

PRELIMINARY REPORT OF 061218

last update on Mon Dec 18 16:25:41 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 2006-12-17 00:00:00 to 2006-12-18 16:25:41

PDHS-K

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	37	48	34	12	59
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	37	48	34	12	59
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	48	34	12	59
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	48	34	12	59

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	20061216 204905
H	20061215 185036

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	-3.963395	0.008243	0.016615
7	P1	-3.150423	0.024477	0.013908
11	P1	-4.126256	0.026030	0.025471
15	P1	-6.316988	0.015925	-0.042120
19	P1	-3.638419	0.006220	-0.061972
22	P1	-4.653683	0.013531	-0.004600
26	P1	-3.953480	0.010145	-0.024599
30	P1	-5.884954	0.009564	-0.024769
3	P1	-16.541368	0.246976	0.020627
7	P1	-17.293802	0.183772	-0.057279
11	P1	-17.194685	0.470622	0.052513
15	P1	-13.062514	0.140003	0.031707
19	P1	-14.965914	0.092959	-0.095232
22	P1	-15.826688	0.553947	-0.025259
26	P1	-15.060556	0.194629	-0.136739
30	P1	-17.503408	0.479315	-0.112190

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.817196	0.095264	0.068783
7	P2	-21.731176	0.097225	0.015490
11	P2	-15.611820	0.106437	0.154316
15	P2	-7.117761	0.110762	0.021647
19	P2	-9.189690	0.109103	-0.011761
22	P2	-18.235731	0.101762	0.011781
26	P2	-16.574549	0.116737	-0.059862
30	P2	-19.464378	0.092065	0.043135

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.244322	0.009116	0.020246

7	P3	-8.244322	0.009116	0.020246
11	P3	-8.244322	0.009116	0.020246
15	P3	-8.244322	0.009116	0.020246
19	P3	-8.244322	0.009116	0.020246
22	P3	-8.244322	0.009116	0.020246
26	P3	-8.244365	0.009119	0.020476
30	P3	-8.244365	0.009119	0.020476

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	-3.915367	0.017821	-0.029553
7	P1	-2.486151	0.035712	0.037538
11	P1	-2.853895	0.019177	-0.015362
15	P1	-3.686002	0.033472	-0.019757
19	P1	-3.537859	0.017815	-0.041346
22	P1	-5.028634	0.023499	-0.018776
26	P1	-6.019485	0.028311	-0.038374
30	P1	-5.338094	0.039996	-0.032296
3	P1	-11.740474	0.087944	-0.042949
7	P1	-10.059803	0.110727	-0.058944
11	P1	-10.334844	0.139537	-0.057142
15	P1	-10.715935	0.126115	0.026746
19	P1	-15.718260	0.118322	-0.033941
22	P1	-21.569757	1.435366	-0.064091
26	P1	-16.063250	0.338081	0.009908
30	P1	-17.886175	0.373304	-0.017552

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.465826	0.125775	-0.007677
7	P2	-22.230083	0.273048	0.010591
11	P2	-10.909802	0.148808	0.142445
15	P2	-4.983701	0.263339	-0.017606
19	P2	-6.959912	0.249303	-0.030236
22	P2	-8.254309	0.144947	0.015199
26	P2	-24.320765	0.199156	0.036093
30	P2	-21.948685	0.169344	-0.012557

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091866	0.004585	0.021539
7	P3	-8.091928	0.004569	0.021636
11	P3	-8.091915	0.004581	0.021646
15	P3	-8.091748	0.004579	0.021887
19	P3	-8.091856	0.004581	0.021895
22	P3	-8.091851	0.004574	0.021825
26	P3	-8.091805	0.004583	0.021382
30	P3	-8.091731	0.004564	0.021160

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	0.000555829
	stdev	1.71831e-07
MEAN Q	mean	0.000512832
	stdev	2.17102e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138502
	stdev	0.00117543
STDEV Q	mean	0.138888
	stdev	0.00119483



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006121[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_WSM_1PNPDE20061216_230554_000001282053_00474_25077_1497.N1	0	76



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

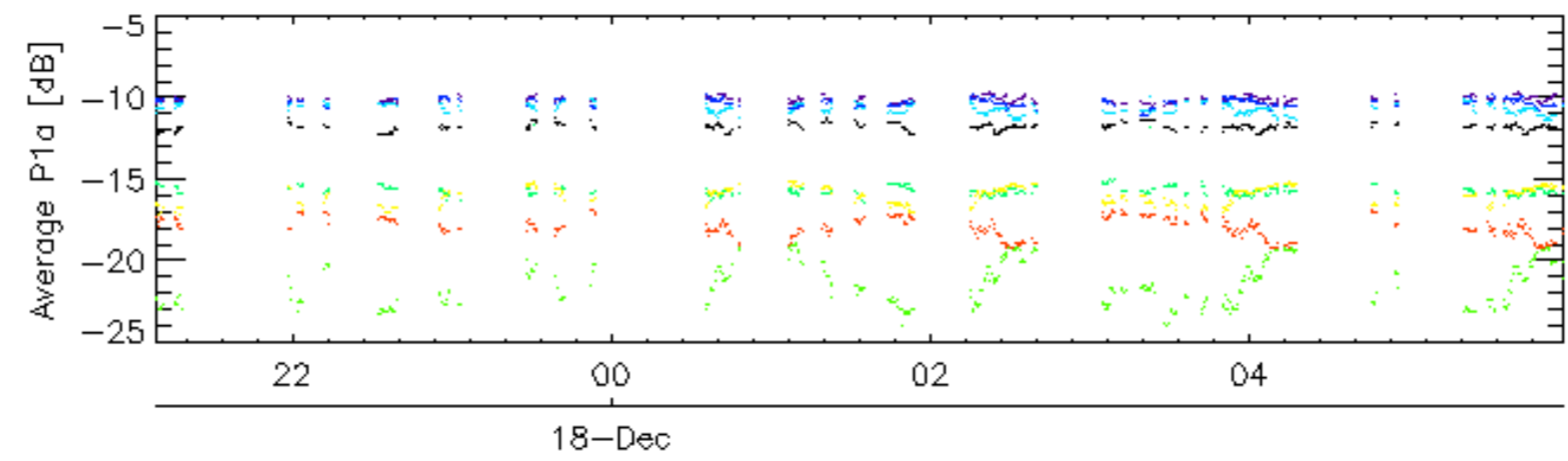
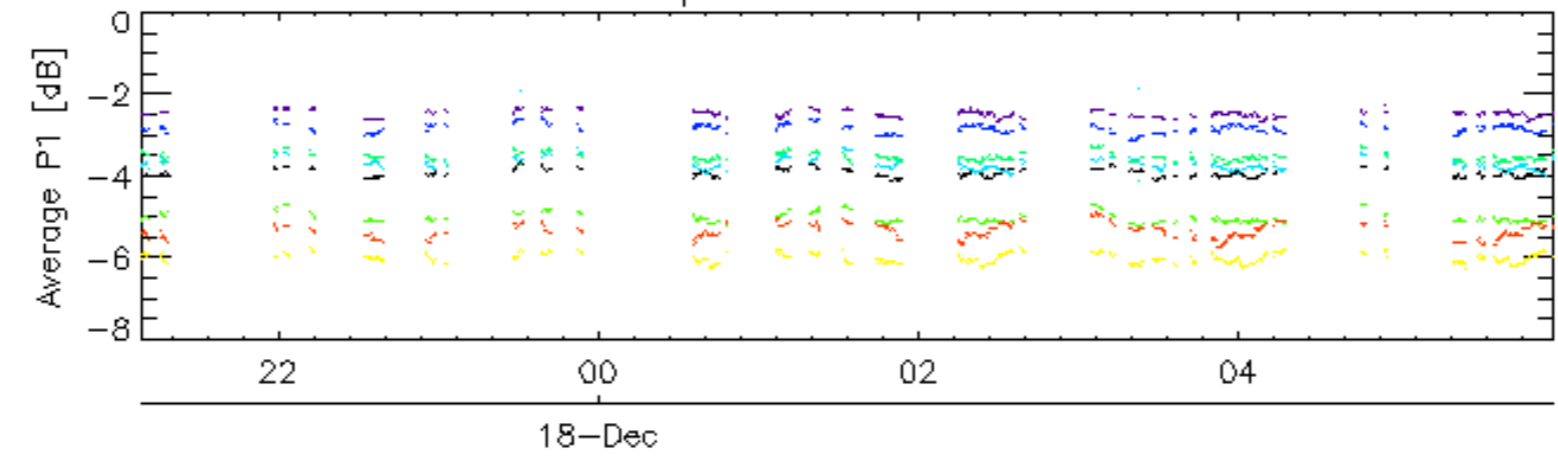
Ascending

Descending

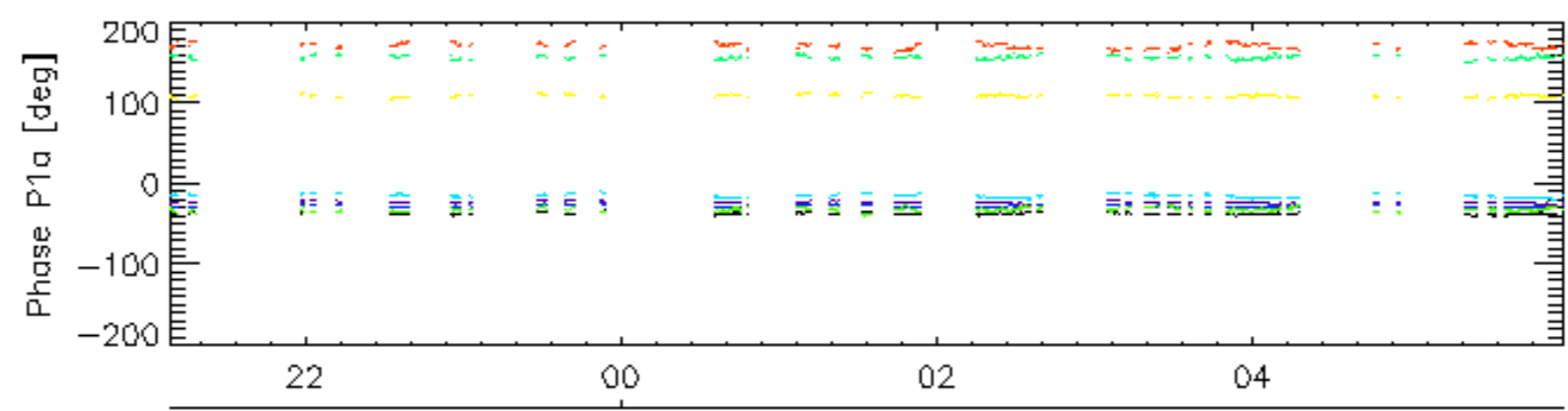
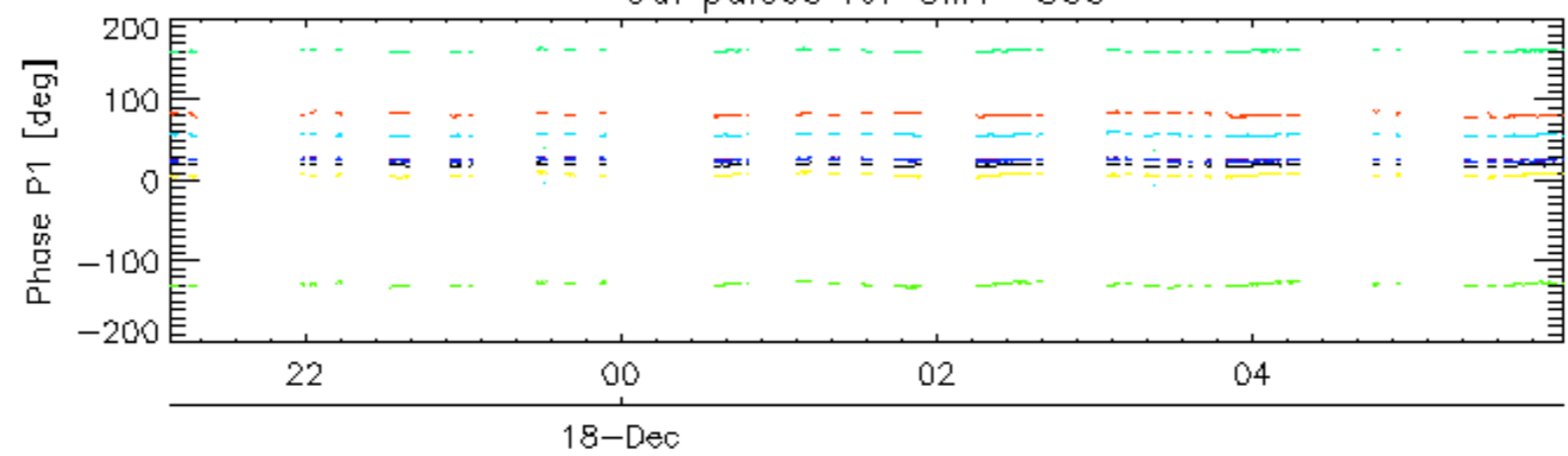
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

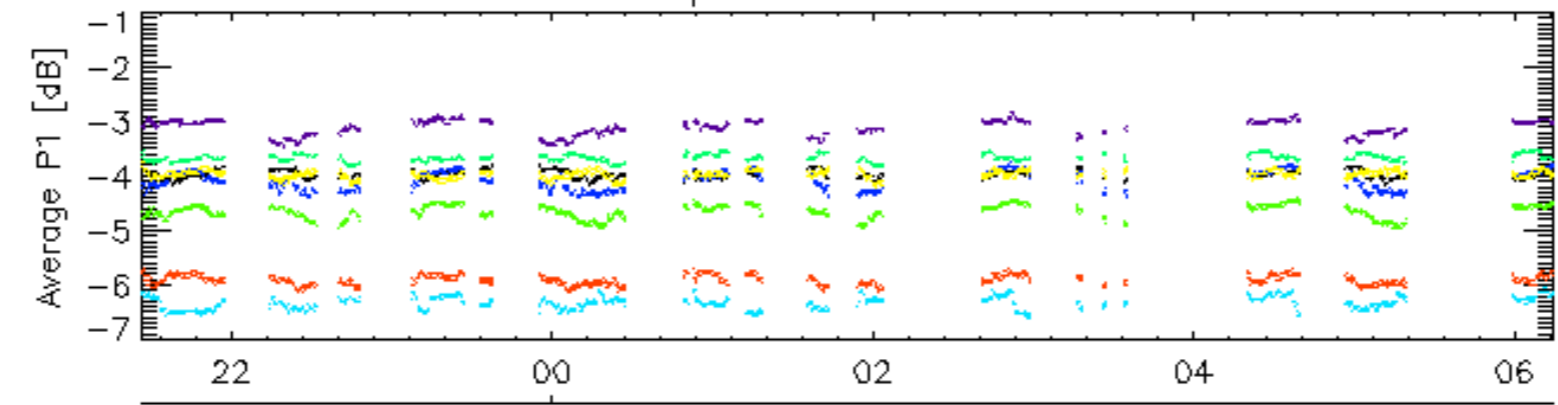


Cal pulses for GM1 SS3

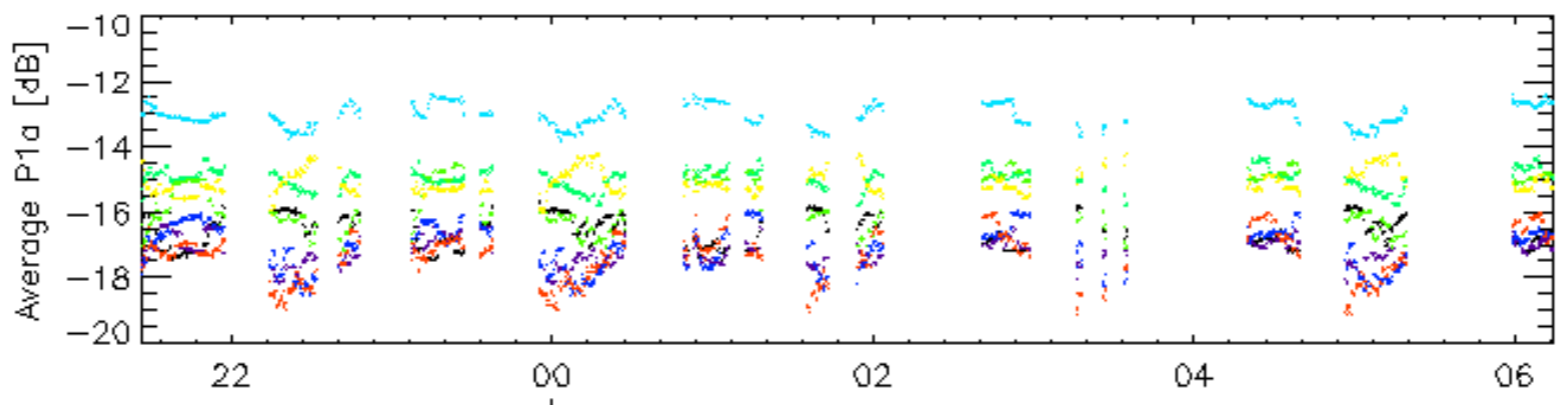


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

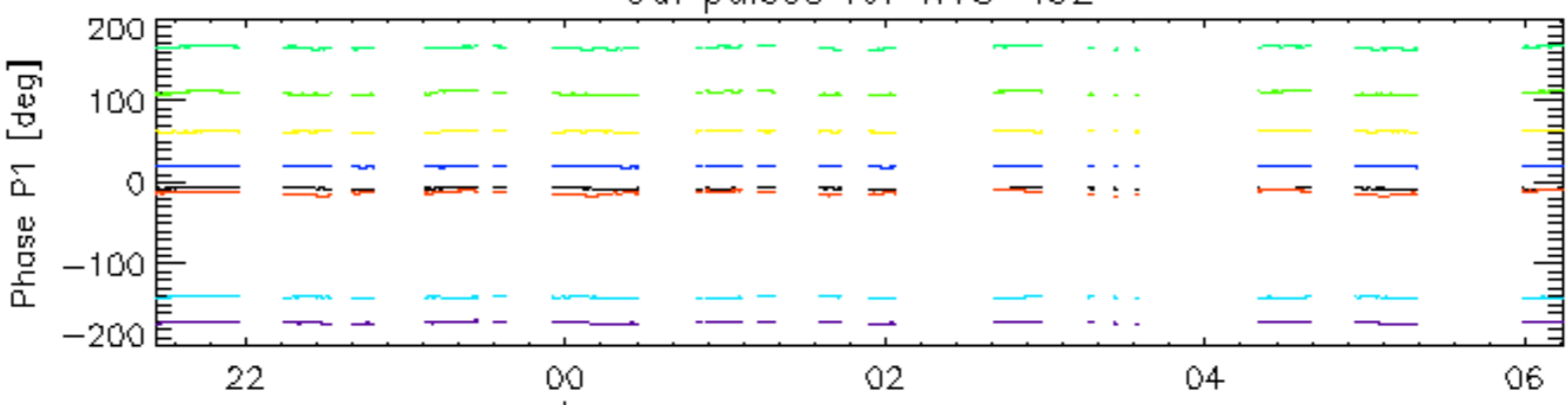


18-Dec

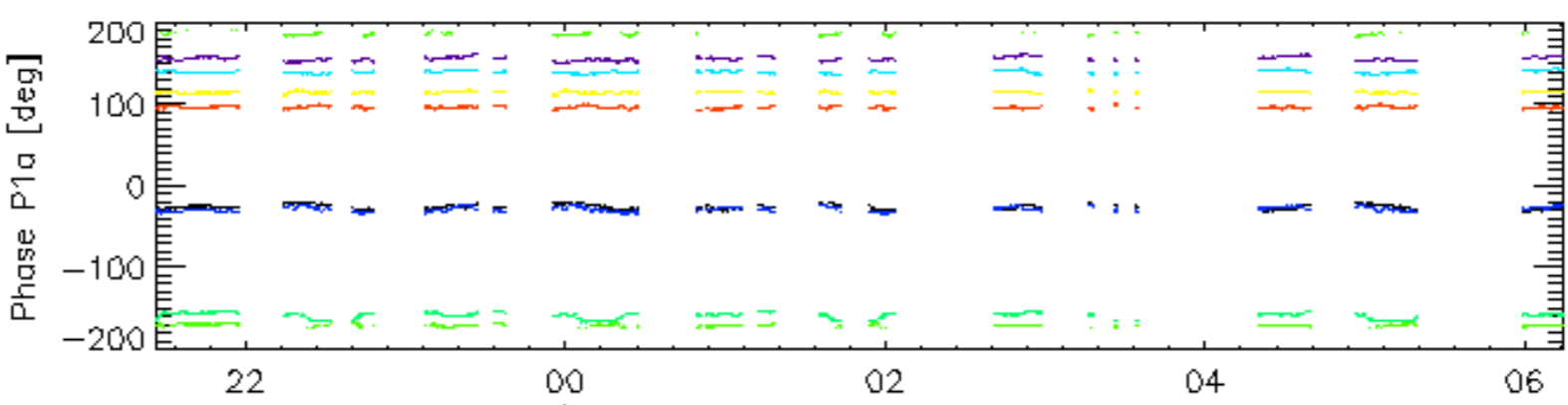


18-Dec

Cal pulses for WVS IS2



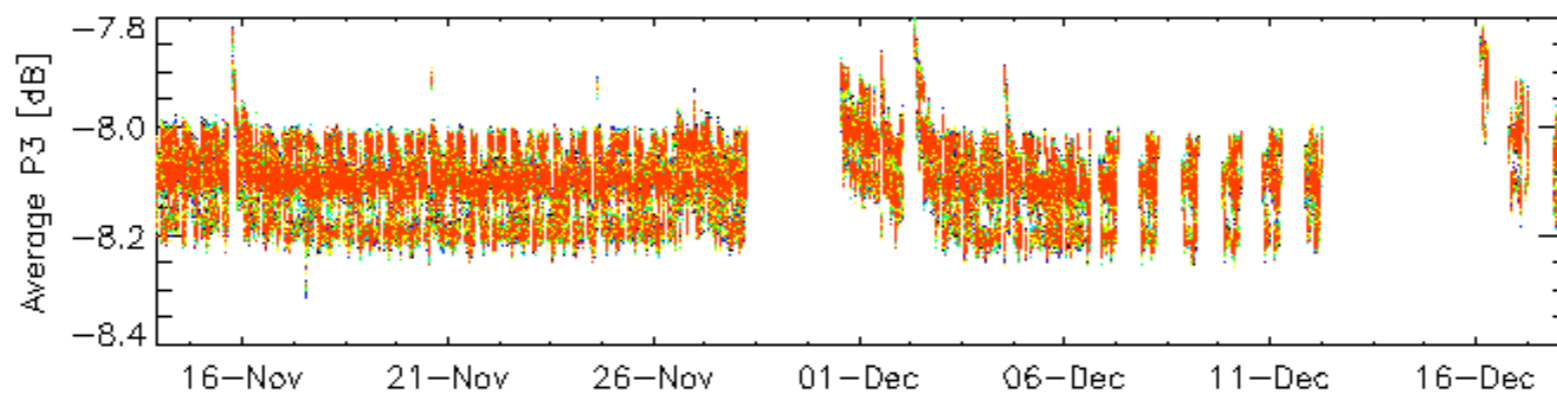
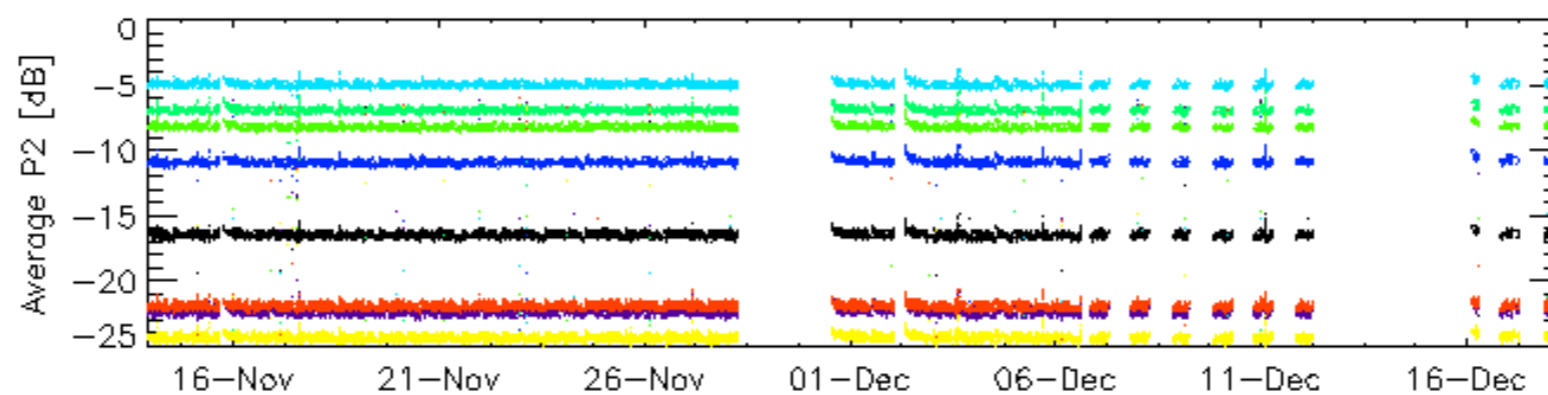
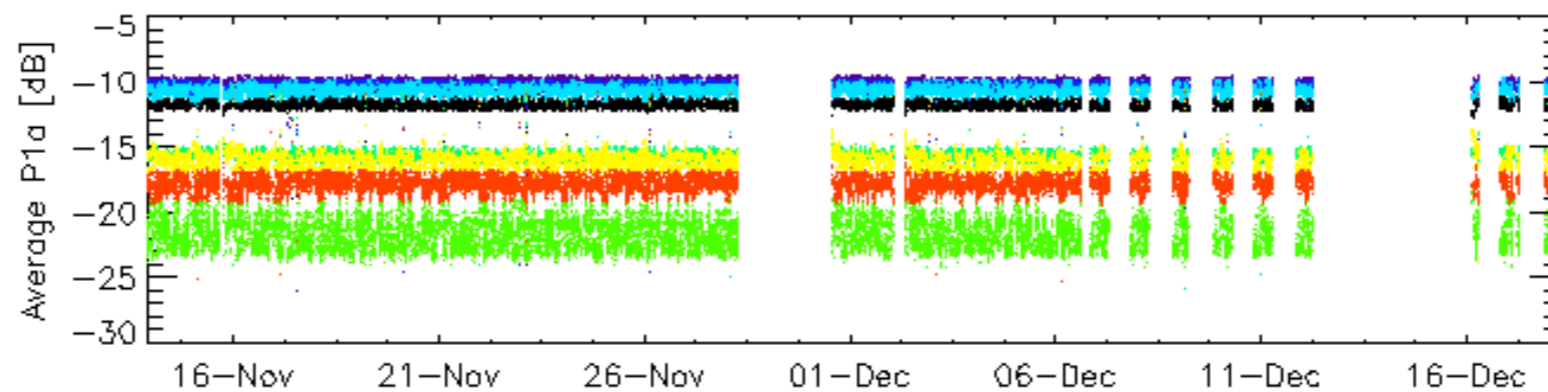
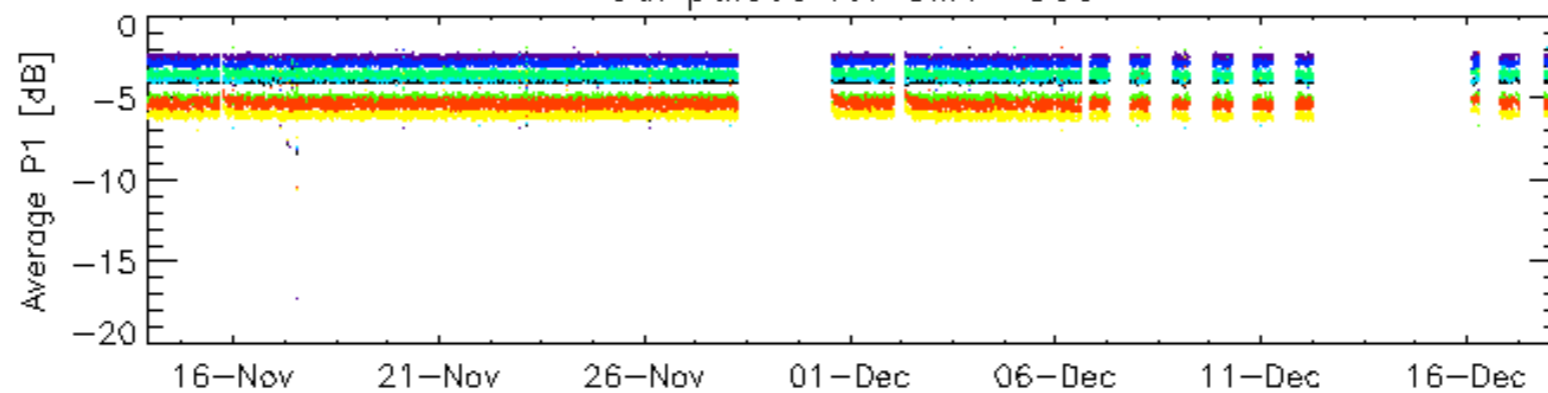
18-Dec



18-Dec

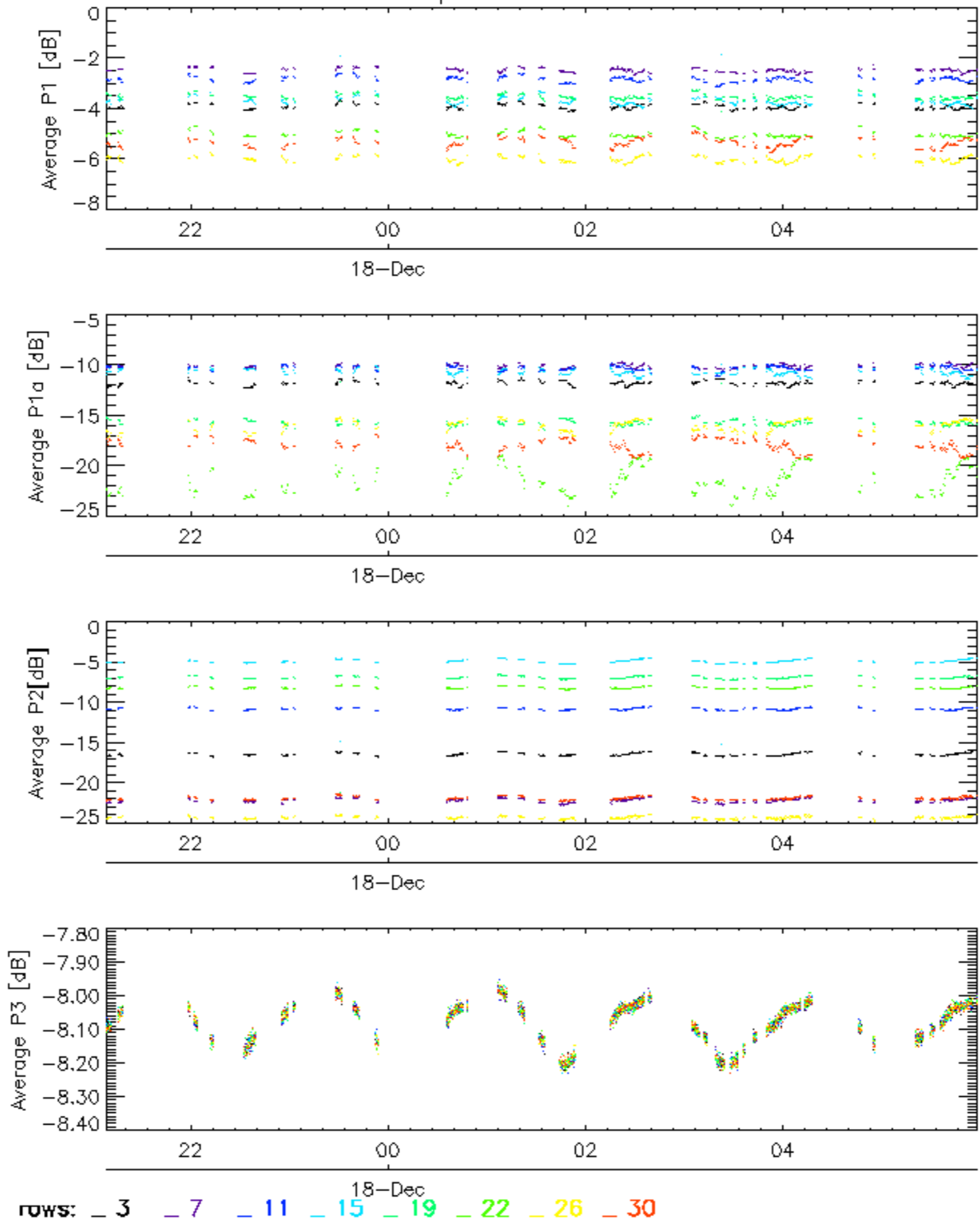
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

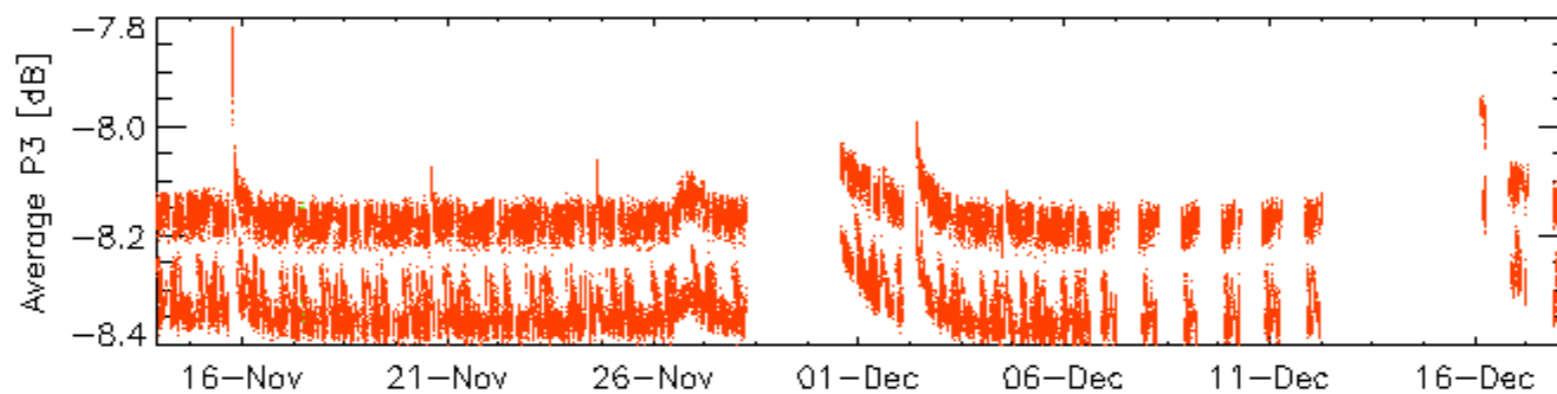
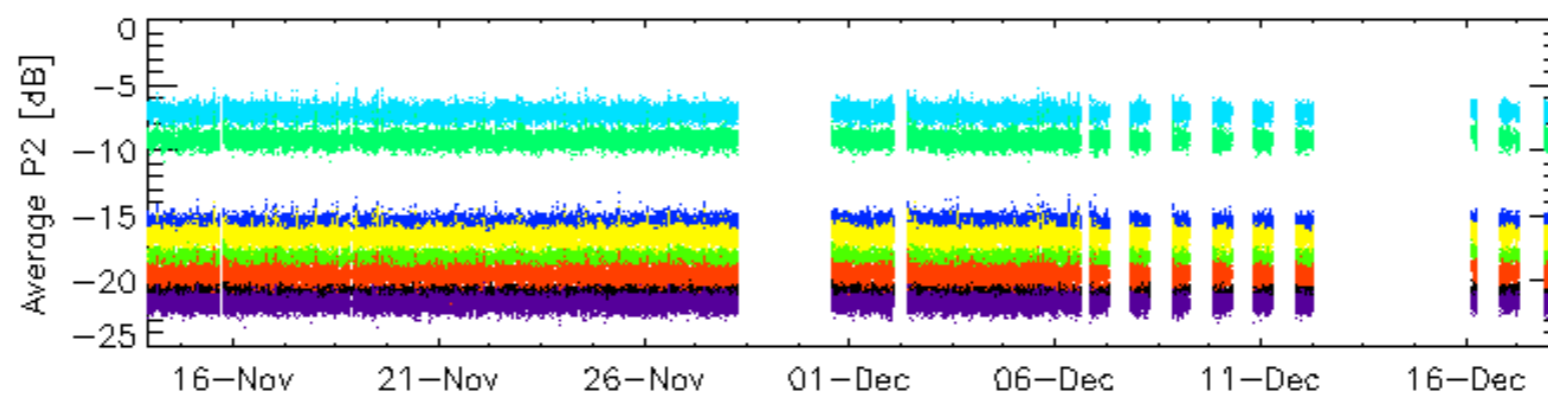
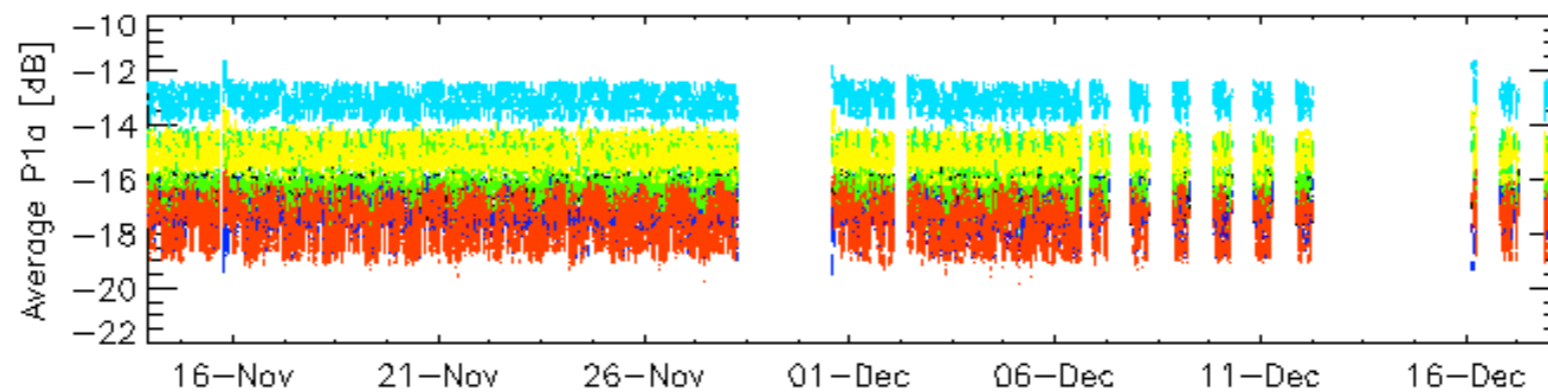
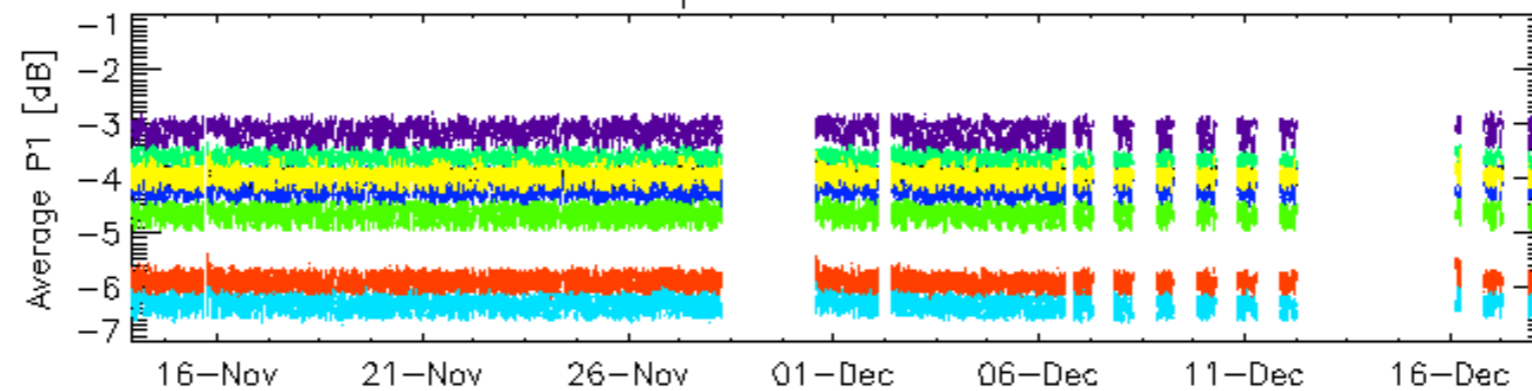


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

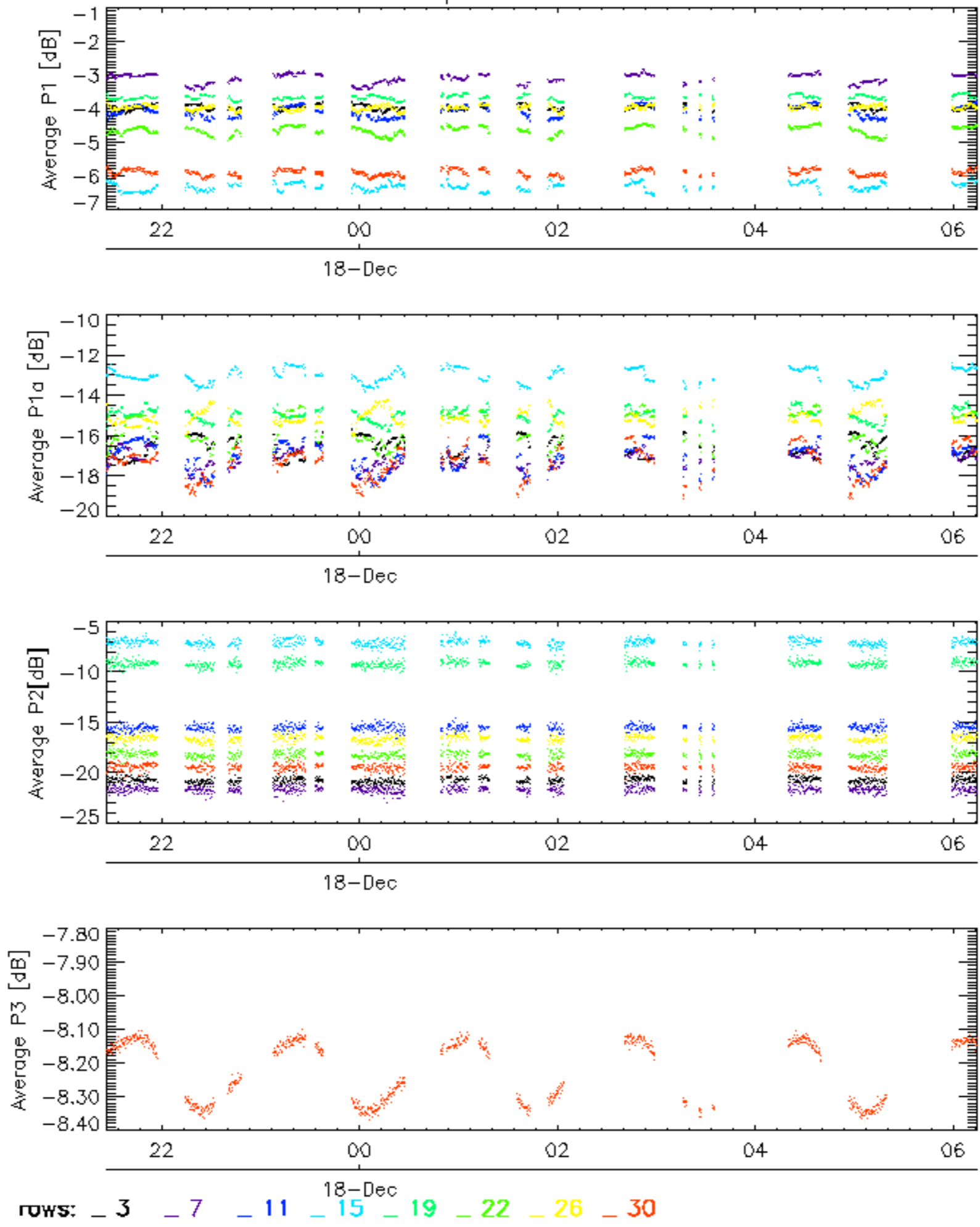


Cal pulses for WVS IS2



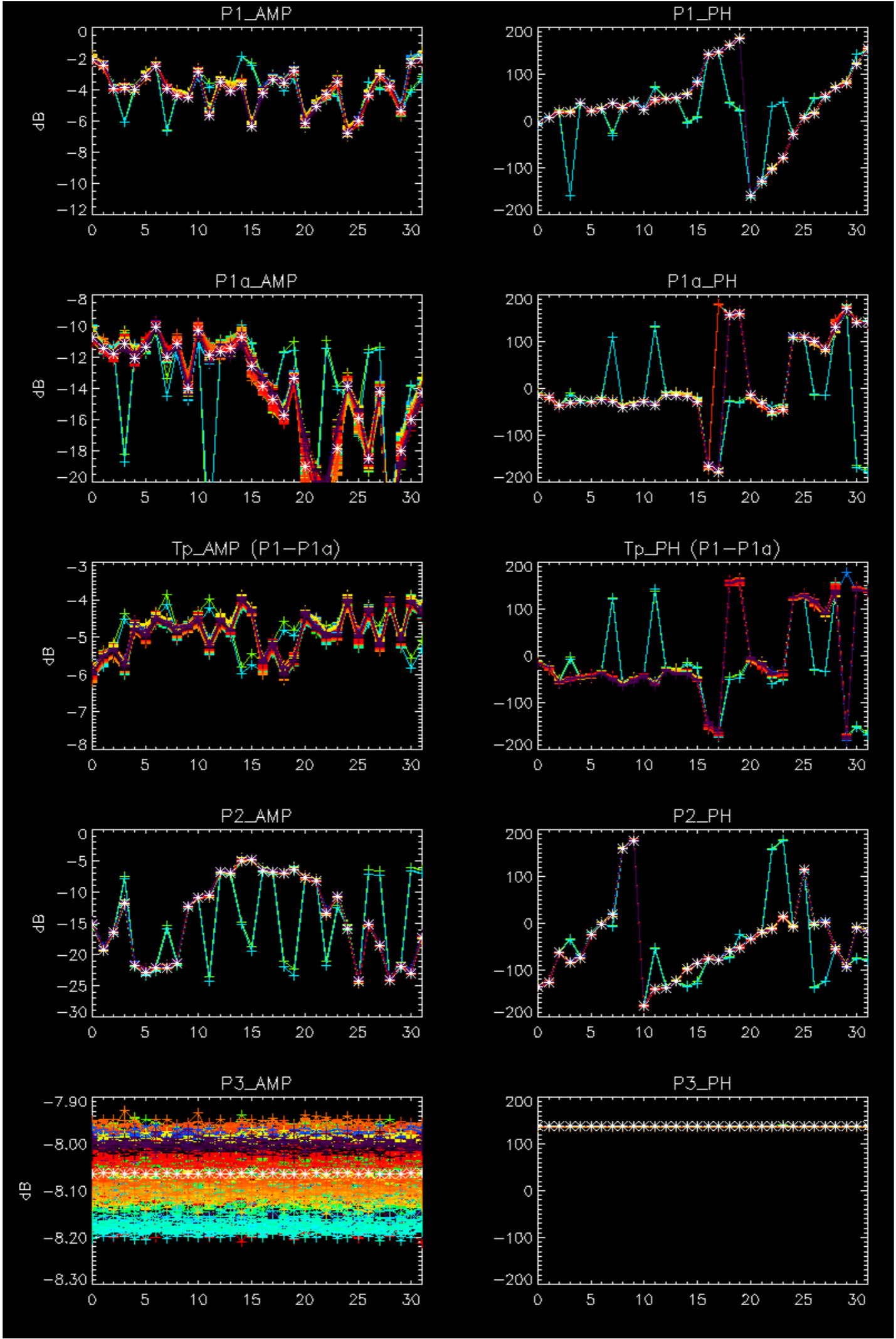
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

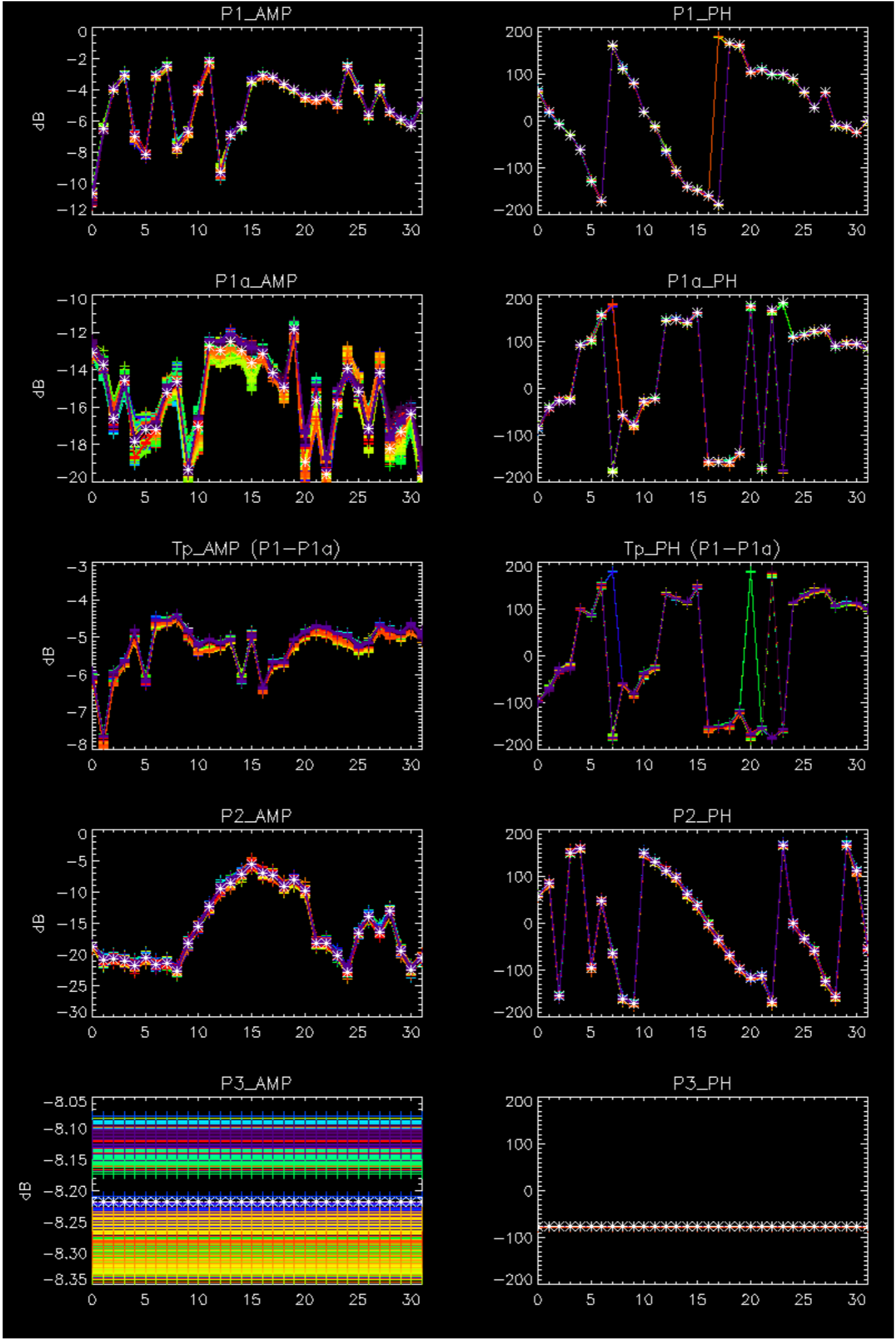
Cal pulses for WVS IS2



No anomalies observed on available browse products

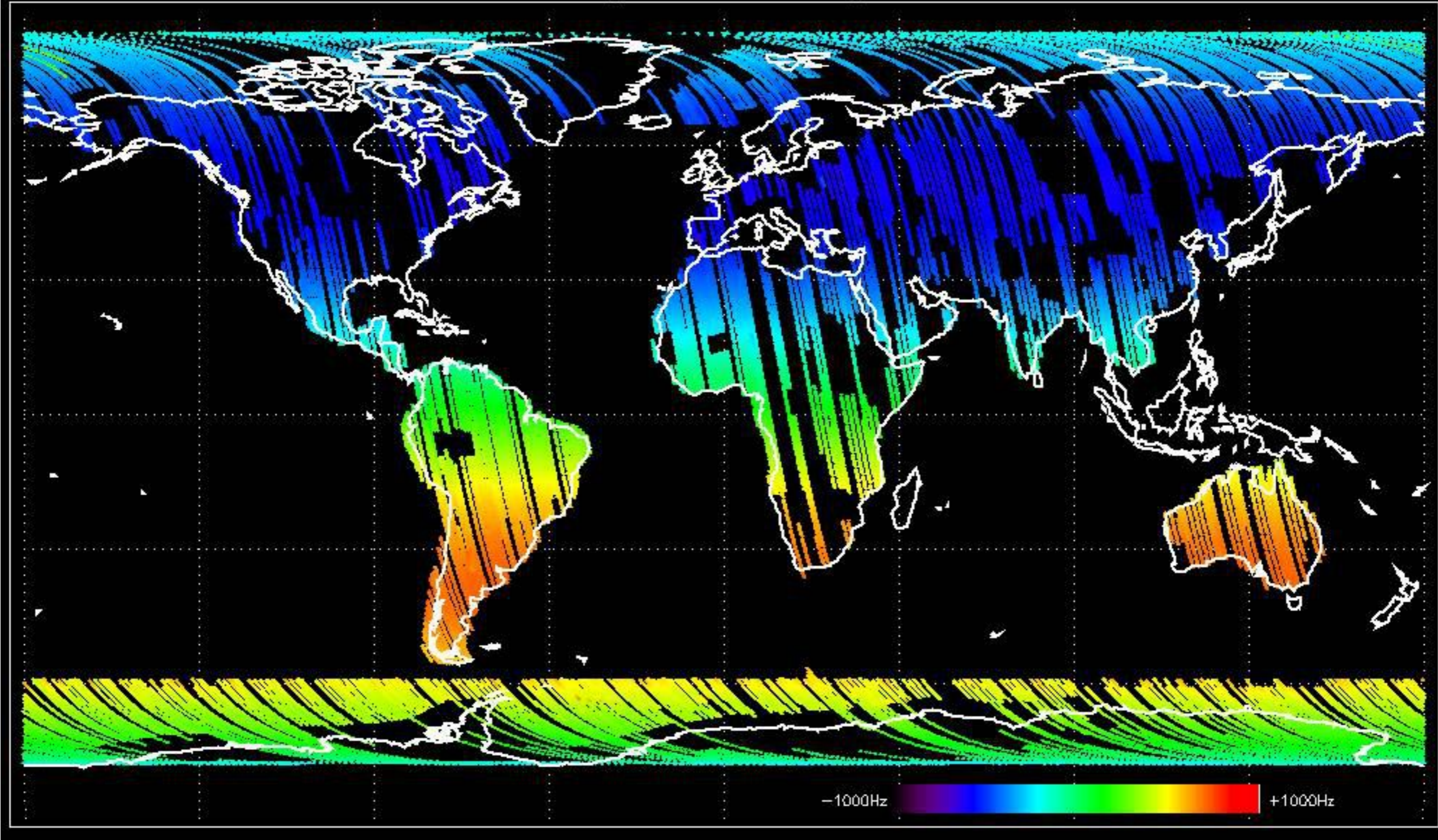
No anomalies observed.



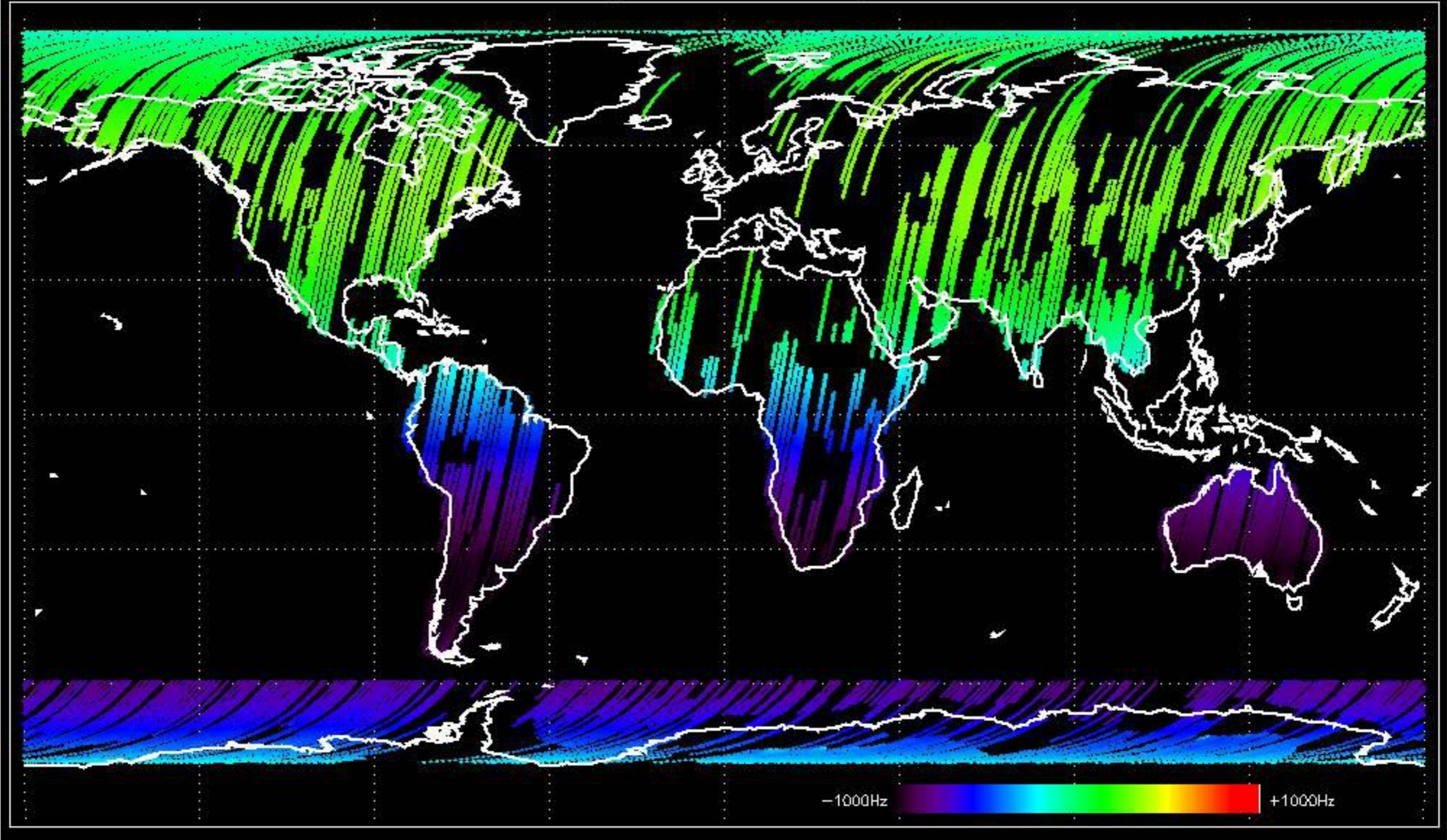


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

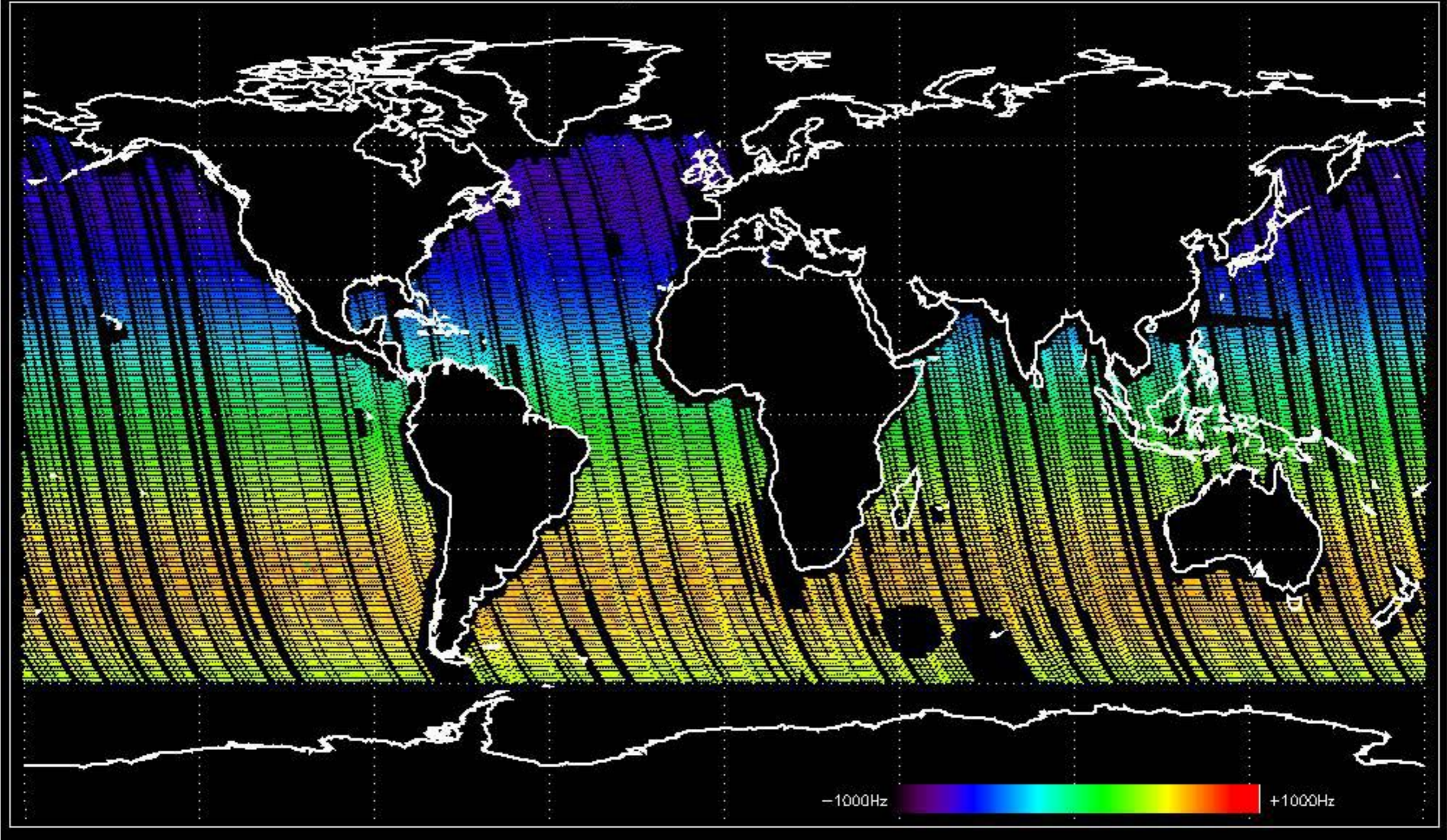
Doppler 'GM1' 'SS1' ascending



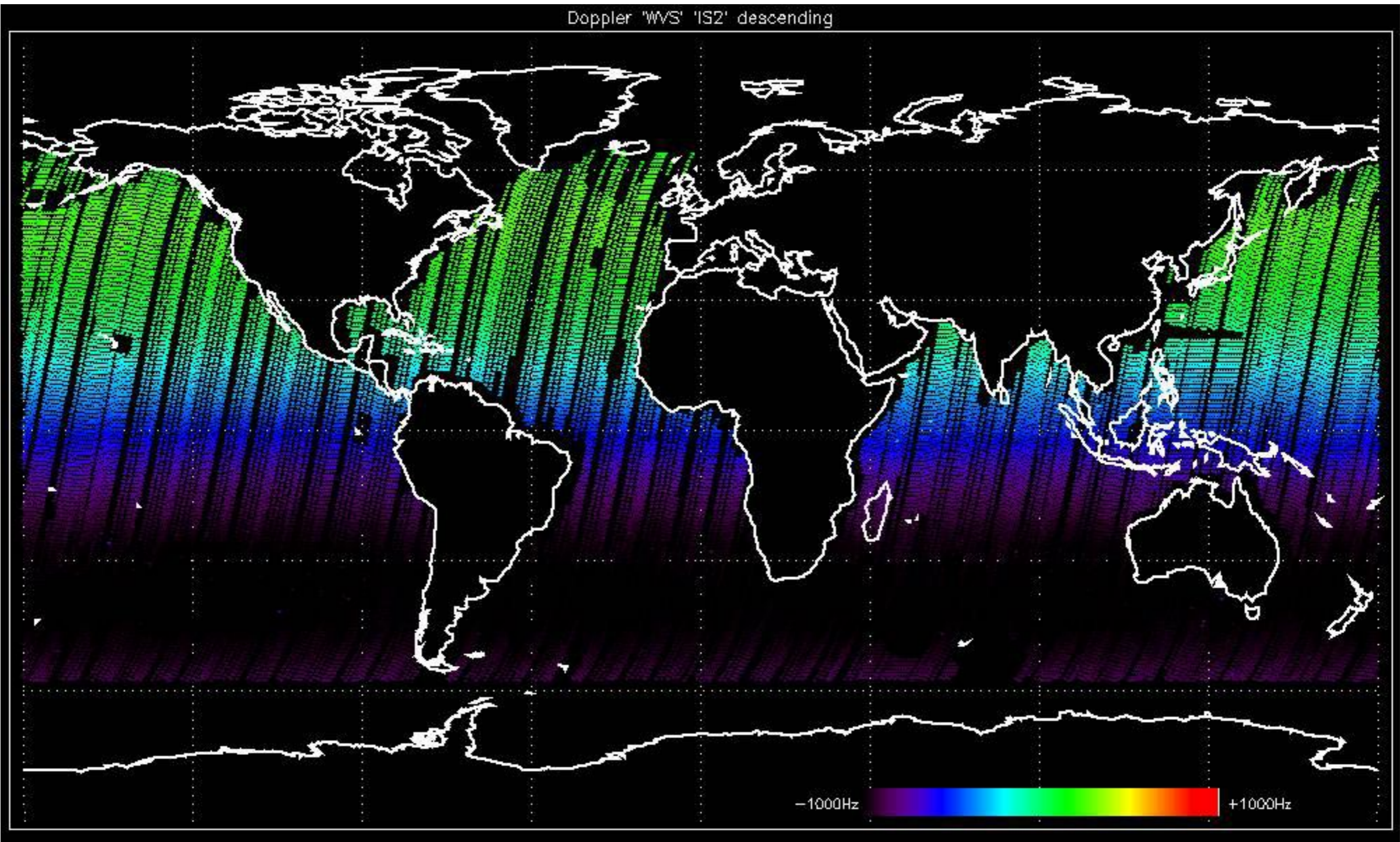
Doppler 'GM1' 'SS1' descending

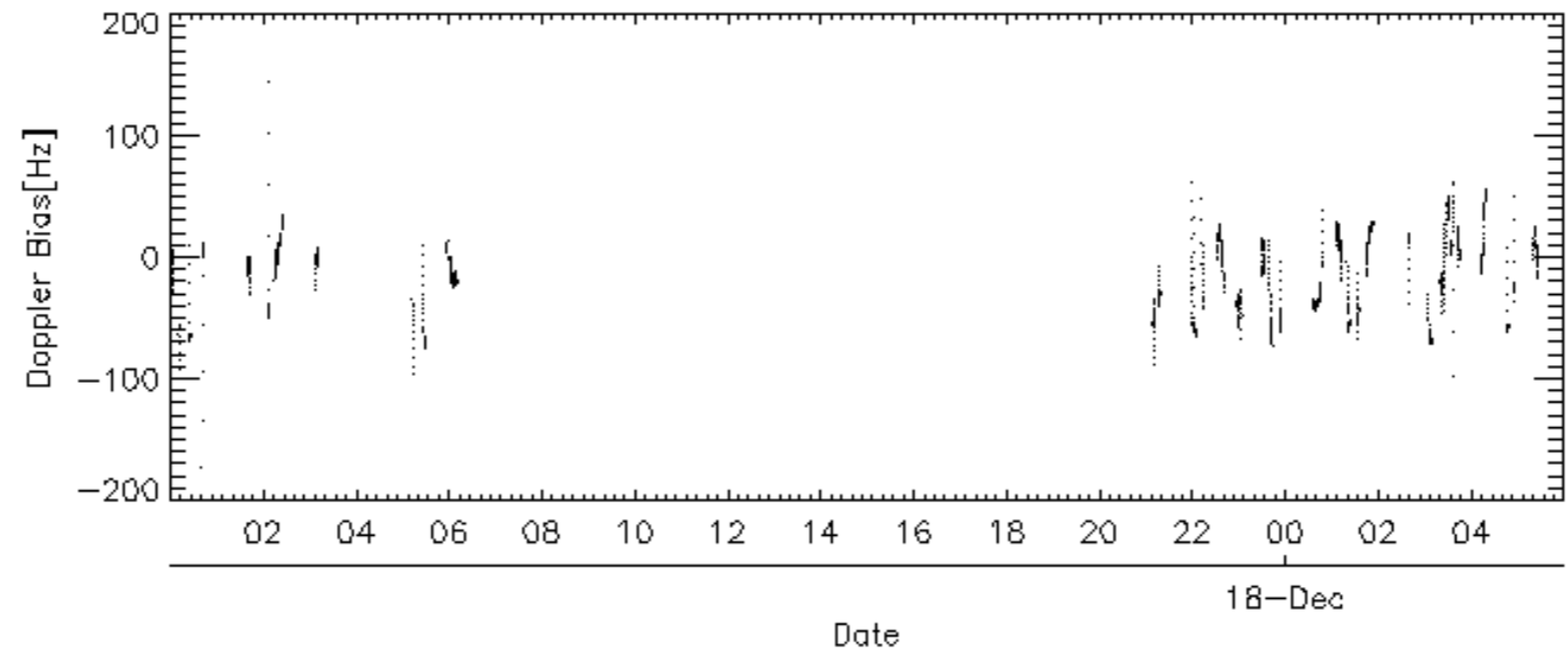
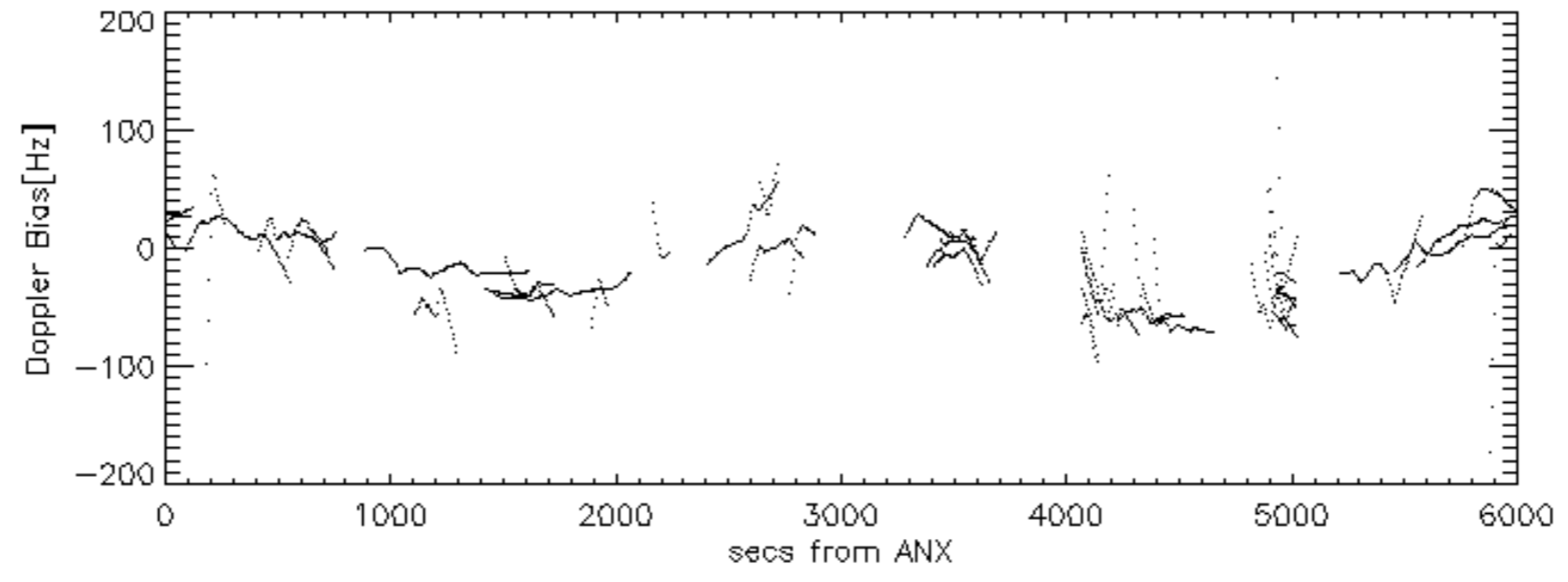
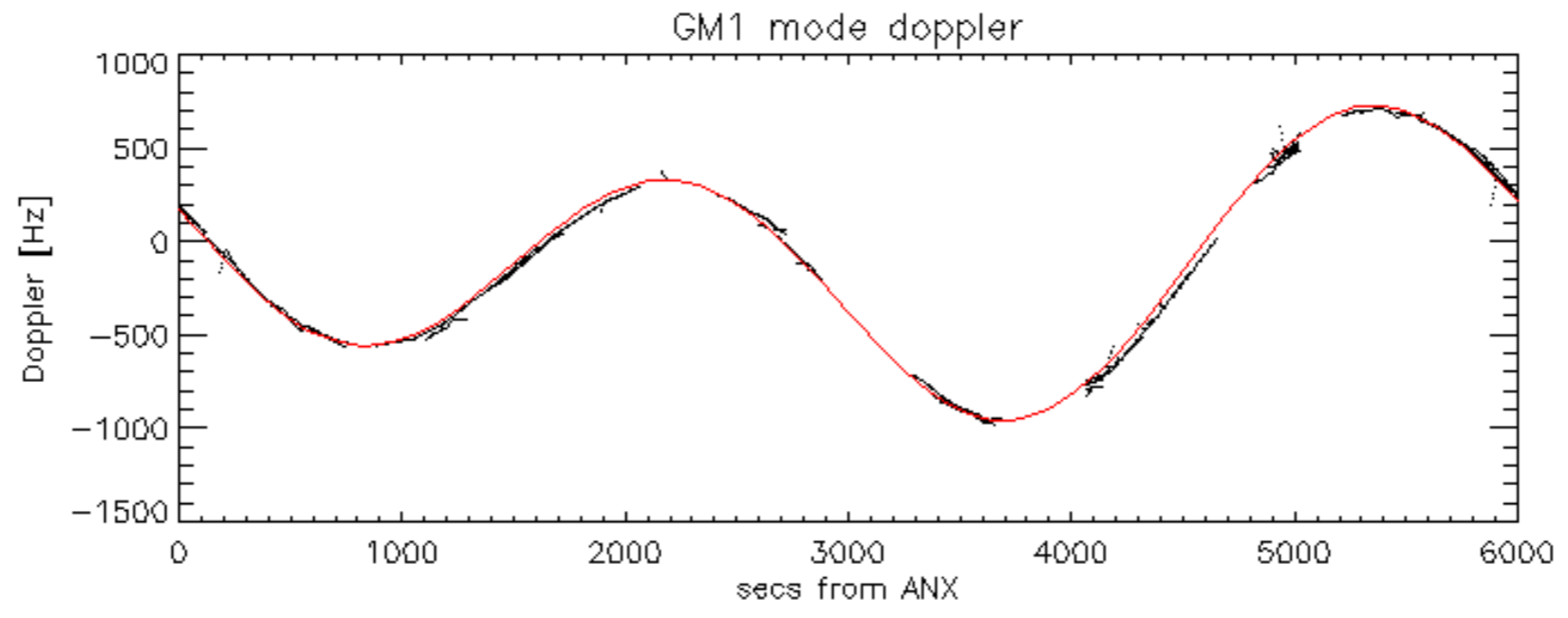


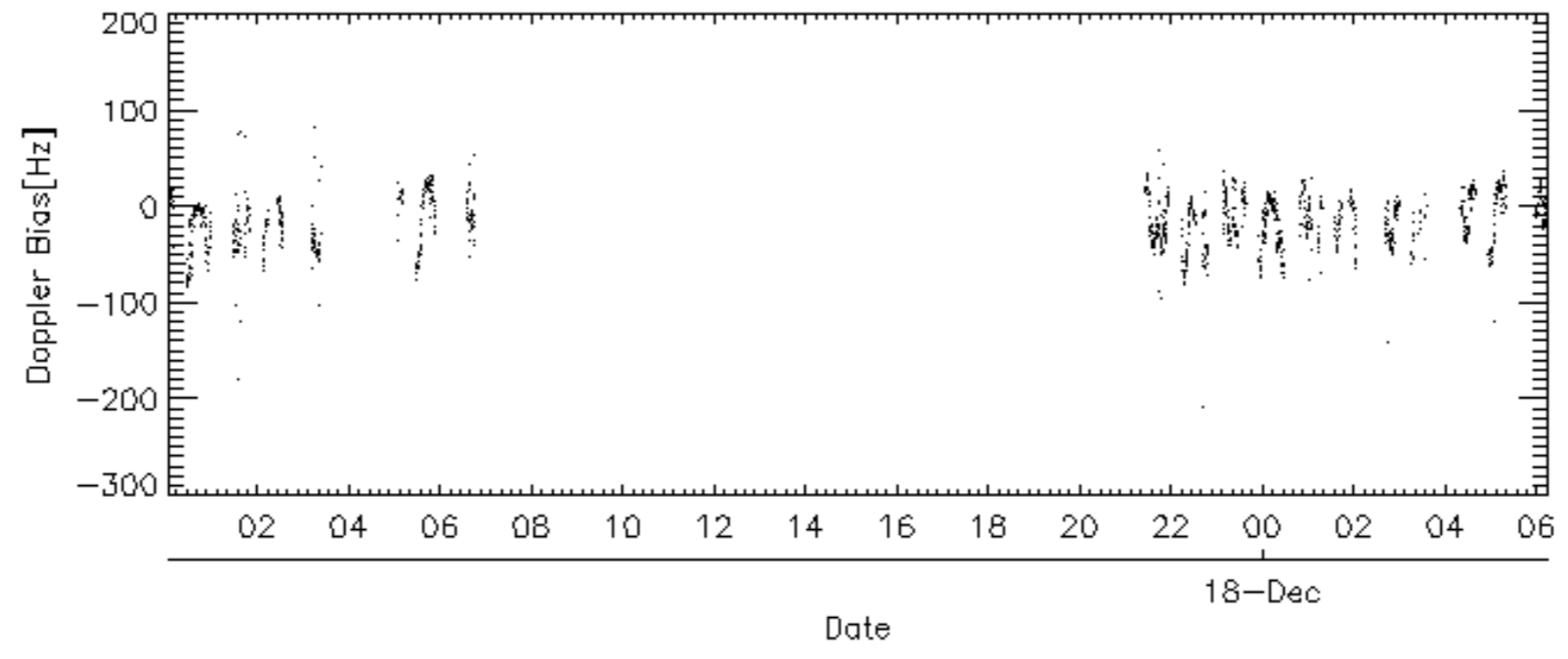
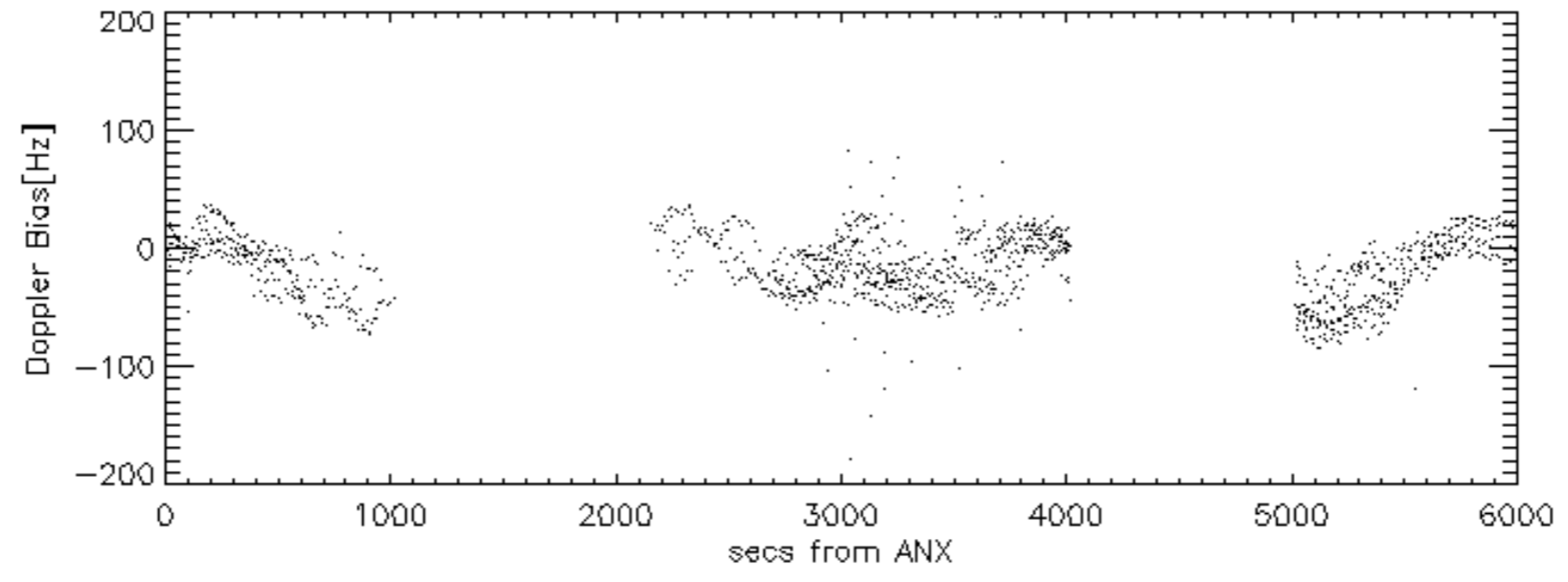
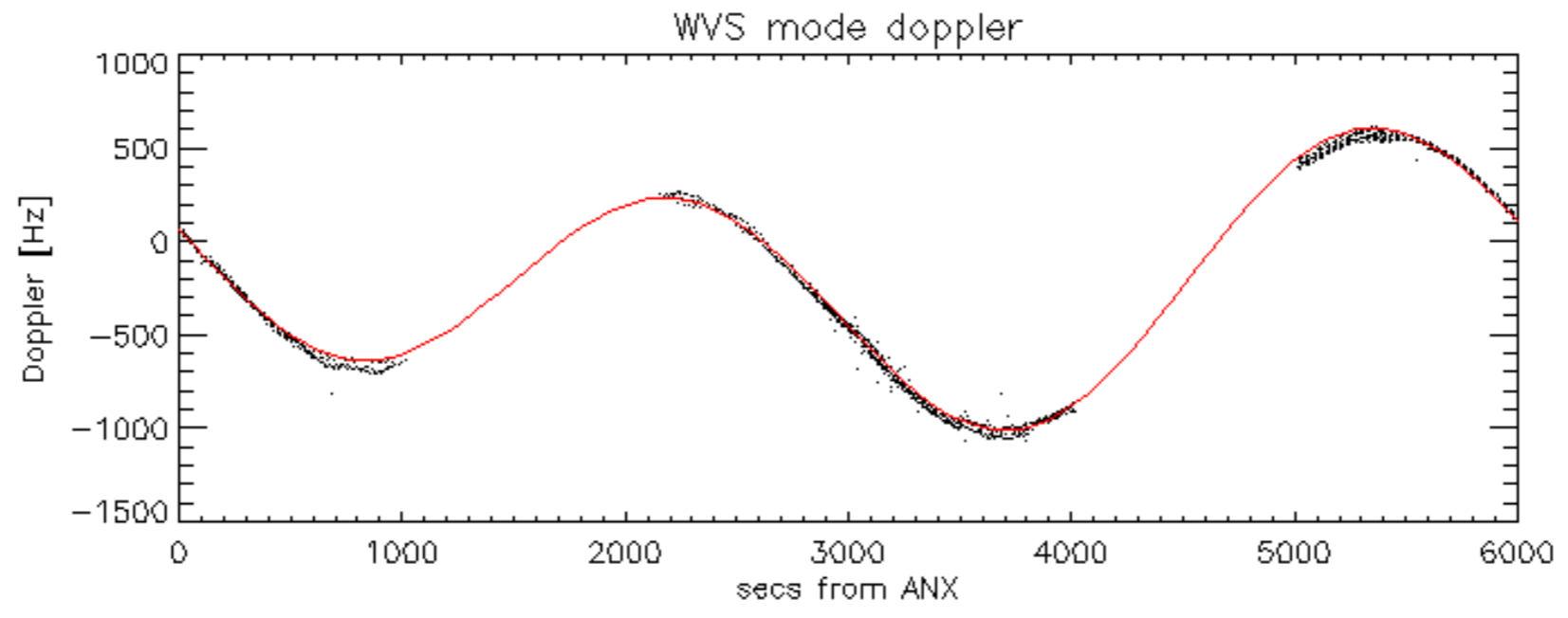
Doppler 'WVS' 'IS2' ascending



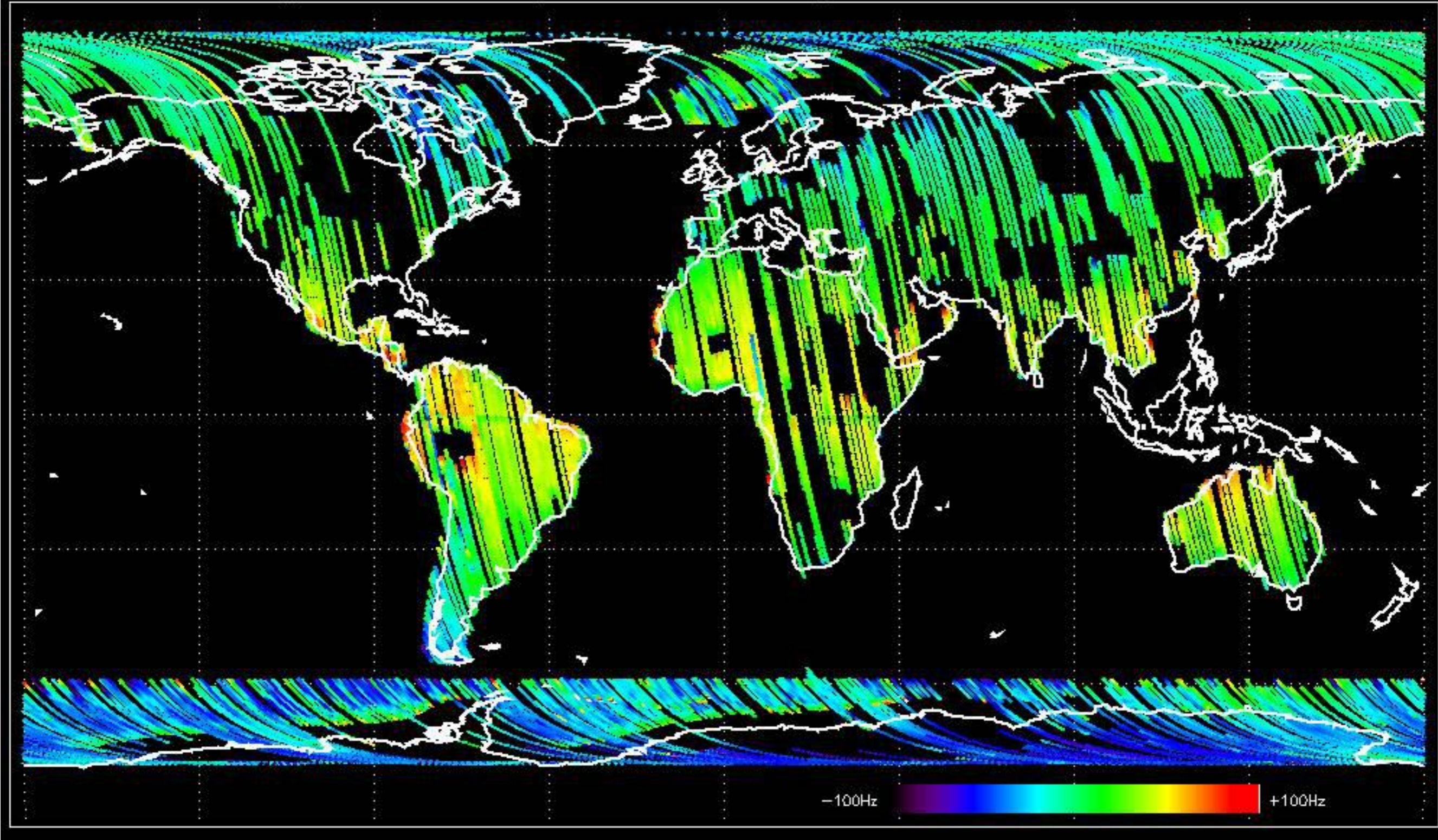
Doppler 'WVS' 'IS2' descending



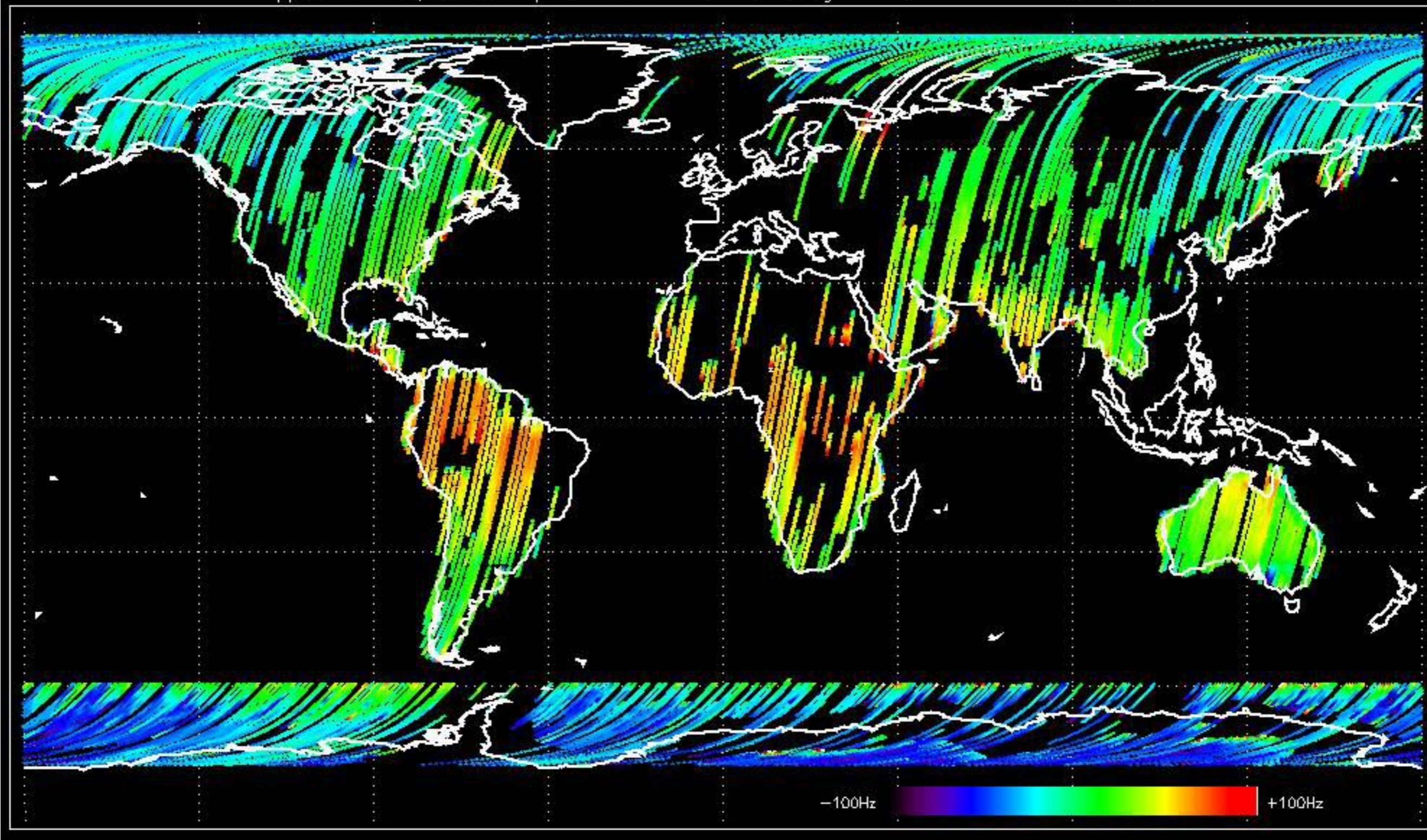




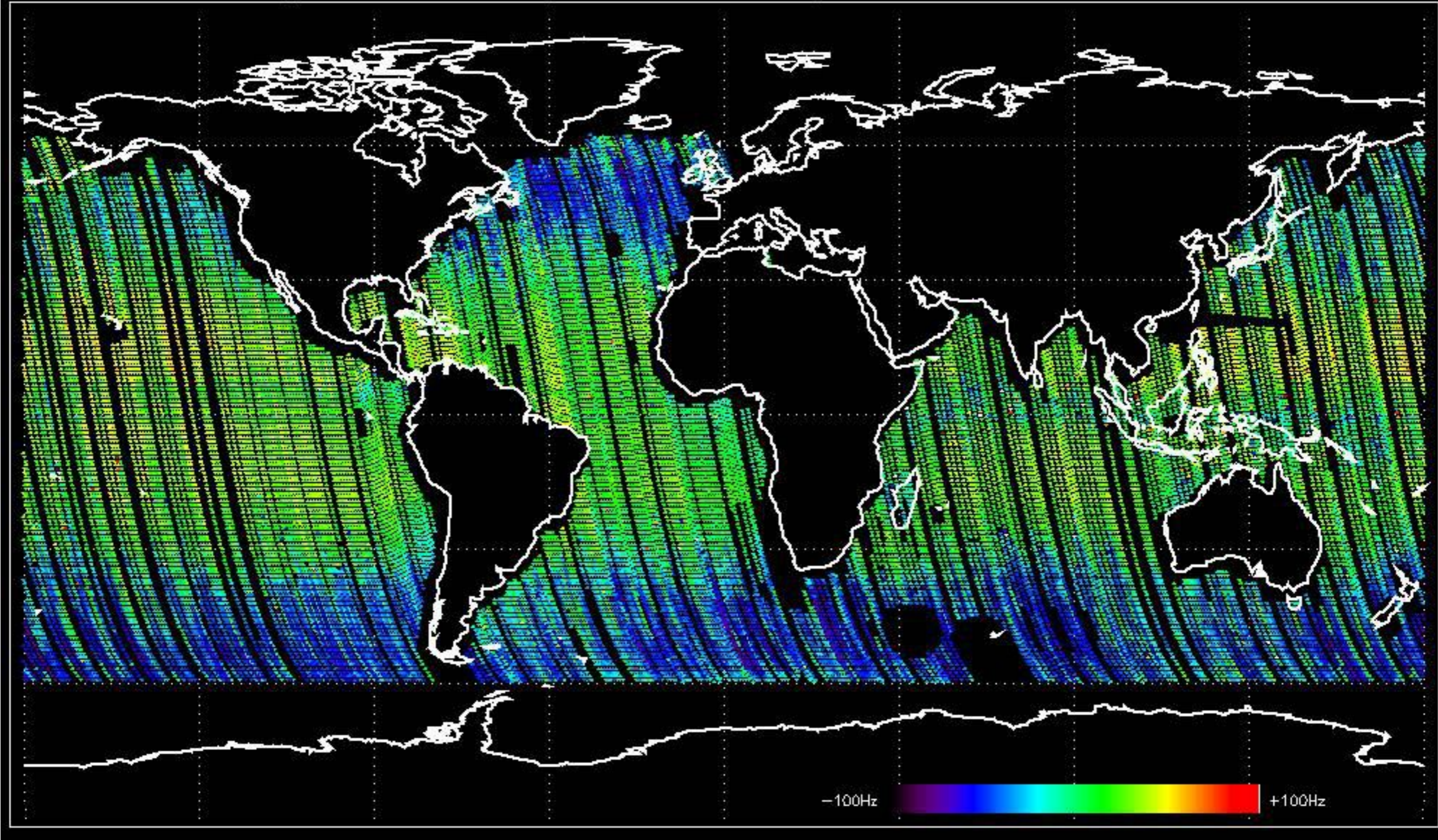
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.474402 Hz



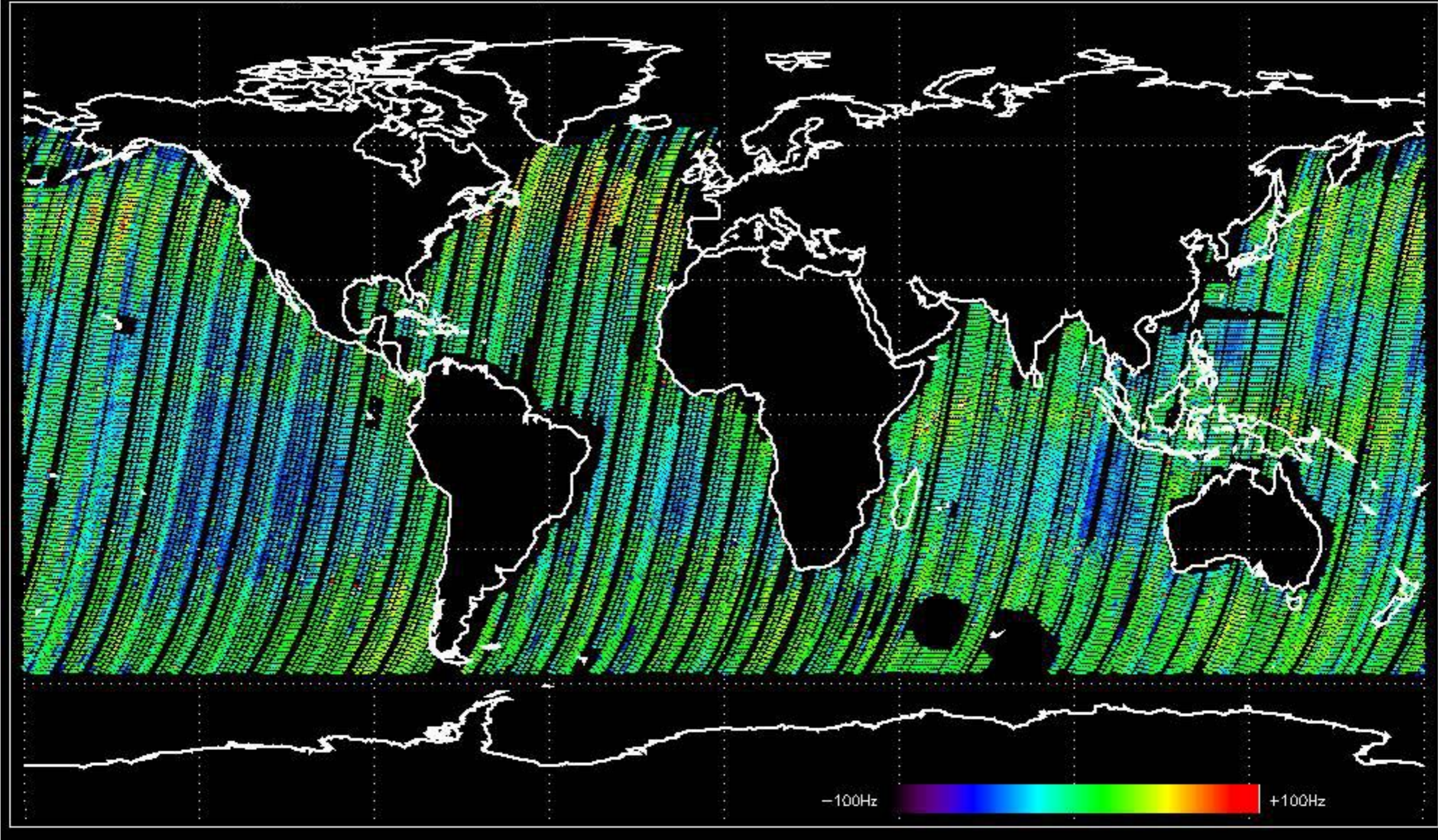
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -12.744470 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.166504 Hz

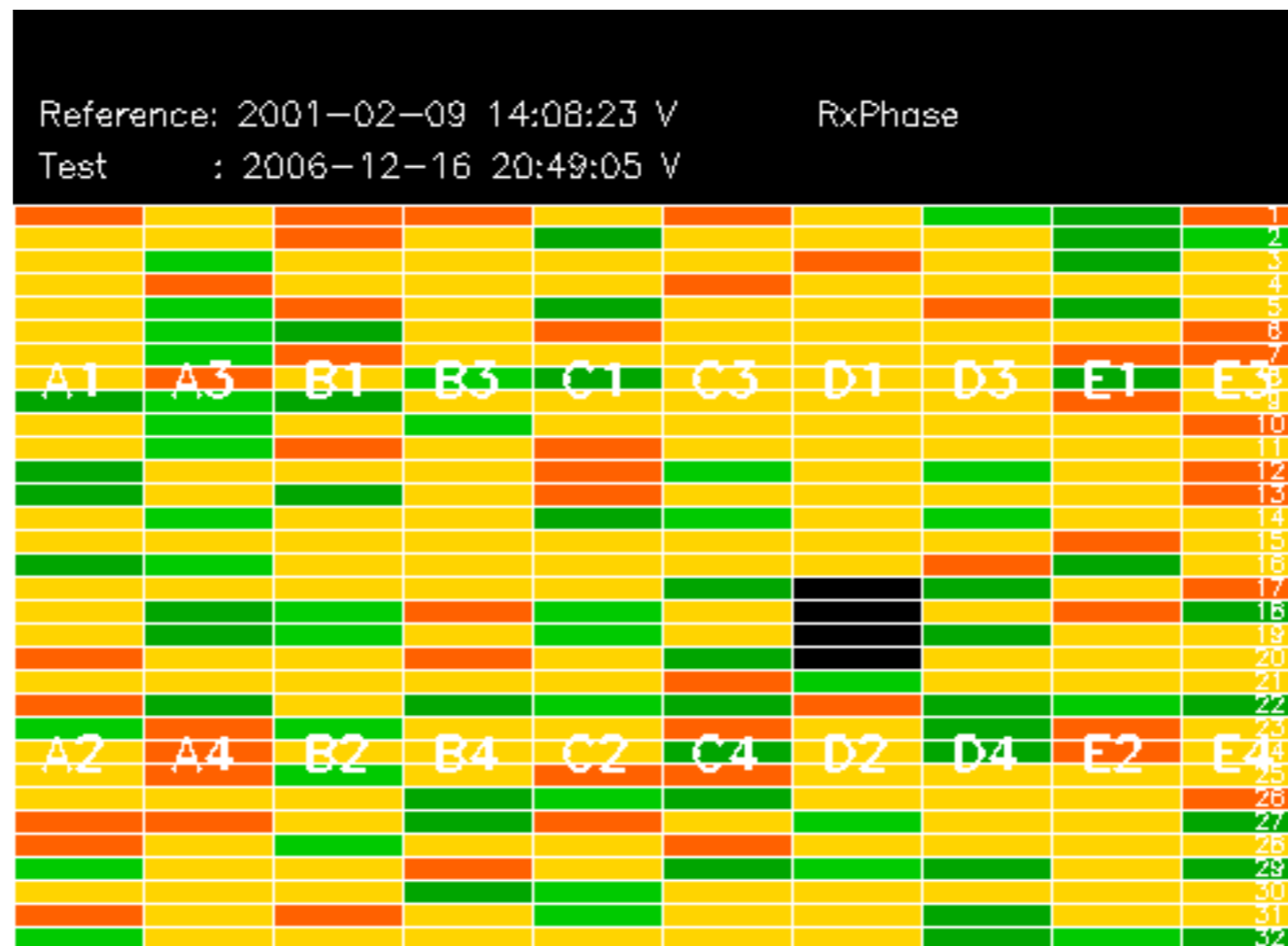


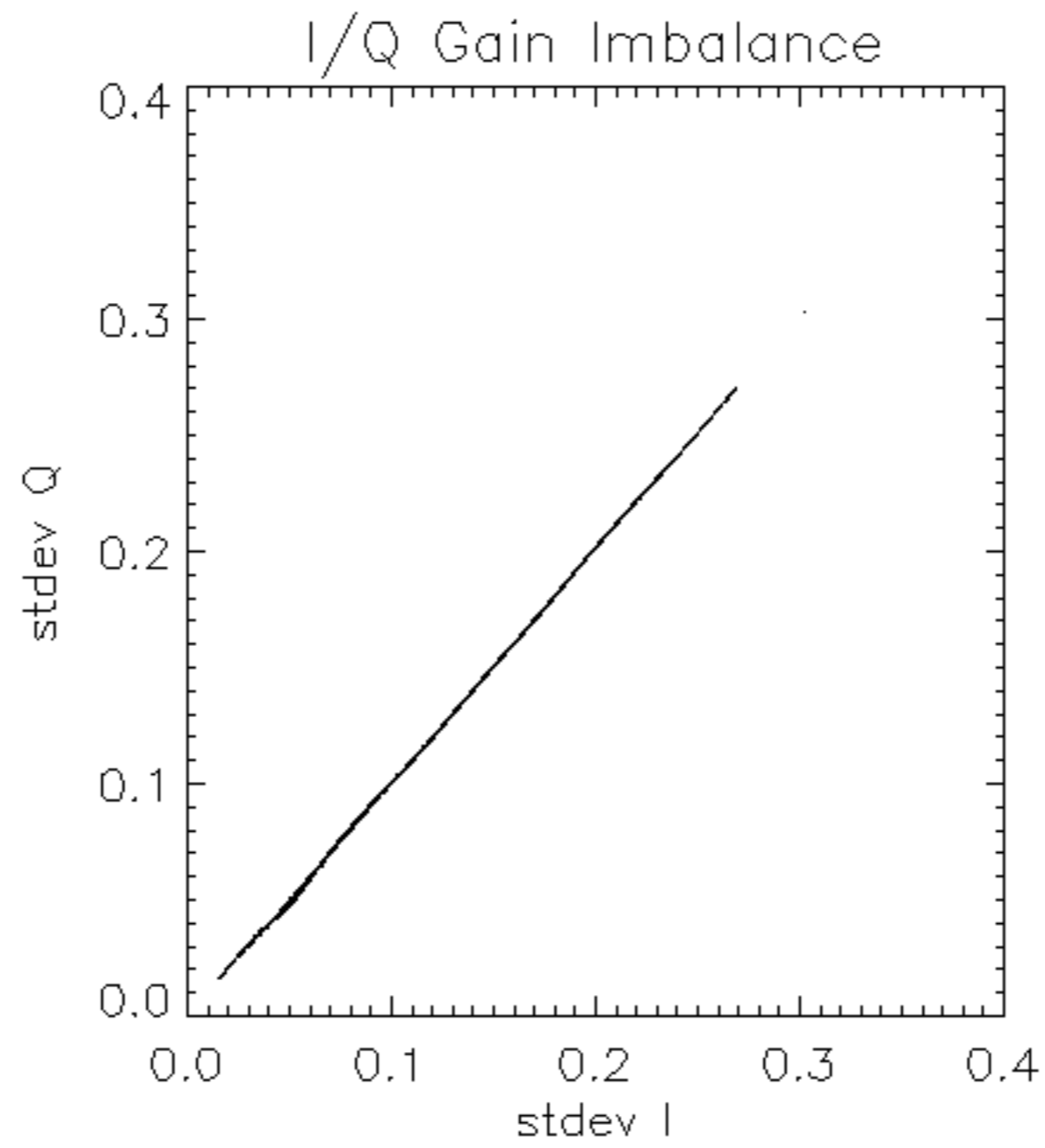
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.288854 Hz

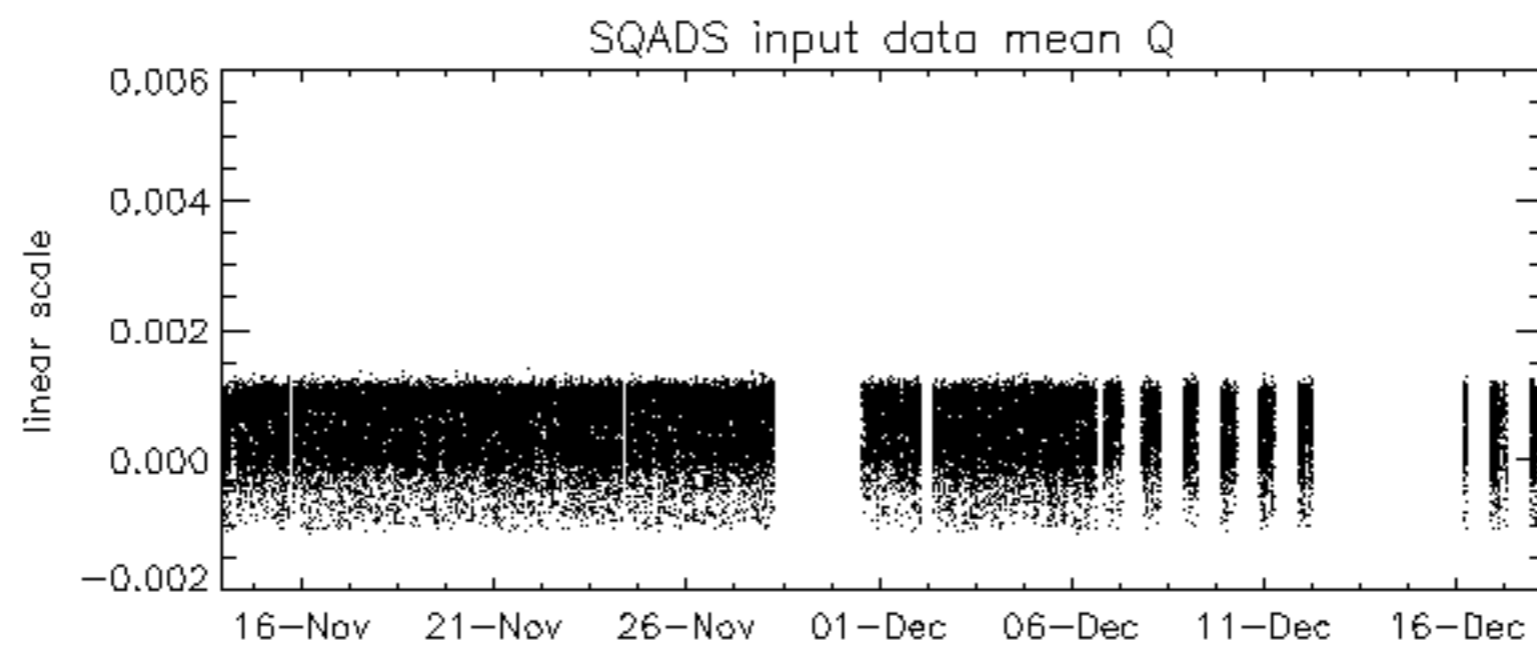
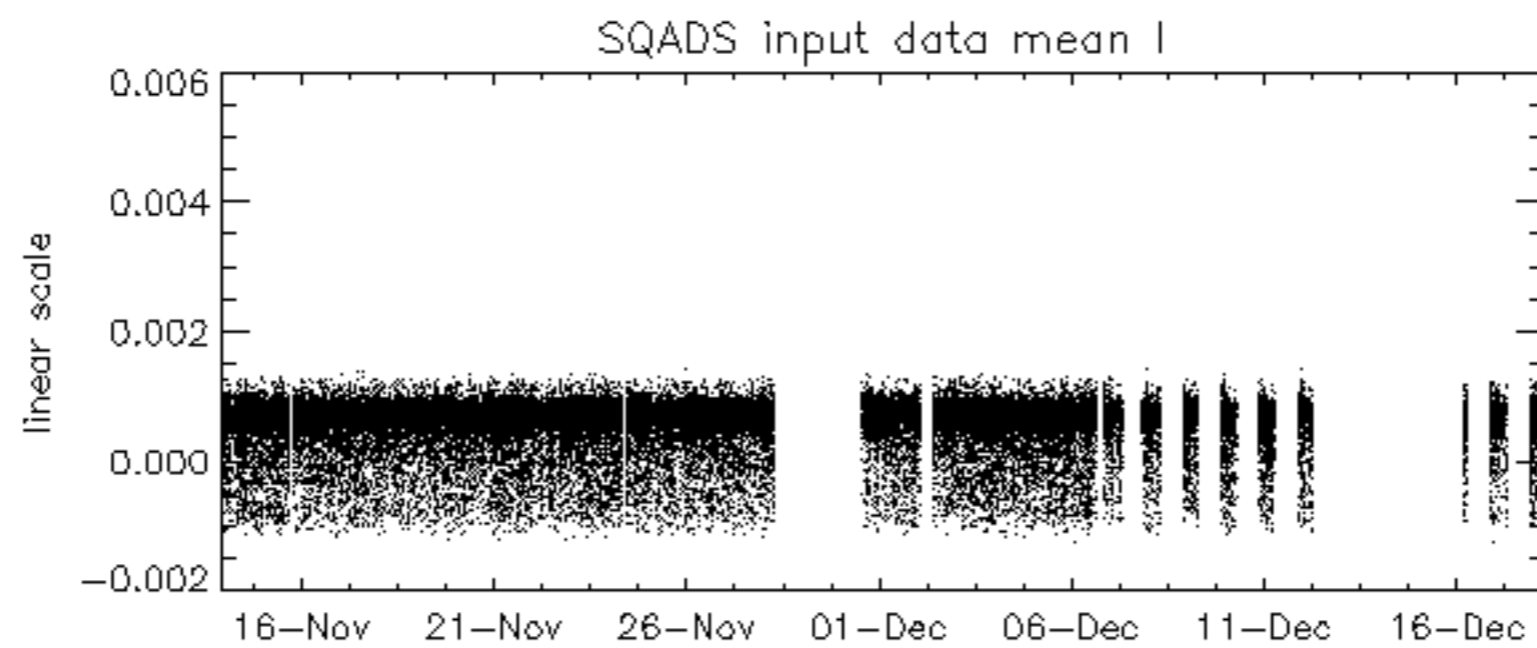
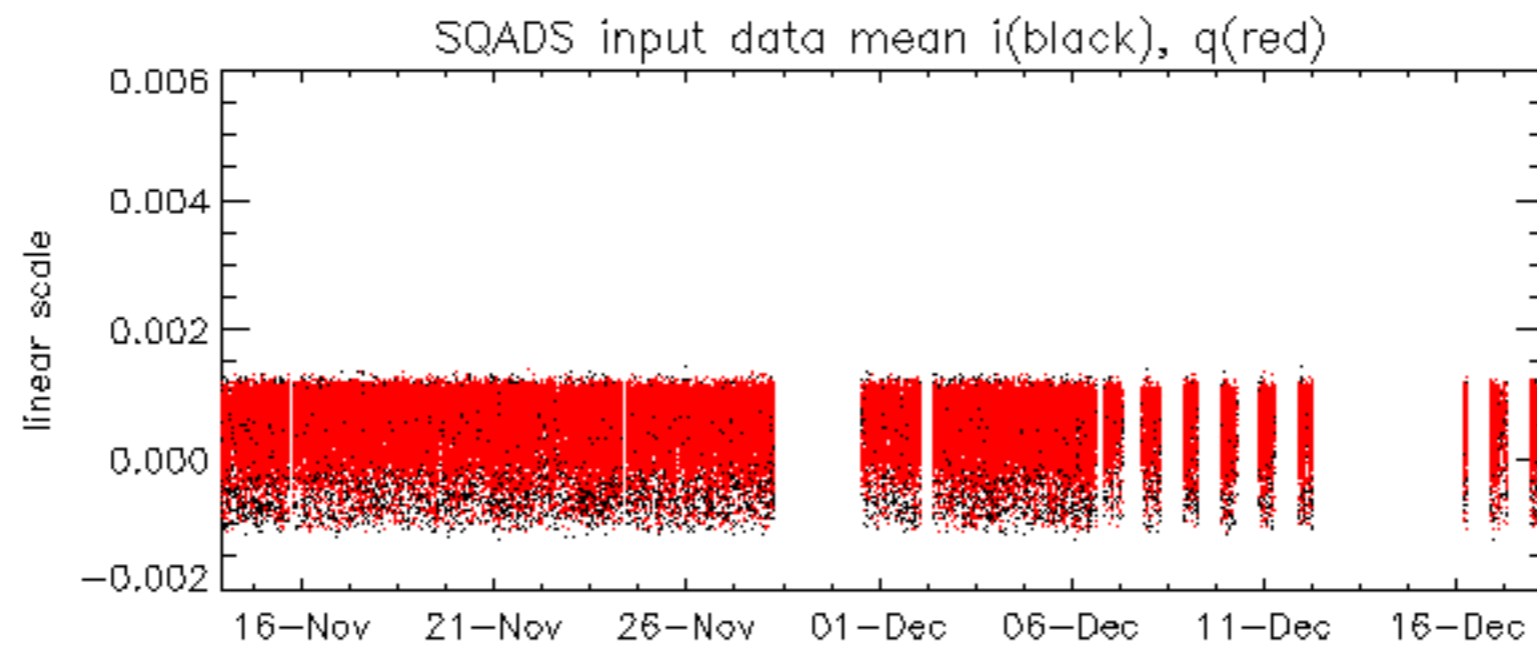


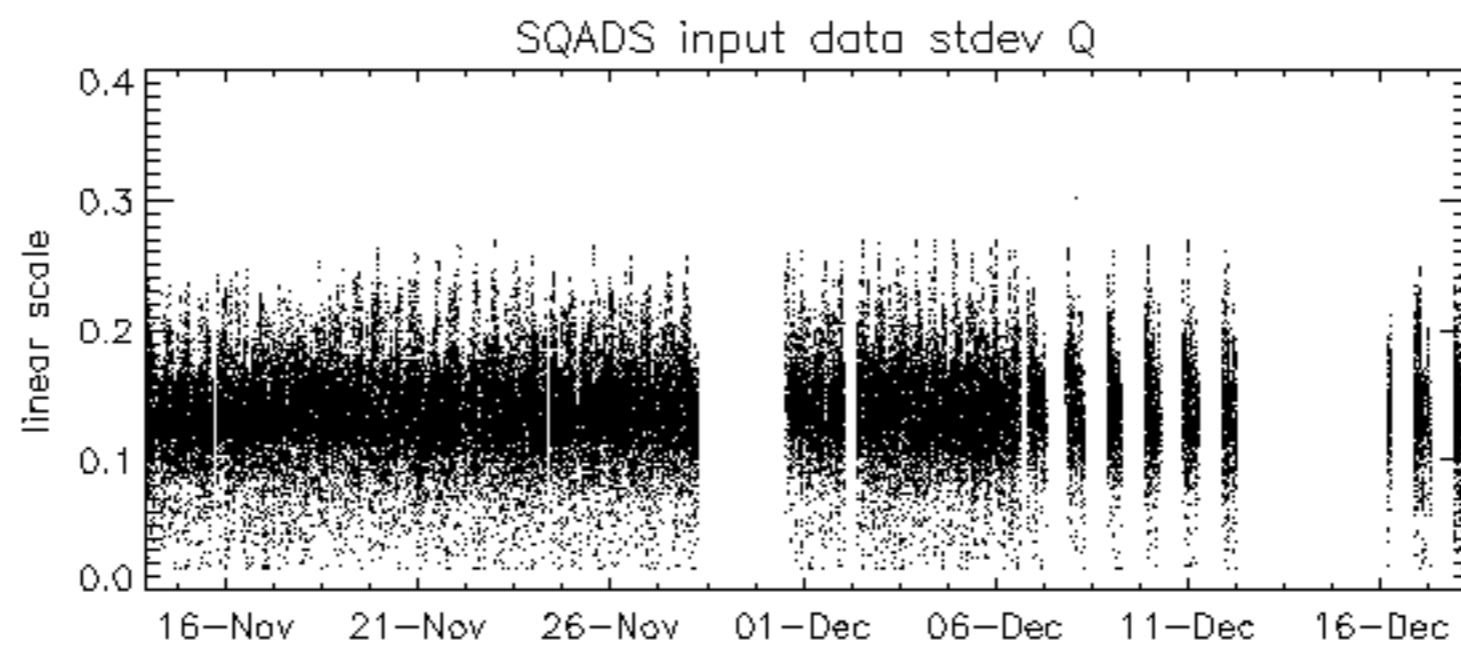
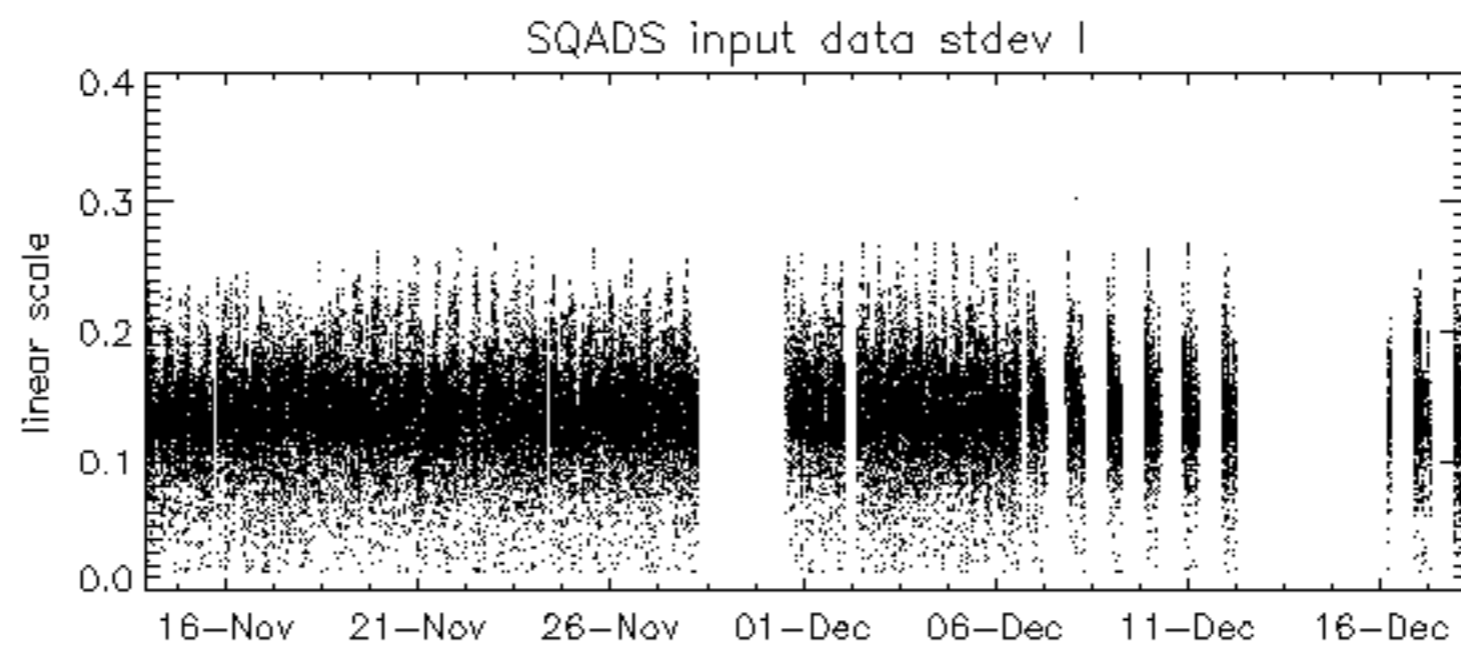
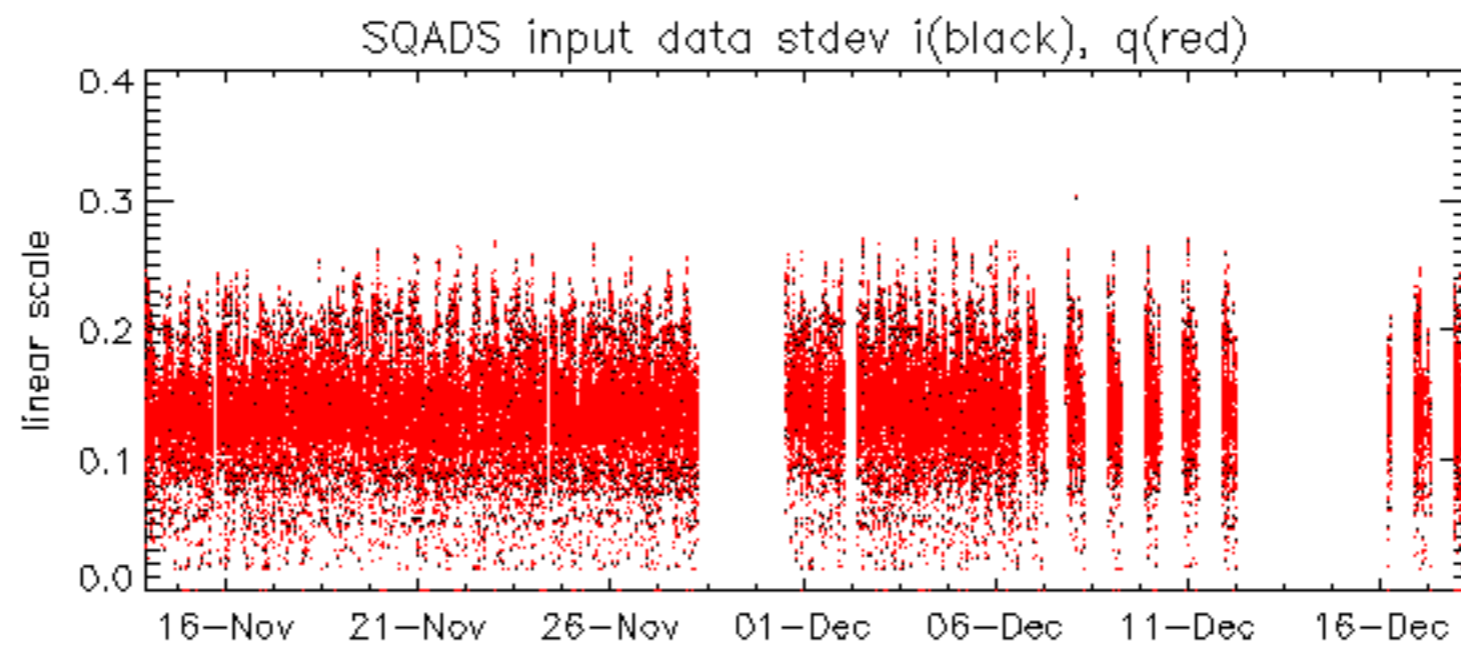
No anomalies observed on available MS products:

No anomalies observed.

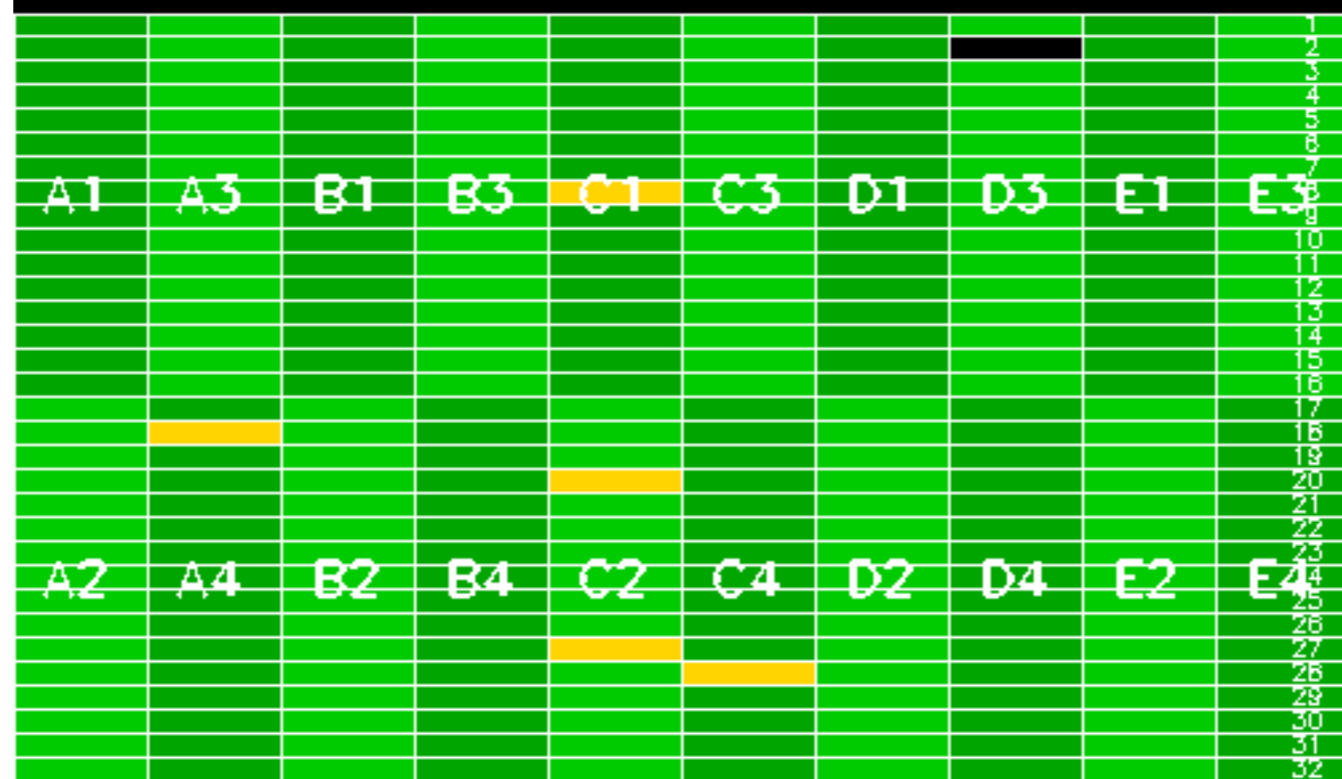








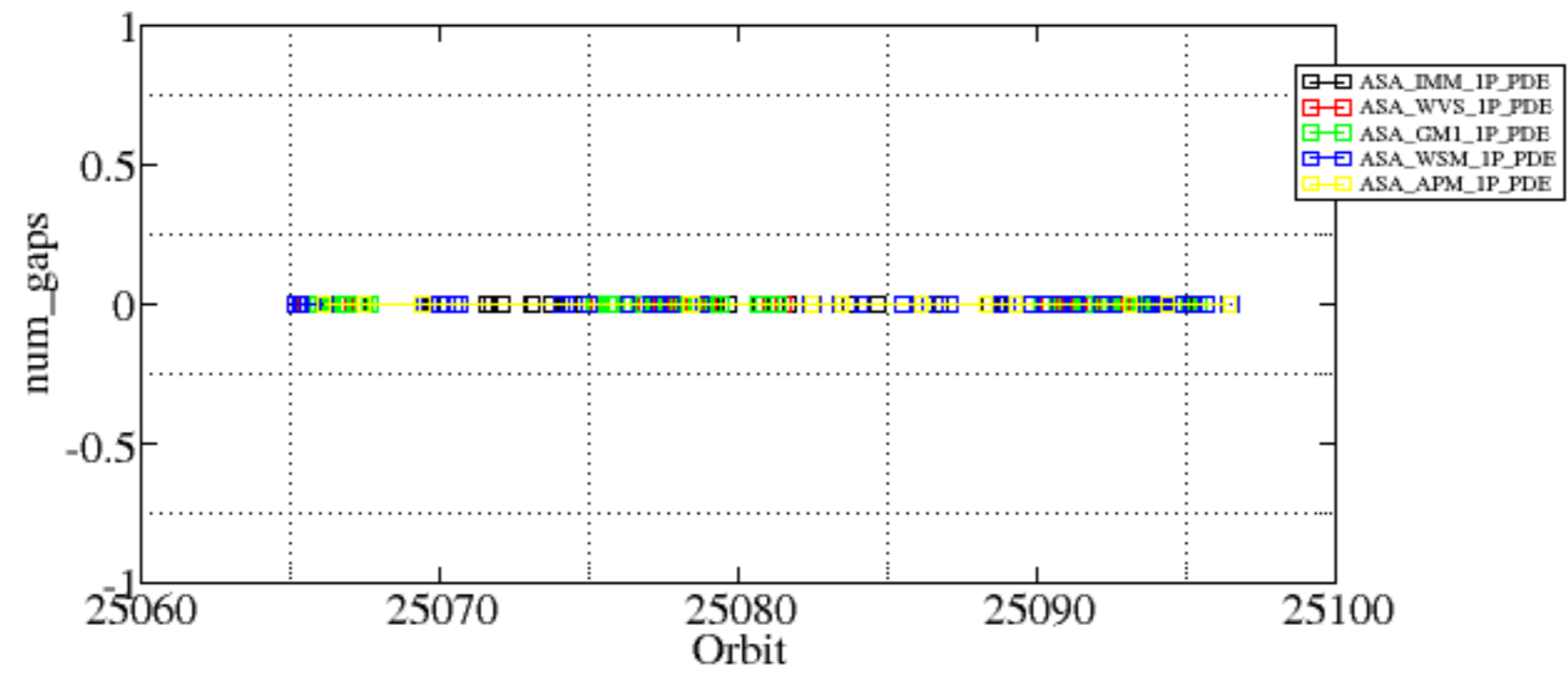
Reference: 2005-09-23 05:55:14 V TxGain
 Test : 2006-12-16 20:49:05 V

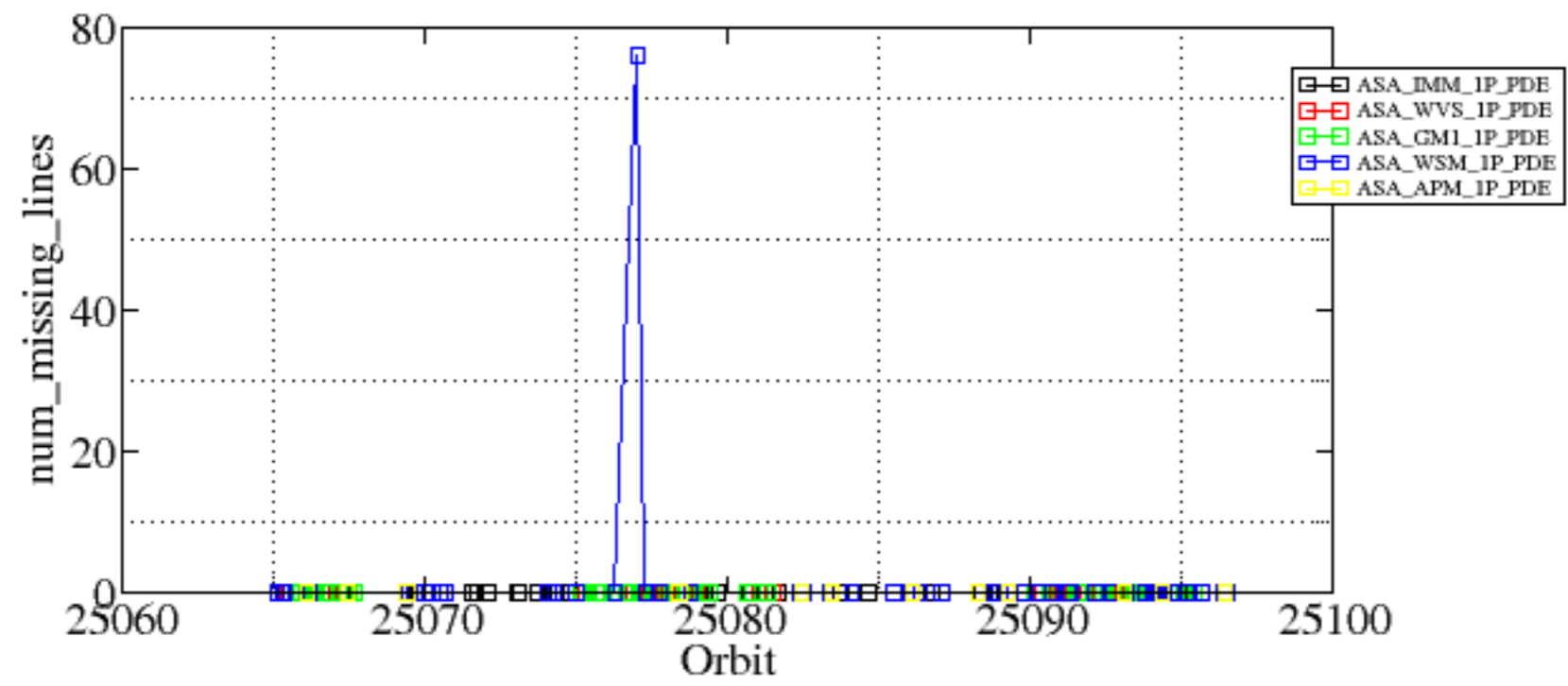


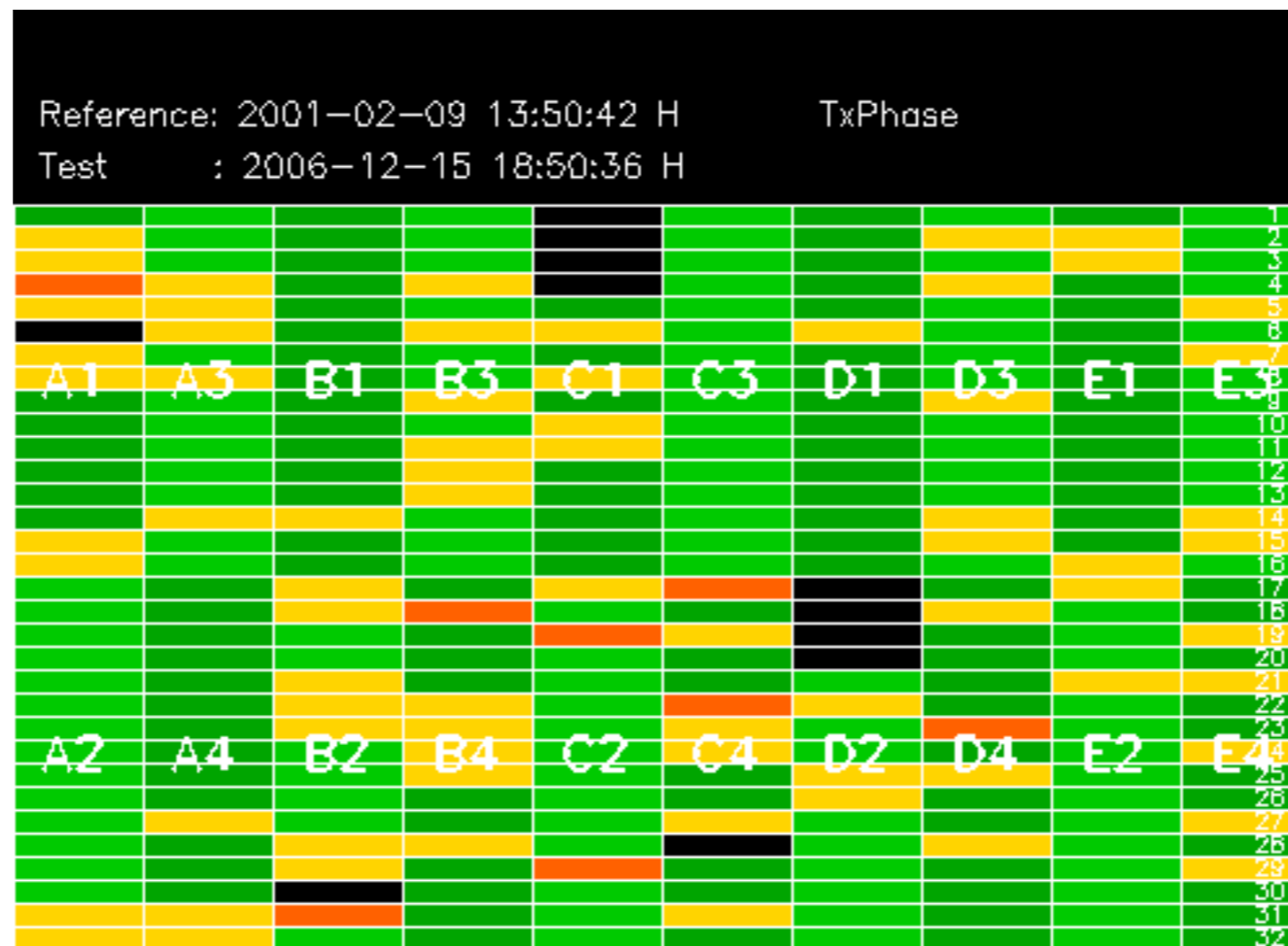
Summary of analysis for the last 3 days 2006121[678]

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

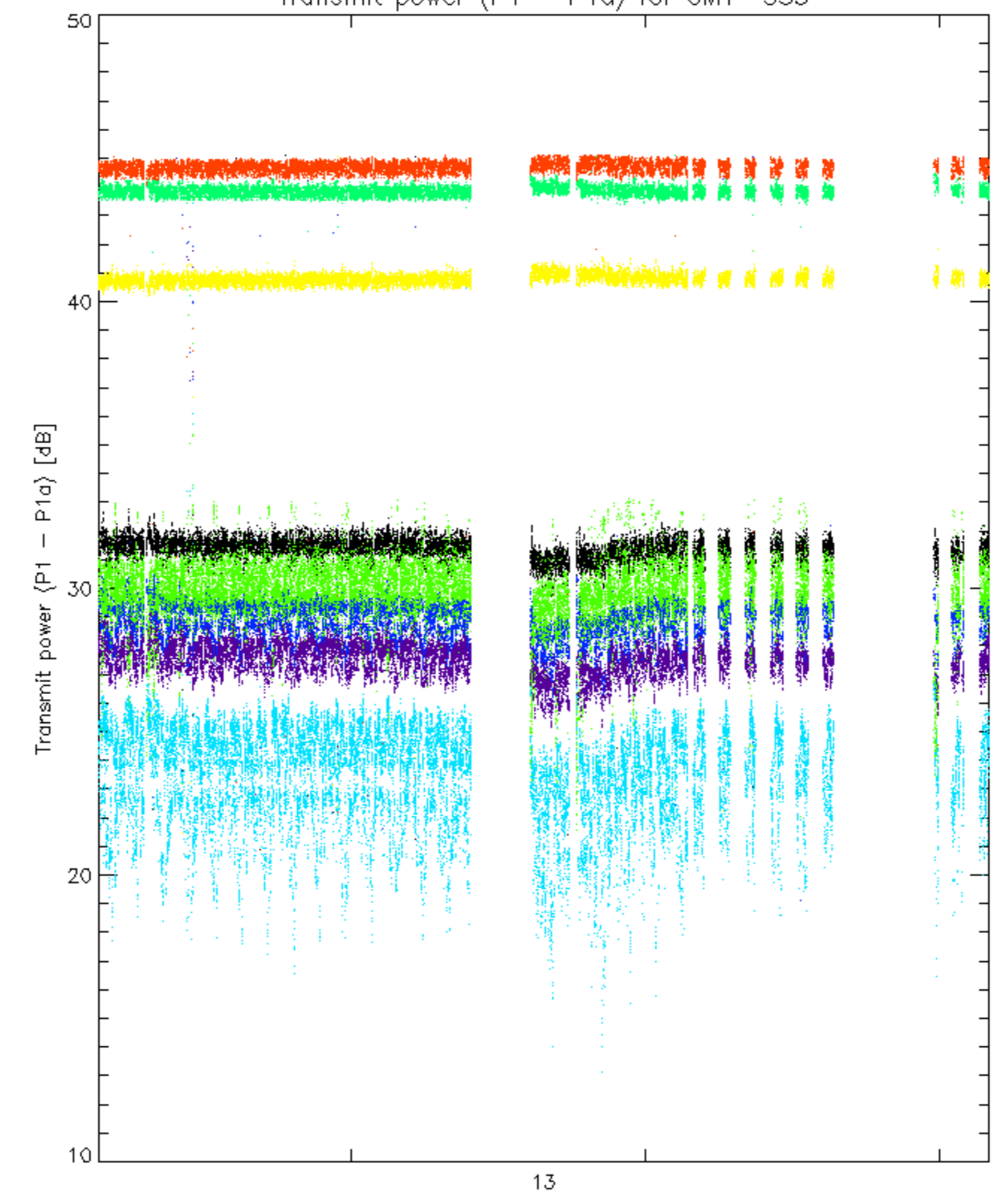
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20061216_230554_000001282053_00474_25077_1497.N1	0	76

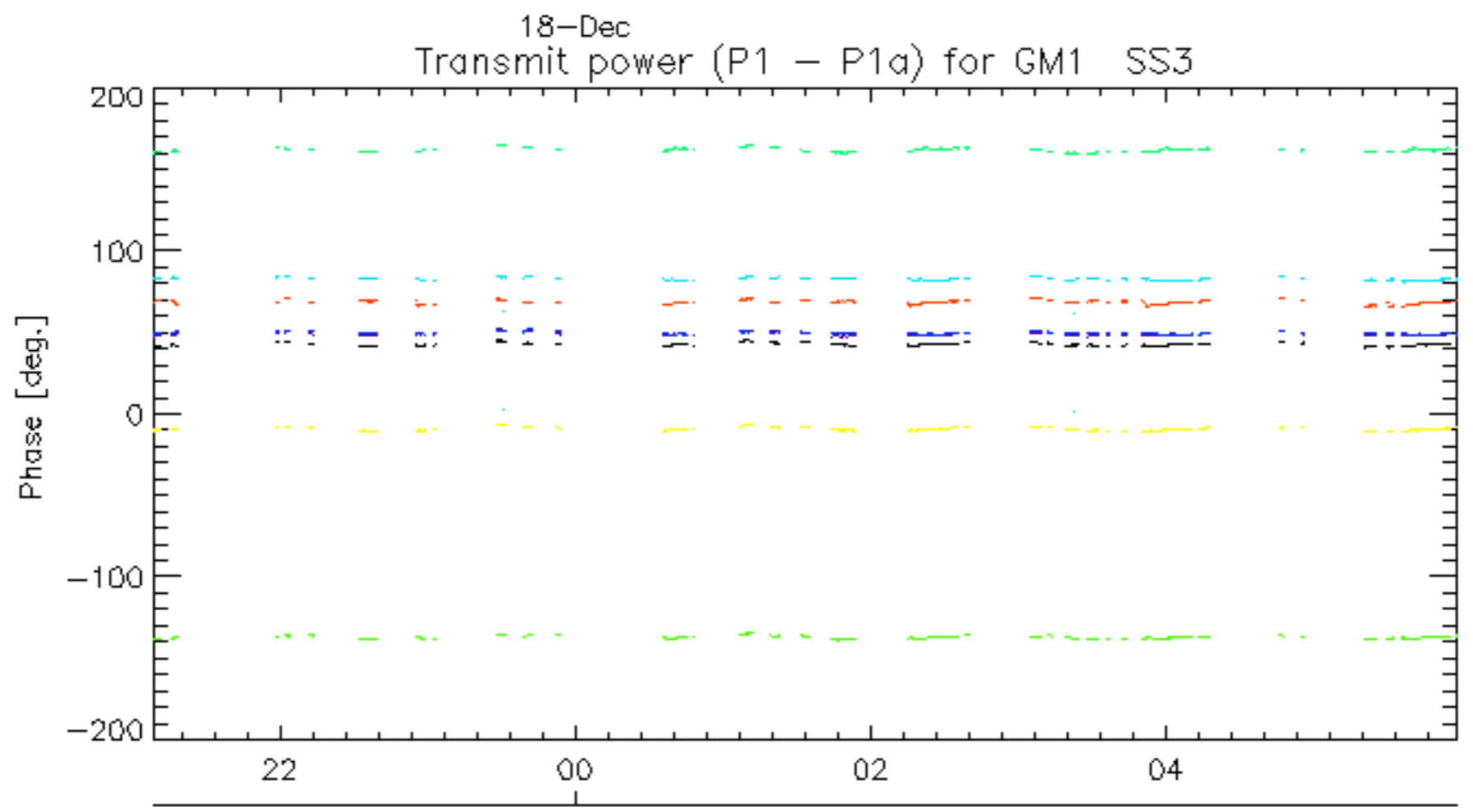
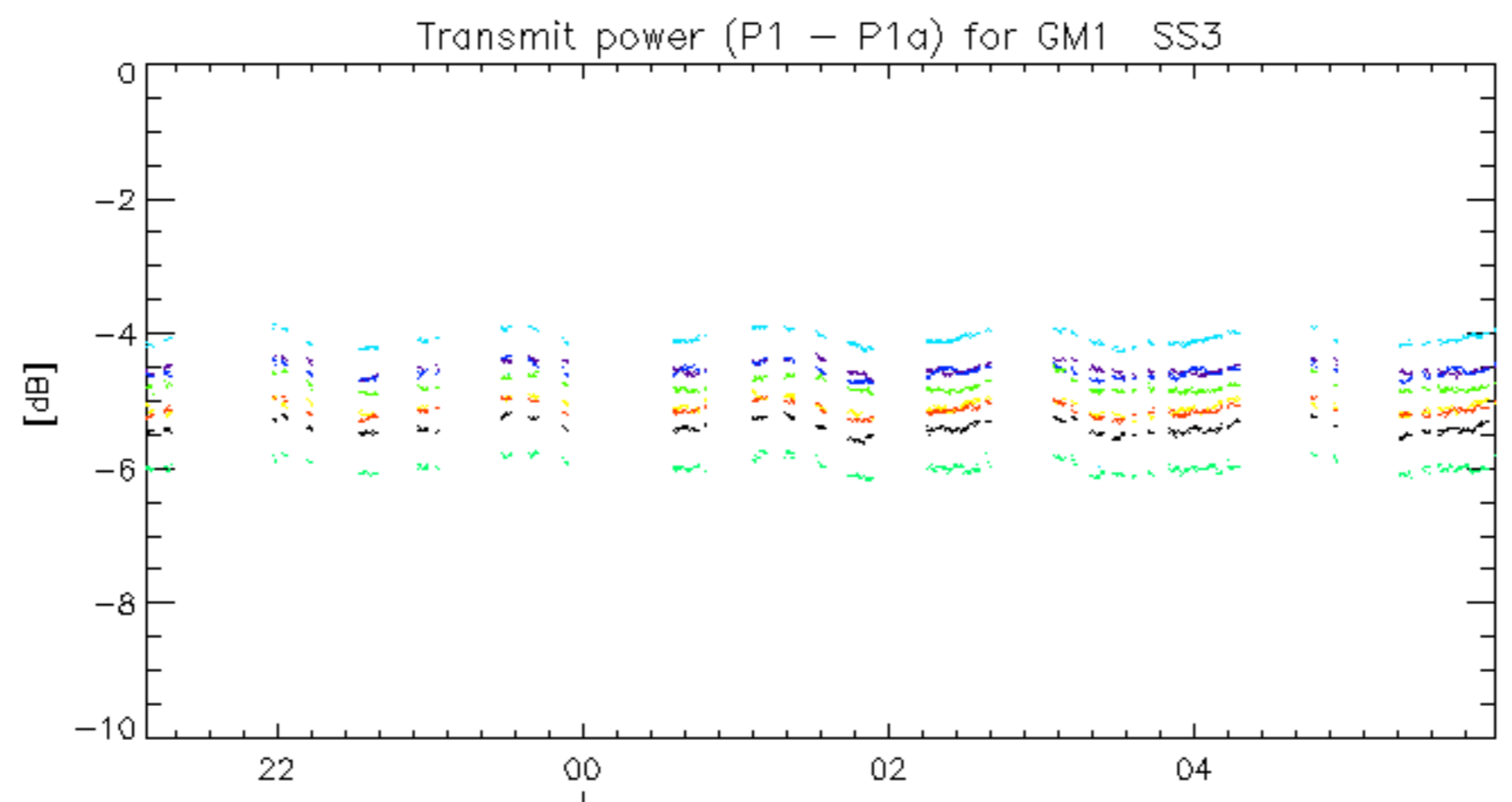




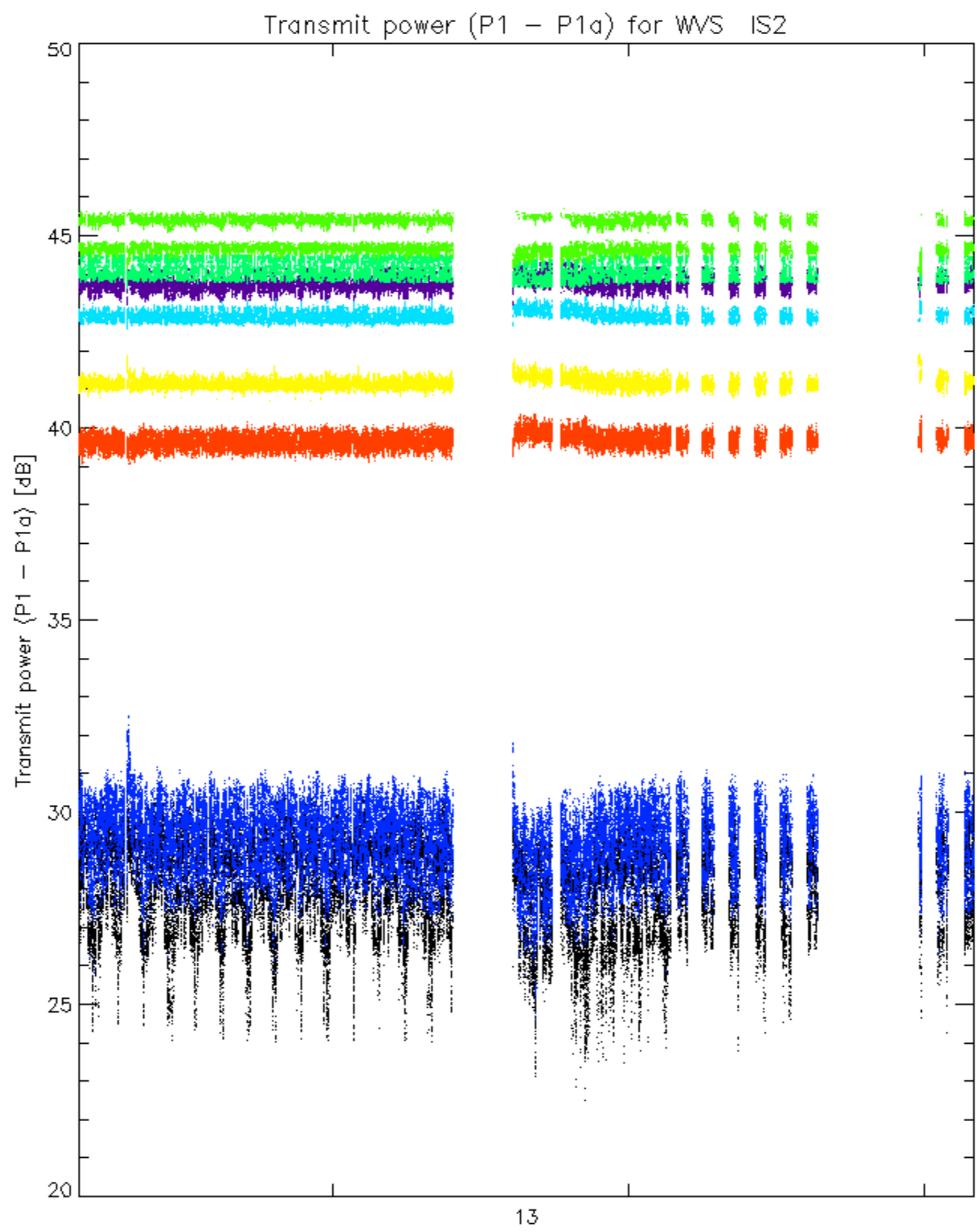


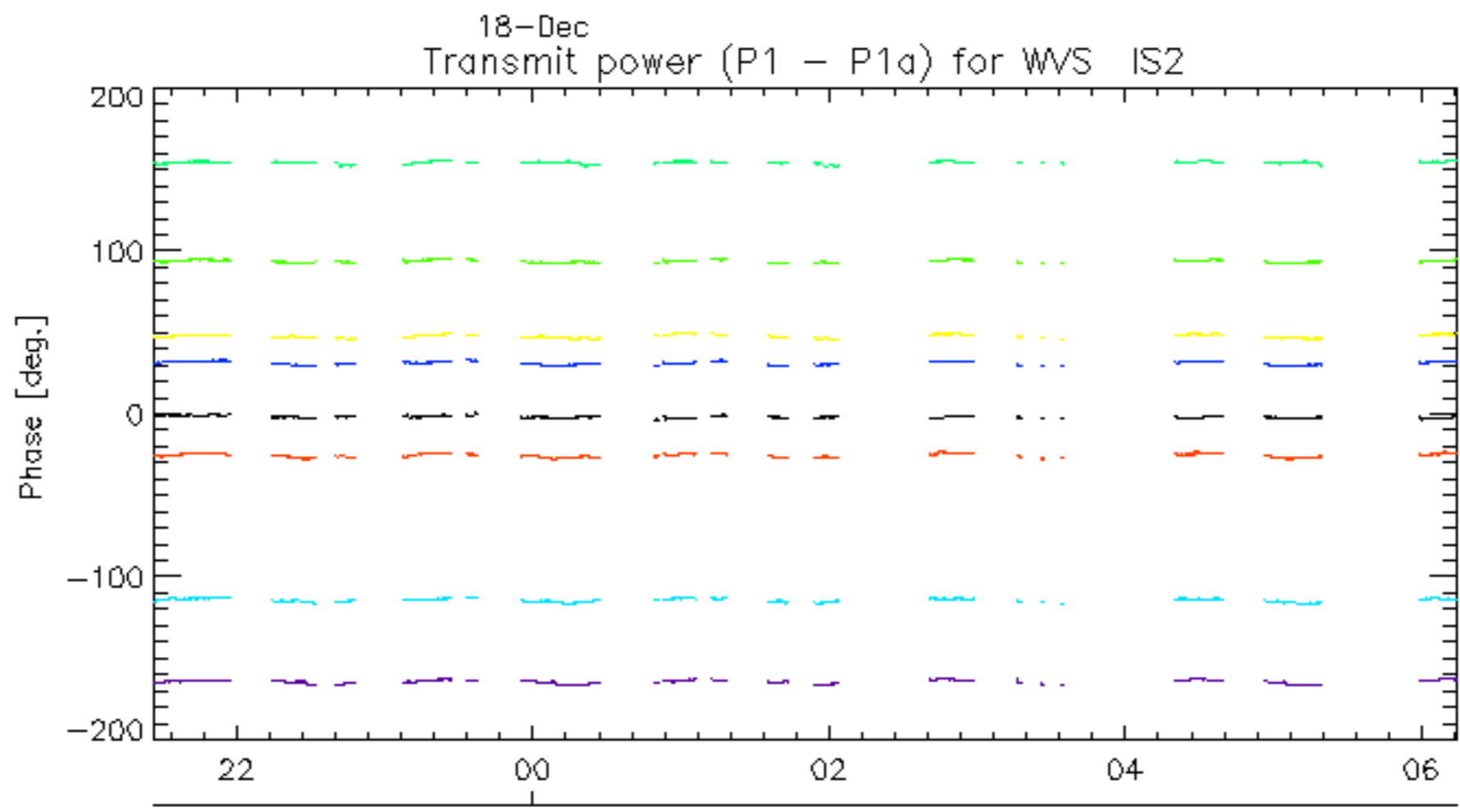
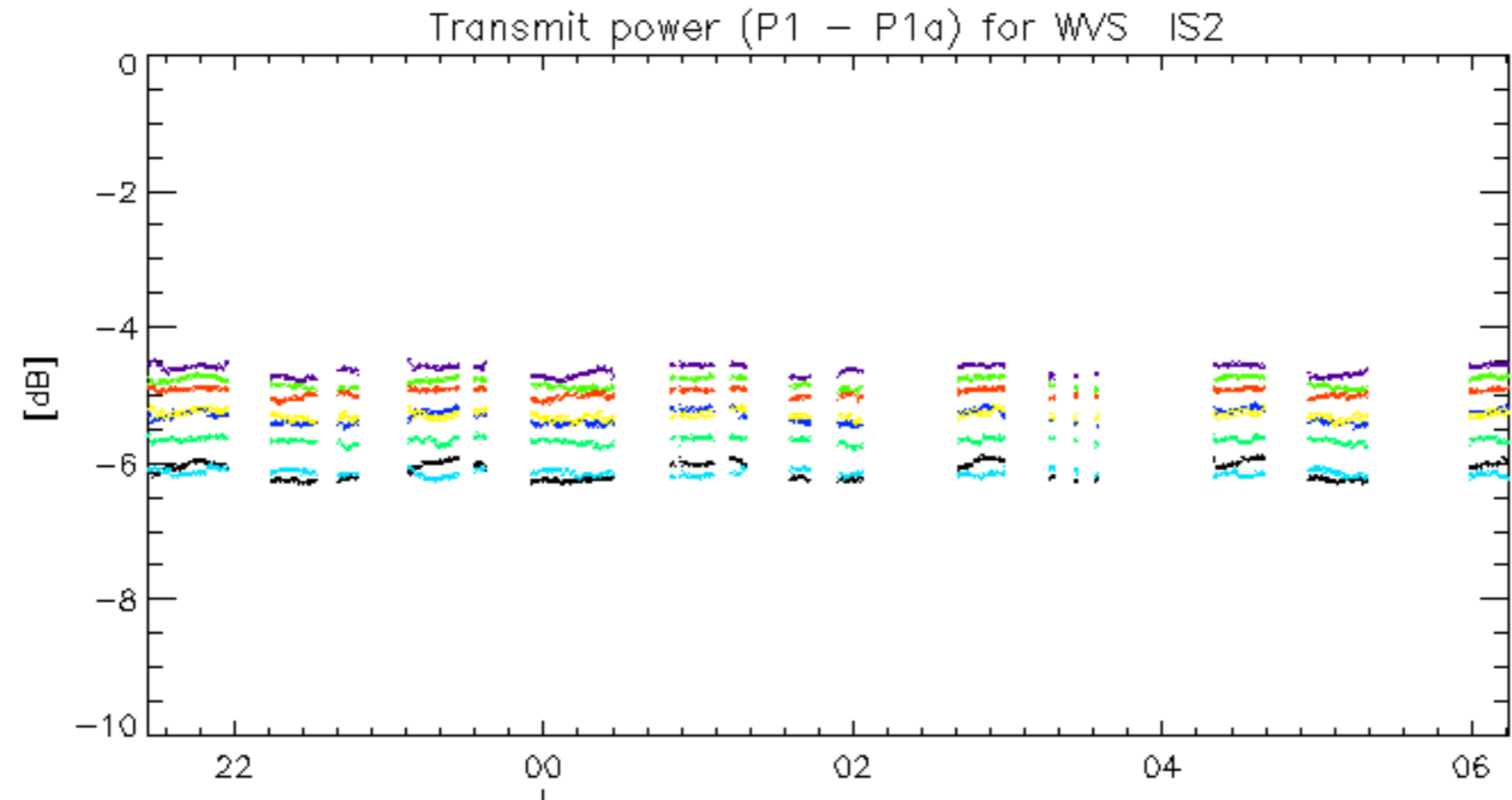
Transmit power (P1 - P1a) for GM1 SS3





18-Dec
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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

No unavailabilities during the reported period.