

PRELIMINARY REPORT OF 061123

last update on Thu Nov 23 16:46:03 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 2006-11-22 00:00:00 to 2006-11-23 16:46:04

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	43	67	8	3	24
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	43	67	8	3	24
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	67	8	3	24
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	67	8	3	24

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	39	56	25	17	58
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	39	56	25	17	58
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	39	56	25	17	58
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	39	56	25	17	58

2.3 - Browse Visual Inspection

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	20061123 074719
H	20061122 081856

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
<input type="checkbox"/>

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	-3.959183	0.008596	-0.017159
7	P1	-3.150485	0.022893	-0.028986
11	P1	-4.132116	0.024416	-0.003232
15	P1	-6.289901	0.014295	-0.061619
19	P1	-3.620898	0.063442	0.025068
22	P1	-4.671383	0.129135	0.102948
26	P1	-3.972499	0.086308	0.105663
30	P1	-5.892056	0.166127	0.101880
3	P1	-16.503647	0.236751	-0.110363
7	P1	-17.273445	0.171151	-0.054519
11	P1	-17.151306	0.452988	-0.110314
15	P1	-13.061559	0.129479	-0.048203
19	P1	-14.922000	0.371547	0.023334
22	P1	-15.866141	0.513504	0.045701
26	P1	-15.064329	0.198519	0.069278
30	P1	-17.417549	0.606631	-0.323814

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.846434	0.090700	0.020730
7	P2	-21.732271	0.093945	0.000995
11	P2	-15.659473	0.102572	0.015610
15	P2	-7.123512	0.106028	-0.010794
19	P2	-9.190437	0.103483	-0.012463
22	P2	-18.229372	0.095703	-0.035986
26	P2	-16.544044	0.109418	-0.061786
30	P2	-19.476410	0.088306	0.000447

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.238580	0.008204	-0.029403
7	P3	-8.238580	0.008204	-0.029403
11	P3	-8.238580	0.008204	-0.029403
15	P3	-8.238580	0.008204	-0.029403
19	P3	-8.238580	0.008204	-0.029403
22	P3	-8.238580	0.008204	-0.029403
26	P3	-8.238631	0.008215	-0.029432
30	P3	-8.238631	0.008215	-0.029432

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	-3.909225	0.055902	-0.011667
7	P1	-2.525506	0.329078	0.070370
11	P1	-2.863414	0.050316	0.022795
15	P1	-3.678846	0.058017	-0.031066
19	P1	-3.541628	0.112734	0.070080
22	P1	-5.059126	0.088447	0.099066
26	P1	-6.026038	0.184626	0.094272
30	P1	-5.332246	0.111710	0.046720
3	P1	-11.718125	0.136293	-0.049526
7	P1	-10.060606	0.429460	0.008607
11	P1	-10.333026	0.153864	0.025457
15	P1	-10.759644	0.215406	0.070730
19	P1	-15.794520	2.139522	0.440388
22	P1	-21.380360	1.561695	-0.388619
26	P1	-16.047550	0.396795	-0.043843
30	P1	-17.905939	0.413865	0.030247

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.456373	0.125715	-0.027972
7	P2	-22.210691	0.459331	-0.071778
11	P2	-10.938830	0.124241	-0.039073
15	P2	-4.963912	0.148297	-0.050779
19	P2	-6.946246	0.193440	-0.046886
22	P2	-8.259562	0.196399	-0.011515
26	P2	-24.306089	0.338913	-0.091239
30	P2	-21.946379	0.206886	-0.019605

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.084838	0.003249	-0.026863
7	P3	-8.084832	0.003232	-0.027092
11	P3	-8.084864	0.003233	-0.027229
15	P3	-8.084809	0.003233	-0.027027
19	P3	-8.084819	0.003243	-0.027085
22	P3	-8.084765	0.003242	-0.027171
26	P3	-8.084836	0.003233	-0.026684
30	P3	-8.084893	0.003242	-0.026933

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	0.000543822
	stdev	1.79262e-07
MEAN Q	mean	0.000520540
	stdev	2.20710e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135978
	stdev	0.001111146
STDEV Q	mean	0.136336
	stdev	0.00112828



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006112[123]

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_GM1_1PNPDK20061121_175710_000004892053_00113_24716_9089.N1	0	23
ASA_GM1_1PNPDK20061122_104752_000007672053_00123_24726_9116.N1	0	19
ASA_WSM_1PNPDE20061121_133205_000001592053_00110_24713_3226.N1	0	34
ASA_WSM_1PNPDK20061122_135848_000000852053_00125_24728_0656.N1	0	29







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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

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)


Acsending

<input type="checkbox"/>
Descending

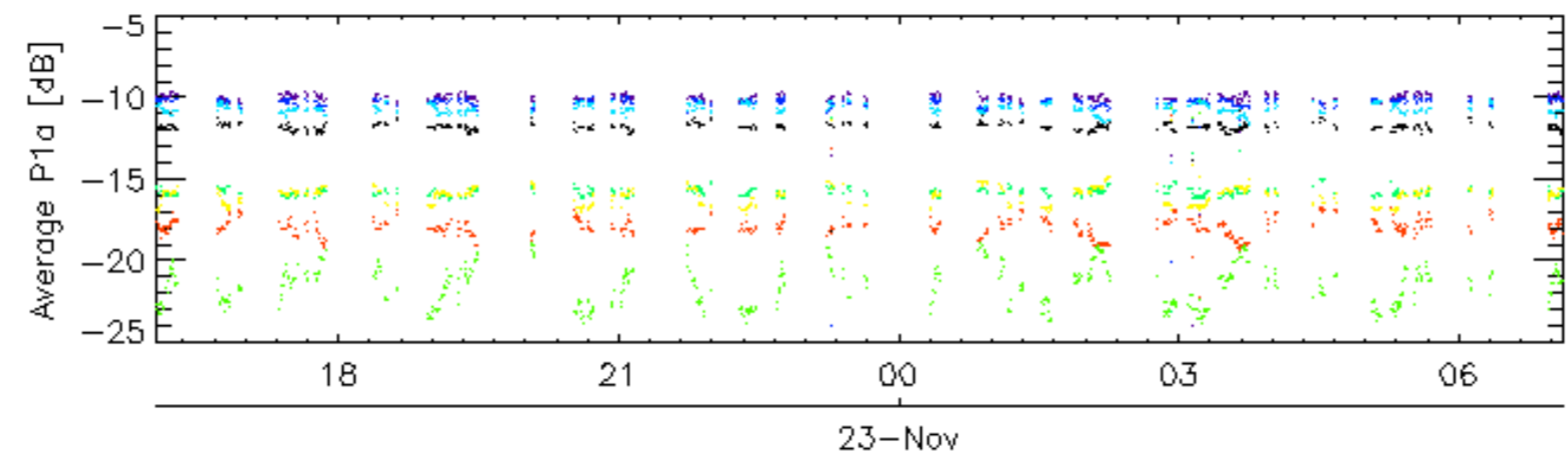
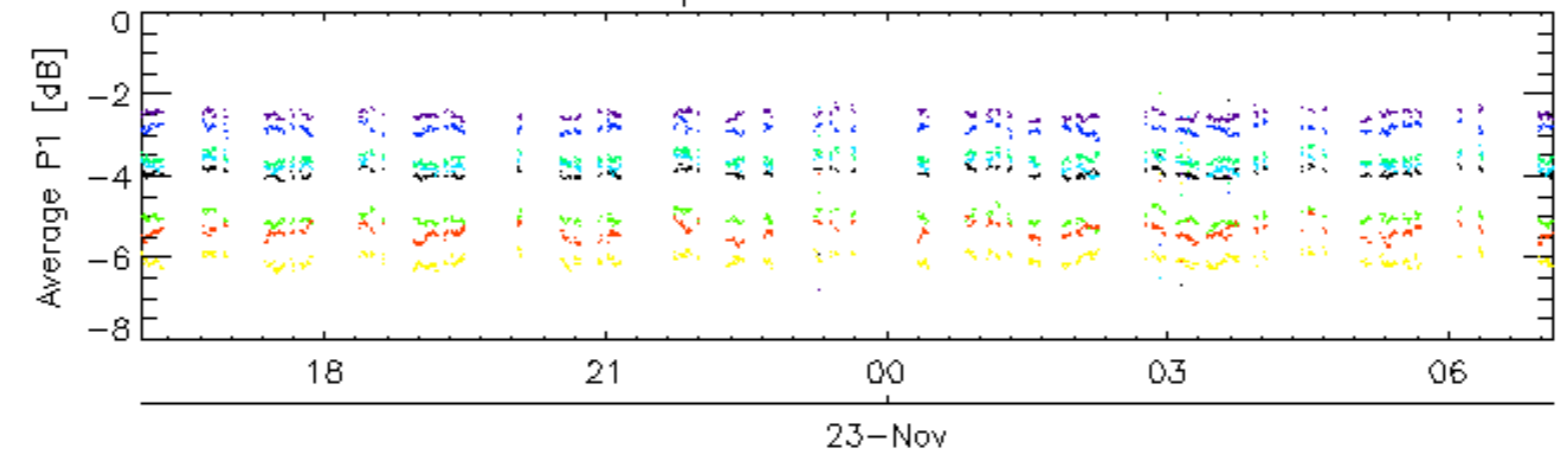
7.5 - Absolute Doppler for GM1

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

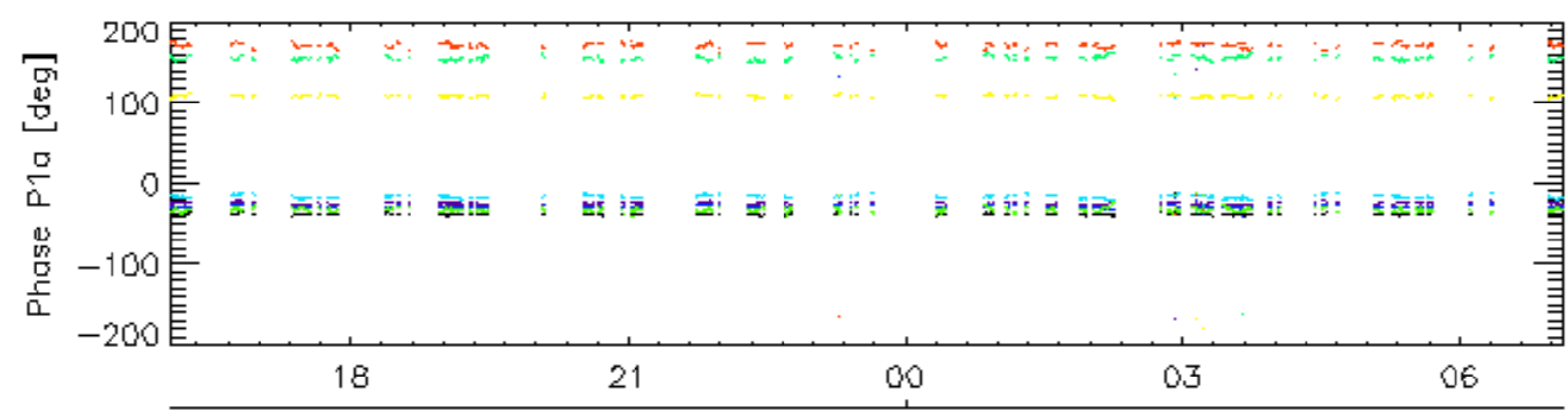
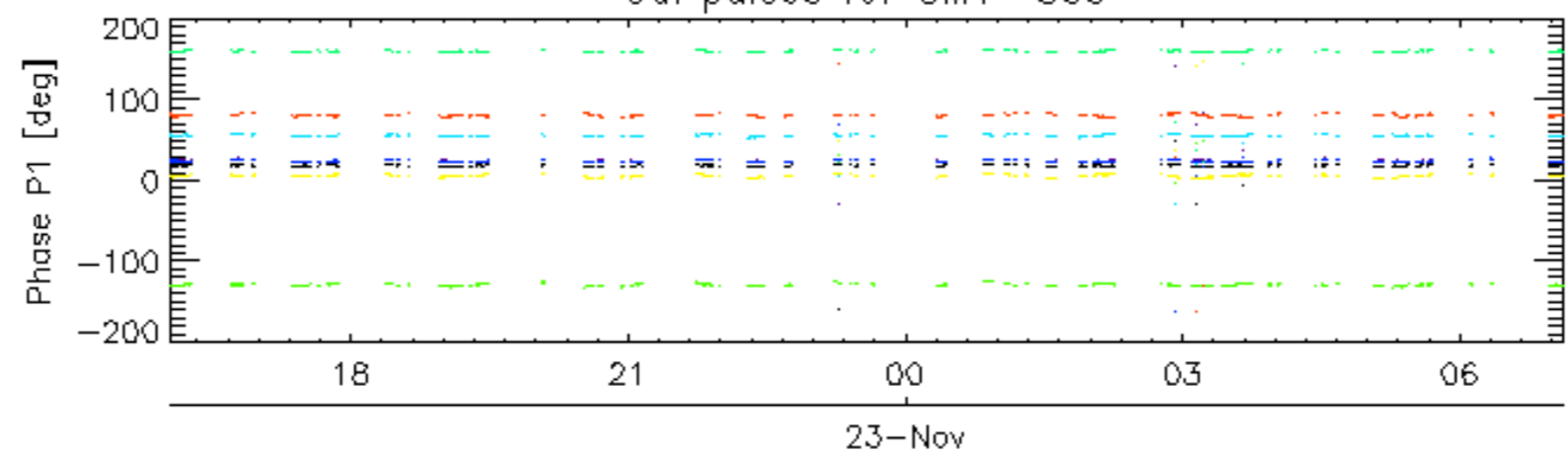
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

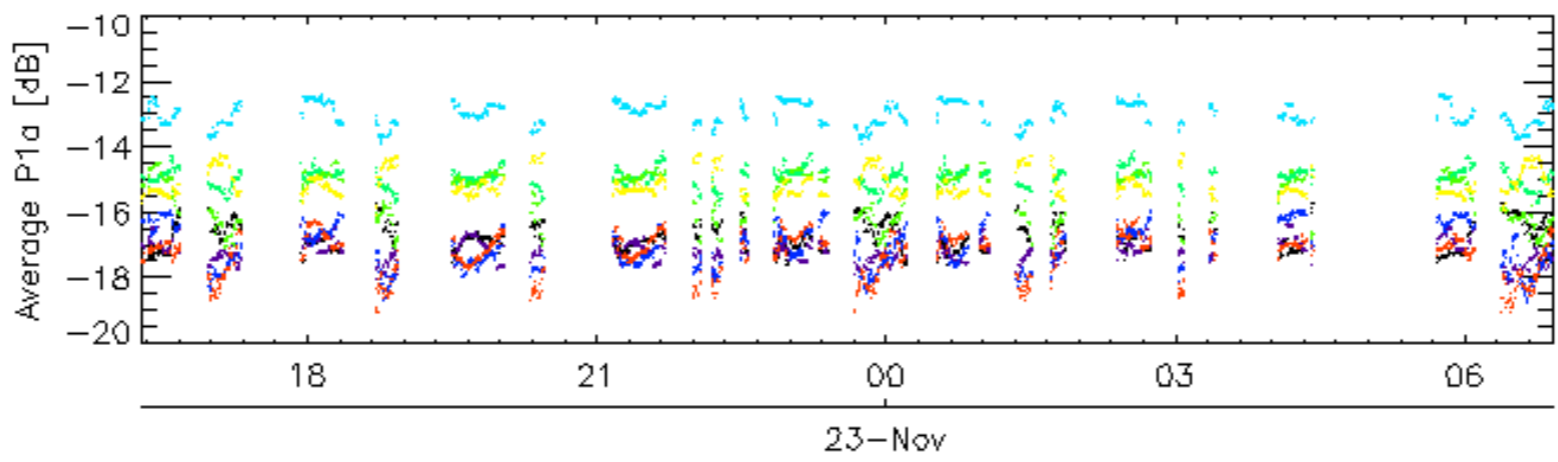
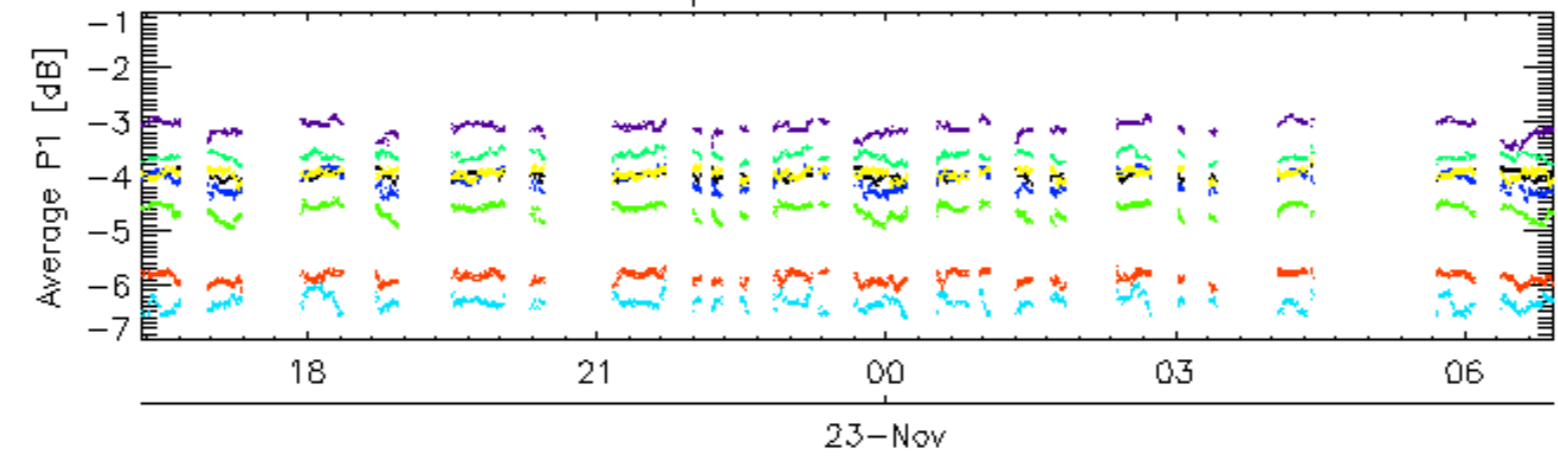


Cal pulses for GM1 SS3

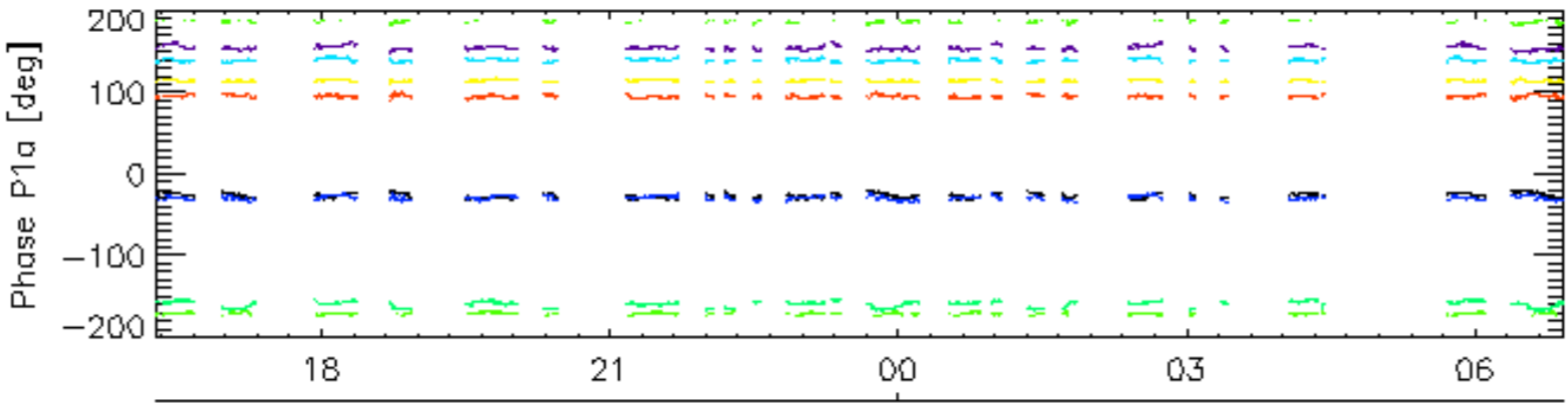
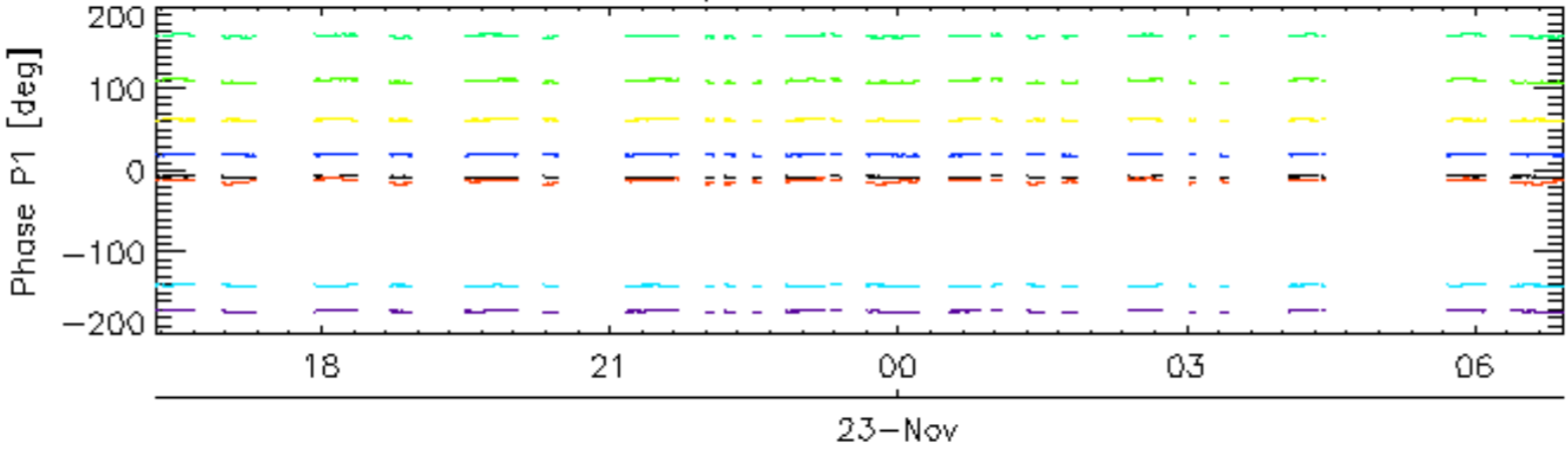


rows: **3** **7** **11** **15** **19** **22** **26** **30** 23-Nov

Cal pulses for WVS IS2

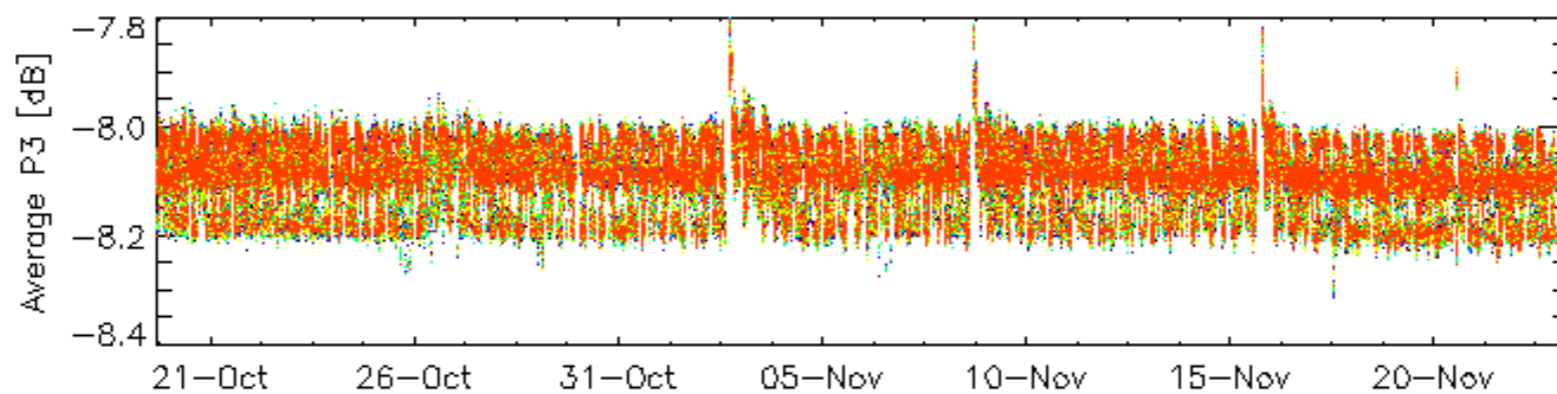
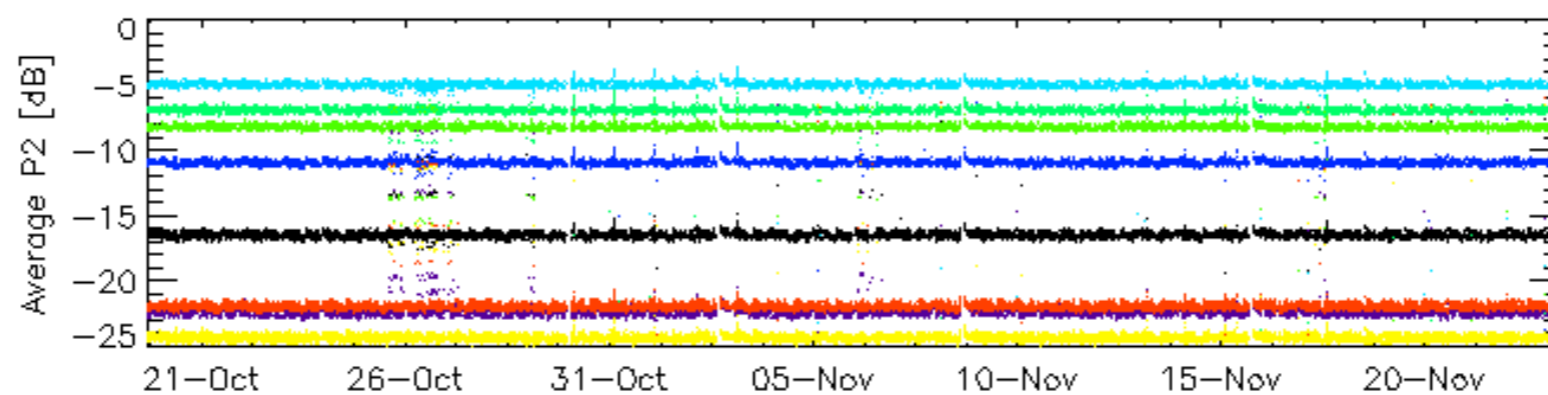
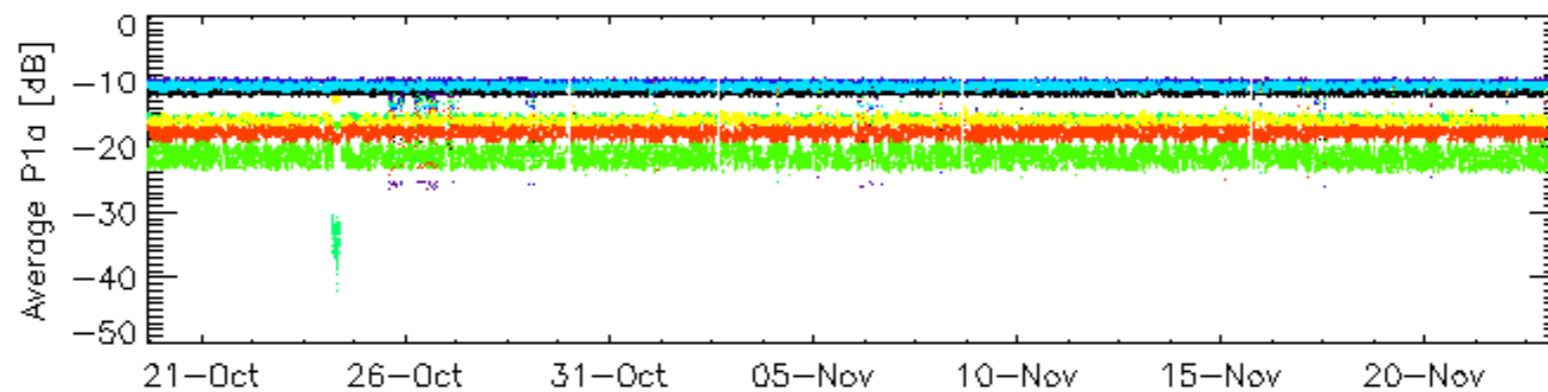
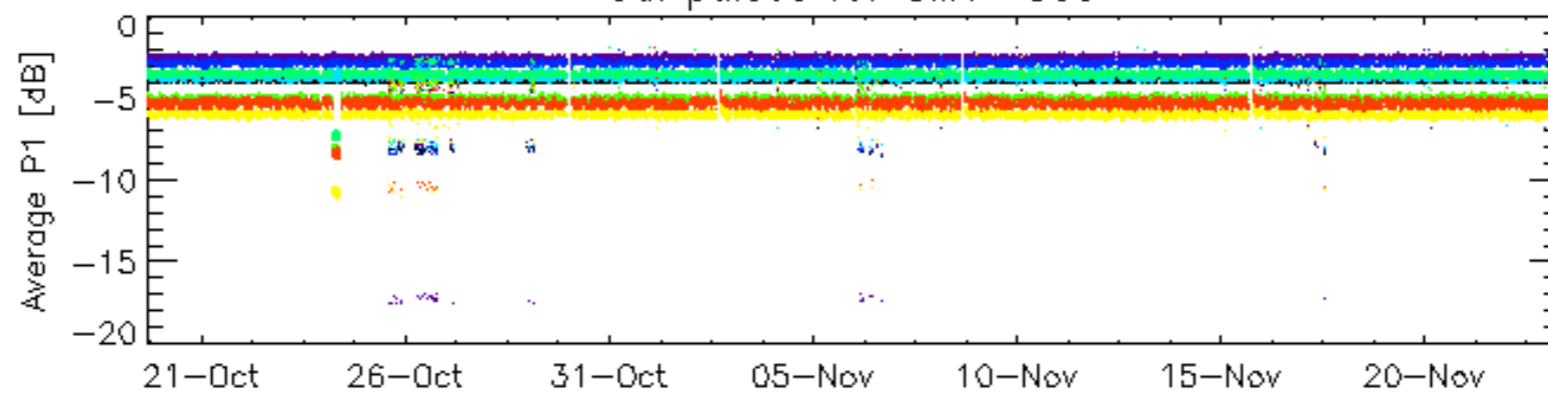


Cal pulses for WVS IS2



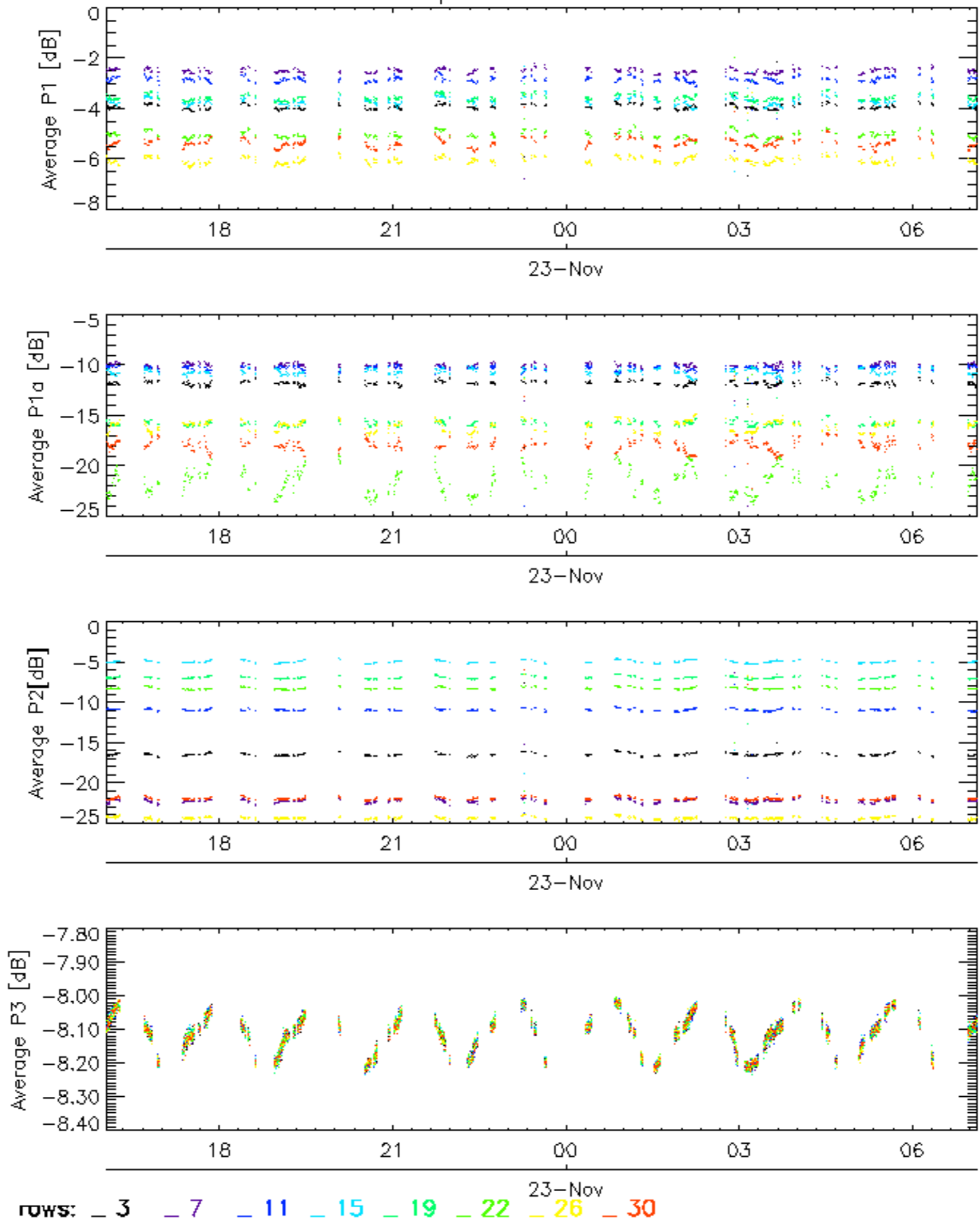
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 23-Nov

Cal pulses for GM1 SS3

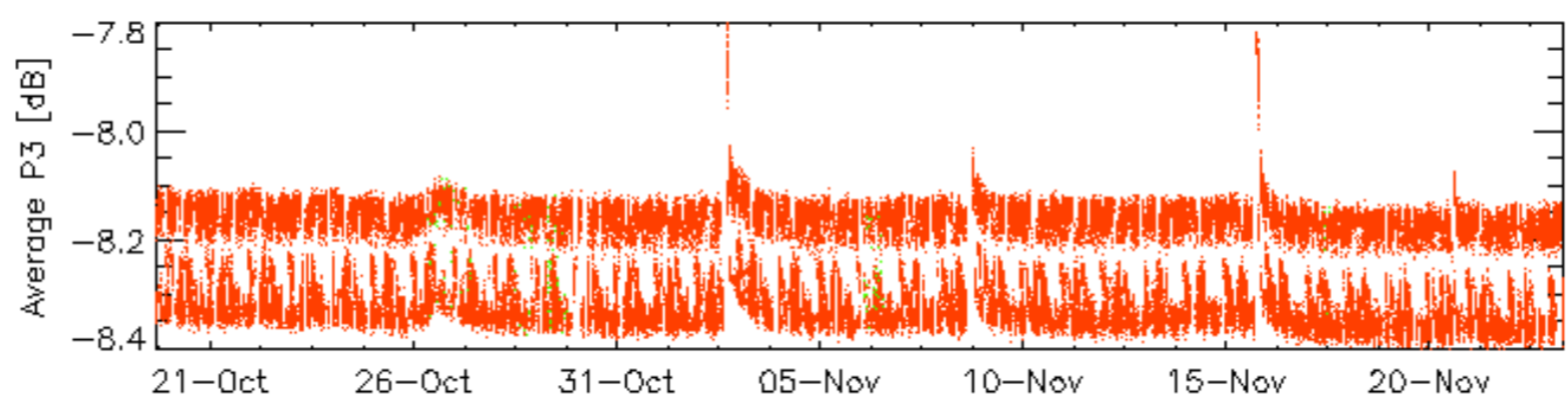
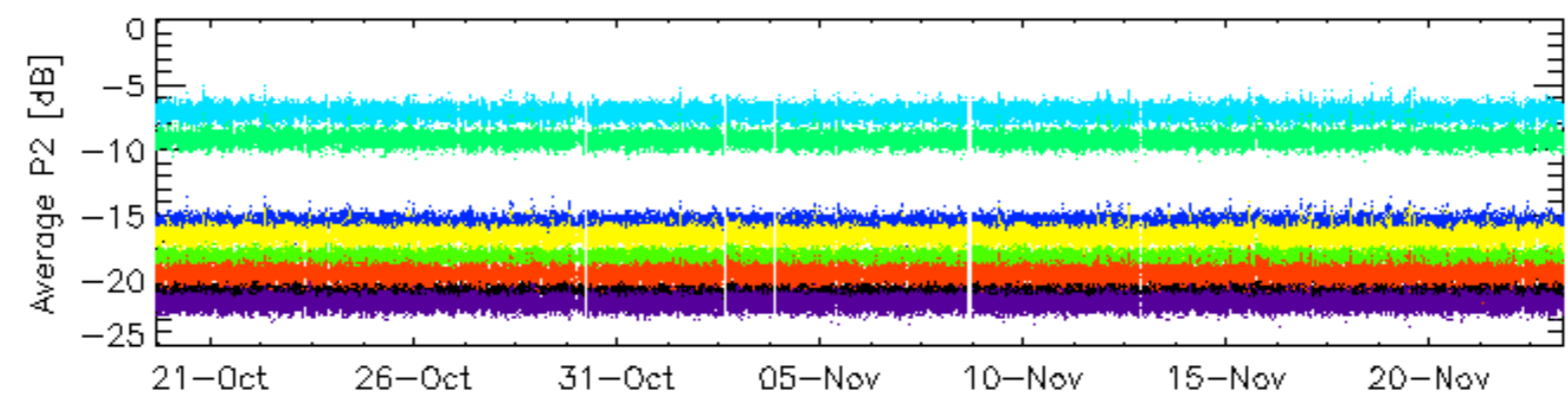
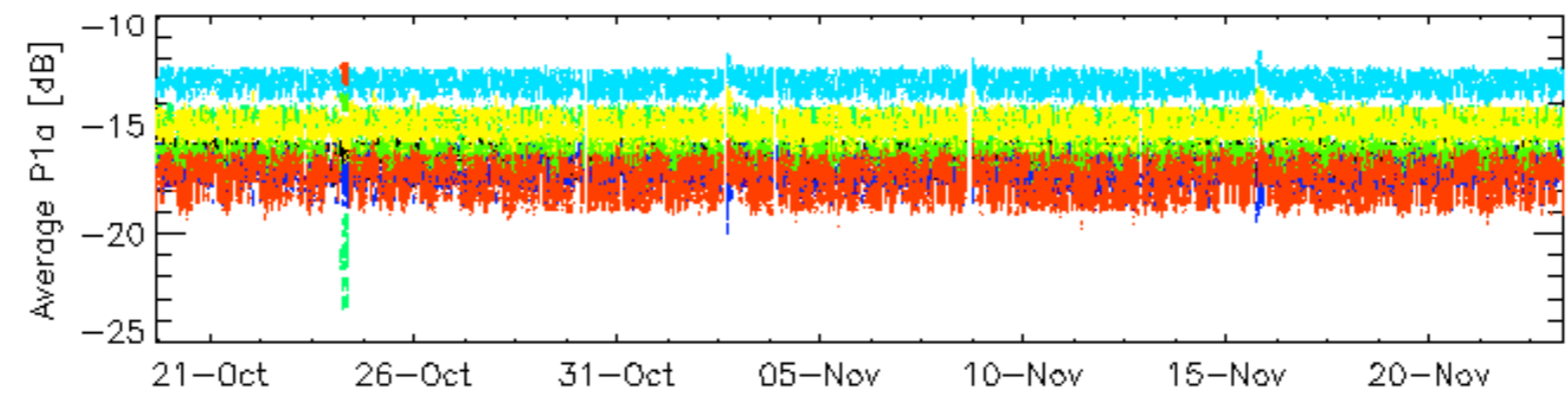
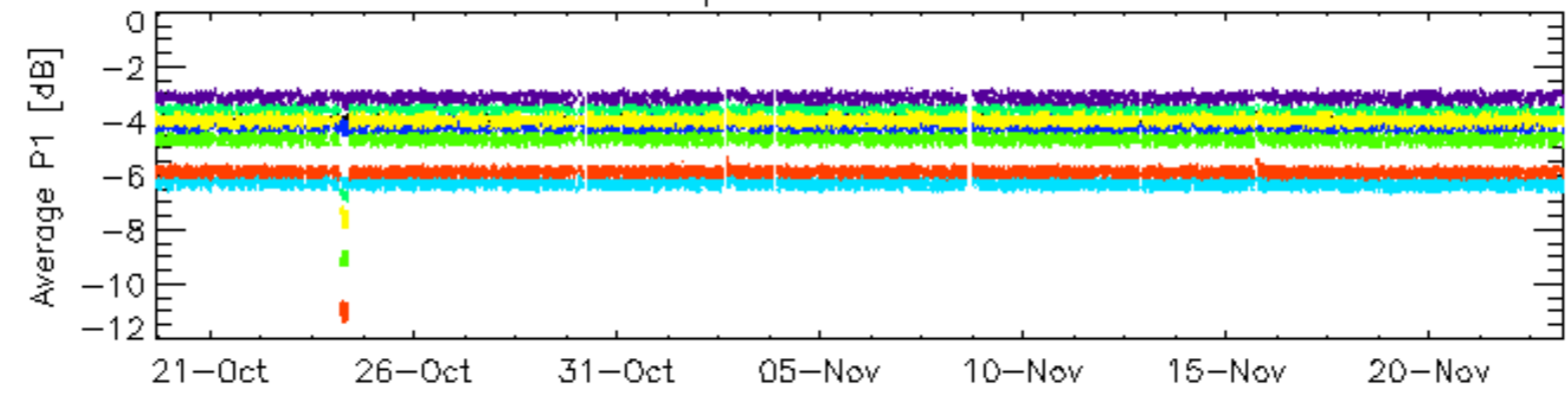


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

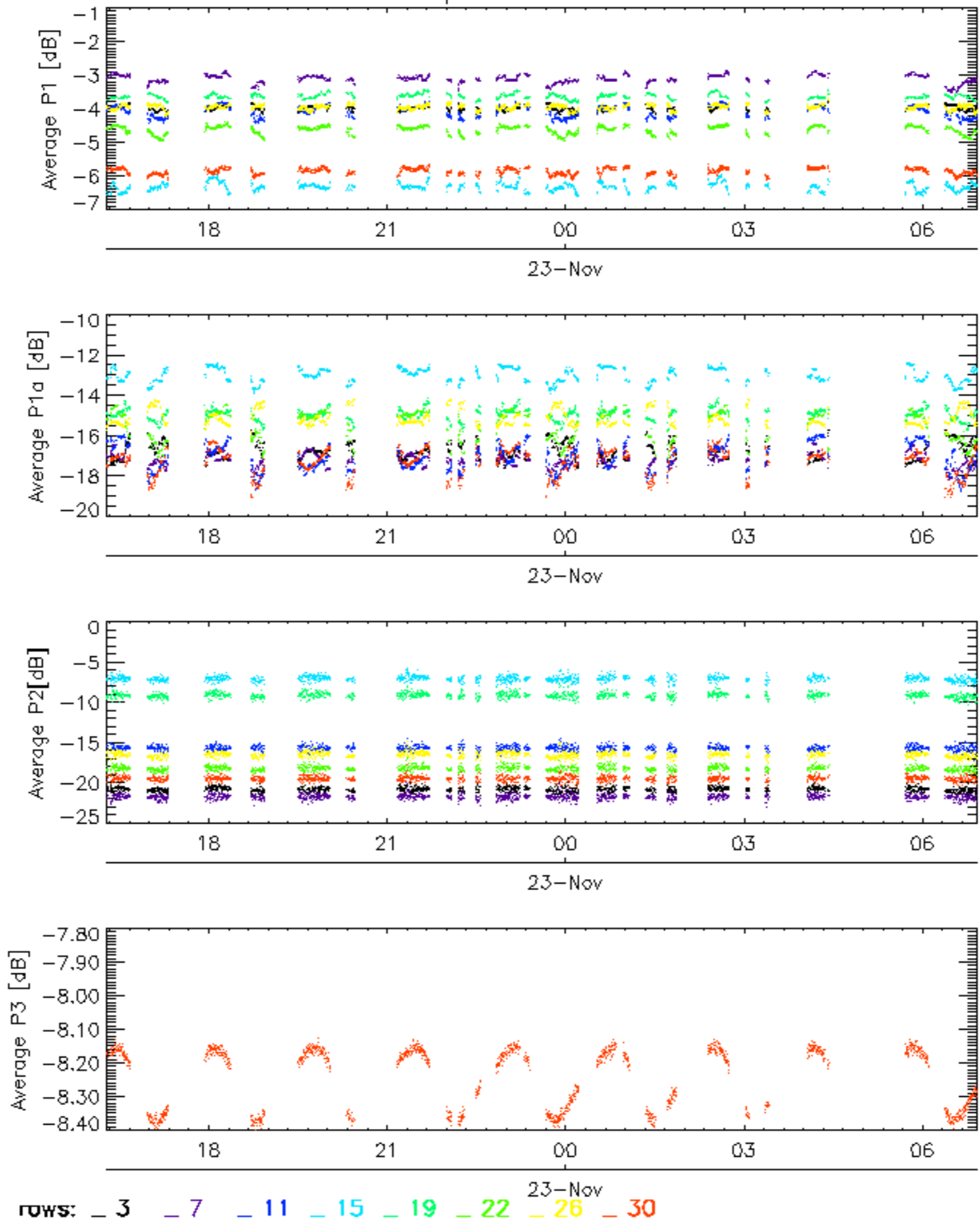


Cal pulses for WVS IS2

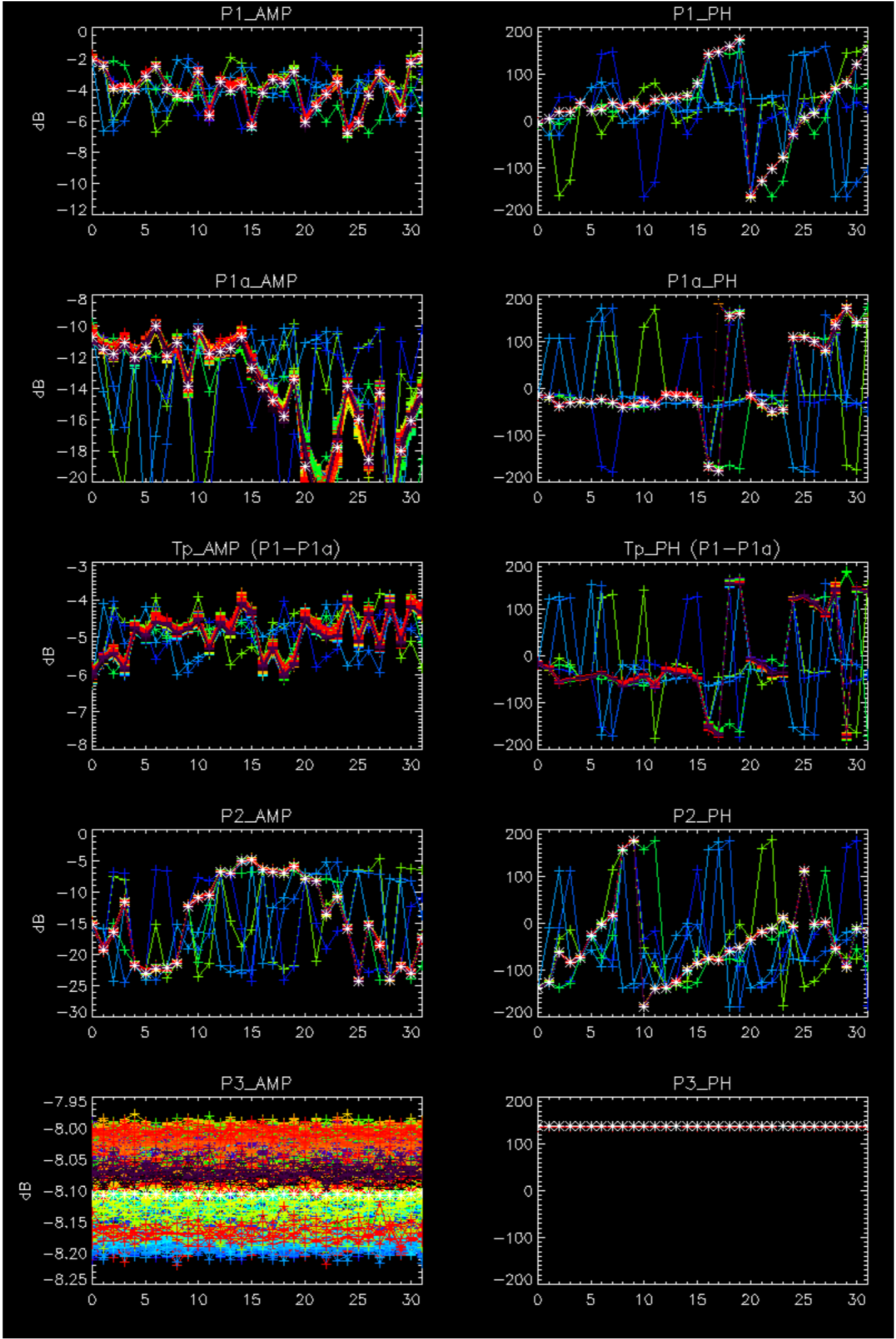


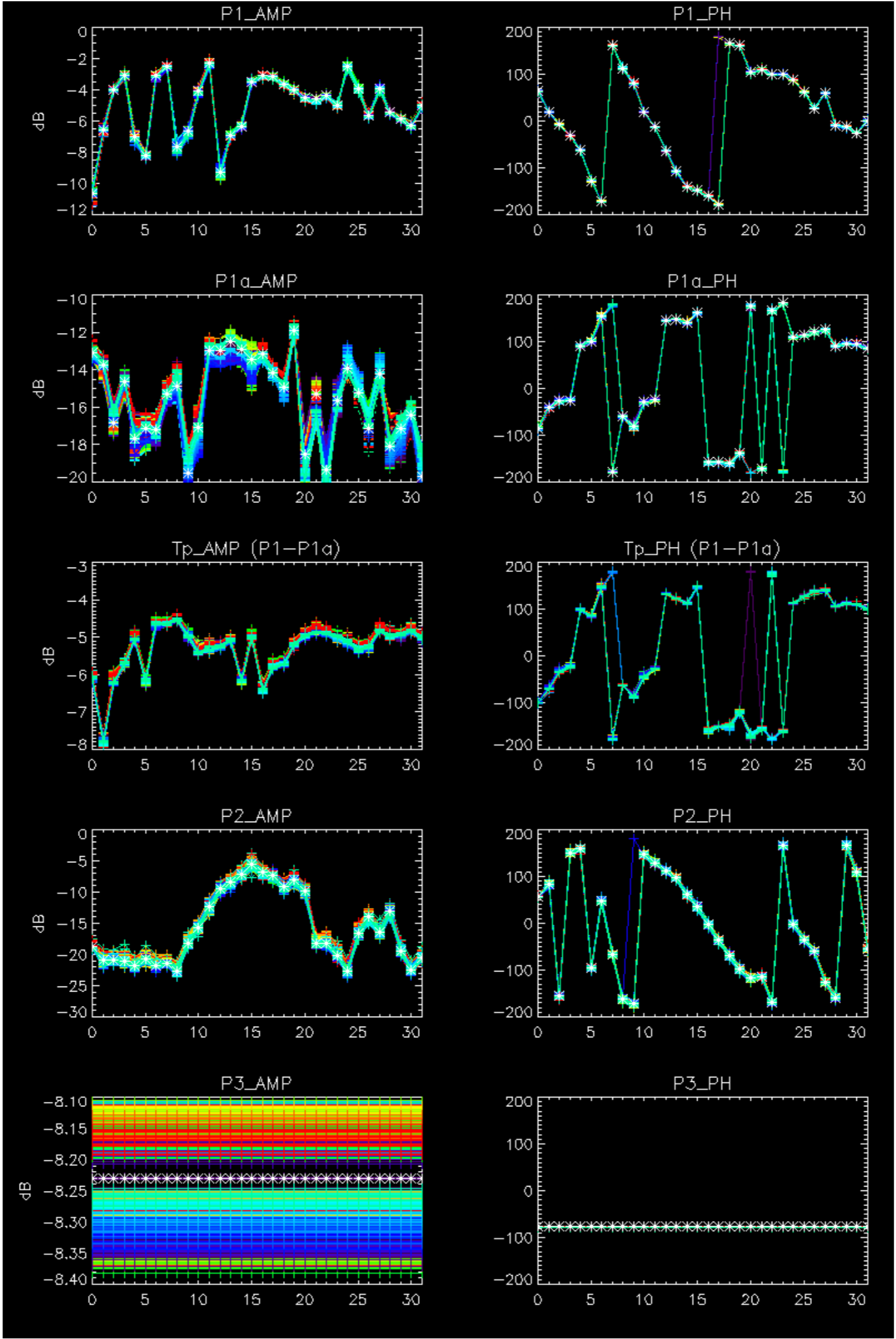
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



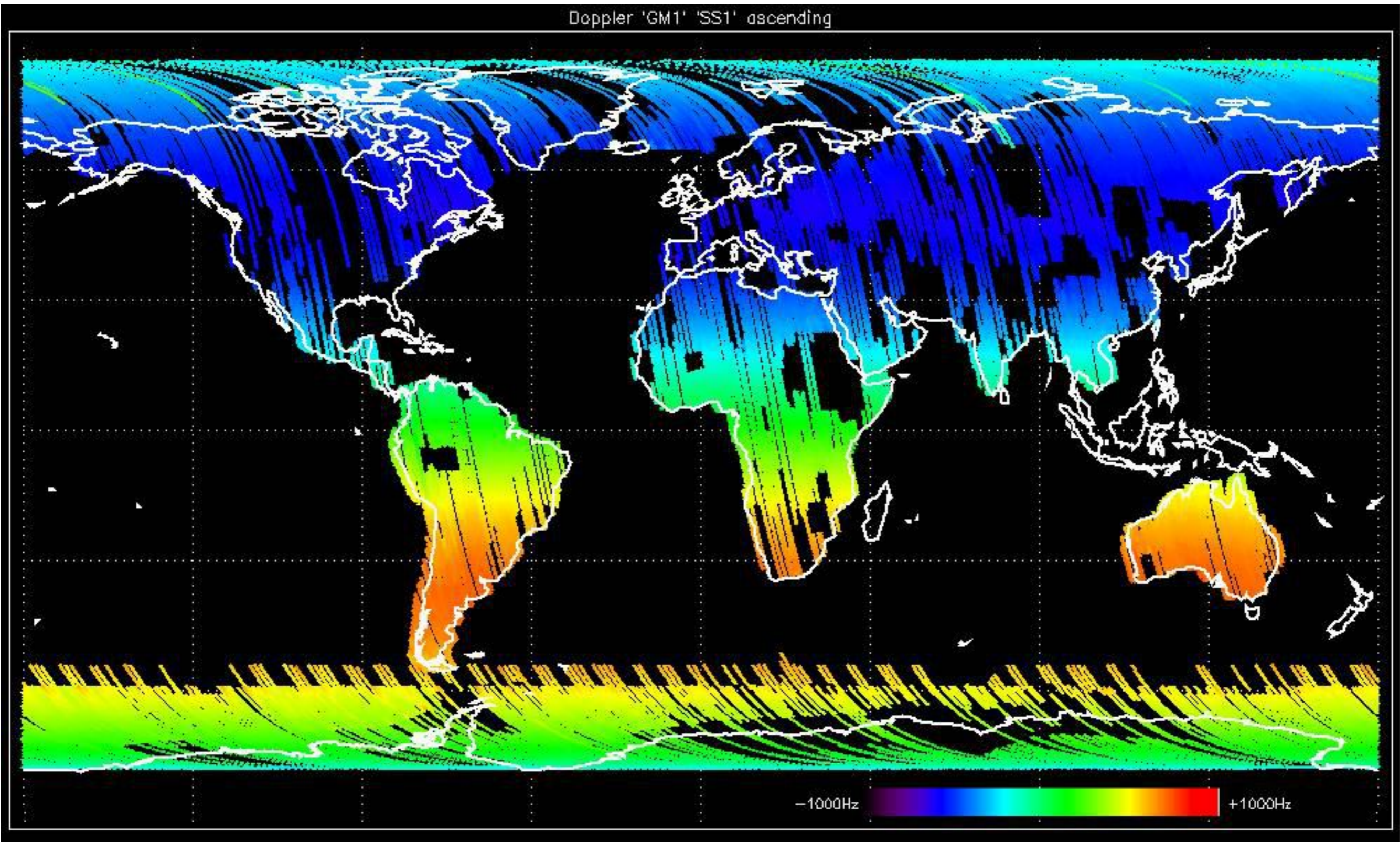
No anomalies observed.



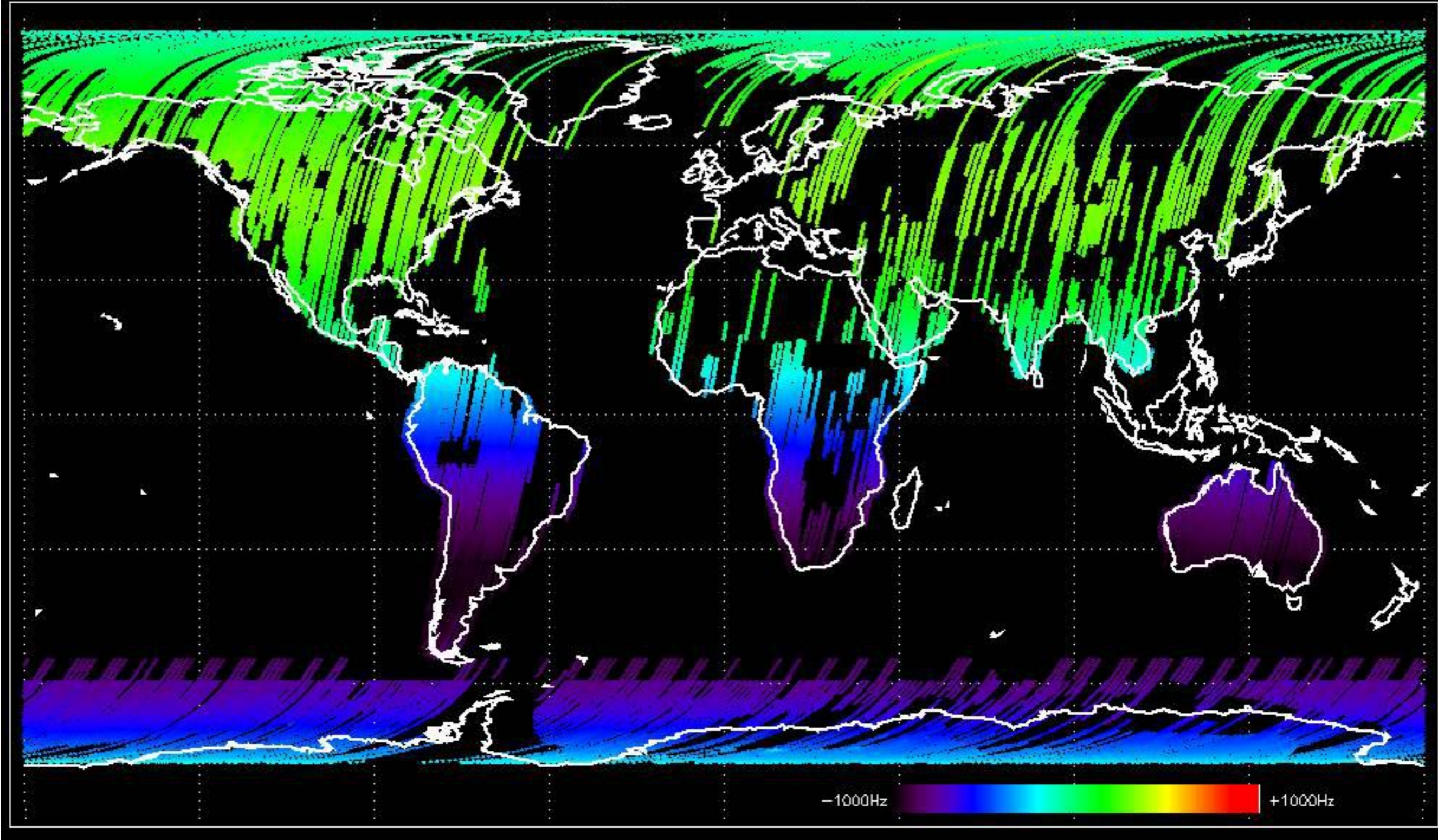


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

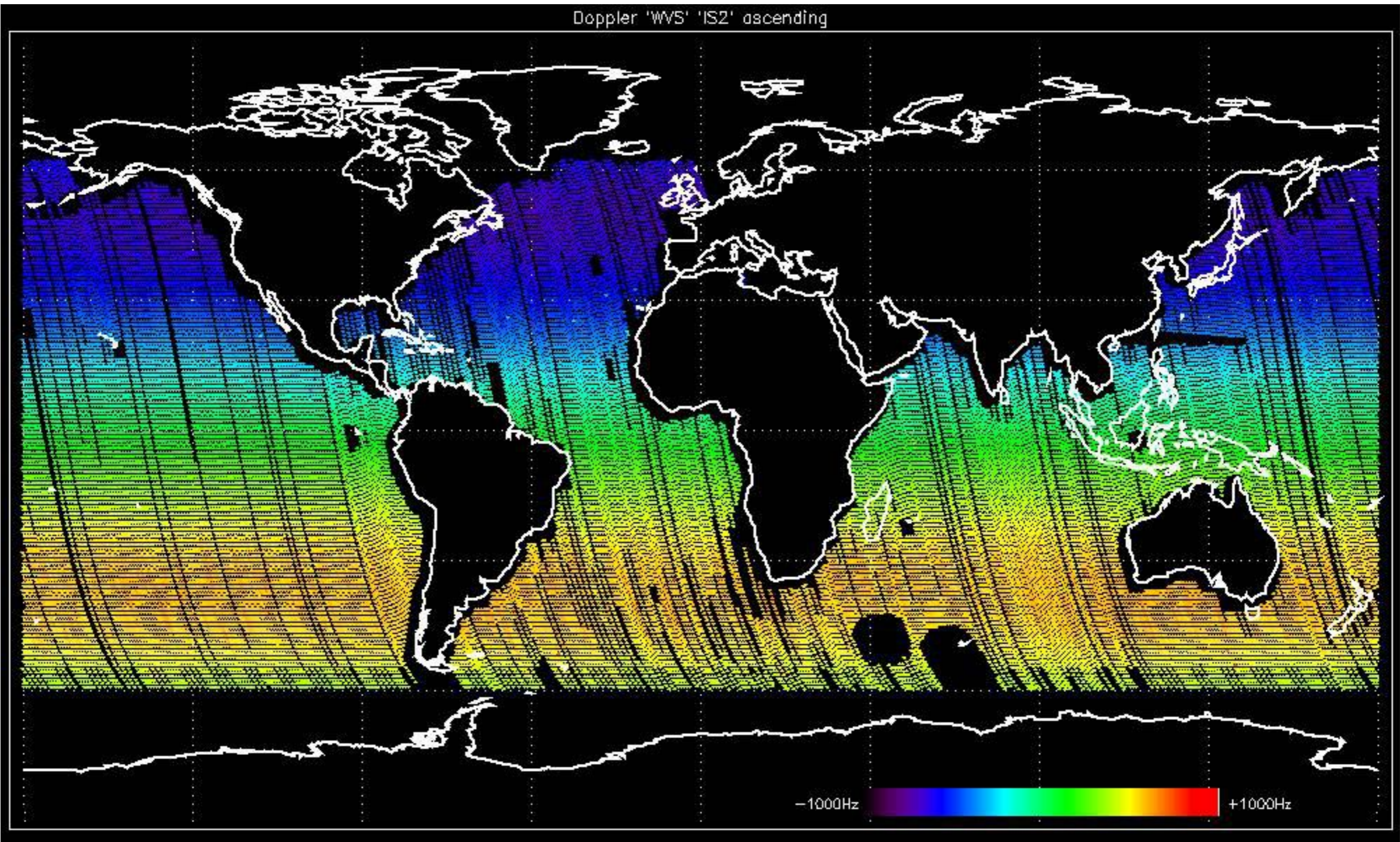
Doppler 'GM1' 'SS1' ascending



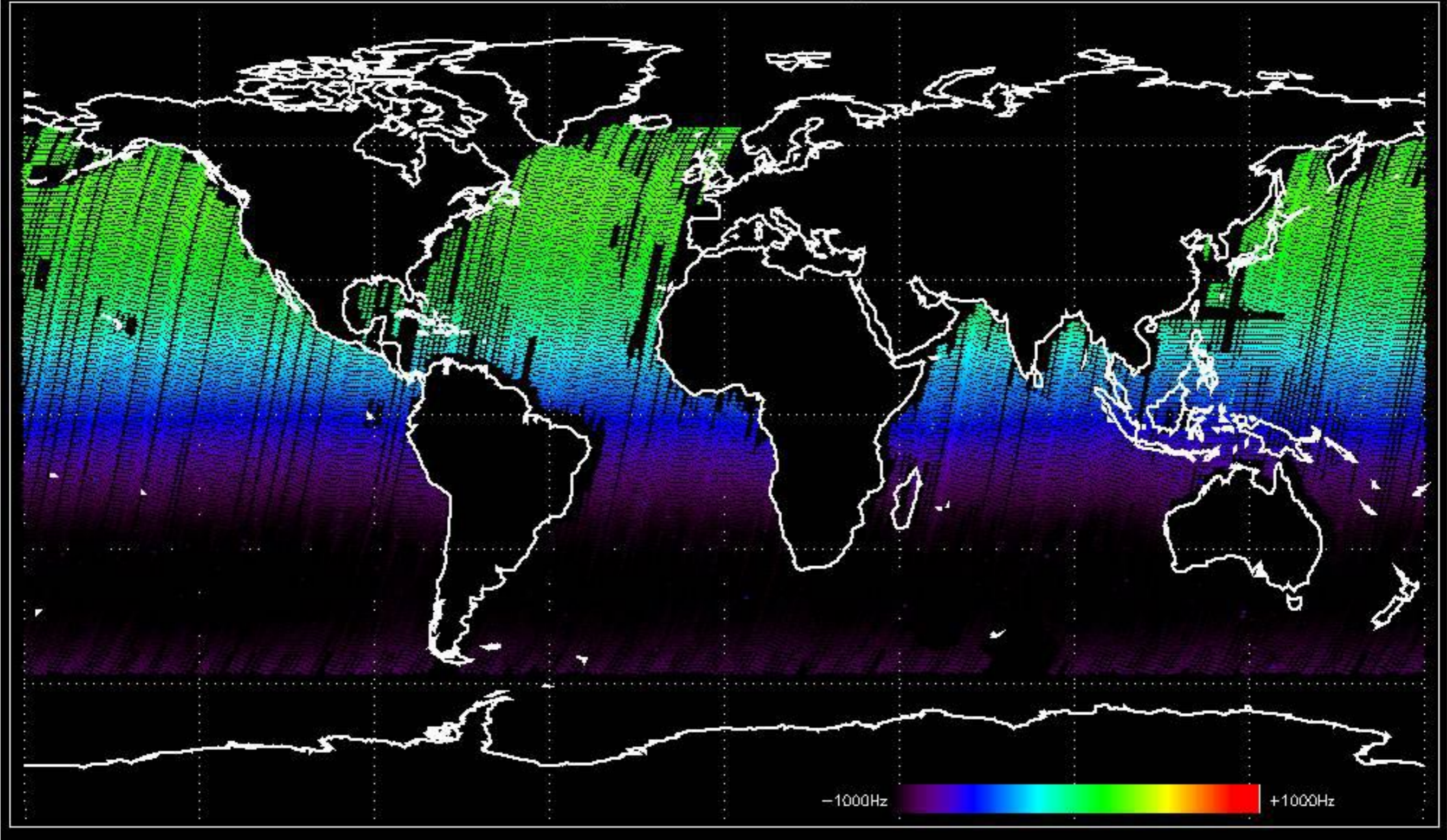
Doppler 'GM1' 'SS1' descending



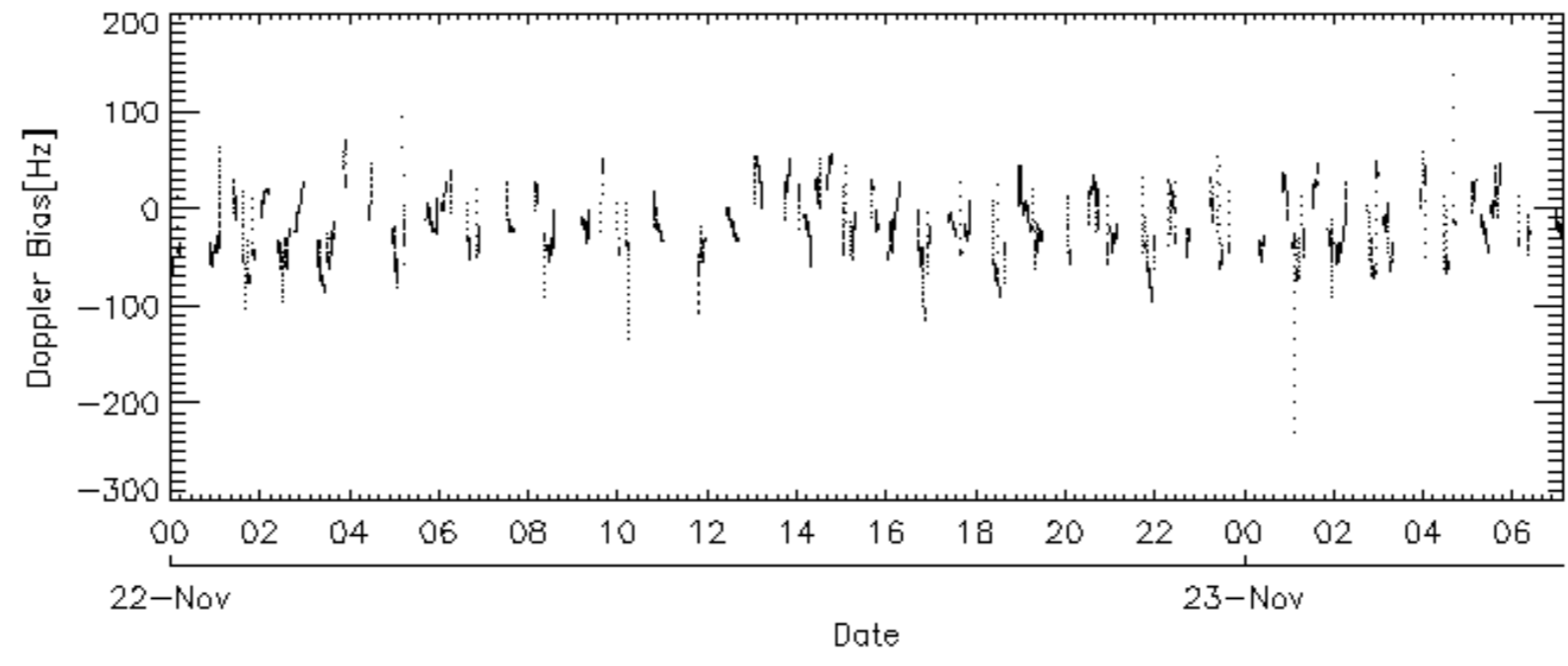
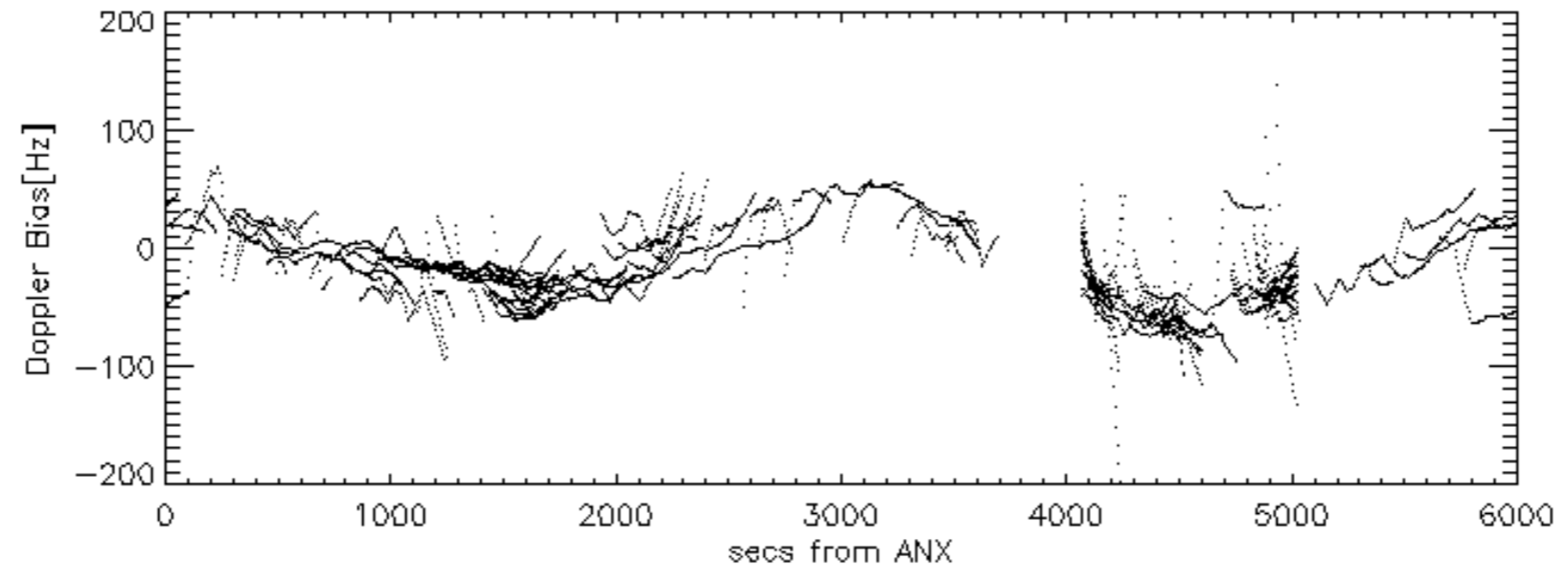
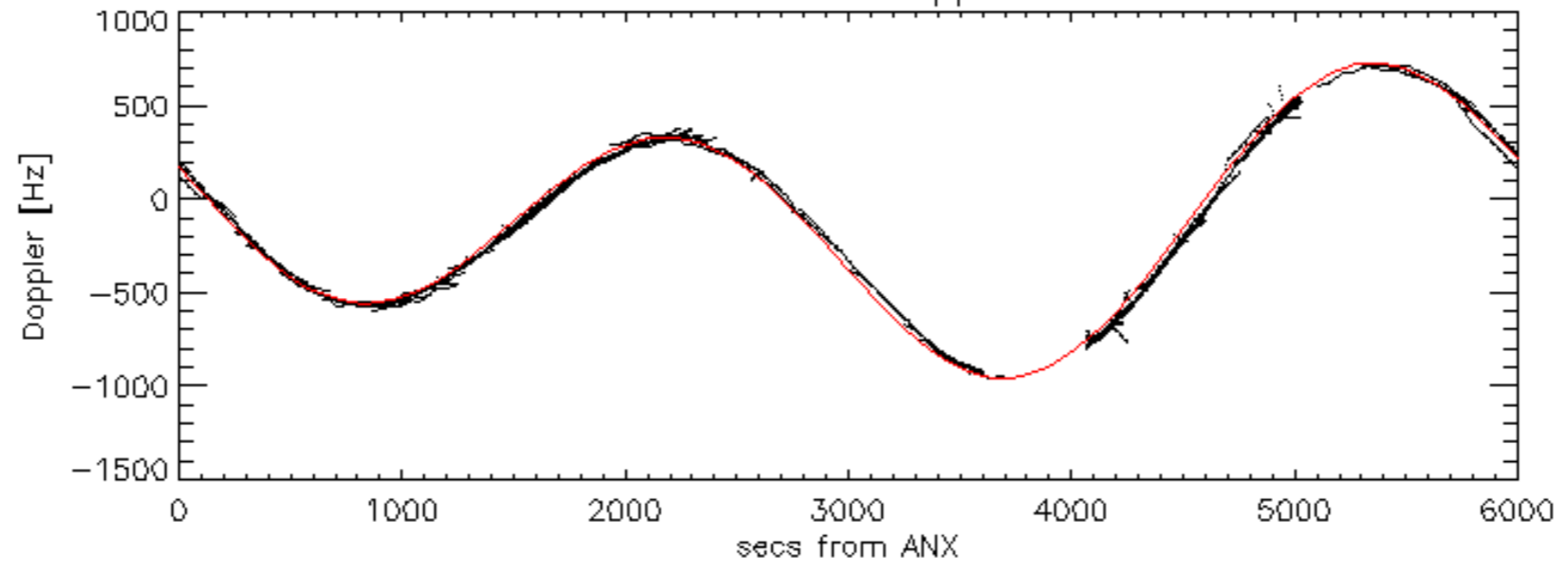
Doppler 'WVS' 'IS2' ascending

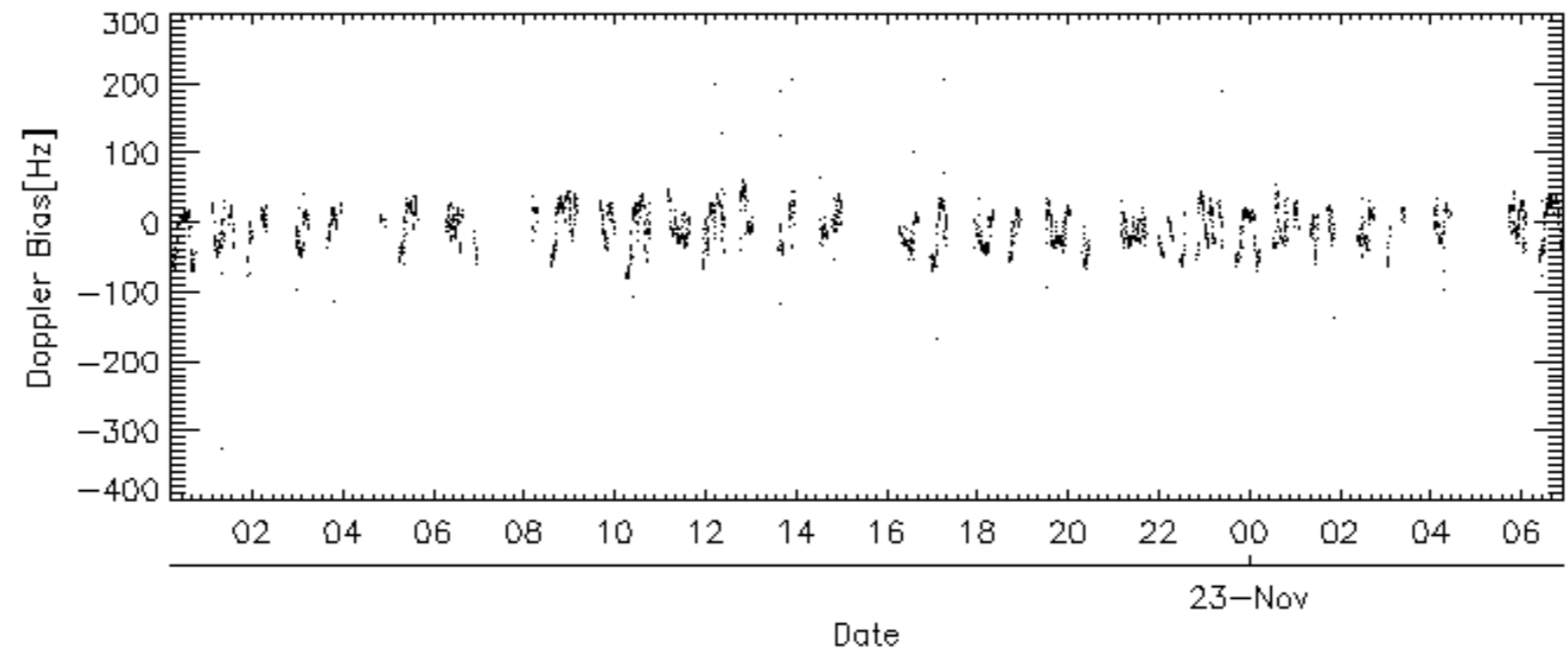
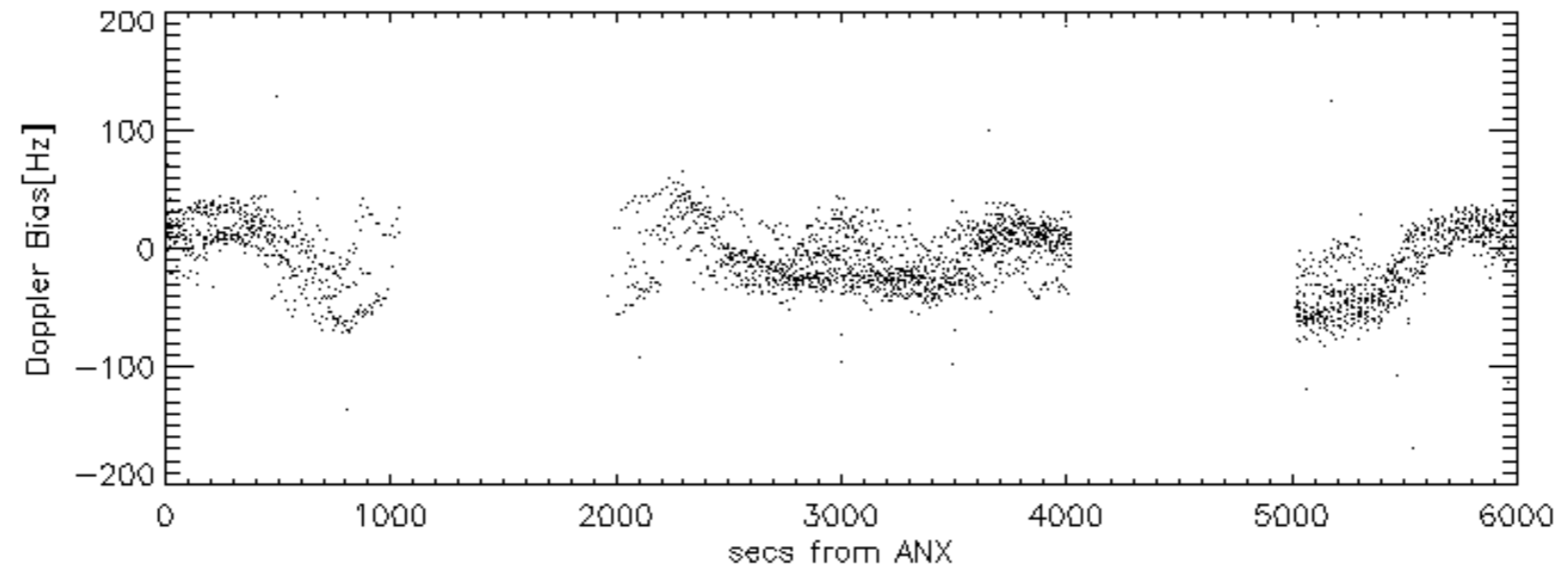
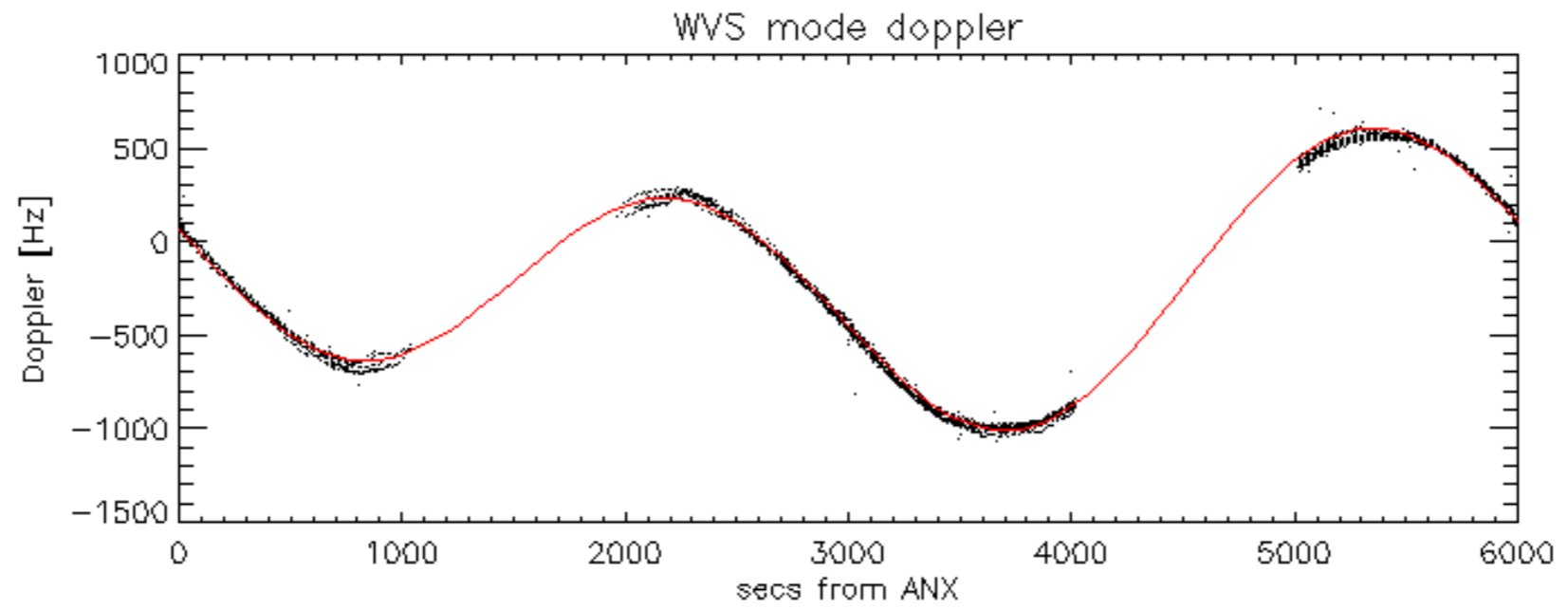


Doppler 'WVS' 'IS2' descending

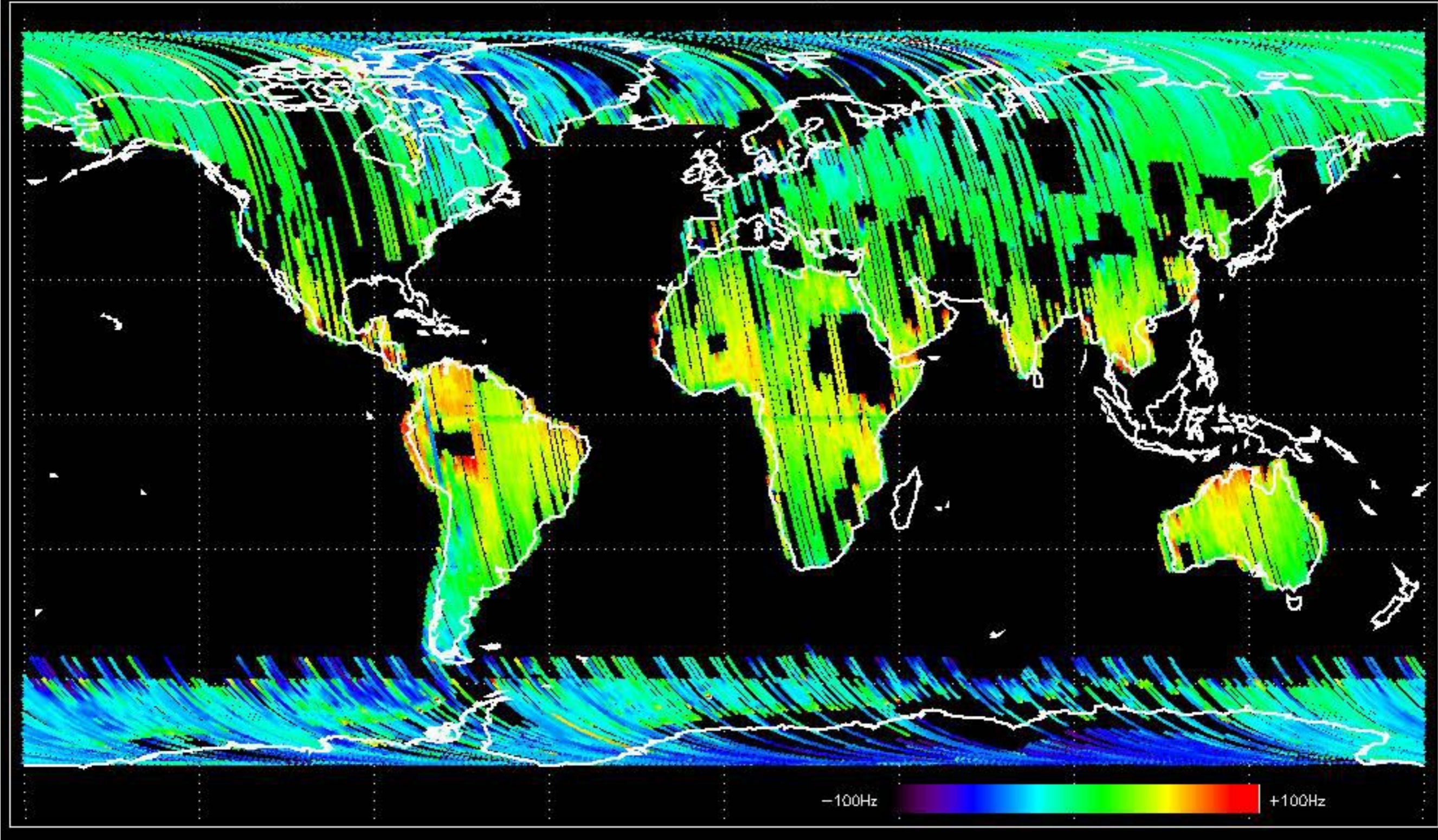


GM1 mode doppler

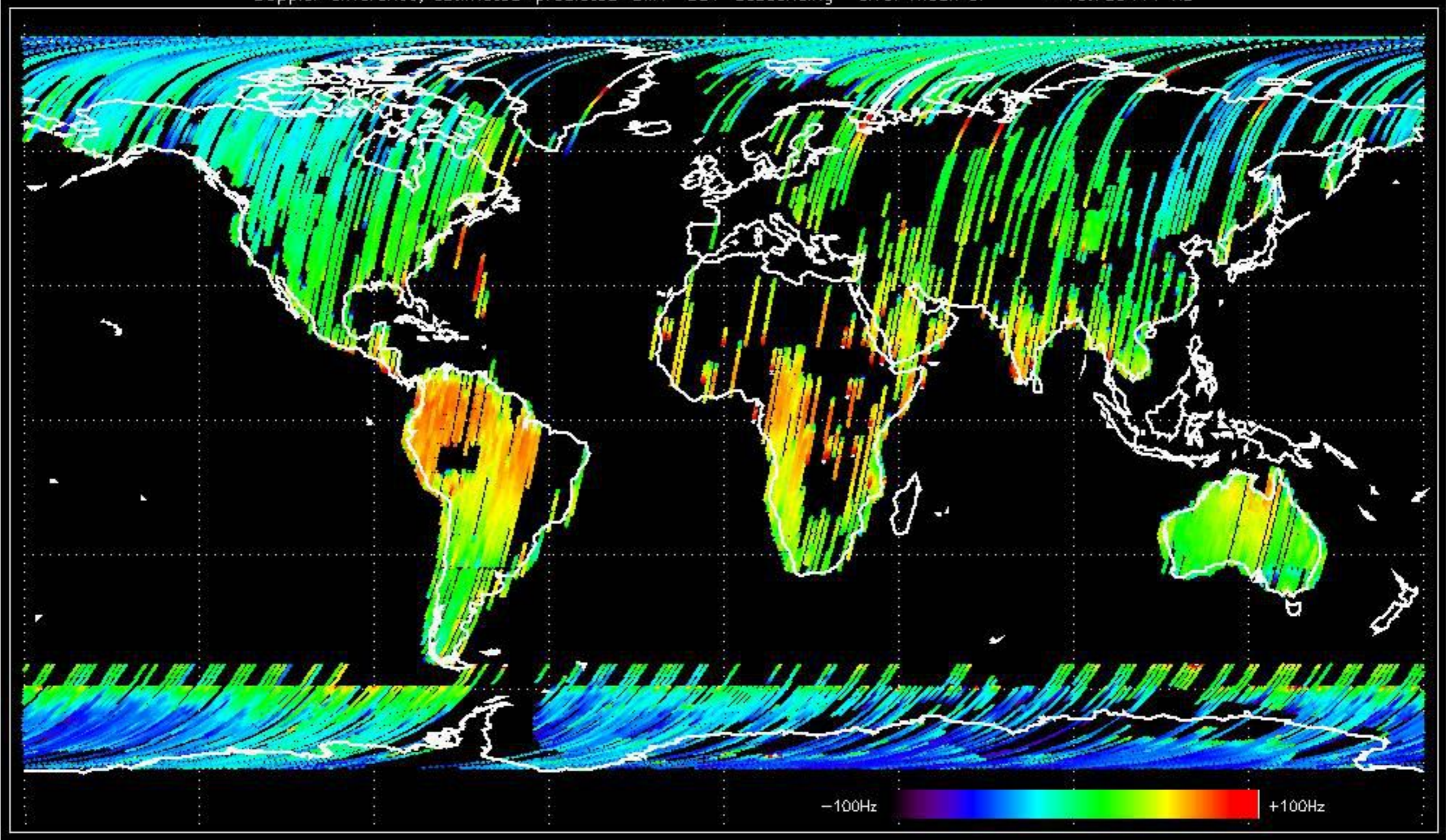




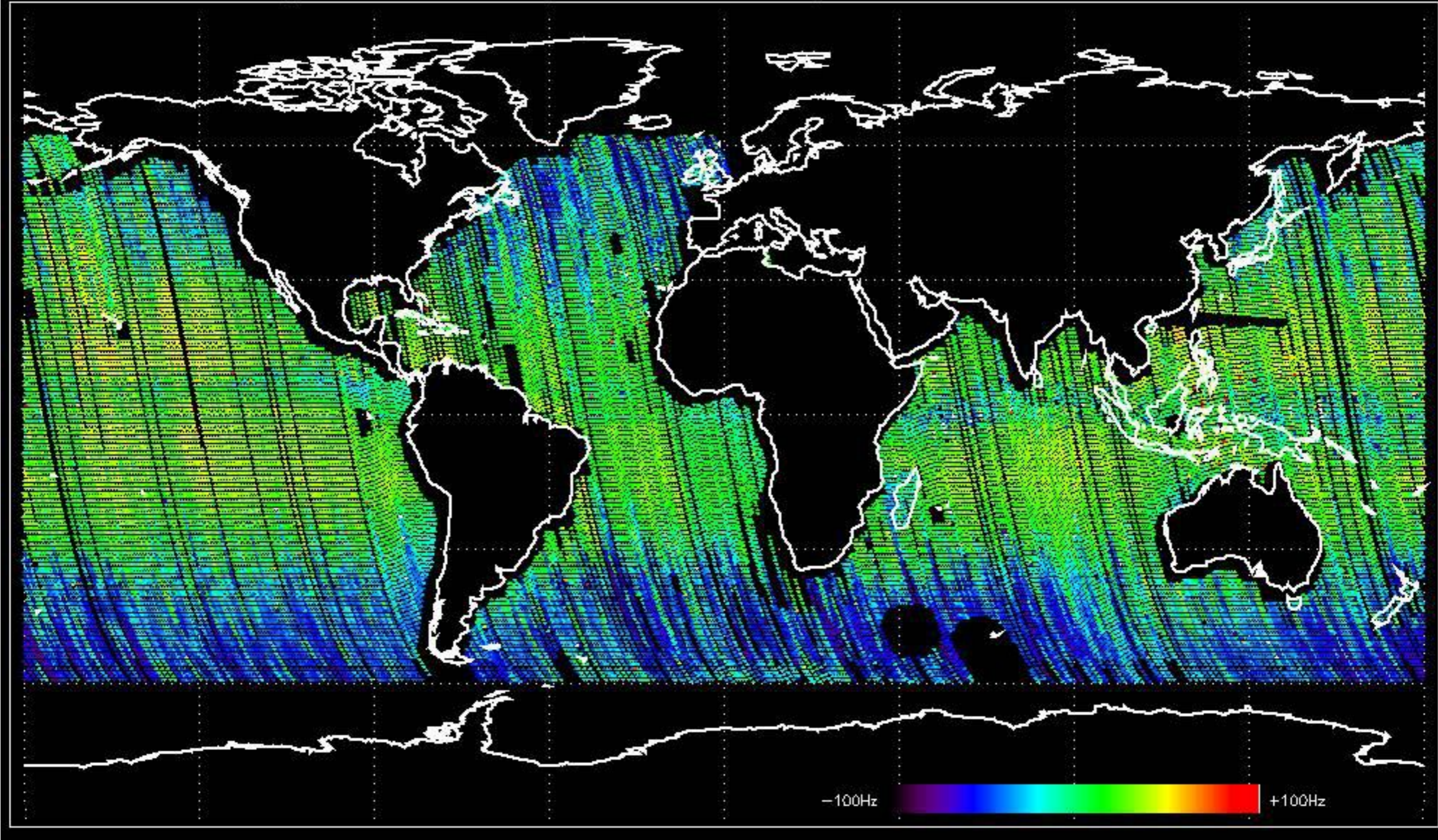
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.556246 Hz



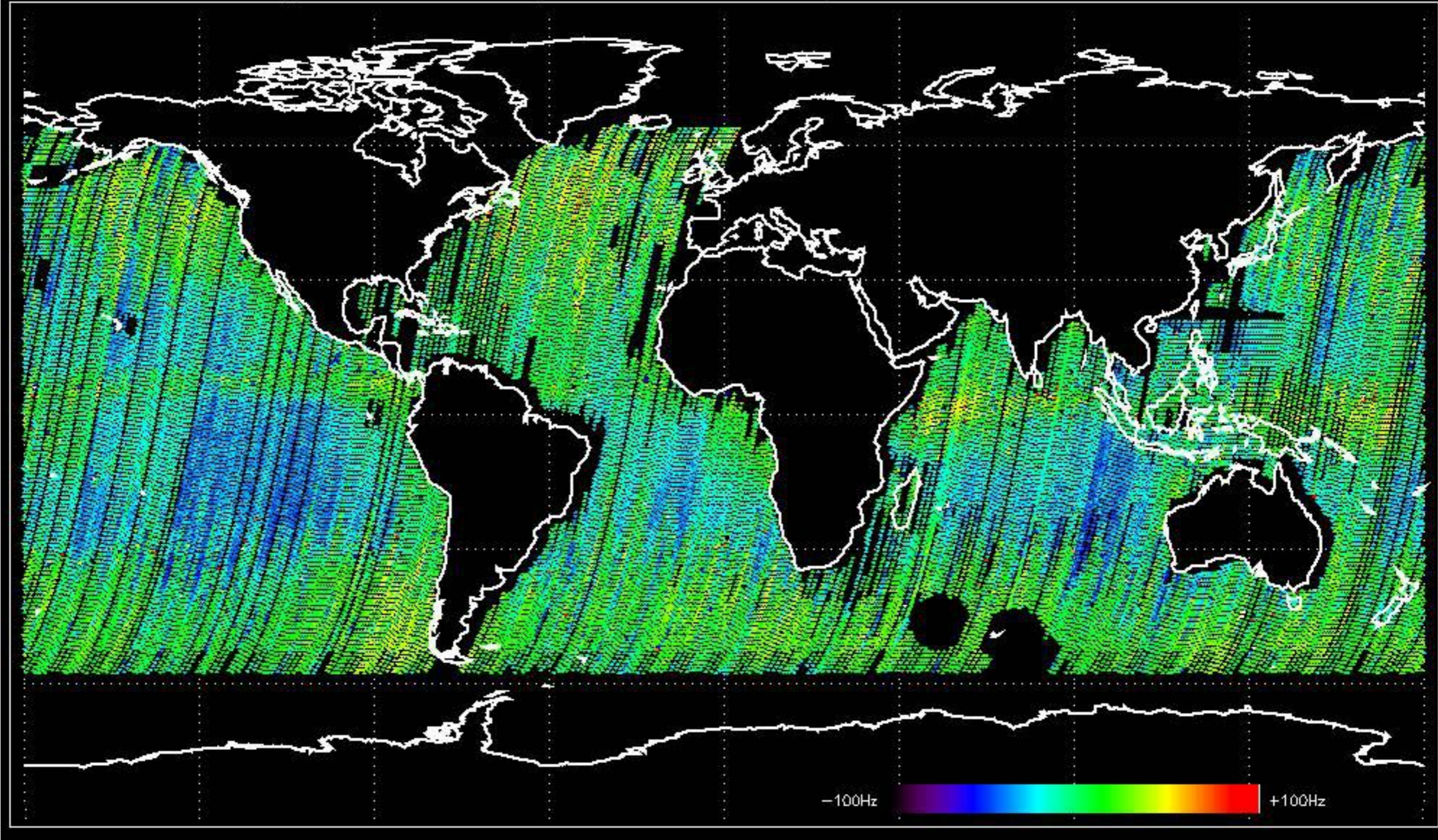
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.789411 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.4863545 Hz

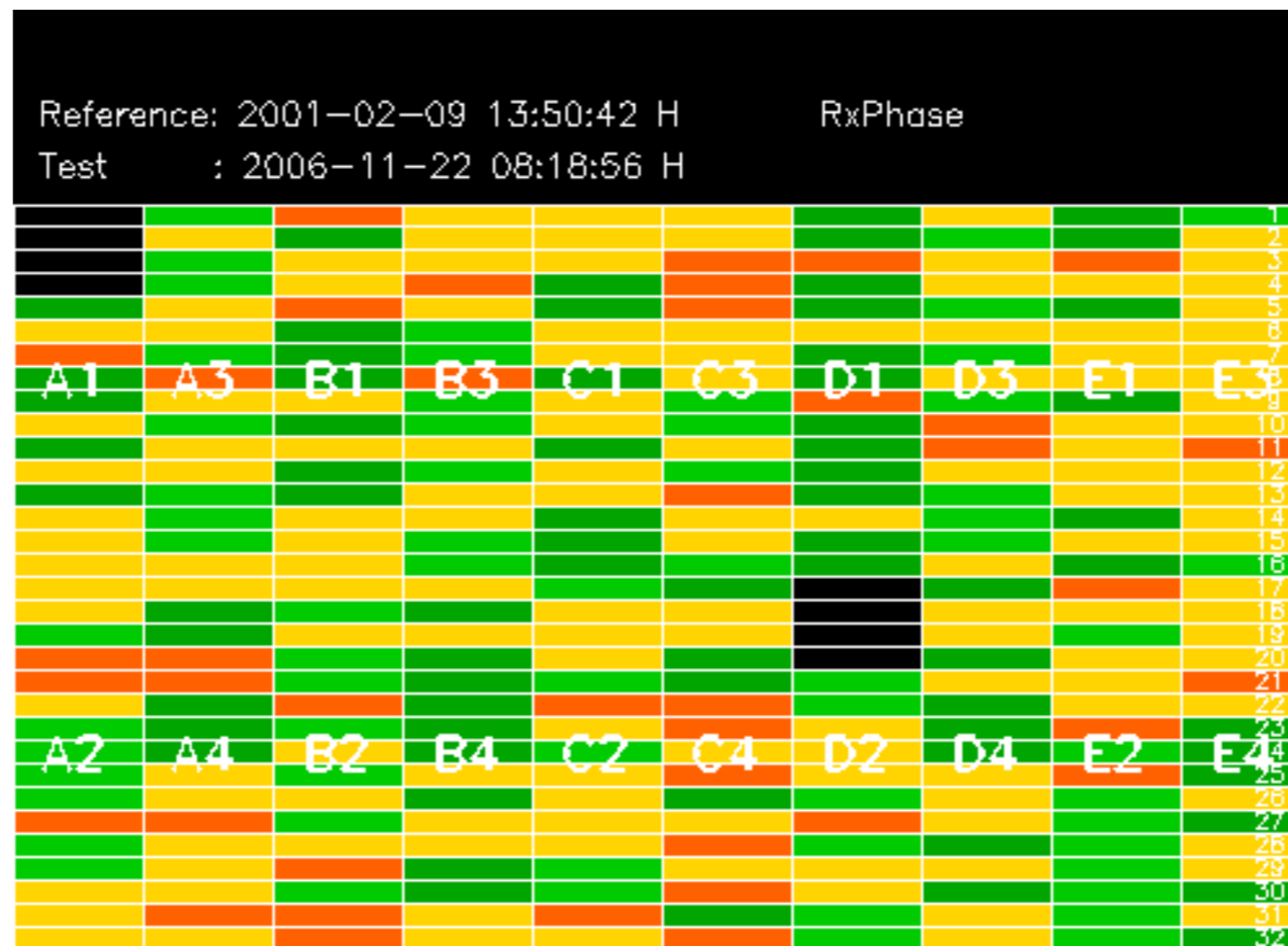


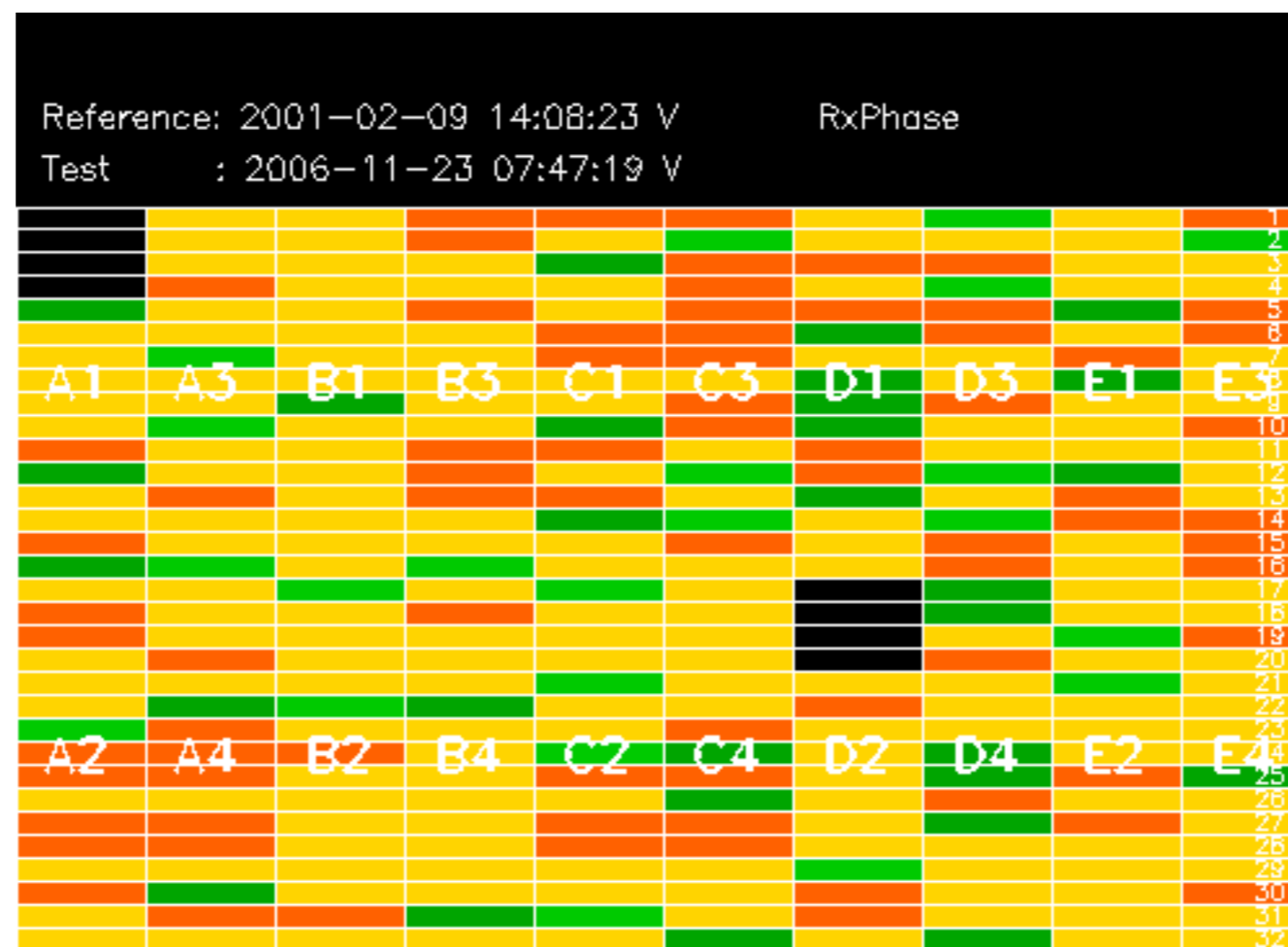
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.1510398 Hz

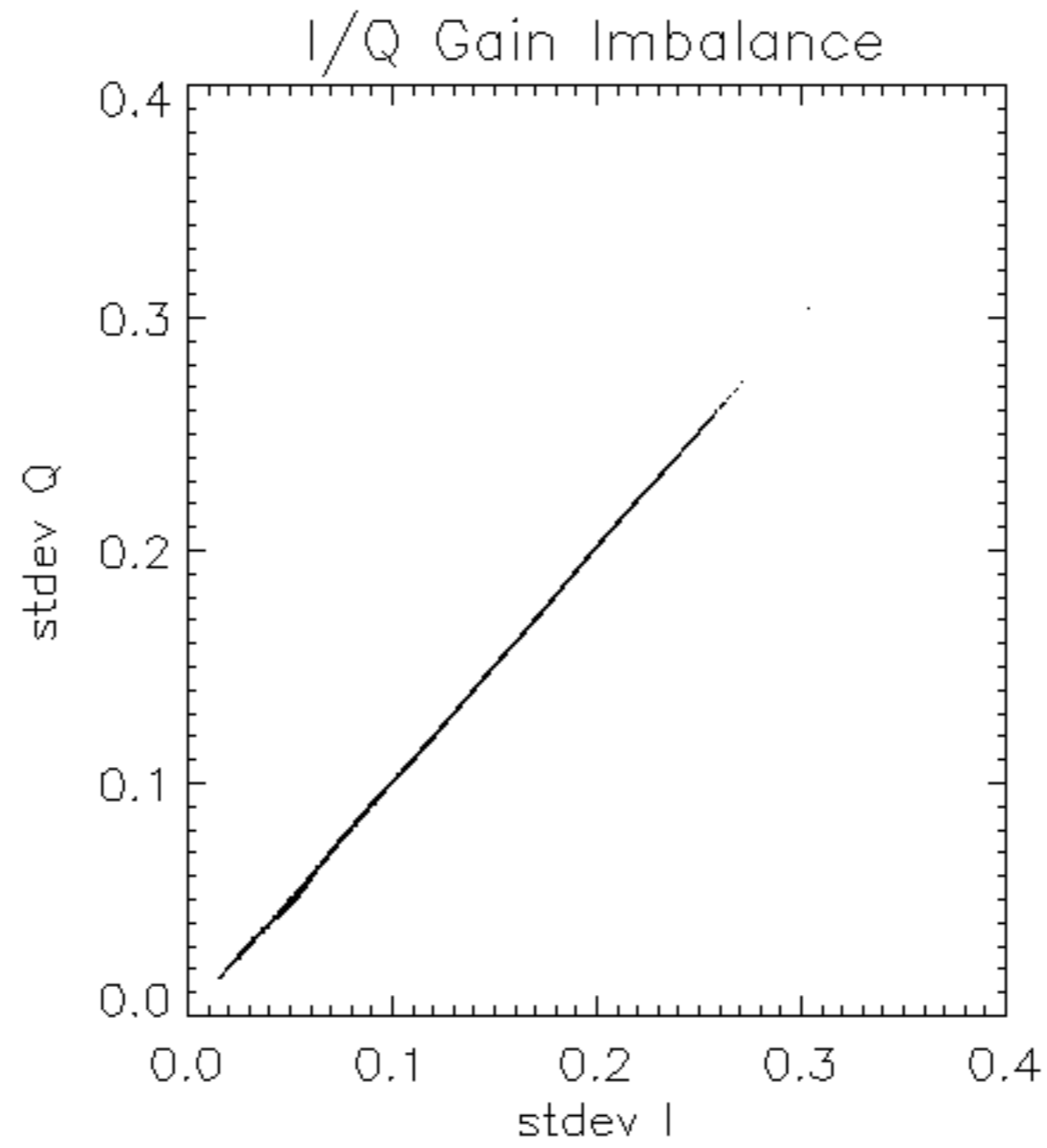


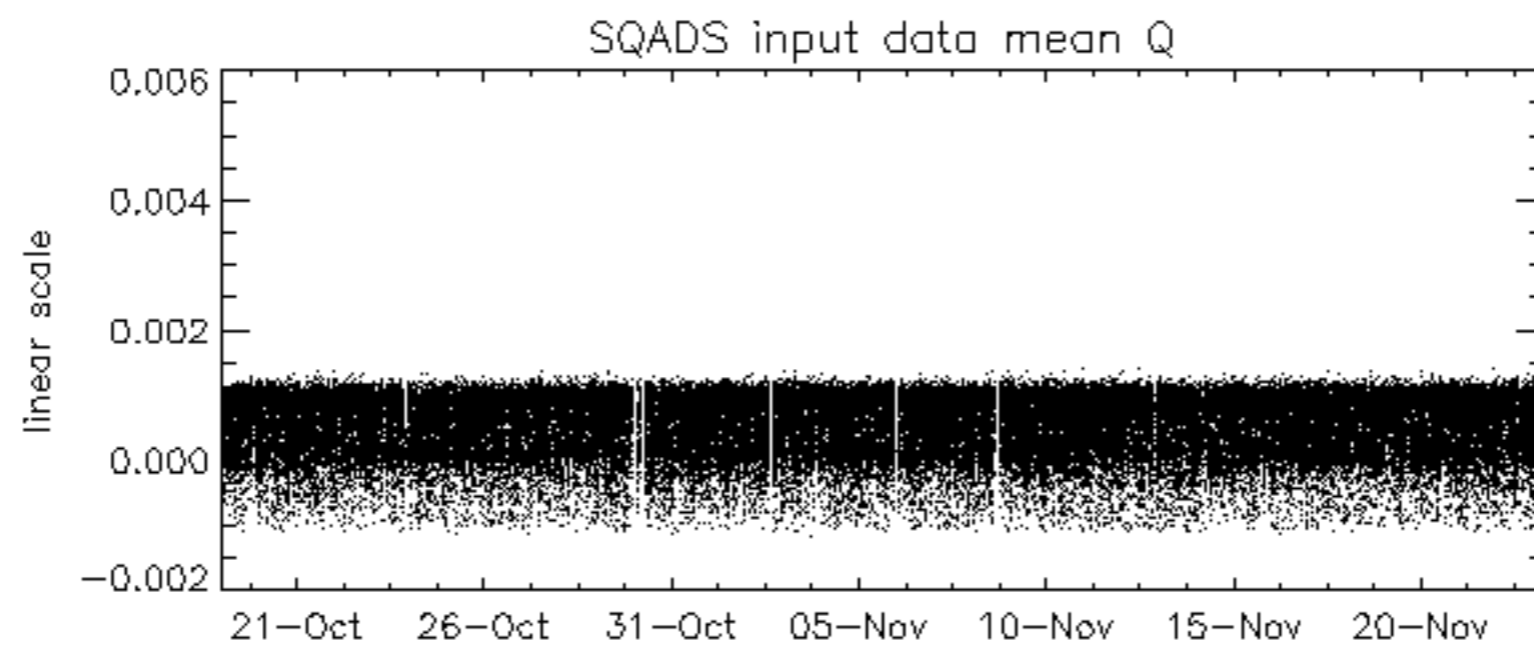
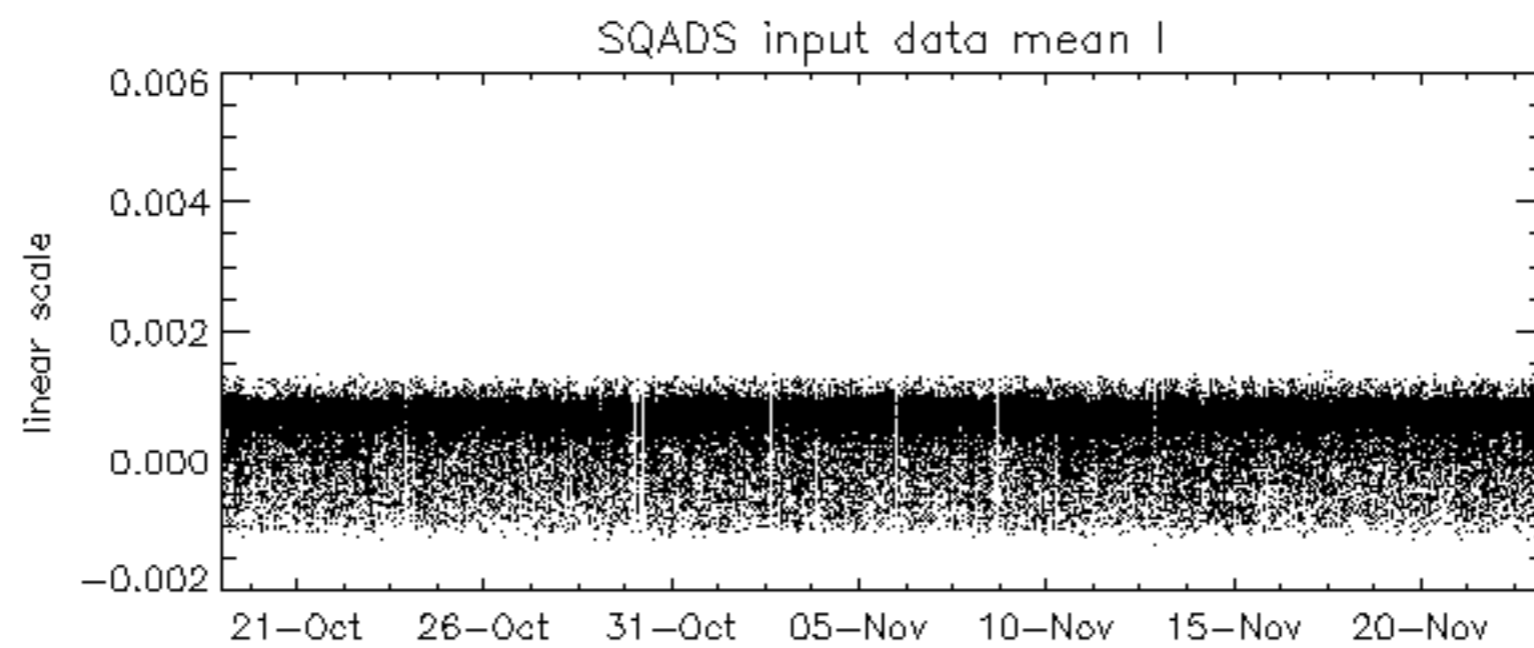
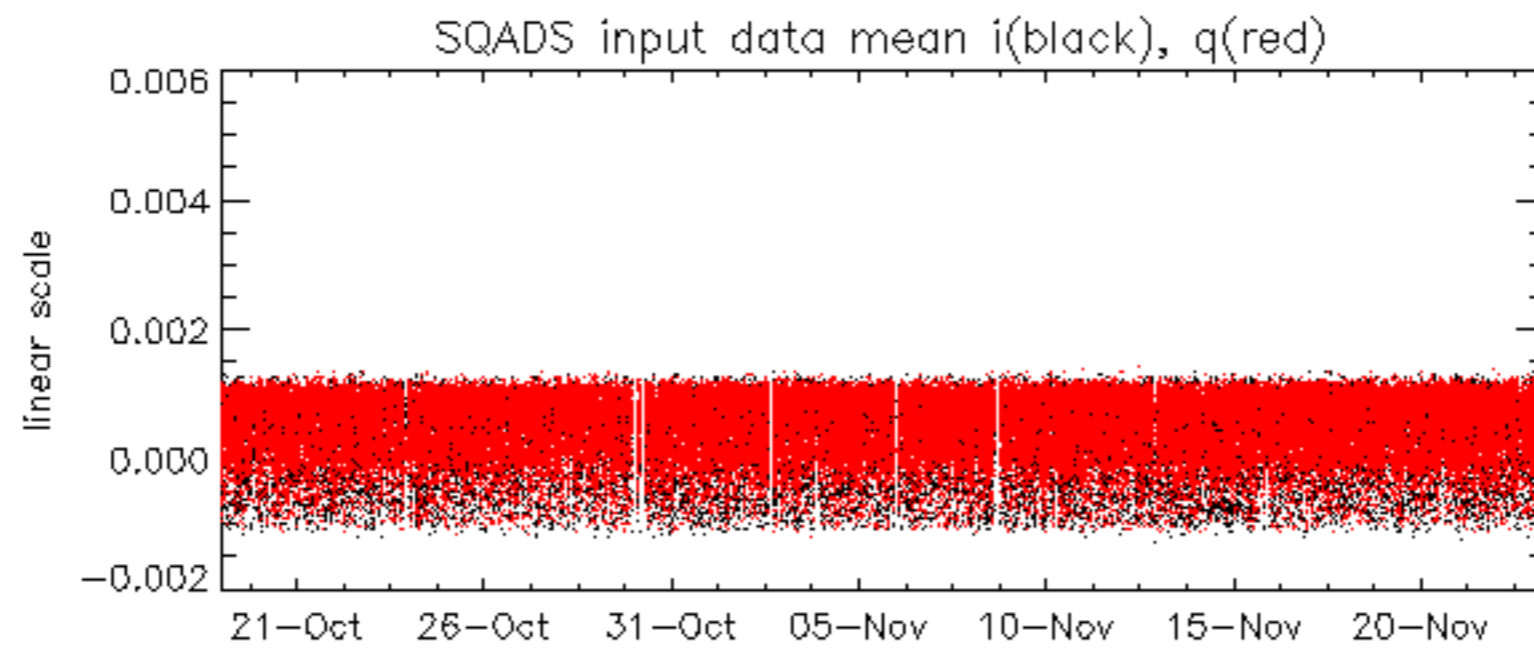
No anomalies observed on available MS products:

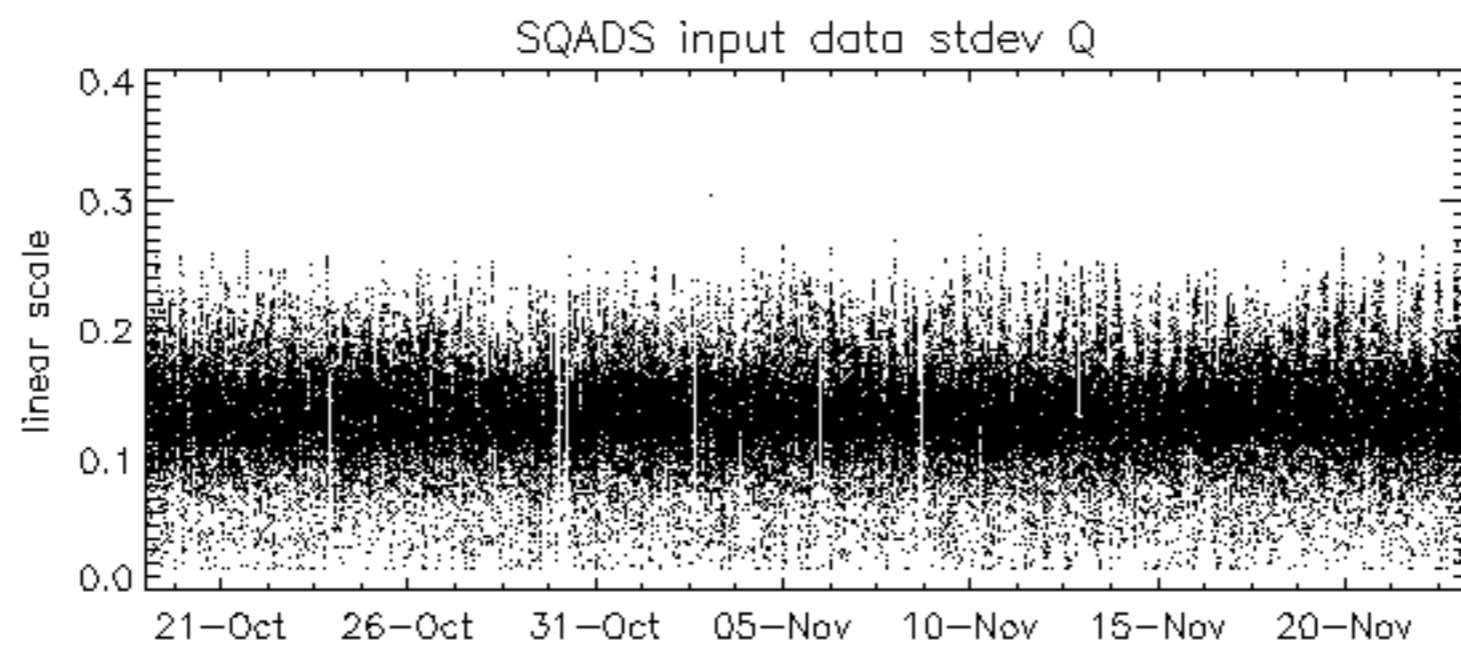
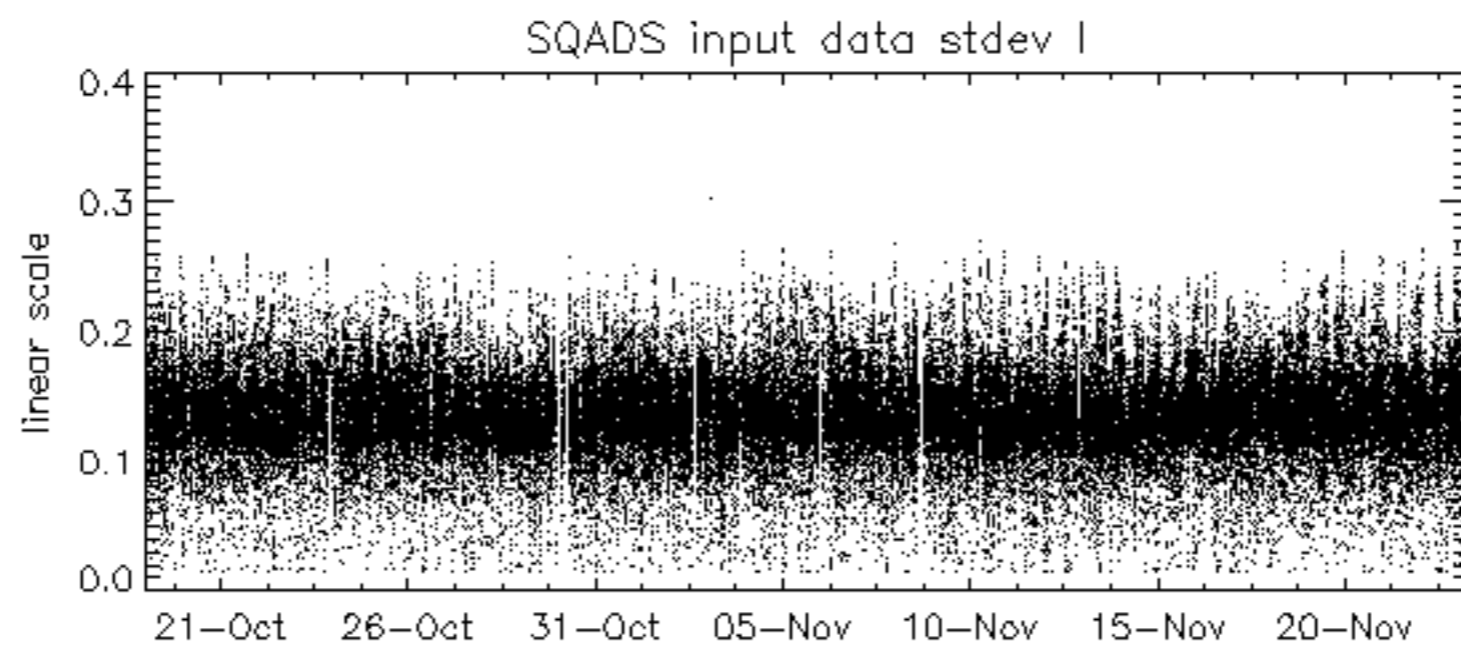
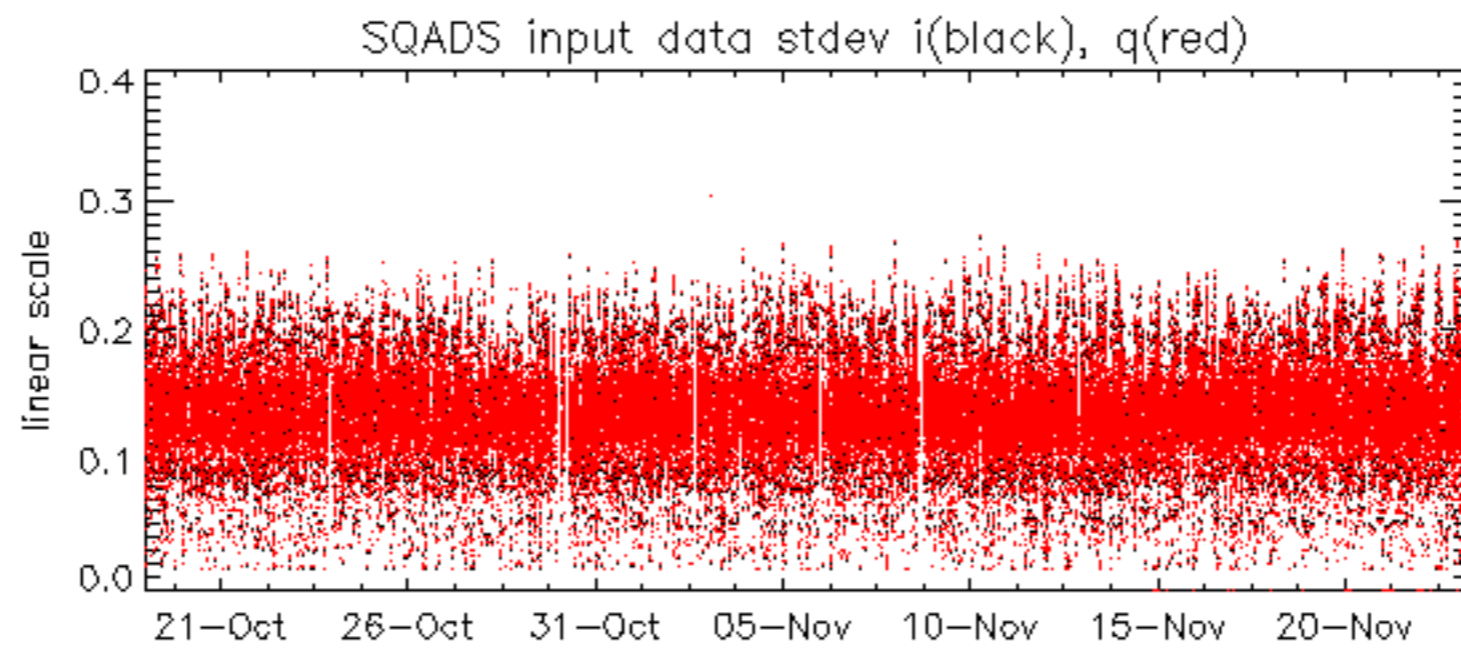
No anomalies observed.







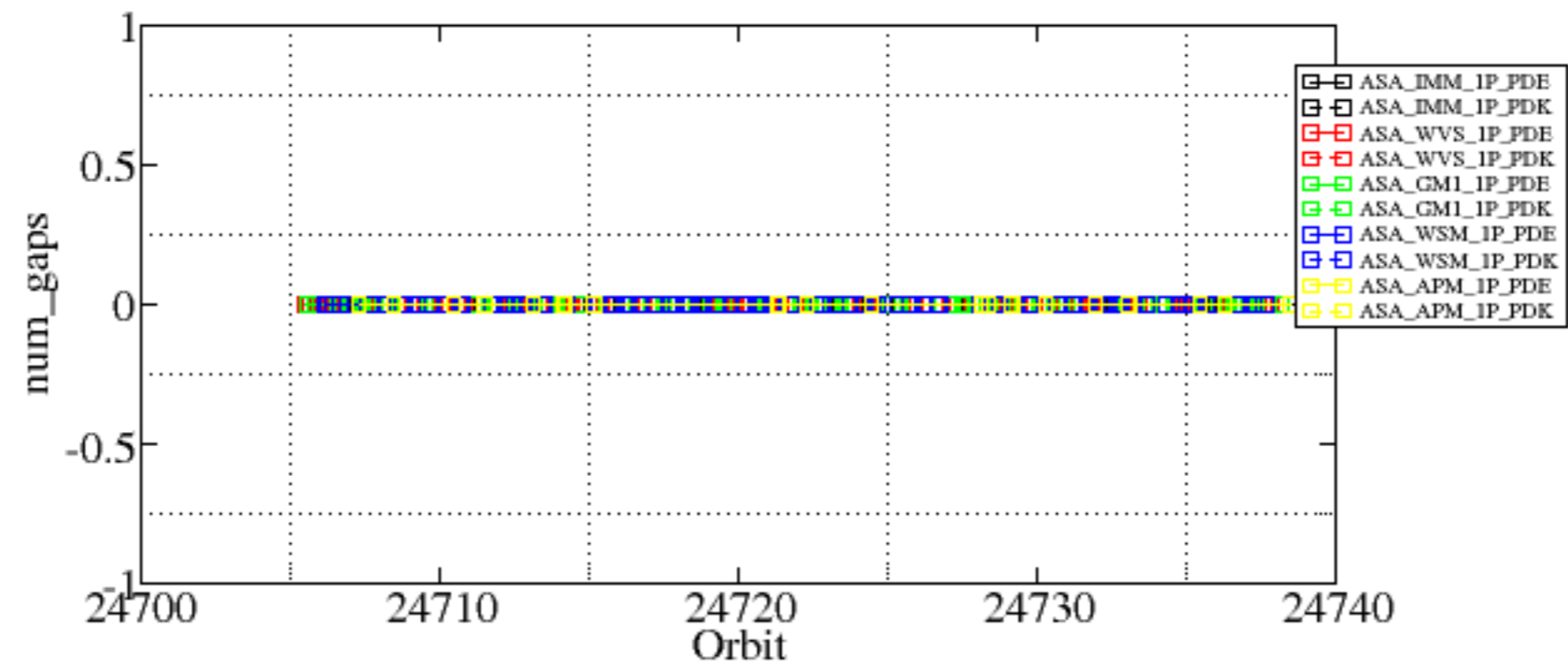


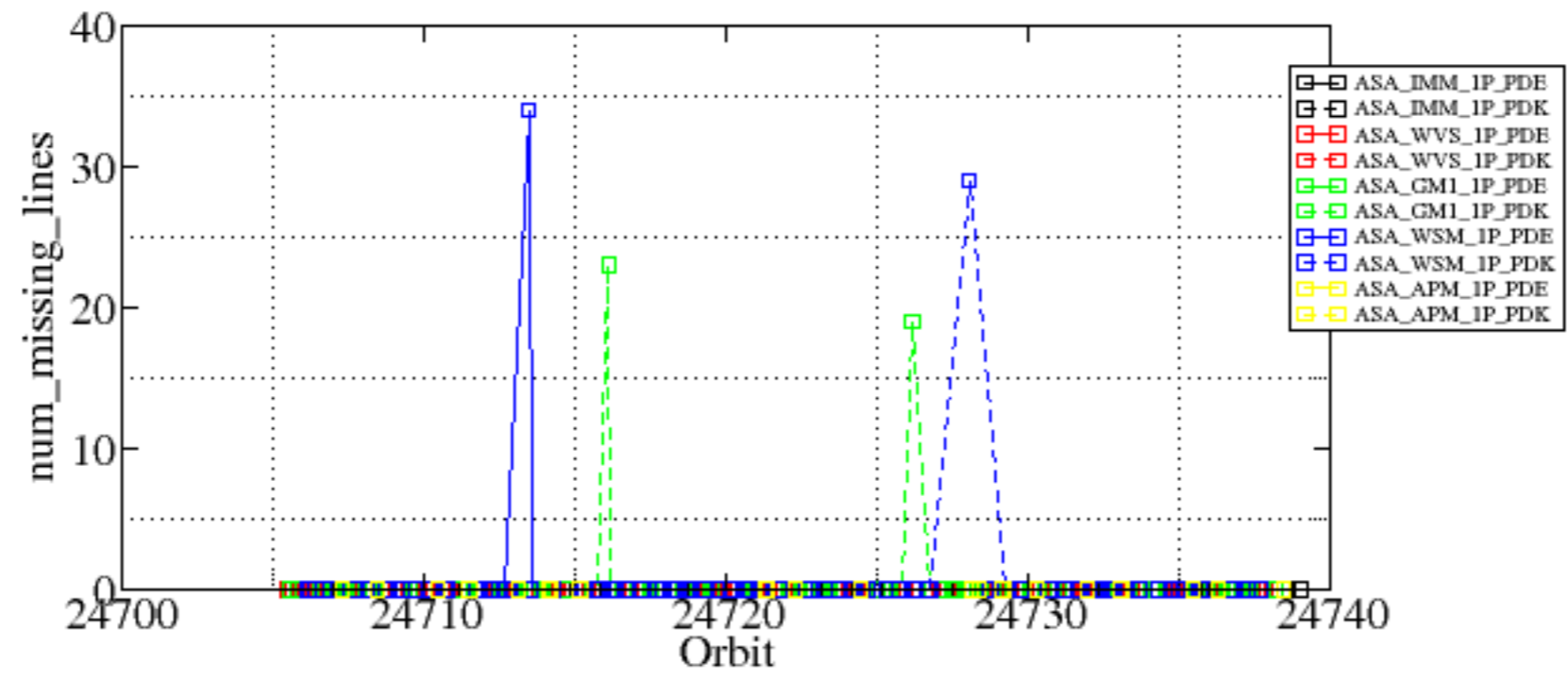


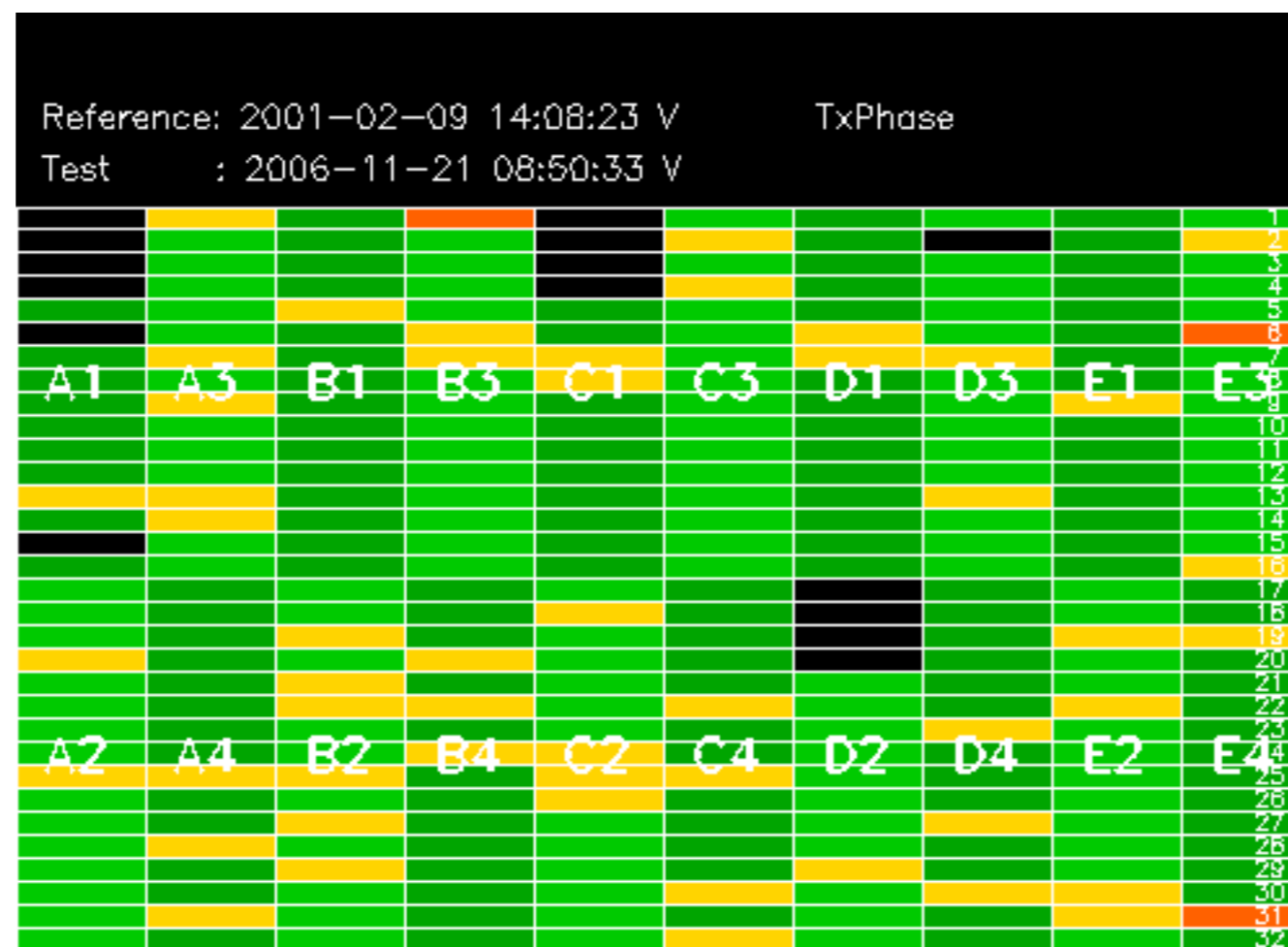
Summary of analysis for the last 3 days 2006112[123]

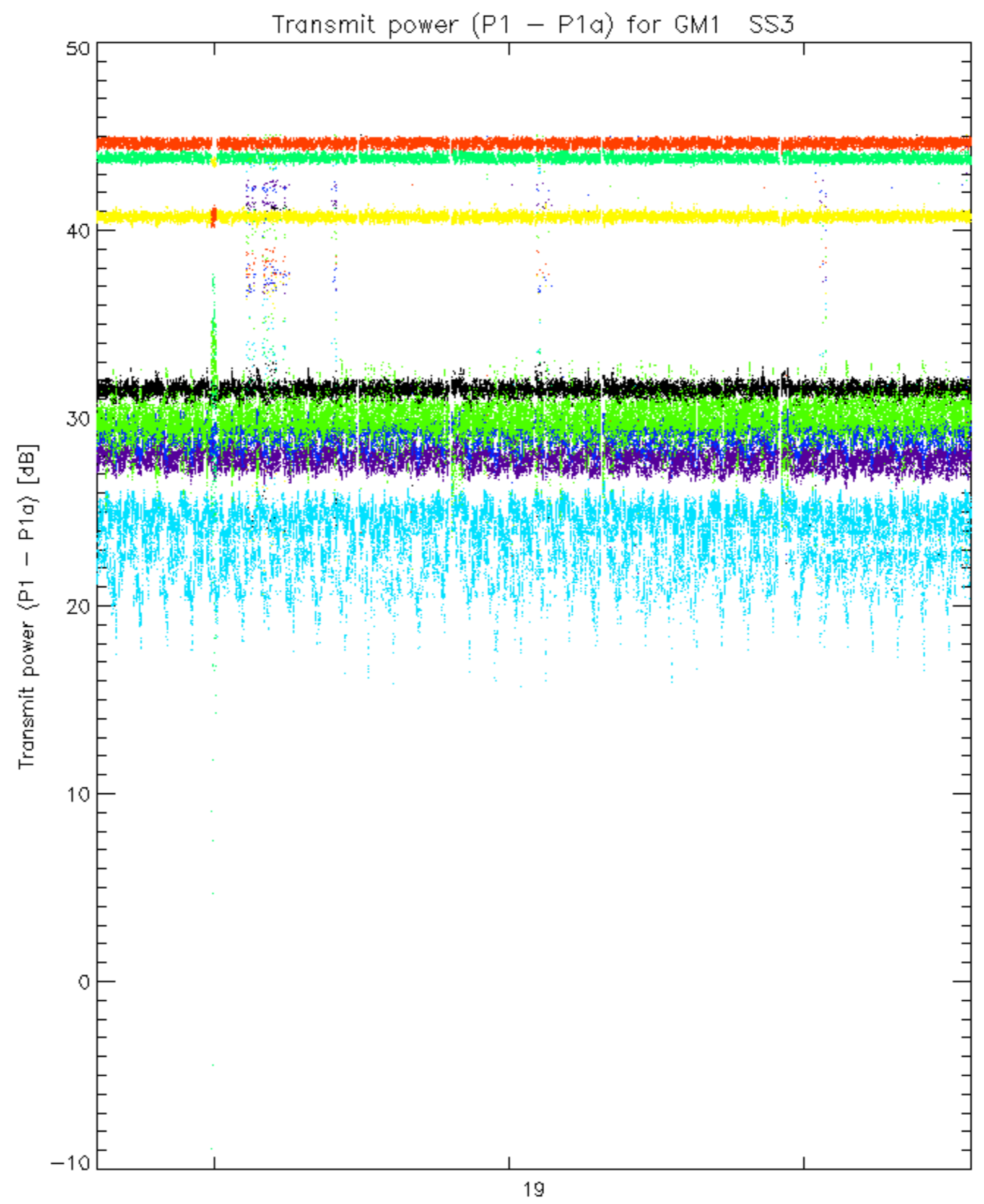
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20061121_175710_000004892053_00113_24716_9089.N1	0	23
ASA_GM1_1PNPDK20061122_104752_000007672053_00123_24726_9116.N1	0	19
ASA_WSM_1PNPDE20061121_133205_000001592053_00110_24713_3226.N1	0	34
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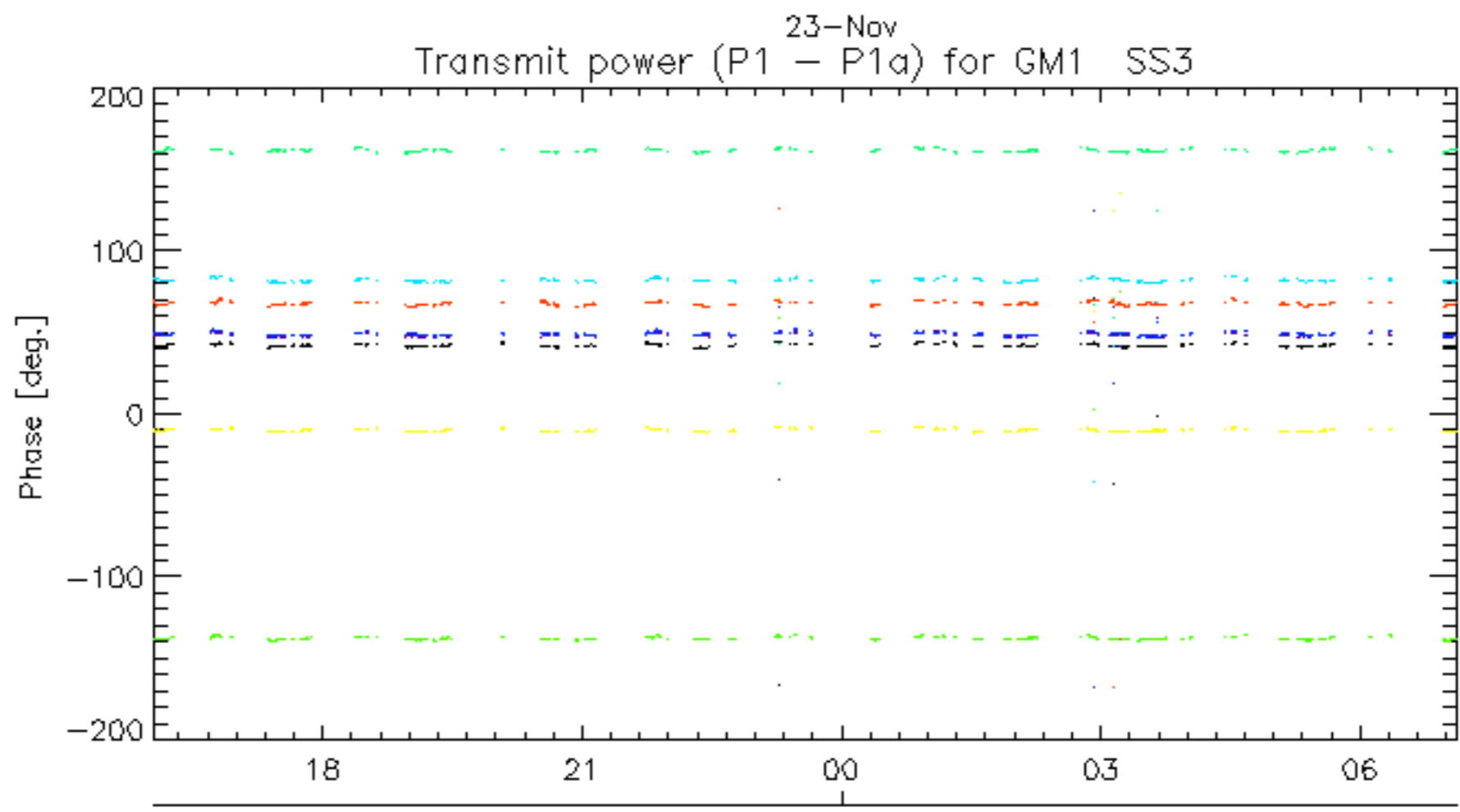
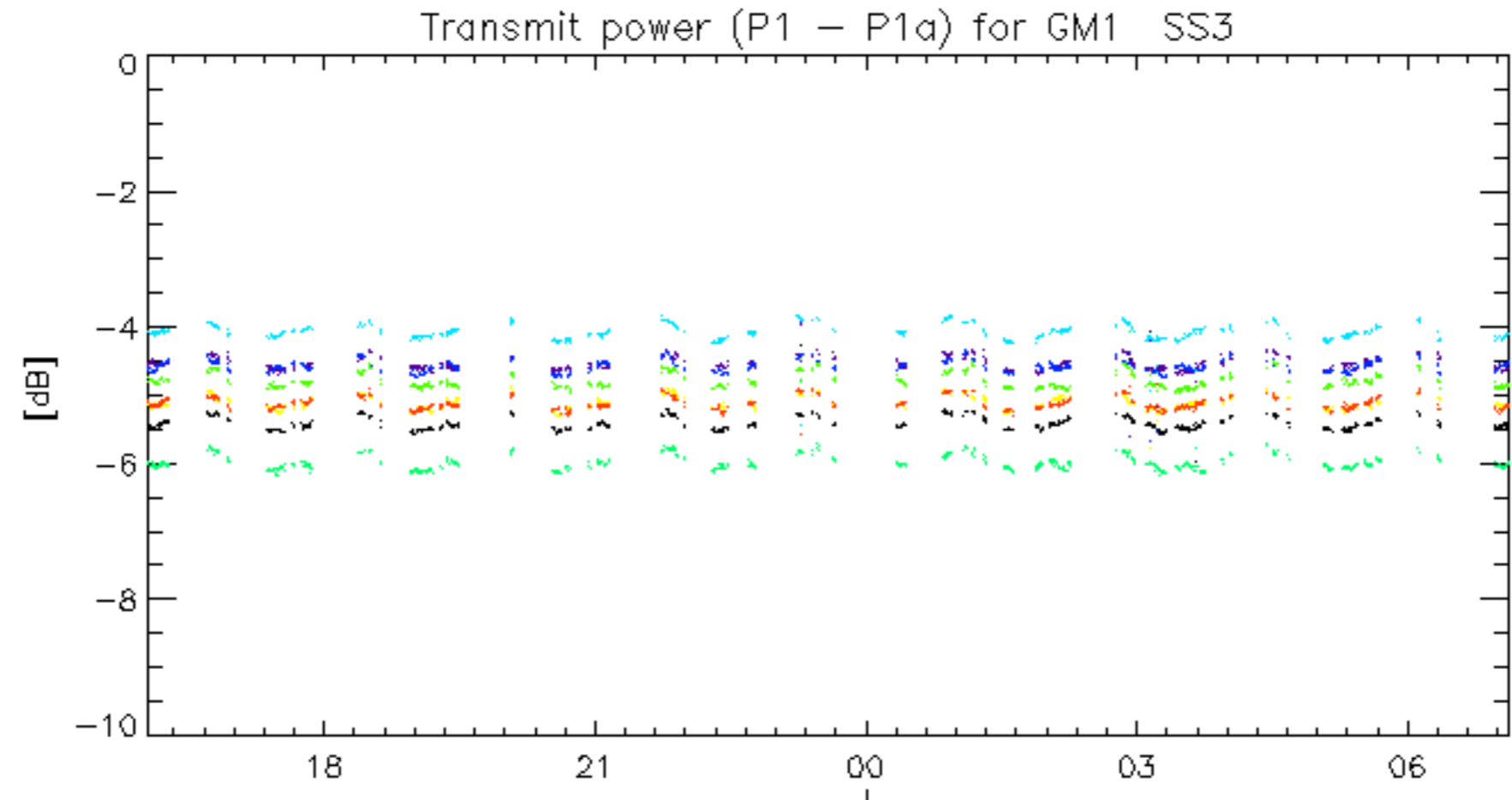




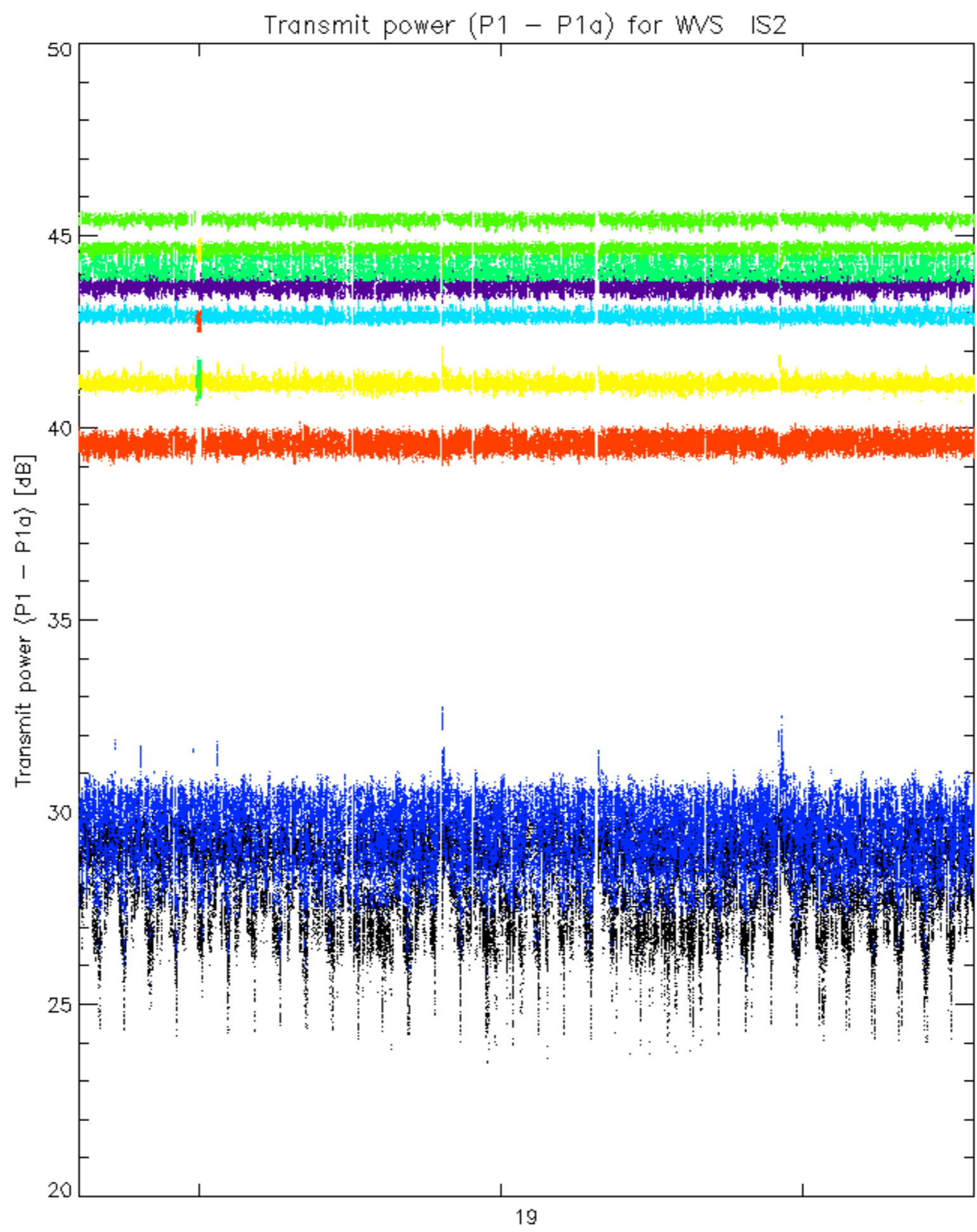




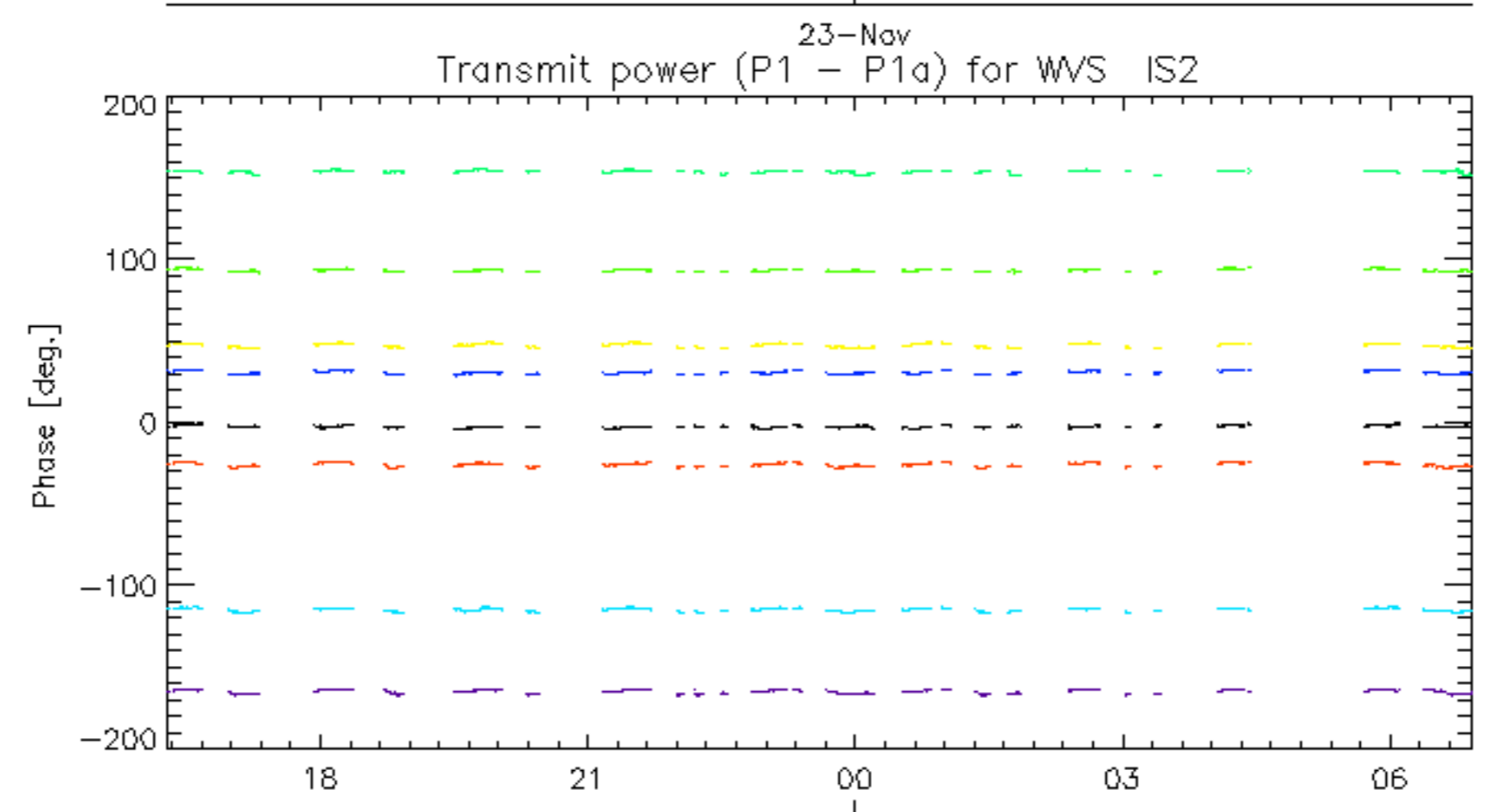
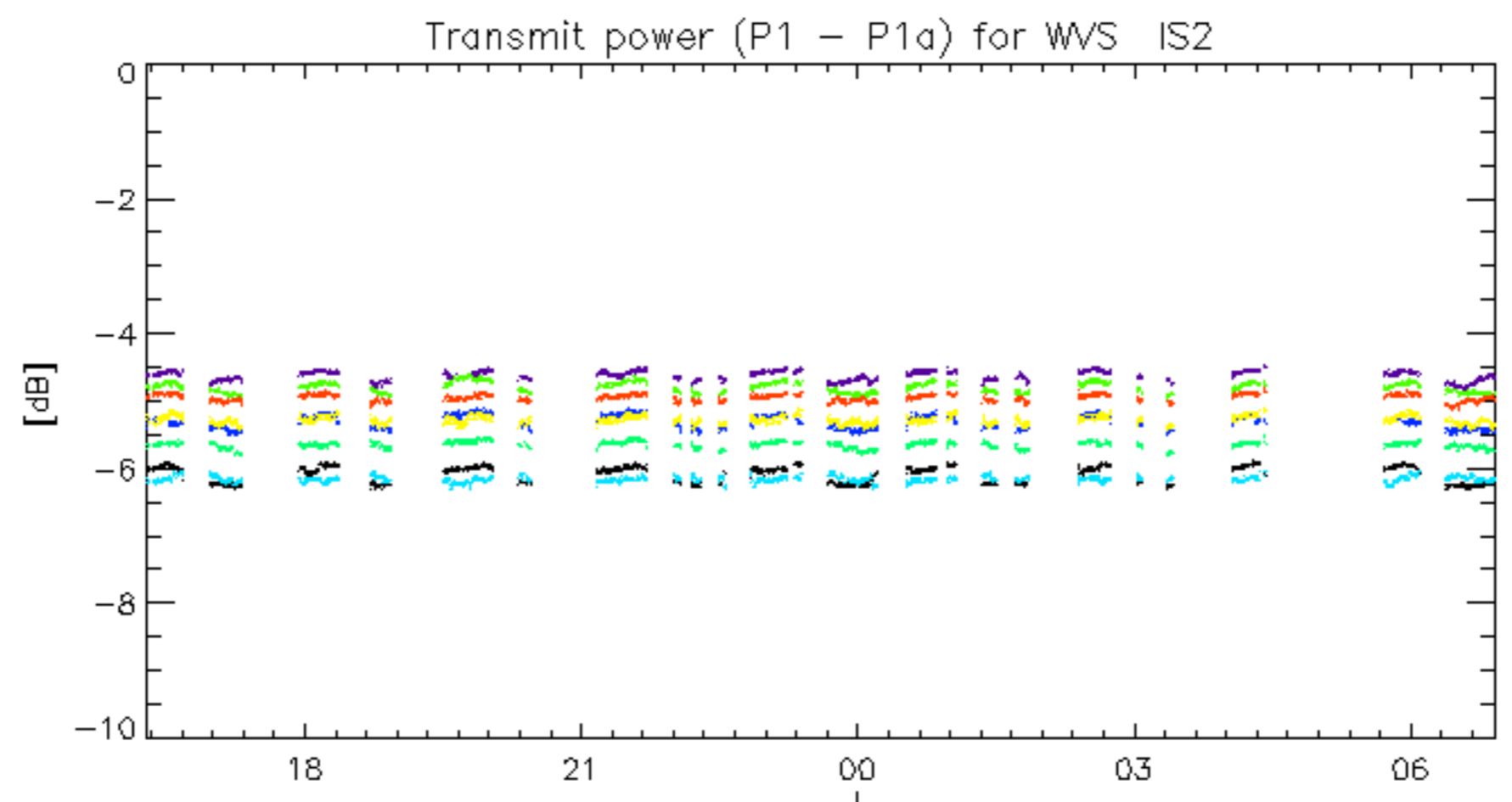
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



23-Nov
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.