

PRELIMINARY REPORT OF 060517

last update on Wed May 17 16:40:41 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 2006-05-16 00:00:00 to 2006-05-17 16:40:41

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	79	7	0	16
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	79	7	0	16
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	79	7	0	16
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	79	7	0	16

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	62	27	22	63
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	62	27	22	63
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	62	27	22	63
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	62	27	22	63

2.3 - Browse Visual Inspection

Due to a problem with AMS the browse products visual inspection is not carried out.

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	20060516 042856
H	20060517 071831

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

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	-3.971147	0.011532	0.020756
7	P1	-3.070389	0.013602	-0.083106
11	P1	-4.098345	0.015209	-0.035453
15	P1	-6.113674	0.011802	-0.077191
19	P1	-3.311545	0.007896	-0.011533
22	P1	-4.523940	0.010879	-0.006300
26	P1	-4.022185	0.020453	0.100639
30	P1	-5.741471	0.019524	-0.024122
3	P1	-16.648438	0.306489	0.154718
7	P1	-17.022680	0.149724	-0.300609
11	P1	-16.807220	0.316085	-0.390665
15	P1	-13.141979	0.141025	-0.215470
19	P1	-14.186032	0.048826	-0.228629
22	P1	-16.100149	0.445140	-0.192992
26	P1	-15.382219	0.268676	0.380199
30	P1	-16.857443	0.329032	-0.417796

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.270798	0.084767	0.132088
7	P2	-22.165451	0.100742	0.166851
11	P2	-16.008104	0.112111	0.155975
15	P2	-7.168194	0.094644	-0.007692
19	P2	-9.157039	0.087689	-0.021208
22	P2	-18.077986	0.085867	-0.108210
26	P2	-16.330835	0.091239	-0.099235
30	P2	-19.602972	0.085901	0.023542

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.191741	0.004020	0.000917
7	P3	-8.191741	0.004020	0.000917
11	P3	-8.191741	0.004020	0.000917
15	P3	-8.191741	0.004020	0.000917
19	P3	-8.191741	0.004020	0.000917
22	P3	-8.191741	0.004020	0.000917
26	P3	-8.191751	0.004020	0.000960
30	P3	-8.191751	0.004020	0.000960

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	-3.746806	0.038691	0.002172
7	P1	-2.643407	0.101285	0.117547
11	P1	-2.873889	0.030857	0.054112
15	P1	-3.505606	0.029340	0.057718
19	P1	-3.387246	0.014008	-0.015947
22	P1	-5.108332	0.022320	0.062448
26	P1	-5.825234	0.021931	-0.038305
30	P1	-5.184340	0.044009	-0.016695
3	P1	-11.597055	0.133970	-0.019938
7	P1	-9.975110	0.154284	0.006686
11	P1	-10.215520	0.082697	0.063977
15	P1	-10.657765	0.127952	0.181006
19	P1	-15.469931	0.087139	-0.090283
22	P1	-20.758661	1.293187	-0.436242

26	P1	-16.428106	0.392584	-0.197726
30	P1	-18.180696	0.486700	0.407721

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.940334	0.069818	0.104470
7	P2	-22.514881	0.175992	-0.026757
11	P2	-11.194078	0.049183	0.014314
15	P2	-4.881548	0.041983	-0.061242
19	P2	-6.867168	0.041221	-0.018840
22	P2	-8.169657	0.052907	-0.059932
26	P2	-24.065348	0.125086	-0.087618
30	P2	-22.054468	0.086431	-0.008433

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.025146	0.003615	0.005545
7	P3	-8.025137	0.003632	0.005108
11	P3	-8.025251	0.003618	0.005684
15	P3	-8.025002	0.003634	0.005918
19	P3	-8.025240	0.003629	0.005850
22	P3	-8.025227	0.003626	0.005632
26	P3	-8.025012	0.003616	0.005776
30	P3	-8.025085	0.003621	0.005690

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	0.000539082
	stdev	1.88337e-07
MEAN Q	mean	0.000512288
	stdev	2.27864e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135226
	stdev	0.00118858
STDEV Q	mean	0.135575
	stdev	0.00120561



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006051[567]

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_1PNPDE20060516_003808_000000502047_00403_22000_5316.N1	1	0
ASA_IMM_1PNPDK20060516_082810_000000372047_00408_22005_1794.N1	0	15
ASA_WSM_1PNPDE20060517_001650_000000852047_00417_22014_9559.N1	0	26
ASA_WSM_1PNPDE20060517_015318_000000672047_00418_22015_9563.N1	0	69
ASA_WSM_1PNPDK20060515_140121_000000852047_00397_21994_5187.N1	0	32



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

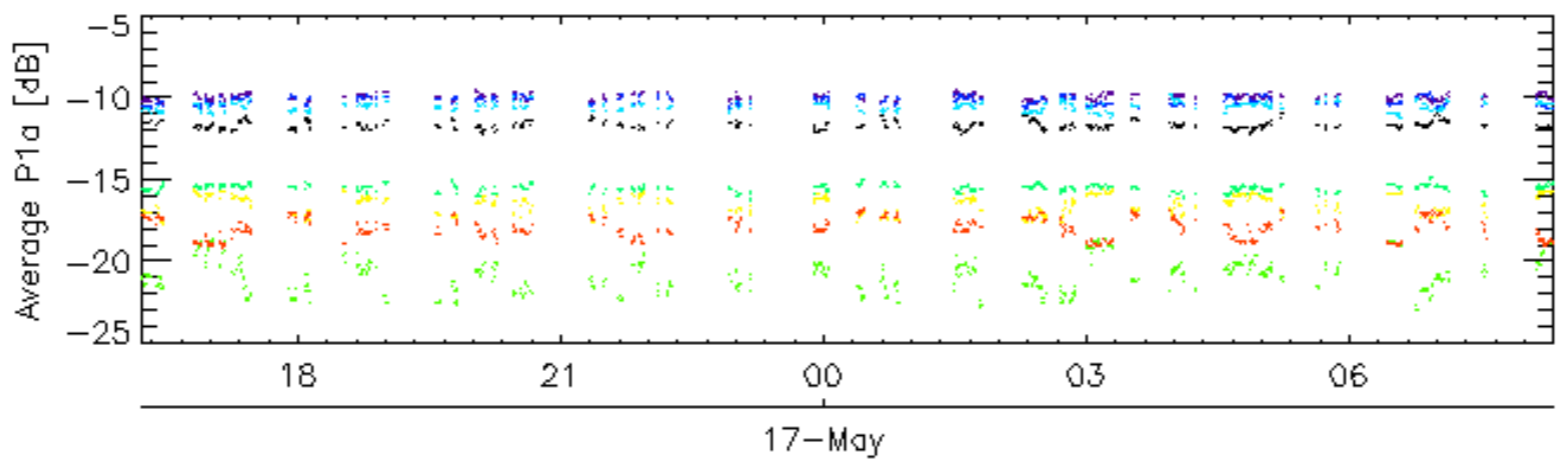
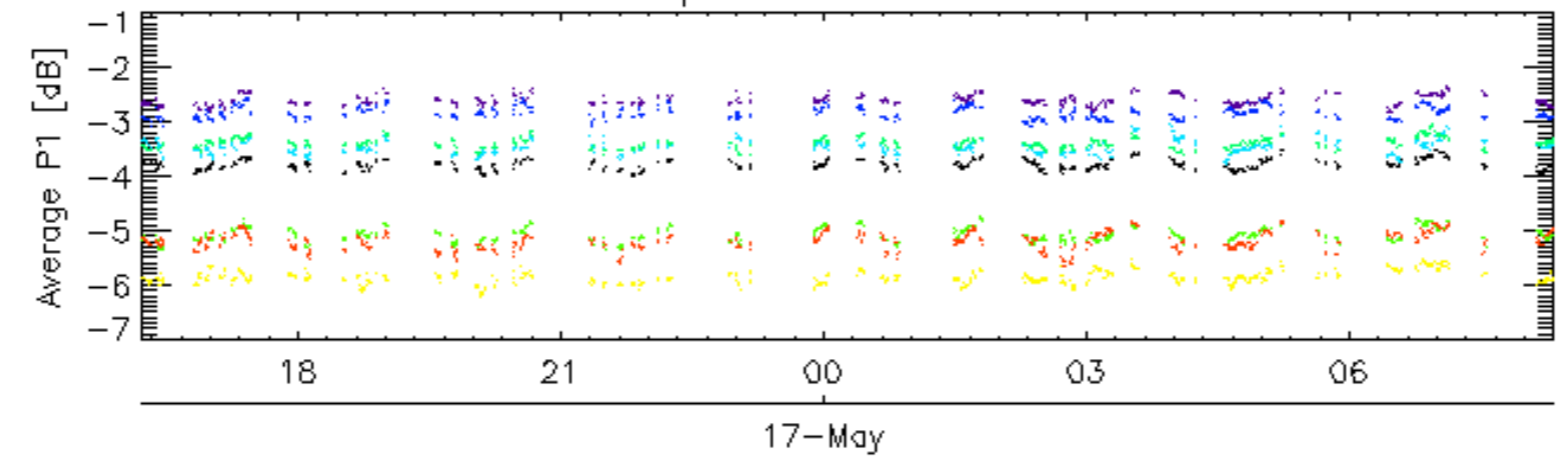
Ascending

Descending

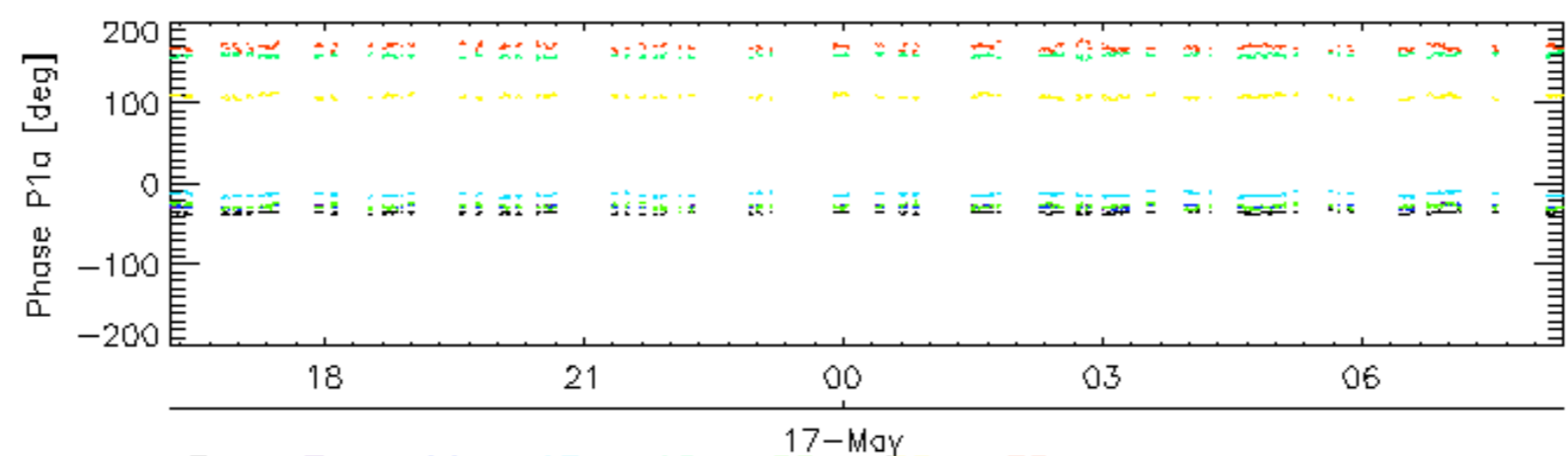
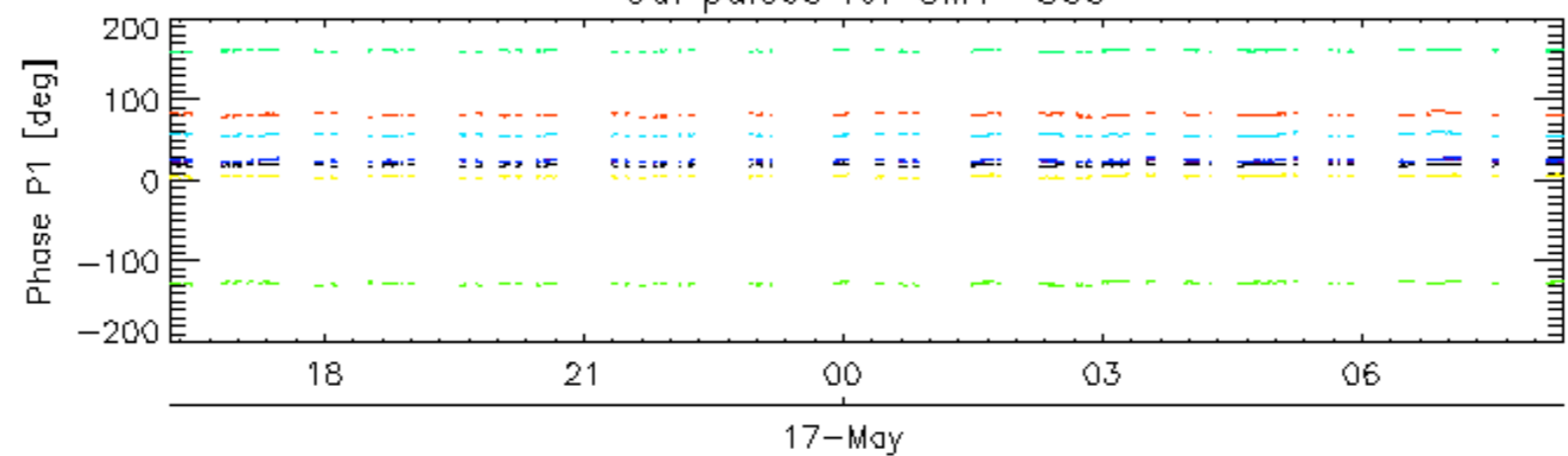
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

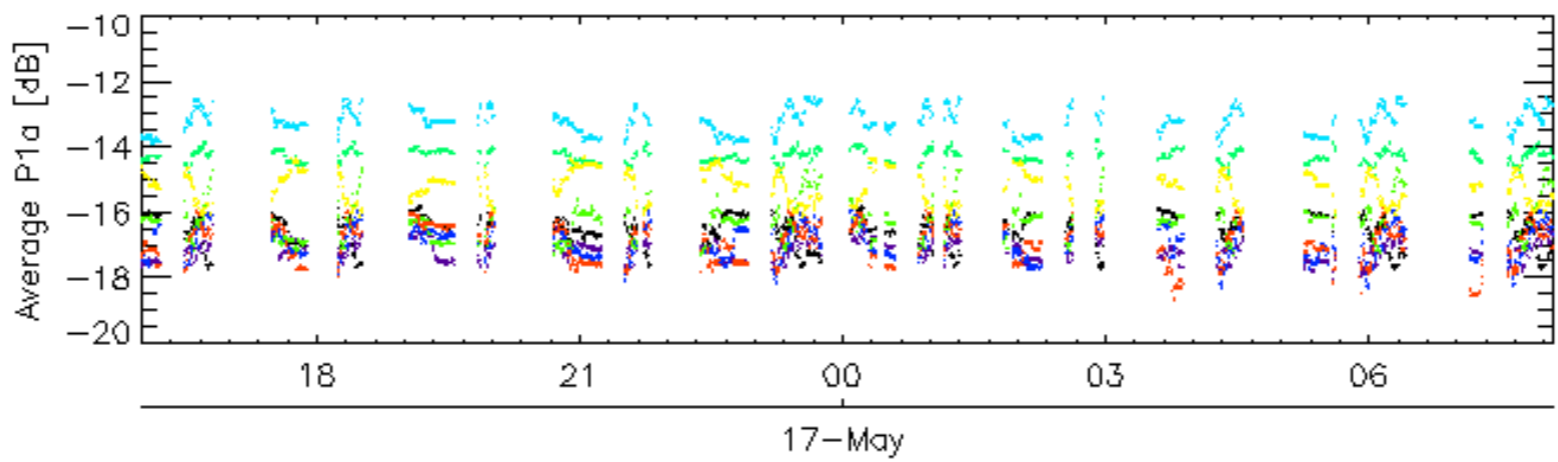
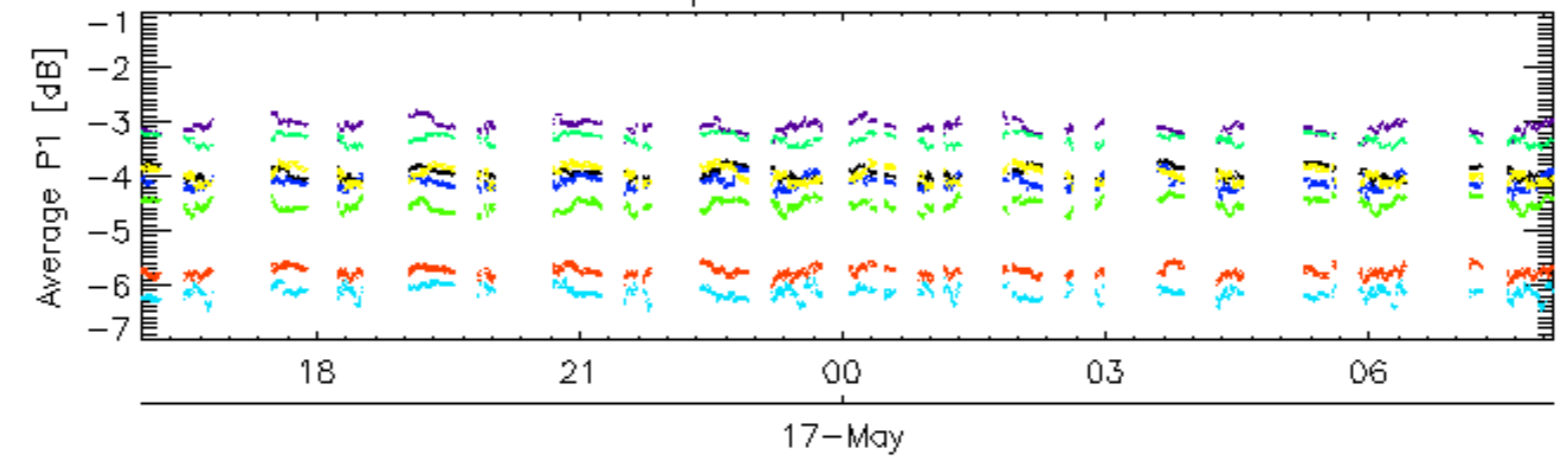


Cal pulses for GM1 SS3

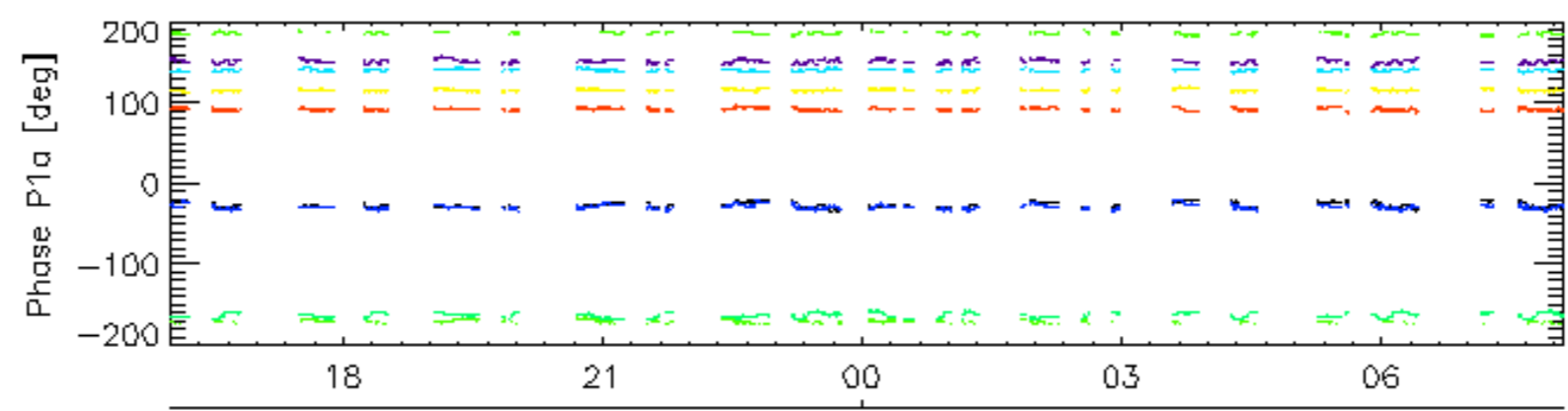
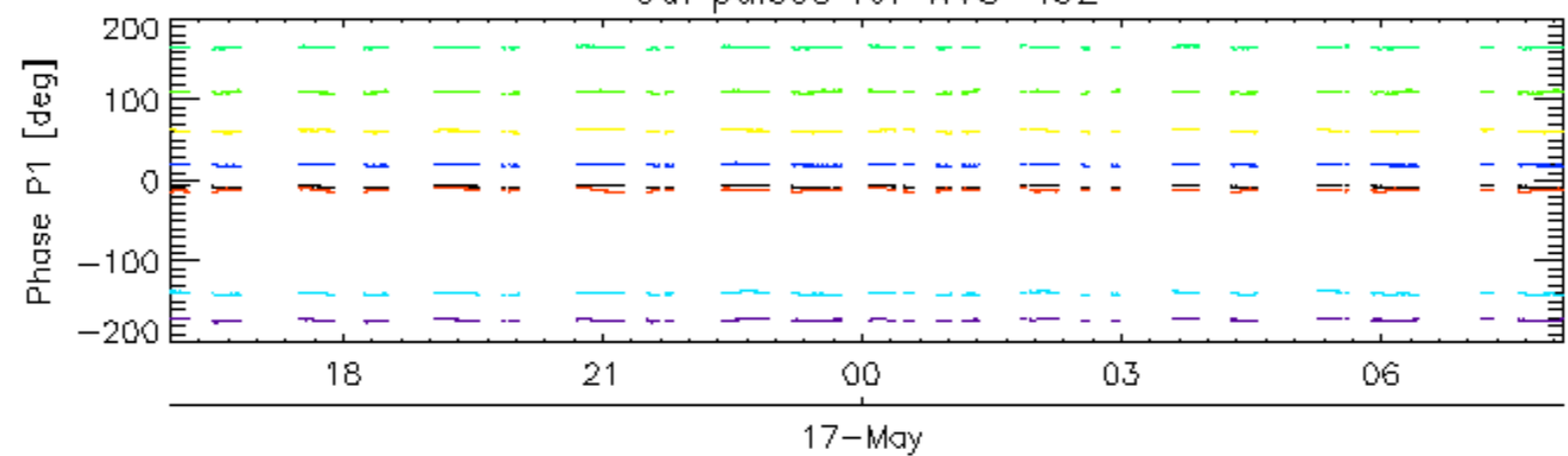


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

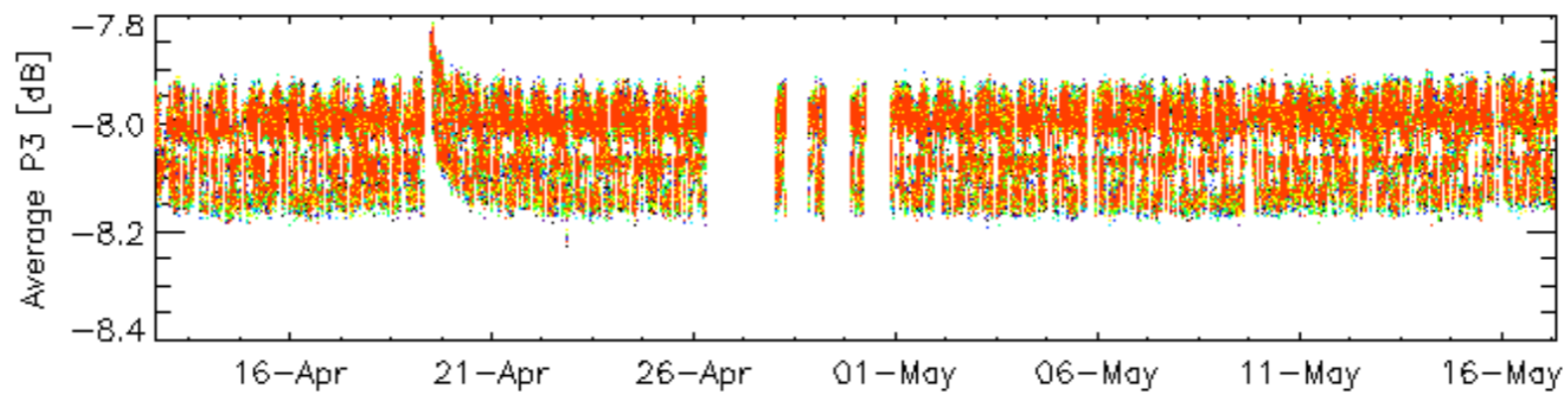
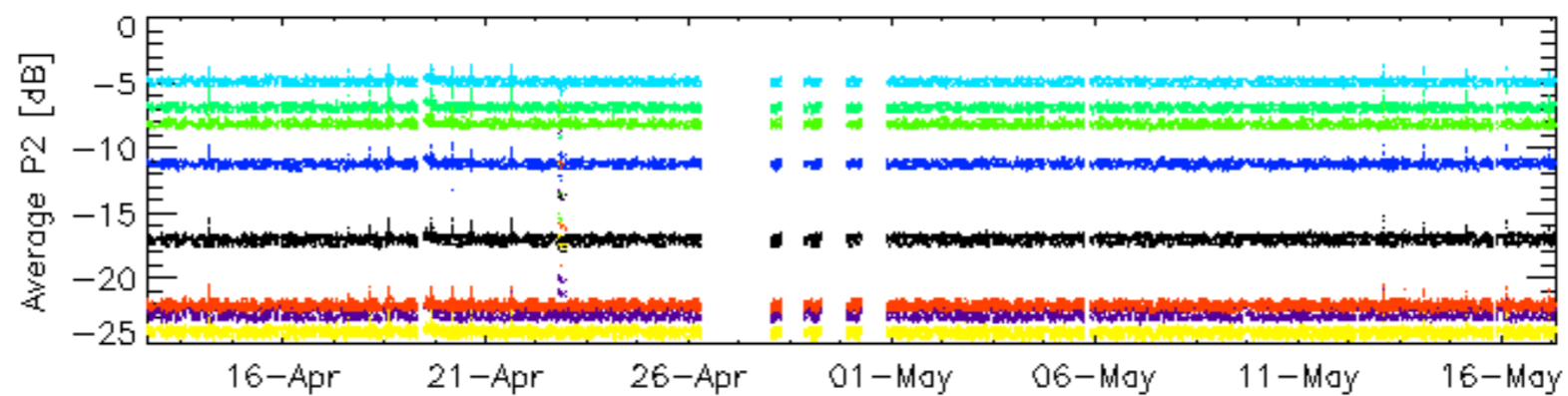
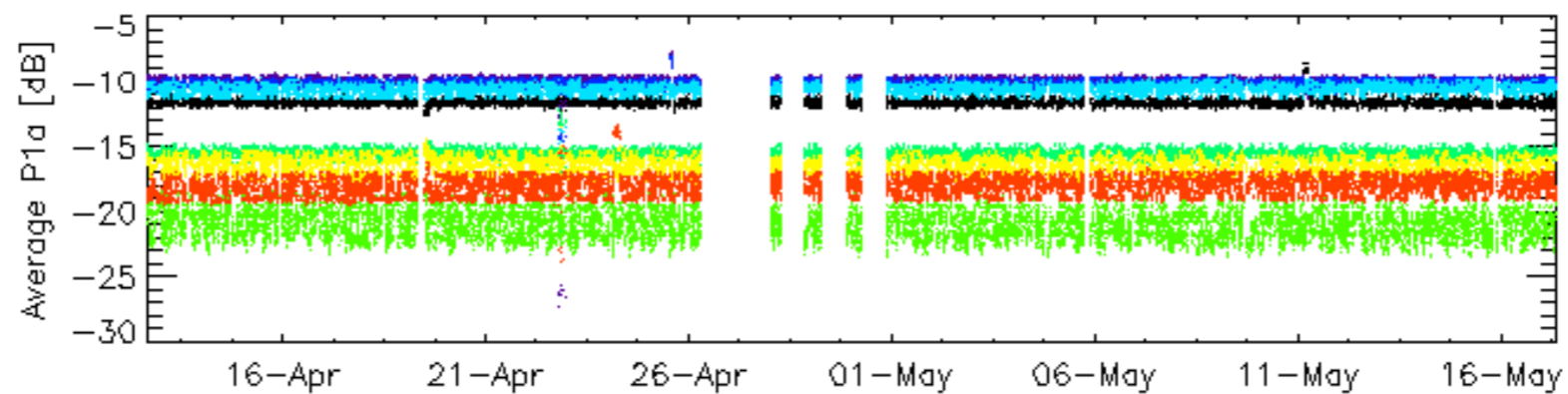
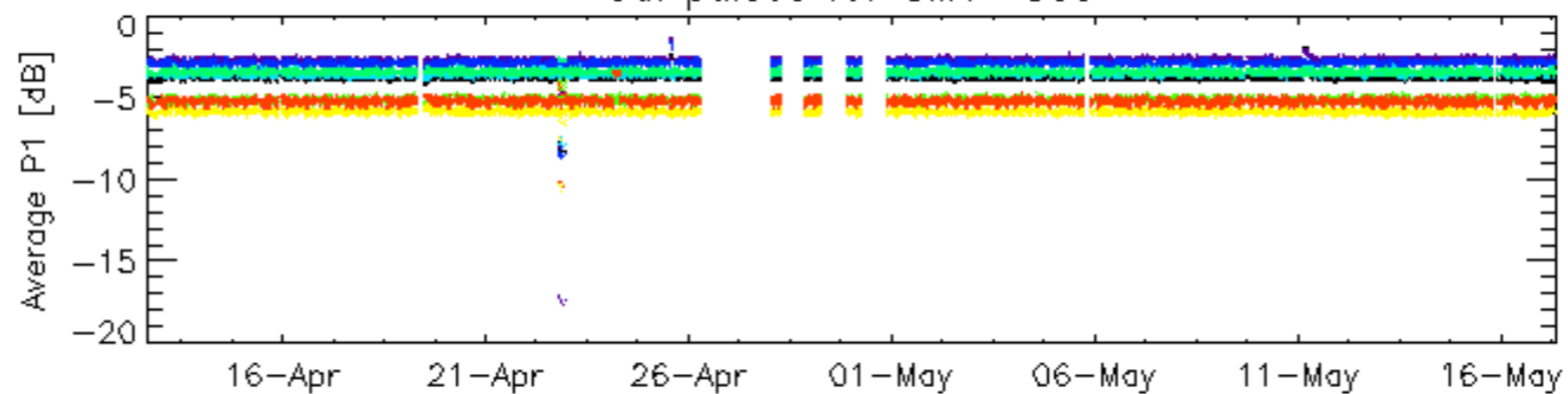


Cal pulses for WVS IS2



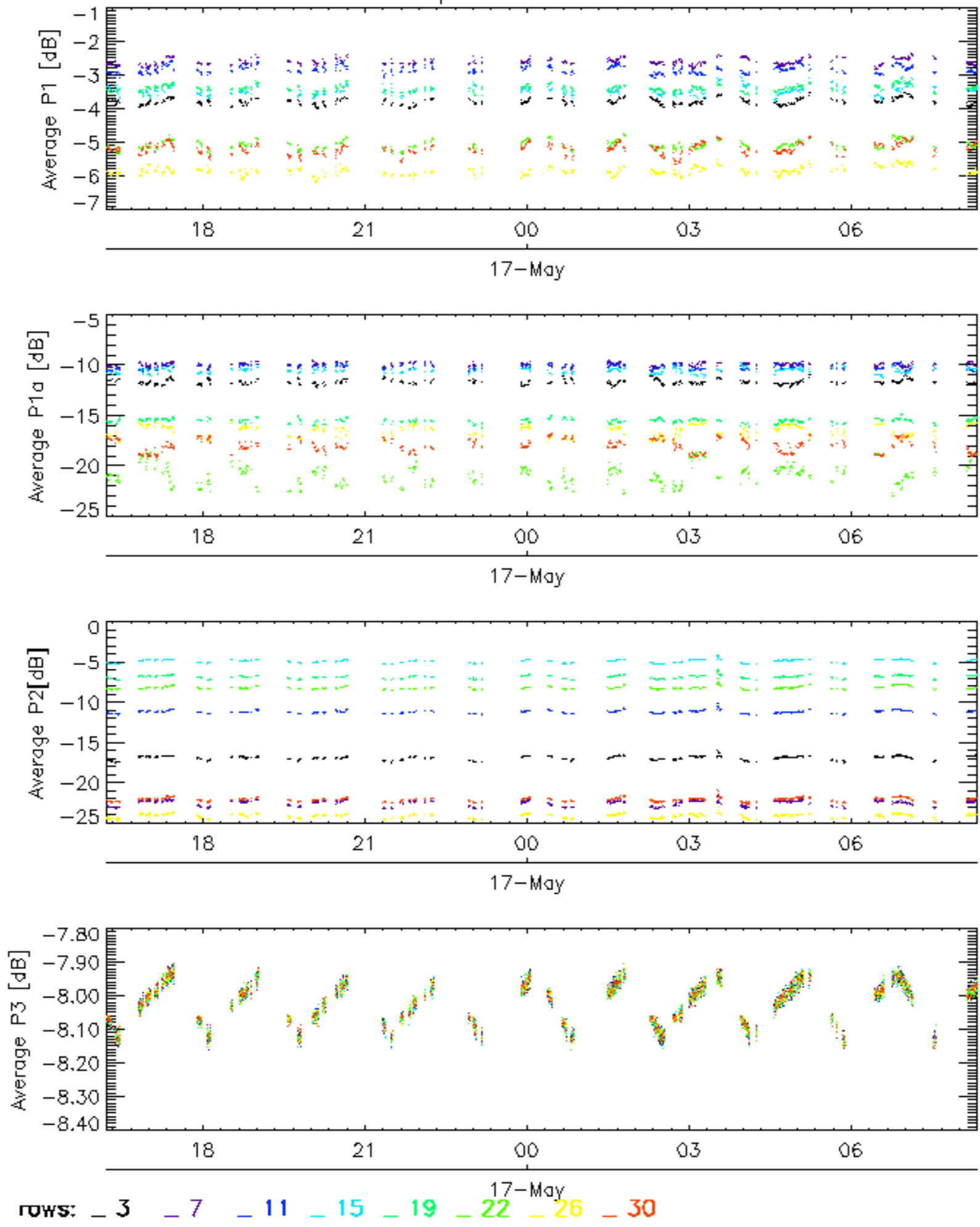
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

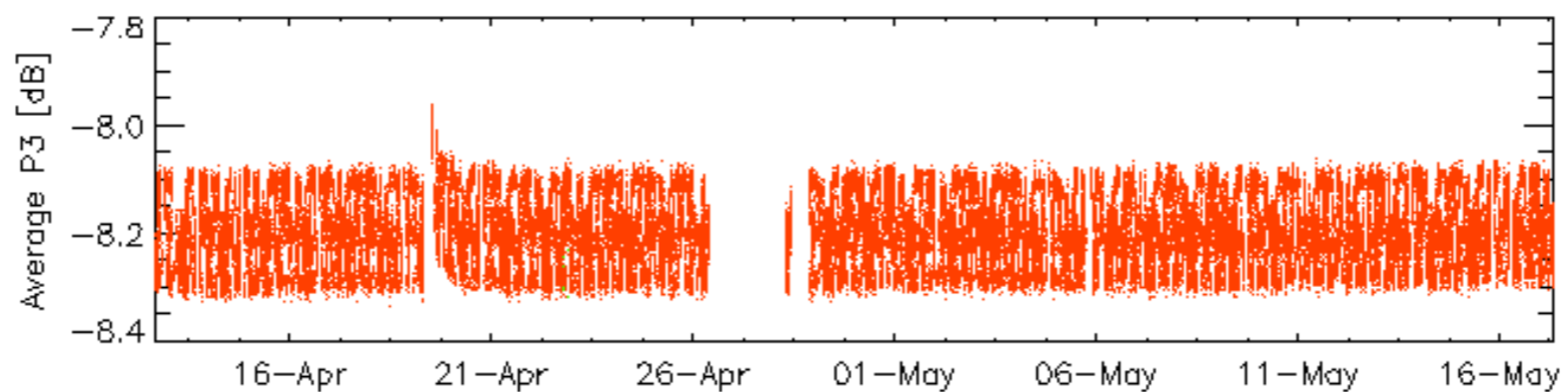
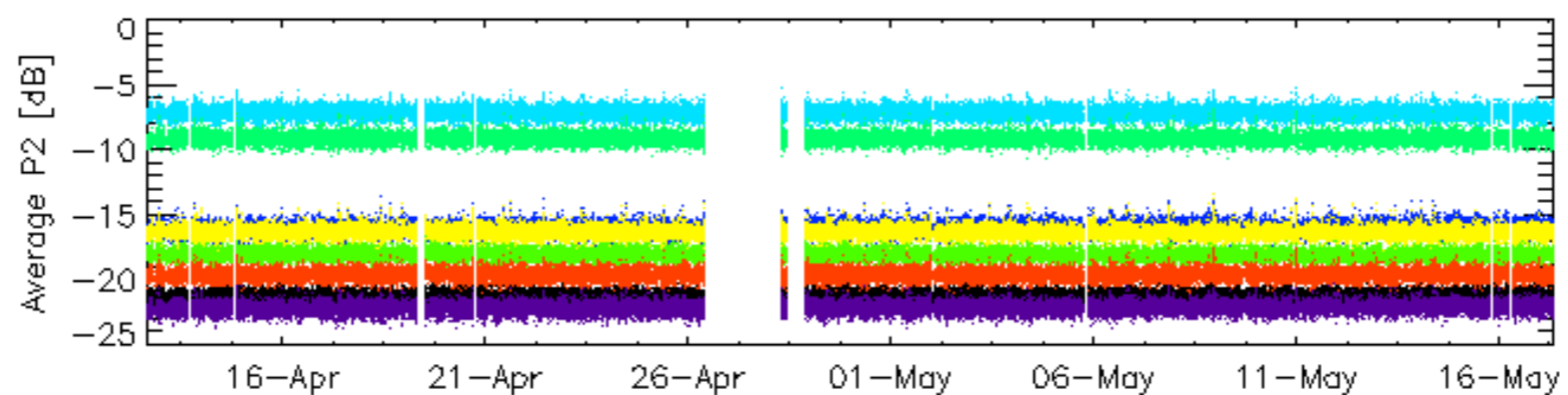
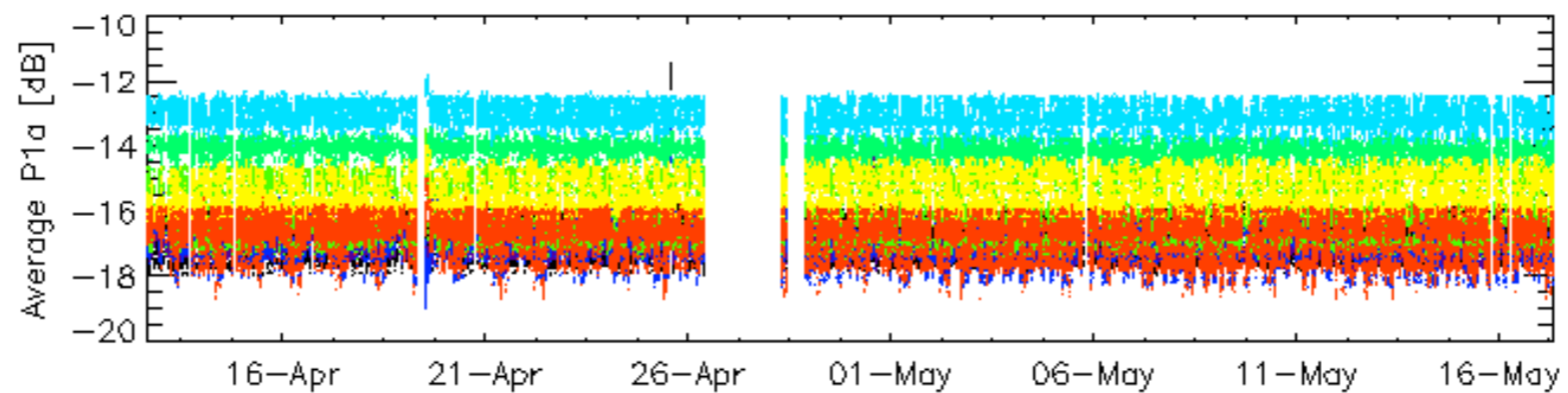
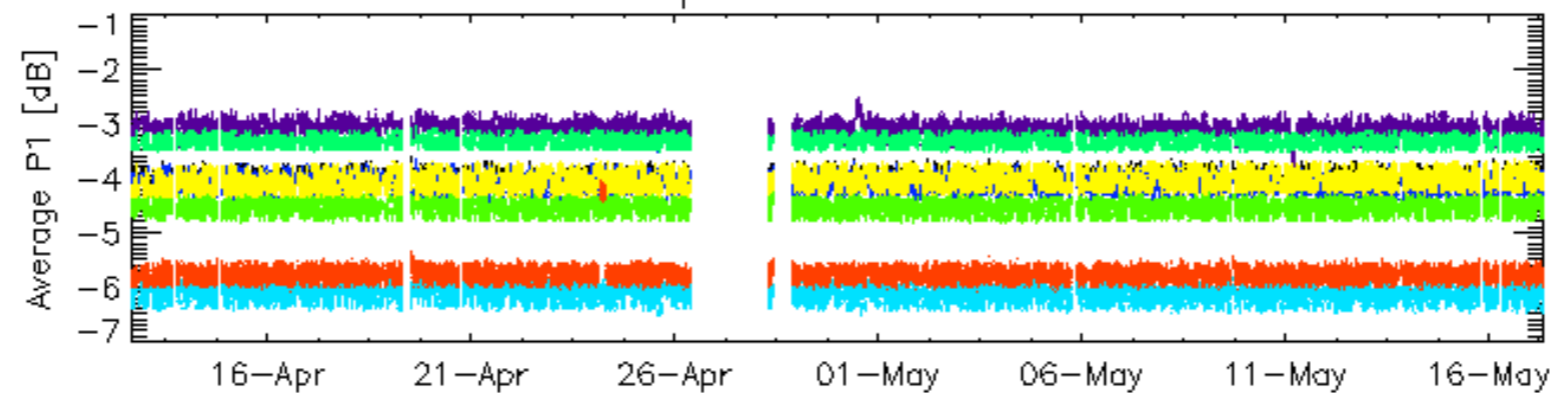


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

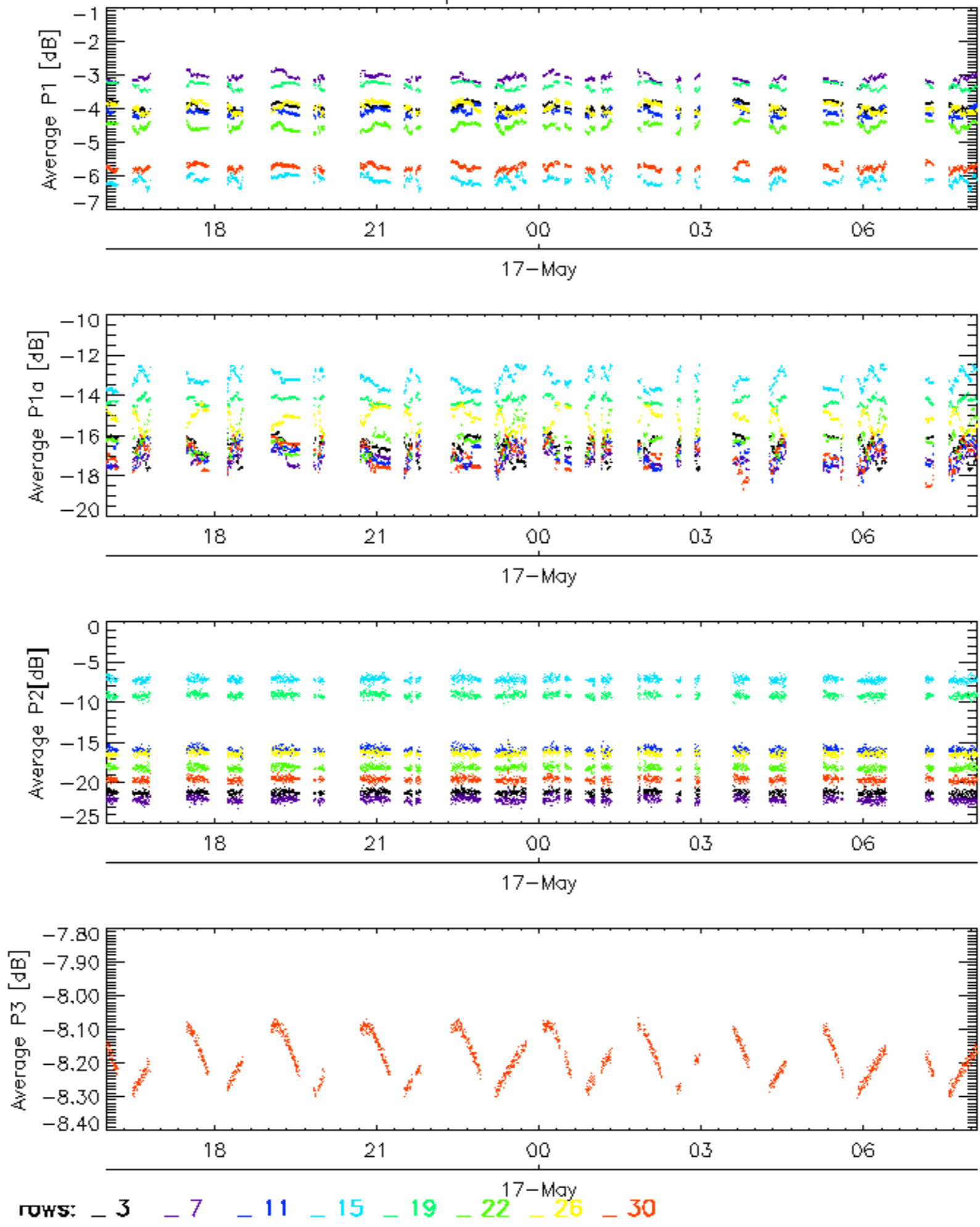


Cal pulses for WVS IS2



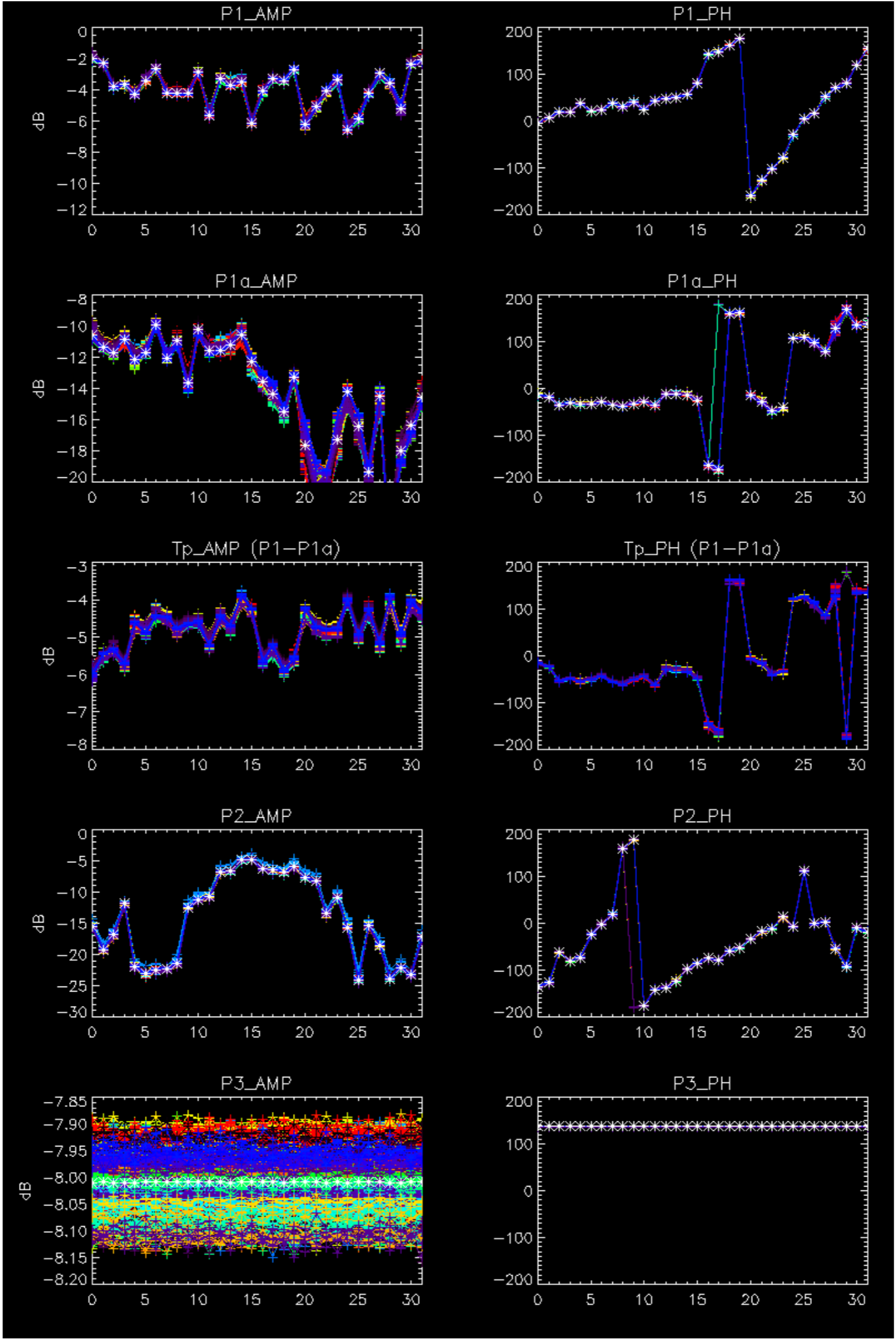
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

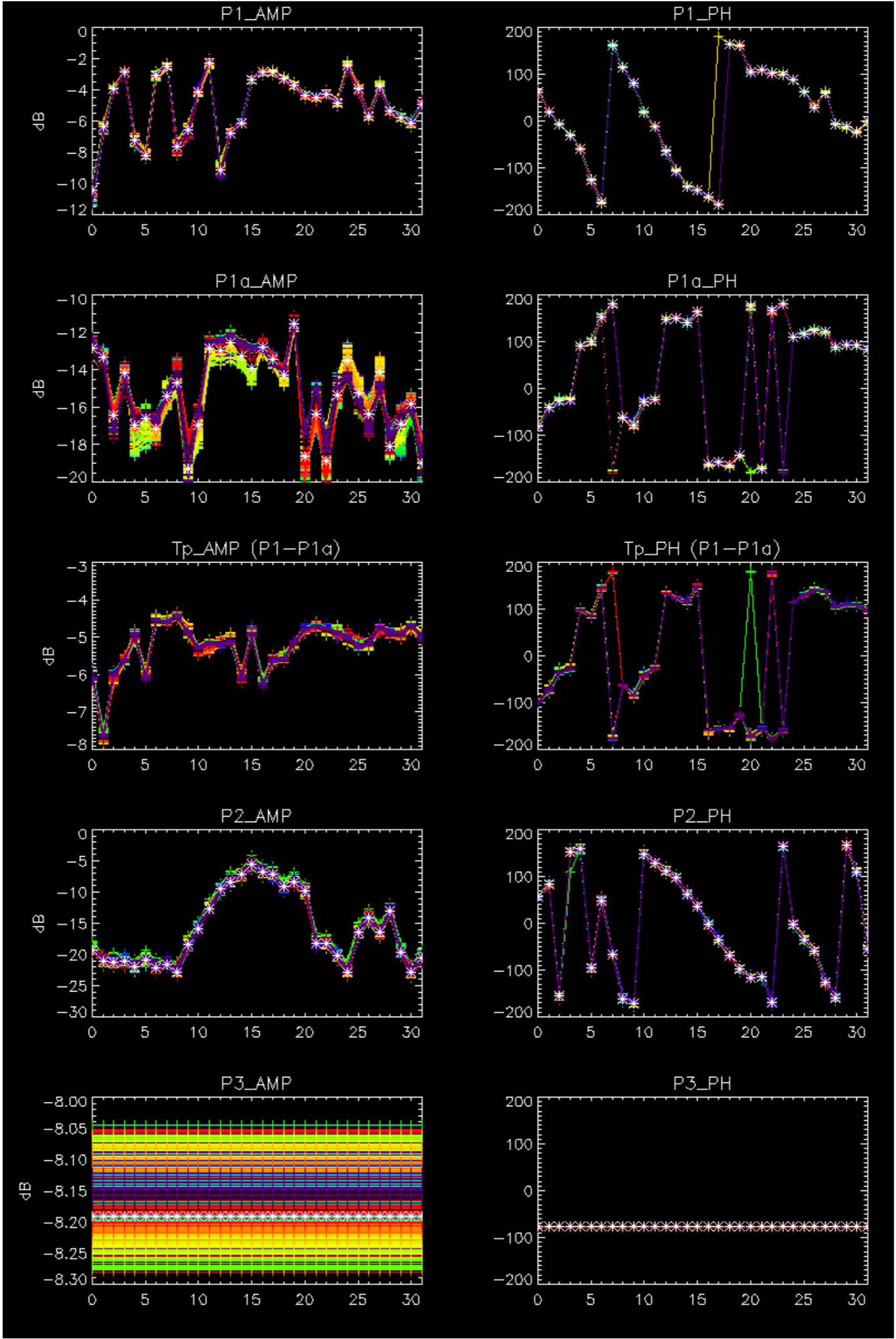
Cal pulses for WVS IS2



Due to a problem with AMS the browse products visual inspection is not carried out.

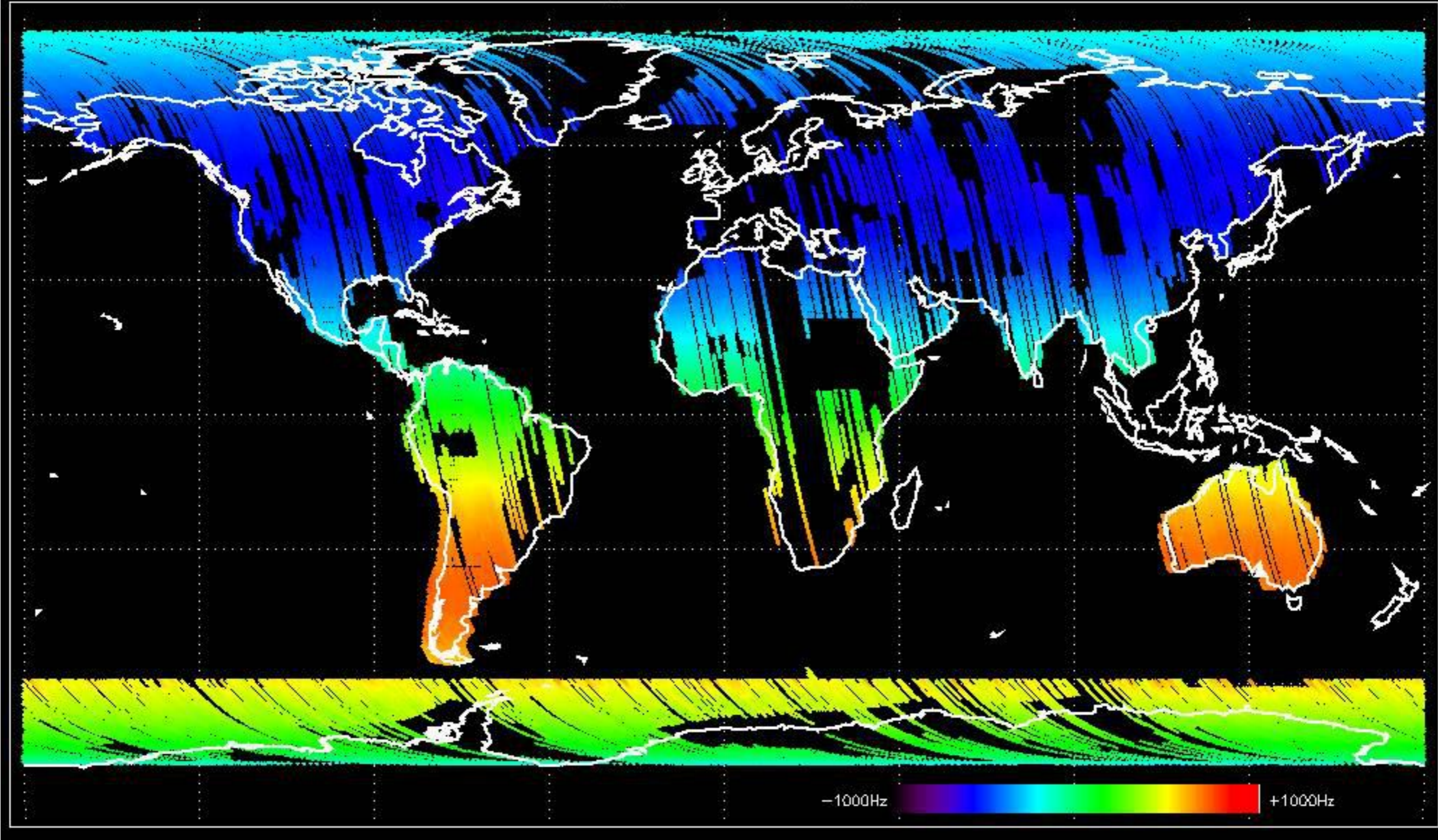
No anomalies observed.



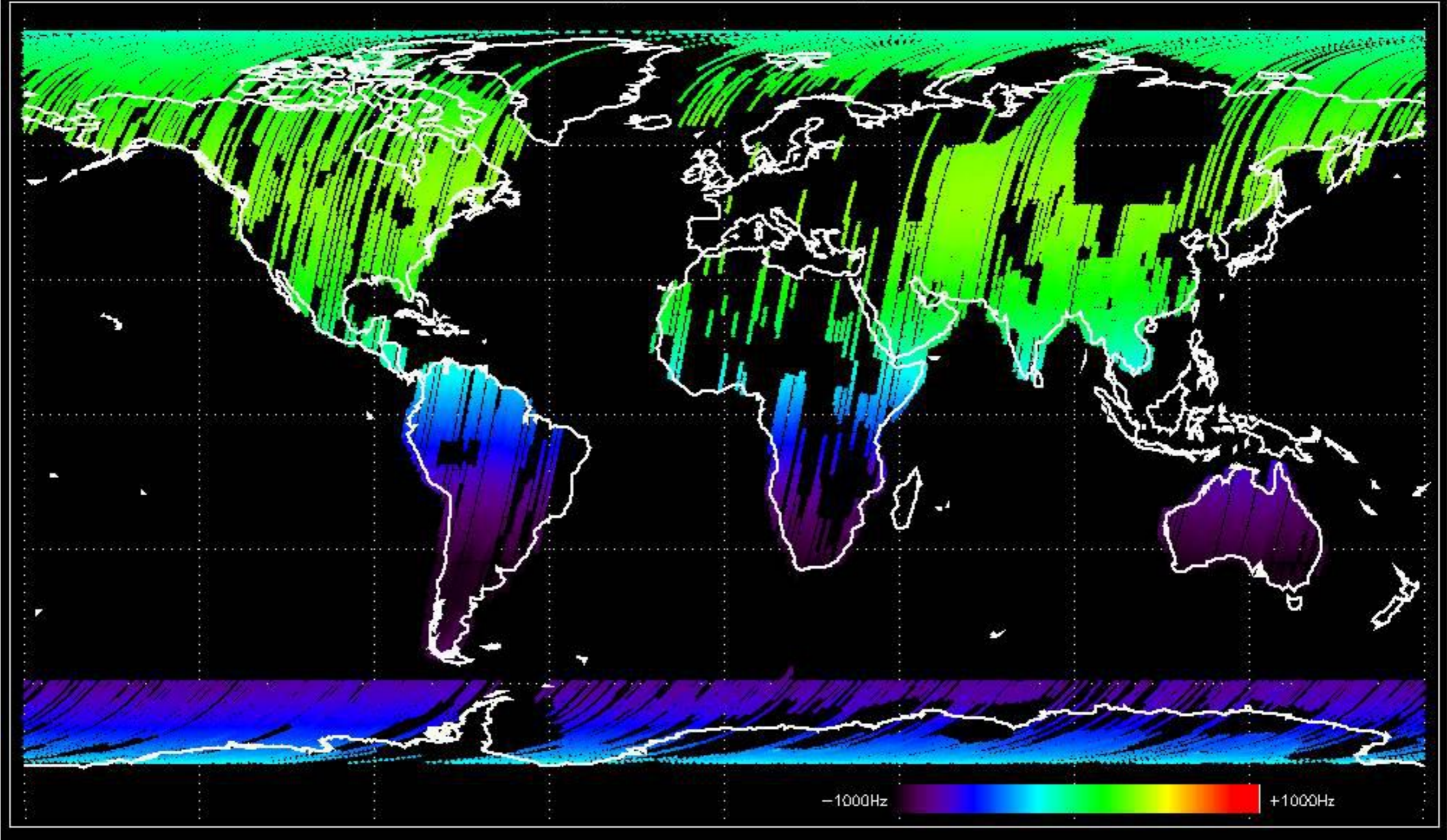


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

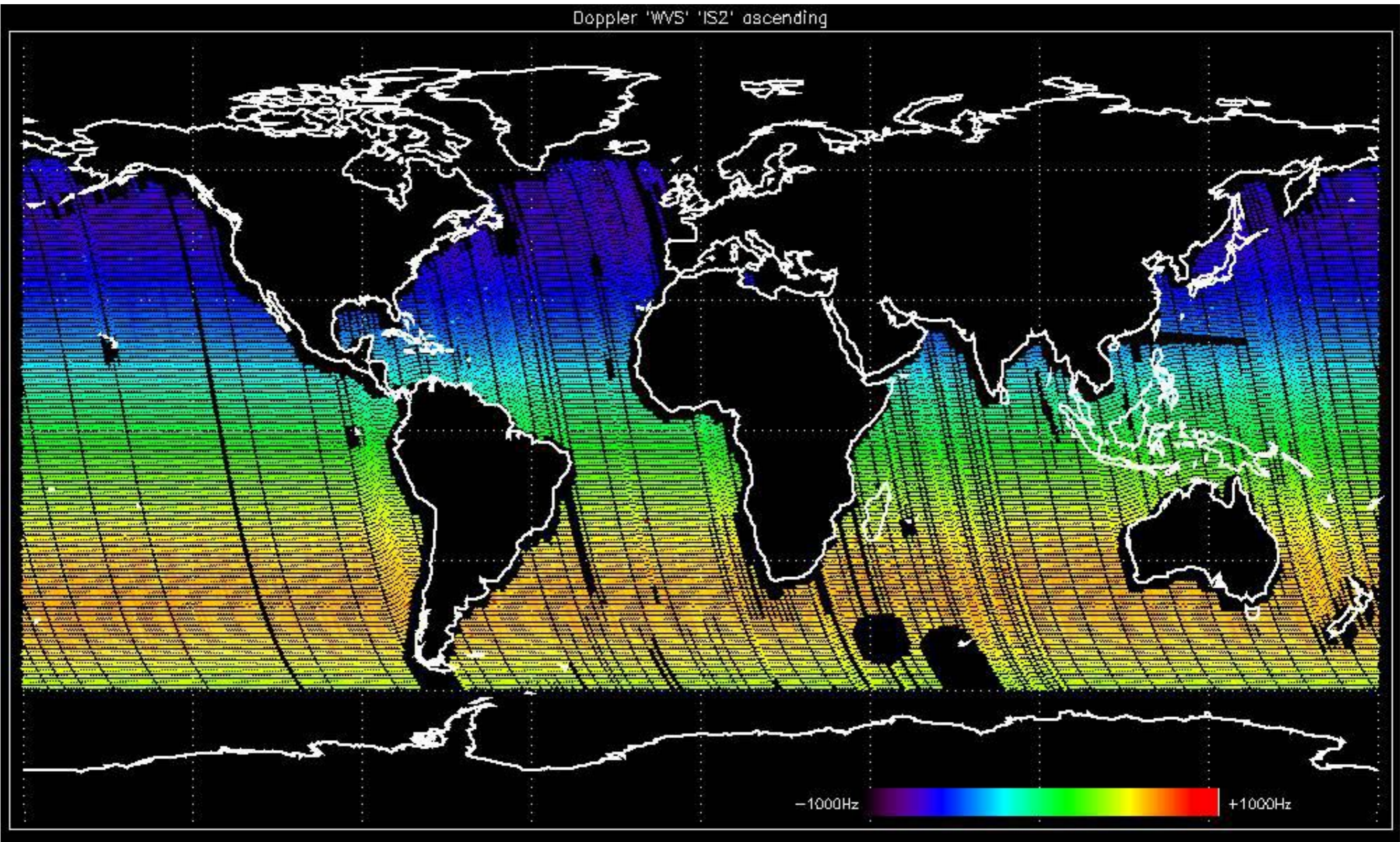
Doppler 'GM1' 'SS1' ascending



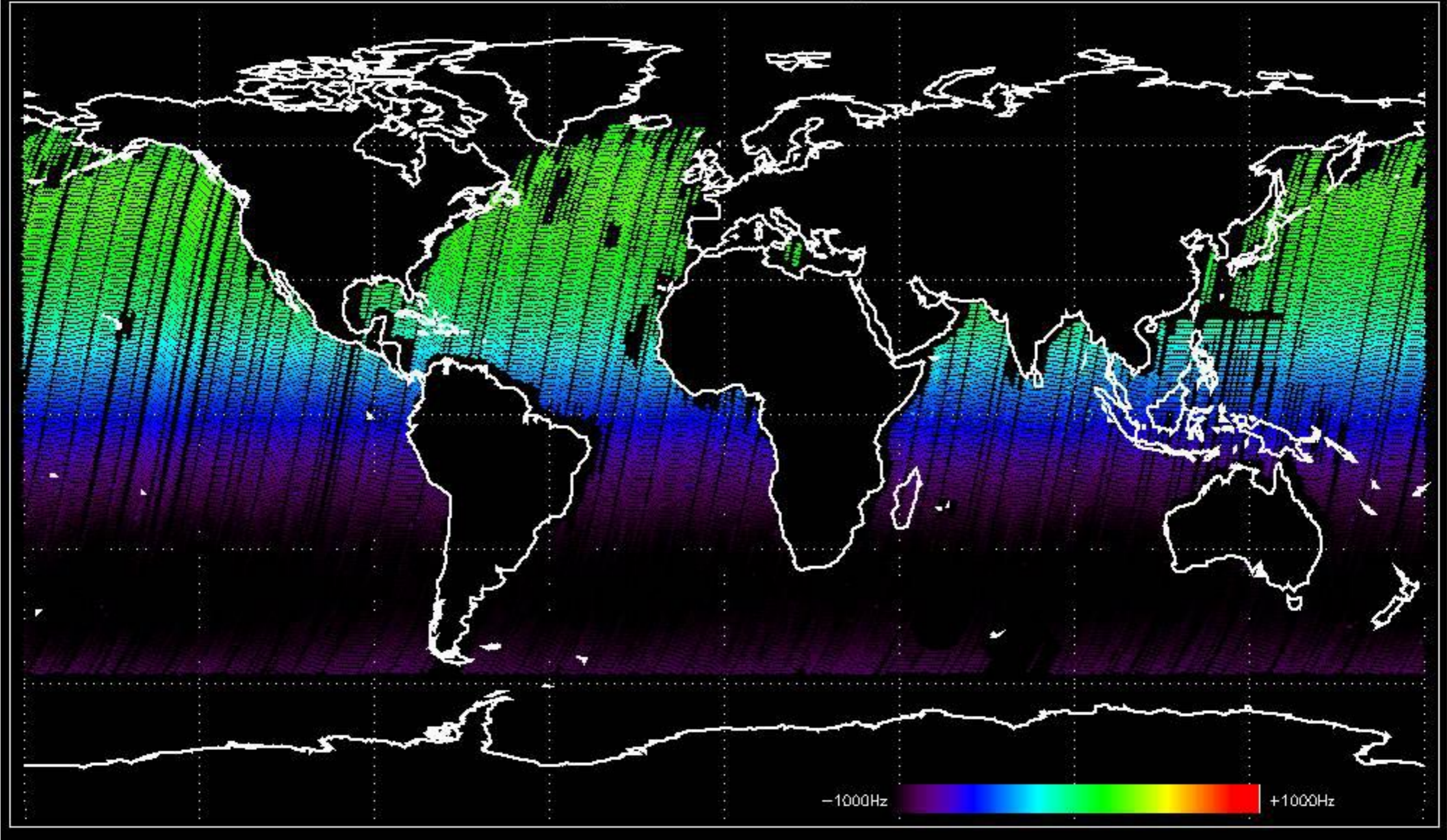
Doppler 'GM1' 'SS1' descending



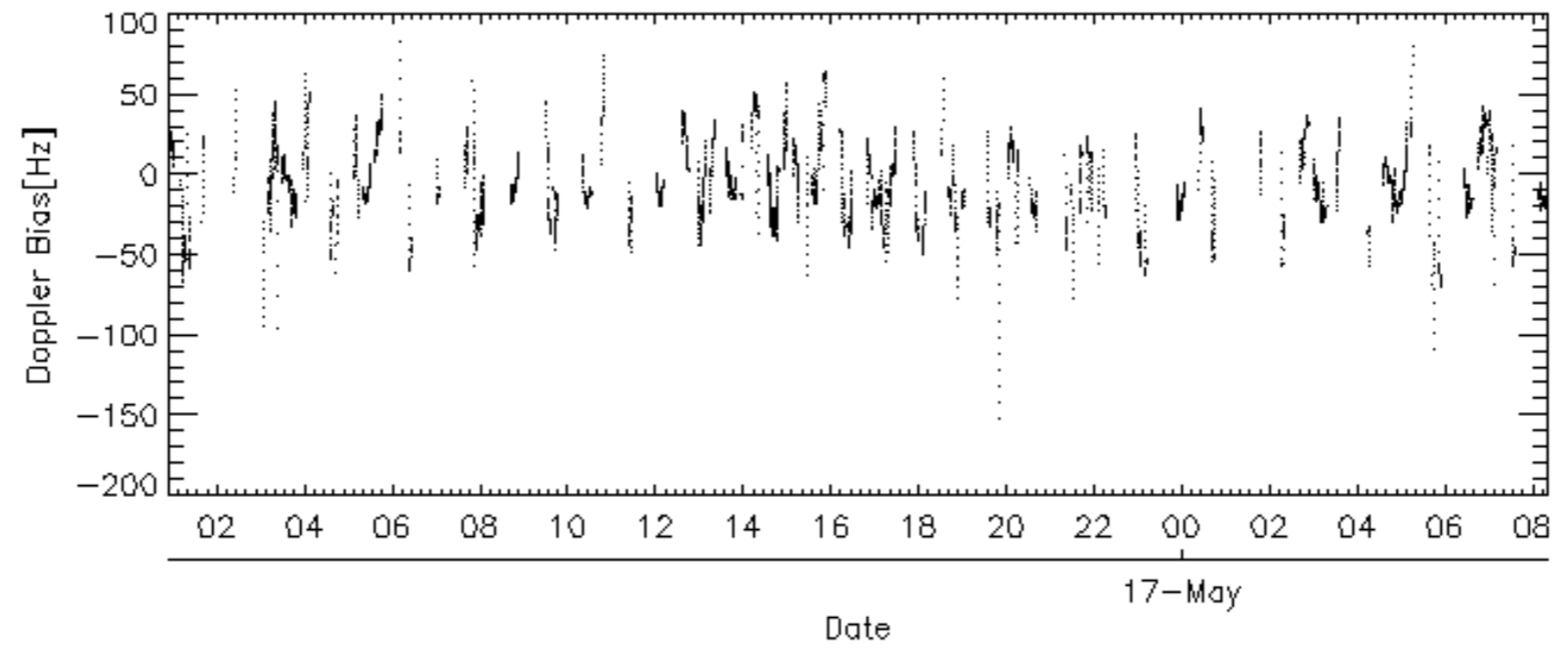
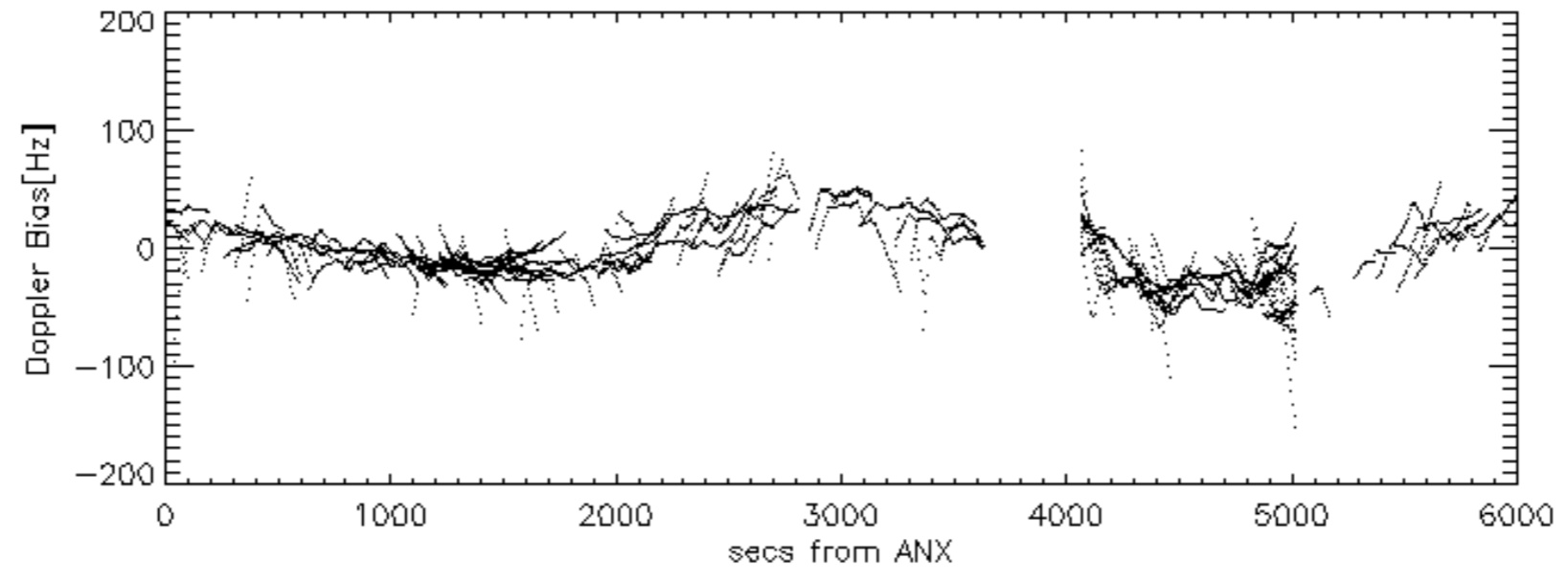
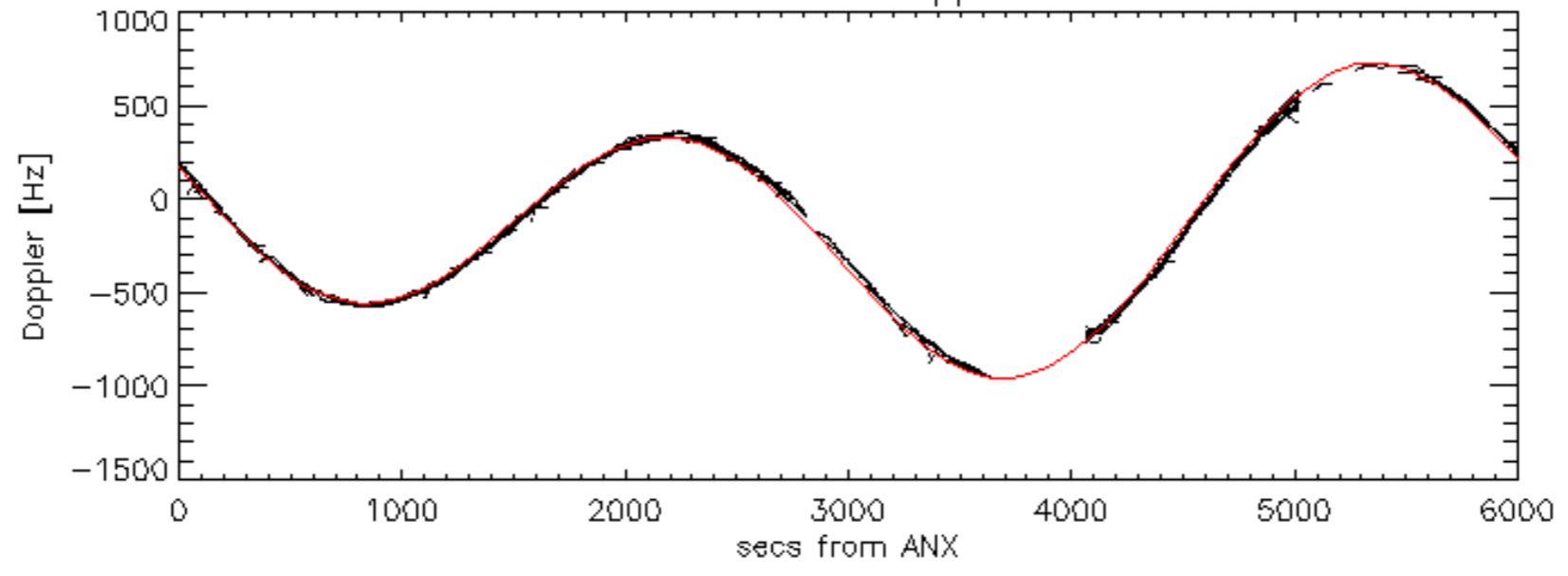
Doppler 'WVS' 'IS2' ascending

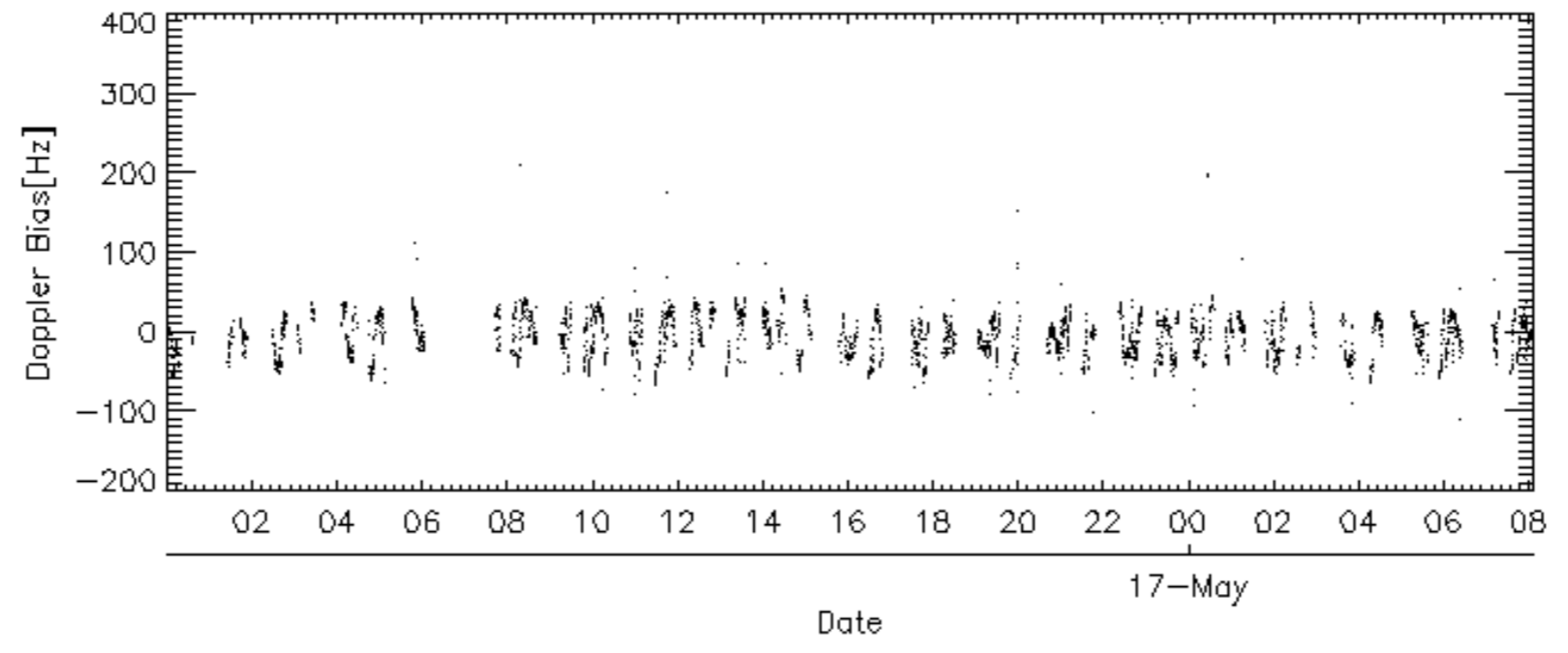
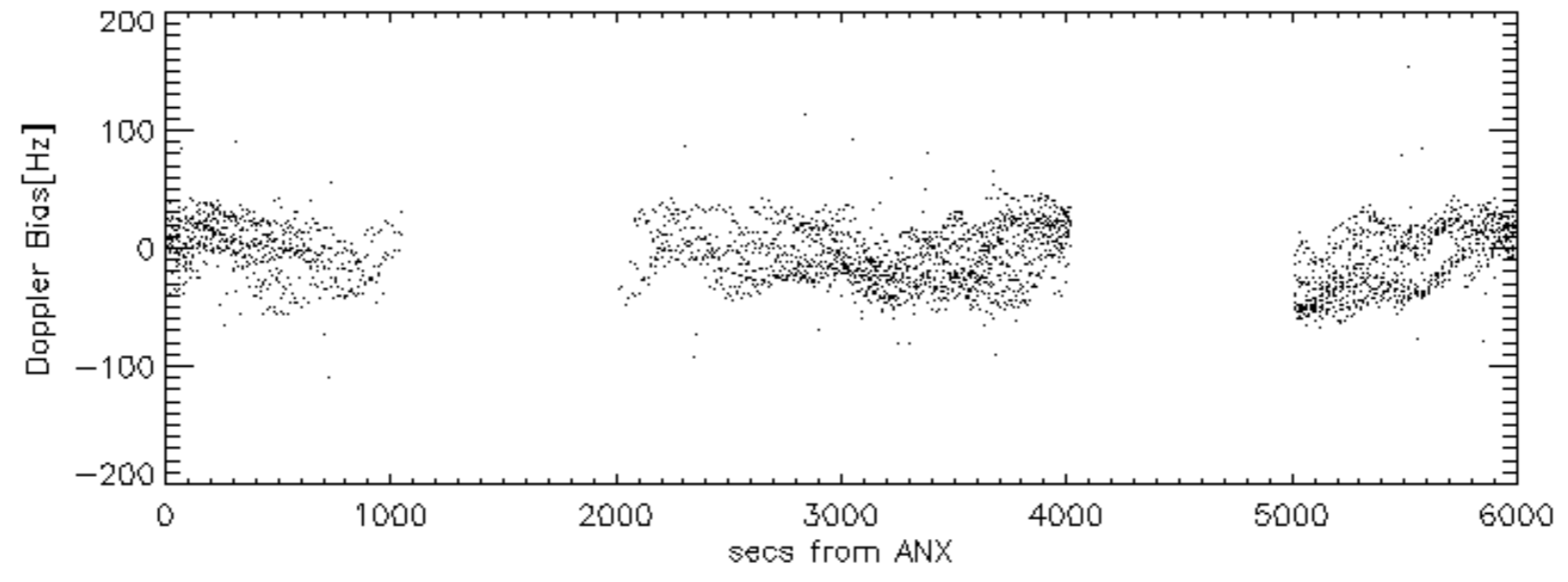
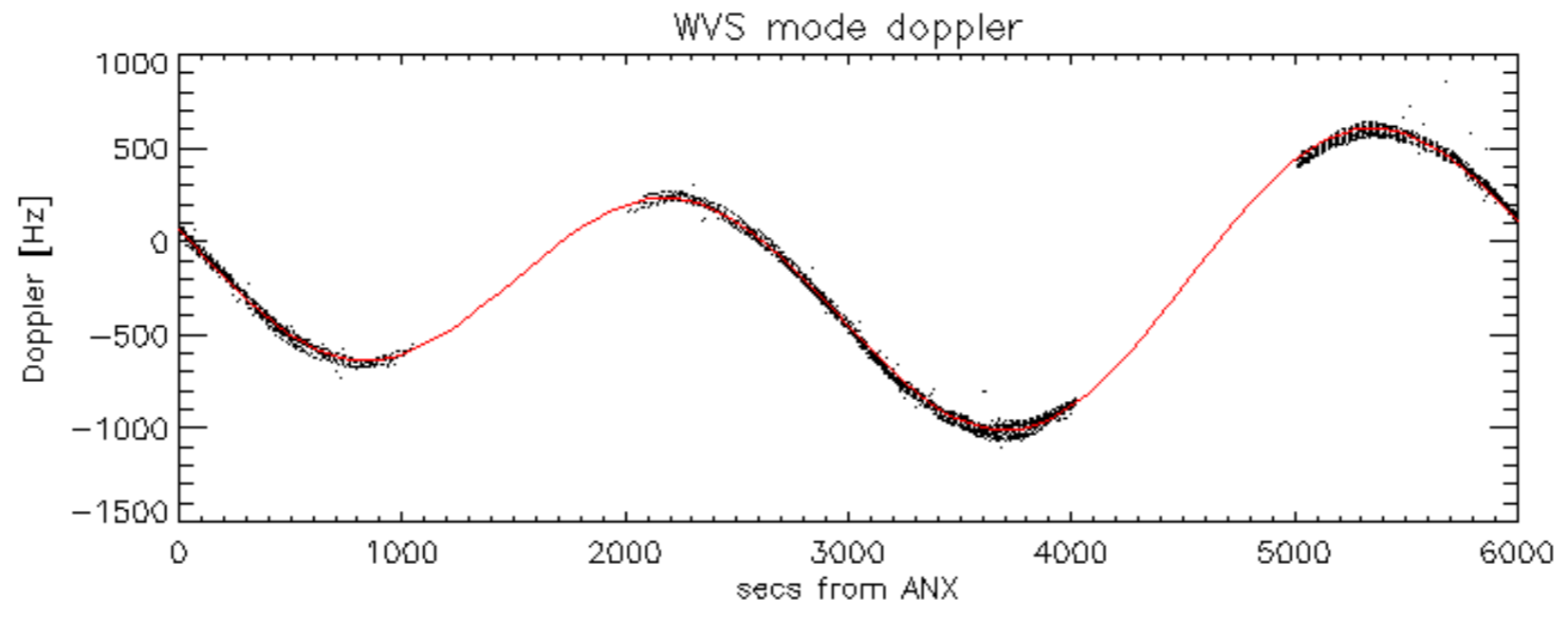


Doppler 'WVS' 'IS2' descending

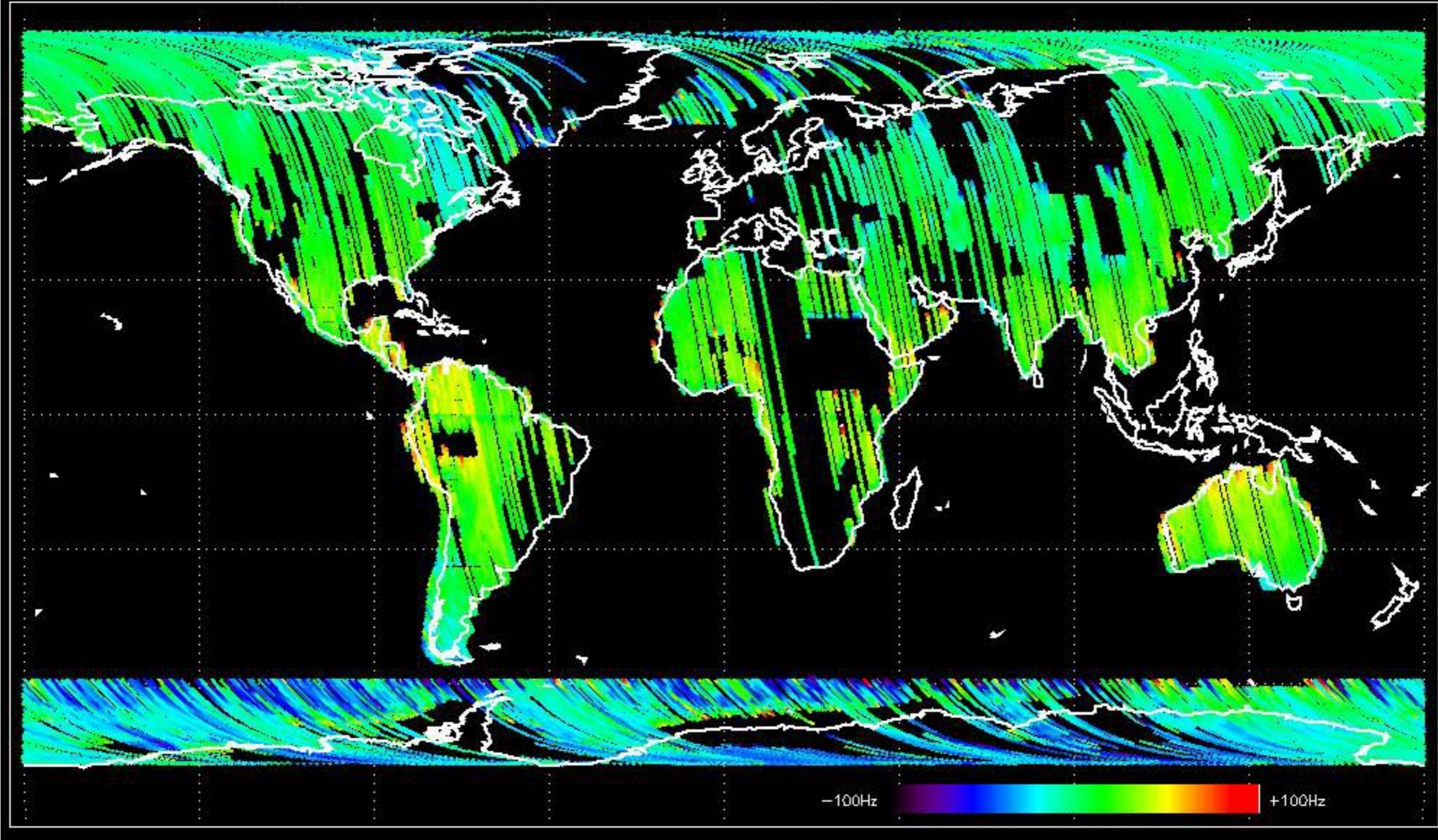


GM1 mode doppler

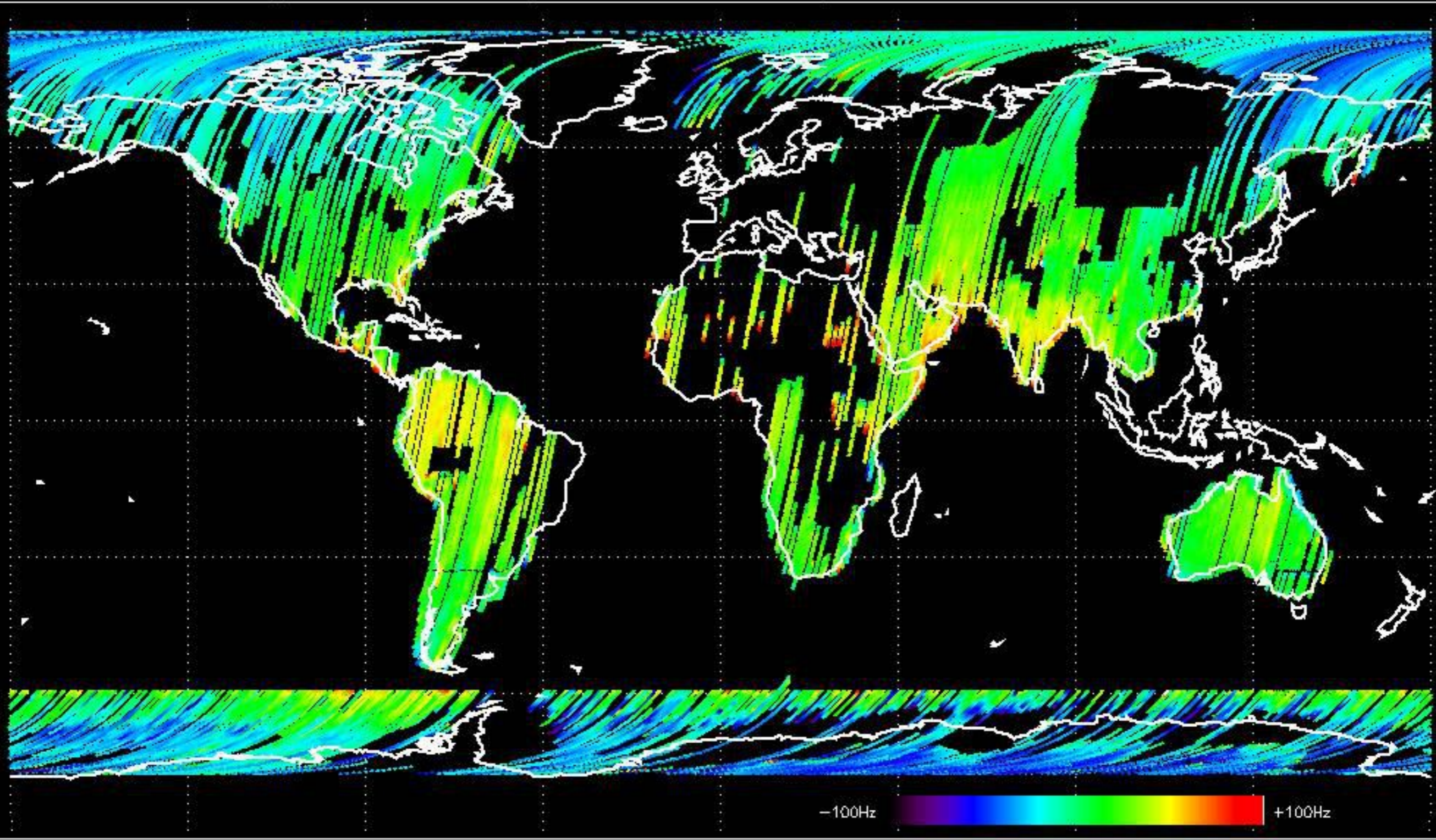




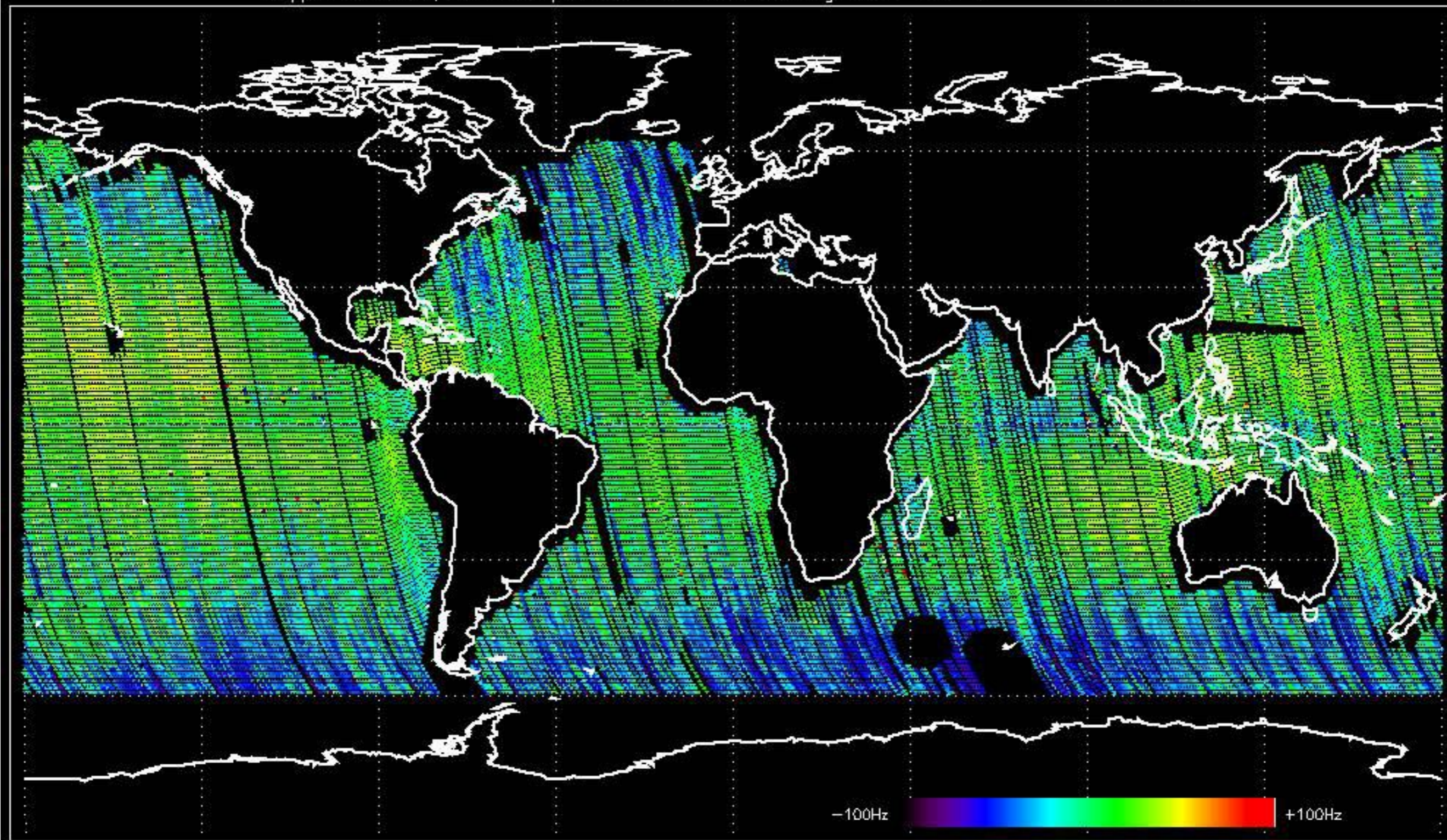
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -14.185792 Hz



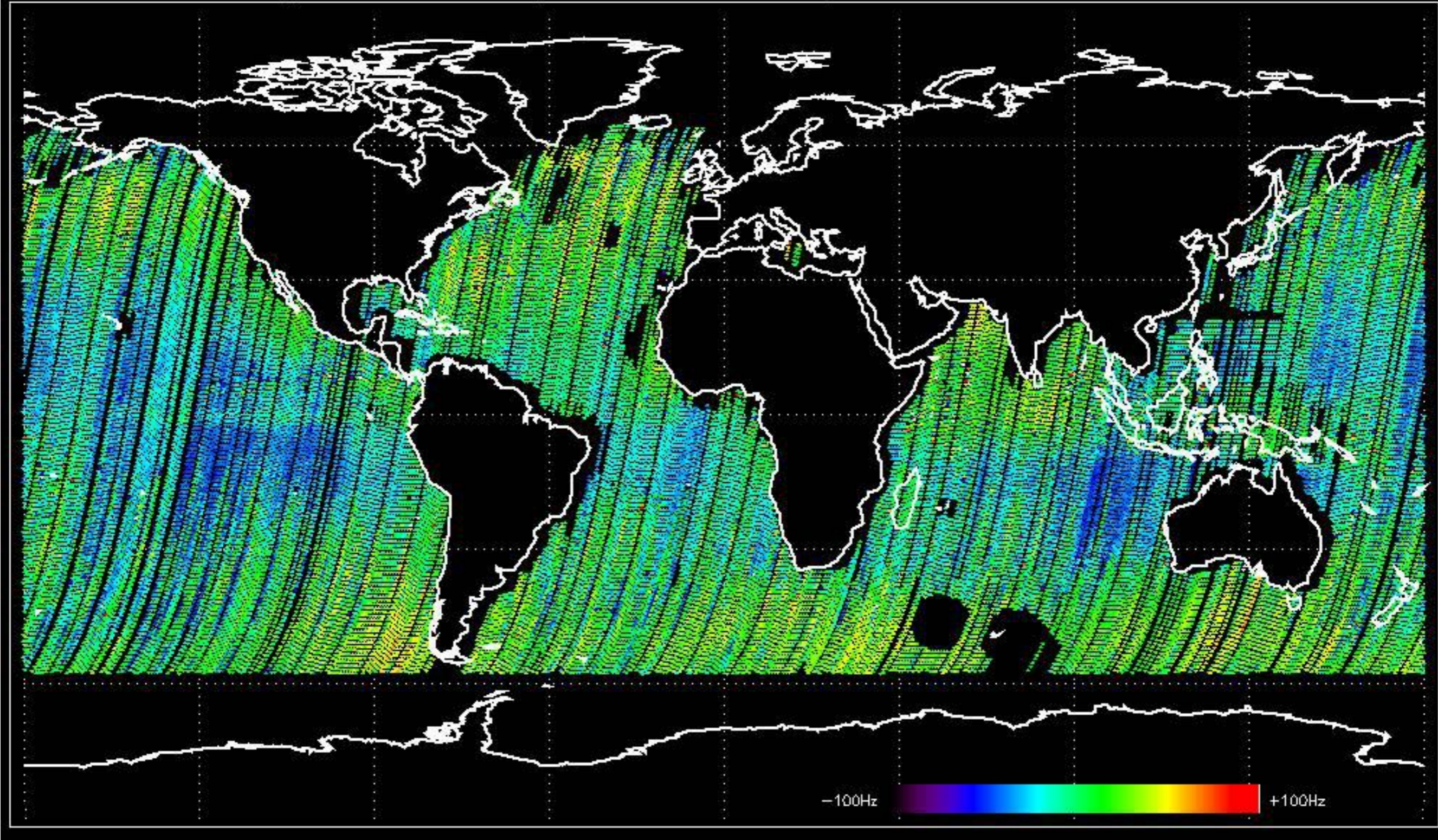
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -3.5444953 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.5307052 Hz

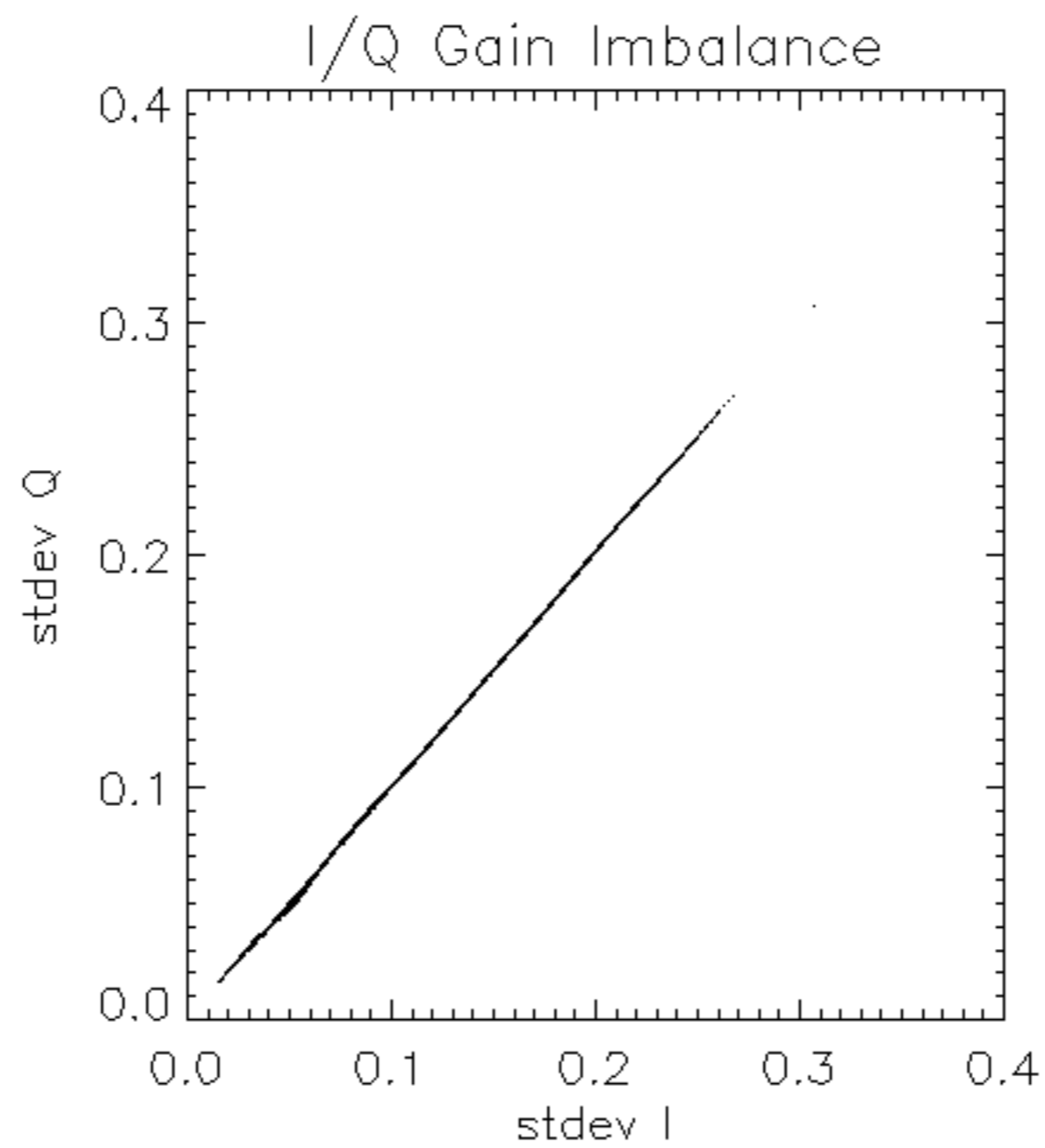


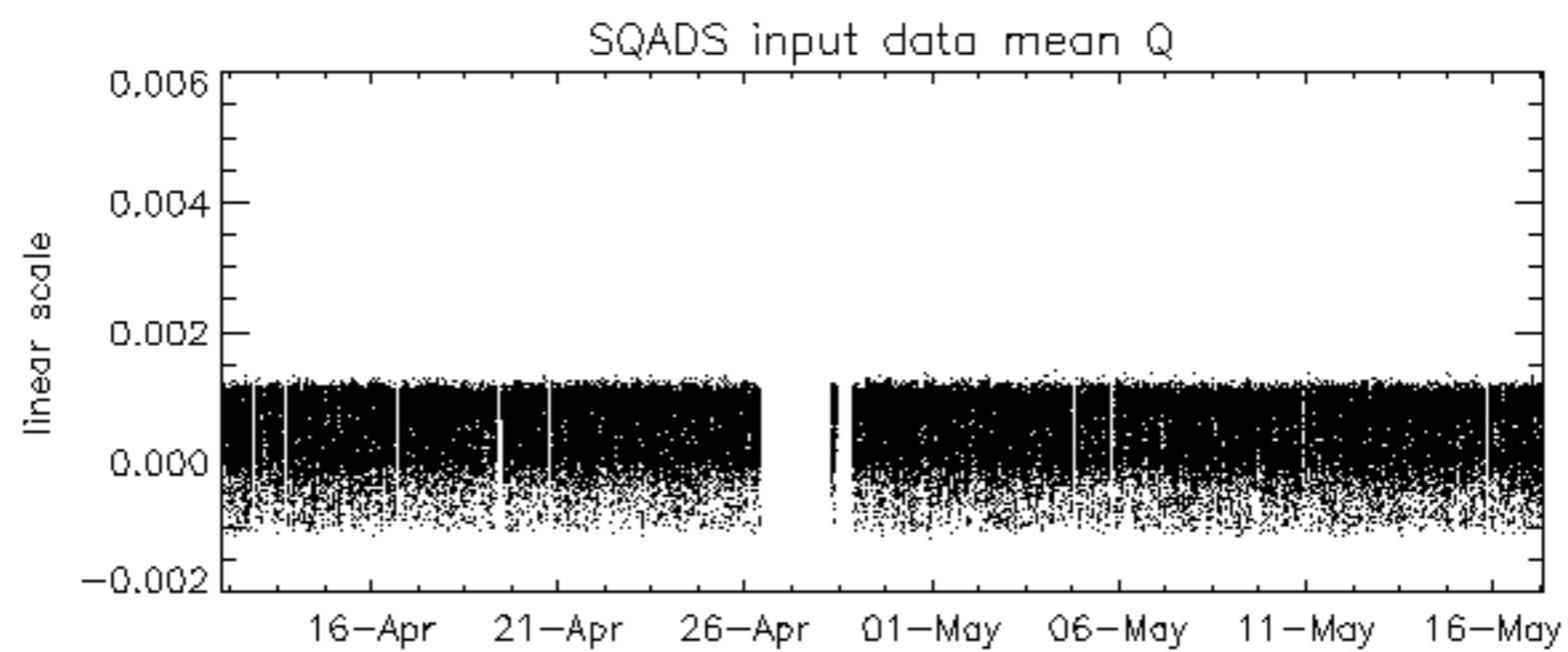
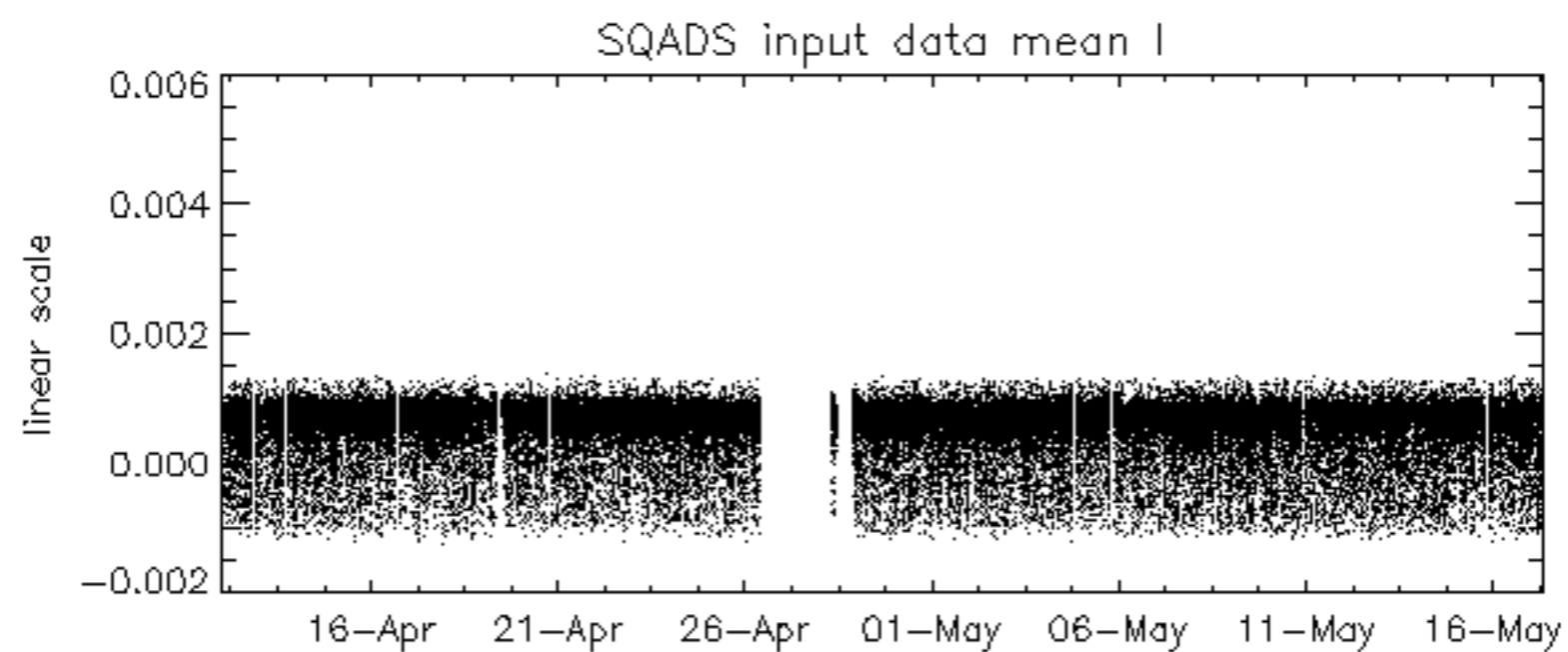
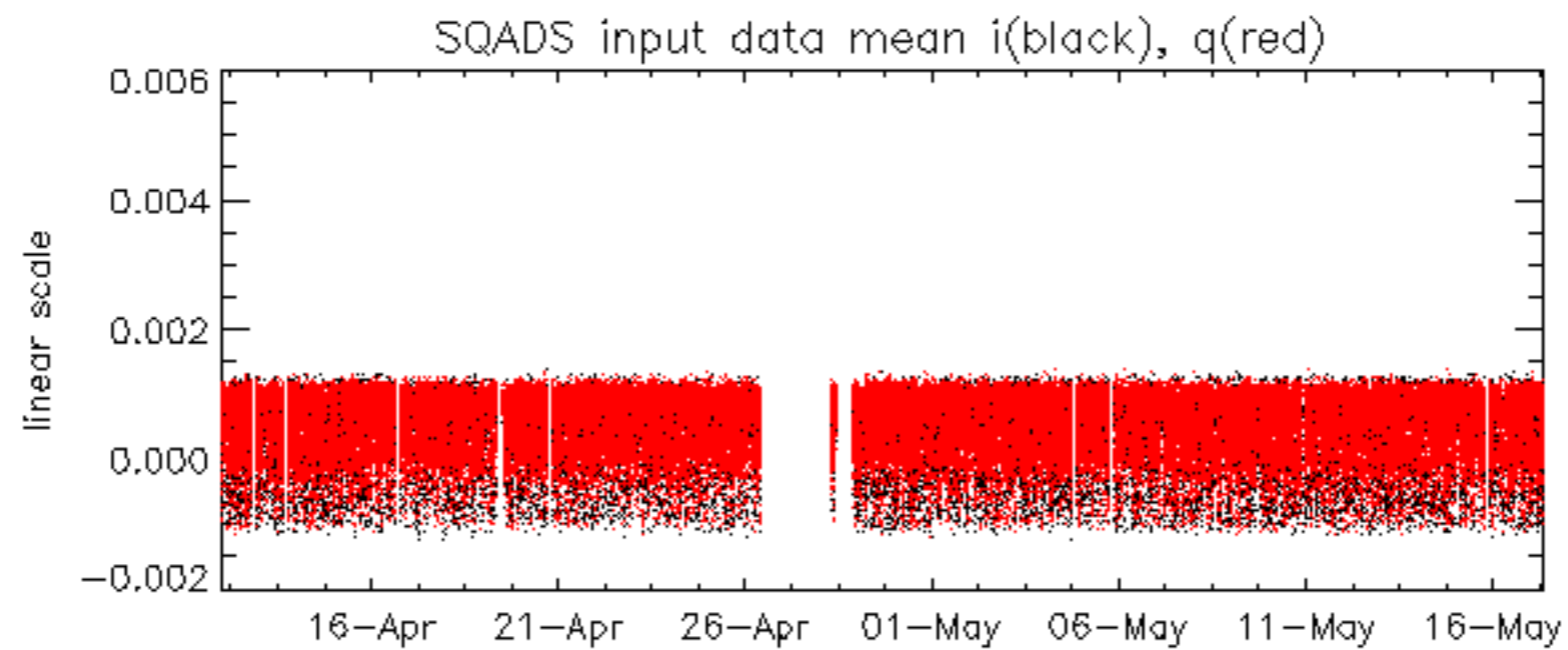
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.115778 Hz

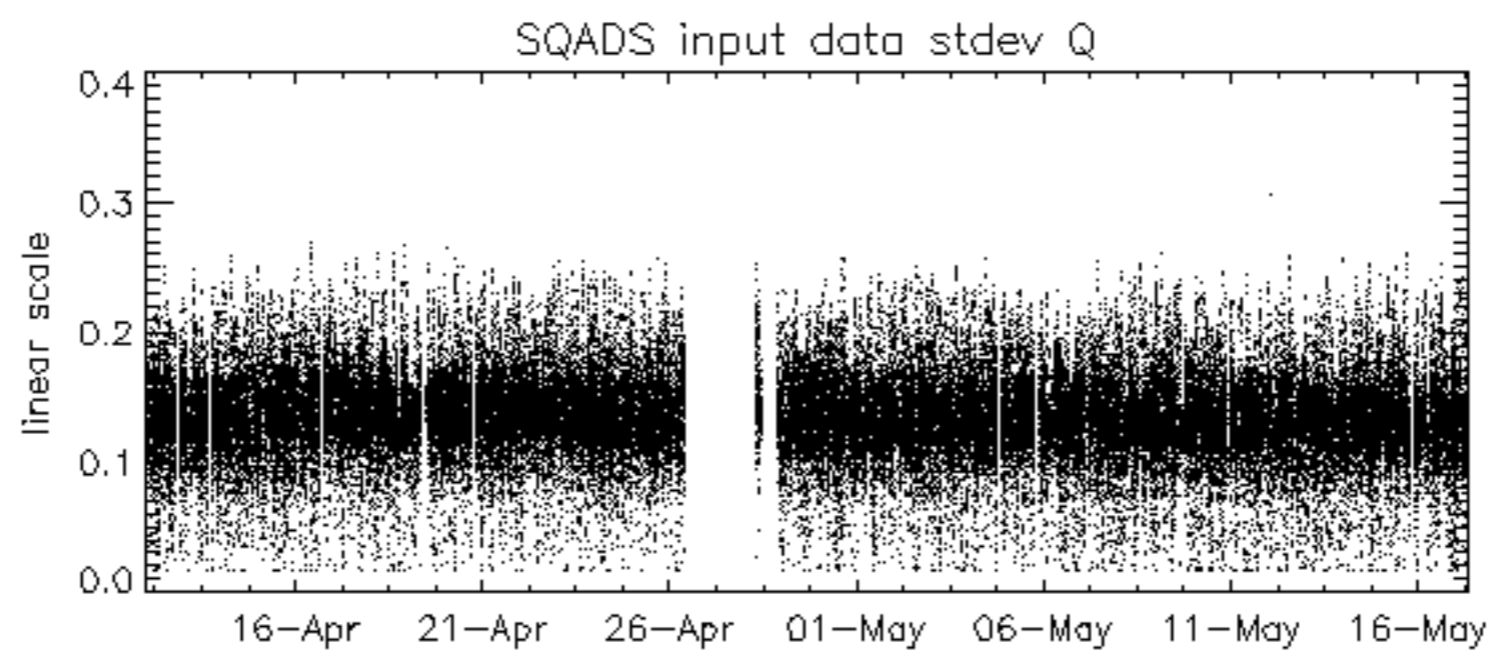
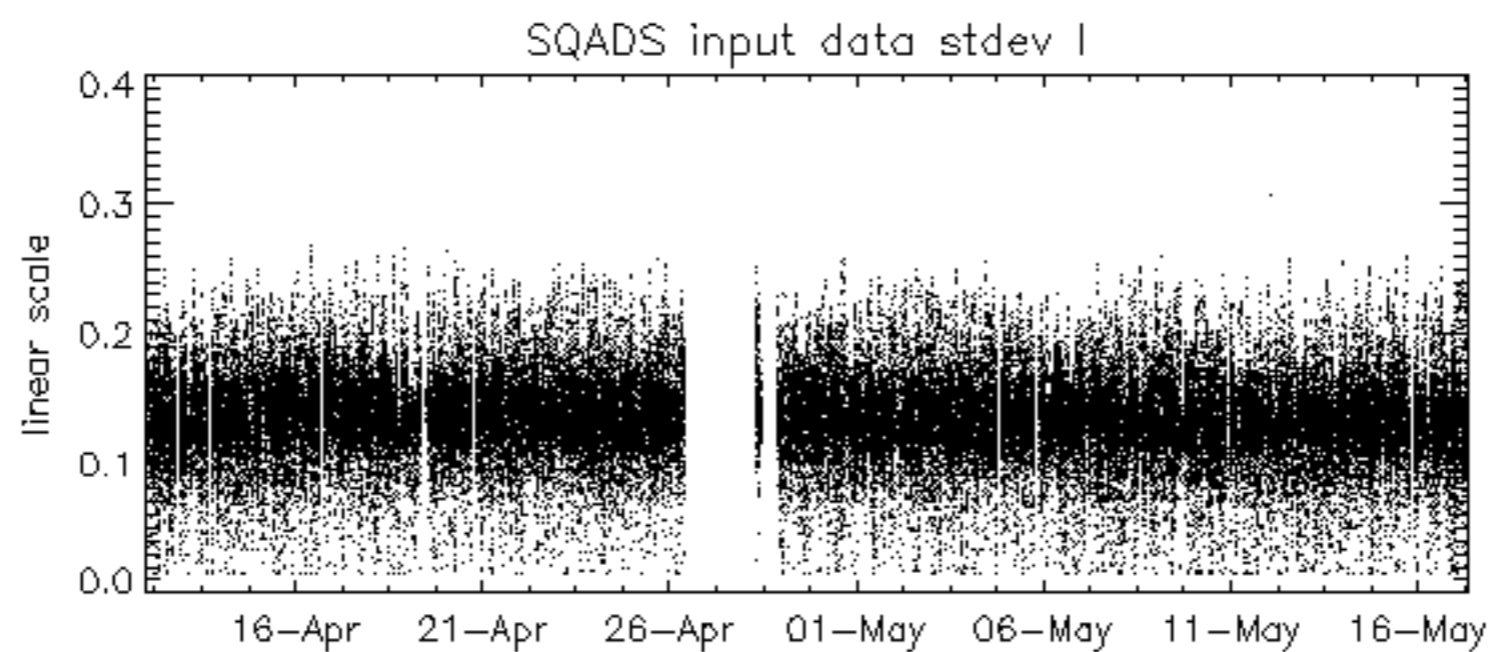
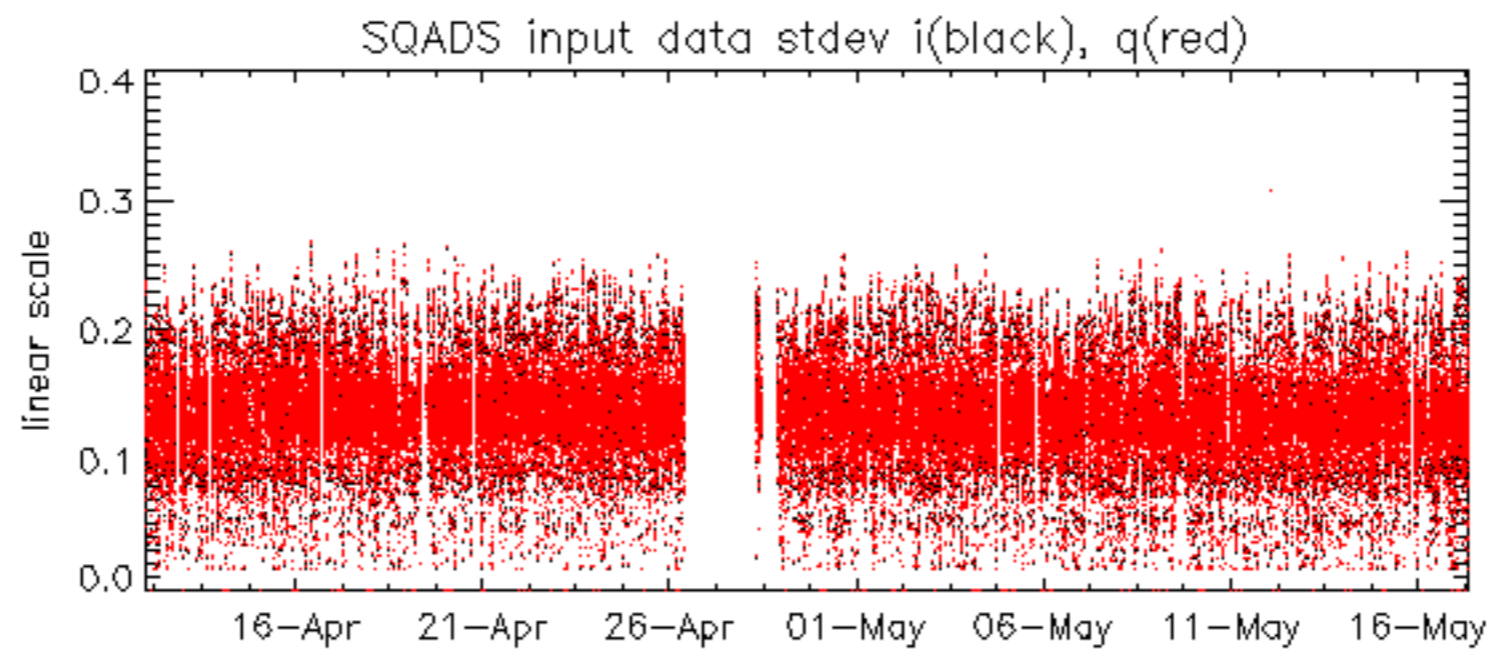


No anomalies observed on available MS products:

No anomalies observed.



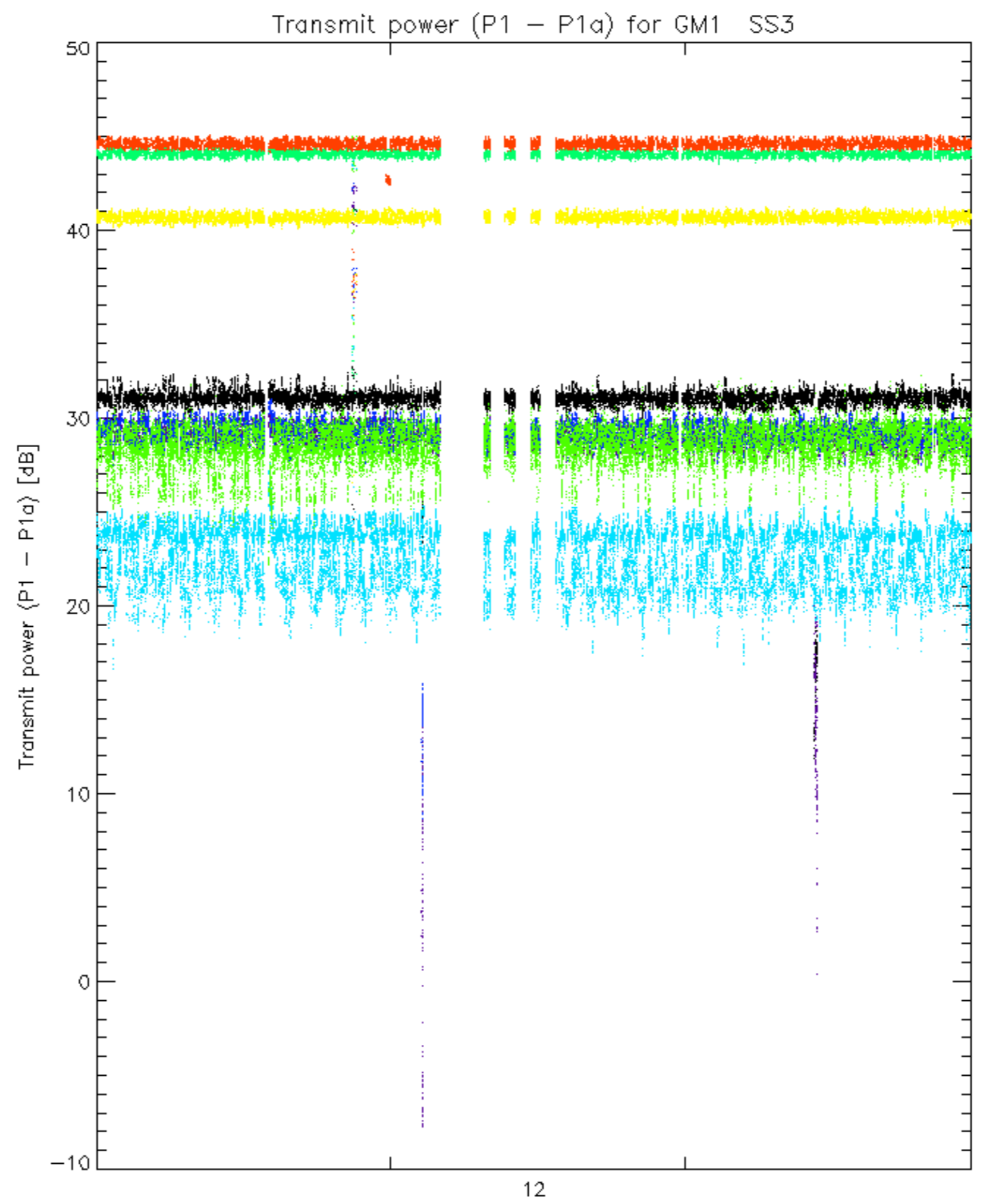




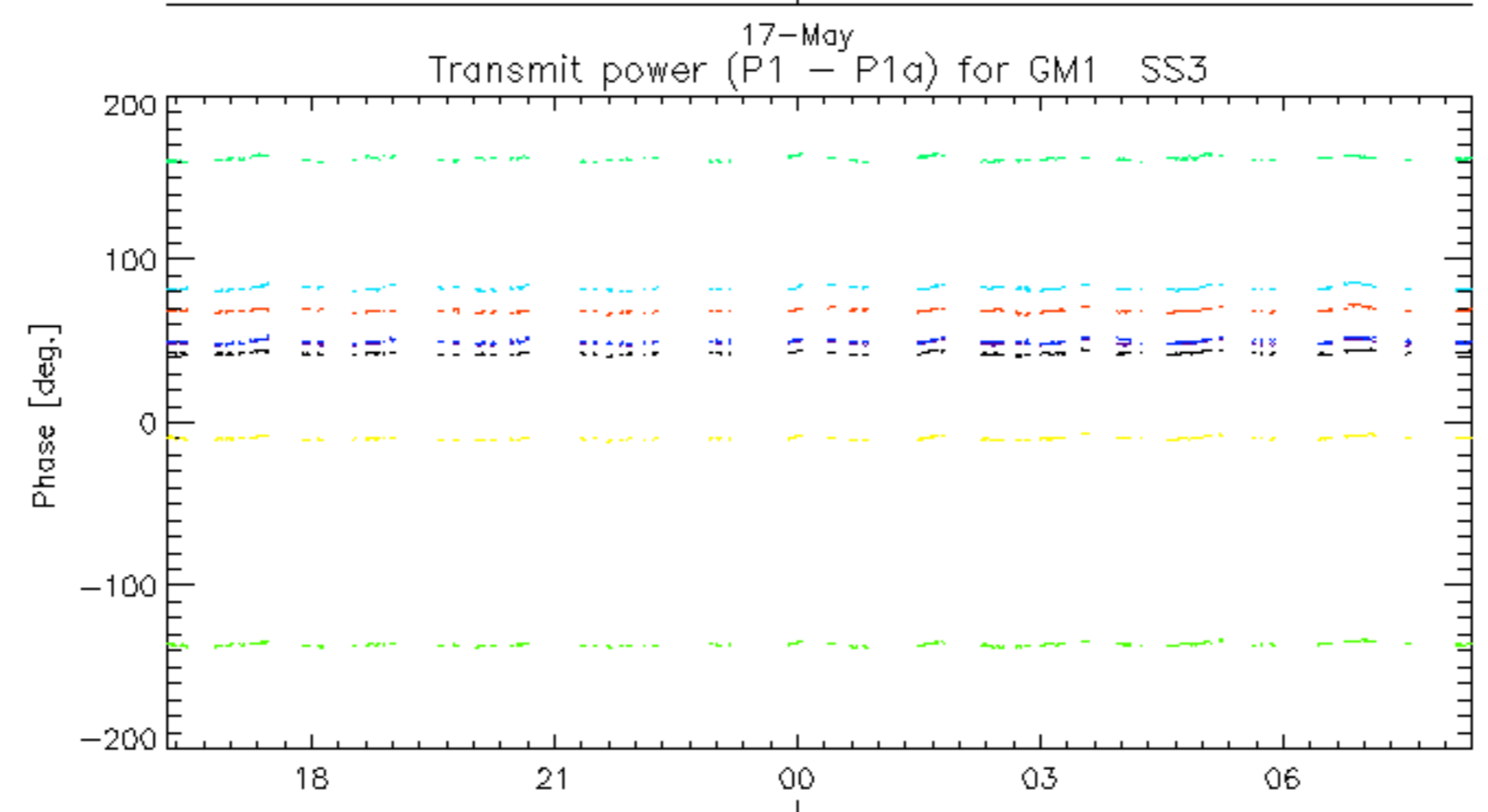
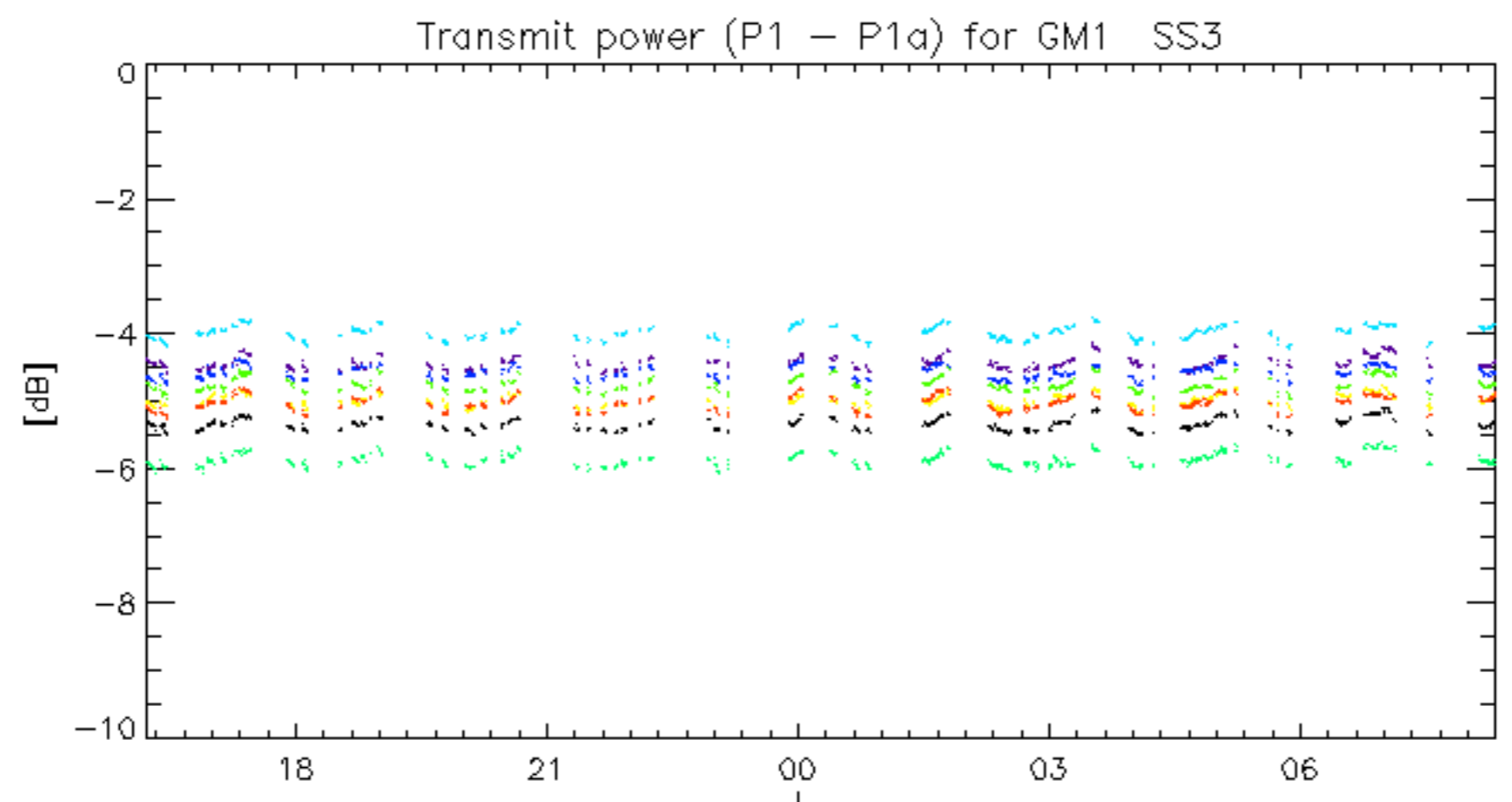
Summary of analysis for the last 3 days 2006051[567]

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

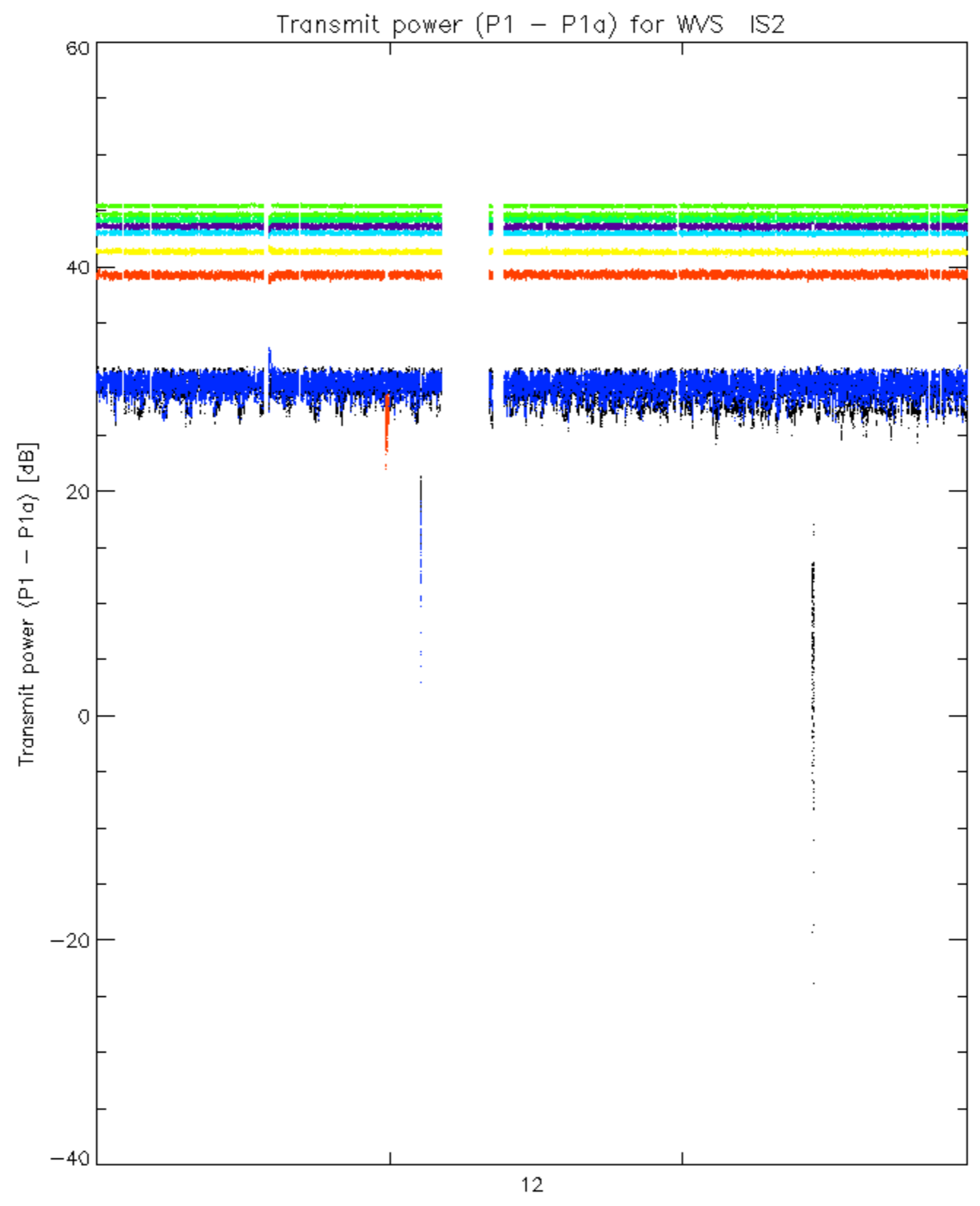
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060516_003808_000000502047_00403_22000_5316.N1	1	0
ASA_IMM_1PNPDK20060516_082810_000000372047_00408_22005_1794.N1	0	15
ASA_WSM_1PNPDE20060517_001650_000000852047_00417_22014_9559.N1	0	26
ASA_WSM_1PNPDE20060517_015318_000000672047_00418_22015_9563.N1	0	69
ASA_WSM_1PNPDK20060515_140121_000000852047_00397_21994_5187.N1	0	32



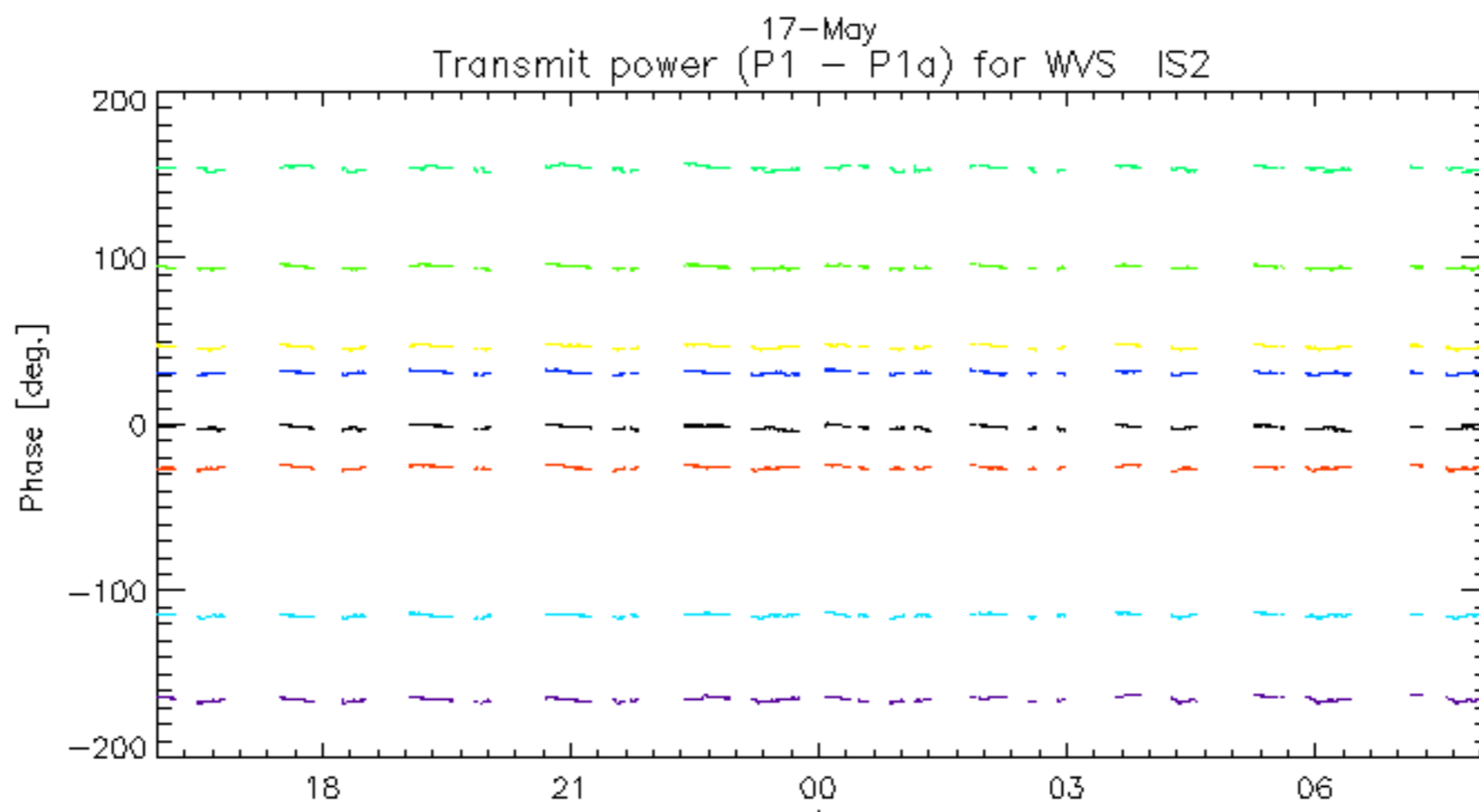
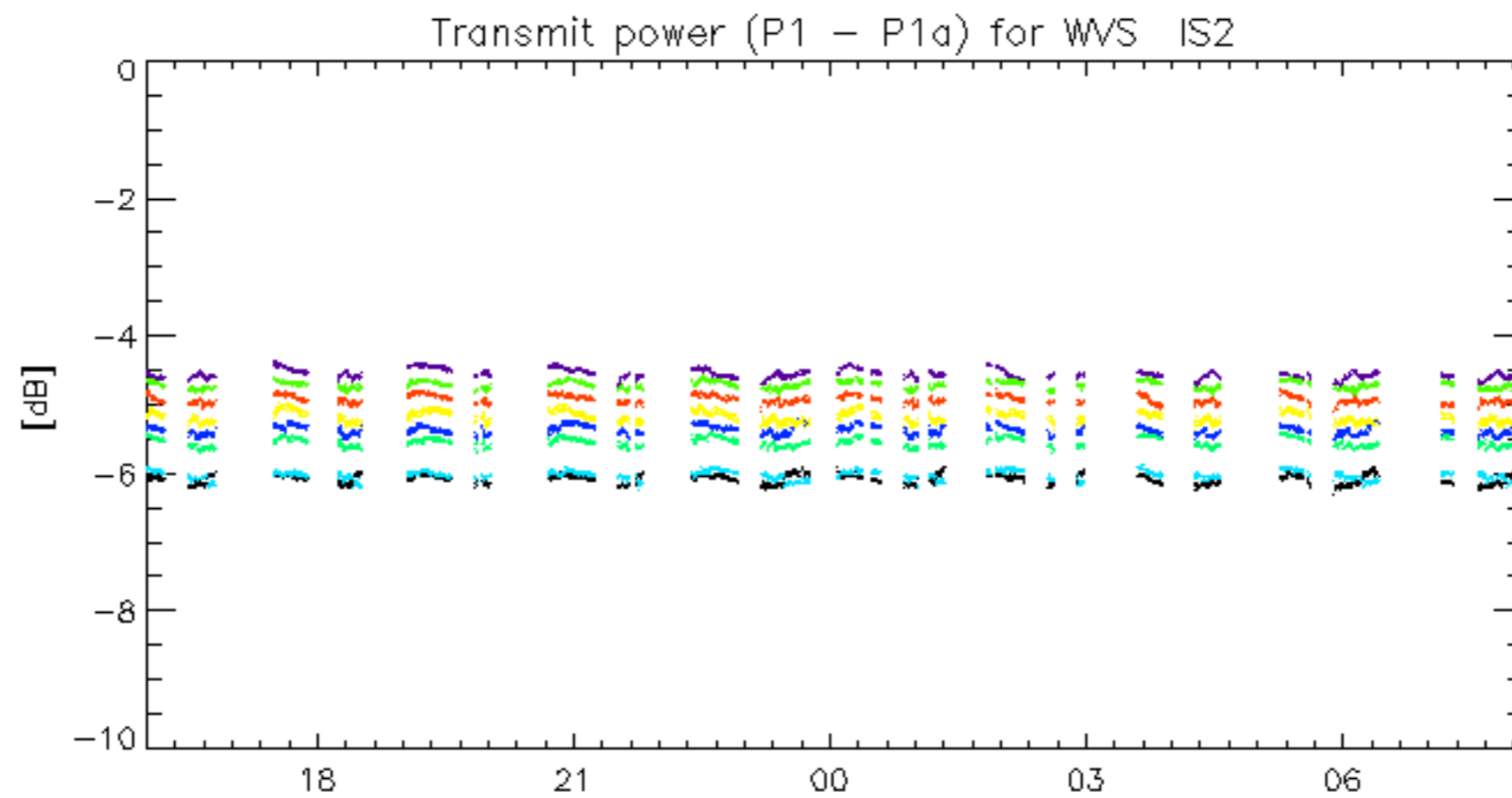
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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17-May
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.