

PRELIMINARY REPORT OF 070430

last update on Mon Apr 30 18:05:07 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 2007-04-29 00:00:00 to 2007-04-30 18:05:07

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	44	82	12	1	29
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	44	82	12	1	29
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	44	82	12	1	29
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	82	12	1	29

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20070306_164819_20070307_060000_20071231_000000	47	50	59	6	39
ASA_CON_AXVIEC20070410_140202_20070204_165113_20071231_000000	47	50	59	6	39
ASA_XCA_AXVIEC20070222_185842_20070204_165113_20071231_000000	47	50	59	6	39
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	47	50	59	6	39

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20070429 053209
H	20070428 060346

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"/>

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)
3	P1a	-15.094144	0.147812	-0.193032
7	P1a	-17.555330	0.101750	-0.090118
11	P1a	-17.503193	0.353798	-0.695679
15	P1a	-13.007037	0.124422	-0.362711
19	P1a	-15.340521	0.070631	-0.324508
22	P1a	-15.916796	0.412683	-0.385999
26	P1a	-15.022699	0.215593	0.392956
30	P1a	-17.705956	0.342251	-0.614307

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.769597	0.010626	-0.052046
7	P1	-3.147759	0.008950	-0.014712
11	P1	-4.209801	0.012204	-0.018978
15	P1	-6.409817	0.019805	-0.131768
19	P1	-3.783902	0.010874	0.039486
22	P1	-4.749104	0.009411	-0.033273
26	P1	-3.917880	0.019461	0.078153
30	P1	-5.967807	0.009363	0.015827

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.661472	0.090470	-0.018264
7	P2	-21.559151	0.088646	0.110257
11	P2	-15.352079	0.116521	0.202184
15	P2	-7.127216	0.088728	-0.025994
19	P2	-9.117543	0.080400	0.013265
22	P2	-18.086443	0.077085	0.010012
26	P2	-16.619654	0.081760	-0.067280
30	P2	-19.276398	0.082221	0.049360

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.244929	0.005338	-0.006451
7	P3	-8.244929	0.005338	-0.006451
11	P3	-8.244929	0.005338	-0.006451
15	P3	-8.244929	0.005338	-0.006451
19	P3	-8.244929	0.005338	-0.006451
22	P3	-8.244929	0.005338	-0.006451
26	P3	-8.244929	0.005338	-0.006451
30	P3	-8.244929	0.005338	-0.006451

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	-11.206695	0.130059	-0.126851
7	P1a	-10.062024	0.199762	0.029613
11	P1a	-10.686502	0.098709	0.049601
15	P1a	-10.832608	0.167456	0.129167
19	P1a	-15.807210	0.089922	-0.116183
22	P1a	-21.389547	1.455938	-0.434660
26	P1a	-15.507278	0.375639	-0.251725
30	P1a	-18.308973	0.462572	0.208913

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-8.454296	0.051792	-0.014078
7	P1	-2.408607	0.108583	0.056141
11	P1	-2.887979	0.025382	0.065571
15	P1	-3.817358	0.037644	0.055620
19	P1	-3.588454	0.014740	-0.028571
22	P1	-4.969997	0.023458	0.085038

26	P1	-6.037085	0.027289	-0.043408
30	P1	-5.338109	0.033192	-0.023463

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.179735	0.065264	-0.085350
7	P2	-22.039865	0.199732	-0.037877
11	P2	-10.636390	0.044889	-0.036727
15	P2	-4.922185	0.041663	-0.075996
19	P2	-6.869396	0.039982	-0.025319
22	P2	-8.110023	0.091925	0.011440
26	P2	-24.322710	0.148711	-0.029804
30	P2	-21.711151	0.109196	0.052140

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091296	0.004970	-0.004274
7	P3	-8.091275	0.004970	-0.003775
11	P3	-8.091122	0.004967	-0.004217
15	P3	-8.090994	0.004969	-0.004069
19	P3	-8.091183	0.004989	-0.003982
22	P3	-8.091110	0.004956	-0.003822
26	P3	-8.091123	0.004972	-0.003606
30	P3	-8.091071	0.004964	-0.003818

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	0.000546422
	stdev	1.98987e-07
MEAN Q	mean	0.000495631
	stdev	2.42018e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135779
	stdev	0.00122824
STDEV Q	mean	0.136171
	stdev	0.00124587



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007042[890]

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_1PNPDE20070428_182646_000000352057_00371_26978_0556.N1	0	15
ASA_WVS_1PNPDK20070420_201256_000004052057_00257_26864_6221.N1	0	8
ASA_GM1_1PNPDK20070420_205323_000005612057_00257_26864_6240.N1	0	90
ASA_GM1_1PNPDK20070428_150338_000003682057_00369_26976_6468.N1	0	15
ASA_GM1_1PNPDK20070428_164337_000002952057_00370_26977_6598.N1	0	7

ASA_GM1_1PNPDK20070428_171029_000007972057_00370_26977_6713.N1	0	6
ASA_GM1_1PNPDK20070429_161608_000002412057_00384_26991_7711.N1	0	27
ASA_WSM_1PNPDE20070420_141551_000000852057_00254_26861_9529.N1	0	73
ASA_WSM_1PNPDE20070420_155726_000001222057_00255_26862_9551.N1	0	2
ASA_WSM_1PNPDE20070429_014749_000000852057_00375_26982_1133.N1	0	73
ASA_WSM_1PNPDE20070429_201431_000000672057_00386_26993_1964.N1	0	40
ASA_WSM_1PNPDE20070429_234030_000000862057_00388_26995_2310.N1	0	26
ASA_APM_1PNPDE20070429_011649_000000832057_00375_26982_1129.N1	15	0
ASA_APM_1PNPDE20070429_161500_000000402057_00384_26991_1766.N1	11	0



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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

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"/>

Acsending

<input type="checkbox"/>

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

<input type="checkbox"/>

Acsending

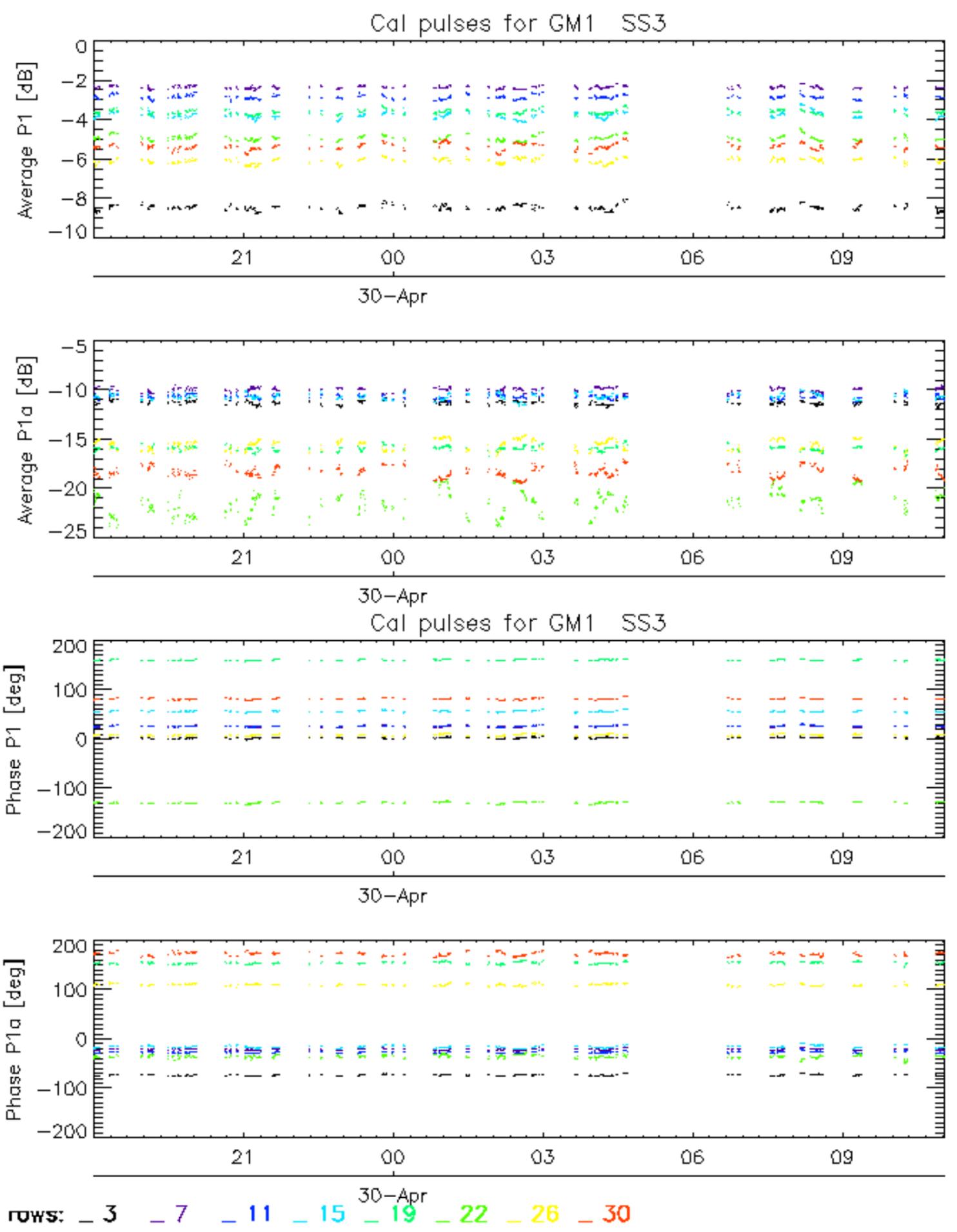
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Descending

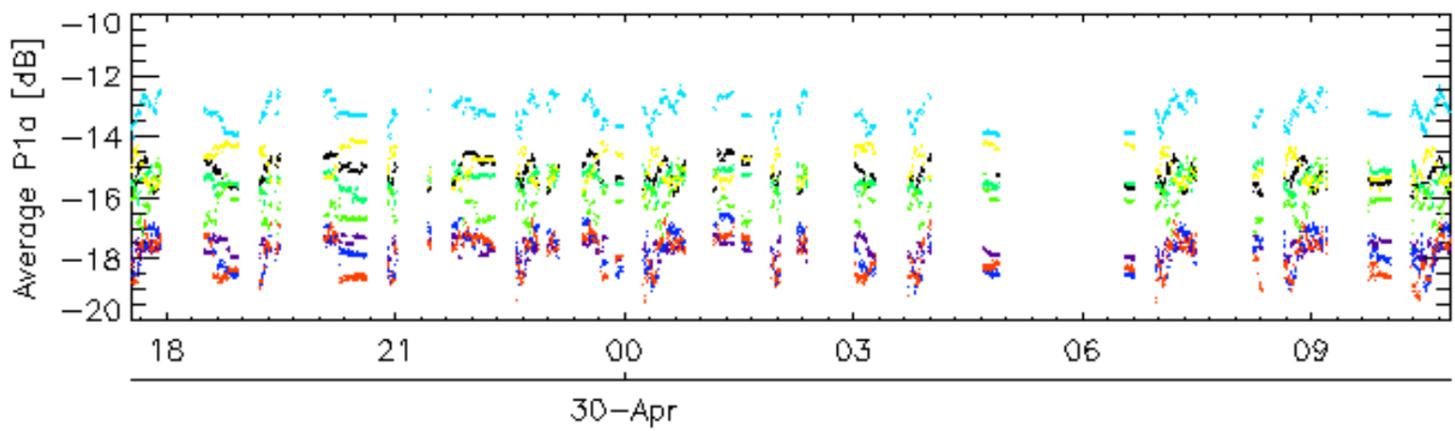
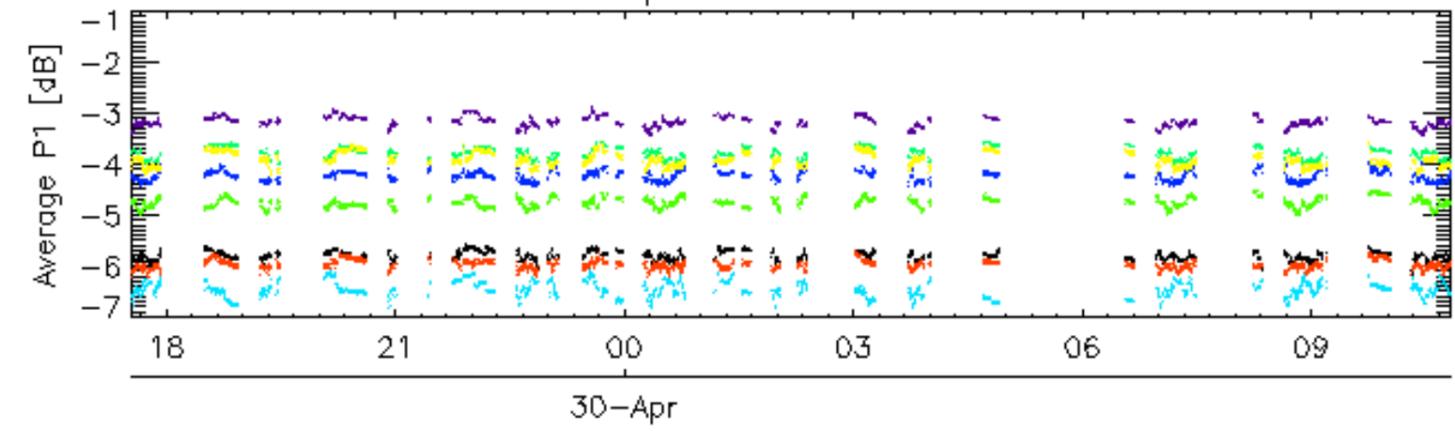
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

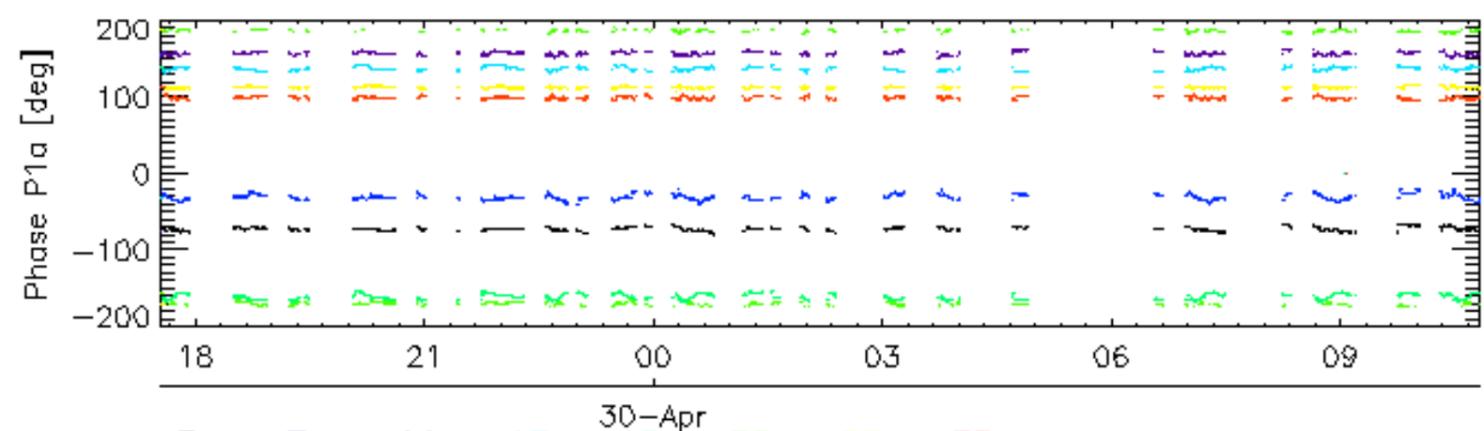
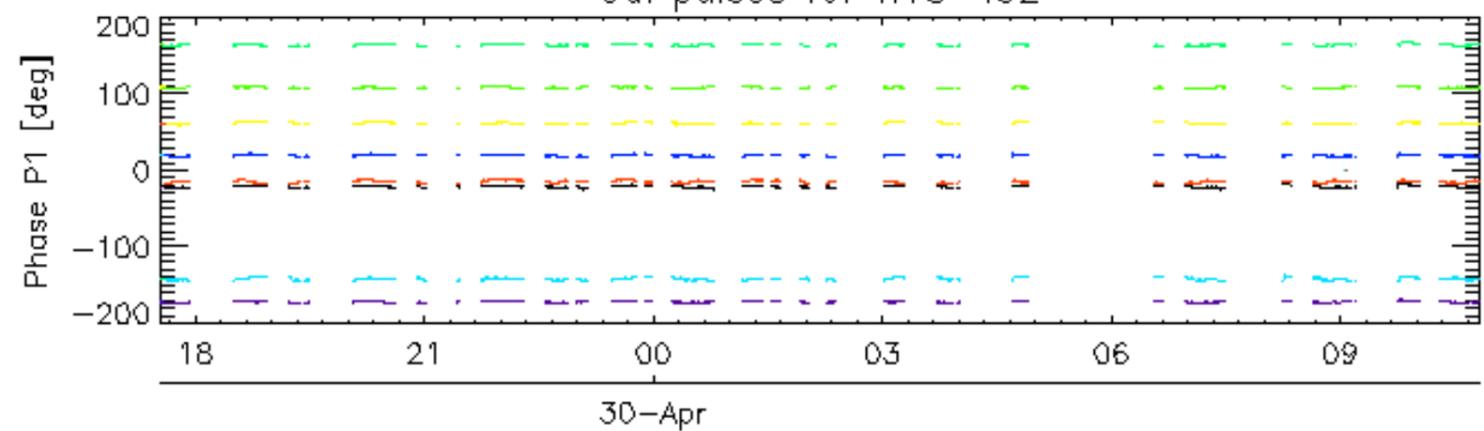
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Cal pulses for WVS IS2

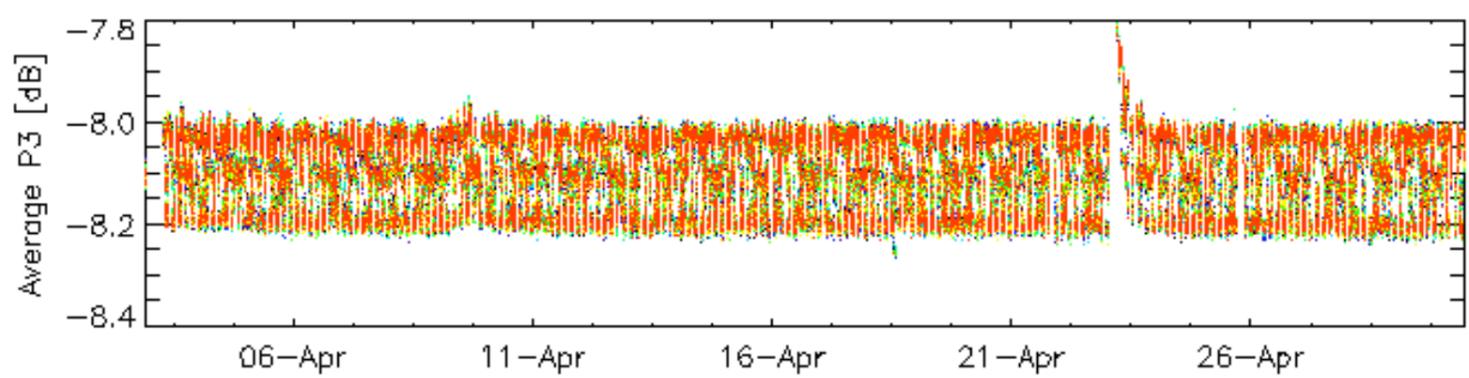
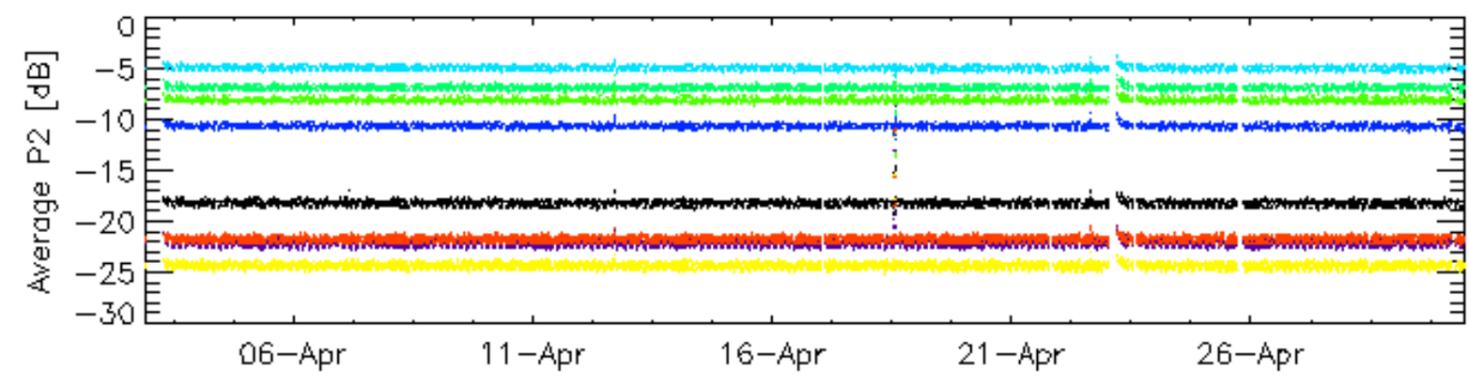
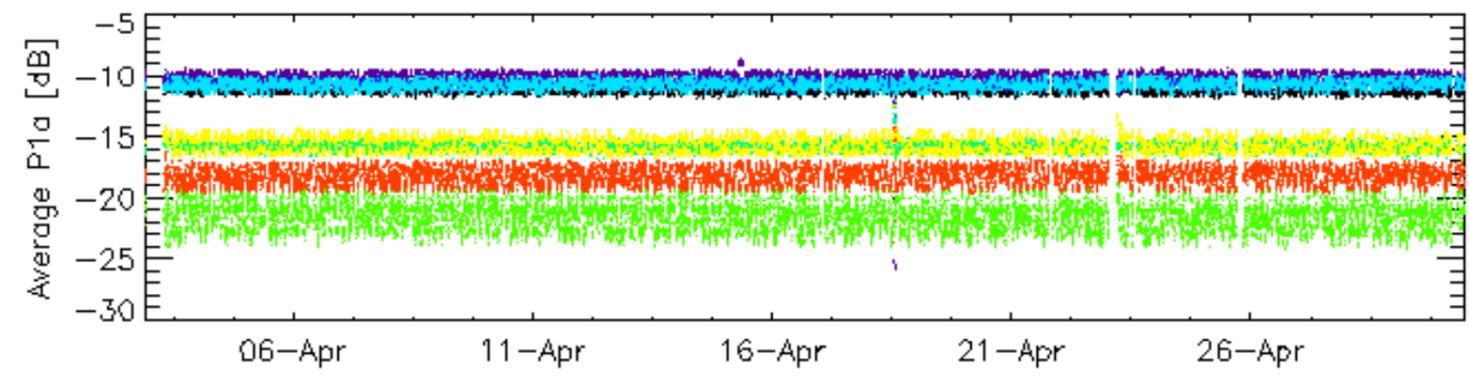
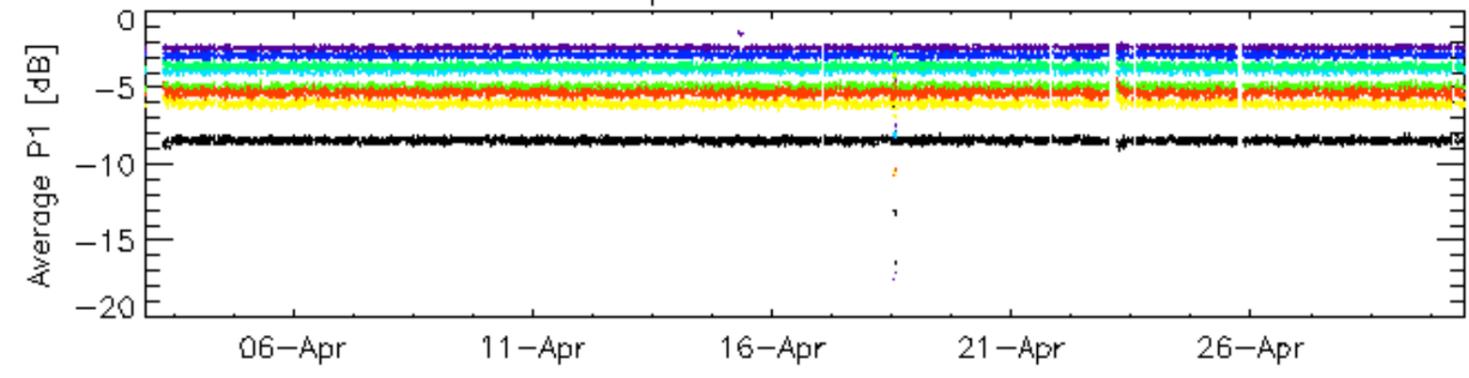


Cal pulses for WVS IS2



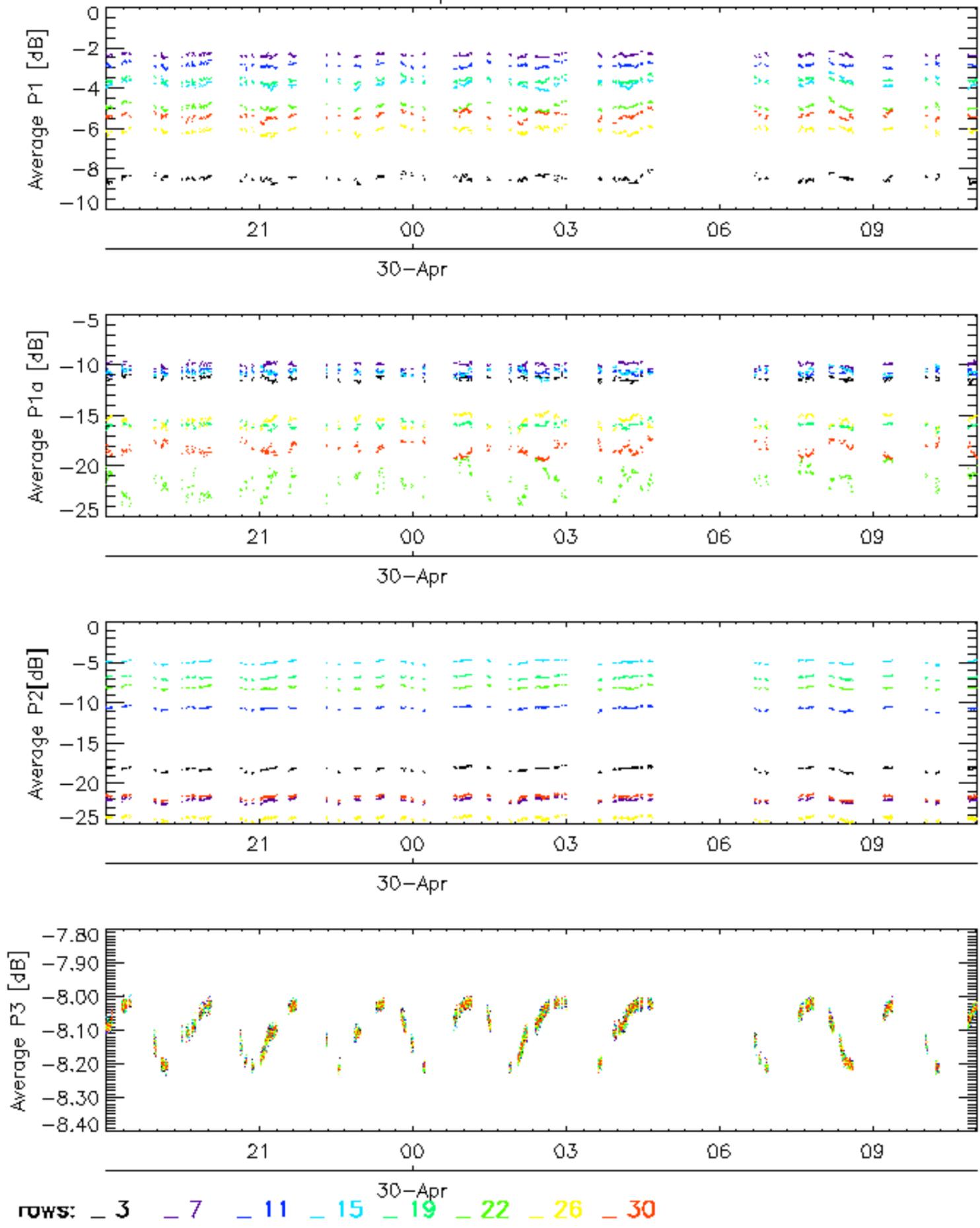
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

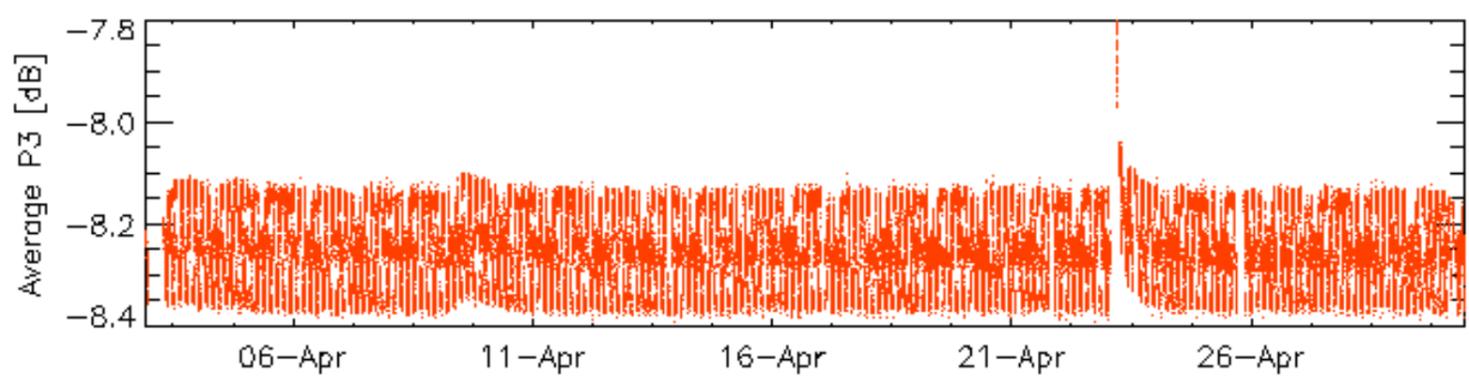
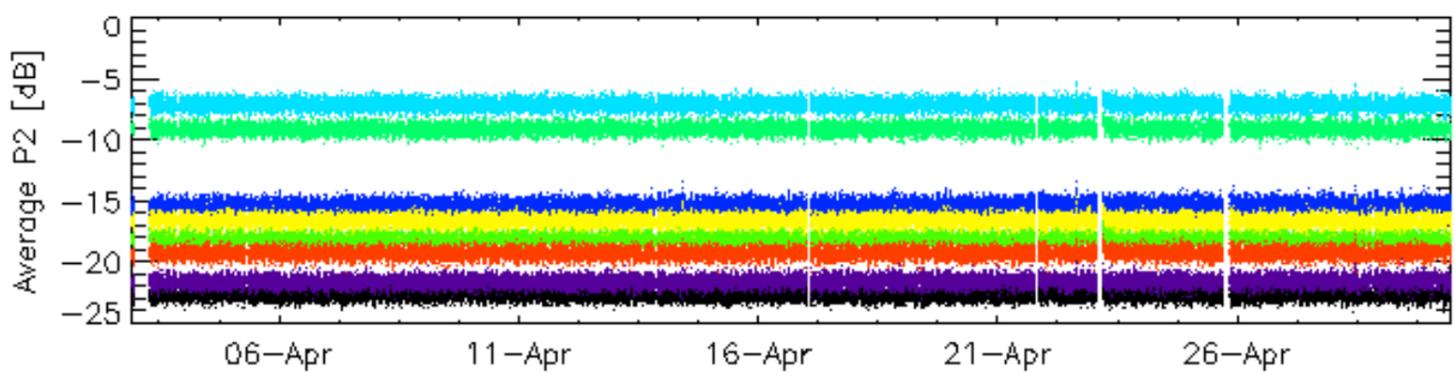
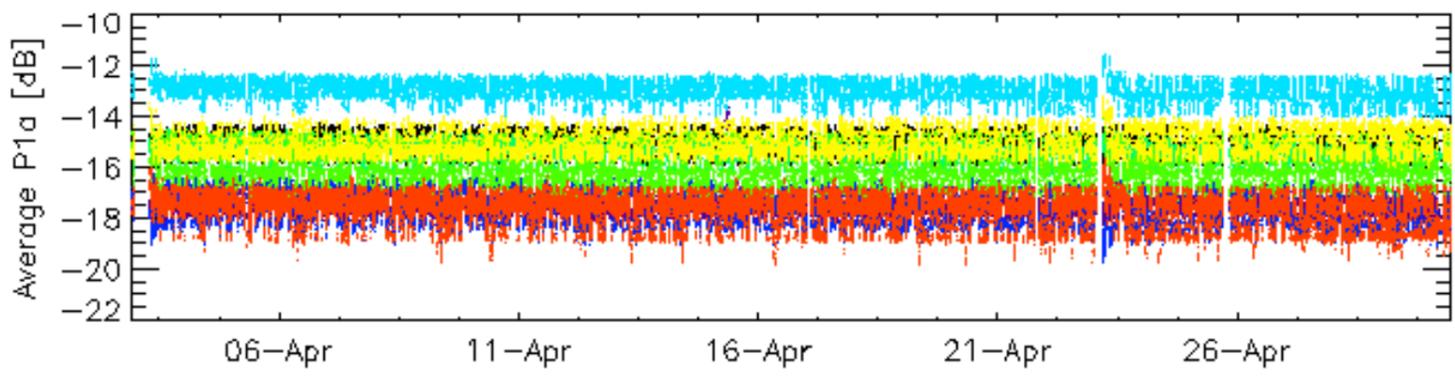
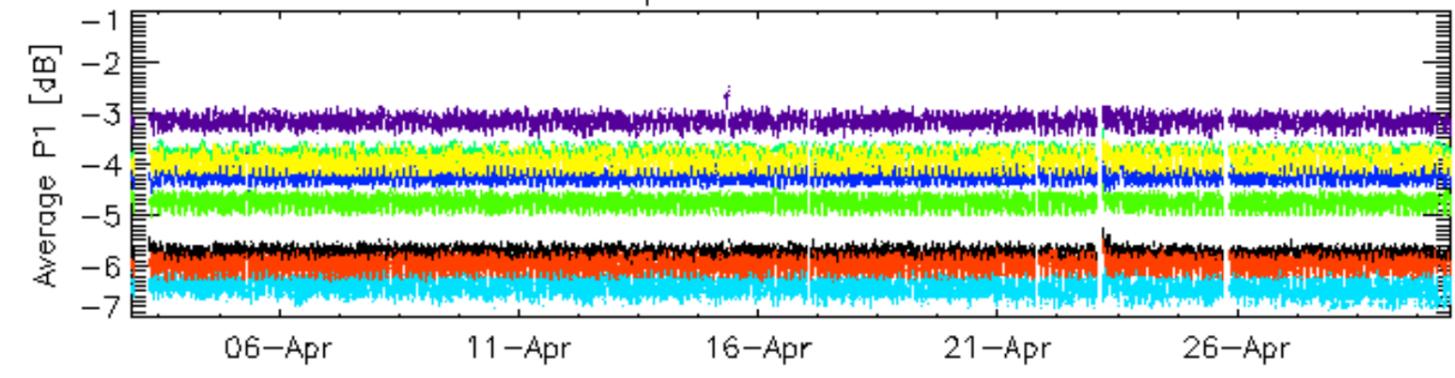


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

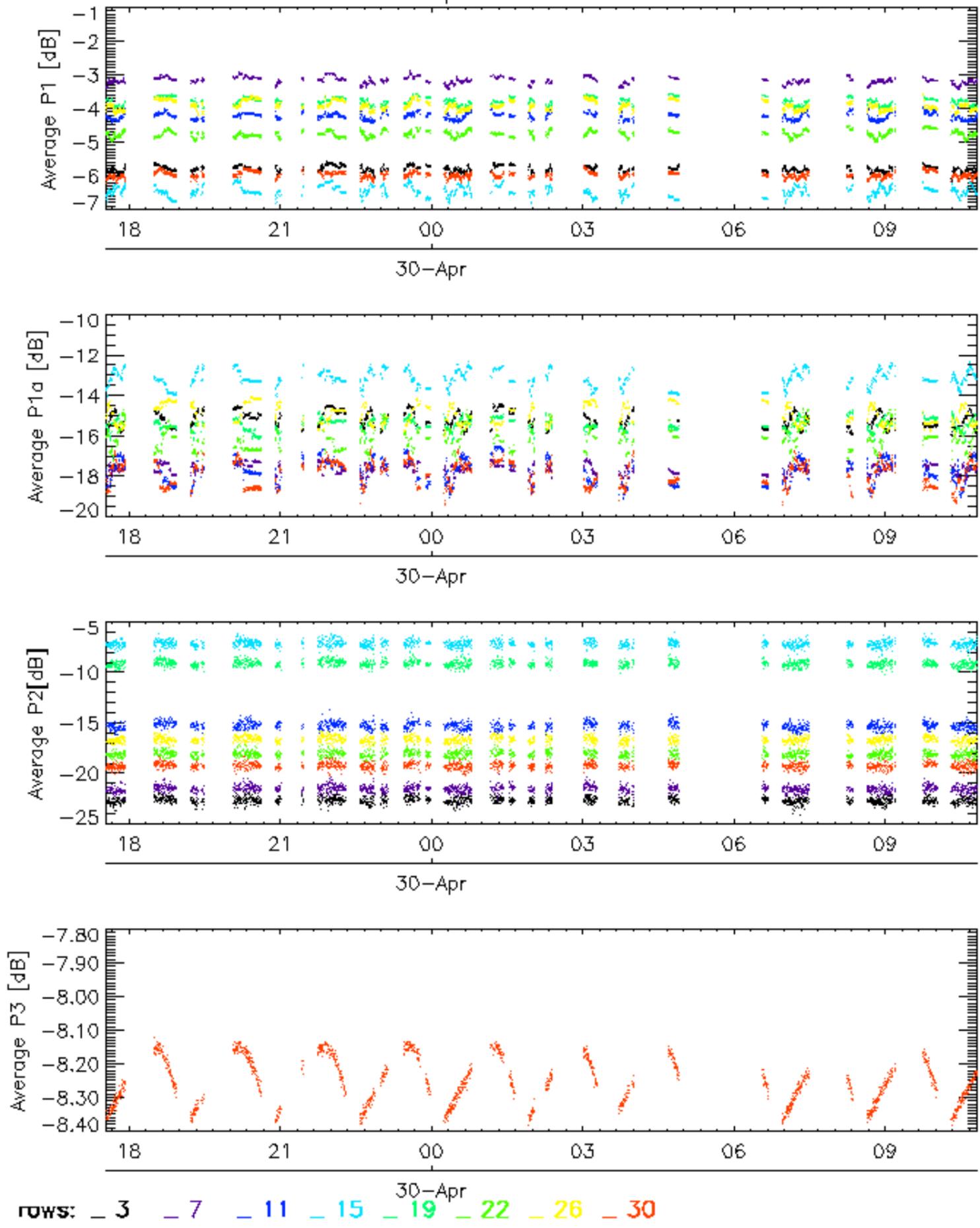


Cal pulses for WVS IS2



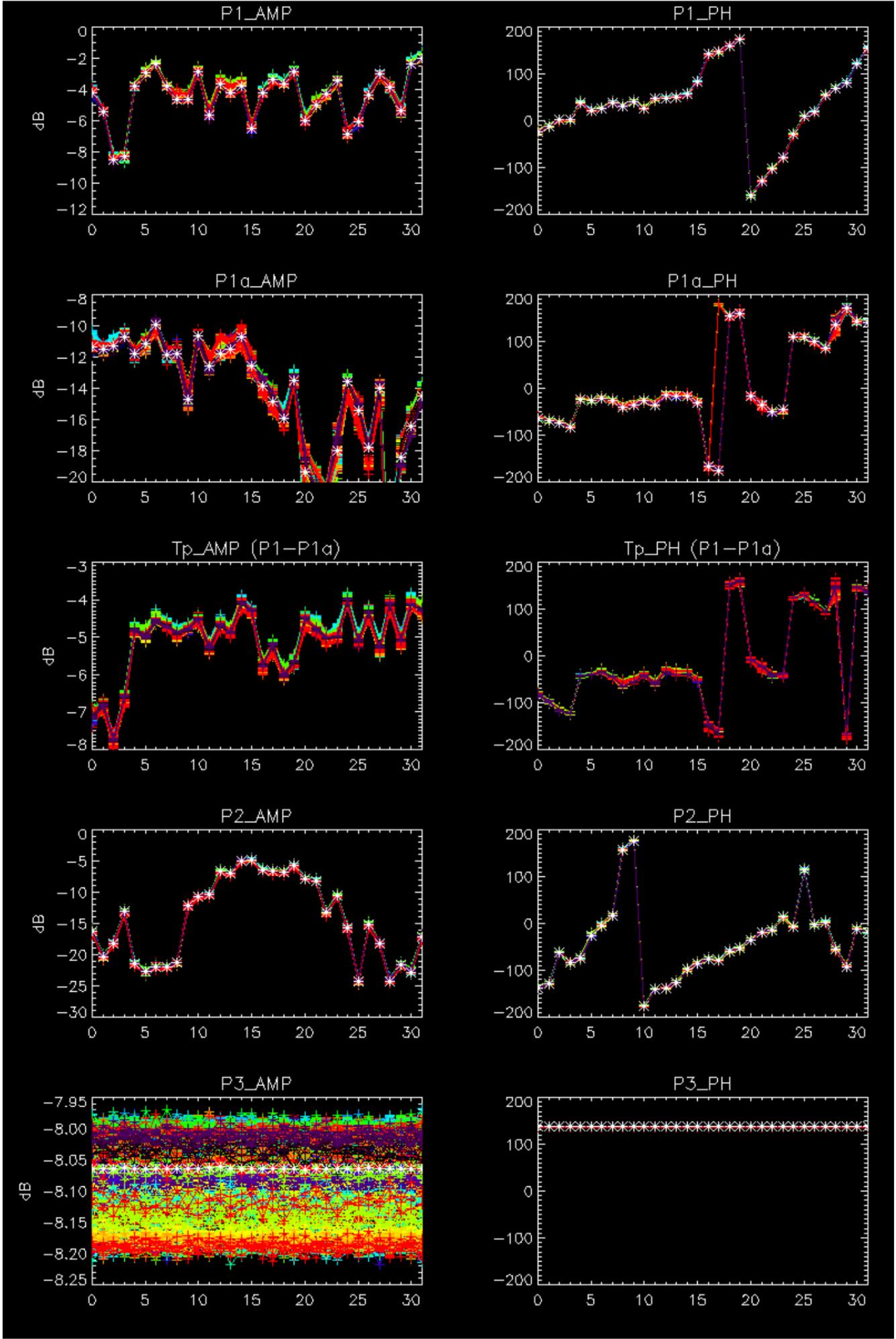
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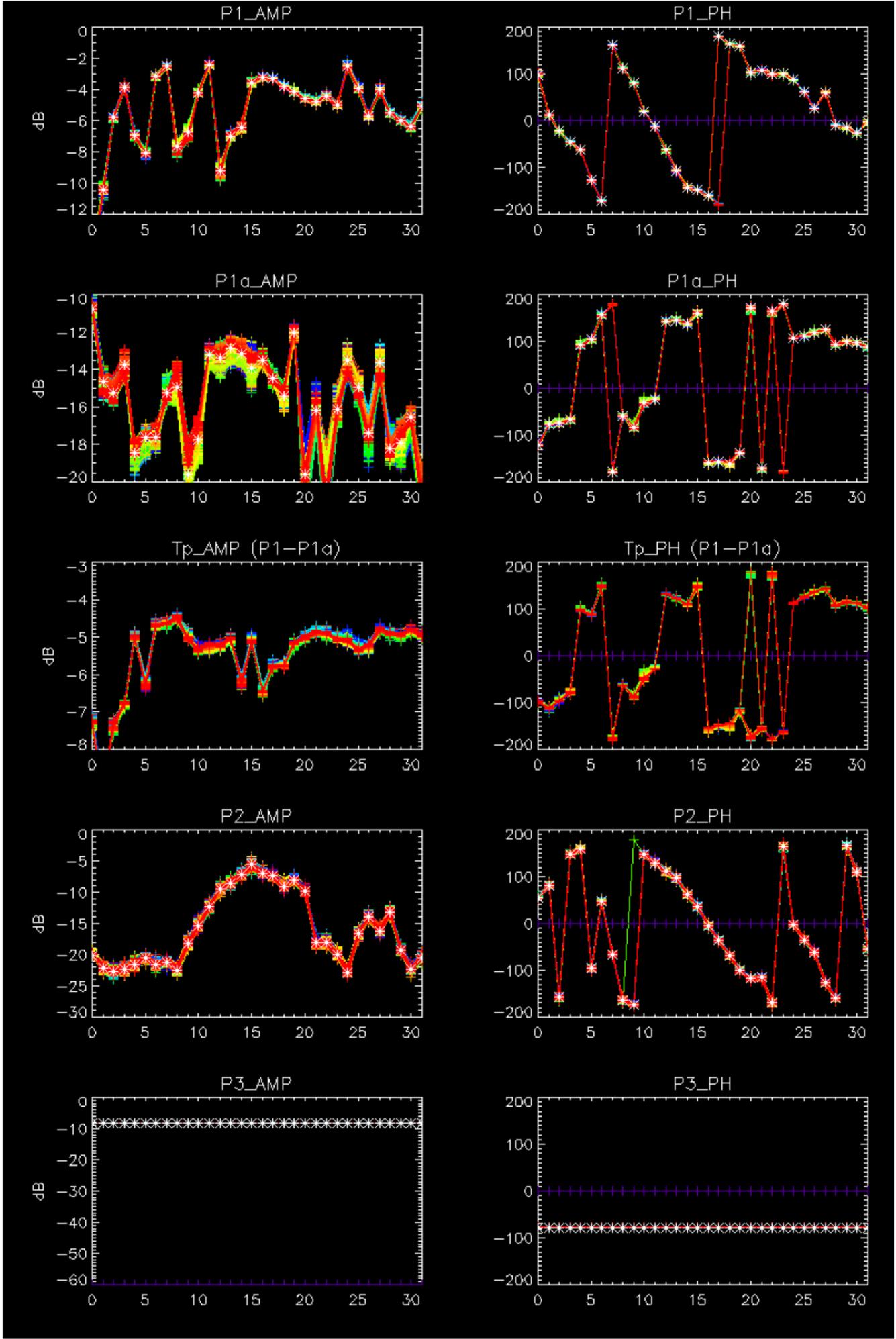
Cal pulses for WVS IS2



No anomalies observed on available browse products

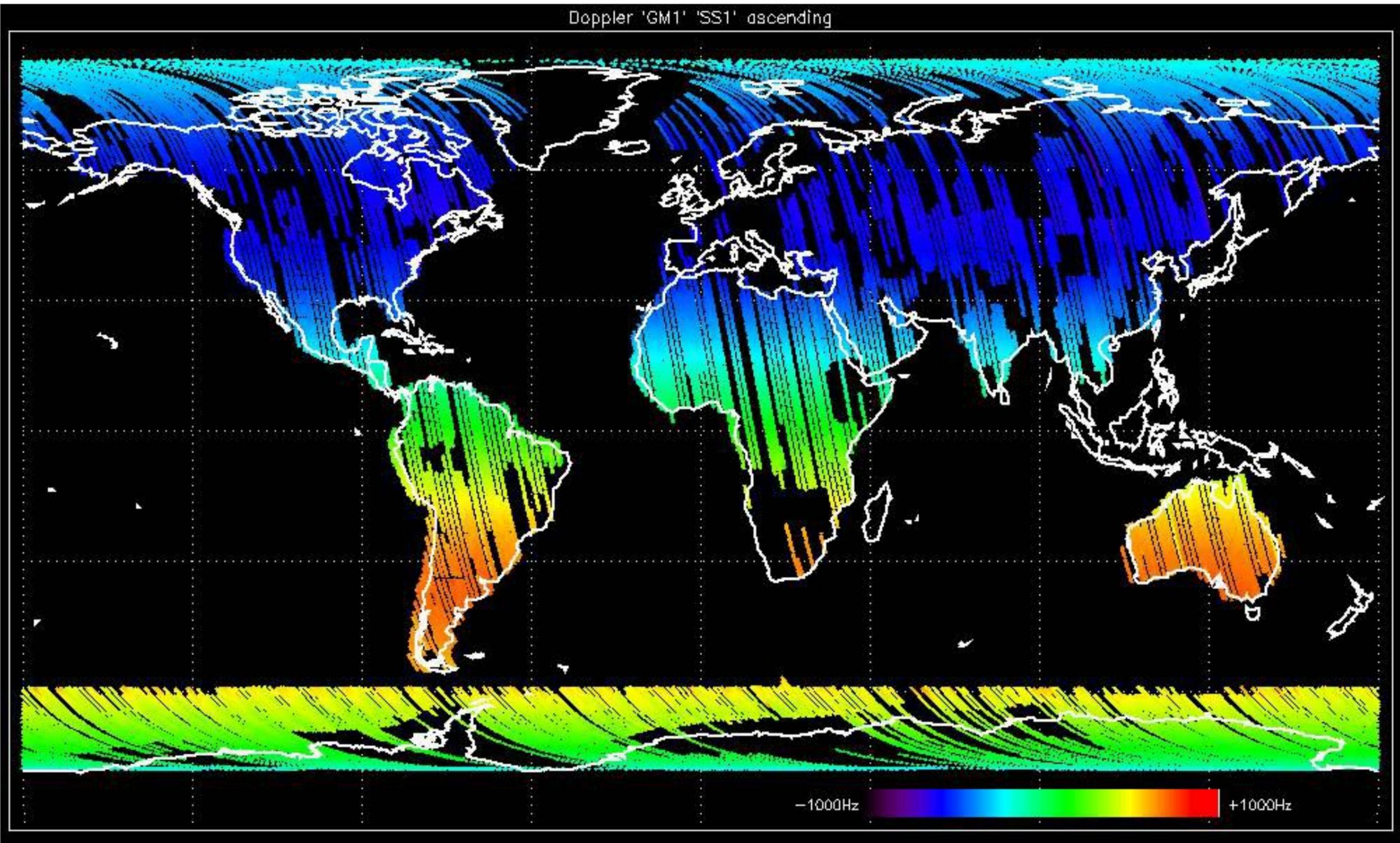
No anomalies observed.



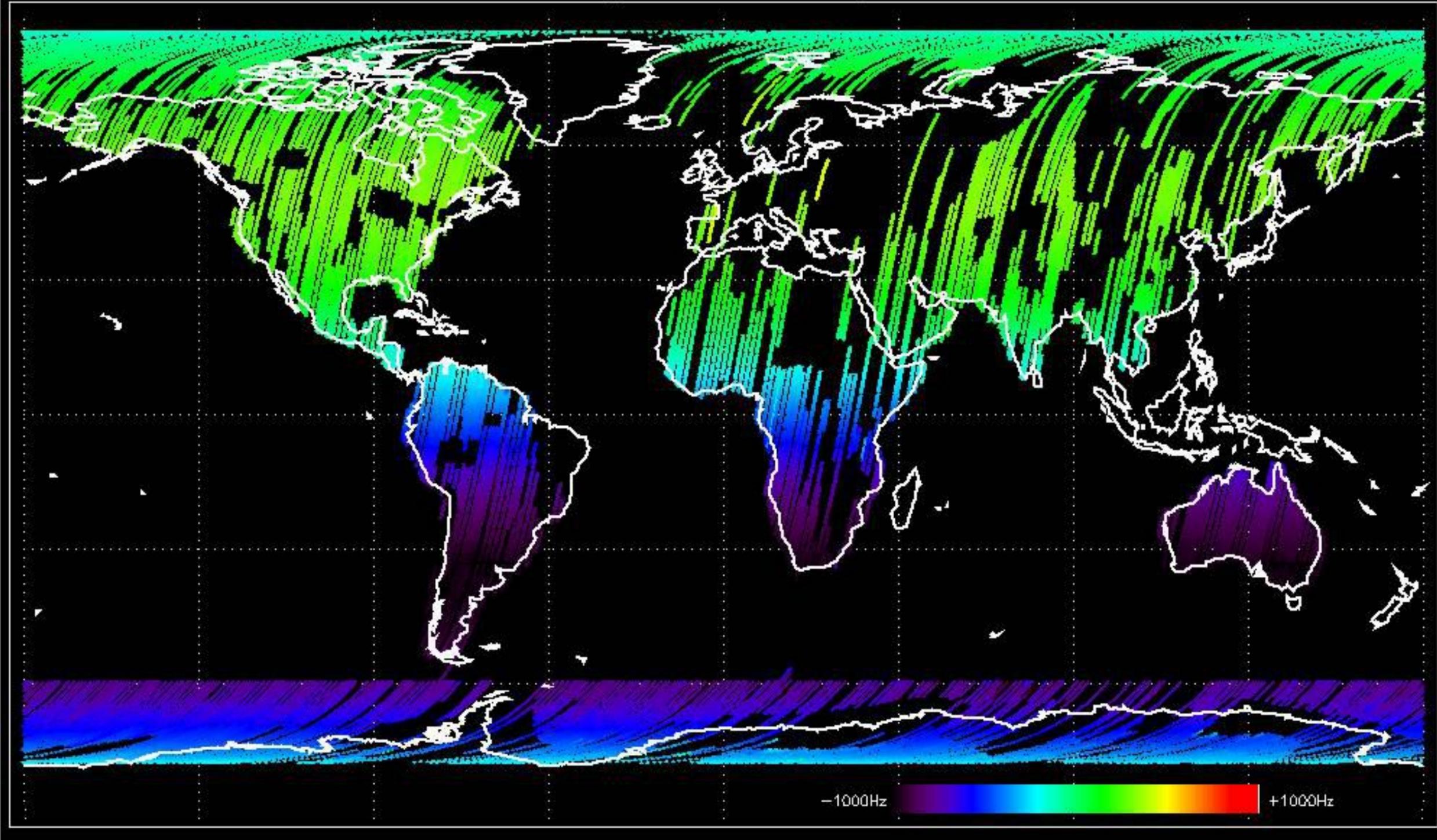


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

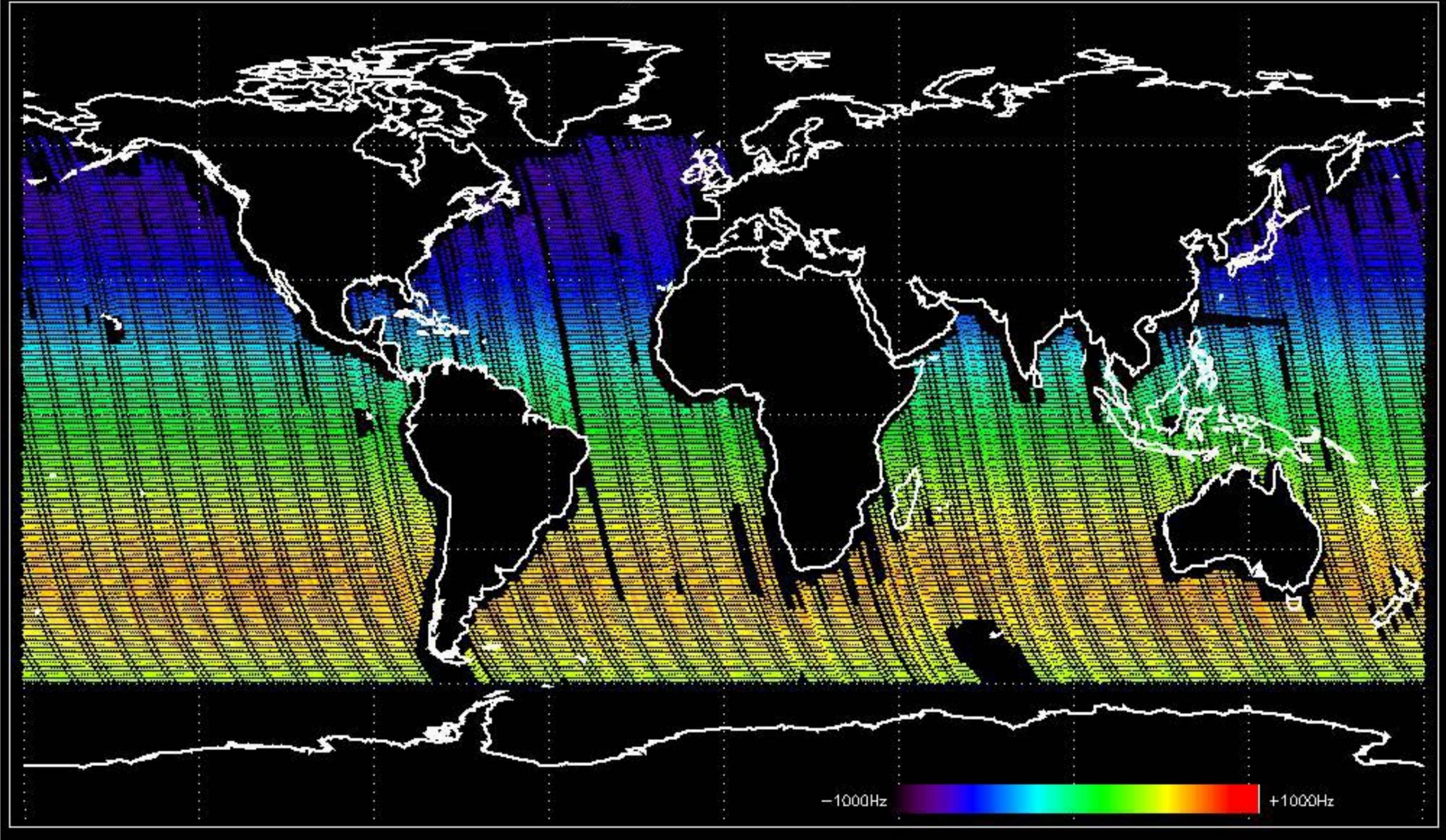
Doppler 'GM1' 'SS1' ascending



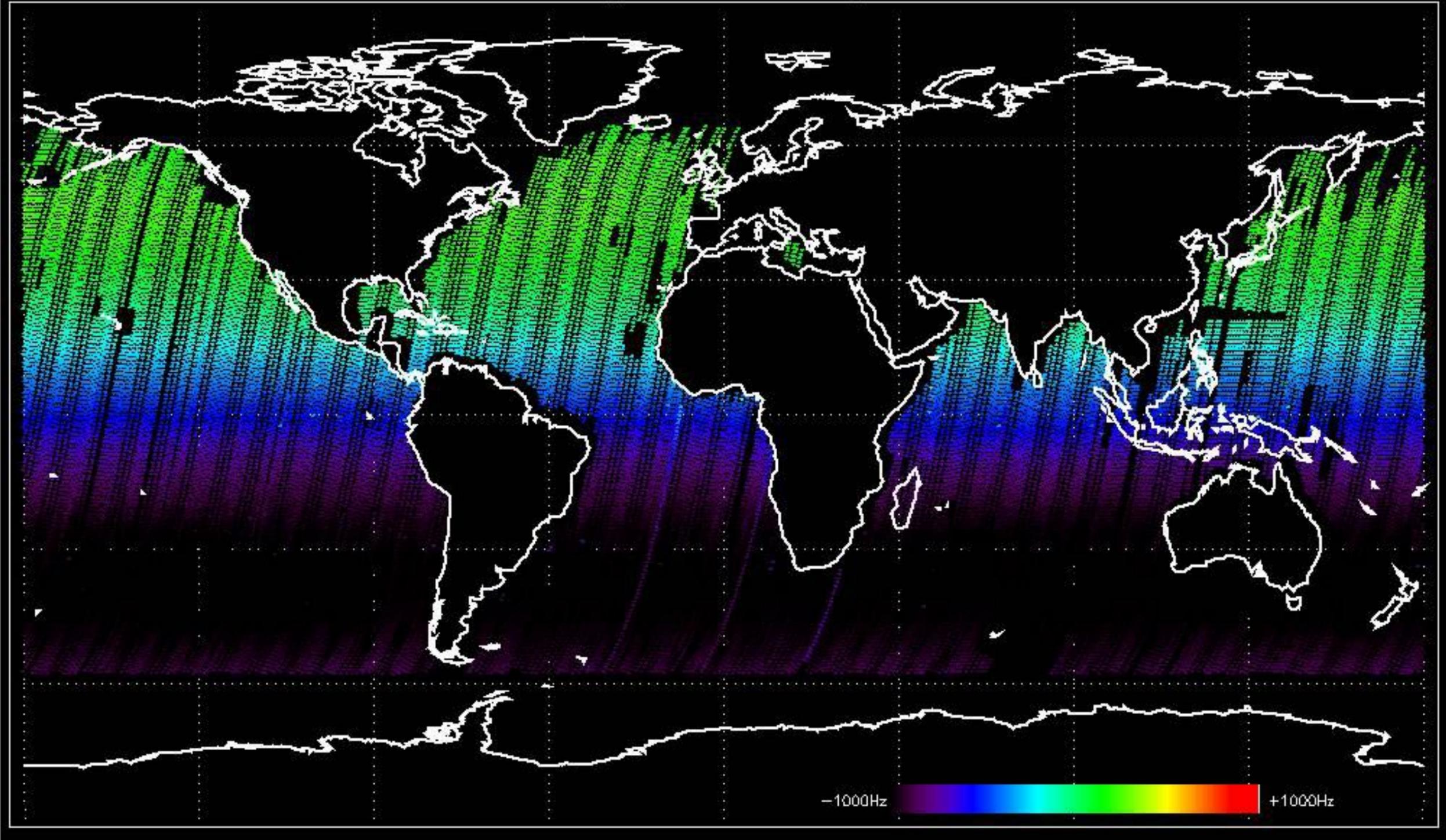
Doppler 'GM1' 'SS1' descending



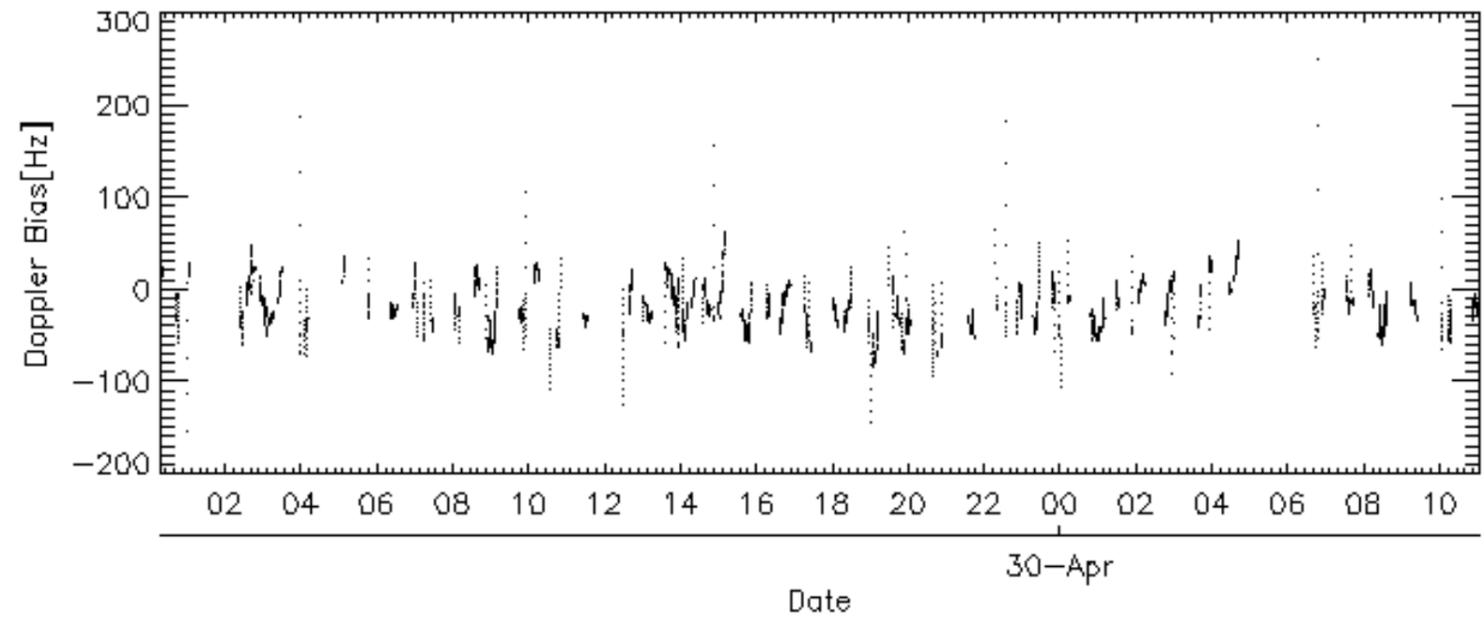
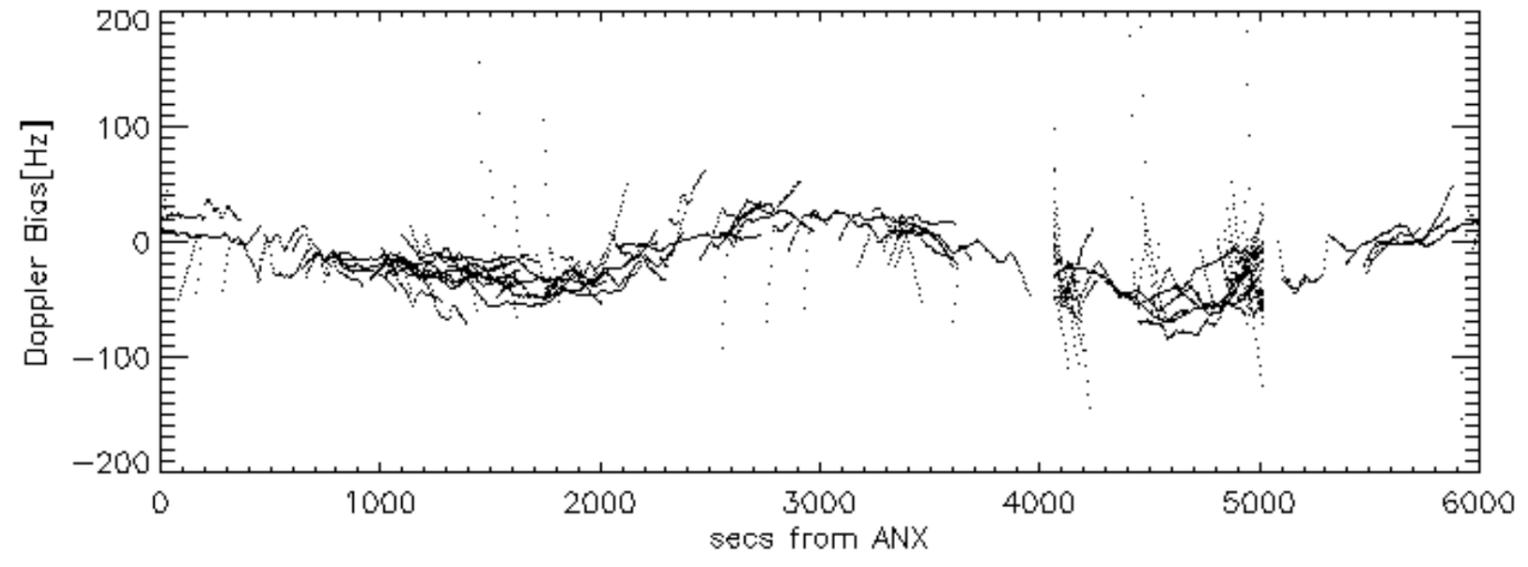
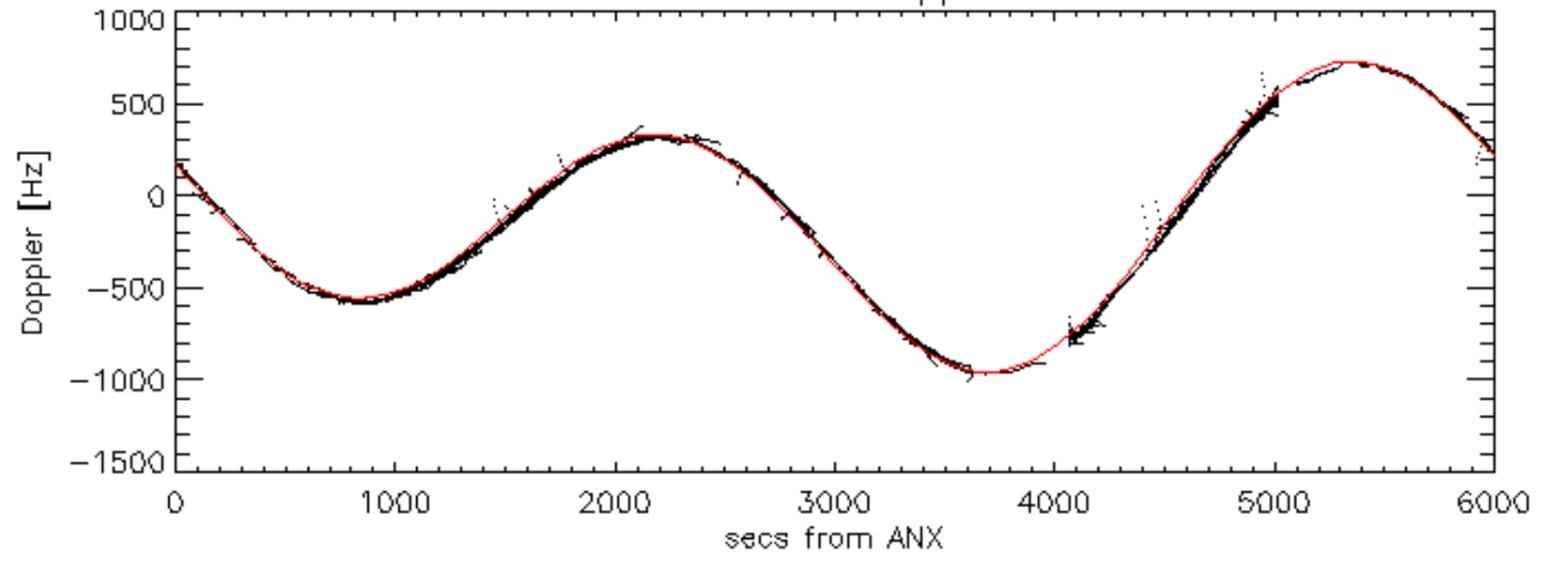
Doppler 'WVS' 'IS2' ascending

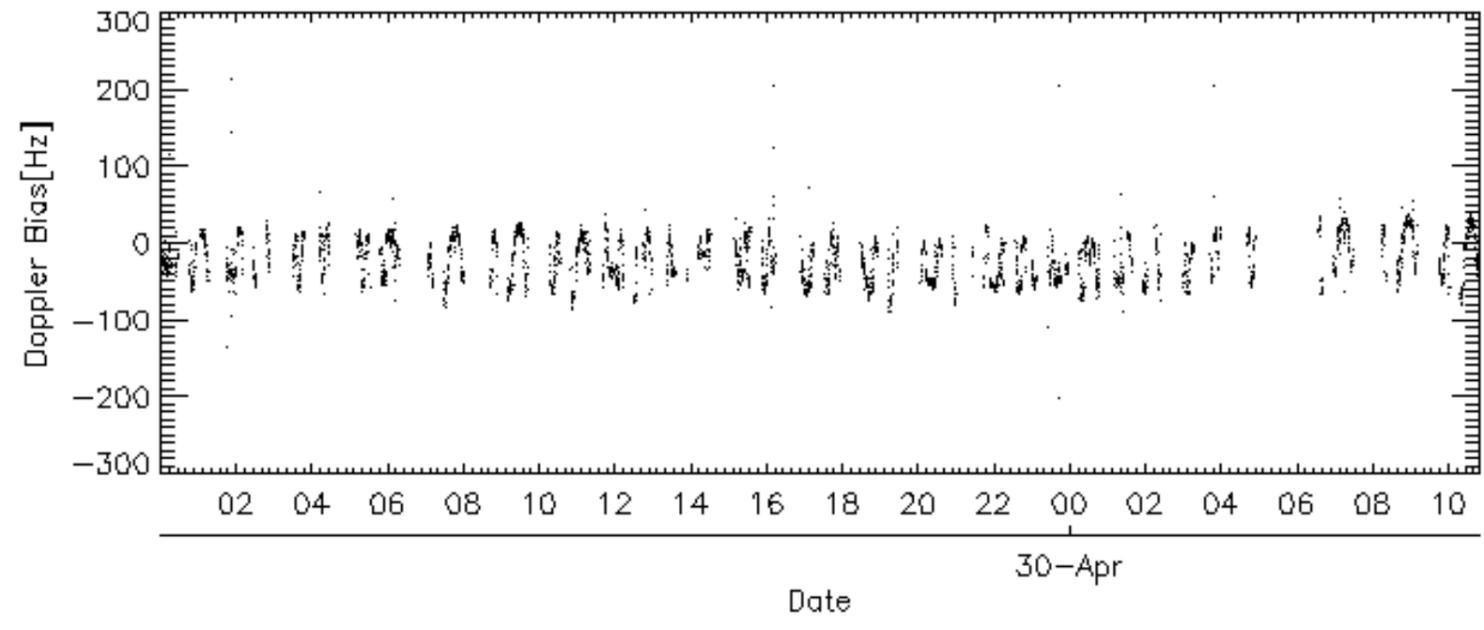
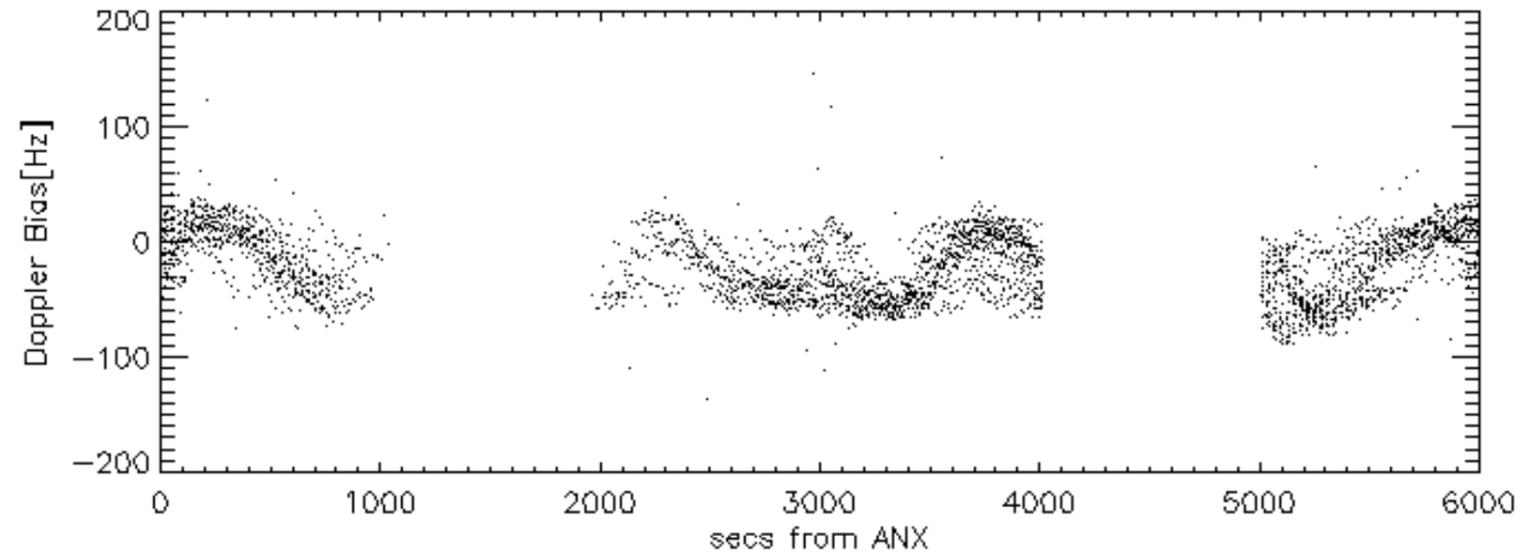
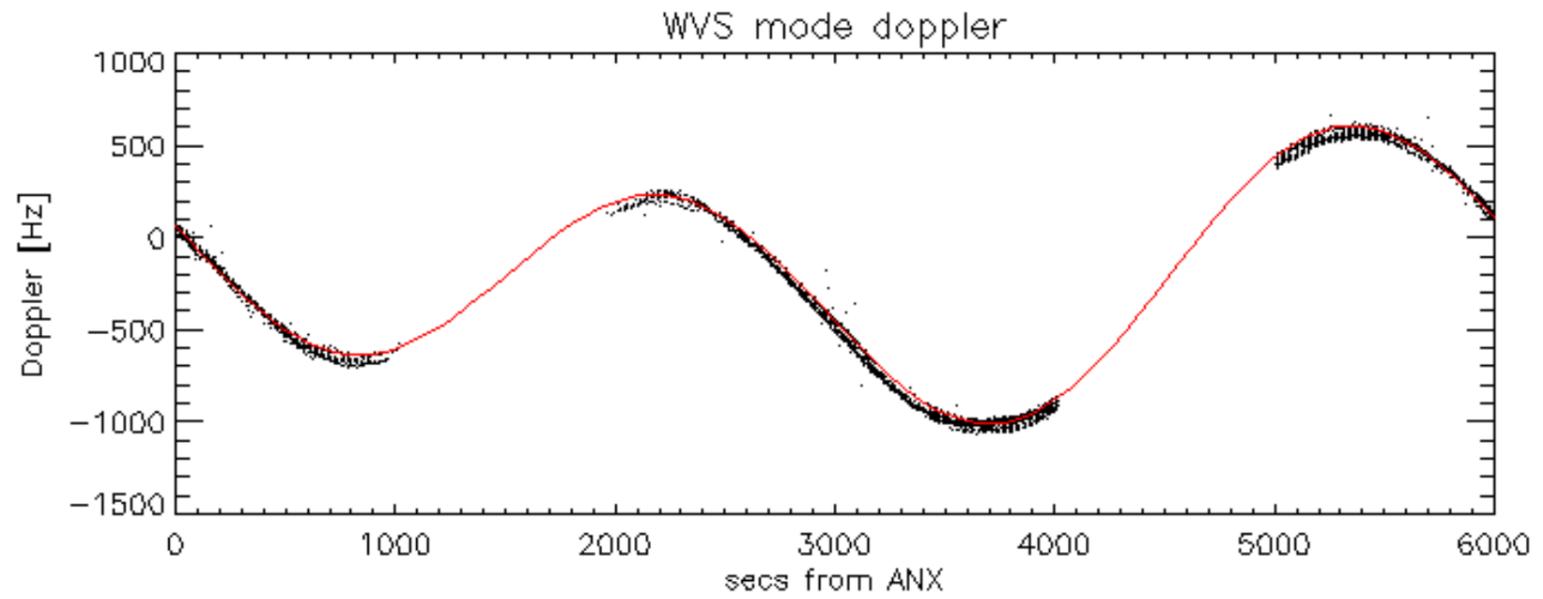


Doppler 'WVS' 'IS2' descending

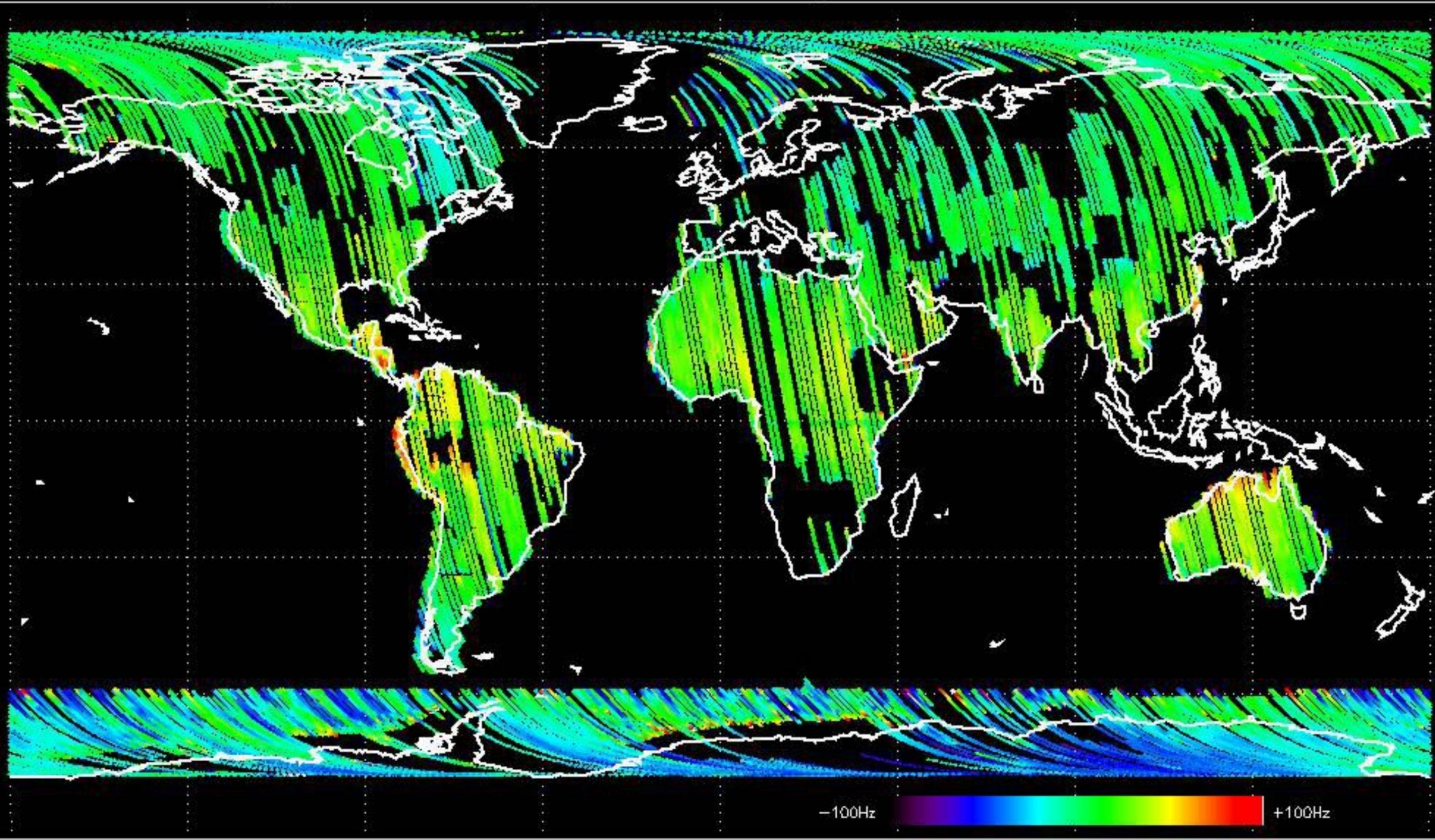


GM1 mode doppler

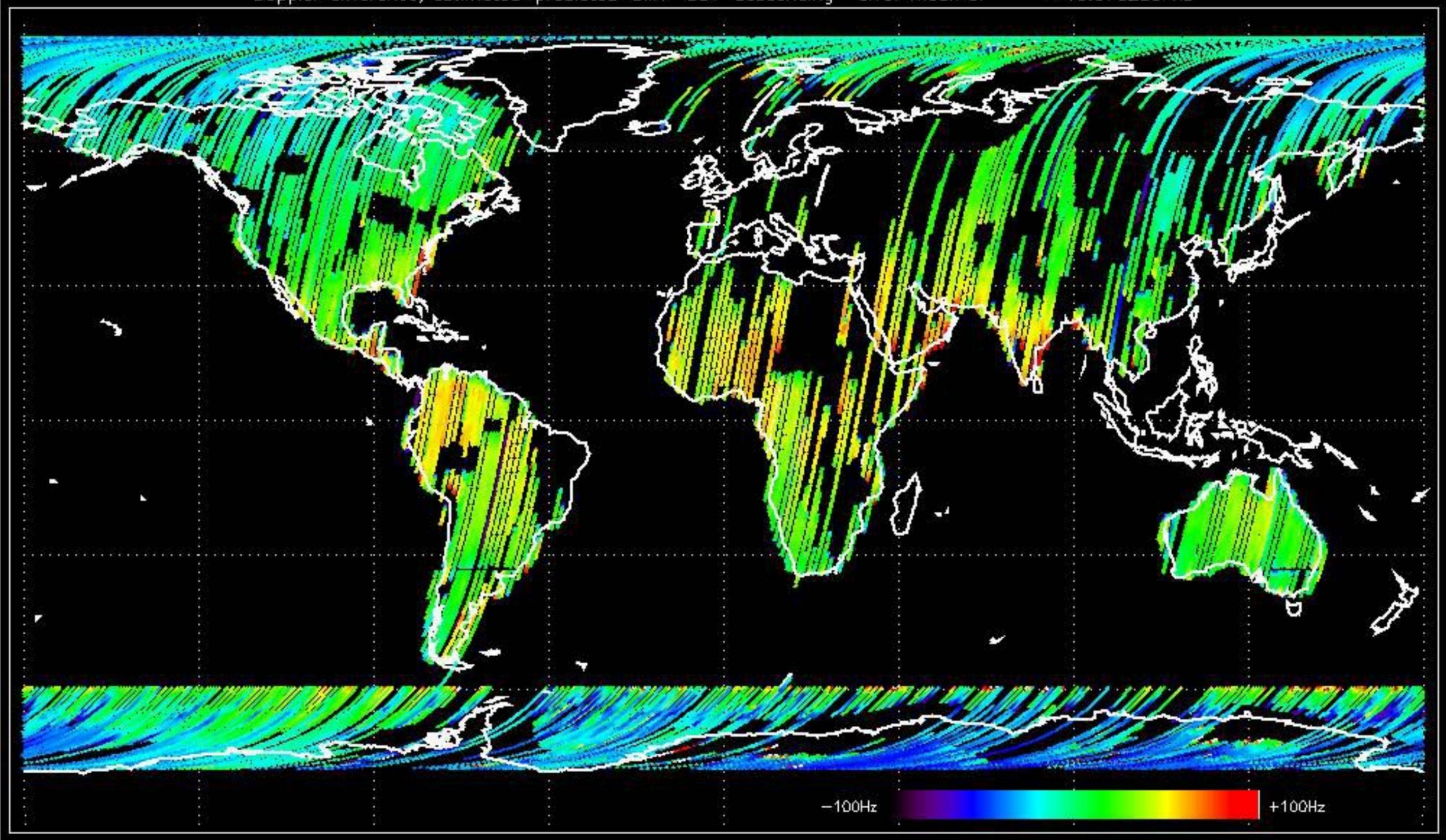




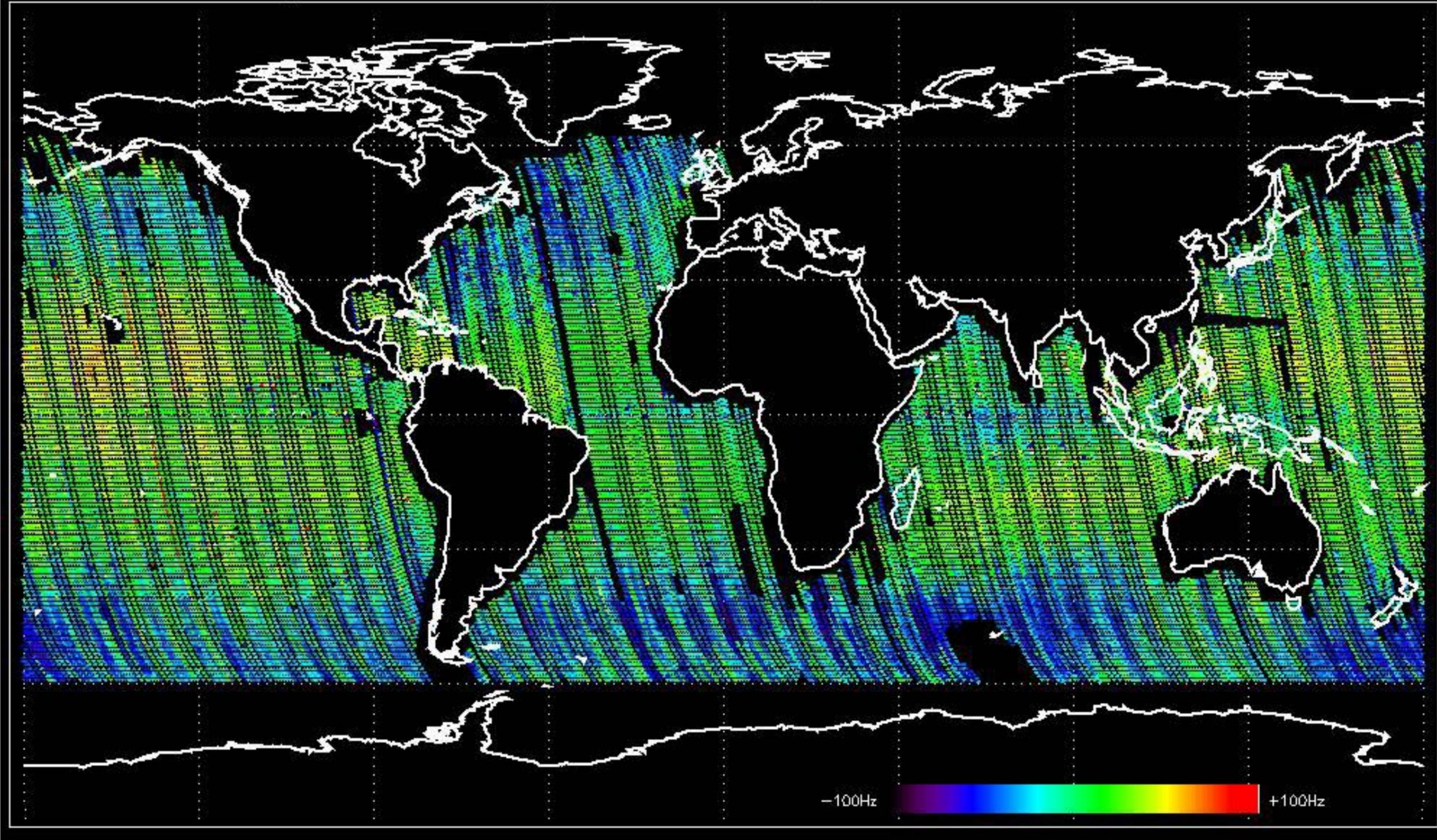
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -25.789850 Hz



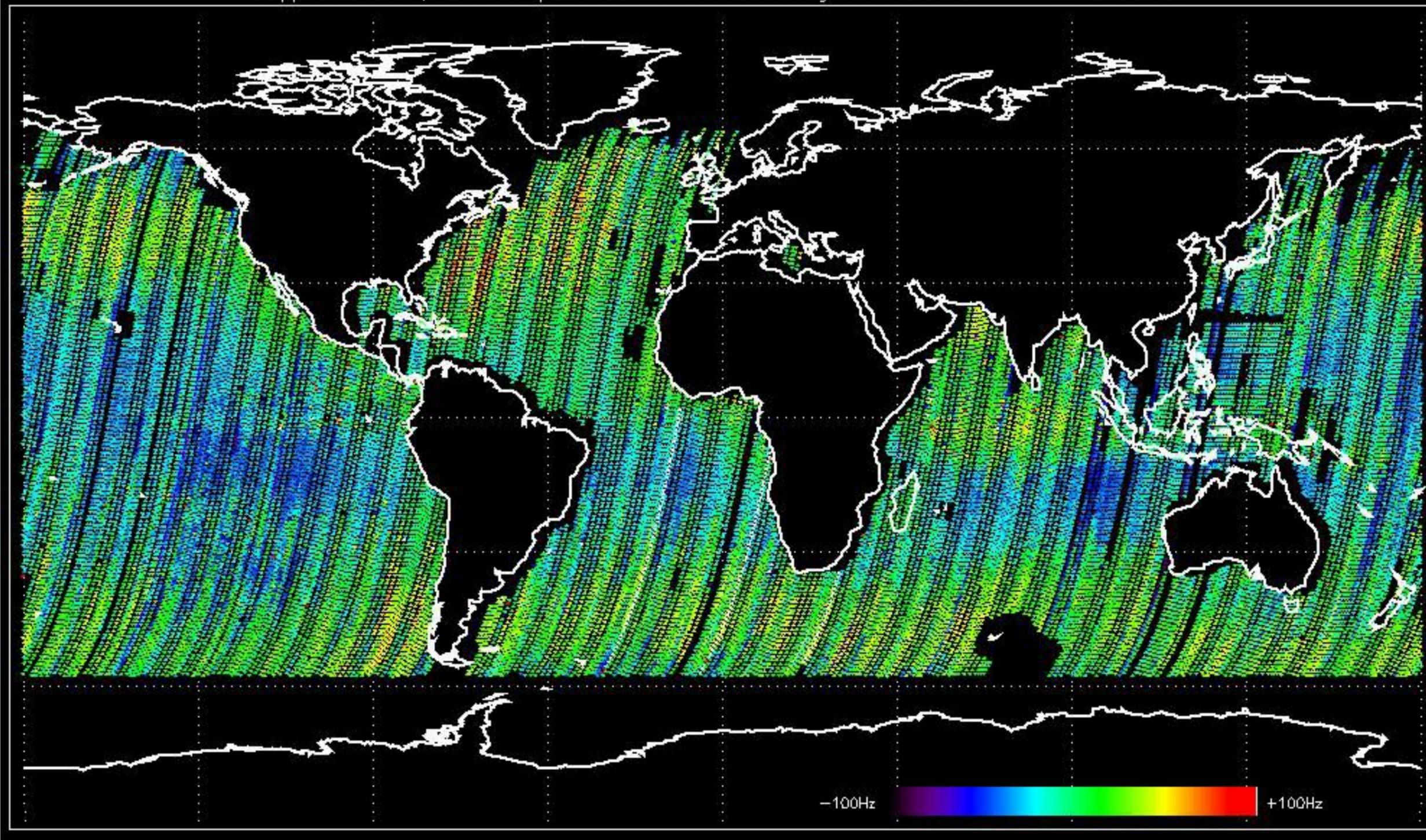
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -16.670230 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -19.802887 Hz

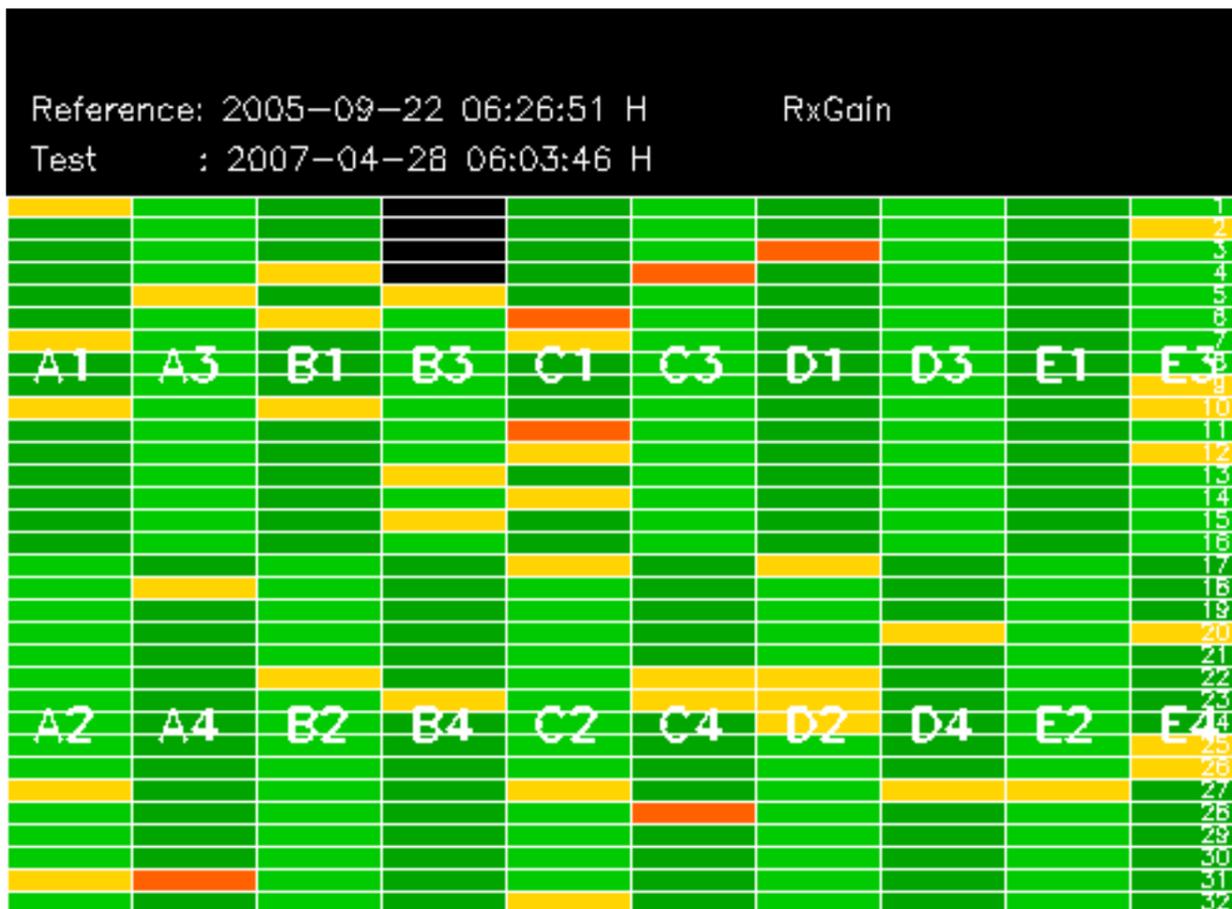


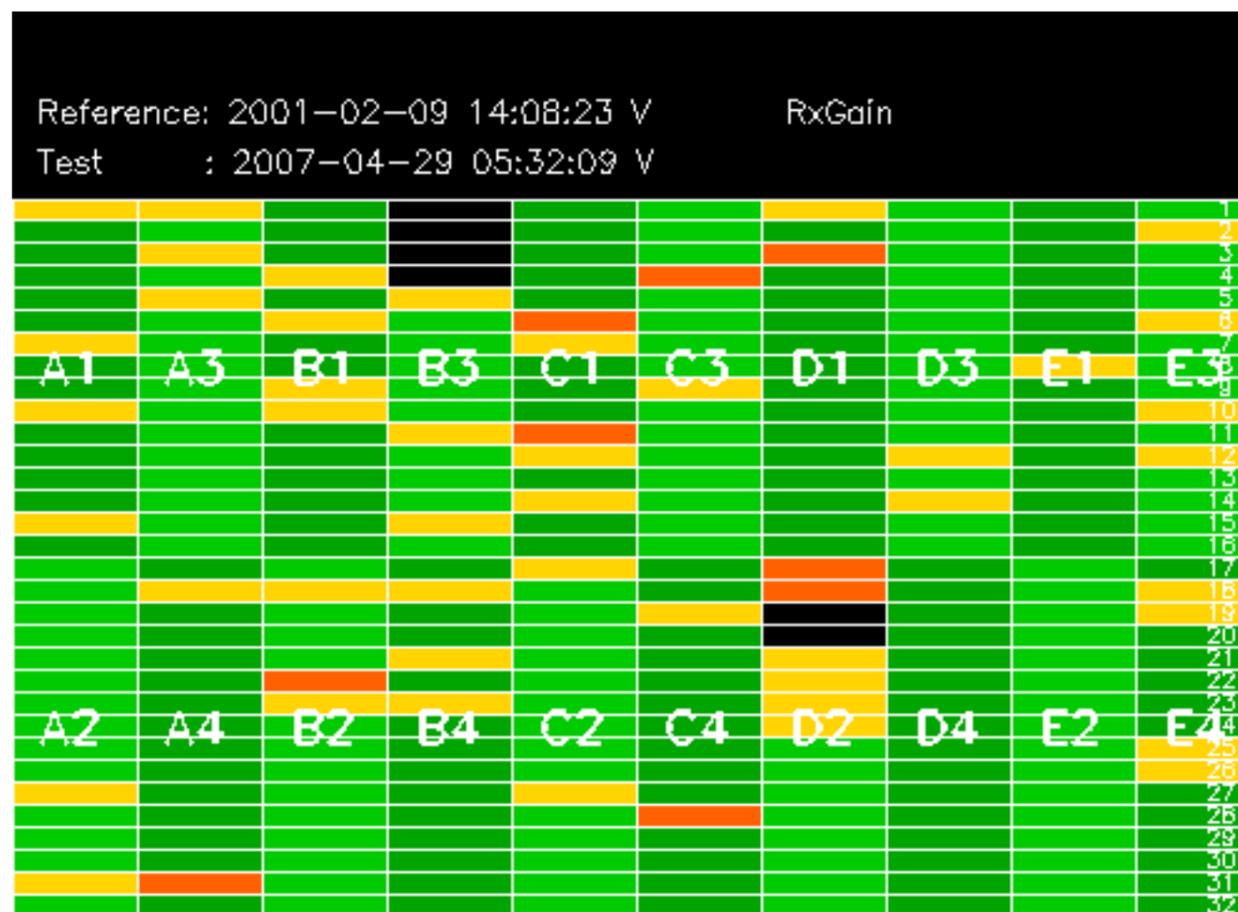
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.400557 Hz

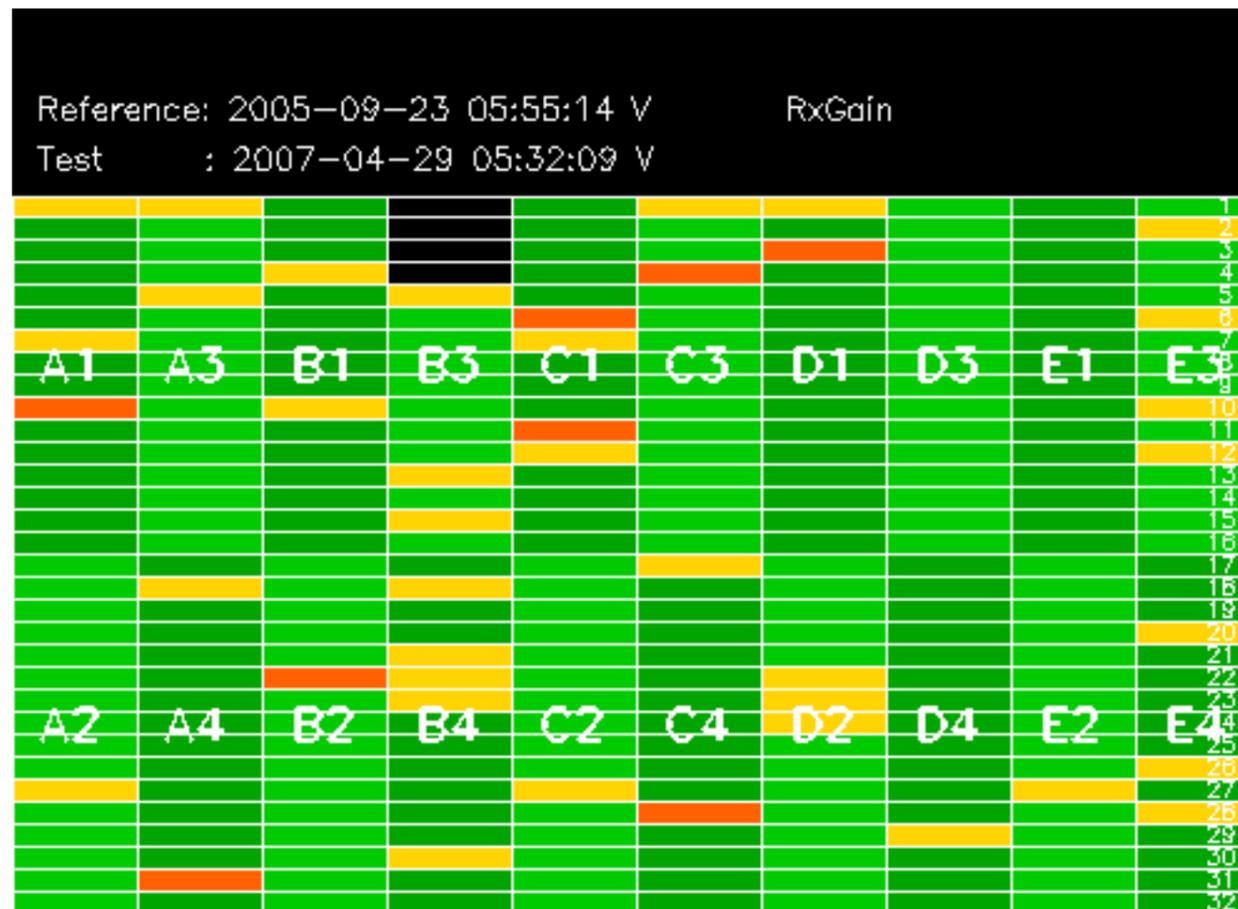


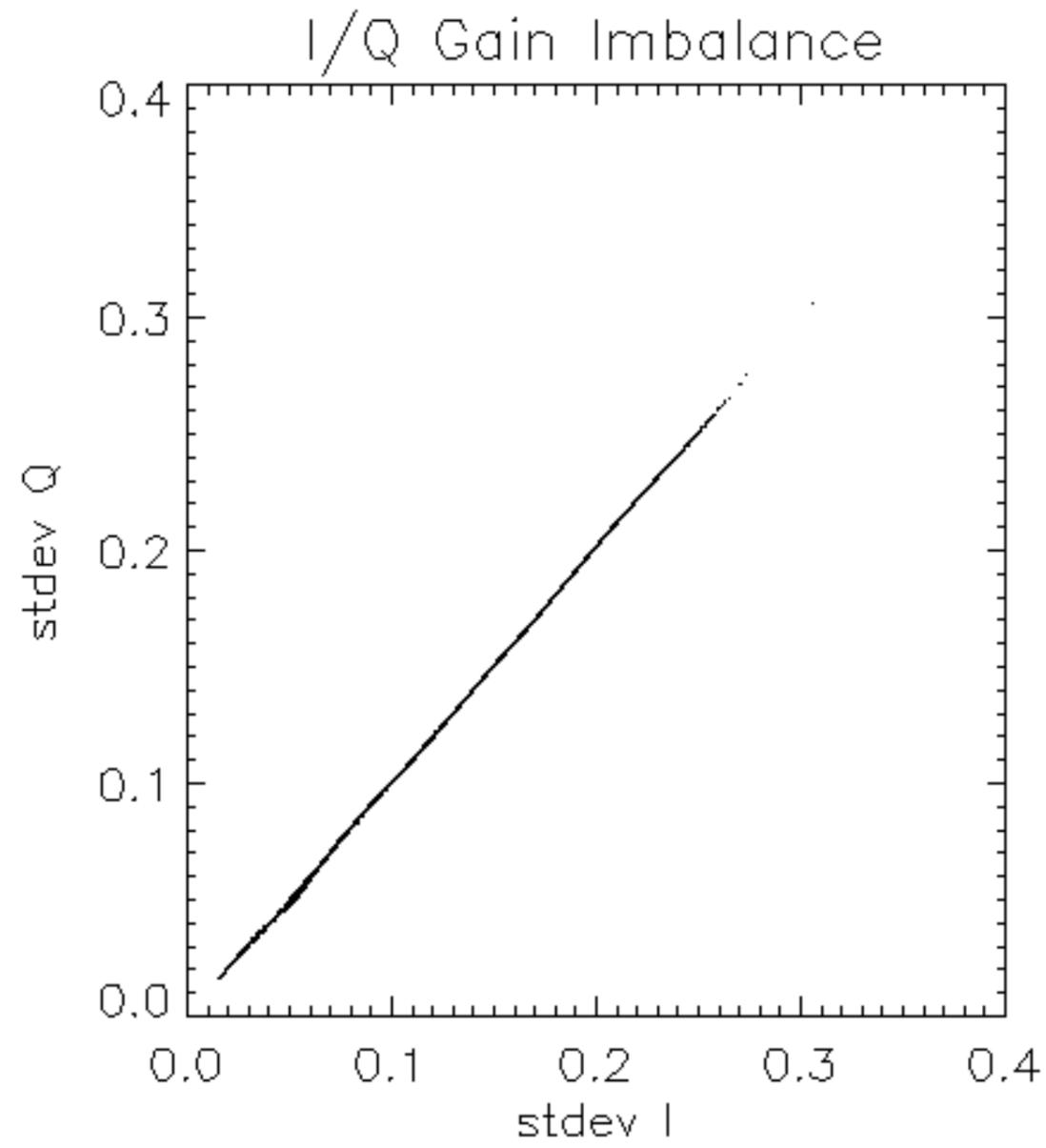
No anomalies observed on available MS products:

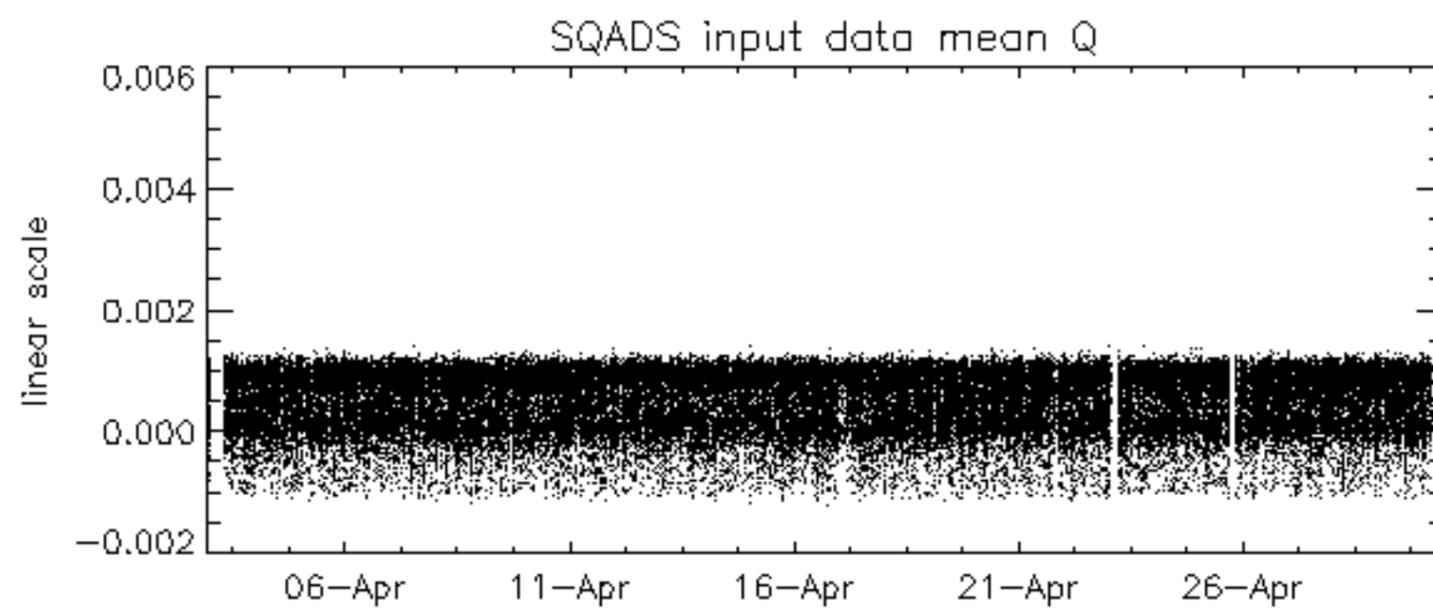
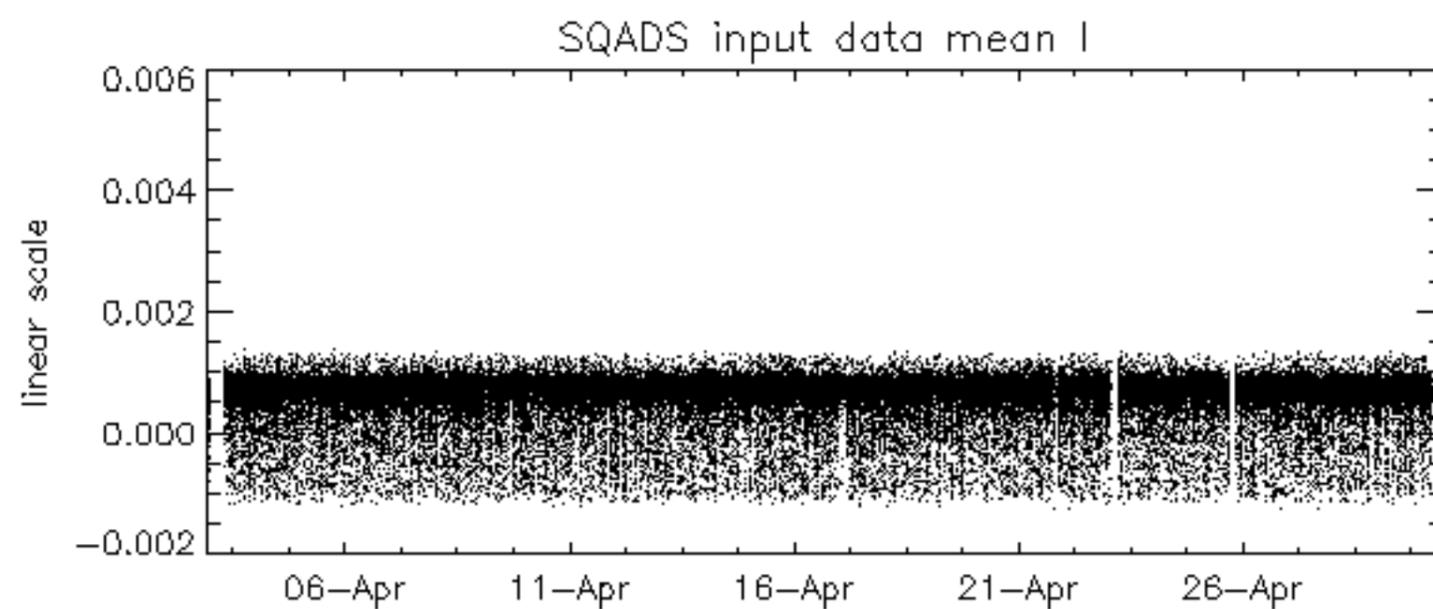
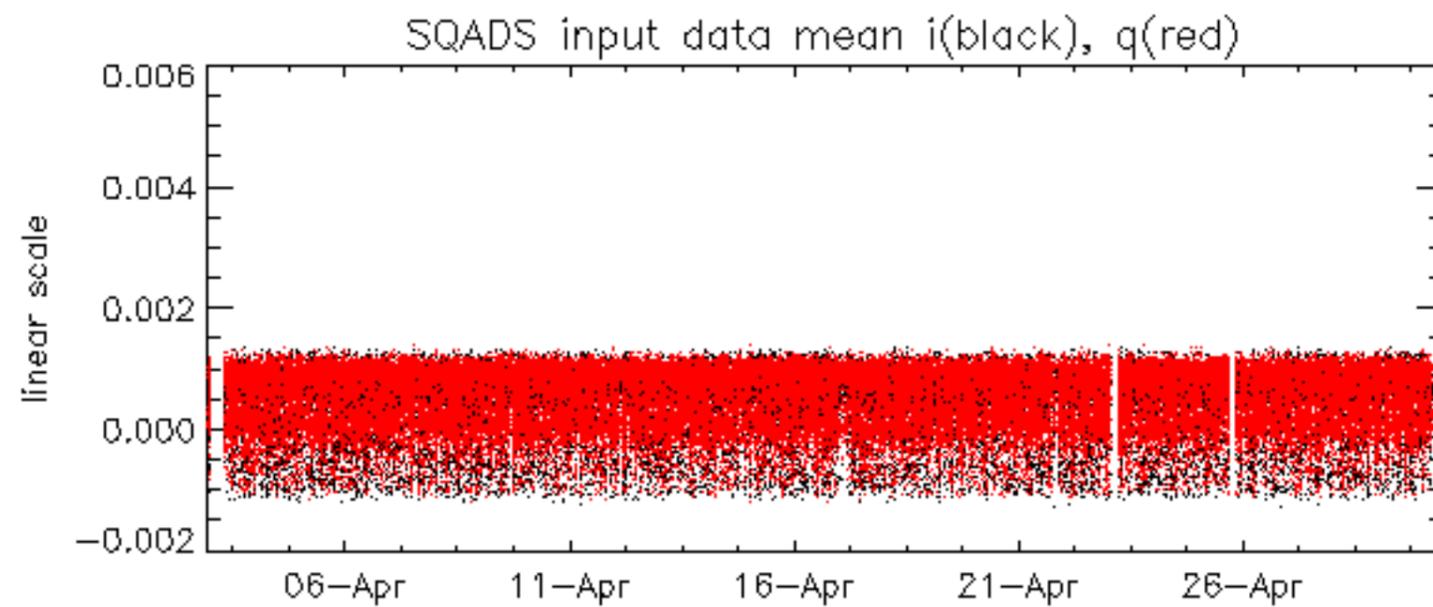
No anomalies observed.

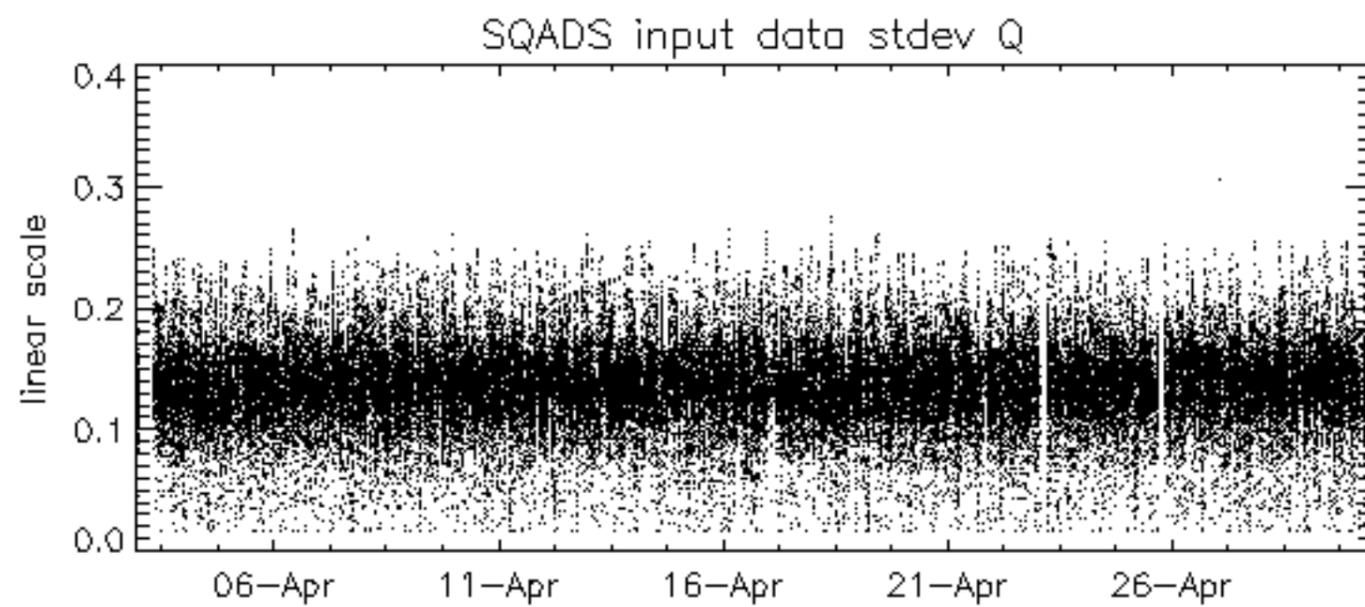
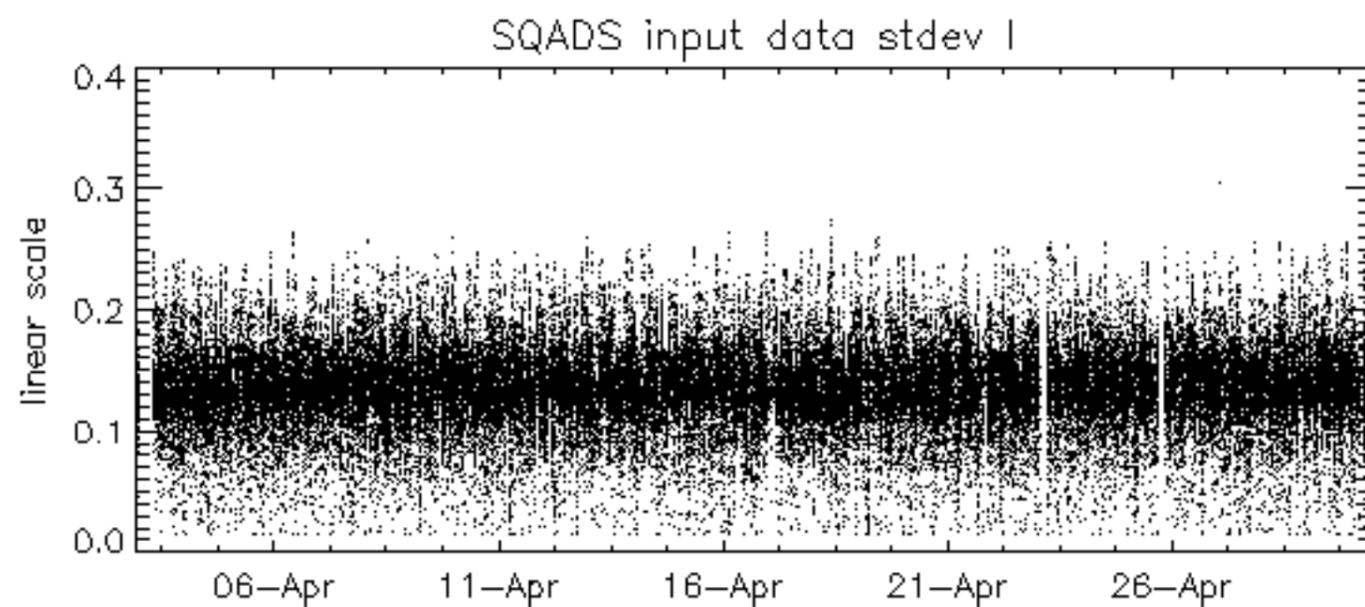
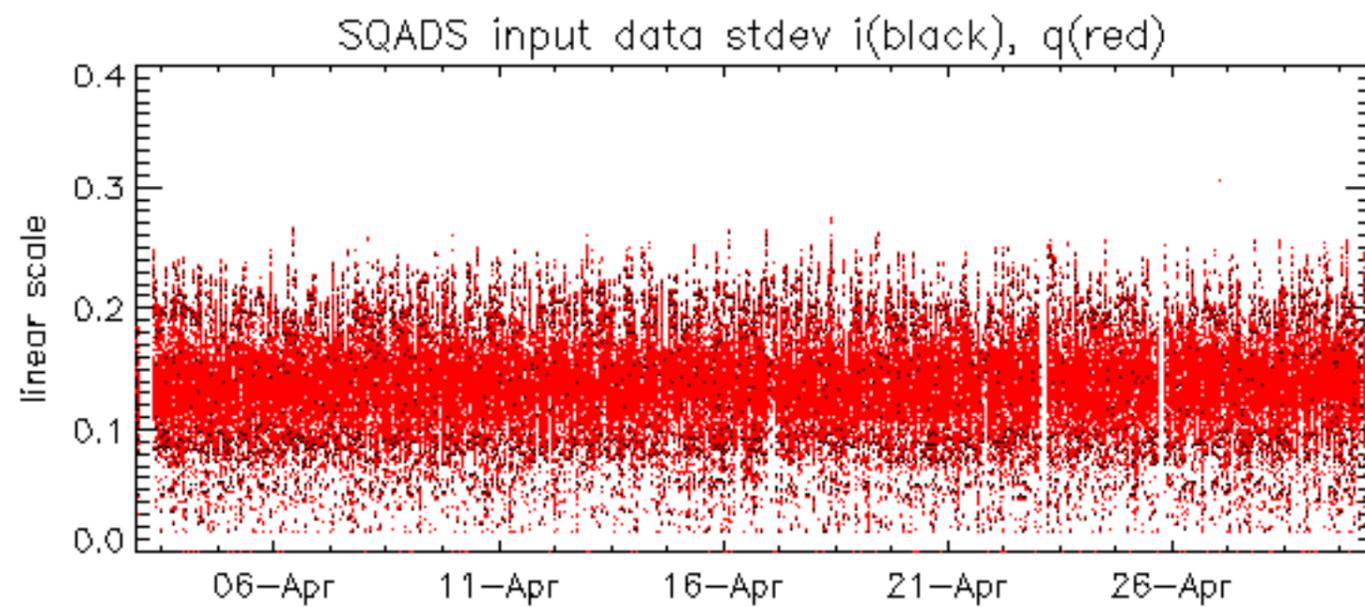








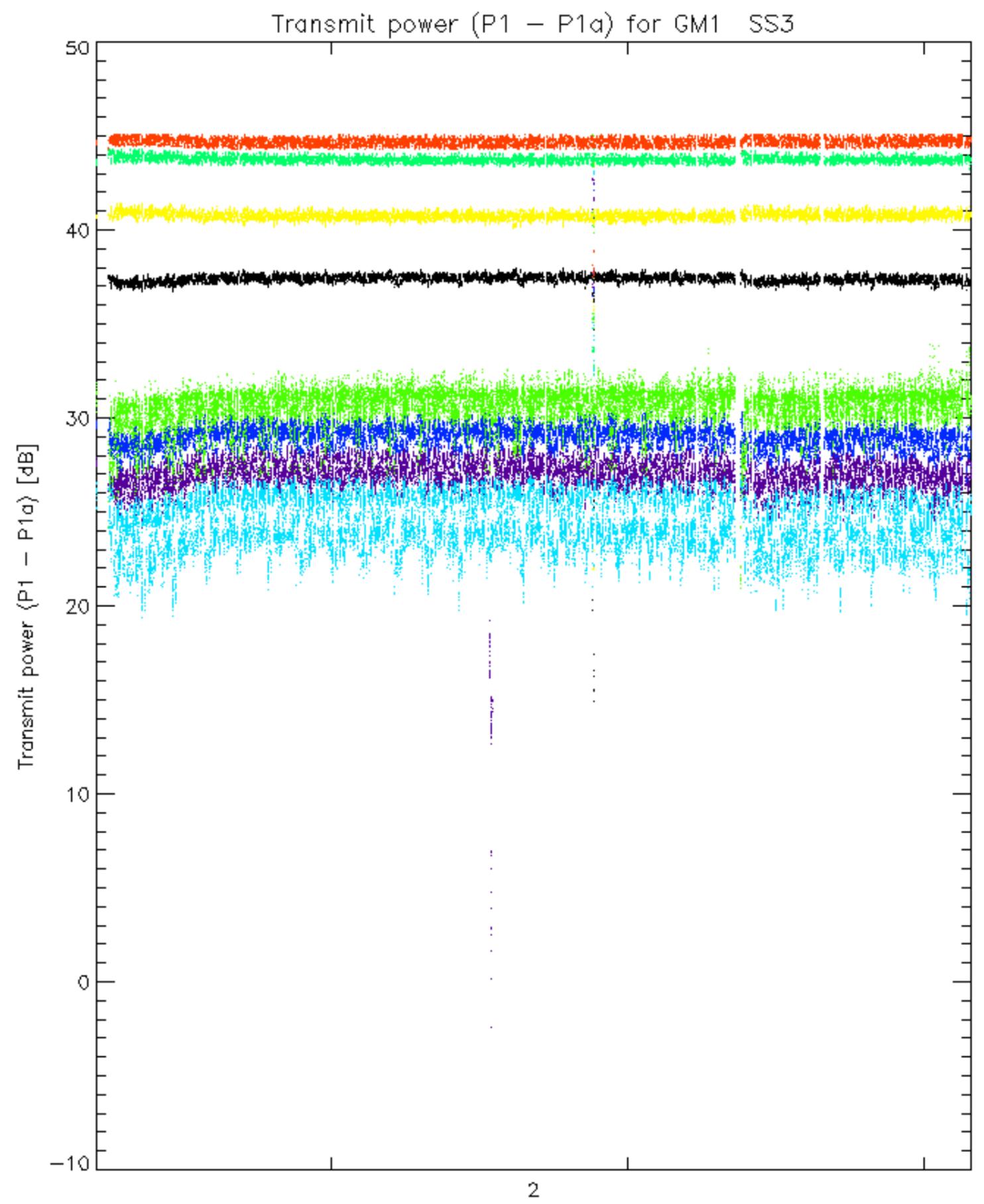




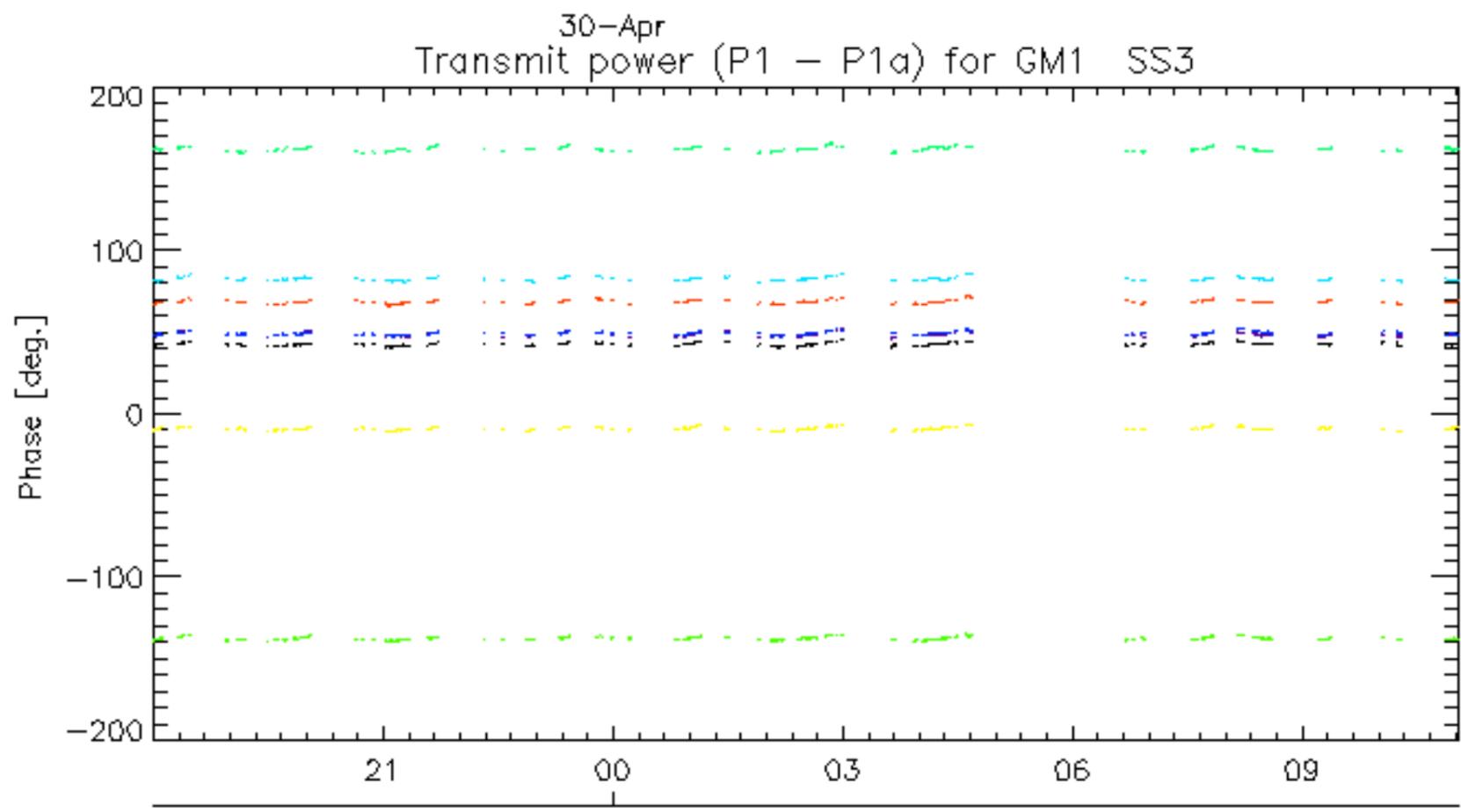
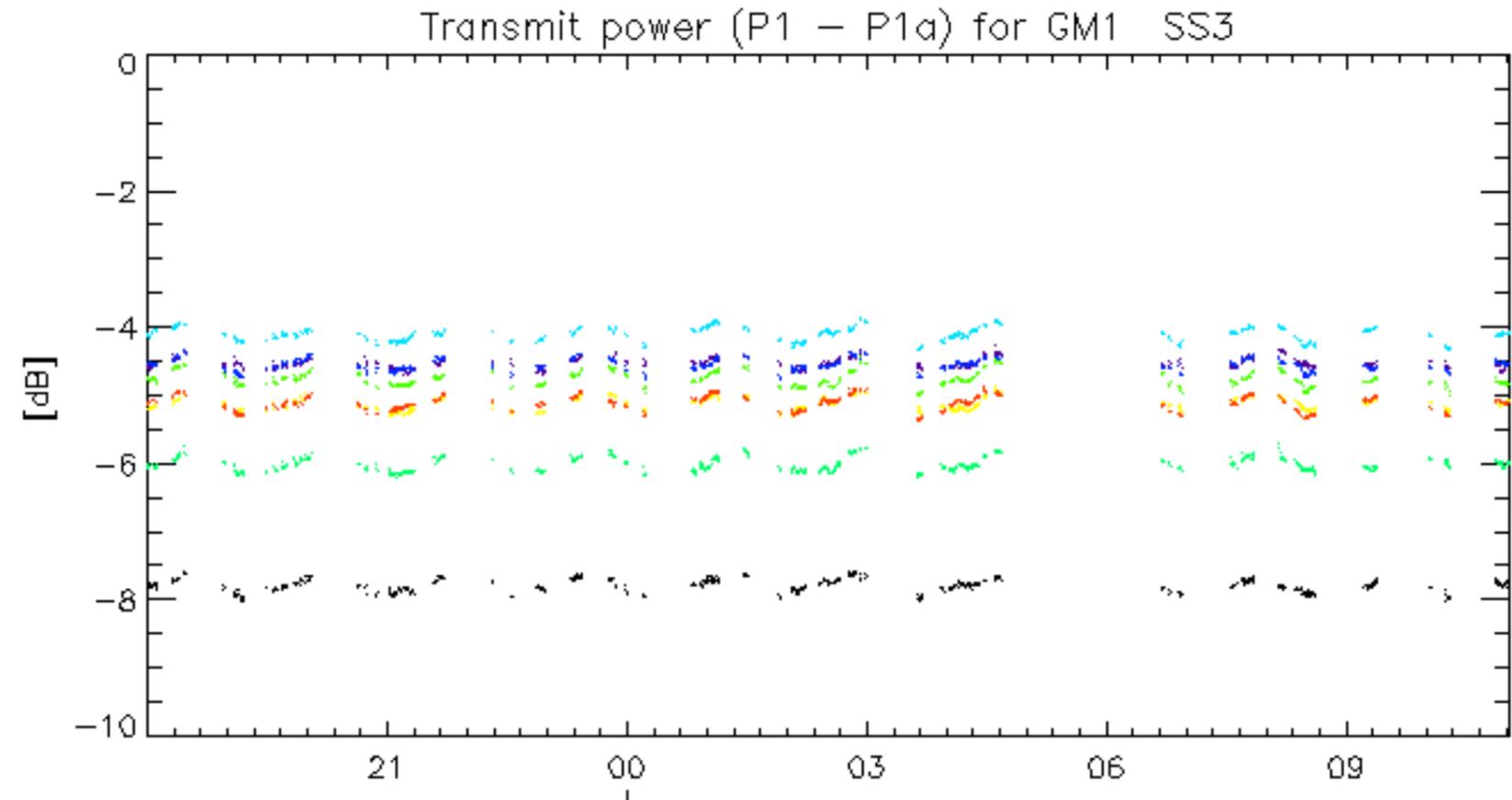
Summary of analysis for the last 3 days 2007042[890]

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

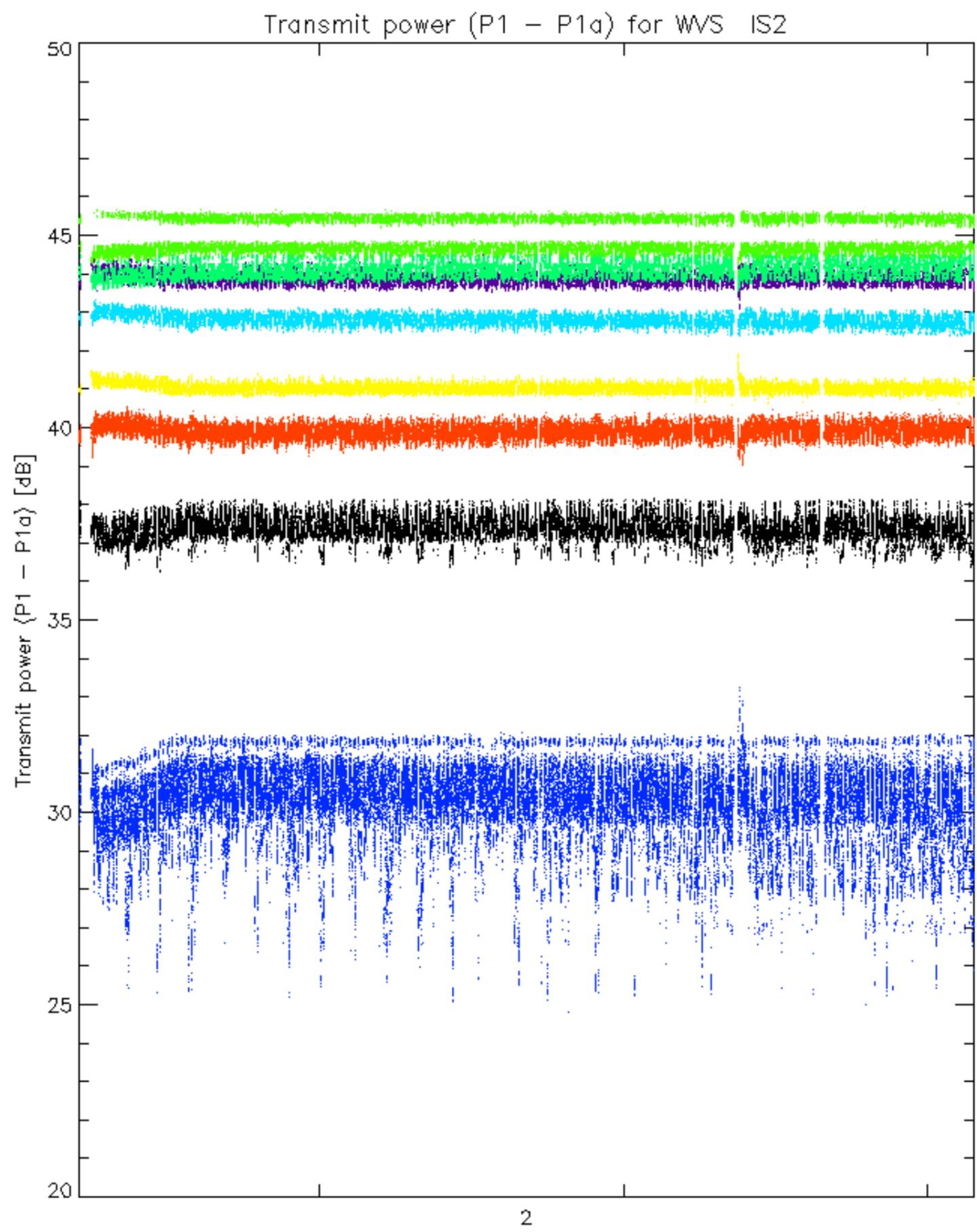
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070428_182646_000000352057_00371_26978_0556.N1	0	15
ASA_WVS_1PNPDK20070420_201256_000004052057_00257_26864_6221.N1	0	8
ASA_GM1_1PNPDK20070420_205323_000005612057_00257_26864_6240.N1	0	90
ASA_GM1_1PNPDK20070428_150338_000003682057_00369_26976_6468.N1	0	15
ASA_GM1_1PNPDK20070428_164337_000002952057_00370_26977_6598.N1	0	7
ASA_GM1_1PNPDK20070428_171029_000007972057_00370_26977_6713.N1	0	6
ASA_GM1_1PNPDK20070429_161608_000002412057_00384_26991_7711.N1	0	27
ASA_WSM_1PNPDE20070420_141551_000000852057_00254_26861_9529.N1	0	73
ASA_WSM_1PNPDE20070420_155726_000001222057_00255_26862_9551.N1	0	2
ASA_WSM_1PNPDE20070429_014749_000000852057_00375_26982_1133.N1	0	73
ASA_WSM_1PNPDE20070429_201431_000000672057_00386_26993_1964.N1	0	40
ASA_WSM_1PNPDE20070429_234030_000000862057_00388_26995_2310.N1	0	26
ASA_APM_1PNPDE20070429_011649_000000832057_00375_26982_1129.N1	15	0
ASA_APM_1PNPDE20070429_161500_00000402057_00384_26991_1766.N1	11	0



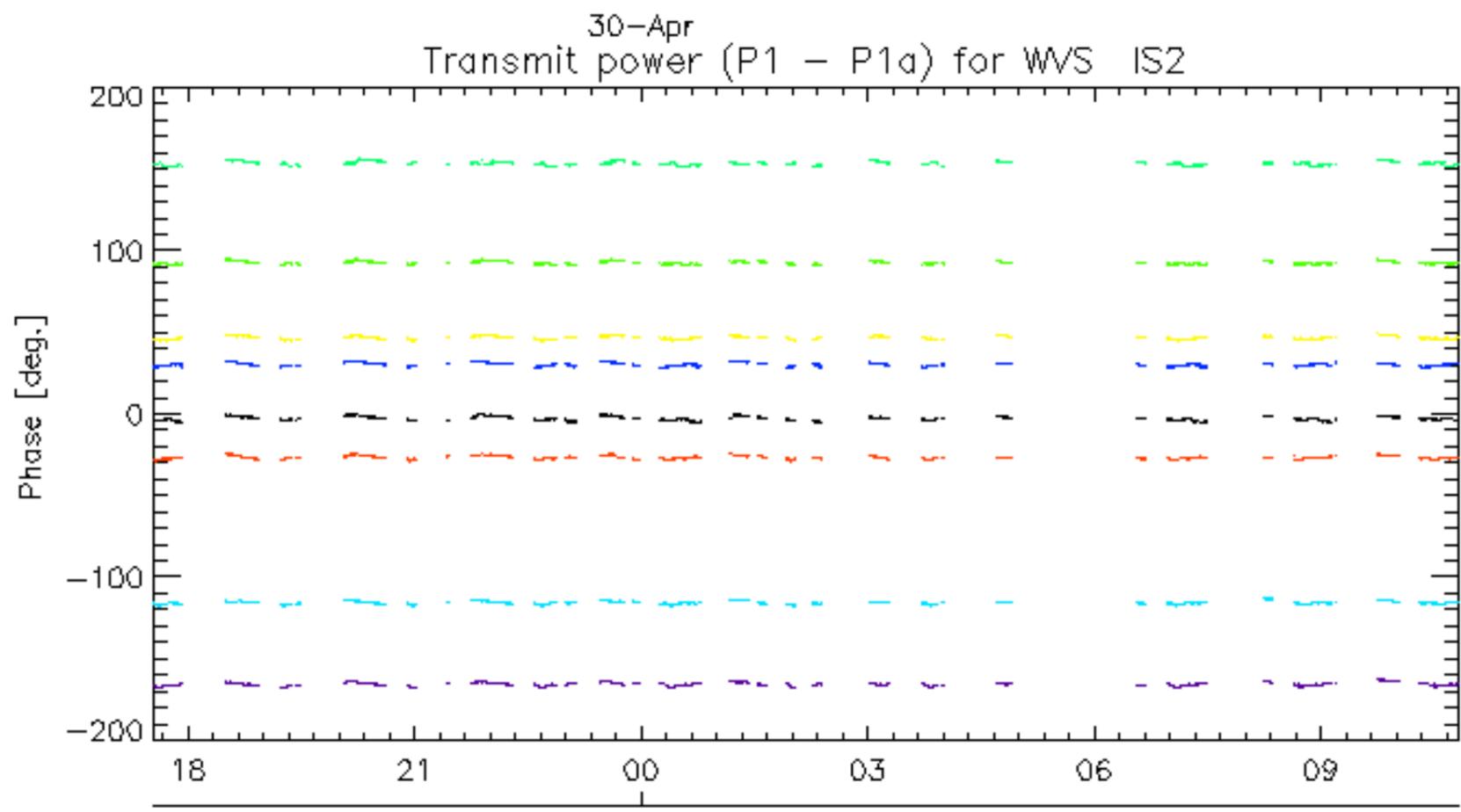
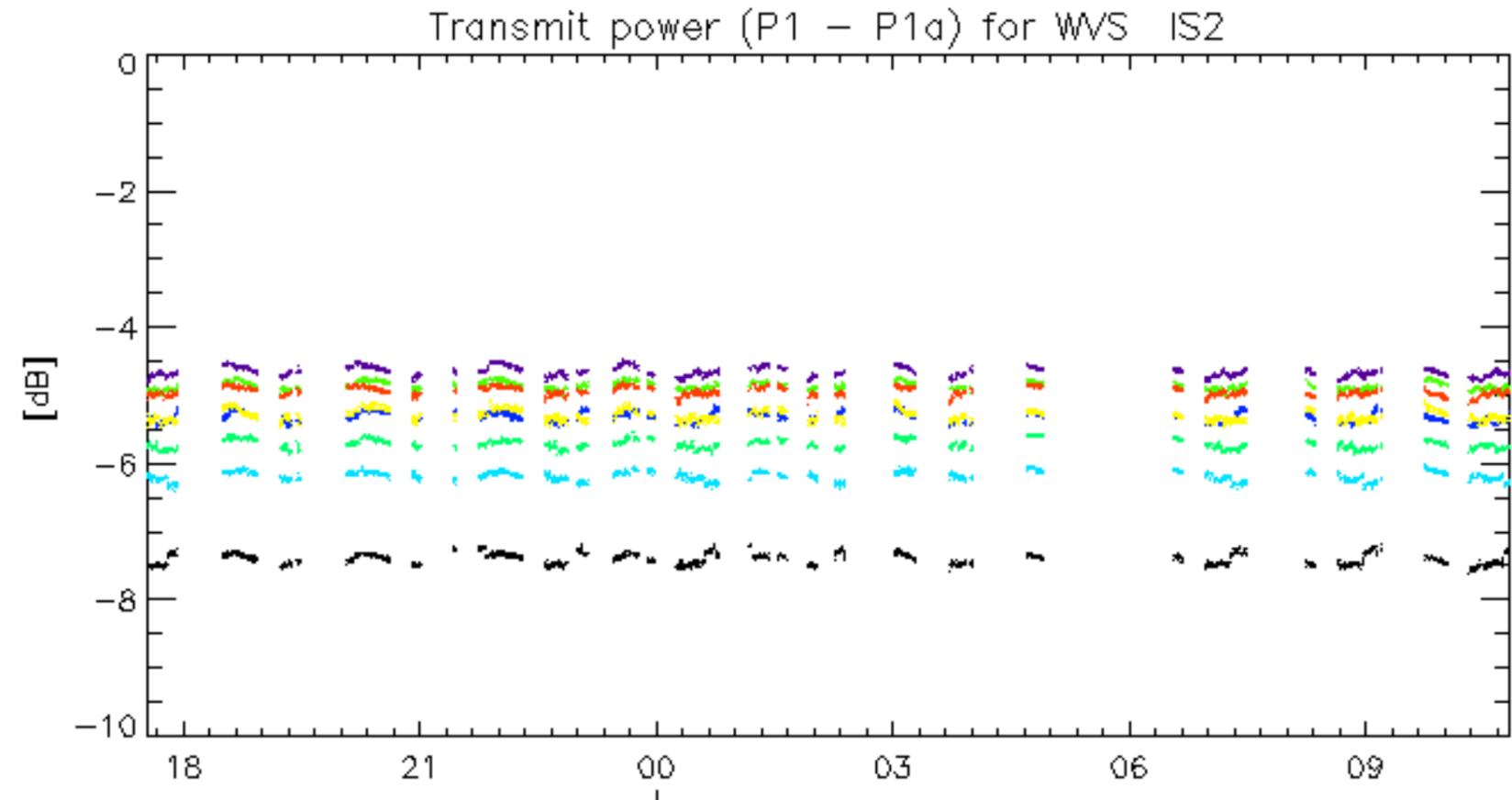
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.