

PRELIMINARY REPORT OF 061128

last update on Tue Nov 28 16:43:39 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 2006-11-27 00:00:00 to 2006-11-28 16:43:39

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	25	47	2	4	18
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	25	47	2	4	18
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	25	47	2	4	18
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	25	47	2	4	18

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	46	68	28	13	56
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	46	68	28	13	56
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	46	68	28	13	56
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	68	28	13	56

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	20061127 054051
H	20061128 050914

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
<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	-3.960243	0.008348	-0.024438
7	P1	-3.153181	0.023490	-0.011693
11	P1	-4.131722	0.024751	0.007713
15	P1	-6.298434	0.014351	-0.050685
19	P1	-3.610211	0.006423	-0.058059
22	P1	-4.646607	0.012763	-0.017641
26	P1	-3.949946	0.010707	0.005651
30	P1	-5.865681	0.009405	-0.044016
3	P1	-16.511610	0.235222	-0.106668
7	P1	-17.282024	0.175243	-0.036350
11	P1	-17.173151	0.457056	-0.147000
15	P1	-13.070204	0.132303	-0.030569
19	P1	-14.906178	0.090542	-0.165155
22	P1	-15.864253	0.506879	0.147741
26	P1	-15.054008	0.197826	0.055303
30	P1	-17.474716	0.473726	-0.093885

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.843477	0.091035	0.030652
7	P2	-21.732164	0.093962	-0.005420
11	P2	-15.650847	0.102443	0.033224
15	P2	-7.124544	0.106159	-0.001236
19	P2	-9.192181	0.104056	0.004974
22	P2	-18.235584	0.096239	-0.032495
26	P2	-16.553080	0.110300	-0.046692
30	P2	-19.476742	0.088076	0.001291

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.241530	0.008384	-0.028465
7	P3	-8.241530	0.008384	-0.028465
11	P3	-8.241530	0.008384	-0.028465
15	P3	-8.241530	0.008384	-0.028465
19	P3	-8.241530	0.008384	-0.028465
22	P3	-8.241530	0.008384	-0.028465
26	P3	-8.241600	0.008397	-0.028574
30	P3	-8.241600	0.008397	-0.028574

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	-3.913384	0.056928	0.017402
7	P1	-2.522884	0.336267	0.138740
11	P1	-2.861874	0.051674	0.052601
15	P1	-3.683627	0.058099	0.003038
19	P1	-3.522903	0.021487	-0.035526
22	P1	-5.034379	0.024549	0.019656
26	P1	-6.002961	0.040784	-0.037675
30	P1	-5.320898	0.052568	-0.040981
3	P1	-11.725718	0.139515	-0.010542
7	P1	-10.065744	0.442492	0.107444
11	P1	-10.329960	0.163238	0.059084
15	P1	-10.753706	0.217653	0.130350
19	P1	-15.691607	0.143918	-0.086798
22	P1	-21.464323	1.446026	-0.326960
26	P1	-16.071493	0.322293	0.018551
30	P1	-17.886950	0.412478	0.037220

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.457663	0.135521	-0.044385
7	P2	-22.213369	0.484195	-0.122498
11	P2	-10.935624	0.141063	-0.033097
15	P2	-4.971864	0.177926	-0.043224
19	P2	-6.953596	0.213706	-0.021612
22	P2	-8.264059	0.215374	0.021965
26	P2	-24.311802	0.358706	-0.123987
30	P2	-21.942747	0.228396	-0.033647

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.088123	0.003296	-0.027204
7	P3	-8.088160	0.003280	-0.027298
11	P3	-8.088214	0.003290	-0.027460
15	P3	-8.088089	0.003288	-0.027462
19	P3	-8.088154	0.003290	-0.027195
22	P3	-8.088082	0.003292	-0.027520
26	P3	-8.088231	0.003287	-0.027672
30	P3	-8.088266	0.003290	-0.027247

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	0.000544599
	stdev	1.79054e-07
MEAN Q	mean	0.000521112
	stdev	2.20833e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136148
	stdev	0.00111032
STDEV Q	mean	0.136507
	stdev	0.00112733



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006112[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_1PNPDE20061126_004059_00000622053_00174_24777_9130.N1	1	0
ASA_IMM_1PNPDK20061126_083104_00000352053_00179_24782_4085.N1	0	24
ASA_GM1_1PNPDK20061127_154433_000009242053_00197_24800_9420.N1	0	36
ASA_WSM_1PNPDE20061126_183459_00000862053_00185_24788_9879.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)


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

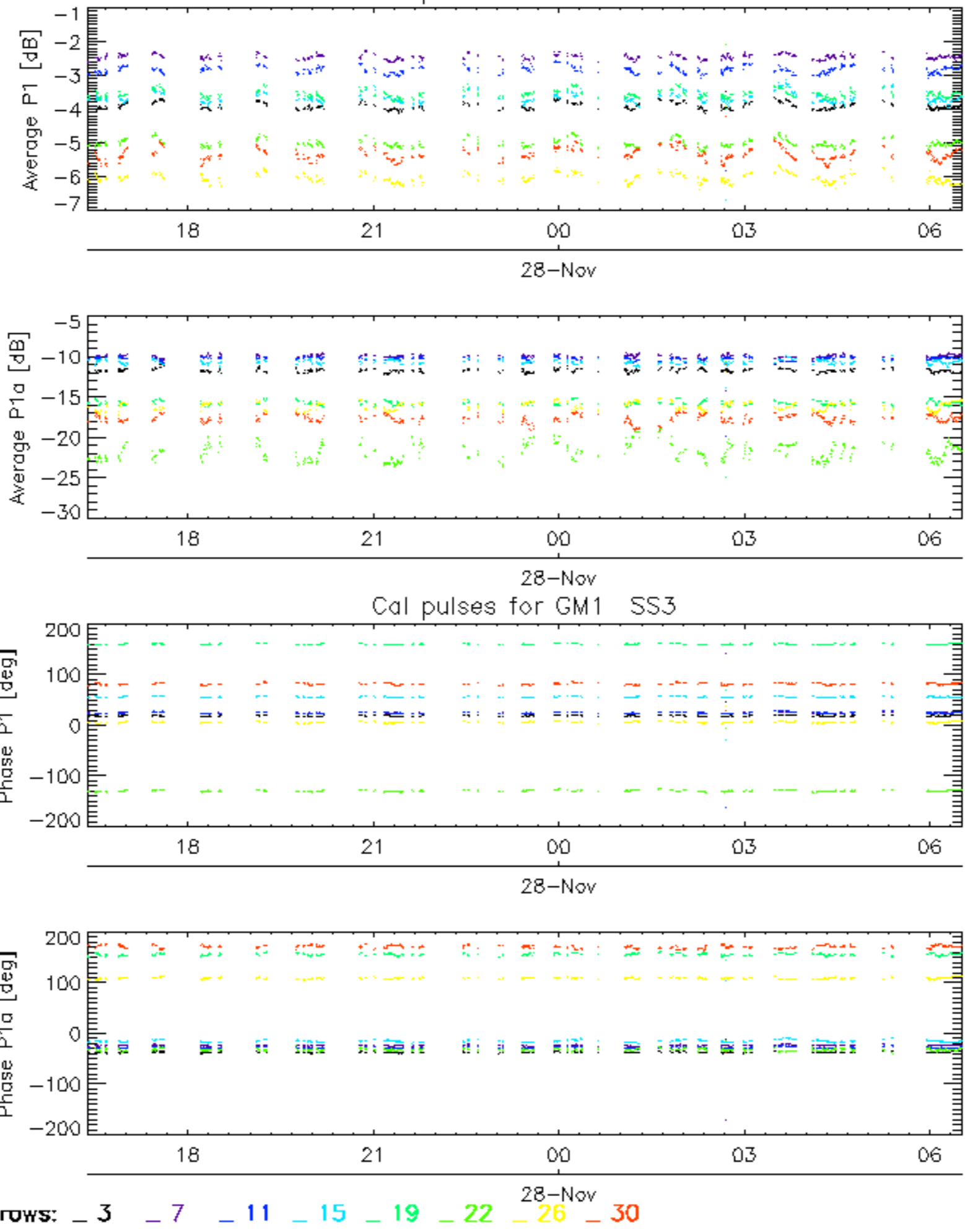
7.5 - Absolute Doppler for GM1

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

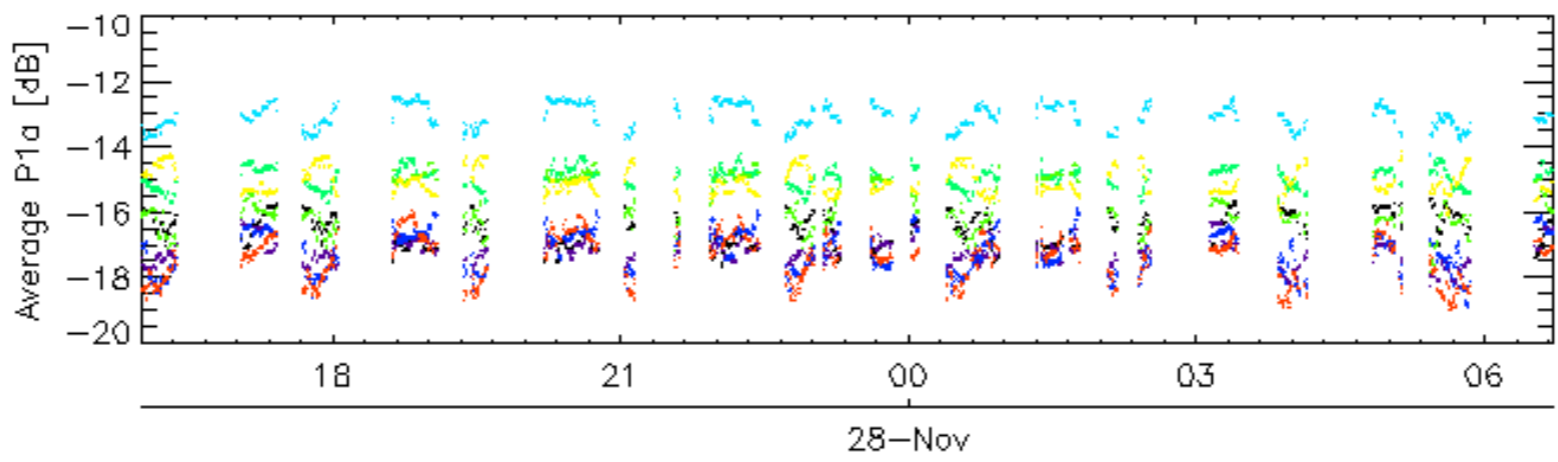
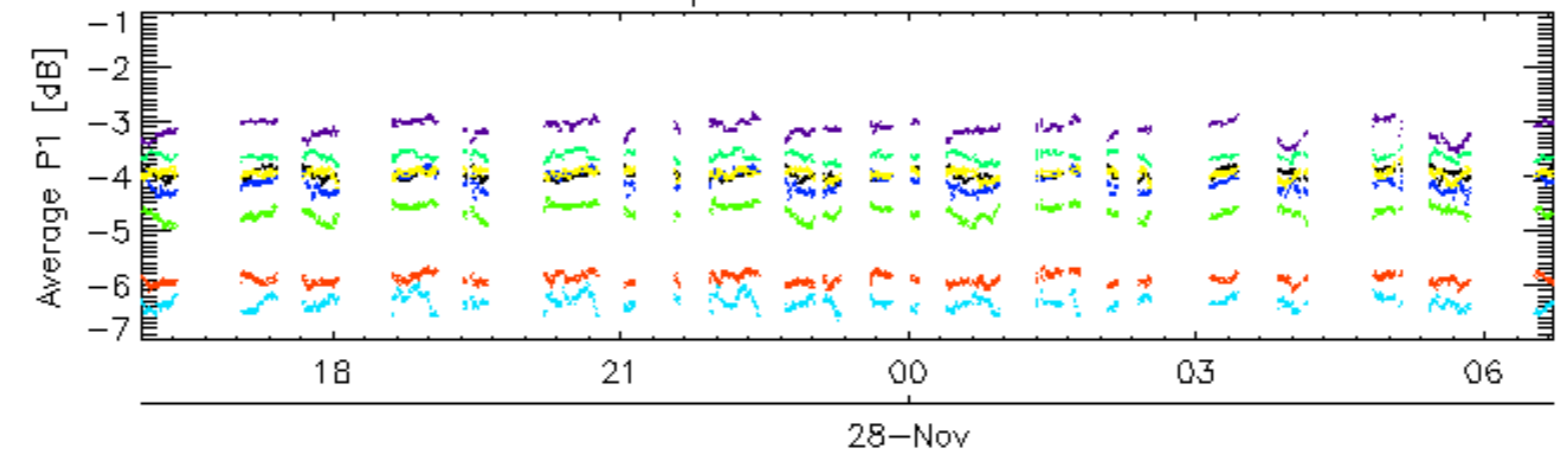
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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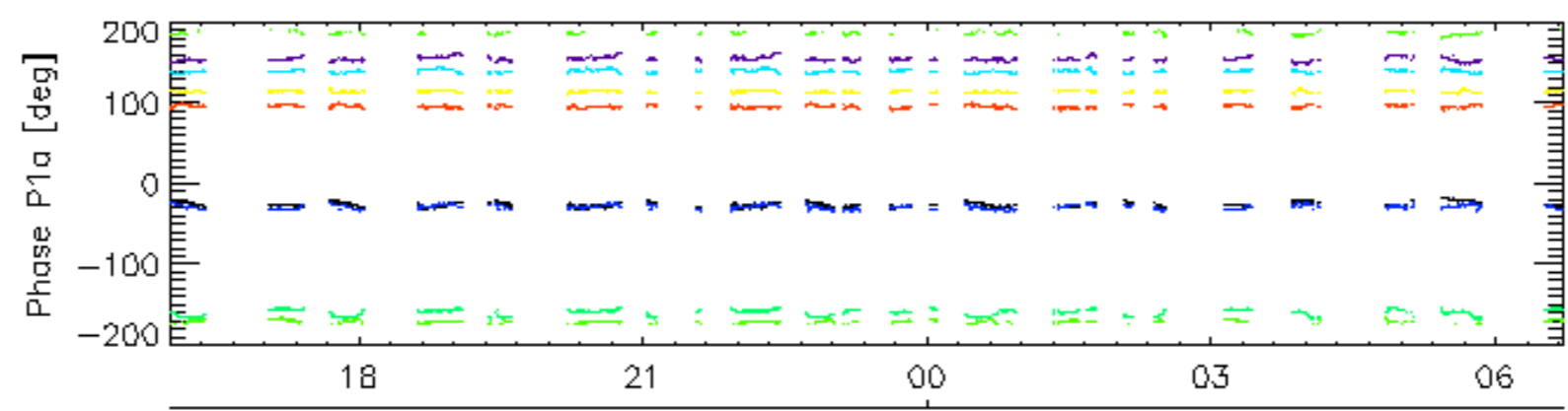
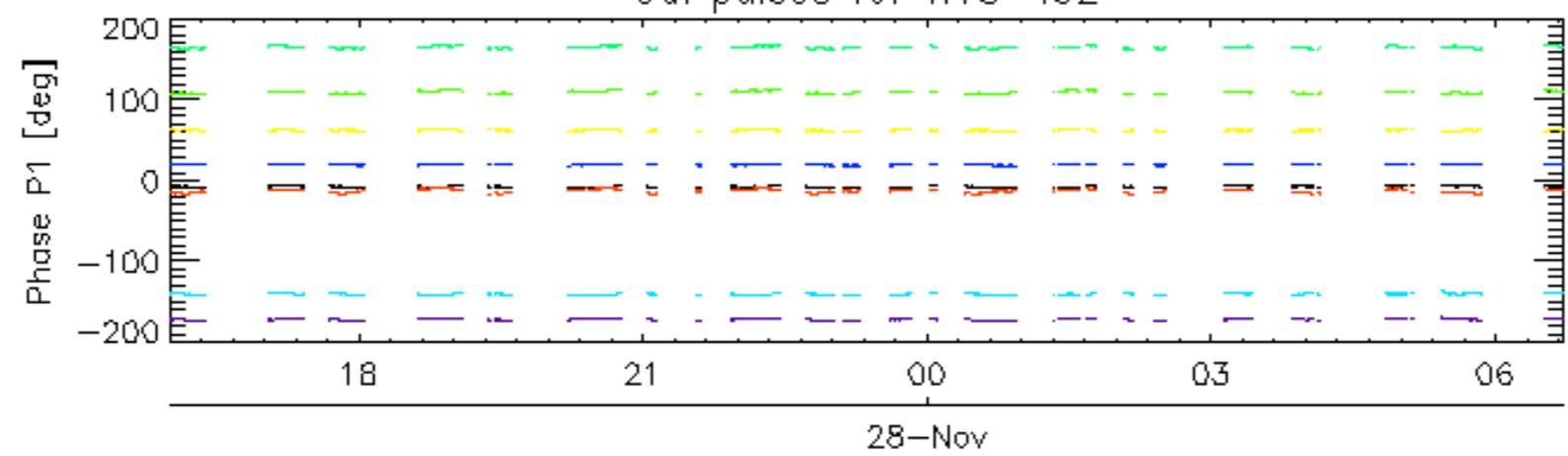
Cal pulses for GM1 SS3



Cal pulses for WVS IS2

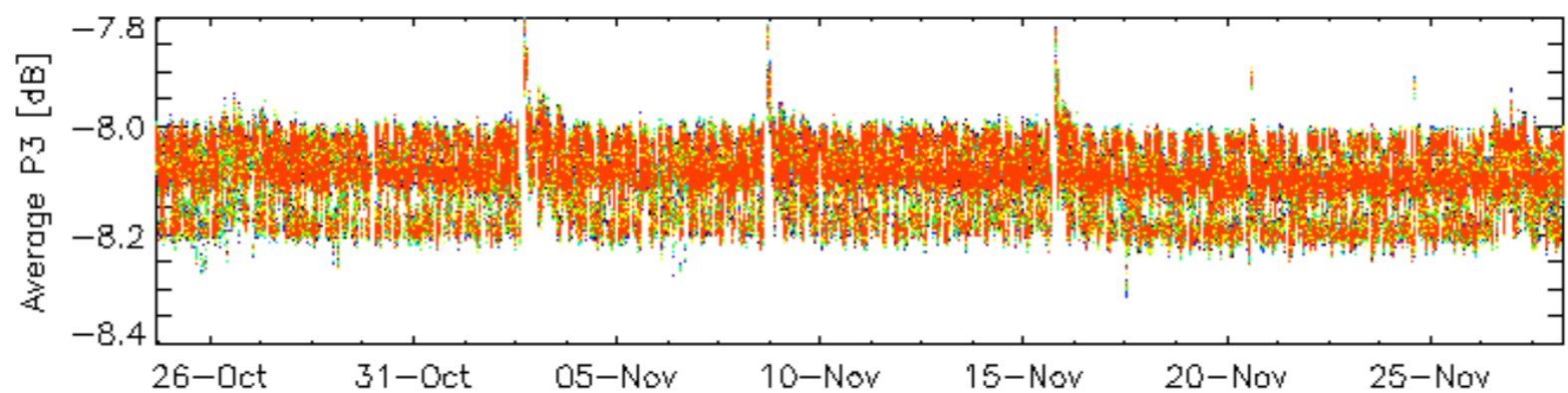
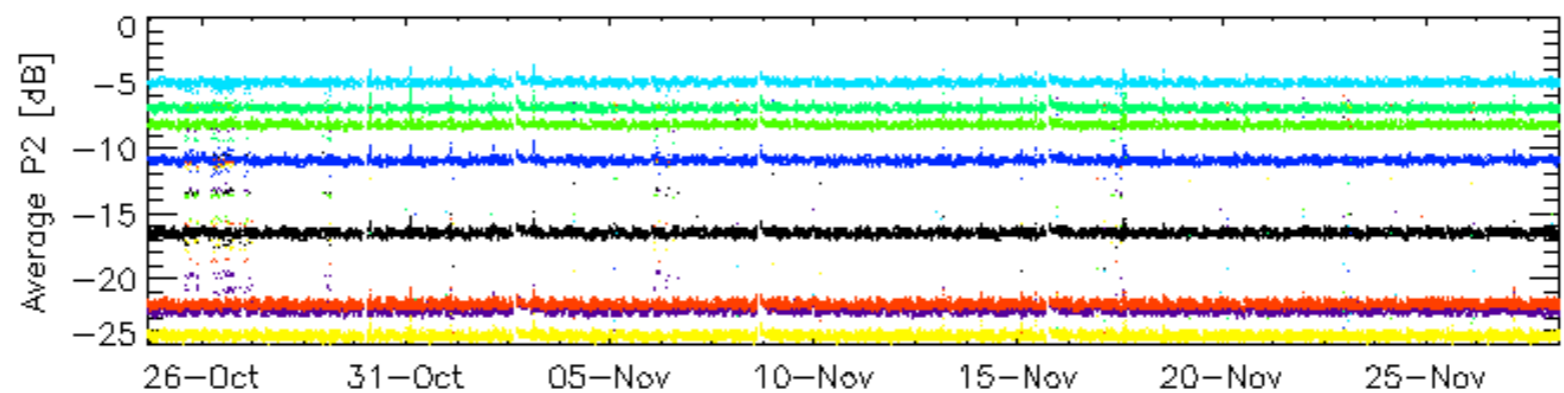
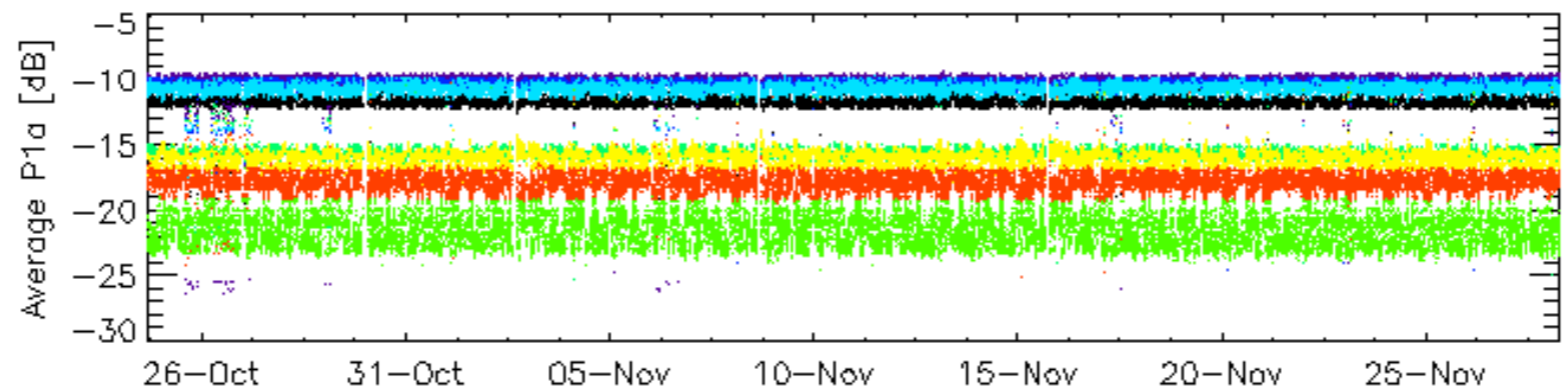
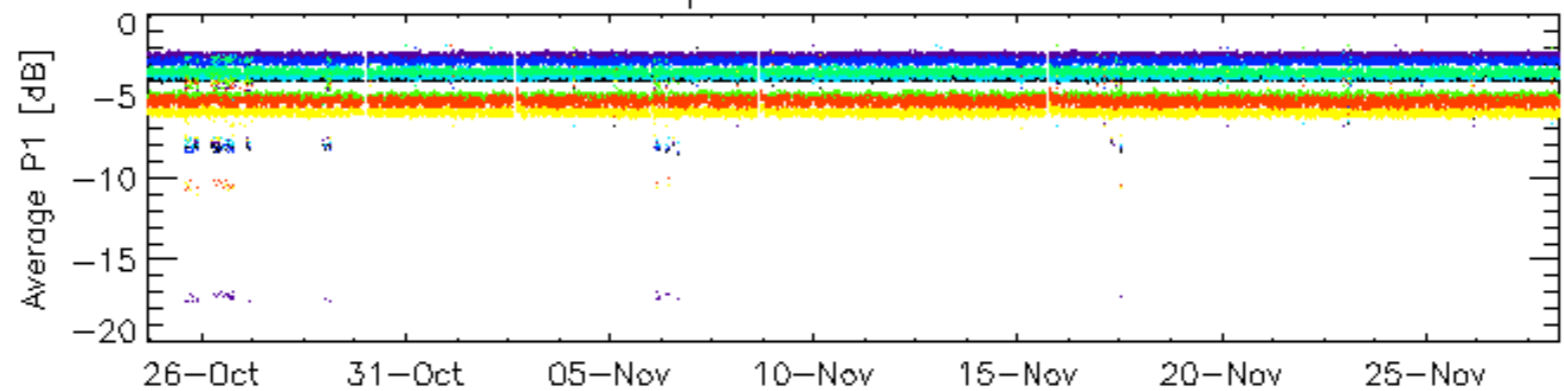


Cal pulses for WVS IS2



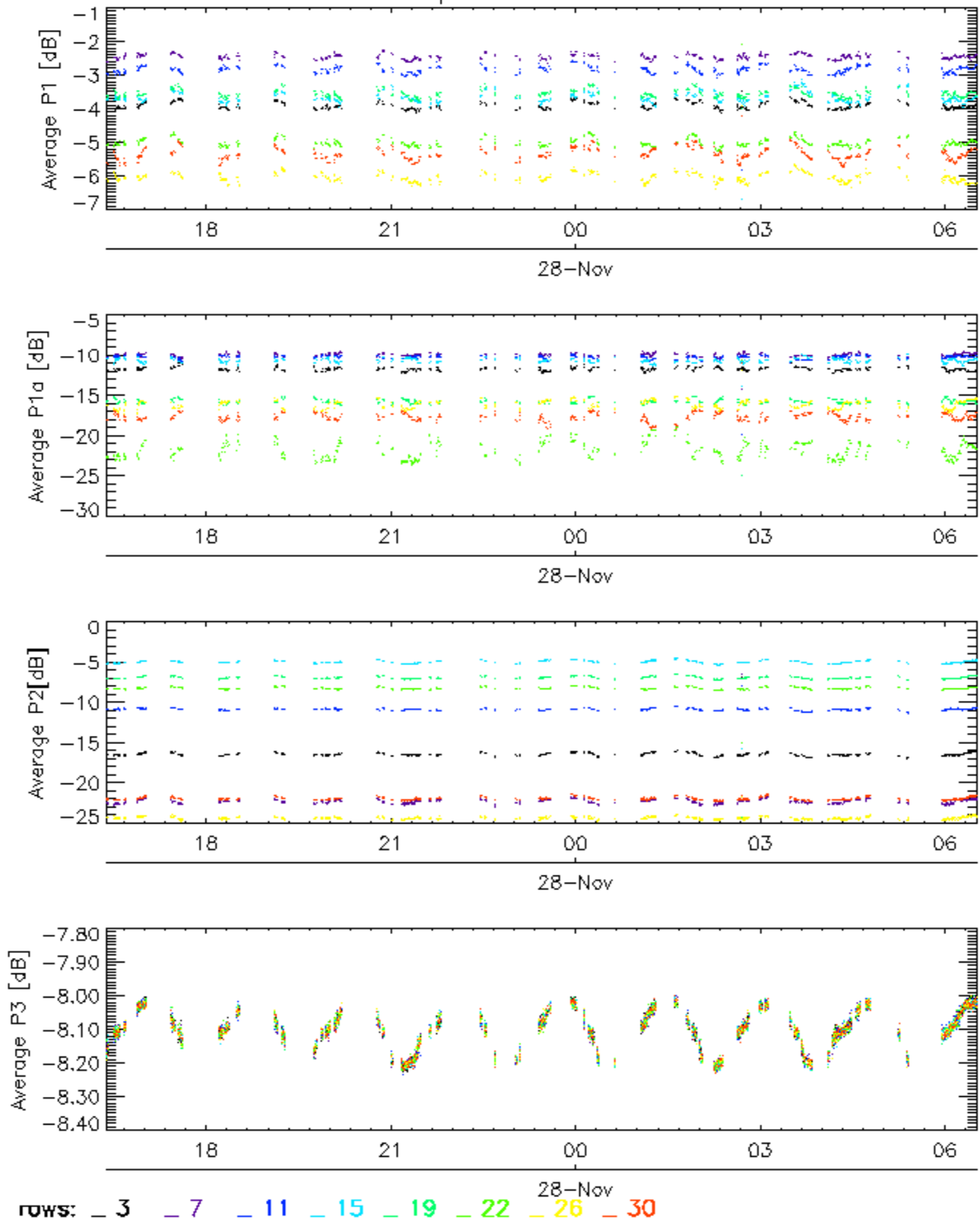
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

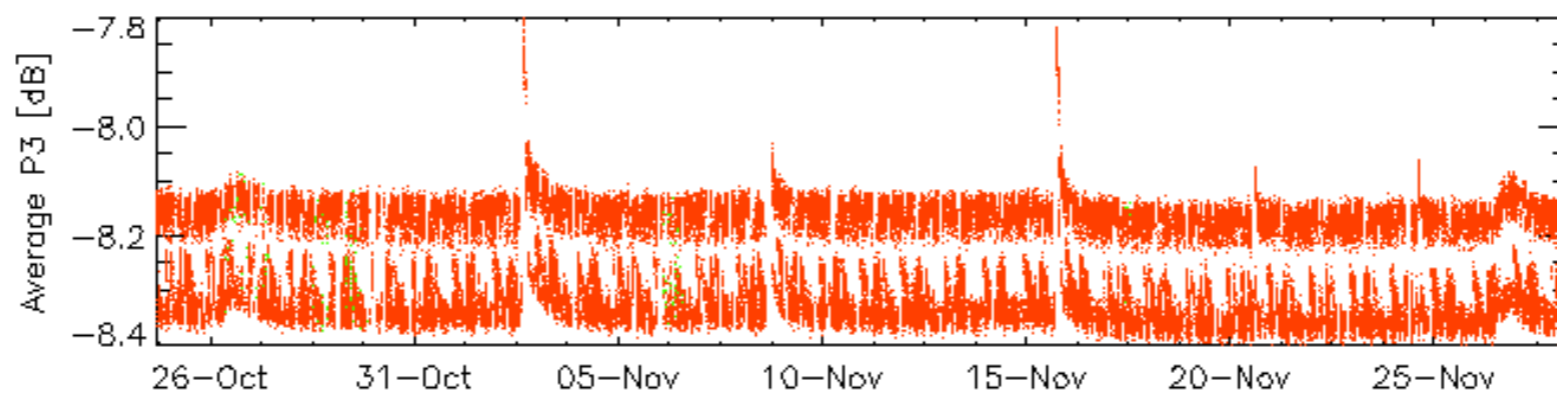
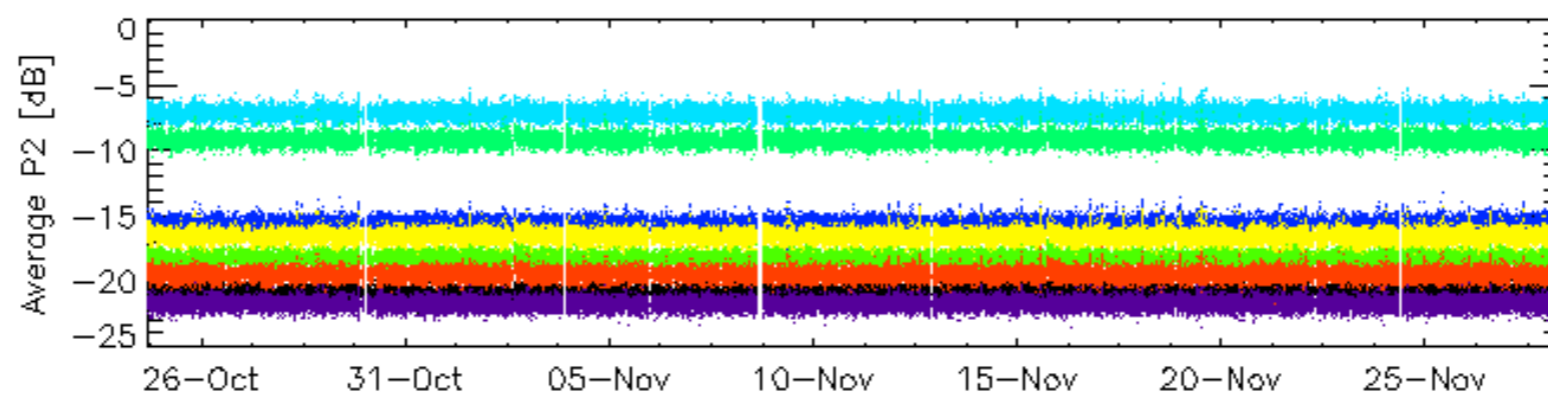
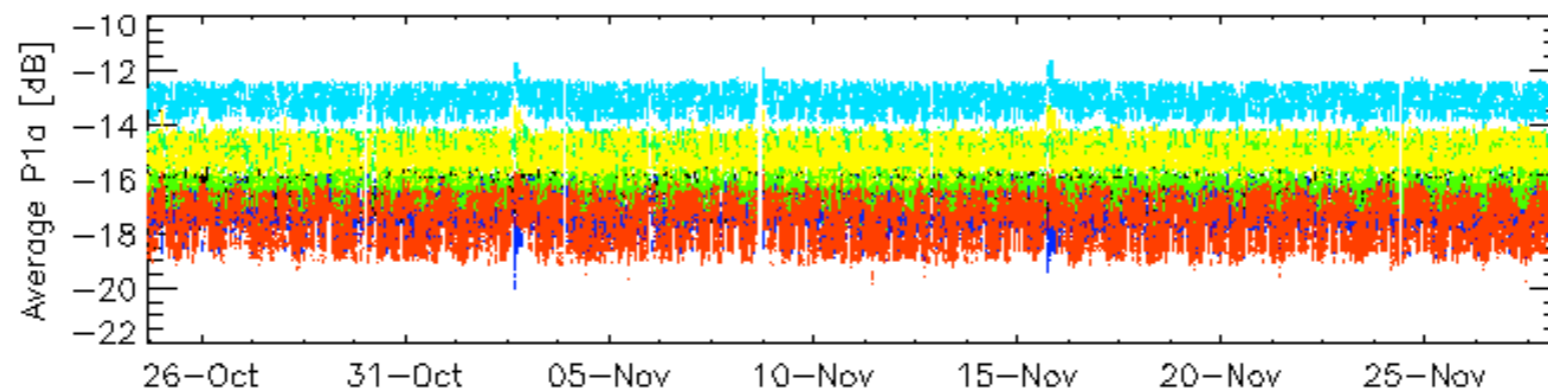
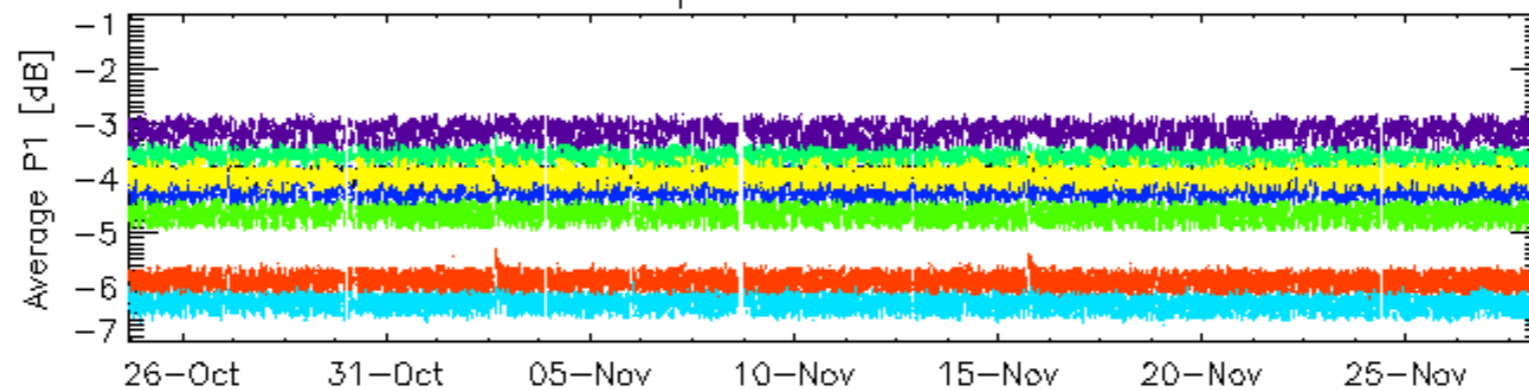


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

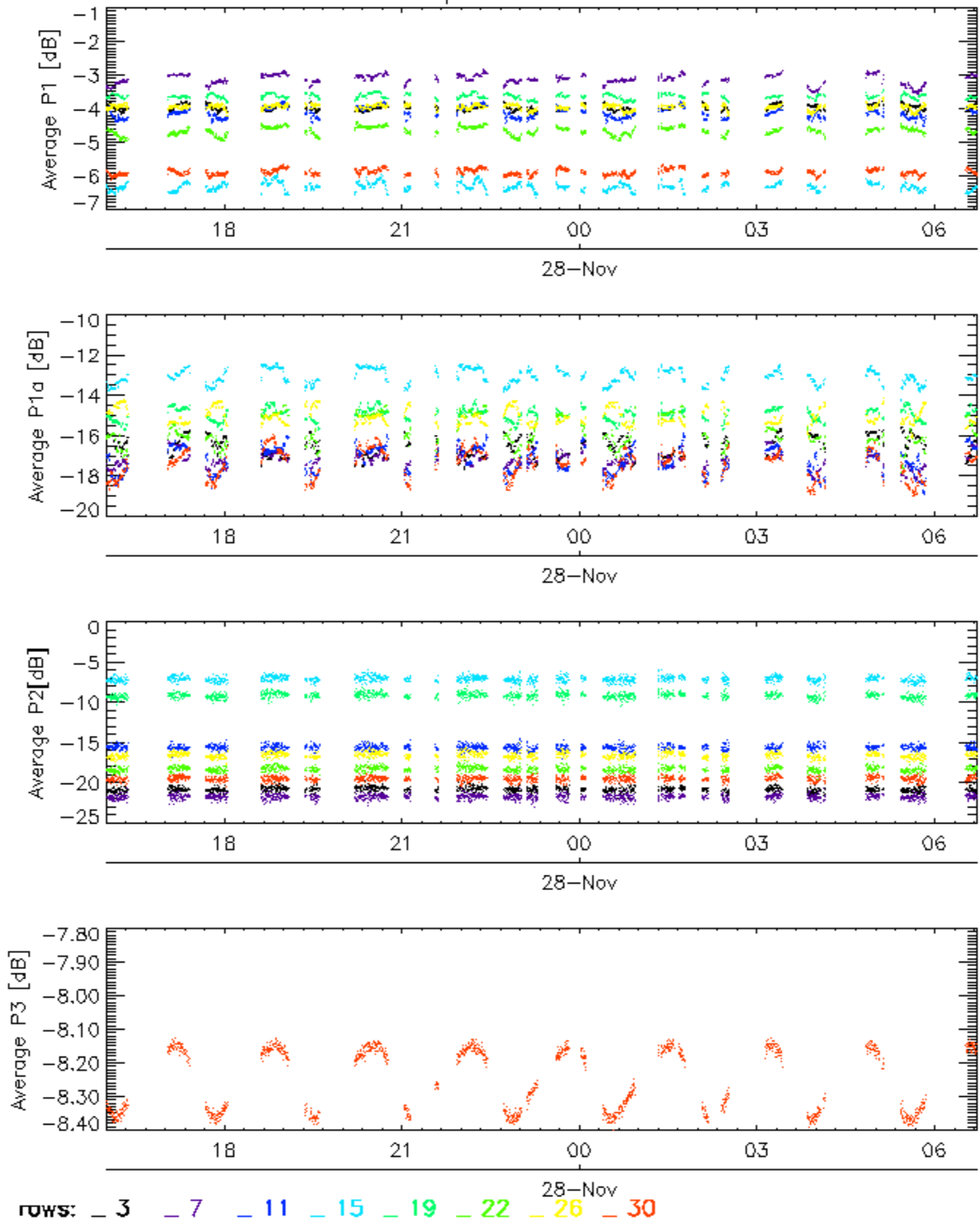


Cal pulses for WVS IS2

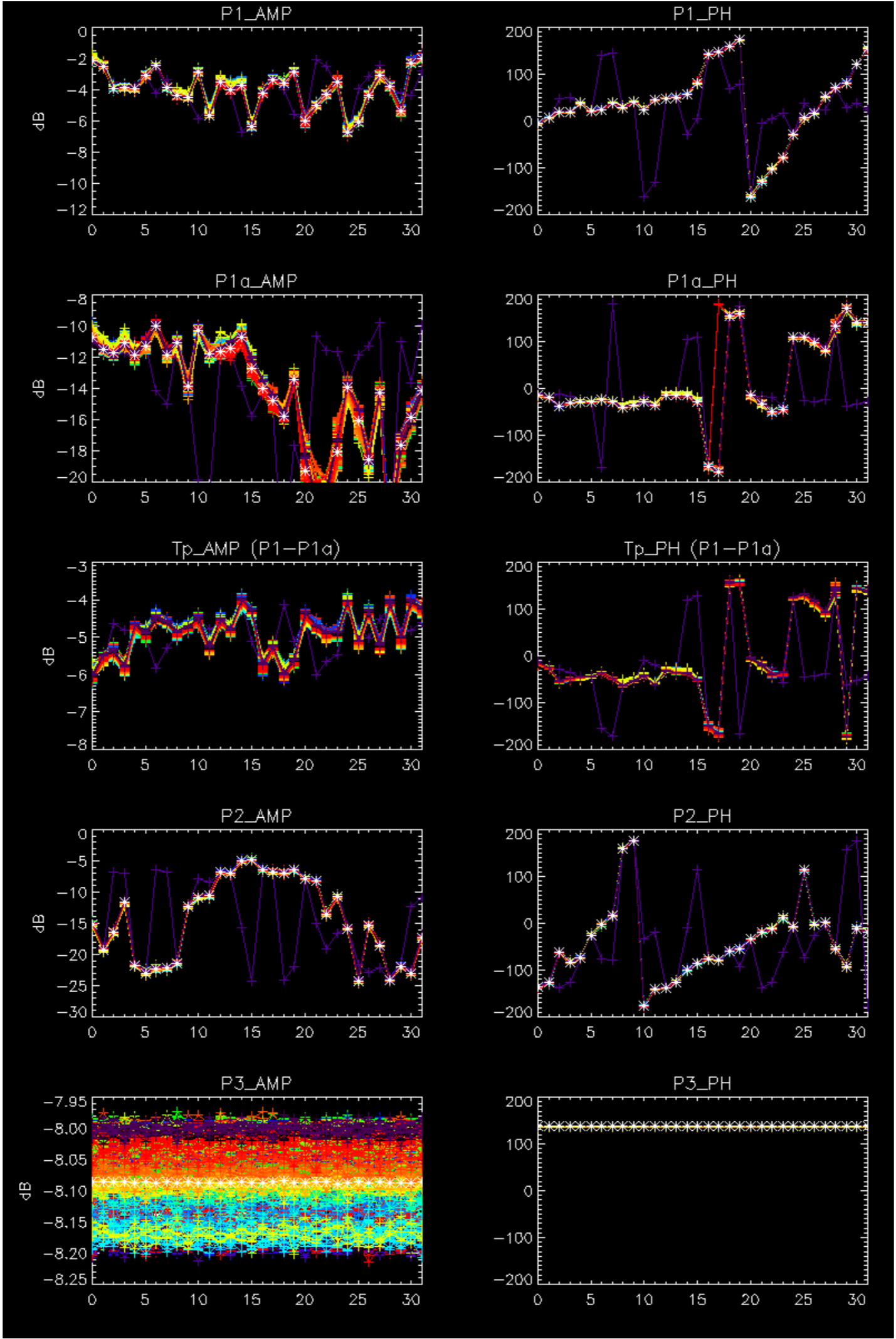


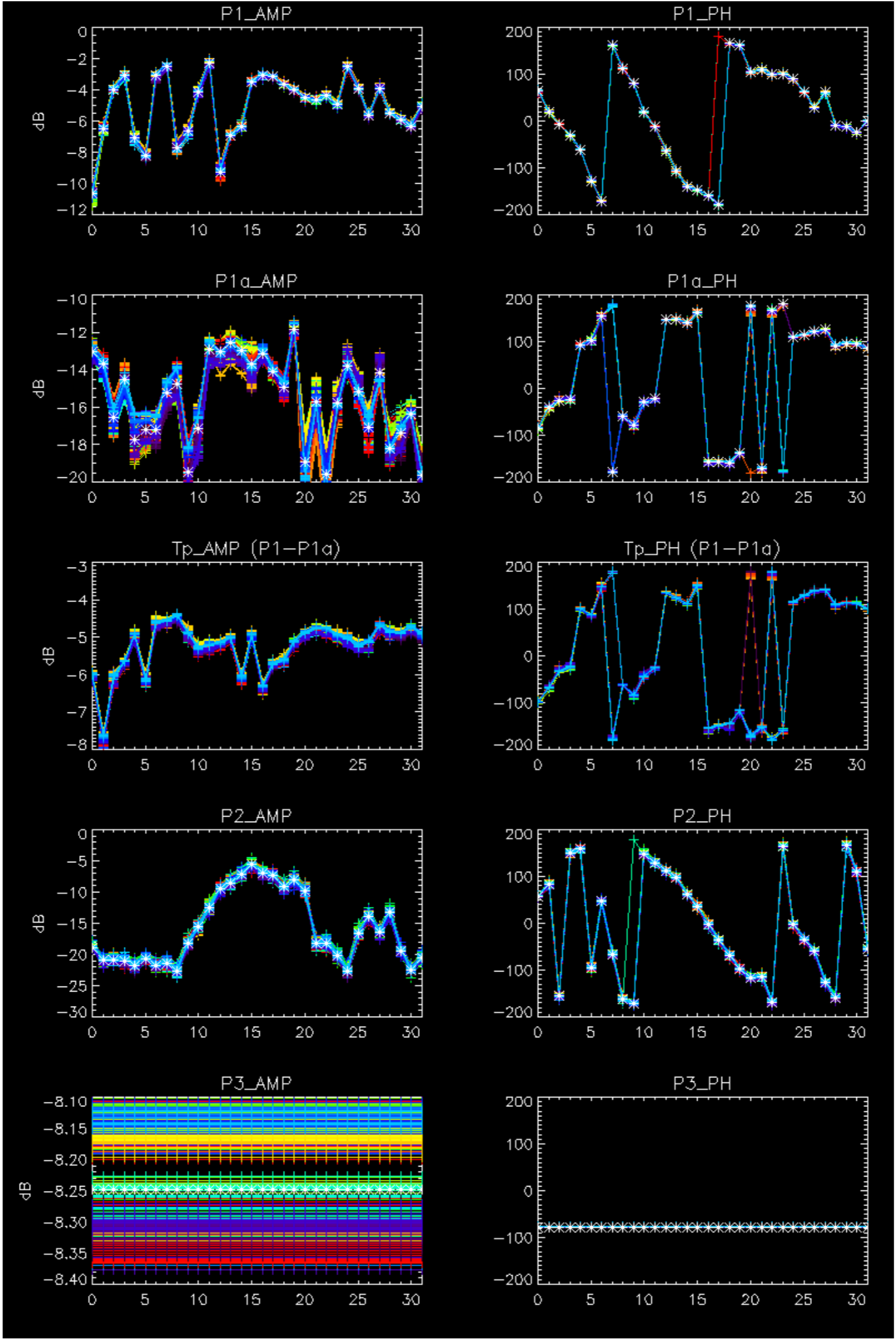
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



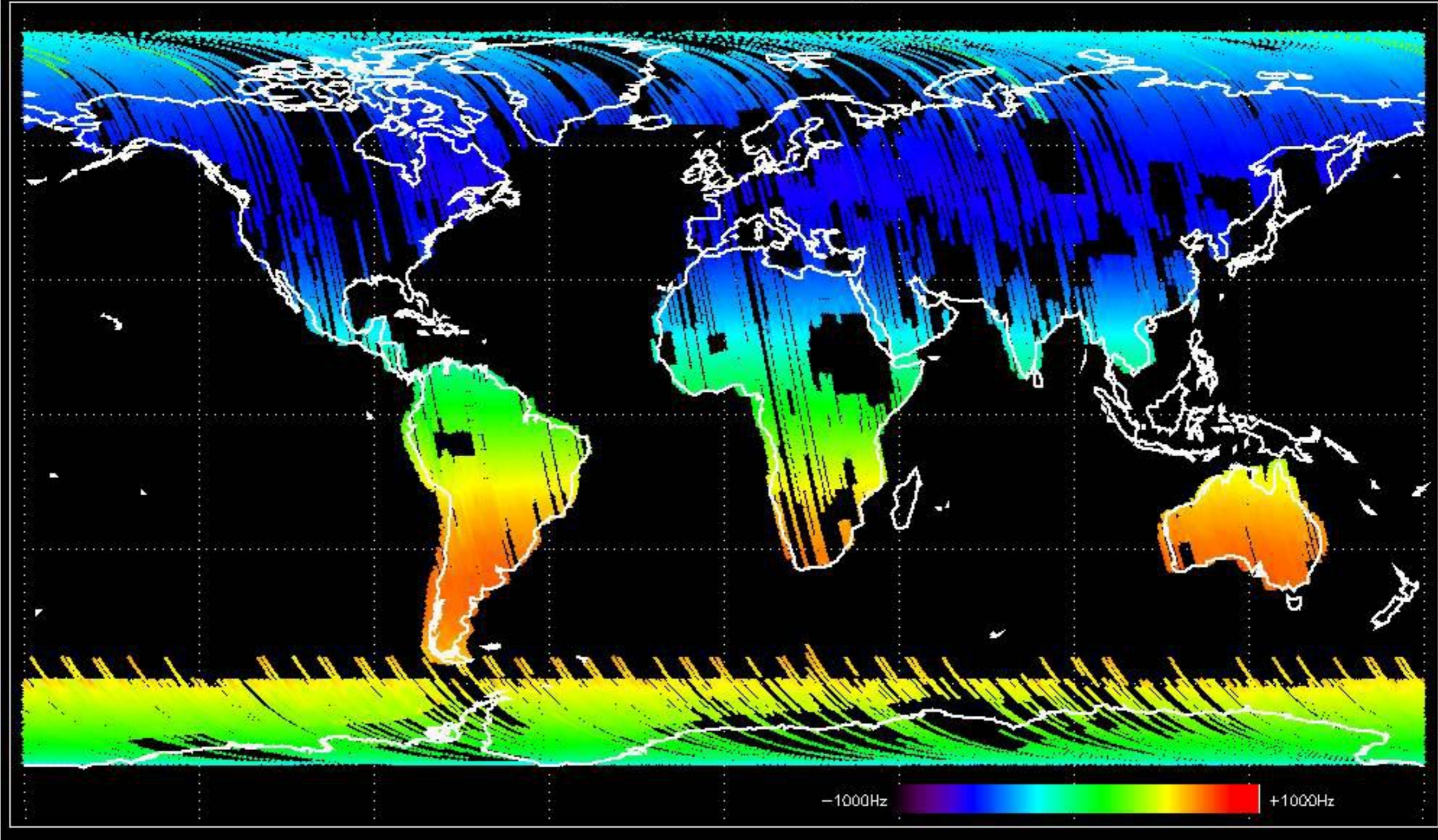
No anomalies observed.



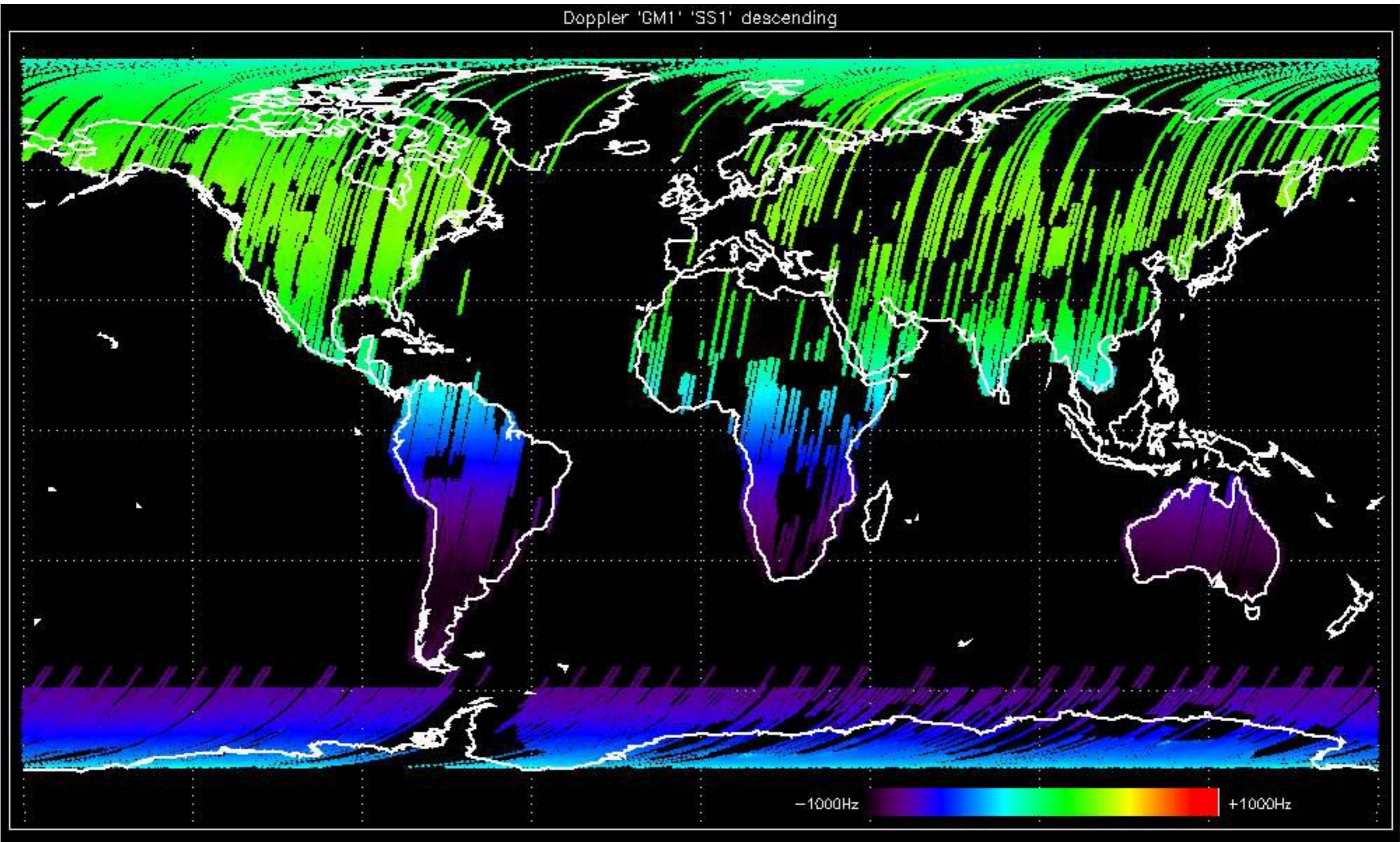


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

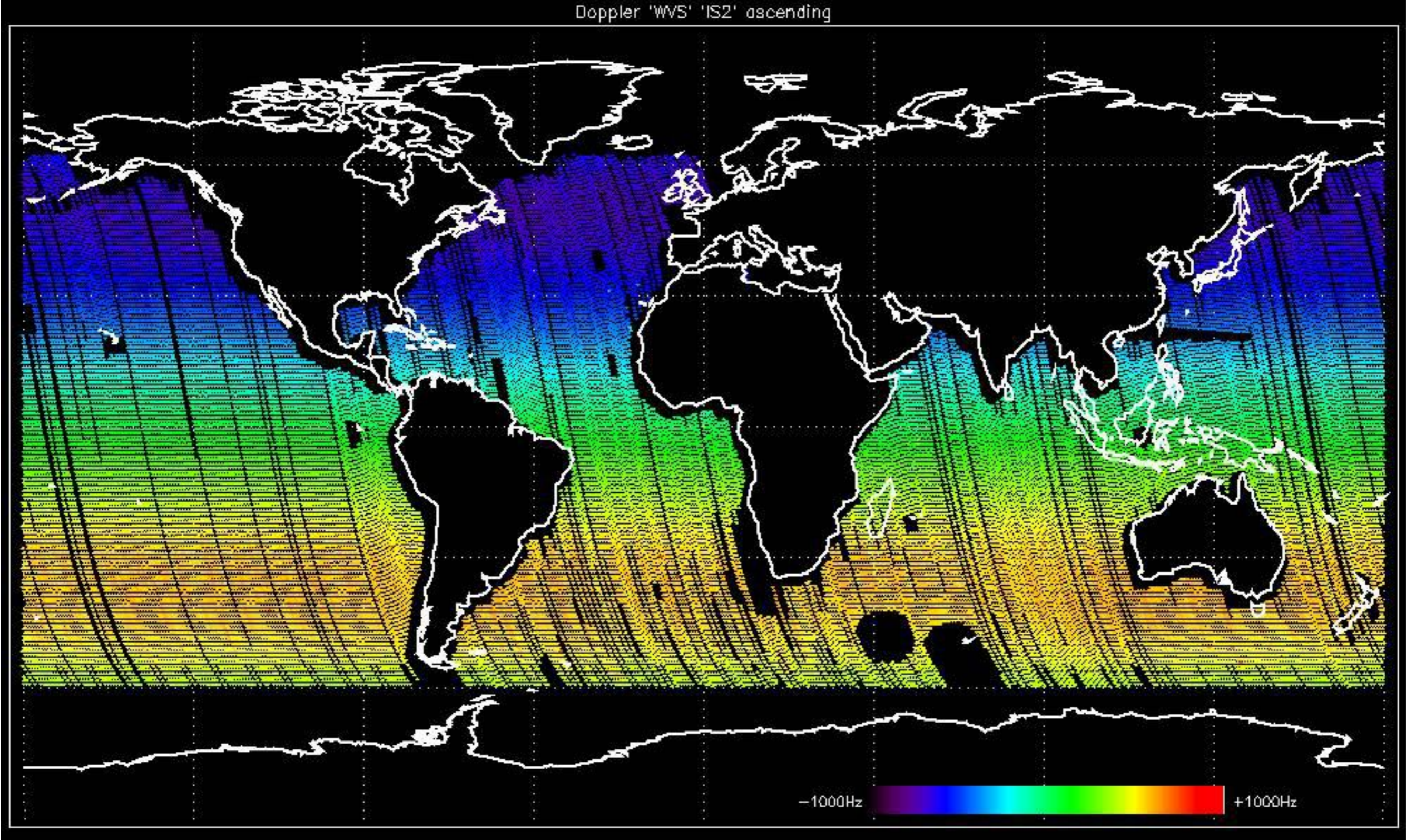
Doppler 'GM1' 'SS1' ascending



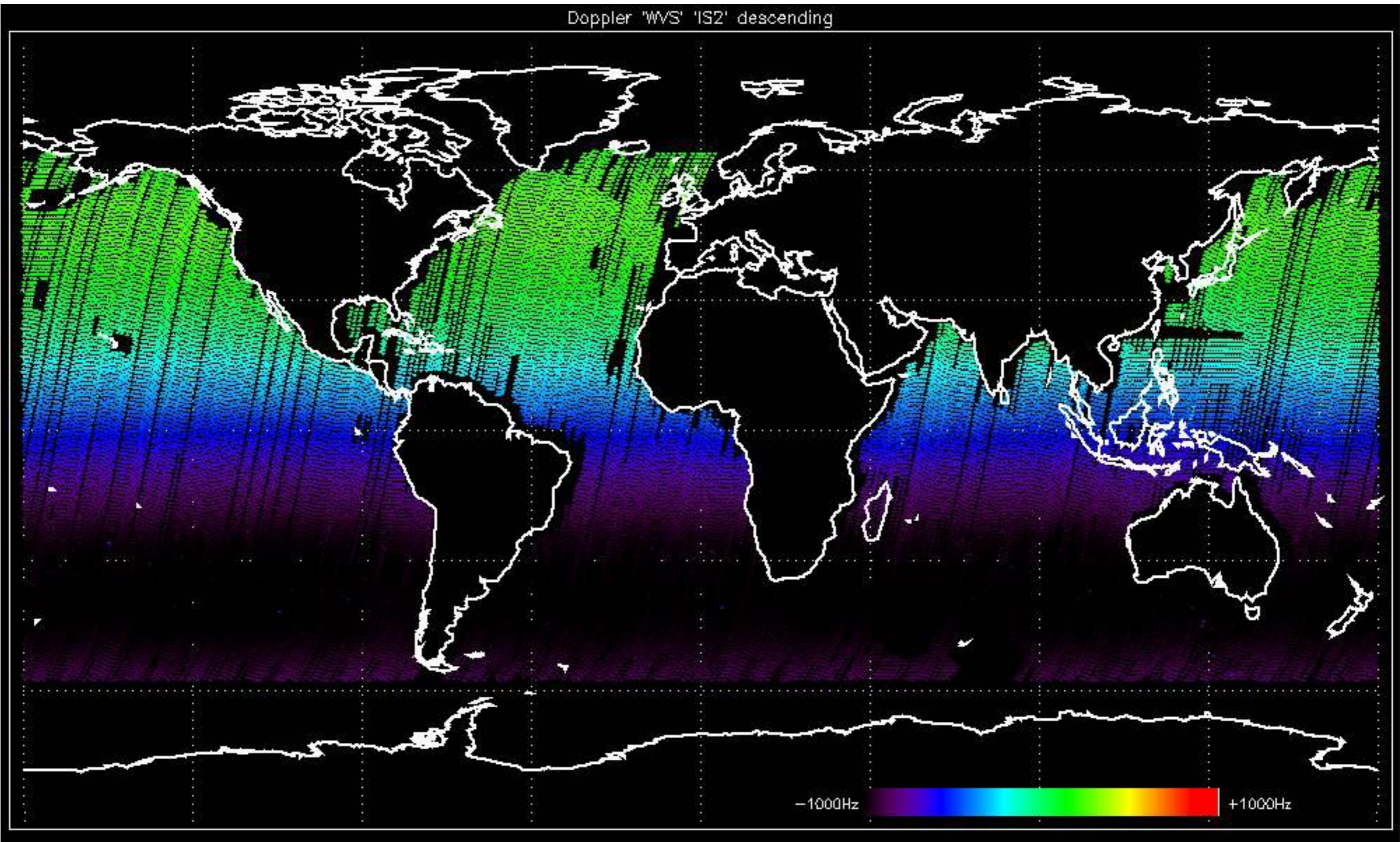
Doppler 'GM1' 'SS1' descending



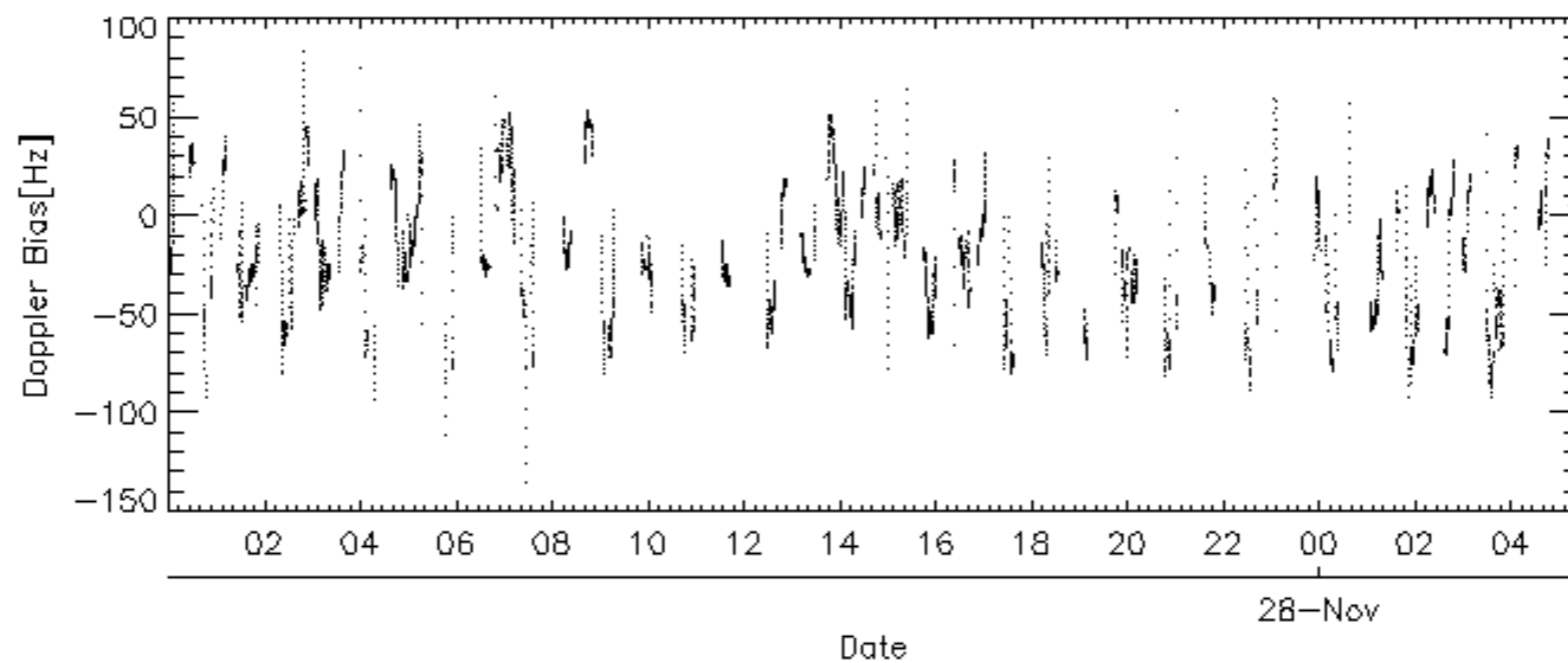
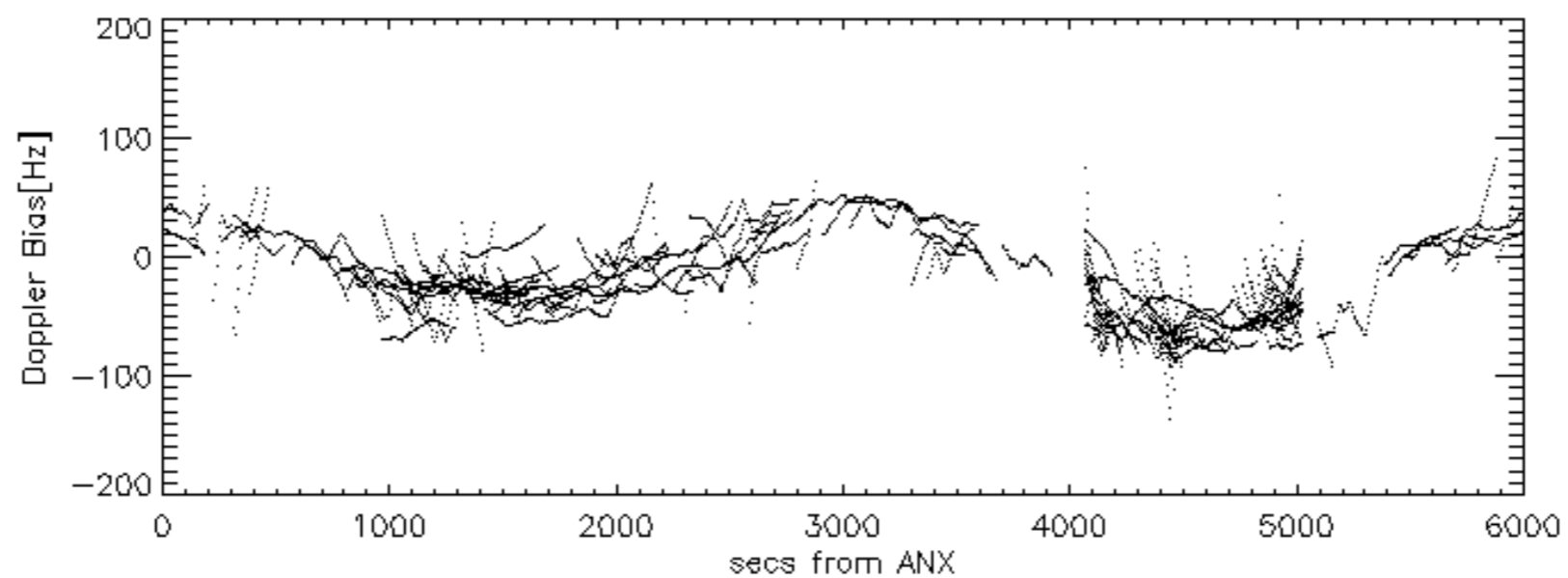
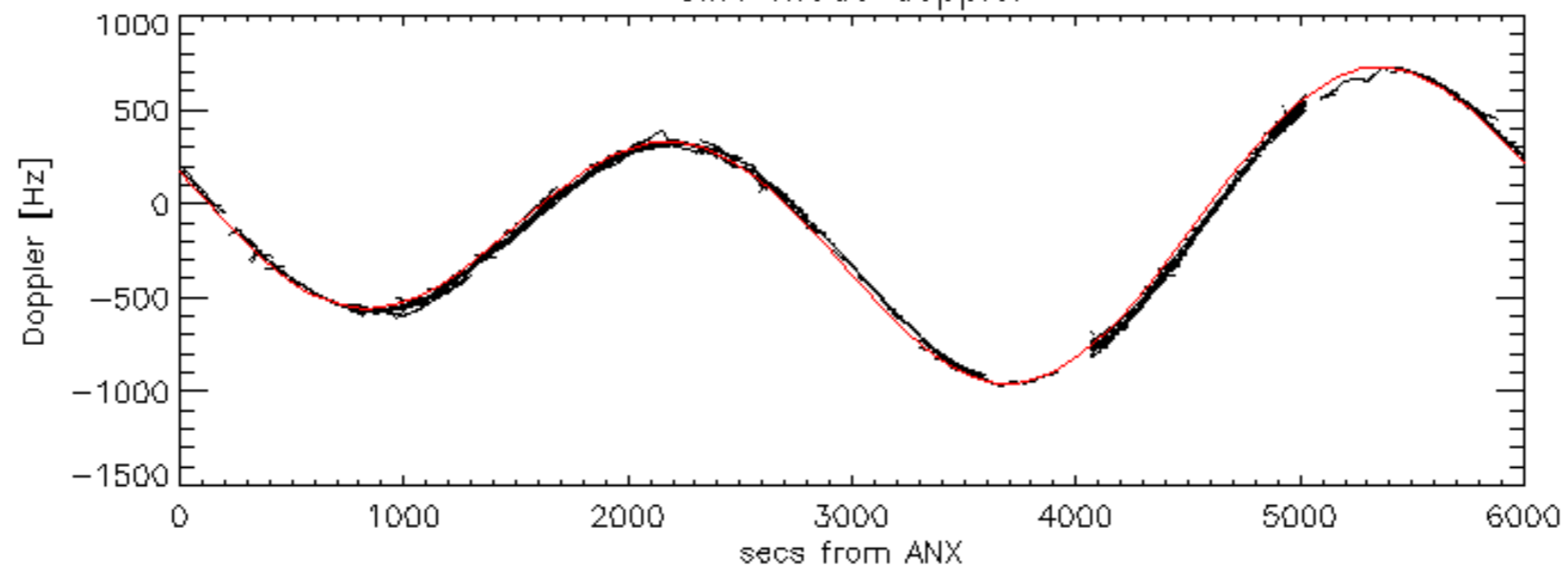
Doppler 'WVS' 'IS2' ascending

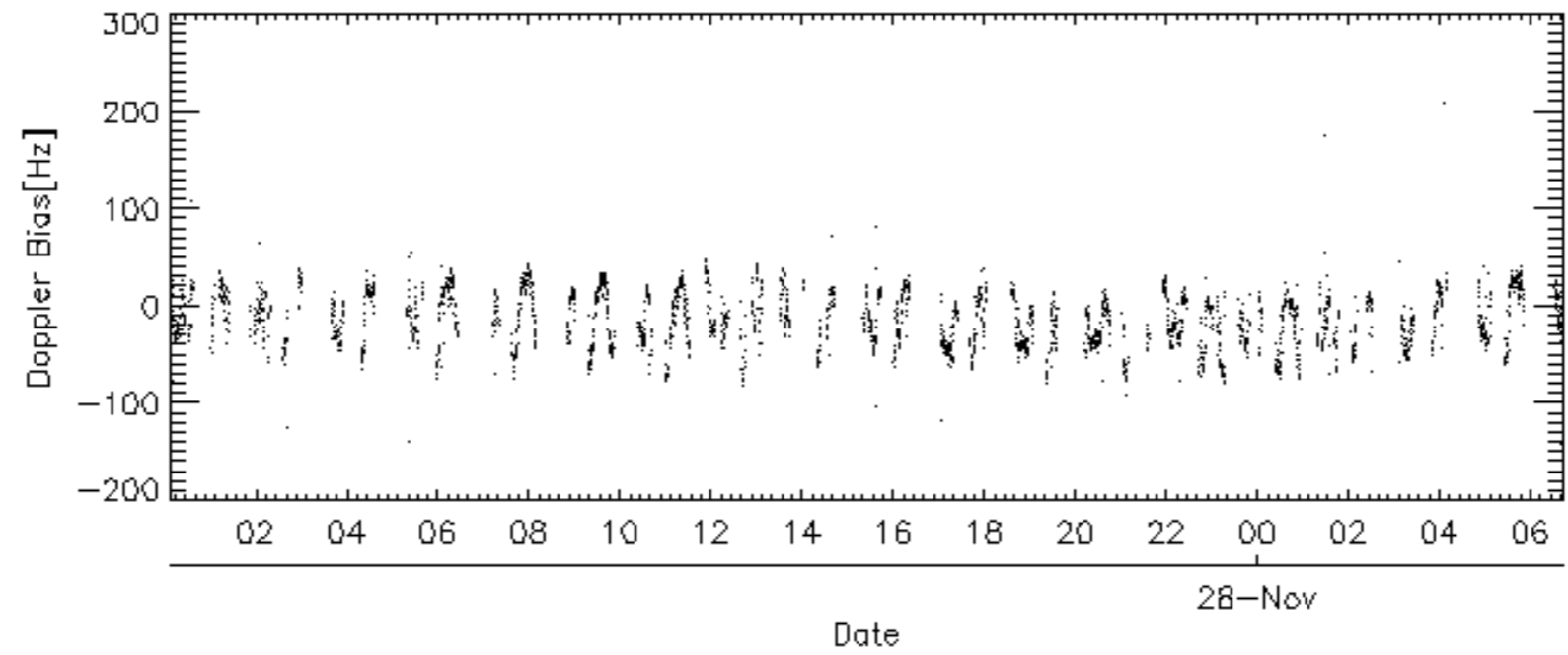
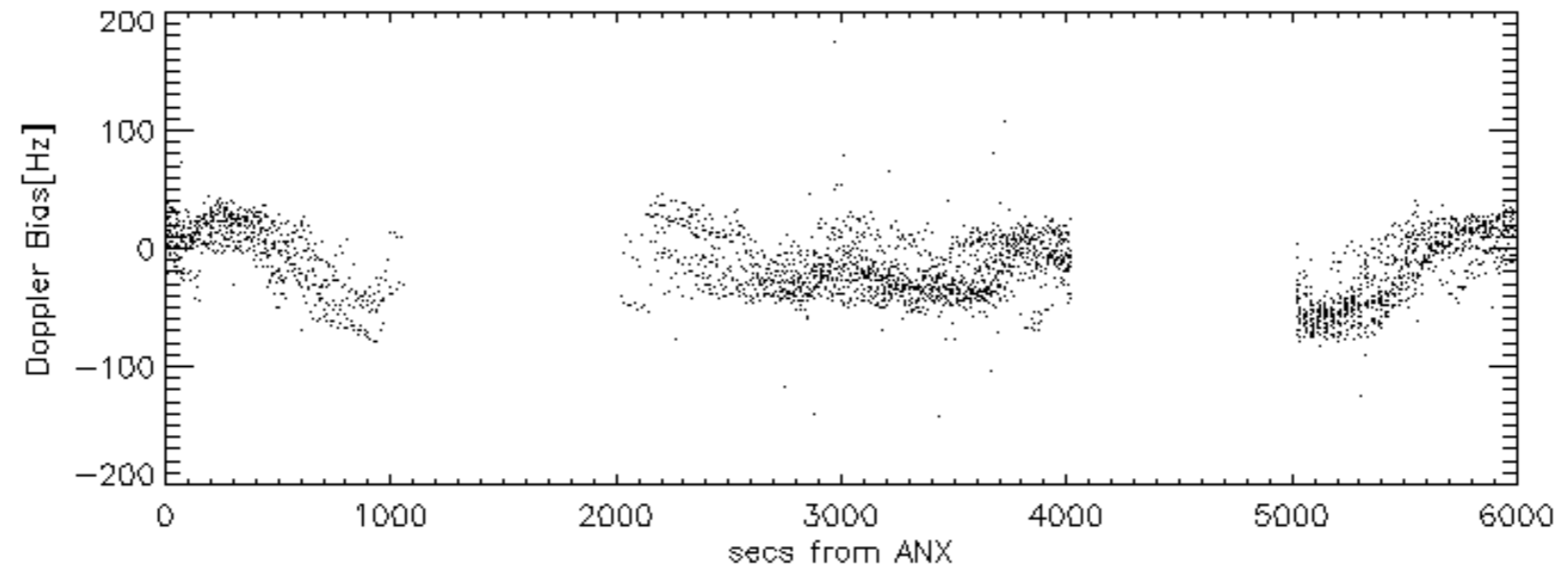
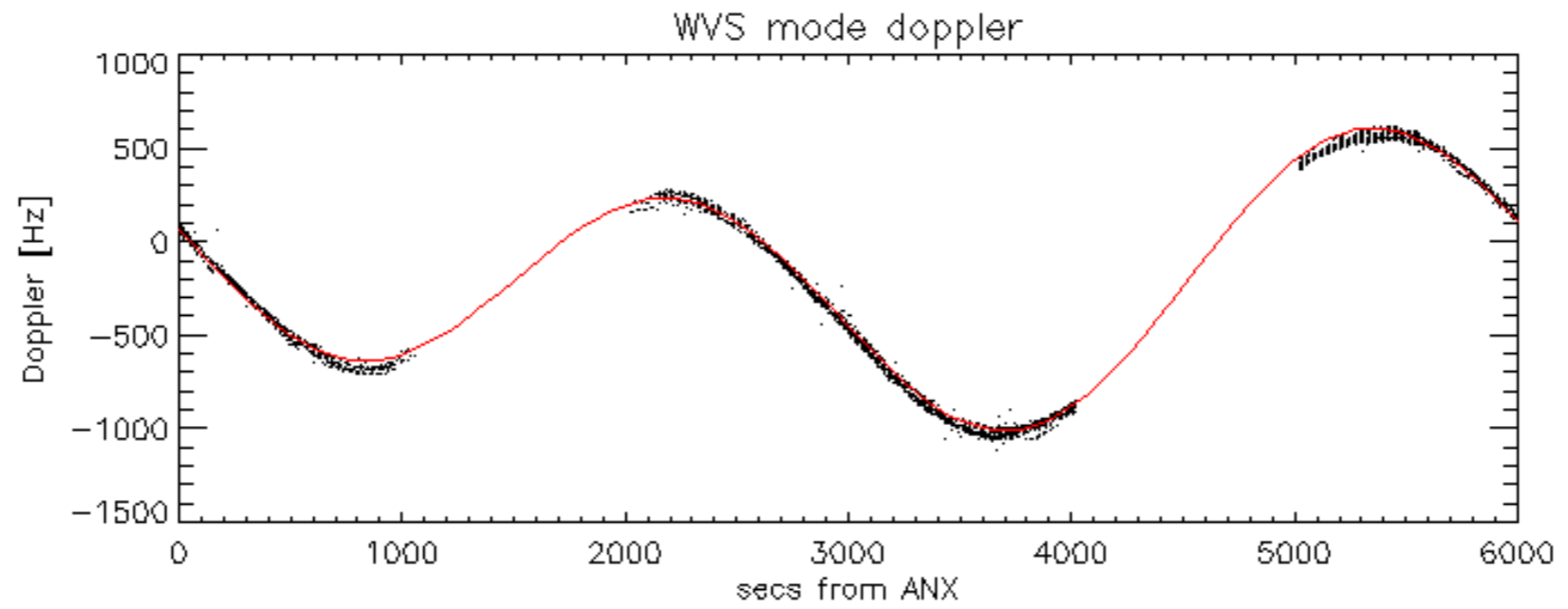


Doppler 'WVS' 'IS2' descending

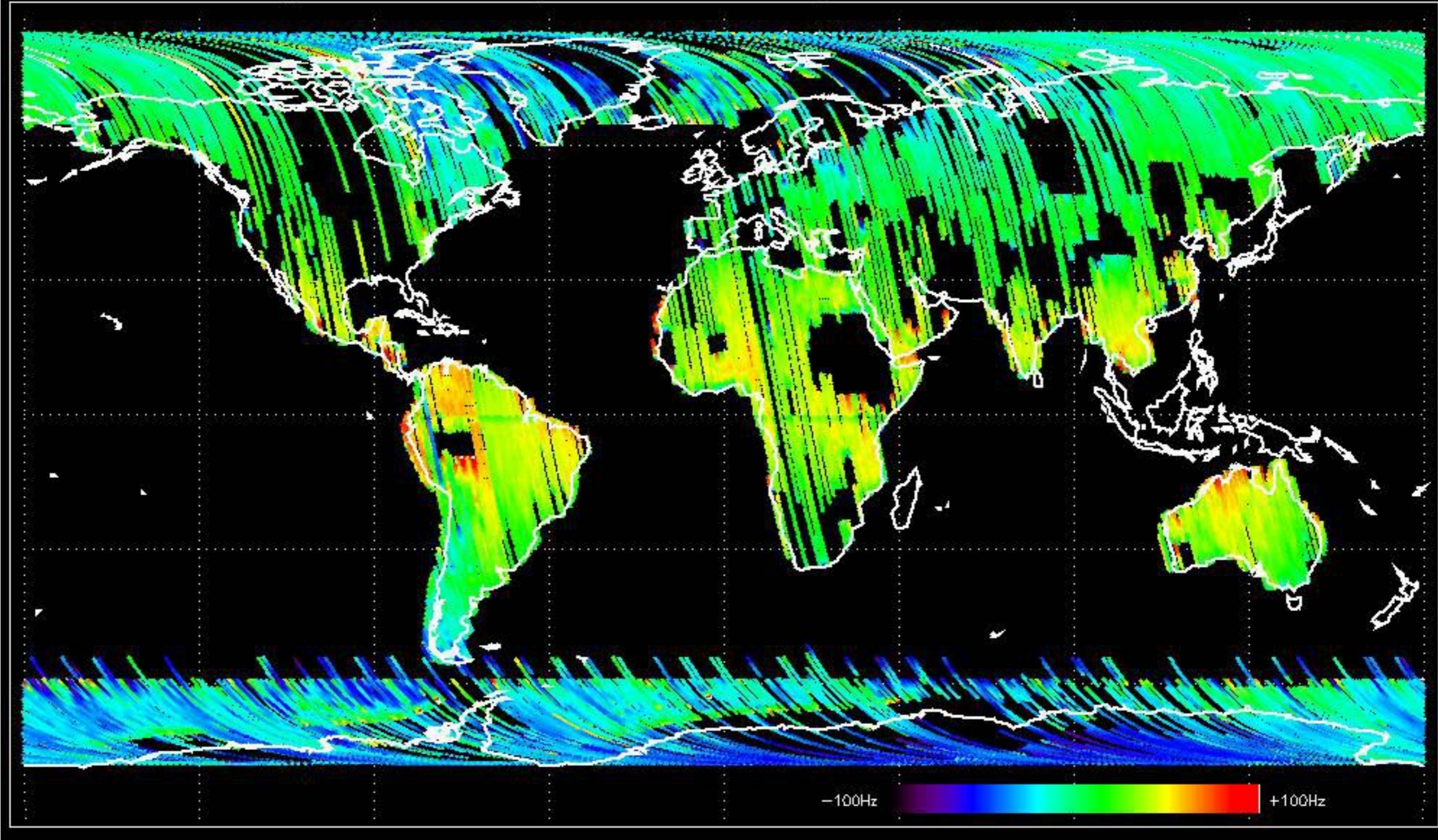


GM1 mode doppler

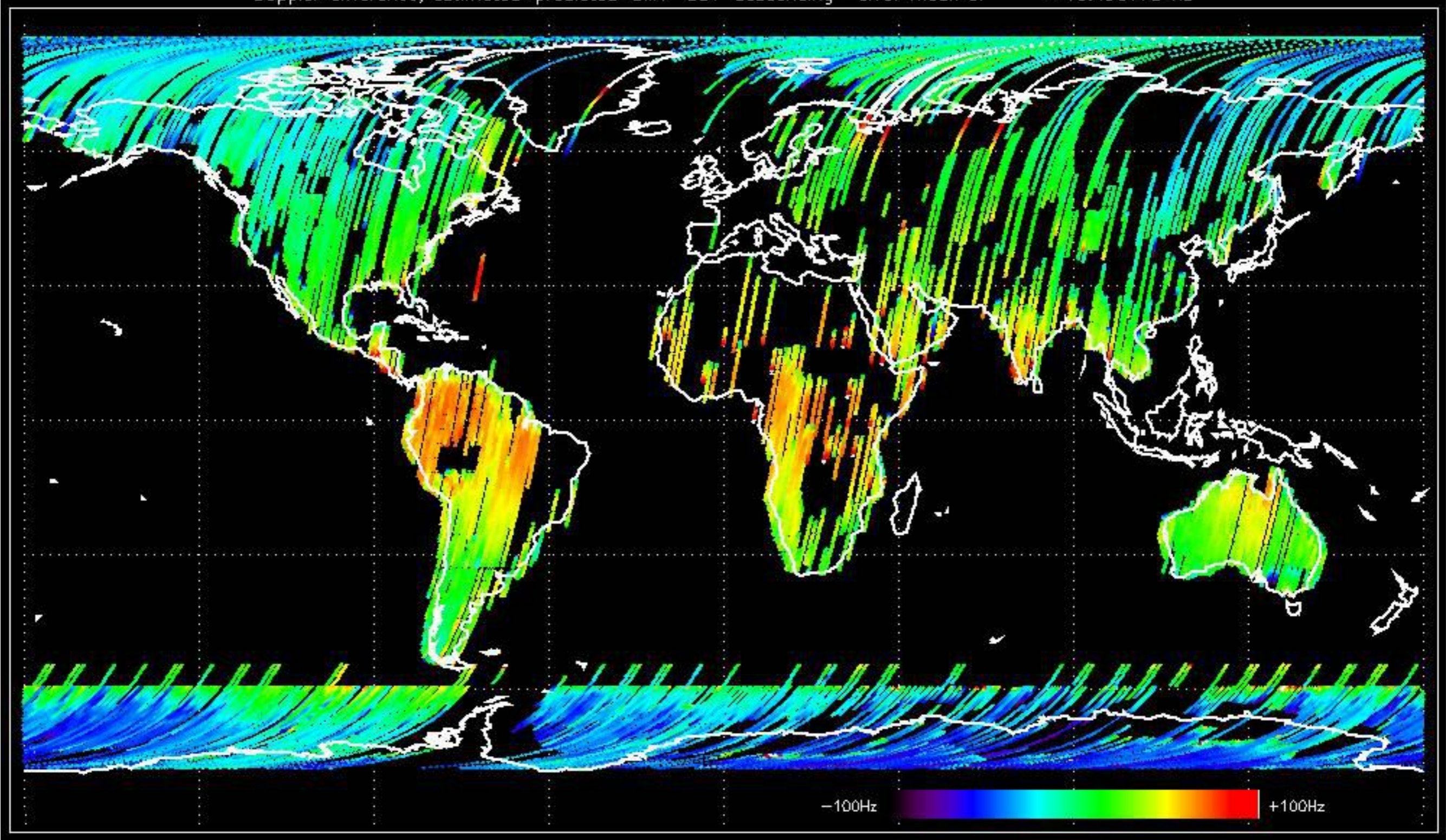




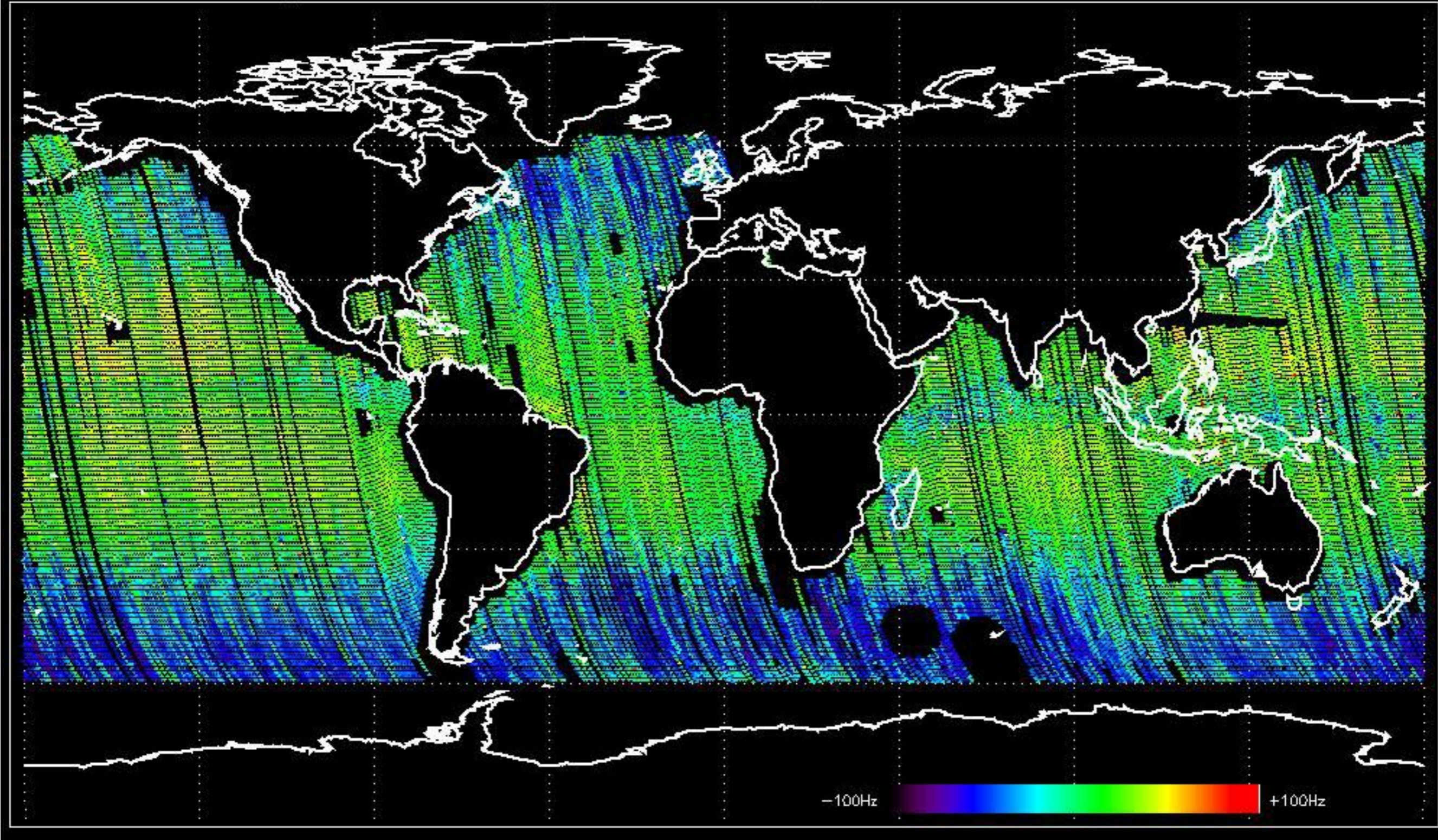
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.310210 Hz



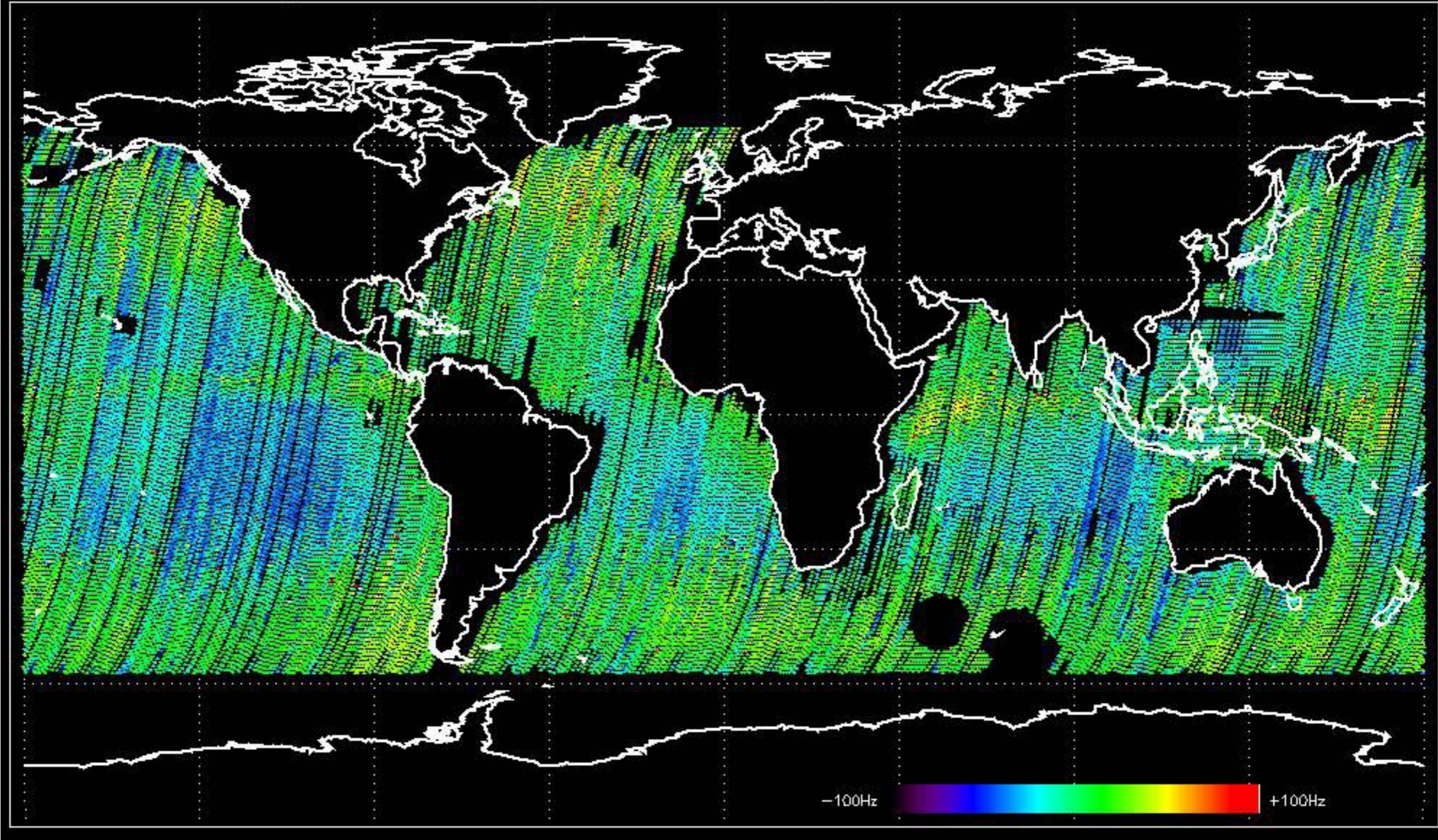
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.490178 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.7884140 Hz

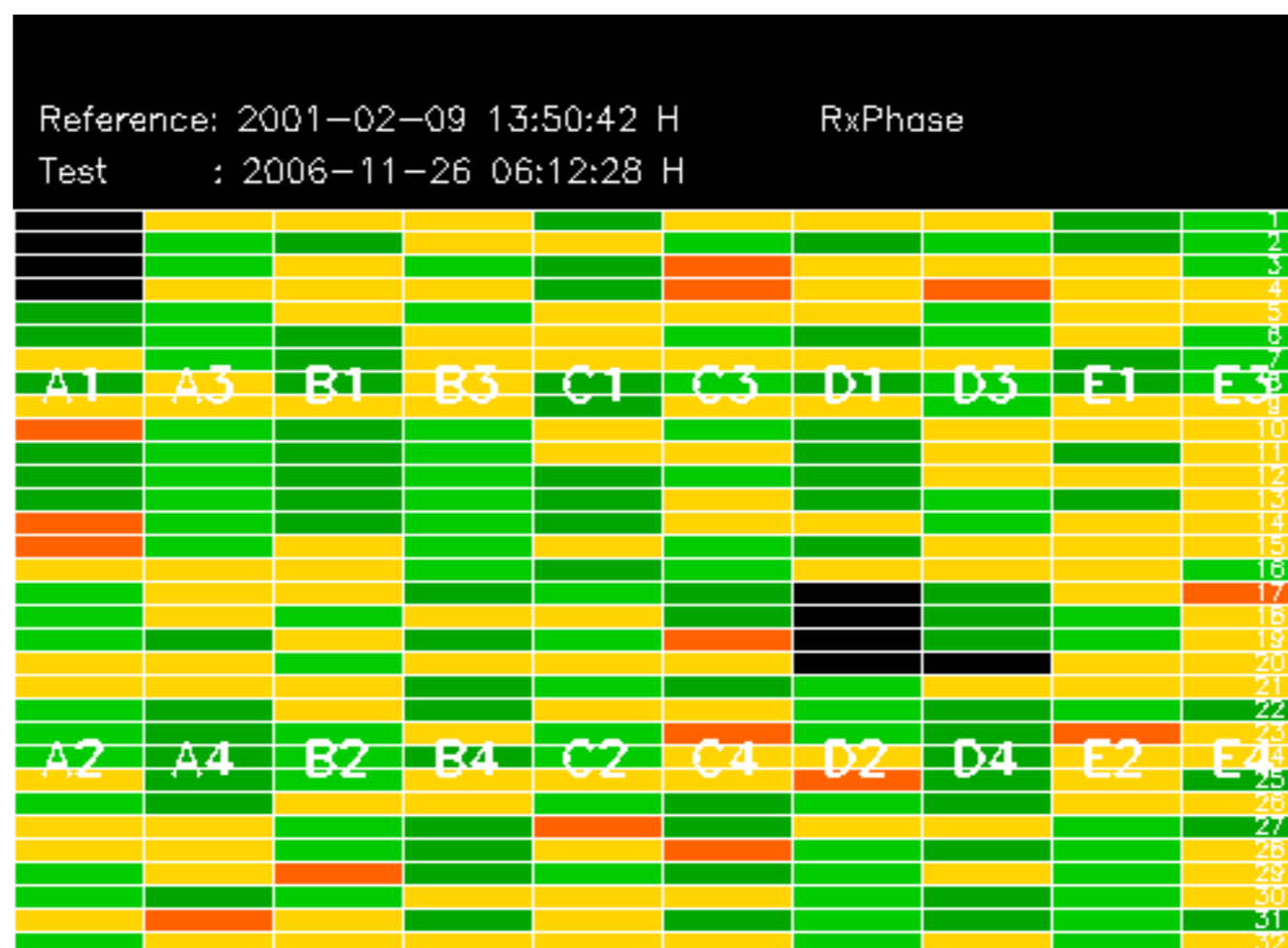


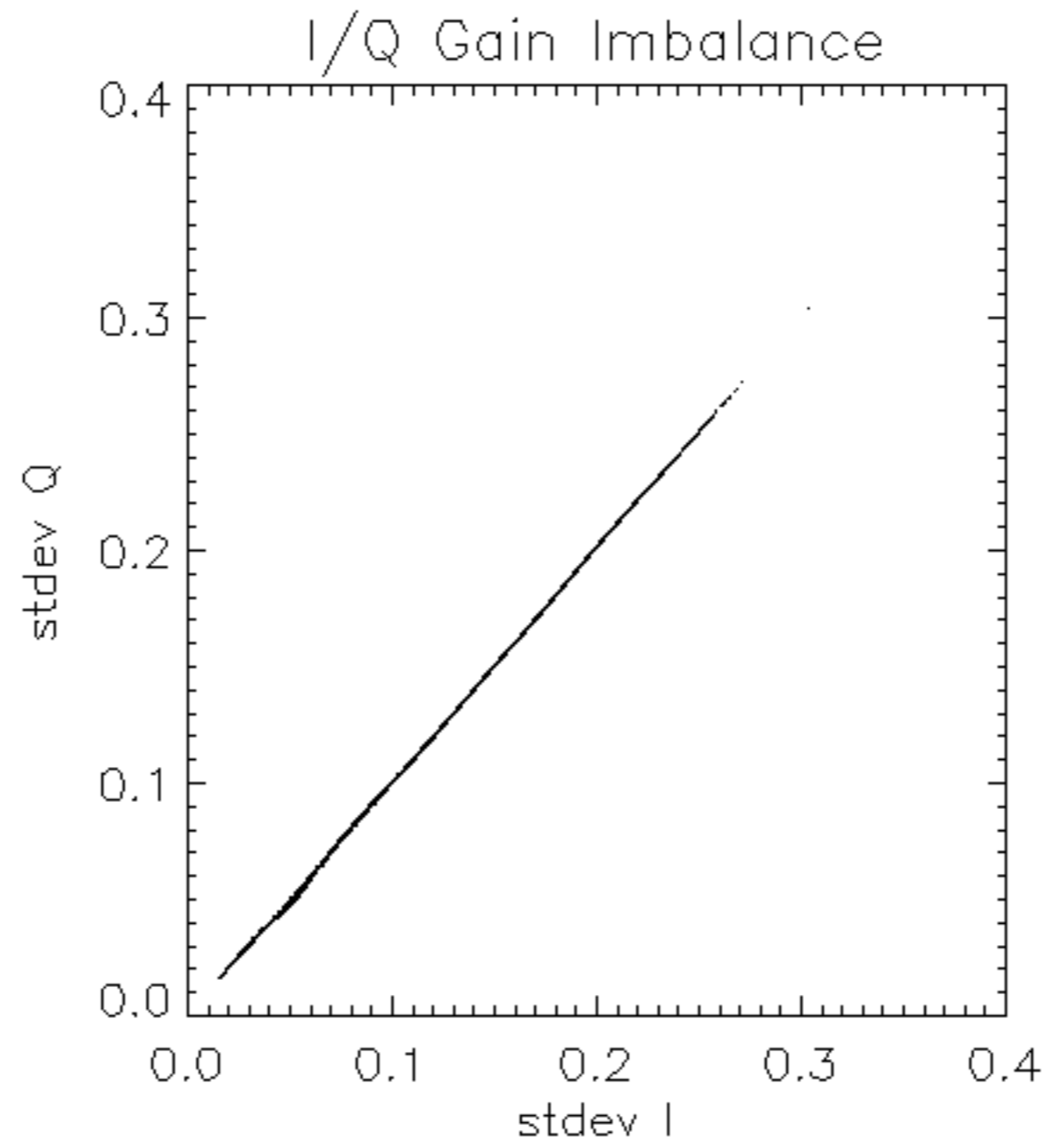
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.7040807 Hz

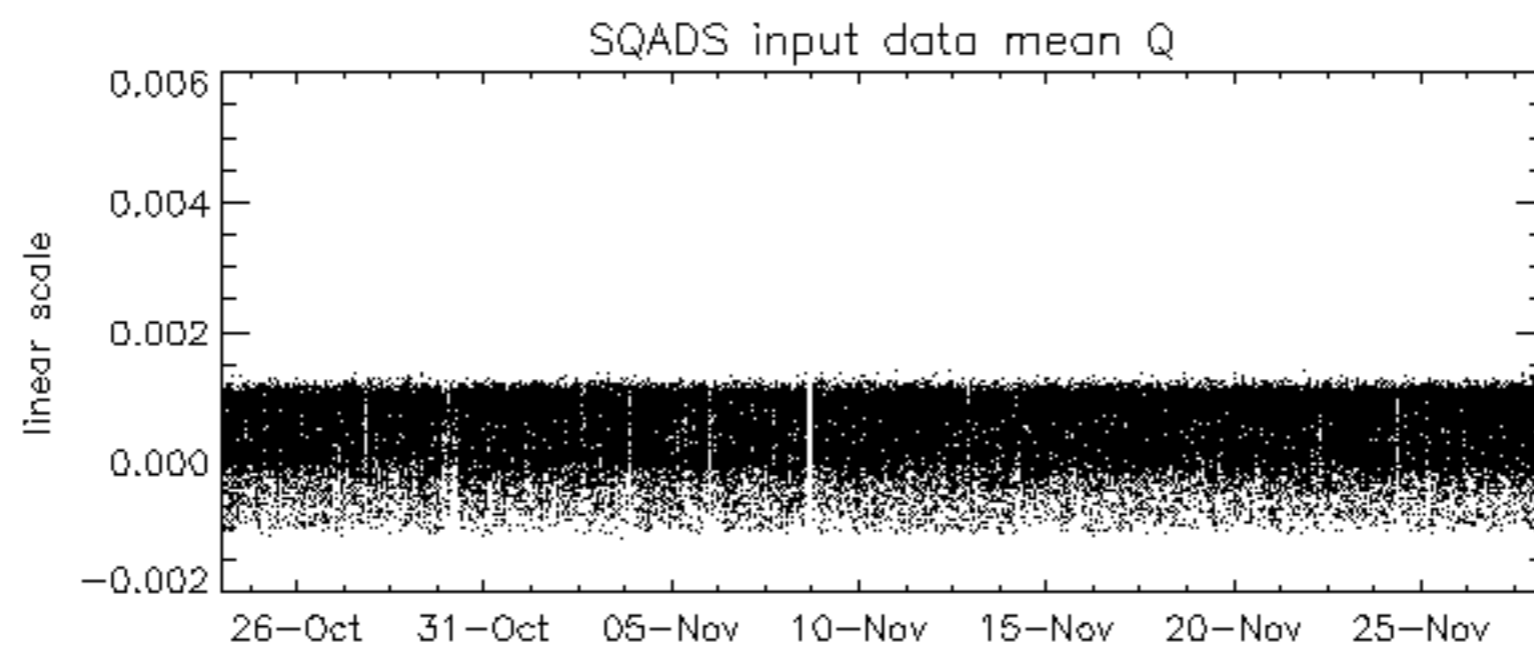
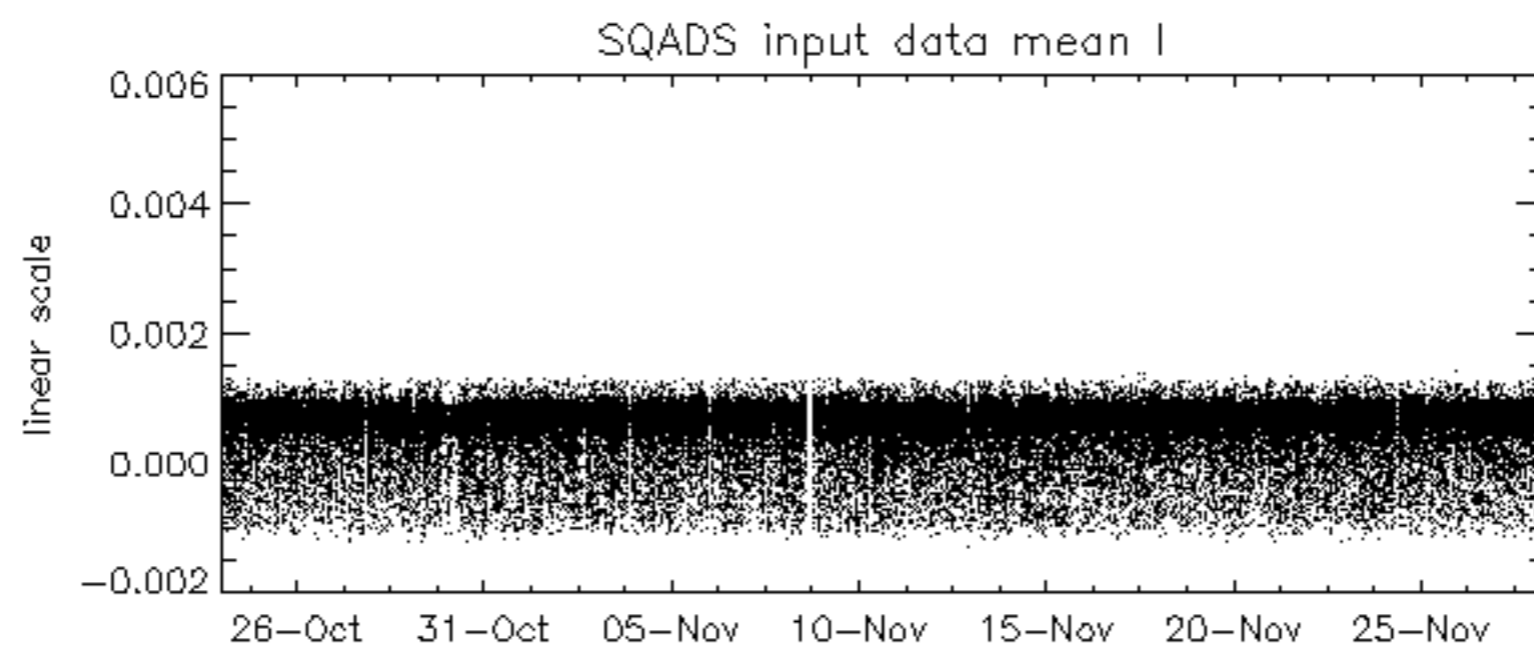
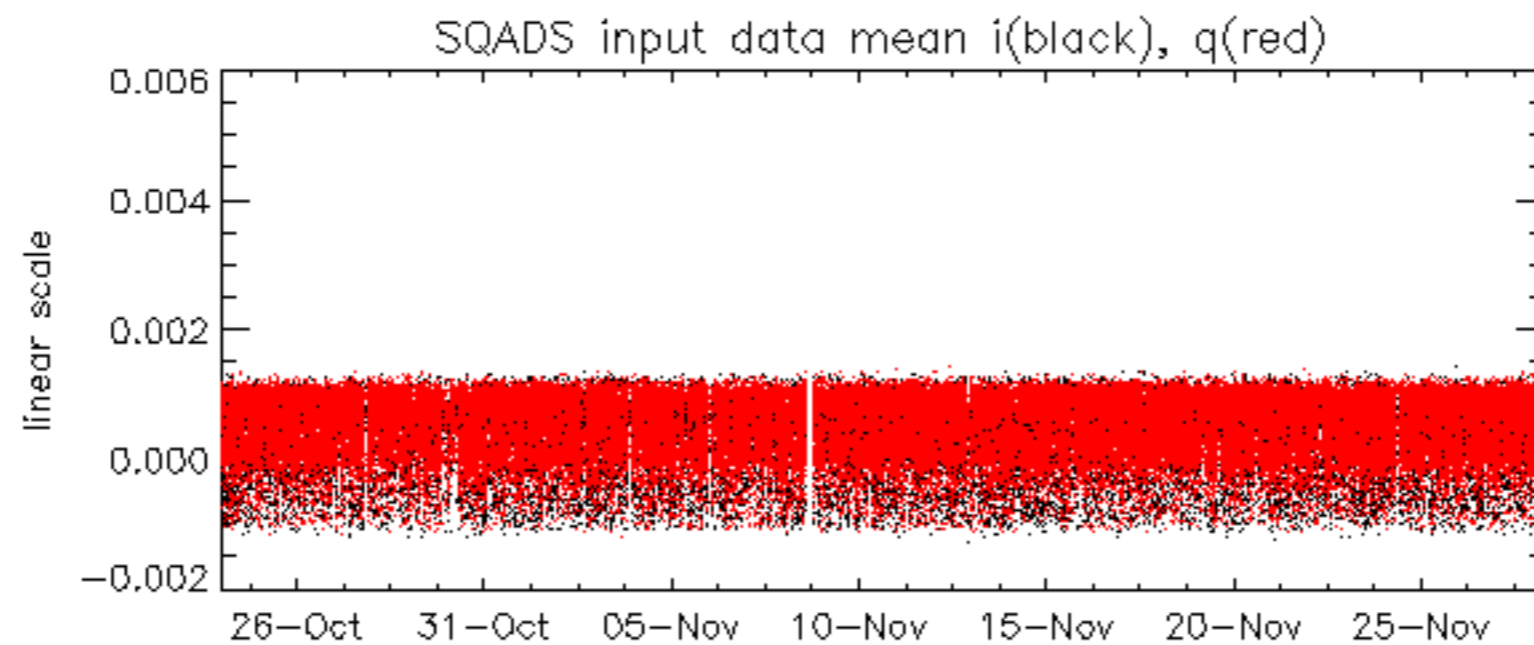


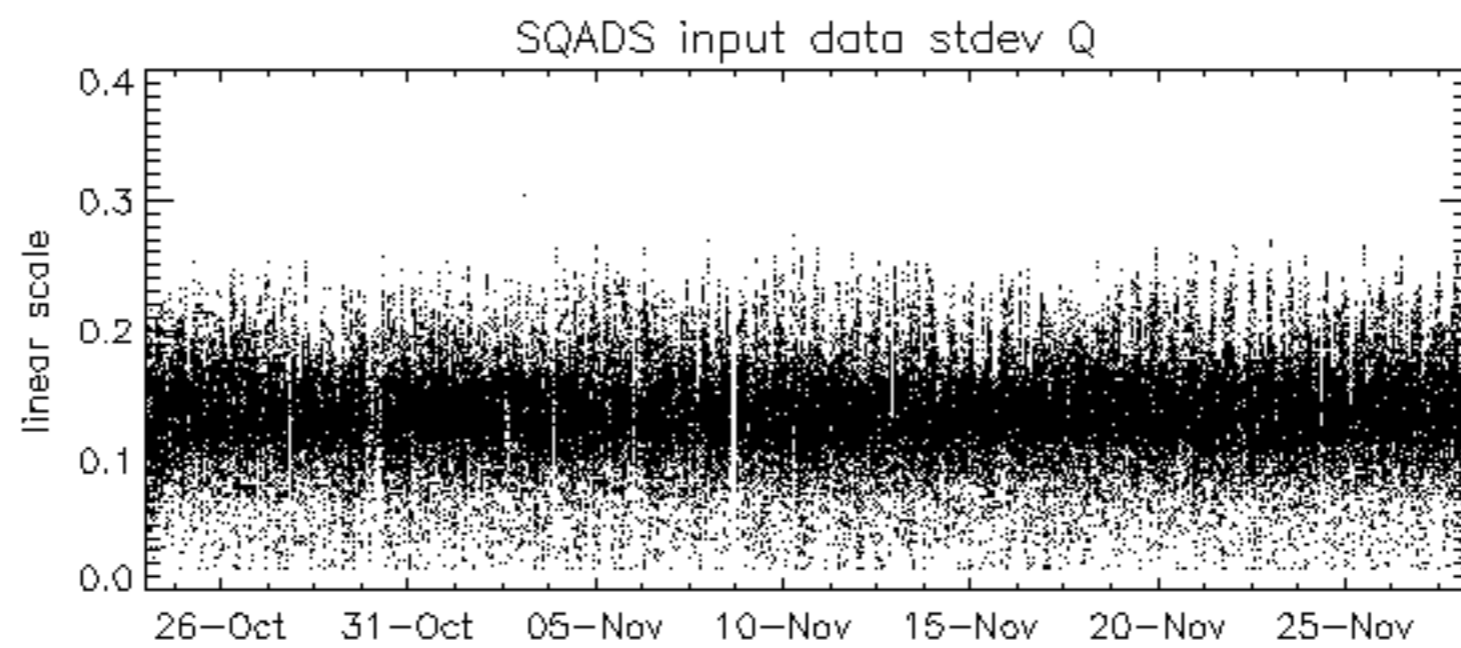
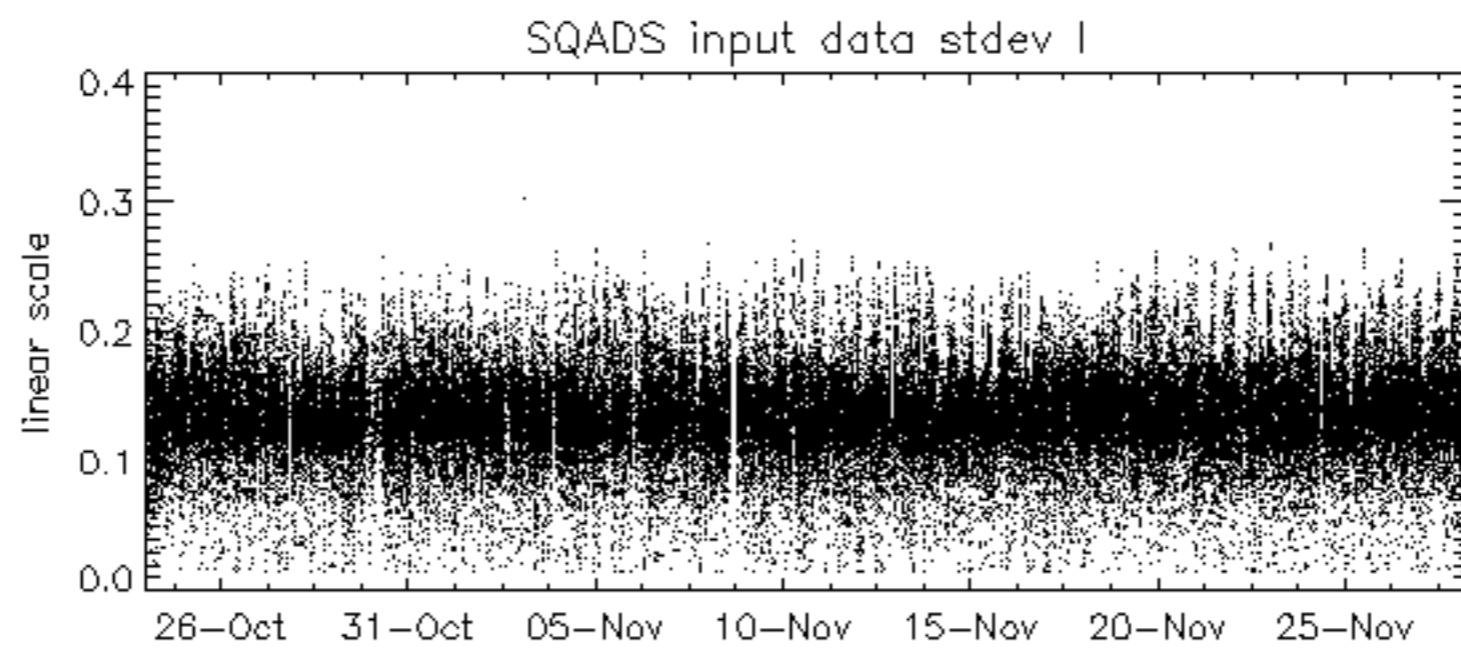
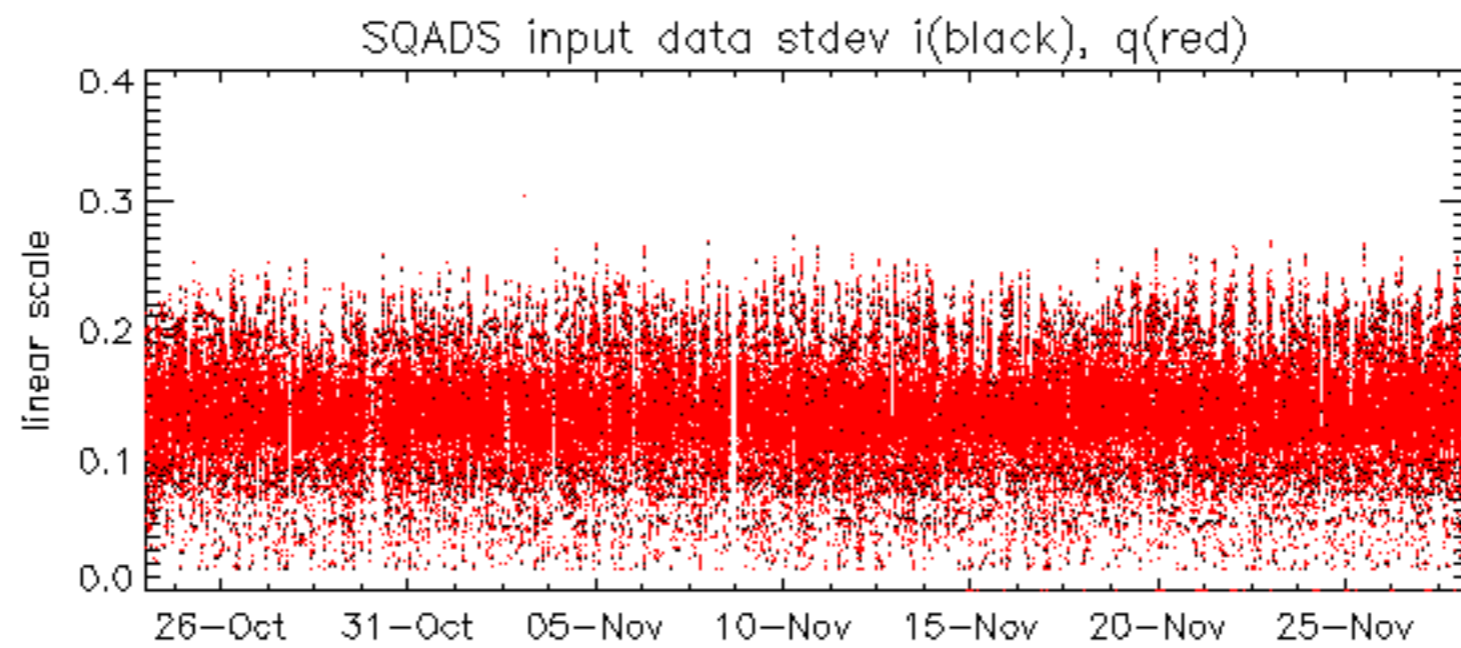
No anomalies observed on available MS products:

No anomalies observed.





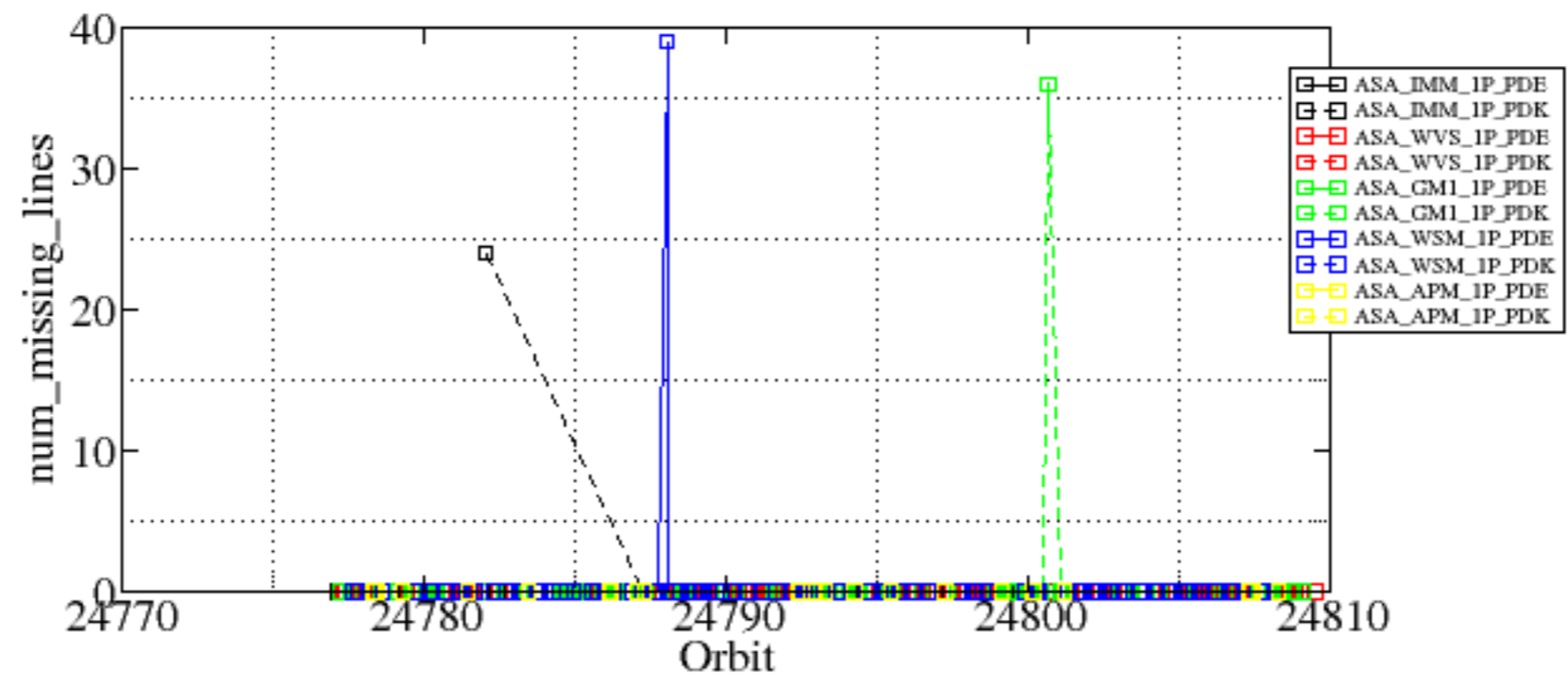


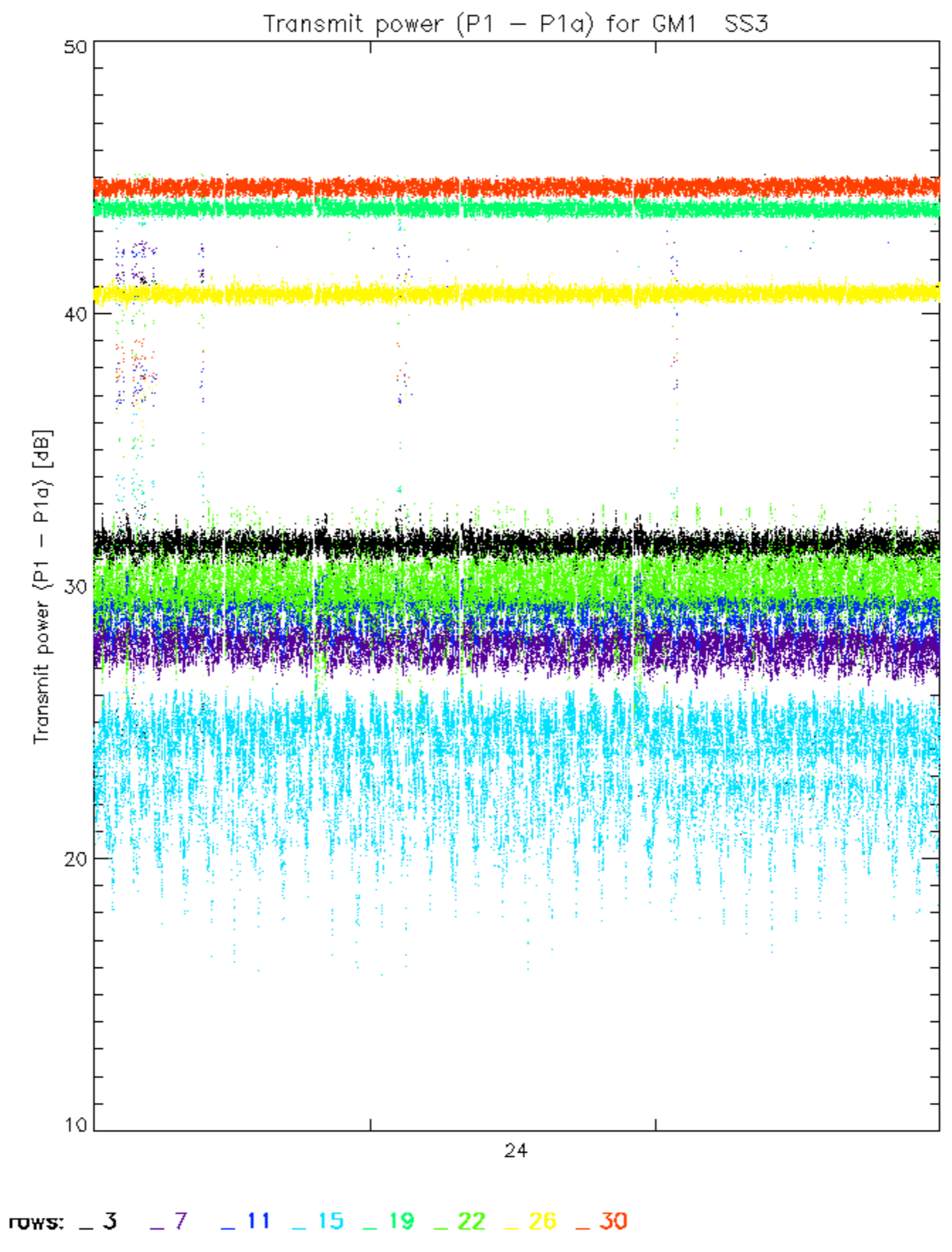


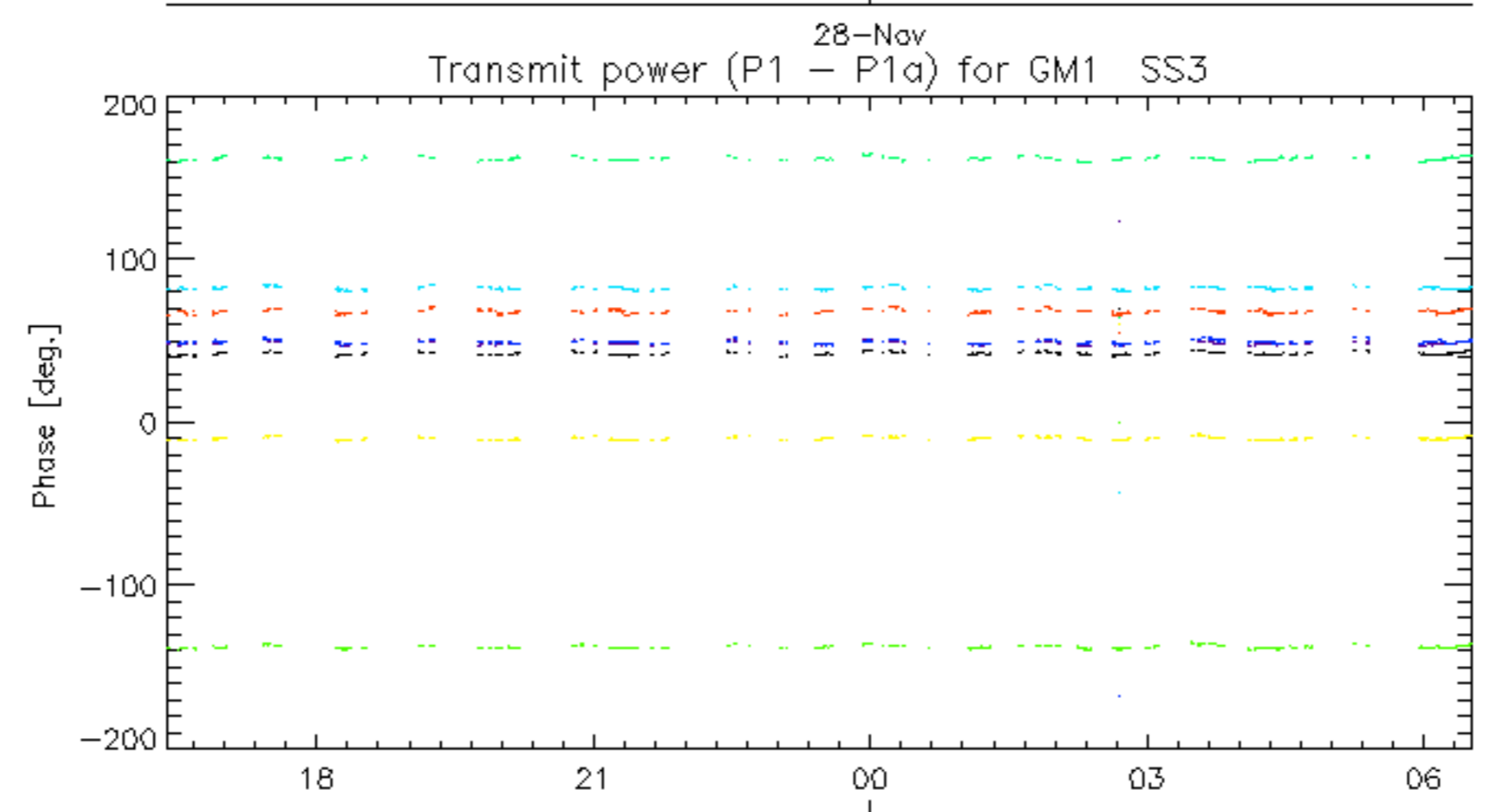
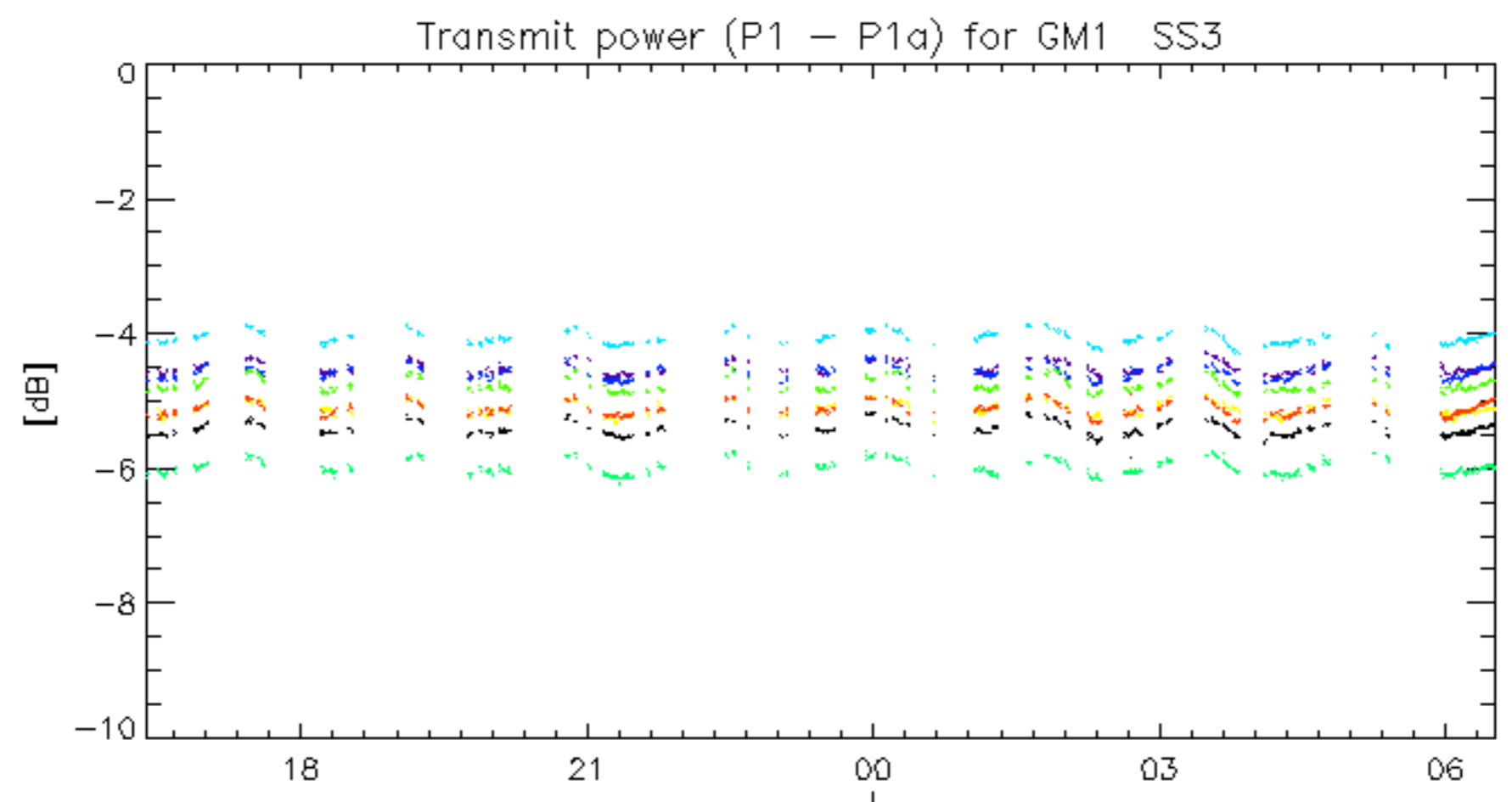
Summary of analysis for the last 3 days 2006112[678]

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

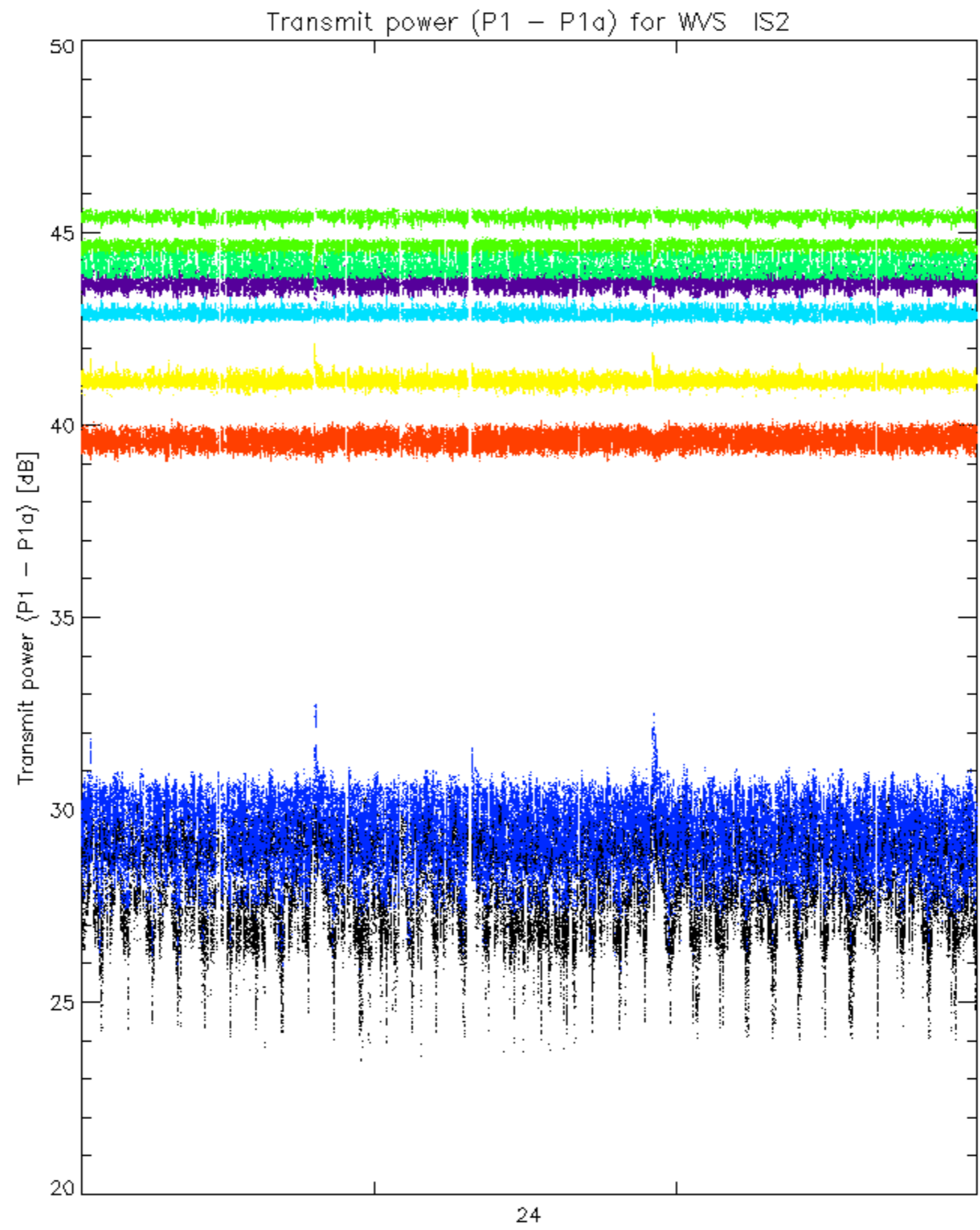
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20061126_004059_000000622053_00174_24777_9130.N1	1	0
ASA_IMM_1PNPDK20061126_083104_000000352053_00179_24782_4085.N1	0	24
ASA_GM1_1PNPDK20061127_154433_000009242053_00197_24800_9420.N1	0	36
ASA_WSM_1PNPDE20061126_183459_000000862053_00185_24788_9879.N1	0	39



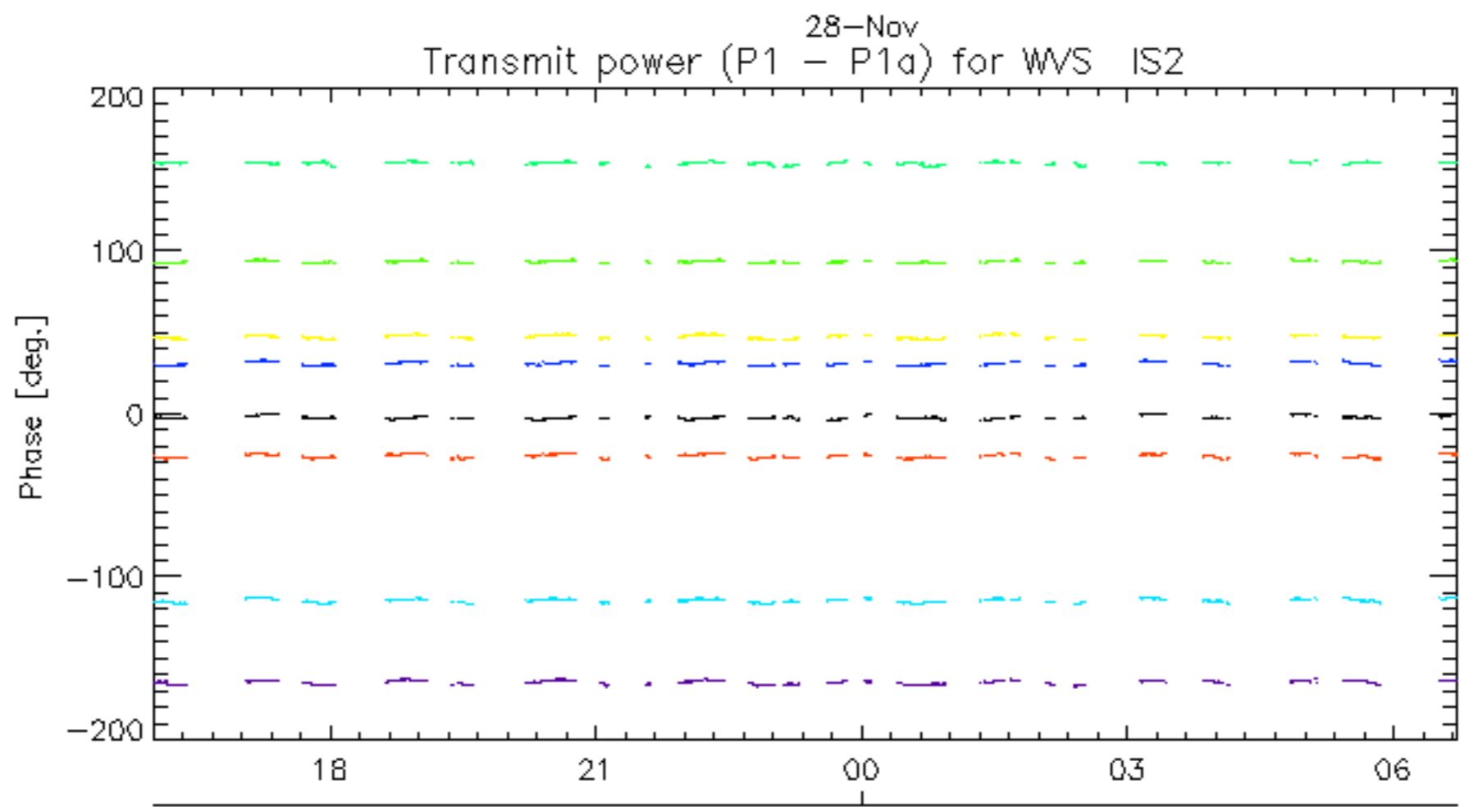
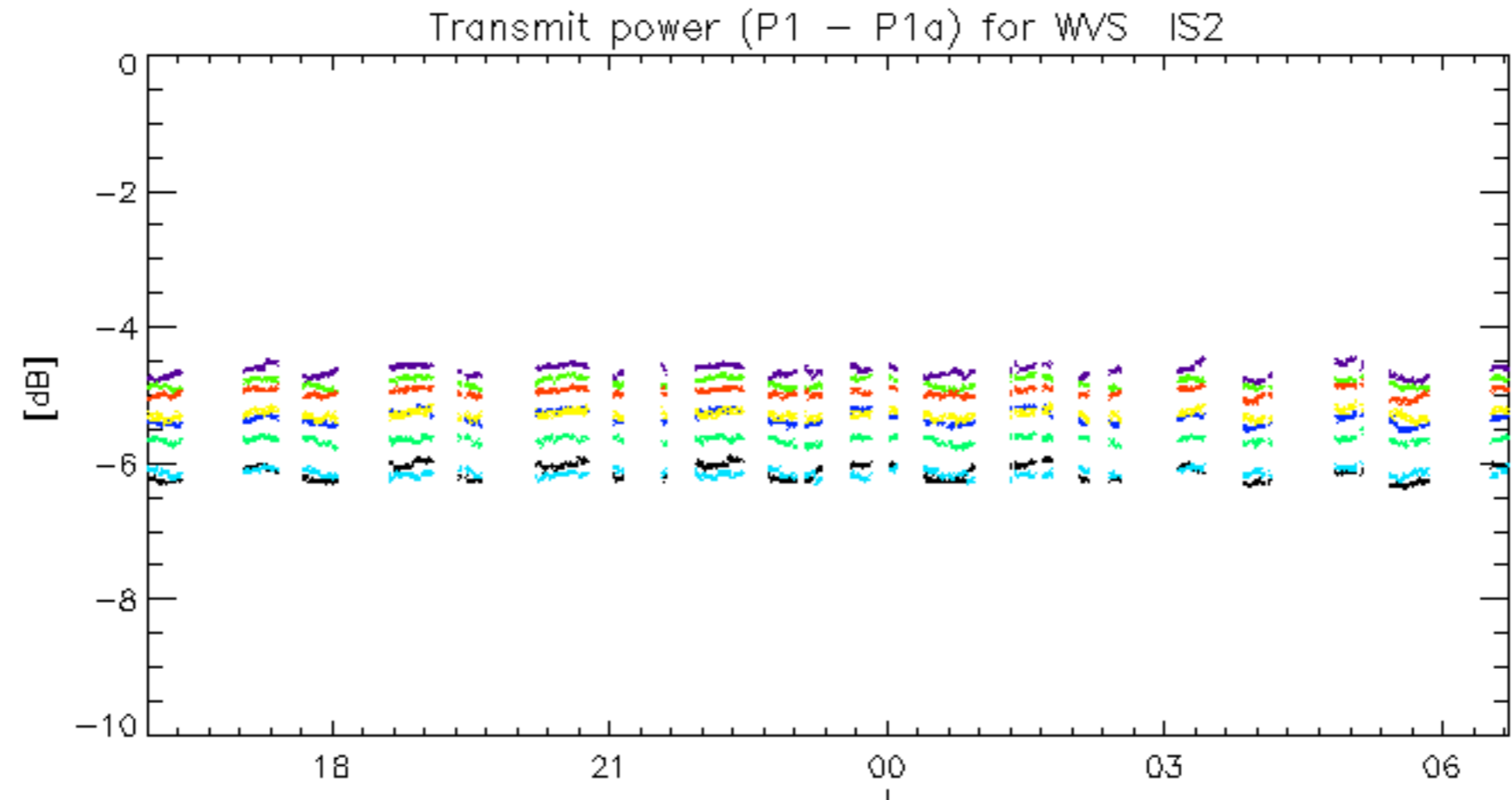




28-Nov
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.