

PRELIMINARY REPORT OF 060617

last update on Sat Jun 17 16:46:11 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 2006-06-16 00:00:00 to 2006-06-17 16:46:11

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	44	73	17	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	44	73	17	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	44	73	17	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	73	17	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	41	43	19	39
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	35	41	43	19	39
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	41	43	19	39
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	41	43	19	39

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	20060617 060350

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	-3.937544	0.018415	0.048056
7	P1	-3.130868	0.015981	-0.050361
11	P1	-4.108357	0.019251	0.012116
15	P1	-6.144743	0.020162	-0.032873
19	P1	-3.343441	0.008530	-0.065003
22	P1	-4.515185	0.011530	-0.004787
26	P1	-3.973626	0.017026	0.009475
30	P1	-5.749177	0.008910	-0.011732
3	P1	-16.515337	0.248789	0.086412
7	P1	-17.215296	0.150724	-0.135057
11	P1	-16.949251	0.308228	-0.036406
15	P1	-13.207318	0.217001	0.074580
19	P1	-14.317486	0.050646	-0.130319
22	P1	-16.170794	0.369396	0.031130
26	P1	-15.230902	0.230181	0.075173
30	P1	-17.106514	0.405220	-0.206418

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.155956	0.079362	0.119032
7	P2	-22.038286	0.094913	0.100574
11	P2	-15.884847	0.108542	0.119480
15	P2	-7.160474	0.091895	0.005364
19	P2	-9.171575	0.083445	-0.020311
22	P2	-18.154070	0.081530	-0.076489
26	P2	-16.396318	0.085002	-0.064093
30	P2	-19.561857	0.084803	0.023036

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.184555	0.004059	-0.003930
7	P3	-8.184555	0.004059	-0.003930
11	P3	-8.184555	0.004059	-0.003930
15	P3	-8.184555	0.004059	-0.003930
19	P3	-8.184555	0.004059	-0.003930
22	P3	-8.184555	0.004059	-0.003930
26	P3	-8.184555	0.004059	-0.003930
30	P3	-8.184555	0.004059	-0.003930

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	-3.799554	0.051743	0.004719
7	P1	-2.592995	0.030764	0.035110
11	P1	-2.861378	0.023223	0.010942
15	P1	-3.506657	0.050609	-0.033251
19	P1	-3.406822	0.014342	-0.028629
22	P1	-5.081440	0.019503	-0.006716
26	P1	-5.851735	0.015750	-0.029274
30	P1	-5.192060	0.026774	-0.012240
3	P1	-11.624147	0.053658	0.024426
7	P1	-9.966276	0.049311	-0.064975
11	P1	-10.214129	0.087084	-0.086821
15	P1	-10.645461	0.154060	-0.129749
19	P1	-15.534484	0.075840	-0.049440
22	P1	-20.930658	1.173768	-0.105832
26	P1	-16.479868	0.331737	0.040400
30	P1	-17.926146	0.371232	0.176361

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.845989	0.071320	0.144178
7	P2	-22.496395	0.128994	0.051779
11	P2	-11.160262	0.048336	0.071502
15	P2	-4.917070	0.048818	-0.029946
19	P2	-6.882070	0.053439	-0.018232
22	P2	-8.206802	0.043021	-0.025037
26	P2	-24.132280	0.068763	-0.100179
30	P2	-22.064640	0.056079	0.004614

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.019058	0.004889	-0.009467
7	P3	-8.019069	0.004871	-0.009488
11	P3	-8.019056	0.004866	-0.009508
15	P3	-8.019024	0.004876	-0.009570
19	P3	-8.019027	0.004873	-0.009415
22	P3	-8.019189	0.004869	-0.009511
26	P3	-8.019156	0.004869	-0.009442
30	P3	-8.019135	0.004868	-0.009413

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	0.000542116
	stdev	1.83465e-07
MEAN Q	mean	0.000513471
	stdev	2.25967e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135330
	stdev	0.00118537
STDEV Q	mean	0.135676
	stdev	0.00120267



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006061[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_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
ASA_APM_1PNPDE20060616_143704_000000872048_00354_22452_3436.N1	0	21
ASA_APM_1PNPDE20060617_004226_000000562048_00360_22458_3444.N1	0	19



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

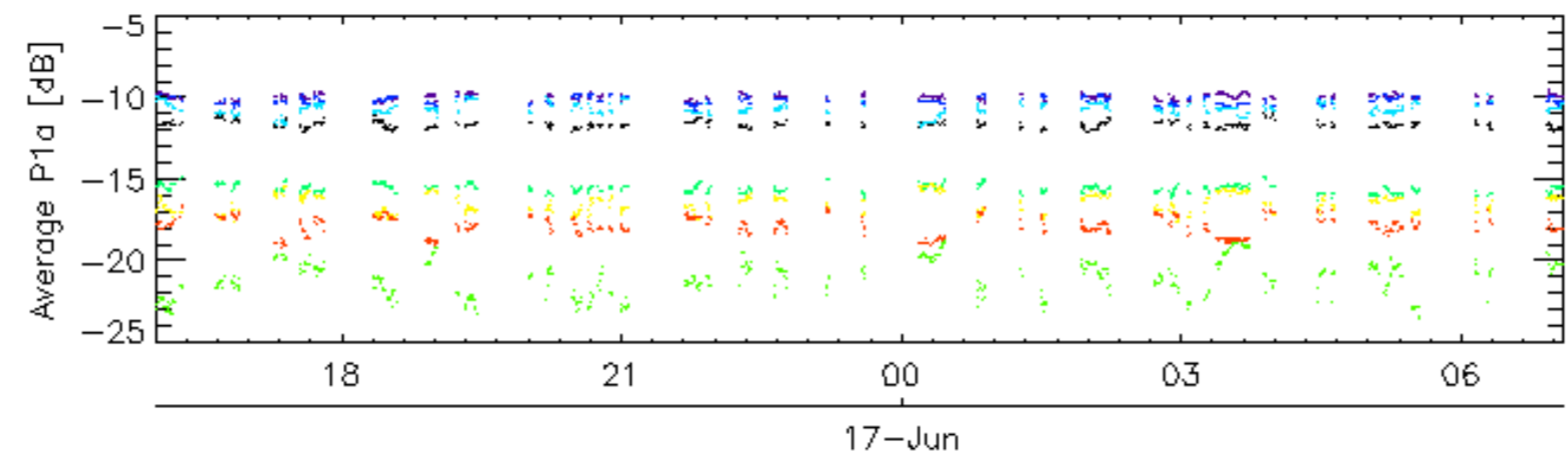
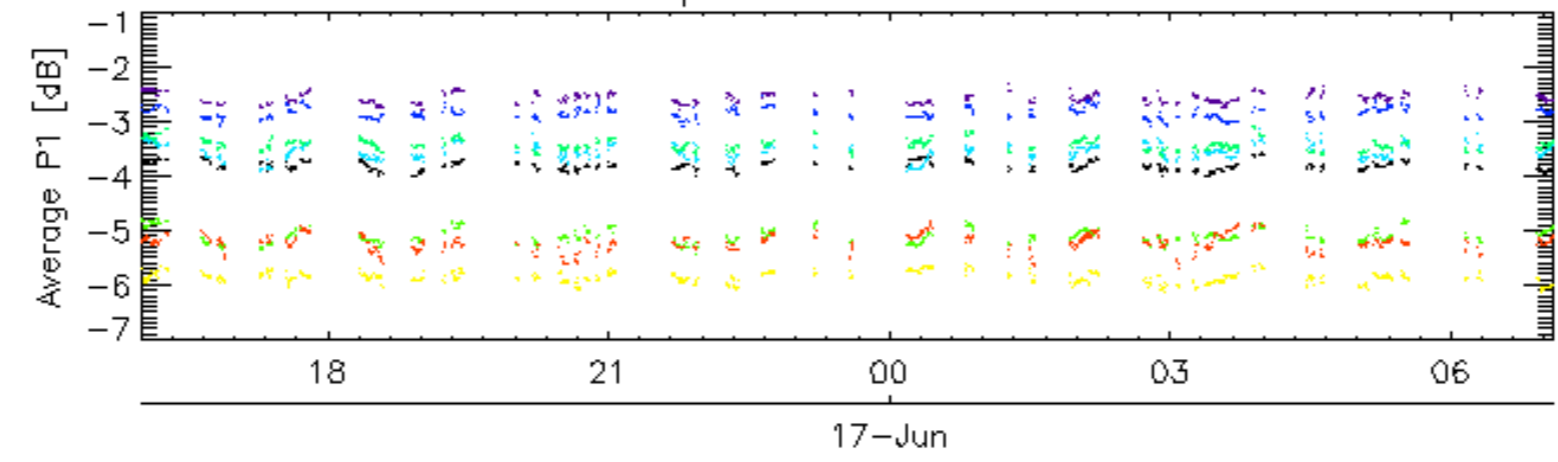
Ascending

Descending

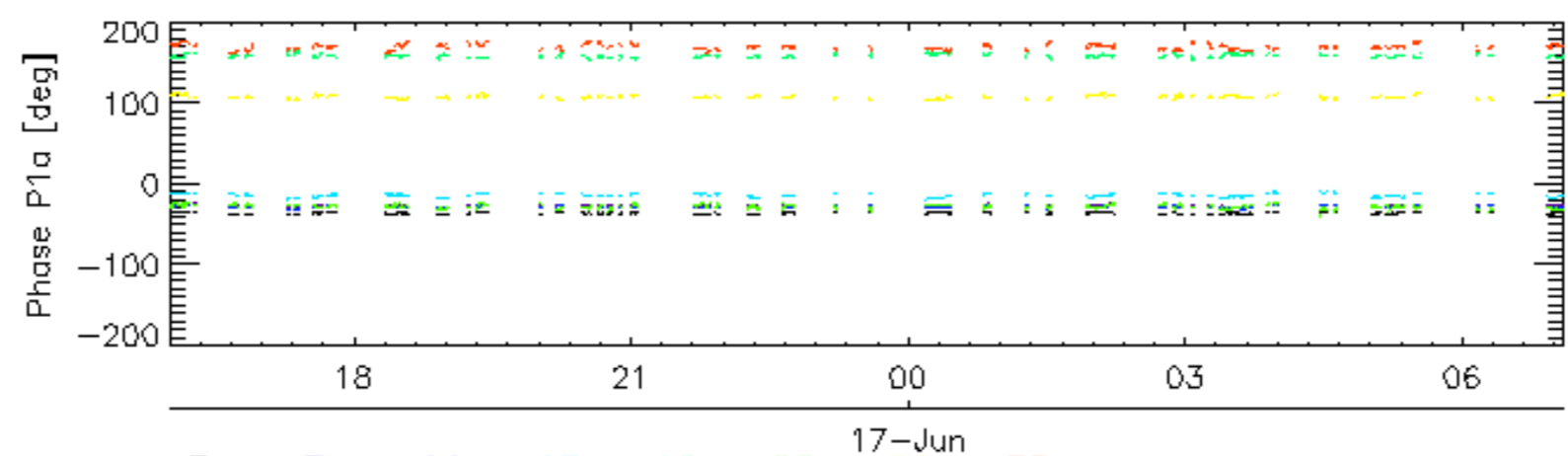
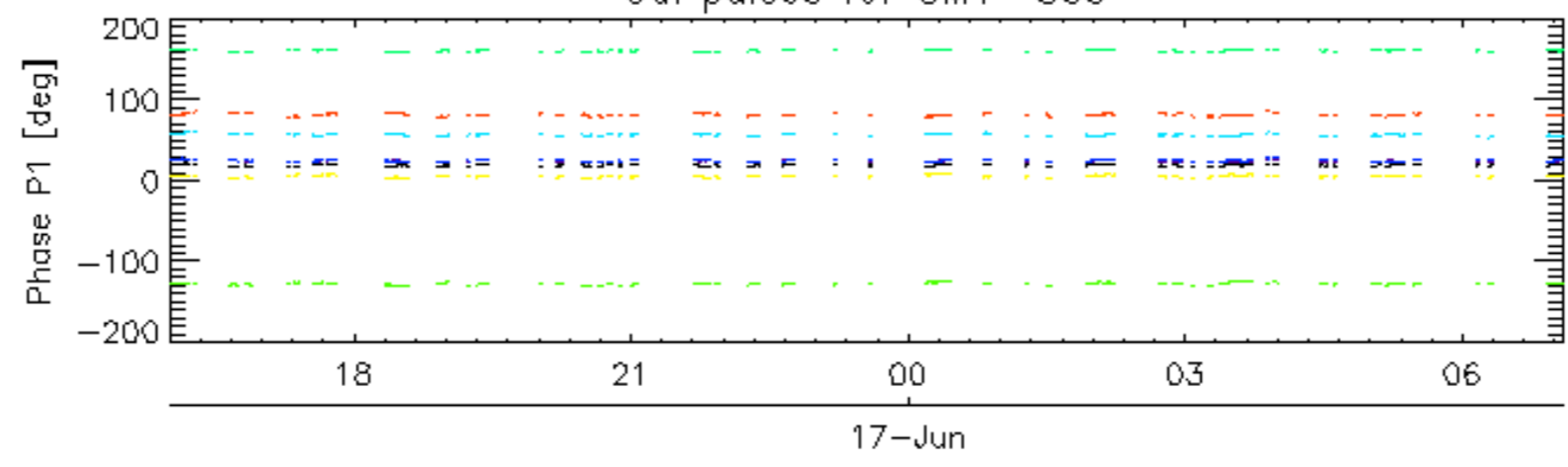
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

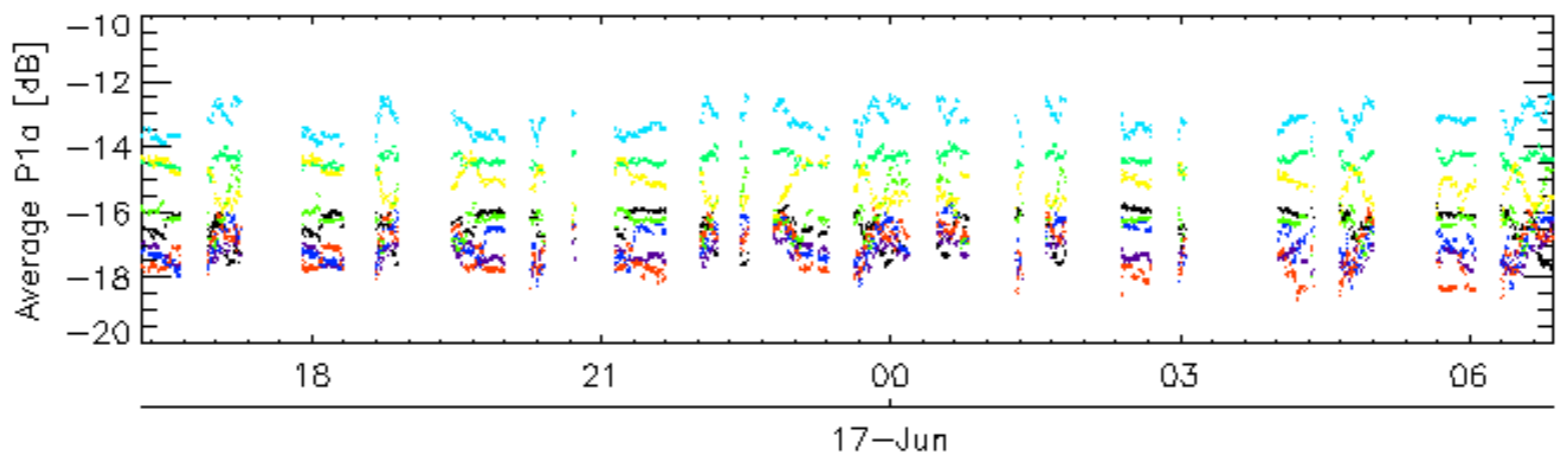
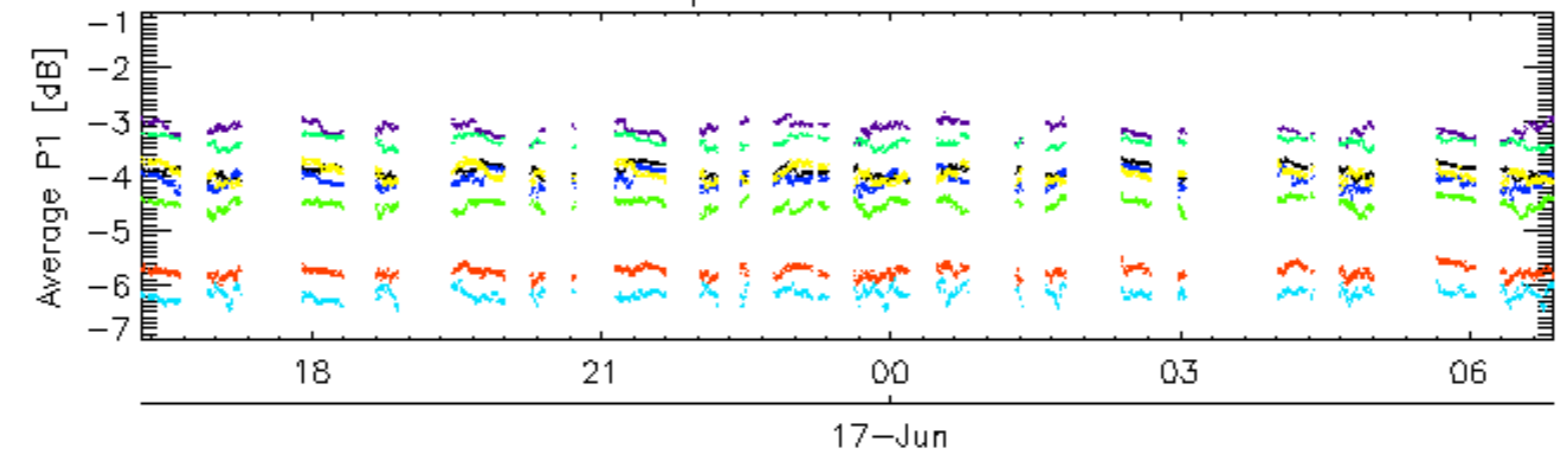


Cal pulses for GM1 SS3

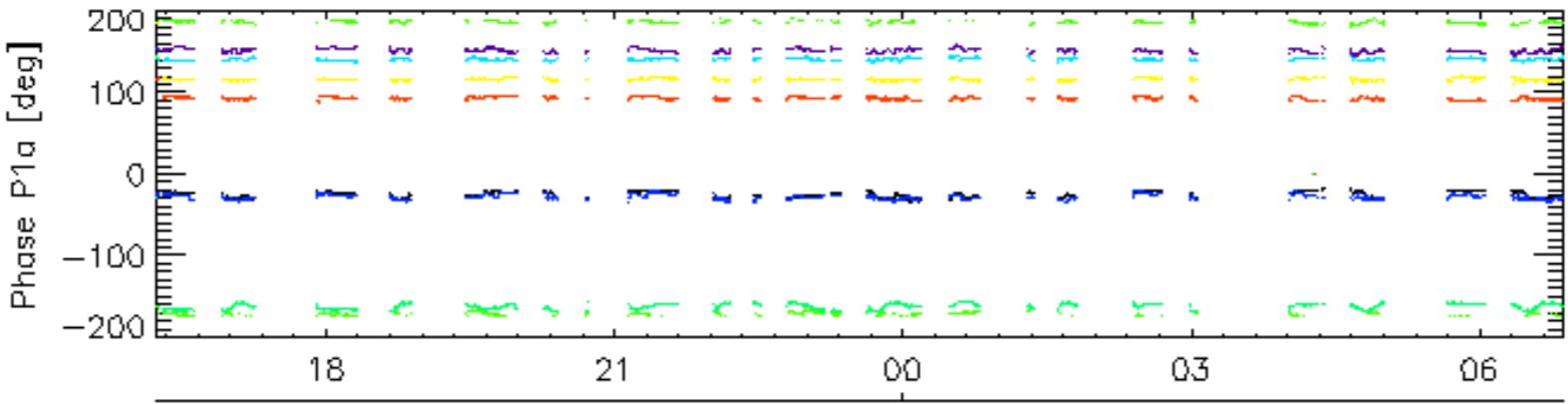
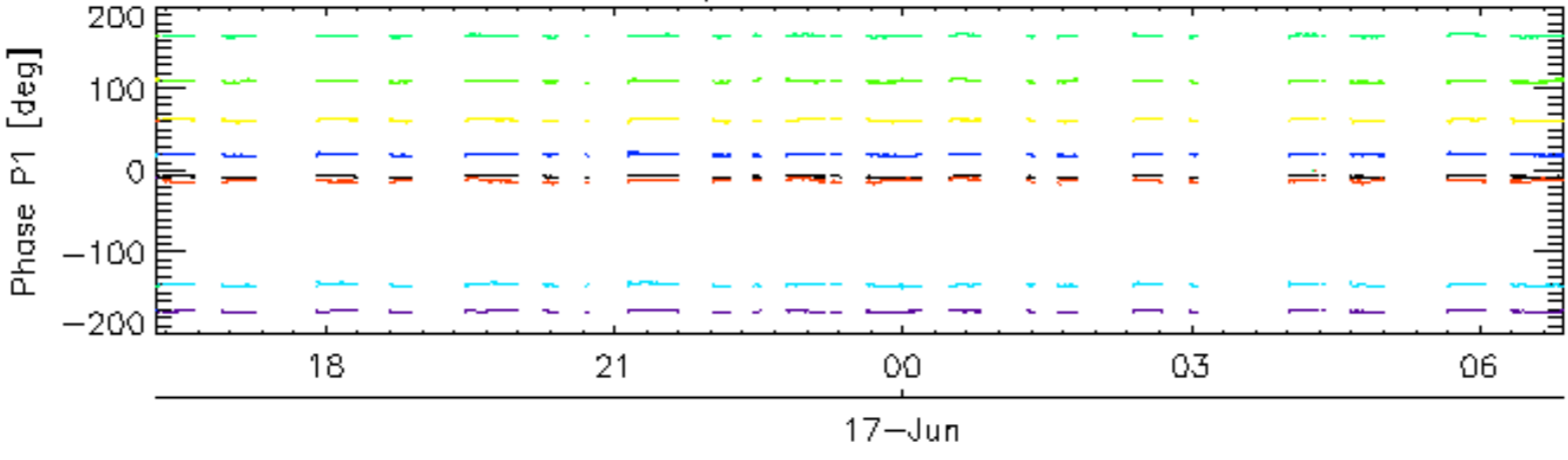


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 17-Jun

Cal pulses for WVS IS2

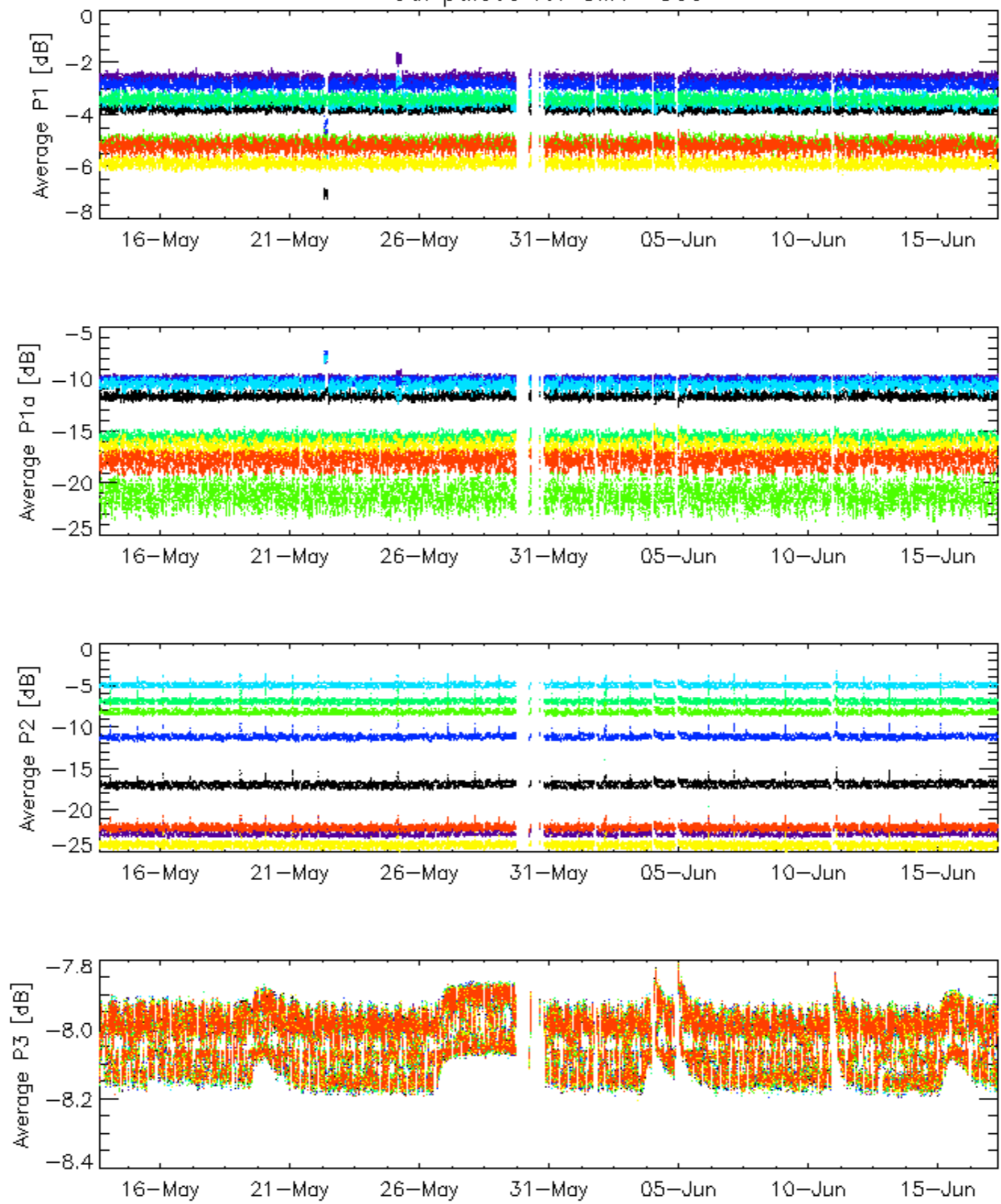


Cal pulses for WVS IS2



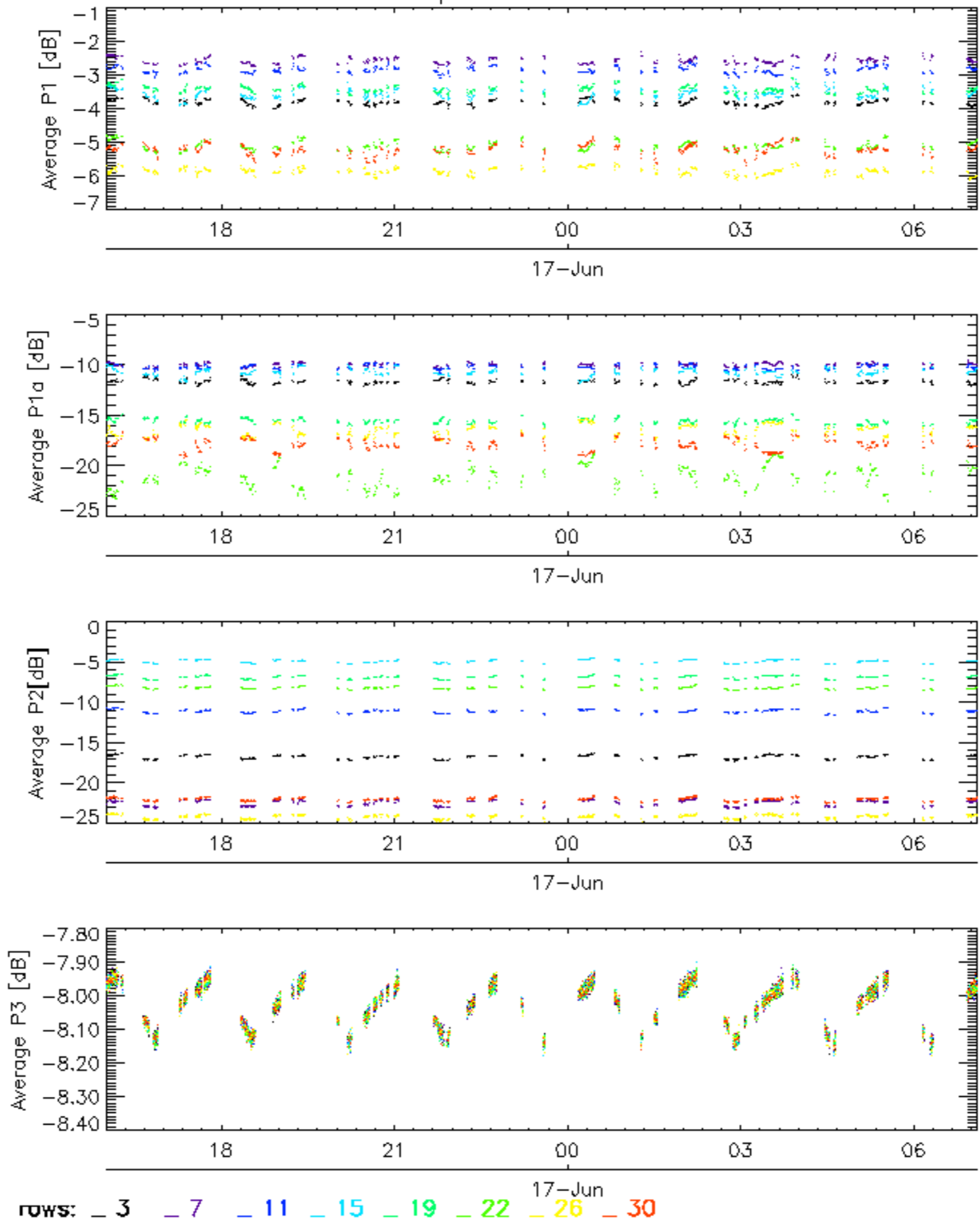
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

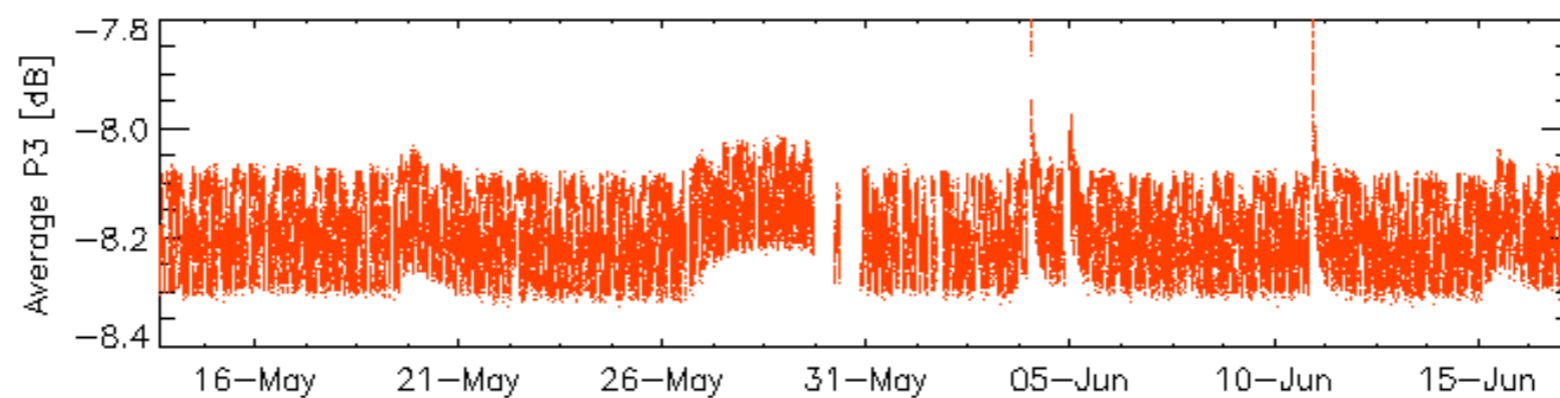
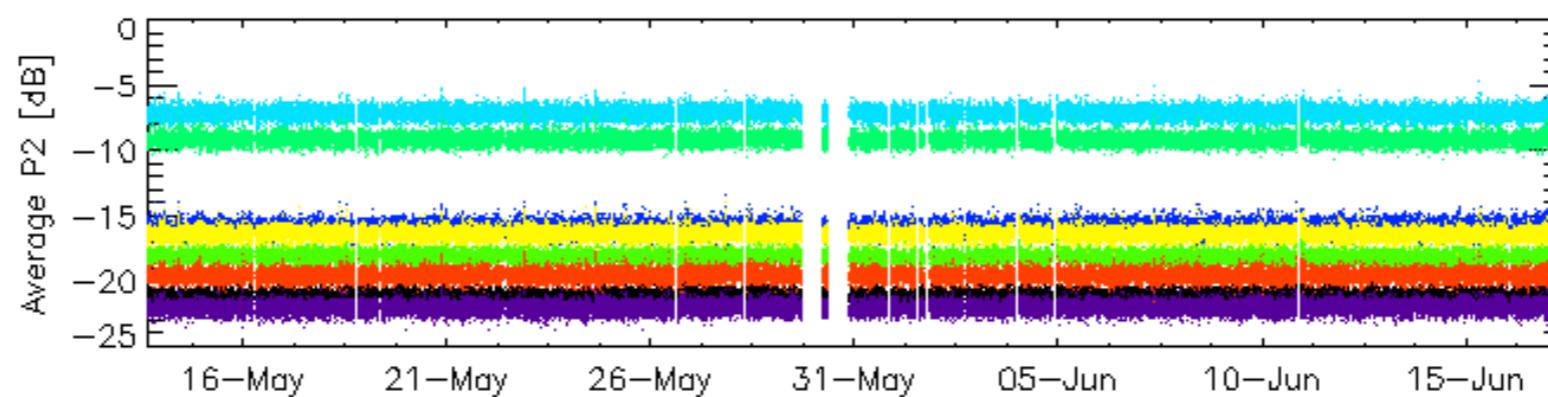
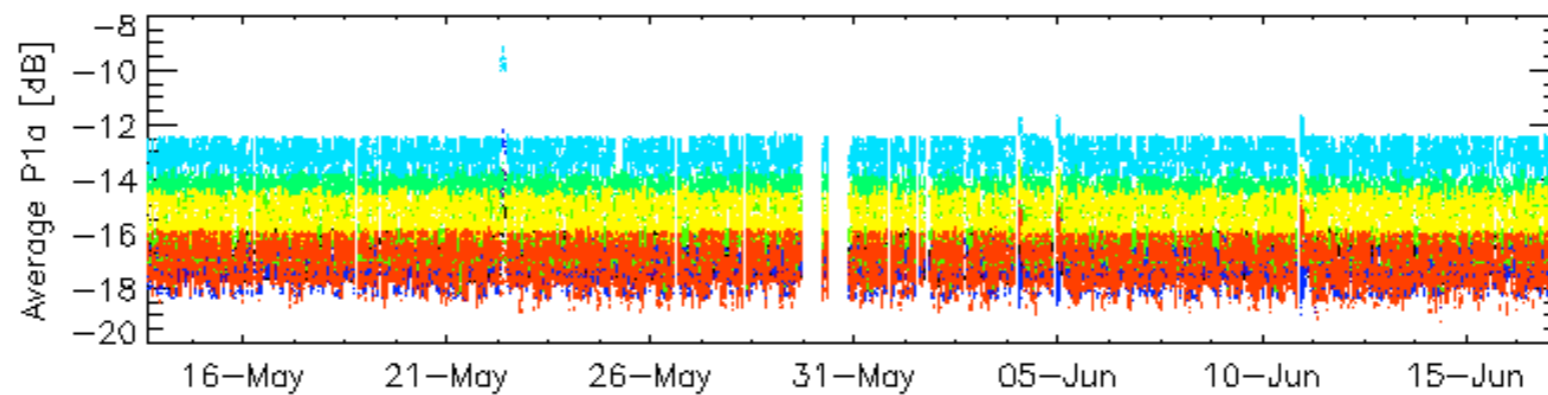
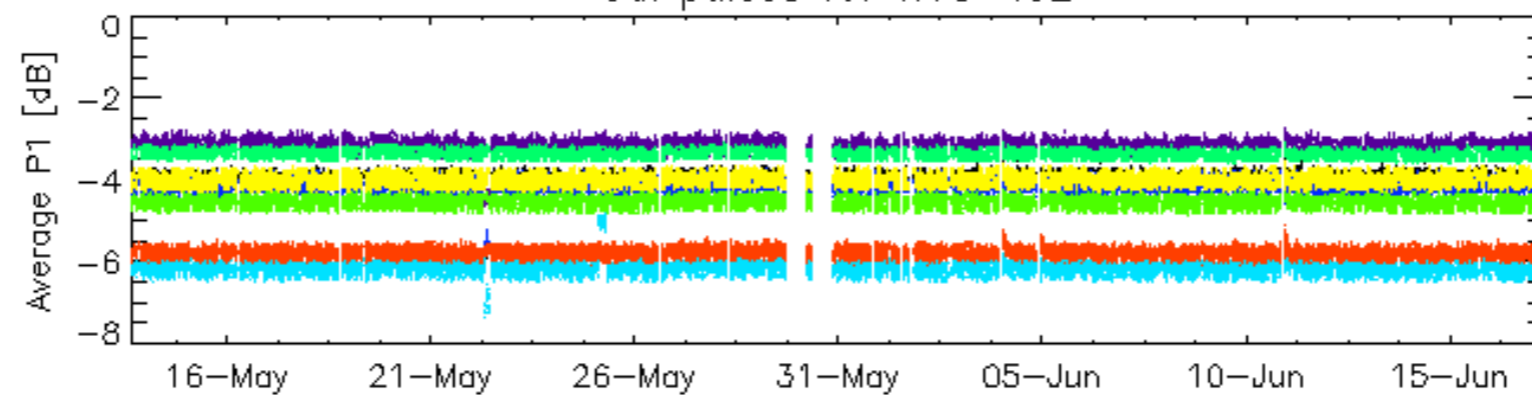


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

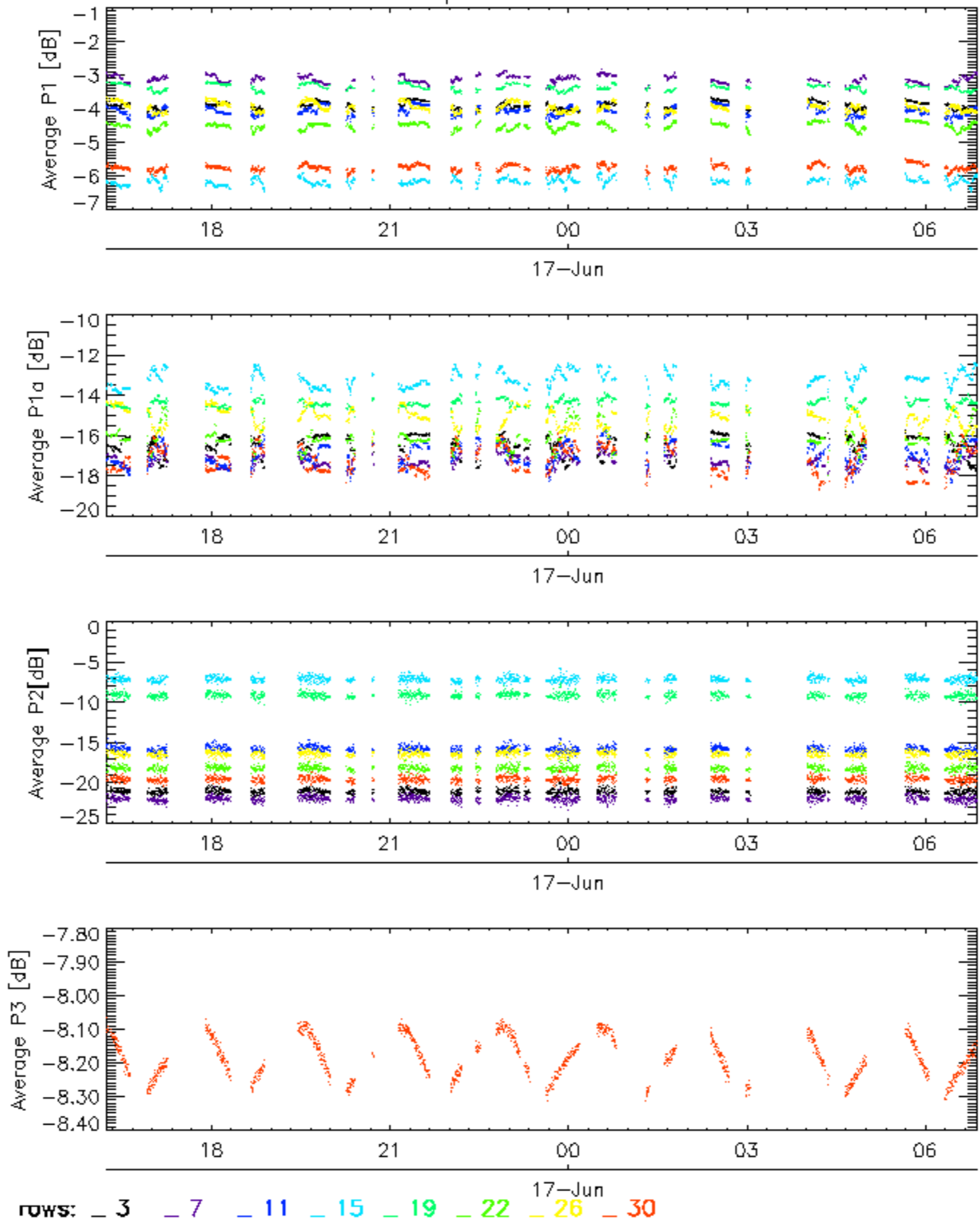


Cal pulses for WVS IS2

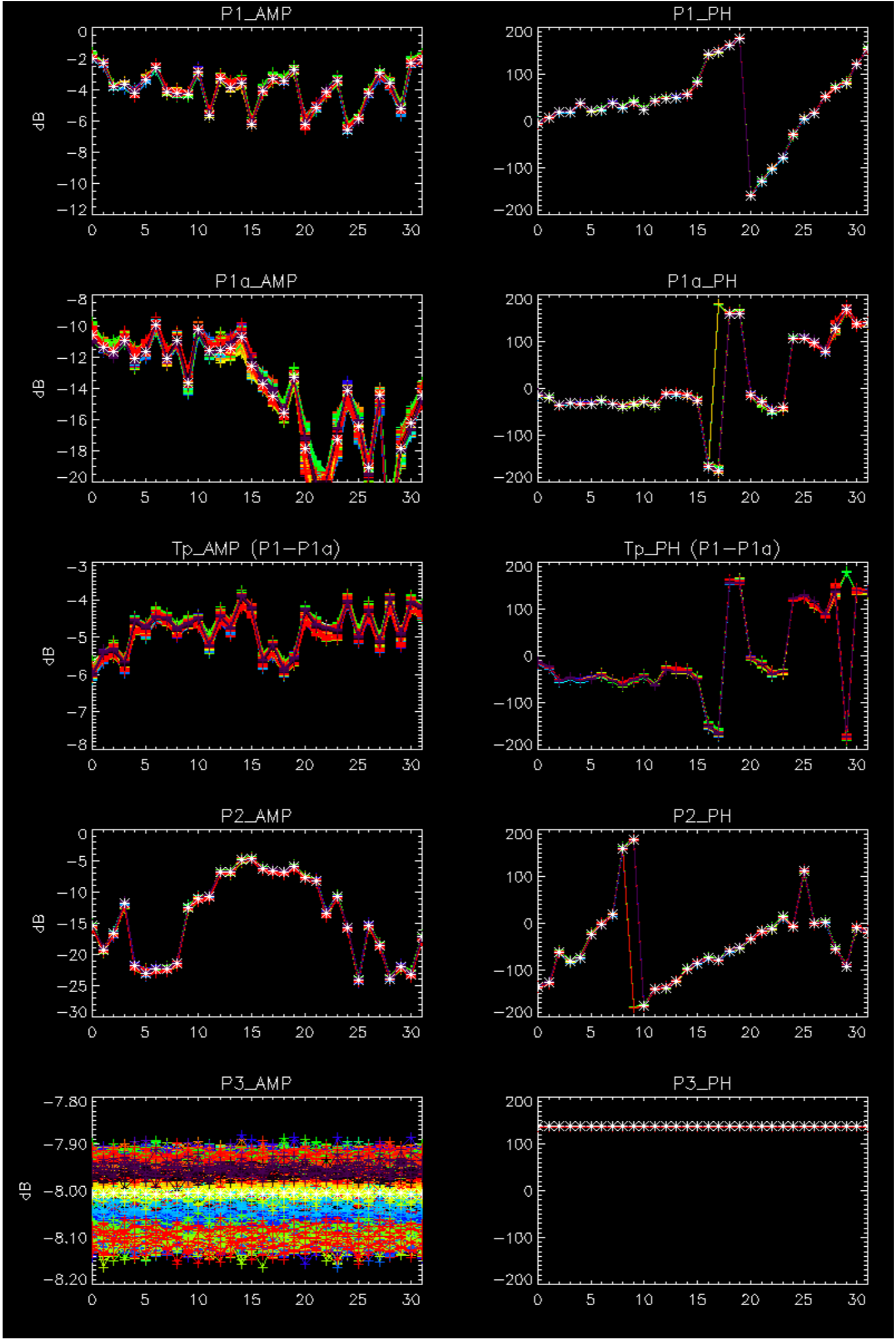


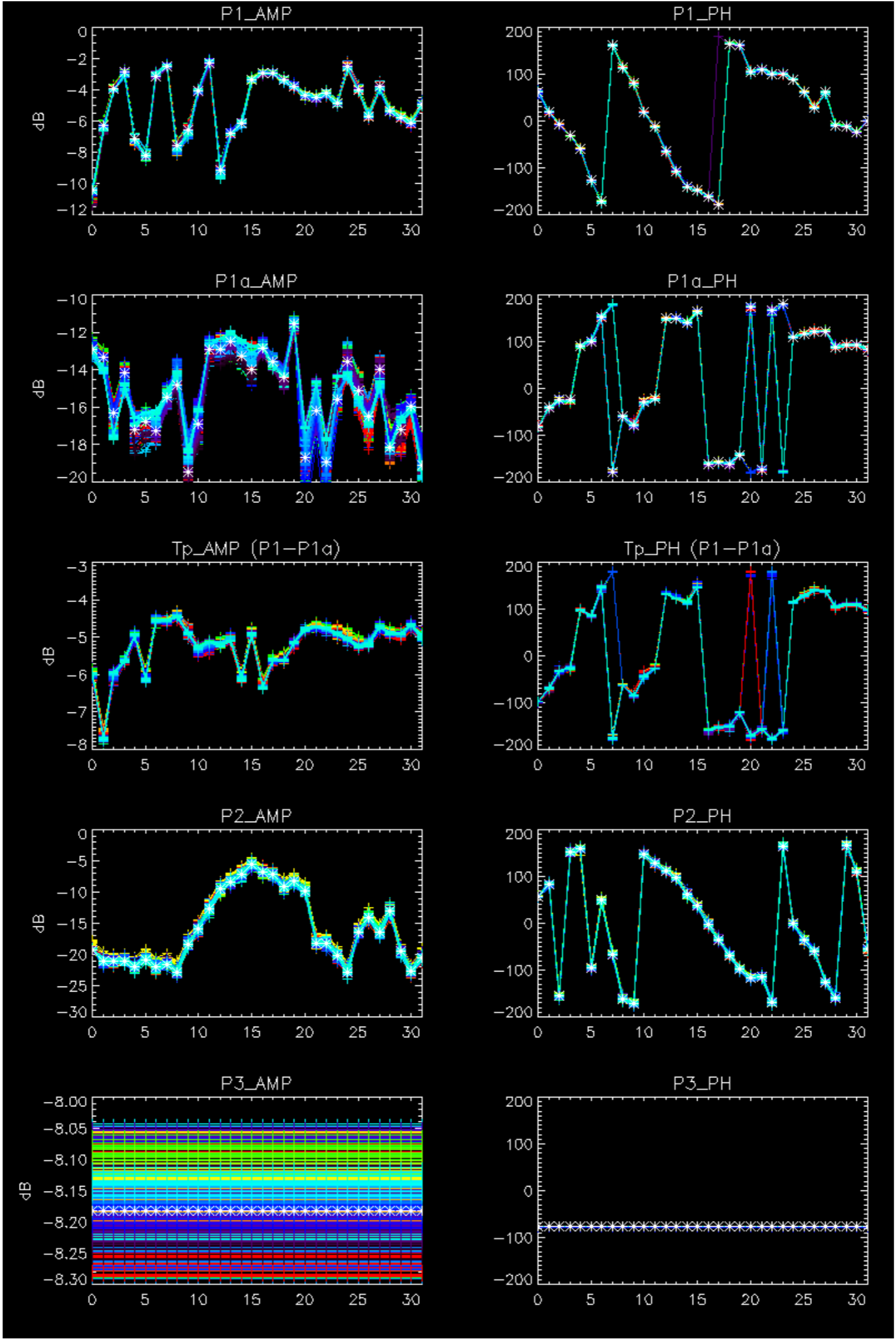
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



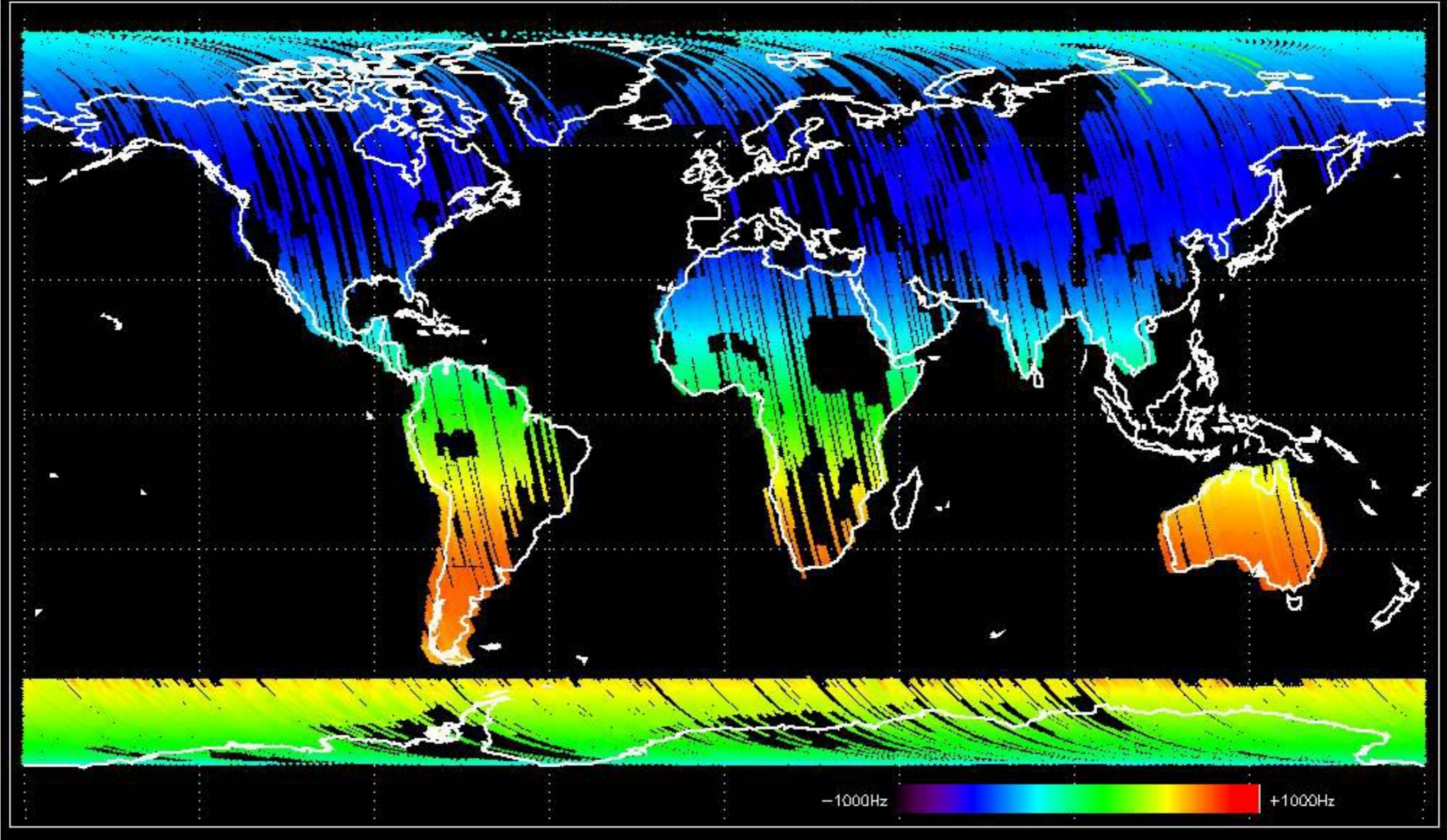
No anomalies observed.



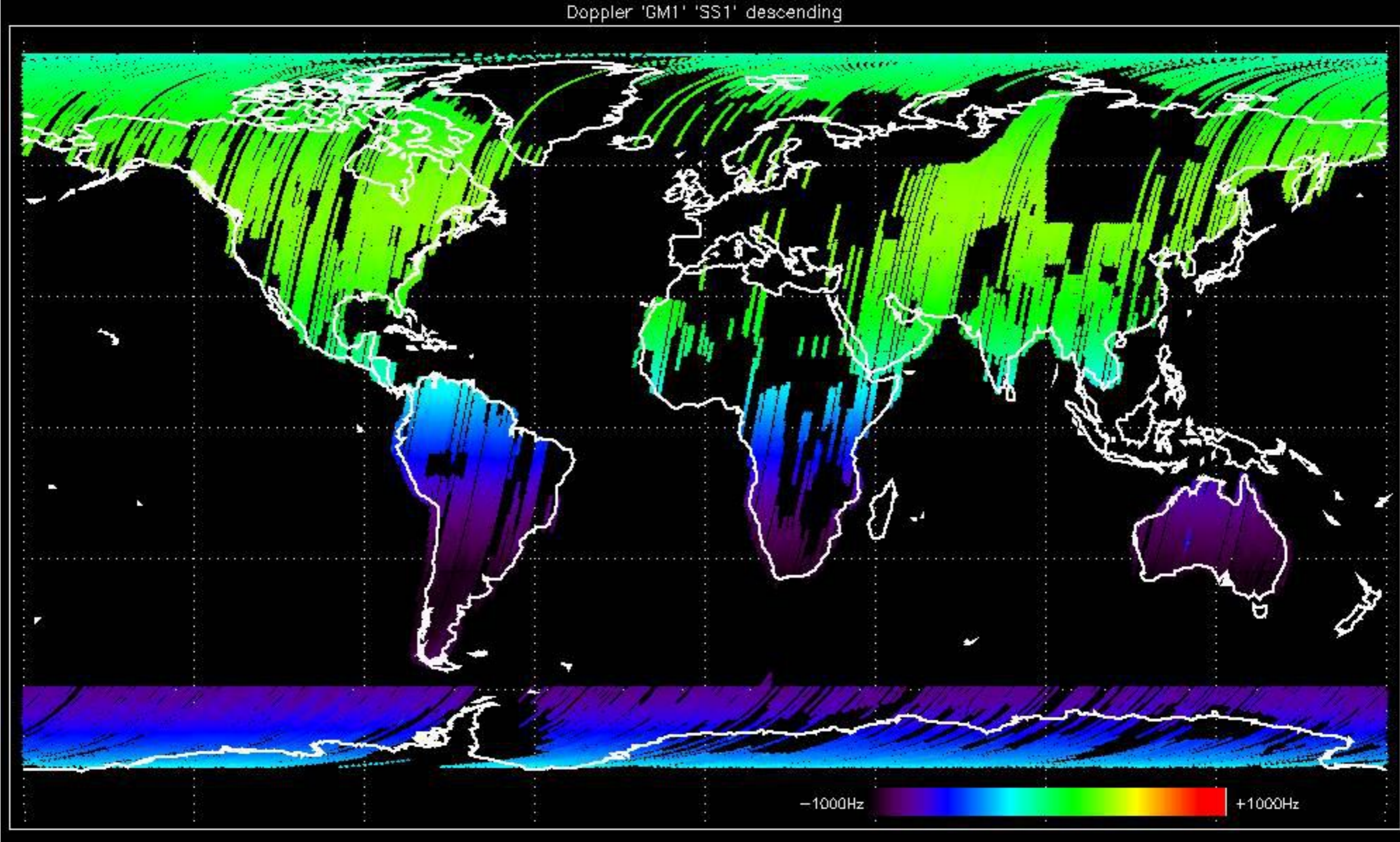


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

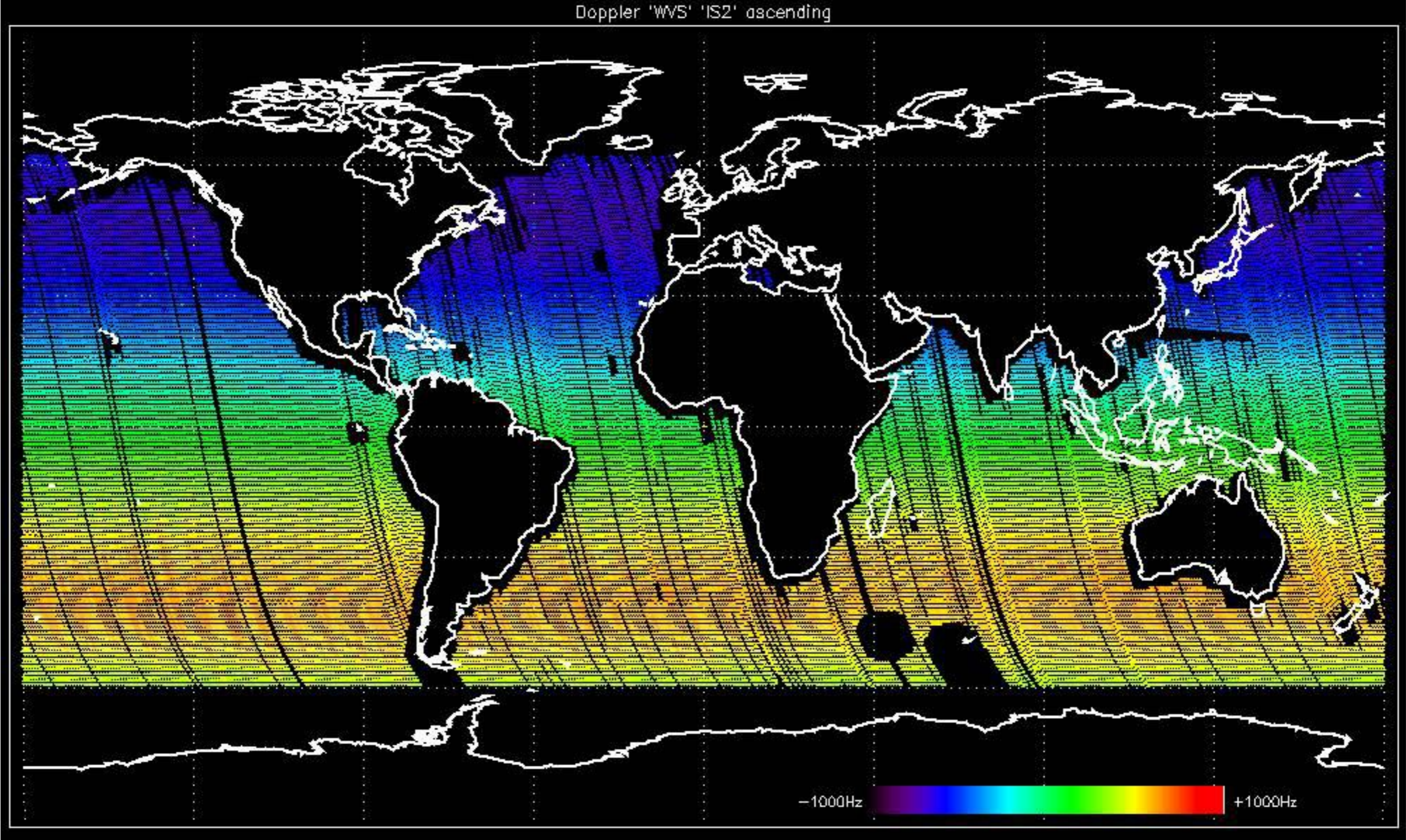
Doppler 'GM1' 'SS1' ascending



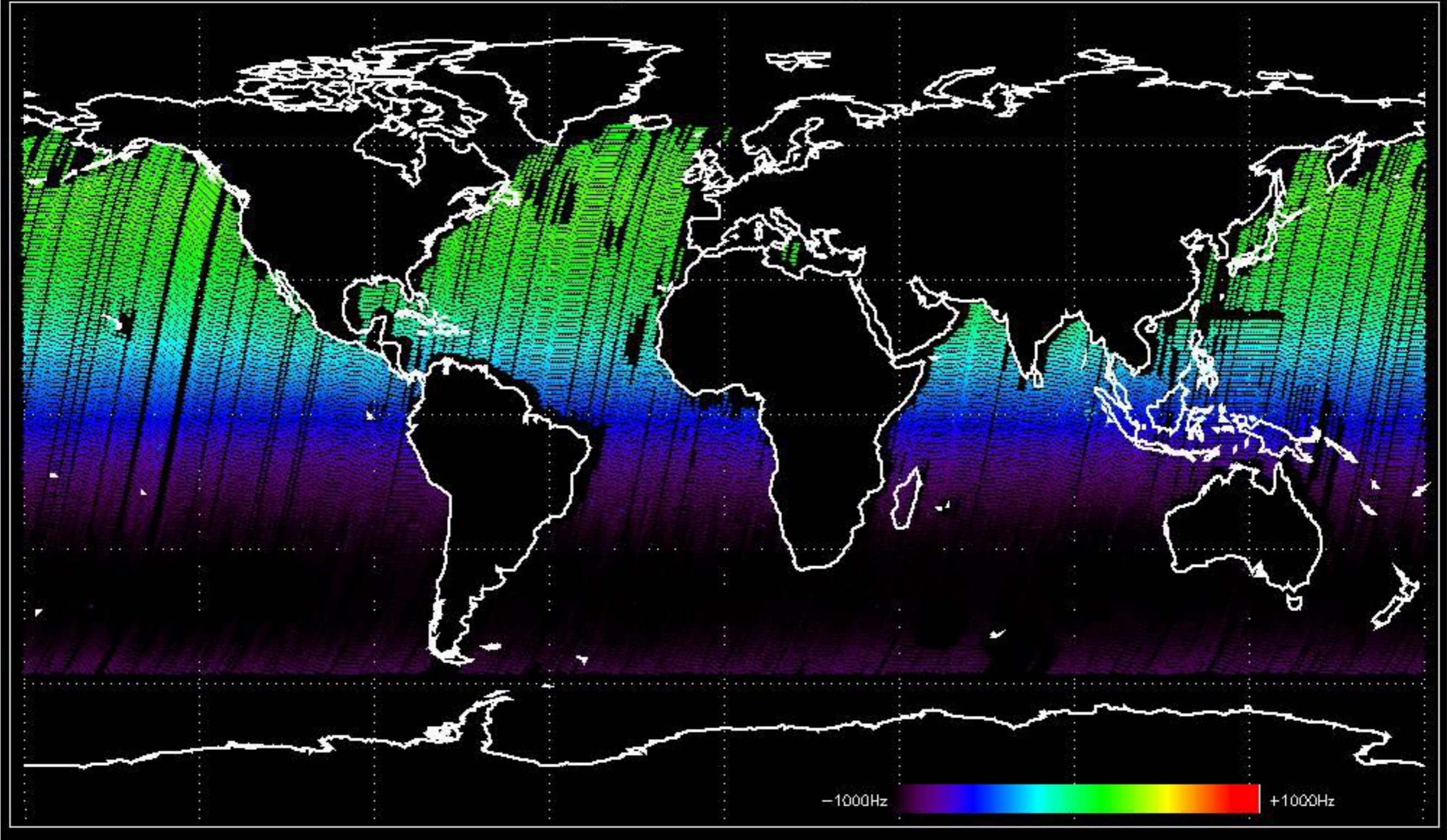
Doppler 'GM1' 'SS1' descending



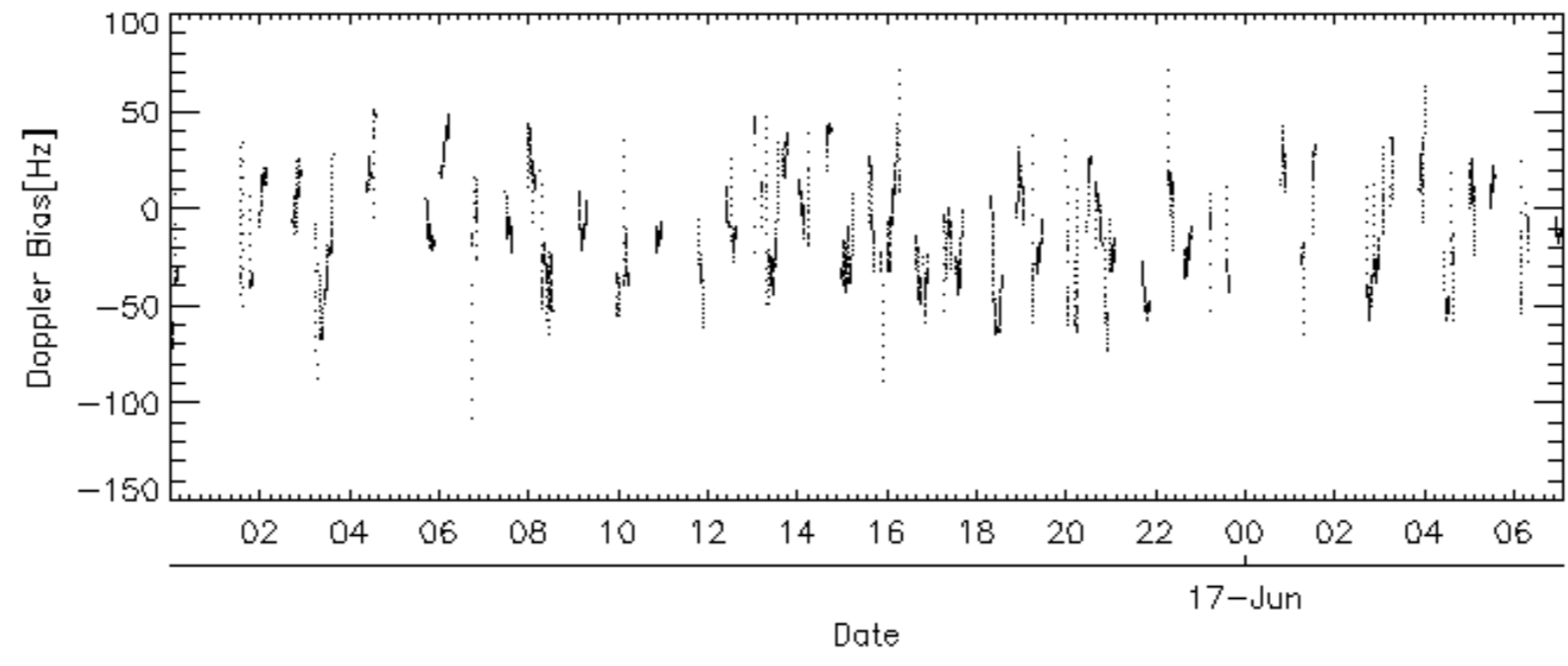
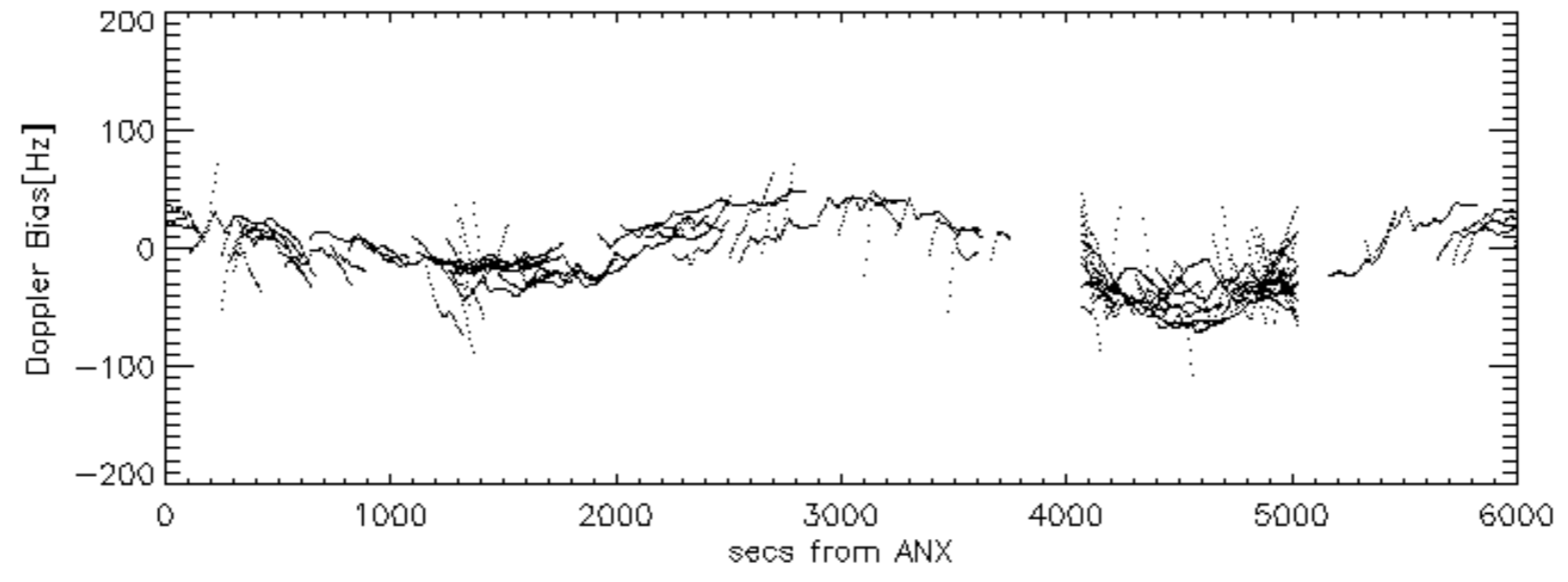
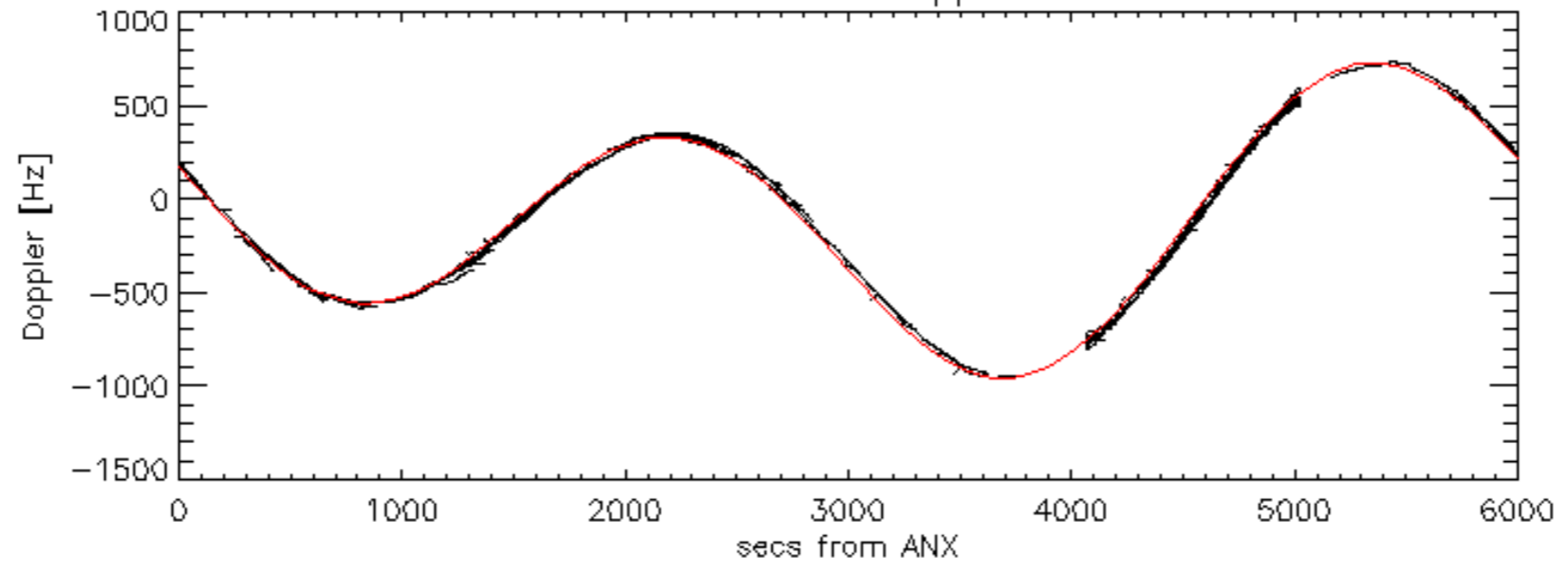
Doppler 'WVS' 'IS2' ascending

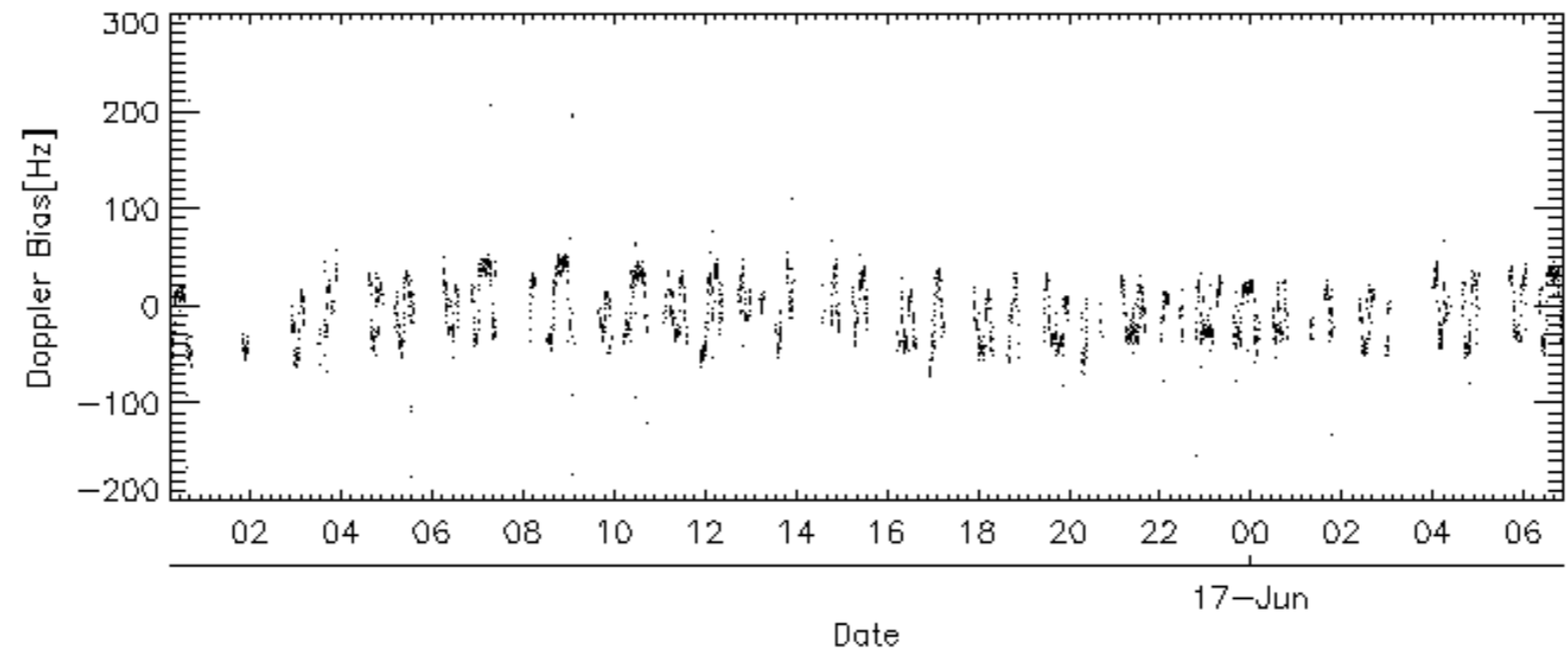
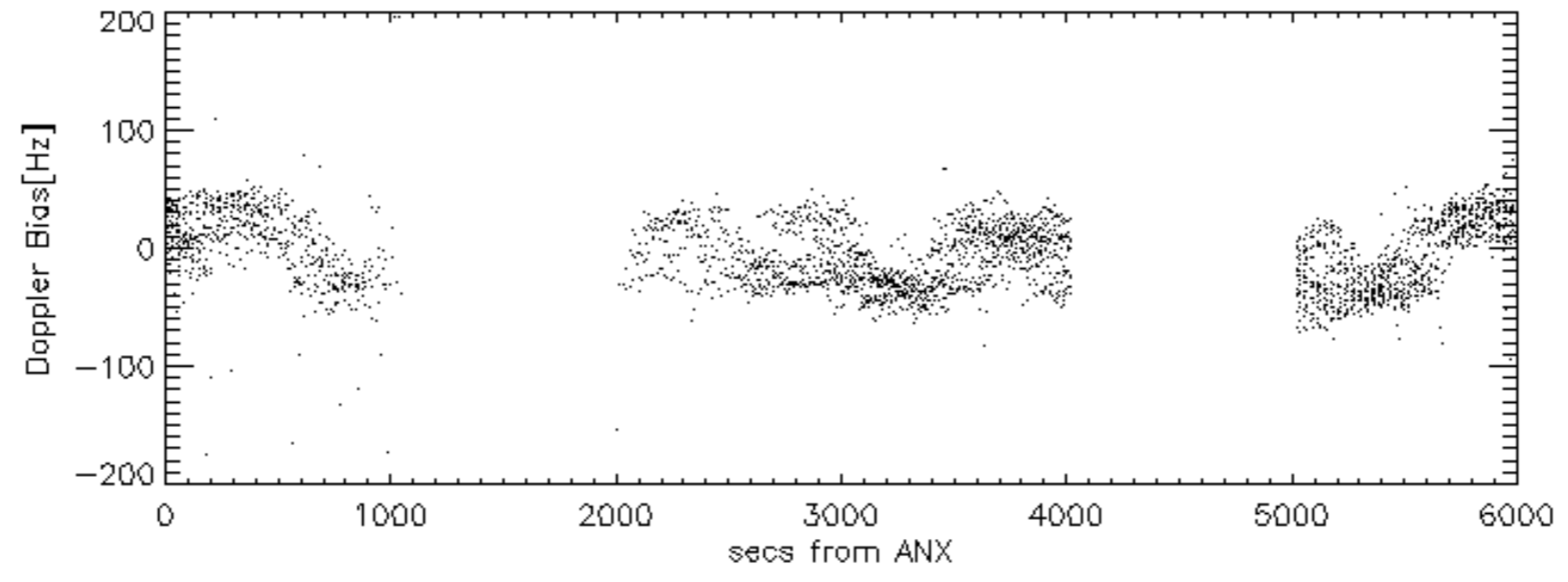
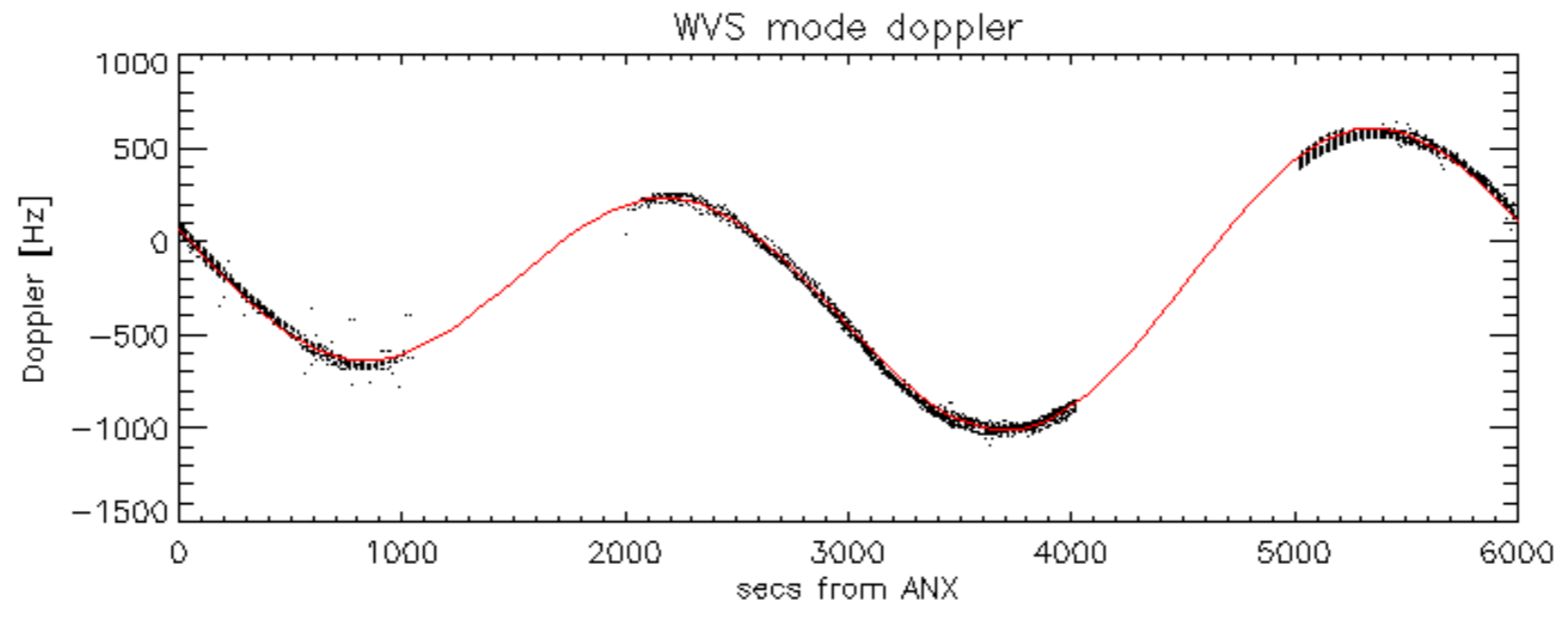


Doppler 'WVS' 'IS2' descending

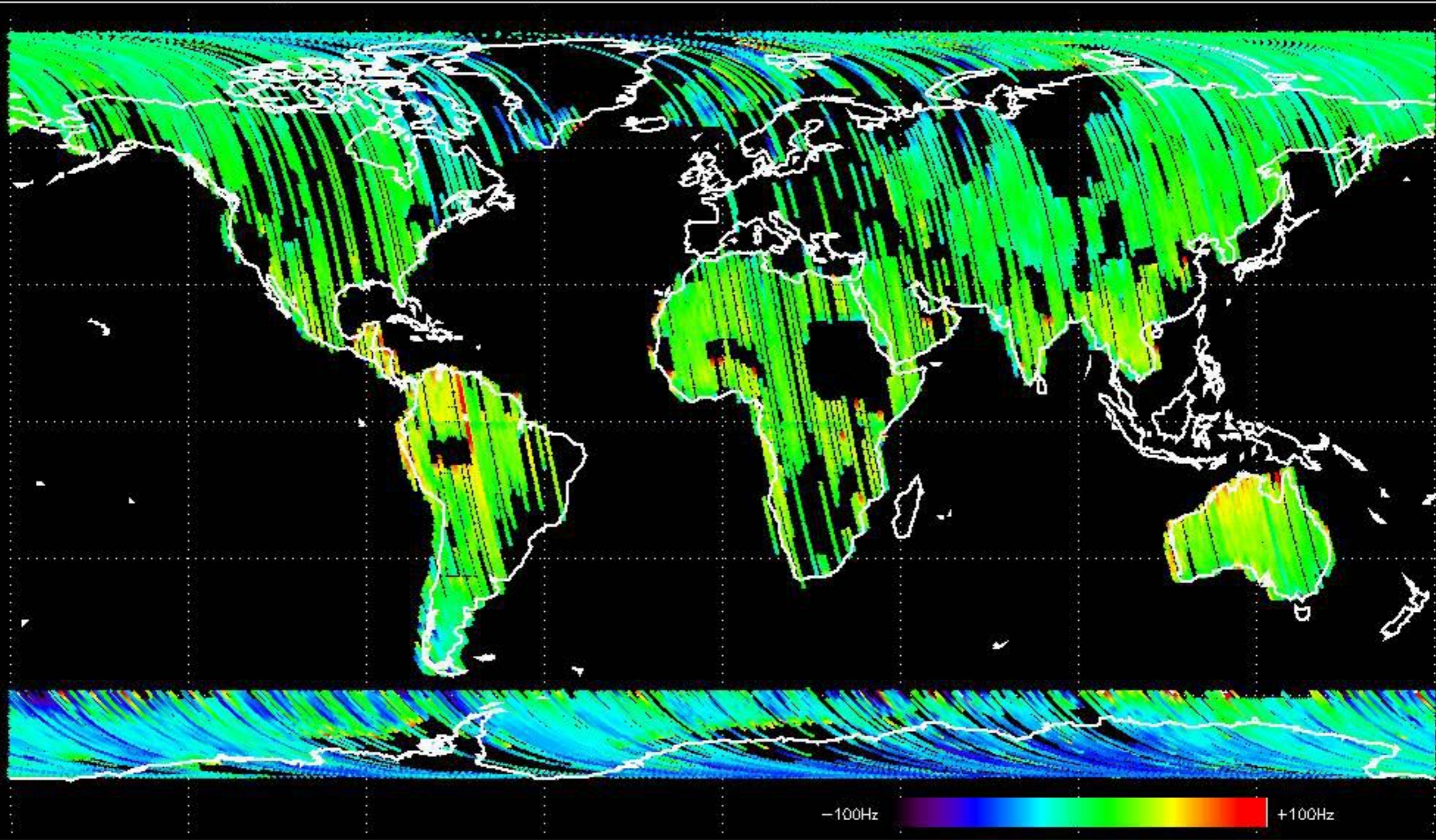


GM1 mode doppler

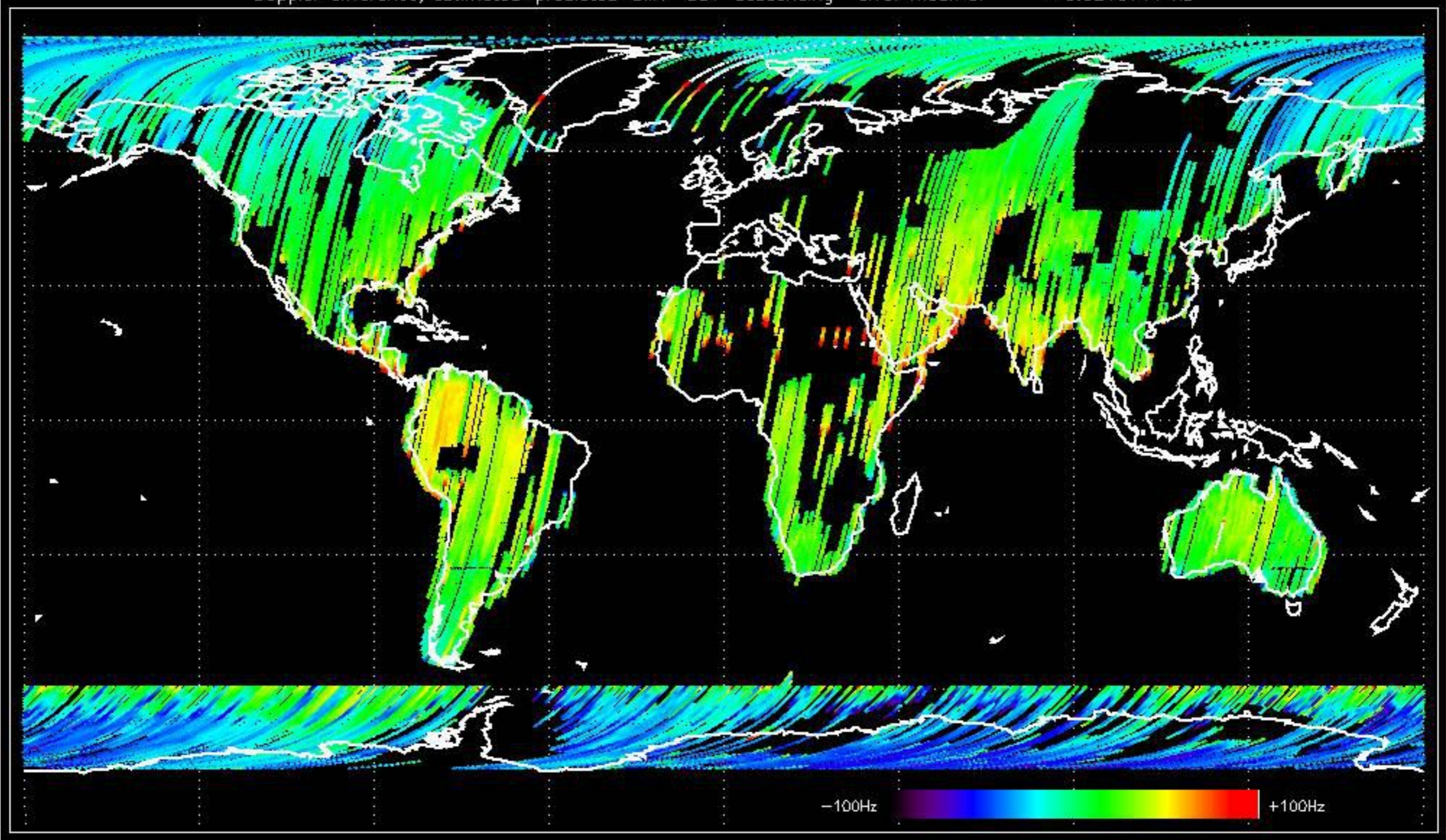




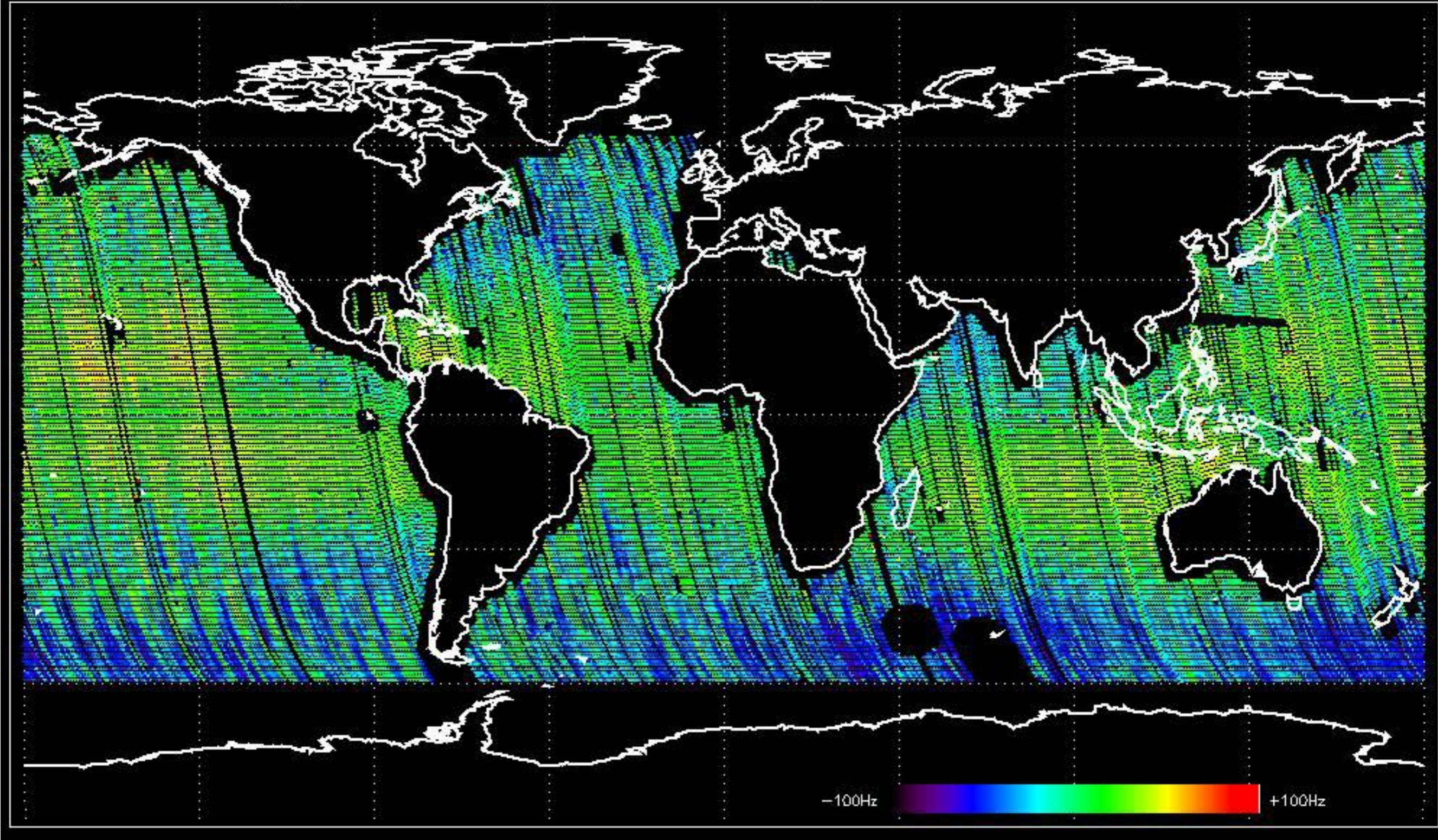
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.952439 Hz



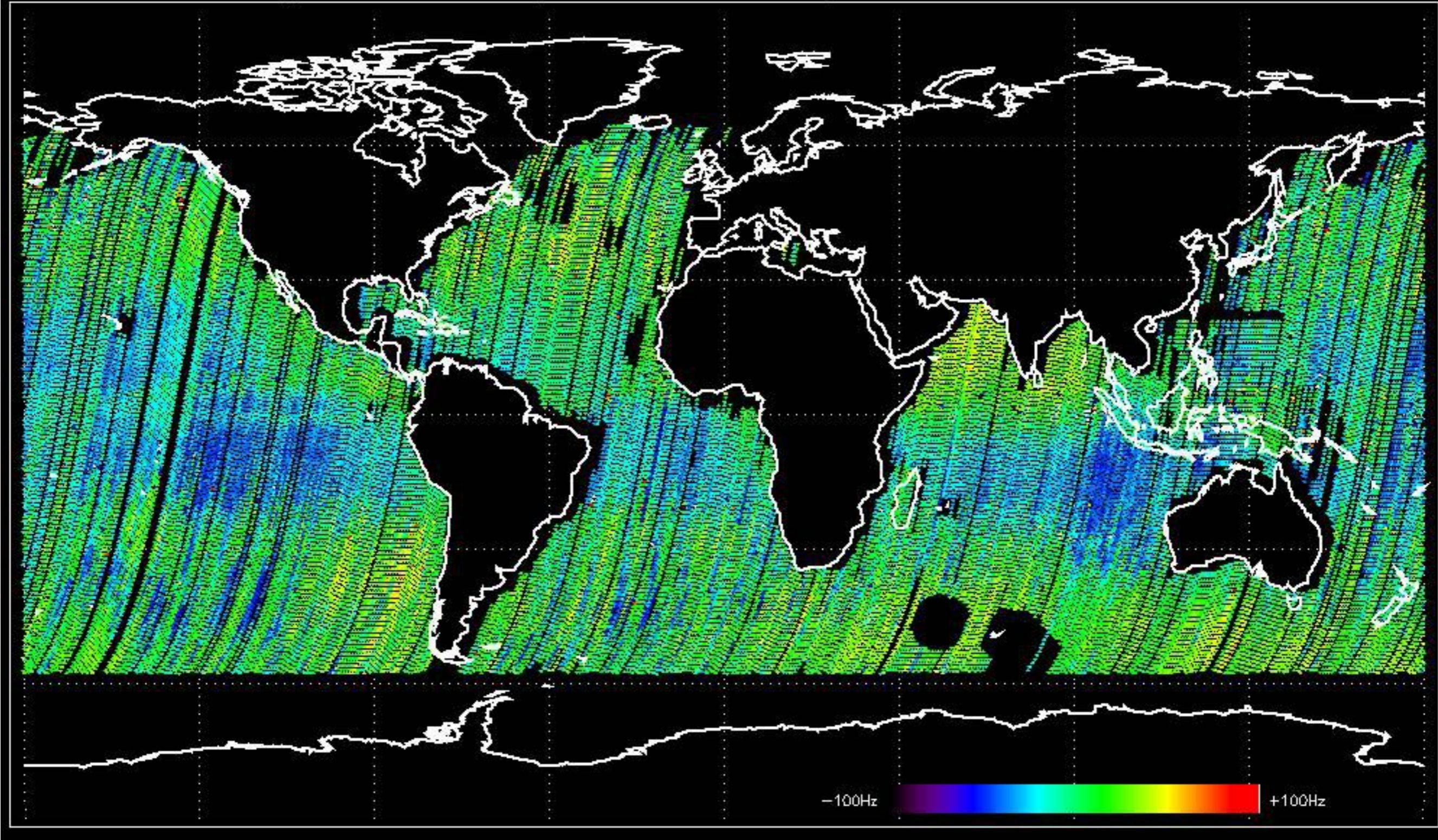
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.6210144 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.5716597 Hz

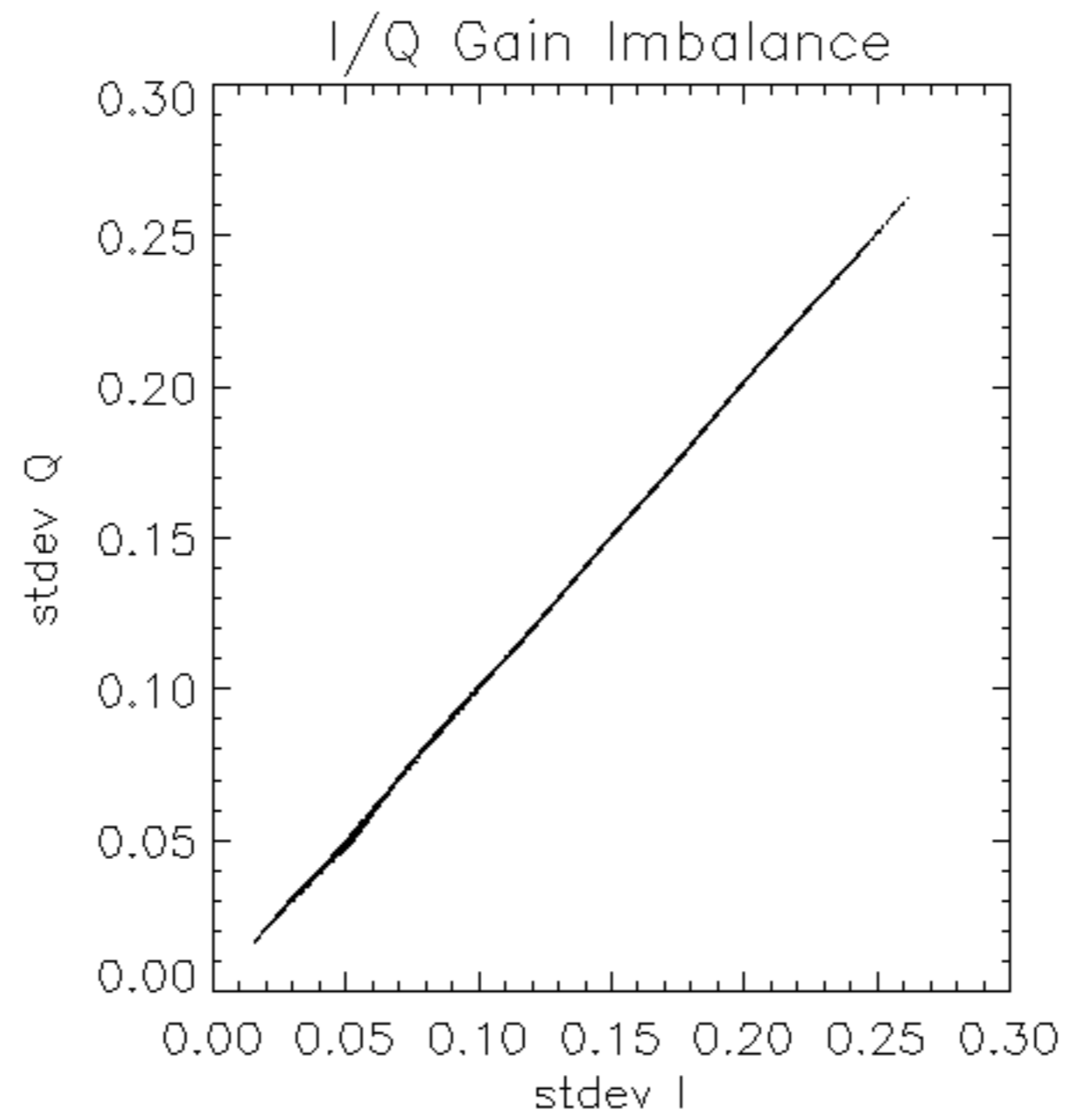


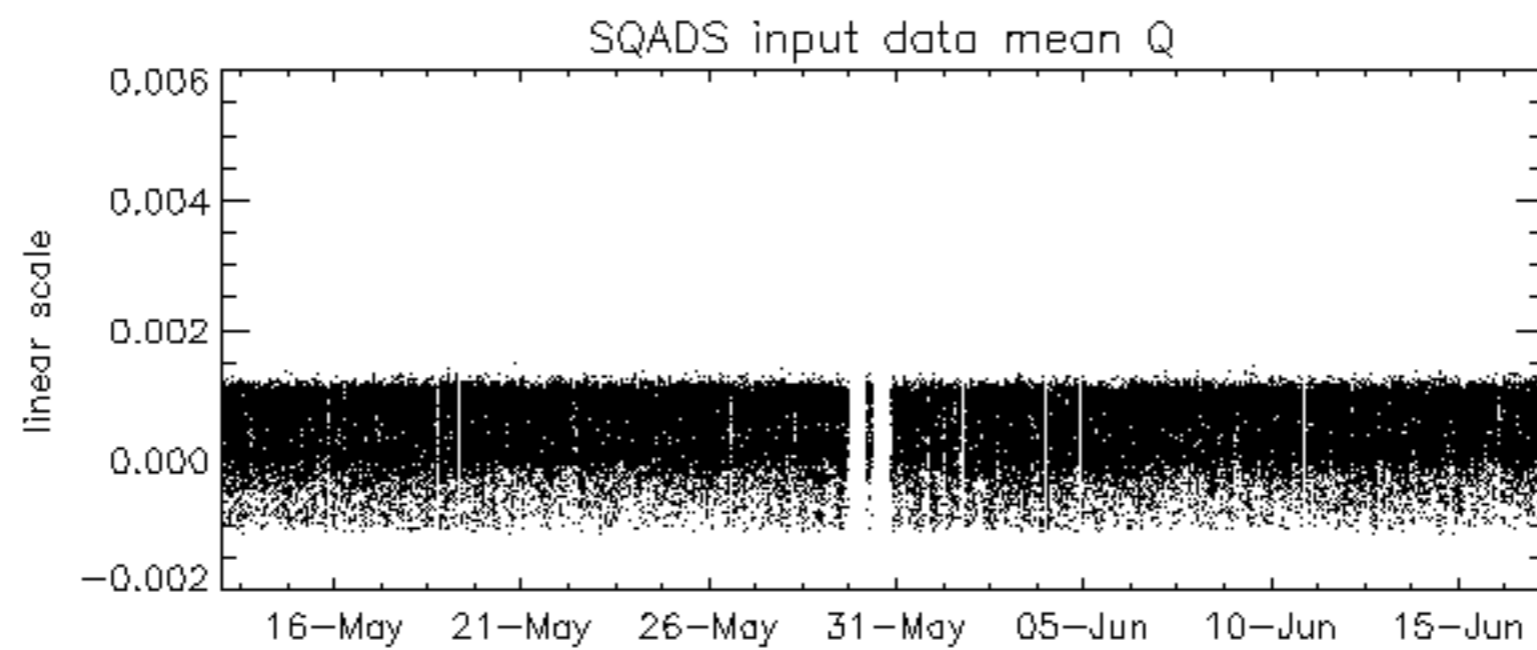
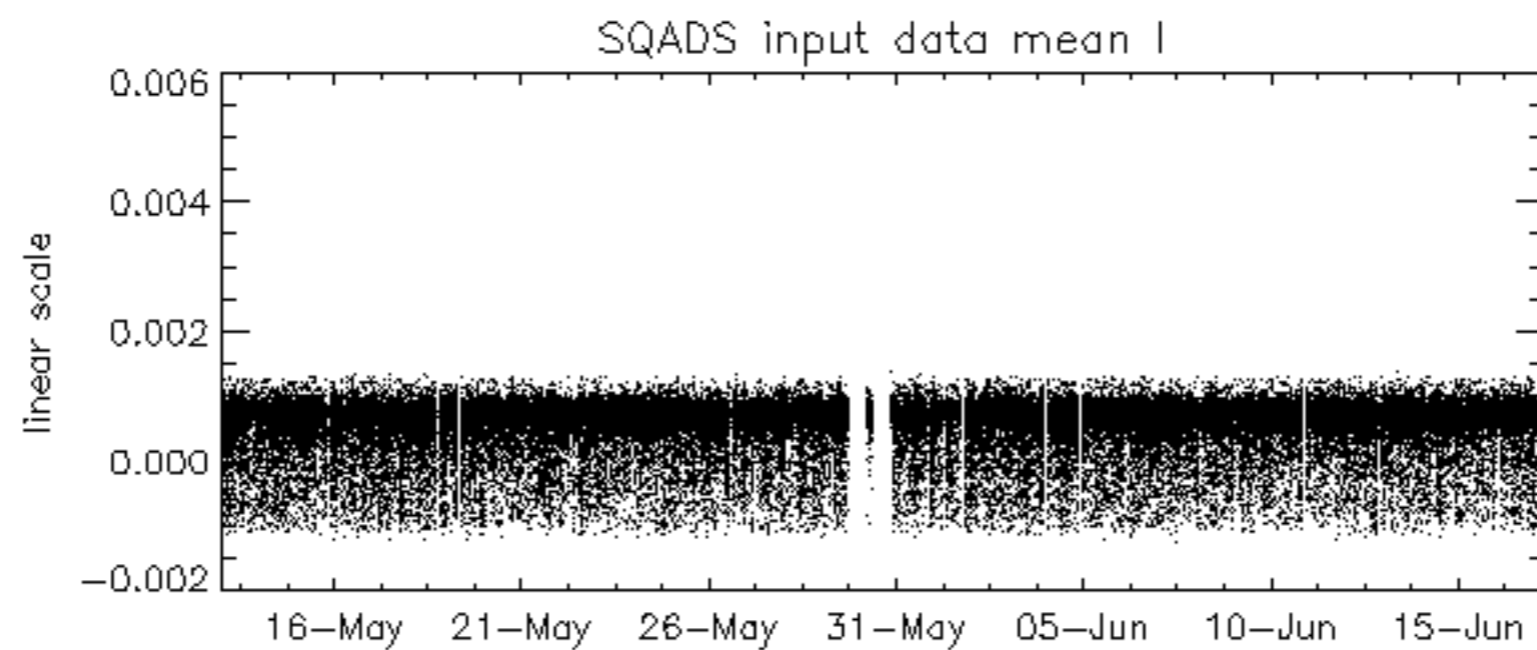
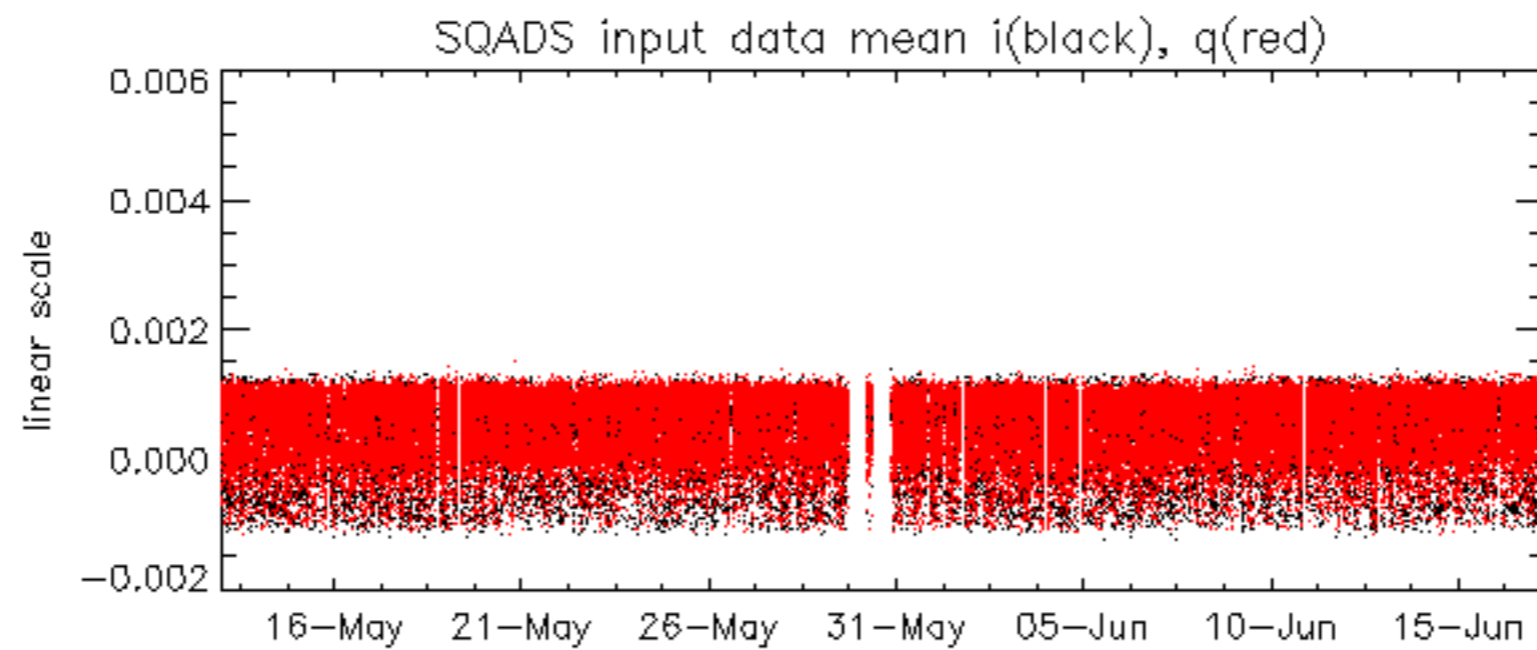
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.660893 Hz

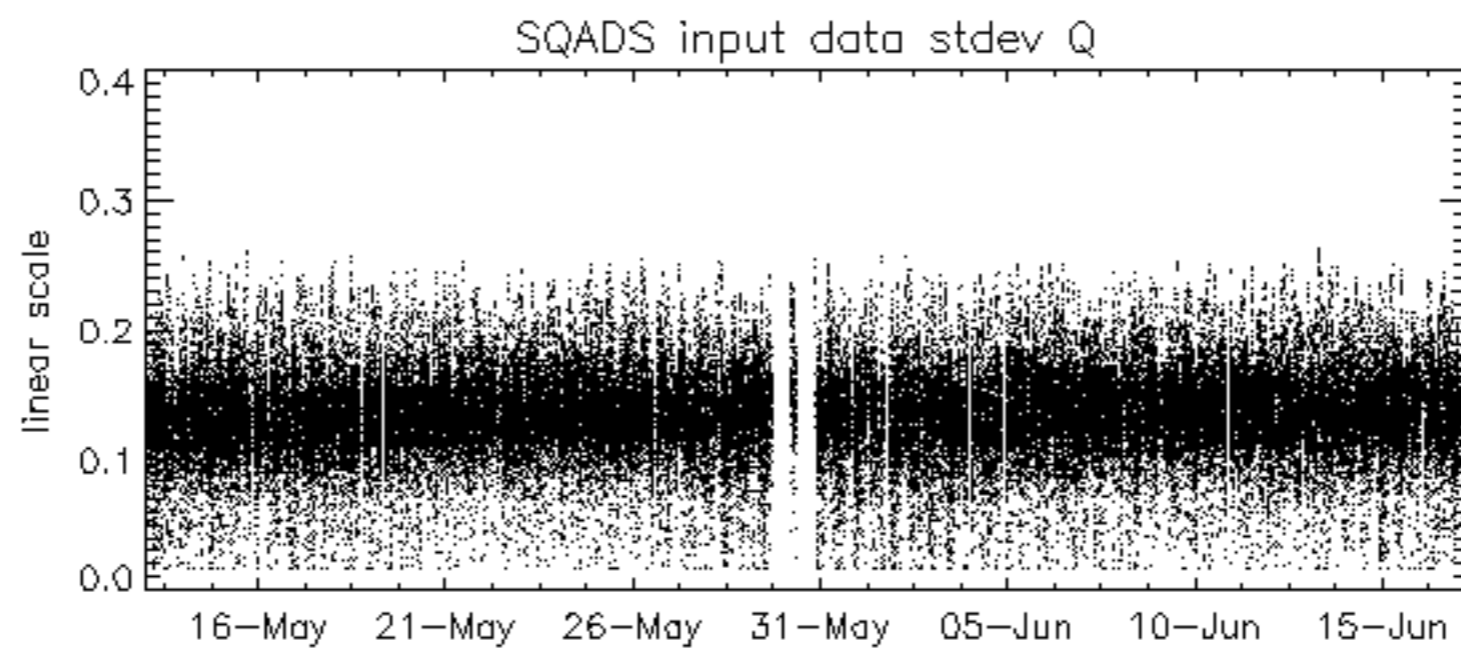
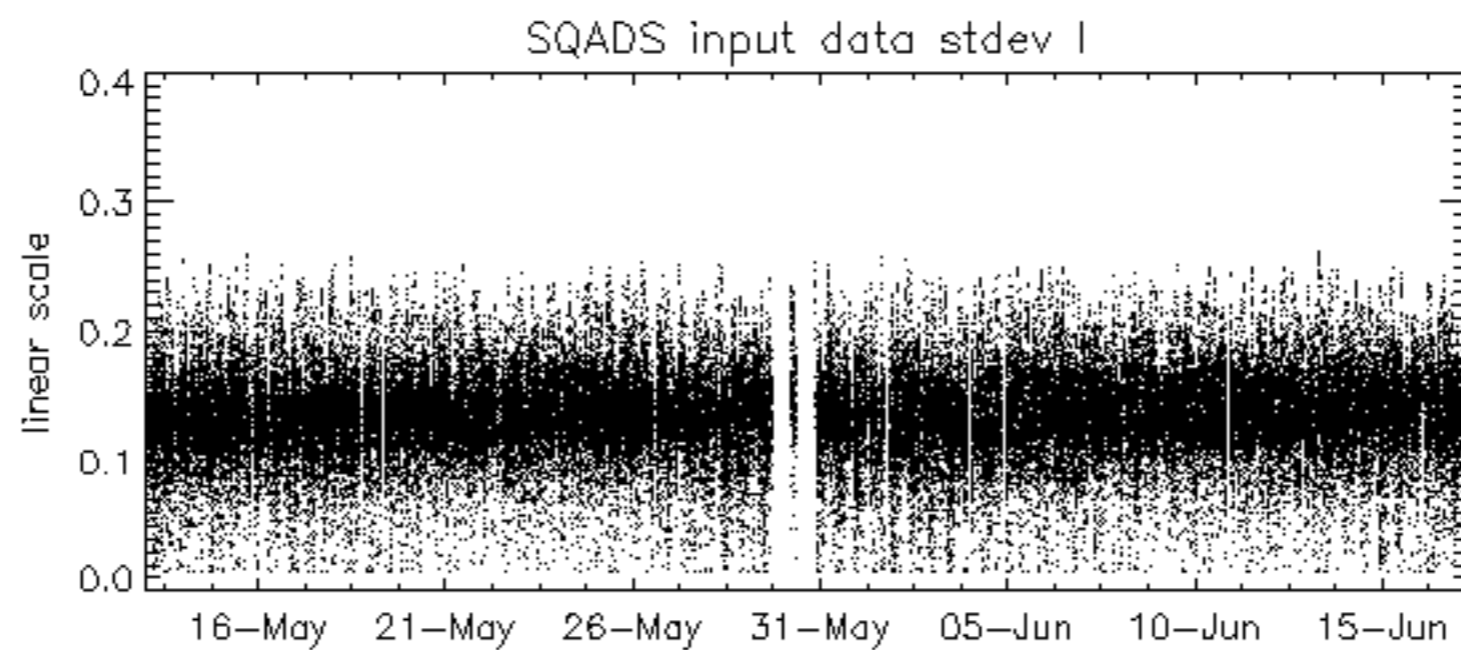
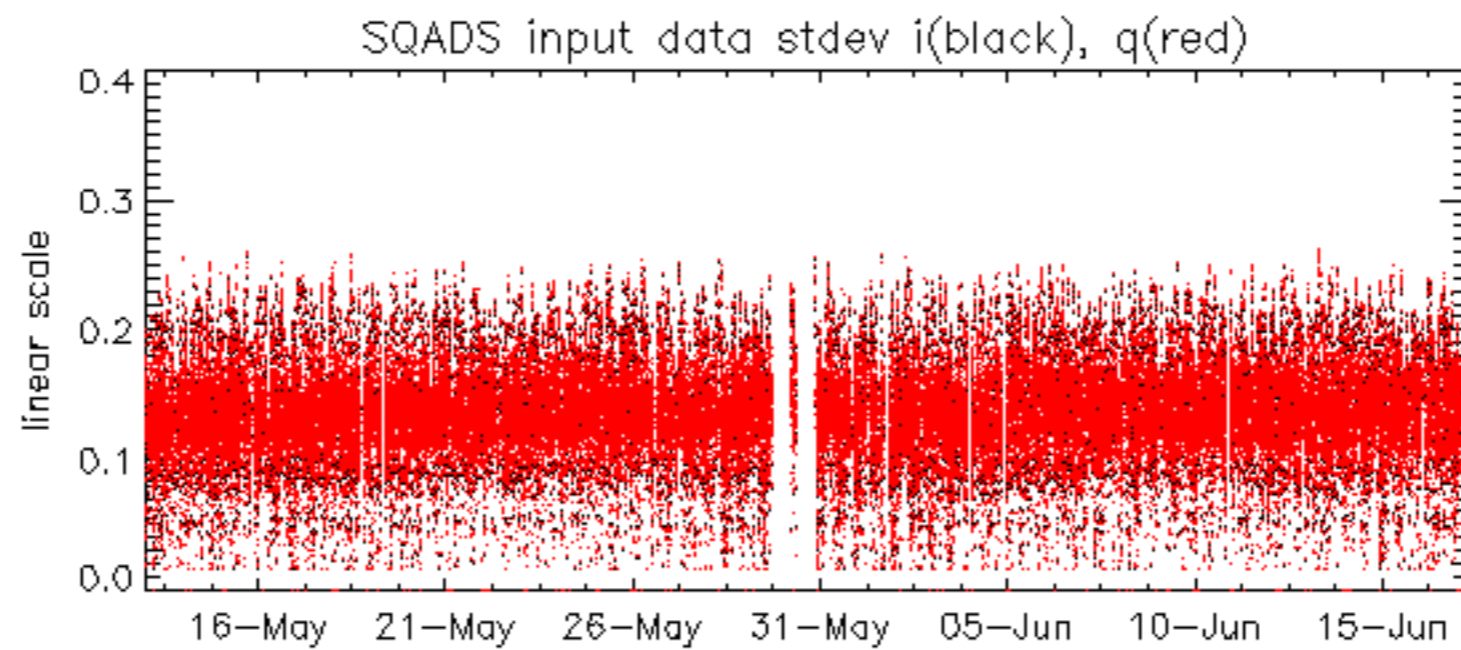


No anomalies observed on available MS products:

No anomalies observed.



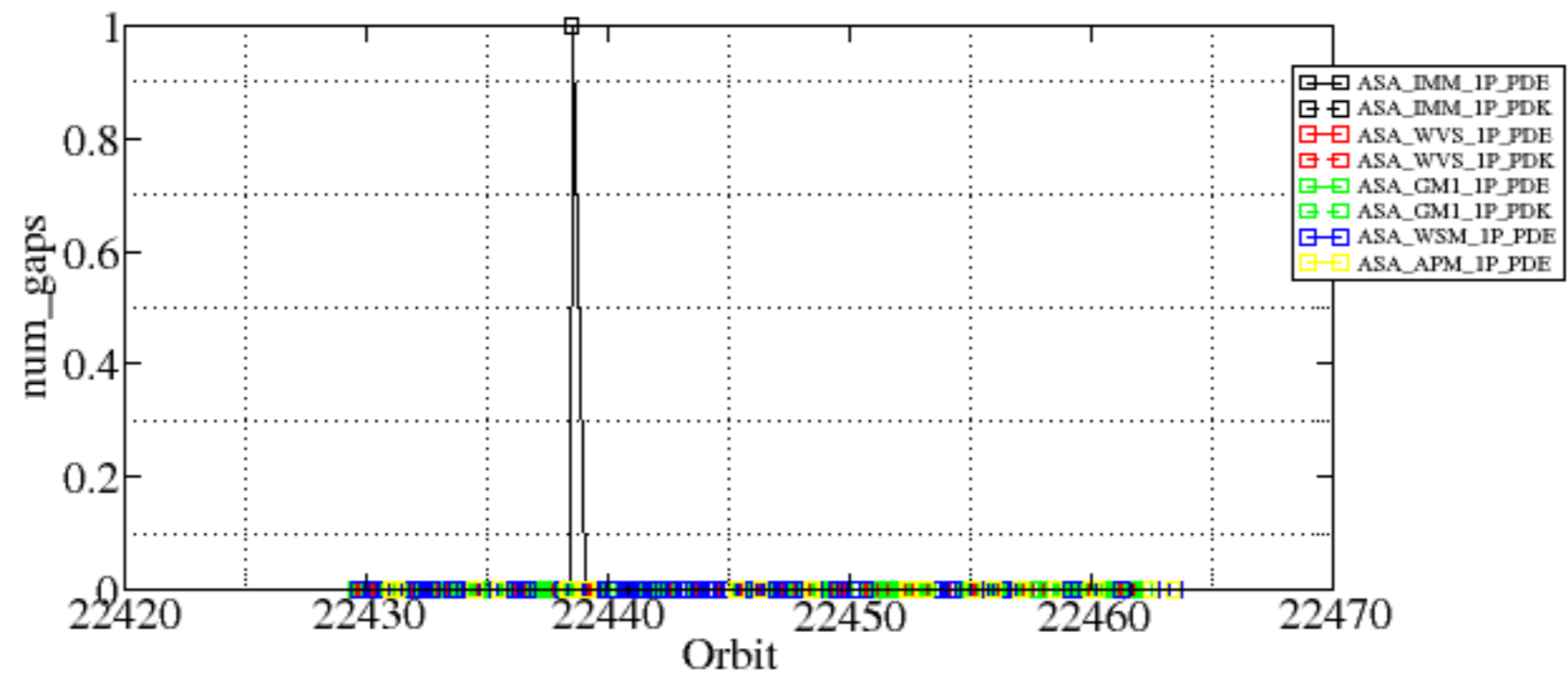


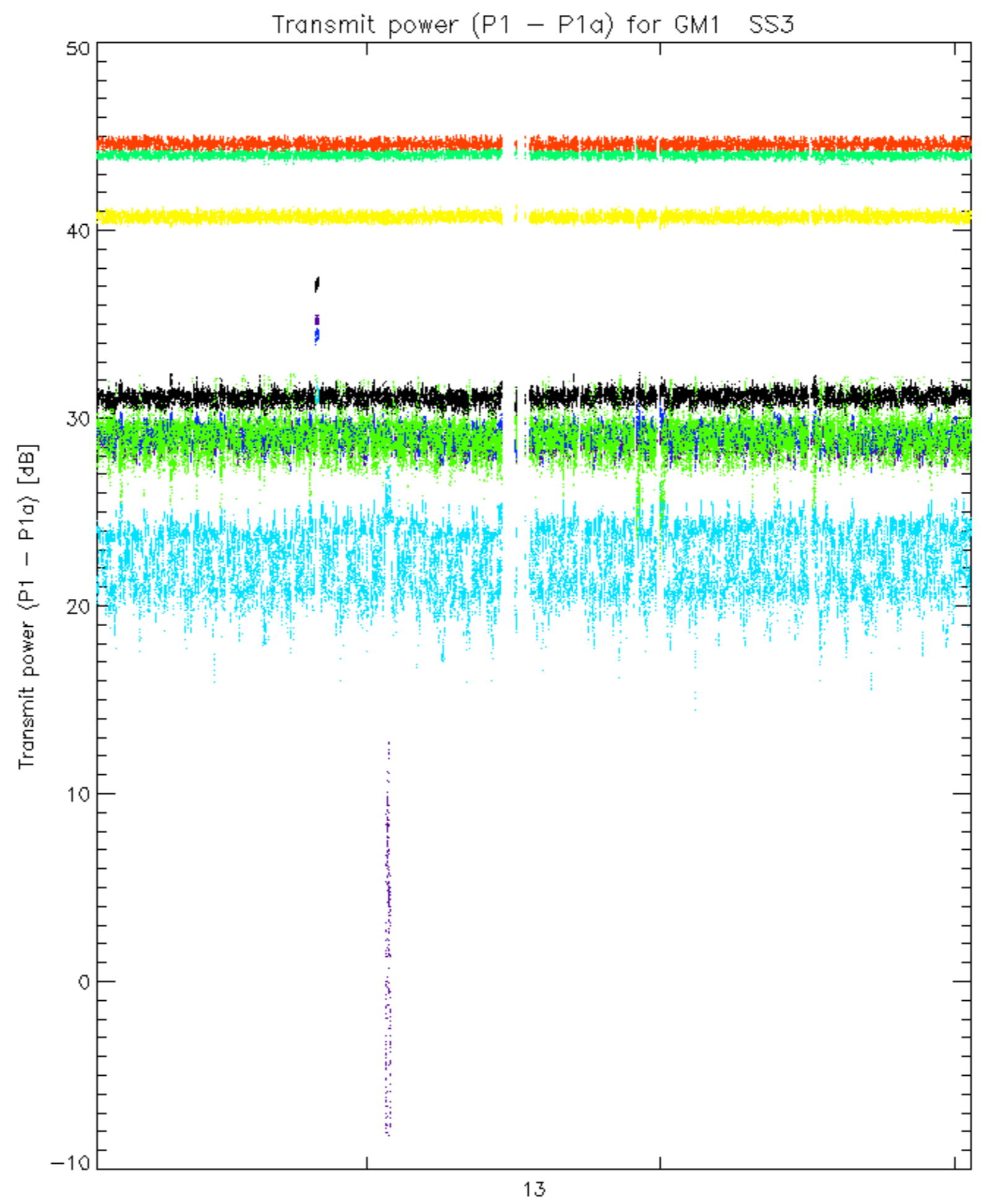


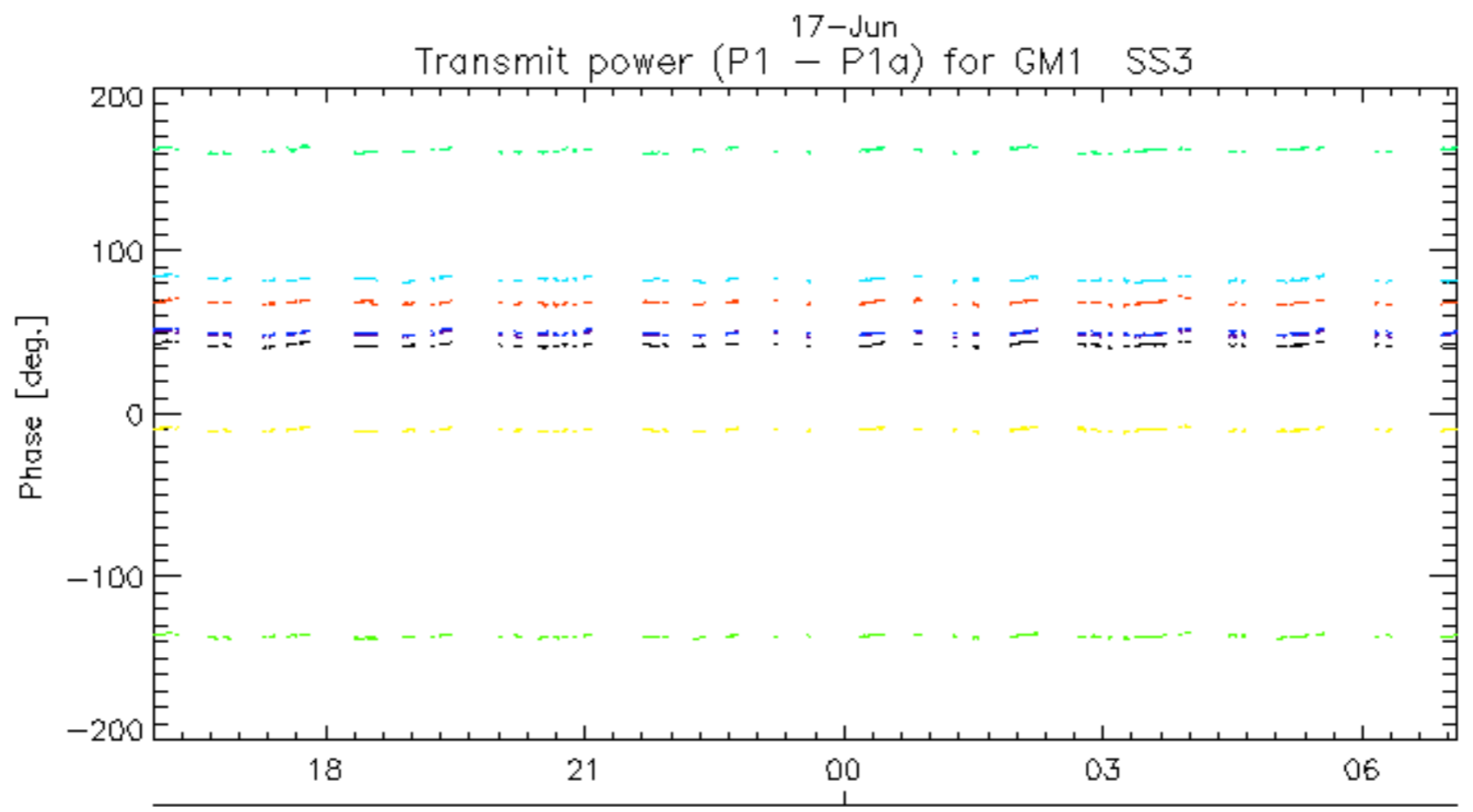
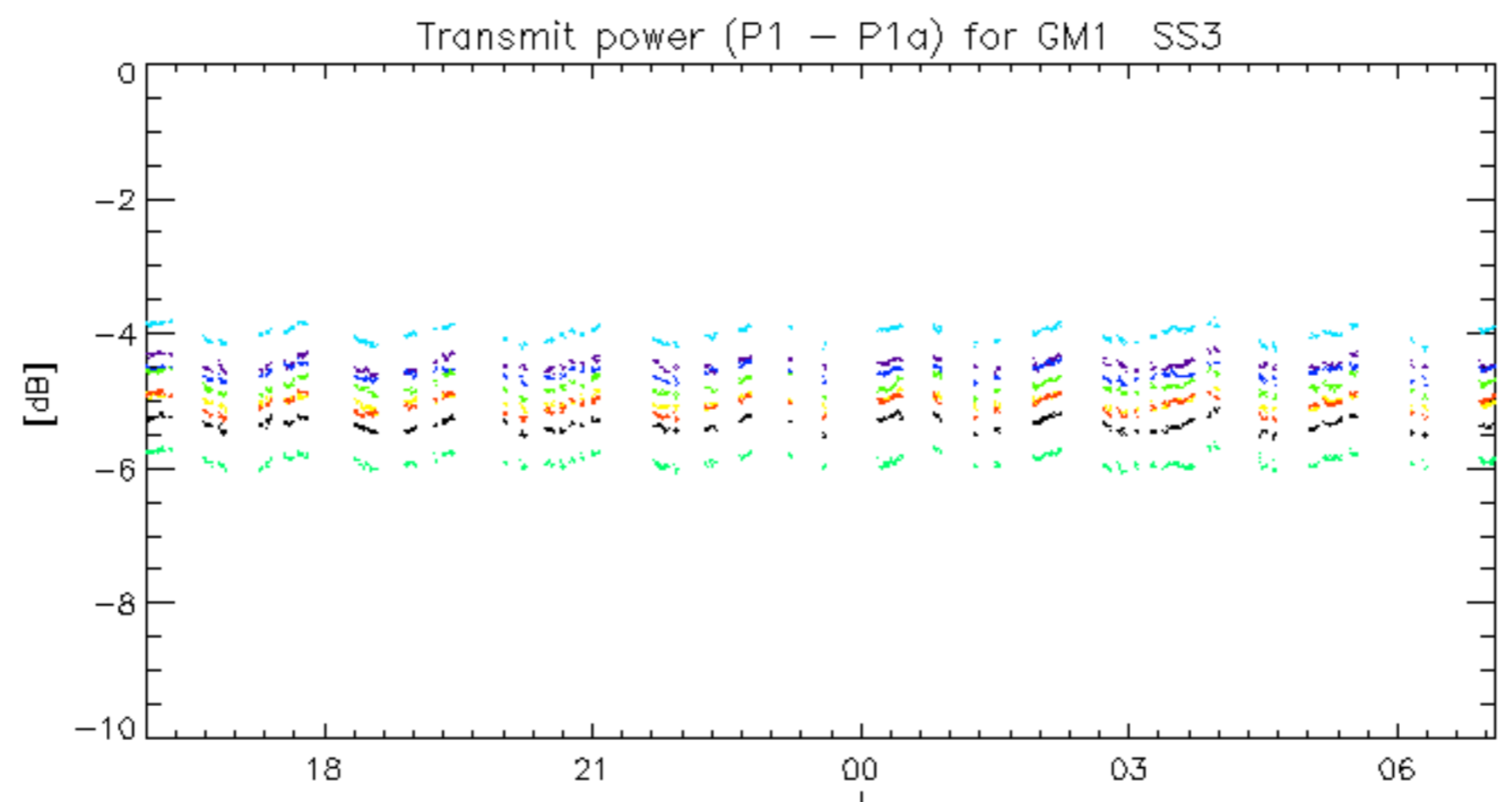
Summary of analysis for the last 3 days 2006061[567]

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

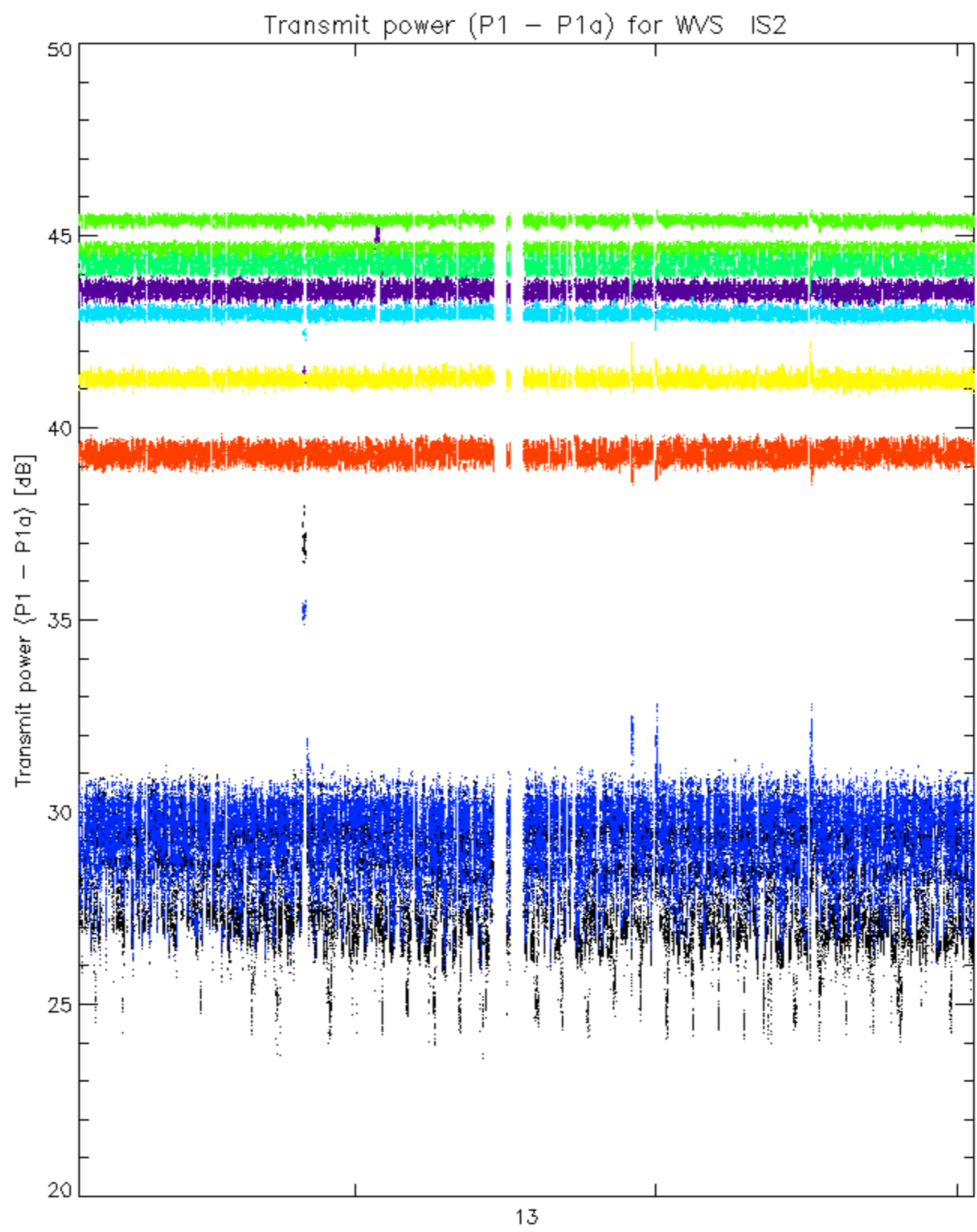
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060615_151130_00000802048_00340_22438_7565.N1	1	0
ASA_WSM_1PNPDE20060615_042315_000002382048_00334_22432_4158.N1	0	6
ASA_WSM_1PNPDE20060615_142702_000001282048_00340_22438_4226.N1	0	22
ASA_WSM_1PNPDE20060615_200853_000000852048_00343_22441_4292.N1	0	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
ASA_APM_1PNPDE20060616_143704_000000872048_00354_22452_3436.N1	0	21
ASA_APM_1PNPDE20060617_004226_000000562048_00360_22458_3444.N1	0	19



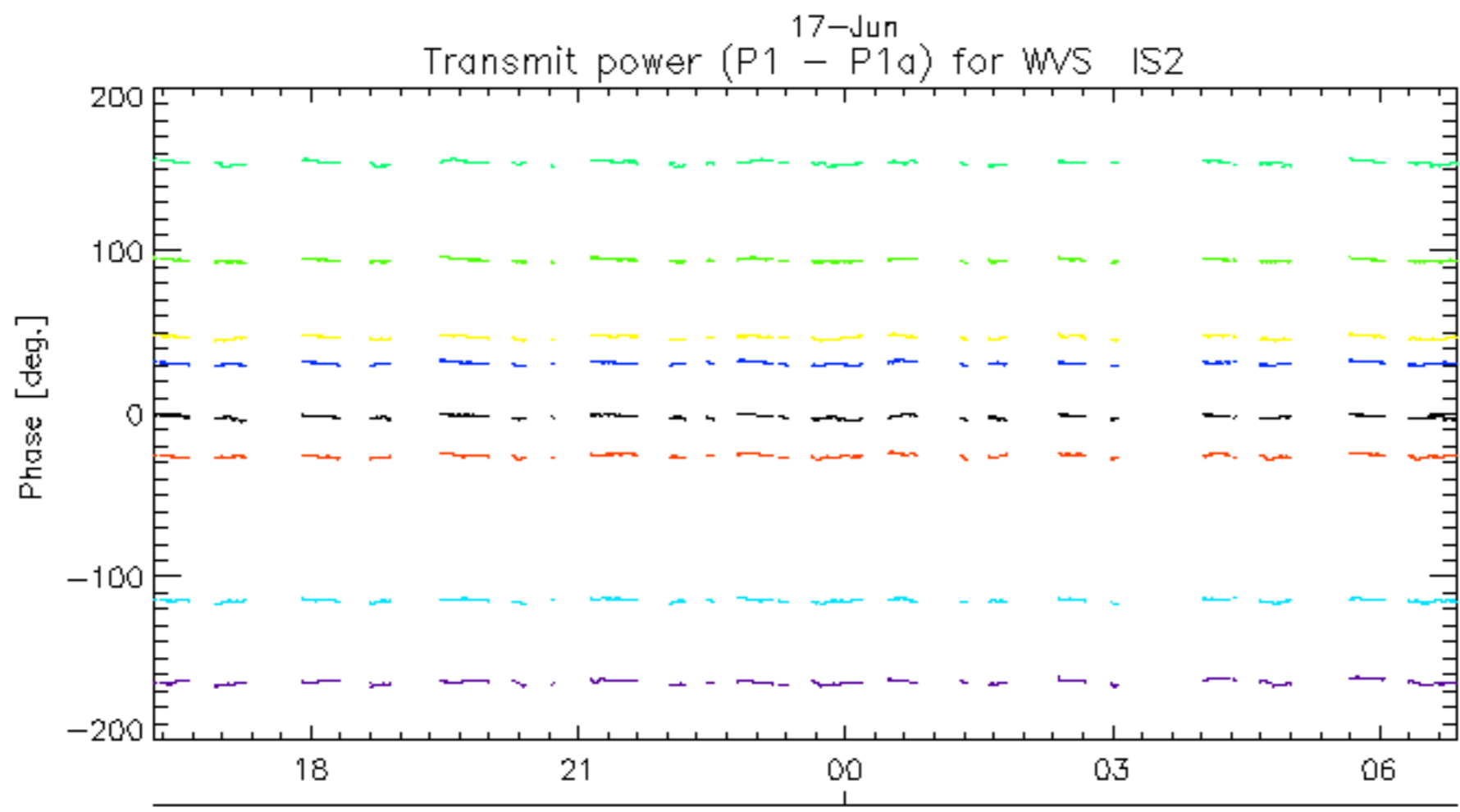
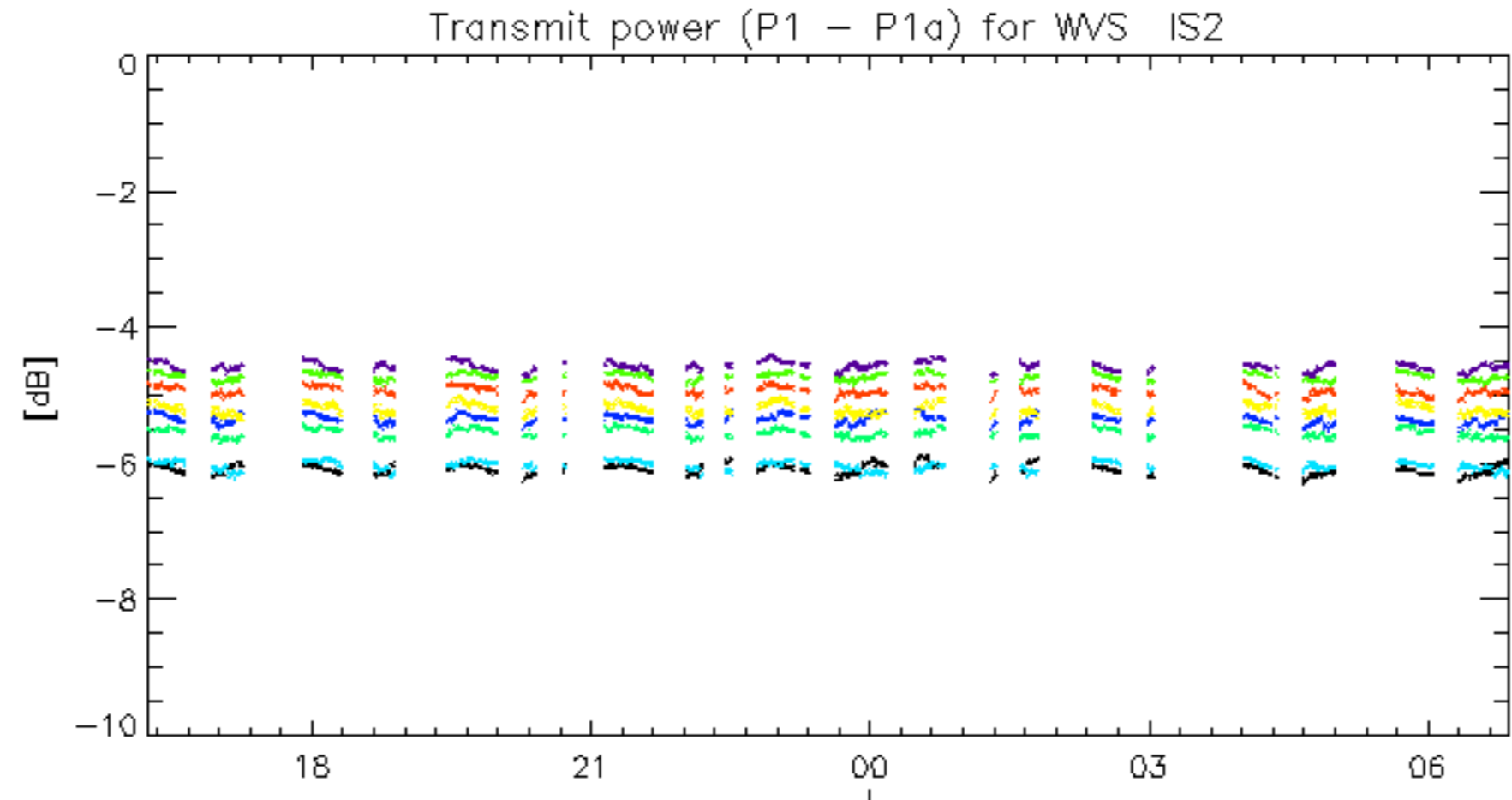




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17-Jun
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.