

PRELIMINARY REPORT OF 051201

last update on Thu Dec 1 16:41:51 GMT 2005

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1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2005-11-30 00:00:00 to 2005-12-01 16:41:51

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	46	0	0	0	0
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	46	0	0	0	0
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	46	0	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	46	0	0	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	43	46	42	9	49
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	43	46	42	9	49
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	46	42	9	49
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	43	46	42	9	49

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

2.4 - Data Analysis

- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20051124 100809
H	20051127 183652

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
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☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.602945	0.100732	-0.251865
7	P1	-2.919180	0.058675	0.331124
11	P1	-4.139471	0.017645	-0.017644
15	P1	-5.802697	0.664833	1.434763
19	P1	-3.148233	0.025354	0.221533
22	P1	-4.478092	0.016708	0.084402
26	P1	-4.279246	0.030401	-0.255167
30	P1	-5.727041	0.017515	0.133749
3	P1	-15.474082	1.130164	-0.722500
7	P1	-16.139050	1.087171	1.731859
11	P1	-16.501635	0.392011	0.331528
15	P1	-13.299154	0.465131	0.973798
19	P1	-13.679304	0.163499	0.521981
22	P1	-16.275097	0.475948	0.522213
26	P1	-15.649781	0.606017	1.105348
30	P1	-16.362654	1.145031	1.569991

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.871874	0.099929	-0.010845
7	P2	-22.580238	0.099995	0.093986
11	P2	-16.588552	0.109872	0.023183
15	P2	-7.266317	0.099392	-0.039216
19	P2	-9.227976	0.096082	-0.001359
22	P2	-17.877489	0.101994	-0.017045
26	P2	-16.247347	0.110553	-0.263745
30	P2	-19.700520	0.098842	-0.205907

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.228279	0.007219	-0.024457
7	P3	-8.228279	0.007219	-0.024457
11	P3	-8.228279	0.007219	-0.024457
15	P3	-8.228279	0.007219	-0.024457
19	P3	-8.228279	0.007219	-0.024457
22	P3	-8.228279	0.007219	-0.024457
26	P3	-8.228279	0.007219	-0.024457
30	P3	-8.228279	0.007219	-0.024457

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.686466	0.007768	-0.037659
7	P1	-2.784357	0.010813	-0.002519
11	P1	-2.870602	0.013066	-0.029071
15	P1	-3.388259	0.021752	-0.064585
19	P1	-3.374910	0.013077	-0.029887
22	P1	-5.112648	0.019619	-0.034800
26	P1	-5.815733	0.015788	-0.049413
30	P1	-5.257172	0.031815	-0.064240
3	P1	-11.461984	0.041156	-0.032174
7	P1	-9.962955	0.044836	-0.018662
11	P1	-10.044312	0.060383	-0.038743
15	P1	-10.554338	0.085696	-0.119023
19	P1	-15.502858	0.074003	-0.001494
22	P1	-20.888586	0.981505	-0.060891

26	P1	-17.229488	0.305676	0.143915
30	P1	-18.356592	0.318961	0.005228

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.670502	0.031525	0.121041
7	P2	-23.076681	0.064040	0.123021
11	P2	-11.696708	0.023869	0.124477
15	P2	-4.971303	0.021721	-0.015101
19	P2	-6.950366	0.021604	-0.018726
22	P2	-8.165803	0.023640	-0.052581
26	P2	-24.016518	0.033127	-0.101365
30	P2	-22.111660	0.021149	0.003967

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.068617	0.002532	-0.020423
7	P3	-8.068646	0.002529	-0.020614
11	P3	-8.068544	0.002524	-0.020437
15	P3	-8.068593	0.002540	-0.020414
19	P3	-8.068745	0.002536	-0.020516
22	P3	-8.068666	0.002530	-0.020487
26	P3	-8.068559	0.002523	-0.020413
30	P3	-8.068566	0.002525	-0.019913

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000525726
	stdev	1.91324e-07
MEAN Q	mean	0.000523487
	stdev	2.27531e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.134276
	stdev	0.00110930
STDEV Q	mean	0.134599
	stdev	0.00112455



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005113[901]

The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051130_004532_000001932043_00016_19609_2618.N1	1	0
ASA_IMM_1PNPDE20051130_155405_000001592043_00025_19618_2666.N1	1	0
ASA_WSM_1PNPDE20051130_013440_000004642043_00017_19610_2133.N1	0	7
ASA_WSM_1PNPDE20051130_041331_000000672043_00019_19612_2133.N1	0	42
ASA_WSM_1PNPDE20051130_132130_000002082043_00024_19617_2198.N1	0	40



7 - Doppler Analysis

Preliminary report. The data is not yet controlled

7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX

<input type="checkbox"/>

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

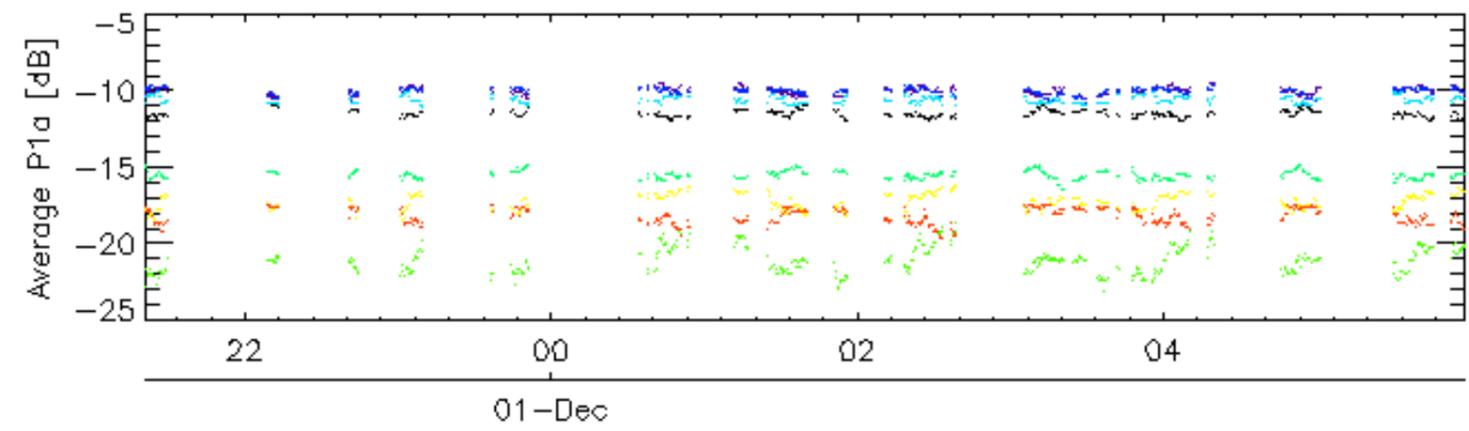
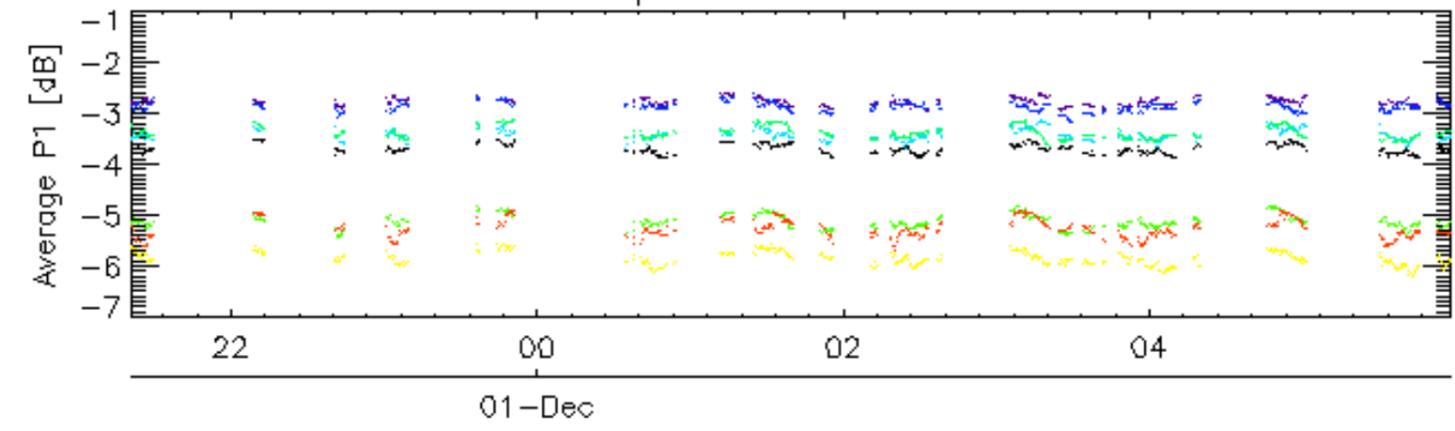
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	Ascending
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	Descending

7.6 - Doppler evolution versus ANX for GM1

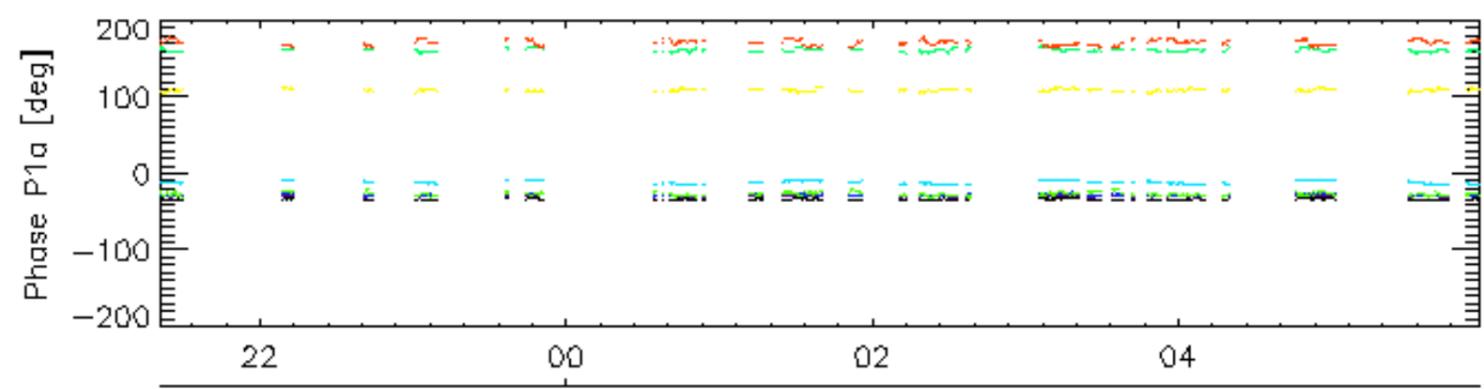
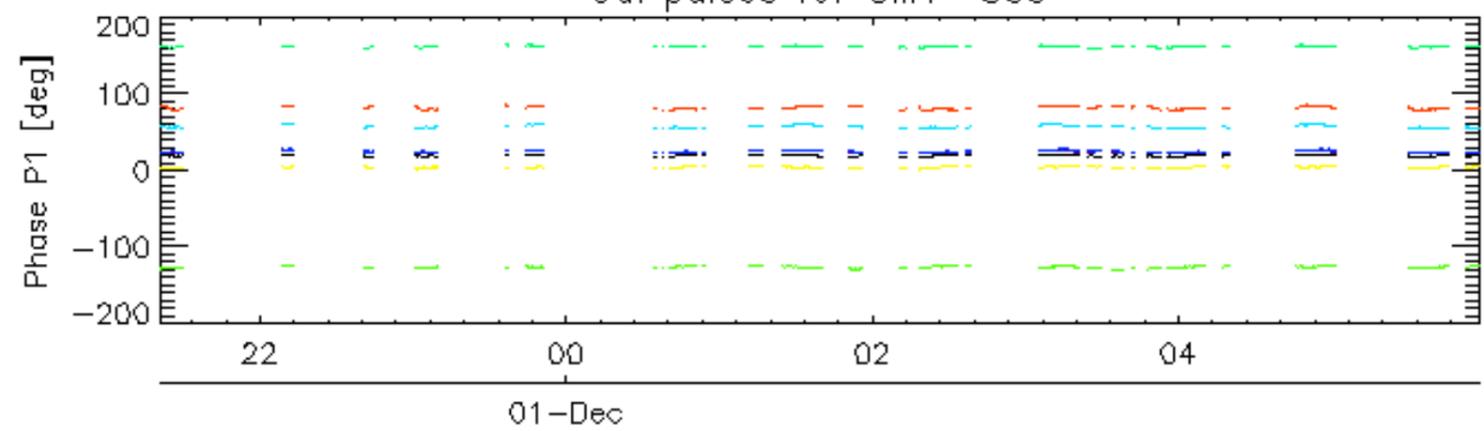
Evolution Doppler error versus ANX

<input type="checkbox"/>	
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Cal pulses for GM1 SS3

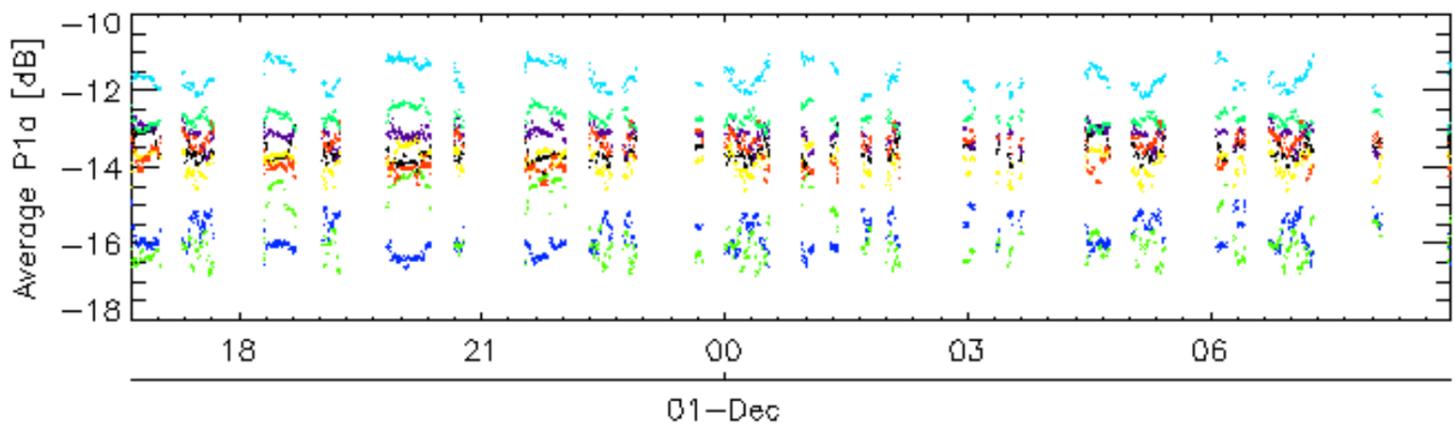
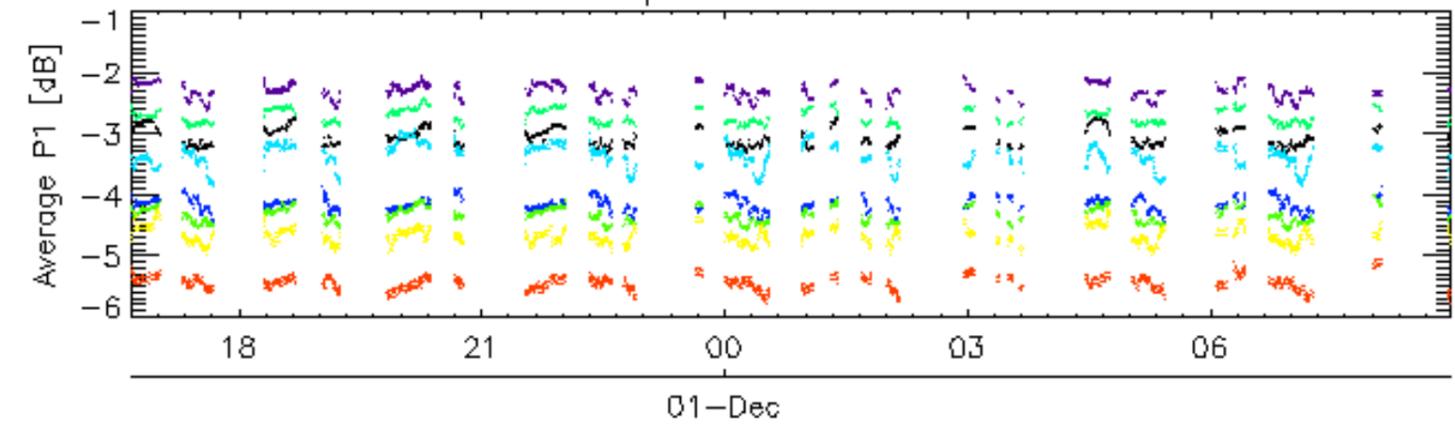


Cal pulses for GM1 SS3

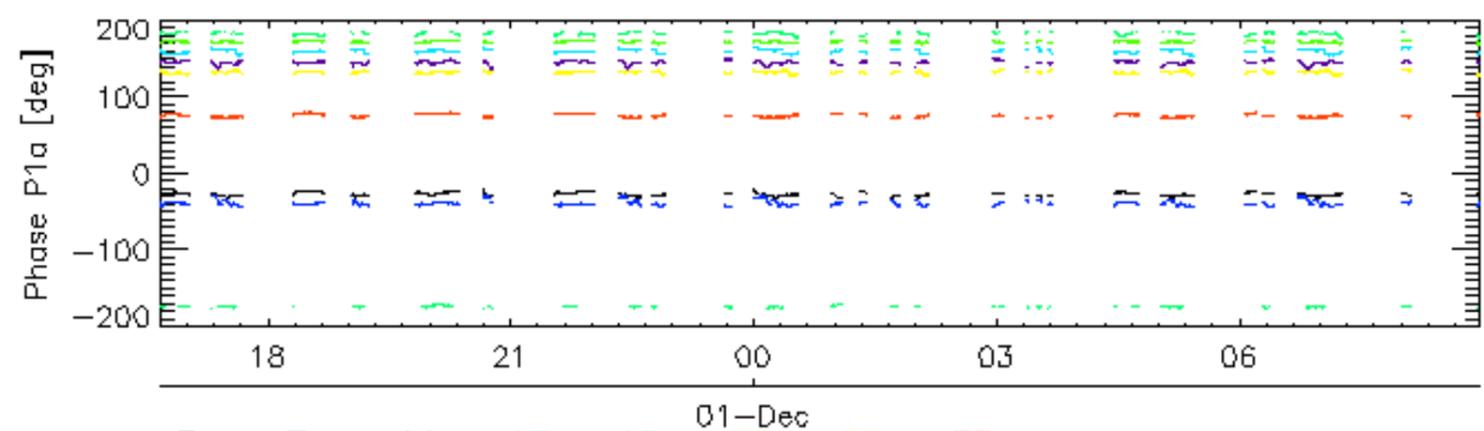
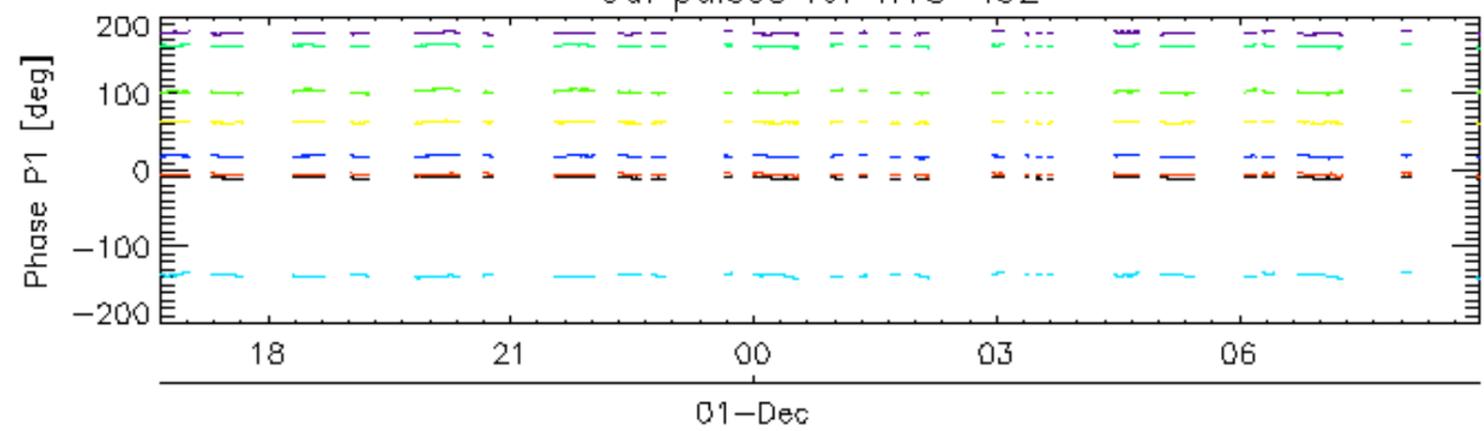


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

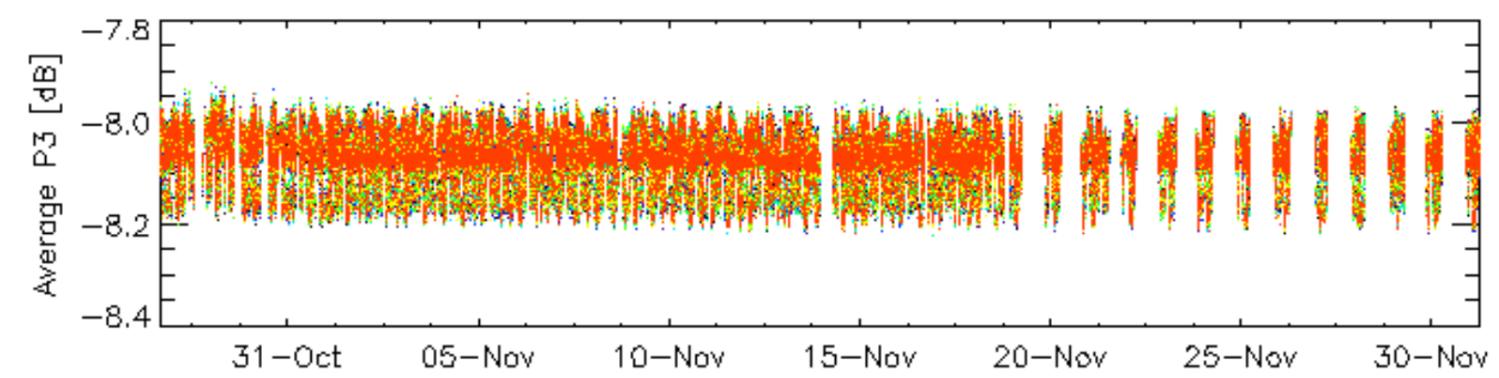
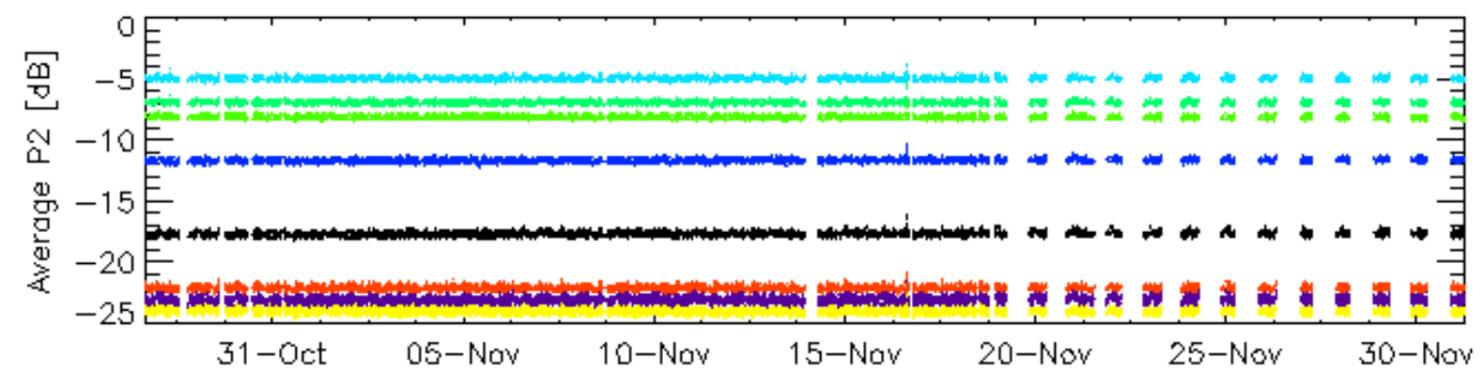
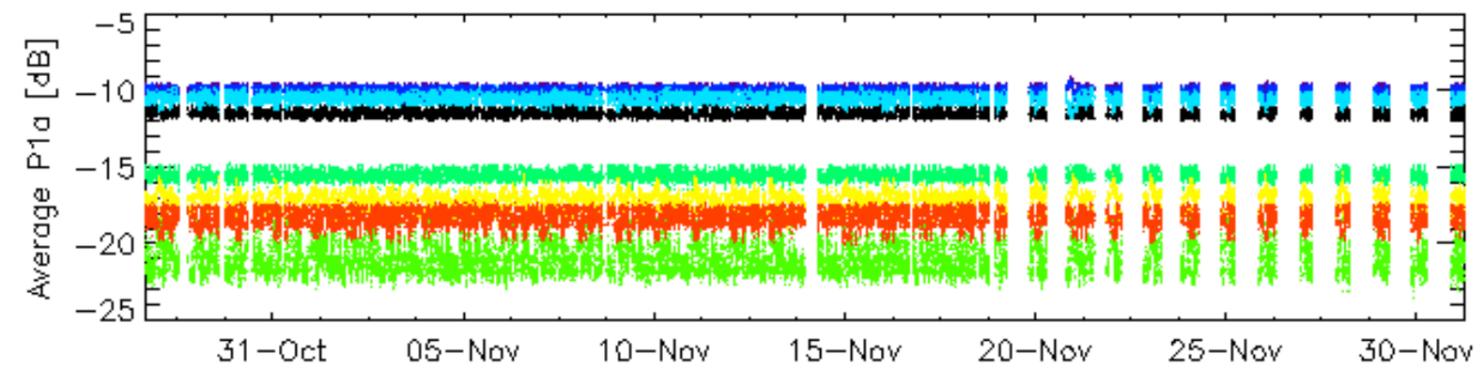
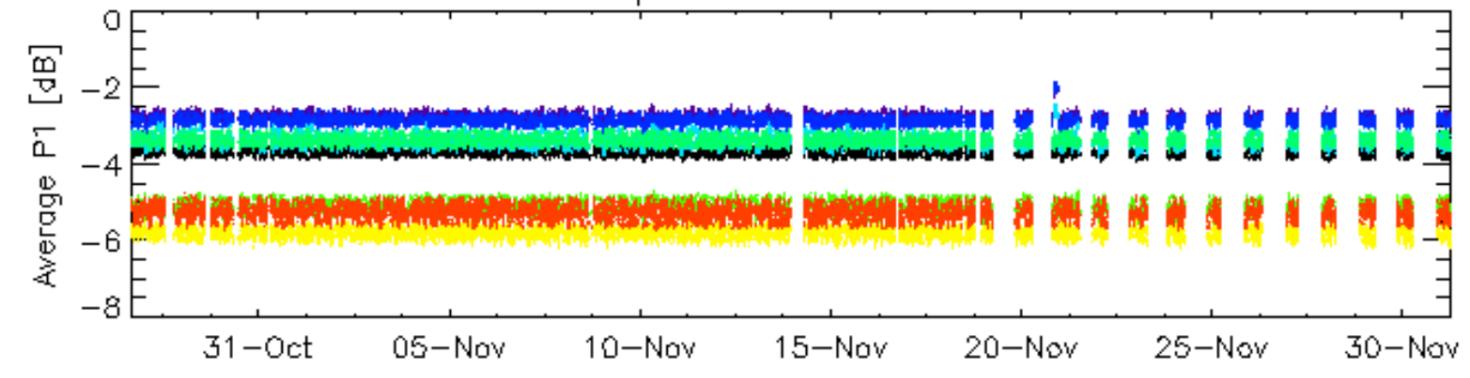


Cal pulses for WVS IS2



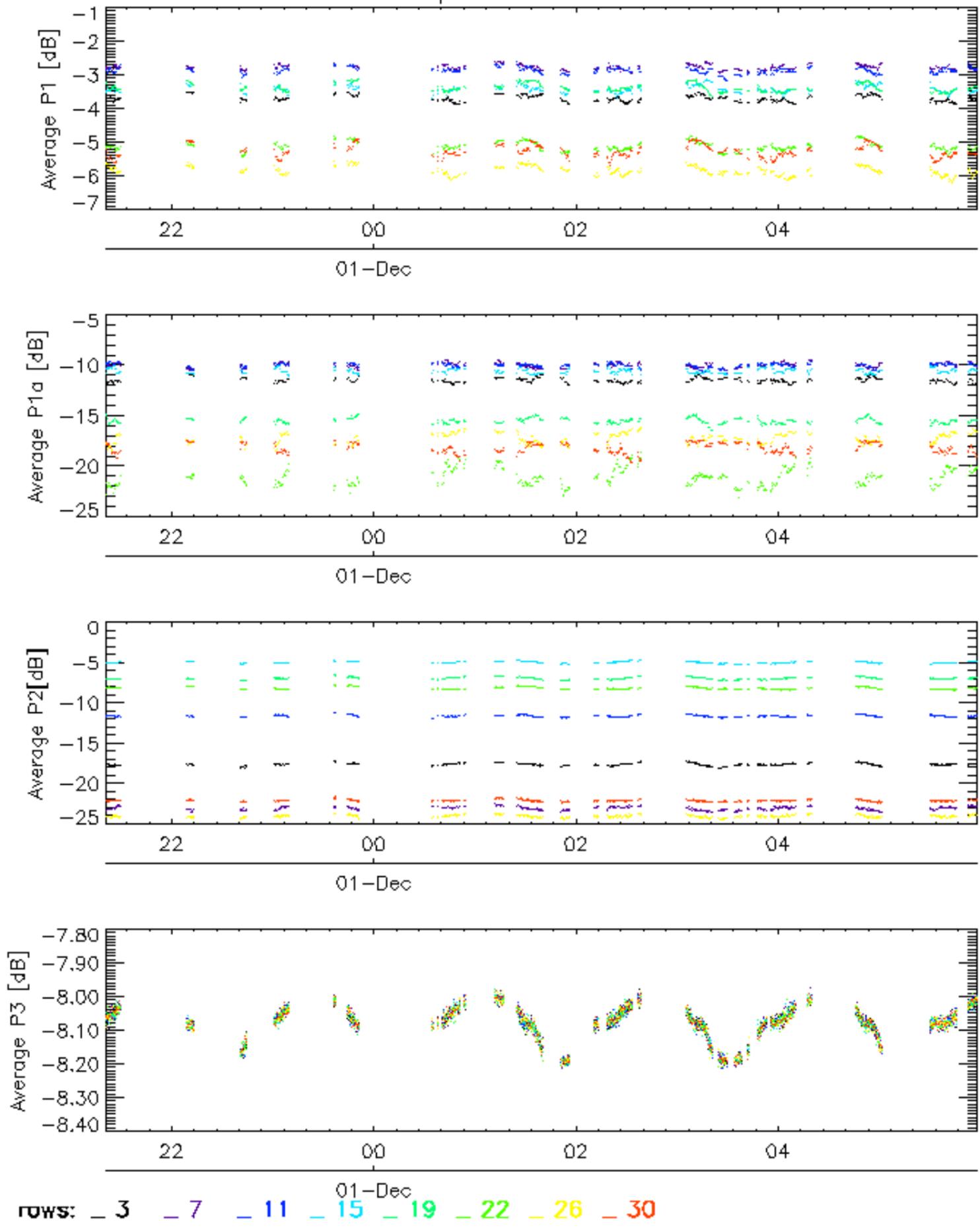
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

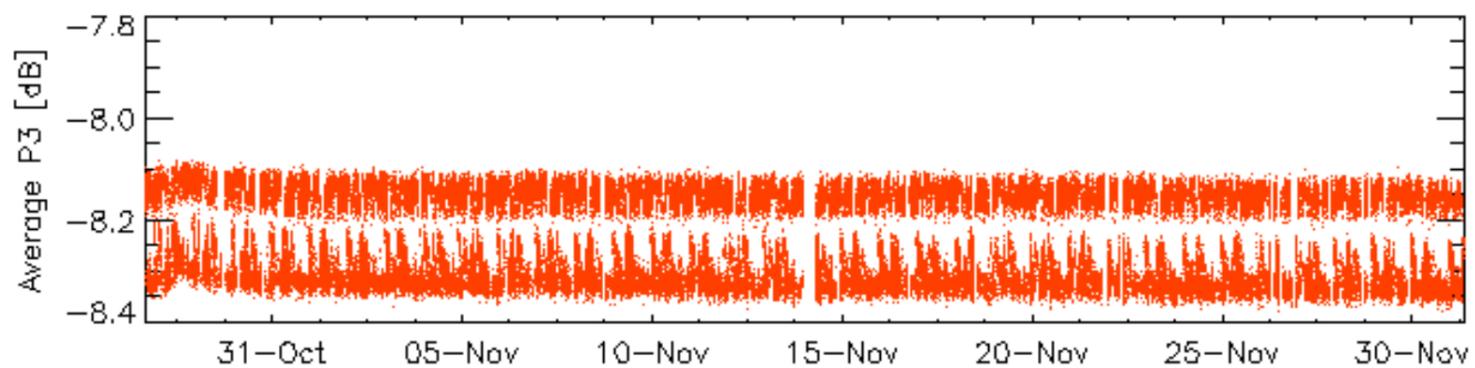
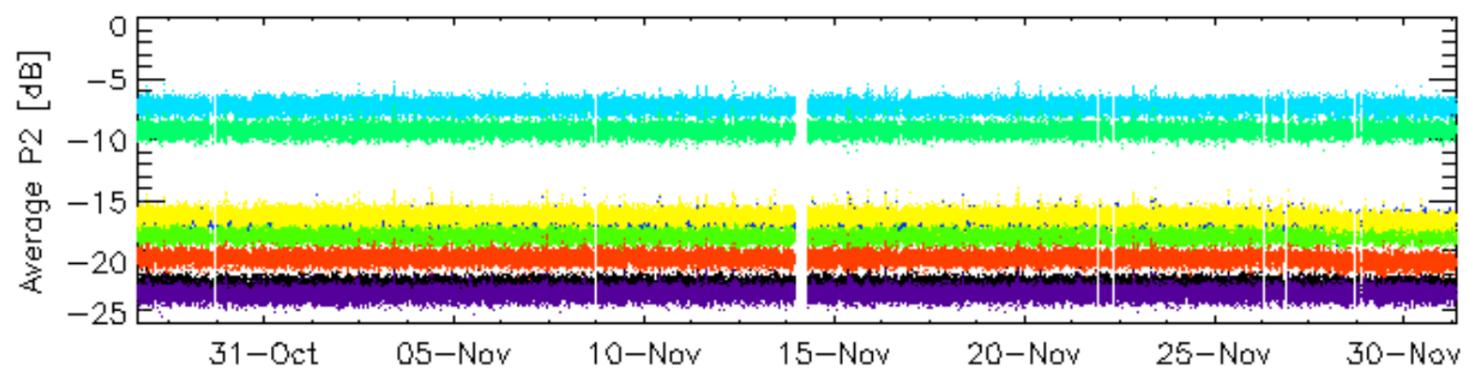
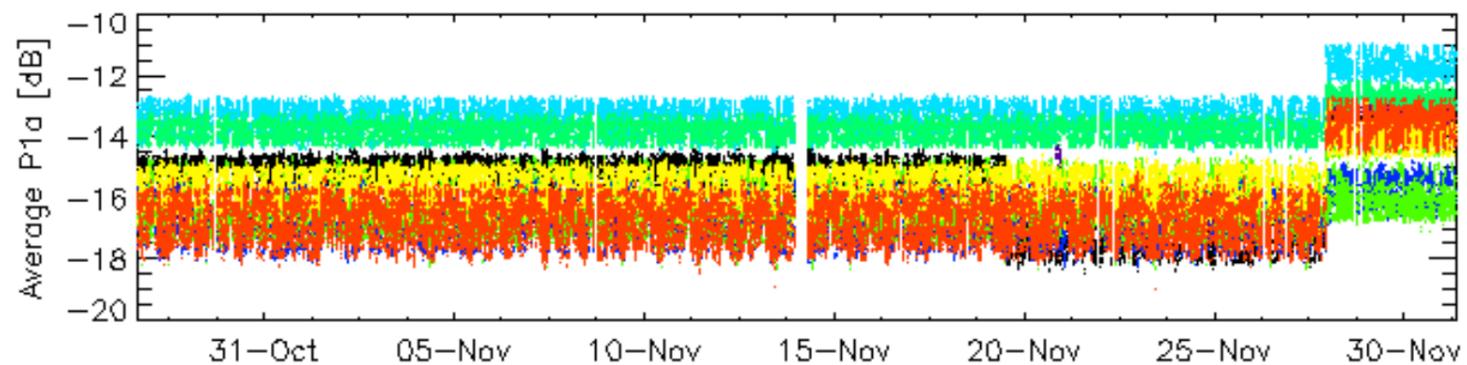
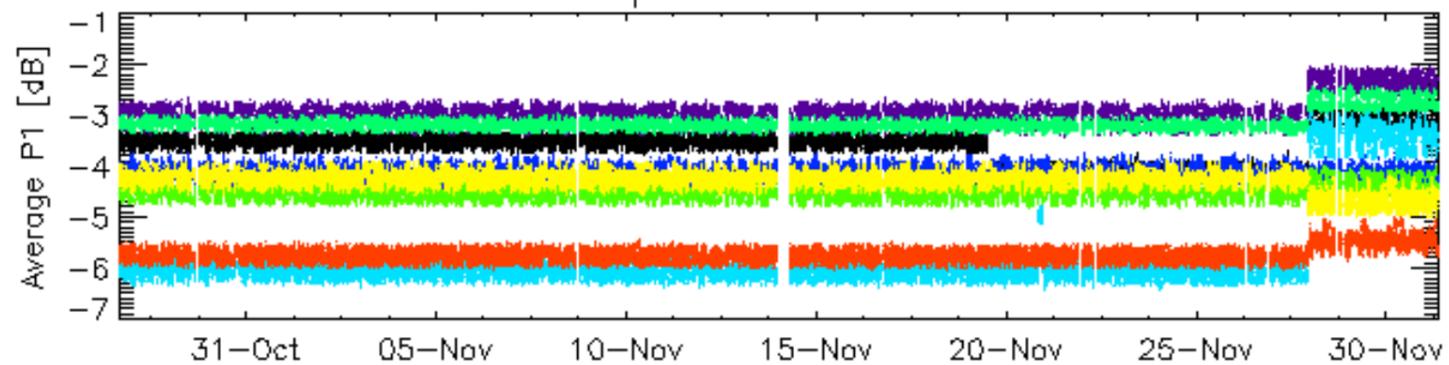


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

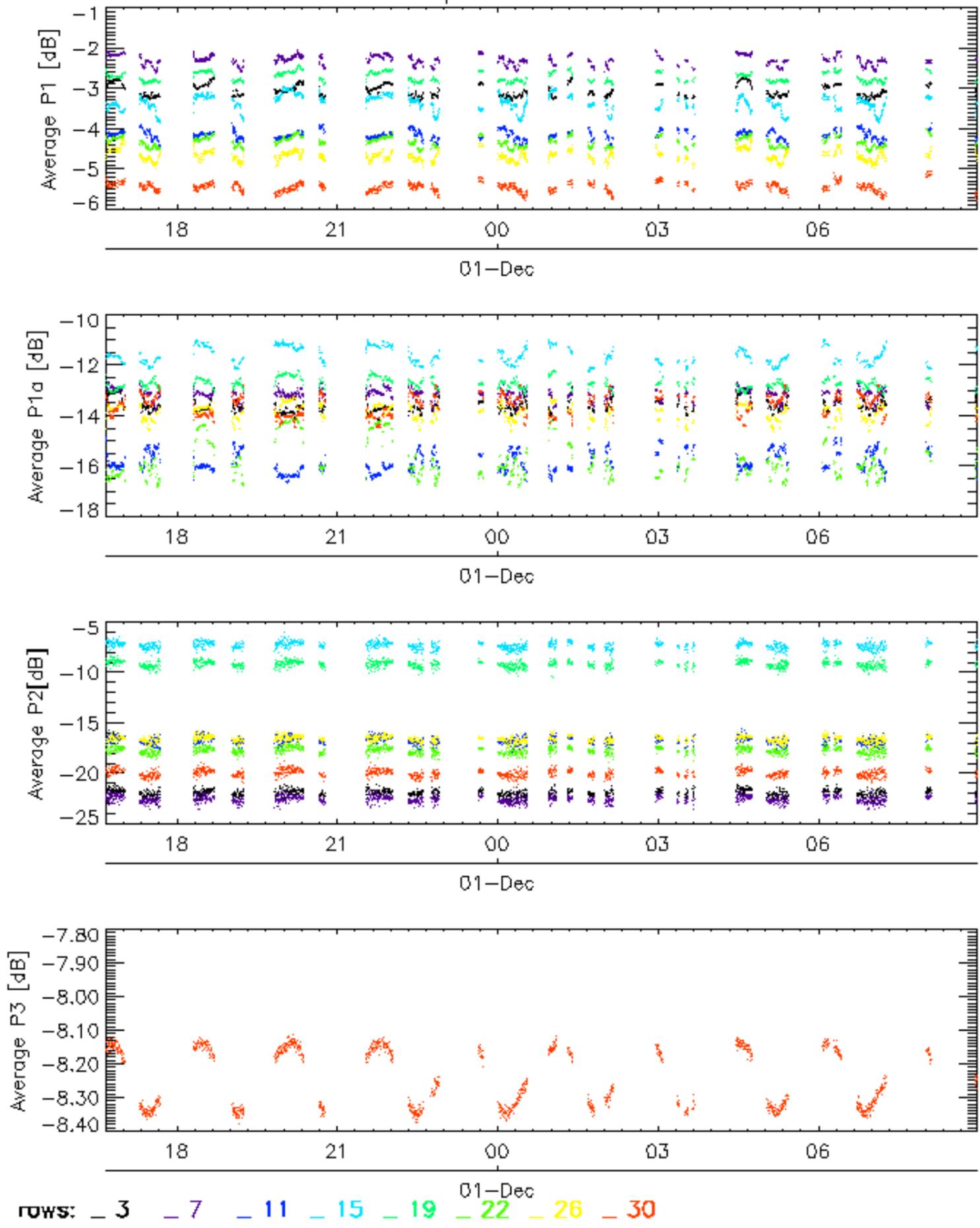


Cal pulses for WVS IS2



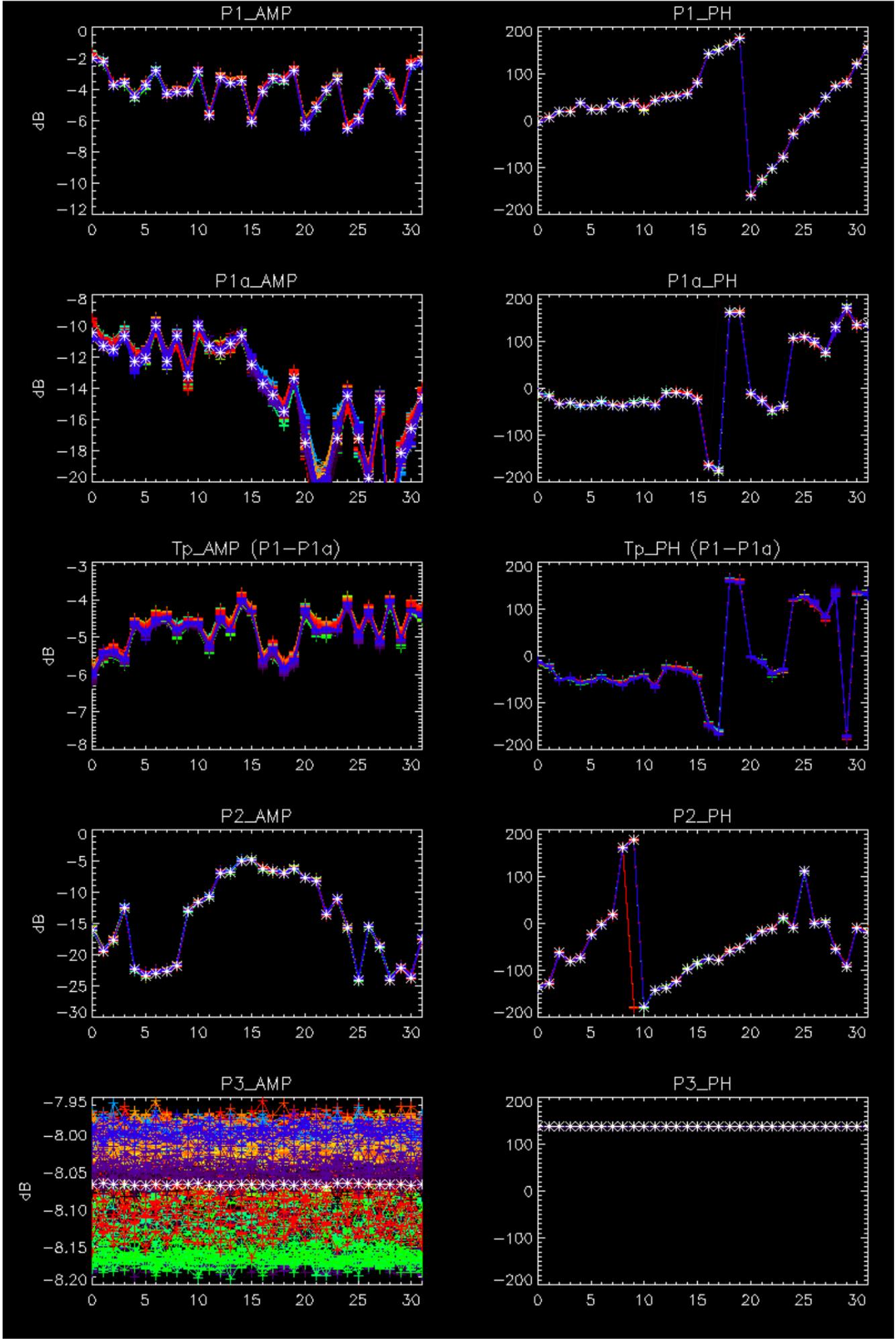
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

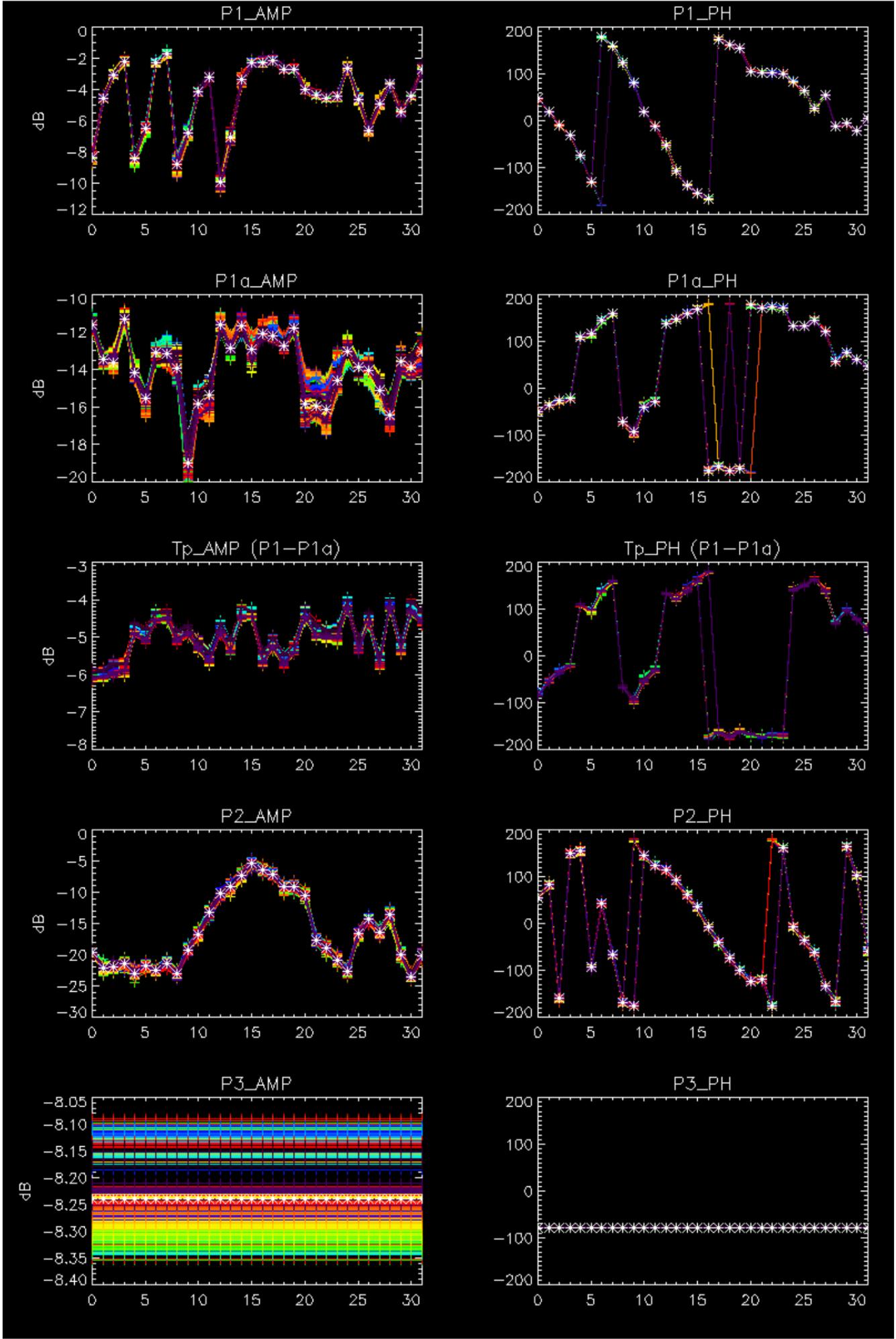
Cal pulses for WVS IS2



No anomalies observed on available browse products

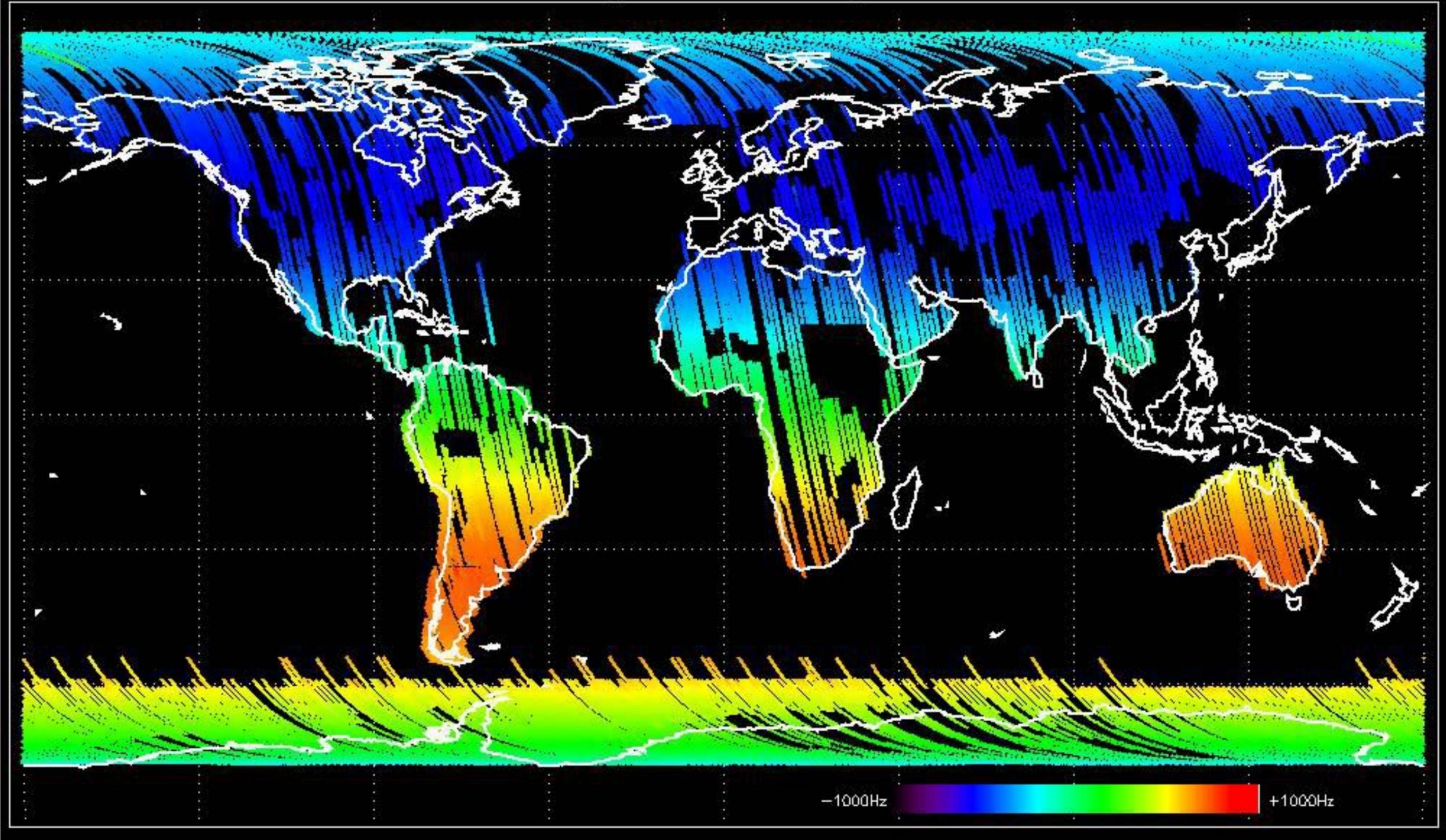
No anomalies observed.



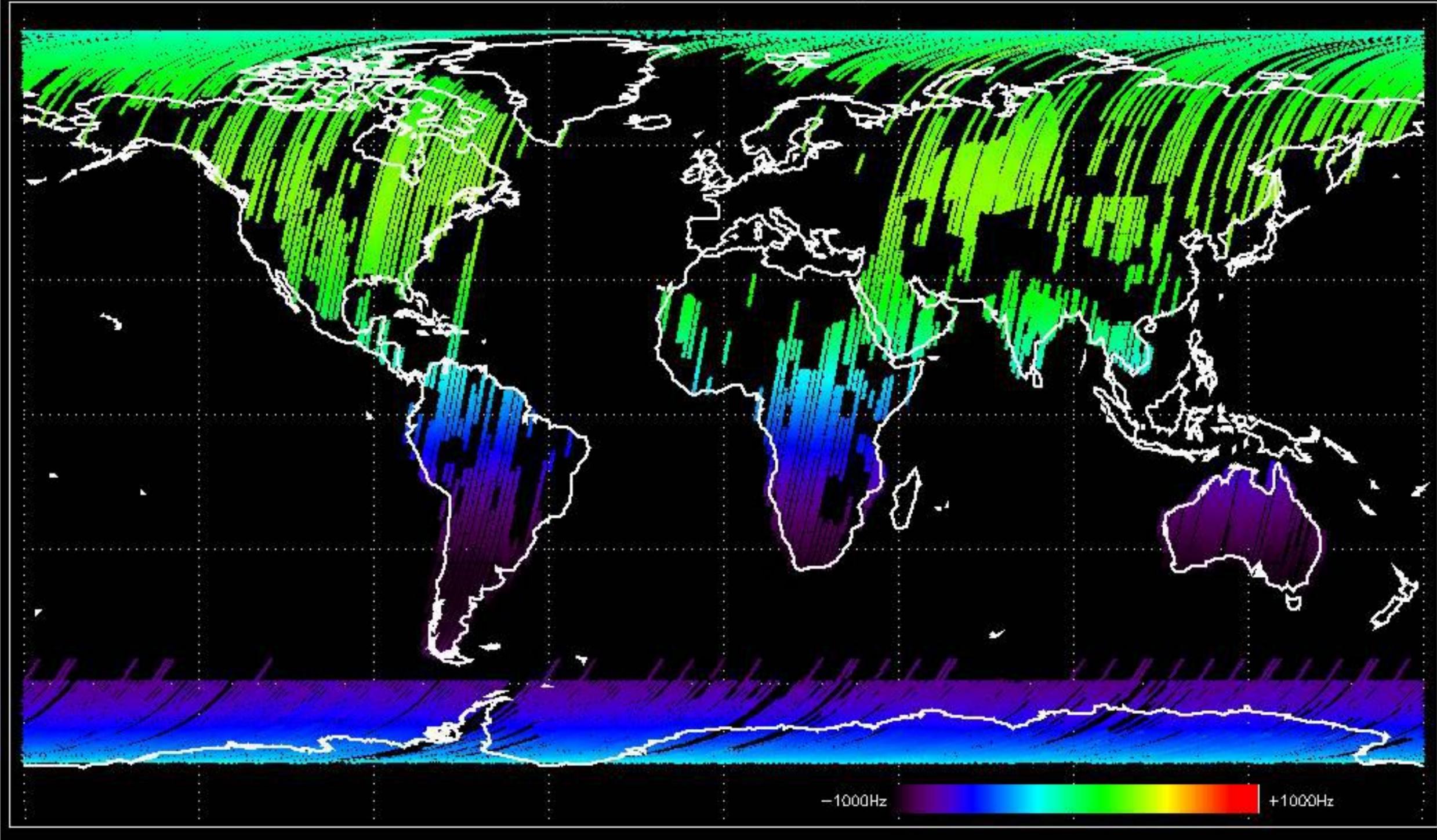


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

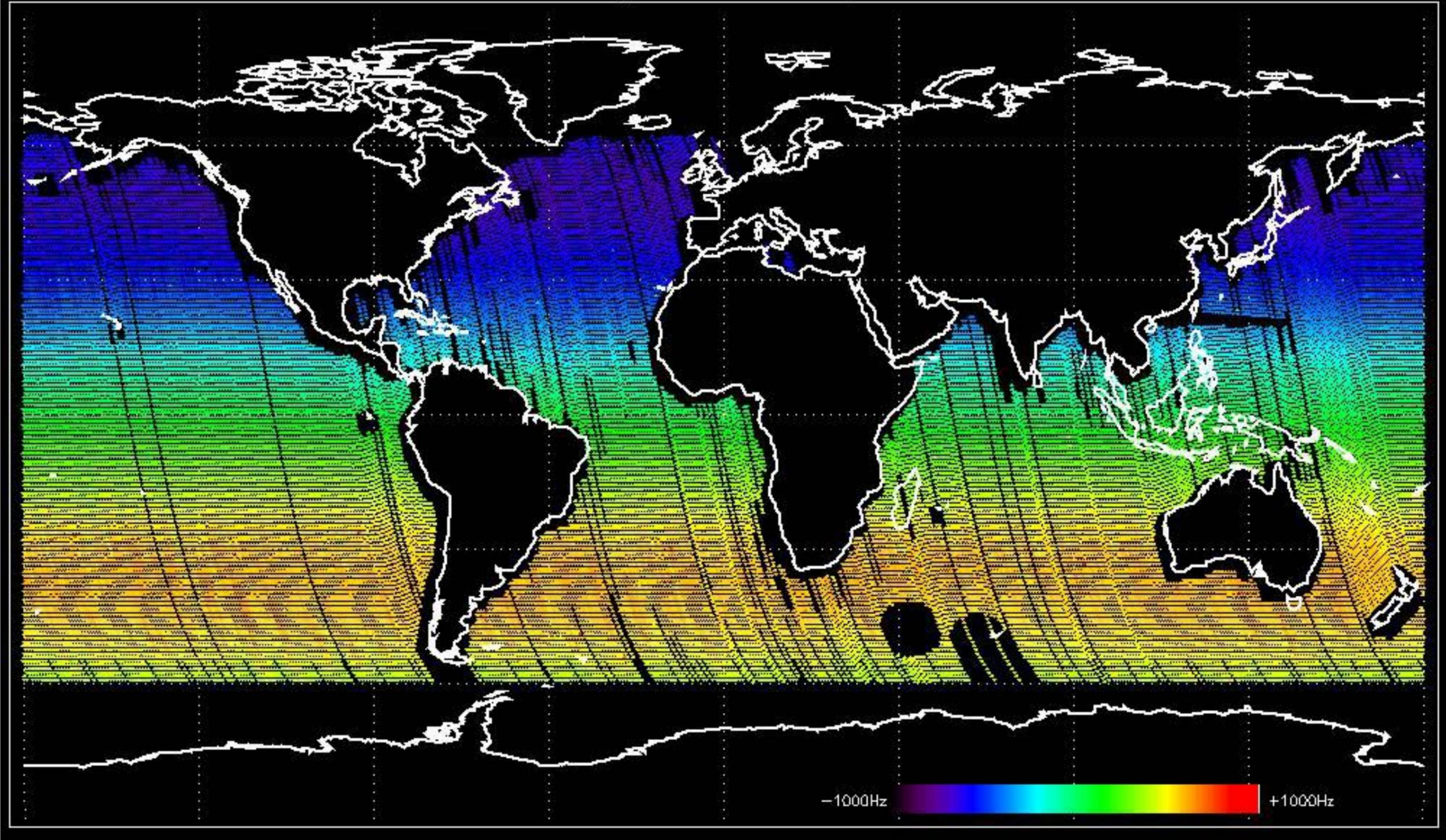
Doppler 'GM1' 'SS1' ascending



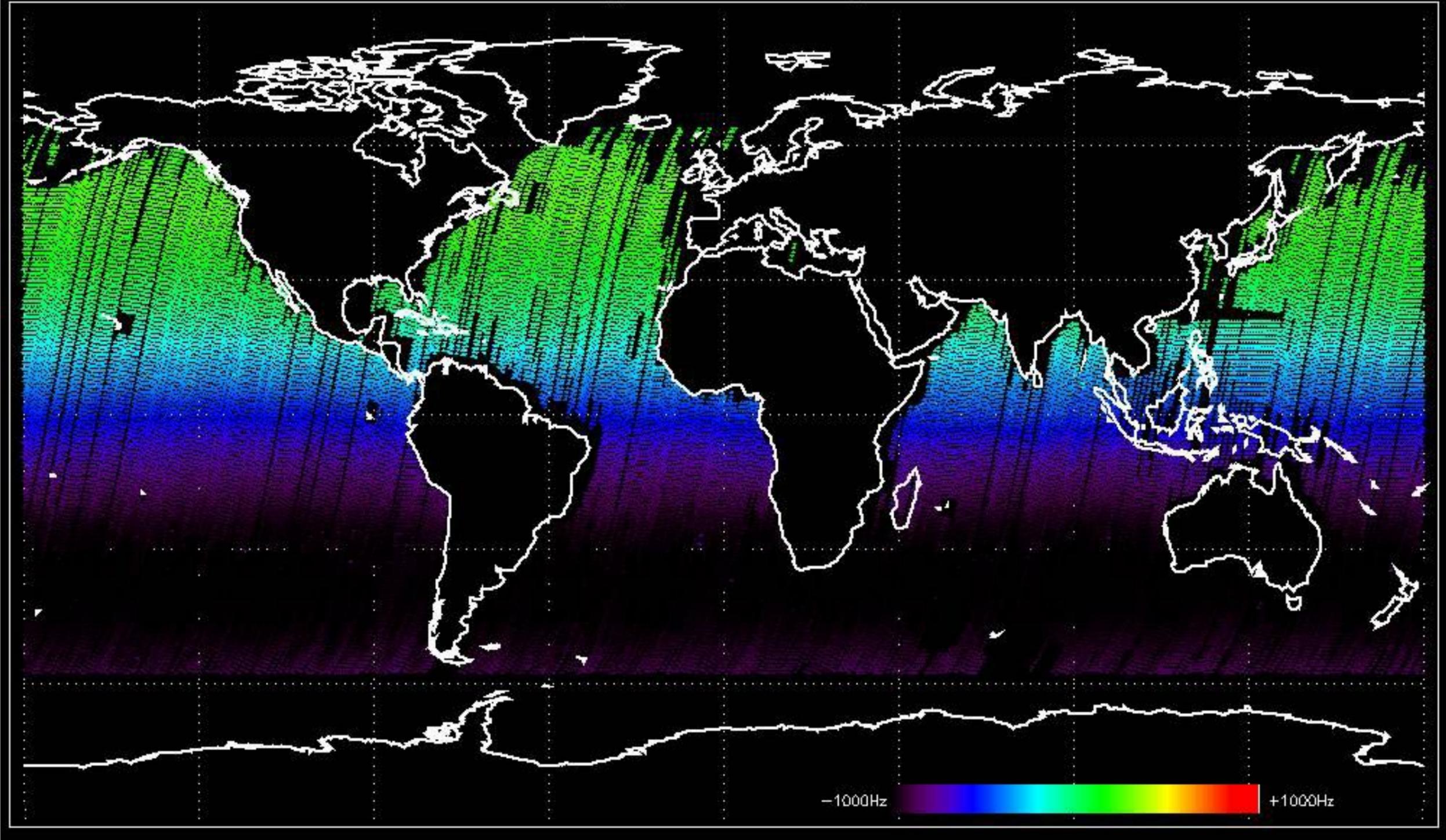
Doppler 'GM1' 'SS1' descending



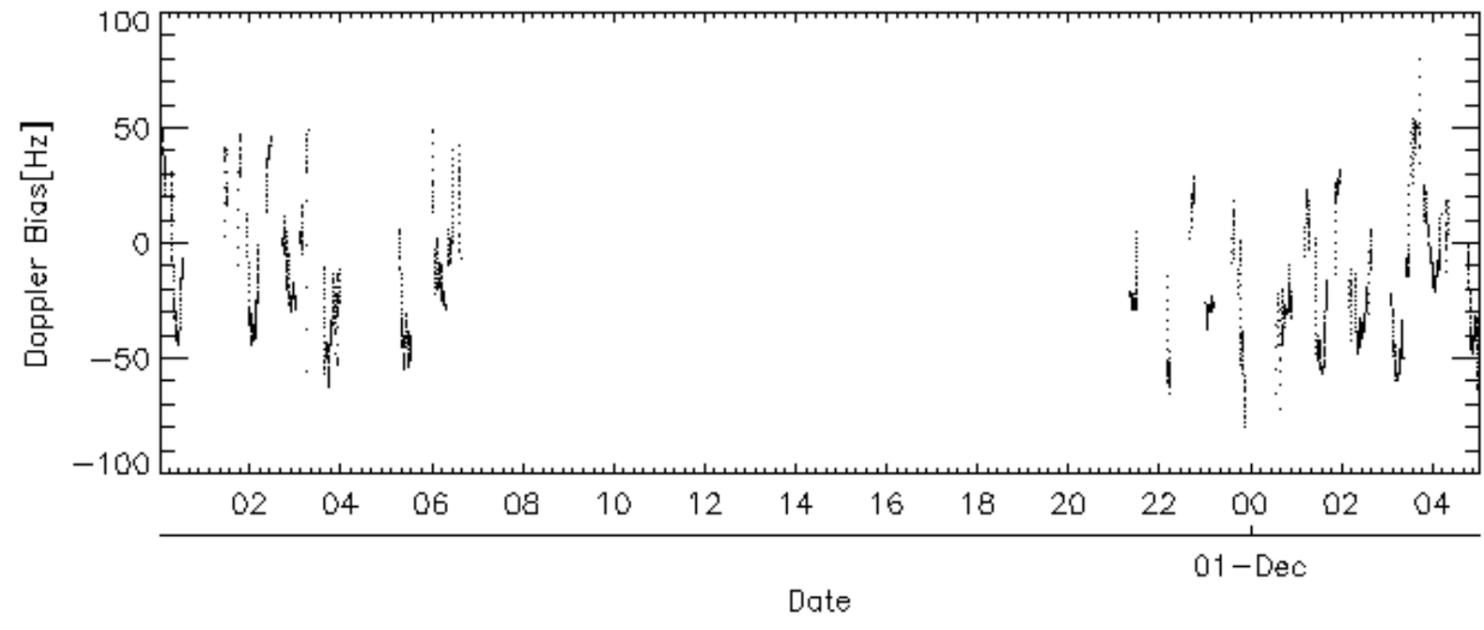
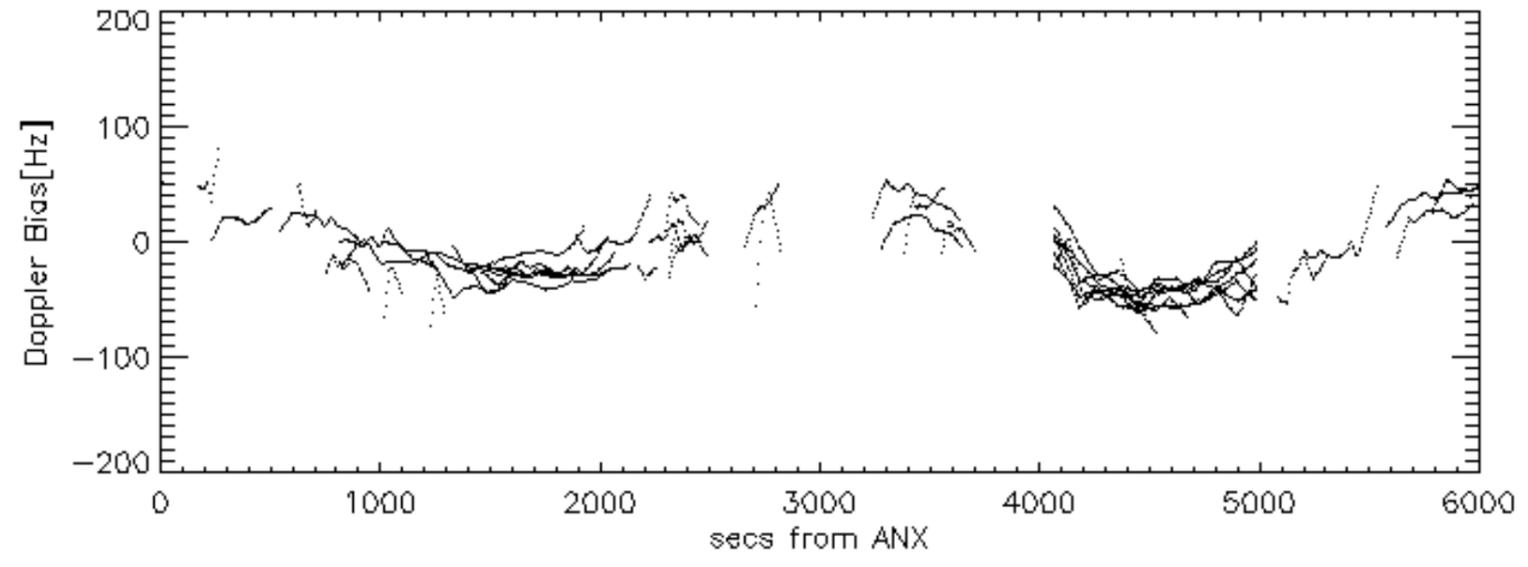
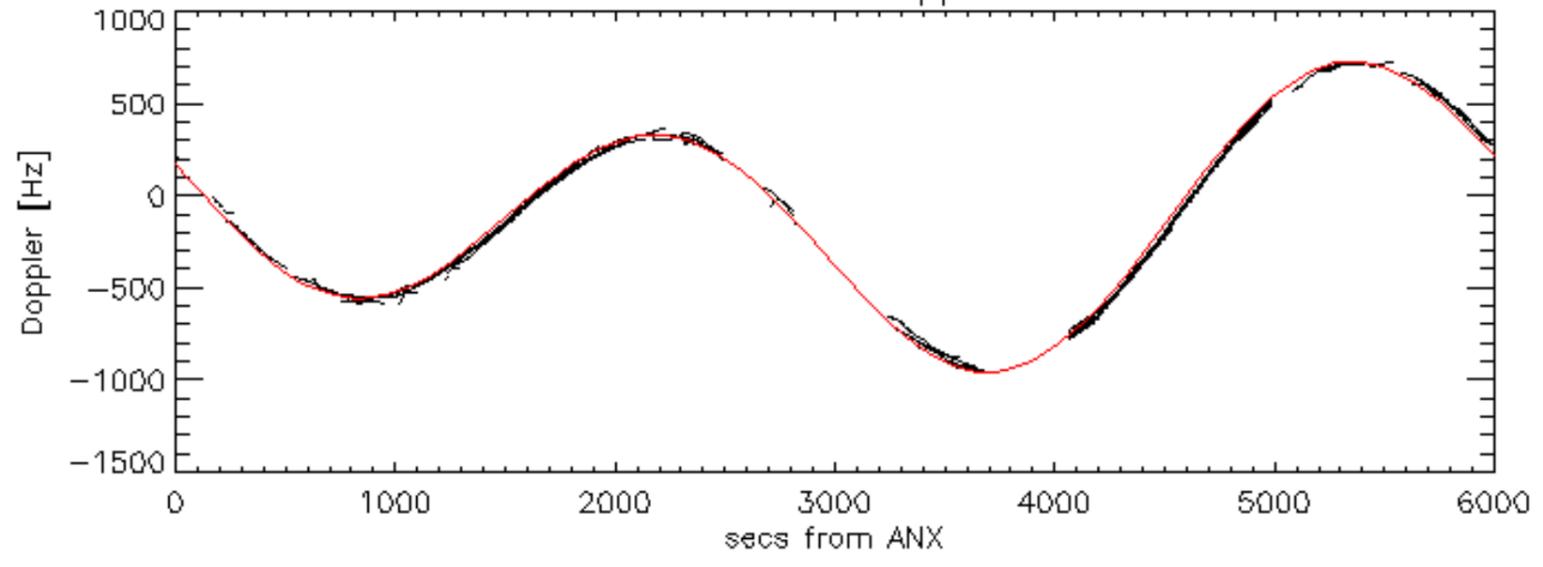
Doppler 'WVS' 'IS2' ascending

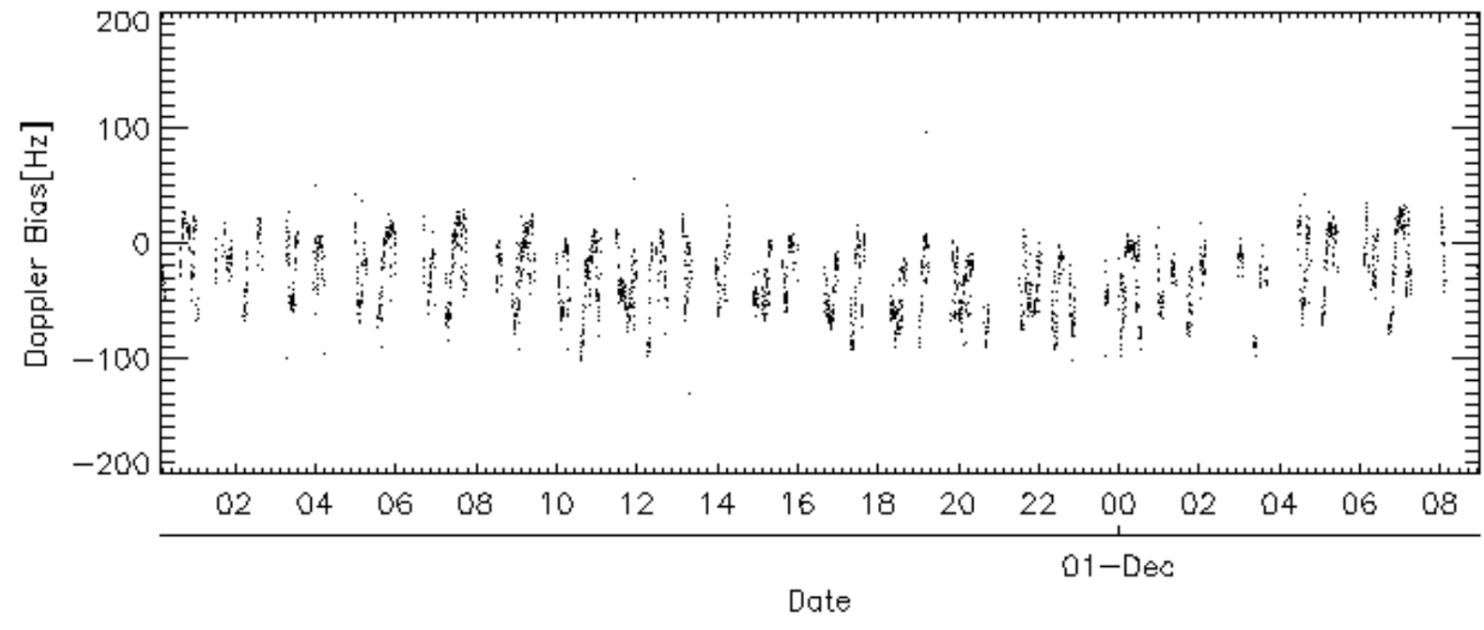
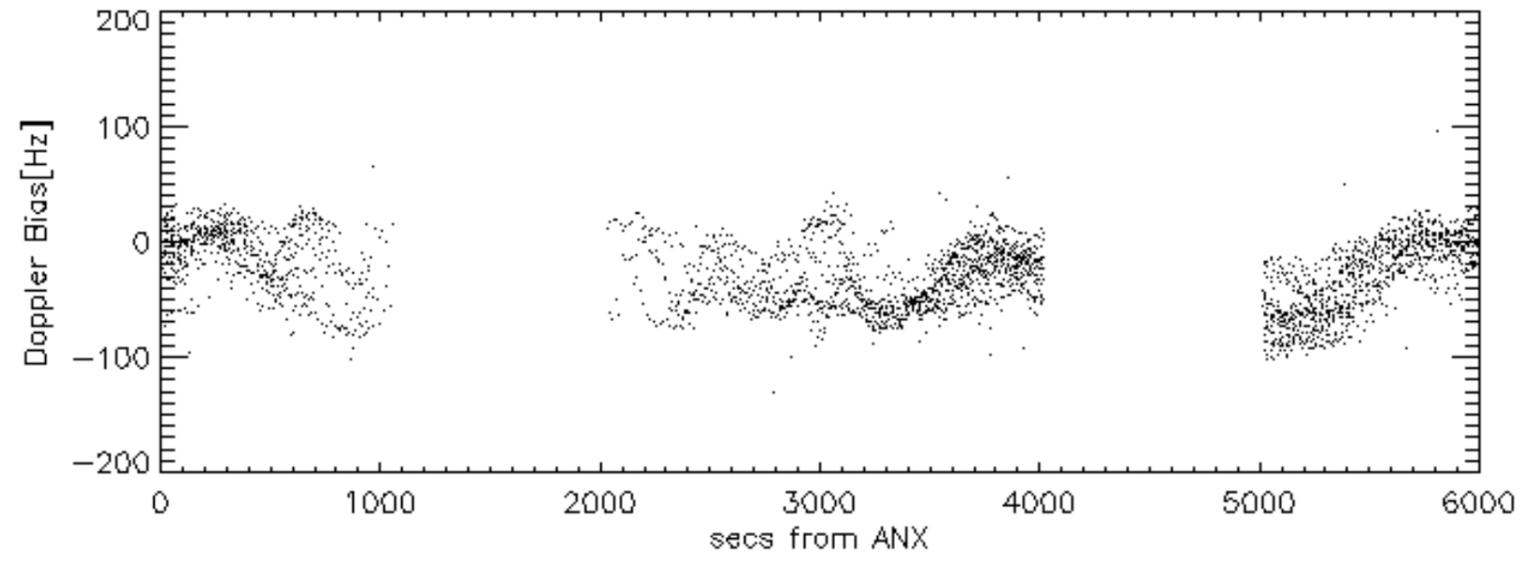
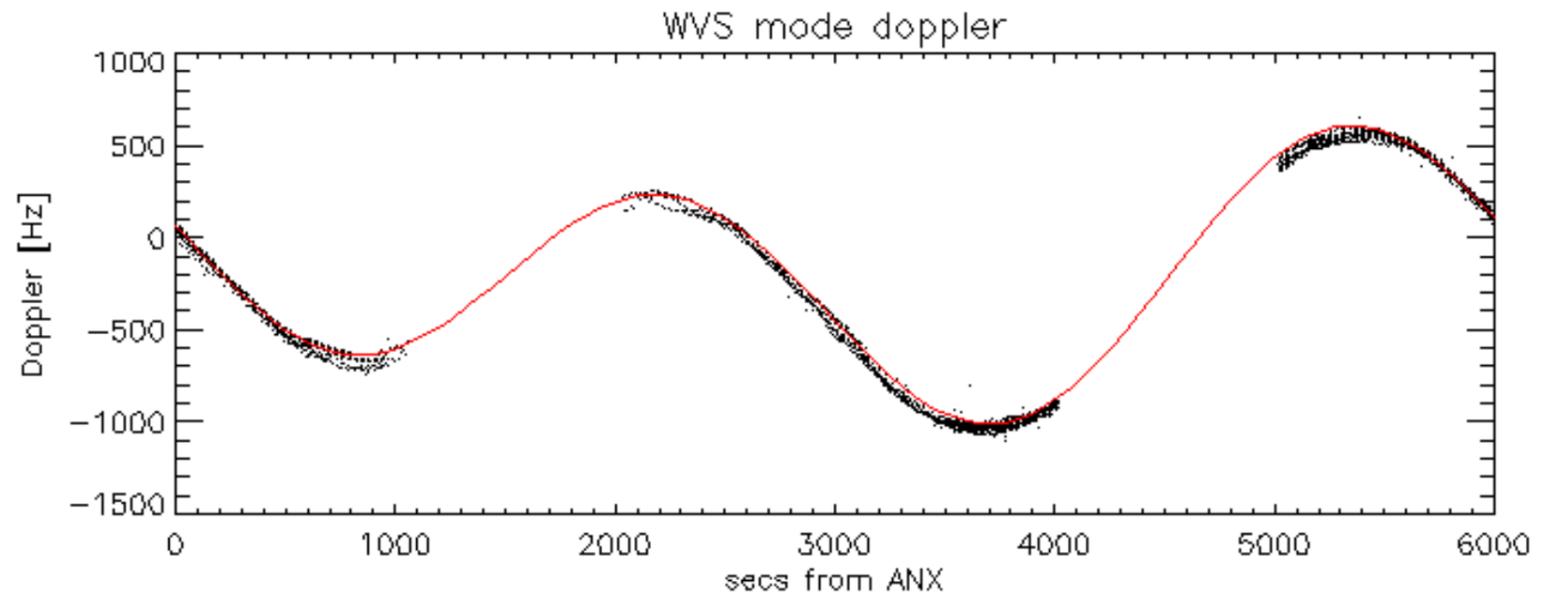


Doppler 'WVS' 'IS2' descending

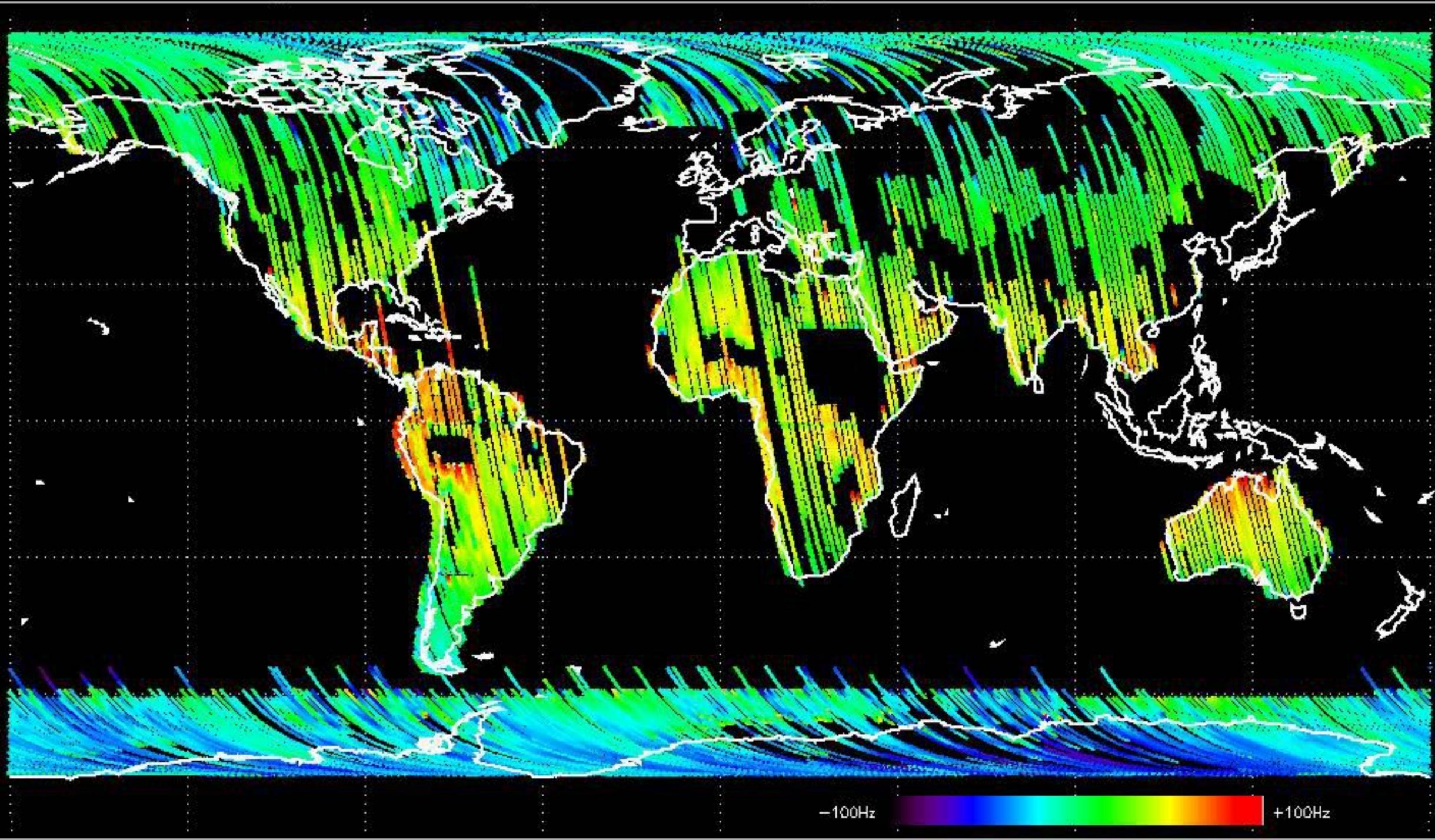


GM1 mode doppler

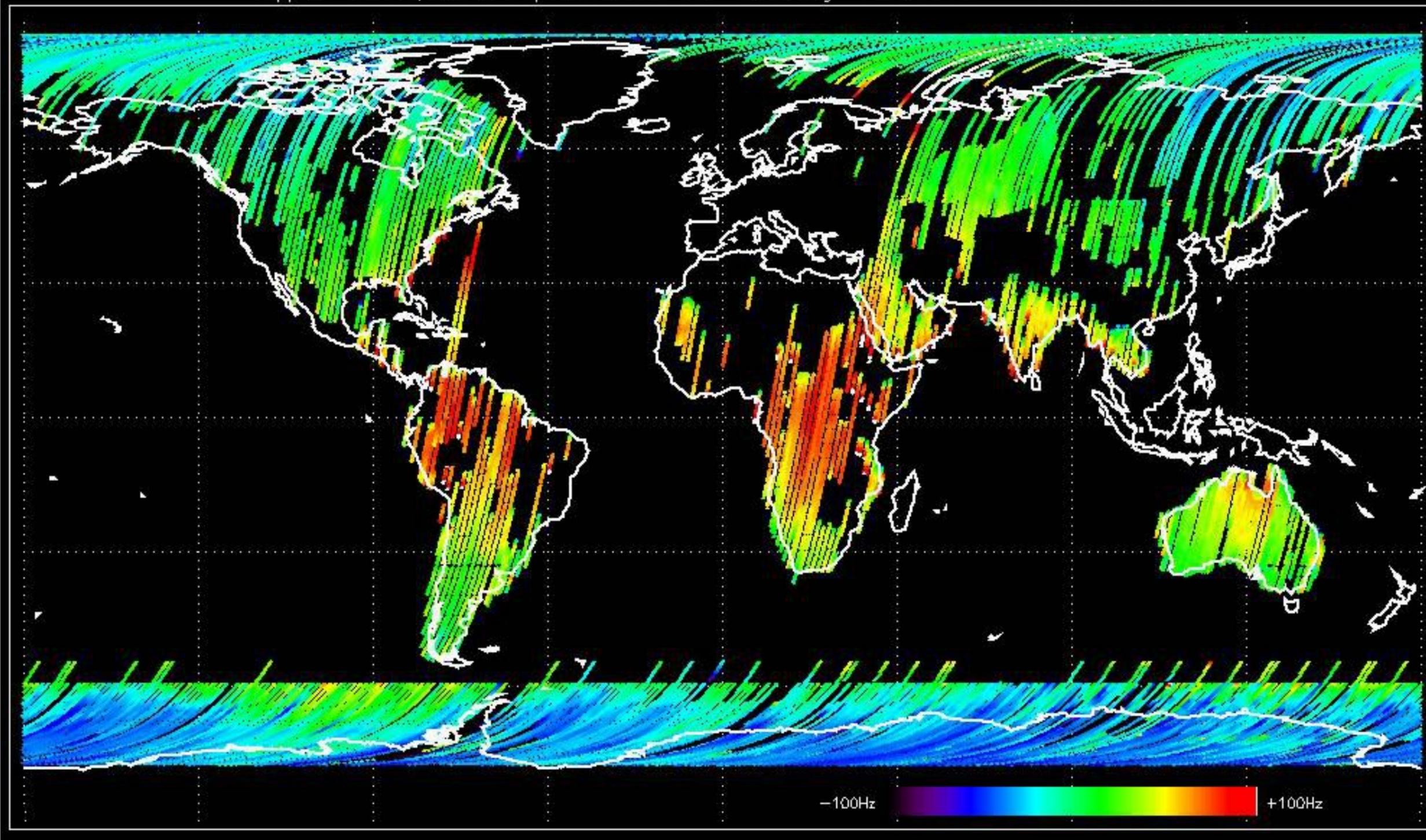




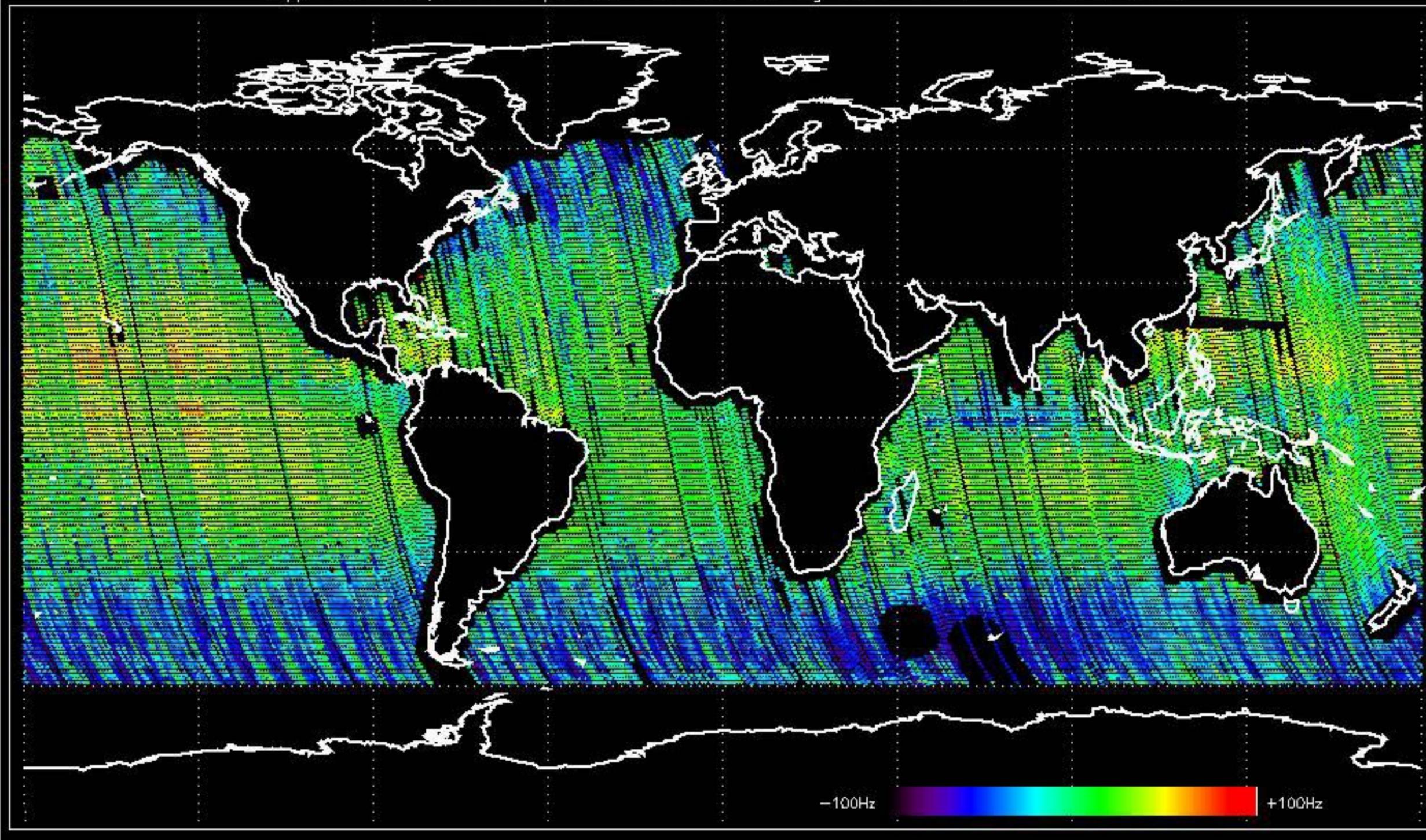
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -15.780736 Hz



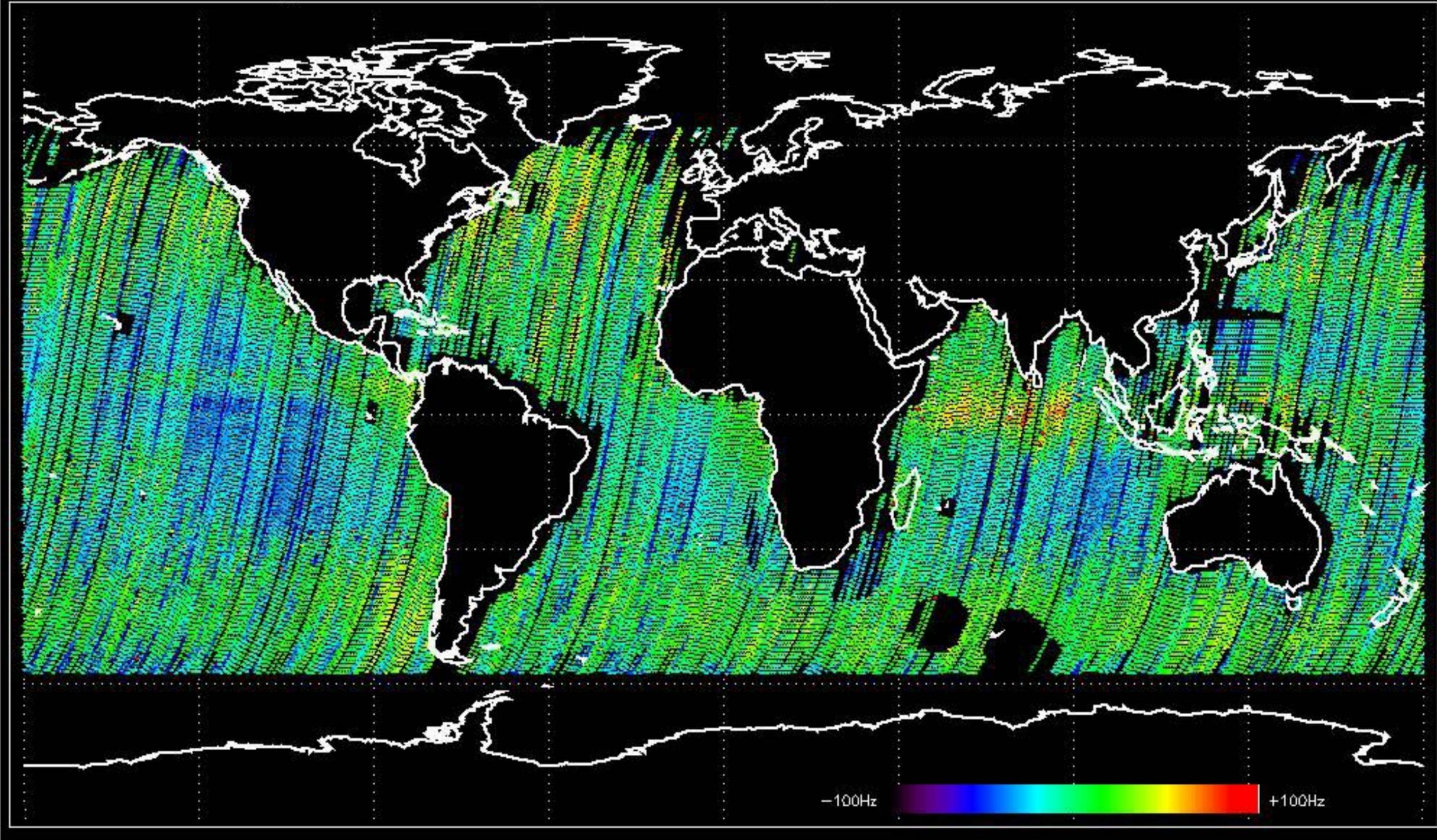
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -12.301844 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -3.9498085 Hz

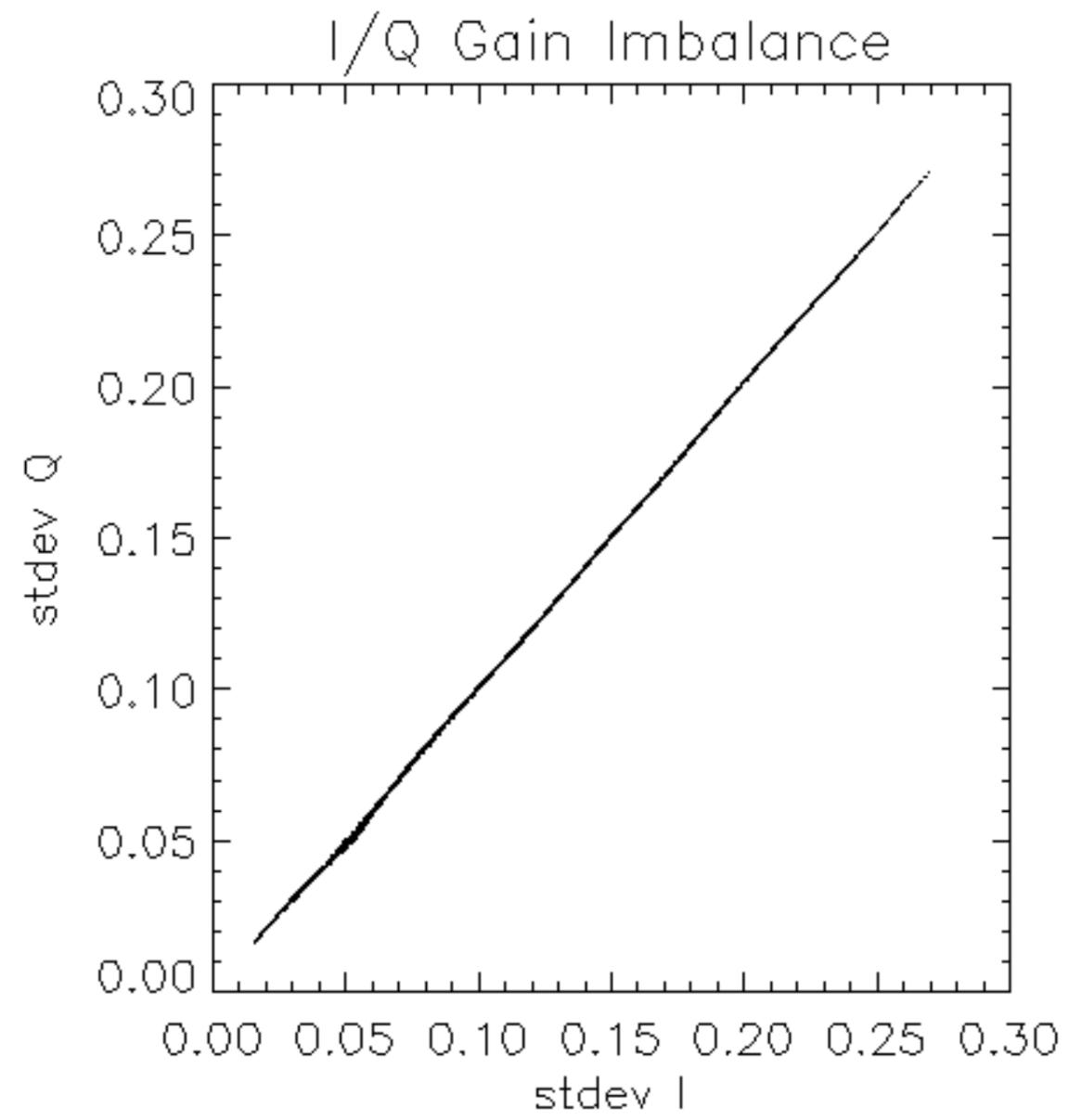


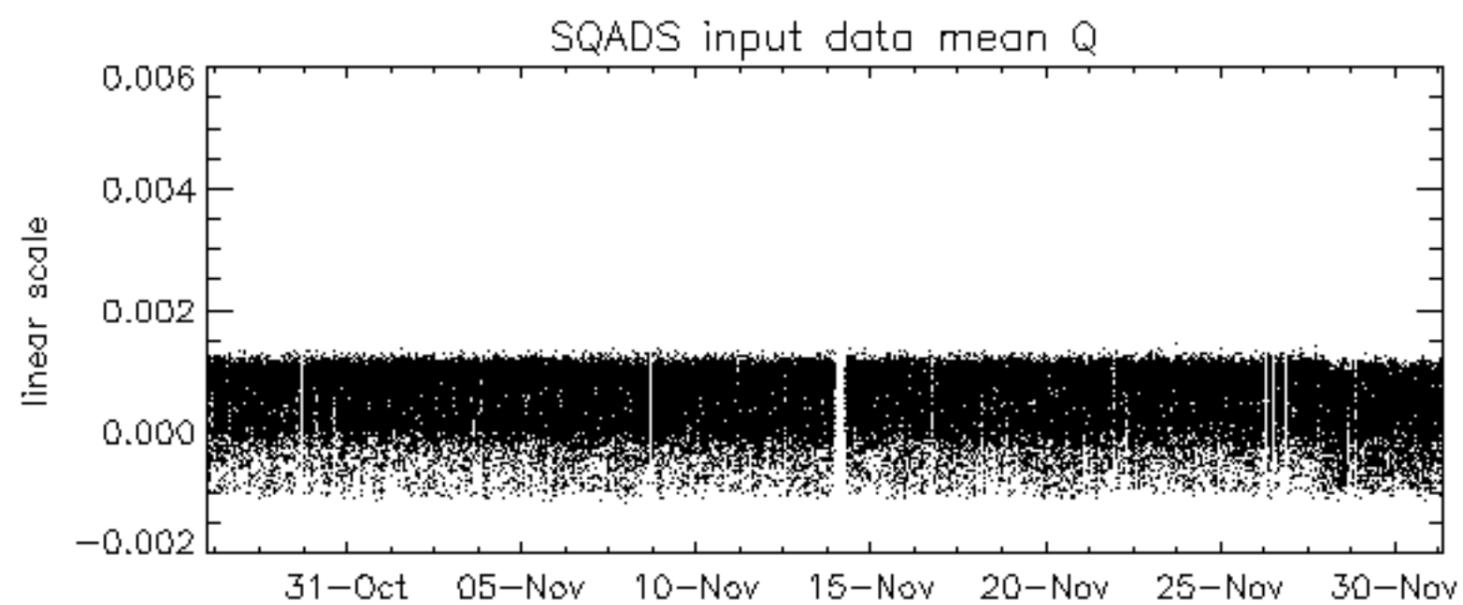
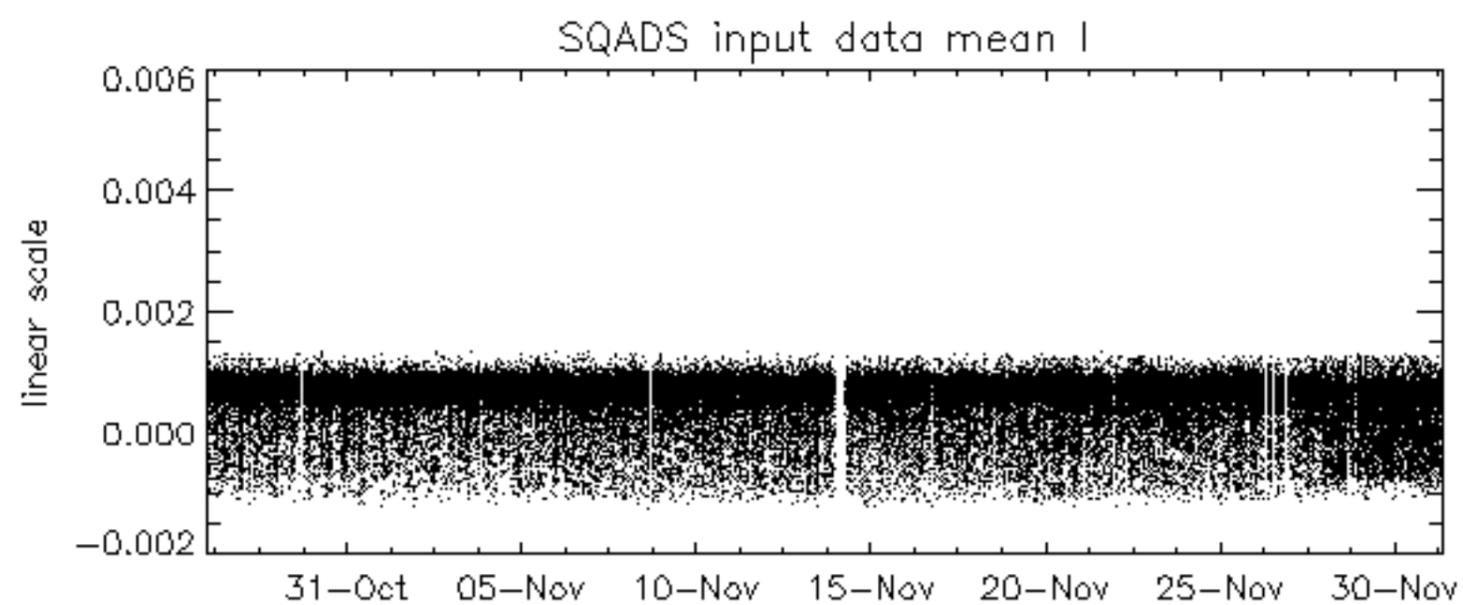
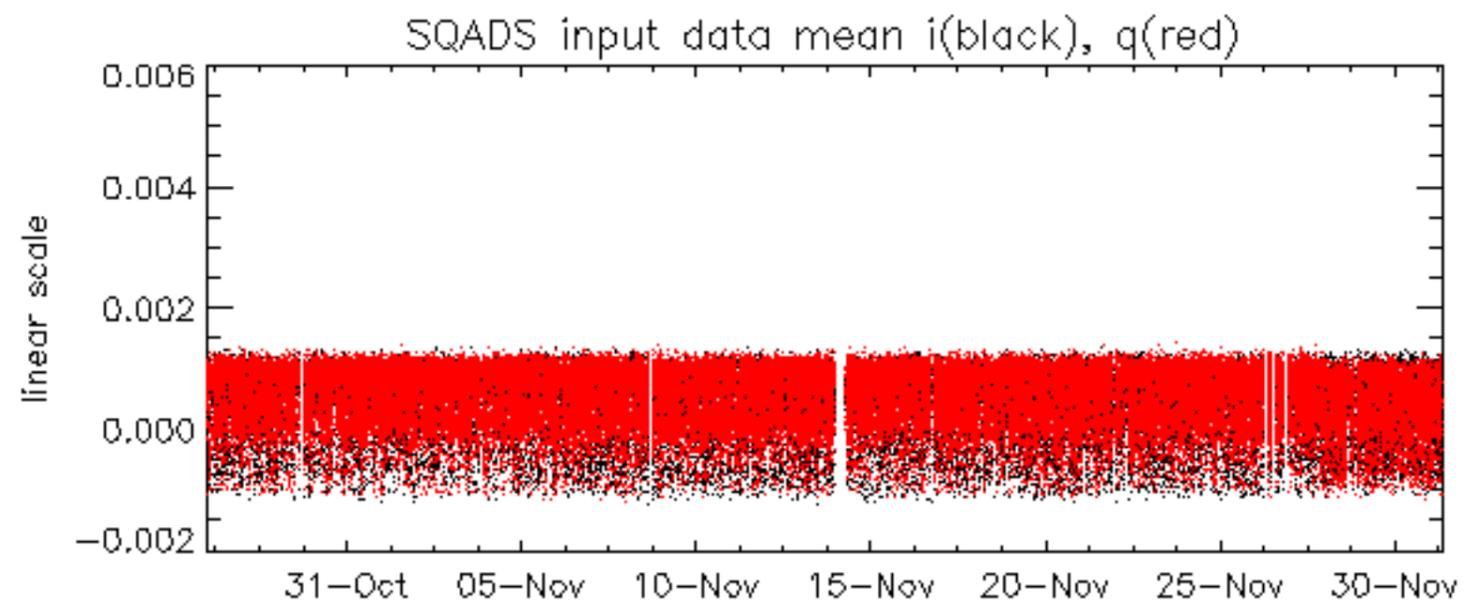
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -6.9815467 Hz

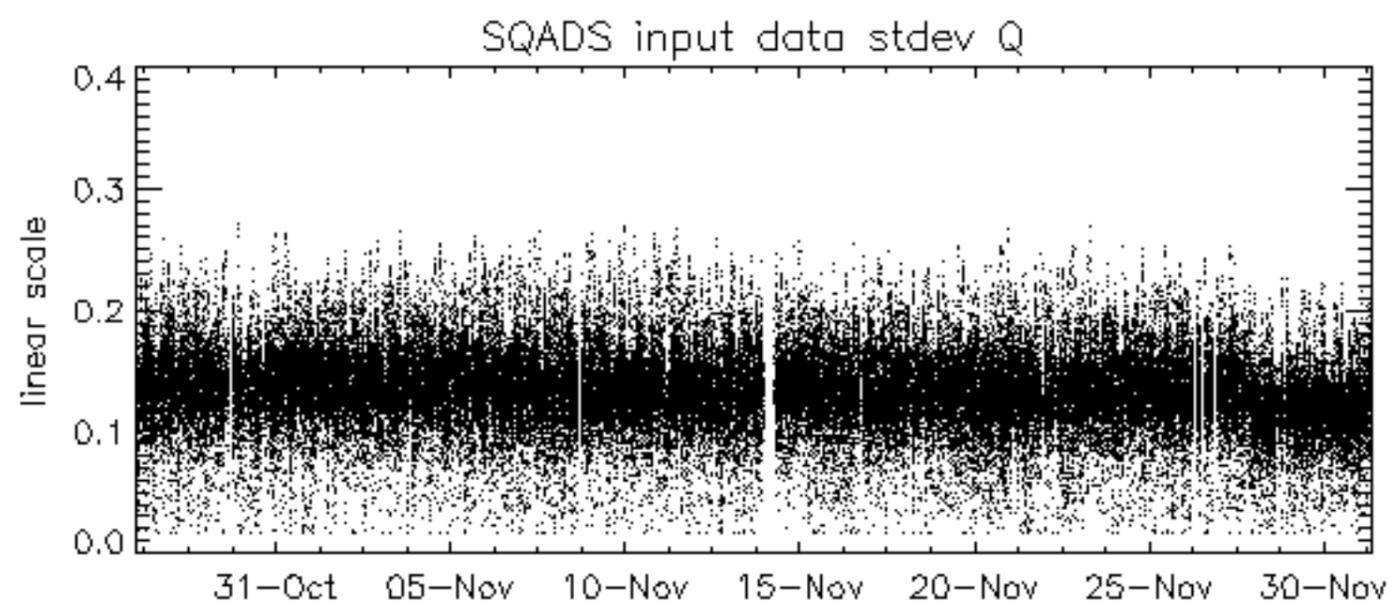
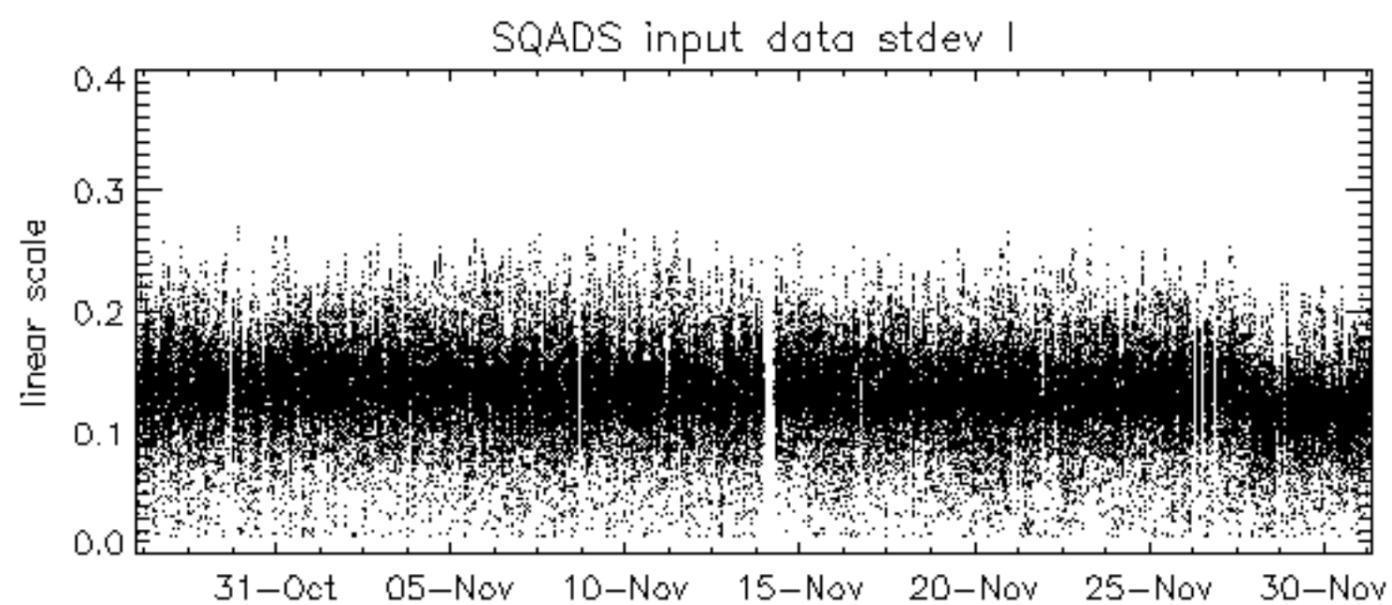
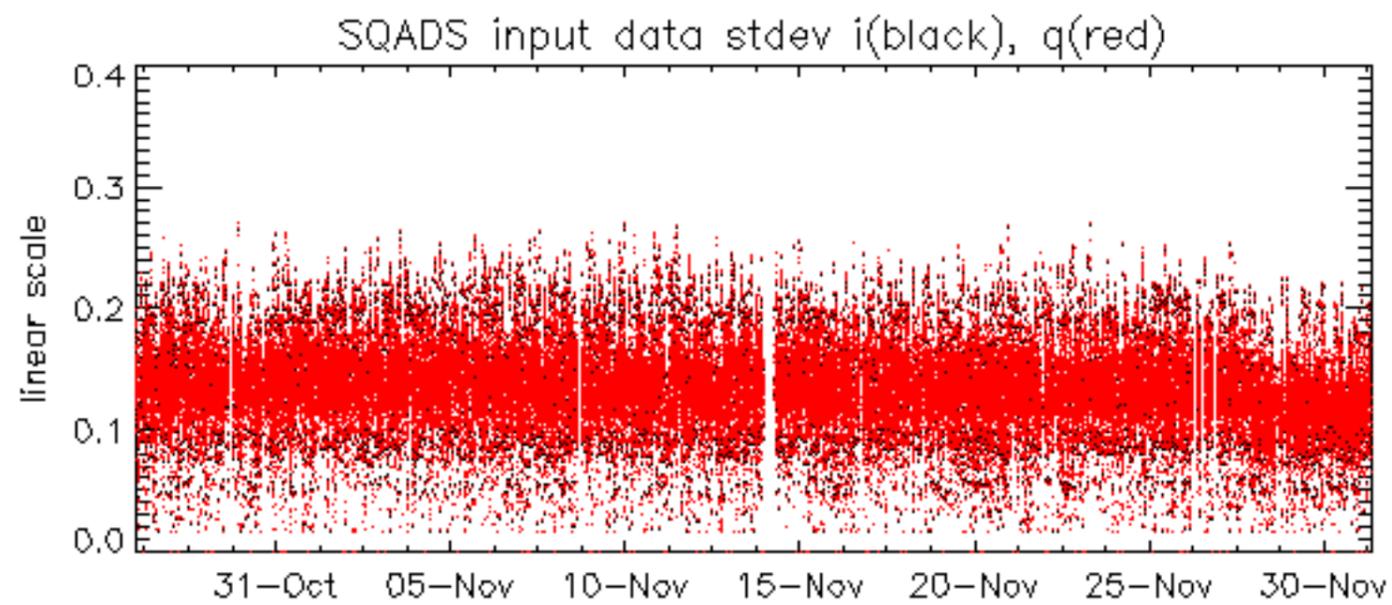


No anomalies observed on available MS products:

No anomalies observed.



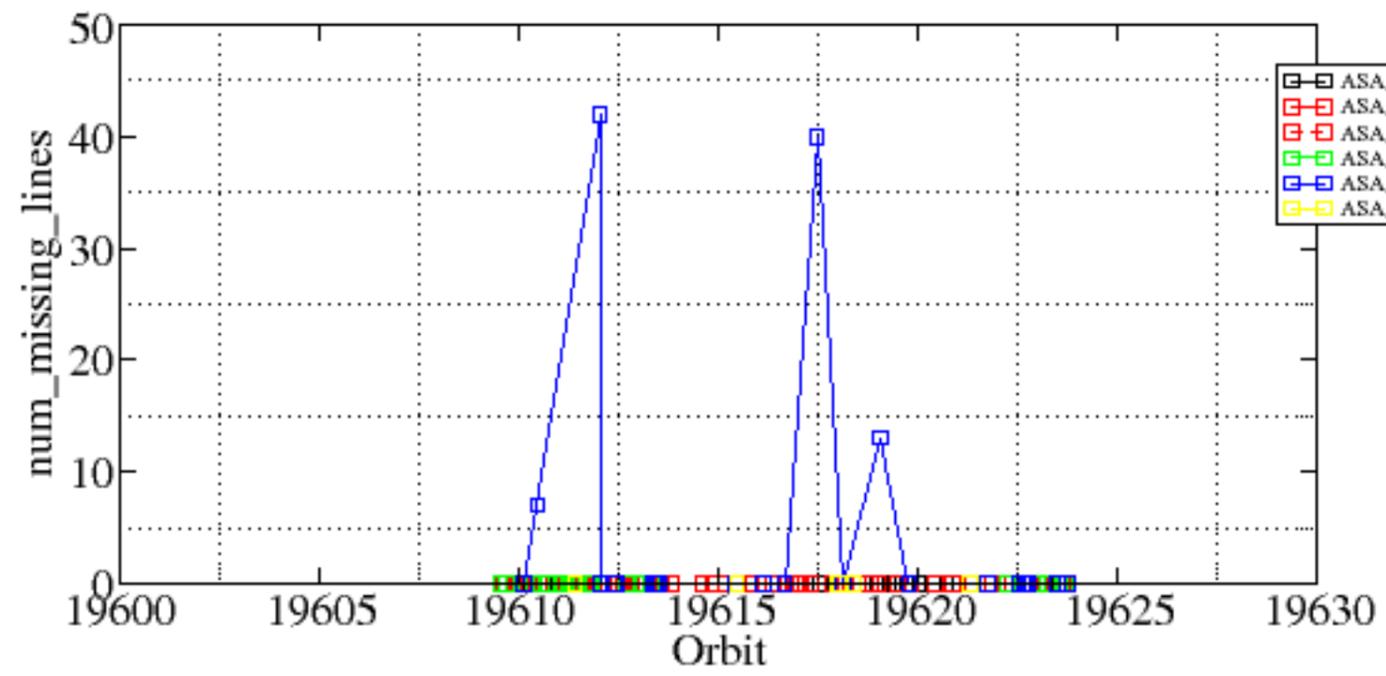


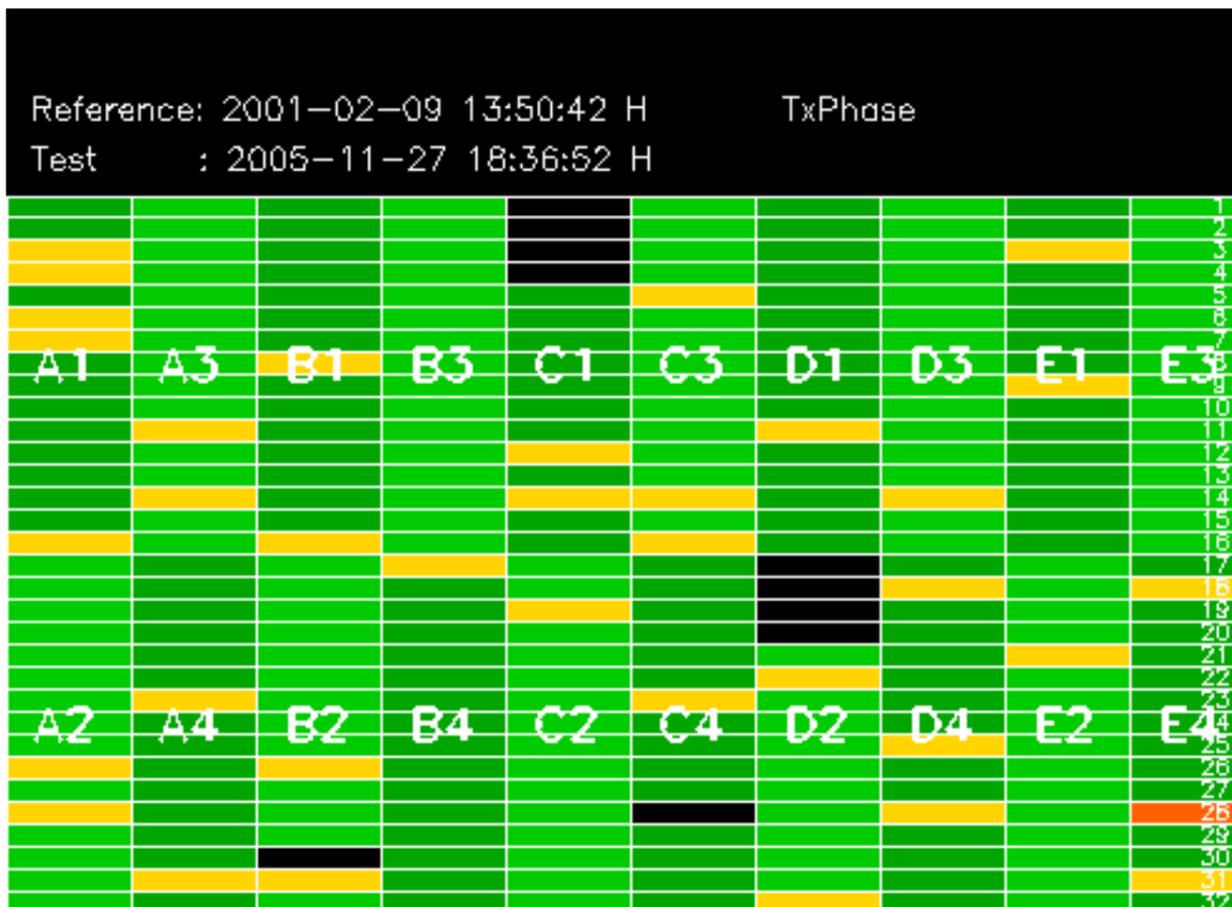


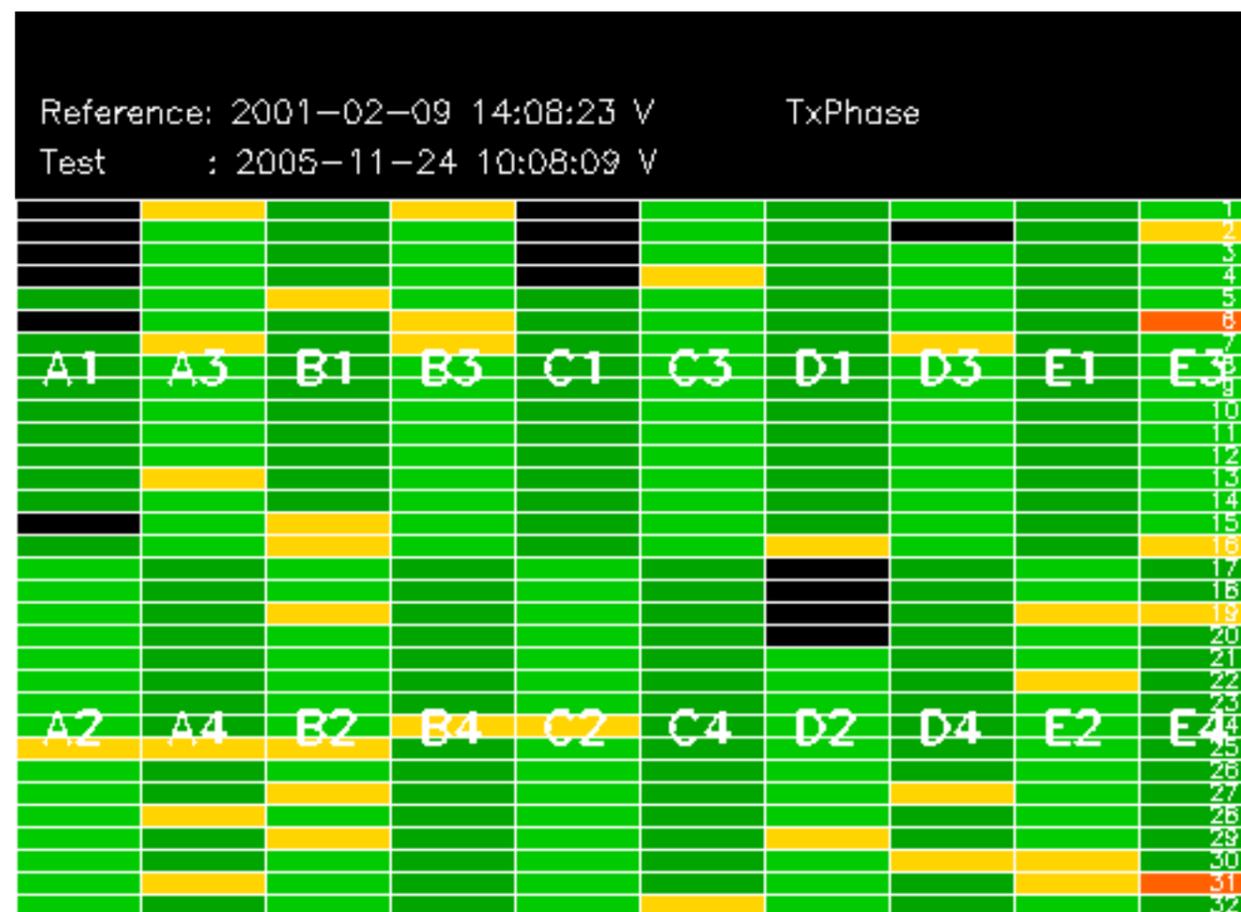
Summary of analysis for the last 3 days 2005113[901]

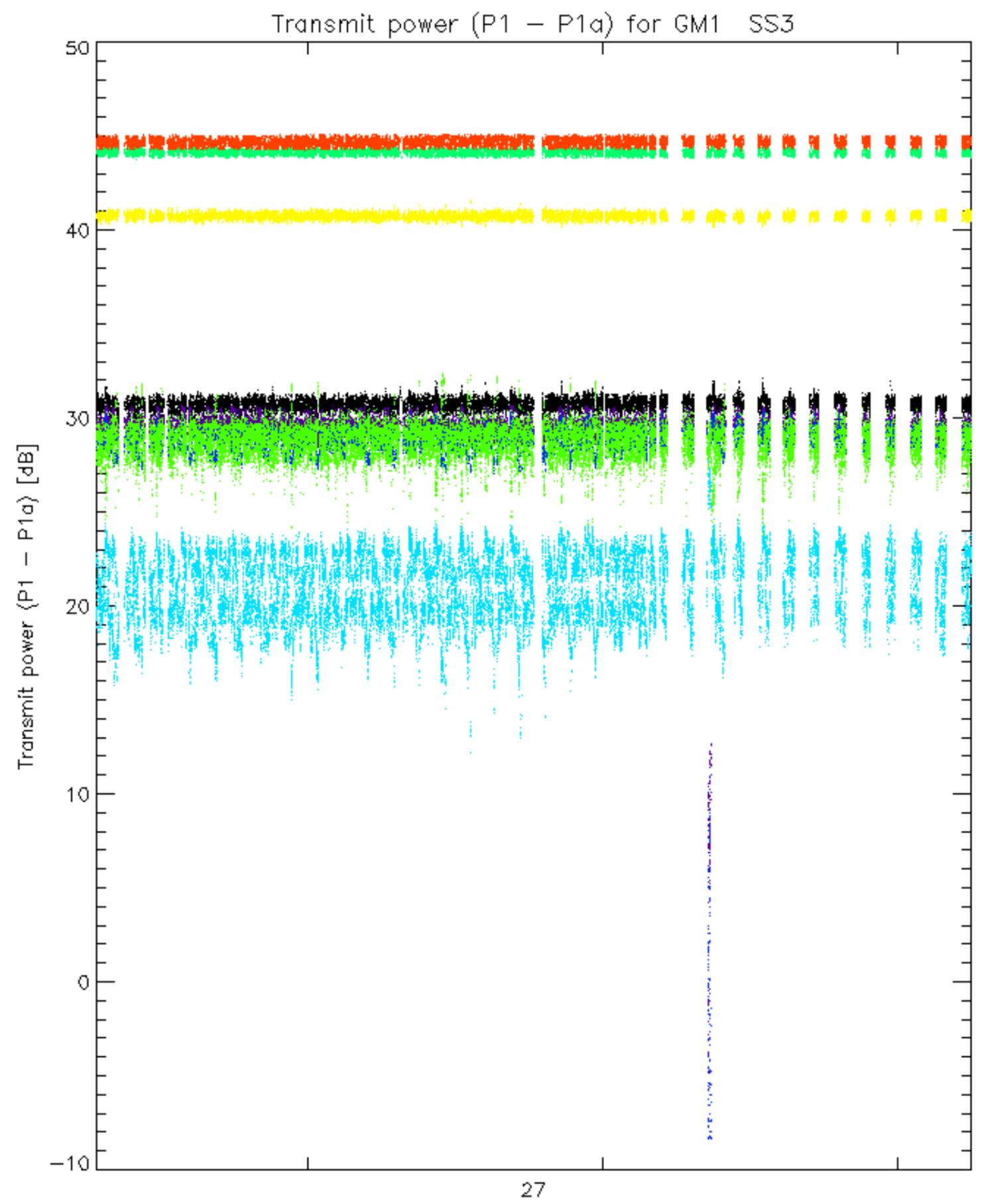
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051130_004532_000001932043_00016_19609_2618.N1	1	0
ASA_IMM_1PNPDE20051130_155405_000001592043_00025_19618_2666.N1	1	0
ASA_WSM_1PNPDE20051130_013440_000004642043_00017_19610_2133.N1	0	7
ASA_WSM_1PNPDE20051130_041331_000000672043_00019_19612_2133.N1	0	42
ASA_WSM_1PNPDE20051130_132130_000002082043_00024_19617_2198.N1	0	40
ASA_WSM_1PNPDE20051130_160017_000001472043_00026_19619_2200.N1	0	13

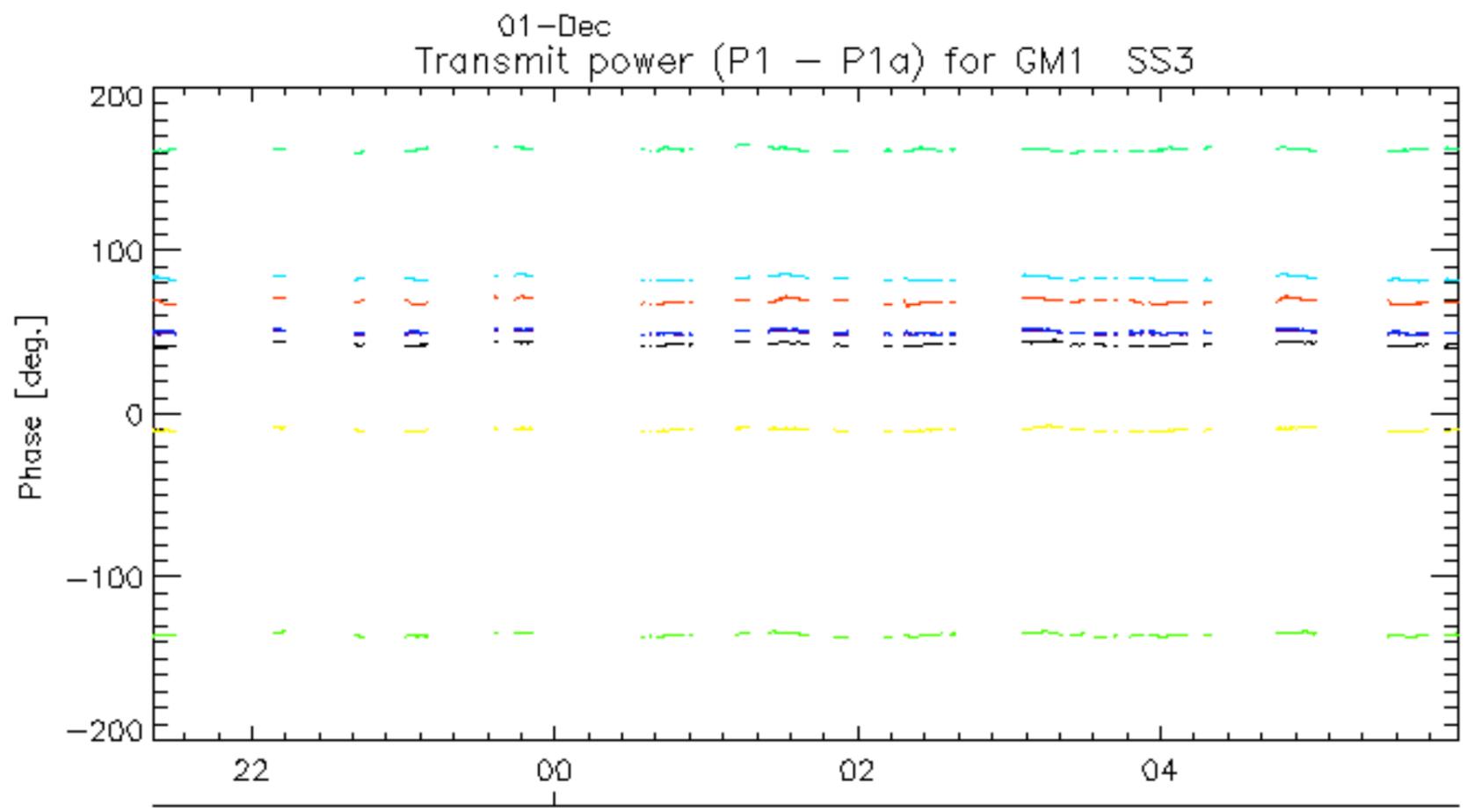
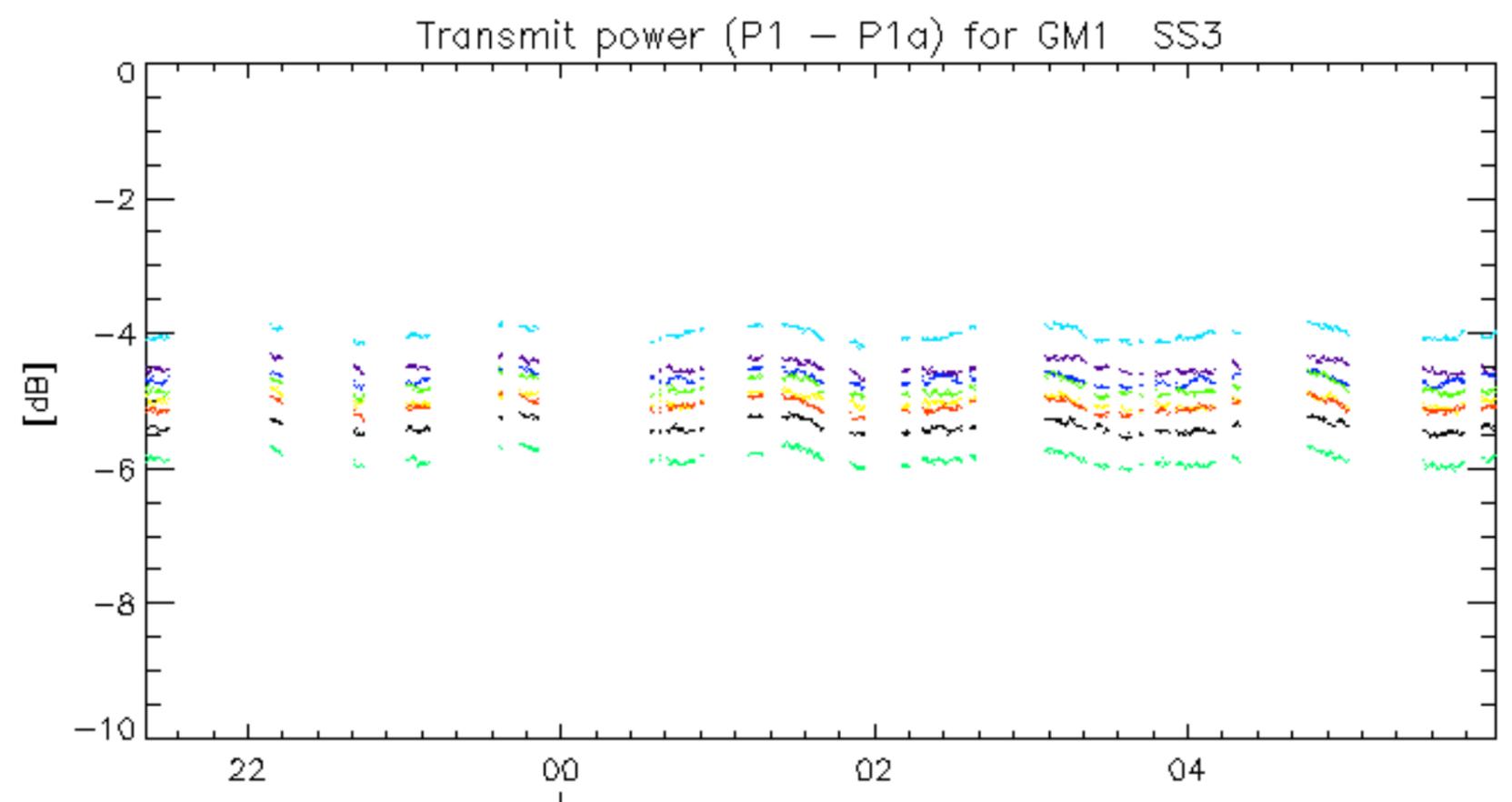




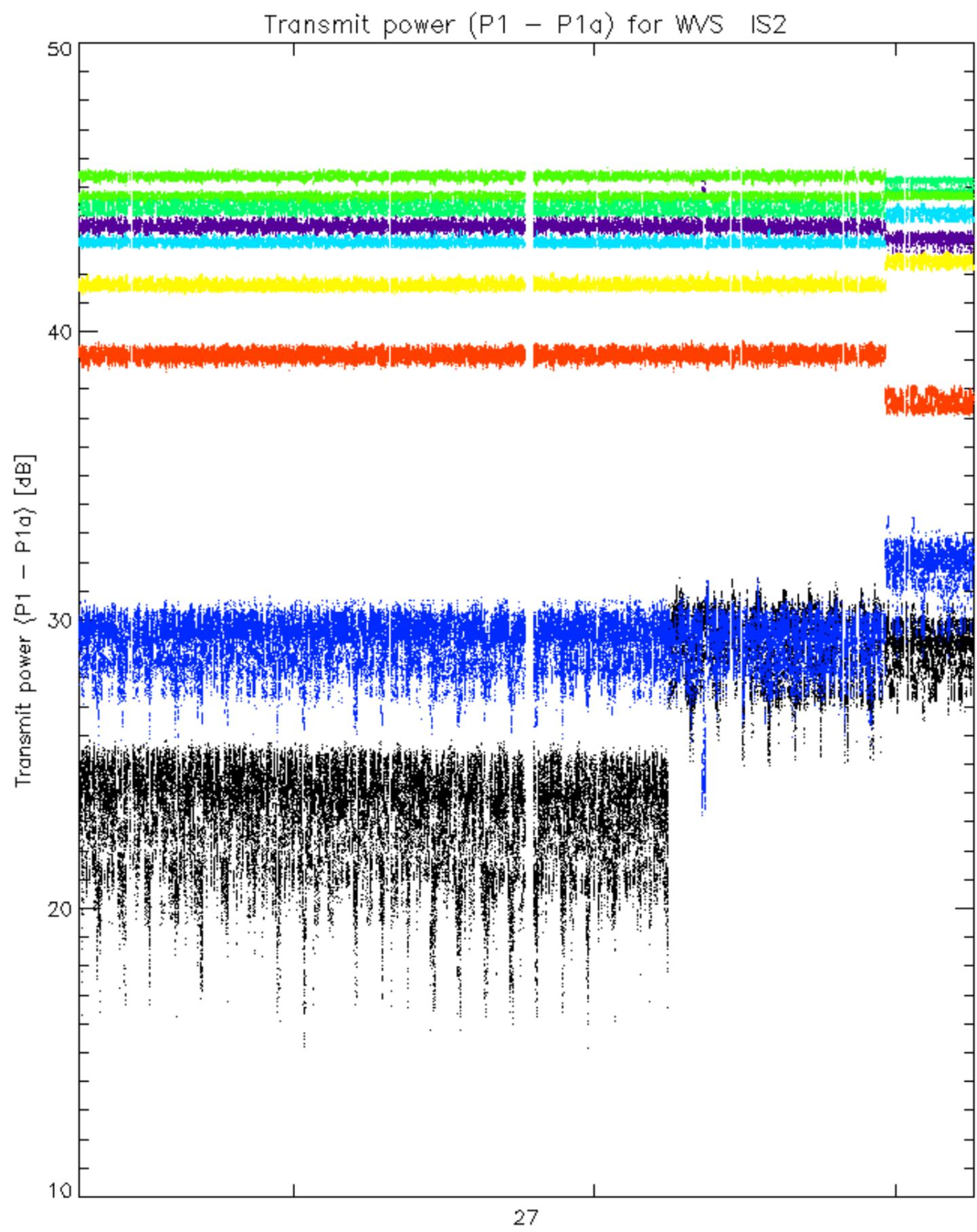


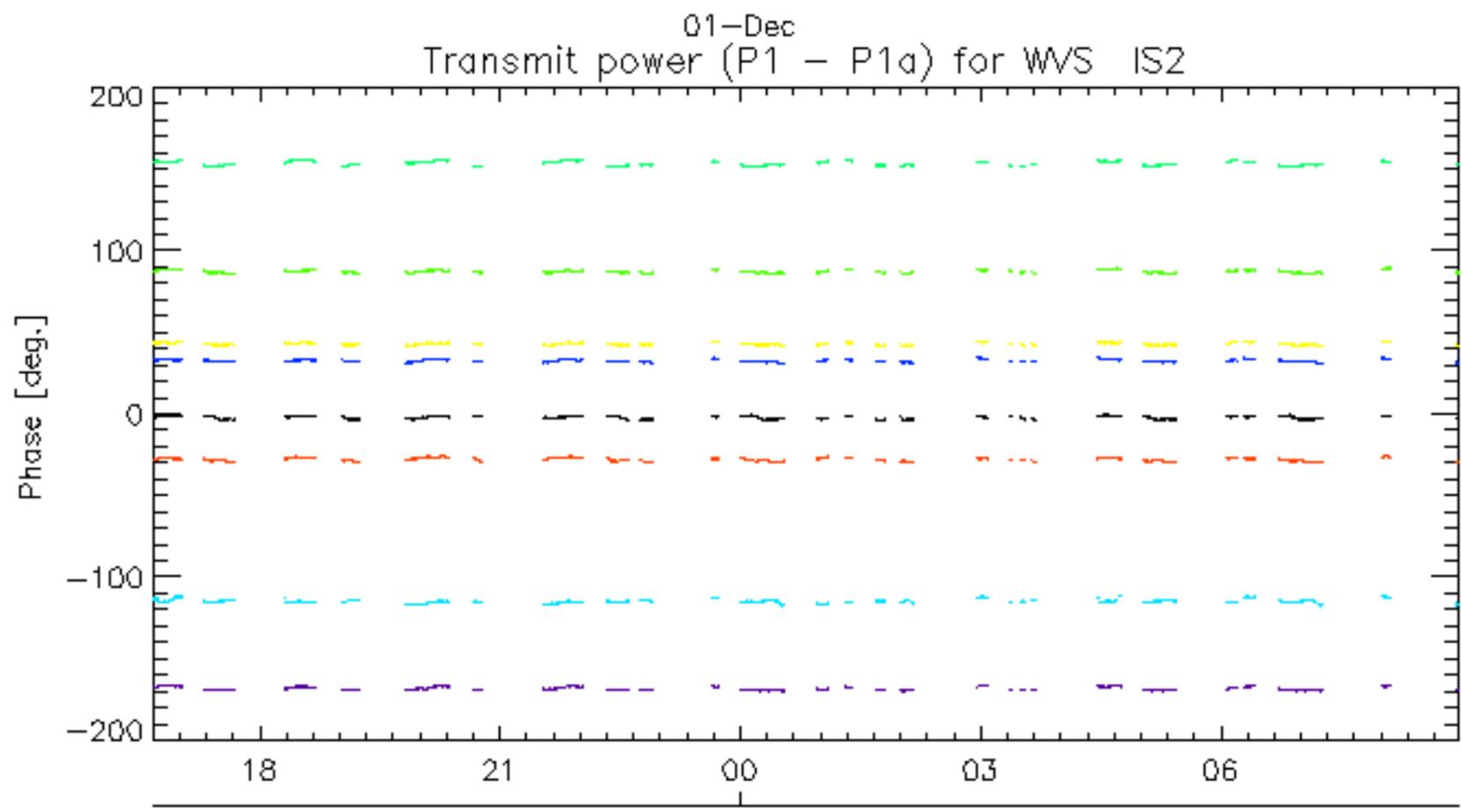
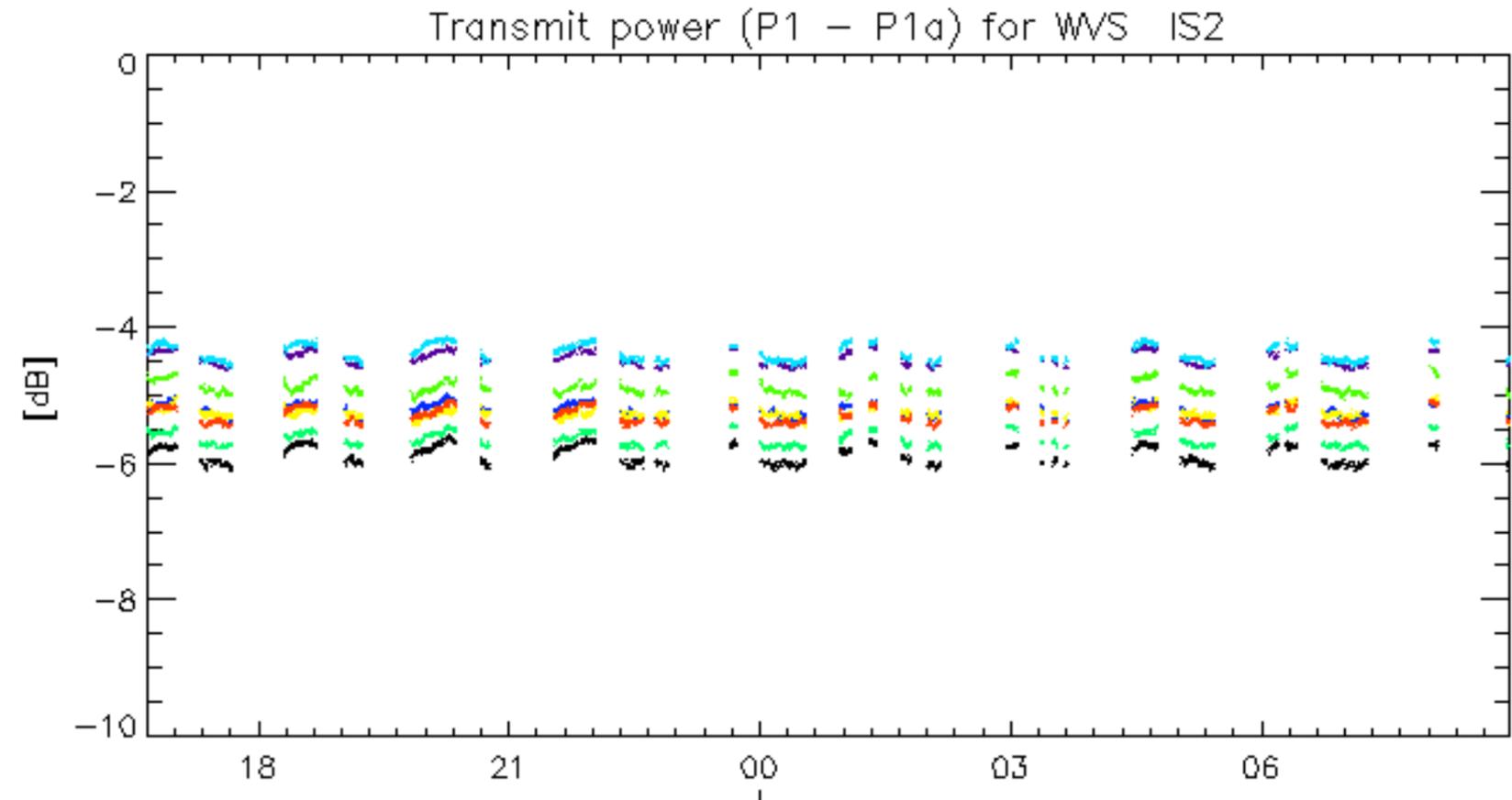


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.