

PRELIMINARY REPORT OF 061217

last update on Sun Dec 17 16:25:11 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 2006-12-16 00:00:00 to 2006-12-17 16:25:11

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	34	54	56	8	23
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	34	54	56	8	23
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	34	54	56	8	23
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	34	54	56	8	23

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	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"/>

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4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

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4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

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4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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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	-3.963326	0.008272	0.019093
7	P1	-3.151048	0.024505	0.008908
11	P1	-4.127029	0.025919	0.020044
15	P1	-6.316798	0.015958	-0.044509
19	P1	-3.637991	0.006238	-0.064005
22	P1	-4.653742	0.013487	-0.005791
26	P1	-3.953152	0.010212	-0.023795
30	P1	-5.884602	0.009577	-0.023664
3	P1	-16.540464	0.247007	0.032204
7	P1	-17.295012	0.183728	-0.075912
11	P1	-17.196510	0.470412	0.039007
15	P1	-13.063295	0.140216	0.026889
19	P1	-14.965667	0.092899	-0.102539
22	P1	-15.828776	0.553221	-0.049544
26	P1	-15.060143	0.195611	-0.146747
30	P1	-17.505707	0.476965	-0.147774

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.818161	0.095415	0.066124
7	P2	-21.732185	0.097491	0.006672
11	P2	-15.612877	0.106728	0.159503
15	P2	-7.118107	0.111004	0.020291
19	P2	-9.189821	0.109398	-0.014369
22	P2	-18.236300	0.102087	0.007093
26	P2	-16.574184	0.117179	-0.062249
30	P2	-19.464525	0.092237	0.046155

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.244720	0.009123	0.018284
7	P3	-8.244720	0.009123	0.018284
11	P3	-8.244720	0.009123	0.018284

15	P3	-8.244720	0.009123	0.018284
19	P3	-8.244720	0.009123	0.018284
22	P3	-8.244720	0.009123	0.018284
26	P3	-8.244764	0.009127	0.018526
30	P3	-8.244764	0.009127	0.018526

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	-3.915162	0.017951	-0.030316
7	P1	-2.486193	0.036167	0.040686
11	P1	-2.854074	0.019287	-0.018612
15	P1	-3.685655	0.033417	-0.018105
19	P1	-3.537851	0.017933	-0.045197
22	P1	-5.028527	0.023633	-0.019474
26	P1	-6.019579	0.028546	-0.042998
30	P1	-5.337950	0.040132	-0.033976
3	P1	-11.739634	0.088502	-0.038634
7	P1	-10.059184	0.111978	-0.058255
11	P1	-10.334958	0.140853	-0.063621
15	P1	-10.715777	0.126740	0.031009
19	P1	-15.718689	0.118062	-0.041422
22	P1	-21.572485	1.428482	-0.097816
26	P1	-16.064358	0.338887	-0.000461
30	P1	-17.883856	0.372599	0.004185

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.466019	0.127238	-0.010377
7	P2	-22.230814	0.276500	0.004161
11	P2	-10.910716	0.150840	0.146880
15	P2	-4.983971	0.259320	-0.022055
19	P2	-6.959064	0.236853	-0.024583
22	P2	-8.254951	0.146927	0.010202
26	P2	-24.320913	0.201913	0.038098
30	P2	-21.949265	0.171385	-0.019431

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.092089	0.004597	0.021335
7	P3	-8.092146	0.004581	0.021490
11	P3	-8.092130	0.004592	0.021549
15	P3	-8.091987	0.004588	0.021571
19	P3	-8.092078	0.004593	0.021768
22	P3	-8.092082	0.004585	0.021604
26	P3	-8.092031	0.004593	0.021138
30	P3	-8.091957	0.004576	0.020932

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	0.000556083
	stdev	1.72018e-07
MEAN Q	mean	0.000513503
	stdev	2.16989e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138532
	stdev	0.00117475
STDEV Q	mean	0.138917
	stdev	0.00119415



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006121[567]

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

7.2 - Absolute Doppler for WVS

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

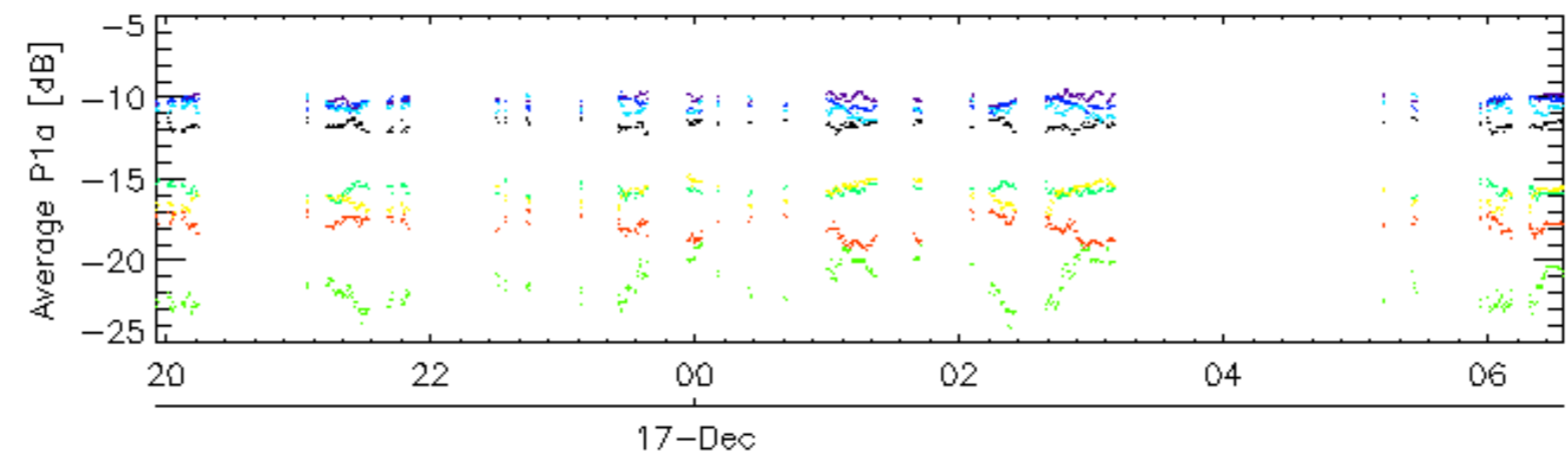
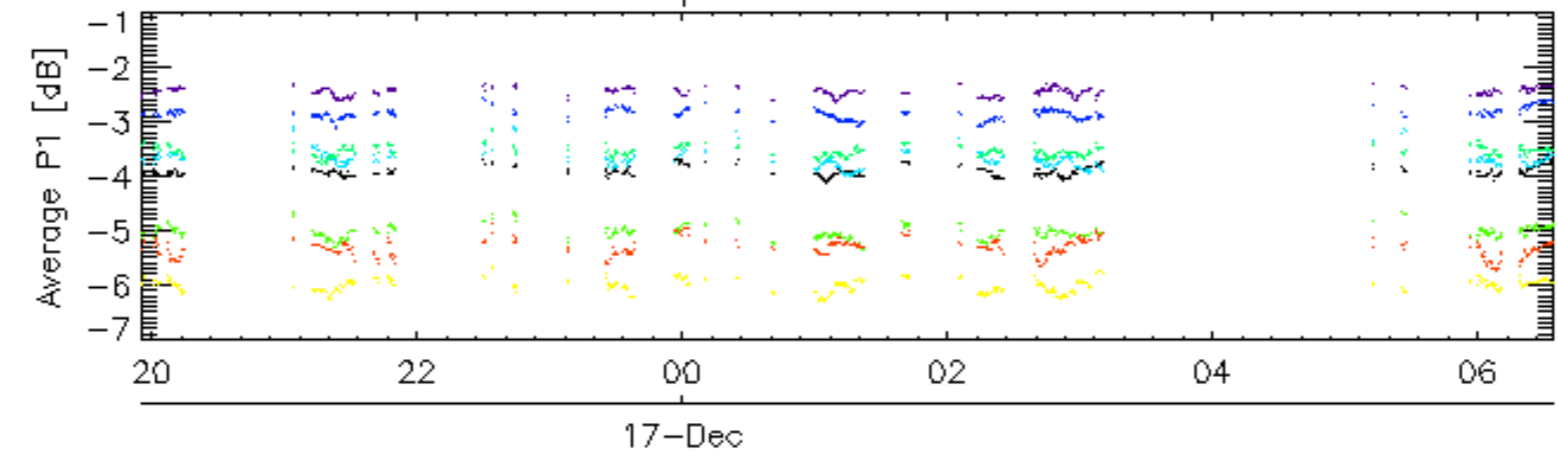
Ascending

Descending

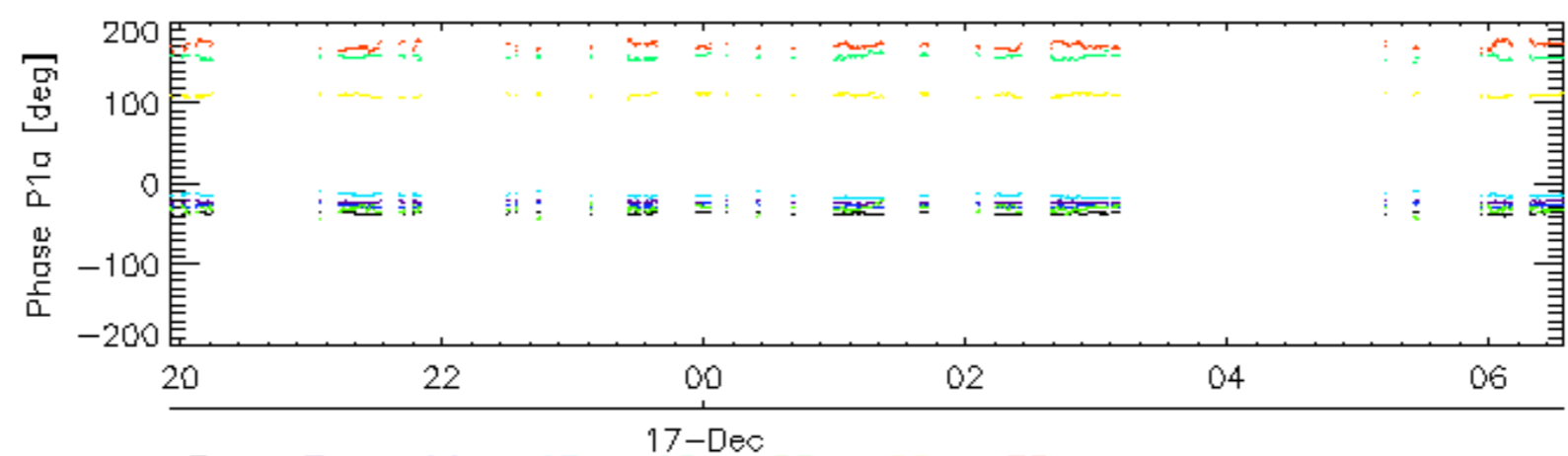
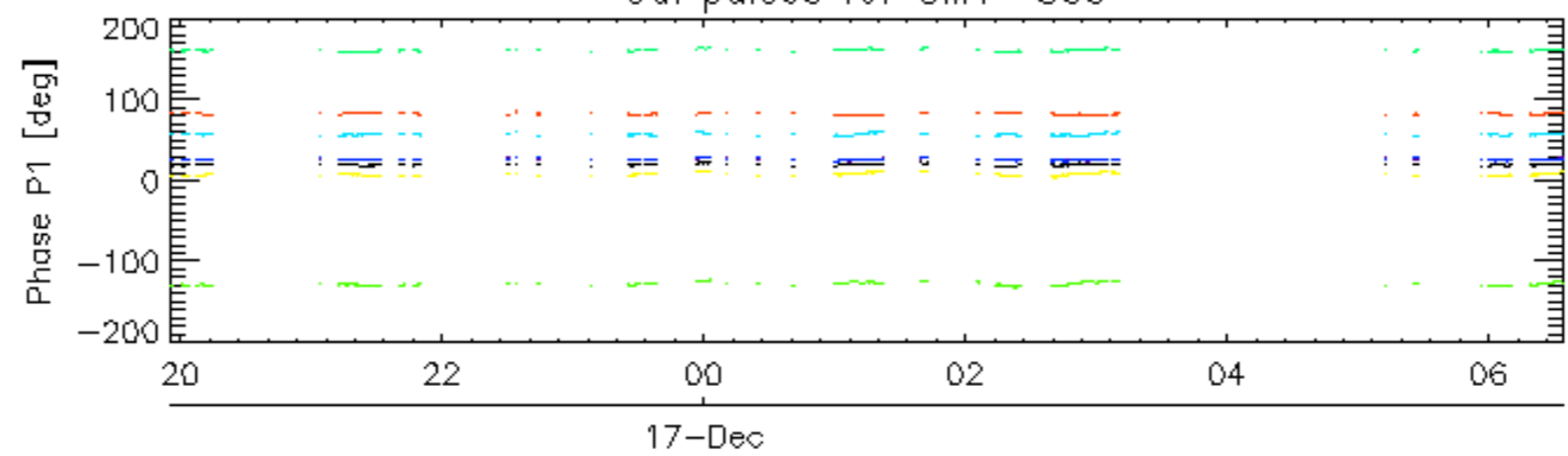
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

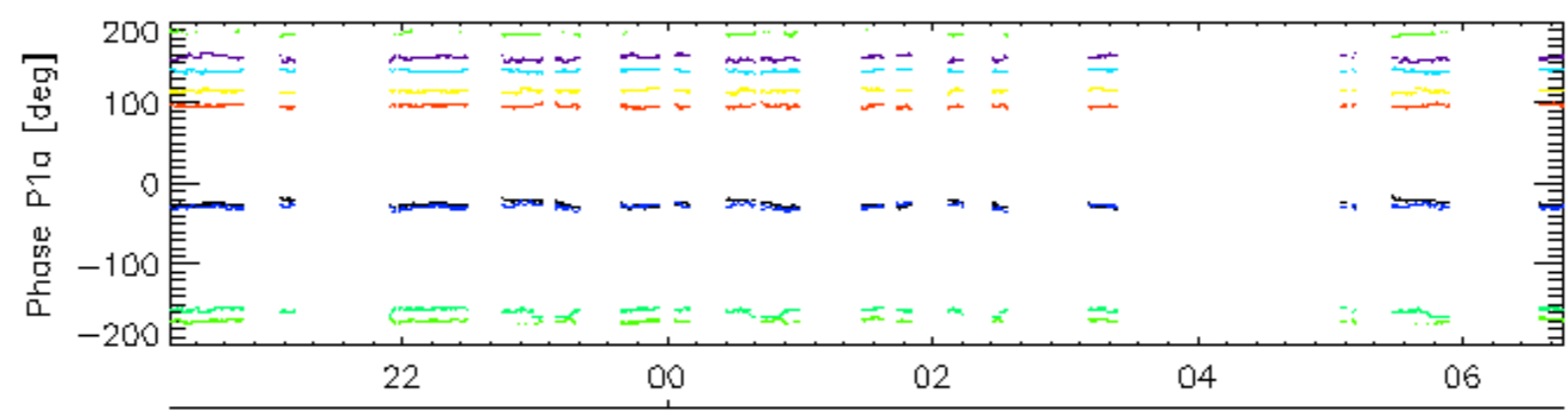
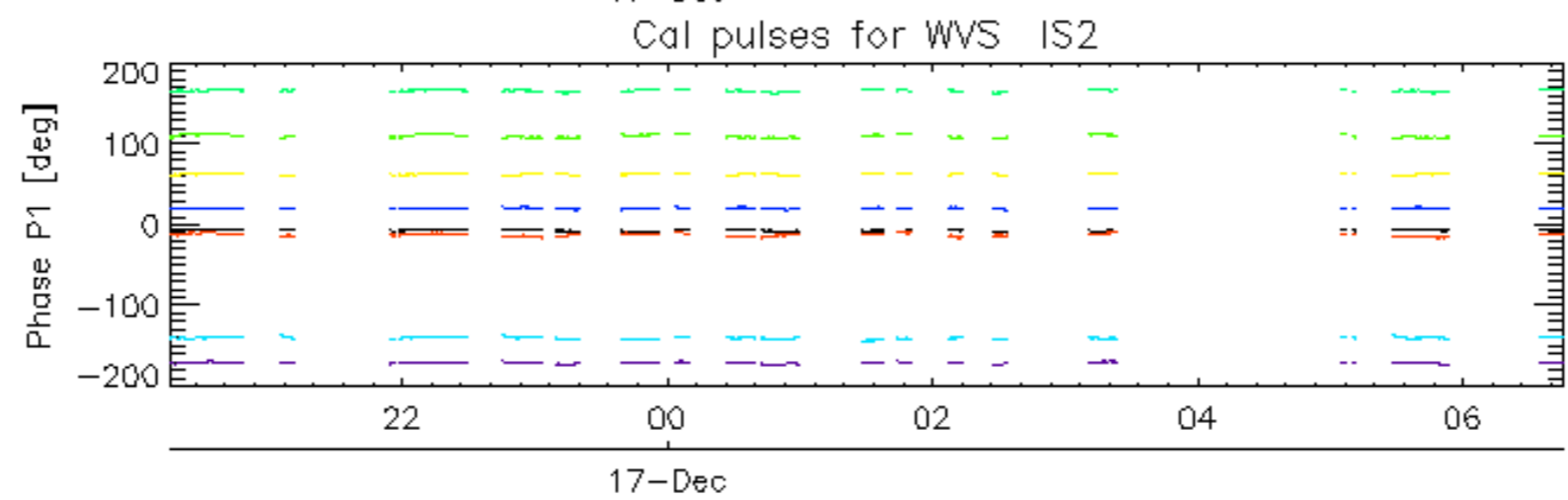
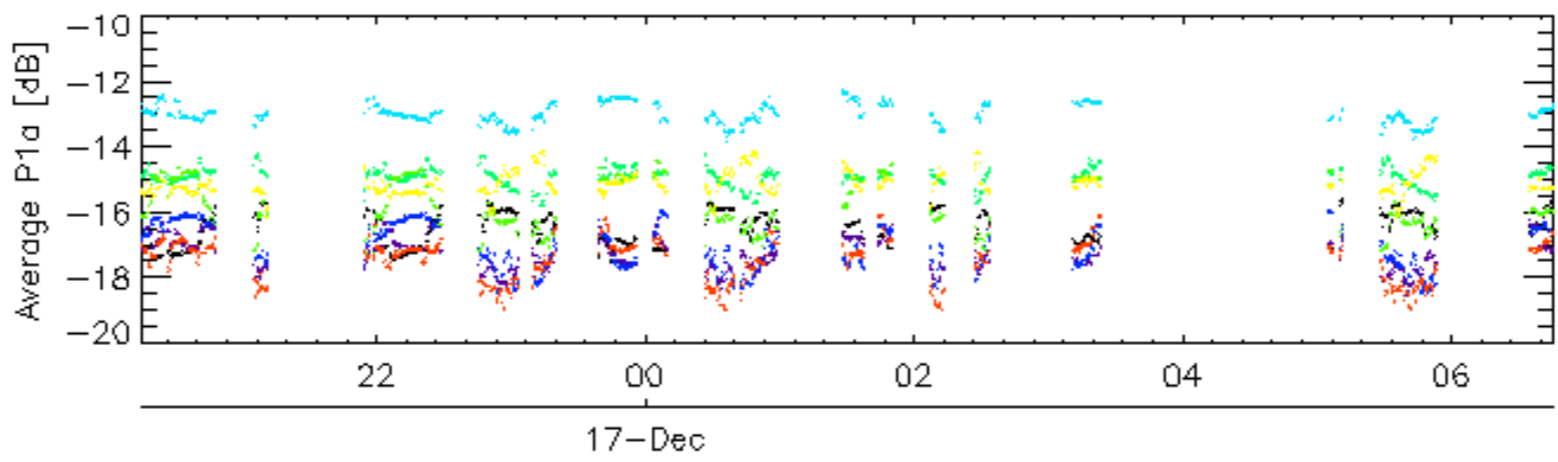
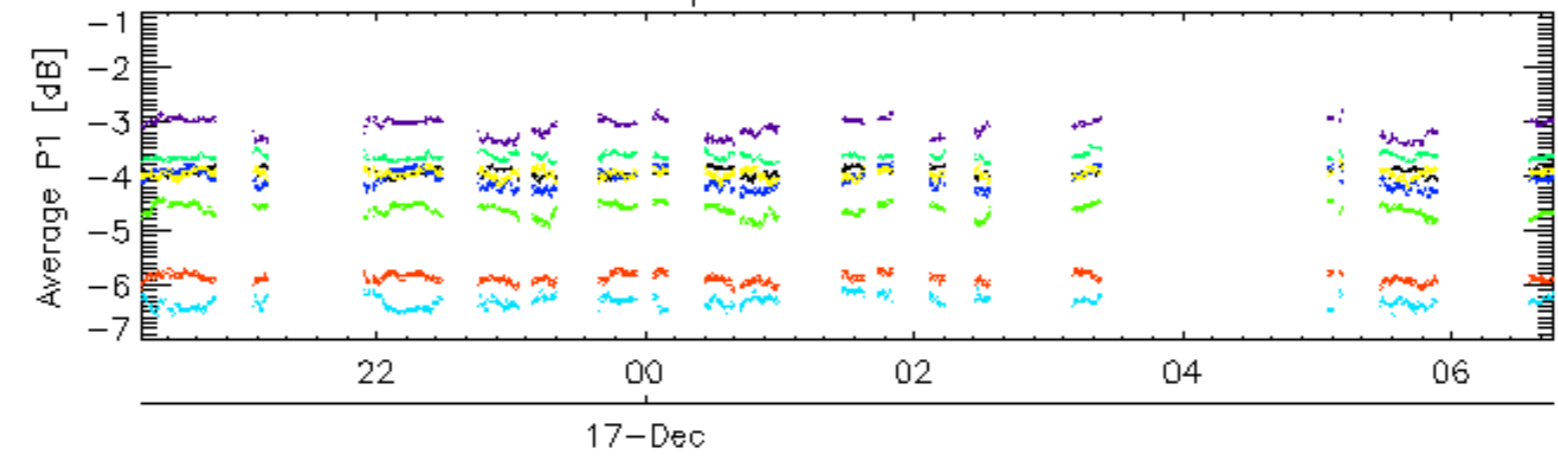


Cal pulses for GM1 SS3



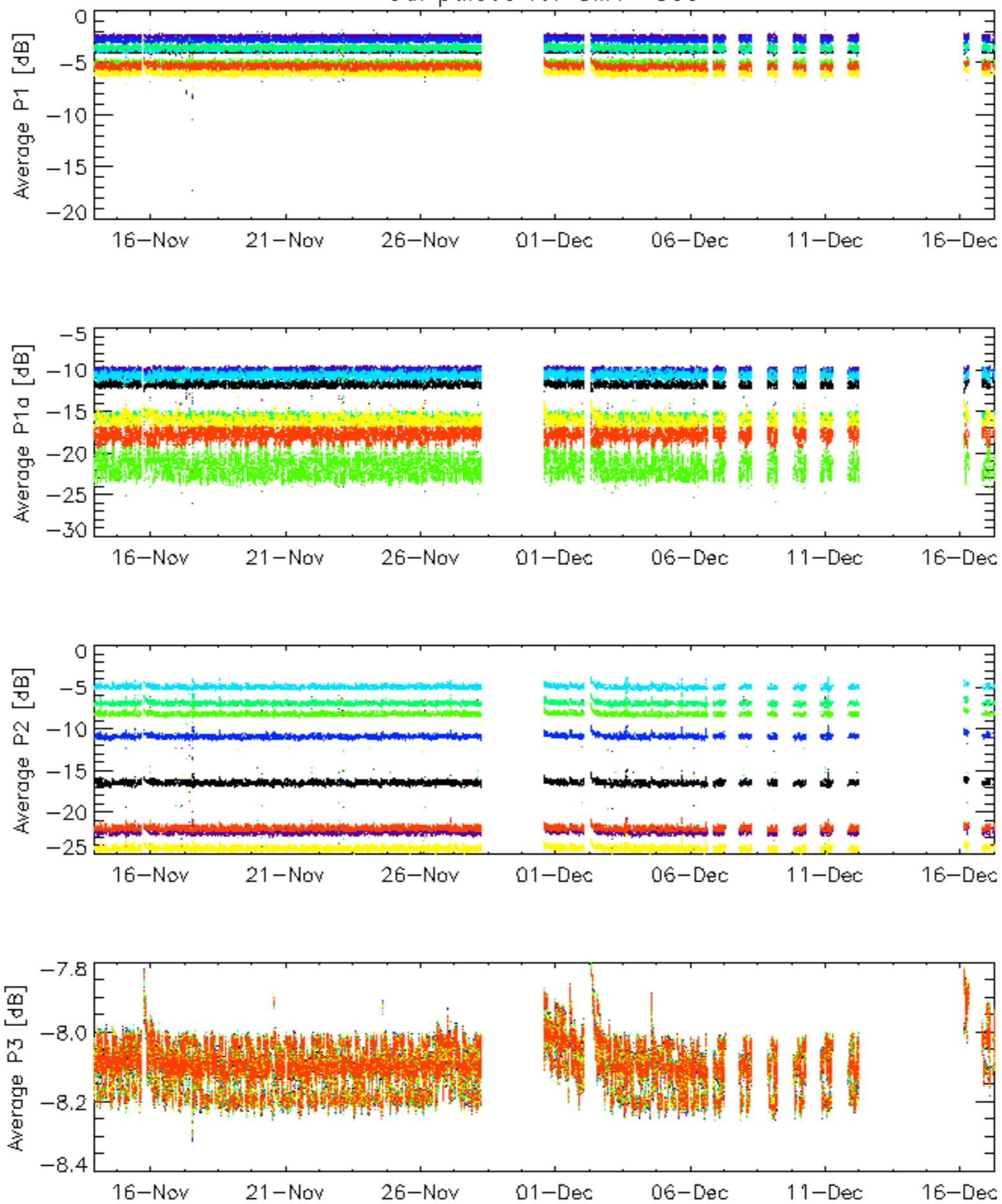
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



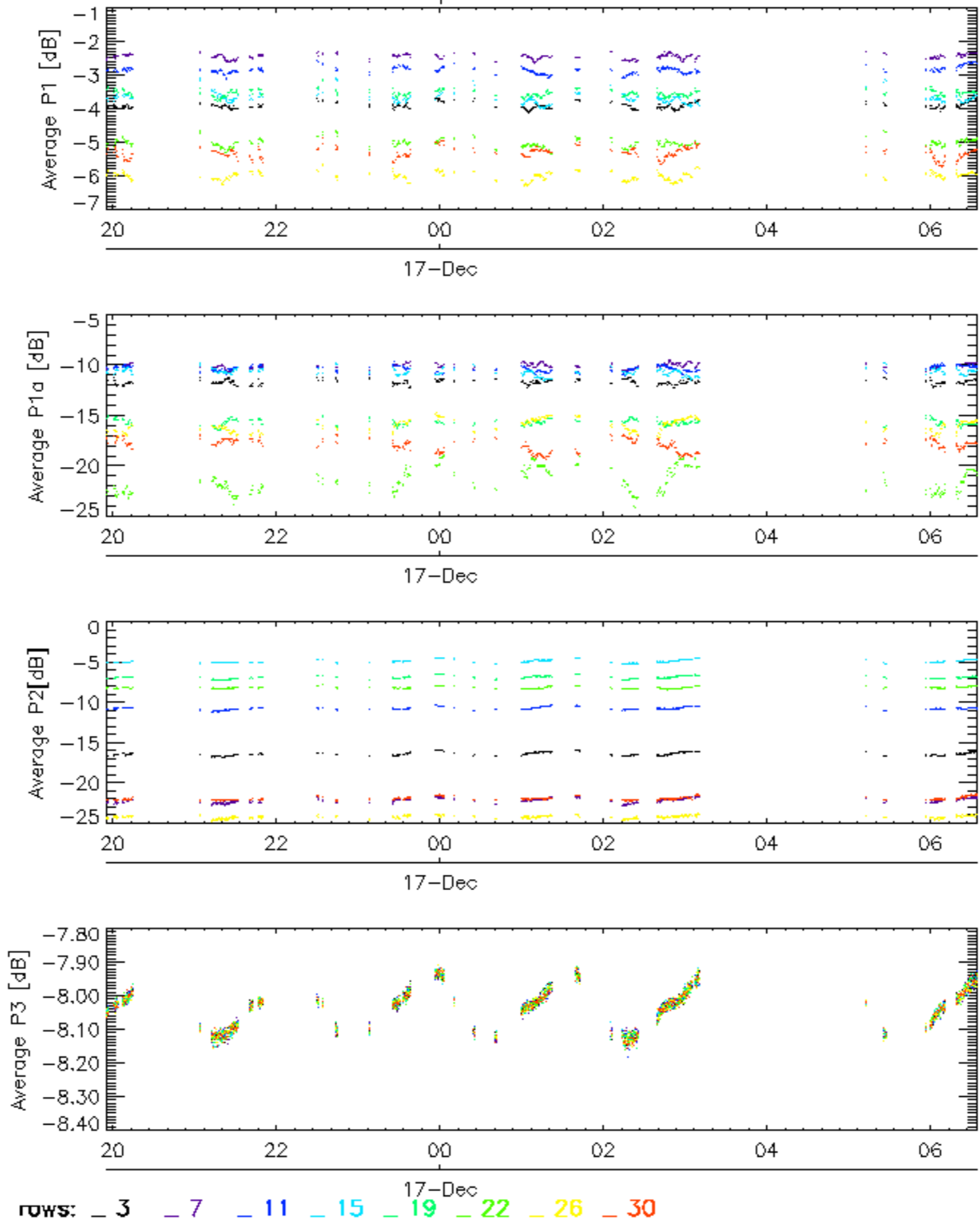
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

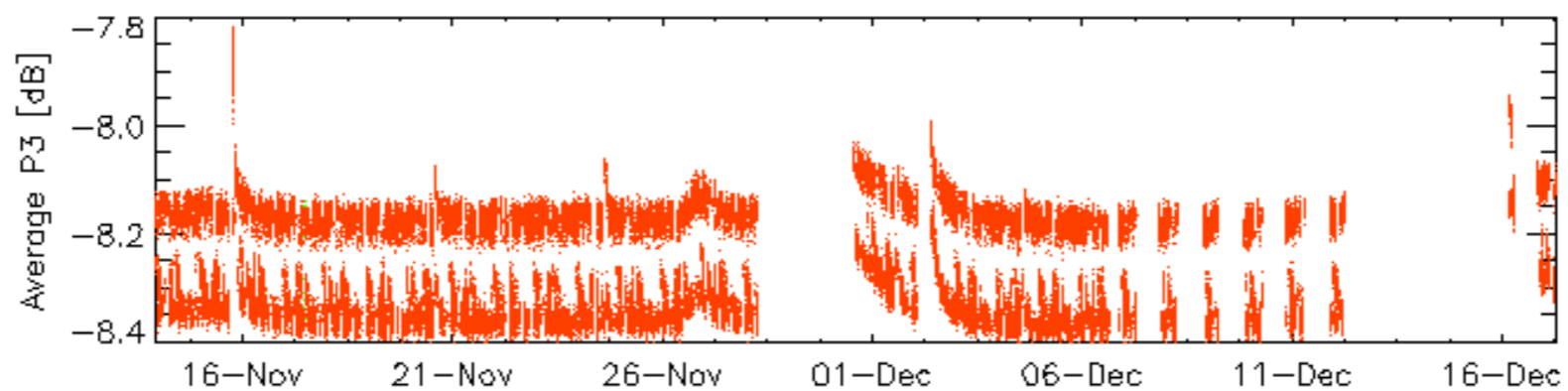
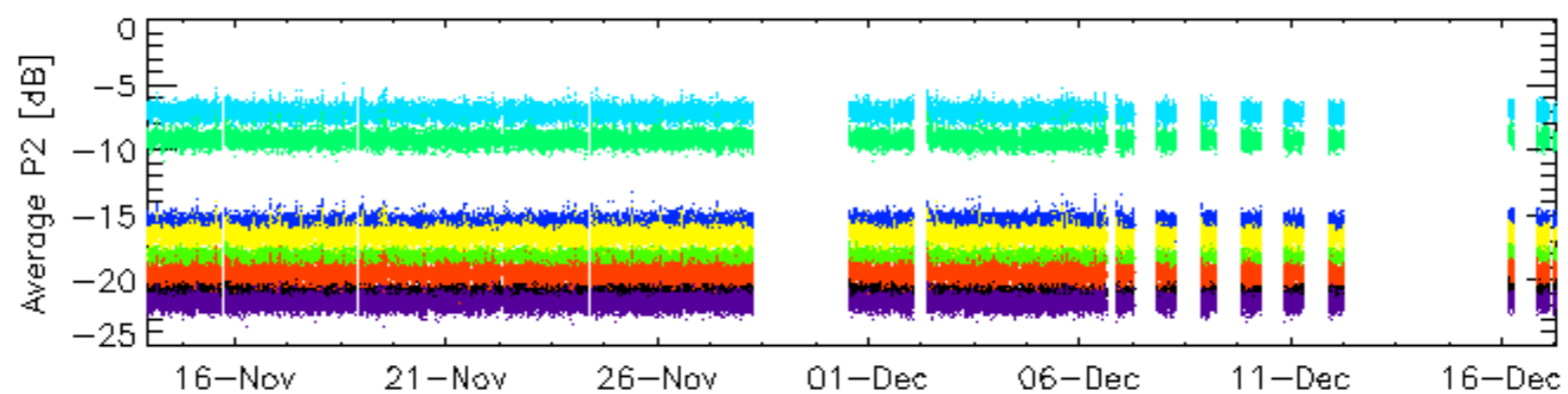
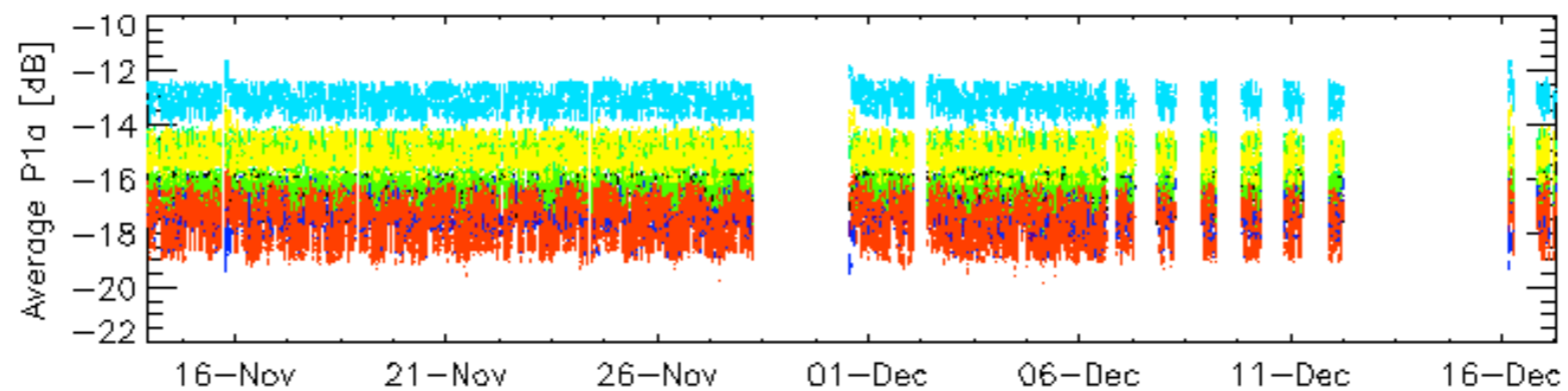
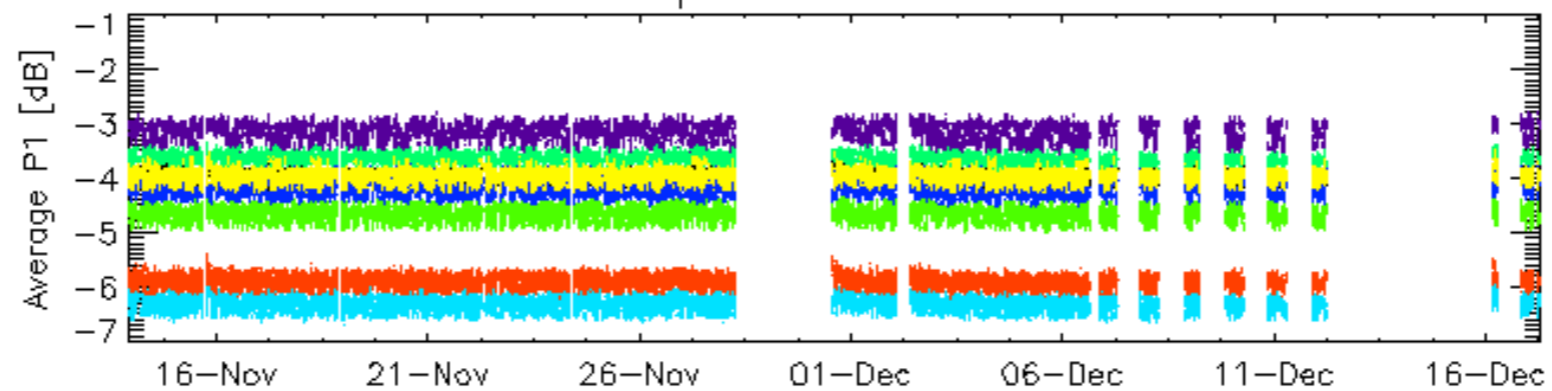


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

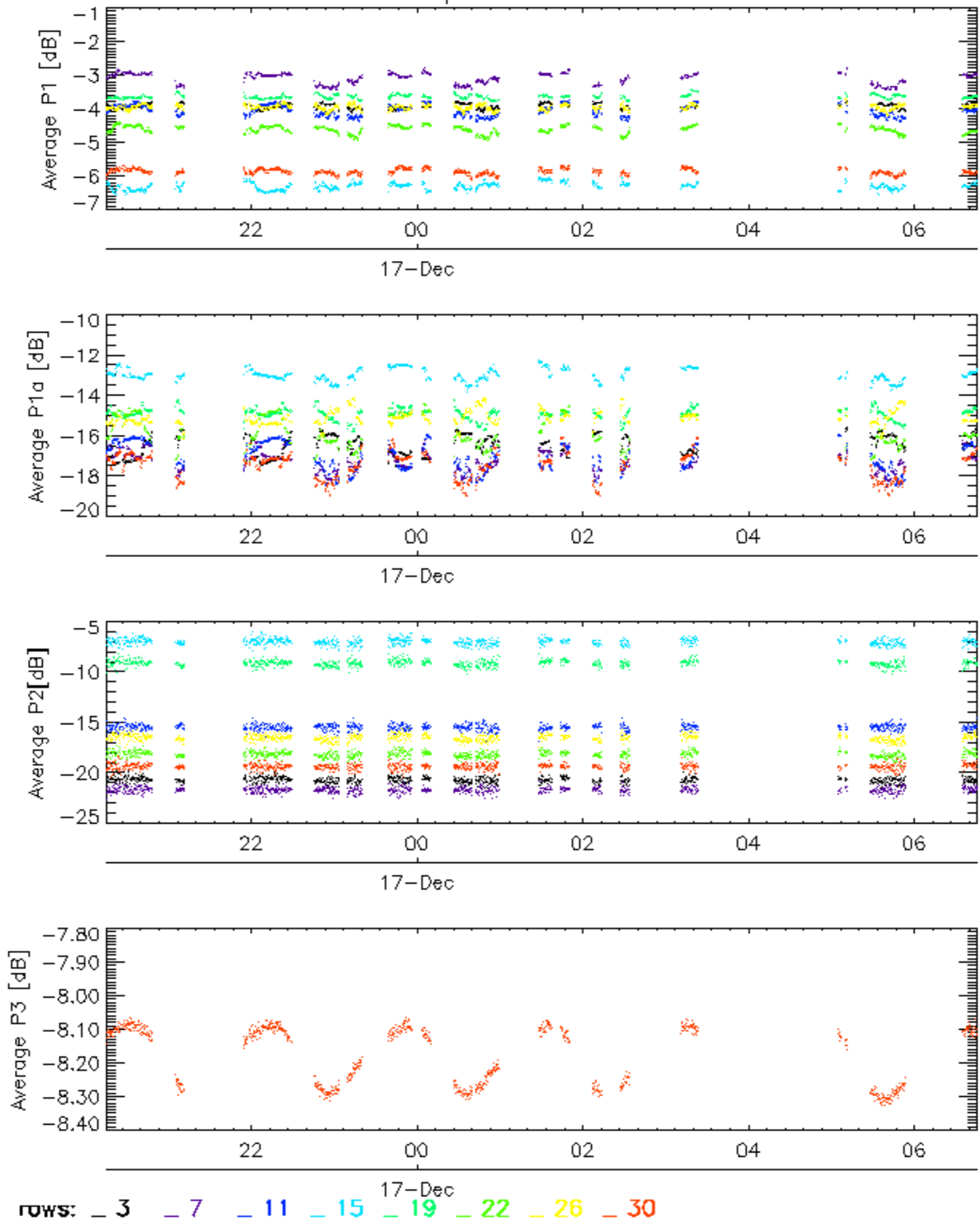


Cal pulses for WVS IS2

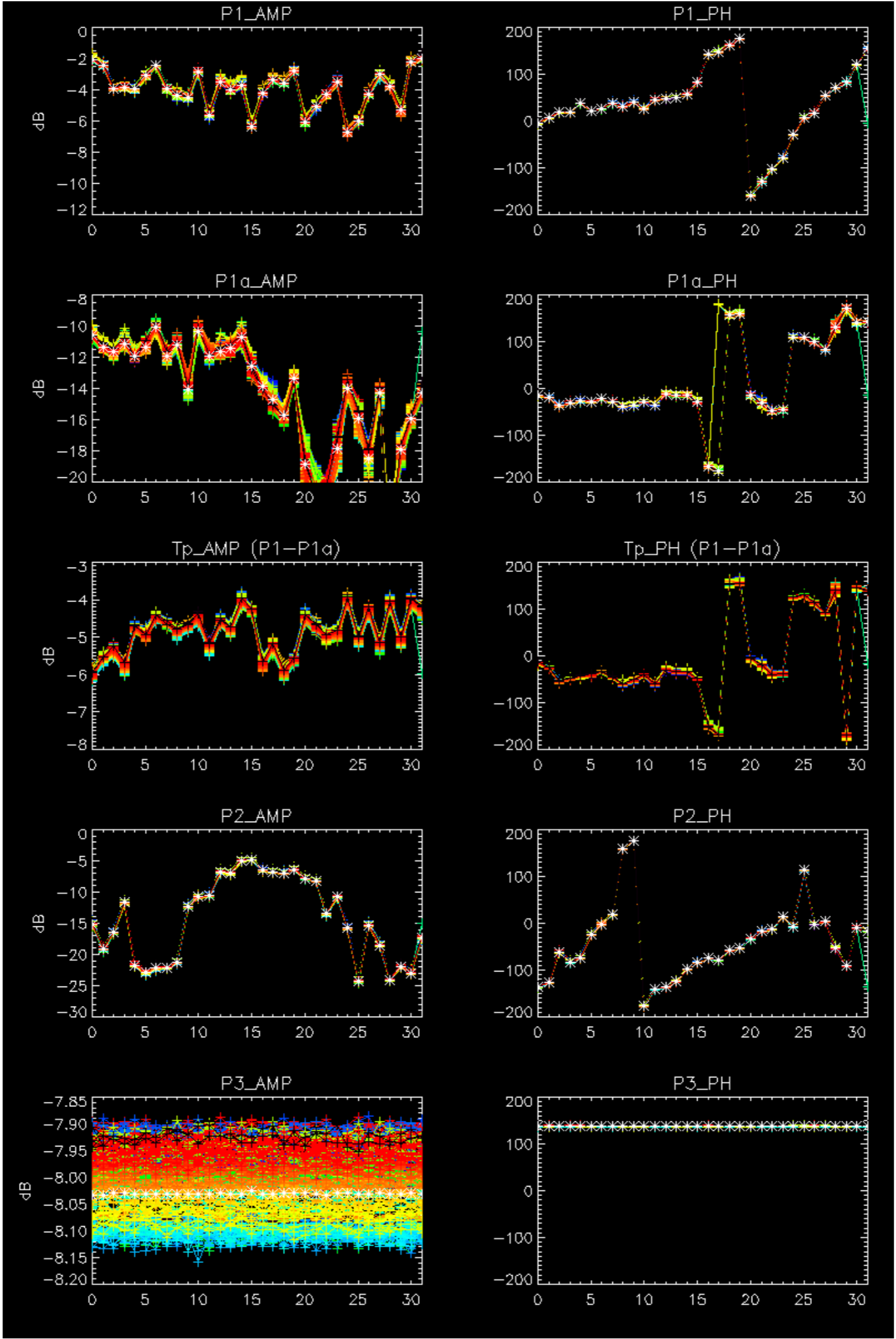


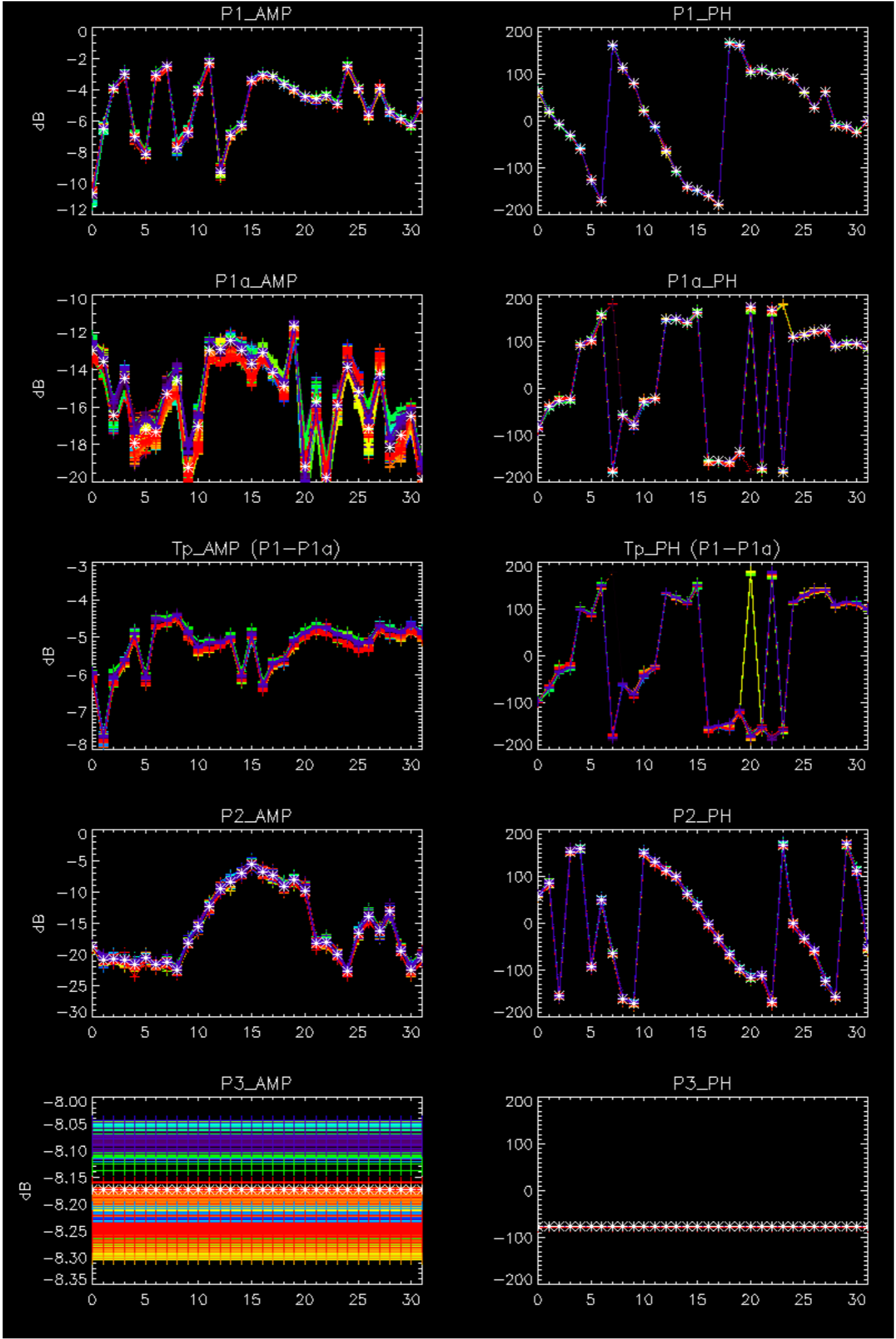
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



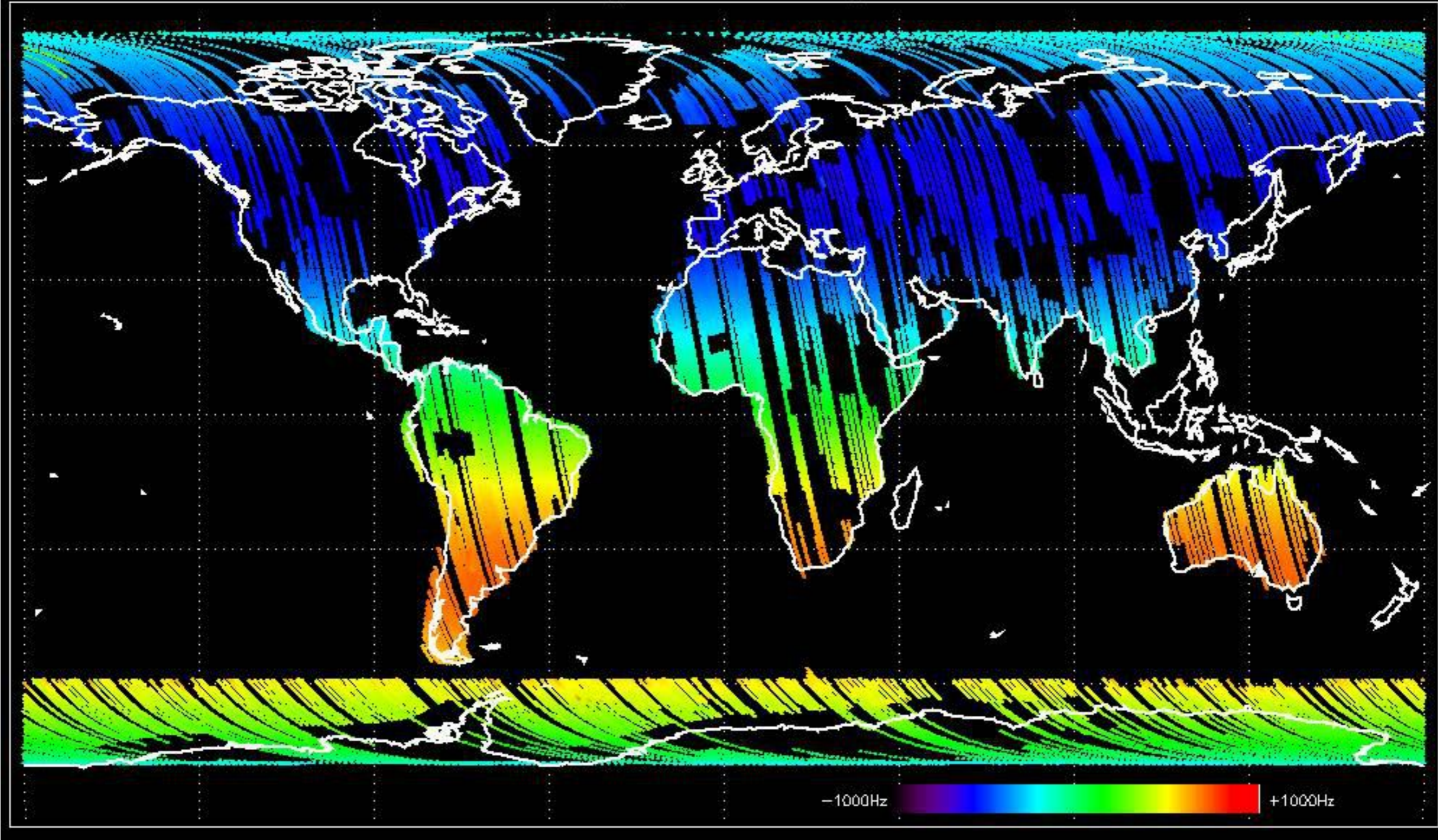
No anomalies observed.



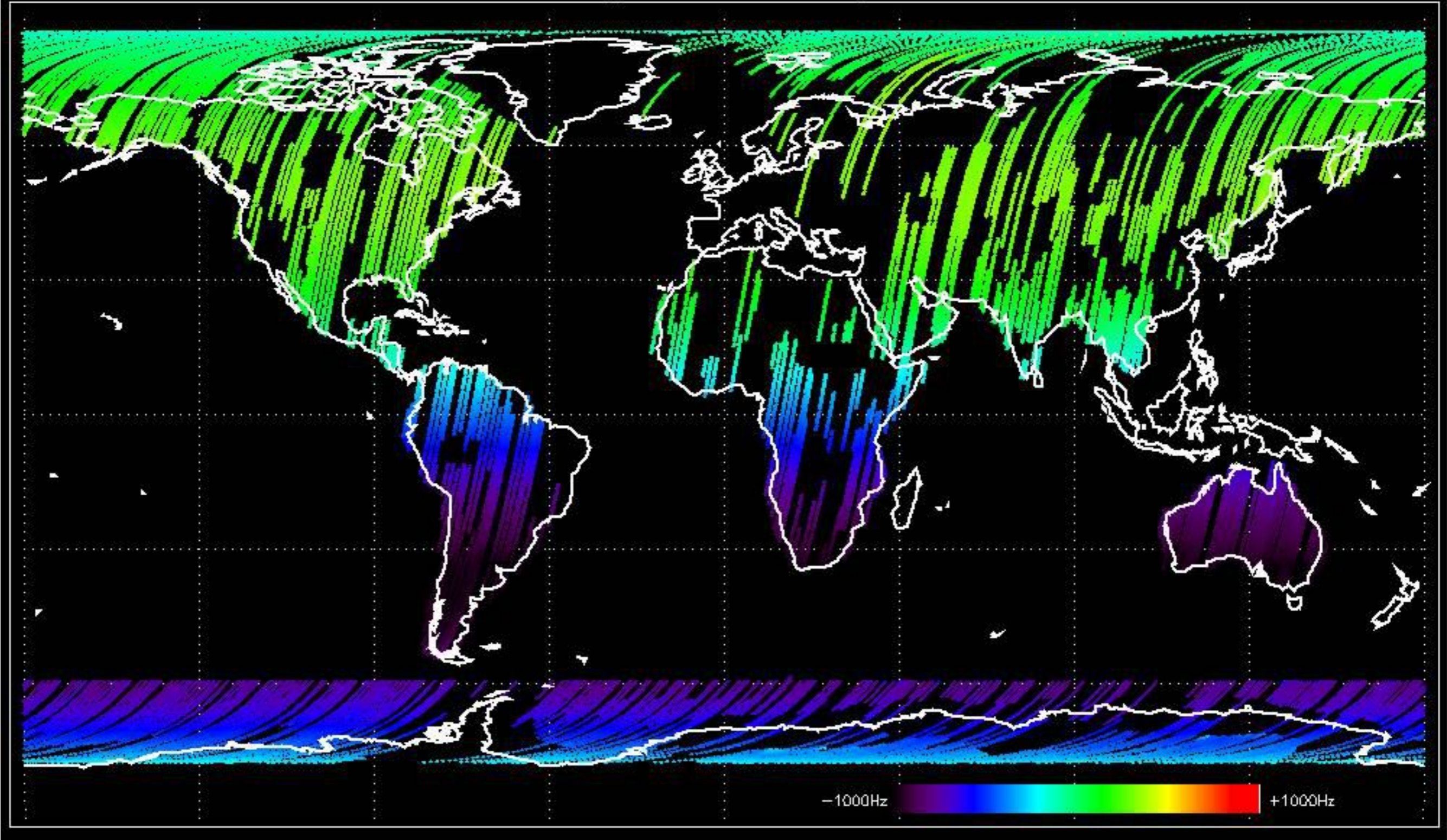


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

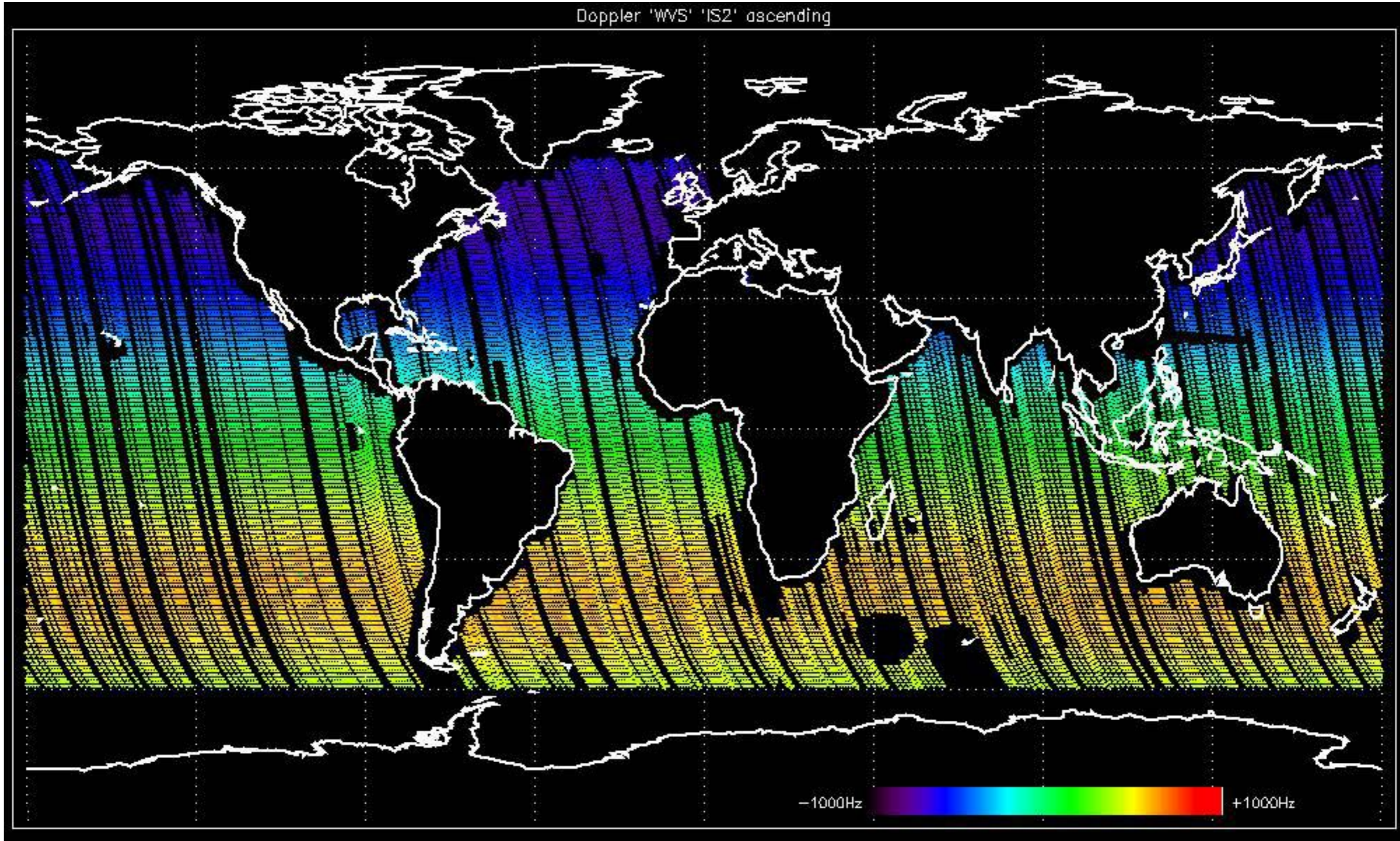
Doppler 'GM1' 'SS1' ascending



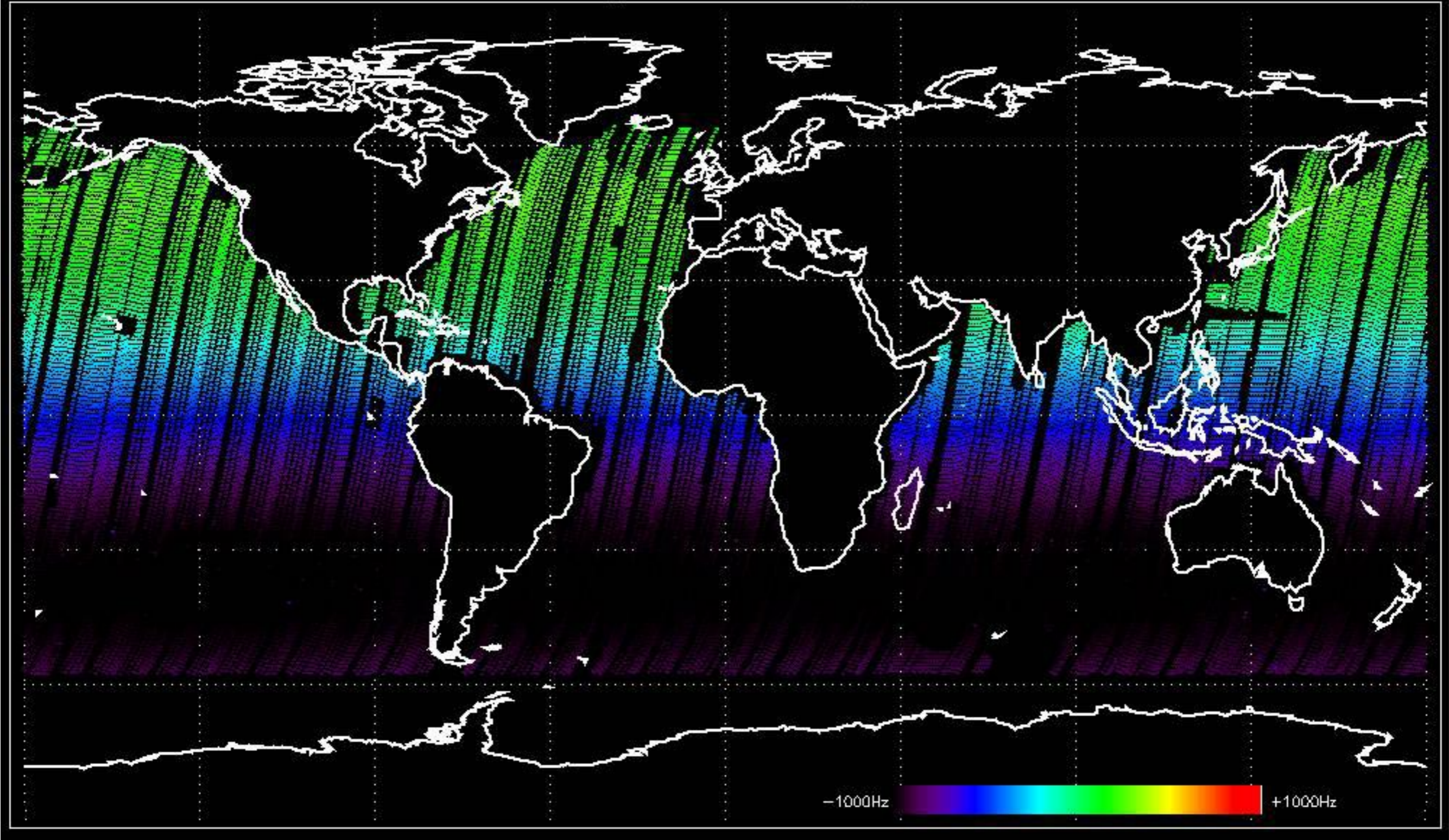
Doppler 'GM1' 'SS1' descending



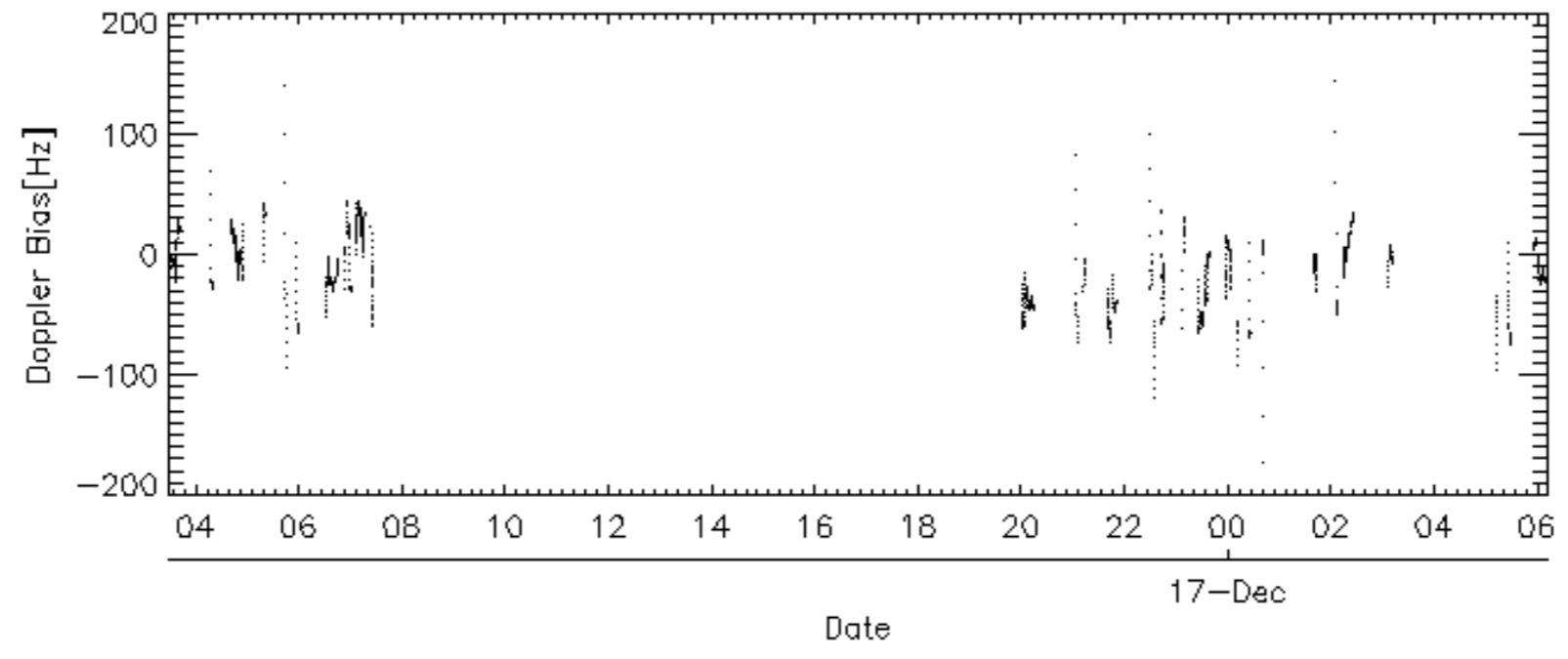
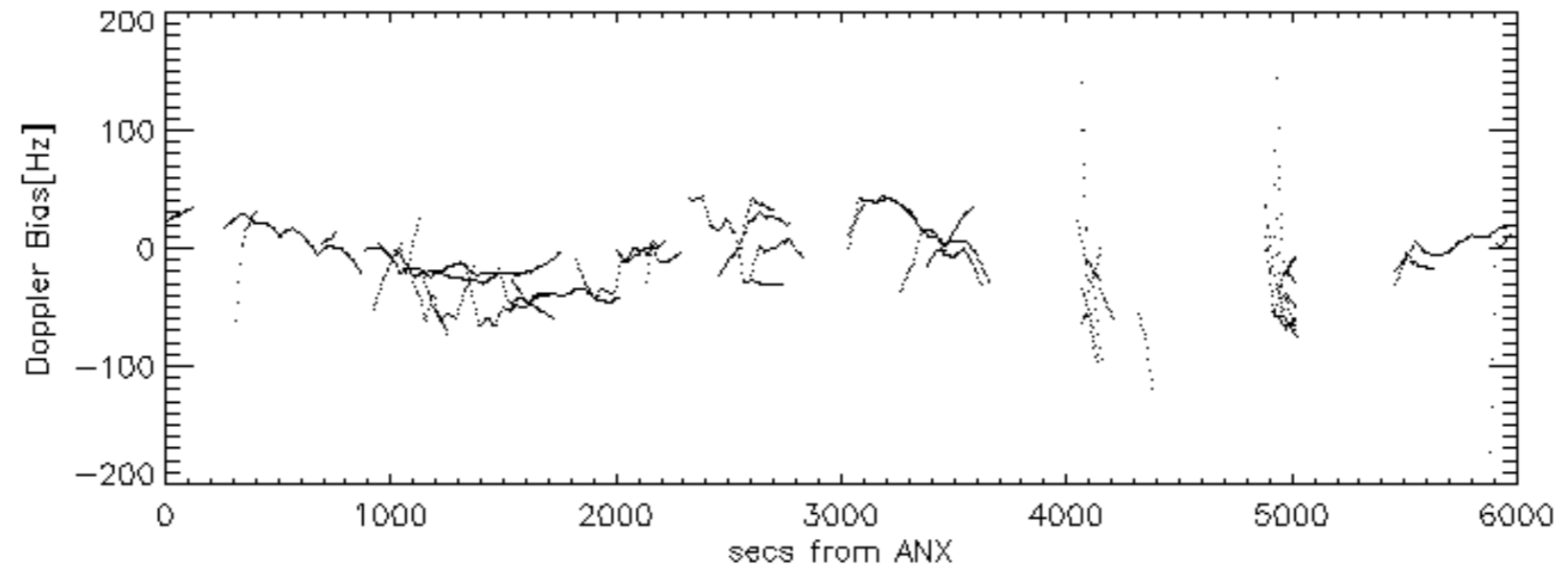
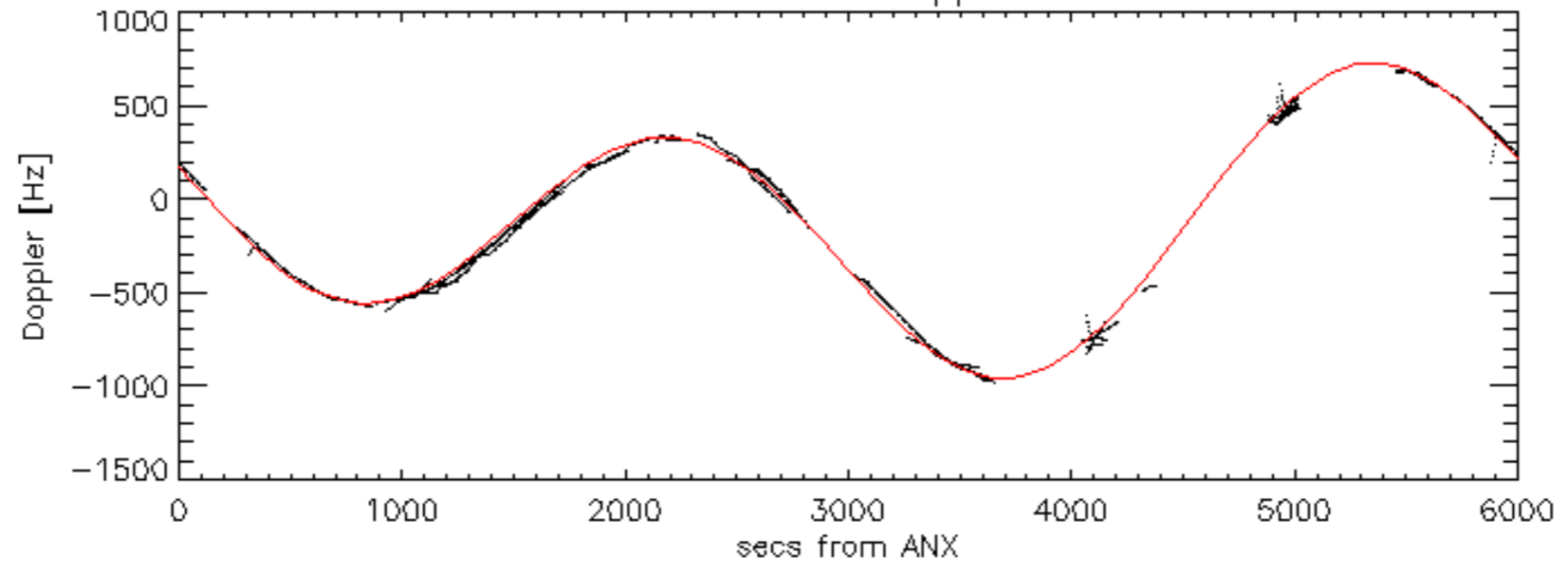
Doppler 'WVS' 'IS2' ascending

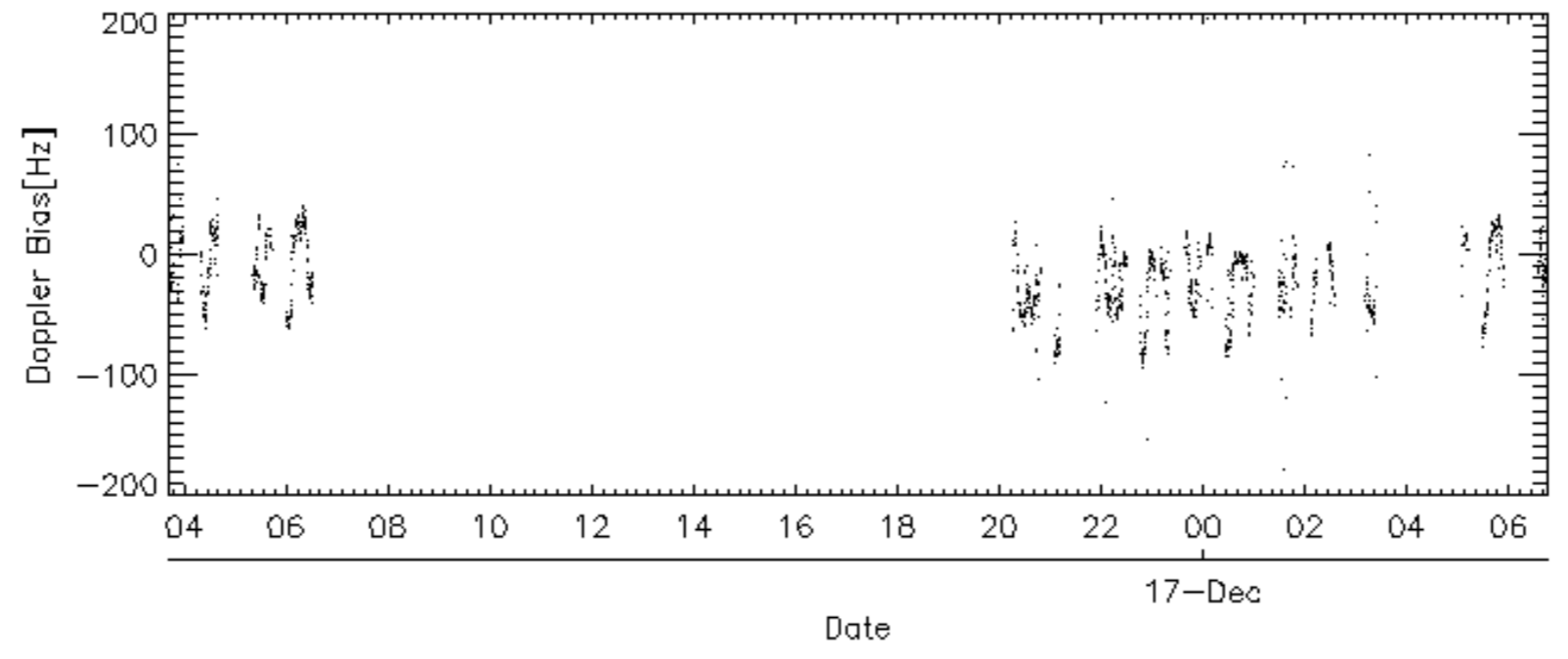
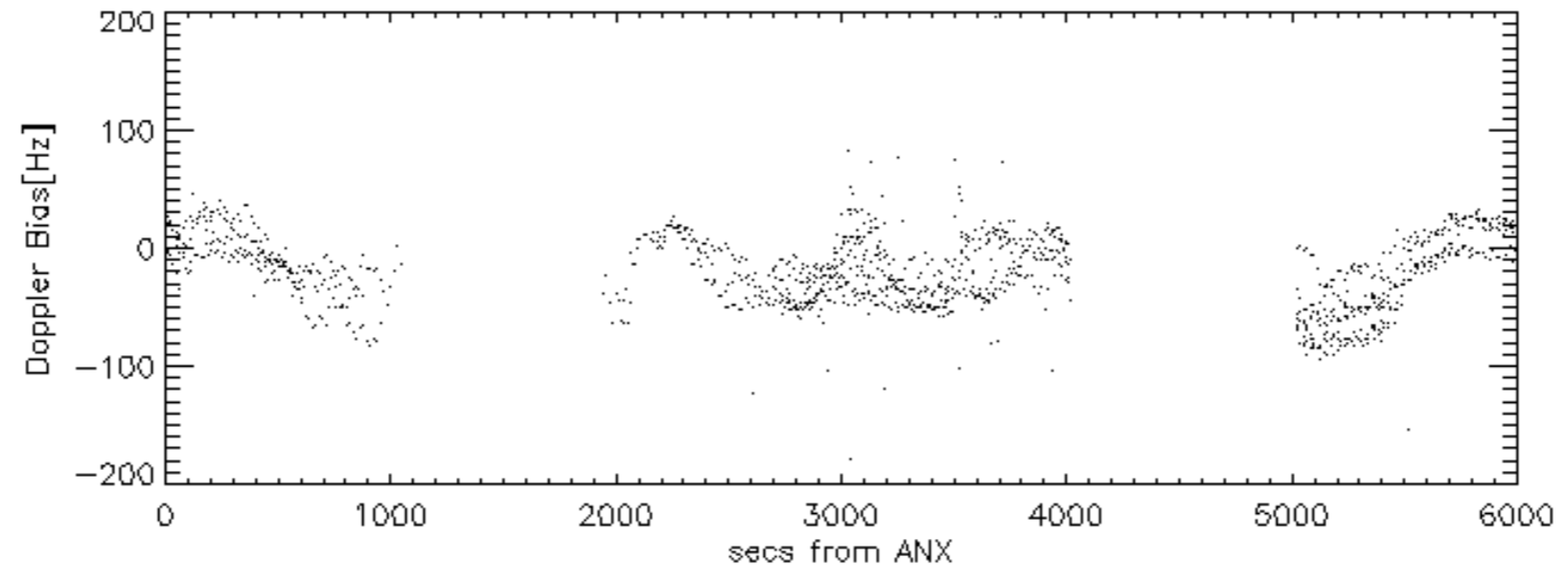
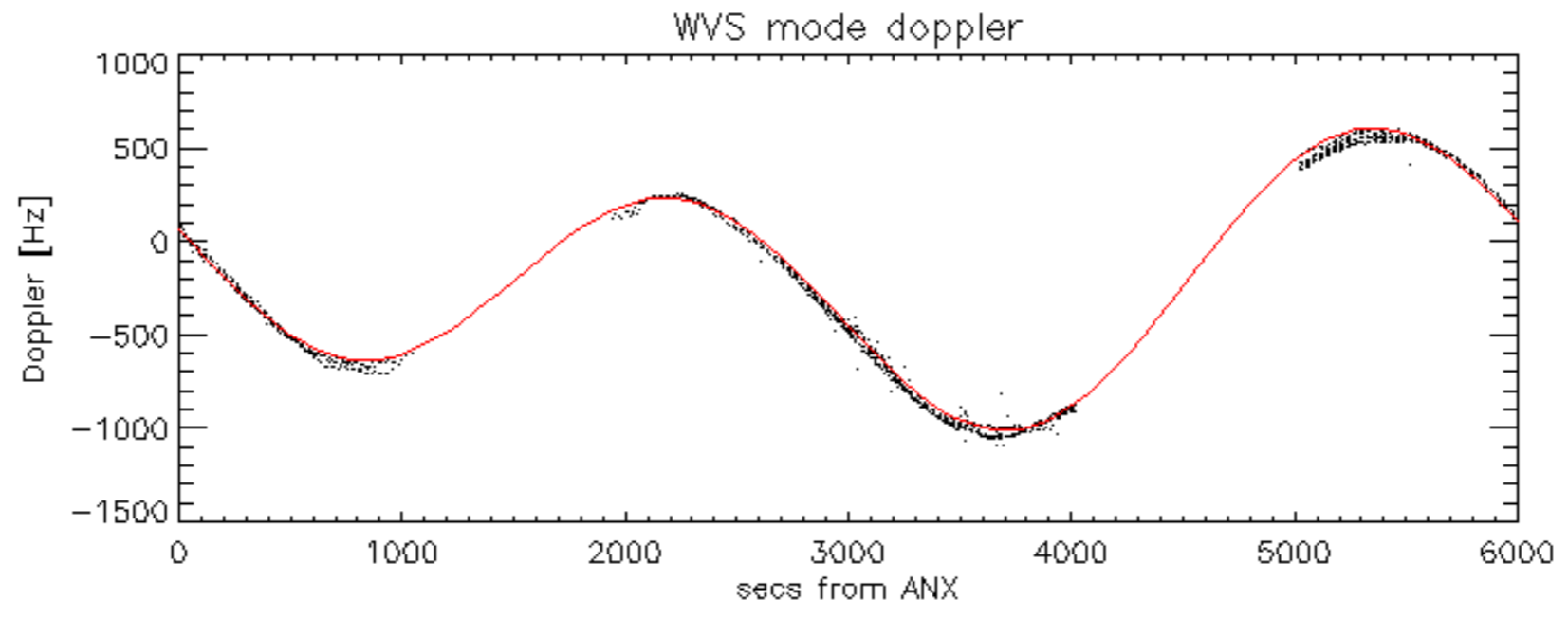


Doppler 'WVS' 'IS2' descending

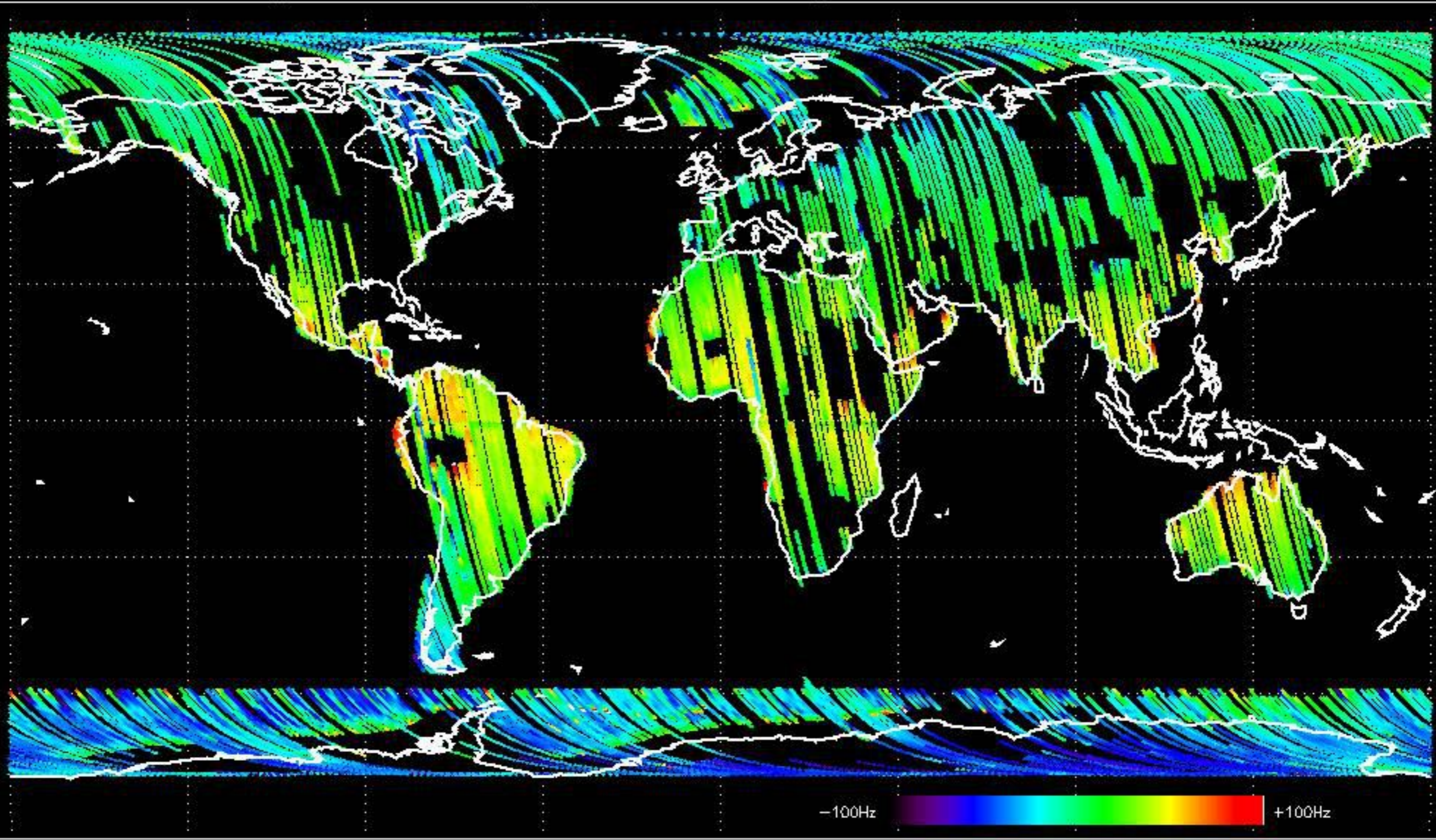


GM1 mode doppler

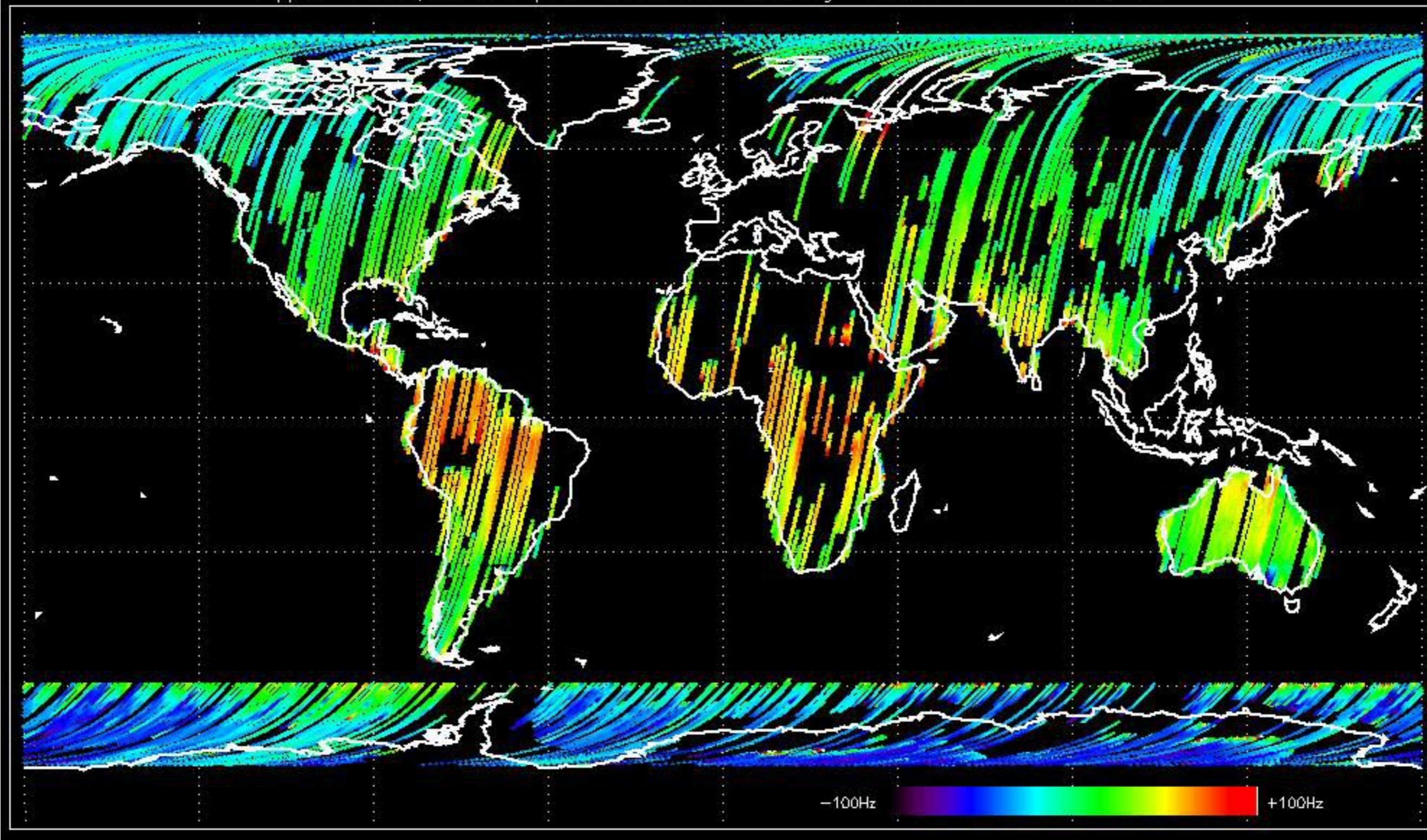




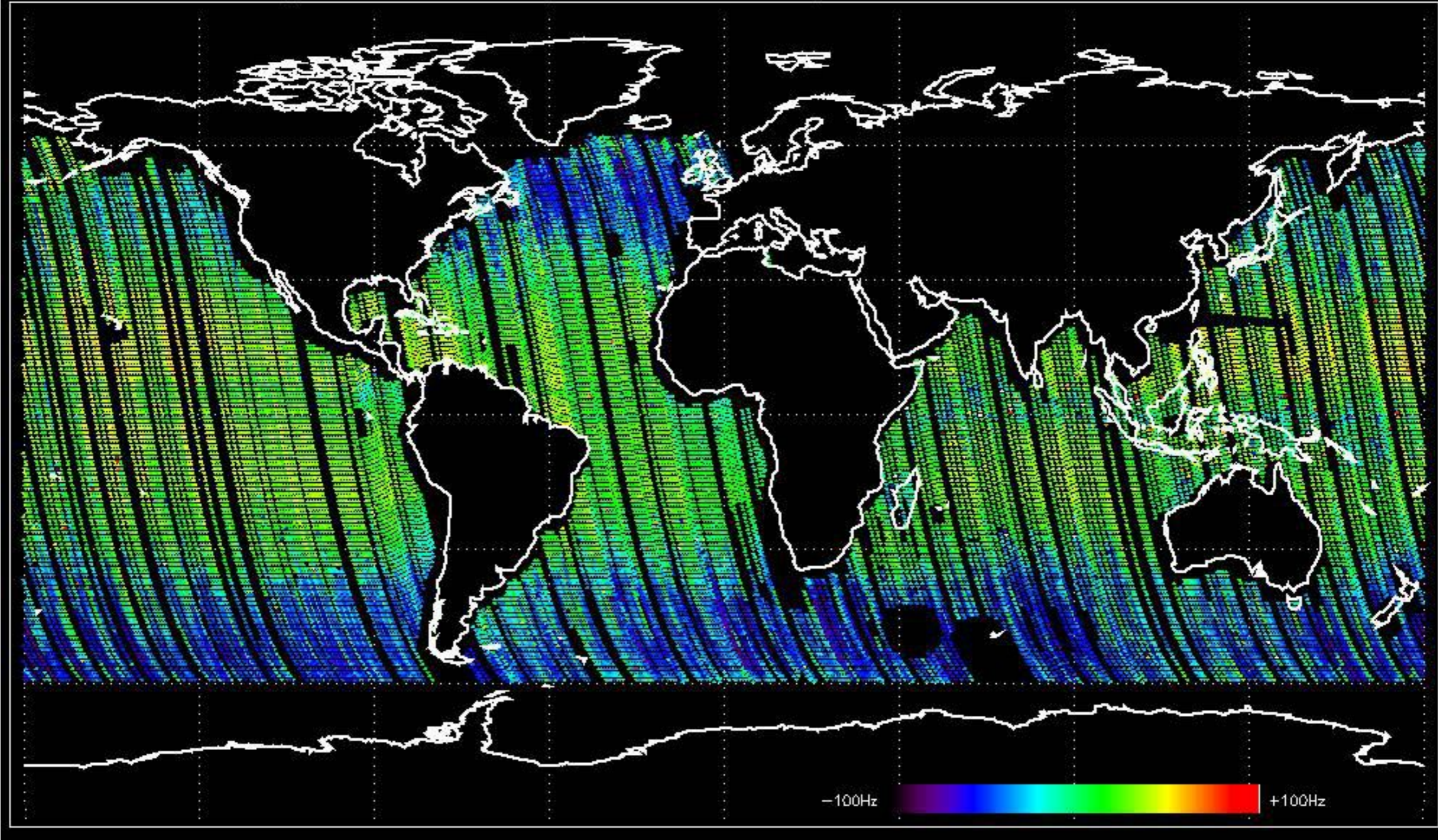
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.611453 Hz



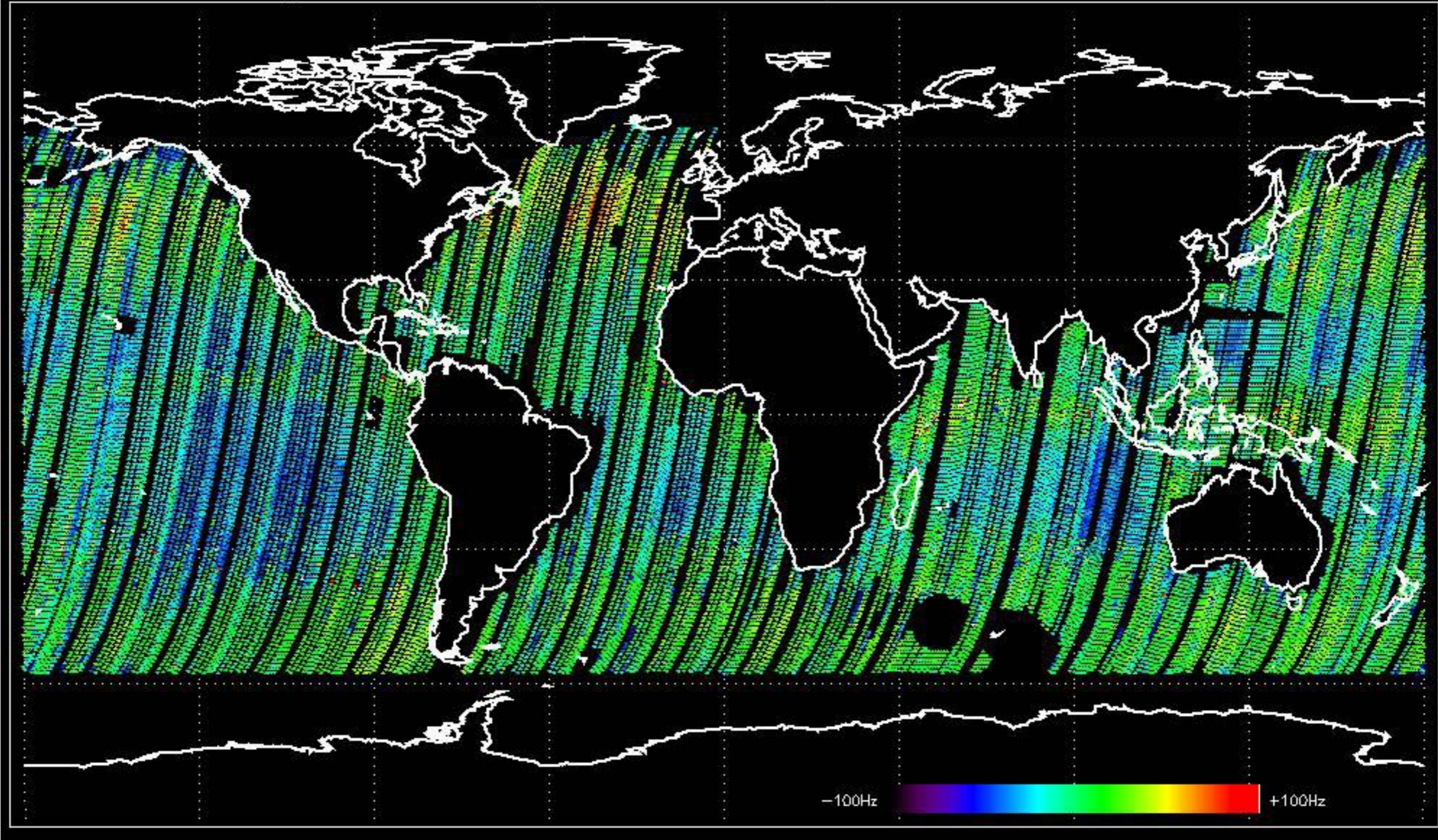
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -12.622963 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.9974596 Hz

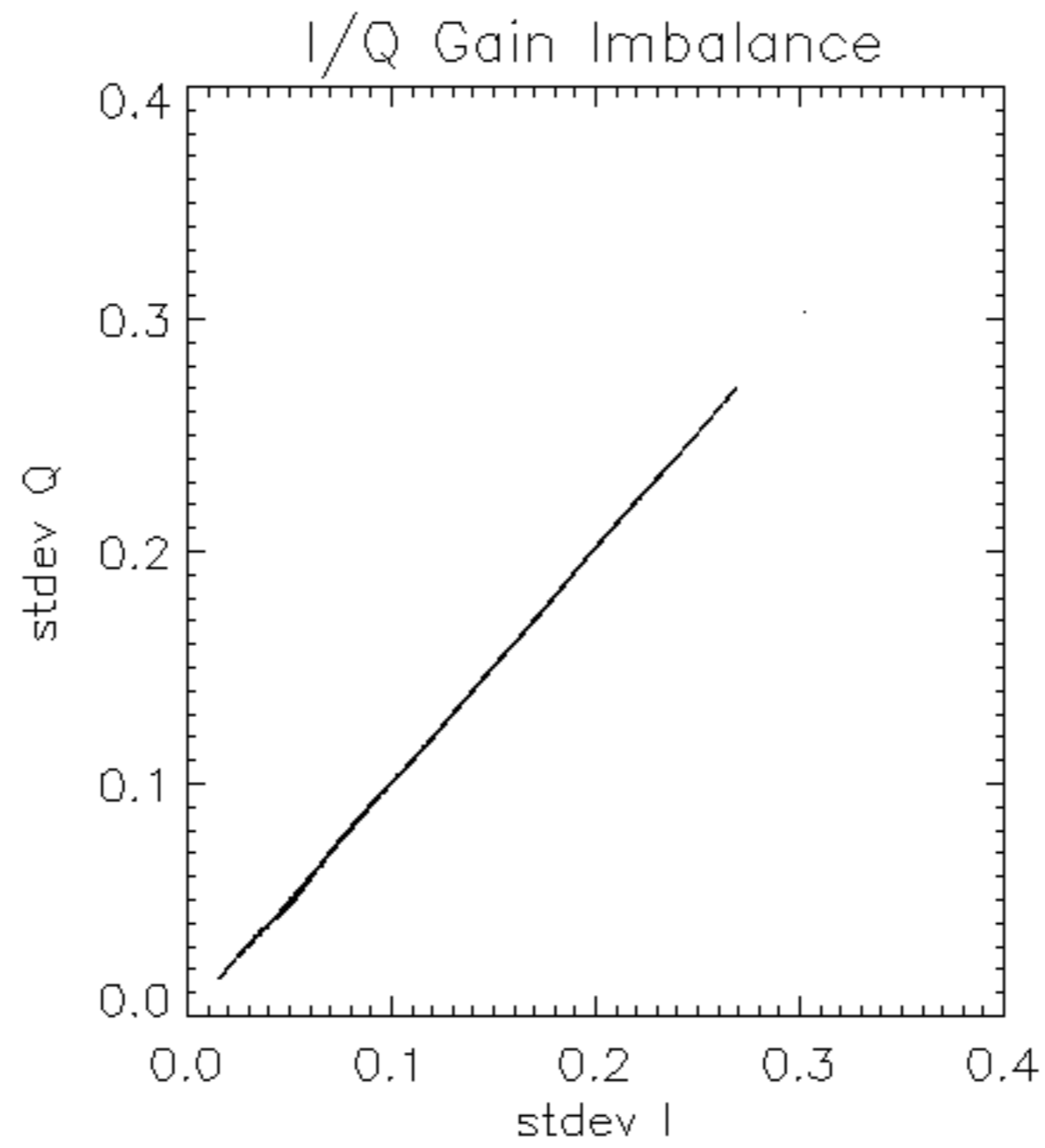


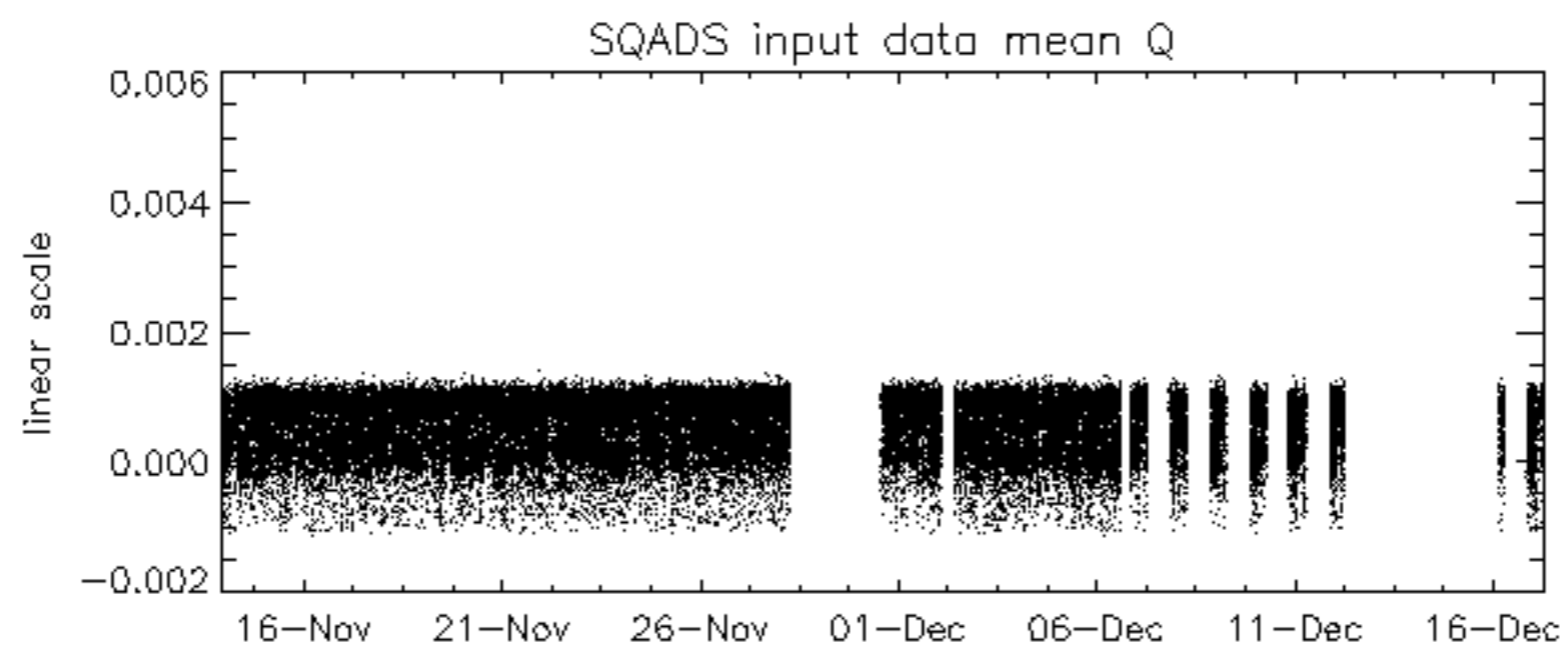
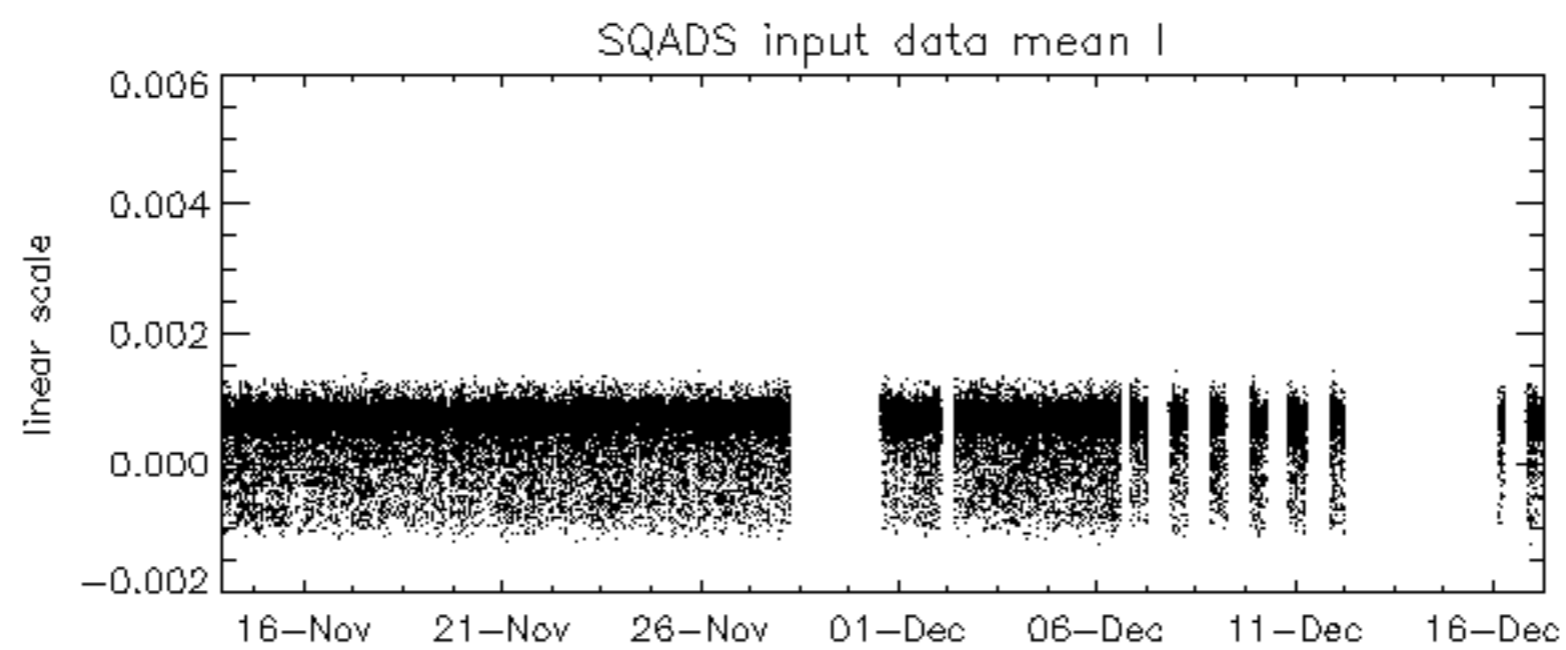
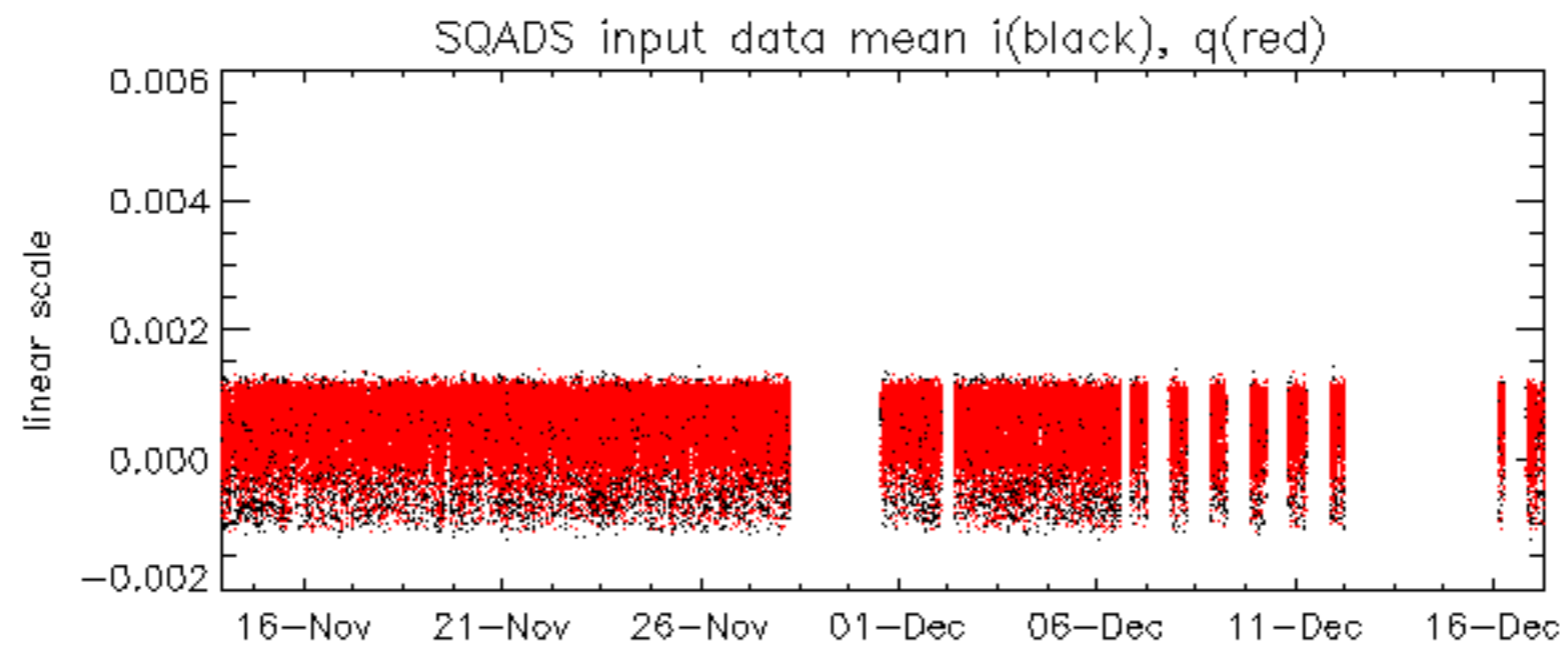
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.2312013 Hz

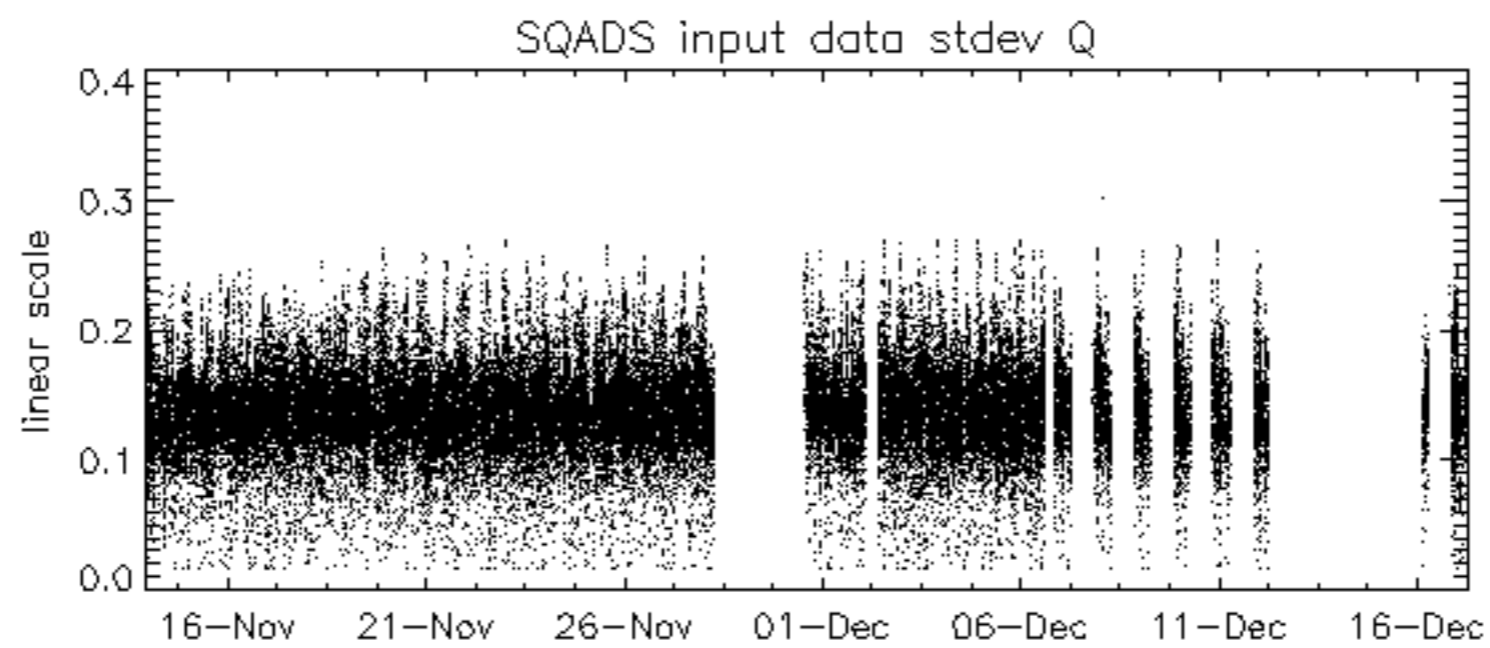
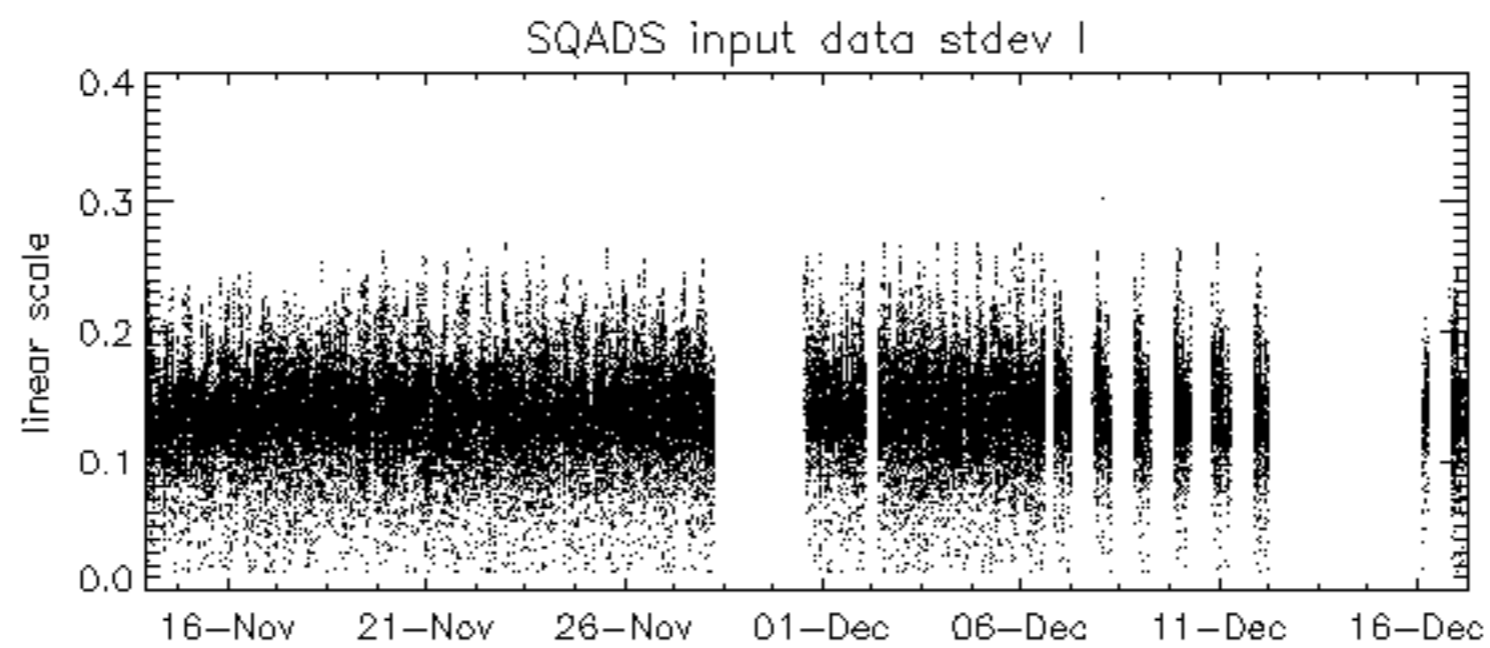
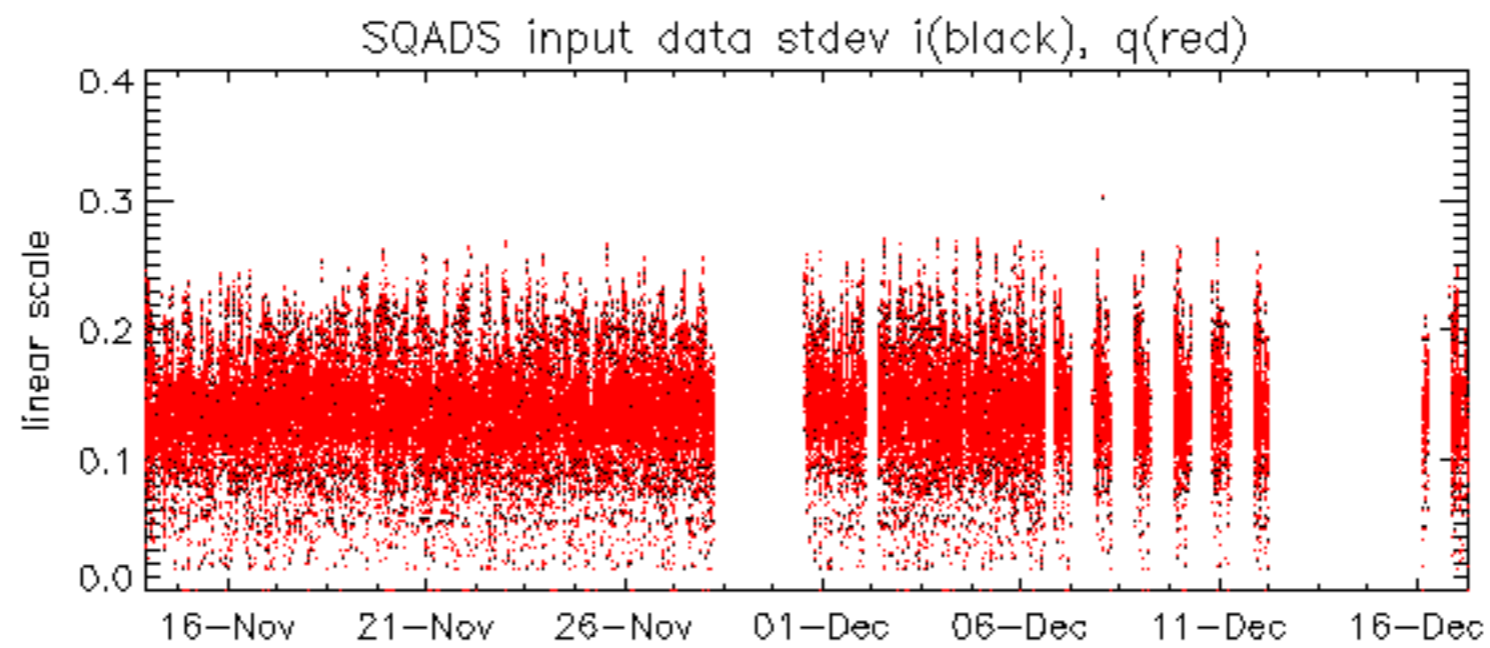


No anomalies observed on available MS products:

No anomalies observed.



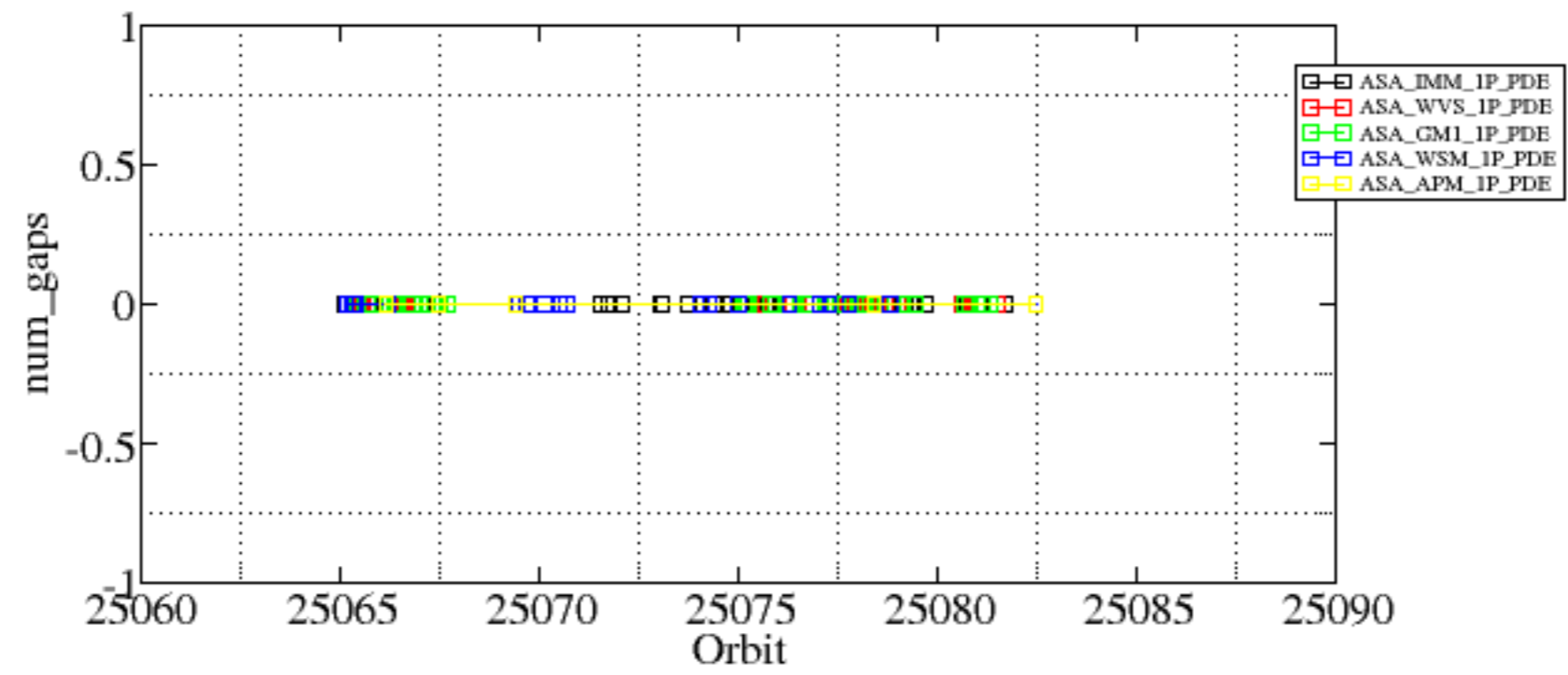


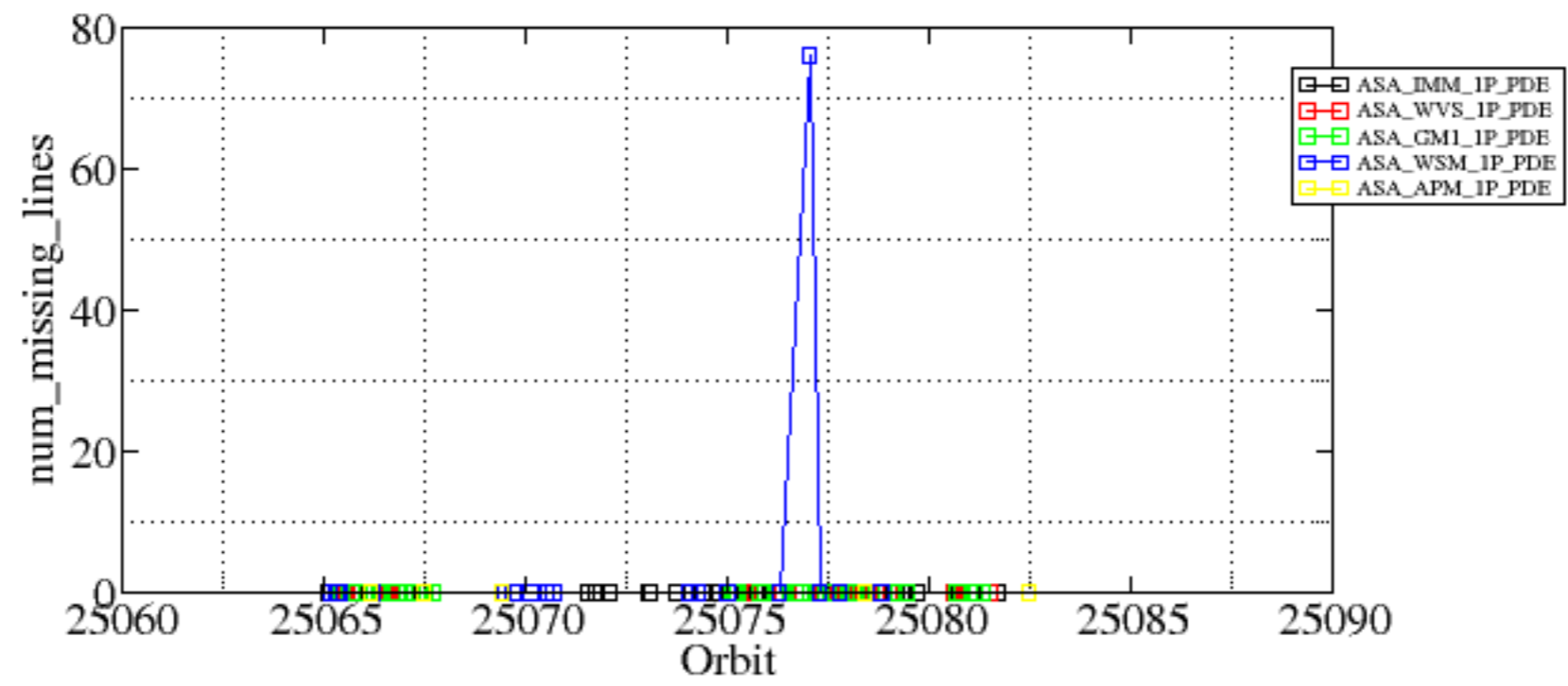


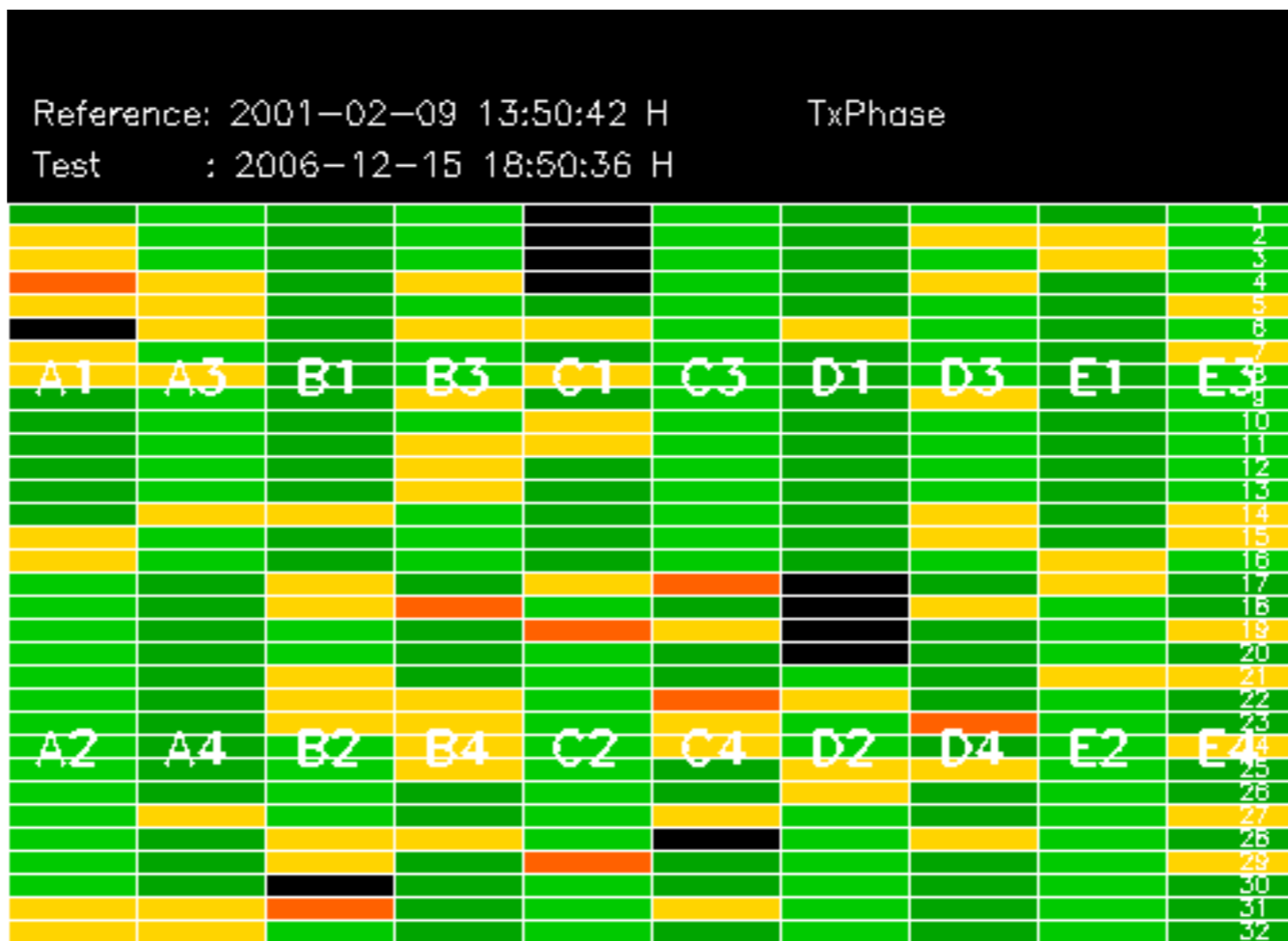
Summary of analysis for the last 3 days 2006121[567]

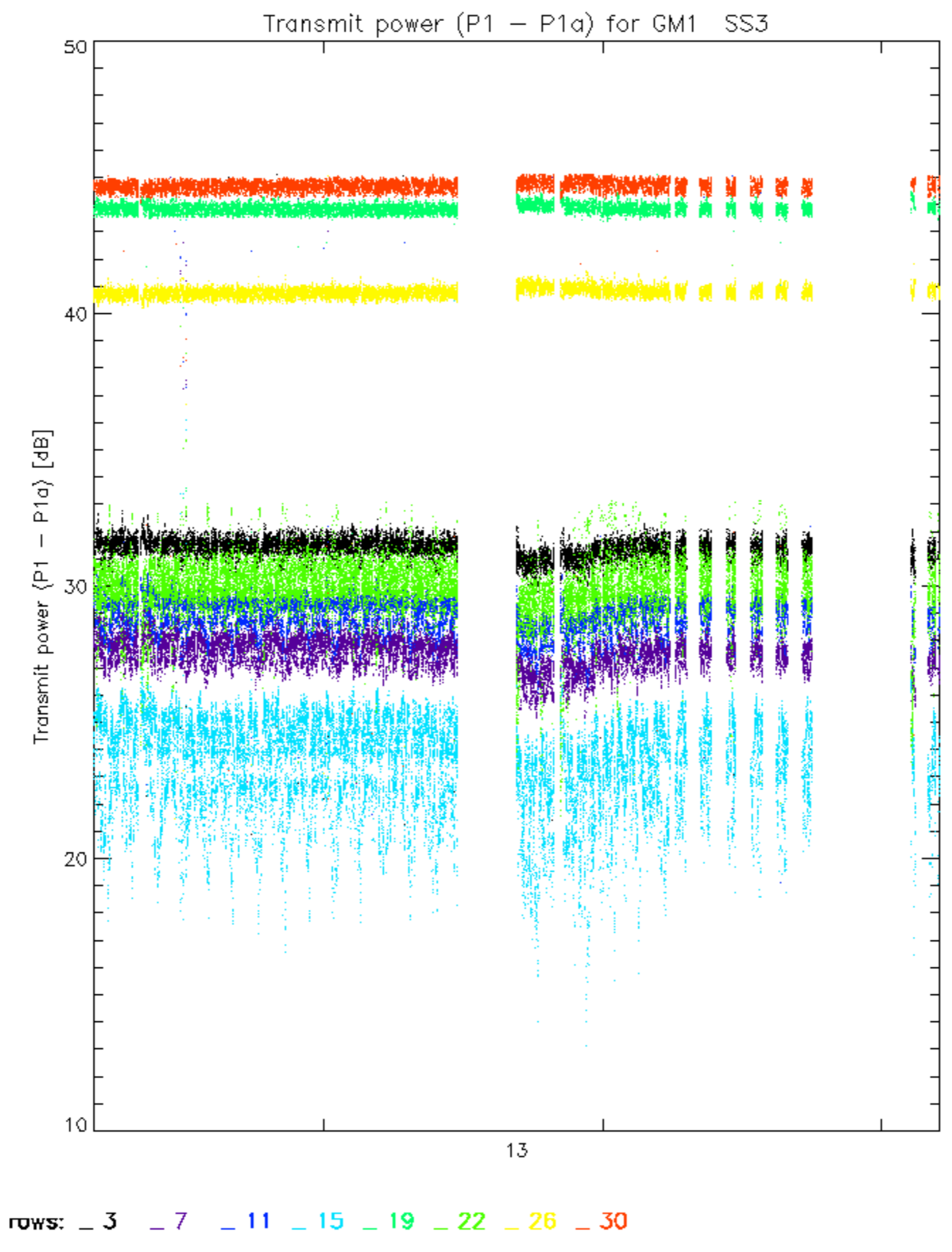
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

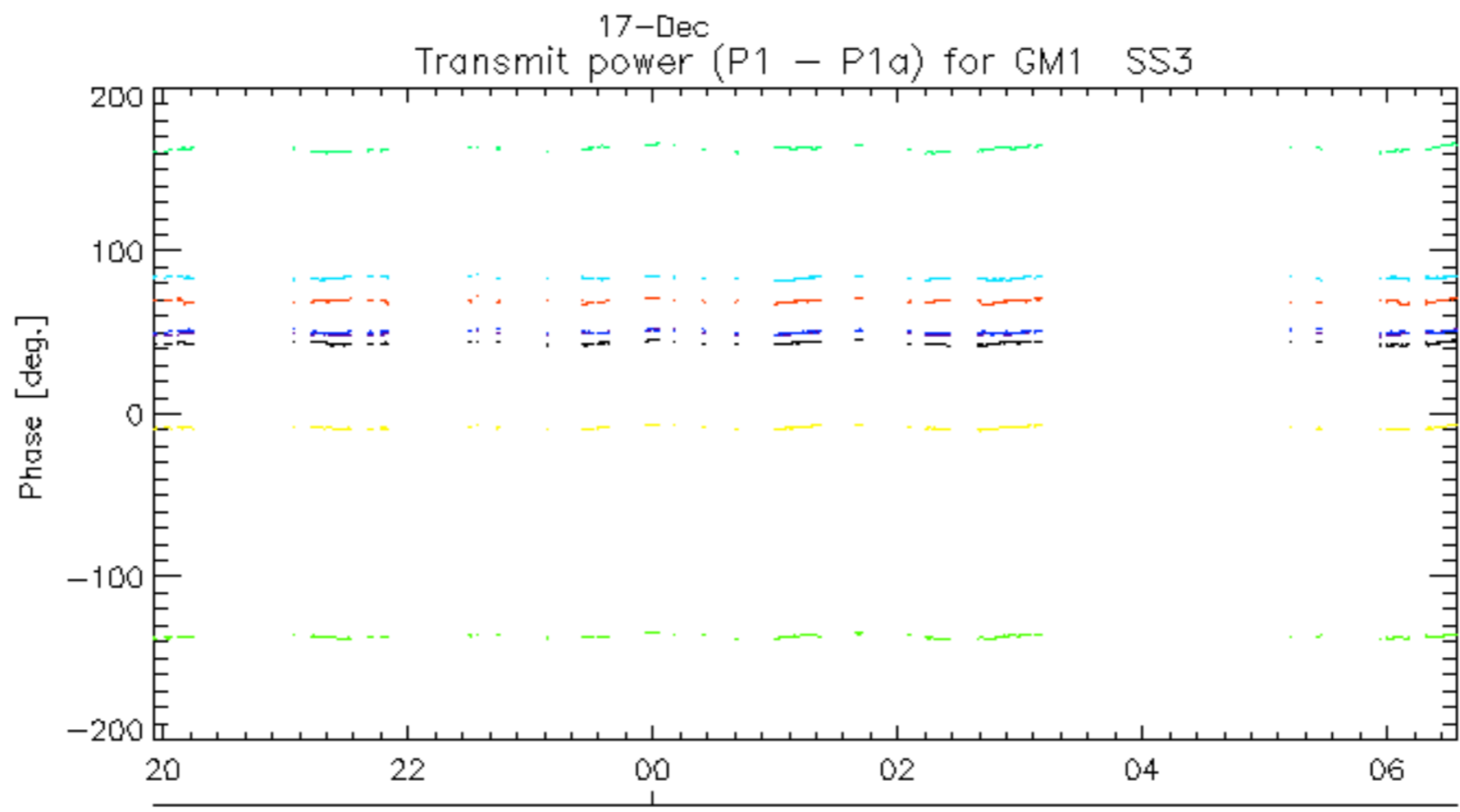
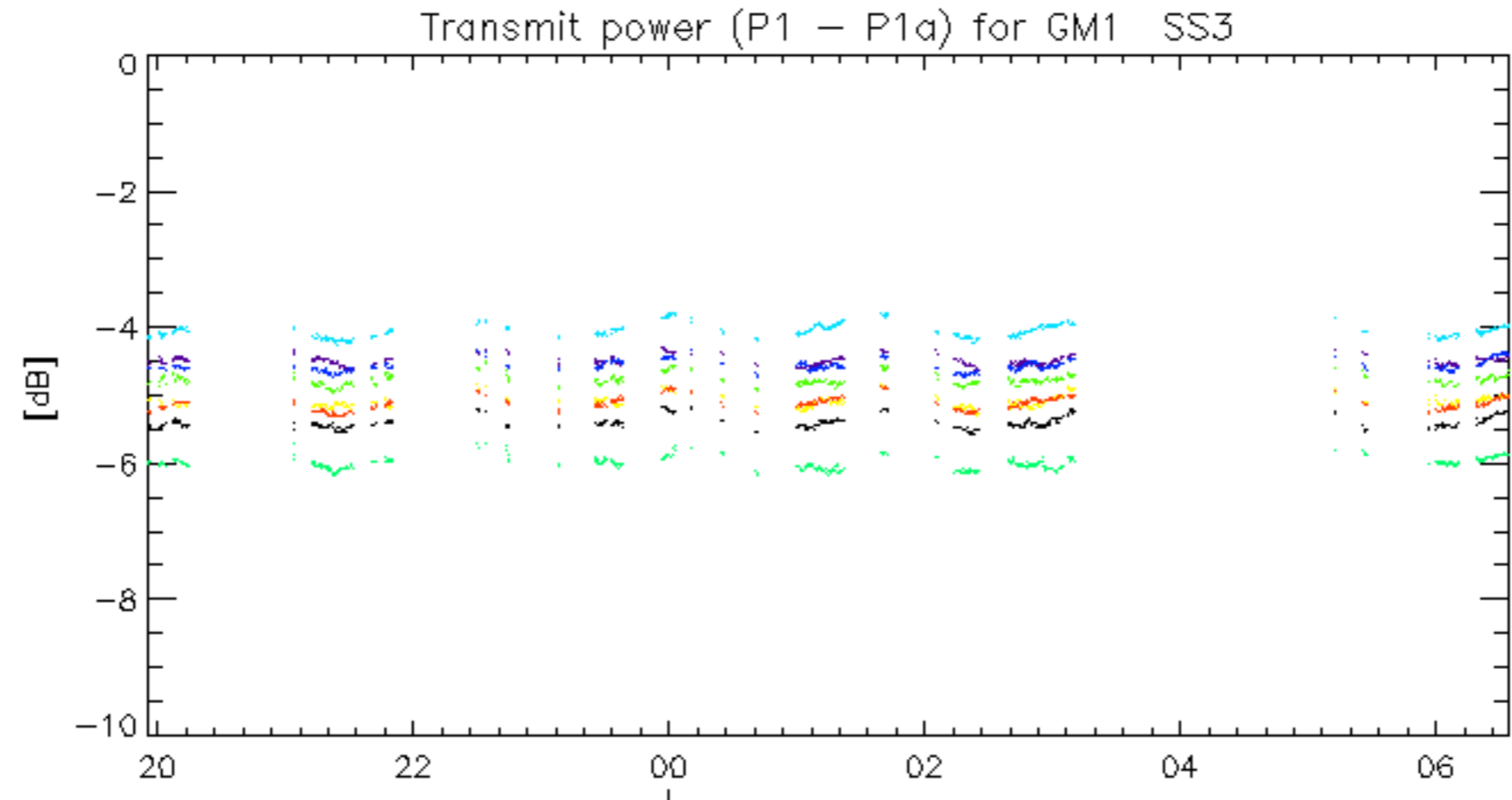
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20061216_230554_000001282053_00474_25077_1497.N1	0	76



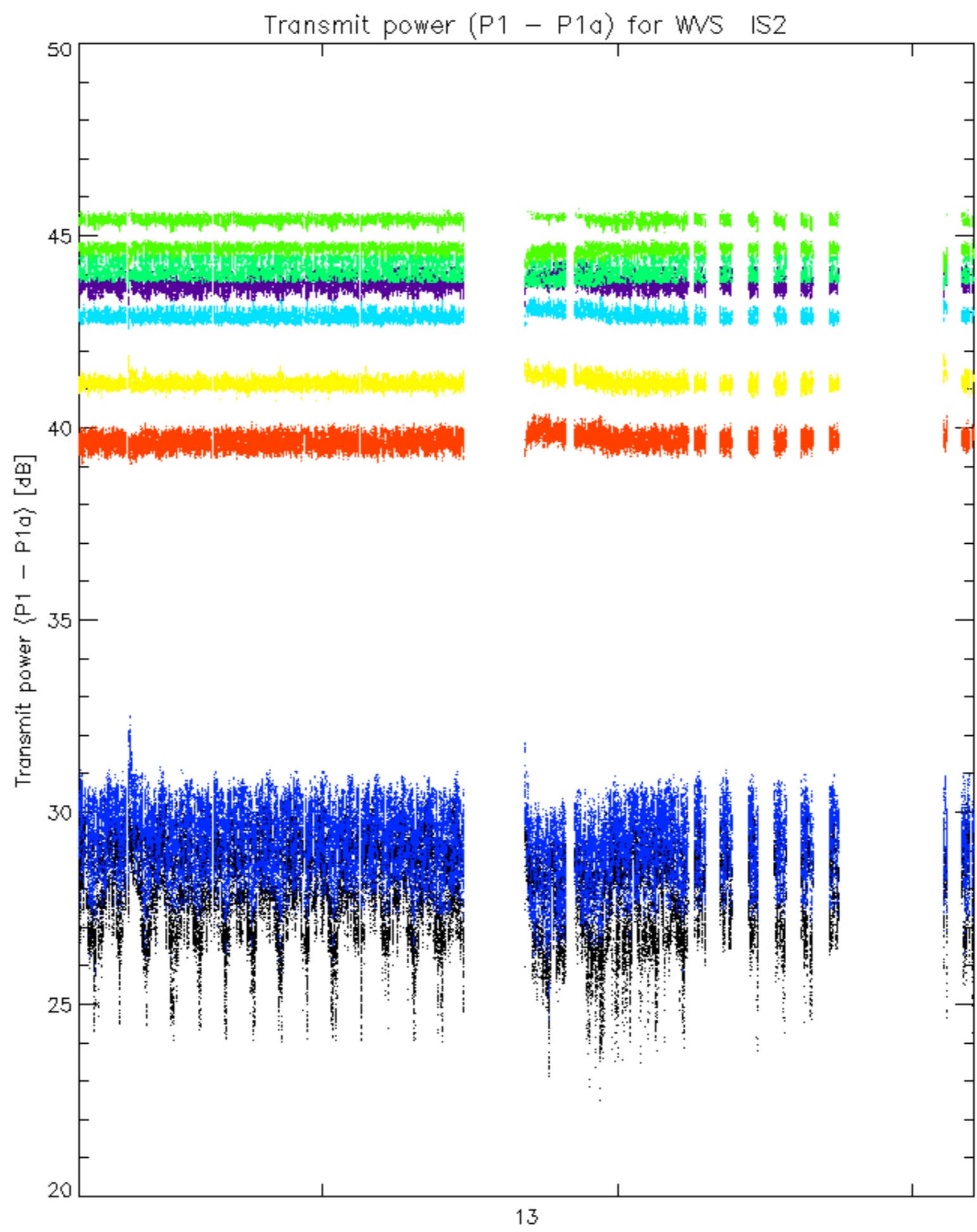




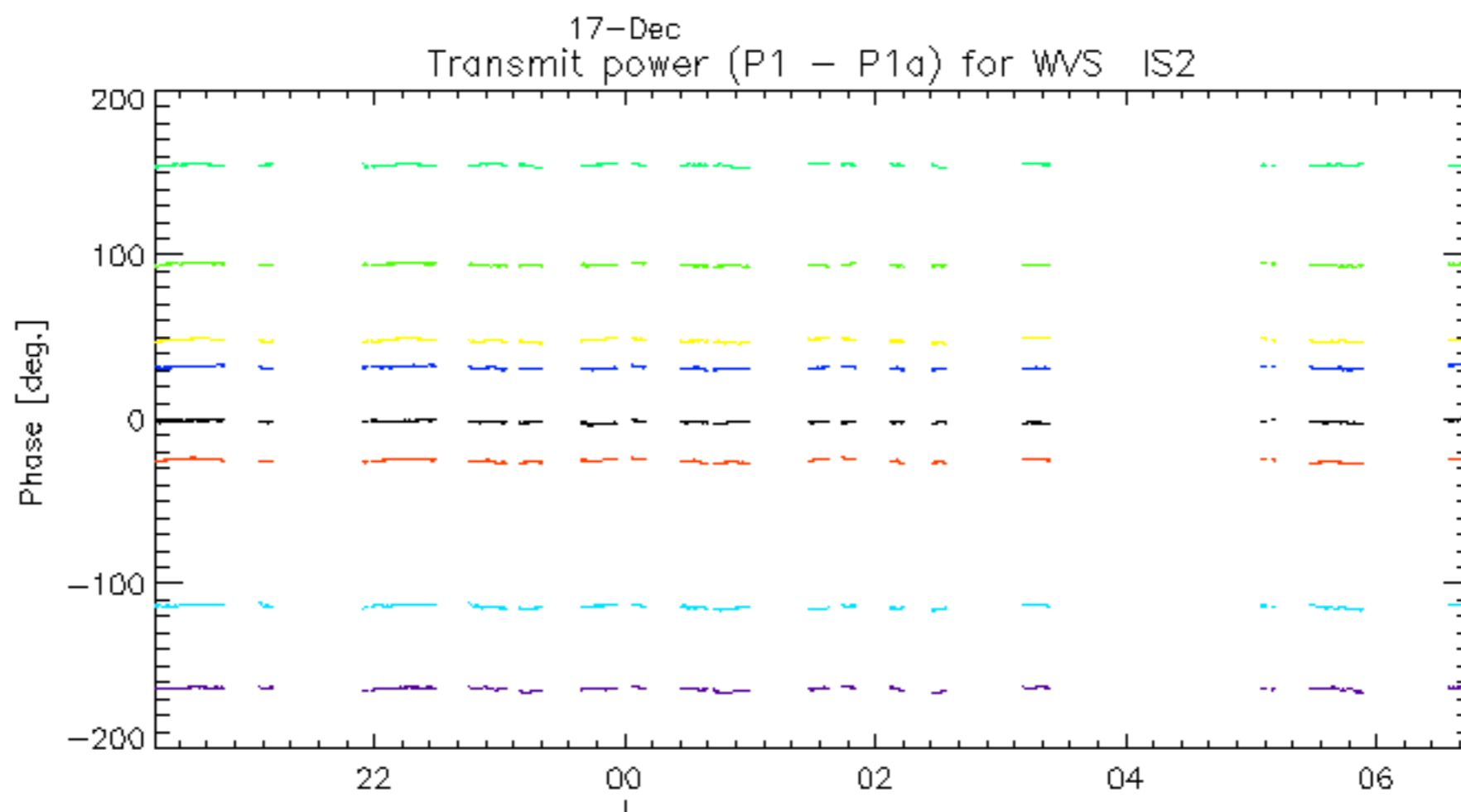
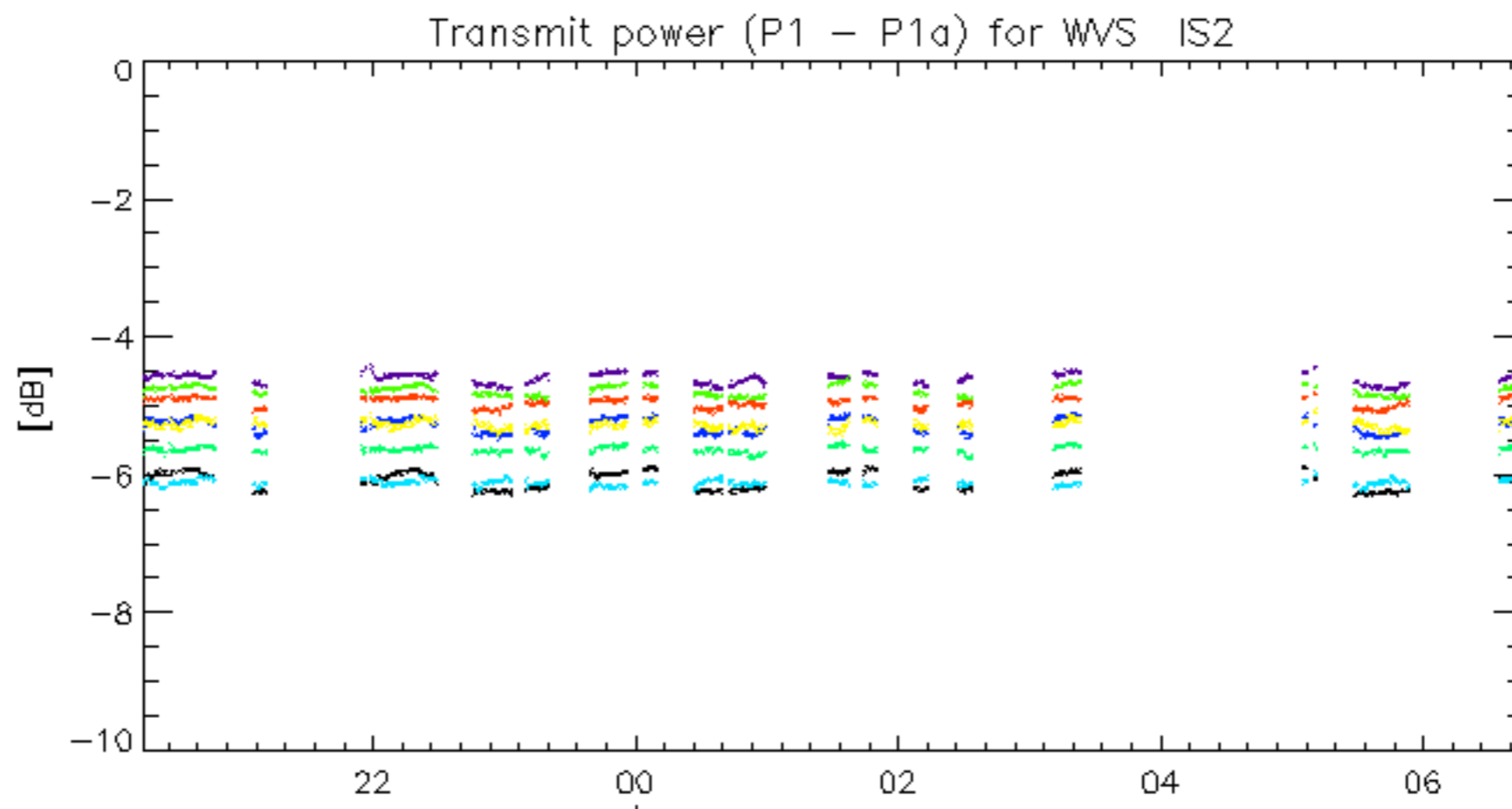




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.