

PRELIMINARY REPORT OF 060812

last update on Sat Aug 12 16:37:18 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 2006-08-11 00:00:00 to 2006-08-12 16:37:18

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	67	8	11	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	38	67	8	11	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	38	67	8	11	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	67	8	11	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	36	50	24	19	67
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	36	50	24	19	67
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	36	50	24	19	67
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	36	50	24	19	67

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	20060812 064406
H	20060811 071543

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
<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	-3.941148	0.010305	-0.012657
7	P1	-3.111852	0.048775	-0.046311
11	P1	-4.099386	0.062102	-0.069743
15	P1	-6.198002	0.092073	-0.109953
19	P1	-3.425690	0.009928	-0.069156
22	P1	-4.557643	0.010072	-0.026180
26	P1	-3.922727	0.019954	0.007082
30	P1	-5.764168	0.009668	-0.007102
3	P1	-16.534338	0.250388	-0.023151
7	P1	-17.182720	0.130385	0.060050
11	P1	-16.941481	0.285304	0.179082
15	P1	-13.049218	0.177224	0.224870
19	P1	-14.486323	0.053837	-0.049717
22	P1	-15.971789	0.435544	0.152993
26	P1	-15.120115	0.229990	-0.039553
30	P1	-17.089405	0.337752	0.113363

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.926836	0.086316	0.111968
7	P2	-21.882433	0.103060	0.081990
11	P2	-15.775367	0.119259	0.036670
15	P2	-7.119047	0.098473	0.026478
19	P2	-9.127099	0.090371	0.024461
22	P2	-18.147419	0.086056	0.006934
26	P2	-16.401121	0.092276	0.008096
30	P2	-19.503918	0.091834	0.046364

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.172819	0.003187	0.003320
7	P3	-8.172819	0.003187	0.003320
11	P3	-8.172819	0.003187	0.003320
15	P3	-8.172819	0.003187	0.003320
19	P3	-8.172819	0.003187	0.003320
22	P3	-8.172819	0.003187	0.003320
26	P3	-8.172819	0.003187	0.003320
30	P3	-8.172819	0.003187	0.003320

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	-3.824616	0.008840	-0.010035
7	P1	-2.589351	0.125117	-0.147715
11	P1	-2.886758	0.124161	-0.153945
15	P1	-3.616995	0.140747	-0.189801
19	P1	-3.425472	0.023816	-0.004269
22	P1	-5.084565	0.019433	0.001912
26	P1	-5.862652	0.015995	-0.011598
30	P1	-5.195720	0.033367	0.010721
3	P1	-11.620102	0.043239	-0.008643
7	P1	-9.972748	0.047146	-0.044431
11	P1	-10.261806	0.061655	-0.082268
15	P1	-10.761352	0.145085	-0.041933
19	P1	-15.556345	0.499152	0.017441
22	P1	-20.919302	1.303920	0.003219
26	P1	-16.222628	0.388971	0.206244
30	P1	-17.959833	0.412439	-0.118634

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.546585	0.072384	0.173387
7	P2	-22.342541	0.116489	0.136123
11	P2	-11.013104	0.041221	0.096519
15	P2	-4.896714	0.044151	0.036633
19	P2	-6.863912	0.039605	0.026327
22	P2	-8.189675	0.034600	0.008812
26	P2	-24.177971	0.059443	0.010901
30	P2	-21.993814	0.047424	0.044888

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.011080	0.003714	0.003297
7	P3	-8.010992	0.003712	0.003269
11	P3	-8.011059	0.003713	0.002721
15	P3	-8.011086	0.003712	0.002961
19	P3	-8.010978	0.003722	0.003174
22	P3	-8.011138	0.003705	0.003075
26	P3	-8.011031	0.003704	0.003019
30	P3	-8.011041	0.003718	0.003015

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	0.000562372
	stdev	1.70782e-07
MEAN Q	mean	0.000536324
	stdev	2.14168e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137595
	stdev	0.00107625
STDEV Q	mean	0.137950
	stdev	0.00109336



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006081[012]

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_1PNPDK20060810_101808_000007182050_00137_23237_2553.N1	0	15
ASA_WSM_1PNPDE20060811_001402_000000862050_00145_23245_7073.N1	0	35
ASA_WSM_1PNPDE20060811_015537_000002082050_00146_23246_7082.N1	0	41
ASA_WSM_1PNPDE20060811_161601_000001642050_00155_23255_7191.N1	0	39
ASA_APM_1PNPDE20060811_143629_000000852050_00154_23254_1573.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)


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



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



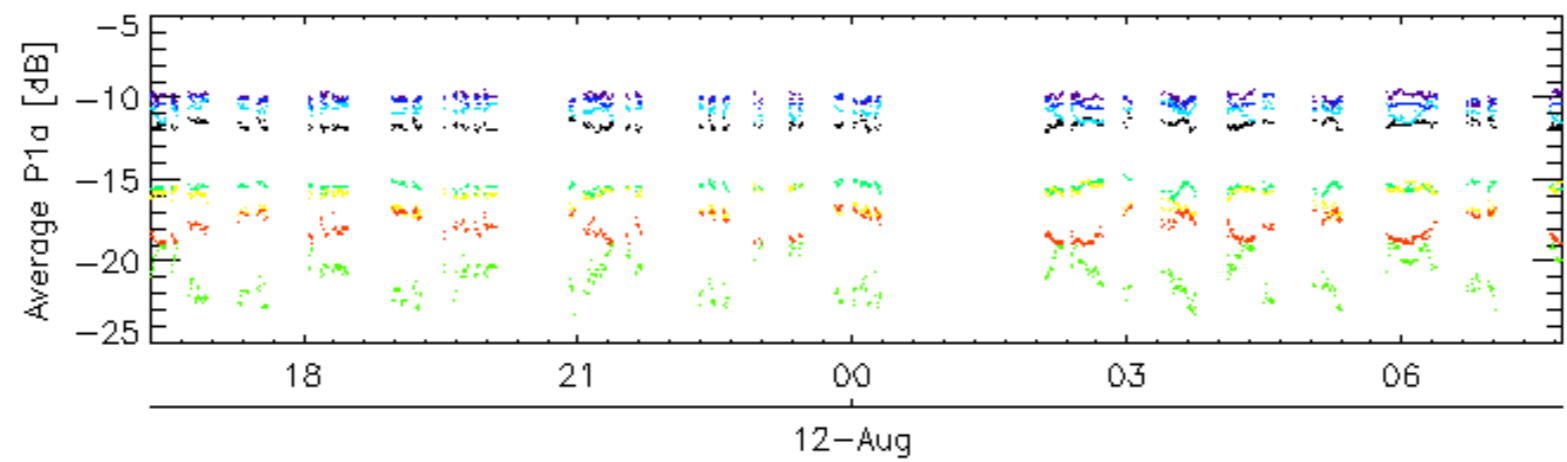
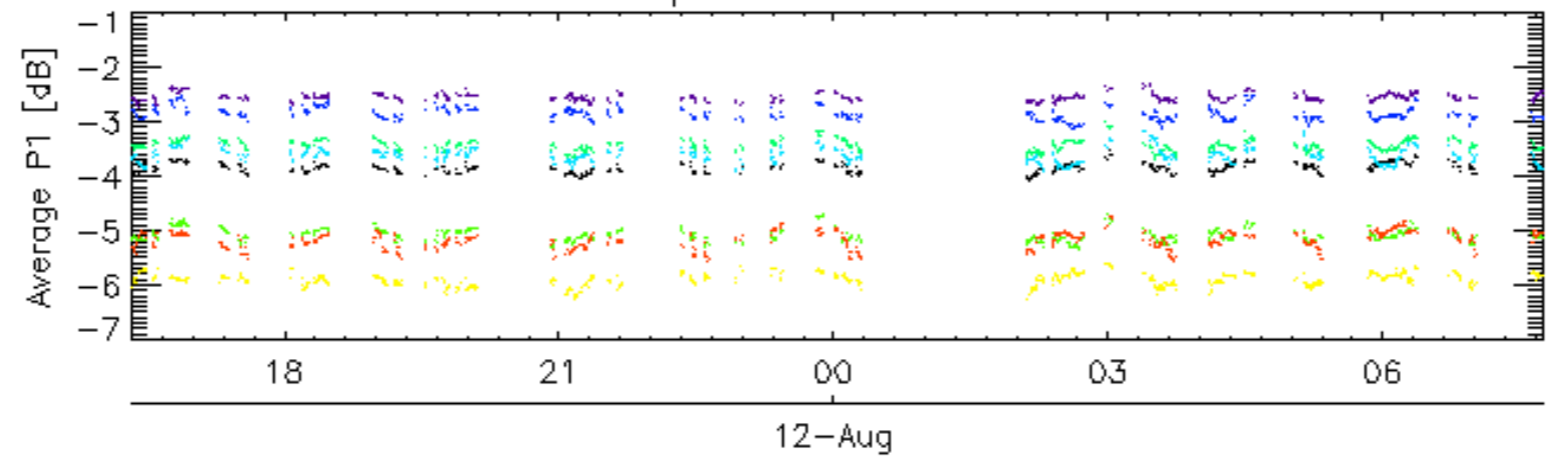
Descending

7.6 - Doppler evolution versus ANX for GM1

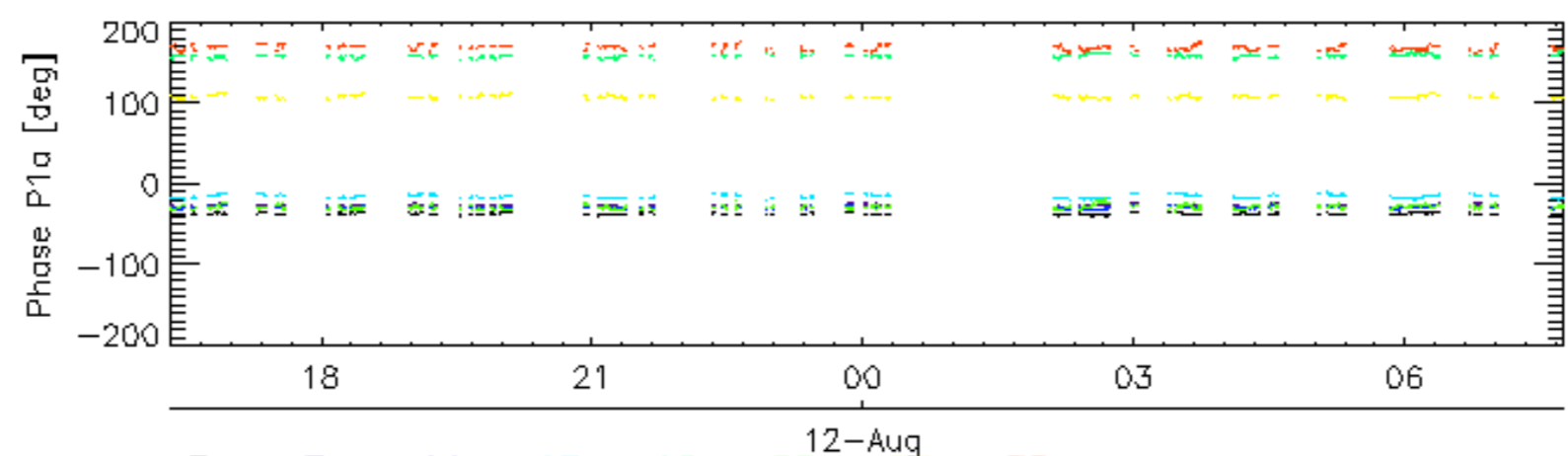
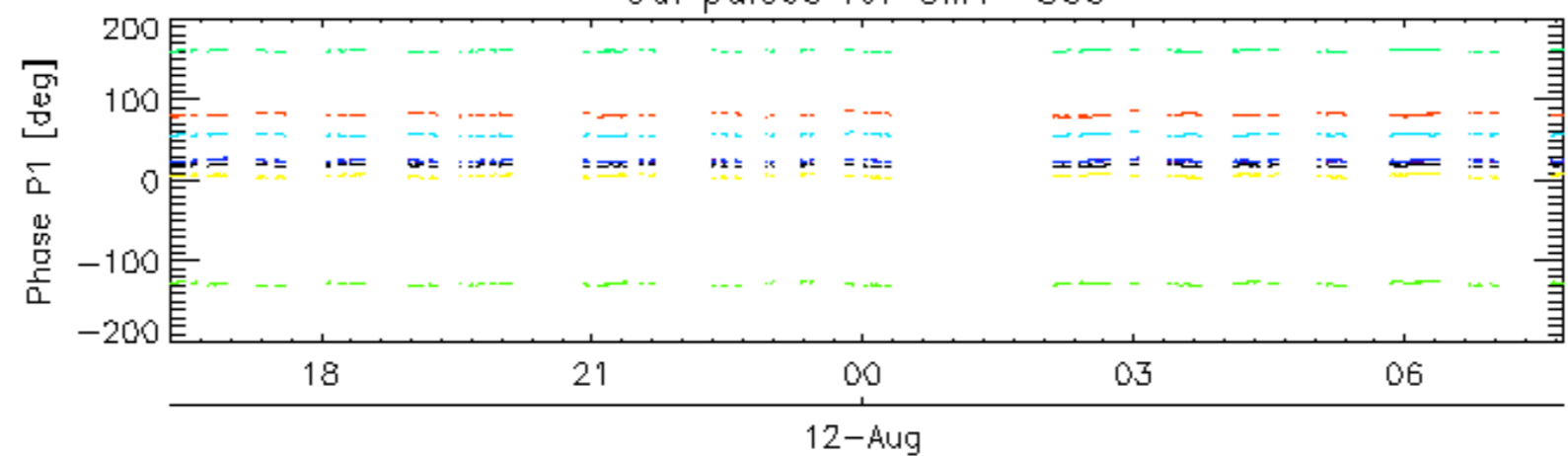
Evolution Doppler error versus ANX



Cal pulses for GM1 SS3

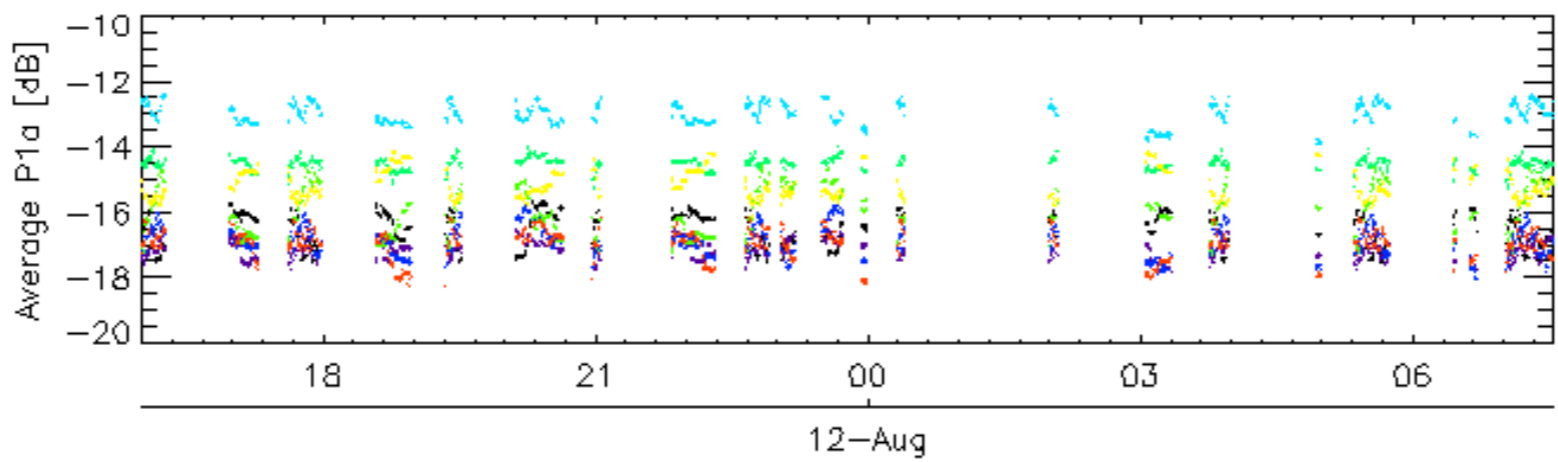
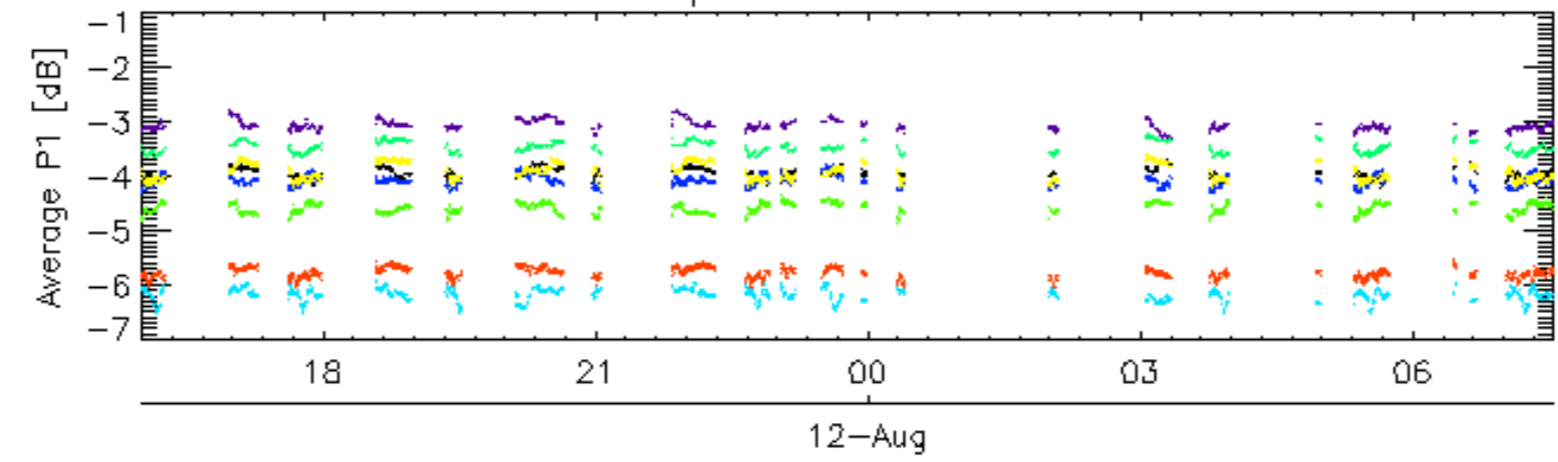


Cal pulses for GM1 SS3

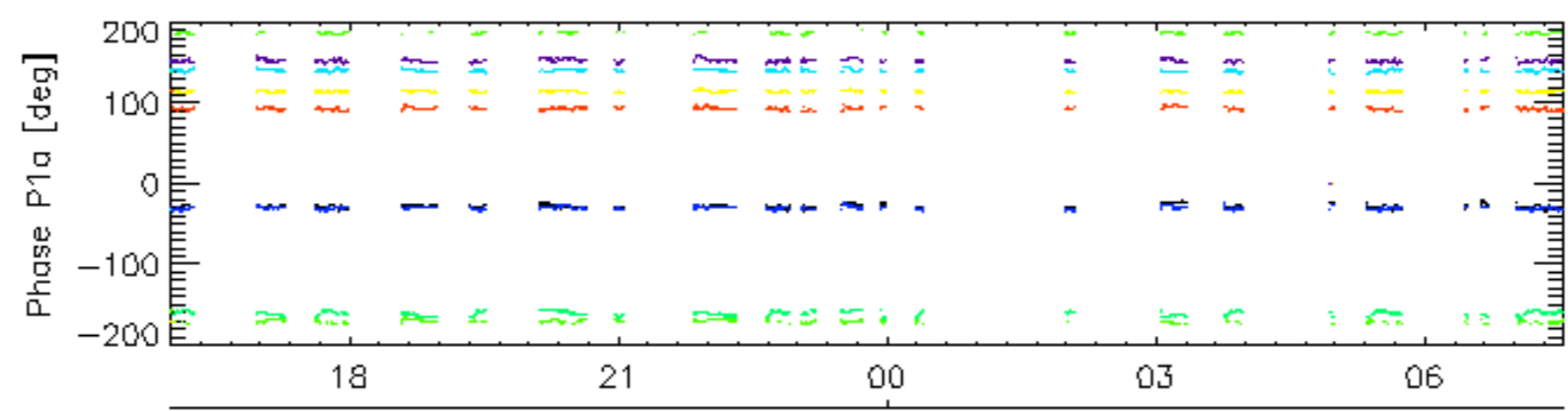
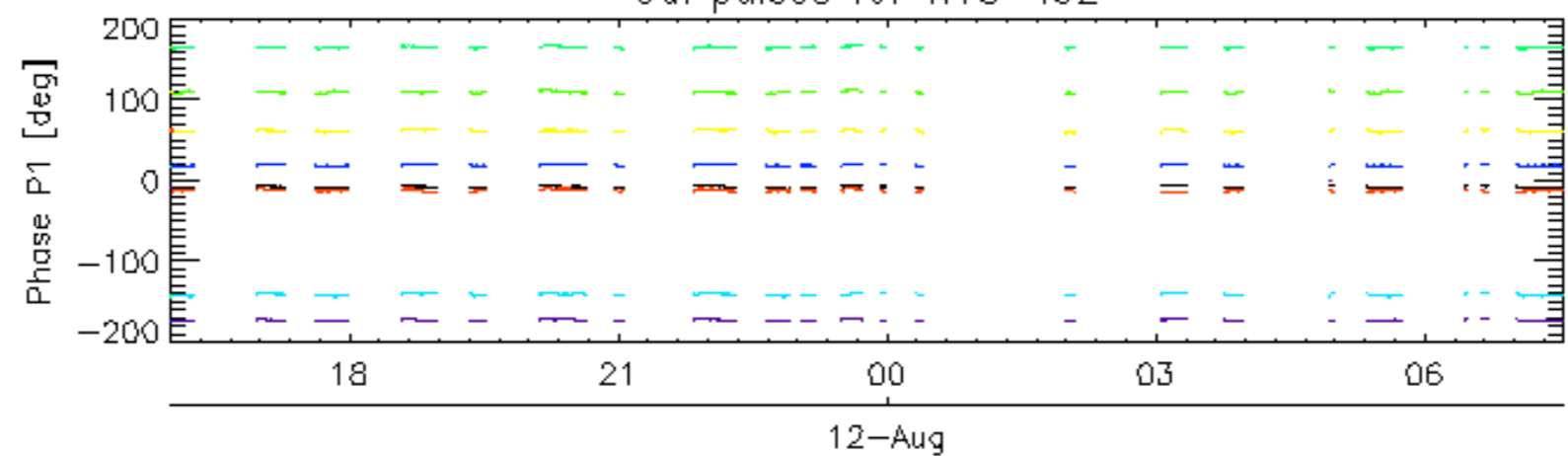


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

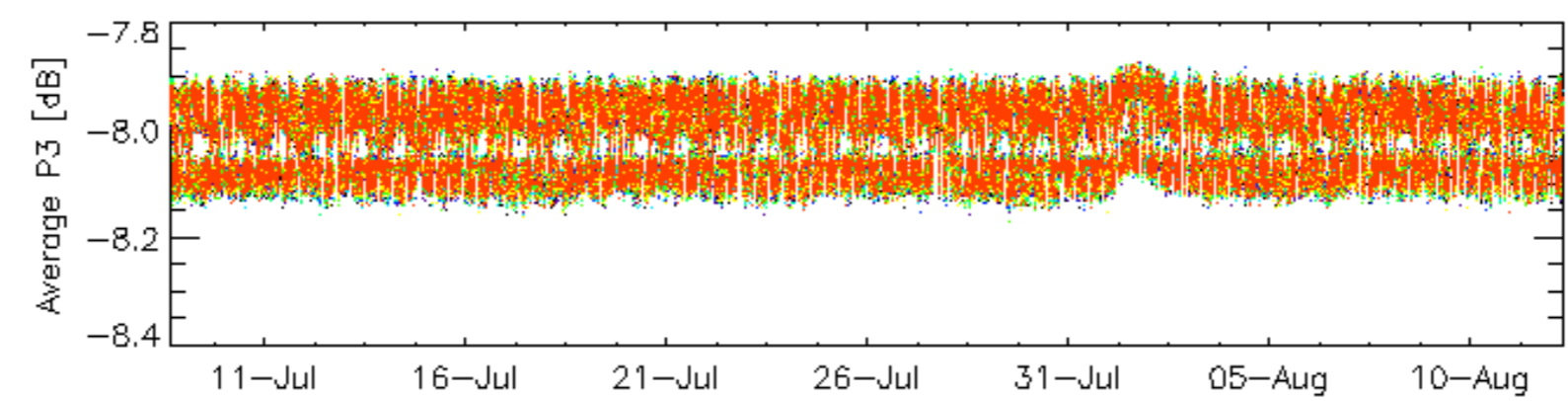
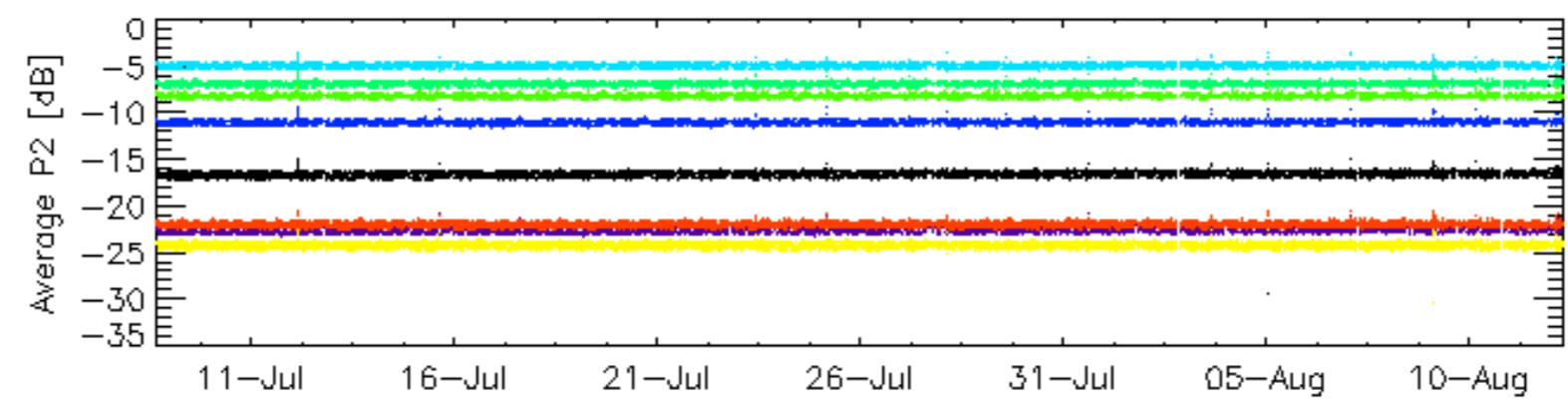
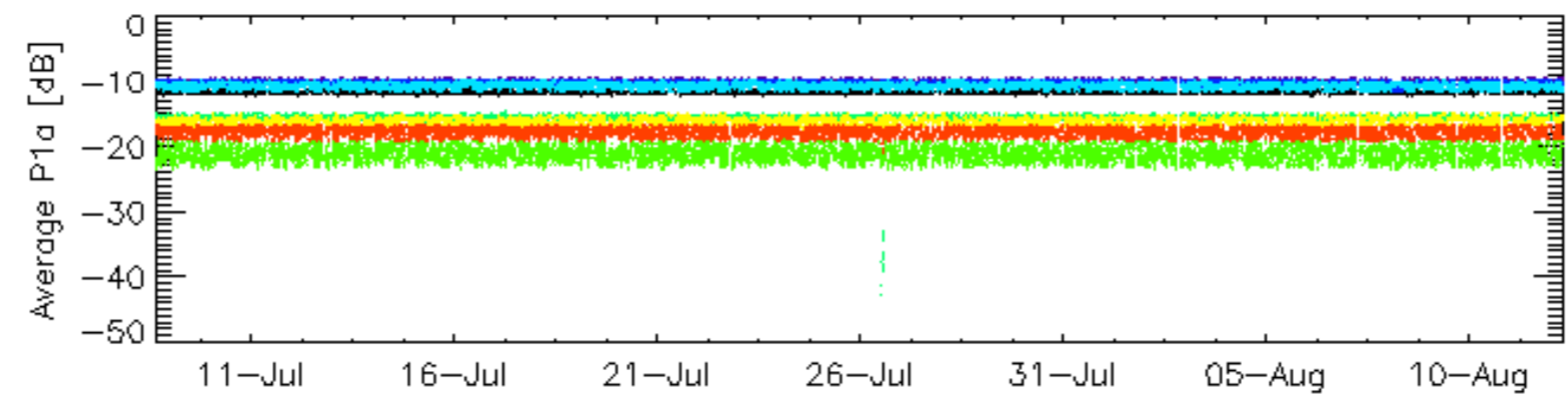
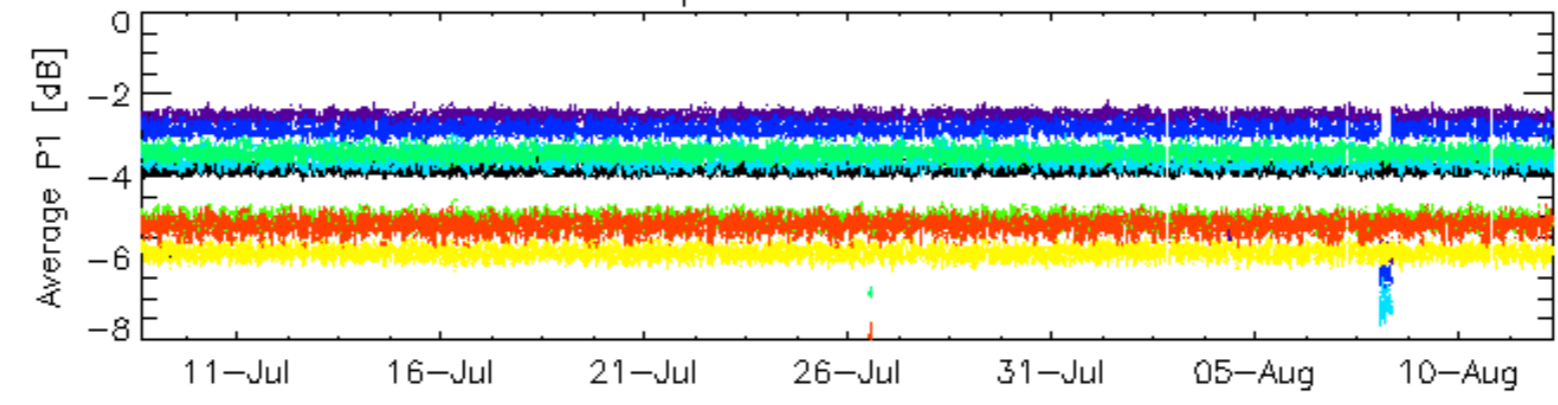


Cal pulses for WVS IS2



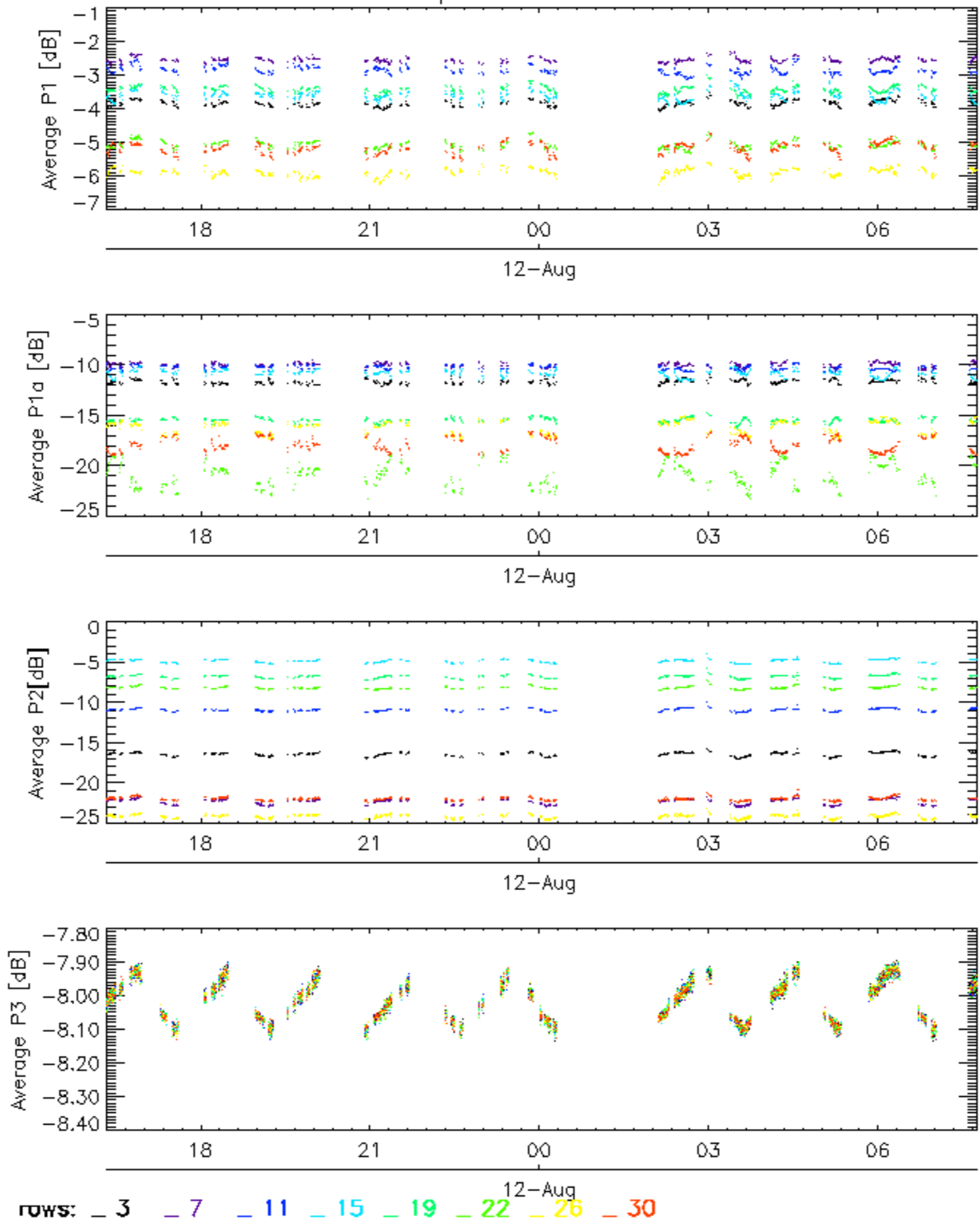
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

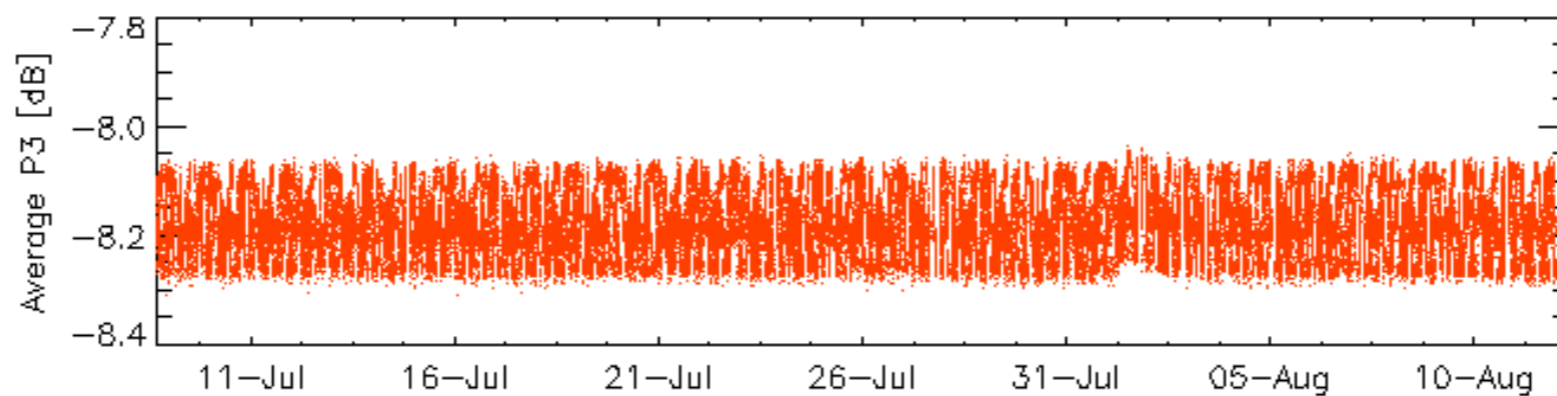
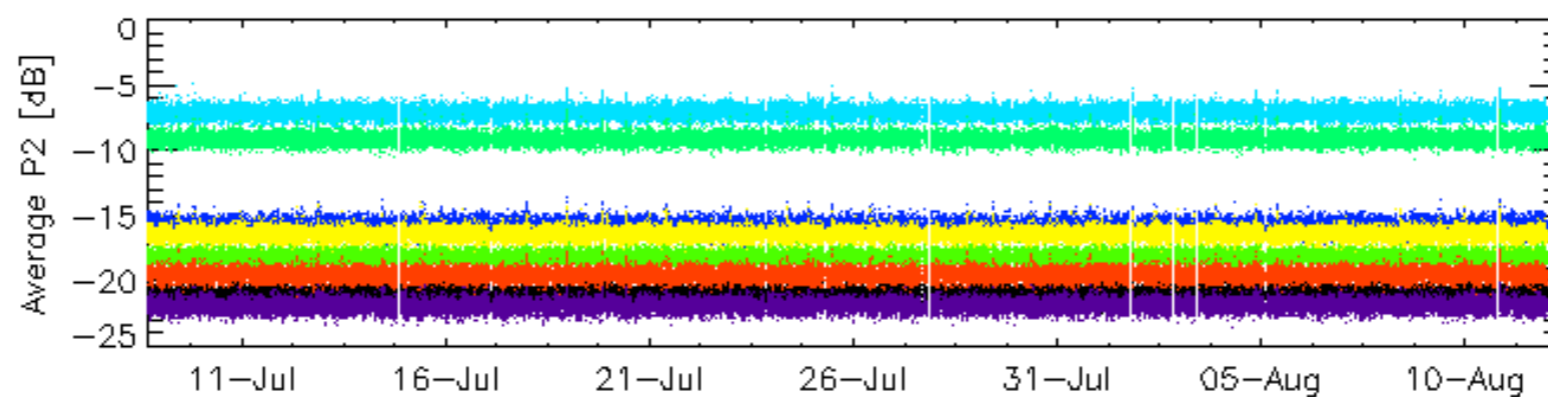
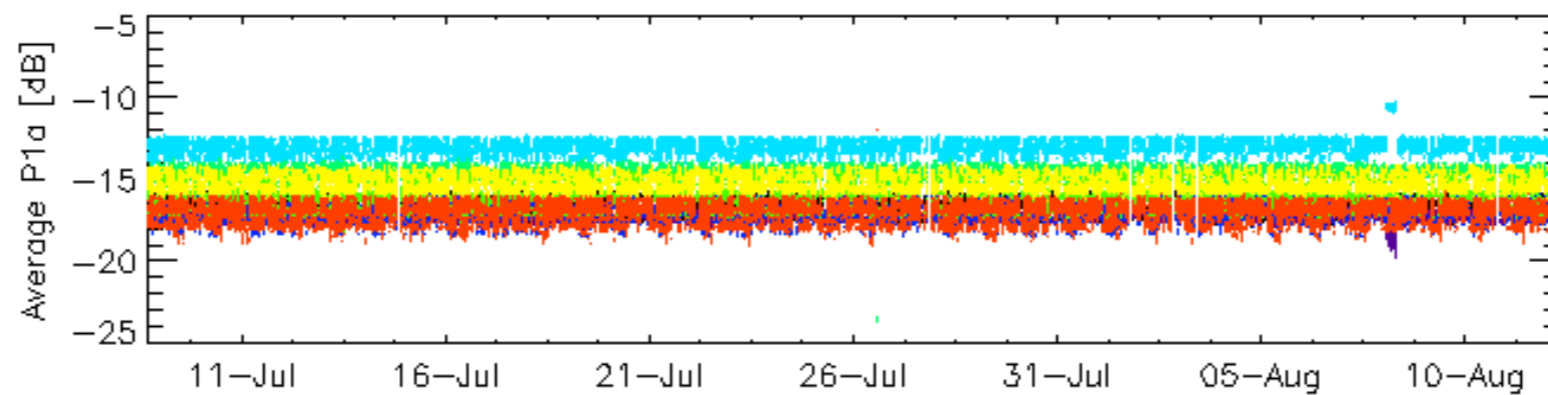
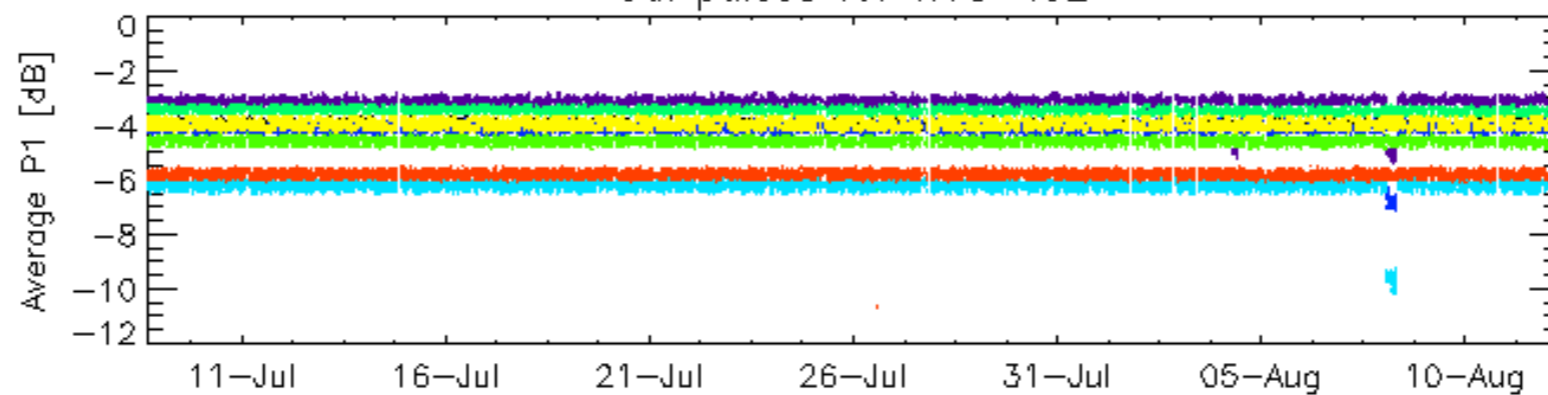


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

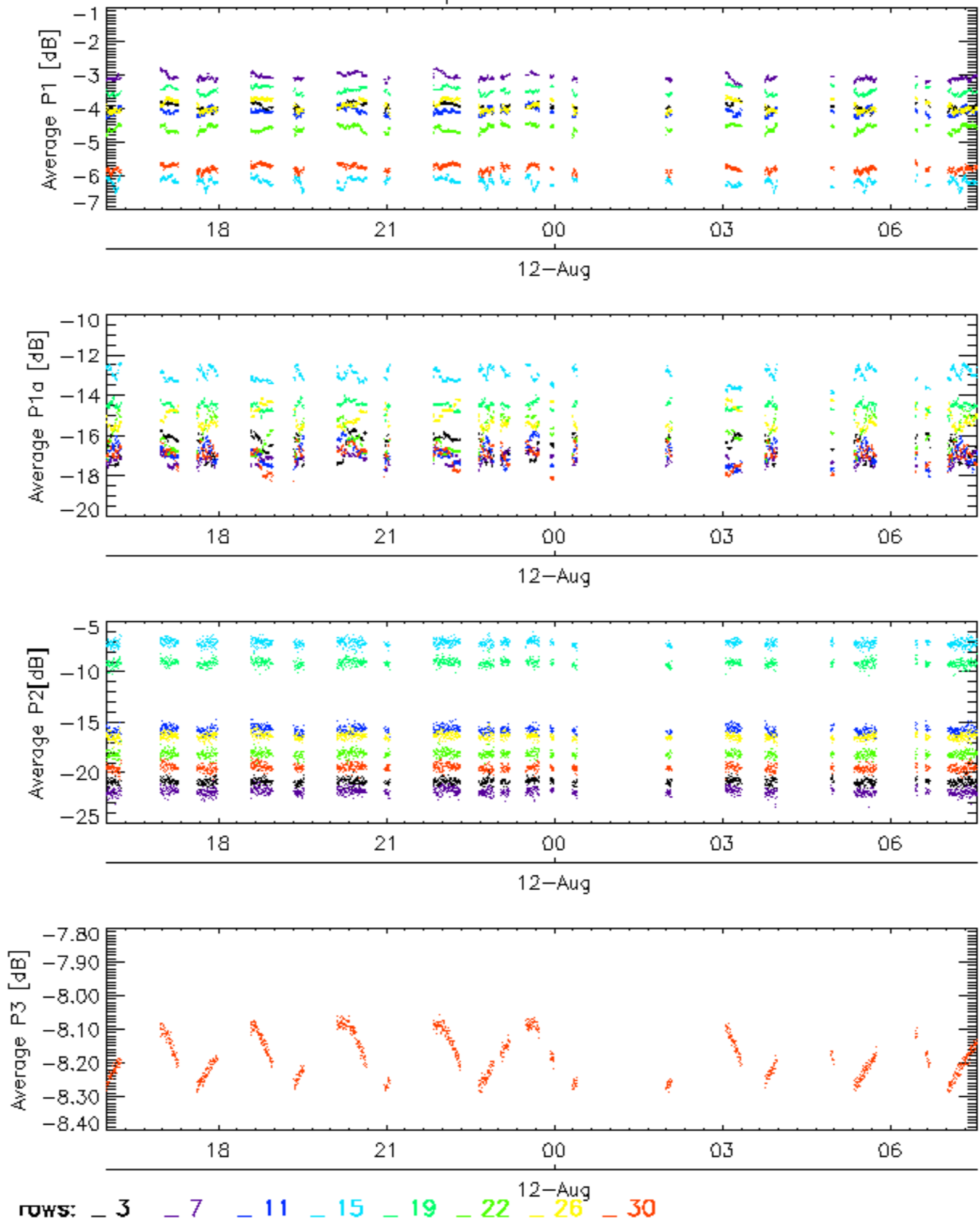


Cal pulses for WVS IS2

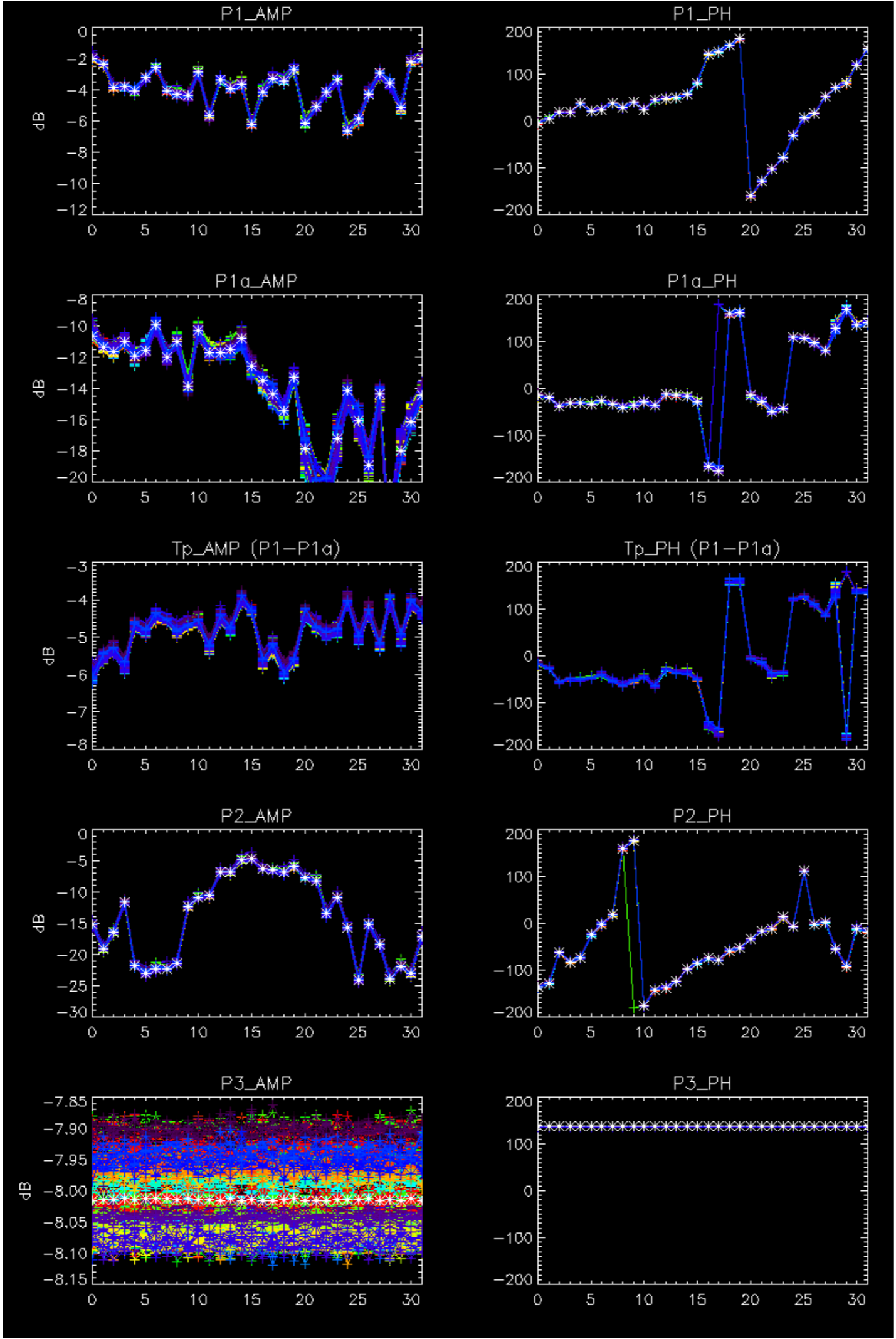


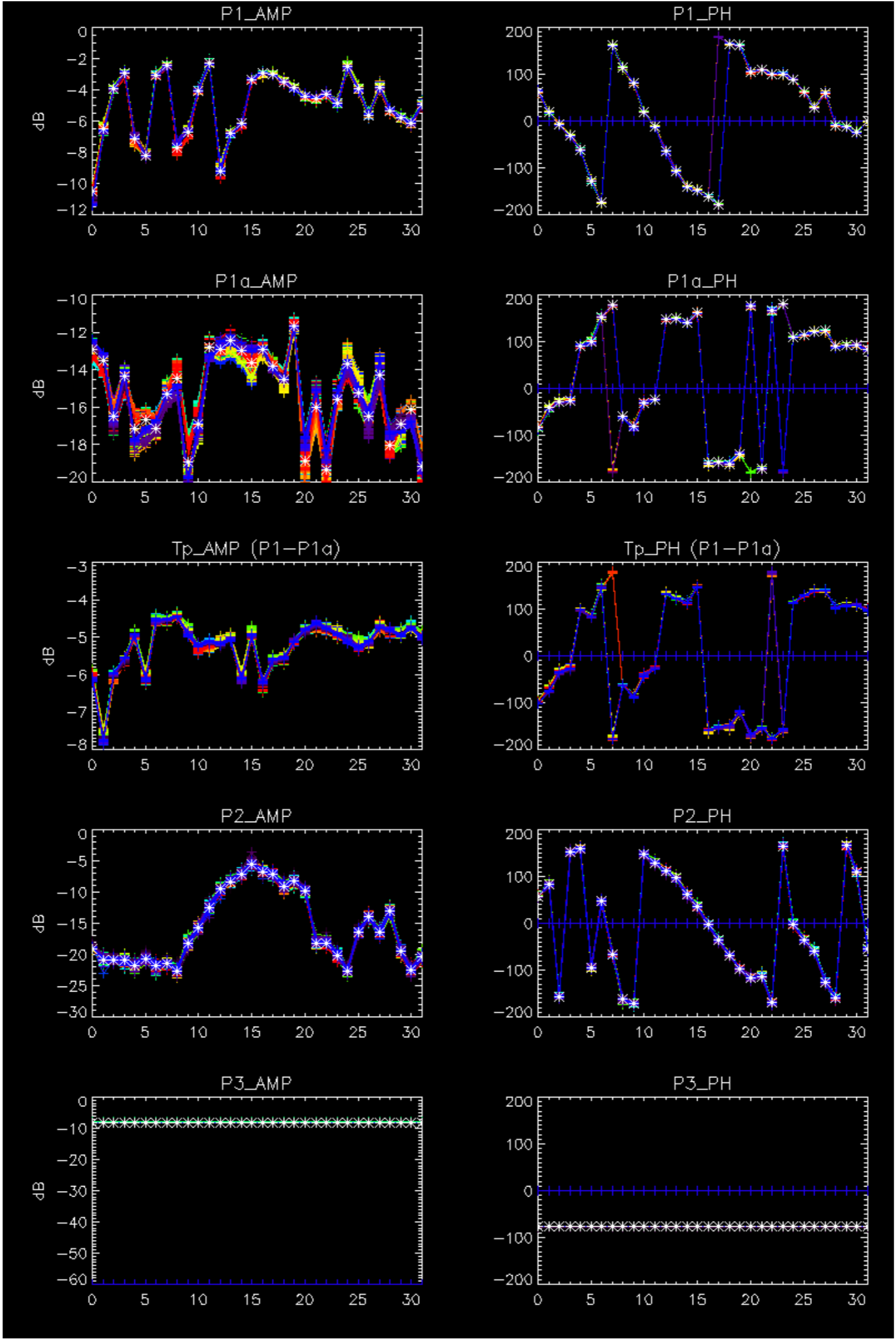
rows: [3](#) [7](#) [11](#) [15](#) [19](#) [22](#) [26](#) [30](#)

Cal pulses for WVS IS2



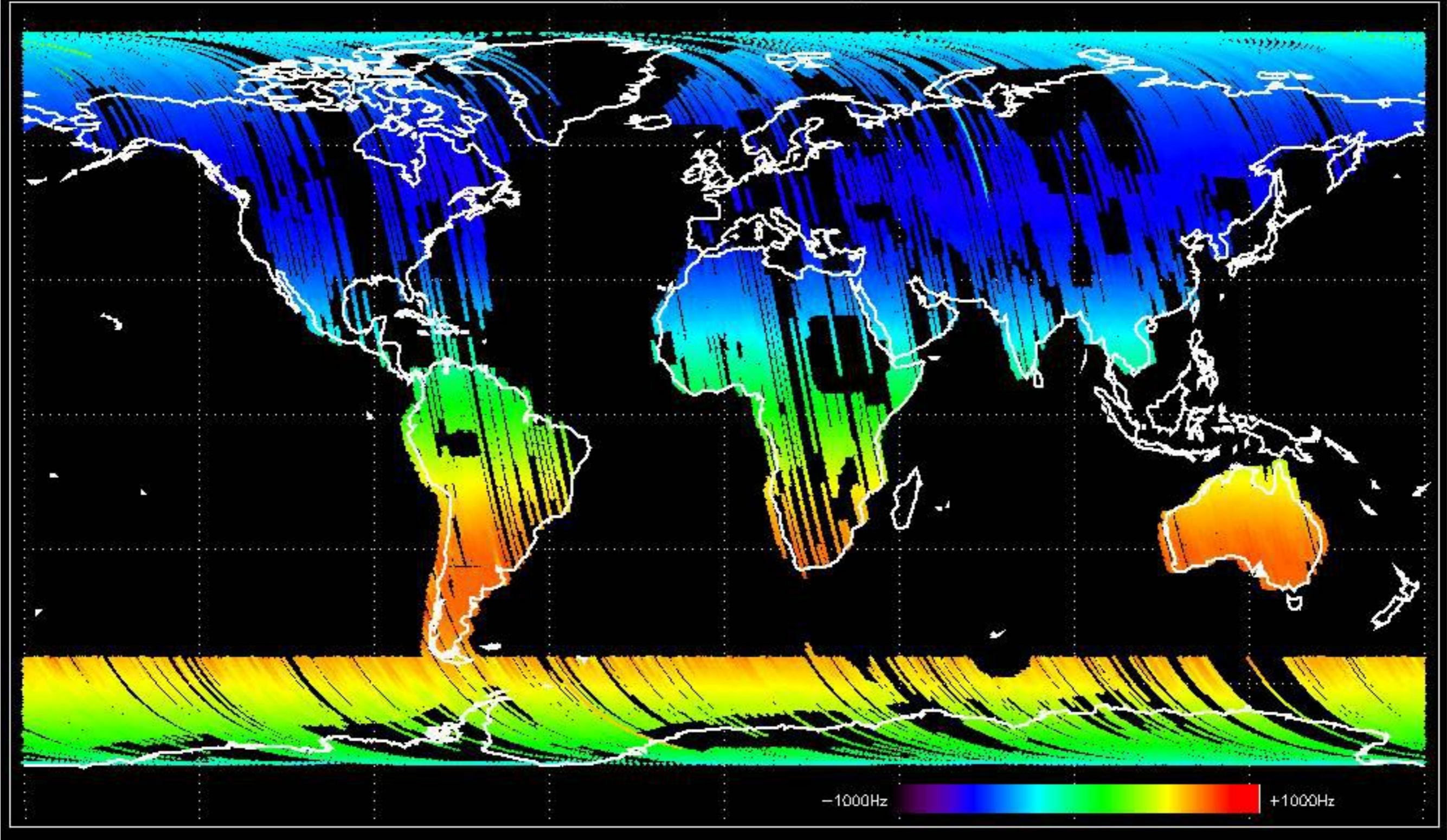
No anomalies observed.



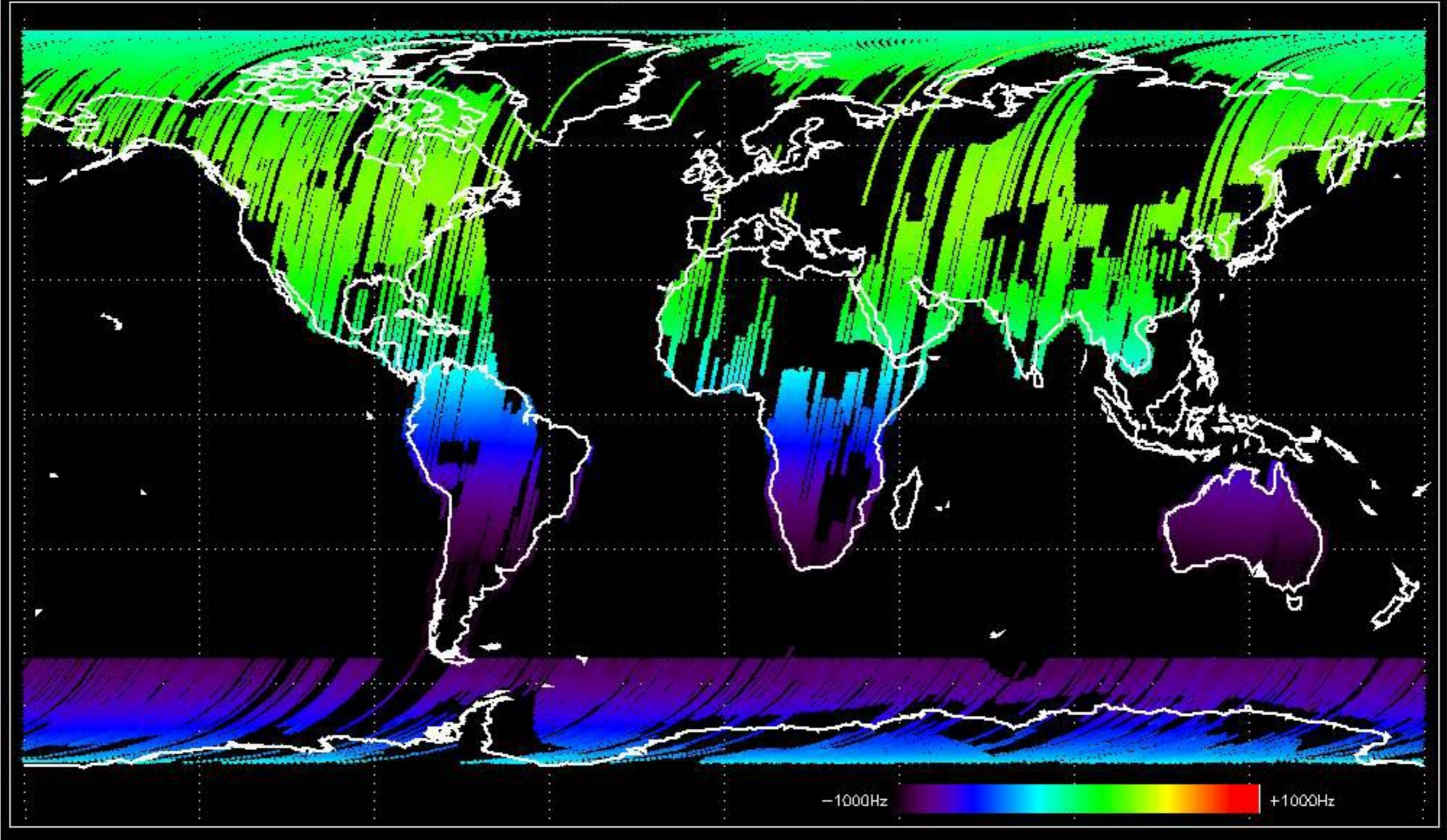


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

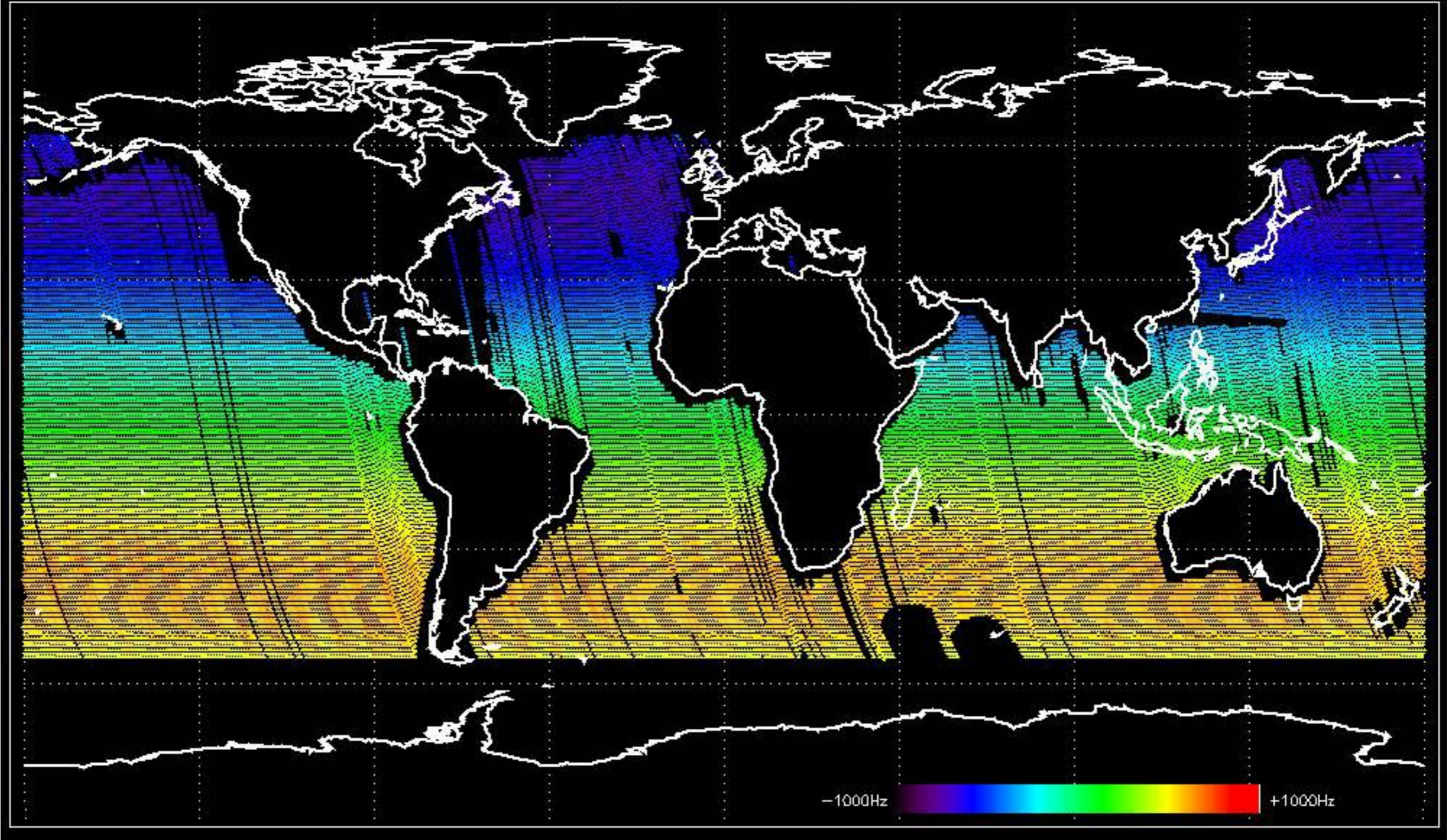
Doppler 'GM1' 'SS1' ascending



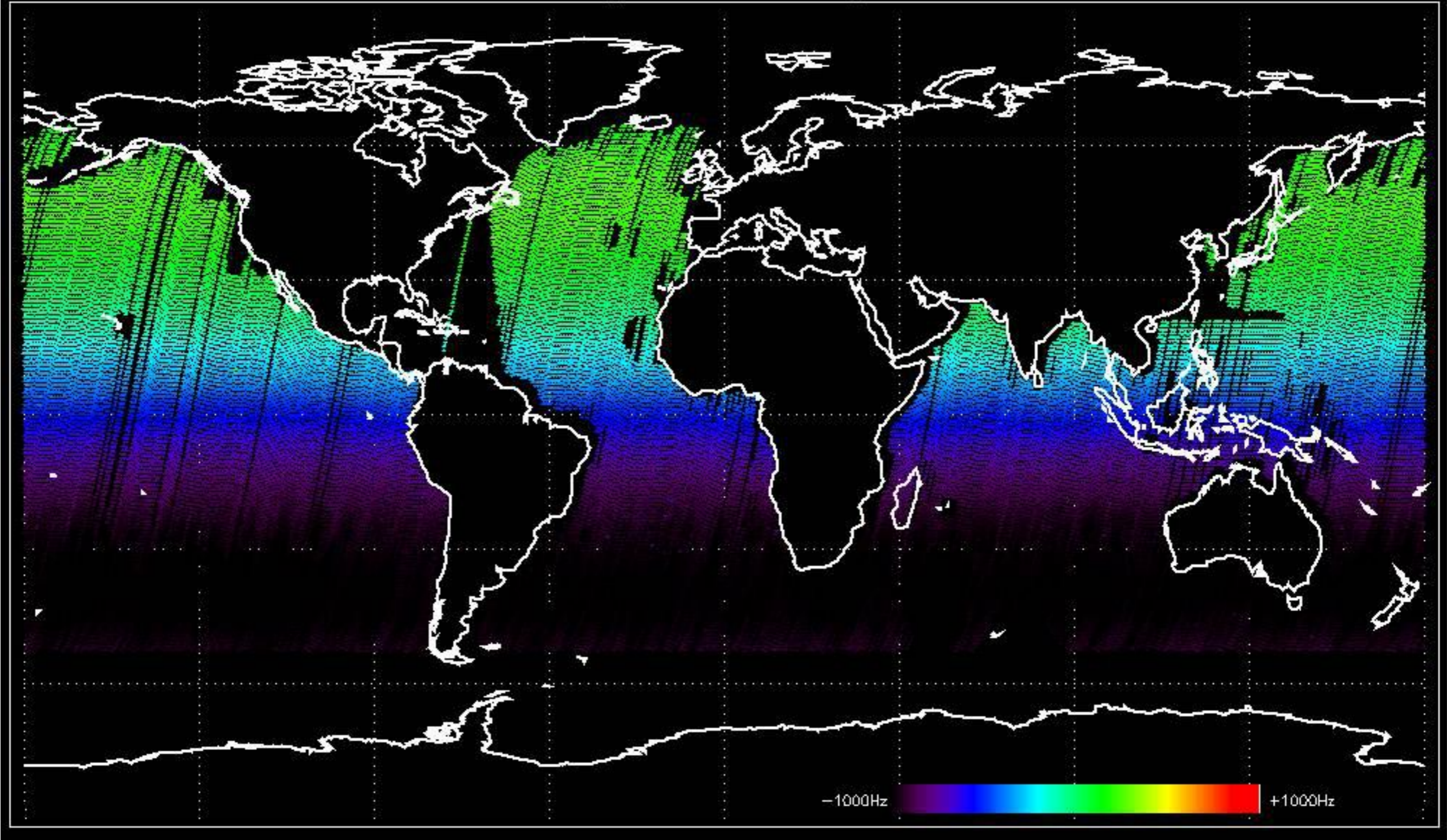
Doppler 'GM1' 'SS1' descending

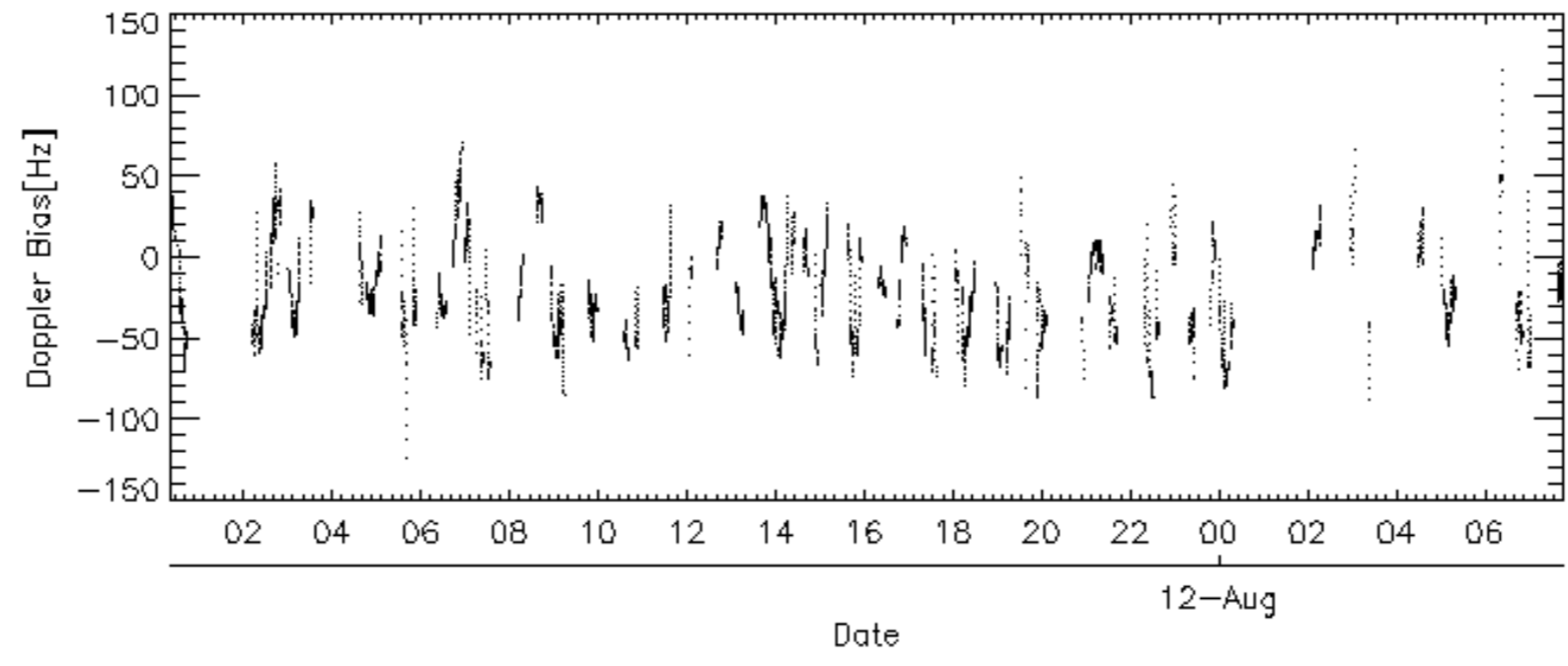
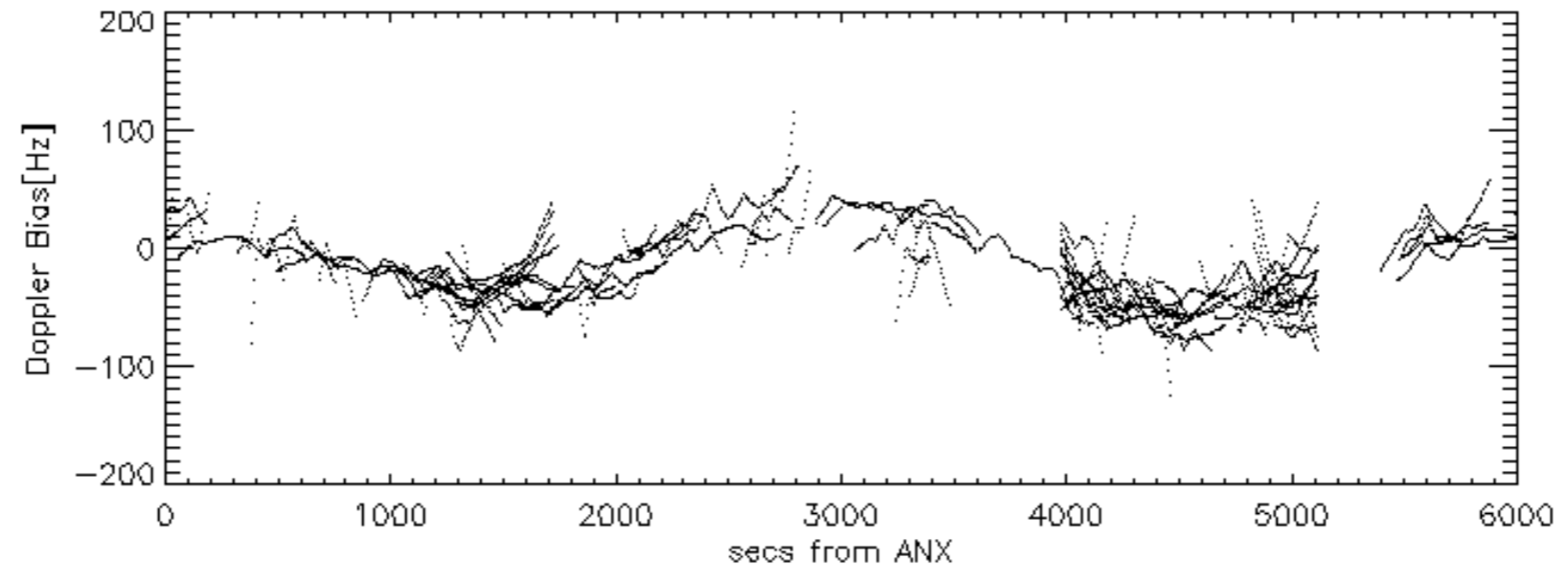
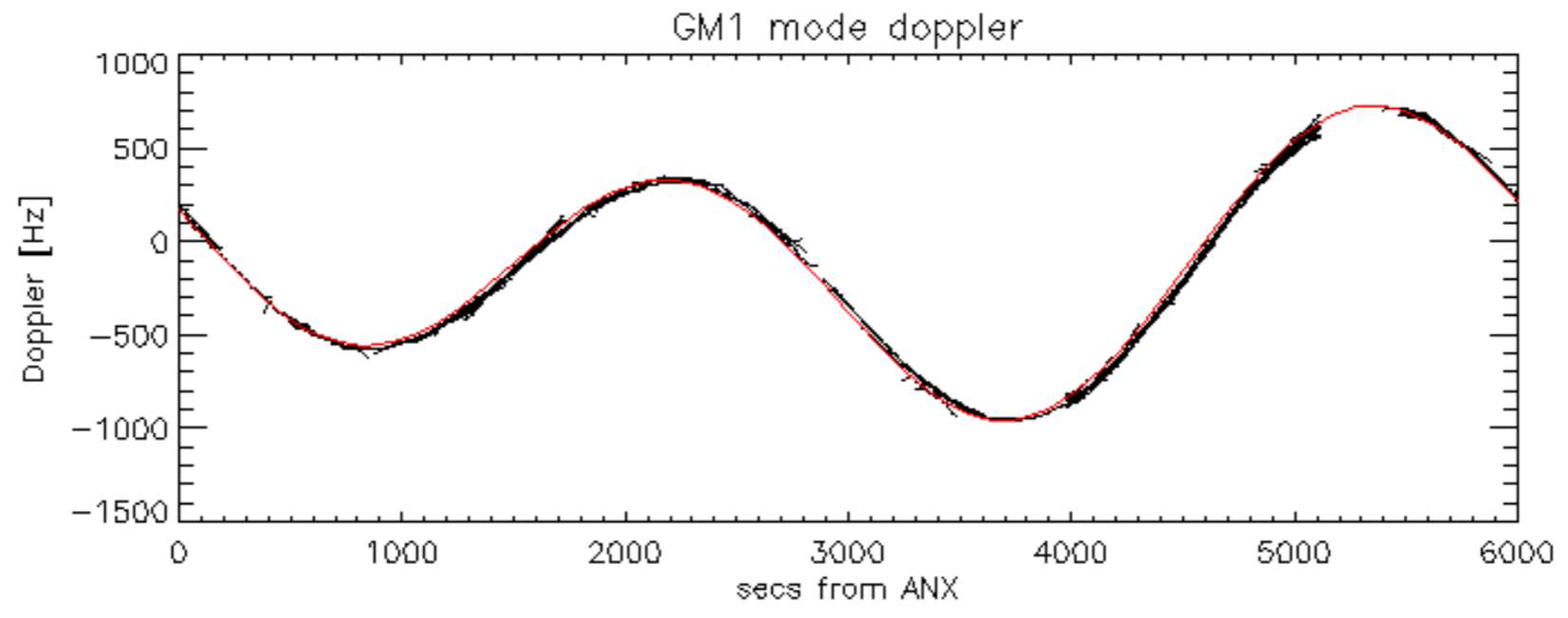


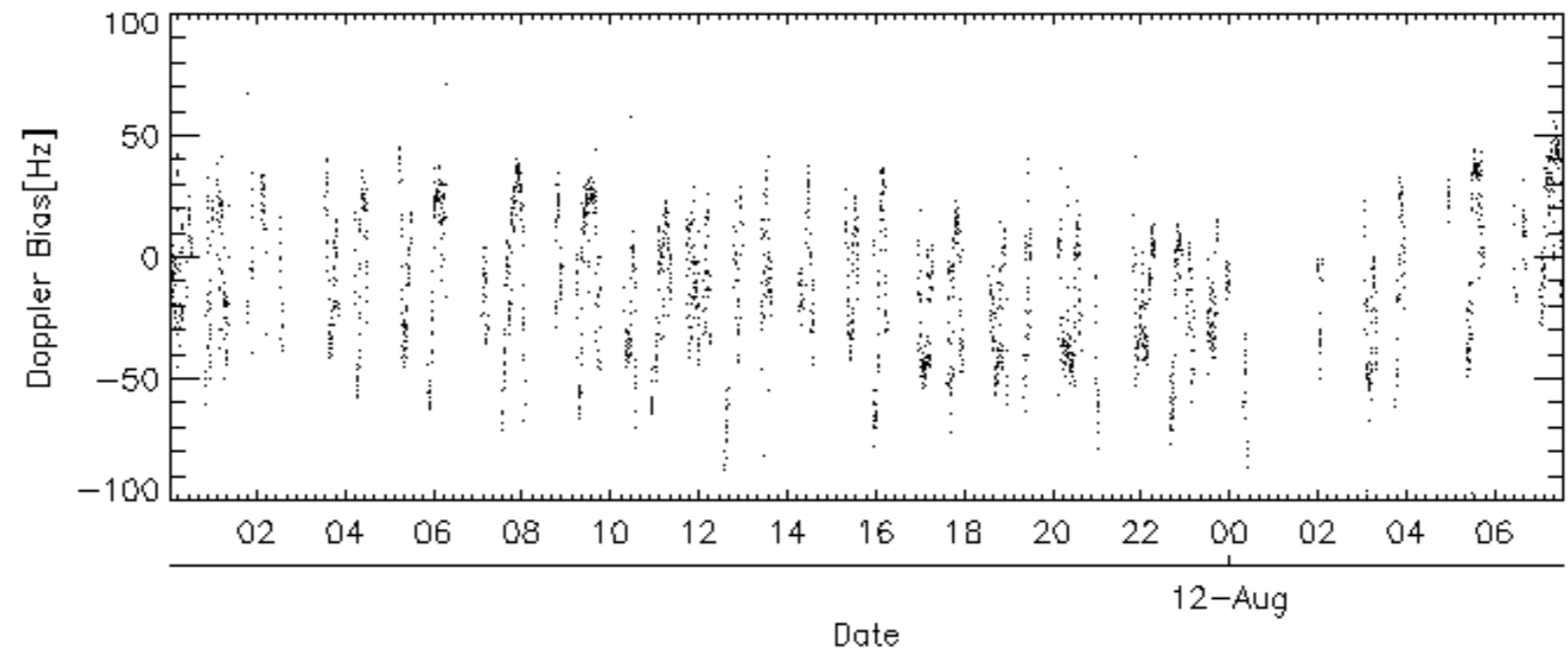
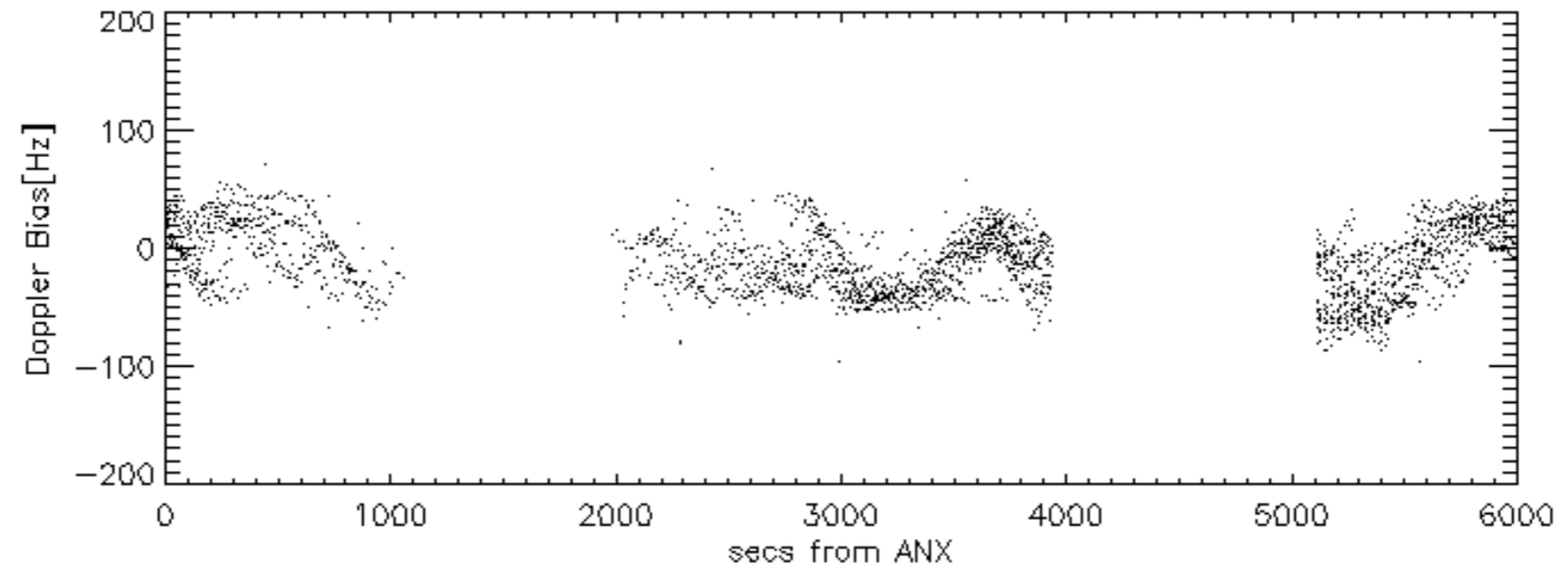
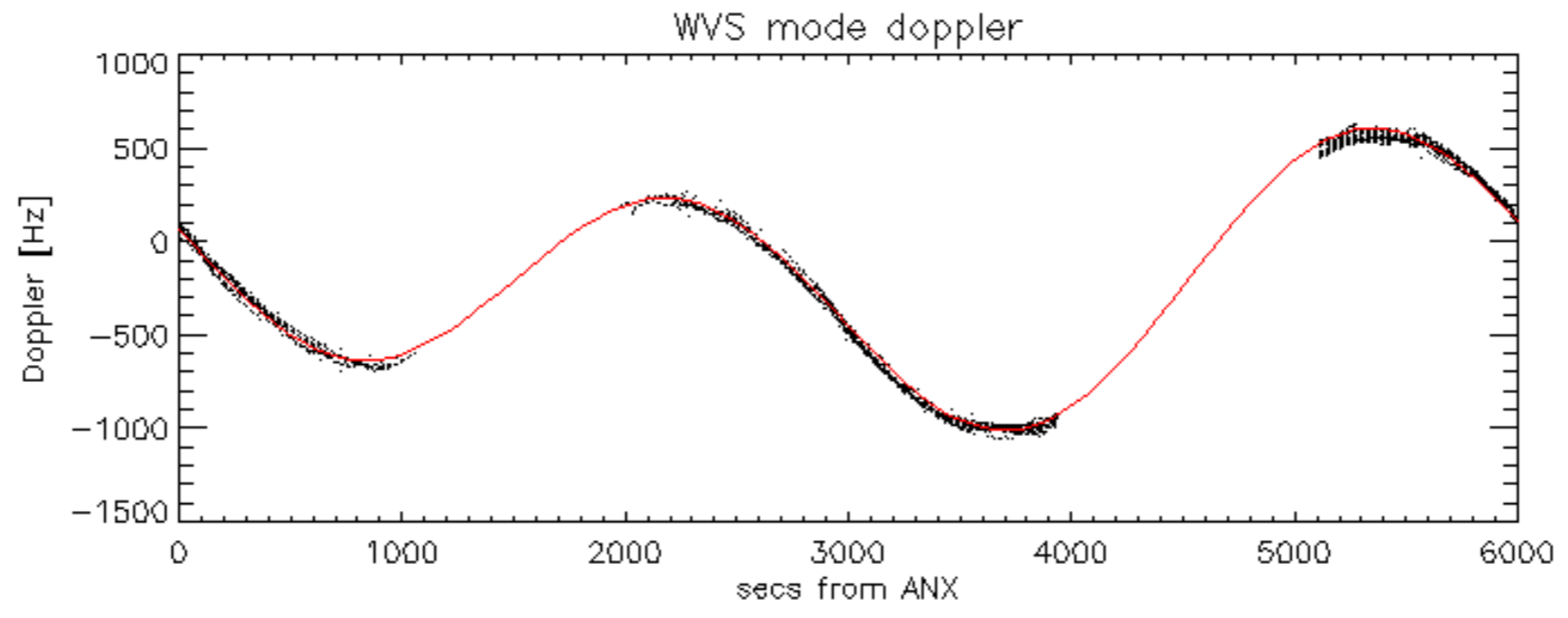
Doppler 'WVS' 'IS2' ascending



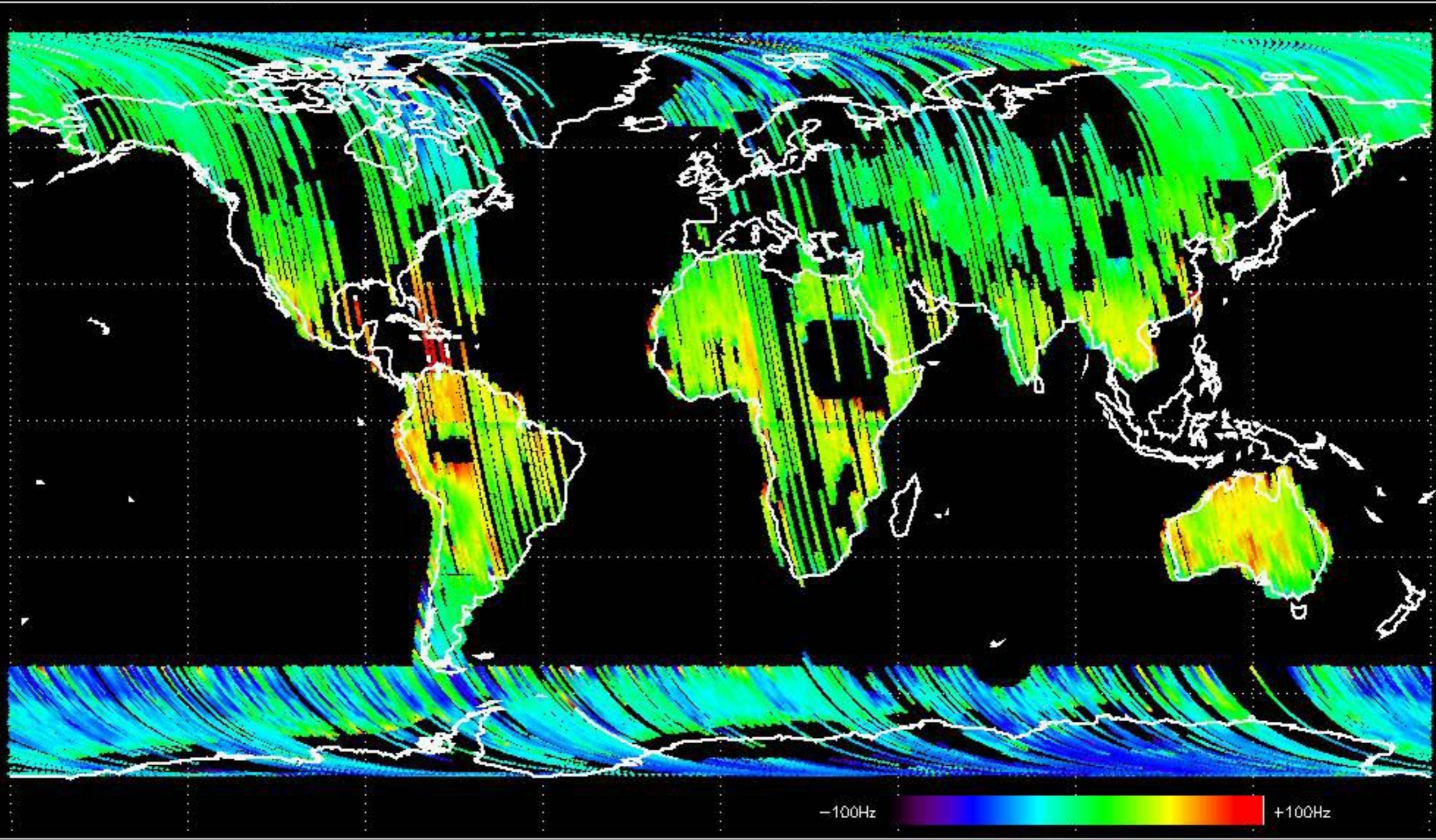
Doppler 'WVS' 'IS2' descending



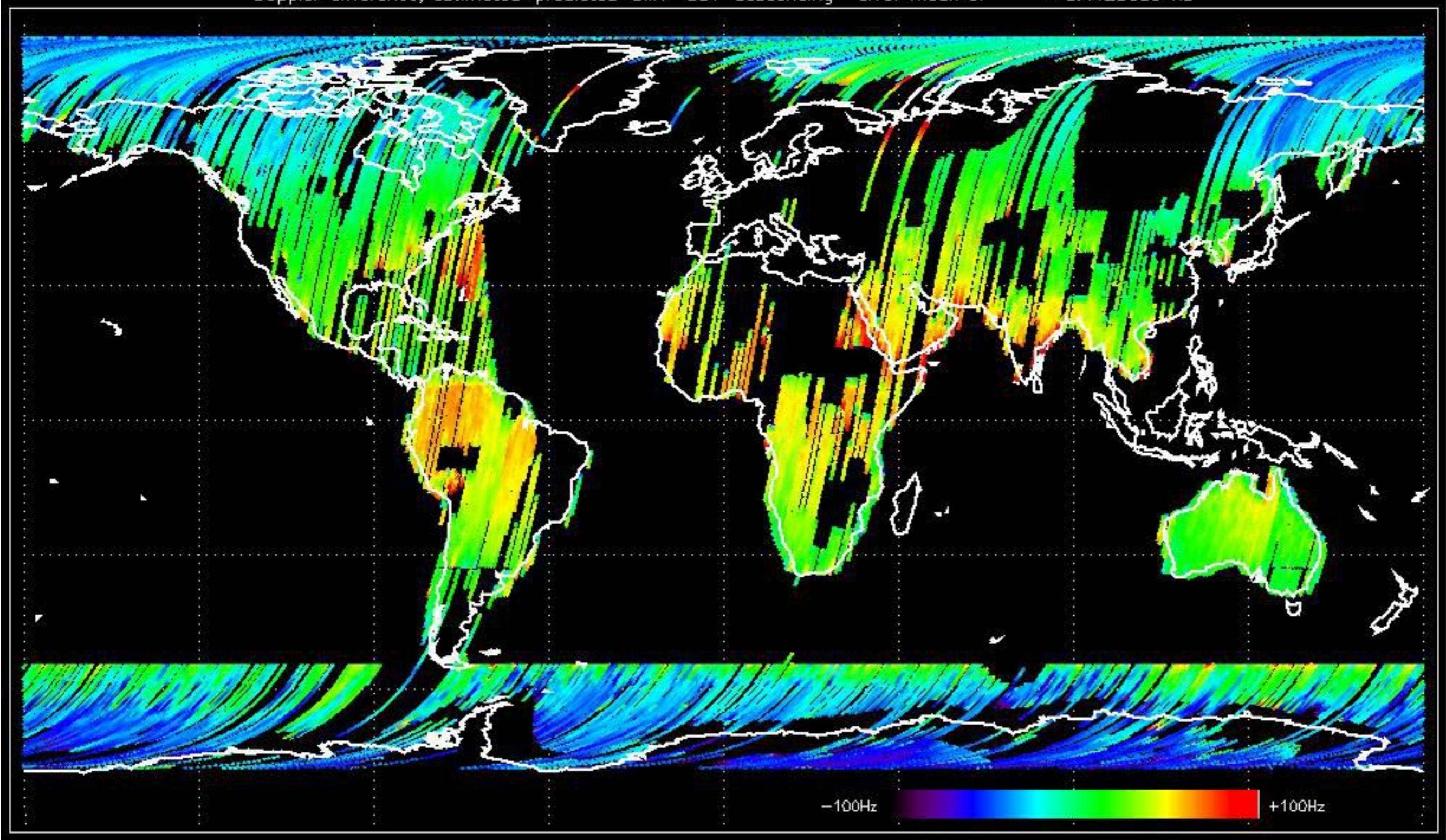




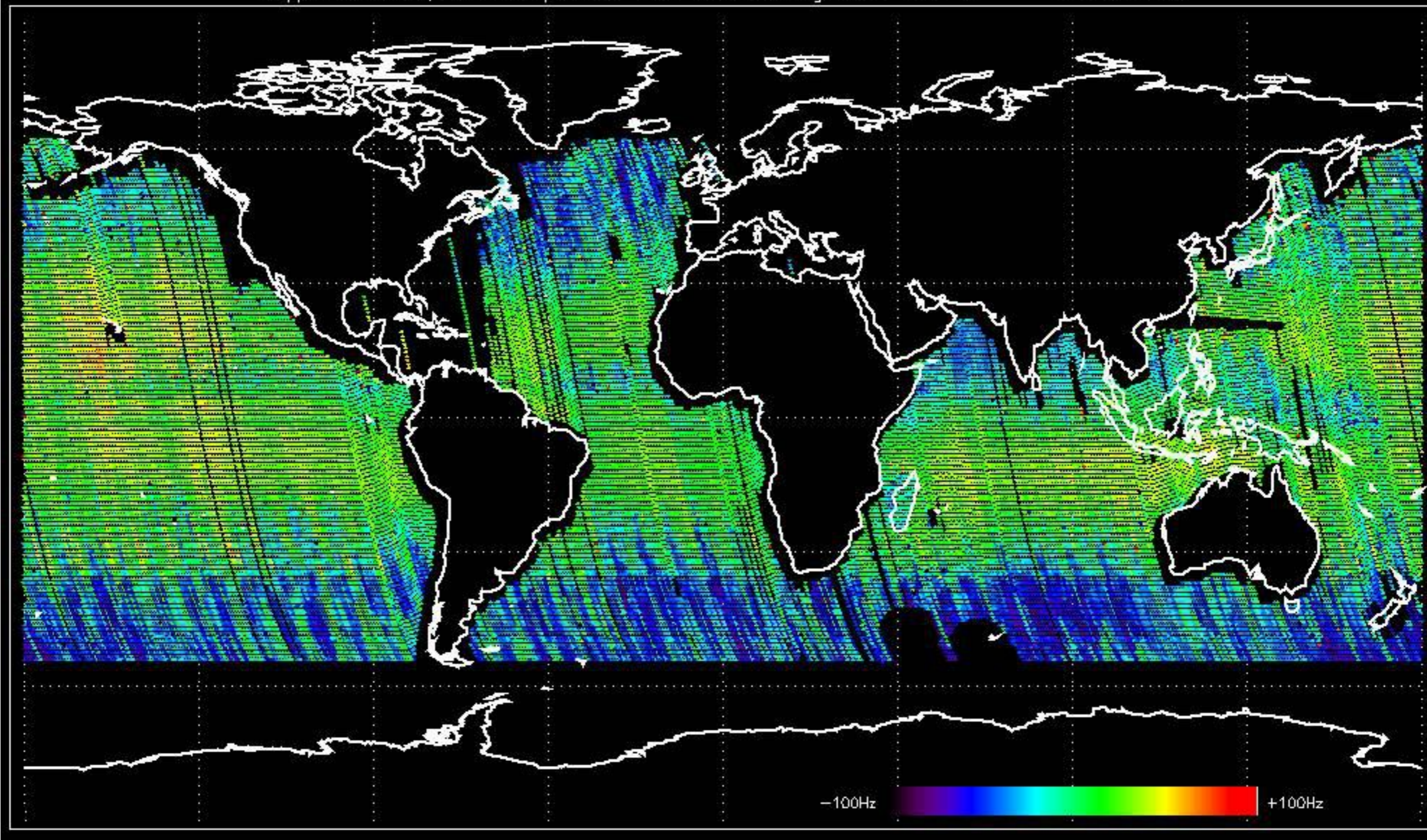
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.675952 Hz



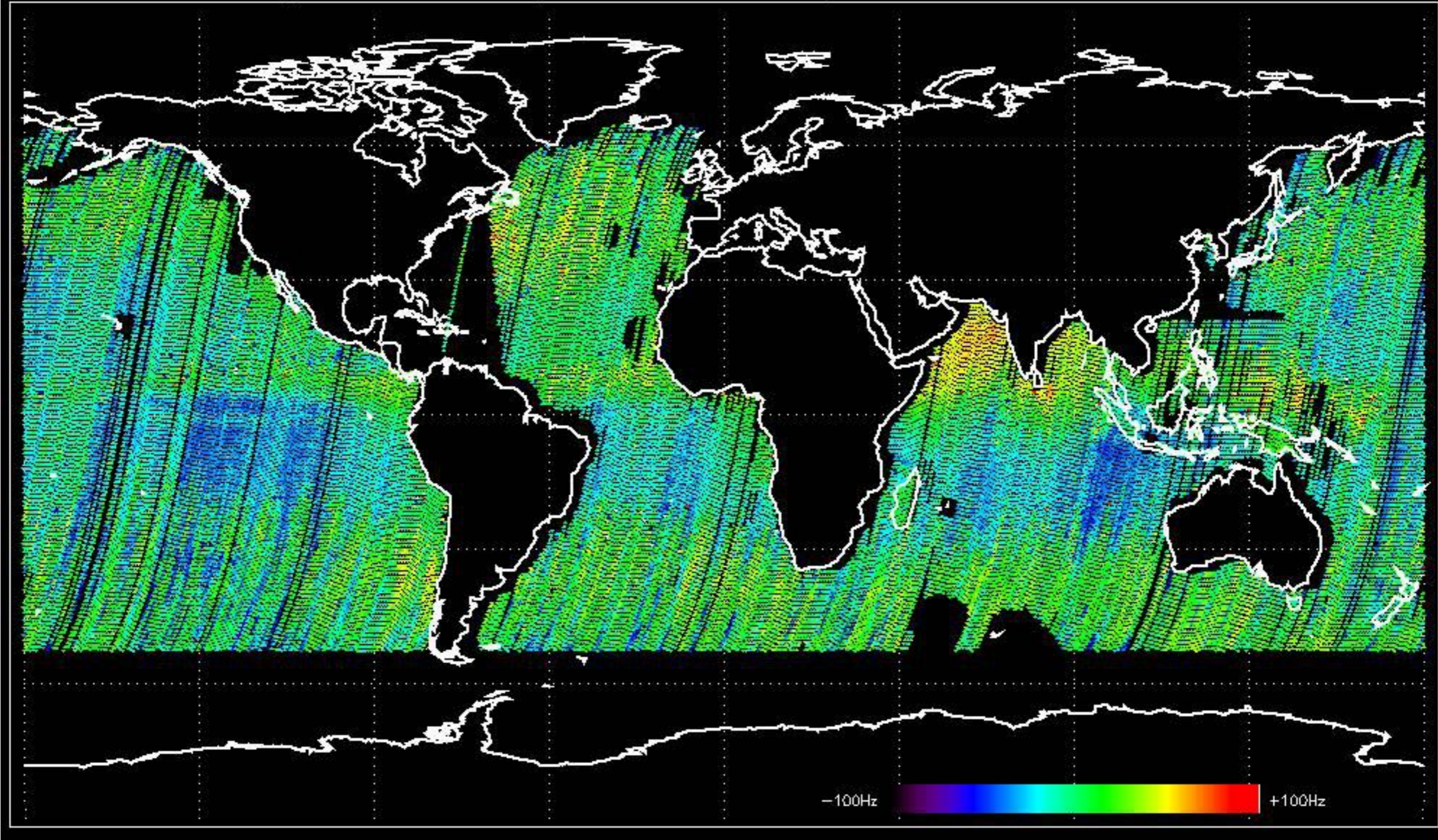
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.4125630 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.2691037 Hz

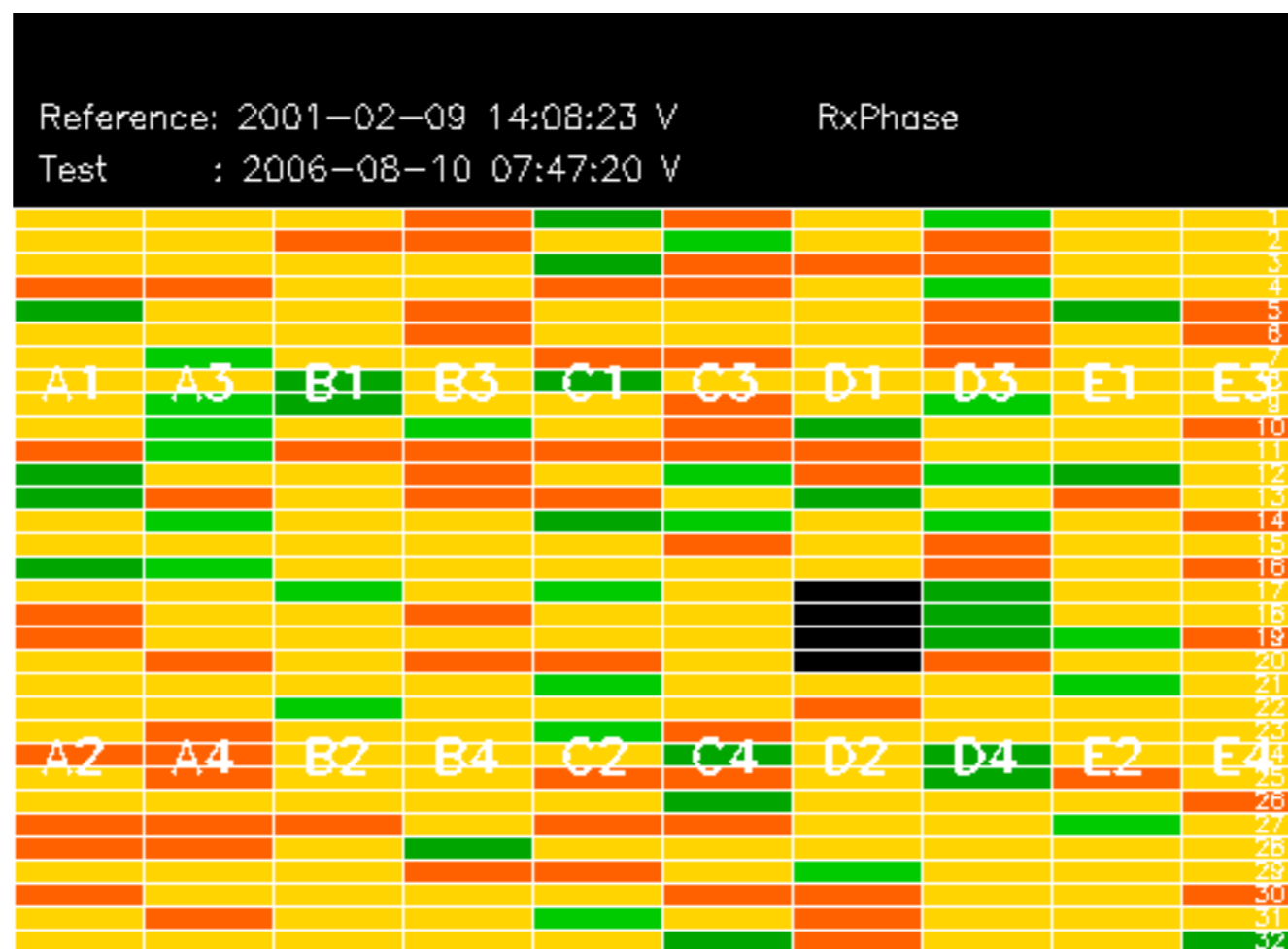


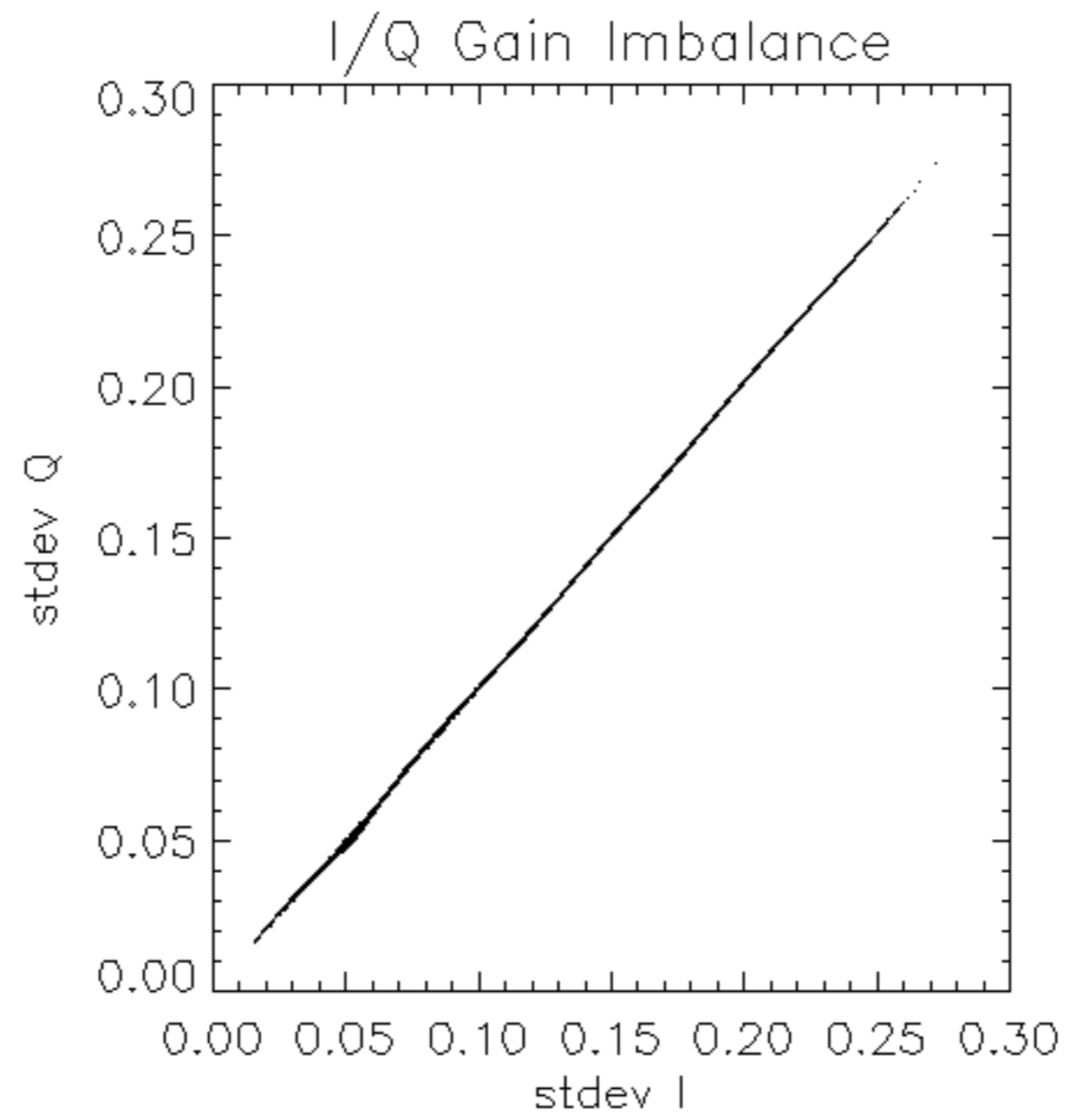
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.1095838 Hz

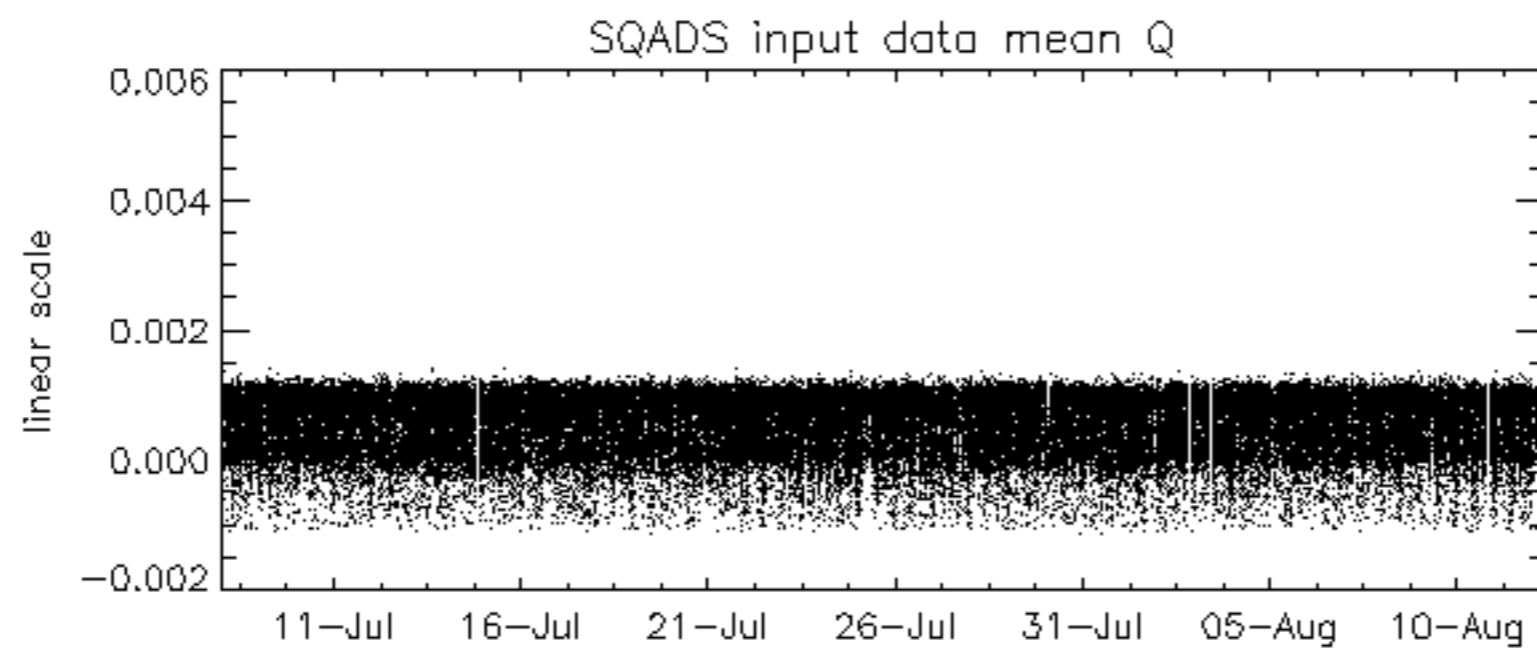
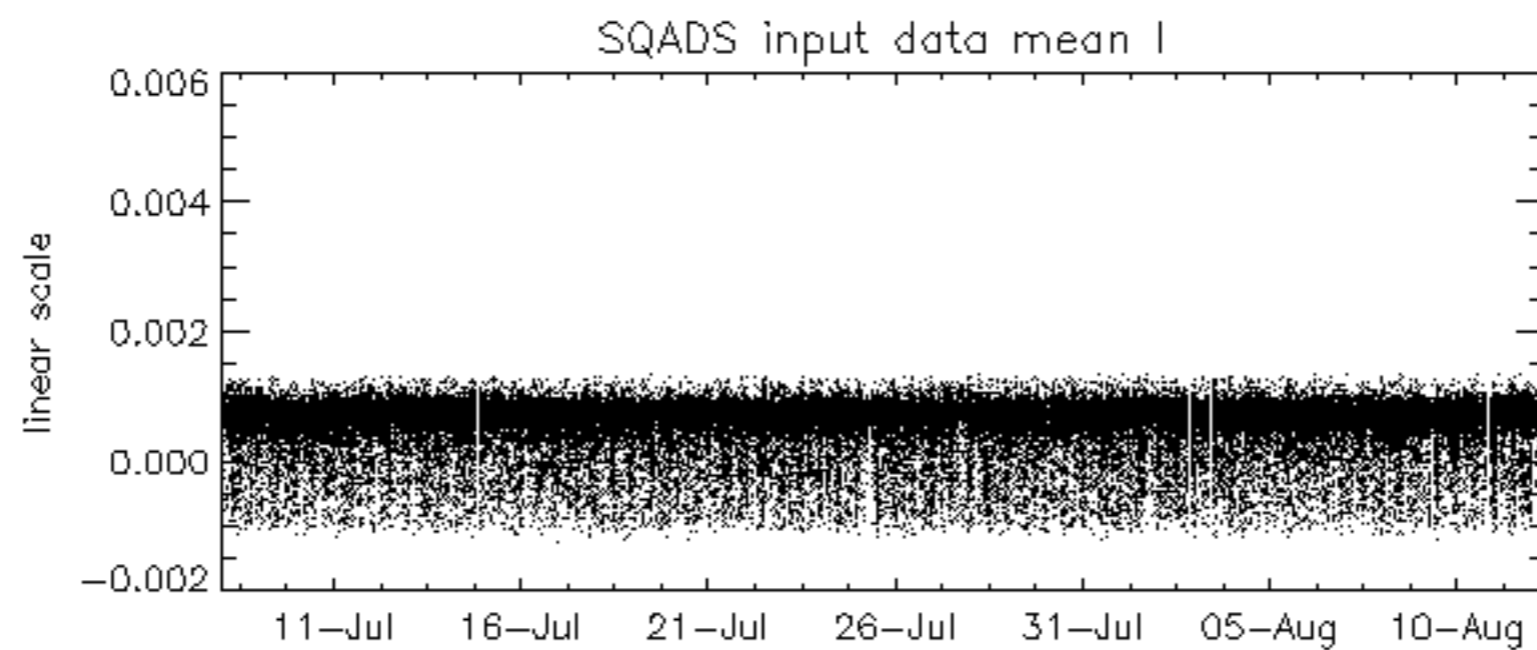
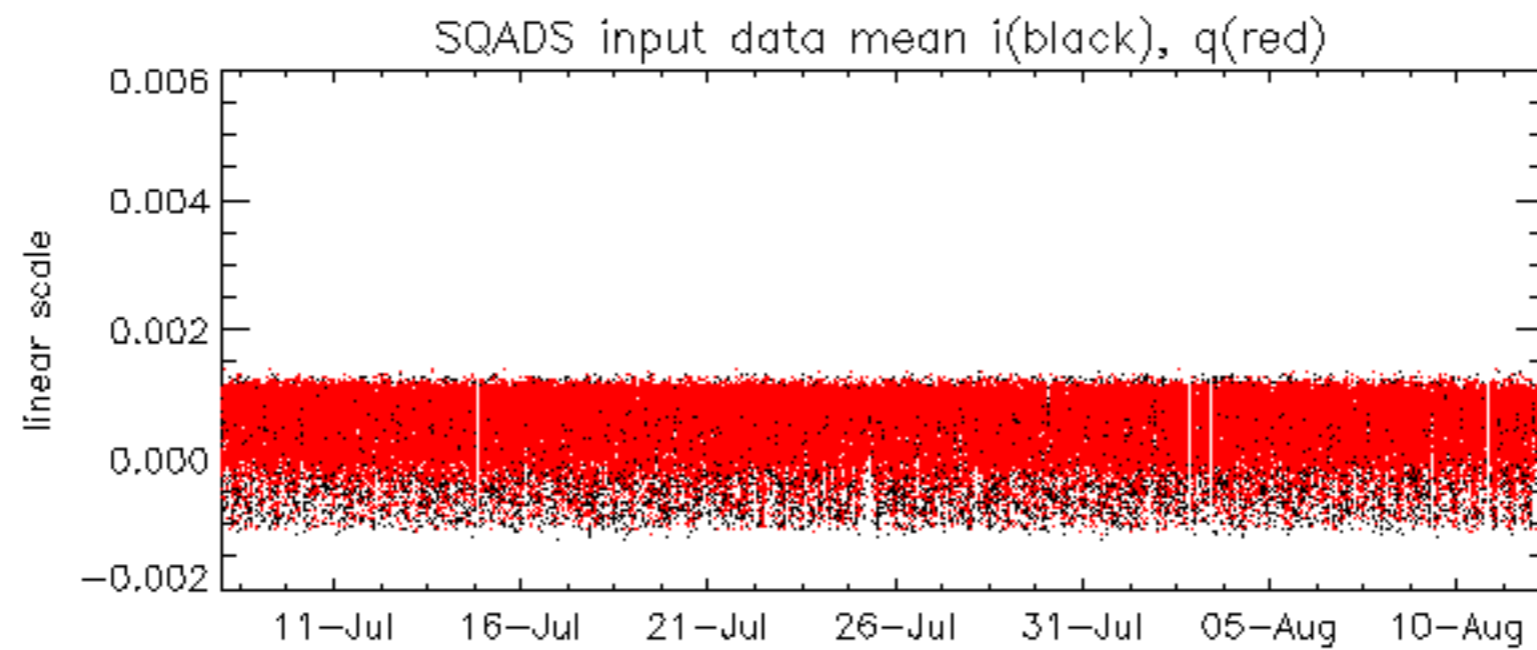


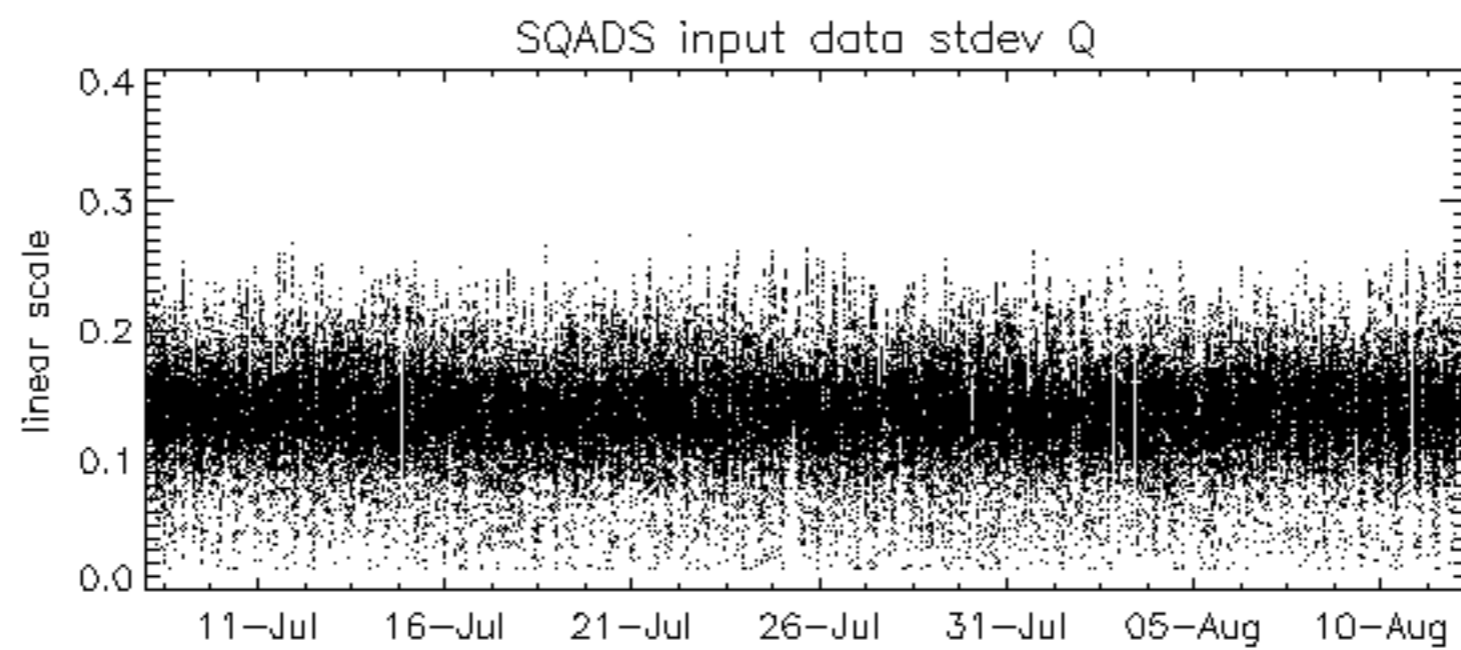
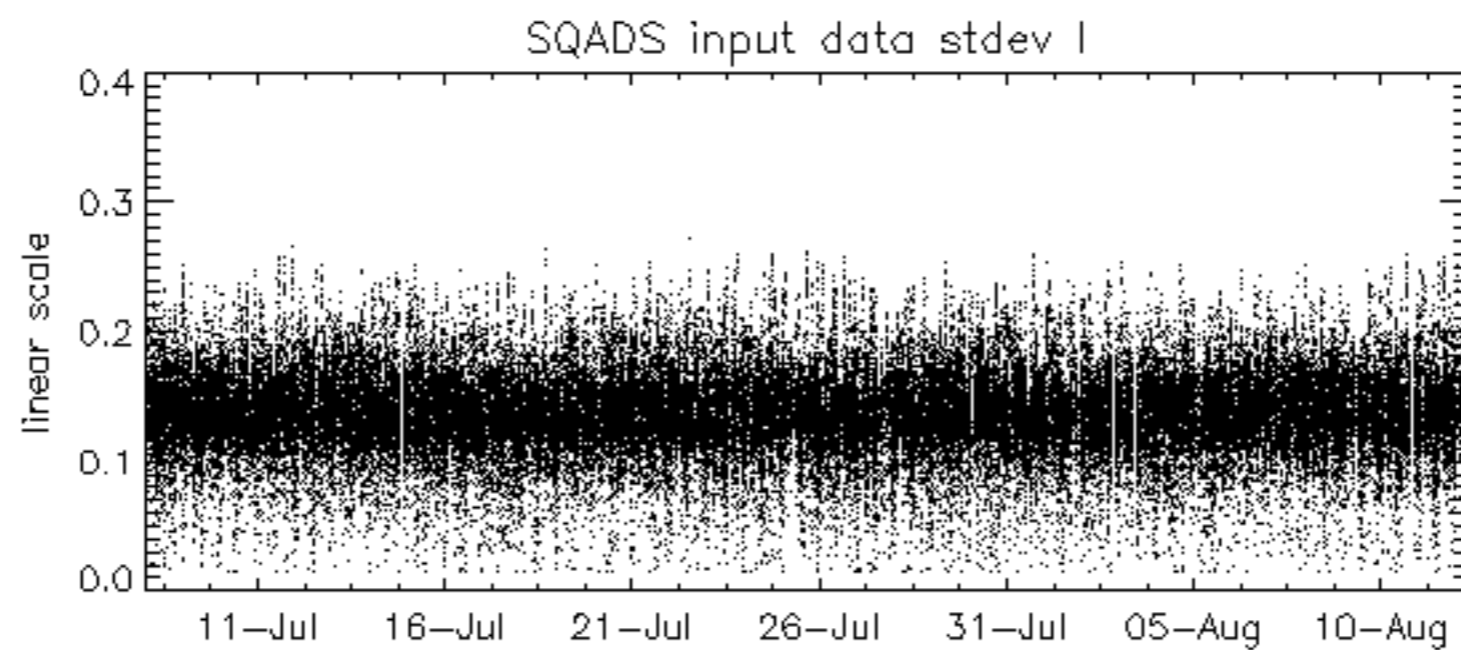
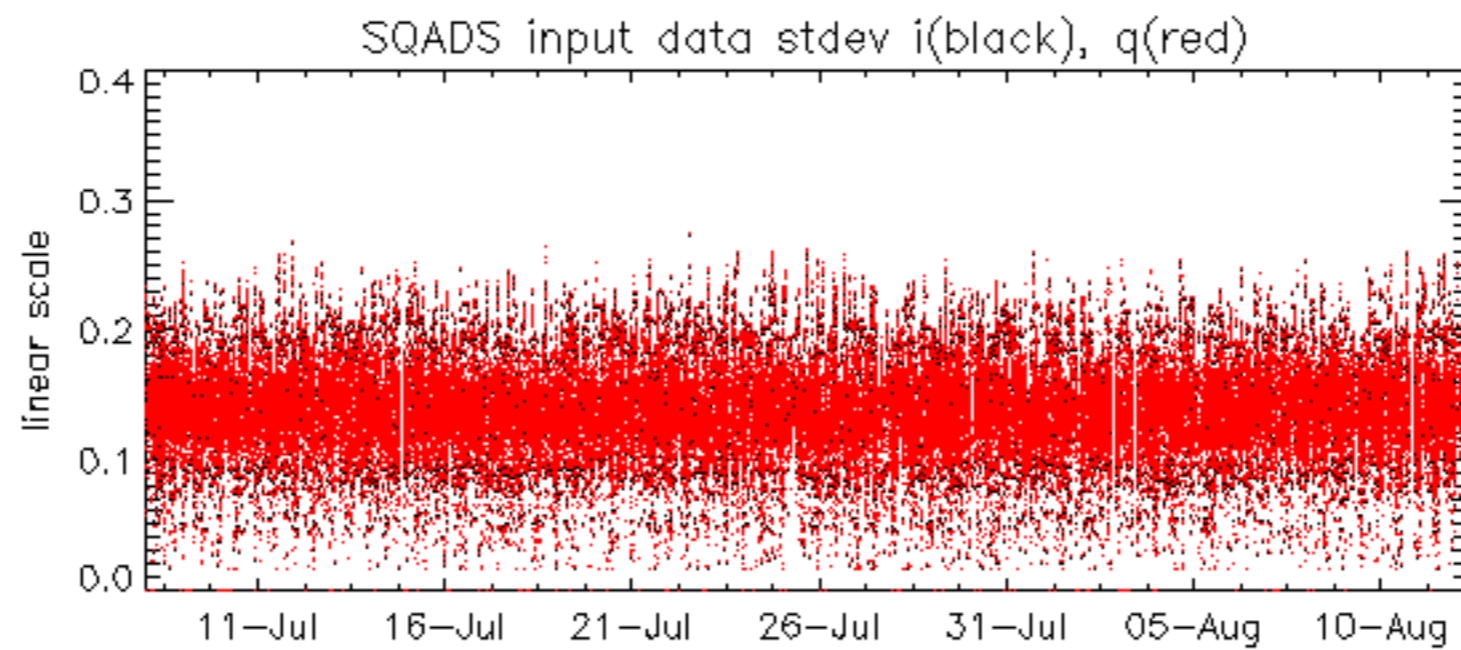
No anomalies observed on available MS products:

No anomalies observed.





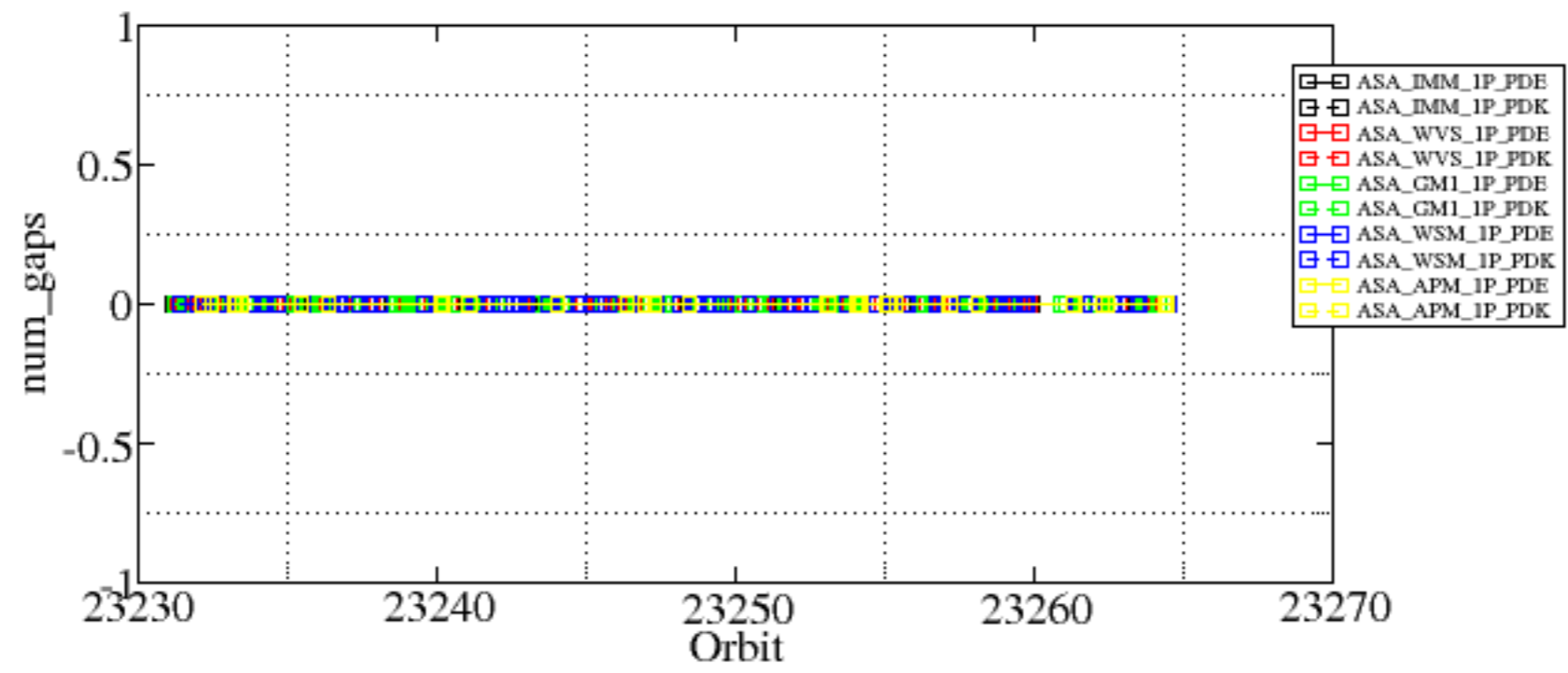


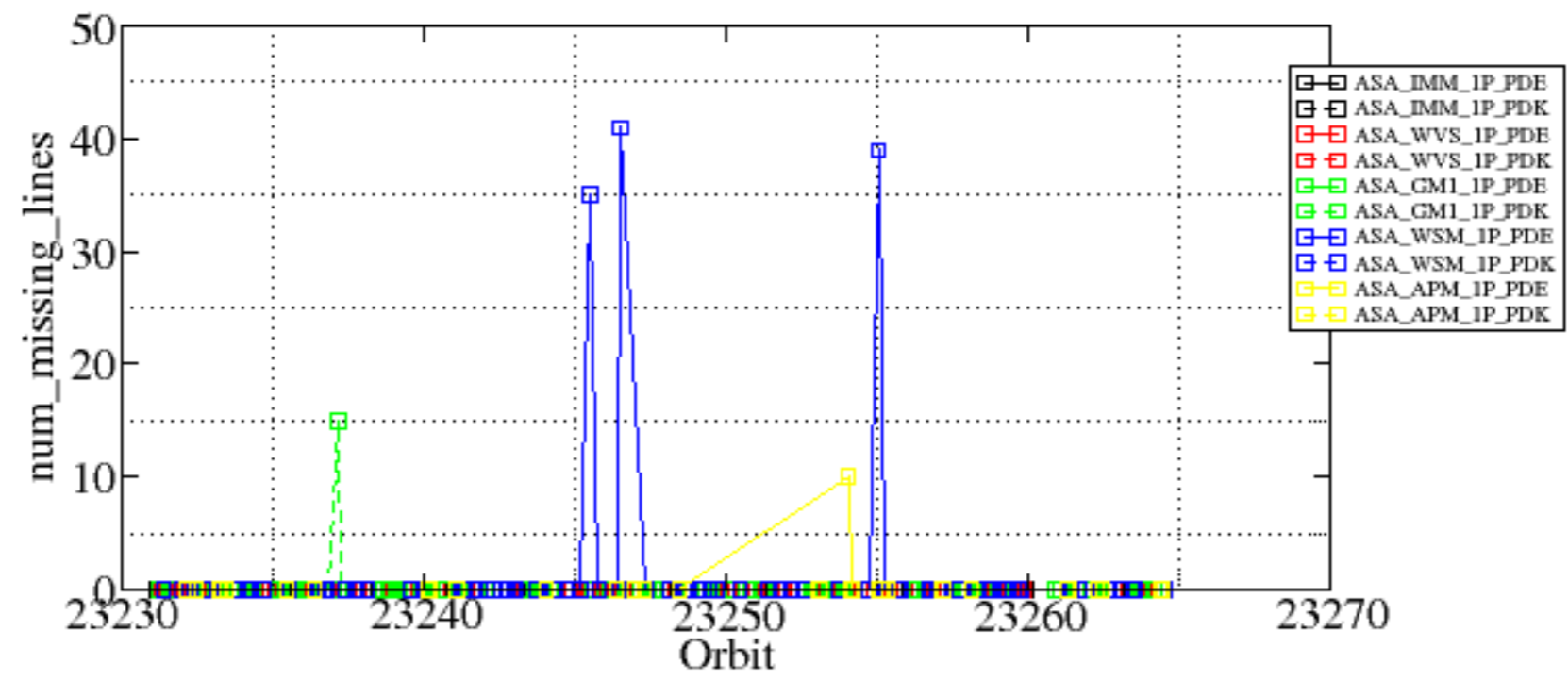


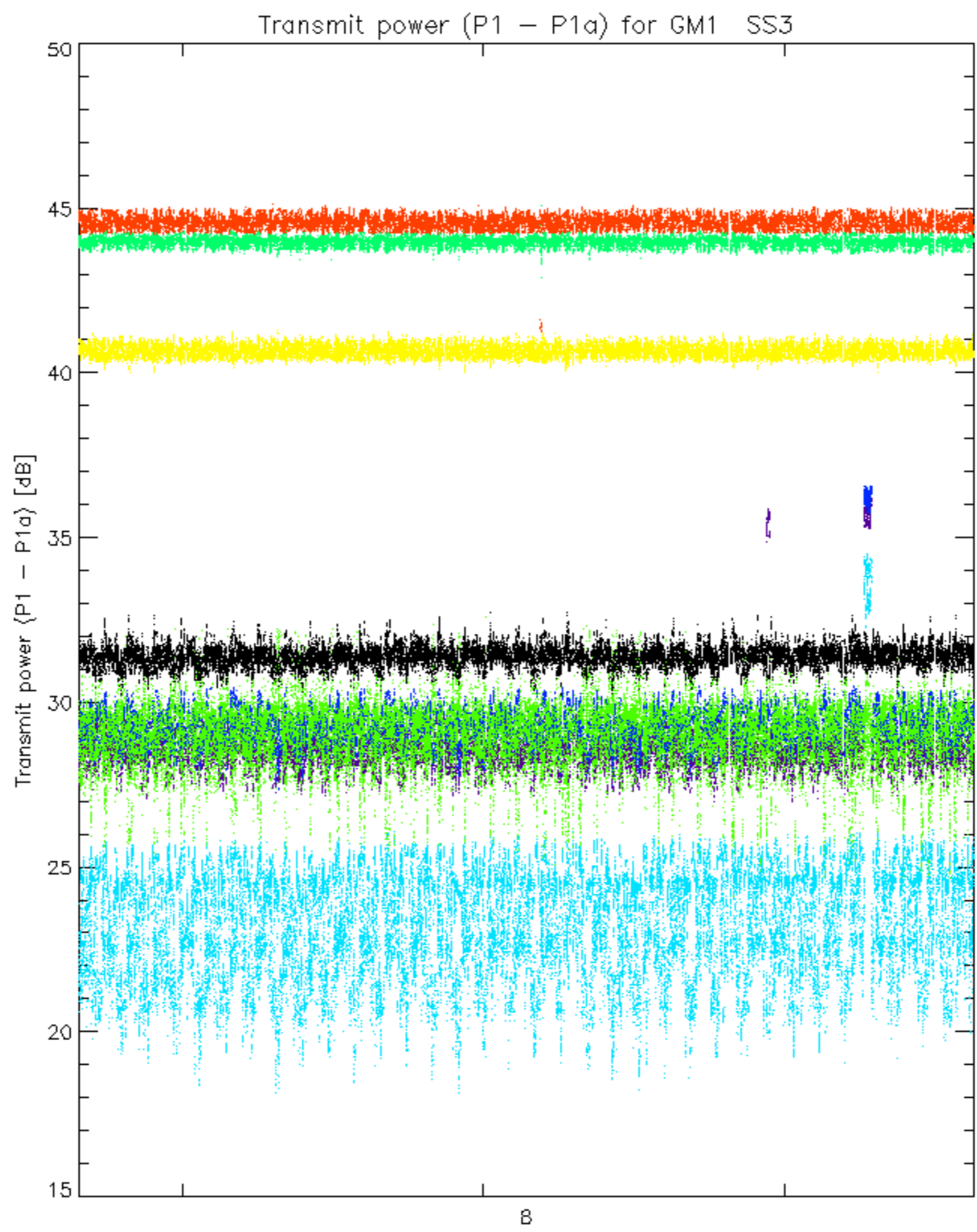
Summary of analysis for the last 3 days 2006081[012]

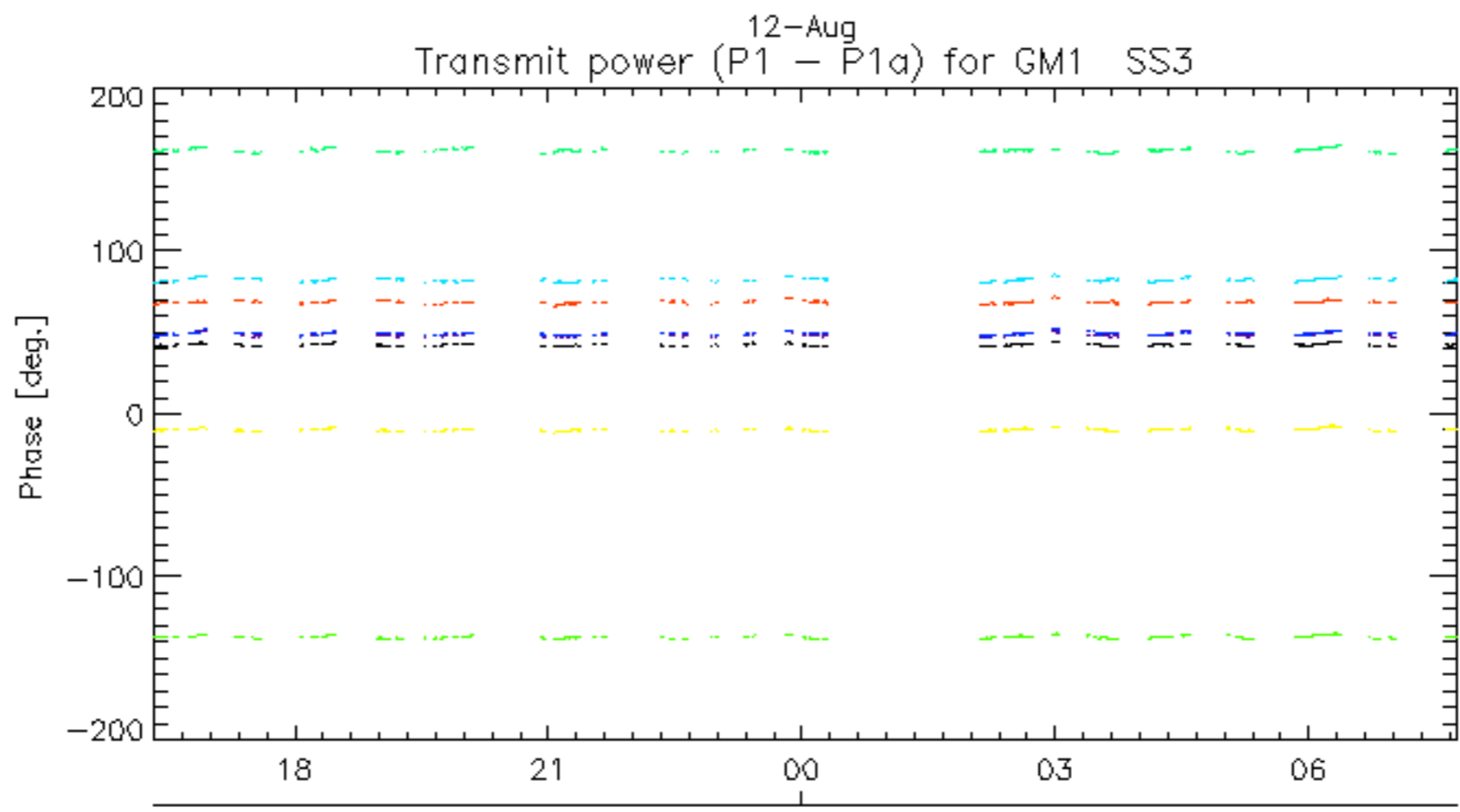
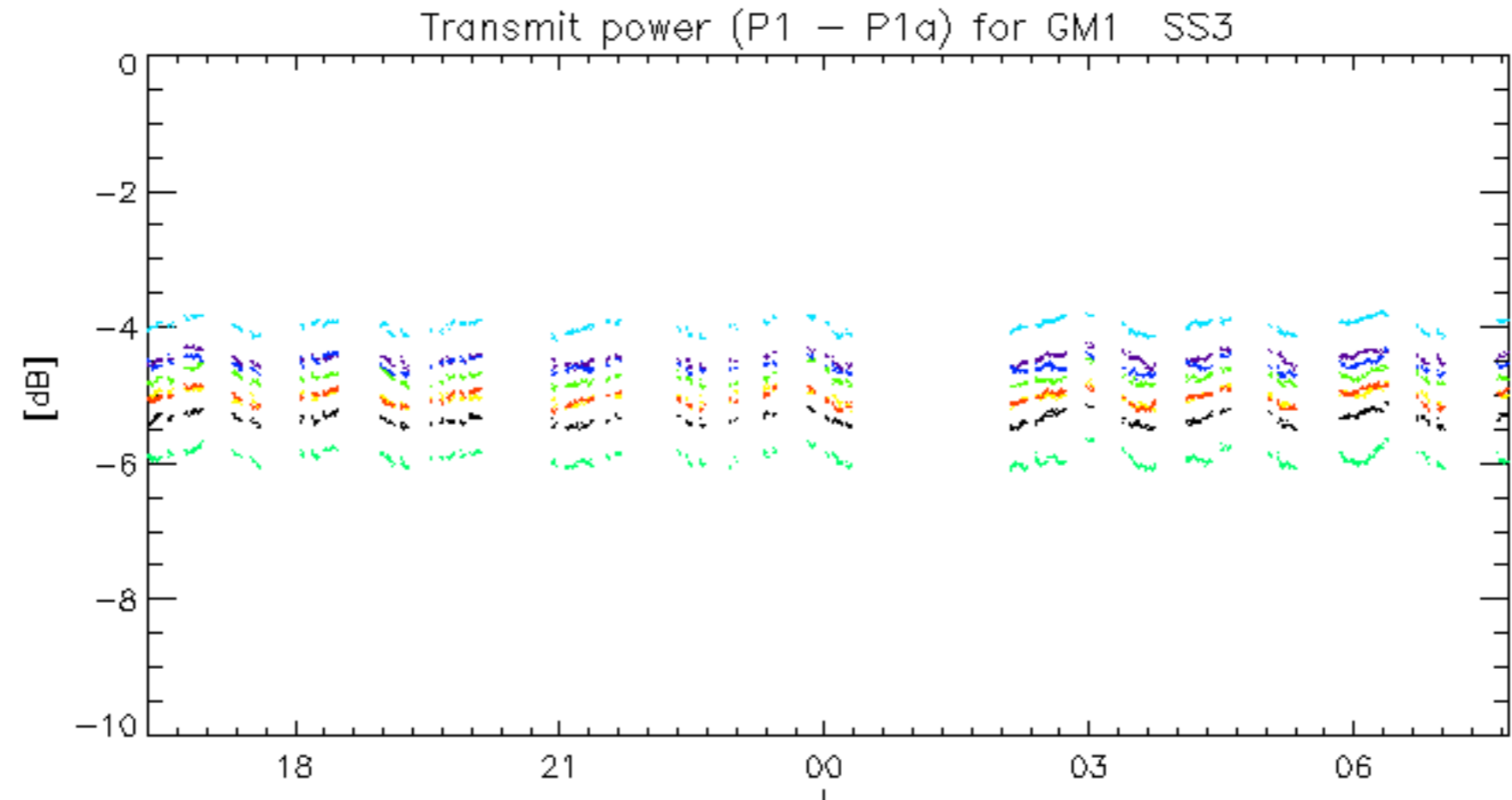
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20060810_101808_000007182050_00137_23237_2553.N1	0	15
ASA_WSM_1PNPDE20060811_001402_000000862050_00145_23245_7073.N1	0	35
ASA_WSM_1PNPDE20060811_015537_000002082050_00146_23246_7082.N1	0	41
ASA_WSM_1PNPDE20060811_161601_000001642050_00155_23255_7191.N1	0	39
ASA_APM_1PNPDE20060811_143629_000000852050_00154_23254_1573.N1	0	10

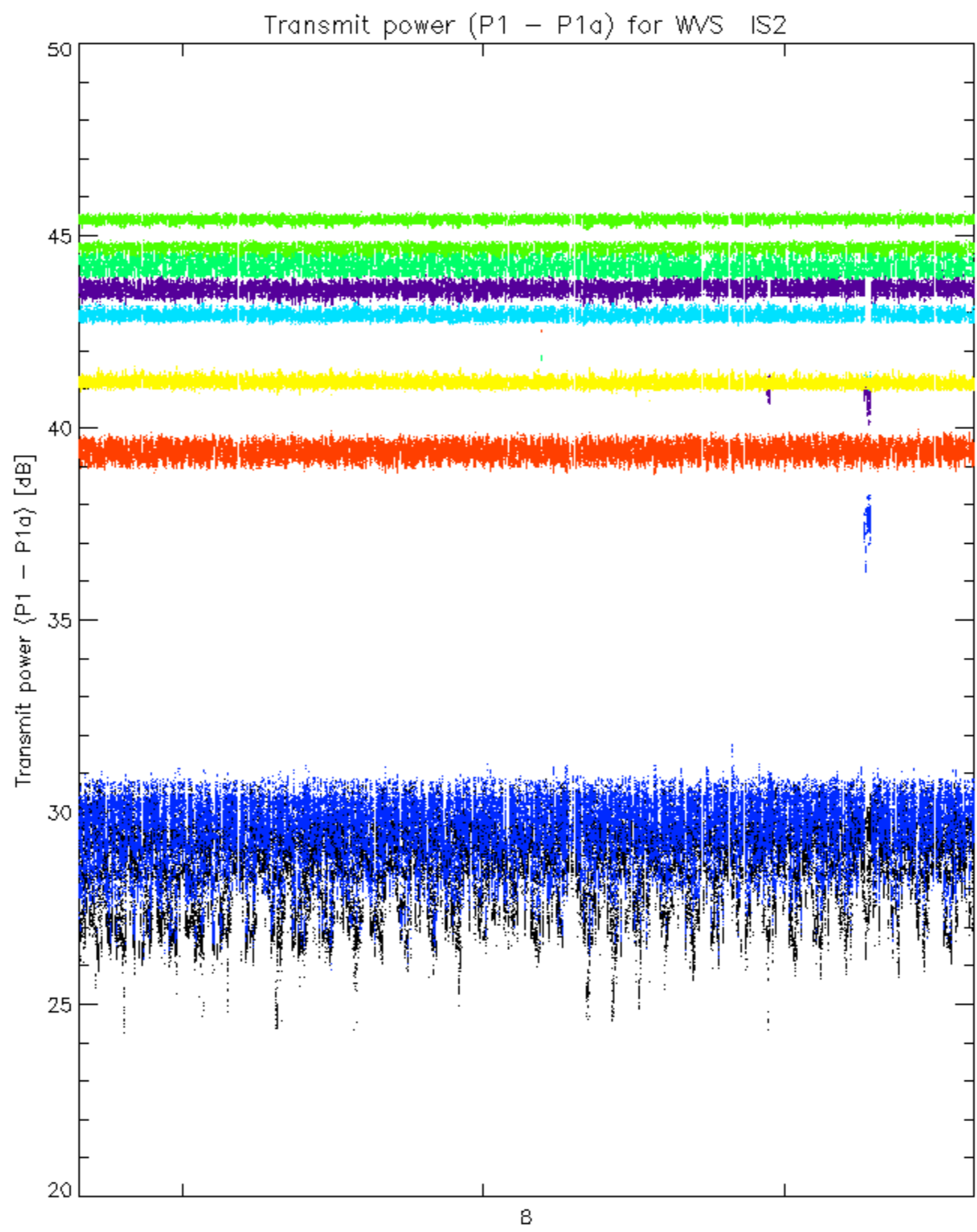


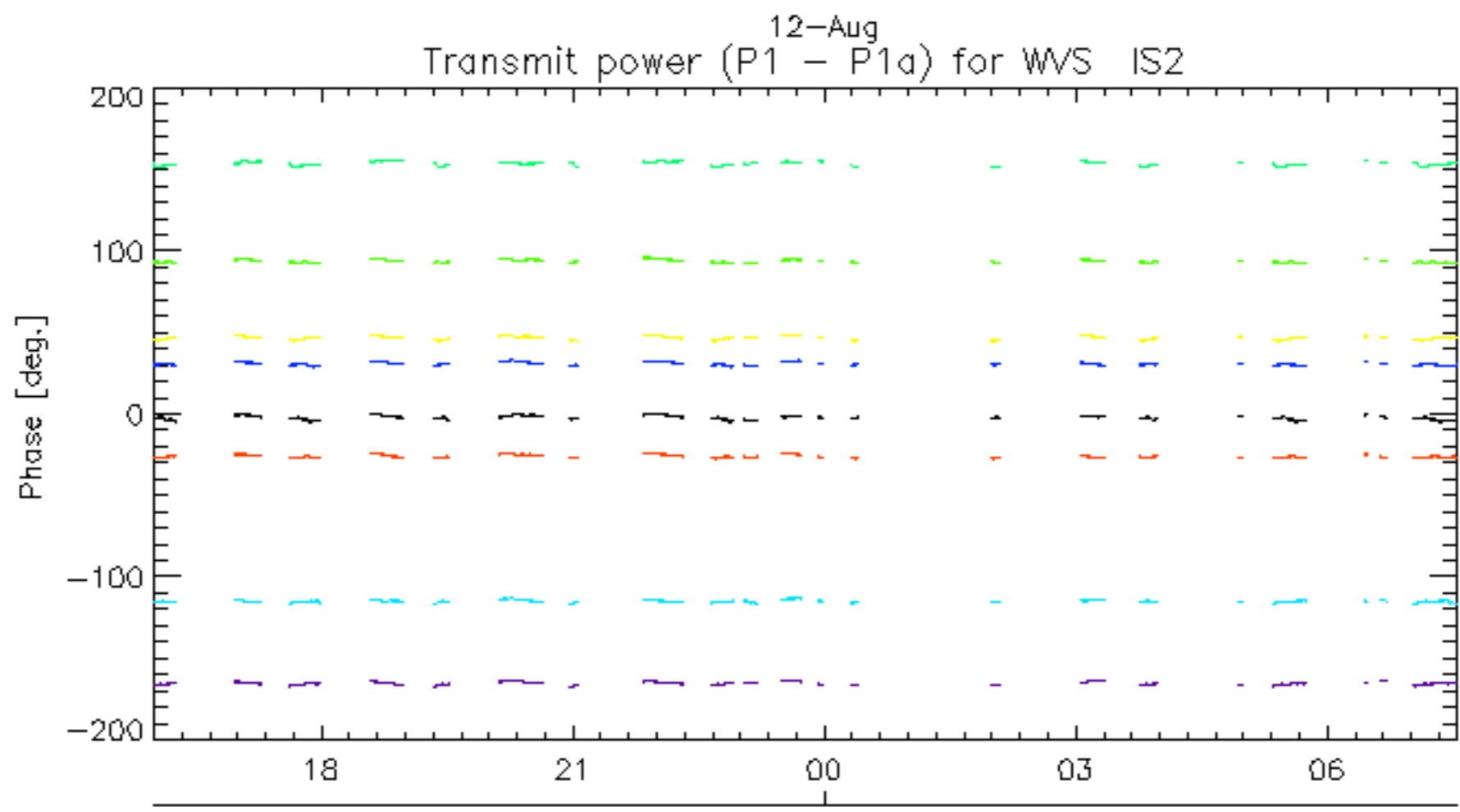
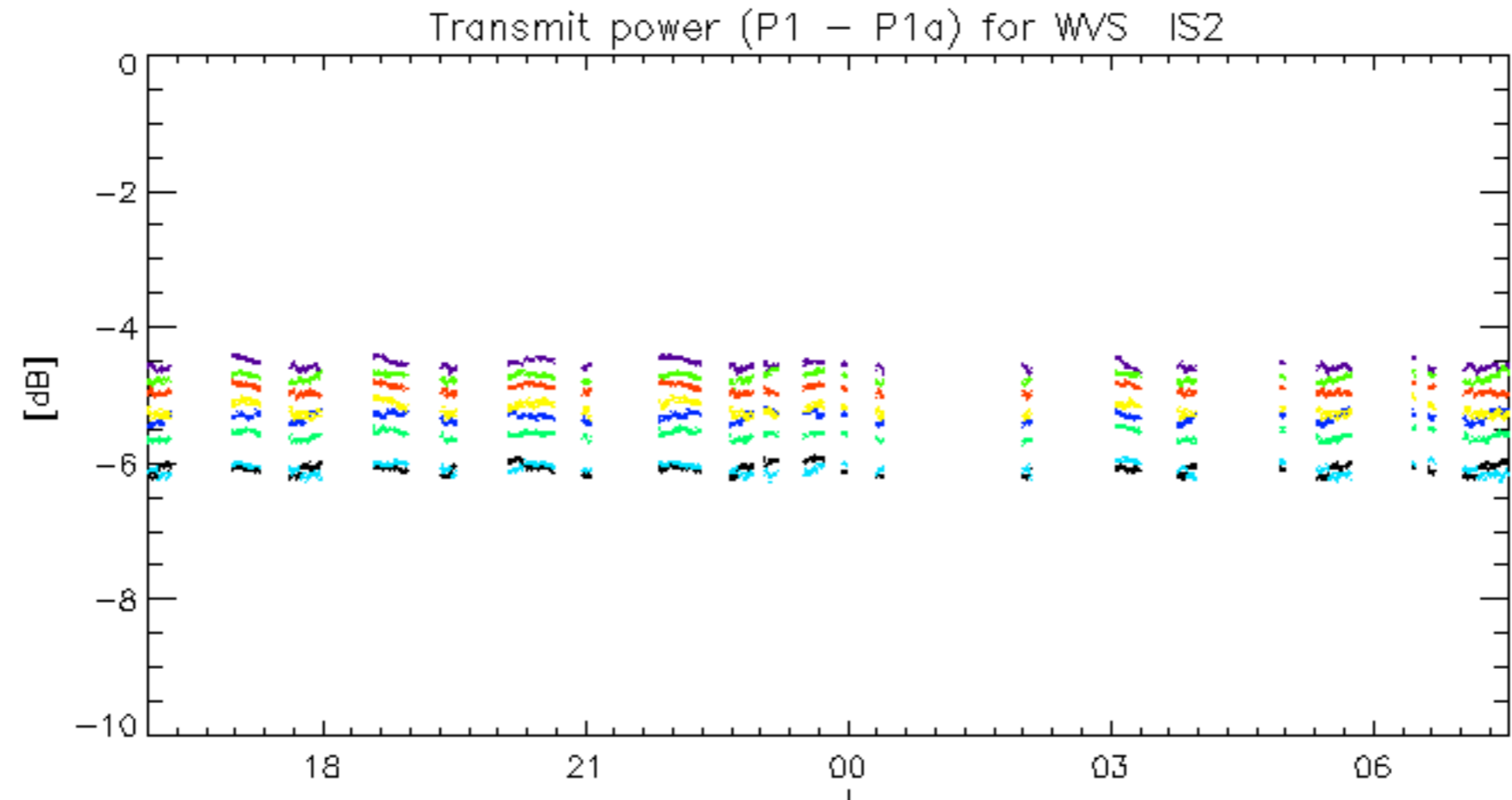






12-Aug
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





12-Aug
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.