

PRELIMINARY REPORT OF 060724

last update on Mon Jul 24 16:30:48 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 2006-07-23 00:00:00 to 2006-07-24 16:30:48

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	67	18	8	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	41	67	18	8	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	67	18	8	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	67	18	8	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	55	53	16	27
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	37	55	53	16	27
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	55	53	16	27
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	55	53	16	27

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	20060723 053216
H	20060722 060353

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	-3.933267	0.012095	-0.027350
7	P1	-3.101816	0.010400	0.003020
11	P1	-4.086193	0.013693	0.000717
15	P1	-6.172691	0.011477	-0.003843
19	P1	-3.399529	0.009325	-0.053235
22	P1	-4.548139	0.010255	-0.031790
26	P1	-3.930275	0.019791	0.028407
30	P1	-5.762663	0.008102	-0.003947
3	P1	-16.512917	0.321866	-0.059567
7	P1	-17.193354	0.103242	-0.038043
11	P1	-16.982882	0.276505	-0.018030
15	P1	-13.109320	0.149667	0.050304
19	P1	-14.451606	0.049082	-0.127407
22	P1	-16.020855	0.422608	-0.001076
26	P1	-15.126785	0.235834	0.082952
30	P1	-17.099281	0.346009	-0.043017

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.980959	0.087956	0.139054
7	P2	-21.918688	0.105401	0.076333
11	P2	-15.795689	0.121692	0.060729
15	P2	-7.130582	0.100725	0.023980
19	P2	-9.134503	0.091883	0.007251
22	P2	-18.150061	0.086626	0.000391
26	P2	-16.399563	0.094050	-0.021030
30	P2	-19.523695	0.093425	0.037684

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175157	0.002982	0.001620
7	P3	-8.175157	0.002982	0.001620
11	P3	-8.175157	0.002982	0.001620
15	P3	-8.175157	0.002982	0.001620
19	P3	-8.175157	0.002982	0.001620
22	P3	-8.175157	0.002982	0.001620
26	P3	-8.175157	0.002982	0.001620
30	P3	-8.175157	0.002982	0.001620

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	-3.806247	0.025907	-0.096215
7	P1	-2.560549	0.008001	0.018988
11	P1	-2.857849	0.014473	0.020367
15	P1	-3.569098	0.029279	-0.045471
19	P1	-3.418287	0.013303	-0.013820
22	P1	-5.089362	0.019985	0.026344
26	P1	-5.859357	0.015717	-0.013521
30	P1	-5.192536	0.026632	-0.004603
3	P1	-11.591971	0.086742	-0.126192
7	P1	-9.969132	0.034209	0.037828
11	P1	-10.247286	0.056796	0.010219
15	P1	-10.755480	0.145821	-0.011412
19	P1	-15.532114	0.074006	-0.024966
22	P1	-20.911472	1.231108	0.020250

26	P1	-16.301844	0.380488	0.226263
30	P1	-17.907982	0.410068	-0.147413

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.623255	0.070777	0.215684
7	P2	-22.399862	0.126779	0.147502
11	P2	-11.050591	0.041921	0.088605
15	P2	-4.911560	0.045896	0.044449
19	P2	-6.874080	0.041162	0.034240
22	P2	-8.196165	0.037032	0.026023
26	P2	-24.182726	0.062117	0.034220
30	P2	-22.013800	0.049859	0.059565

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.013894	0.003744	0.013526
7	P3	-8.013866	0.003743	0.013699
11	P3	-8.013739	0.003757	0.013414
15	P3	-8.013852	0.003748	0.013612
19	P3	-8.013892	0.003747	0.013469
22	P3	-8.013867	0.003736	0.013400
26	P3	-8.013895	0.003742	0.013167
30	P3	-8.013866	0.003739	0.013571

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	0.000565228
	stdev	1.66748e-07
MEAN Q	mean	0.000541361
	stdev	2.12260e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137979
	stdev	0.00108270
STDEV Q	mean	0.138338
	stdev	0.00110063



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006072[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_1PNPDE20060722_182653_000000352049_00371_22970_1645.N1	0	16
ASA_IMM_1PNPDE20060723_142730_000000342049_00382_22981_1791.N1	1	0
ASA_WSM_1PNPDE20060723_161437_000001092049_00384_22983_4126.N1	0	49
ASA_WSM_1PNPDE20060723_234035_000000852049_00388_22987_4163.N1	0	29
ASA_WSM_1PNPDK20060722_103053_000000862049_00366_22965_1789.N1	0	5



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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

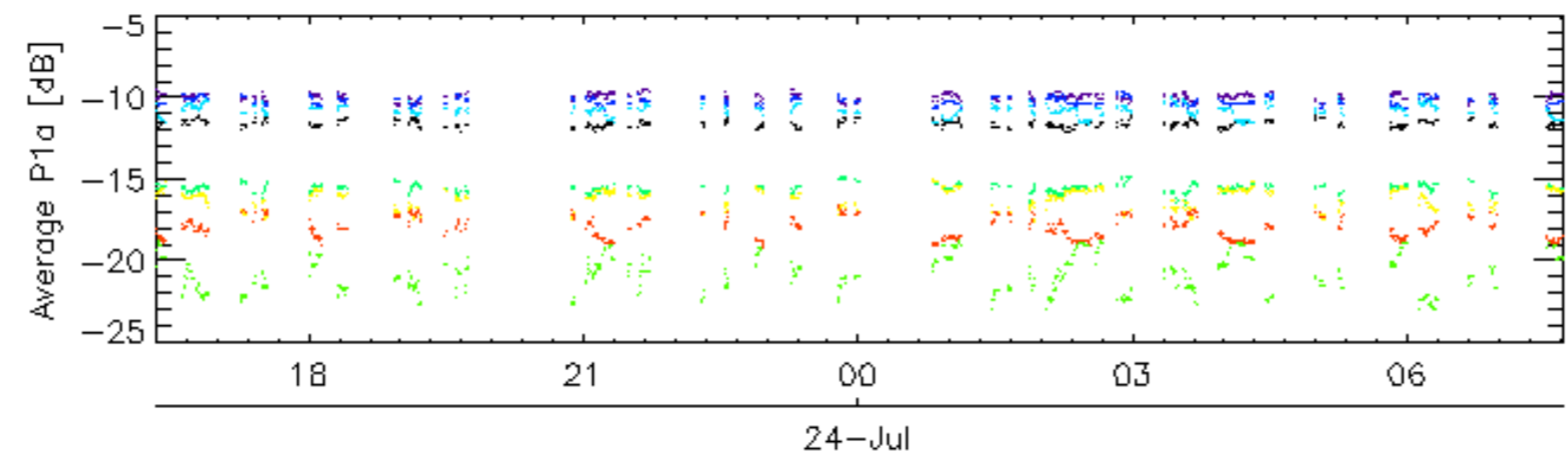
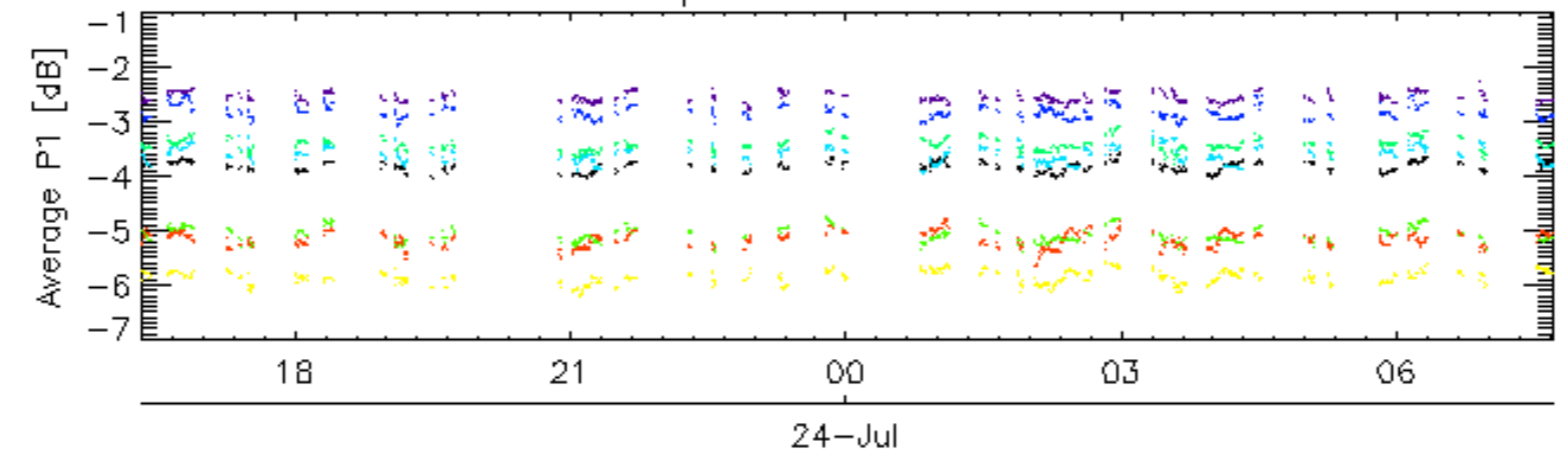
<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

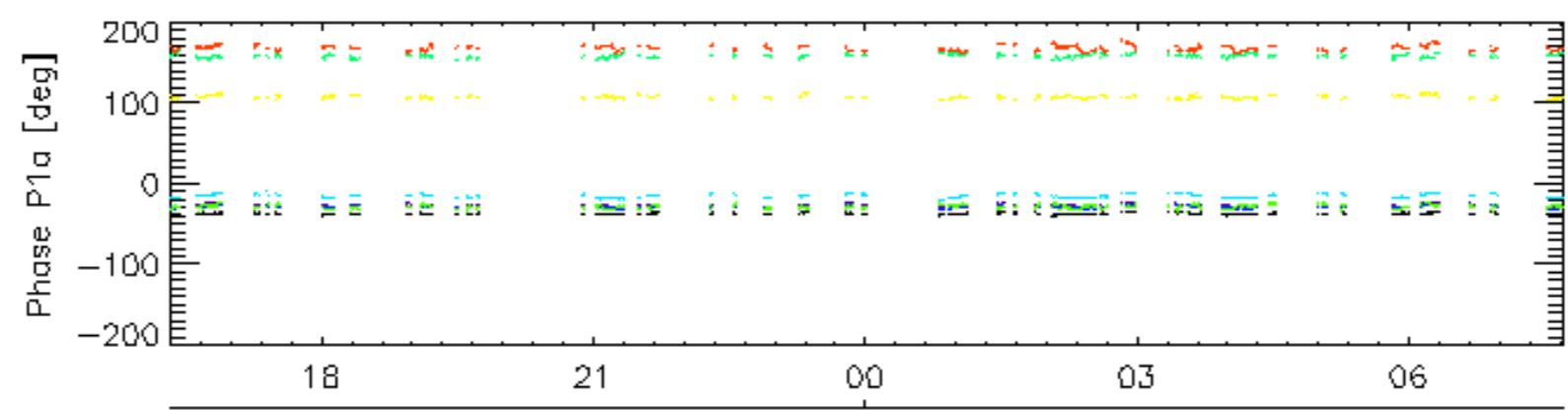
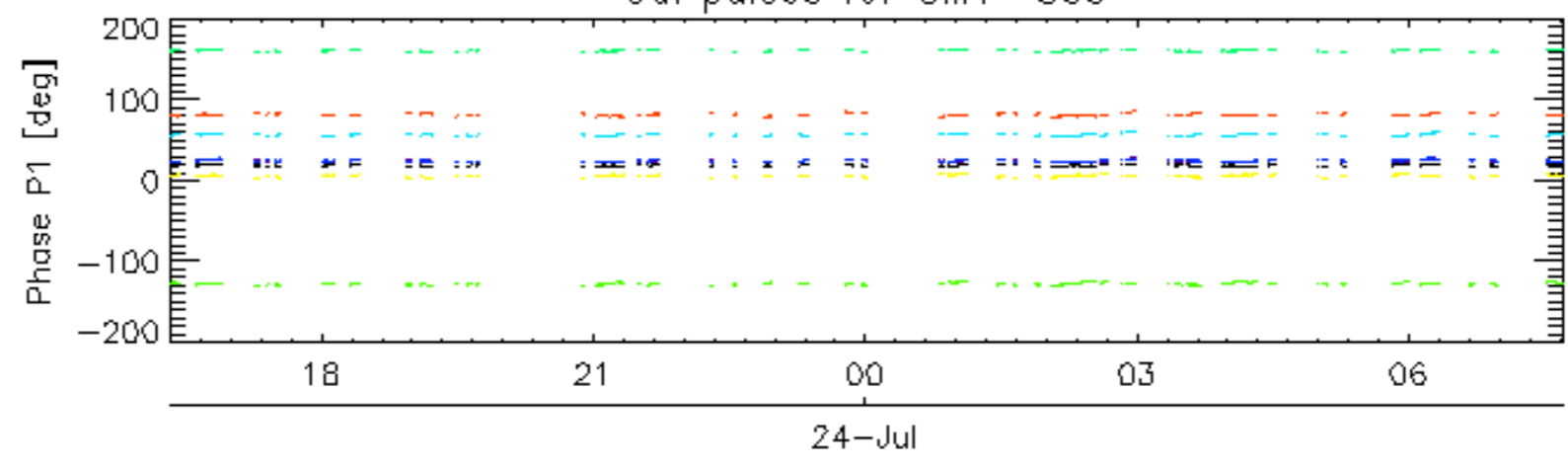
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

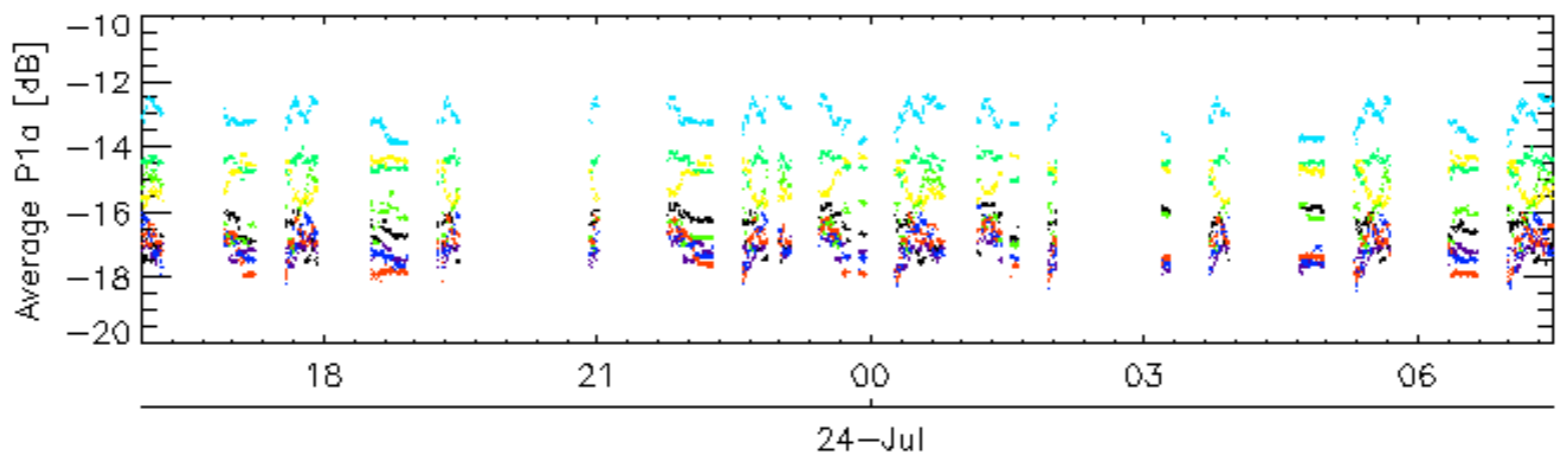
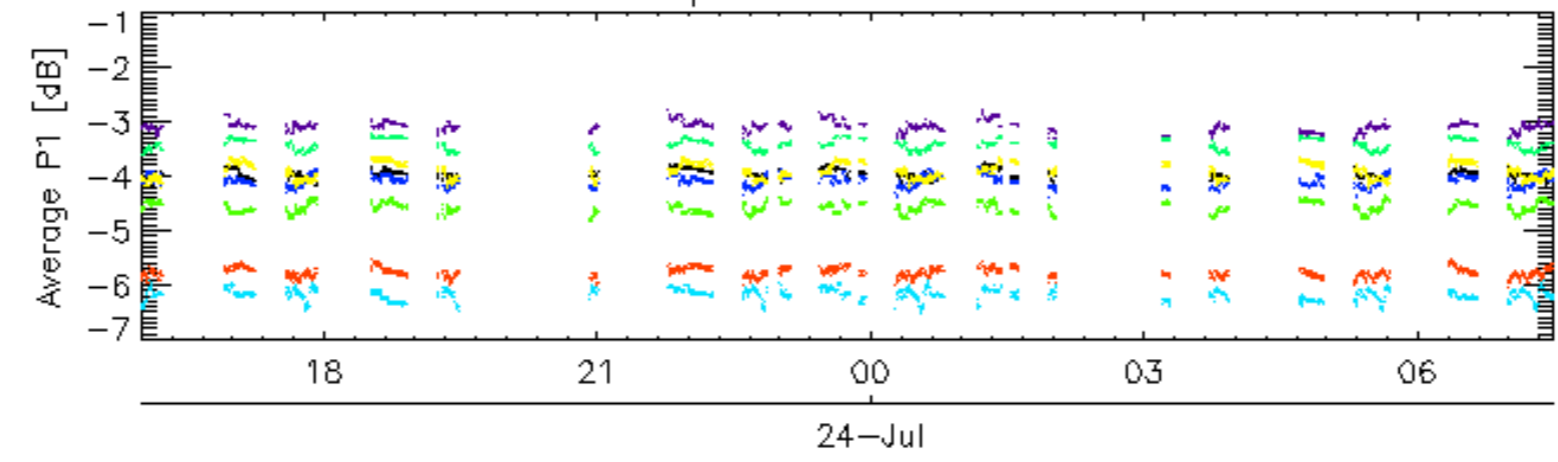


Cal pulses for GM1 SS3

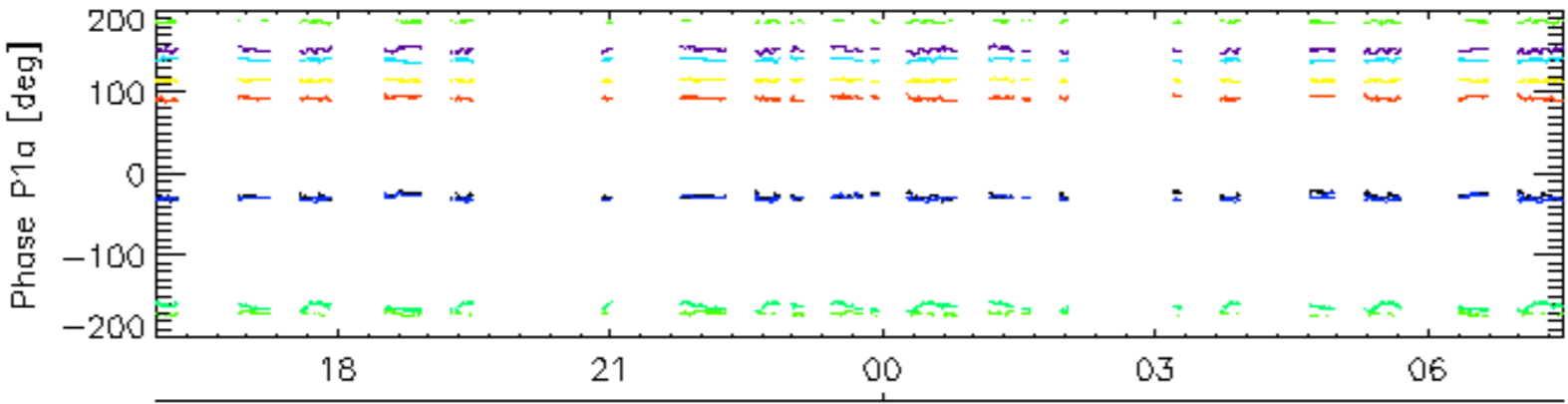
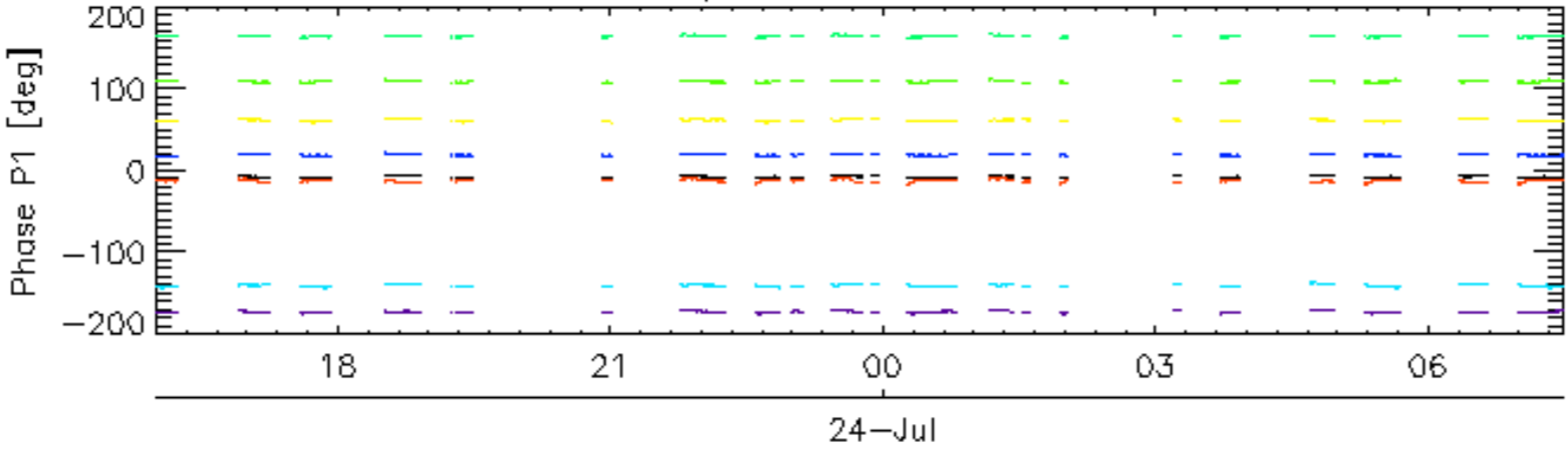


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 ^{24-Jul} _ 26 _ 30

Cal pulses for WVS IS2

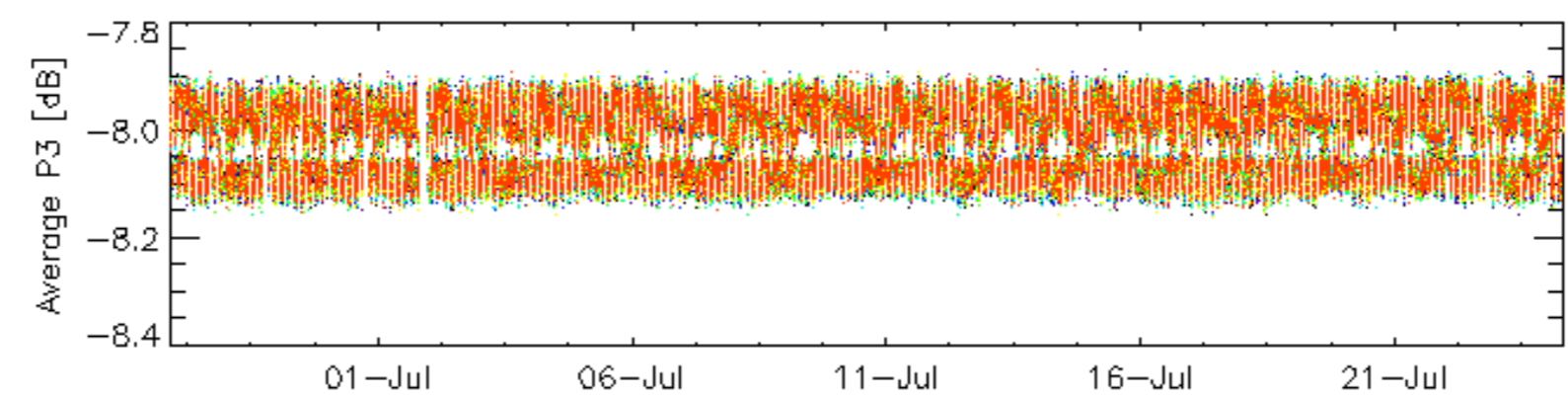
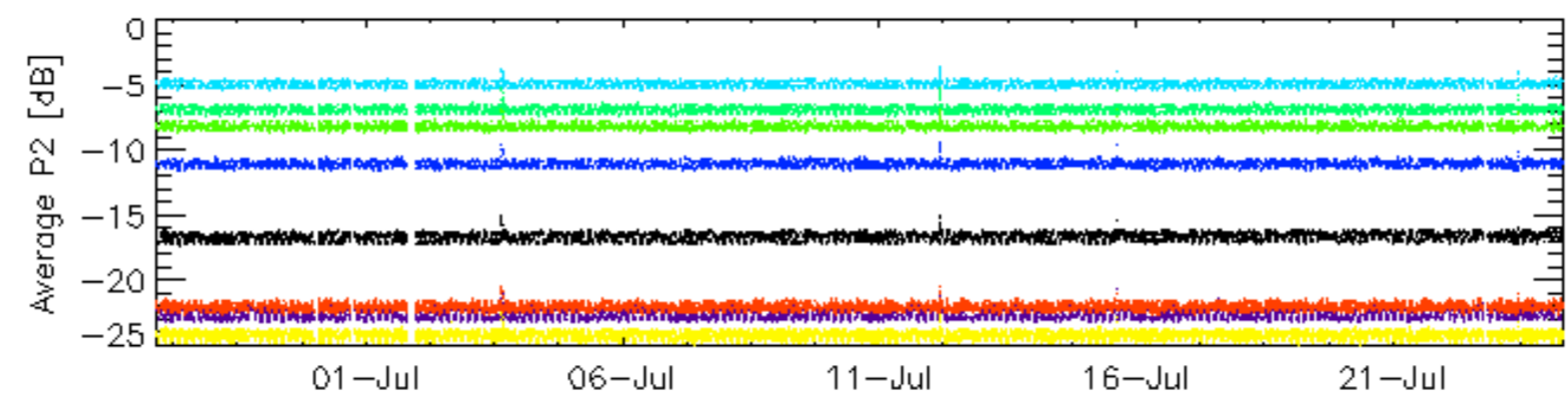
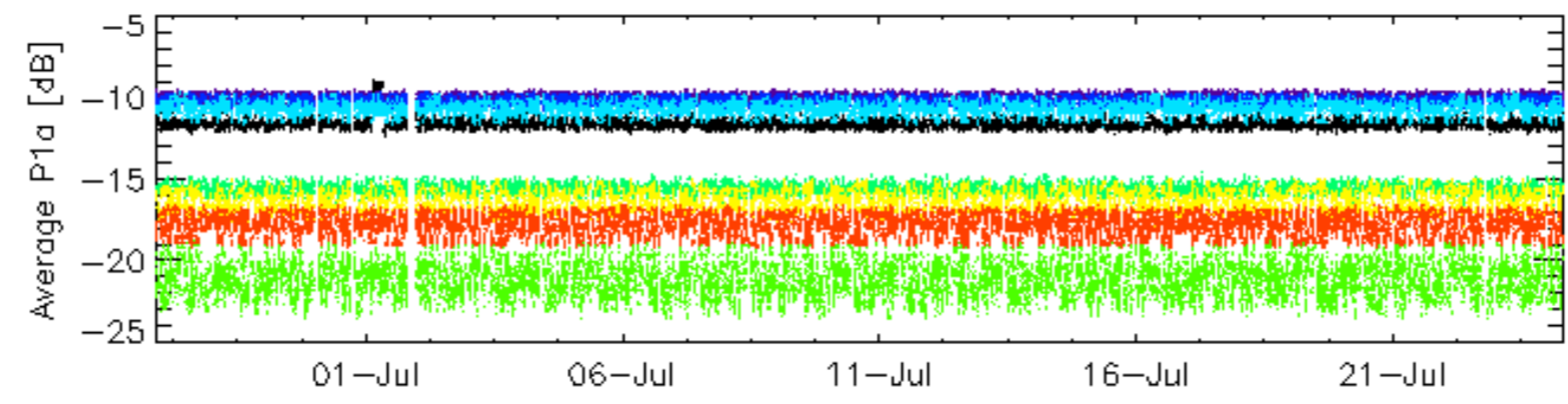
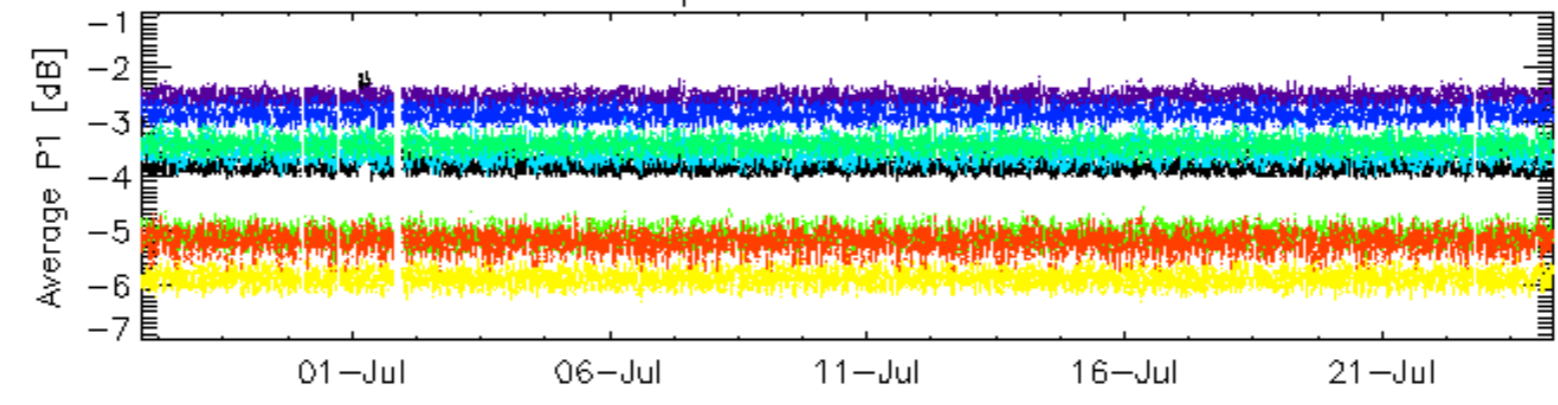


Cal pulses for WVS IS2



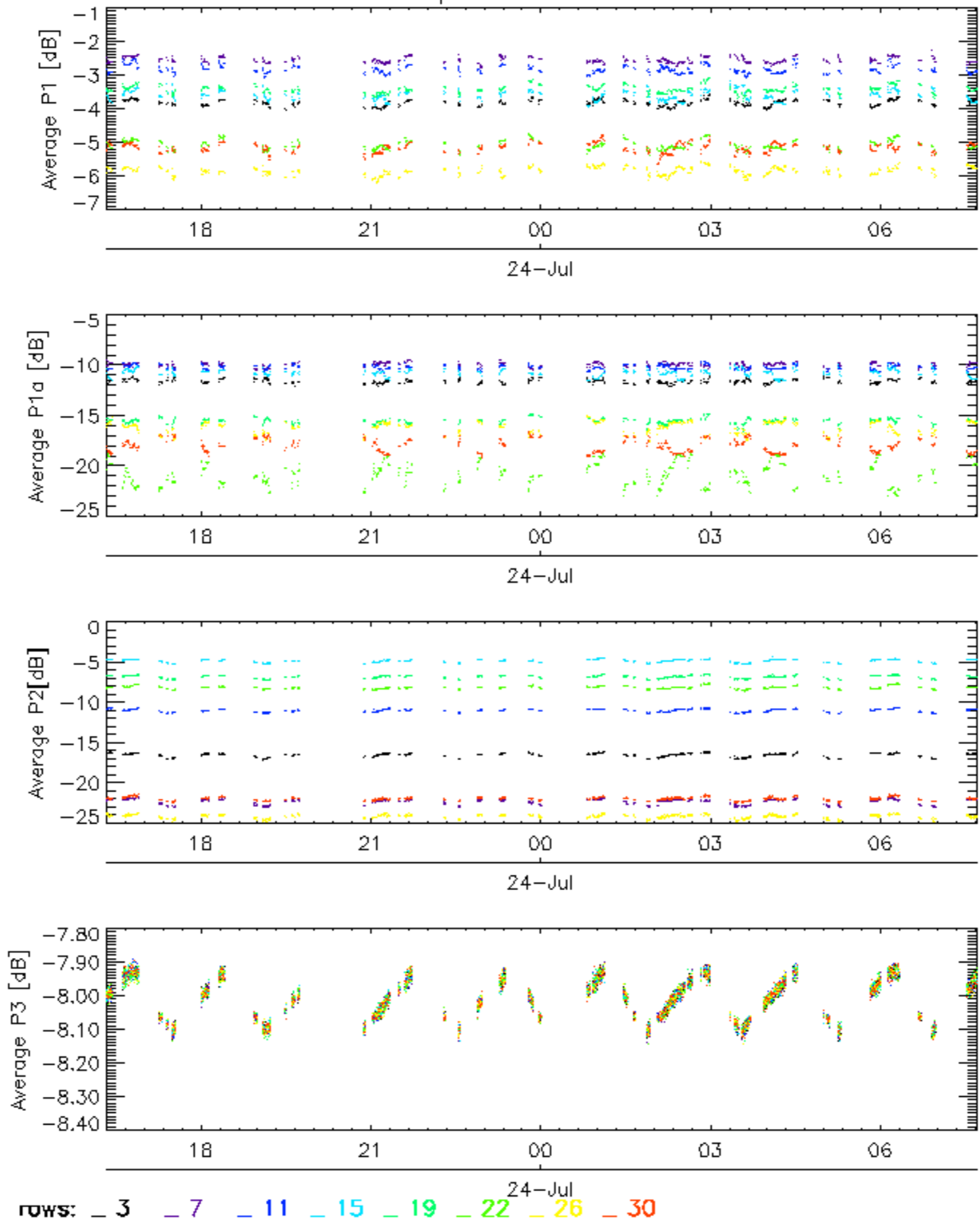
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

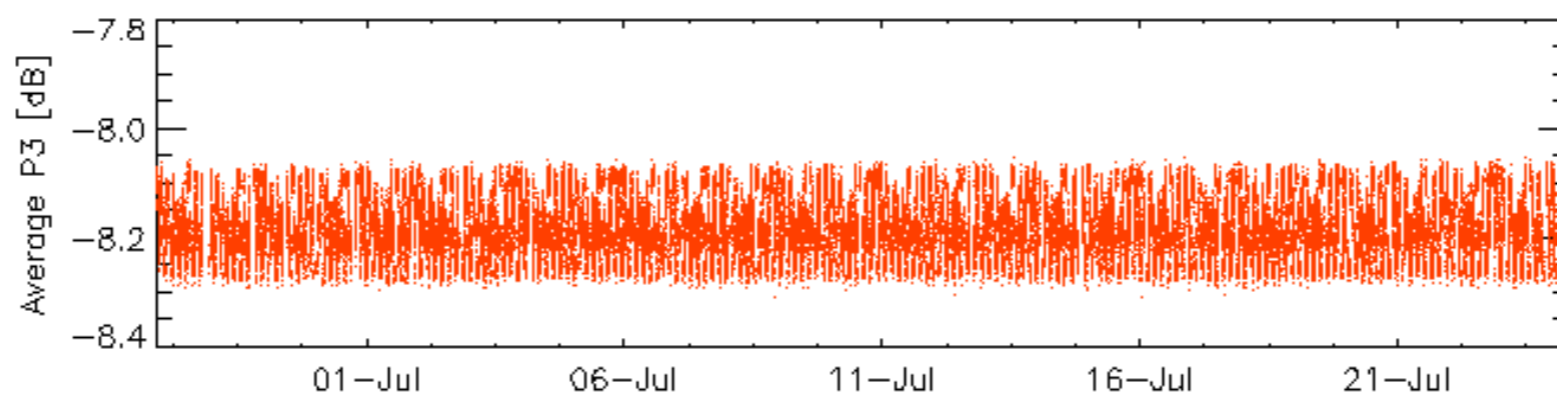
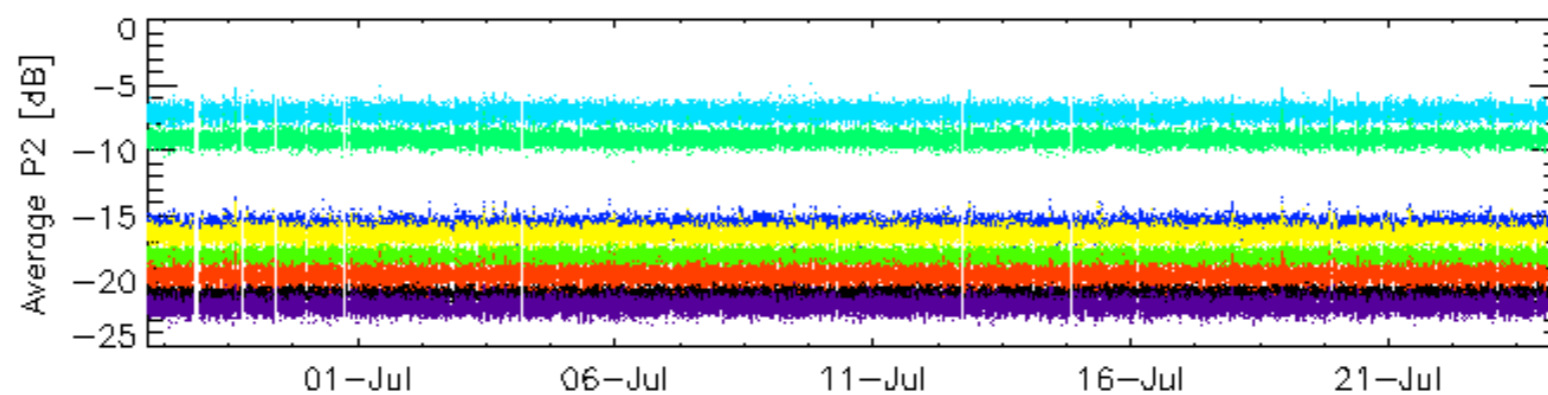
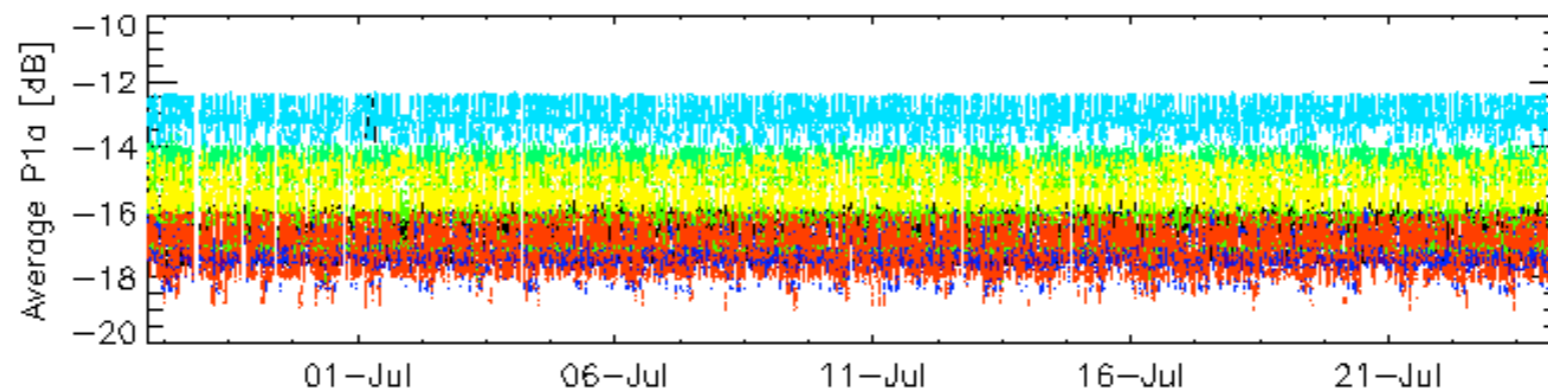
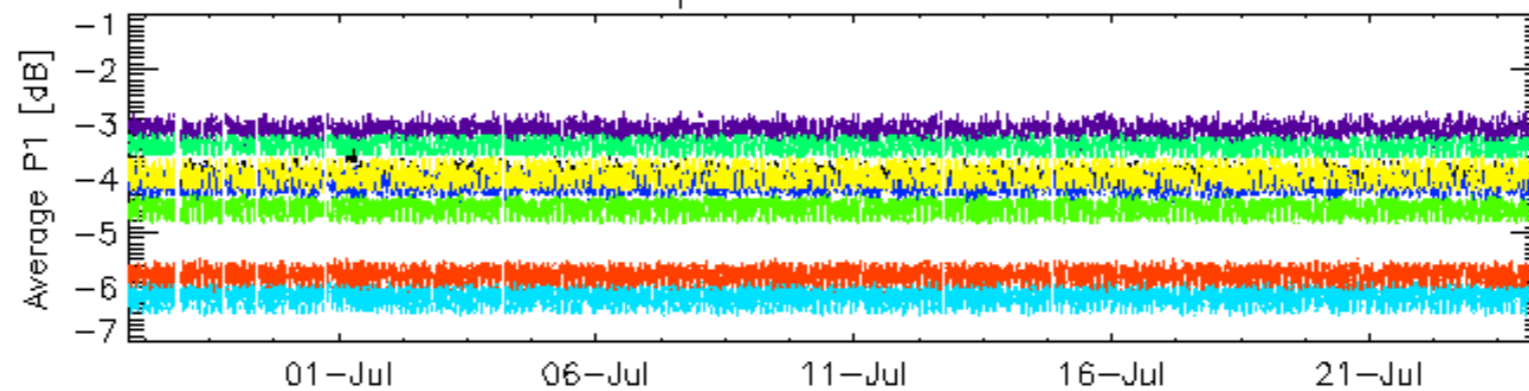


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

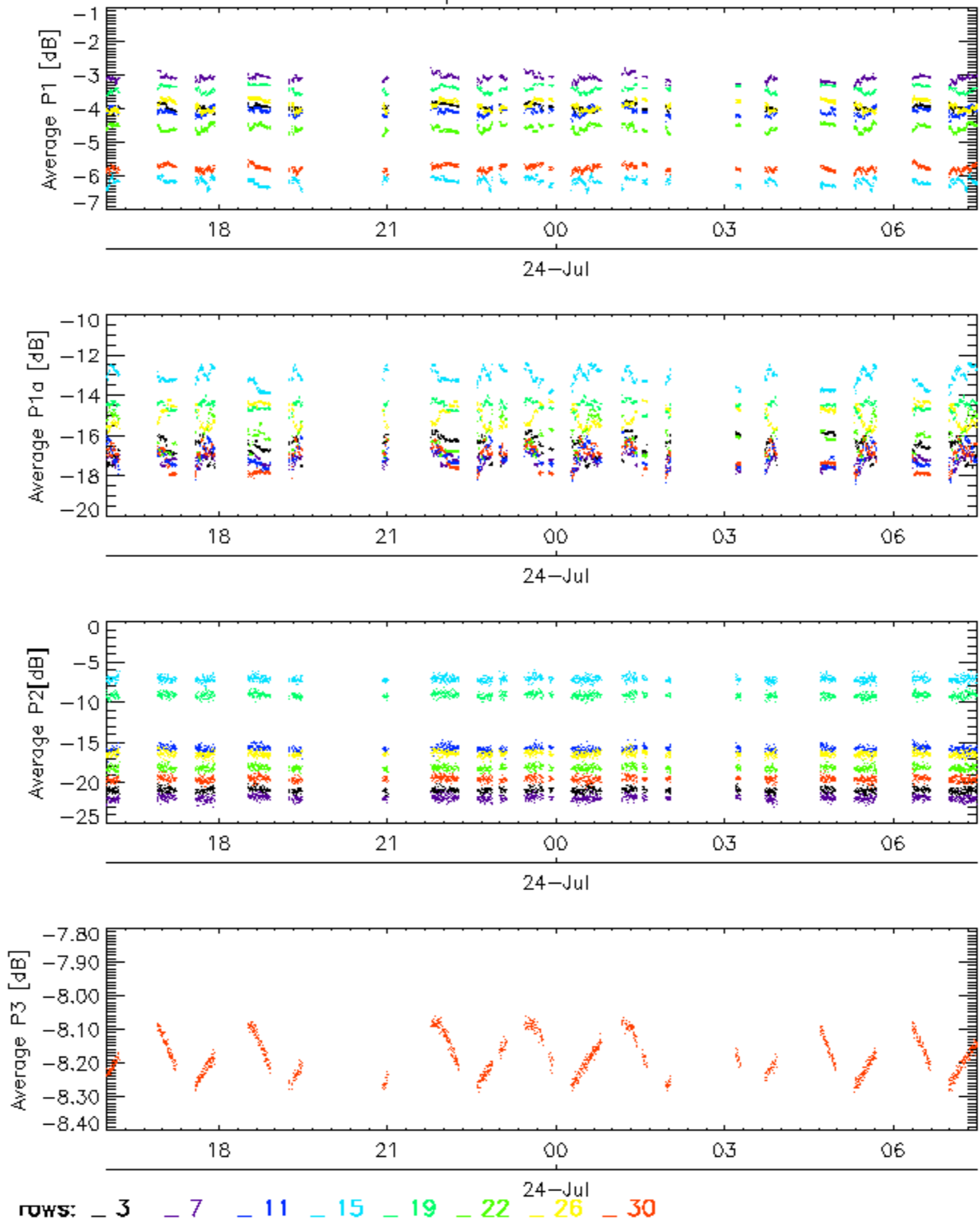


Cal pulses for WVS IS2



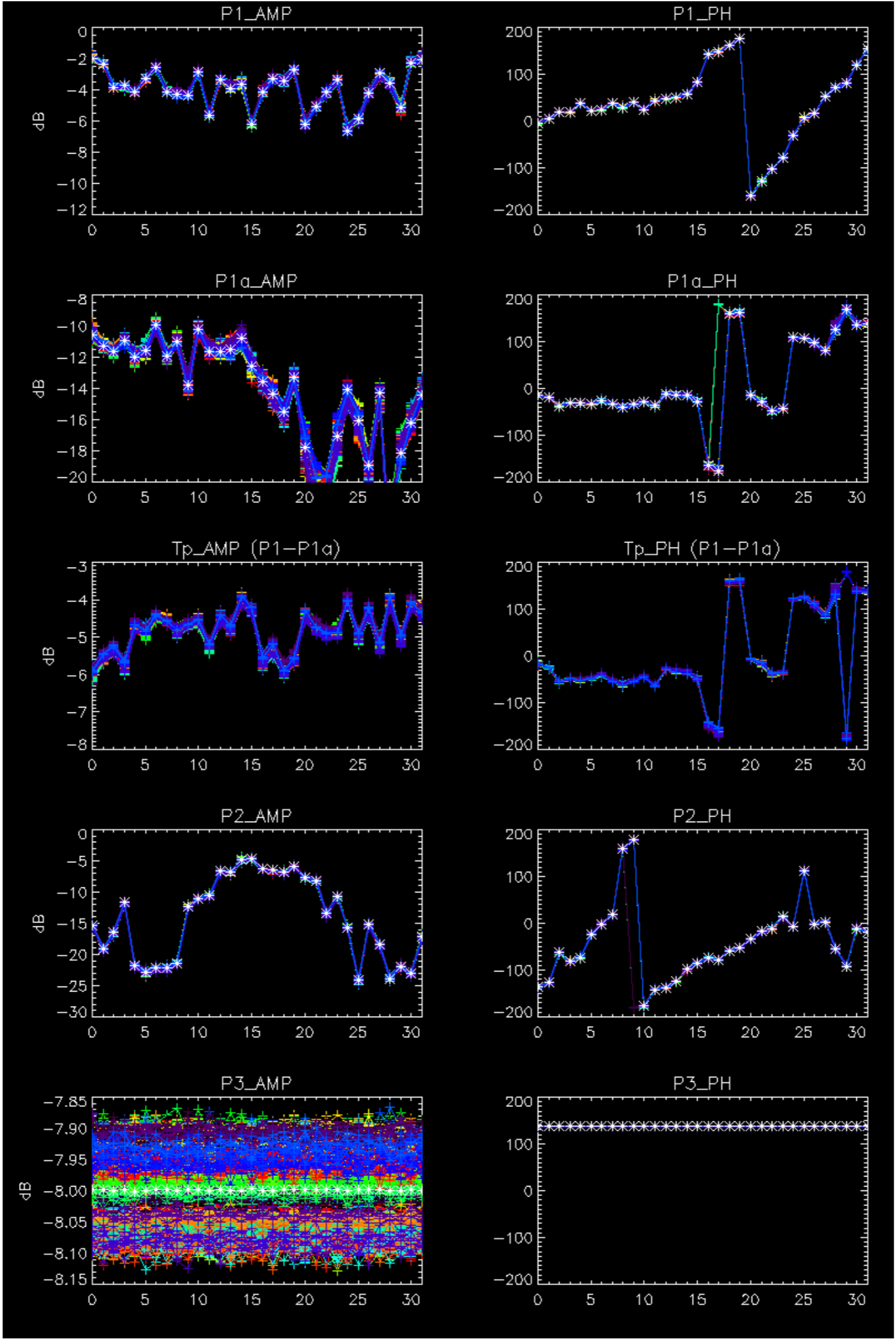
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

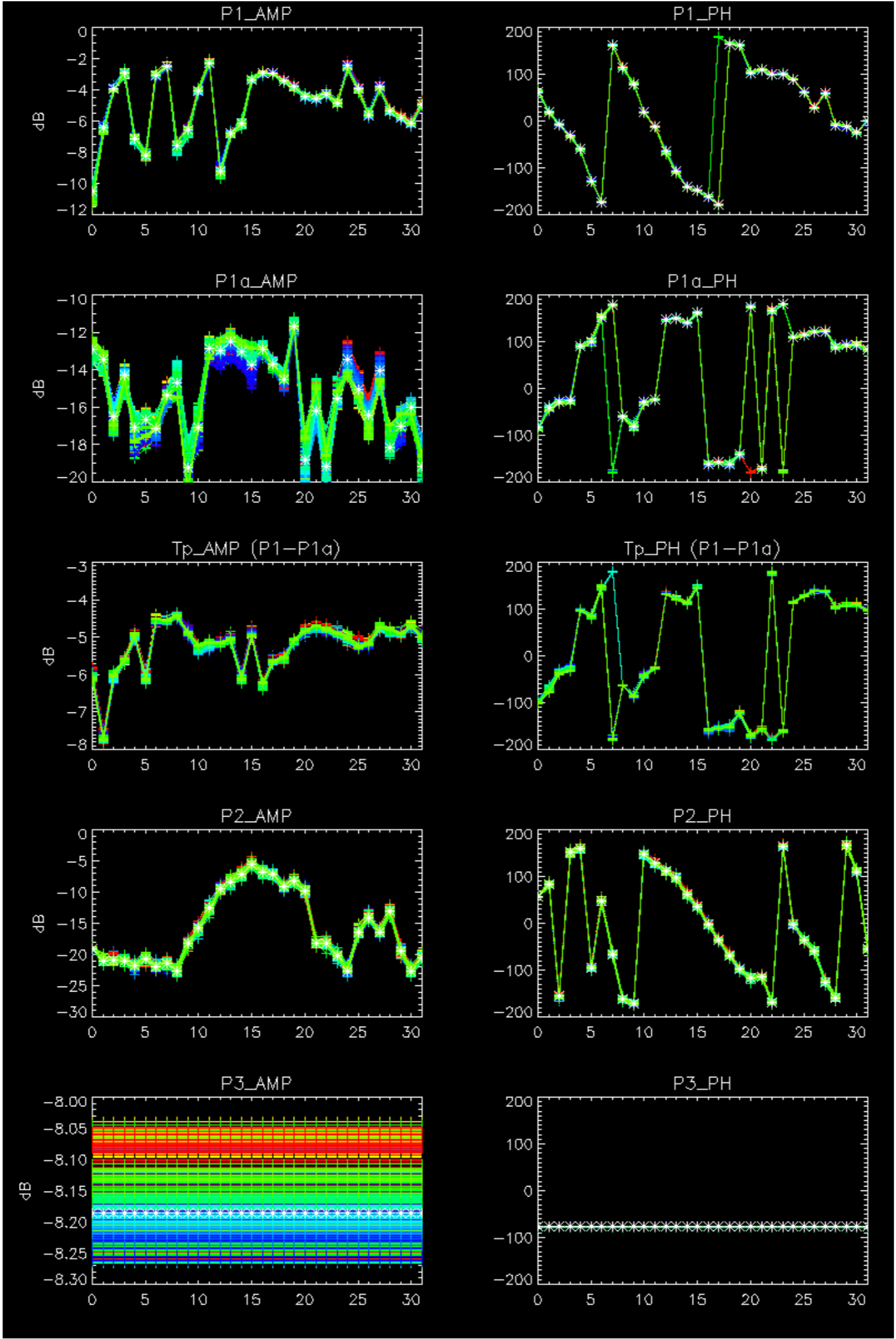
Cal pulses for WVS IS2



No anomalies observed on available browse products

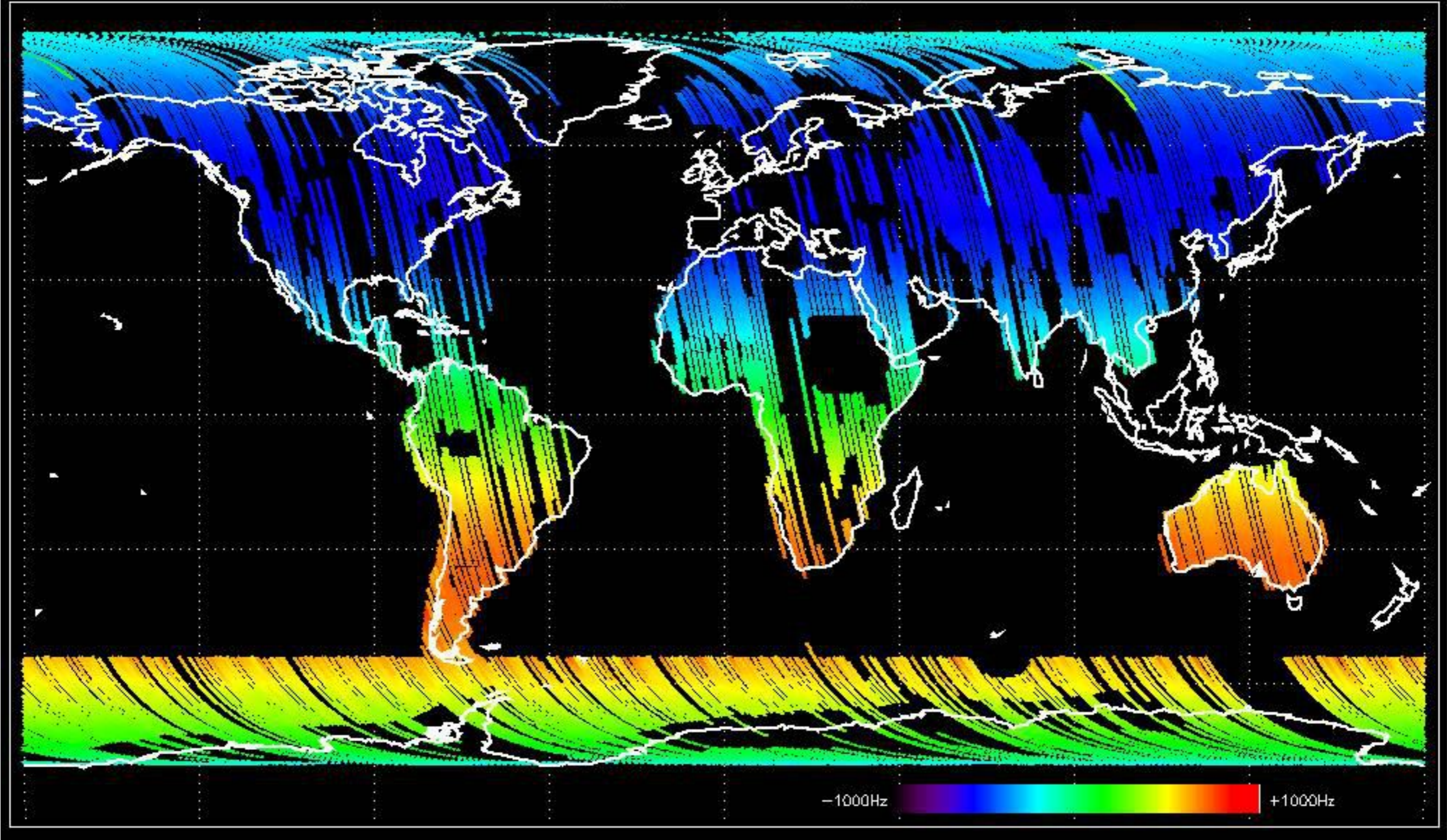
No anomalies observed.



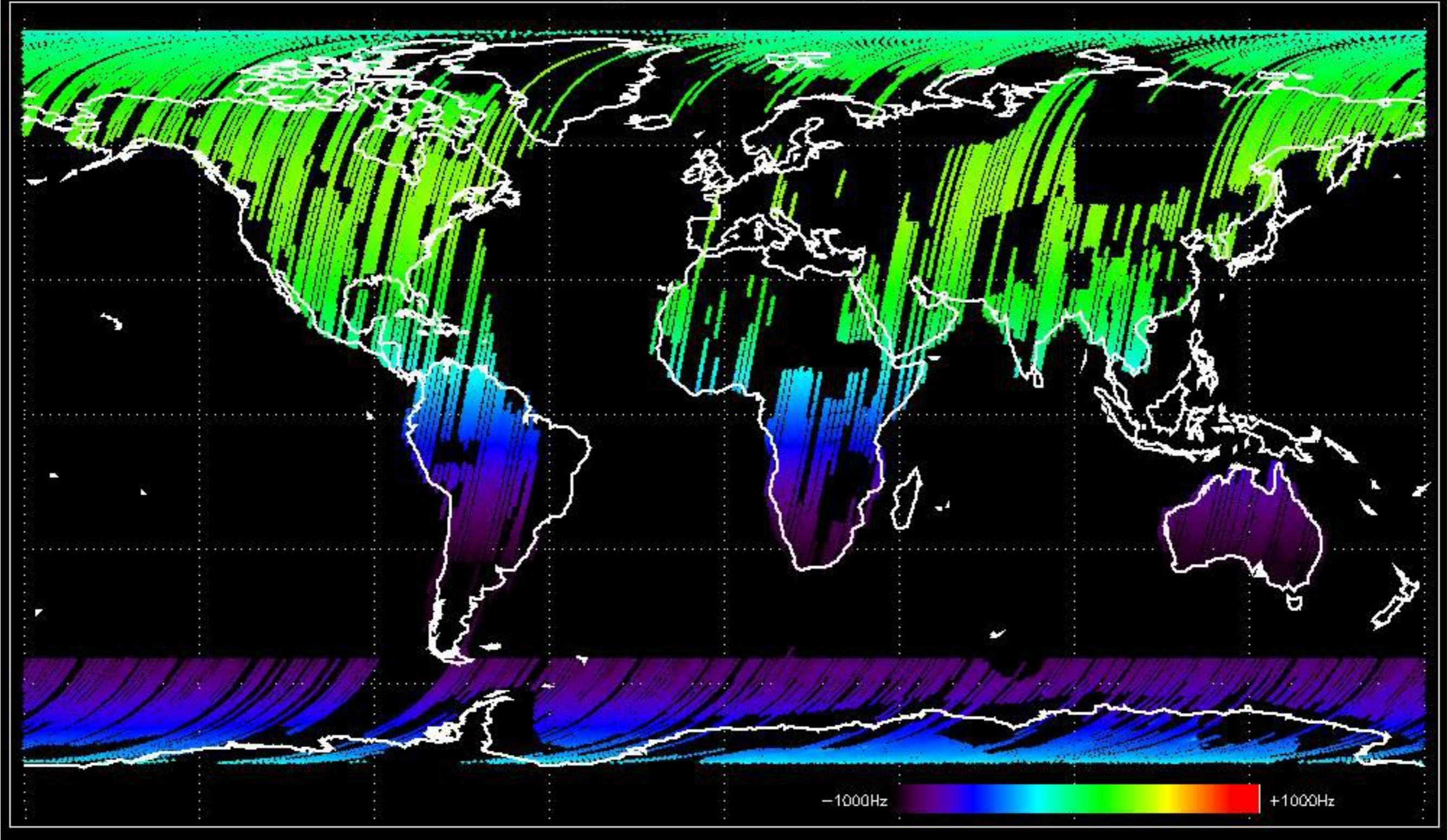


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

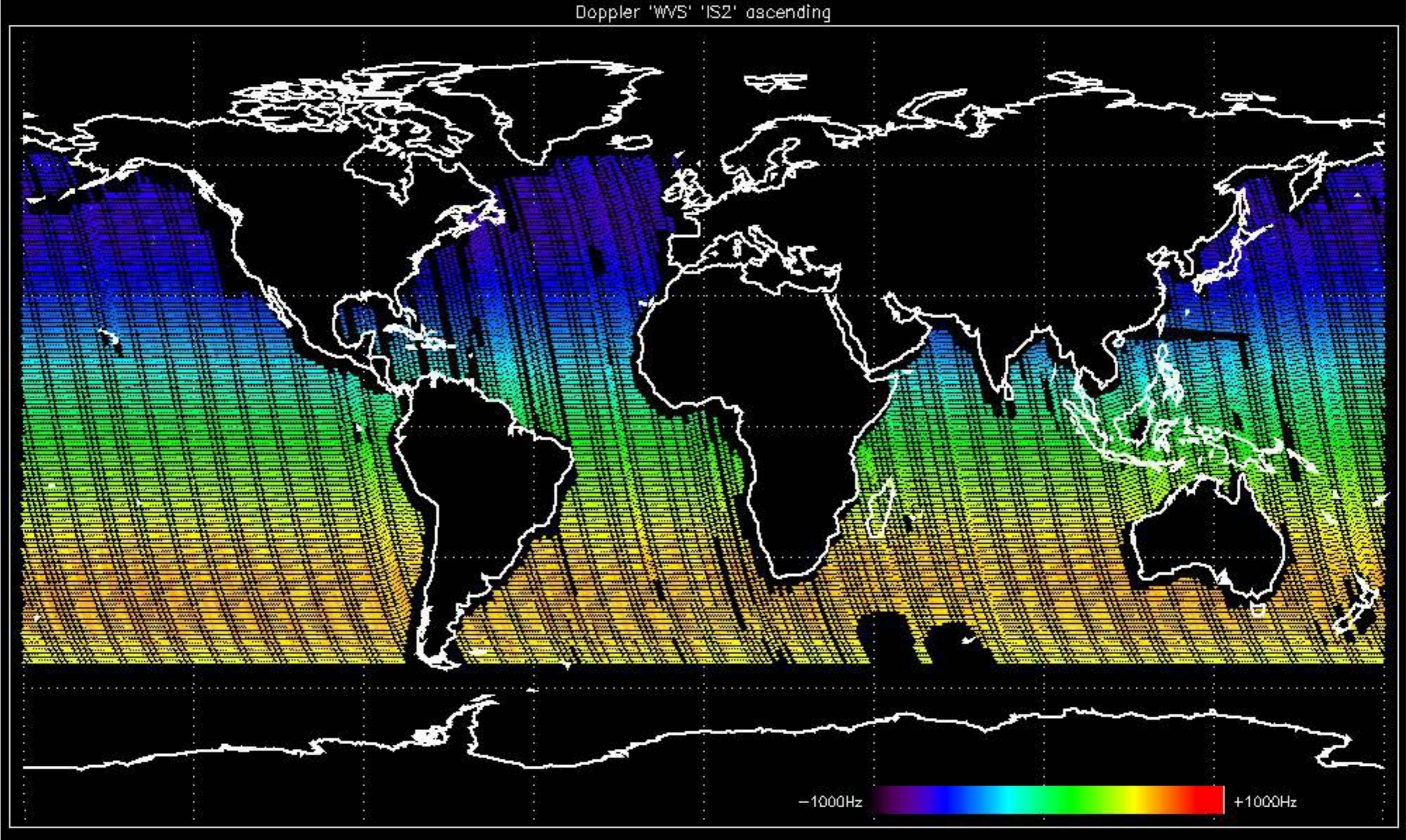
Doppler 'GM1' 'SS1' ascending



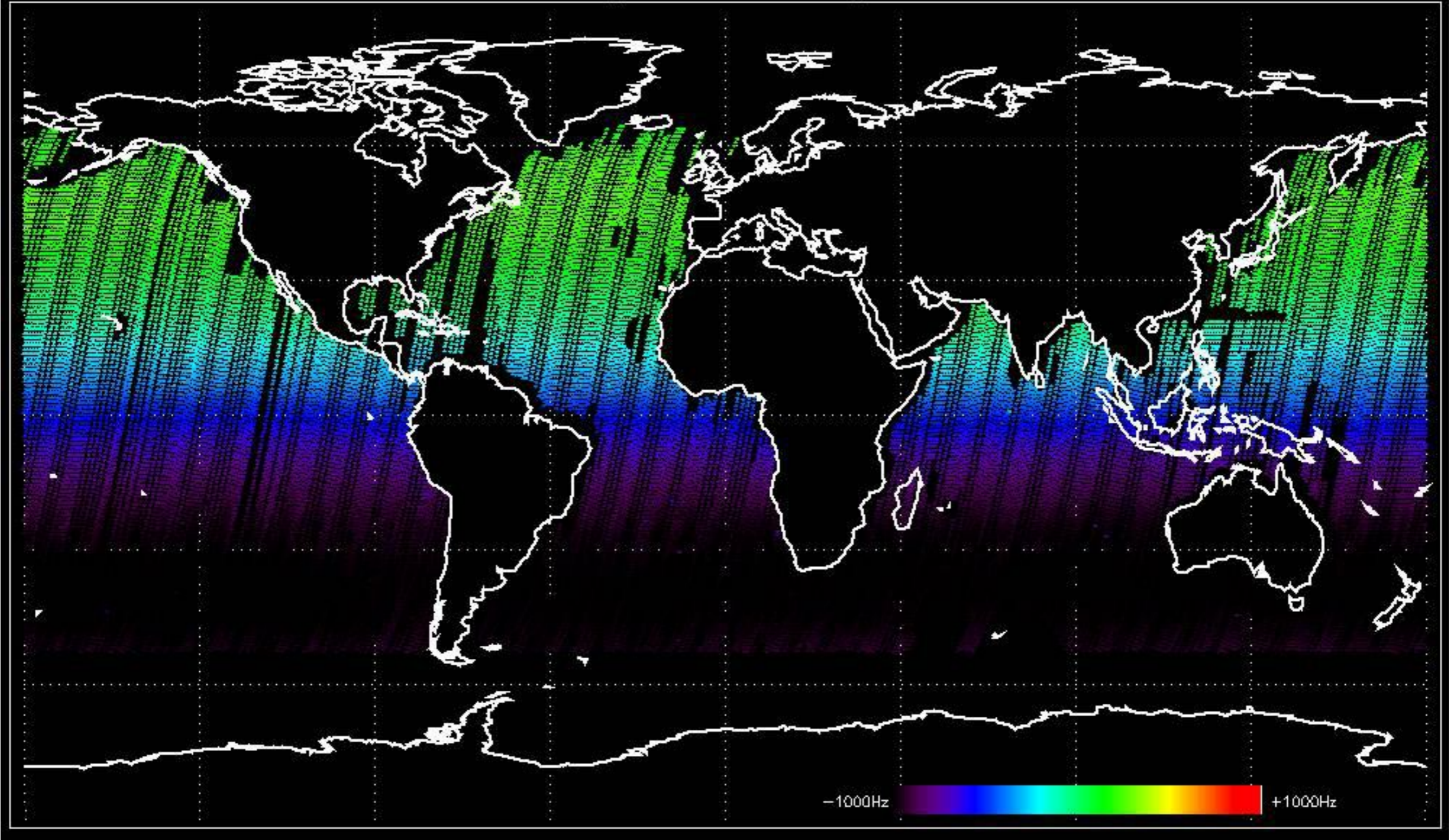
Doppler 'GM1' 'SS1' descending

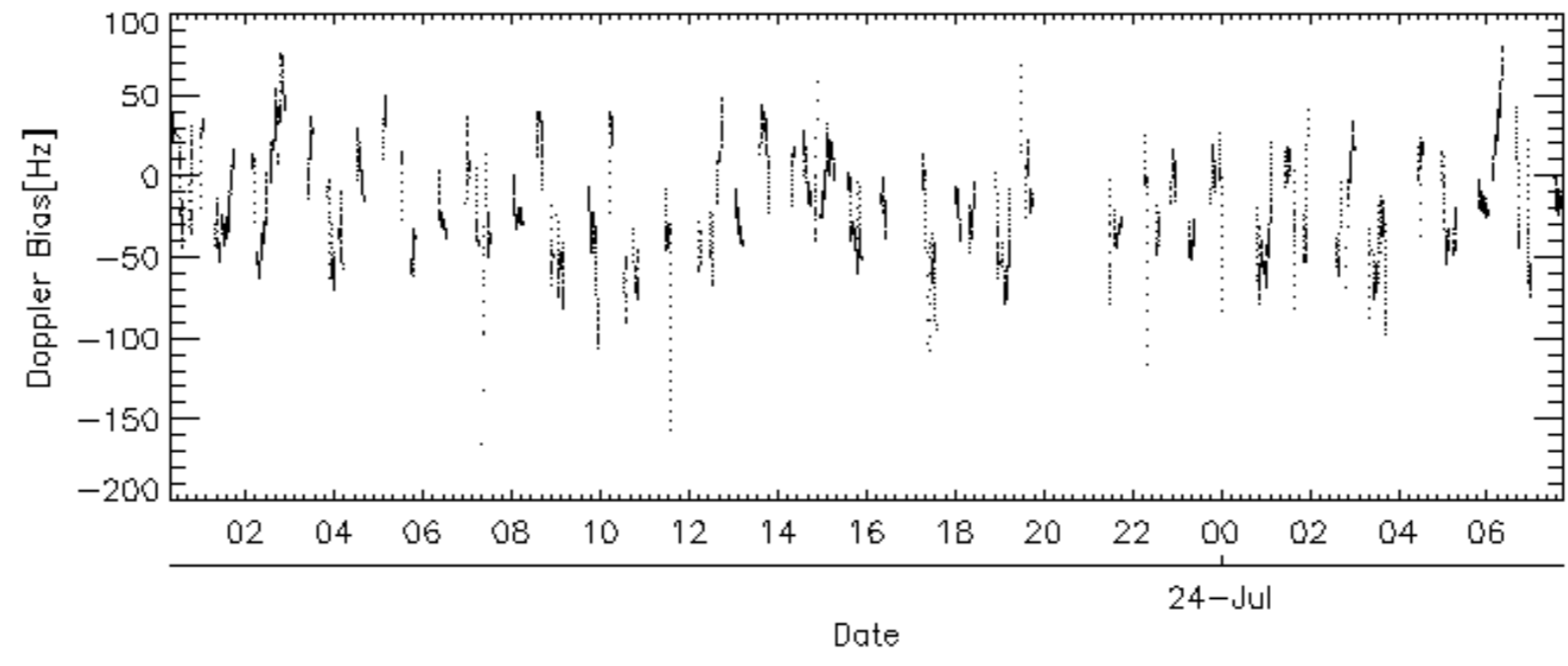
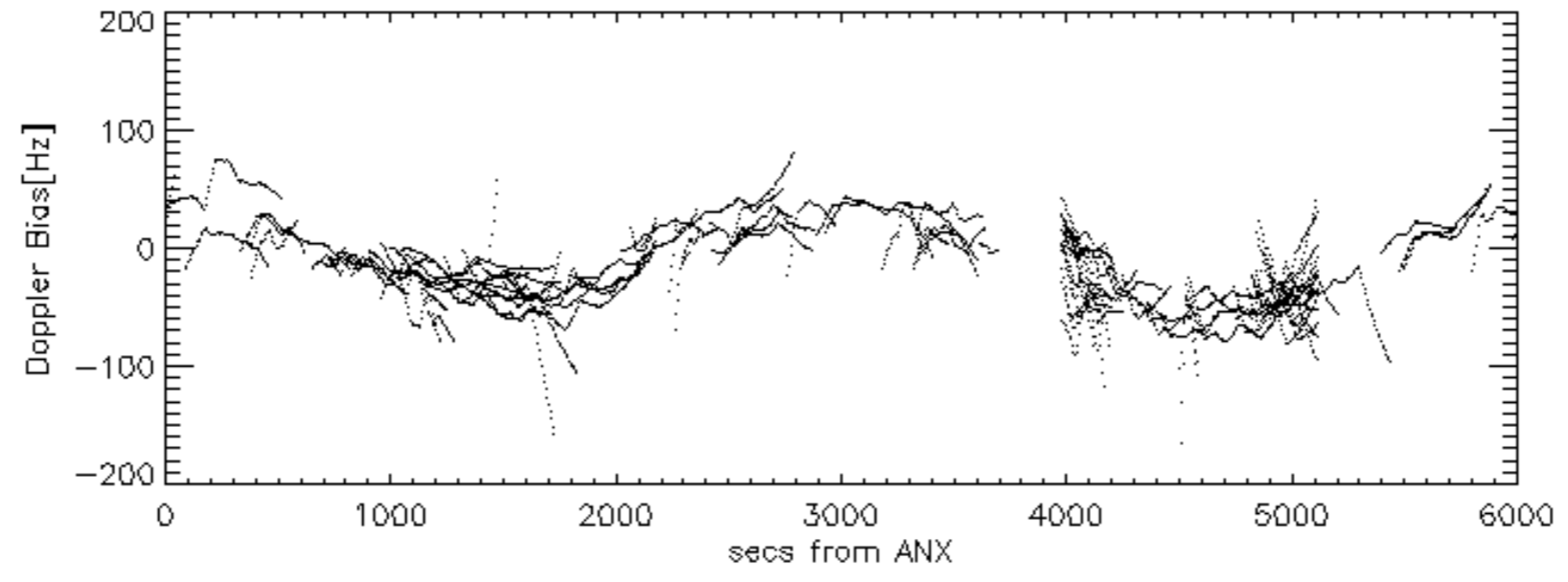
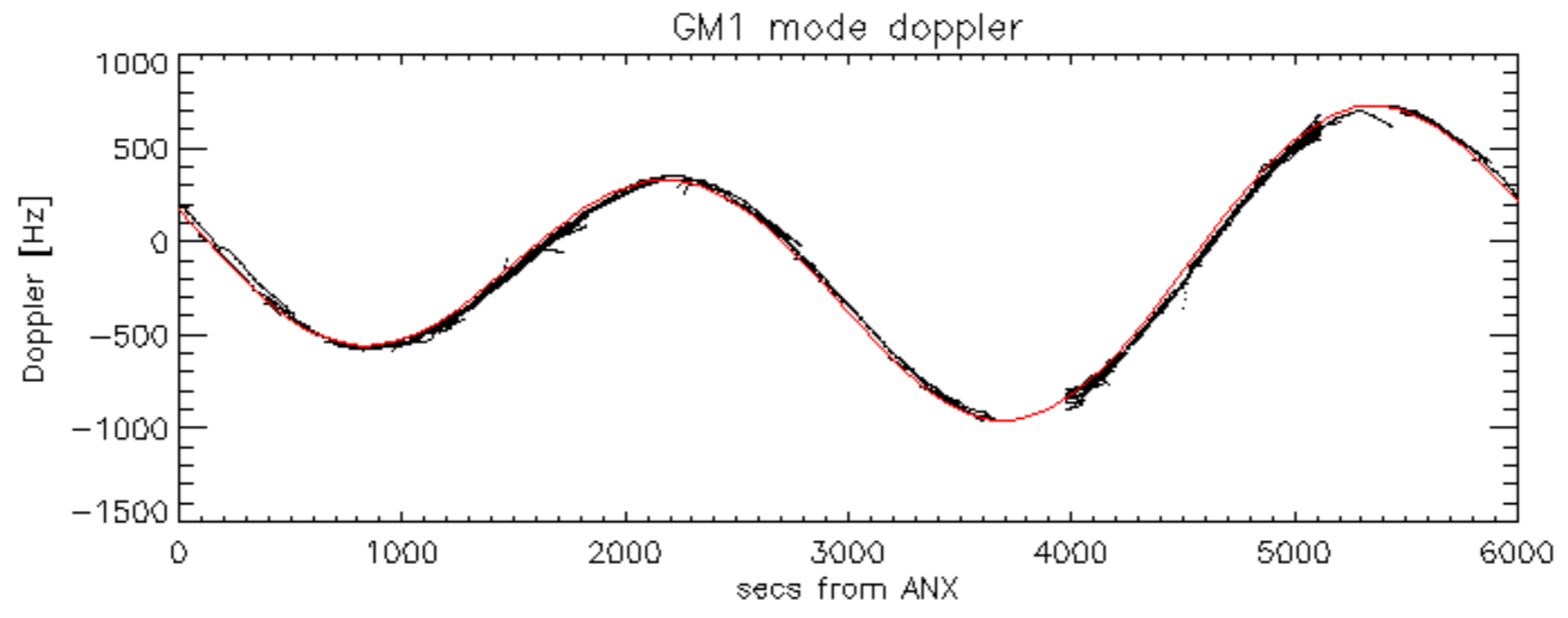


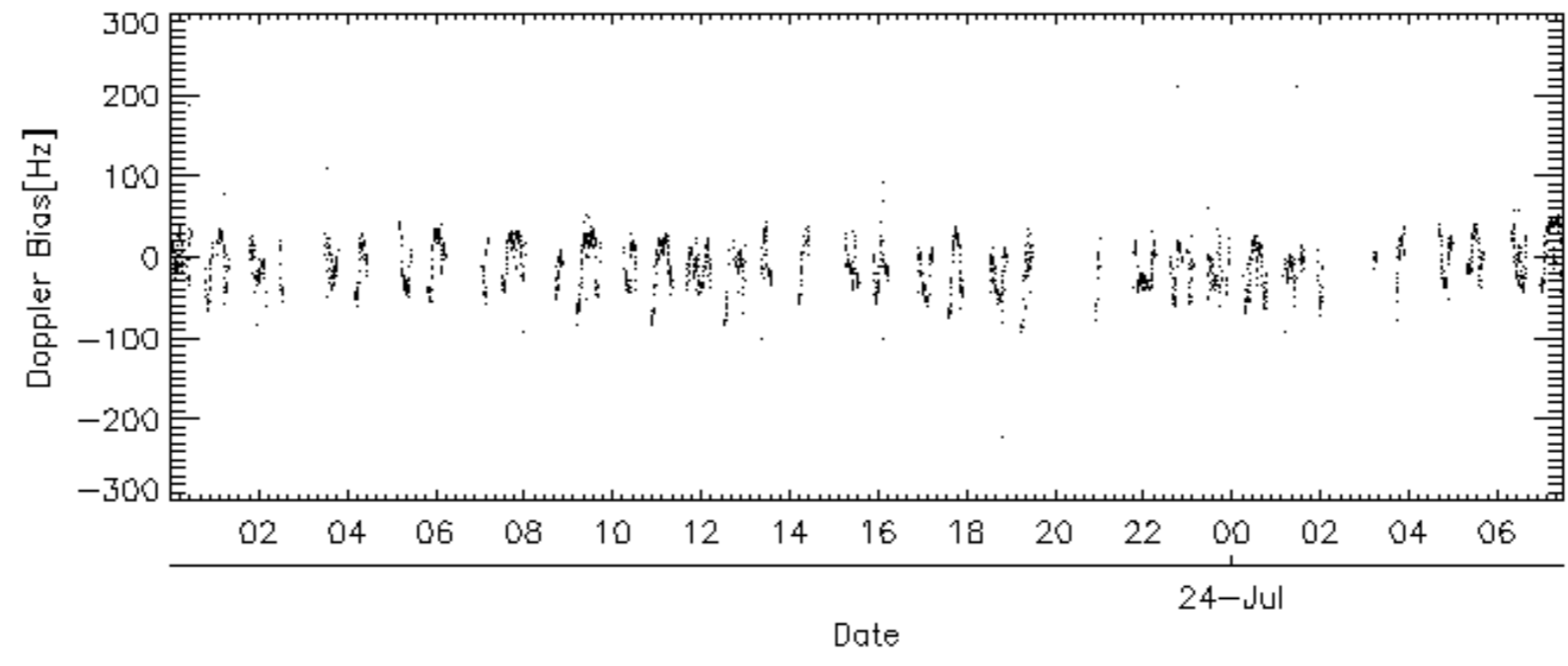
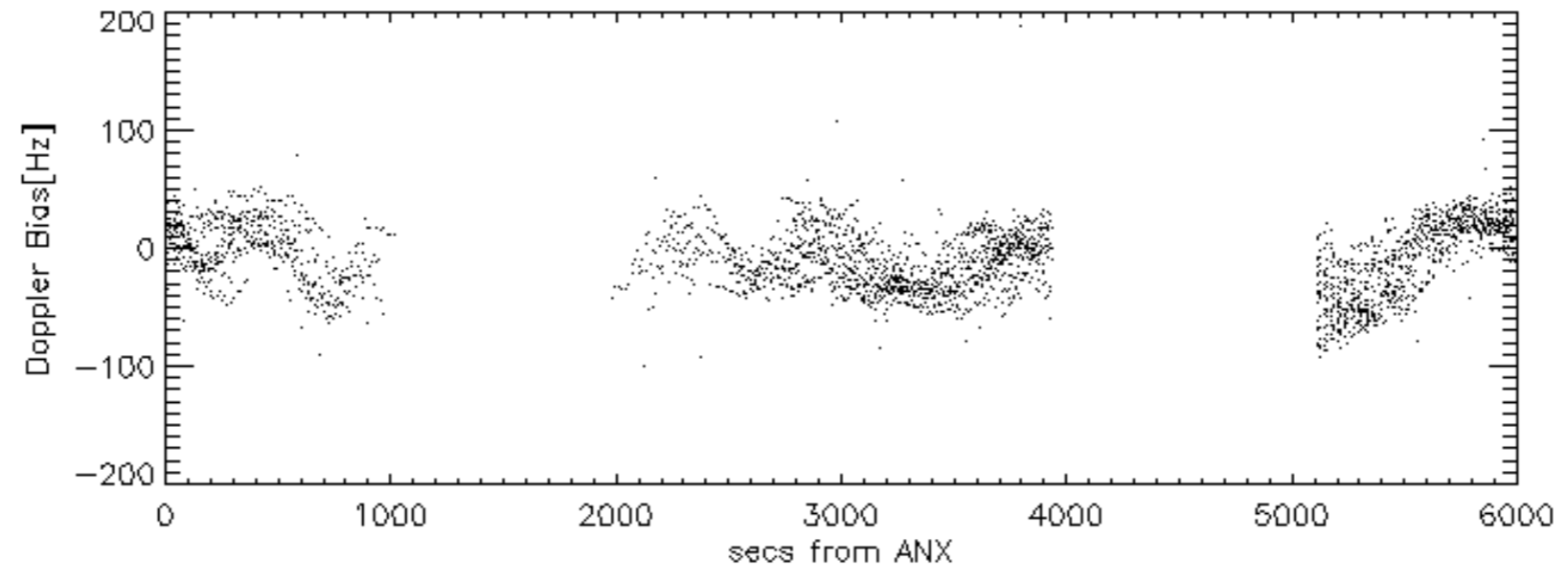
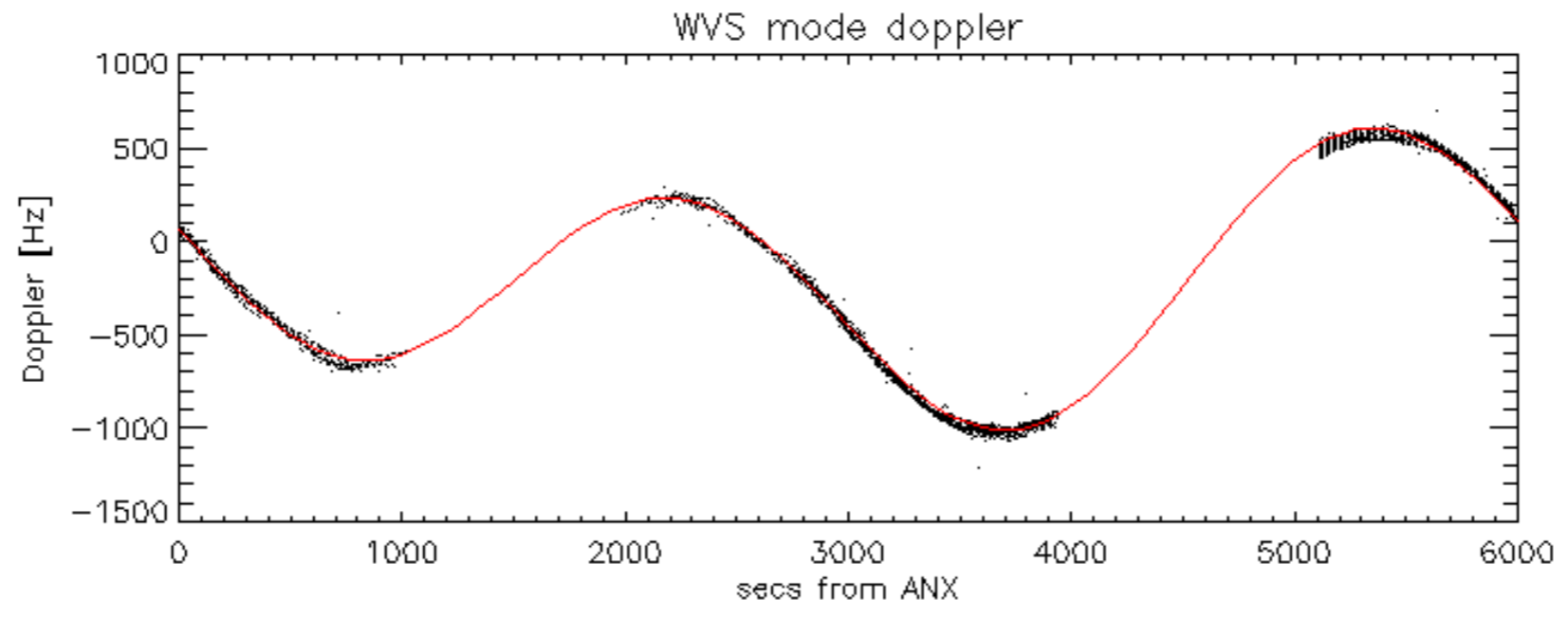
Doppler 'WVS' 'IS2' ascending



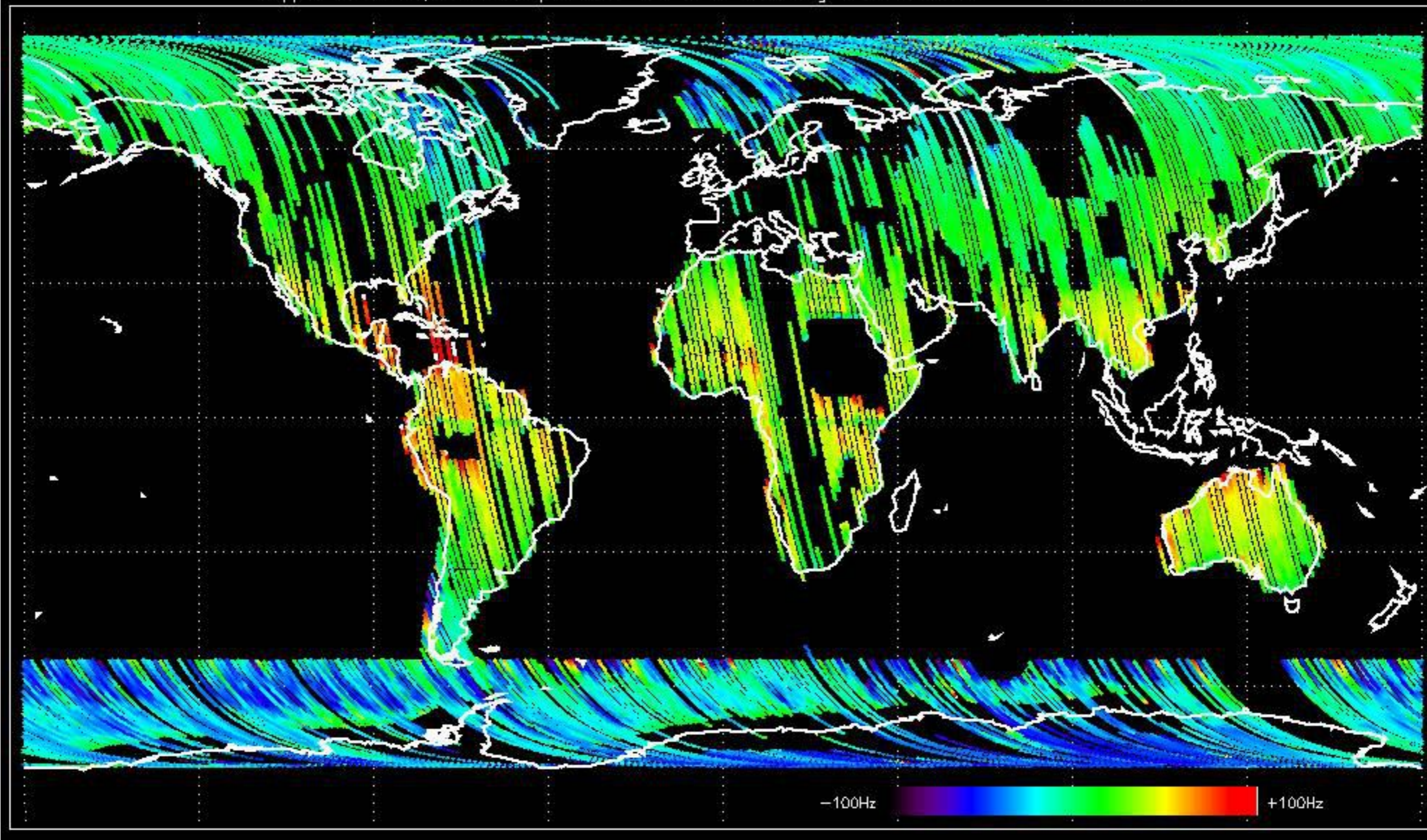
Doppler 'WVS' 'IS2' descending



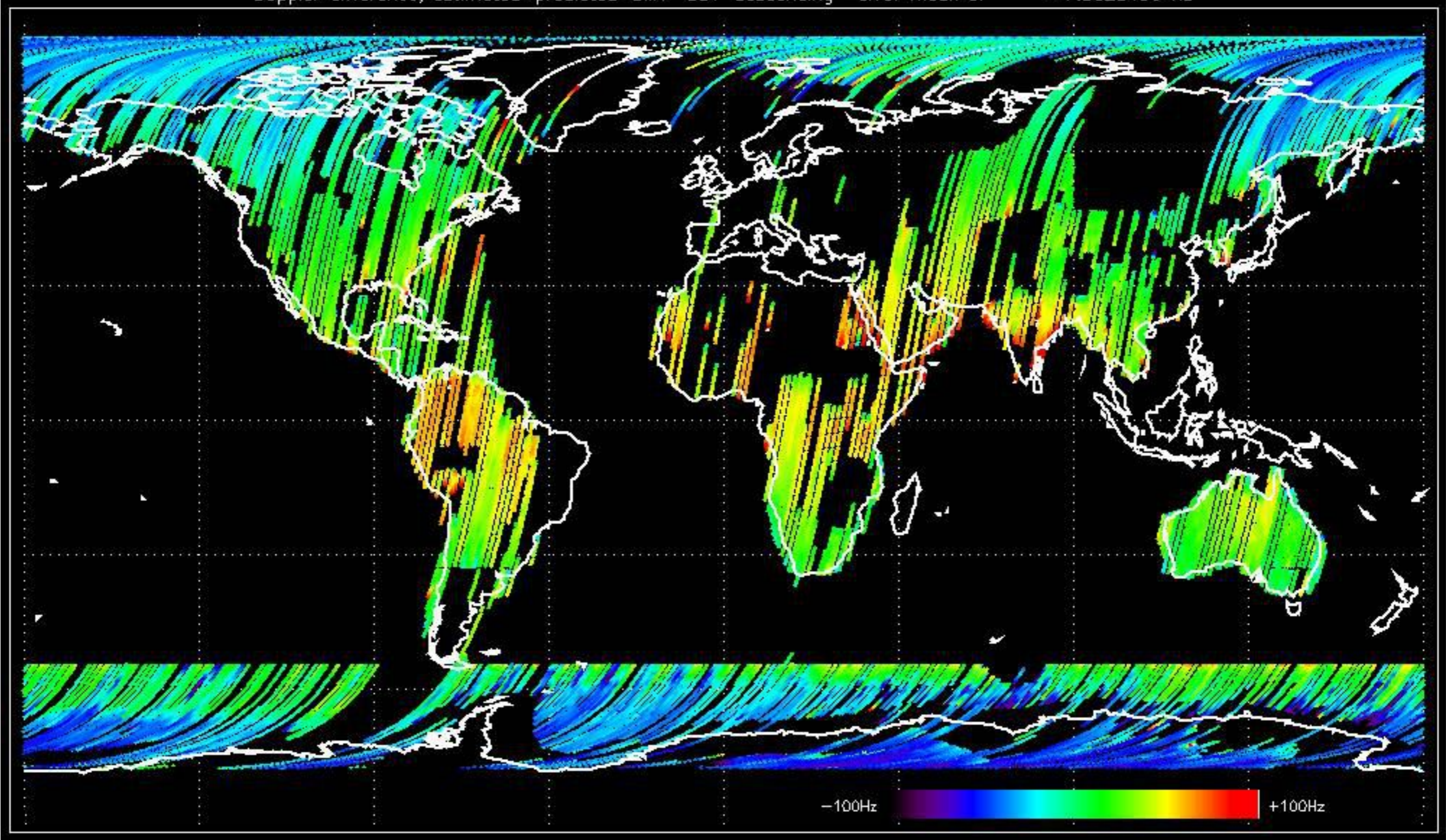




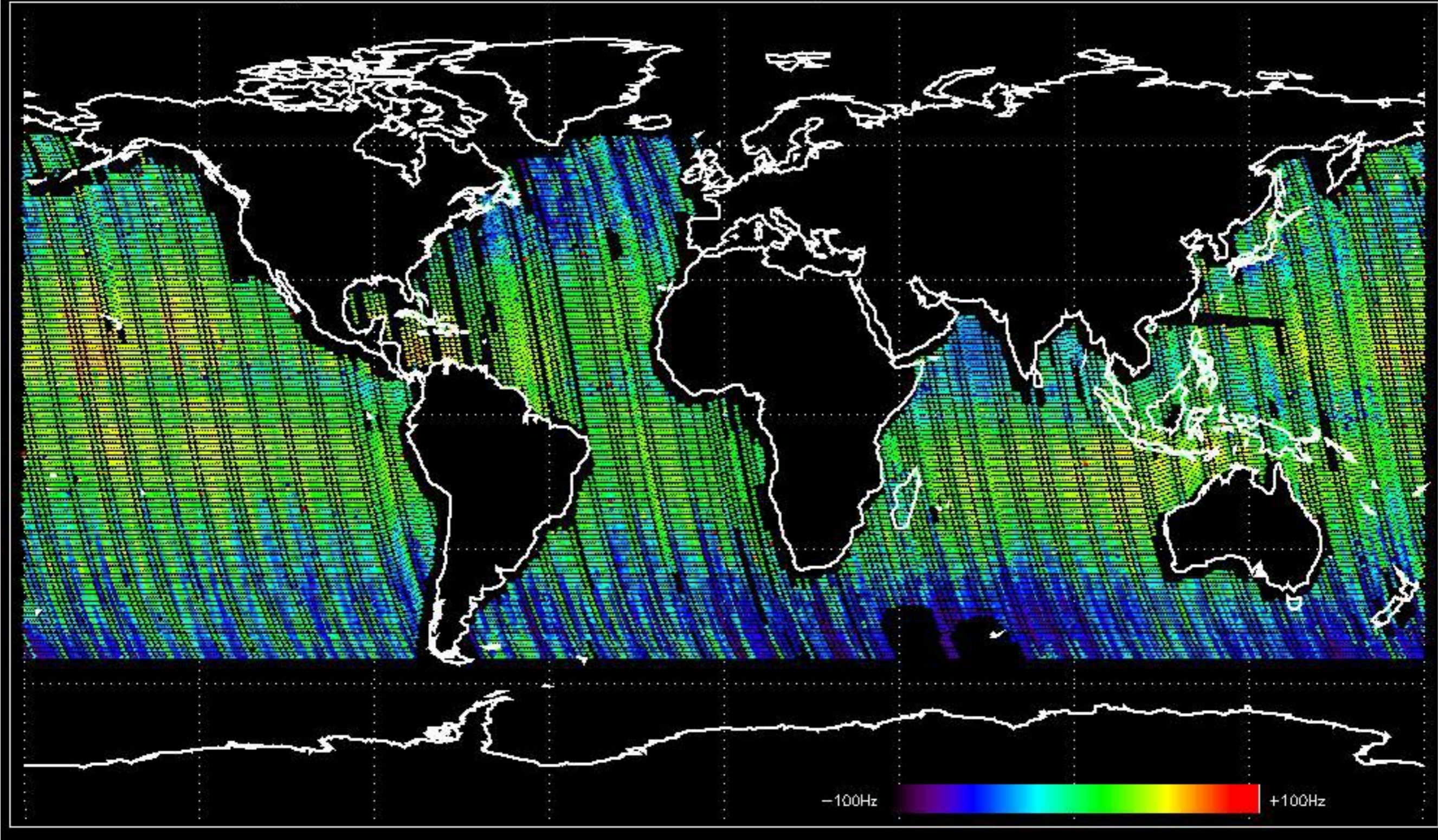
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.327496 Hz



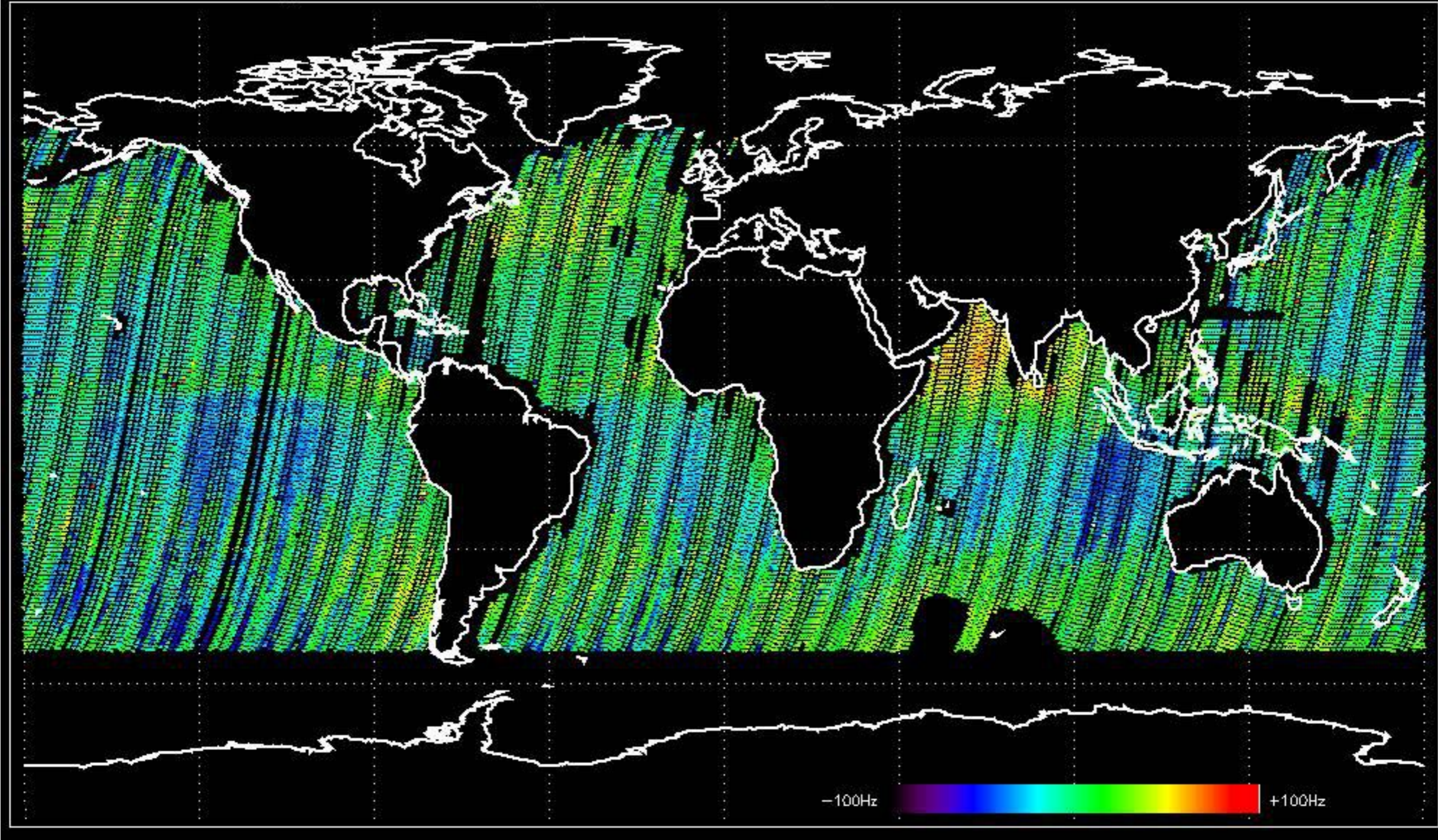
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.5023496 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.7225486 Hz

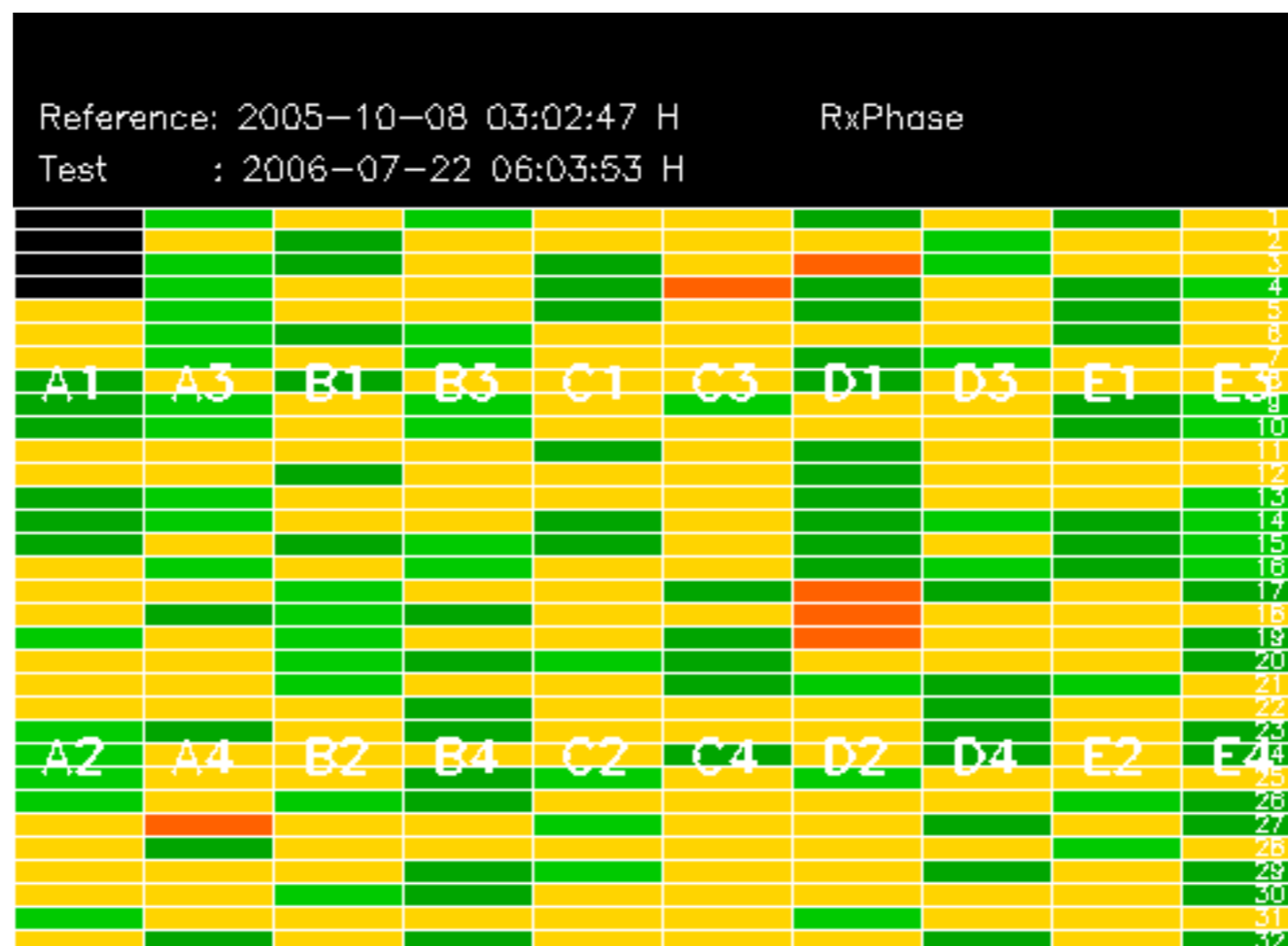


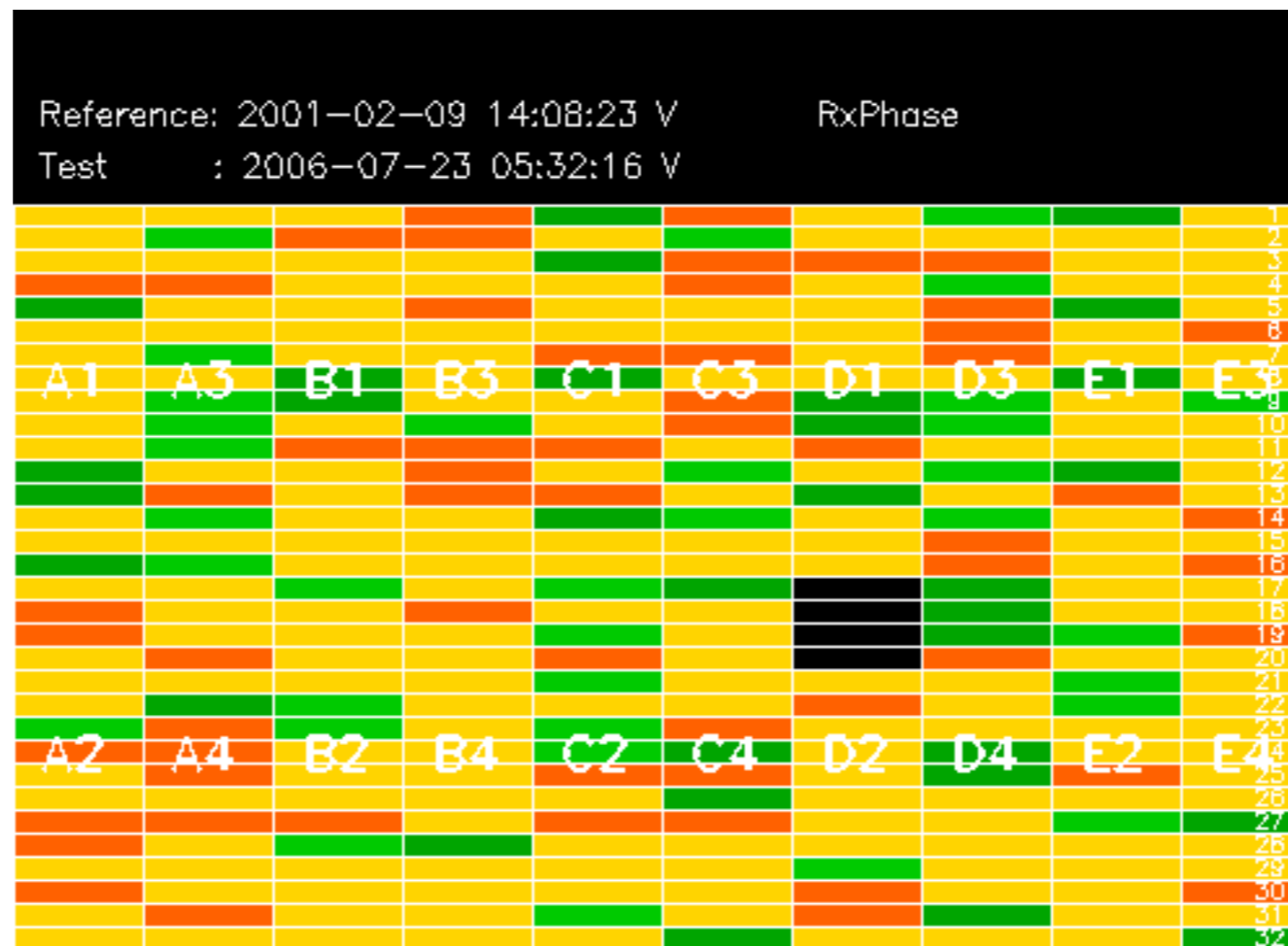
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.115044 Hz

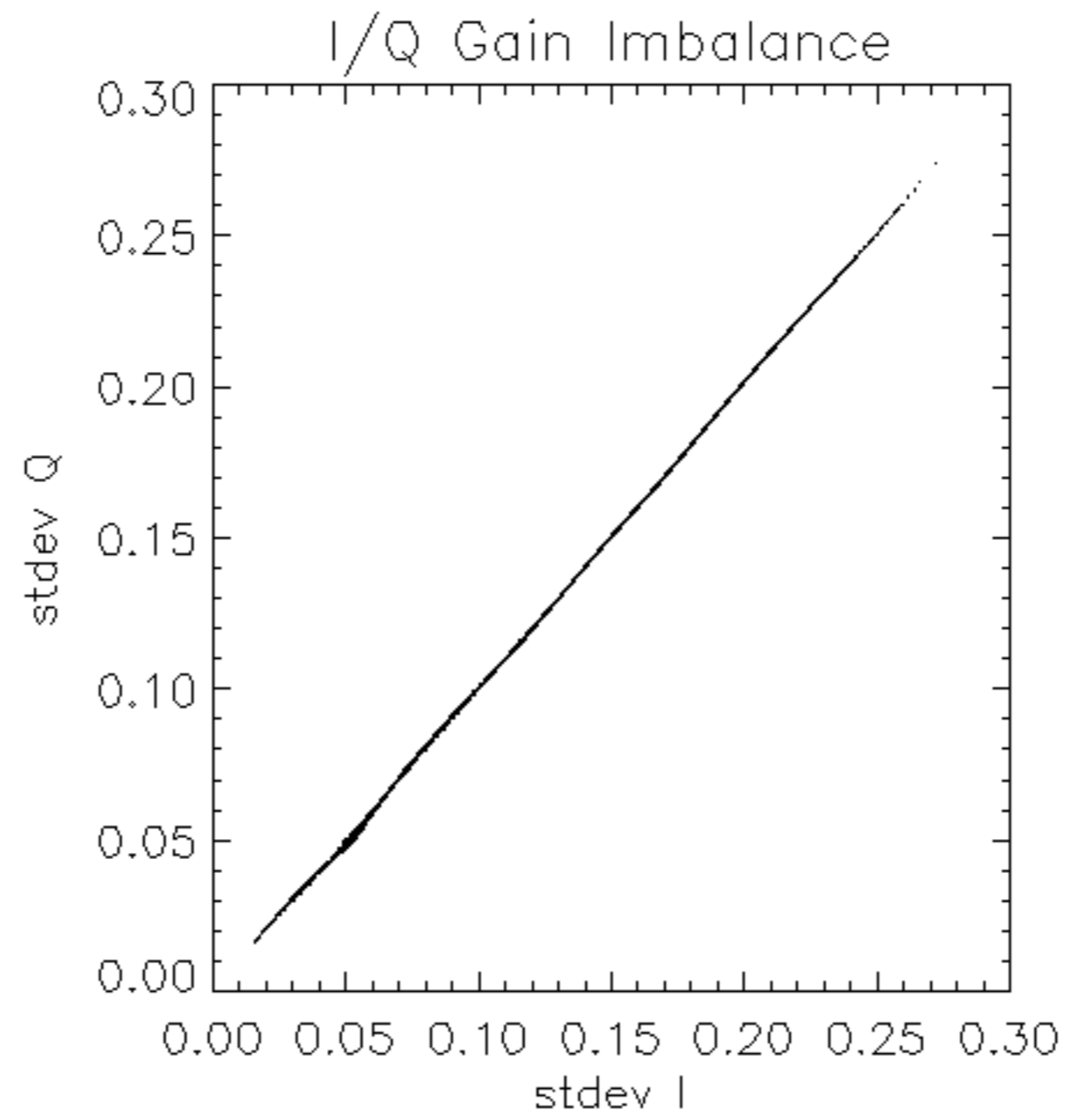


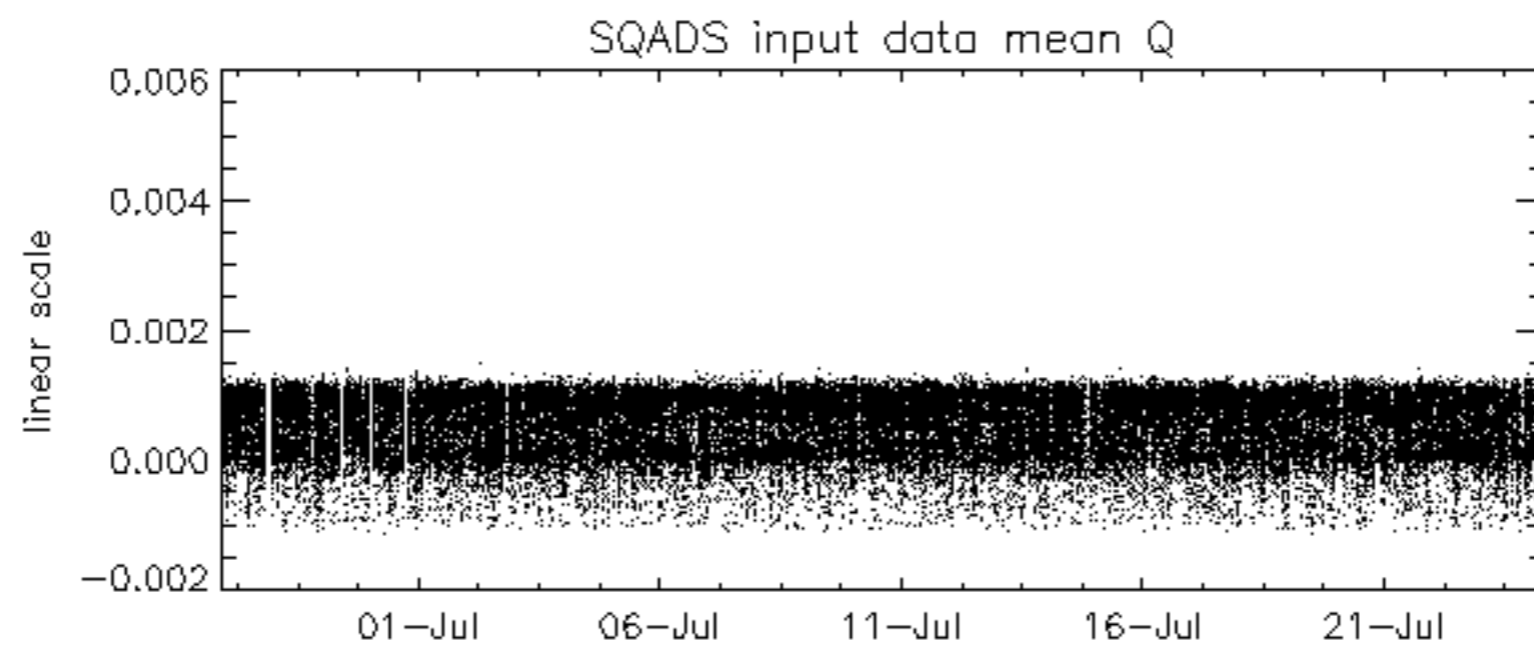
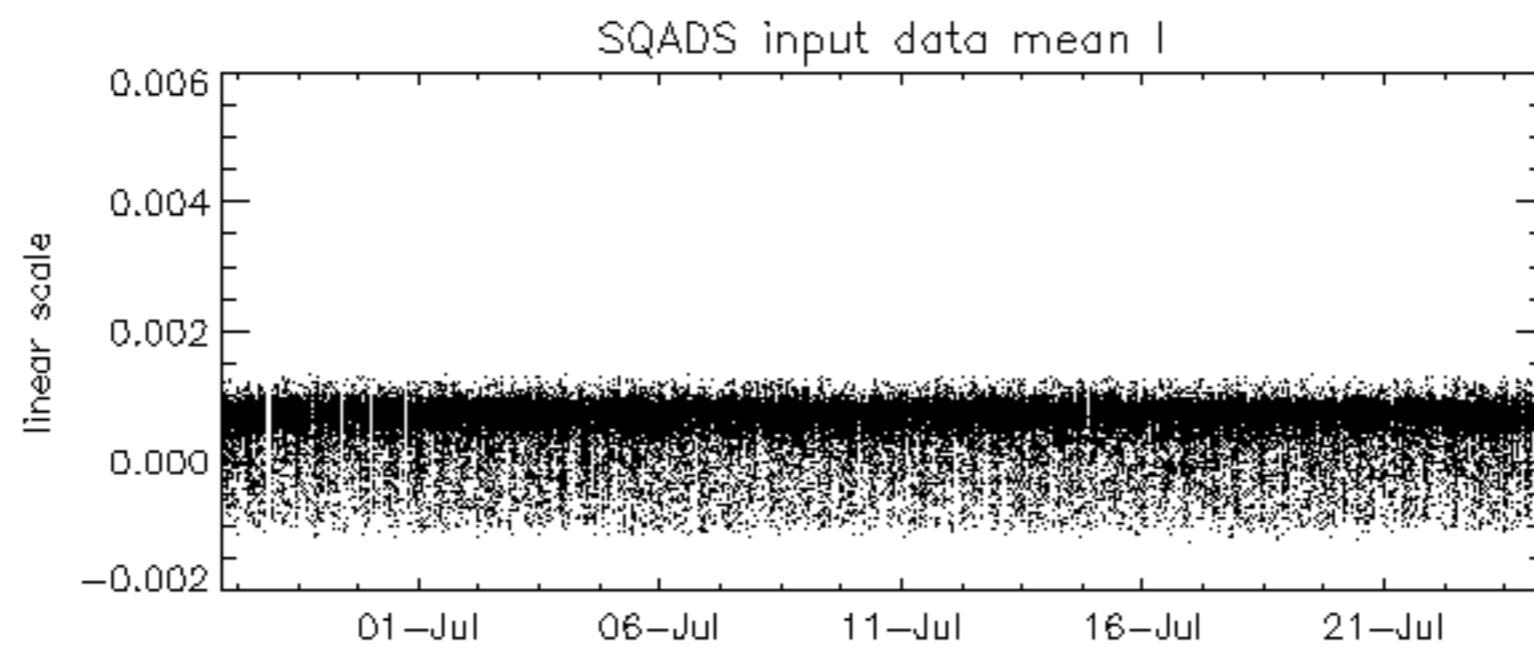
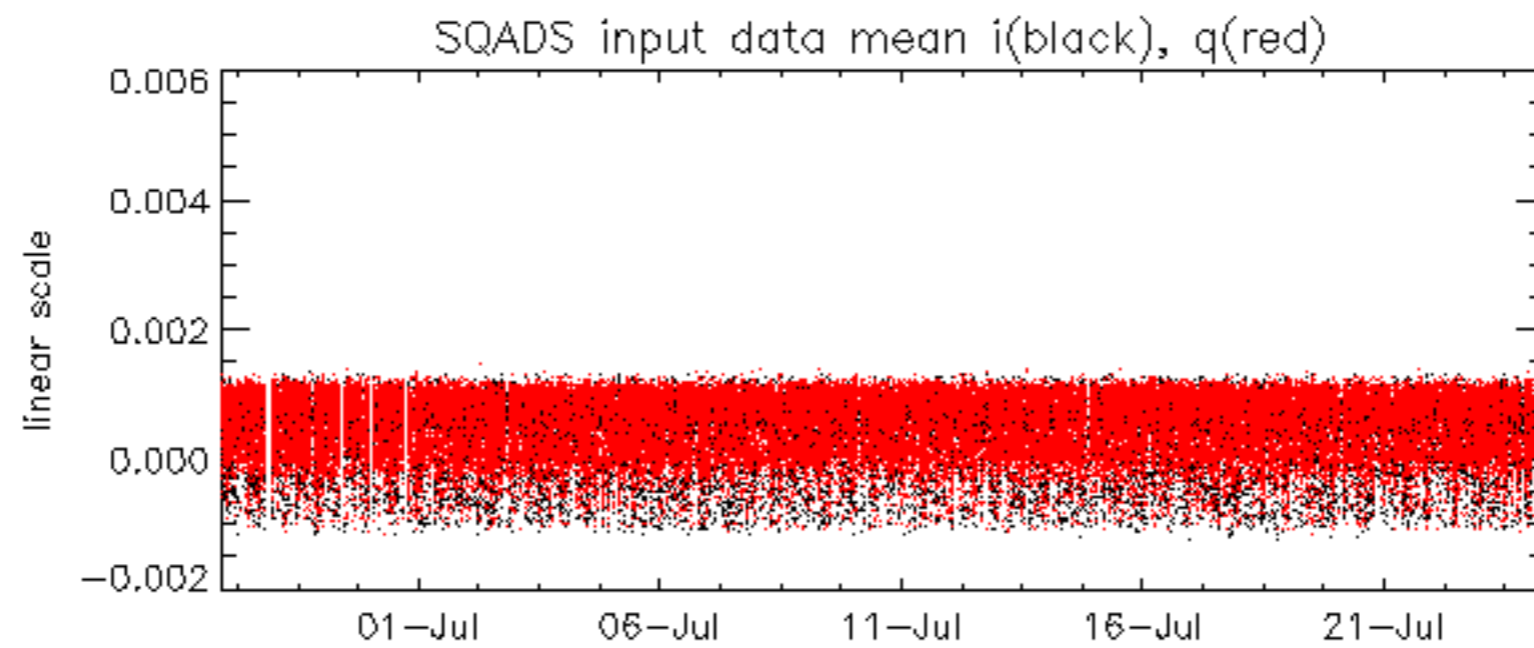
No anomalies observed on available MS products:

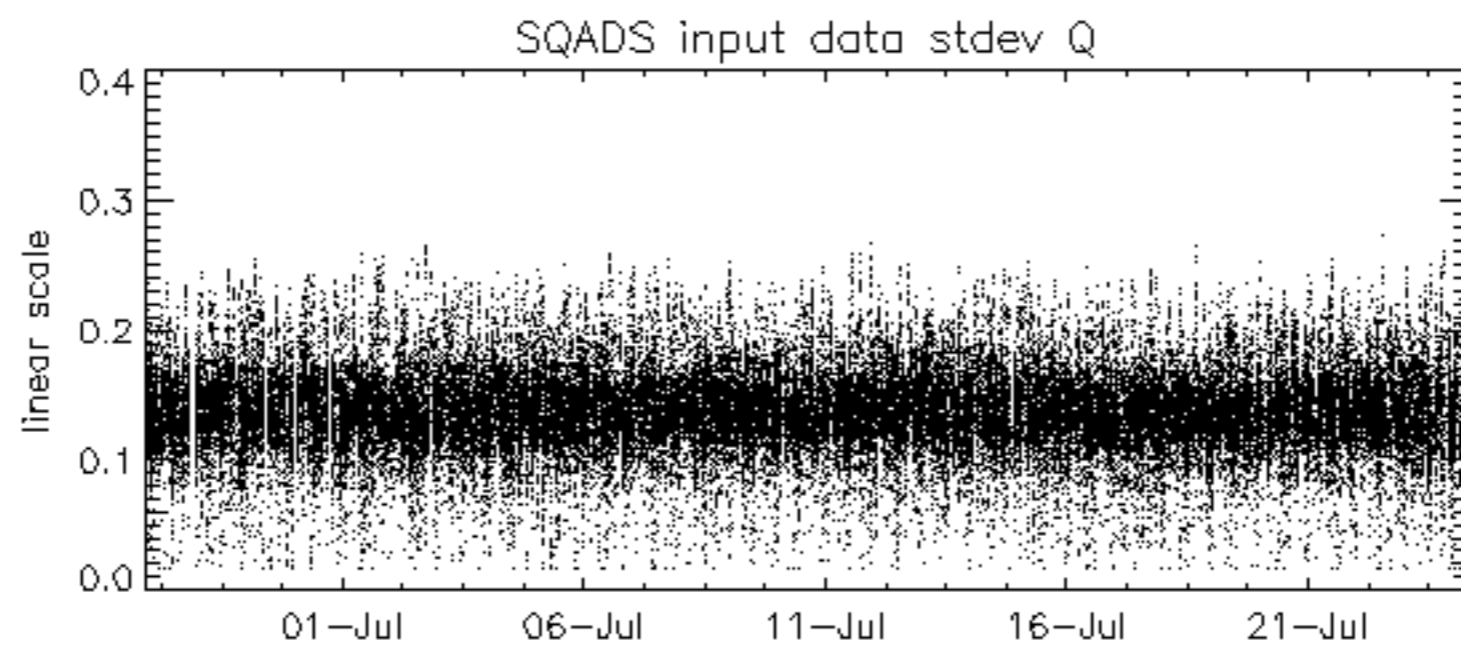
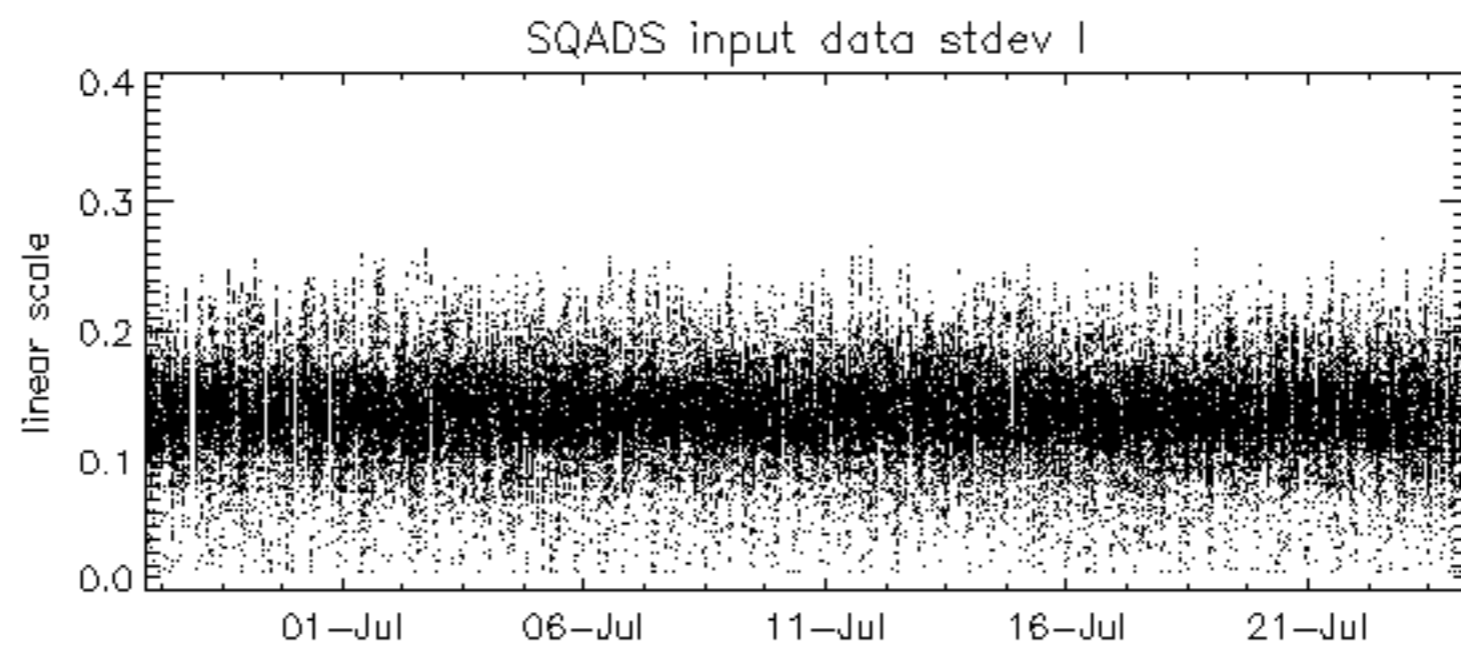
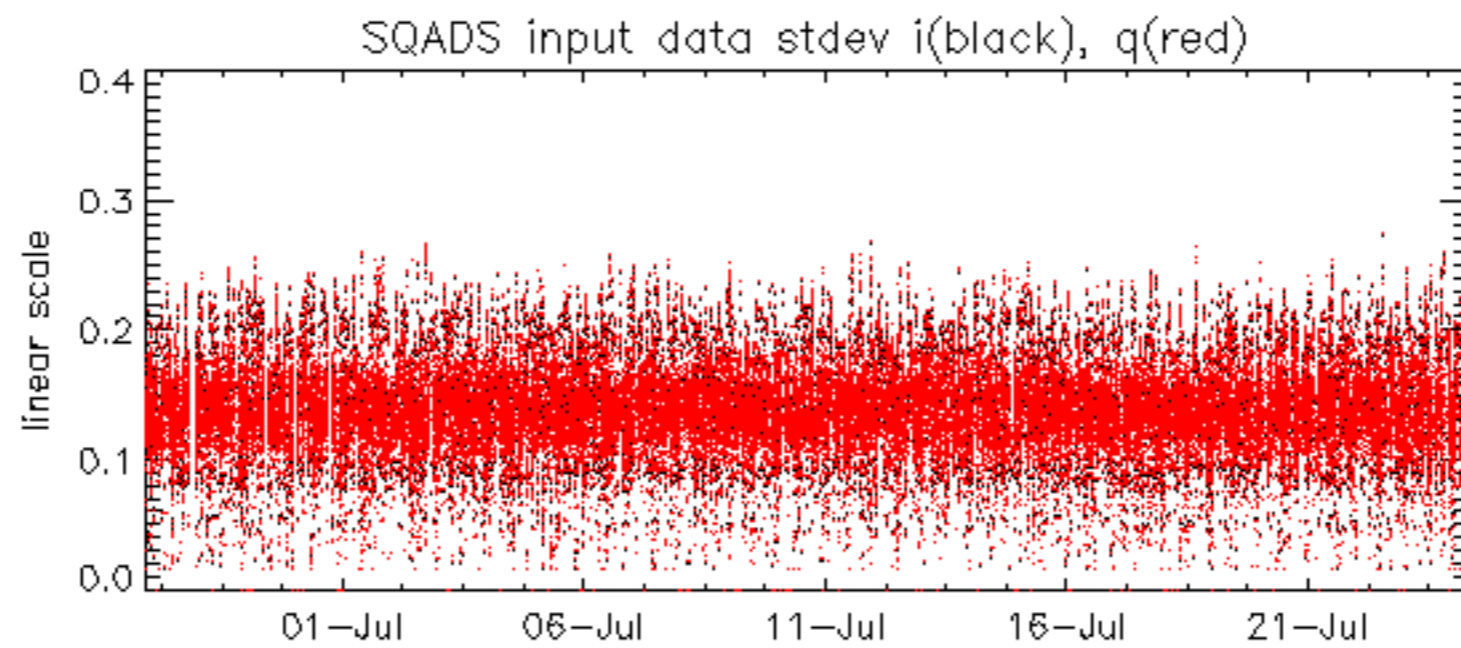
No anomalies observed.







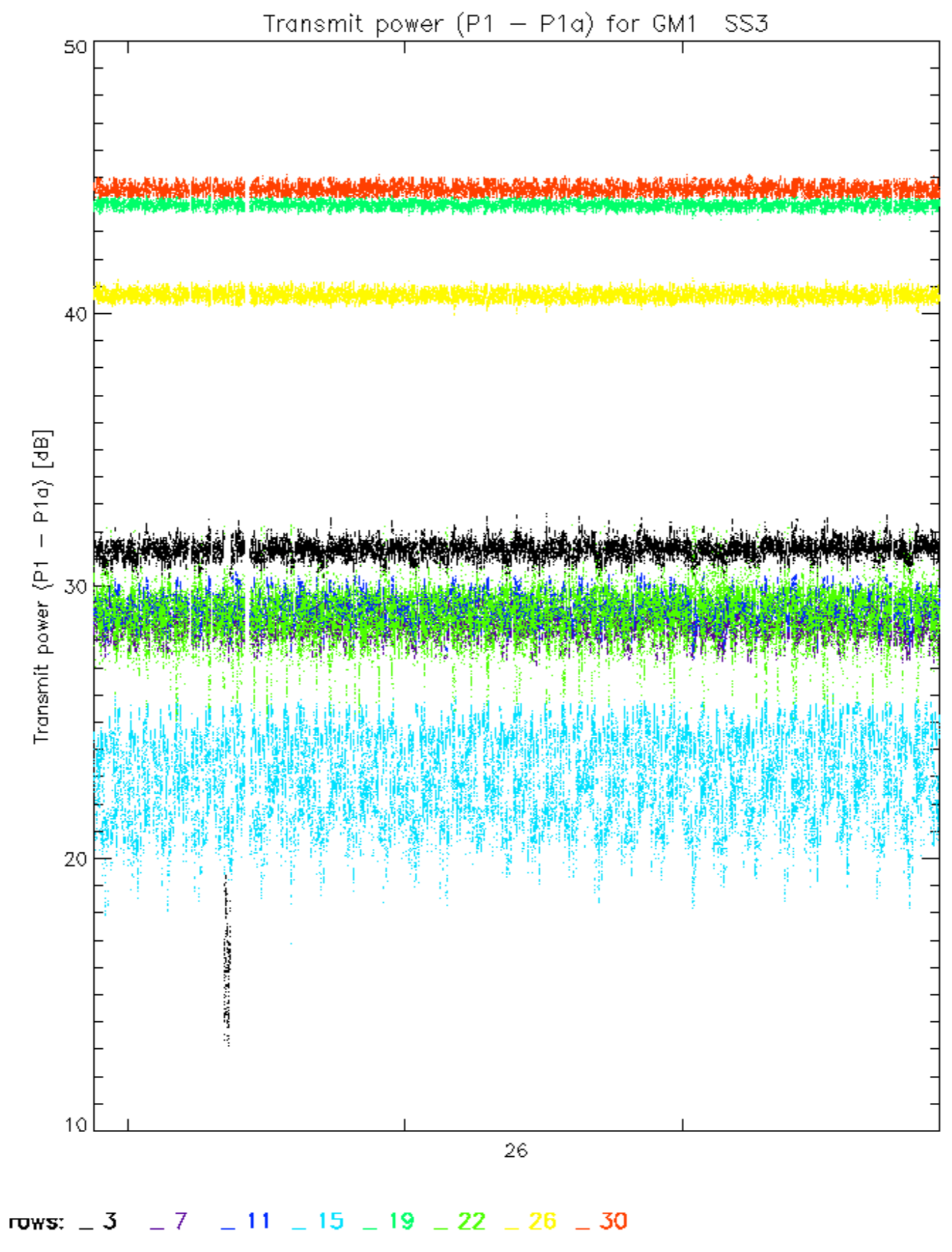


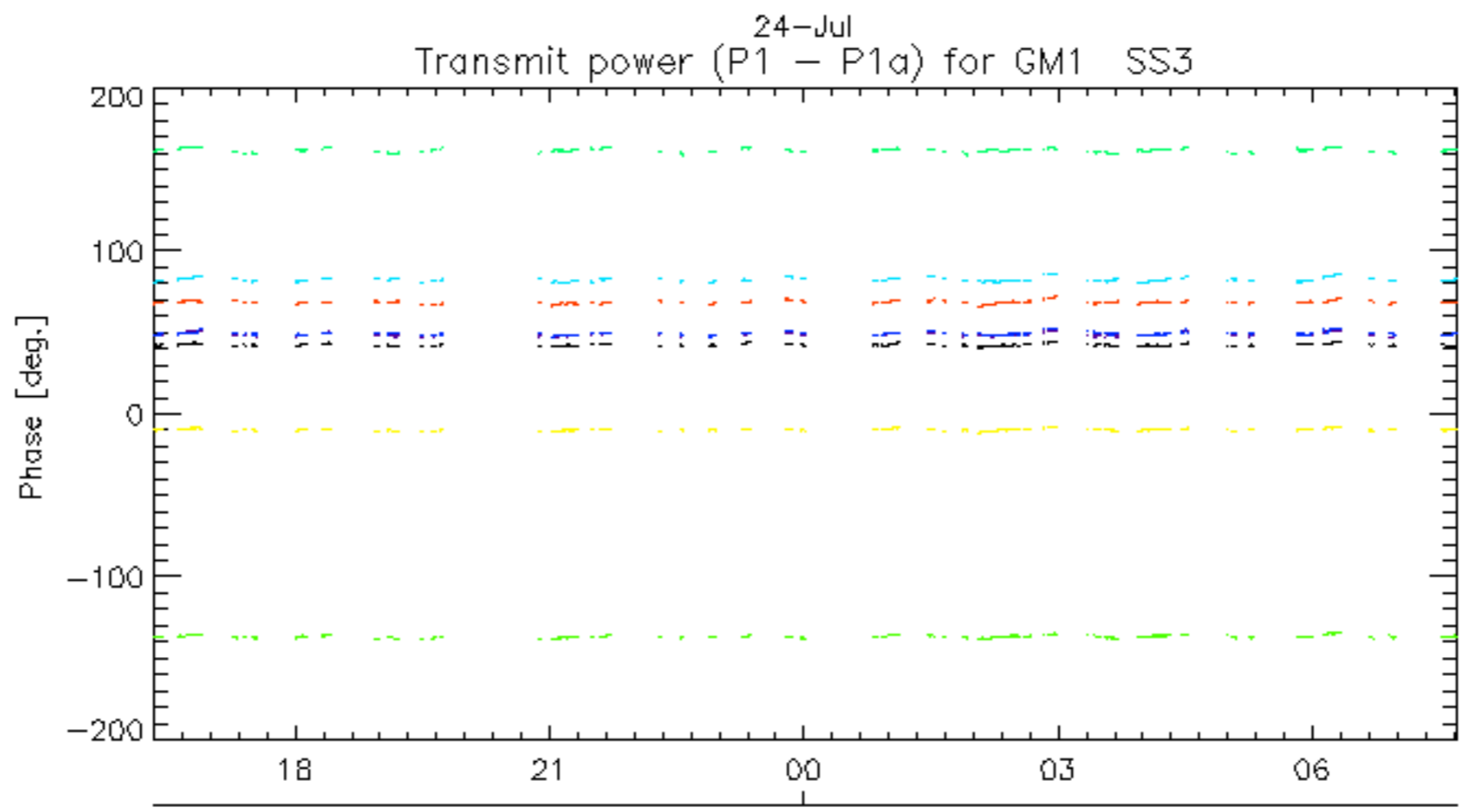
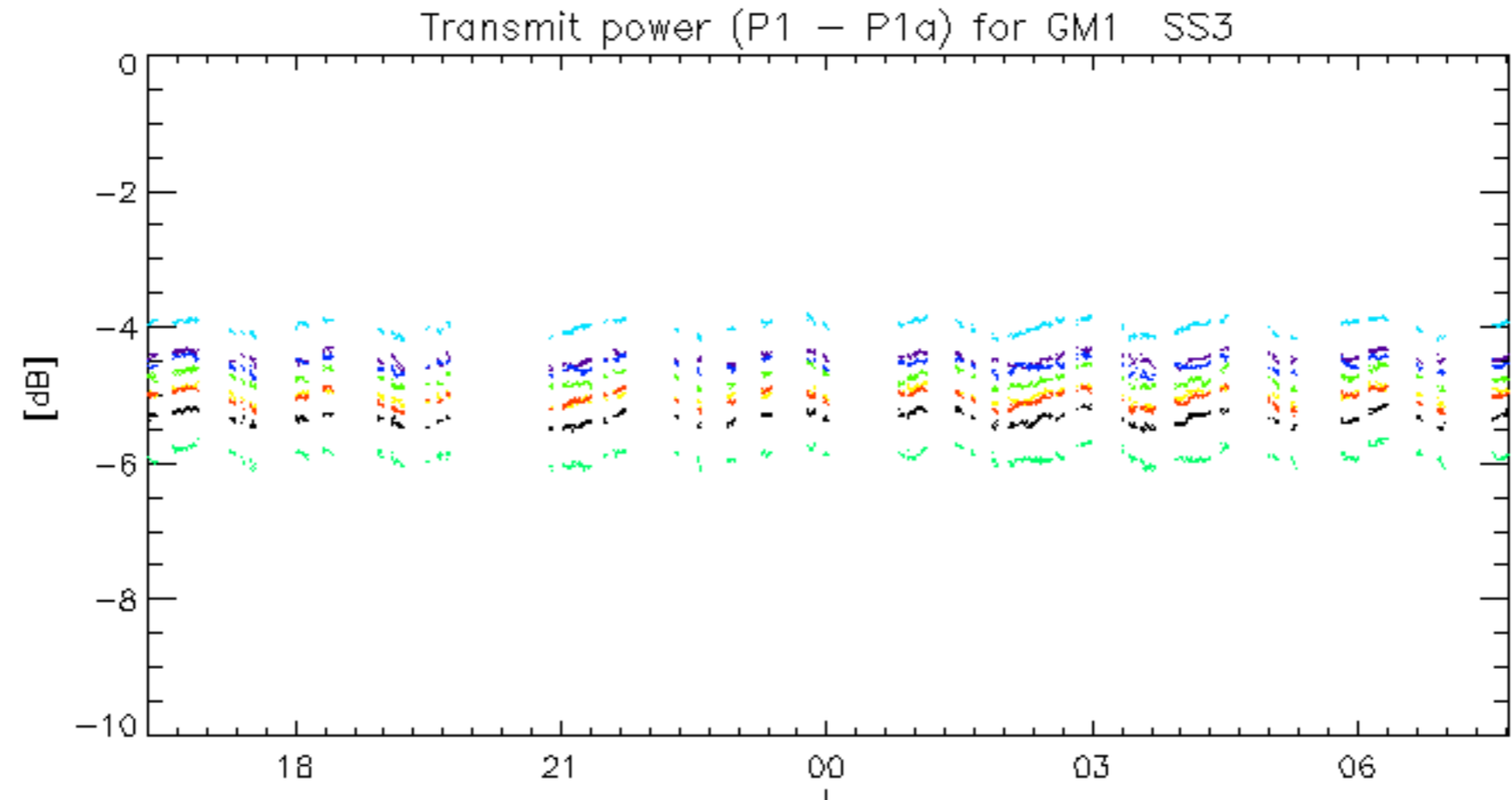


Summary of analysis for the last 3 days 2006072[234]

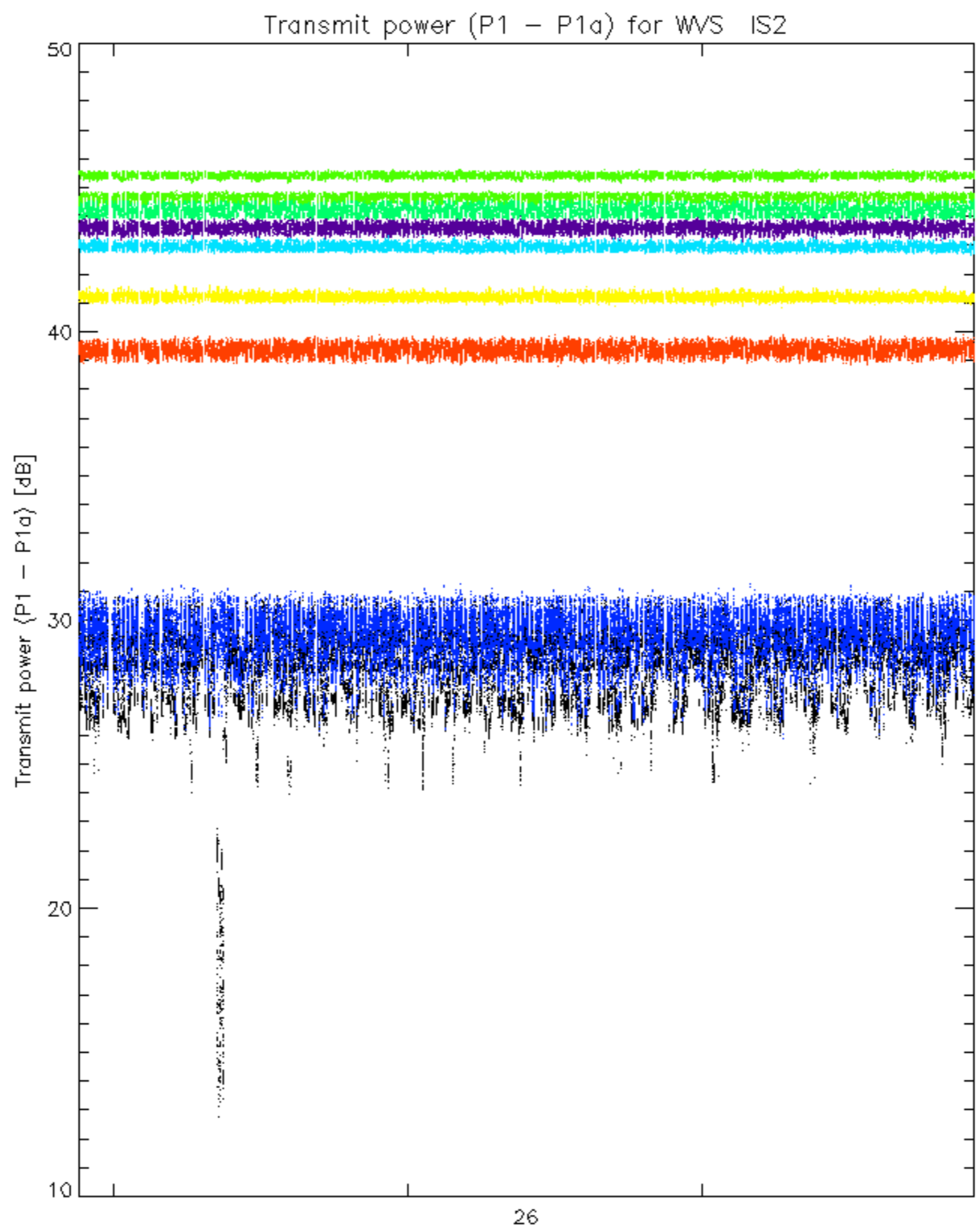
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060722_182653_00000352049_00371_22970_1645.N1	0	16
ASA_IMM_1PNPDE20060723_142730_00000342049_00382_22981_1791.N1	1	0
ASA_WSM_1PNPDE20060723_161437_000001092049_00384_22983_4126.N1	0	49
ASA_WSM_1PNPDE20060723_234035_000000852049_00388_22987_4163.N1	0	29
ASA_WSM_1PNPDK20060722_103053_000000862049_00366_22965_1789.N1	0	5

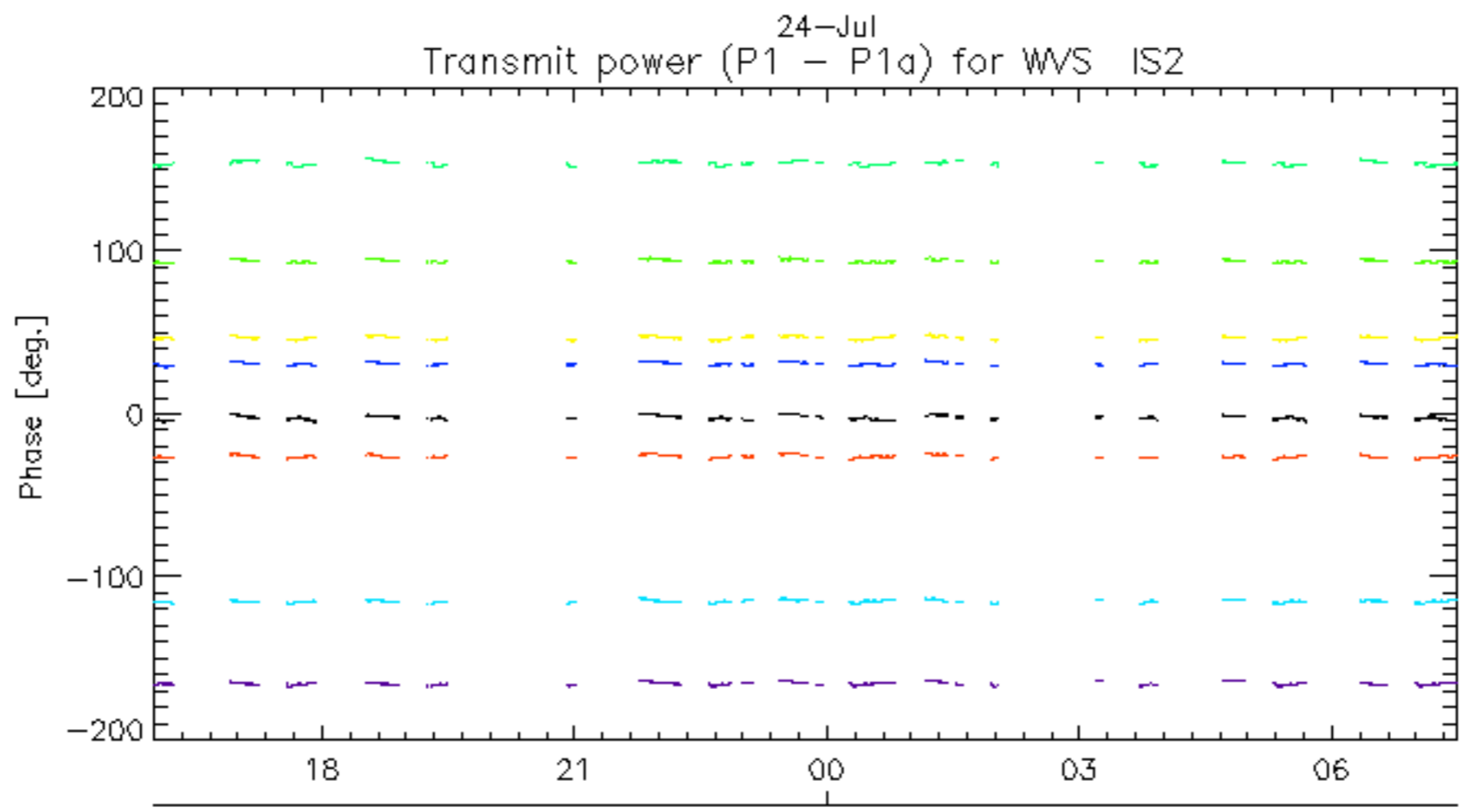
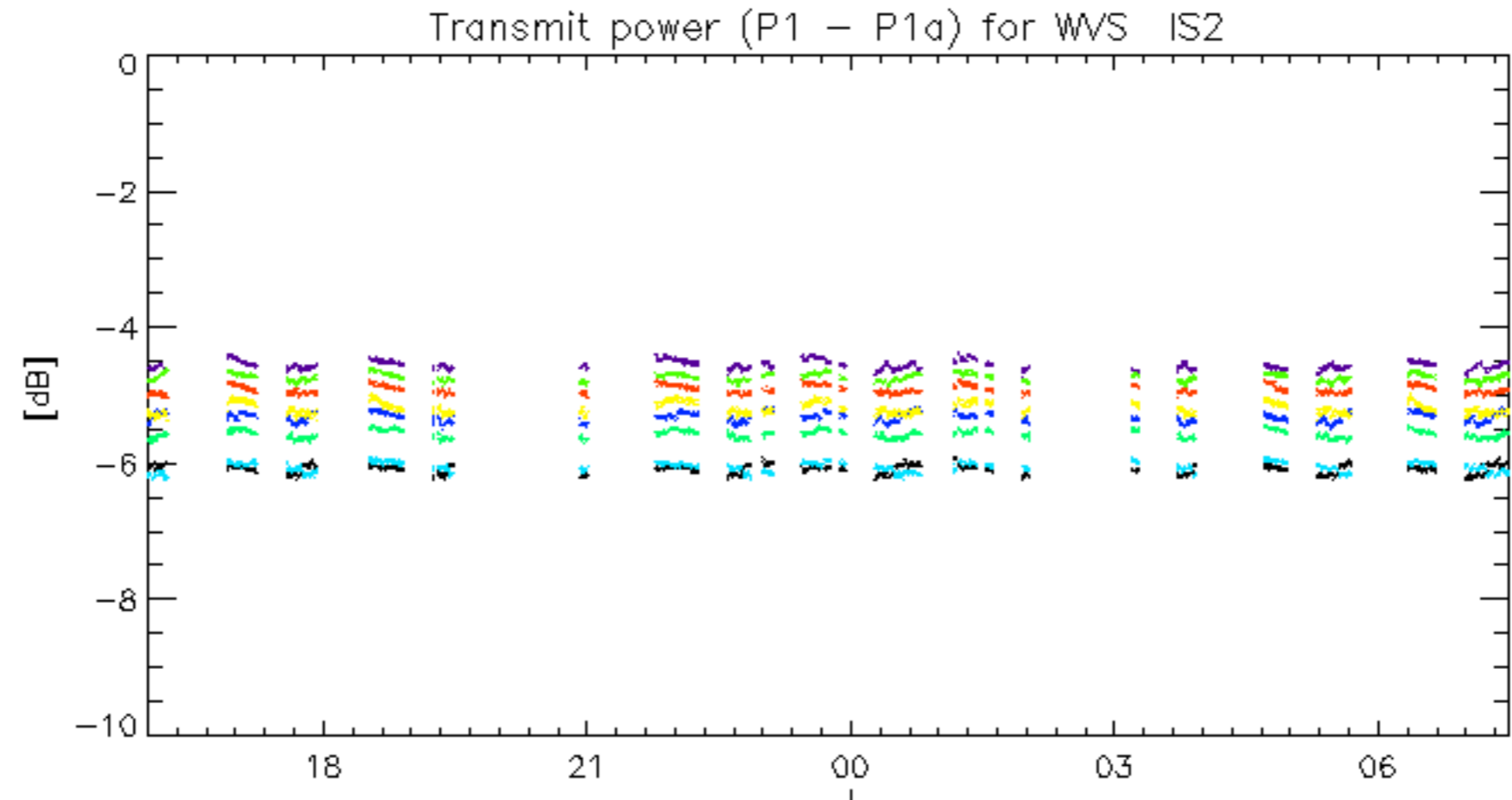




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.