

PRELIMINARY REPORT OF 060718

last update on Tue Jul 18 16:25:13 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 2006-07-17 00:00:00 to 2006-07-18 16:25:13

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	66	23	4	16
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	23	42	13	3	12
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	15	24	10	1	4
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	66	23	4	16
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	66	23	4	16

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	57	60	14	23
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	20	36	39	11	19
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	15	21	21	3	4
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	57	60	14	23
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	57	60	14	23

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	20060717 084158
H	20060718 081021

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

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	-3.930309	0.012707	-0.017683
7	P1	-3.103600	0.010192	-0.018214
11	P1	-4.087023	0.013670	-0.008037
15	P1	-6.173007	0.011587	-0.012181
19	P1	-3.395265	0.009306	-0.057473
22	P1	-4.545194	0.010287	-0.027307
26	P1	-3.932607	0.019672	0.027670
30	P1	-5.762379	0.008061	-0.005390
3	P1	-16.505898	0.343748	-0.031776
7	P1	-17.193748	0.101450	-0.091448
11	P1	-16.984535	0.277568	-0.051238
15	P1	-13.116671	0.151659	0.012548
19	P1	-14.442852	0.048677	-0.150271
22	P1	-16.025869	0.419164	-0.061504
26	P1	-15.133060	0.238190	0.084790
30	P1	-17.098867	0.345247	-0.078555

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.994177	0.087119	0.123268
7	P2	-21.925041	0.105200	0.076896
11	P2	-15.800932	0.121884	0.061723
15	P2	-7.133797	0.101610	0.009979
19	P2	-9.136482	0.091006	-0.010082
22	P2	-18.151014	0.086052	-0.011176
26	P2	-16.399620	0.093688	-0.043319
30	P2	-19.526955	0.093578	0.039071

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175339	0.002950	0.001154
7	P3	-8.175339	0.002950	0.001154
11	P3	-8.175339	0.002950	0.001154
15	P3	-8.175339	0.002950	0.001154
19	P3	-8.175339	0.002950	0.001154
22	P3	-8.175339	0.002950	0.001154
26	P3	-8.175339	0.002950	0.001154
30	P3	-8.175339	0.002950	0.001154

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	-3.800367	0.030426	-0.124095
7	P1	-2.562241	0.008024	0.017760
11	P1	-2.859078	0.014464	0.024547
15	P1	-3.564930	0.028584	-0.040371
19	P1	-3.417947	0.013533	-0.023201
22	P1	-5.090146	0.020135	0.042995
26	P1	-5.858601	0.015810	-0.018886
30	P1	-5.194917	0.026679	-0.042007
3	P1	-11.588348	0.098885	-0.212965
7	P1	-9.971472	0.033794	0.042264
11	P1	-10.246164	0.058135	0.031295
15	P1	-10.752404	0.141911	0.014642
19	P1	-15.533180	0.075136	-0.060663
22	P1	-20.918379	1.233155	-0.064409

26	P1	-16.325632	0.375348	0.152853
30	P1	-17.894291	0.407842	-0.117786

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.641640	0.071148	0.211390
7	P2	-22.412878	0.127195	0.130296
11	P2	-11.058002	0.042484	0.089600
15	P2	-4.915907	0.045908	0.031175
19	P2	-6.876496	0.041869	0.038045
22	P2	-8.198661	0.037408	0.021103
26	P2	-24.184771	0.063382	0.040351
30	P2	-22.018650	0.049890	0.059152

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.014884	0.003742	0.014062
7	P3	-8.014846	0.003737	0.014738
11	P3	-8.014698	0.003750	0.014196
15	P3	-8.014845	0.003745	0.014474
19	P3	-8.014807	0.003740	0.014852
22	P3	-8.014887	0.003732	0.014137
26	P3	-8.014828	0.003736	0.014129
30	P3	-8.014838	0.003730	0.014577

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	0.000569306
	stdev	1.64364e-07
MEAN Q	mean	0.000545303
	stdev	2.11554e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138085
	stdev	0.00107969
STDEV Q	mean	0.138441
	stdev	0.00109765



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006071[678]

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_1PNPDE20060717_004744_000002292049_00288_22887_1022.N1	1	0
ASA_IMM_1PNPDE20060717_155733_000002182049_00298_22897_1101.N1	1	0
ASA_IMM_1PNPDE20060718_010021_000000822049_00303_22902_1205.N1	1	0
ASA_GM1_1PNPDK20060717_152259_000005982049_00297_22896_1183.N1	0	15
ASA_GM1_1PNPDK20060717_192314_000004532049_00300_22899_1194.N1	0	23

ASA_WSM_1PNPDE20060716_020953_000001832049_00275_22874_3293.N1	0	39
ASA_WSM_1PNPDE20060716_231436_000000972049_00288_22887_3385.N1	0	58
ASA_WSM_1PNPDE20060717_142239_000000852049_00297_22896_3436.N1	0	7



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

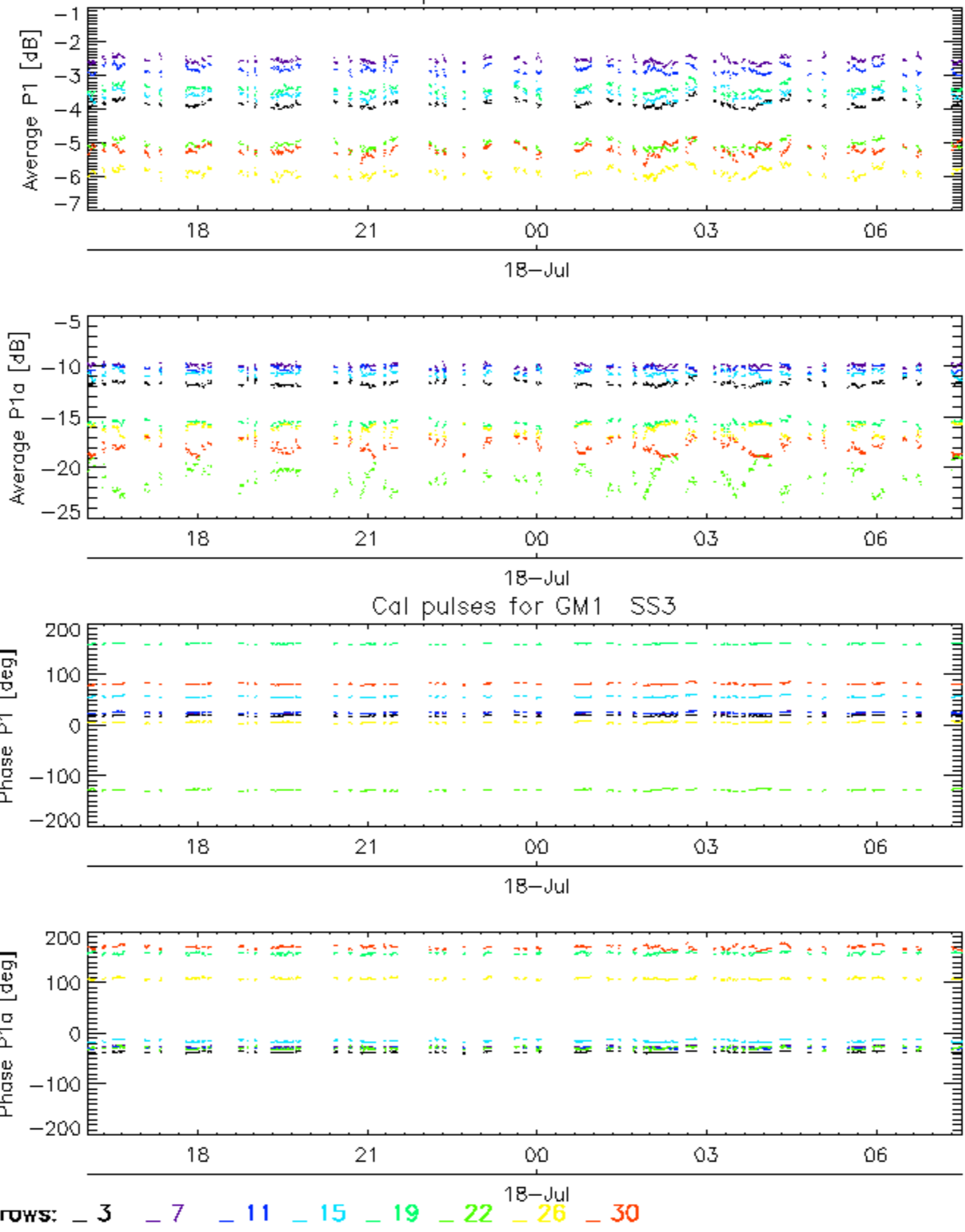
7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler	
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

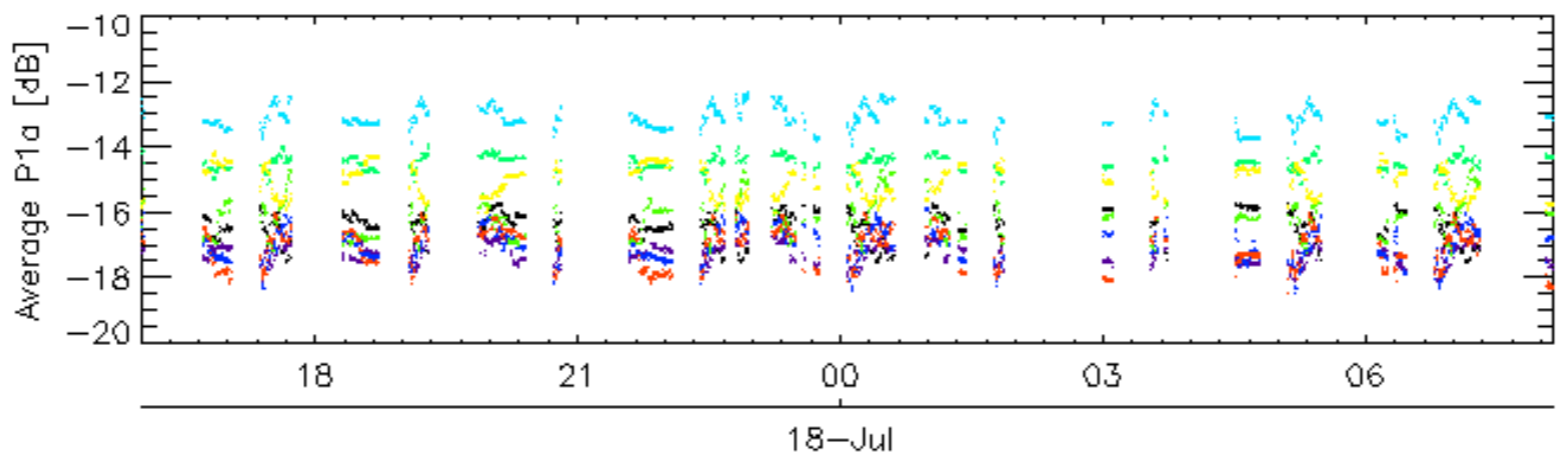
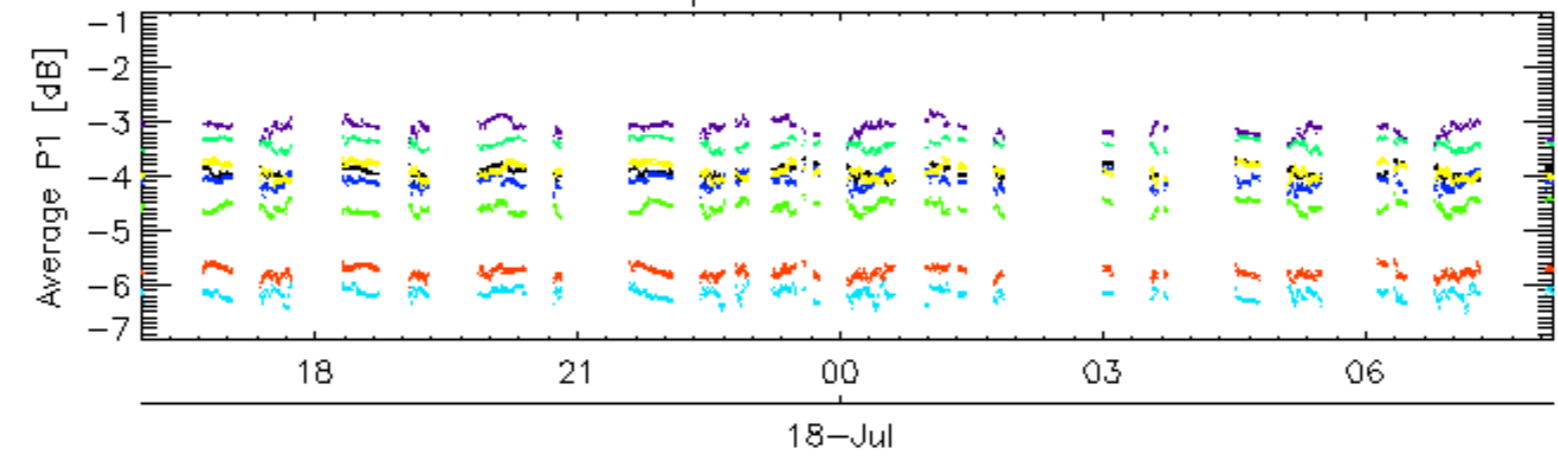
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX	
<input type="checkbox"/>	

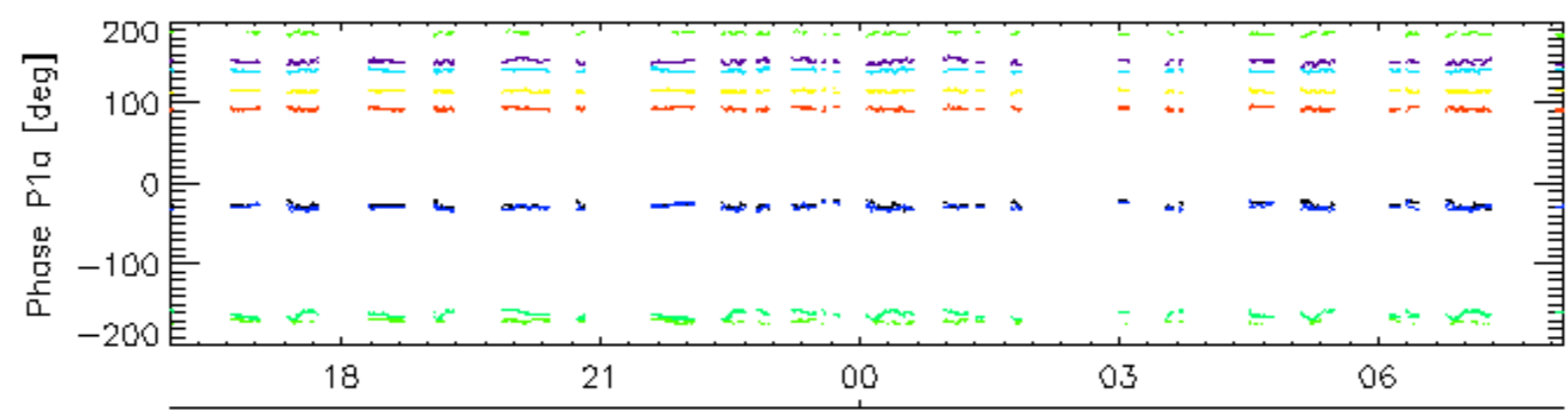
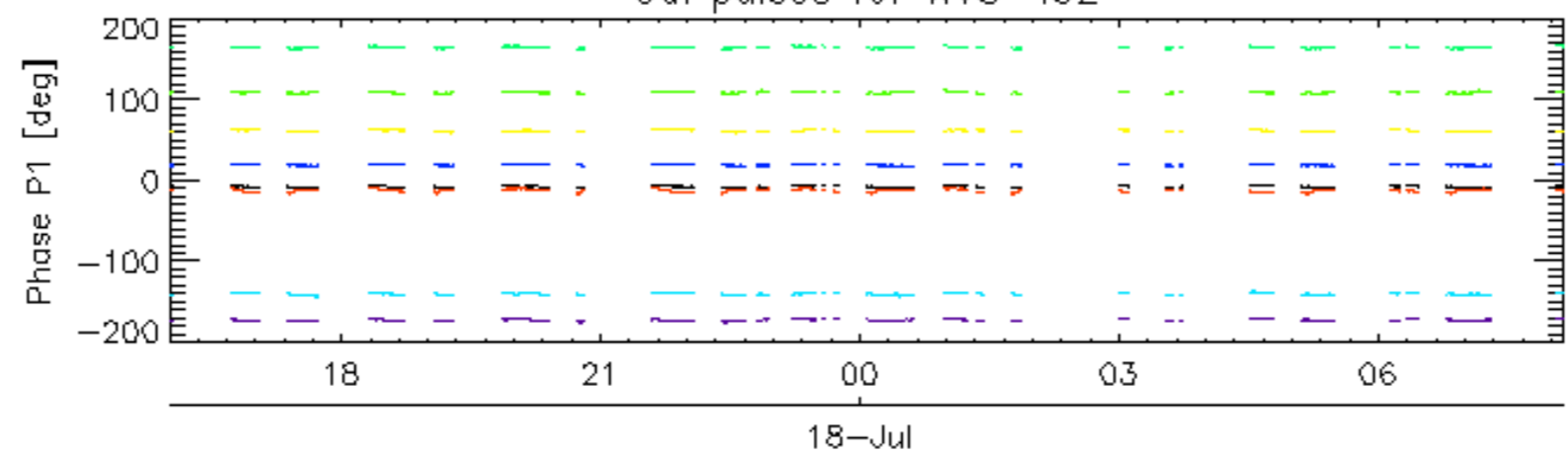
Cal pulses for GM1 SS3



Cal pulses for WVS IS2

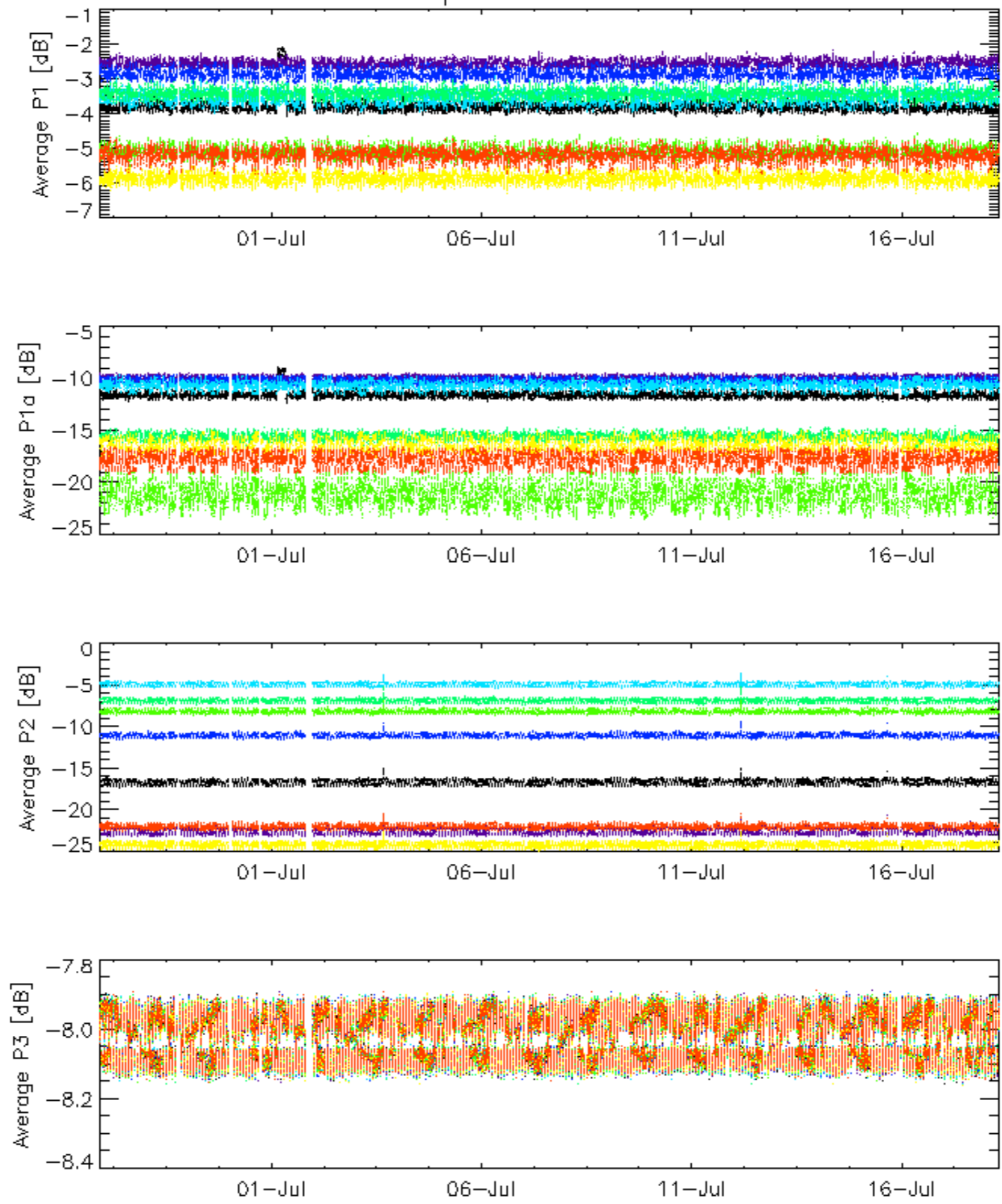


Cal pulses for WVS IS2



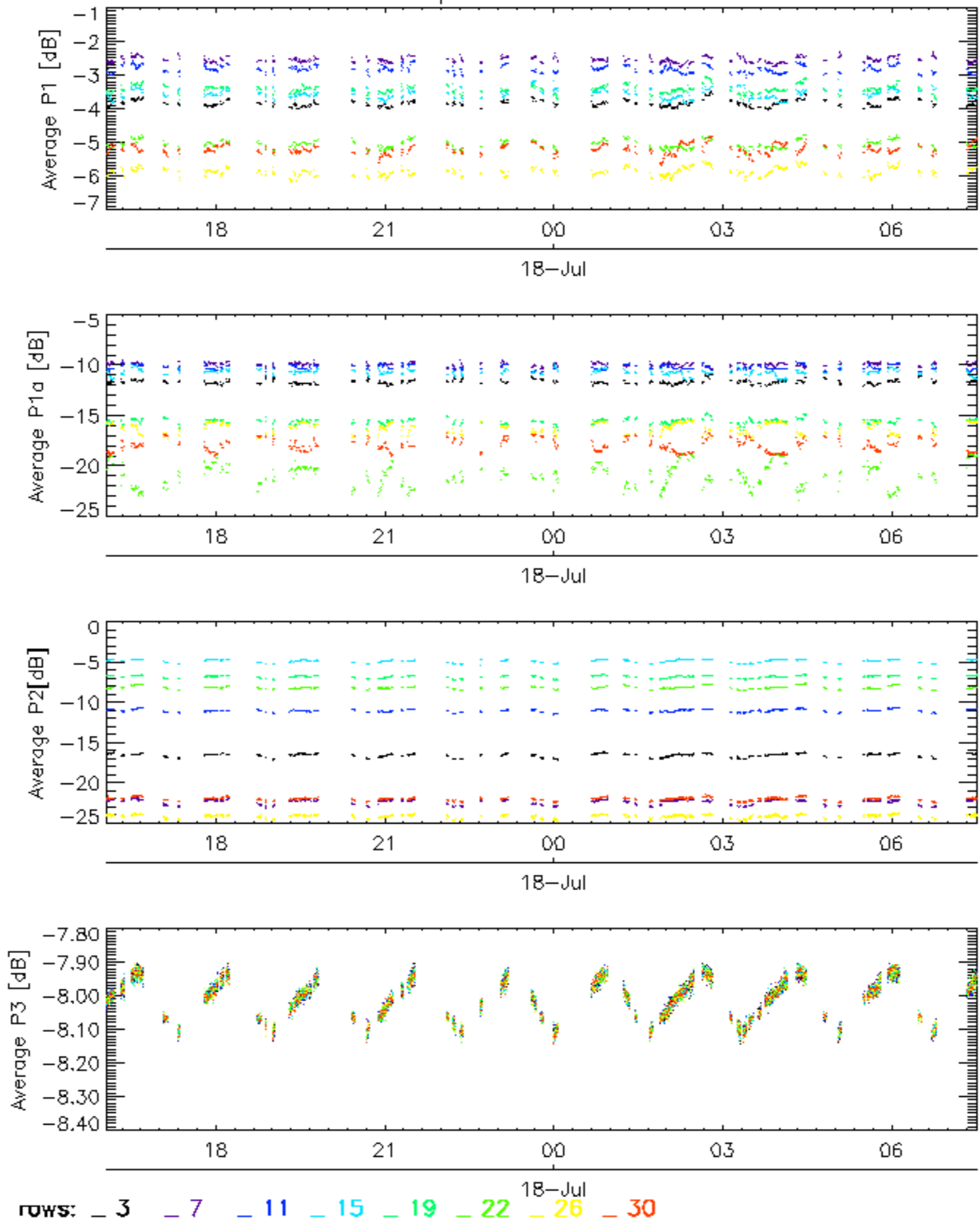
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

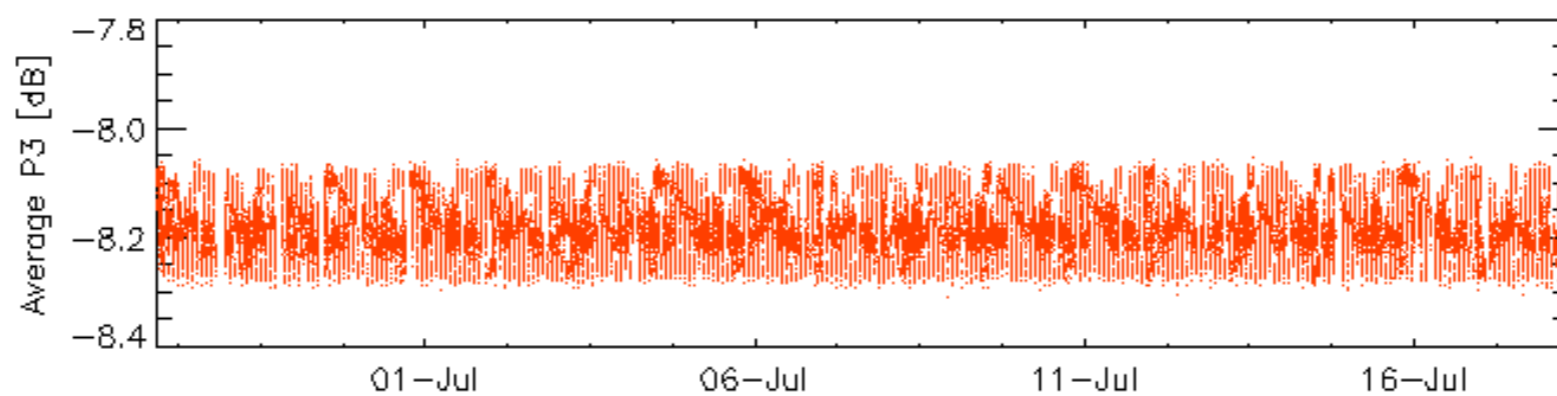
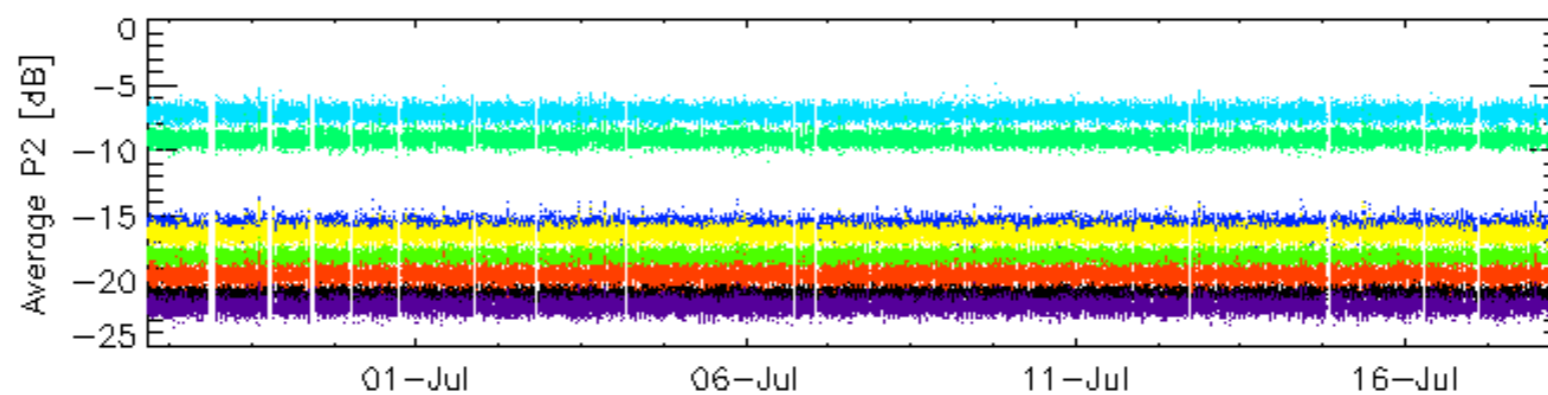
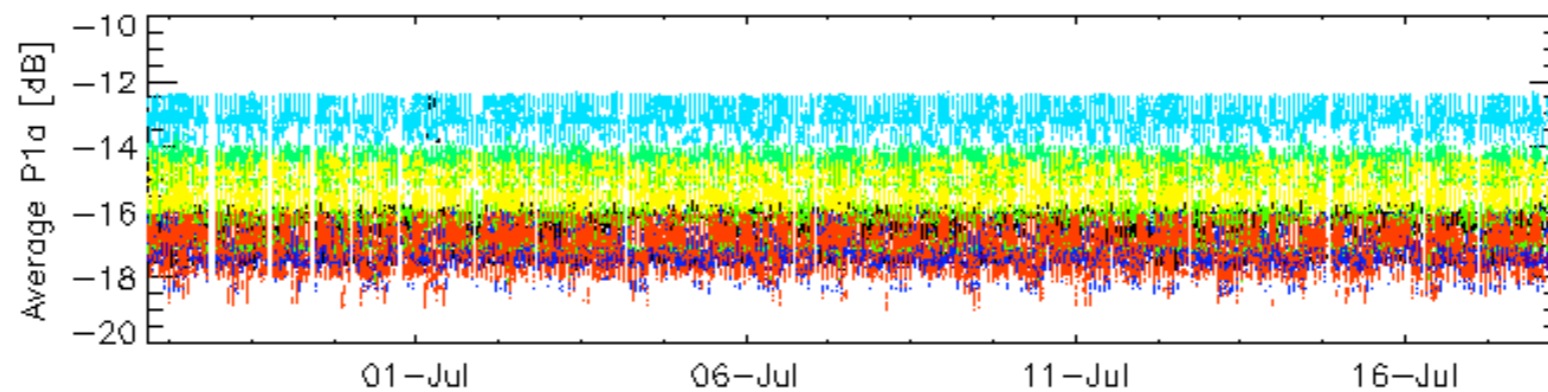
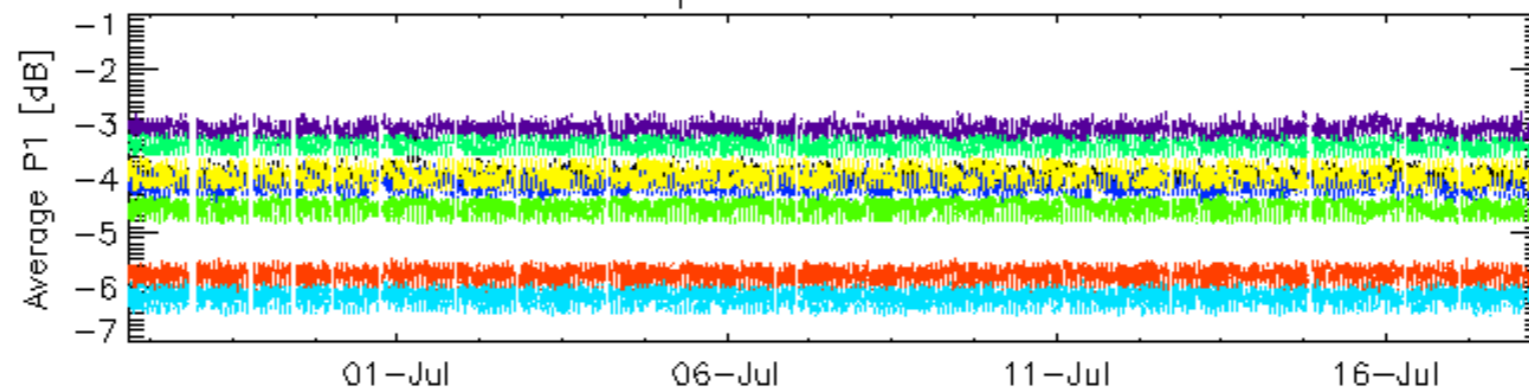


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

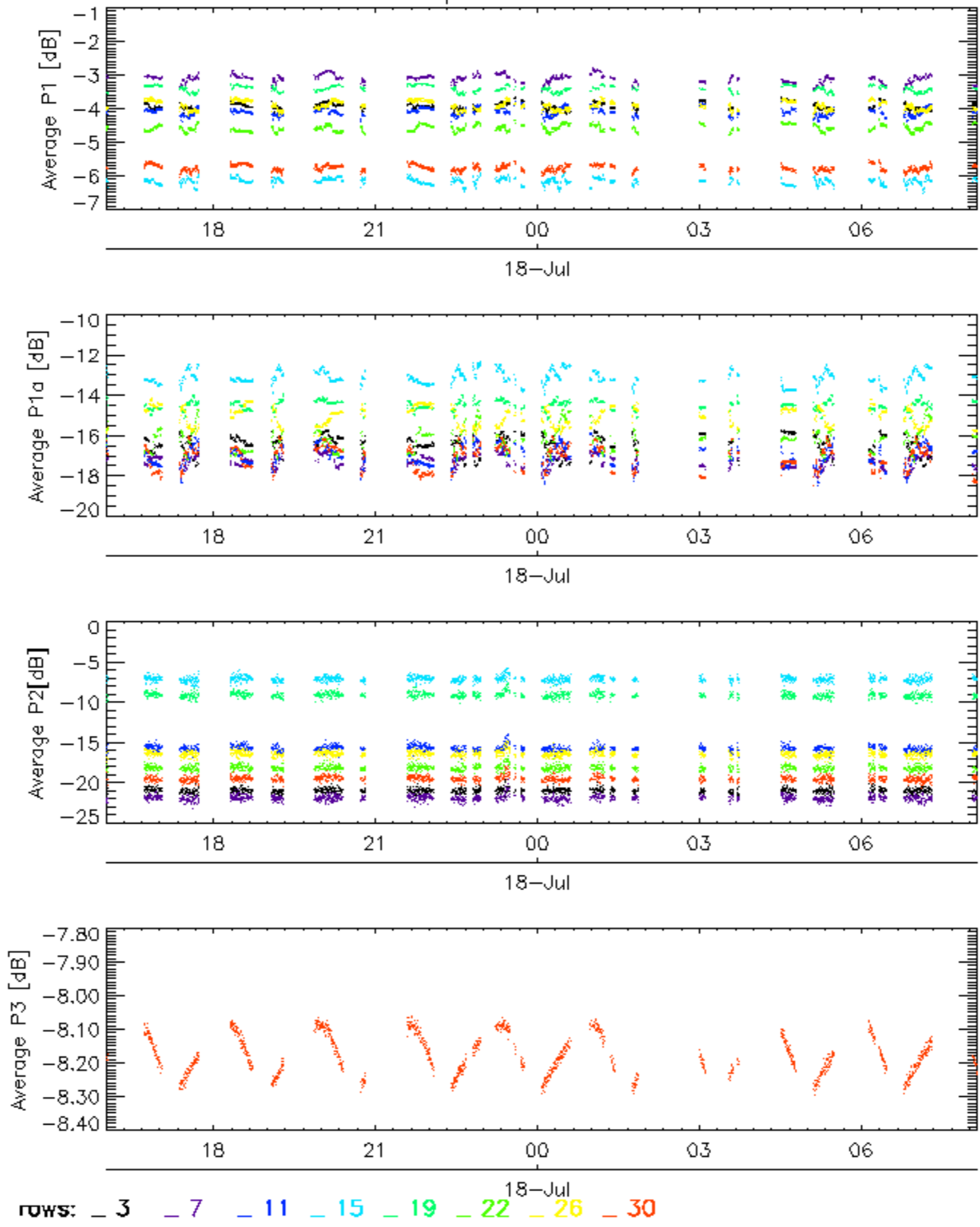


Cal pulses for WVS IS2

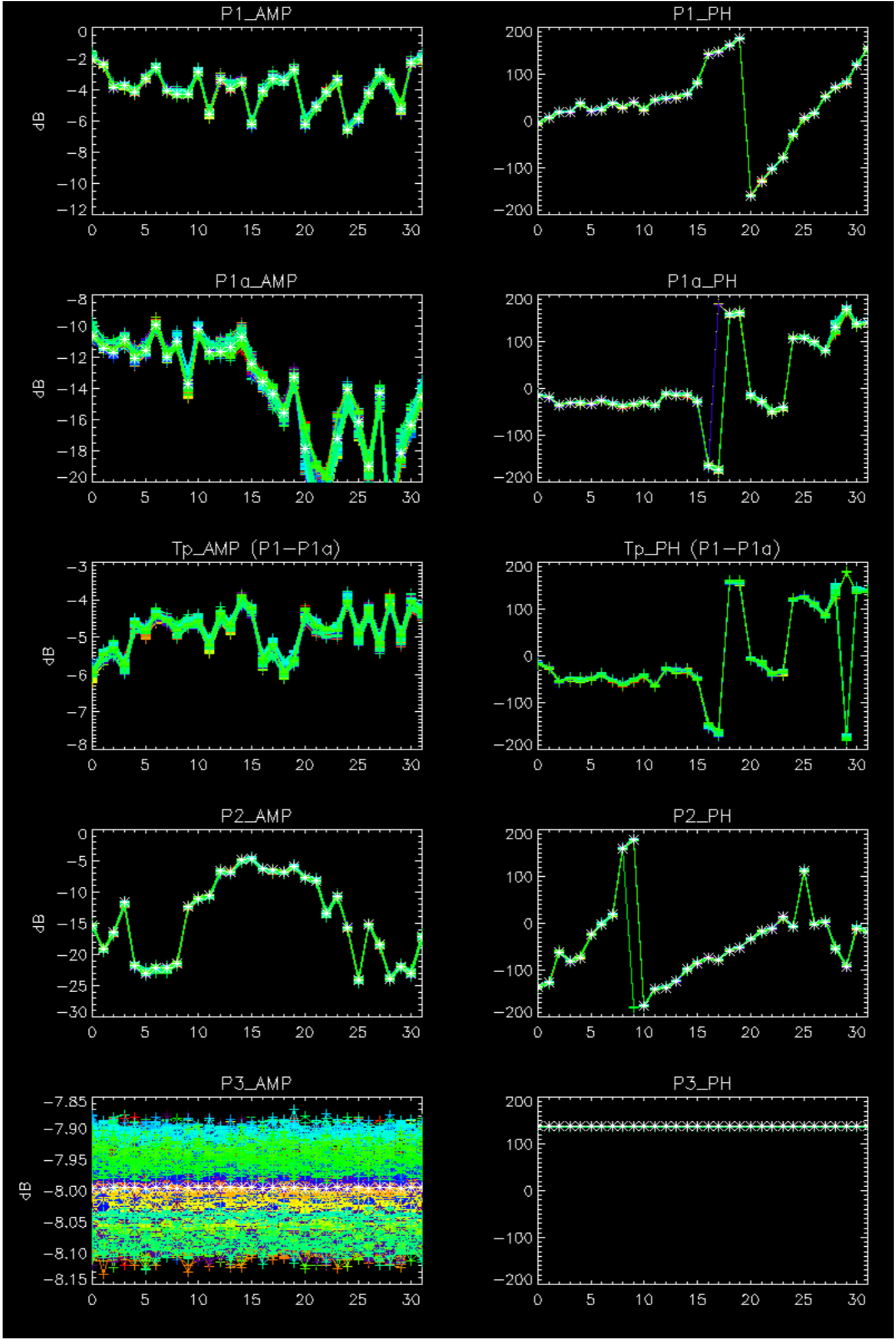


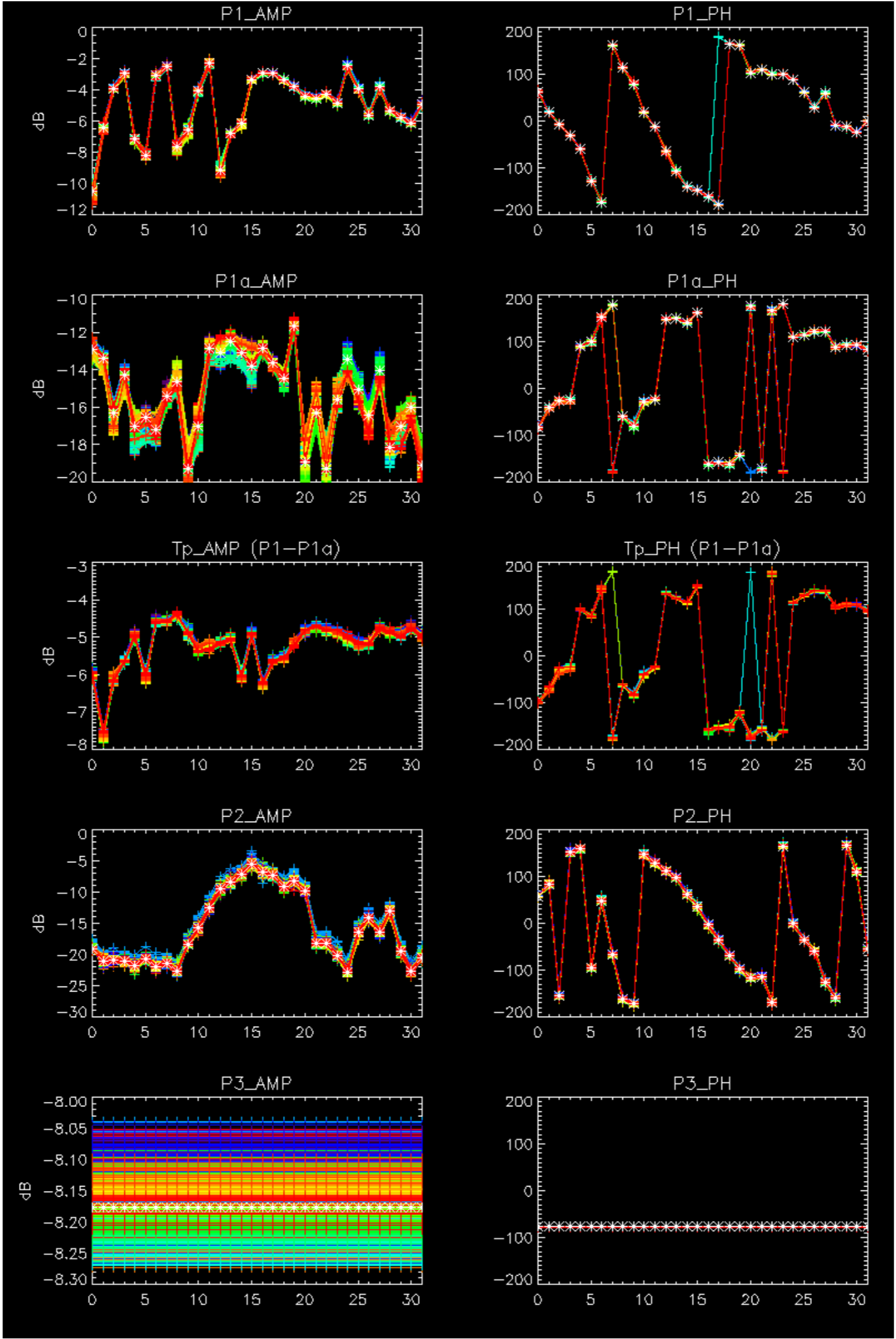
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



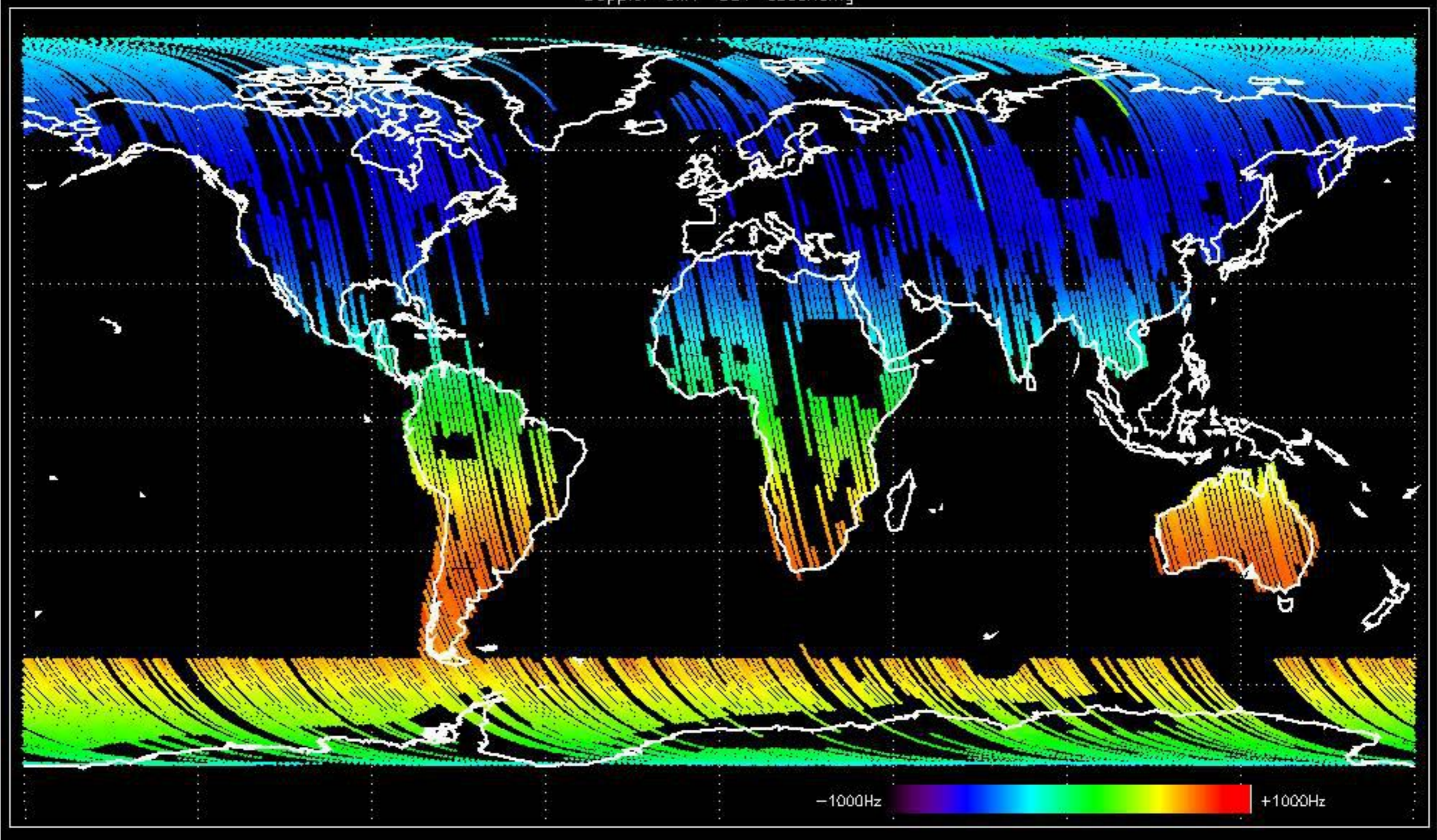
No anomalies observed.



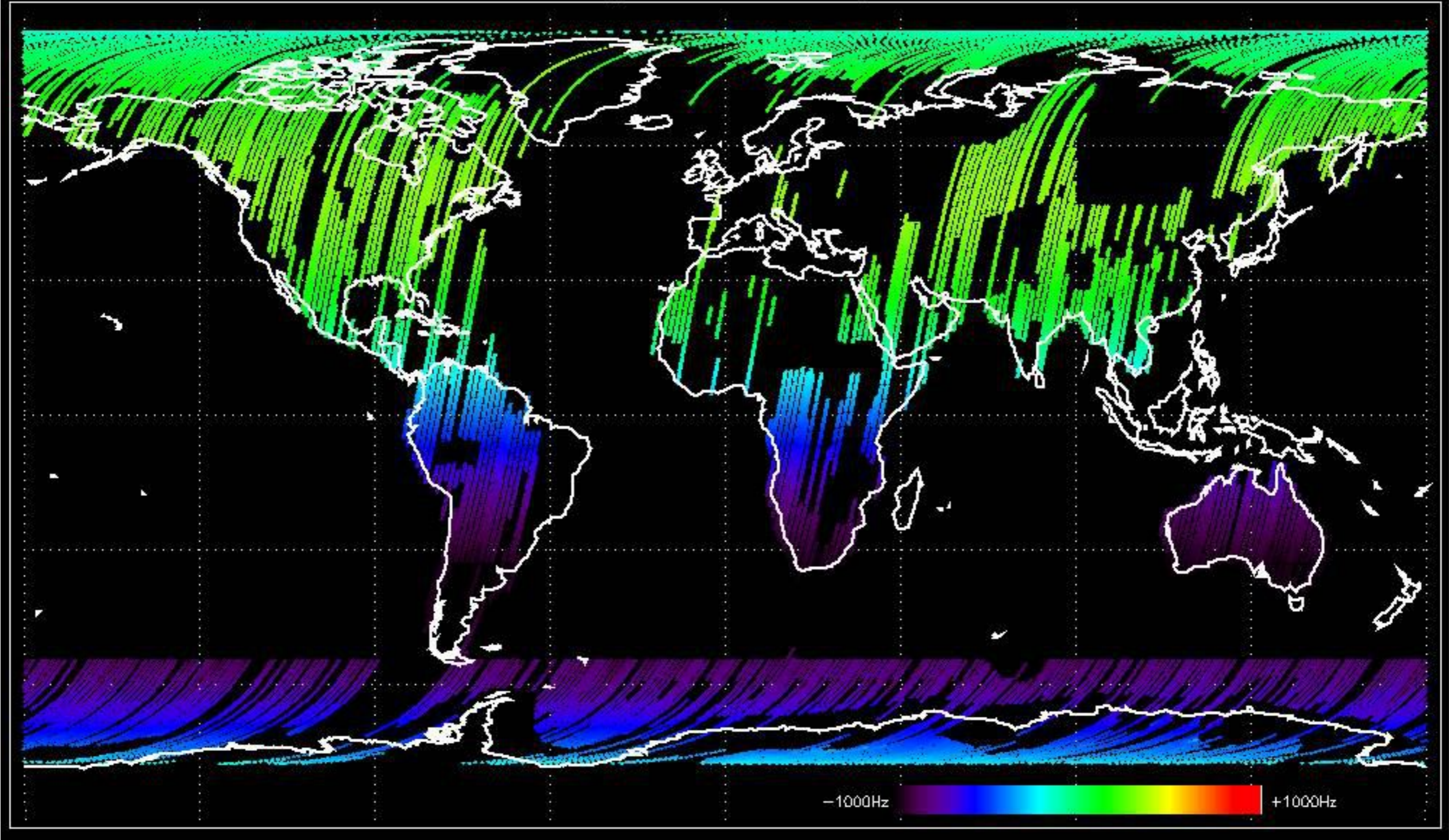


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

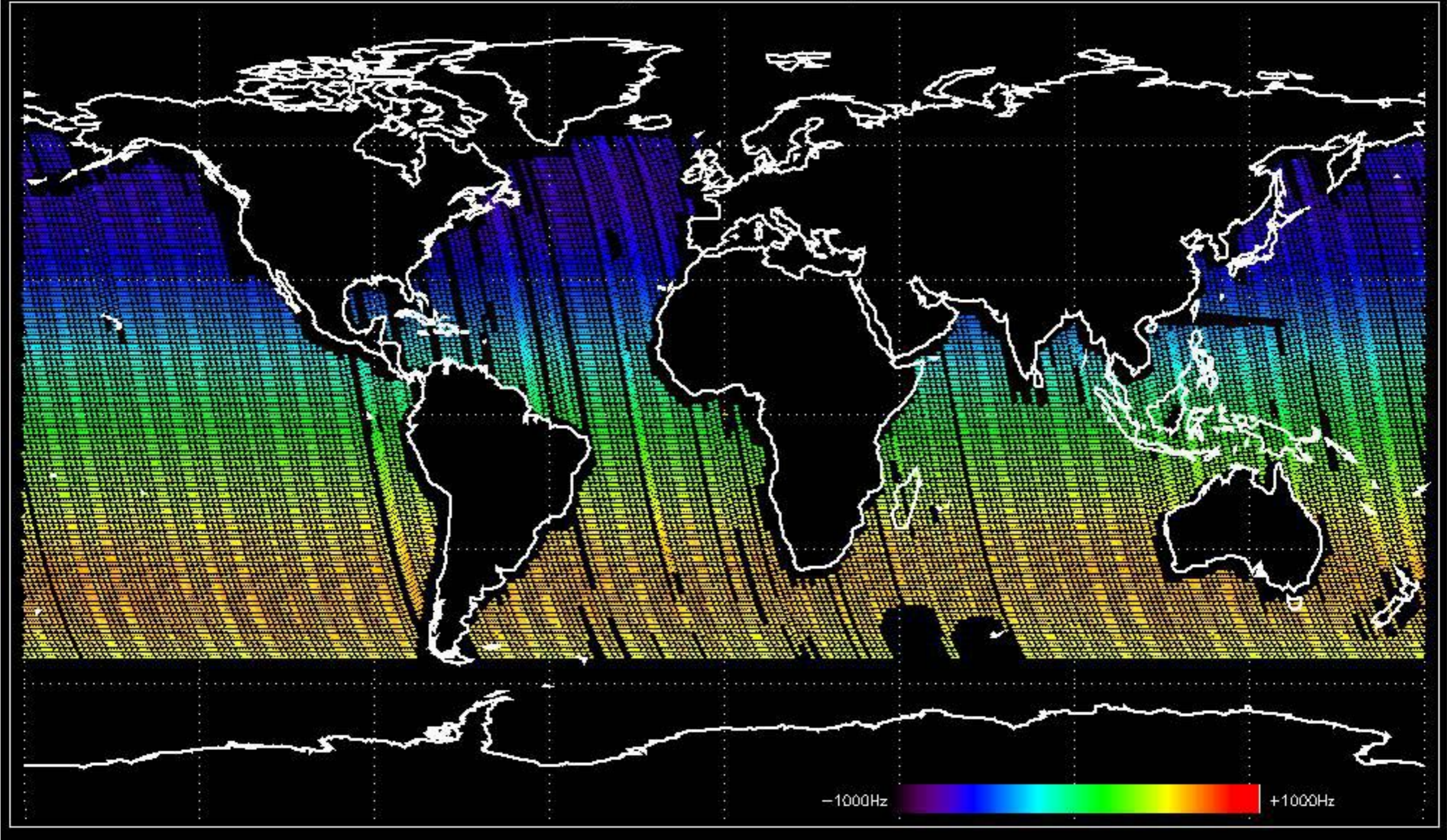
Doppler 'GM1' 'SS1' ascending



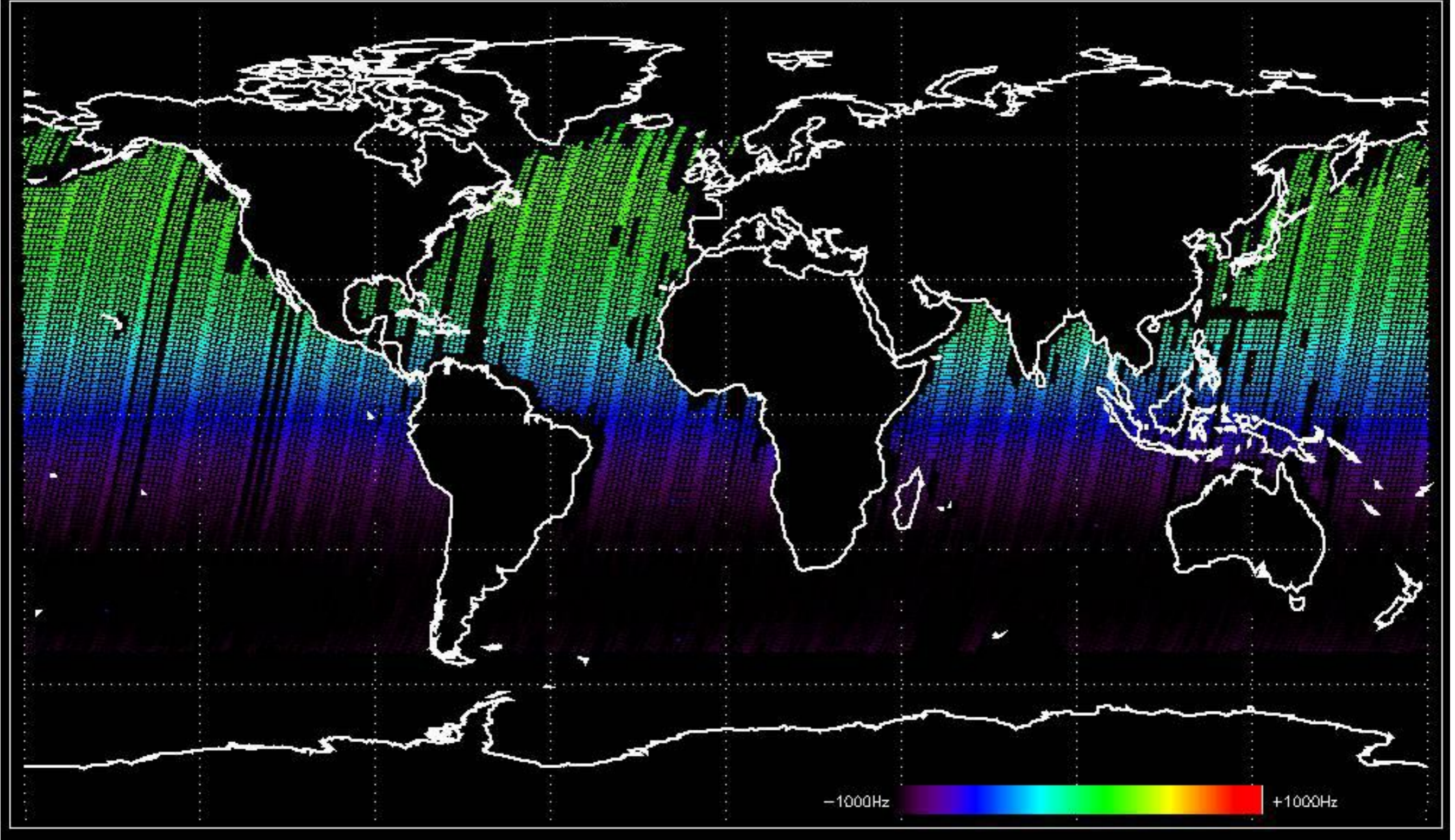
Doppler 'GM1' 'SS1' descending



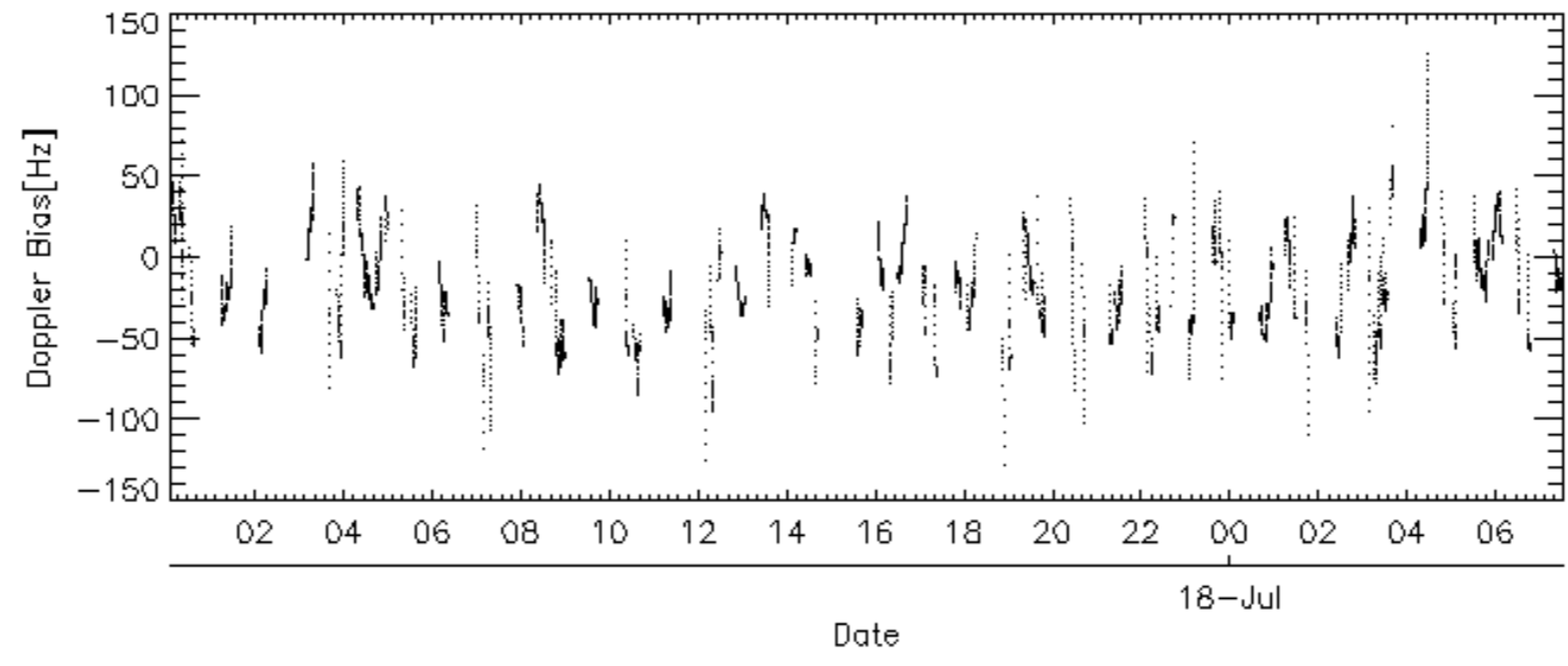
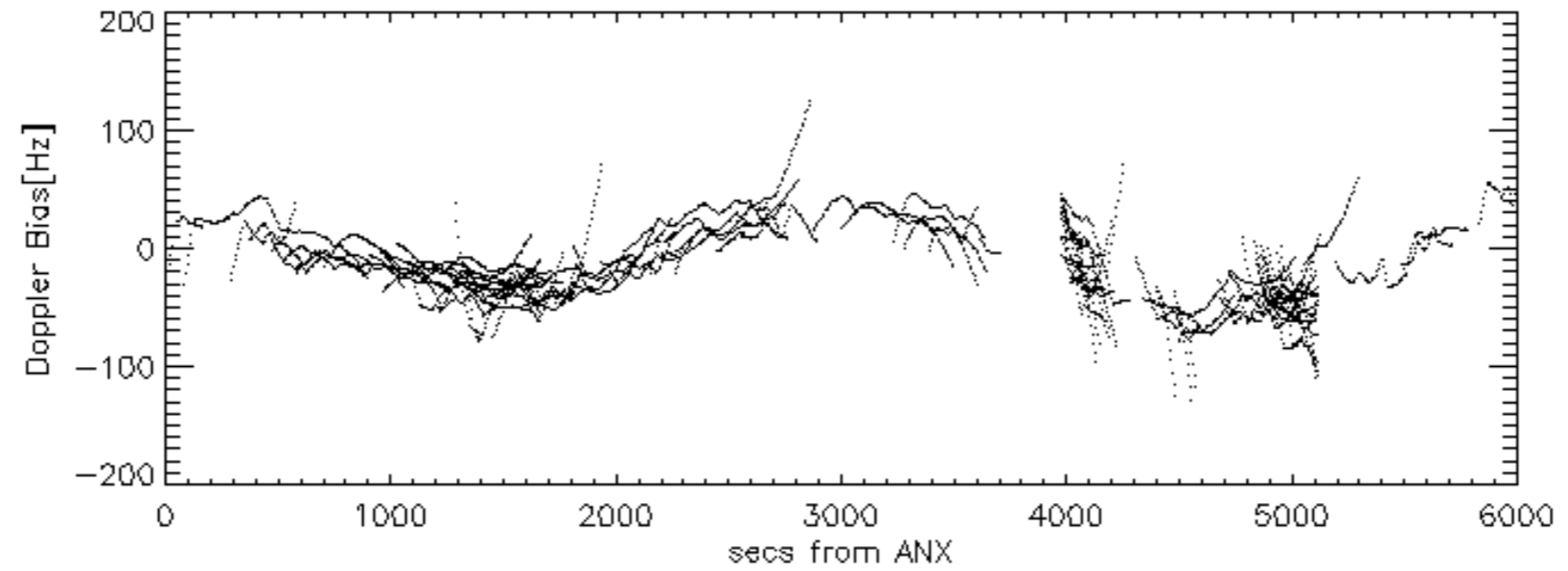
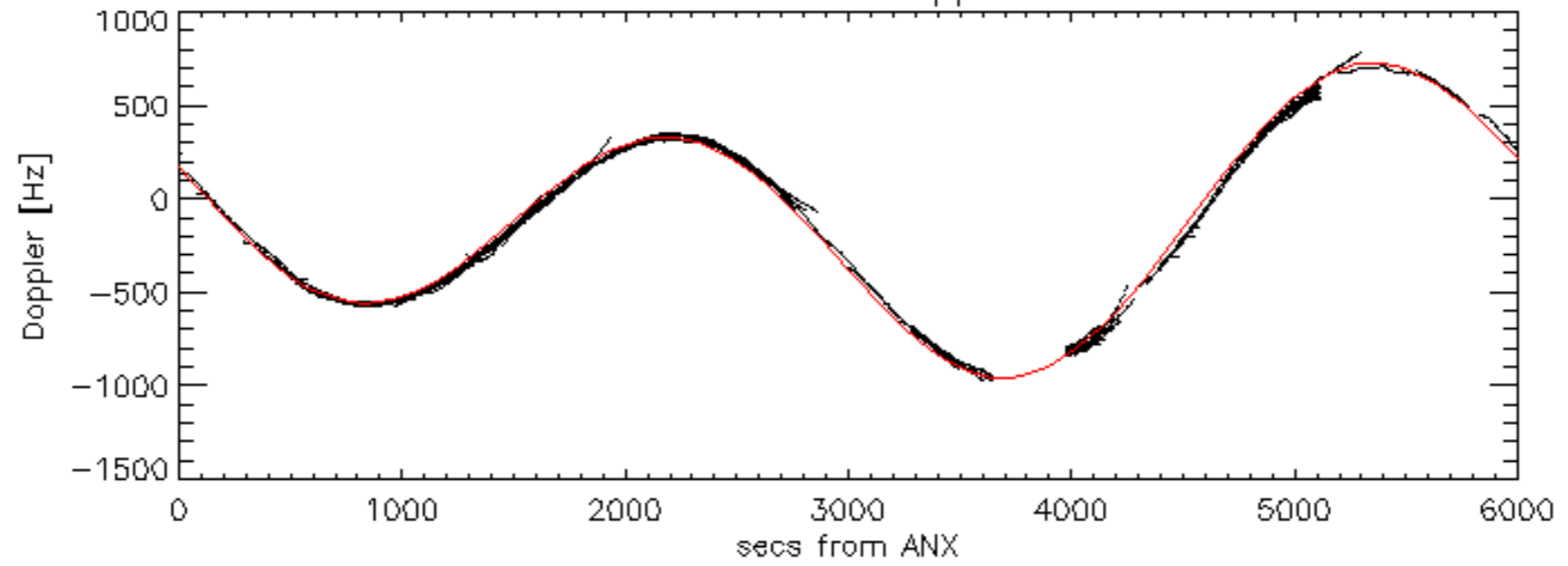
Doppler 'WVS' 'IS2' ascending

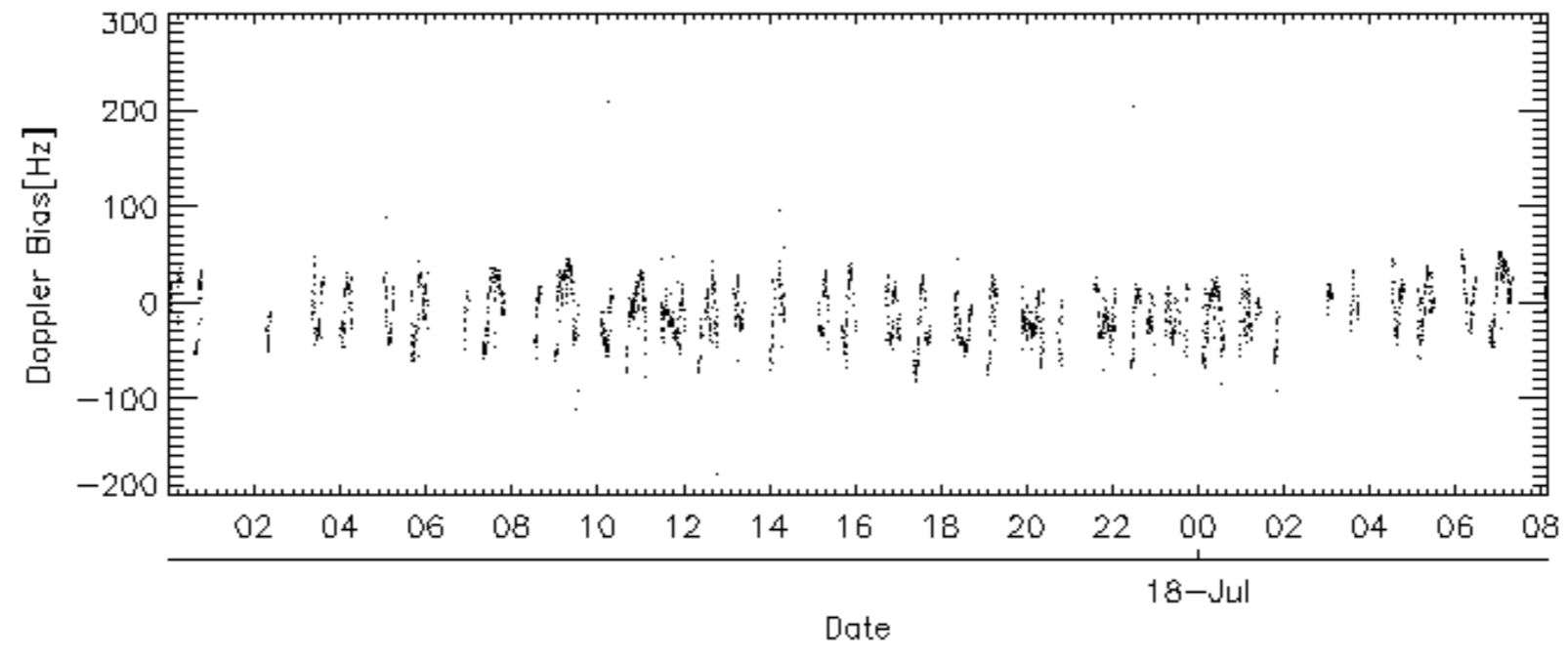
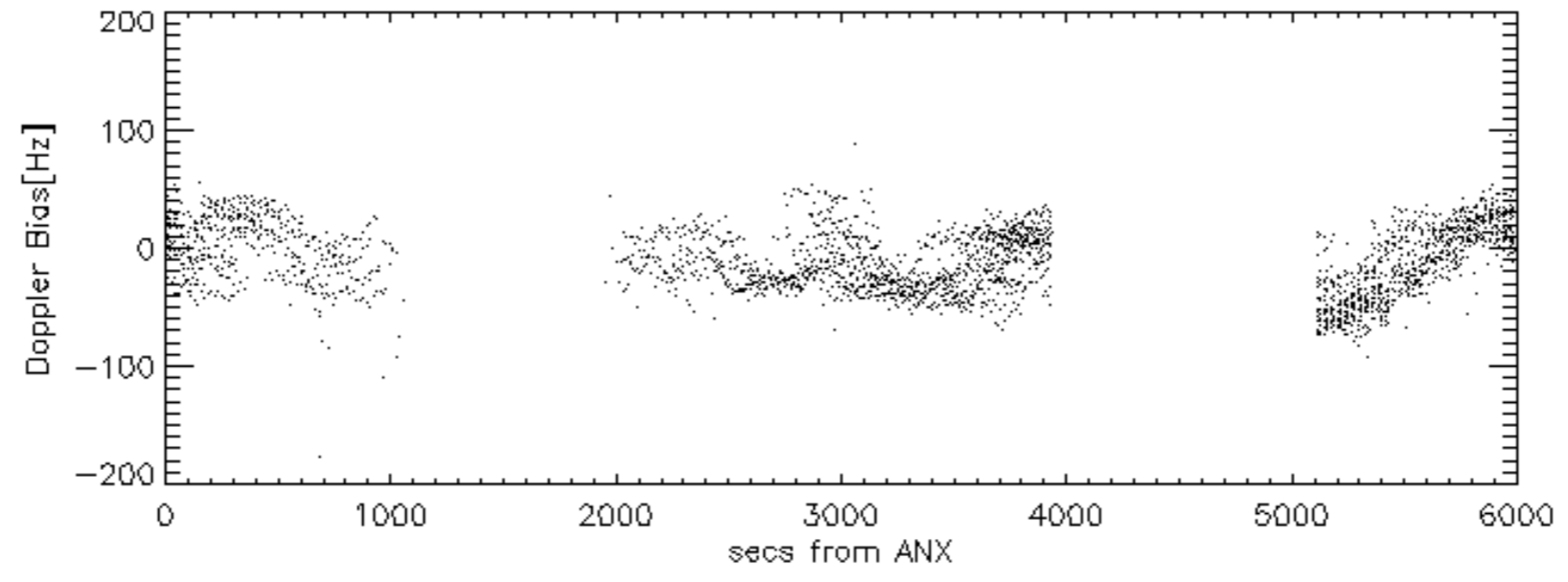
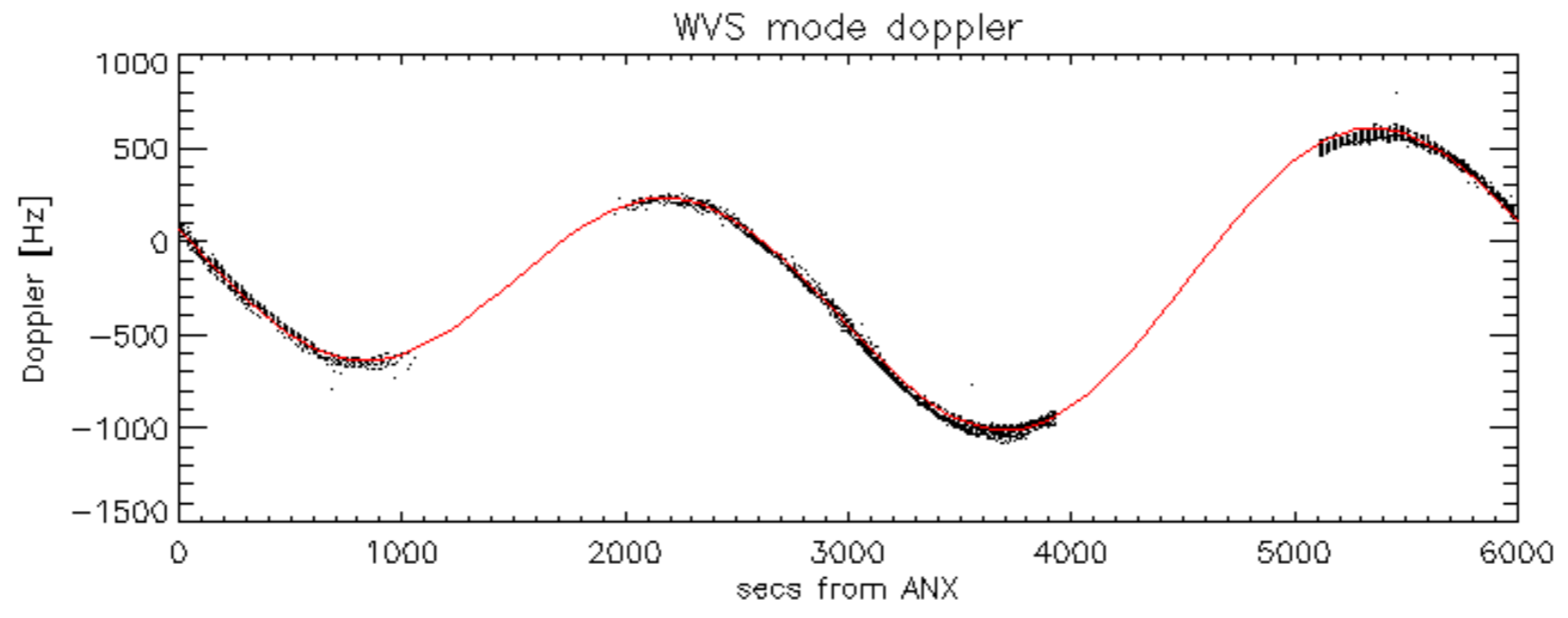


Doppler 'WVS' 'IS2' descending

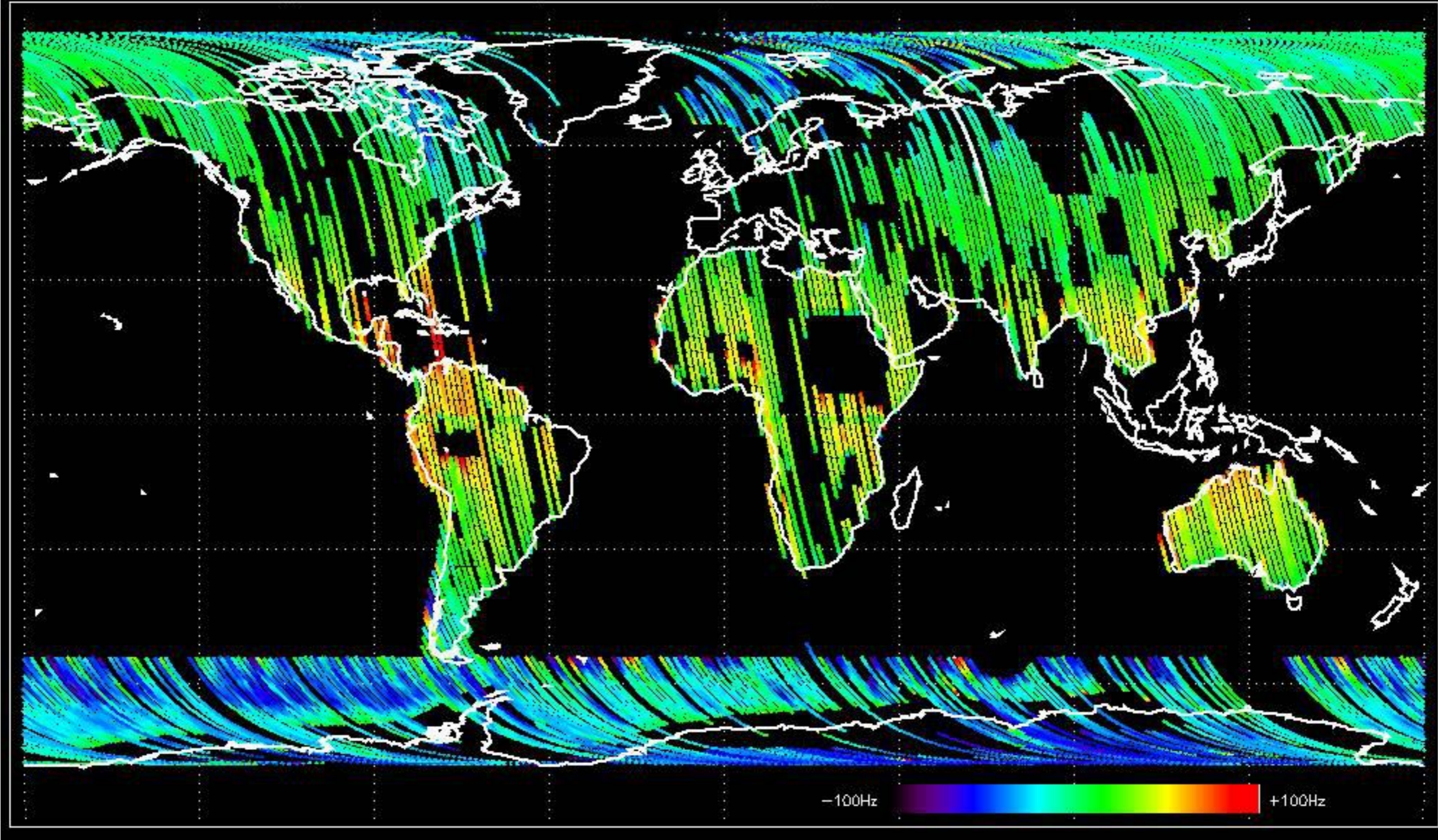


GM1 mode doppler

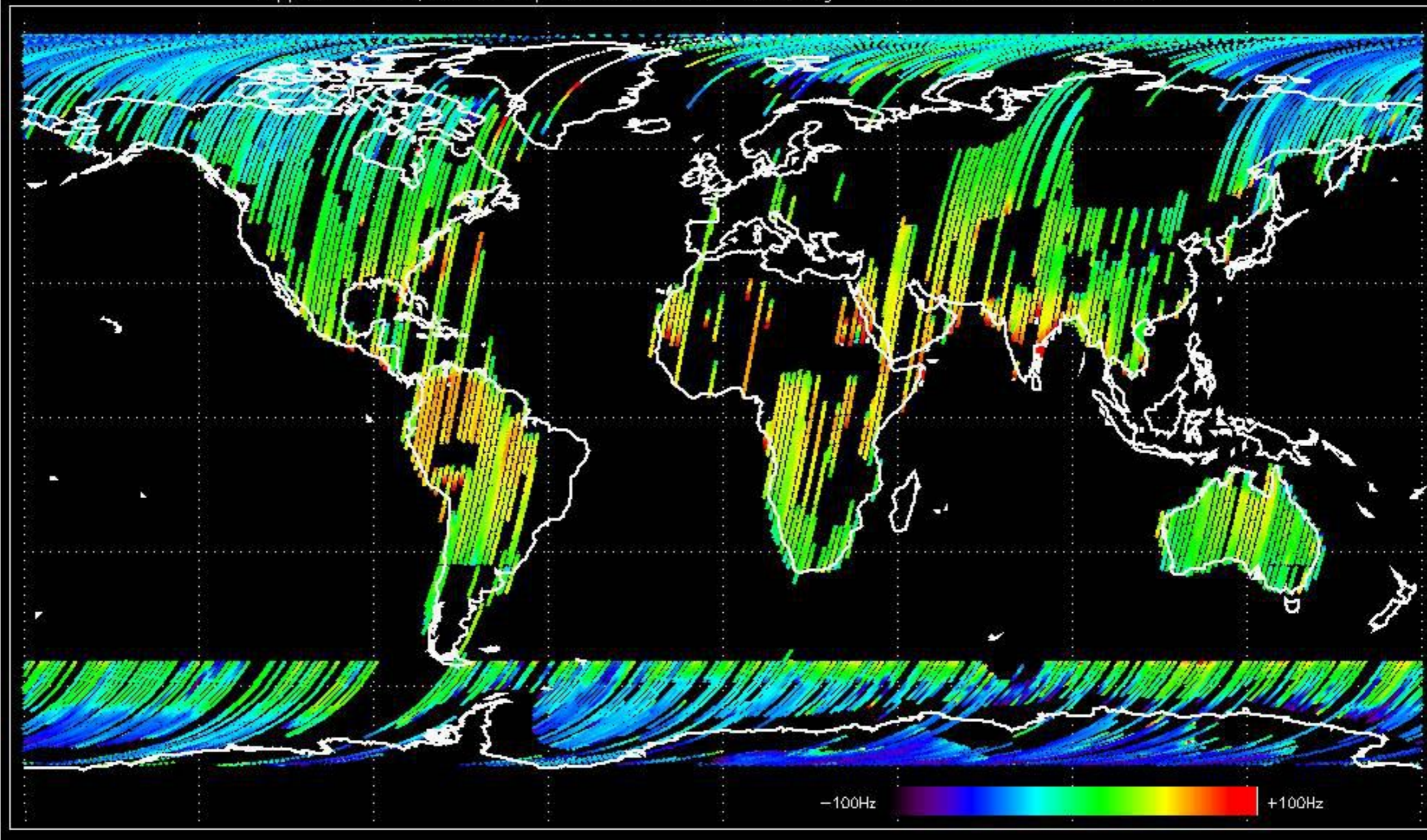




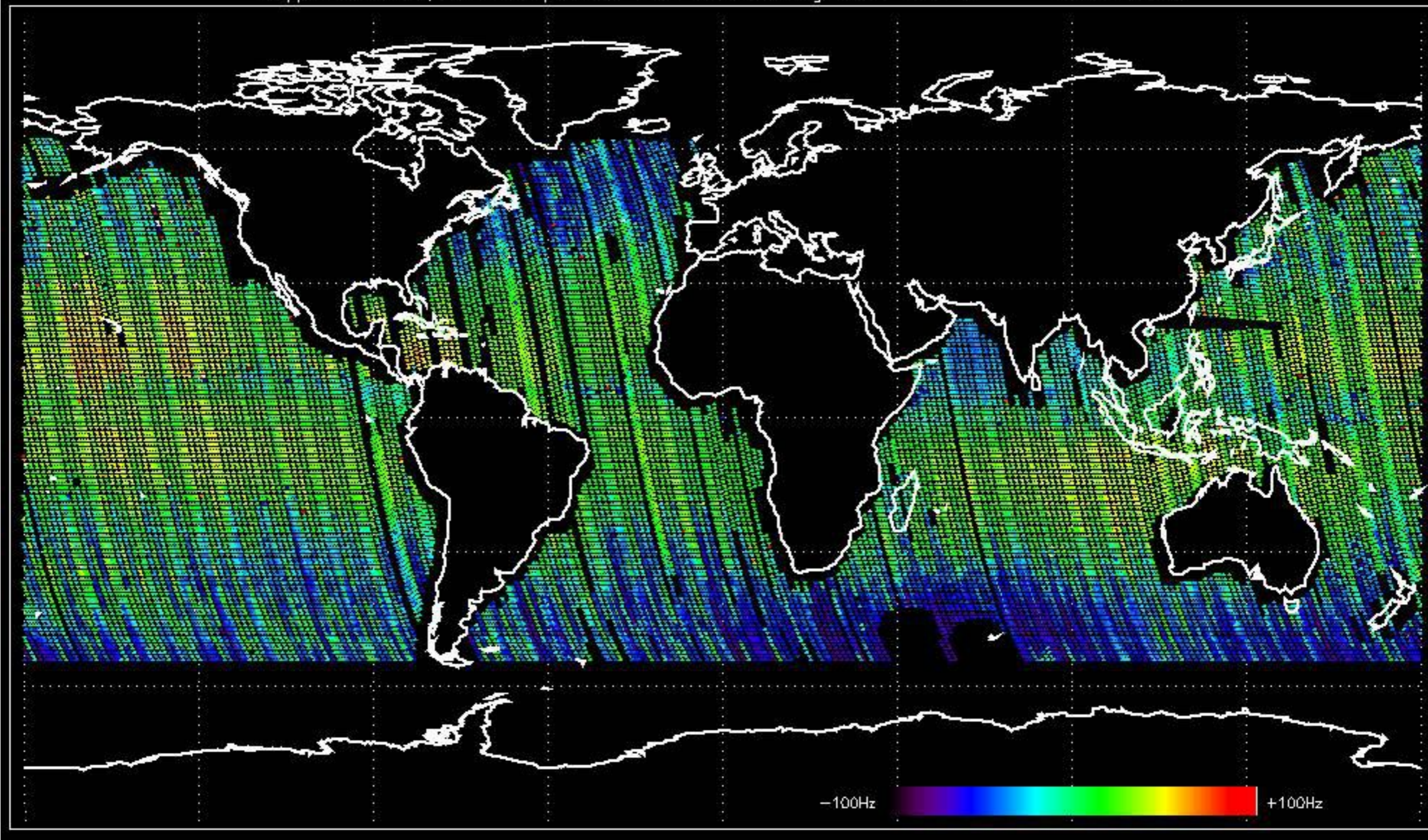
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.991197 Hz



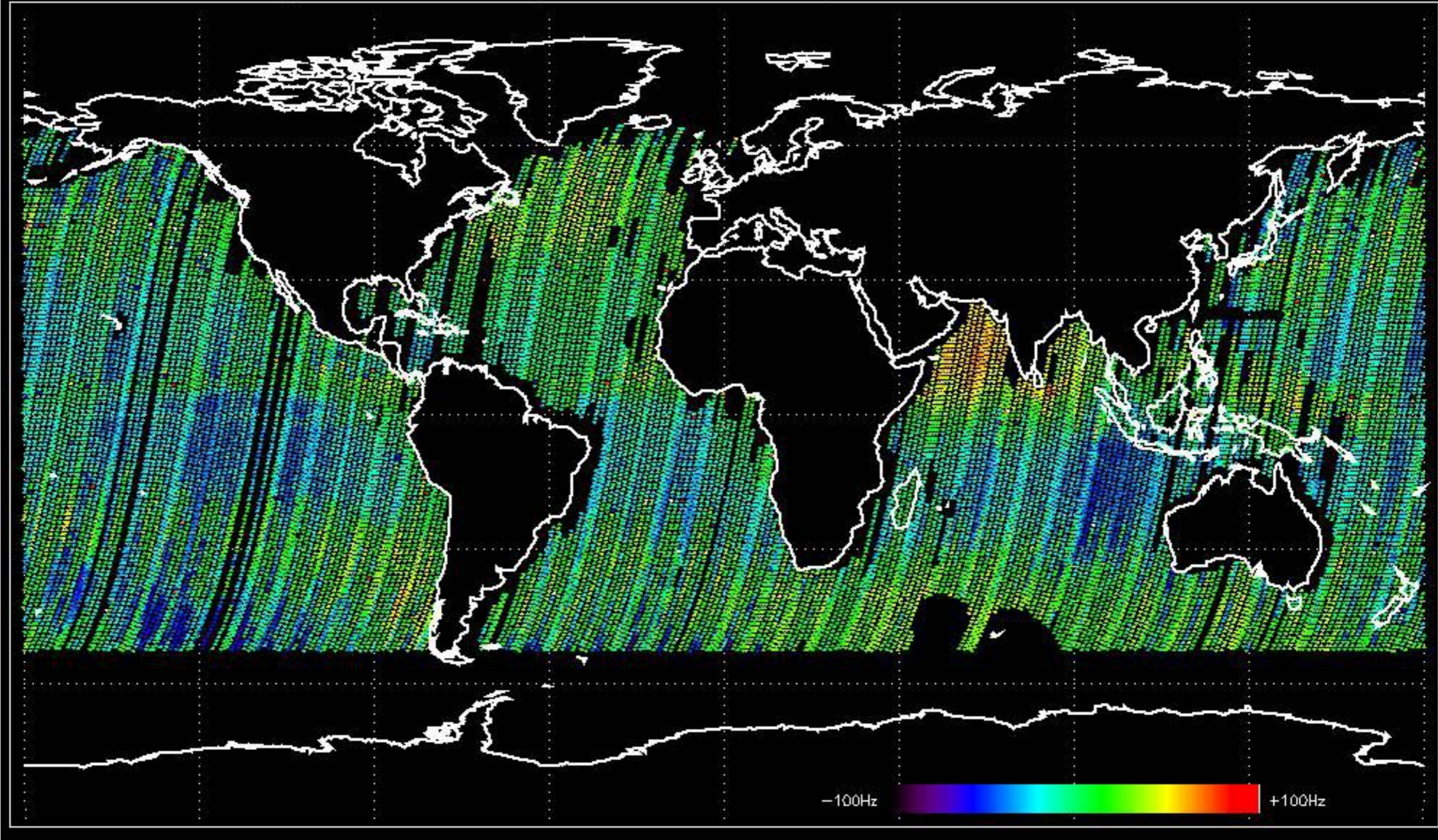
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.8018444 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.4768080 Hz

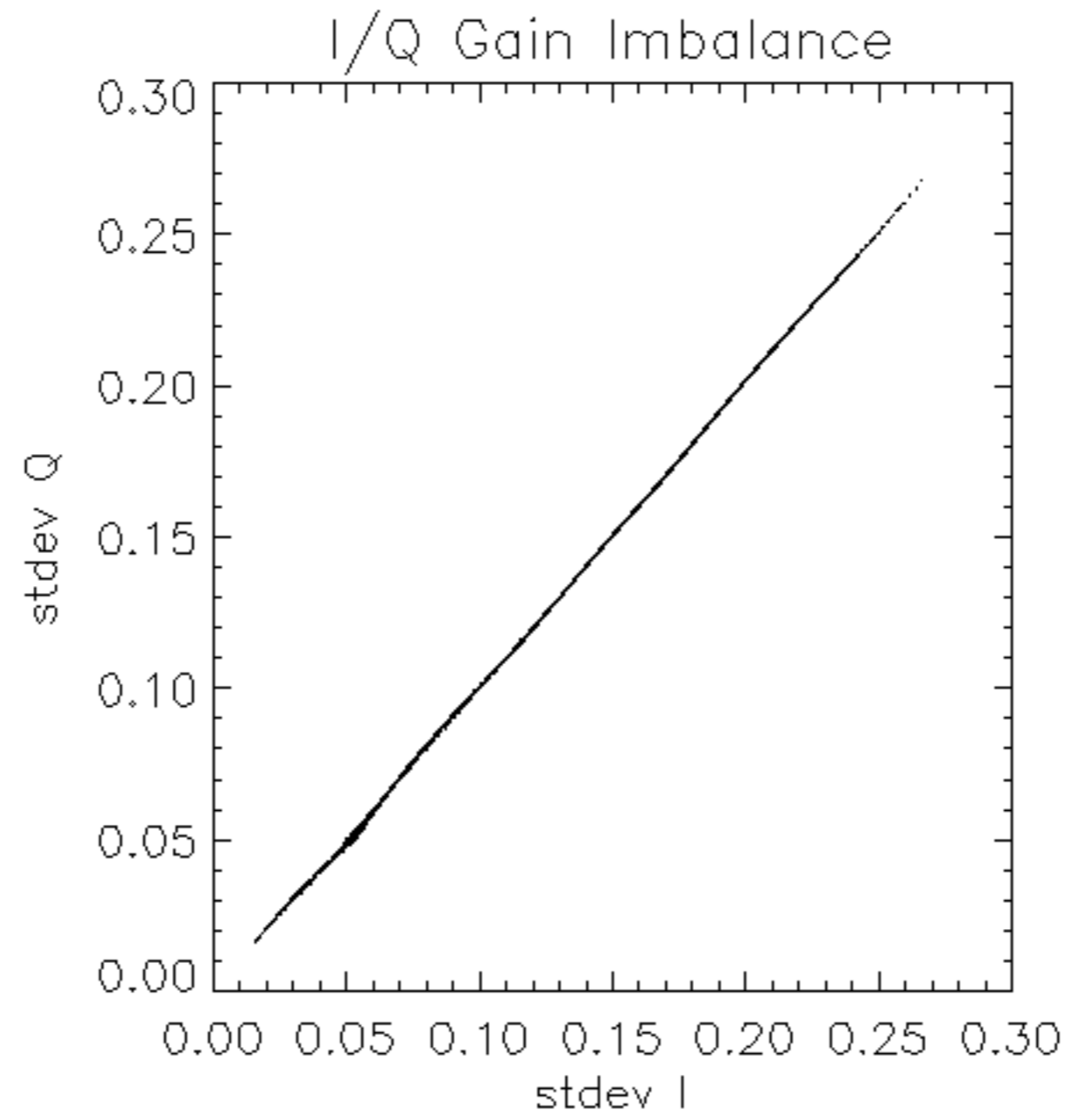


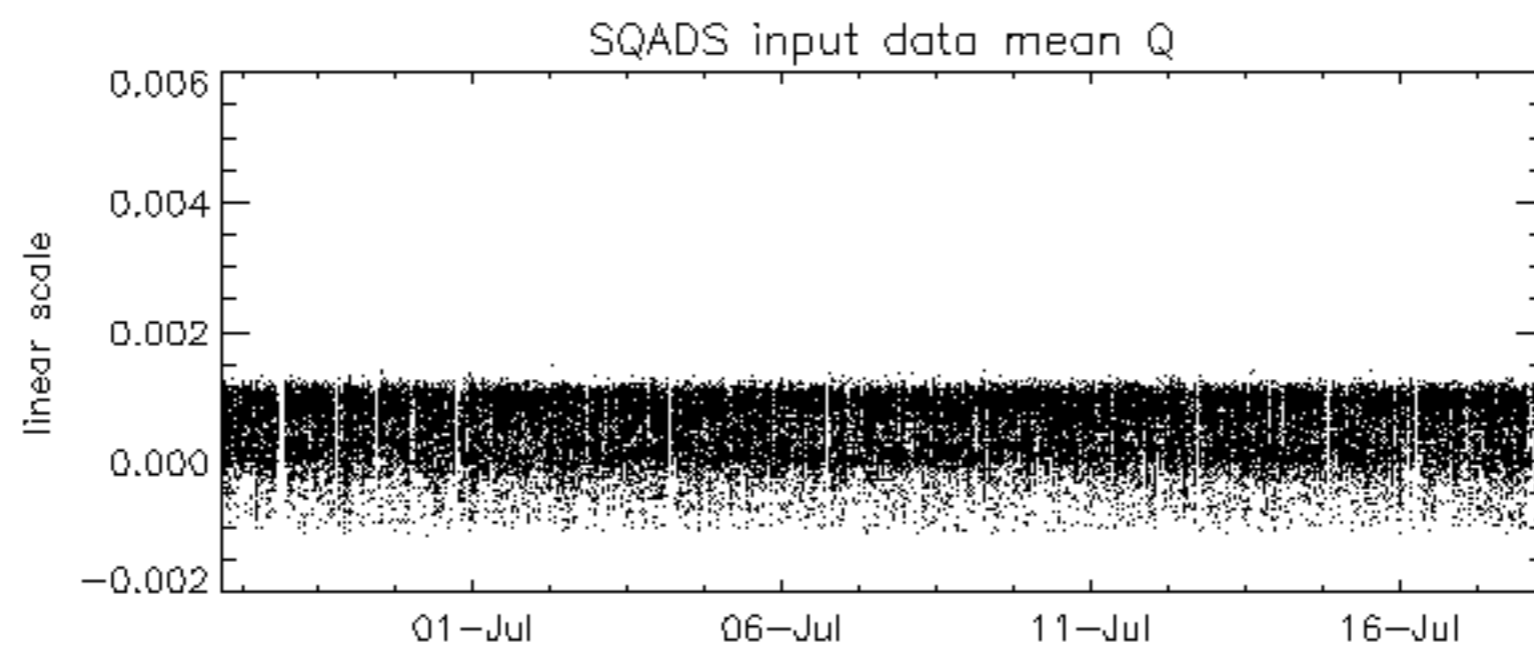
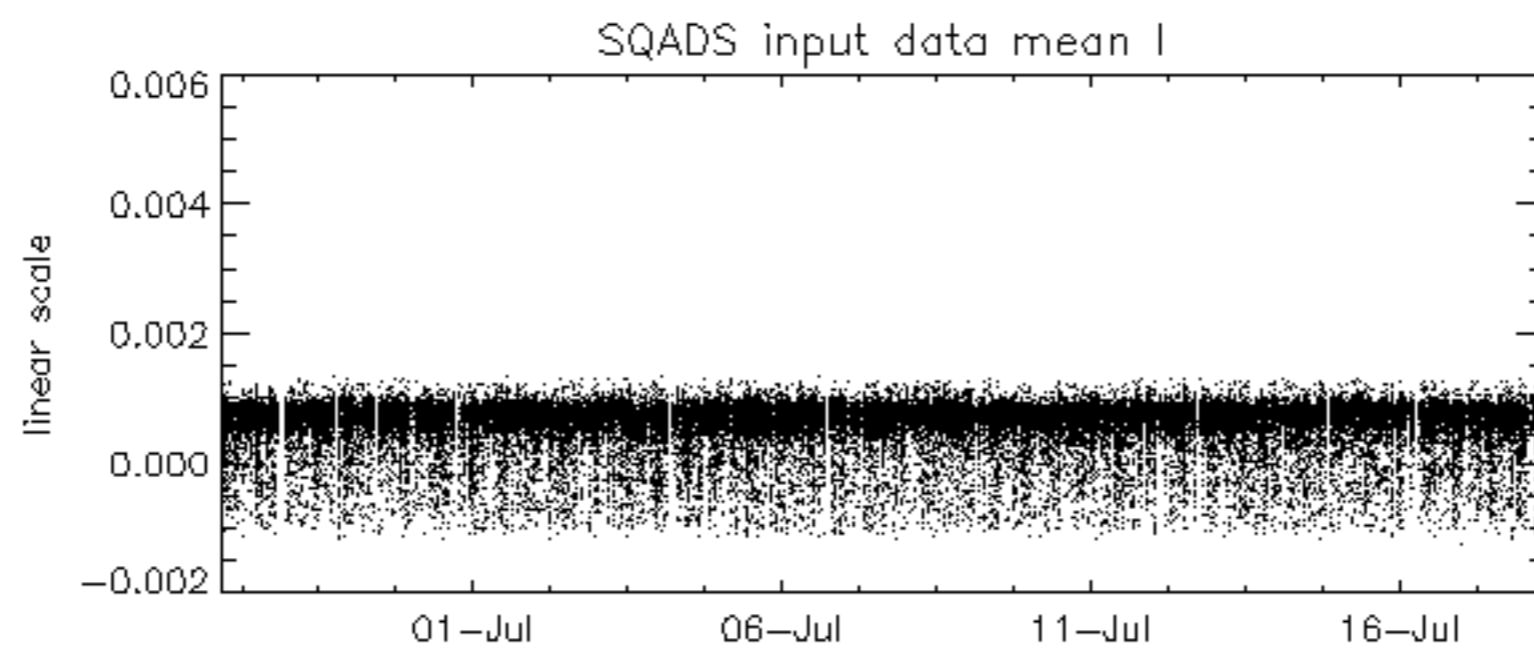
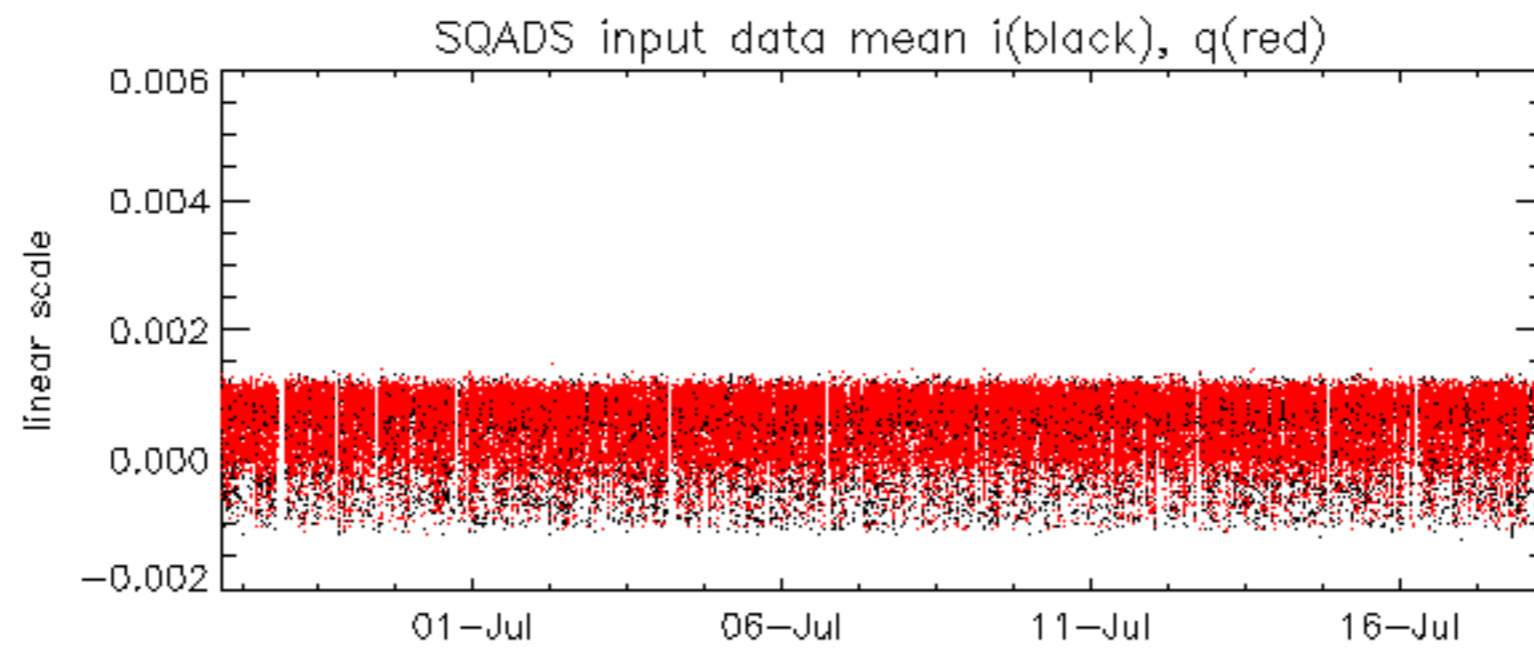
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.475069 Hz

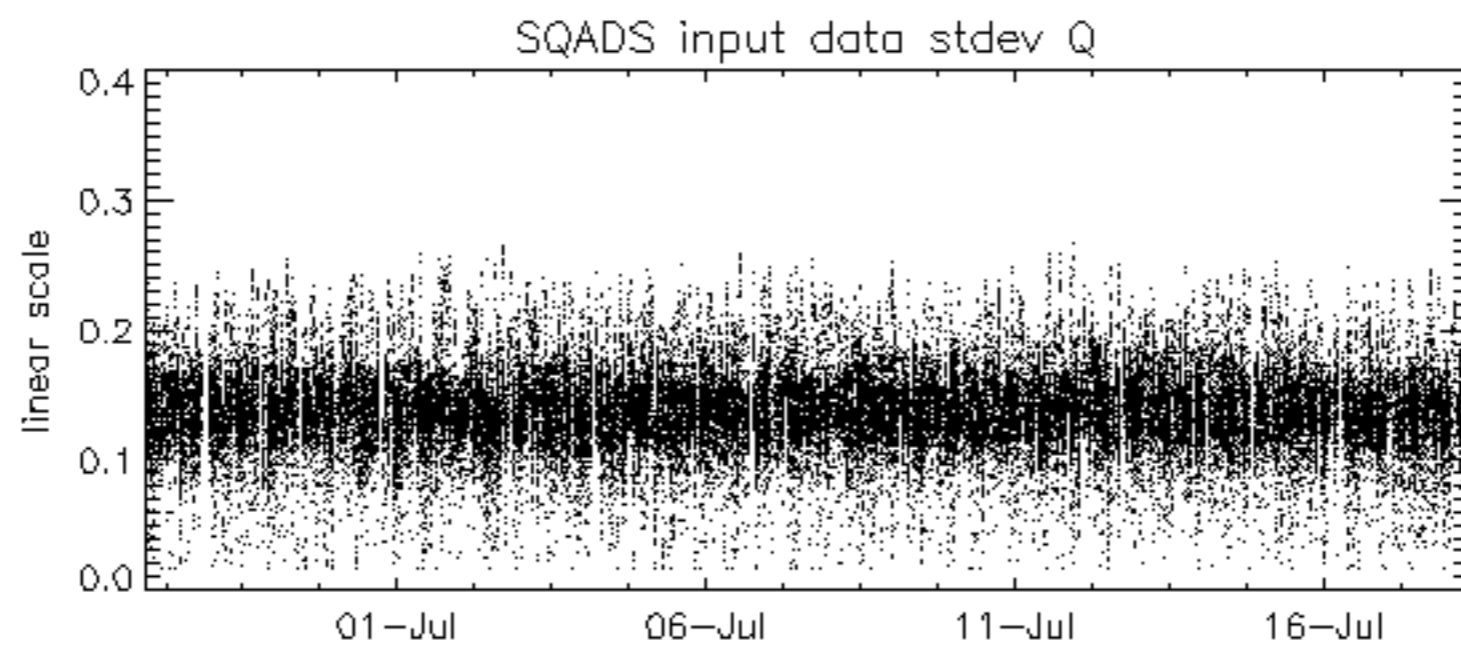
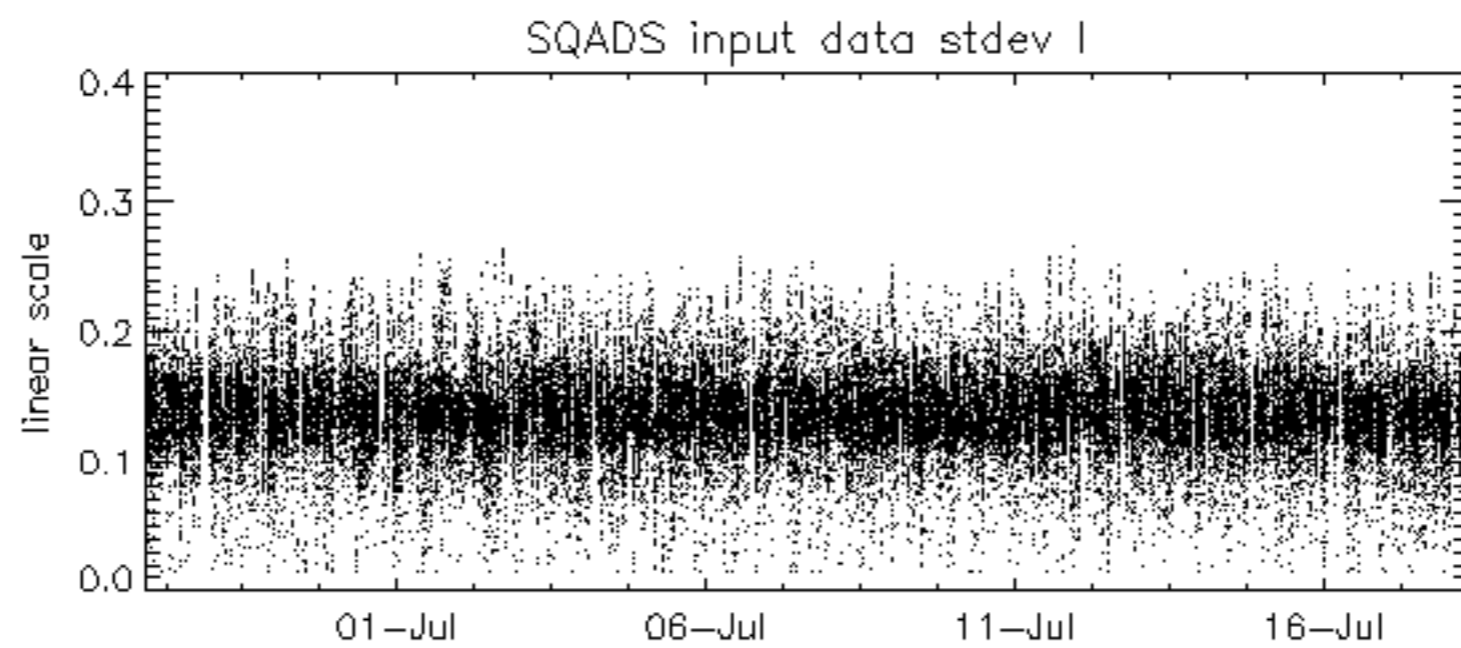
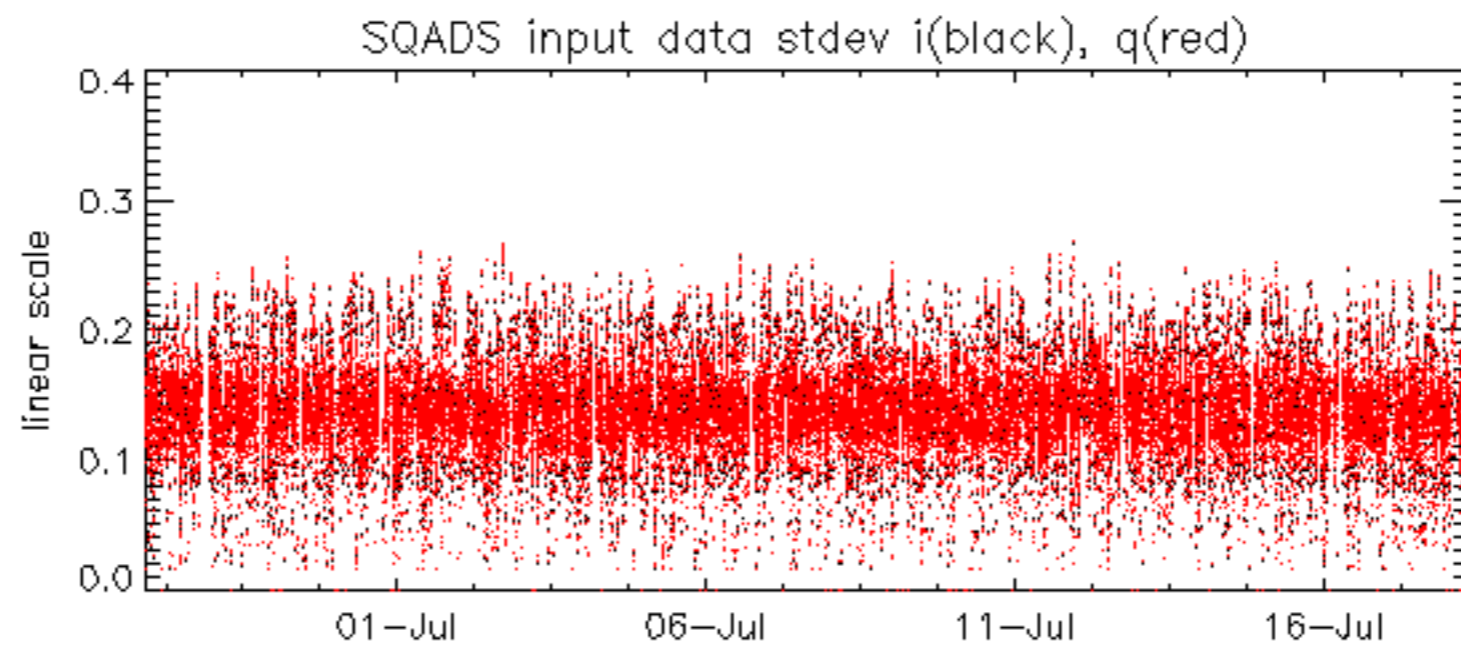


No anomalies observed on available MS products:

No anomalies observed.



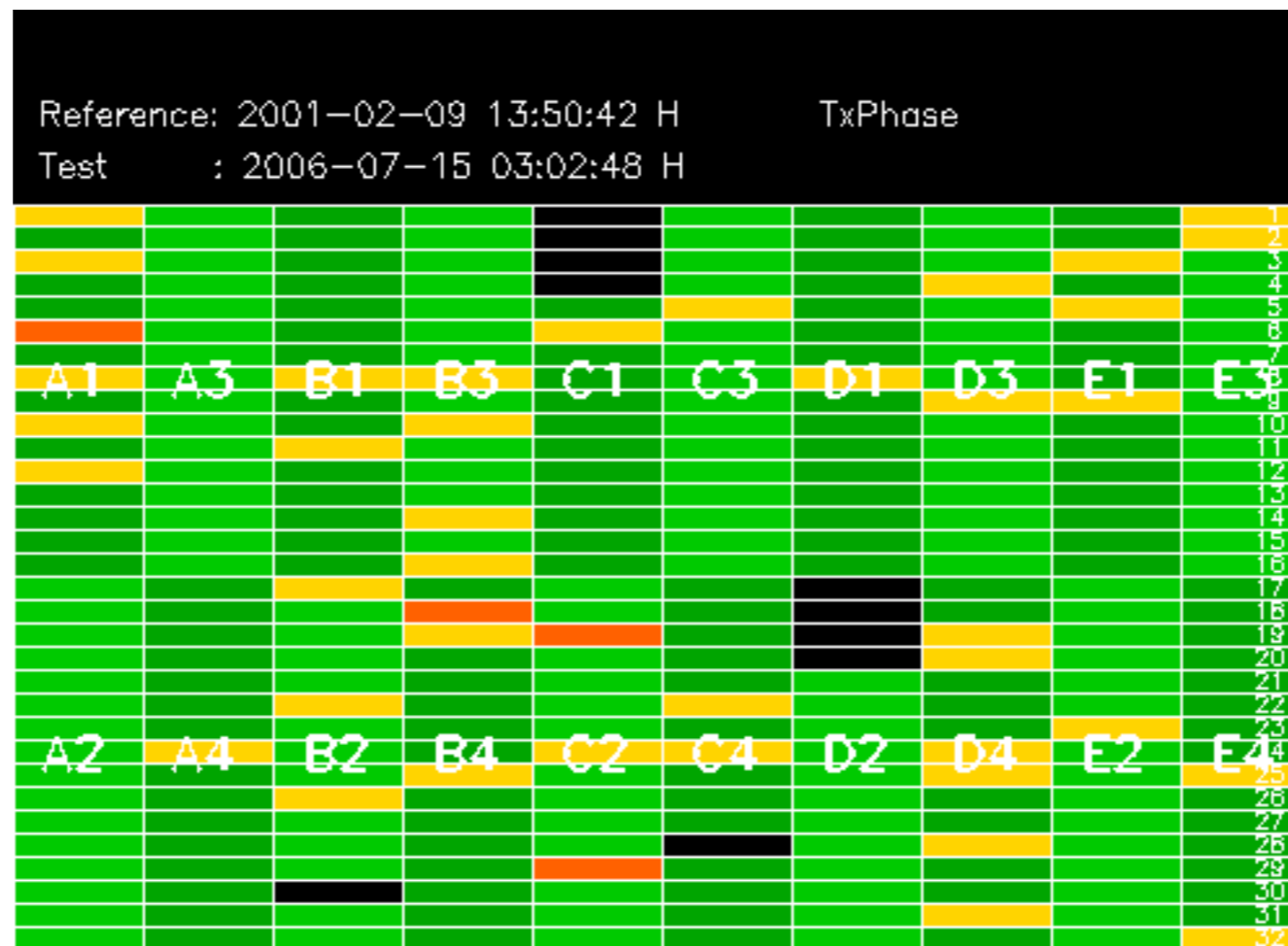




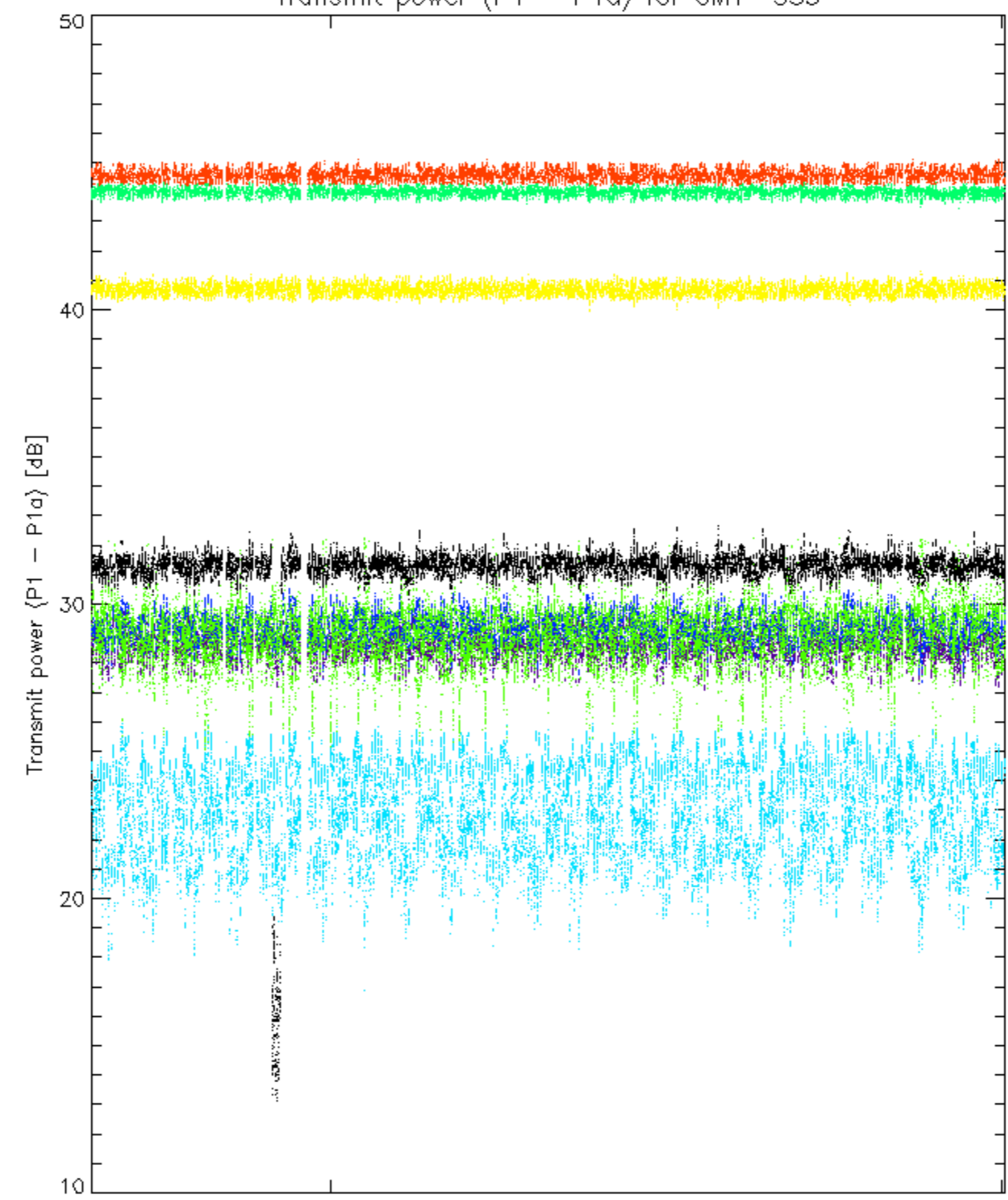
Summary of analysis for the last 3 days 2006071[678]

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

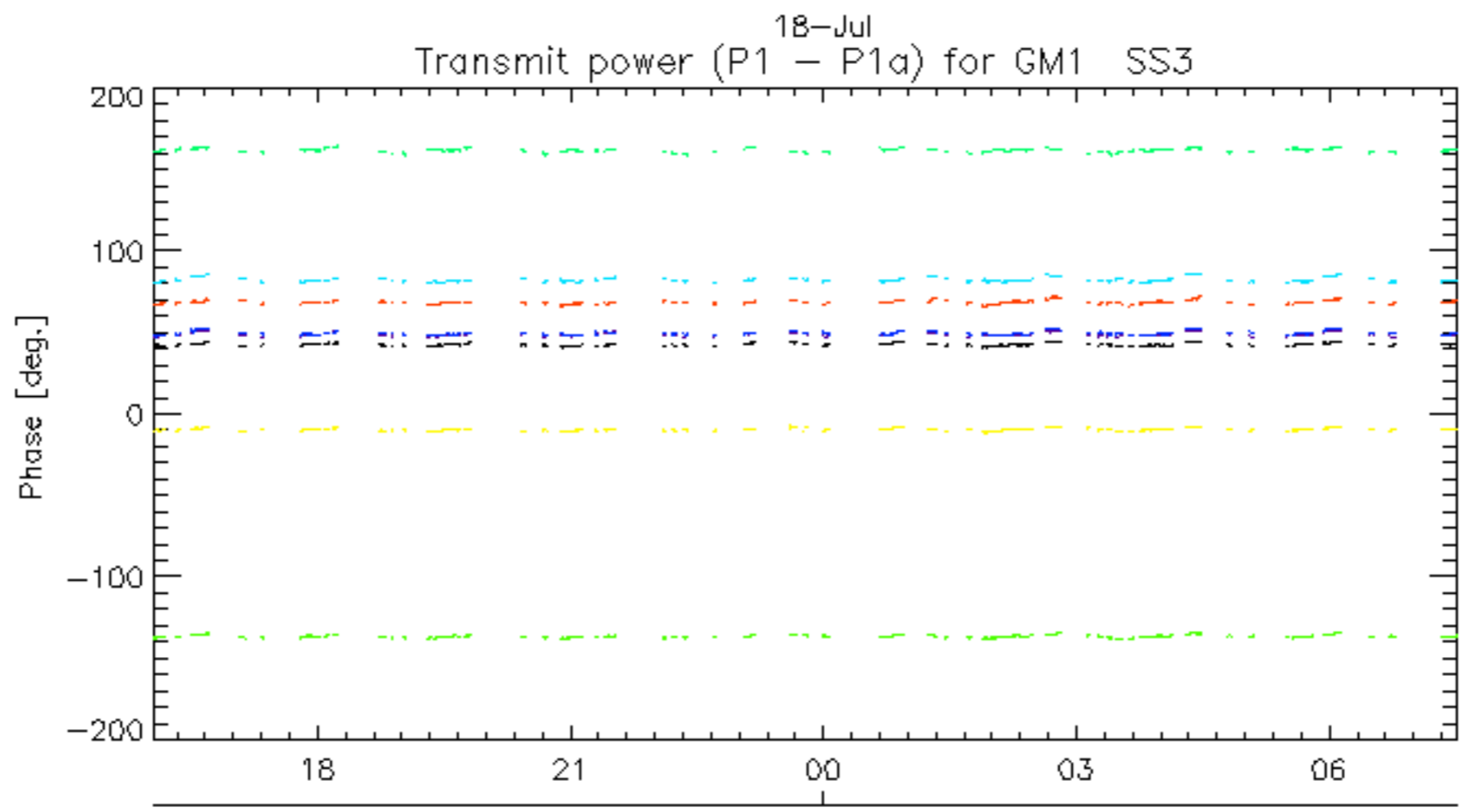
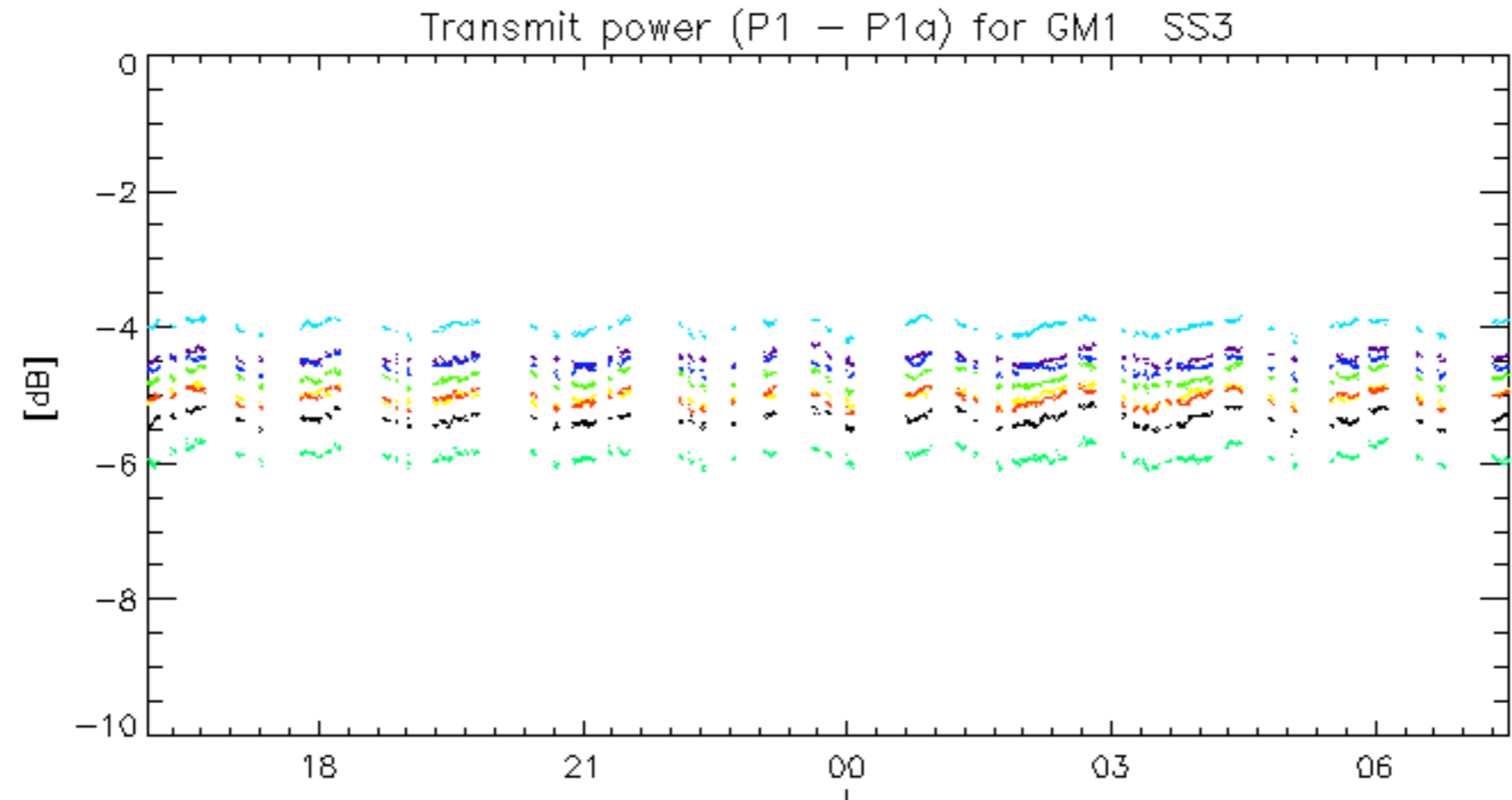
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060717_004744_000002292049_00288_22887_1022.N1	1	0
ASA_IMM_1PNPDE20060717_155733_000002182049_00298_22897_1101.N1	1	0
ASA_IMM_1PNPDE20060718_010021_000000822049_00303_22902_1205.N1	1	0
ASA_GM1_1PNPDK20060717_152259_000005982049_00297_22896_1183.N1	0	15
ASA_GM1_1PNPDK20060717_192314_000004532049_00300_22899_1194.N1	0	23
ASA_WSM_1PNPDE20060716_020953_000001832049_00275_22874_3293.N1	0	39
ASA_WSM_1PNPDE20060716_231436_000000972049_00288_22887_3385.N1	0	58
ASA_WSM_1PNPDE20060717_142239_000000852049_00297_22896_3436.N1	0	7



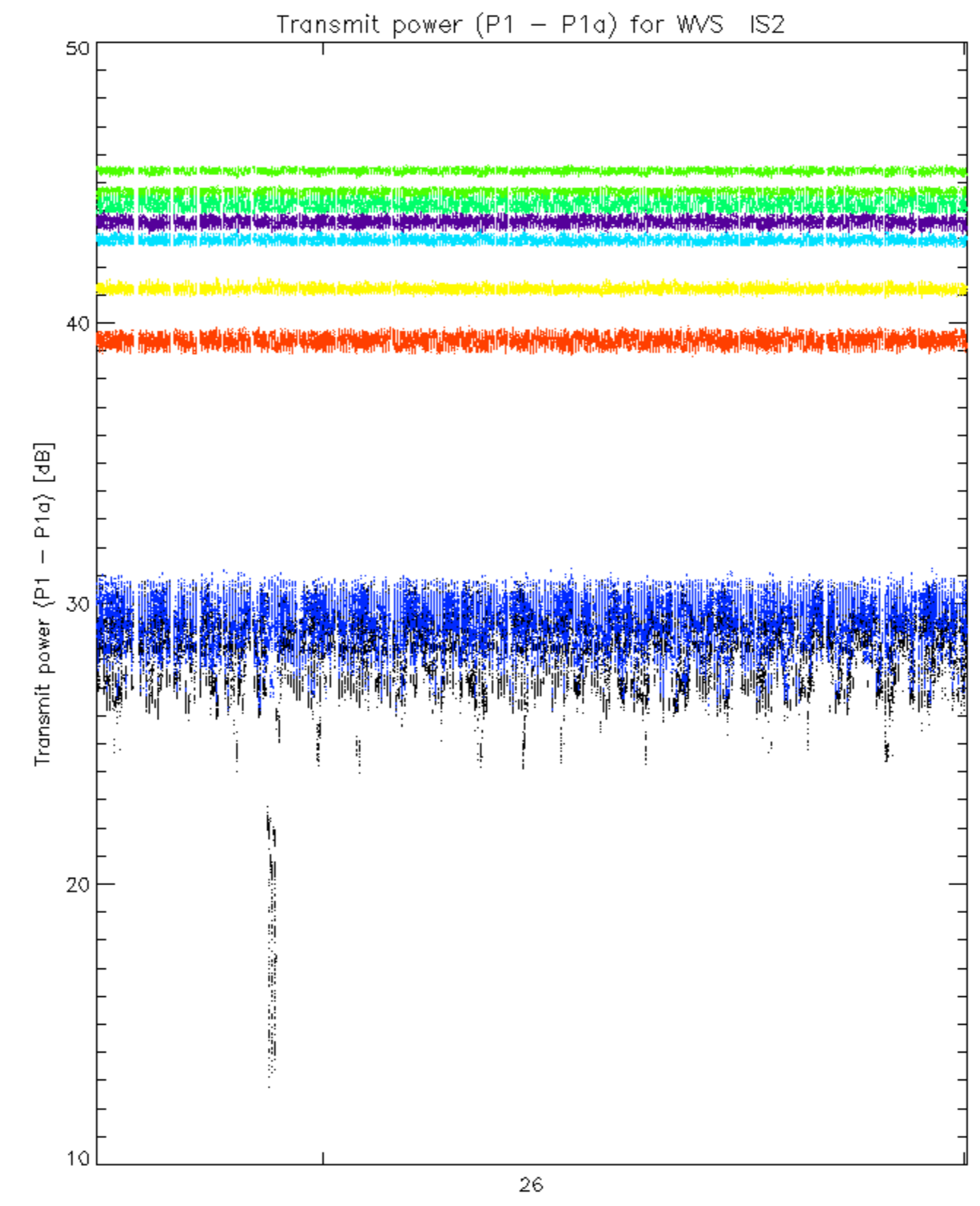
Transmit power (P1 - P1a) for GM1 SS3



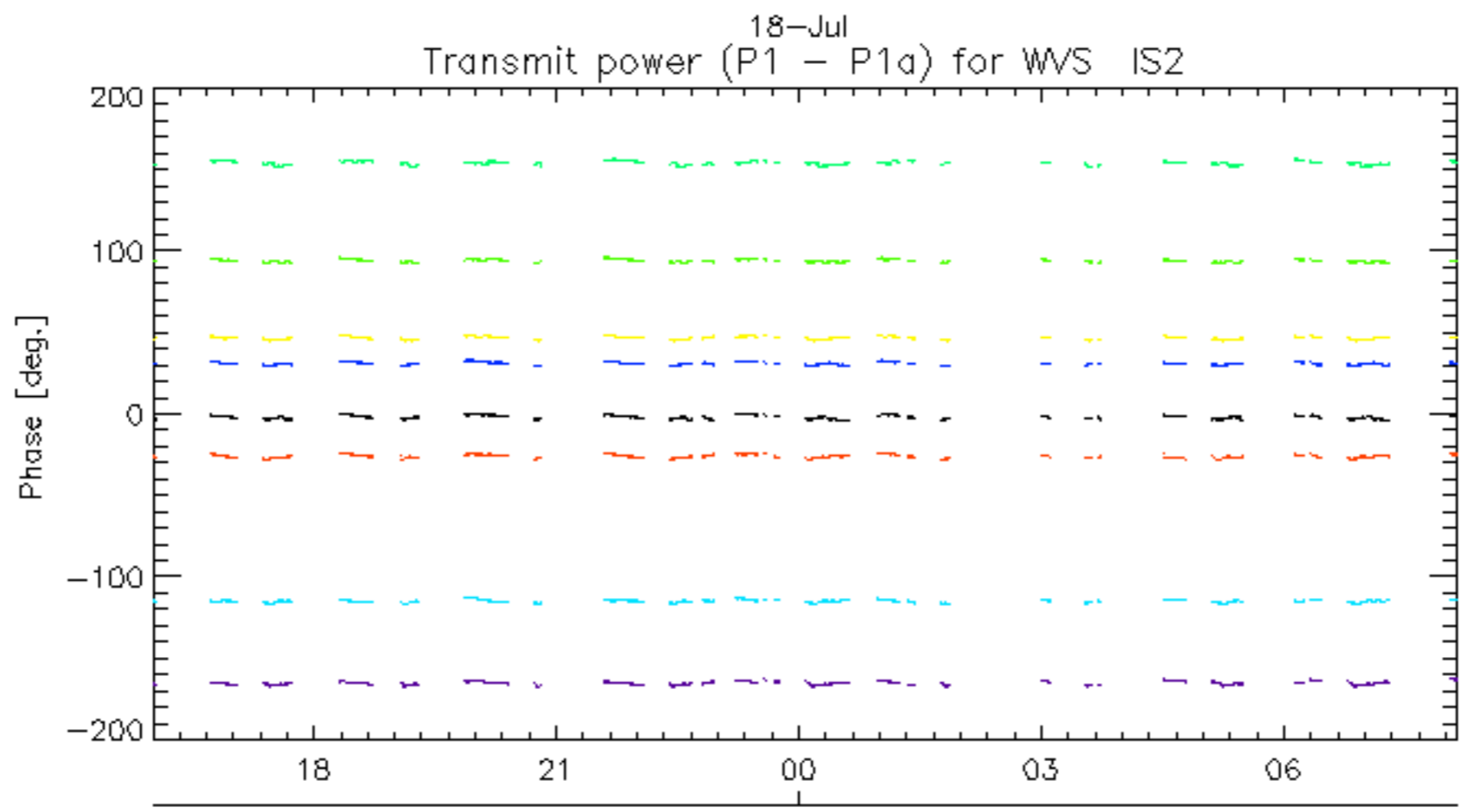
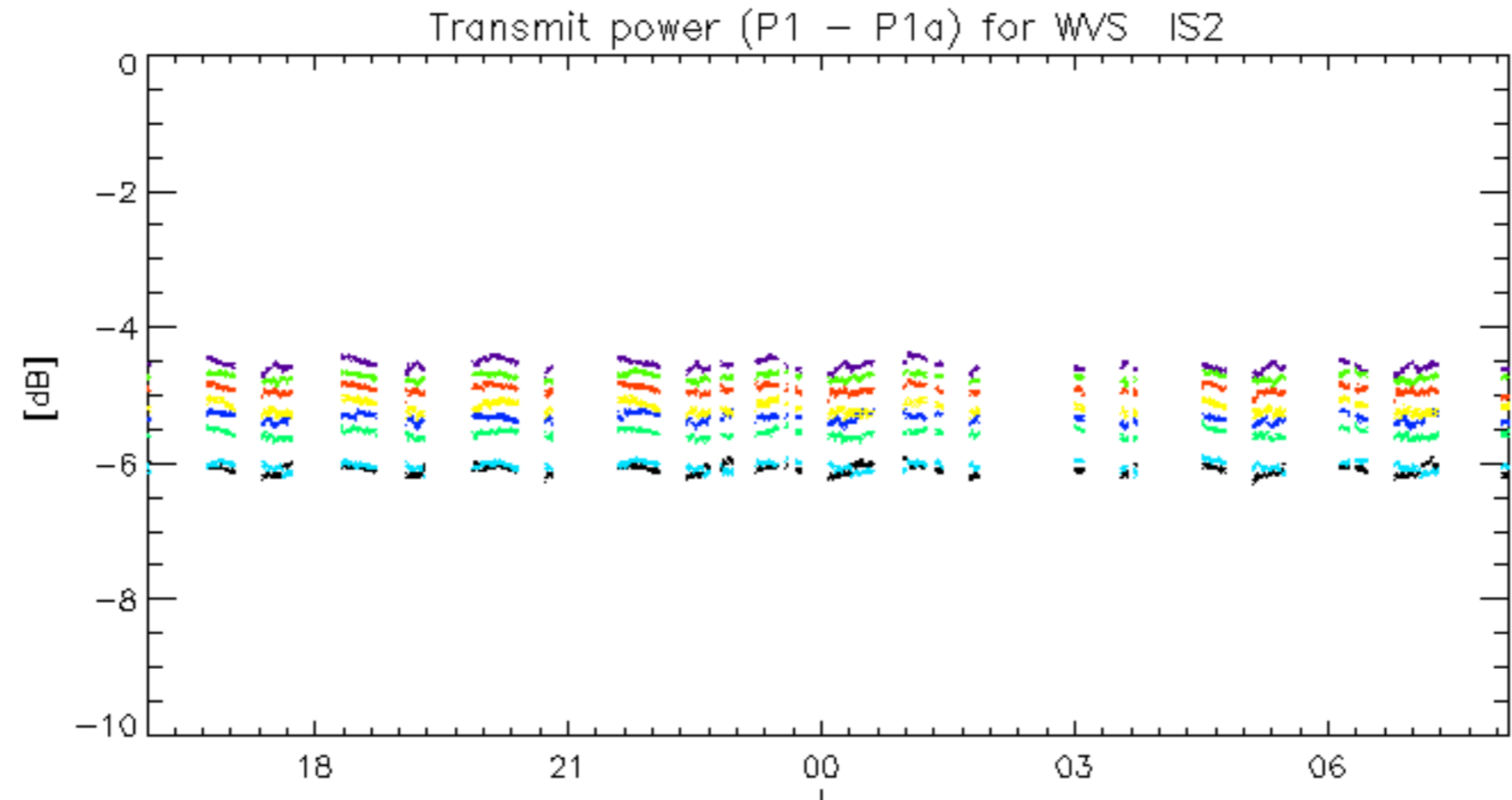
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



18-Jul
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.