

PRELIMINARY REPORT OF 060914

last update on Thu Sep 14 16:39:37 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 2006-09-13 00:00:00 to 2006-09-14 16:39:37

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	29	56	5	4	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	29	56	5	4	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	29	56	5	4	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	29	56	5	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	24	30	16	16	46
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	24	30	16	16	46
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	24	30	16	16	46
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	24	30	16	16	46

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	20060914 074714
H	20060907 062647

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
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.939151	0.009706	0.019232
7	P1	-3.048483	0.011516	-0.031858
11	P1	-4.056844	0.017150	0.020858
15	P1	-6.178754	0.015148	0.017075
19	P1	-3.506446	0.050042	-0.118411
22	P1	-4.565313	0.026839	0.008133
26	P1	-3.937927	0.020173	-0.045224
30	P1	-5.786248	0.149531	-0.102033
3	P1	-16.574253	0.257019	-0.177675
7	P1	-16.787750	0.669092	-0.824931
11	P1	-16.807510	0.332492	0.042393
15	P1	-12.932307	0.107558	0.239494
19	P1	-14.602406	0.449653	-0.256964
22	P1	-15.739389	0.563874	0.431623
26	P1	-15.195382	0.210867	-0.071822
30	P1	-16.947941	0.409284	0.235788

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.834095	0.083603	0.109487
7	P2	-21.862293	0.097412	-0.002736
11	P2	-15.744785	0.109108	-0.019367
15	P2	-7.091320	0.097956	0.035053
19	P2	-9.111293	0.091298	0.005501
22	P2	-18.120230	0.085913	0.053236
26	P2	-16.399242	0.092539	-0.001882
30	P2	-19.468744	0.090317	0.027991

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.173998	0.004319	0.003486
7	P3	-8.173998	0.004319	0.003486
11	P3	-8.173998	0.004319	0.003486
15	P3	-8.173998	0.004319	0.003486
19	P3	-8.173998	0.004319	0.003486
22	P3	-8.173998	0.004319	0.003486
26	P3	-8.174065	0.004318	0.003793
30	P3	-8.174065	0.004318	0.003793

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	-3.842354	0.023729	-0.019206
7	P1	-2.445921	0.175947	-0.269673
11	P1	-2.878432	0.034055	-0.029506
15	P1	-3.647682	0.036547	-0.052009
19	P1	-3.456878	0.082302	-0.085538
22	P1	-5.095205	0.037341	-0.064047
26	P1	-5.865860	0.030877	0.059051
30	P1	-5.194335	0.086446	-0.026022
3	P1	-11.632349	0.074638	-0.015273
7	P1	-9.913757	0.198637	-0.238482
11	P1	-10.330017	0.084076	-0.107255
15	P1	-10.862849	0.180270	-0.013360
19	P1	-15.674433	3.678128	-0.496332
22	P1	-20.813311	1.728552	0.323882

26	P1	-15.979822	0.412940	0.412432
30	P1	-18.022964	0.840700	-0.271861

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.423132	0.077109	0.125387
7	P2	-22.202505	0.203033	0.118783
11	P2	-10.902502	0.059652	0.095113
15	P2	-4.863261	0.040355	0.087267
19	P2	-6.846945	0.041668	0.063687
22	P2	-8.162485	0.066647	0.102990
26	P2	-24.157770	0.134997	0.029029
30	P2	-21.958490	0.081072	0.024476

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.018075	0.003705	0.003517
7	P3	-8.017957	0.003706	0.003796
11	P3	-8.017842	0.003718	0.003699
15	P3	-8.017933	0.003726	0.004097
19	P3	-8.018048	0.003735	0.004116
22	P3	-8.018106	0.003696	0.003981
26	P3	-8.017974	0.003718	0.003433
30	P3	-8.017953	0.003709	0.003327

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	0.000548041
	stdev	1.78916e-07
MEAN Q	mean	0.000525455
	stdev	2.18022e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135945
	stdev	0.00111291
STDEV Q	mean	0.136290
	stdev	0.00112954



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006091[234]

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_1PNPDE20060912_192317_000000512051_00113_23714_5669.N1	1	0
ASA_IMM_1PNPDE20060912_201158_000000372051_00114_23715_5671.N1	0	3
ASA_WSM_1PNPDE20060912_000911_000003242051_00102_23703_1588.N1	0	34
ASA_WSM_1PNPDE20060912_233734_000003242051_00116_23717_1761.N1	0	34
ASA_WSM_1PNPDE20060914_004533_000002072051_00131_23732_1899.N1	0	34



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

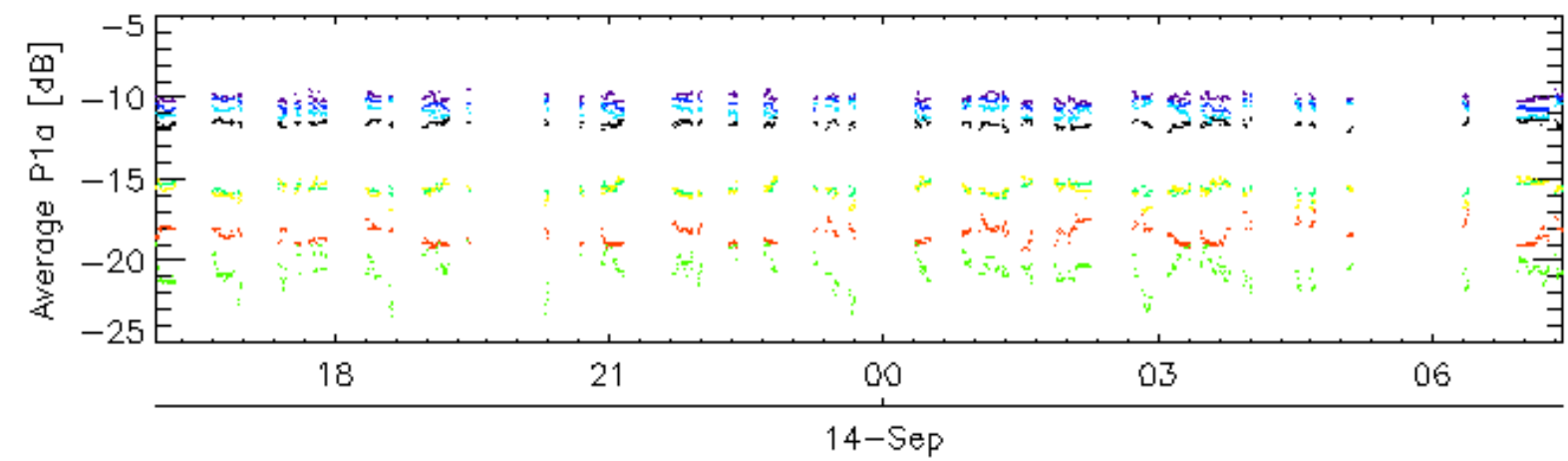
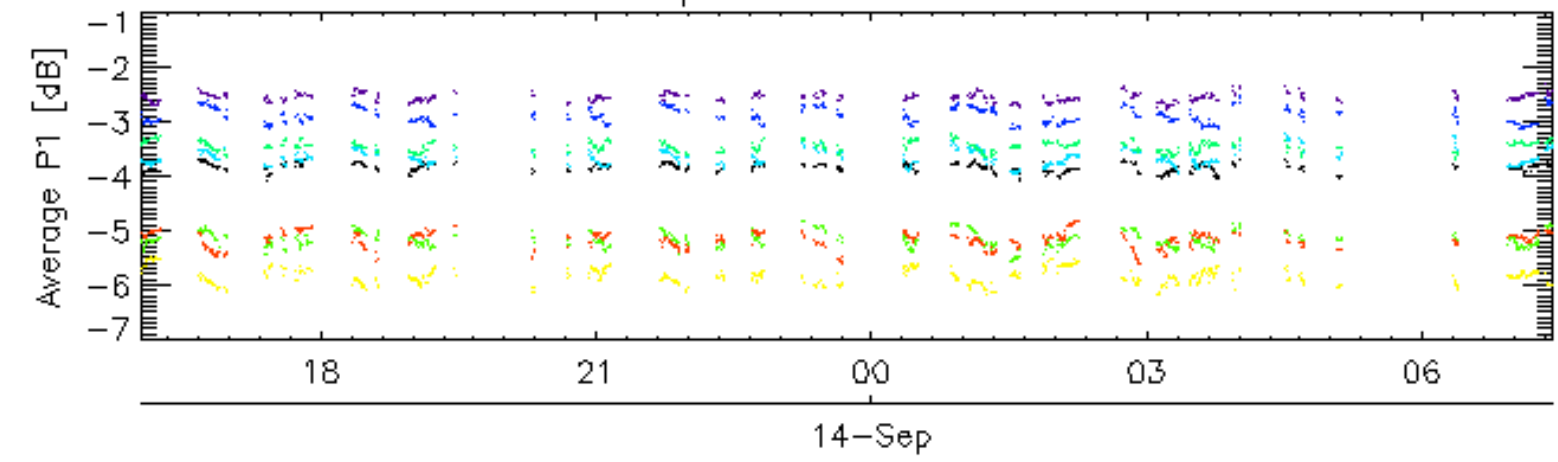
Ascending

Descending

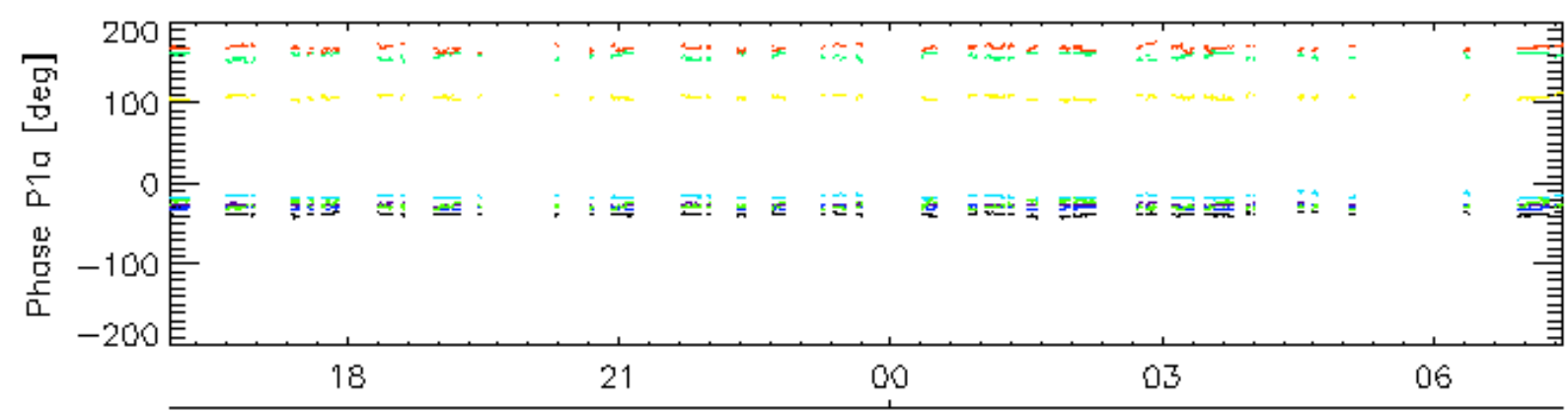
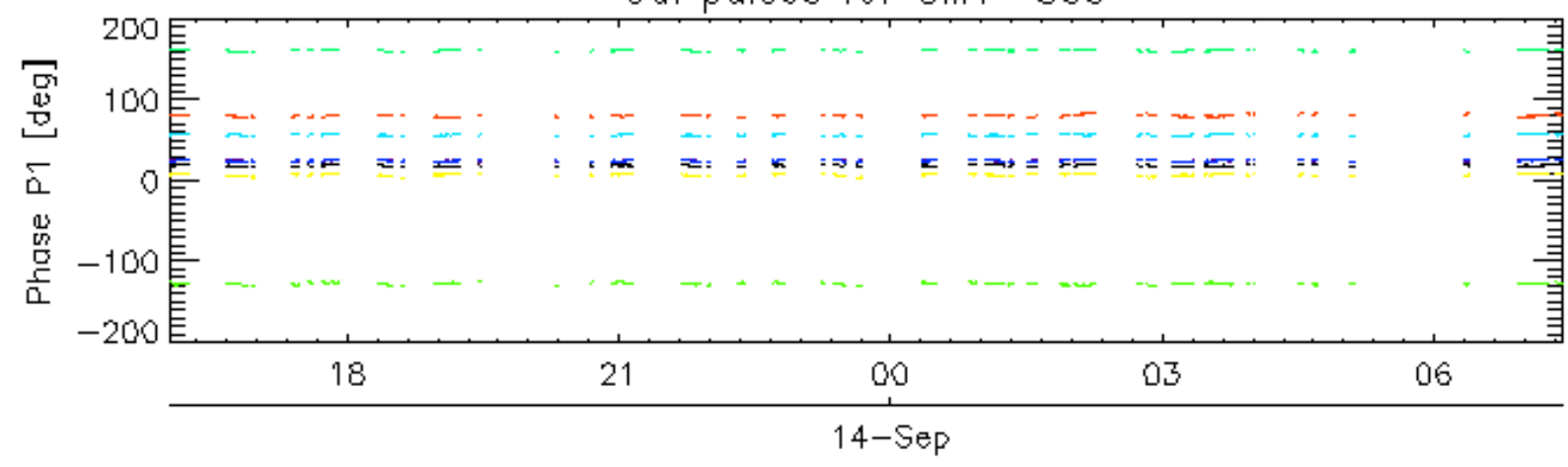
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

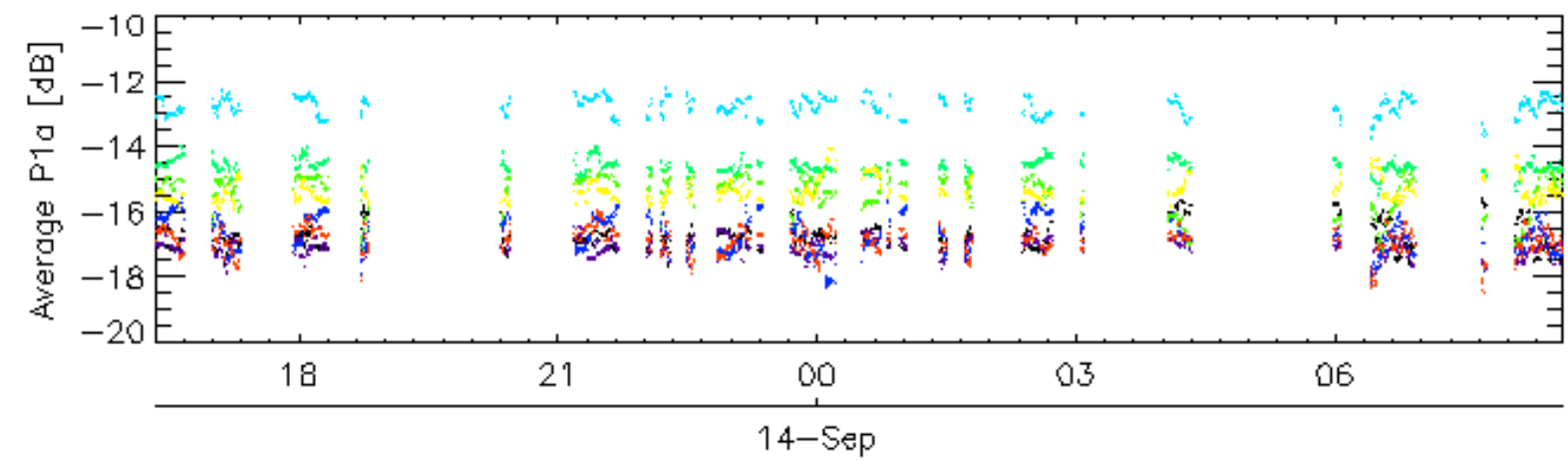
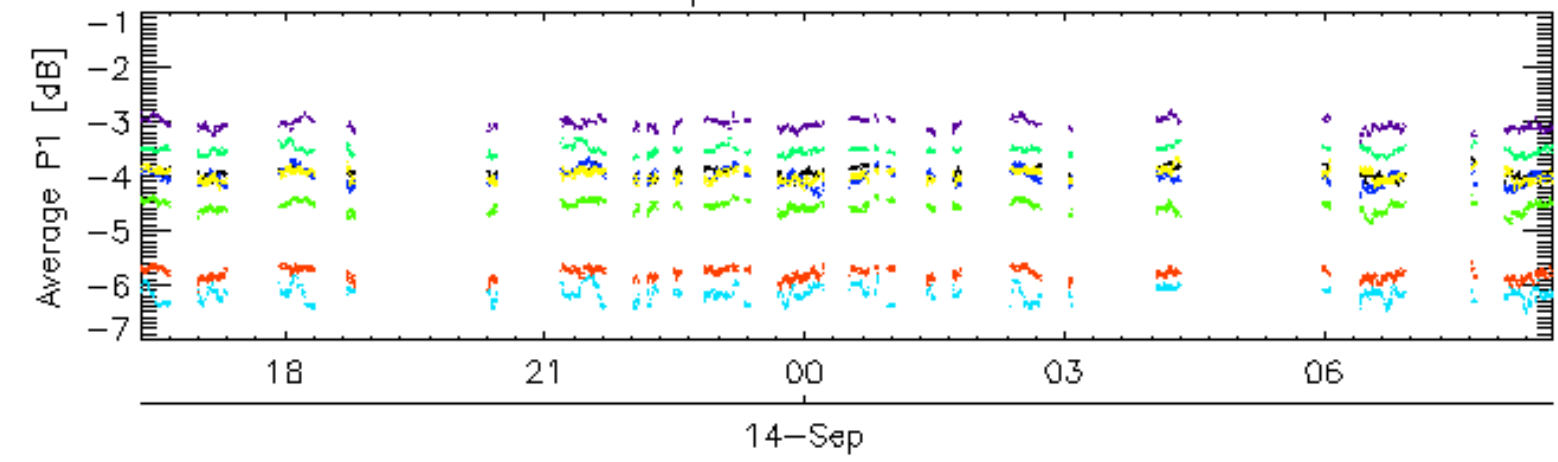


Cal pulses for GM1 SS3

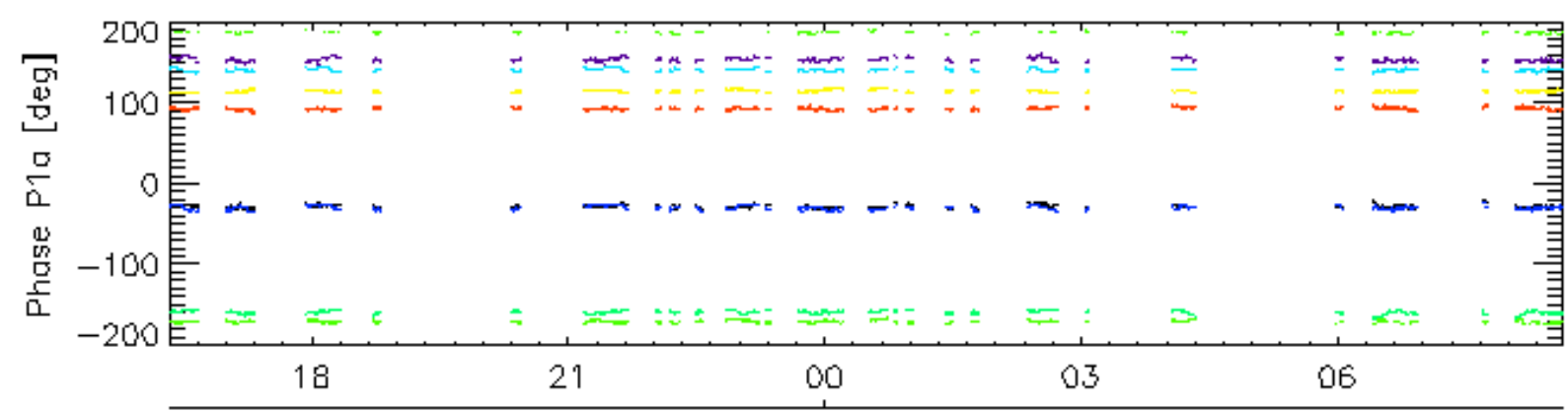
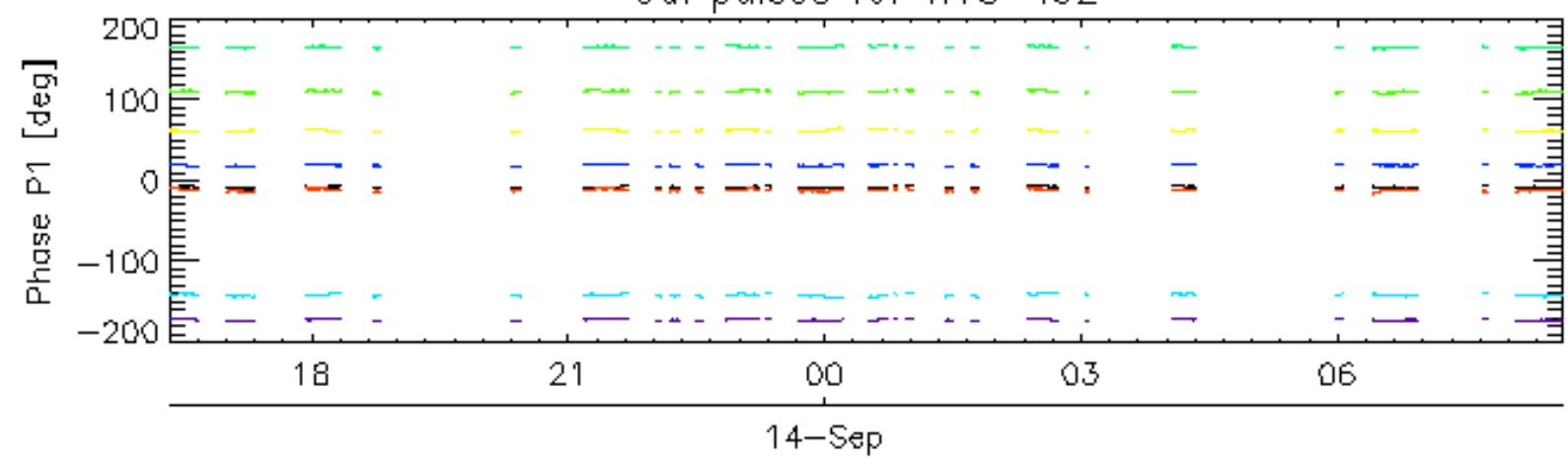


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 14-Sep

Cal pulses for WVS IS2

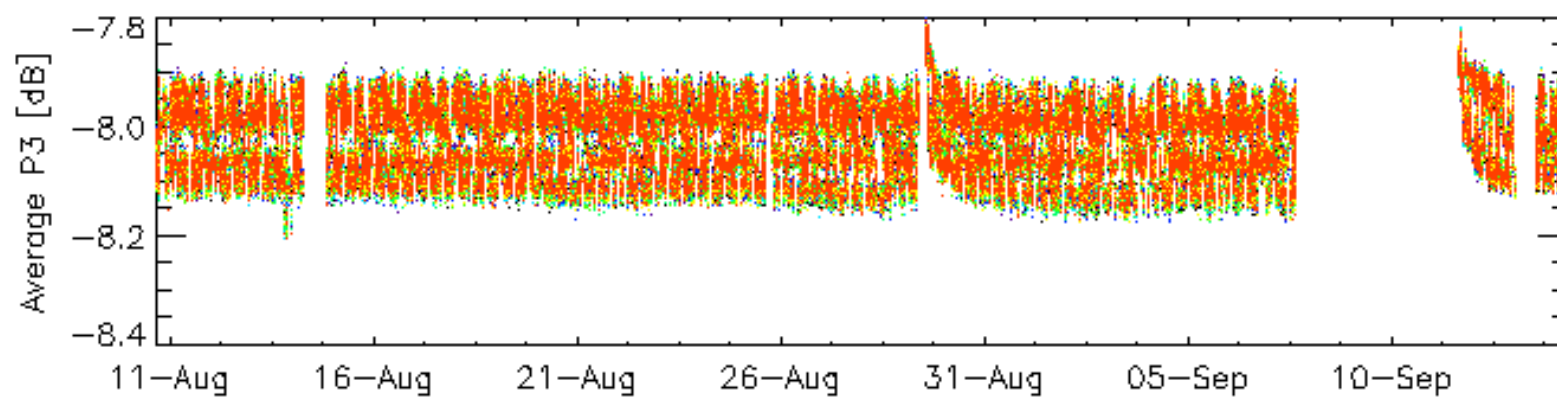
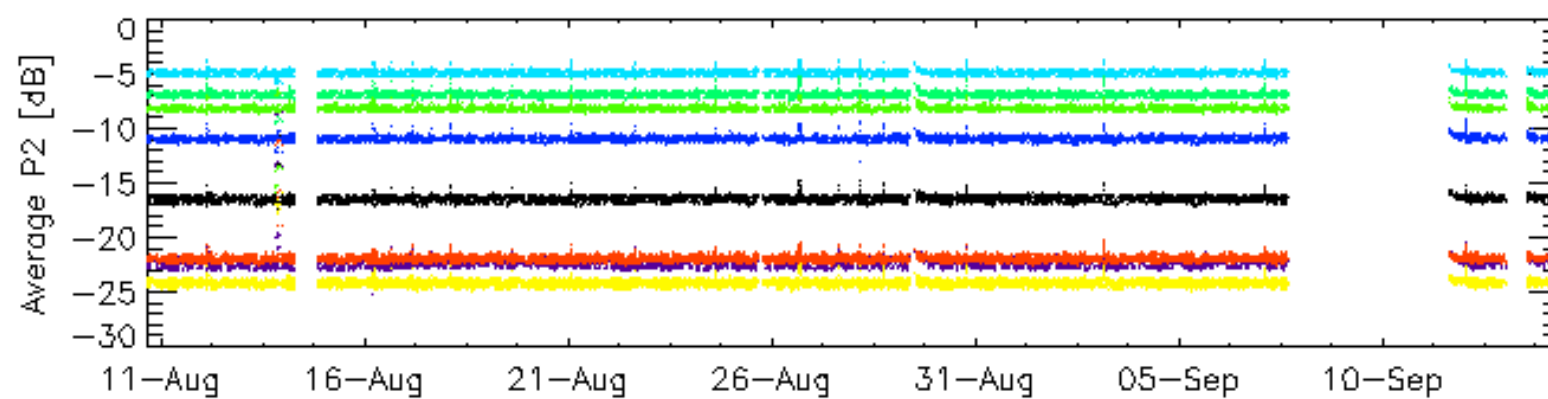
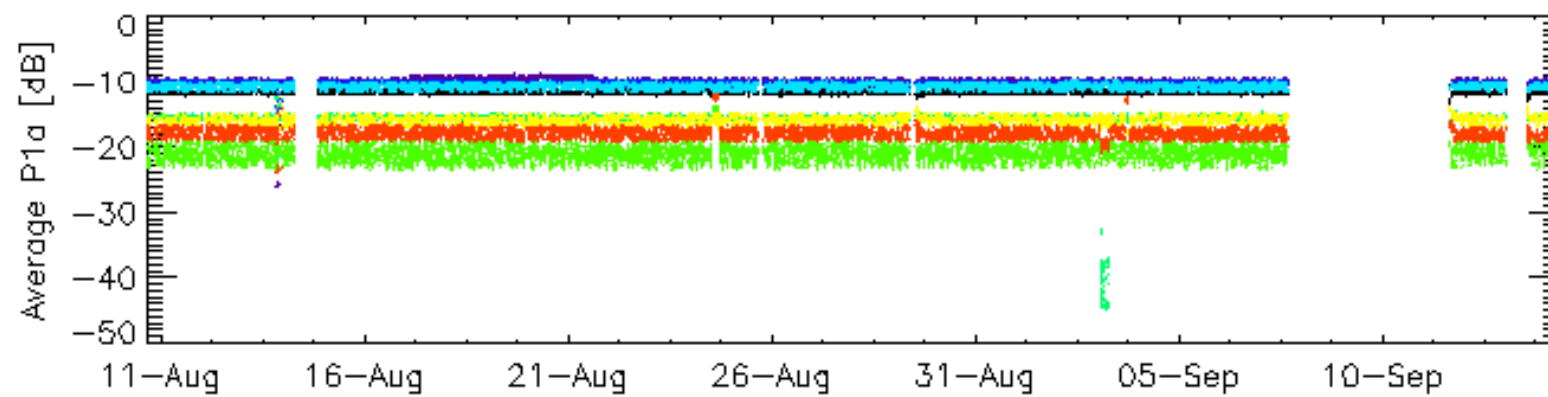
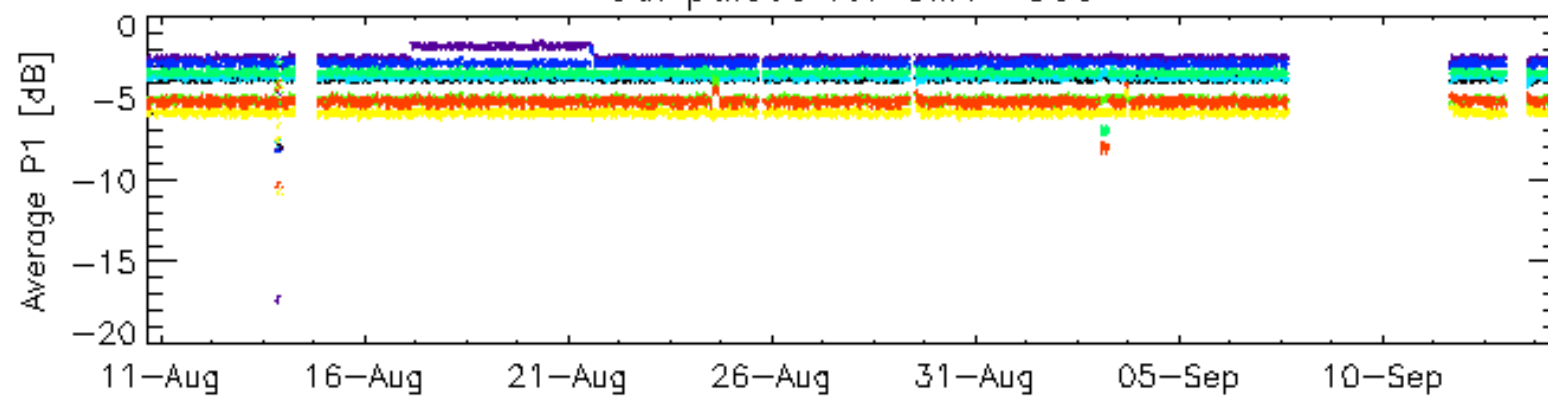


Cal pulses for WVS IS2



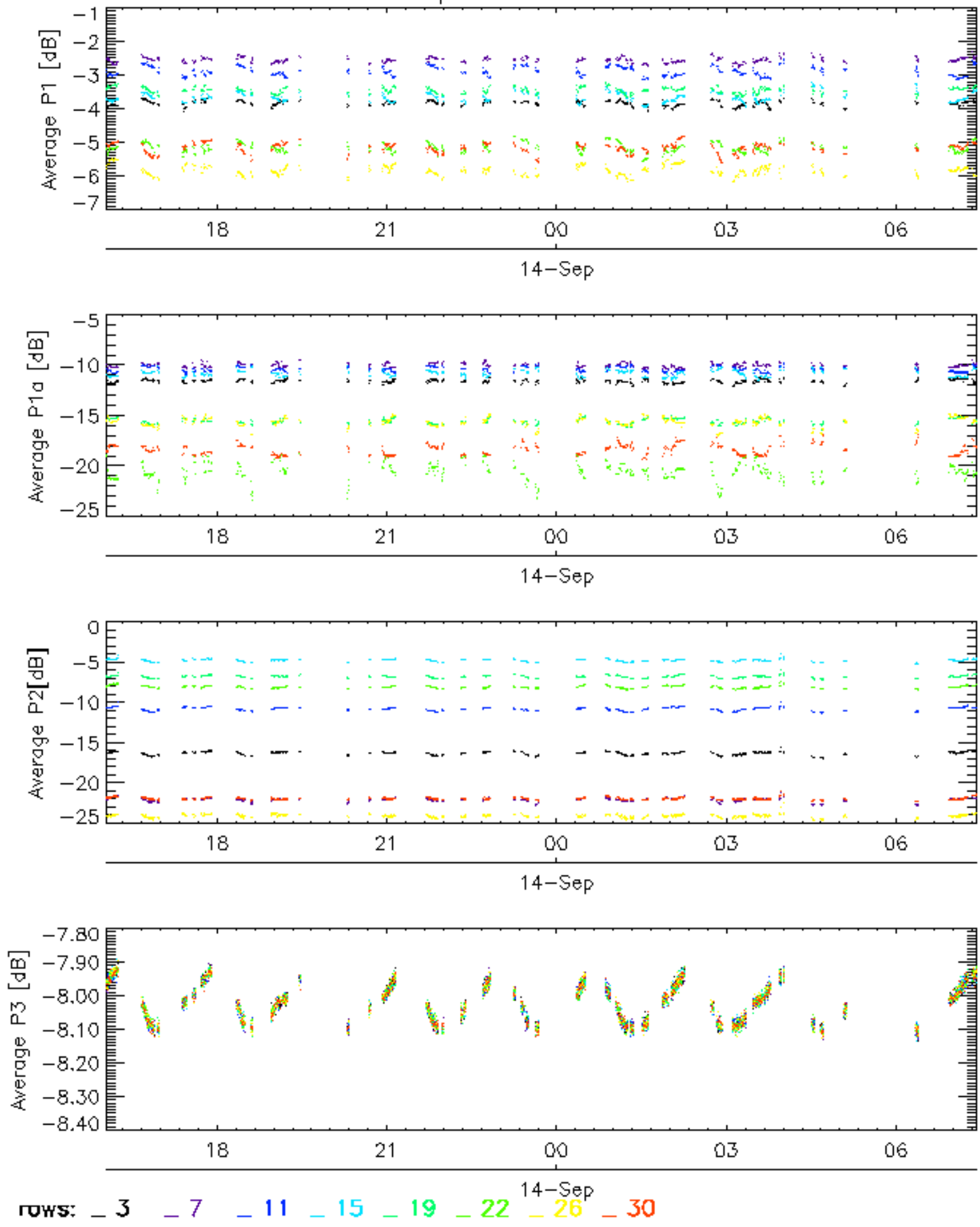
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

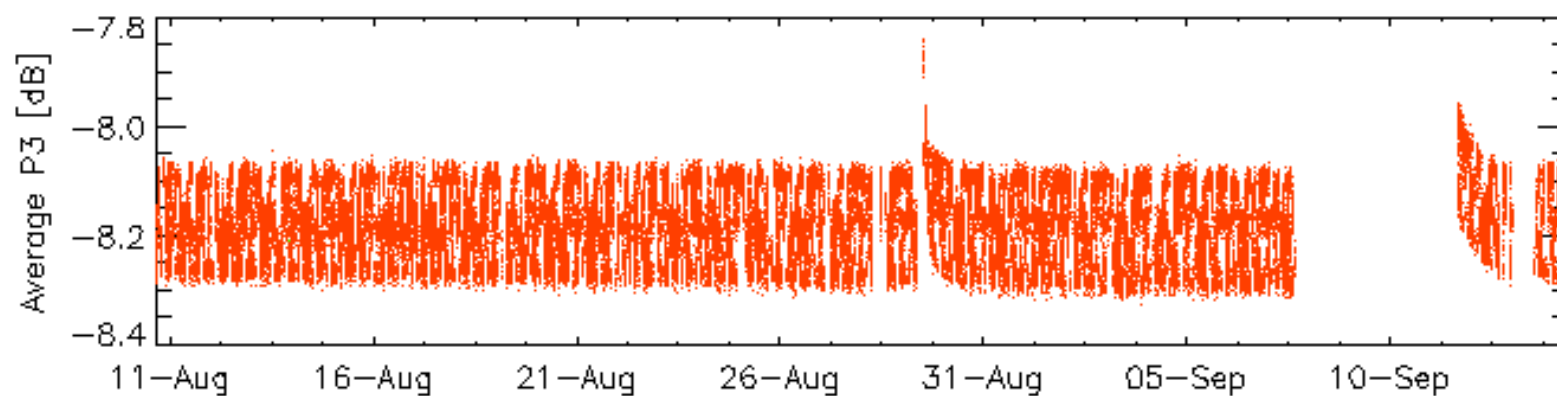
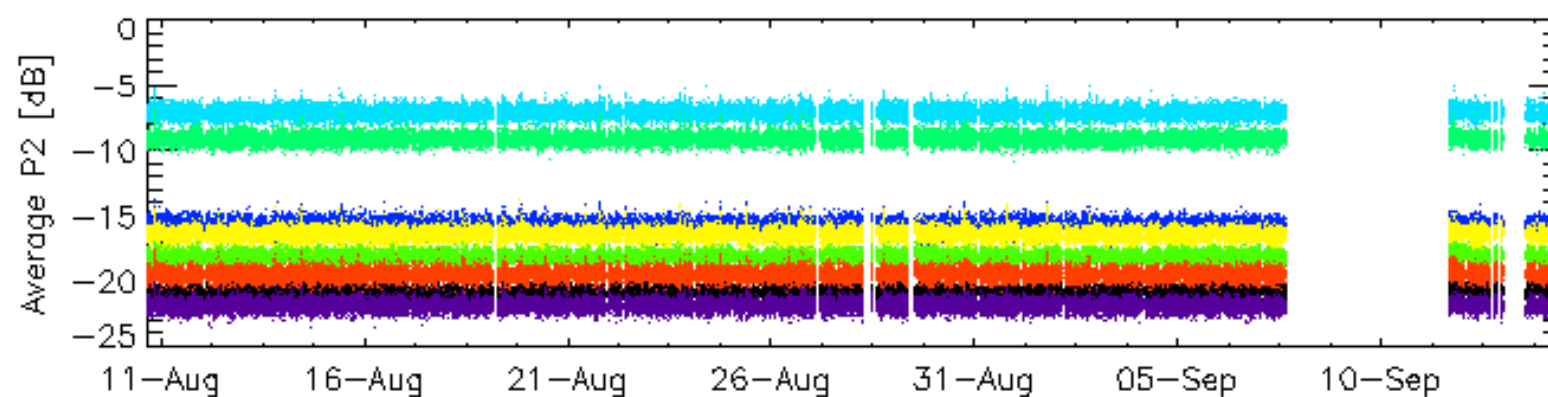
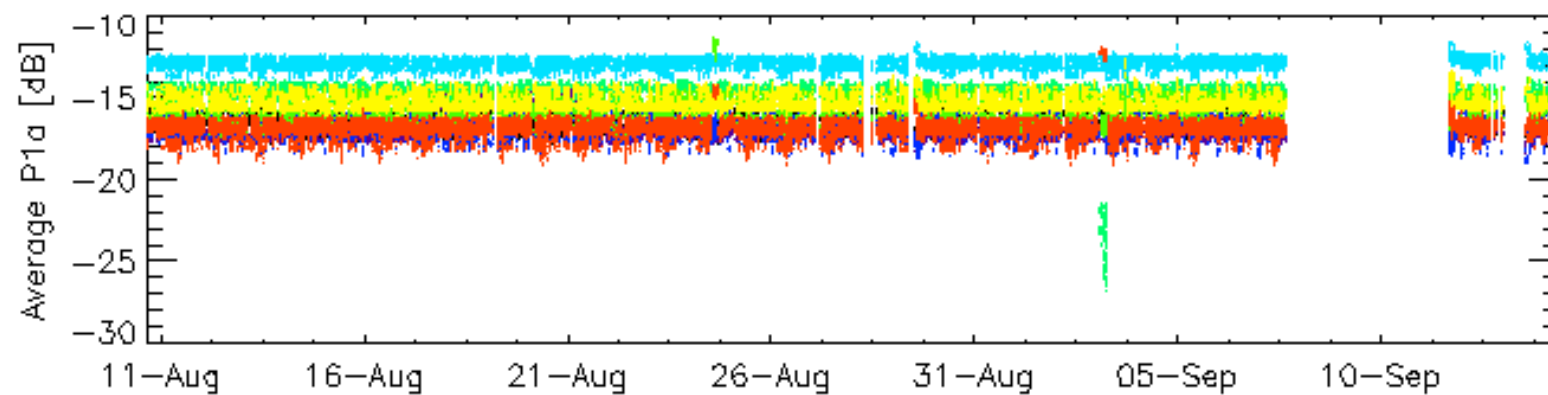
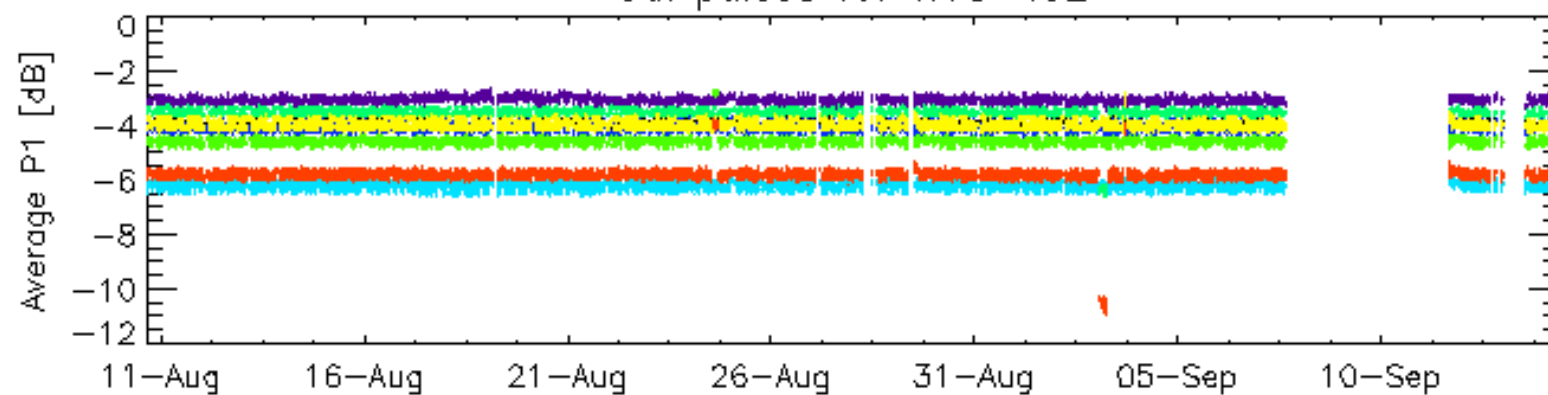


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

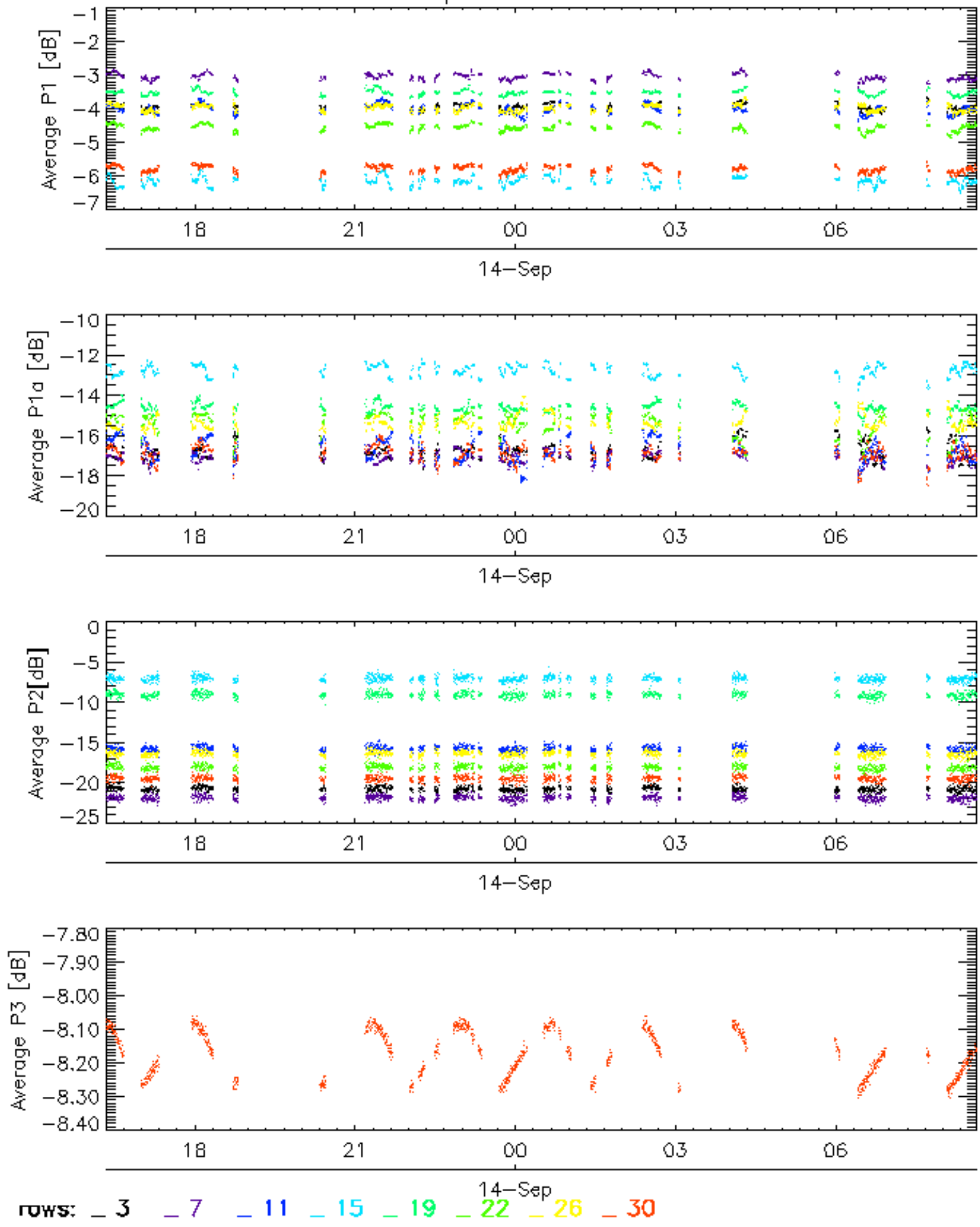


Cal pulses for WVS IS2



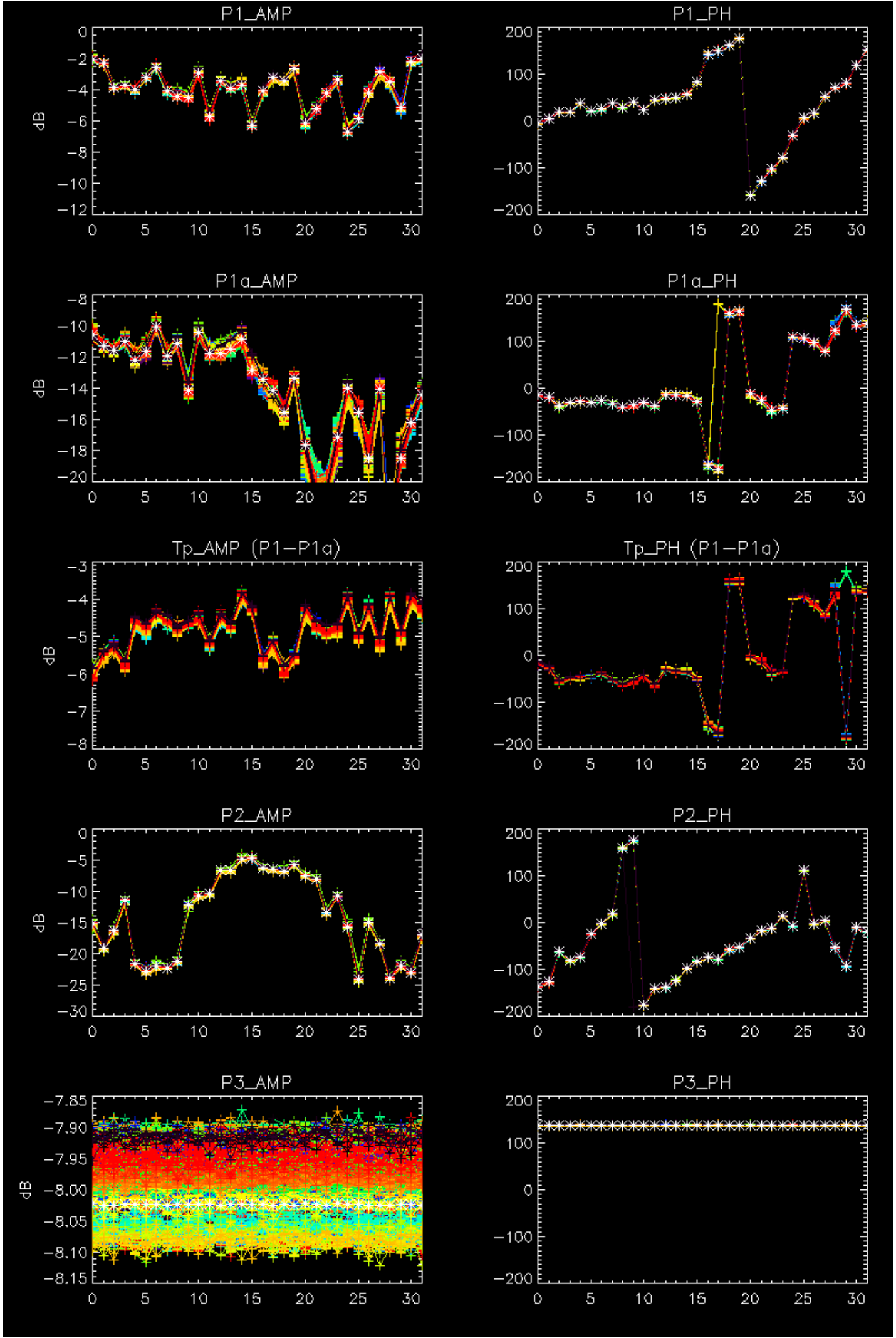
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

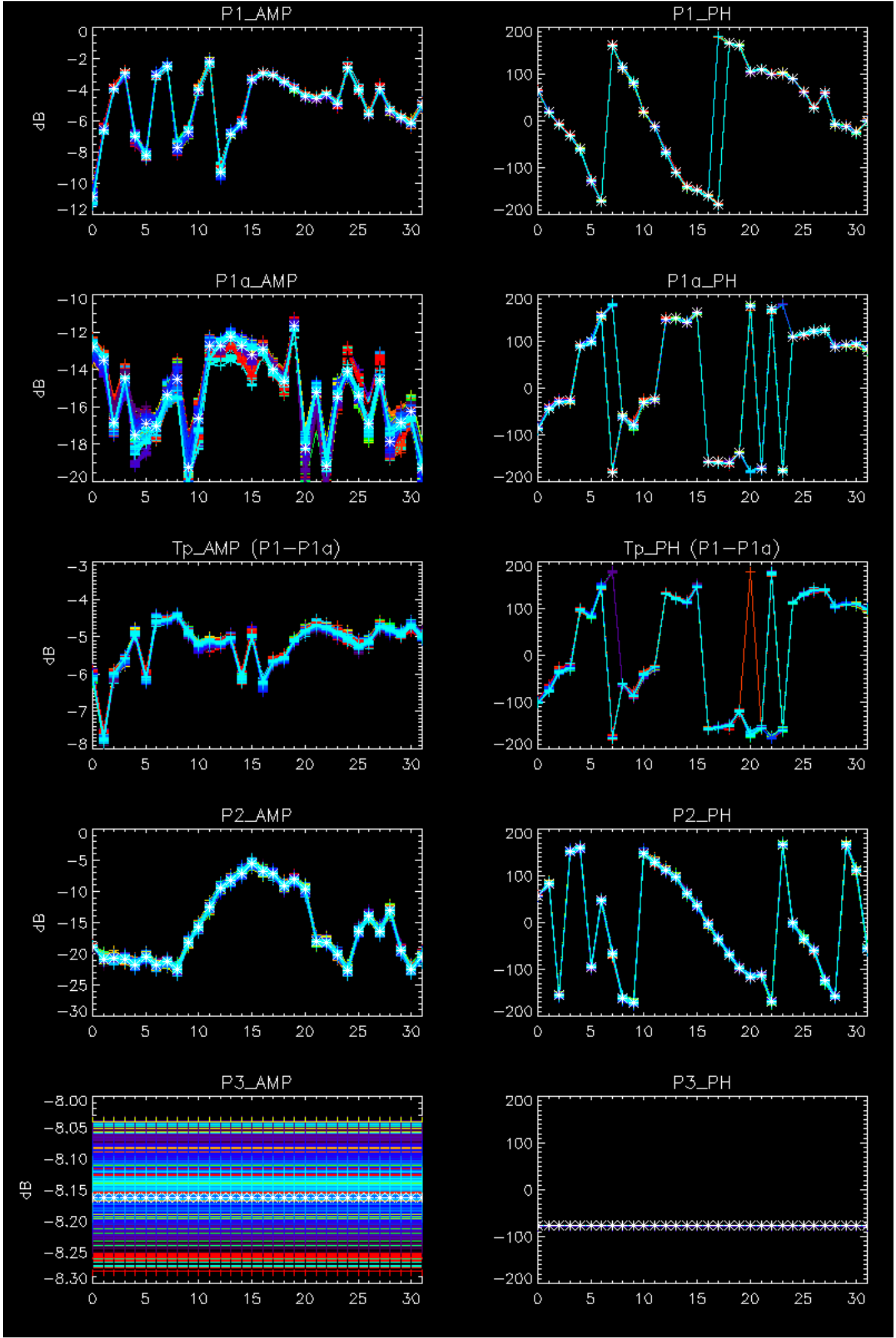
Cal pulses for WVS IS2



No anomalies observed on available browse products

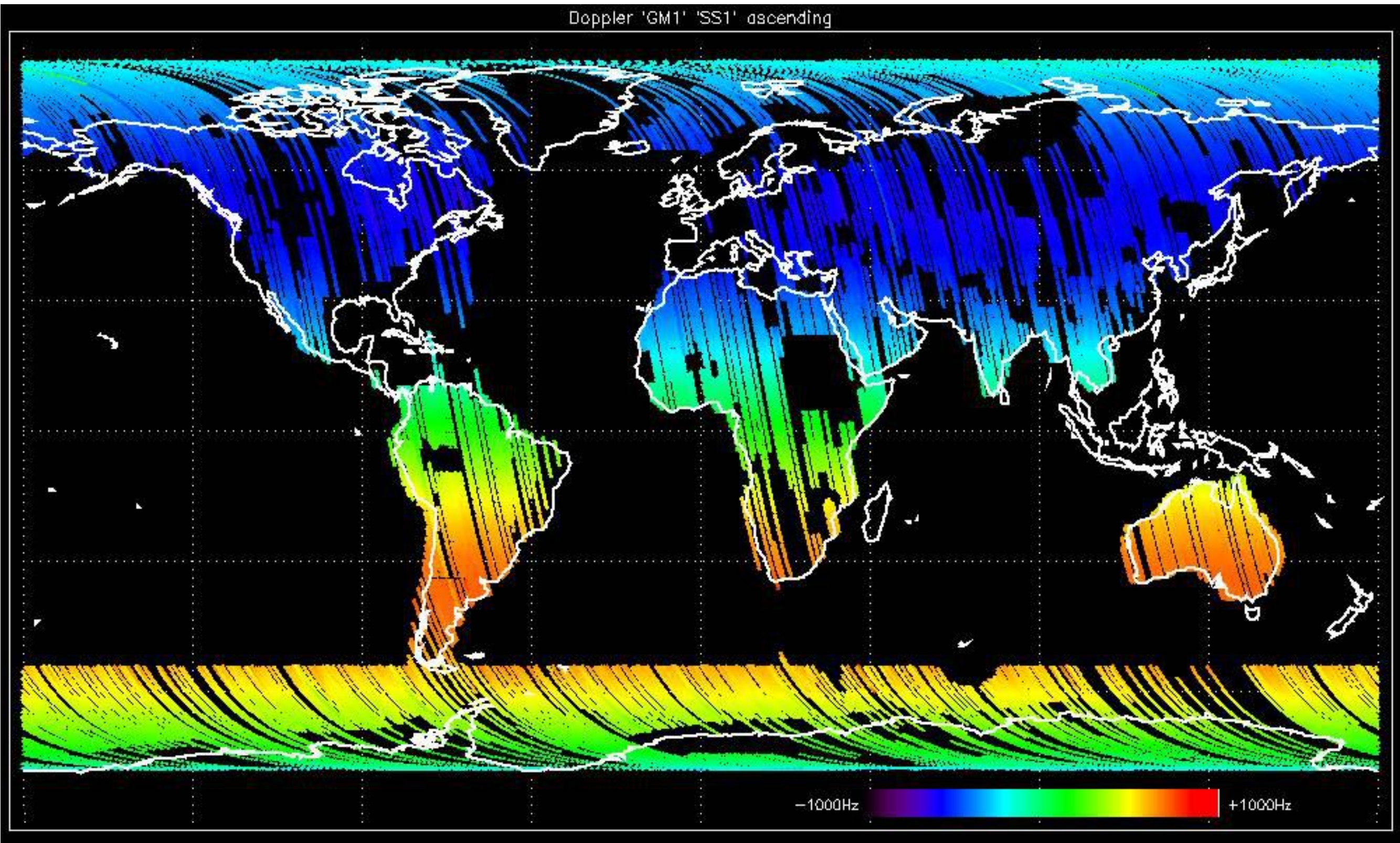
No anomalies observed.



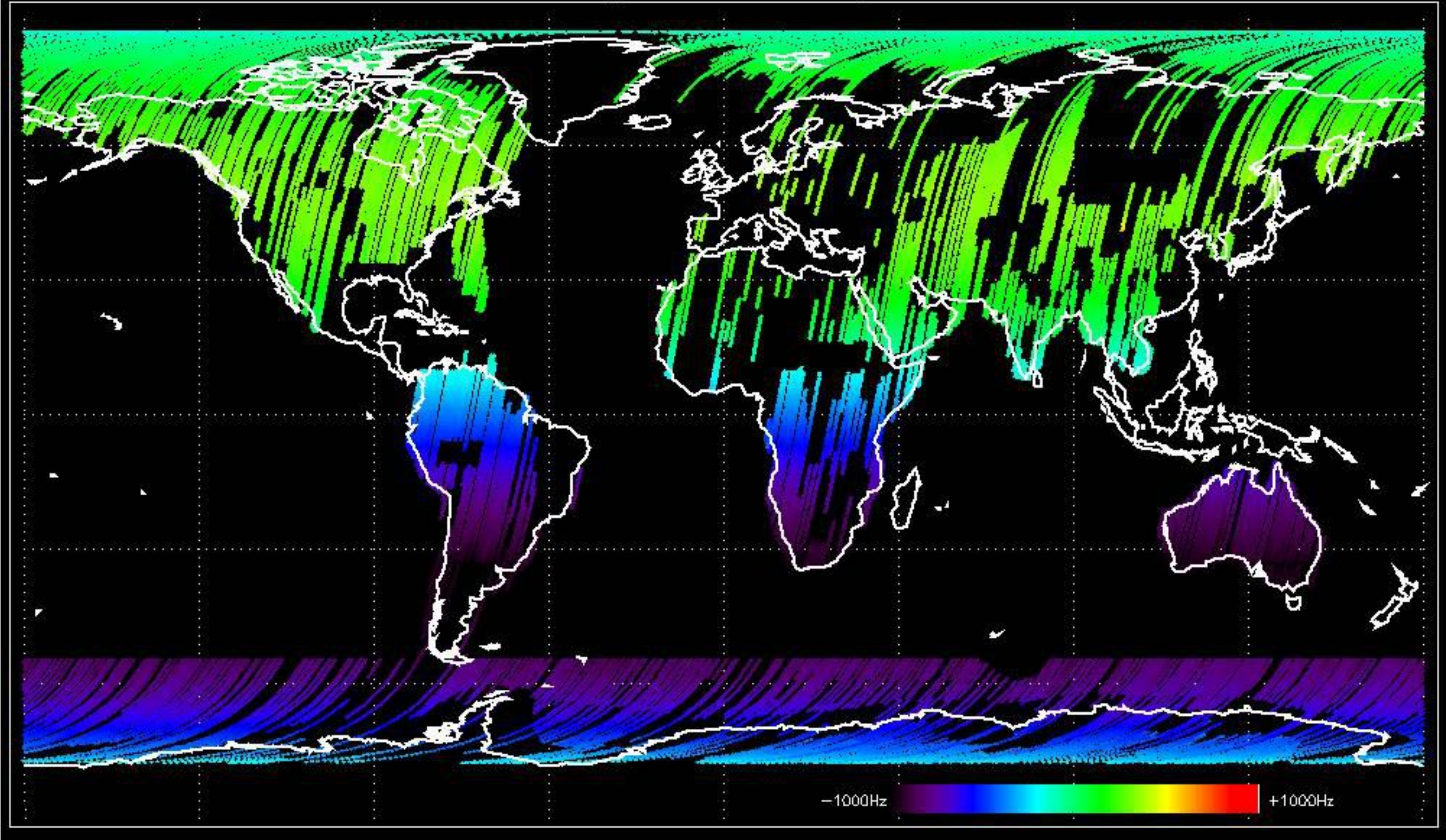


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

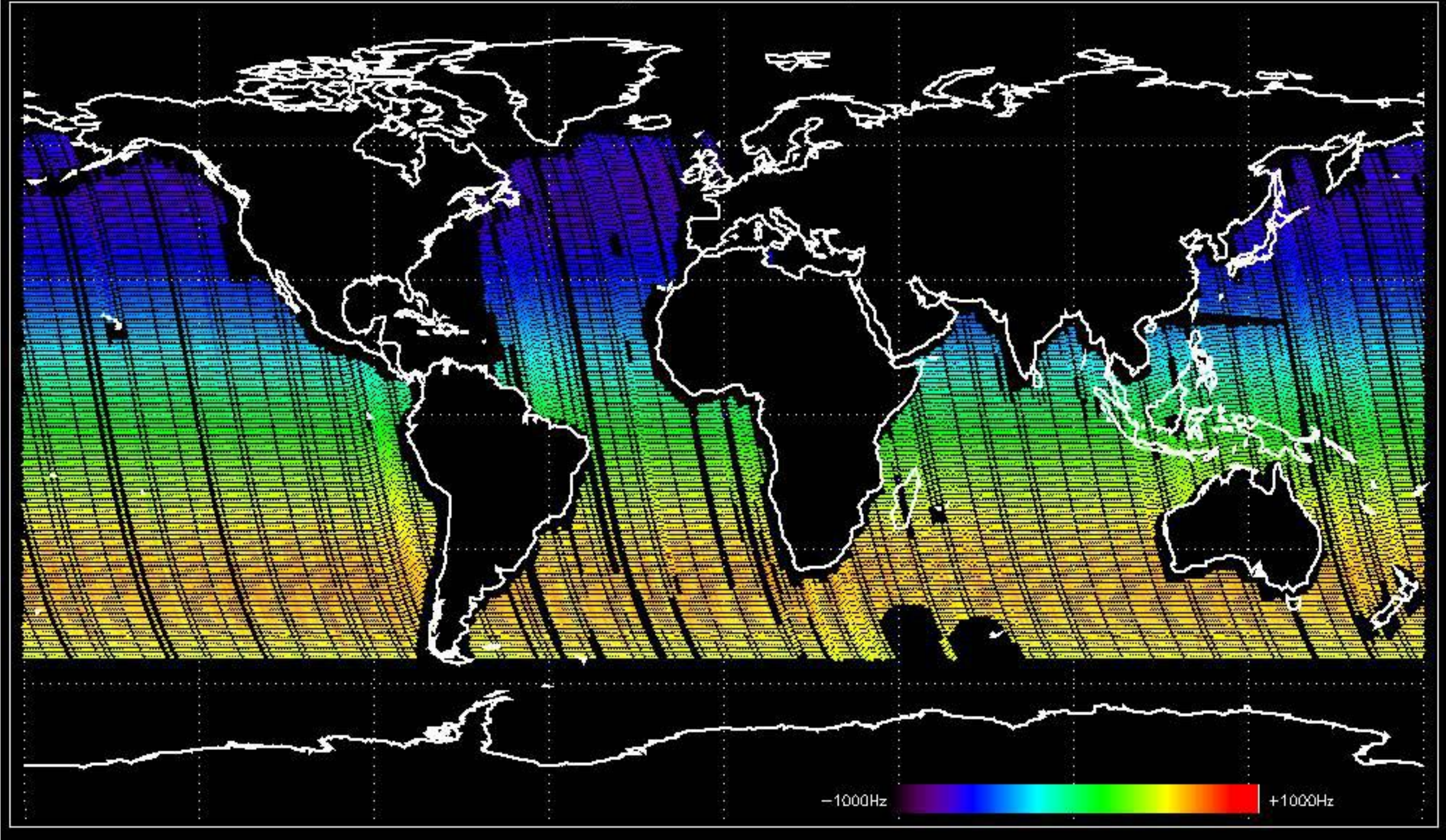
Doppler 'GM1' 'SS1' ascending



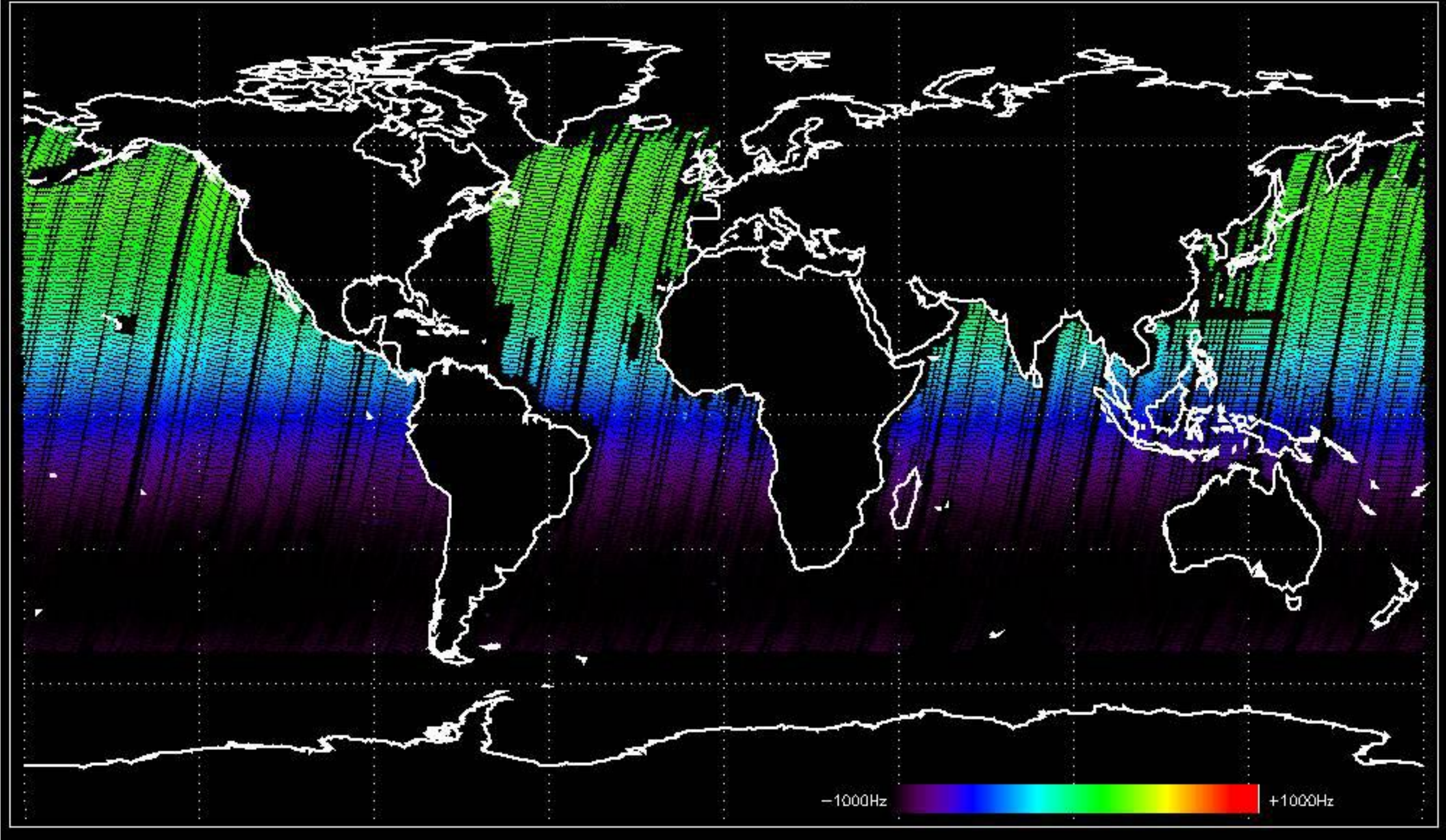
Doppler 'GM1' 'SS1' descending



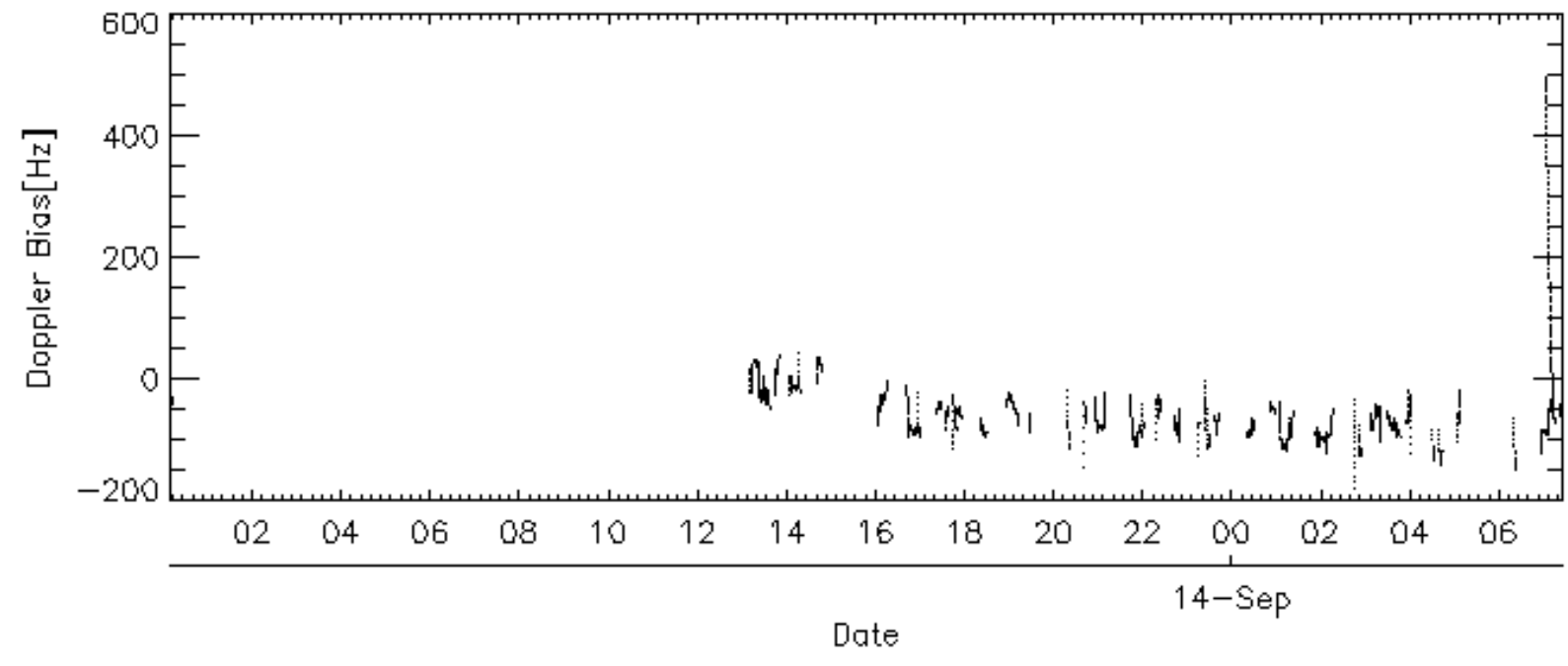
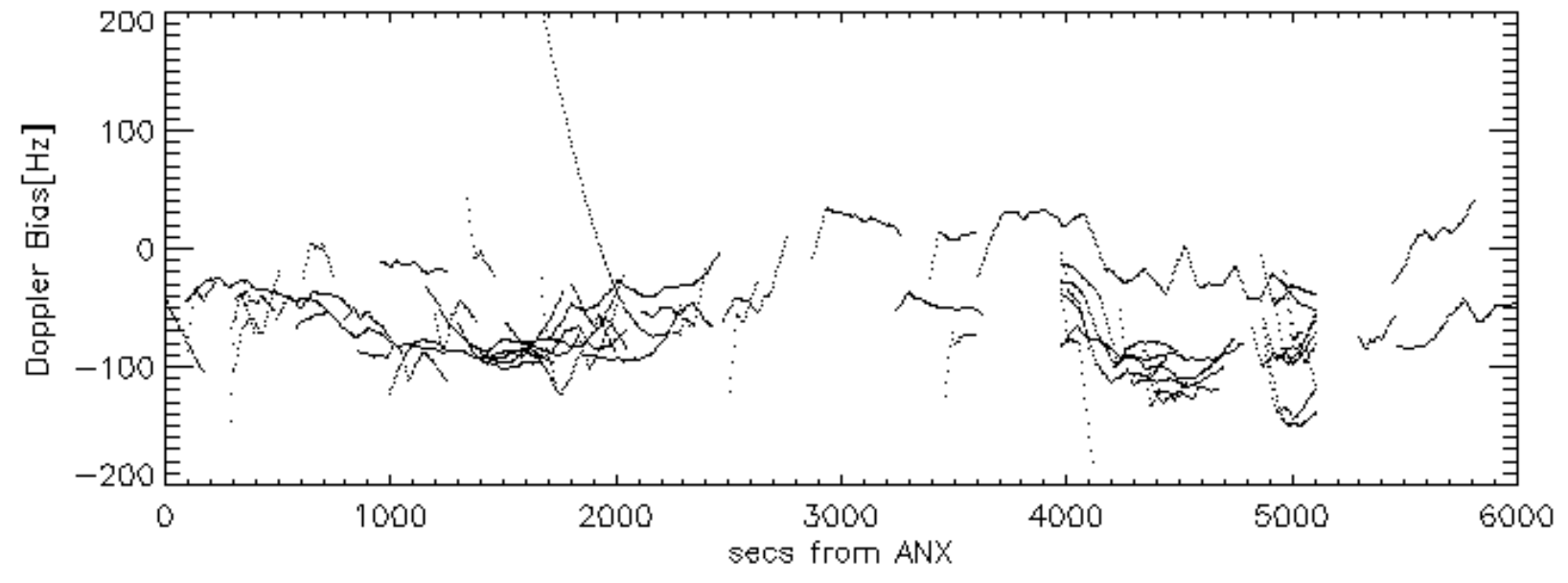
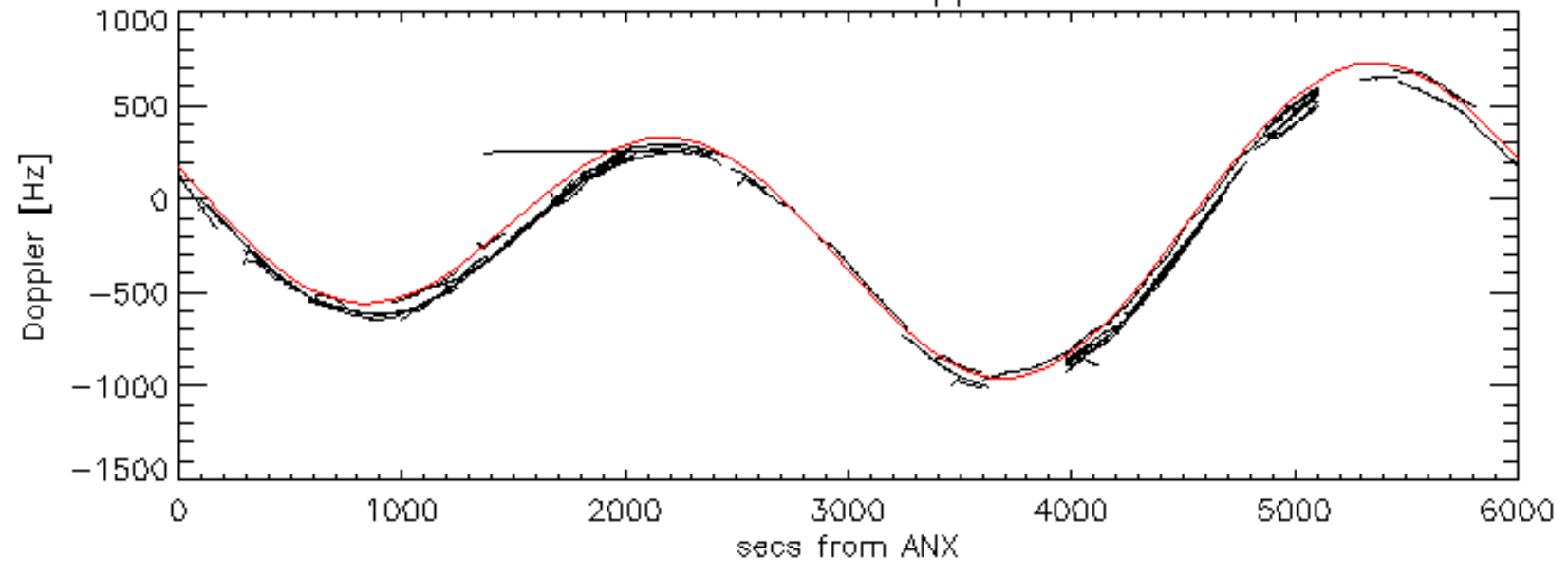
Doppler 'WVS' 'IS2' ascending

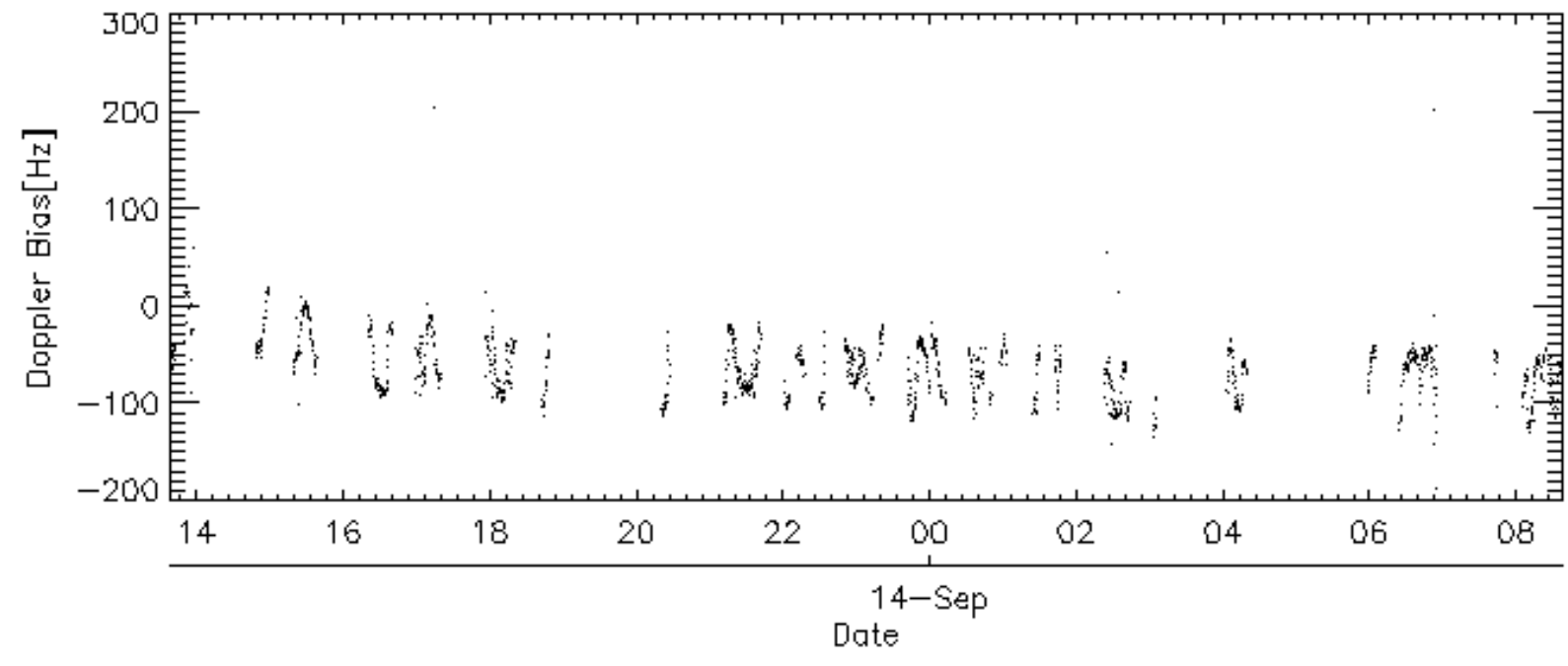
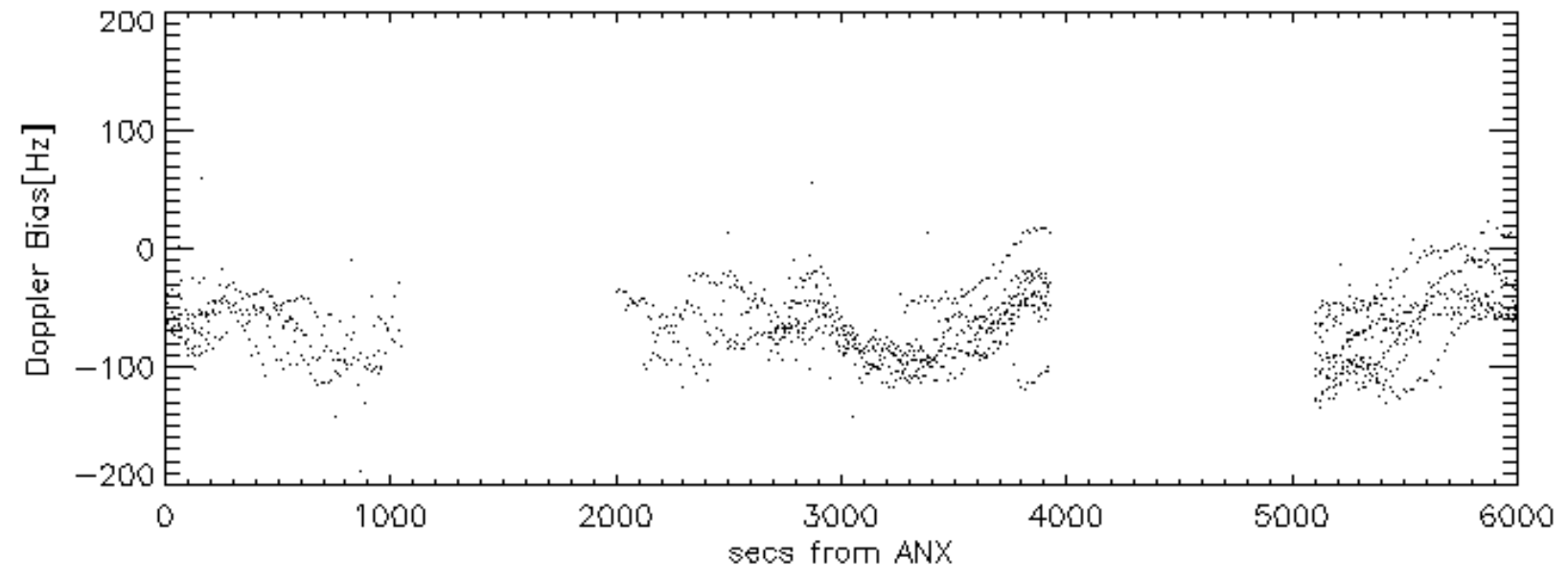
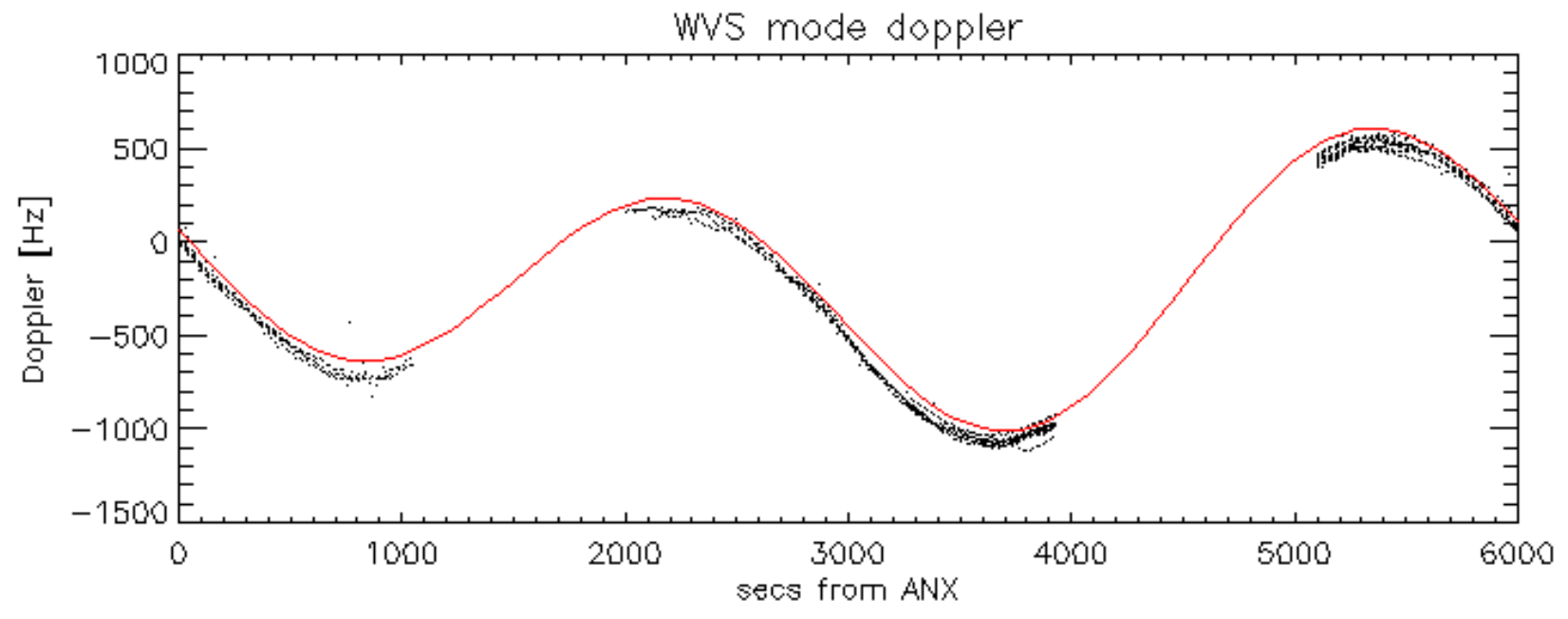


Doppler 'WVS' 'IS2' descending

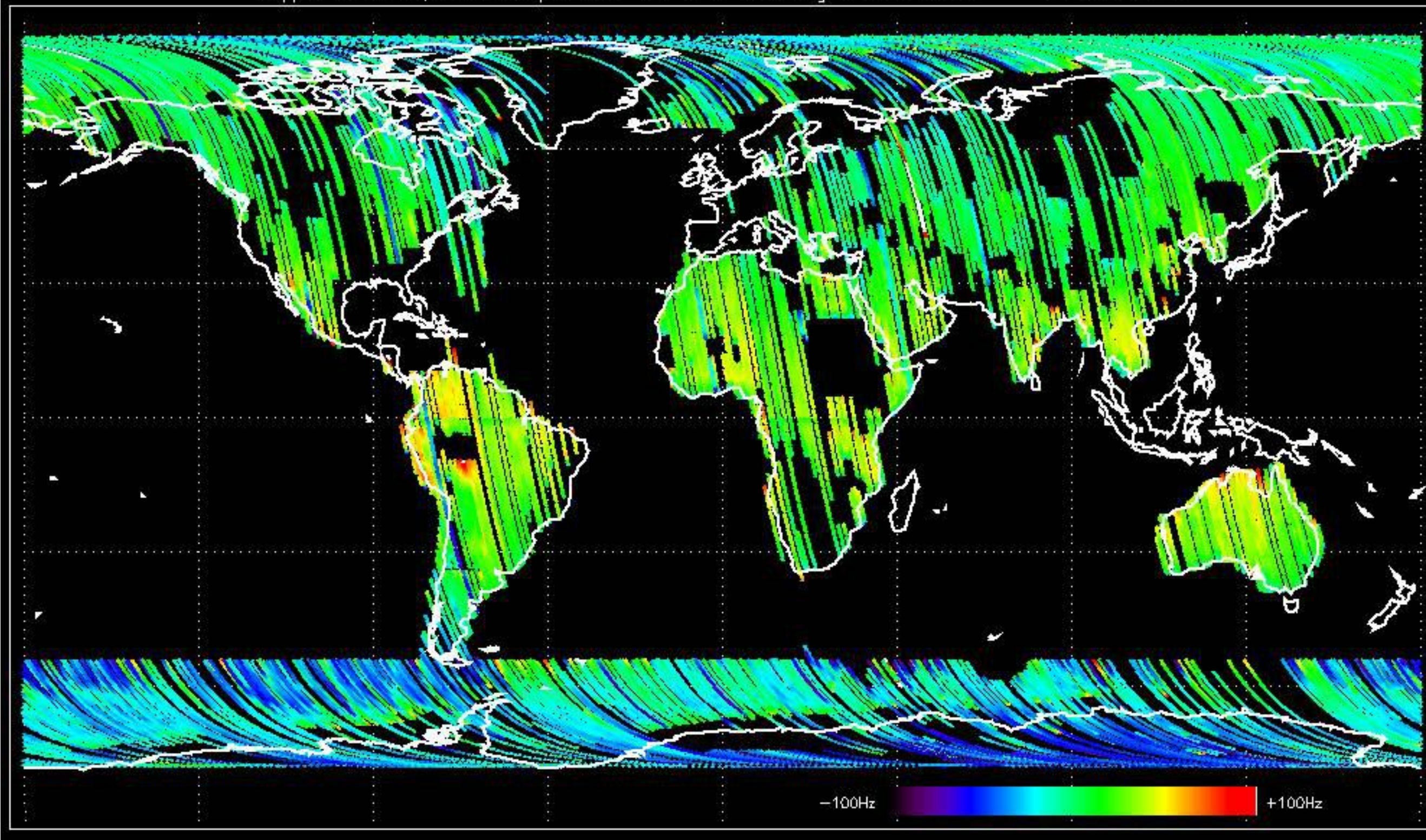


GM1 mode doppler

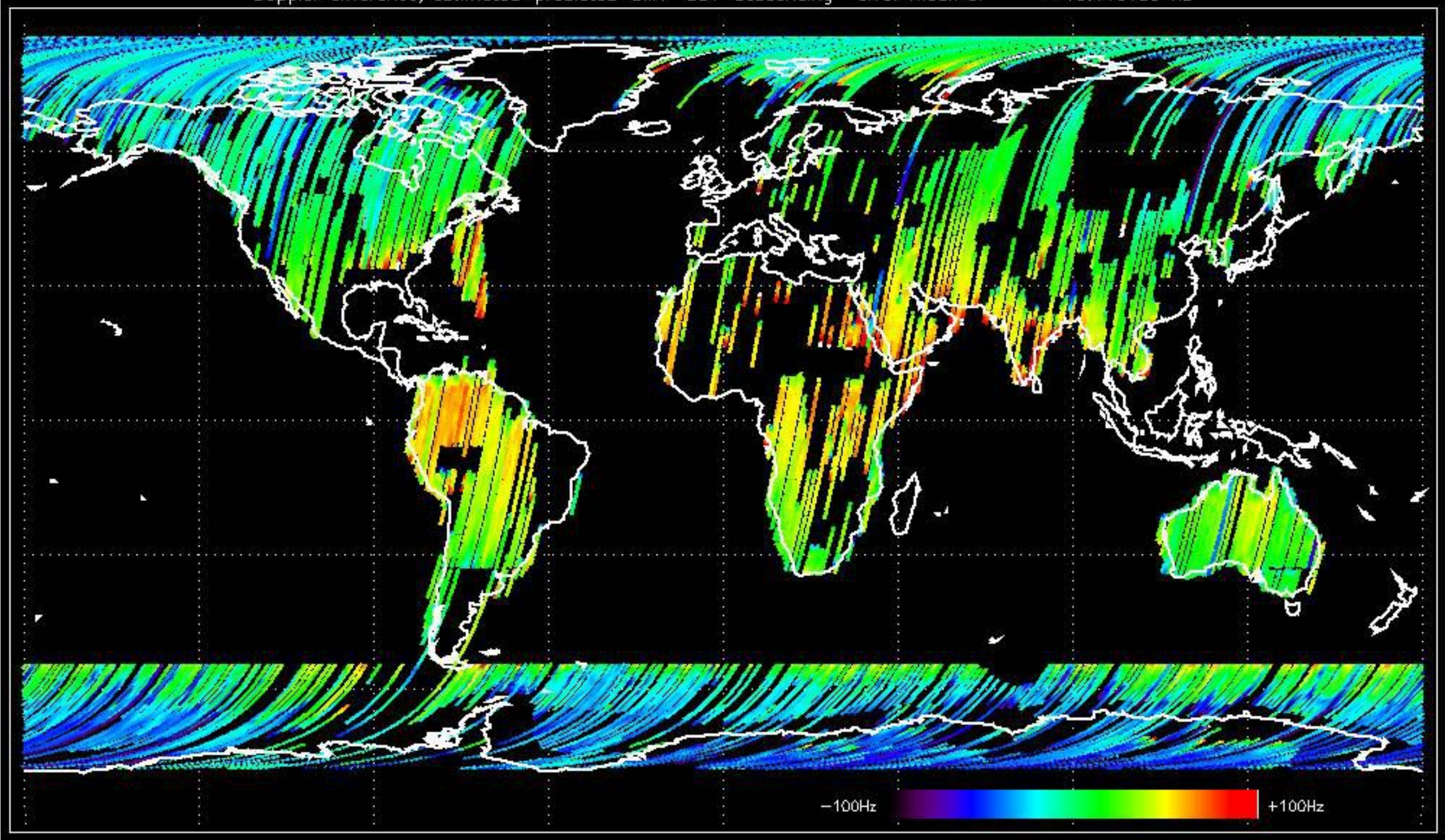




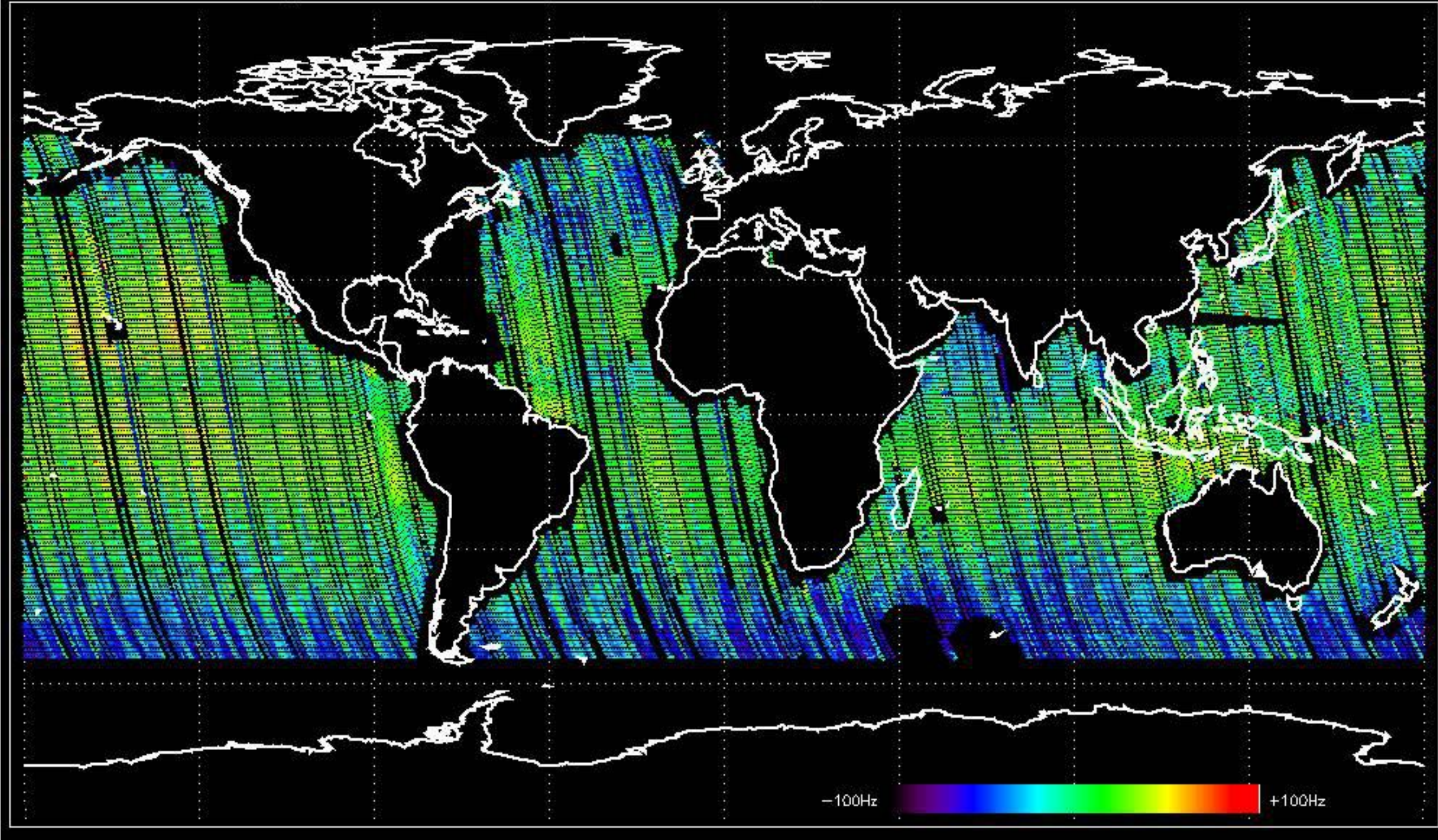
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.496827 Hz



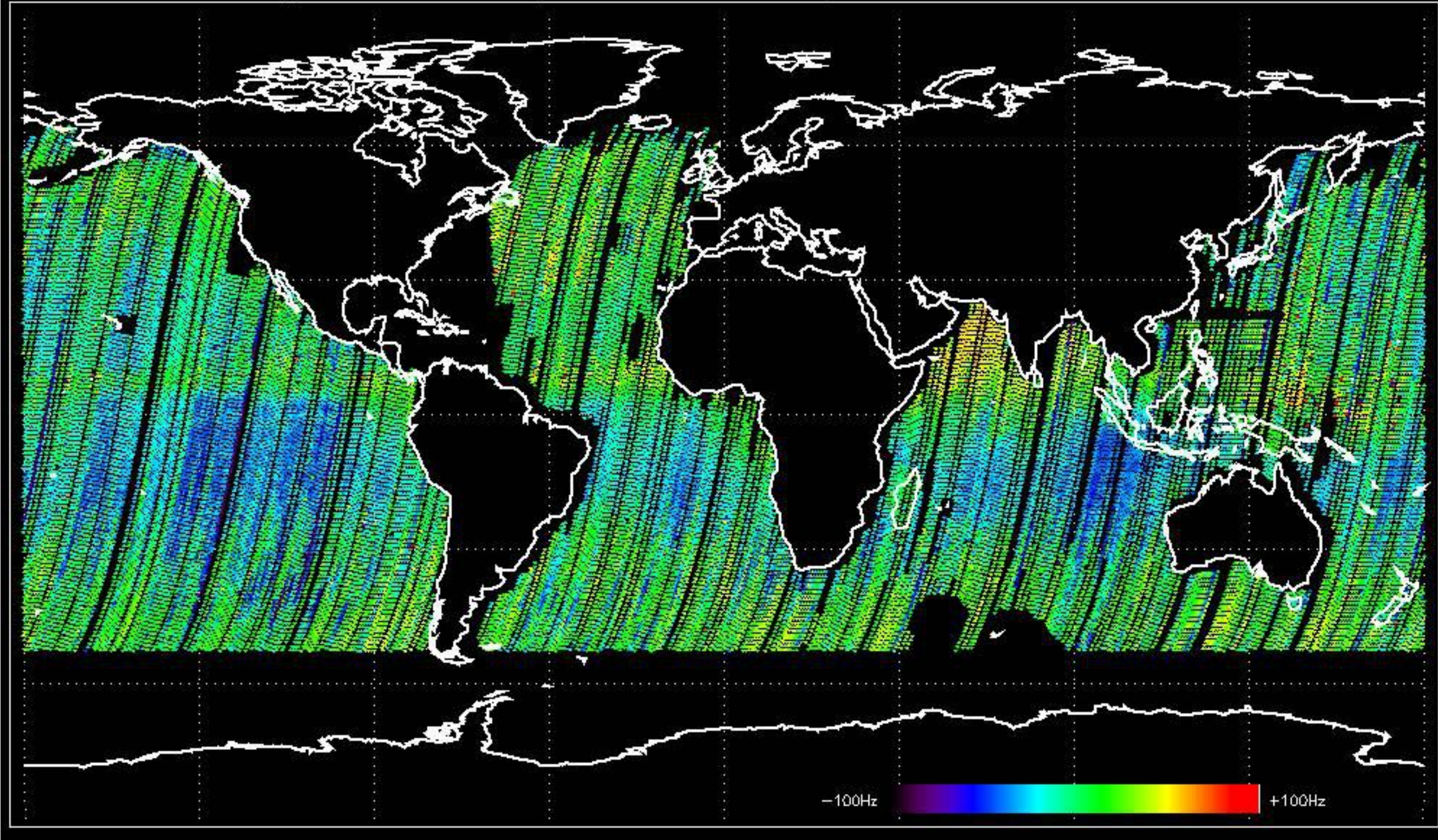
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -10.116133 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.7325295 Hz

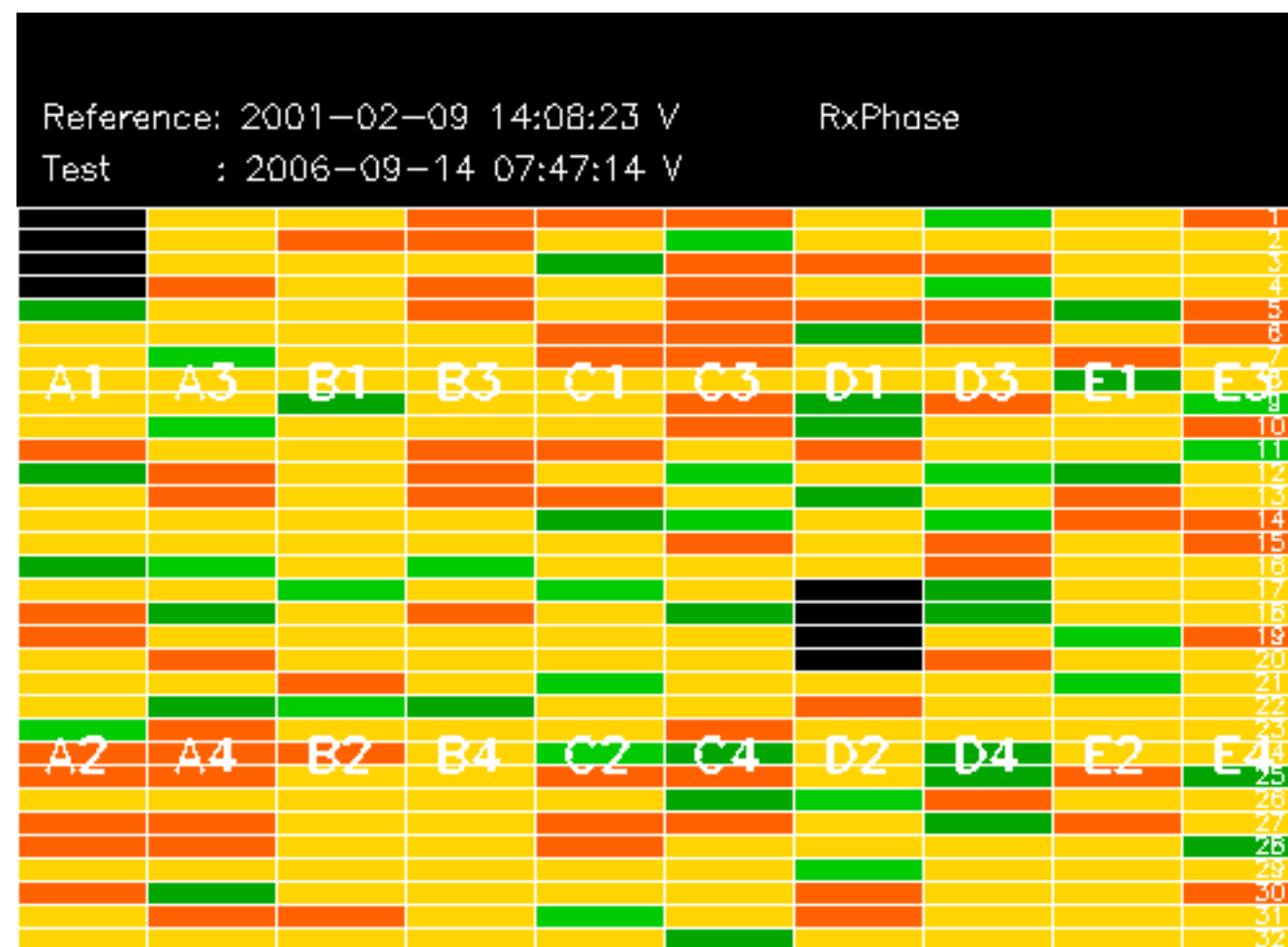


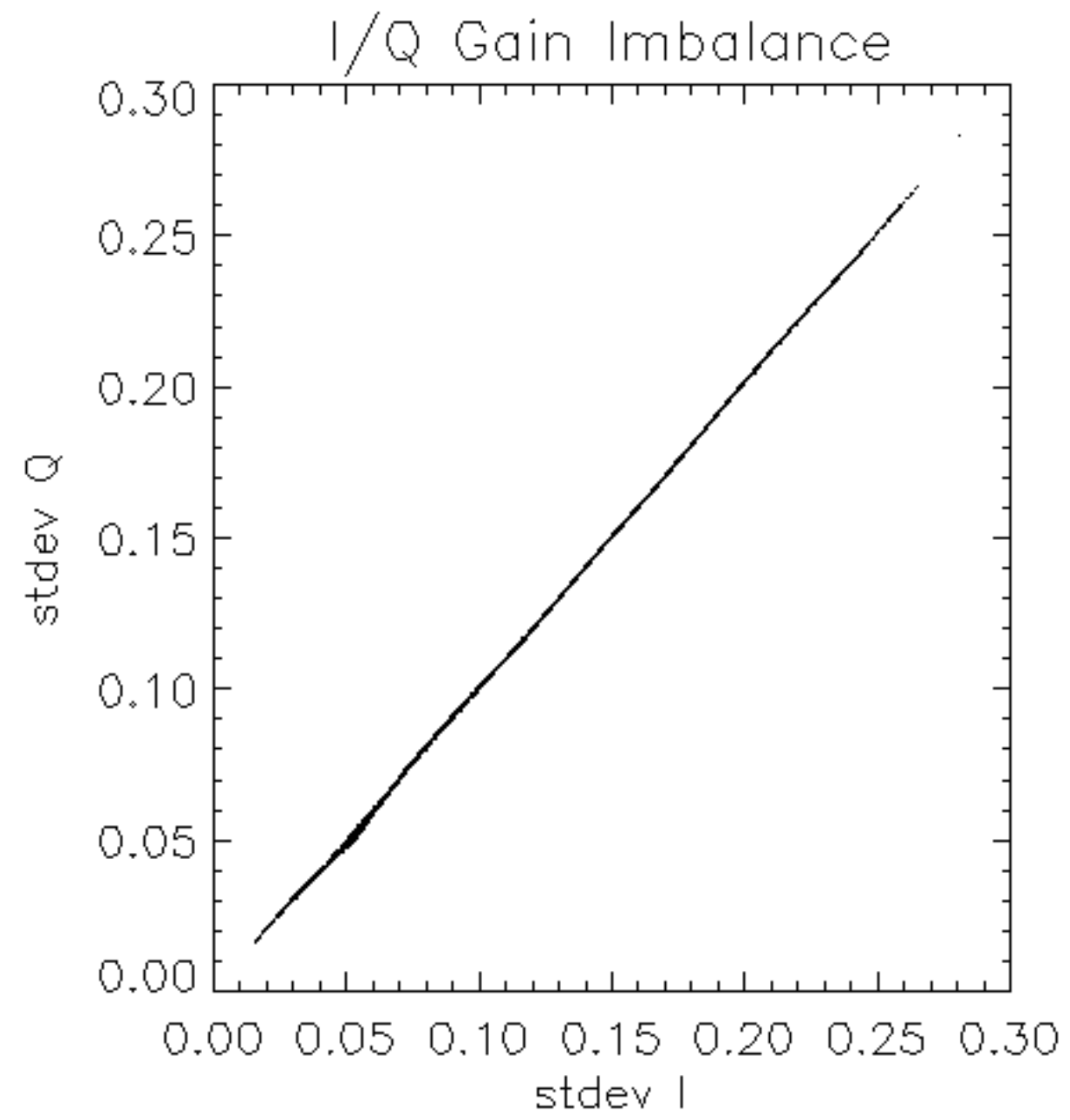
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.0679532 Hz

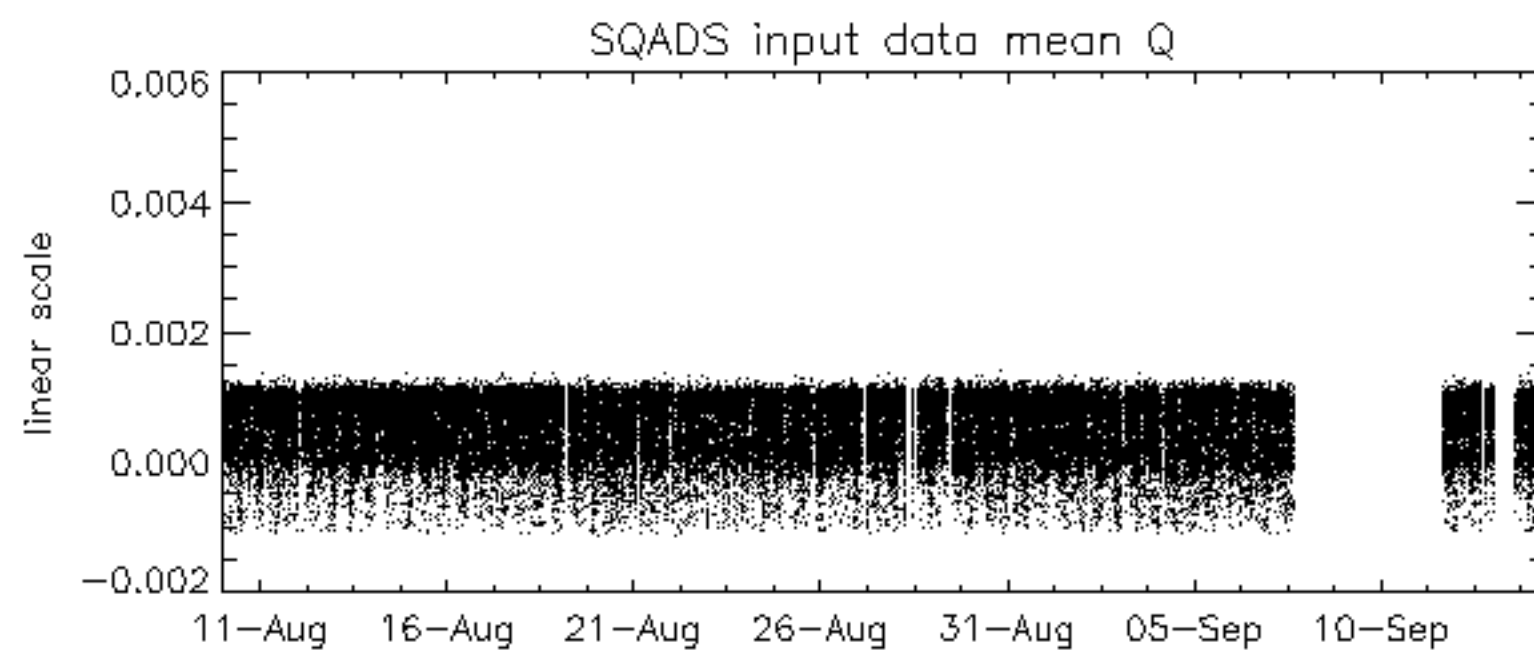
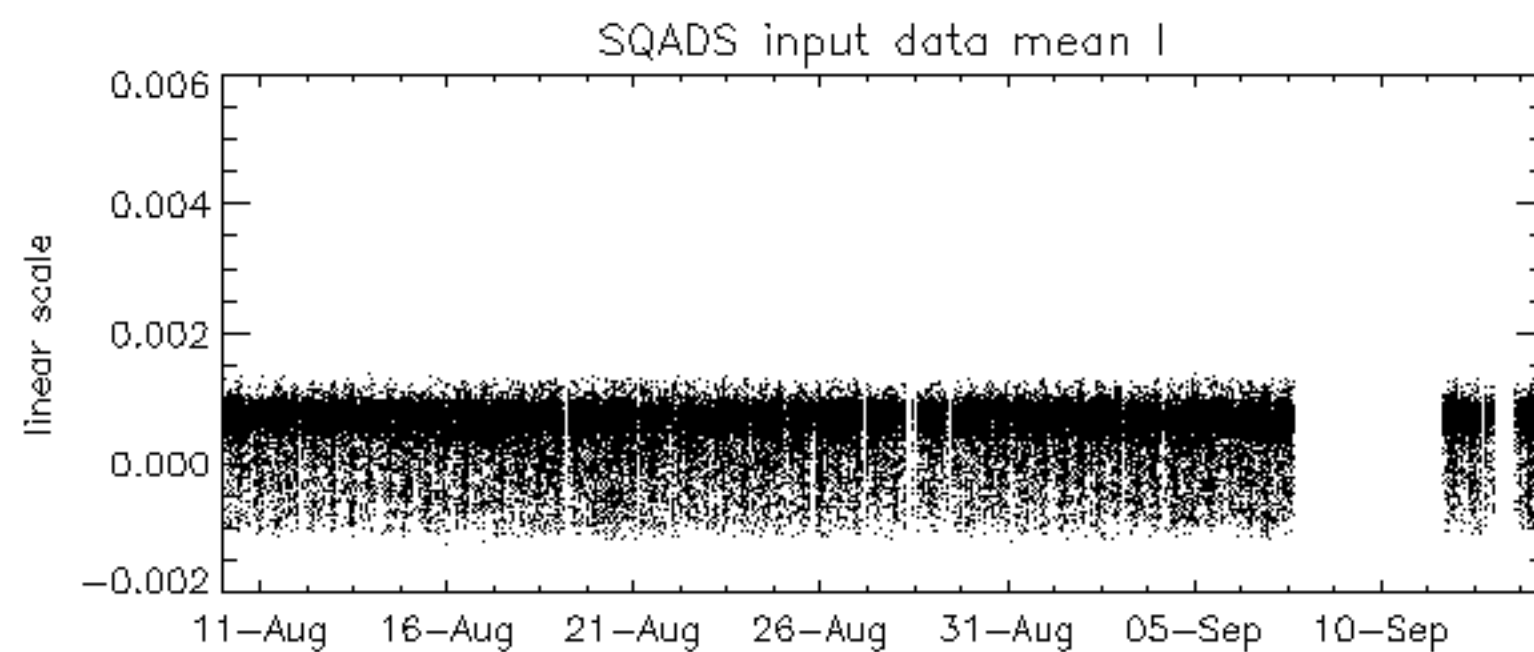
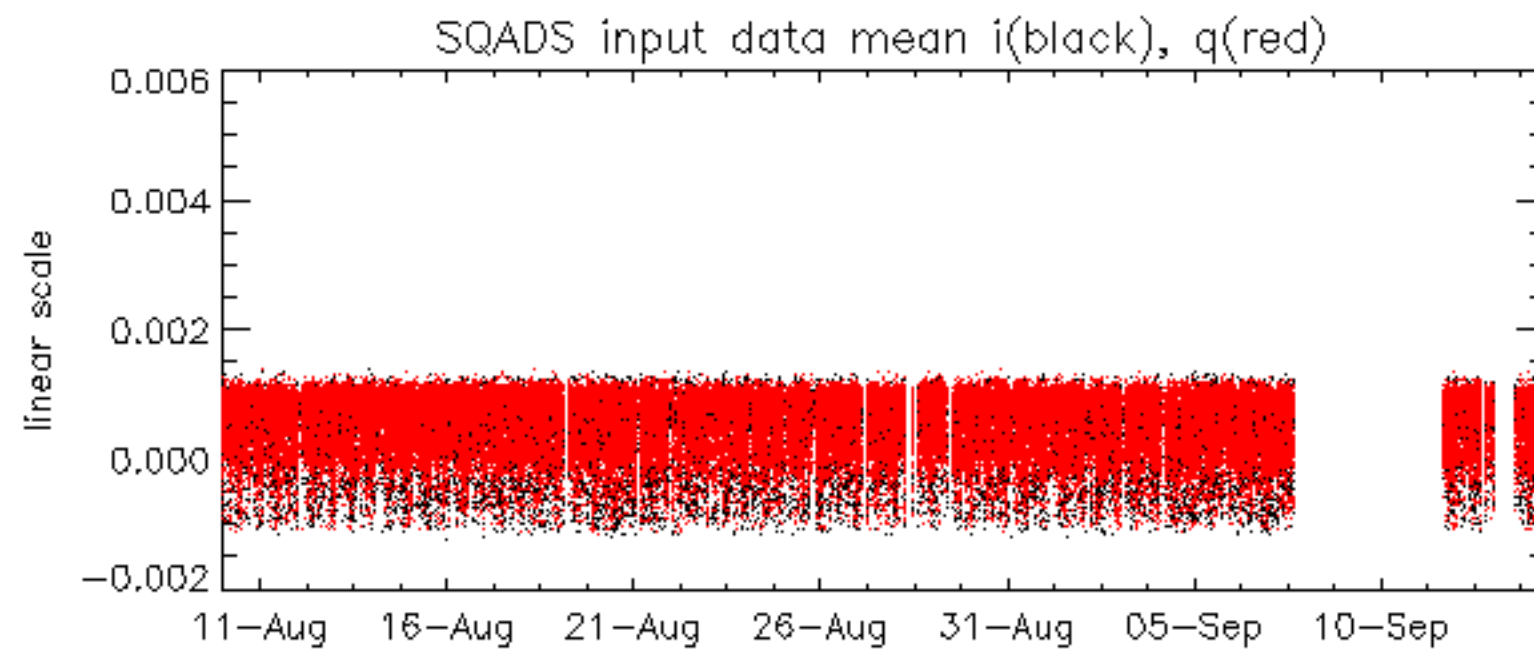


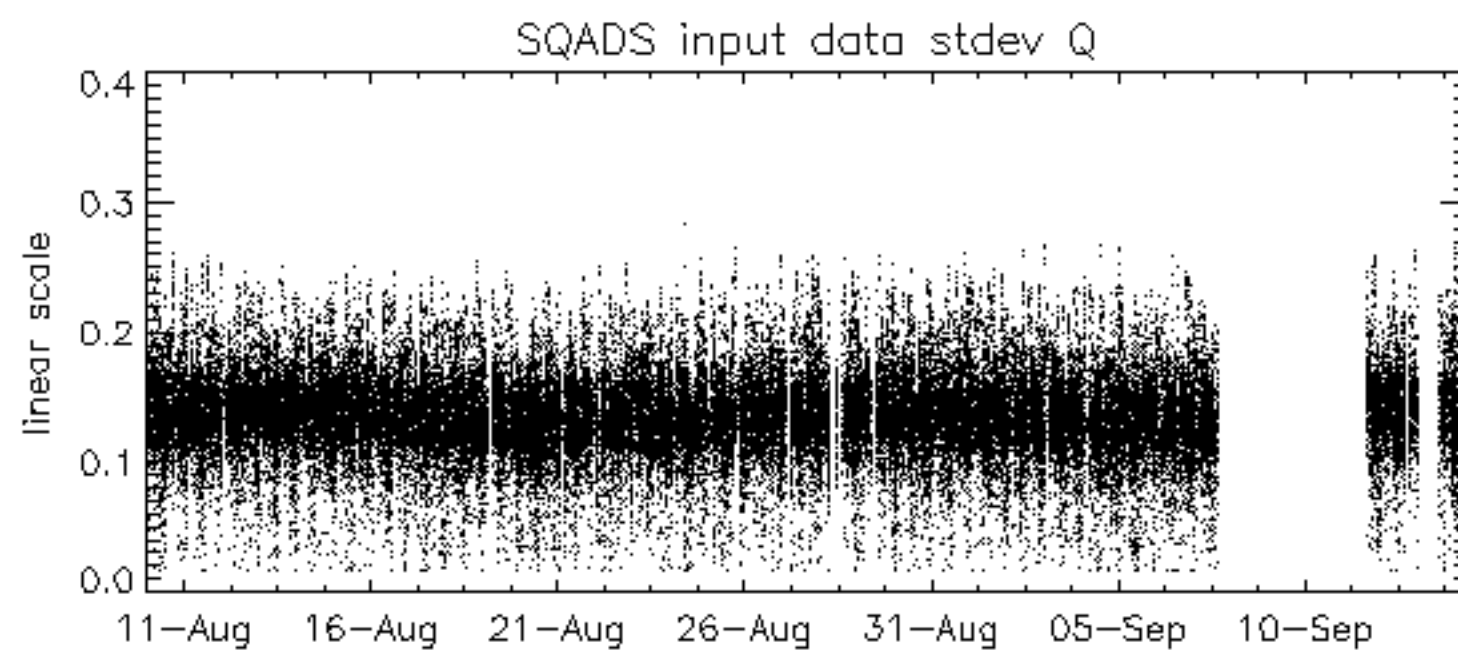
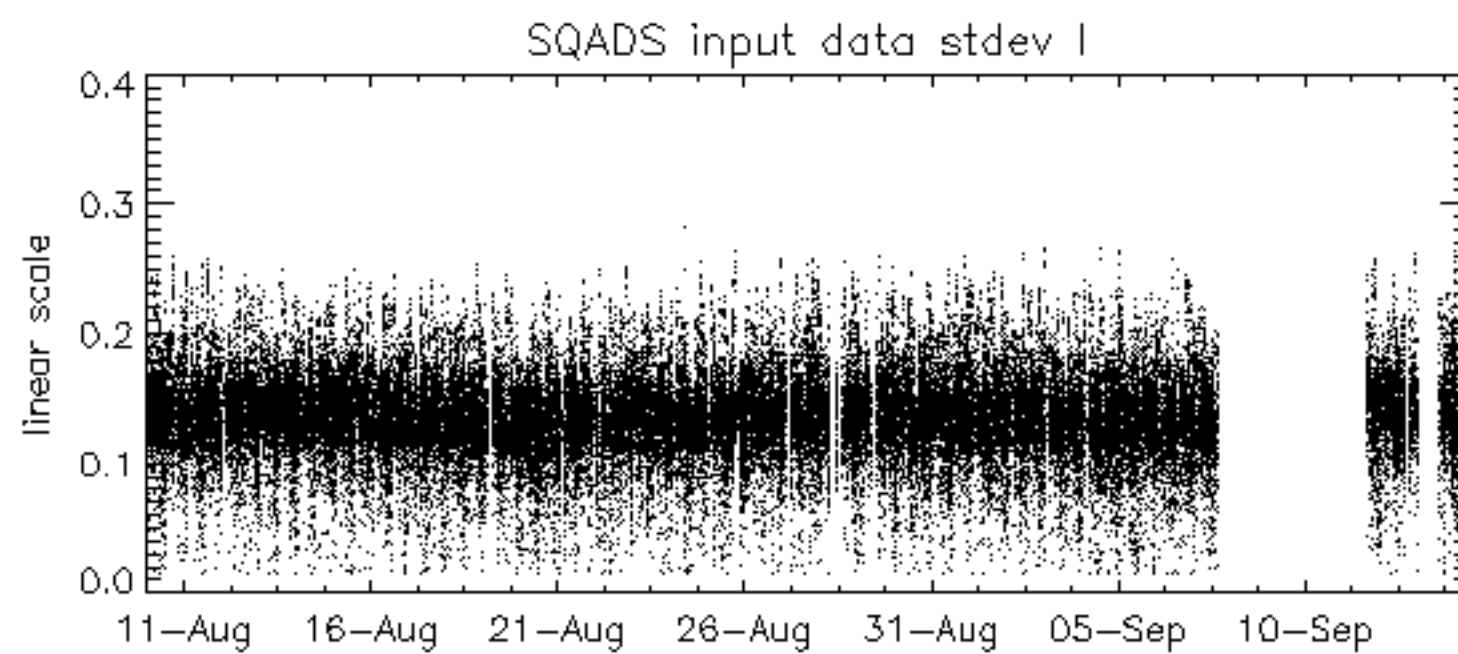
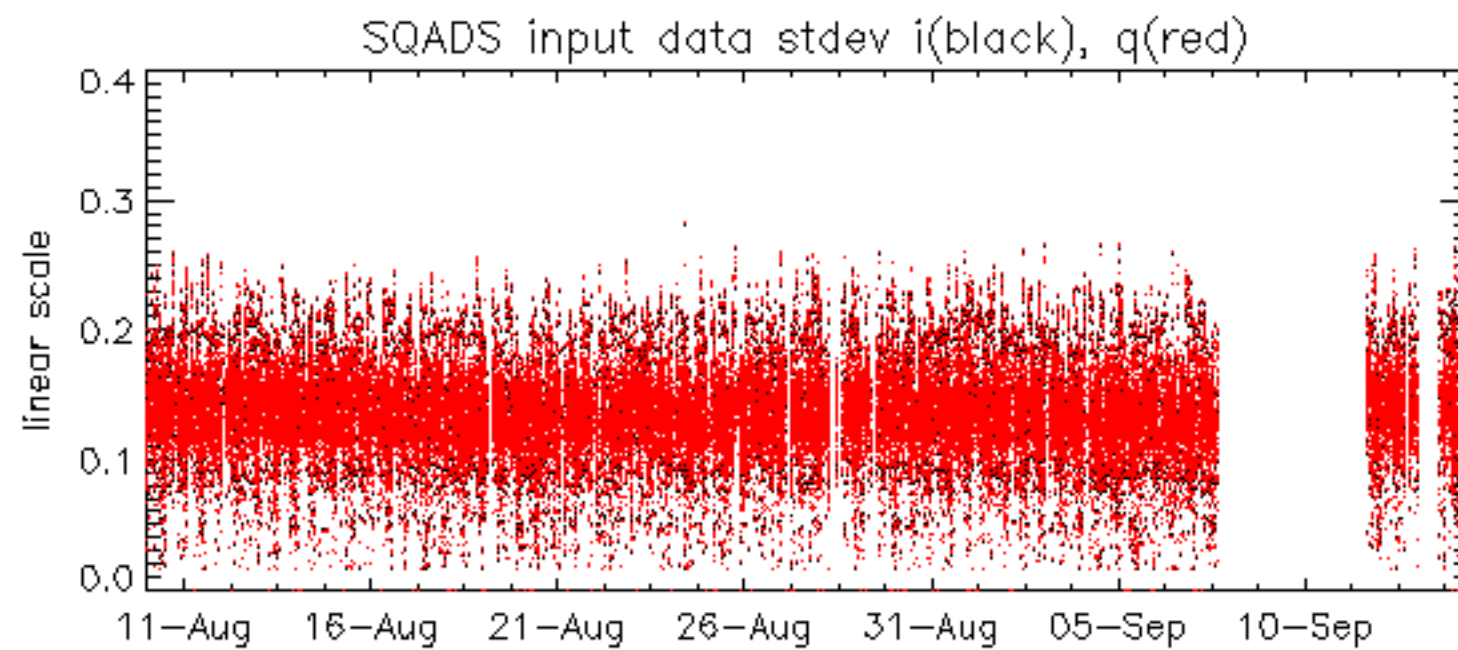
No anomalies observed on available MS products:

No anomalies observed.





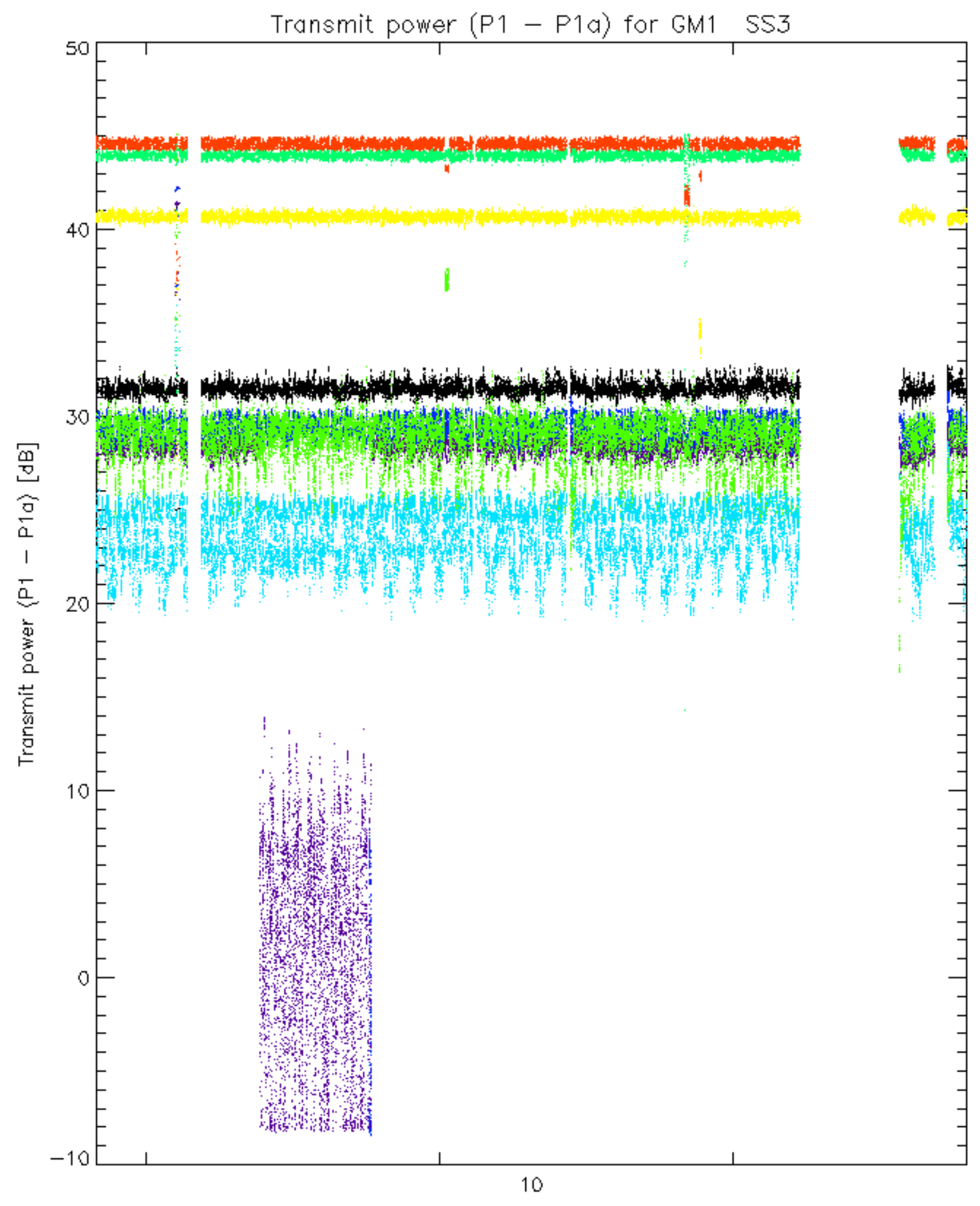




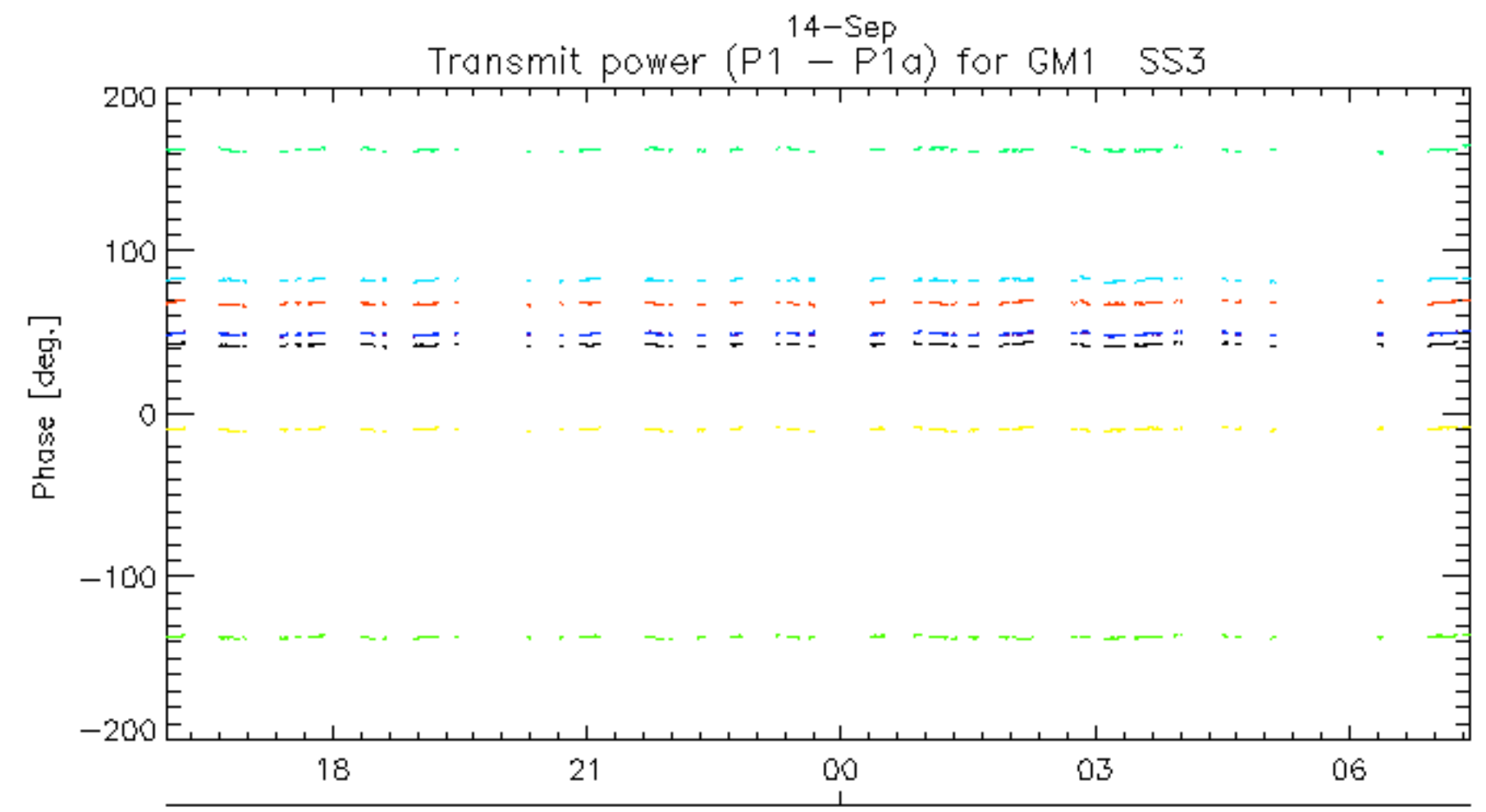
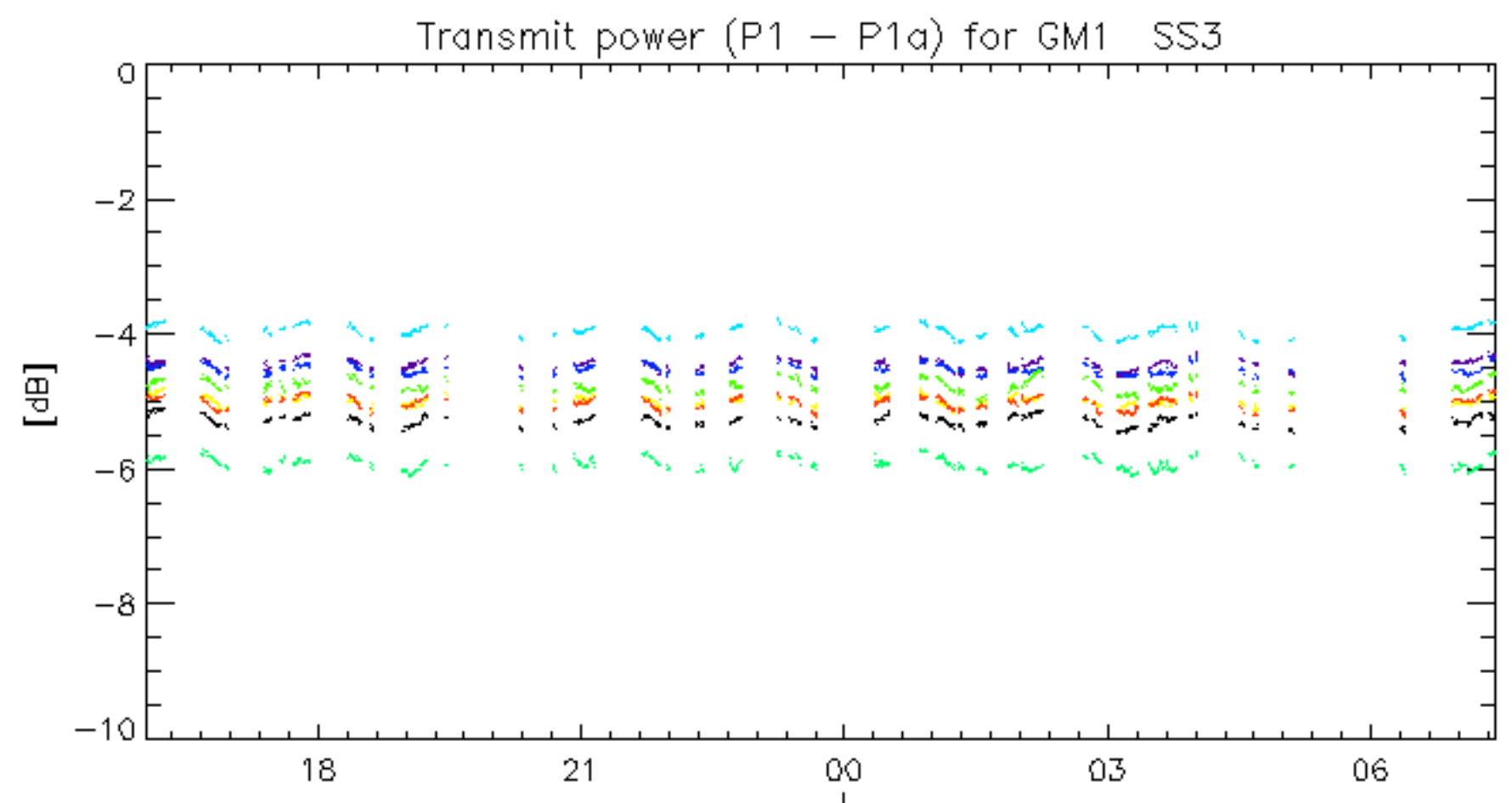
Summary of analysis for the last 3 days 2006091[234]

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

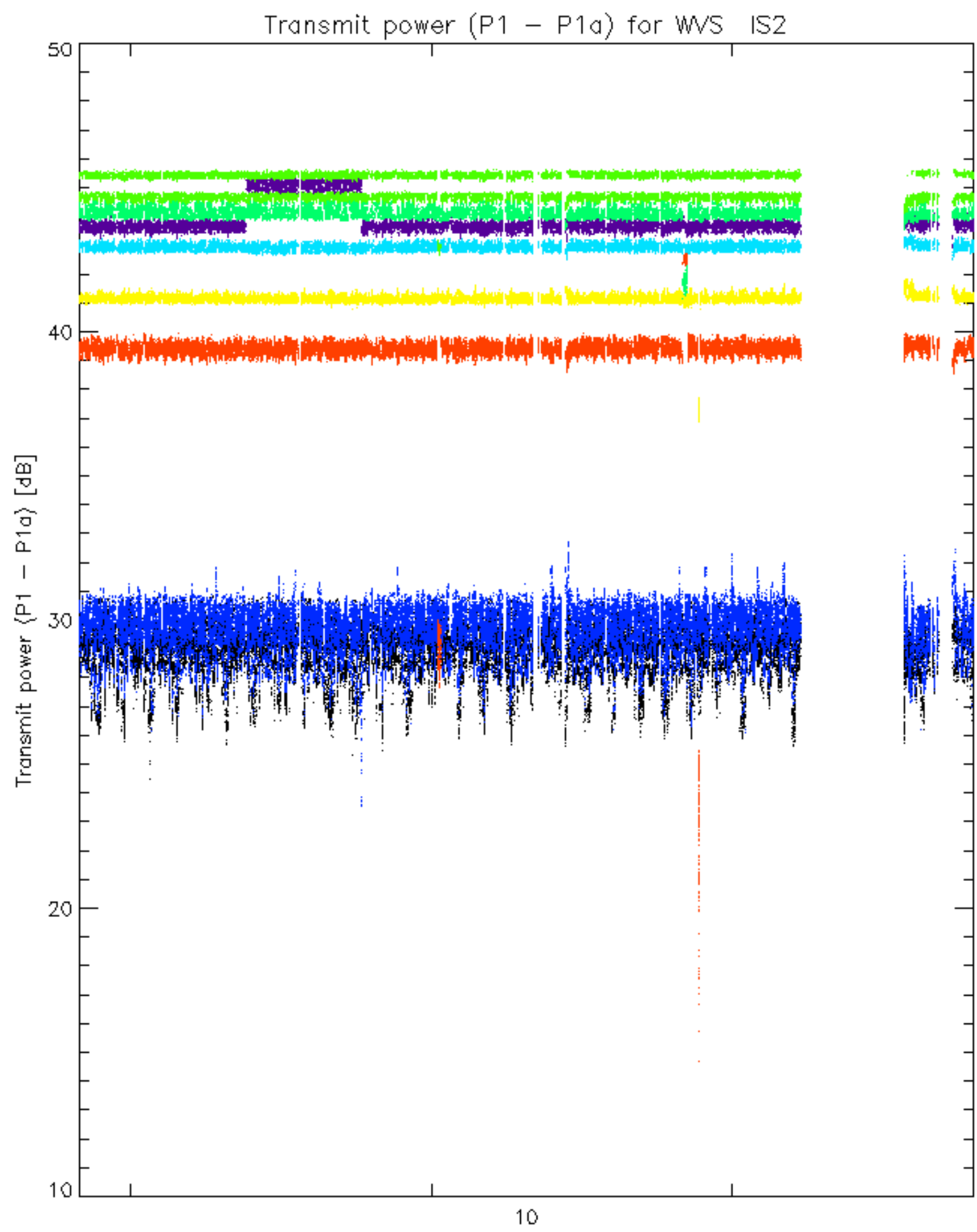
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060912_192317_00000512051_00113_23714_5669.N1	1	0
ASA_IMM_1PNPDE20060912_201158_00000372051_00114_23715_5671.N1	0	3
ASA_WSM_1PNPDE20060912_000911_000003242051_00102_23703_1588.N1	0	34
ASA_WSM_1PNPDE20060912_233734_000003242051_00116_23717_1761.N1	0	34
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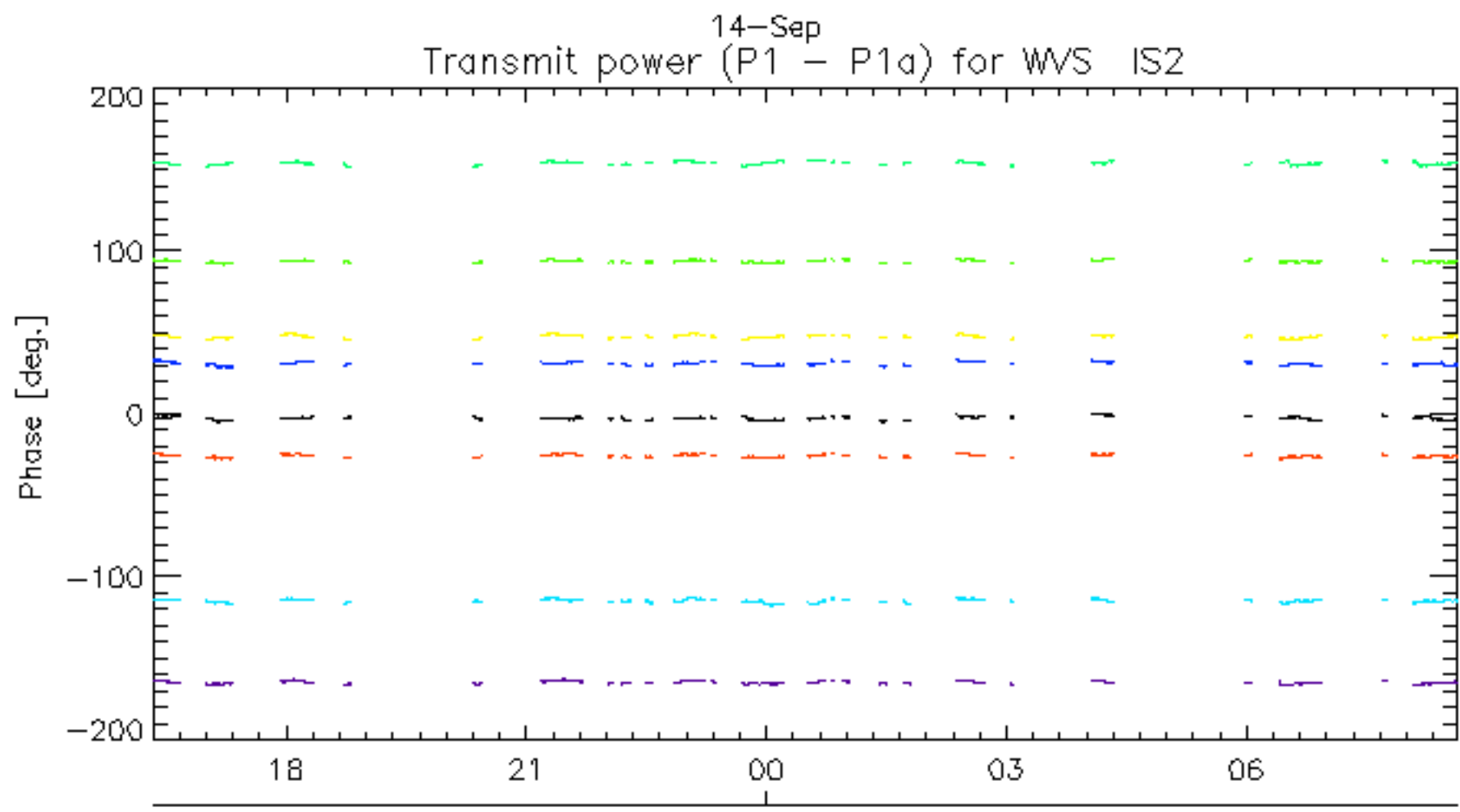
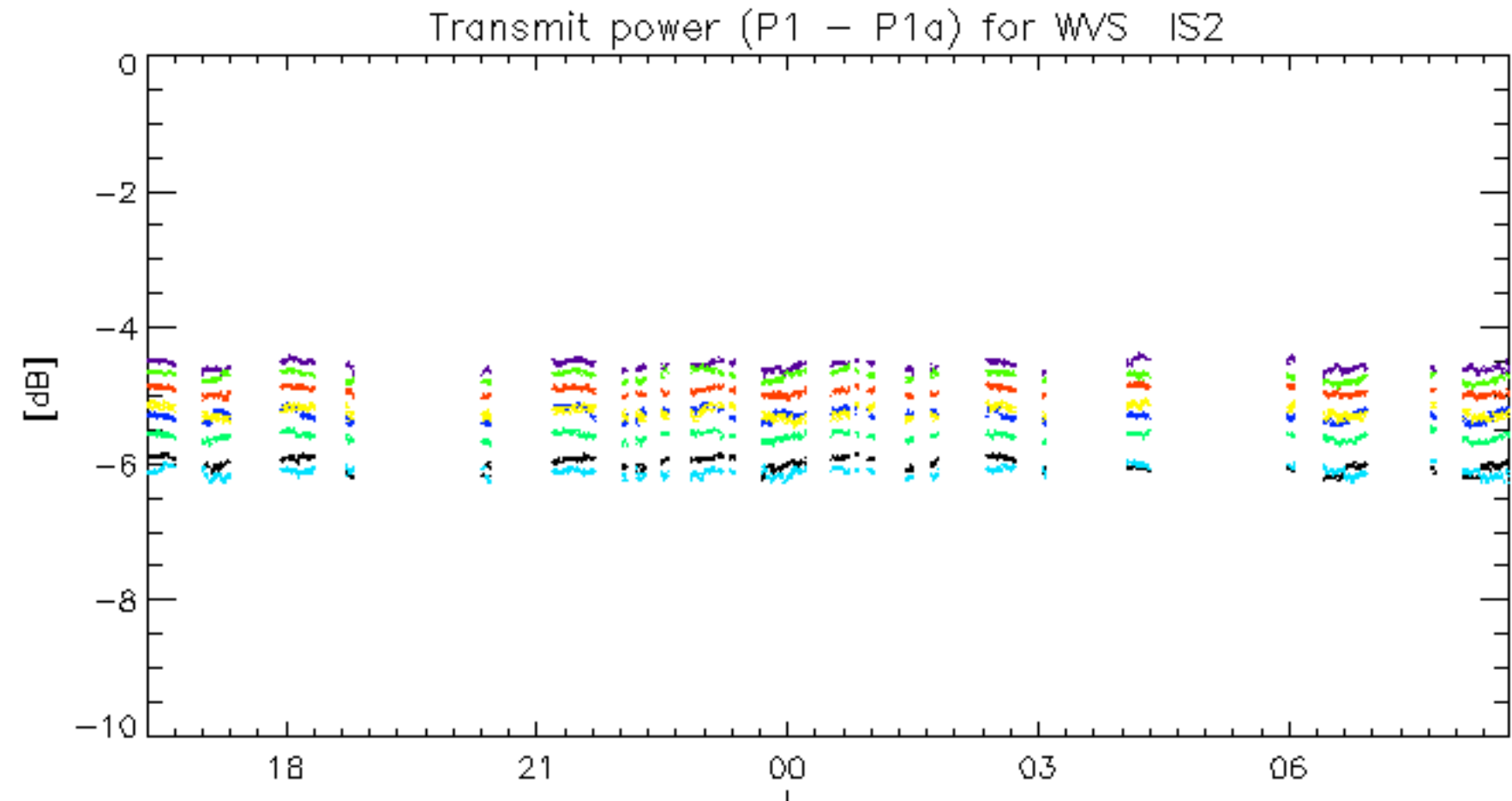
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No unavailabilities during the reported period.