

PRELIMINARY REPORT OF 060708

last update on Sat Jul 8 16:48:53 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 2006-07-07 00:00:00 to 2006-07-08 16:48:53

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	71	16	8	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	71	16	8	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	71	16	8	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	71	16	8	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	27	47	27	12	77
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	27	47	27	12	77
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	27	47	27	12	77
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	27	47	27	12	77

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	20060708 064407
H	20060707 071544

MSM in V/V polarisation

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

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	-3.938132	0.046627	-0.013576
7	P1	-3.128499	0.012182	0.054568
11	P1	-4.099208	0.015847	0.031935
15	P1	-6.165647	0.011542	-0.025345
19	P1	-3.373589	0.008867	-0.039906
22	P1	-4.531863	0.010947	-0.035731
26	P1	-3.953456	0.018382	0.047119
30	P1	-5.759282	0.008573	-0.015673
3	P1	-16.536331	0.627722	-0.000555
7	P1	-17.231928	0.108601	0.101469
11	P1	-16.985865	0.280533	-0.005436
15	P1	-13.162372	0.161685	0.062017
19	P1	-14.393946	0.049096	-0.100319
22	P1	-16.110363	0.394896	0.174444
26	P1	-15.164381	0.233322	0.063839
30	P1	-17.132998	0.391173	0.079186

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.069551	0.085859	0.158768
7	P2	-21.973478	0.102559	0.111398
11	P2	-15.825177	0.116219	0.069533
15	P2	-7.150017	0.099073	0.032422
19	P2	-9.157742	0.090542	0.055425
22	P2	-18.166149	0.085764	0.019957
26	P2	-16.409100	0.092130	0.020943
30	P2	-19.547224	0.091396	0.029388

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.183505	0.003615	0.013134
7	P3	-8.183505	0.003615	0.013134
11	P3	-8.183505	0.003615	0.013134
15	P3	-8.183505	0.003615	0.013134
19	P3	-8.183505	0.003615	0.013134
22	P3	-8.183505	0.003615	0.013134
26	P3	-8.183505	0.003615	0.013134
30	P3	-8.183505	0.003615	0.013134

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	-3.808682	0.064269	0.005898
7	P1	-2.572973	0.008366	0.035616
11	P1	-2.858676	0.013808	-0.002763
15	P1	-3.539114	0.028154	-0.061102
19	P1	-3.415356	0.013997	-0.002827
22	P1	-5.087533	0.020123	-0.017164
26	P1	-5.860113	0.016298	-0.004318
30	P1	-5.192861	0.025978	0.002983
3	P1	-11.619113	0.172336	0.068701
7	P1	-9.982366	0.033450	0.023004
11	P1	-10.241352	0.058930	-0.008545
15	P1	-10.714200	0.134566	-0.116512
19	P1	-15.537127	0.076028	0.030962
22	P1	-20.951679	1.173755	0.081466
26	P1	-16.412291	0.354756	0.160218
30	P1	-17.868475	0.386137	0.012520

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.731562	0.075036	0.193306
7	P2	-22.450367	0.132614	0.058076
11	P2	-11.100037	0.047484	0.093233
15	P2	-4.922584	0.048530	-0.000528
19	P2	-6.881445	0.051417	0.001881
22	P2	-8.205781	0.042166	0.006327
26	P2	-24.174021	0.068652	-0.051327
30	P2	-22.042126	0.054888	0.052167

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.020027	0.004298	0.007974
7	P3	-8.020131	0.004289	0.008021
11	P3	-8.020083	0.004316	0.007992
15	P3	-8.019962	0.004309	0.008178
19	P3	-8.019984	0.004307	0.007858
22	P3	-8.020154	0.004296	0.008221
26	P3	-8.020200	0.004301	0.008050
30	P3	-8.020072	0.004278	0.008237

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	0.000569355
	stdev	1.65602e-07
MEAN Q	mean	0.000534840
	stdev	2.14990e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138192
	stdev	0.00113222
STDEV Q	mean	0.138557
	stdev	0.00115021



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006070[678]

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_1PNPDE20060707_201746_000000372049_00157_22756_0467.N1	1	0
ASA_WVS_1PNPDK20060707_070752_000000002049_00149_22748_0265.N1	1	0
ASA_WSM_1PNPDE20060706_022612_000000862049_00132_22731_1537.N1	0	48
ASA_WSM_1PNPDE20060706_123542_000000672049_00138_22737_1799.N1	5	214
ASA_WSM_1PNPDE20060706_182823_000002692049_00142_22741_1631.N1	0	69
ASA_WSM_1PNPDE20060707_161735_000002192049_00155_22754_1810.N1	0	17
ASA_APM_1PNPDE20060707_143629_000000852049_00154_22753_0347.N1	0	10





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

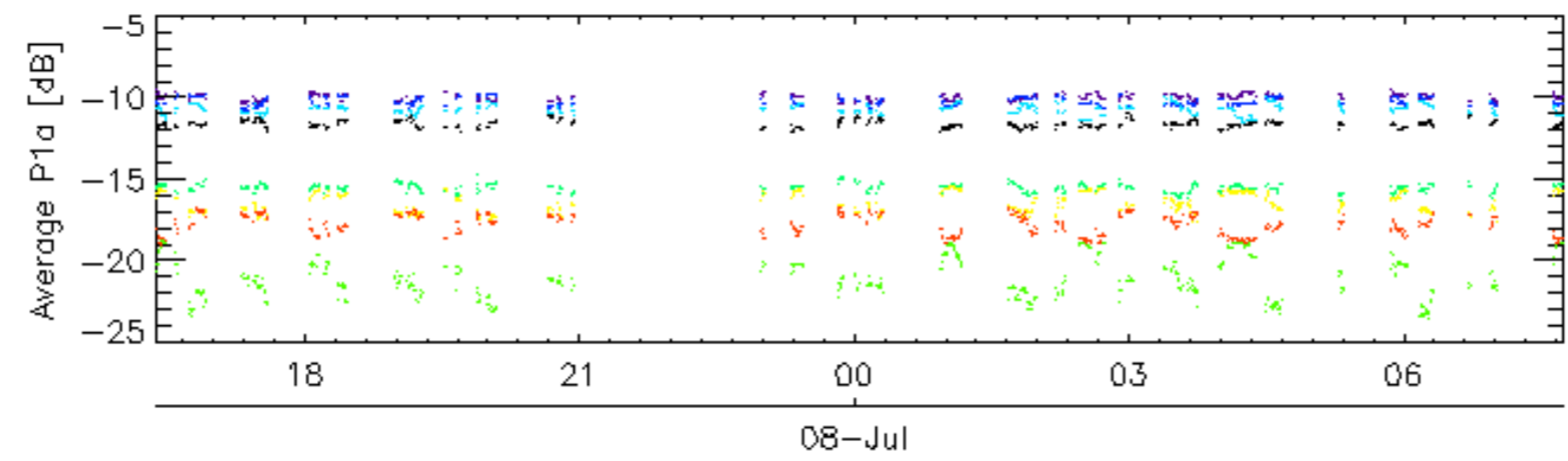
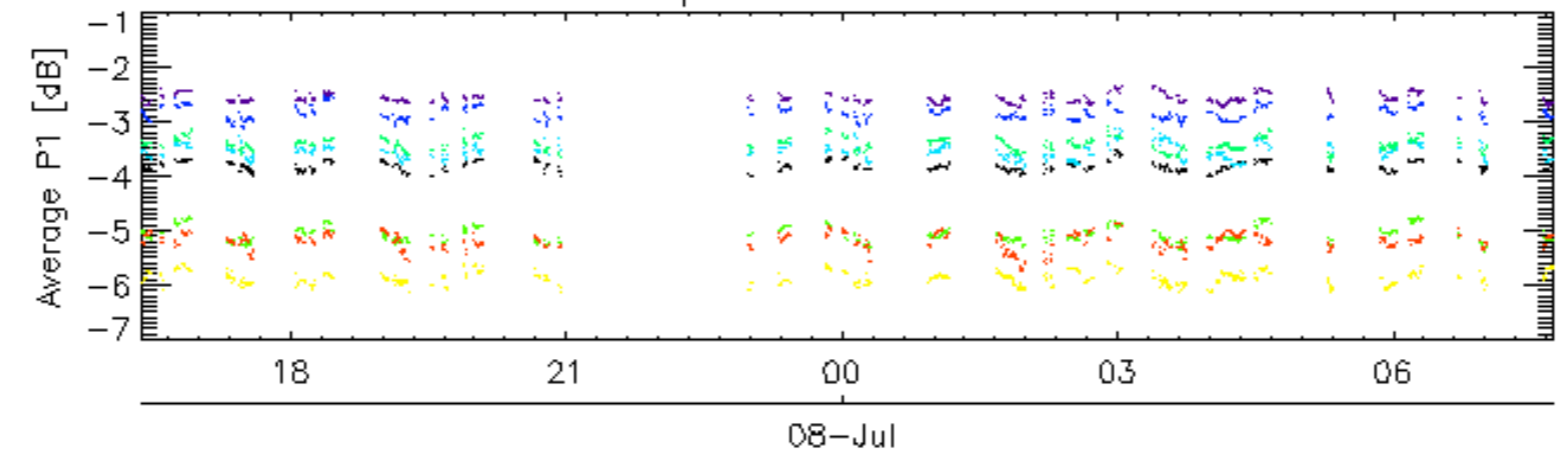
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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Acsending
<input type="checkbox"/>
Descending

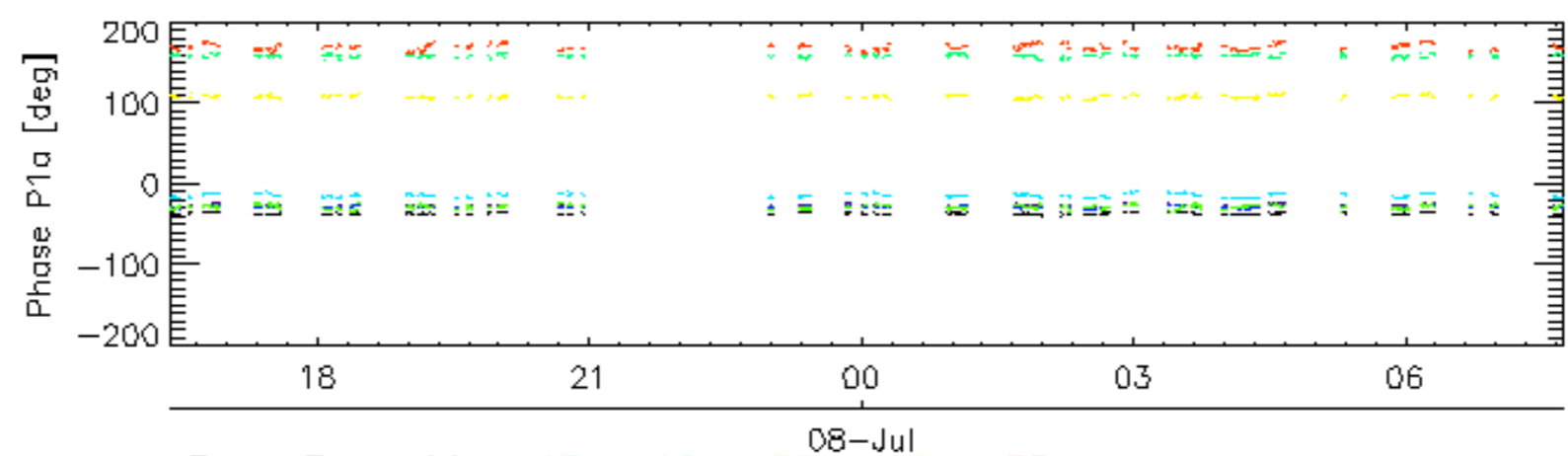
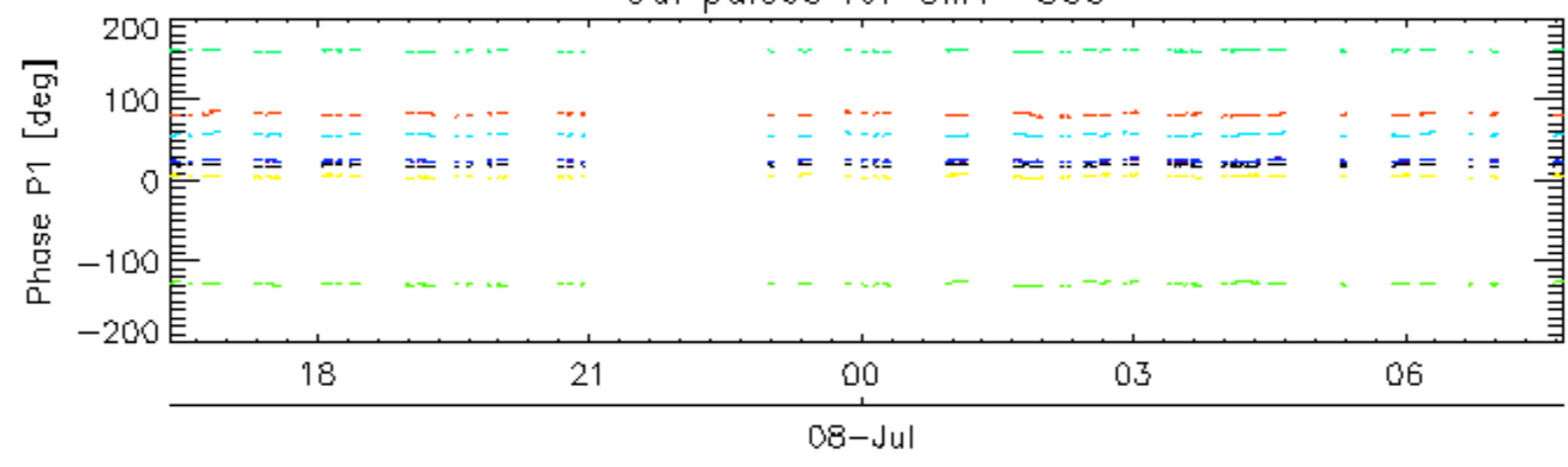
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

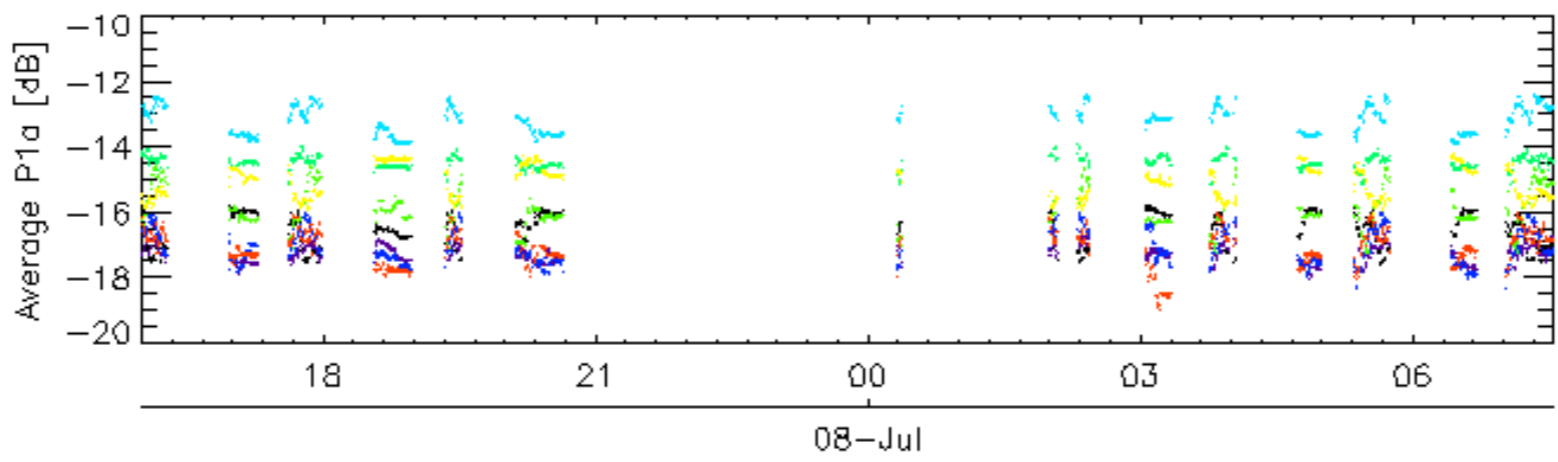
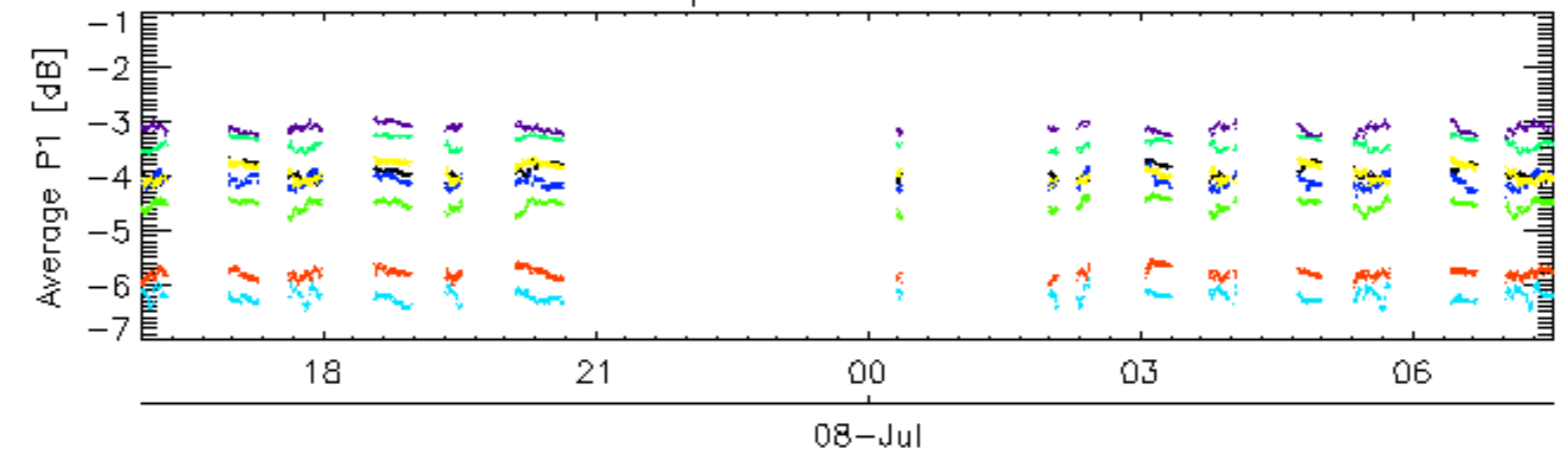


Cal pulses for GM1 SS3

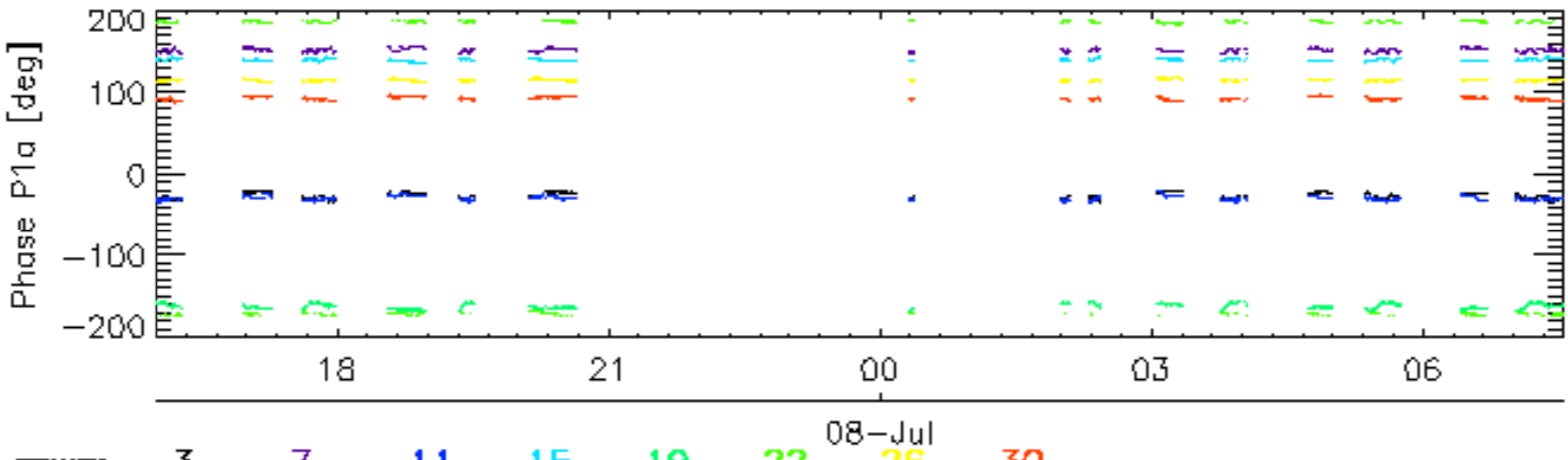
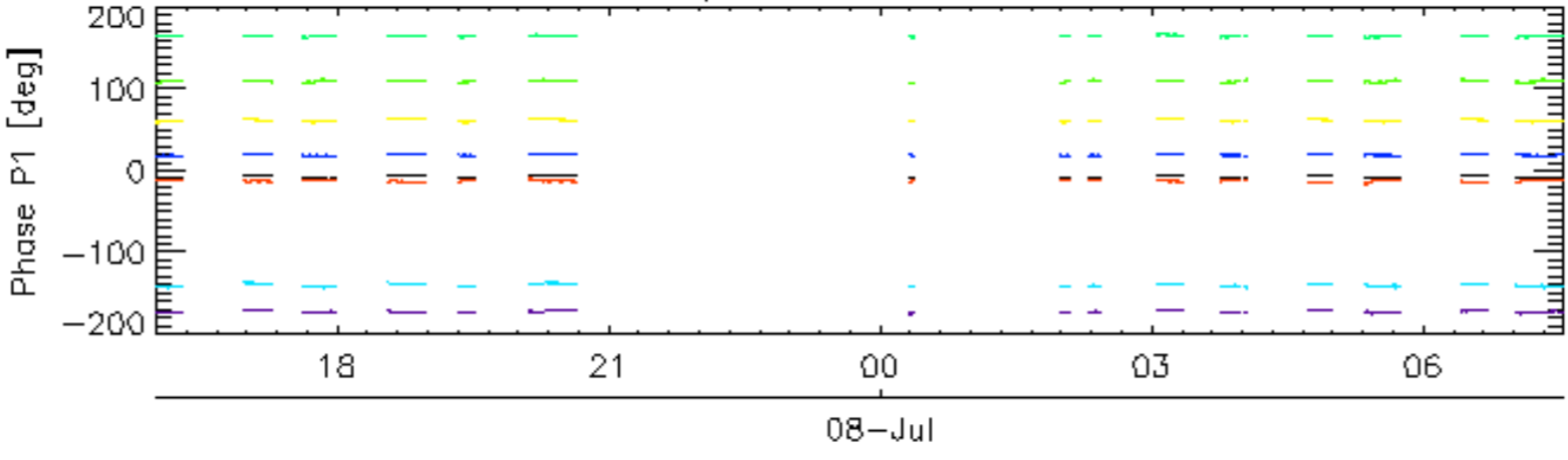


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

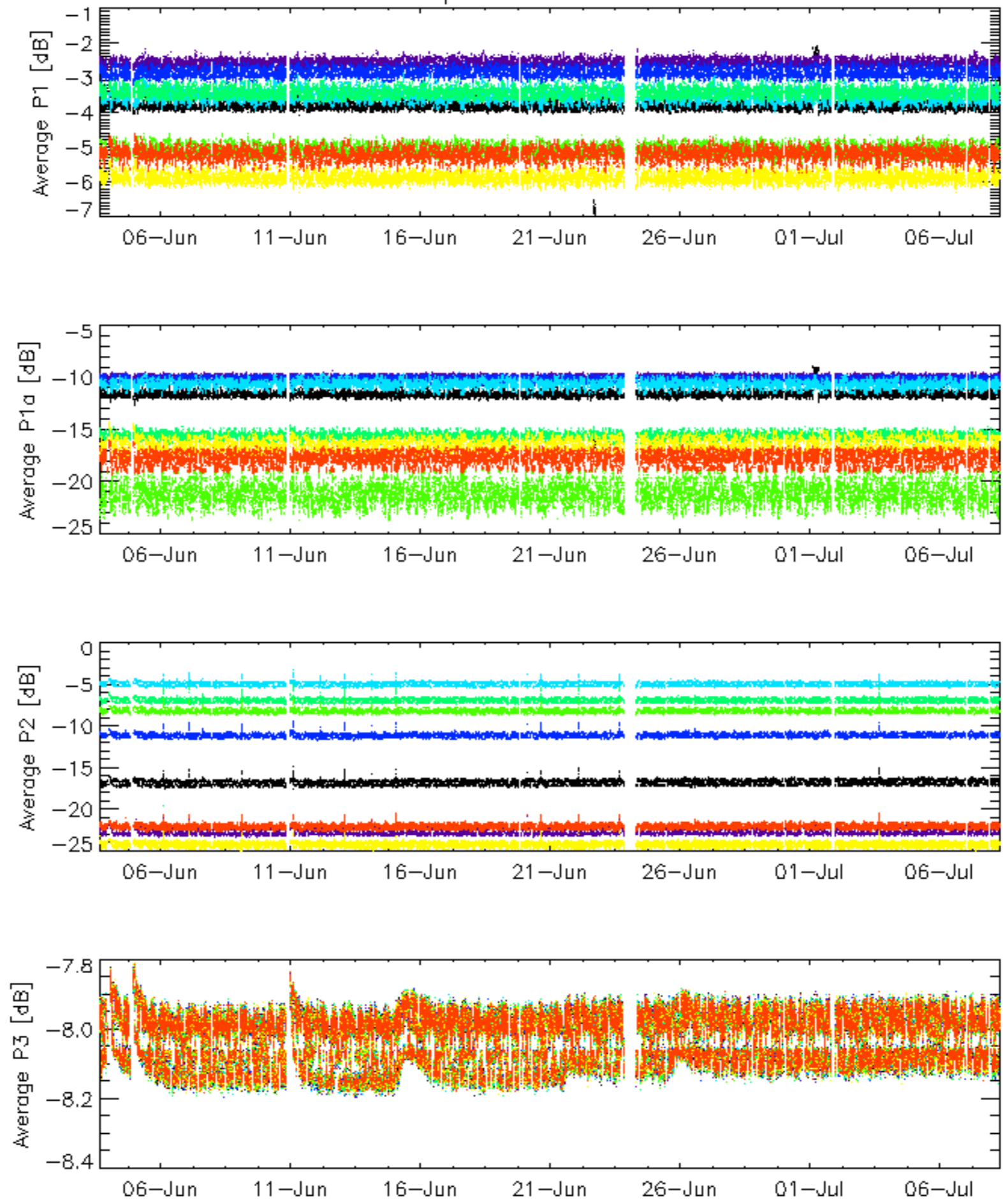


Cal pulses for WVS IS2



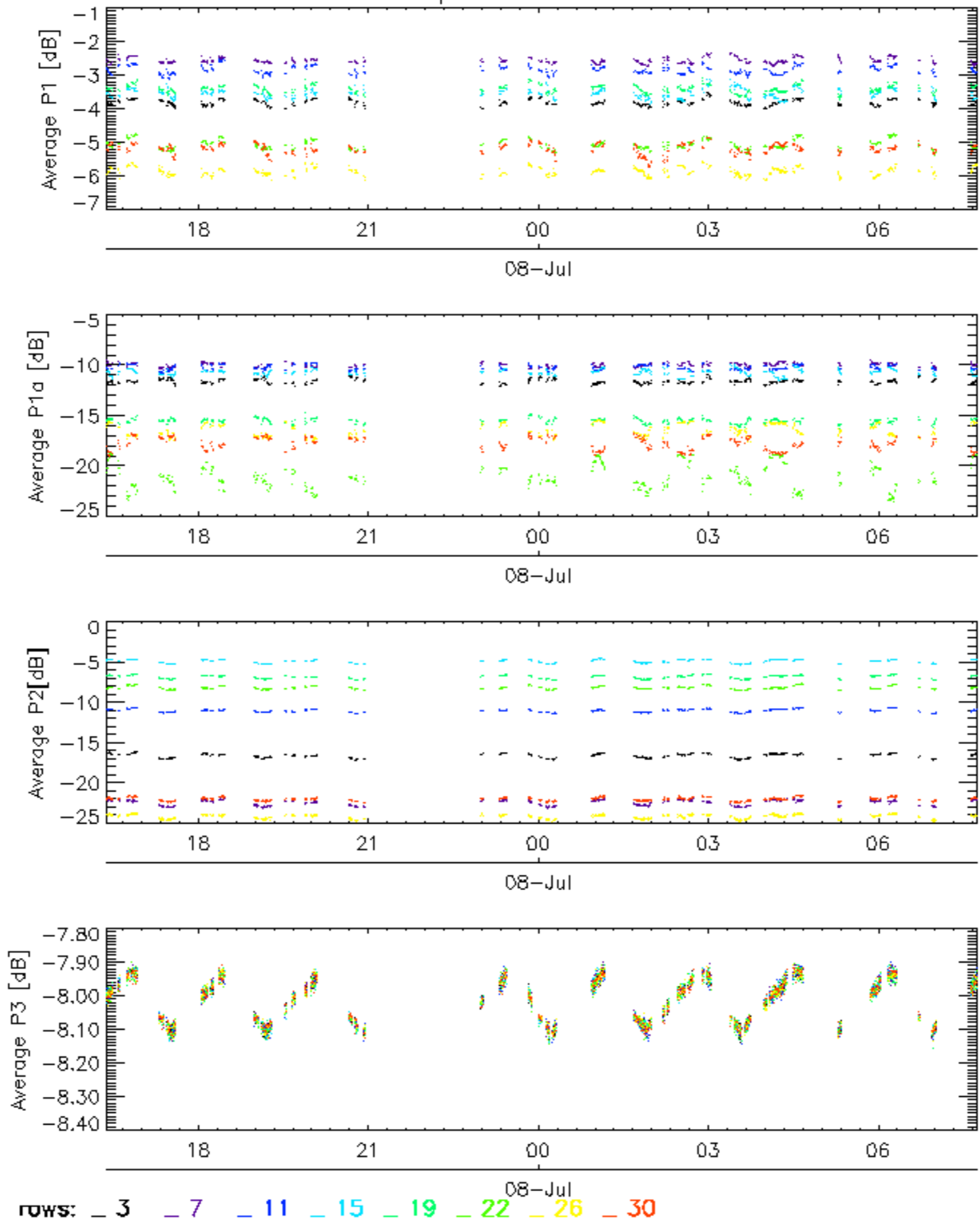
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

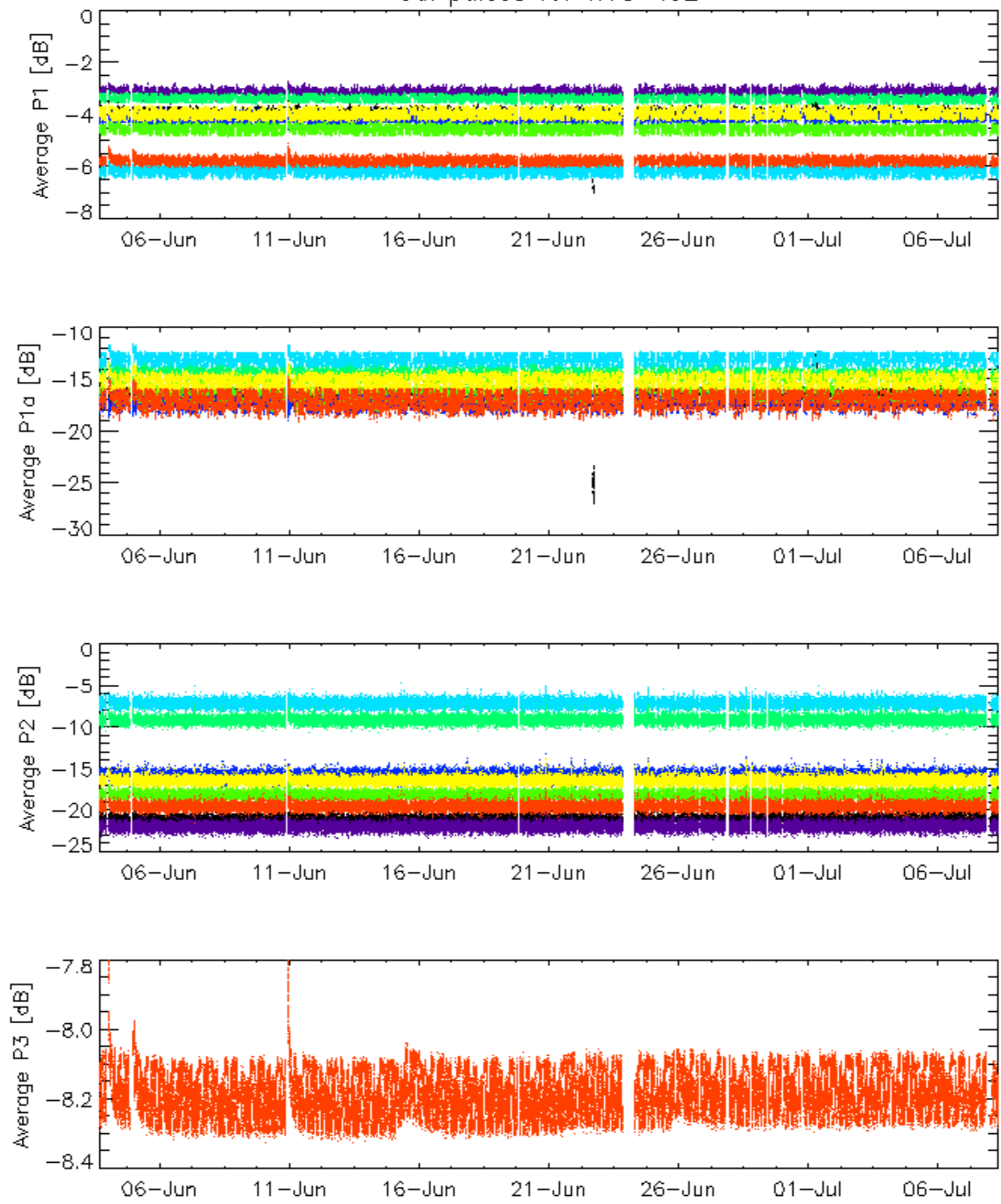


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

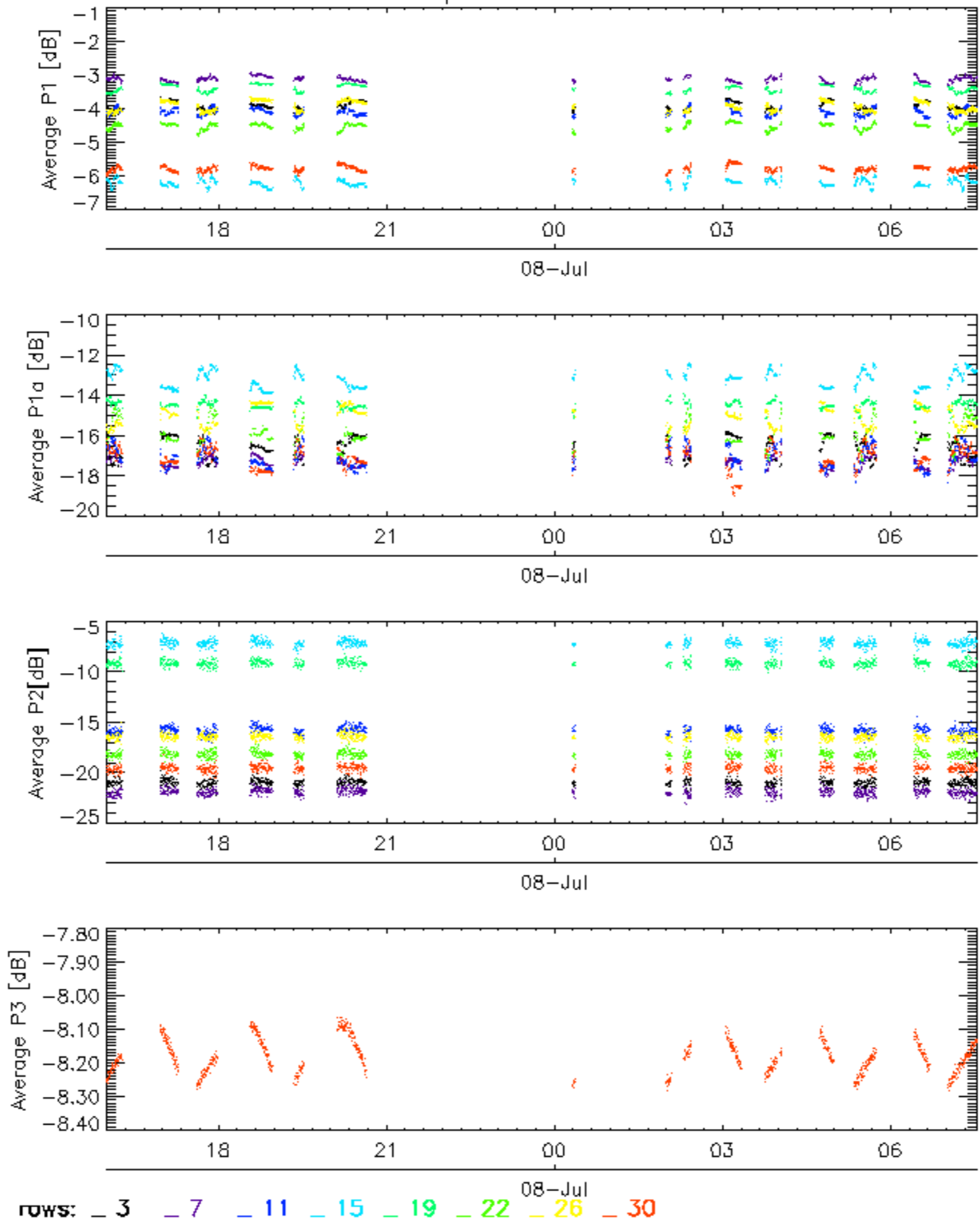


Cal pulses for WVS IS2

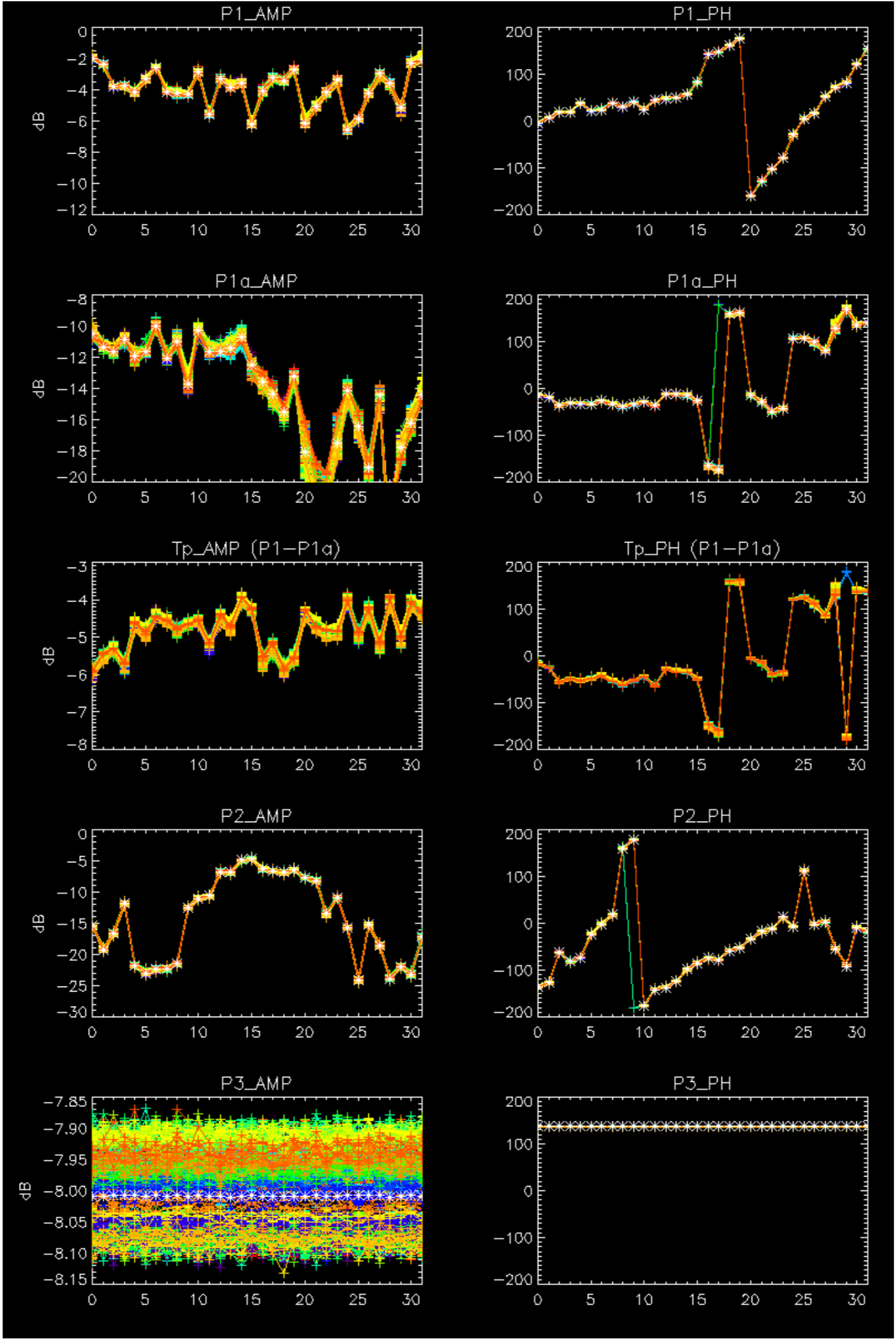


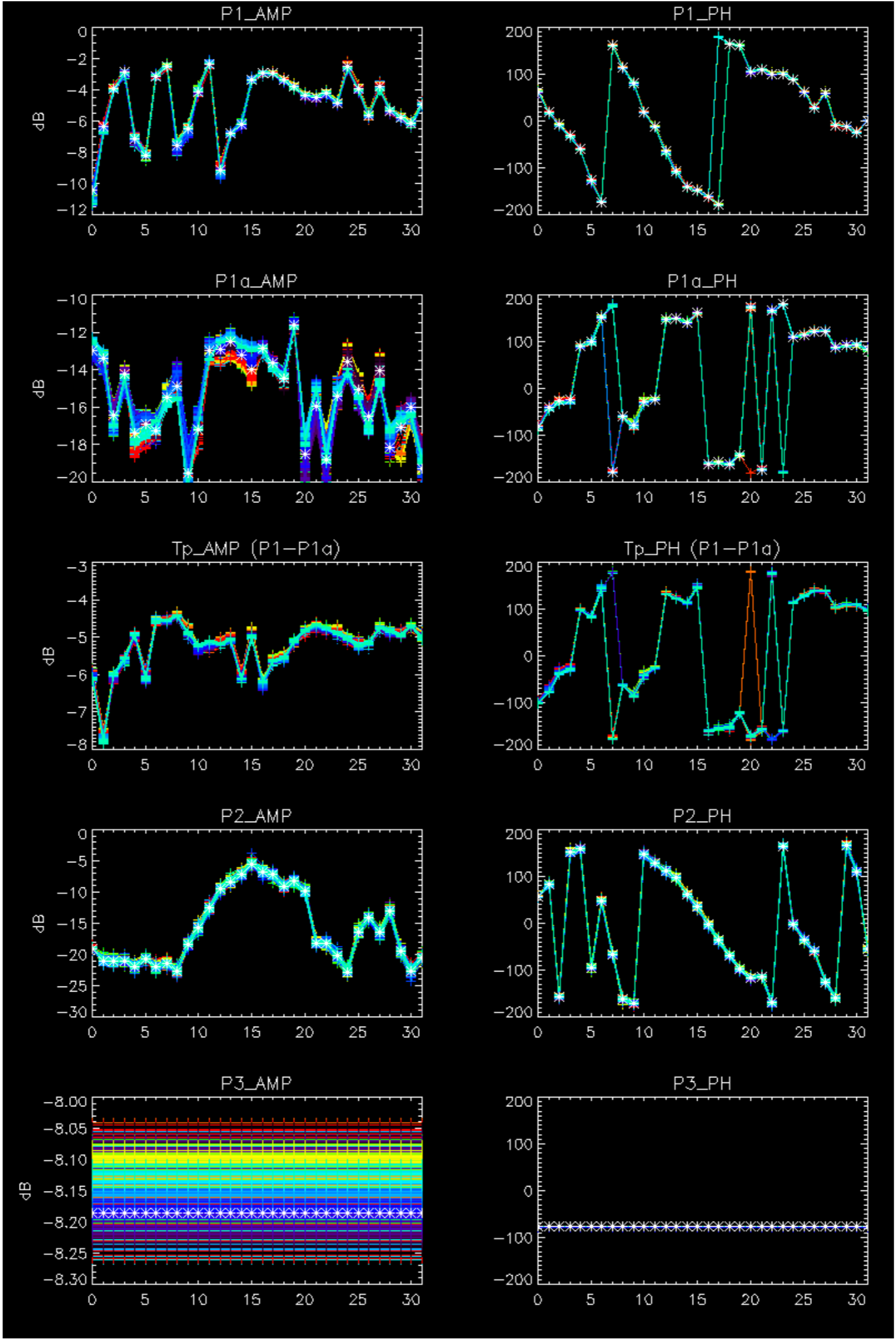
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



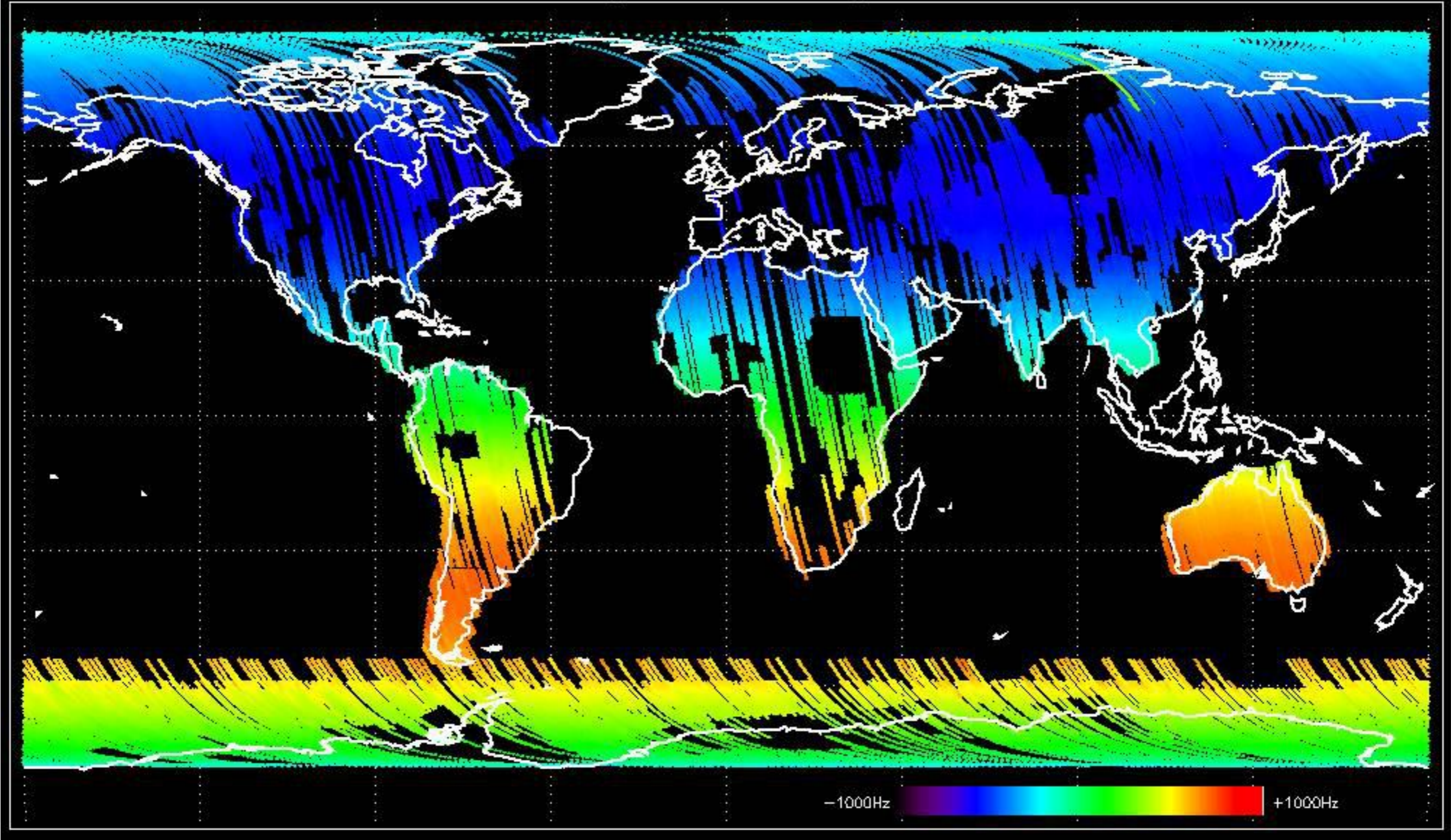
No anomalies observed.



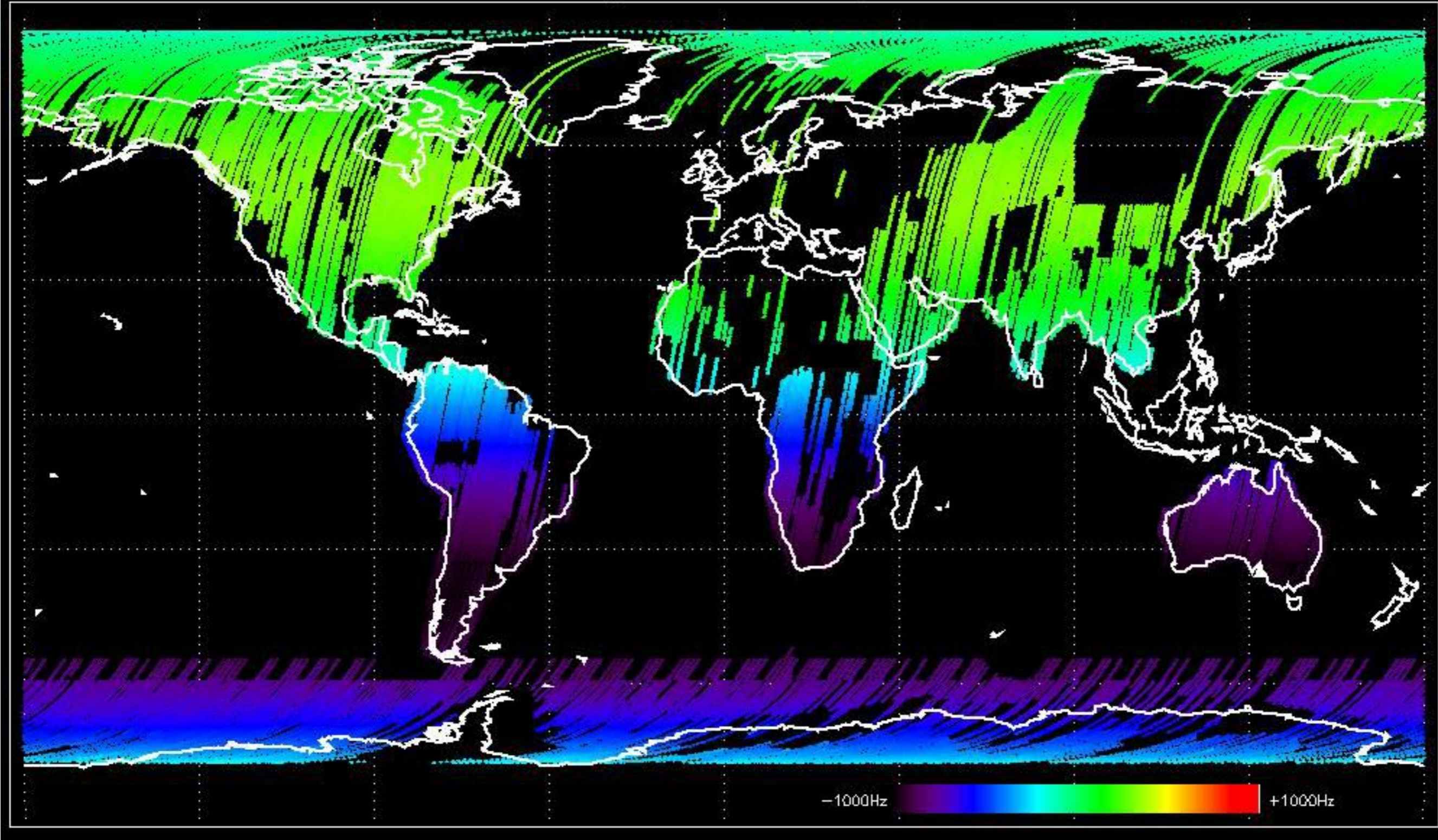


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

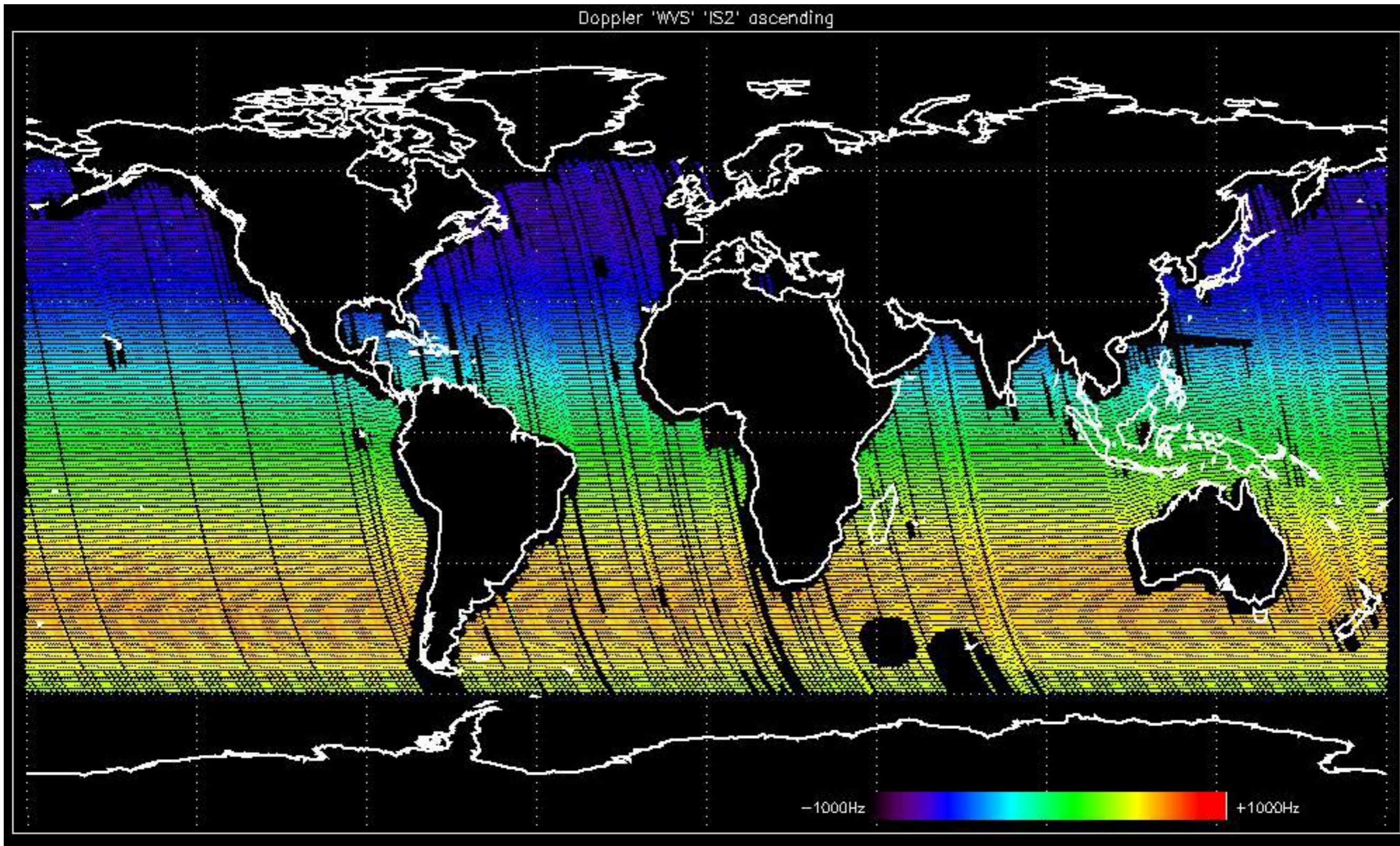
Doppler 'GM1' 'SS1' ascending



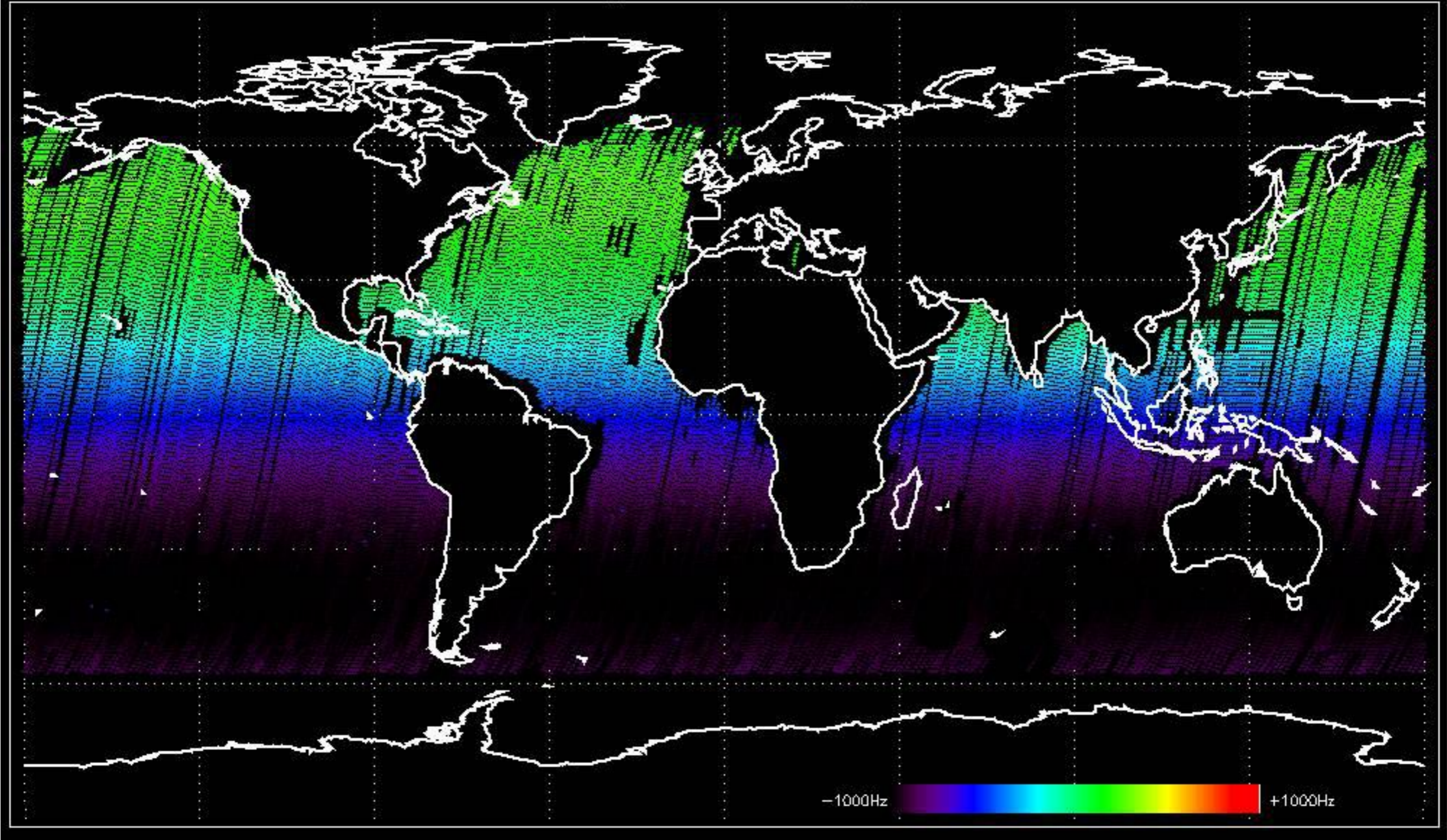
Doppler 'GM1' 'SS1' descending



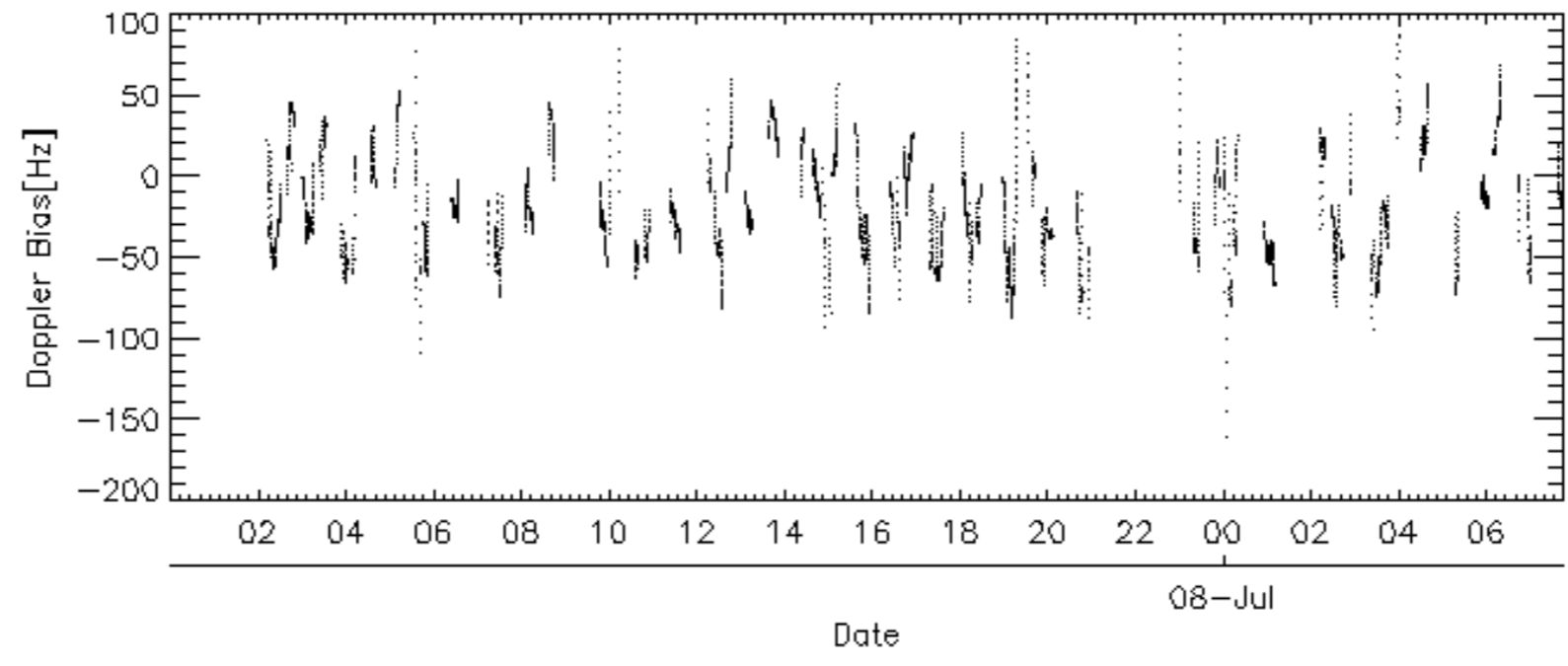
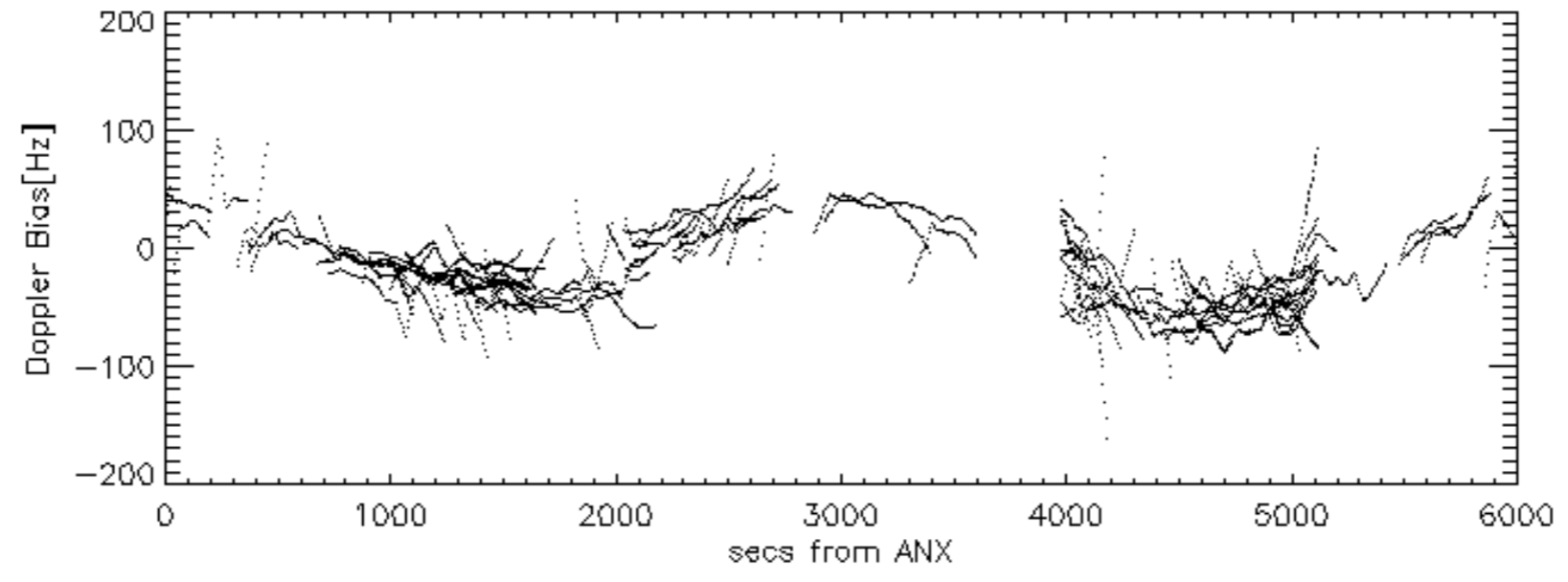
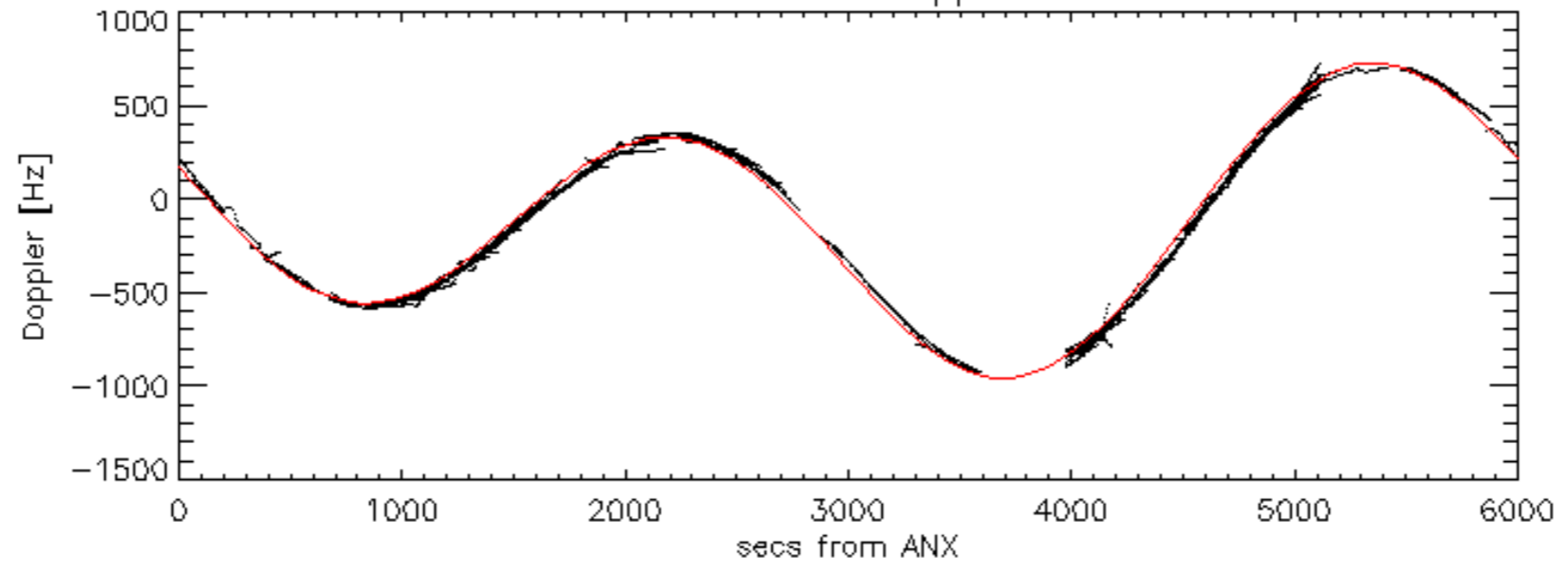
Doppler 'WVS' 'IS2' ascending

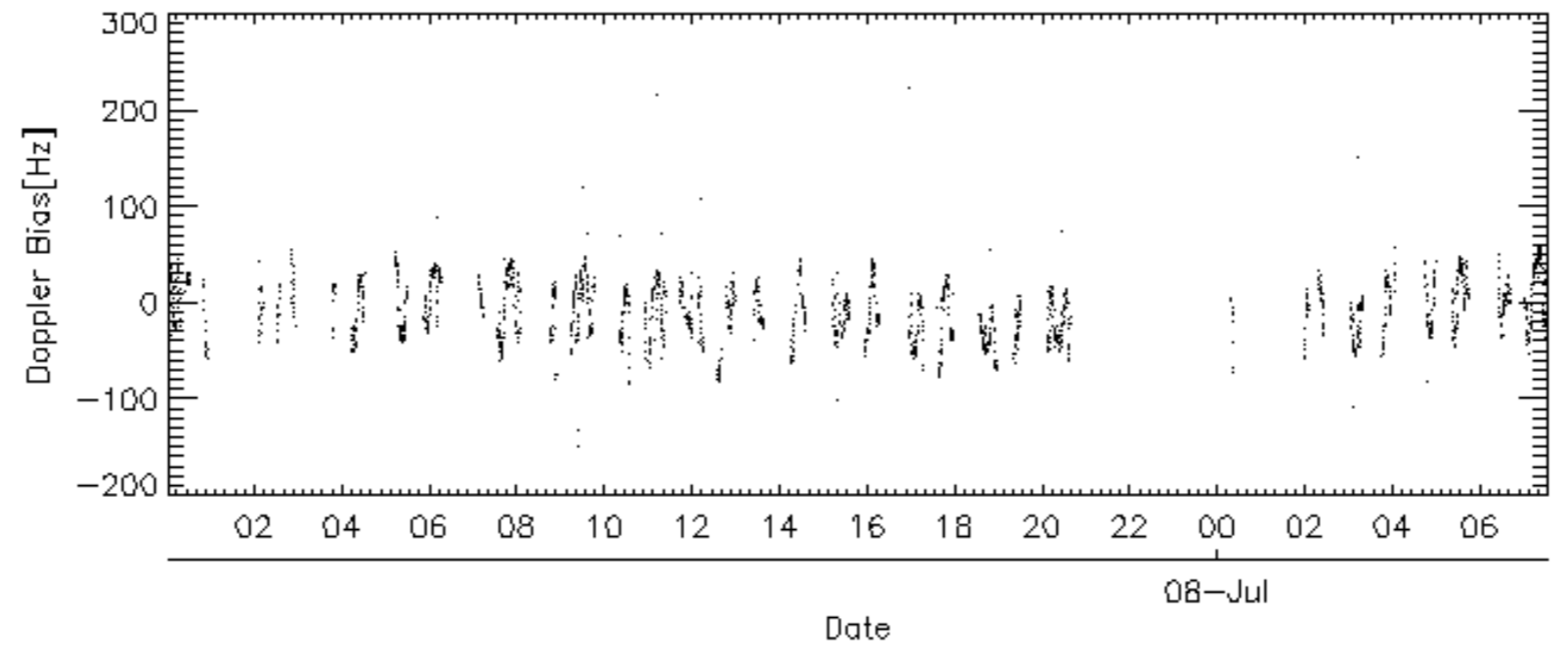
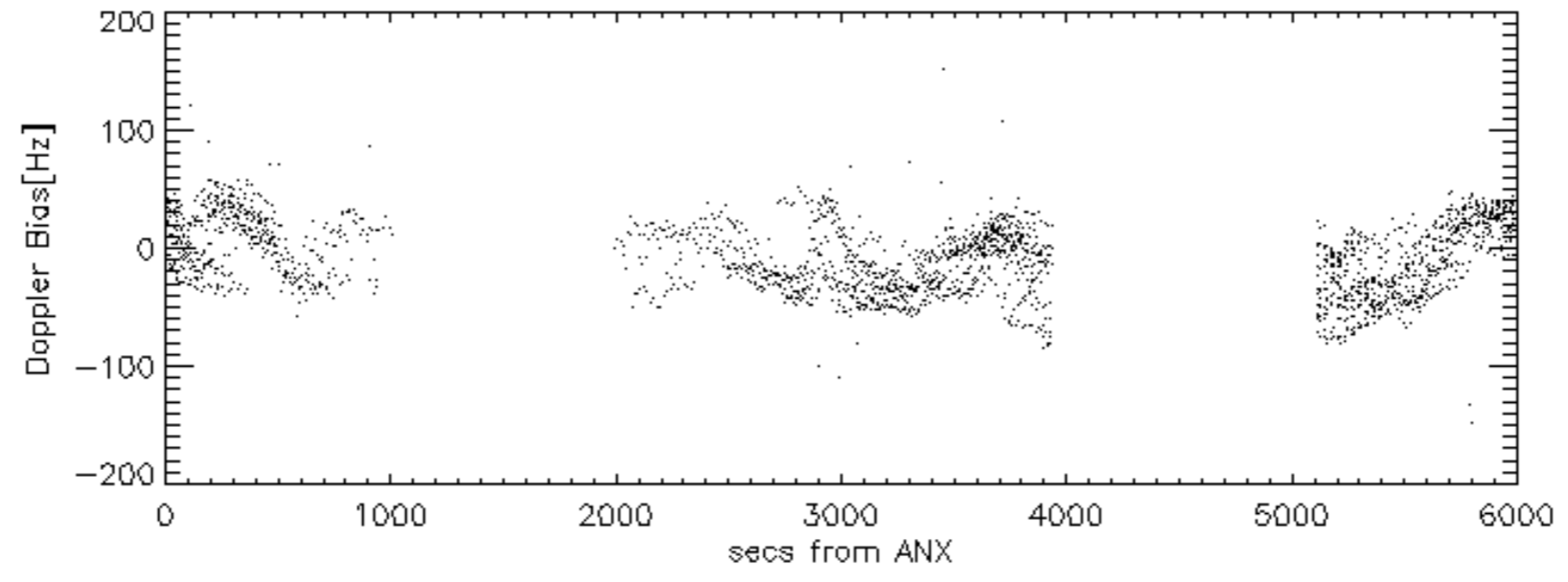
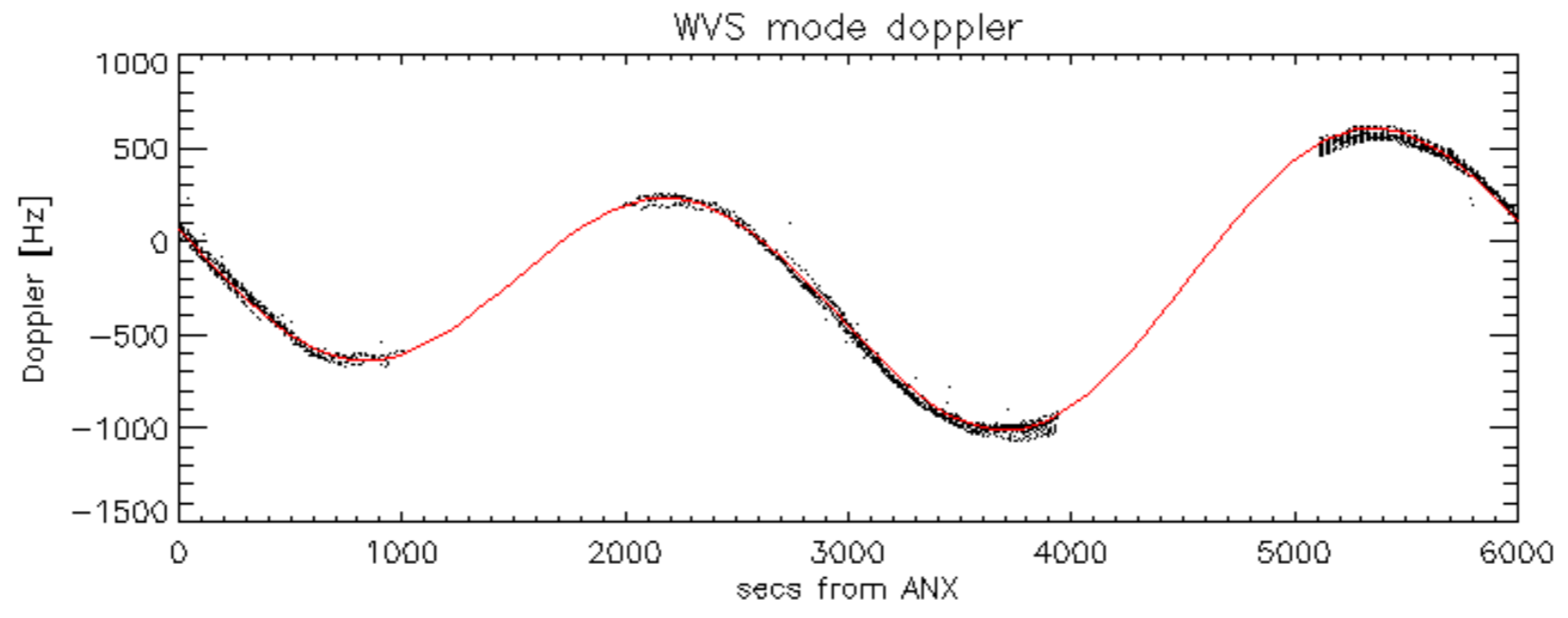


Doppler 'WVS' 'IS2' descending

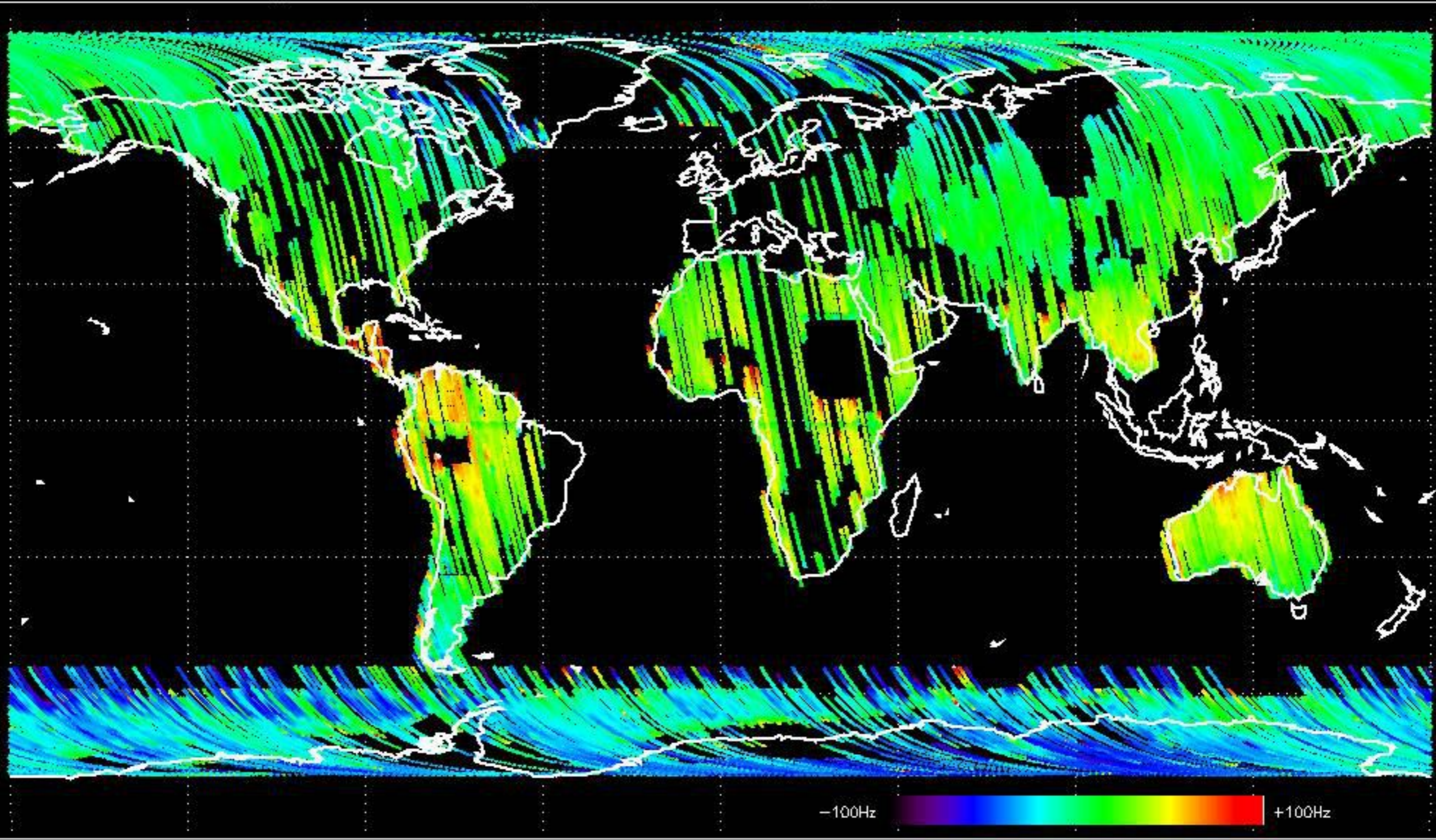


GM1 mode doppler

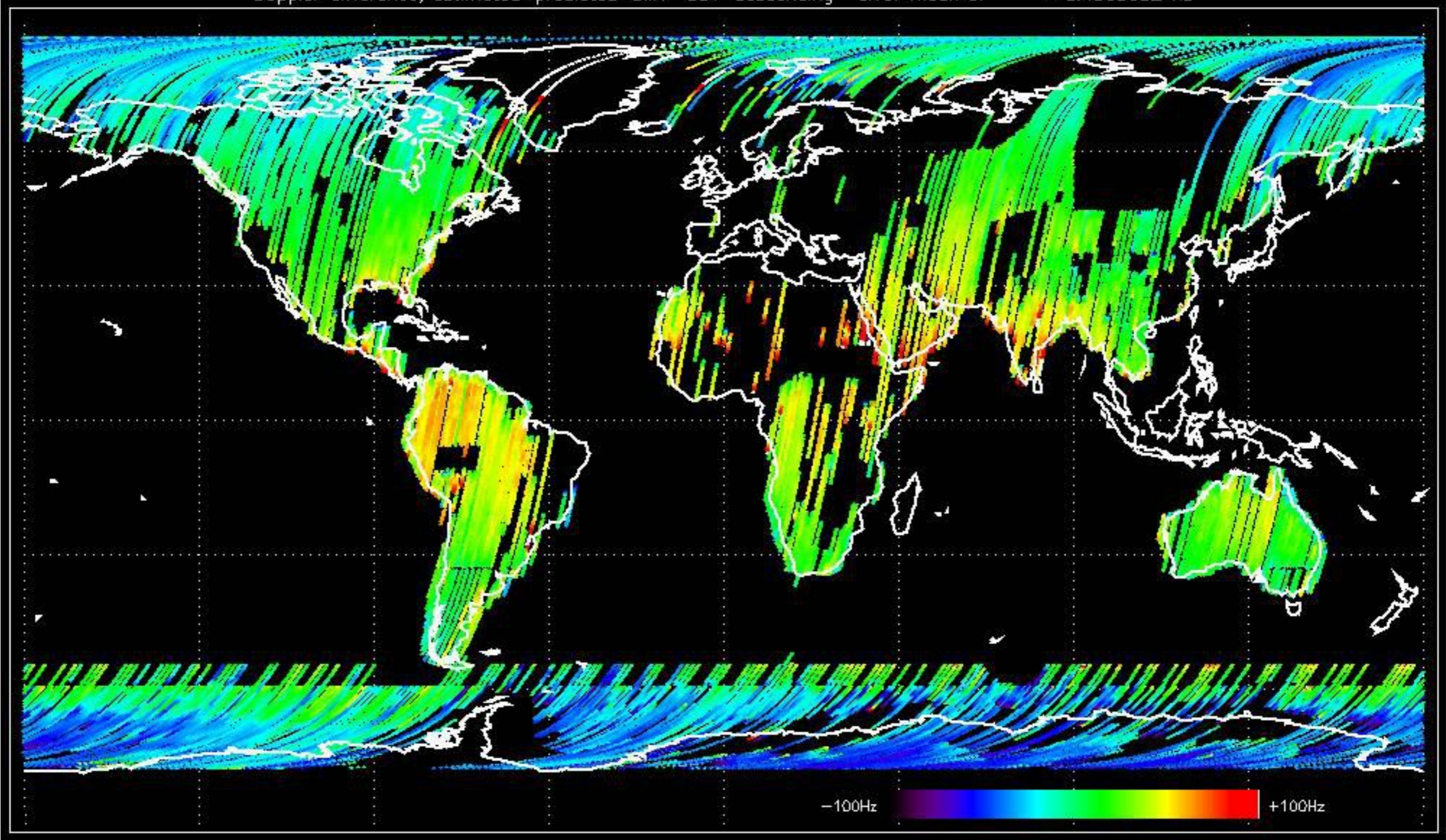




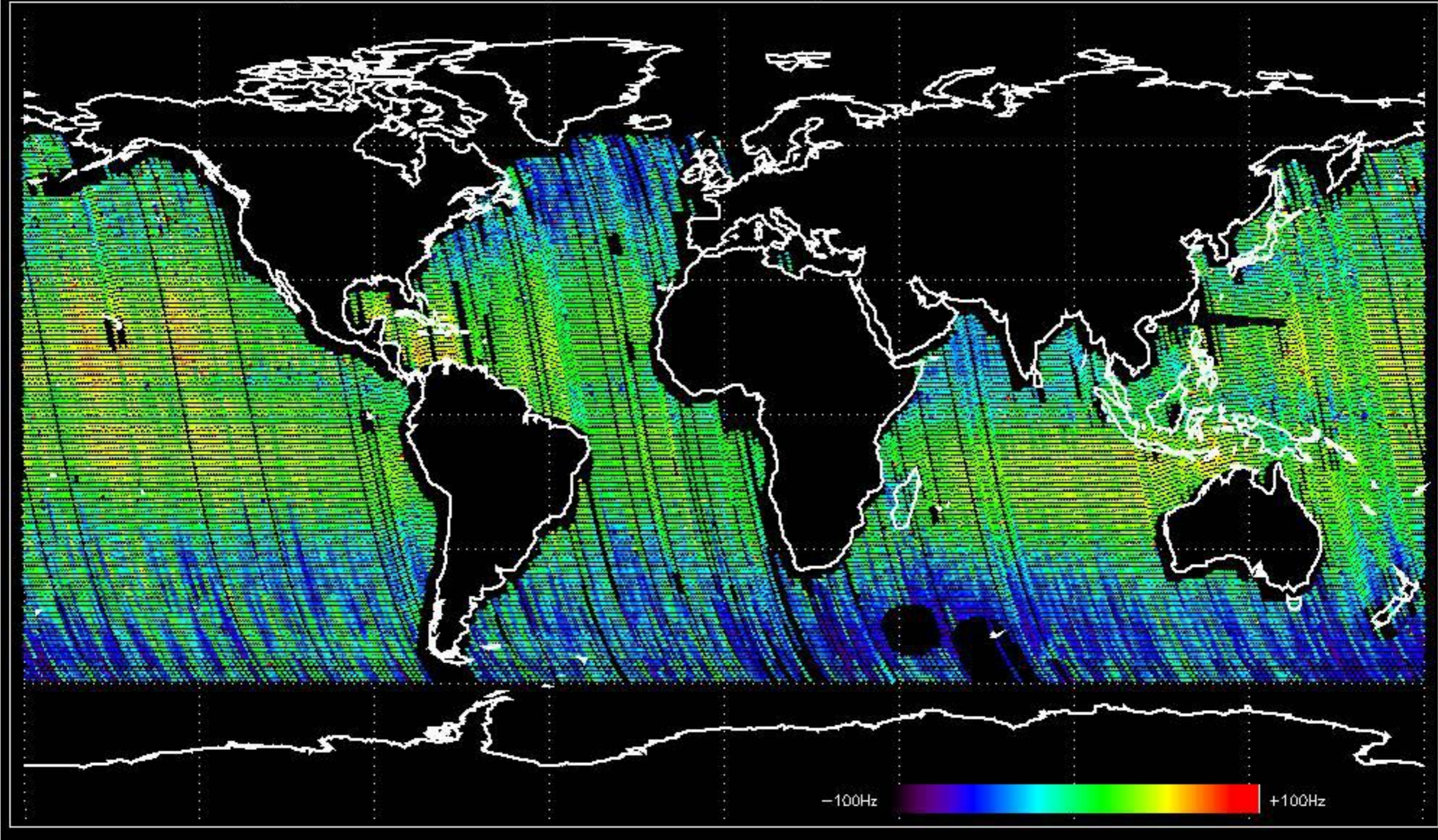
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.360719 Hz



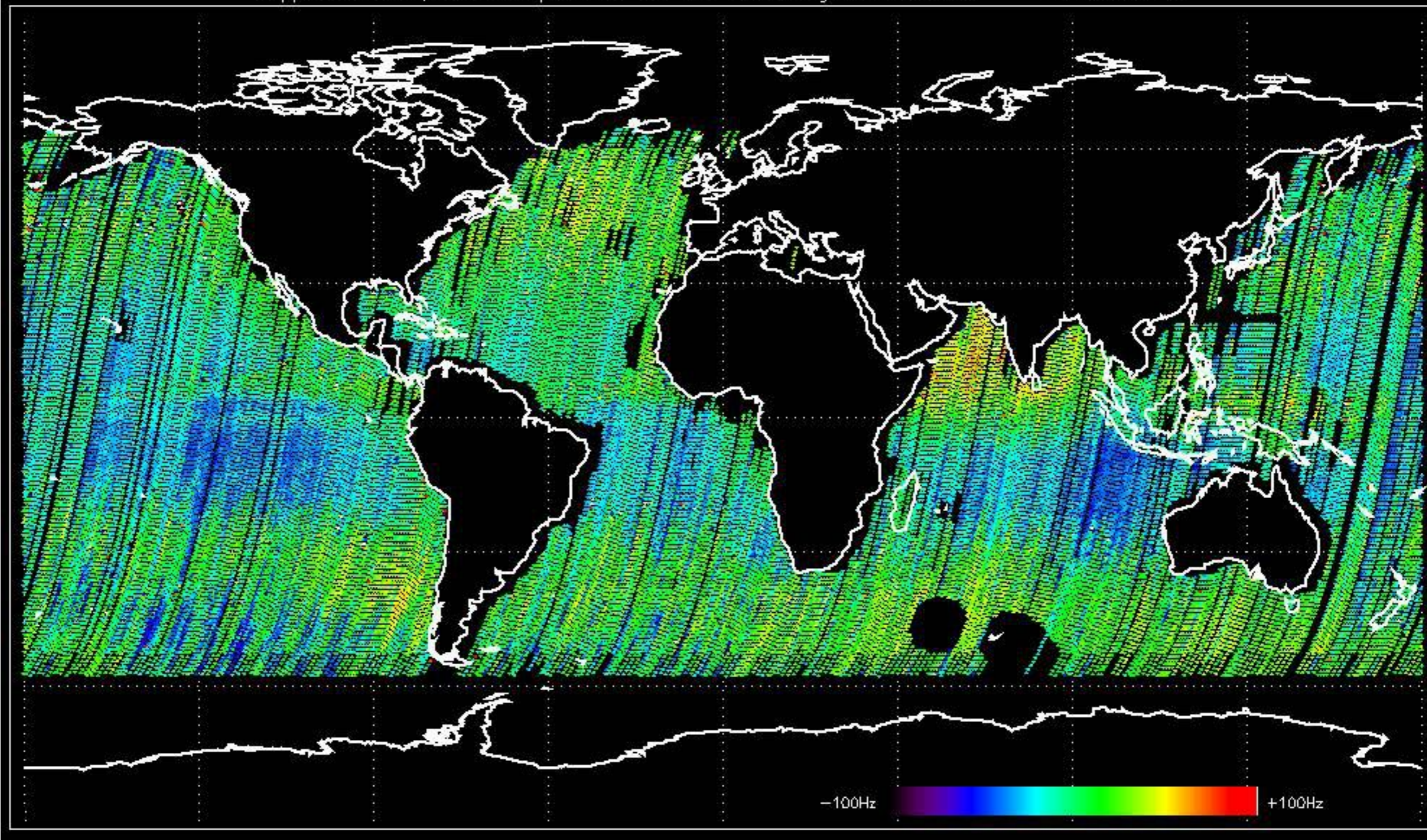
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.4508632 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.5665798 Hz

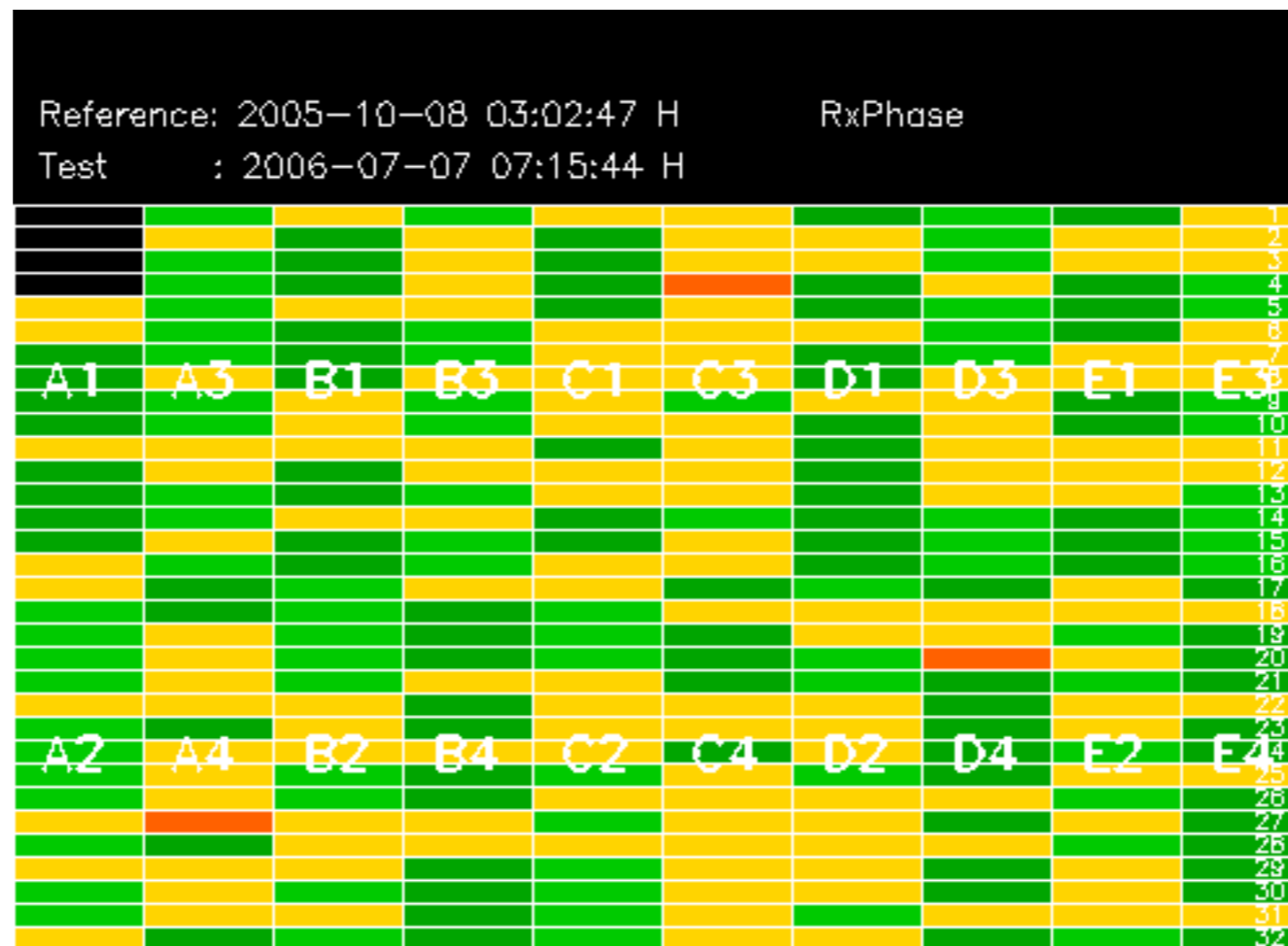


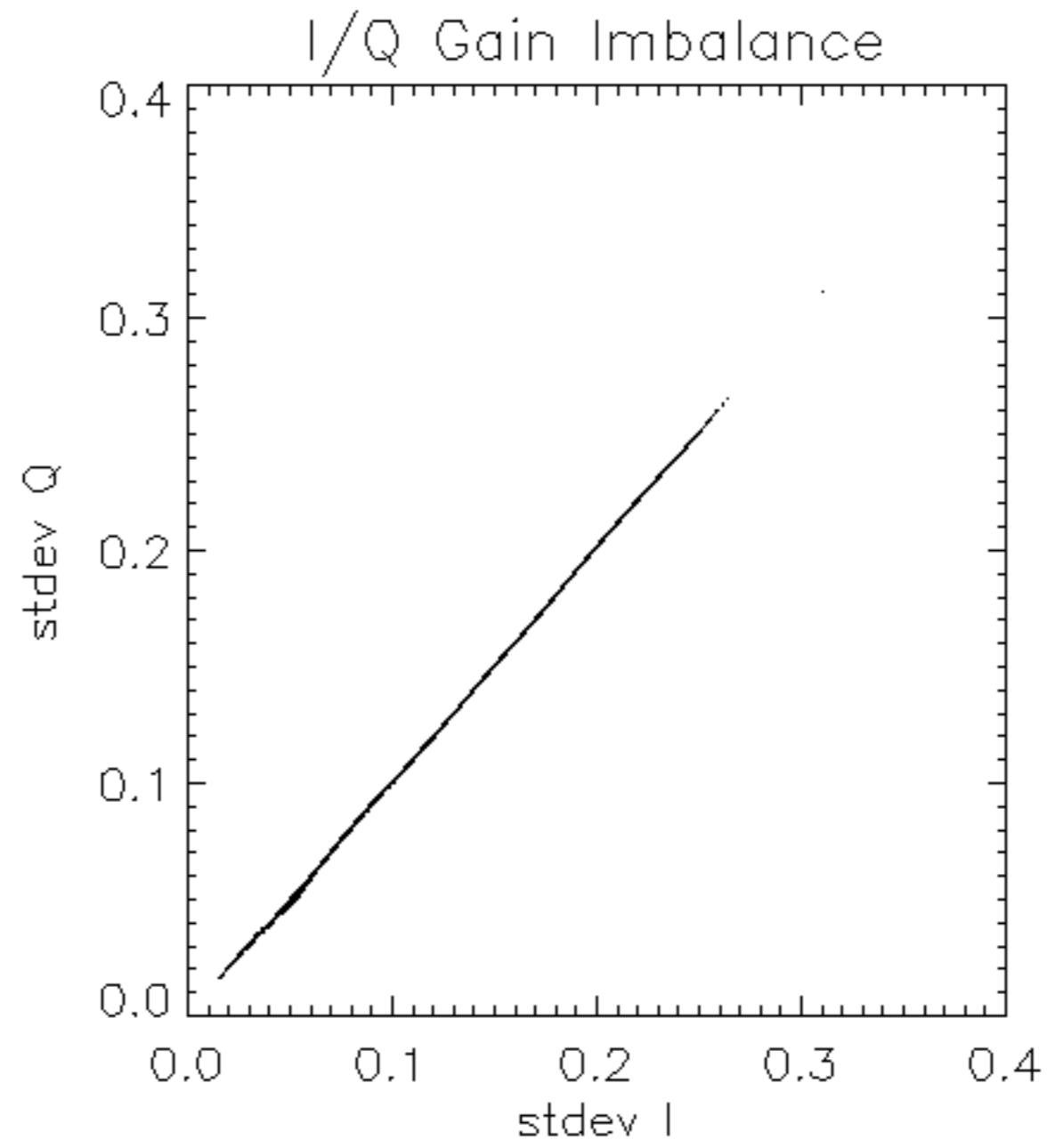
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.374558 Hz

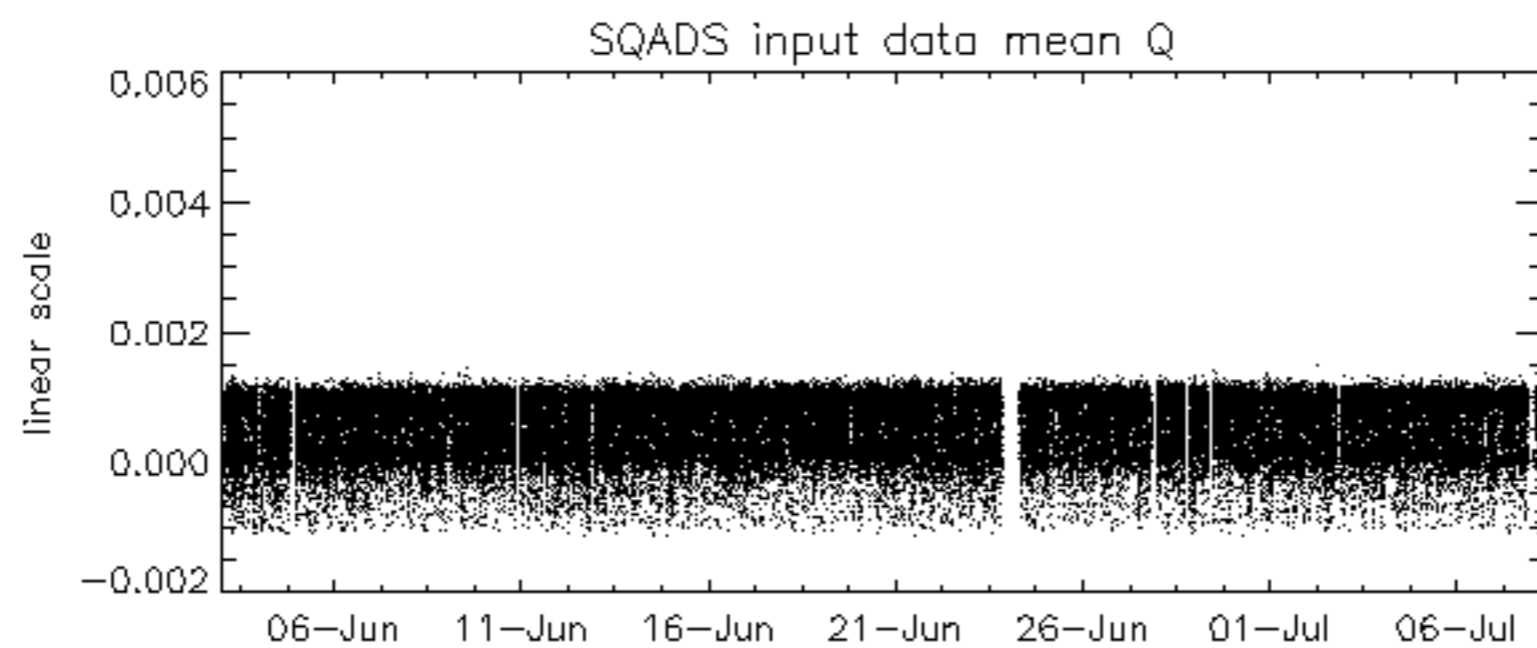
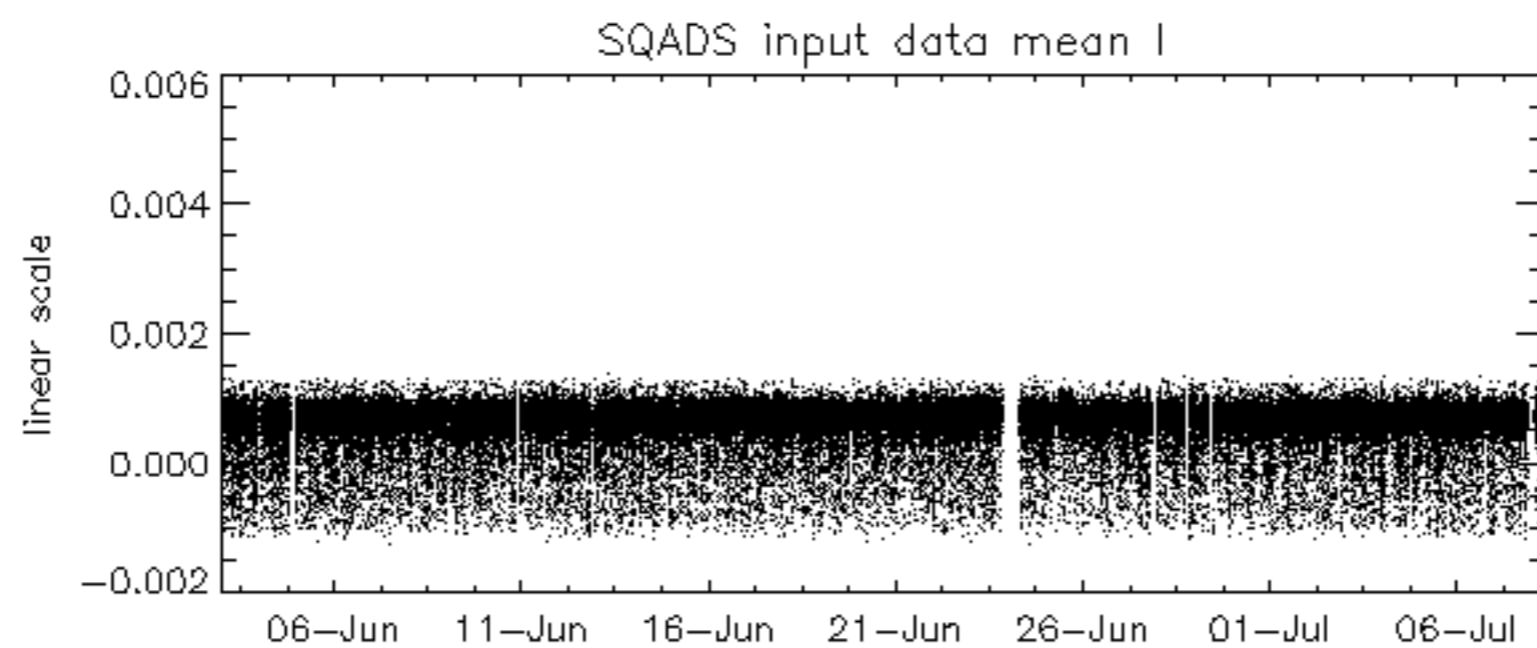
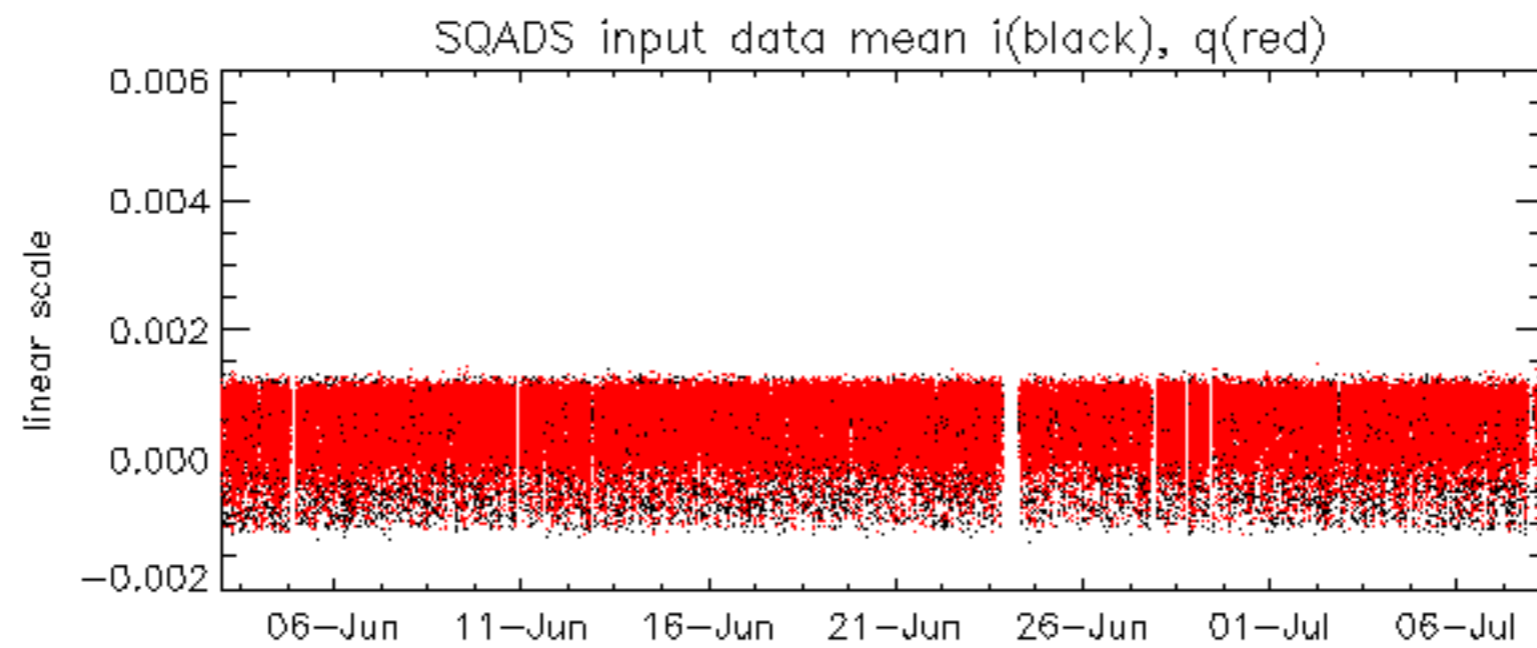


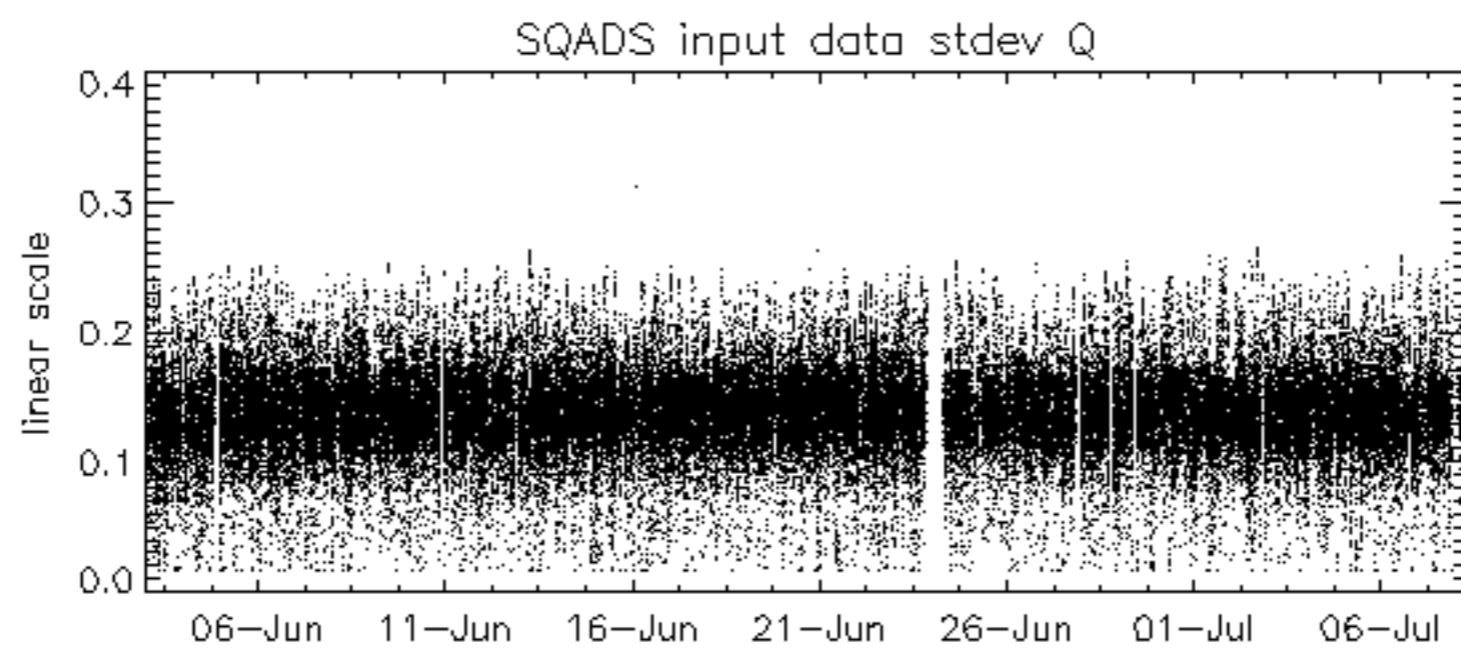
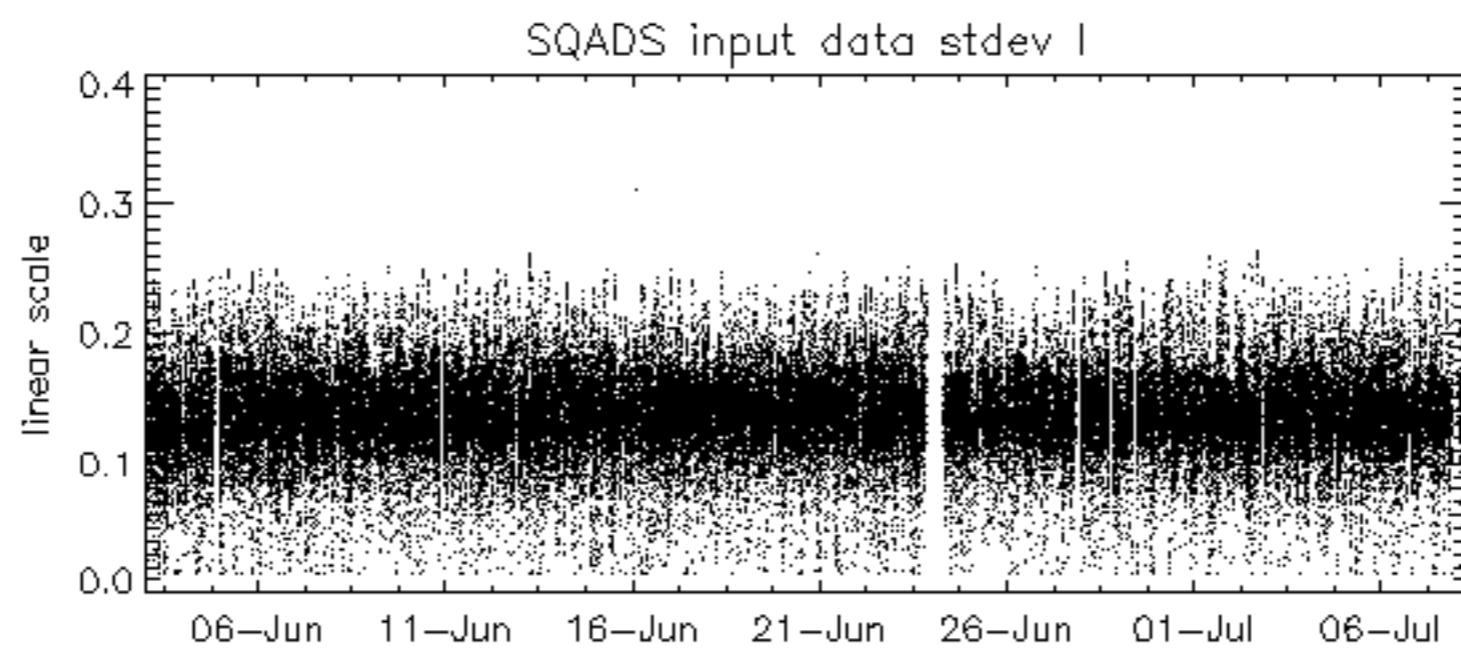
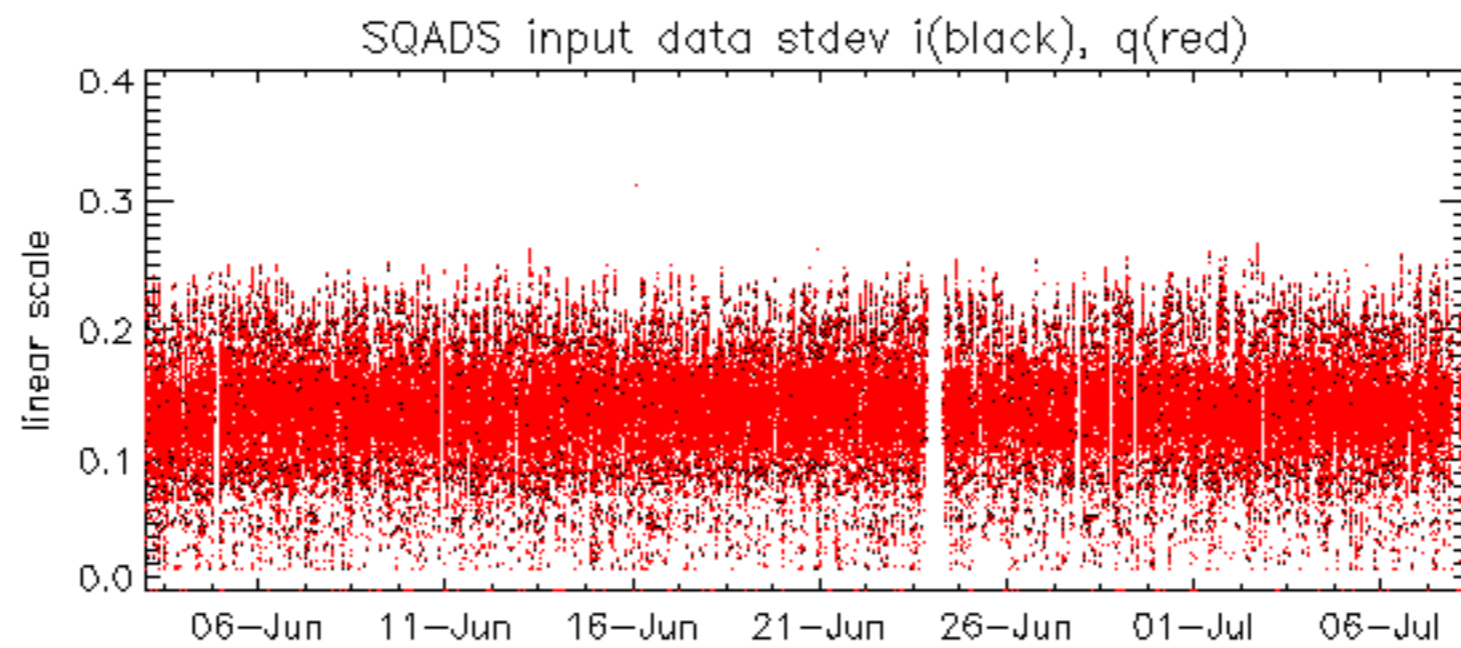
No anomalies observed on available MS products:

No anomalies observed.





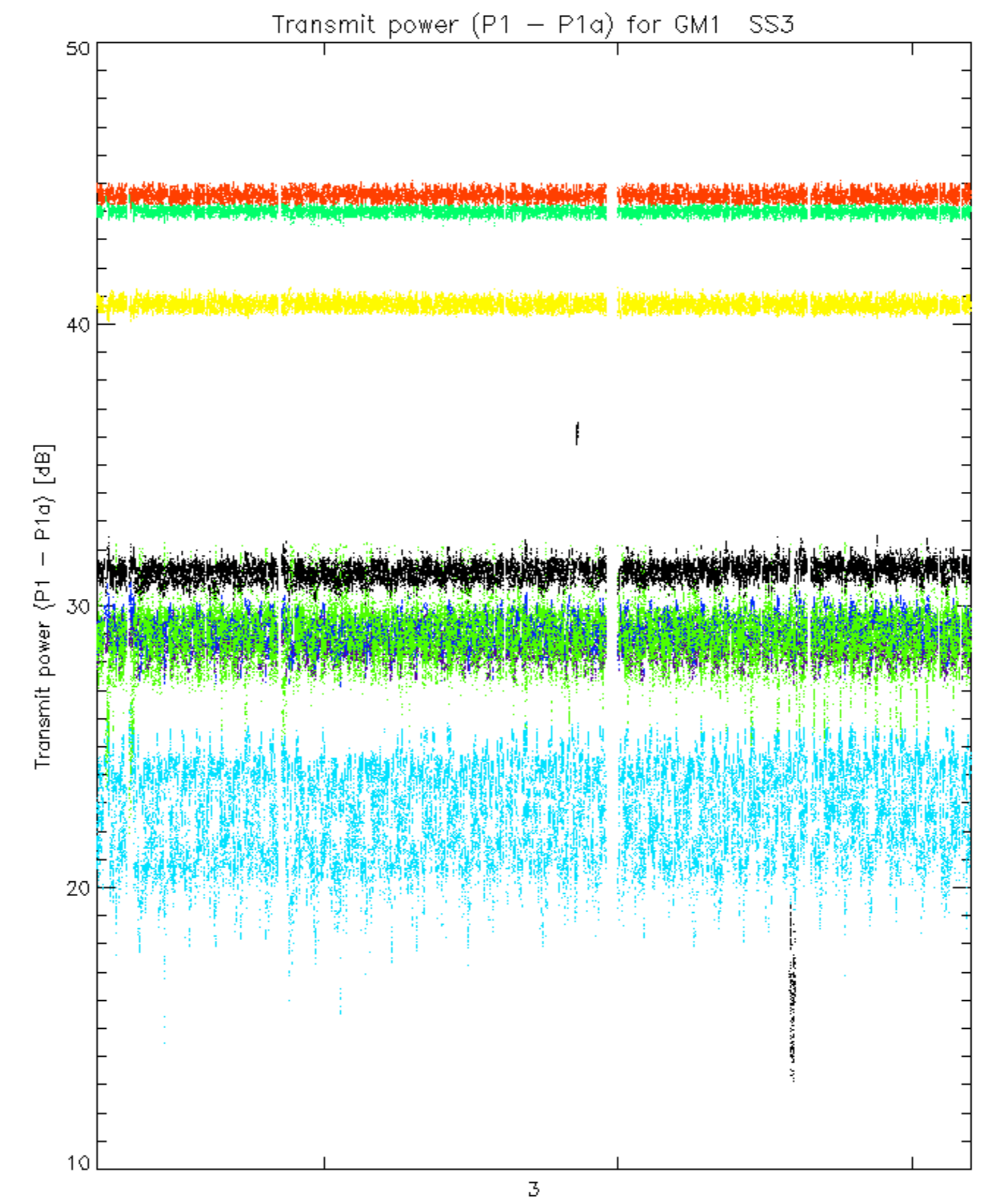




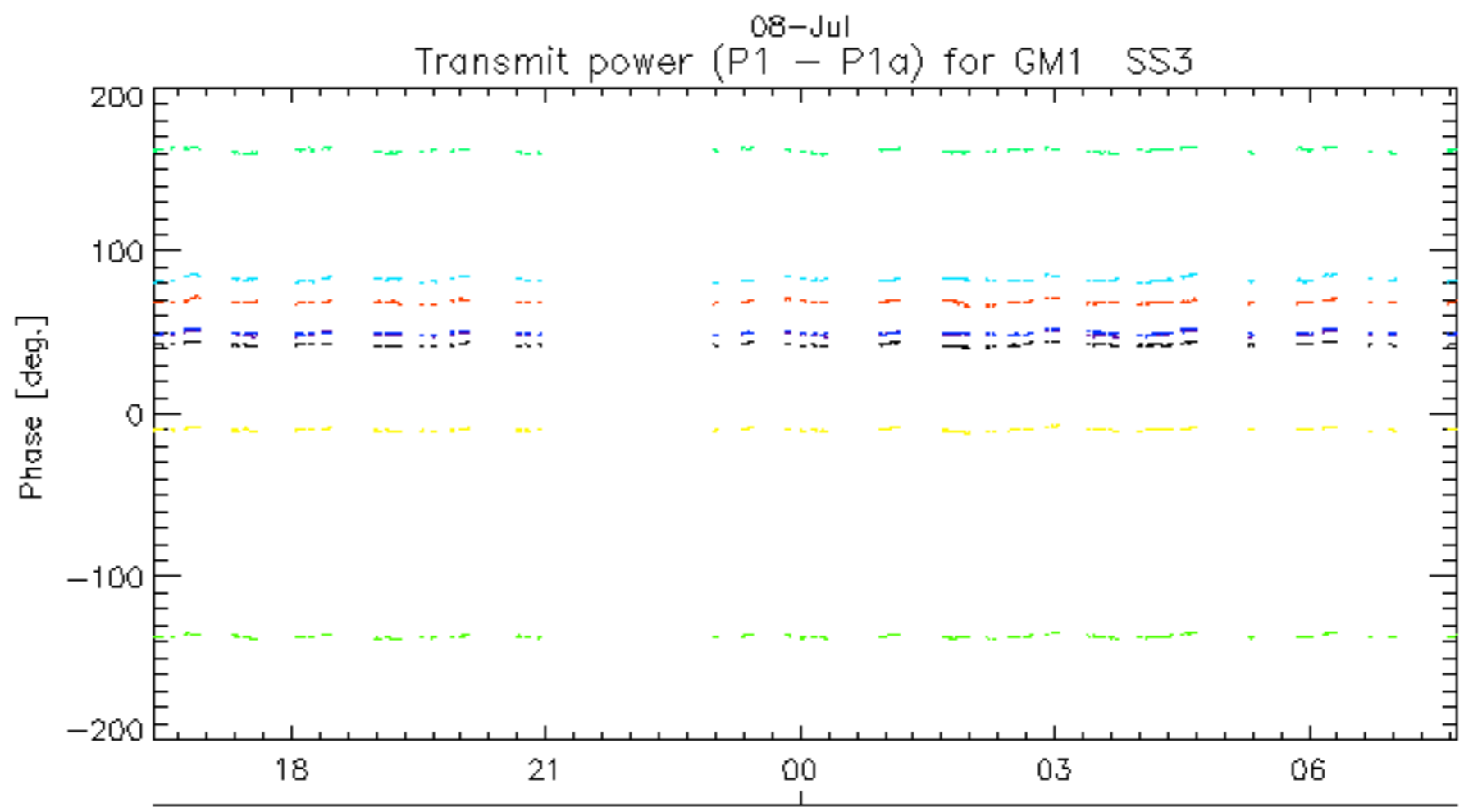
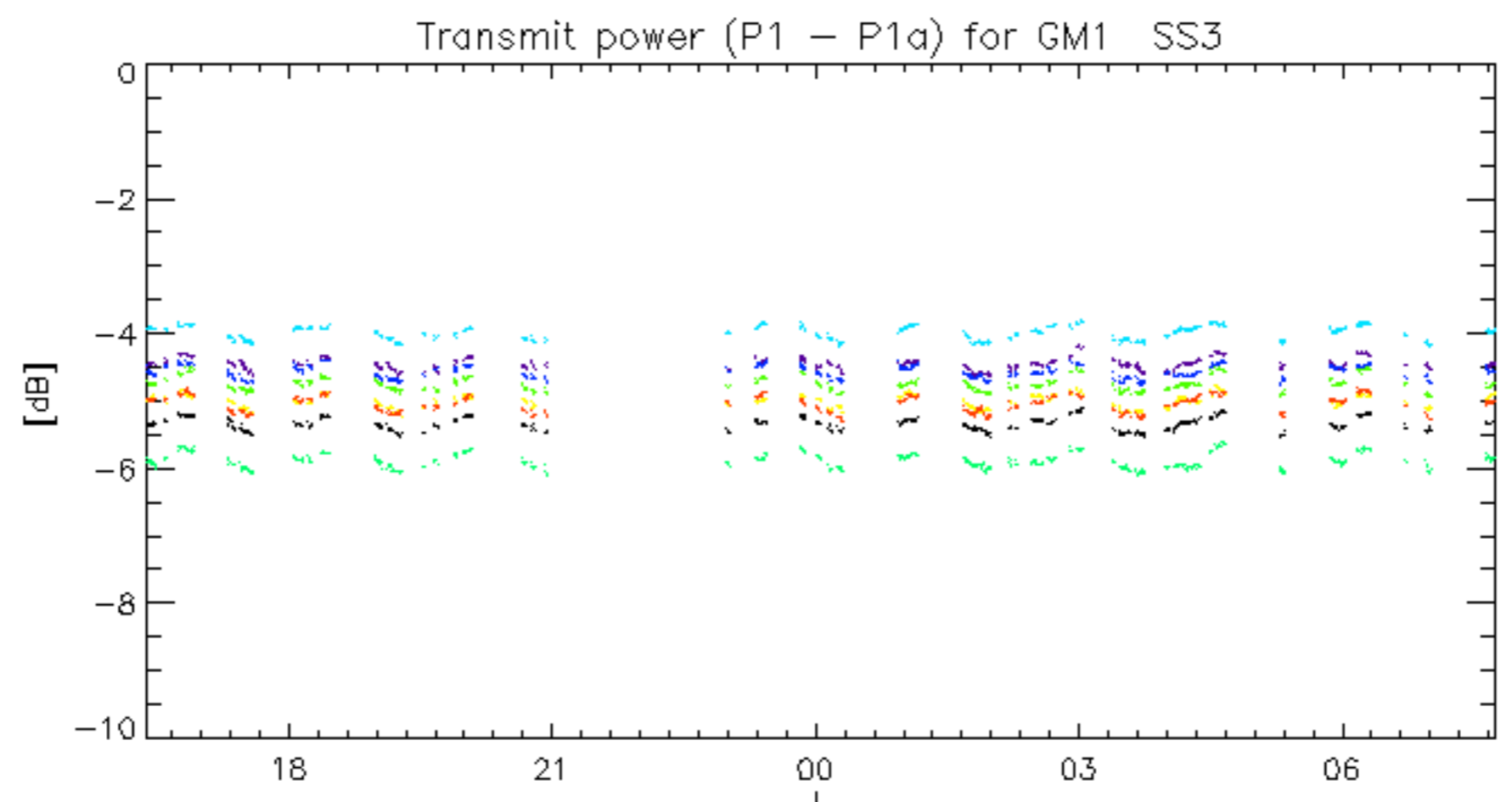
Summary of analysis for the last 3 days 2006070[678]

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

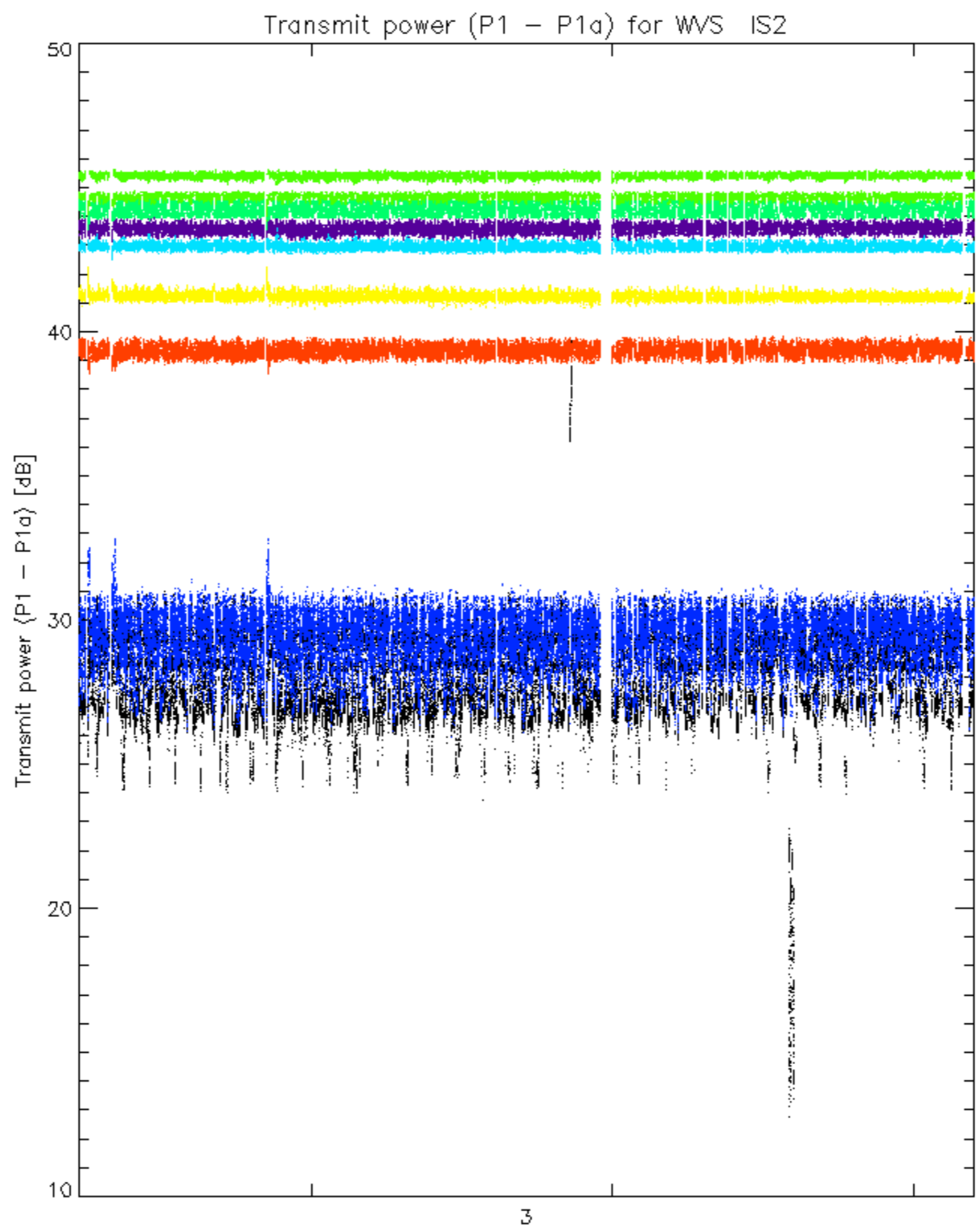
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060707_201746_000000372049_00157_22756_0467.N1	1	0
ASA_WVS_1PNPDK20060707_070752_00000002049_00149_22748_0265.N1	1	0
ASA_WSM_1PNPDE20060706_022612_000000862049_00132_22731_1537.N1	0	48
ASA_WSM_1PNPDE20060706_123542_000000672049_00138_22737_1799.N1	5	214
ASA_WSM_1PNPDE20060706_182823_000002692049_00142_22741_1631.N1	0	69
ASA_WSM_1PNPDE20060707_161735_000002192049_00155_22754_1810.N1	0	17
ASA_APM_1PNPDE20060707_143629_000000852049_00154_22753_0347.N1	0	10



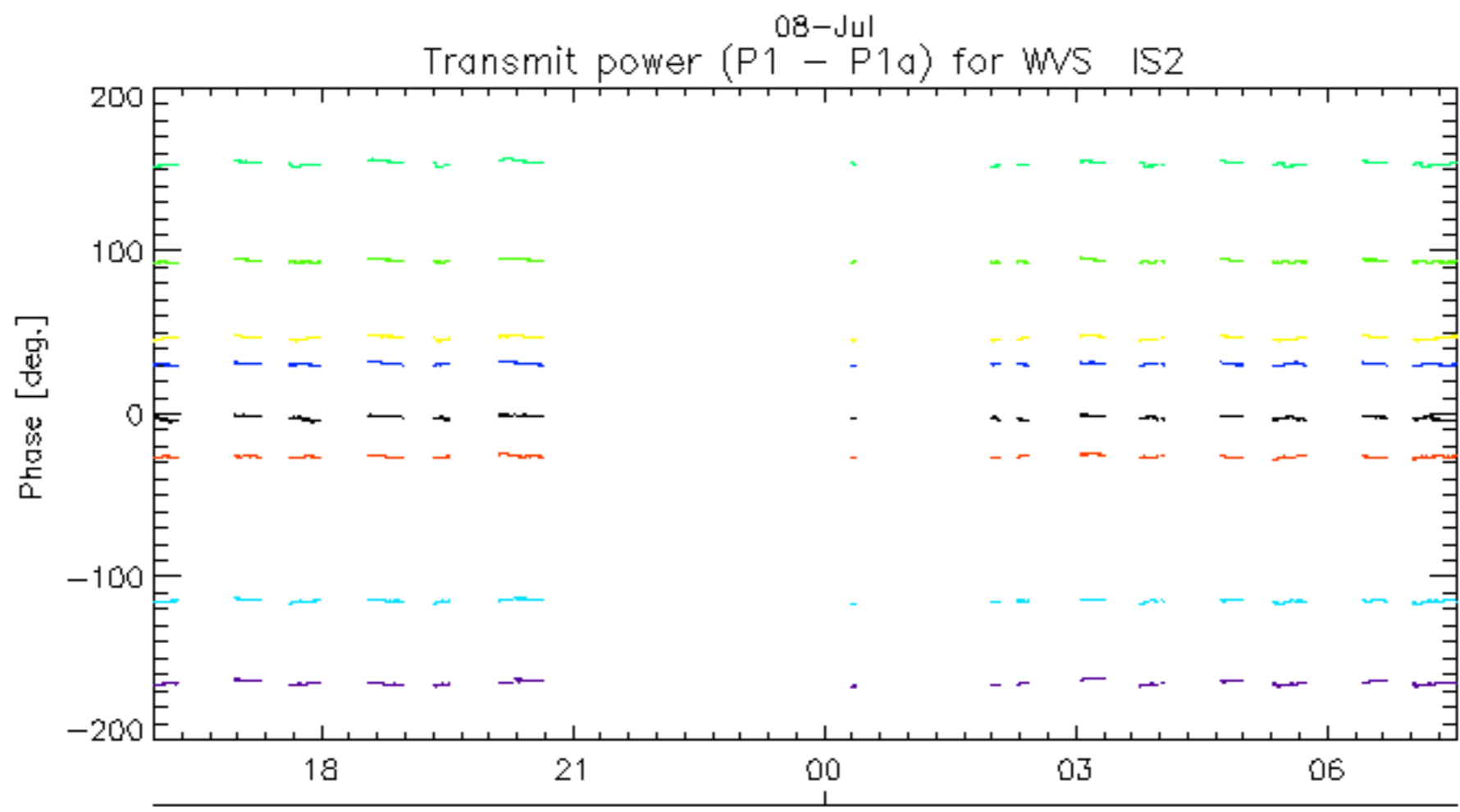
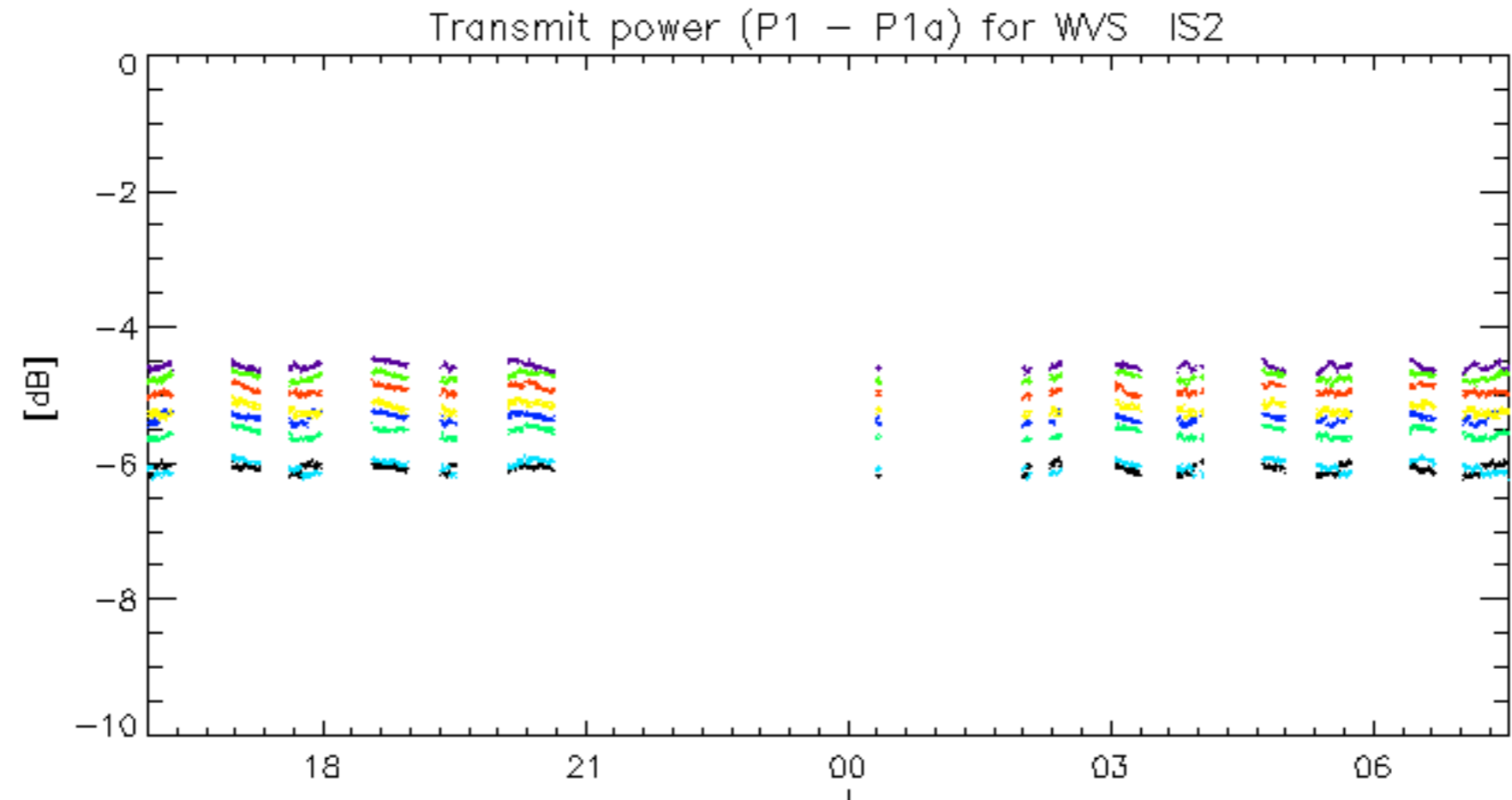
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.