

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	02APR2007 01:16:31
Data source version	MIPAS/4.67-P
Processing scope for products	07MAR2007 00:00:00 to 08MAR2007 00:00:00
Start time of first product within scope	07MAR2007 12:13:45
Stop time of last product within scope	07MAR2007 12:22:44
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.

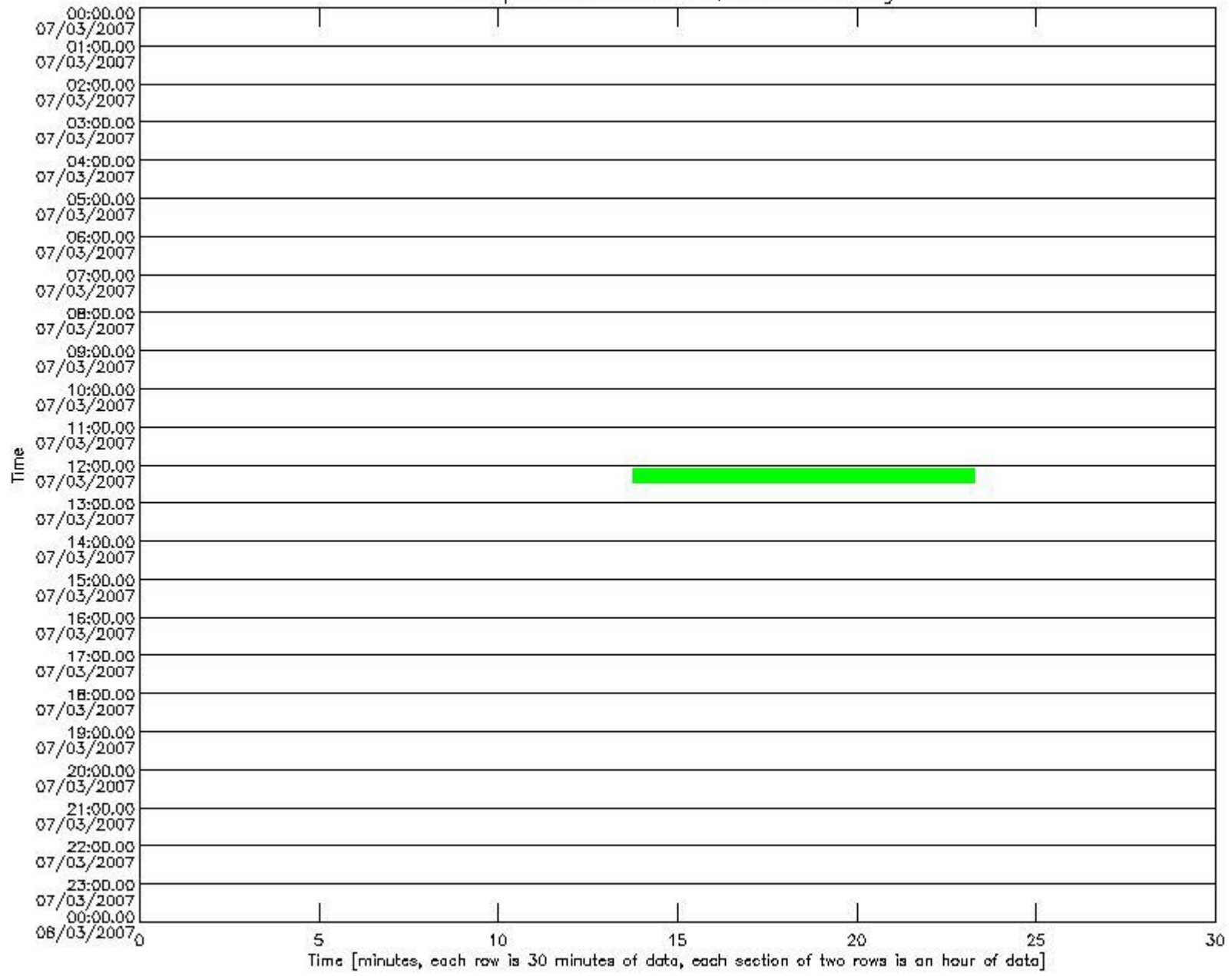
#	Product name	Start time	Stop time	Prod err	Slice position (prod/tot)
0	MIP_NL__1PPDPA20070307_121345_000005402056_00124_26230_0333.N1	07MAR2007 12:13:45	07MAR2007 12:22:44	0	1/1

1.2 Product Quality Indicators

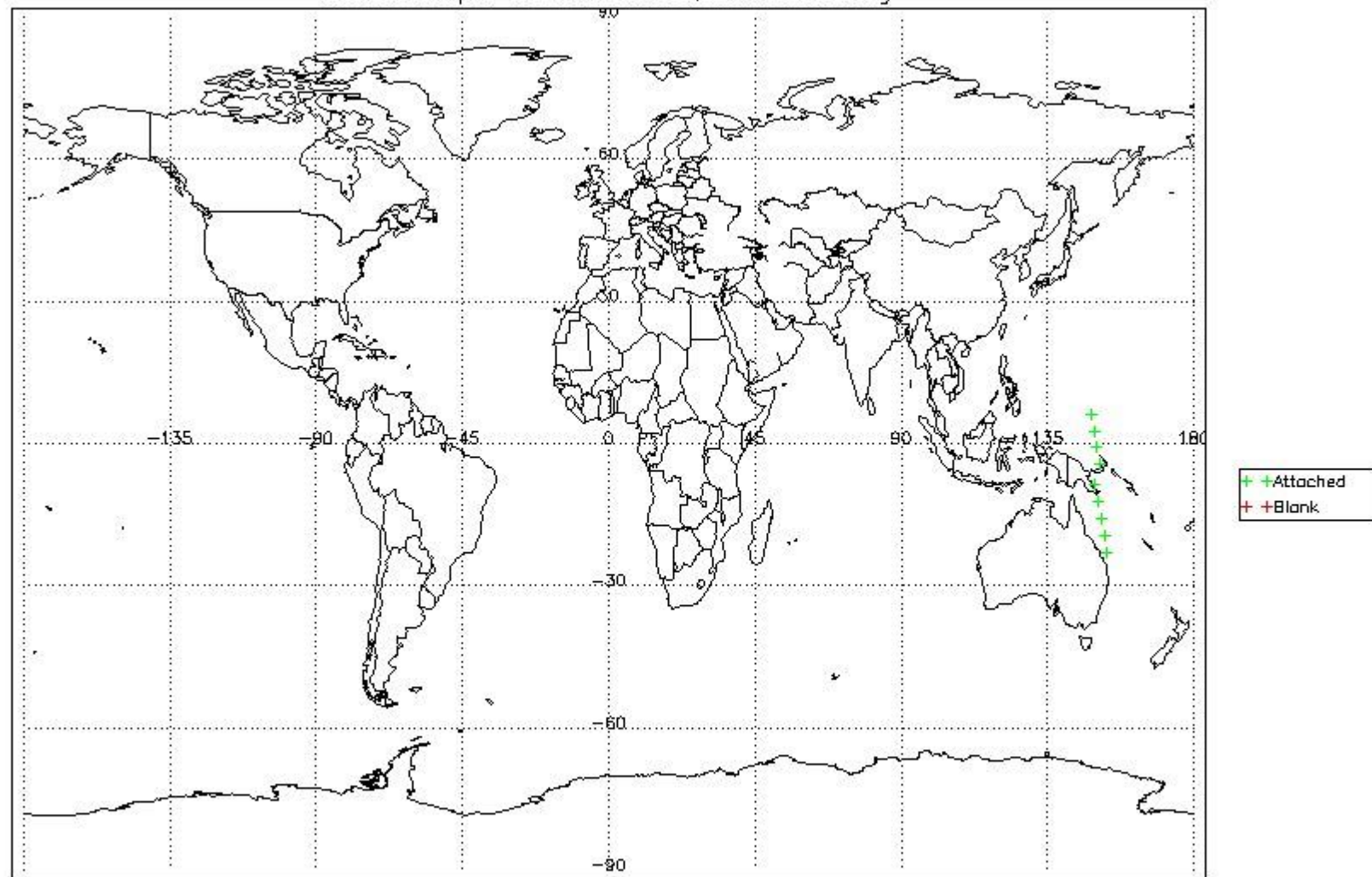
This report contains an analysis on product quality related parameters within the MIP_NL__1P product.

1.2.1 Trends and geolocation of Summary Quality ADS

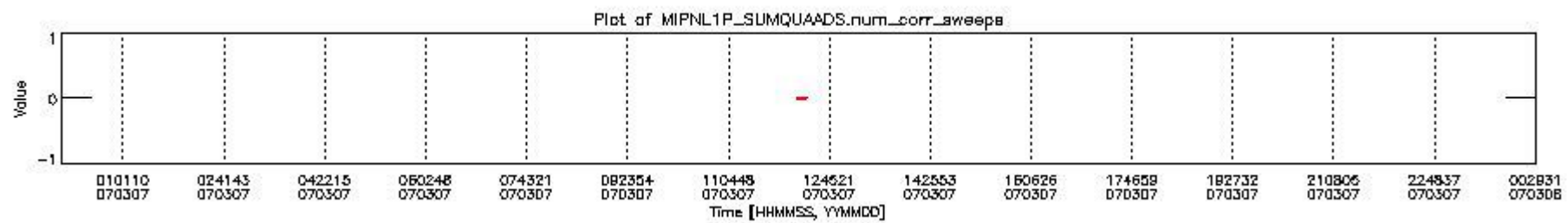
Bar plot of MIPNL1P_SUMQUAADS.attach_flag



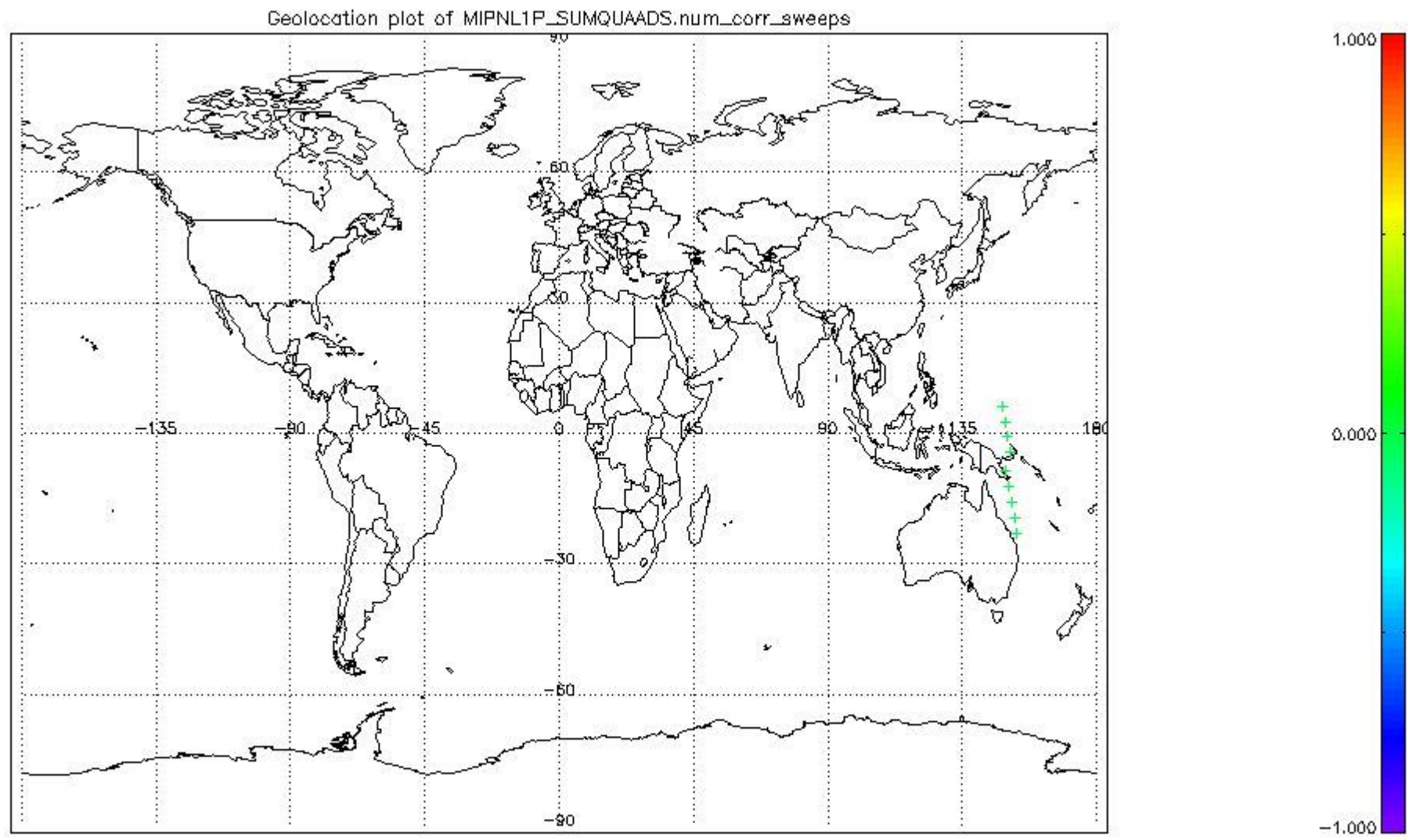
Geolocation plot of MIPNL1P_SUMQUAADS.attach_flag



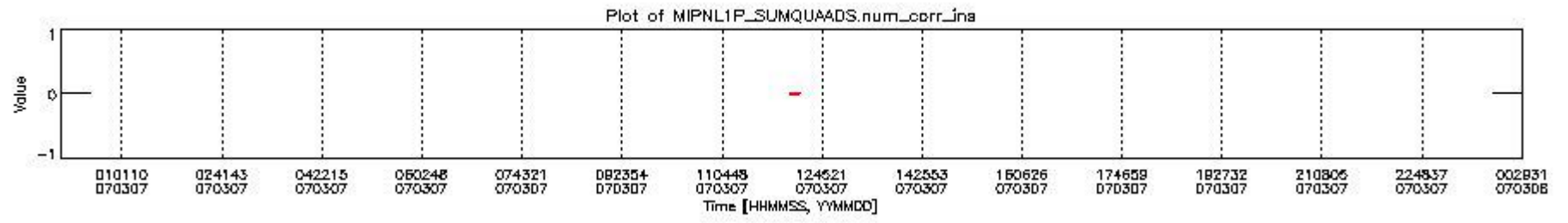
mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_1.PNG



mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_2.PNG

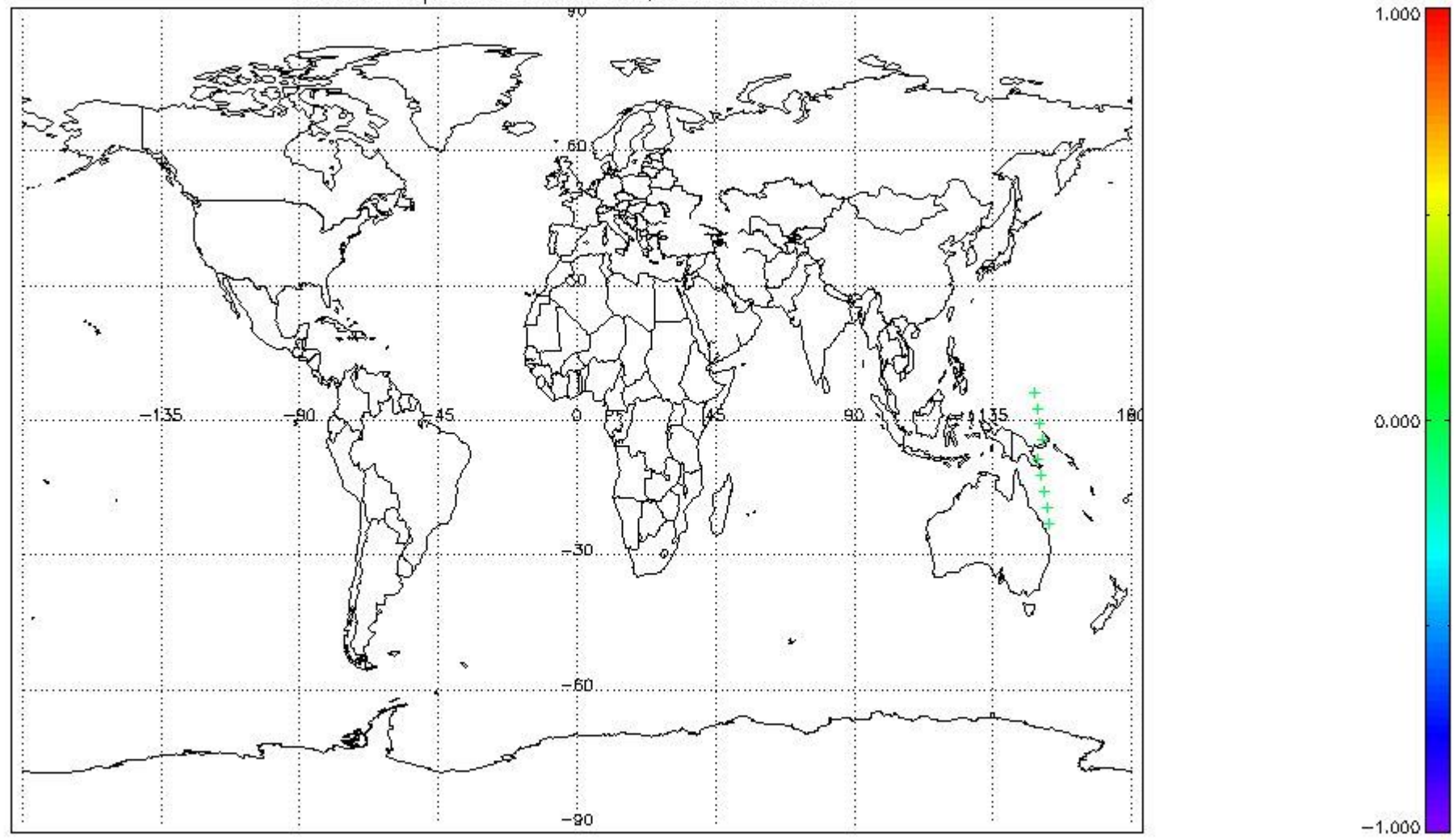


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_3.PNG

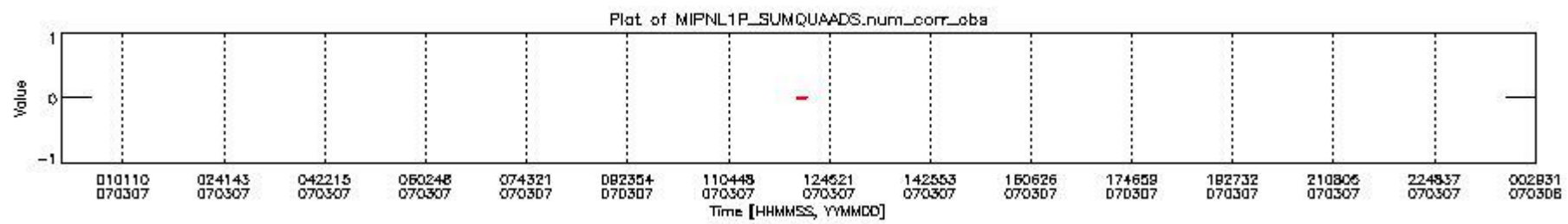


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_4.PNG

Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_ins

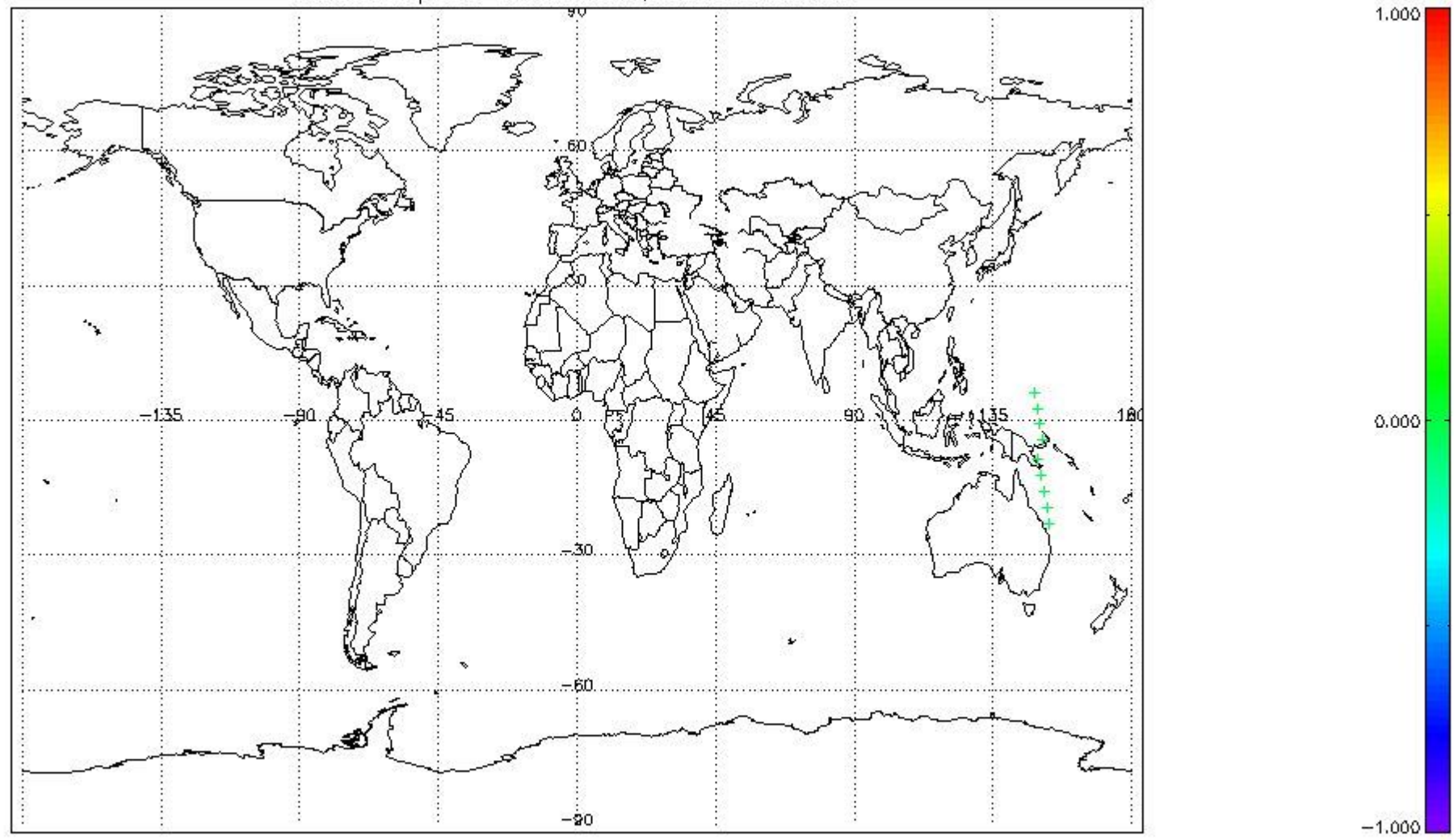


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_5.PNG

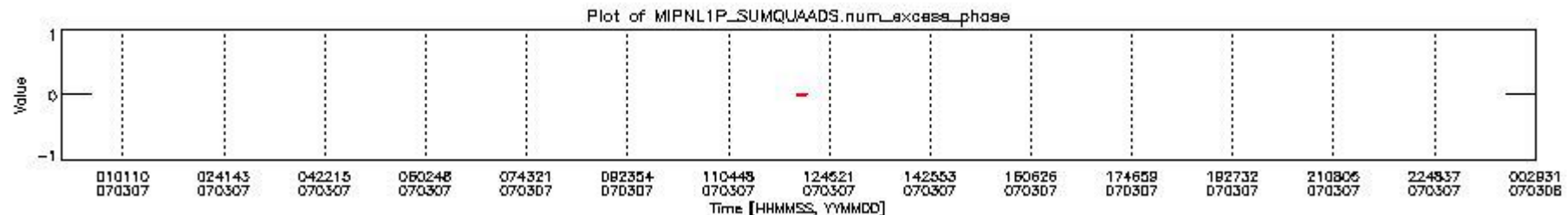


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_6.PNG

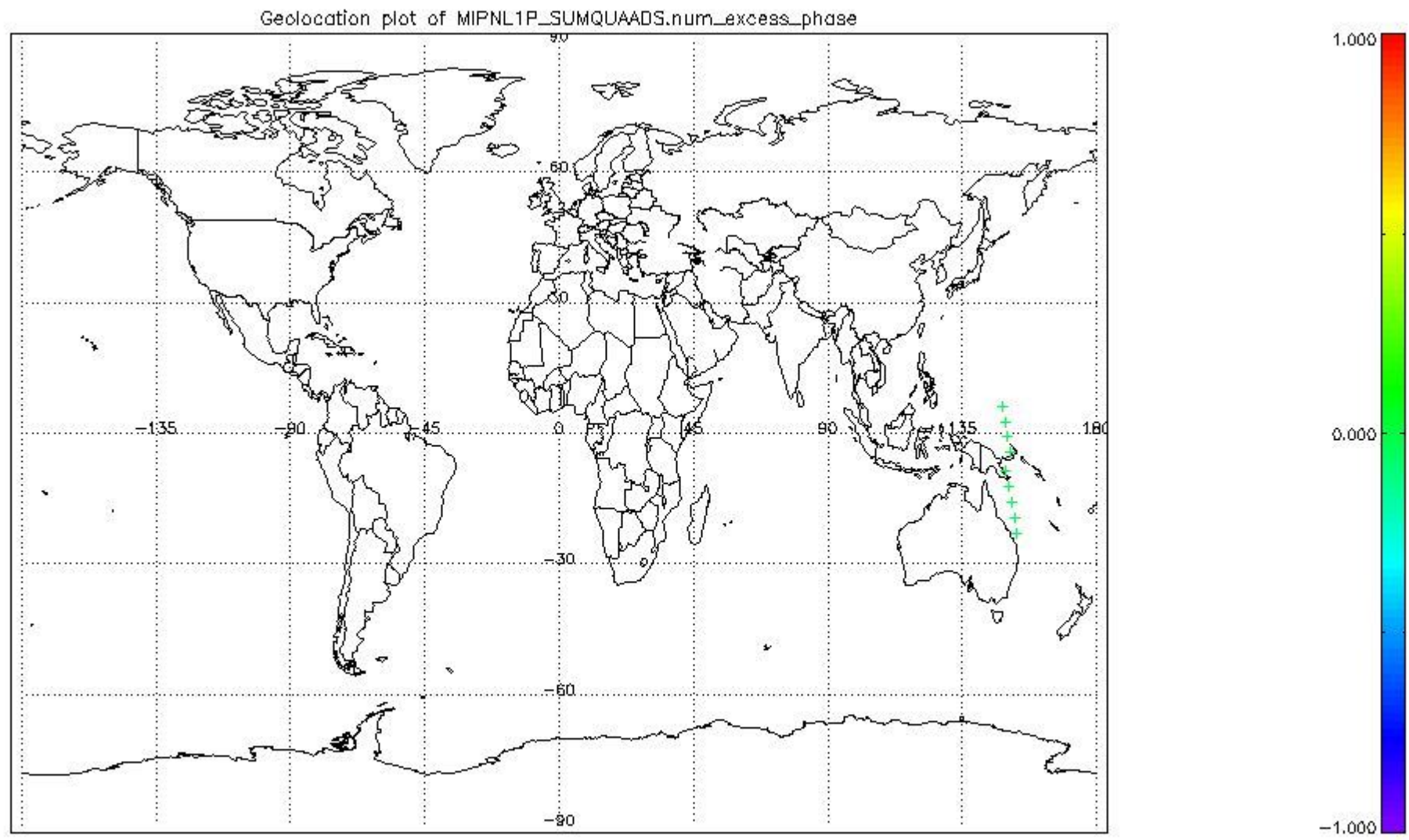
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_obs



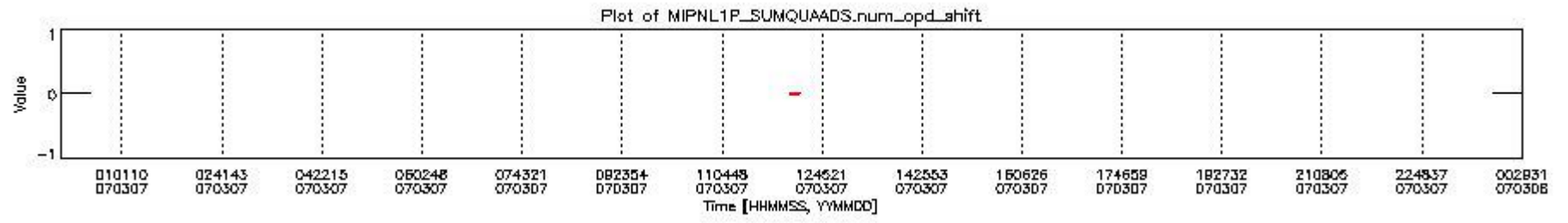
mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_7.PNG



mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_8.PNG

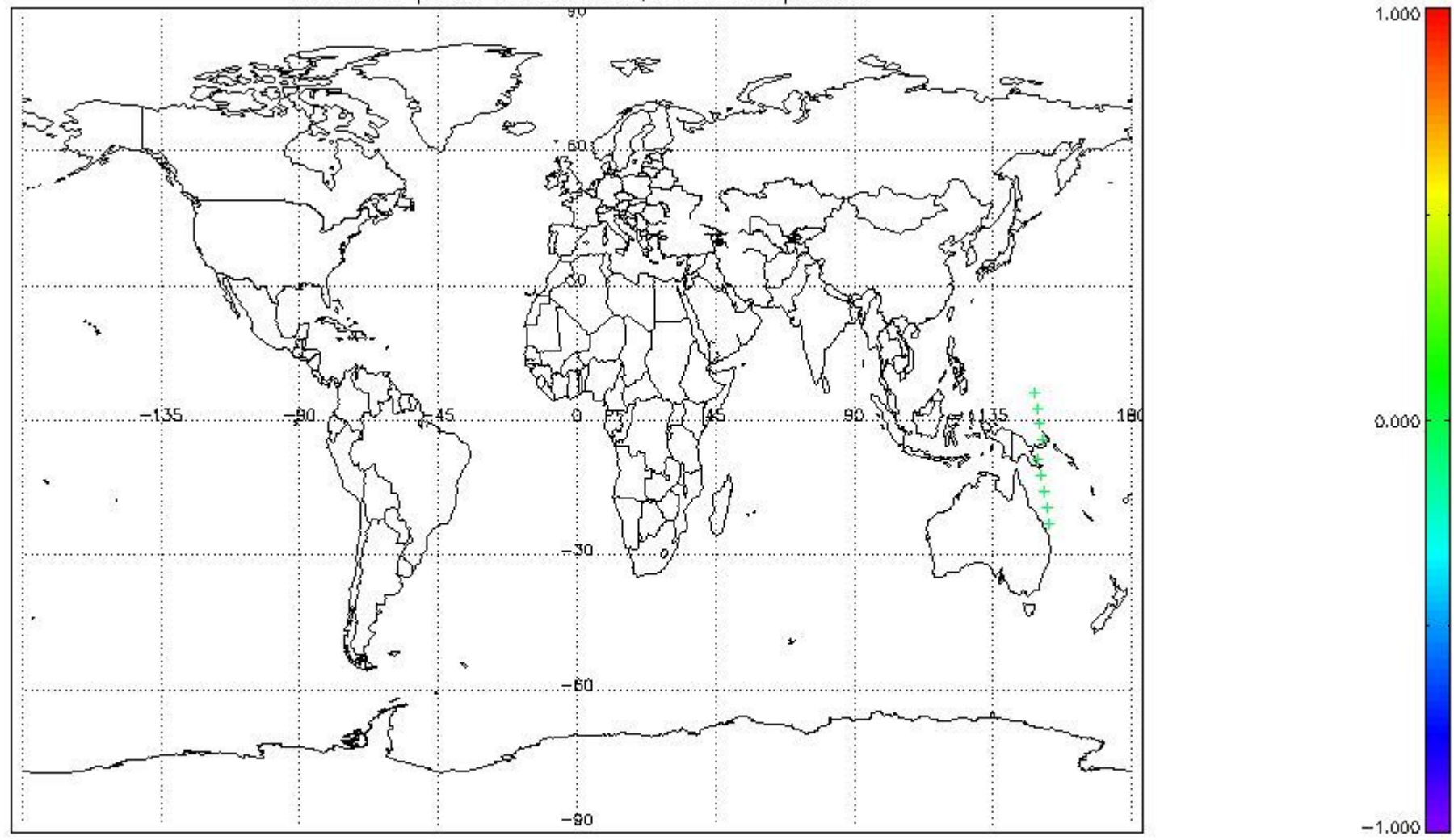


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_9.PNG

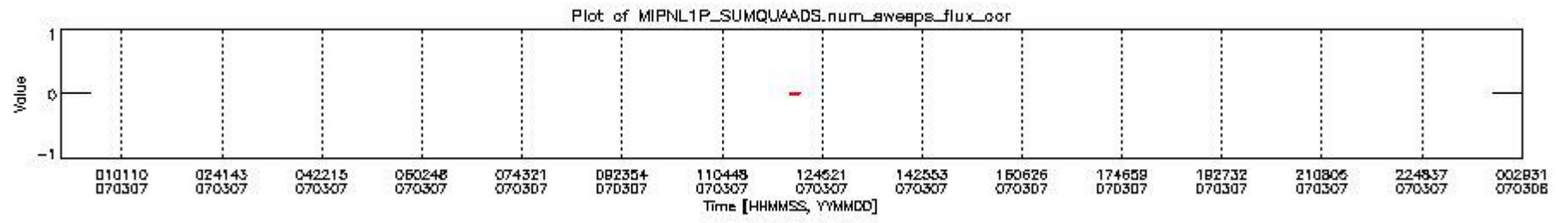


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_10.PNG

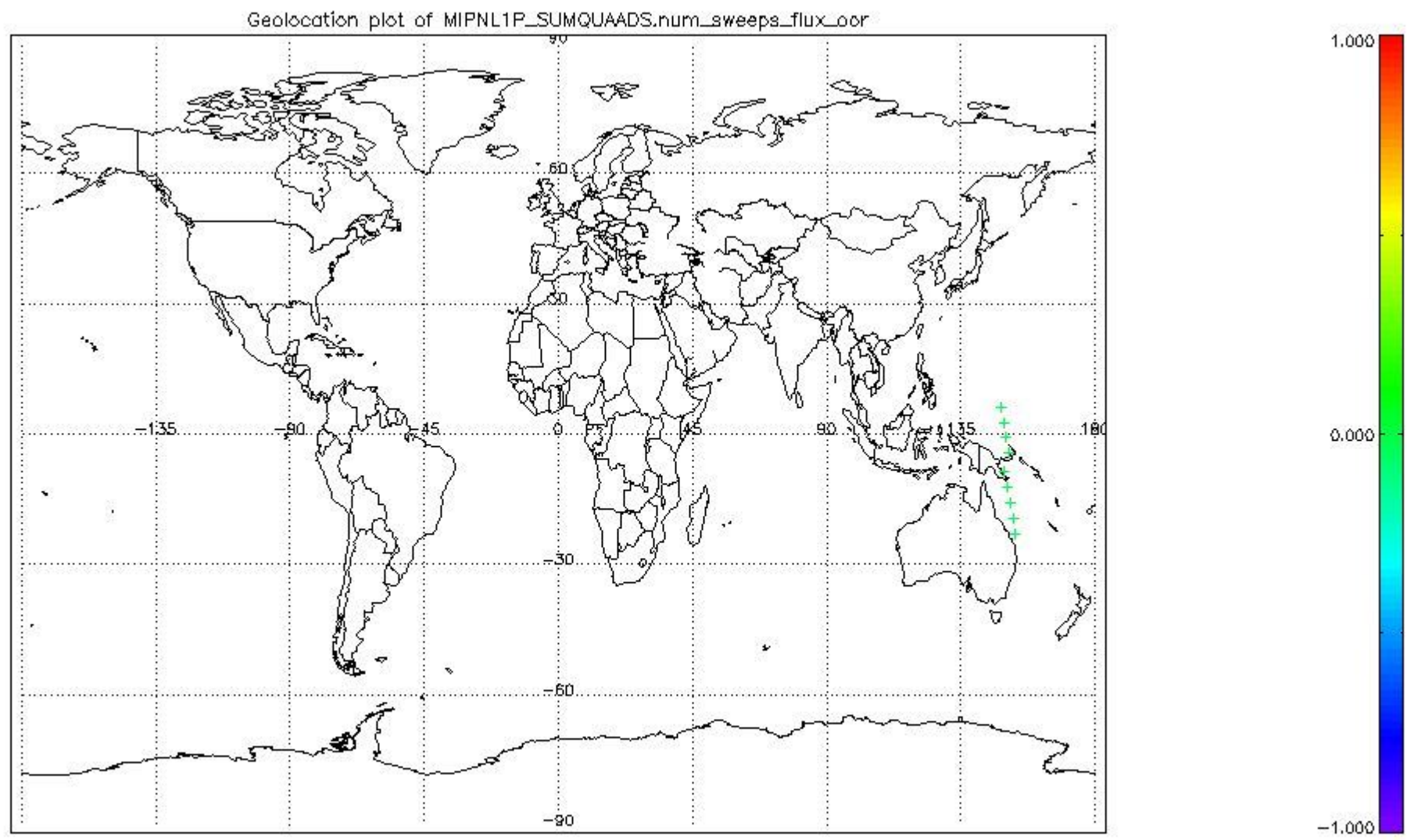
Geolocation plot of MIPNL1P_SUMQUAADS.num_lopd_shift



mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_11.PNG



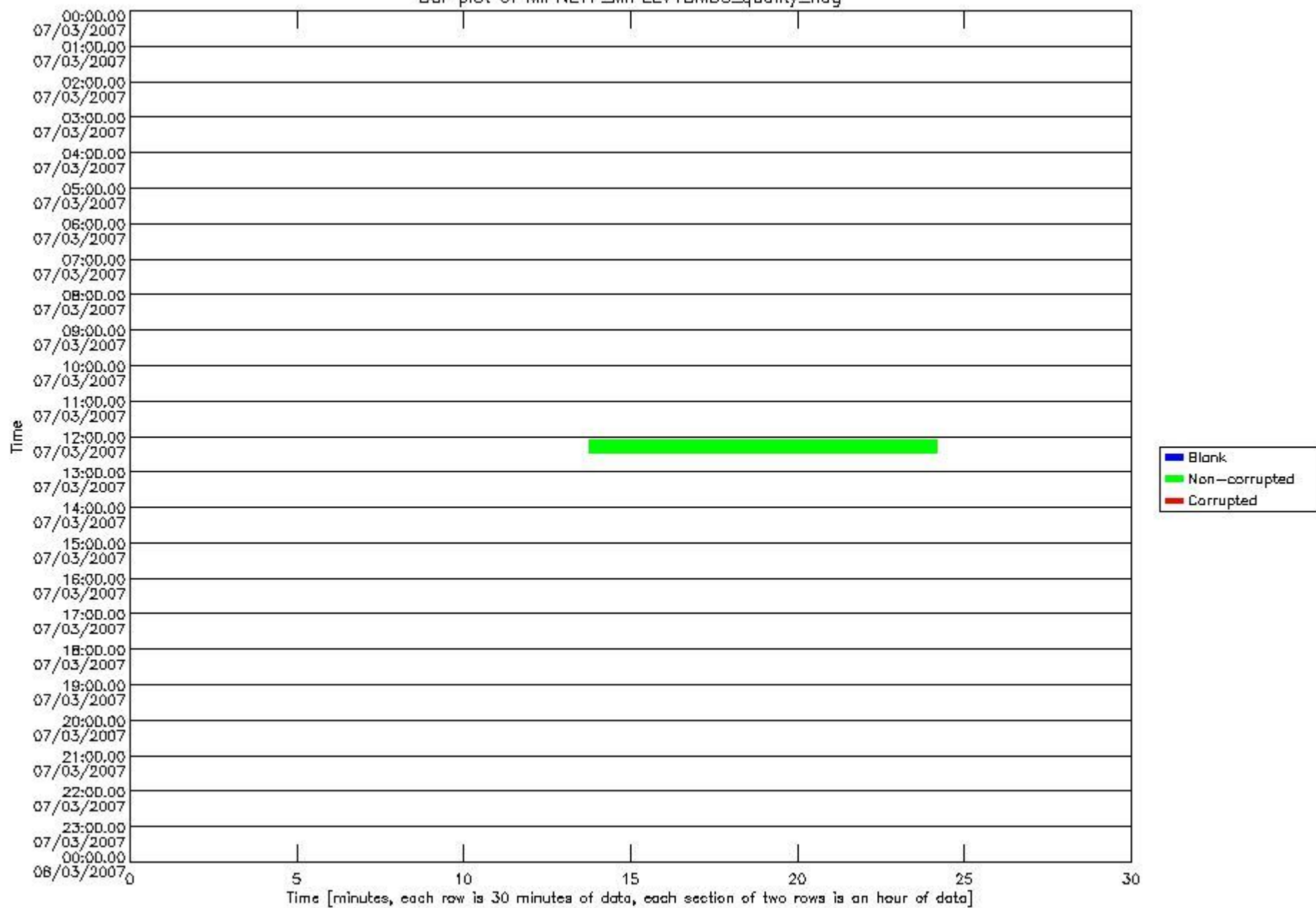
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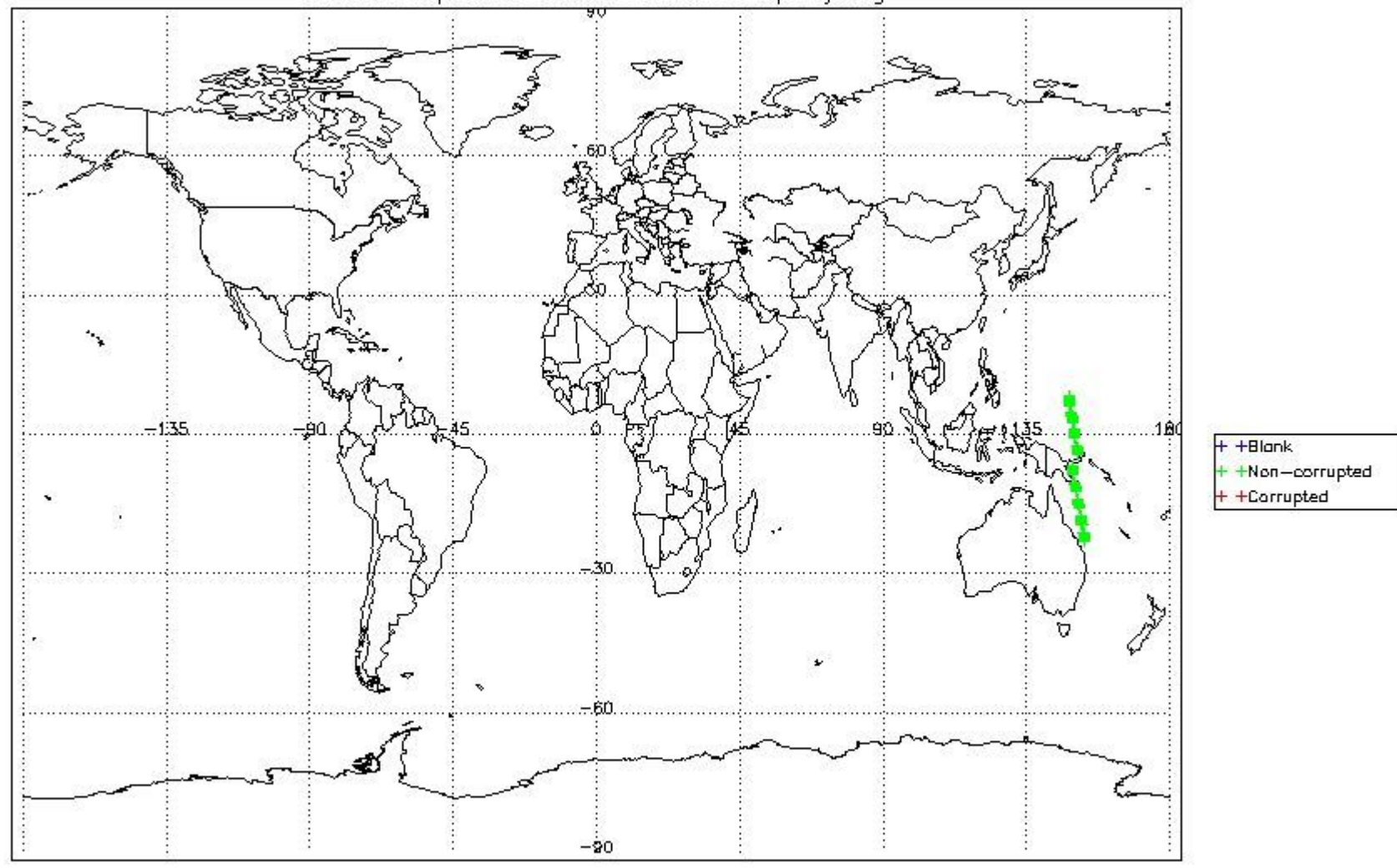
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_13.PNG

1.2.2 Trends and geolocation of MIPAS LEVEL 1 MDS

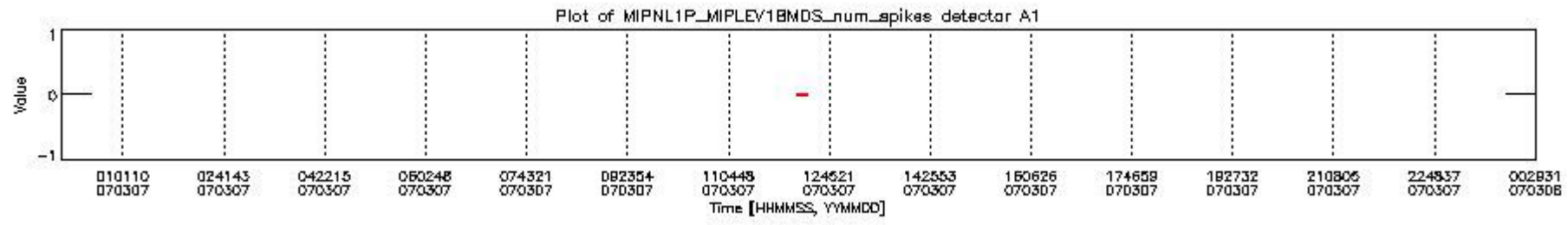
Bar plot of MIPNL1P_MIPLEV1BMDS_quality_flag



Geolocation plot of MIPNL1P_MIPLEV1BMDS_quality_flag

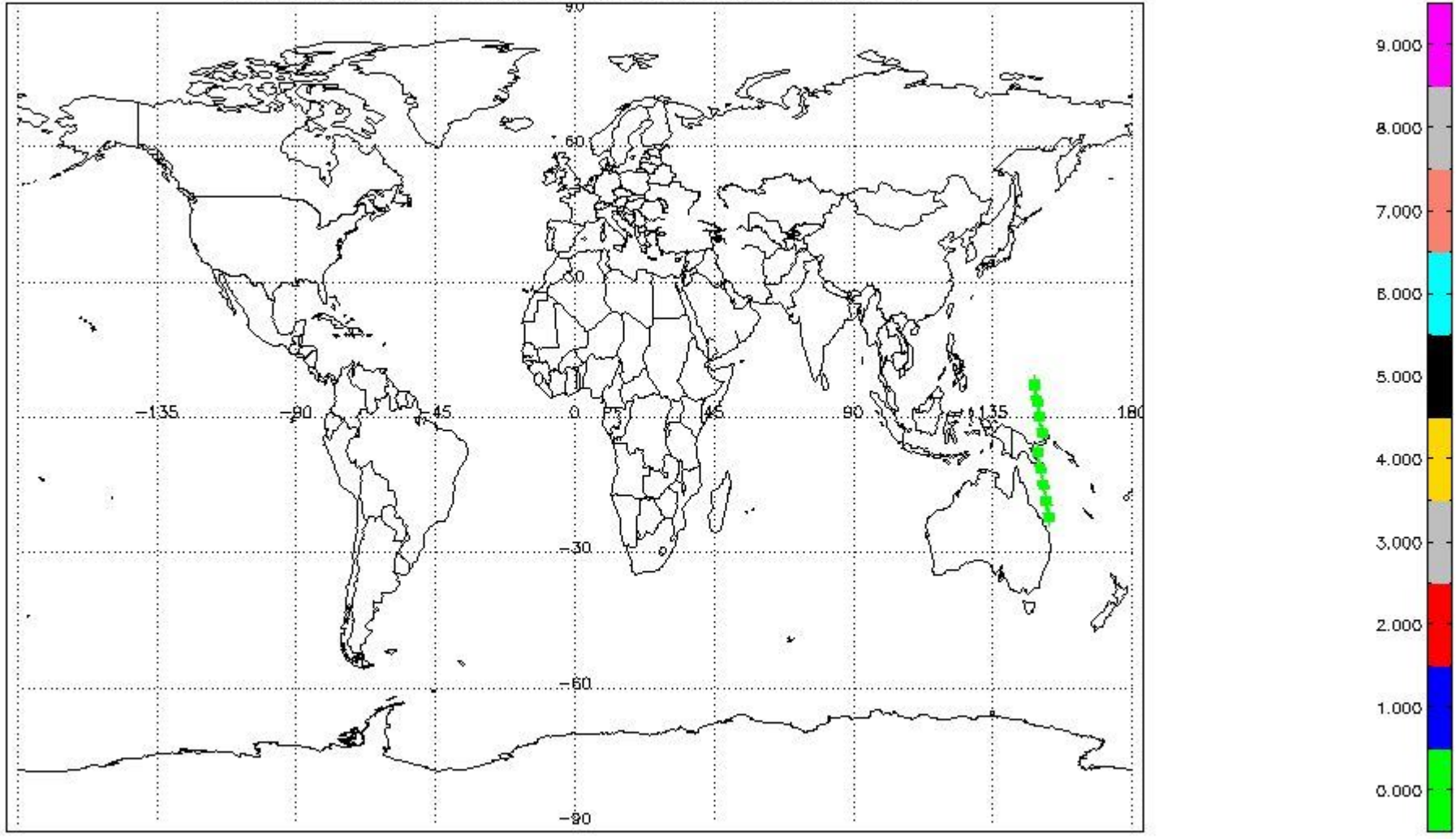


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_15.PNG

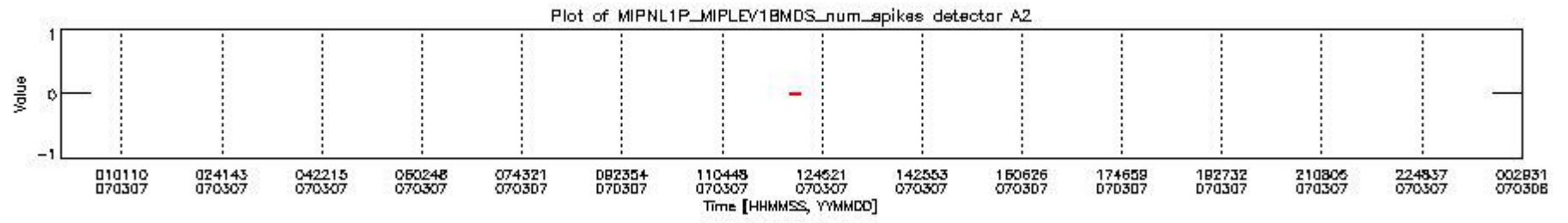


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_16.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A1

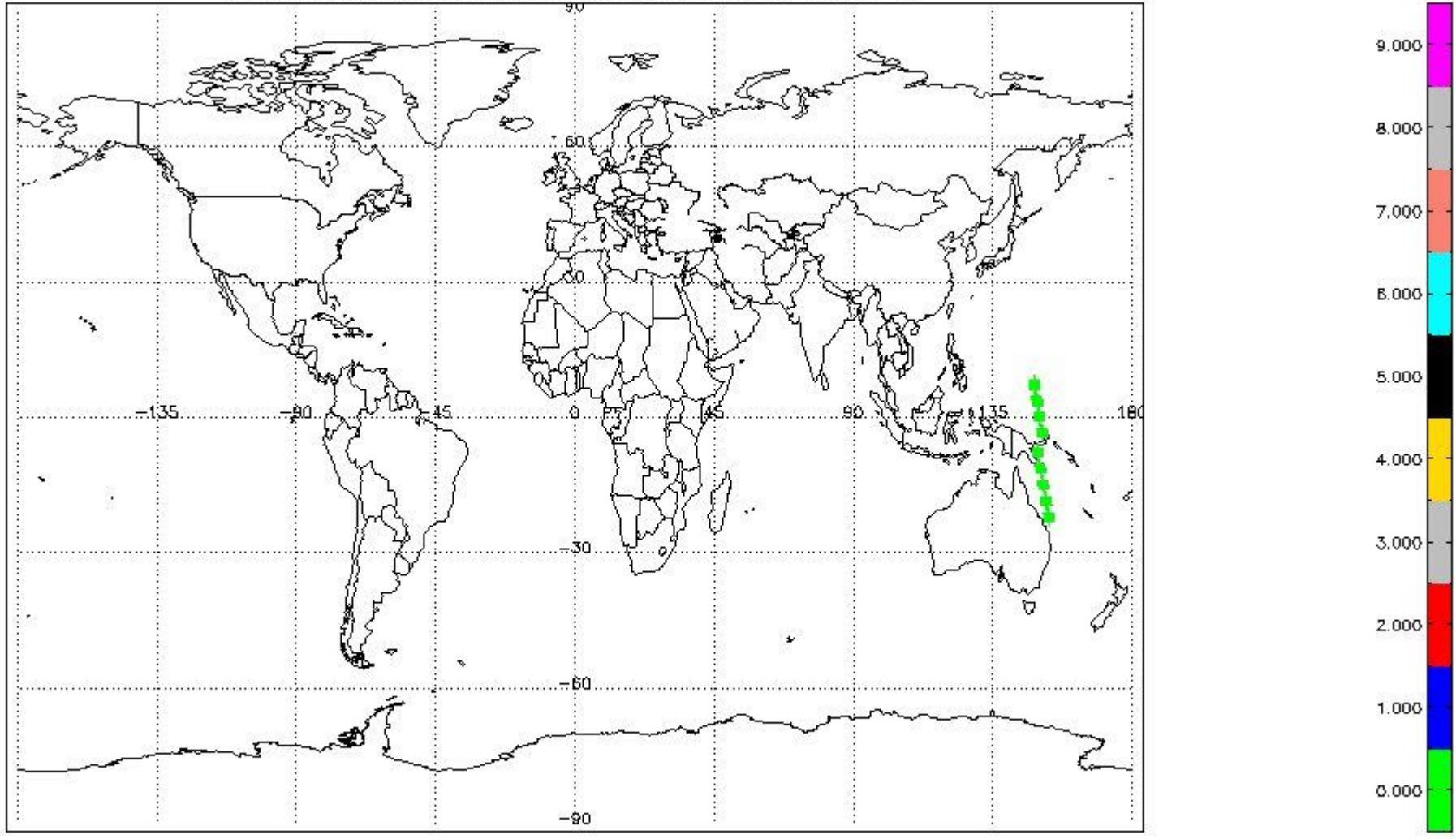


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_17.PNG

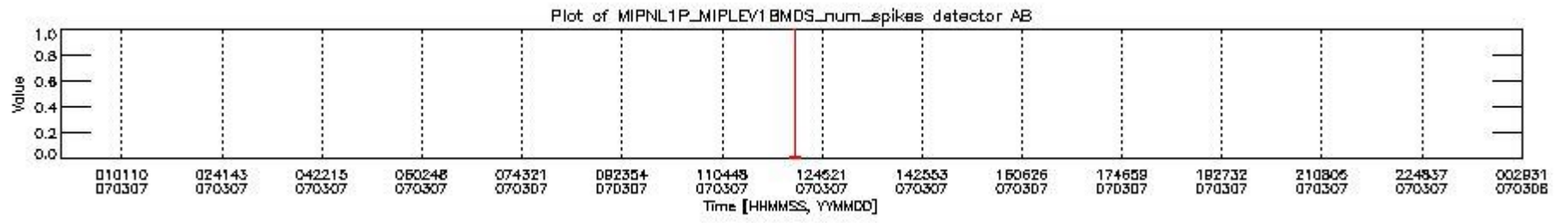


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_18.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A2

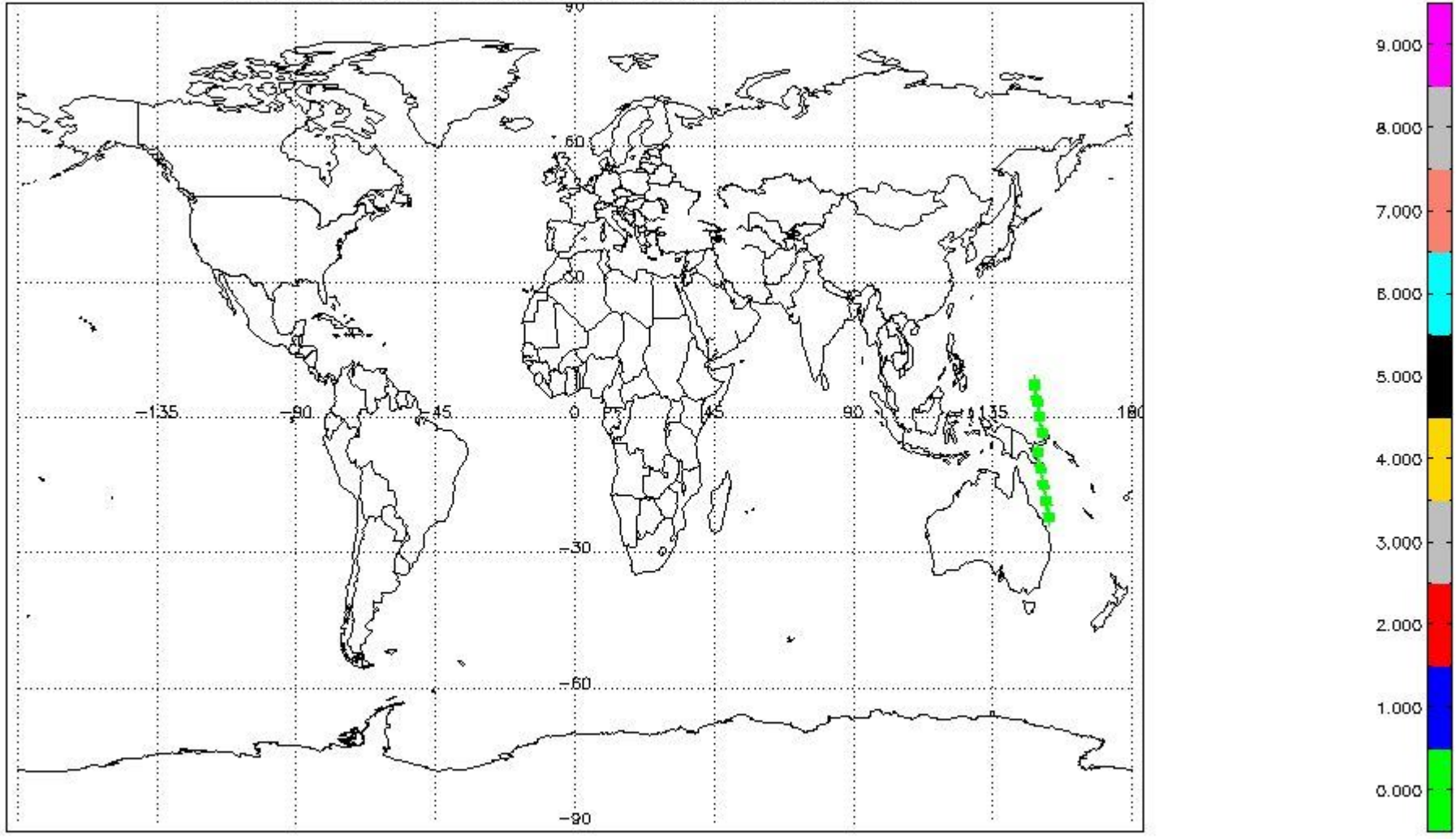


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_19.PNG

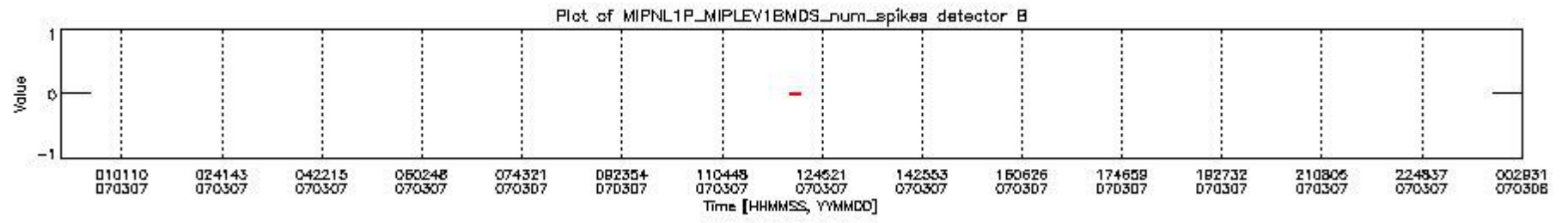


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_20.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector AB

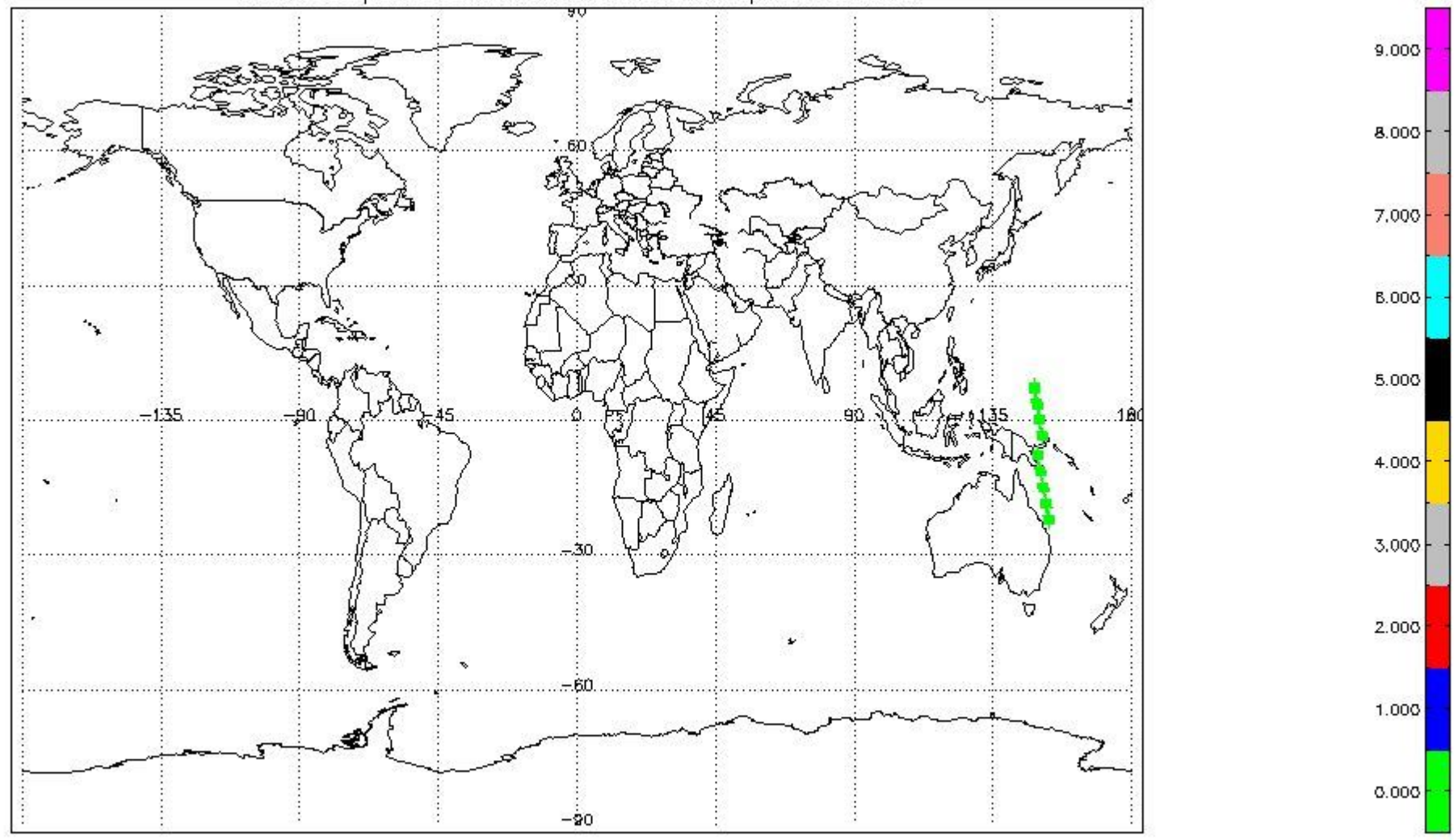


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_21.PNG

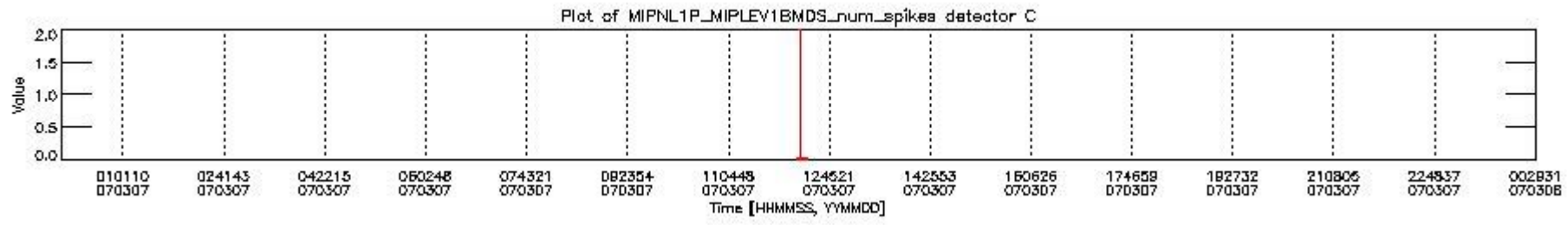


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_22.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector B

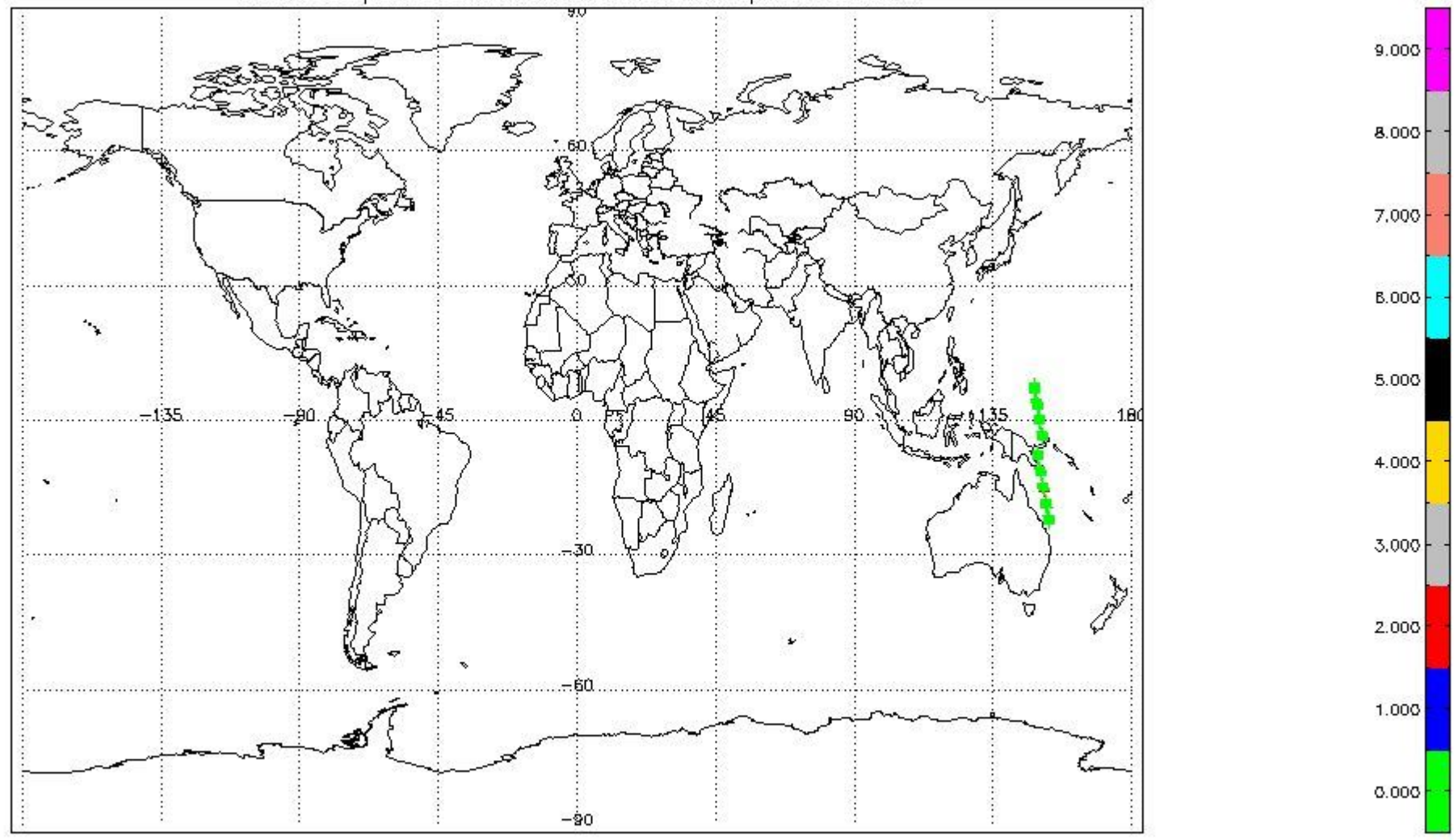


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_23.PNG

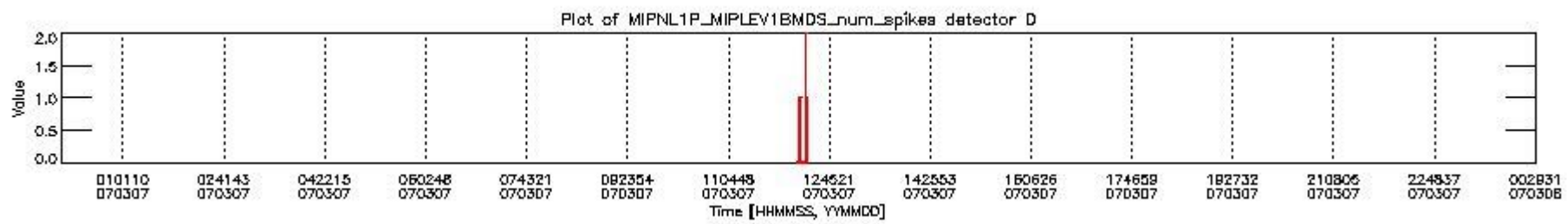


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_24.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector C

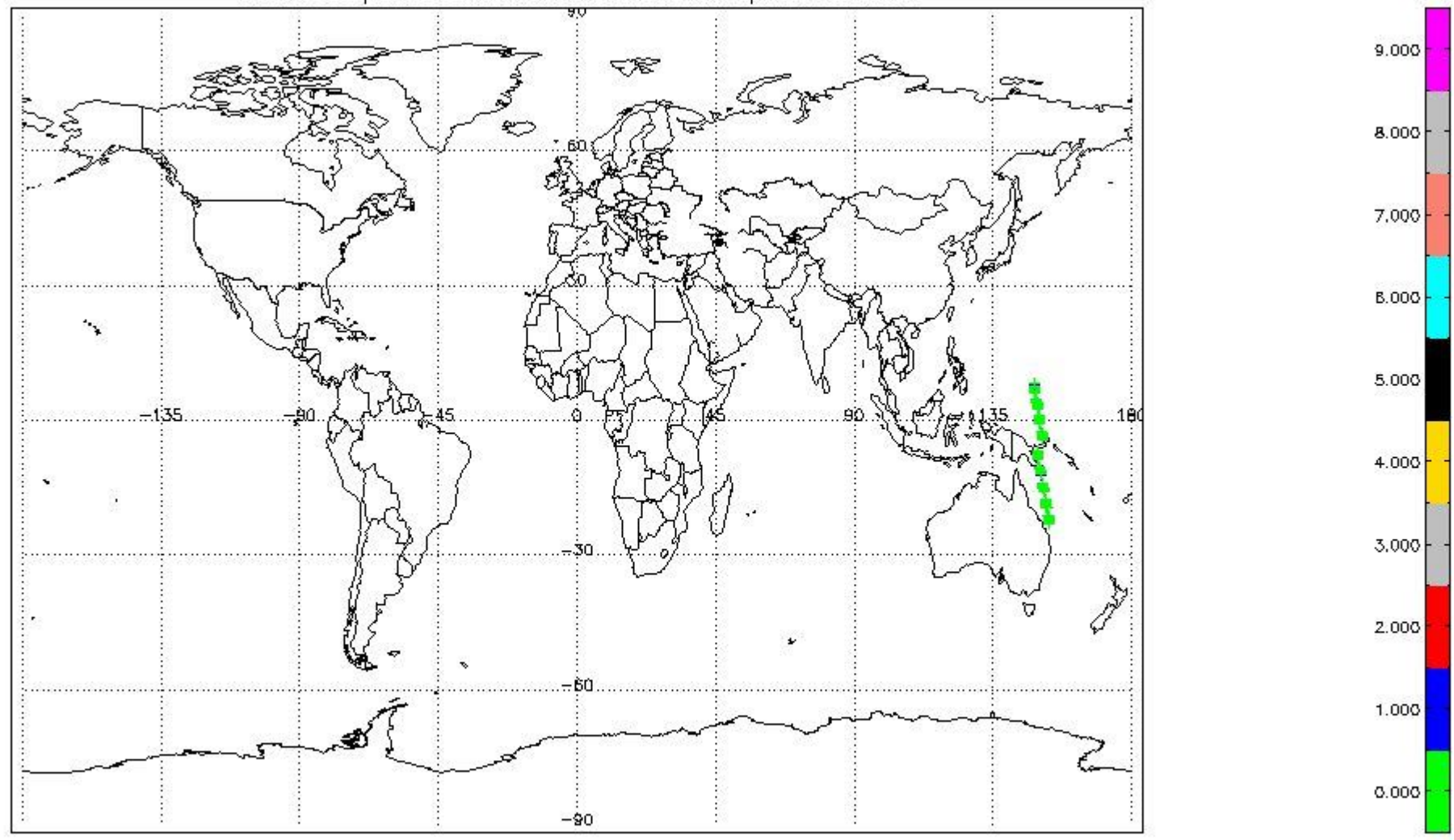


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_25.PNG

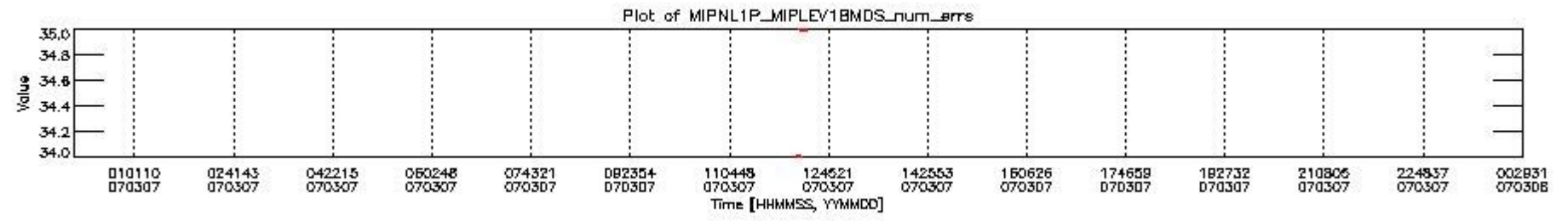


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_26.PNG

Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector D

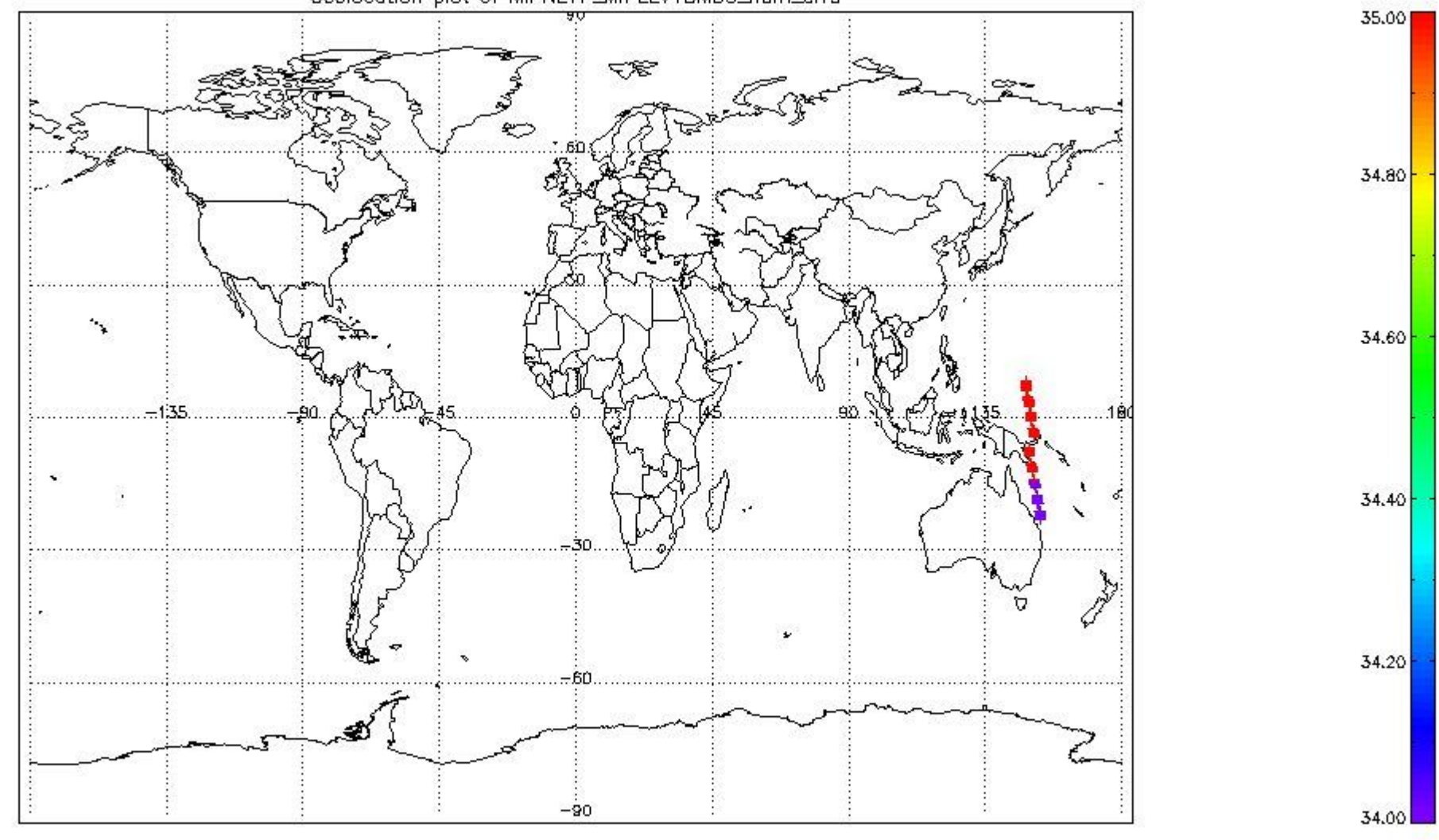


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_27.PNG

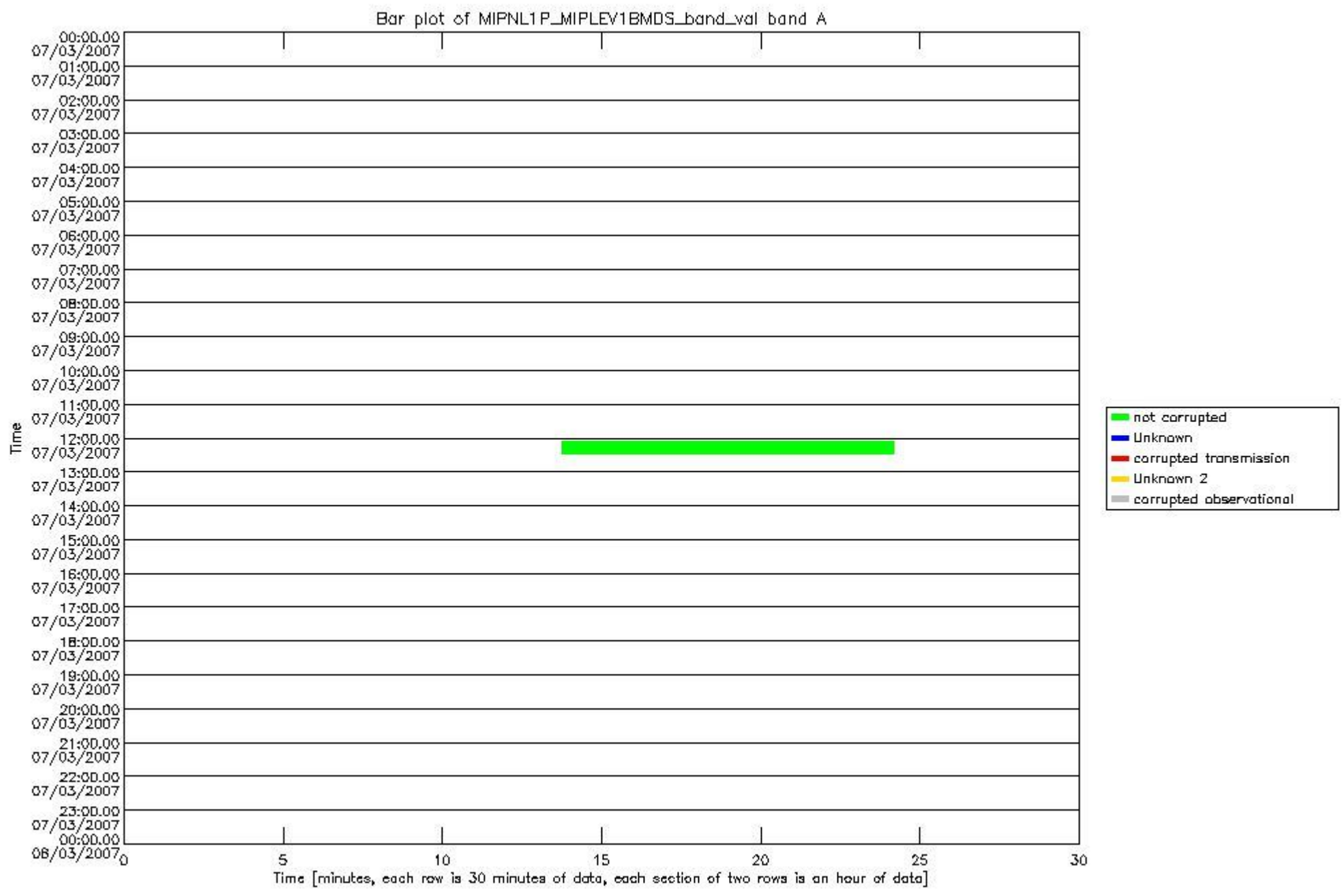


mipas_daily_report_level1_OFI_MIPAS_4_67_P_20070307_28.PNG

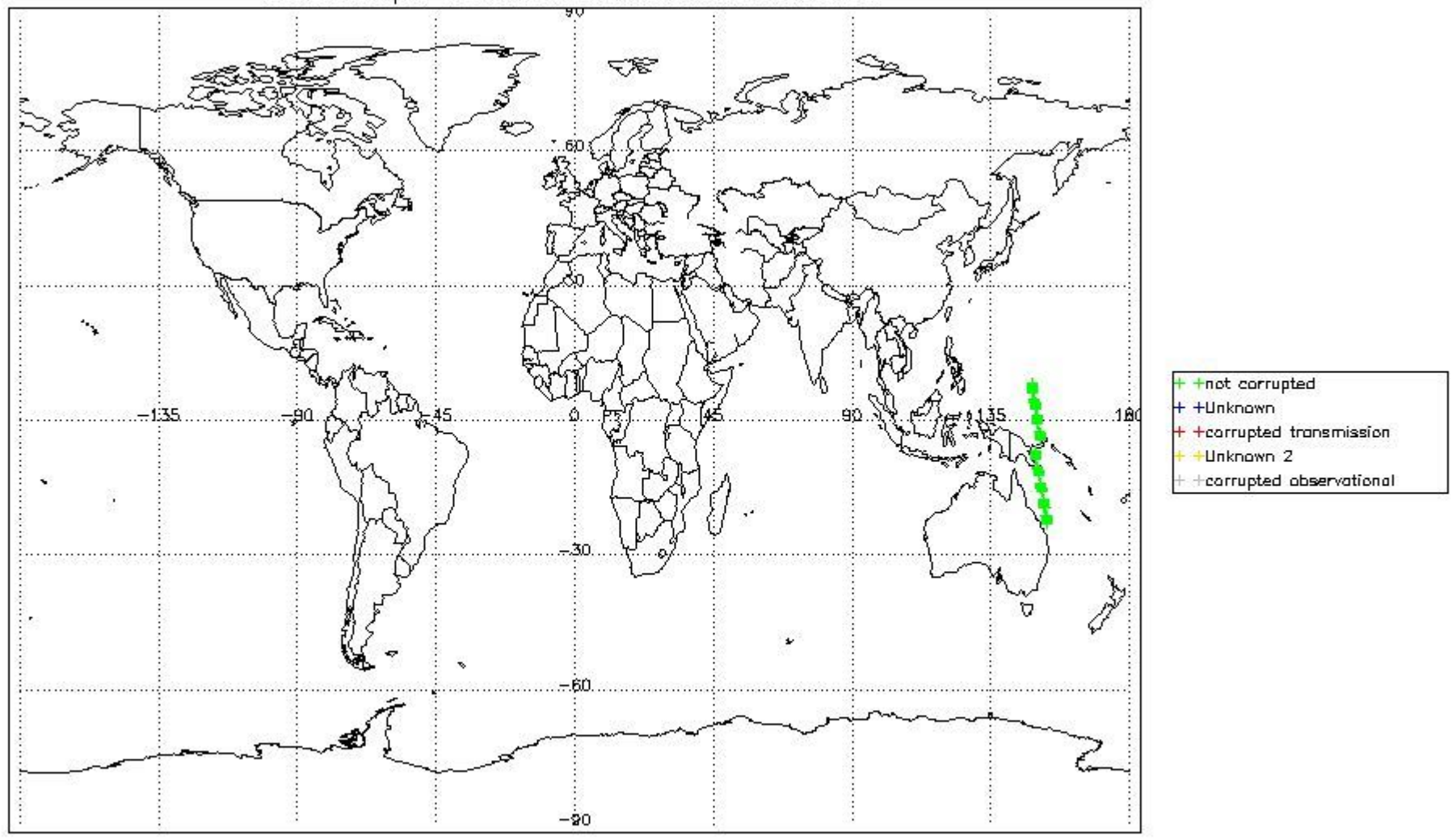
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_errs



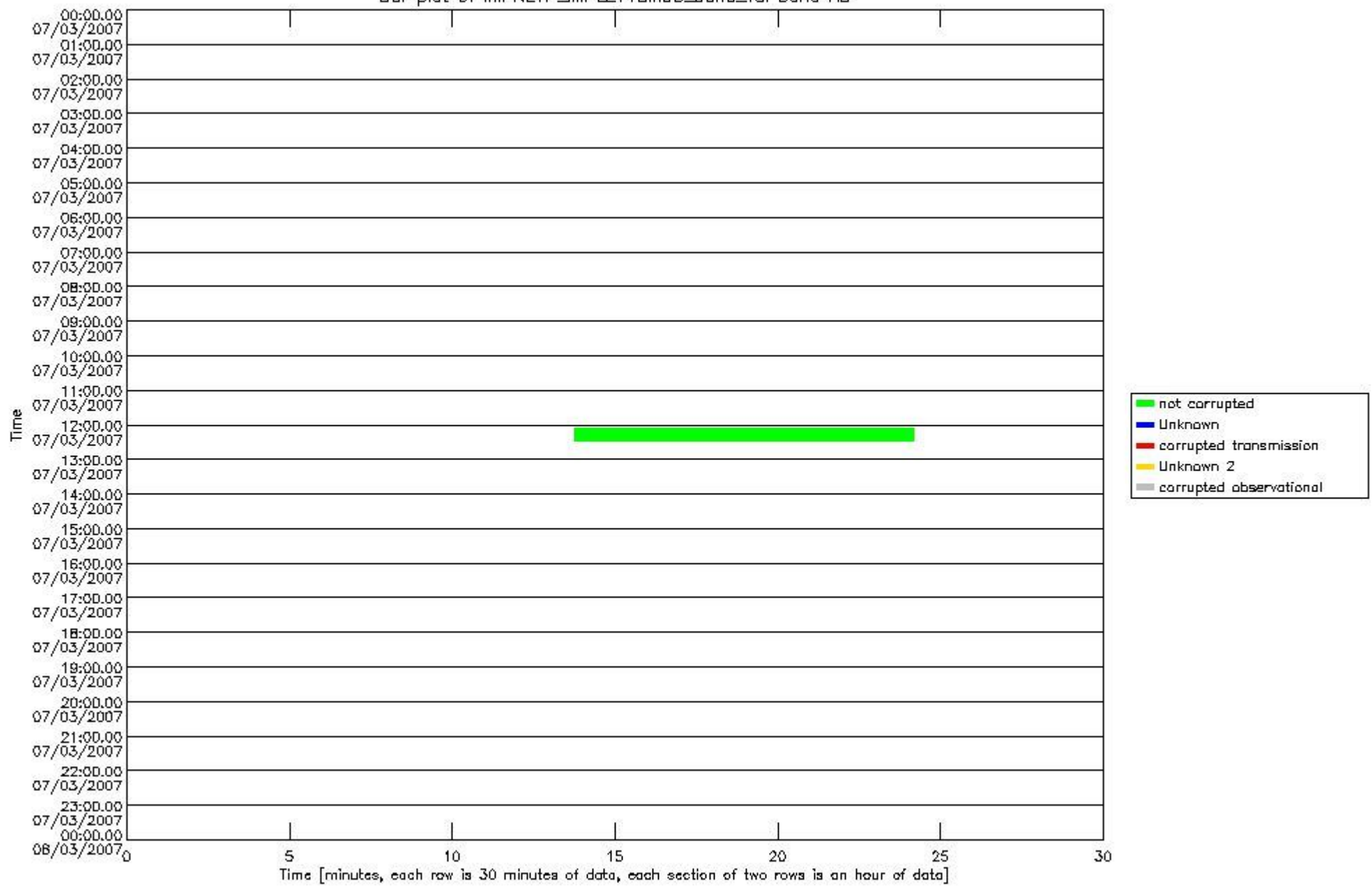
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_29.PNG



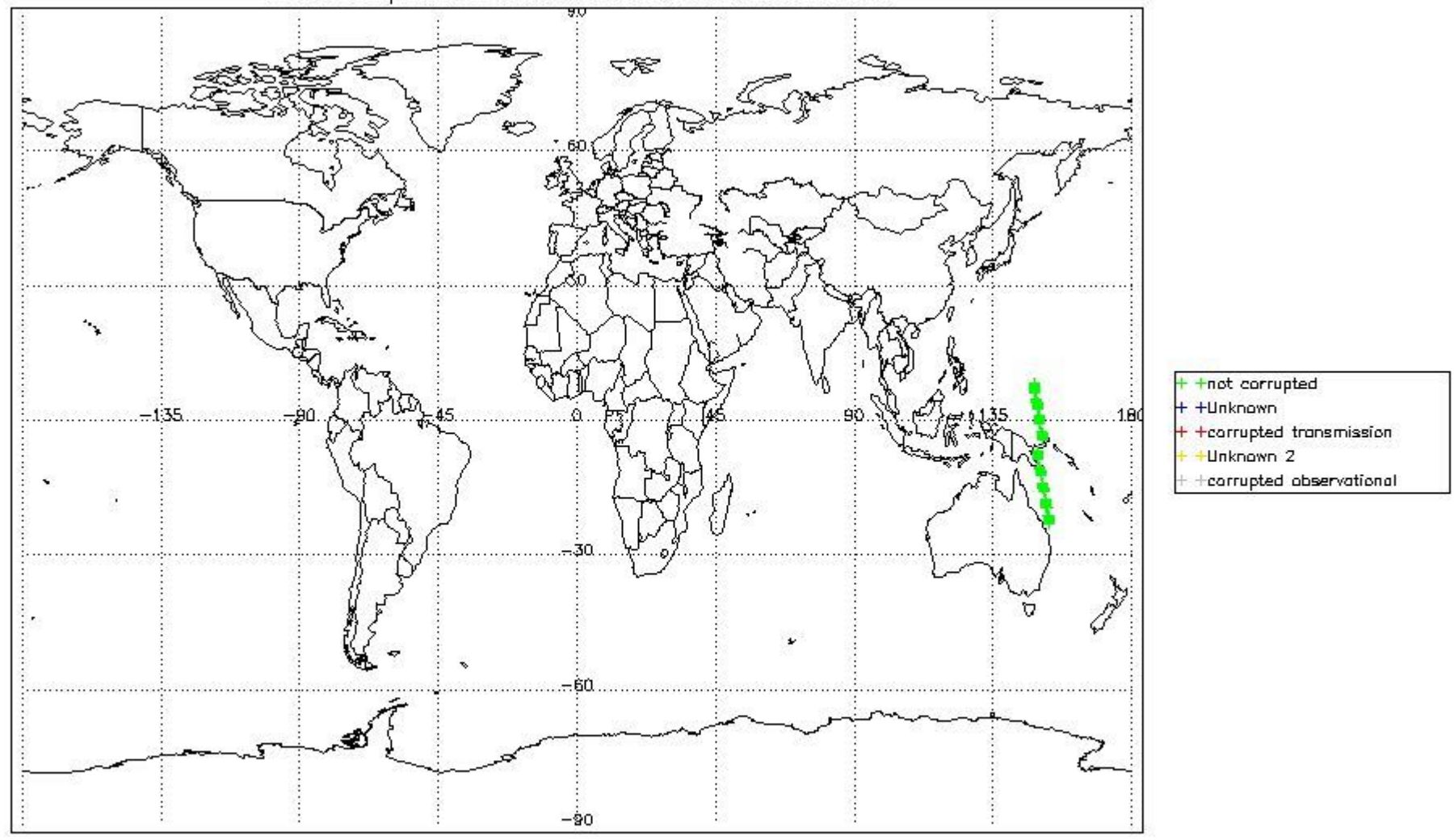
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band A



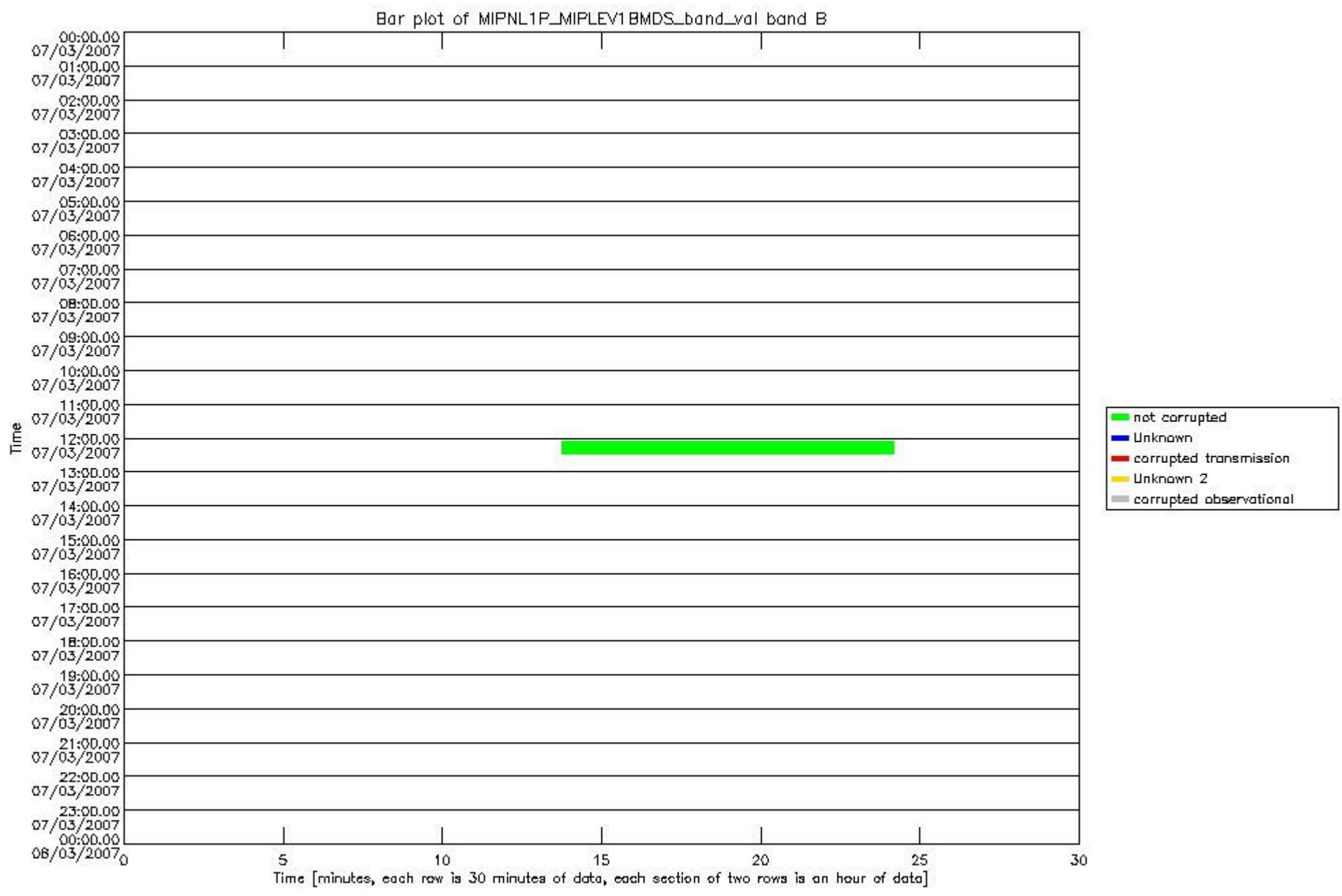
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band AB



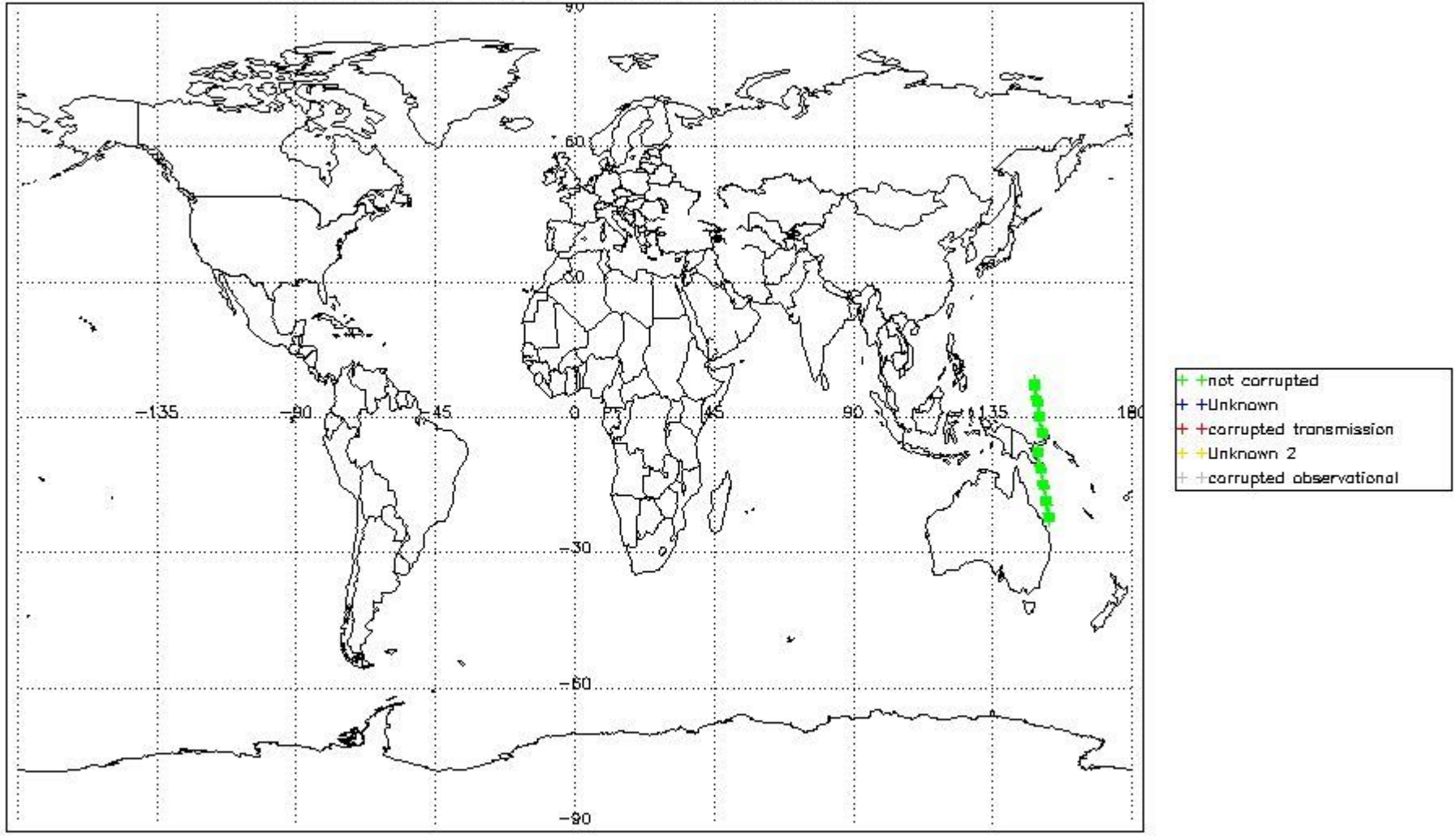
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band AB

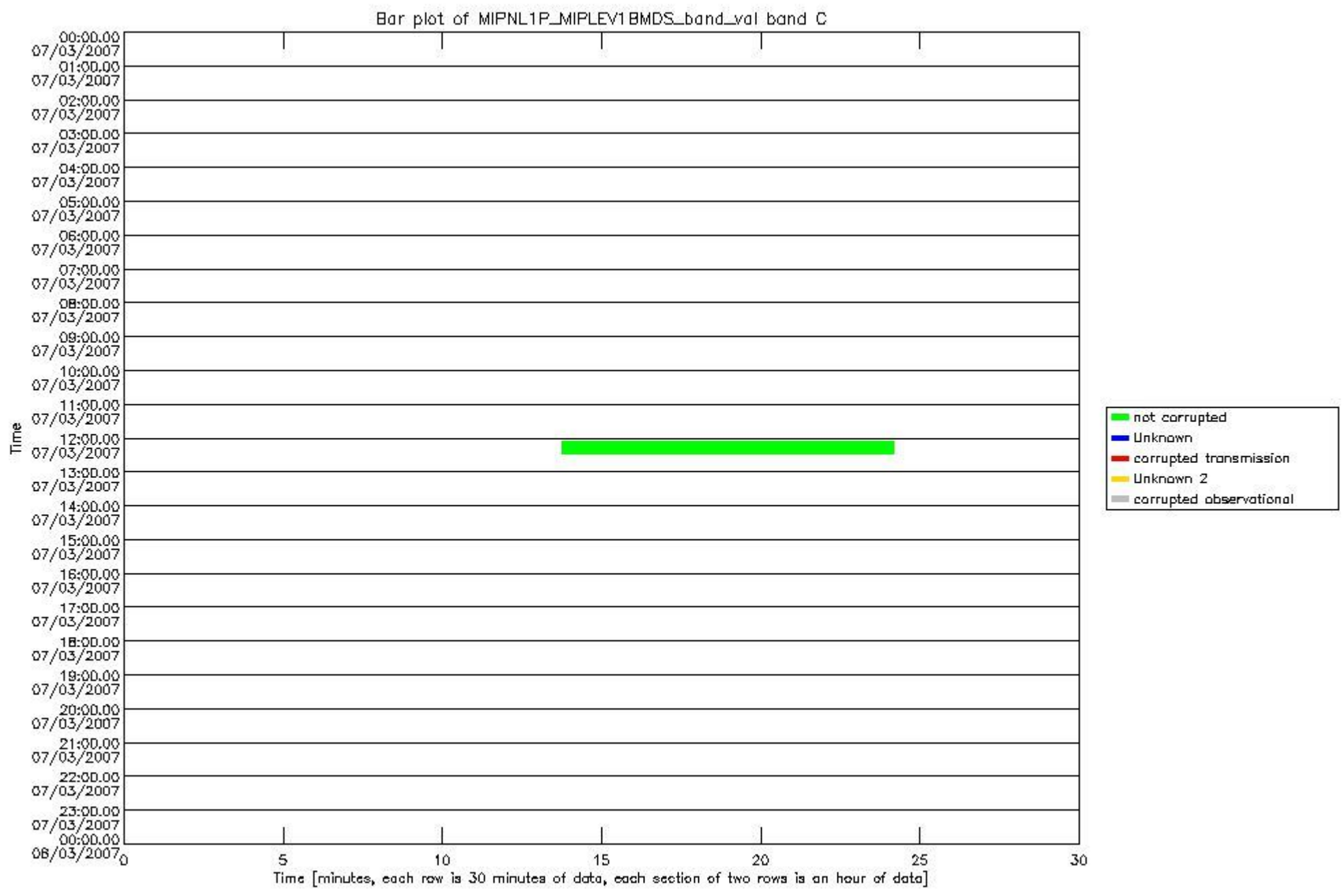


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_33.PNG

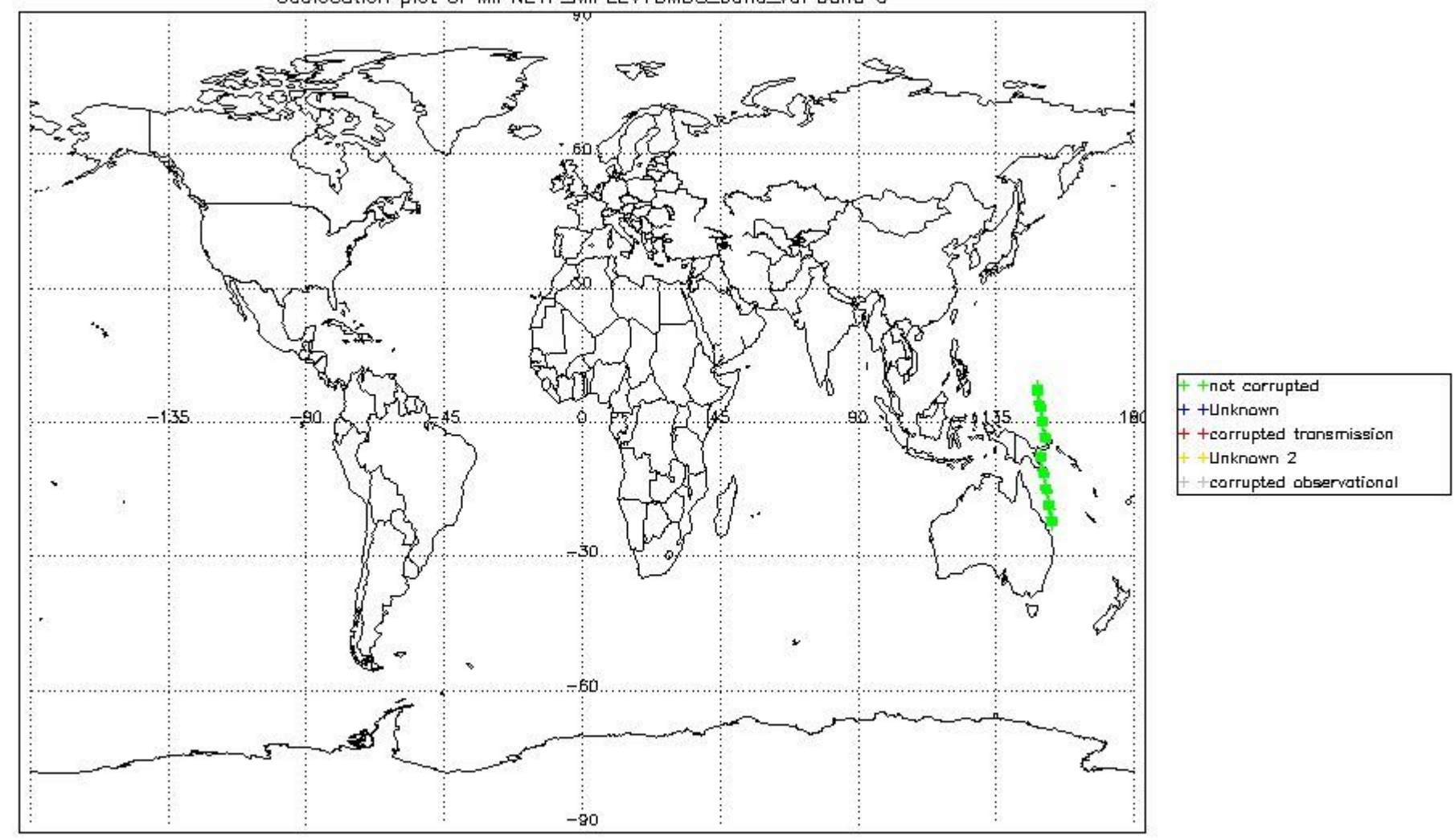


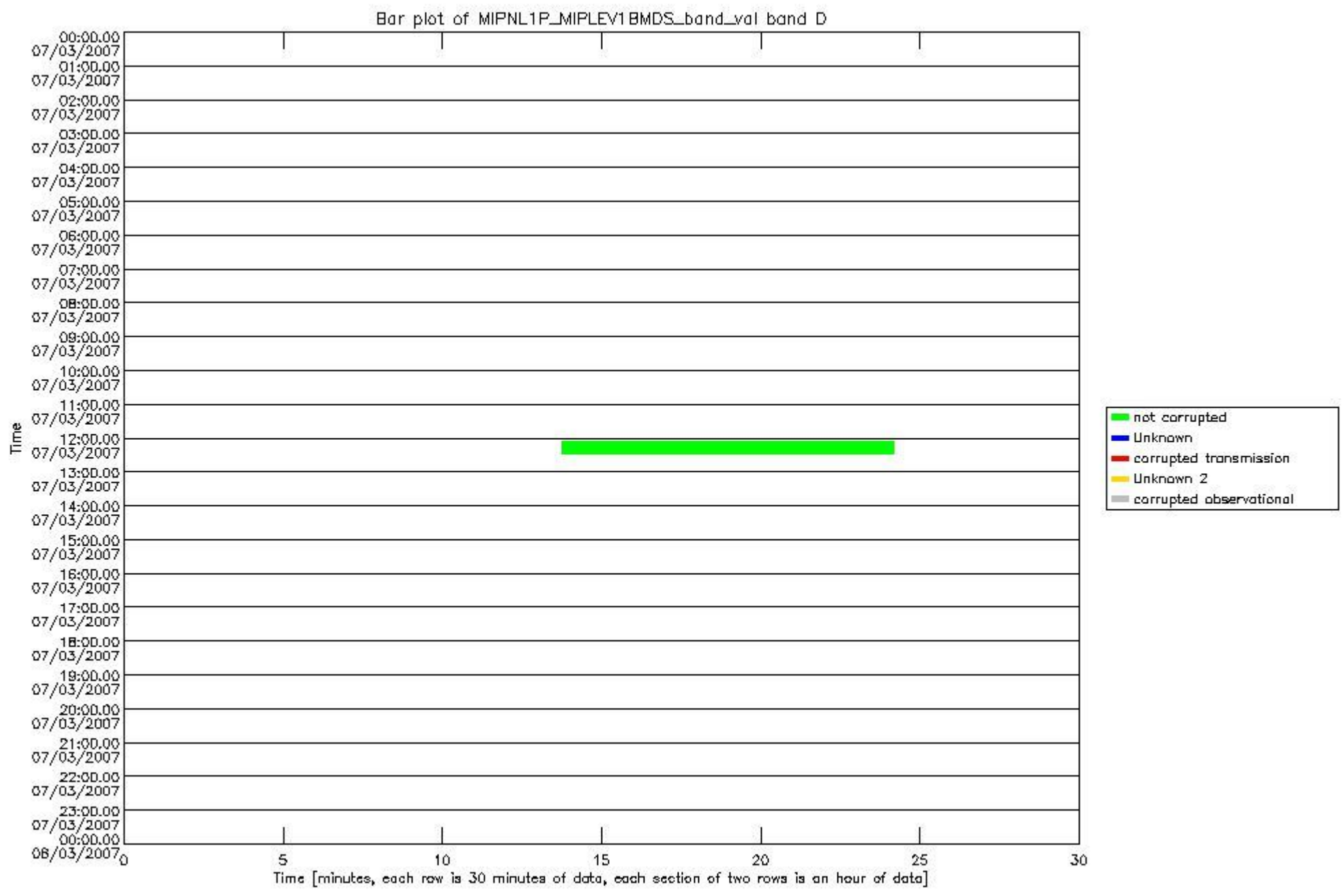
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band B



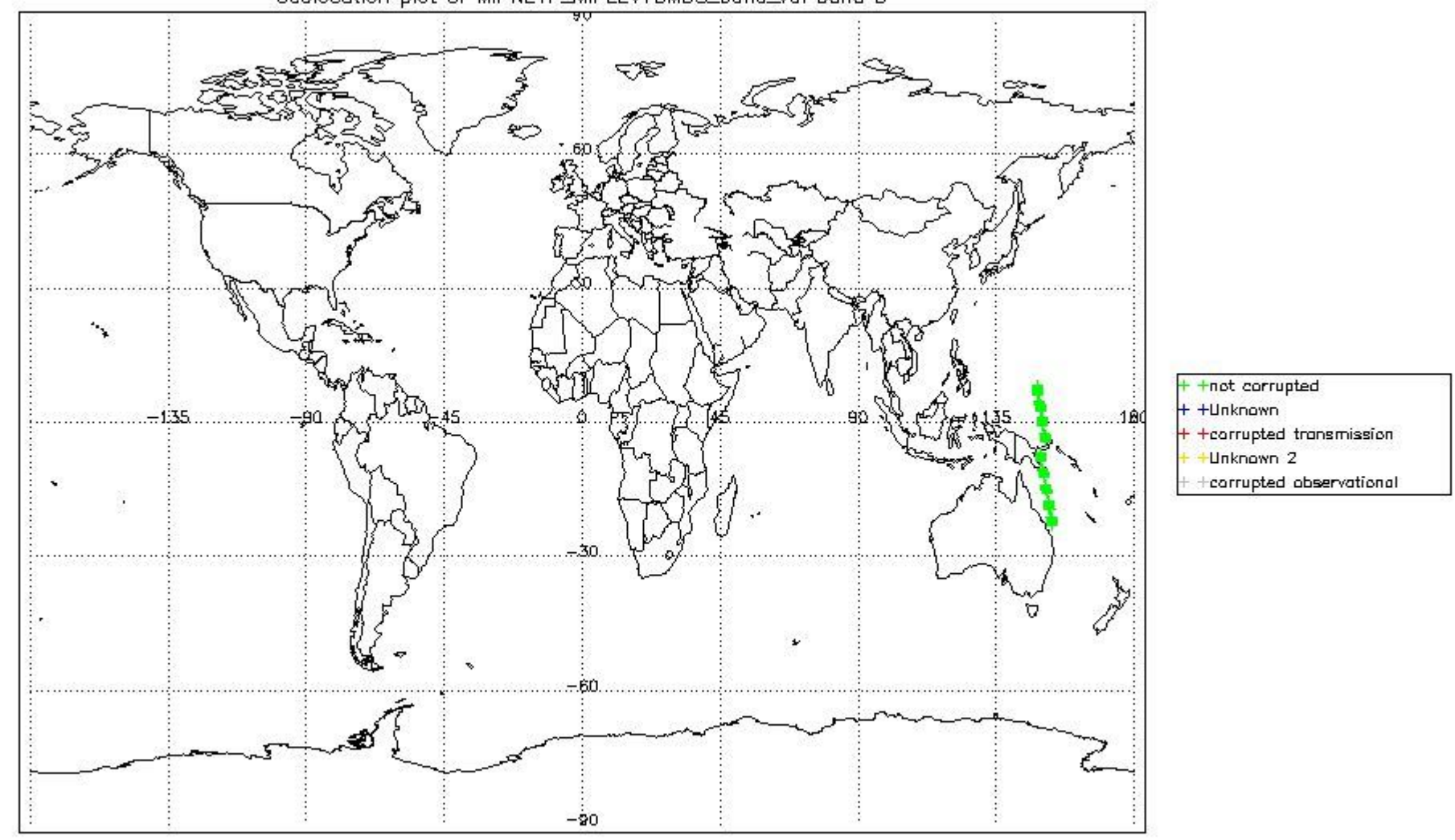


Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band C

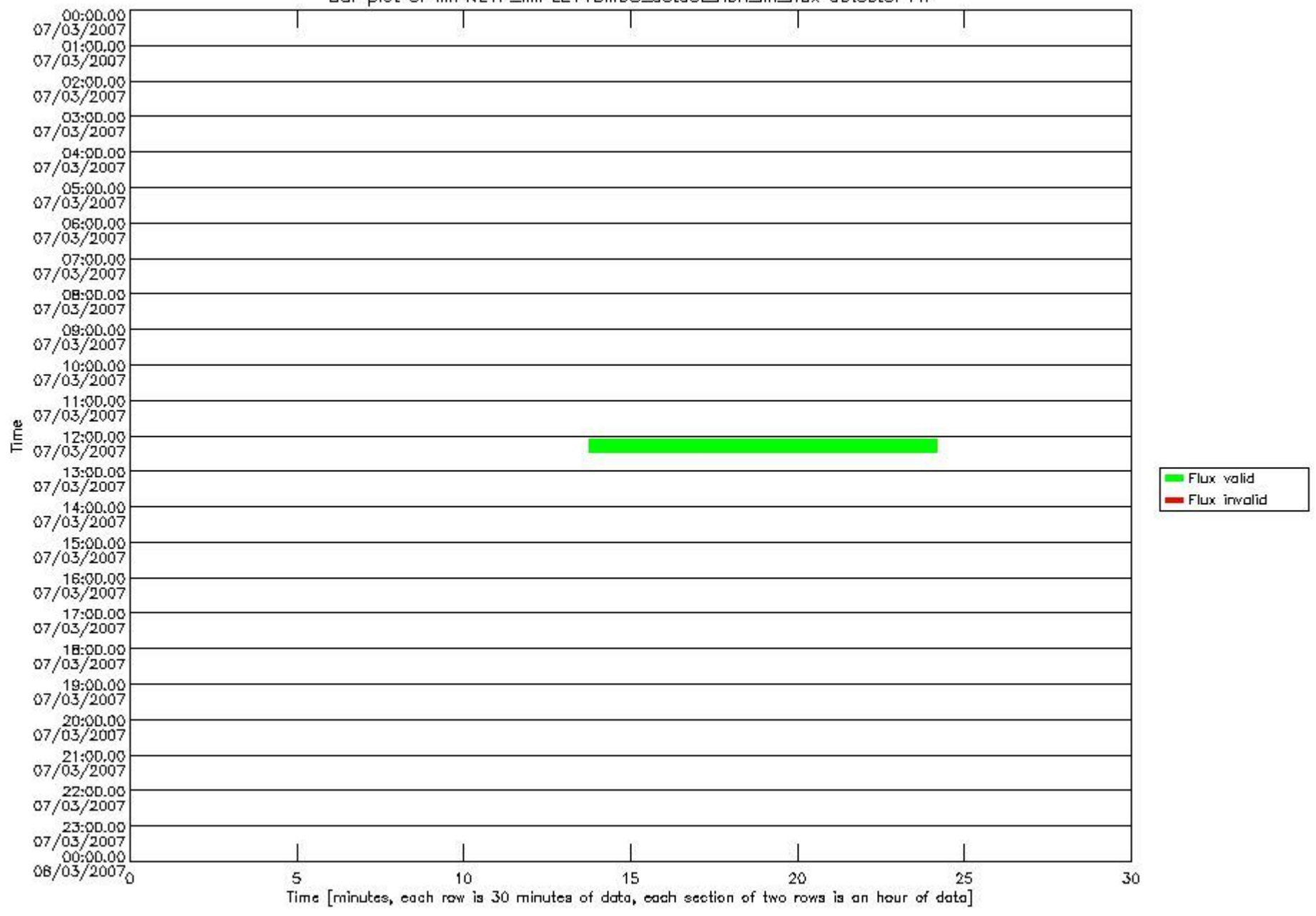




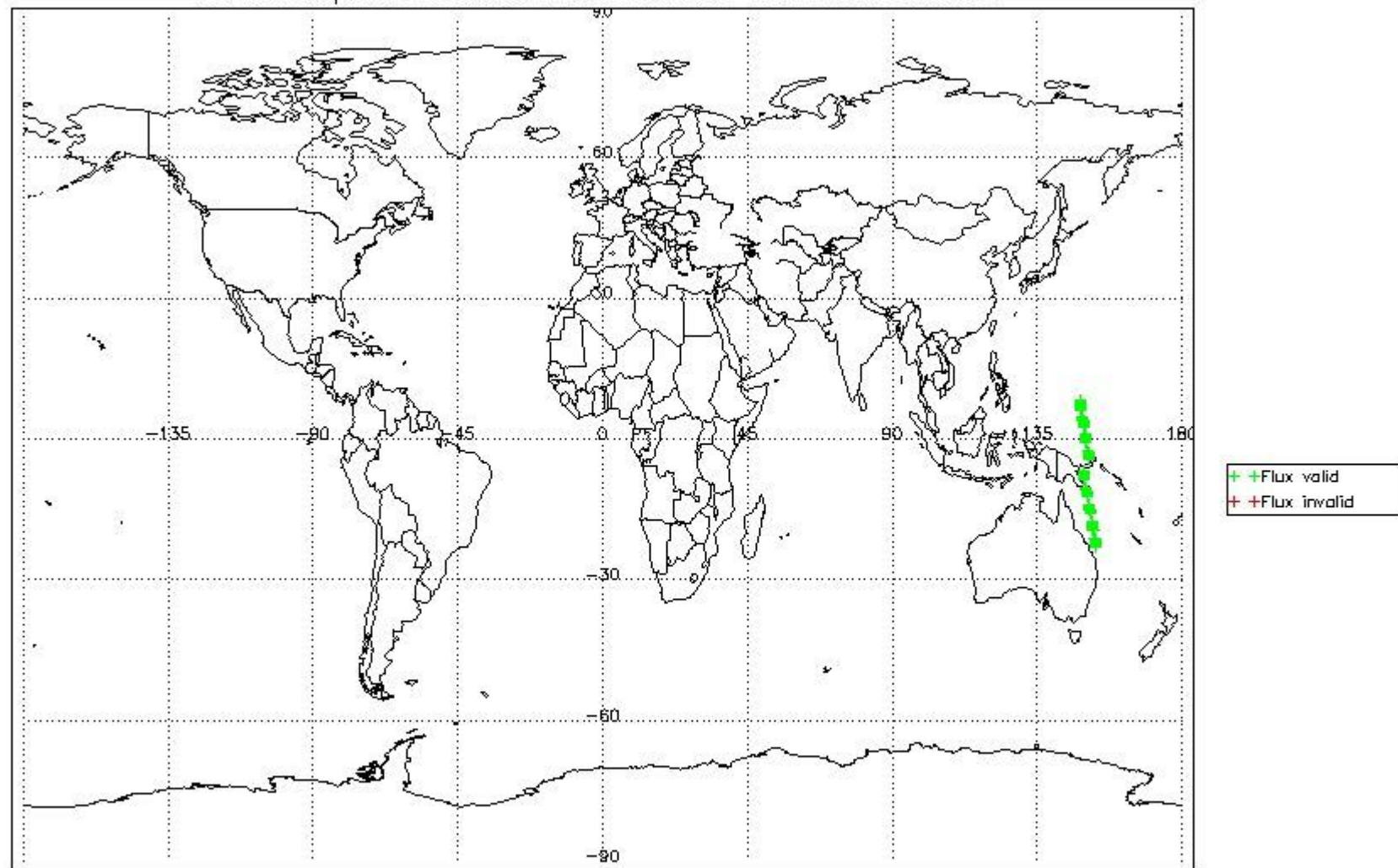
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band D



Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_jin_flux detector A1

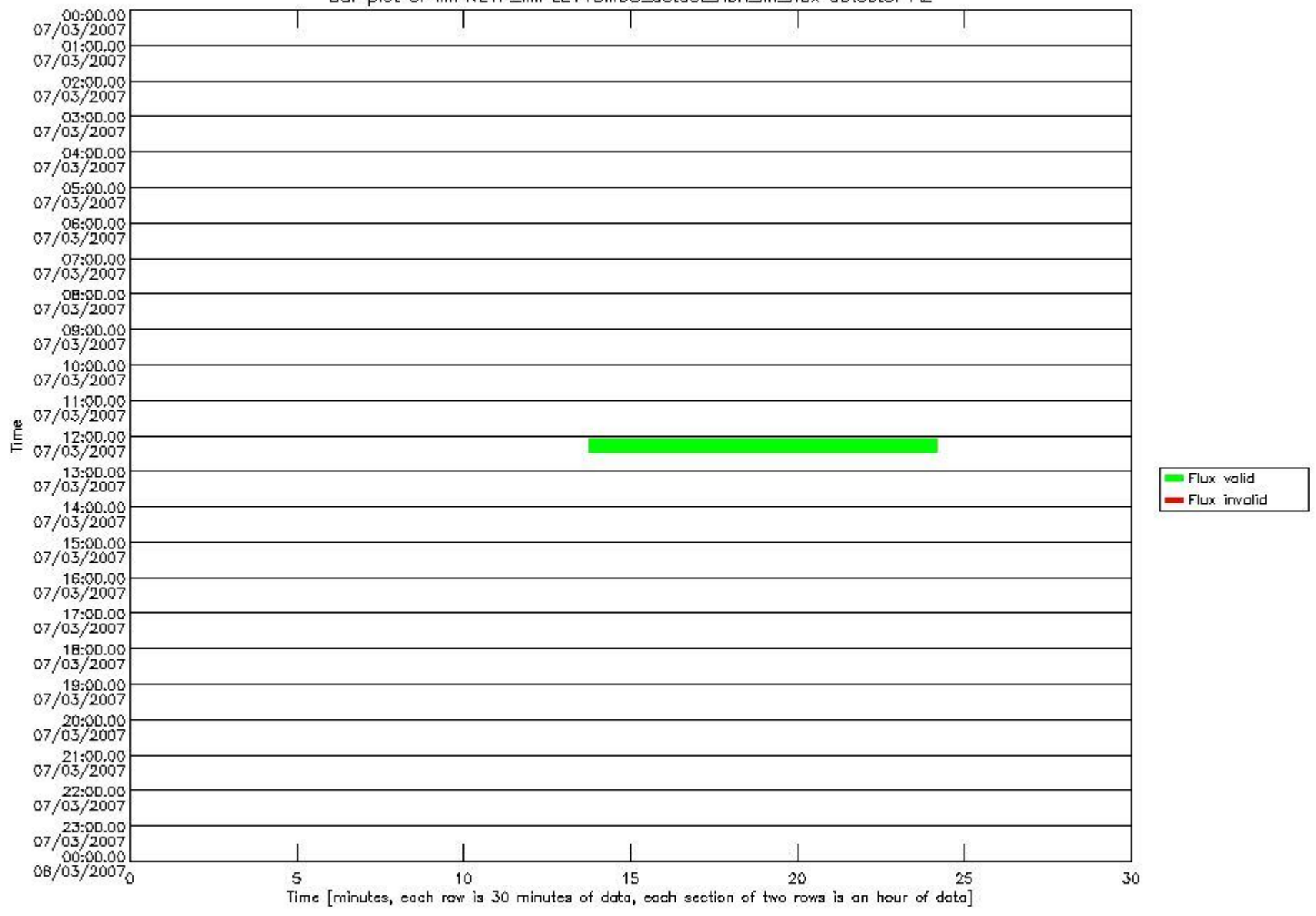


Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A1

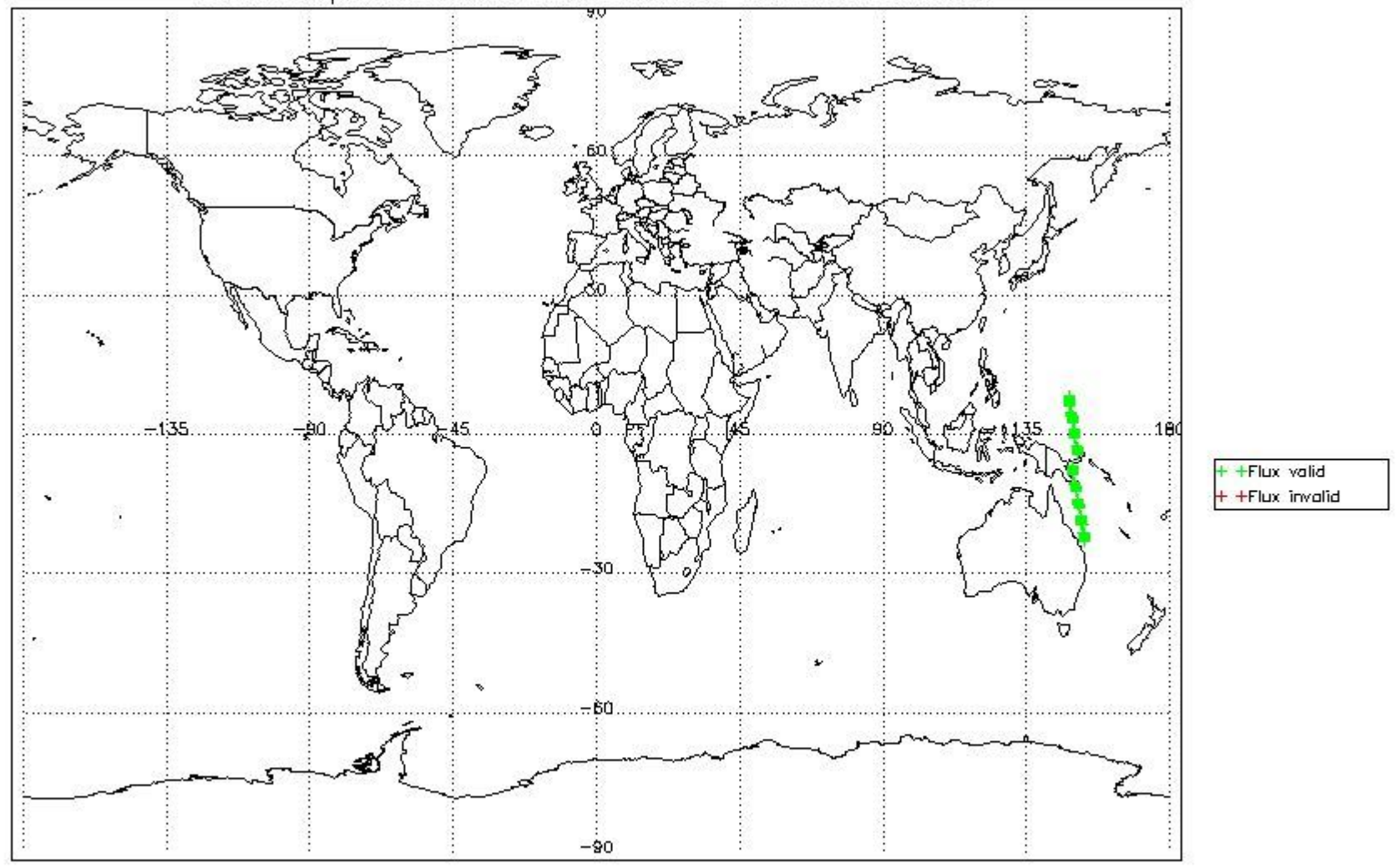


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_41.PNG

Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_jin_flux detector A2

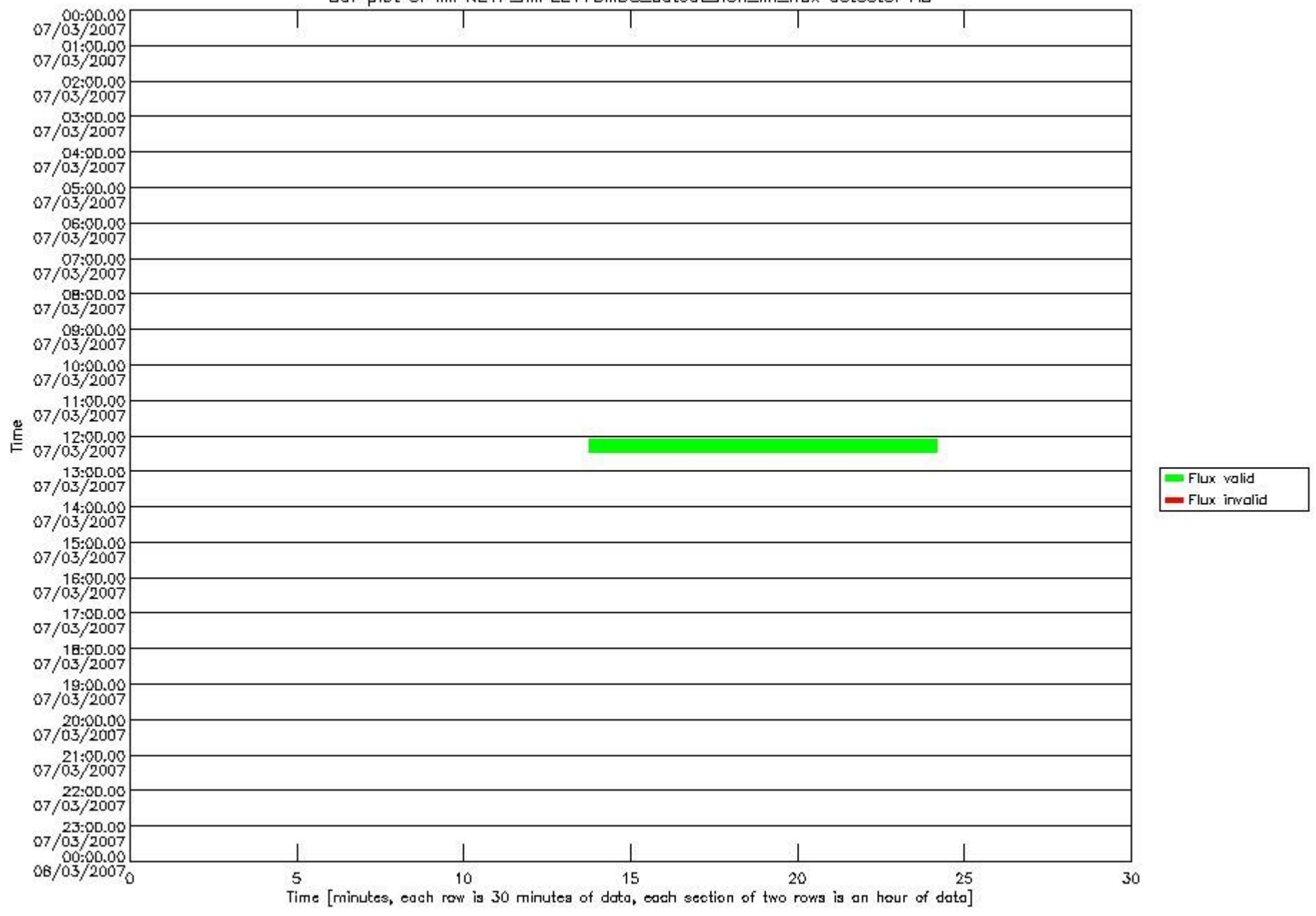


Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A2

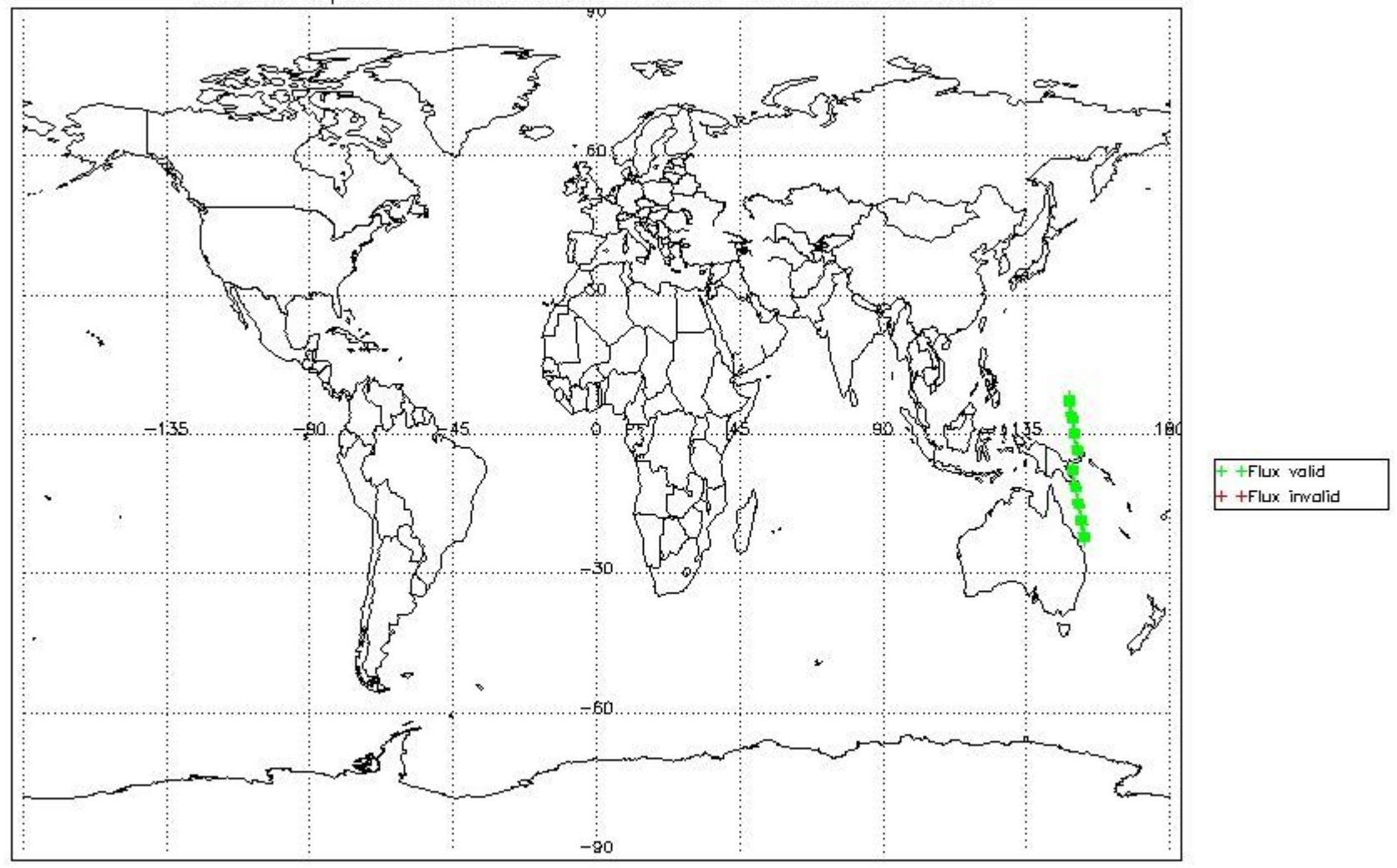


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_43.PNG

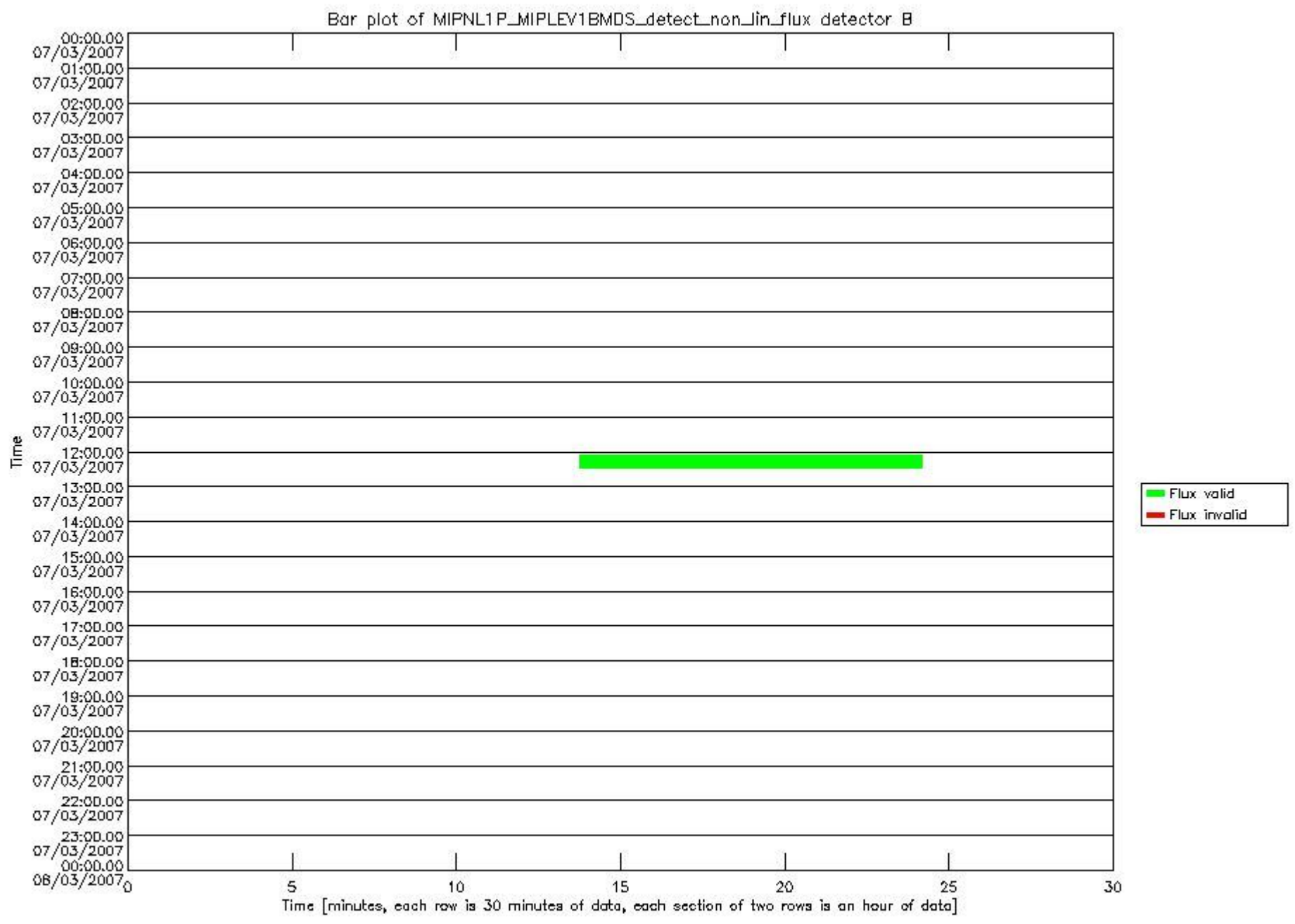
Bar plot of MIPNL1P_MIPLEV1 BMDS_detect_non_lin_flux detector AB

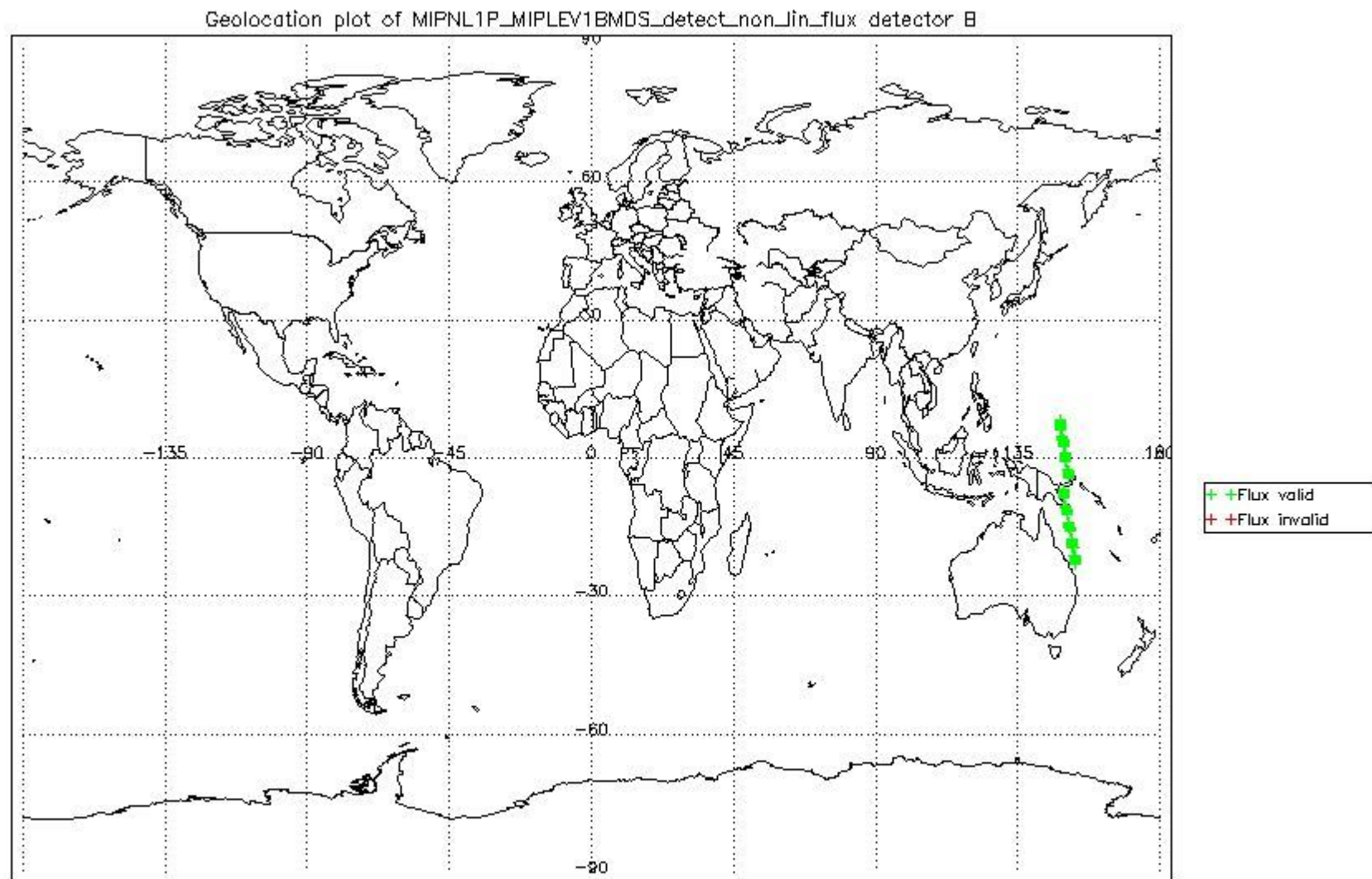


Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector AB



mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_45.PNG





mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_47.PNG

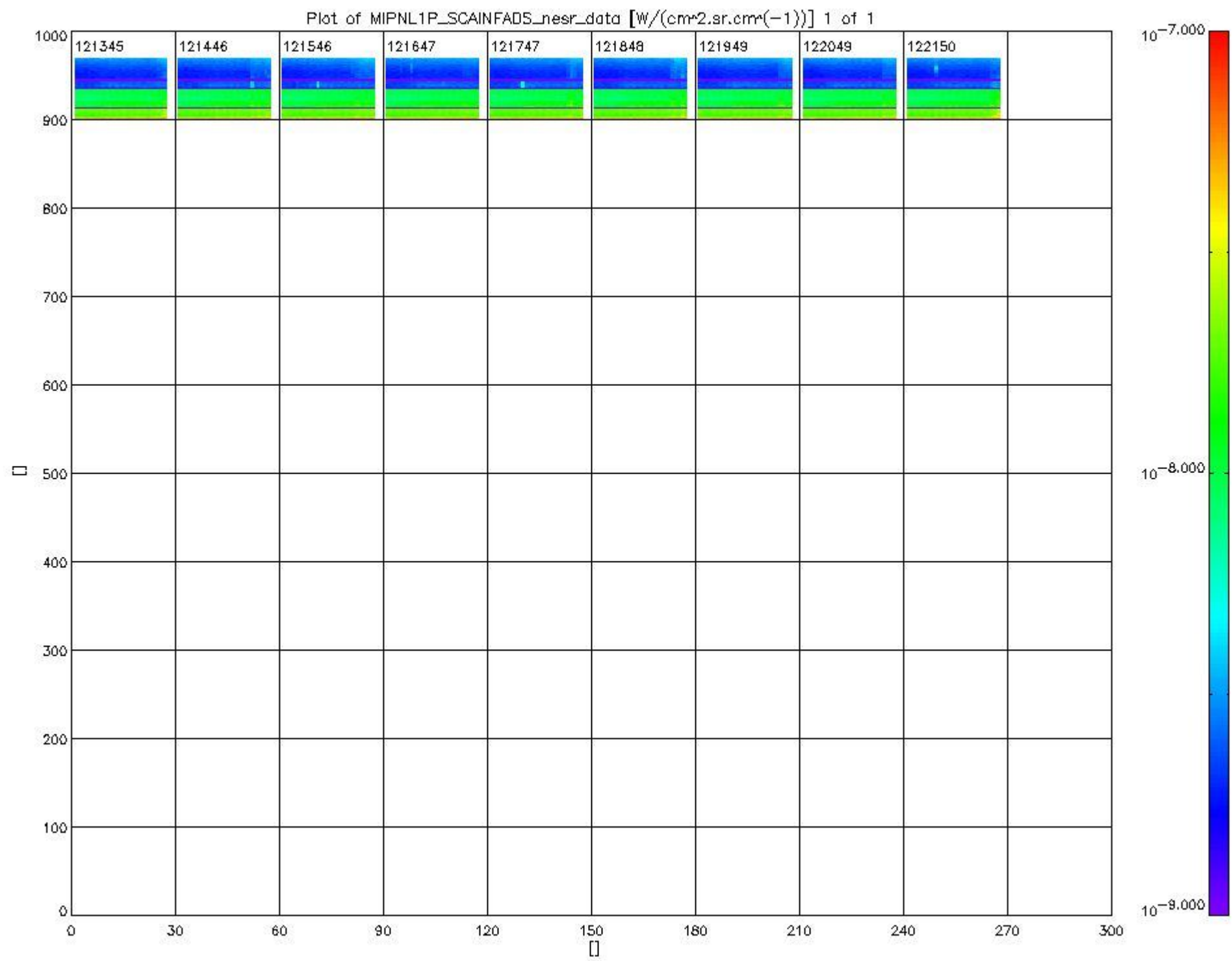
1.2.3 Scan information ADS

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.

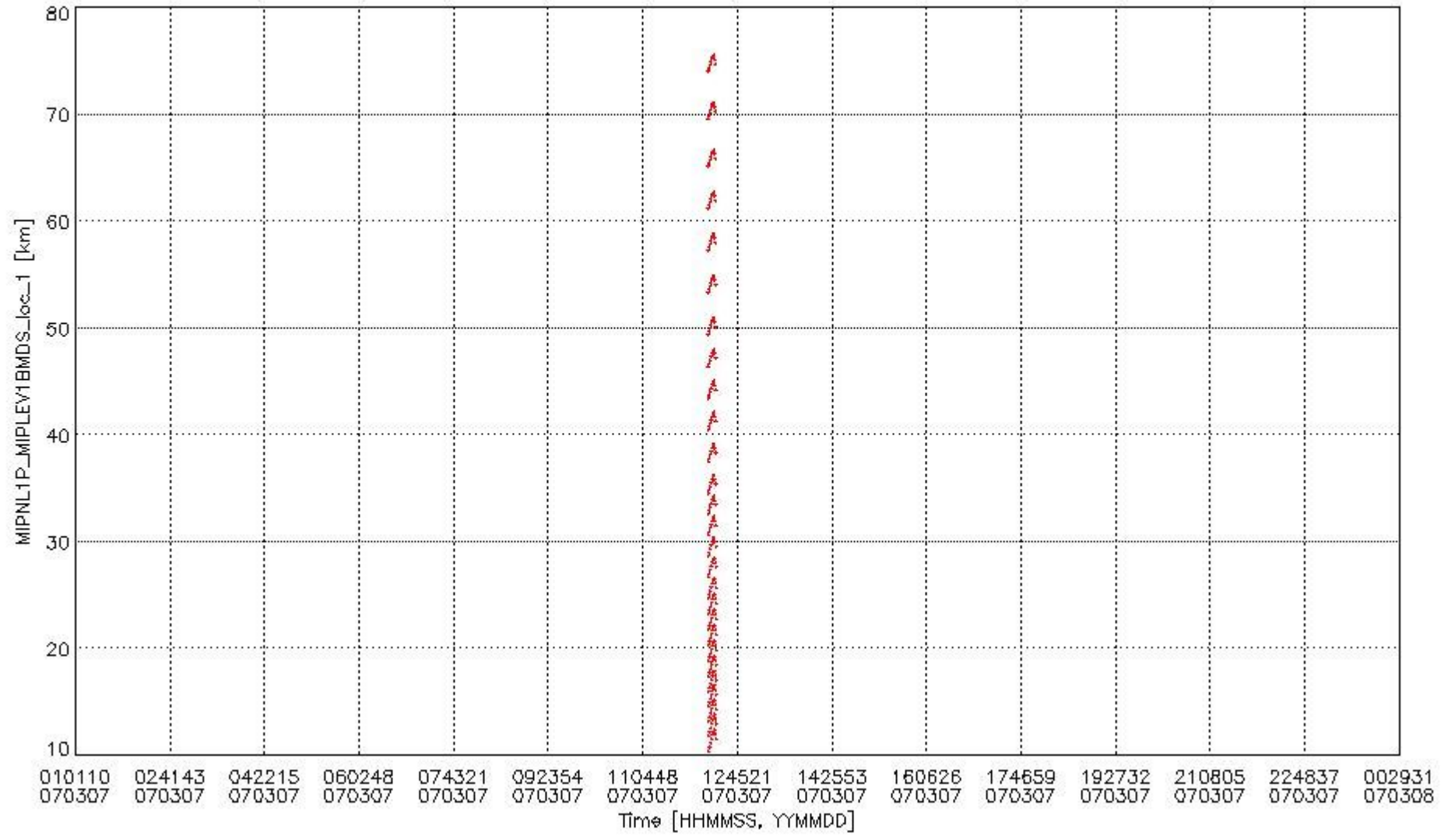


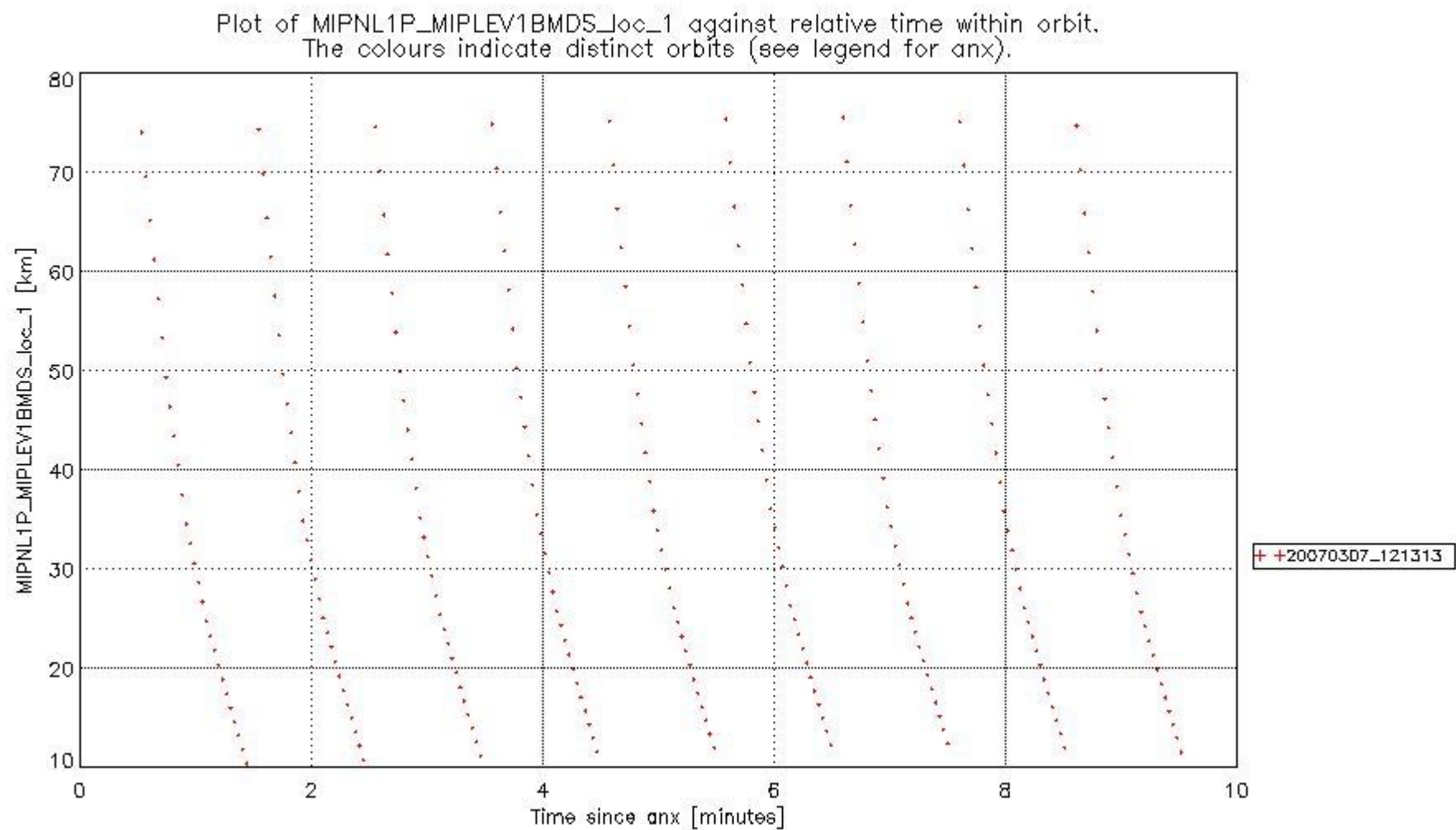
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_48.PNG

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_20070307_50.PNG

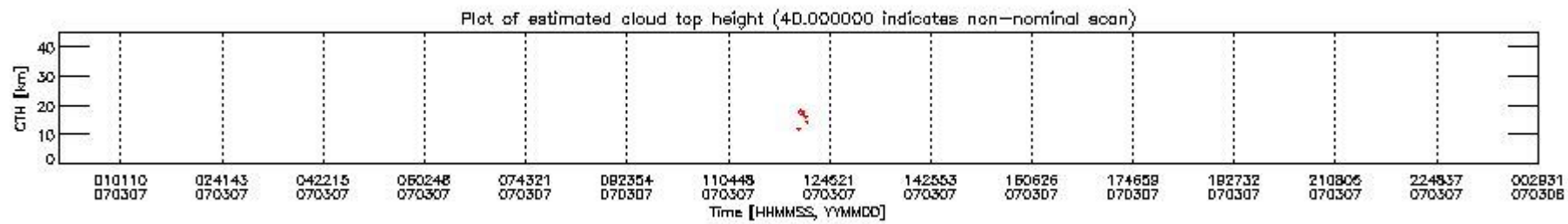
1.3.2 Cloud top height

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)

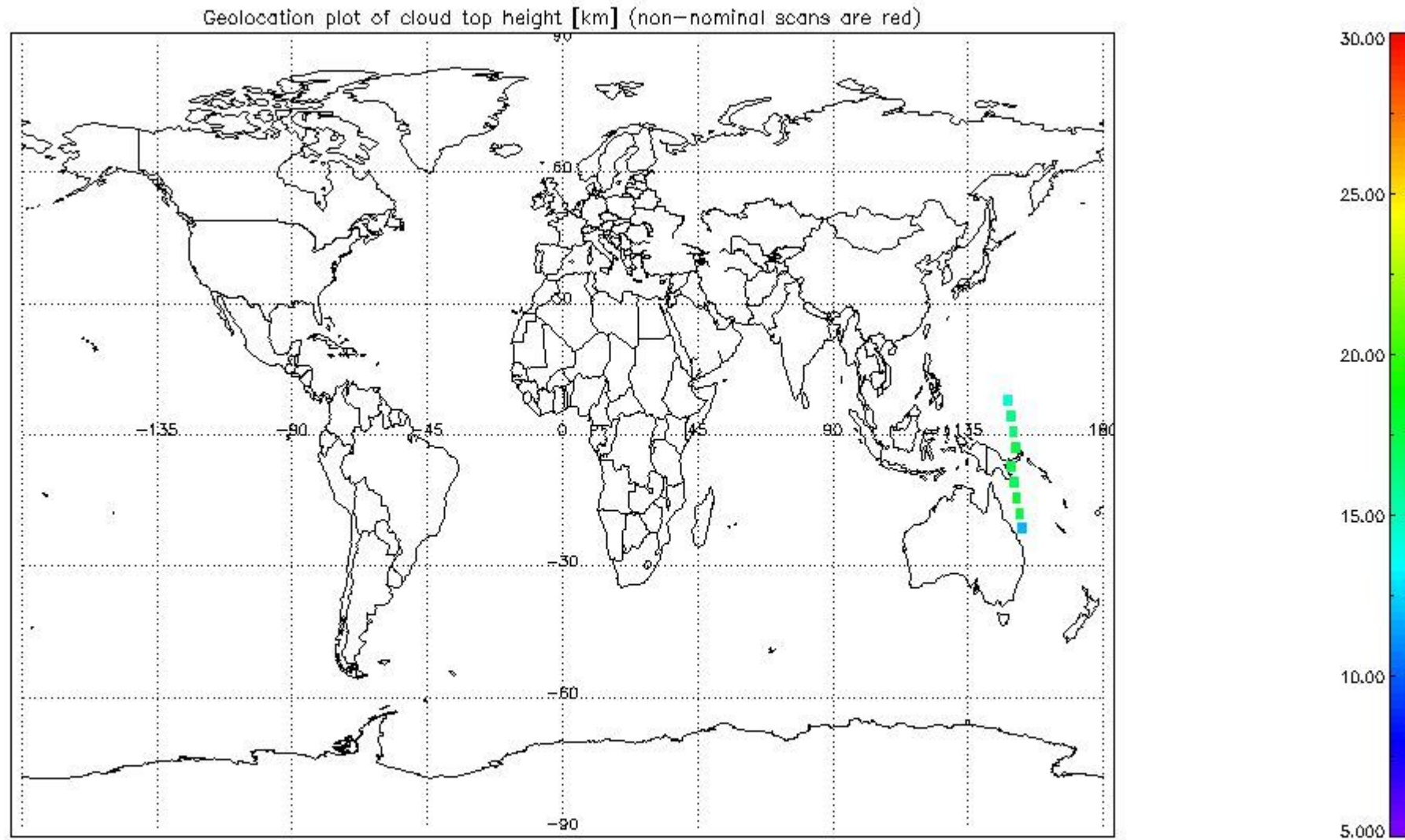
The non-nominal scans mentioned in the plots are scans that are rejected by the cloud top height algorithm for several reasons:

- 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 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



mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_51.PNG

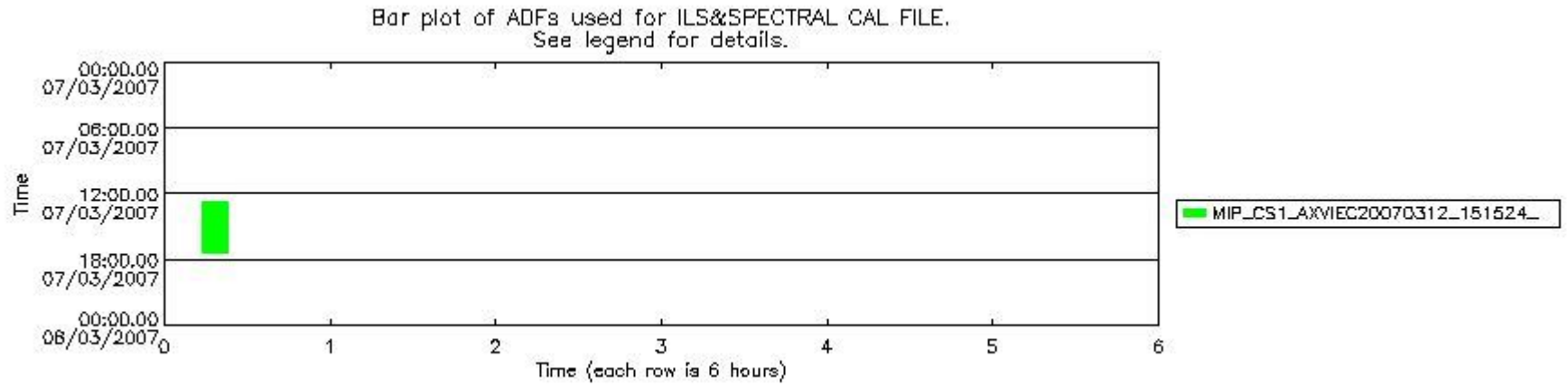


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_52.PNG

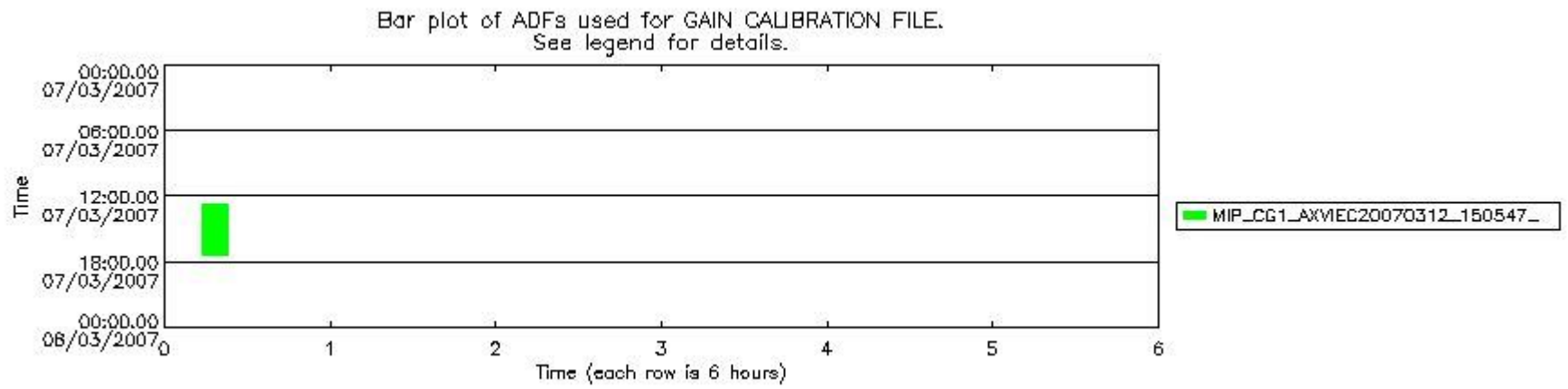
1.4 ADF monitoring

Number	ADF
0	AUX_FRO_AXVPDS20070309_224112_20070306_221000_20070309_005000
1	MIP_CA1_AXVIEC20050627_094412_20040809_000000_20090809_000000
2	MIP_CG1_AXVIEC20070312_150547_20070305_000000_20120305_000000
3	MIP_CL1_AXVIEC20050420_152028_20050420_095747_20100420_095747
4	MIP_CO1_AXVIEC20070312_150058_20070305_000000_20120305_000000
5	MIP_CS1_AXVIEC20070312_151524_20070305_000000_20120305_000000
6	MIP_MW1_AXVIEC20050627_094928_20040809_000000_20090809_000000

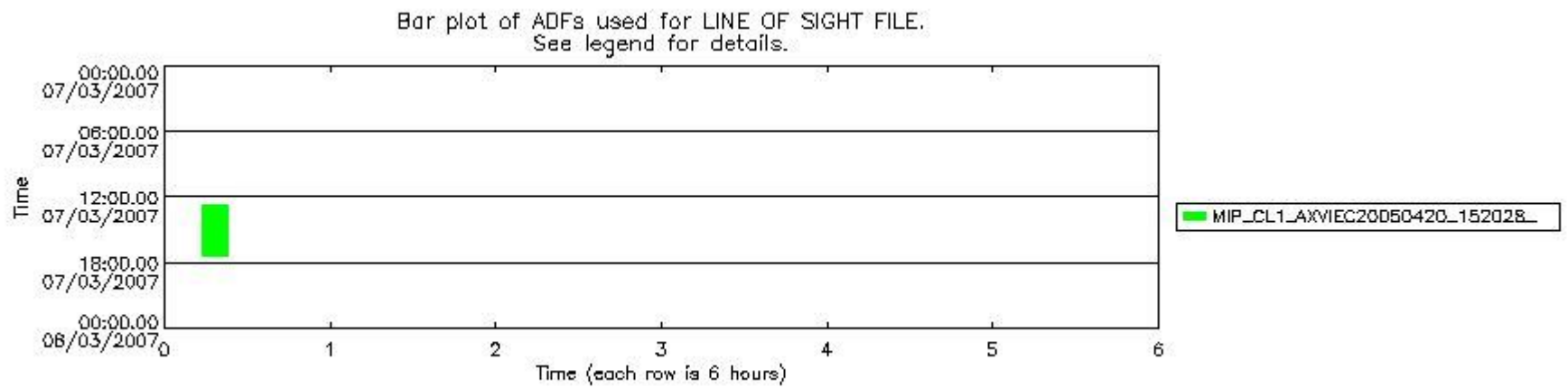
Number	Product name	#CS1	#CG1	#CL1	#CA1	#CO1	#MW1	#PS1	#FPO
0	MIP_NL_1PPDPA20070307_121345_000005402056_00124_26230_0333.N1	5	2	3	1	4	6	7	0



mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_53.PNG

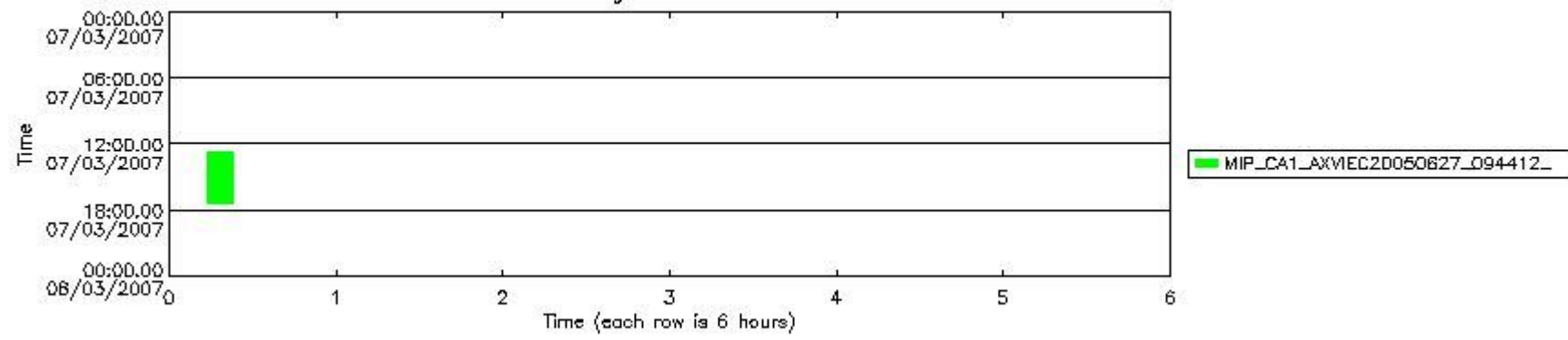


mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_54.PNG



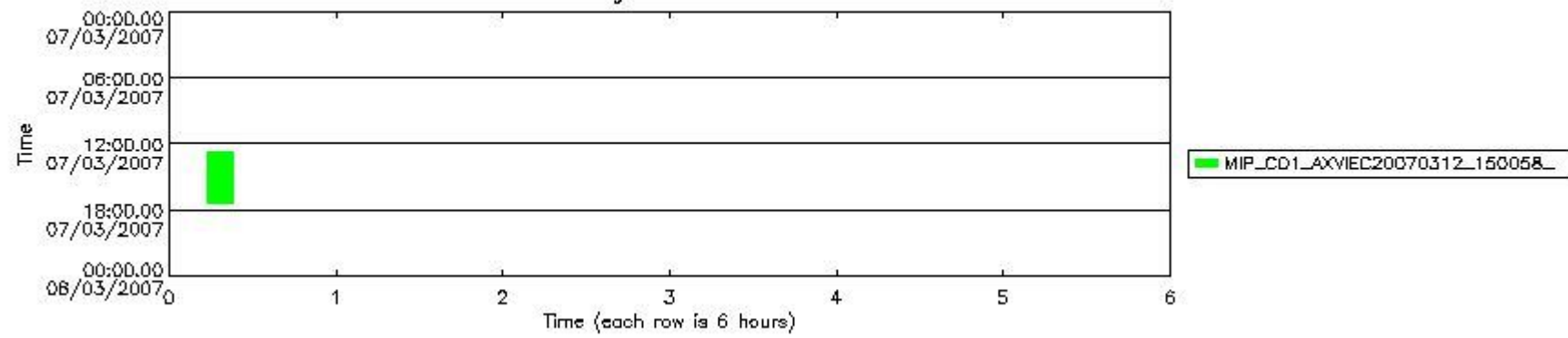
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_55.PNG

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



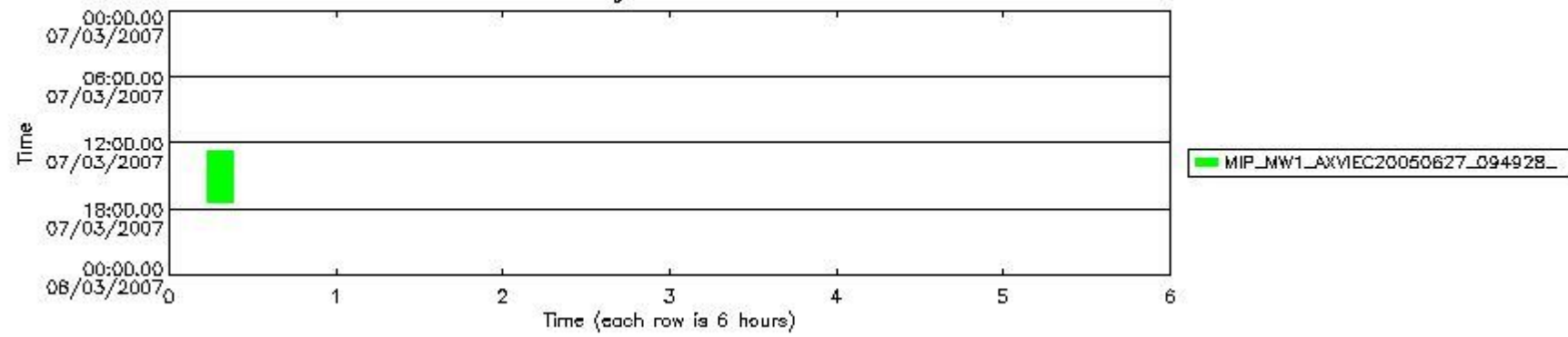
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_56.PNG

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



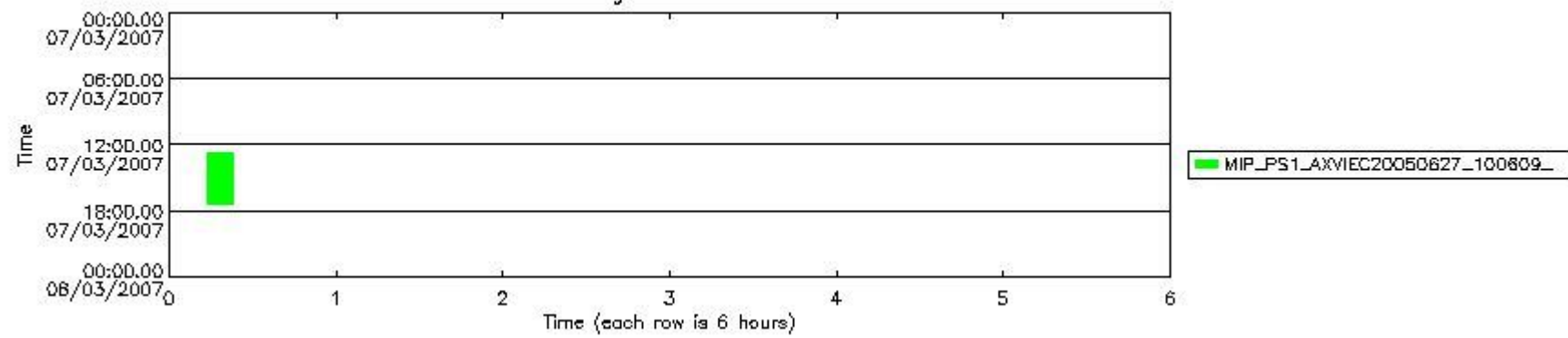
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_57.PNG

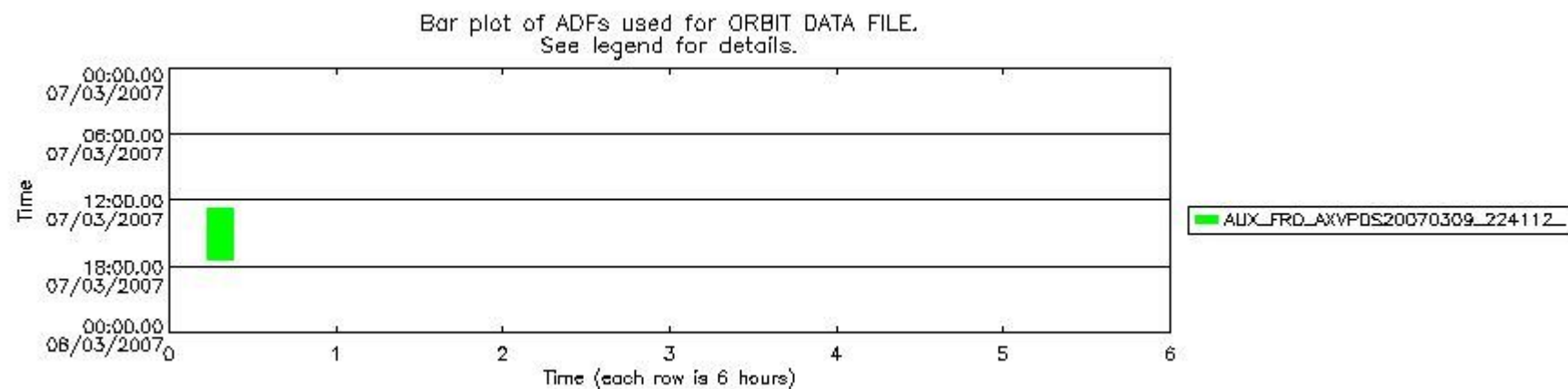
Bar plot of ADFs used for MICROWINDOWS FILE.
See legend for details.



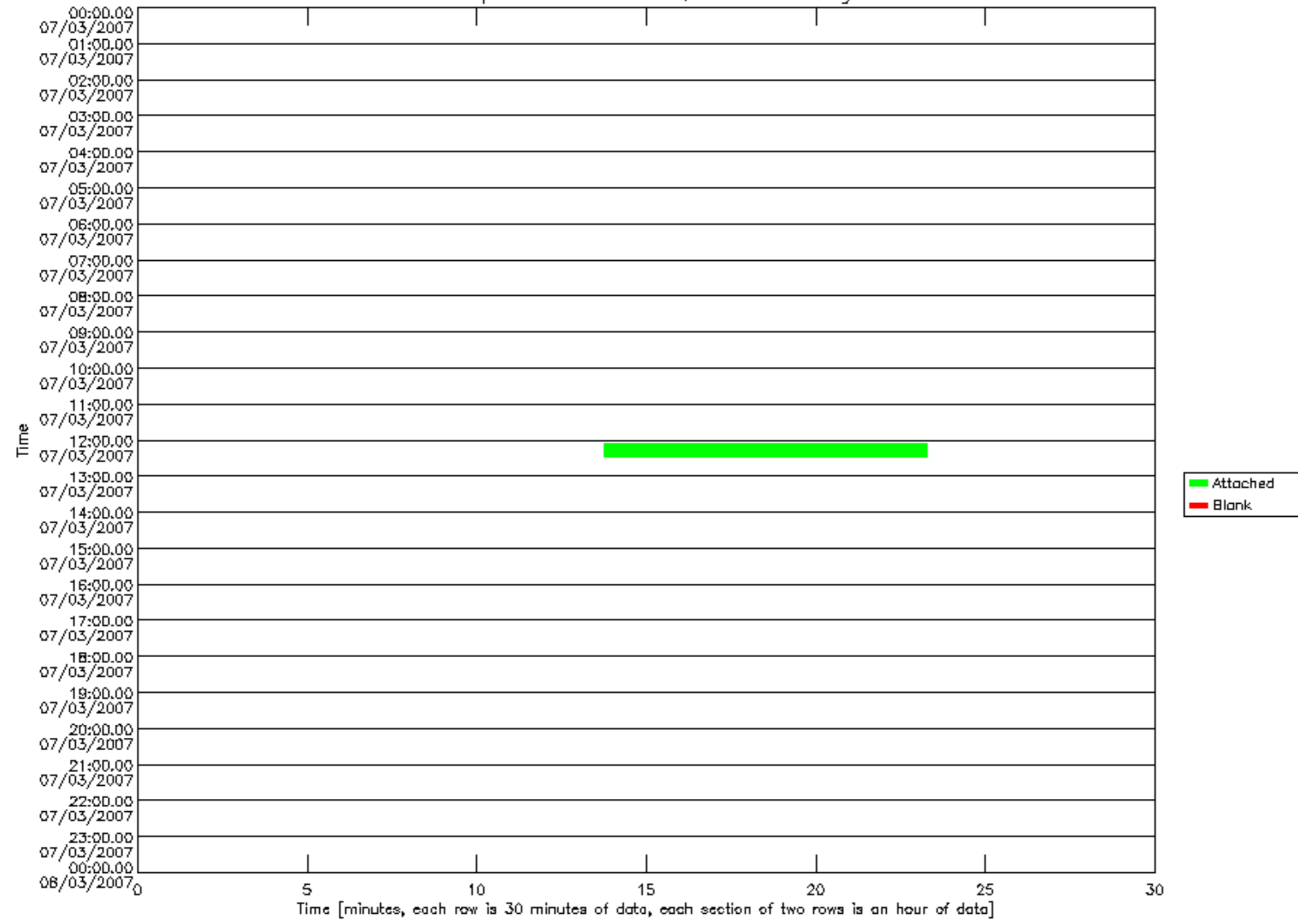
mipas_daily_report_level1_OFL_MIPAS_4_67_P_20070307_58.PNG

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

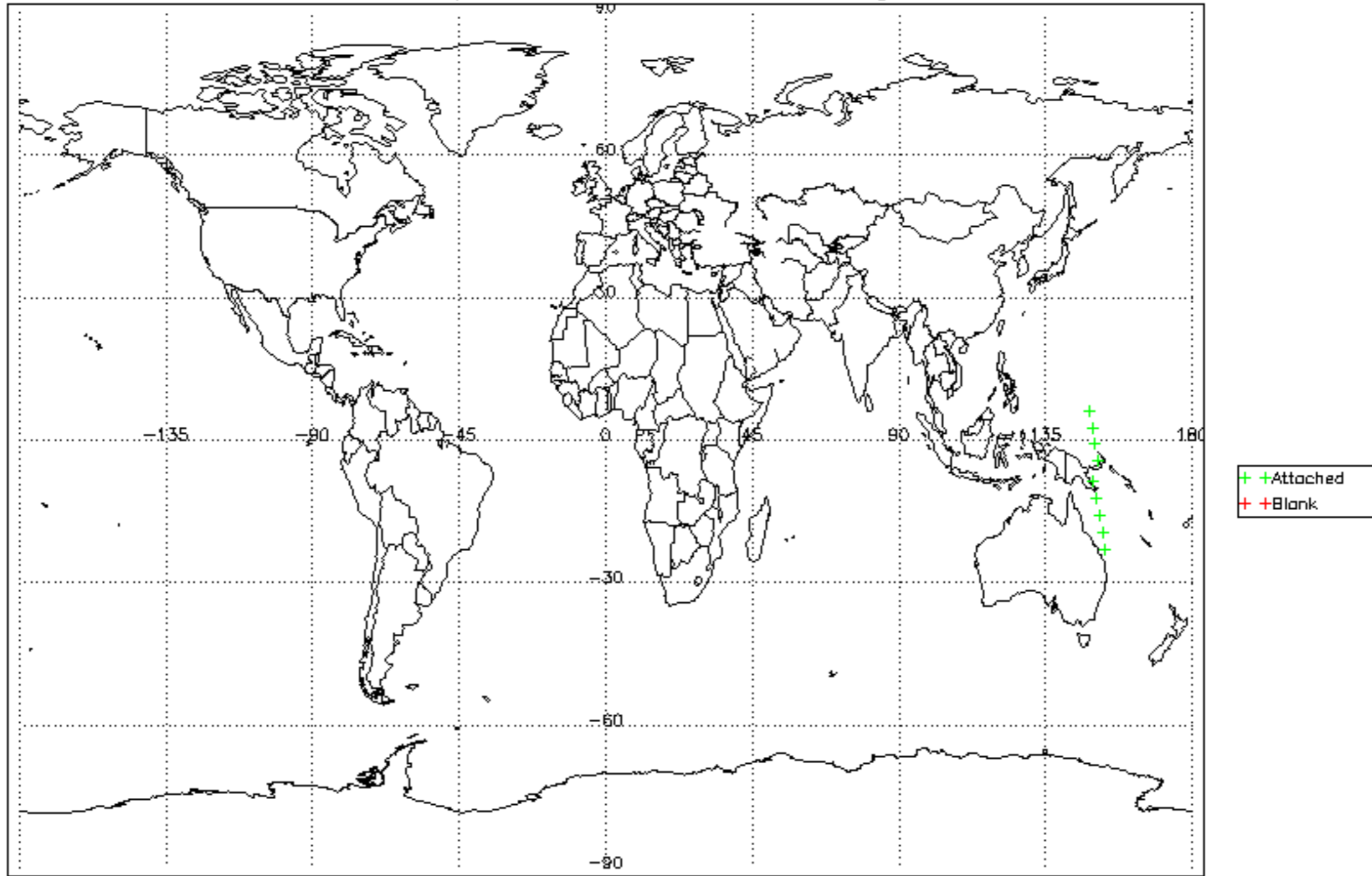


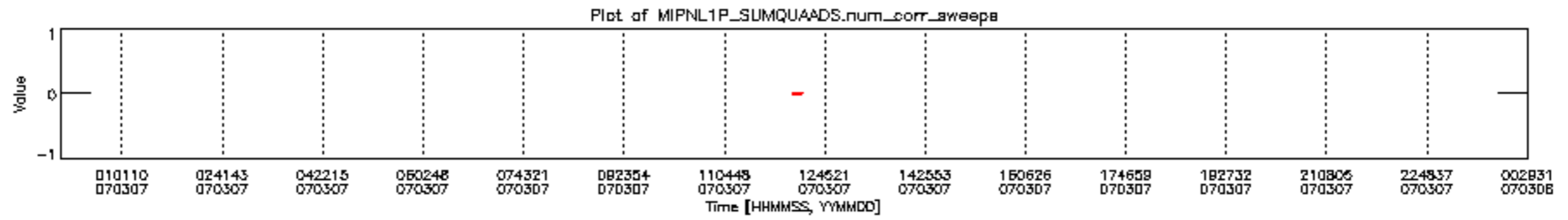


Bar plot of MIPNL1P_SUMQUAADS.attach_flag

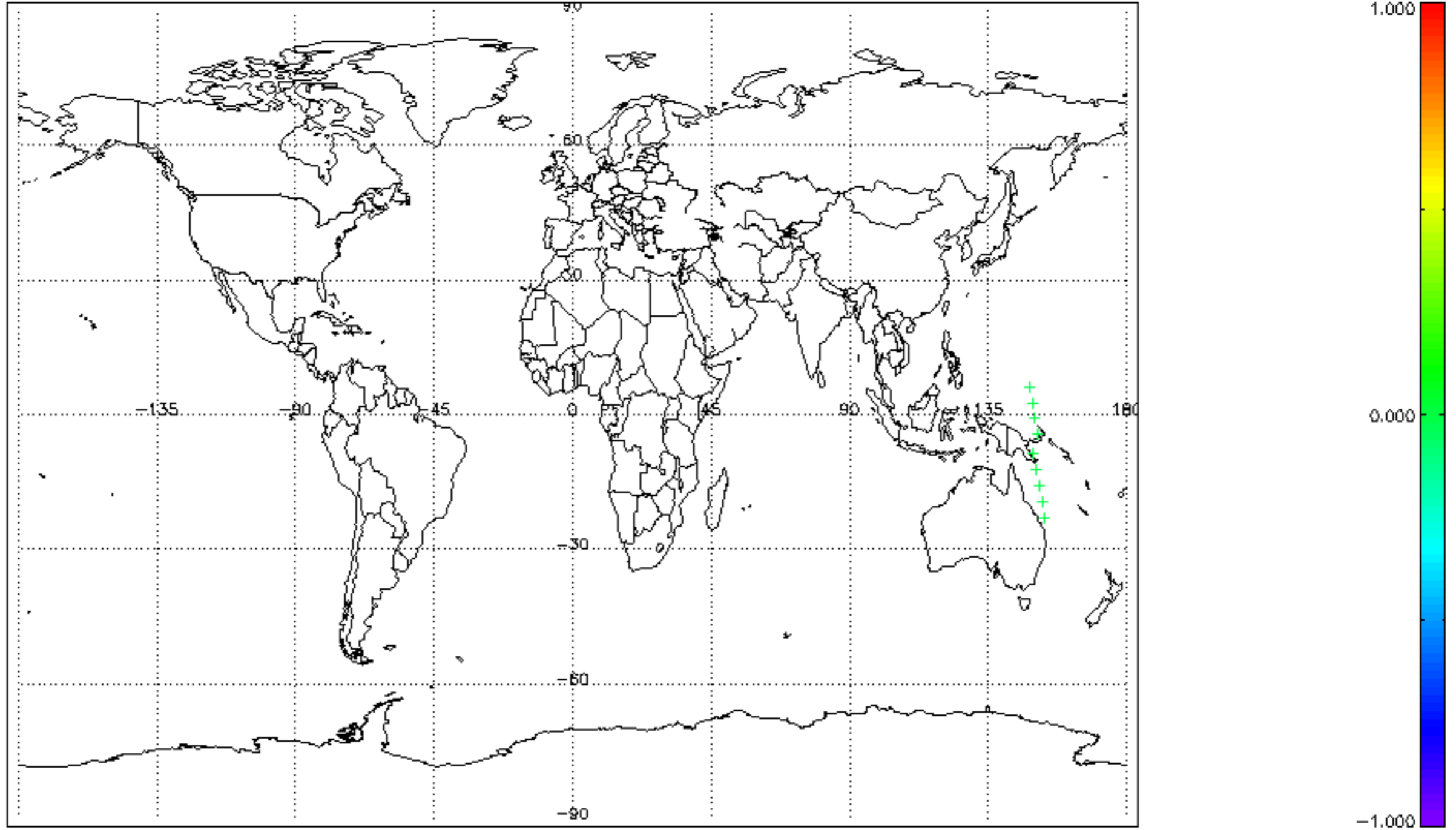


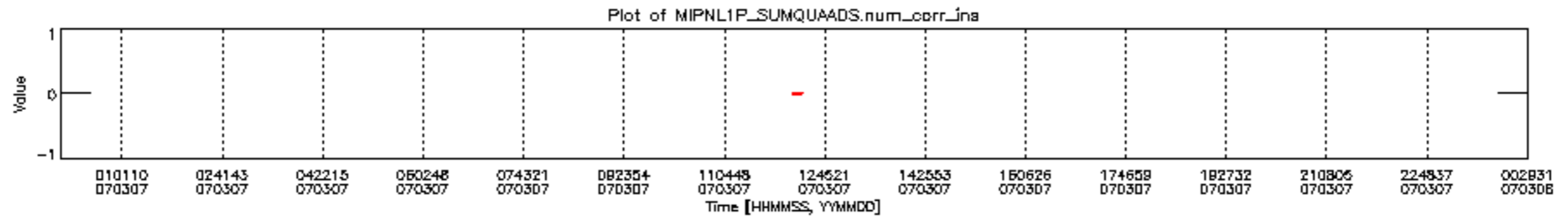
Geolocation plot of MIPNL1P_SUMQUAADS.attach_flag



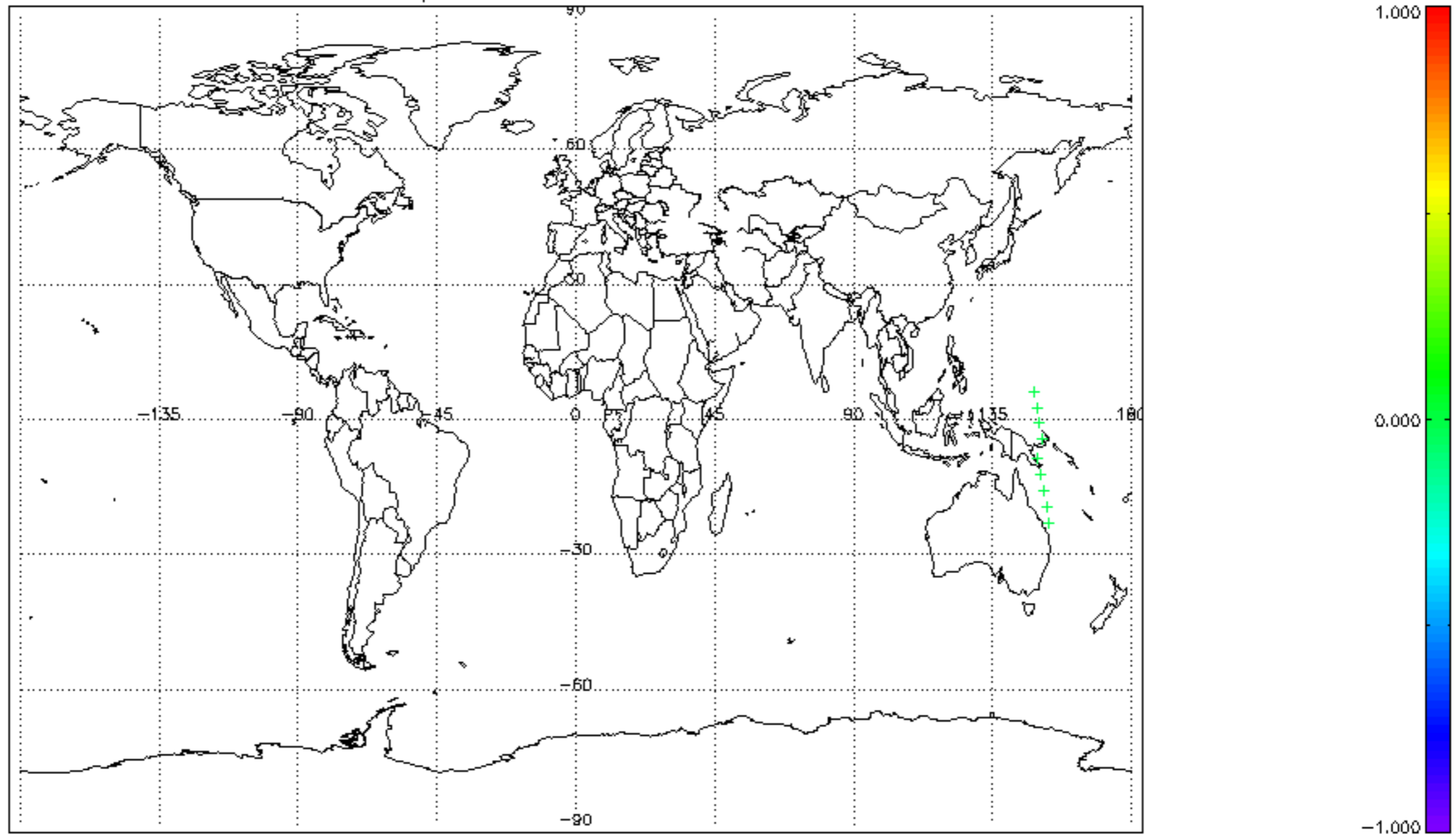


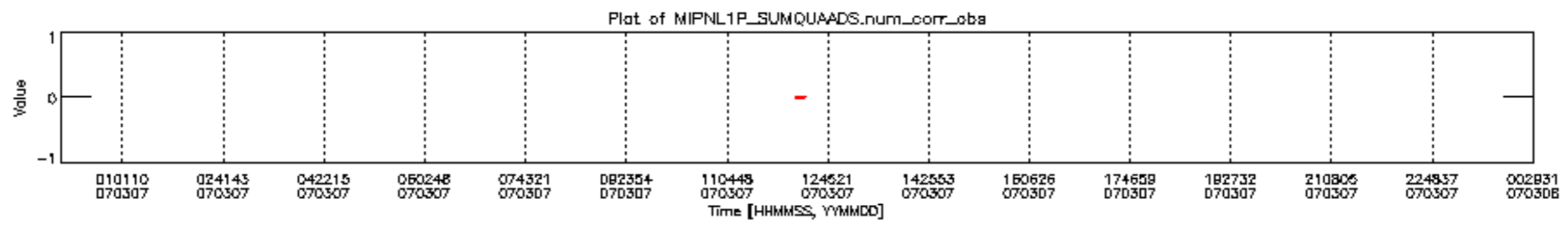
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_sweeps



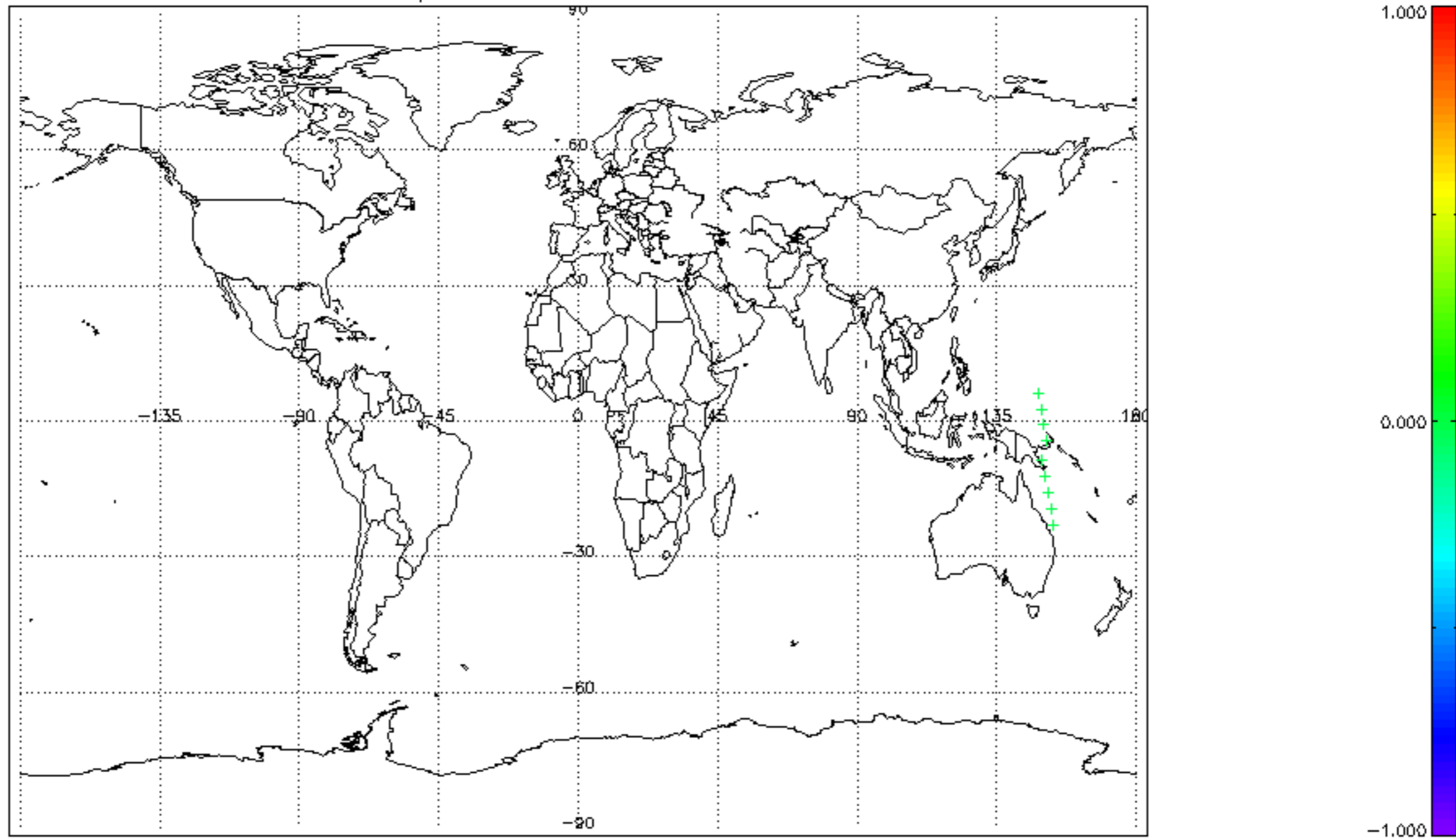


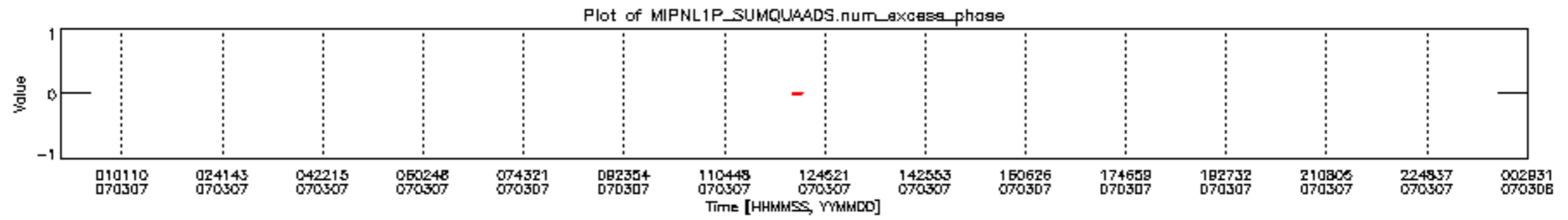
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_ins



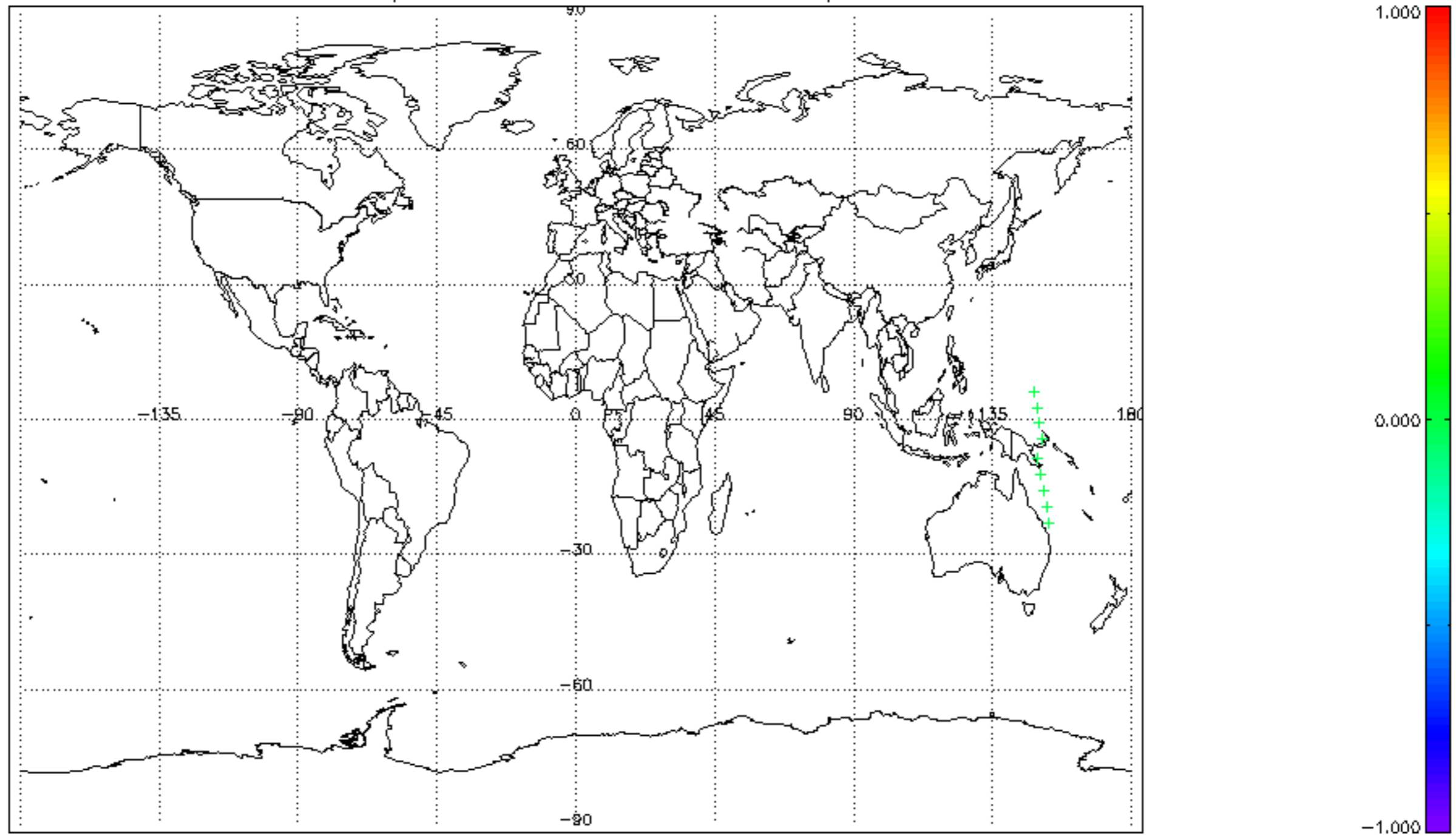


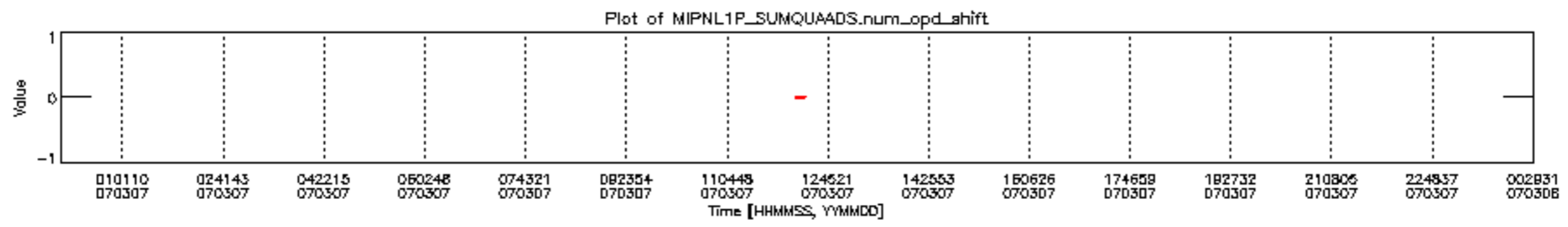
Geolocation plot of MIPNL1P_SUMQUAADS.num_corr_obs



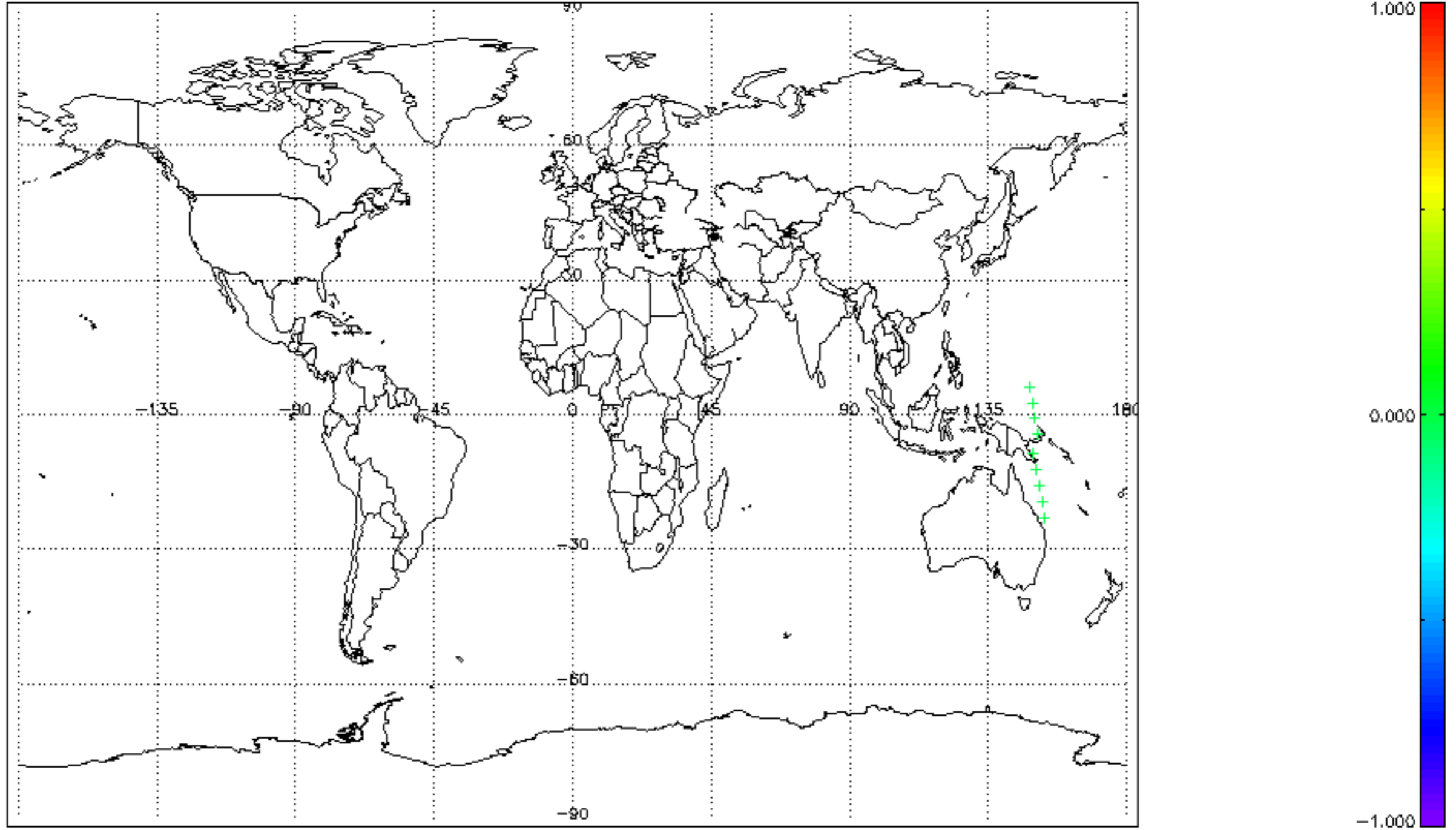


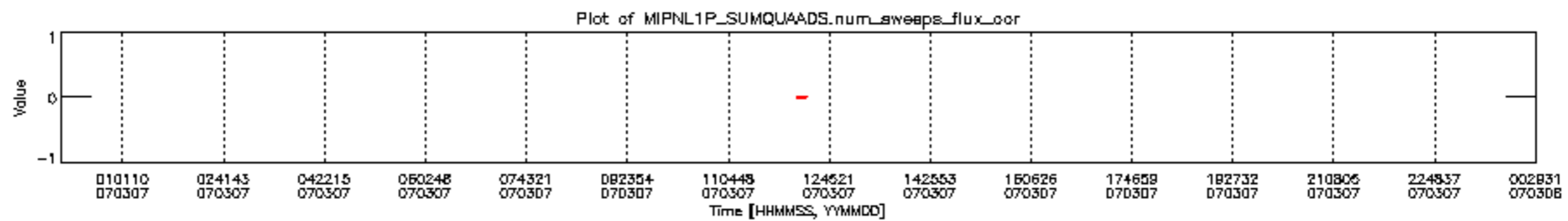
Geolocation plot of MIPNL1P_SUMQUAADS.num_excess_phase



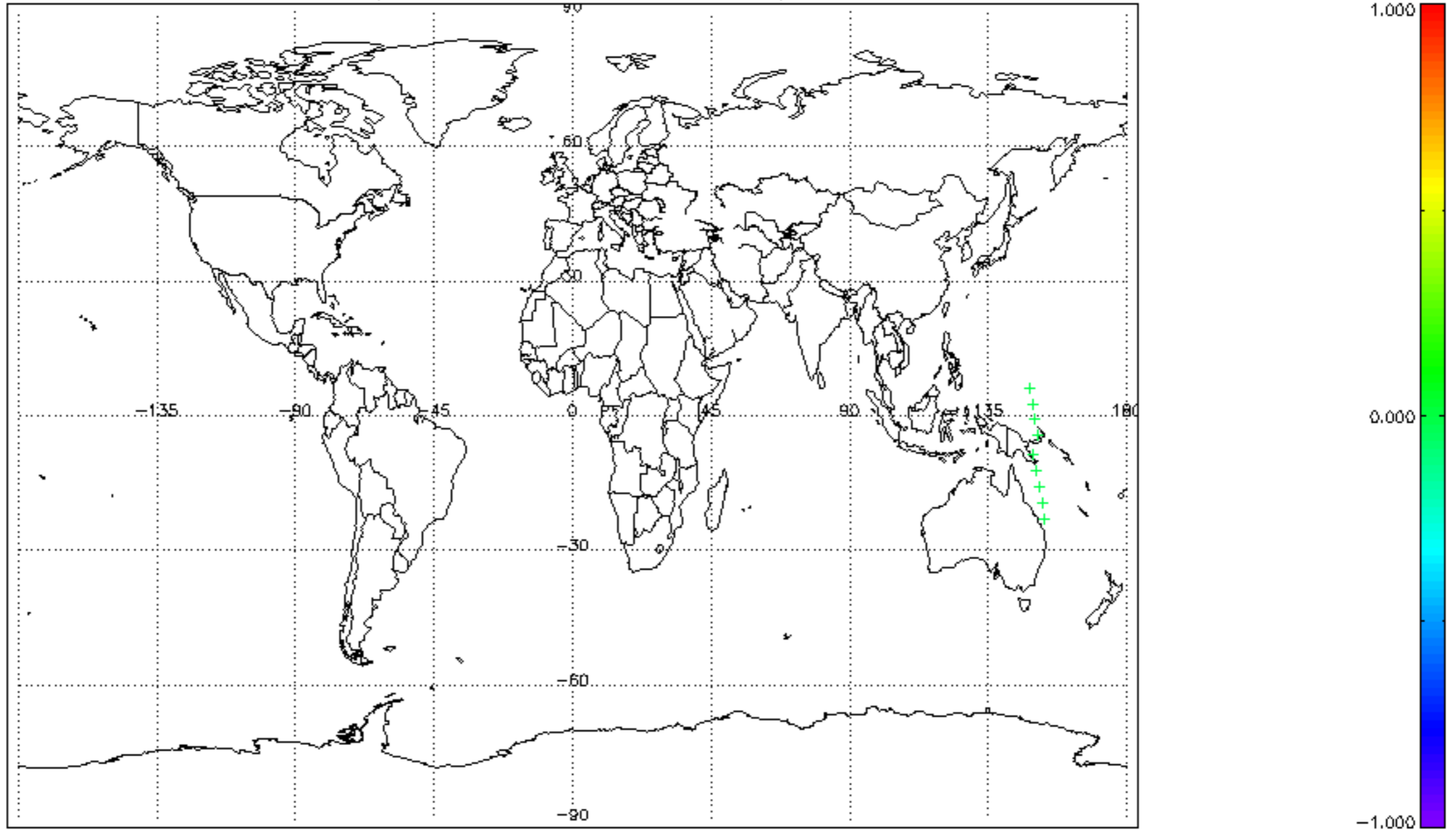


Geolocation plot of MIPNL1P_SUMQUAADS.num_opd_shift

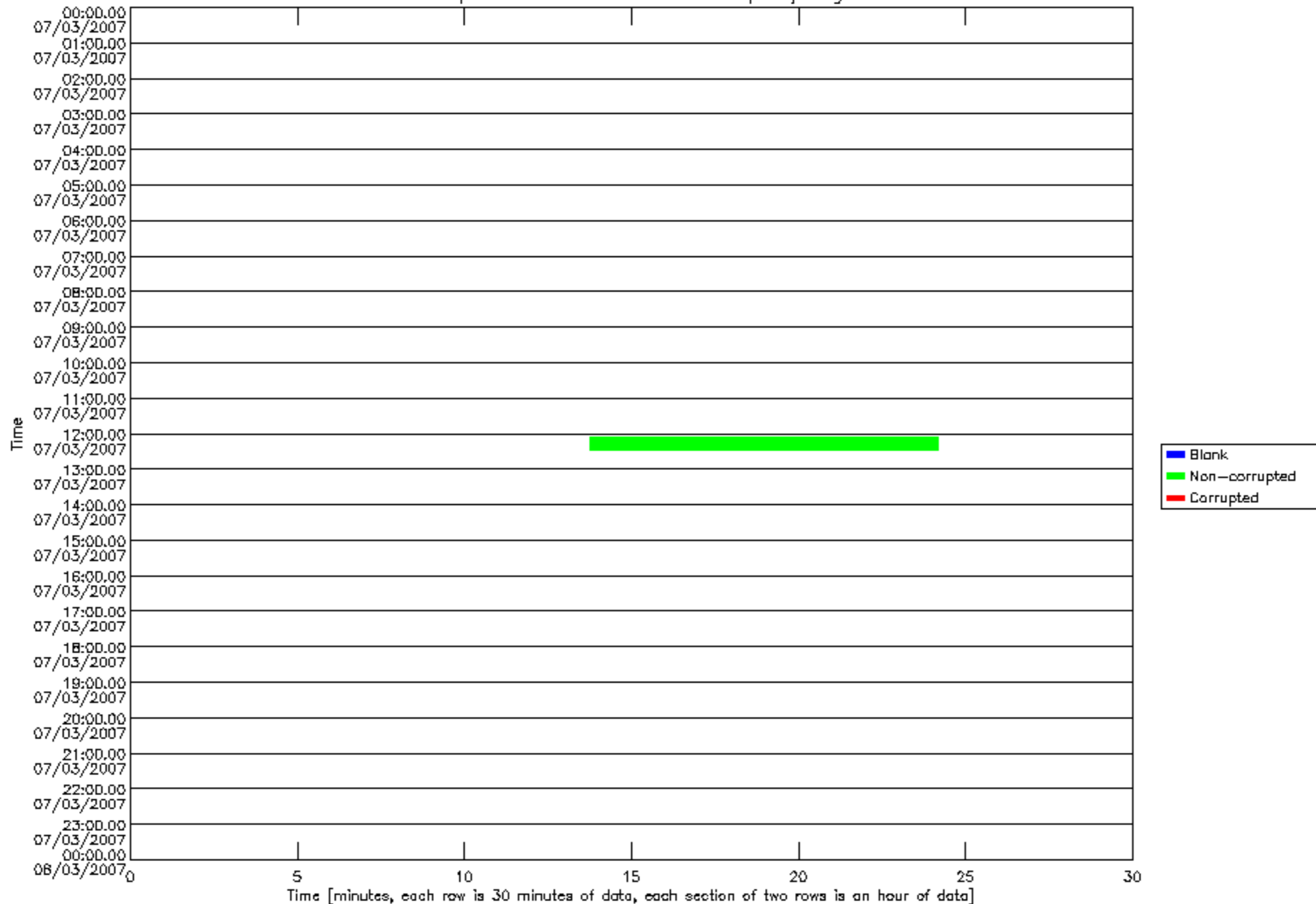




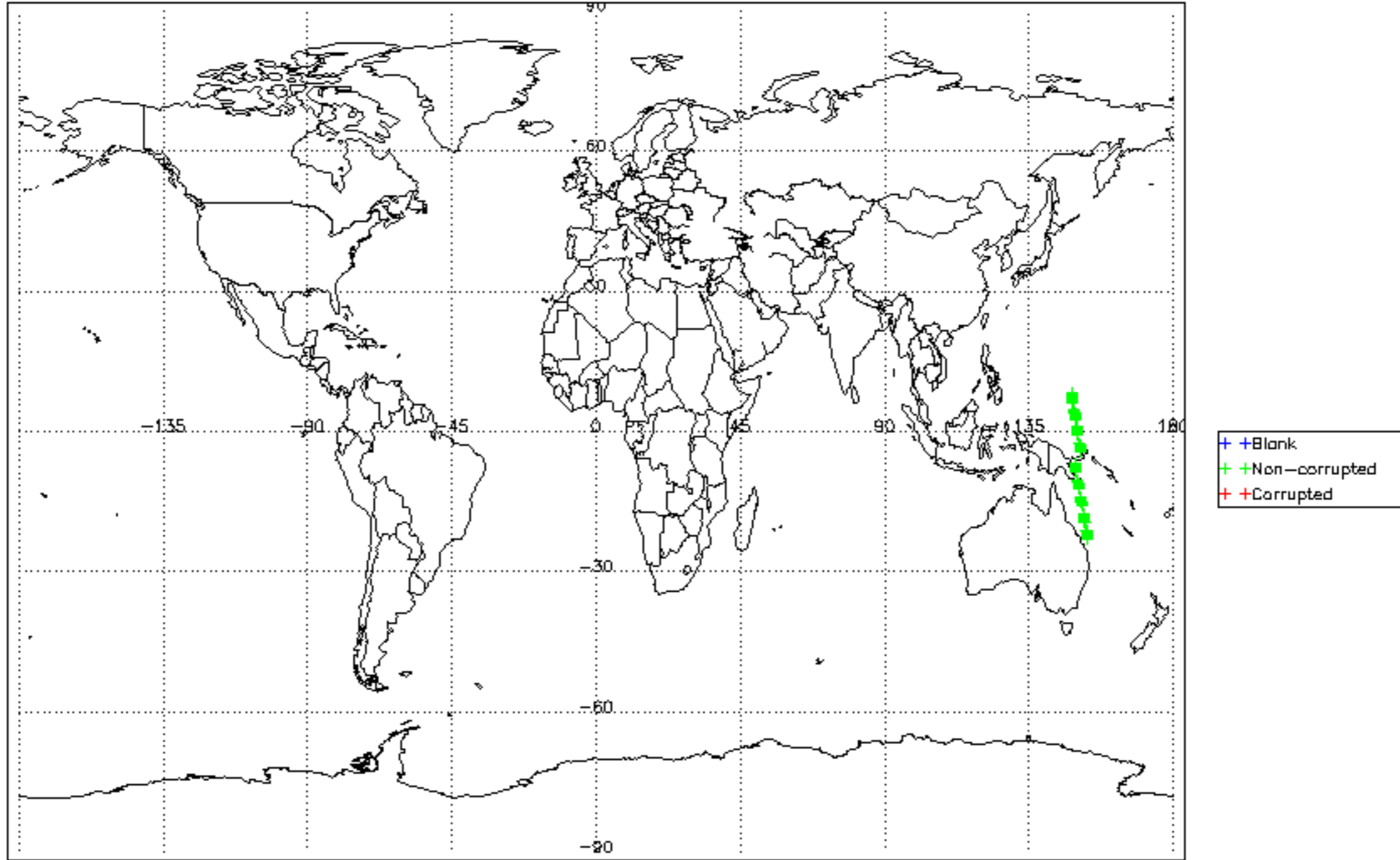
Geolocation plot of MIPNL1P_SUMQUADS.num_sweeps_flux_oor

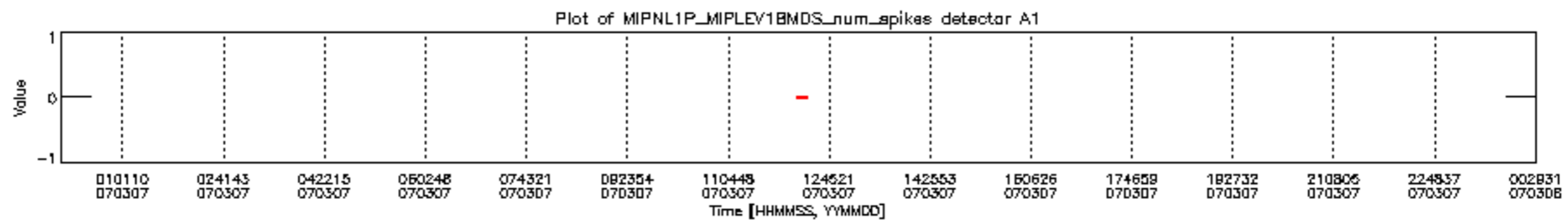


Bar plot of MIPNL1P_MIPLEV1BMDS_quality_flag

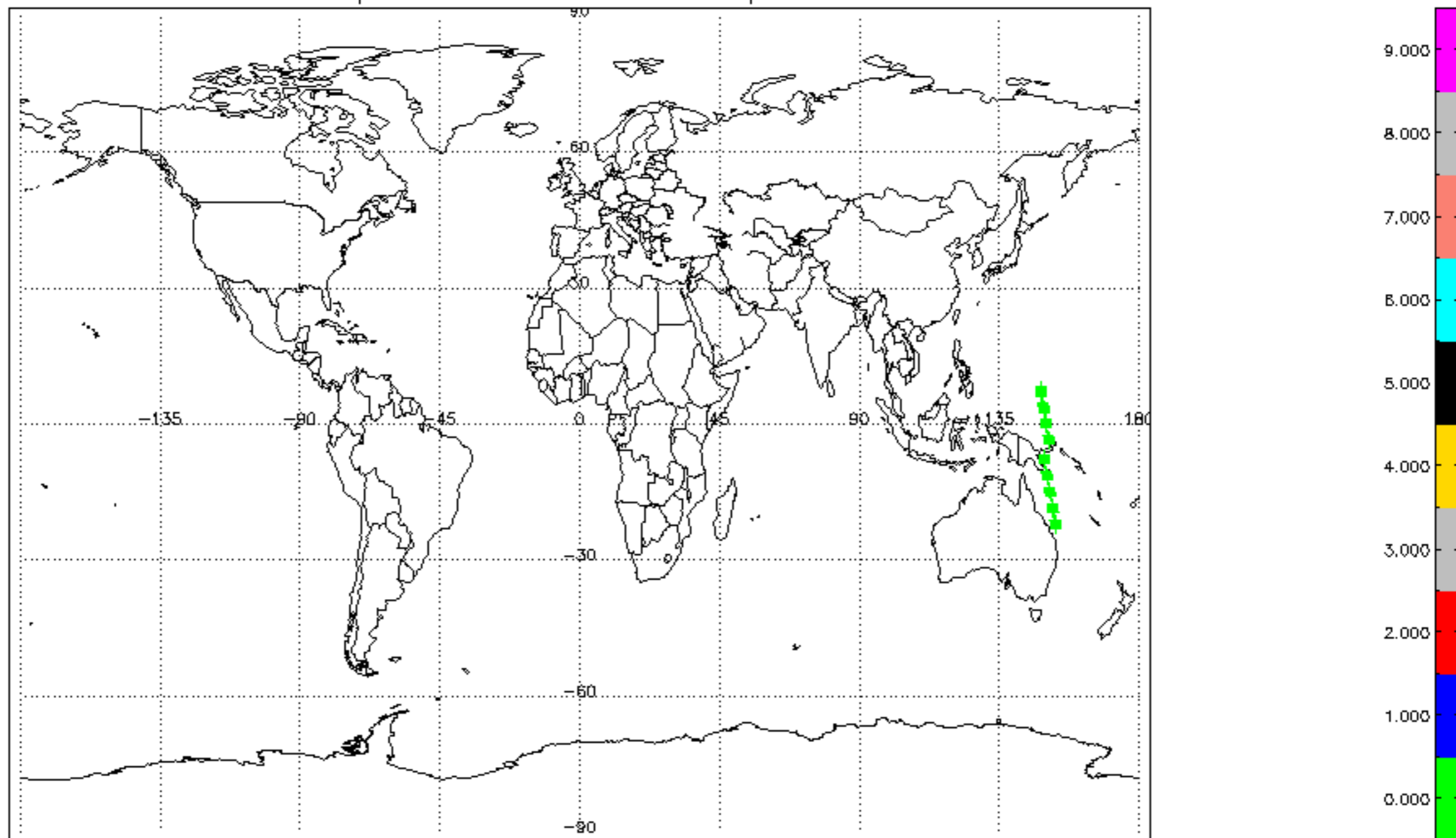


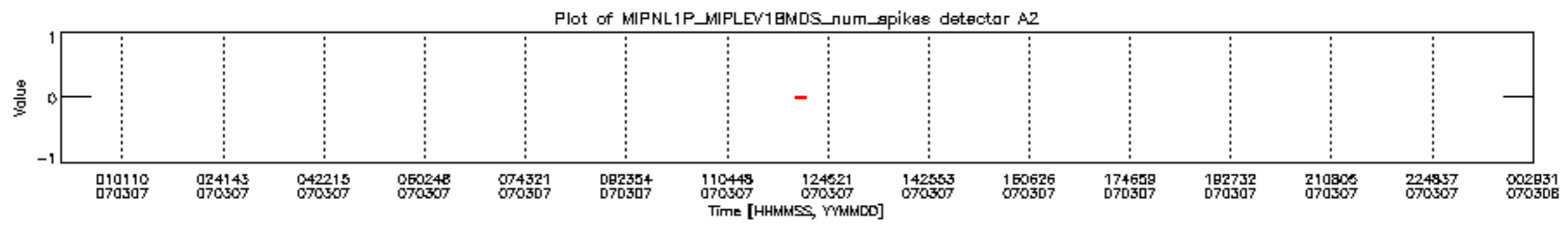
Geolocation plot of MIPNL1P_MIPLEV1BMDS_quality_flag



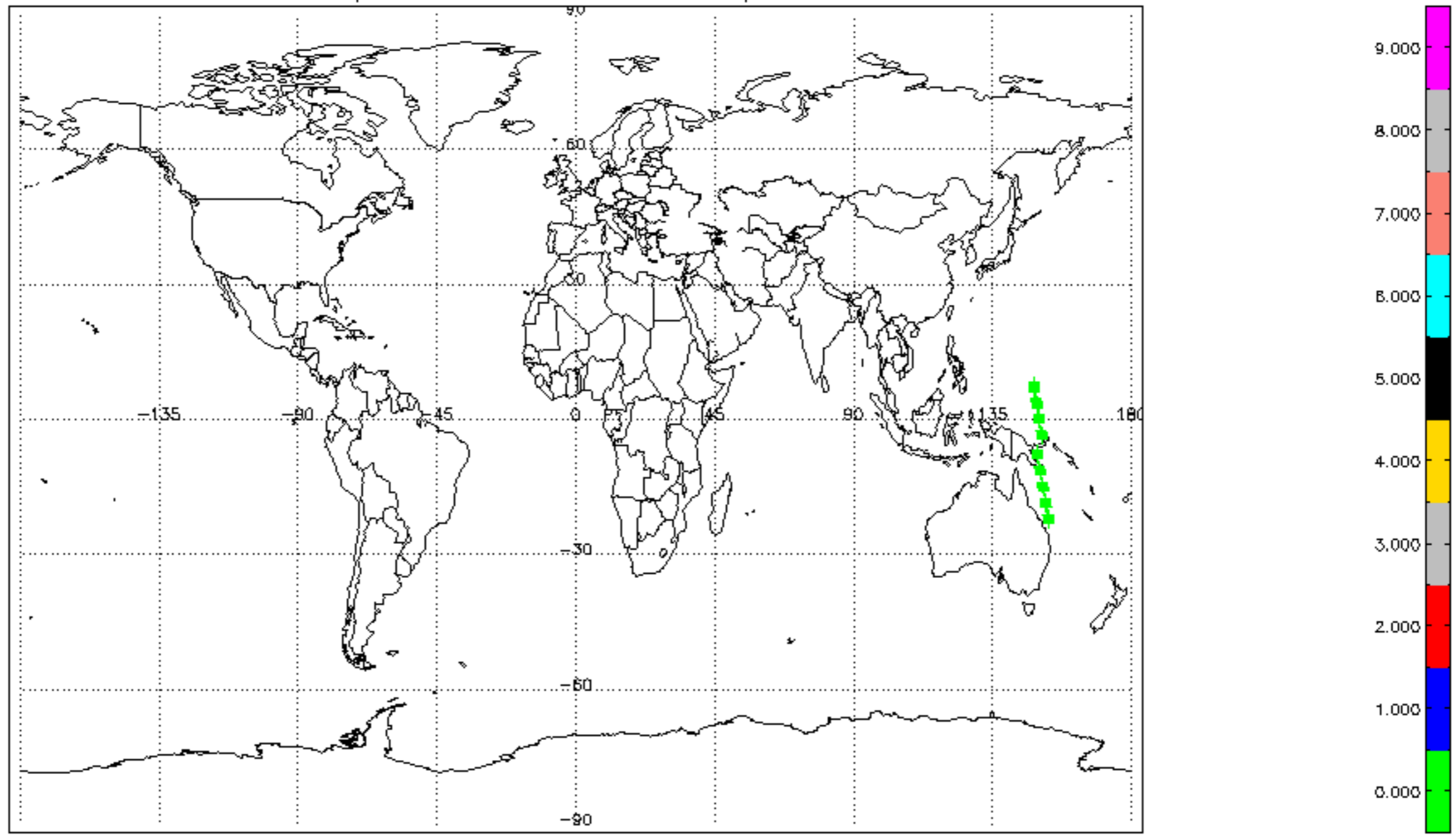


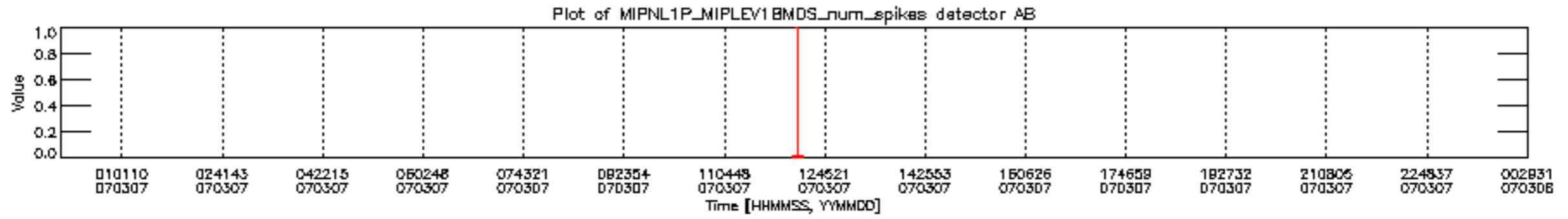
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A1



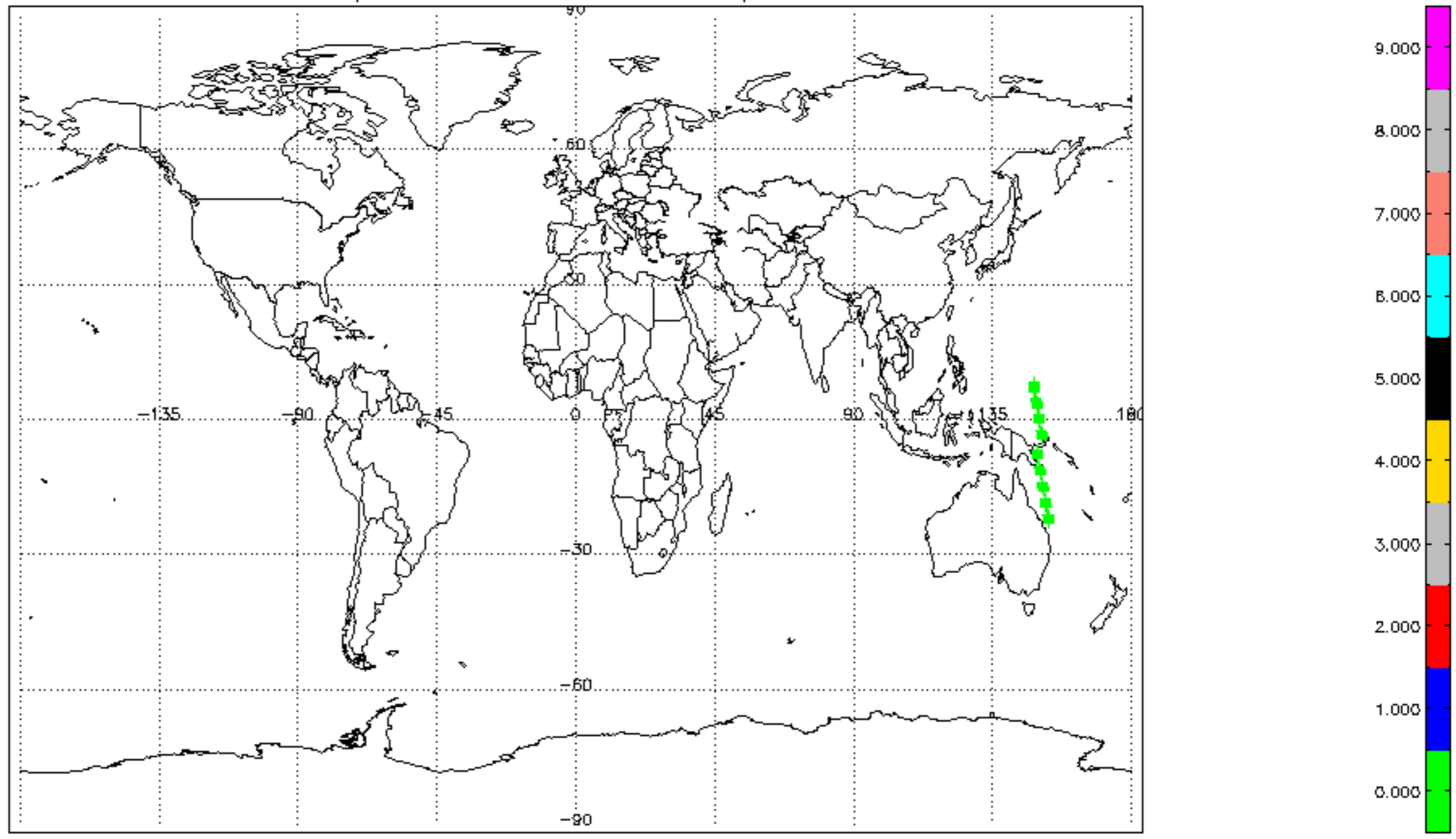


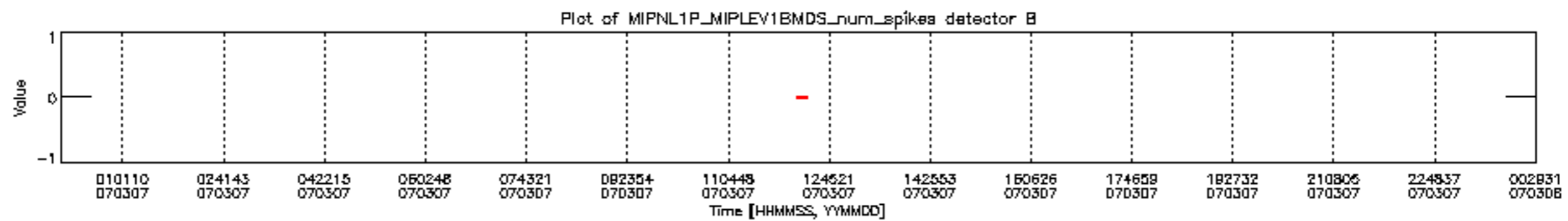
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector A2



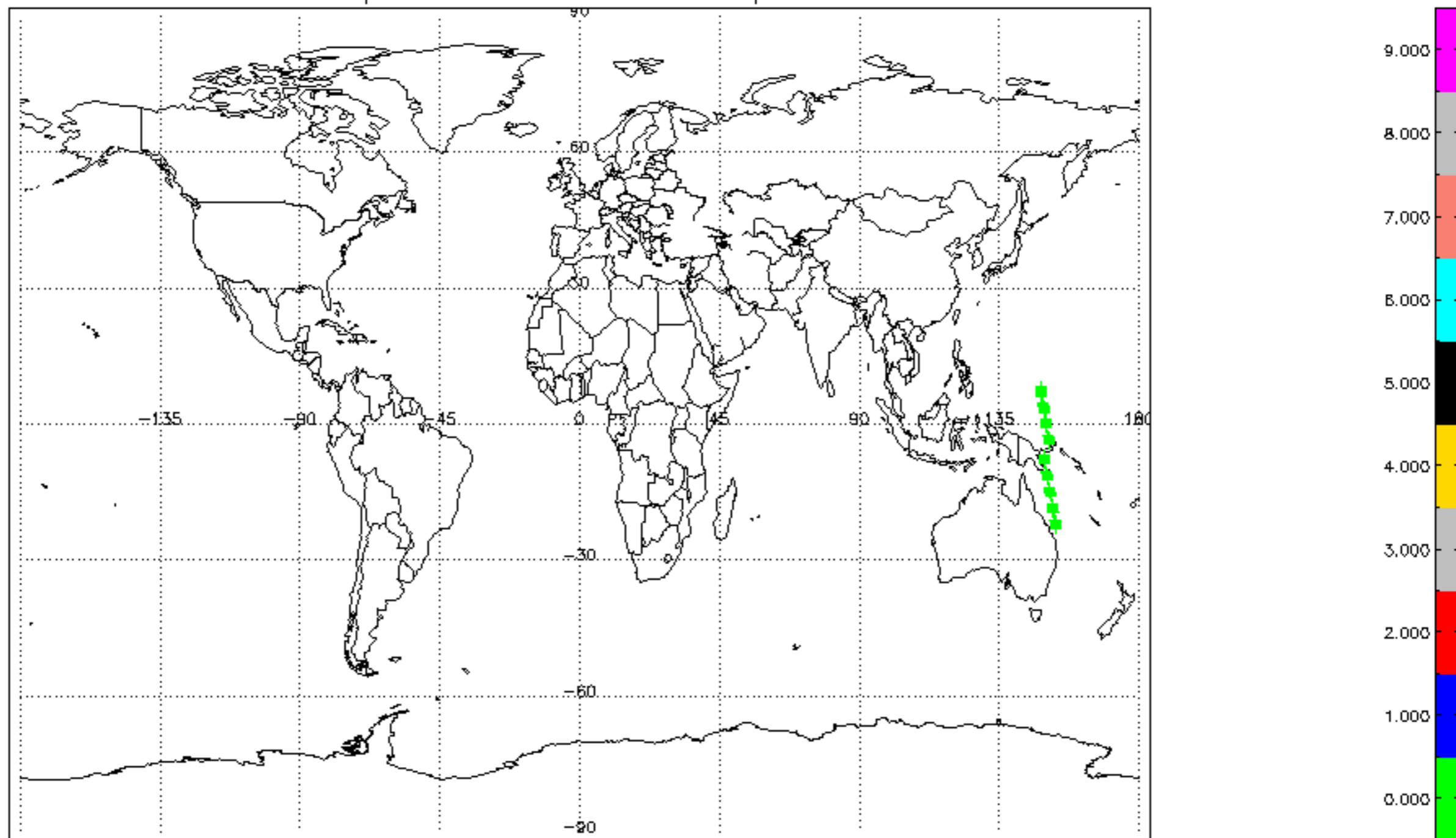


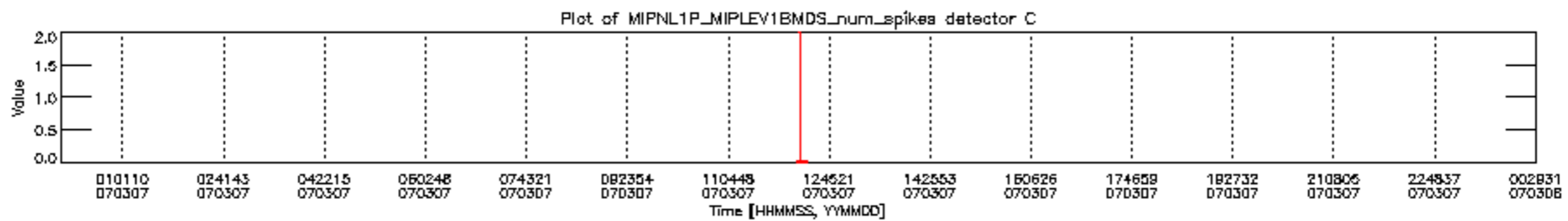
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector AB



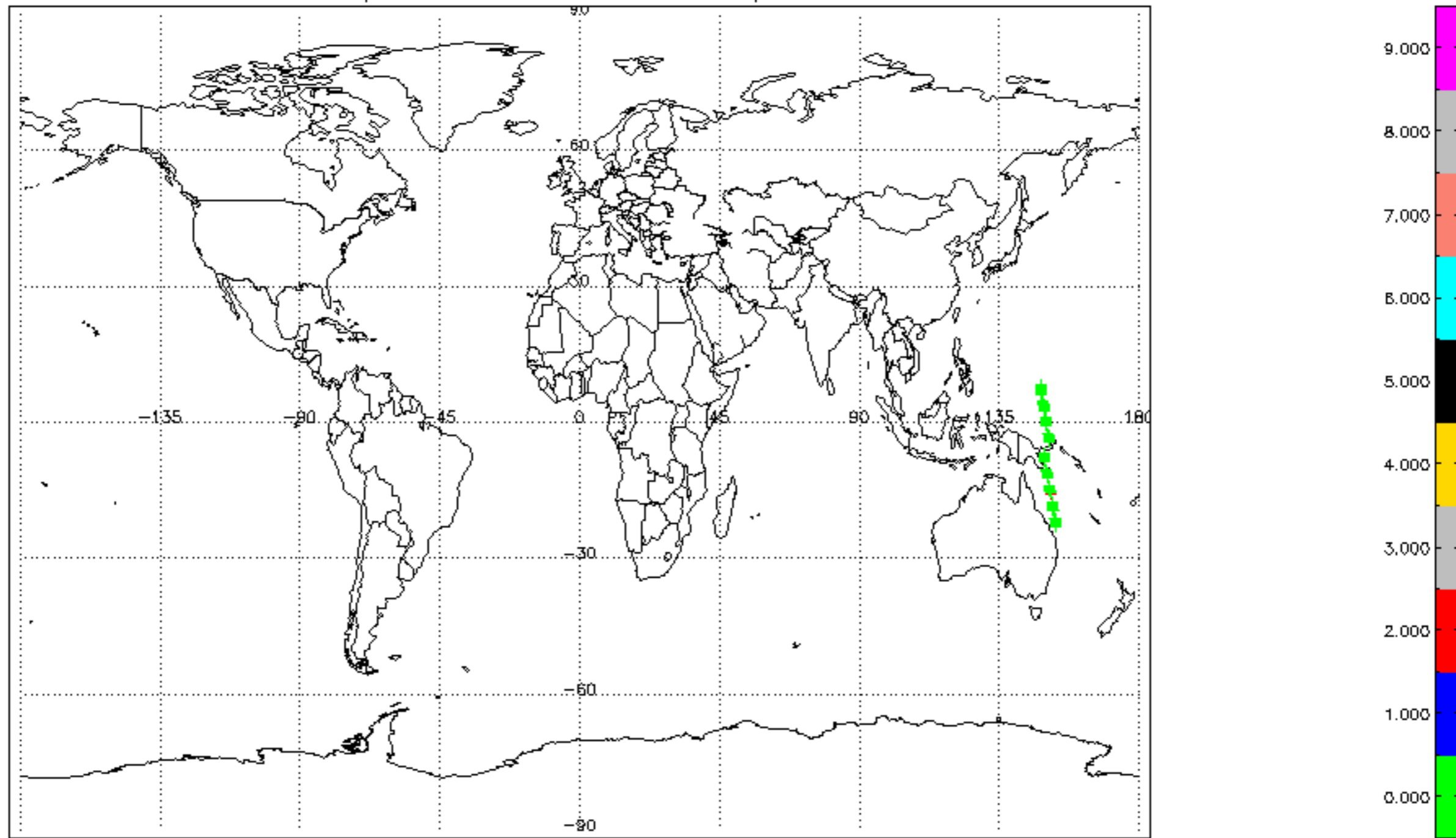


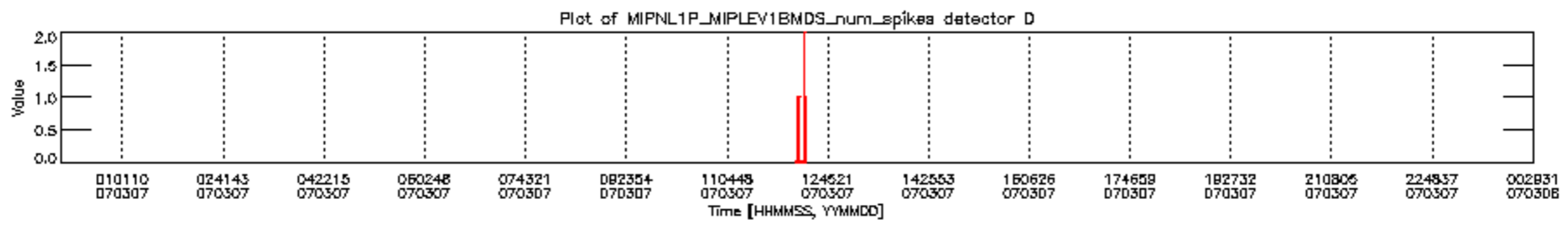
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector B



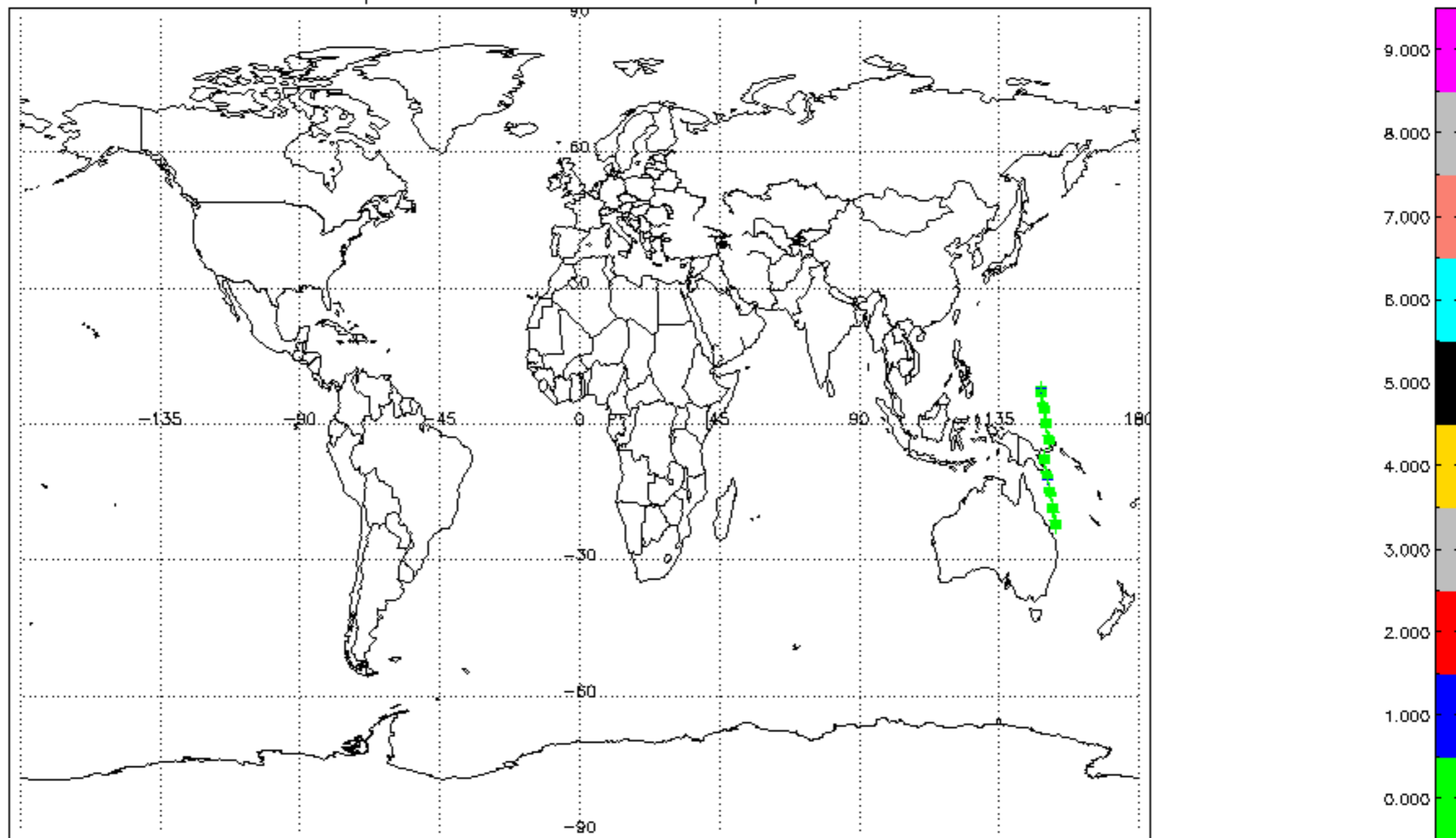


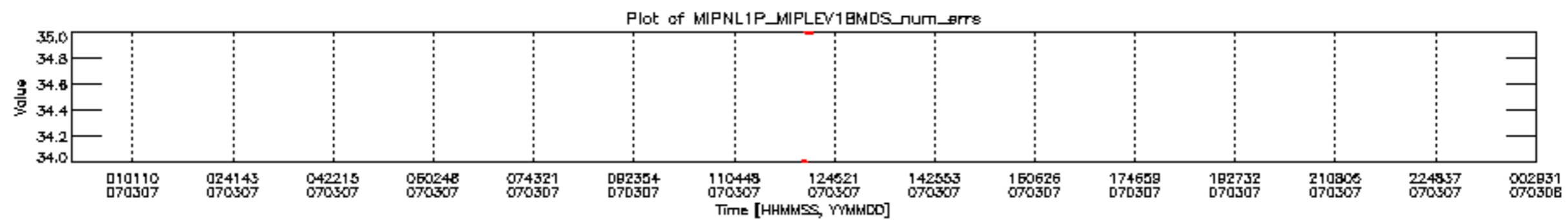
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector C



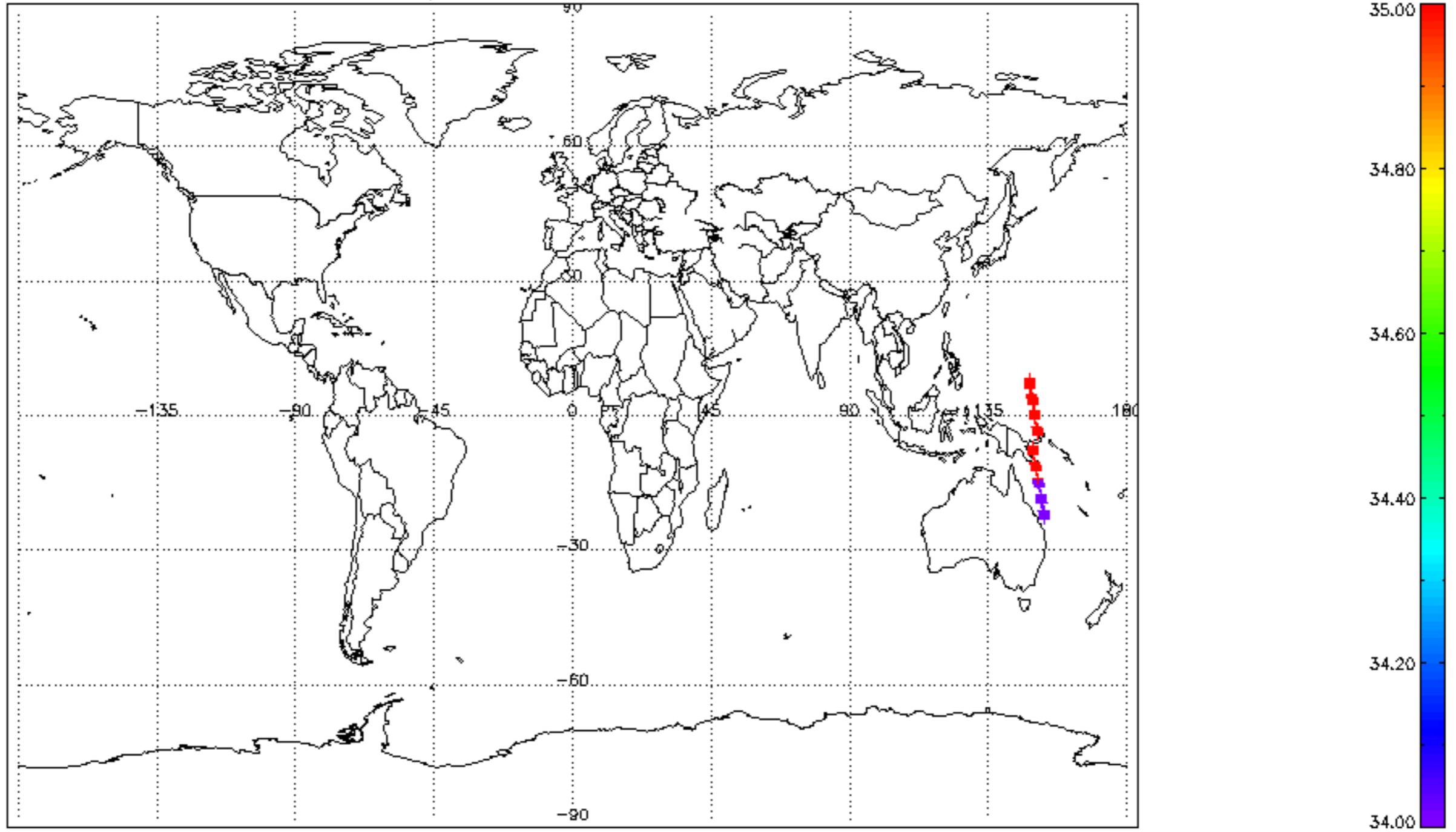


Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_spikes detector D

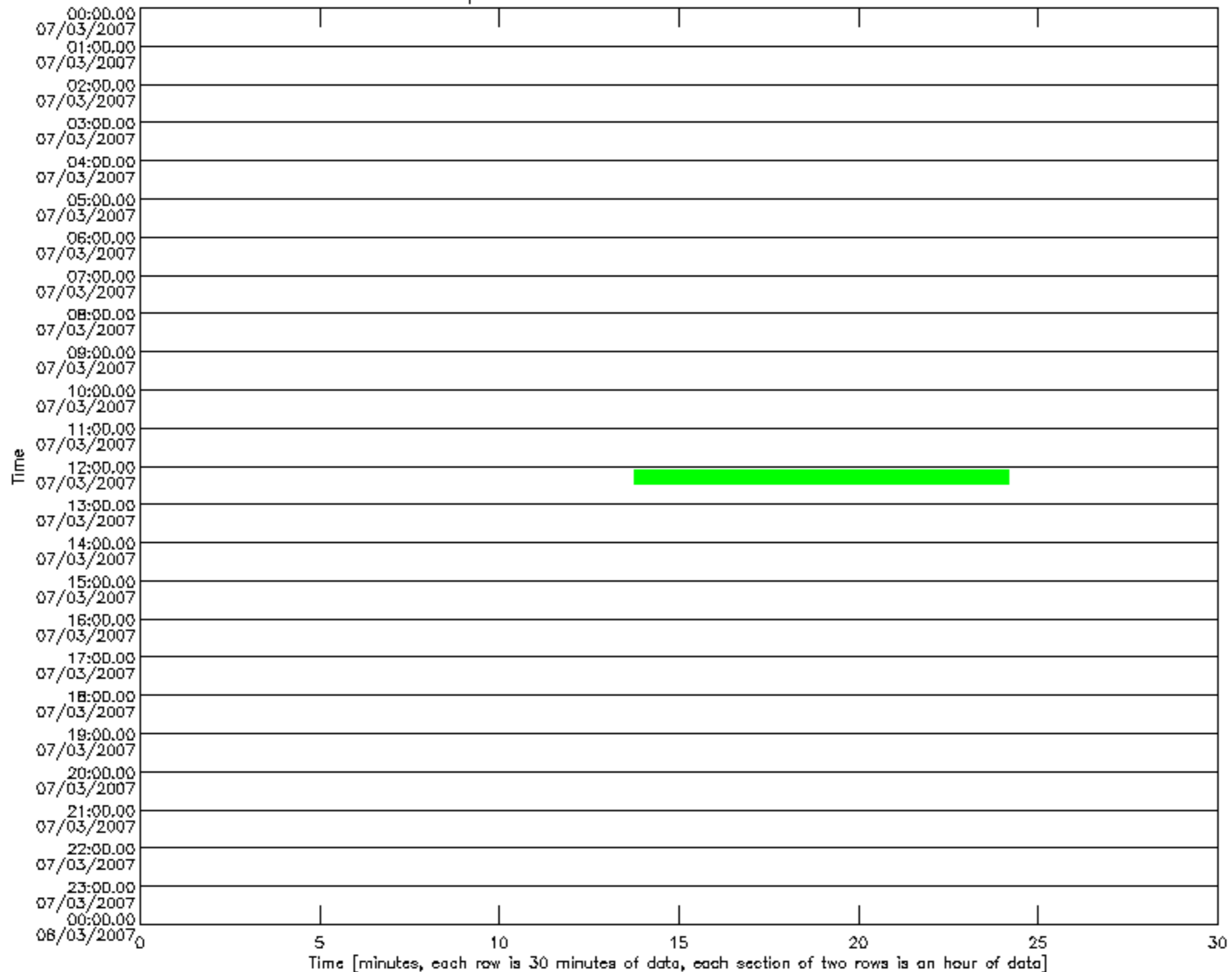




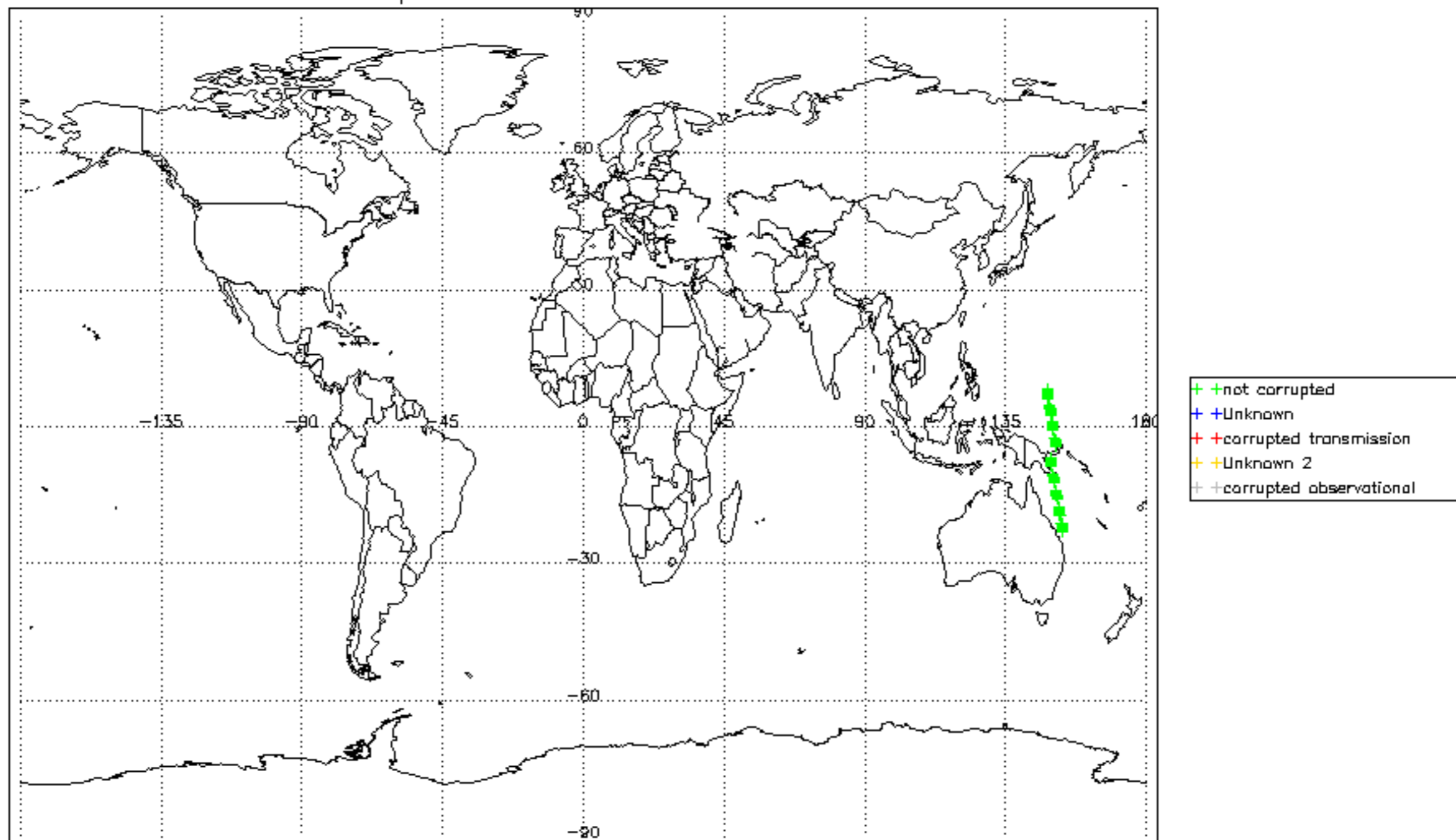
Geolocation plot of MIPNL1P_MIPLEV1BMDS_num_errs



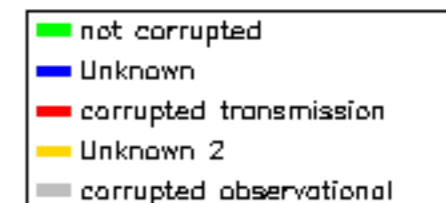
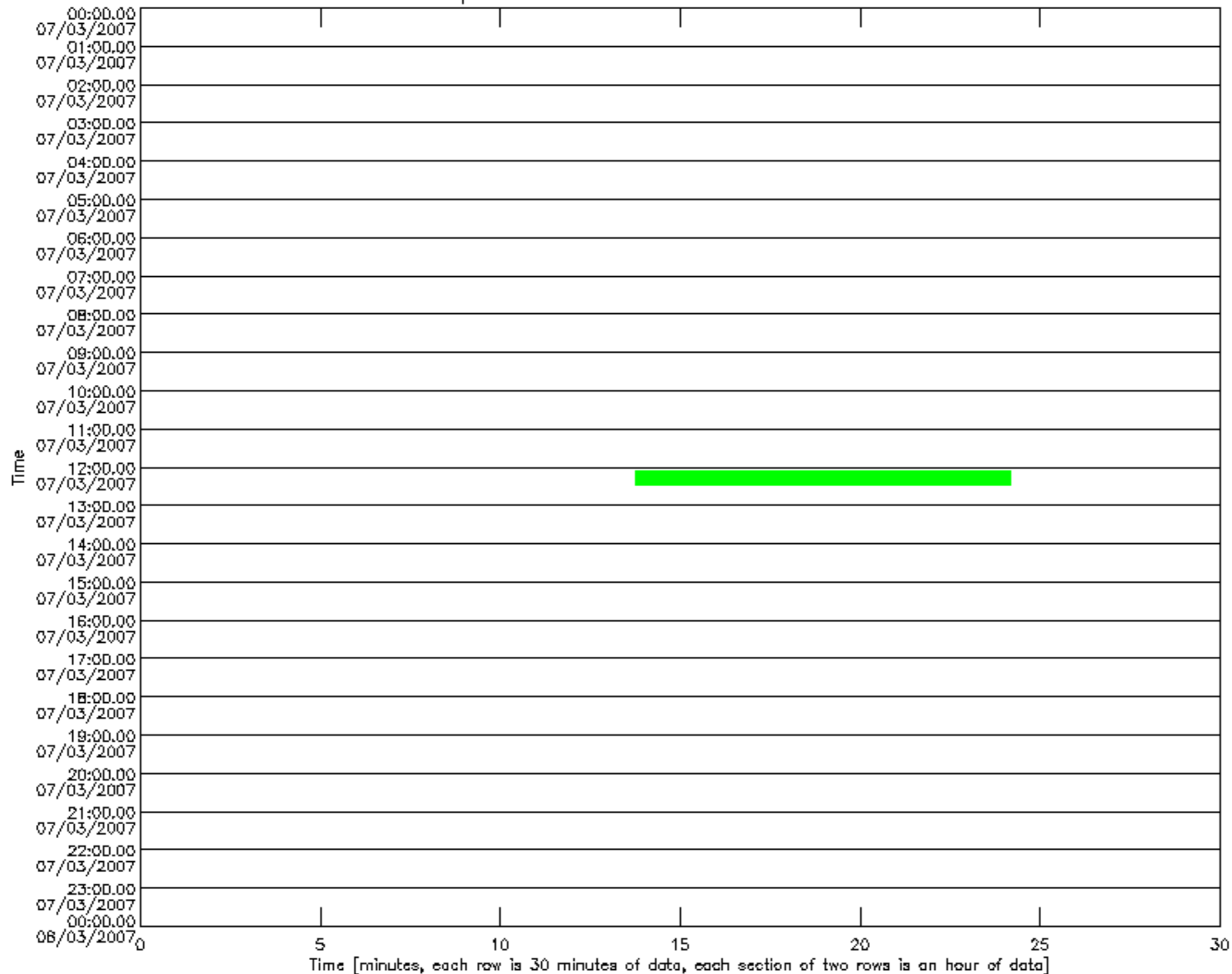
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band A



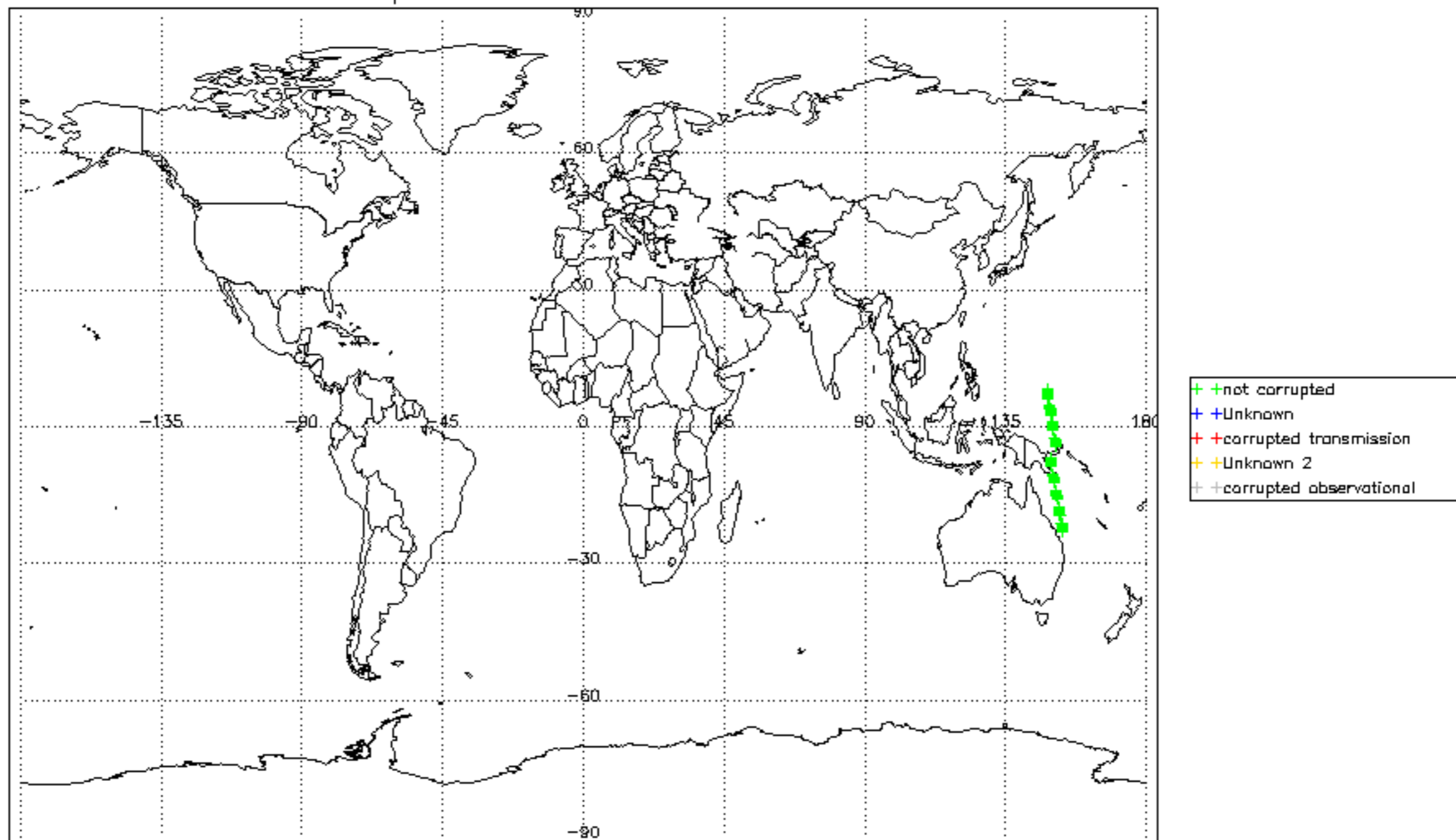
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band A



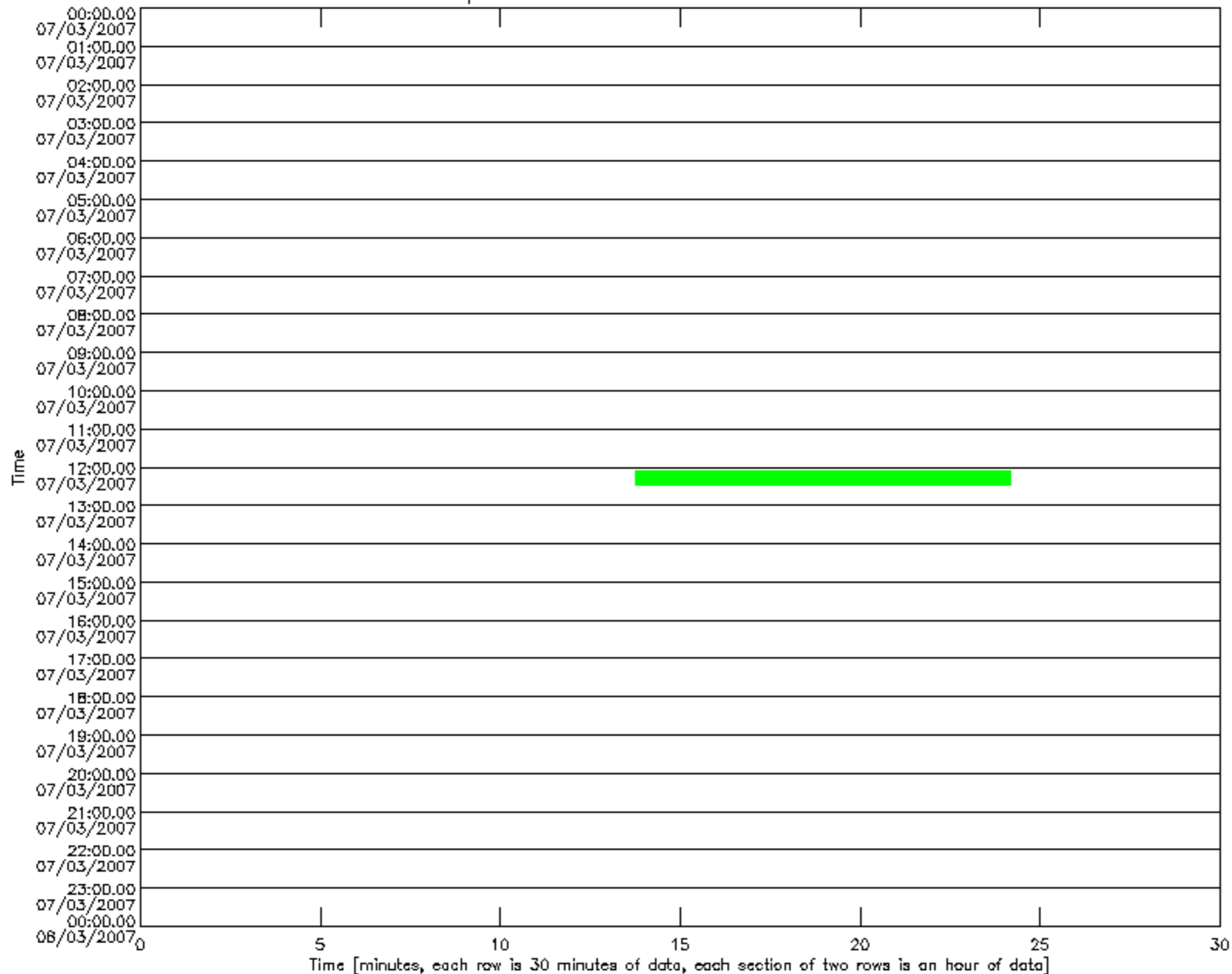
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band AB



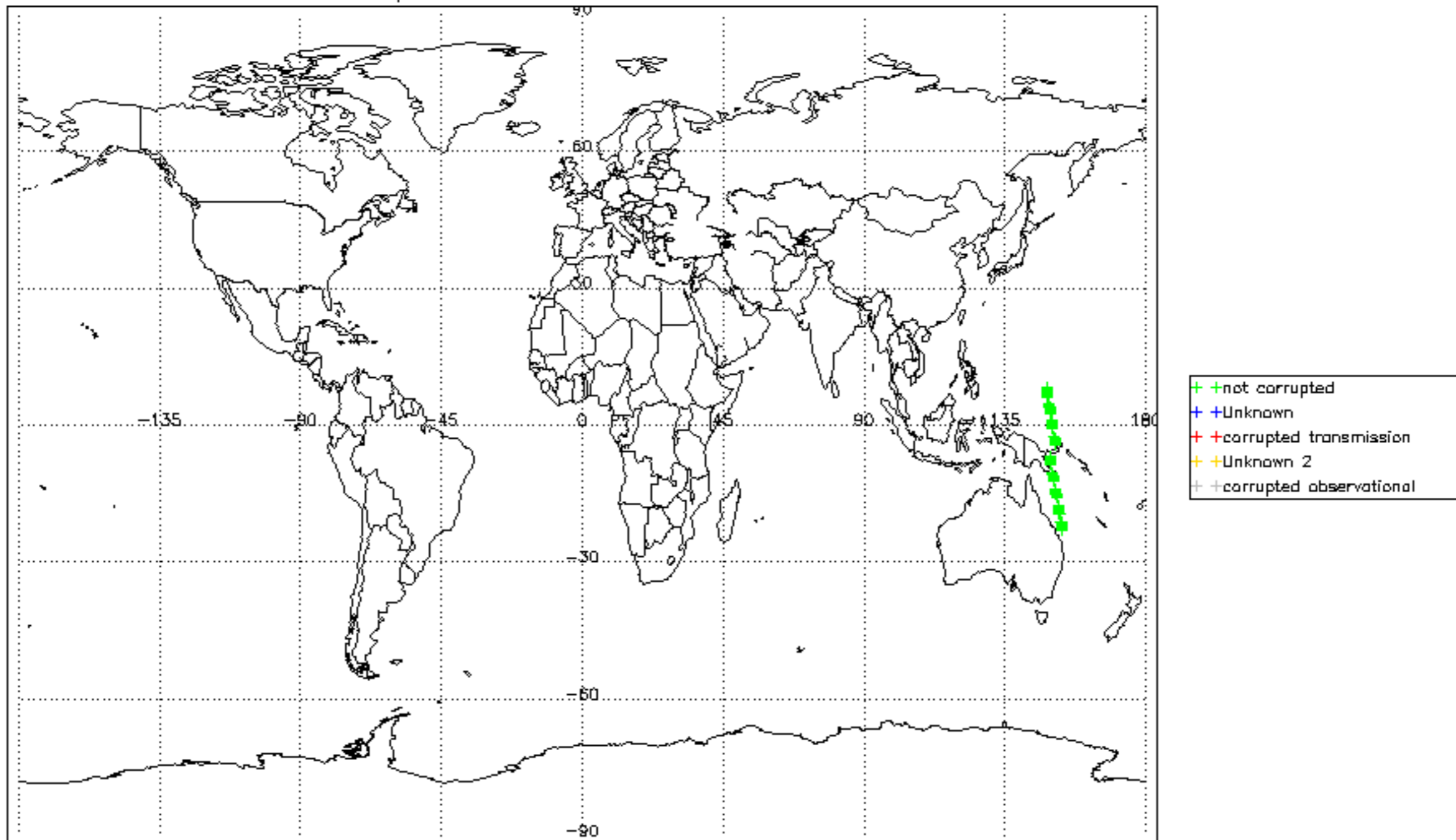
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band AB



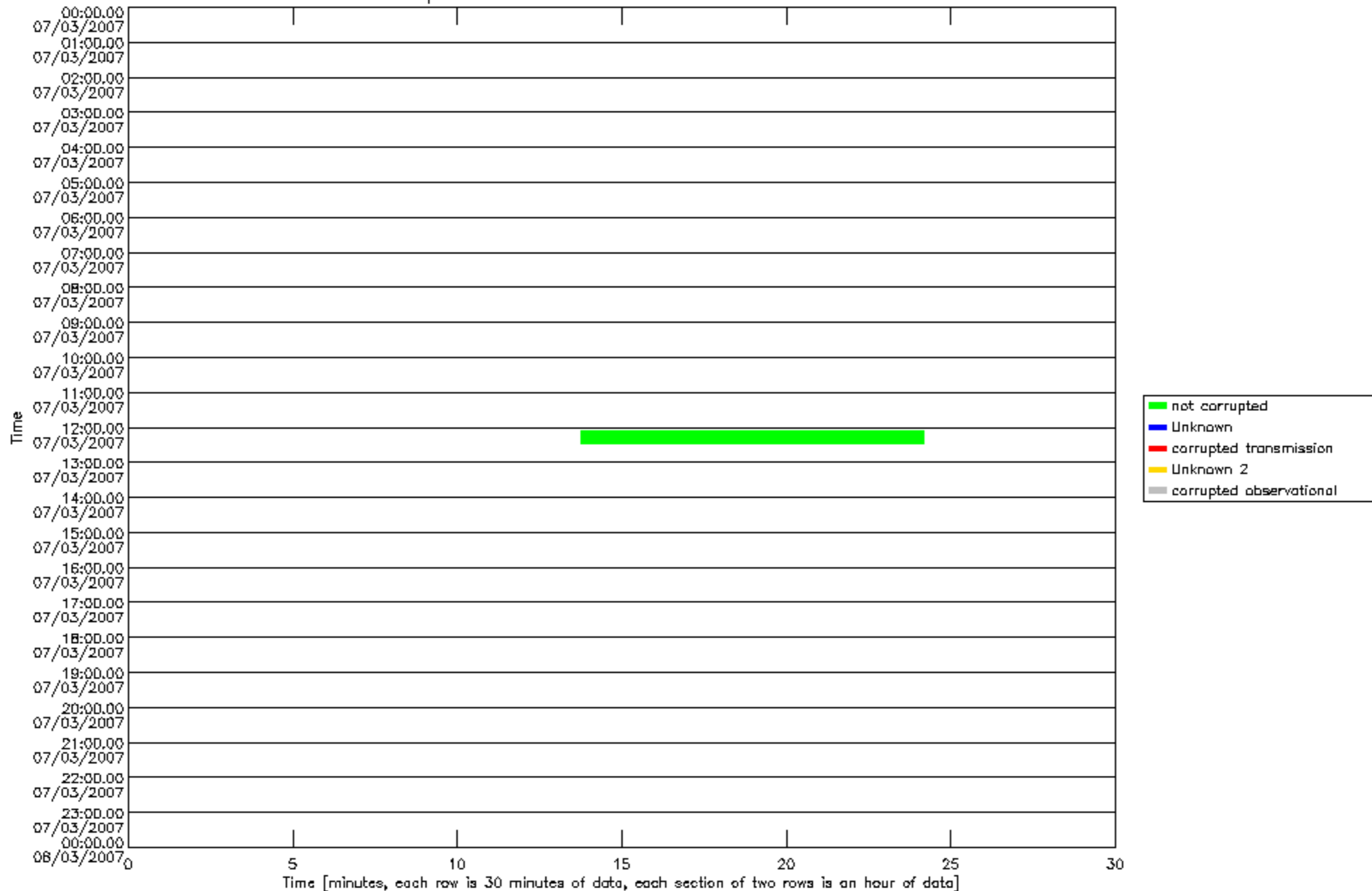
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band B



Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band B

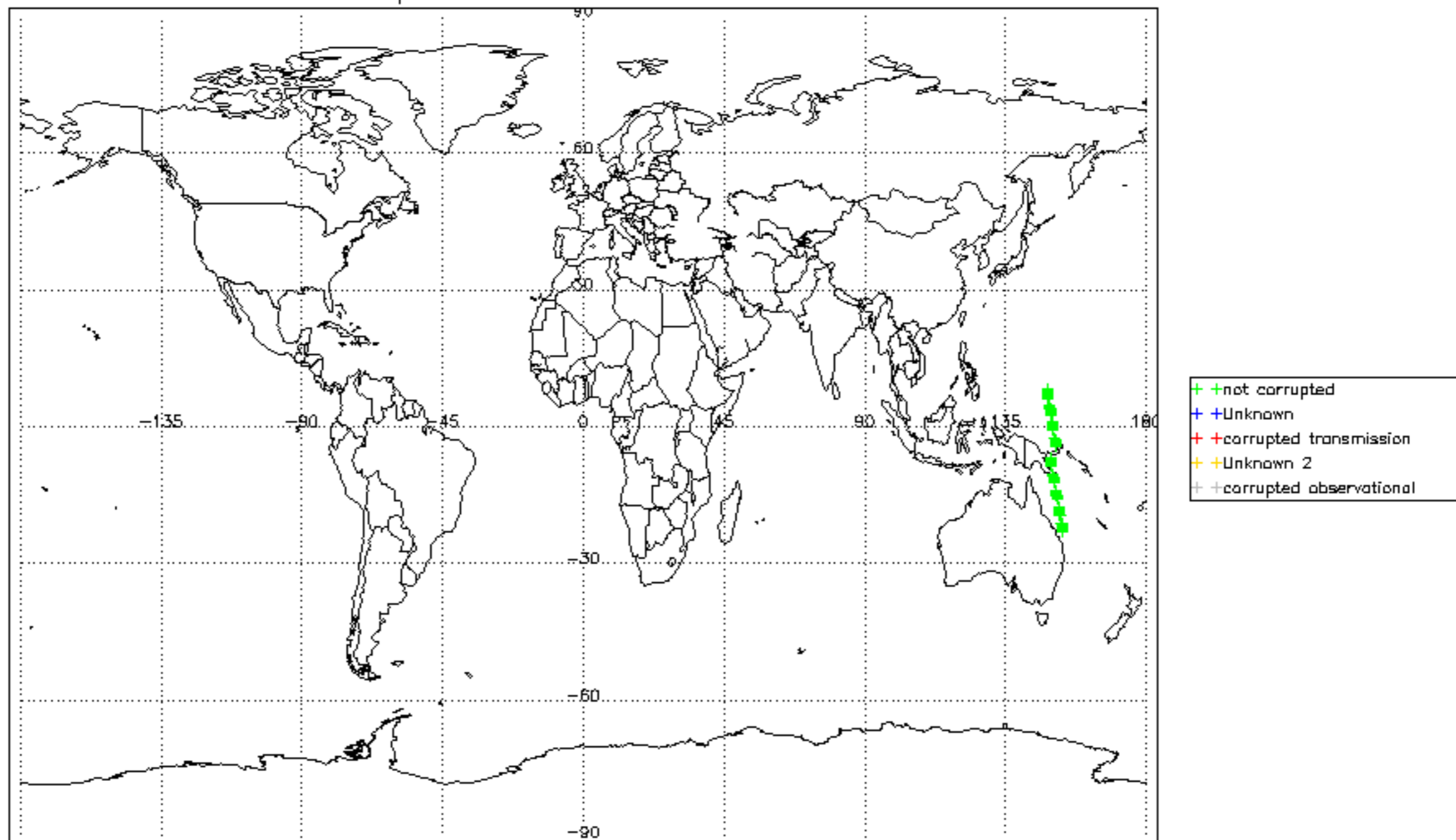


Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band C

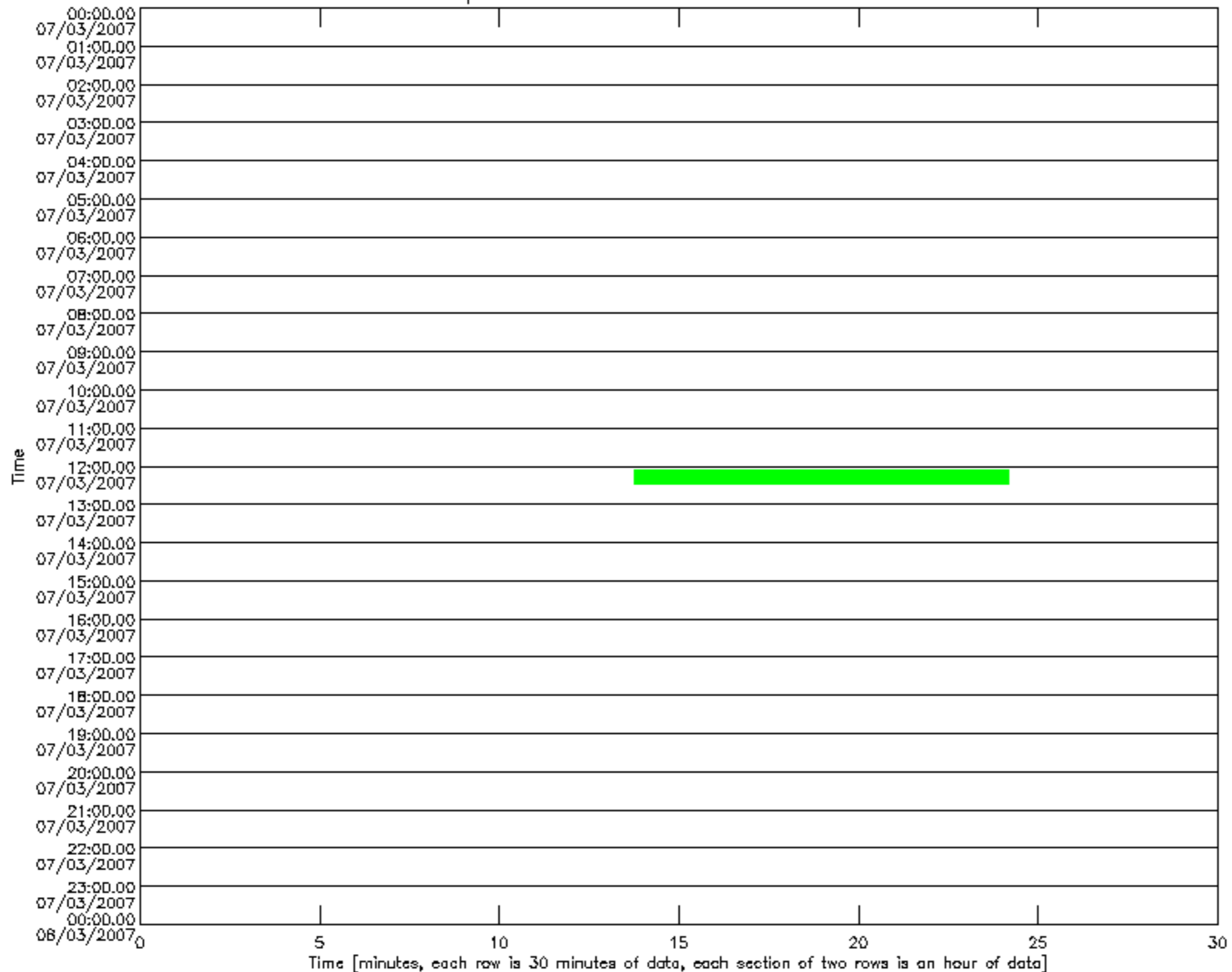


- not corrupted
- Unknown
- corrupted transmission
- Unknown 2
- corrupted observational

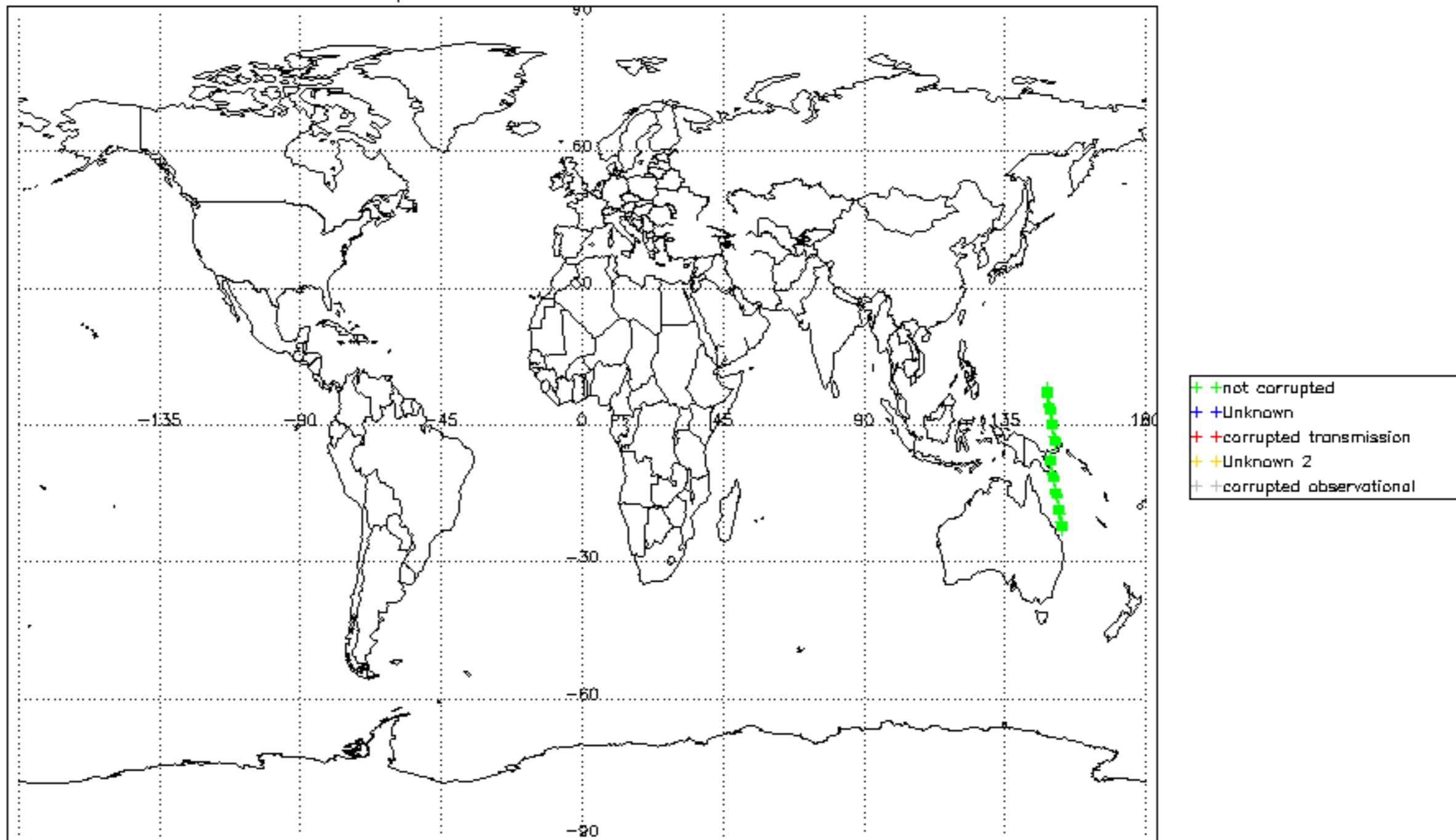
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band C



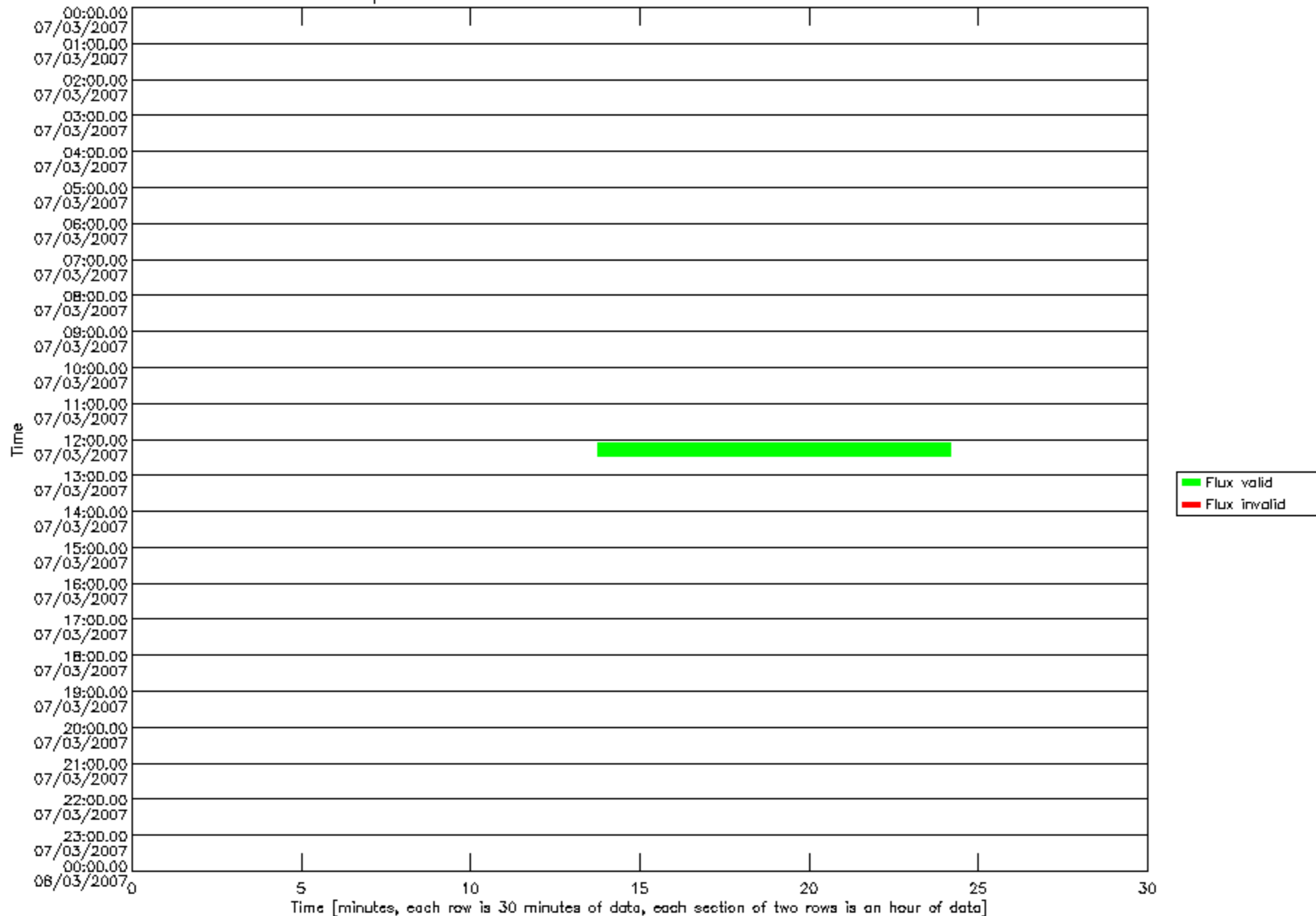
Bar plot of MIPNL1P_MIPLEV1BMDS_band_val band D



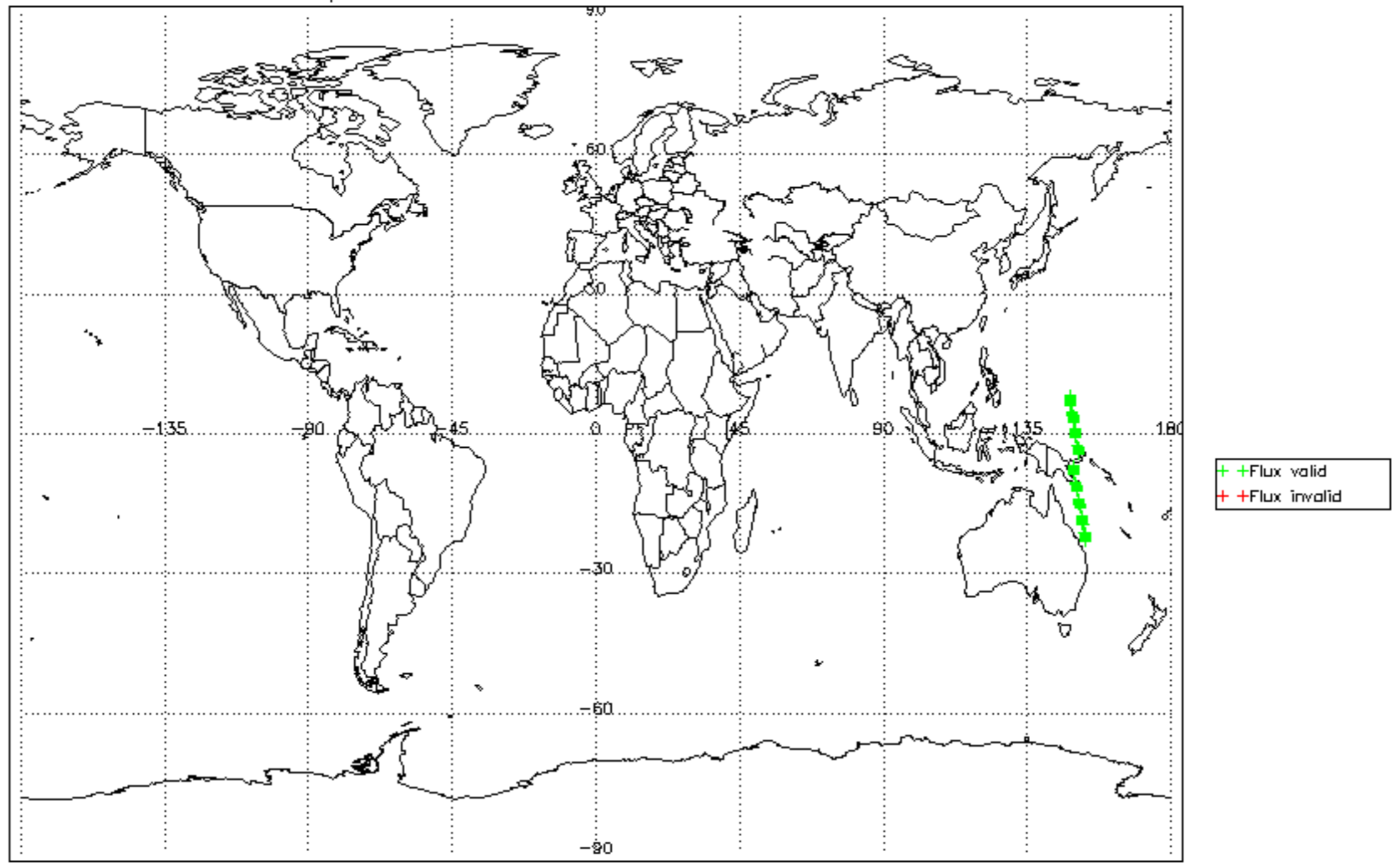
Geolocation plot of MIPNL1P_MIPLEV1BMDS_band_val band D



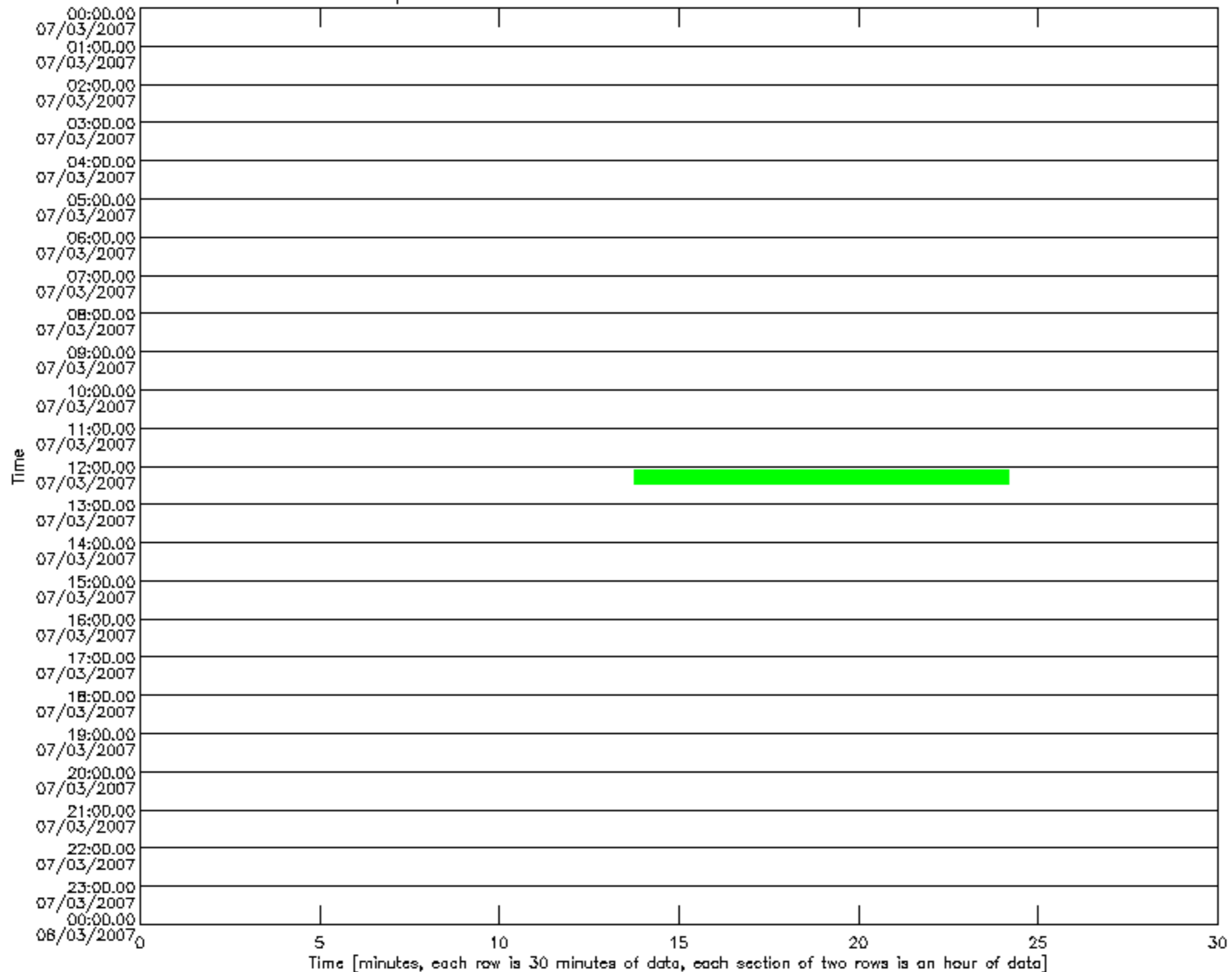
Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A1



Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A1

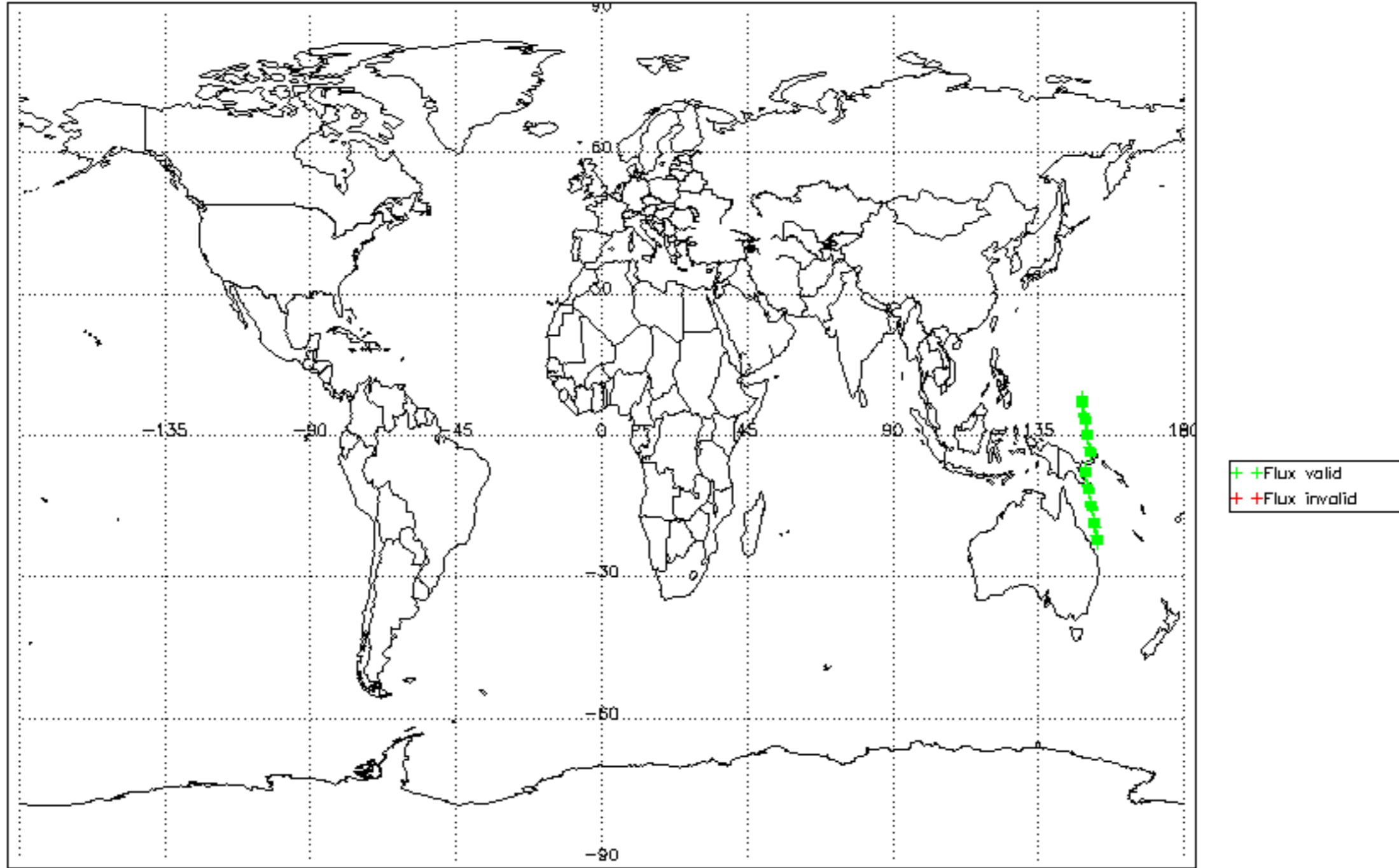


Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A2

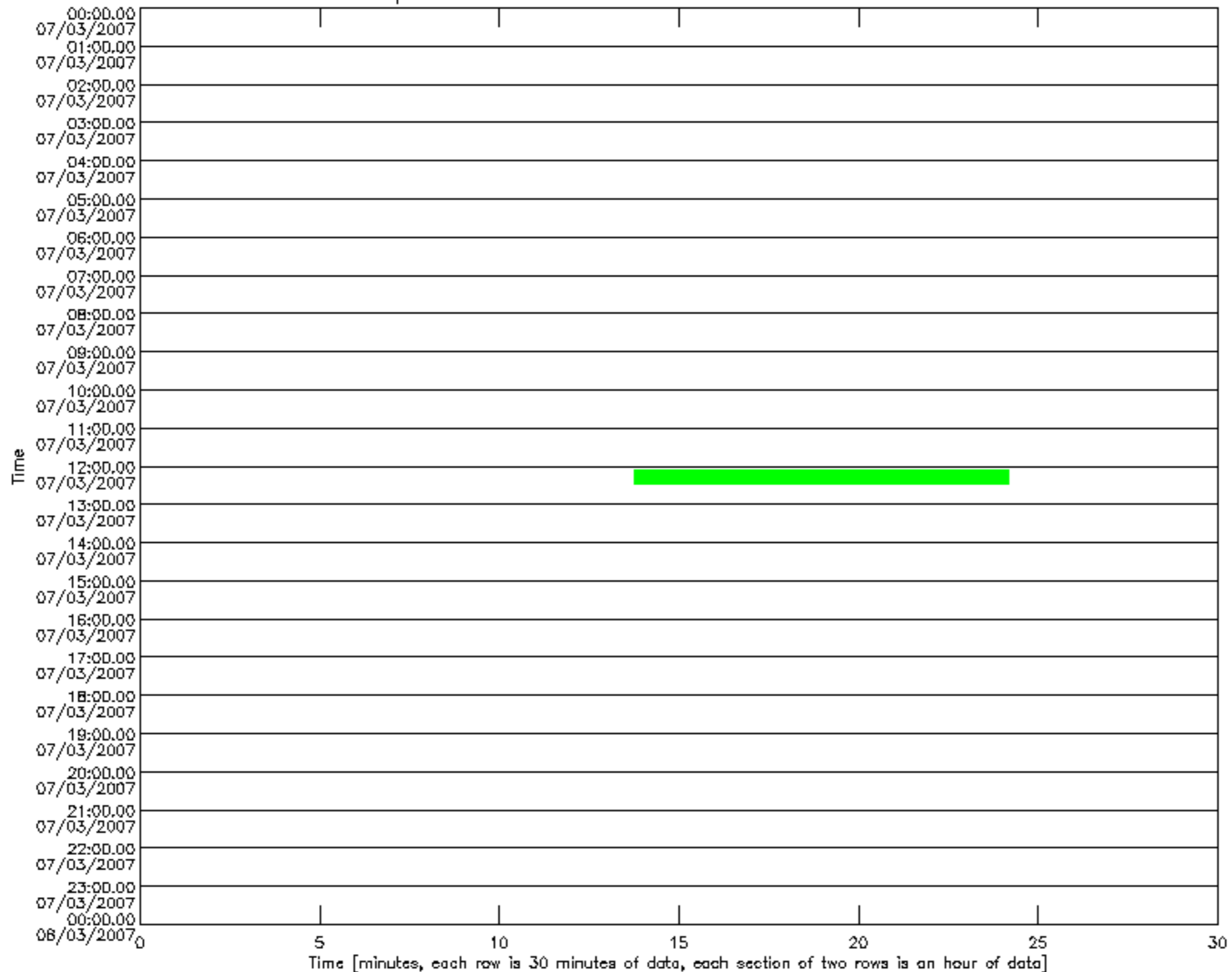


■ Flux valid
■ Flux invalid

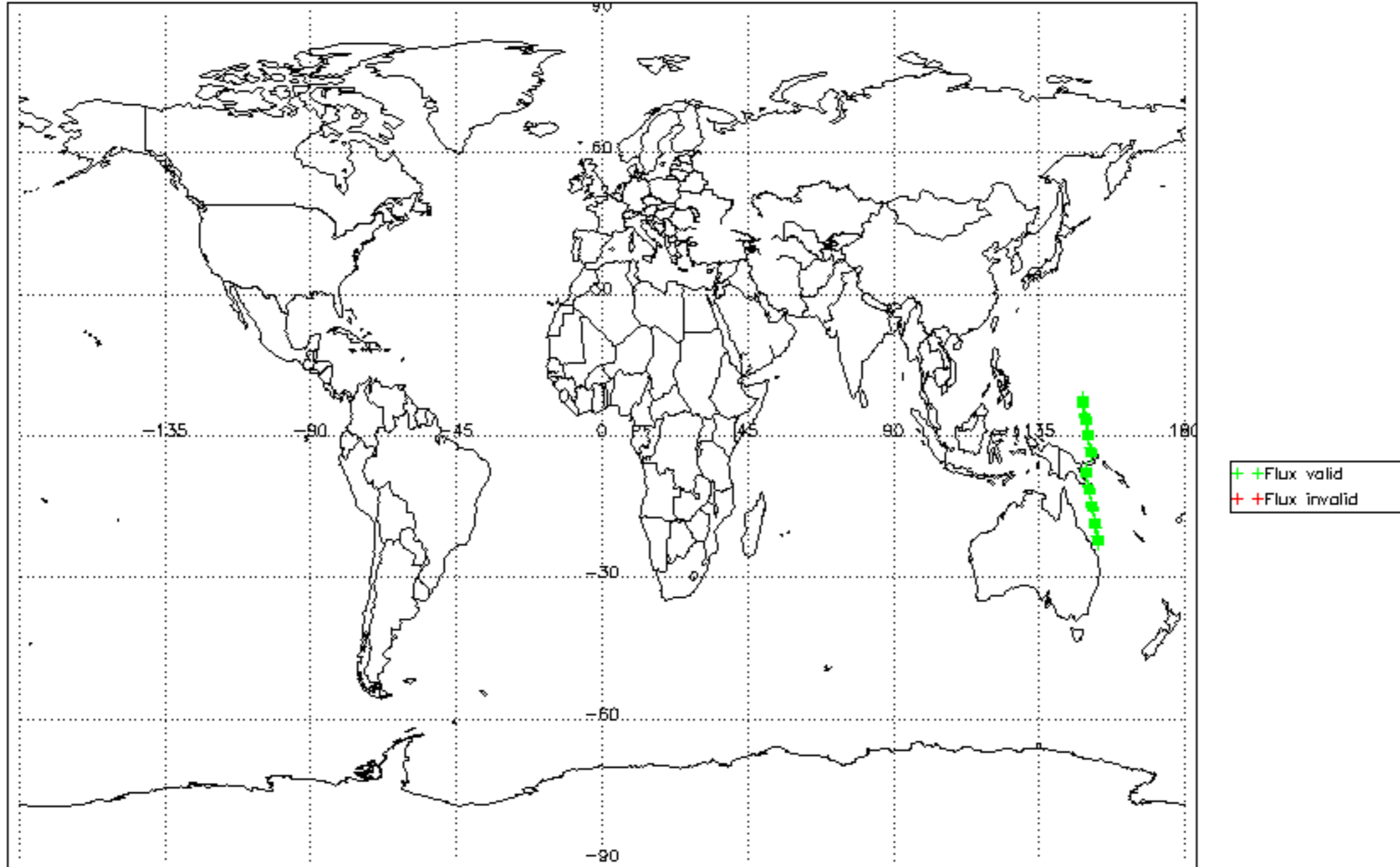
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector A2



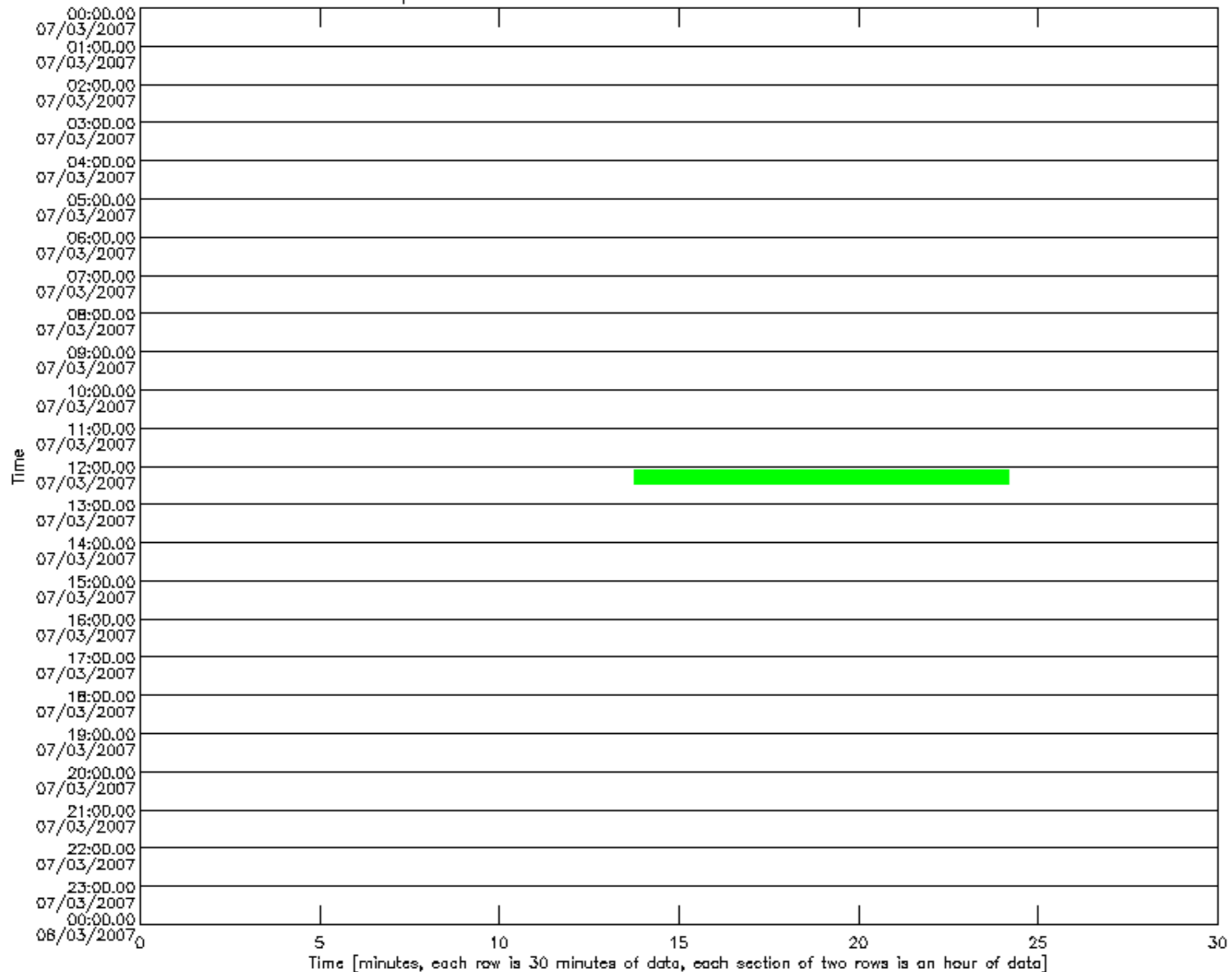
Bar plot of MIPNL1P_MIPLEV1 BMDS_detect_non_lin_flux detector AB



Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector AB

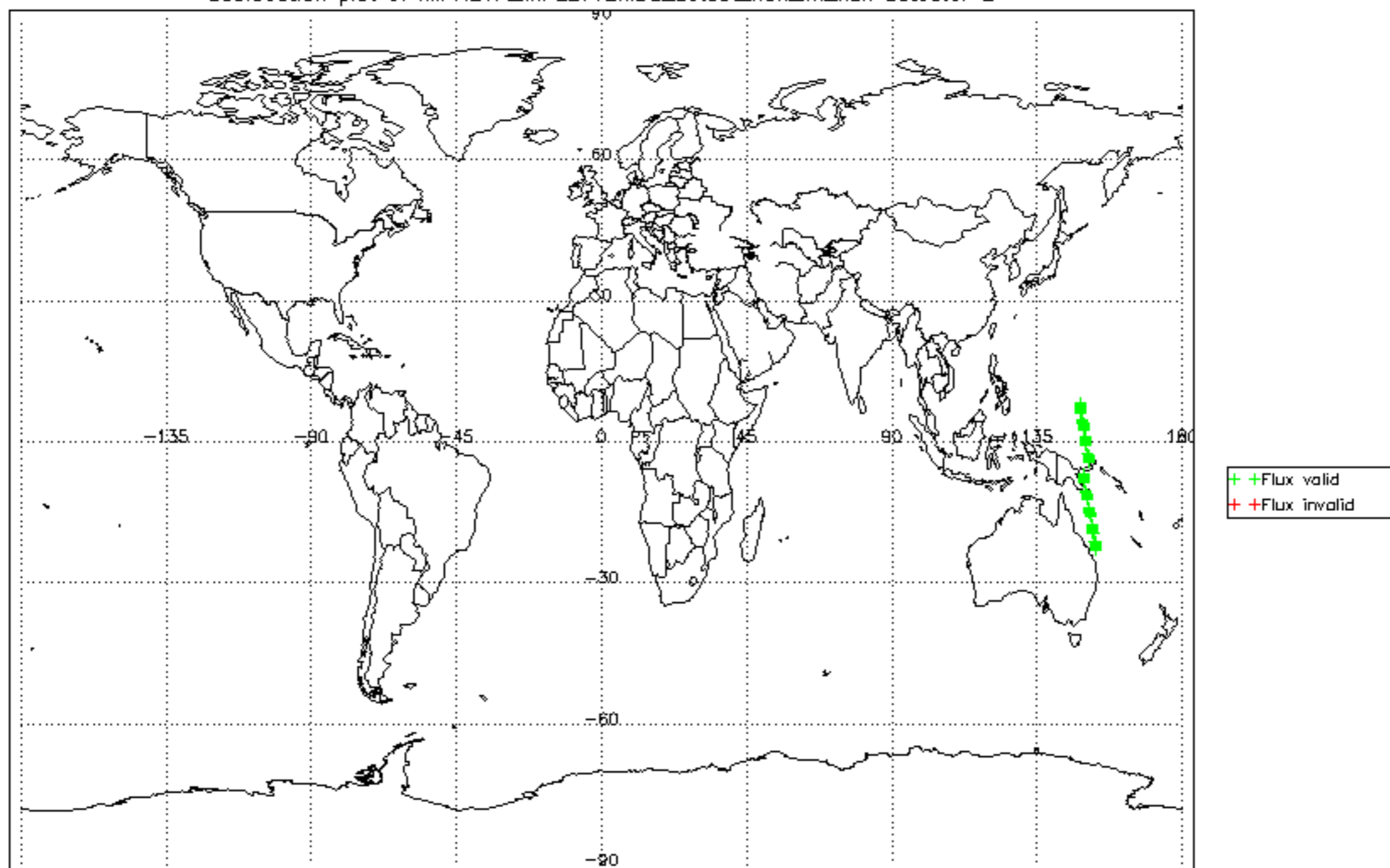


Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector B

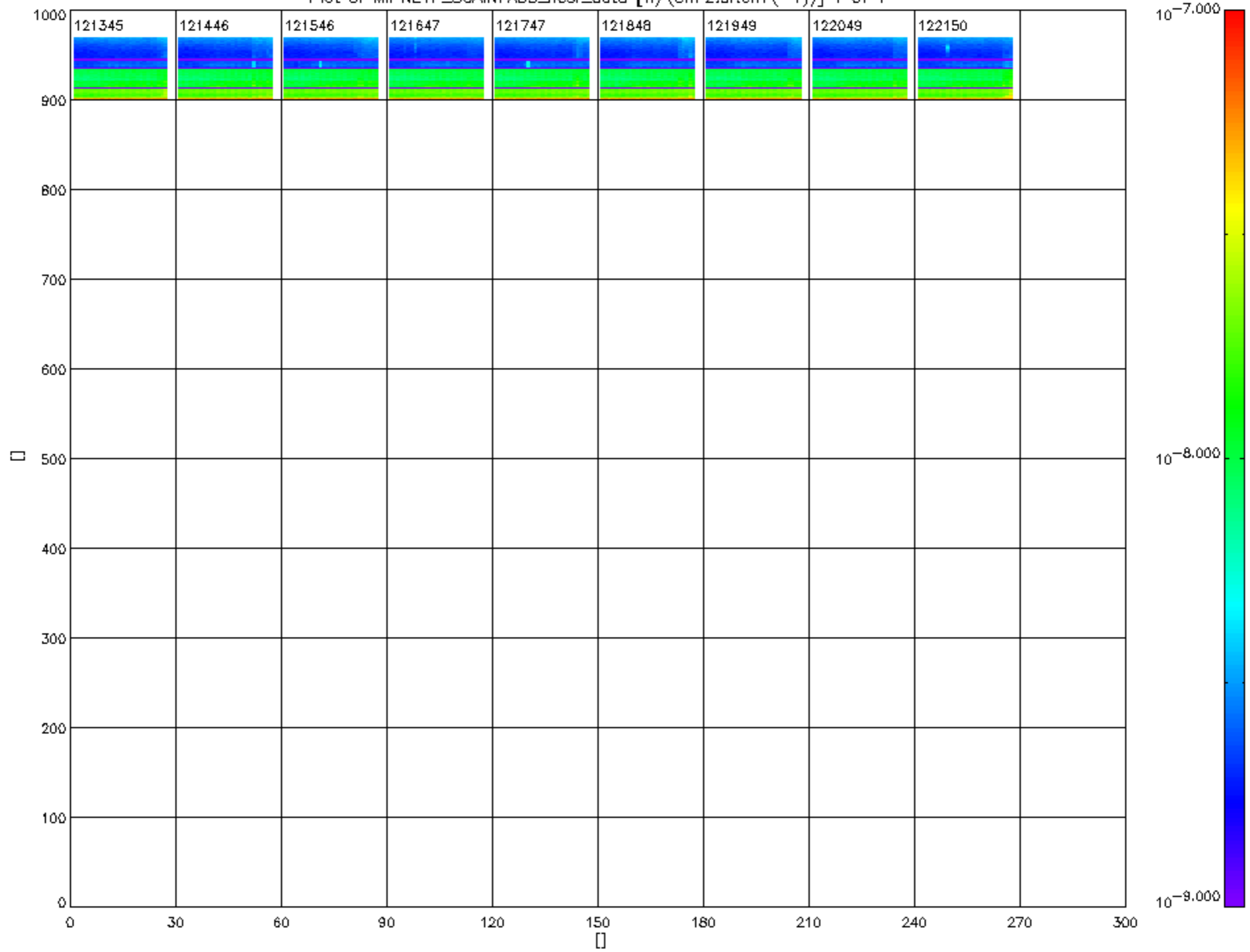


█ Flux valid
█ Flux invalid

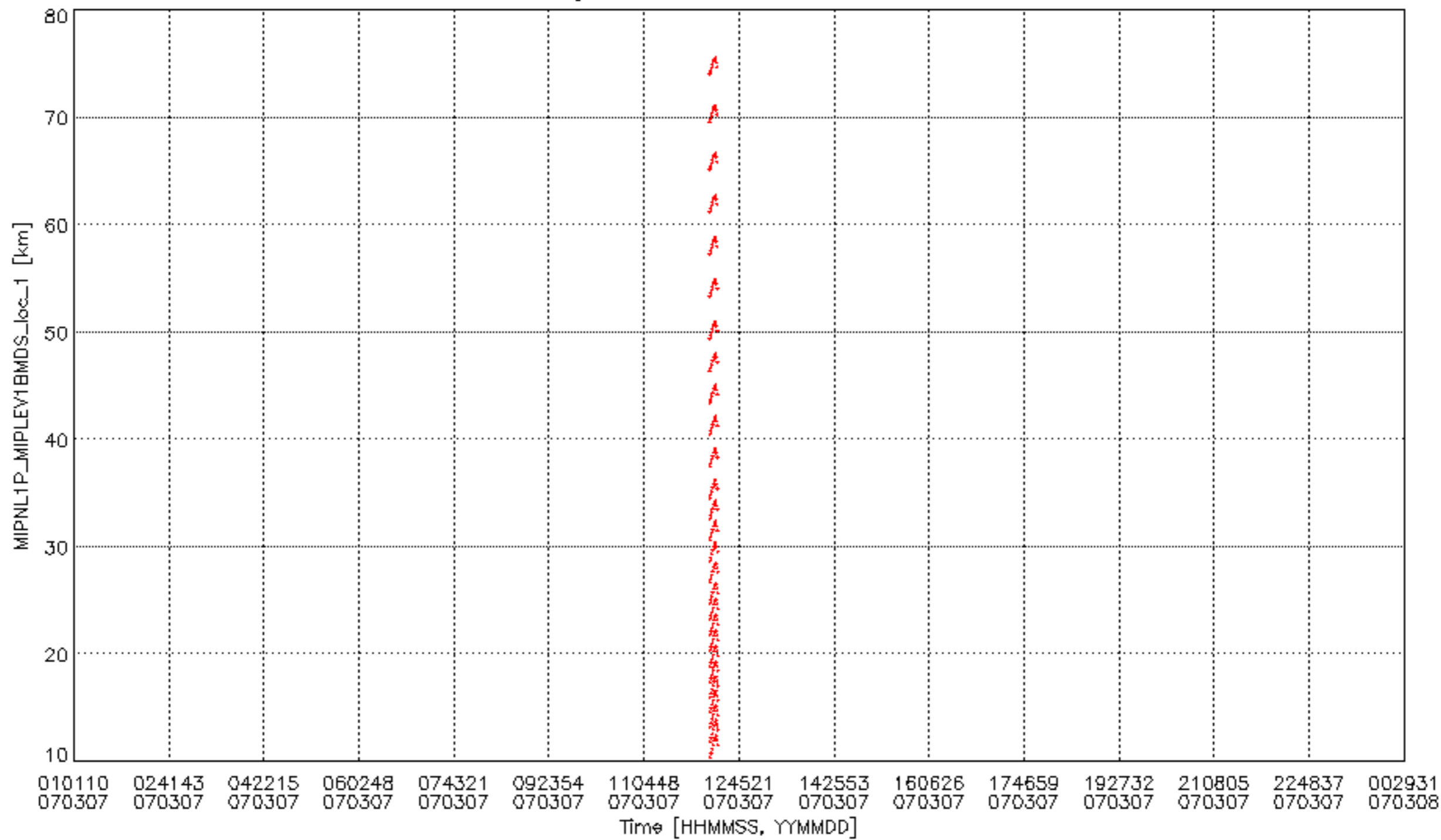
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_in_flux detector B



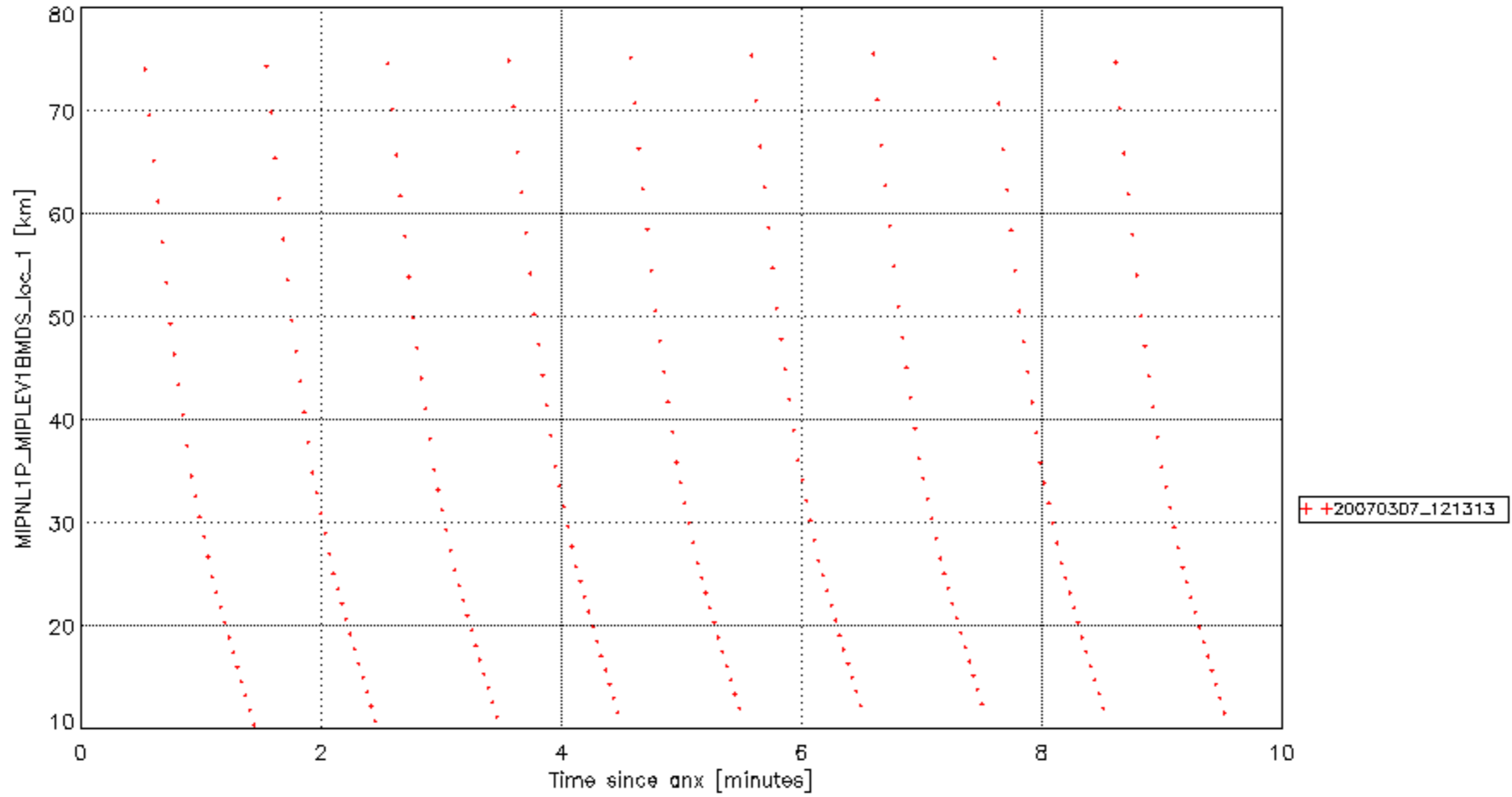
Plot of MIPNL1P_SCAINFADS_nesr_data [W/(cm².sr.cm⁻¹)] 1 of 1

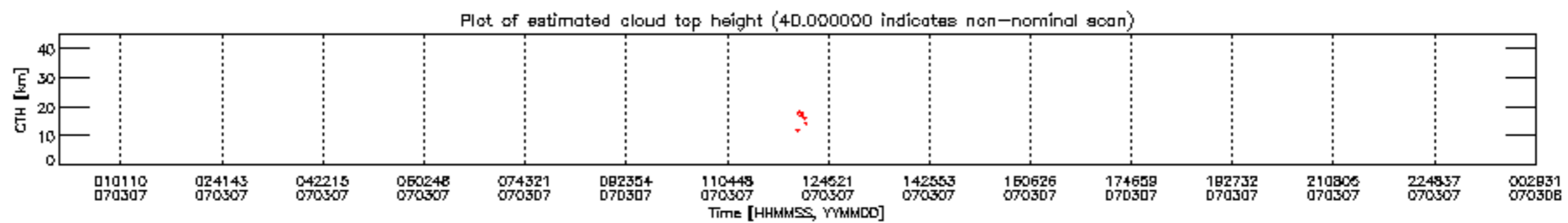


Plot of MIPNL1P_MIPLEV1BMDS_loc_1 against time.
The vertical grid lines indicate estimated anx events.



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)

