

PRELIMINARY REPORT OF 070418

last update on Wed Apr 18 13:54:12 GMT 2007

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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 2007-04-17 00:00:00 to 2007-04-18 13:54:12

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	19	59	1	2	26
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	19	59	1	2	26
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	19	59	1	2	26
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	19	59	1	2	26

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	39	56	23	6	75
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	39	56	23	6	75
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	39	56	23	6	75
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	39	56	23	6	75

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	20070418 043731
H	20070417 050908

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)
3	P1a	-15.057098	0.152455	-0.000914
7	P1a	-17.539219	0.124806	-0.046648
11	P1a	-17.371374	0.323524	-0.642042
15	P1a	-12.946568	0.102067	-0.444408
19	P1a	-15.281830	0.067347	-0.396784
22	P1a	-15.861079	0.409351	-0.758389
26	P1a	-15.098908	0.185084	0.477683
30	P1a	-17.597803	0.278220	-0.741388

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.760786	0.010862	-0.031252
7	P1	-3.146073	0.008981	-0.016645
11	P1	-4.207904	0.012423	-0.036884
15	P1	-6.386107	0.018771	-0.126121
19	P1	-3.791438	0.009539	0.050540
22	P1	-4.744387	0.009070	-0.064614
26	P1	-3.932869	0.018069	0.103760
30	P1	-5.971213	0.009229	0.034324

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.660959	0.090079	-0.083657
7	P2	-21.579462	0.085575	0.108964
11	P2	-15.390987	0.111133	0.178895
15	P2	-7.124370	0.087319	-0.040516
19	P2	-9.121386	0.077897	0.032162
22	P2	-18.089691	0.075626	-0.003998
26	P2	-16.609043	0.078628	-0.052782
30	P2	-19.287539	0.081077	-0.007153

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.244880	0.005320	-0.025706
7	P3	-8.244880	0.005320	-0.025706
11	P3	-8.244880	0.005320	-0.025706
15	P3	-8.244880	0.005320	-0.025706
19	P3	-8.244880	0.005320	-0.025706
22	P3	-8.244880	0.005320	-0.025706
26	P3	-8.244880	0.005320	-0.025706
30	P3	-8.244880	0.005320	-0.025706

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1a	-11.182500	0.048177	-0.137585
7	P1a	-10.045740	0.068366	0.172827
11	P1a	-10.686032	0.048799	0.186200
15	P1a	-10.841691	0.135911	0.181416
19	P1a	-15.797437	0.068789	-0.175614
22	P1a	-21.306635	1.401875	-0.804559
26	P1a	-15.466917	0.370199	-0.522132
30	P1a	-18.354944	0.444364	0.369223

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.452944	0.019911	-0.029795
7	P1	-2.409064	0.010552	0.103597
11	P1	-2.895360	0.013345	0.115616
15	P1	-3.824163	0.028779	0.088039
19	P1	-3.586265	0.012138	-0.051901
22	P1	-4.985076	0.021489	0.107065
26	P1	-6.032601	0.021388	-0.084389
30	P1	-5.335790	0.025855	-0.054100

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.169430	0.045707	-0.157621
7	P2	-22.047649	0.073813	-0.223465
11	P2	-10.634743	0.033115	-0.107922
15	P2	-4.909387	0.037804	-0.155305
19	P2	-6.866684	0.035096	-0.114534
22	P2	-8.110537	0.031702	-0.061654
26	P2	-24.326447	0.052851	-0.151188
30	P2	-21.724688	0.060884	0.004020

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091266	0.004520	-0.037270
7	P3	-8.091308	0.004533	-0.036652
11	P3	-8.091020	0.004522	-0.036541
15	P3	-8.091007	0.004524	-0.037007
19	P3	-8.091195	0.004553	-0.036481
22	P3	-8.091174	0.004507	-0.035907
26	P3	-8.091216	0.004520	-0.036480
30	P3	-8.091165	0.004514	-0.037469

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	0.000540232
	stdev	2.06726e-07
MEAN Q	mean	0.000490837
	stdev	2.46161e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135373
	stdev	0.00123023
STDEV Q	mean	0.135769
	stdev	0.00124834



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007041[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_GM1_1PNPDK20070416_104529_000007852057_00194_26801_0620.N1	0	9
ASA_GM1_1PNPDK20070416_113741_000003382057_00195_26802_0690.N1	0	7
ASA_GM1_1PNPDK20070416_140352_000009242057_00196_26803_0926.N1	0	14
ASA_WSM_1PNPDE20070416_162338_000002022057_00198_26805_4306.N1	0	46
ASA_WSM_1PNPDE20070416_180337_000001652057_00199_26806_4346.N1	0	5
ASA_WSM_1PNPDE20070416_202300_000000672057_00200_26807_4388.N1	0	74
ASA_WSM_1PNPDE20070416_234905_000002022057_00202_26809_4826.N1	0	31
ASA_WSM_1PNPDE20070417_112928_000000852057_00209_26816_5448.N1	0	52
ASA_WSM_1PNPDE20070417_190808_000001712057_00214_26821_5641.N1	0	73

ASA_WSM_1PNPDE20070418_005604_000000852057_00217_26824_6083.N1	0	31
ASA_WSM_1PNPDK20070417_122637_000001462057_00210_26817_1935.N1	0	36



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

7.2 - Absolute Doppler for WVS

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

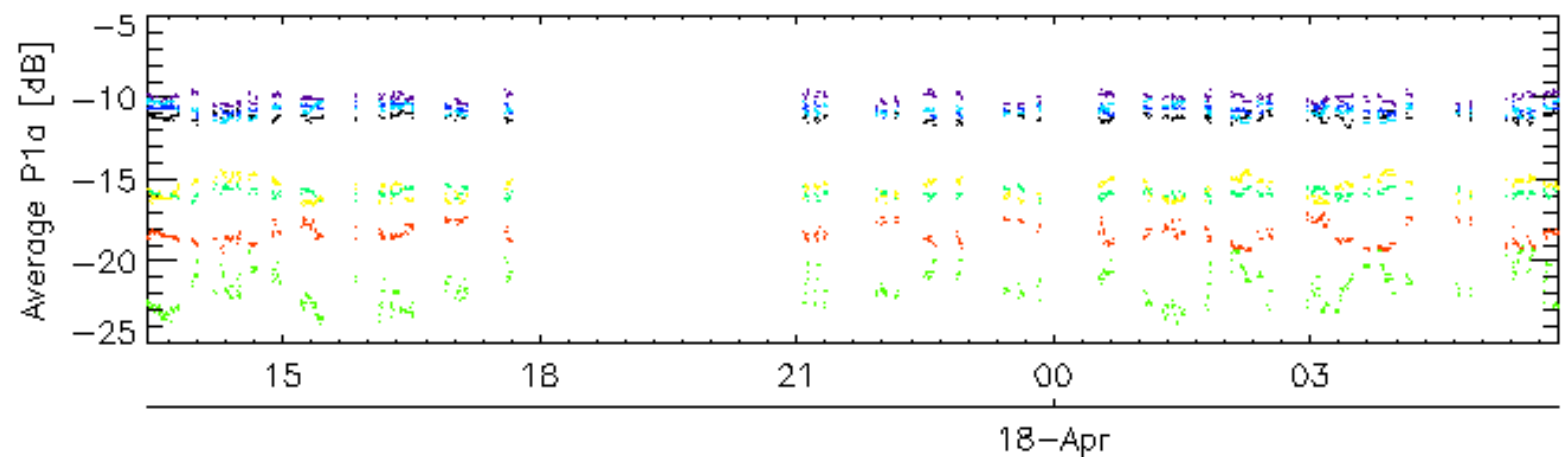
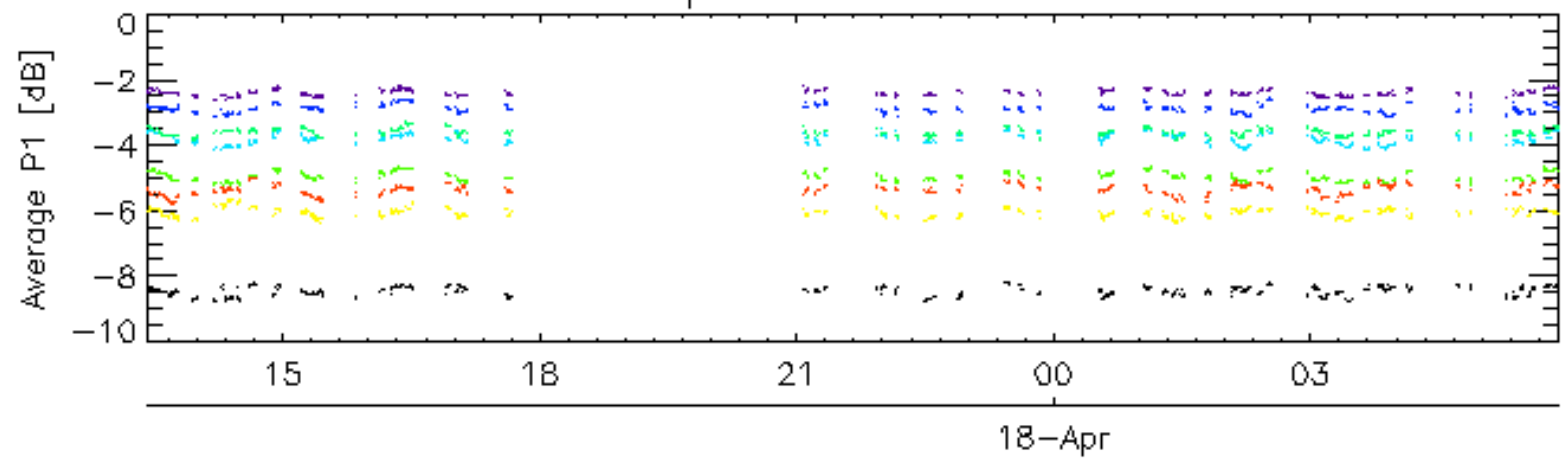
7.5 - Absolute Doppler for GM1

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

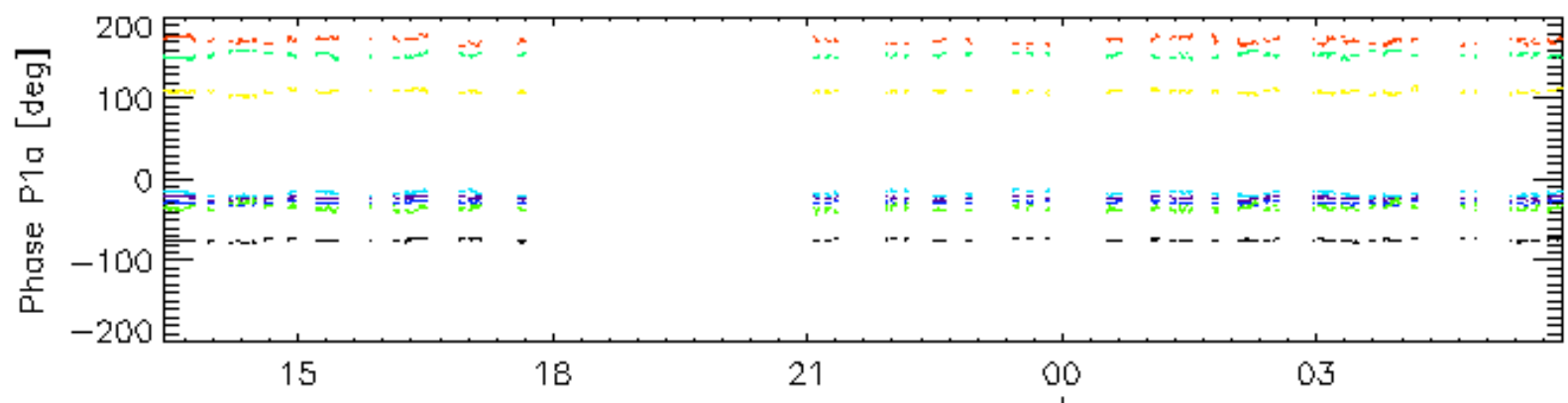
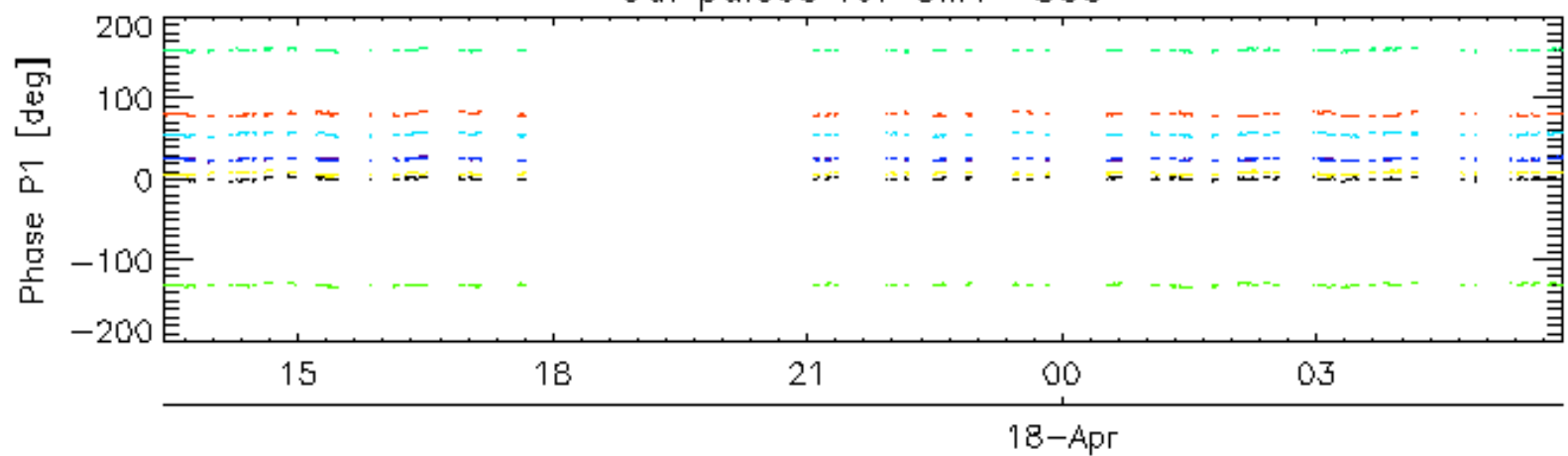
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

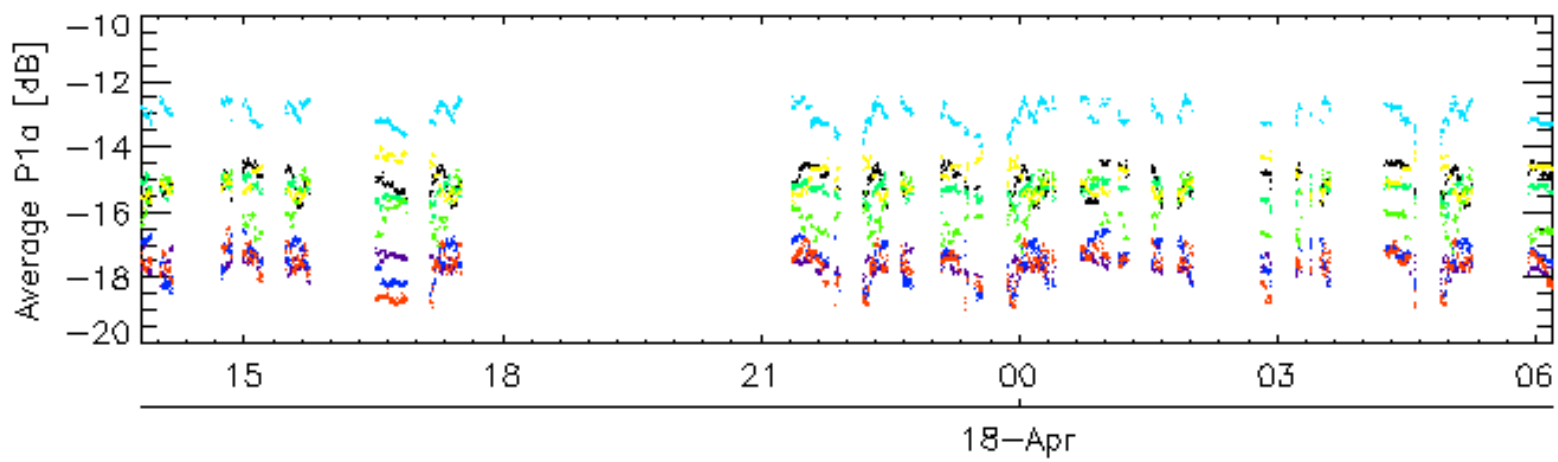
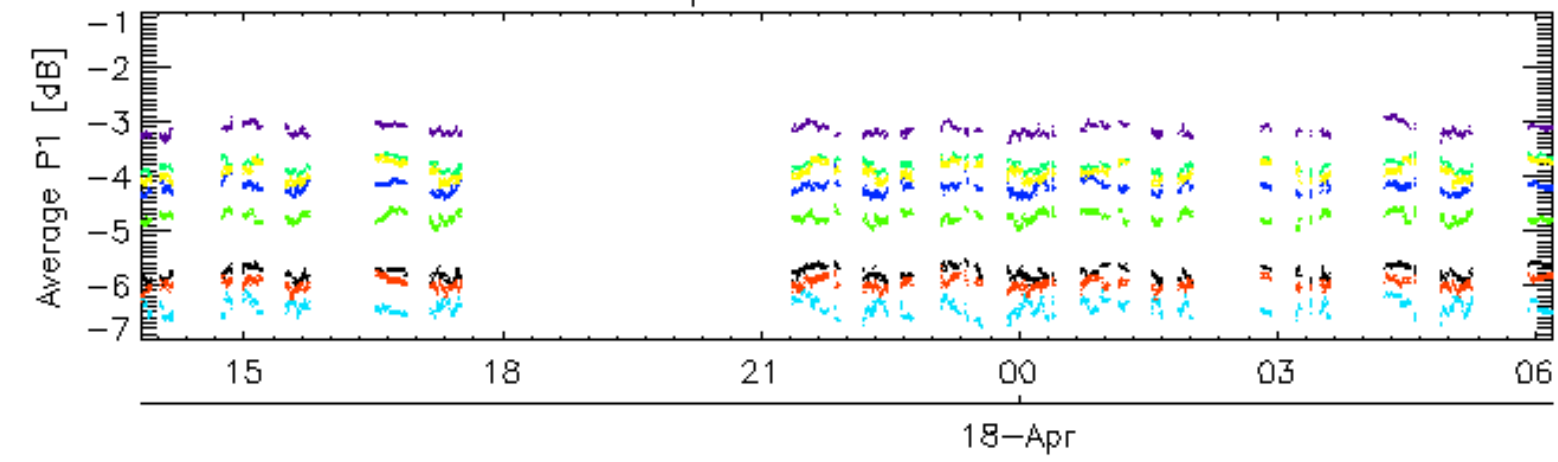


Cal pulses for GM1 SS3

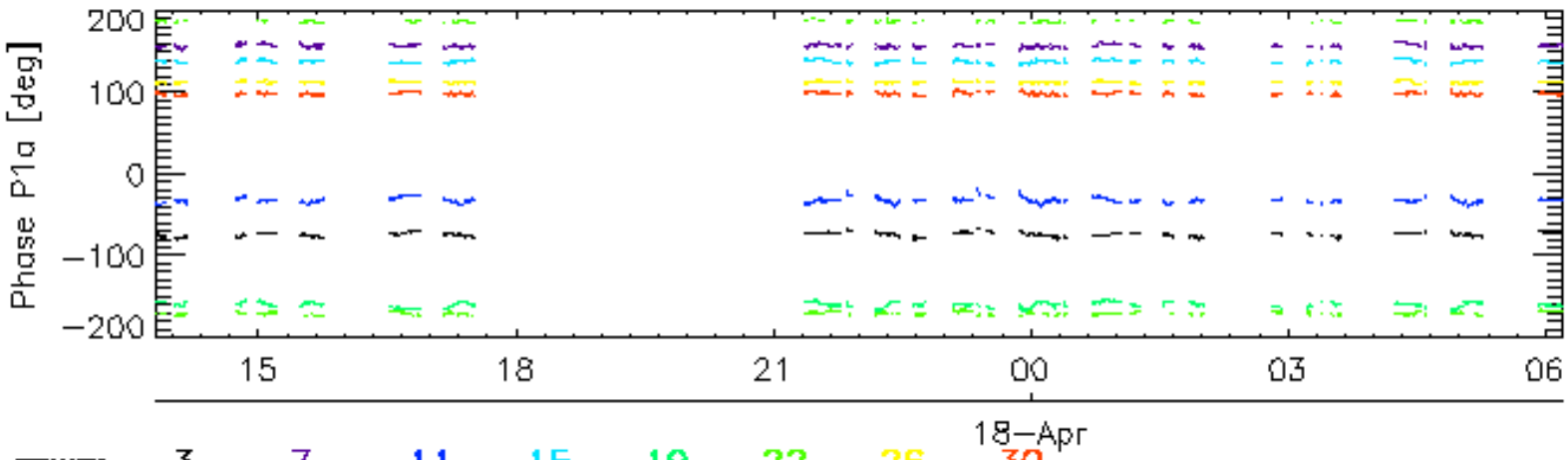
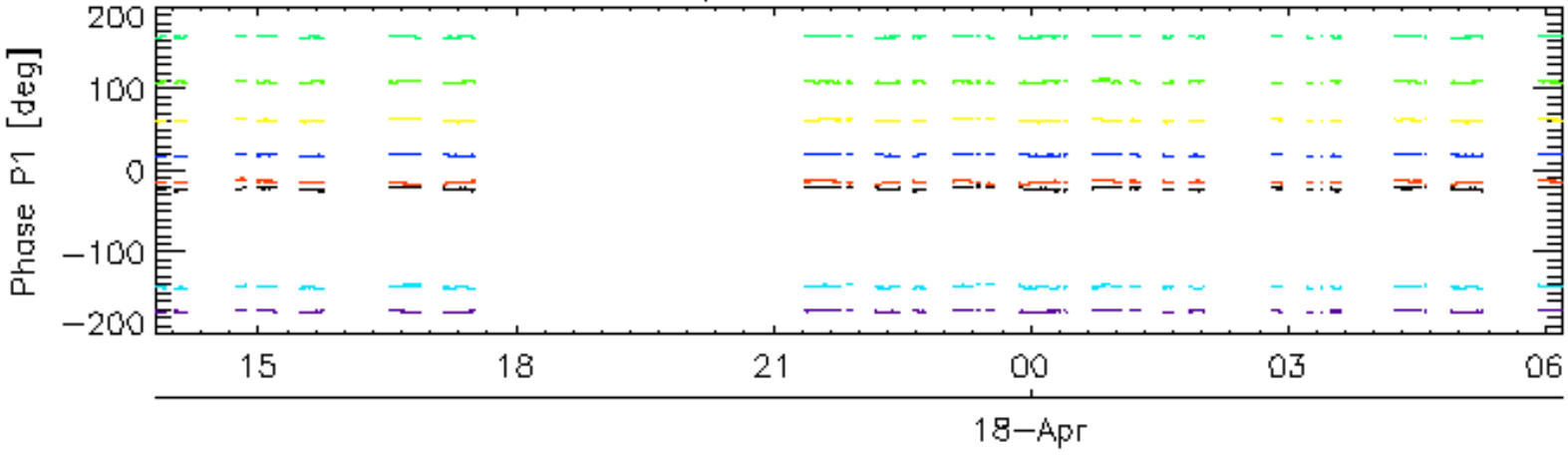


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 18-Apr

Cal pulses for WVS IS2

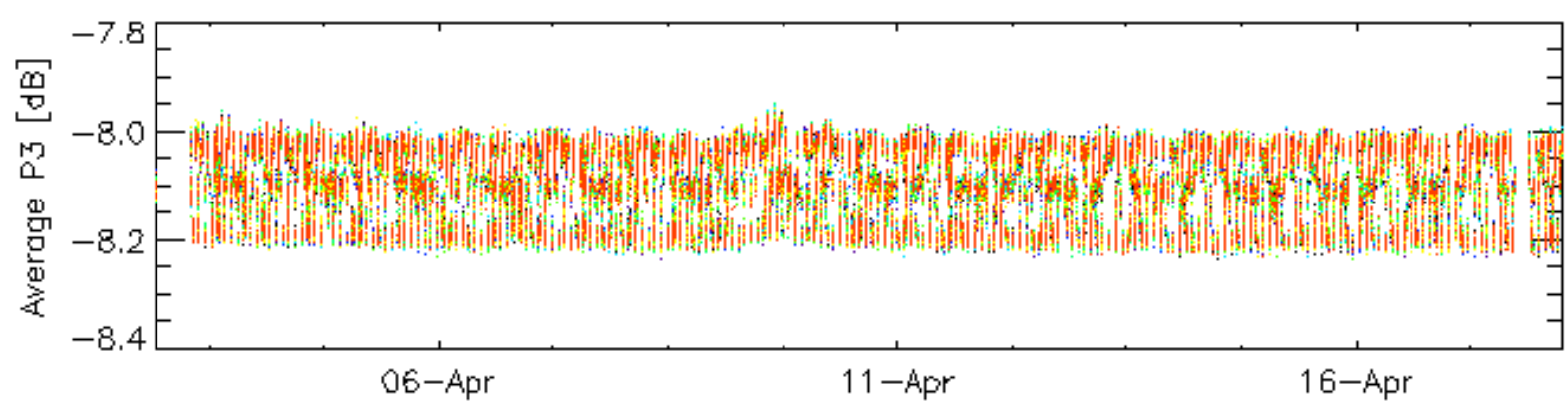
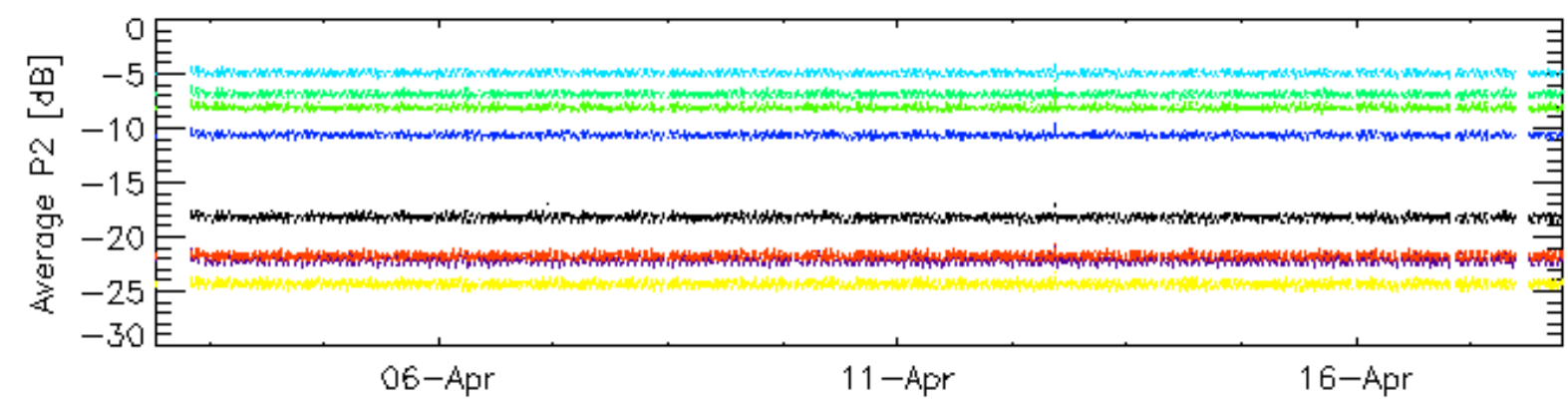
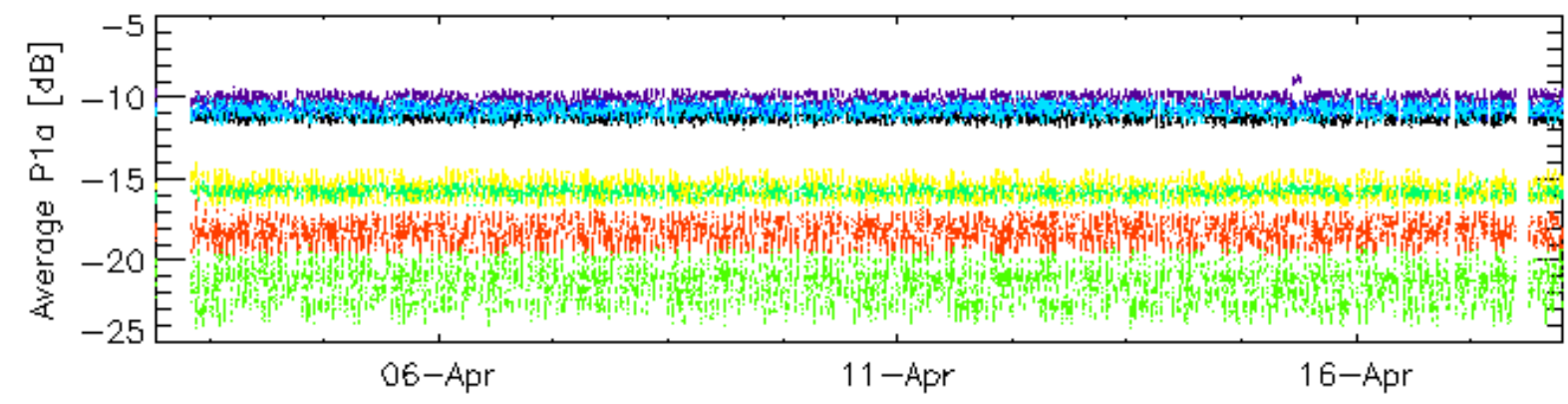
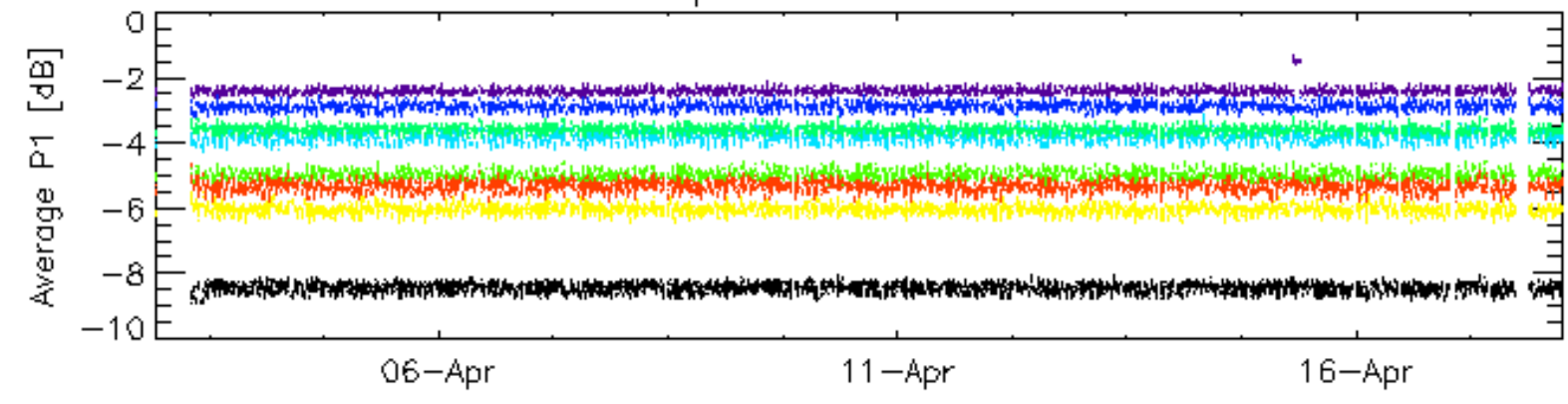


Cal pulses for WVS IS2



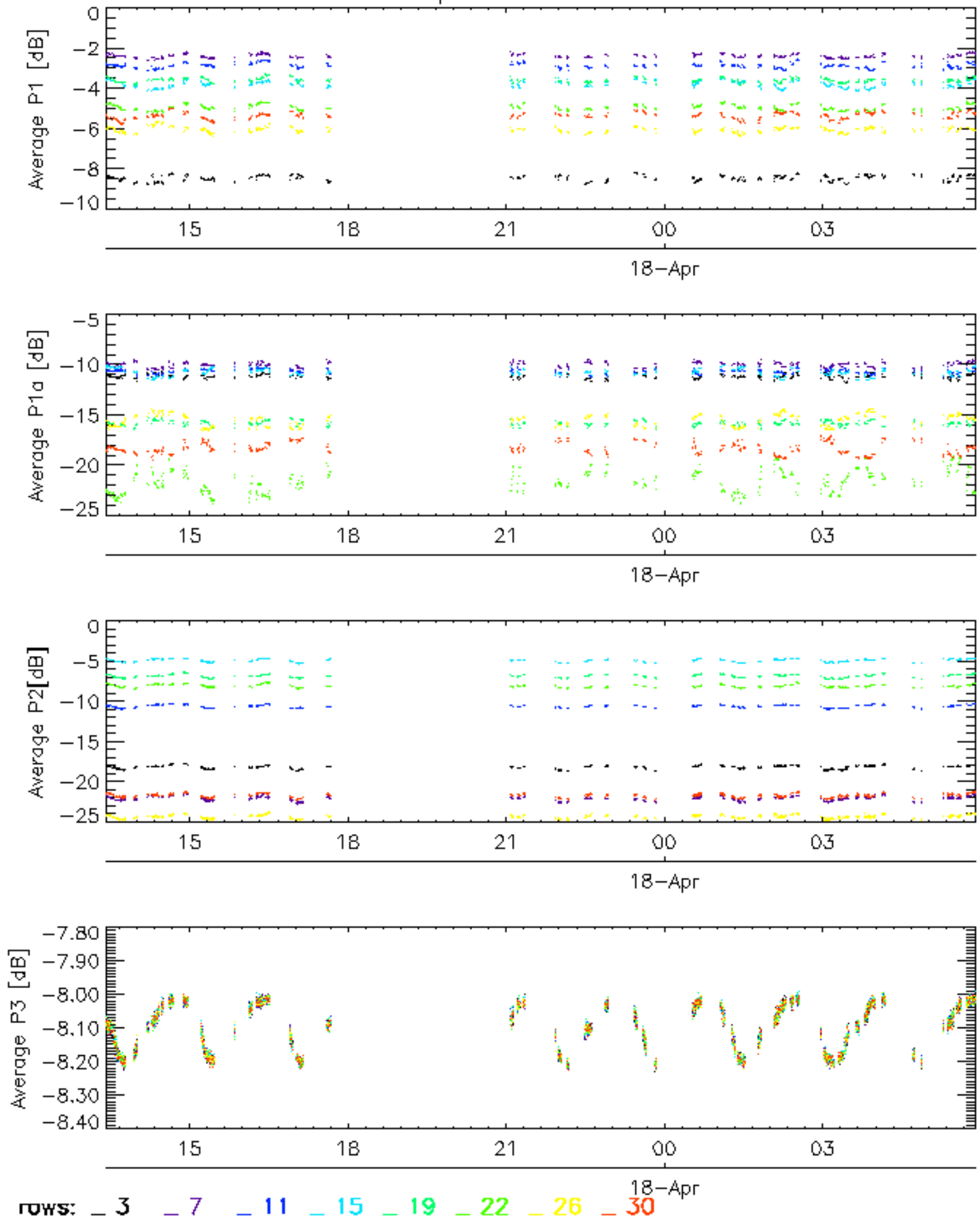
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

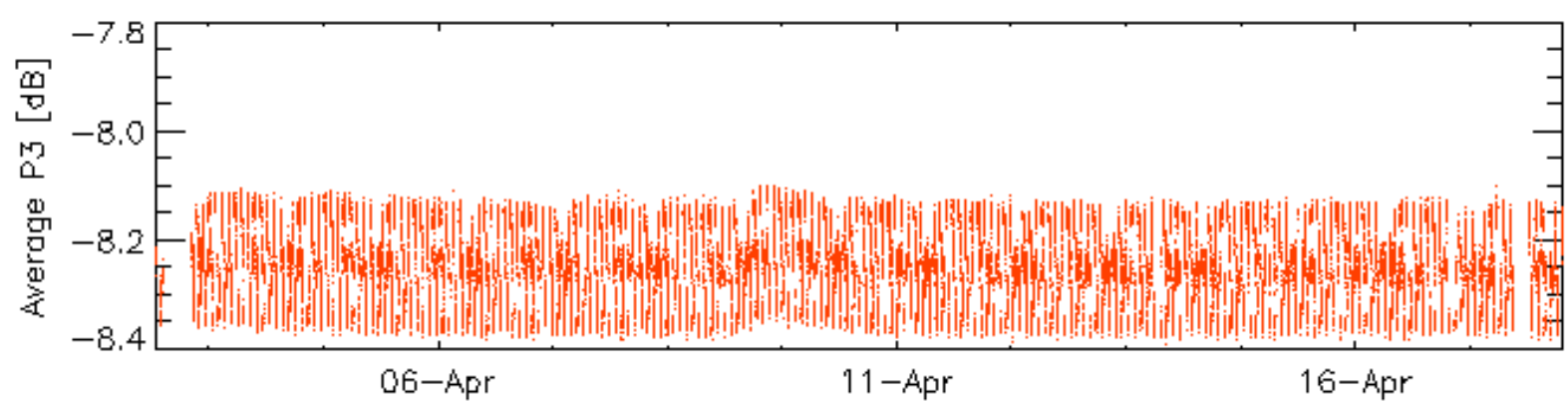
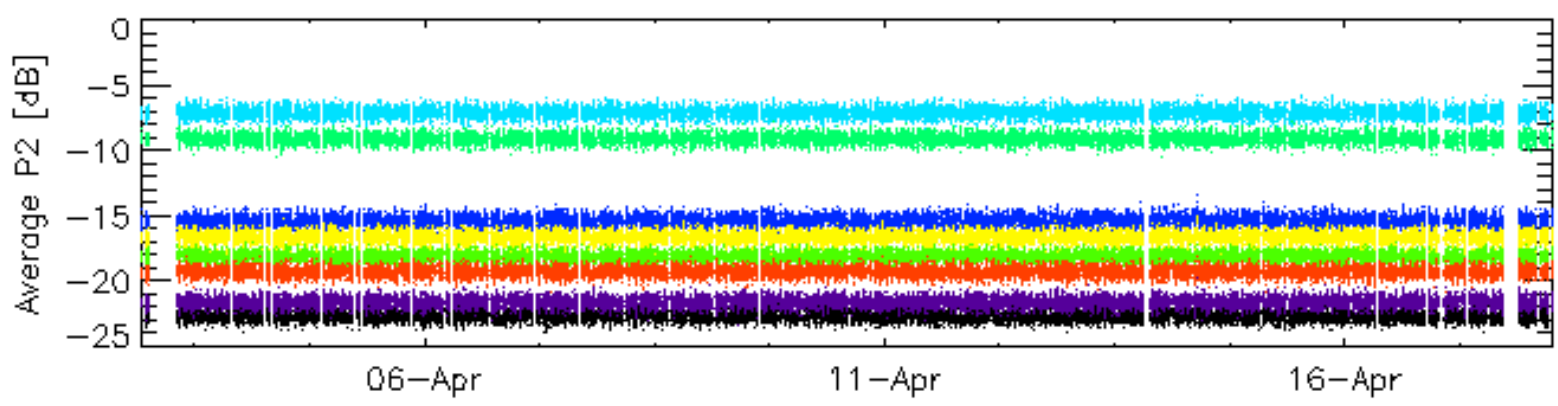
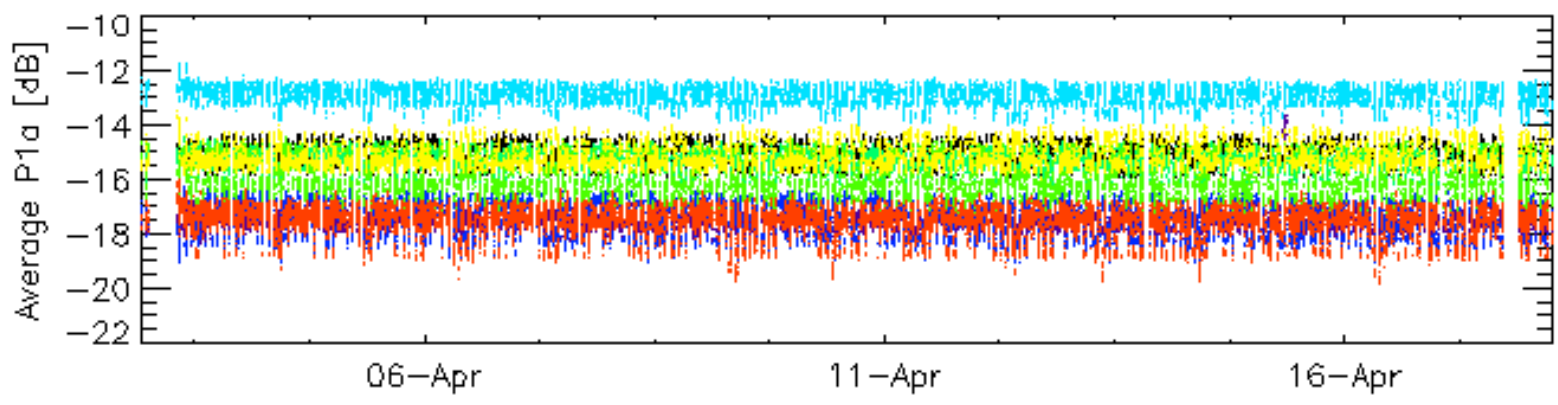
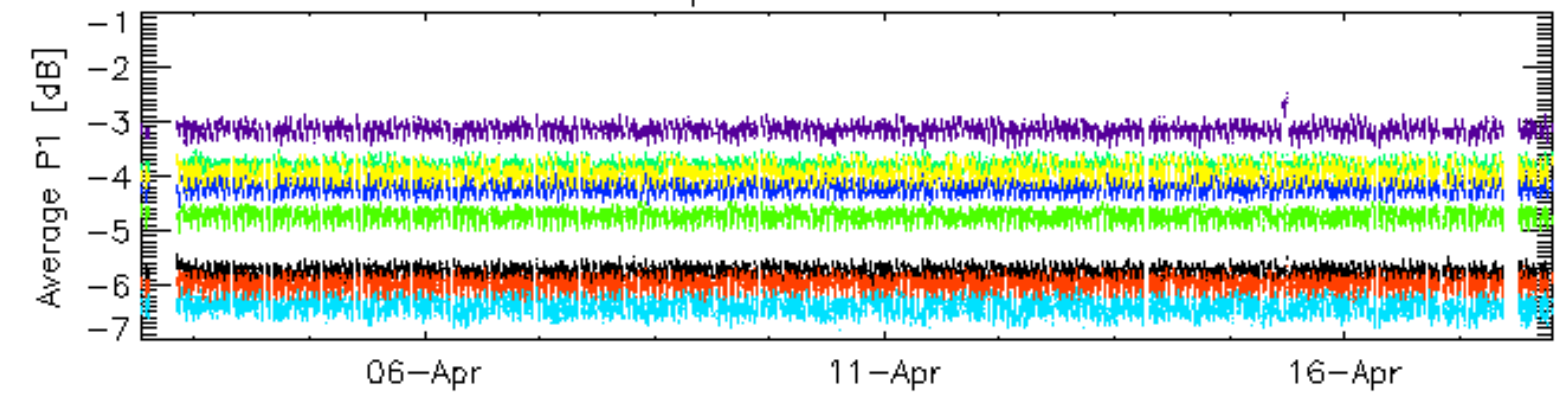


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

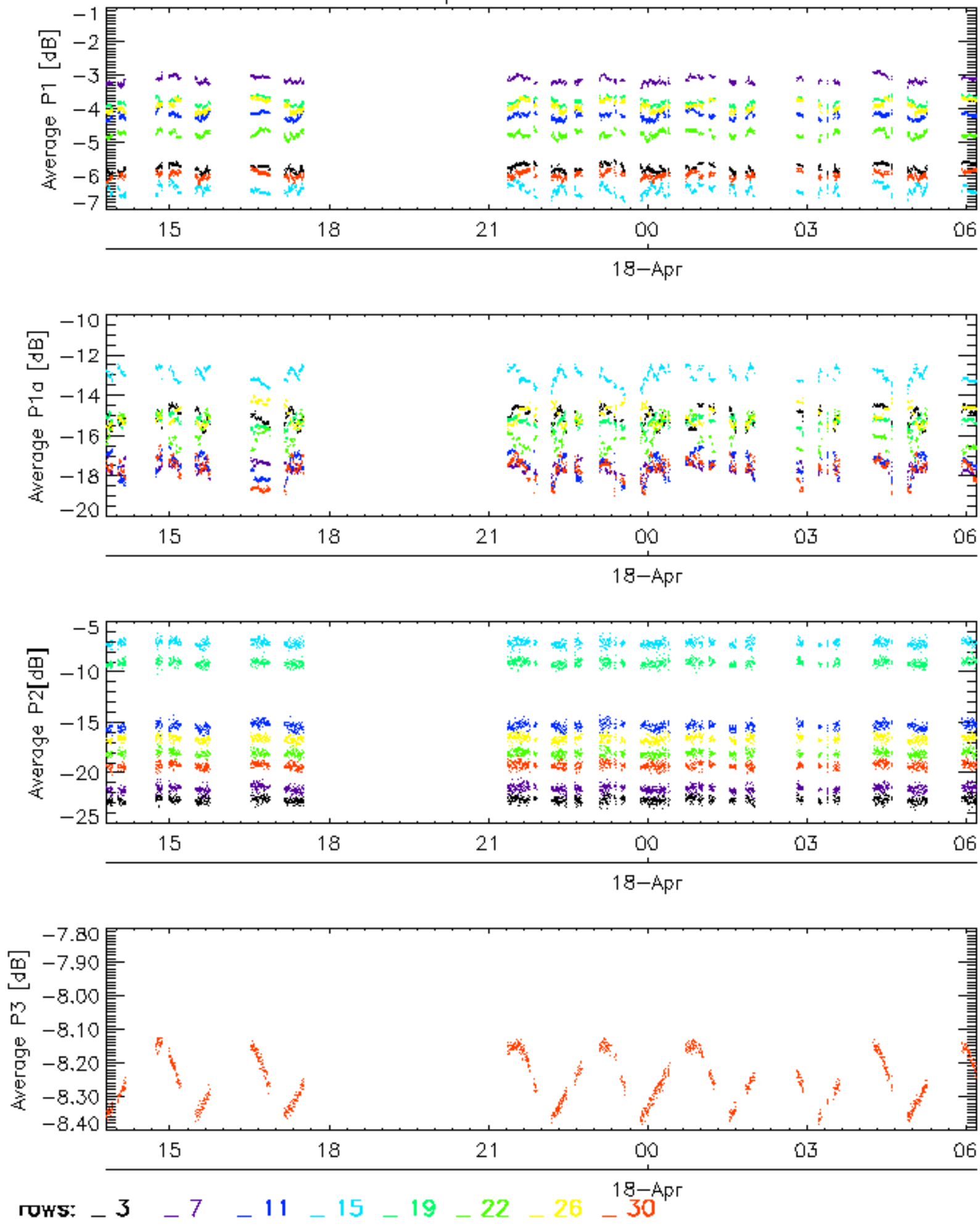


Cal pulses for WVS IS2

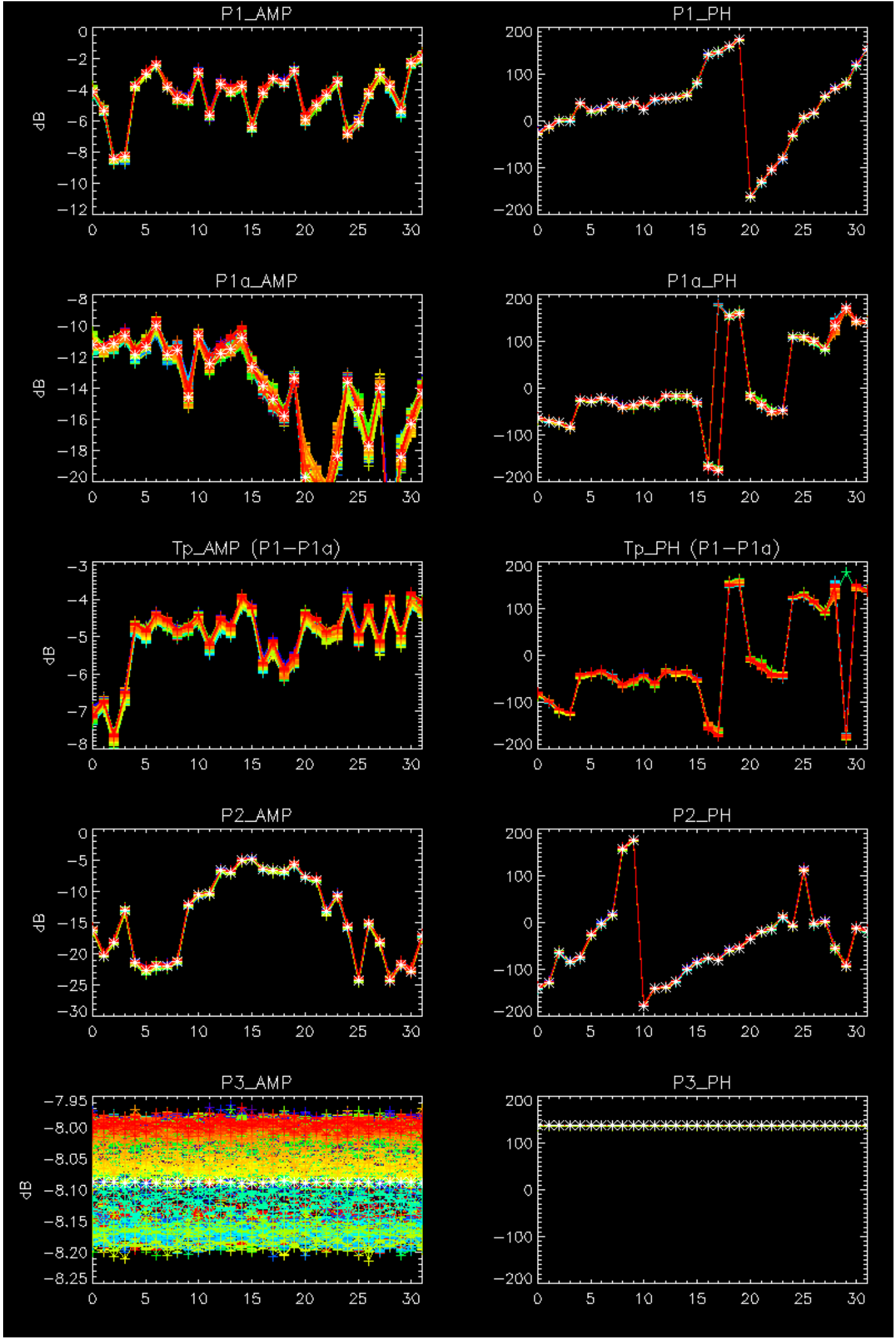


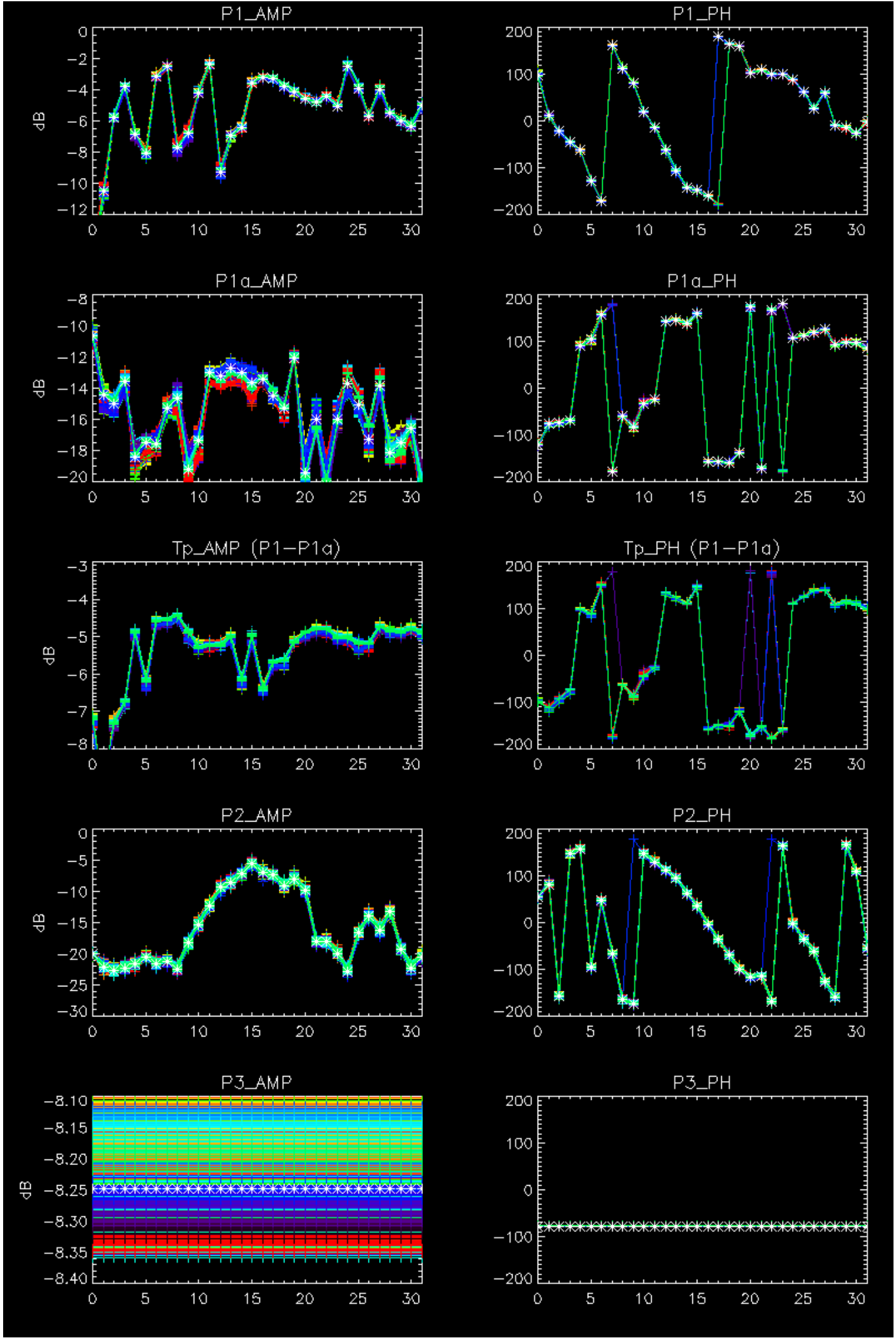
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



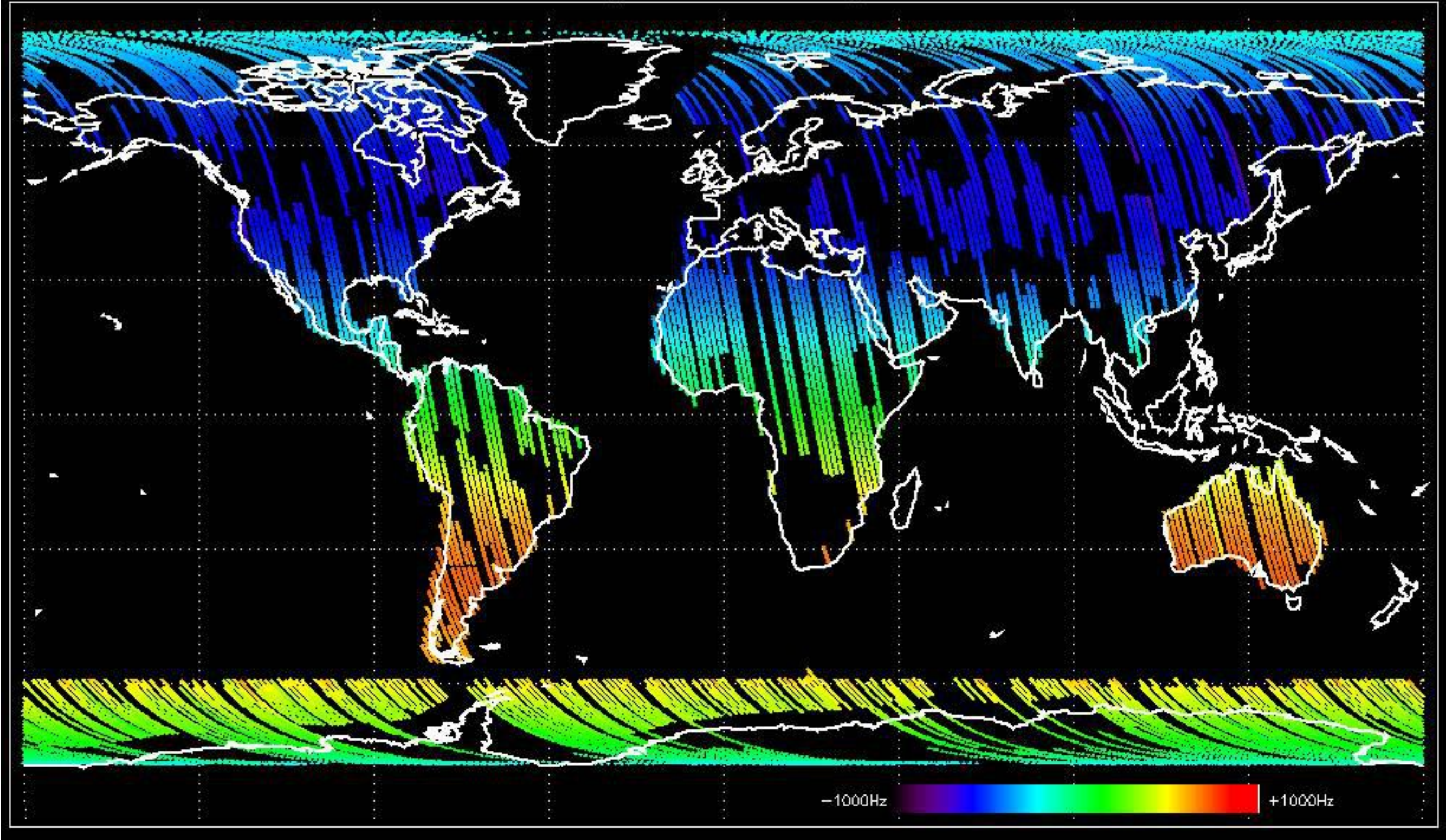
No anomalies observed.



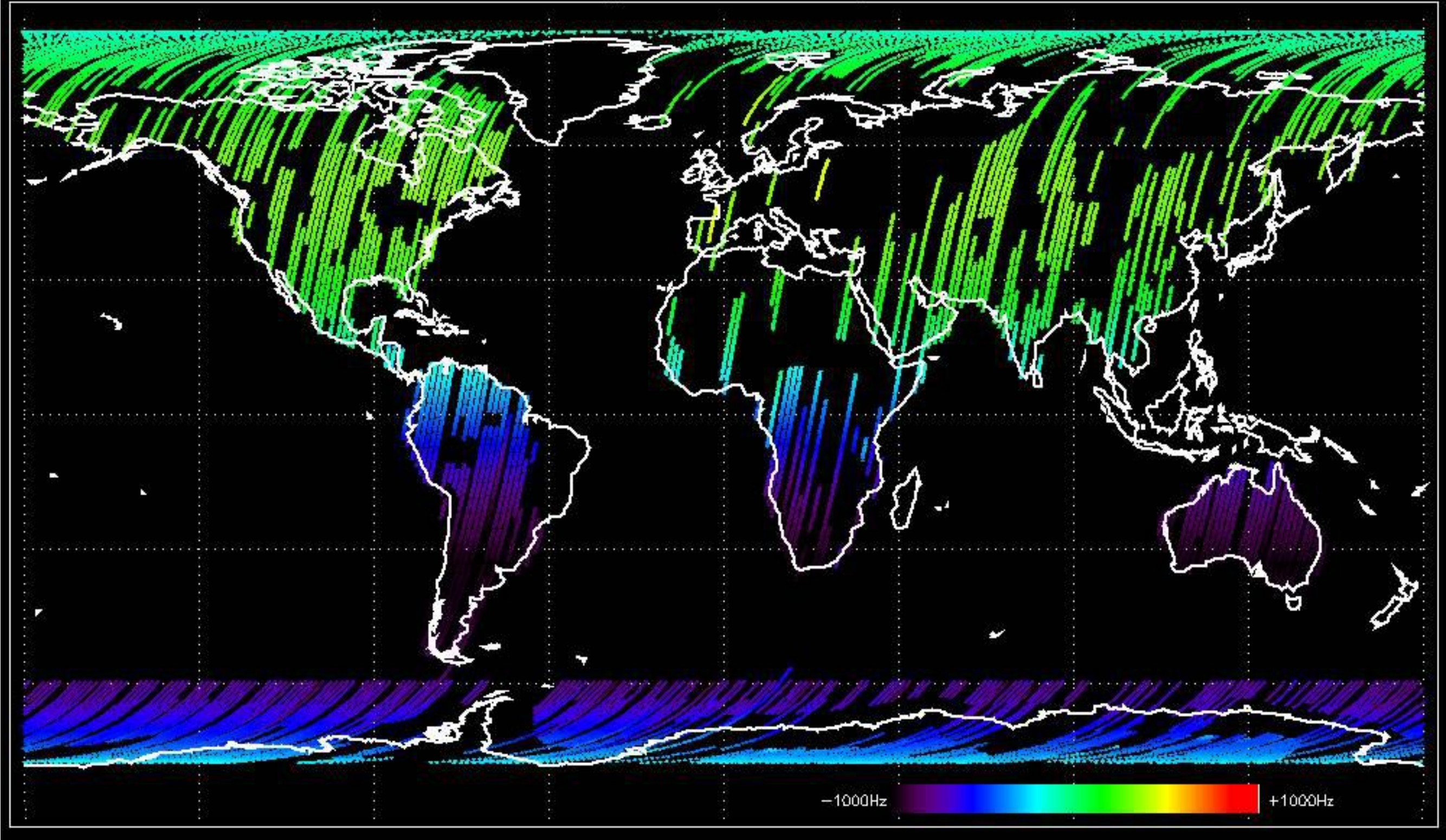


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

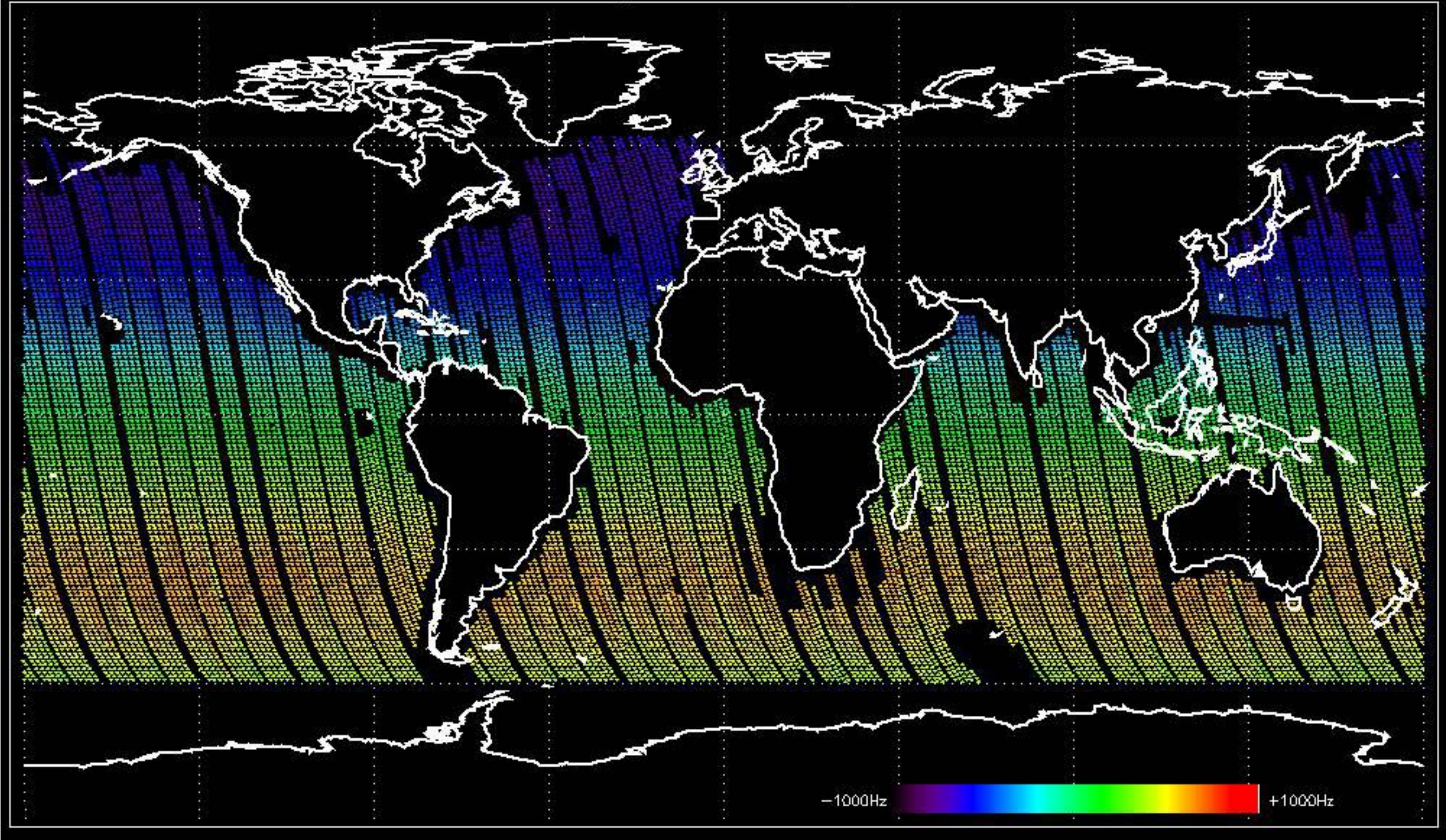
Doppler 'GM1' 'SS1' ascending



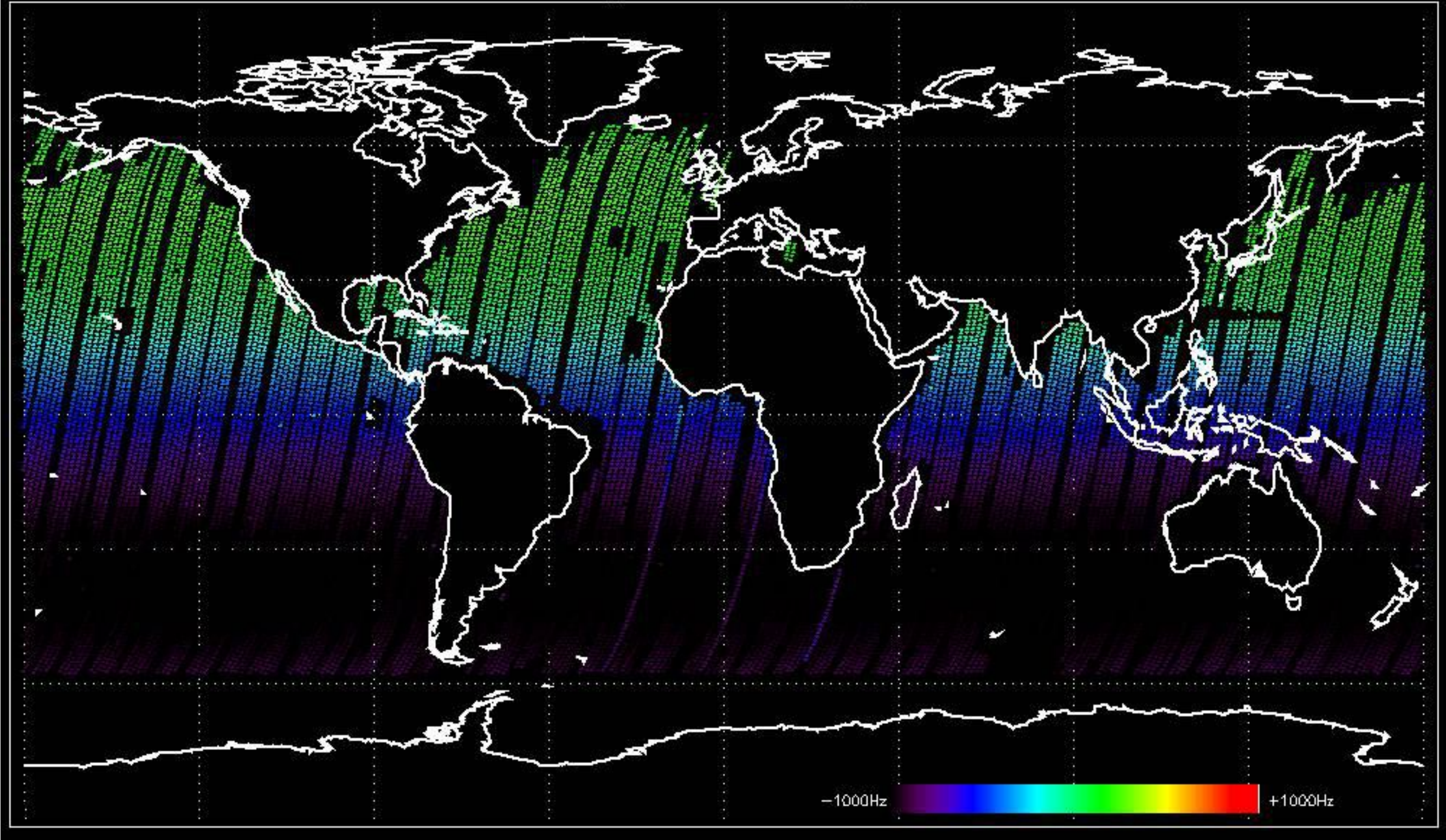
Doppler 'GM1' 'SS1' descending



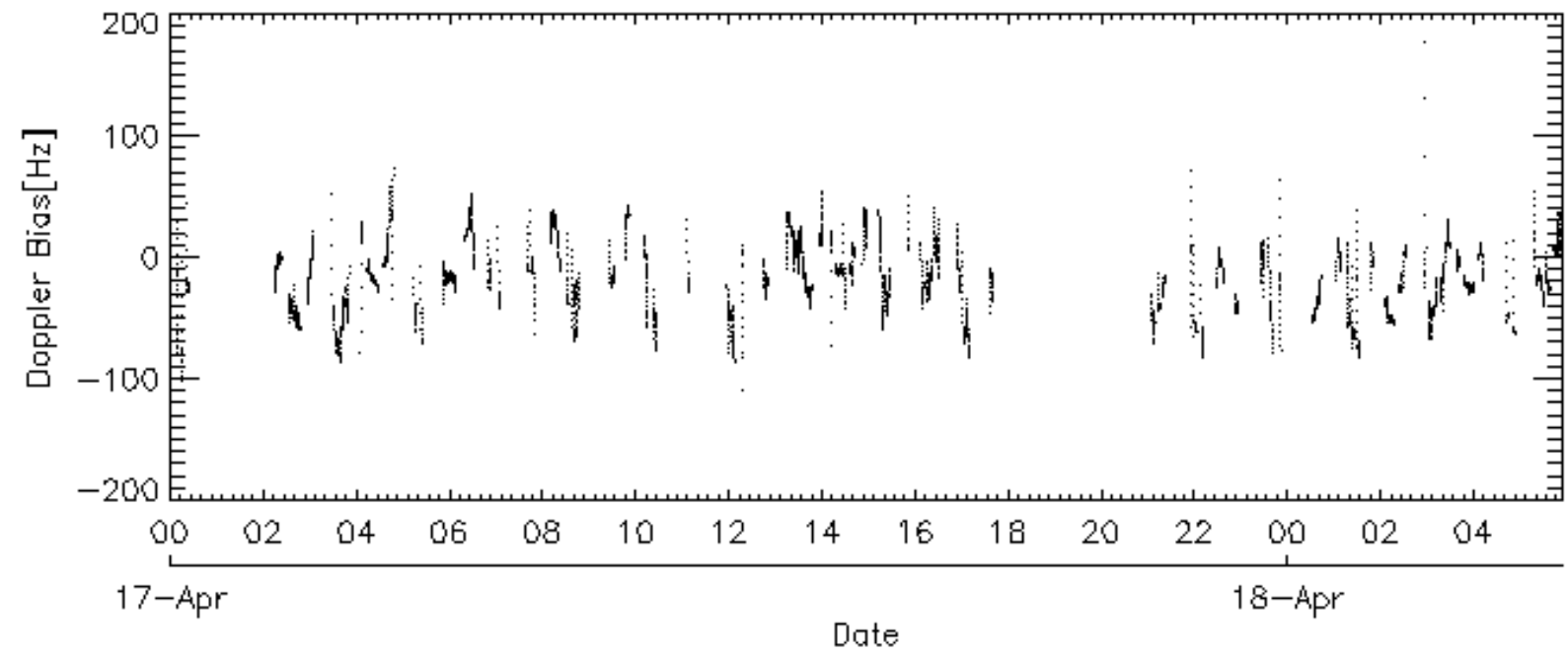
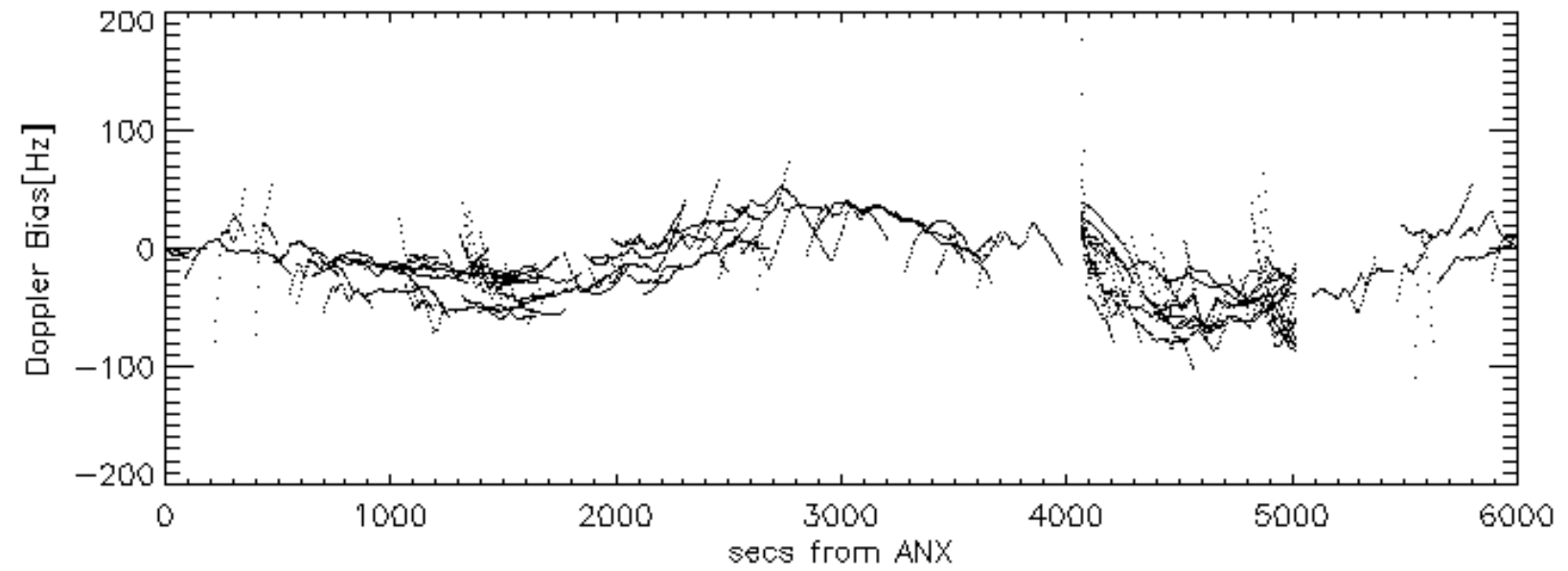
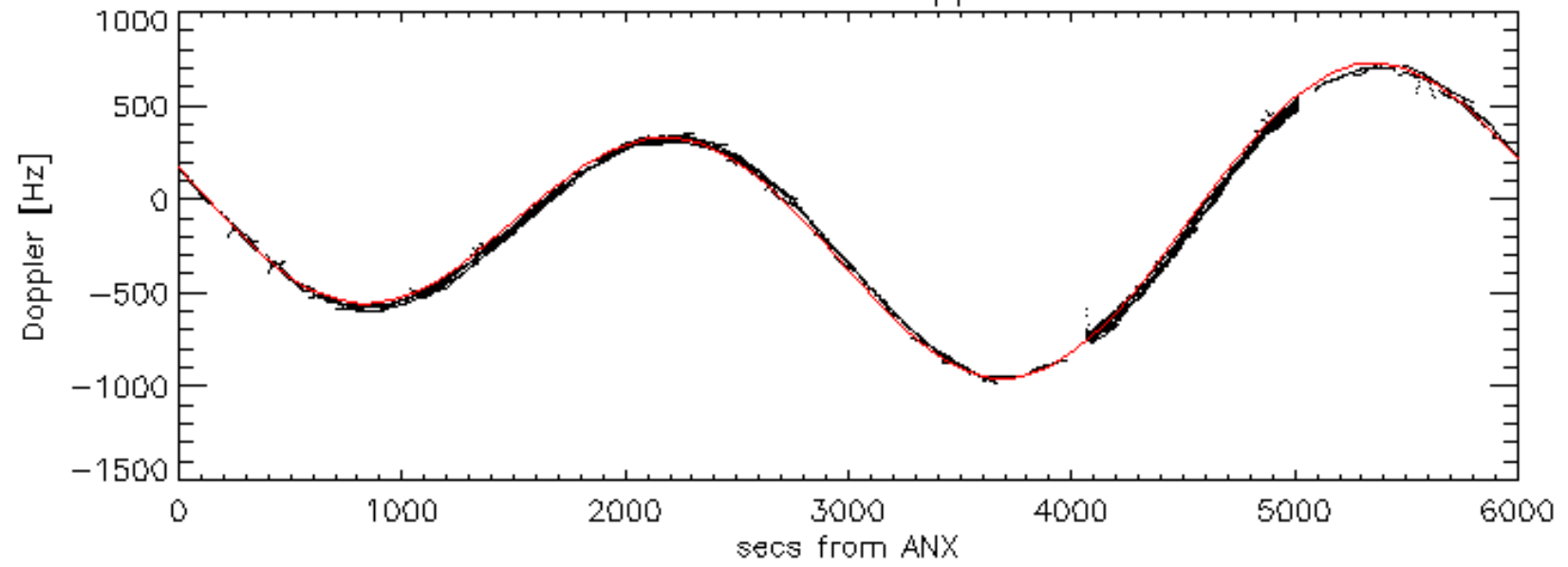
Doppler 'WVS' 'IS2' ascending

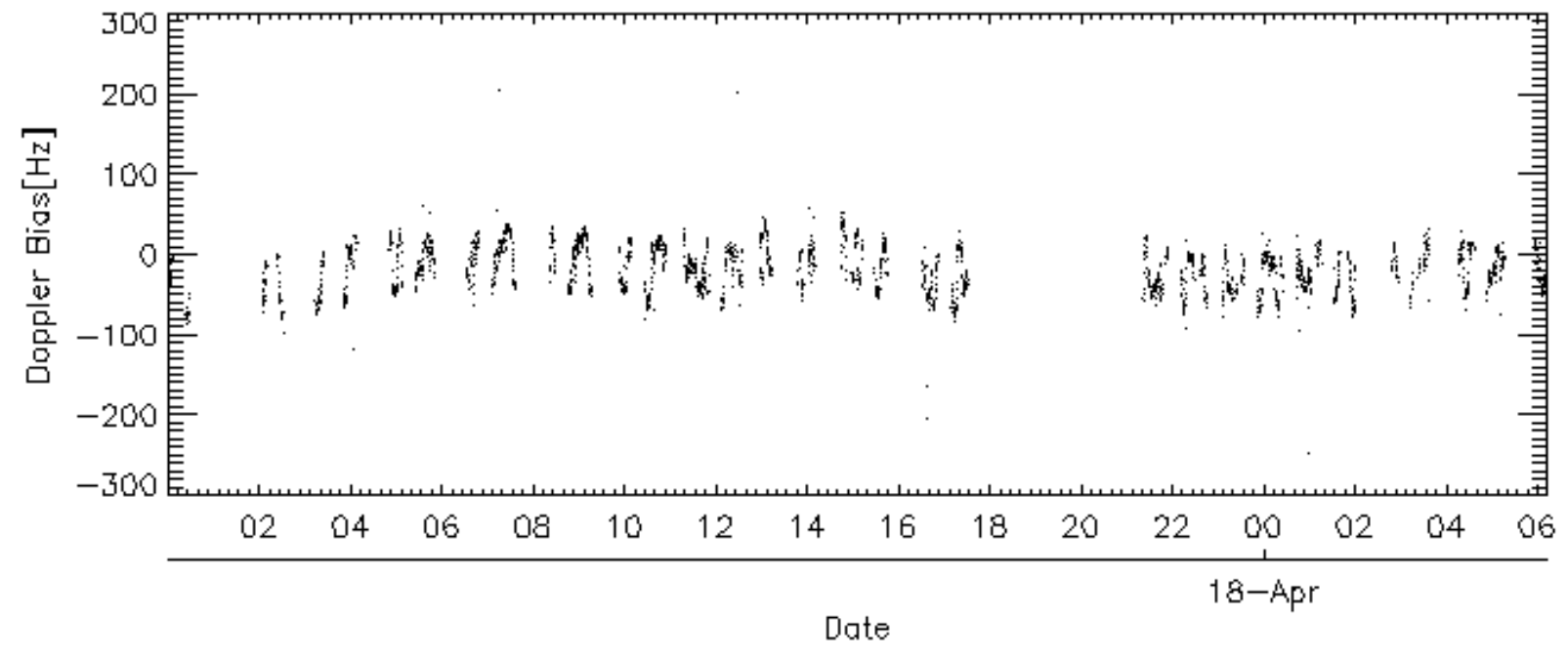
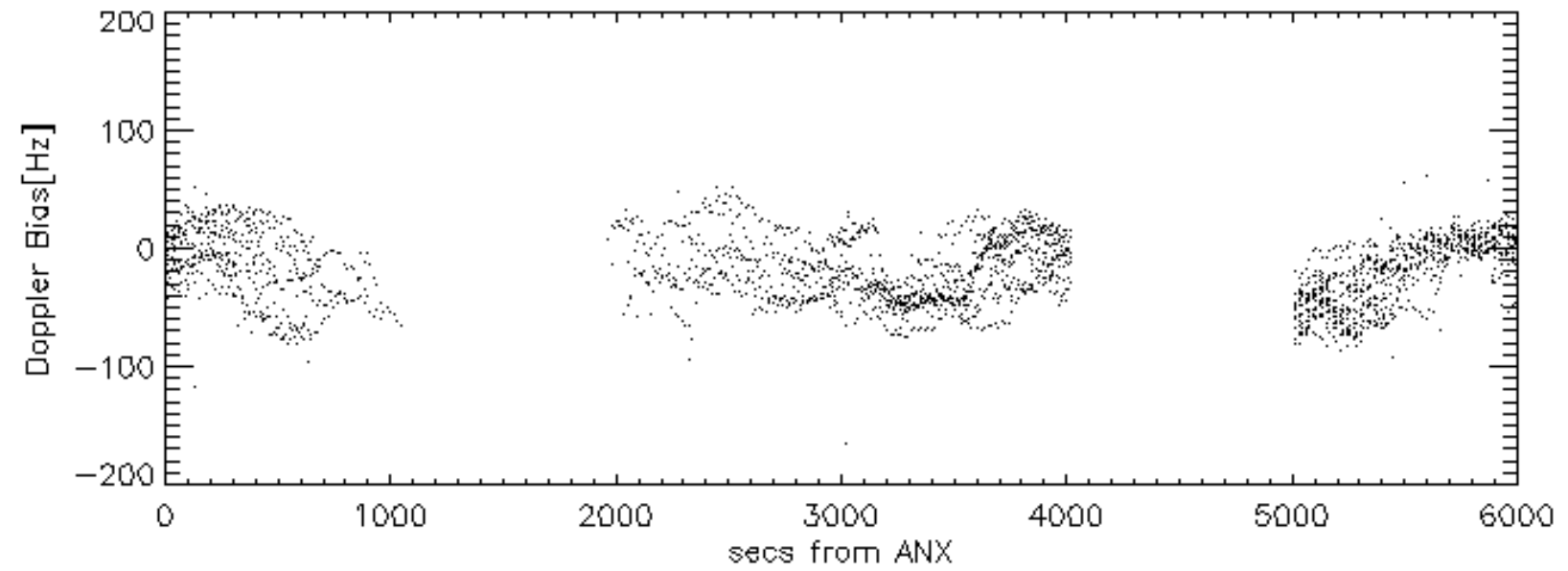
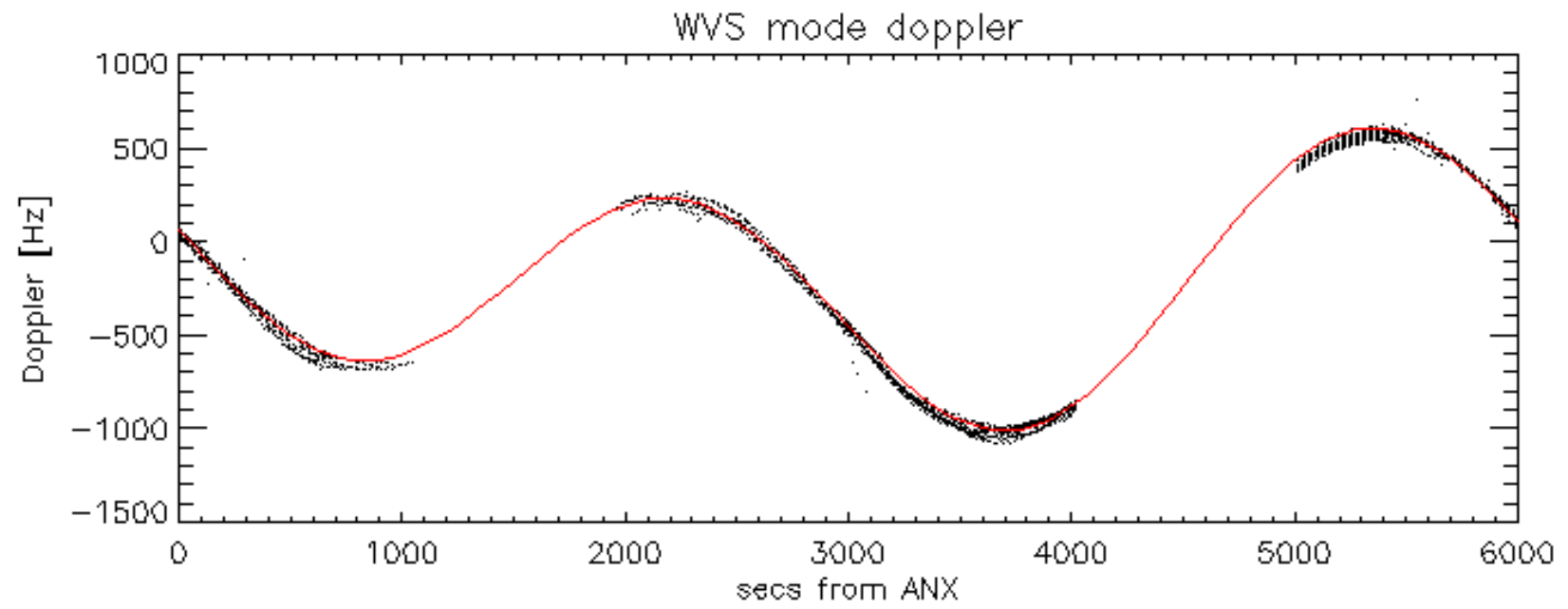


Doppler 'WVS' 'IS2' descending

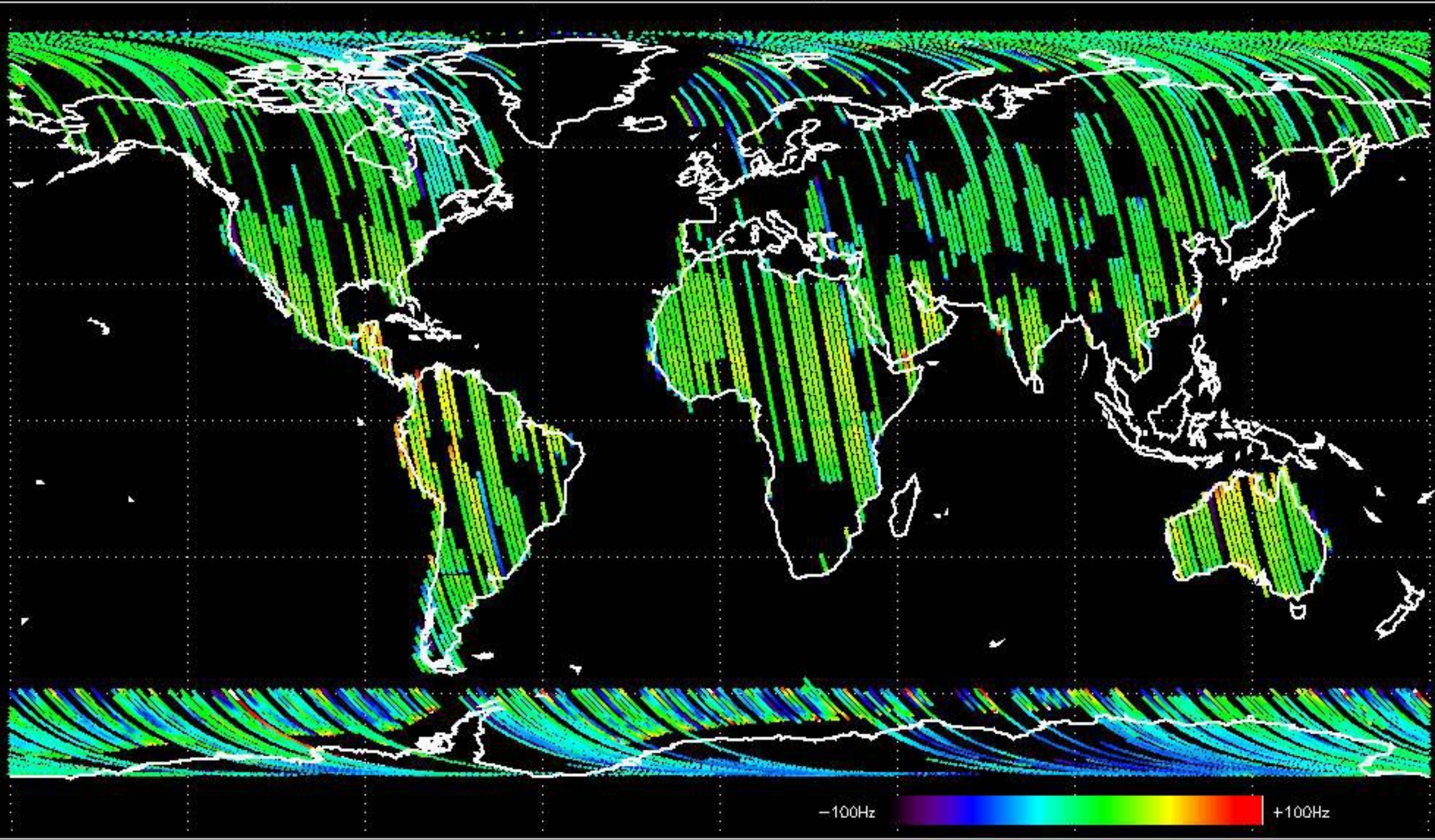


GM1 mode doppler



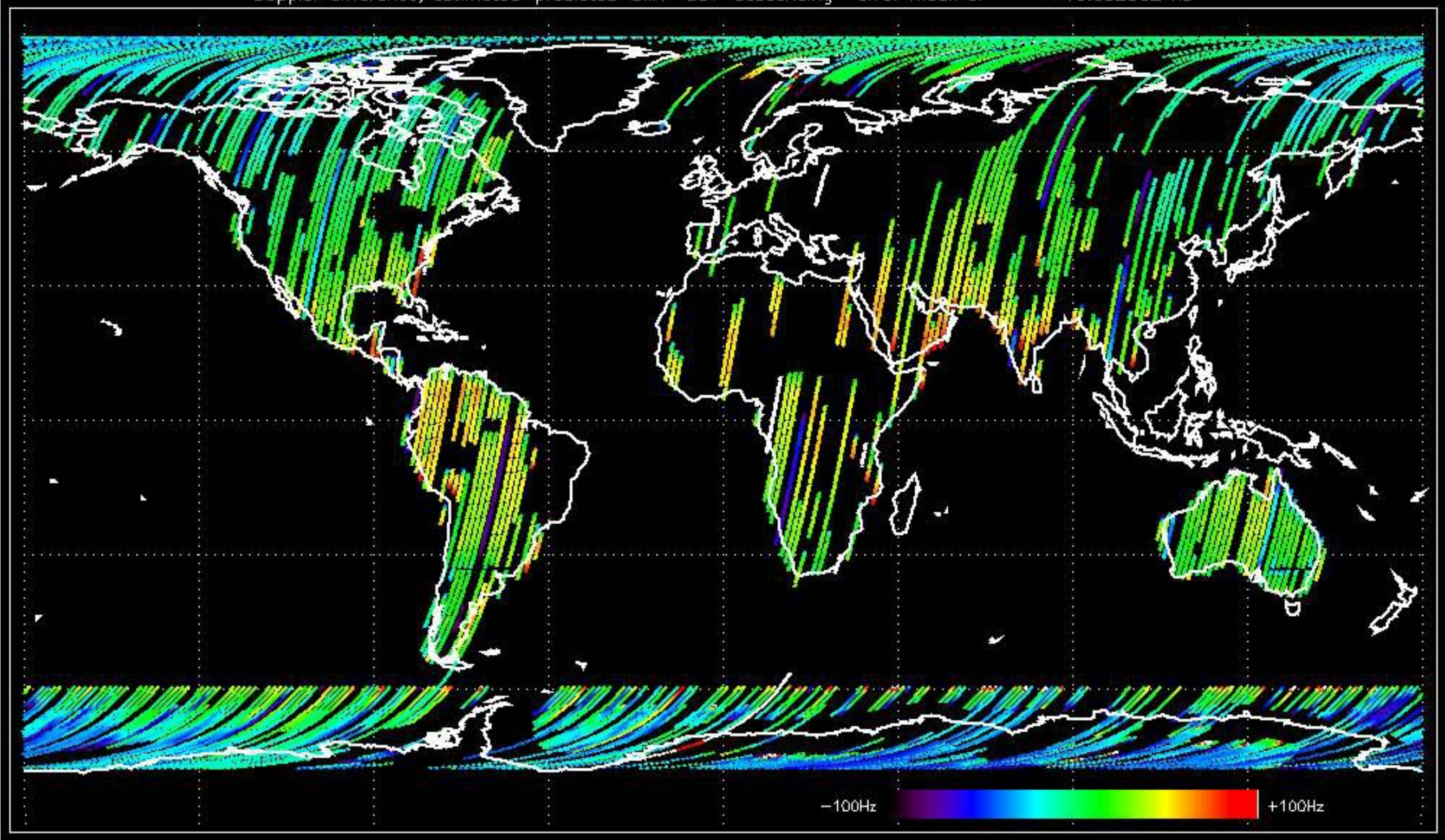


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -27.362096 Hz

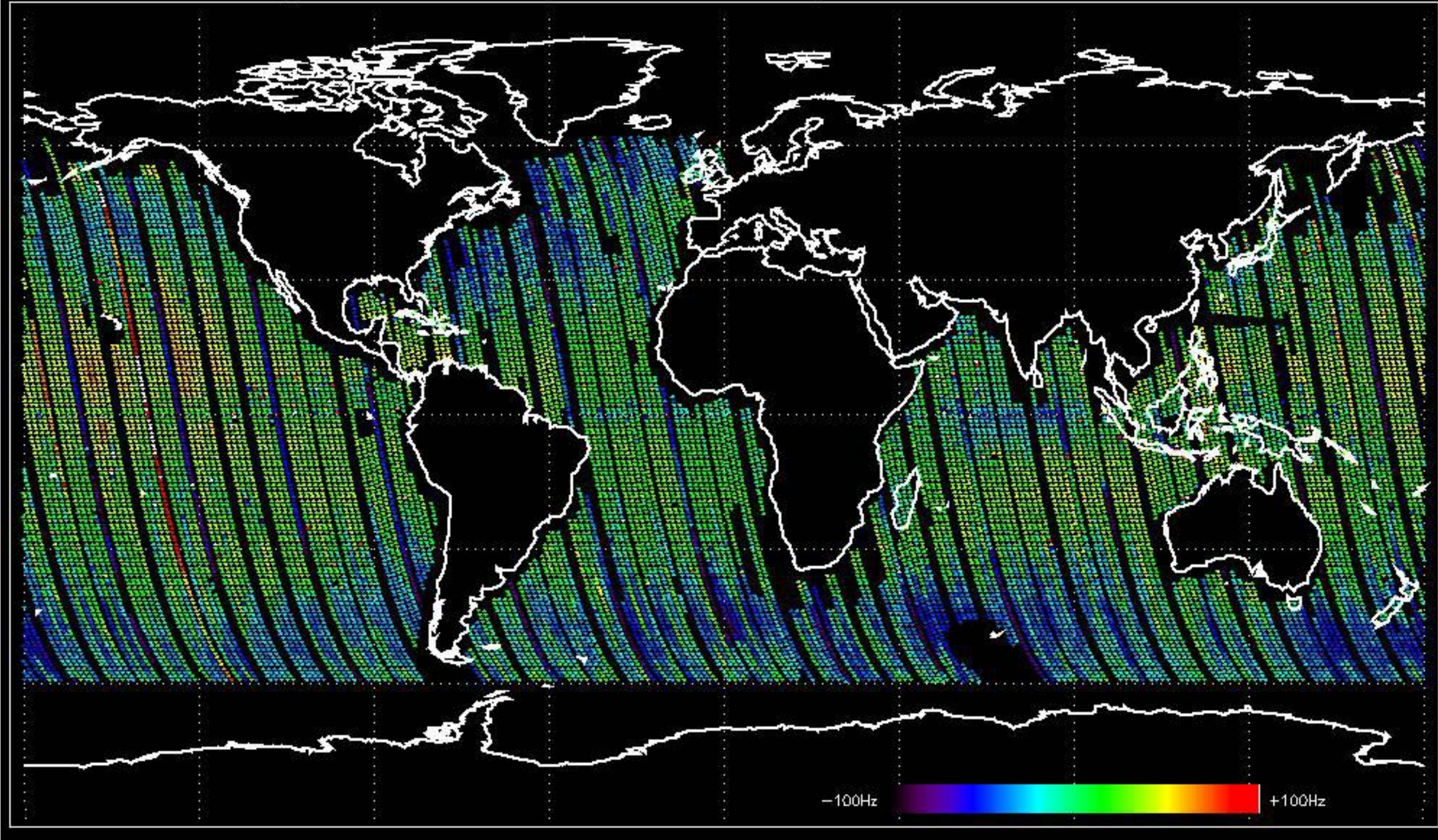


-100Hz +100Hz

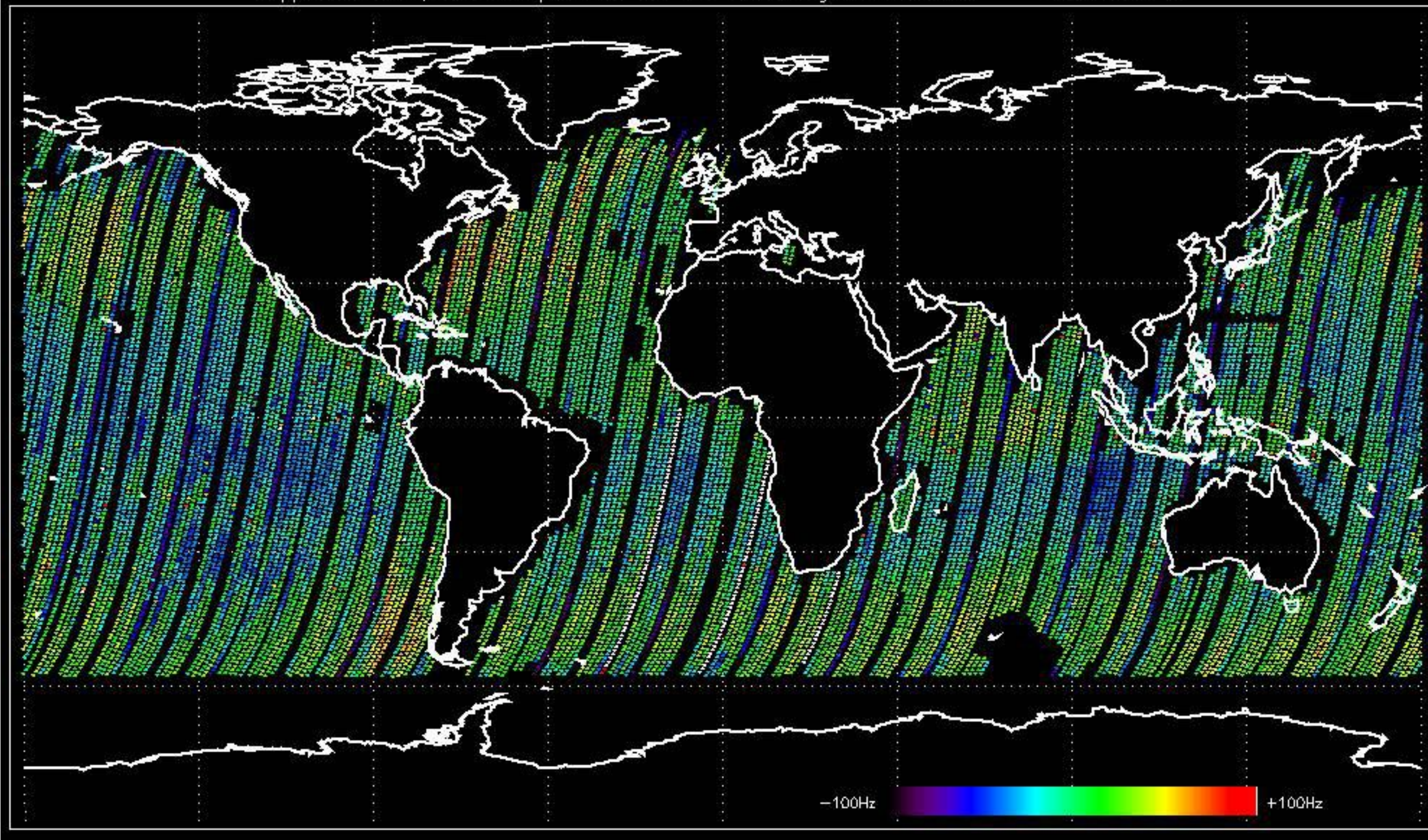
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.682862 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -23.478621 Hz

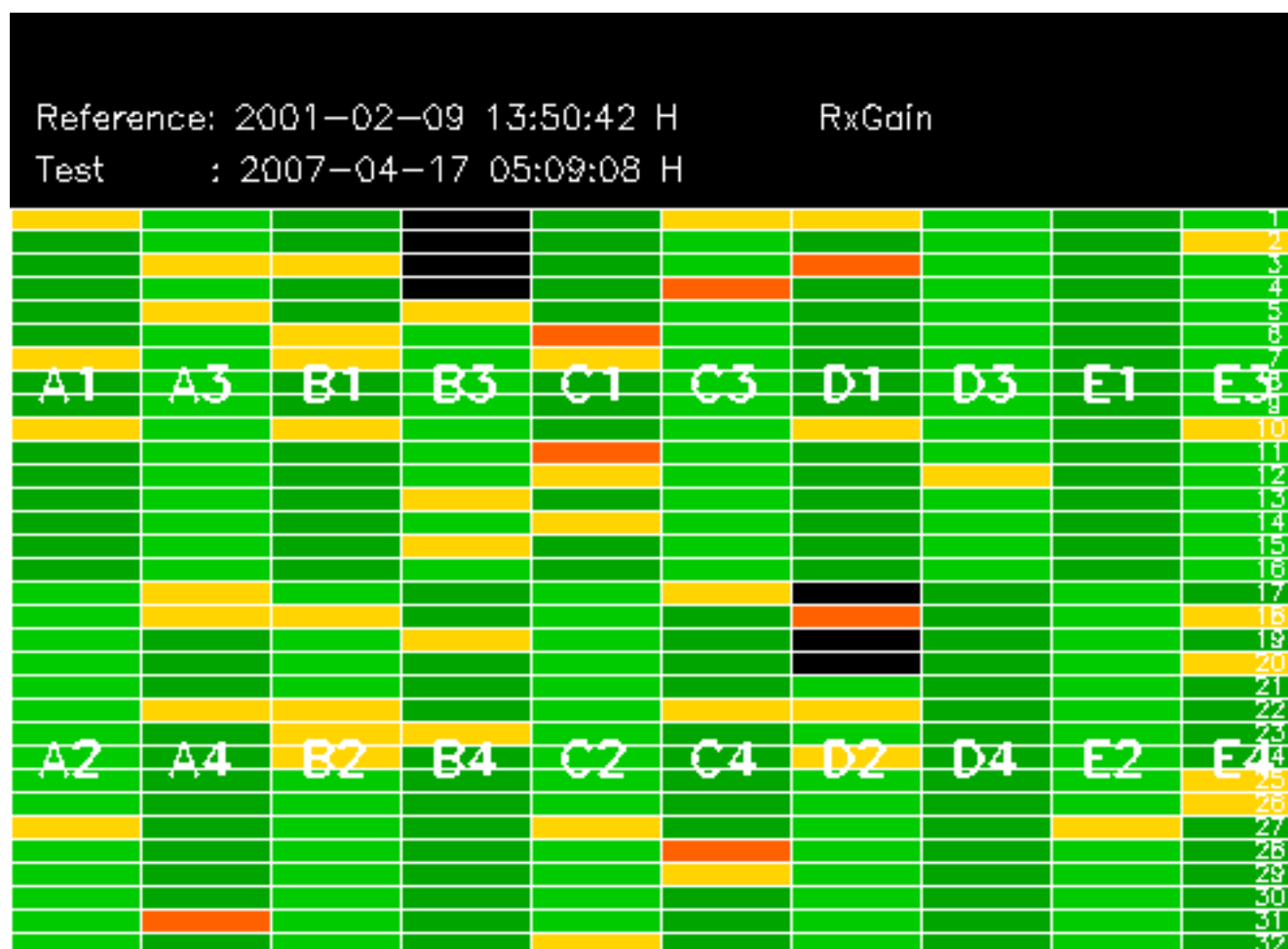


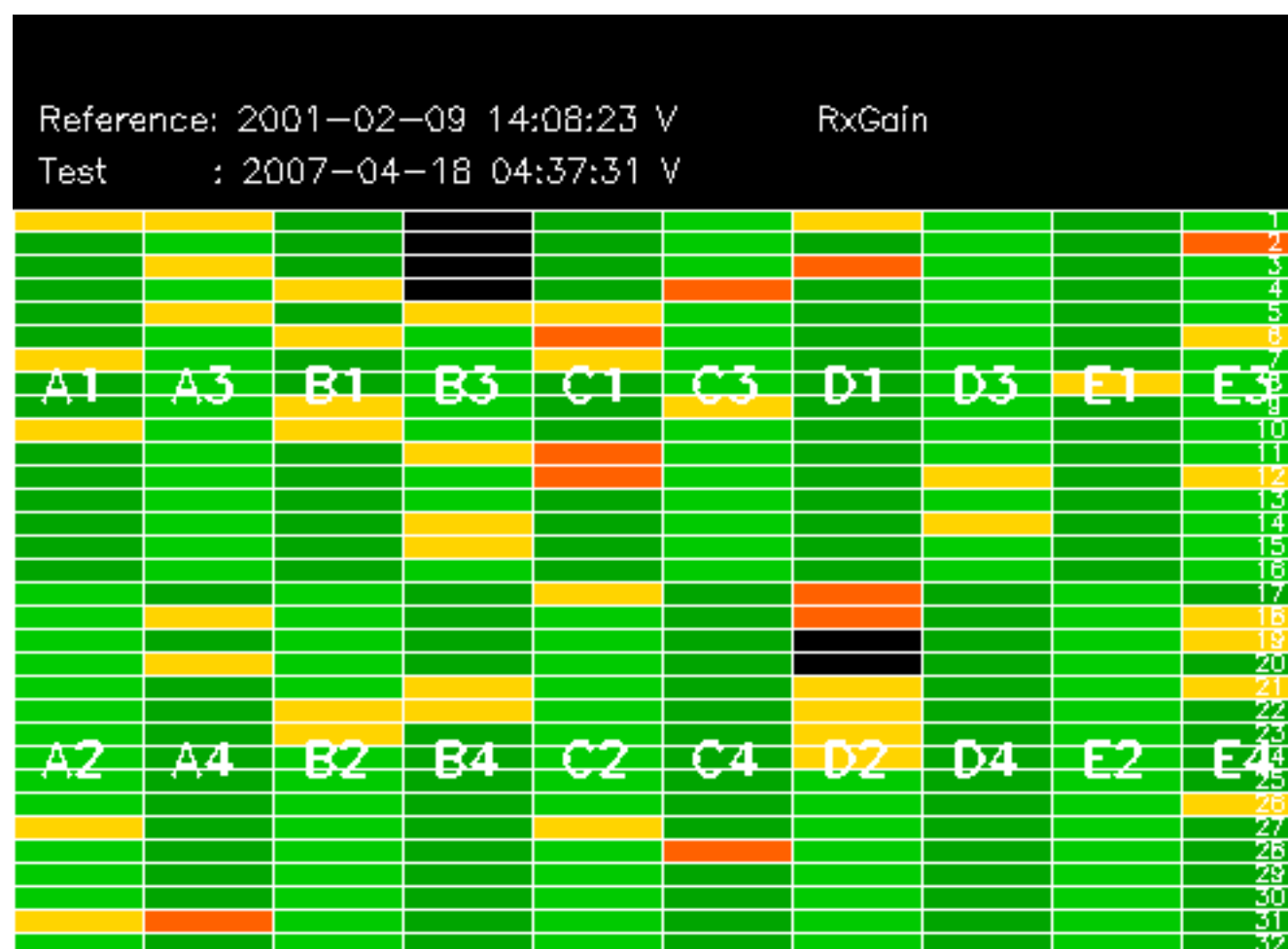
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -22.194873 Hz

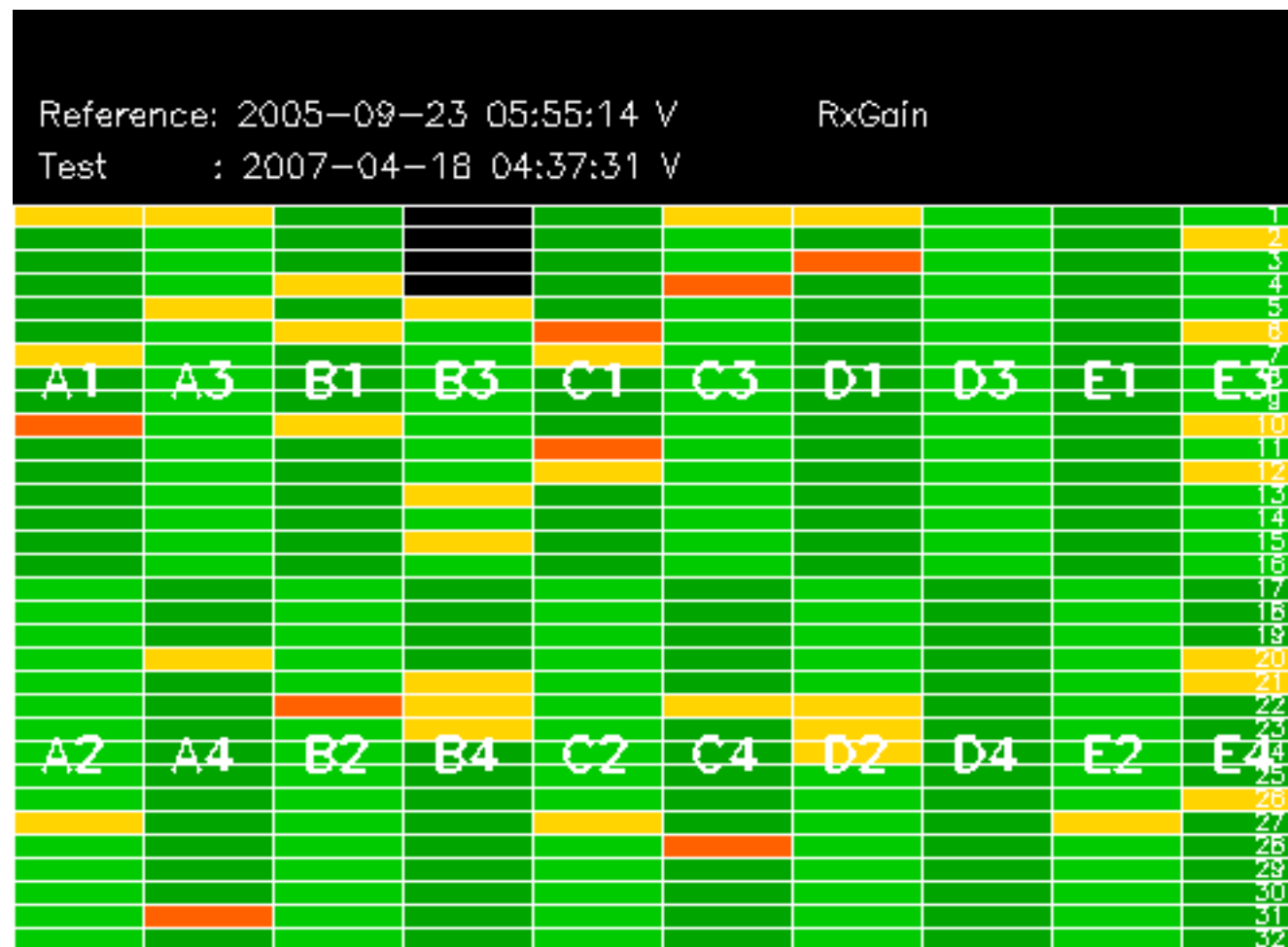


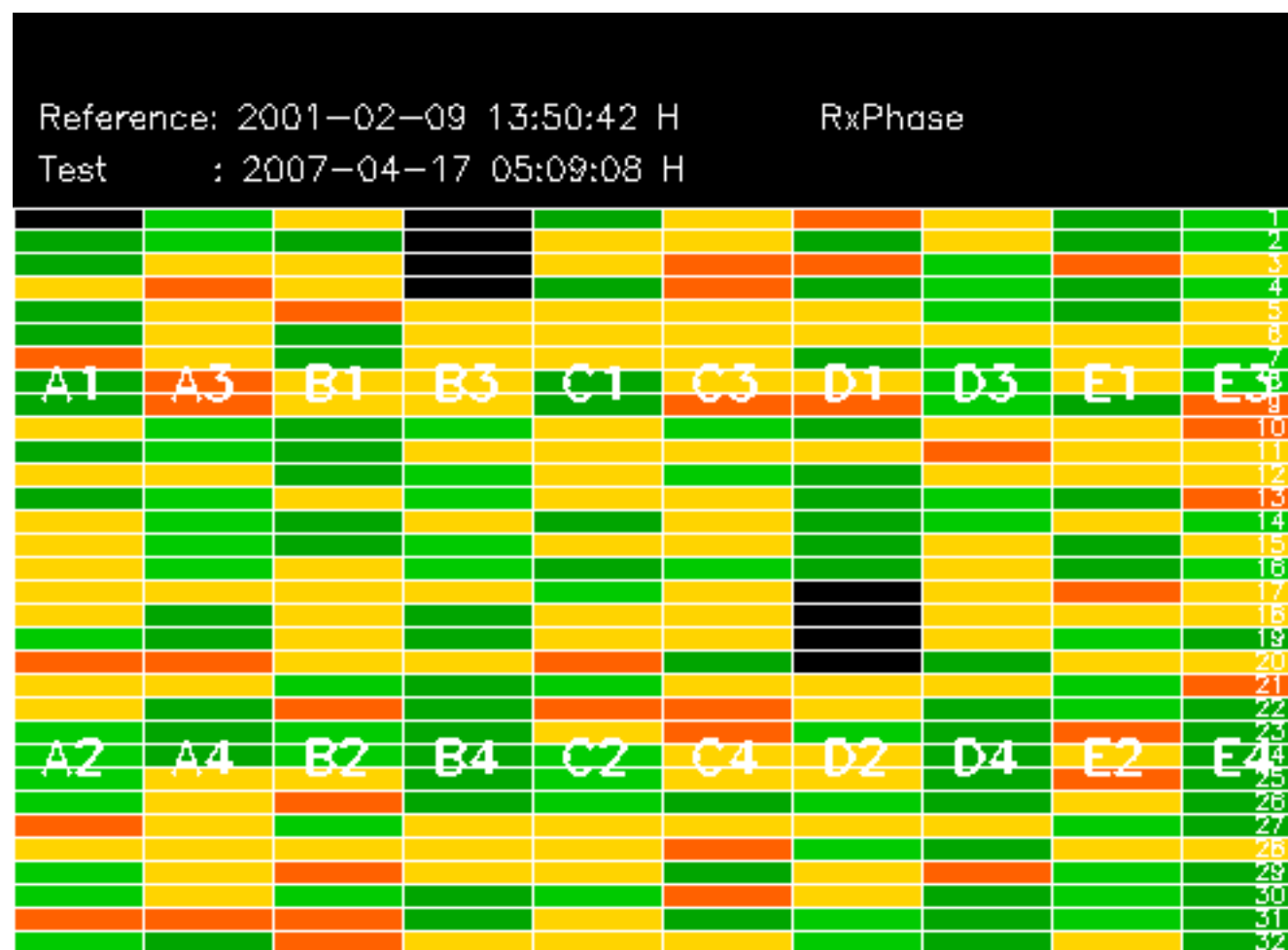
No anomalies observed on available MS products:

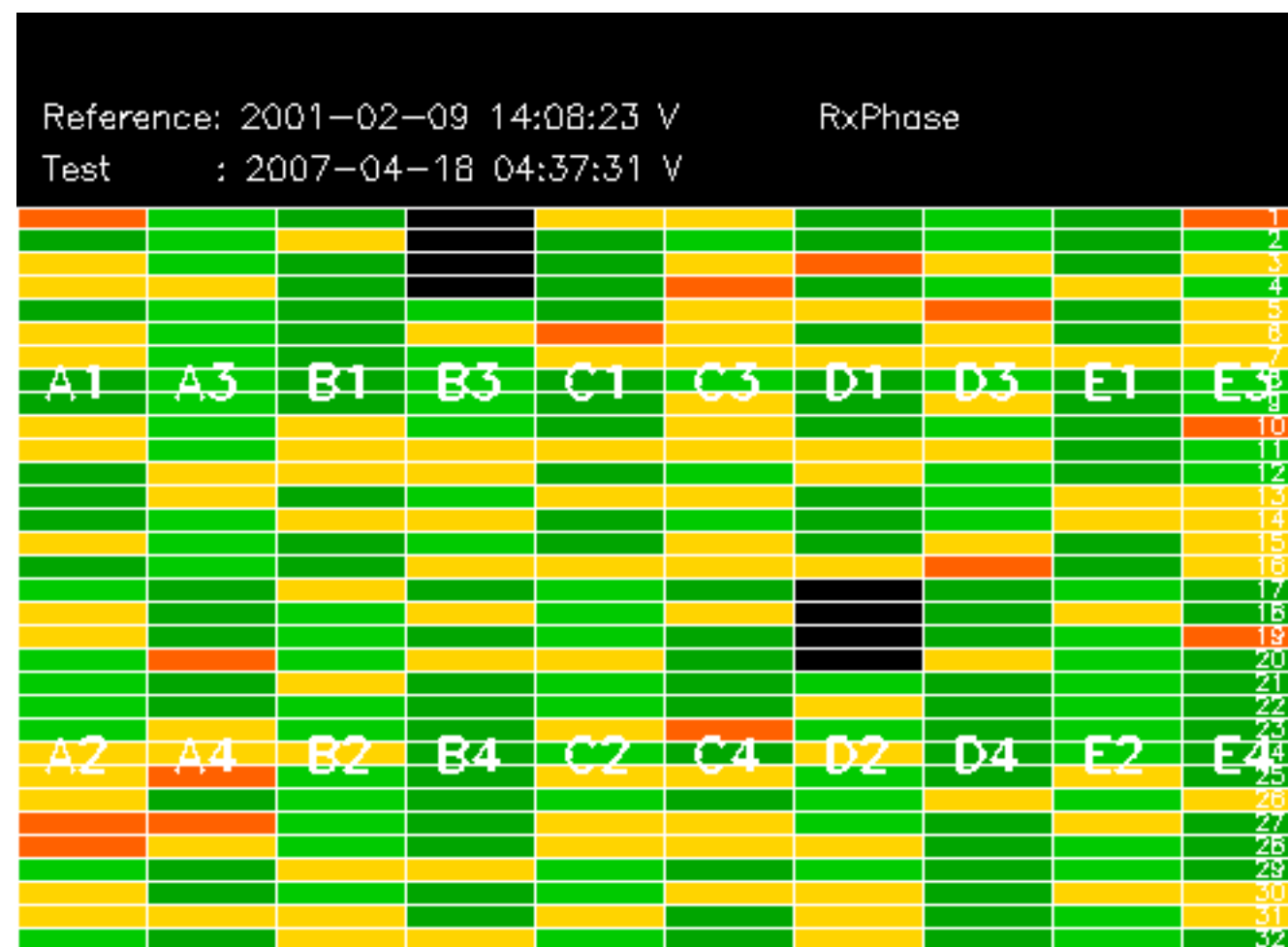
No anomalies observed.

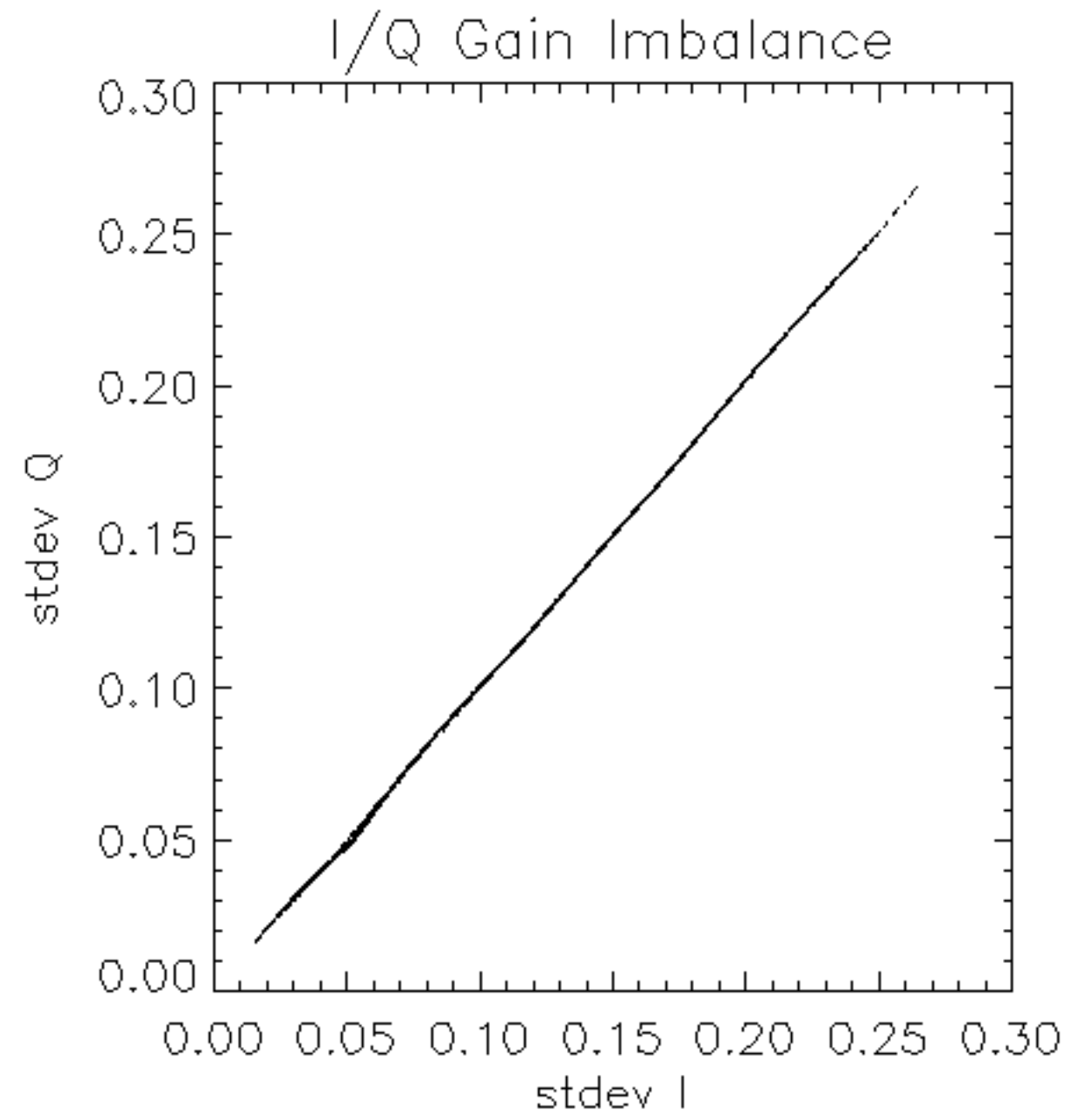


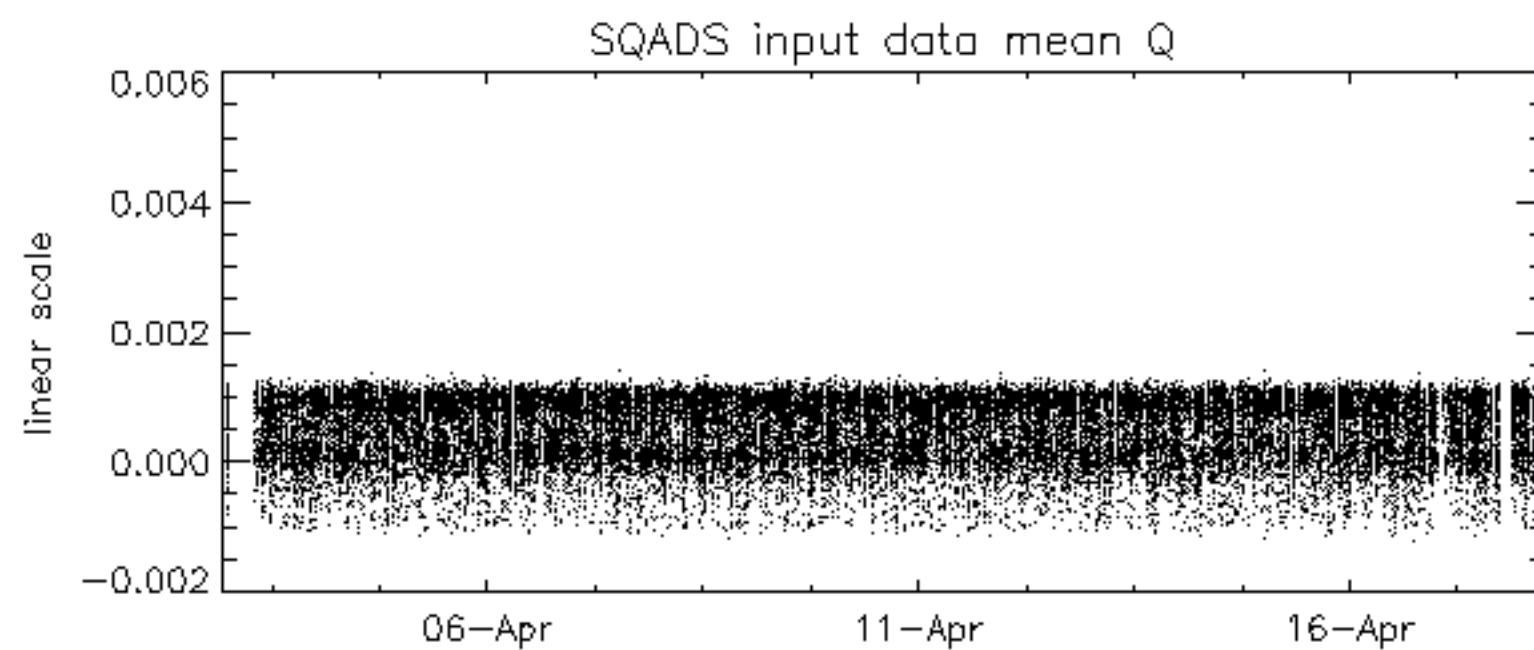
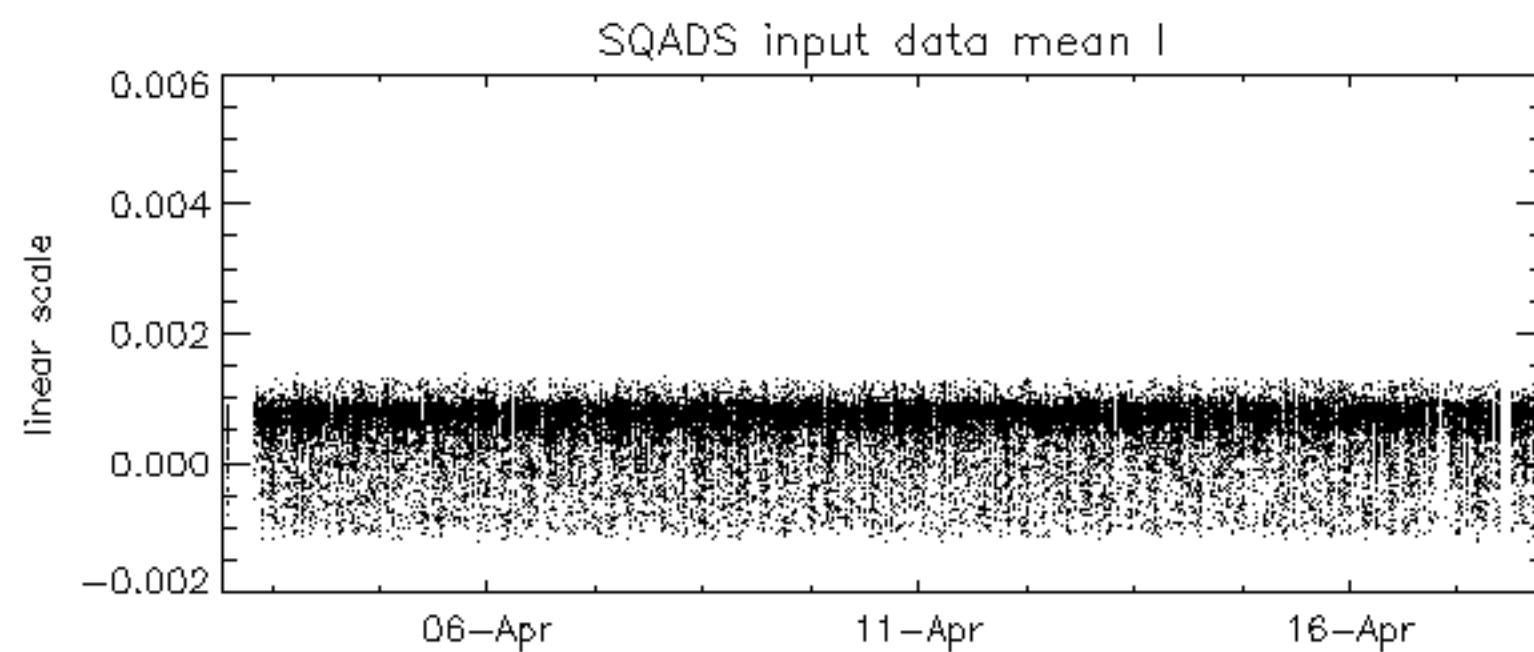
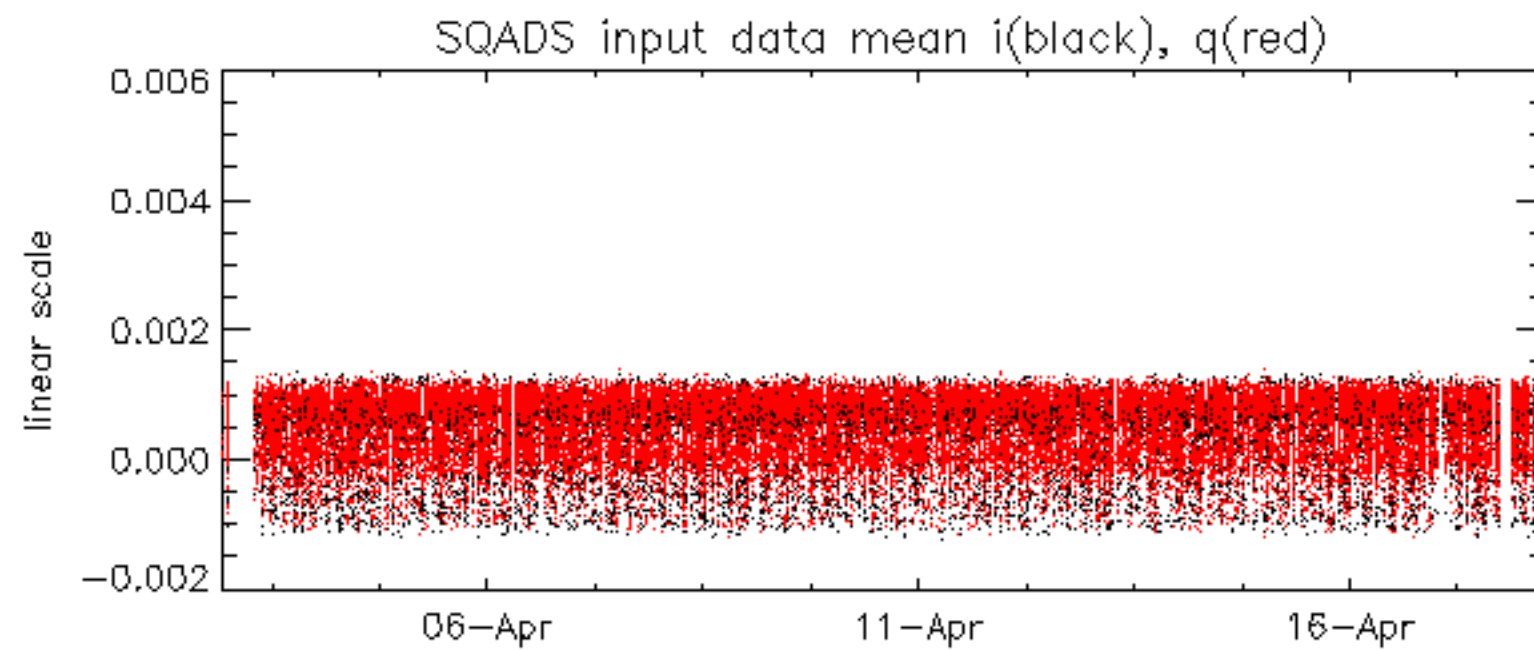


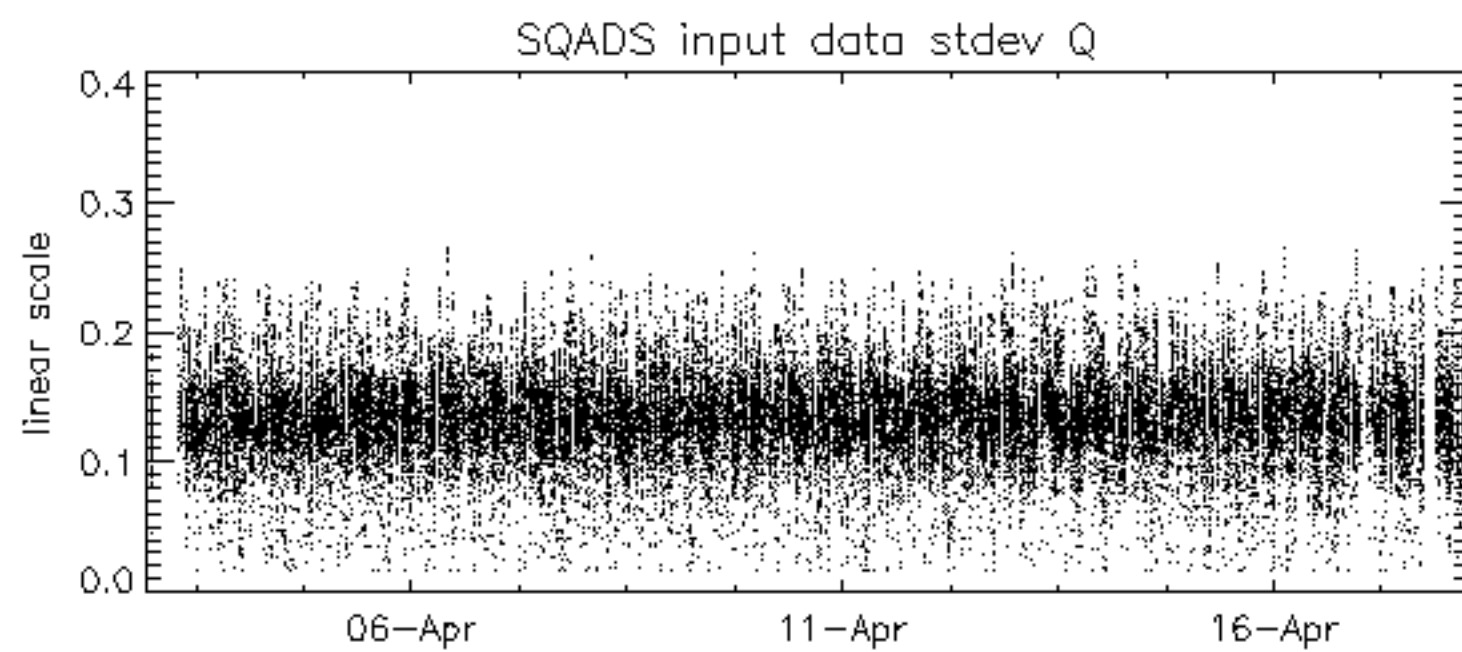
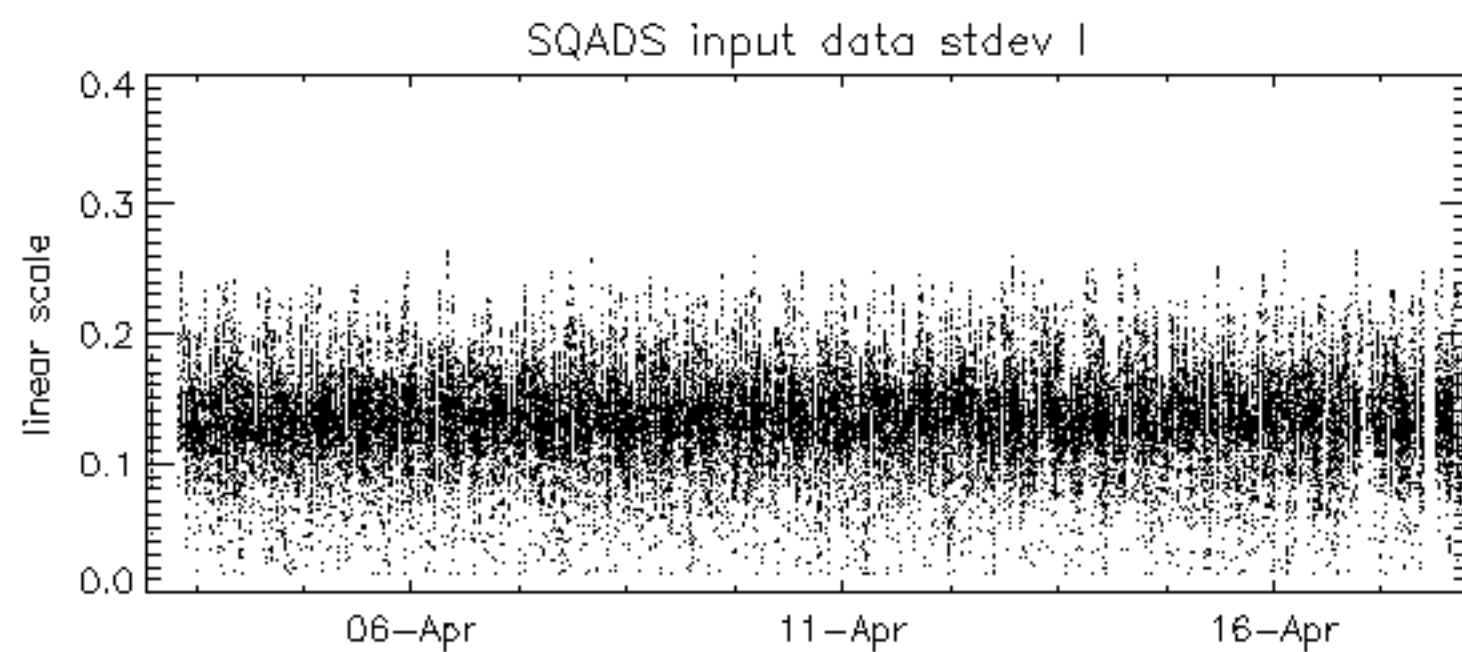
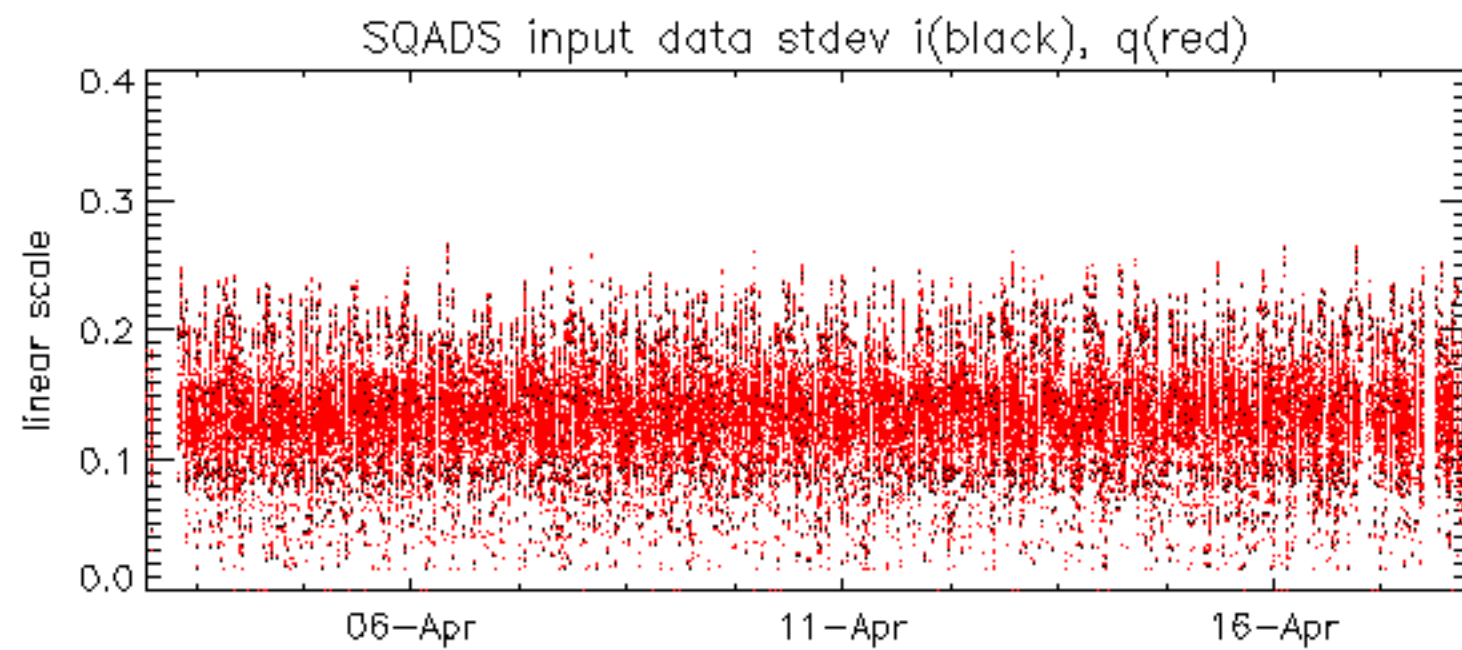








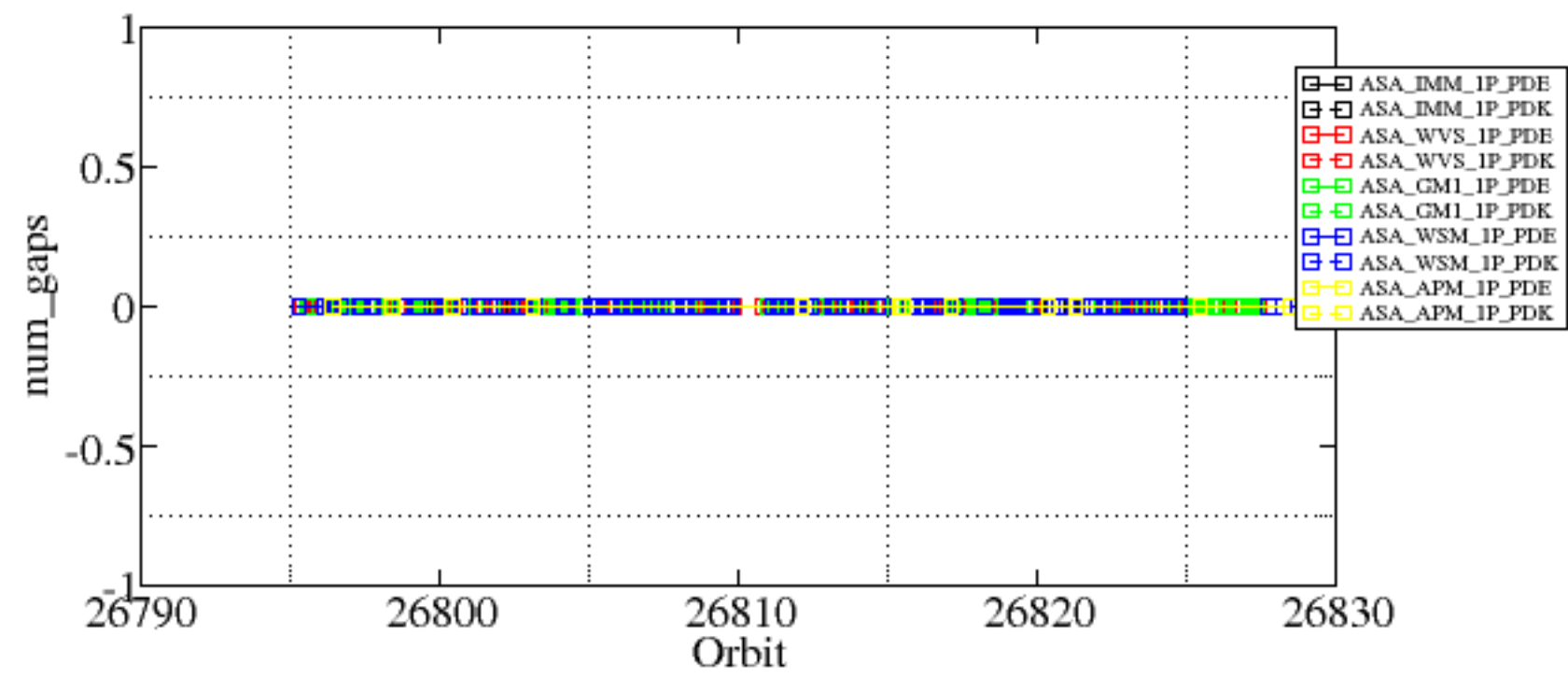


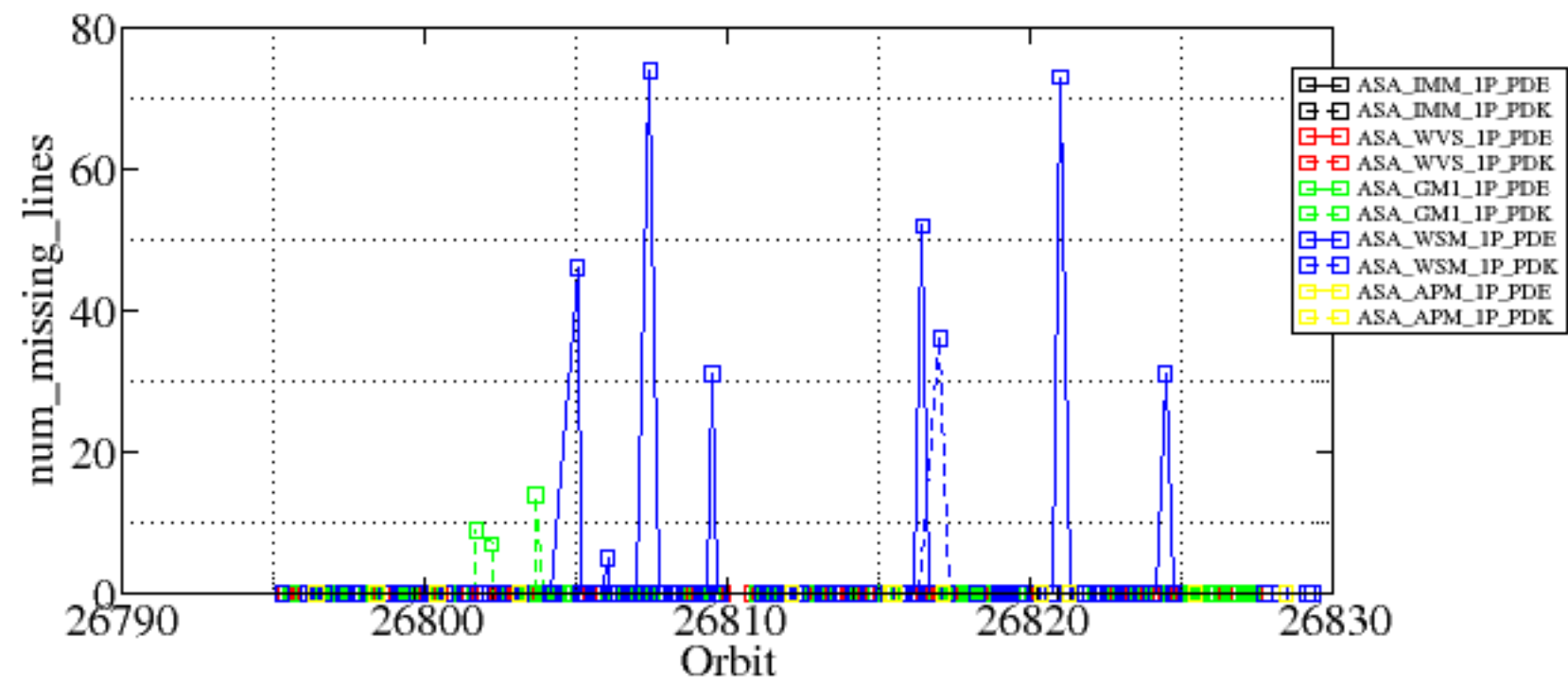


Summary of analysis for the last 3 days 2007041[678]

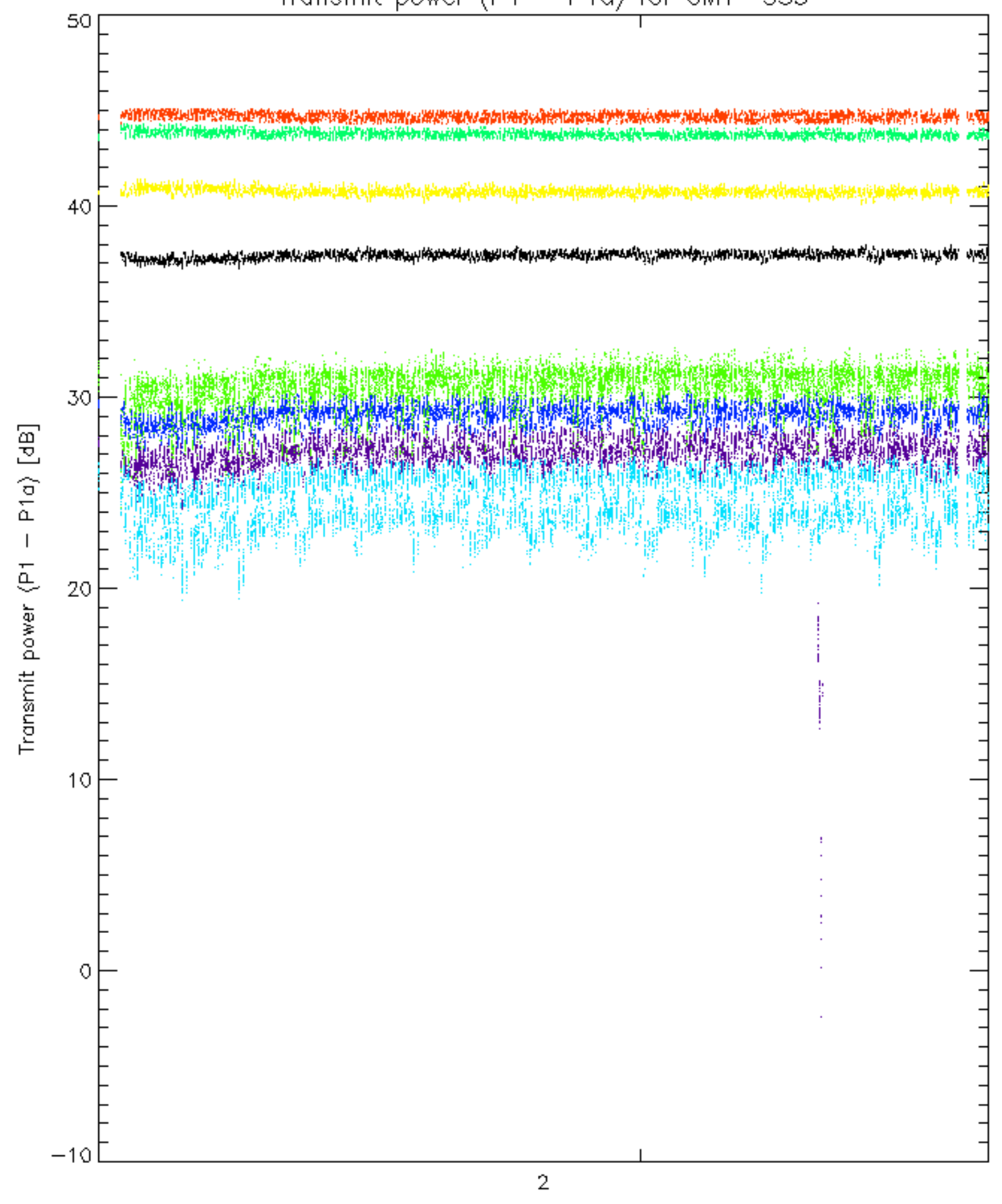
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20070416_104529_000007852057_00194_26801_0620.N1	0	9
ASA_GM1_1PNPDK20070416_113741_000003382057_00195_26802_0690.N1	0	7
ASA_GM1_1PNPDK20070416_140352_000009242057_00196_26803_0926.N1	0	14
ASA_WSM_1PNPDE20070416_162338_000002022057_00198_26805_4306.N1	0	46
ASA_WSM_1PNPDE20070416_180337_000001652057_00199_26806_4346.N1	0	5
ASA_WSM_1PNPDE20070416_202300_000000672057_00200_26807_4388.N1	0	74
ASA_WSM_1PNPDE20070416_234905_000002022057_00202_26809_4826.N1	0	31
ASA_WSM_1PNPDE20070417_112928_000000852057_00209_26816_5448.N1	0	52
ASA_WSM_1PNPDE20070417_190808_000001712057_00214_26821_5641.N1	0	73
ASA_WSM_1PNPDE20070418_005604_000000852057_00217_26824_6083.N1	0	31
ASA_WSM_1PNPDK20070417_122637_000001462057_00210_26817_1935.N1	0	36

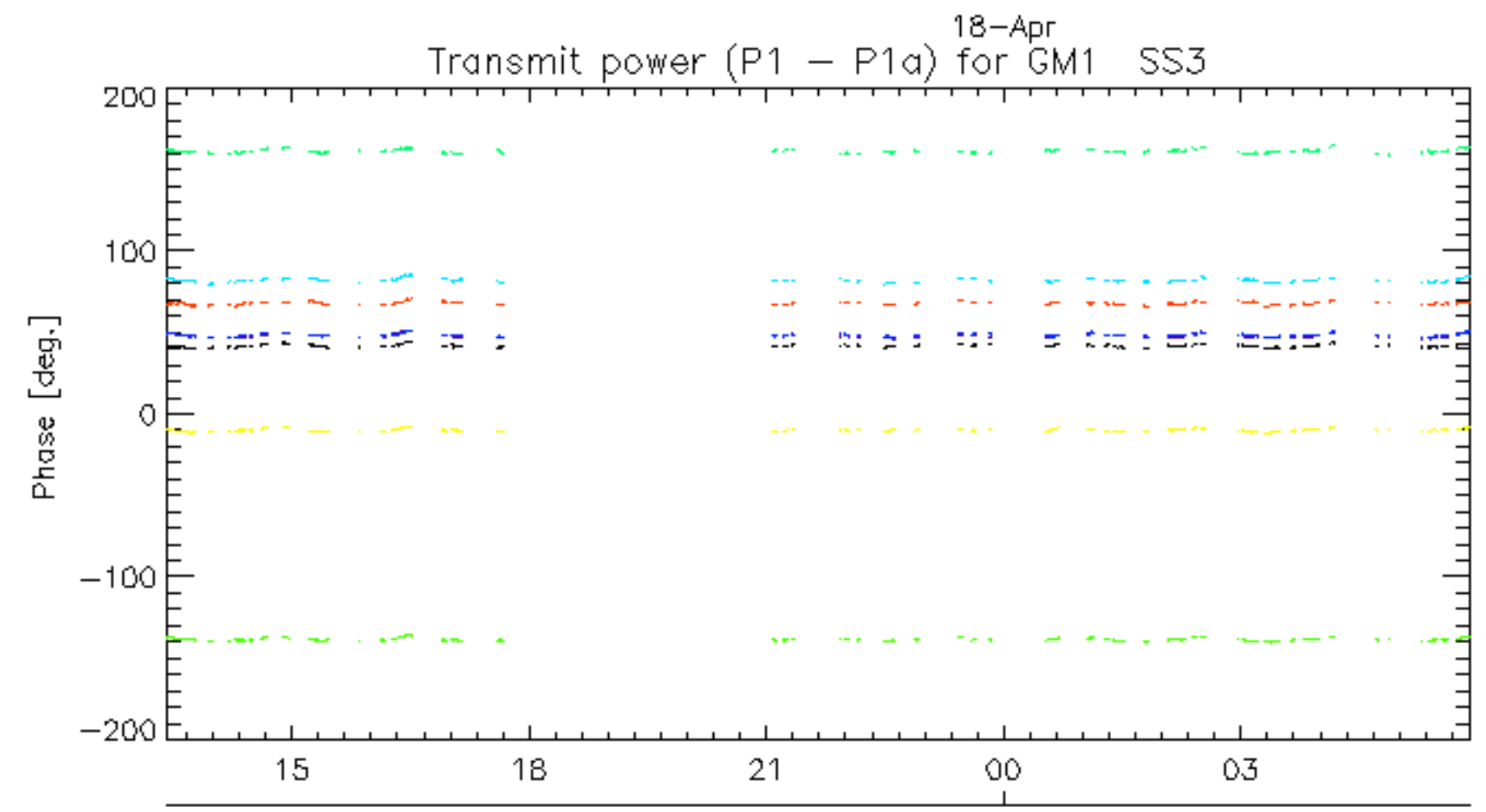
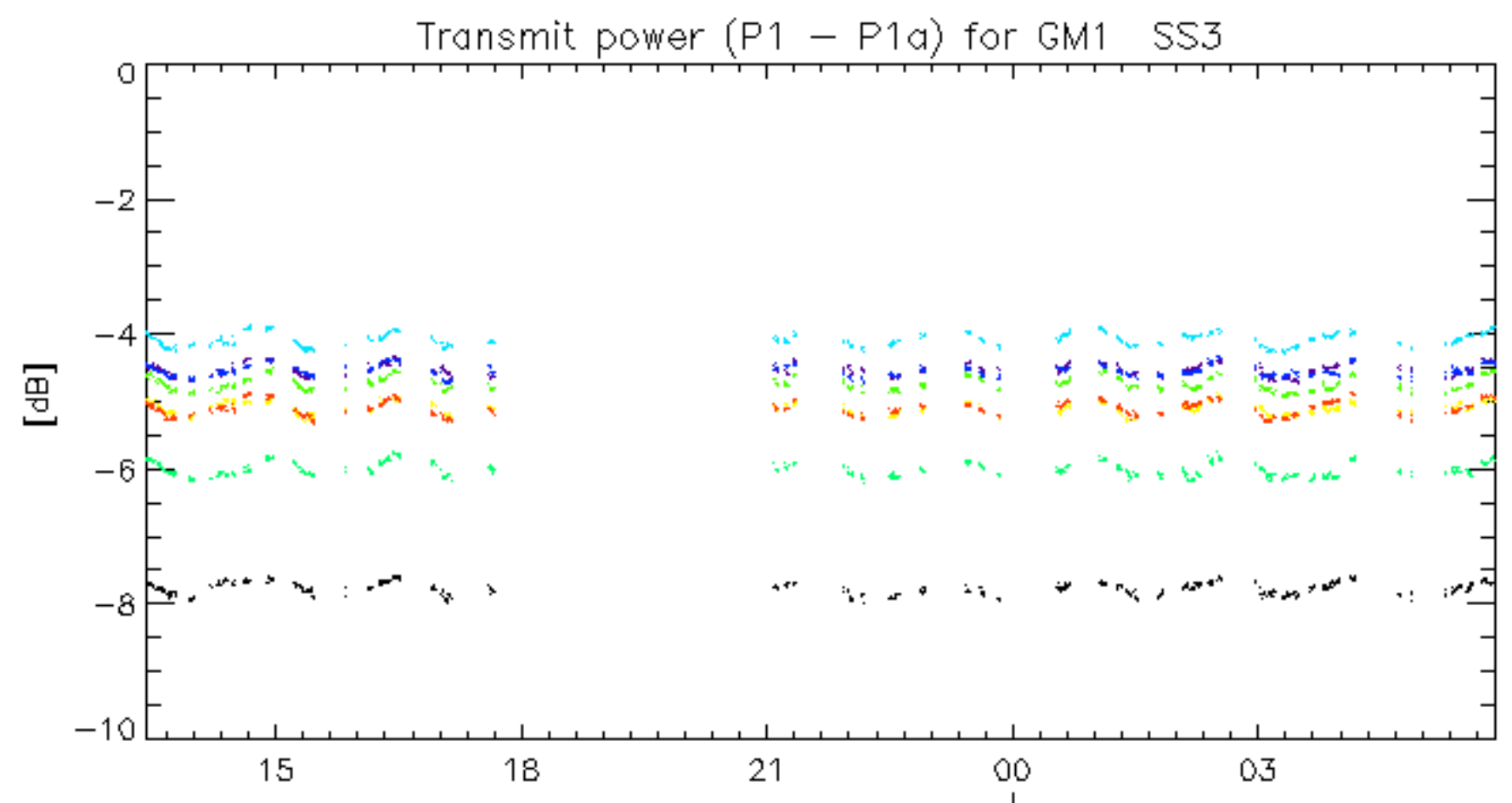




Transmit power (P1 - P1a) for GM1 SS3

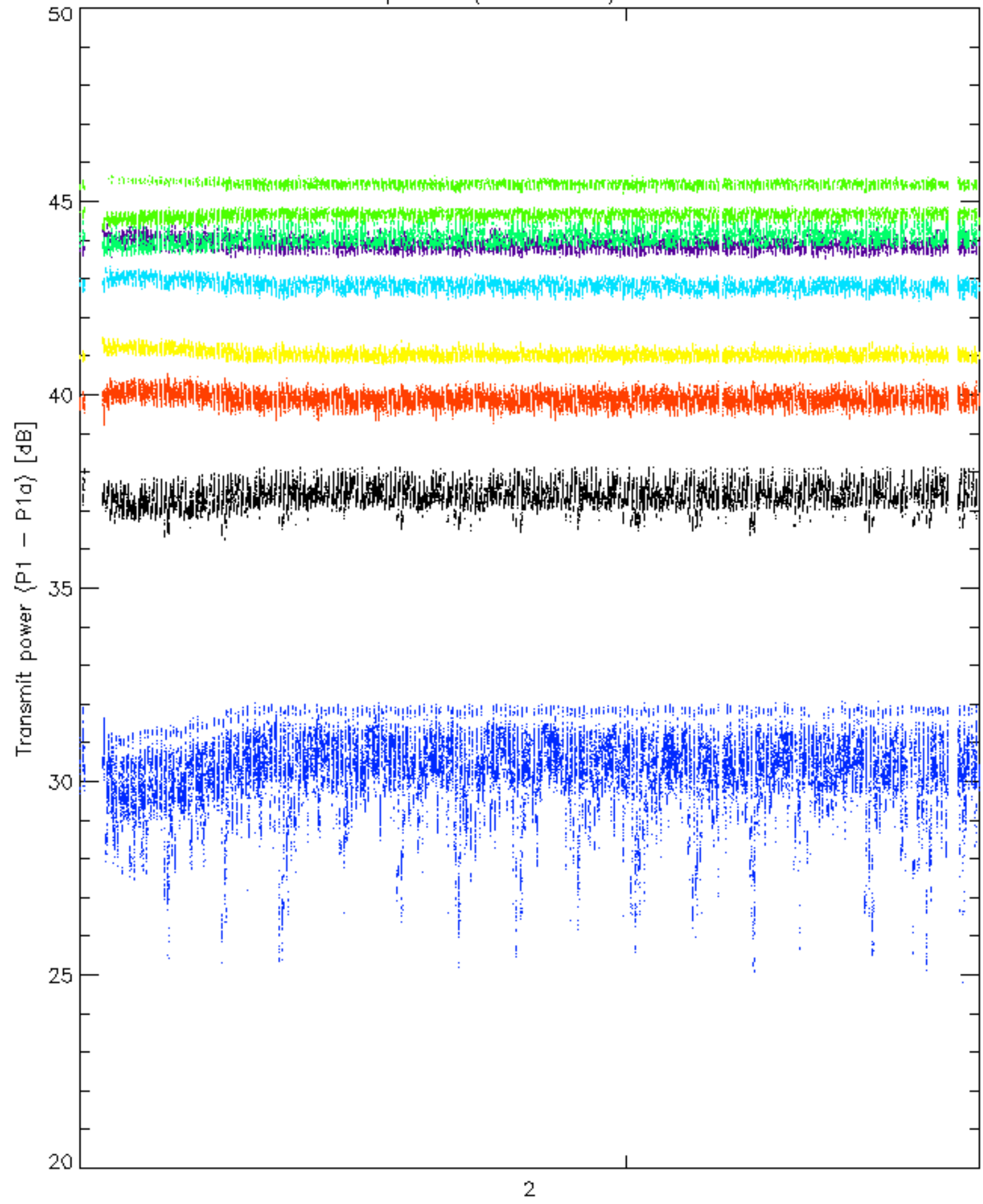


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

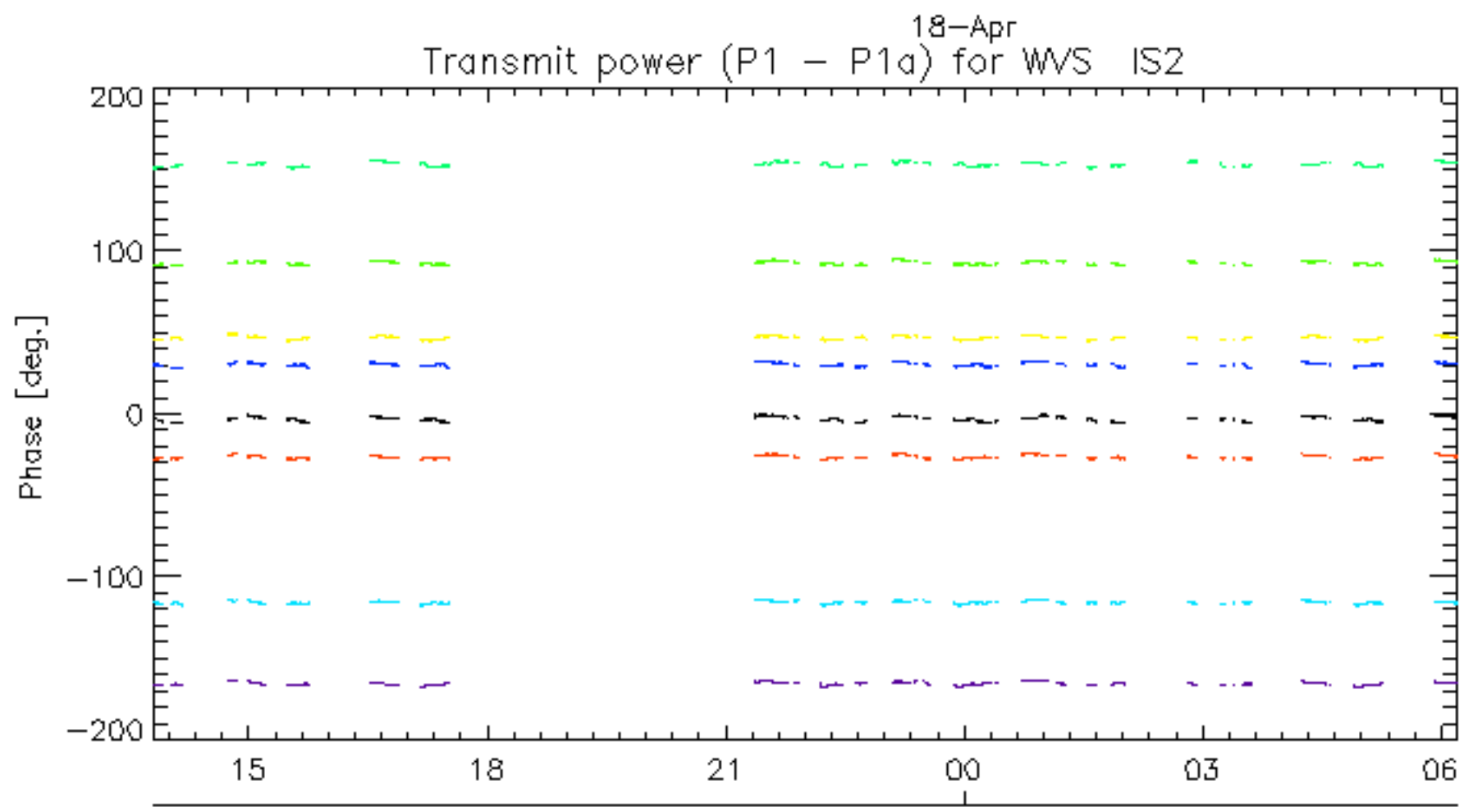
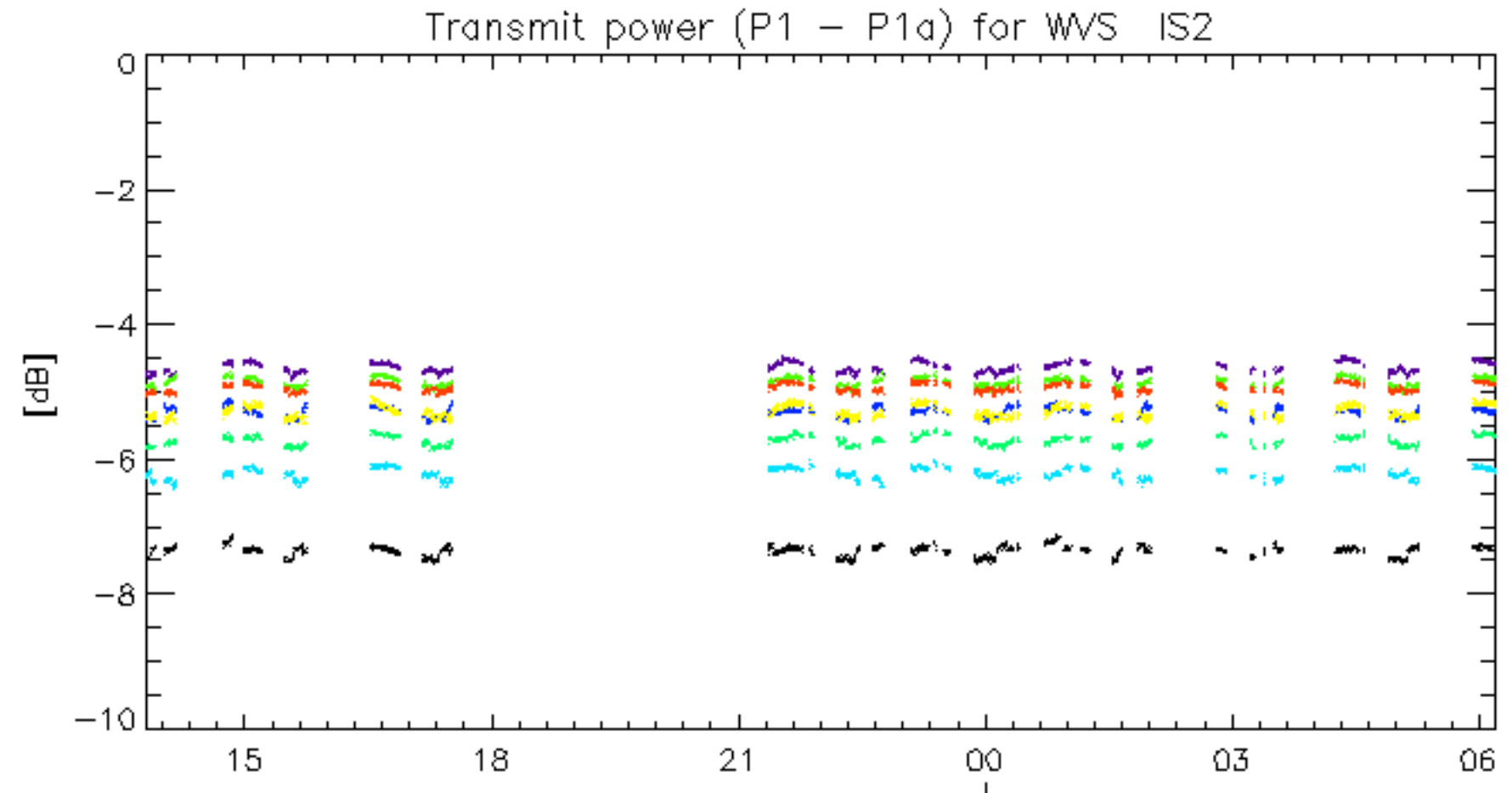


18-Apr
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.