

PRELIMINARY REPORT OF 060831

last update on Thu Aug 31 16:42:55 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 2006-08-30 00:00:00 to 2006-08-31 16:42:55

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	24	42	8	8	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	24	42	8	8	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	24	42	8	8	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	24	42	8	8	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	36	61	23	28	76
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	36	61	23	28	76
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	36	61	23	28	76
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	36	61	23	28	76

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	20060829 042858
H	20060830 071833

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

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☒

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	-3.941485	0.009942	0.005395
7	P1	-3.078094	0.051987	0.118633
11	P1	-4.083798	0.064824	0.083764
15	P1	-6.201001	0.095281	0.040588
19	P1	-3.466418	0.009250	-0.081296
22	P1	-4.561656	0.024762	0.017362
26	P1	-3.927436	0.018987	-0.029463
30	P1	-5.759755	0.025269	0.020730
3	P1	-16.545624	0.262590	-0.086109
7	P1	-16.852524	0.650110	0.691860
11	P1	-16.836838	0.307639	0.192396
15	P1	-12.970181	0.152848	0.132018
19	P1	-14.520643	0.052159	-0.082792
22	P1	-15.843876	0.551544	0.417204
26	P1	-15.167359	0.207367	-0.137316
30	P1	-17.012106	0.324660	0.189296

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.868111	0.084075	0.110869
7	P2	-21.859425	0.099047	0.000314
11	P2	-15.751364	0.112514	0.035598
15	P2	-7.101368	0.097451	0.041871
19	P2	-9.114857	0.091276	0.024962
22	P2	-18.134886	0.085725	0.050572
26	P2	-16.397495	0.091943	0.012915
30	P2	-19.478153	0.090843	0.041530

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.172144	0.003747	-0.000646
7	P3	-8.172144	0.003747	-0.000646
11	P3	-8.172144	0.003747	-0.000646
15	P3	-8.172144	0.003747	-0.000646
19	P3	-8.172144	0.003747	-0.000646
22	P3	-8.172144	0.003747	-0.000646
26	P3	-8.172194	0.003746	-0.000647
30	P3	-8.172194	0.003746	-0.000647

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	-3.832187	0.021429	-0.019002
7	P1	-2.495826	0.285710	0.275981
11	P1	-2.896783	0.142804	0.040573
15	P1	-3.654112	0.147600	-0.017490
19	P1	-3.429490	0.013453	-0.014999
22	P1	-5.081263	0.034293	0.004100
26	P1	-5.870815	0.024592	-0.009961
30	P1	-5.185428	0.037992	0.035860
3	P1	-11.628385	0.067844	-0.013792
7	P1	-9.917158	0.189208	0.135780
11	P1	-10.298048	0.084179	-0.076201
15	P1	-10.818421	0.176379	-0.165836
19	P1	-15.534080	0.088254	0.011588
22	P1	-20.863100	1.743942	0.334355

26	P1	-16.089836	0.412101	0.349900
30	P1	-17.974773	0.726395	0.003244

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.464710	0.082839	0.133338
7	P2	-22.252052	0.199071	0.174517
11	P2	-10.944142	0.056471	0.154492
15	P2	-4.877968	0.042870	0.052784
19	P2	-6.854401	0.040676	0.032529
22	P2	-8.178738	0.062922	0.053010
26	P2	-24.166756	0.128022	0.021736
30	P2	-21.968288	0.078806	0.043367

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013677	0.003736	-0.007935
7	P3	-8.013606	0.003737	-0.007689
11	P3	-8.013706	0.003739	-0.007300
15	P3	-8.013680	0.003741	-0.007302
19	P3	-8.013745	0.003756	-0.007810
22	P3	-8.013829	0.003731	-0.007485
26	P3	-8.013706	0.003728	-0.007973
30	P3	-8.013627	0.003738	-0.007369

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	0.000553266
	stdev	1.76695e-07
MEAN Q	mean	0.000532176
	stdev	2.15229e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136378
	stdev	0.00107576
STDEV Q	mean	0.136723
	stdev	0.00109209



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006083[901]

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_1PNPDE20060830_143313_000000372050_00425_23525_4947.N1	1	0
ASA_IMM_1PNPDE20060830_144000_000000802050_00426_23526_4951.N1	1	0
ASA_IMM_1PNPDE20060830_202033_000000372050_00429_23529_4959.N1	1	0
ASA_IMM_1PNPDE20060831_003434_000001152050_00431_23531_4974.N1	1	0
ASA_WSM_1PNPDE20060830_043525_000001832050_00420_23520_0077.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"/>
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

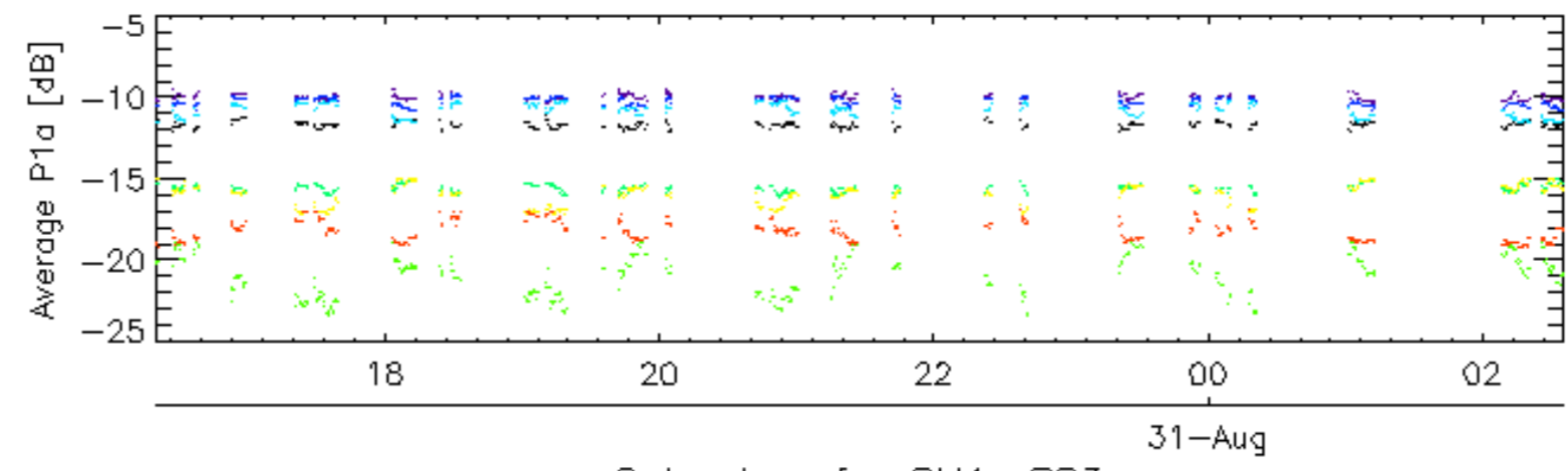
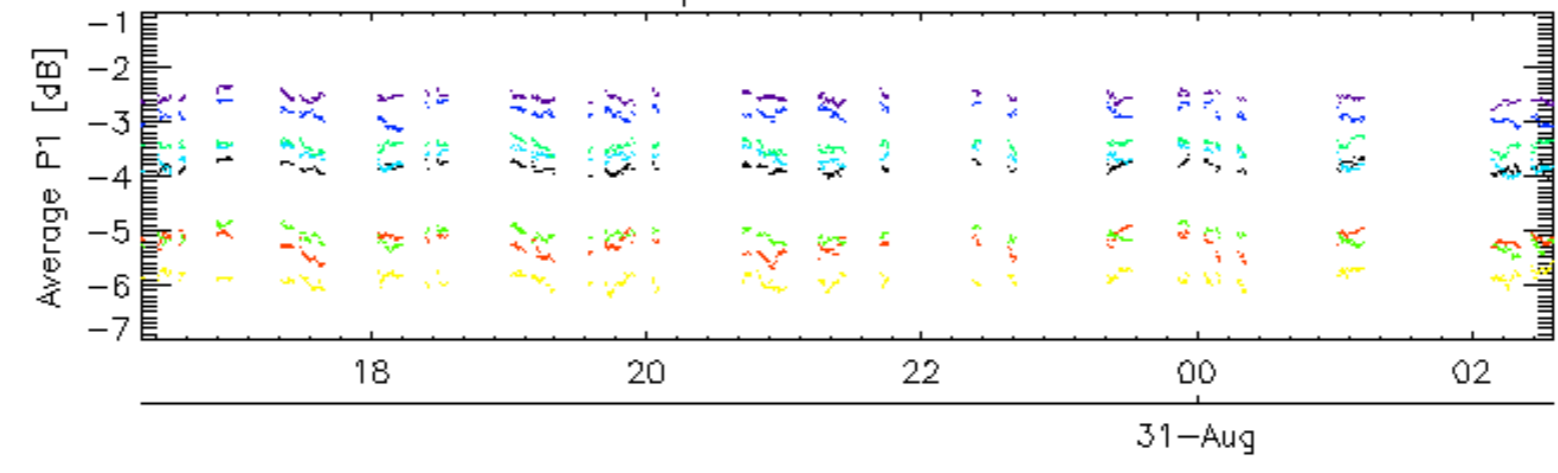
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	Ascending
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	Descending

7.6 - Doppler evolution versus ANX for GM1

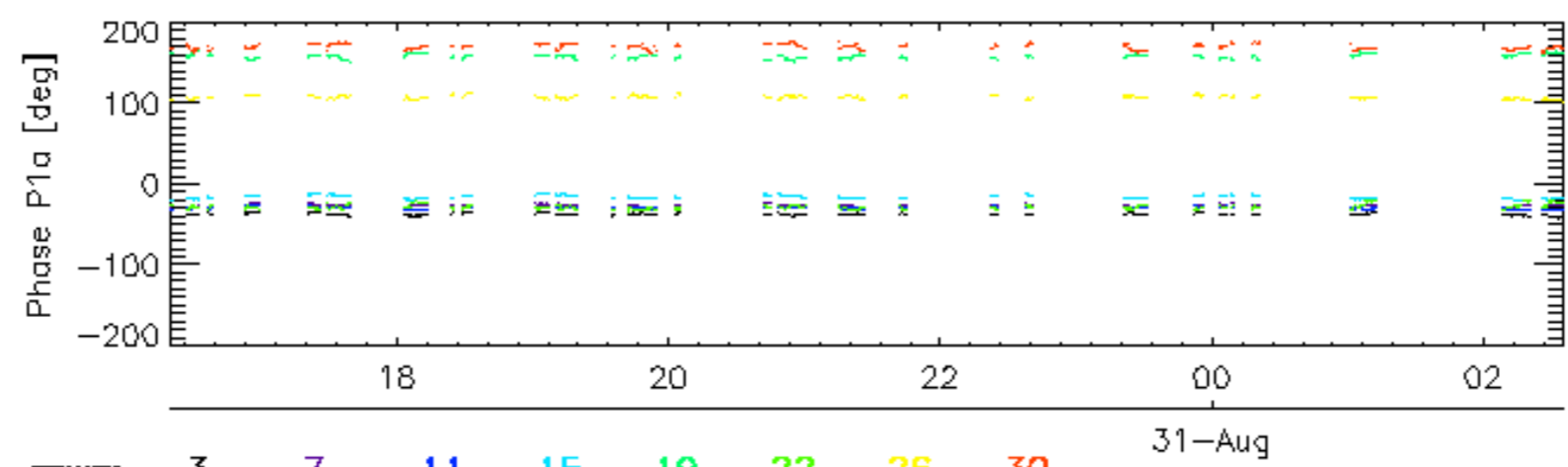
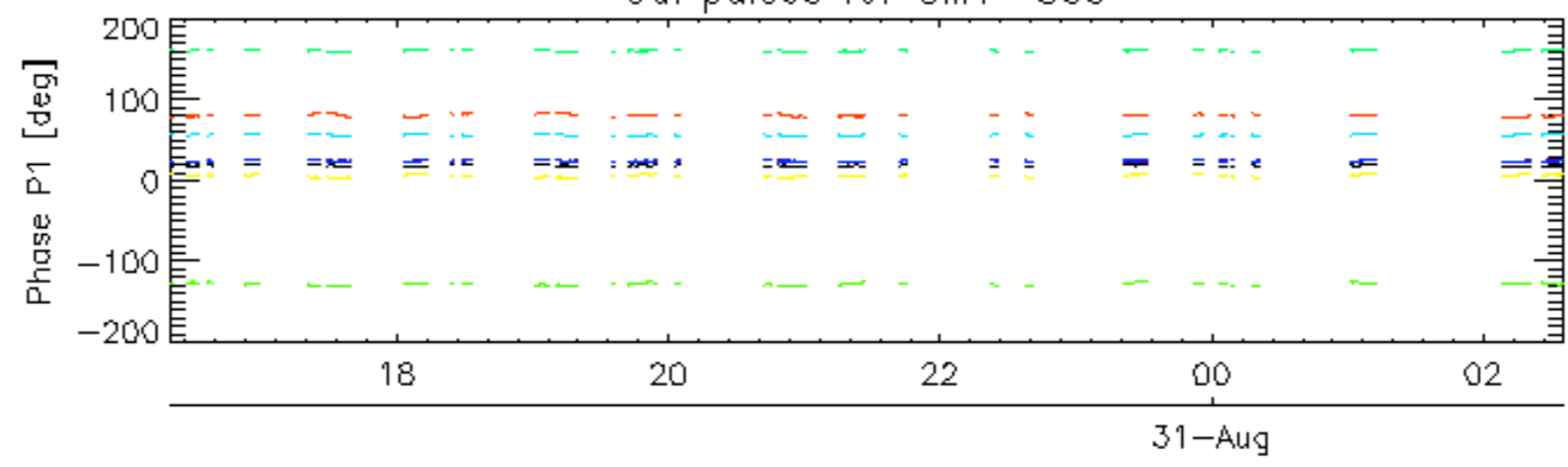
Evolution Doppler error versus ANX

<input type="checkbox"/>	
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Cal pulses for GM1 SS3

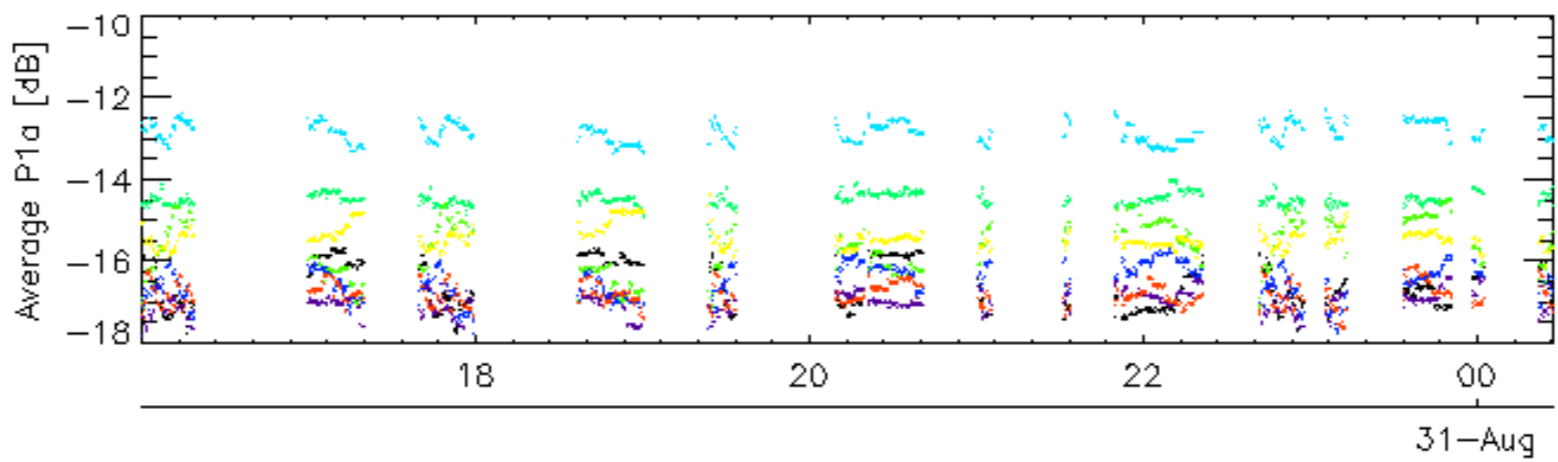
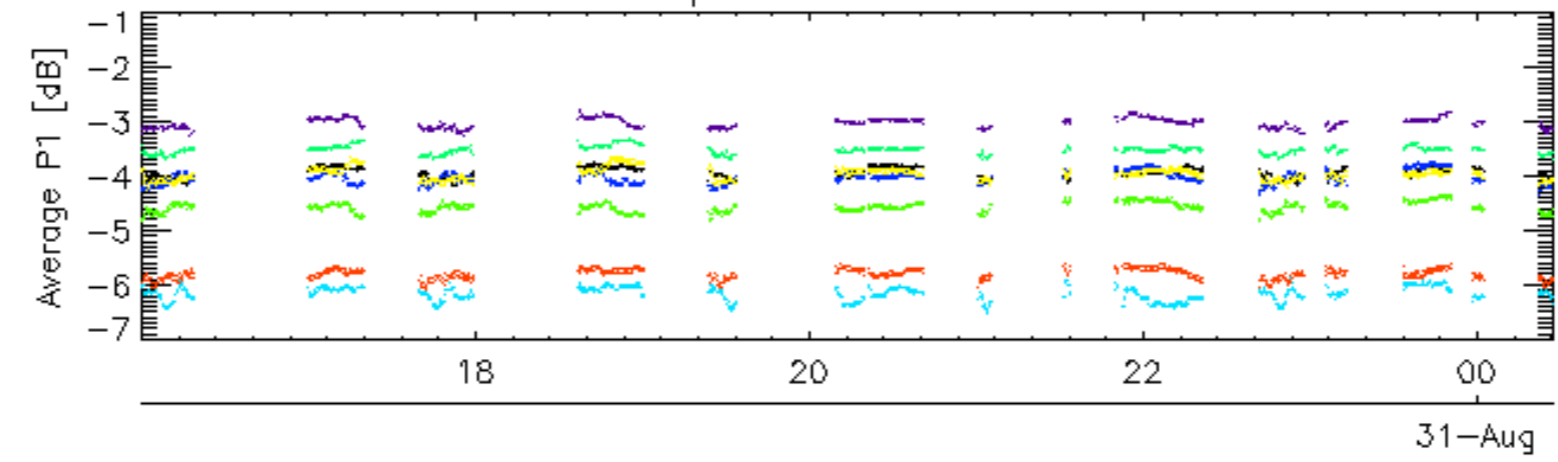


Cal pulses for GM1 SS3

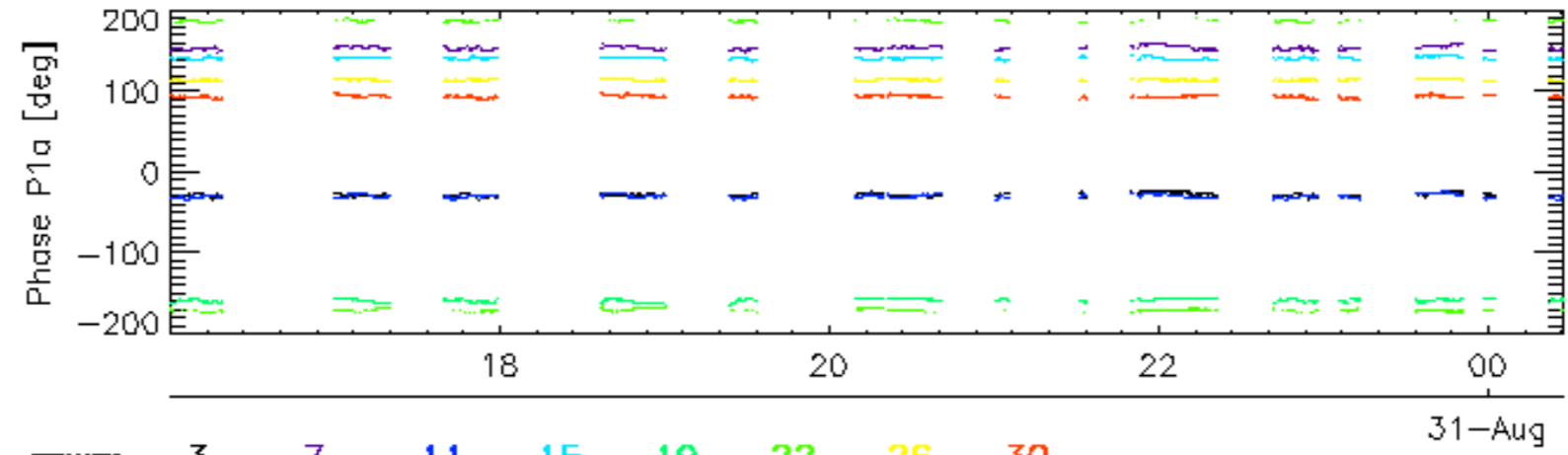
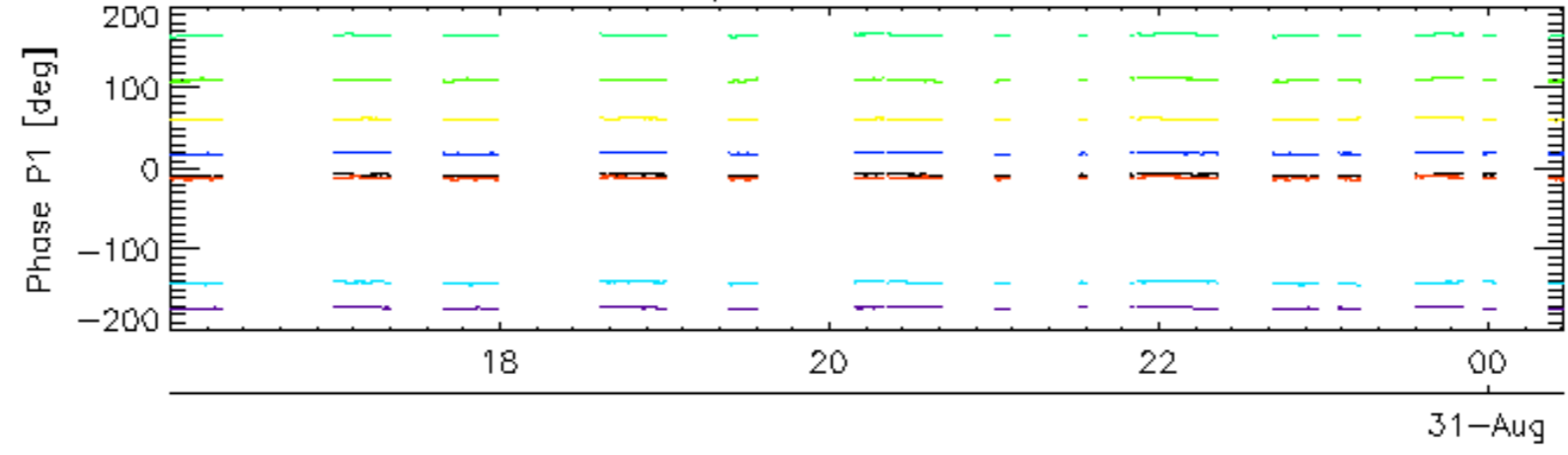


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



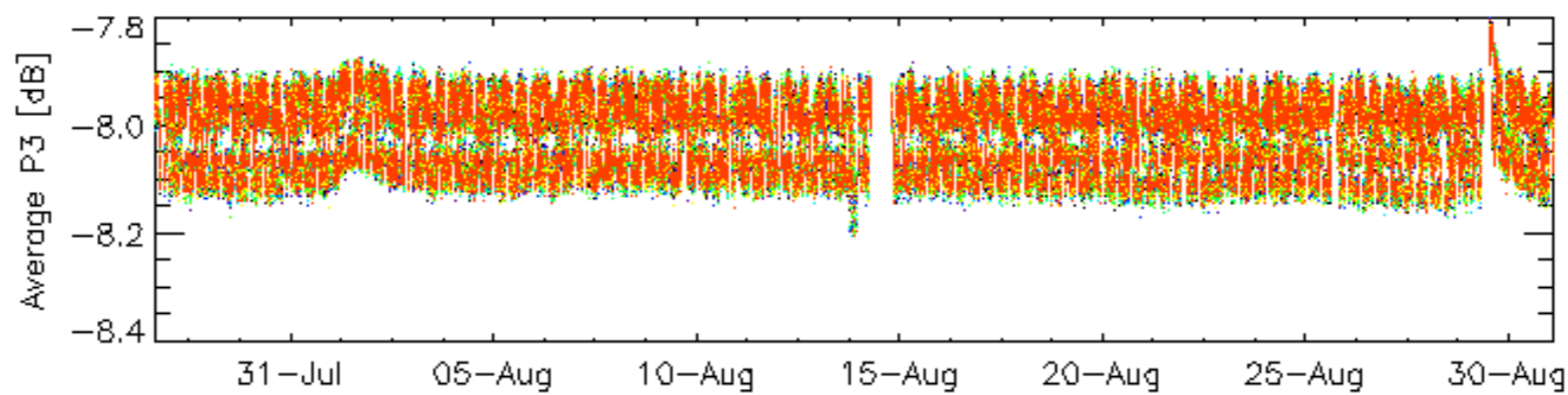
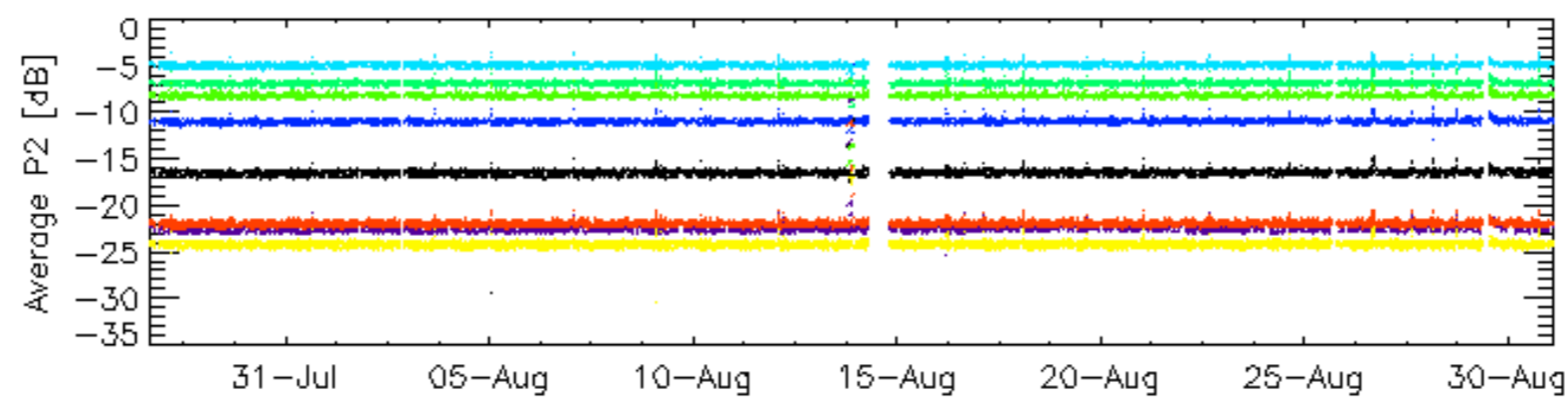
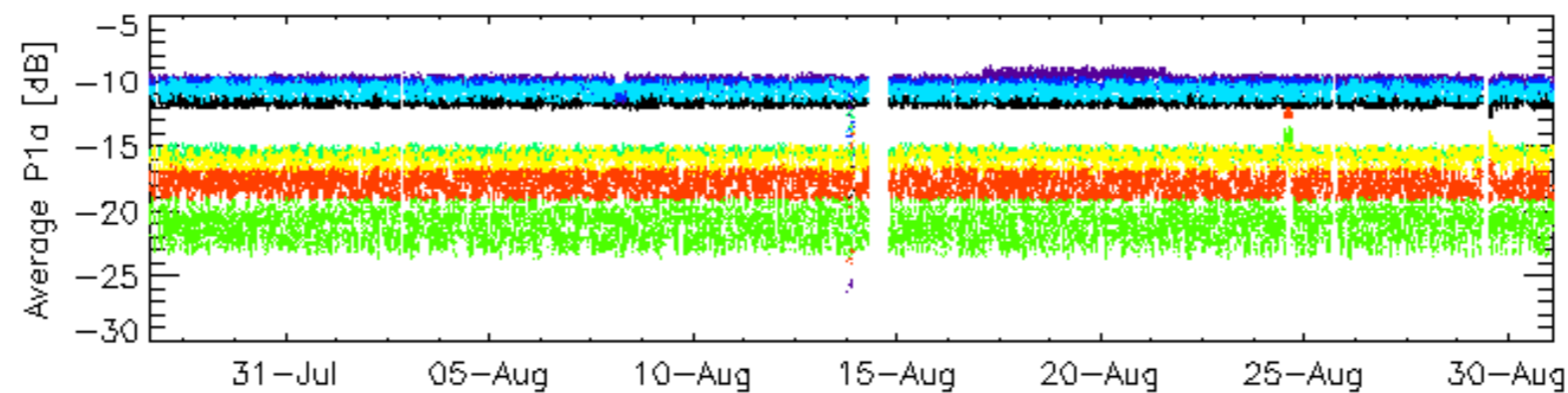
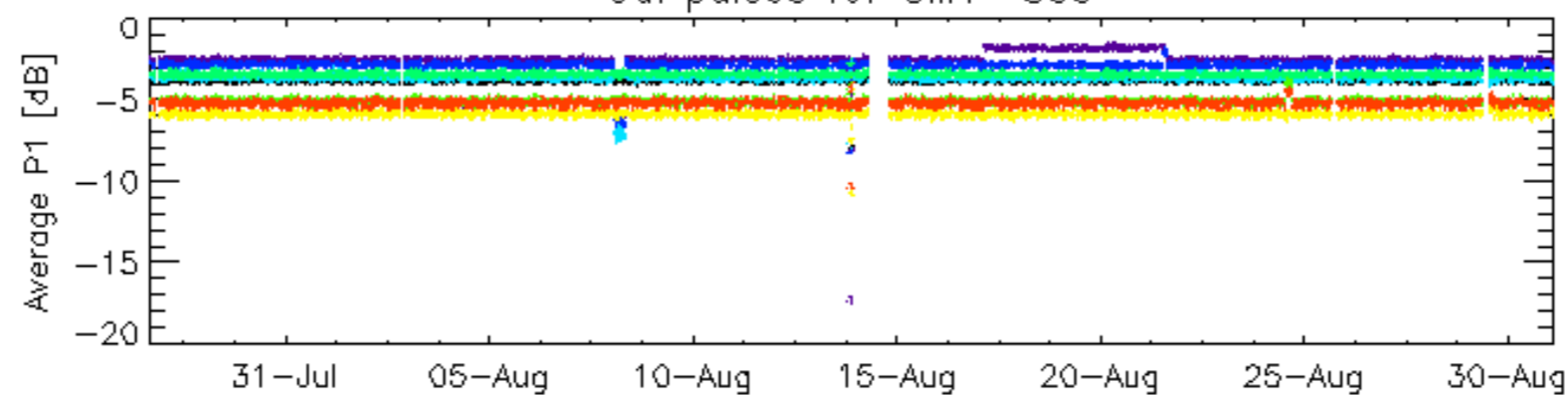
Cal pulses for WVS IS2



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

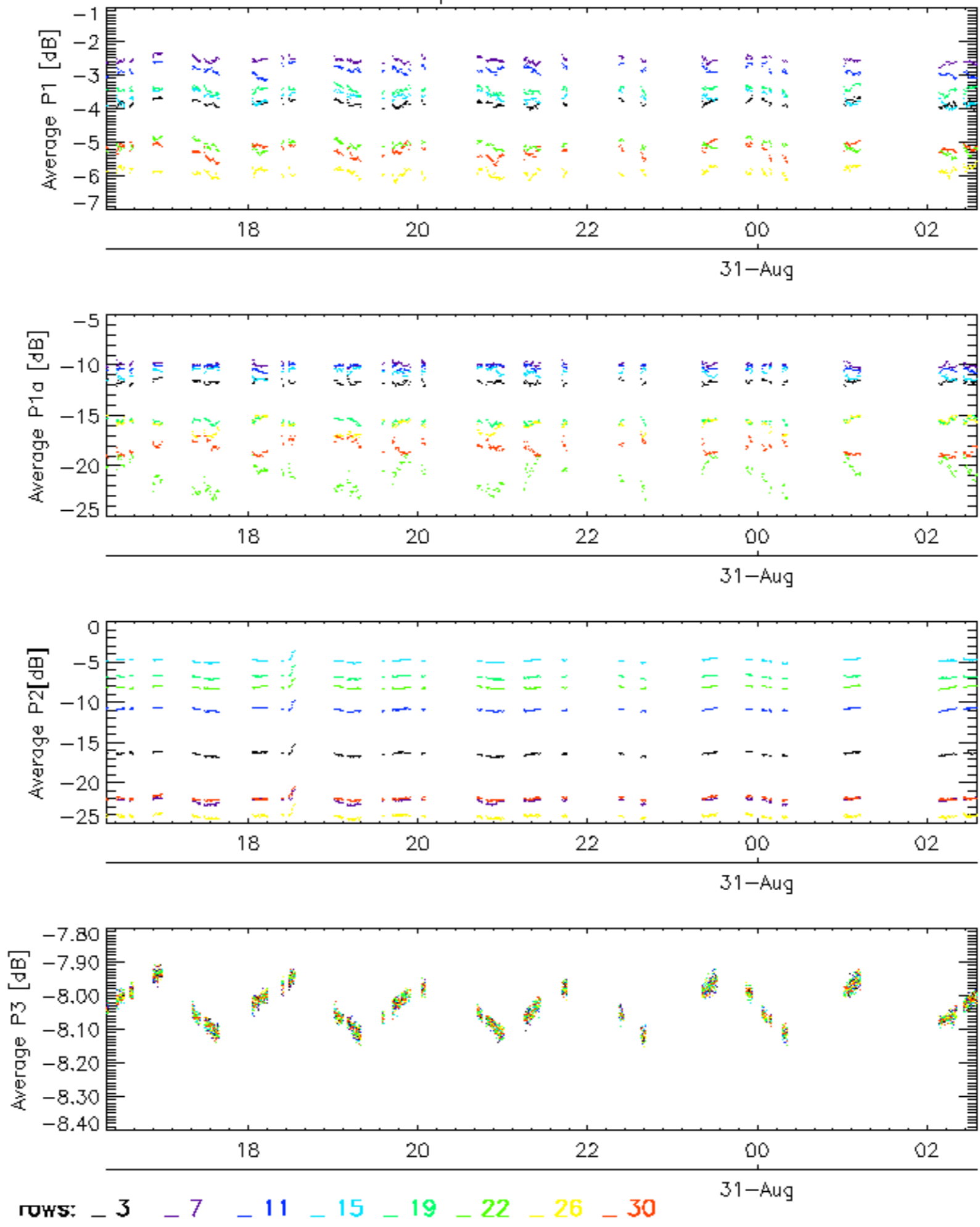
31-Aug

Cal pulses for GM1 SS3

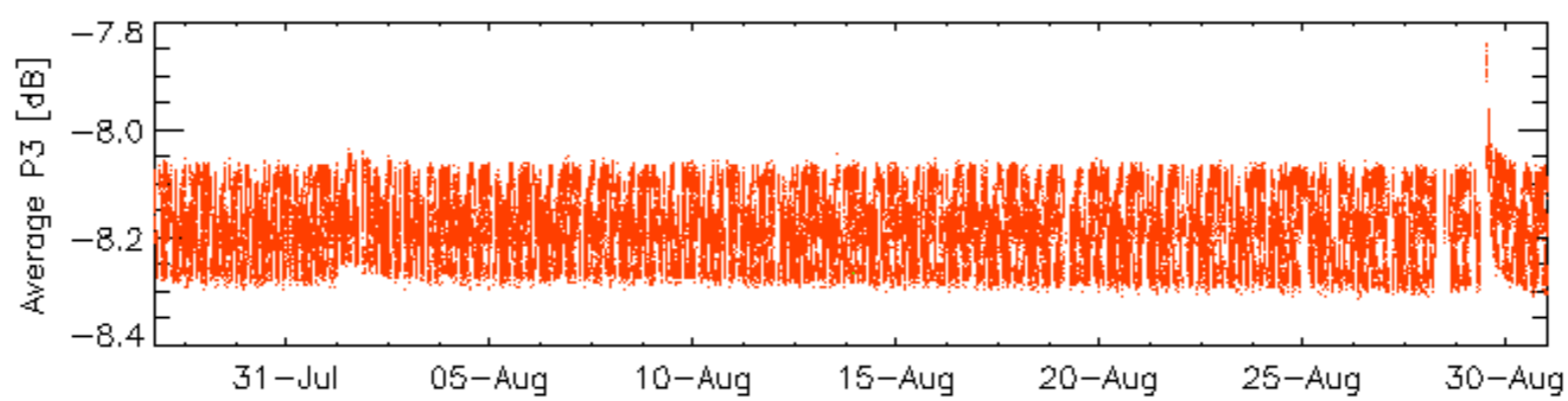
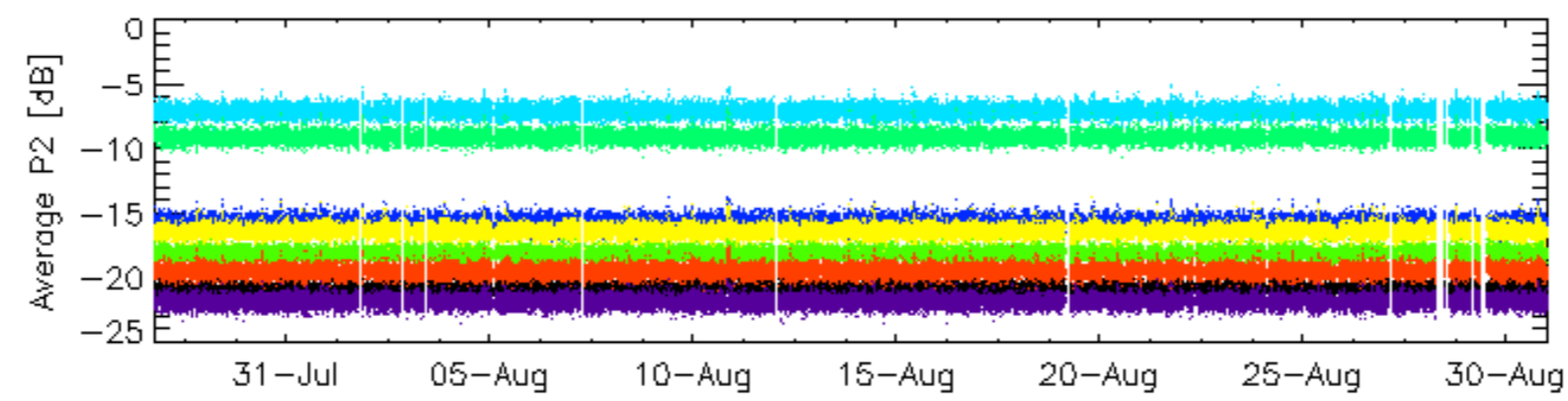
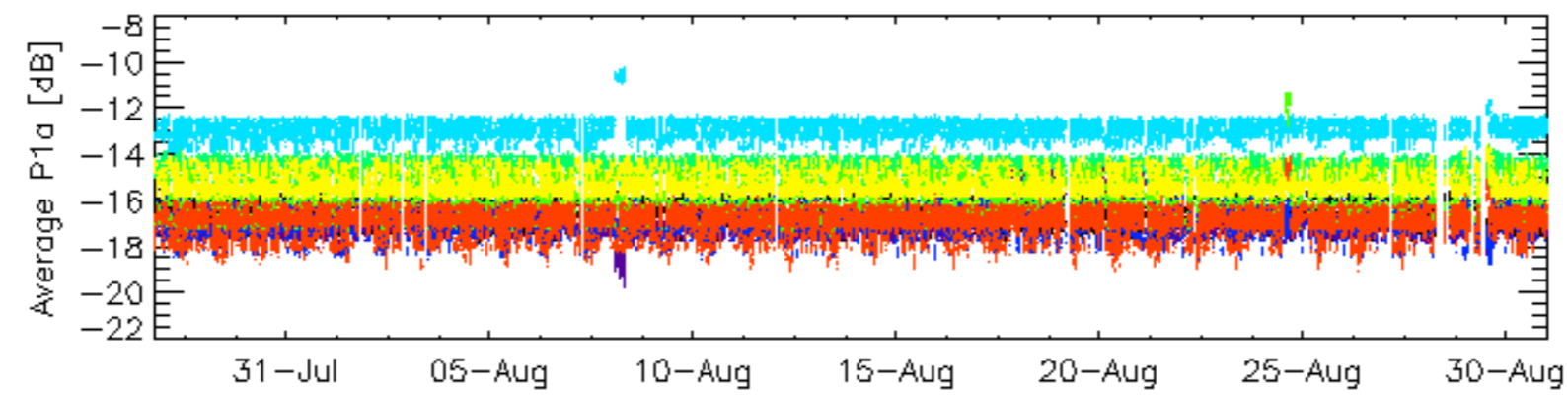
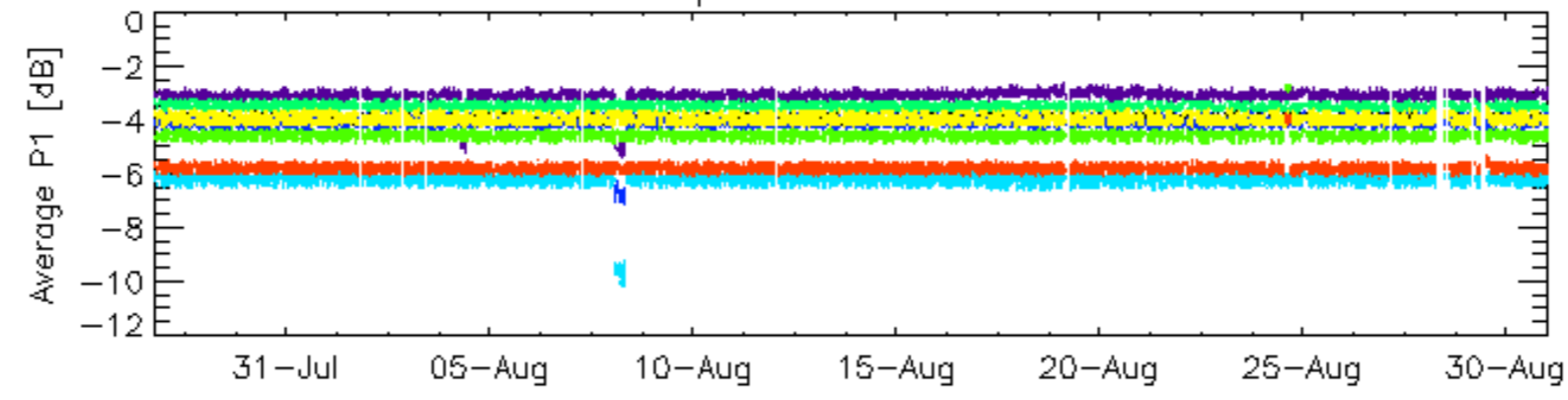


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

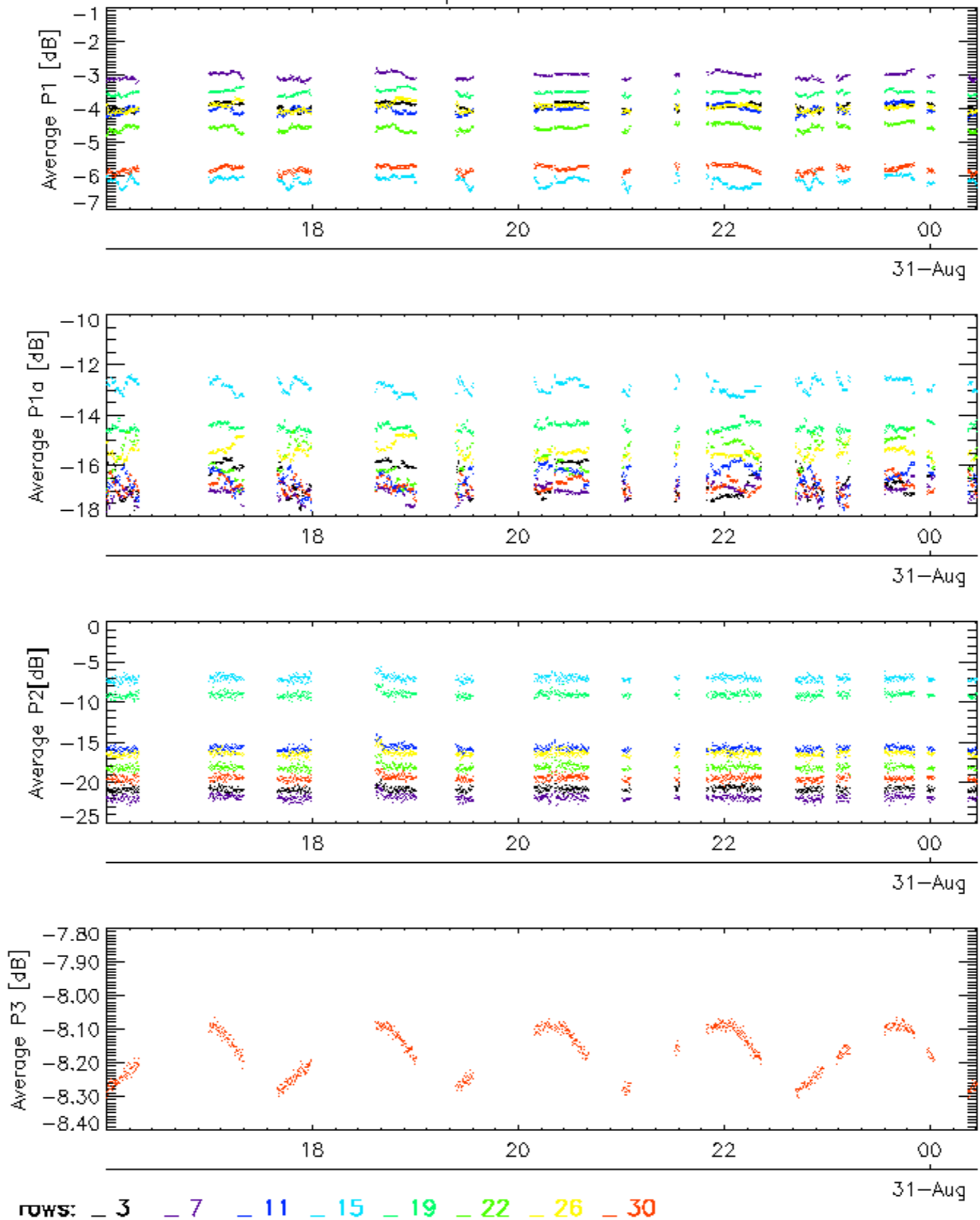


Cal pulses for WVS IS2



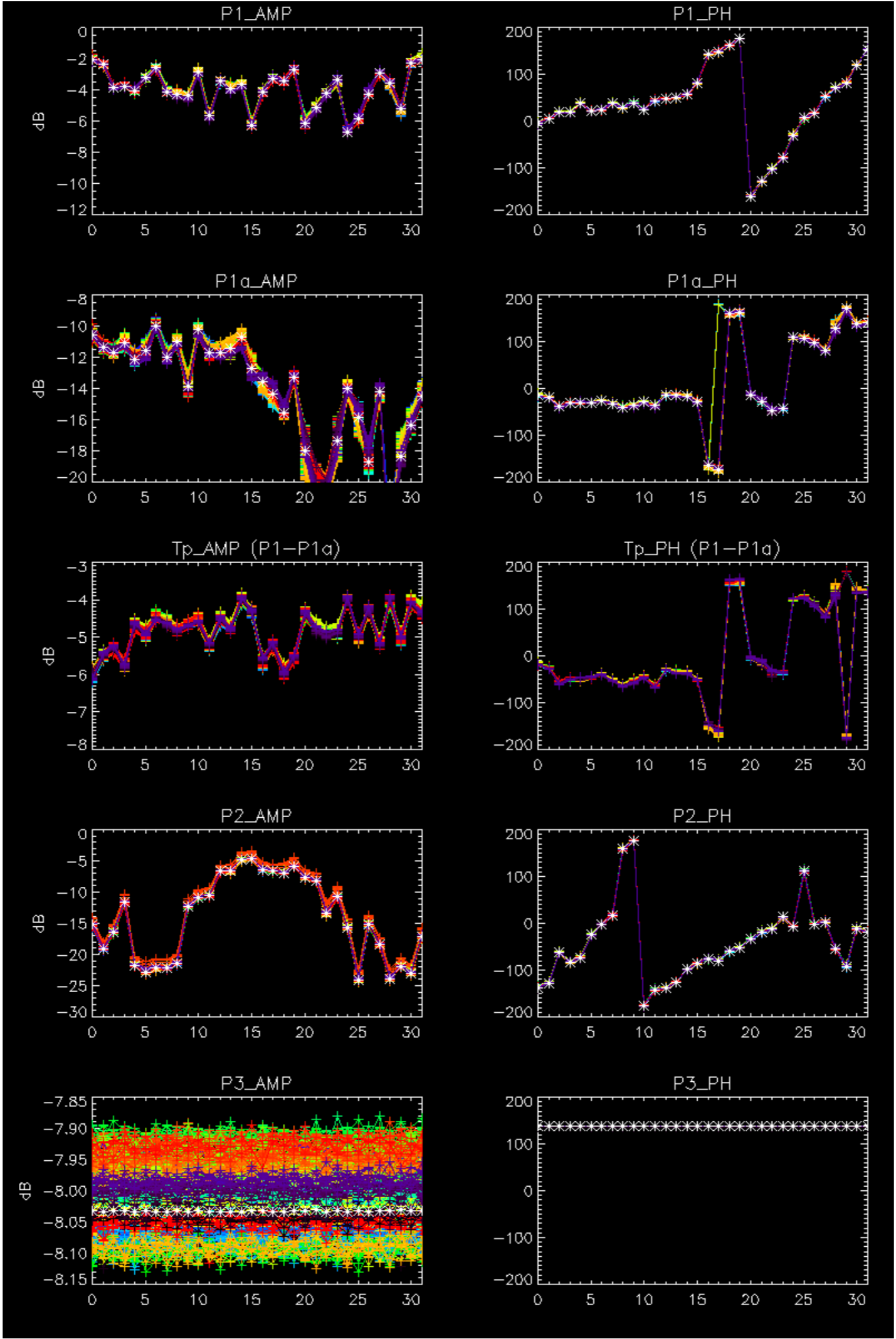
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

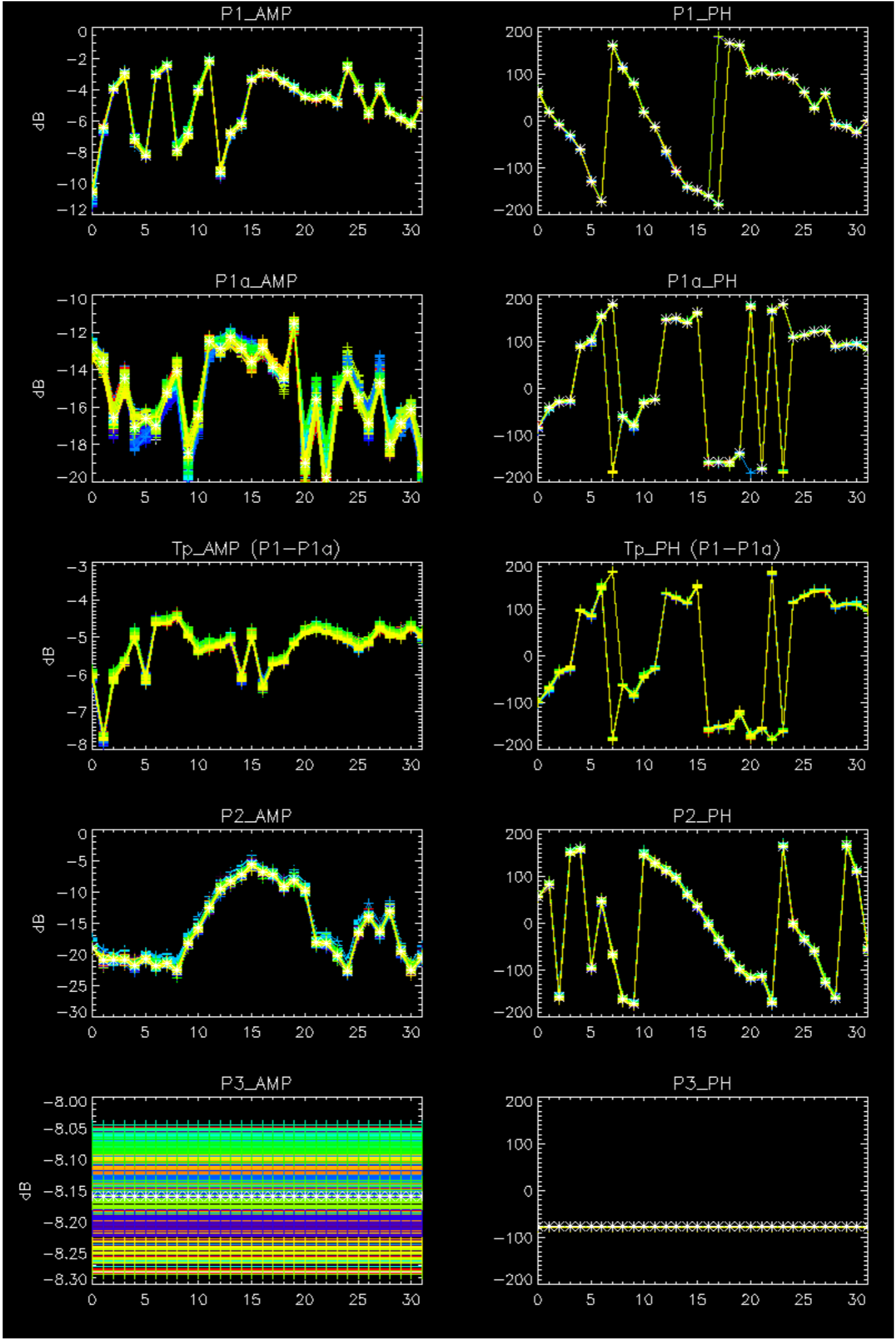
Cal pulses for WVS IS2



No anomalies observed on available browse products

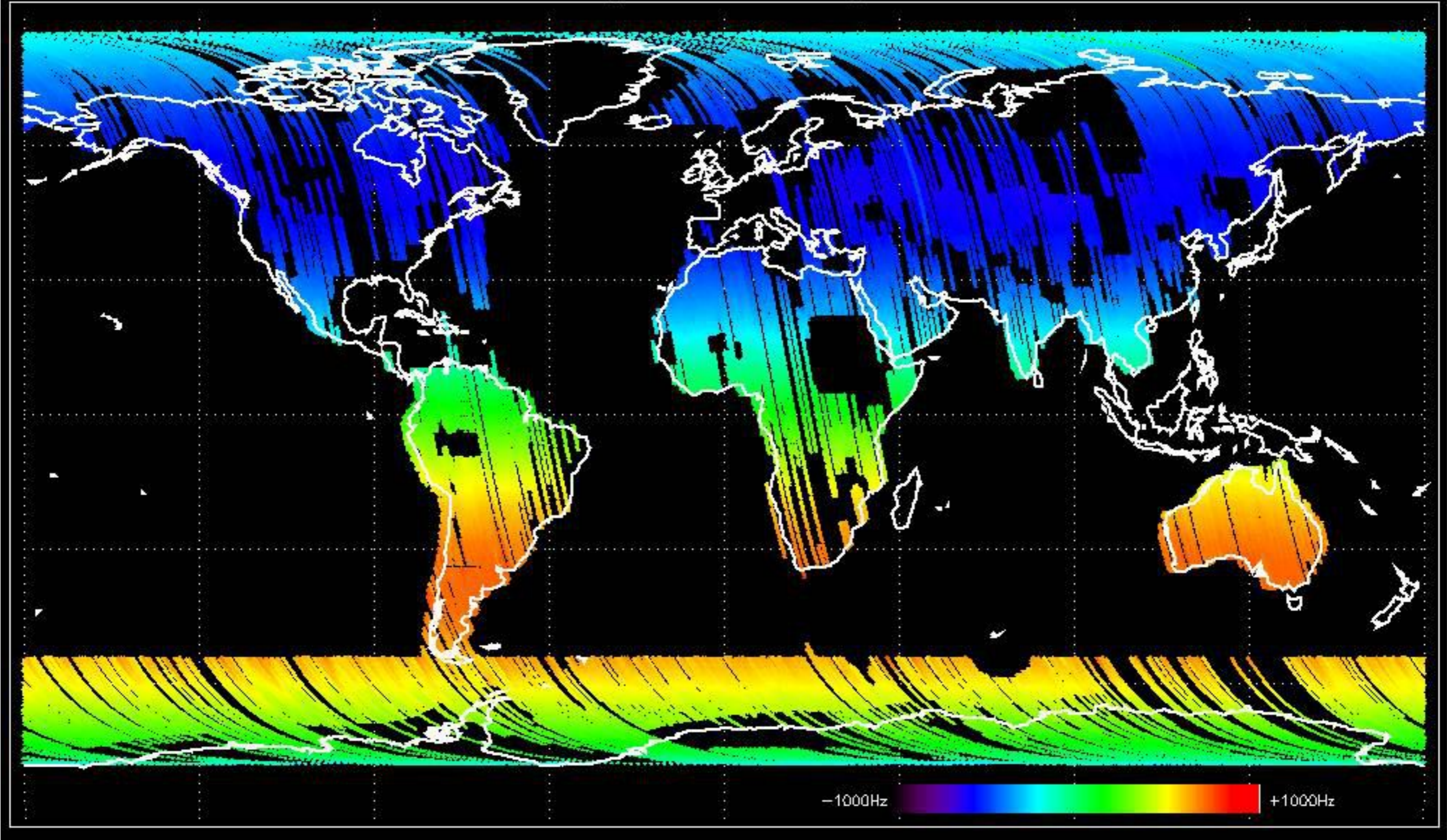
No anomalies observed.



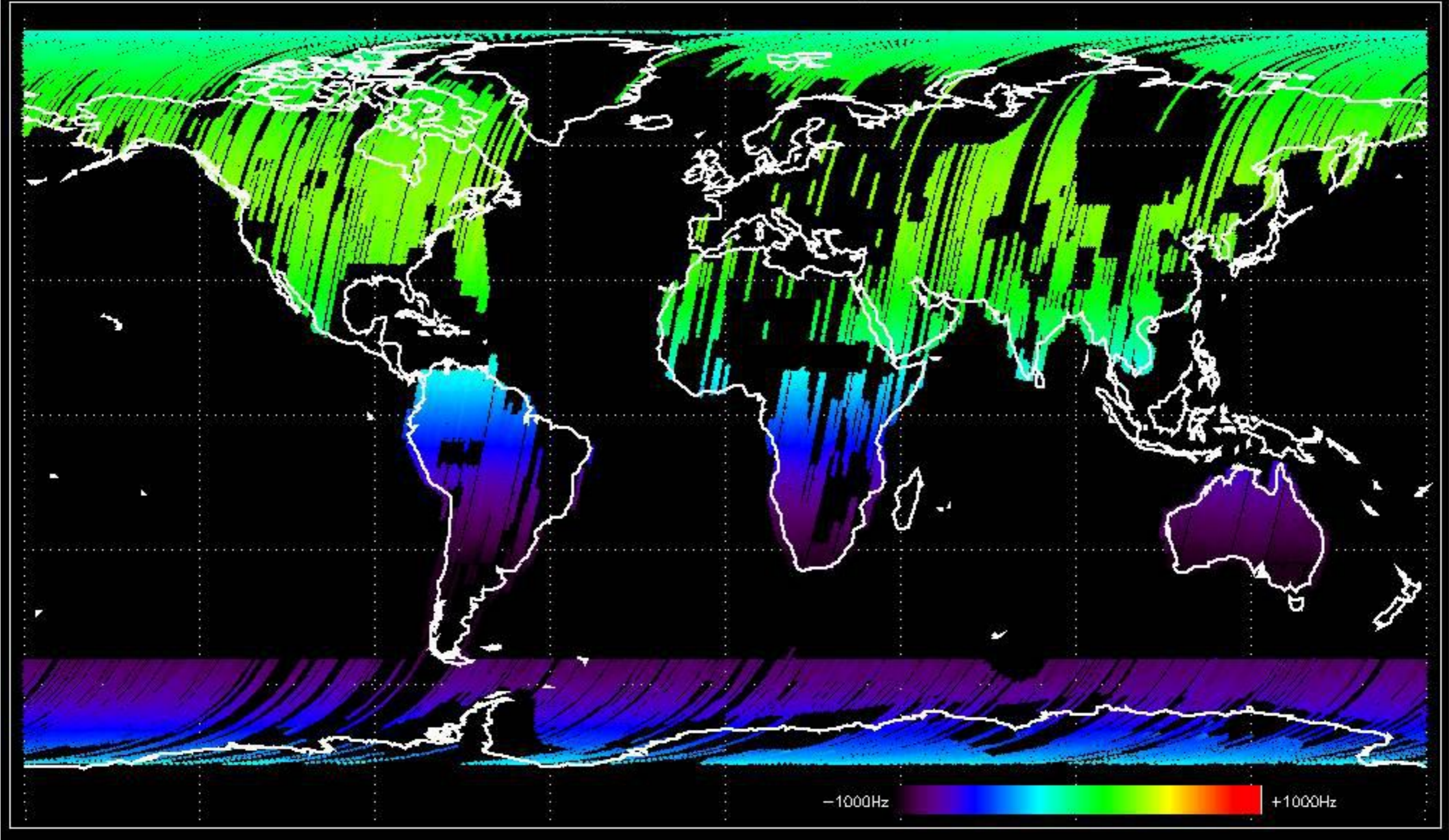


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

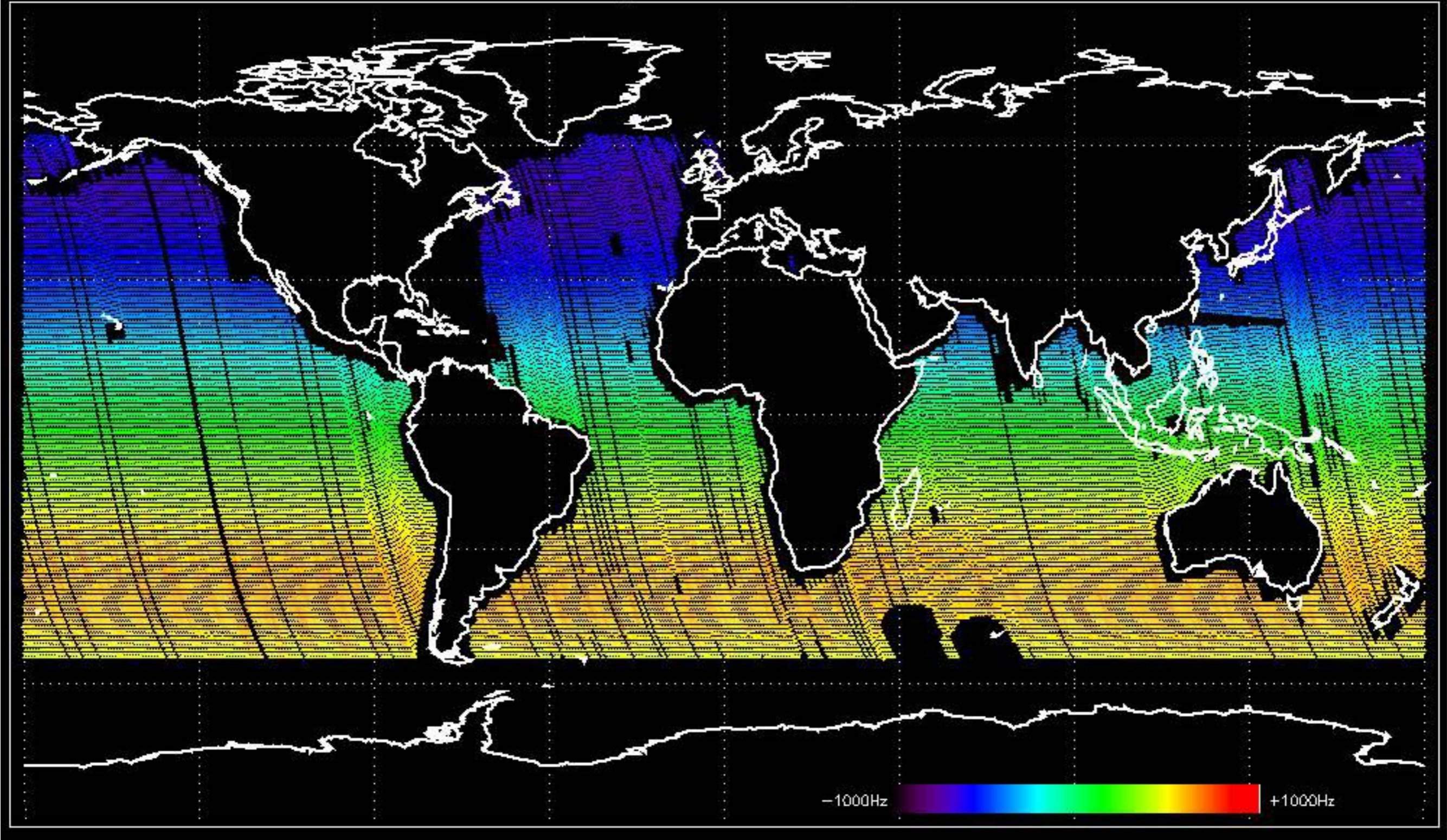
Doppler 'GM1' 'SS1' ascending



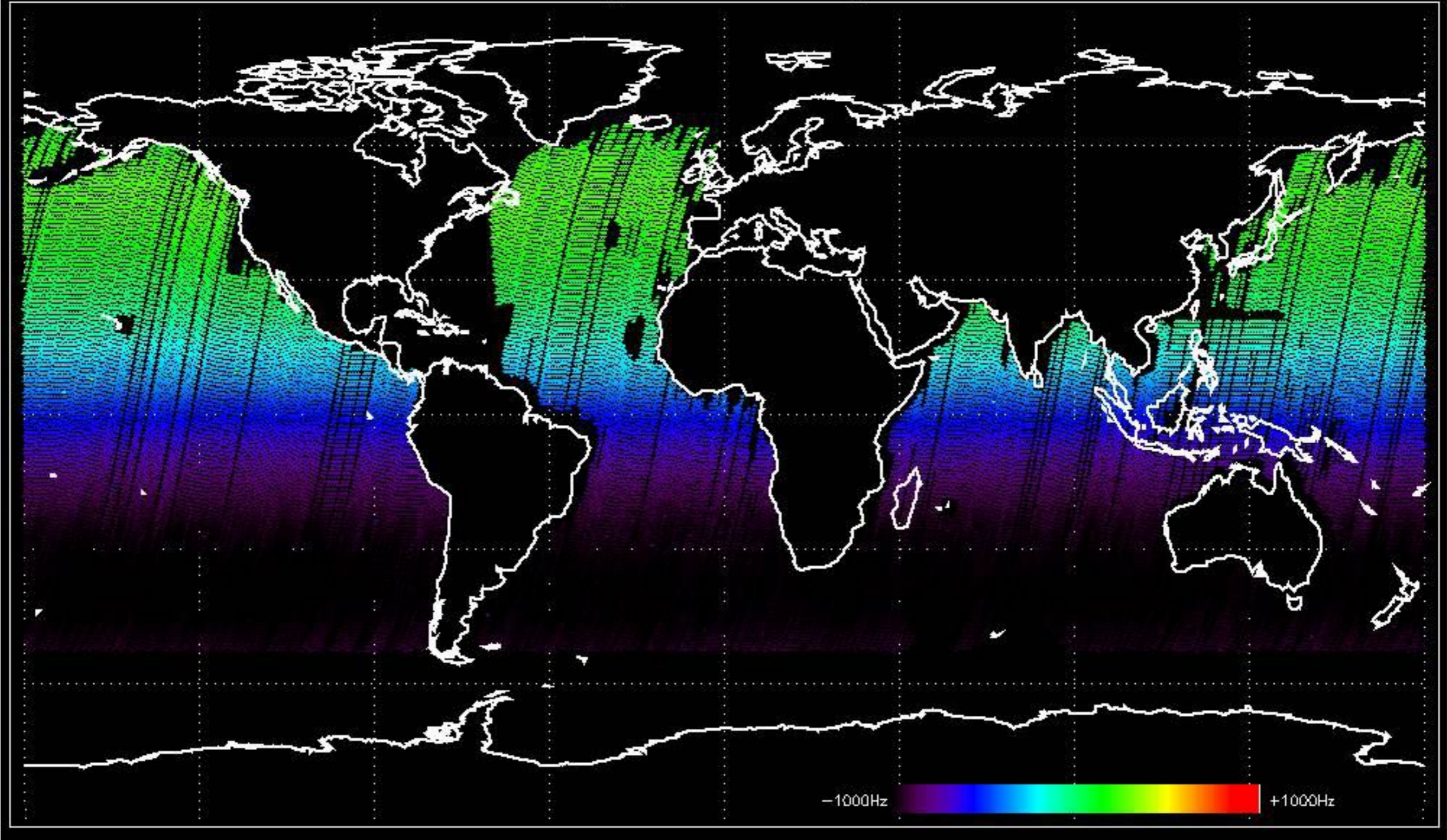
Doppler 'GM1' 'SS1' descending



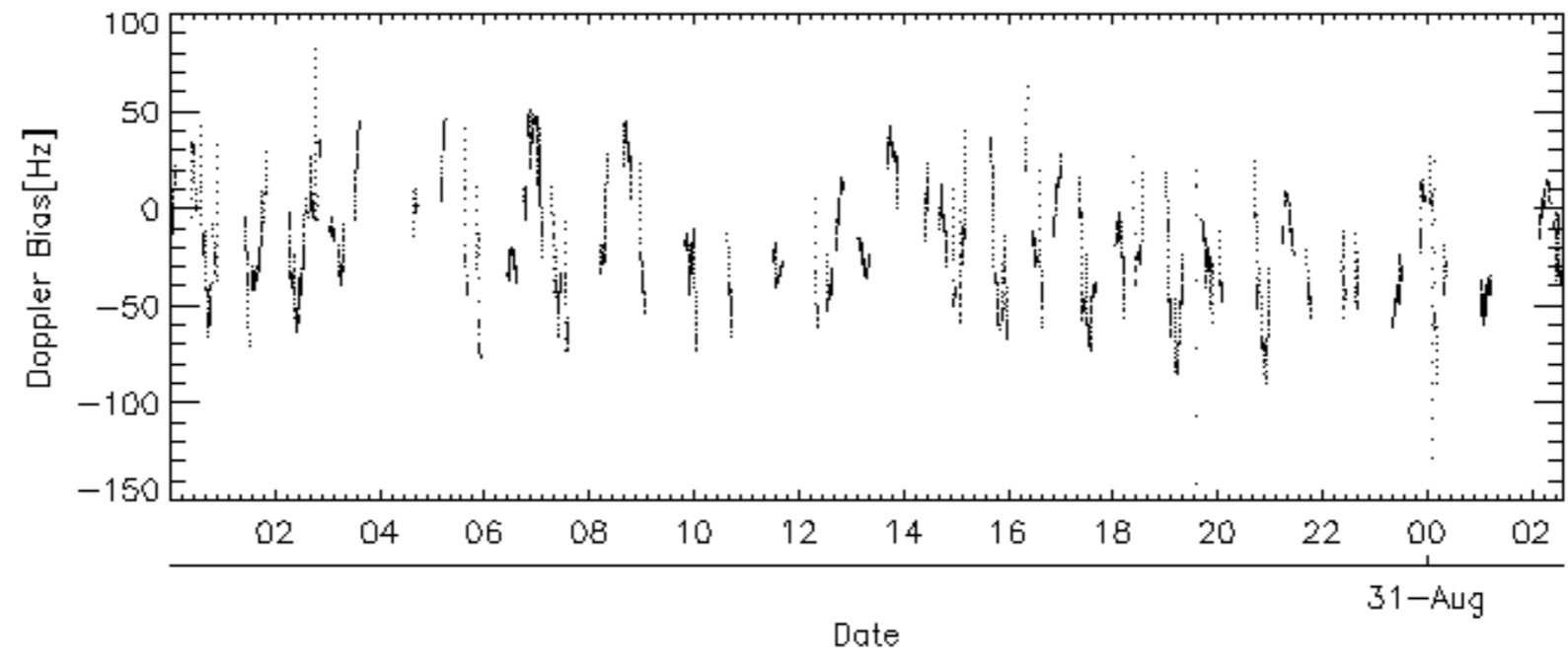
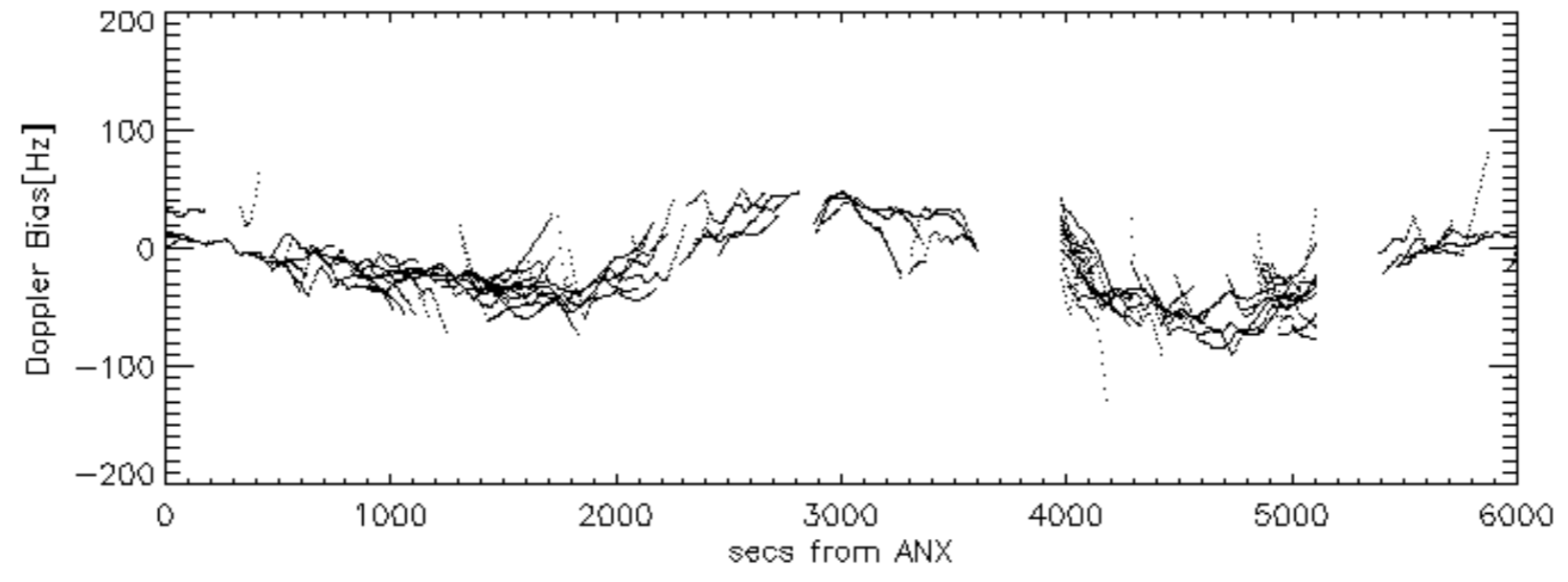
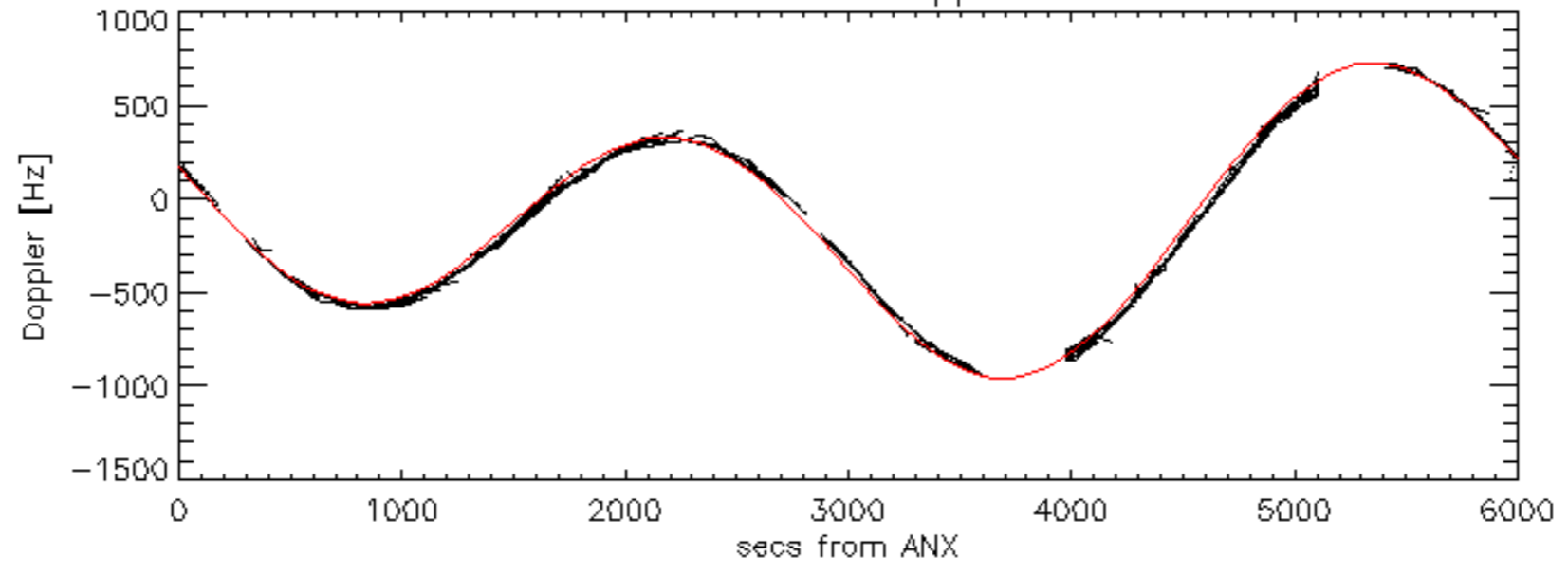
Doppler 'WVS' 'IS2' ascending

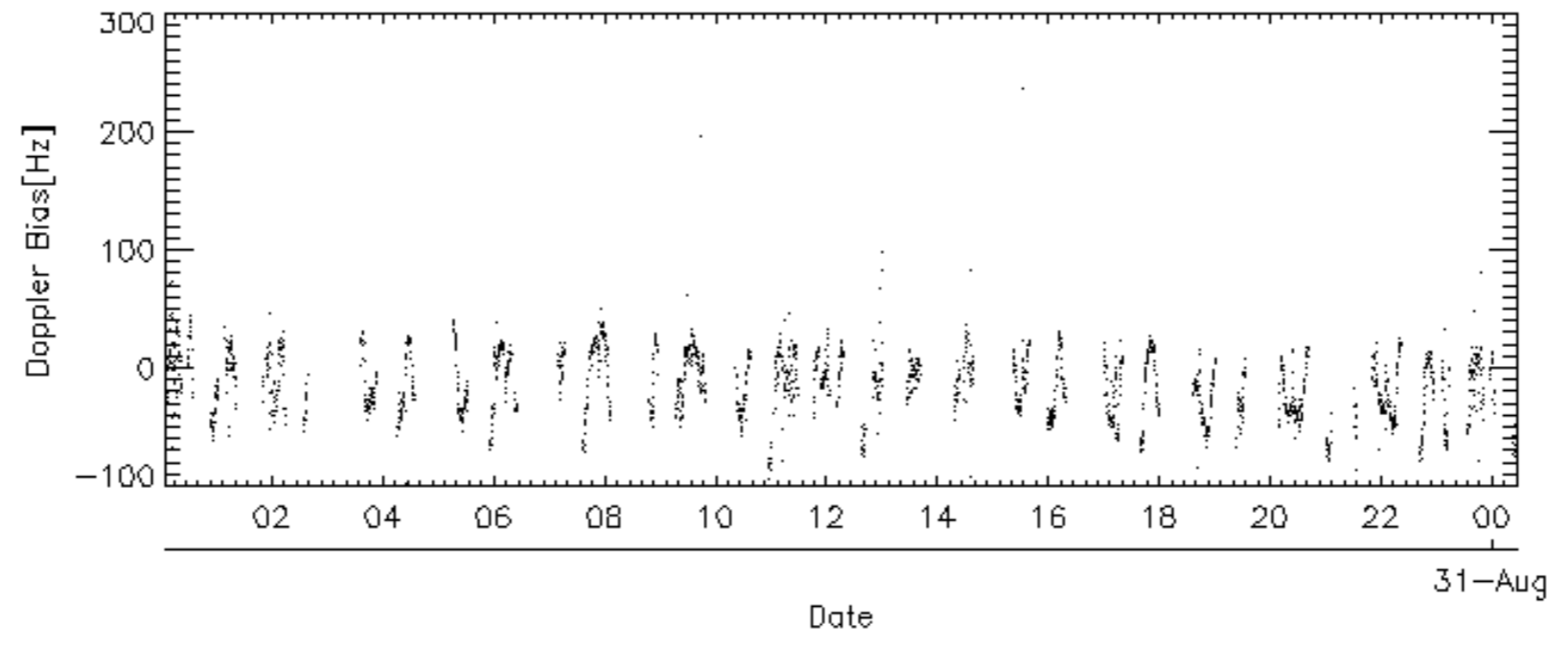
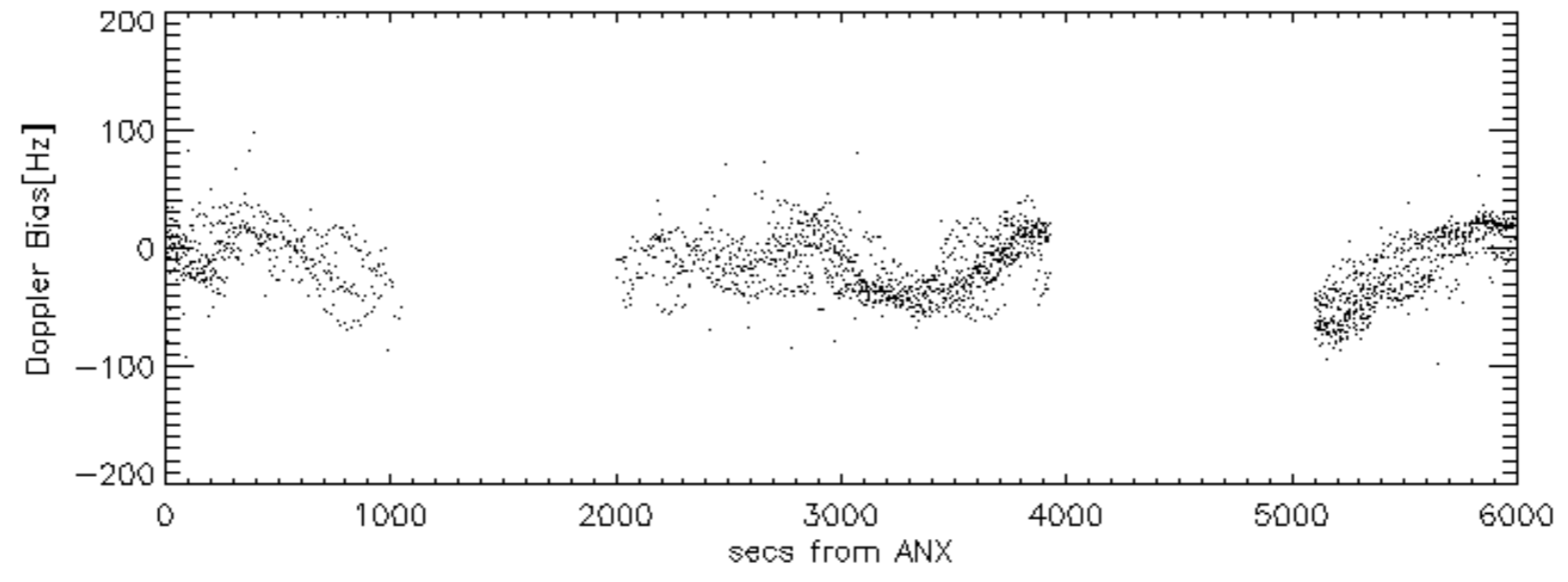
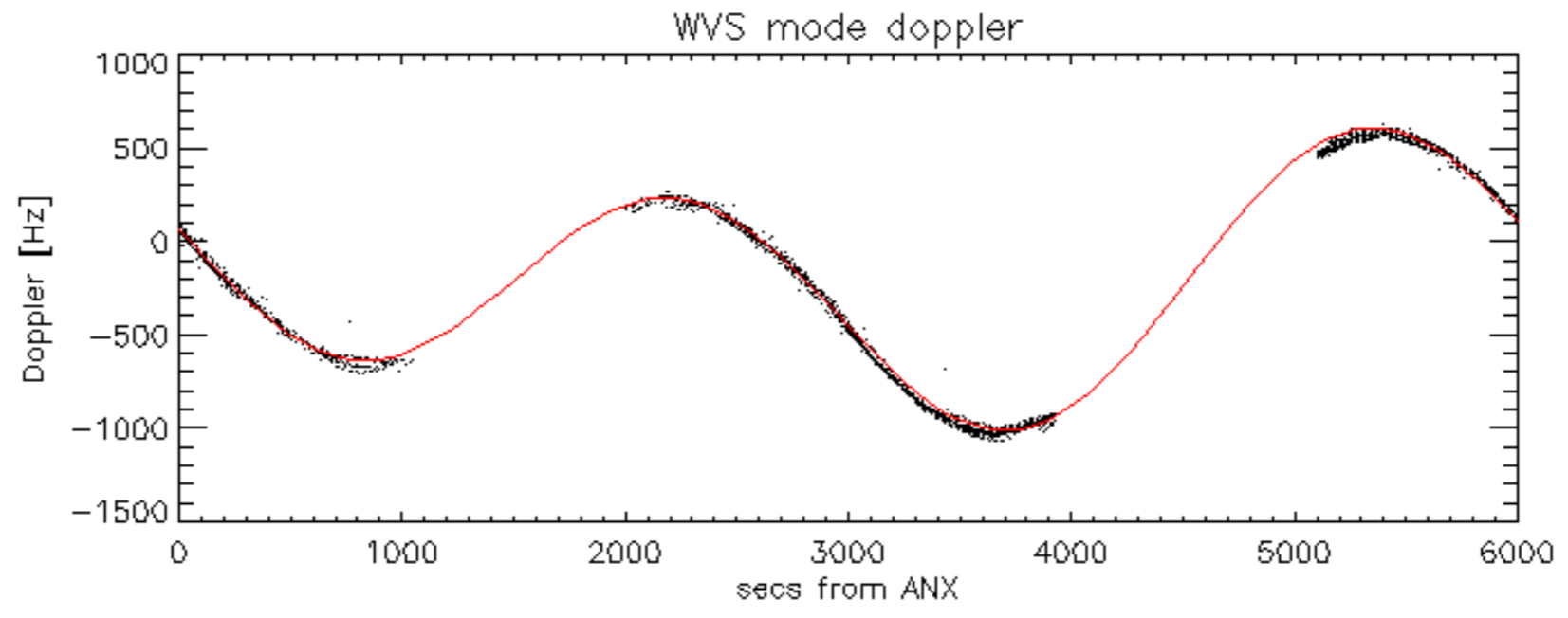


Doppler 'WVS' 'IS2' descending

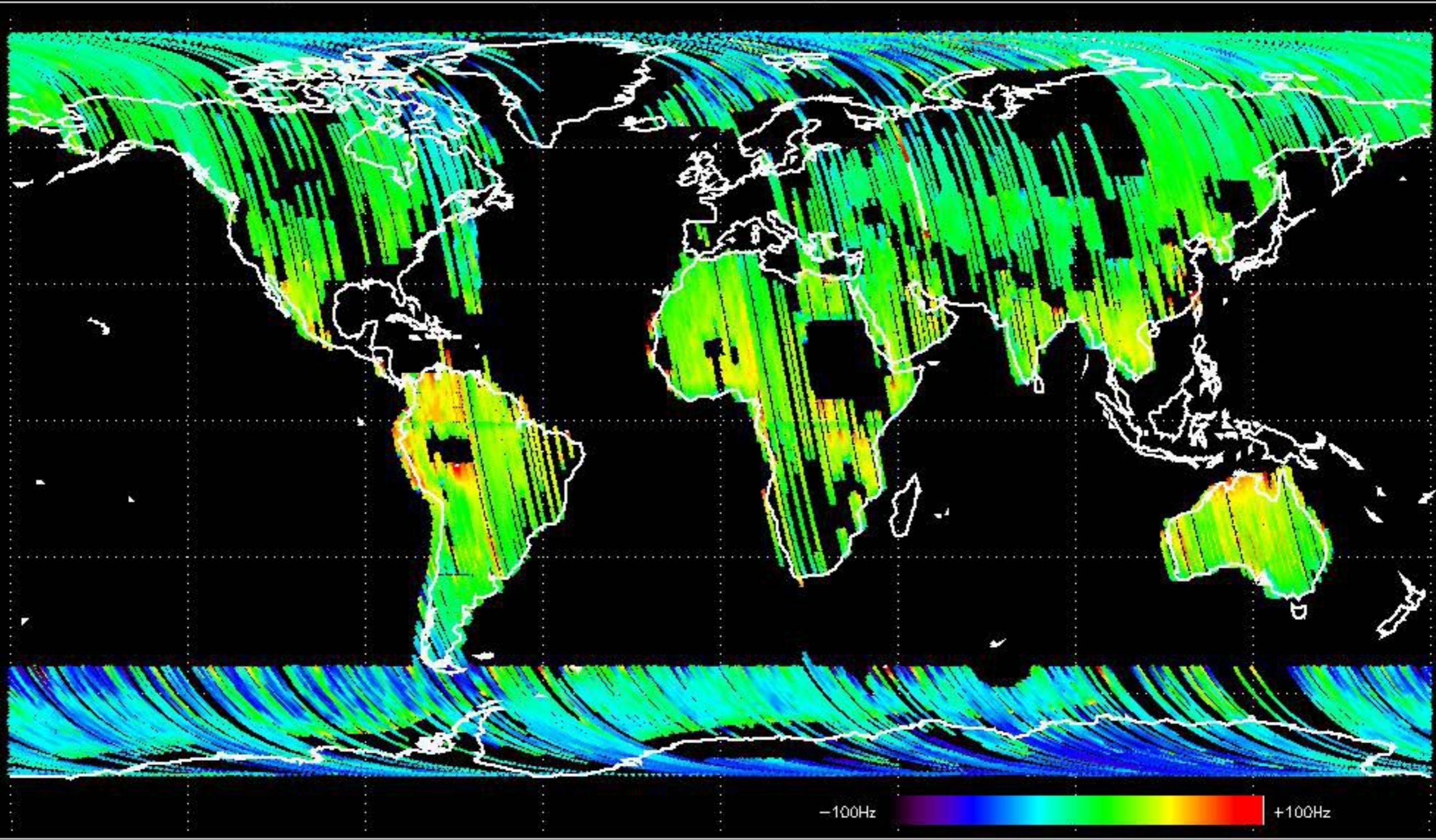


GM1 mode doppler

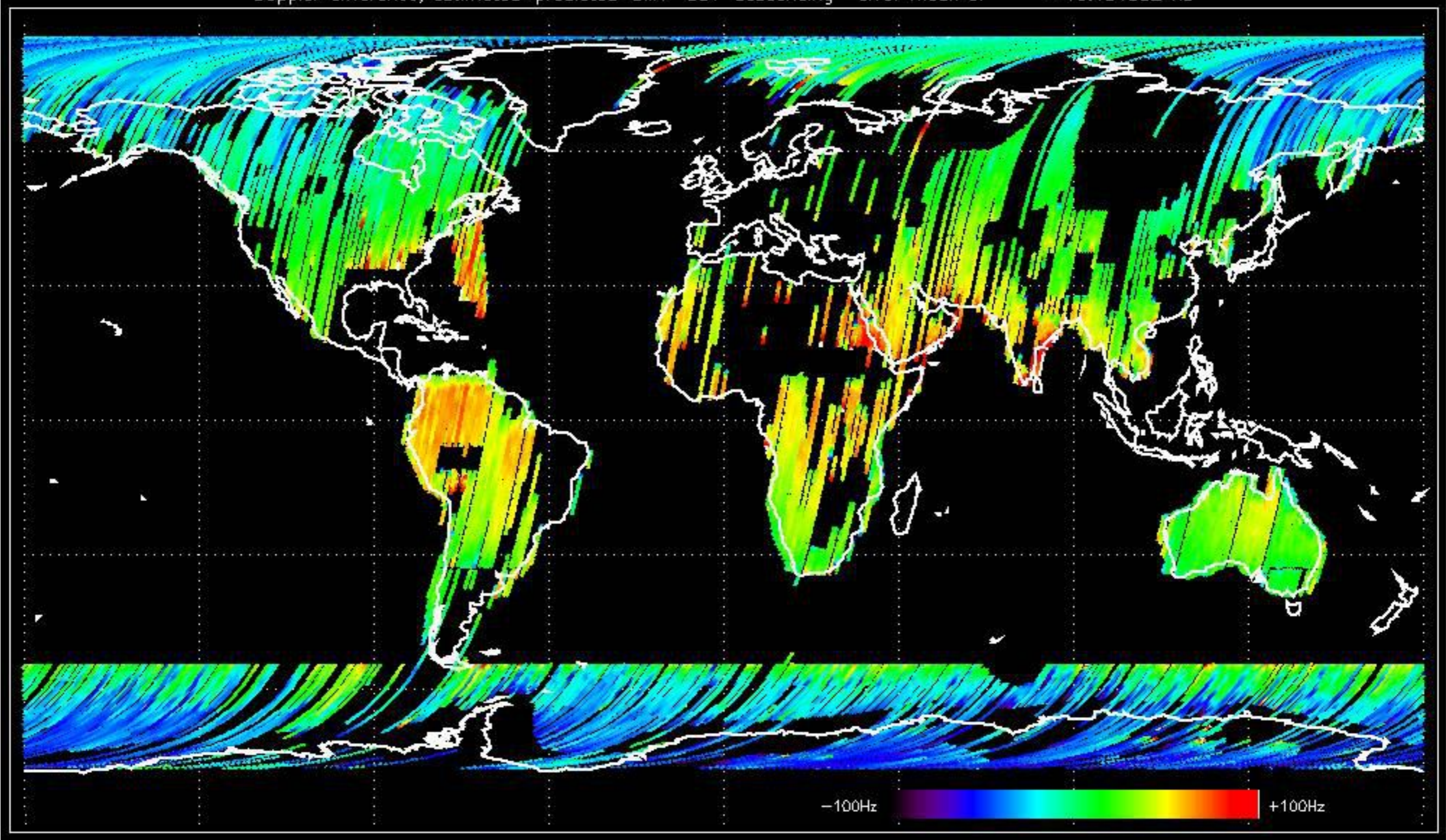




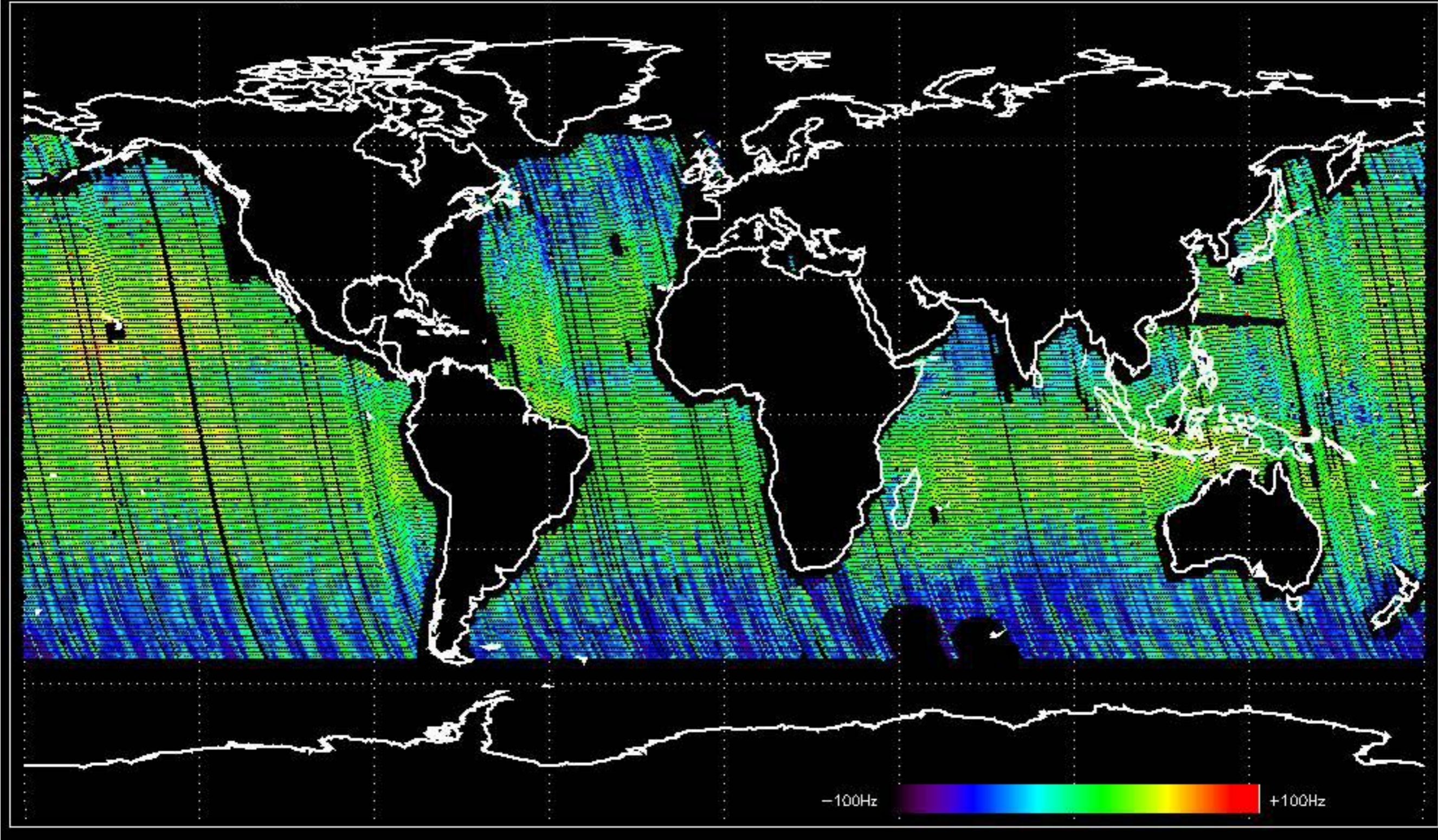
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.901954 Hz



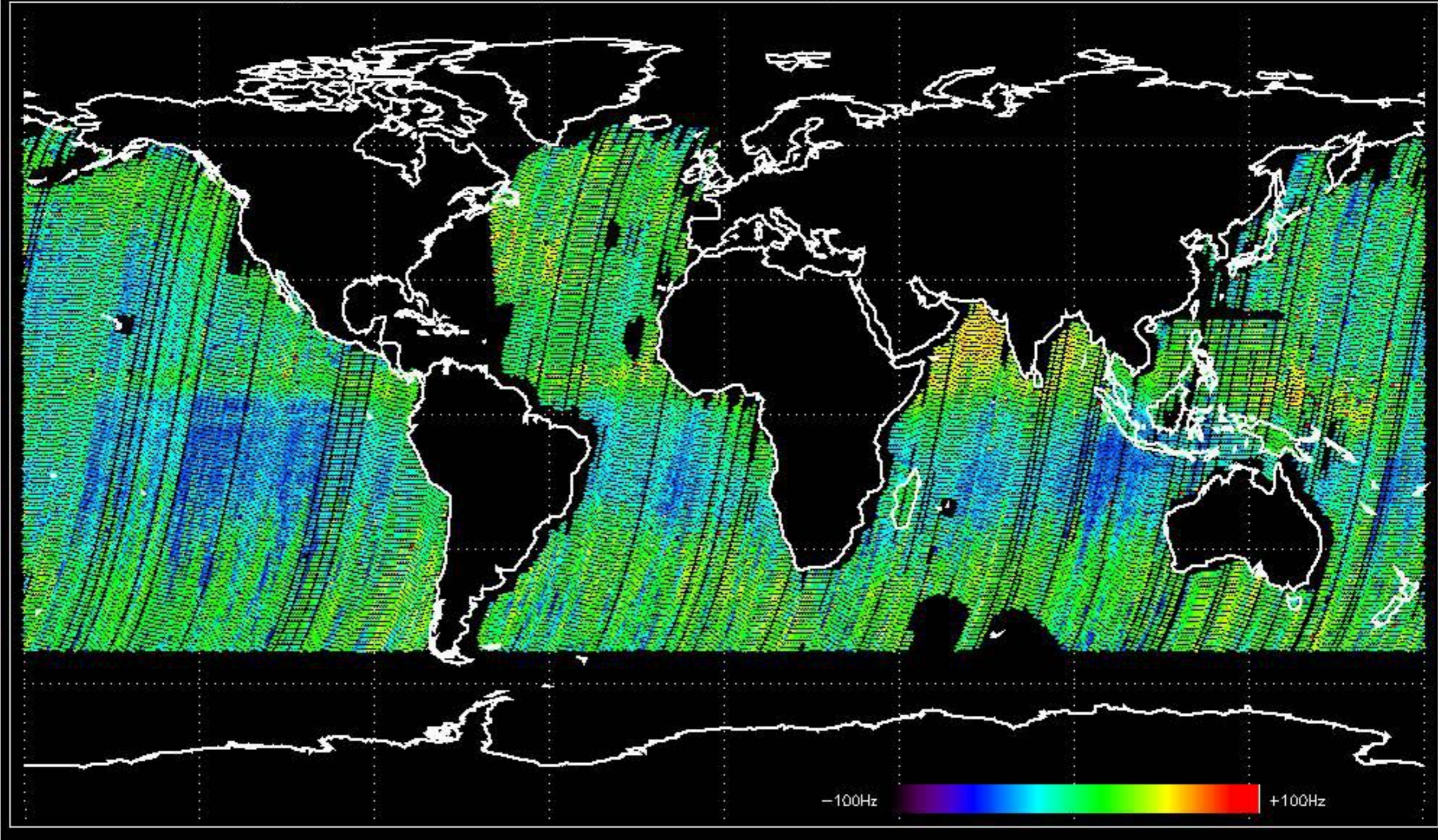
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -10.151032 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -4.1284333 Hz

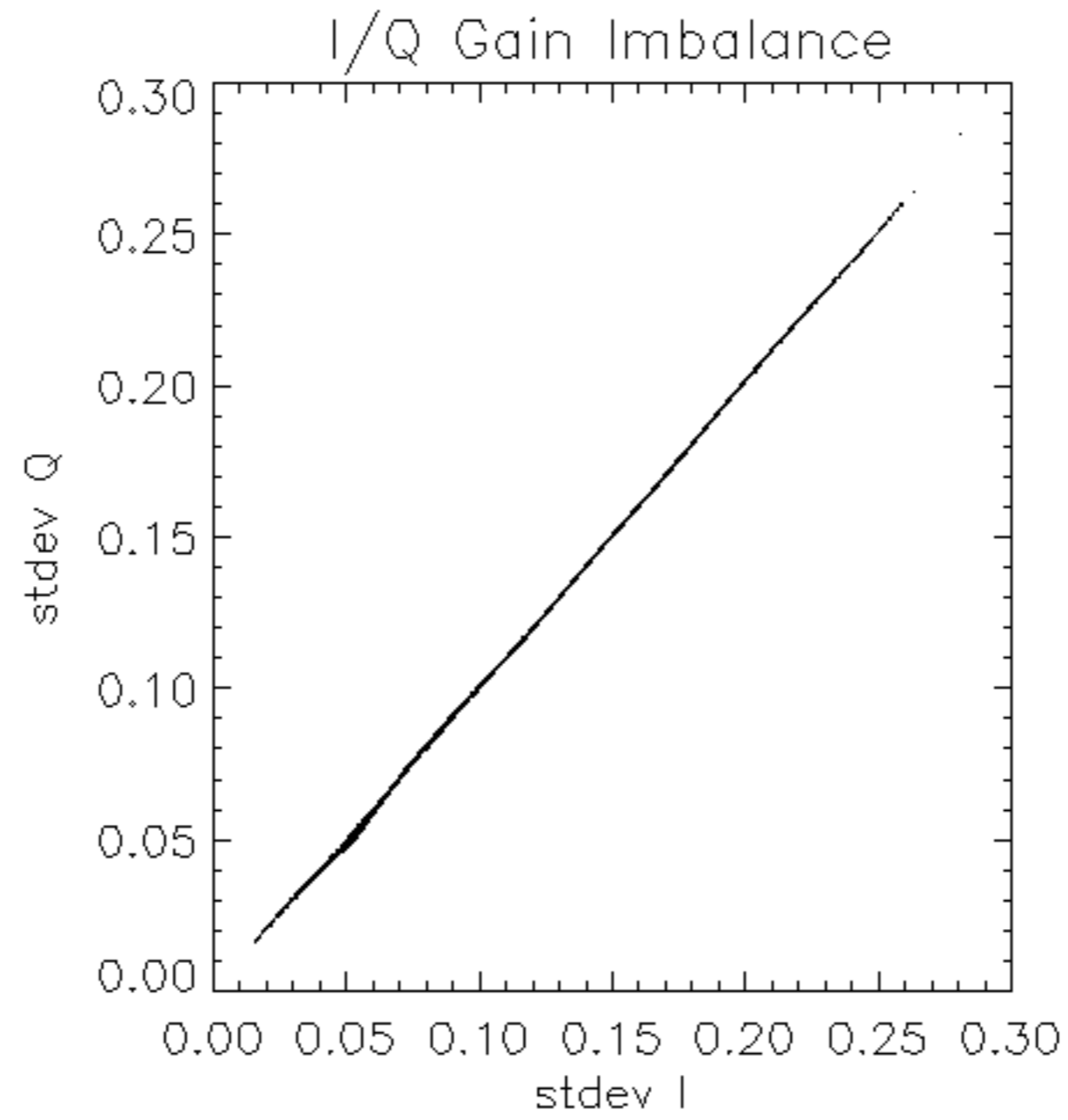


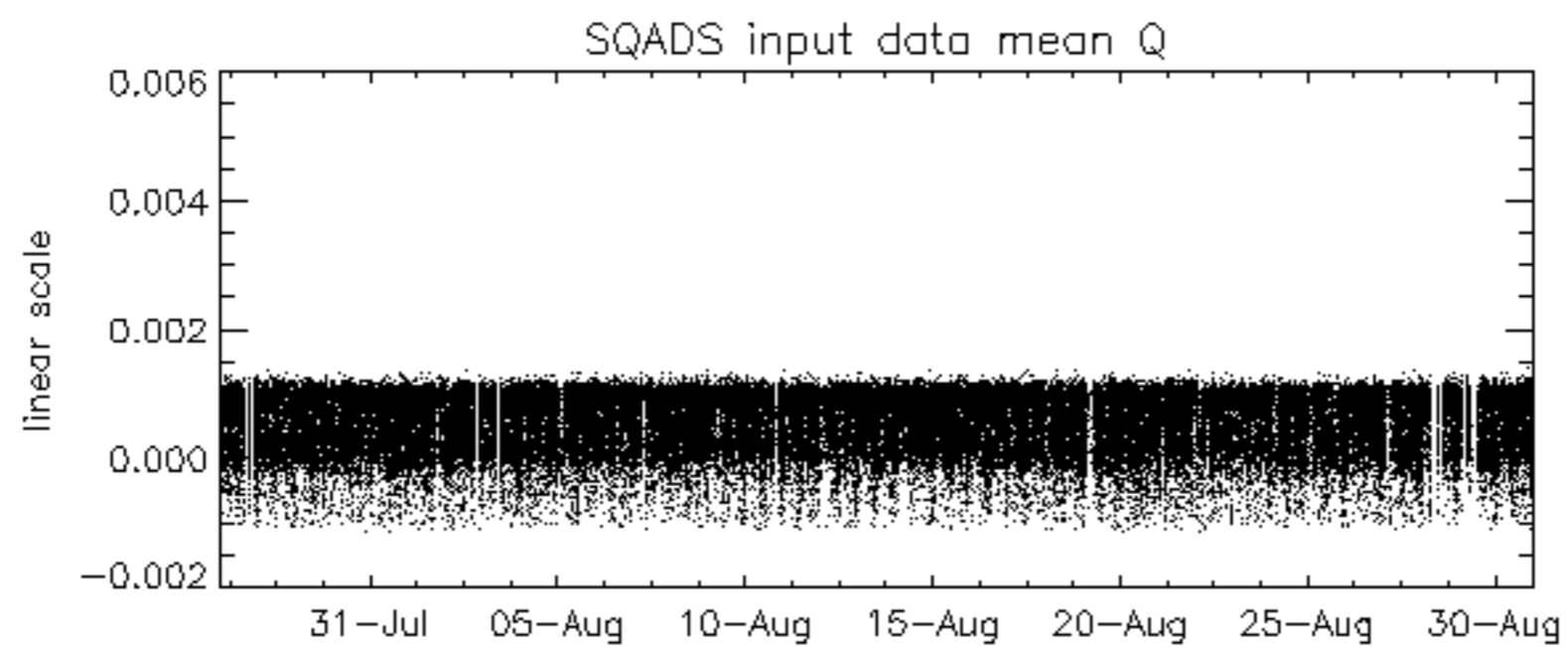
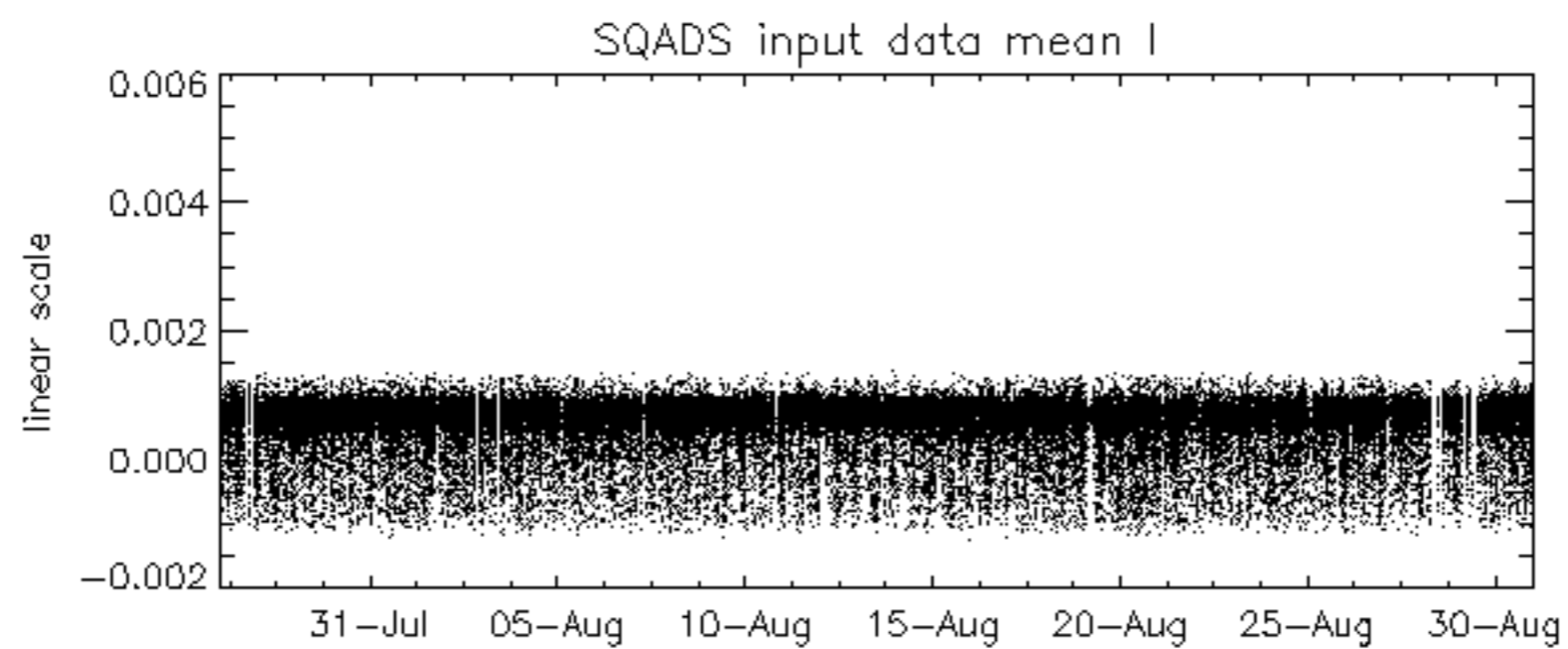
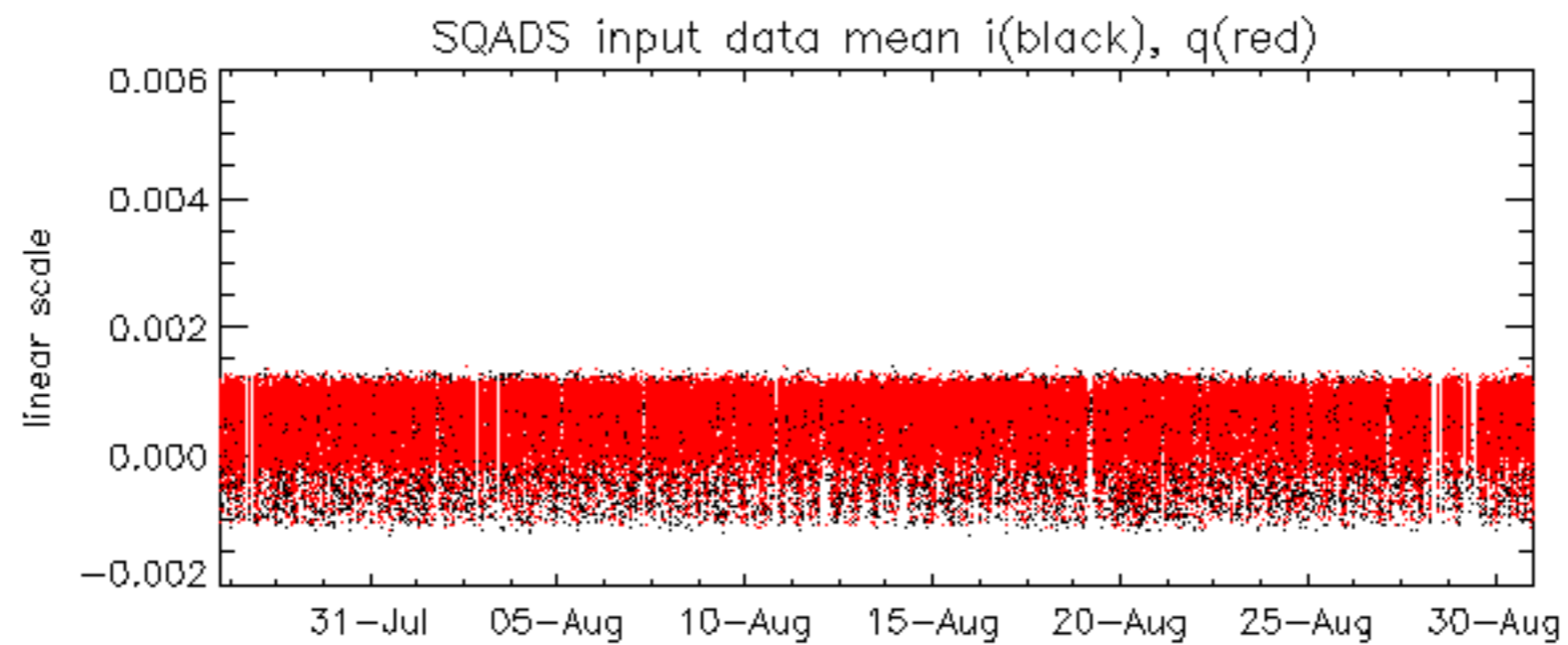
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.4523582 Hz

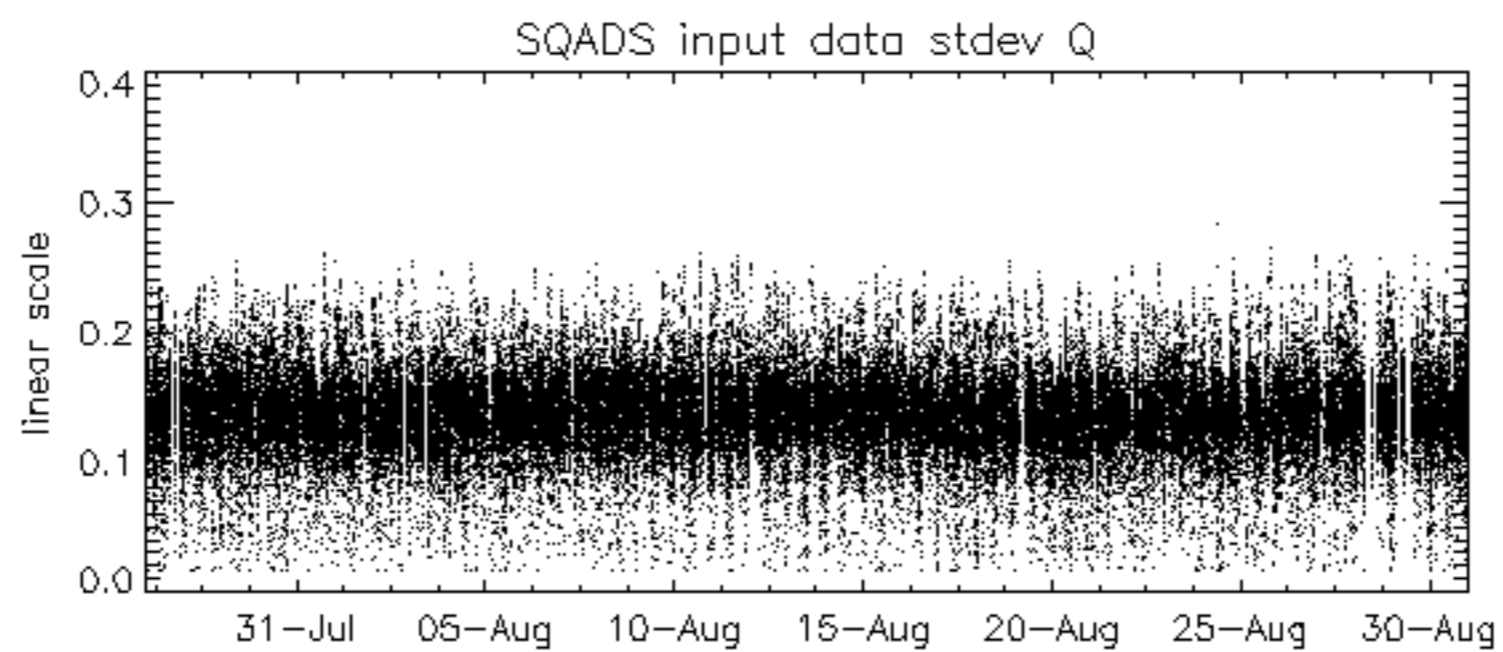
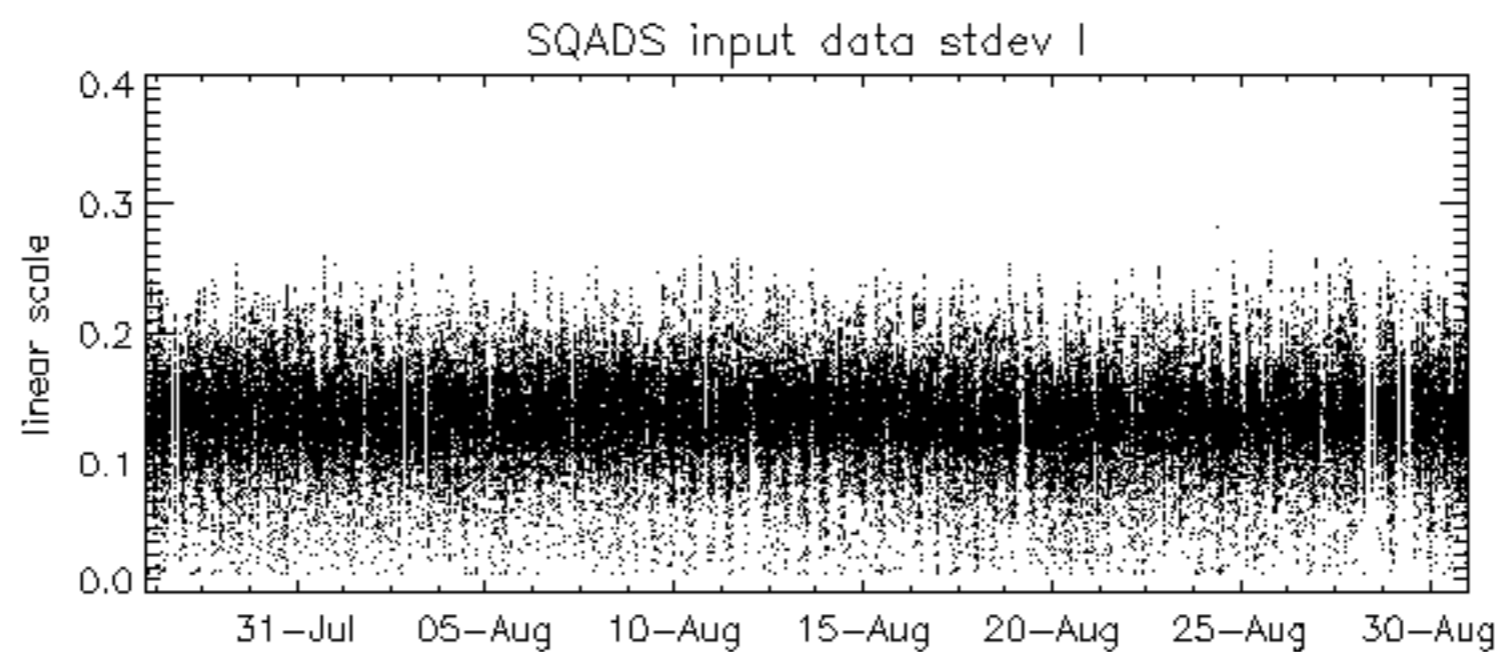
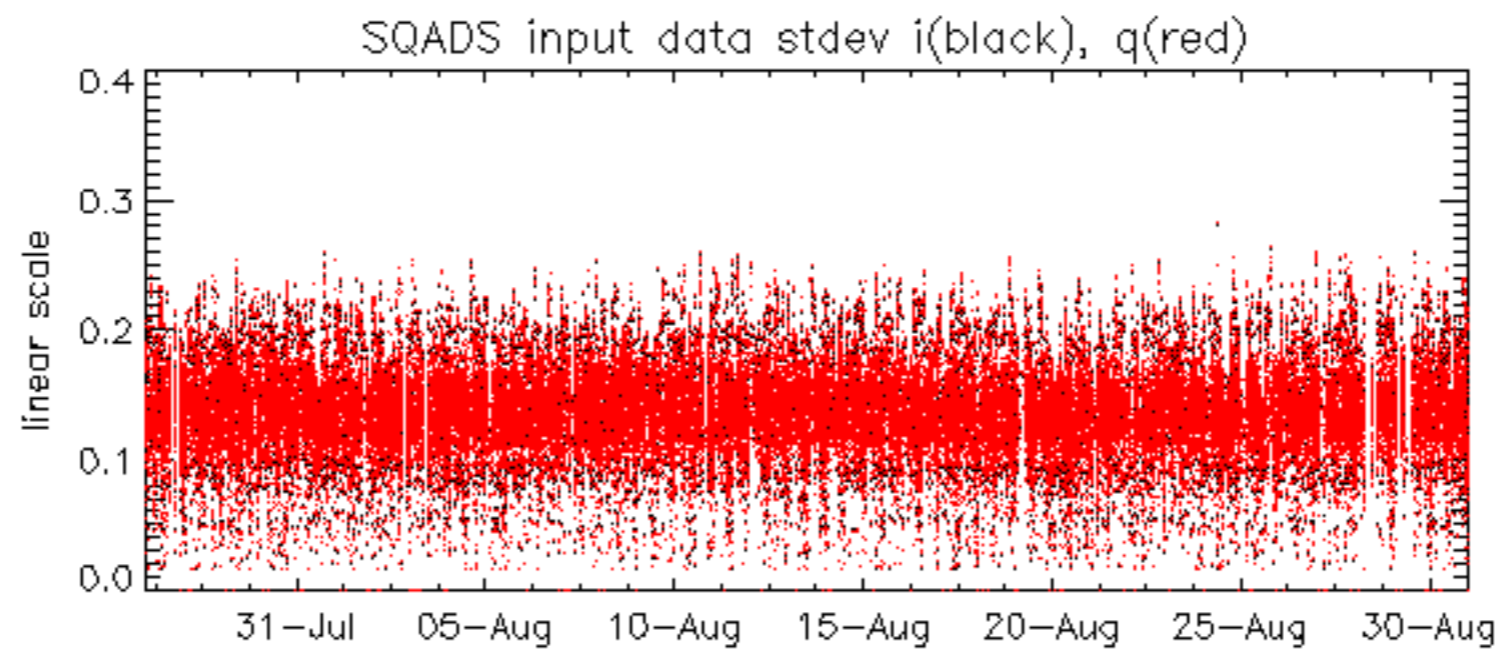


No anomalies observed on available MS products:

No anomalies observed.



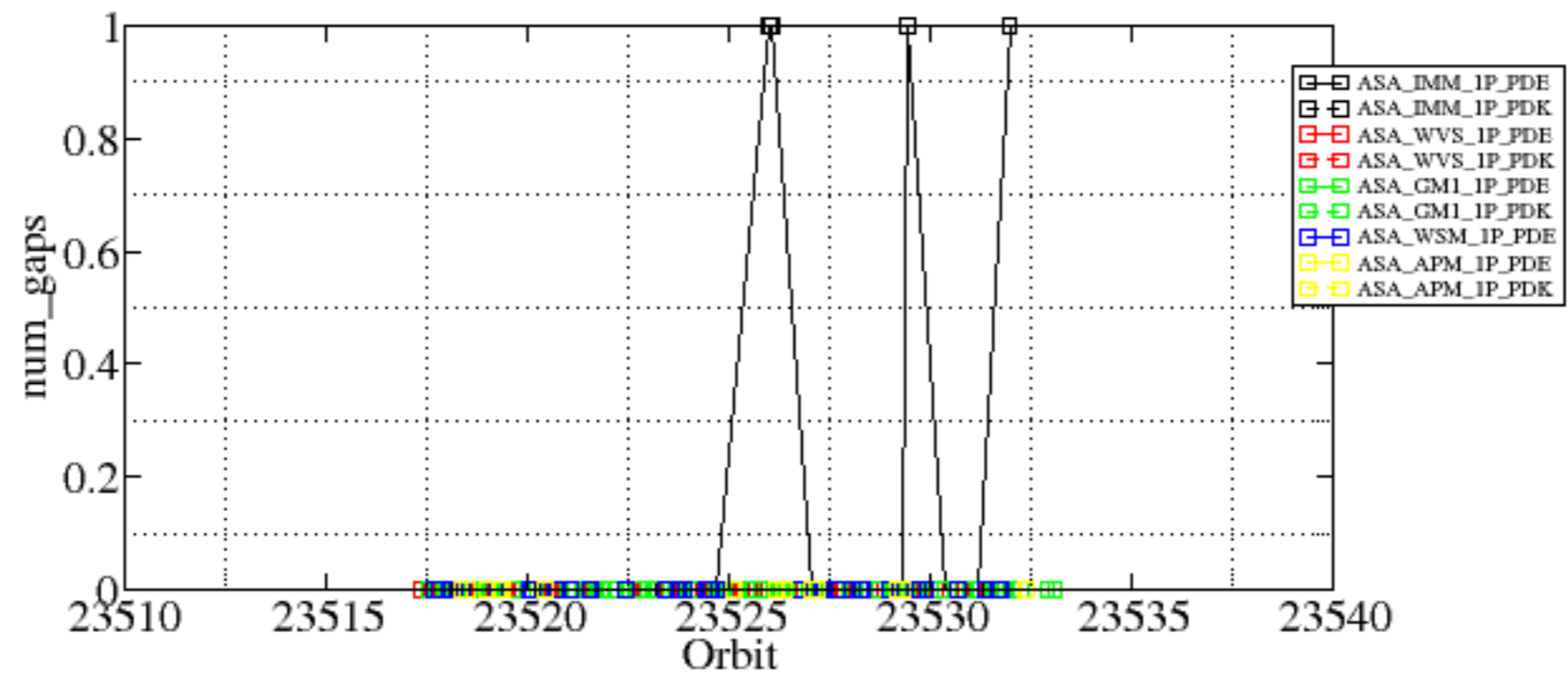


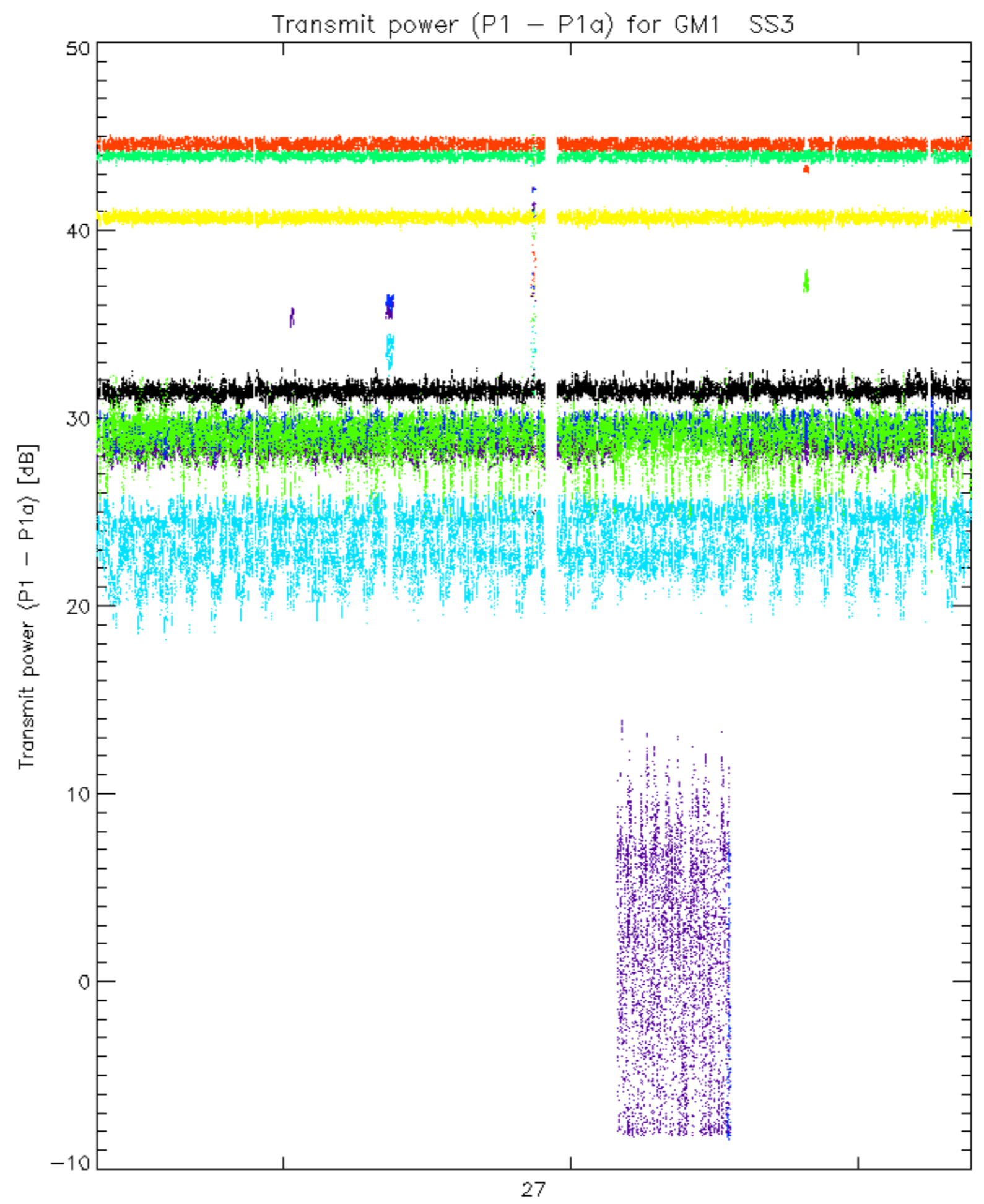


Summary of analysis for the last 3 days 2006083[901]

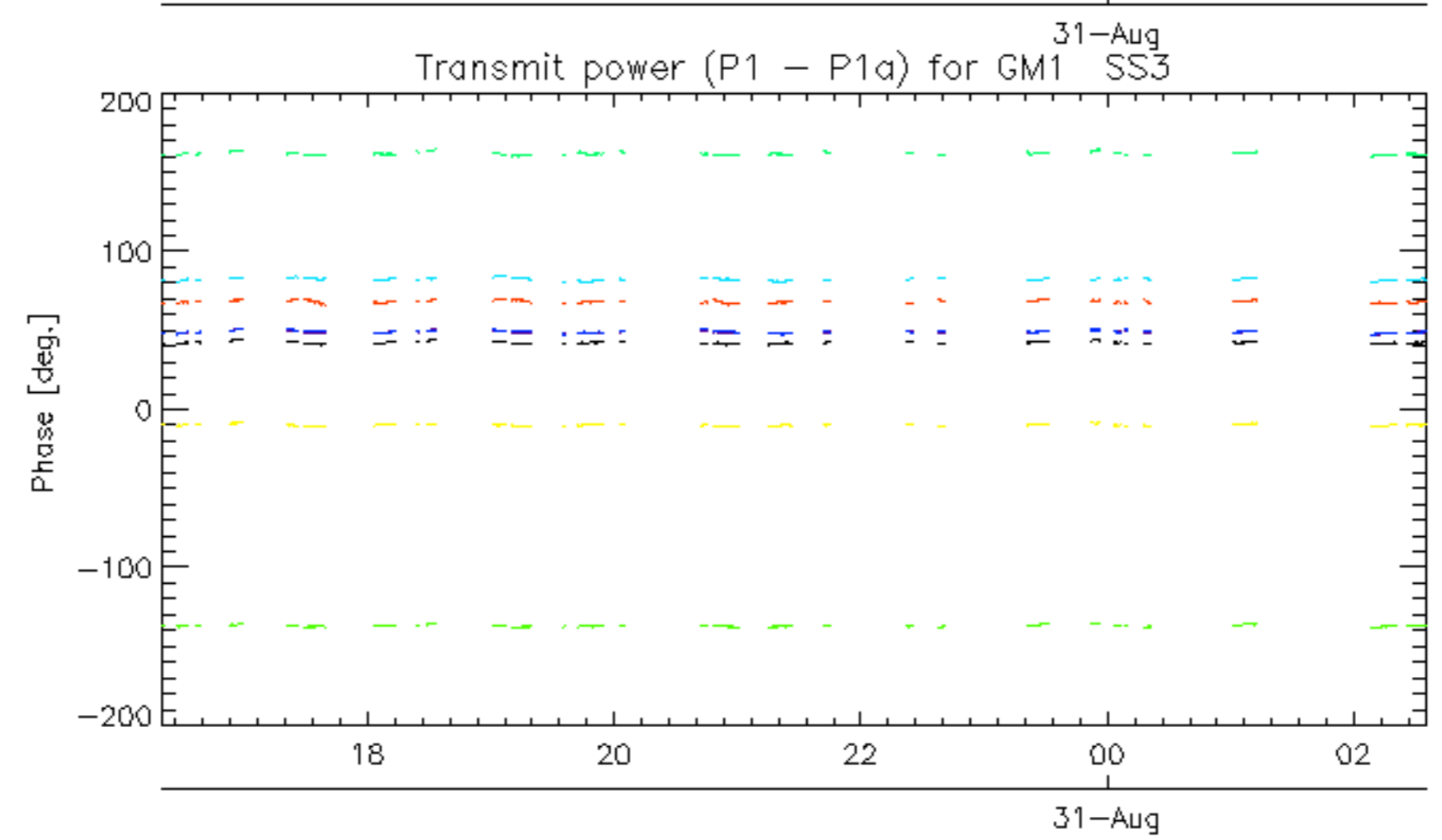
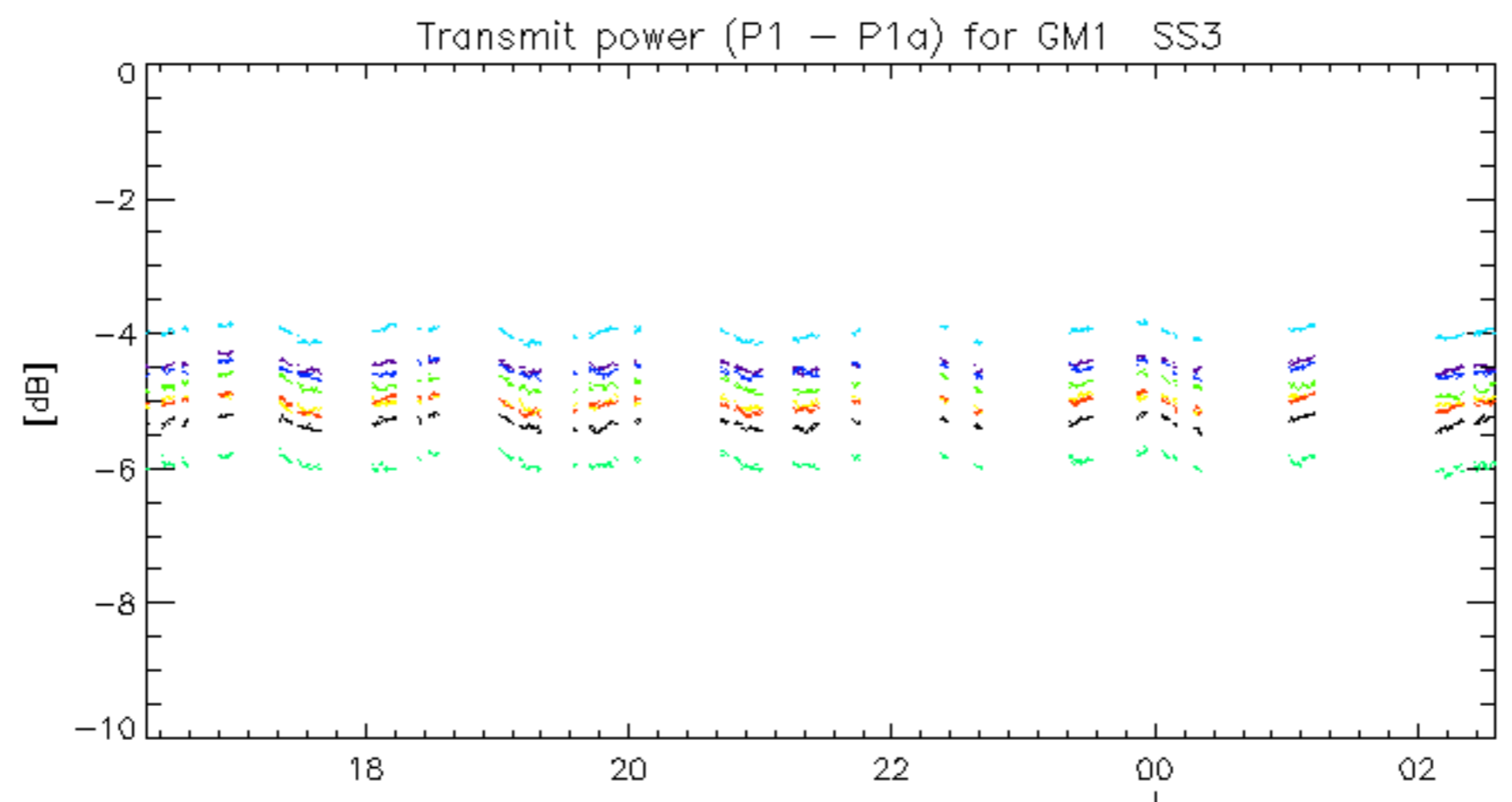
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060830_143313_000000372050_00425_23525_4947.N1	1	0
ASA_IMM_1PNPDE20060830_144000_000000802050_00426_23526_4951.N1	1	0
ASA_IMM_1PNPDE20060830_202033_000000372050_00429_23529_4959.N1	1	0
ASA_IMM_1PNPDE20060831_003434_000001152050_00431_23531_4974.N1	1	0
ASA_WSM_1PNPDE20060830_043525_000001832050_00420_23520_0077.N1	0	36
ASA_WSM_1PNPDE20060830_180020_000001462050_00428_23528_0191.N1	0	75

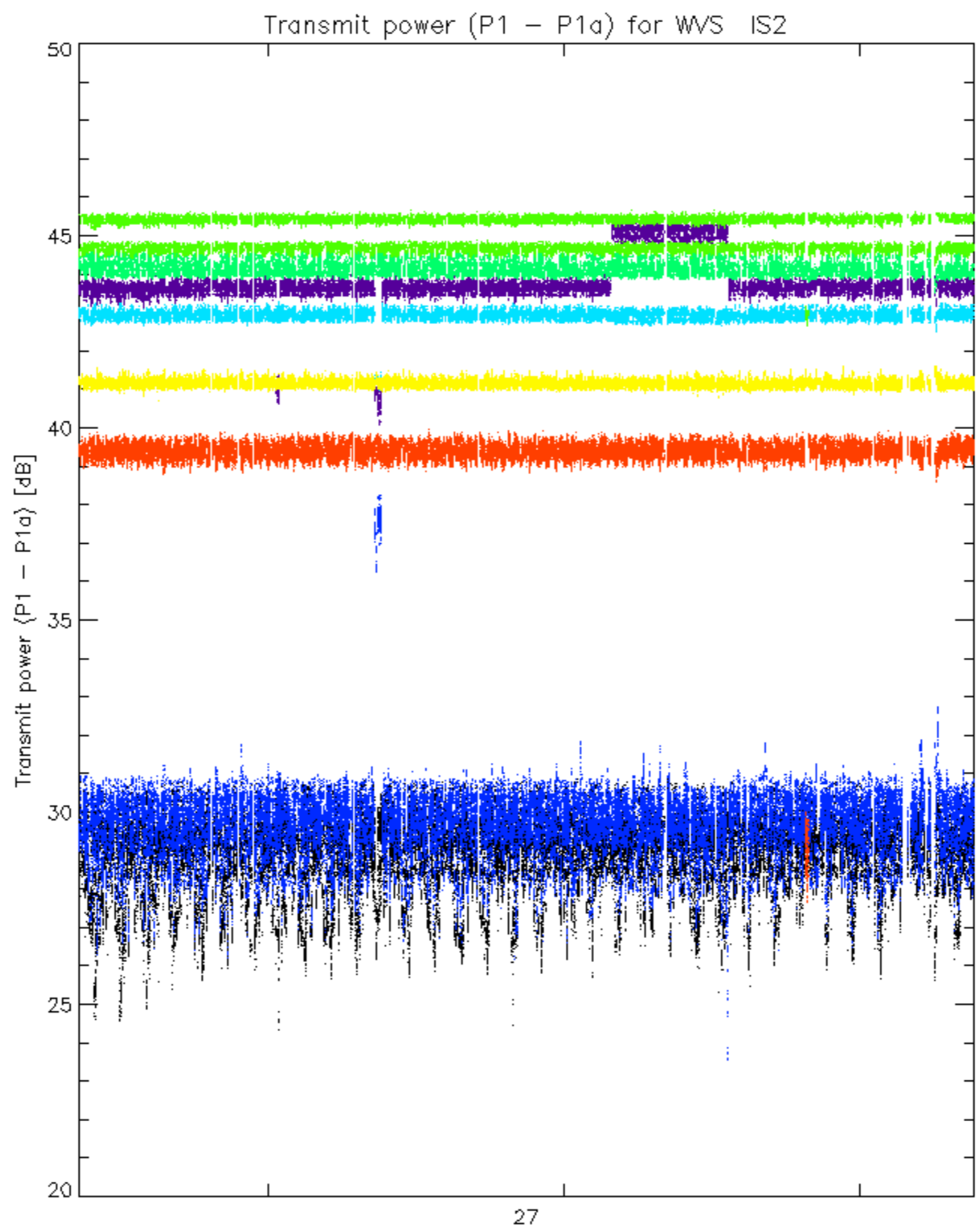




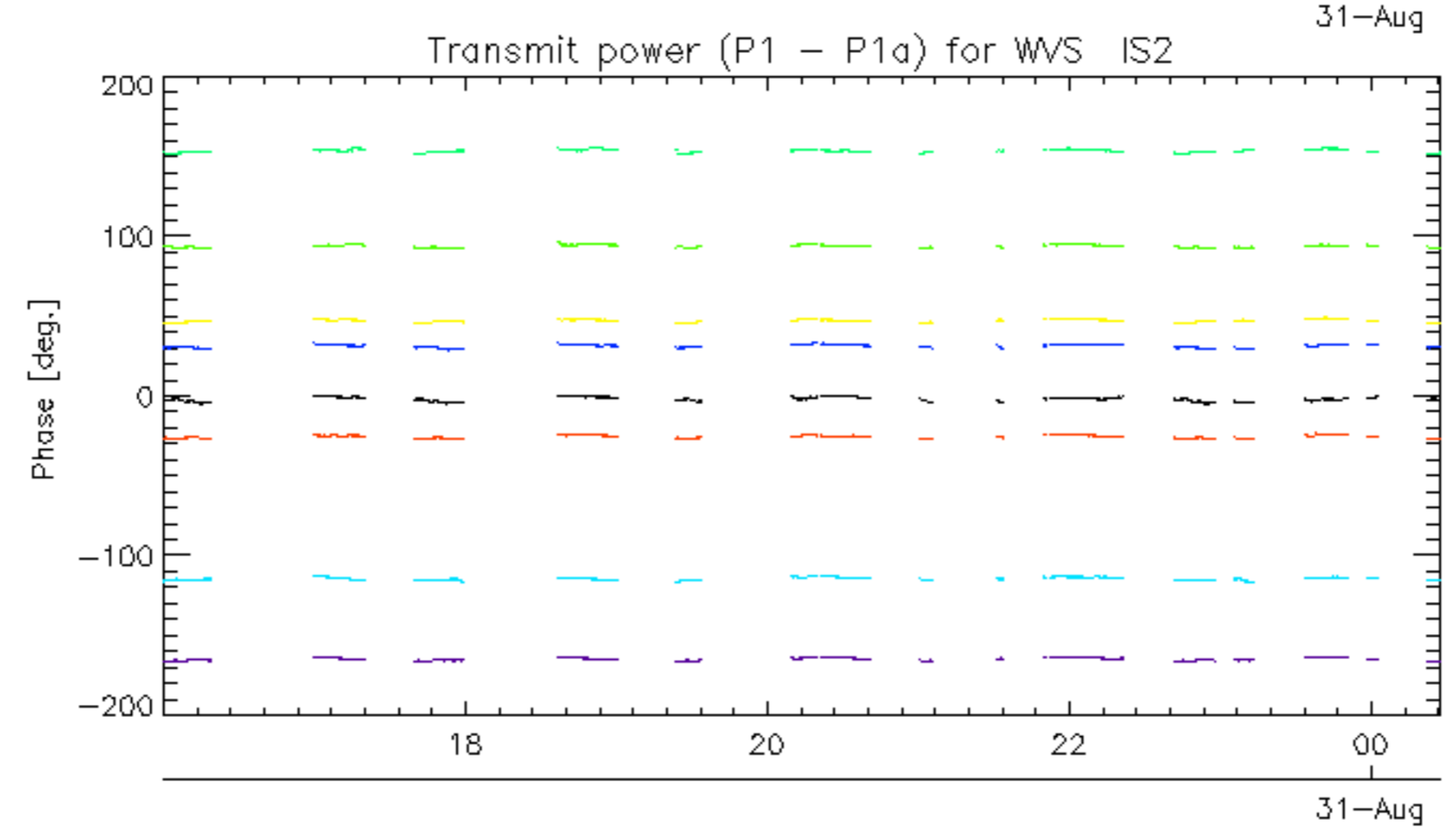
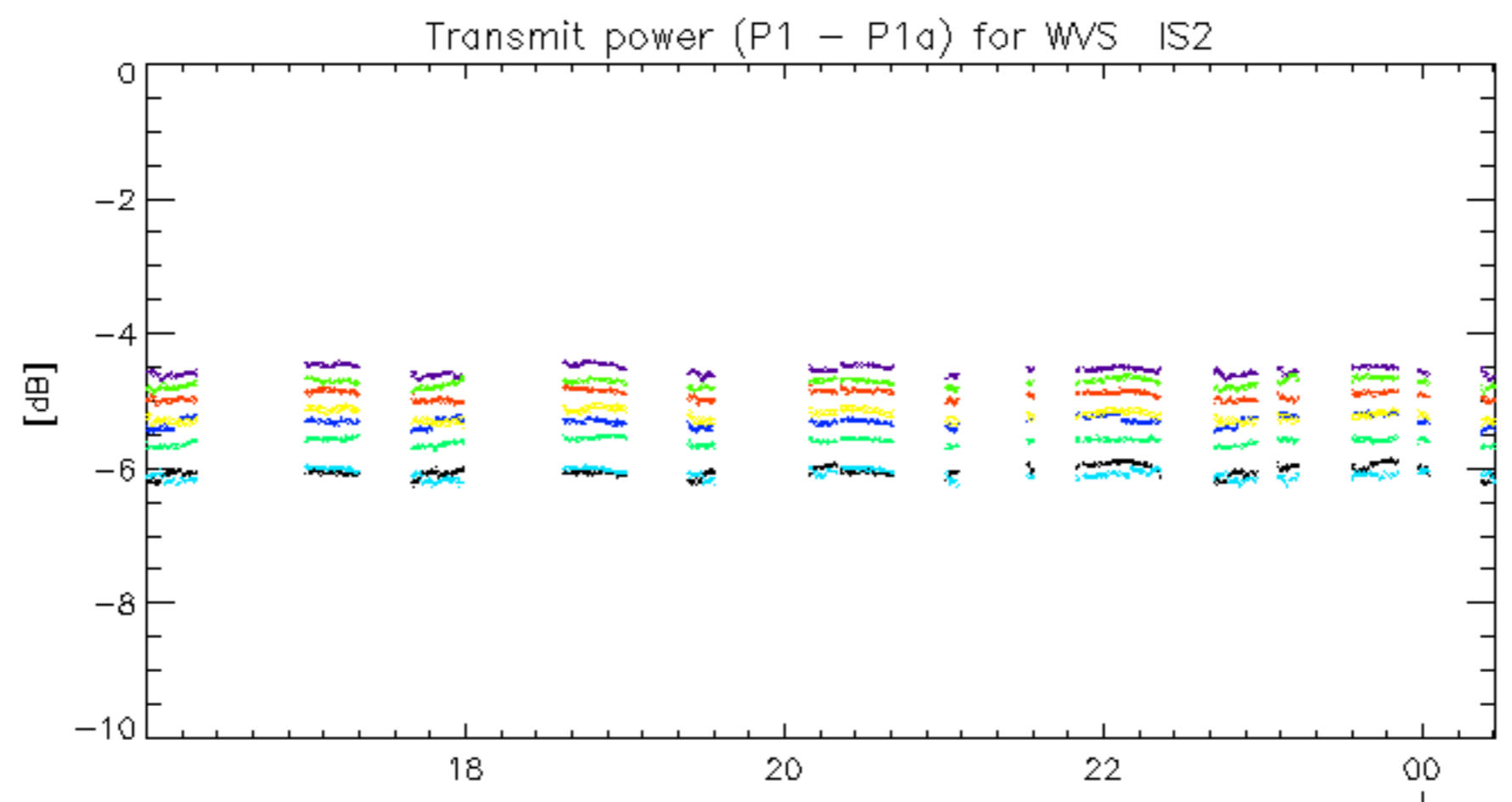
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.