

PRELIMINARY REPORT OF 060828

last update on Mon Aug 28 16:38:52 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 2006-08-27 00:00:00 to 2006-08-28 16:38:52

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	24	42	16	7	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	24	42	16	7	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	24	42	16	7	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	24	42	16	7	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	25	62	69	15	44
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	25	62	69	15	44
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	25	62	69	15	44
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	25	62	69	15	44

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	20060827 053212
H	20060826 060350

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

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	-3.943232	0.009893	0.002490
7	P1	-3.080790	0.051272	0.102161
11	P1	-4.086047	0.063500	0.054898
15	P1	-6.201892	0.093933	0.012680
19	P1	-3.460522	0.009993	-0.089636
22	P1	-4.561243	0.024550	0.015456
26	P1	-3.925622	0.019506	-0.033723
30	P1	-5.759356	0.026172	0.026194
3	P1	-16.542549	0.259795	-0.018902
7	P1	-16.860876	0.645983	0.939628
11	P1	-16.856344	0.300797	0.226564
15	P1	-12.986968	0.155480	0.139078
19	P1	-14.518983	0.055736	-0.071535
22	P1	-15.866677	0.541648	0.320152
26	P1	-15.154587	0.213636	-0.156223
30	P1	-17.029953	0.336694	0.203613

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.876101	0.083565	0.093585
7	P2	-21.862705	0.099132	-0.003452
11	P2	-15.754219	0.113683	0.036428
15	P2	-7.105534	0.097167	0.023891
19	P2	-9.117695	0.090568	0.009394
22	P2	-18.138586	0.084548	0.027437
26	P2	-16.399446	0.091299	-0.002952
30	P2	-19.483088	0.090466	0.035967

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.172924	0.003590	-0.005801
7	P3	-8.172924	0.003590	-0.005801
11	P3	-8.172924	0.003590	-0.005801
15	P3	-8.172924	0.003590	-0.005801
19	P3	-8.172924	0.003590	-0.005801
22	P3	-8.172924	0.003590	-0.005801
26	P3	-8.172975	0.003589	-0.005853
30	P3	-8.172975	0.003589	-0.005853

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	-3.831804	0.021325	-0.012984
7	P1	-2.496844	0.285293	0.327765
11	P1	-2.895029	0.142010	0.017078
15	P1	-3.647484	0.147376	-0.046991
19	P1	-3.431421	0.025205	-0.001524
22	P1	-5.079287	0.034035	0.028701
26	P1	-5.870180	0.023996	-0.021196
30	P1	-5.188546	0.044697	0.049470
3	P1	-11.625724	0.066369	-0.007142
7	P1	-9.916701	0.188594	0.192993
11	P1	-10.291727	0.083008	-0.065675
15	P1	-10.808607	0.173385	-0.150935
19	P1	-15.552402	0.527412	0.110766
22	P1	-20.873383	1.754420	0.311941

26	P1	-16.121975	0.409561	0.264968
30	P1	-17.961529	0.727023	0.129942

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.478281	0.083963	0.126278
7	P2	-22.268324	0.200816	0.154152
11	P2	-10.956208	0.055722	0.146193
15	P2	-4.883480	0.042982	0.035328
19	P2	-6.858435	0.040728	0.015885
22	P2	-8.183601	0.061976	0.028620
26	P2	-24.170095	0.128564	0.013654
30	P2	-21.972828	0.078738	0.042571

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.014316	0.003668	-0.013008
7	P3	-8.014261	0.003669	-0.013072
11	P3	-8.014373	0.003668	-0.012924
15	P3	-8.014364	0.003675	-0.012939
19	P3	-8.014392	0.003683	-0.013491
22	P3	-8.014521	0.003660	-0.012852
26	P3	-8.014314	0.003657	-0.013057
30	P3	-8.014254	0.003670	-0.012885

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	0.000552414
	stdev	1.77717e-07
MEAN Q	mean	0.000532187
	stdev	2.16156e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136249
	stdev	0.00107929
STDEV Q	mean	0.136594
	stdev	0.00109553



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006082[678]

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_1PNPDE20060826_182649_000000352050_00371_23471_4533.N1	0	17
ASA_IMM_1PNPDE20060827_201454_000000372050_00386_23486_4727.N1	0	6
ASA_WSM_1PNPDK20060826_103050_000001472050_00366_23466_4387.N1	0	14





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)


Ascending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Ascending

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)

<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

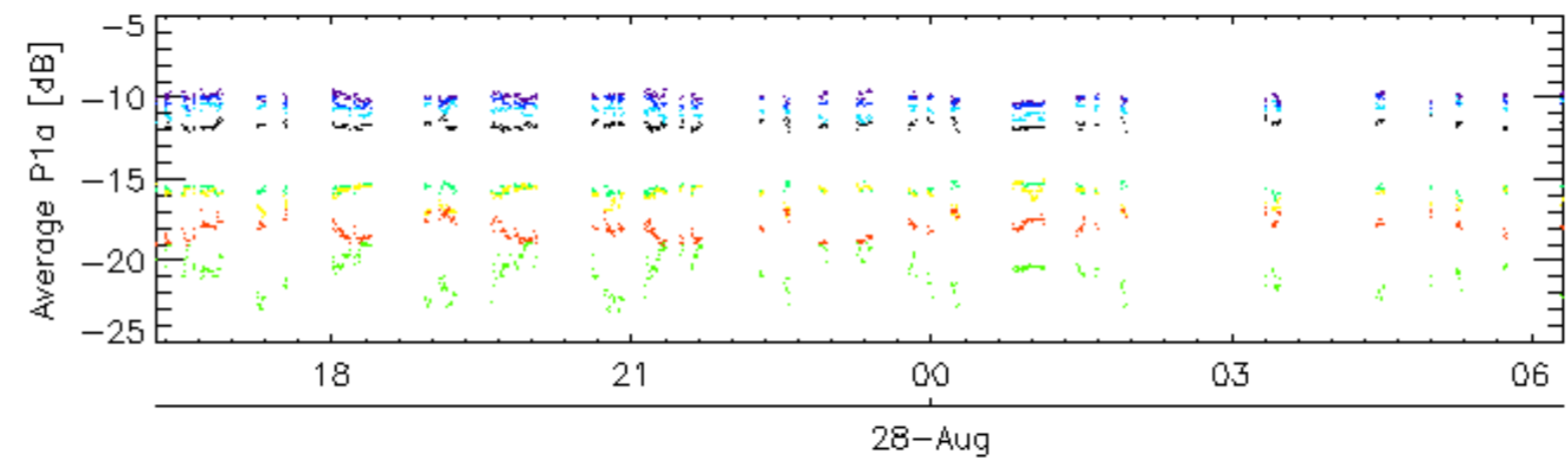
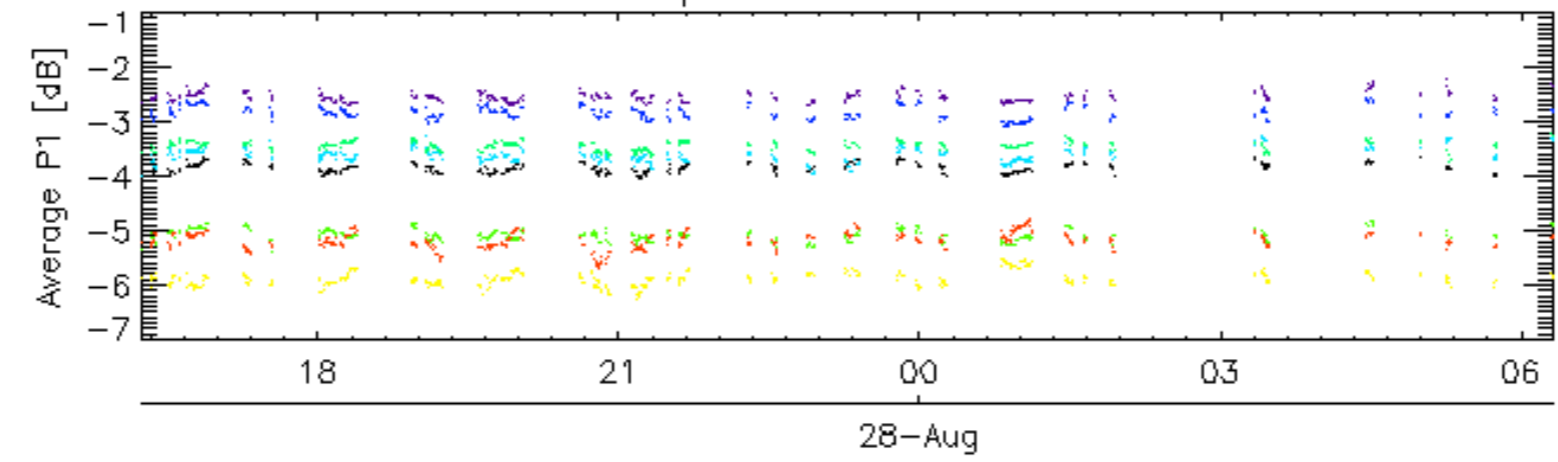
7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

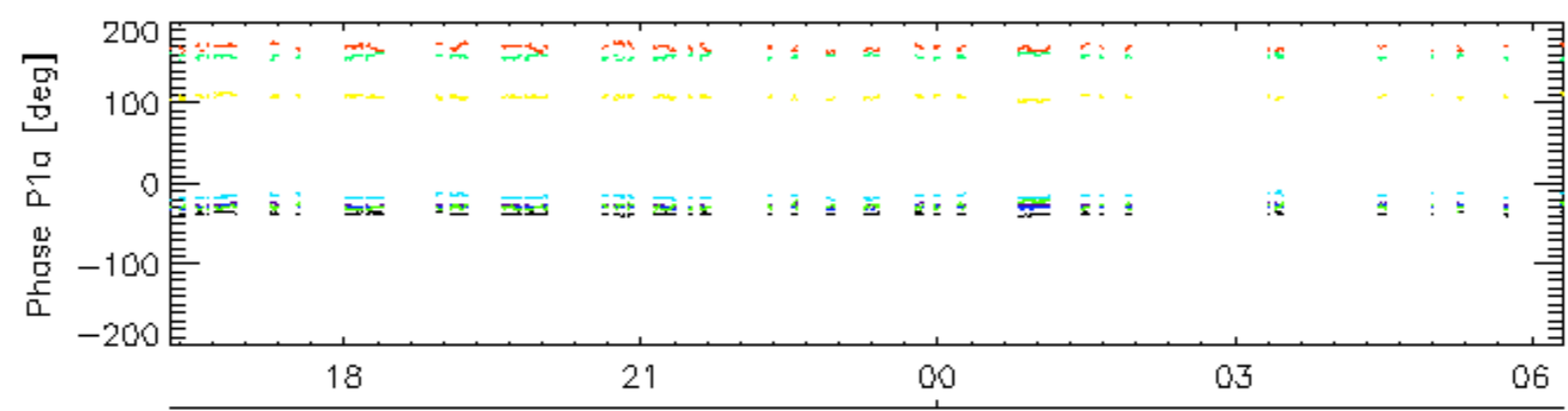
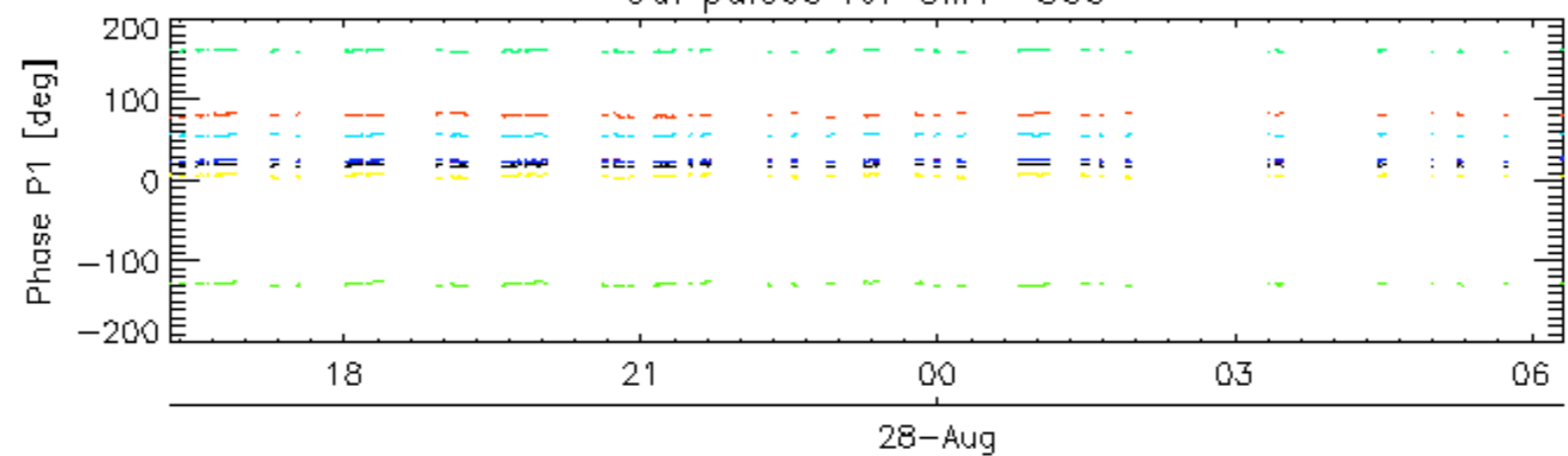
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

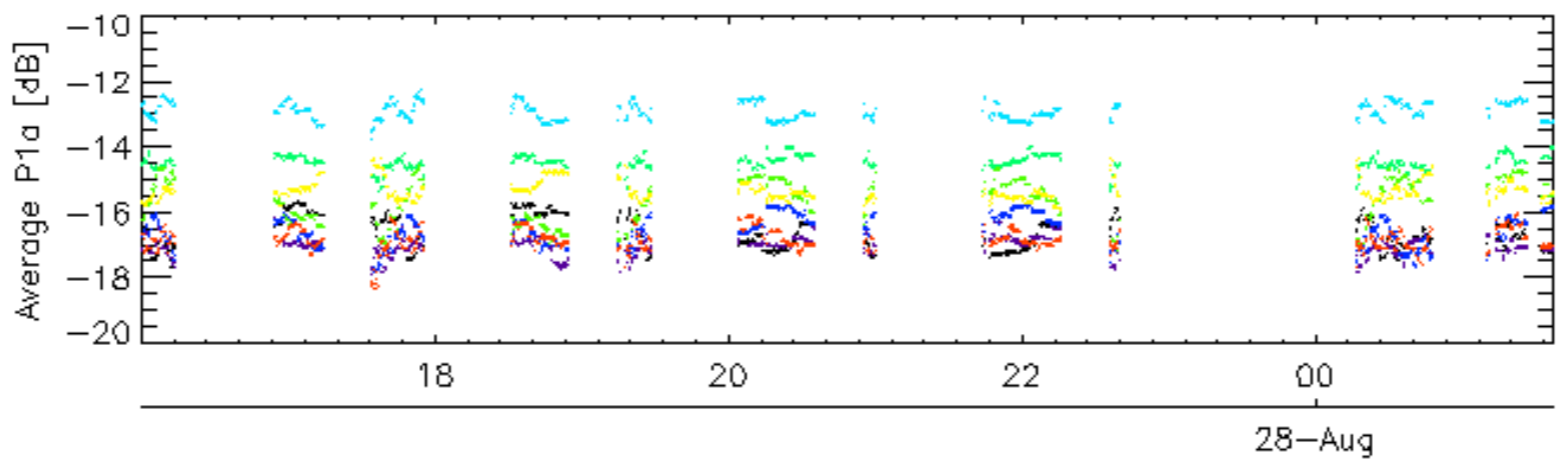
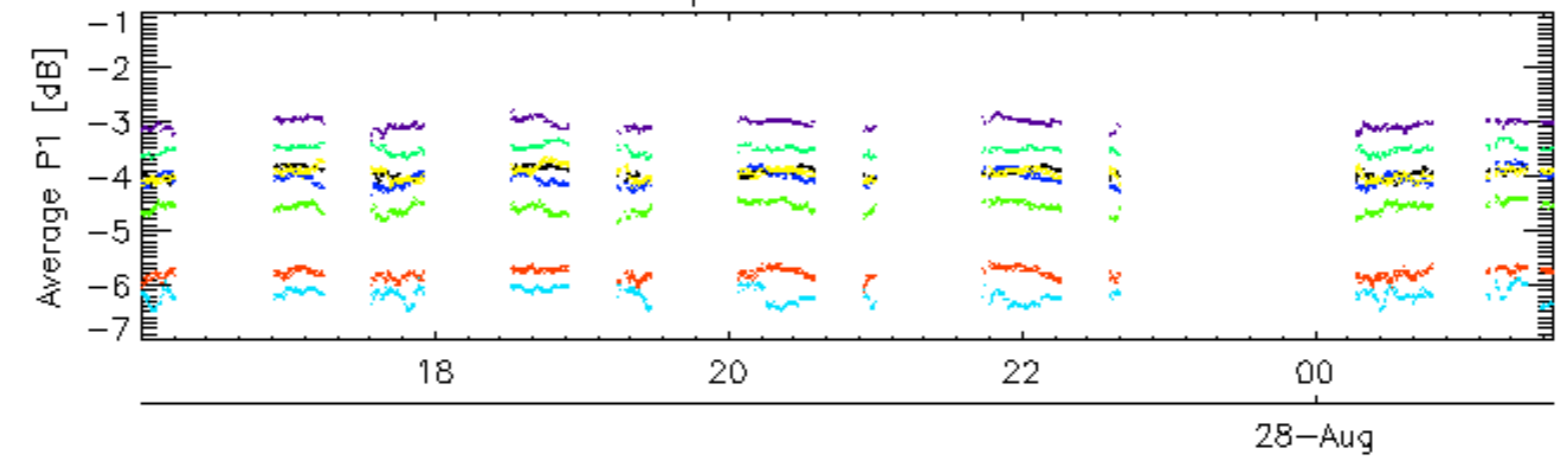


Cal pulses for GM1 SS3

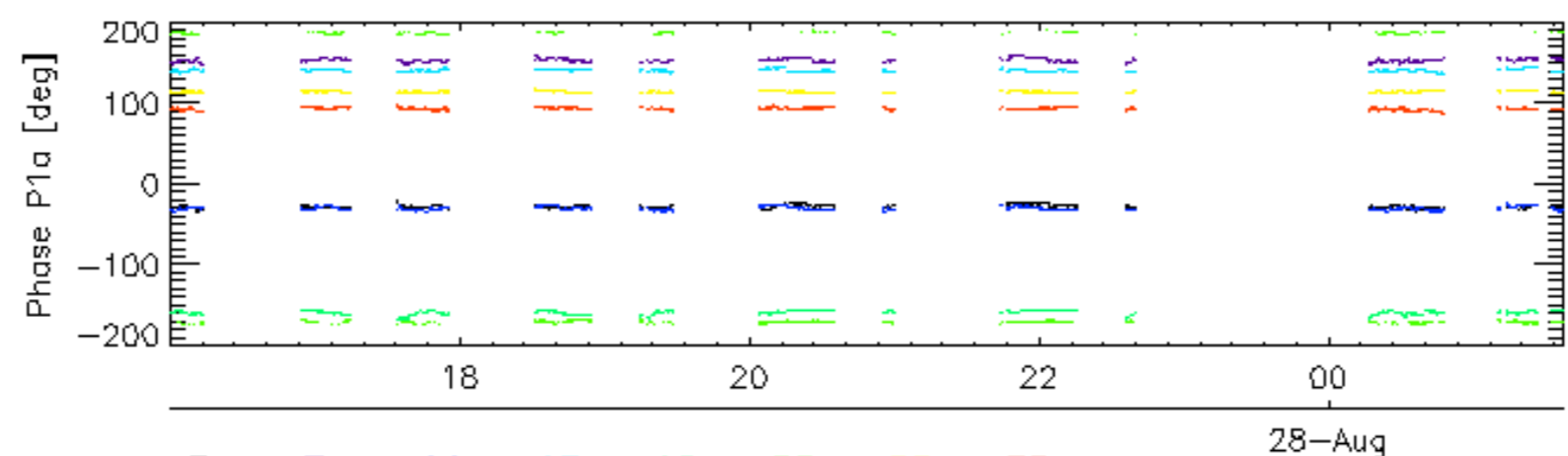
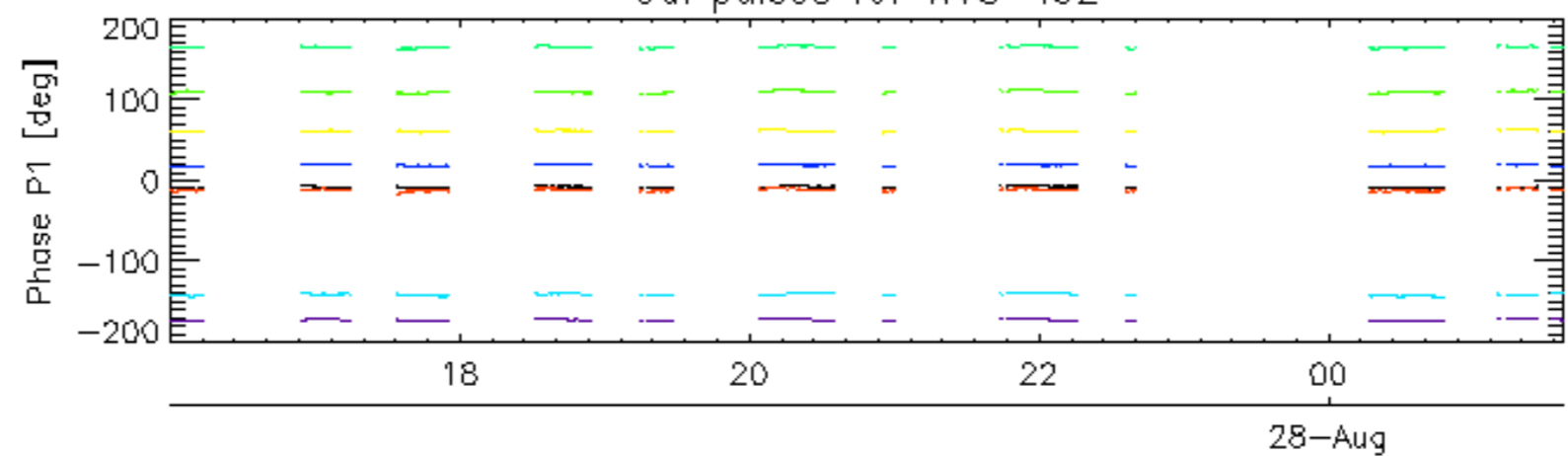


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

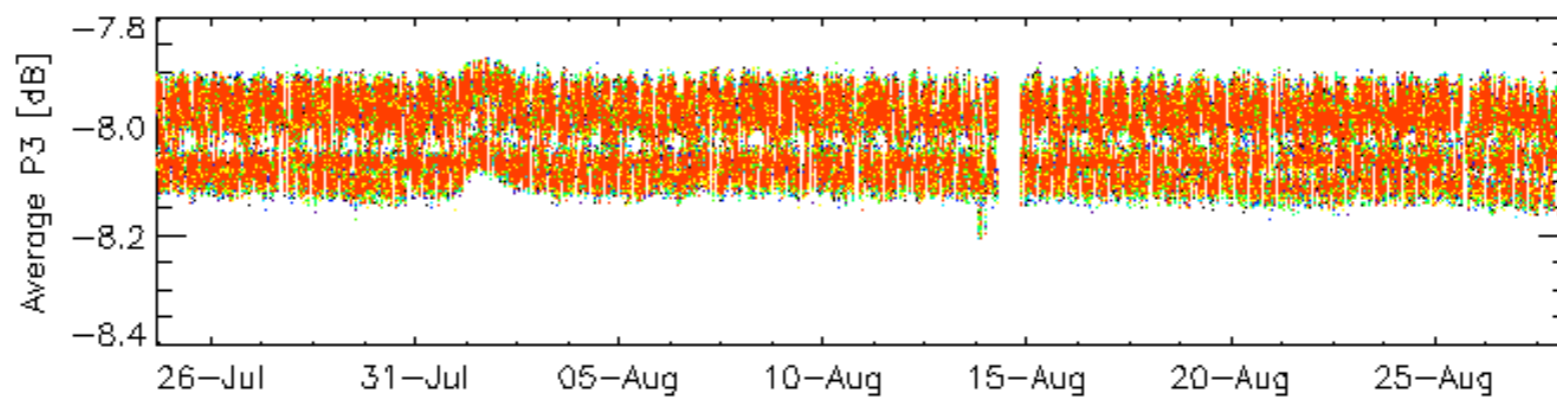
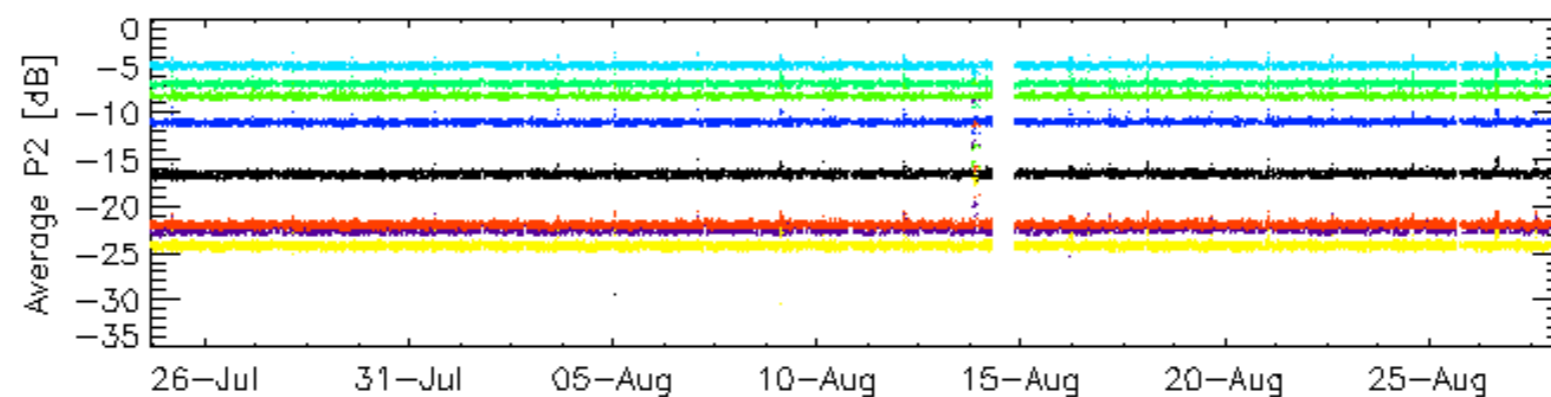
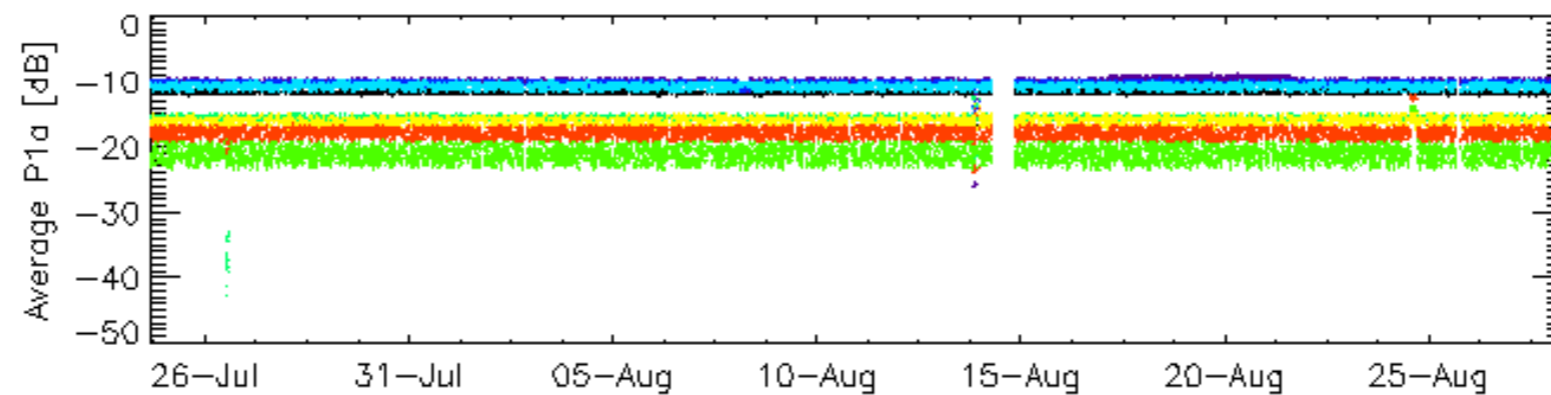
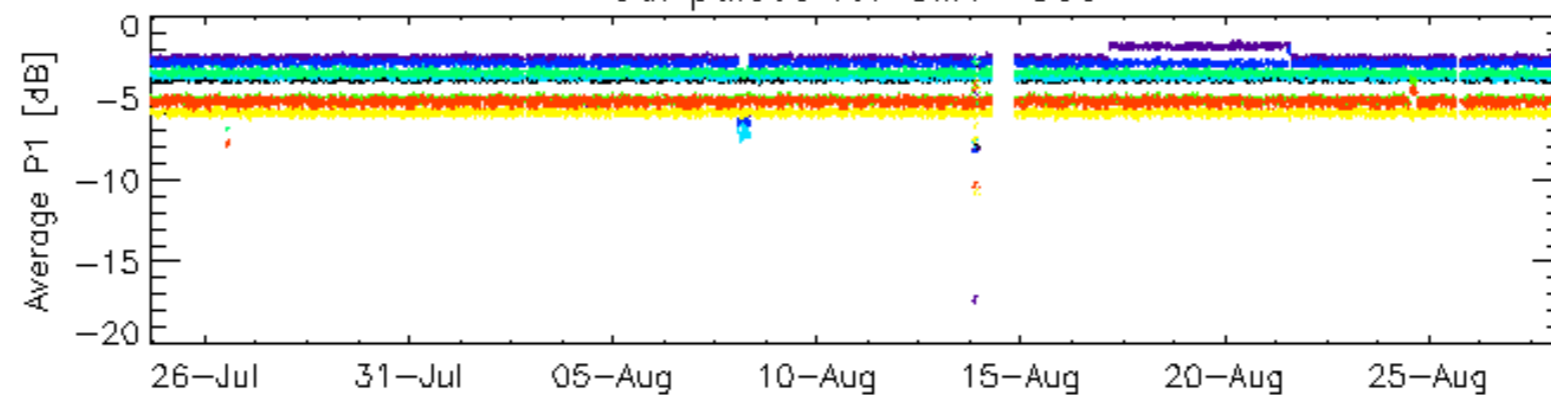


Cal pulses for WVS IS2



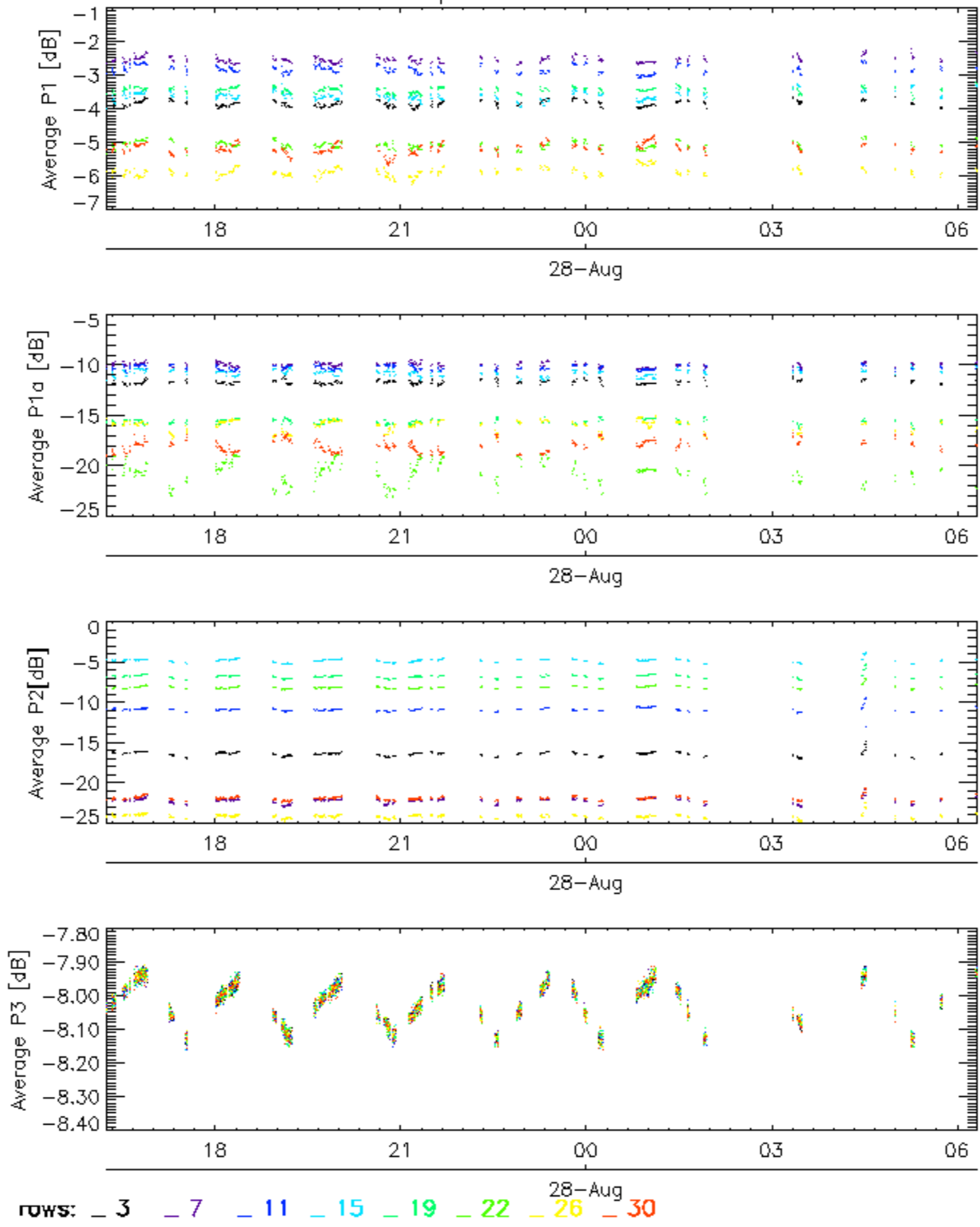
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

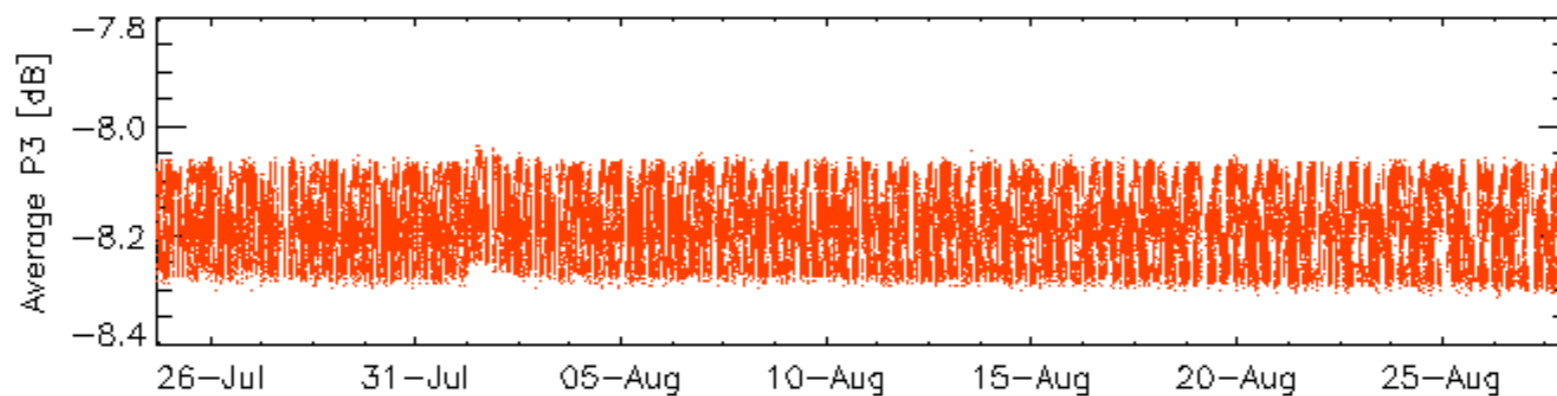
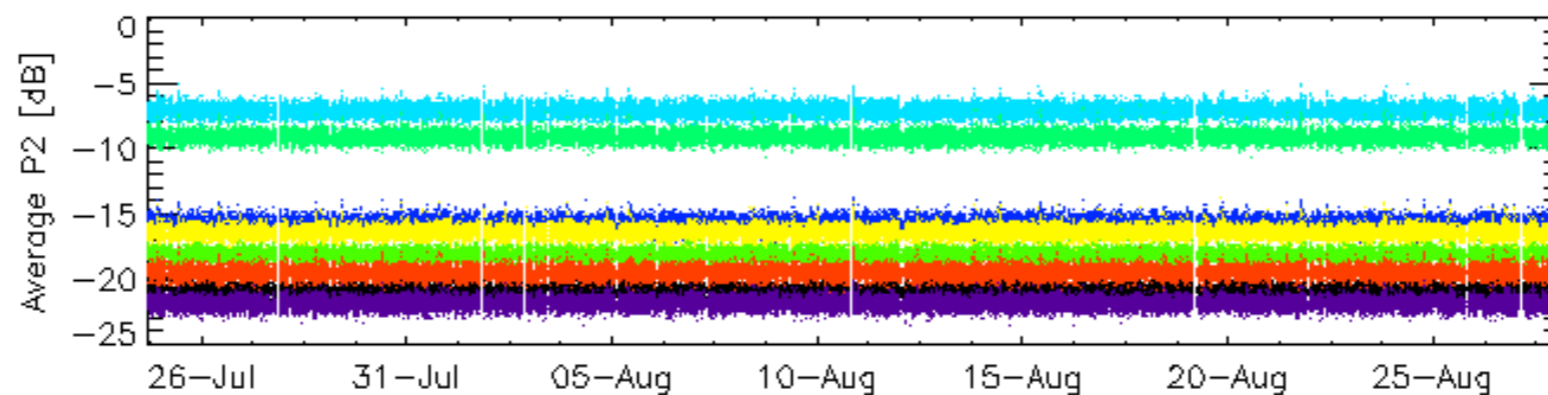
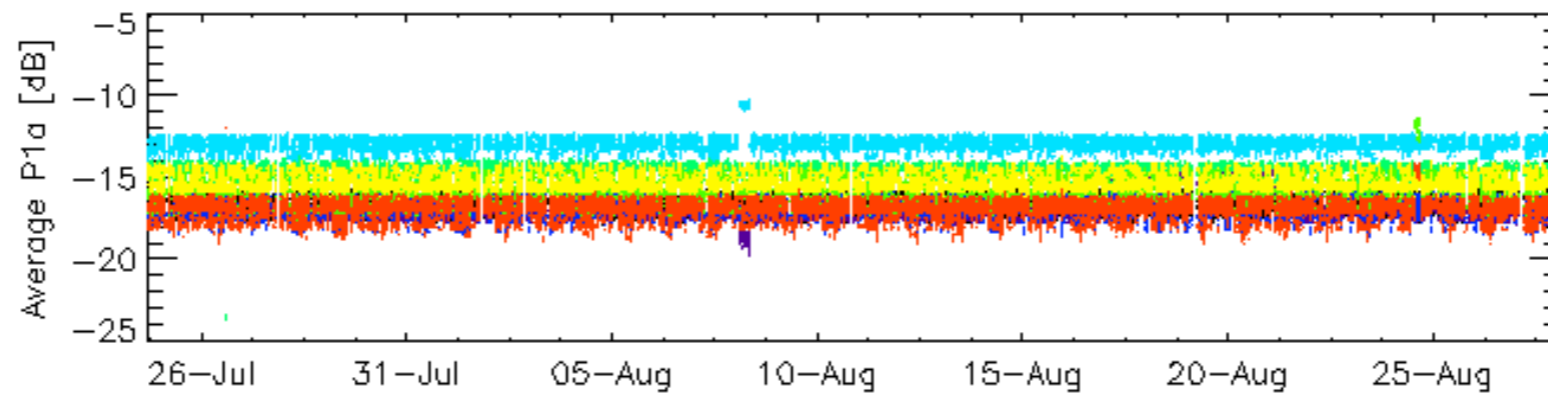
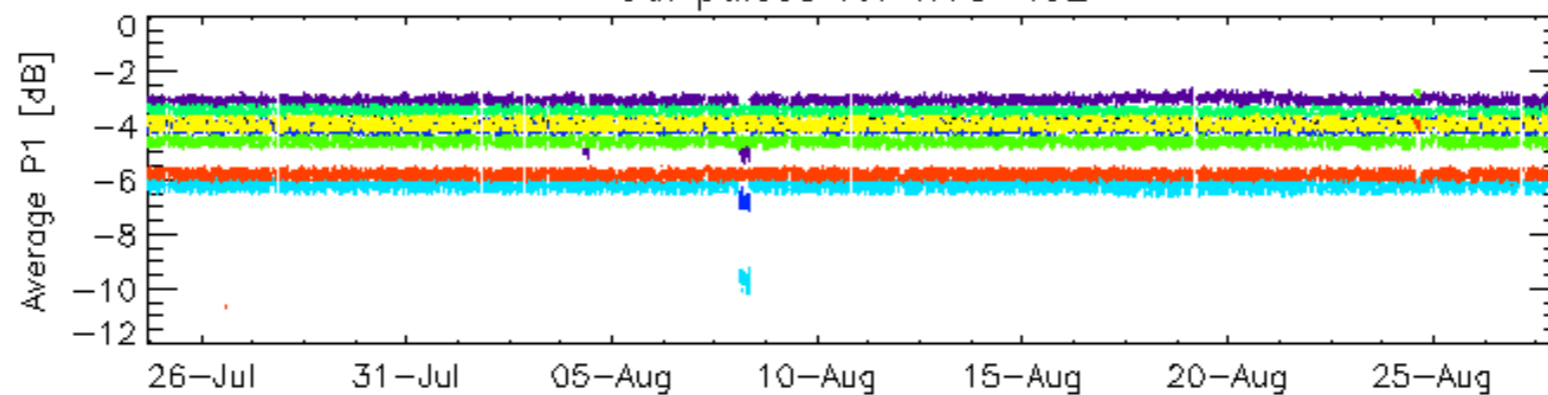


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

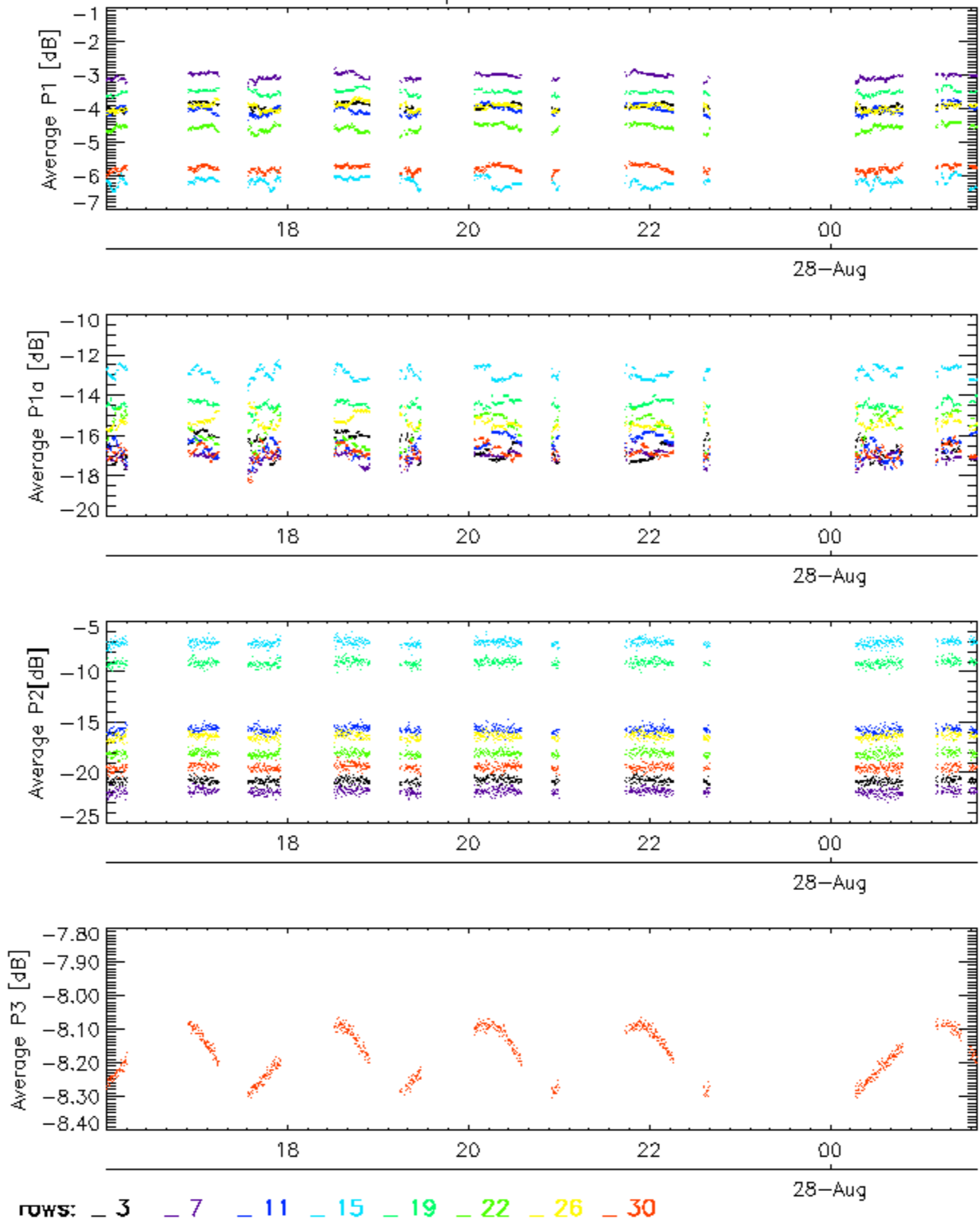


Cal pulses for WVS IS2



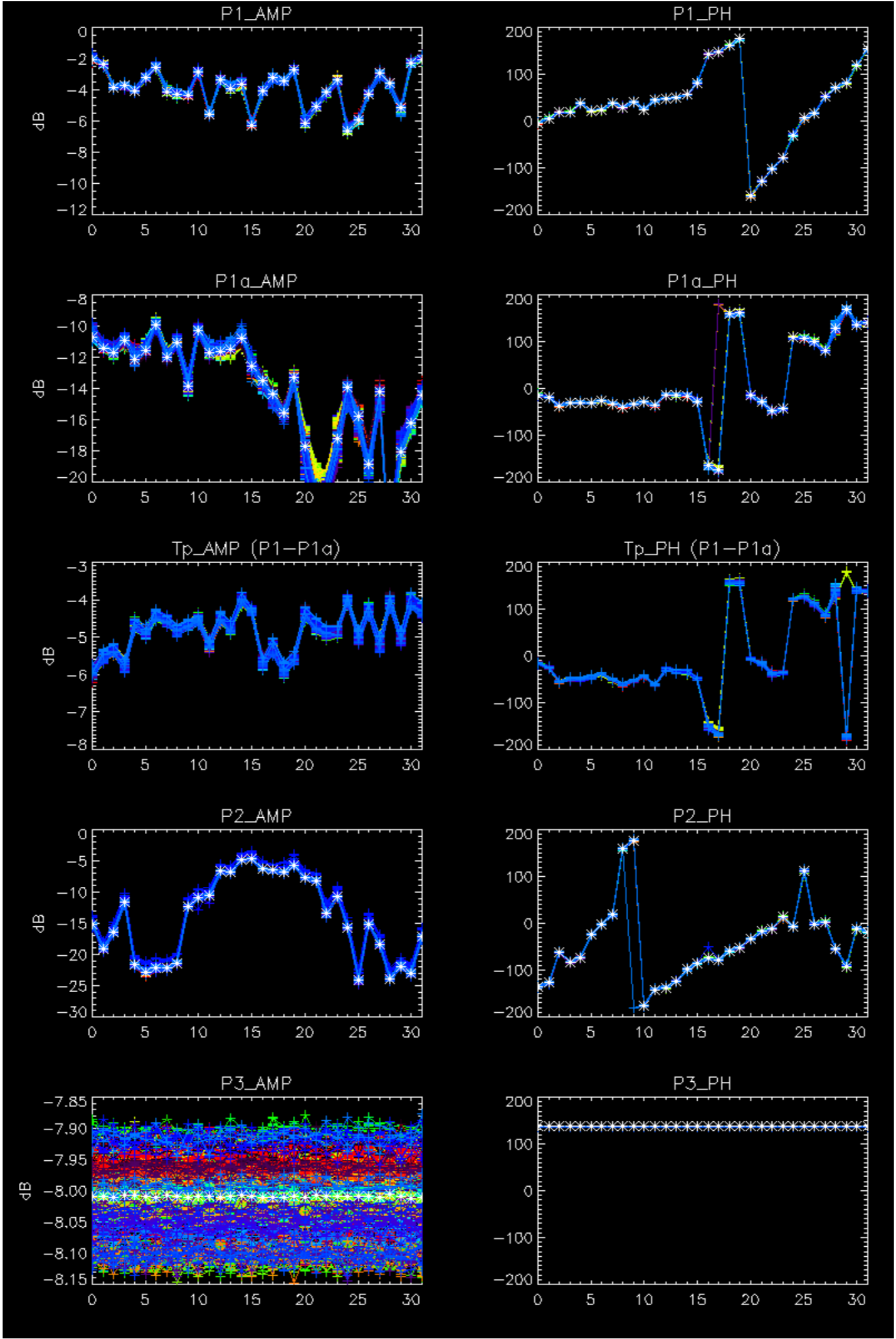
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

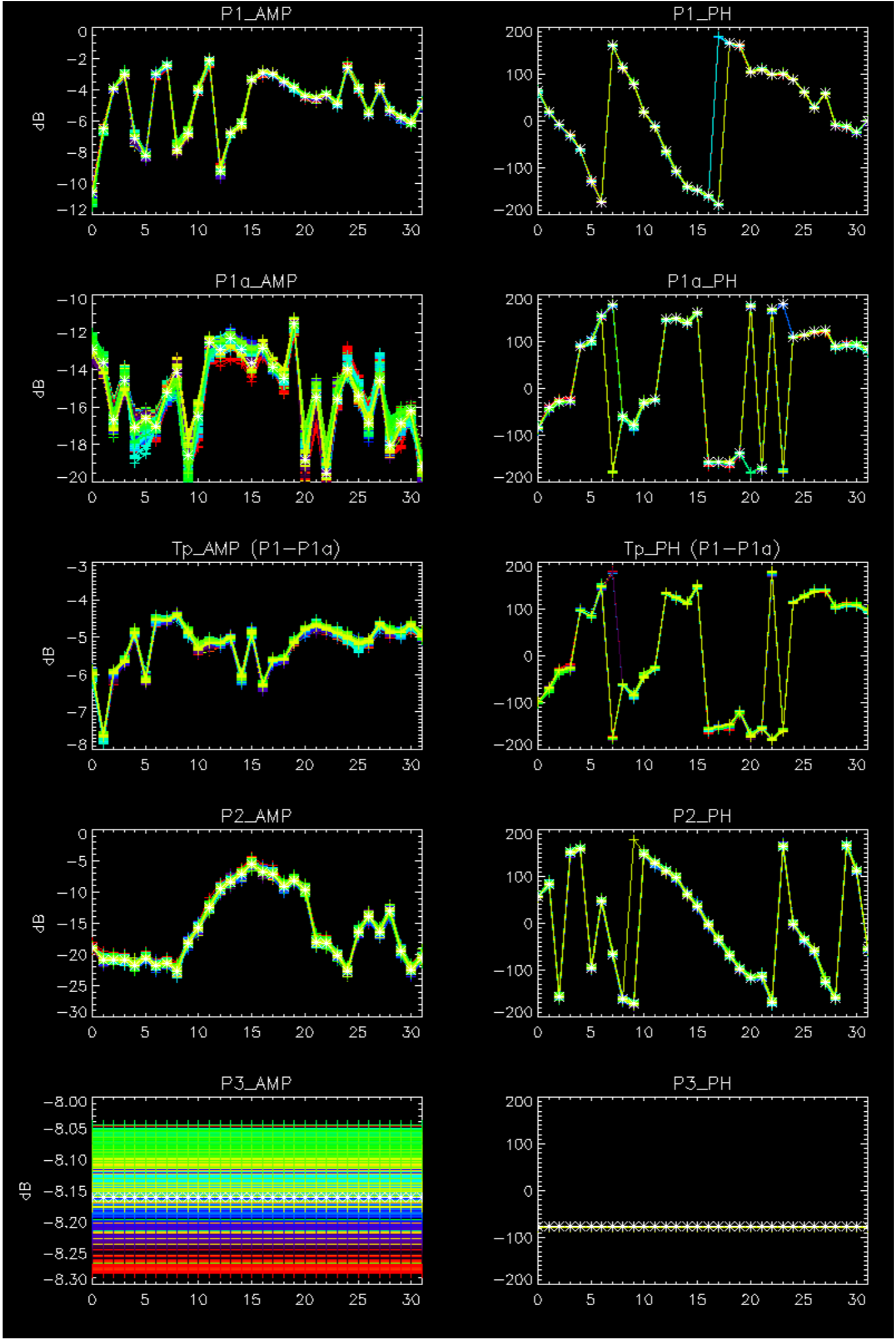
Cal pulses for WVS IS2



No anomalies observed on available browse products

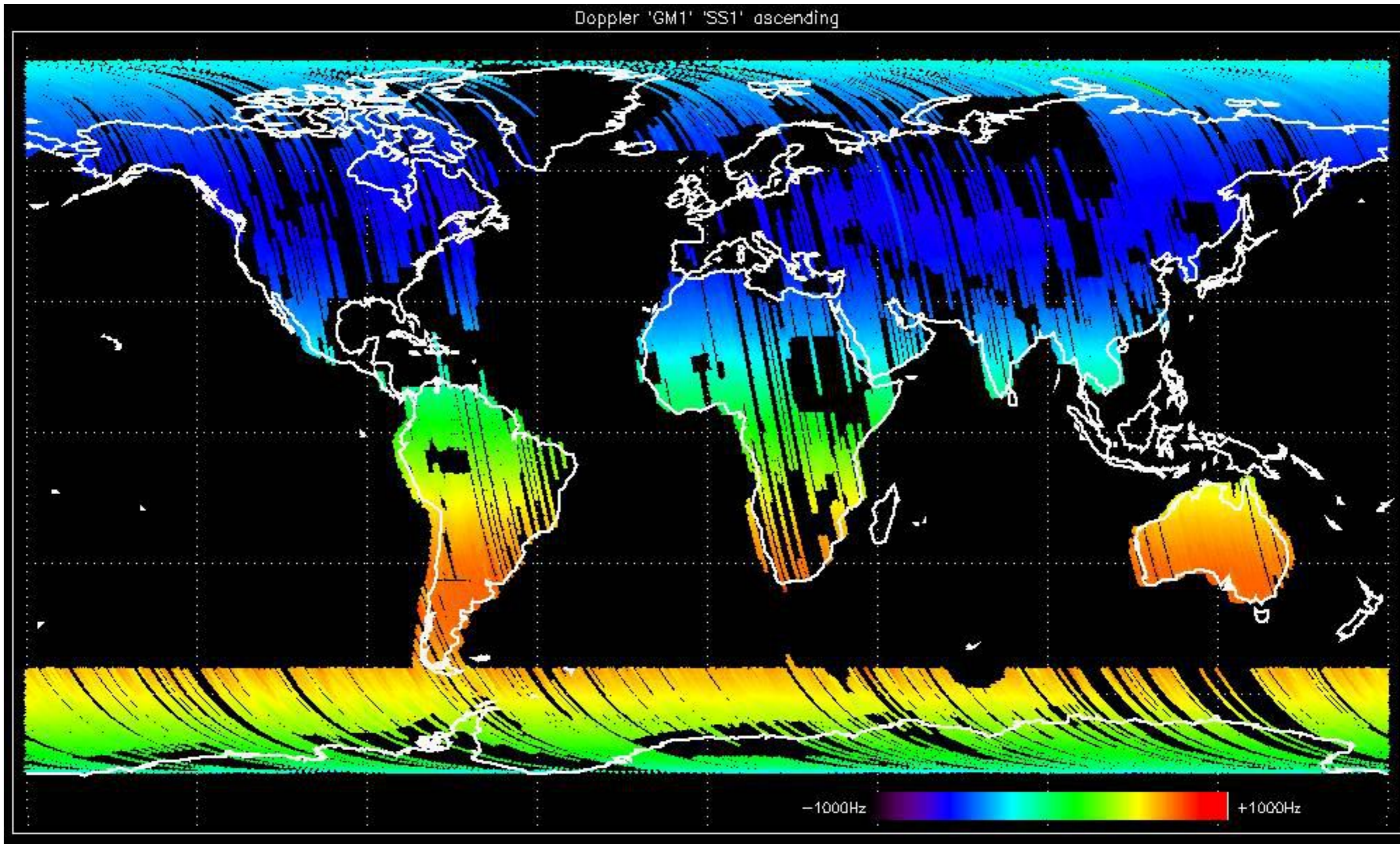
No anomalies observed.



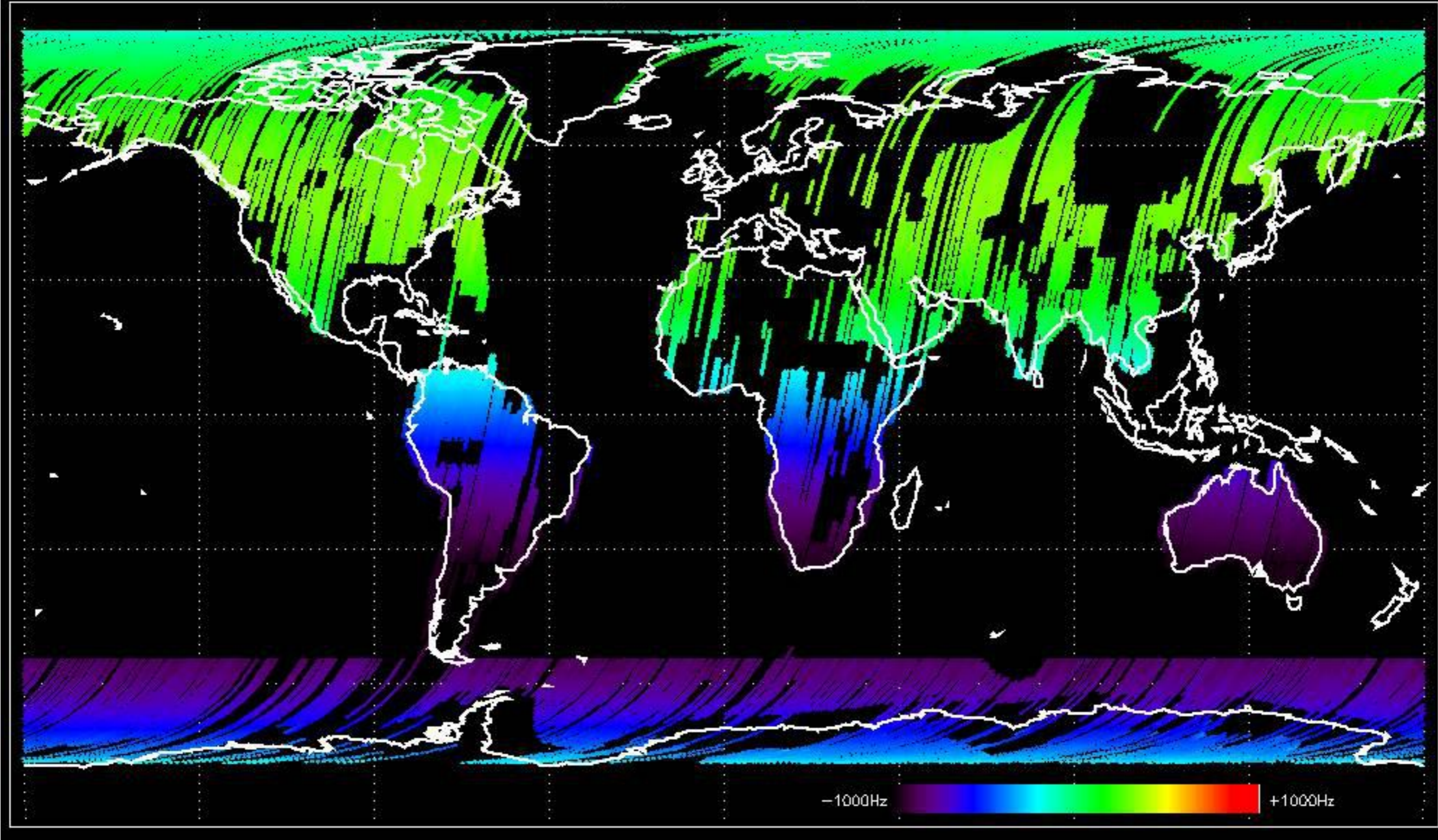


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

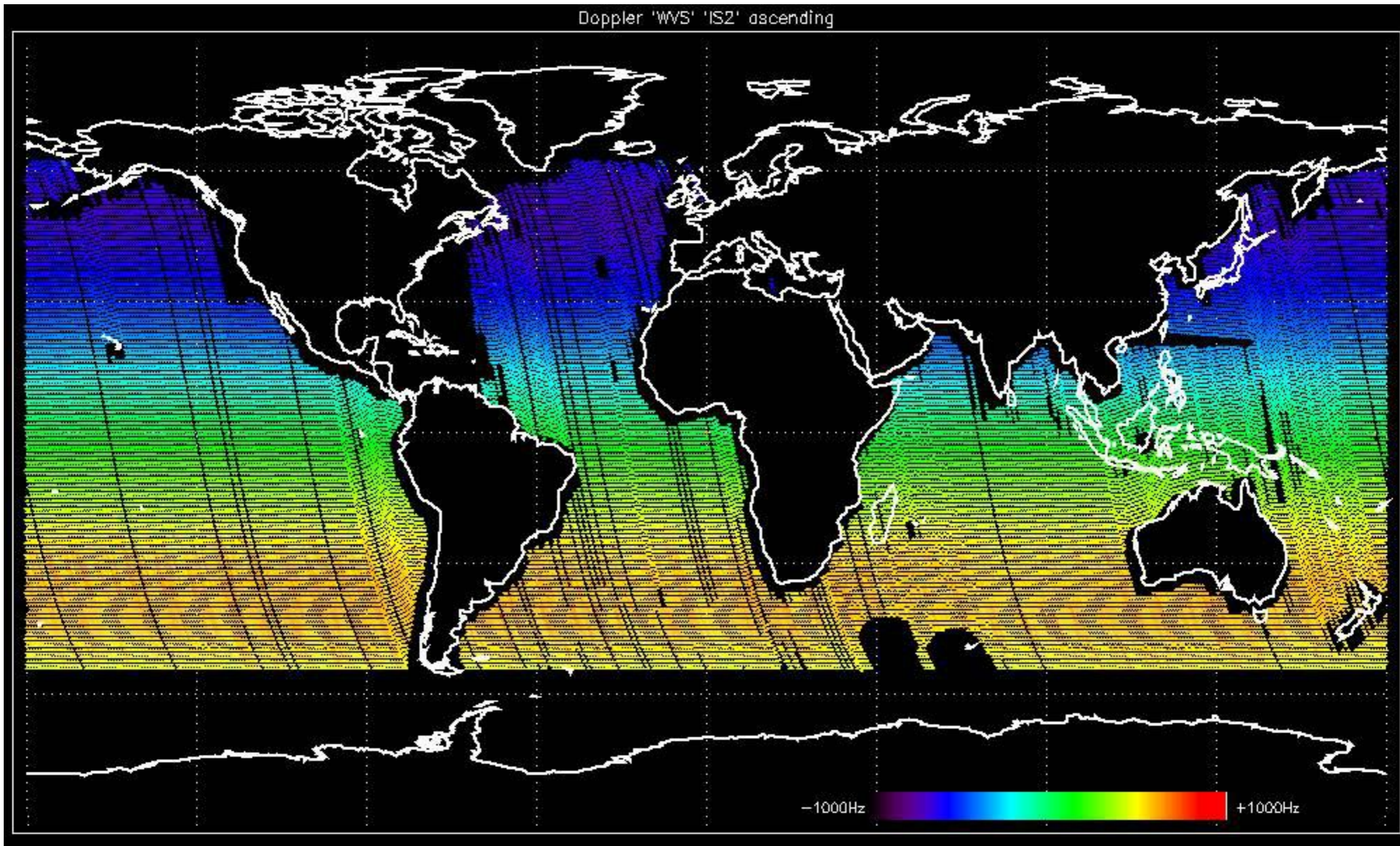
Doppler 'GM1' 'SS1' ascending



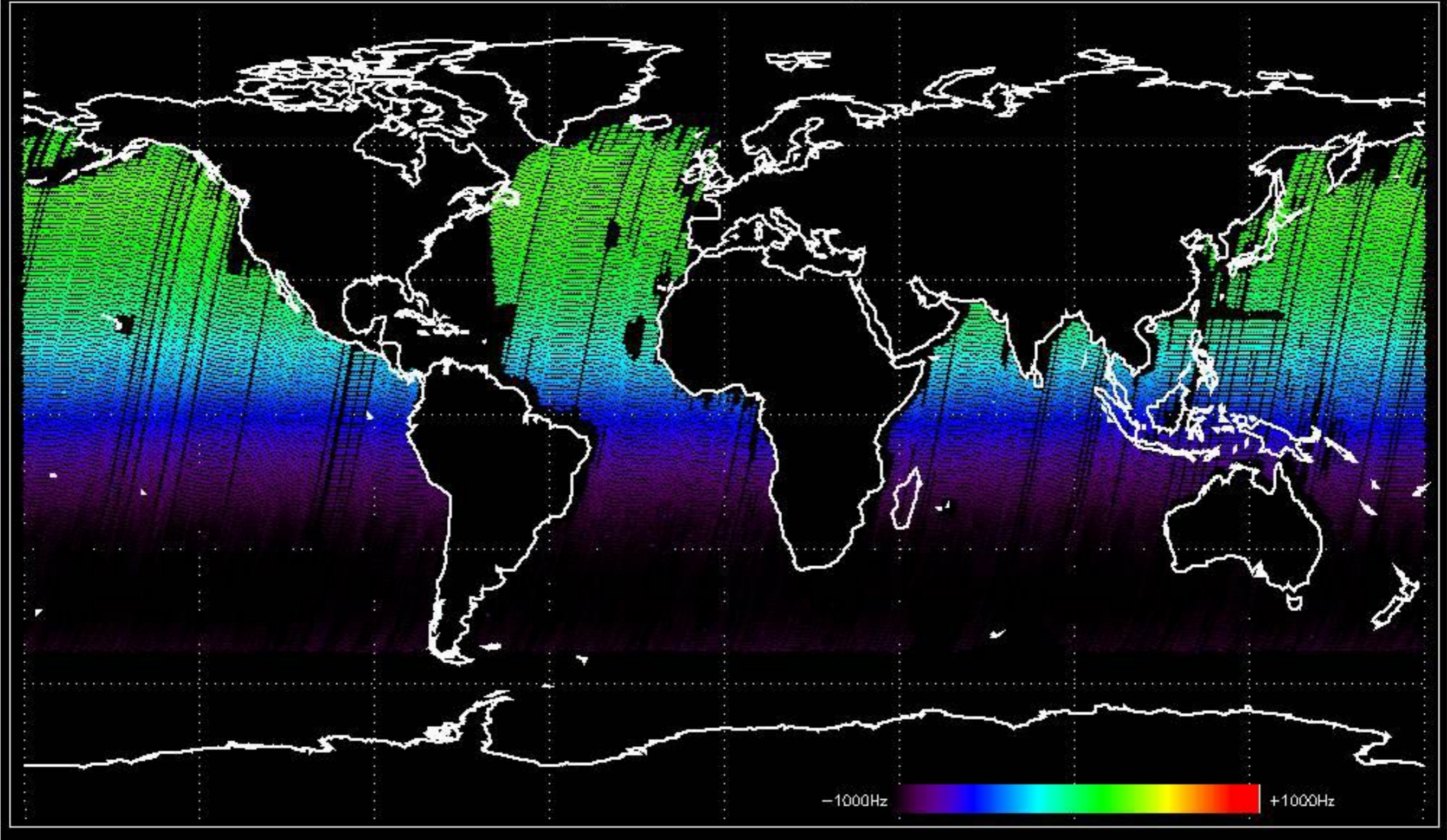
Doppler 'GM1' 'SS1' descending



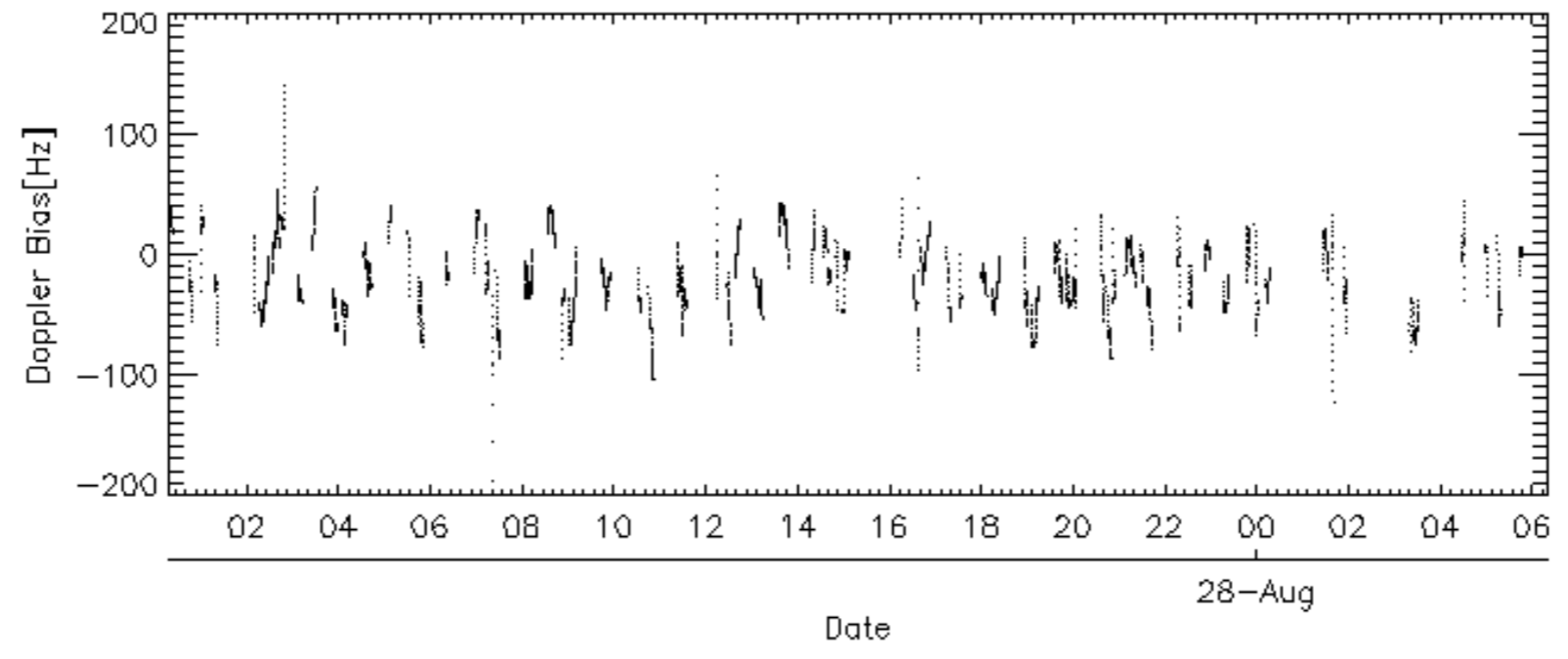
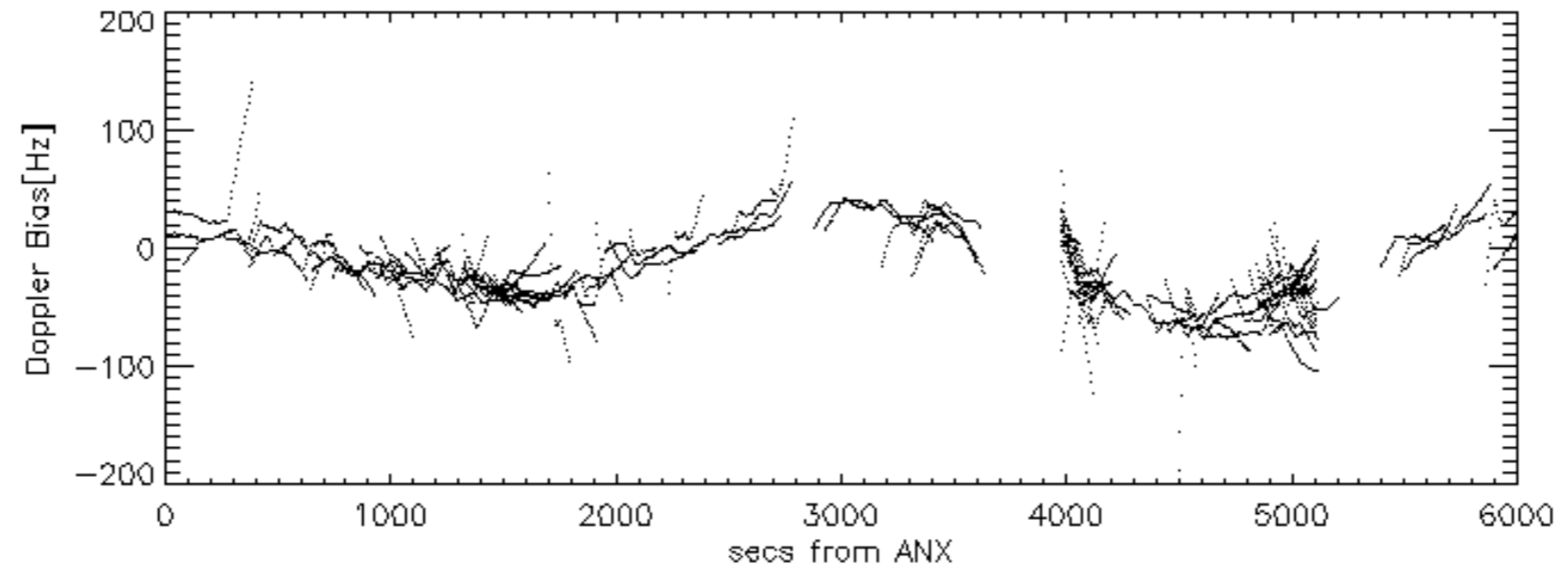
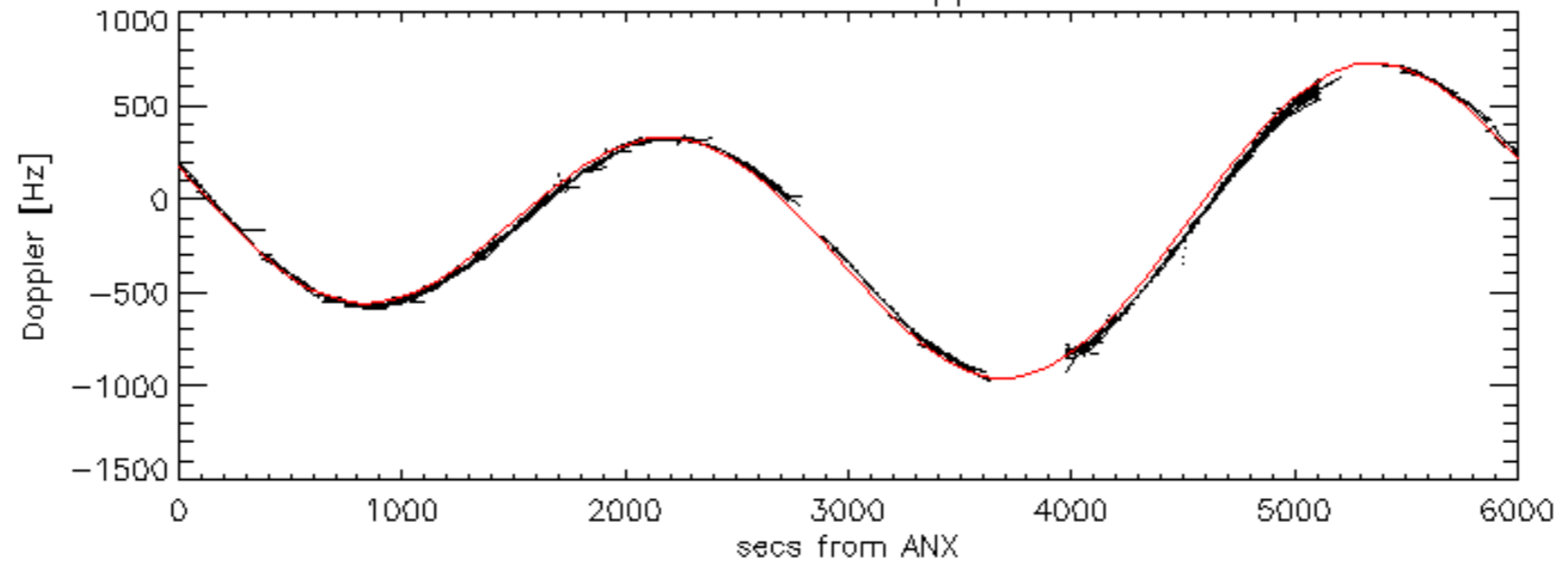
Doppler 'WVS' 'IS2' ascending

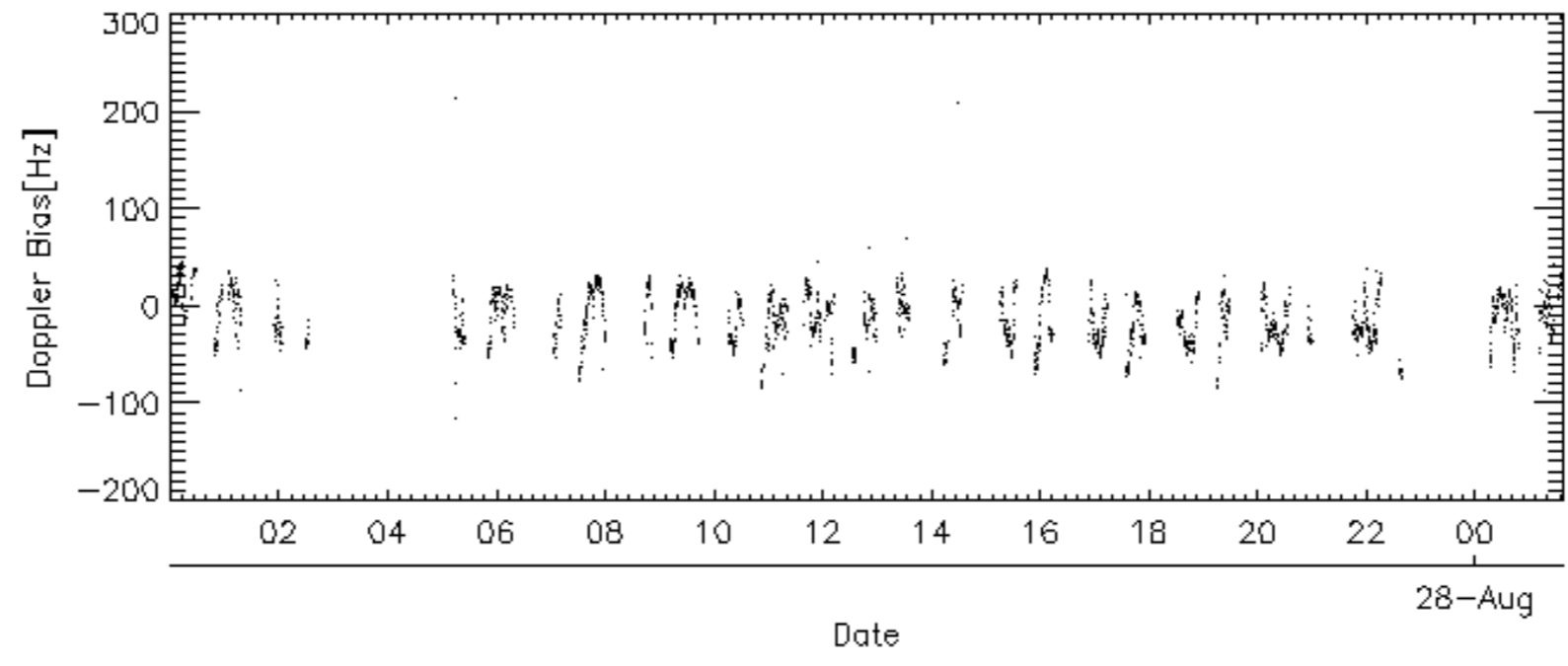
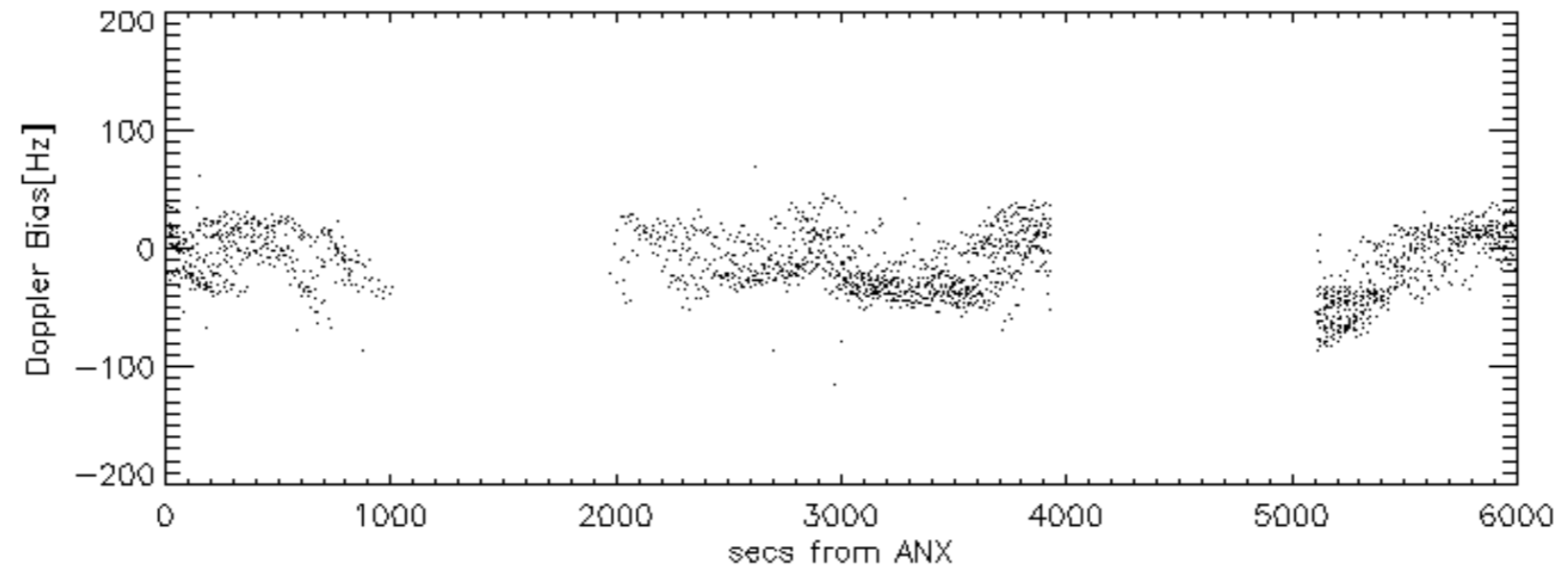
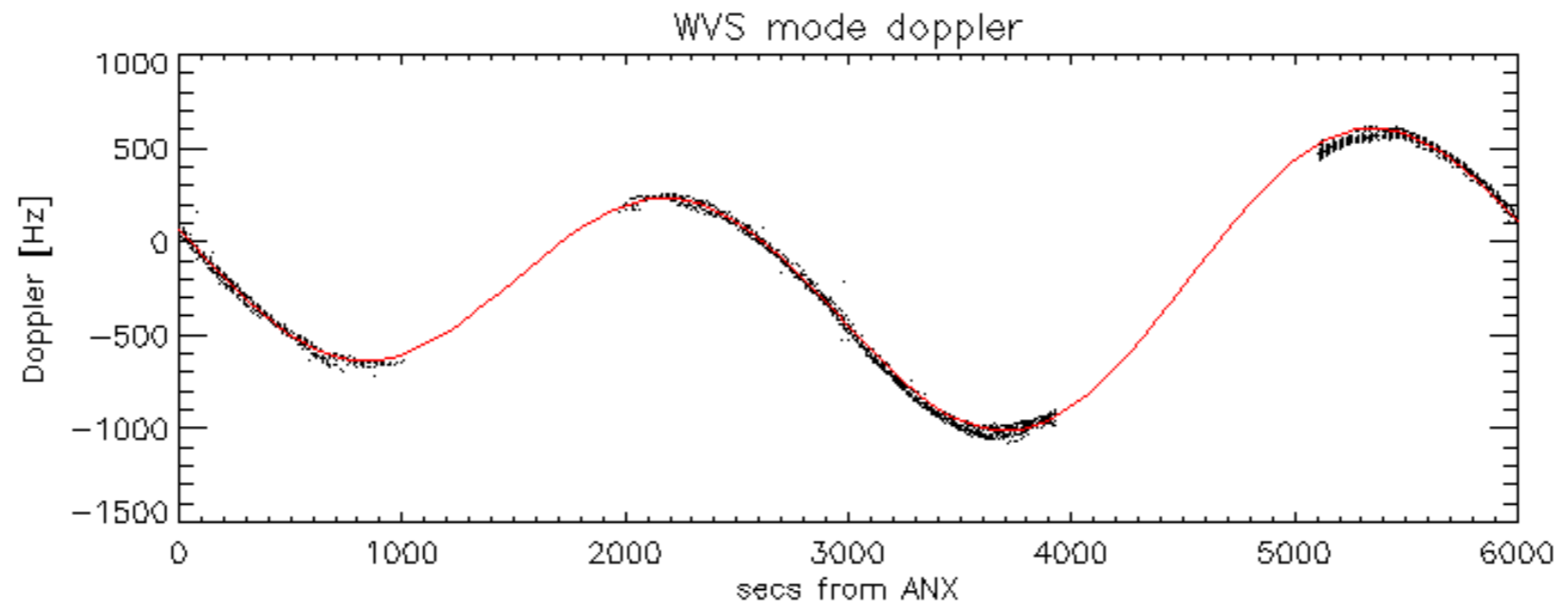


Doppler 'WVS' 'IS2' descending

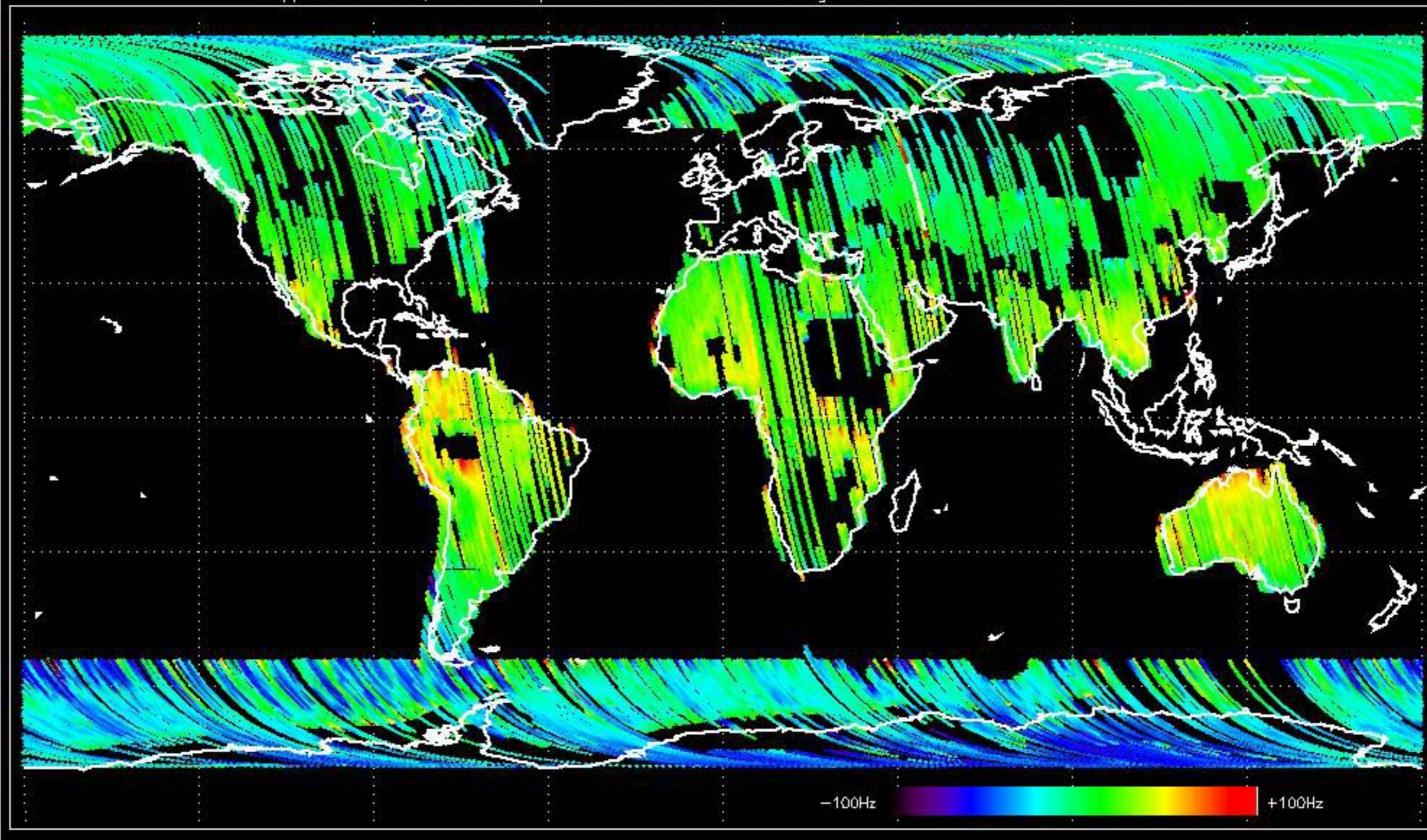


GM1 mode doppler

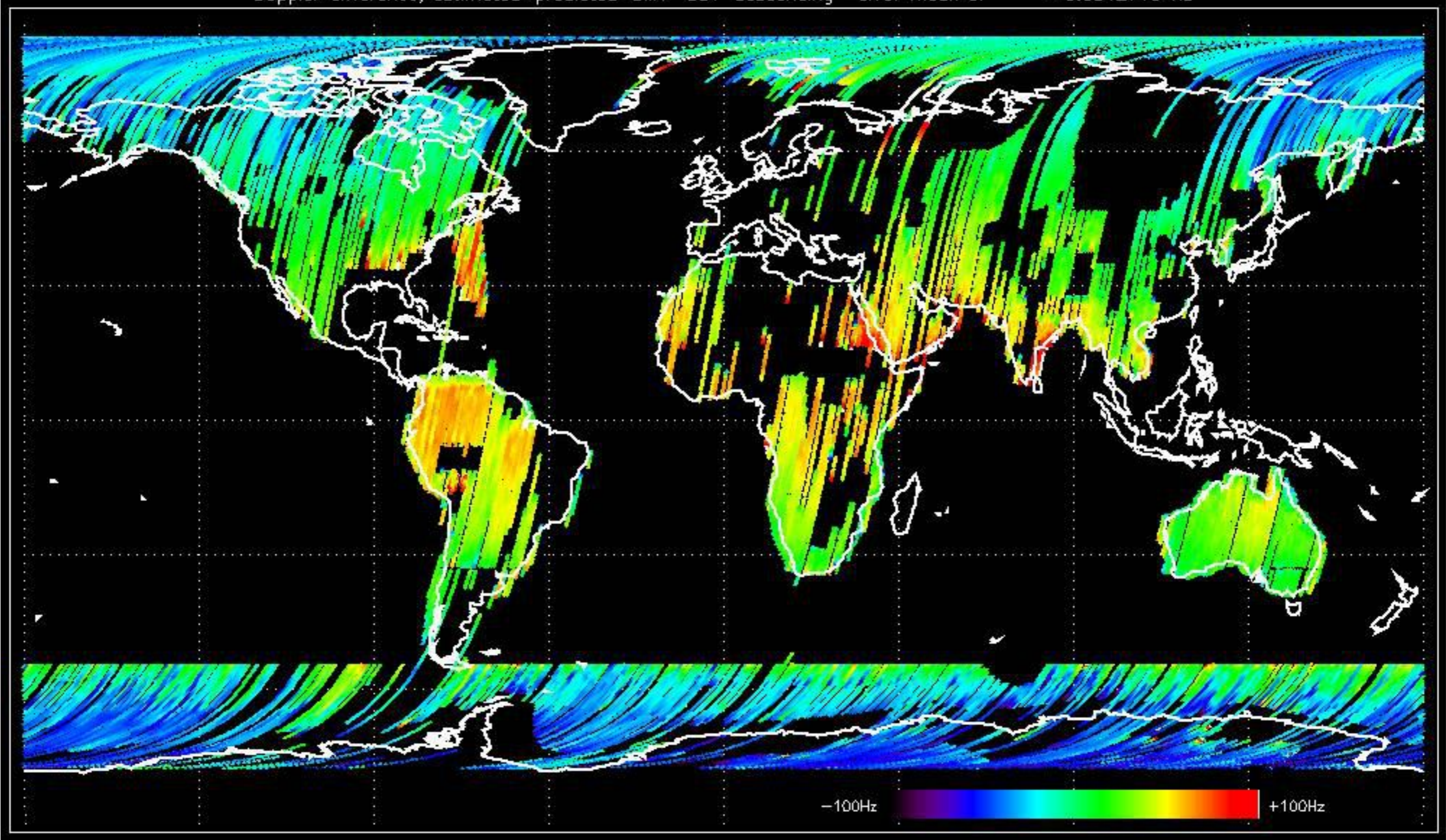




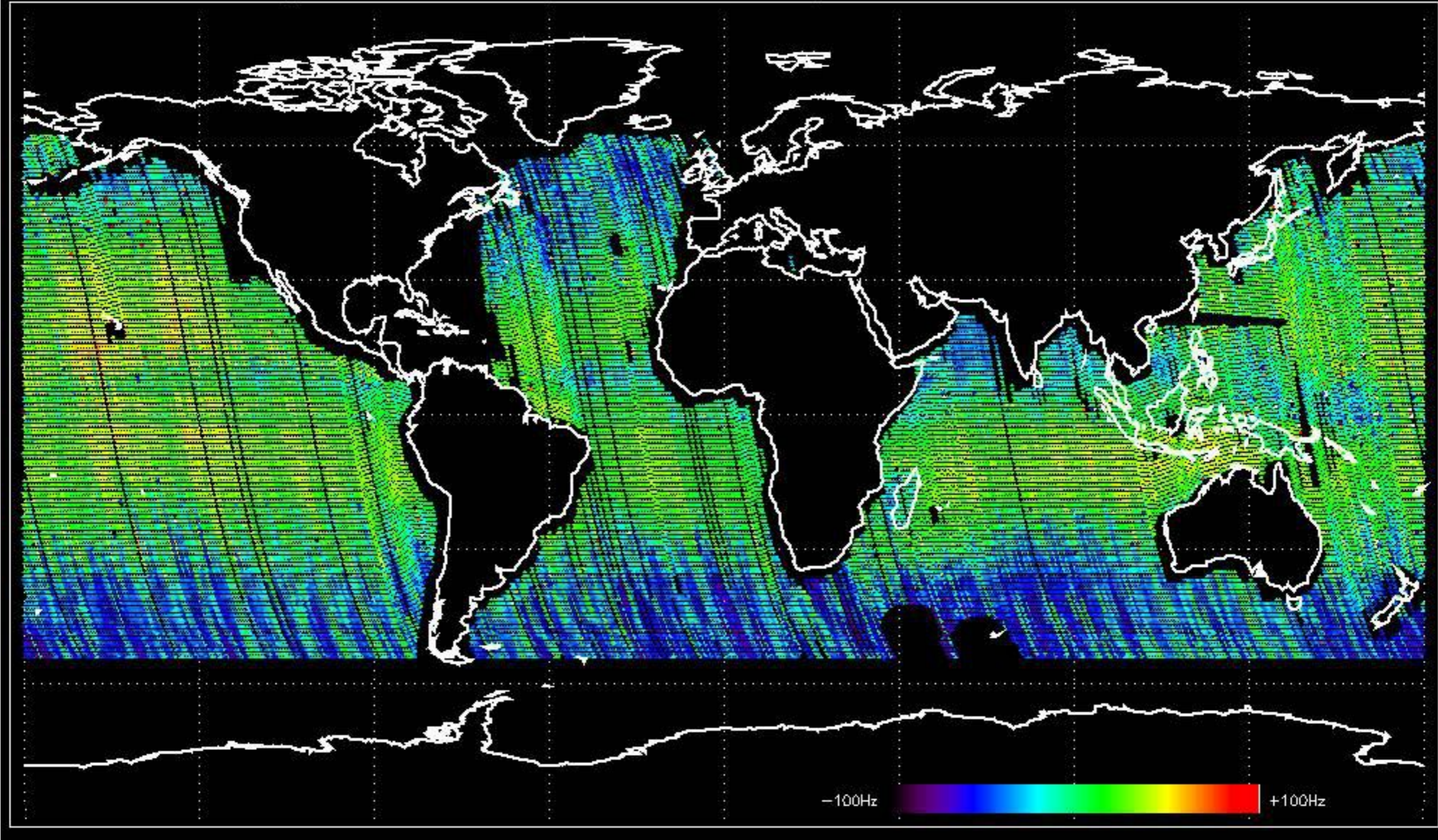
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.492000 Hz



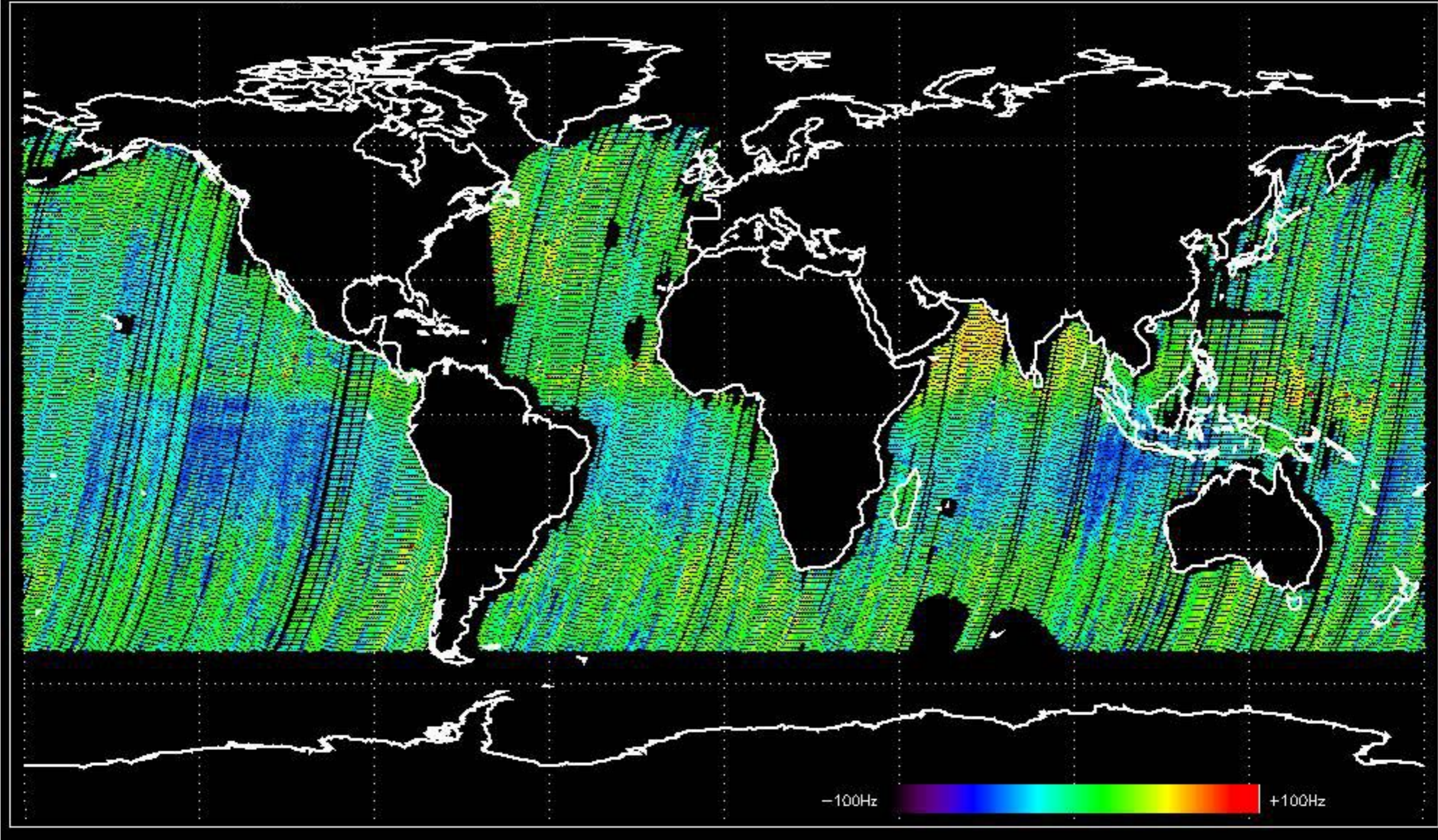
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -9.6912710 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -3.7502880 Hz

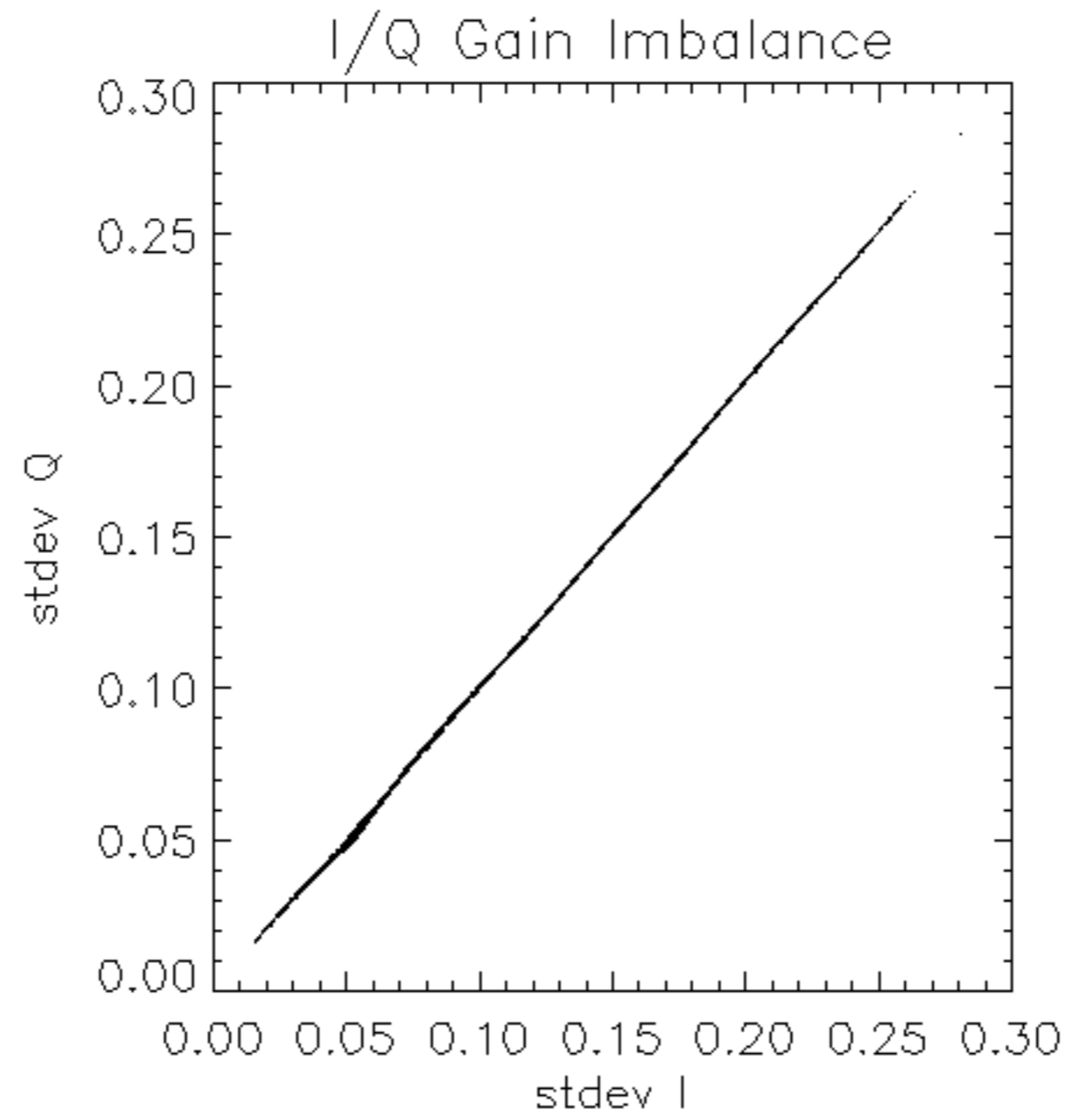


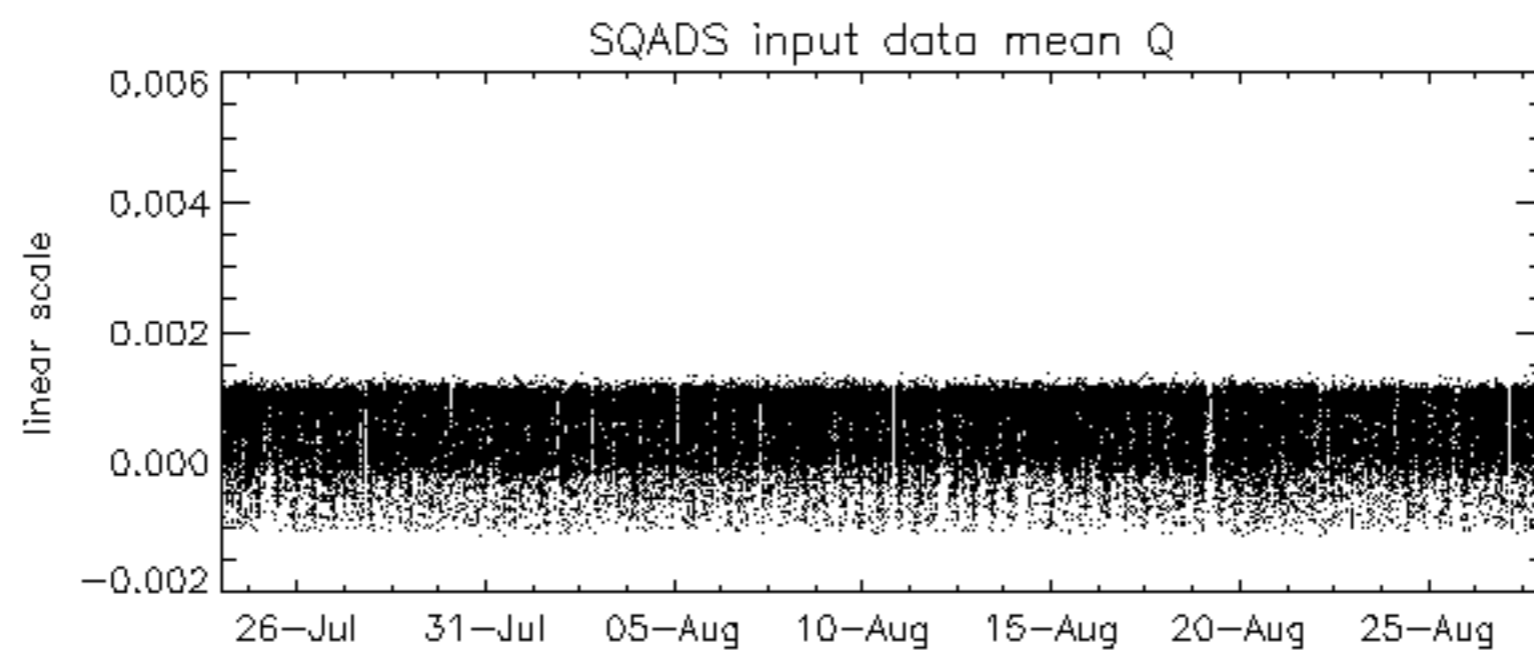
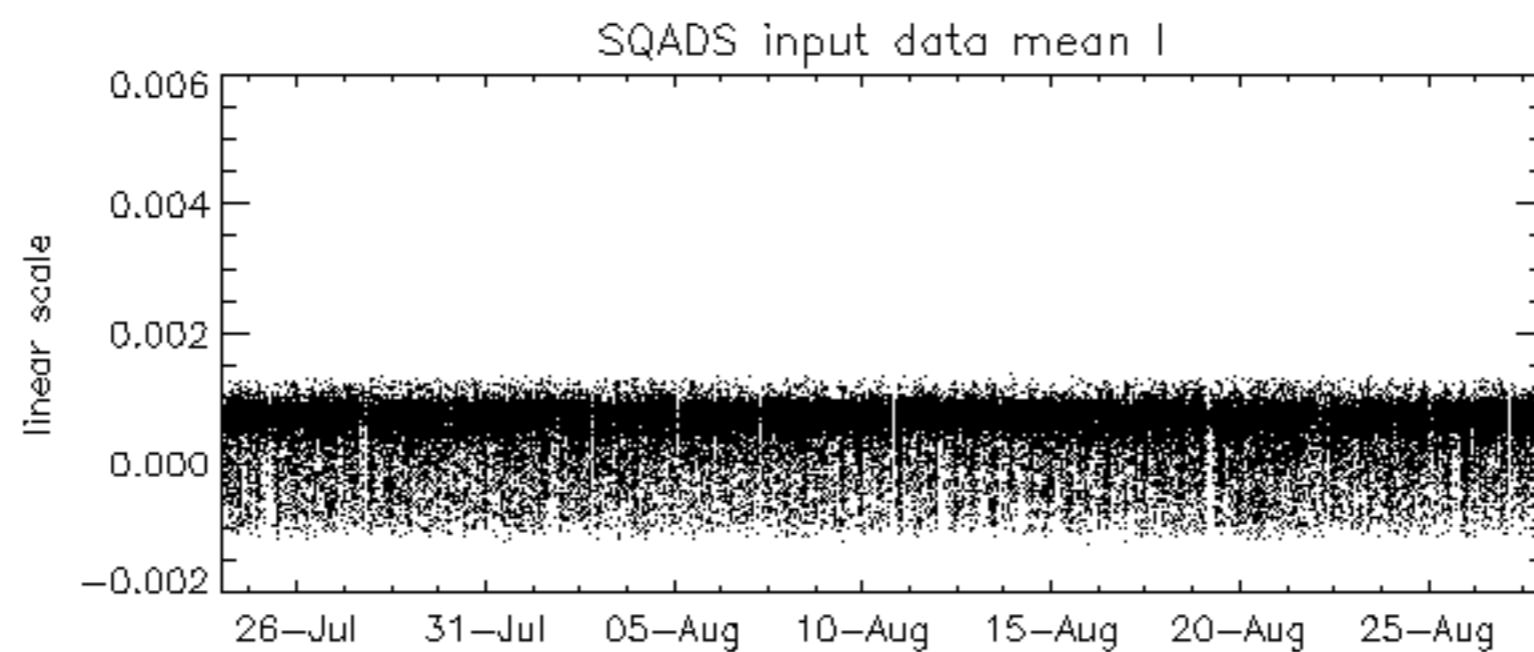
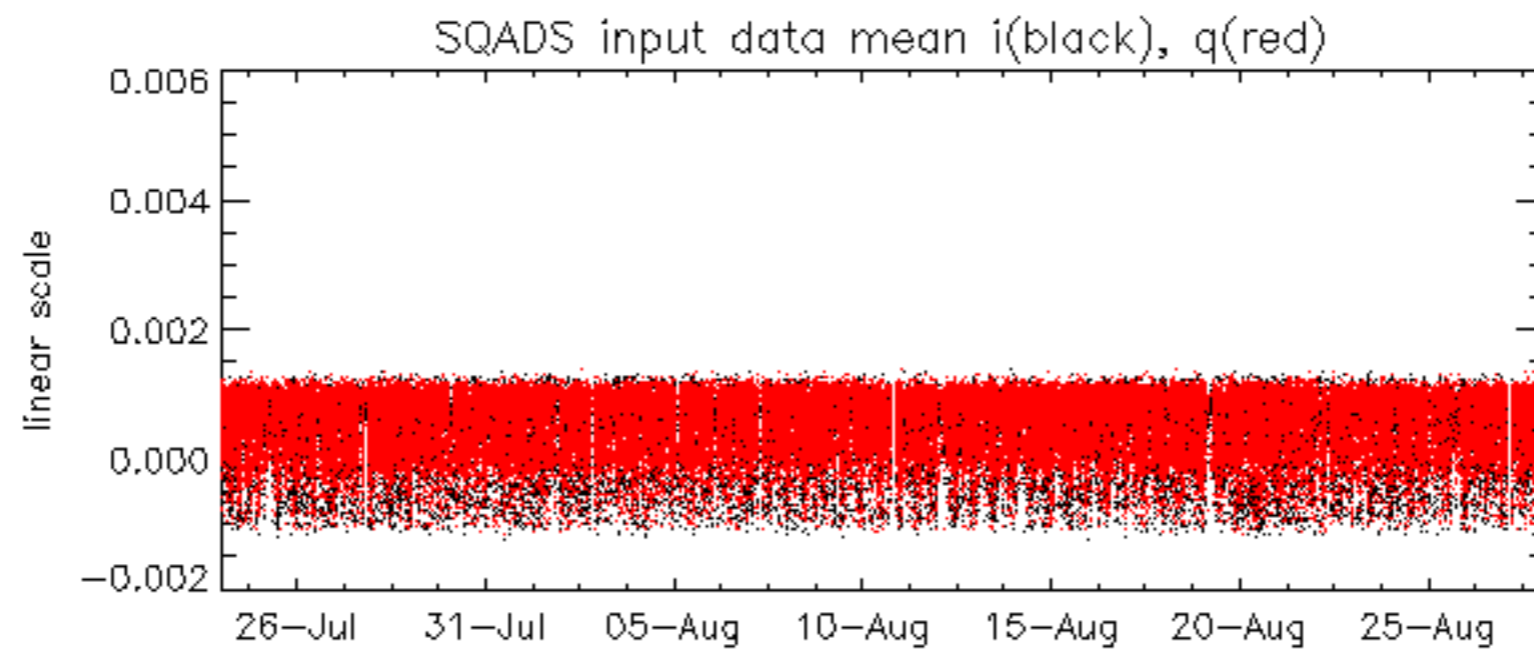
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.3877270 Hz

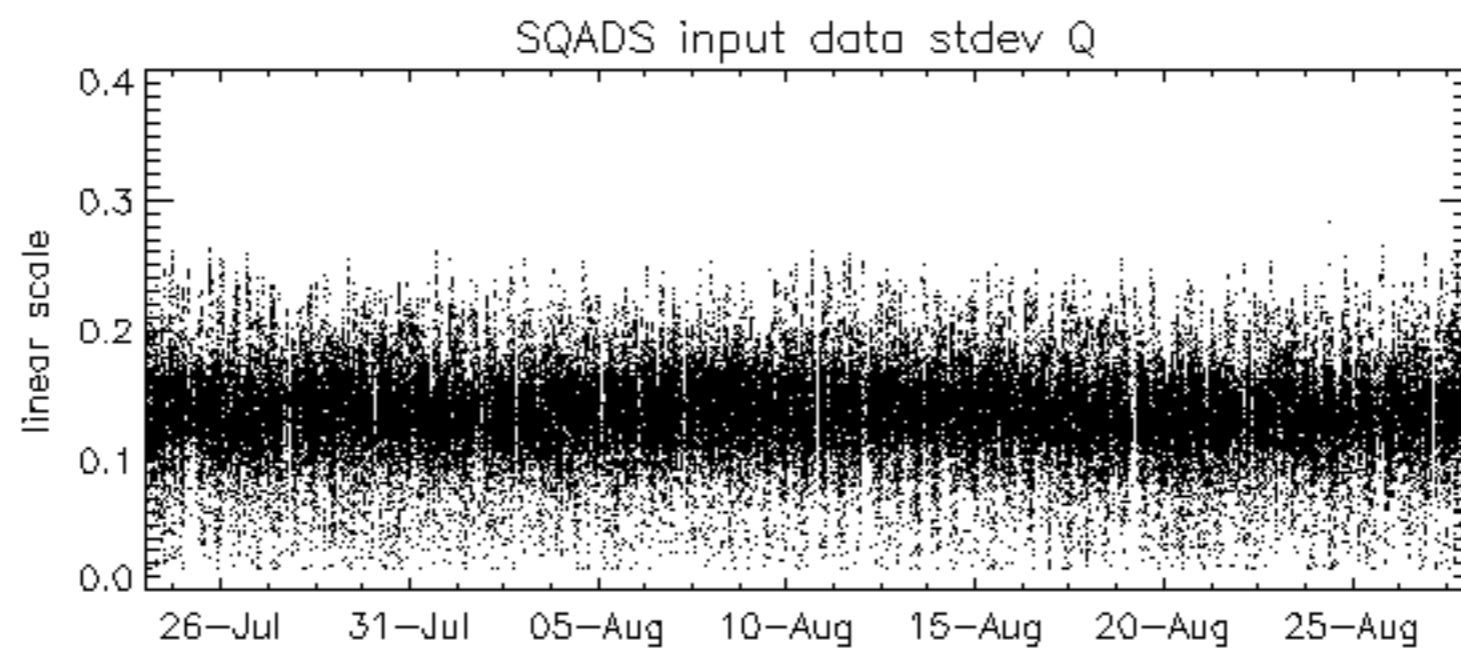
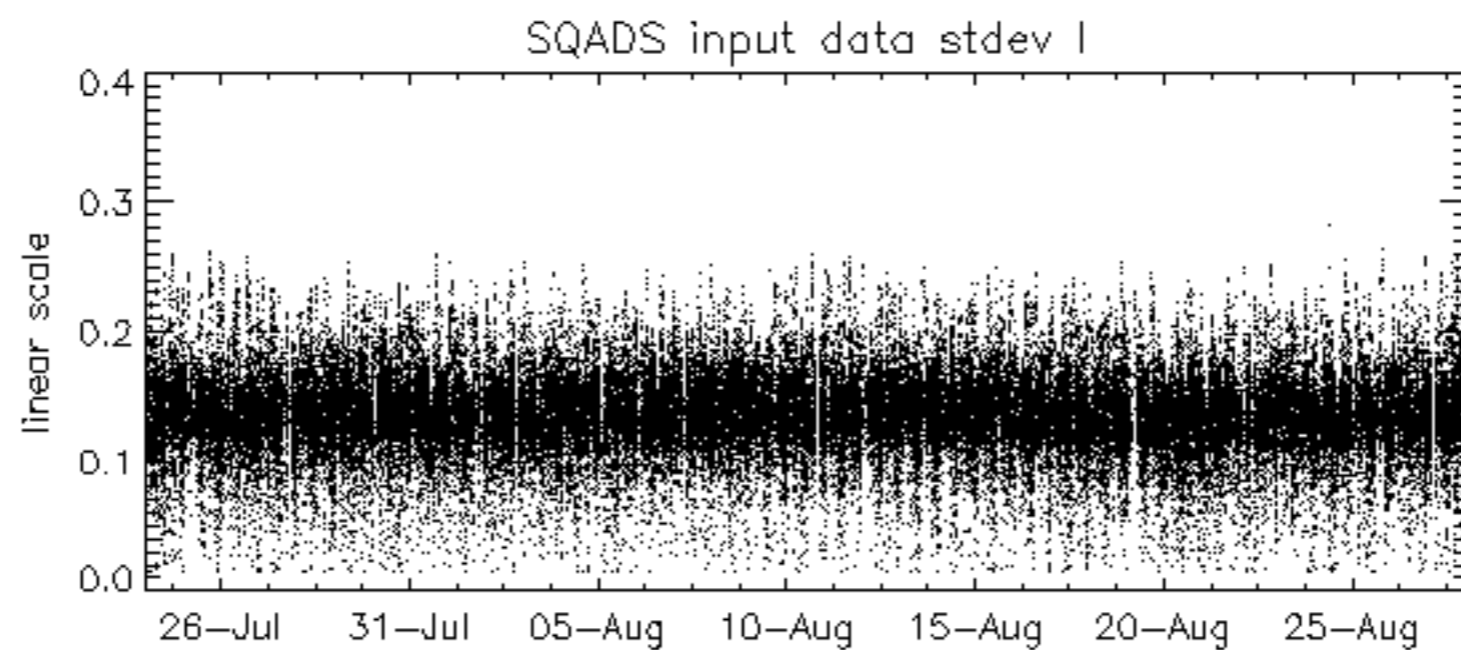
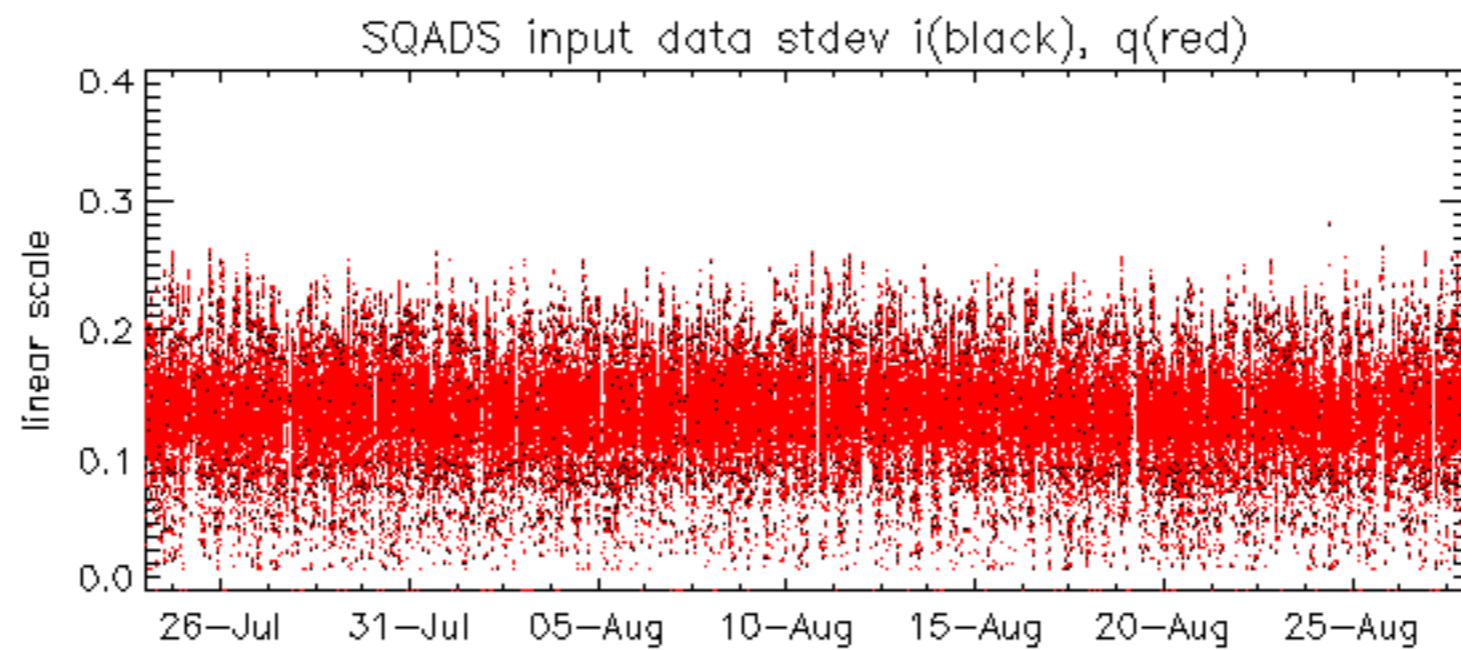


No anomalies observed on available MS products:

No anomalies observed.



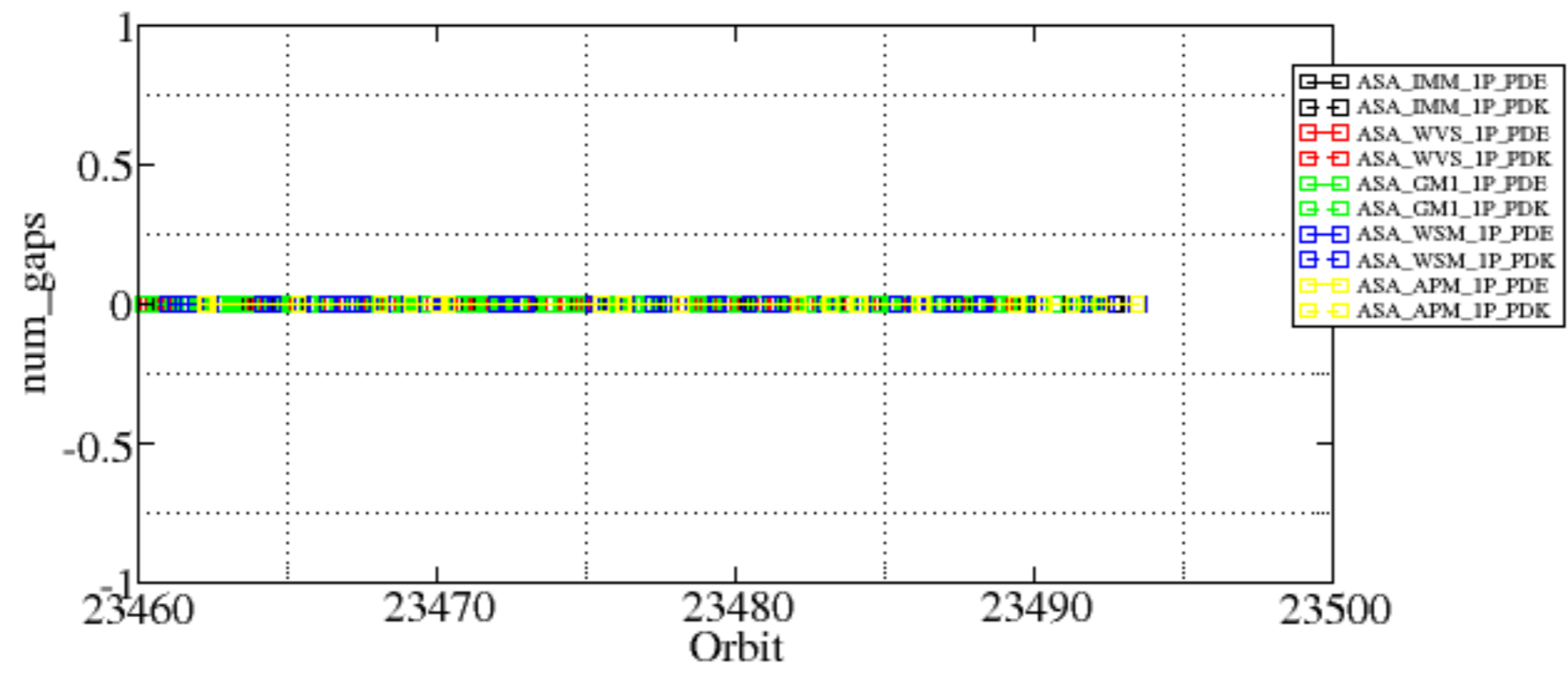


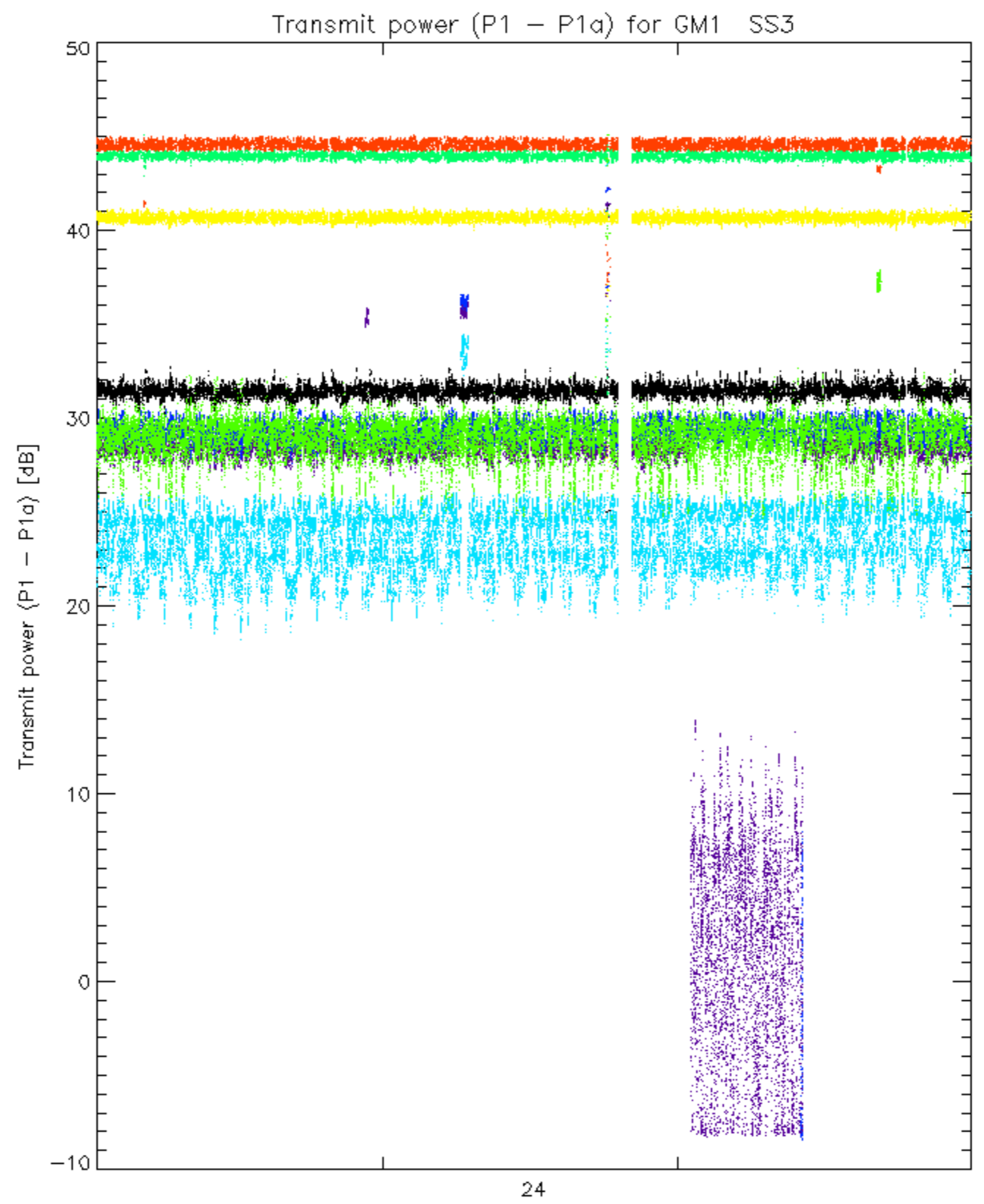


Summary of analysis for the last 3 days 2006082[678]

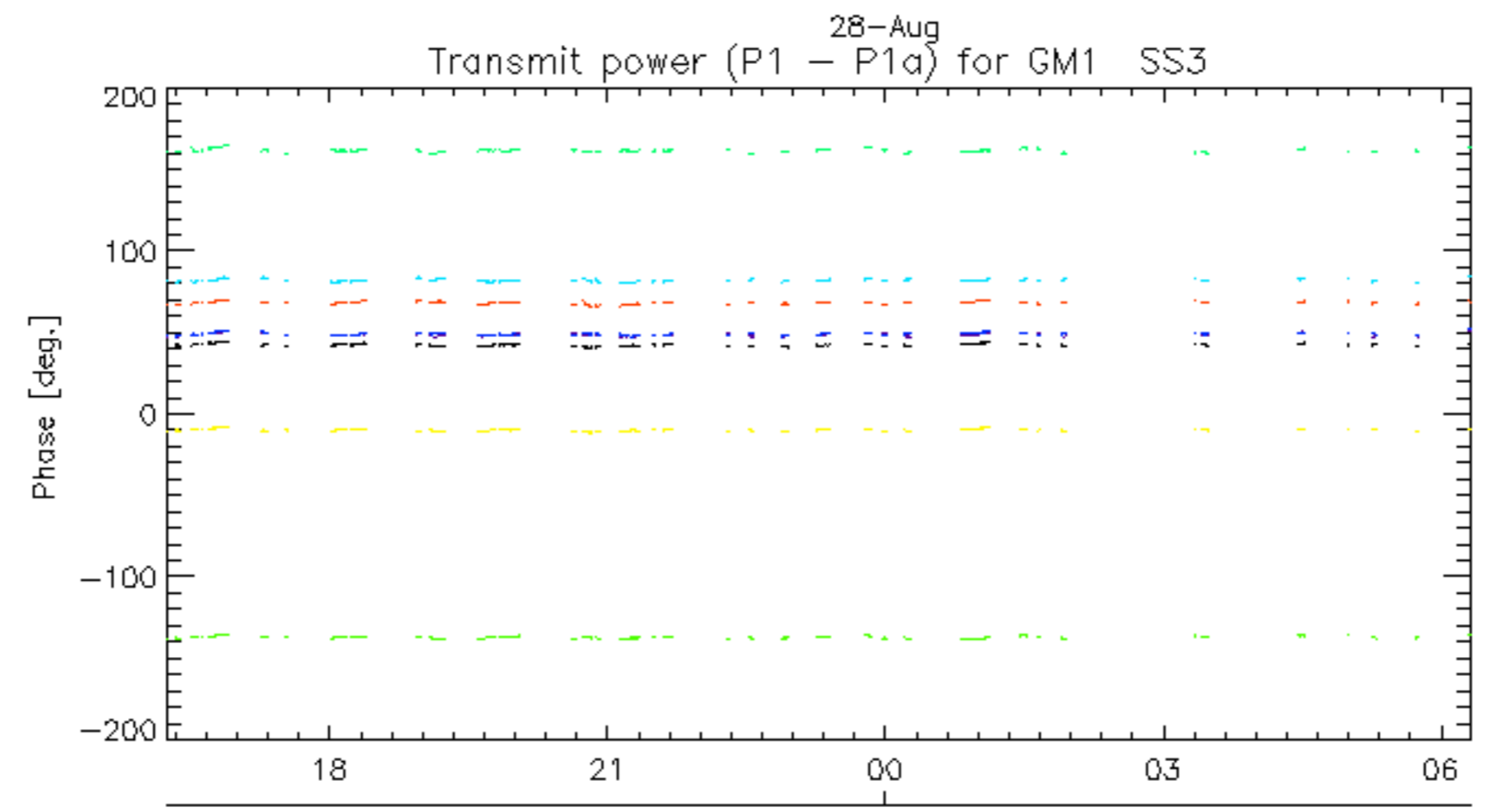
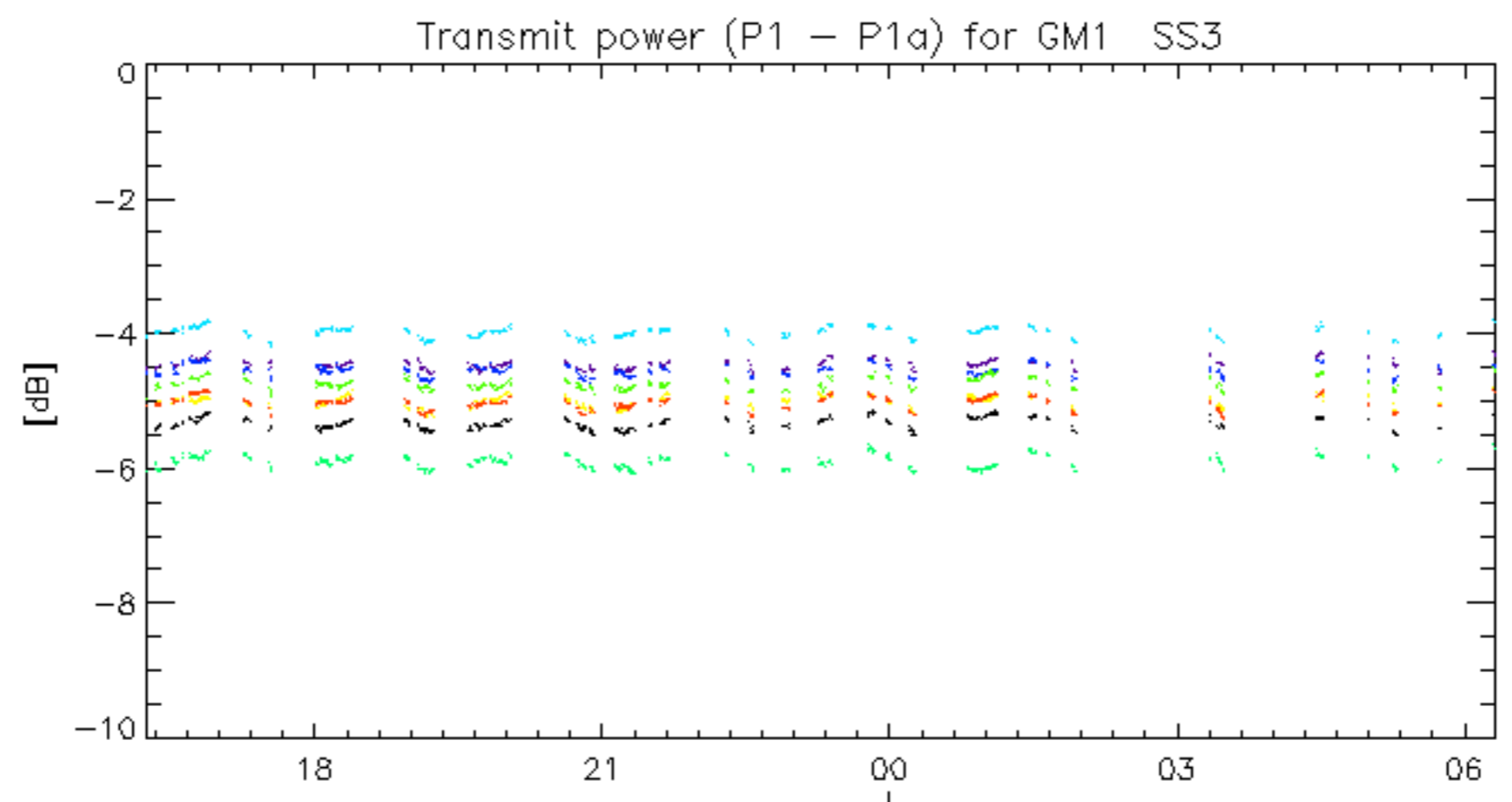
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060826_182649_00000352050_00371_23471_4533.N1	0	17
ASA_IMM_1PNPDE20060827_201454_00000372050_00386_23486_4727.N1	0	6
ASA_WSM_1PNPDK20060826_103050_000001472050_00366_23466_4387.N1	0	14

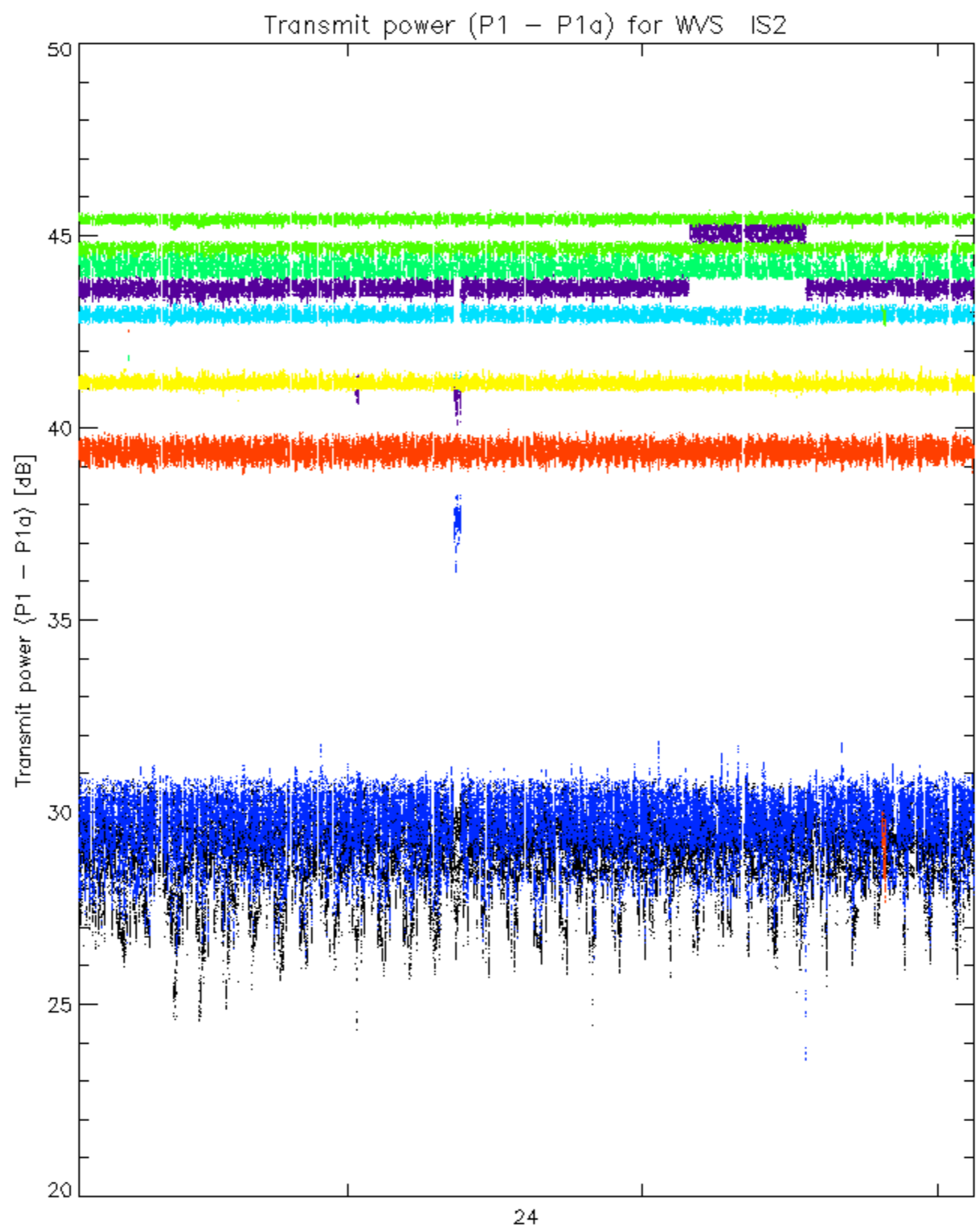




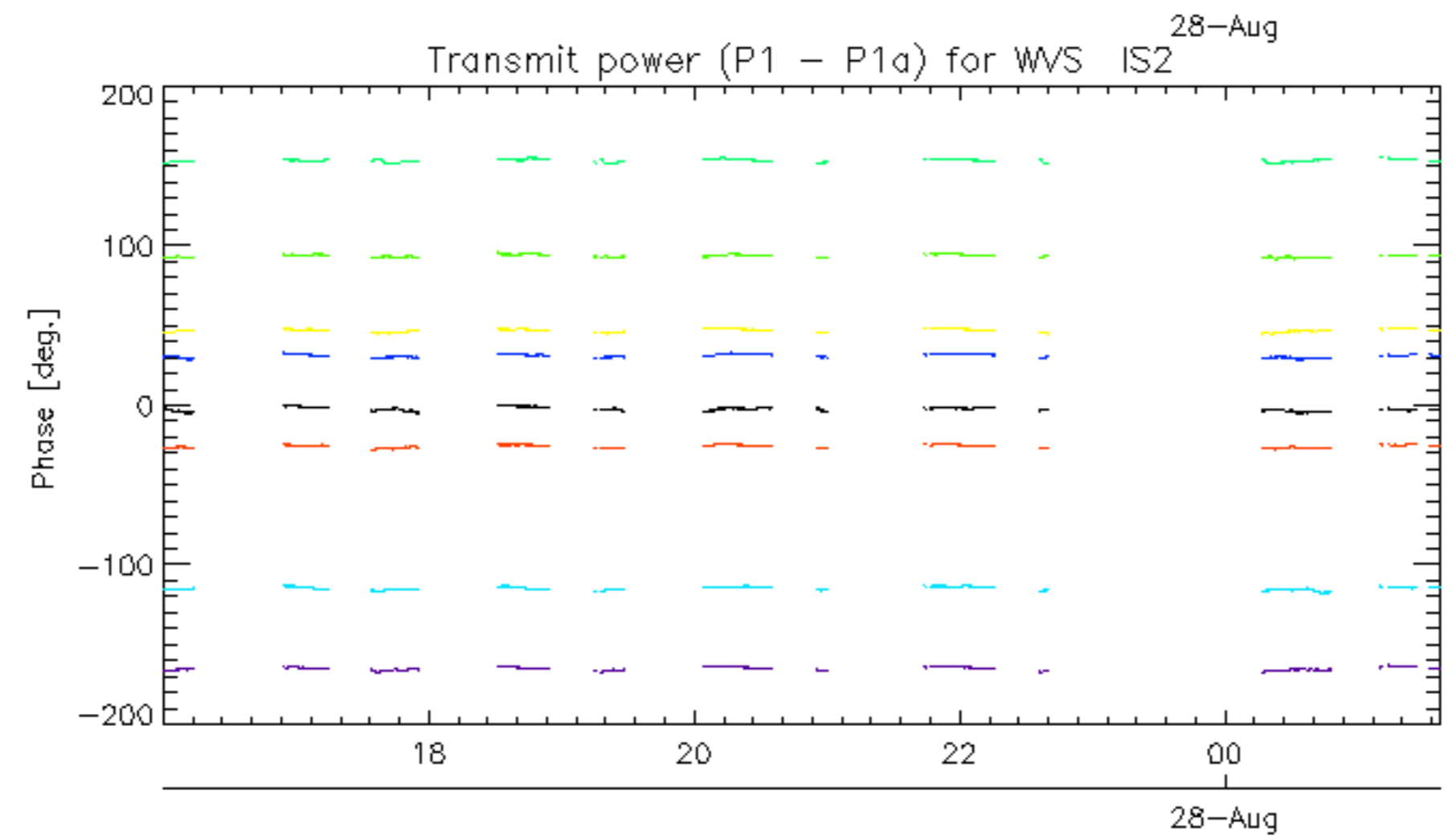
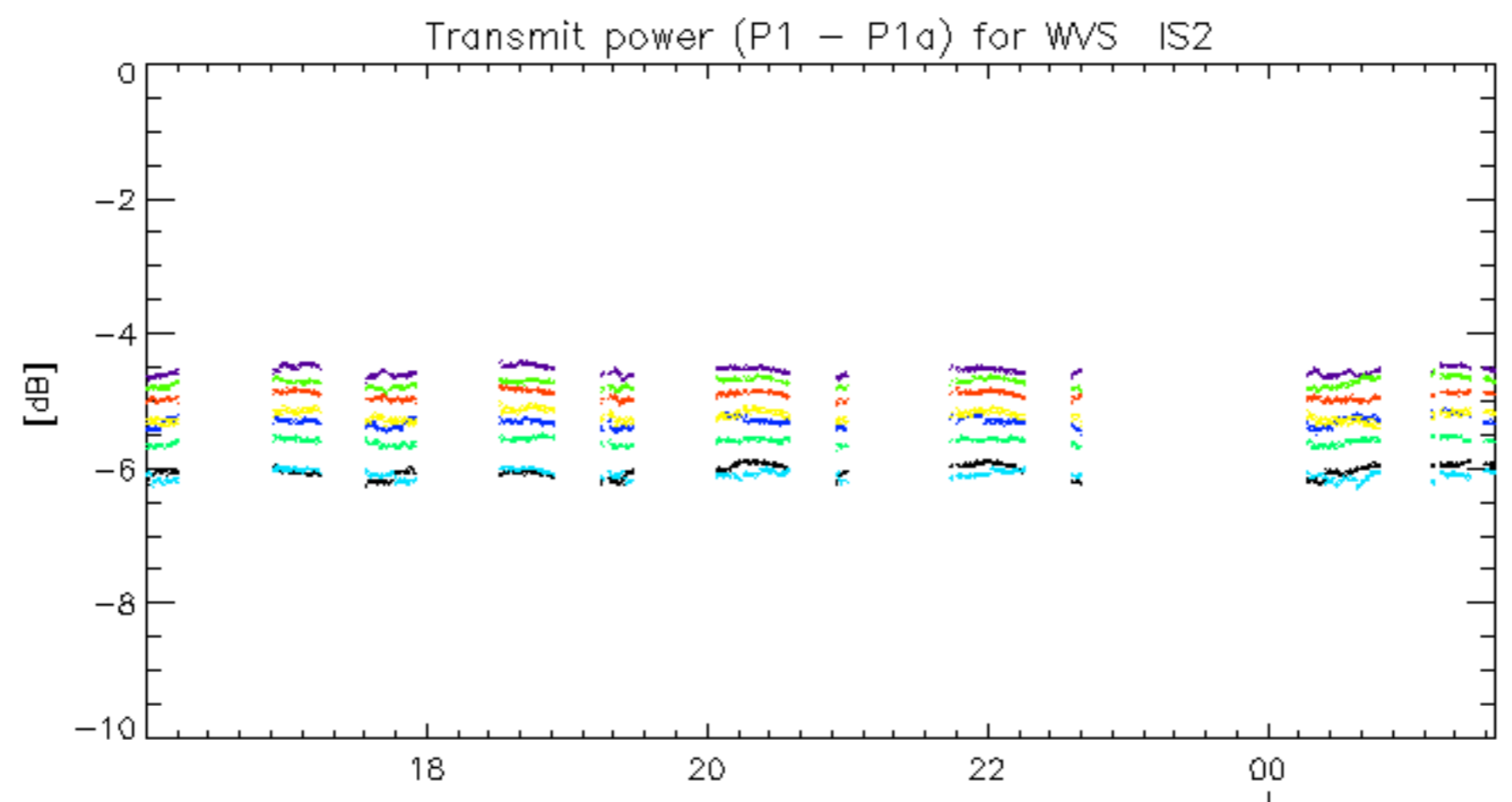
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No unavailabilities during the reported period.