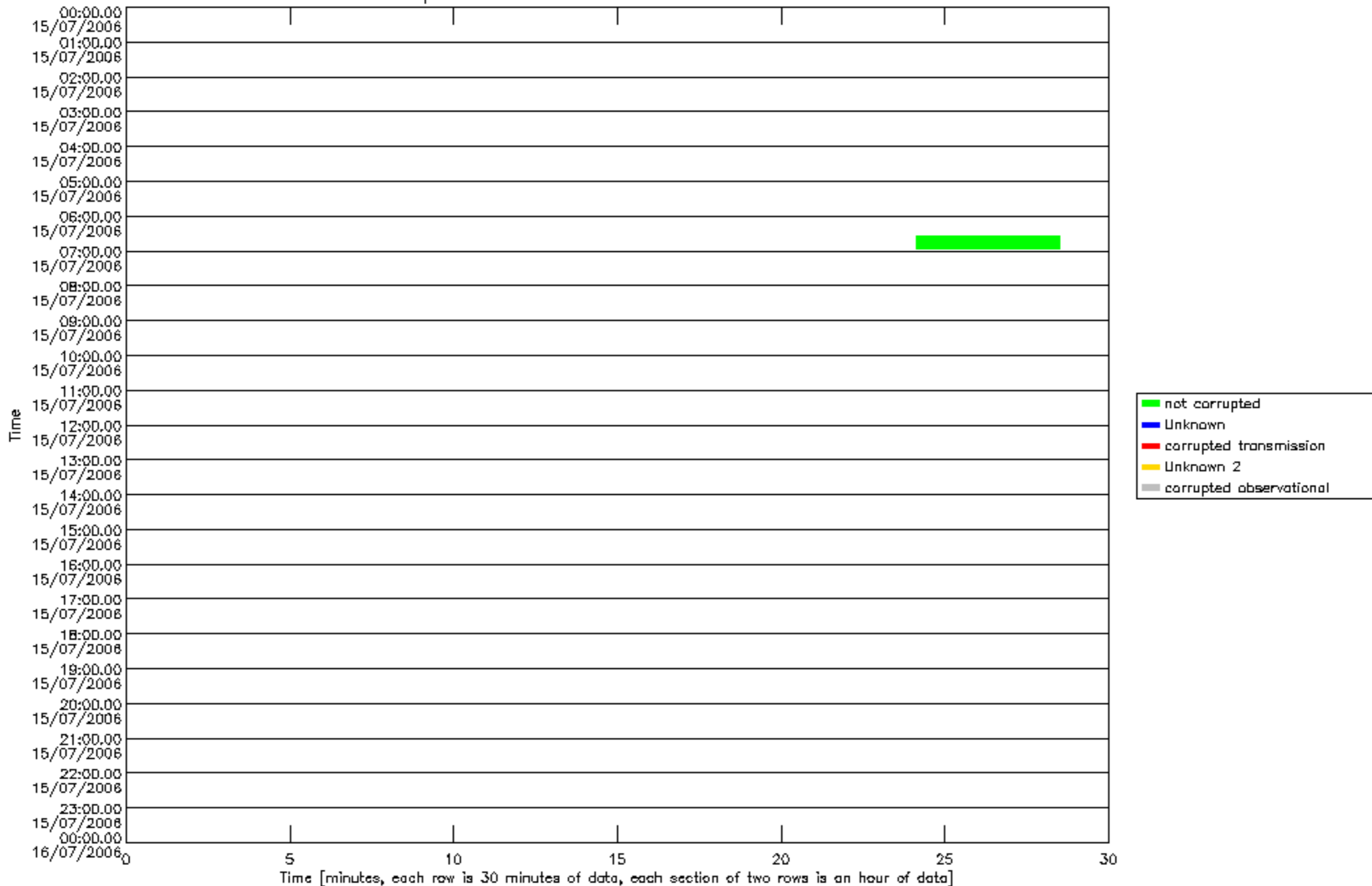
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band C



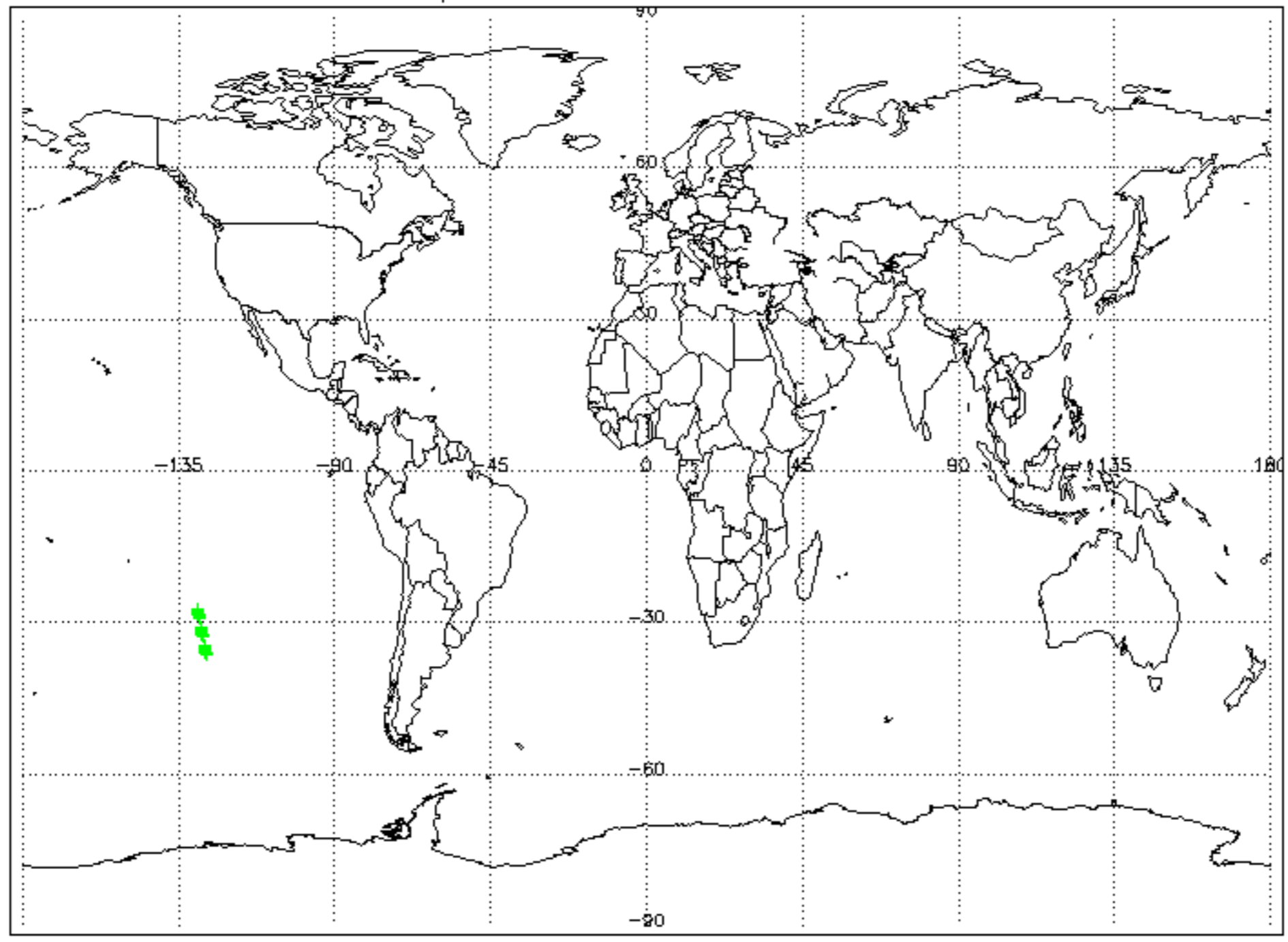
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band C



Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band D

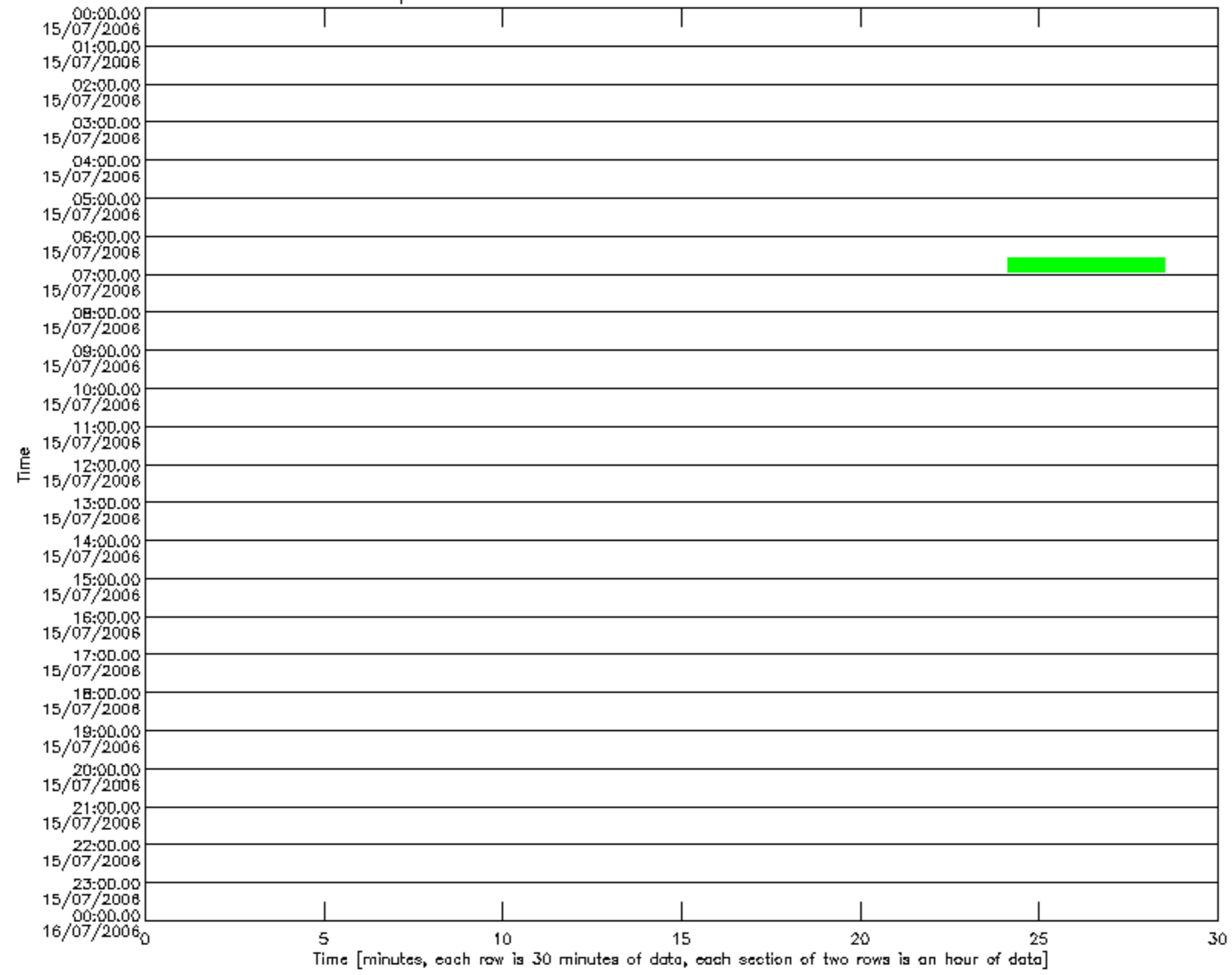


Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band D

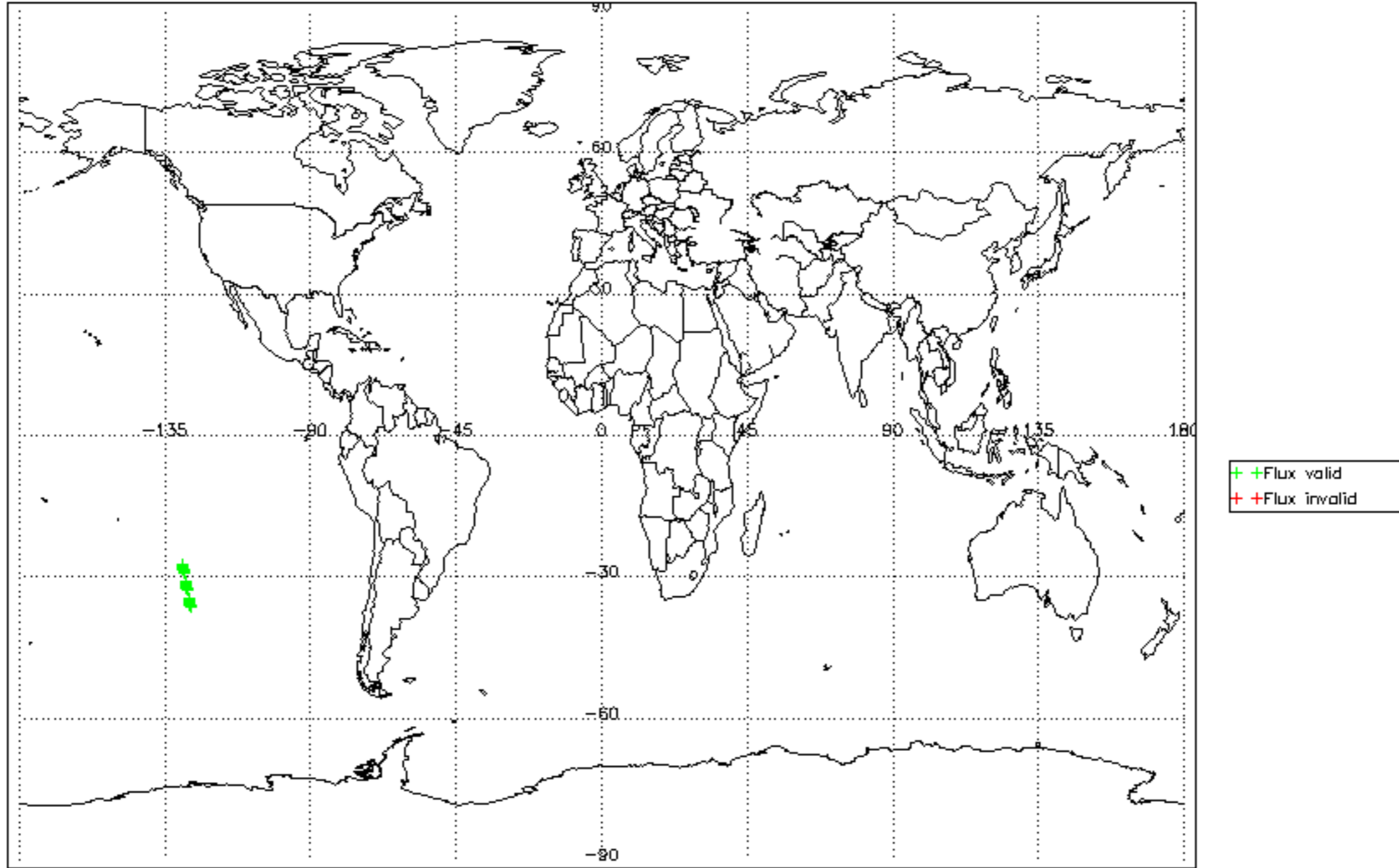


- + not corrupted
- + Unknown
- + corrupted transmission
- + Unknown 2
- + corrupted observational

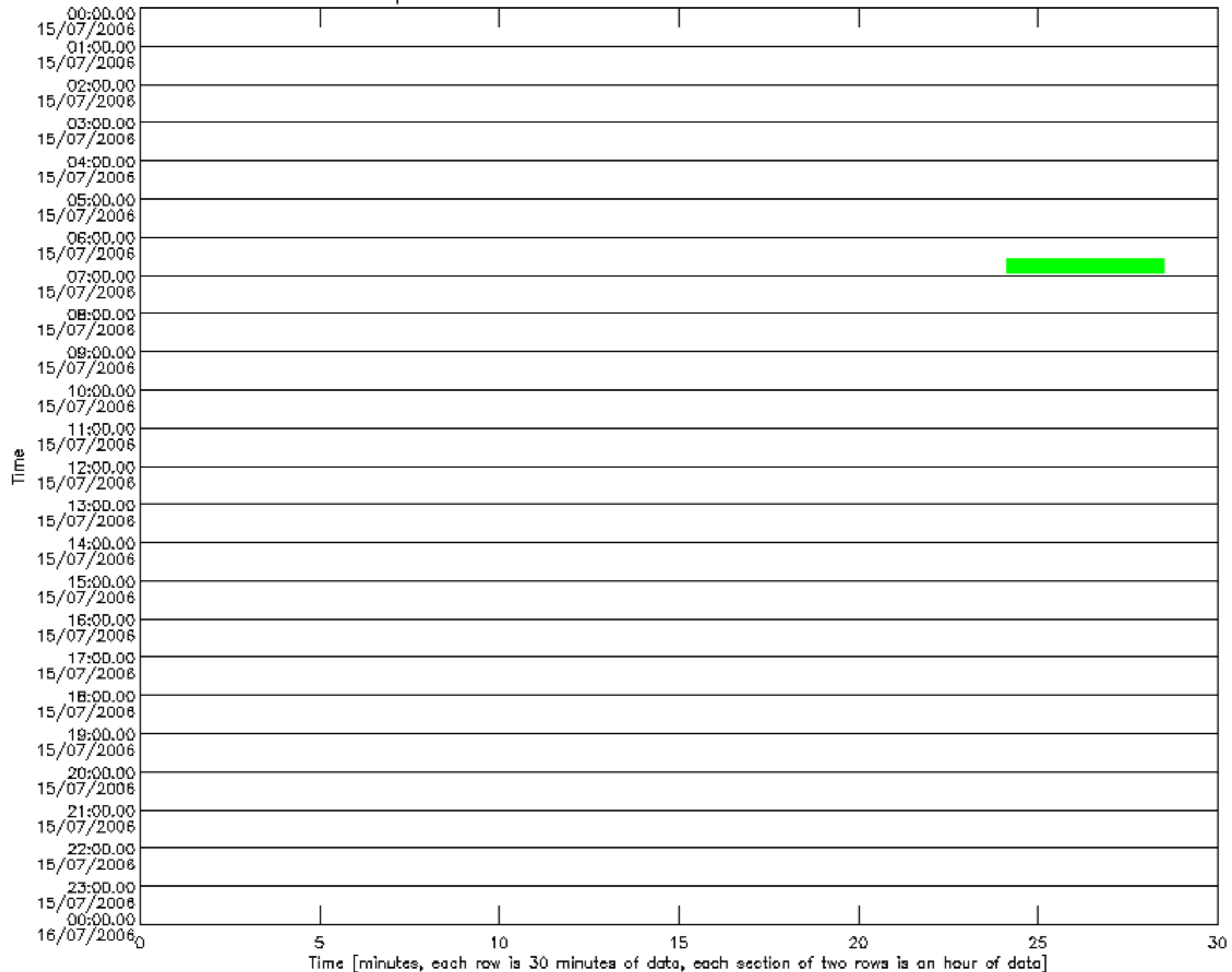
Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A1



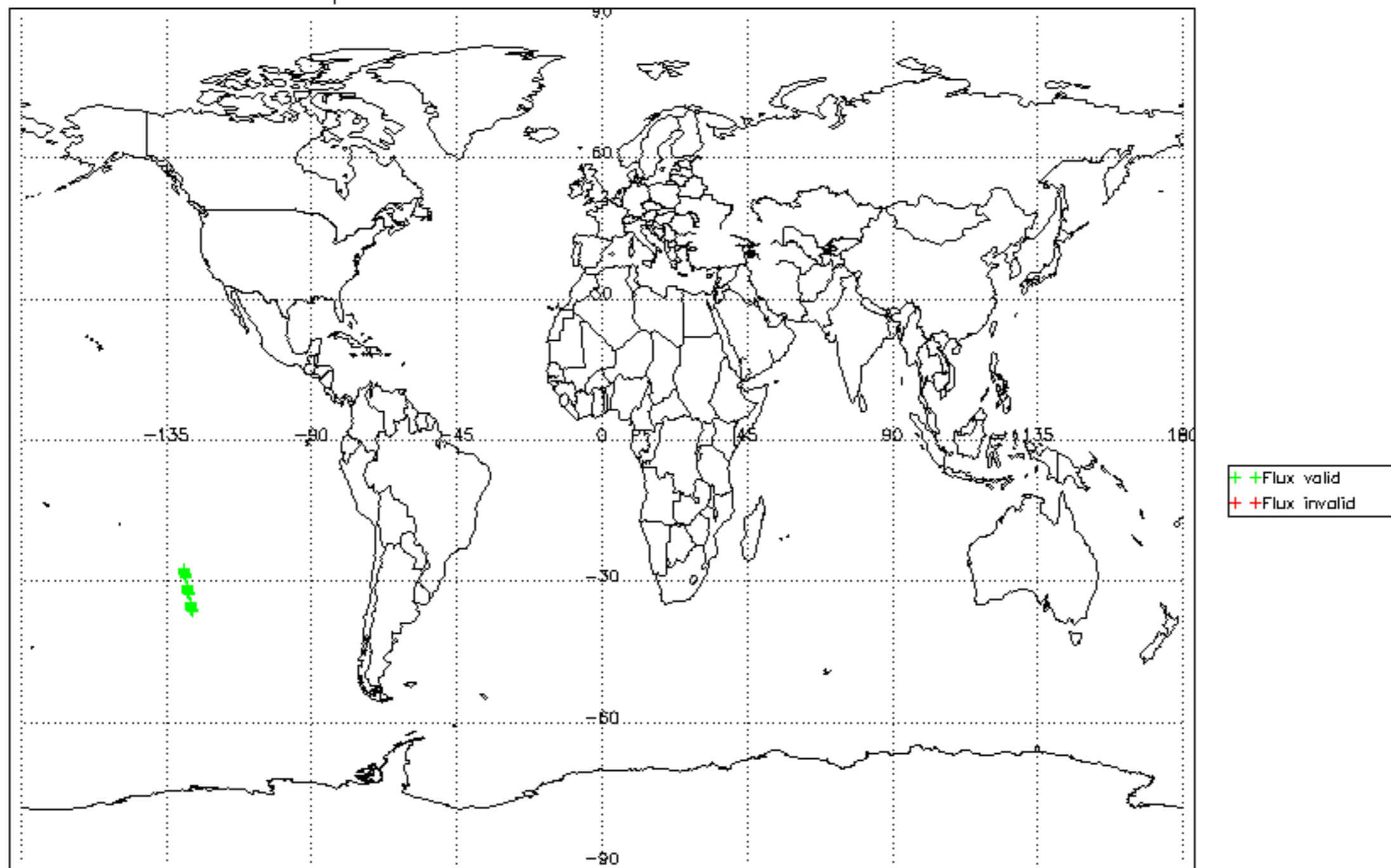
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A1



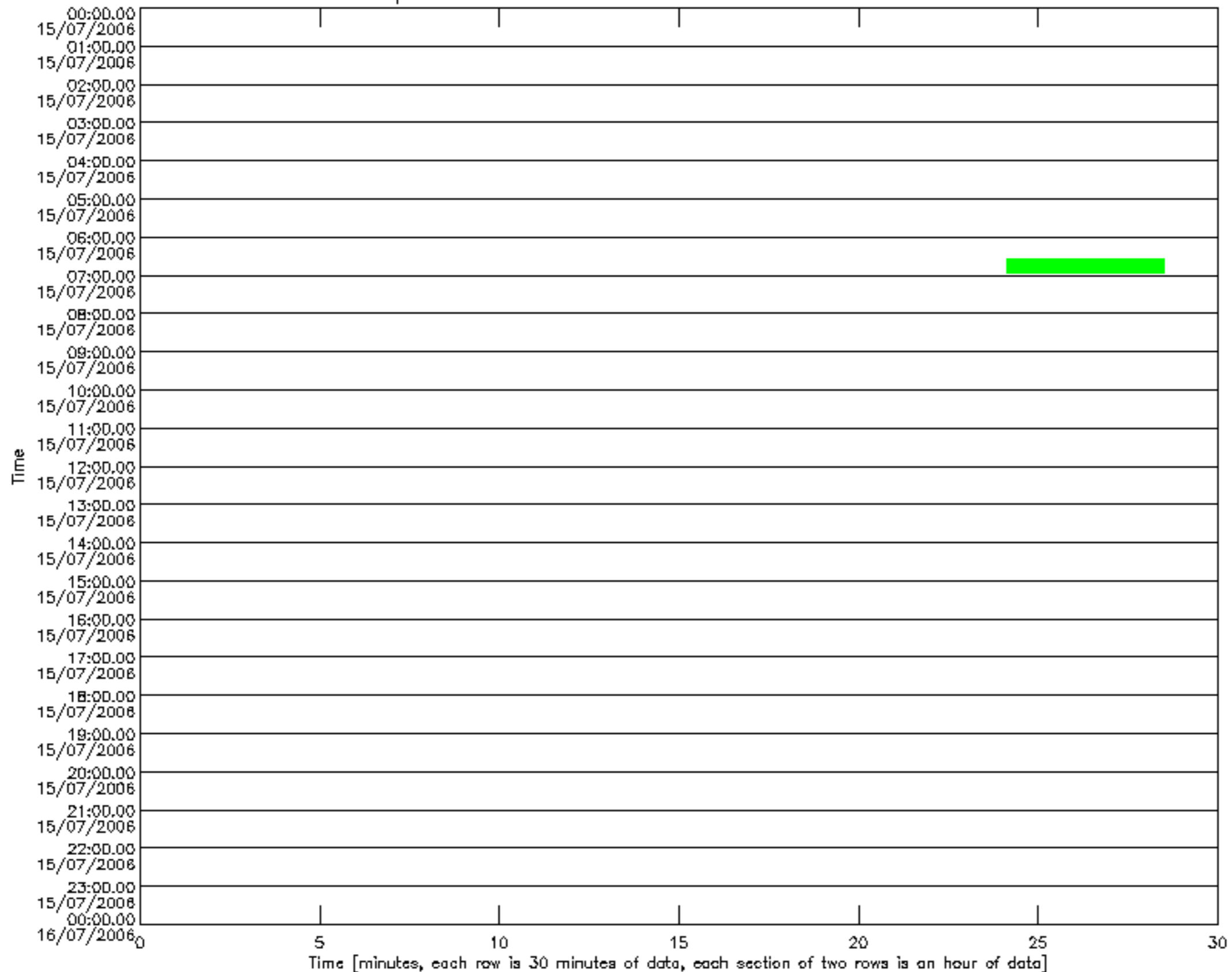
Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A2



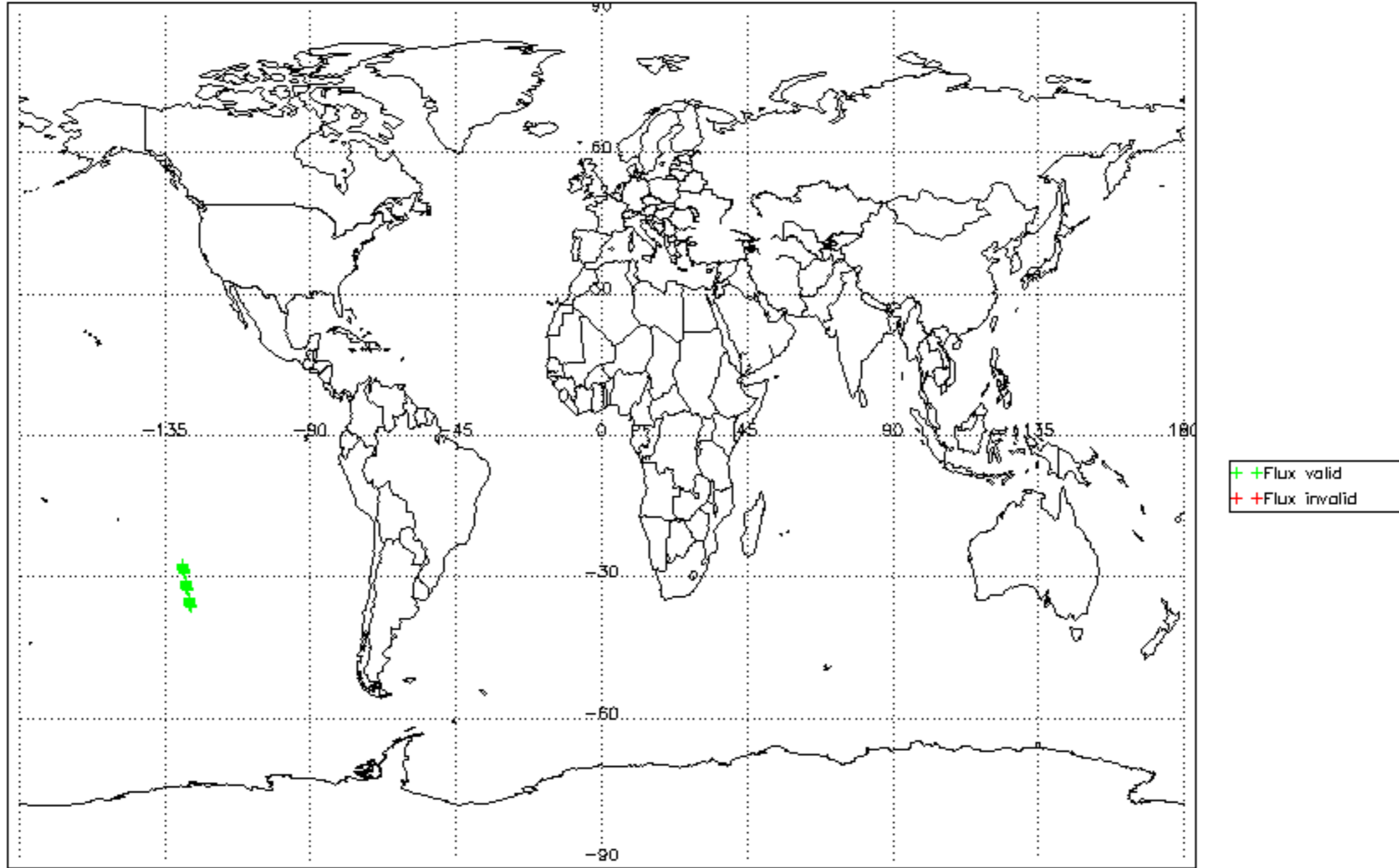
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A2



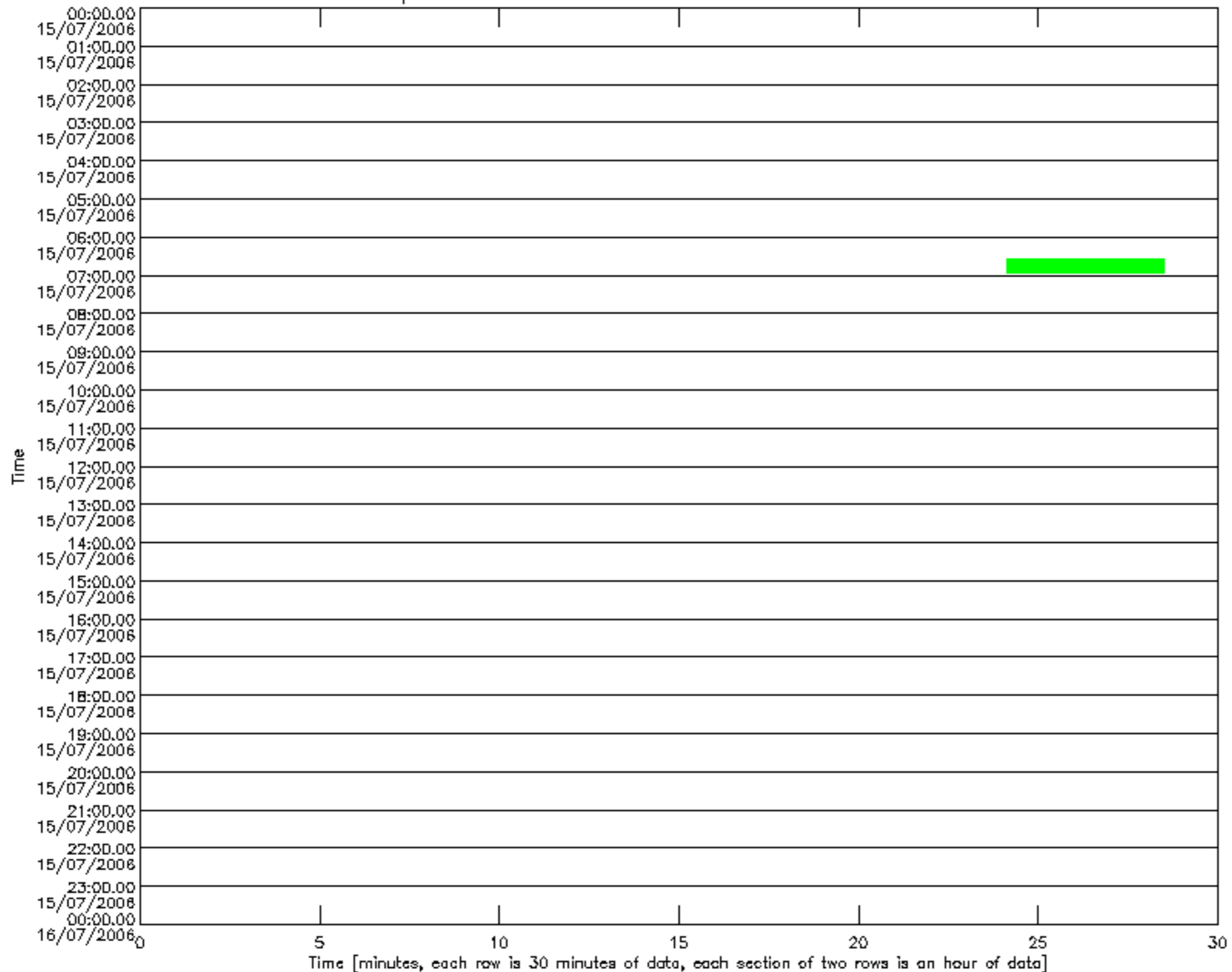
Bar plot of MIPNL1P_MIPLEV1 BMDS_detect_non_lin_flux detector AB



Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector AB

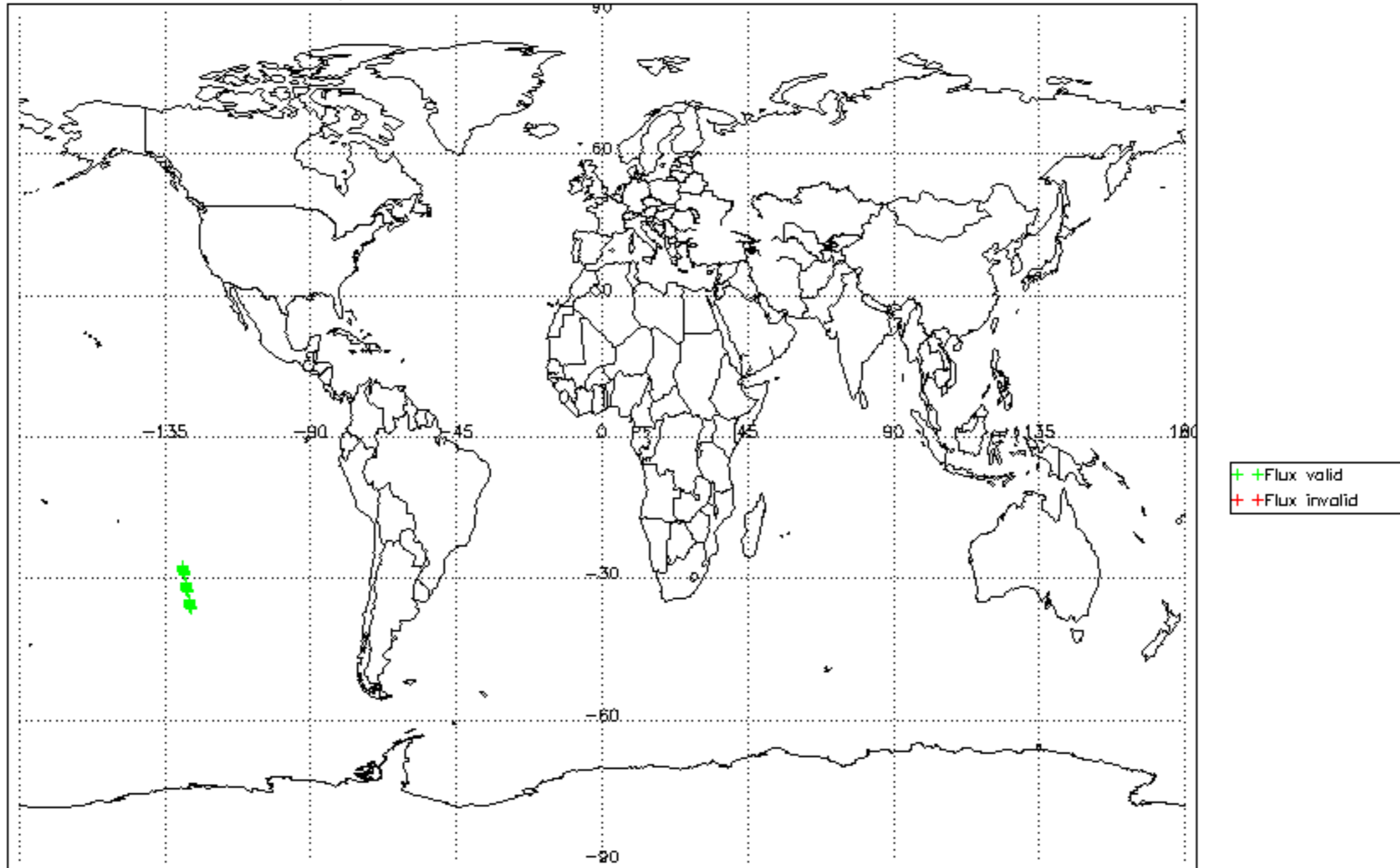


Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector B

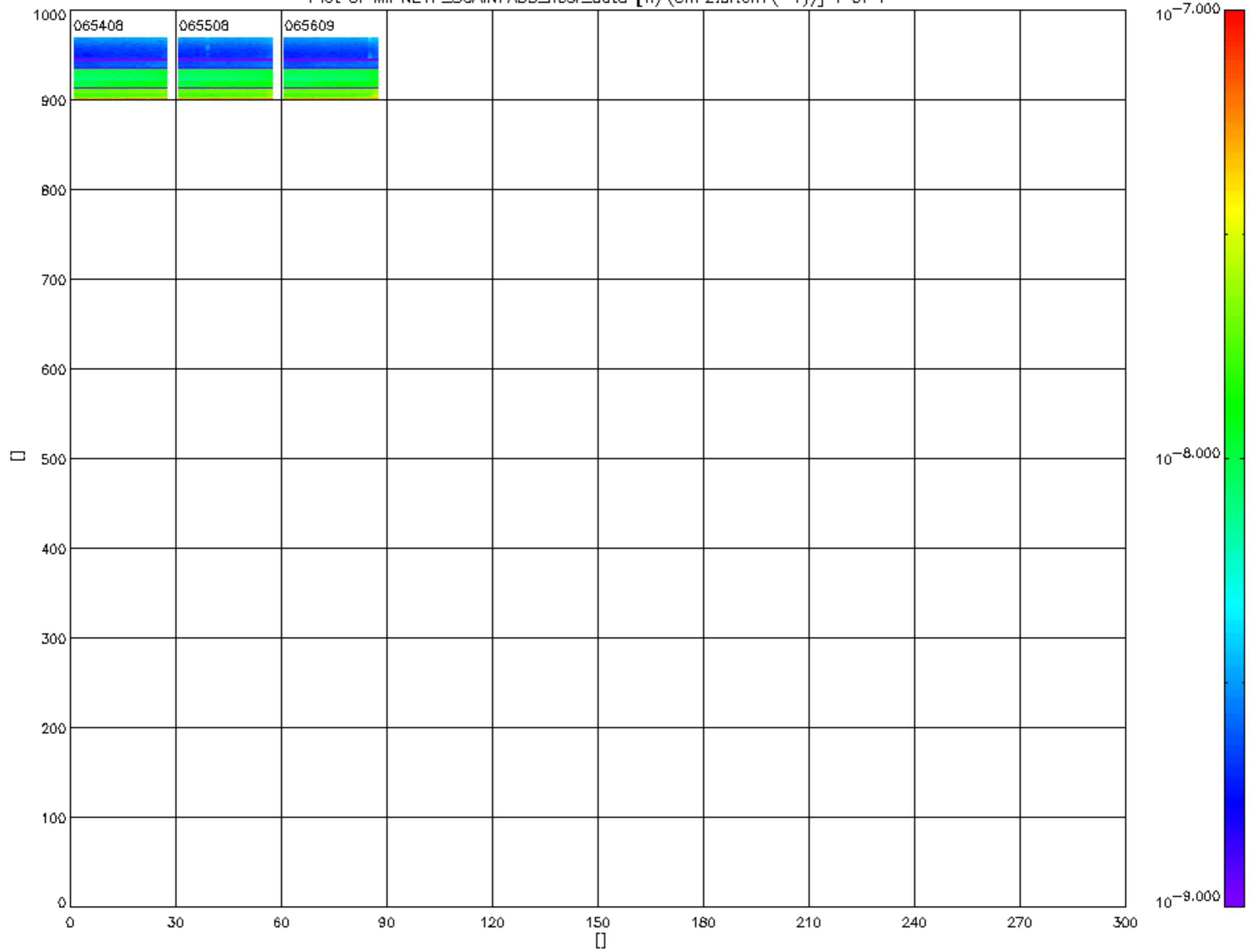


■ Flux valid
■ Flux invalid

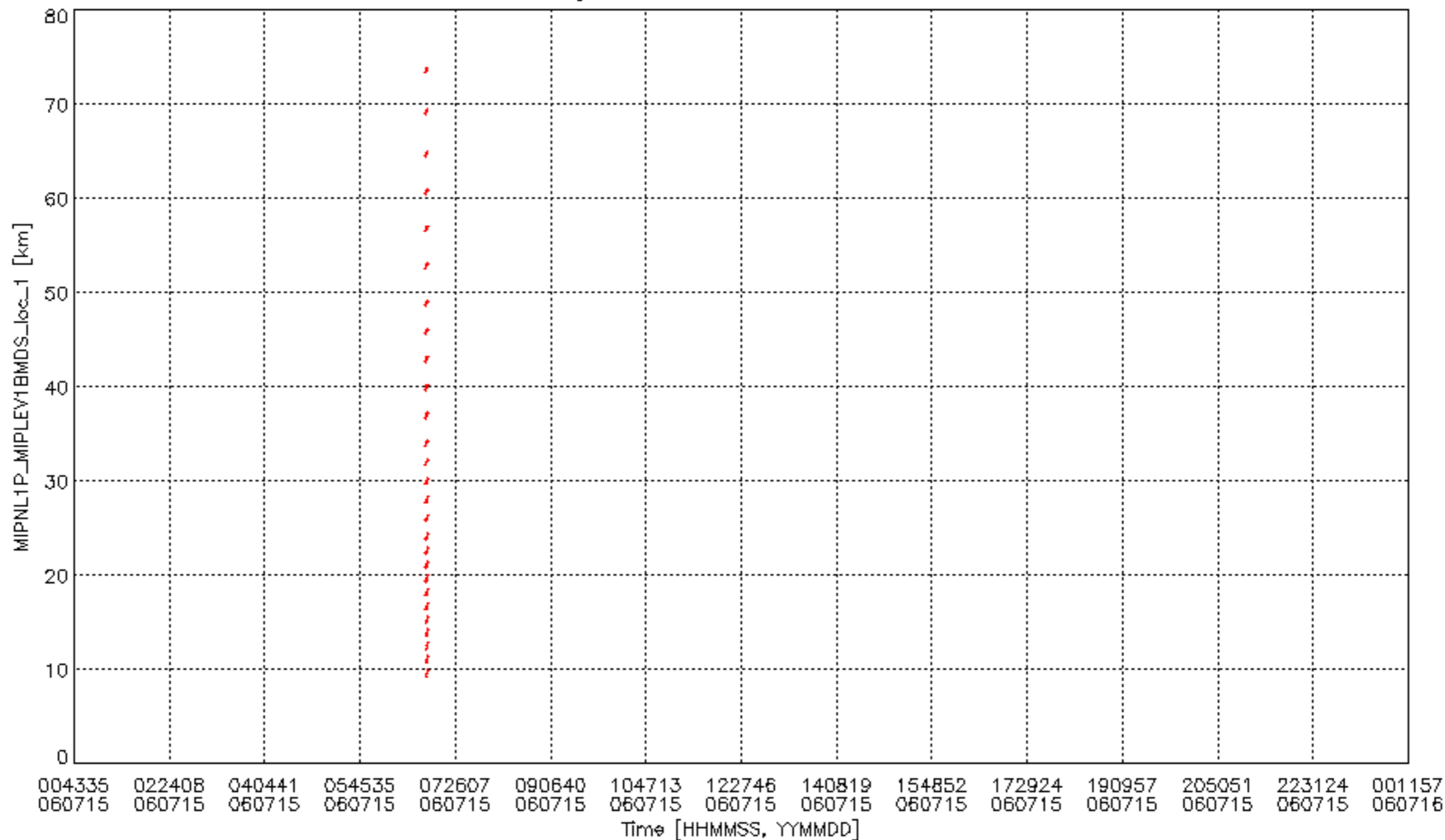
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_Jin_flux detector B



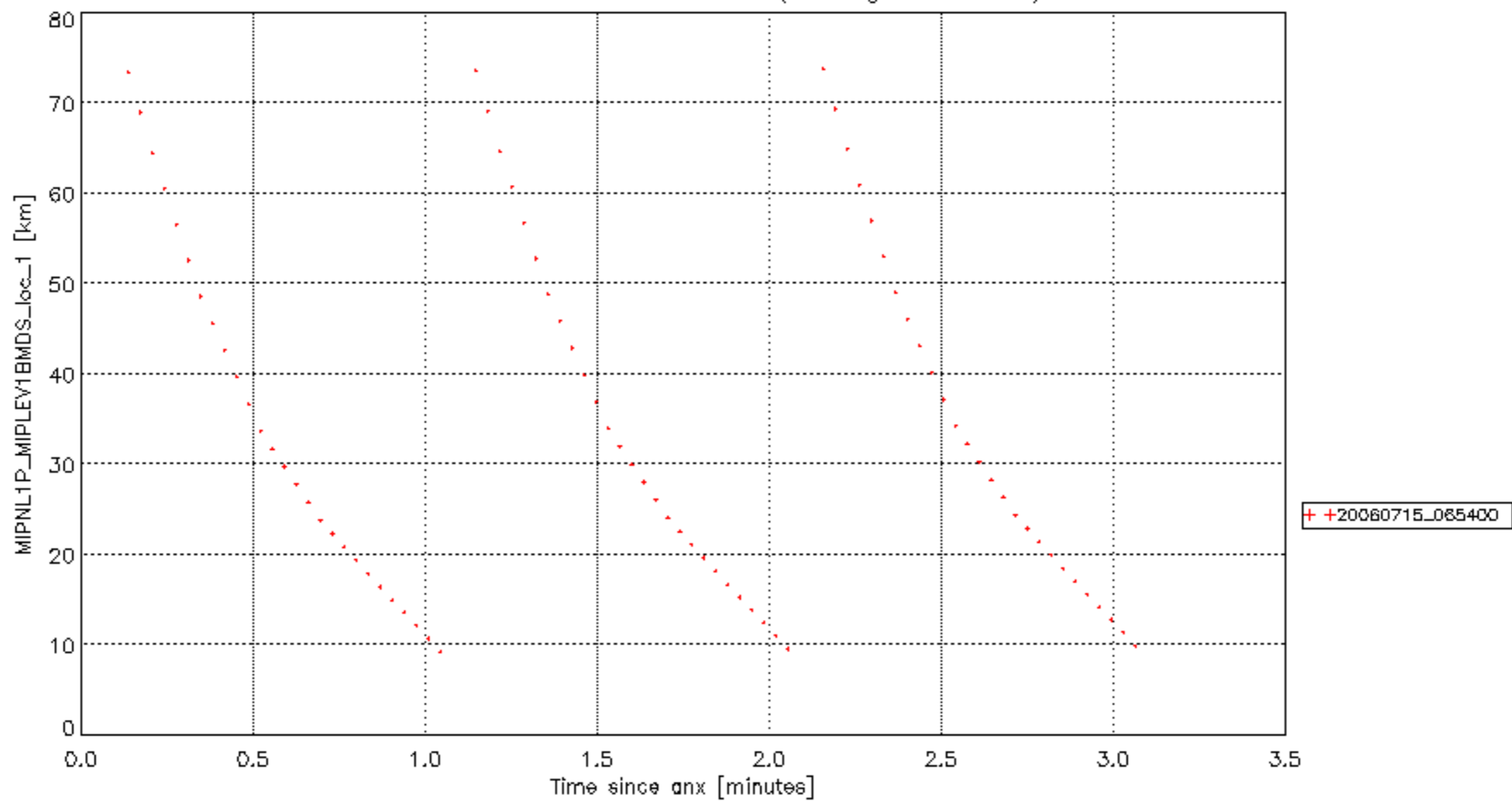
Plot of MIPNL1P_SCAINFADS_nesr_data [W/(cm².sr.cm⁻¹)] 1 of 1

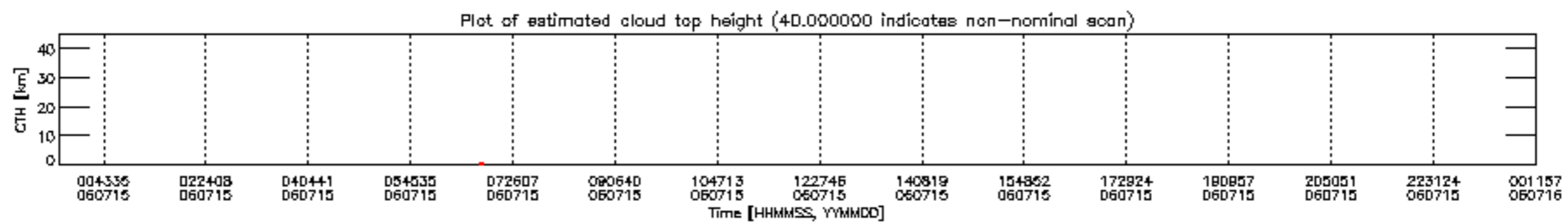


Plot of MIPNL1P_MIPLEV1BMDS_loc_1 against time.
The vertical grid lines indicate estimated anx events.



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)

