

PRELIMINARY REPORT OF 060717

last update on Mon Jul 17 10:50:01 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 2006-07-16 00:00:00 to 2006-07-17 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	27	50	16	1	14
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	27	50	16	1	14
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	27	50	16	1	14
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	27	50	16	1	14

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	56	50	12	31
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	33	56	50	12	31
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	56	50	12	31
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	56	50	12	31

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	20060716 023111
H	20060715 030248

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	-3.929687	0.012892	-0.014933
7	P1	-3.102754	0.010007	-0.011940
11	P1	-4.086018	0.013580	0.001828
15	P1	-6.173073	0.011651	-0.015052
19	P1	-3.393846	0.009343	-0.053003
22	P1	-4.543932	0.010235	-0.018311
26	P1	-3.932643	0.019828	0.032645
30	P1	-5.762407	0.008025	-0.006635
3	P1	-16.506567	0.350578	-0.049245
7	P1	-17.191235	0.100239	-0.079586
11	P1	-16.983850	0.276640	-0.053030
15	P1	-13.117586	0.153850	0.006091
19	P1	-14.440581	0.048458	-0.154784
22	P1	-16.021421	0.421313	-0.022083
26	P1	-15.133384	0.239879	0.098547
30	P1	-17.098579	0.344747	-0.092481

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.995756	0.087290	0.130421
7	P2	-21.925182	0.105310	0.089746
11	P2	-15.802272	0.122035	0.058790
15	P2	-7.133795	0.101873	0.011638
19	P2	-9.135916	0.091134	-0.005809
22	P2	-18.150421	0.086025	-0.007168
26	P2	-16.398275	0.093677	-0.036056
30	P2	-19.527685	0.093818	0.038259

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.174977	0.002943	0.005411
7	P3	-8.174977	0.002943	0.005411
11	P3	-8.174977	0.002943	0.005411
15	P3	-8.174977	0.002943	0.005411
19	P3	-8.174977	0.002943	0.005411
22	P3	-8.174977	0.002943	0.005411
26	P3	-8.174977	0.002943	0.005411
30	P3	-8.174977	0.002943	0.005411

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	-3.798290	0.031691	-0.126465
7	P1	-2.563660	0.007949	0.005952
11	P1	-2.860268	0.014668	0.016188
15	P1	-3.565123	0.028877	-0.050798
19	P1	-3.417139	0.013442	-0.018973
22	P1	-5.092371	0.020221	0.027229
26	P1	-5.857263	0.015777	-0.008131
30	P1	-5.193982	0.026727	-0.040148
3	P1	-11.583917	0.102028	-0.206776
7	P1	-9.974447	0.033771	0.017059
11	P1	-10.247032	0.058699	0.027885
15	P1	-10.754745	0.143379	-0.008981
19	P1	-15.530438	0.075399	-0.041731
22	P1	-20.921740	1.228384	-0.118769

26	P1	-16.329855	0.379688	0.134494
30	P1	-17.890432	0.410184	-0.094454

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.646832	0.071590	0.196629
7	P2	-22.416683	0.128861	0.112371
11	P2	-11.059720	0.042761	0.088258
15	P2	-4.916805	0.046323	0.026295
19	P2	-6.878489	0.042344	0.022837
22	P2	-8.198812	0.037322	0.023356
26	P2	-24.187506	0.063947	0.017119
30	P2	-22.020514	0.050157	0.049917

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.015353	0.003750	0.011313
7	P3	-8.015320	0.003748	0.012194
11	P3	-8.015141	0.003766	0.011773
15	P3	-8.015334	0.003753	0.011703
19	P3	-8.015282	0.003756	0.012201
22	P3	-8.015320	0.003745	0.011676
26	P3	-8.015266	0.003751	0.011799
30	P3	-8.015289	0.003742	0.012128

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	0.000570018
	stdev	1.63716e-07
MEAN Q	mean	0.000545082
	stdev	2.10672e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138301
	stdev	0.00108181
STDEV Q	mean	0.138660
	stdev	0.00109997



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006071[567]

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_1PNPDE20060717_004744_000002292049_00288_22887_1022.N1	1	0
ASA_GM1_1PNPDK20060715_141824_000007972049_00268_22867_1061.N1	0	15
ASA_WSM_1PNPDE20060715_010155_000001462049_00260_22859_3155.N1	0	34
ASA_WSM_1PNPDE20060715_170157_000001472049_00270_22869_3251.N1	0	18
ASA_WSM_1PNPDE20060716_020953_000001832049_00275_22874_3293.N1	0	39



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

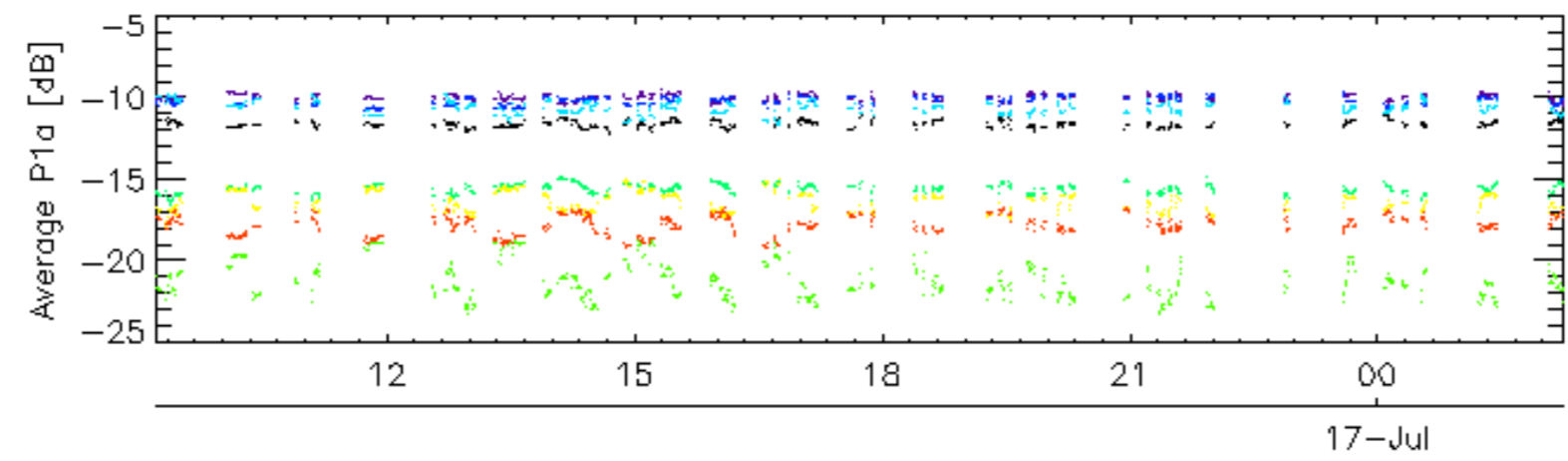
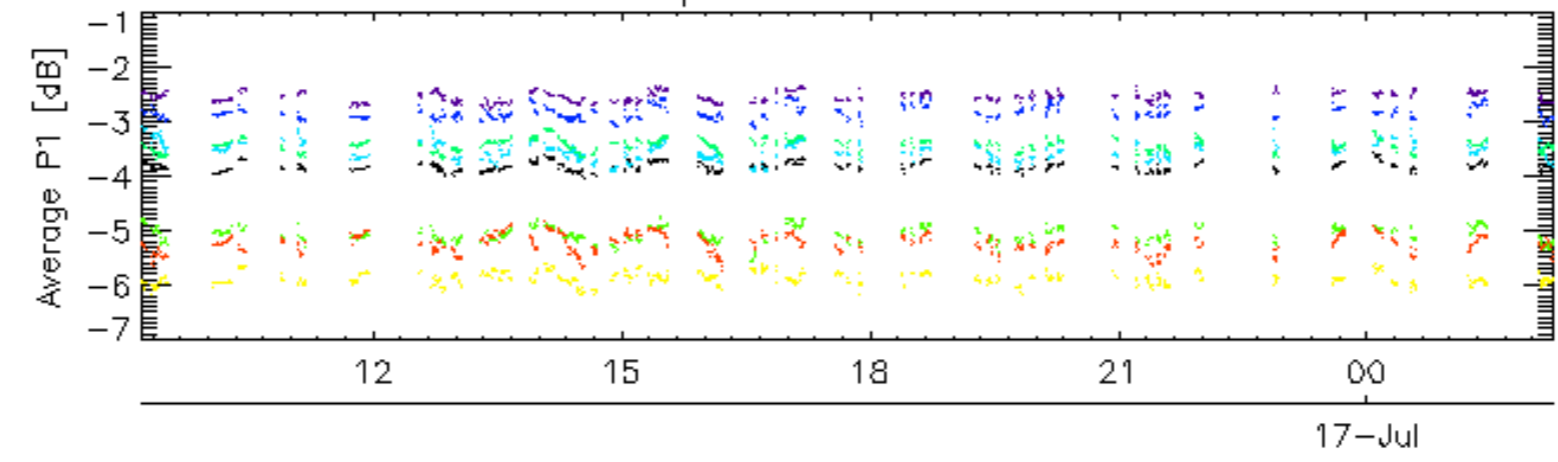
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	Ascending
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	Descending

7.6 - Doppler evolution versus ANX for GM1

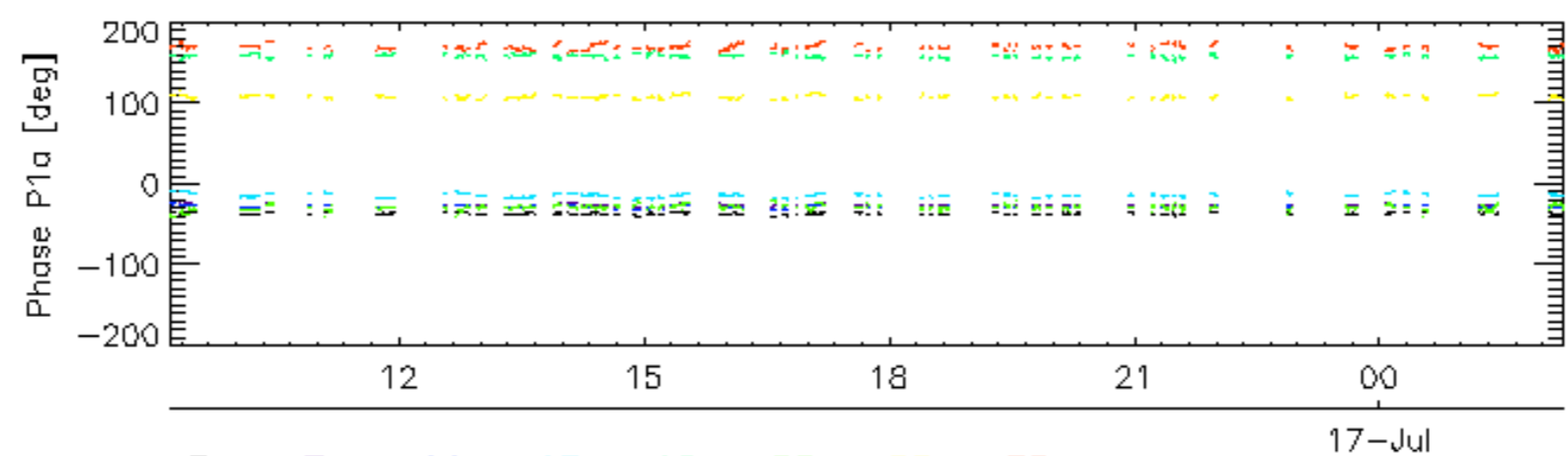
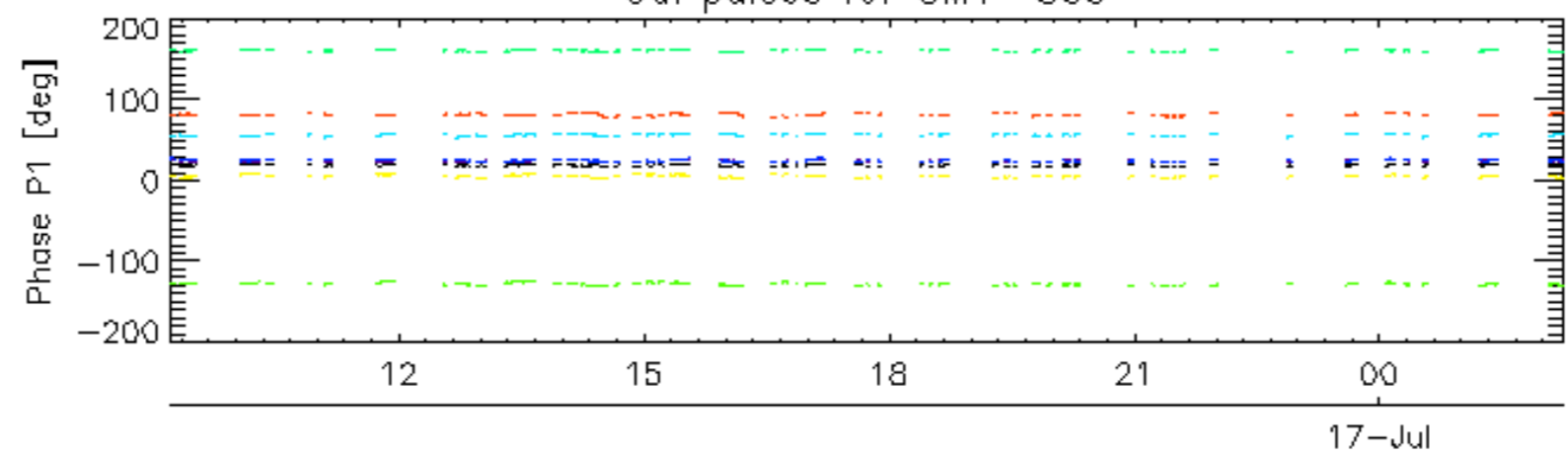
Evolution Doppler error versus ANX

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

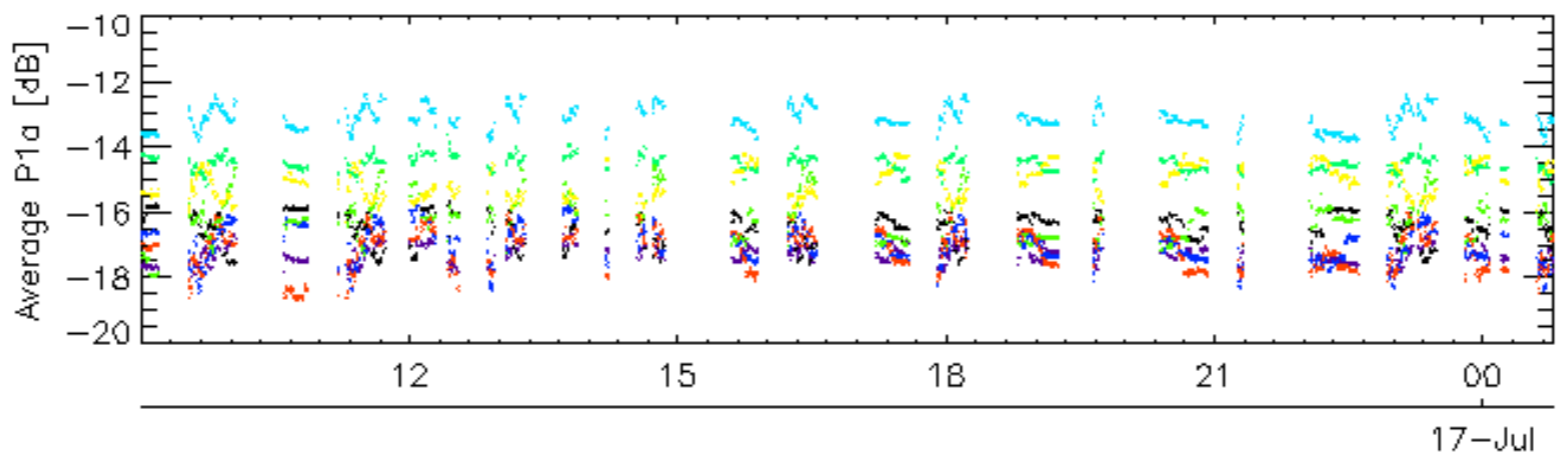
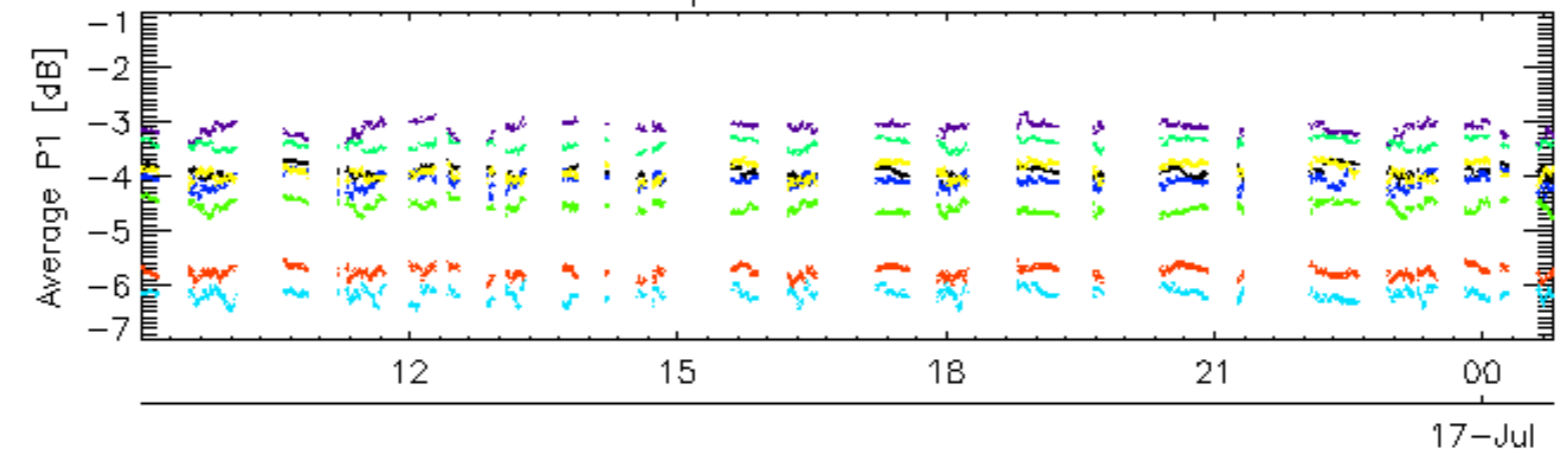


Cal pulses for GM1 SS3

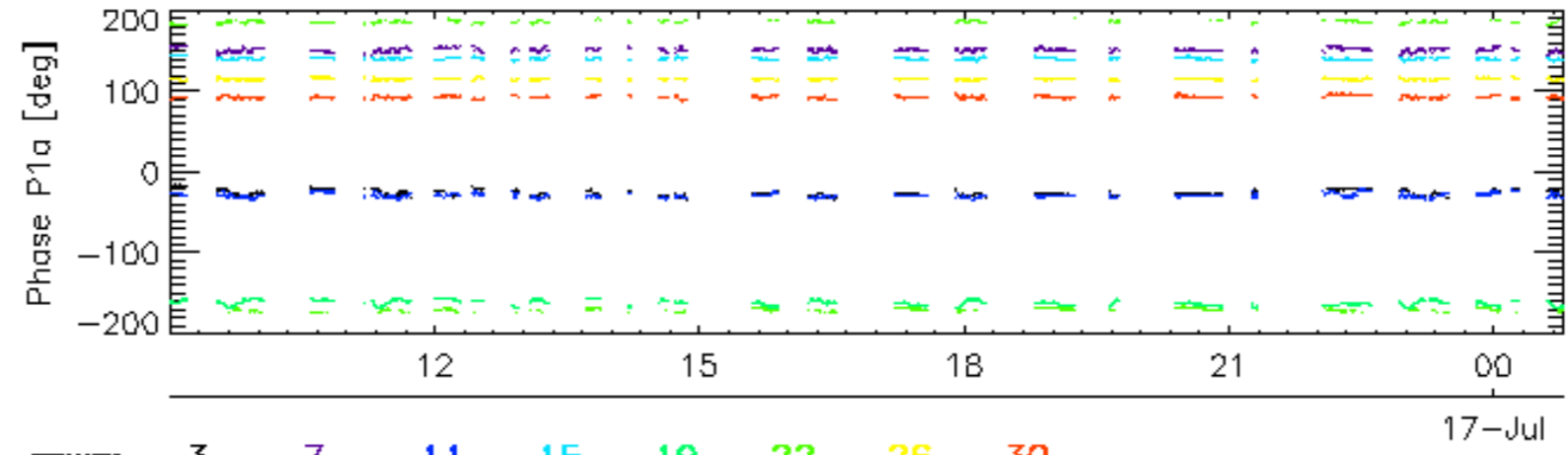
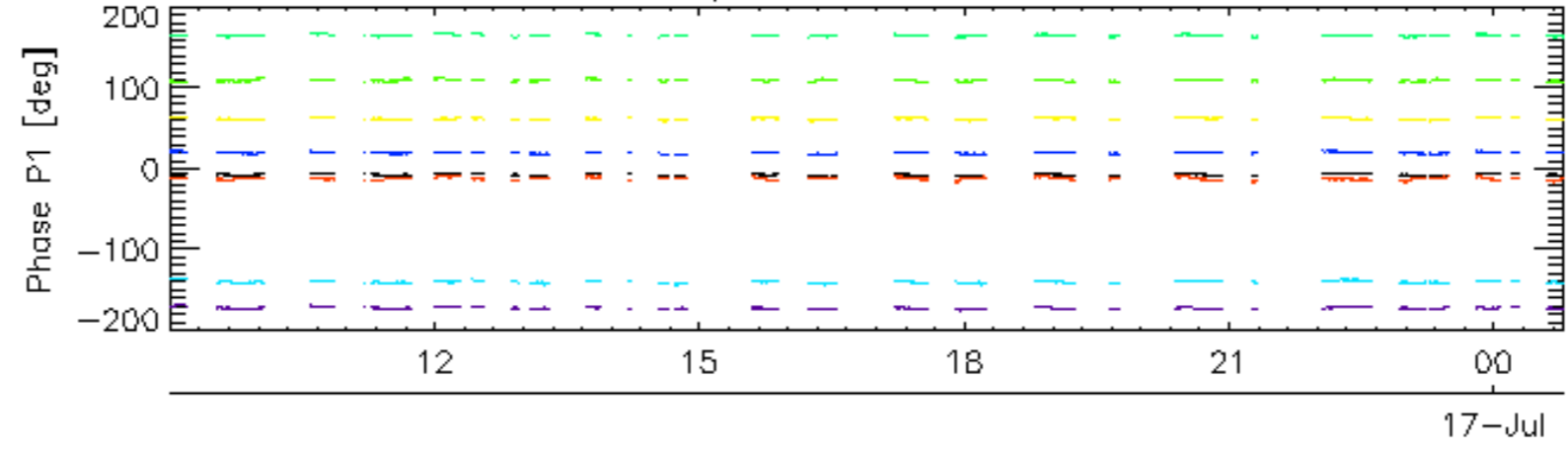


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

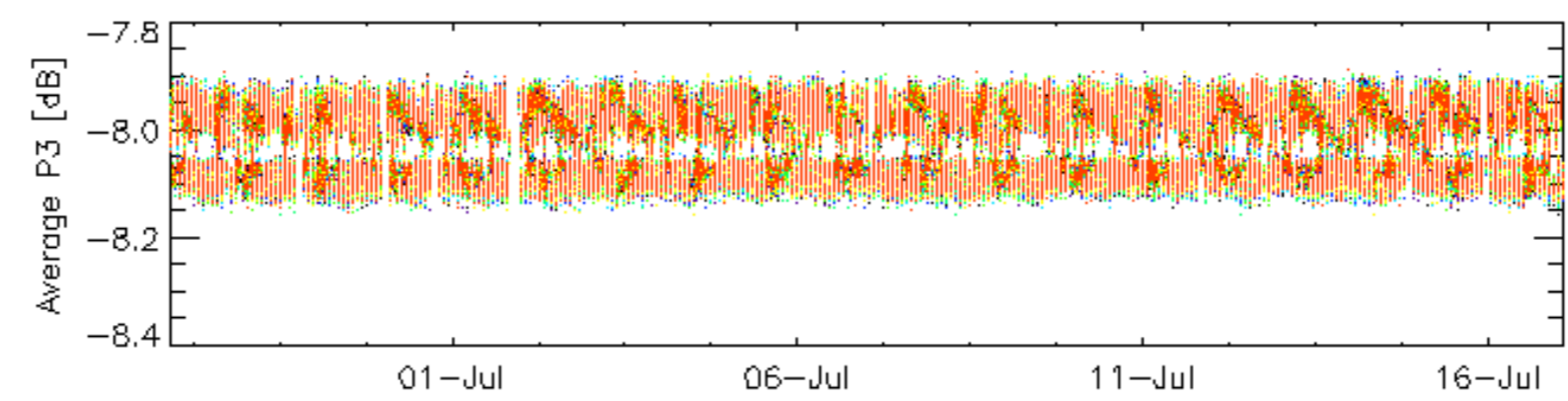
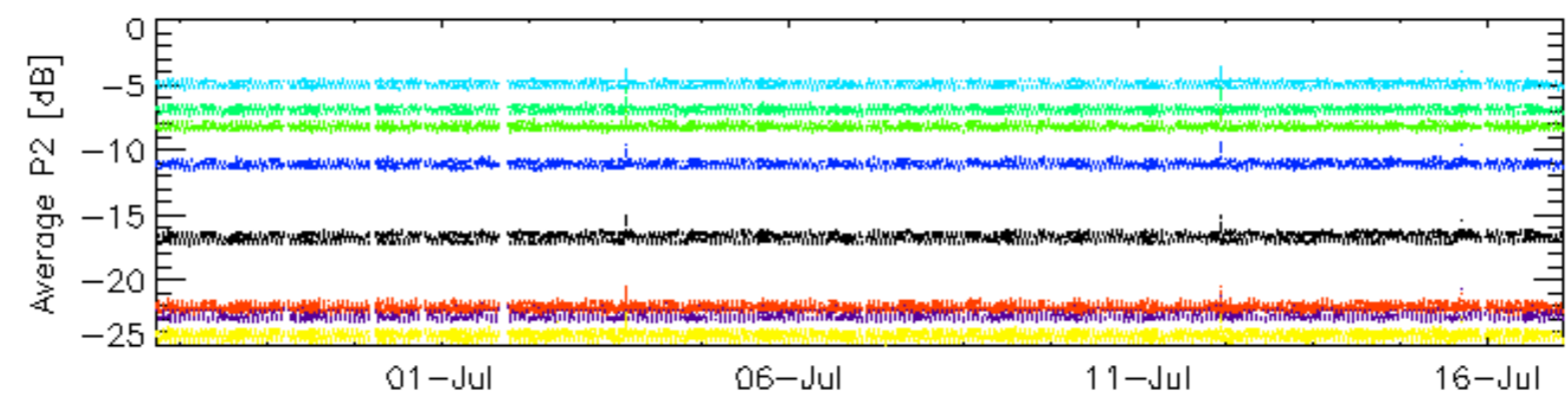
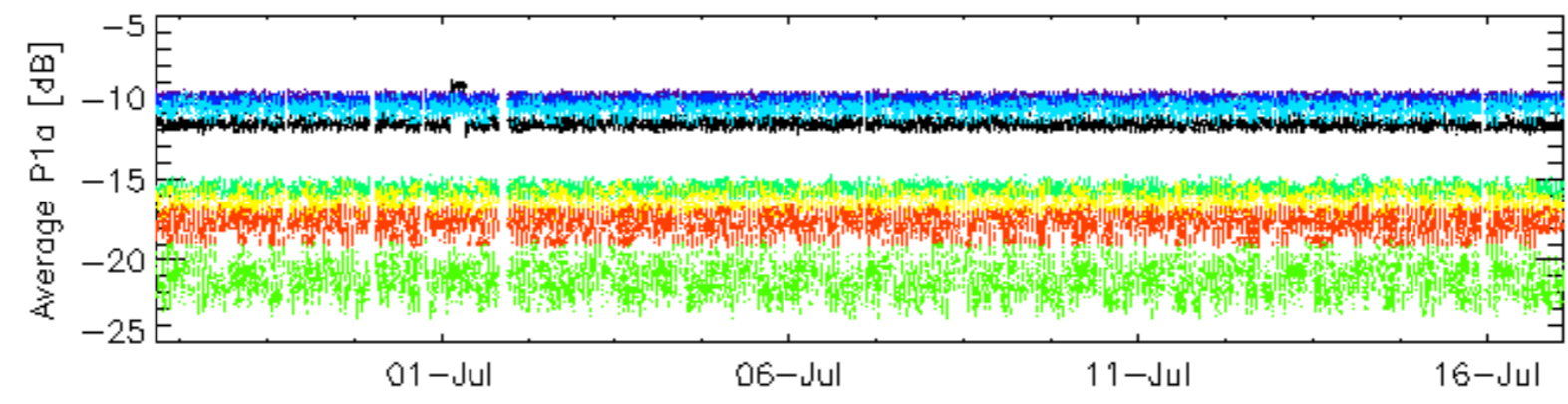
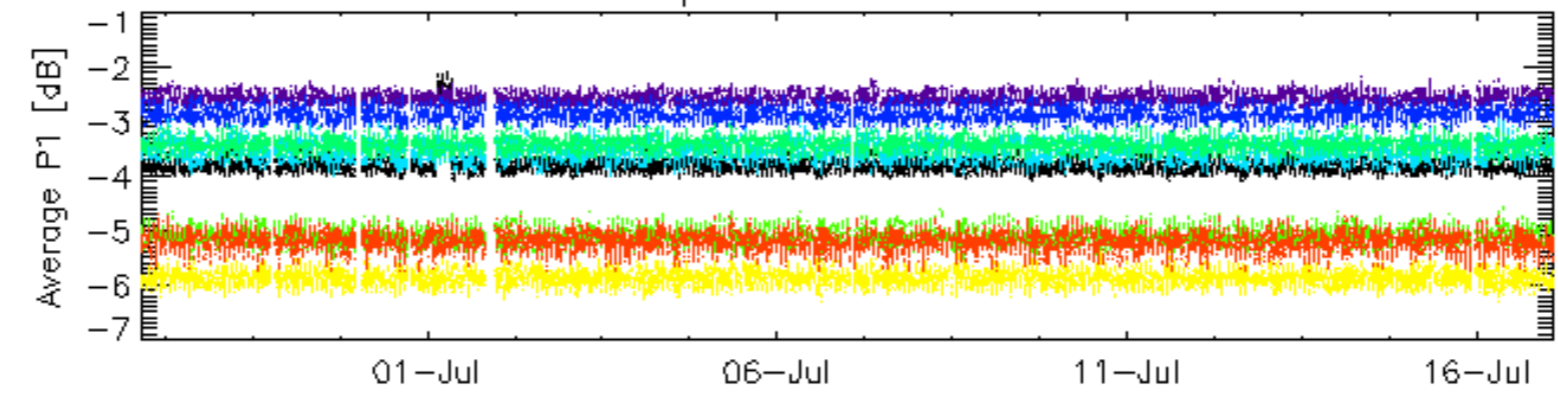


Cal pulses for WVS IS2



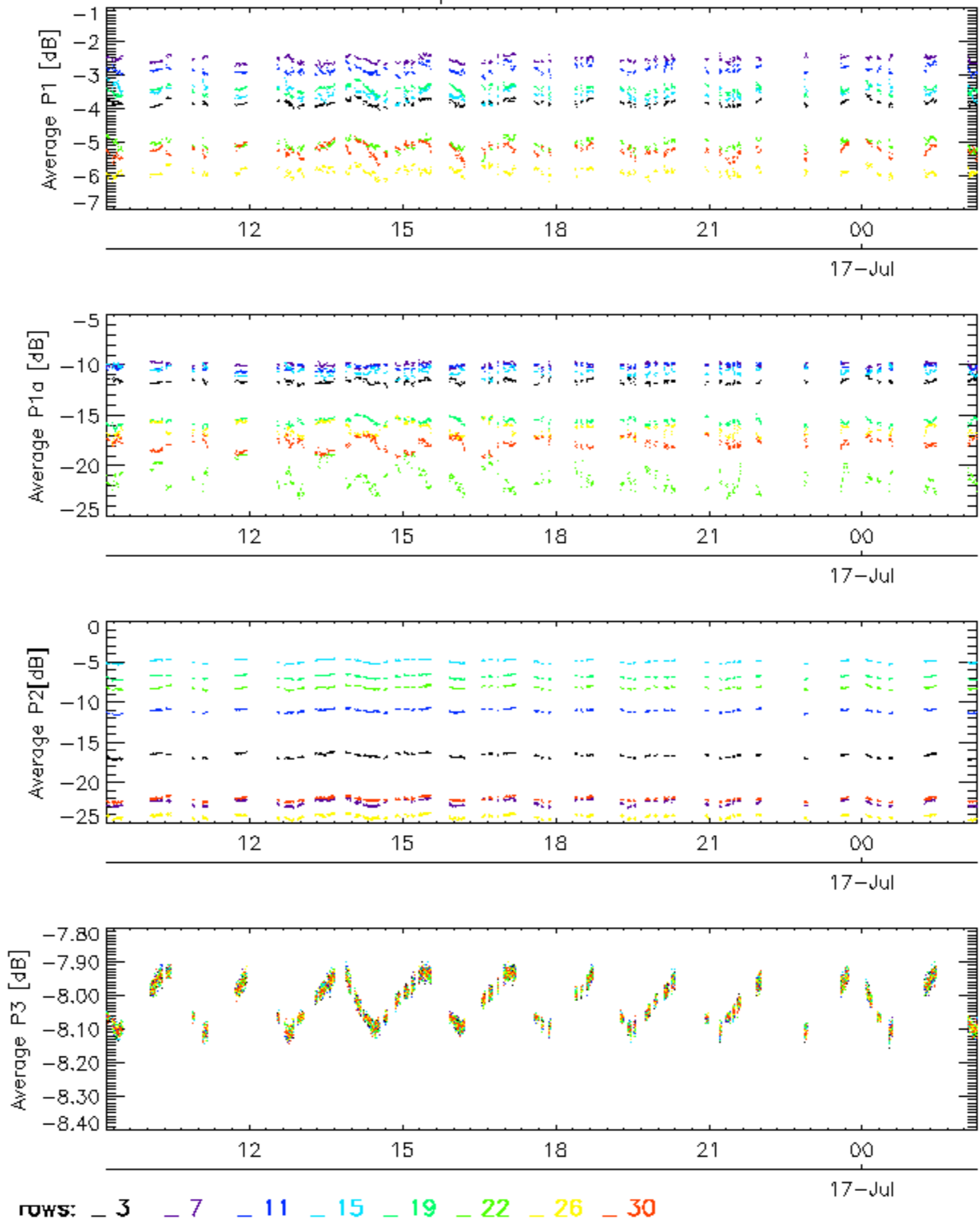
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

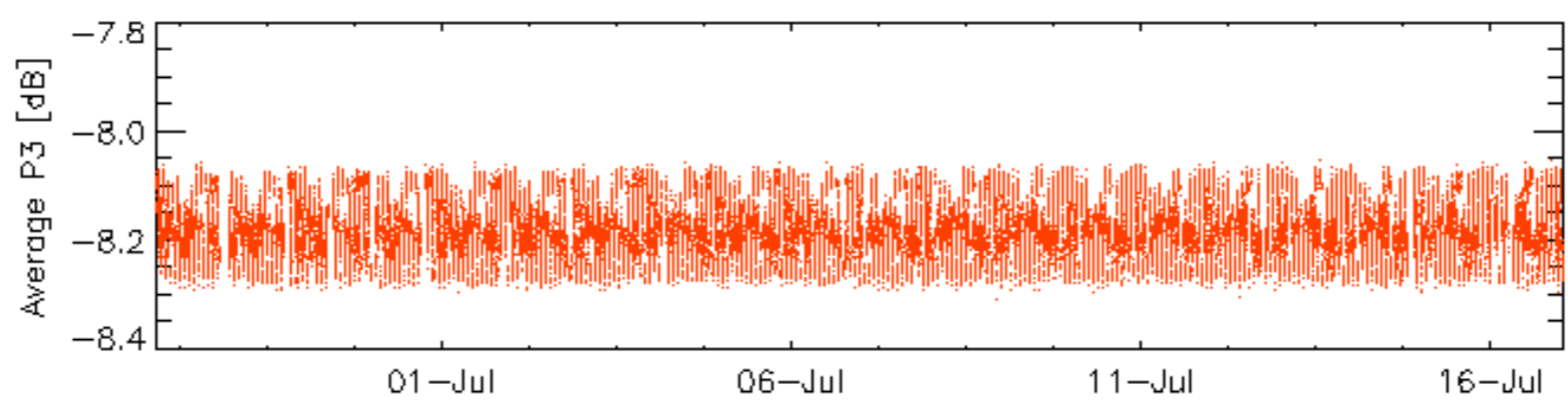
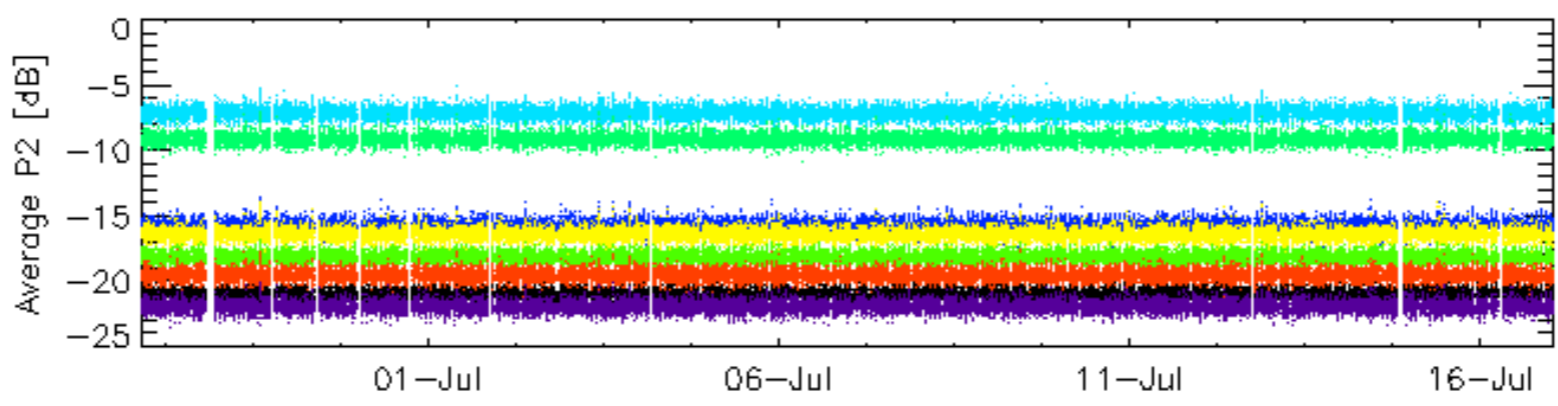
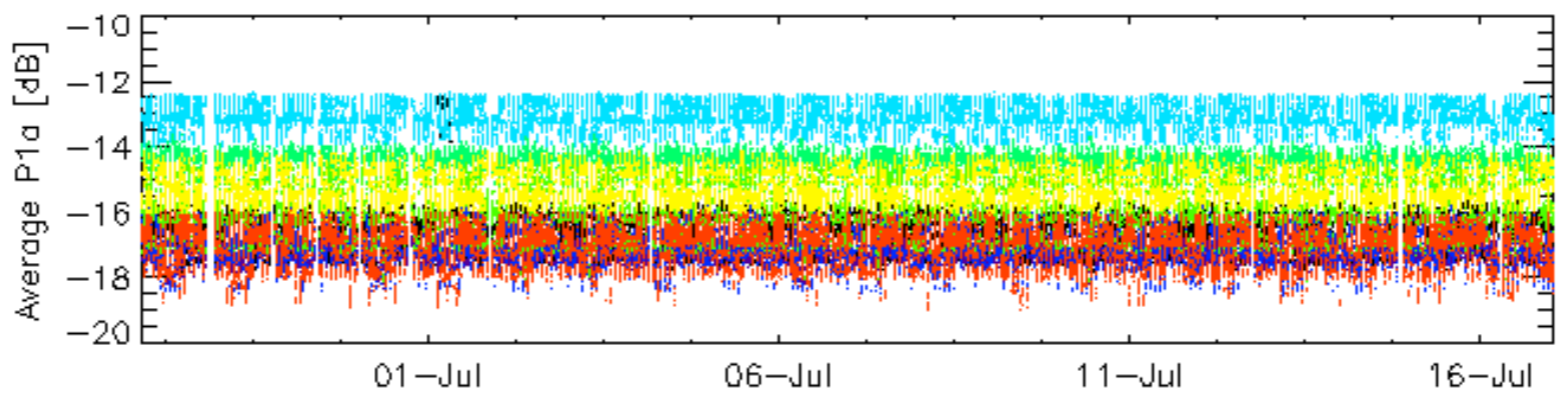
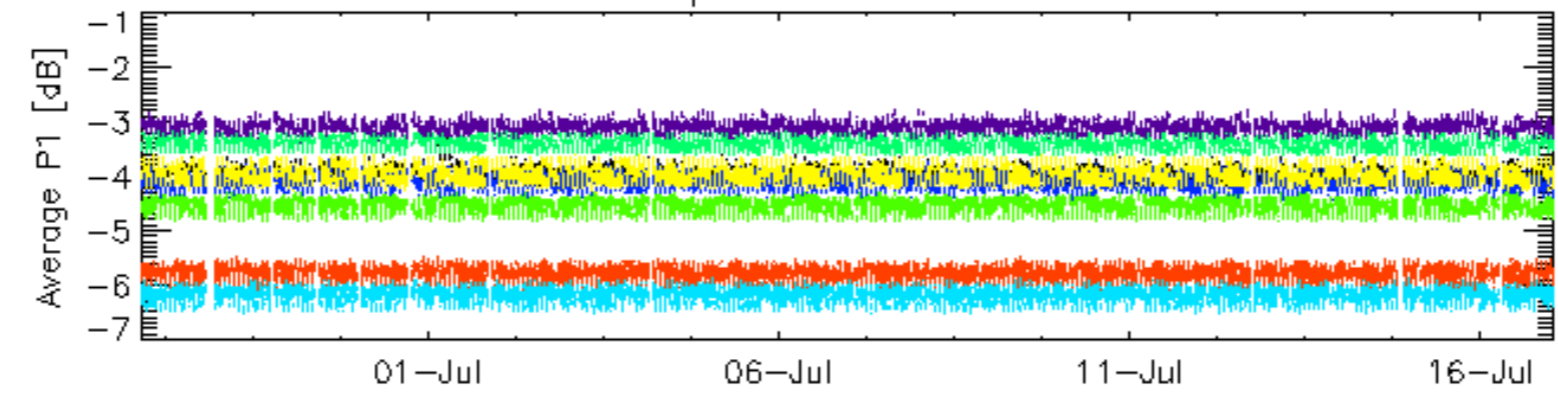


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

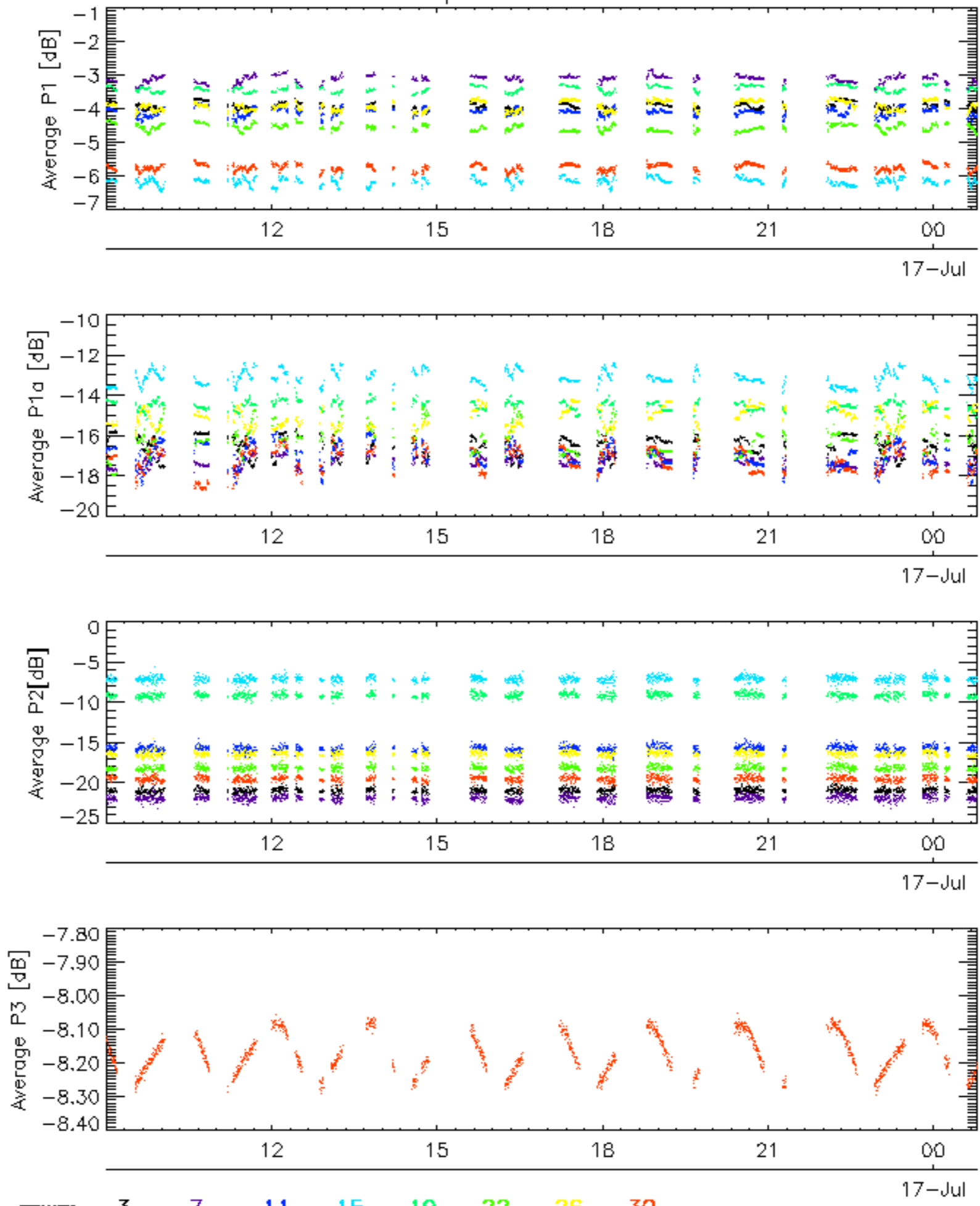


Cal pulses for WVS IS2



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

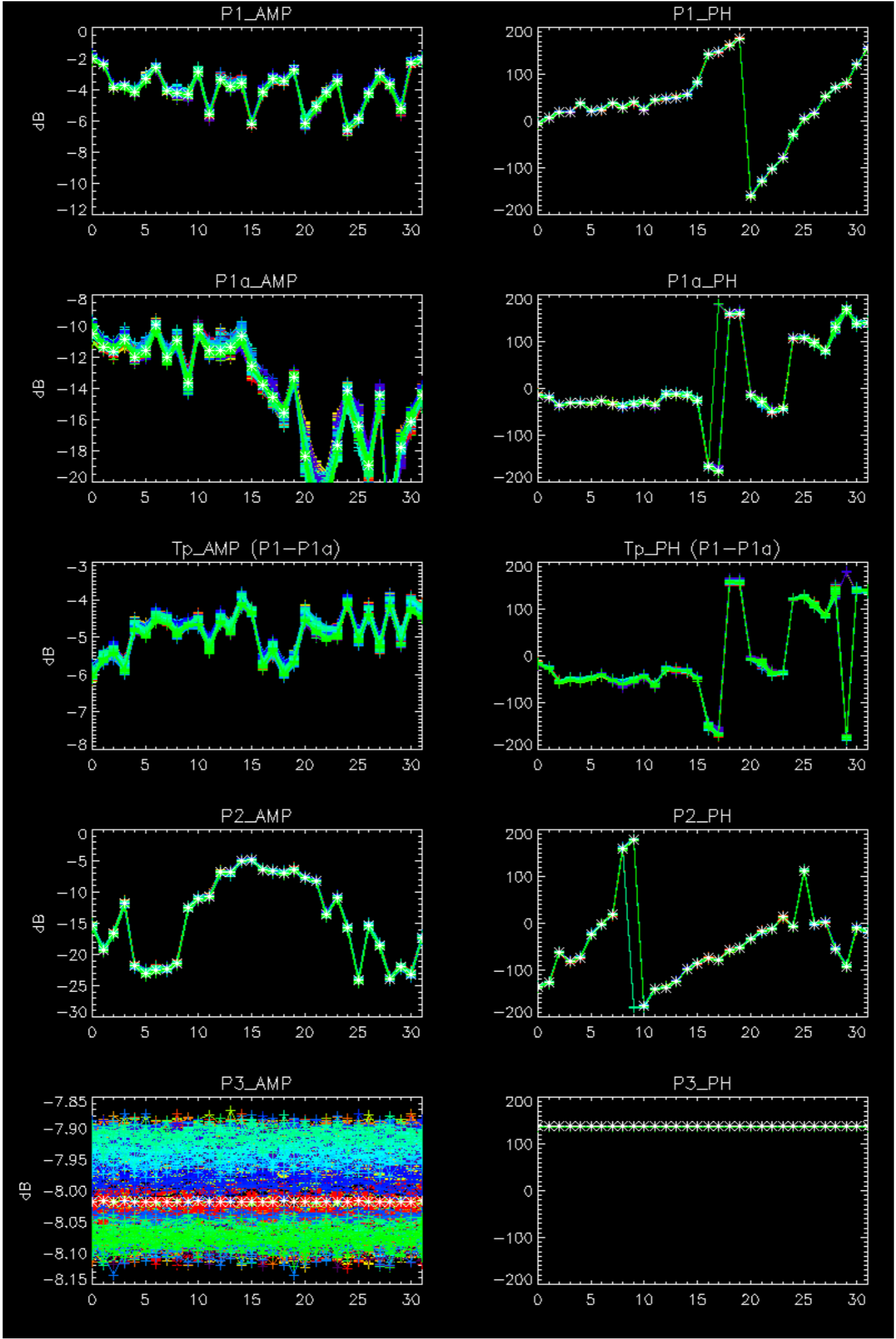
Cal pulses for WVS IS2

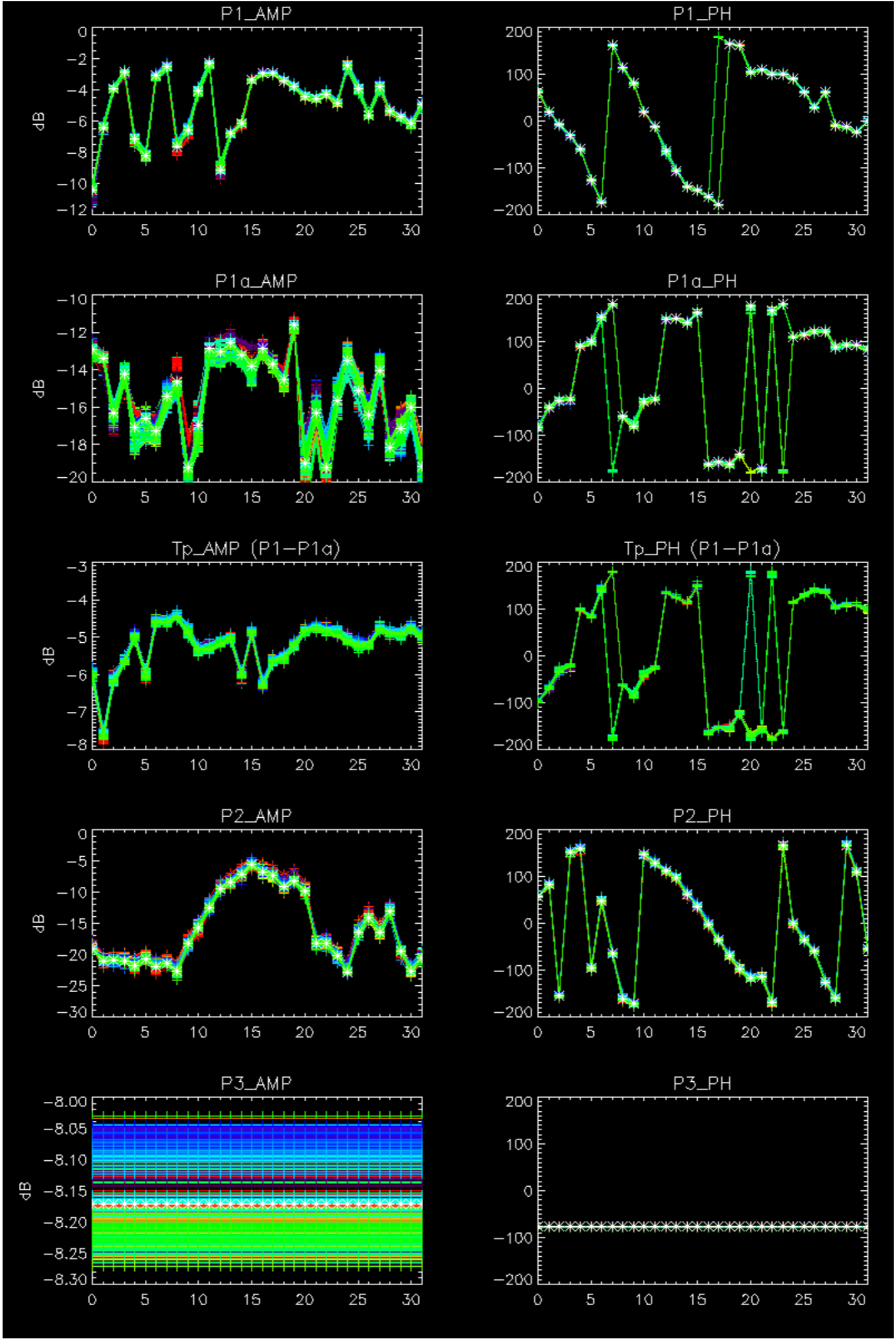


rows: 3 7 11 15 19 22 26 30

No anomalies observed on available browse products

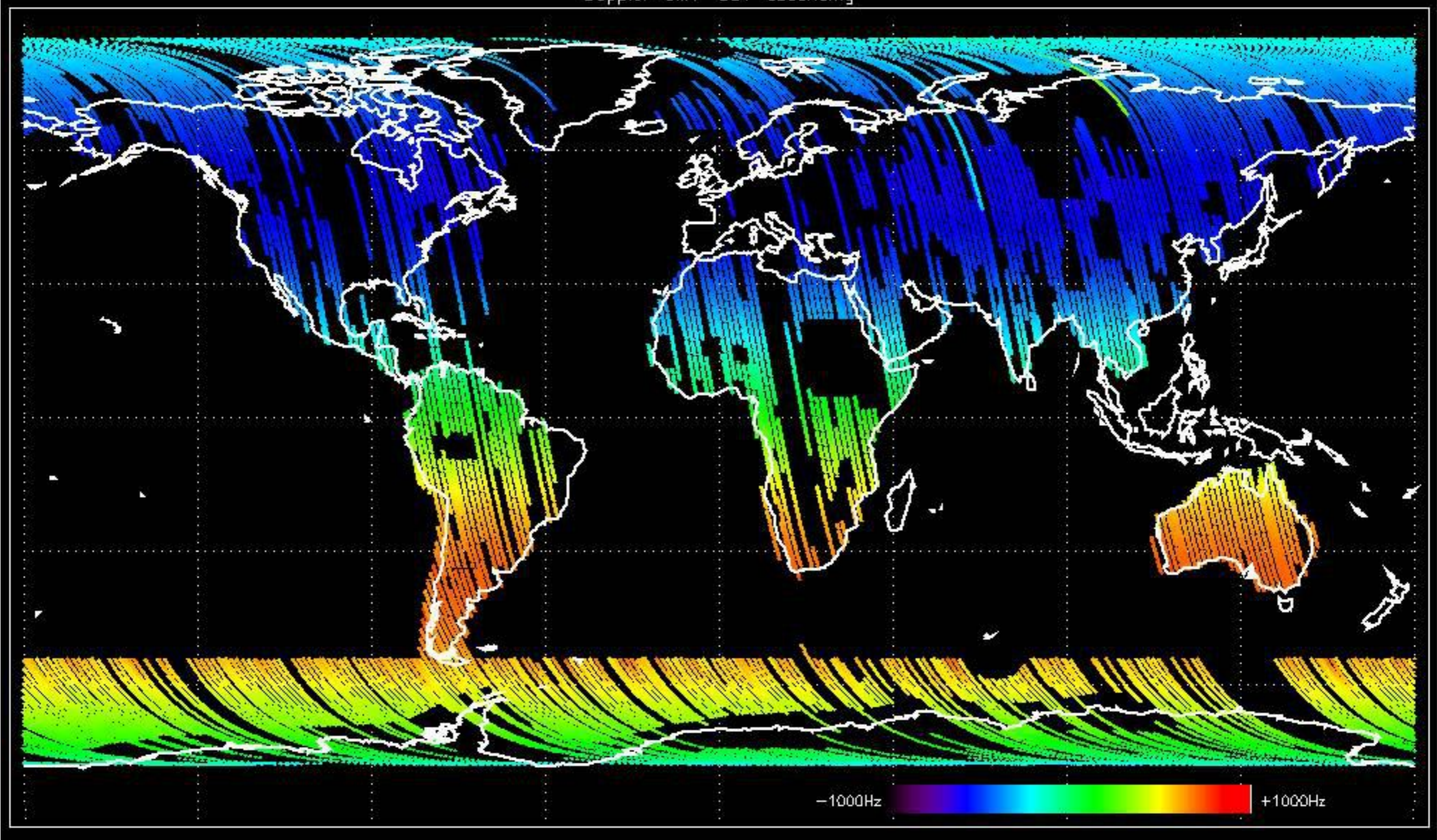
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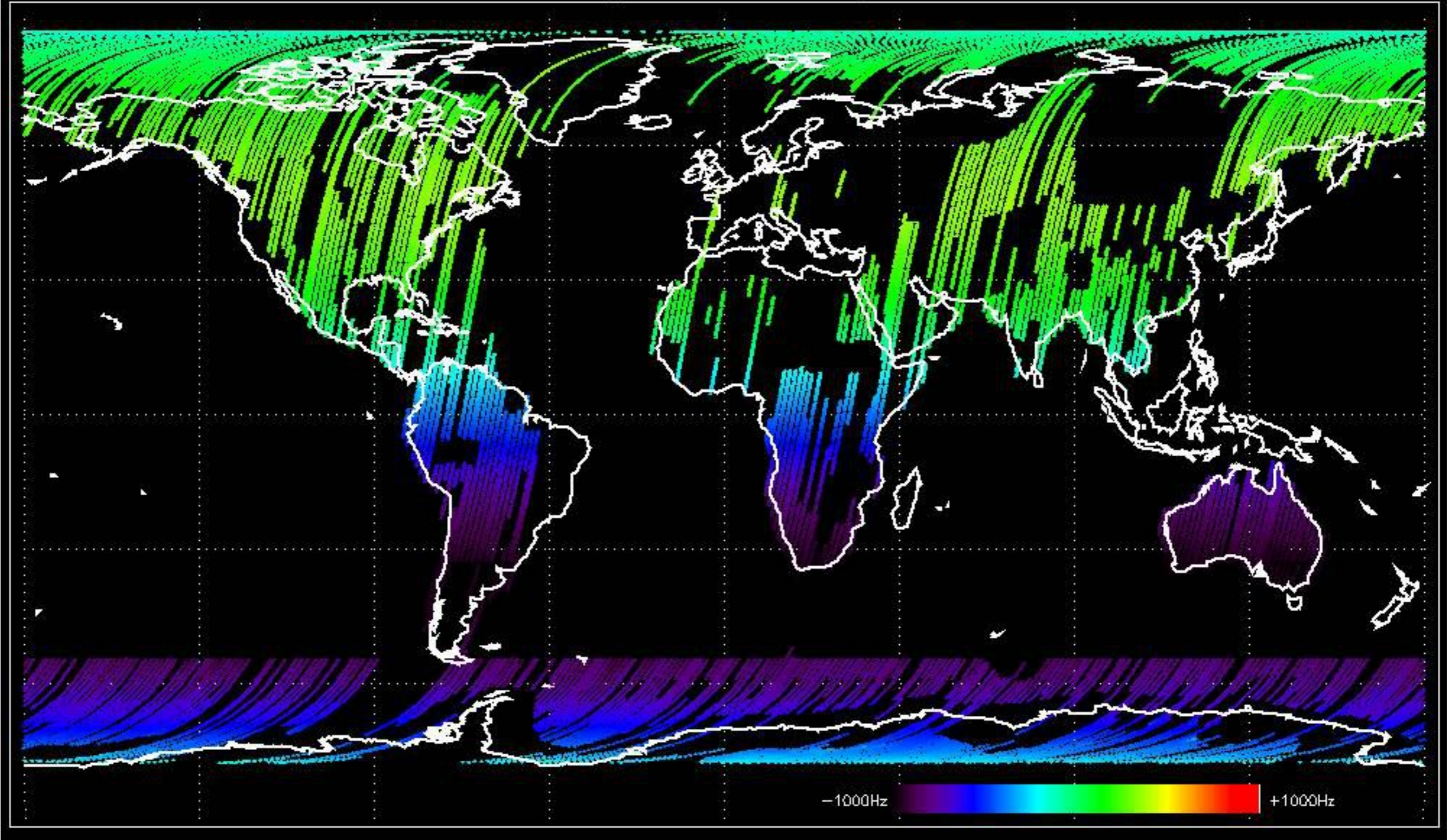


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

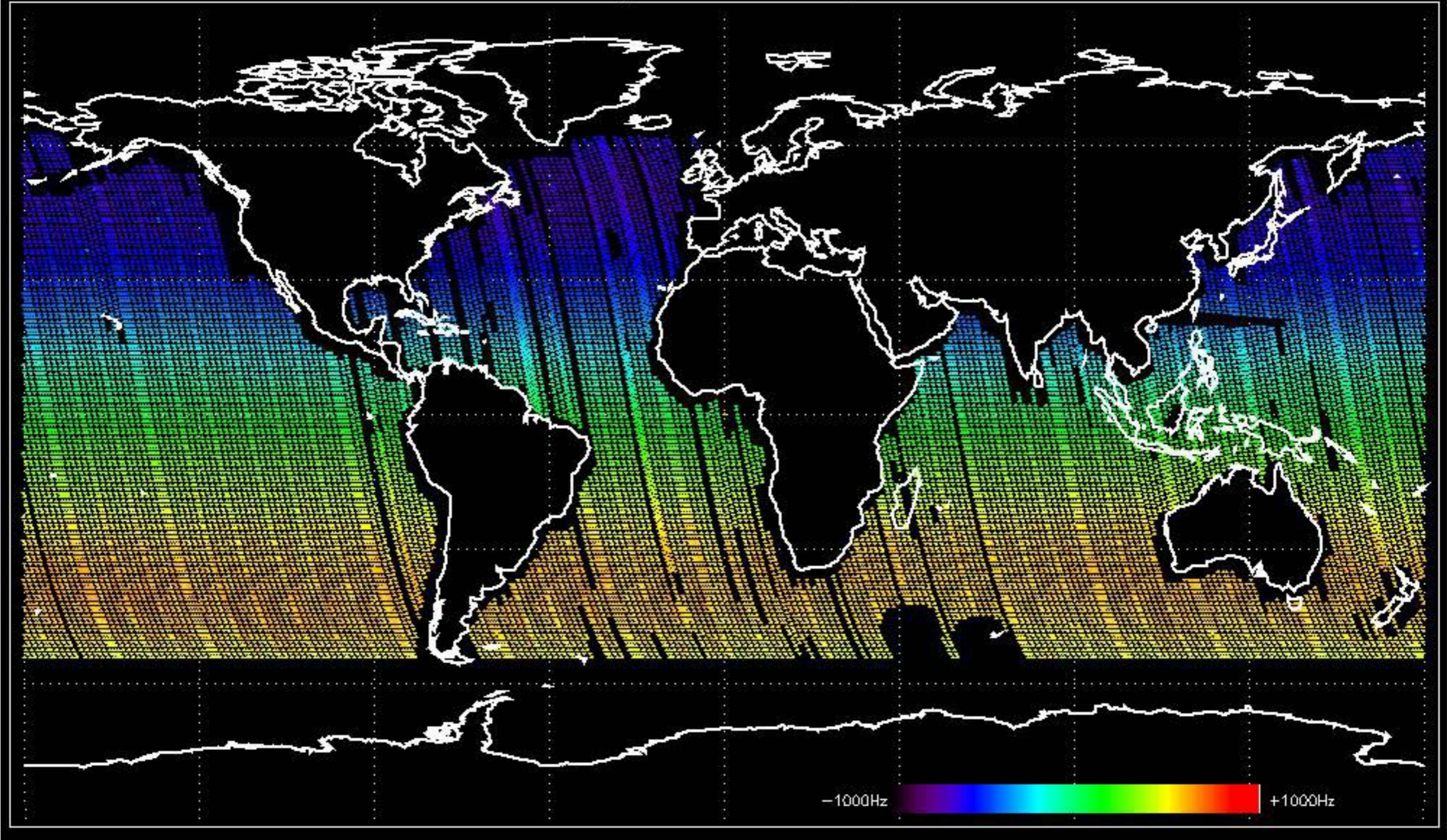
Doppler 'GM1' 'SS1' ascending



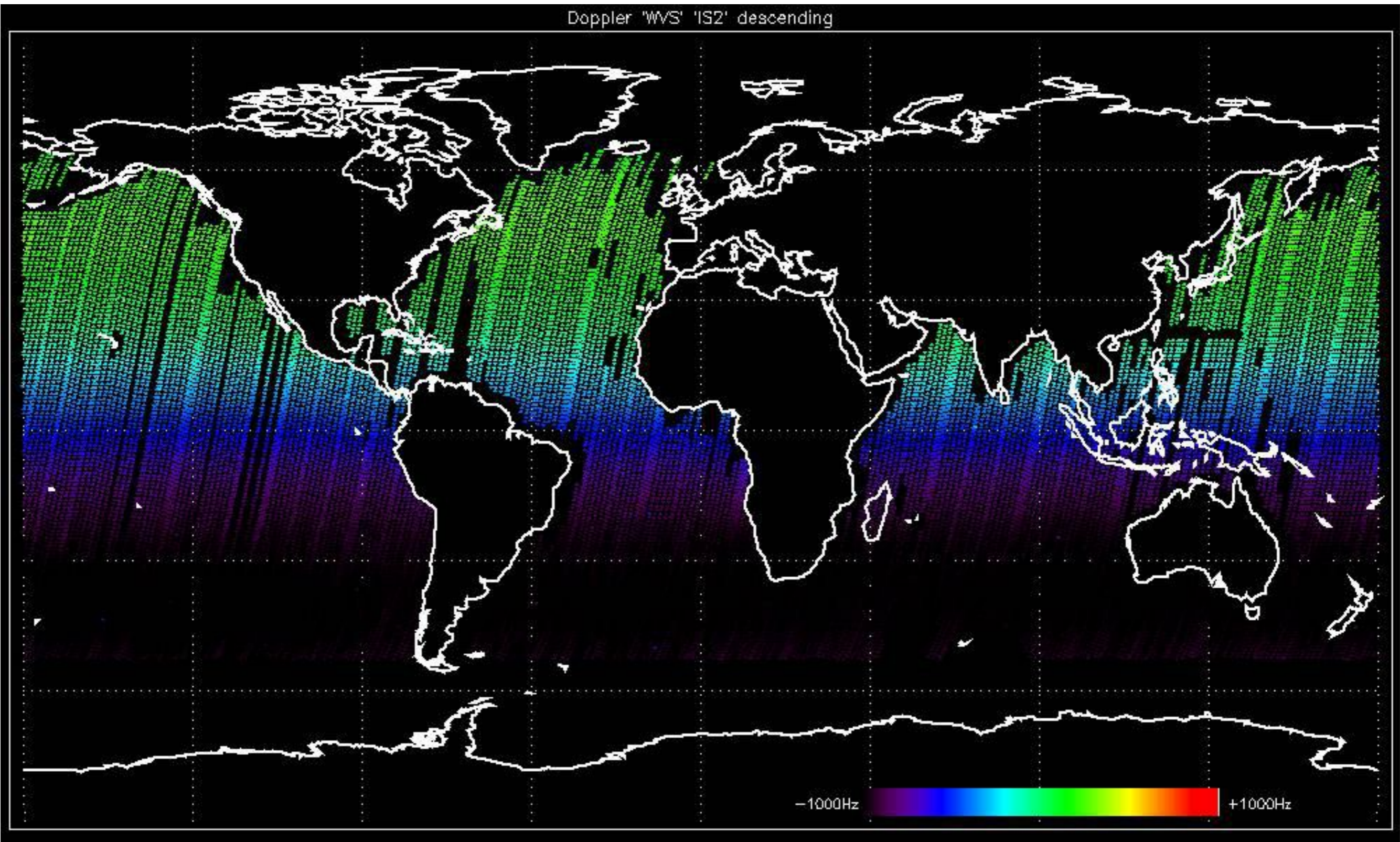
Doppler 'GM1' 'SS1' descending



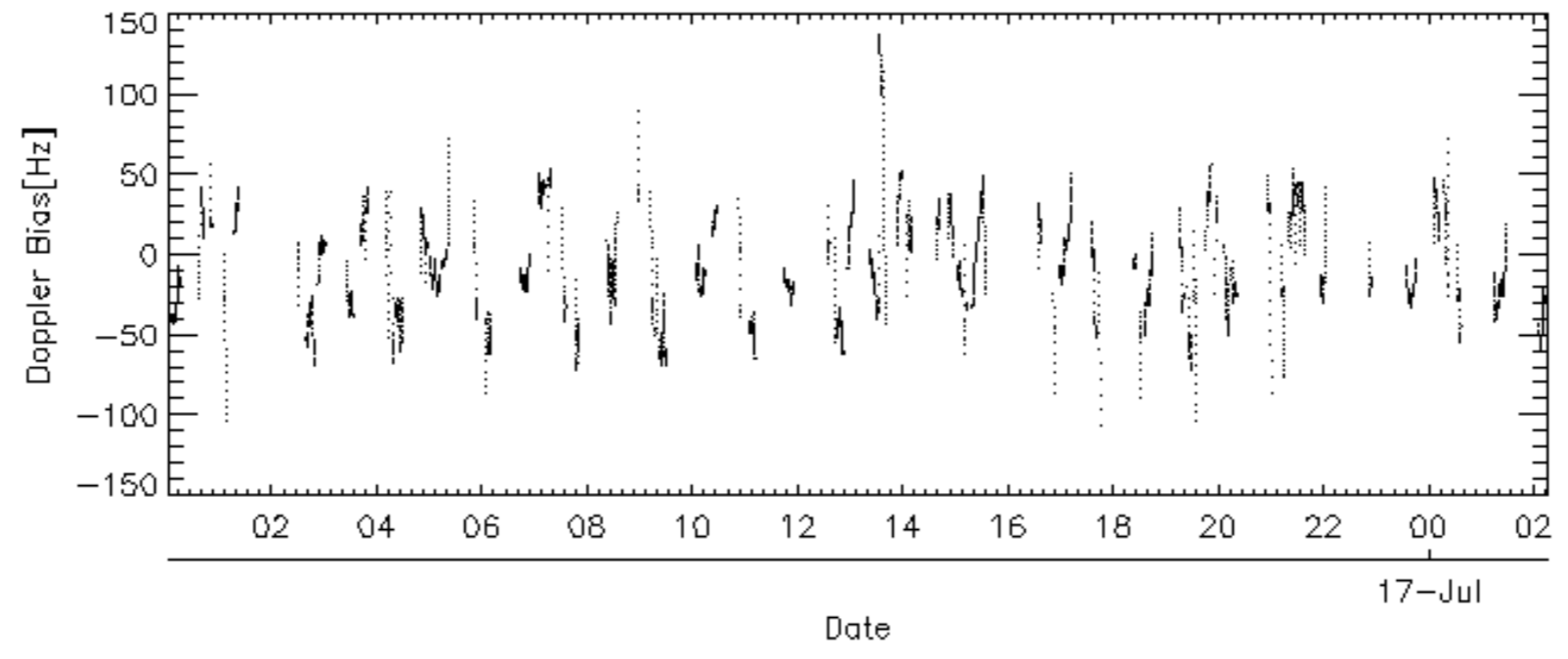
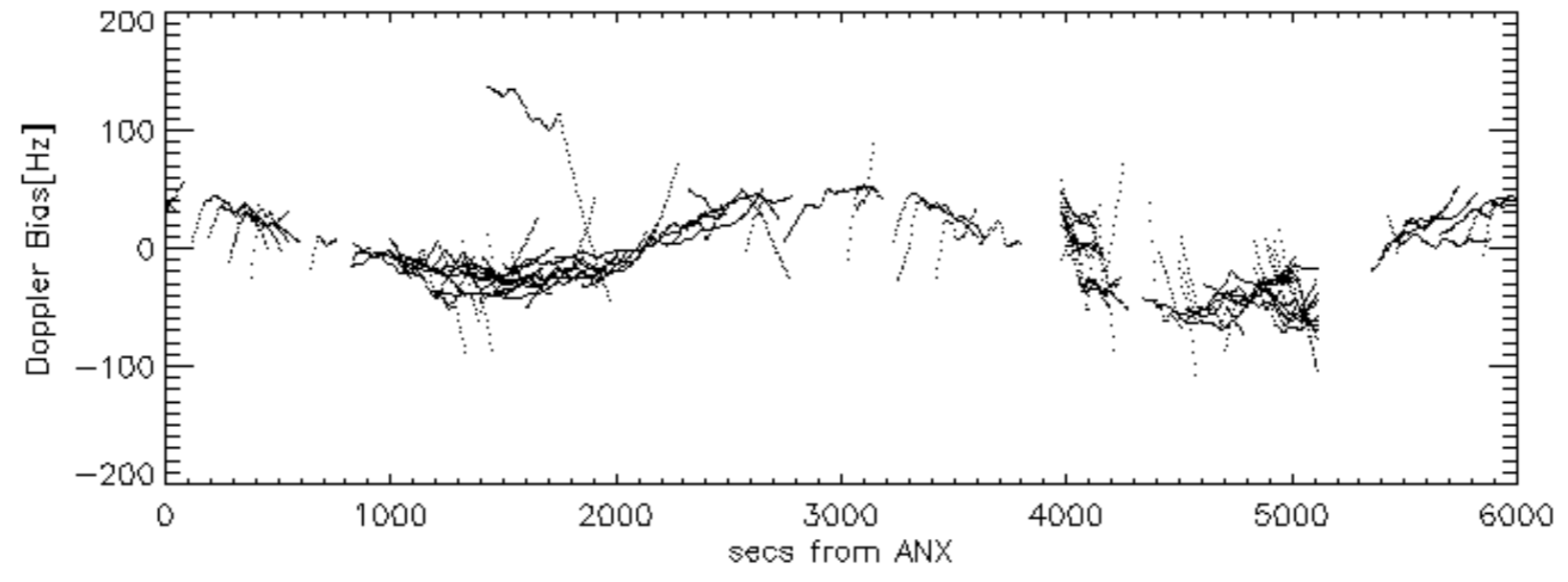
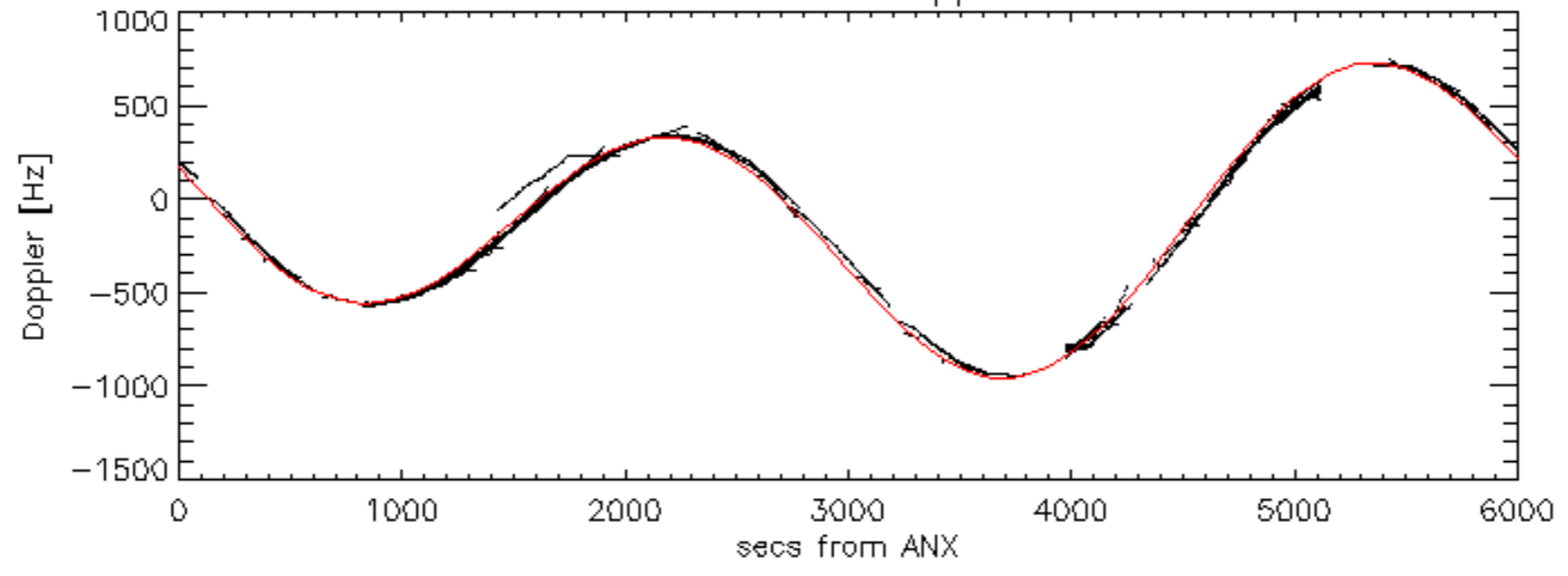
Doppler 'WVS' 'IS2' ascending

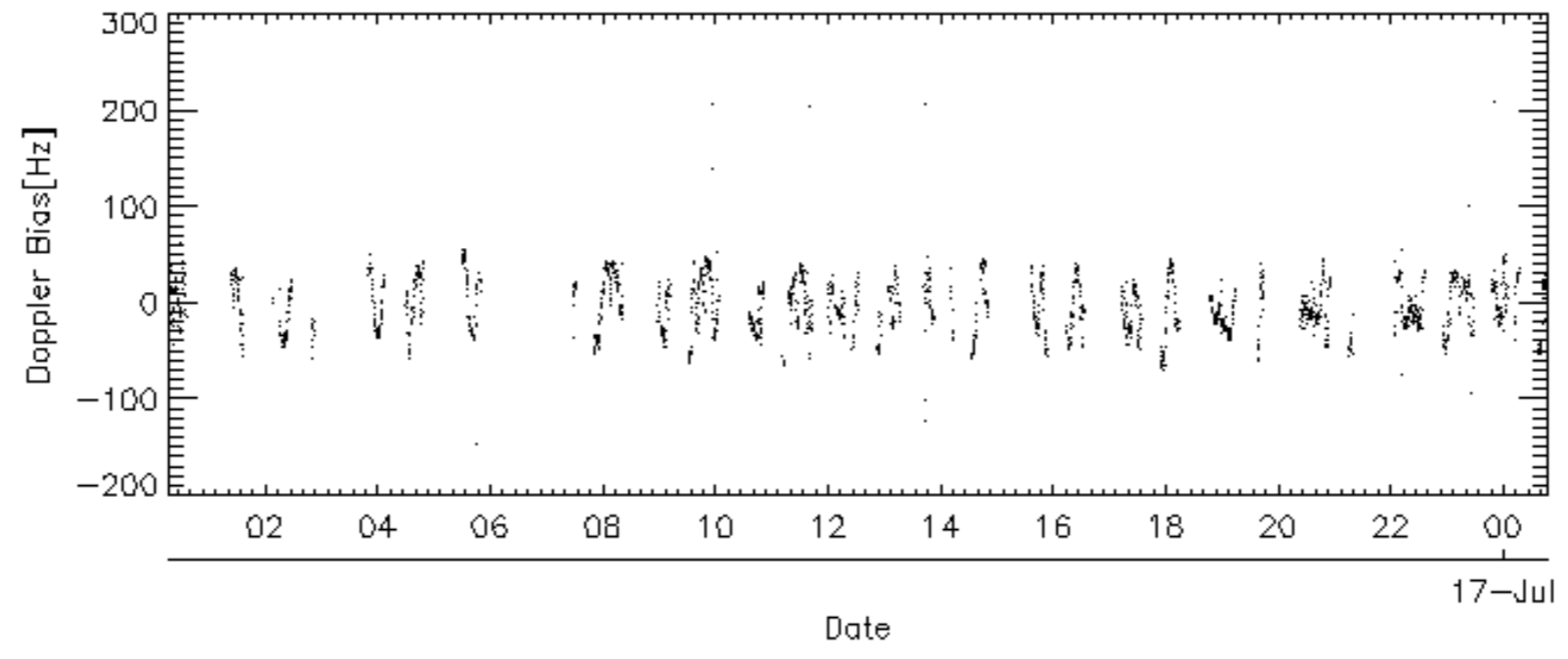
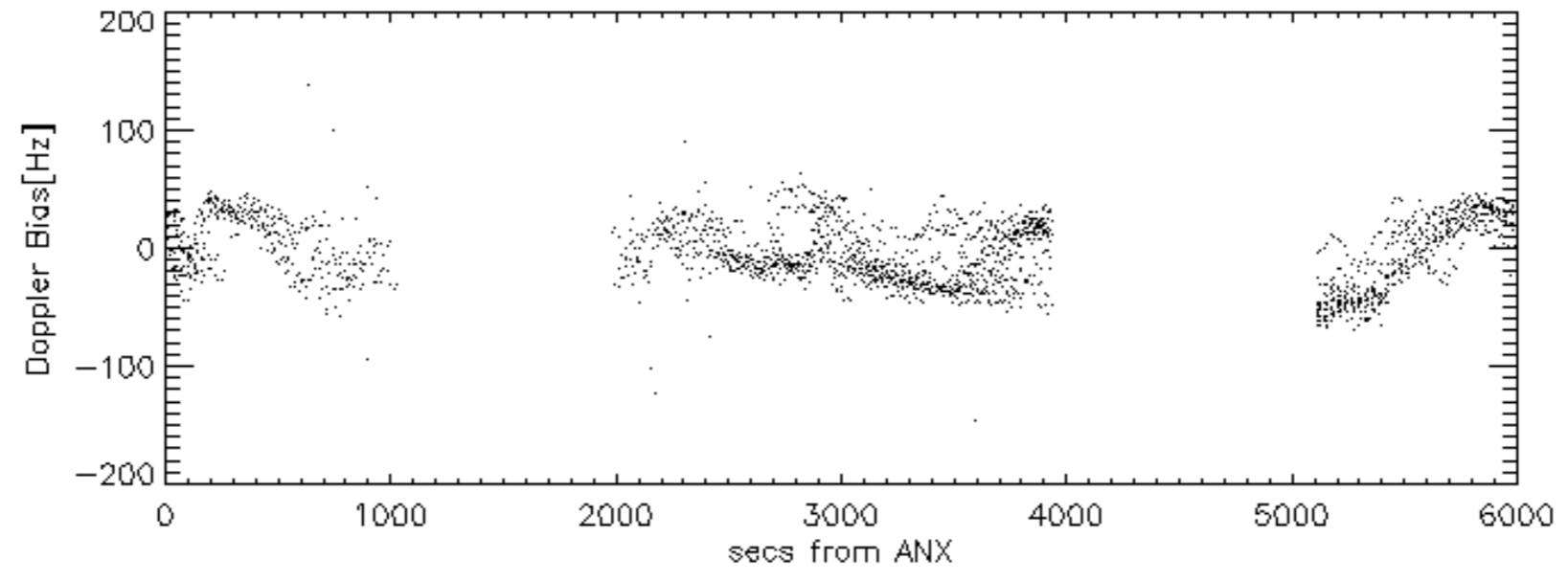
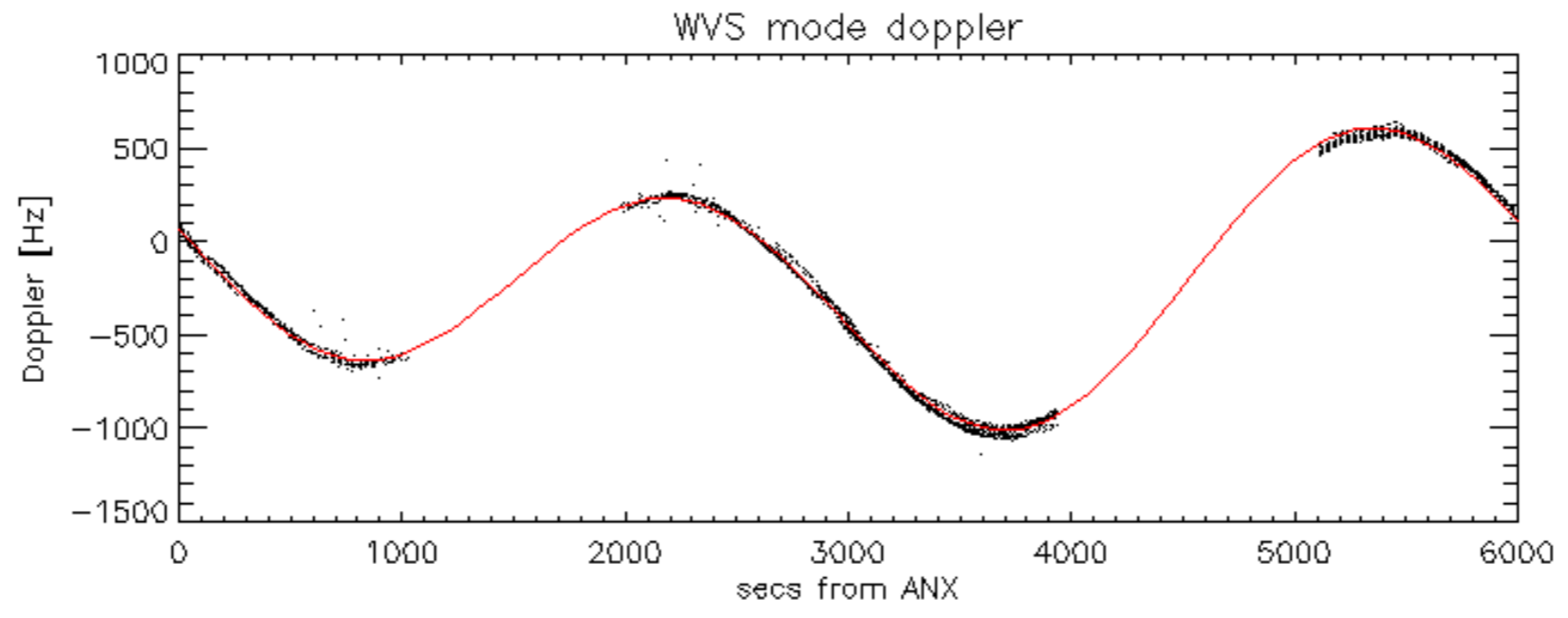


Doppler 'WVS' 'IS2' descending

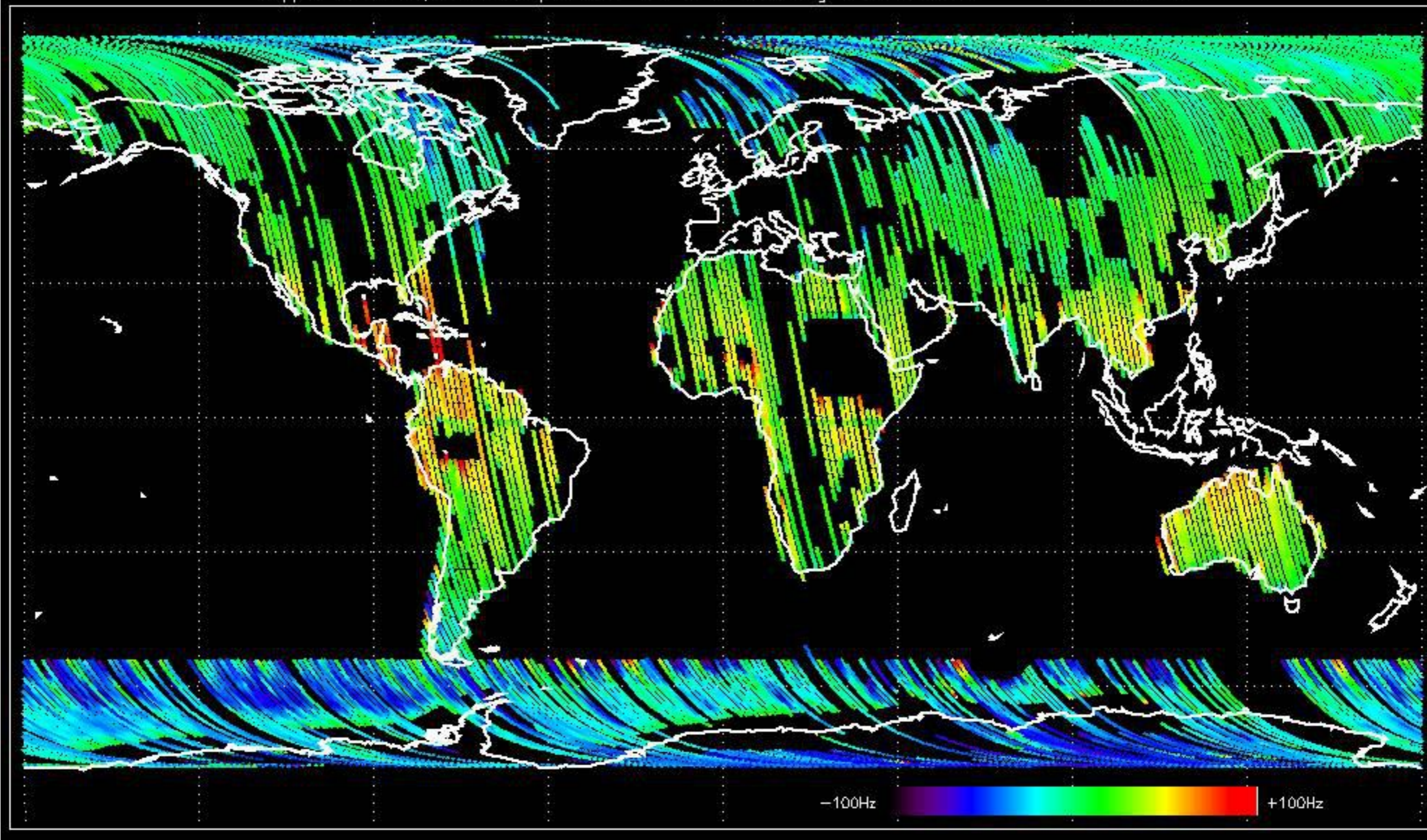


GM1 mode doppler

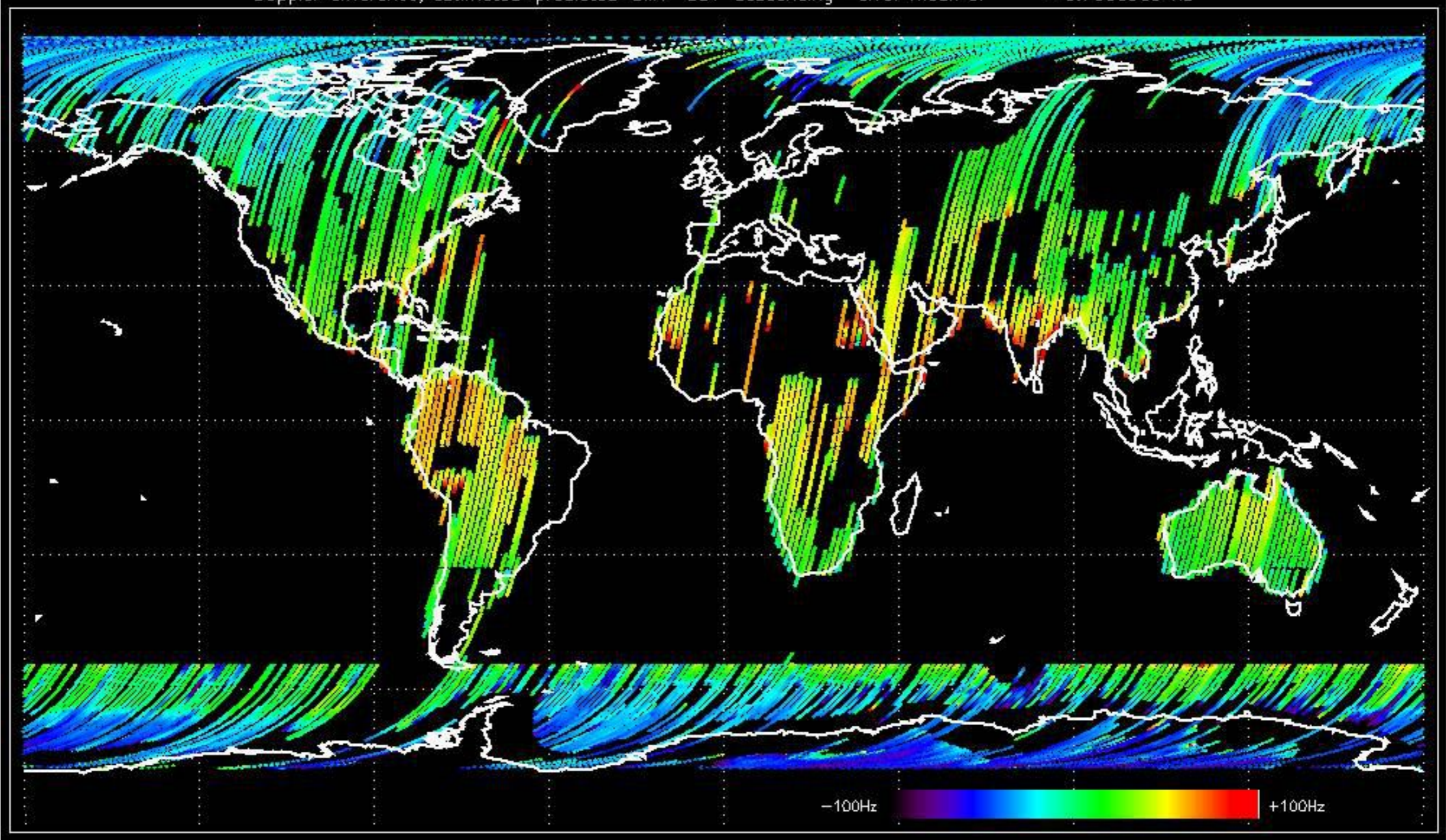




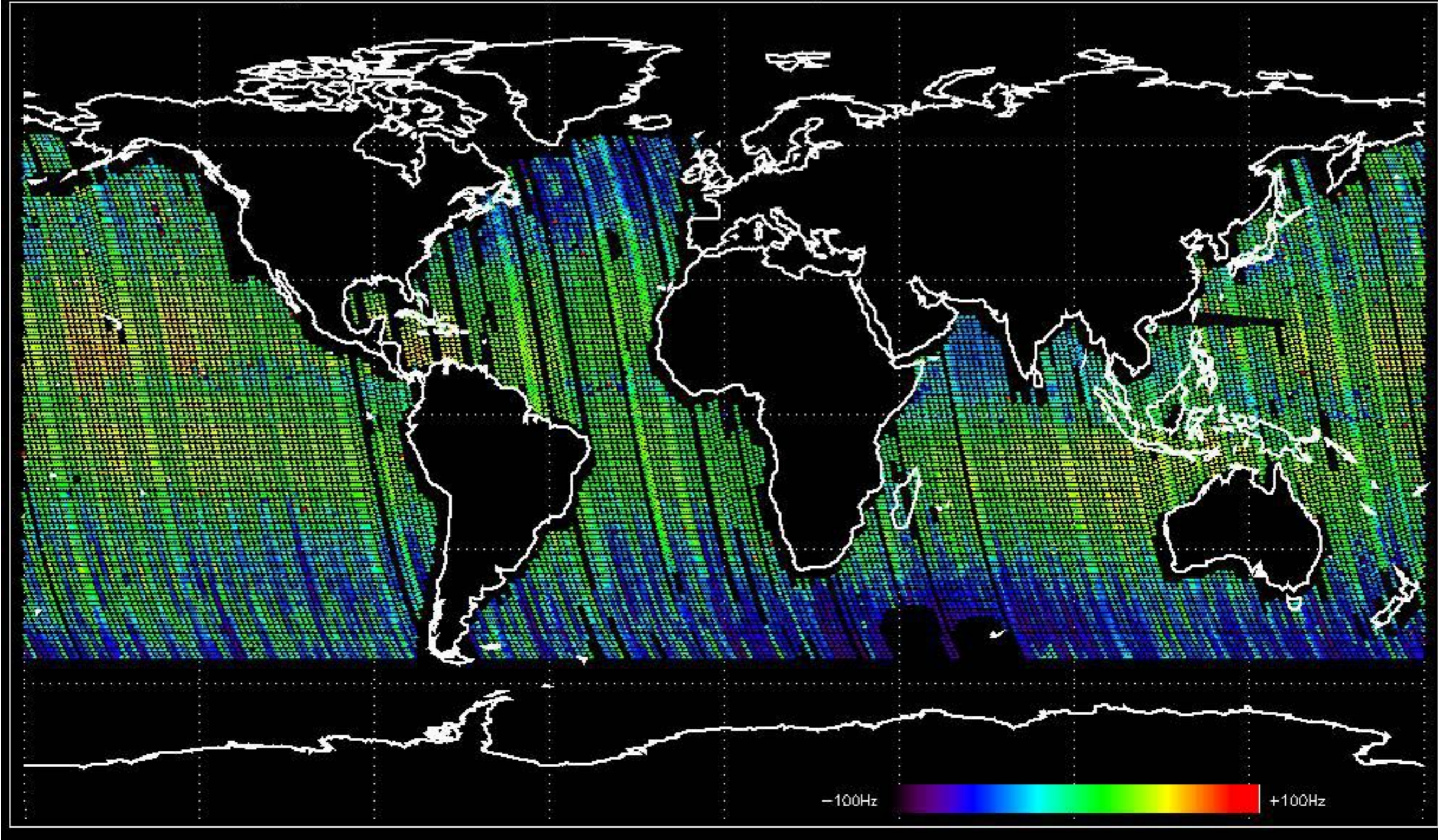
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.457538 Hz



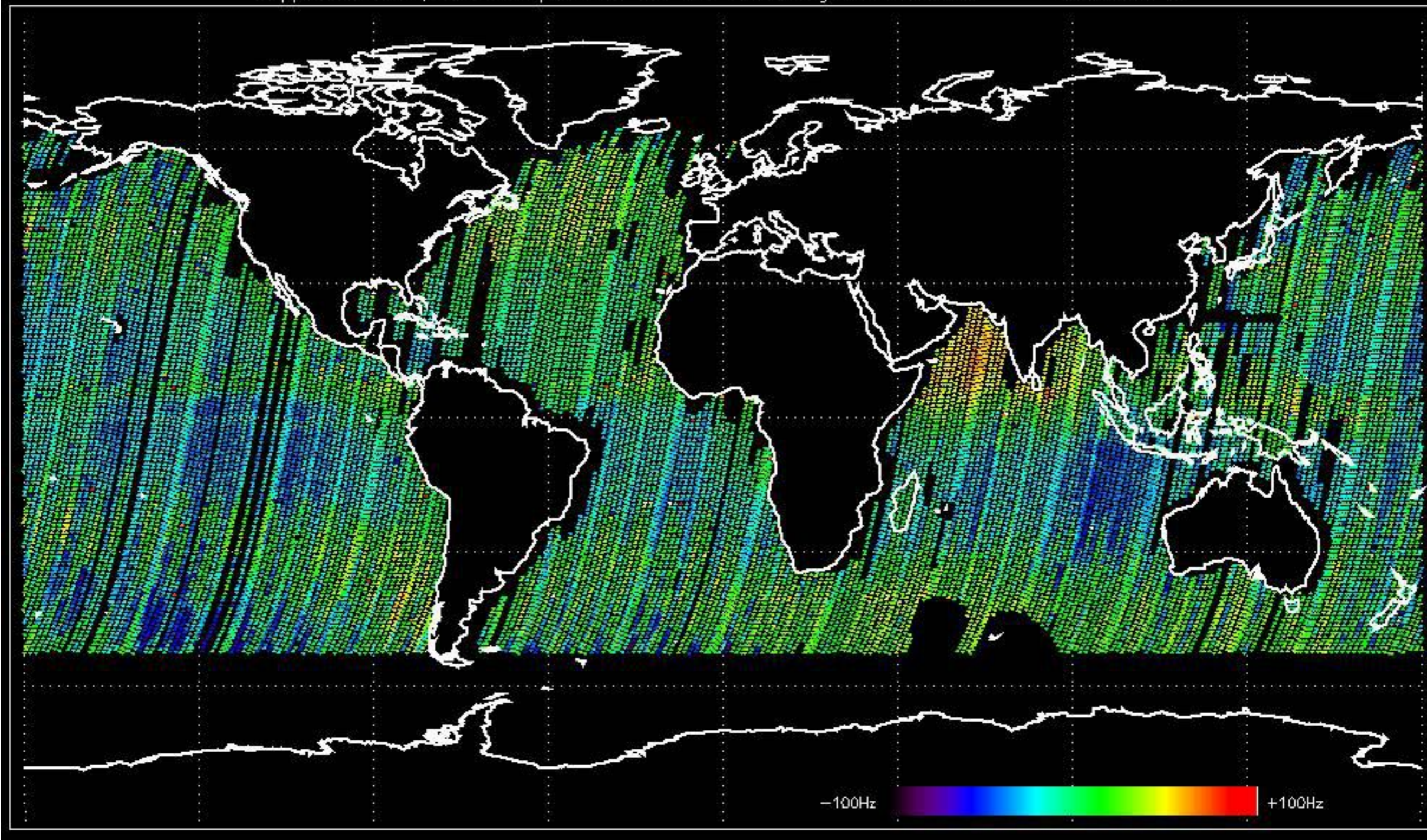
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.7600960 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -2.1157475 Hz

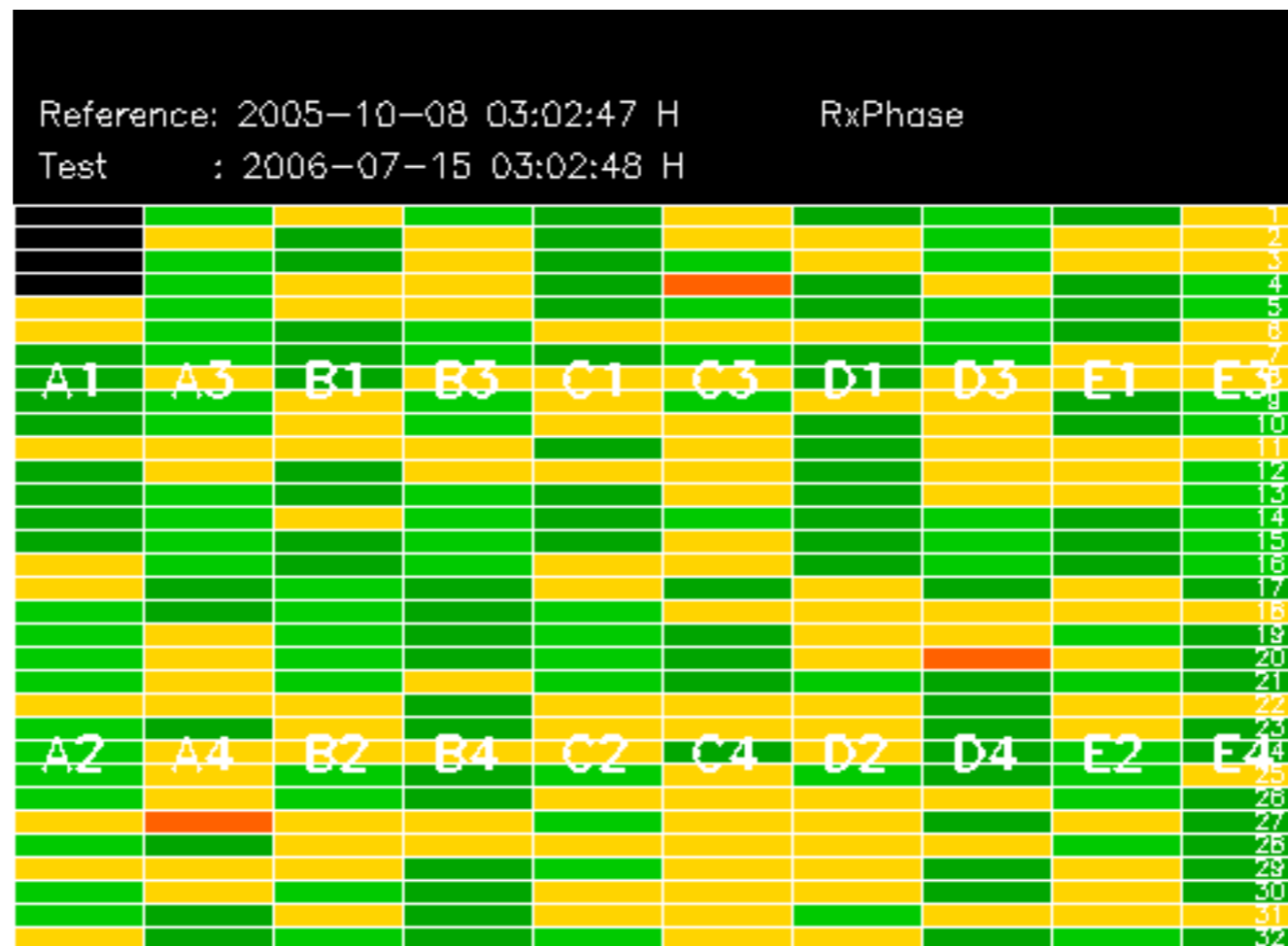


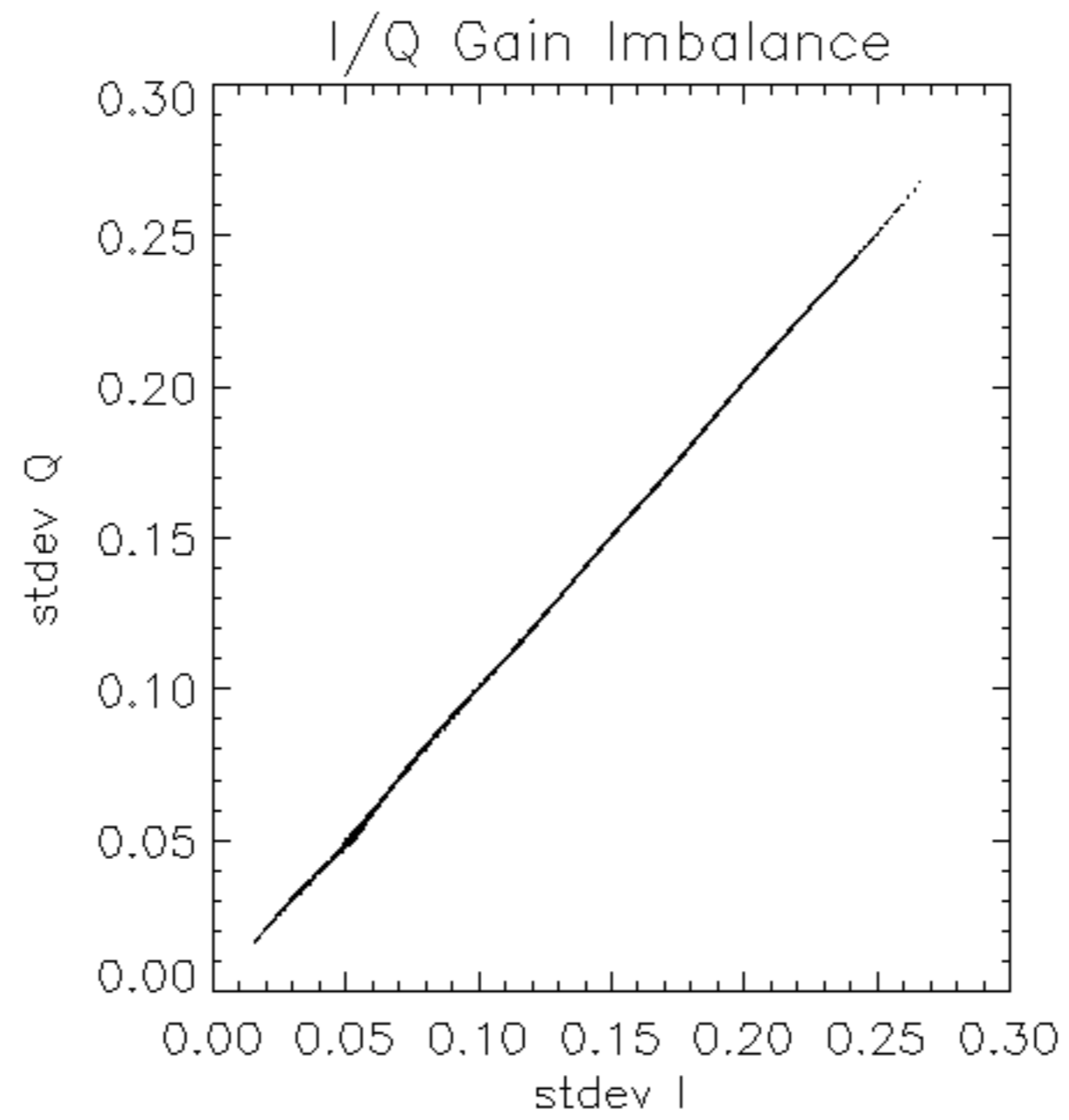
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.317444 Hz

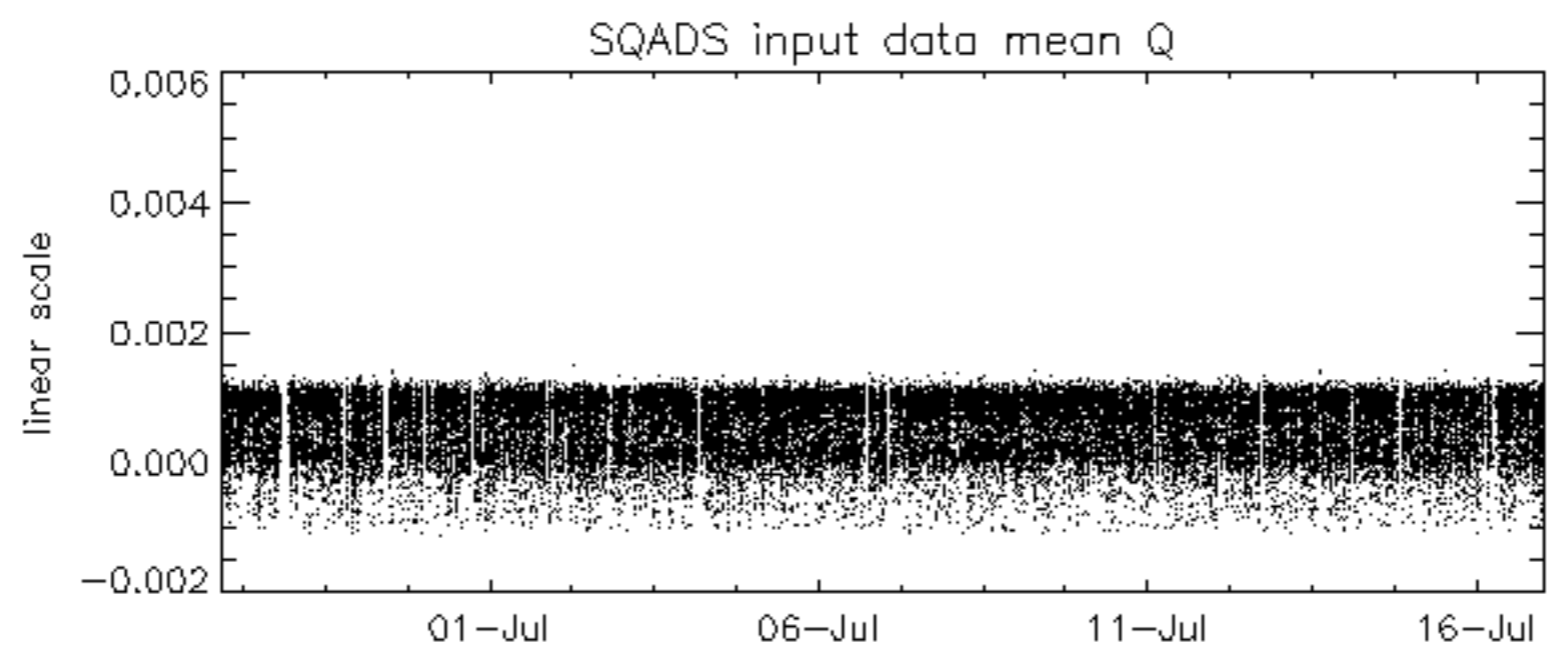
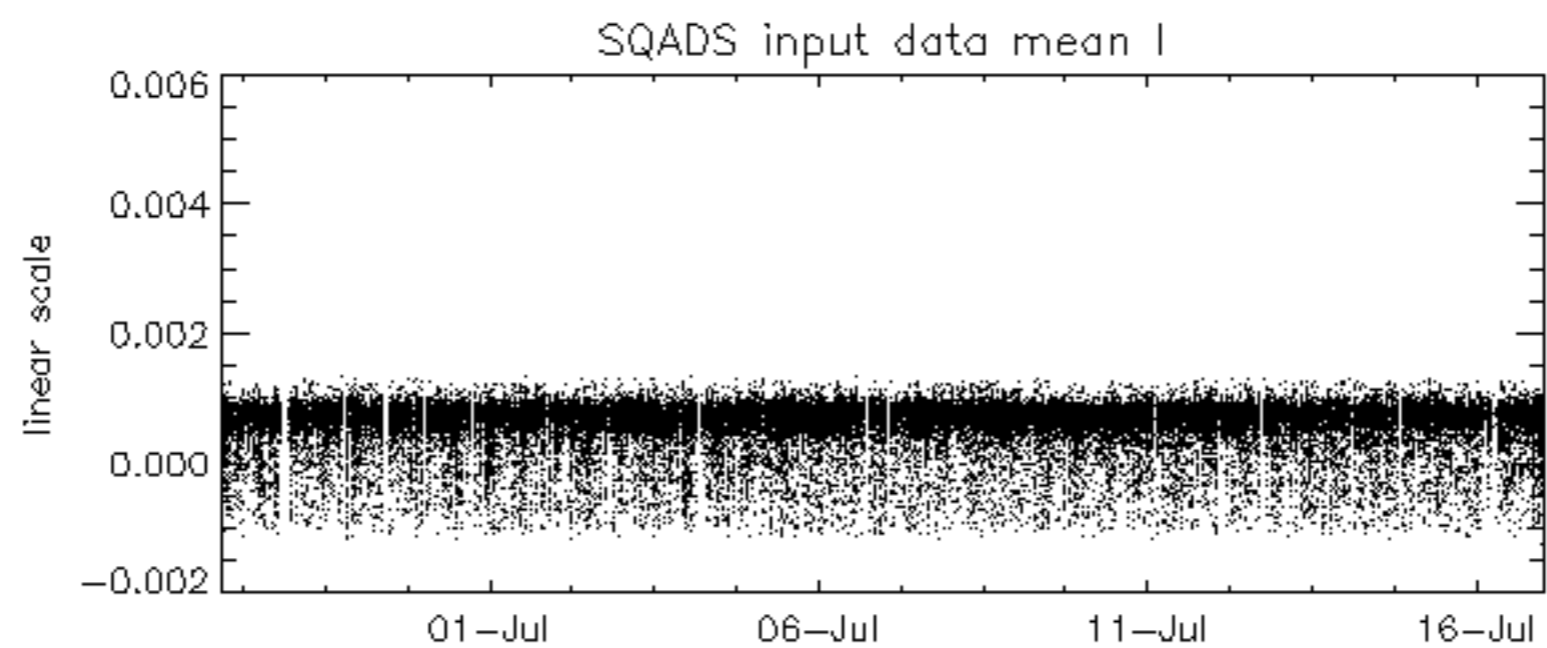
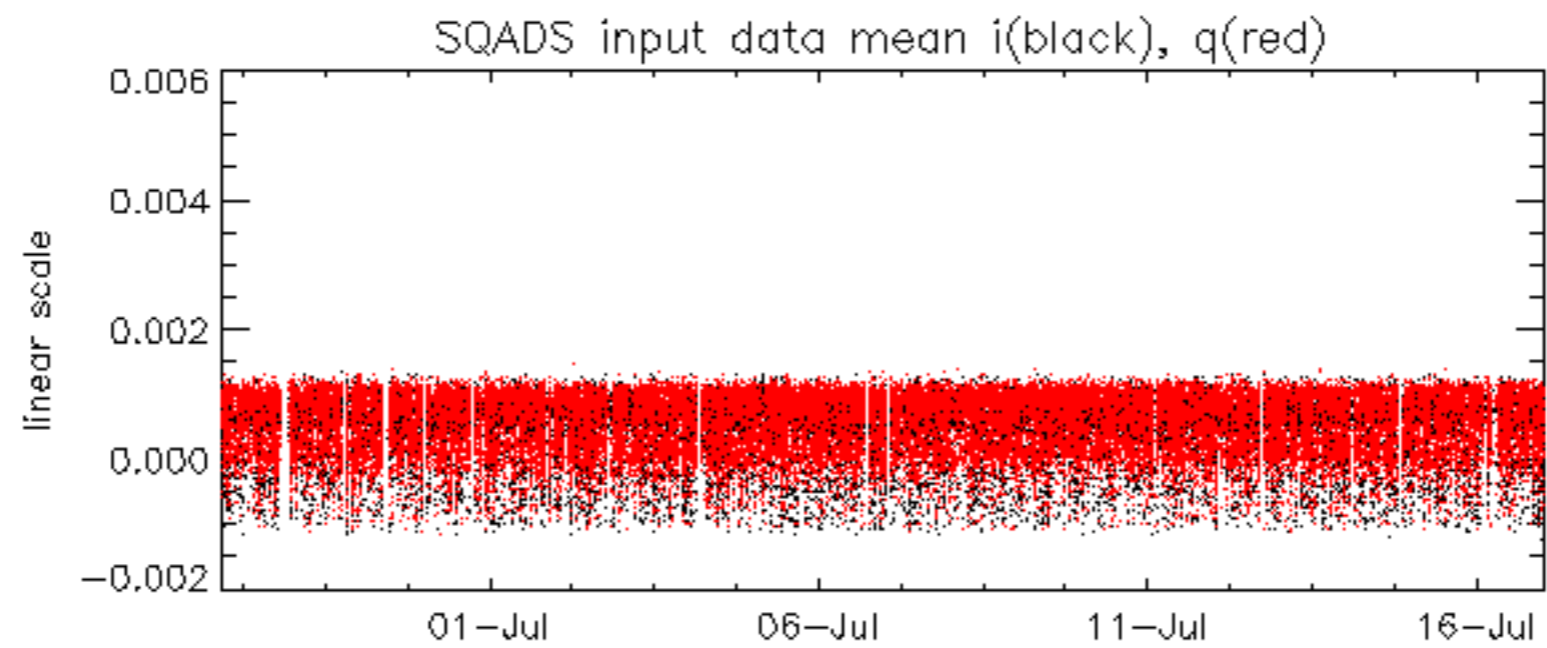


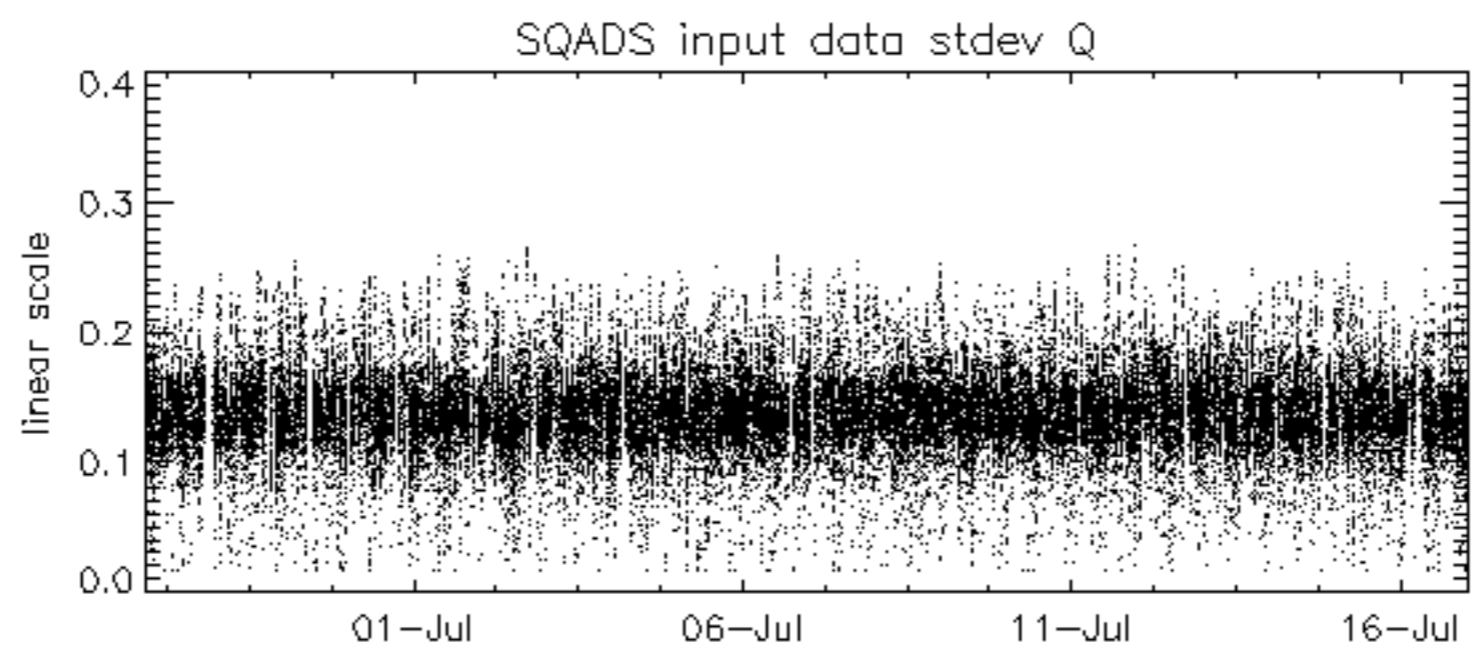
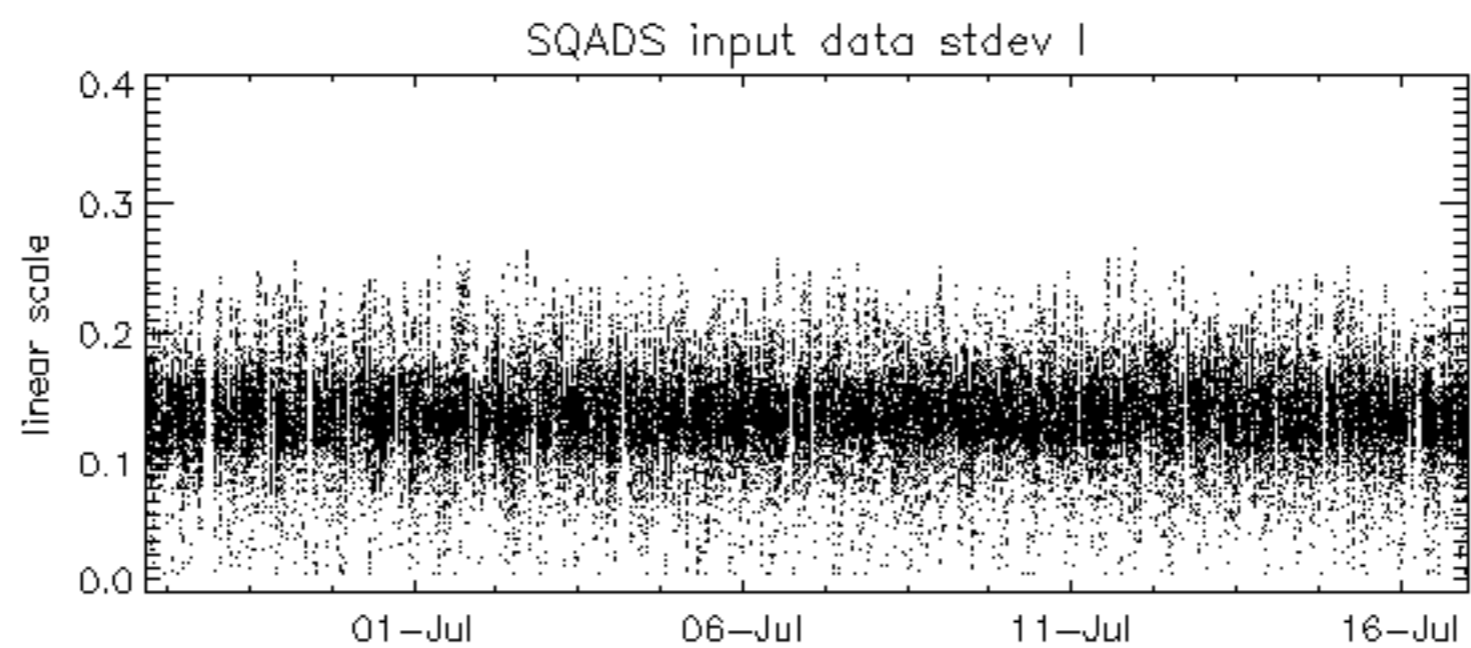
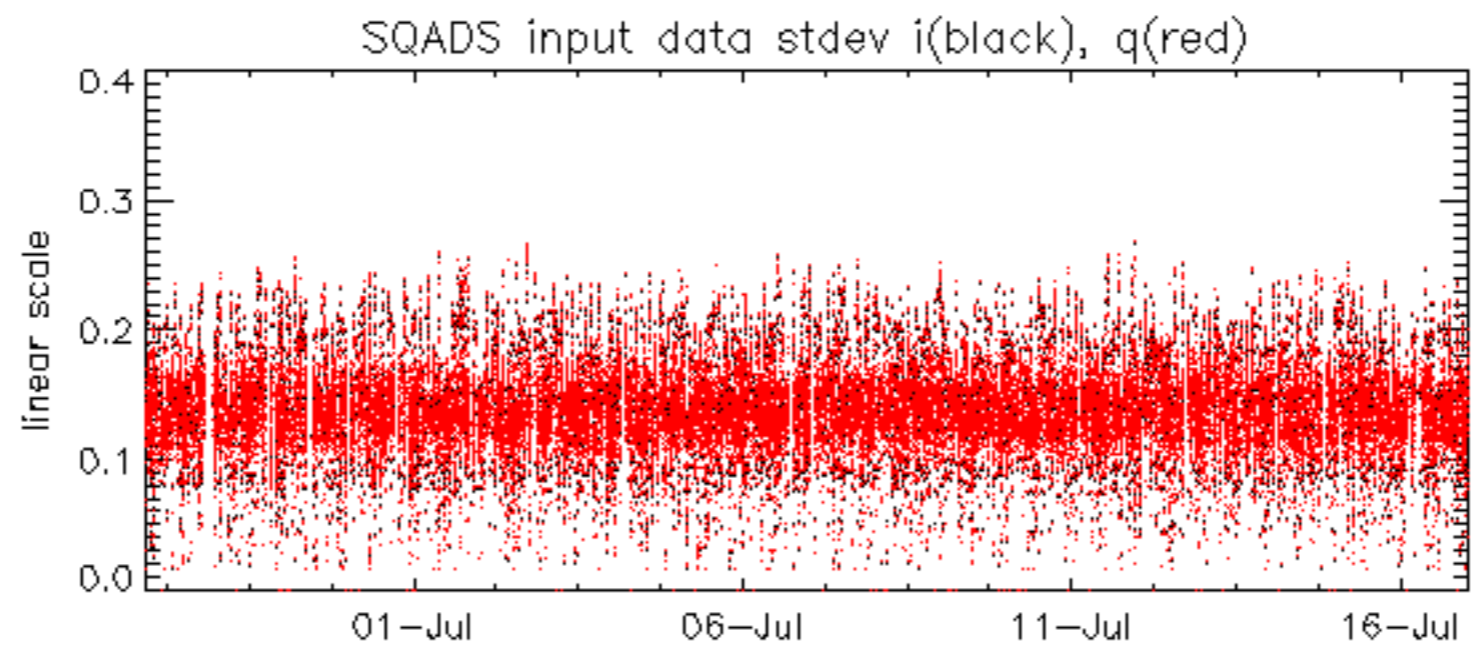
No anomalies observed on available MS products:

No anomalies observed.





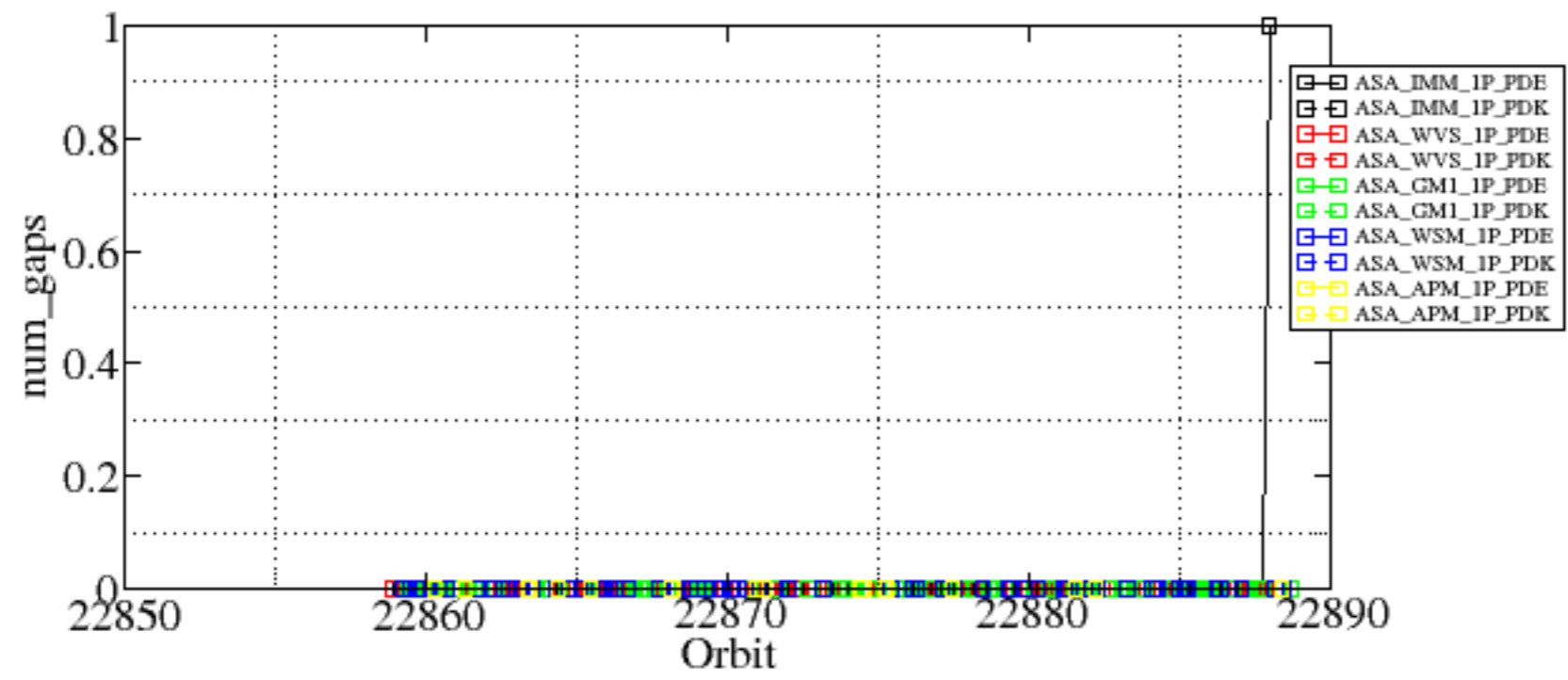


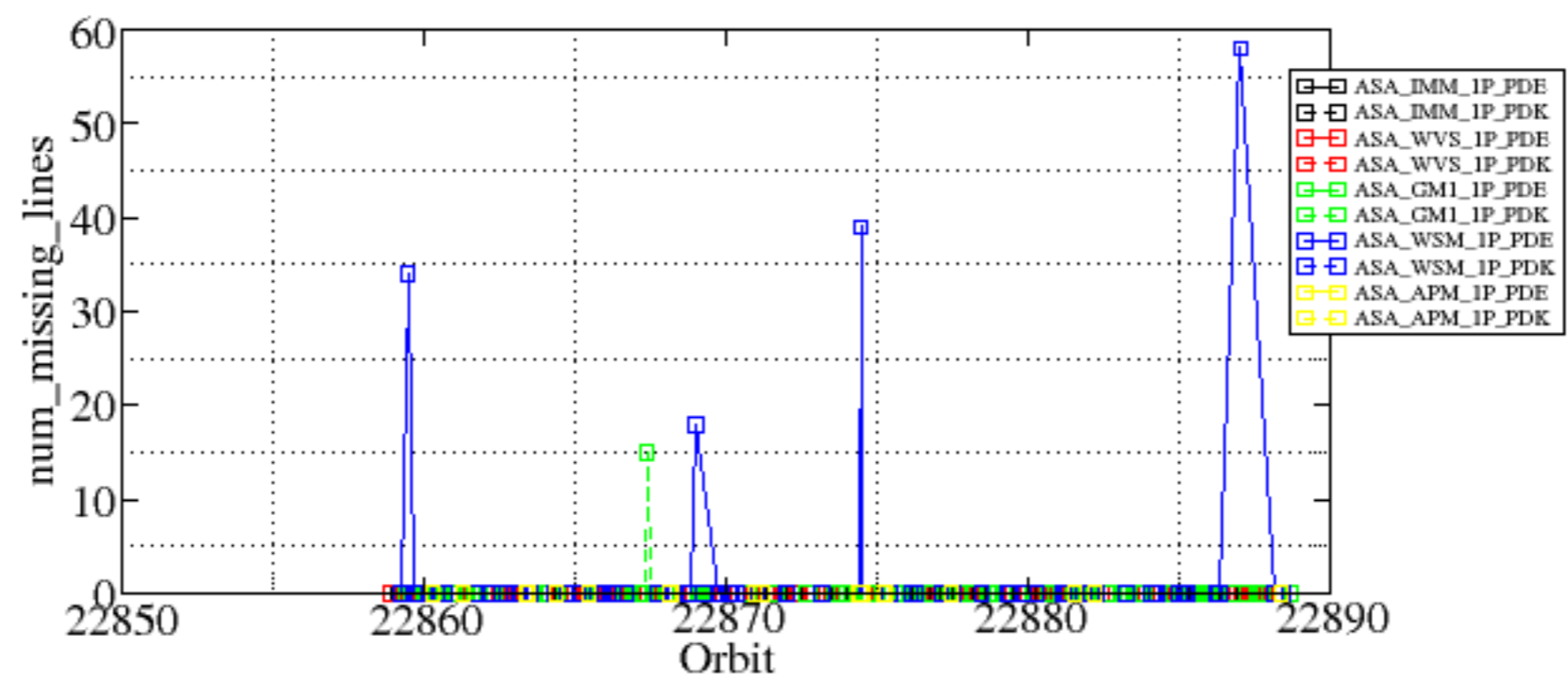


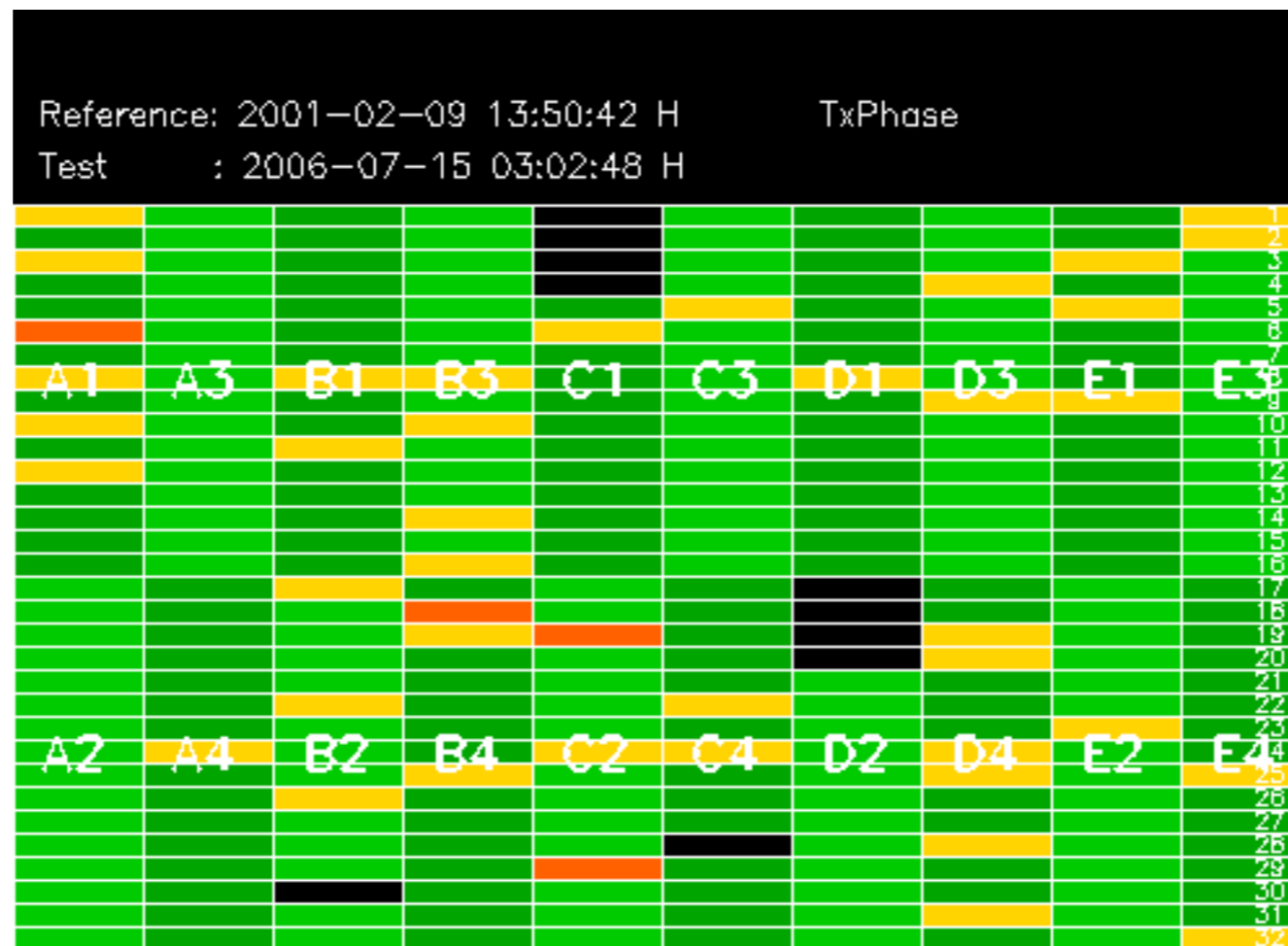
Summary of analysis for the last 3 days 2006071[567]

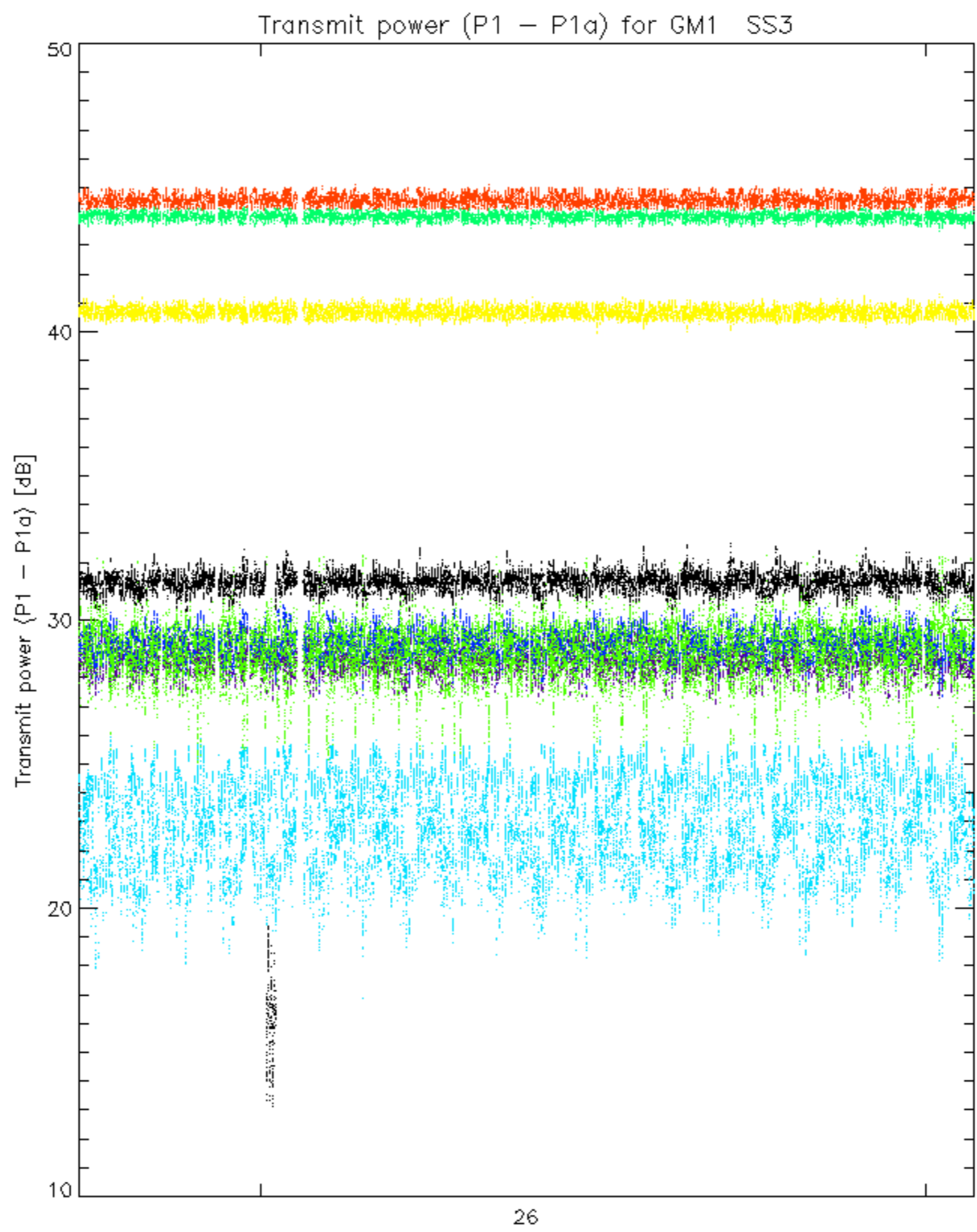
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

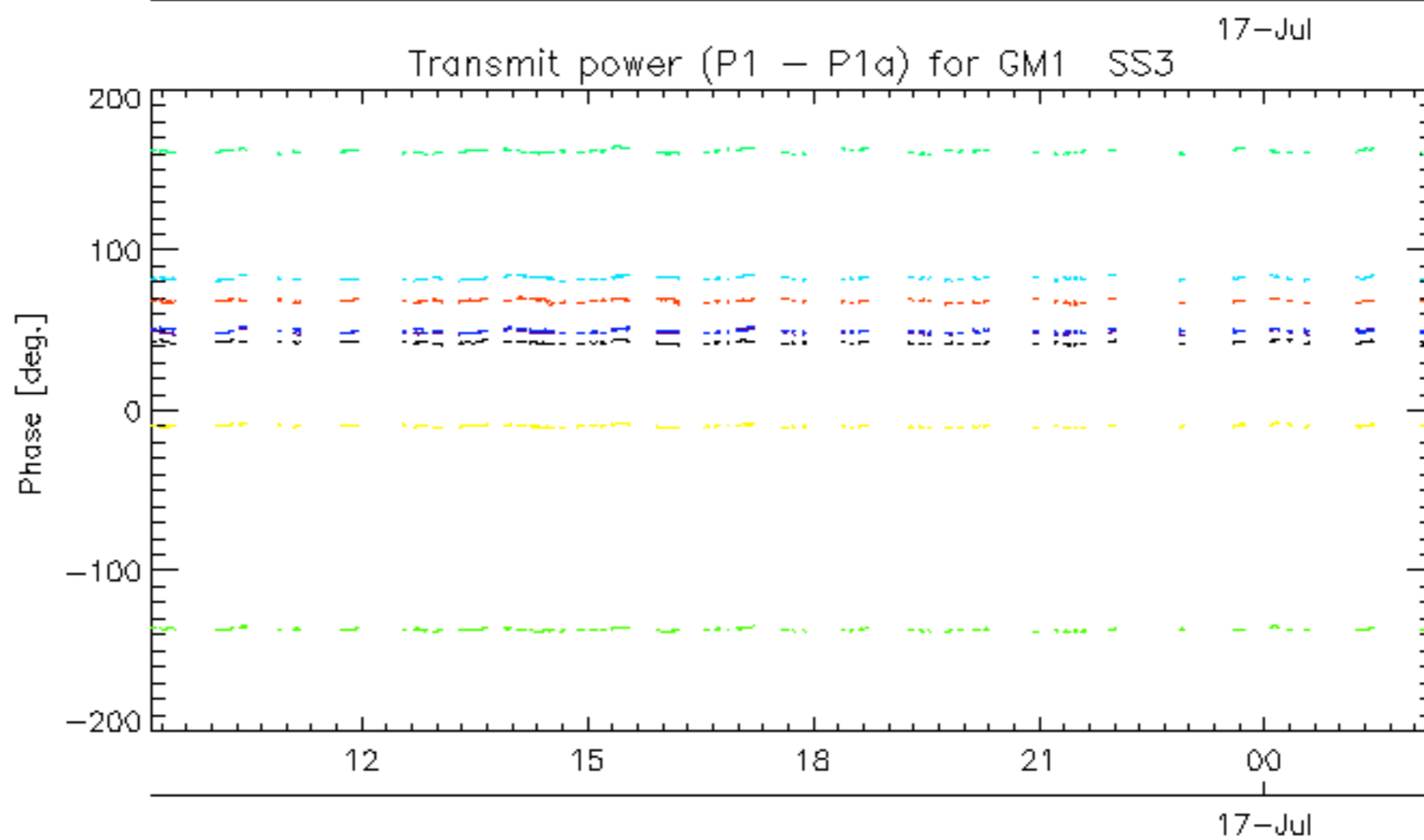
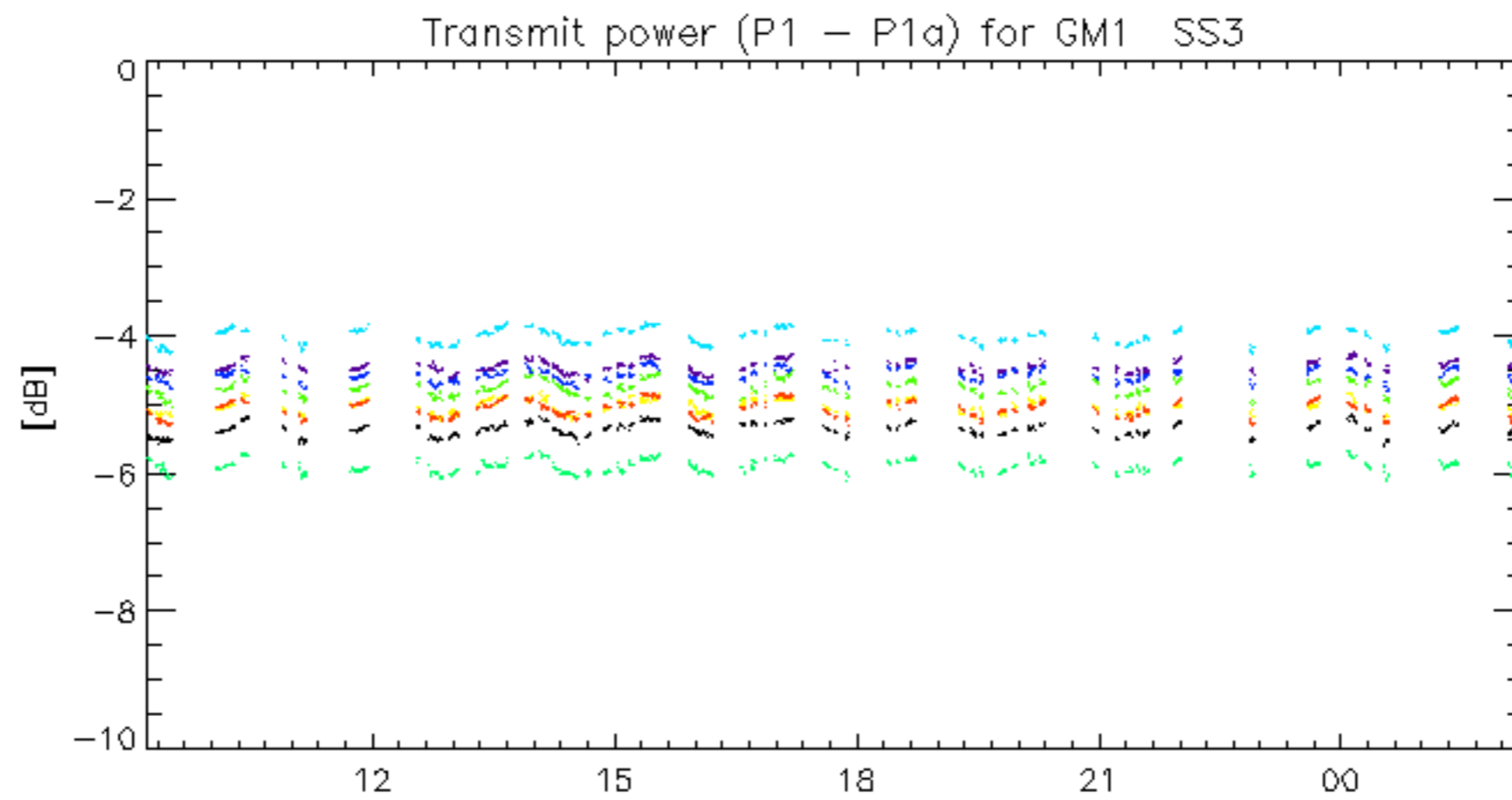
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060717_004744_000002292049_00288_22887_1022.N1	1	0
ASA_GM1_1PNPDK20060715_141824_000007972049_00268_22867_1061.N1	0	15
ASA_WSM_1PNPDE20060715_010155_000001462049_00260_22859_3155.N1	0	34
ASA_WSM_1PNPDE20060715_170157_000001472049_00270_22869_3251.N1	0	18
ASA_WSM_1PNPDE20060716_020953_000001832049_00275_22874_3293.N1	0	39
ASA_WSM_1PNPDE20060716_231436_000000972049_00288_22887_3385.N1	0	58



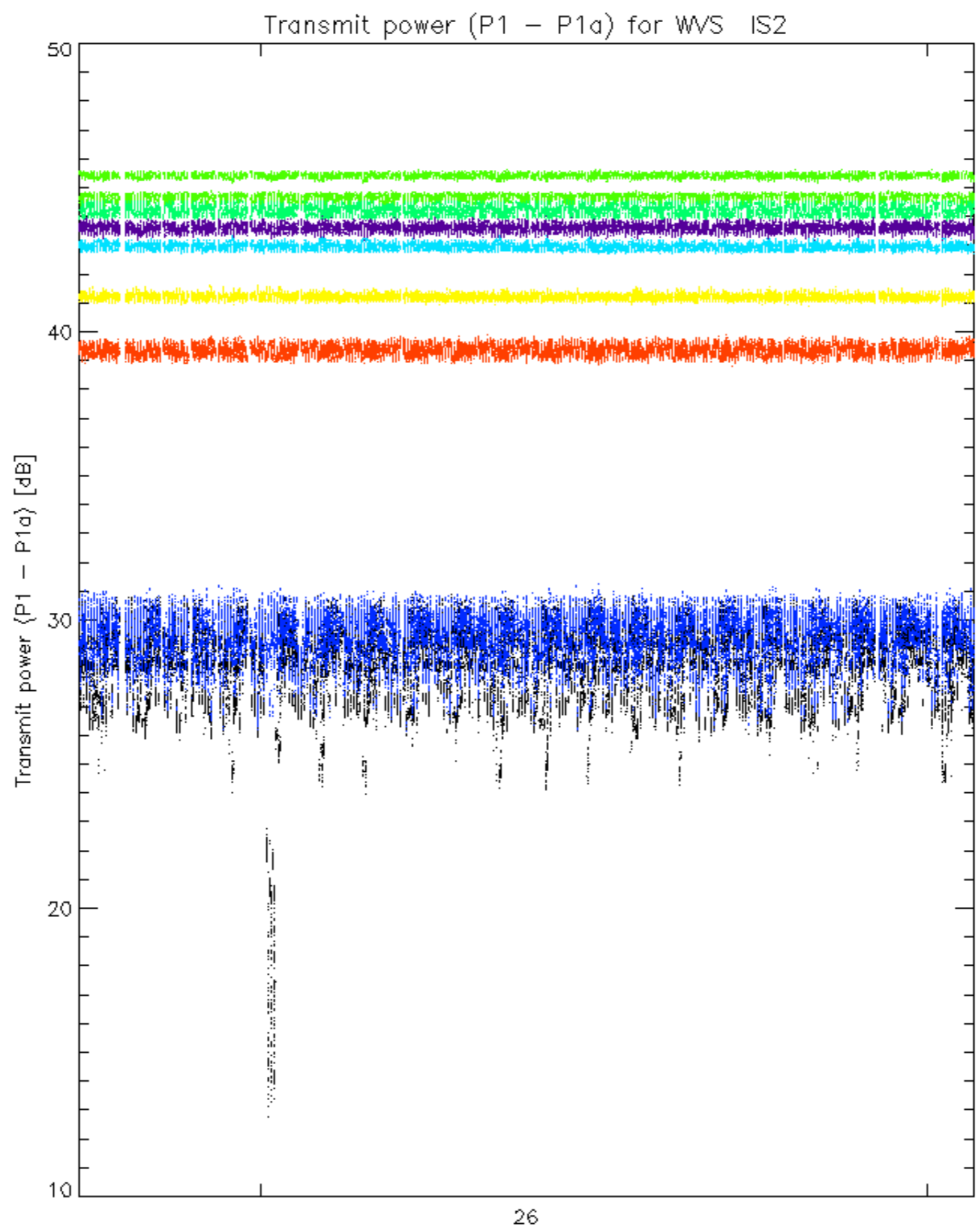




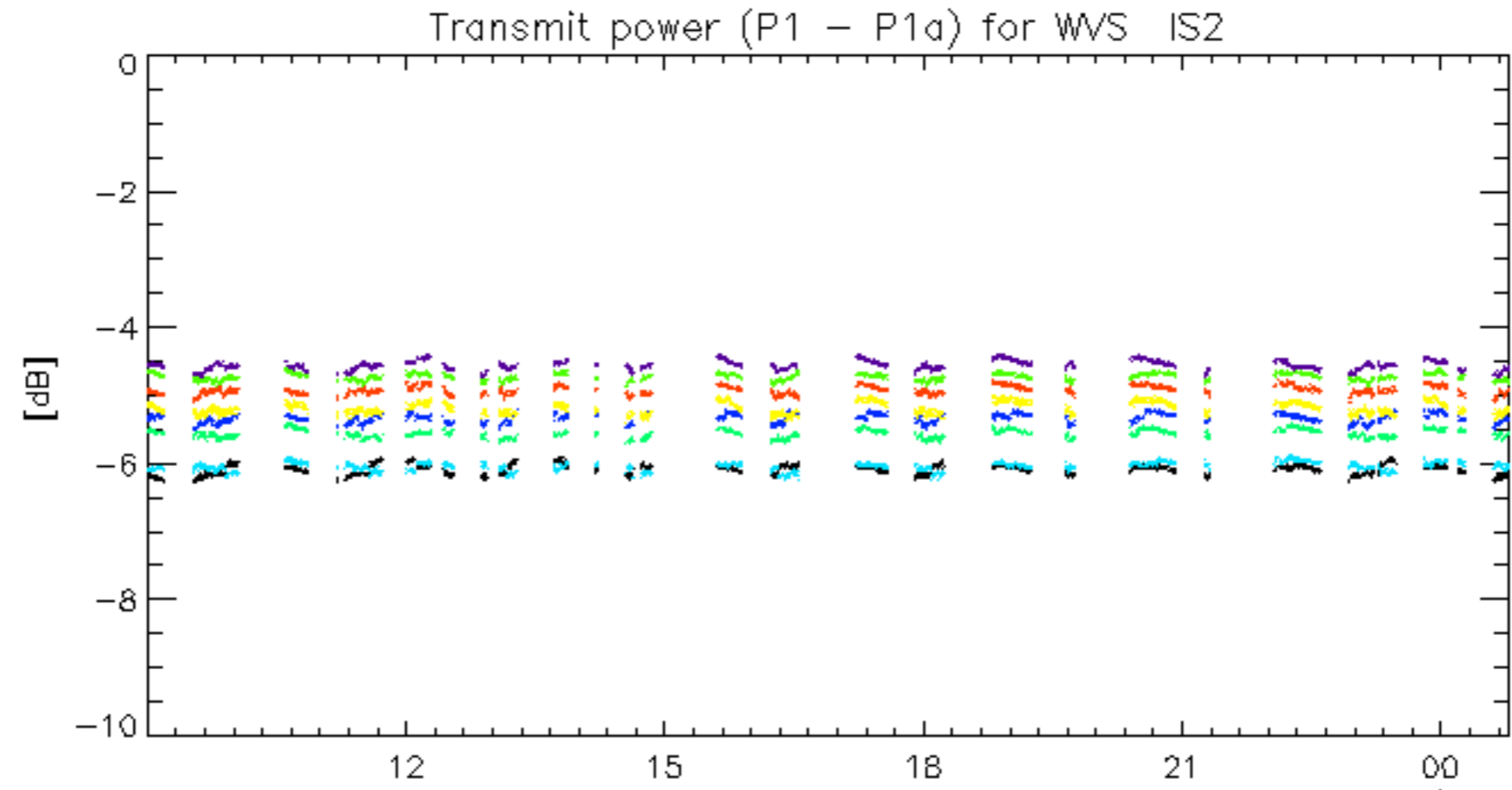




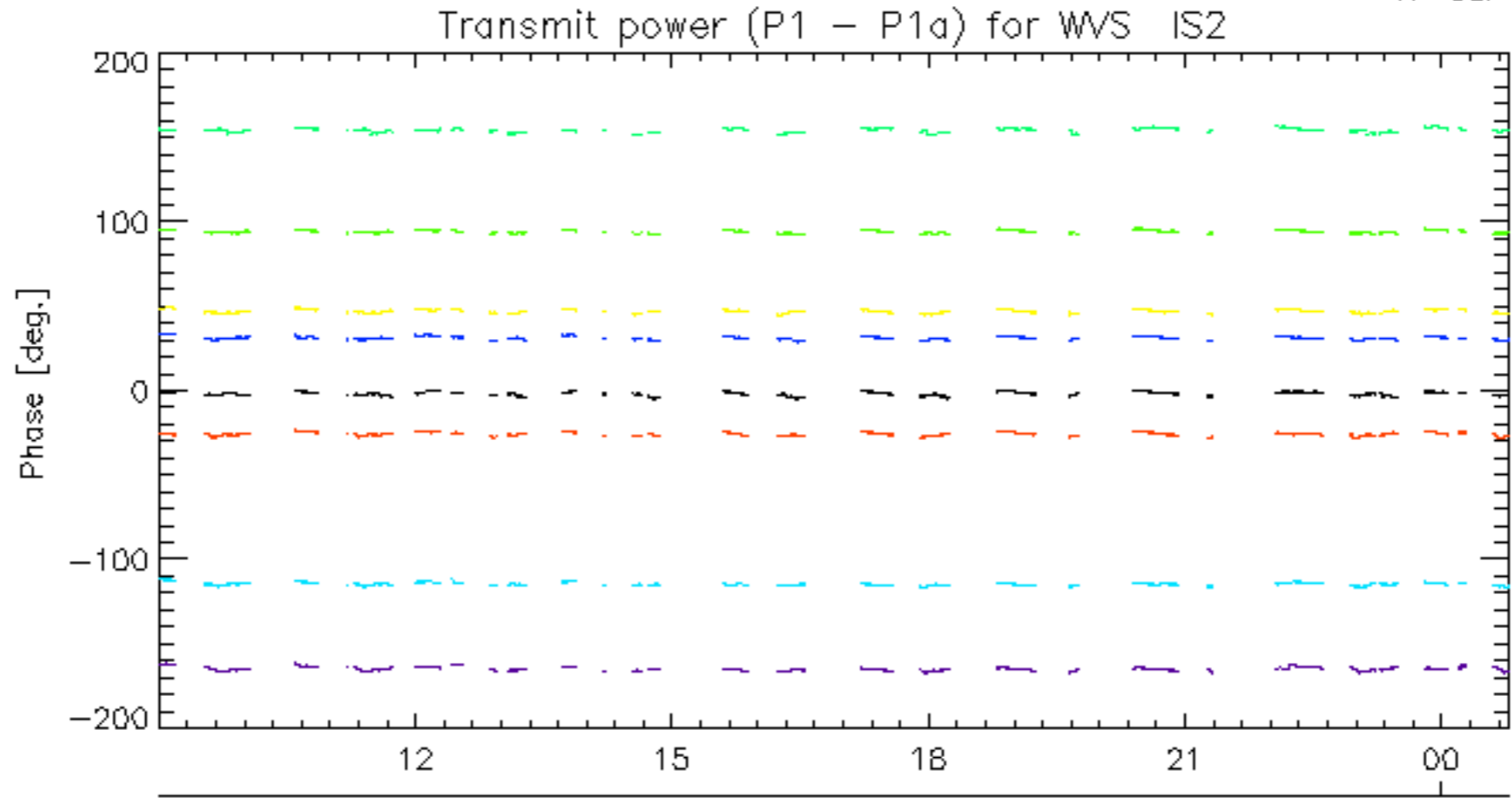
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



17-Jul



17-Jul

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

No unavailabilities during the reported period.