

PRELIMINARY REPORT OF 060616

last update on Fri Jun 16 16:45:14 GMT 2006

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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 2006-06-15 00:00:00 to 2006-06-16 16:45:14

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	54	11	1	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	38	54	11	1	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	54	11	1	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	54	11	1	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	39	49	23	14	76
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	39	49	23	14	76
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	39	49	23	14	76
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	39	49	23	14	76

2.3 - Browse Visual Inspection

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	20060616 063527
H	20060615 070703

MSM in V/V polarisation

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

MSM in H/H polarisation

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

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>

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	-3.939058	0.018376	0.050505
7	P1	-3.129444	0.016020	-0.055714
11	P1	-4.108826	0.019153	0.008246
15	P1	-6.143436	0.020113	-0.029989
19	P1	-3.341877	0.008506	-0.065591
22	P1	-4.514663	0.011519	-0.002698
26	P1	-3.974707	0.017065	0.008961
30	P1	-5.748538	0.008913	-0.011651
3	P1	-16.520369	0.248285	0.101599
7	P1	-17.211792	0.151084	-0.145368
11	P1	-16.948685	0.308477	-0.039562
15	P1	-13.206404	0.216655	0.072484
19	P1	-14.313103	0.050461	-0.127290
22	P1	-16.169235	0.371288	0.013050
26	P1	-15.234943	0.231662	0.068454
30	P1	-17.101740	0.405210	-0.206948

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.159945	0.079108	0.116953
7	P2	-22.041500	0.094789	0.102252
11	P2	-15.889157	0.108478	0.119760
15	P2	-7.160705	0.091766	0.004554
19	P2	-9.171283	0.083269	-0.022499
22	P2	-18.152002	0.081332	-0.077966
26	P2	-16.394209	0.085098	-0.062963
30	P2	-19.562365	0.084536	0.028166

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.184529	0.004073	-0.002767
7	P3	-8.184529	0.004073	-0.002767
11	P3	-8.184529	0.004073	-0.002767
15	P3	-8.184529	0.004073	-0.002767
19	P3	-8.184529	0.004073	-0.002767
22	P3	-8.184529	0.004073	-0.002767
26	P3	-8.184529	0.004073	-0.002767
30	P3	-8.184529	0.004073	-0.002767

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



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	-3.798461	0.051810	0.001230
7	P1	-2.593671	0.030719	0.032118
11	P1	-2.861313	0.023324	0.007665
15	P1	-3.505284	0.050392	-0.033268
19	P1	-3.405943	0.014429	-0.026156
22	P1	-5.080956	0.019606	-0.004635
26	P1	-5.851250	0.015877	-0.028144
30	P1	-5.192223	0.027026	-0.008185
3	P1	-11.624058	0.053670	0.030730
7	P1	-9.965384	0.049291	-0.069107
11	P1	-10.212516	0.087420	-0.088861
15	P1	-10.641853	0.153142	-0.138091
19	P1	-15.533002	0.076055	-0.042881
22	P1	-20.934042	1.178666	-0.107960
26	P1	-16.482117	0.333419	0.026214
30	P1	-17.932447	0.372741	0.202578

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.849483	0.071076	0.137426
7	P2	-22.496820	0.128692	0.040898
11	P2	-11.161337	0.048355	0.066033
15	P2	-4.916101	0.048883	-0.031601
19	P2	-6.881062	0.053488	-0.021135
22	P2	-8.205304	0.043497	-0.026337
26	P2	-24.128834	0.068657	-0.102102
30	P2	-22.064245	0.056380	-0.001472

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.018880	0.004882	-0.008746
7	P3	-8.018941	0.004867	-0.008648
11	P3	-8.018924	0.004859	-0.008635
15	P3	-8.018831	0.004871	-0.008873
19	P3	-8.018866	0.004863	-0.008637
22	P3	-8.019043	0.004861	-0.008732
26	P3	-8.018969	0.004862	-0.008672
30	P3	-8.018980	0.004860	-0.008906

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	0.000539730
	stdev	1.84869e-07
MEAN Q	mean	0.000512133
	stdev	2.27132e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135072
	stdev	0.00118670
STDEV Q	mean	0.135417
	stdev	0.00120370



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006061[456]

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_1PNPDE20060615_151130_00000802048_00340_22438_7565.N1	1	0
ASA_WSM_1PNPDE20060615_042315_000002382048_00334_22432_4158.N1	0	6
ASA_WSM_1PNPDE20060615_142702_000001282048_00340_22438_4226.N1	0	22
ASA_WSM_1PNPDE20060615_200853_000000852048_00343_22441_4292.N1	0	8
ASA_WSM_1PNPDE20060615_233445_000003302048_00345_22443_4326.N1	0	32
ASA_WSM_1PNPDE20060616_011001_000000672048_00346_22444_4337.N1	0	58
ASA_WSM_1PNPDE20060616_021252_000002692048_00347_22445_4352.N1	0	58





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)	
	
	Ascending
	
	Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Ascending
	
	Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX	
	

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

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

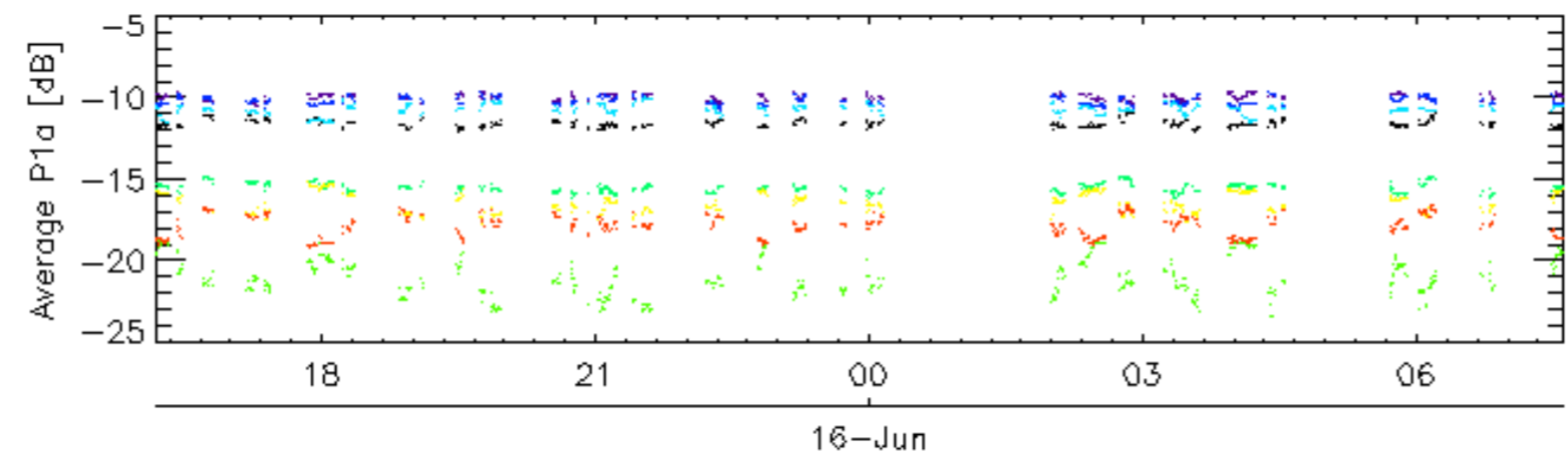
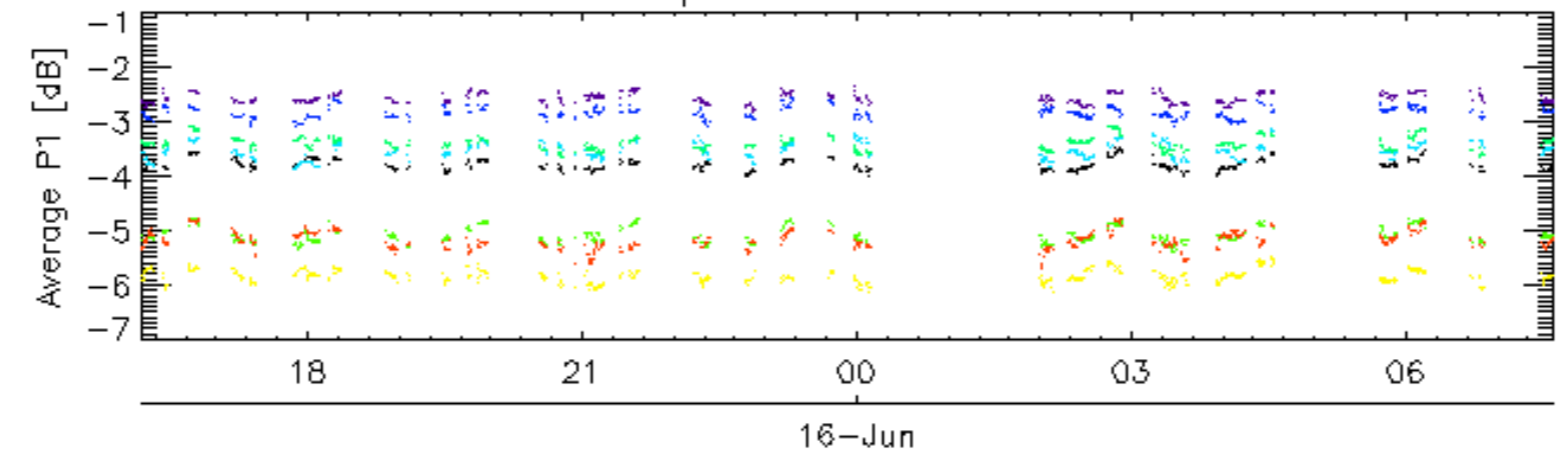
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

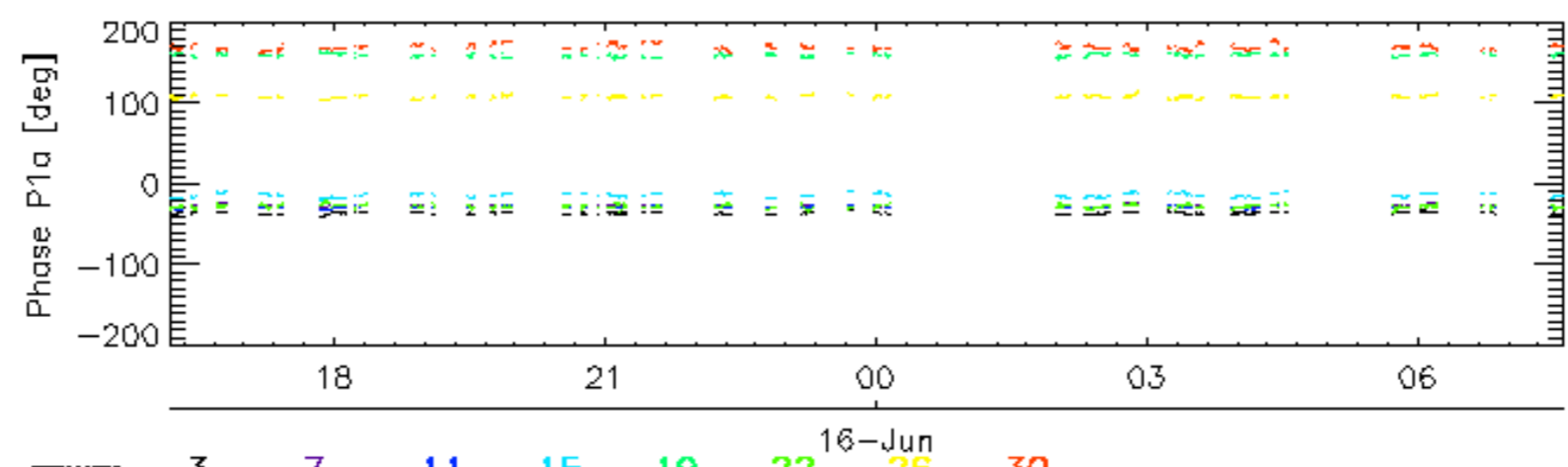
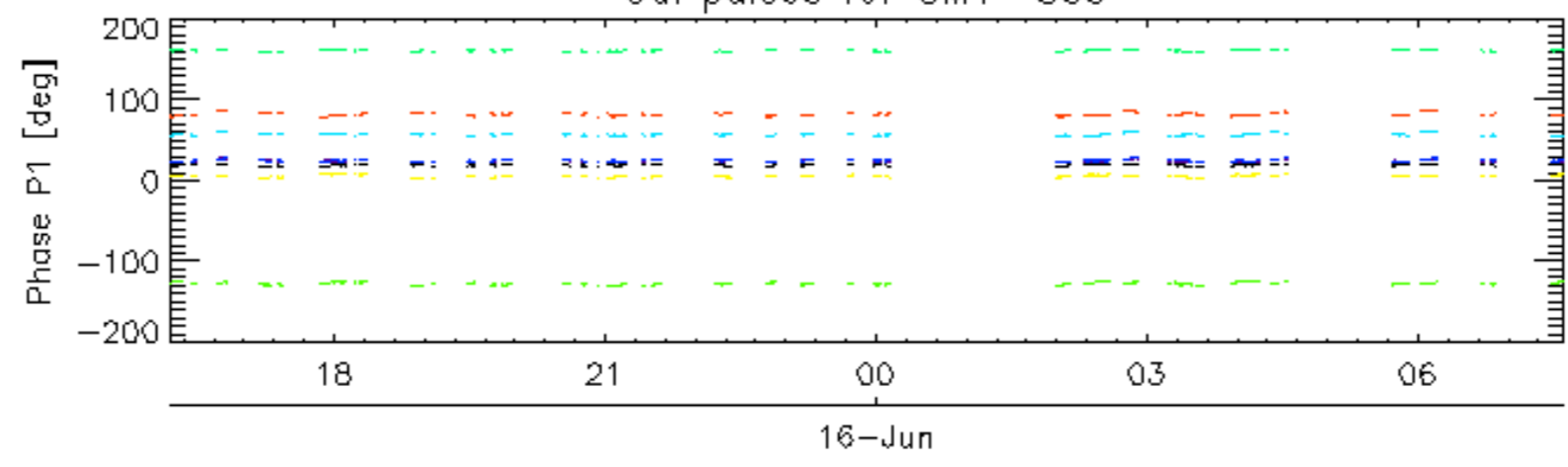
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

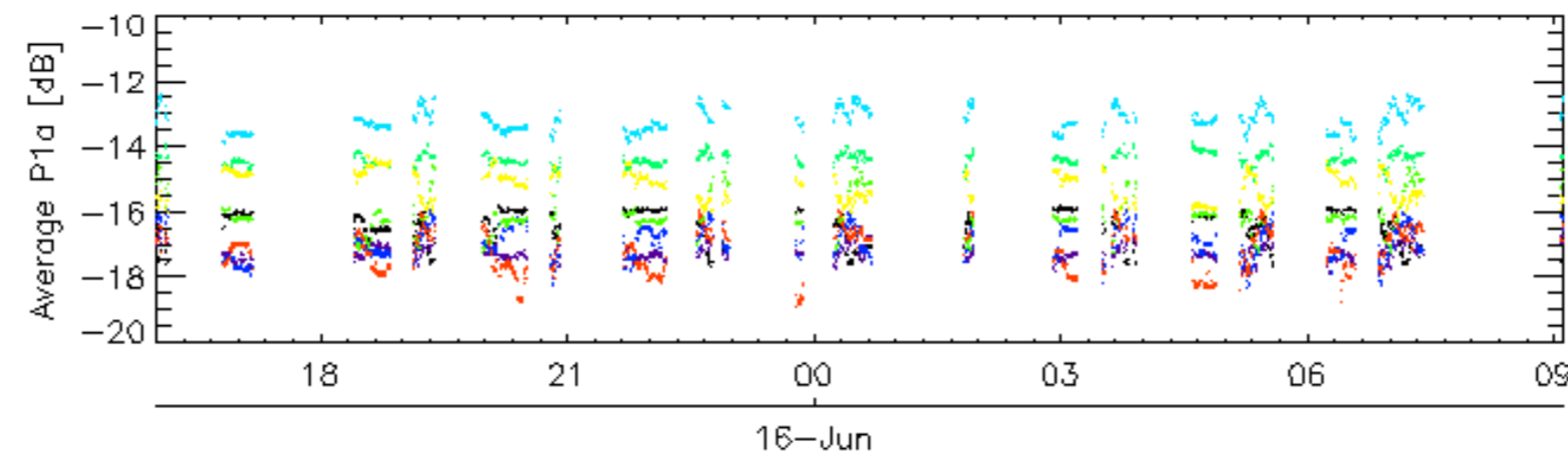
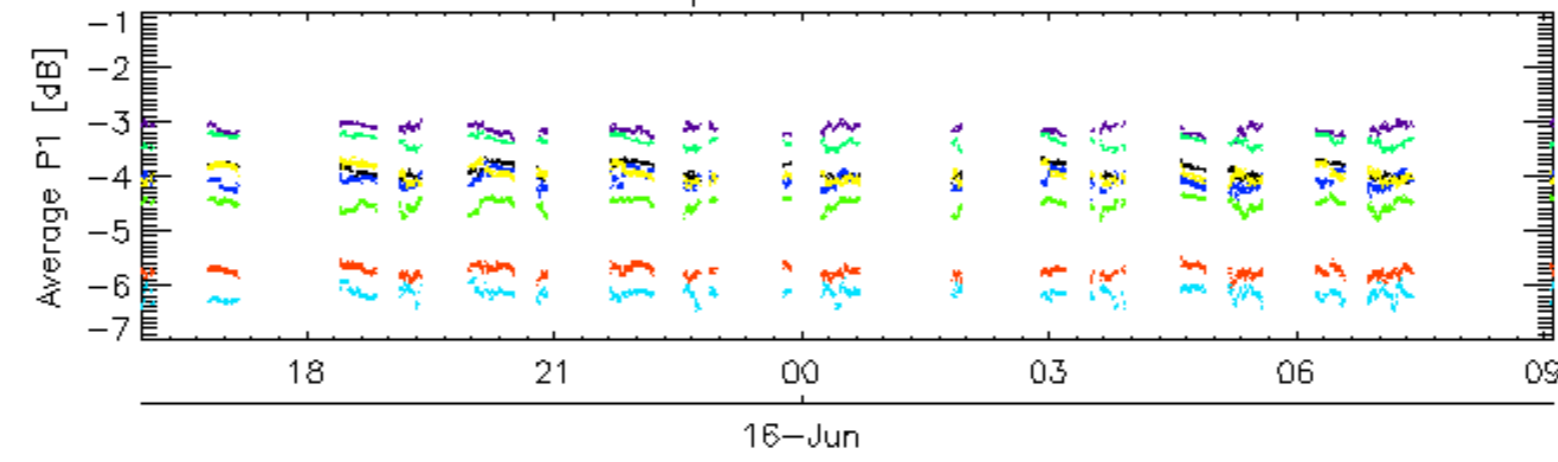


Cal pulses for GM1 SS3

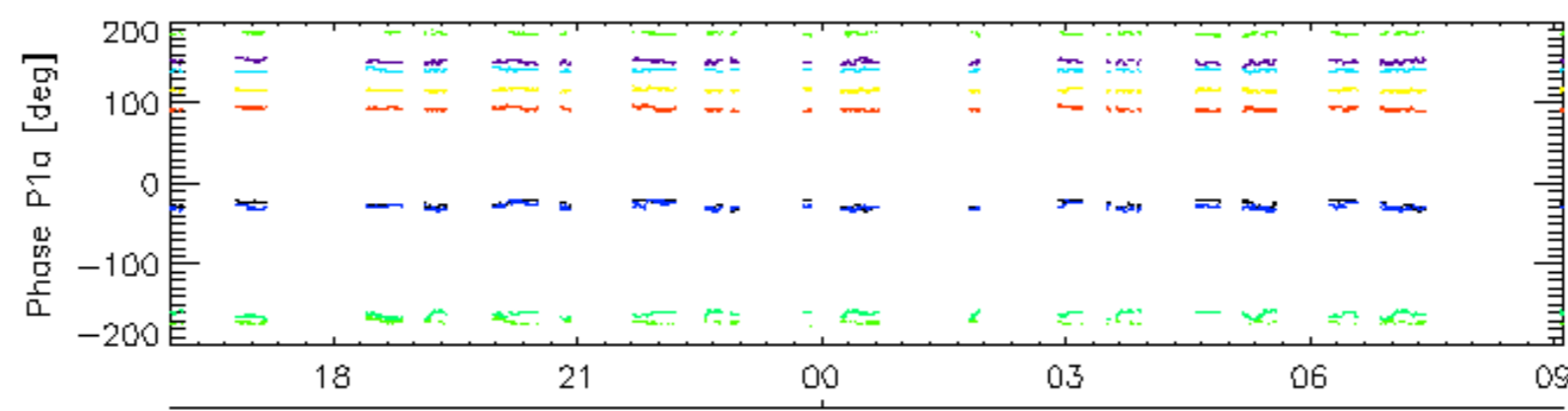
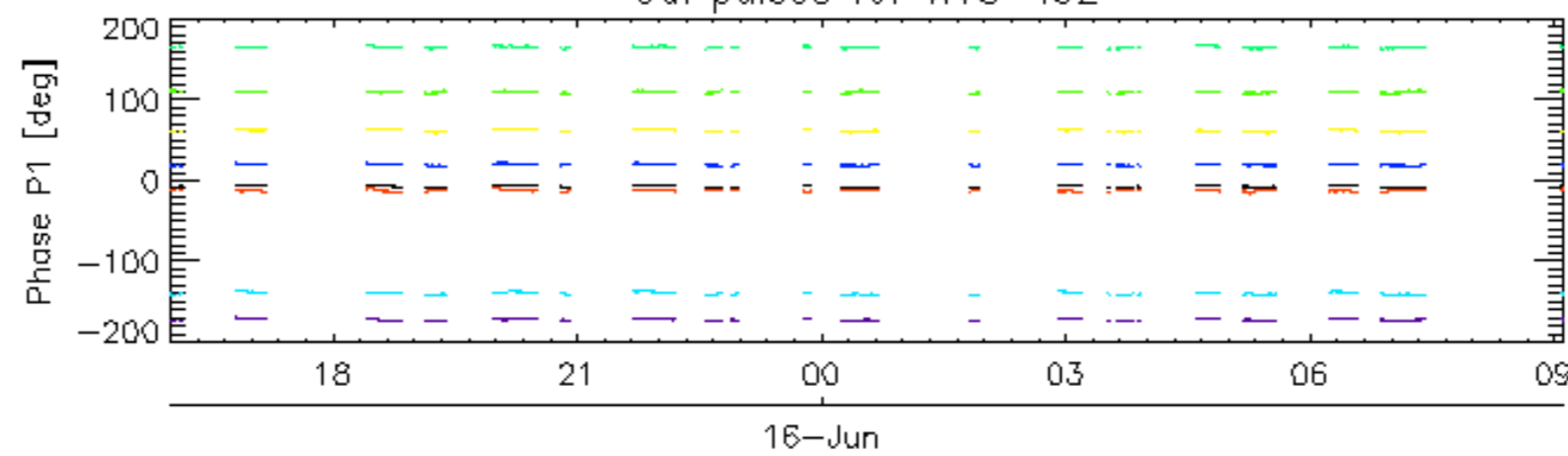


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

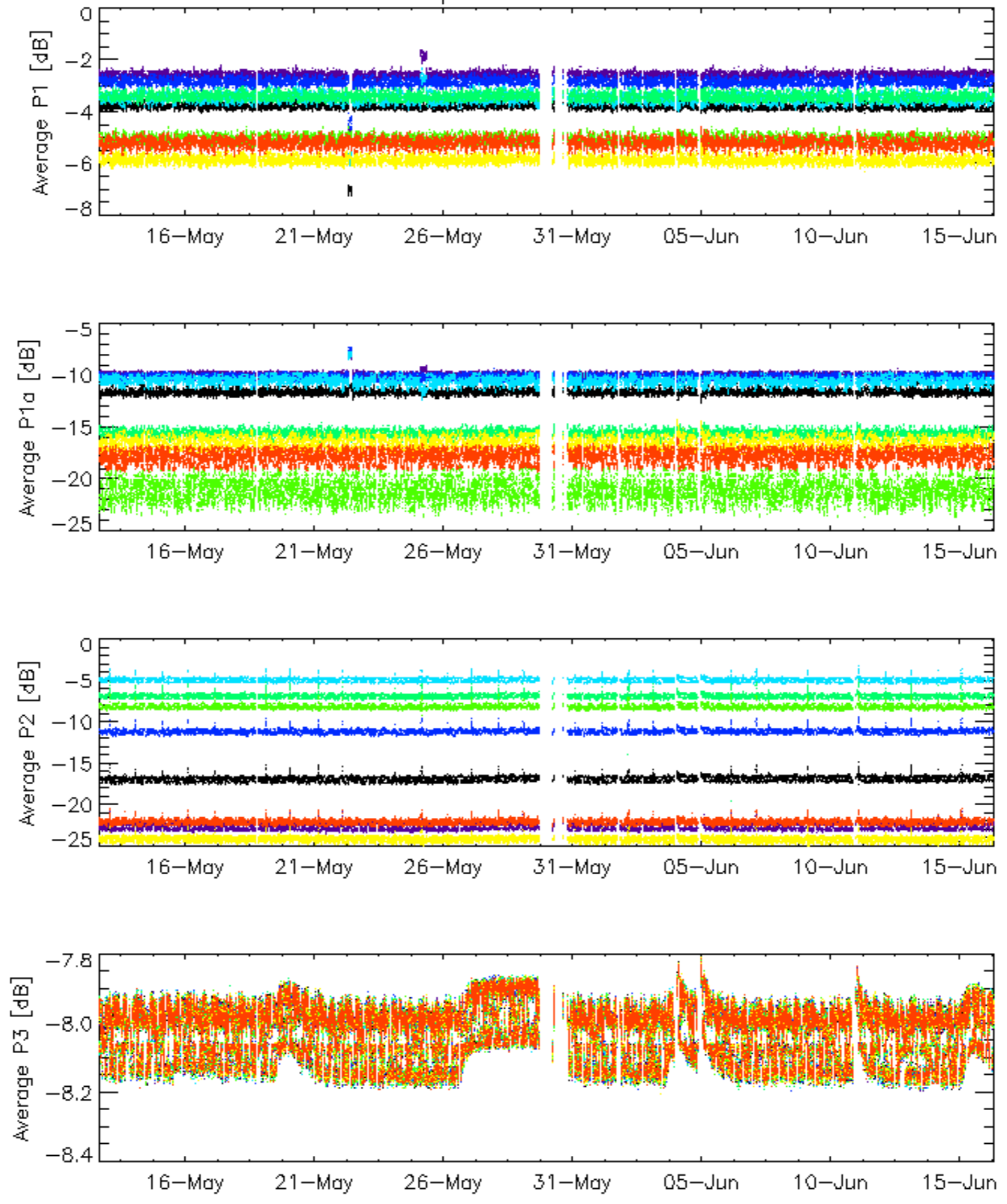


Cal pulses for WVS IS2



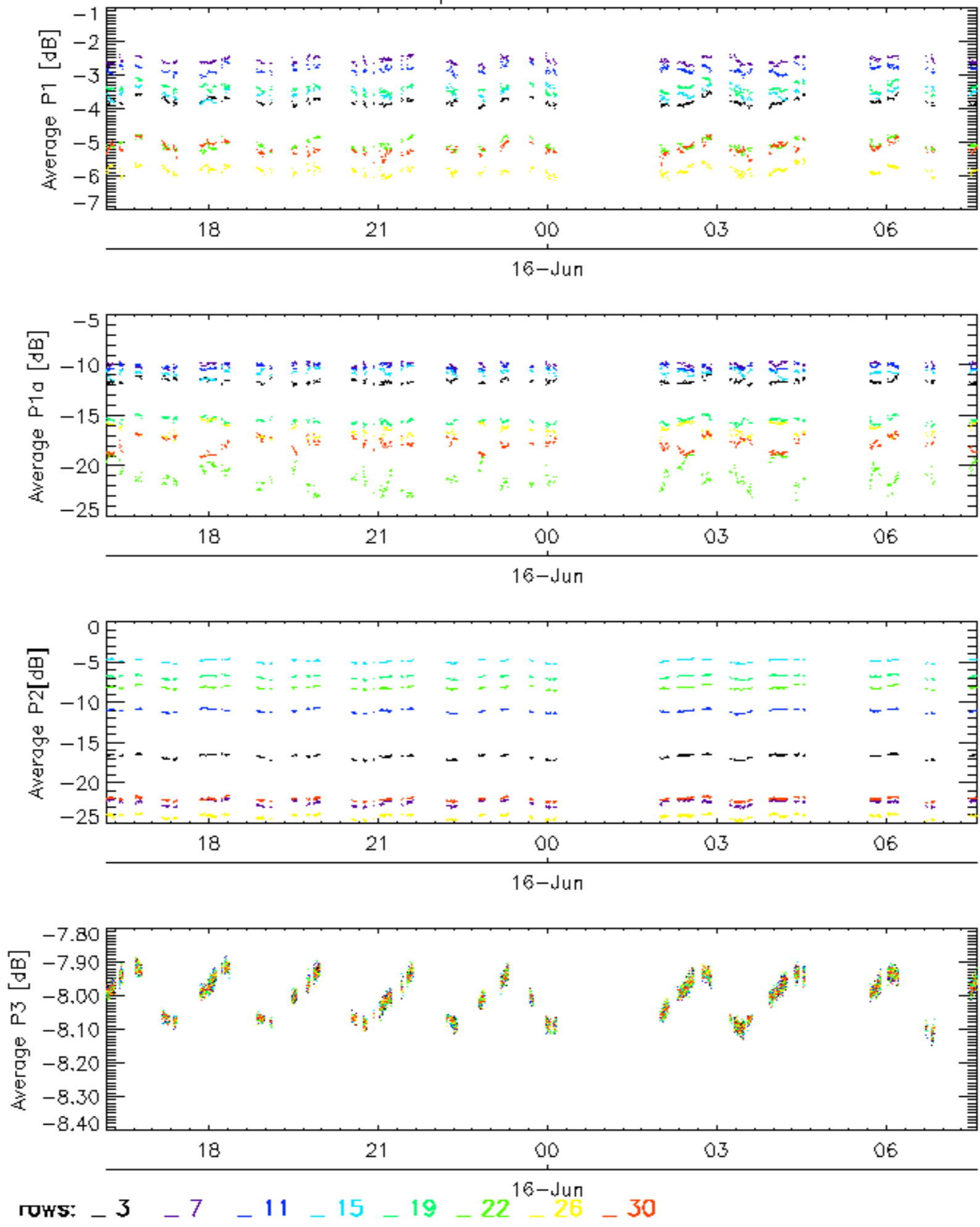
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

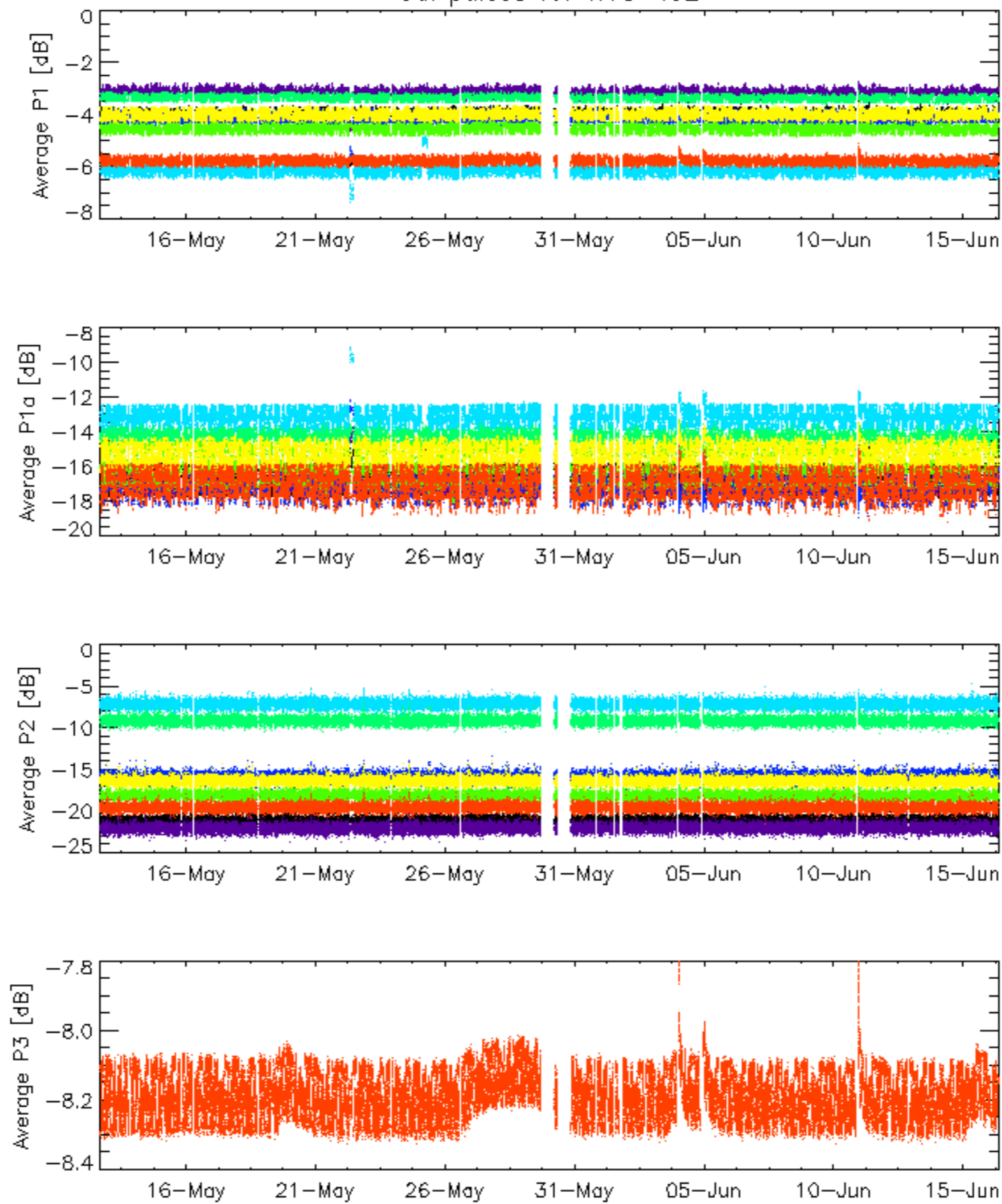


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

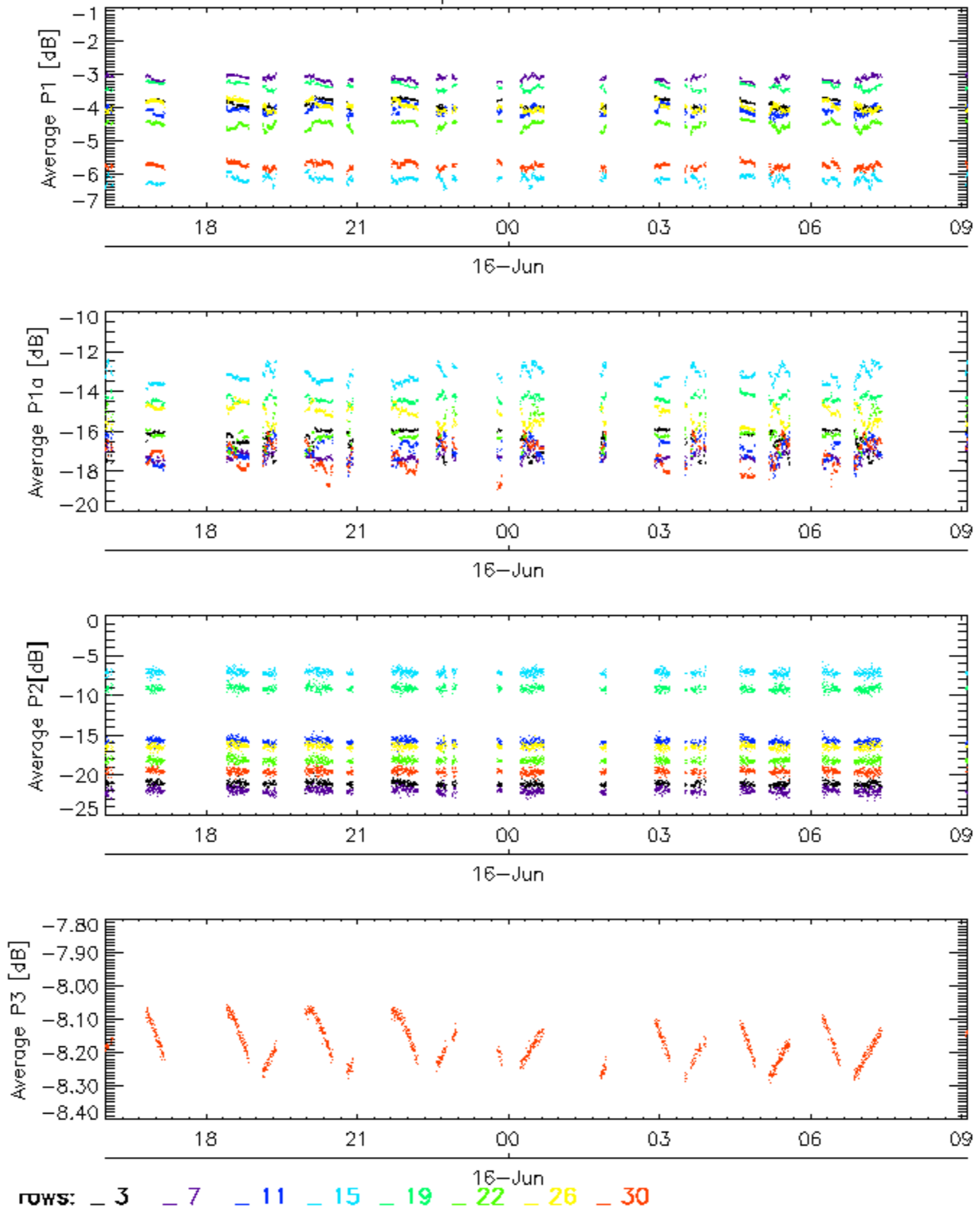


Cal pulses for WVS IS2

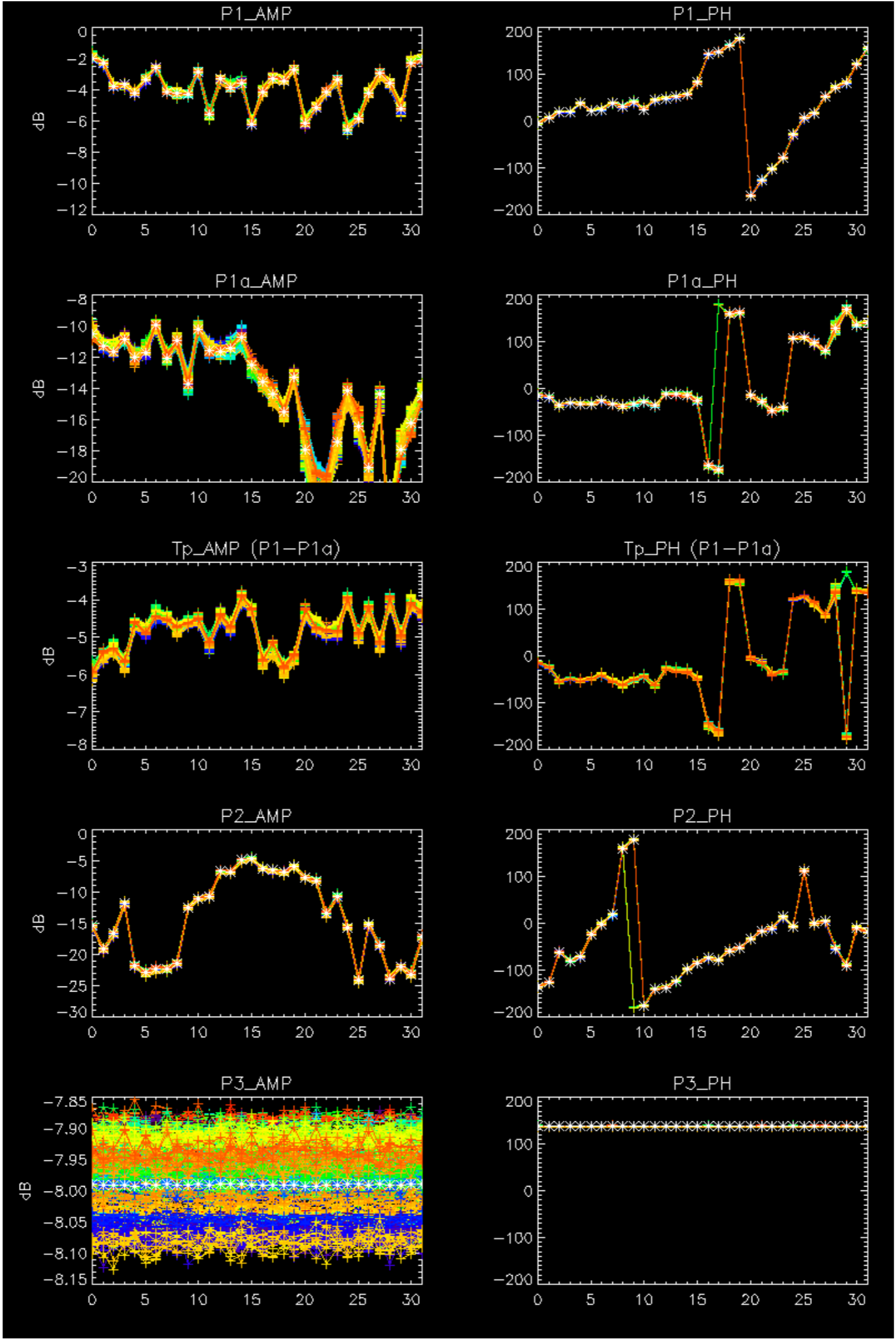


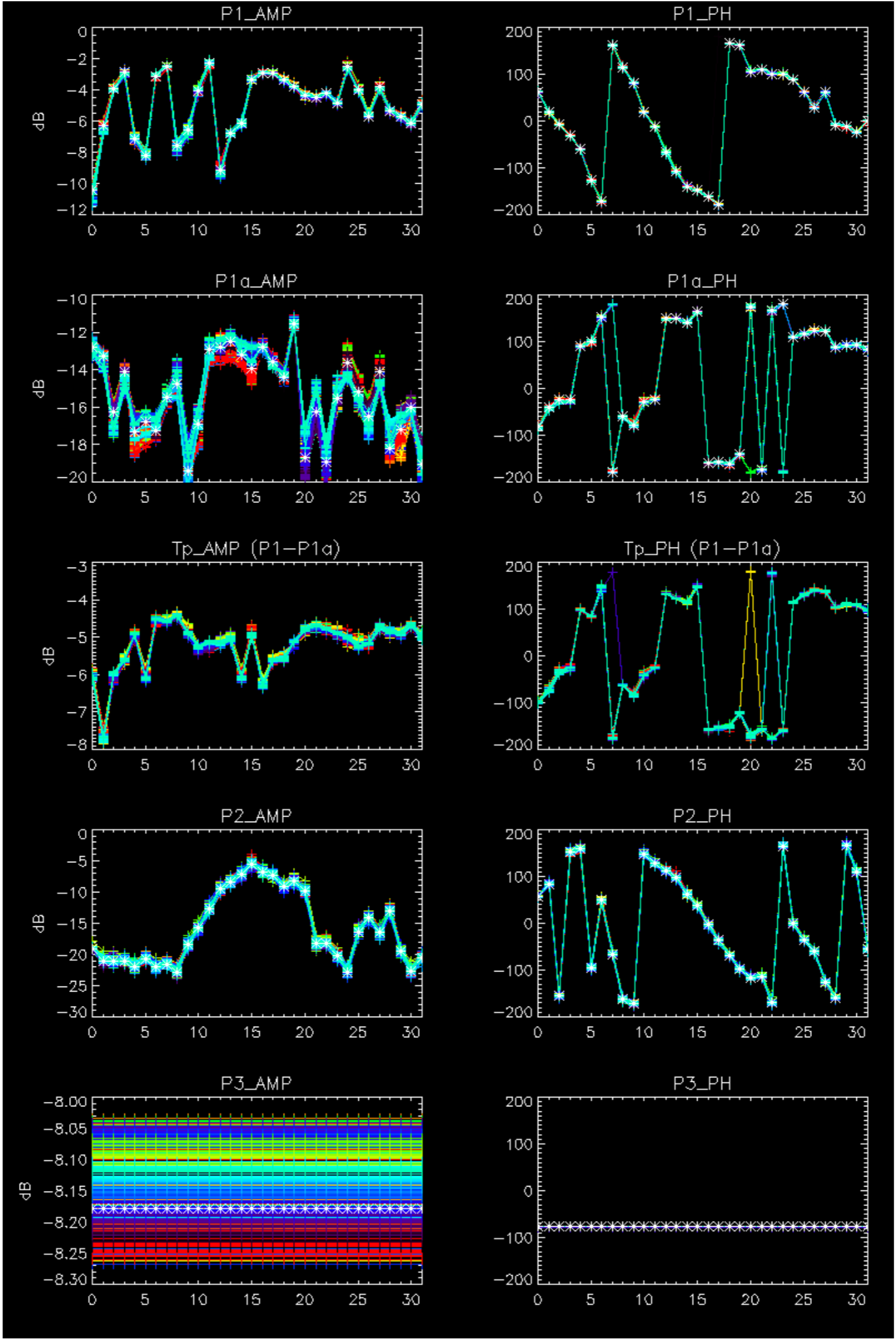
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



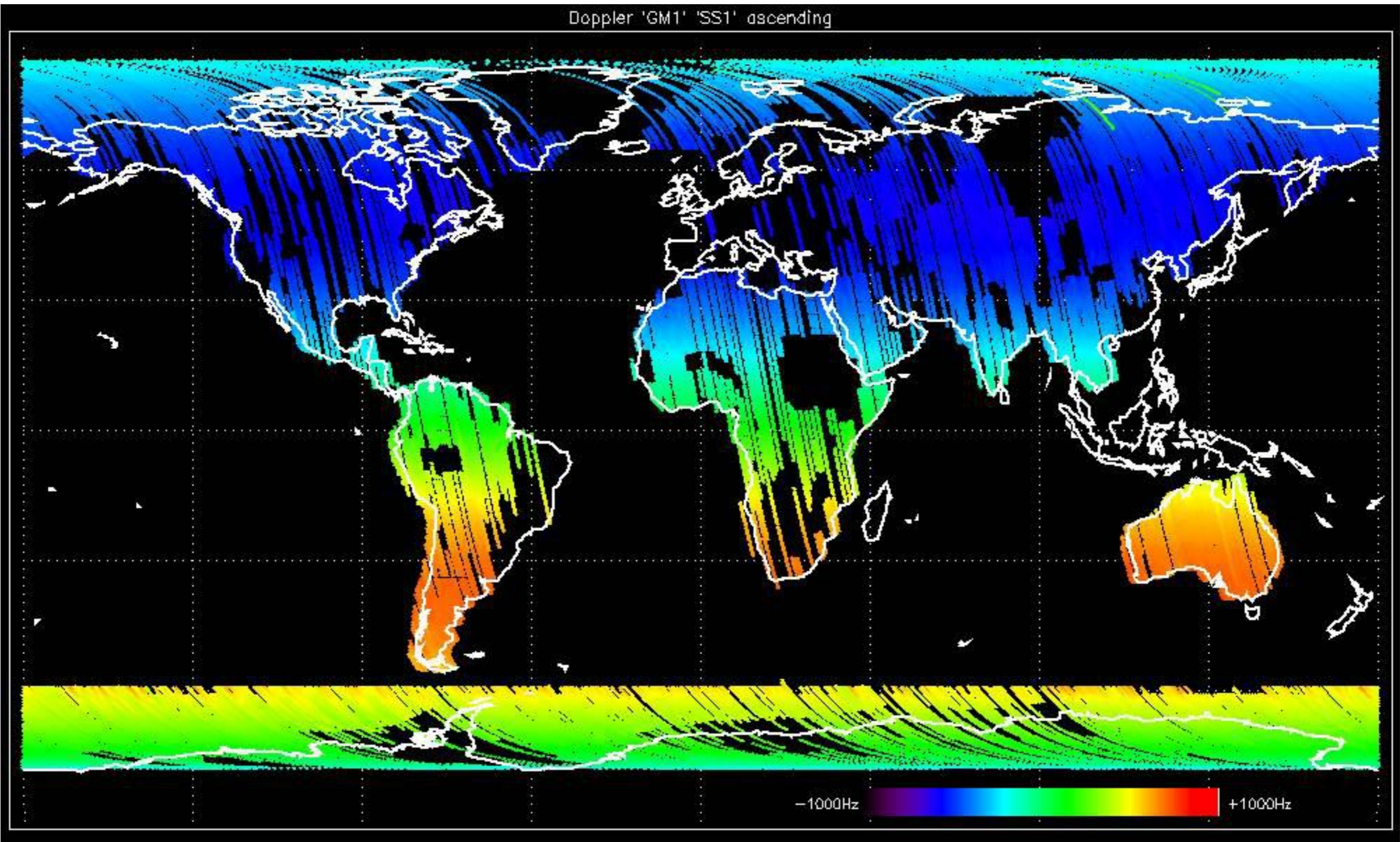
No anomalies observed.



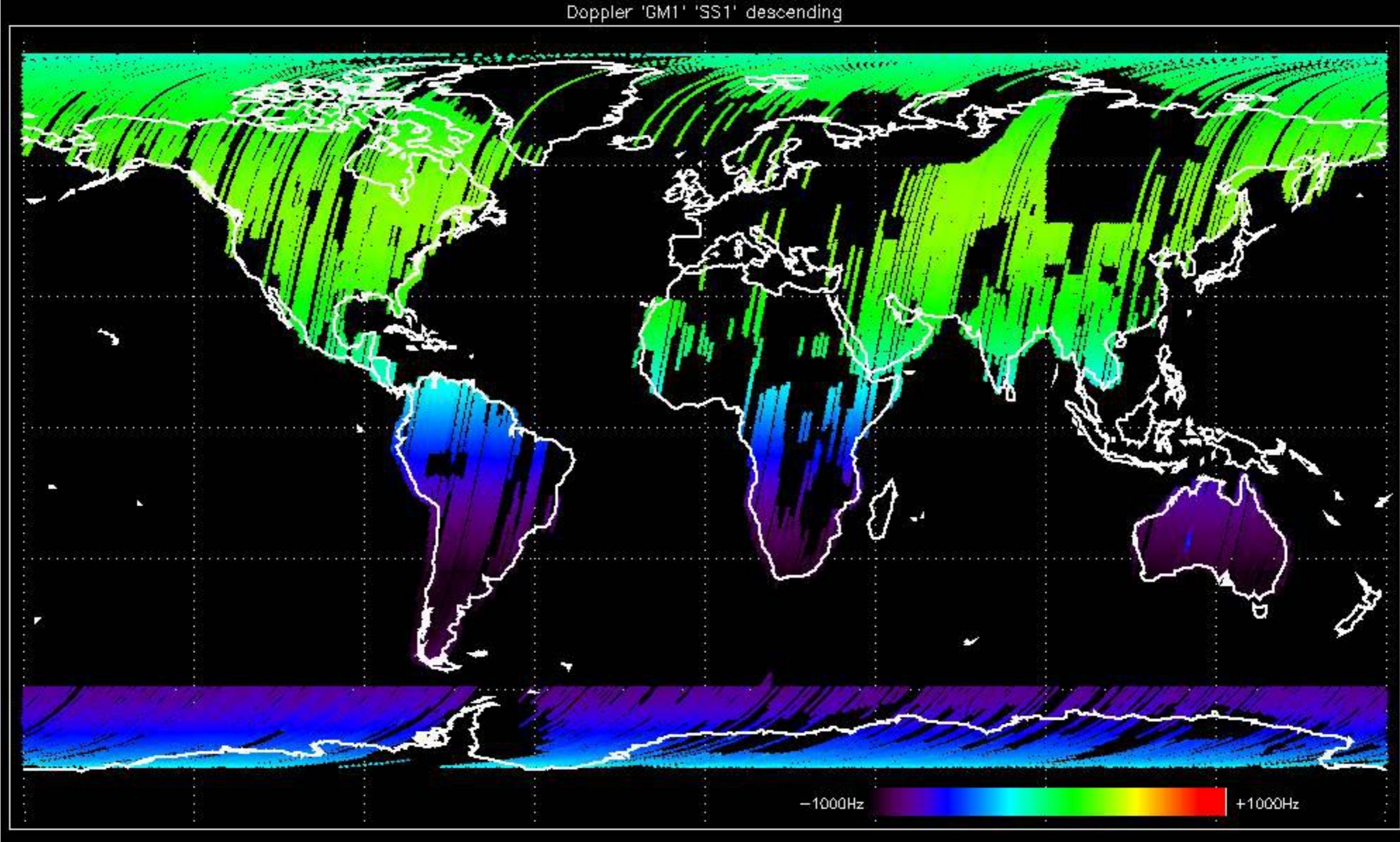


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

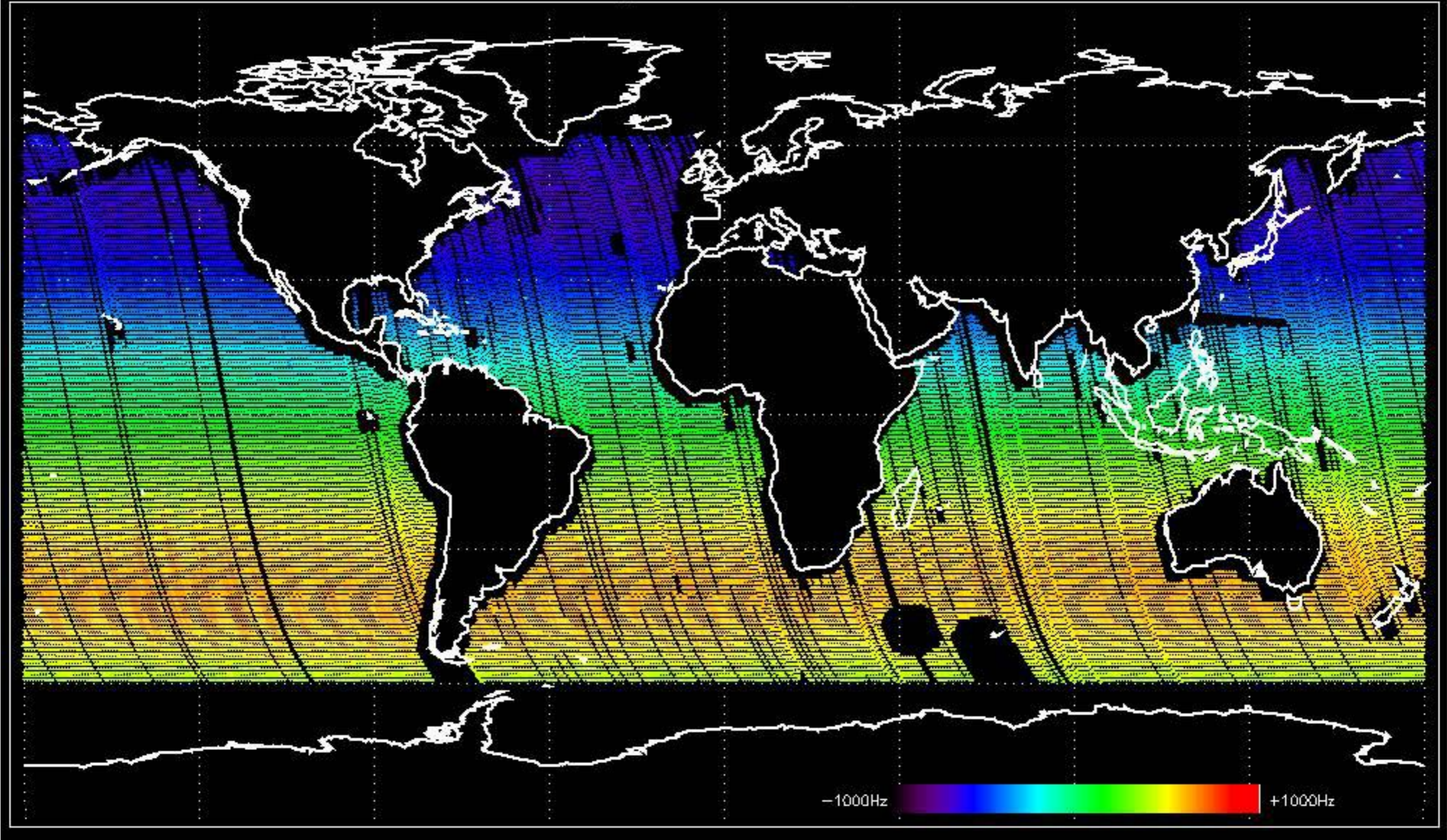
Doppler 'GM1' 'SS1' ascending



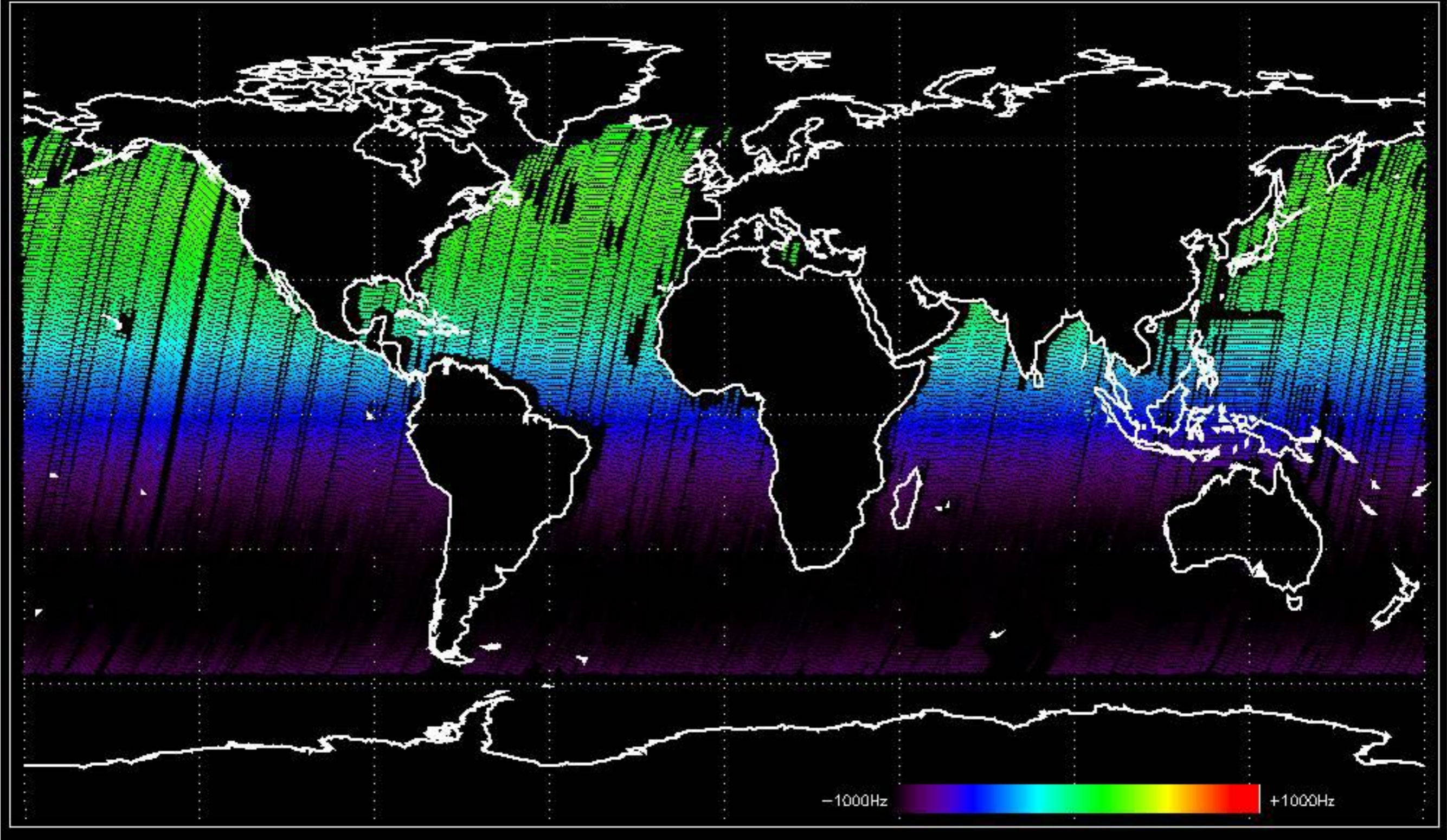
Doppler 'GM1' 'SS1' descending



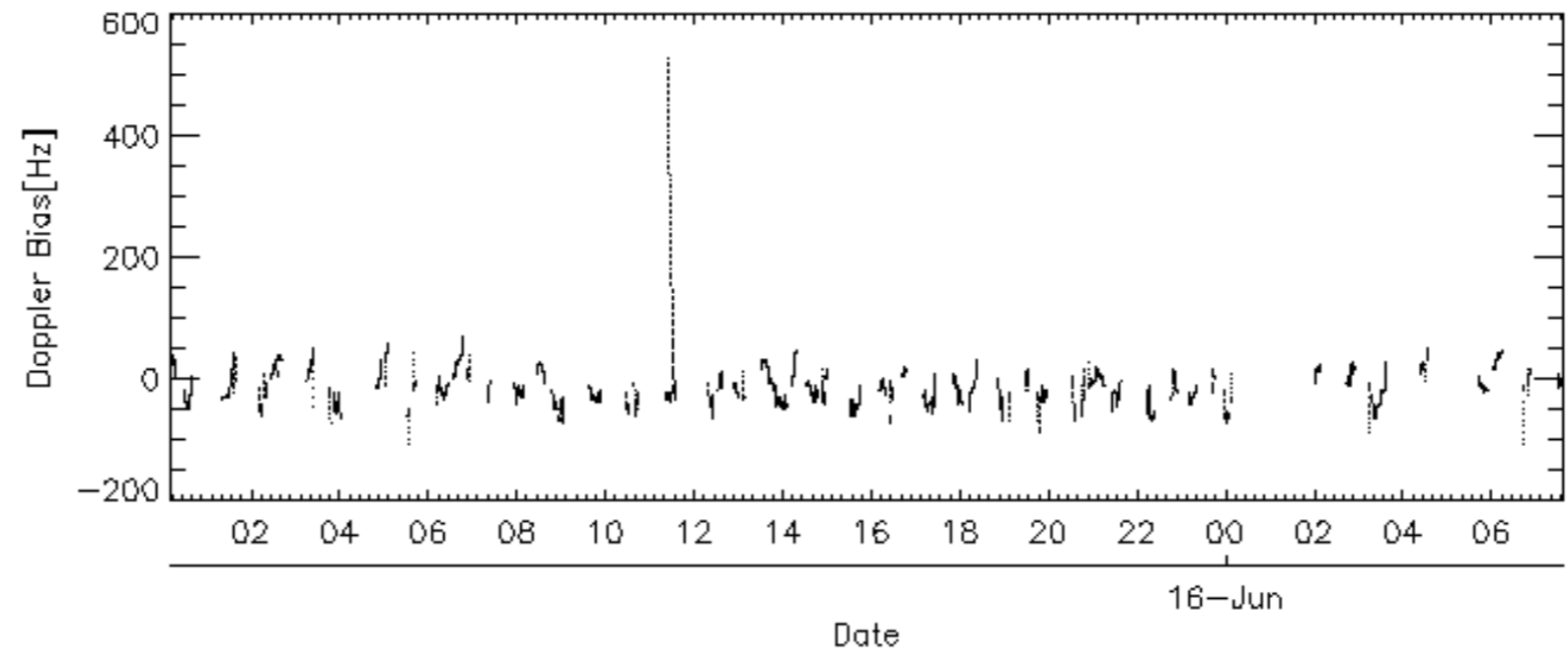
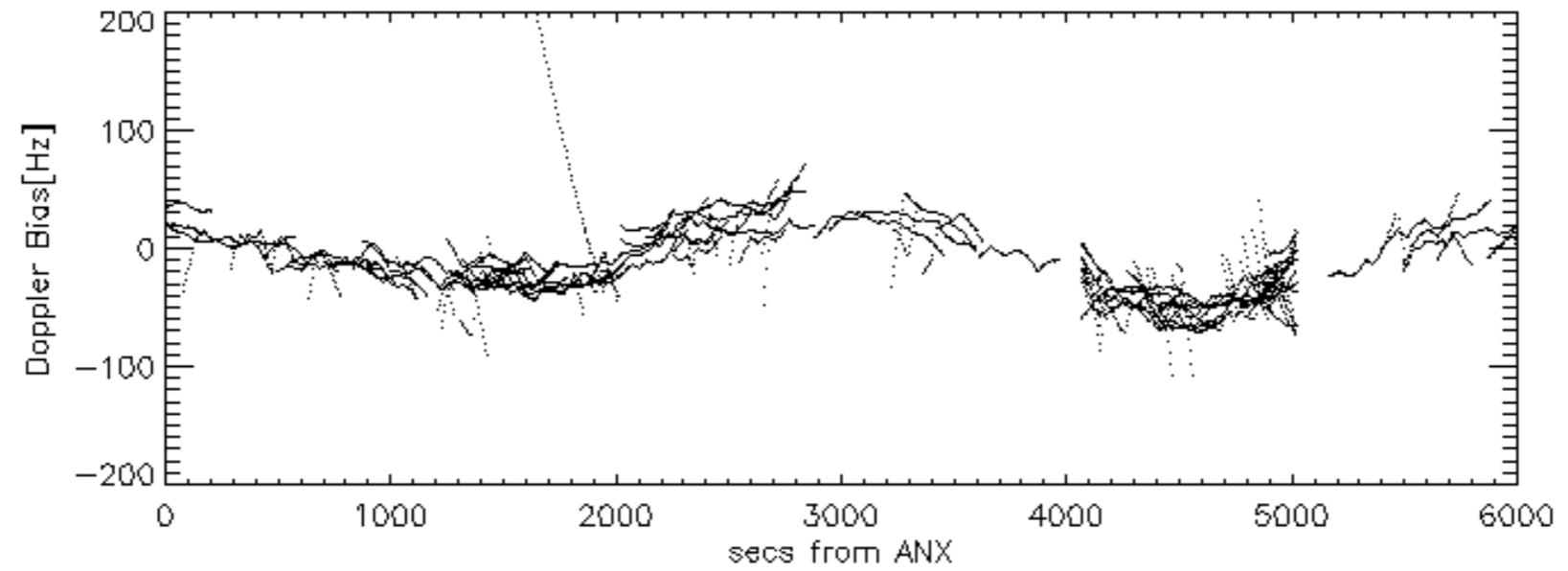
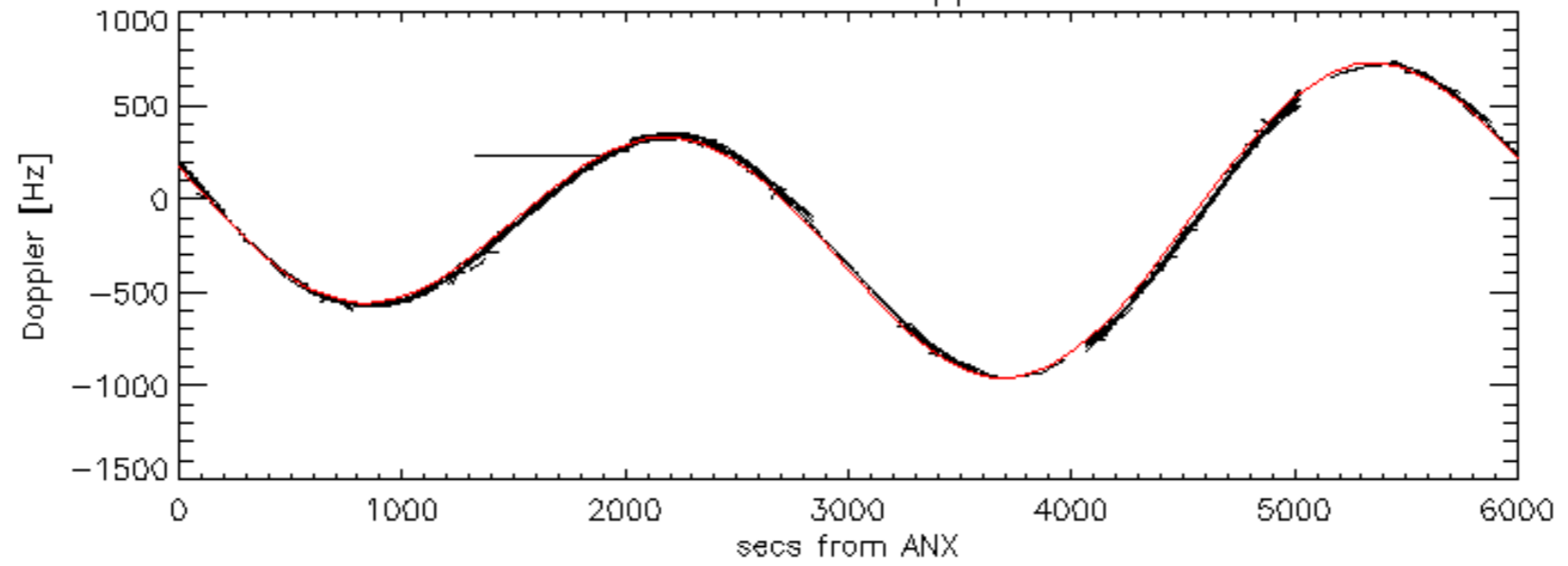
Doppler 'WVS' 'IS2' ascending

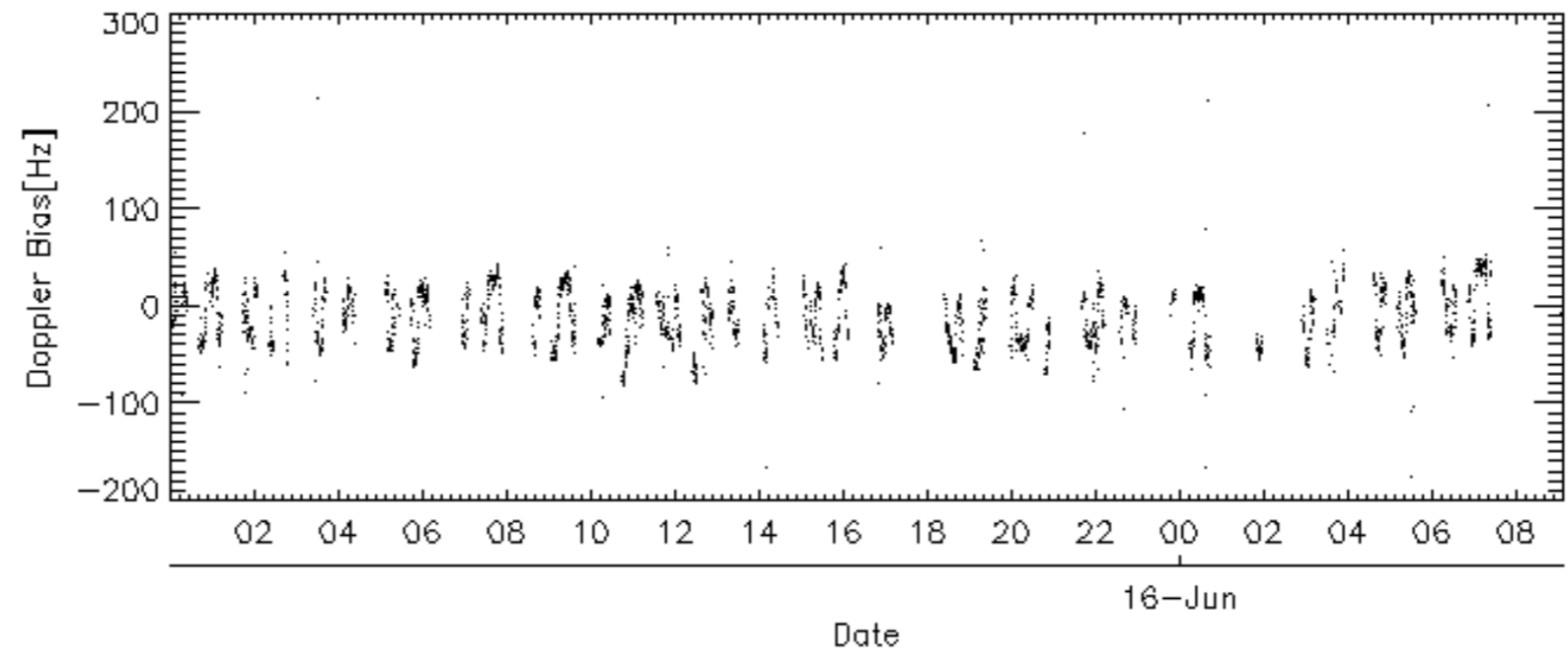
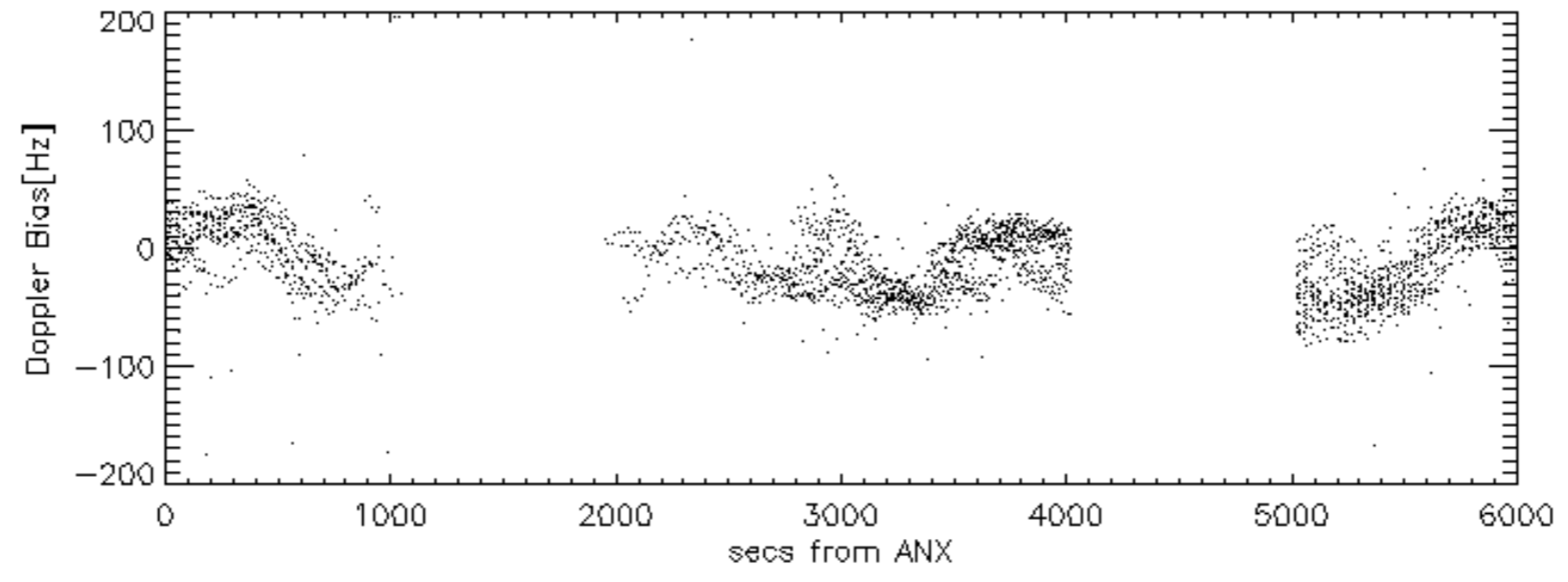
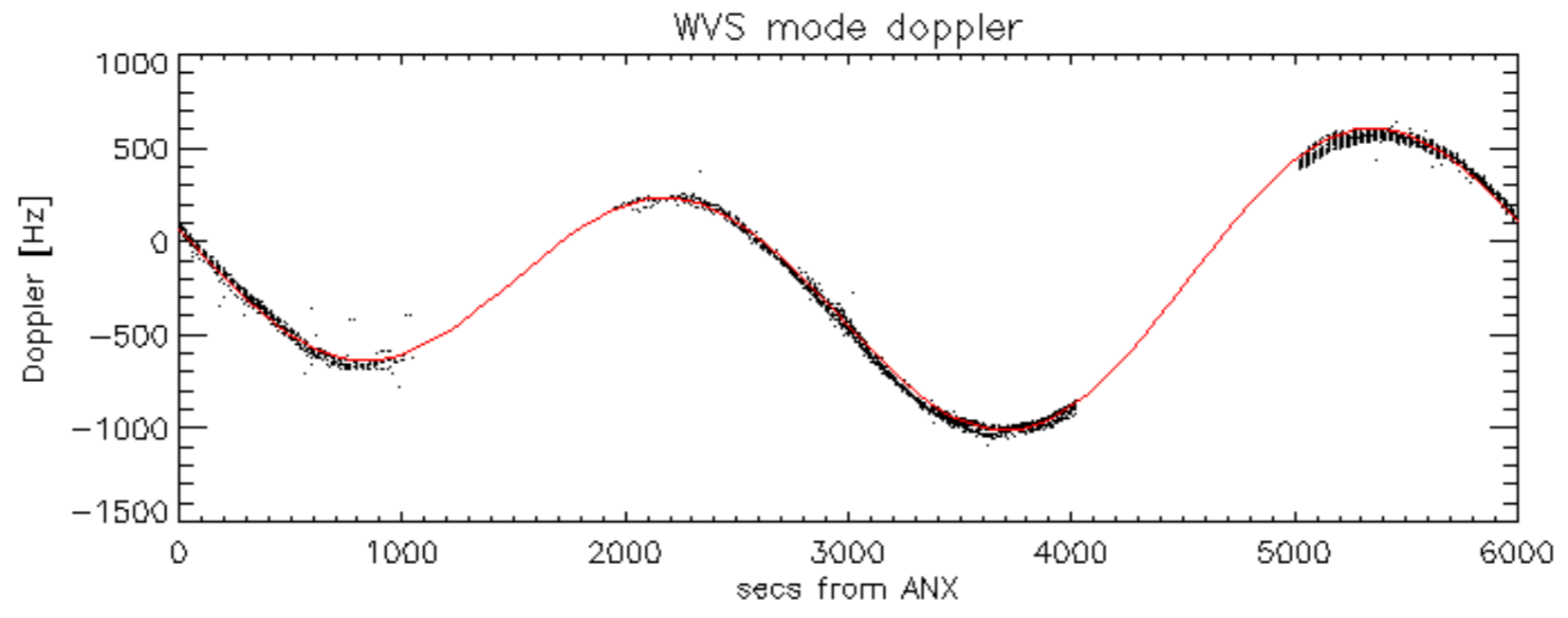


Doppler 'WVS' 'IS2' descending

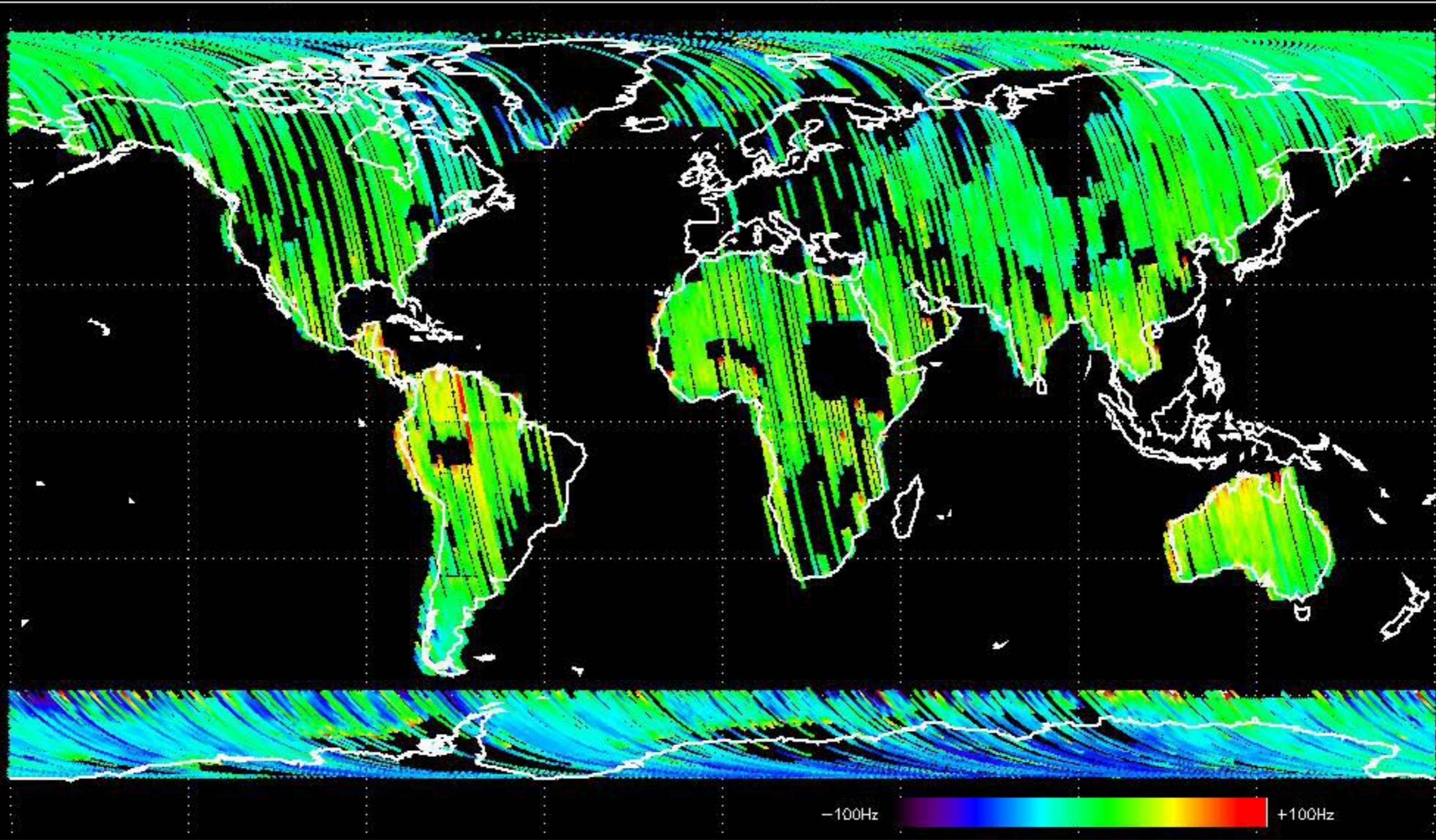


GM1 mode doppler

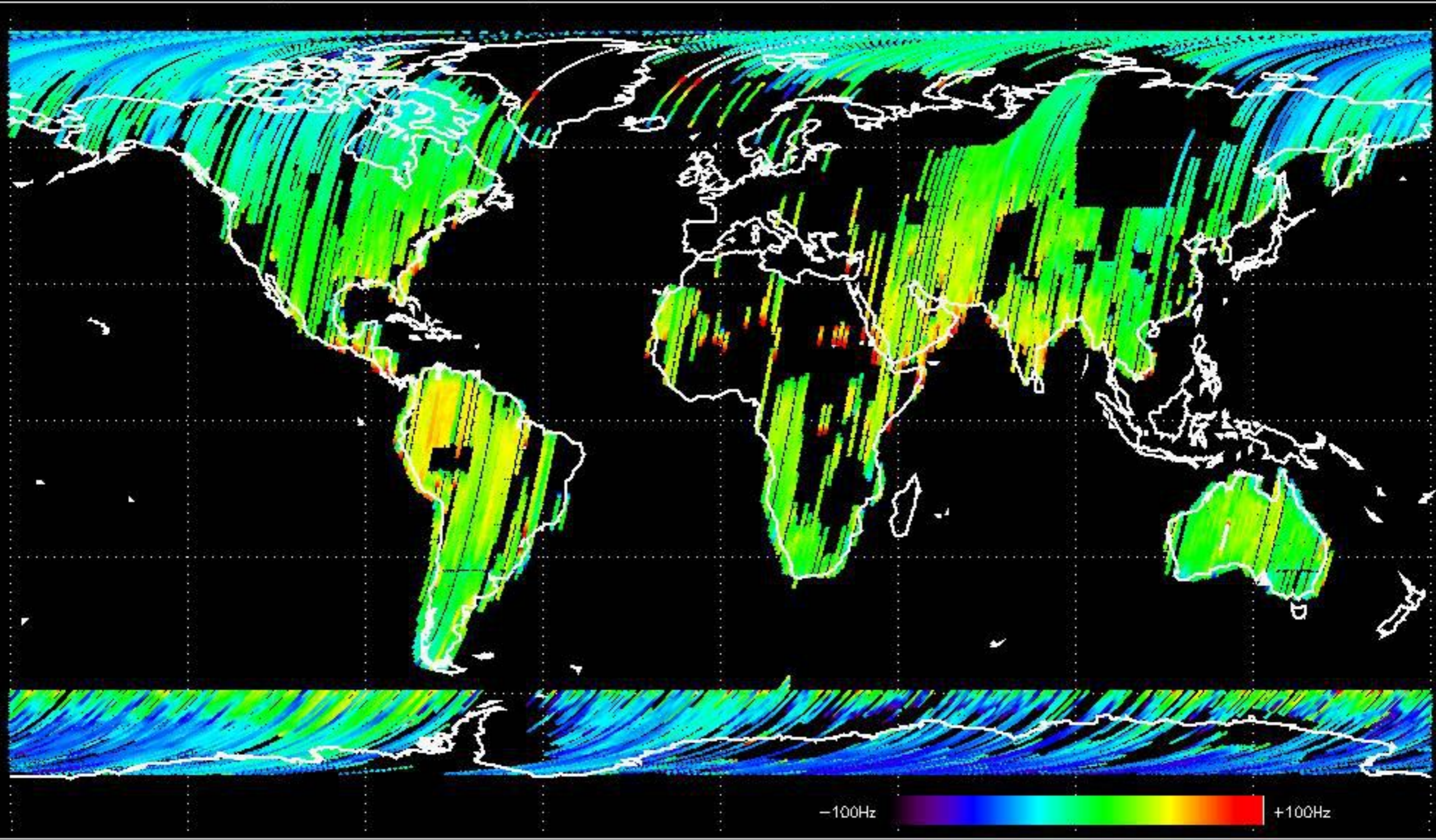




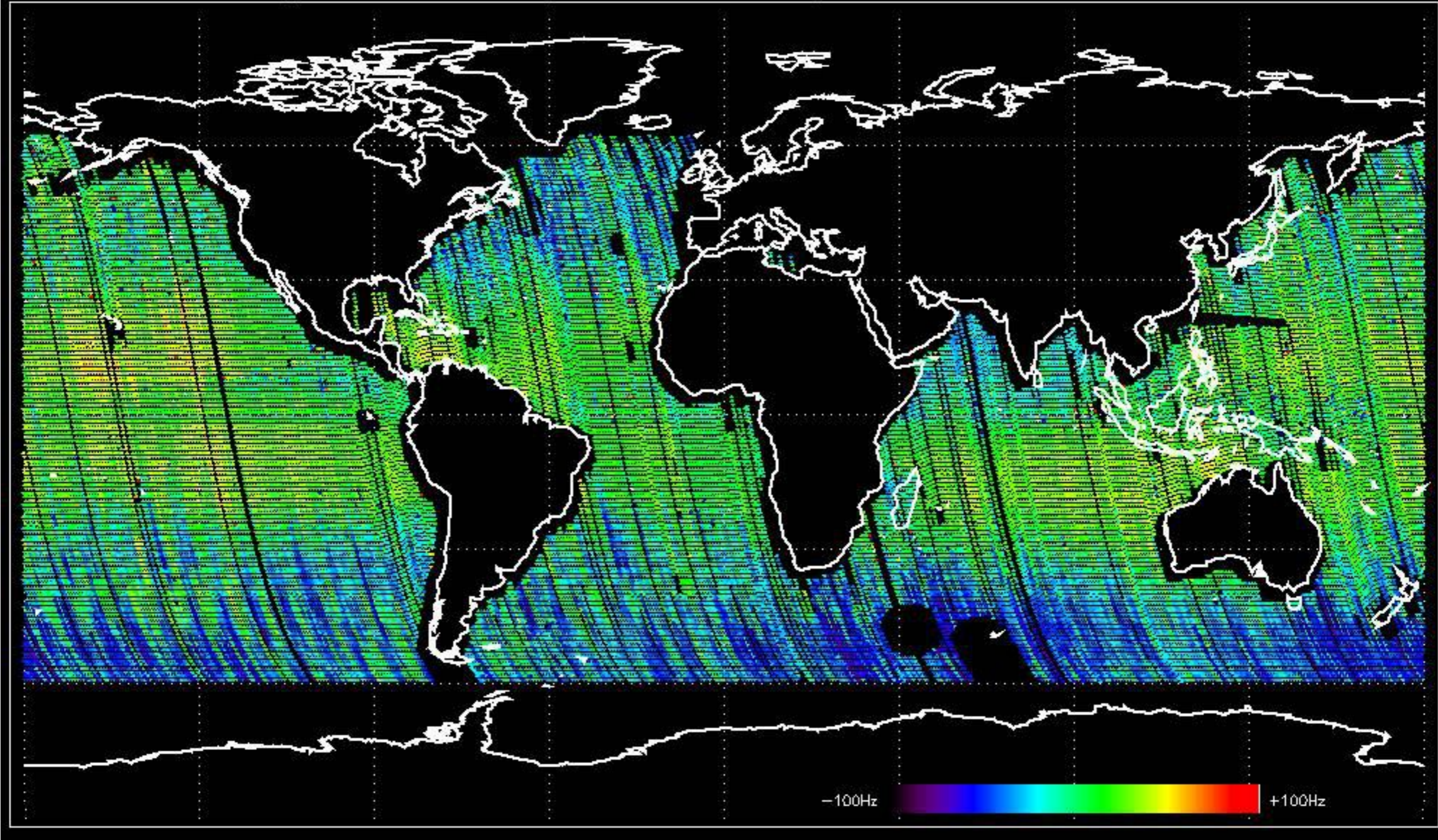
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.960965 Hz



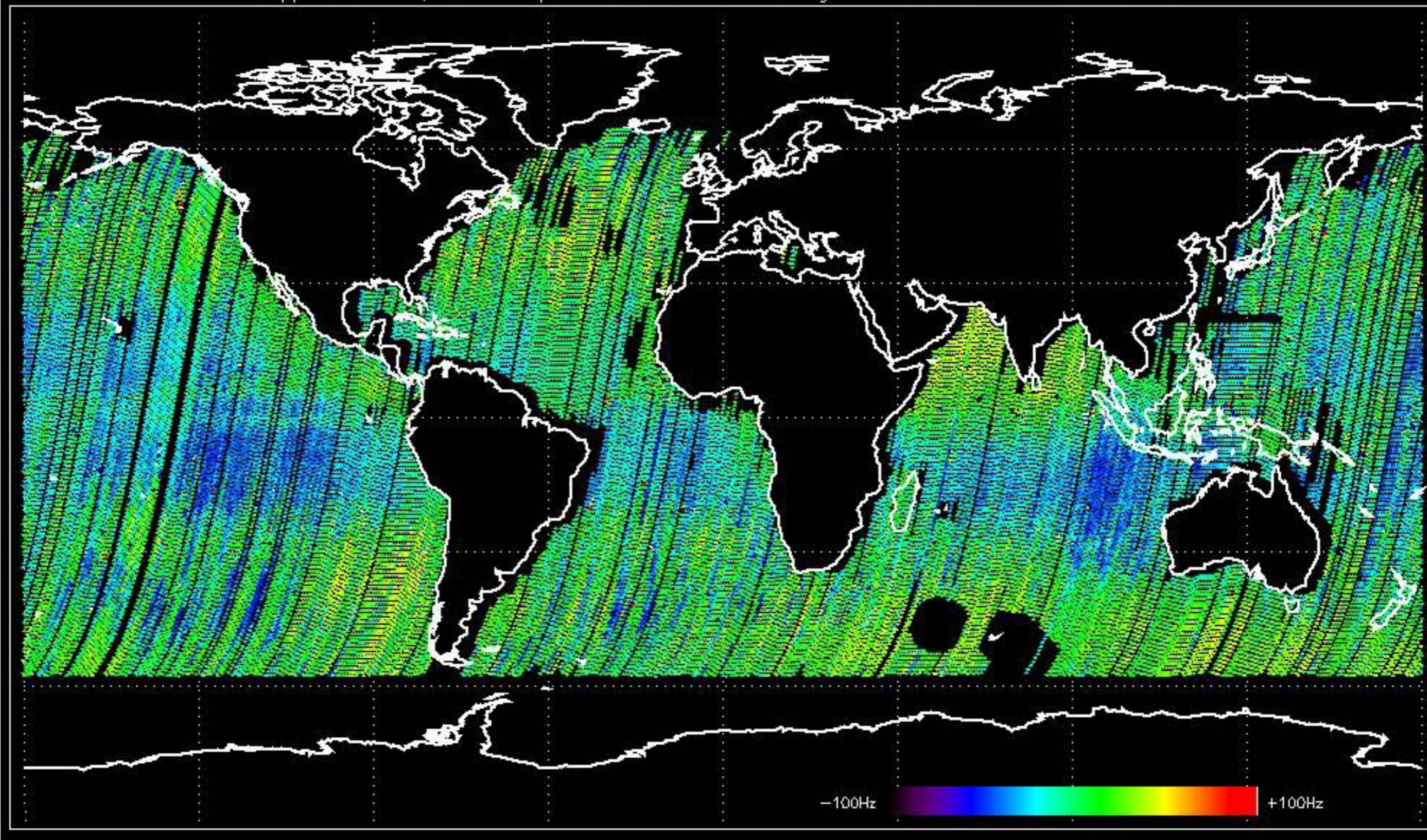
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.3043959 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.6334454 Hz

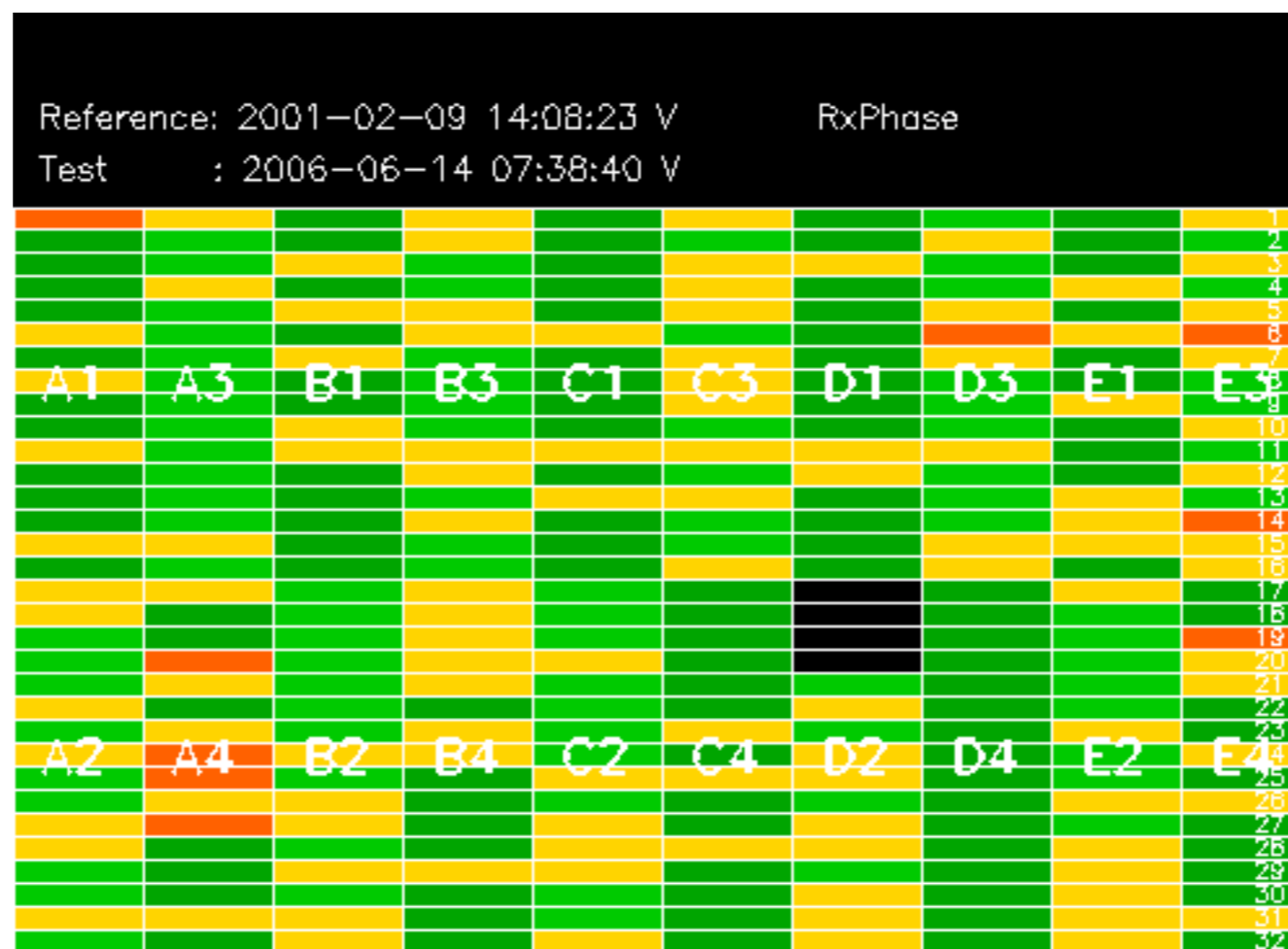


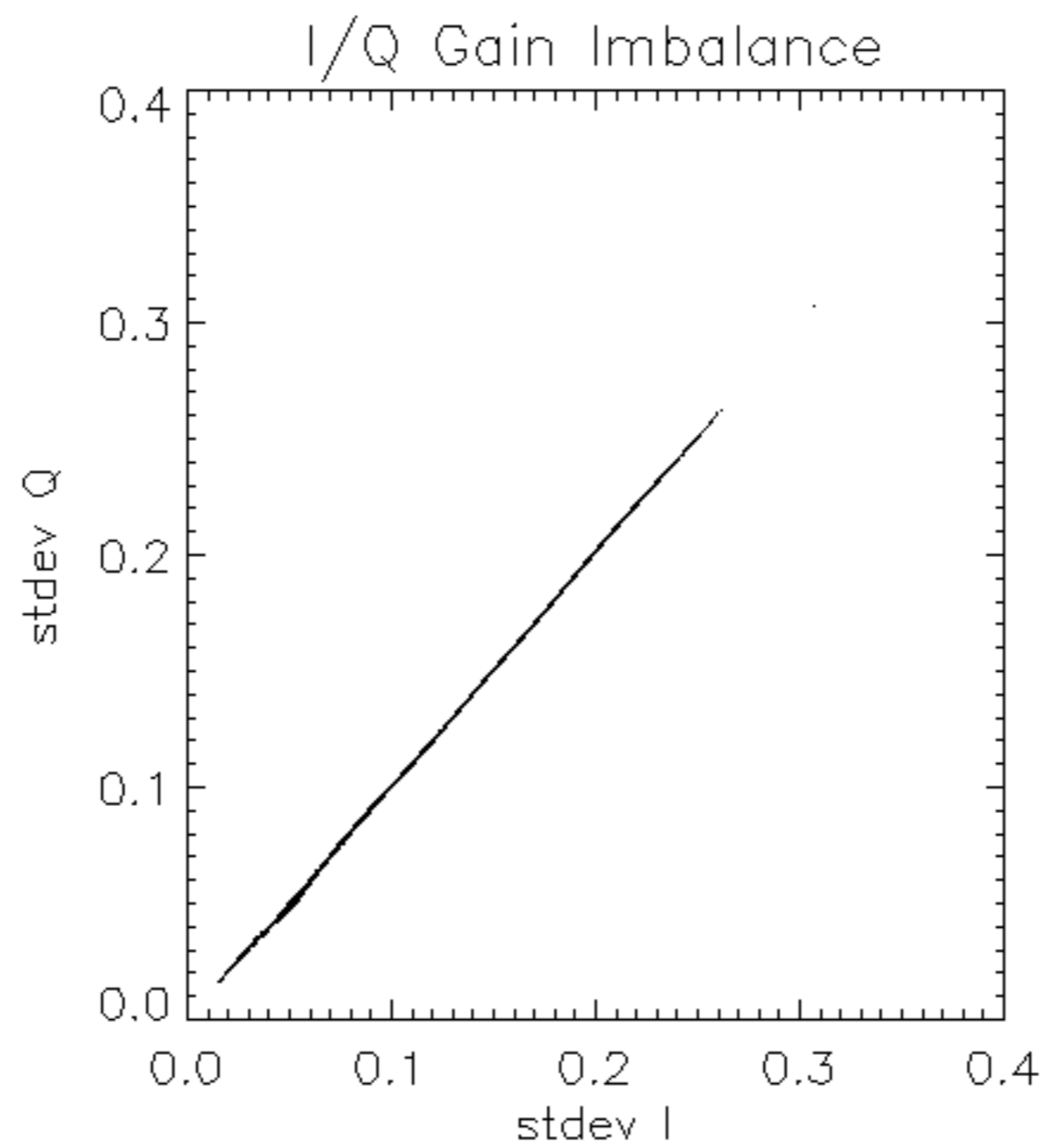
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.702841 Hz

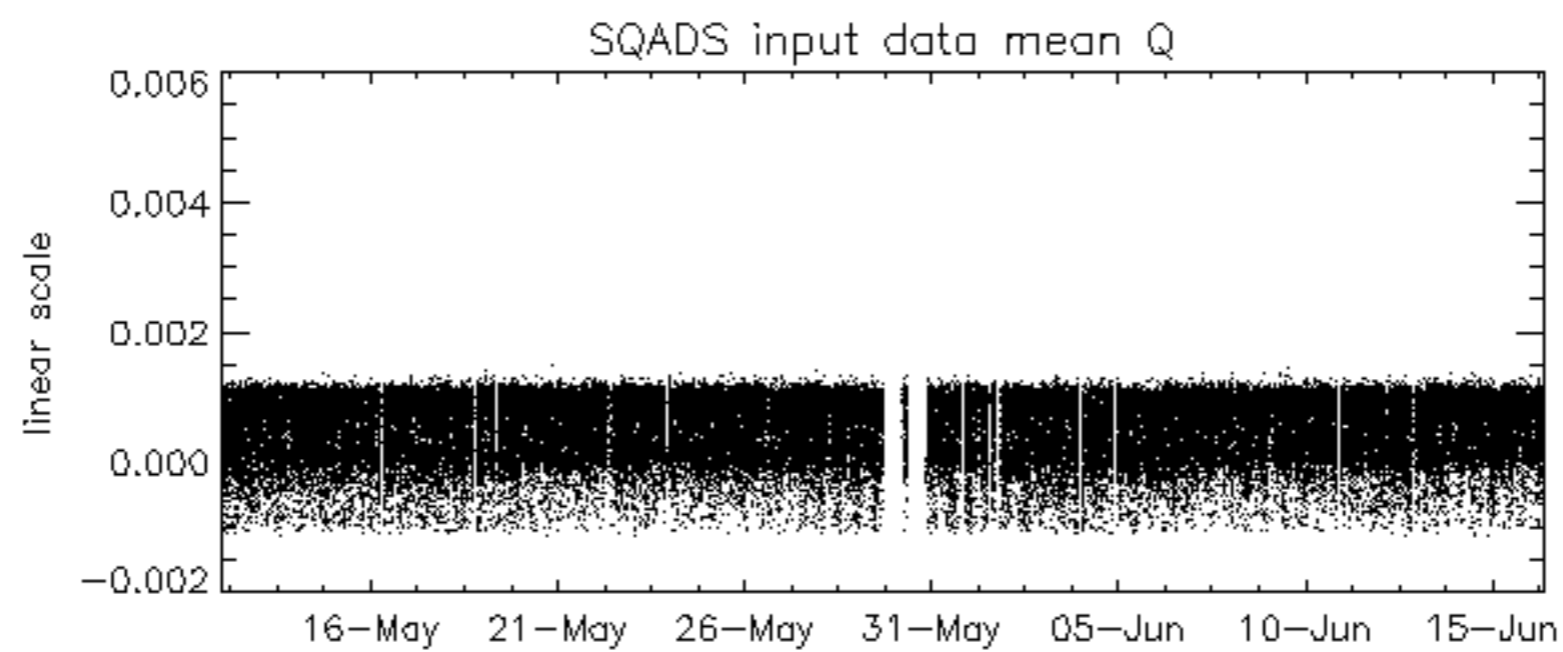
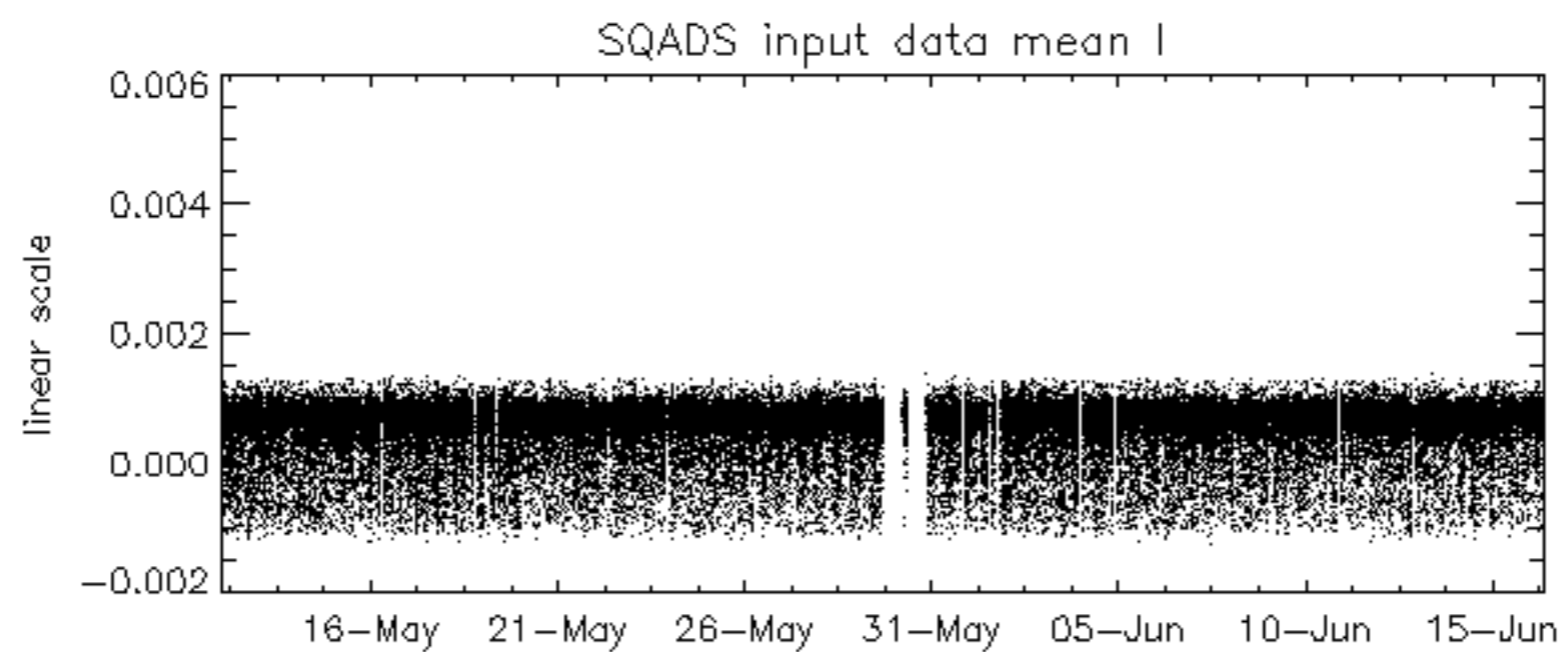
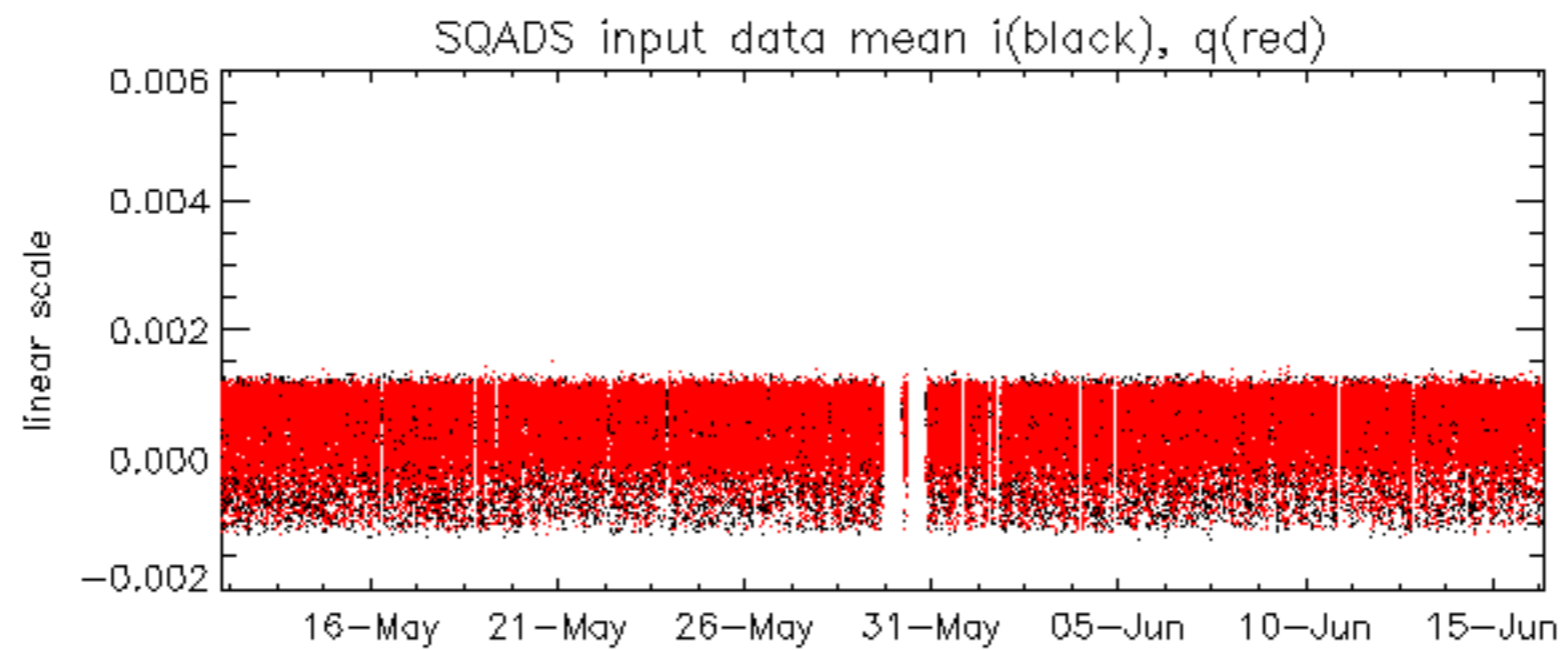


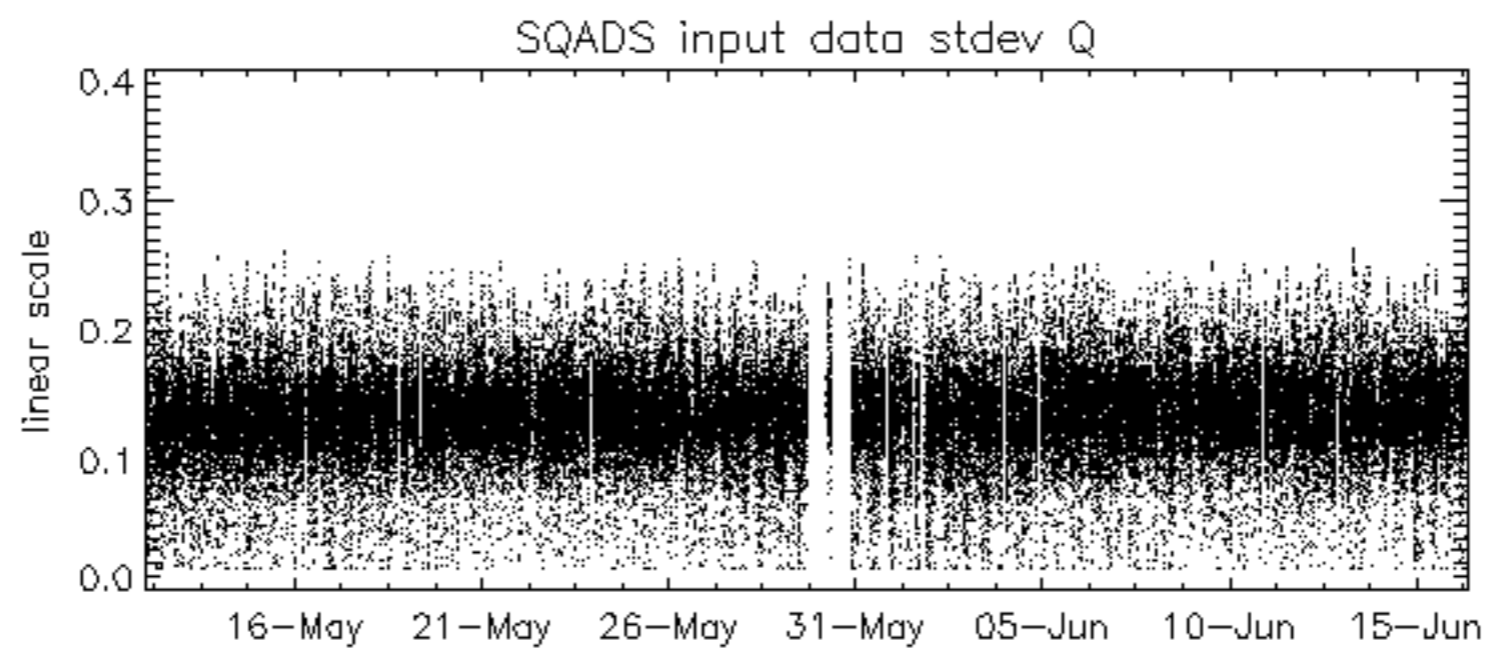
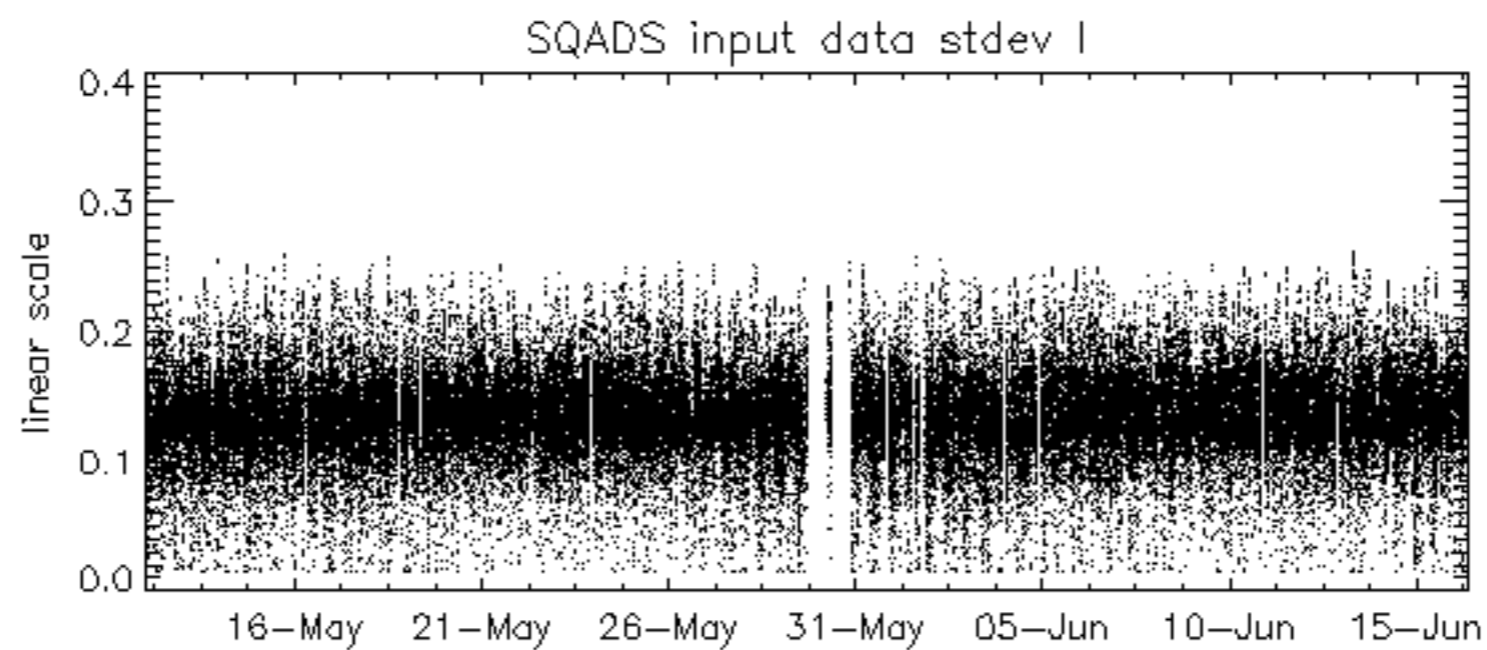
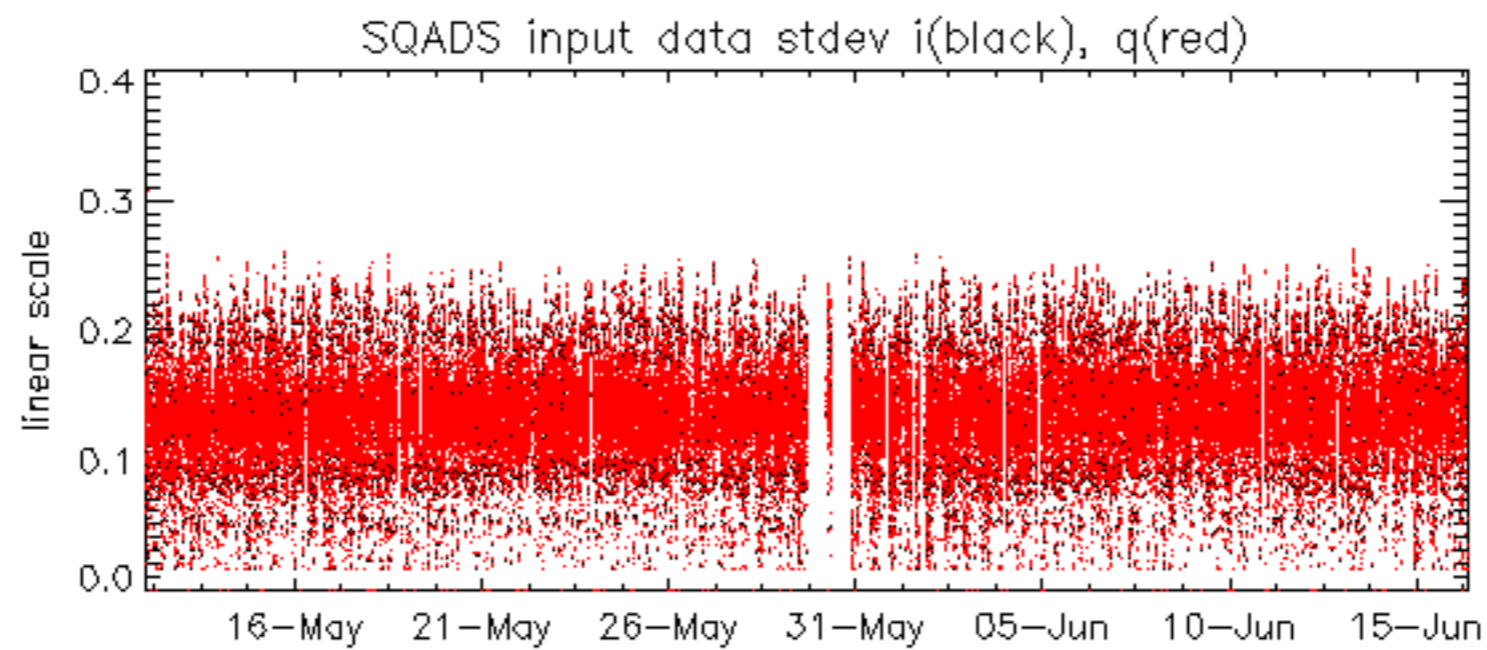
No anomalies observed on available MS products:

No anomalies observed.





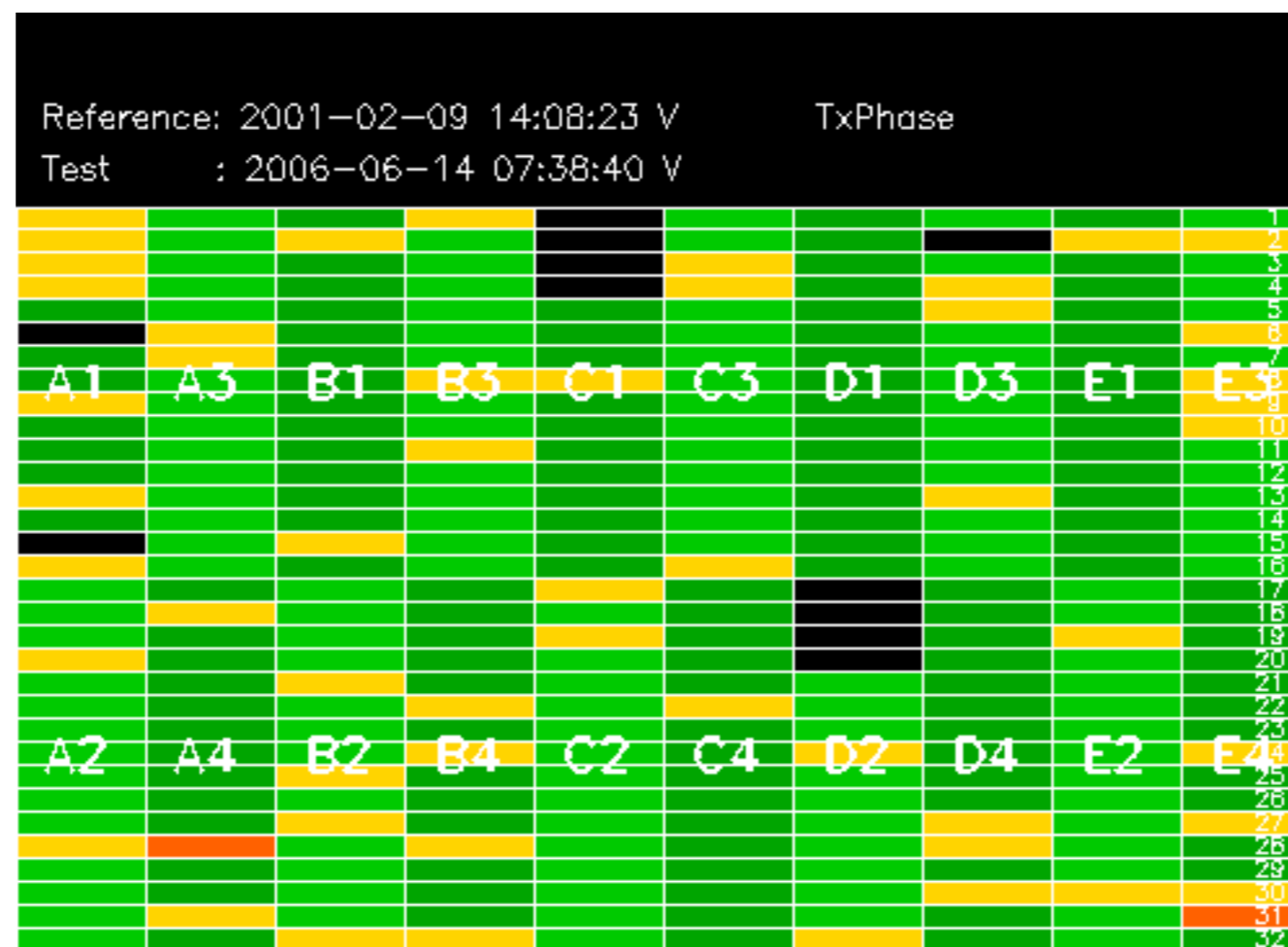


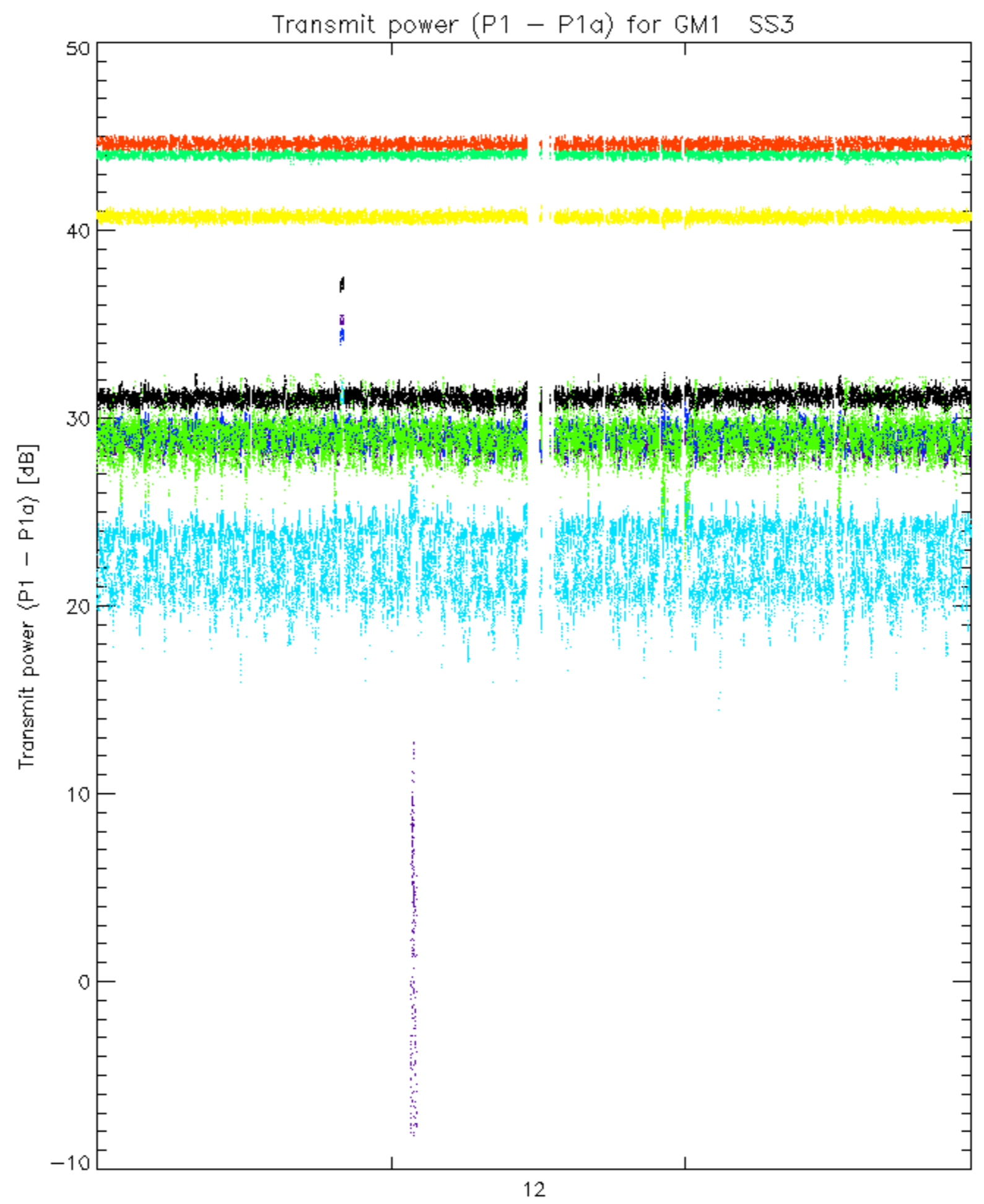


Summary of analysis for the last 3 days 2006061[456]

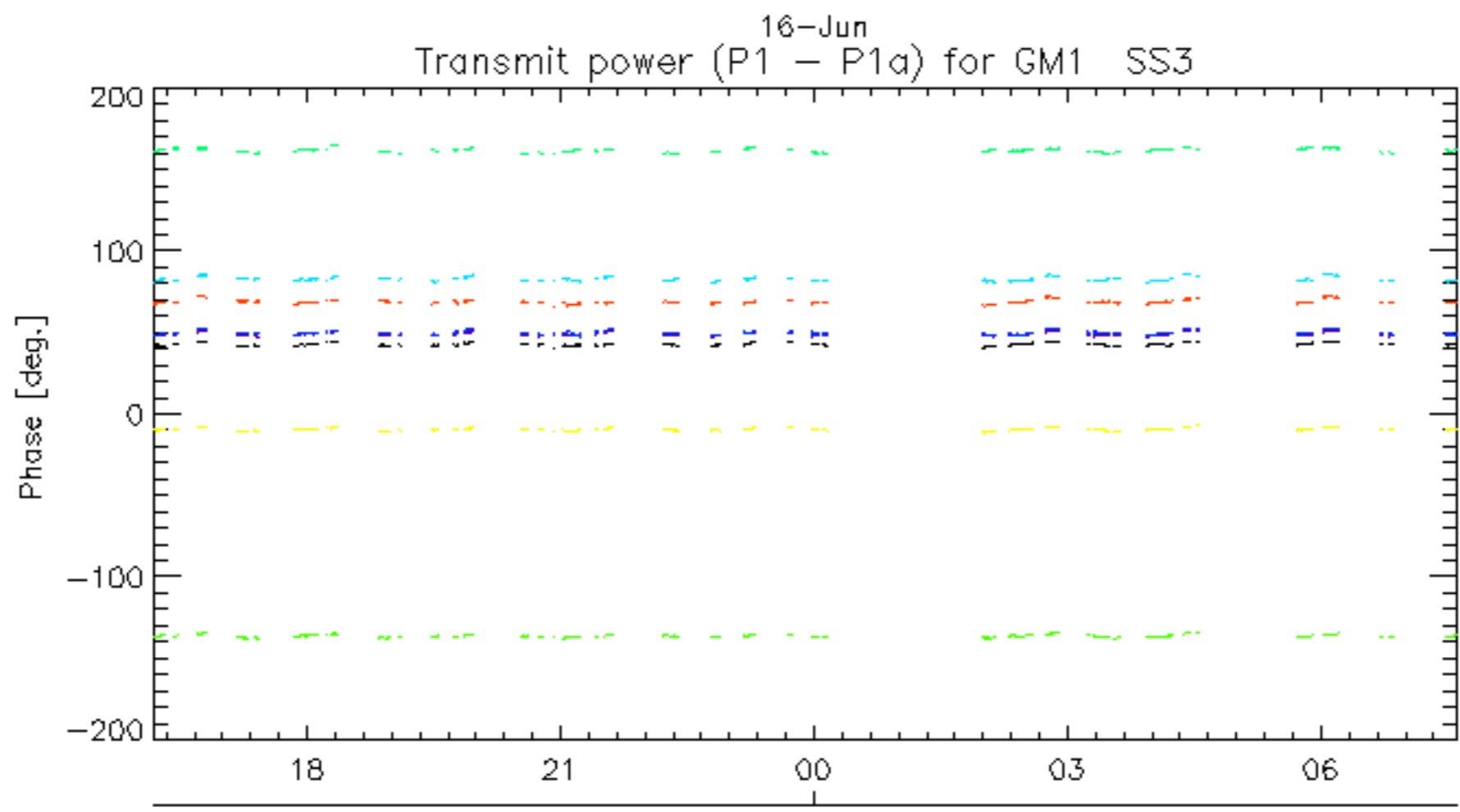
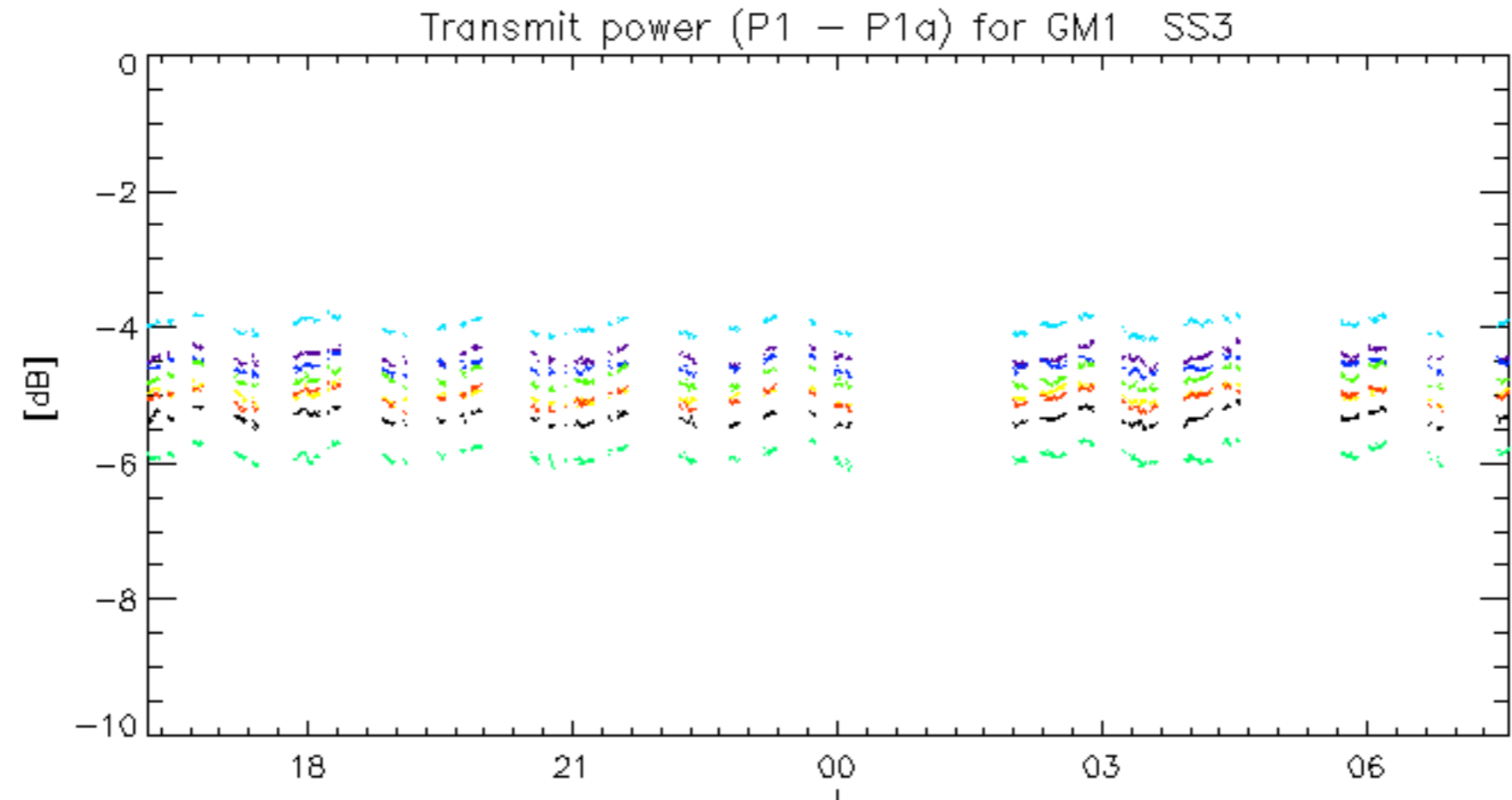
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060615_151130_00000802048_00340_22438_7565.N1	1	0
ASA_WSM_1PNPDE20060615_042315_000002382048_00334_22432_4158.N1	0	6
ASA_WSM_1PNPDE20060615_142702_000001282048_00340_22438_4226.N1	0	22
ASA_WSM_1PNPDE20060615_200853_000000852048_00343_22441_4292.N1	0	8
ASA_WSM_1PNPDE20060615_233445_000003302048_00345_22443_4326.N1	0	32
ASA_WSM_1PNPDE20060616_011001_000000672048_00346_22444_4337.N1	0	58
ASA_WSM_1PNPDE20060616_021252_000002692048_00347_22445_4352.N1	0	58

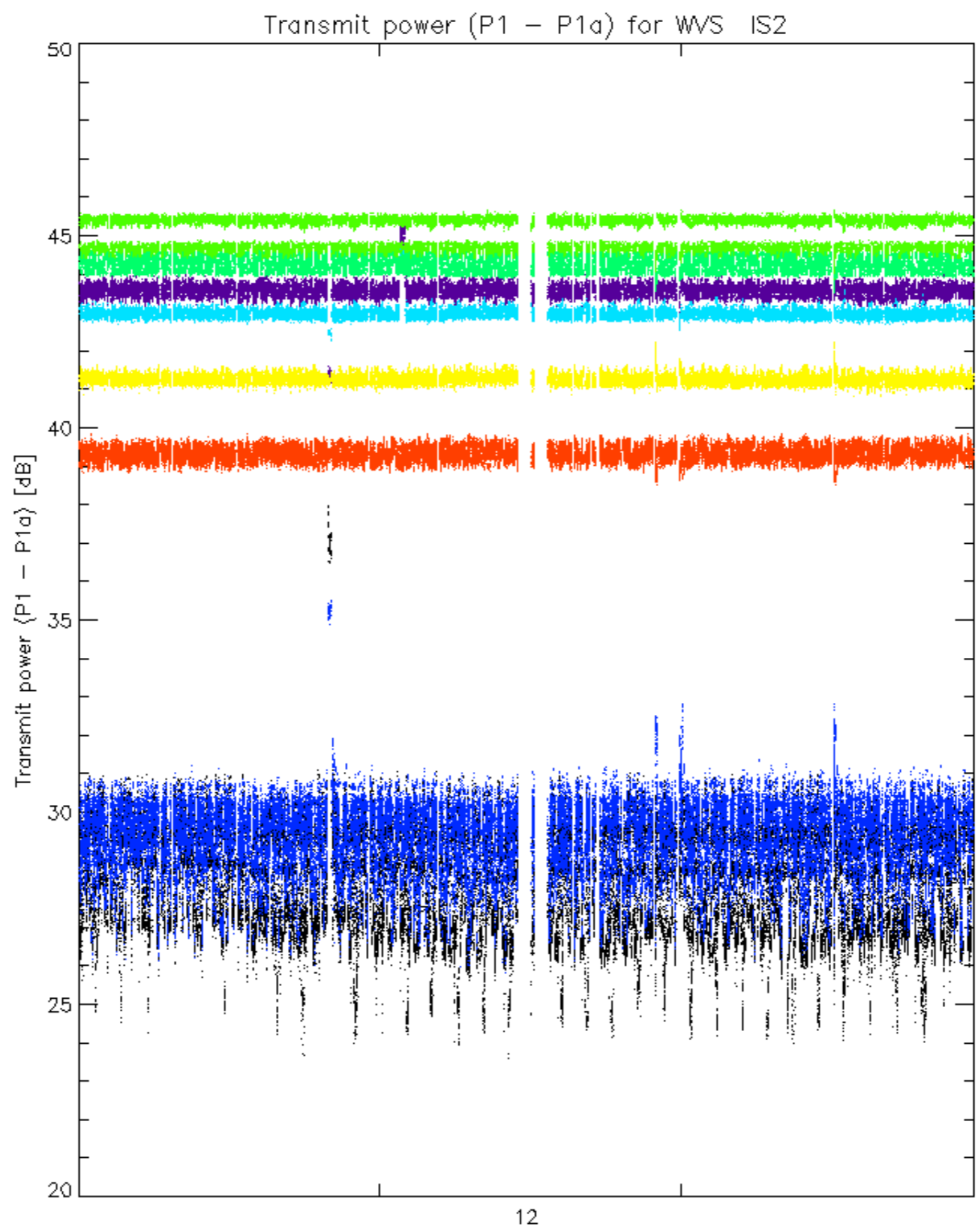




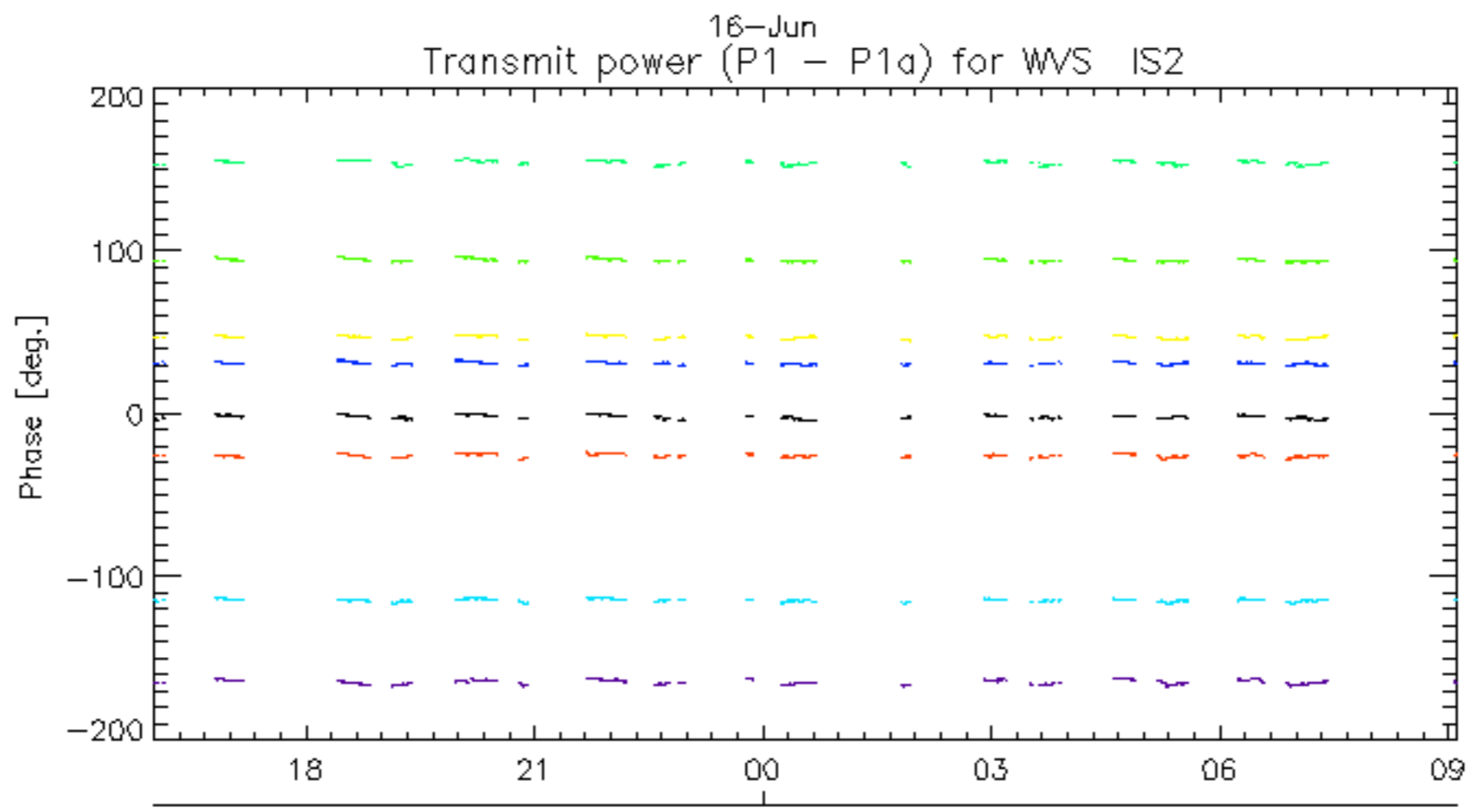
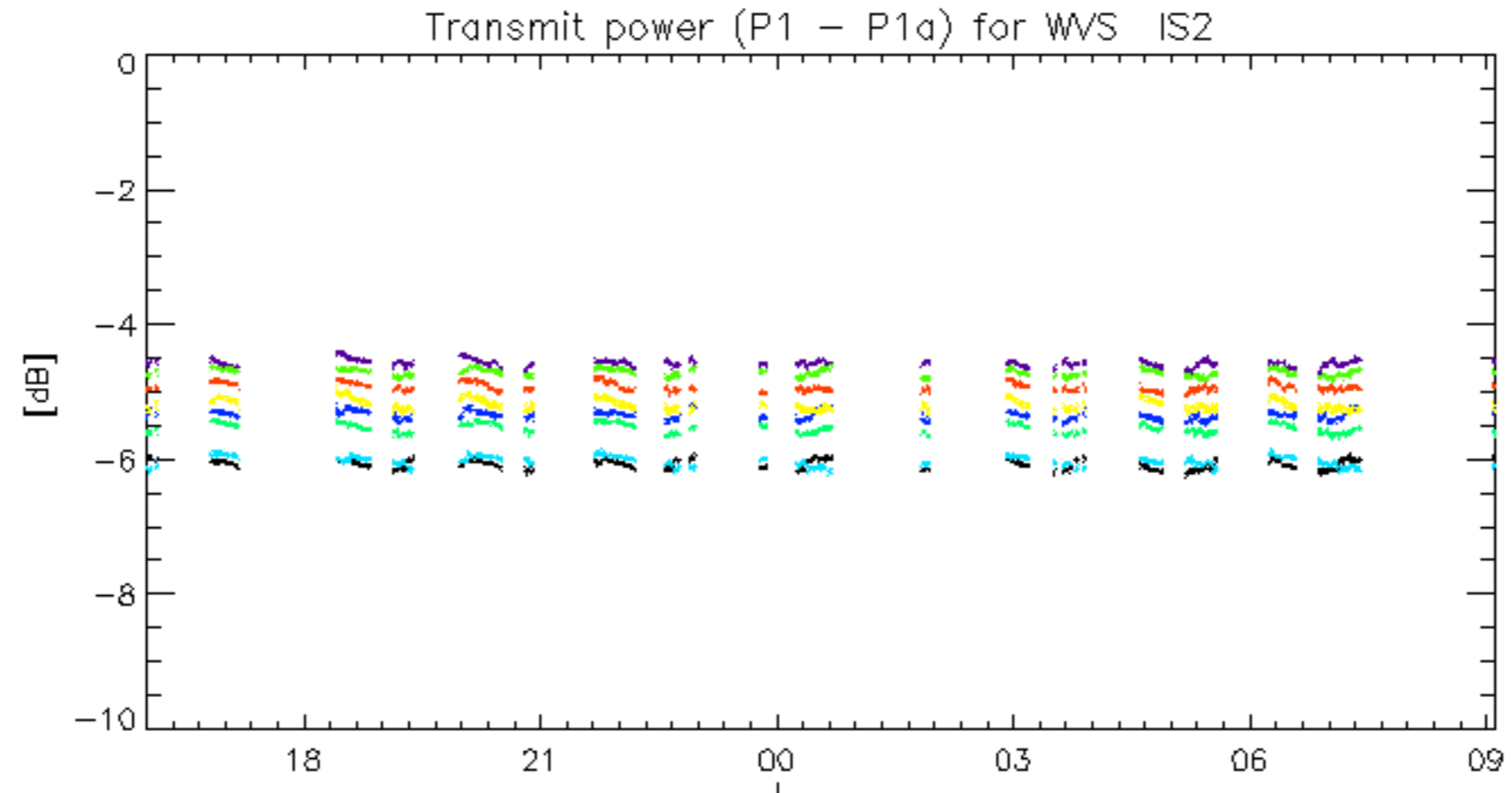
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.