

PRELIMINARY REPORT OF 060803

last update on Thu Aug 3 16:35:00 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 2006-08-02 00:00:00 to 2006-08-03 16:35:00

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	62	7	8	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	37	62	7	8	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	62	7	8	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	62	7	8	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	60	26	17	56
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	33	60	26	17	56
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	60	26	17	56
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	60	26	17	56

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	20060802 170205
H	20060803 062652

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	-3.935314	0.011602	-0.032402
7	P1	-3.098547	0.010338	0.017051
11	P1	-4.084051	0.013756	0.006017
15	P1	-6.174510	0.011420	0.000876
19	P1	-3.408611	0.009922	-0.057302
22	P1	-4.551781	0.010135	-0.025428
26	P1	-3.925071	0.020036	0.020371
30	P1	-5.762988	0.009454	0.001003
3	P1	-16.515341	0.304482	-0.114842
7	P1	-17.193083	0.103719	0.011989
11	P1	-16.975832	0.281851	0.066136
15	P1	-13.098104	0.146466	0.097523
19	P1	-14.468960	0.053484	-0.081266
22	P1	-16.004076	0.428559	0.098591
26	P1	-15.114462	0.235750	0.036365
30	P1	-17.101013	0.343293	-0.000999

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.956612	0.086998	0.133424
7	P2	-21.901888	0.103768	0.084849
11	P2	-15.785537	0.119908	0.050216
15	P2	-7.125689	0.098818	0.026357
19	P2	-9.131656	0.090300	0.016555
22	P2	-18.149807	0.085707	0.000240
26	P2	-16.400578	0.092226	-0.006425
30	P2	-19.515467	0.092031	0.044018

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.173692	0.003054	0.004460
7	P3	-8.173692	0.003054	0.004460
11	P3	-8.173692	0.003054	0.004460
15	P3	-8.173692	0.003054	0.004460
19	P3	-8.173692	0.003054	0.004460
22	P3	-8.173692	0.003054	0.004460
26	P3	-8.173692	0.003054	0.004460
30	P3	-8.173692	0.003054	0.004460

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	-3.811761	0.022429	-0.069051
7	P1	-2.556111	0.008008	0.032904
11	P1	-2.855760	0.014149	0.019397
15	P1	-3.574624	0.029224	-0.024888
19	P1	-3.423449	0.024543	-0.025109
22	P1	-5.086774	0.019957	0.022152
26	P1	-5.861394	0.015953	-0.007623
30	P1	-5.197031	0.033098	-0.008967
3	P1	-11.599334	0.077073	-0.106422
7	P1	-9.965958	0.034946	0.039711
11	P1	-10.247925	0.055983	0.001235
15	P1	-10.754317	0.144797	0.022369
19	P1	-15.555784	0.504431	-0.107232
22	P1	-20.917259	1.260963	0.027994

26	P1	-16.271959	0.383314	0.205033
30	P1	-17.931459	0.409857	-0.133919

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.590044	0.070848	0.195485
7	P2	-22.376291	0.122959	0.144272
11	P2	-11.036793	0.041595	0.078982
15	P2	-4.906486	0.045244	0.038336
19	P2	-6.870034	0.040724	0.029047
22	P2	-8.193745	0.036102	0.017103
26	P2	-24.180861	0.060401	0.019492
30	P2	-22.005545	0.049020	0.050908

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.012256	0.003765	0.012261
7	P3	-8.012289	0.003768	0.012312
11	P3	-8.012200	0.003781	0.011841
15	P3	-8.012278	0.003772	0.011904
19	P3	-8.012241	0.003776	0.012055
22	P3	-8.012377	0.003764	0.011812
26	P3	-8.012287	0.003761	0.011904
30	P3	-8.012229	0.003768	0.011873

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	0.000562357
	stdev	1.70630e-07
MEAN Q	mean	0.000536640
	stdev	2.15119e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137598
	stdev	0.00110282
STDEV Q	mean	0.137956
	stdev	0.00112080



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006080[123]

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_1PNPDE20060802_004523_000001932050_00016_23116_2770.N1	1	0
ASA_IMM_1PNPDE20060802_010204_000000692050_00017_23117_2773.N1	1	0
ASA_IMM_1PNPDE20060802_155516_000000502050_00026_23126_2816.N1	1	0
ASA_WSM_1PNPDE20060801_181151_000000852050_00013_23113_5337.N1	0	8
ASA_WSM_1PNPDE20060802_113753_000000852050_00023_23123_5463.N1	0	70



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

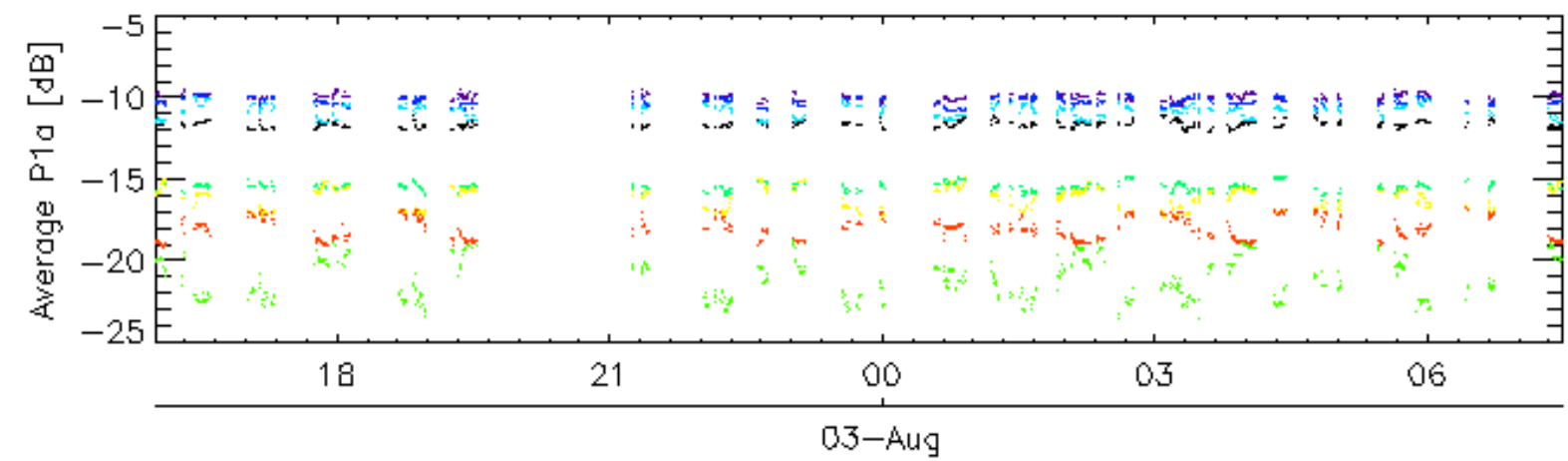
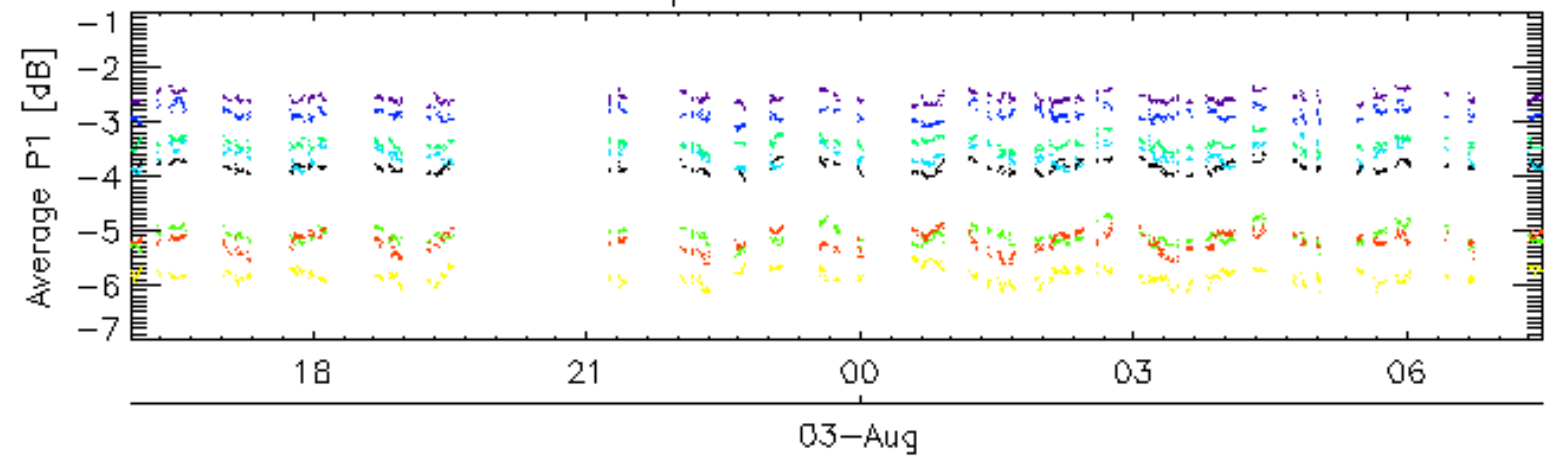
Ascending

Descending

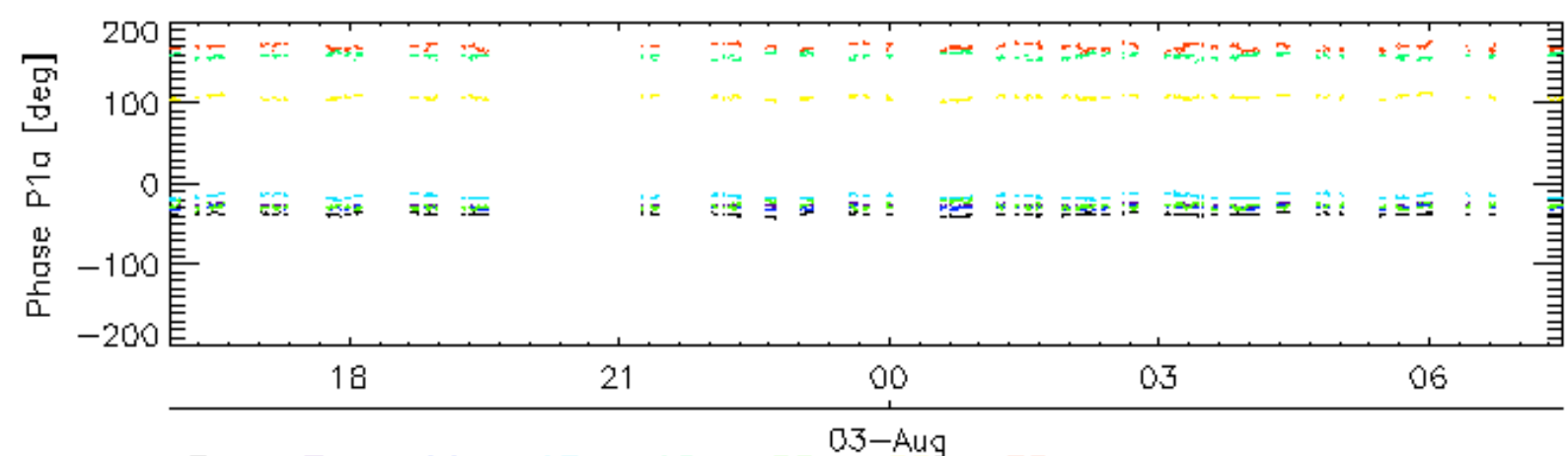
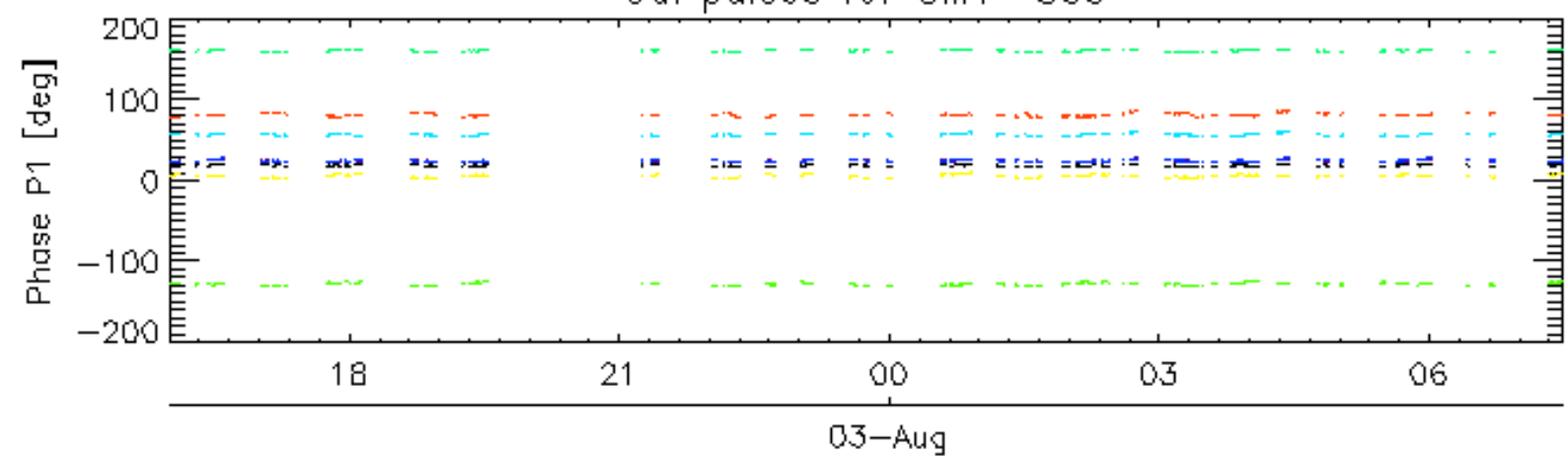
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

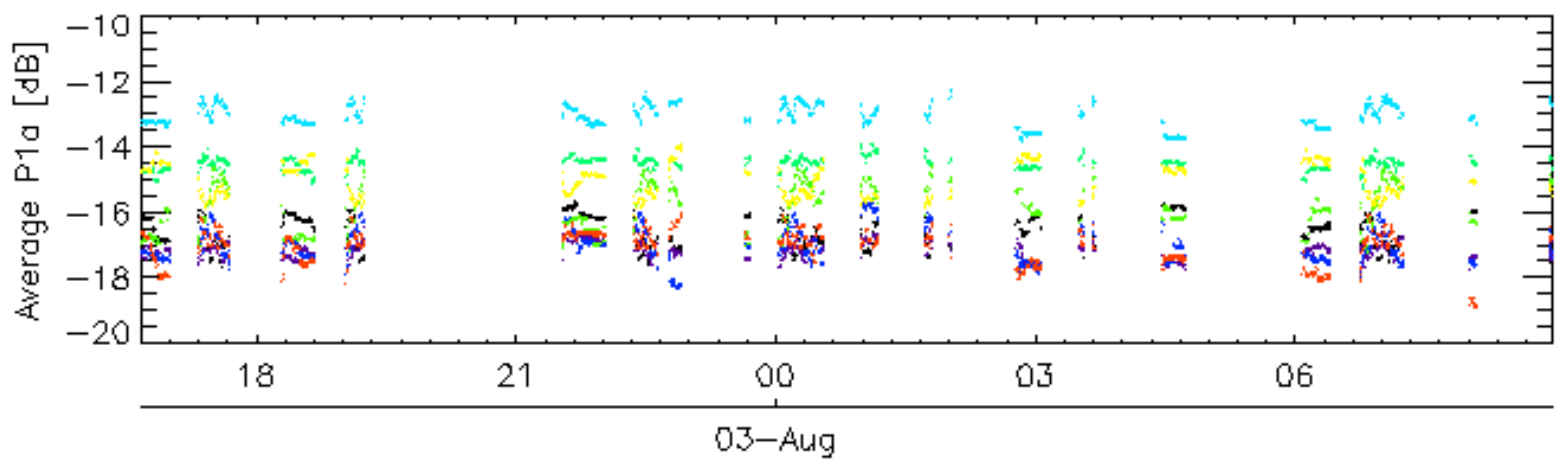
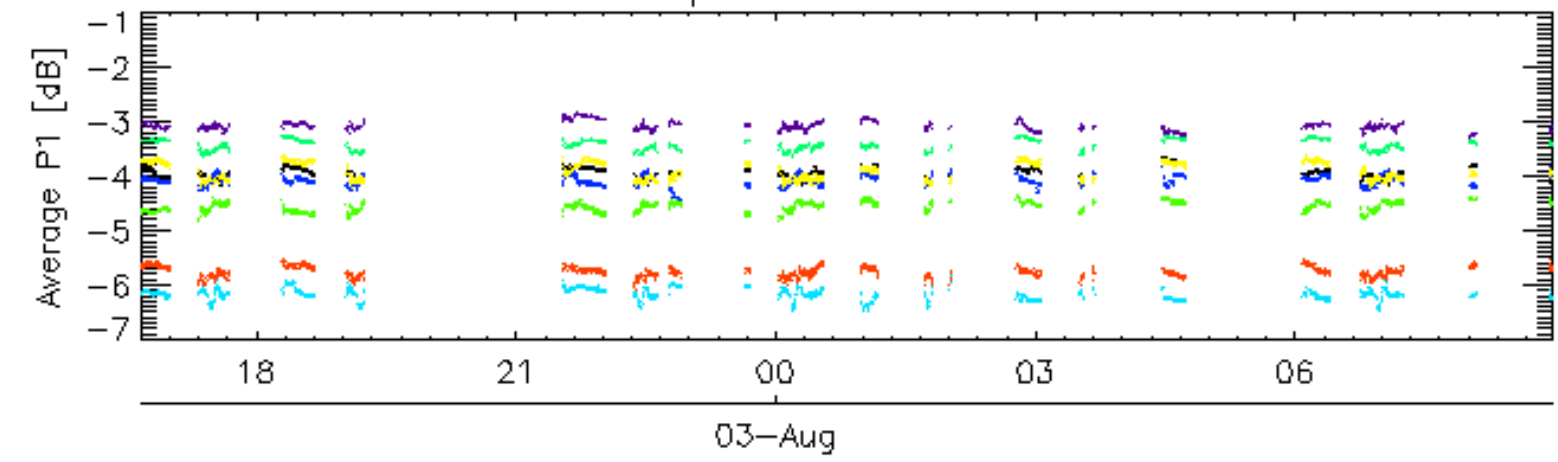


Cal pulses for GM1 SS3

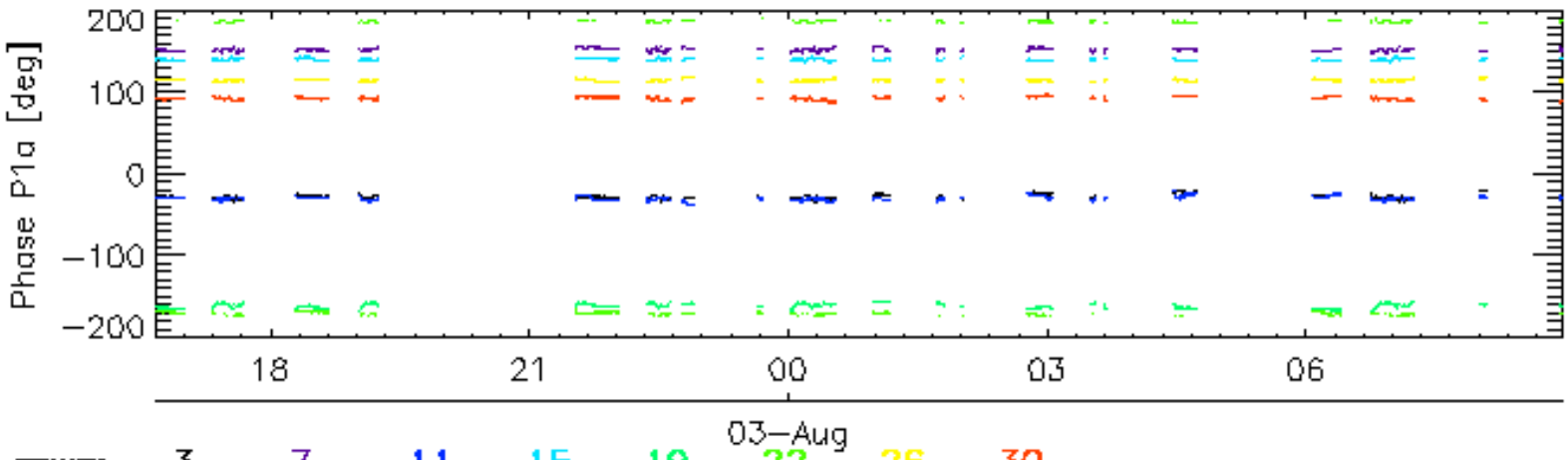
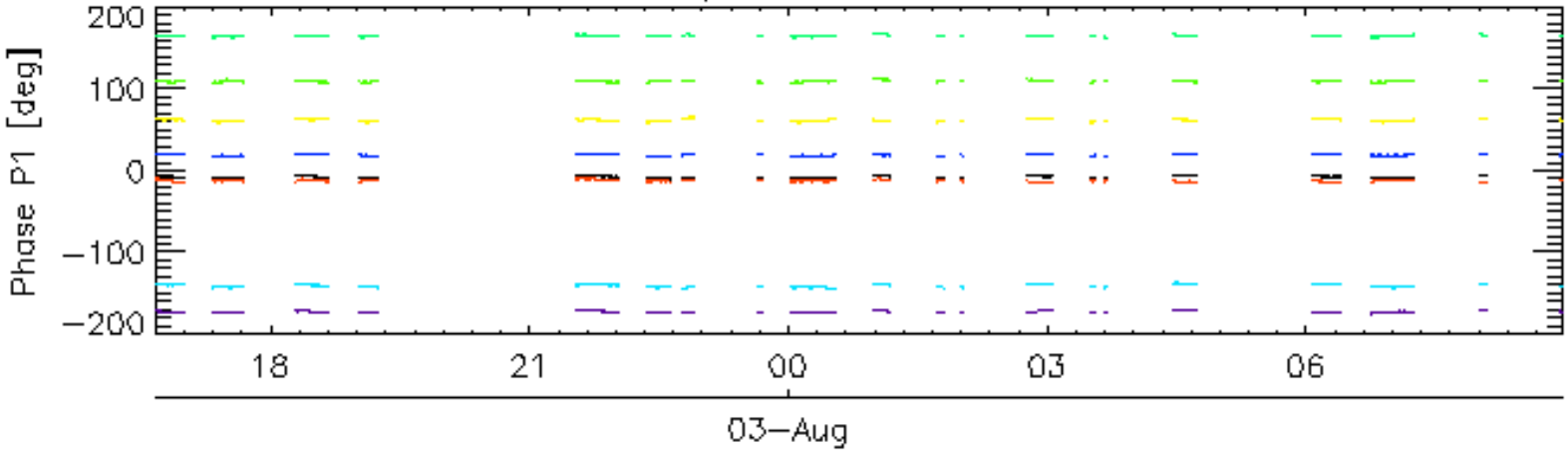


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

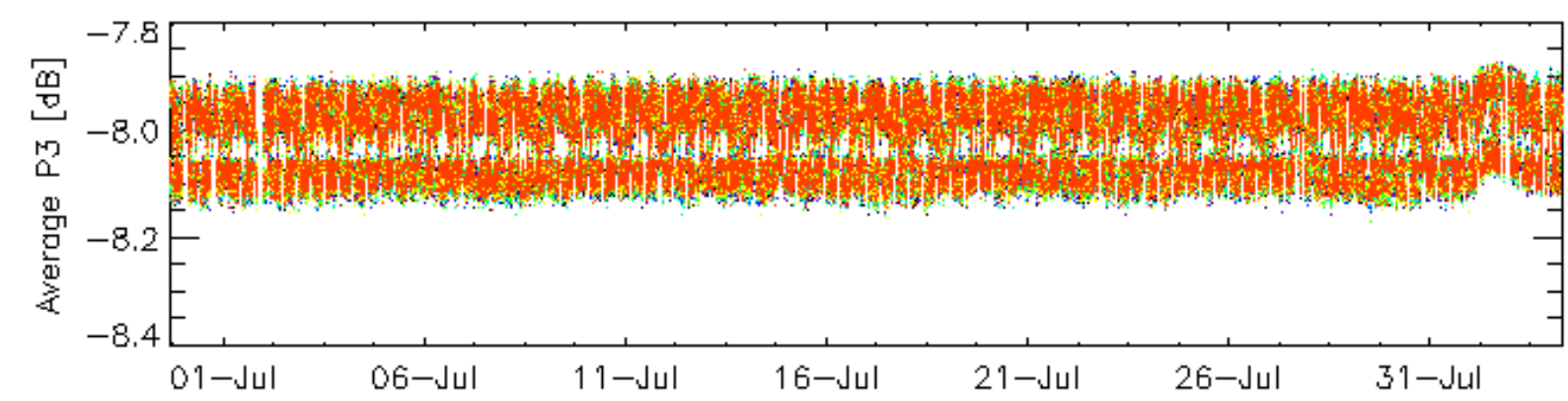
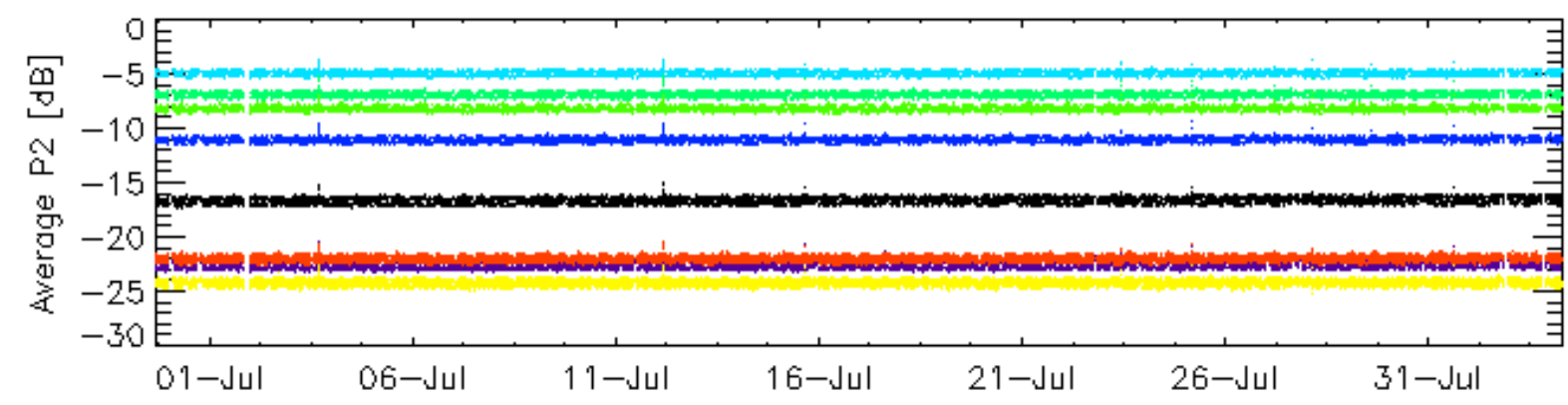
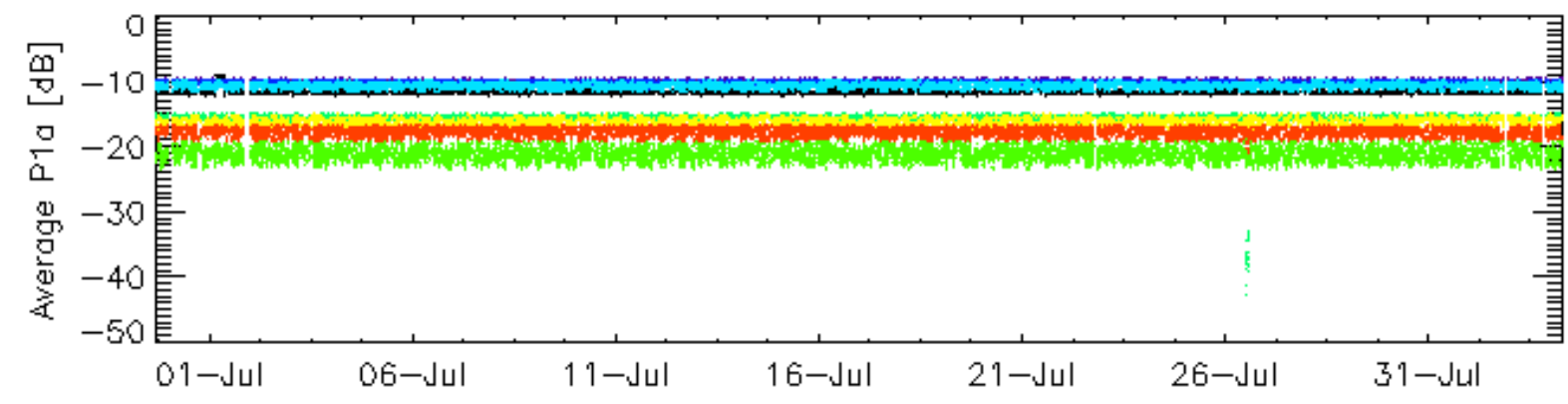
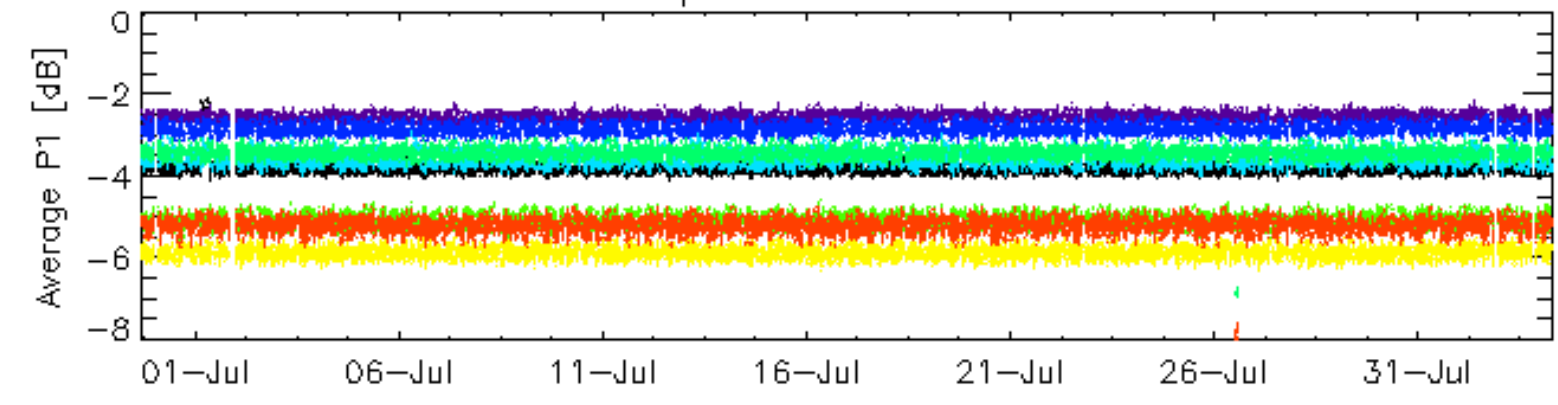


Cal pulses for WVS IS2



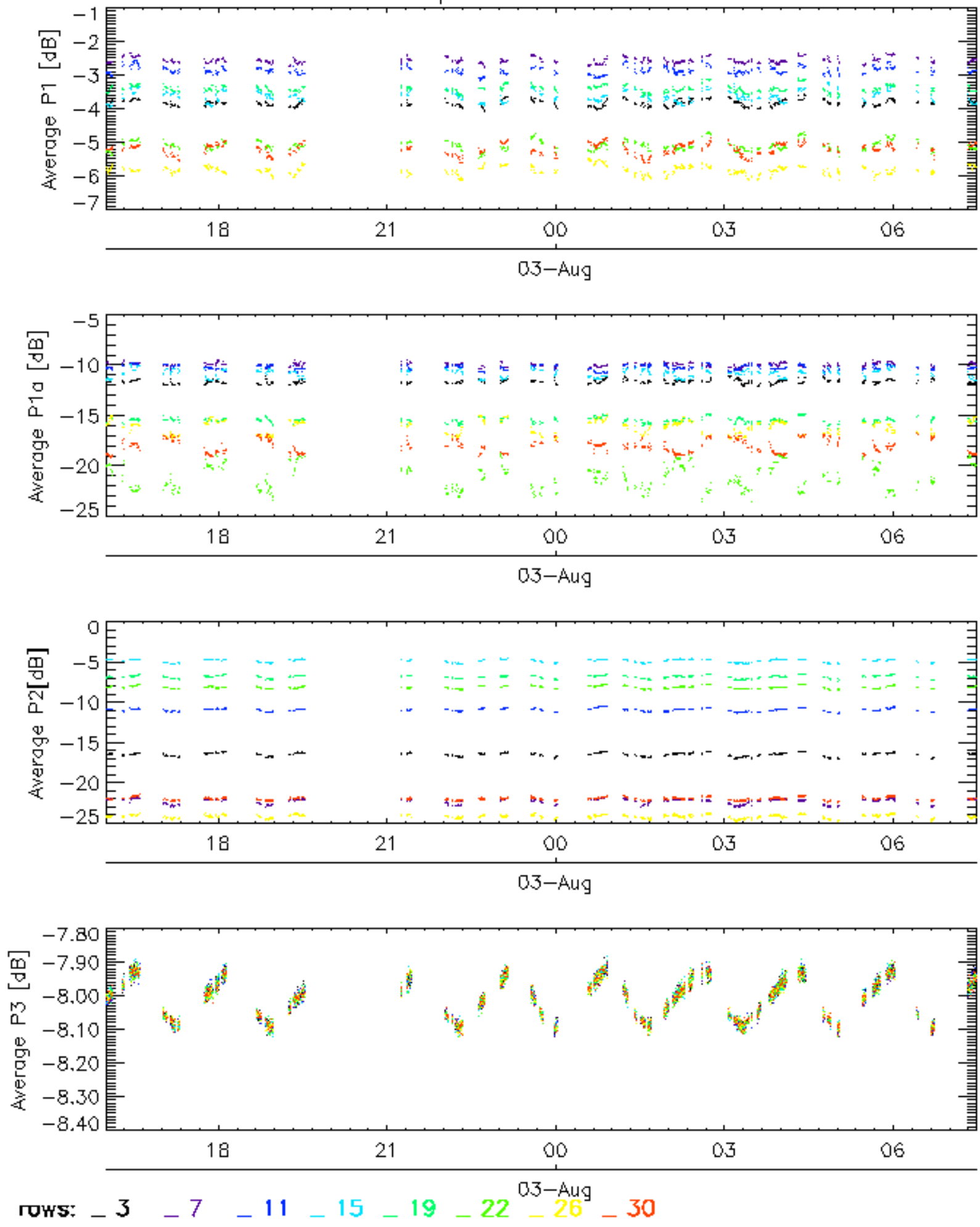
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

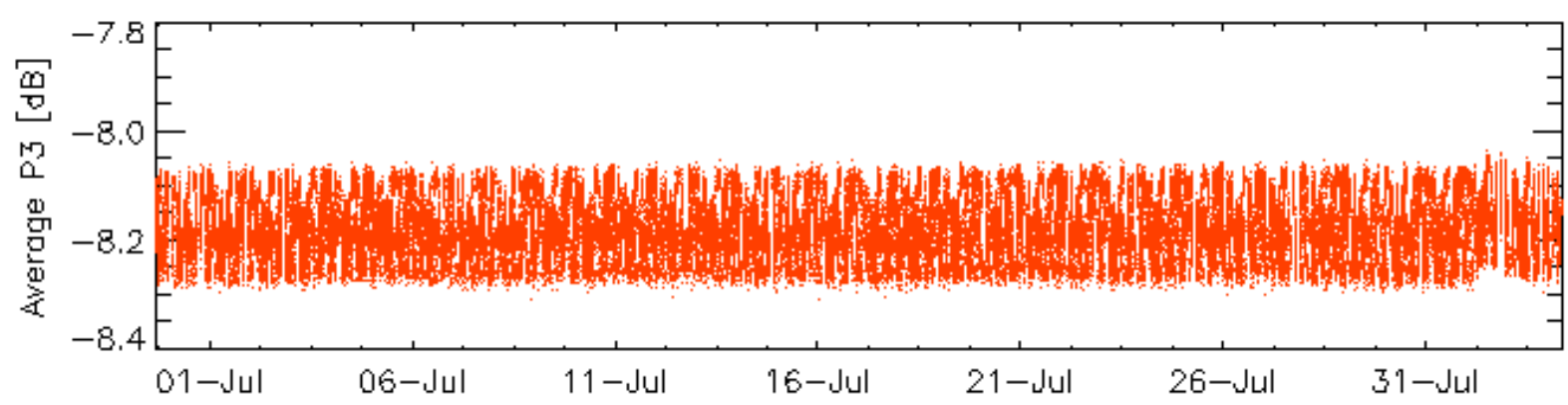
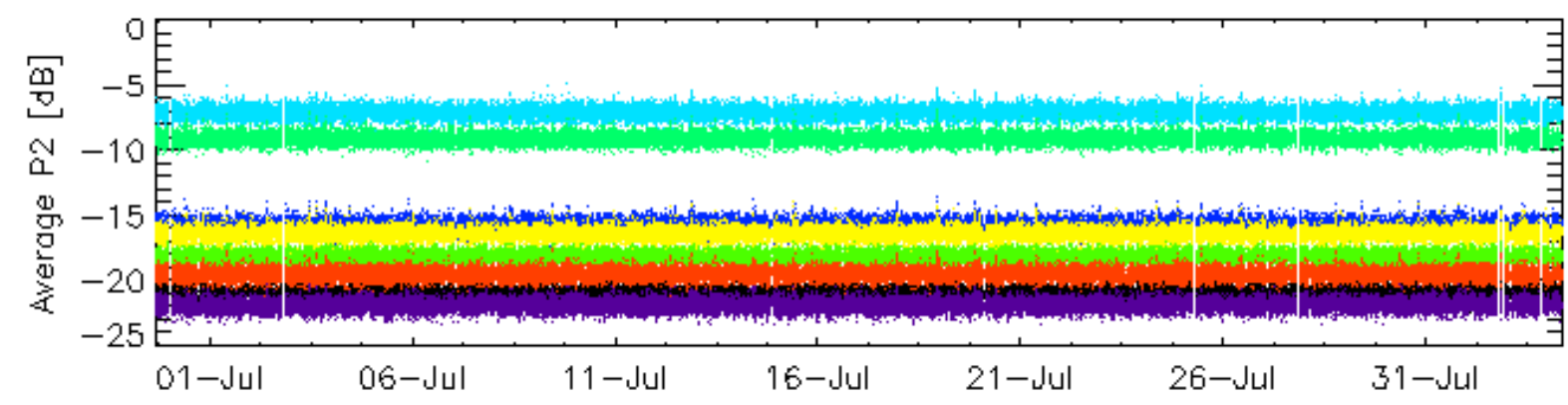
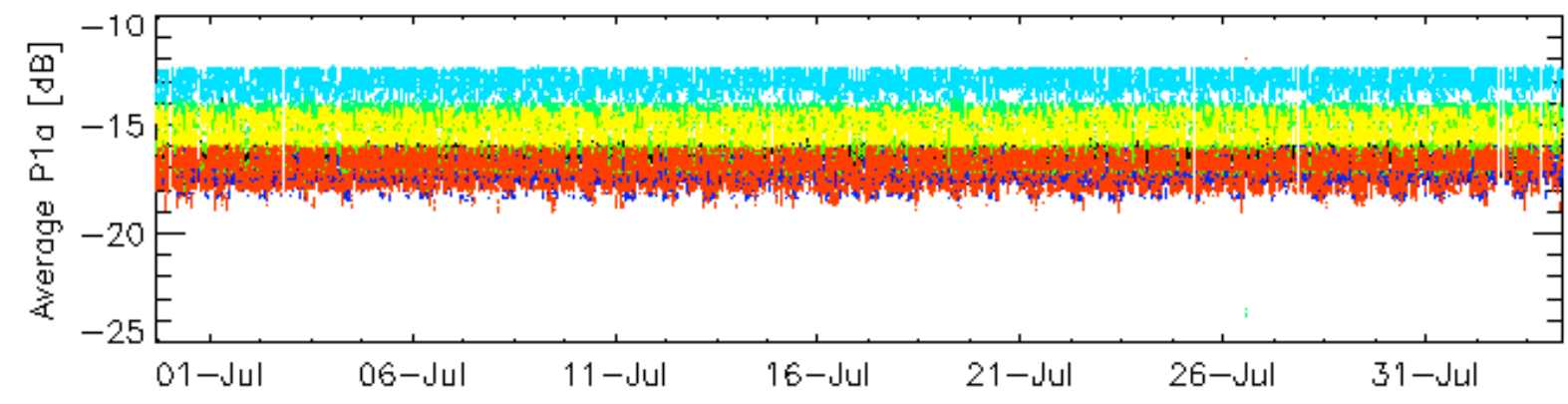
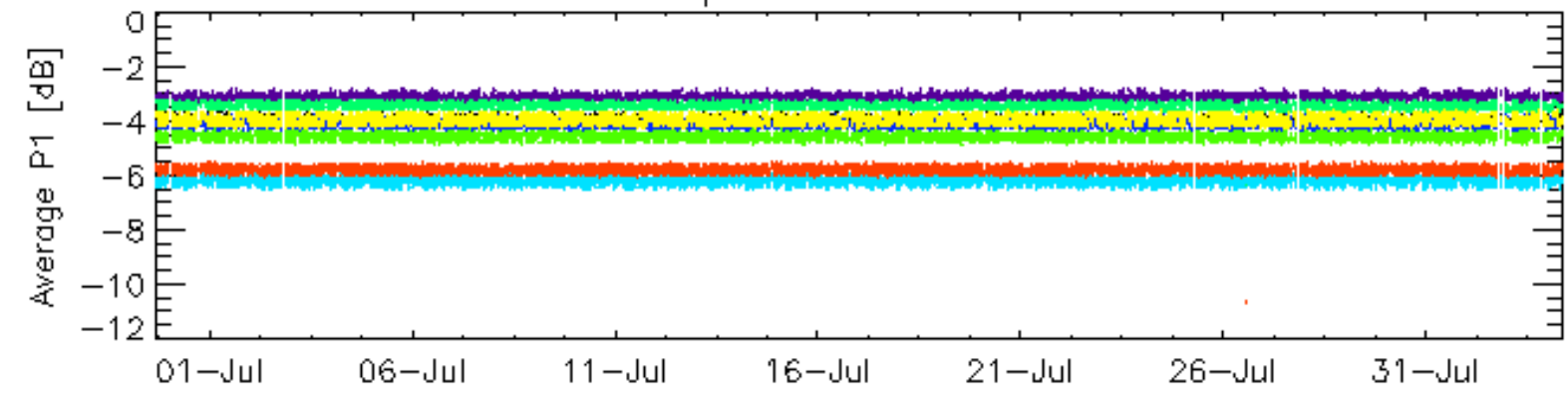


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

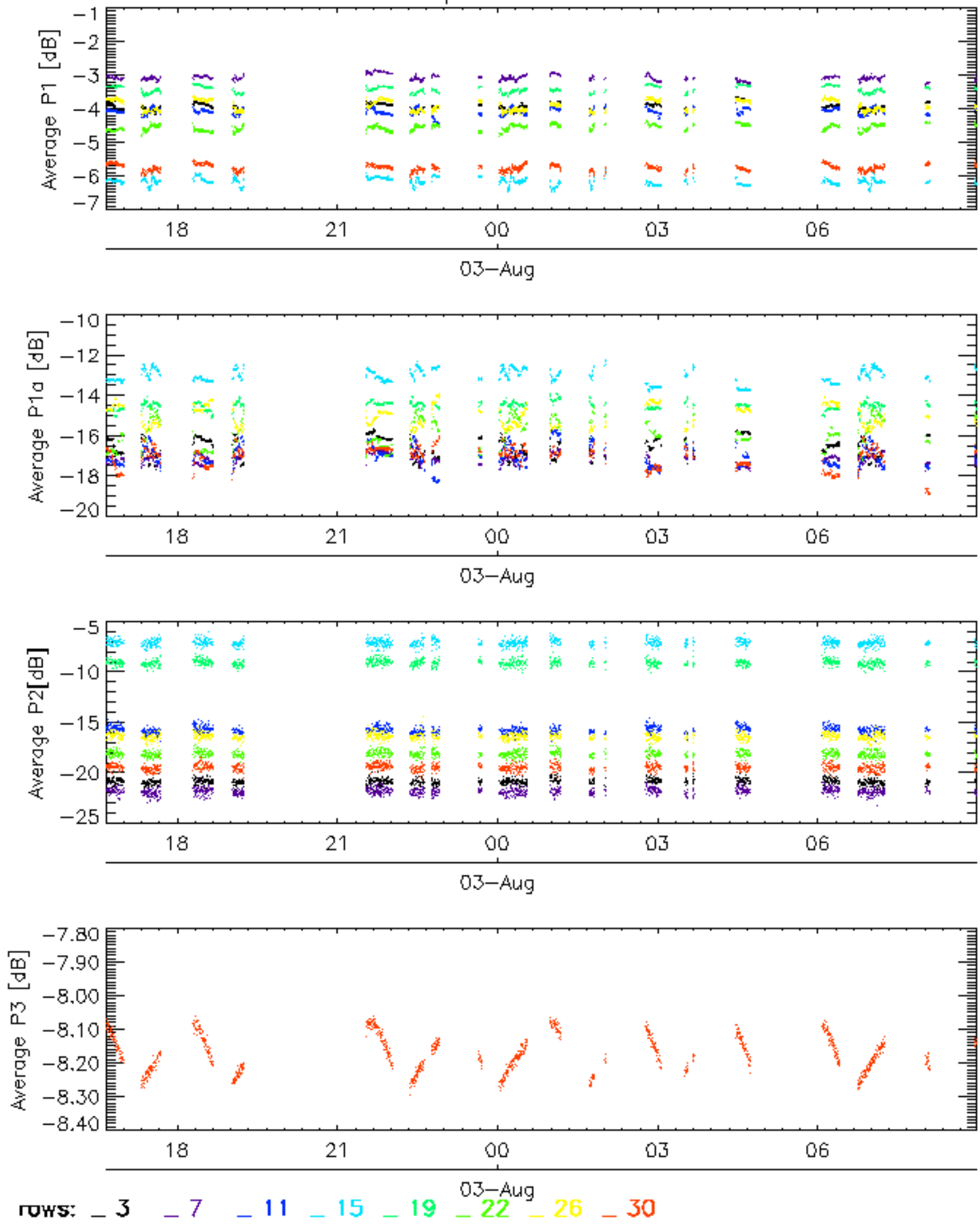


Cal pulses for WVS IS2



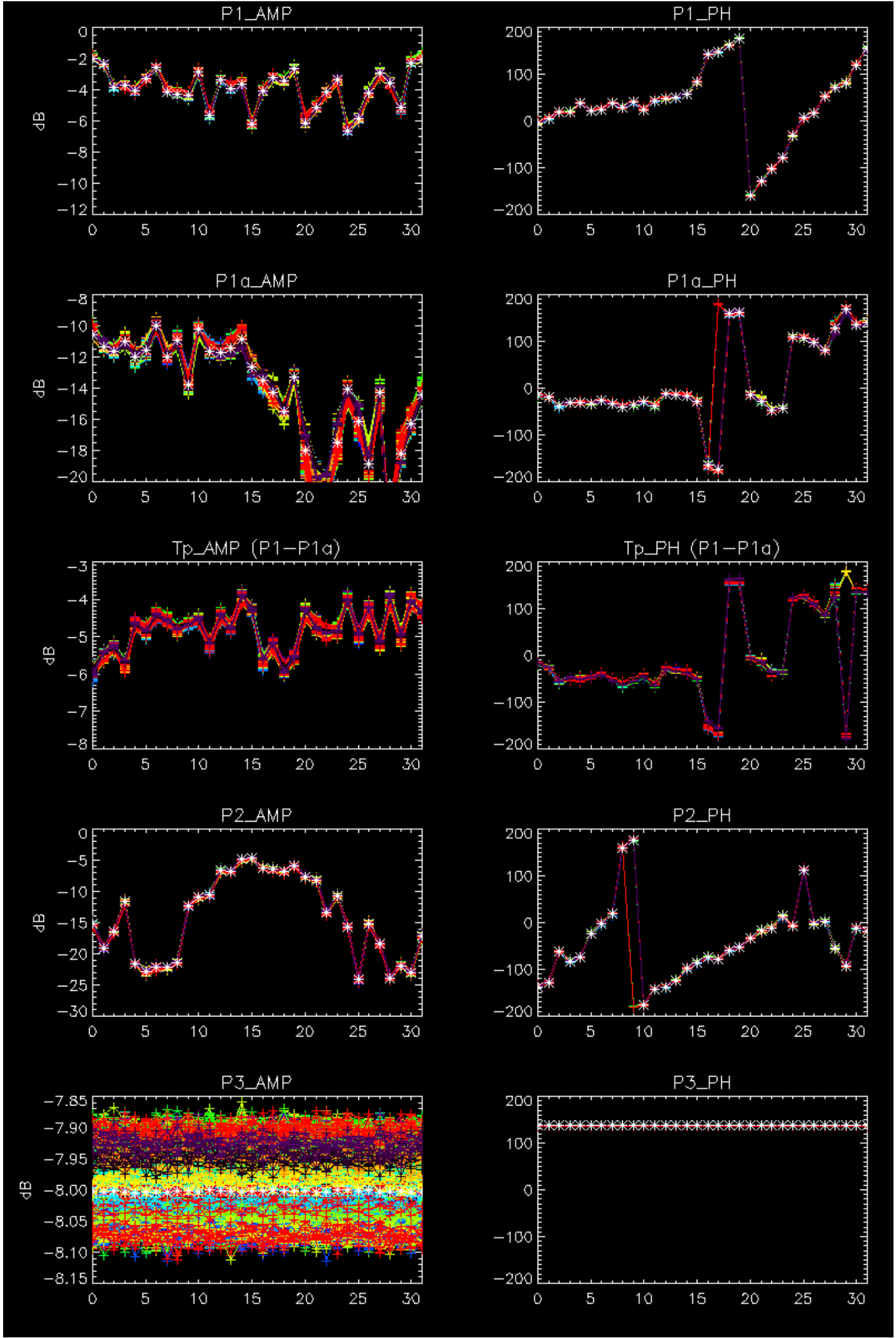
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

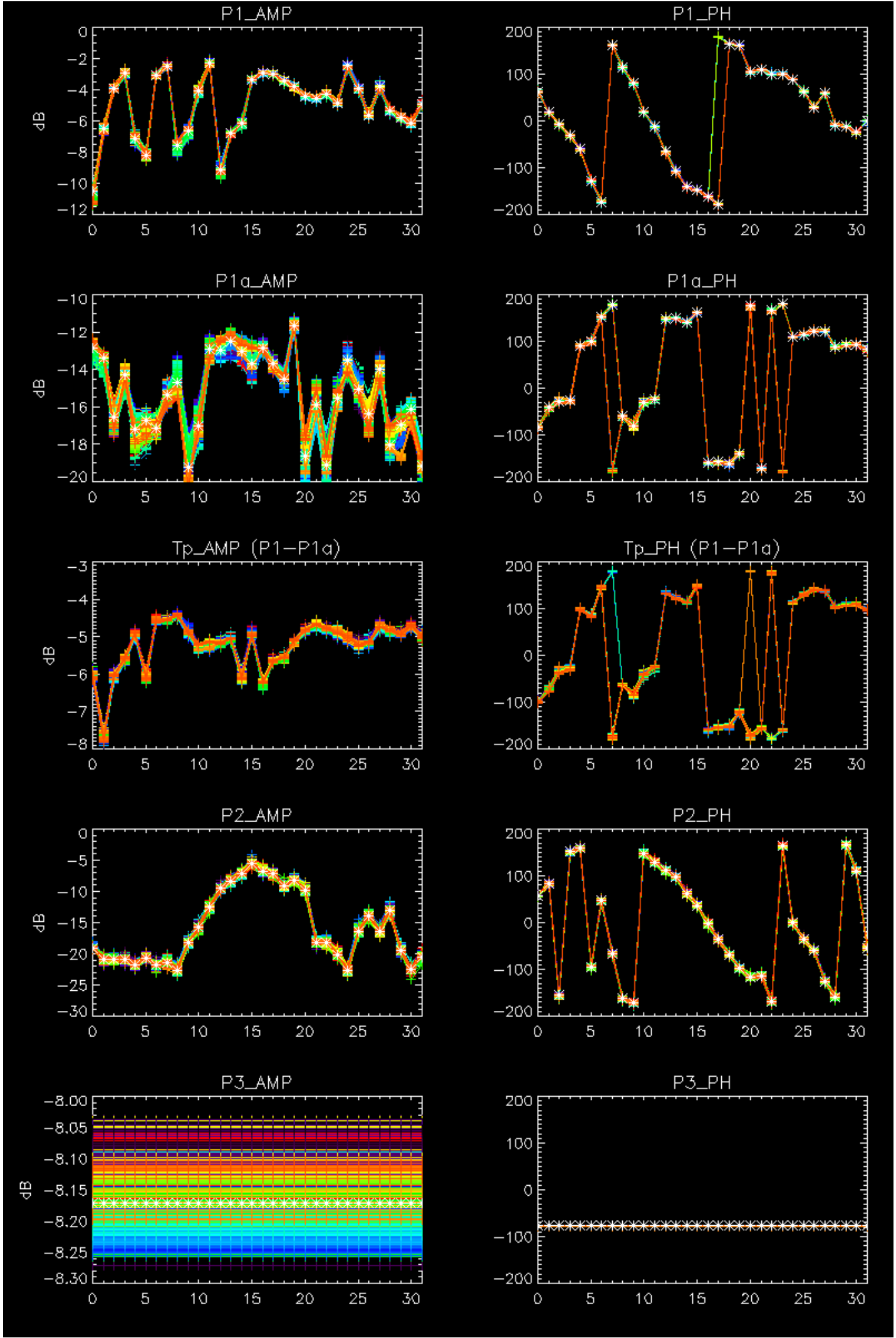
Cal pulses for WVS IS2



No anomalies observed on available browse products

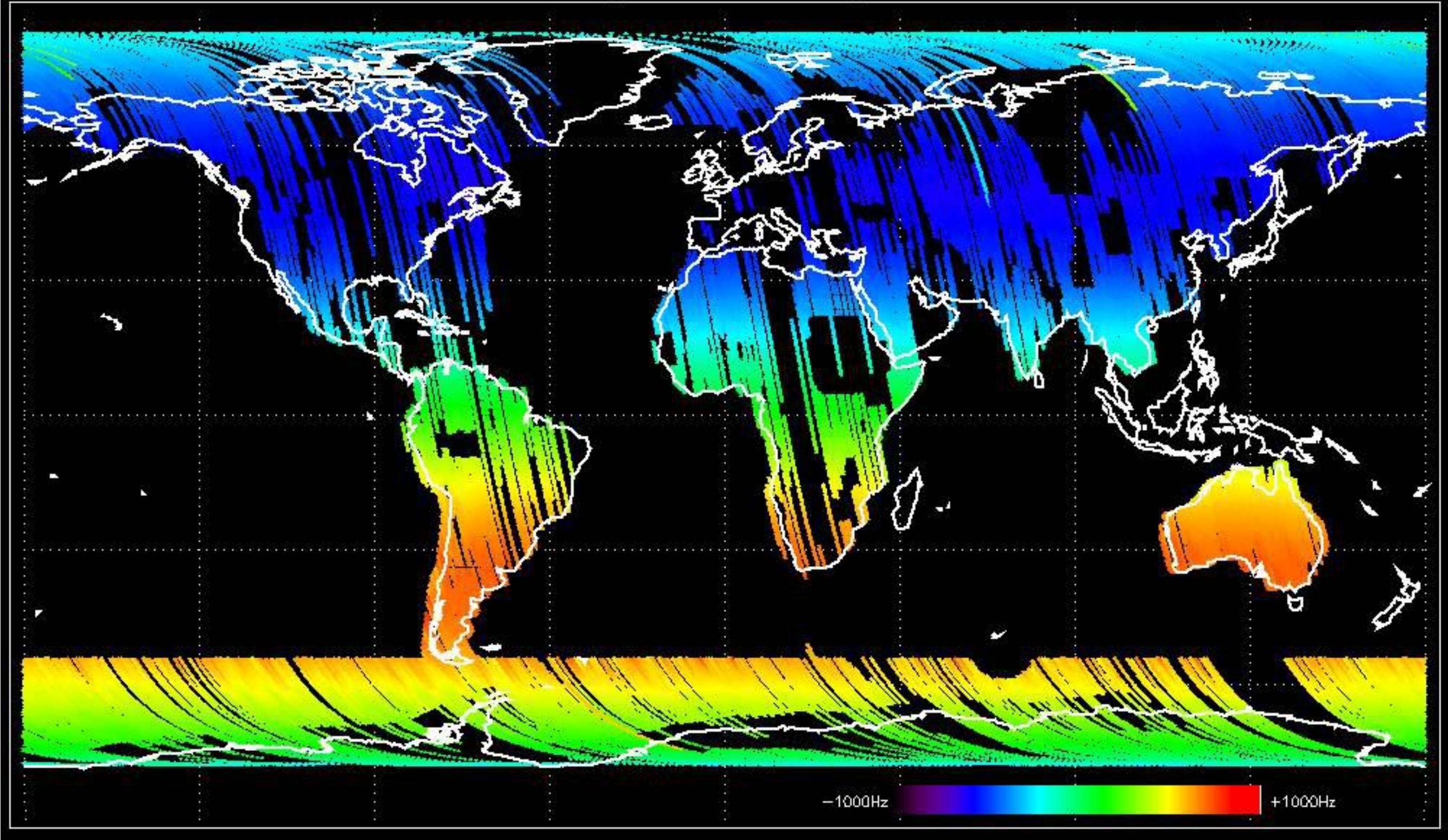
No anomalies observed.



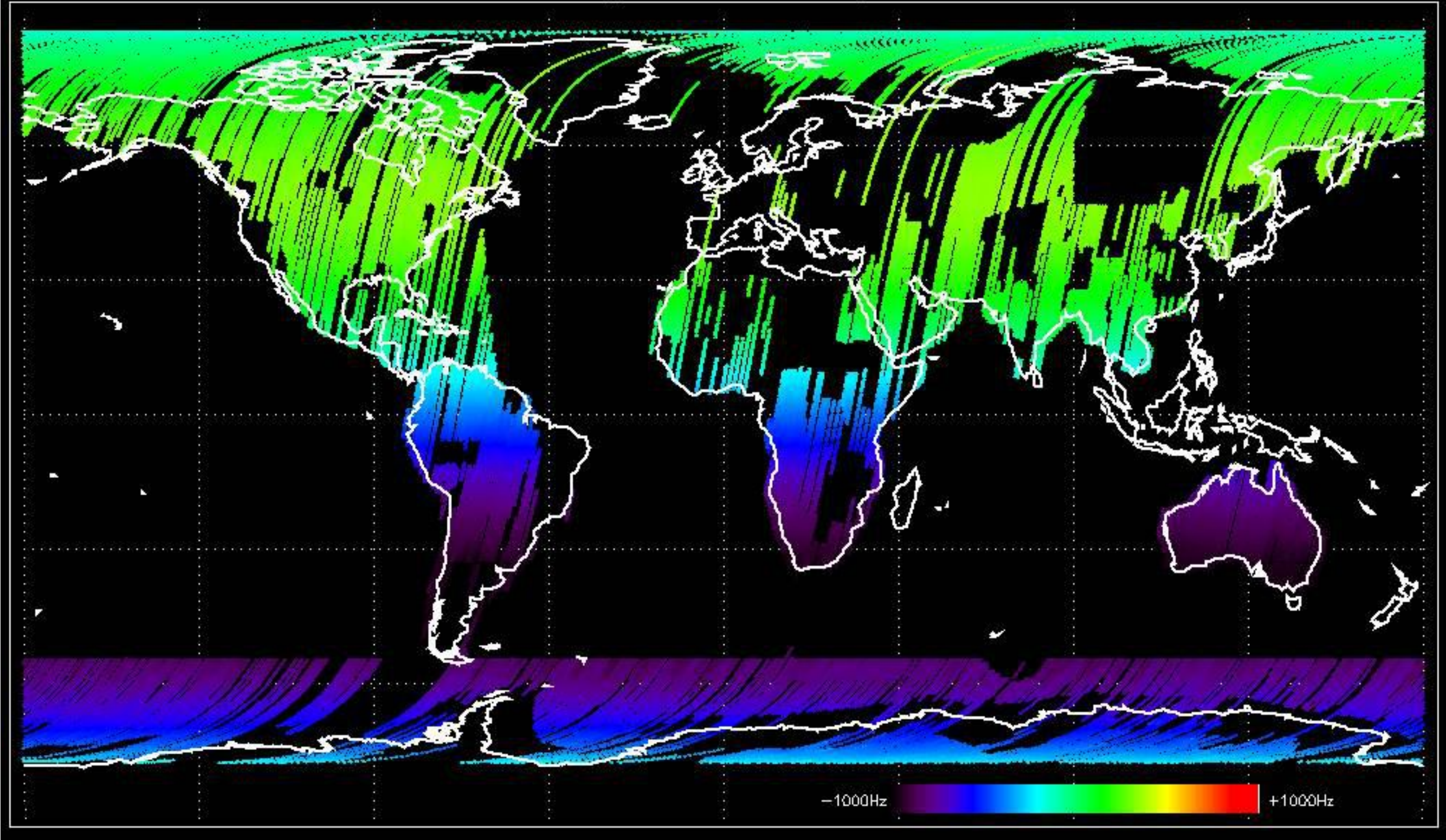


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

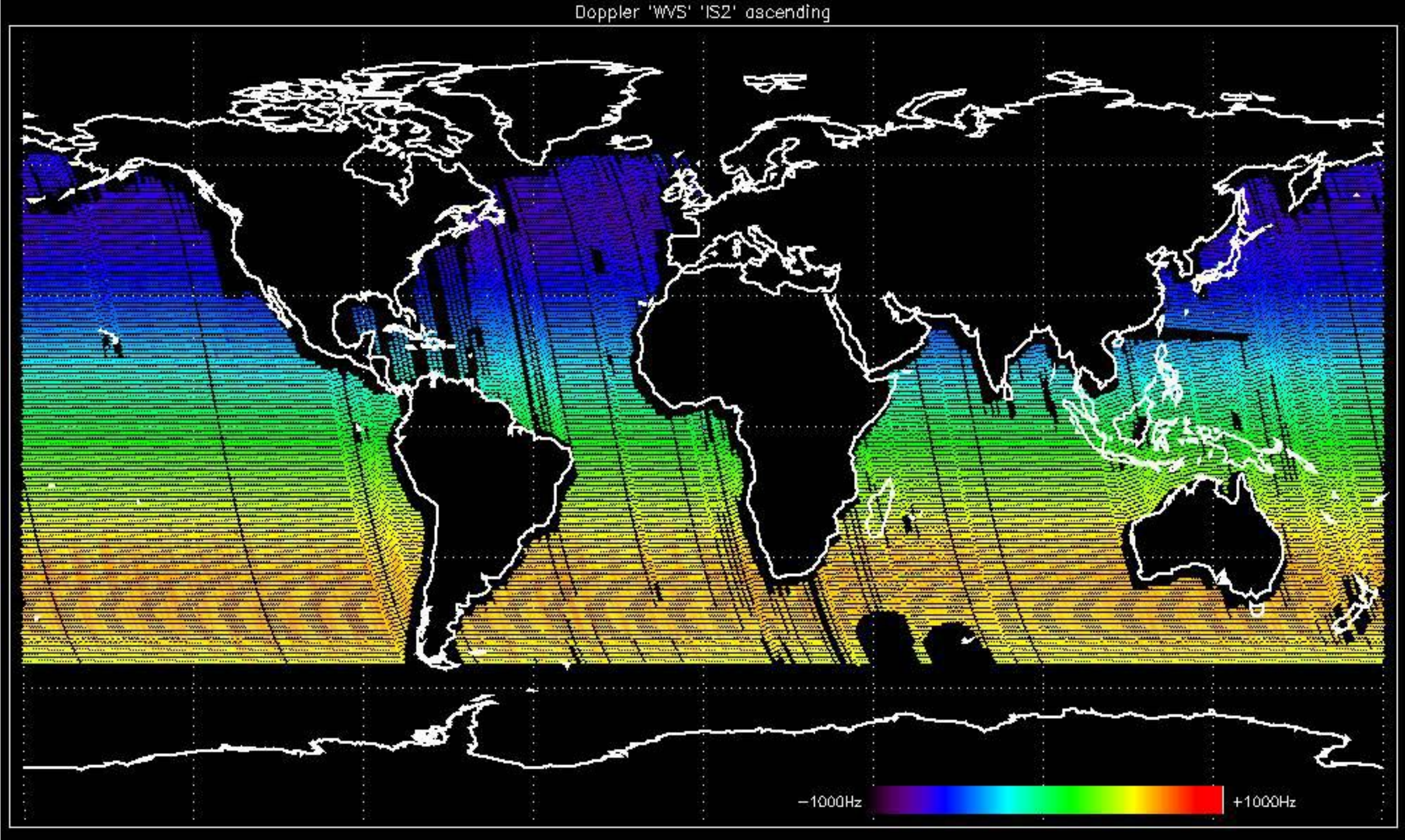
Doppler 'GM1' 'SS1' ascending



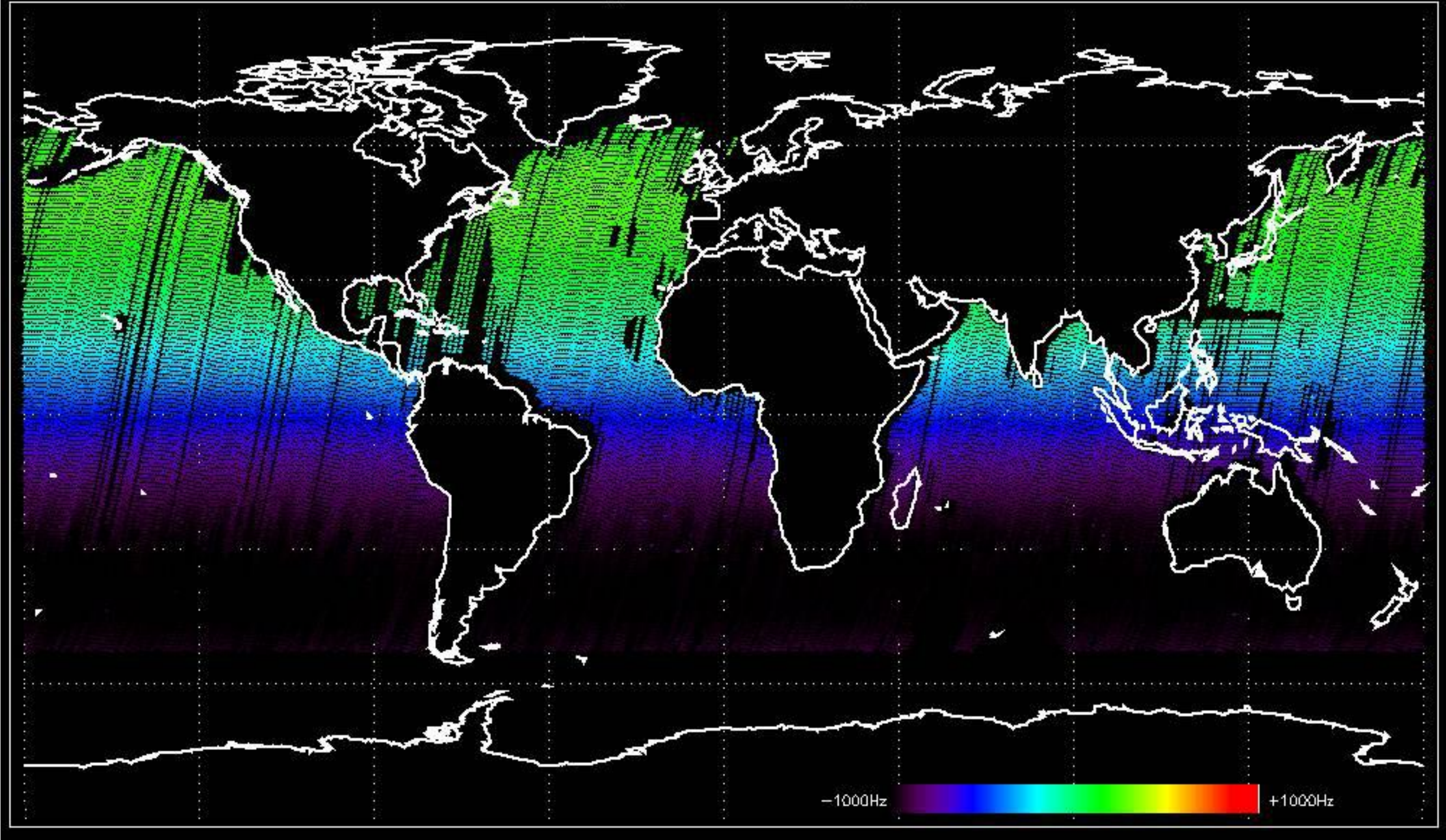
Doppler 'GM1' 'SS1' descending

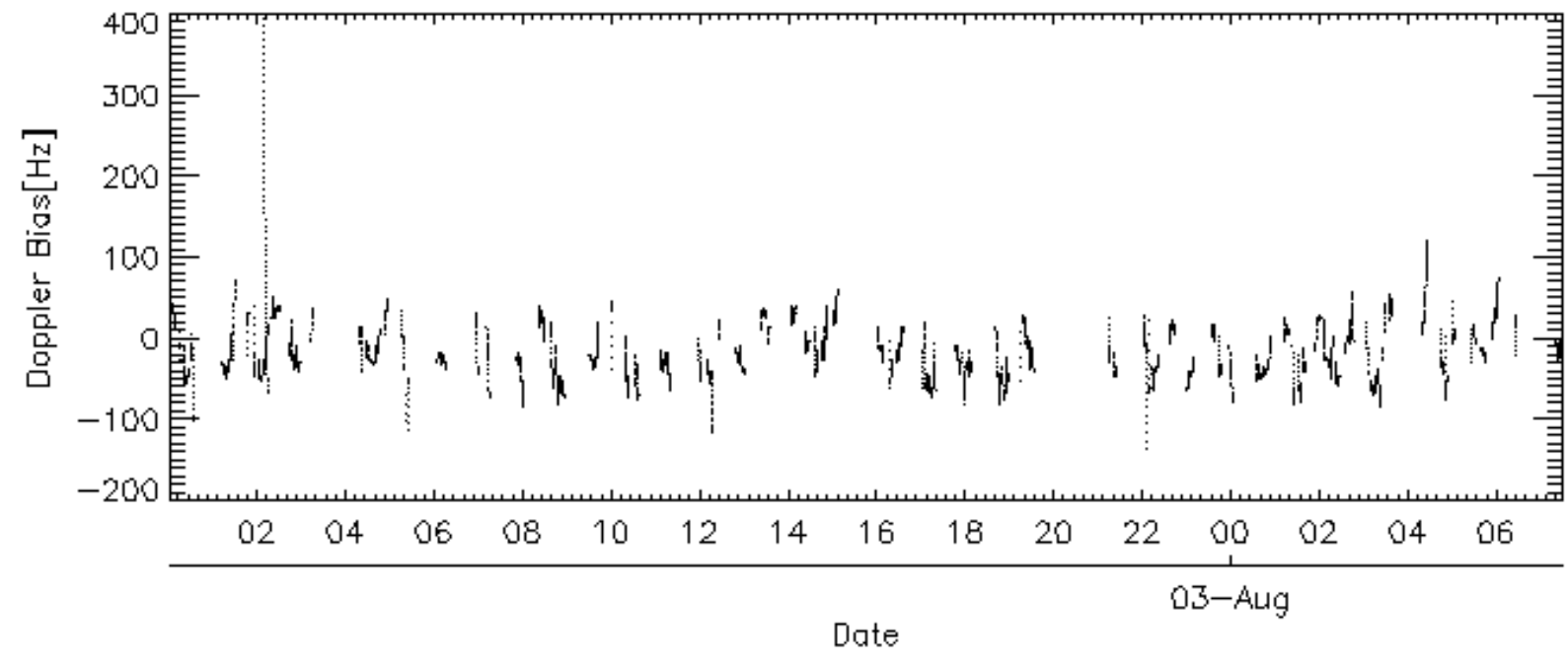
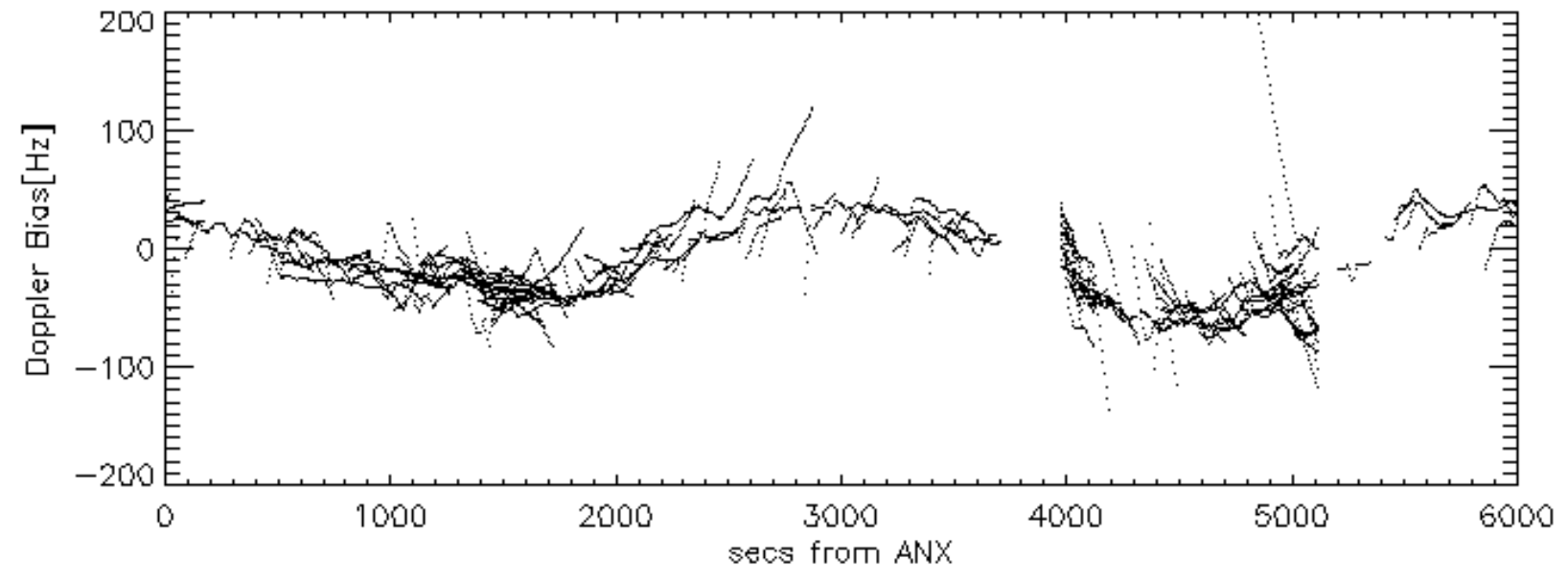
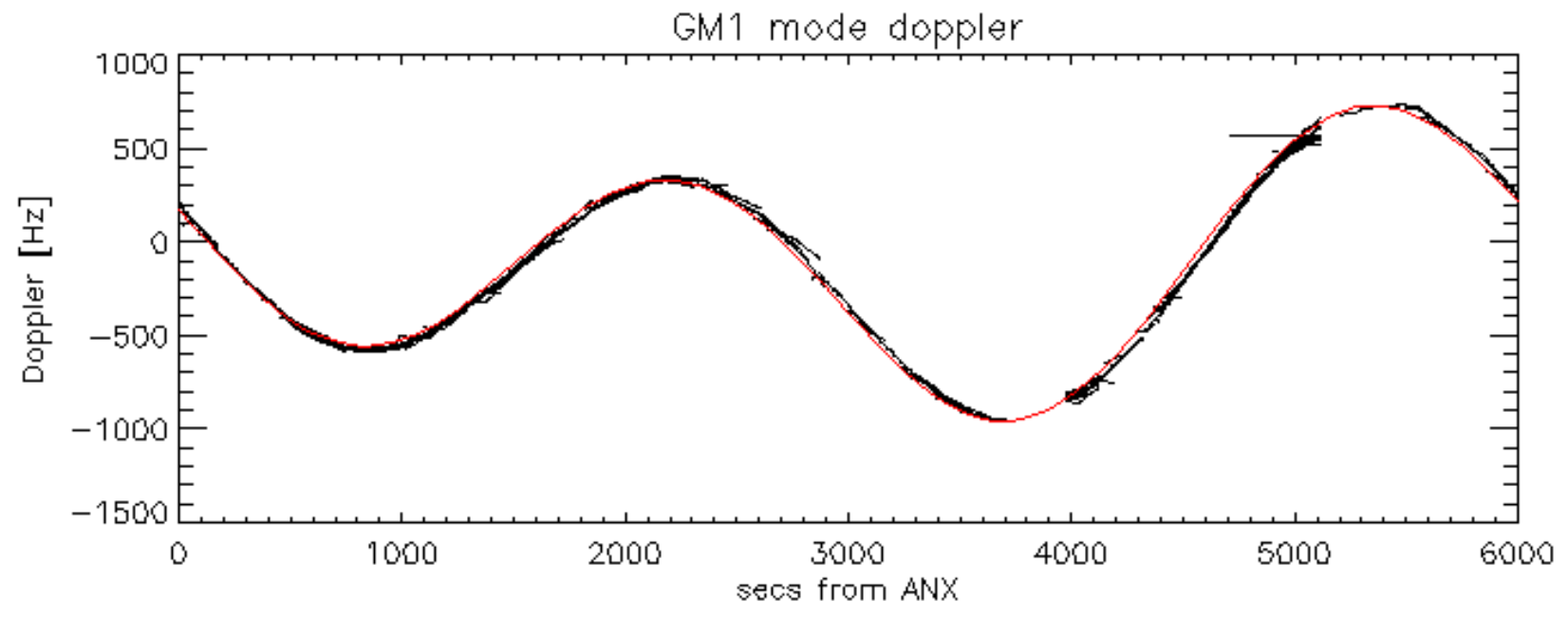


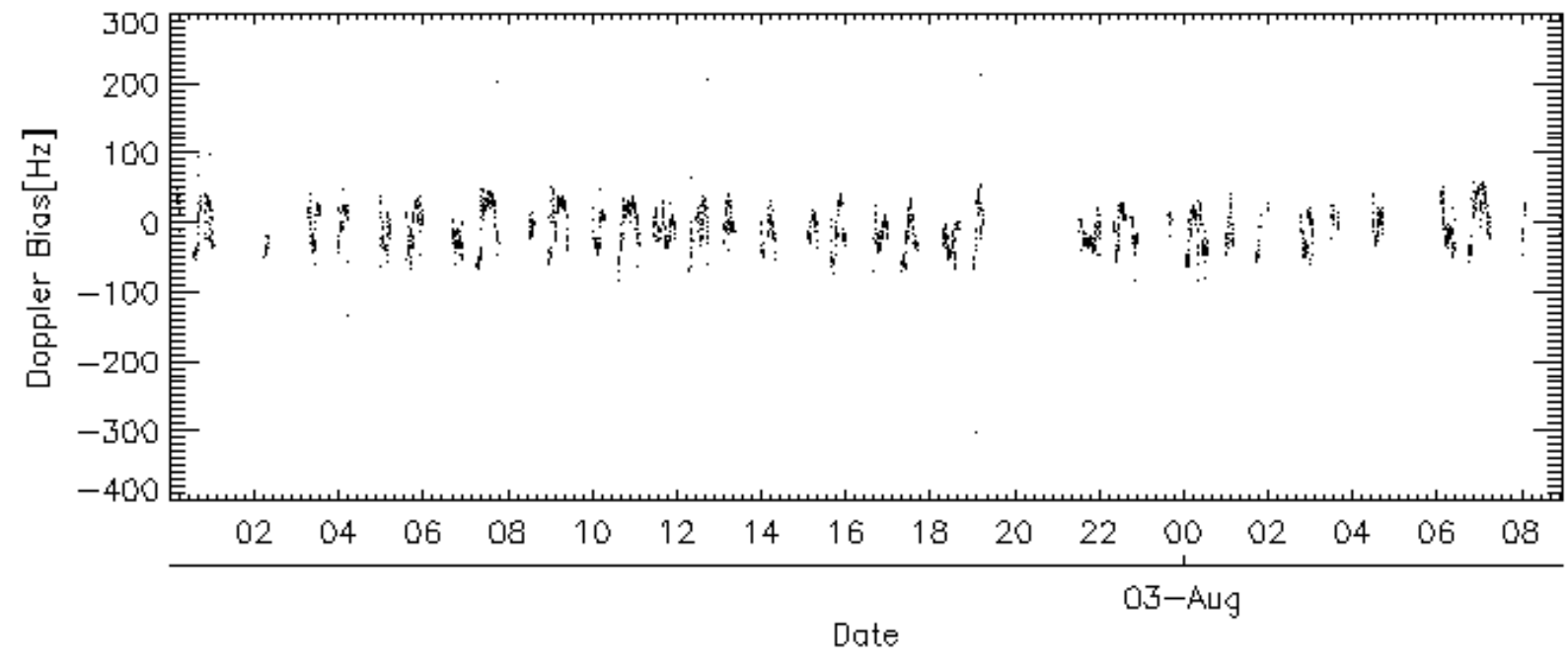
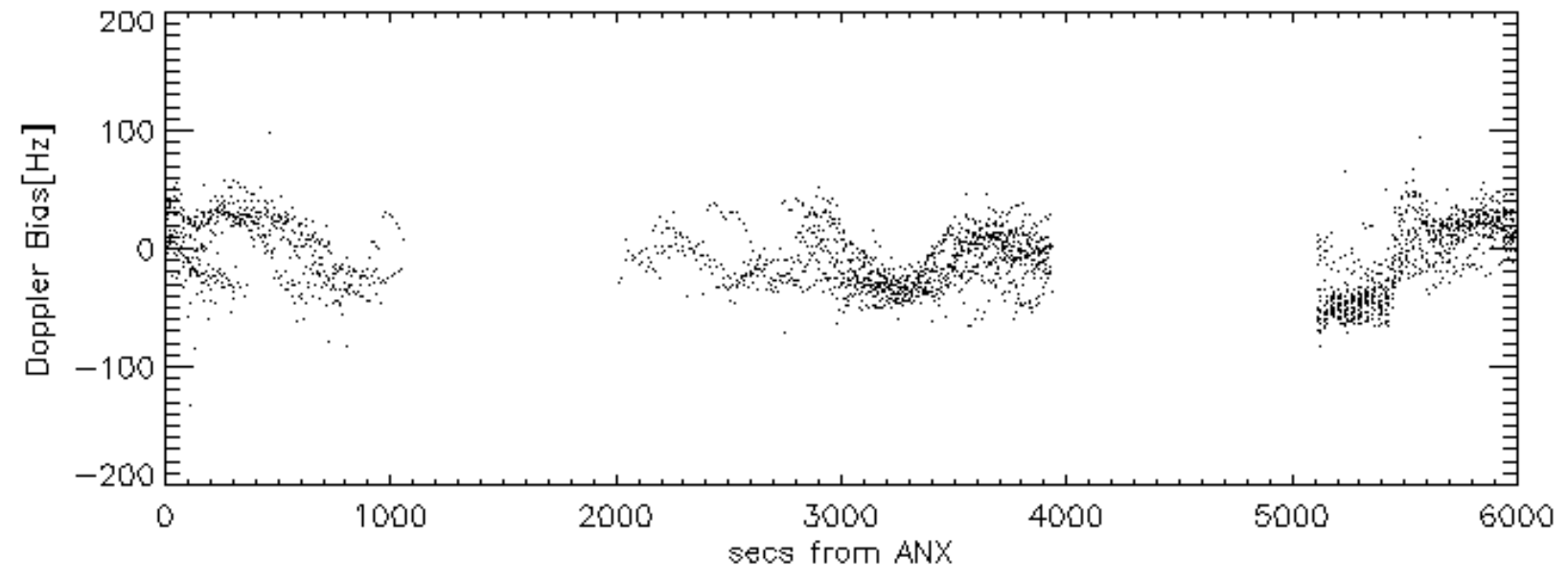
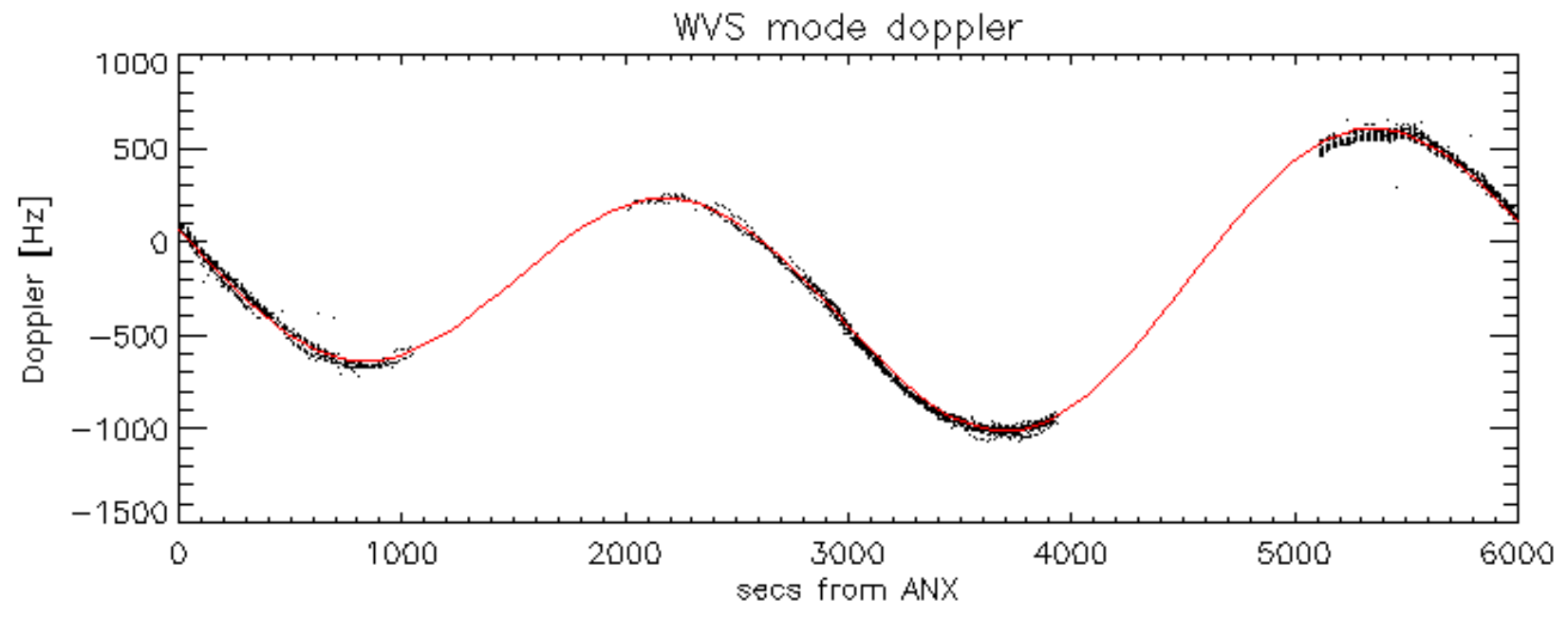
Doppler 'WVS' 'IS2' ascending



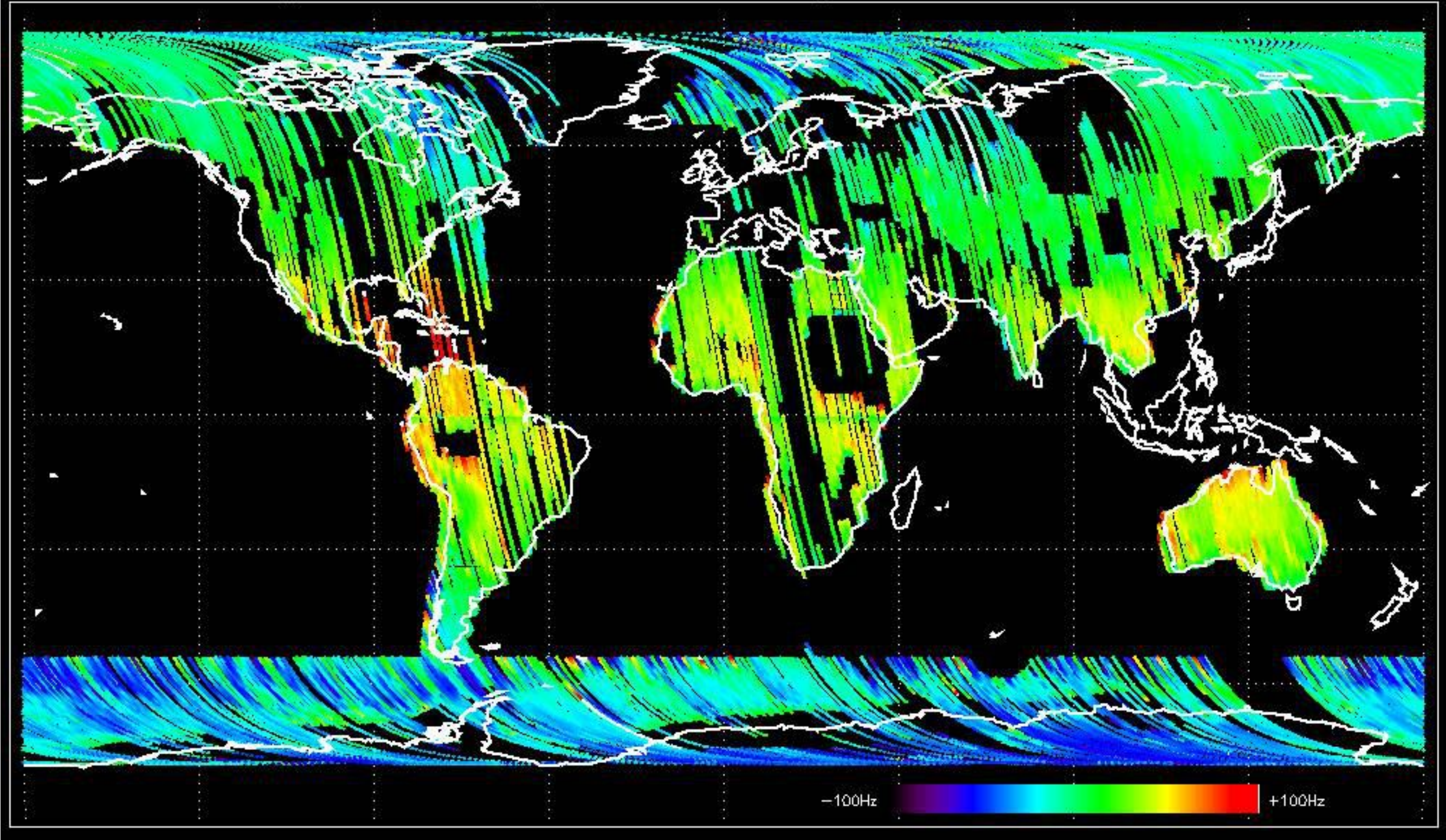
Doppler 'WVS' 'IS2' descending



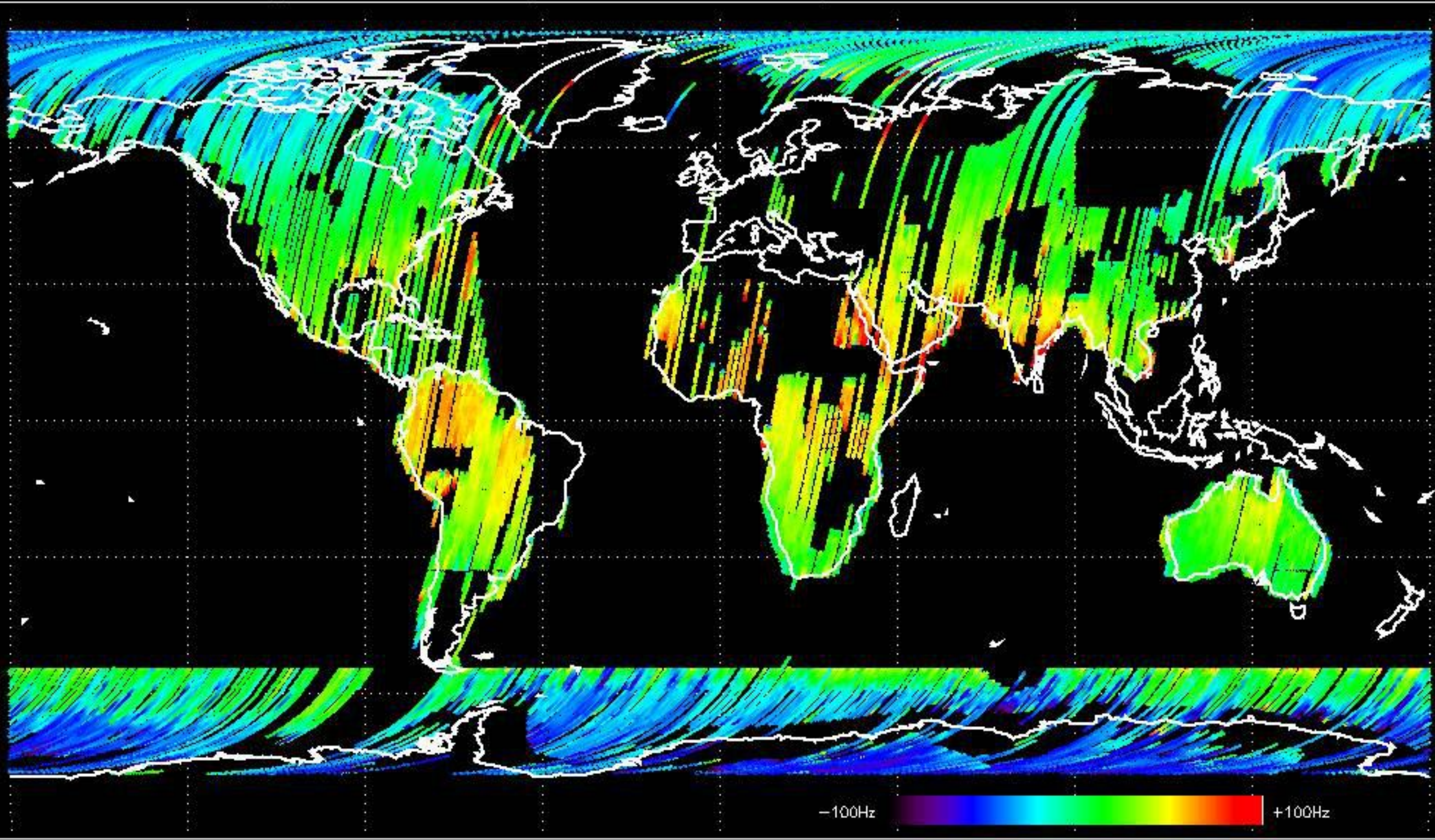




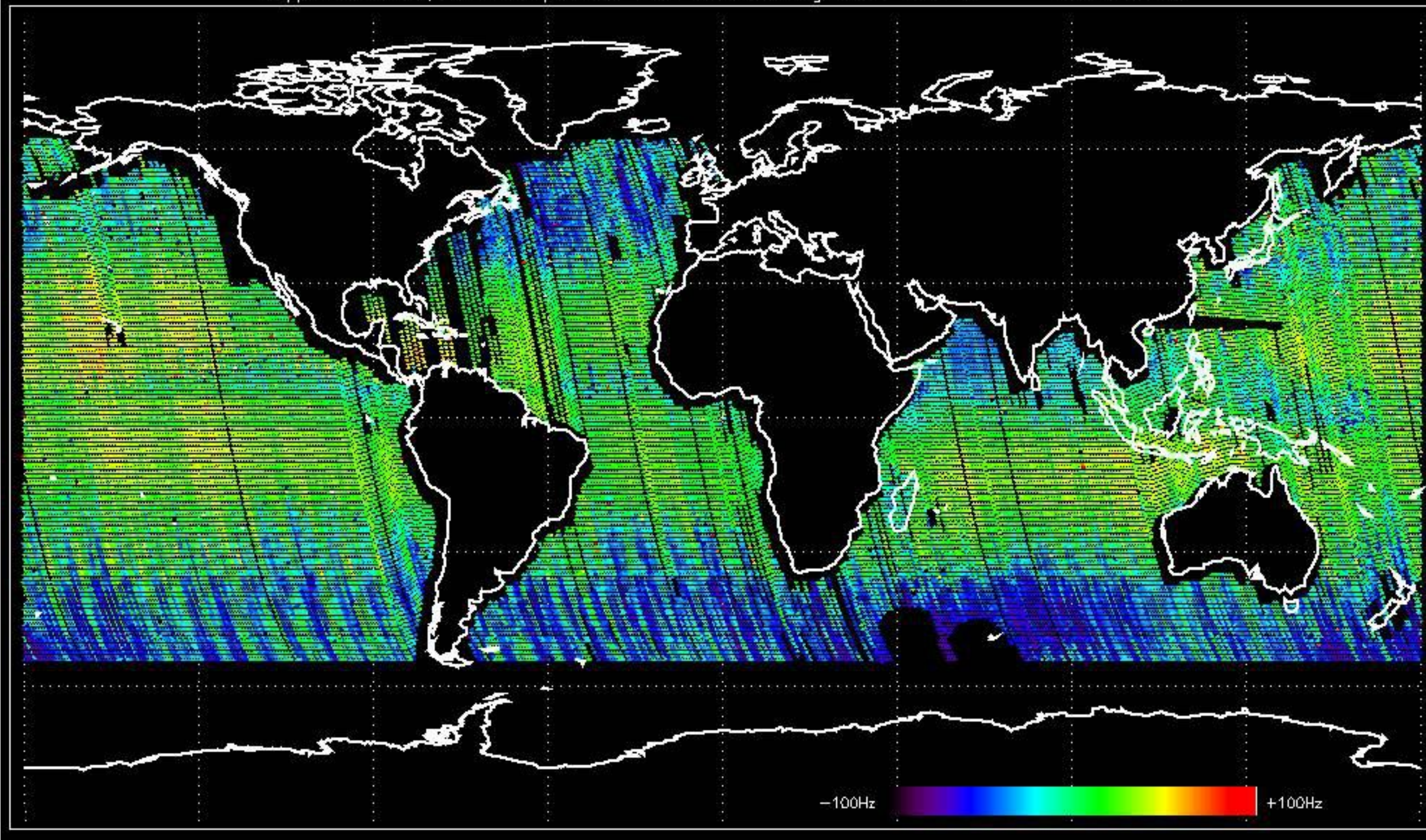
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.158066 Hz



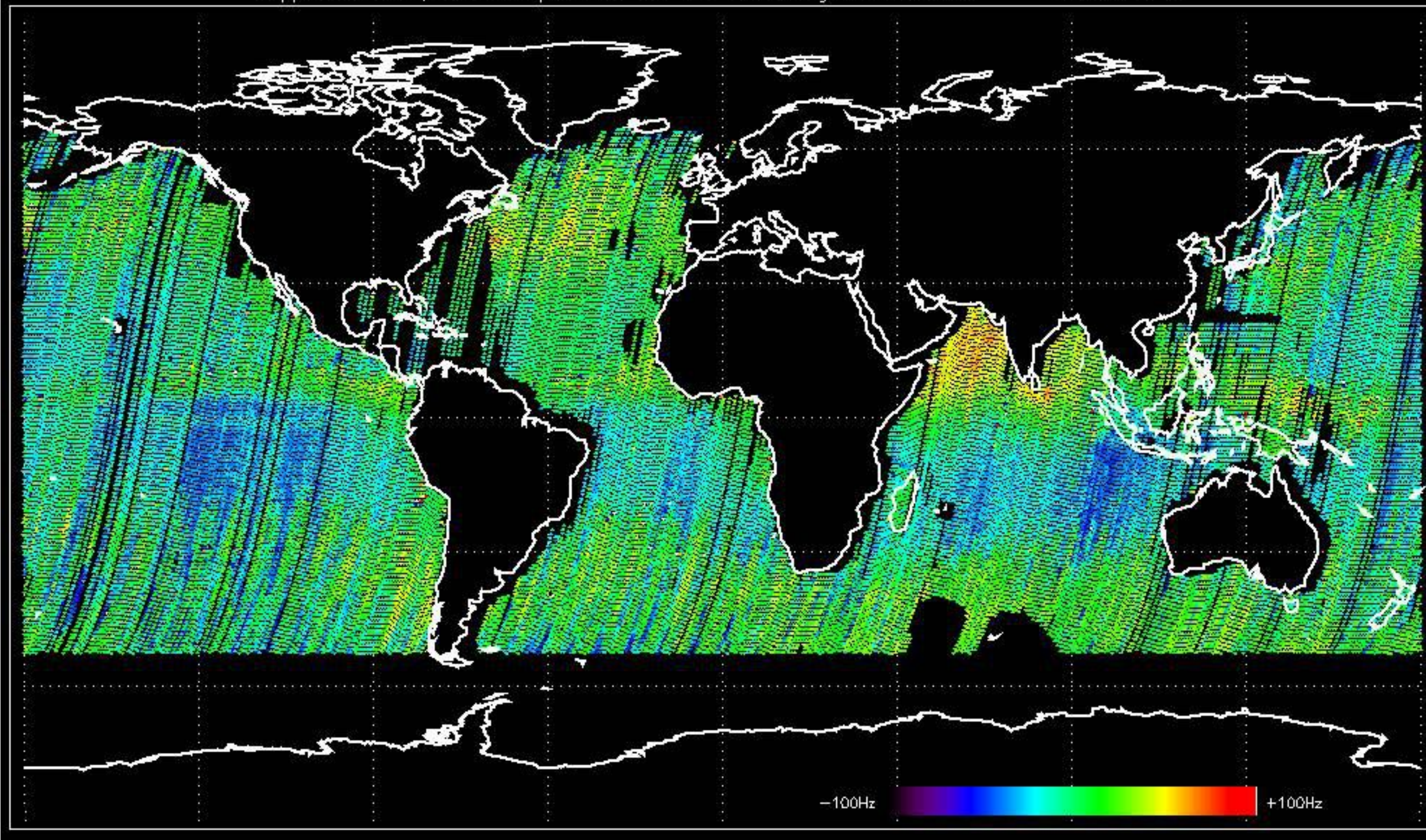
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.6150415 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.4342407 Hz

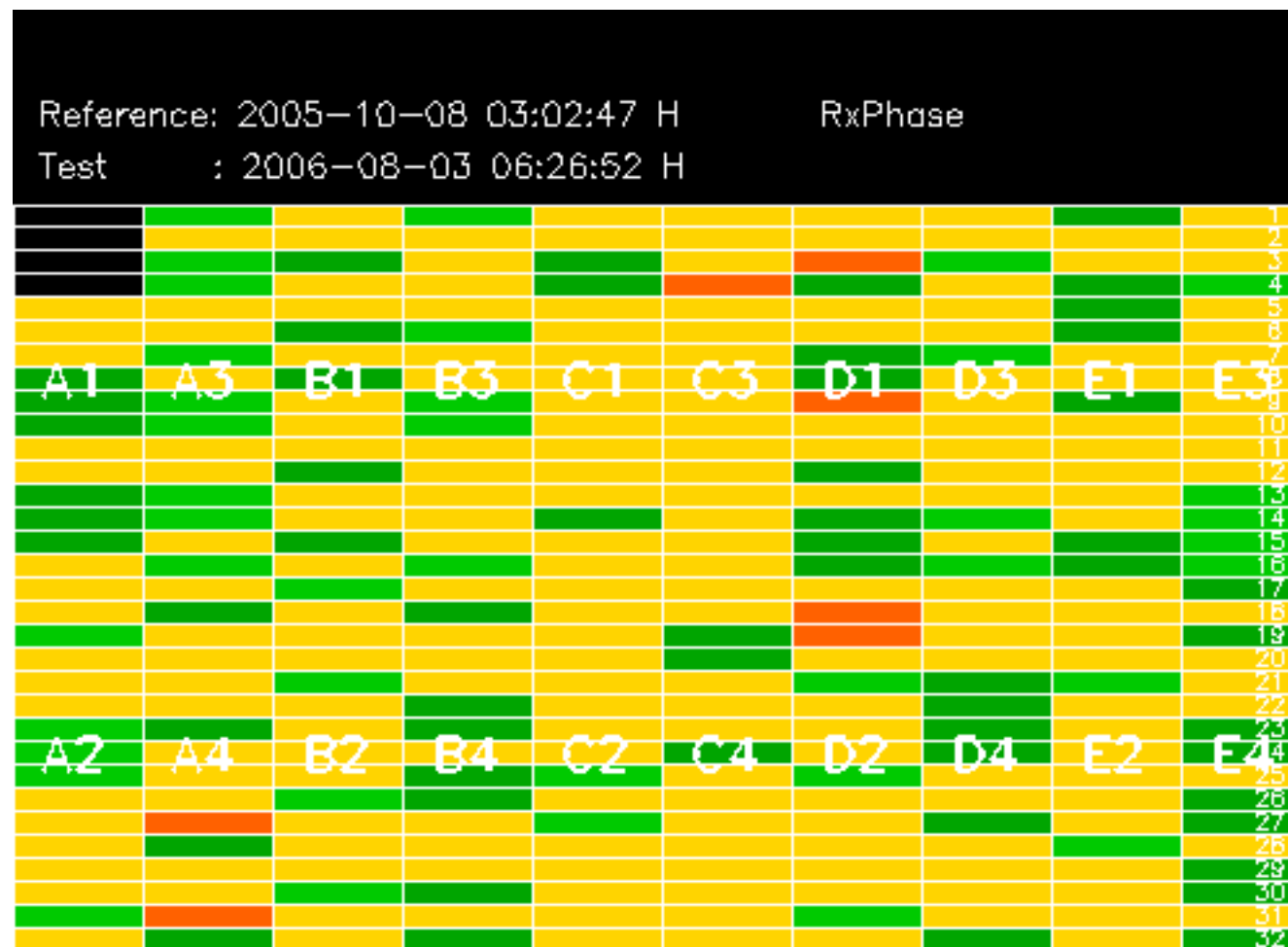


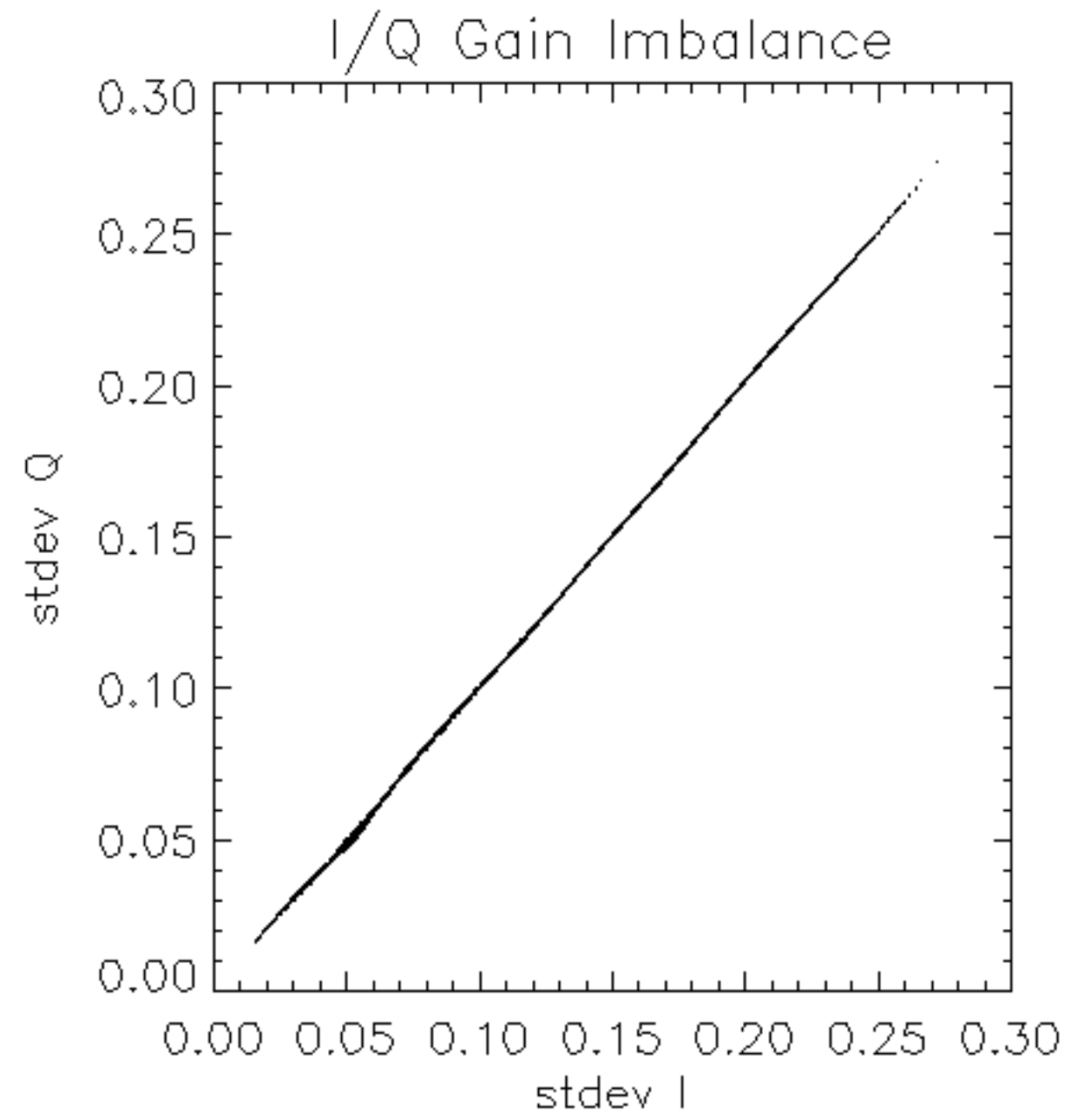
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.6831601 Hz

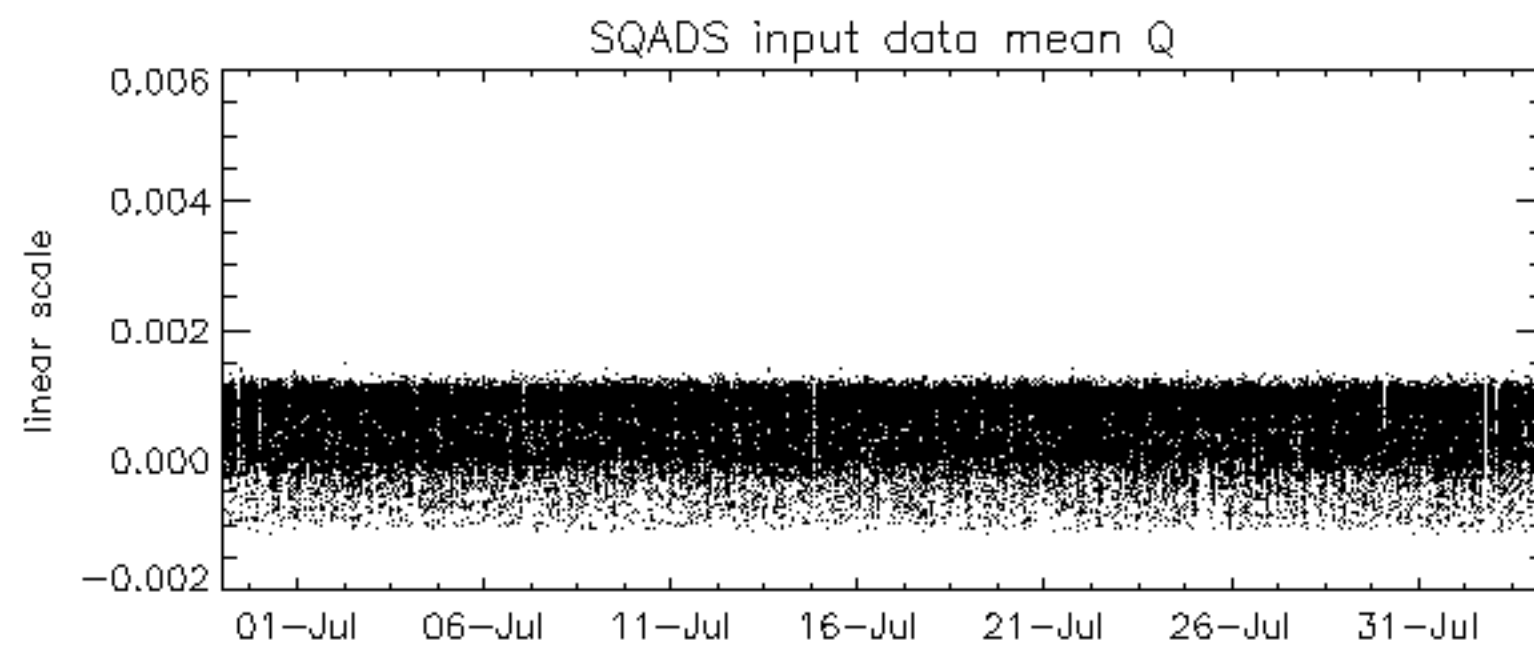
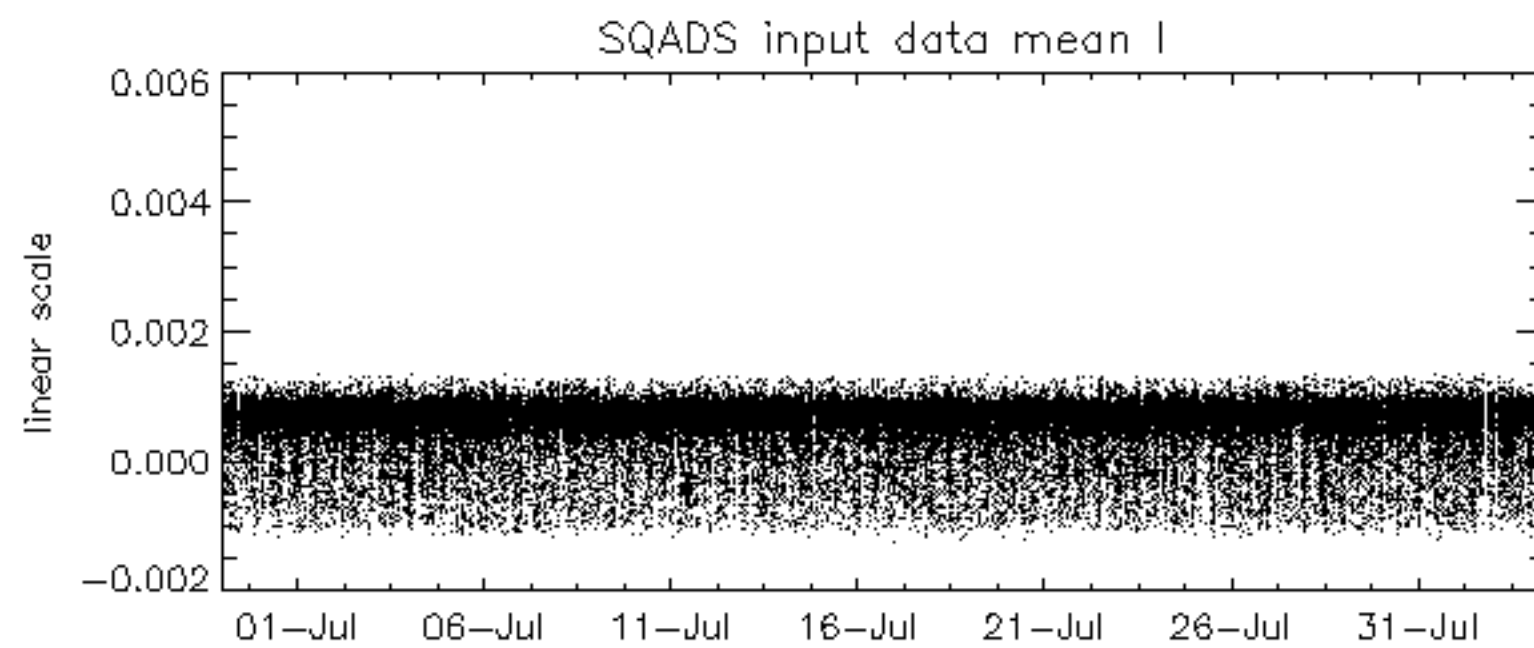
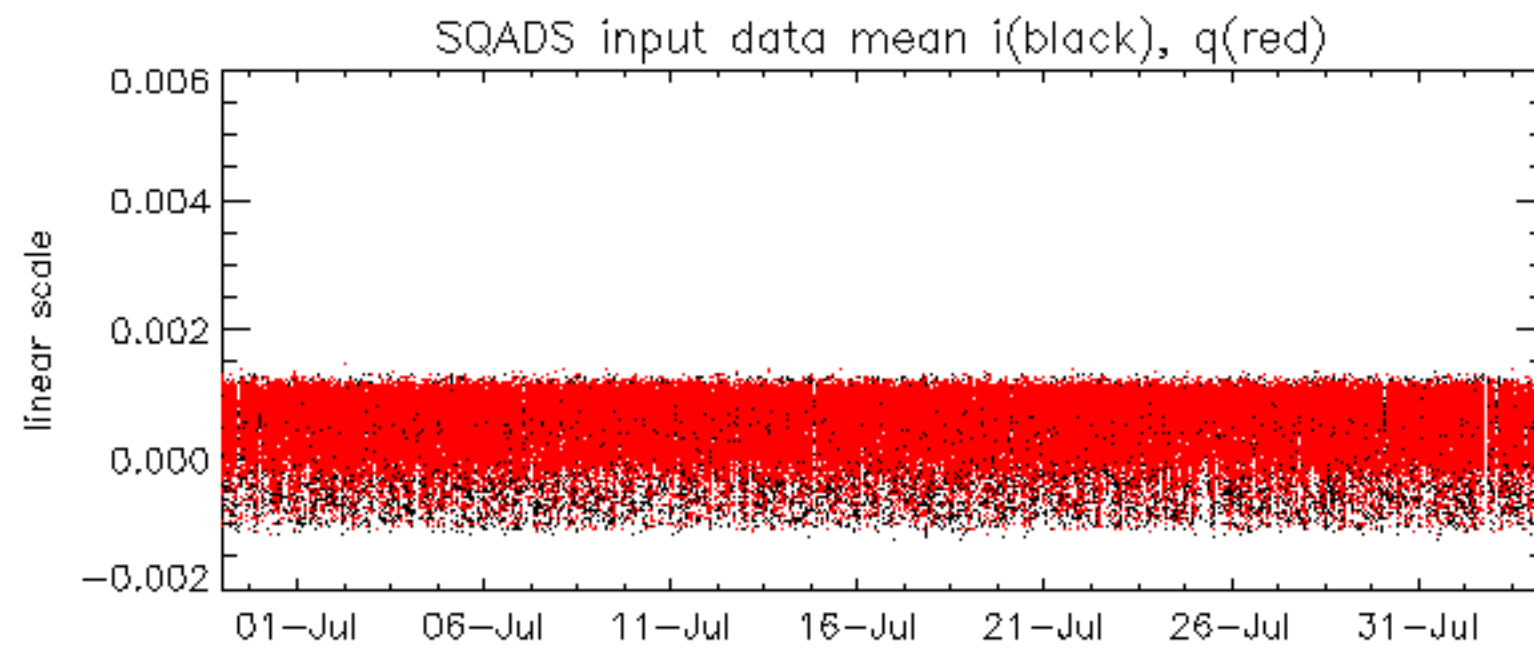


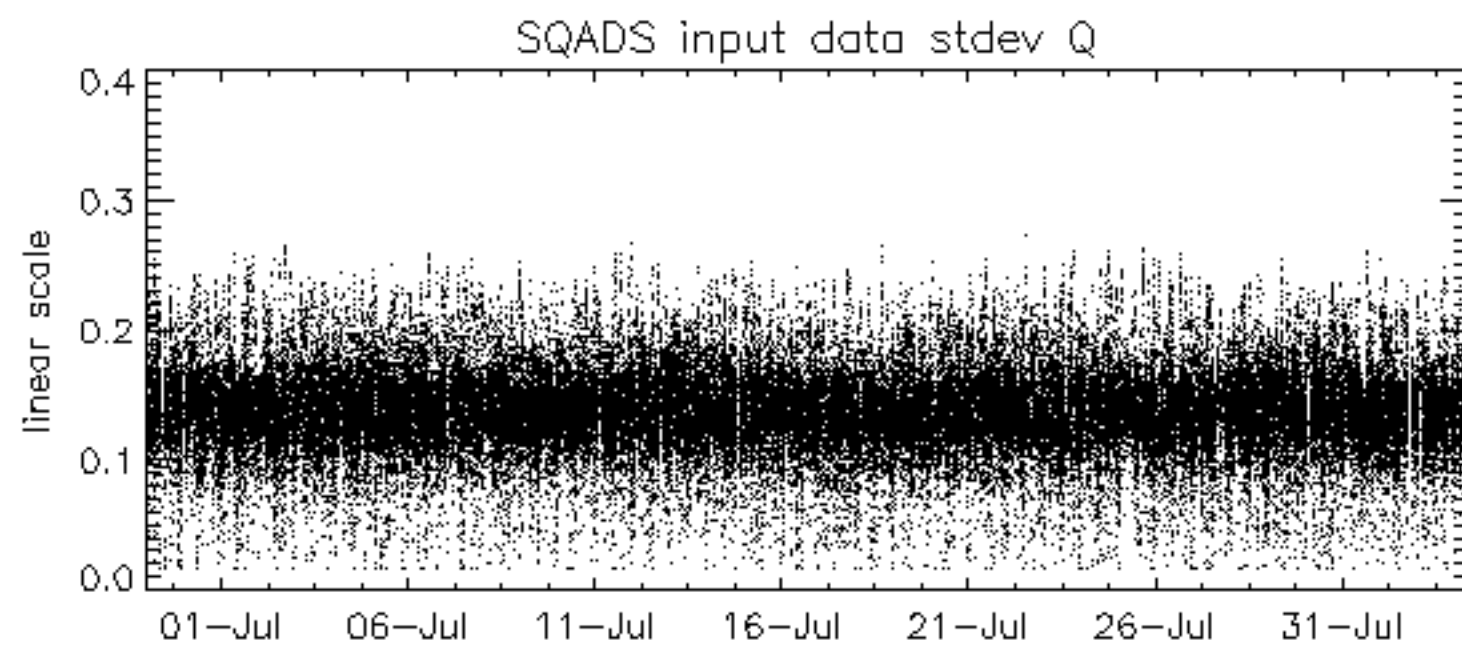
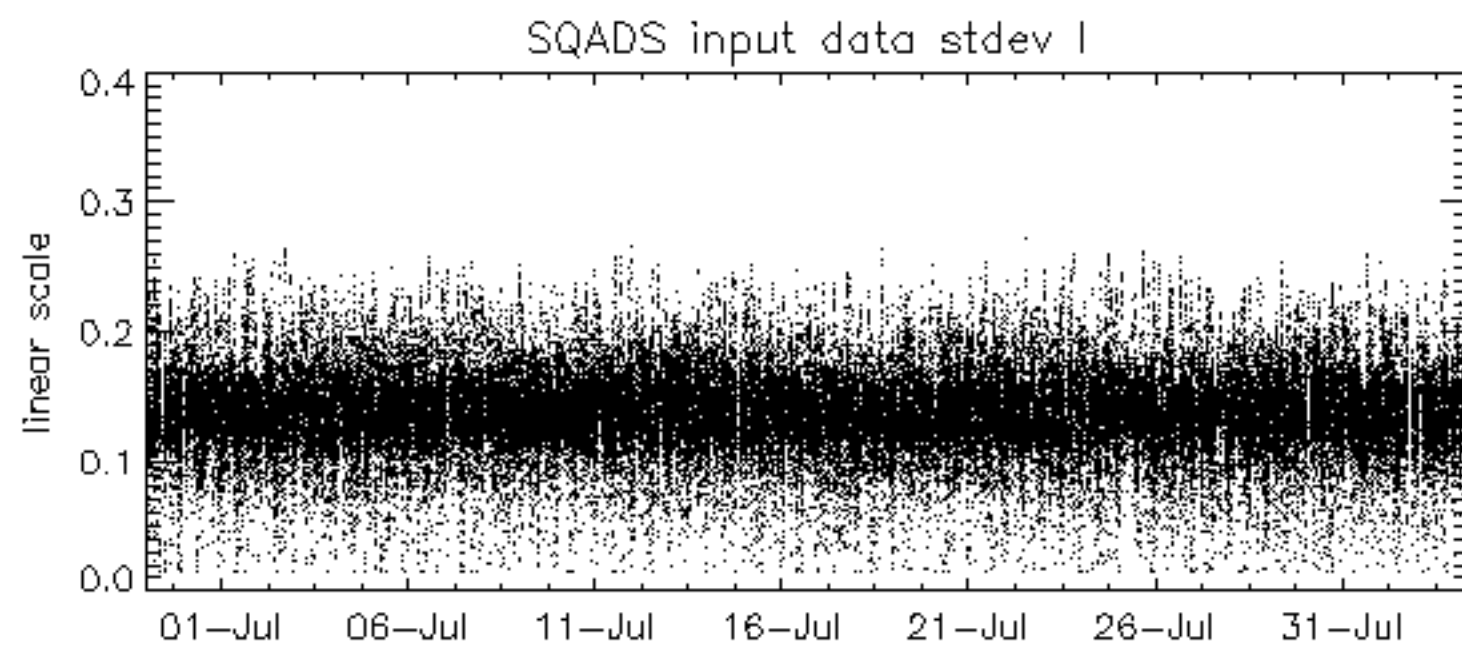
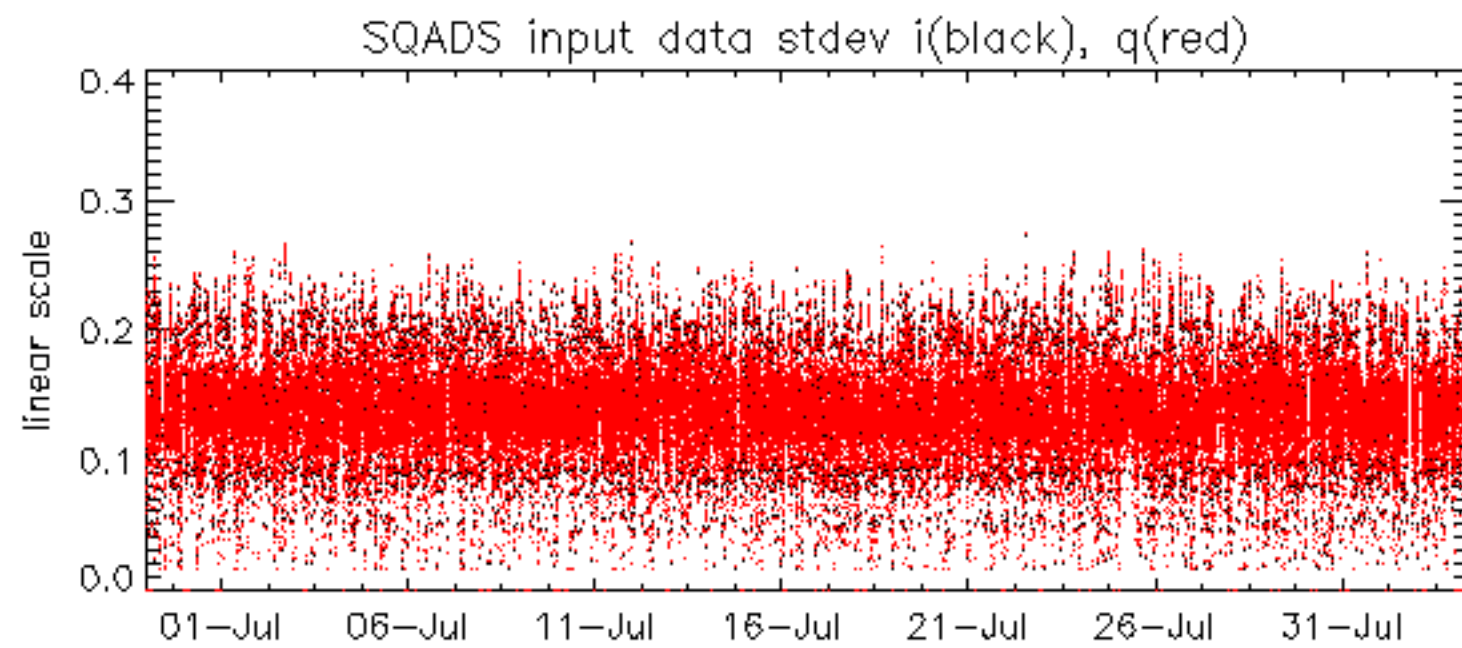
No anomalies observed on available MS products:

No anomalies observed.





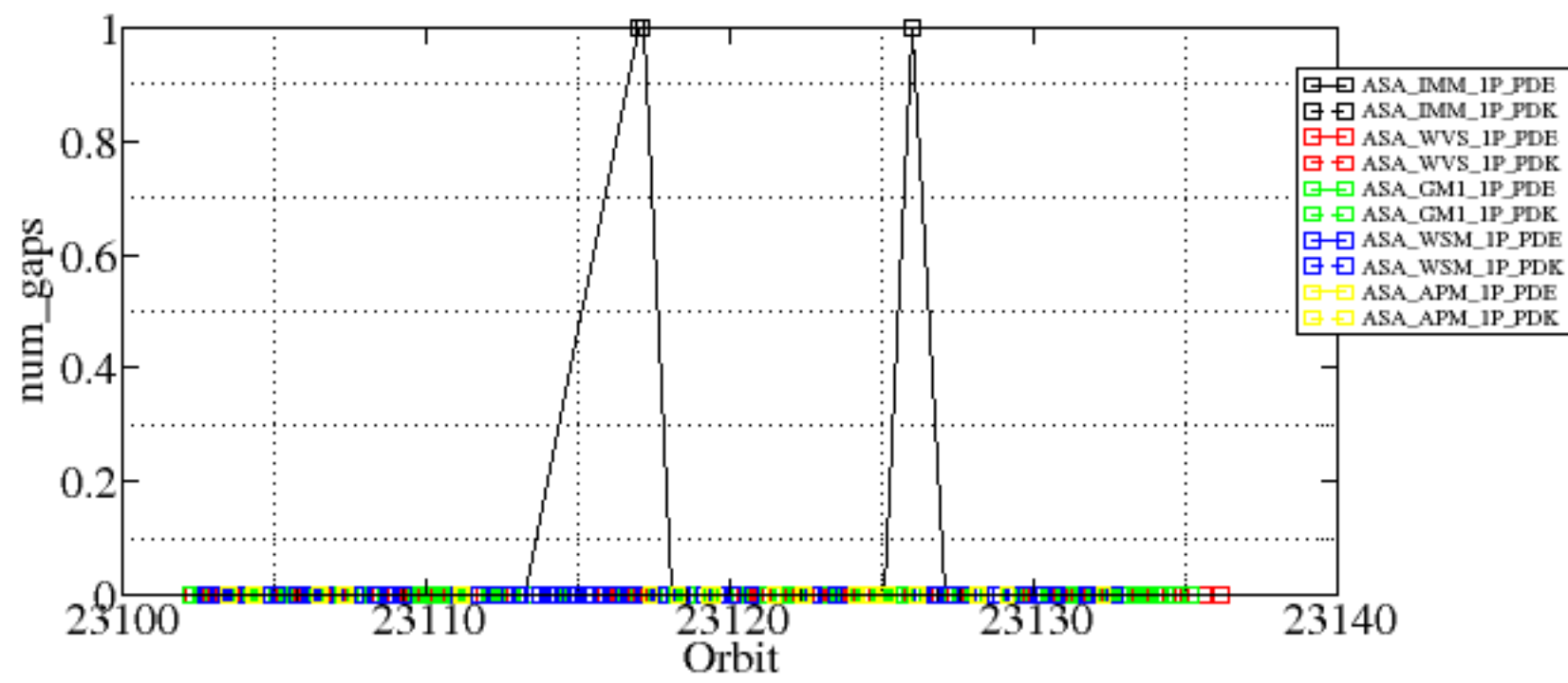


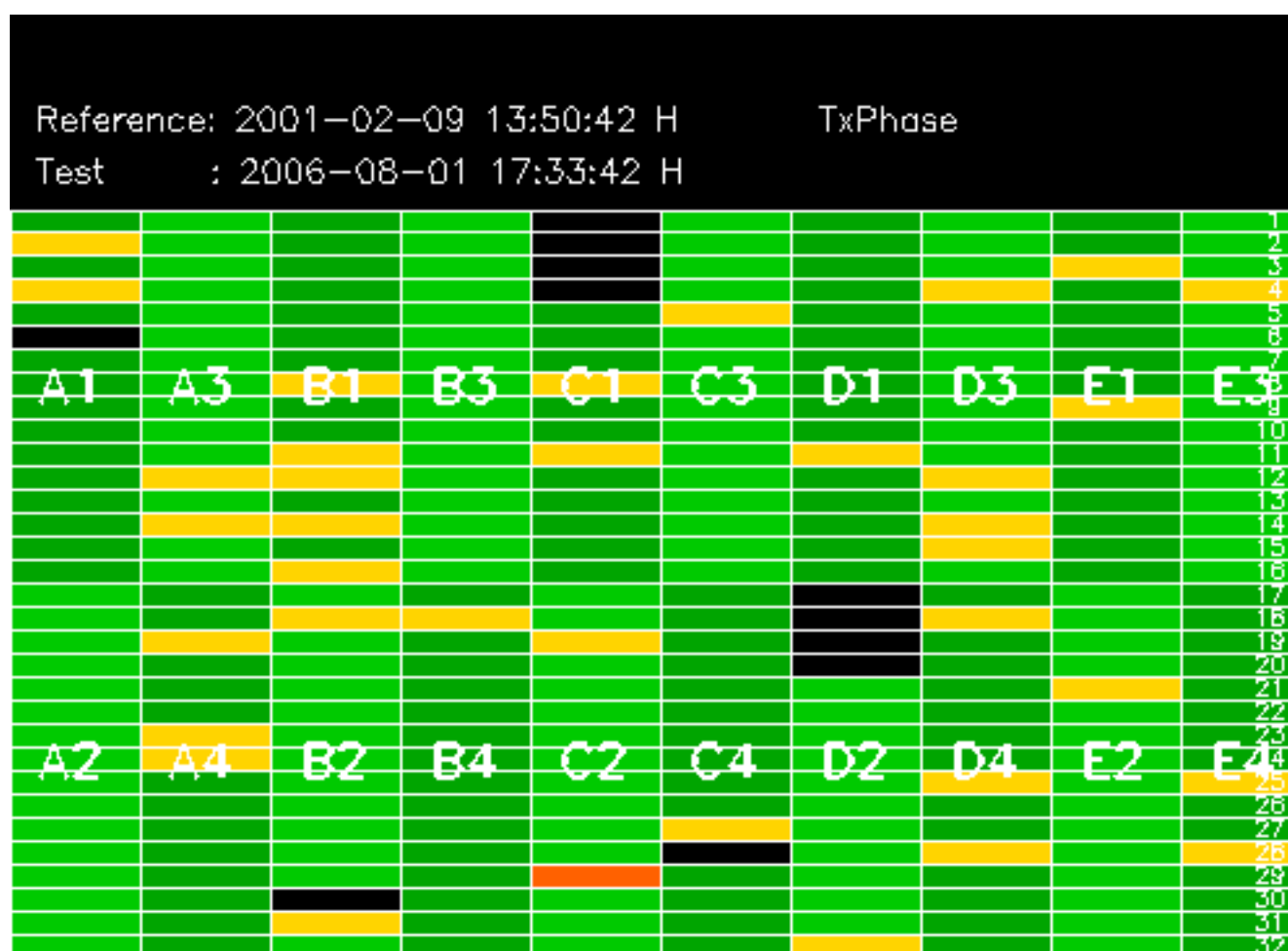


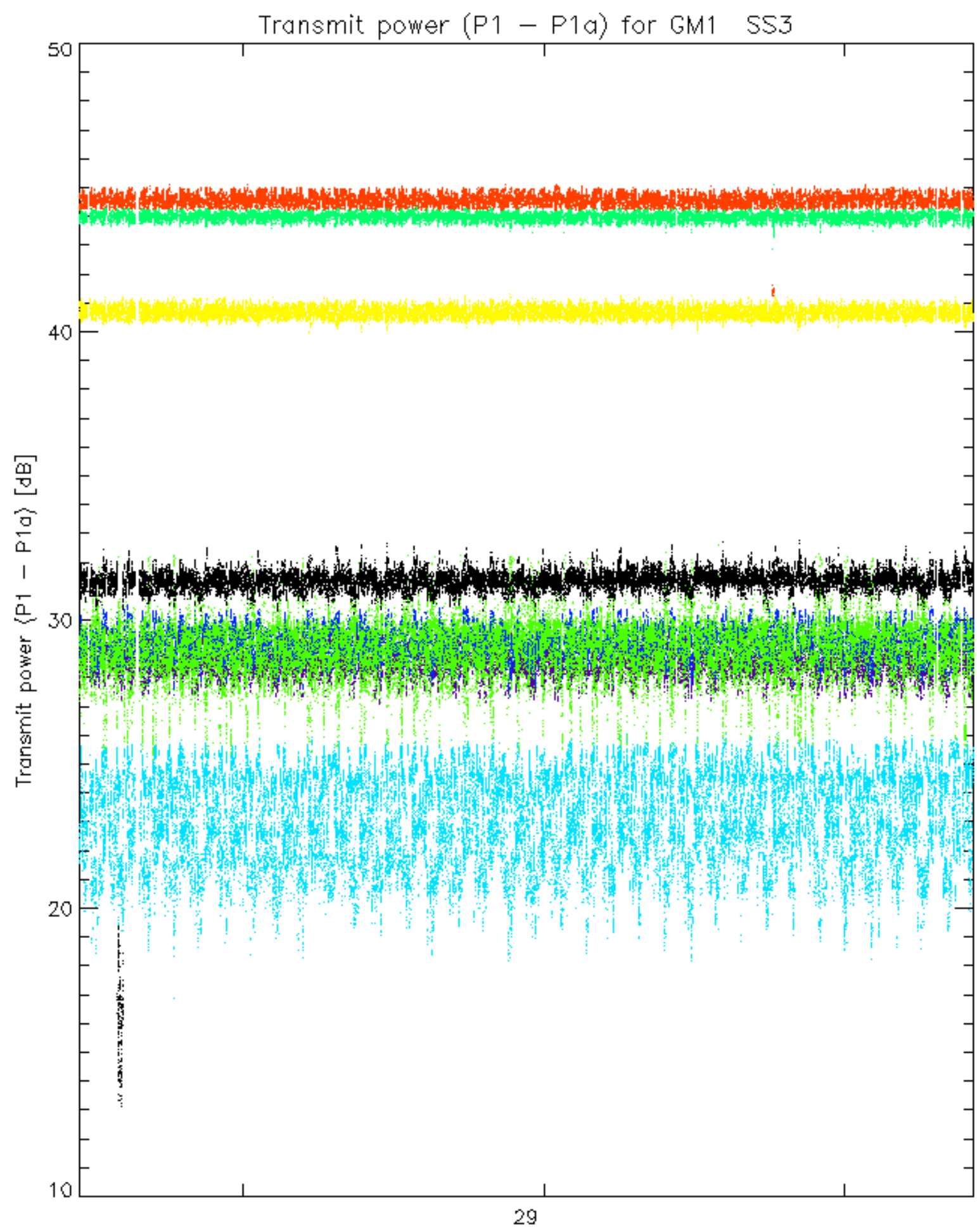
Summary of analysis for the last 3 days 2006080[123]

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

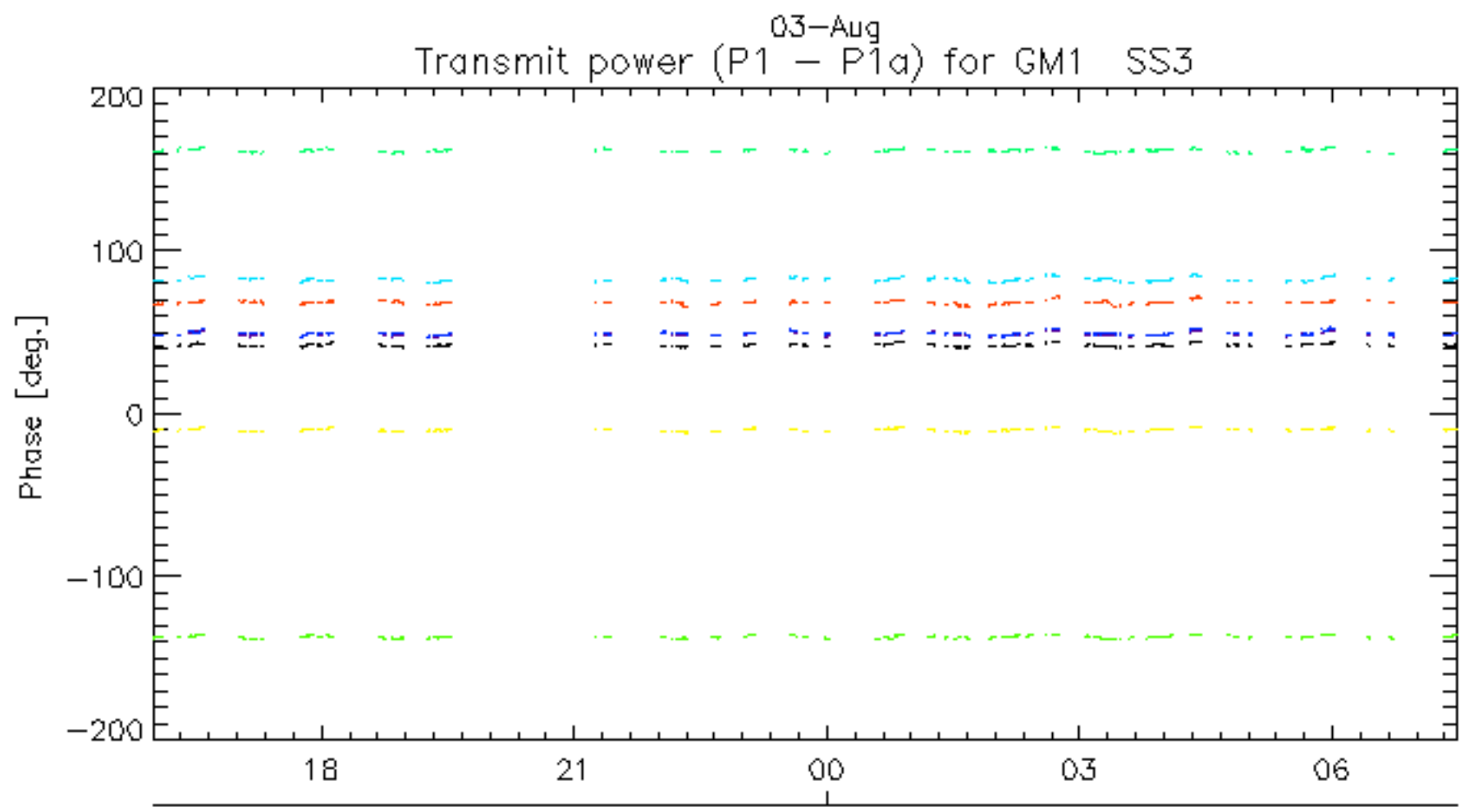
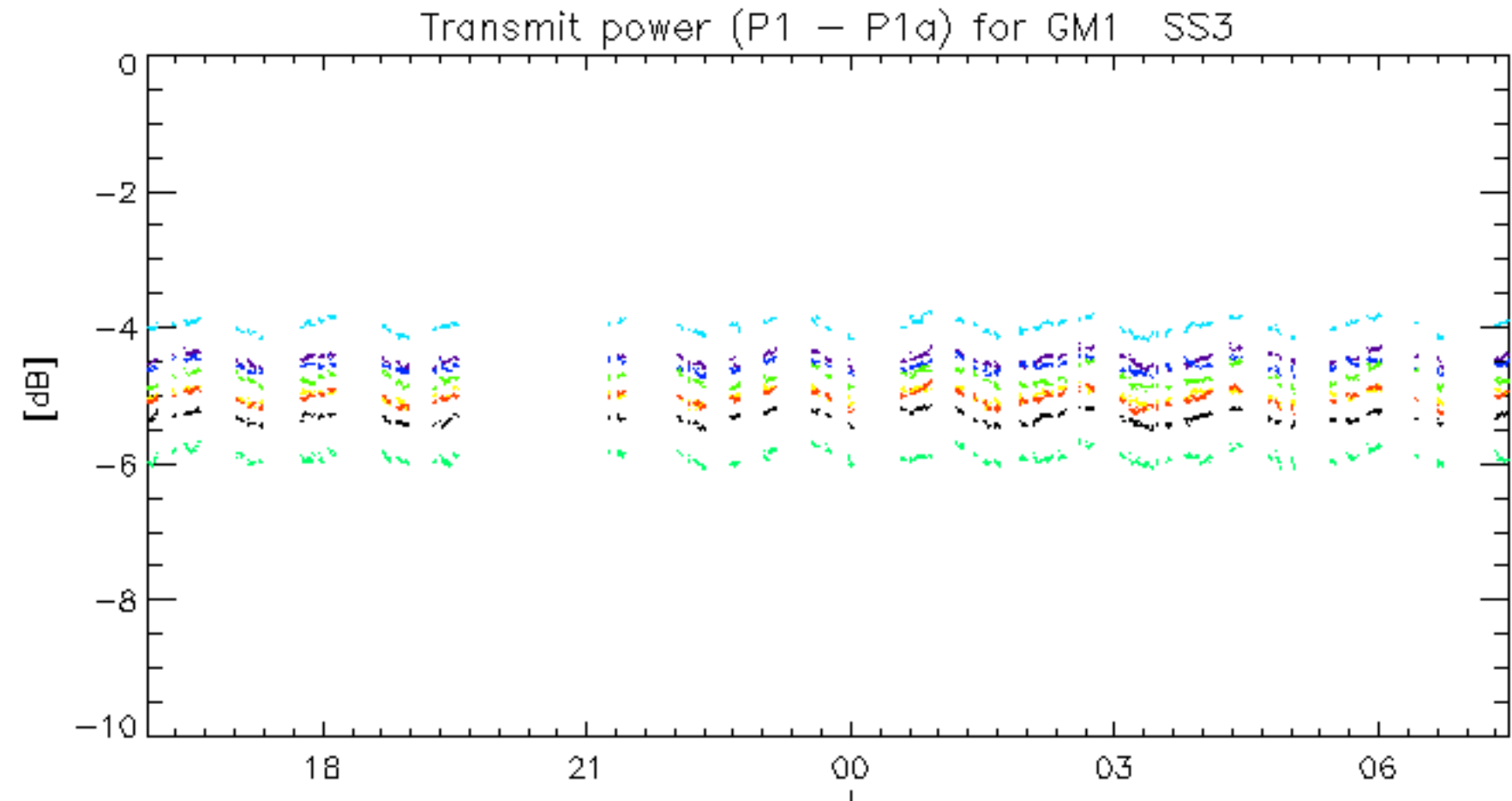
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060802_004523_000001932050_00016_23116_2770.N1	1	0
ASA_IMM_1PNPDE20060802_010204_000000692050_00017_23117_2773.N1	1	0
ASA_IMM_1PNPDE20060802_155516_000000502050_00026_23126_2816.N1	1	0
ASA_WSM_1PNPDE20060801_181151_000000852050_00013_23113_5337.N1	0	8
ASA_WSM_1PNPDE20060802_113753_000000852050_00023_23123_5463.N1	0	70



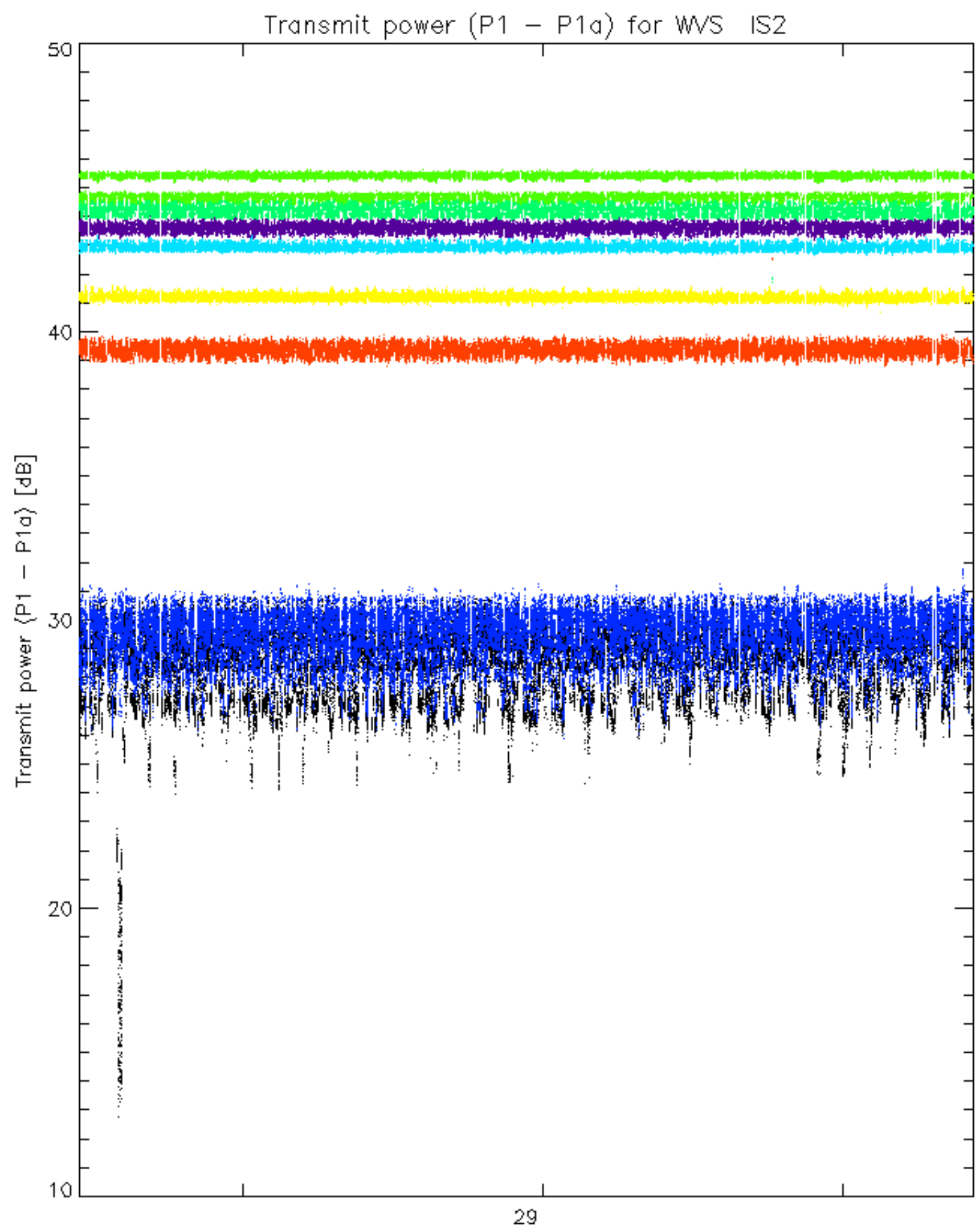




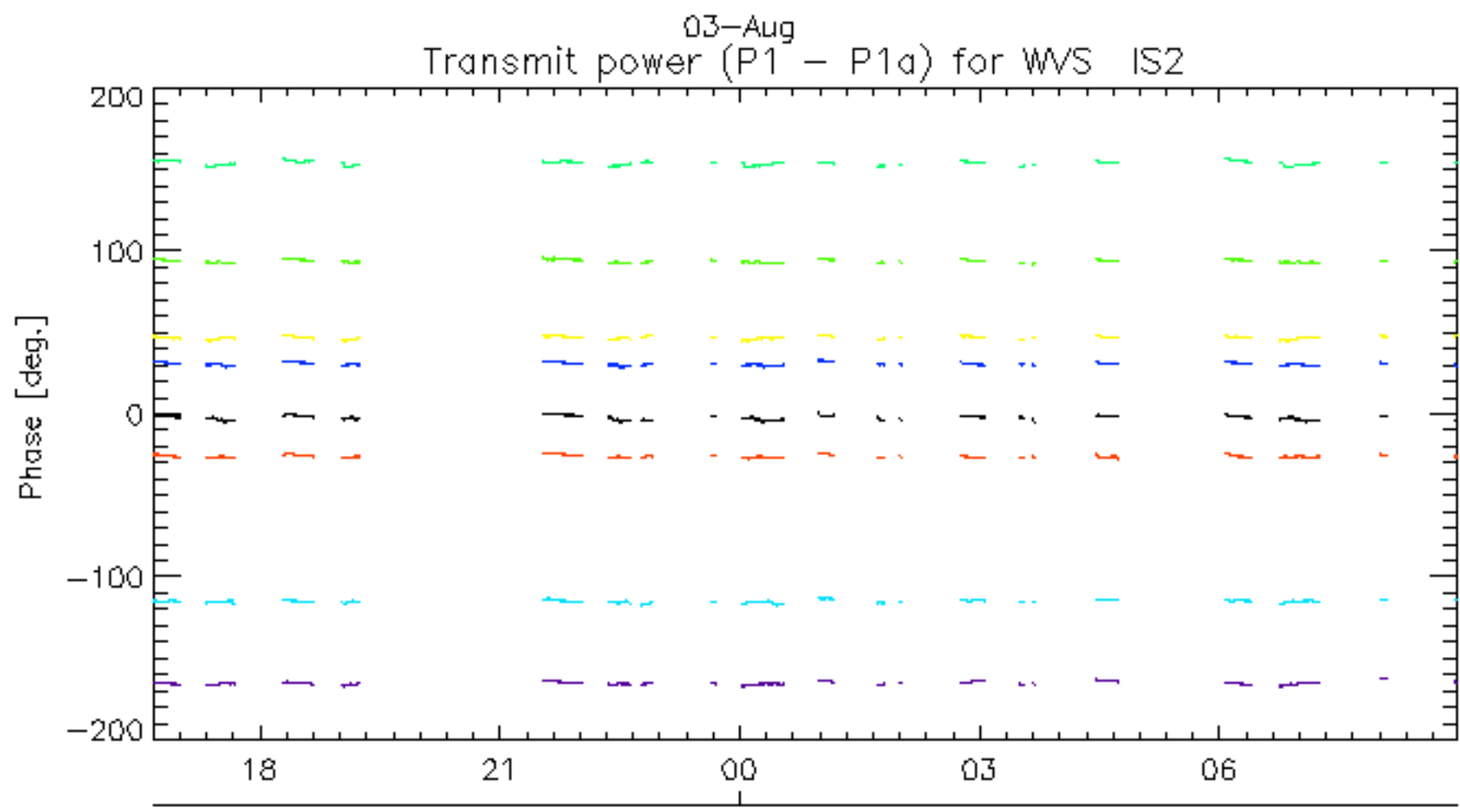
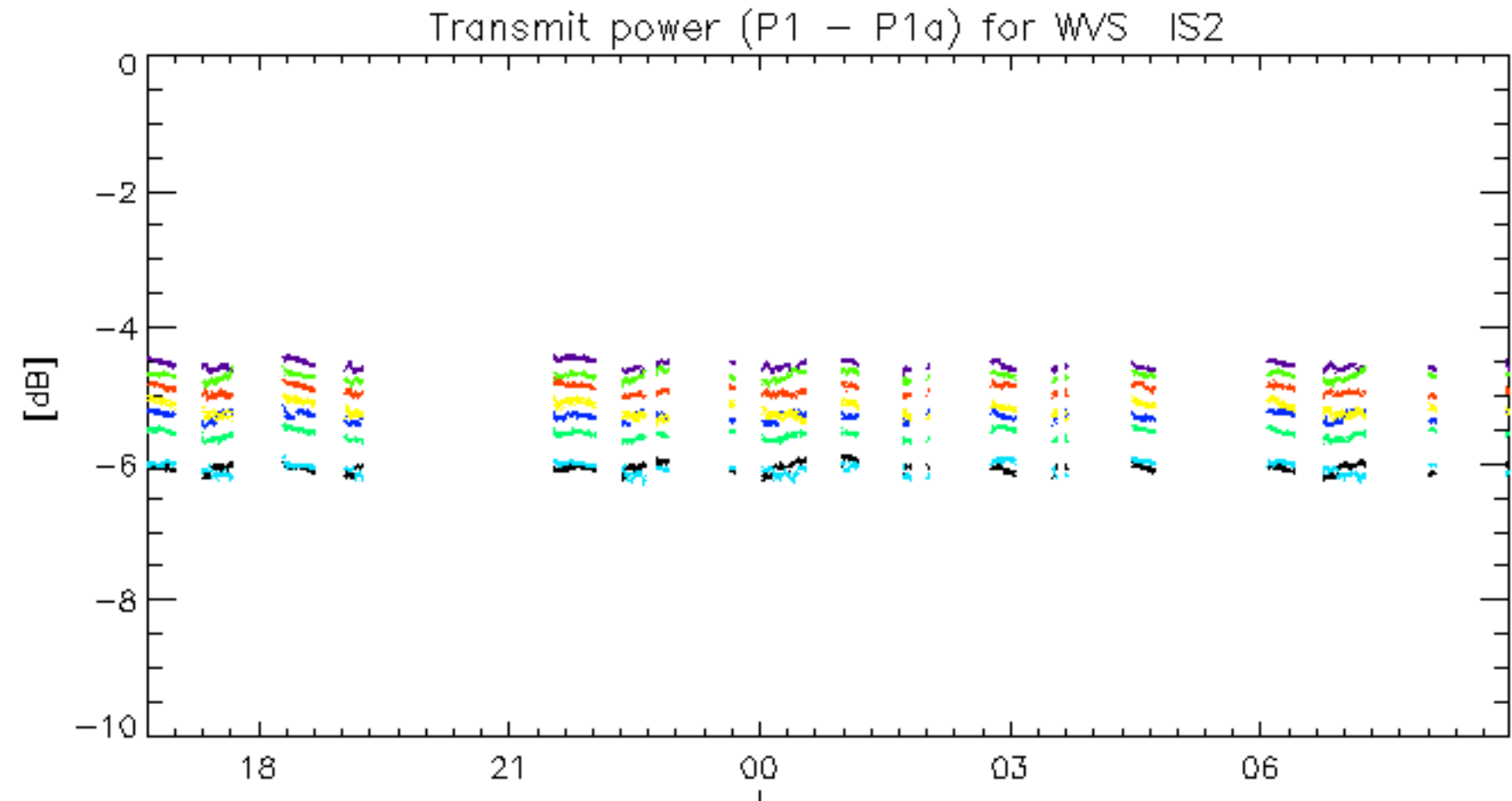
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



03-Aug
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No unavailabilities during the reported period.