

PRELIMINARY REPORT OF 060825

last update on Fri Aug 25 16:38:35 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 2006-08-24 00:00:00 to 2006-08-25 16:38:35

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	50	87	14	7	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	50	87	14	7	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	50	87	14	7	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	50	87	14	7	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	63	24	18	65
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	35	63	24	18	65
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	63	24	18	65
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	63	24	18	65

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	20060825 063527
H	20060824 070704

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
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☒

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
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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	-3.943741	0.009791	0.002614
7	P1	-3.082384	0.051111	0.099874
11	P1	-4.088493	0.062826	0.038110
15	P1	-6.201436	0.093230	-0.016073
19	P1	-3.453070	0.010165	-0.089523
22	P1	-4.560316	0.024464	0.023446
26	P1	-3.922691	0.019894	-0.028155
30	P1	-5.758001	0.025946	0.034917
3	P1	-16.540051	0.256629	-0.004624
7	P1	-16.868660	0.645971	1.205763
11	P1	-16.876814	0.299519	0.246992
15	P1	-13.000917	0.159865	0.159867
19	P1	-14.514944	0.055603	-0.061064
22	P1	-15.890366	0.537302	0.332366
26	P1	-15.139823	0.220239	-0.152439
30	P1	-17.040672	0.344355	0.222873

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.883711	0.083360	0.094001
7	P2	-21.865057	0.099093	0.009070
11	P2	-15.756534	0.114256	0.033974
15	P2	-7.106707	0.096361	0.031479
19	P2	-9.118528	0.089950	0.014403
22	P2	-18.140722	0.084449	0.021910
26	P2	-16.399359	0.090462	0.002683
30	P2	-19.486525	0.090264	0.039091

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.172619	0.003494	-0.003931
7	P3	-8.172619	0.003494	-0.003931
11	P3	-8.172619	0.003494	-0.003931
15	P3	-8.172619	0.003494	-0.003931
19	P3	-8.172619	0.003494	-0.003931
22	P3	-8.172619	0.003494	-0.003931
26	P3	-8.172669	0.003493	-0.004034
30	P3	-8.172669	0.003493	-0.004034

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	-3.831084	0.021345	-0.011042
7	P1	-2.497952	0.283913	0.366805
11	P1	-2.893434	0.141391	-0.022325
15	P1	-3.643482	0.147357	-0.085558
19	P1	-3.429730	0.025330	0.001228
22	P1	-5.080244	0.032037	0.026987
26	P1	-5.868039	0.023887	-0.019528
30	P1	-5.187827	0.043614	0.040000
3	P1	-11.621462	0.066110	-0.000372
7	P1	-9.915852	0.187091	0.223719
11	P1	-10.286879	0.082447	-0.082098
15	P1	-10.805172	0.174436	-0.166597
19	P1	-15.550351	0.525225	0.114284
22	P1	-20.885303	1.676039	0.190492

26	P1	-16.135313	0.406252	0.219071
30	P1	-17.963482	0.676913	0.155308

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.488104	0.083836	0.134531
7	P2	-22.275440	0.201330	0.158292
11	P2	-10.965091	0.055036	0.156910
15	P2	-4.884616	0.042952	0.025213
19	P2	-6.859994	0.039857	0.007888
22	P2	-8.183954	0.061929	0.022553
26	P2	-24.170710	0.127785	0.008542
30	P2	-21.974796	0.078506	0.043621

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013391	0.003678	-0.012228
7	P3	-8.013317	0.003674	-0.012397
11	P3	-8.013413	0.003677	-0.012251
15	P3	-8.013474	0.003675	-0.012482
19	P3	-8.013481	0.003690	-0.012537
22	P3	-8.013564	0.003665	-0.012233
26	P3	-8.013379	0.003663	-0.012348
30	P3	-8.013319	0.003676	-0.011874

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	0.000552693
	stdev	1.77613e-07
MEAN Q	mean	0.000529929
	stdev	2.16175e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136487
	stdev	0.00108605
STDEV Q	mean	0.136835
	stdev	0.00110258



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006082[345]

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_1PNPDE20060823_232215_000000502050_00331_23431_4292.N1	0	2
ASA_IMM_1PNPDE20060824_200913_000000372050_00343_23443_4344.N1	0	29
ASA_IMM_1PNPDE20060825_010619_000000812050_00346_23446_4356.N1	1	0
ASA_WSM_1PNPDE20060824_014431_000000982050_00332_23432_9170.N1	0	23
ASA_WSM_1PNPDE20060824_142441_000000862050_00340_23440_9286.N1	0	62



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"/>

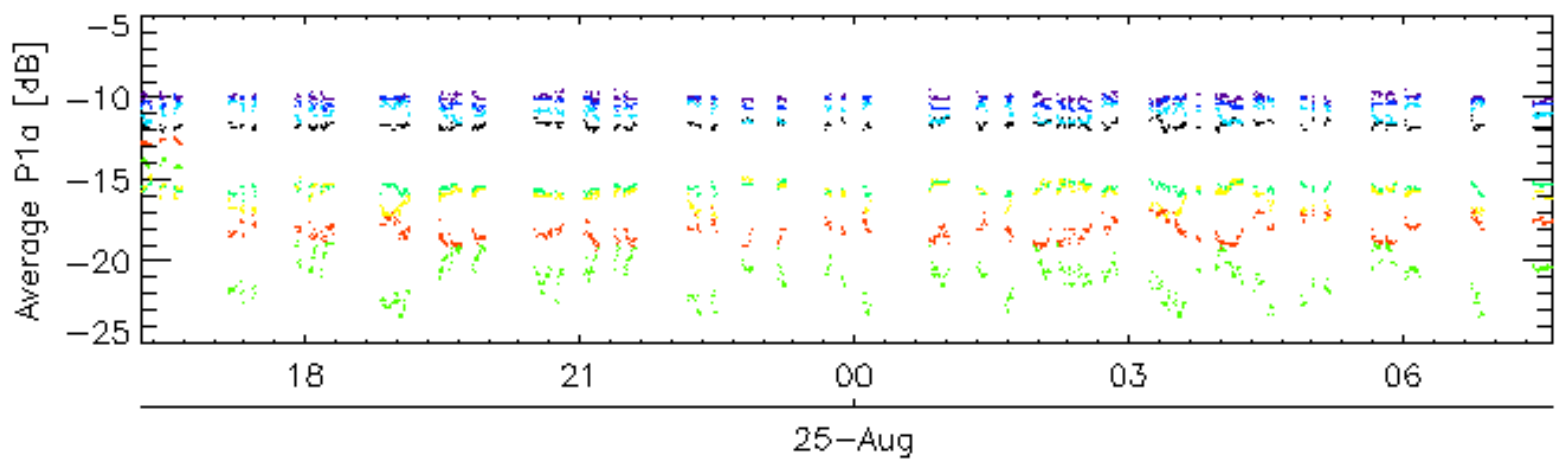
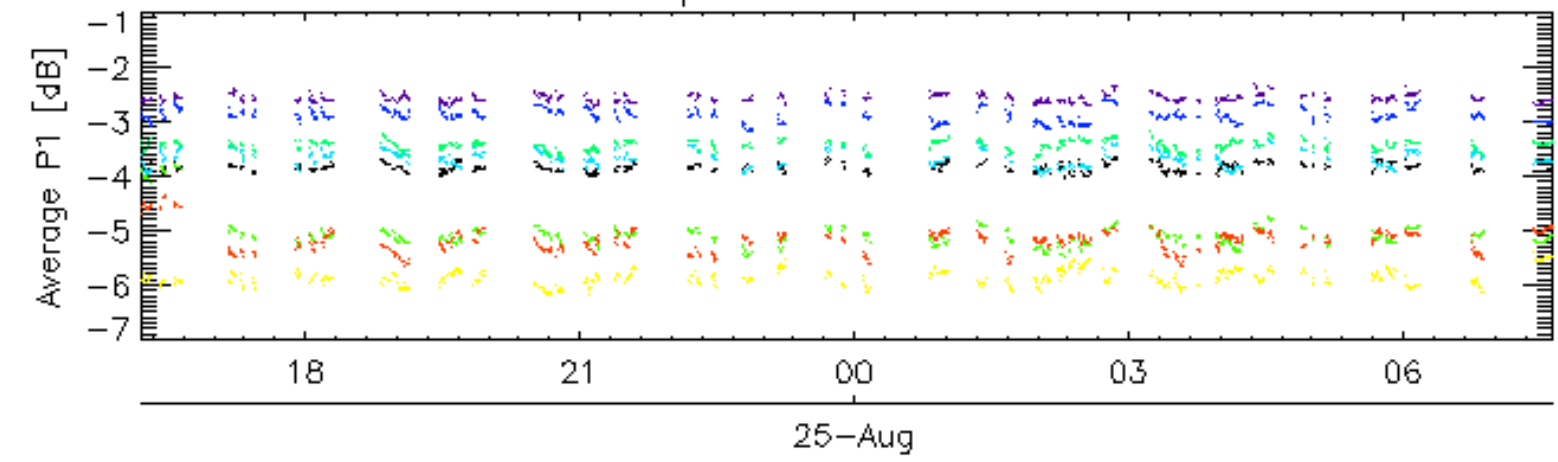
Descending

7.6 - Doppler evolution versus ANX for GM1

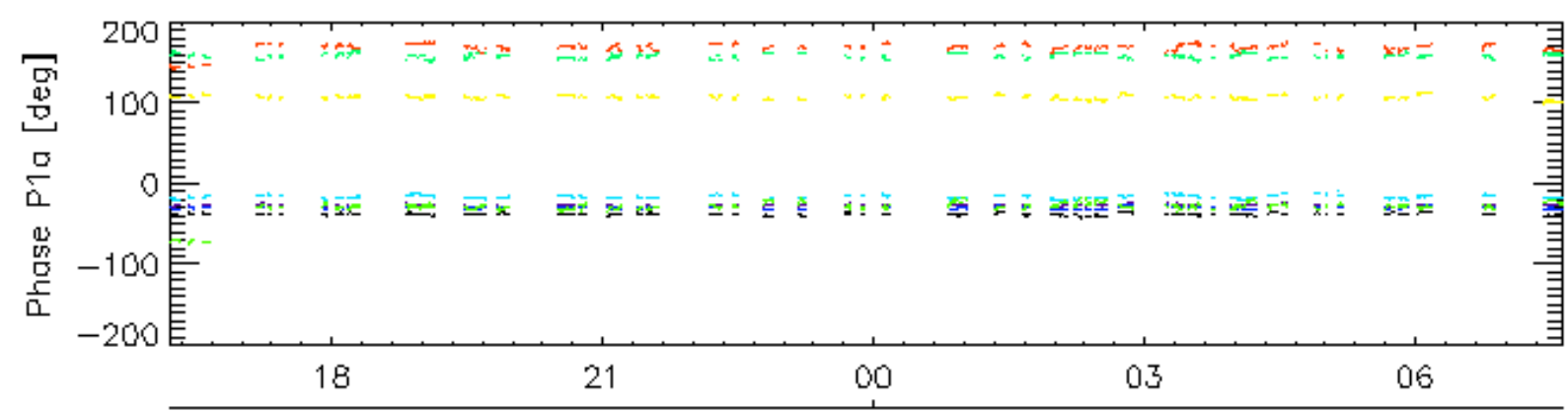
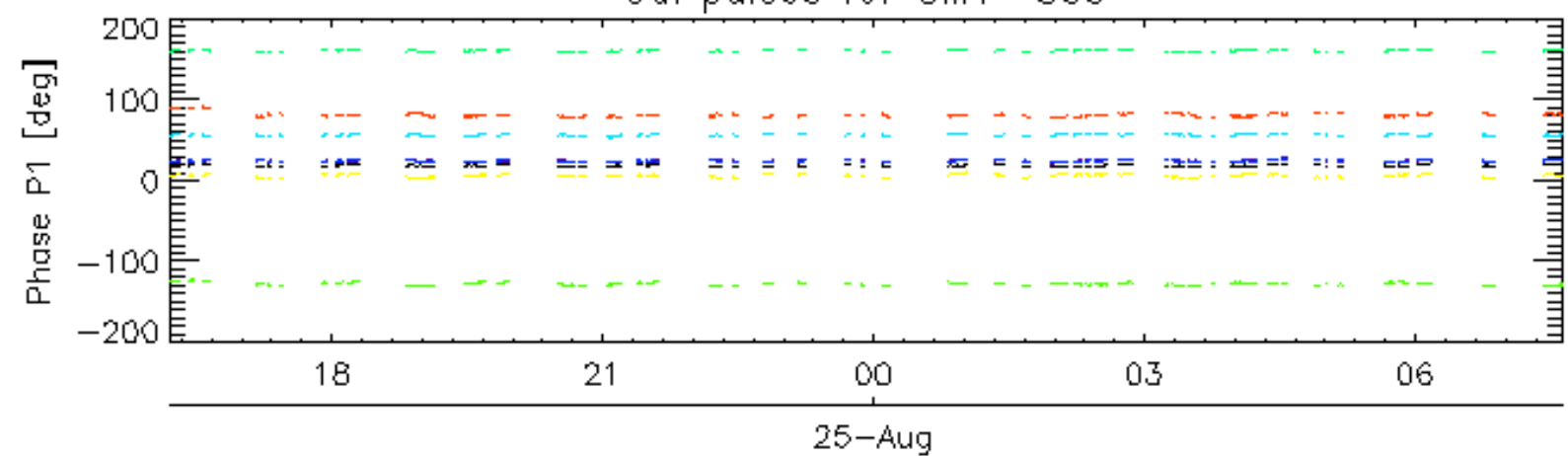
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

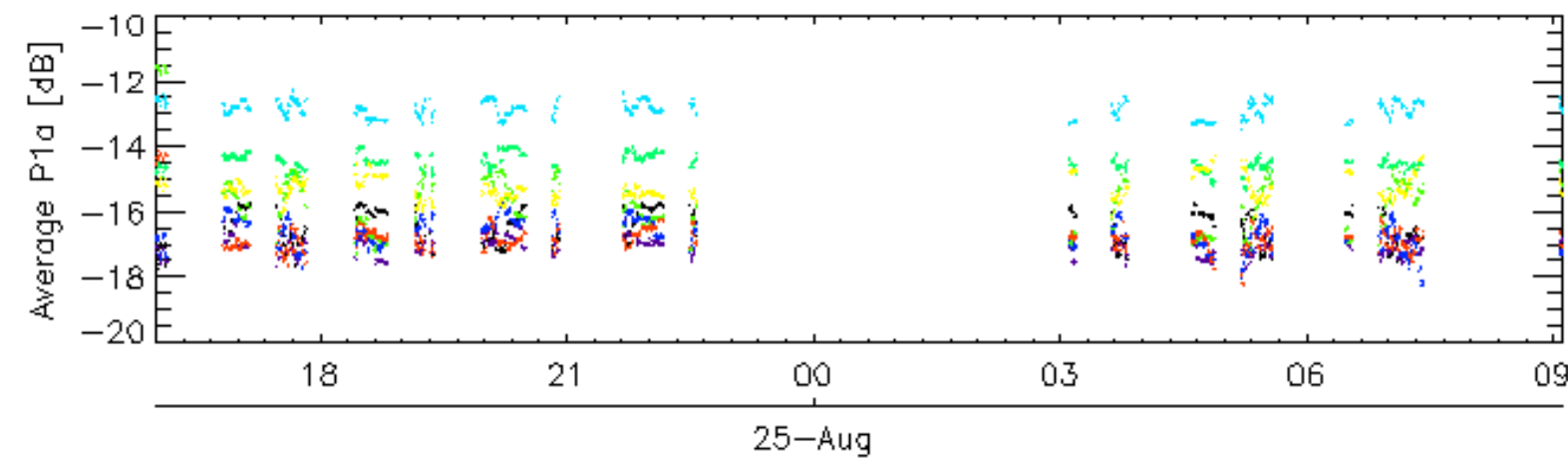
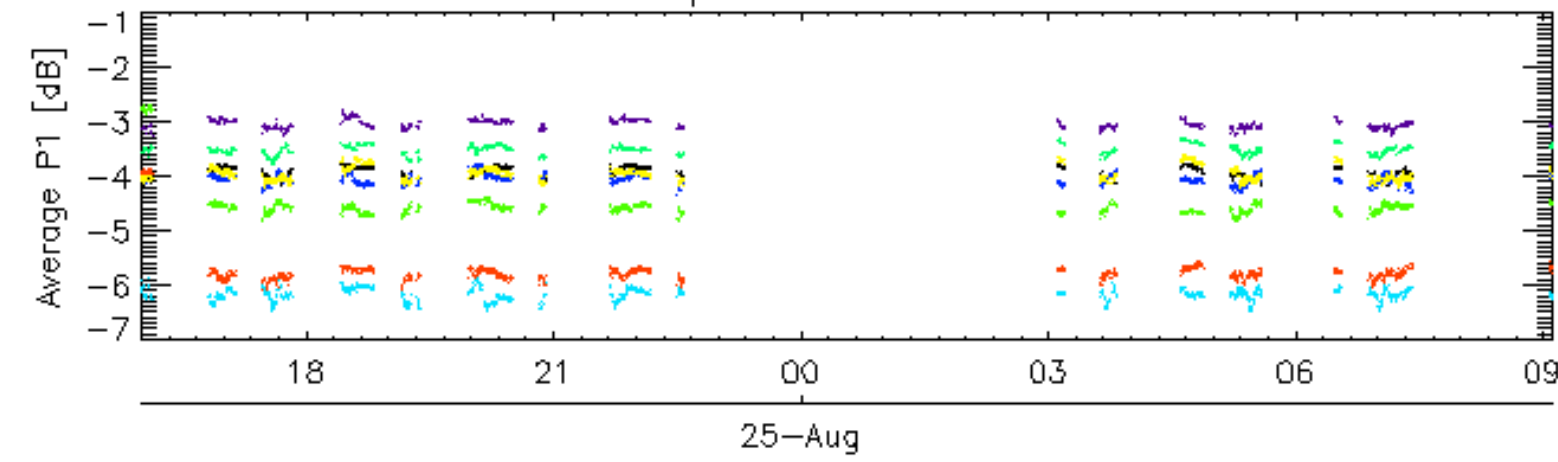


Cal pulses for GM1 SS3

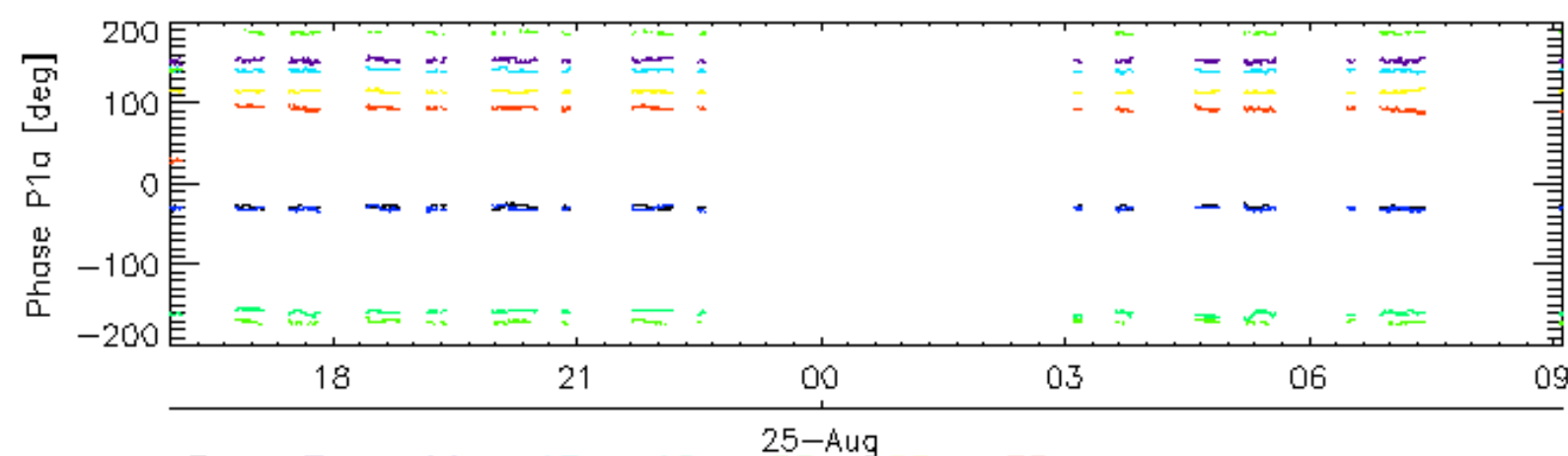
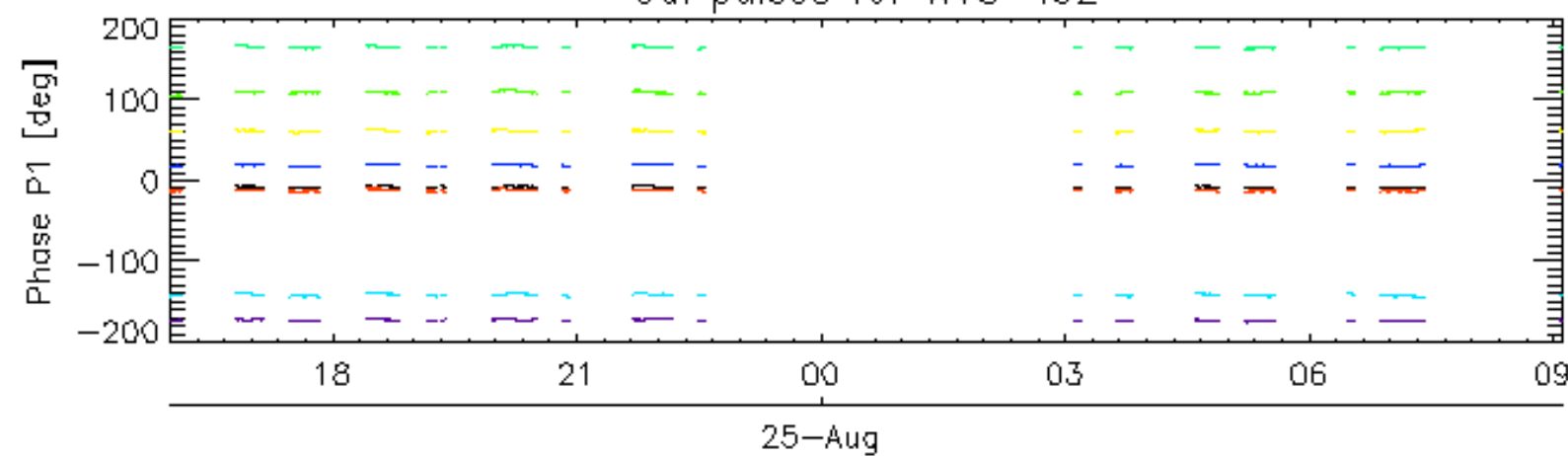


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

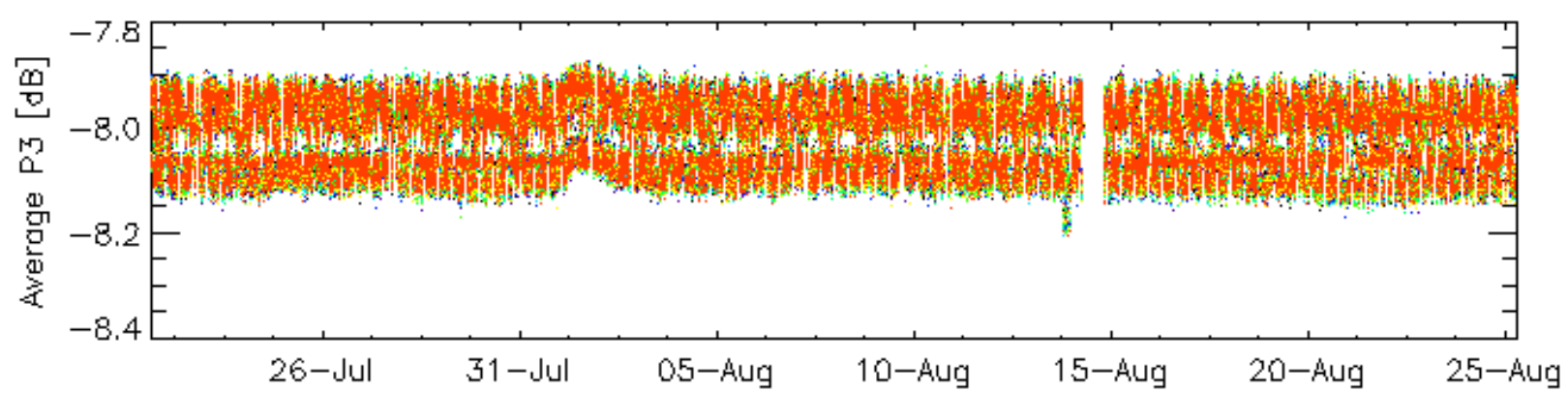
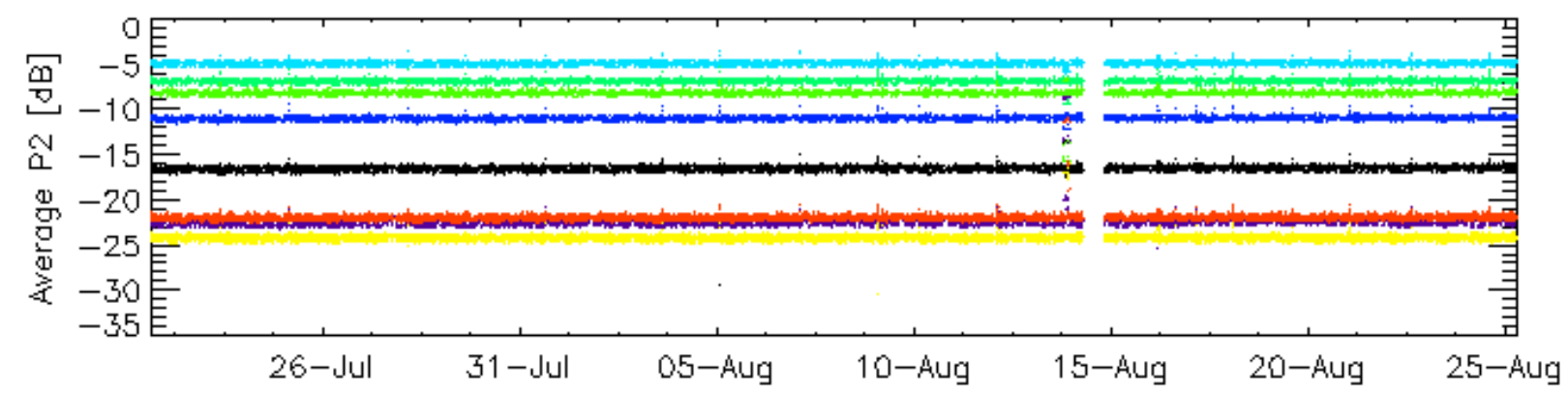
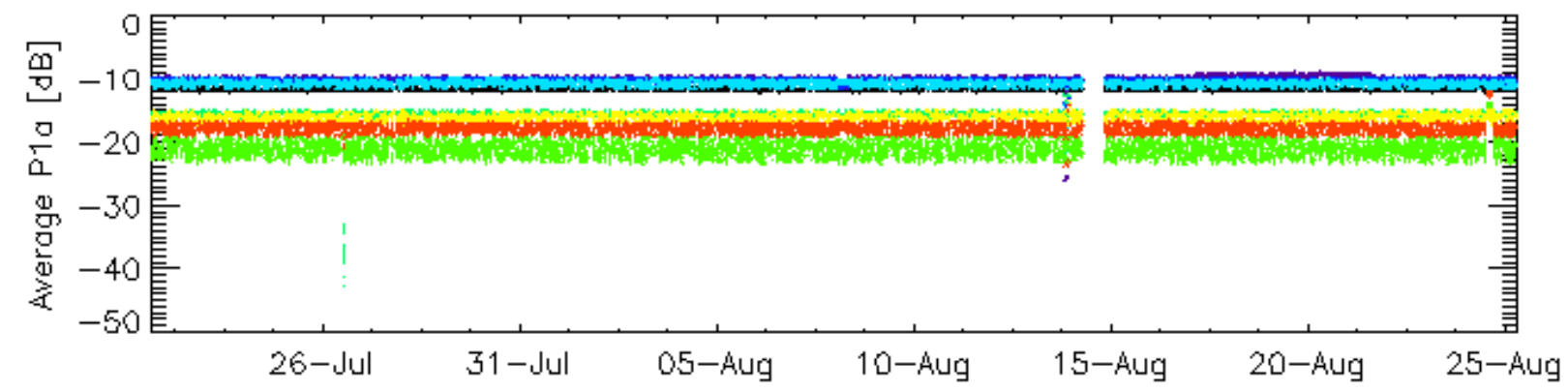
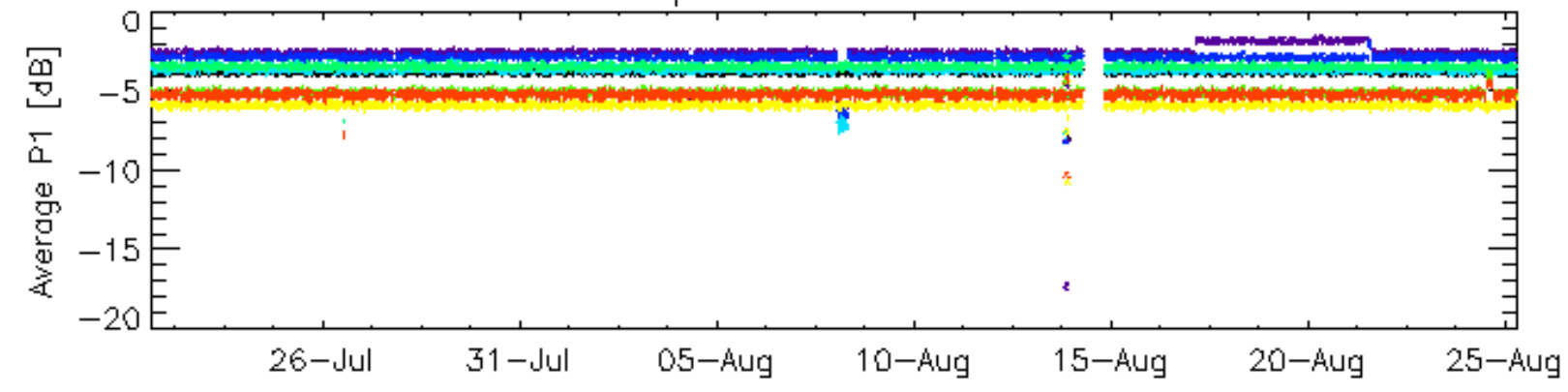


Cal pulses for WVS IS2



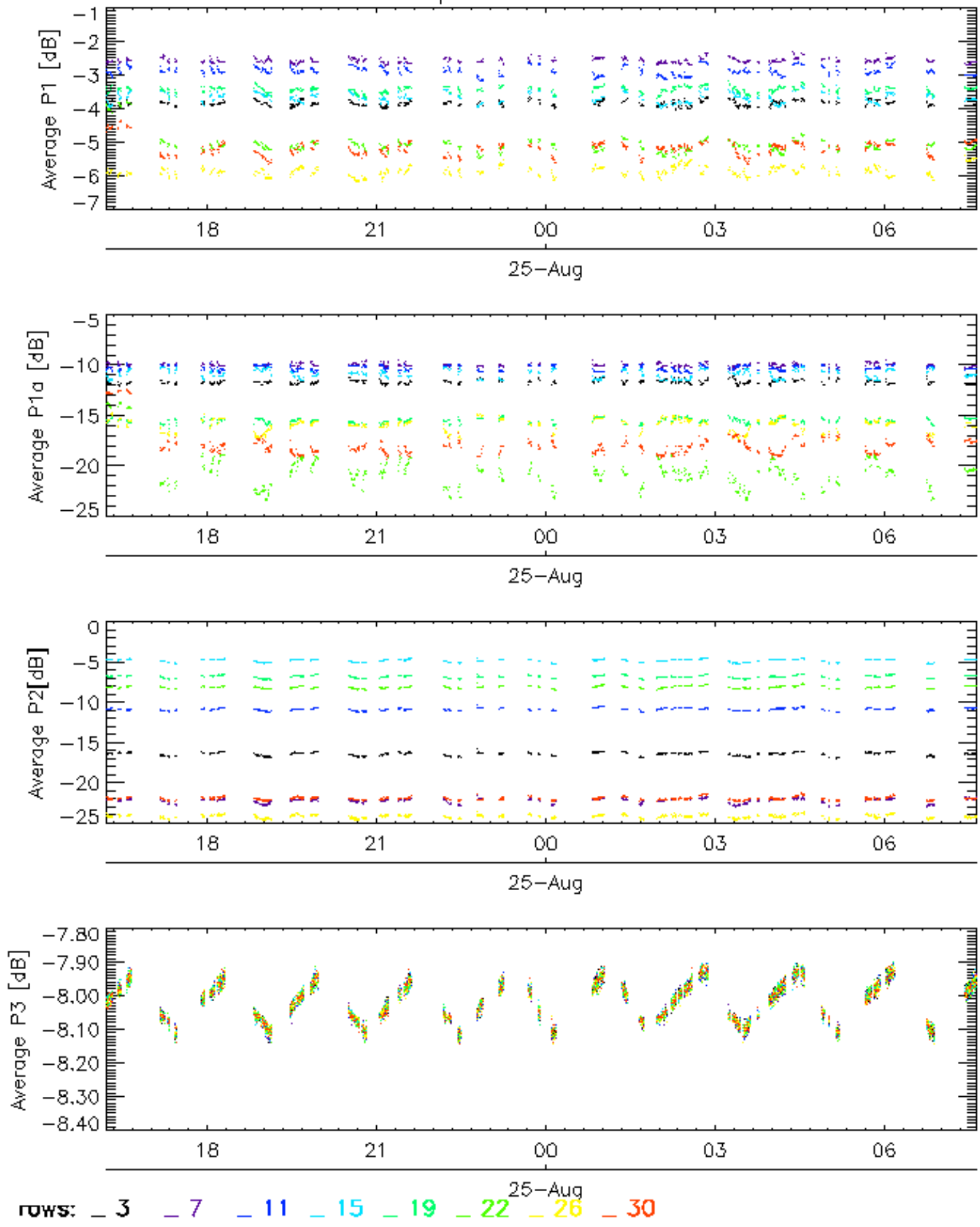
rows: - 3 - 7 - 11 - 15 - 19 - 22 - 26 - 30

Cal pulses for GM1 SS3

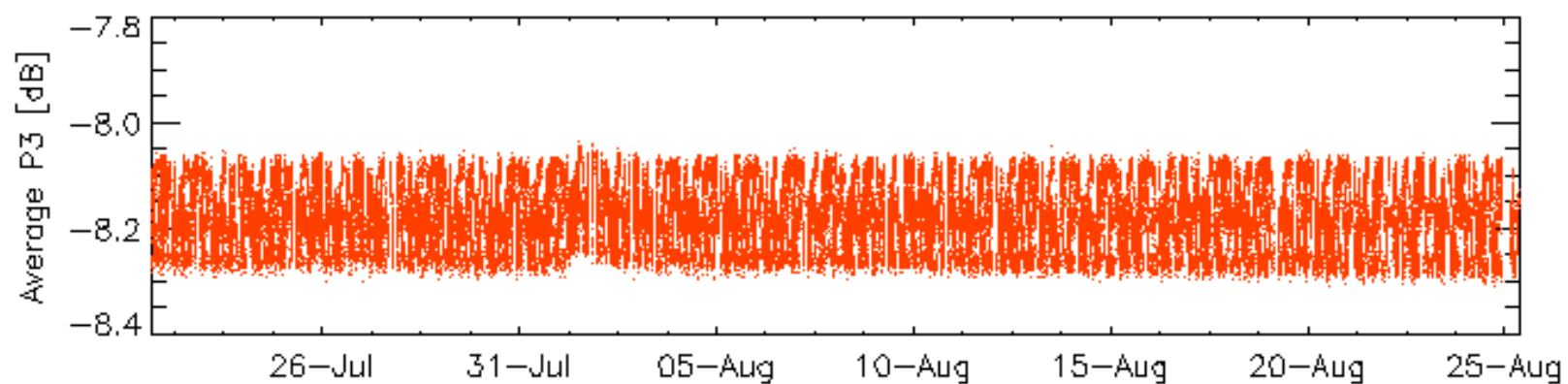
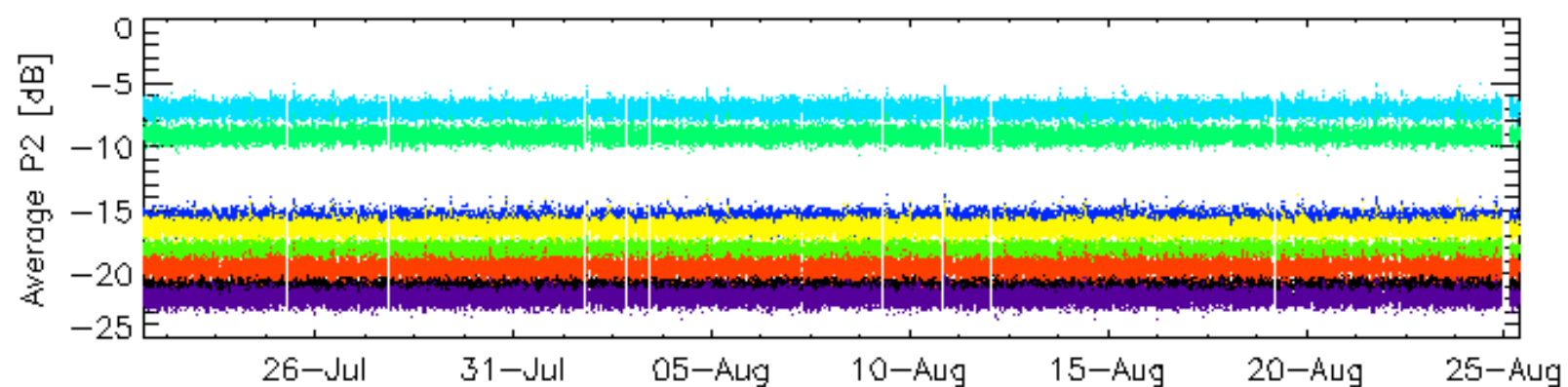
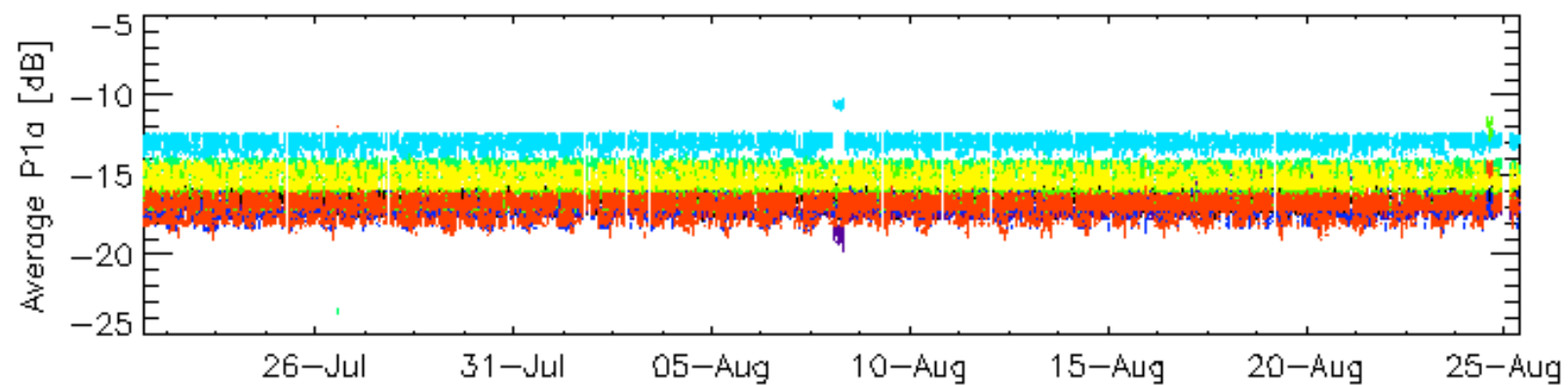
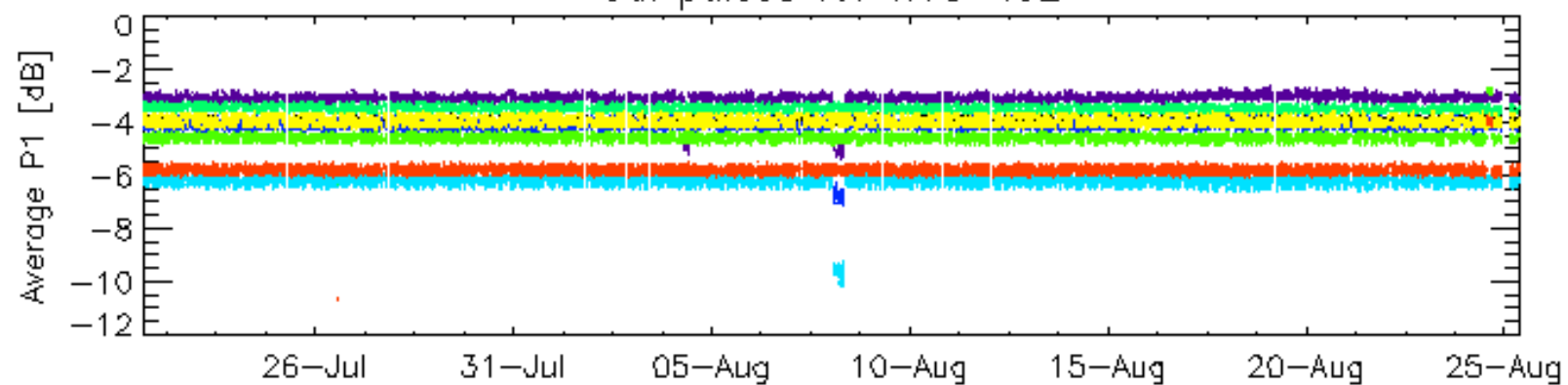


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

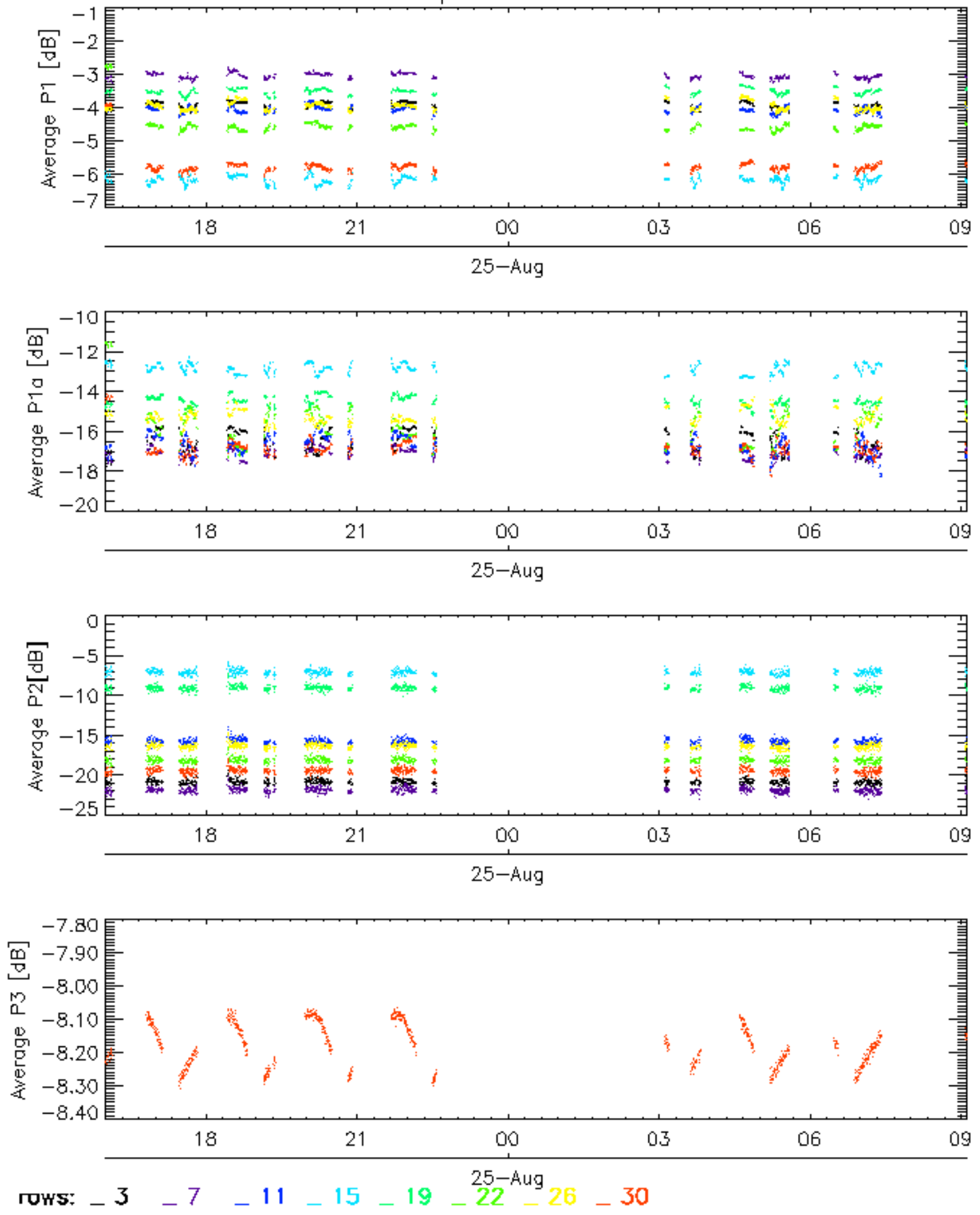


Cal pulses for WVS IS2



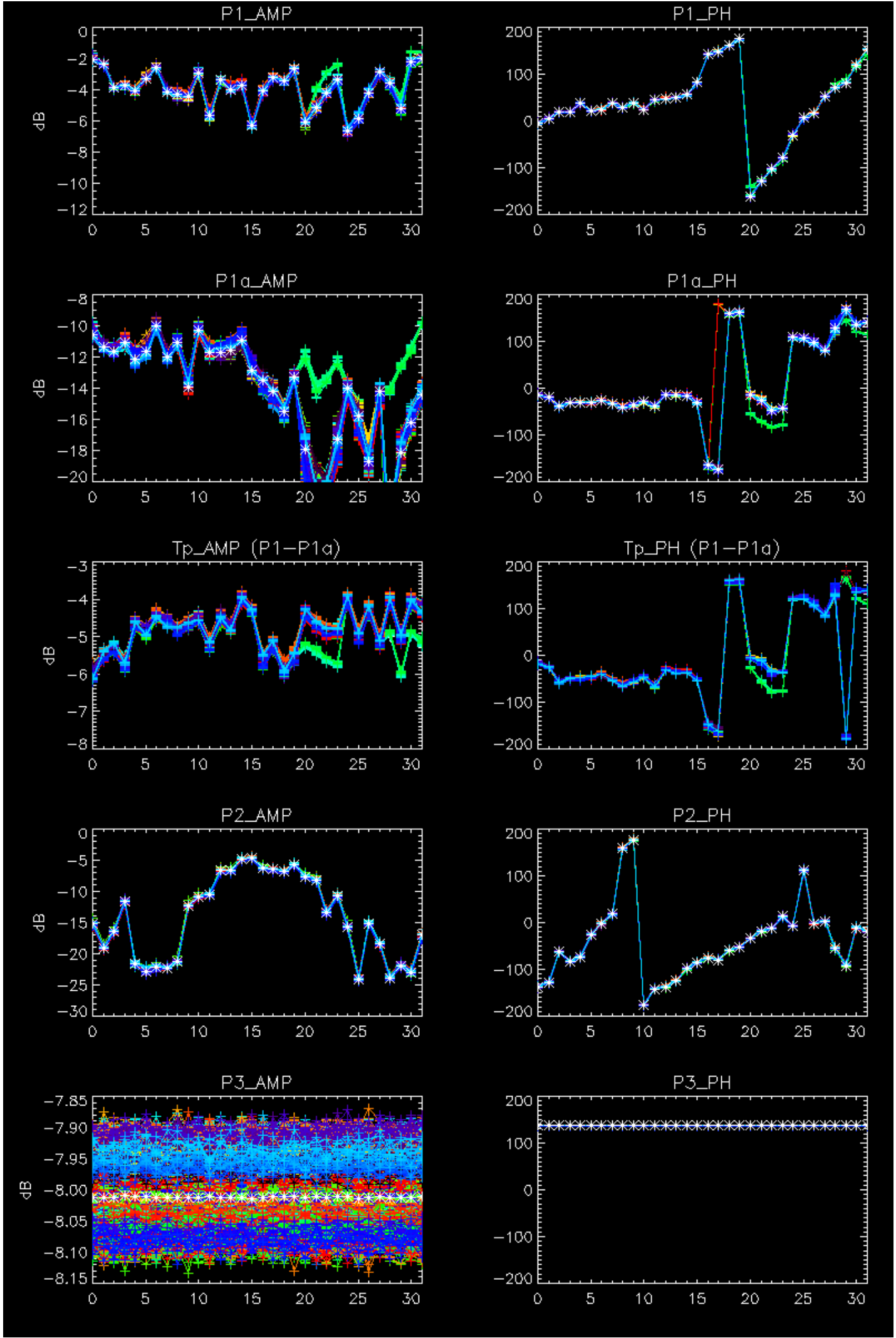
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

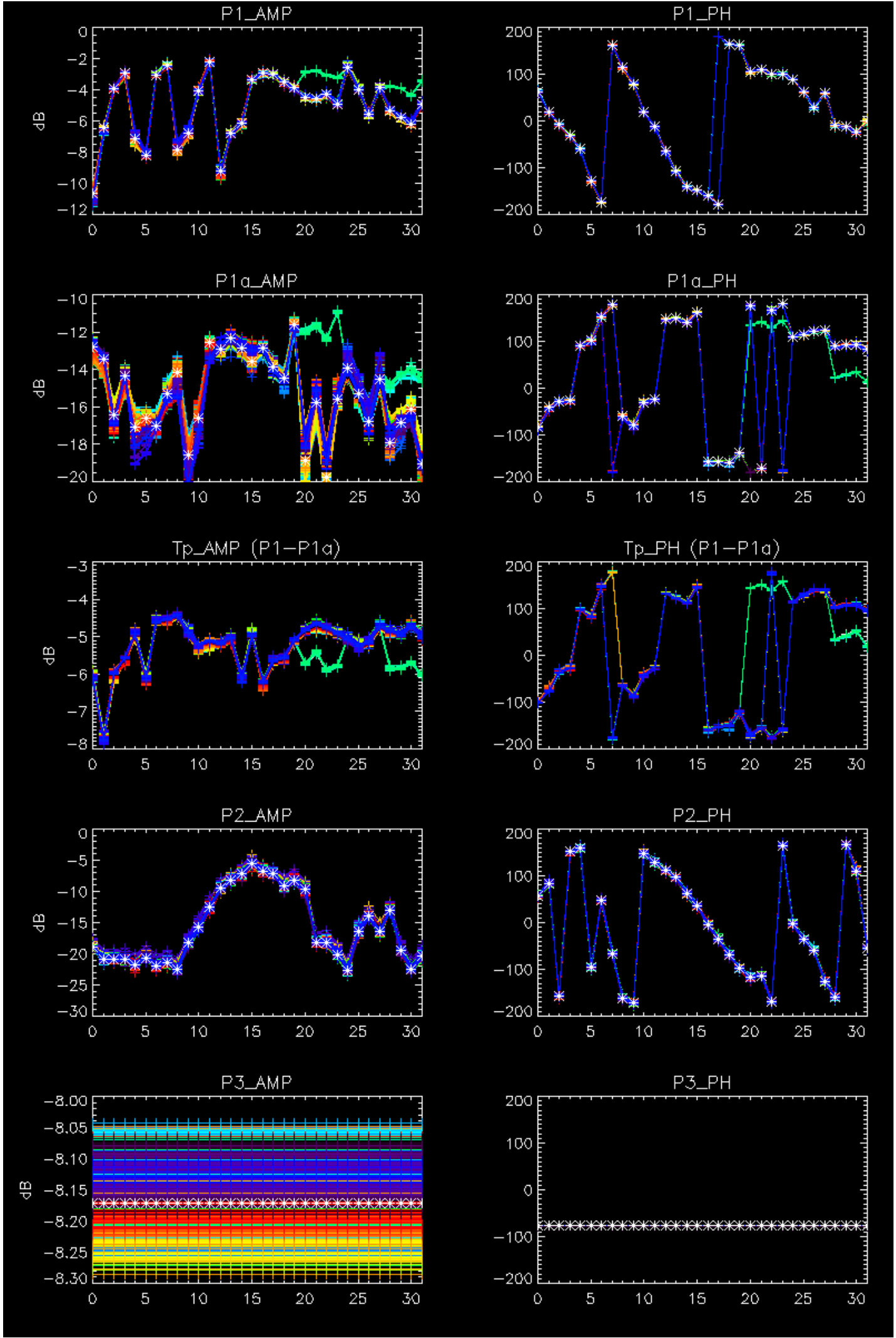
Cal pulses for WVS IS2



No anomalies observed on available browse products

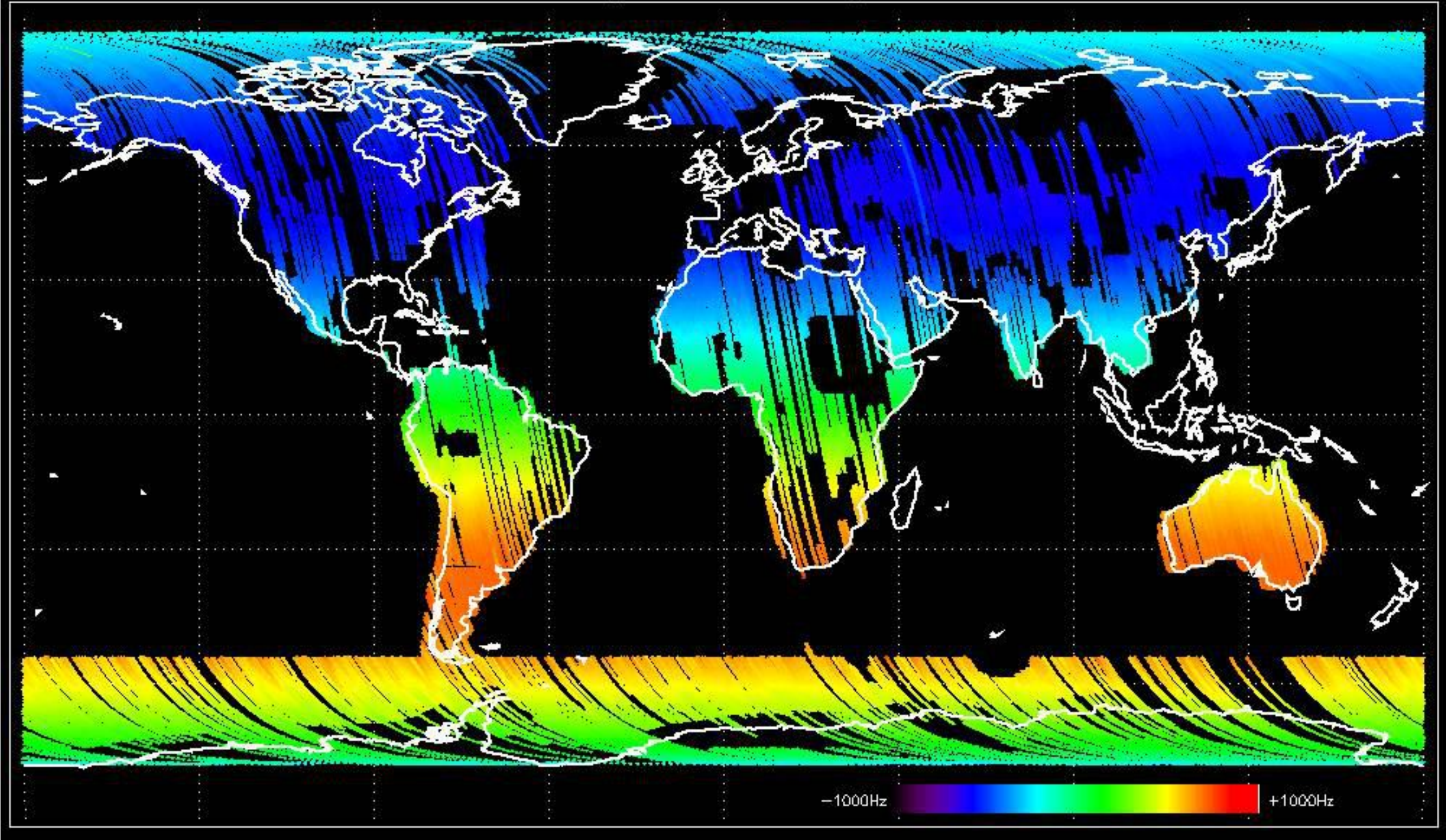
No anomalies observed.



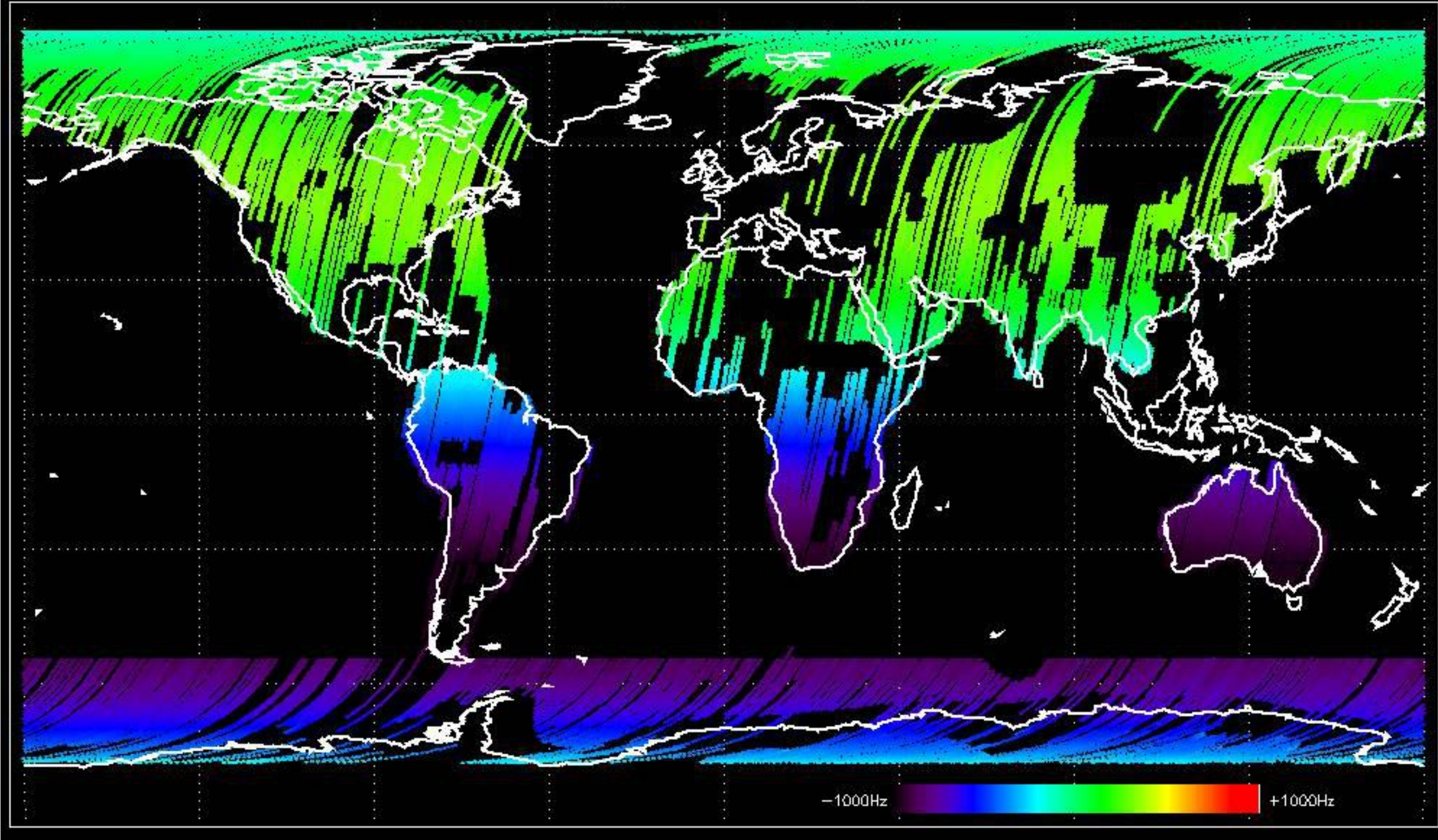


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

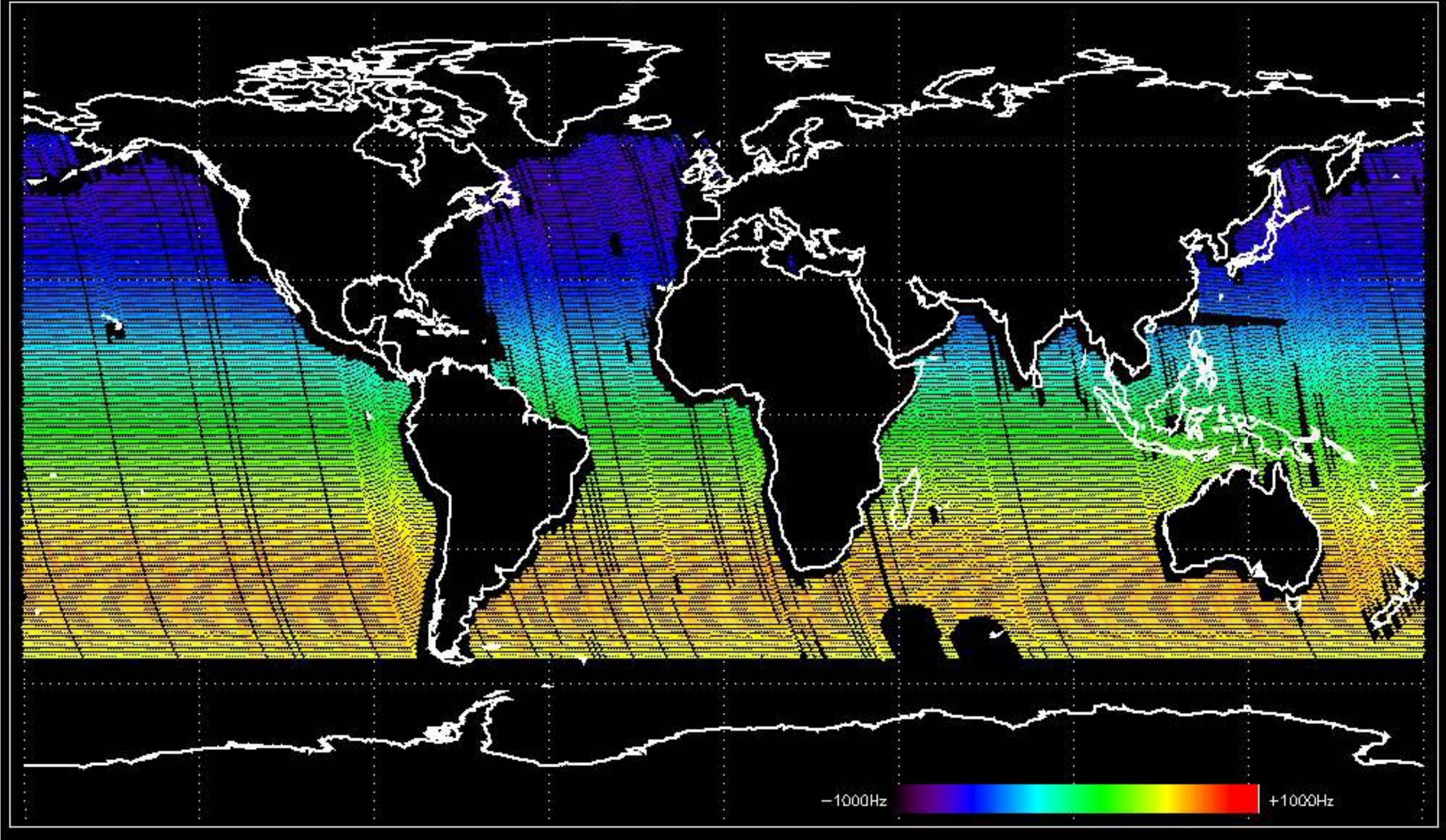
Doppler 'GM1' 'SS1' ascending



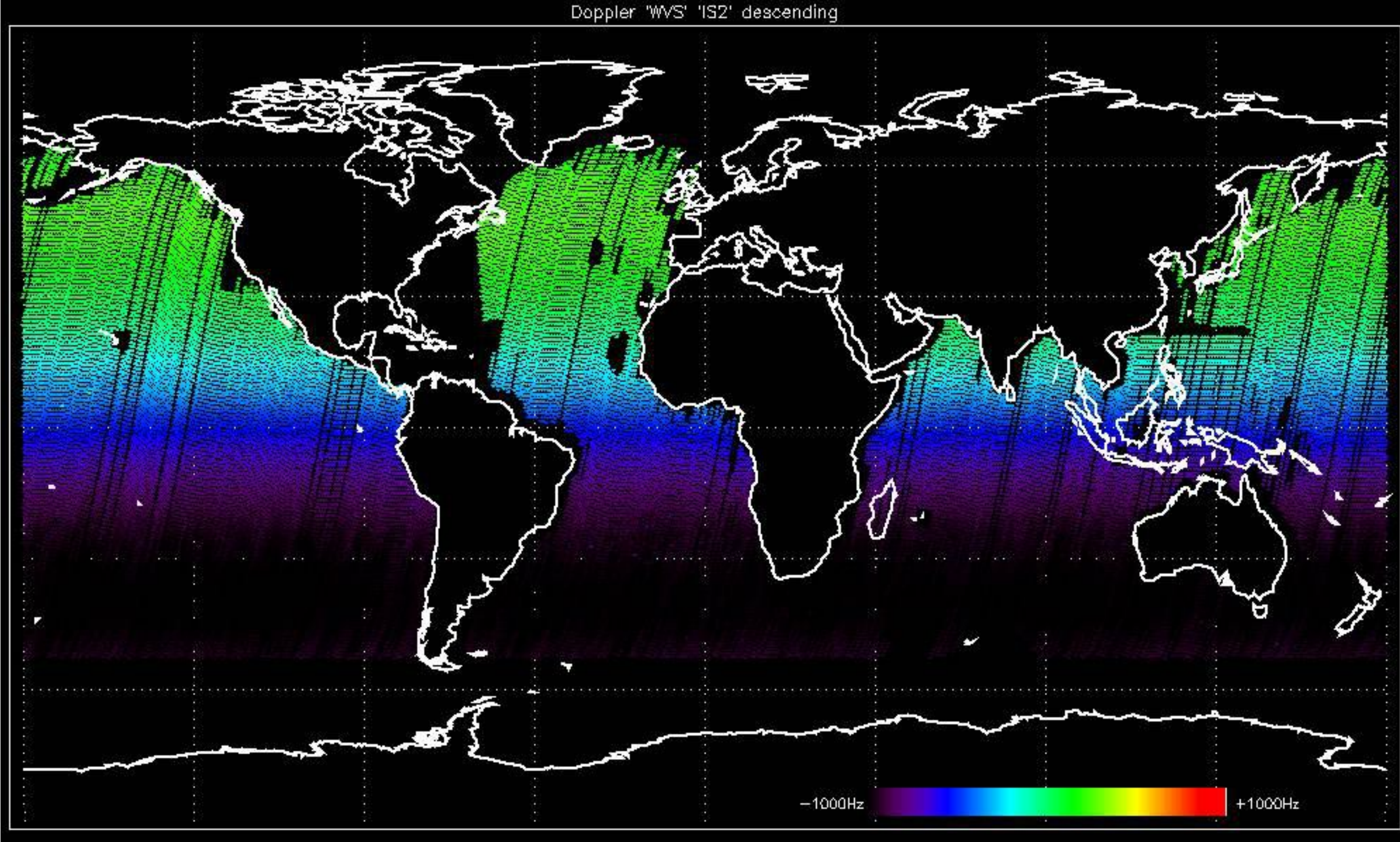
Doppler 'GM1' 'SS1' descending



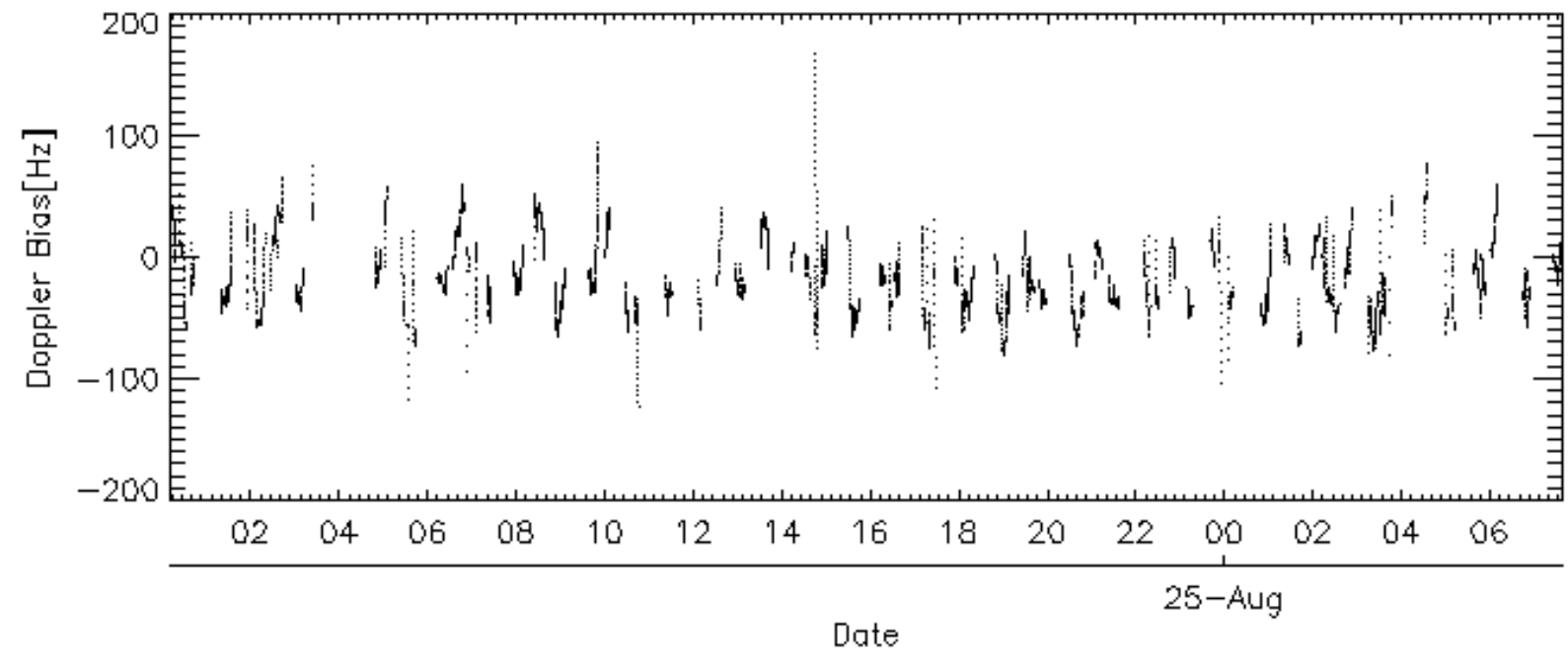
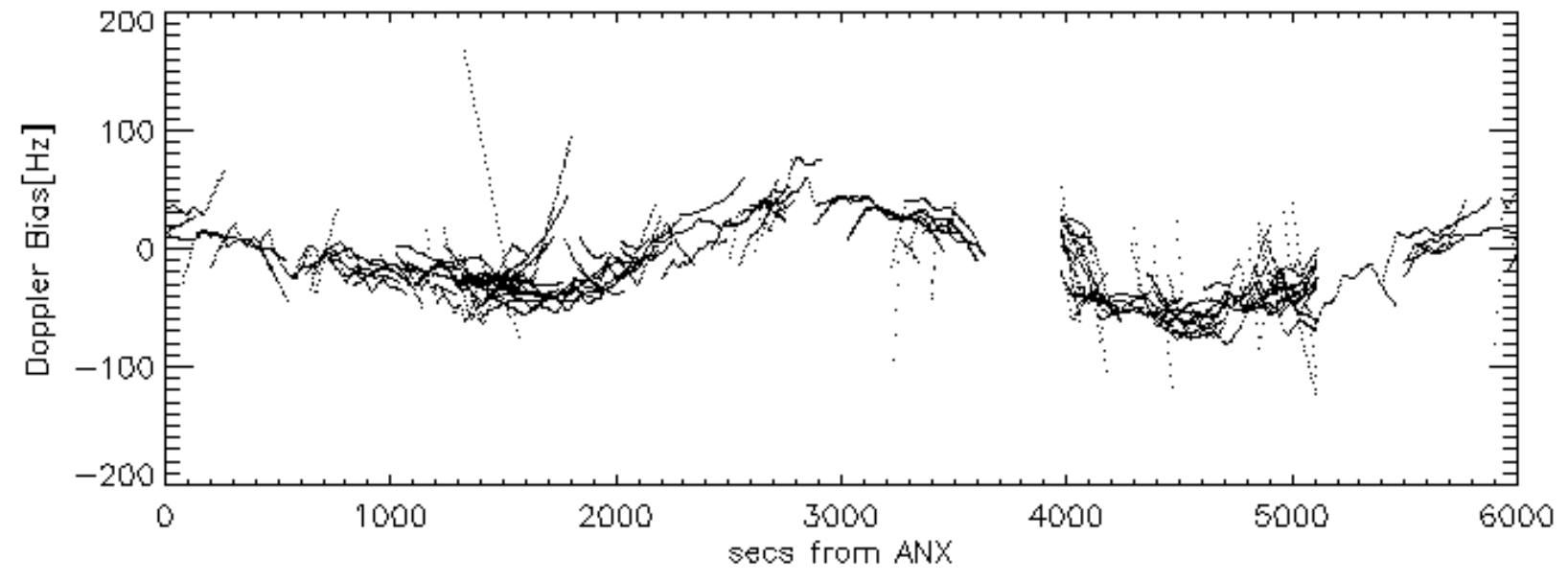
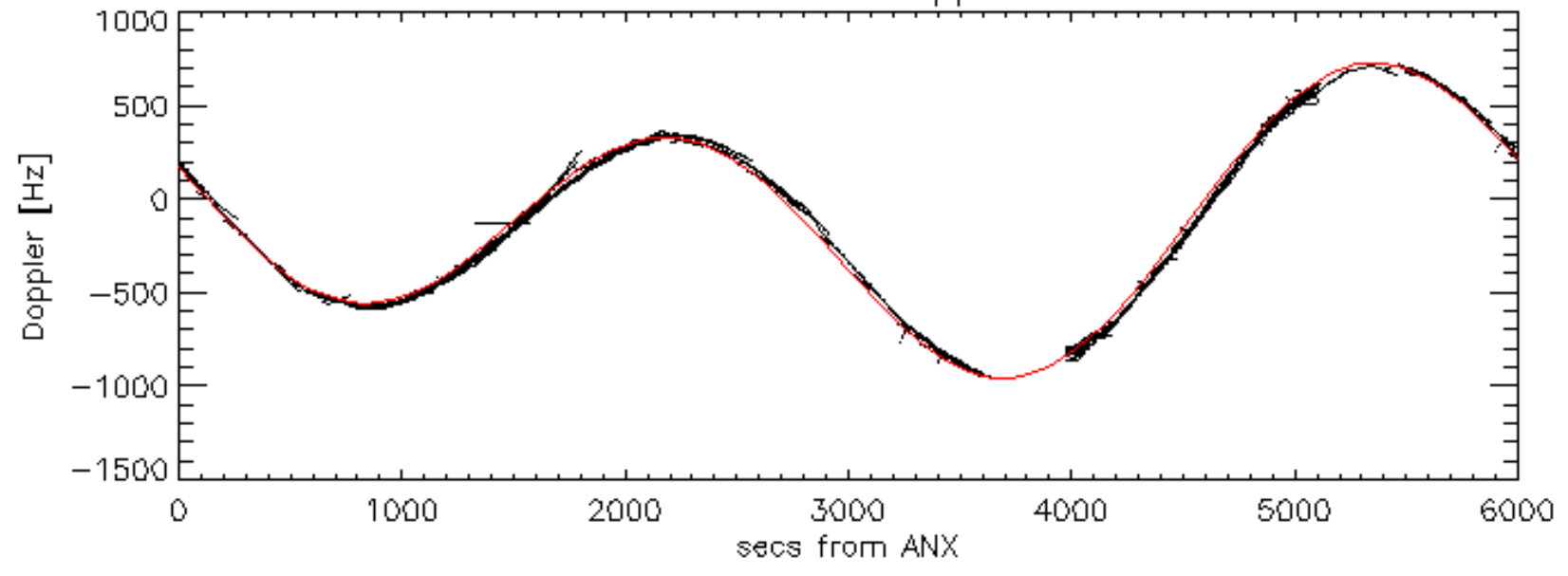
Doppler 'WVS' 'IS2' ascending

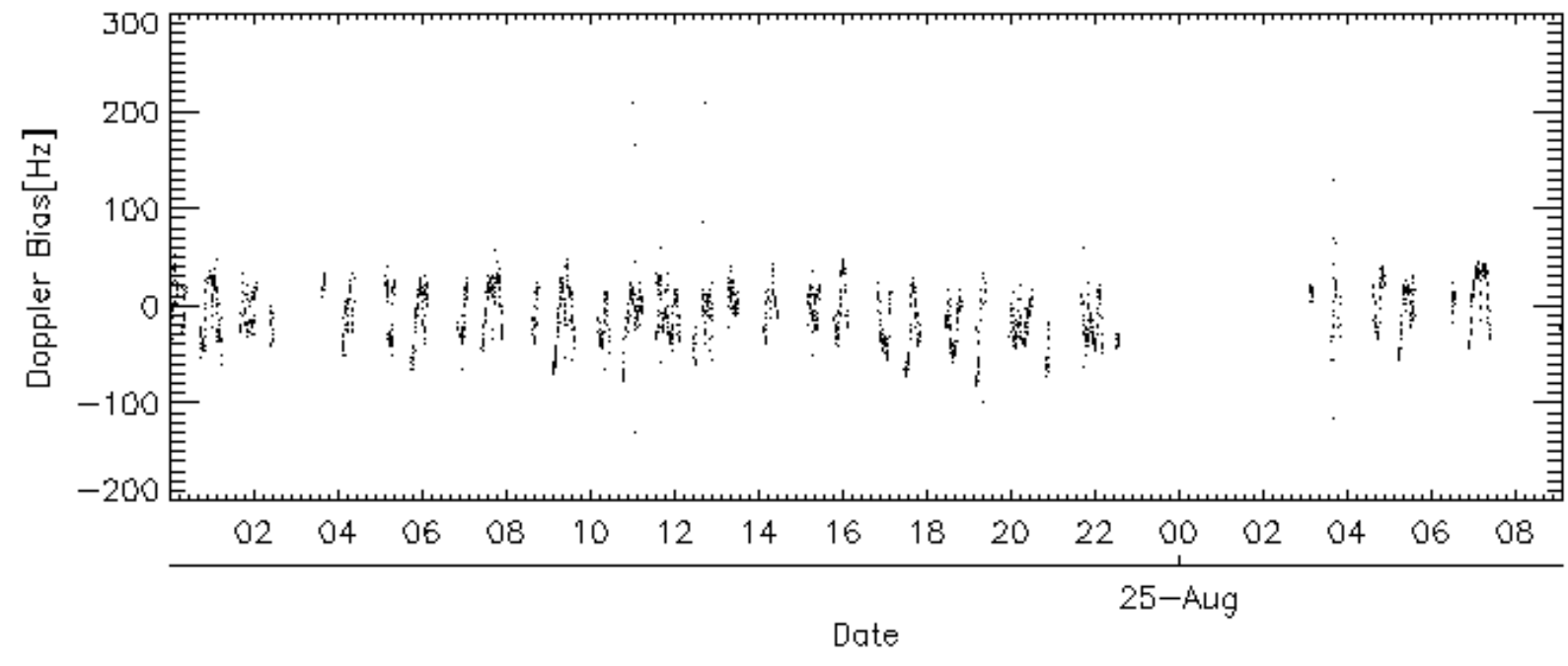
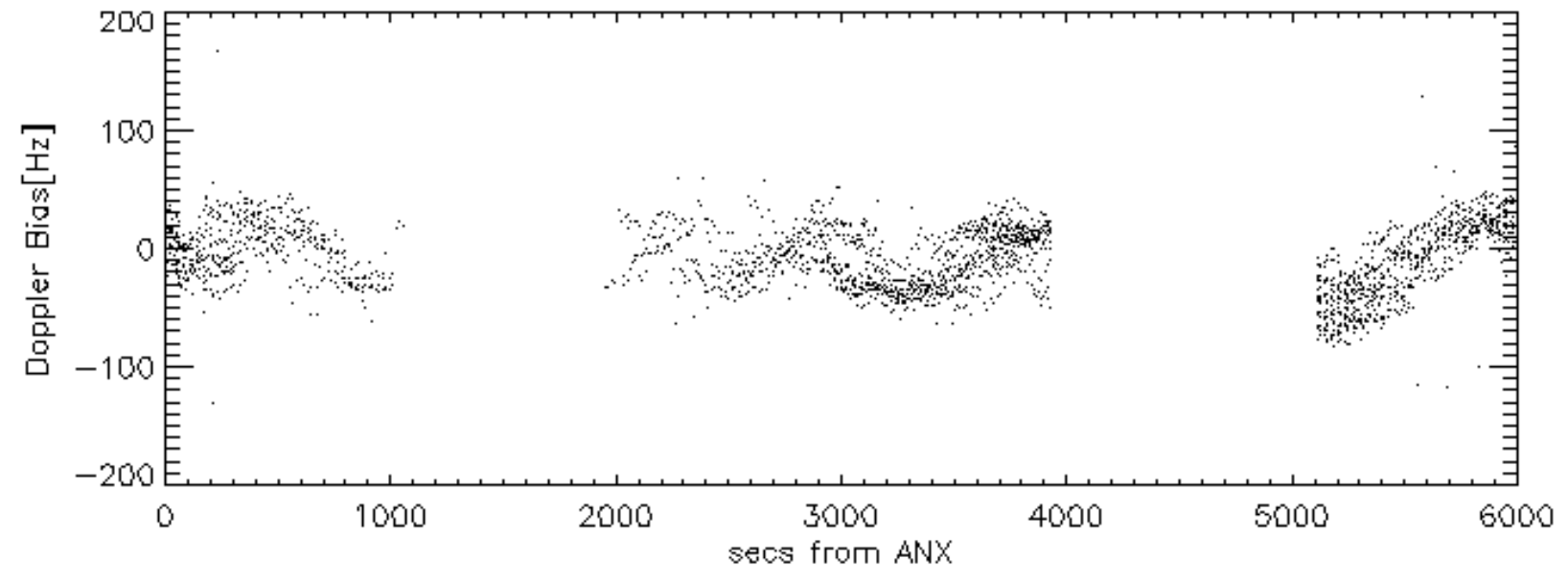
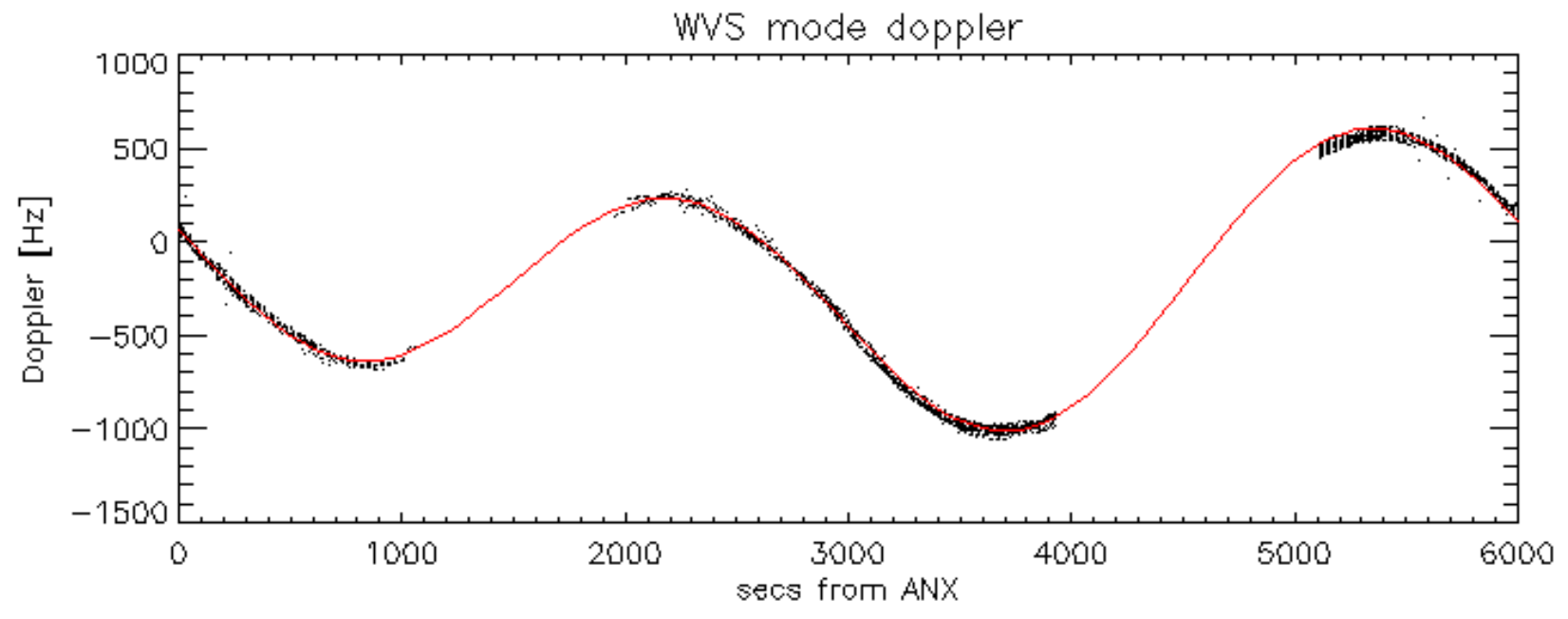


Doppler 'WVS' 'IS2' descending

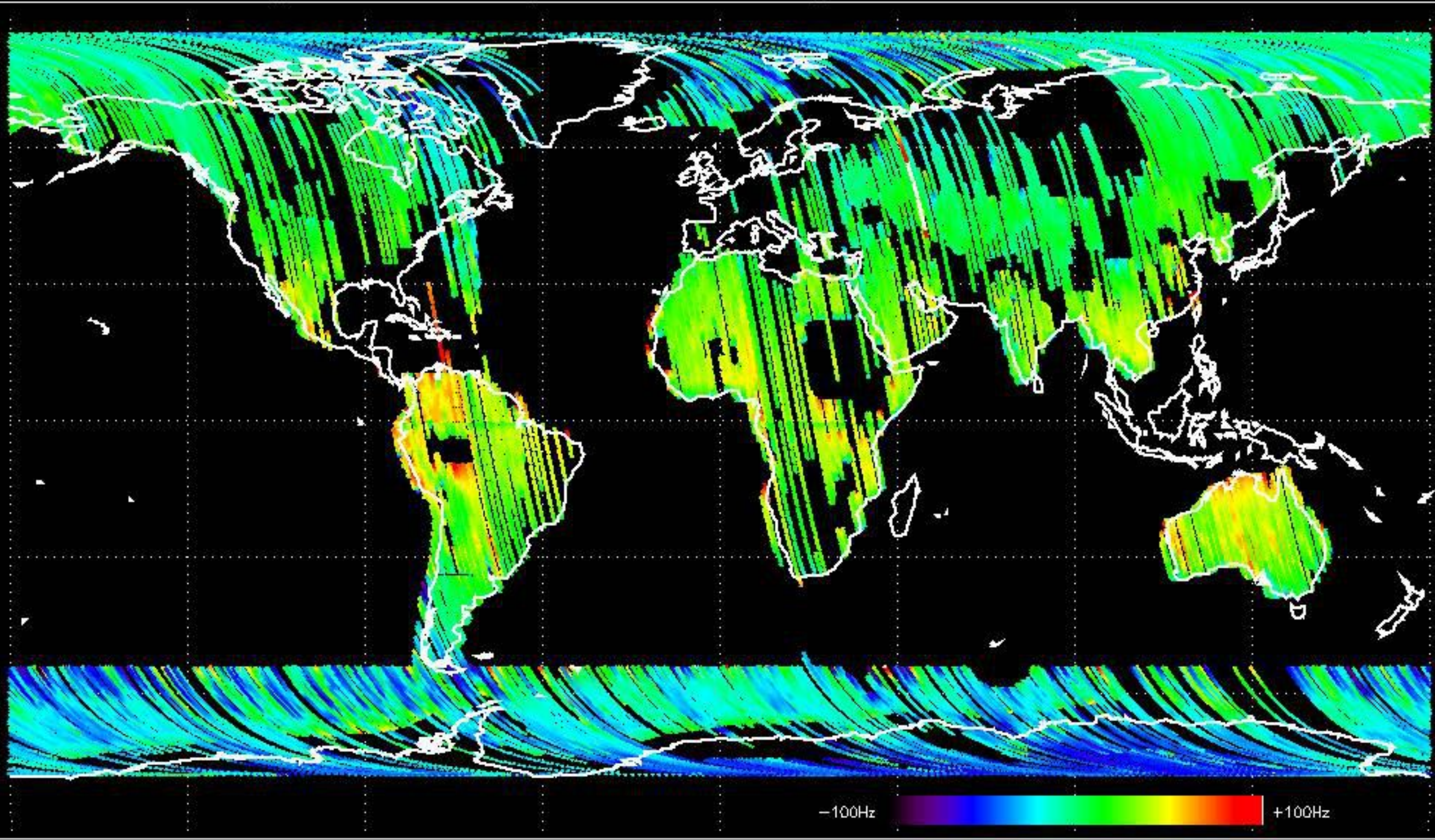


GM1 mode doppler

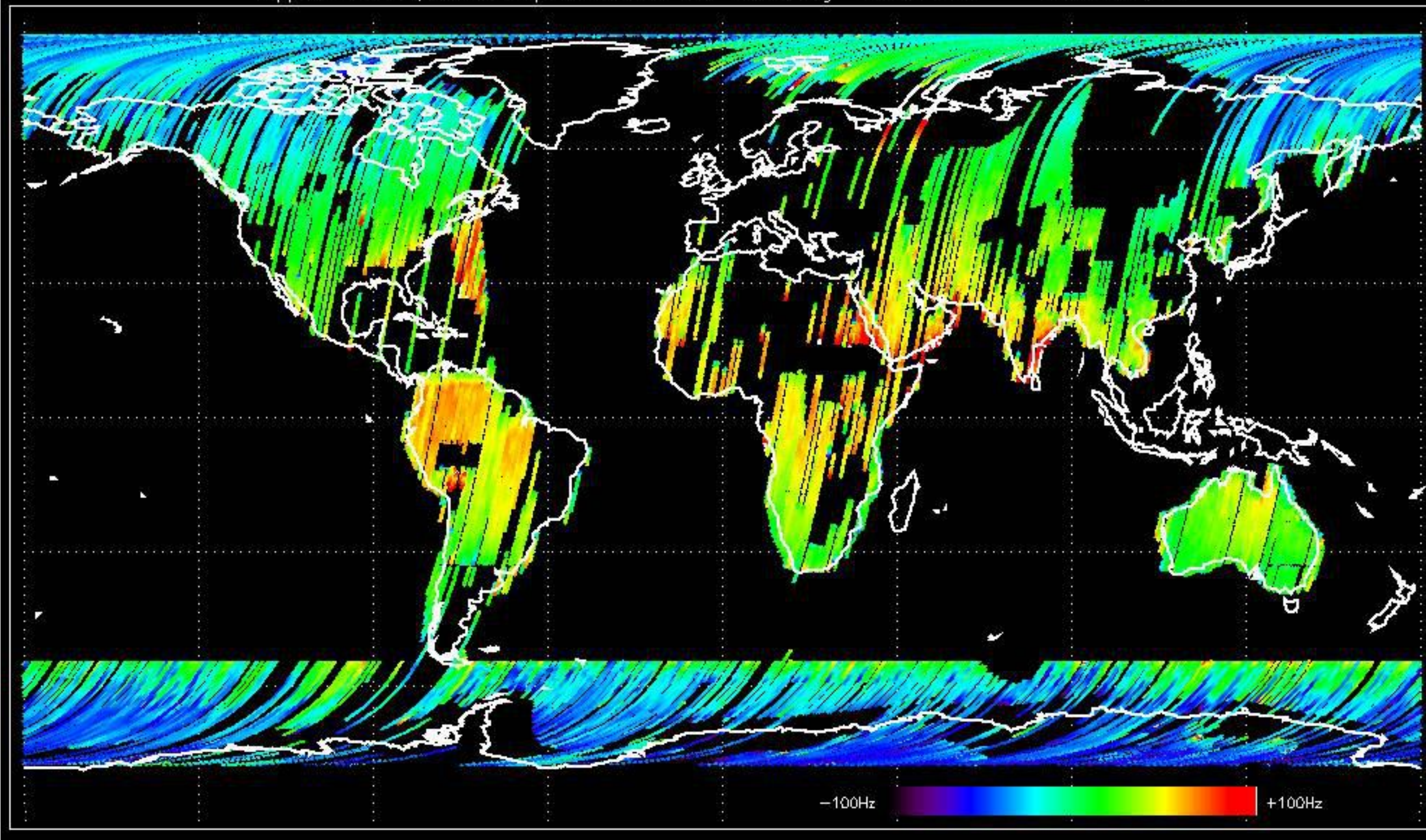




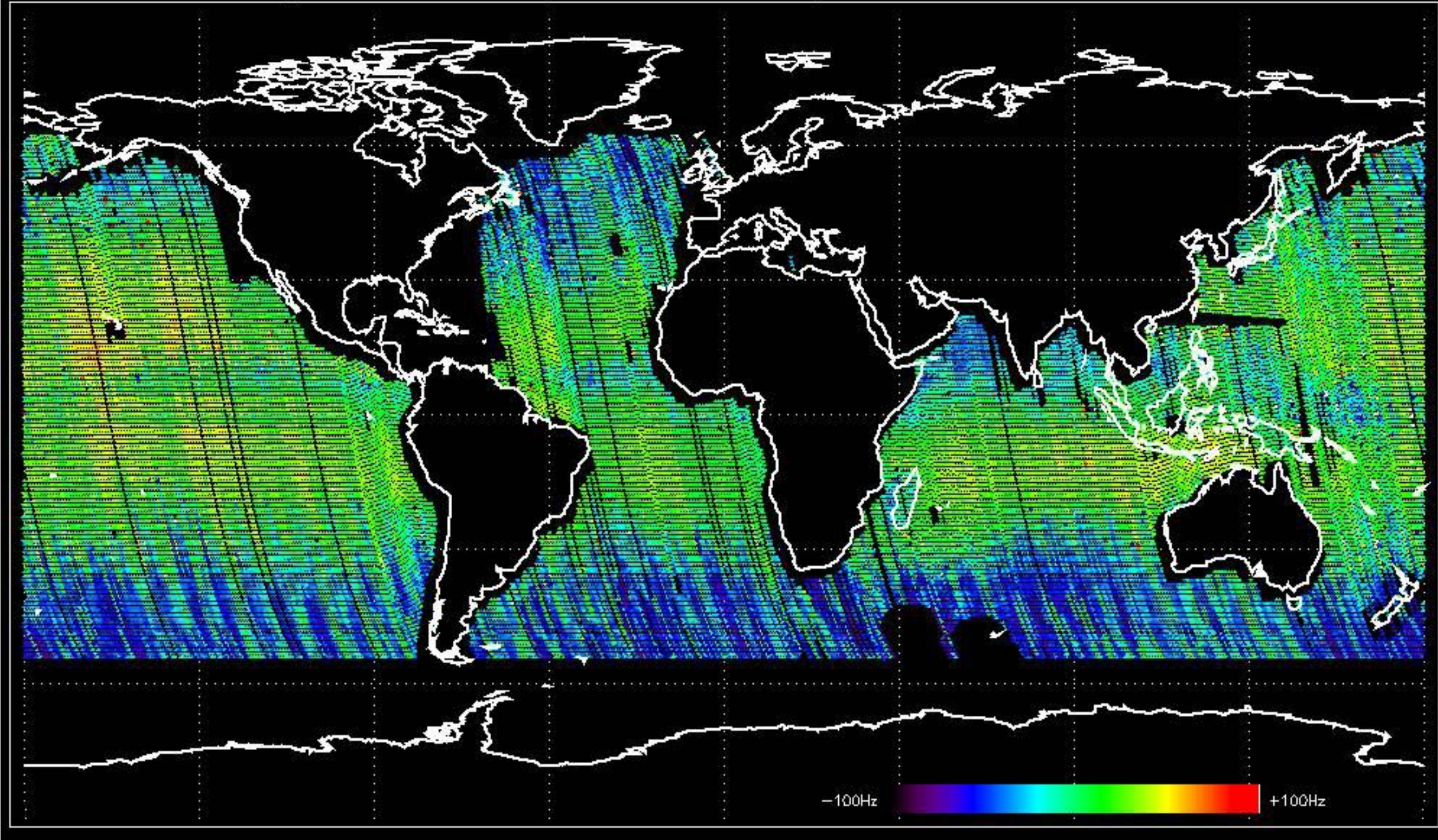
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.630096 Hz



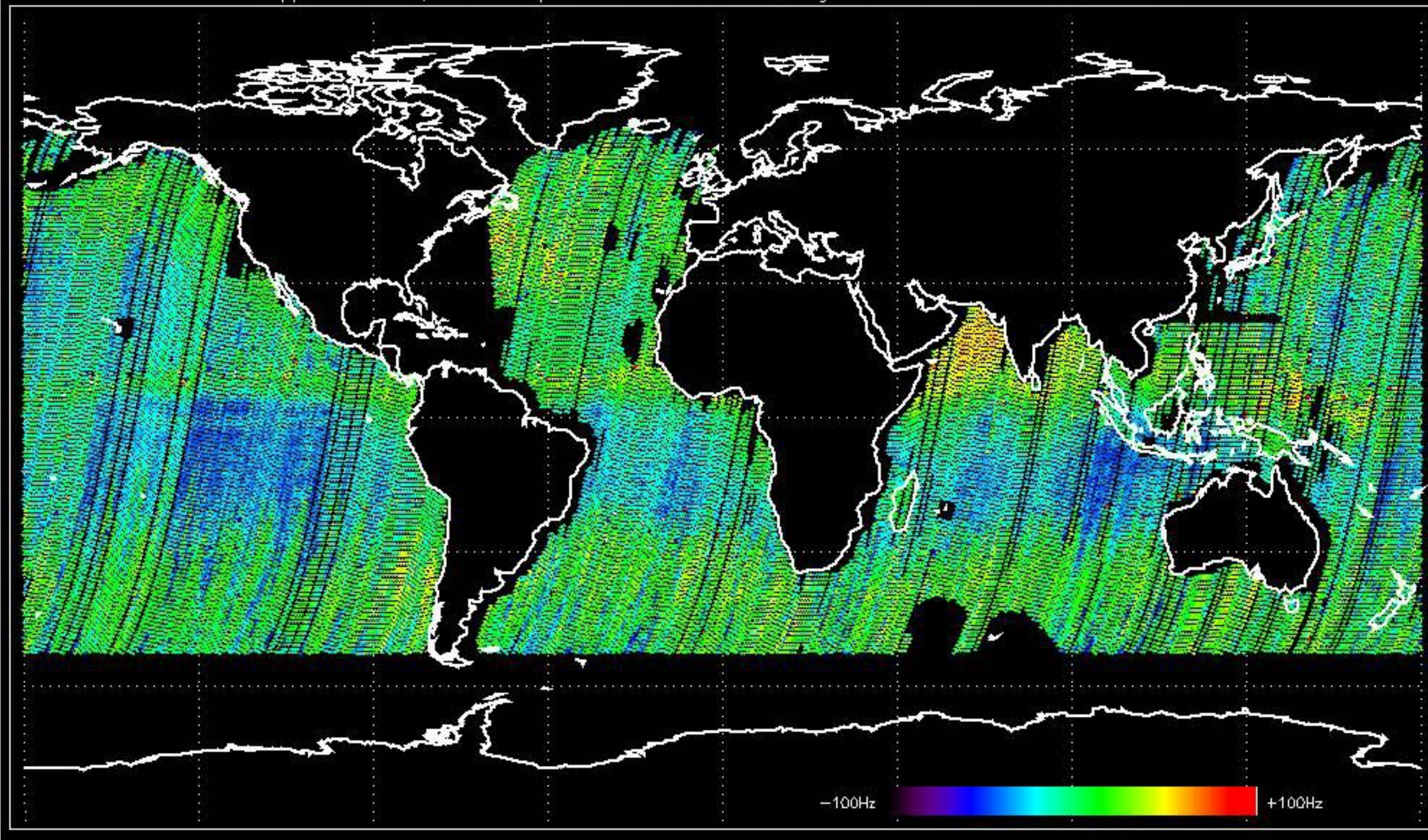
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -10.097787 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -3.4588283 Hz

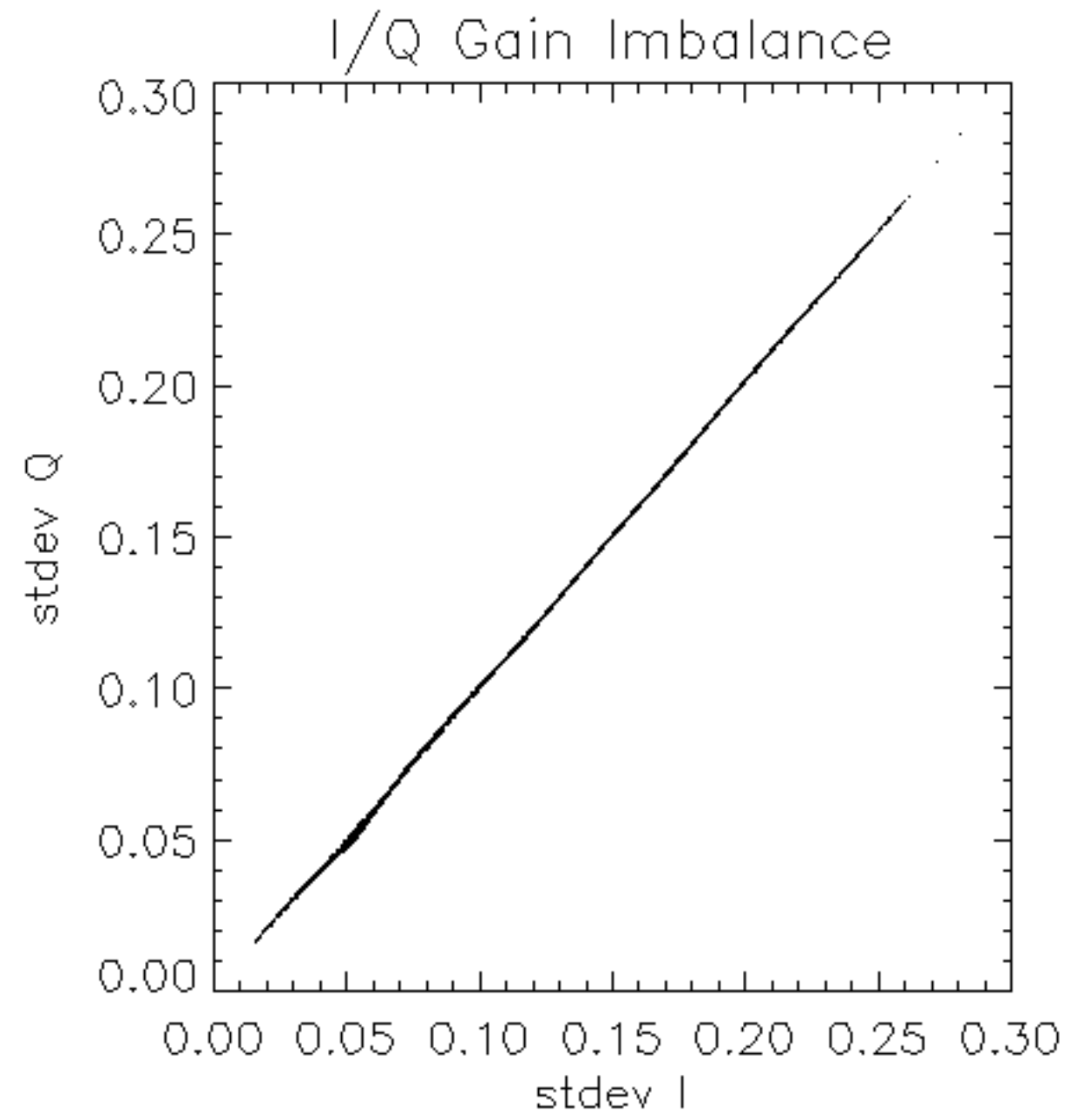


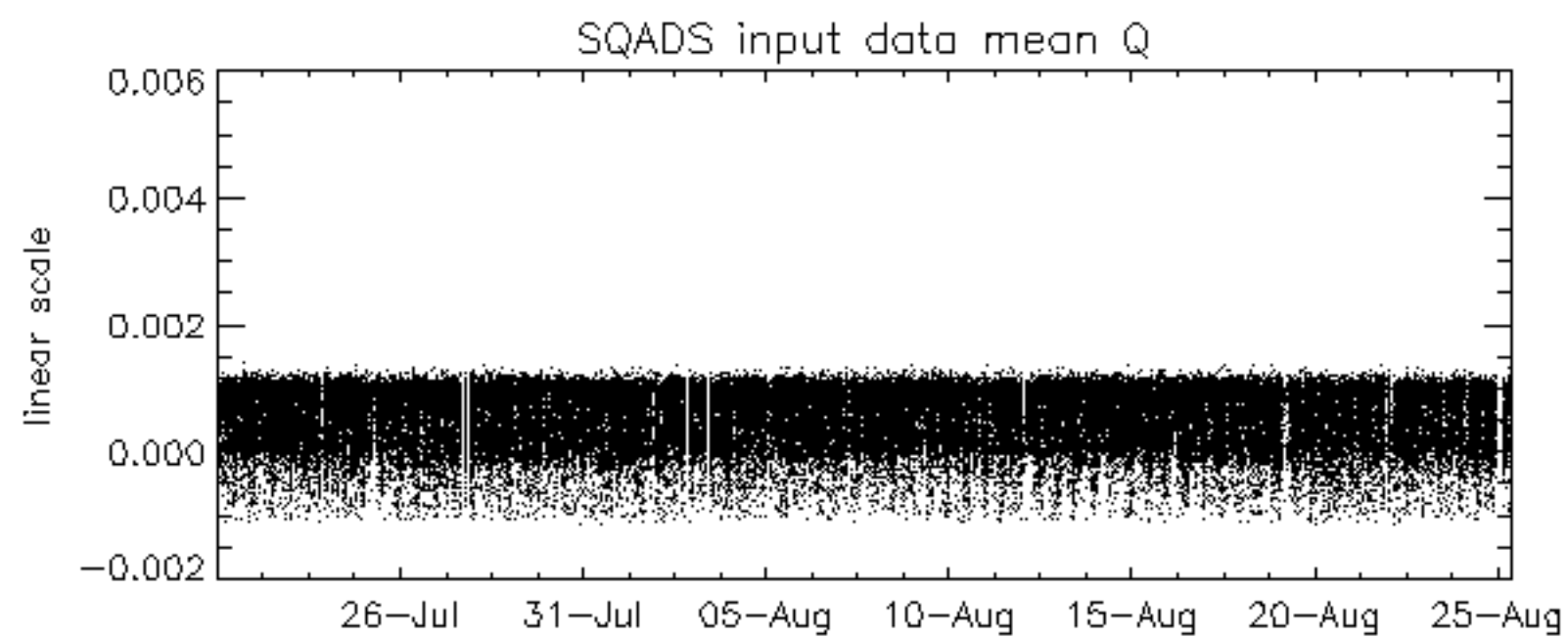
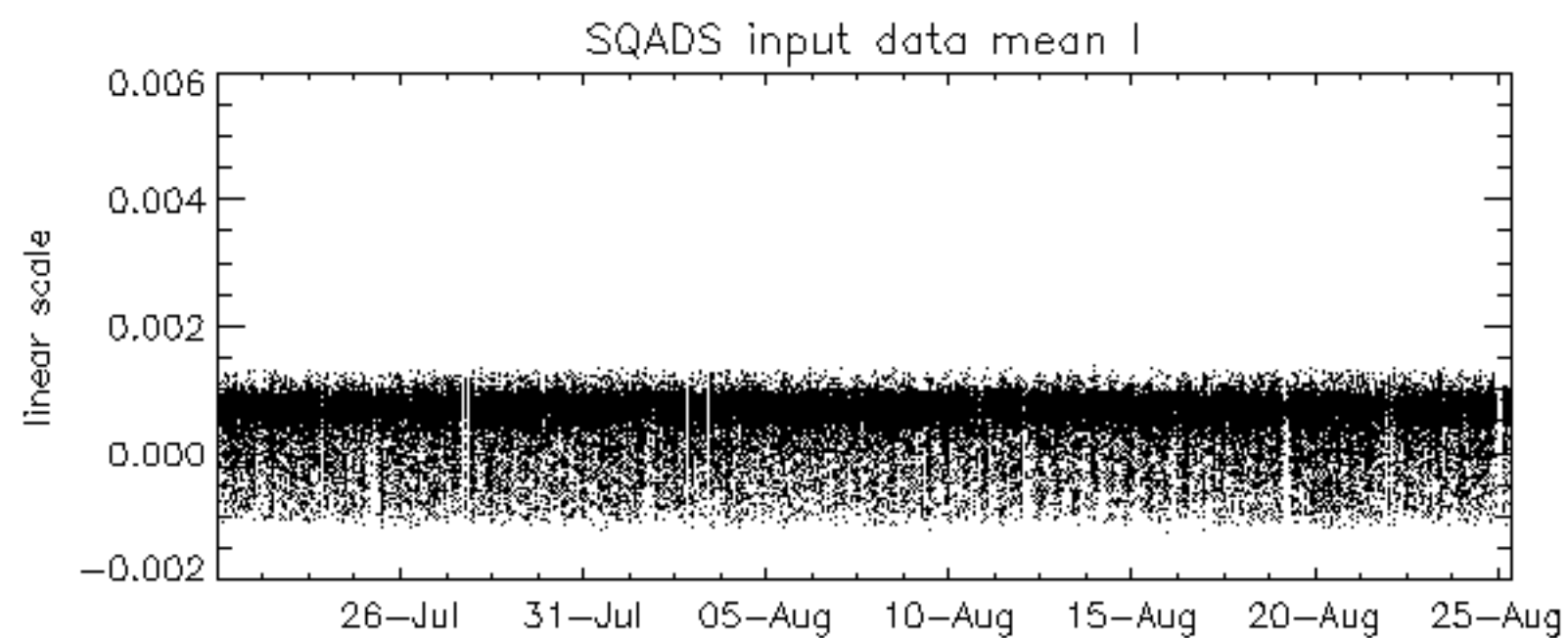
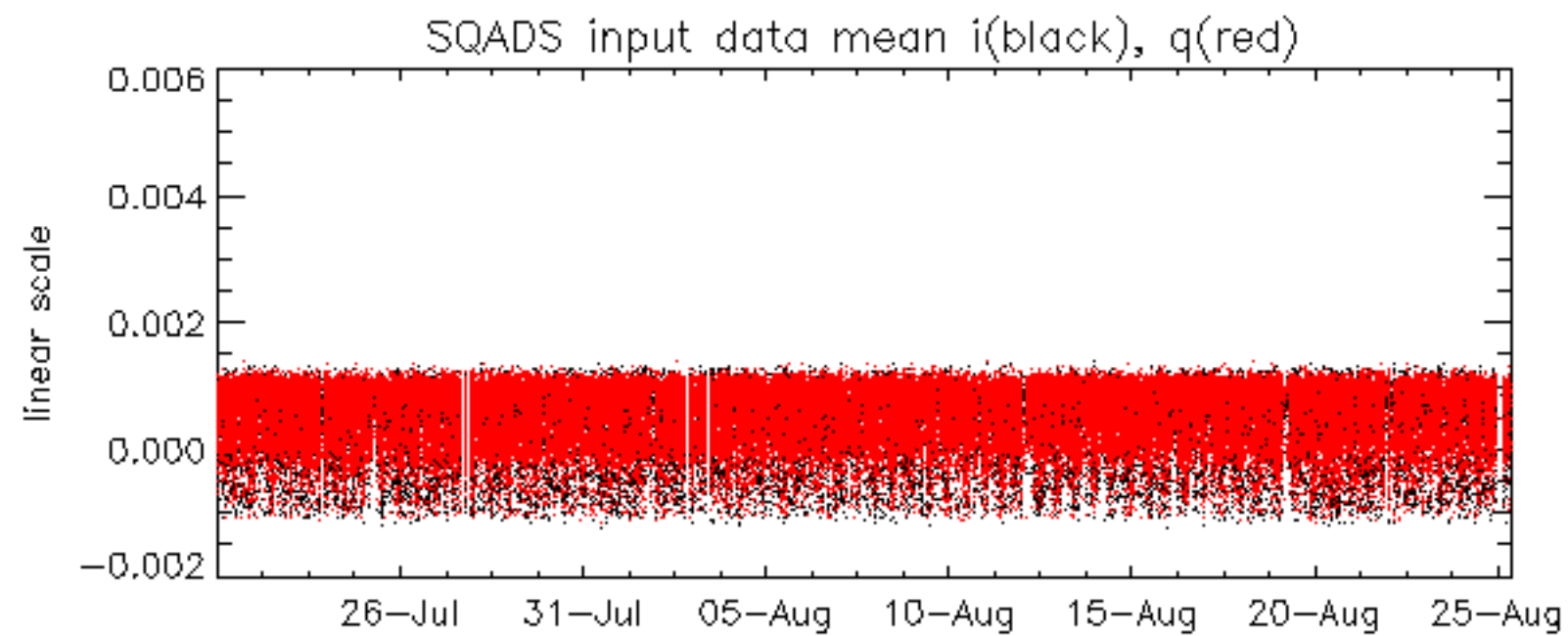
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.6867940 Hz

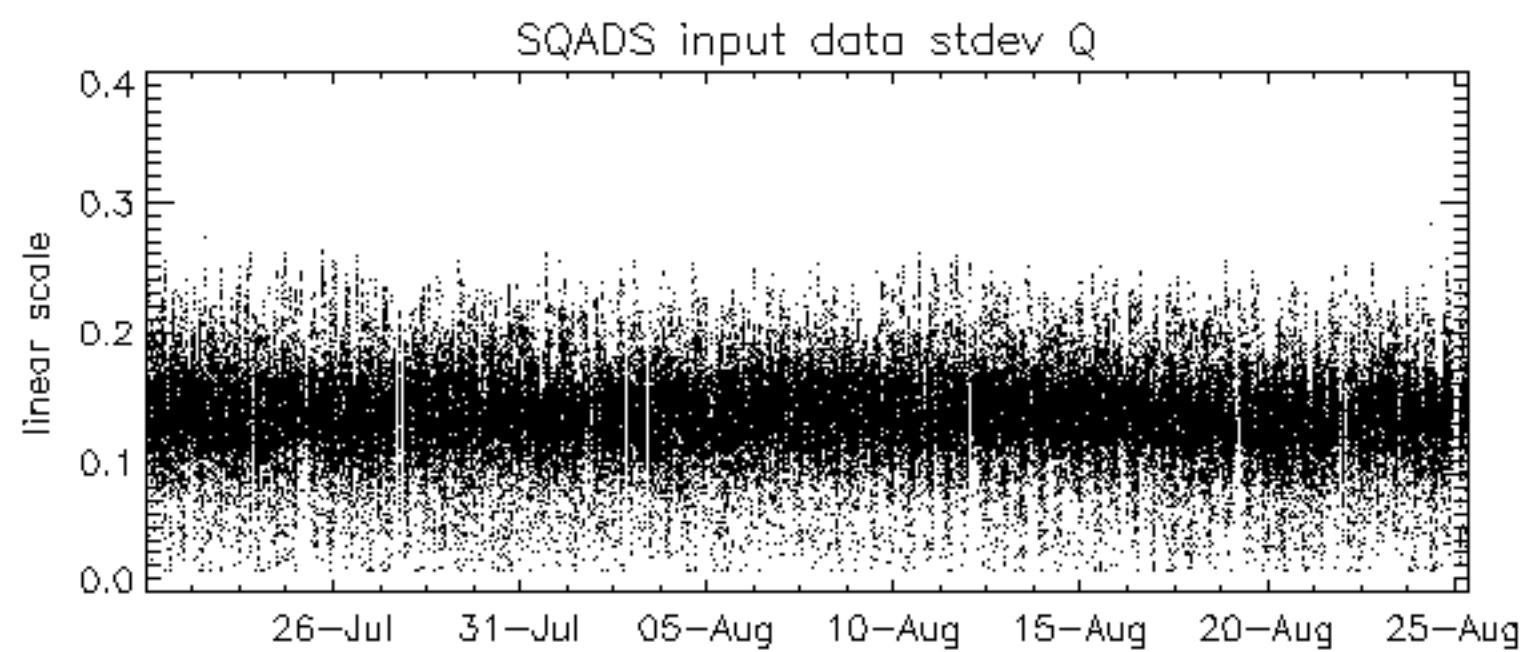
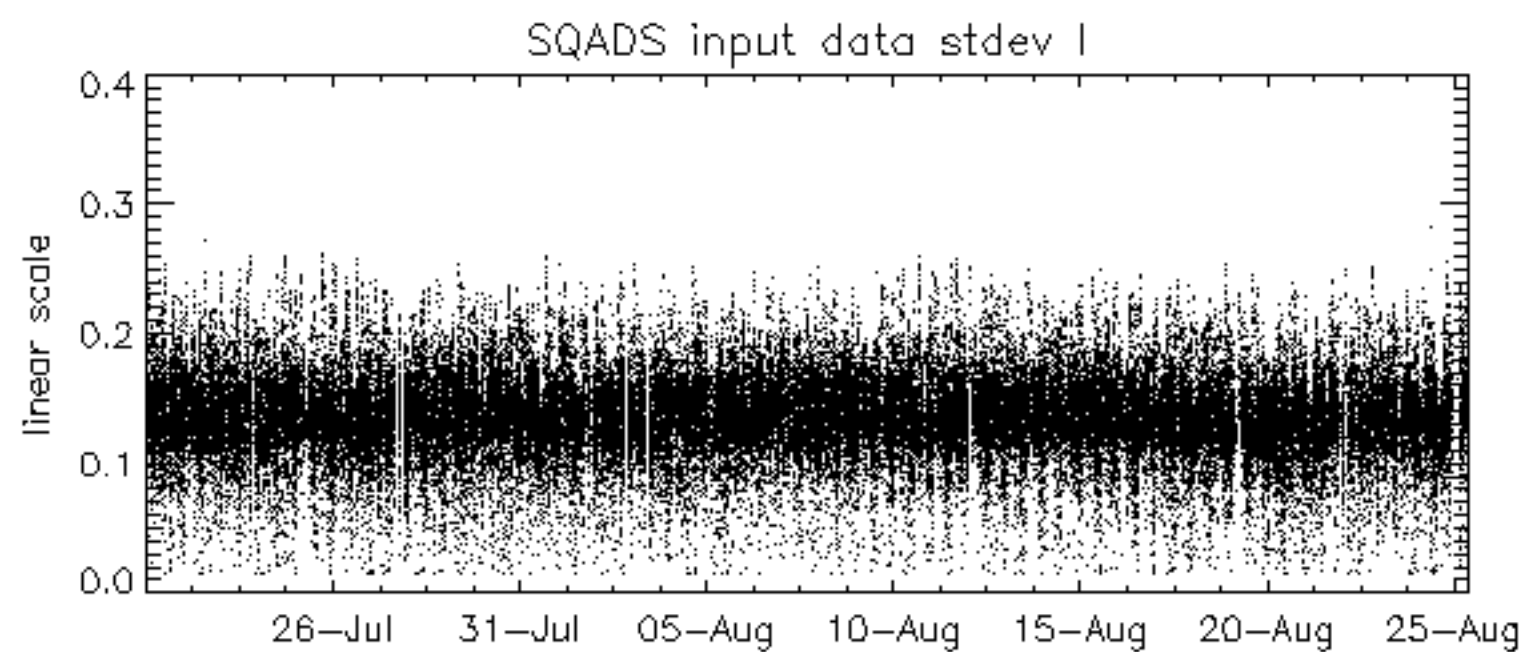
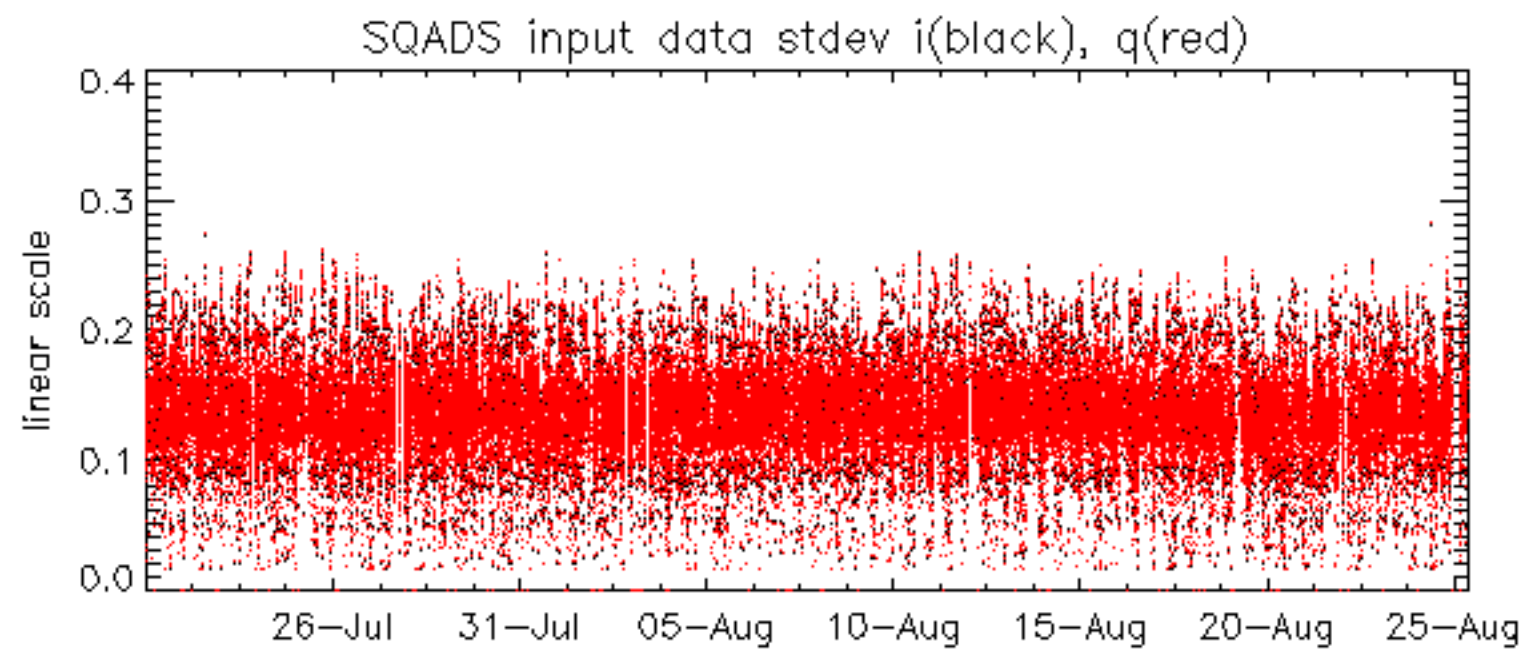


No anomalies observed on available MS products:

No anomalies observed.



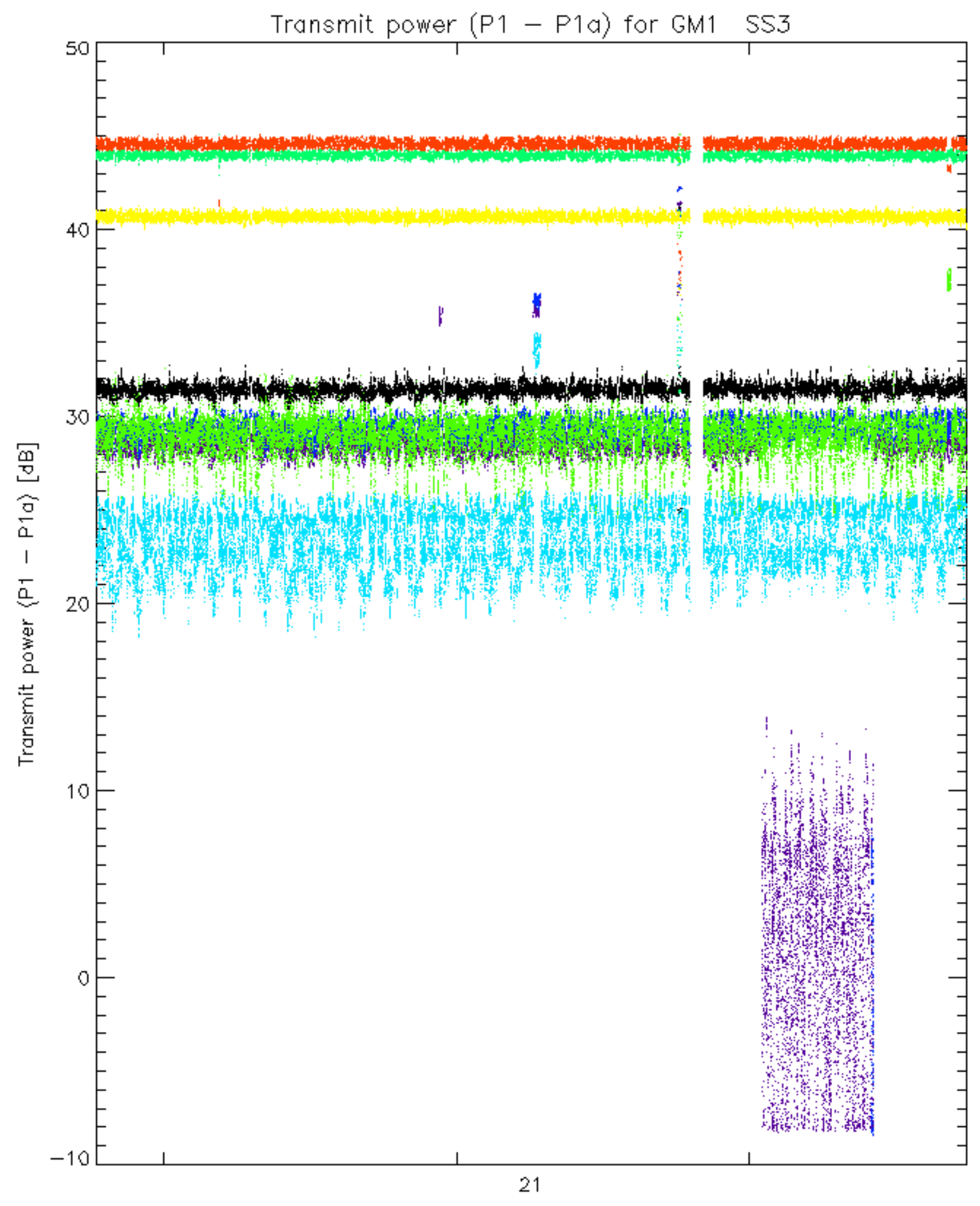




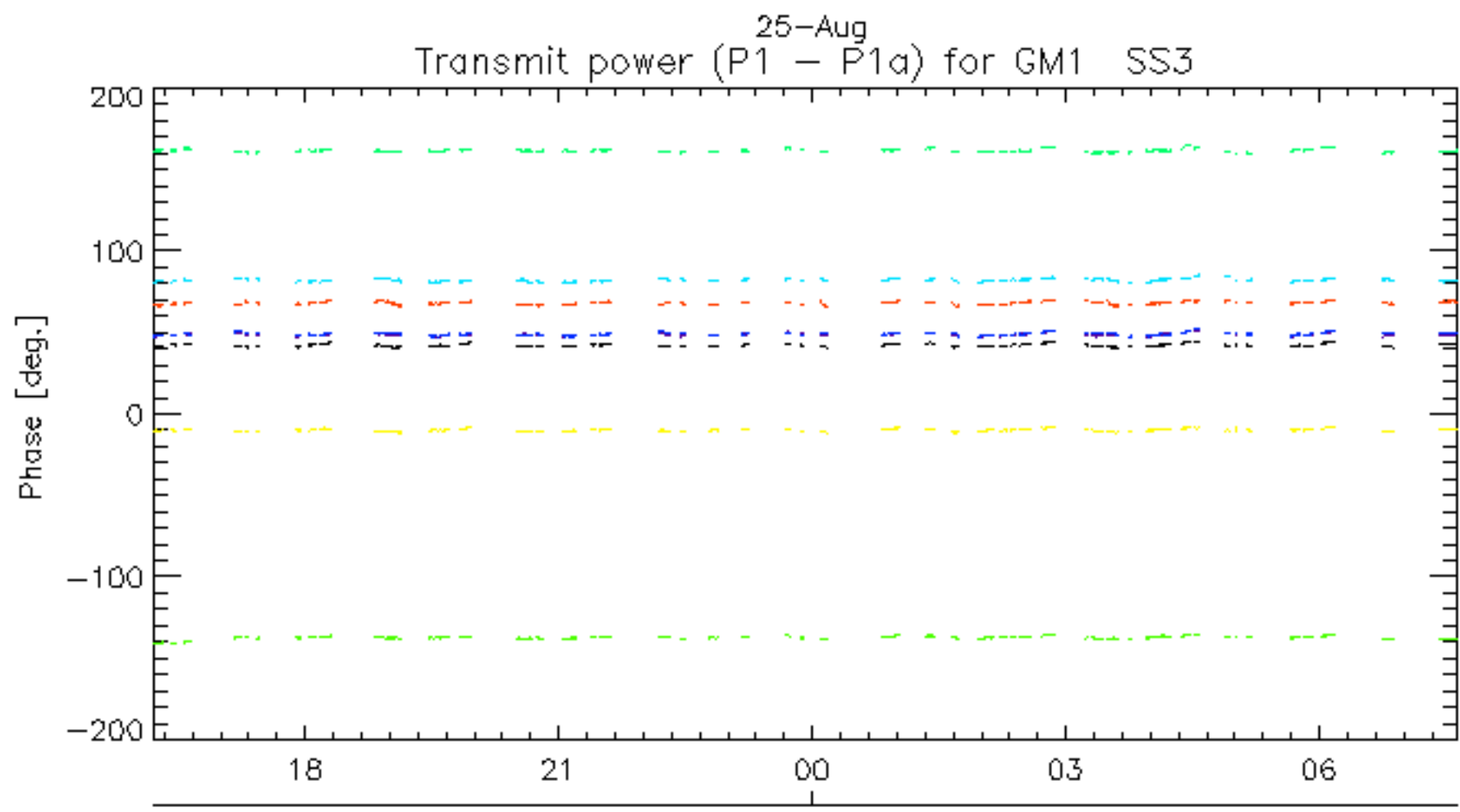
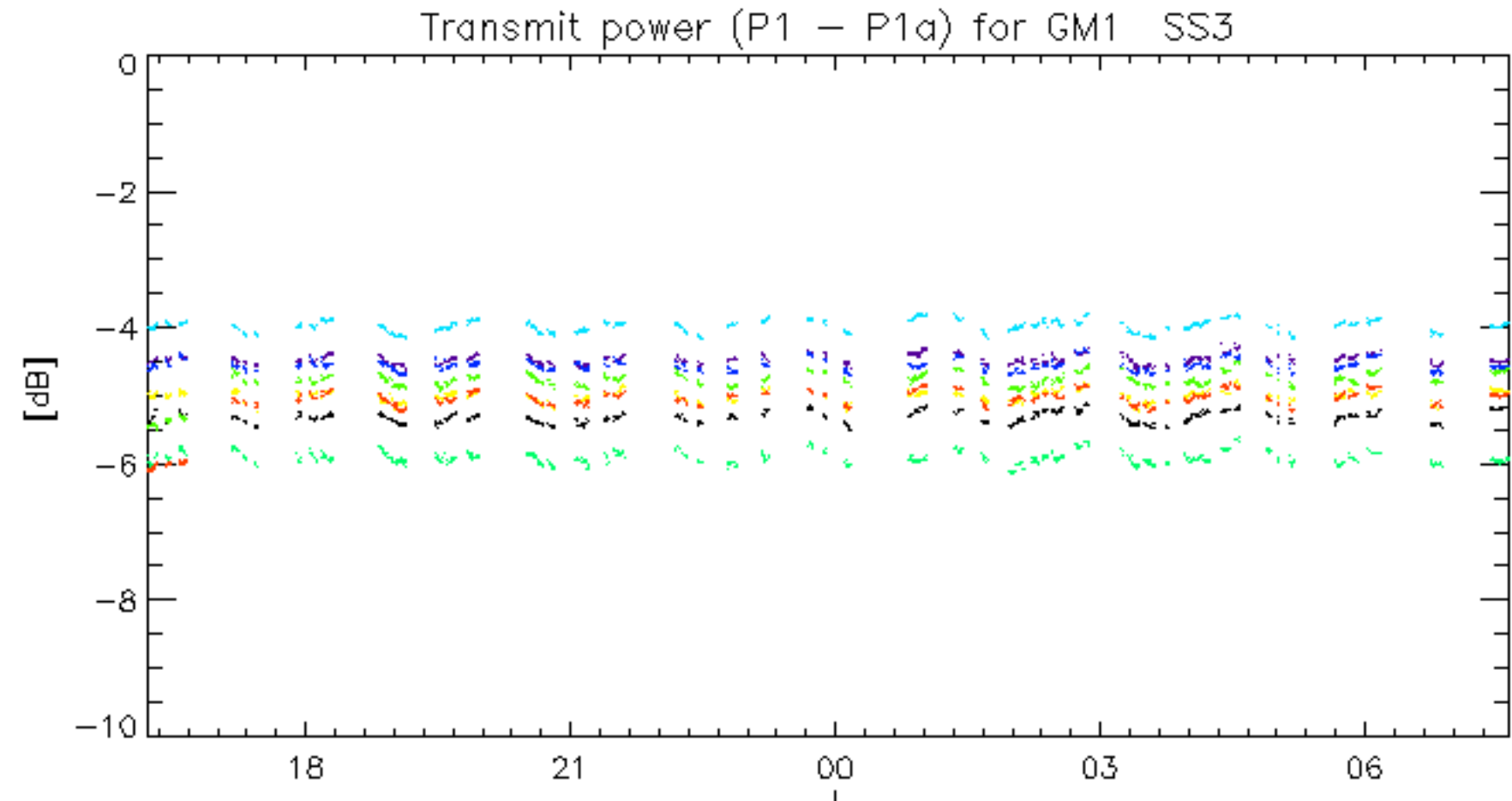
Summary of analysis for the last 3 days 2006082[345]

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

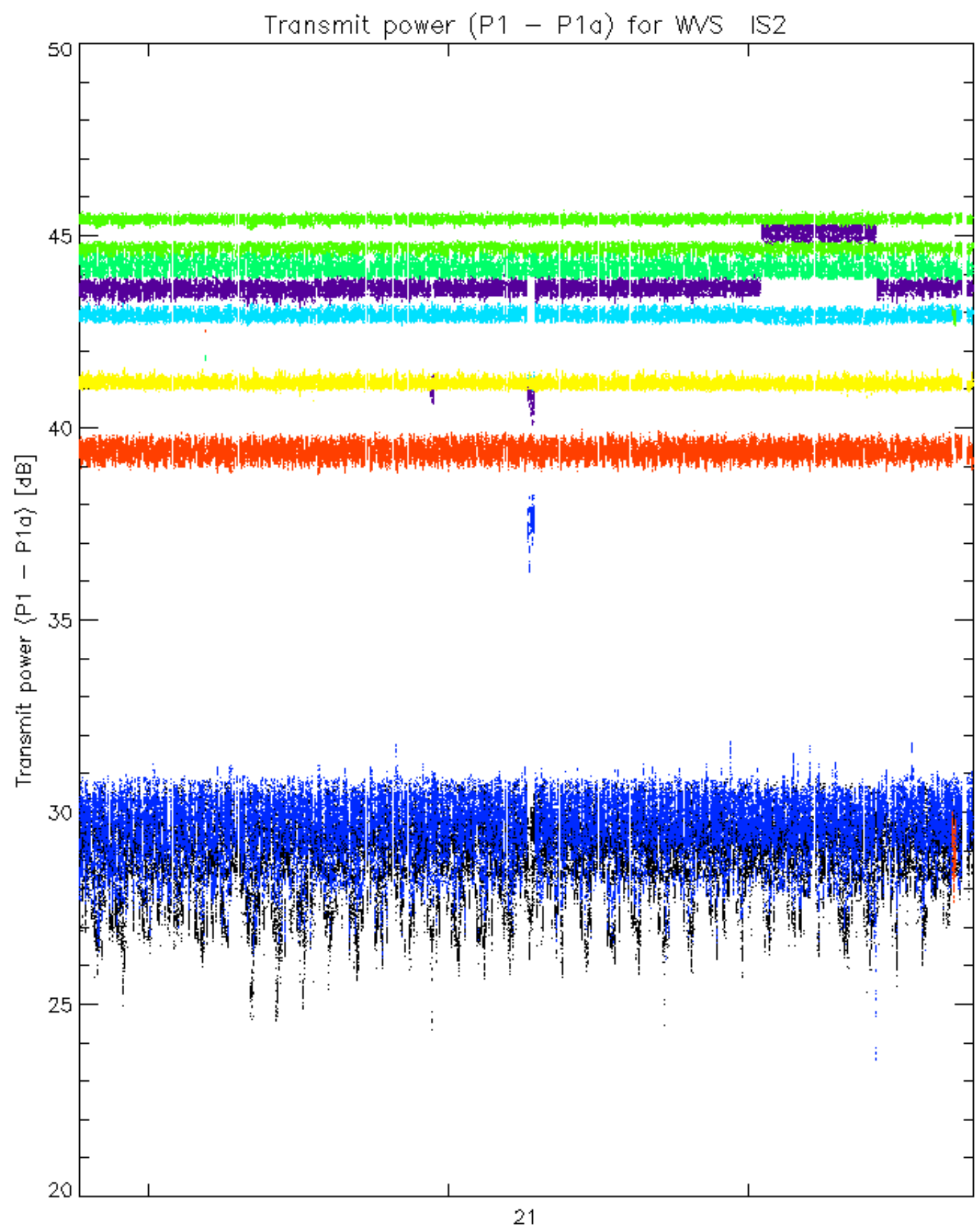
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060823_232215_00000502050_00331_23431_4292.N1	0	2
ASA_IMM_1PNPDE20060824_200913_00000372050_00343_23443_4344.N1	0	29
ASA_IMM_1PNPDE20060825_010619_00000812050_00346_23446_4356.N1	1	0
ASA_WSM_1PNPDE20060824_014431_00000982050_00332_23432_9170.N1	0	23
ASA_WSM_1PNPDE20060824_142441_00000862050_00340_23440_9286.N1	0	62
ASA_WSM_1PNPDE20060824_160850_000002082050_00341_23441_9284.N1	0	46

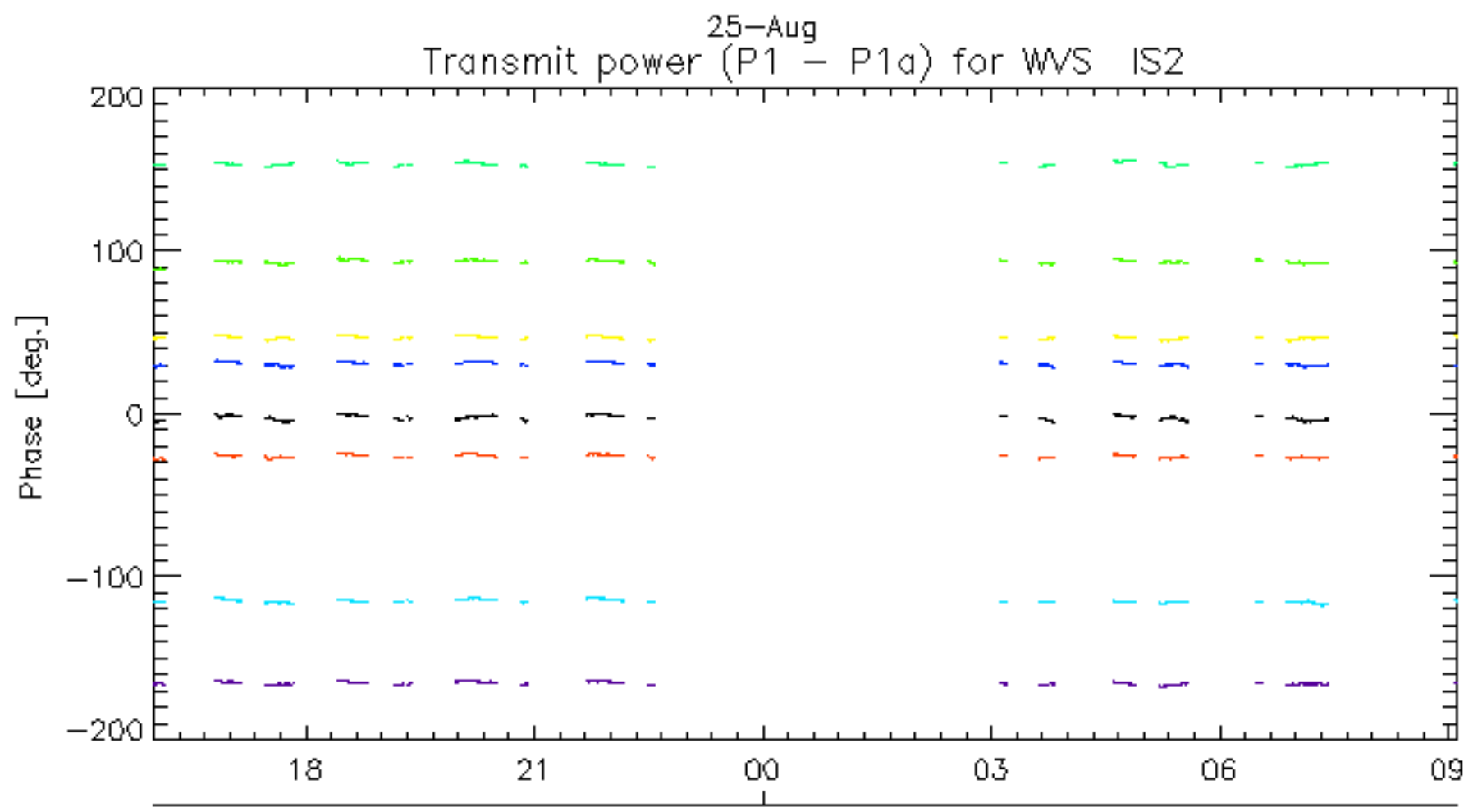
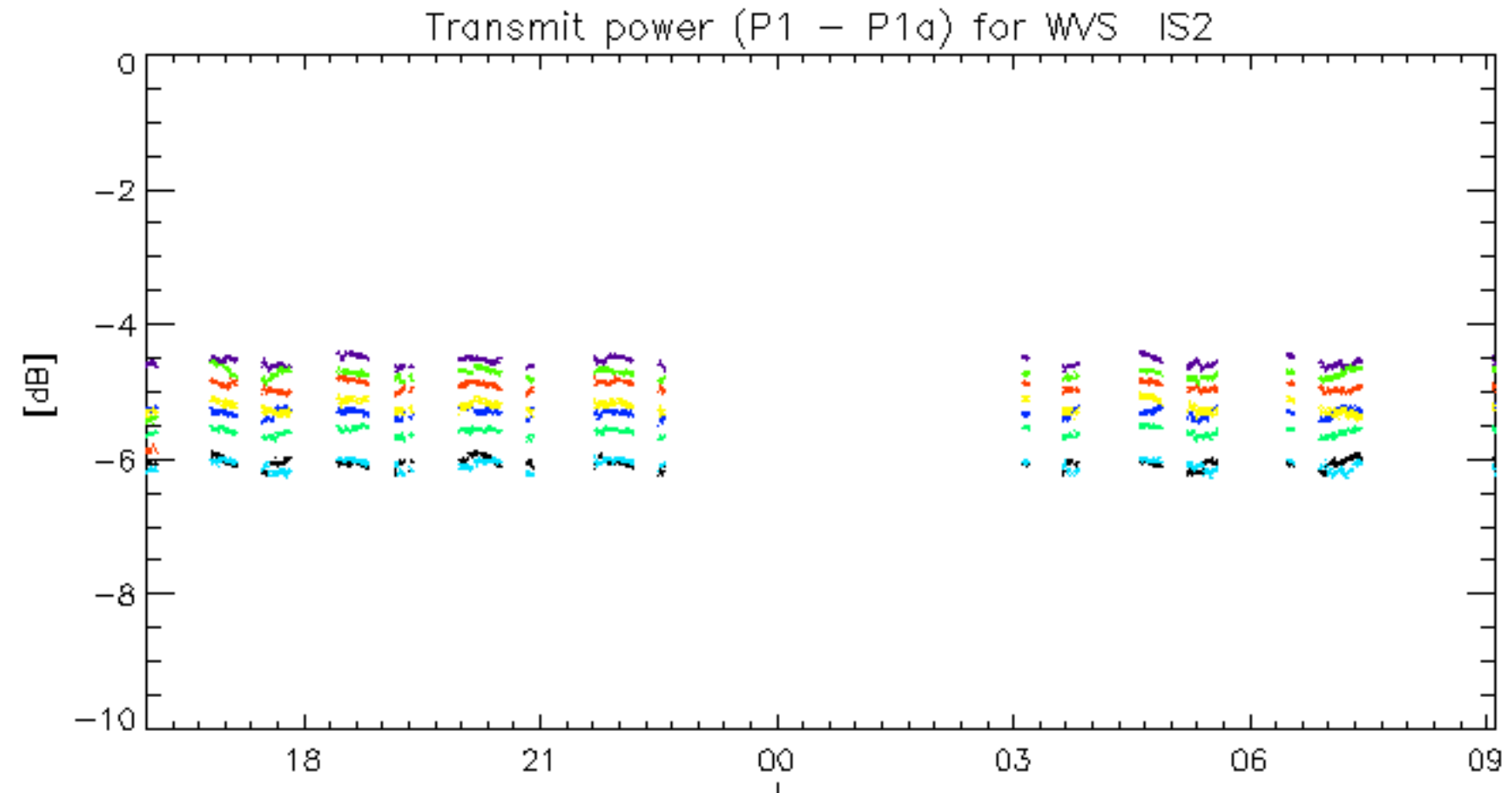


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.