

PRELIMINARY REPORT OF 061212

last update on Tue Dec 12 11:00:05 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 2006-12-11 00:00:00 to 2006-12-12 11:00:06

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	33	53	42	8	41
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	33	53	42	8	41
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	53	42	8	41
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	53	42	8	41

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	20061212 042859
H	20061211 050036

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	-3.963220	0.008182	-0.005097
7	P1	-3.155534	0.024606	0.006032
11	P1	-4.130352	0.025453	0.011514
15	P1	-6.313211	0.015132	-0.051629
19	P1	-3.630434	0.006330	-0.076211
22	P1	-4.652883	0.013204	-0.014756
26	P1	-3.952287	0.010268	-0.030461
30	P1	-5.880732	0.009359	-0.048019
3	P1	-16.527597	0.244326	-0.030911
7	P1	-17.298891	0.184459	-0.034862
11	P1	-17.199673	0.460467	0.018129
15	P1	-13.072248	0.135356	0.005113
19	P1	-14.954070	0.092817	-0.112320
22	P1	-15.852345	0.534041	0.036682
26	P1	-15.058285	0.193702	-0.126793
30	P1	-17.517874	0.475432	-0.065521

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.827963	0.094334	0.049114
7	P2	-21.733519	0.096491	-0.010689
11	P2	-15.623123	0.104719	0.109376
15	P2	-7.123528	0.108998	-0.000054
19	P2	-9.193968	0.107524	-0.013690
22	P2	-18.240568	0.099536	-0.011878
26	P2	-16.572947	0.114792	-0.066005
30	P2	-19.469482	0.090027	0.024492

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.246389	0.008698	-0.009050
7	P3	-8.246389	0.008698	-0.009050
11	P3	-8.246389	0.008698	-0.009050

15	P3	-8.246389	0.008698	-0.009050
19	P3	-8.246389	0.008698	-0.009050
22	P3	-8.246389	0.008698	-0.009050
26	P3	-8.246424	0.008701	-0.008974
30	P3	-8.246424	0.008701	-0.008974

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	-3.913345	0.016143	-0.031752
7	P1	-2.488172	0.030619	0.025381
11	P1	-2.851747	0.017033	-0.014413
15	P1	-3.681856	0.033181	-0.015684
19	P1	-3.534876	0.016992	-0.051056
22	P1	-5.031112	0.022370	0.008219
26	P1	-6.017540	0.026074	-0.067709
30	P1	-5.335441	0.037577	-0.071633
3	P1	-11.734089	0.081448	-0.070073
7	P1	-10.053176	0.096226	-0.044150
11	P1	-10.327330	0.129942	-0.032602
15	P1	-10.717821	0.127134	0.052332
19	P1	-15.714444	0.107833	-0.081546
22	P1	-21.550209	1.404700	-0.280318
26	P1	-16.069342	0.319565	-0.093441
30	P1	-17.887831	0.366467	0.042751

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.471731	0.109668	-0.029032
7	P2	-22.238050	0.240339	-0.033444
11	P2	-10.926038	0.125969	0.083347
15	P2	-4.983347	0.232504	-0.067343
19	P2	-6.960845	0.231549	-0.056395
22	P2	-8.257721	0.138385	-0.021953
26	P2	-24.328678	0.177413	0.004811
30	P2	-21.955238	0.149673	-0.019657

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091957	0.003968	-0.019229
7	P3	-8.091966	0.003967	-0.018999
11	P3	-8.091979	0.003970	-0.019037
15	P3	-8.091867	0.003965	-0.018897
19	P3	-8.091992	0.003966	-0.018725
22	P3	-8.091921	0.003962	-0.019165
26	P3	-8.091897	0.003968	-0.018956
30	P3	-8.091805	0.003972	-0.019020

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	0.000549023
	stdev	1.76181e-07
MEAN Q	mean	0.000511109
	stdev	2.18760e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137747
	stdev	0.00117781
STDEV Q	mean	0.138125
	stdev	0.00119698



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006121[012]

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_1PNPDE20061210_234034_000001412053_00388_24991_8054.N1	0	32
ASA_WSM_1PNPDE20061211_112015_000001712053_00395_24998_8986.N1	0	33
ASA_WSM_1PNPDE20061211_171918_000002202053_00399_25002_9112.N1	0	63



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

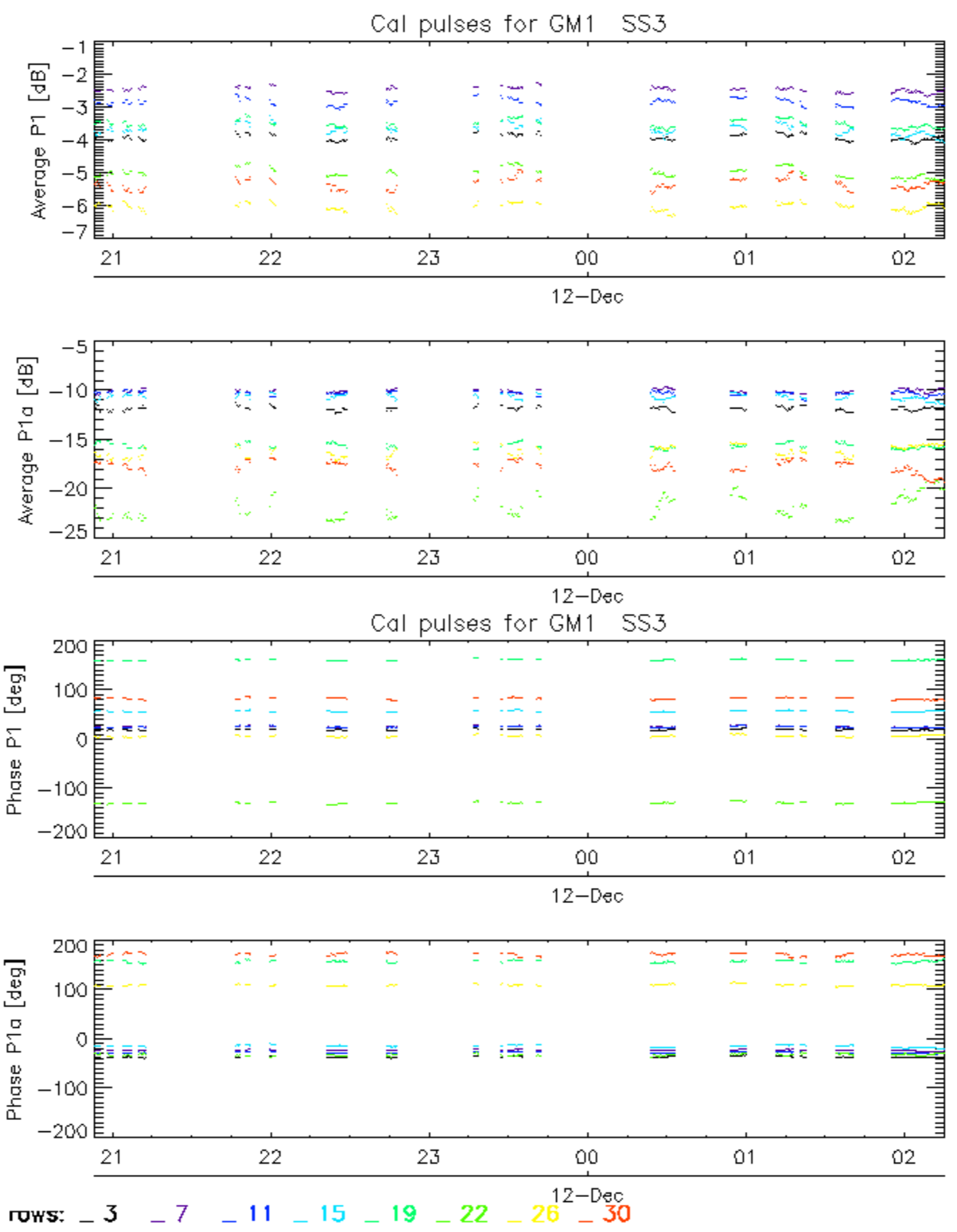
Evolution of Absolute Doppler

Ascending

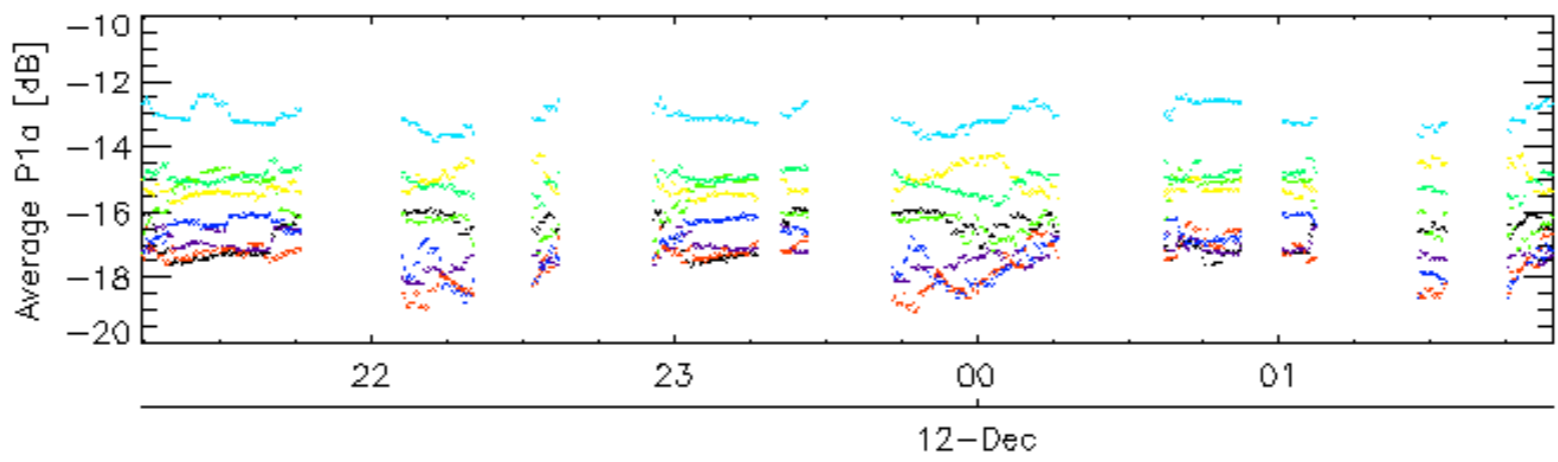
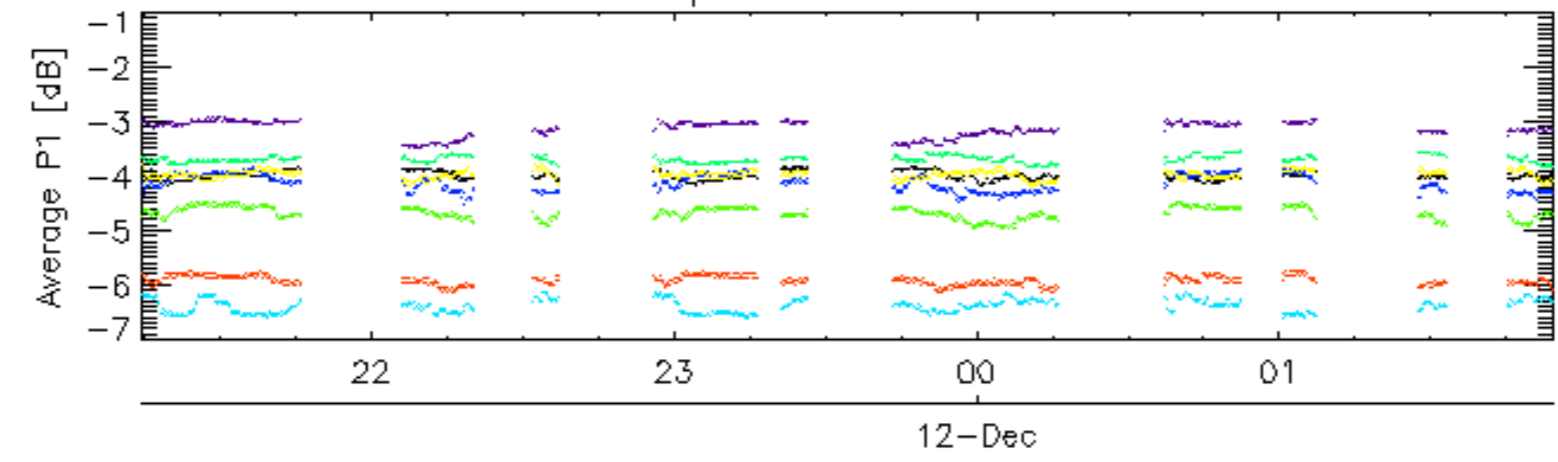
Descending

7.6 - Doppler evolution versus ANX for GM1

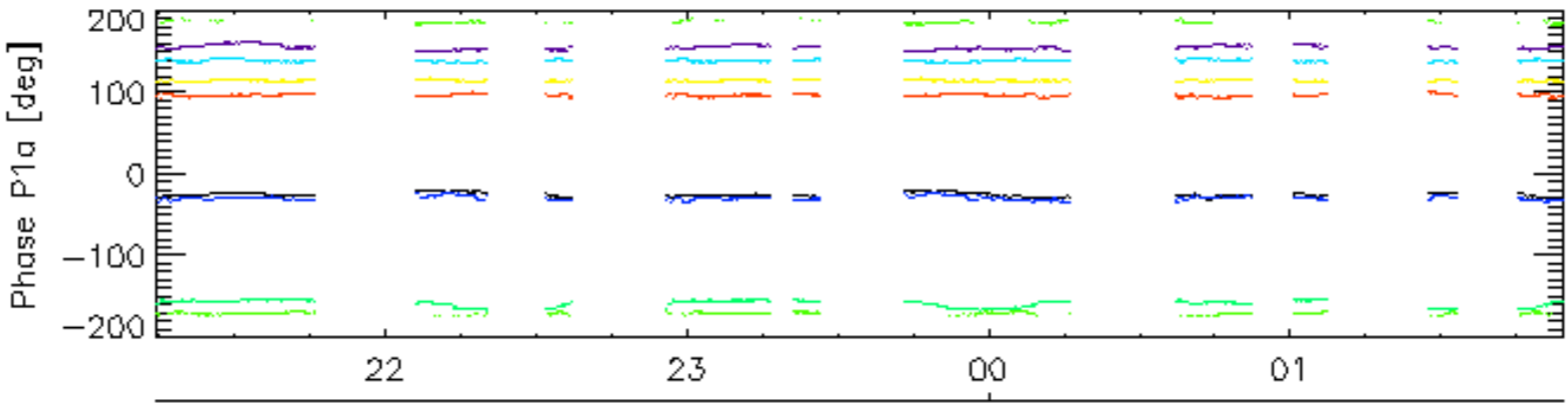
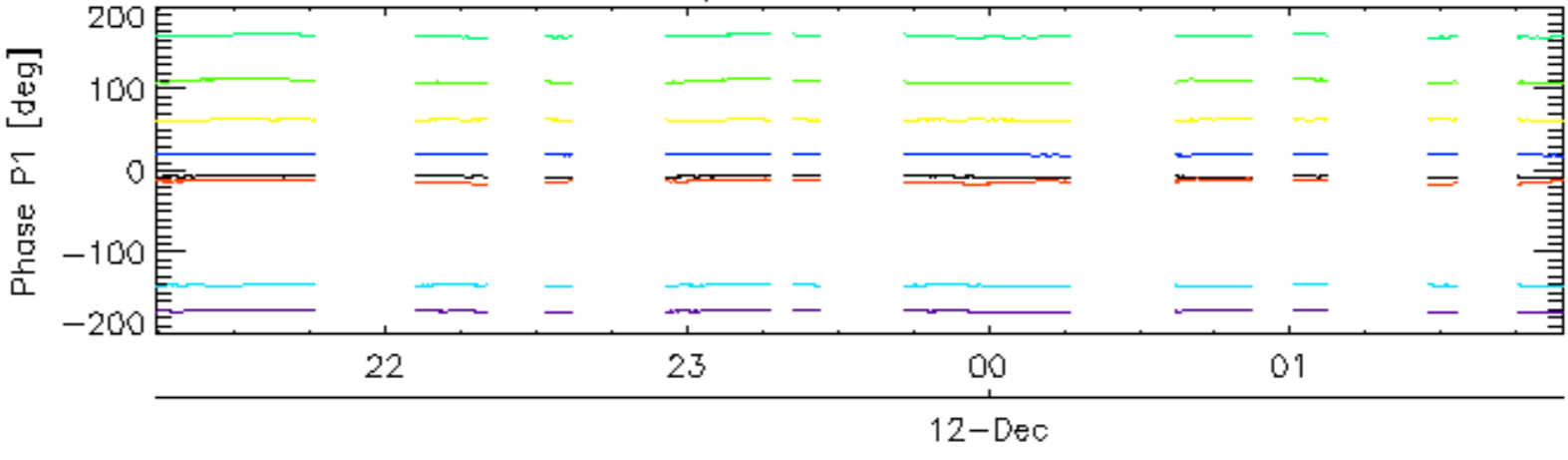
Evolution Doppler error versus ANX



Cal pulses for WVS IS2

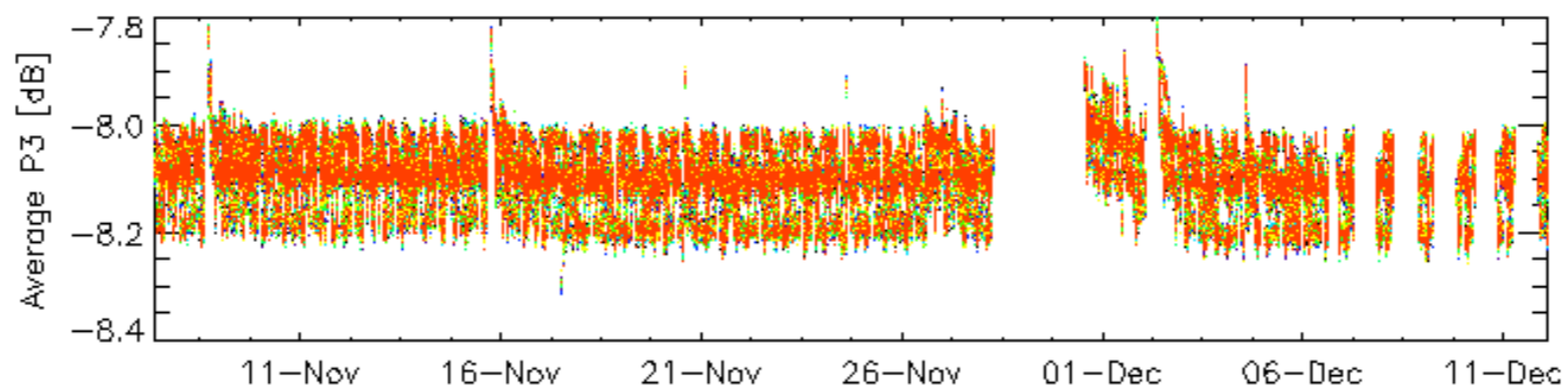
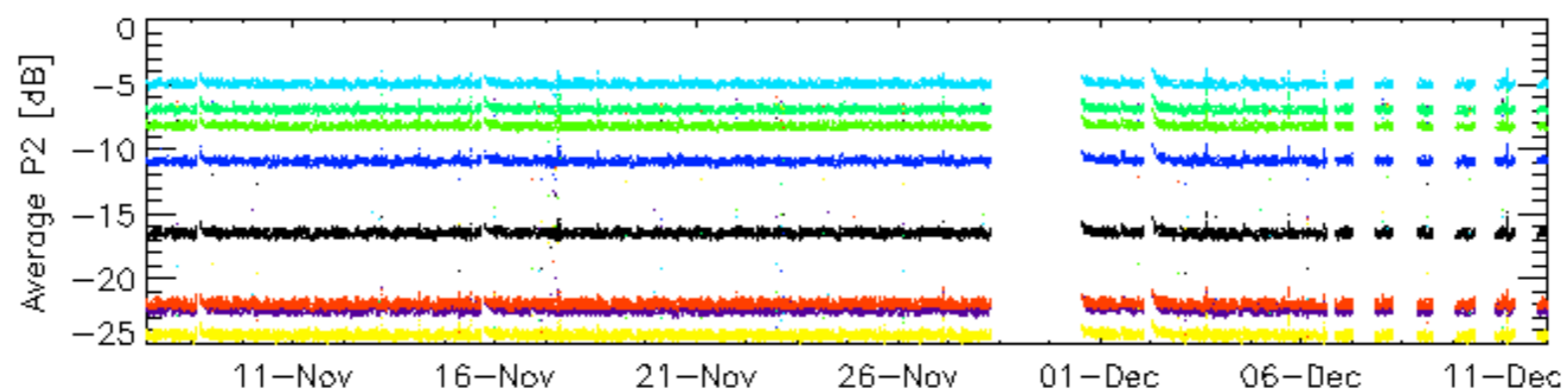
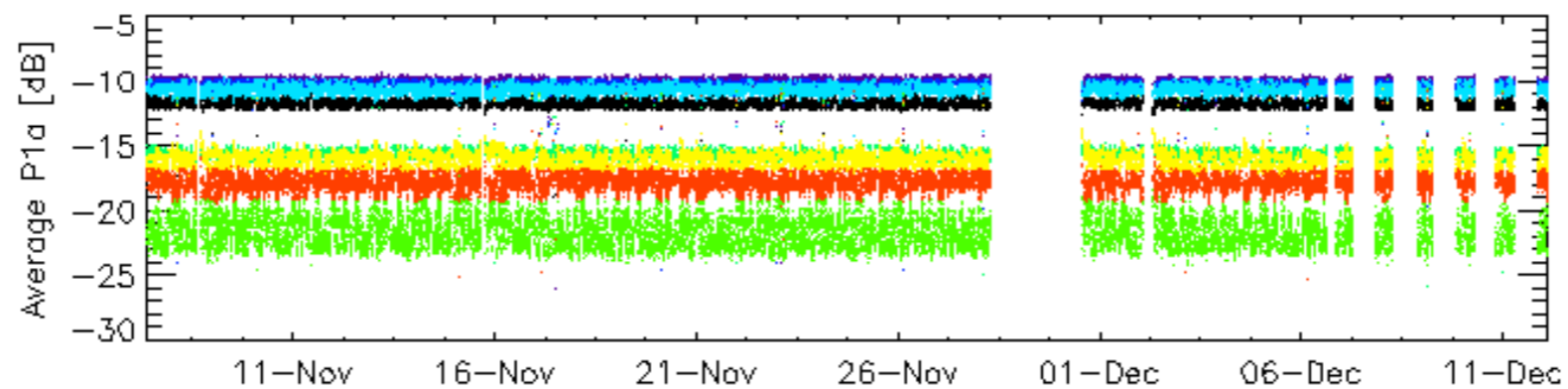
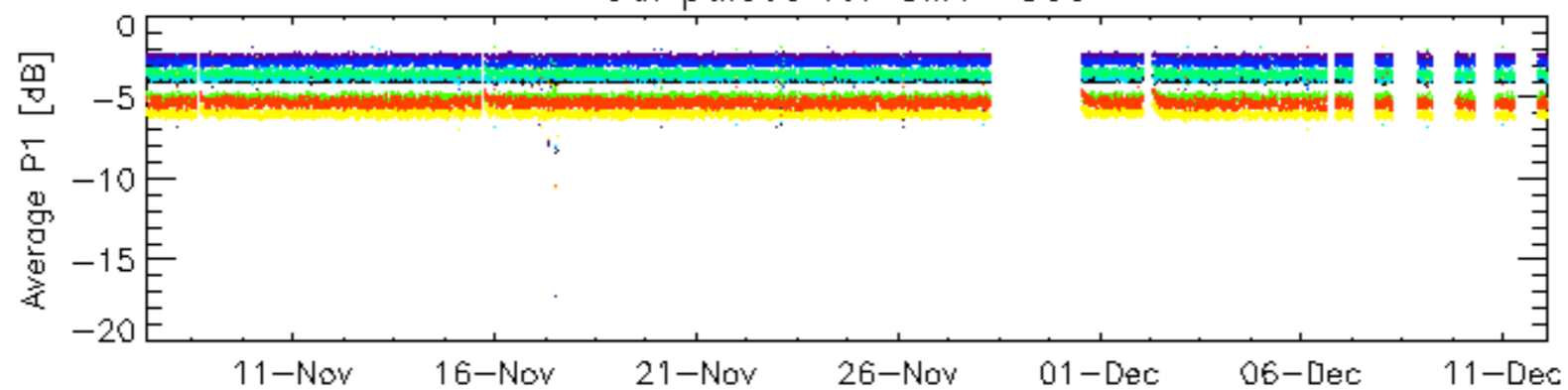


Cal pulses for WVS IS2



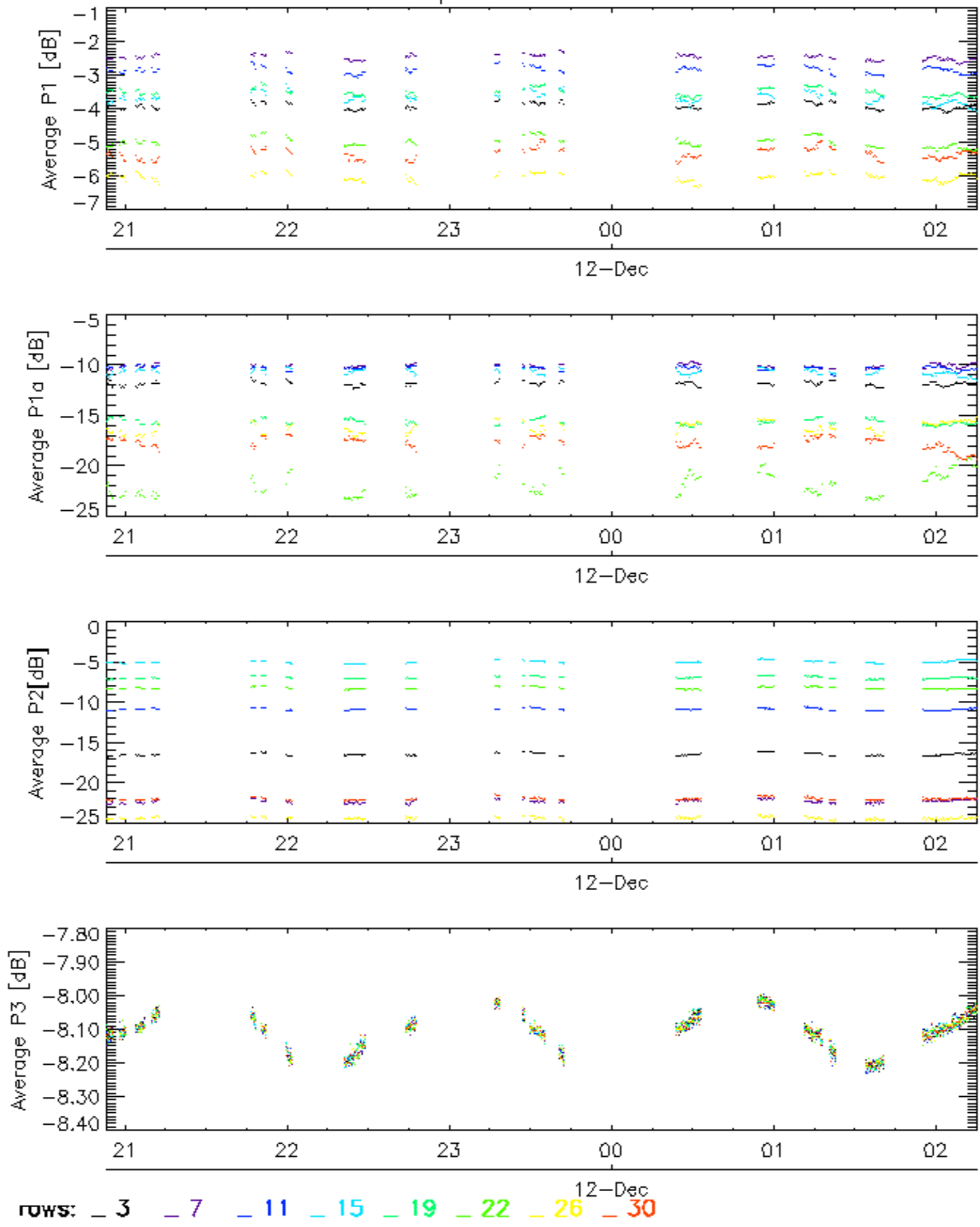
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 12-Dec

Cal pulses for GM1 SS3

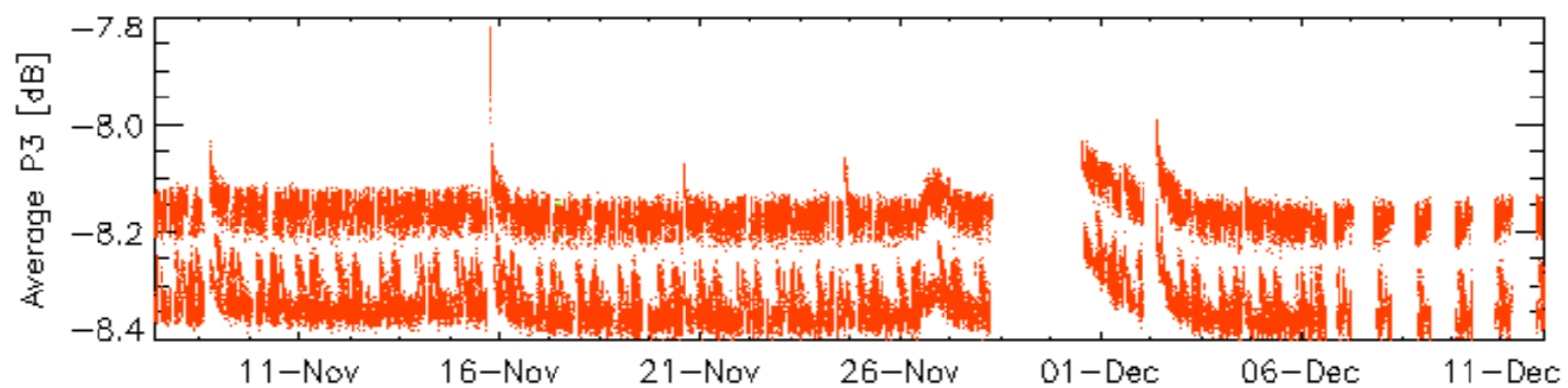
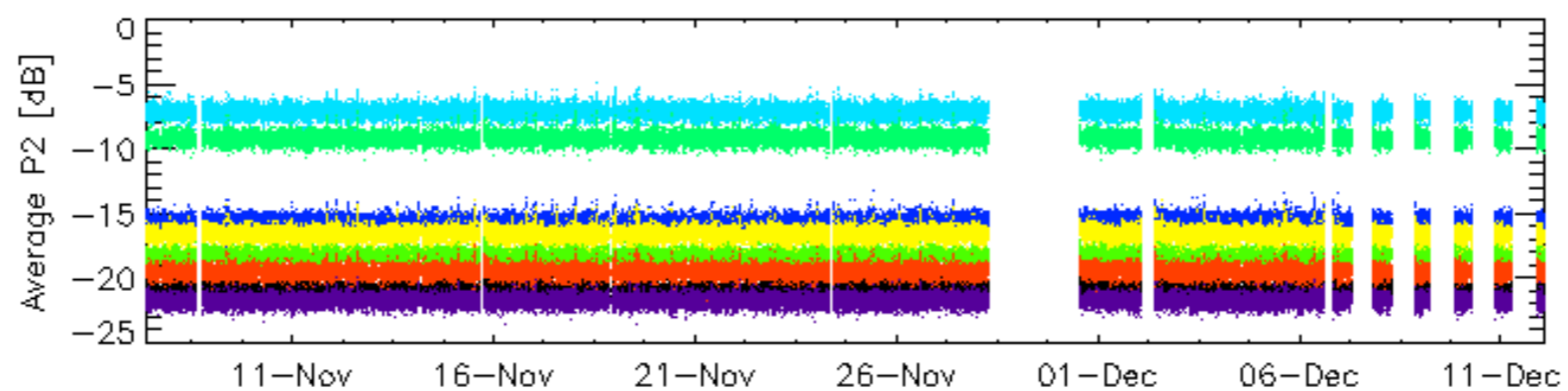
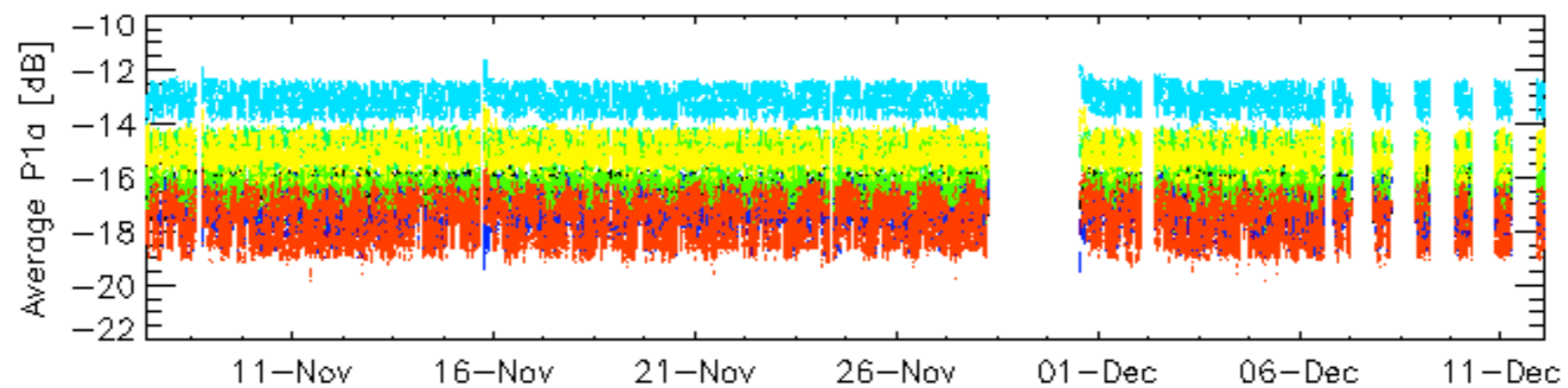
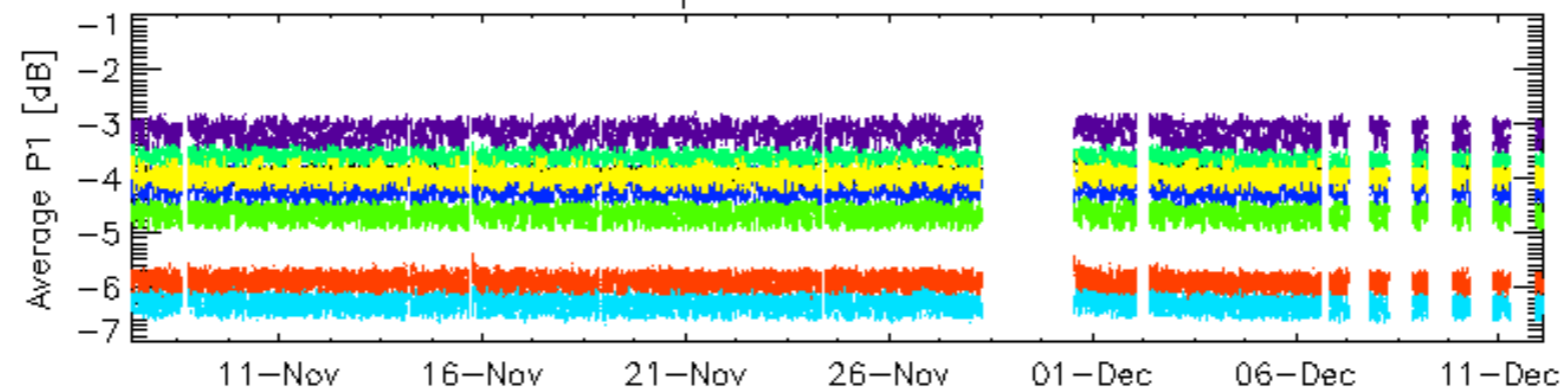


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

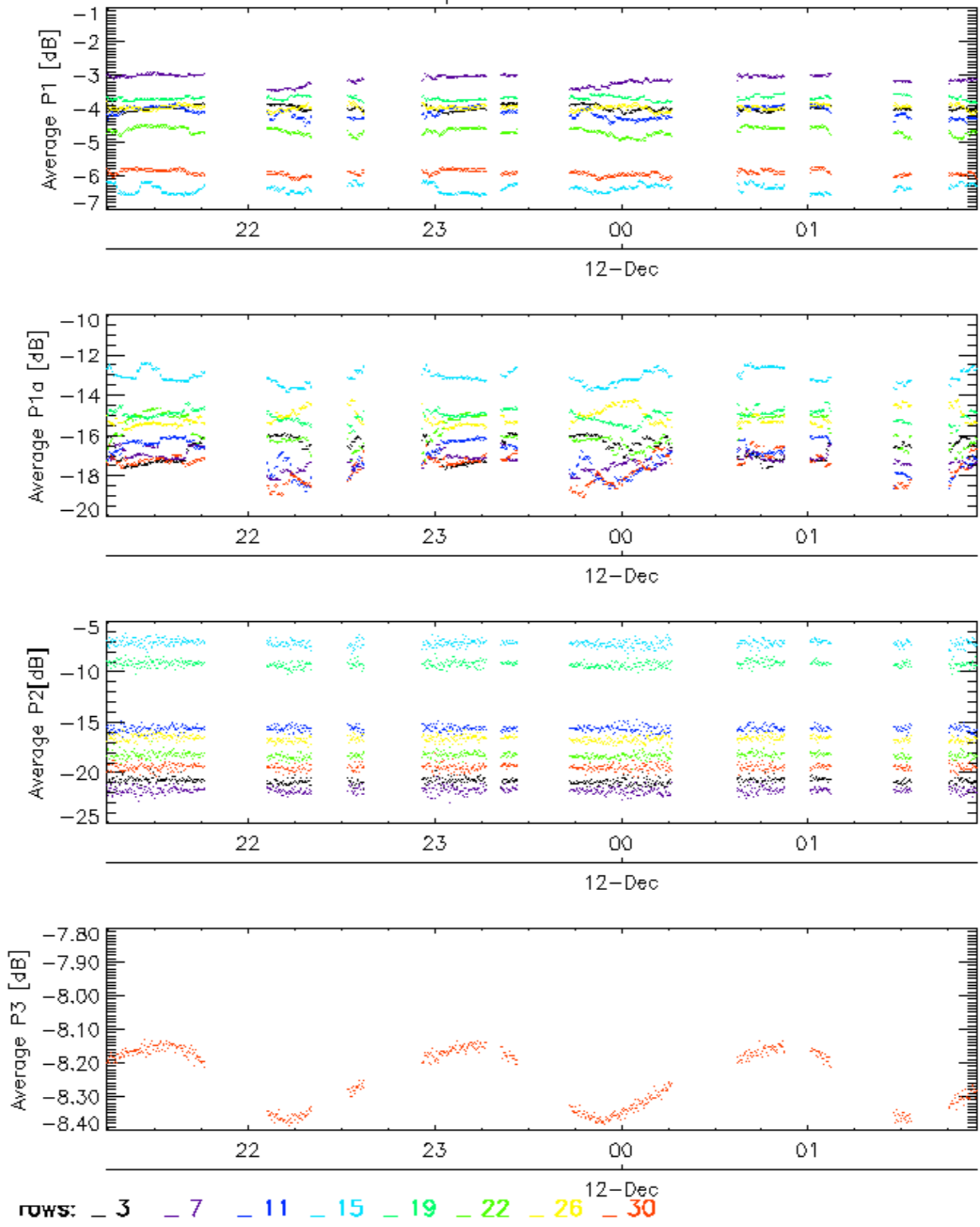


Cal pulses for WVS IS2

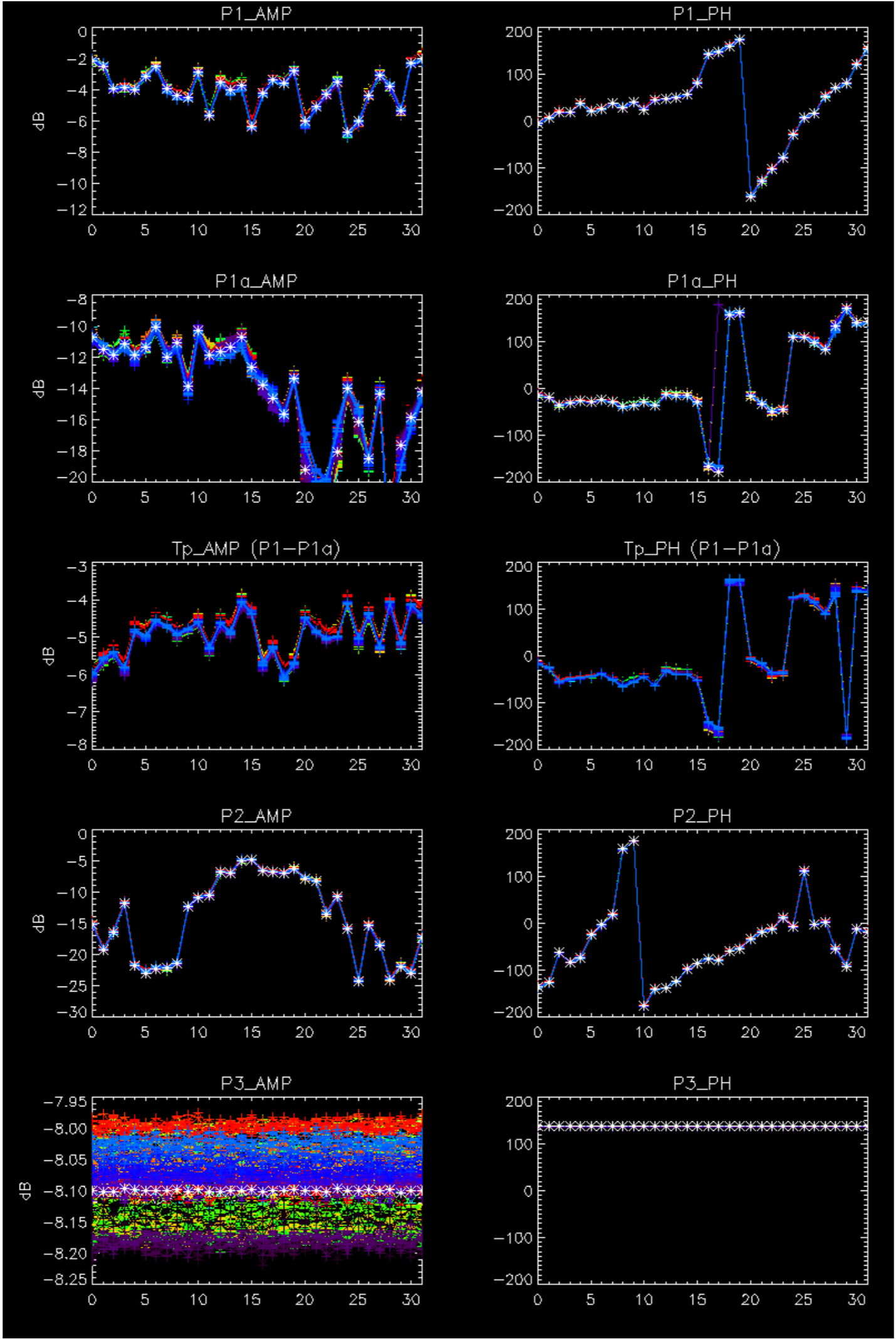


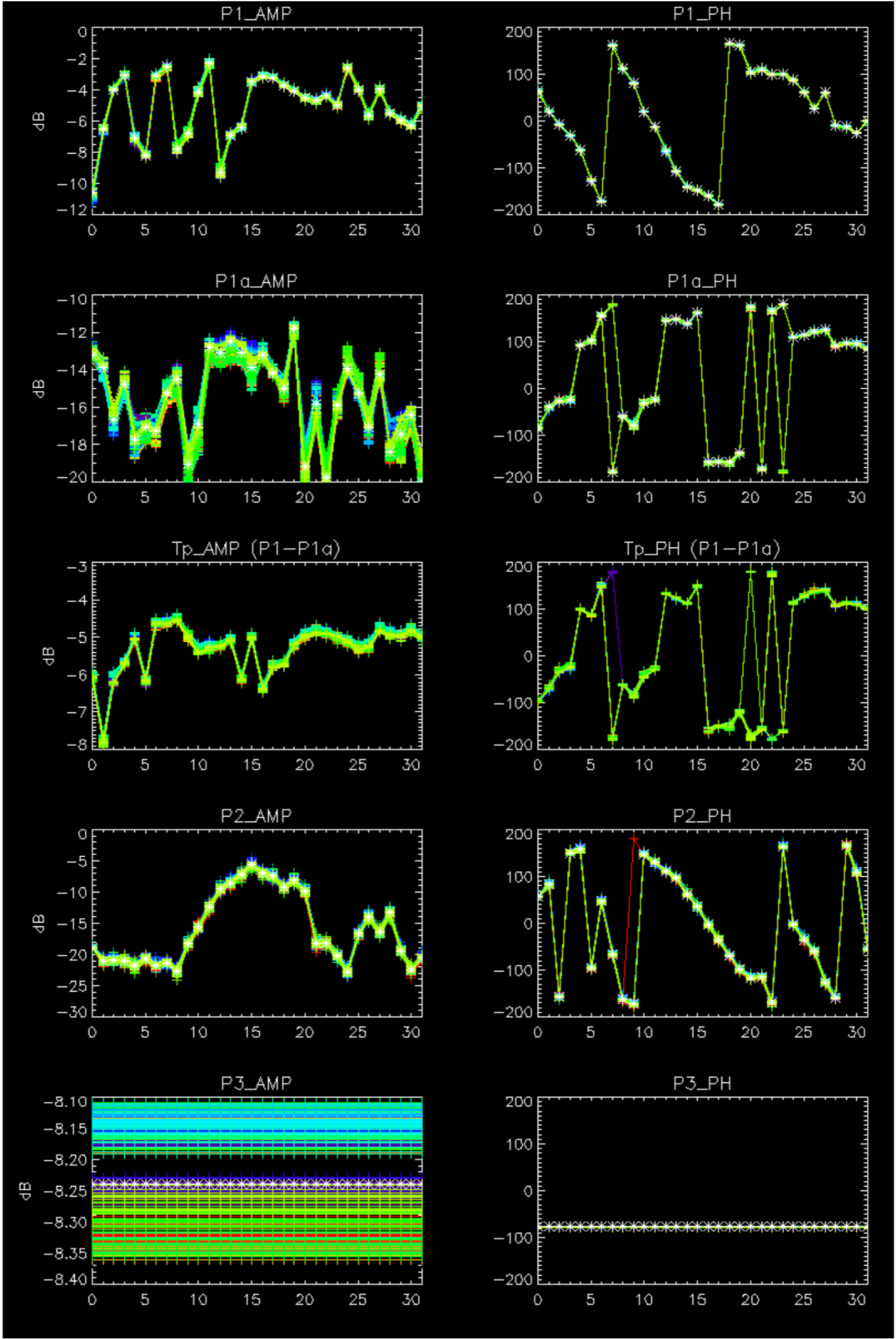
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



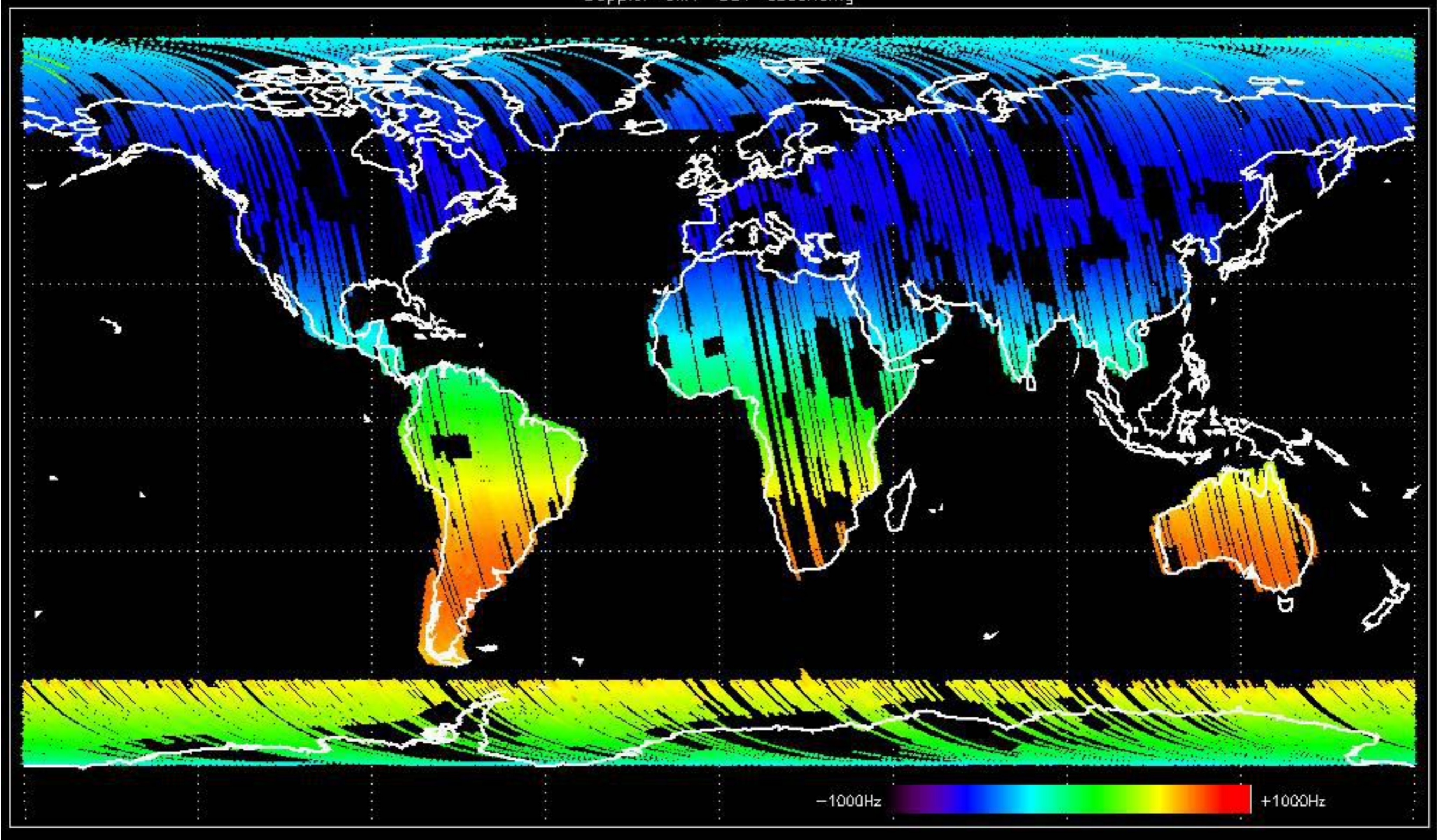
No anomalies observed.



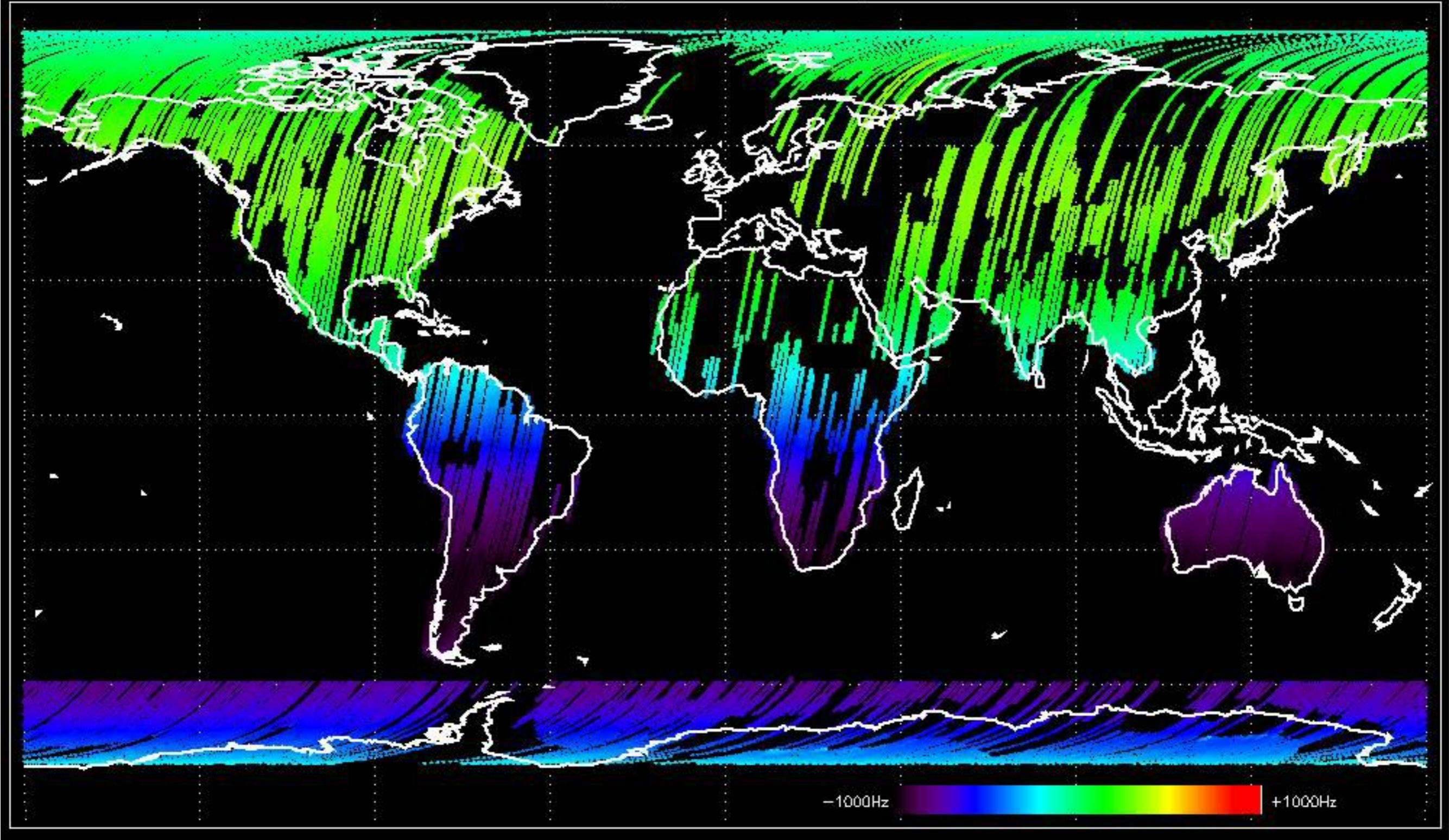


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

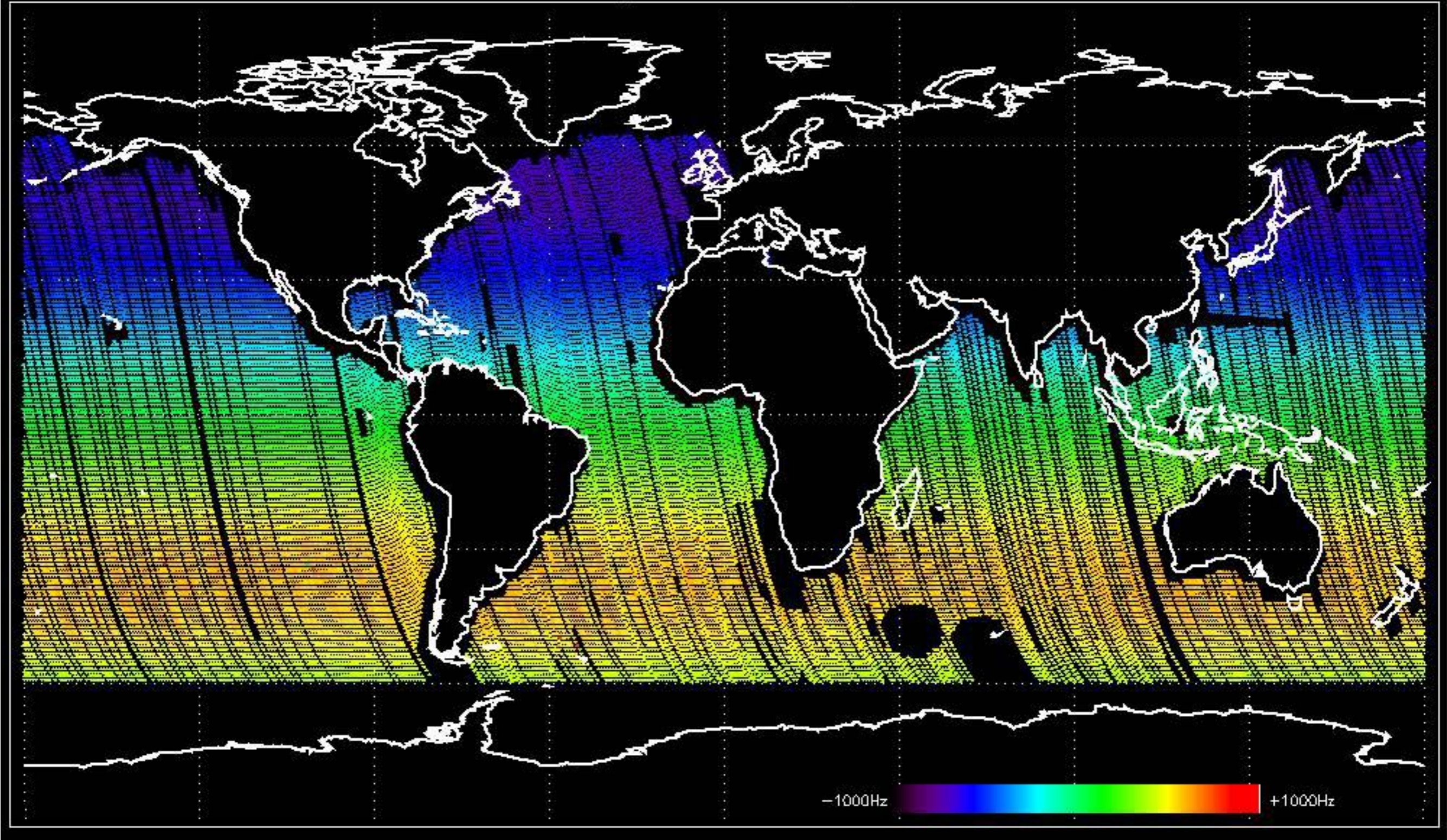
Doppler 'GM1' 'SS1' ascending



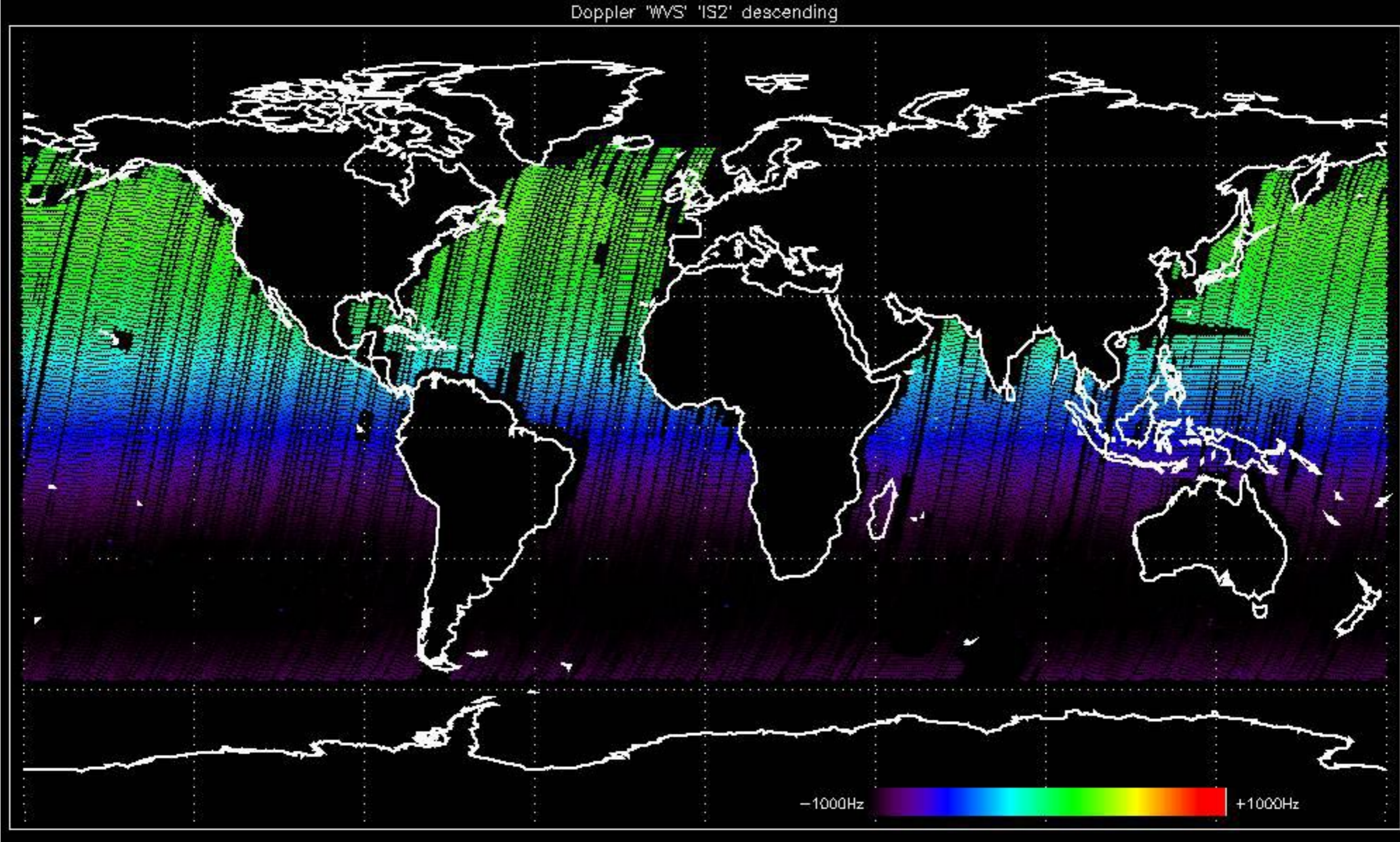
Doppler 'GM1' 'SS1' descending

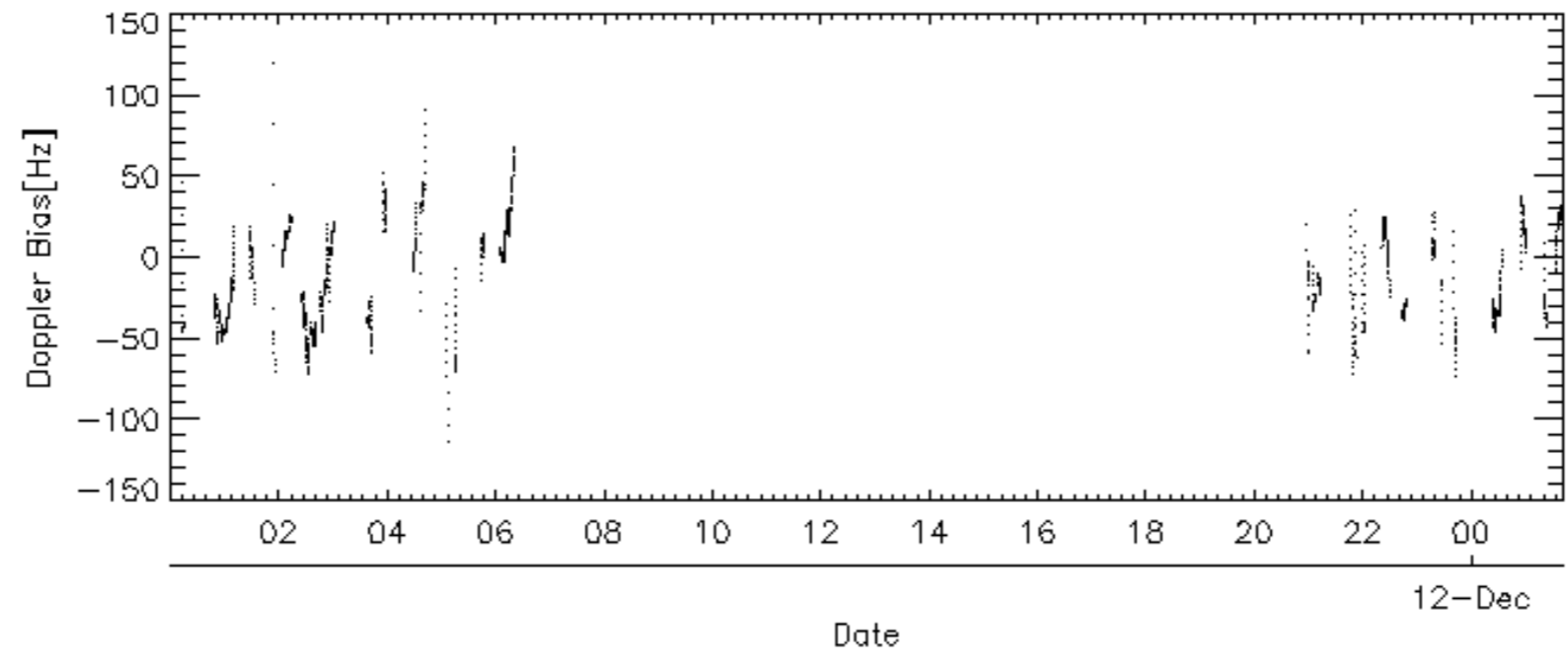
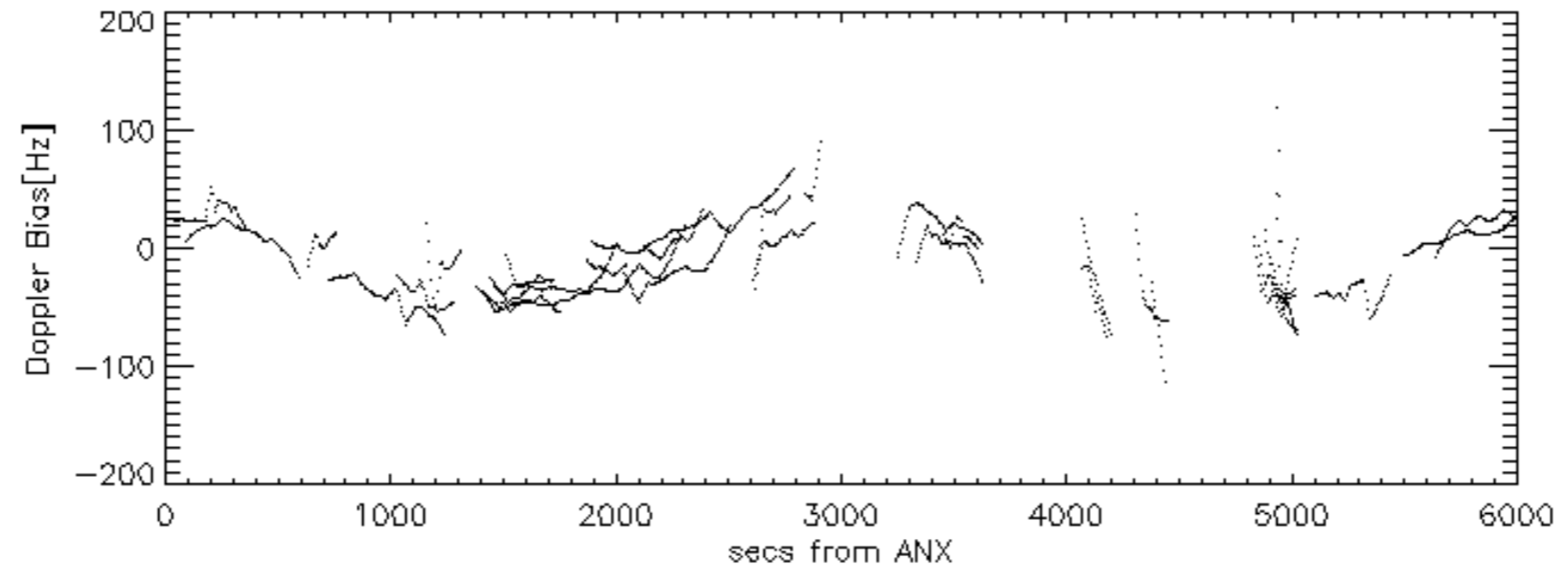
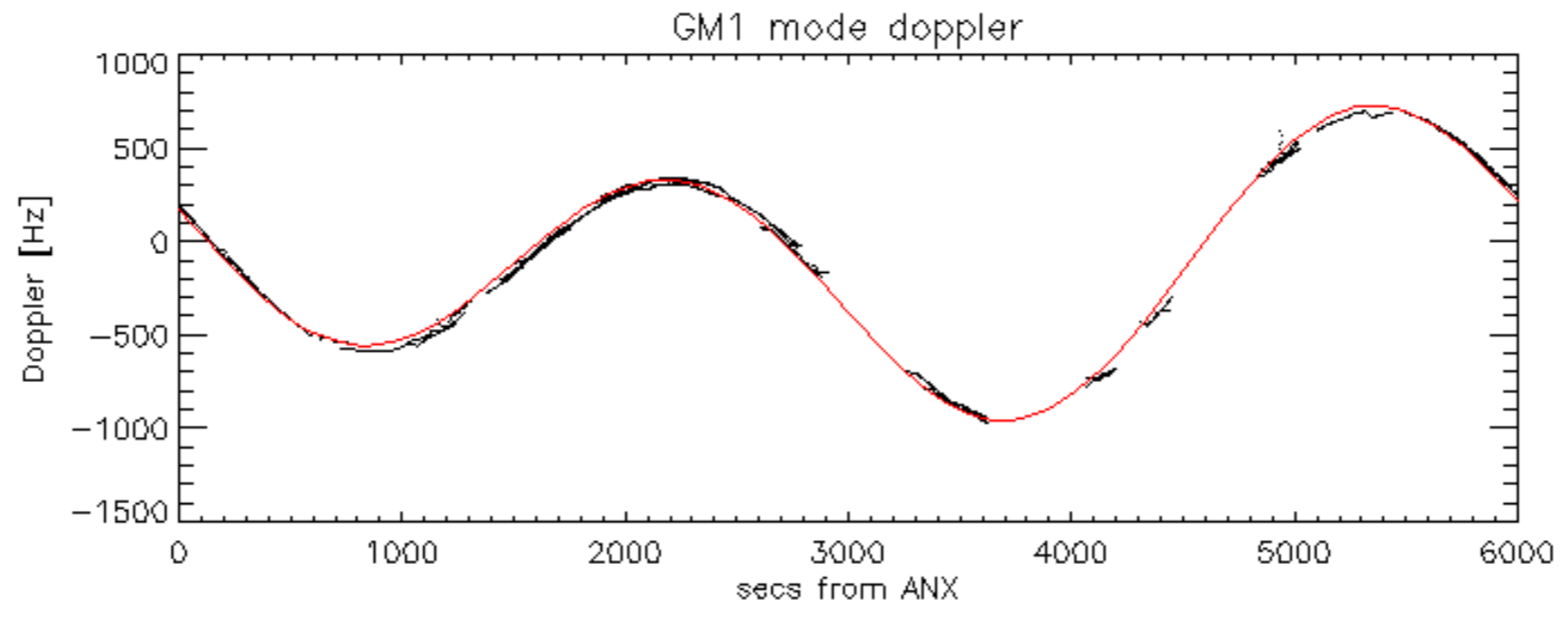


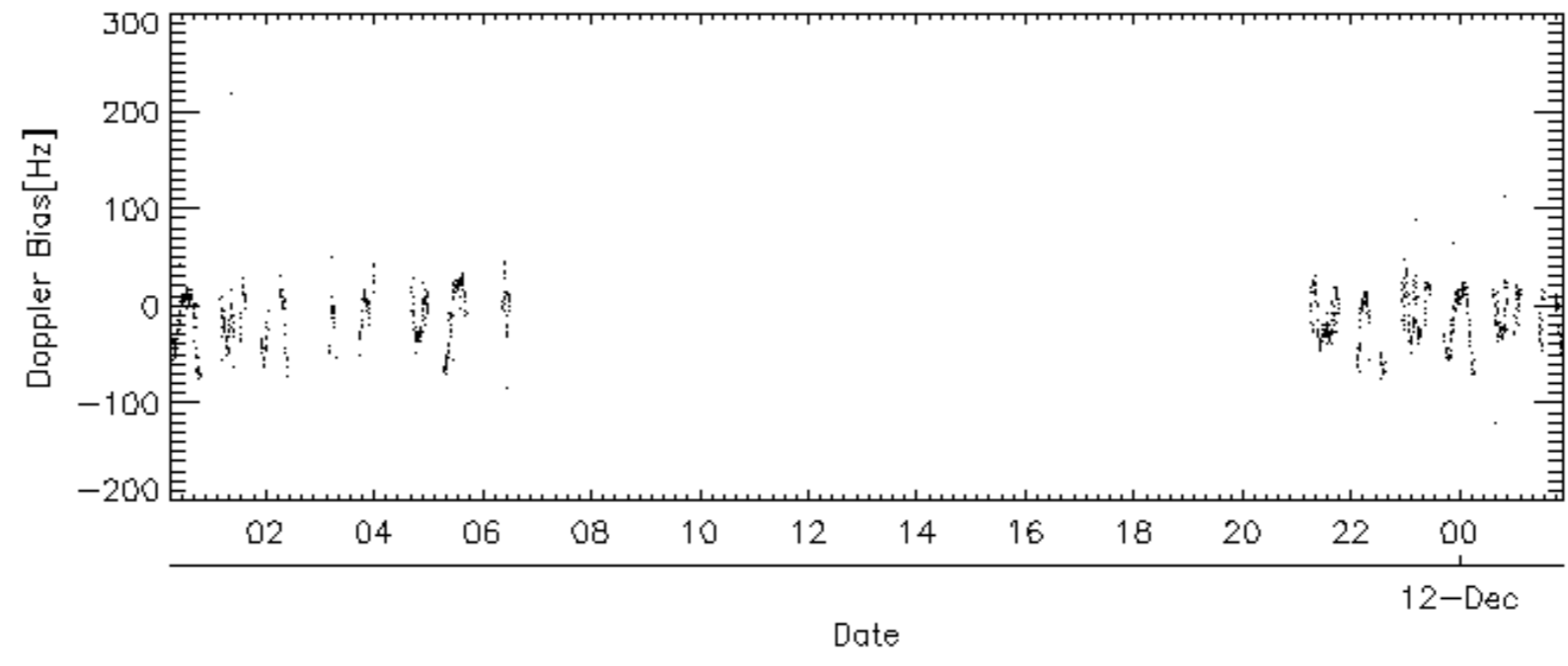
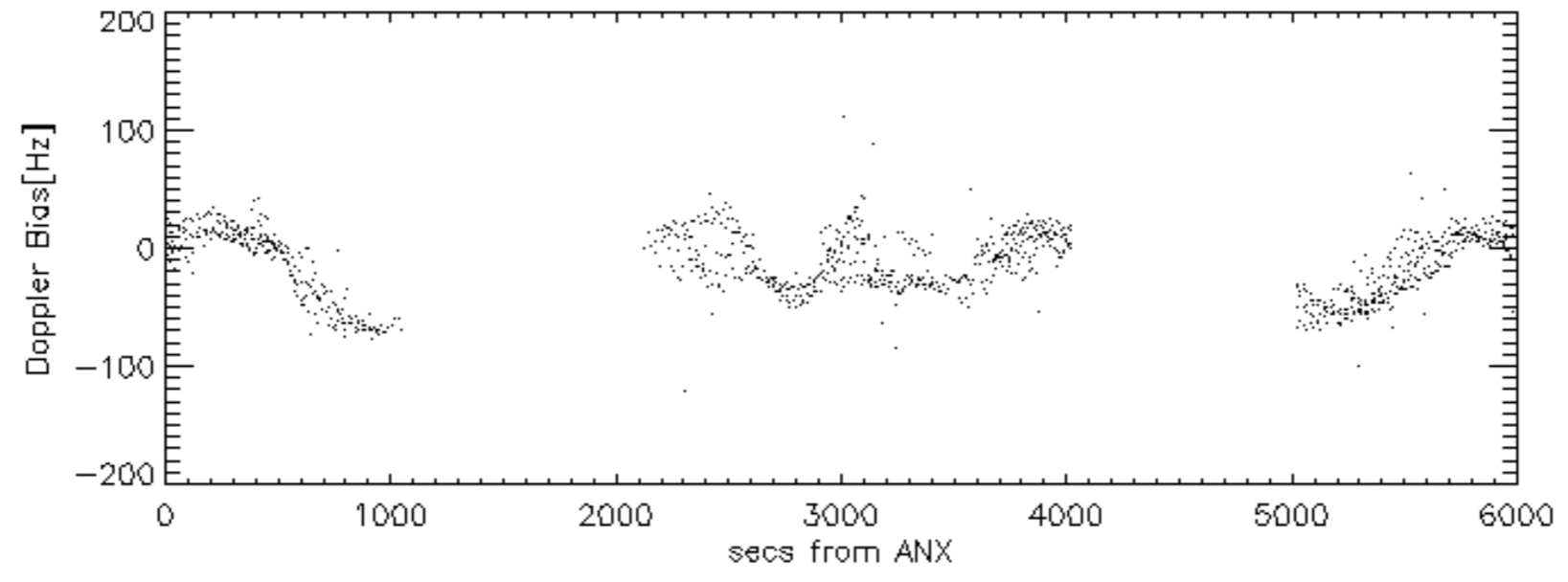
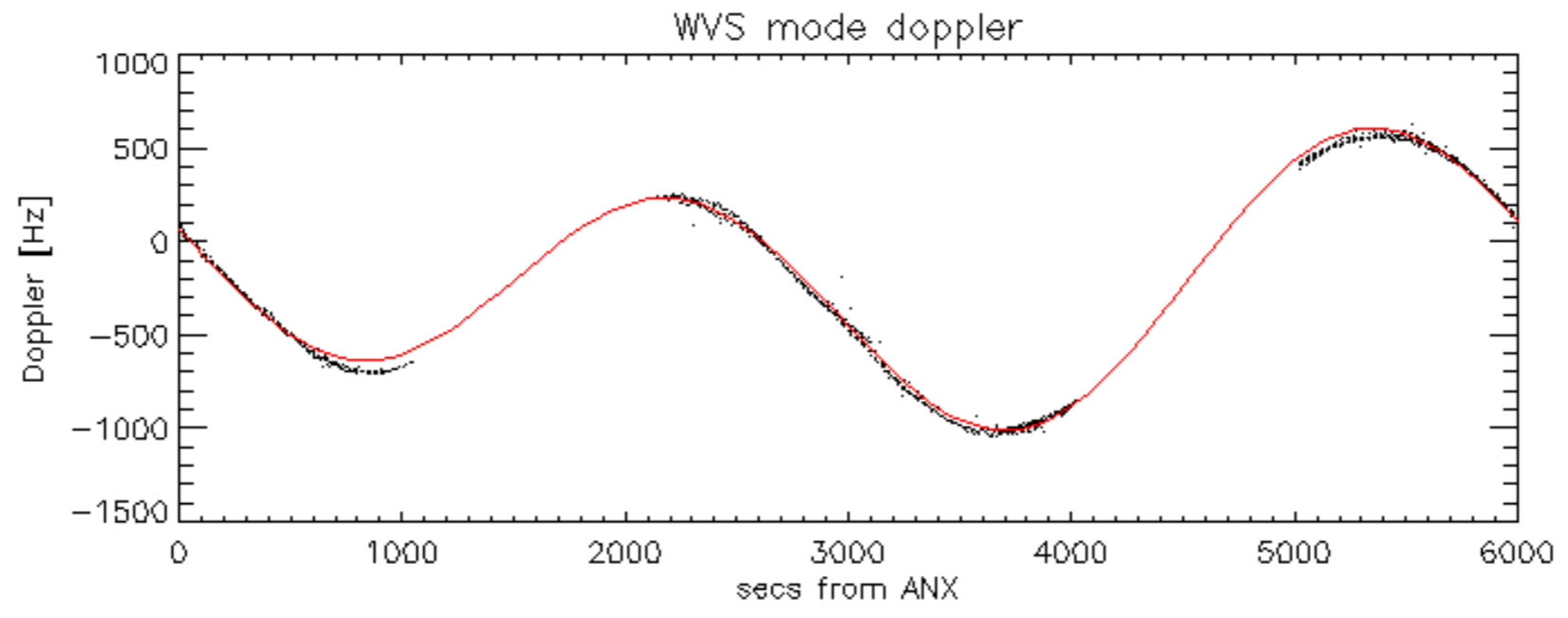
Doppler 'WVS' 'IS2' ascending



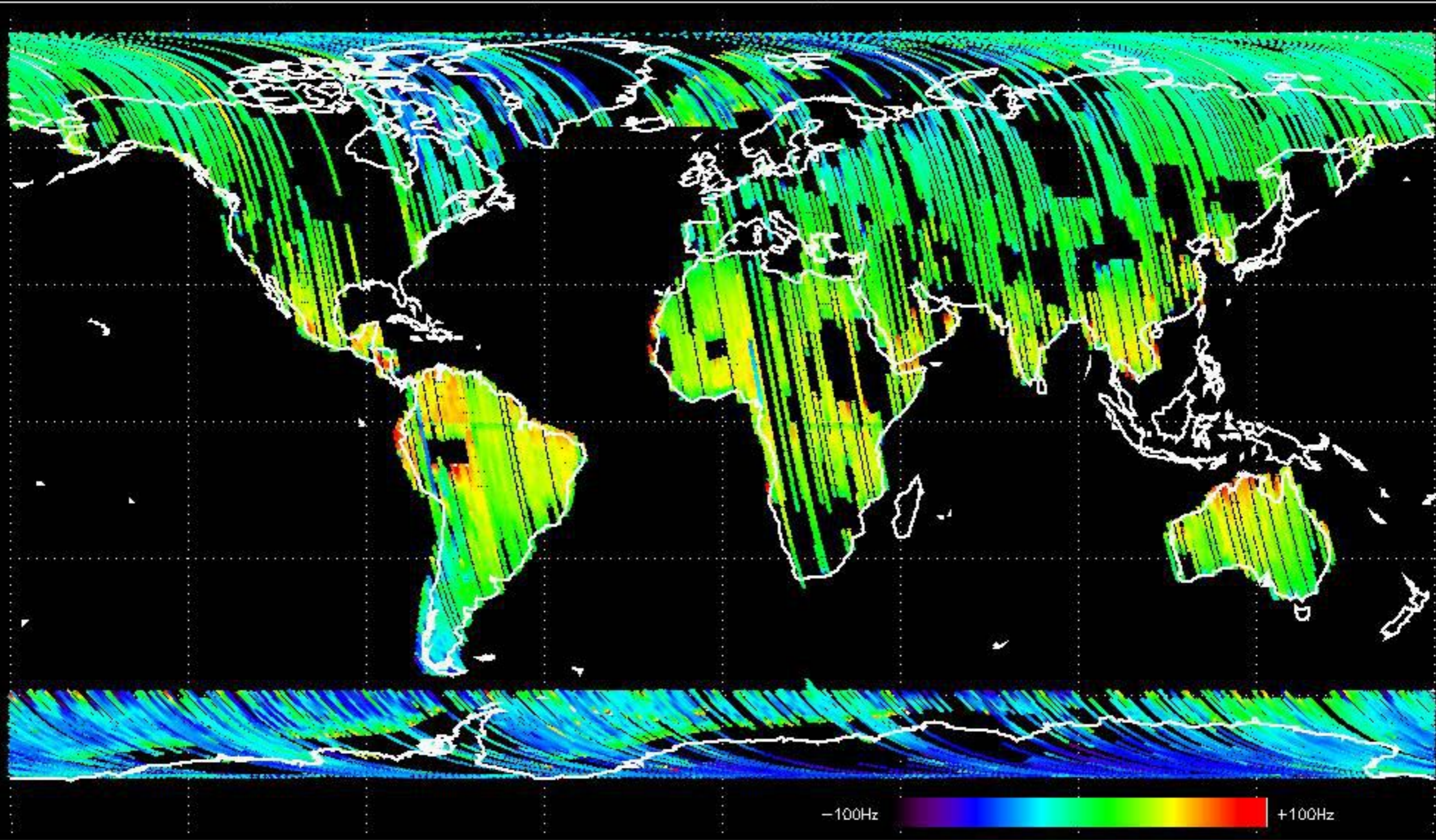
Doppler 'WVS' 'IS2' descending



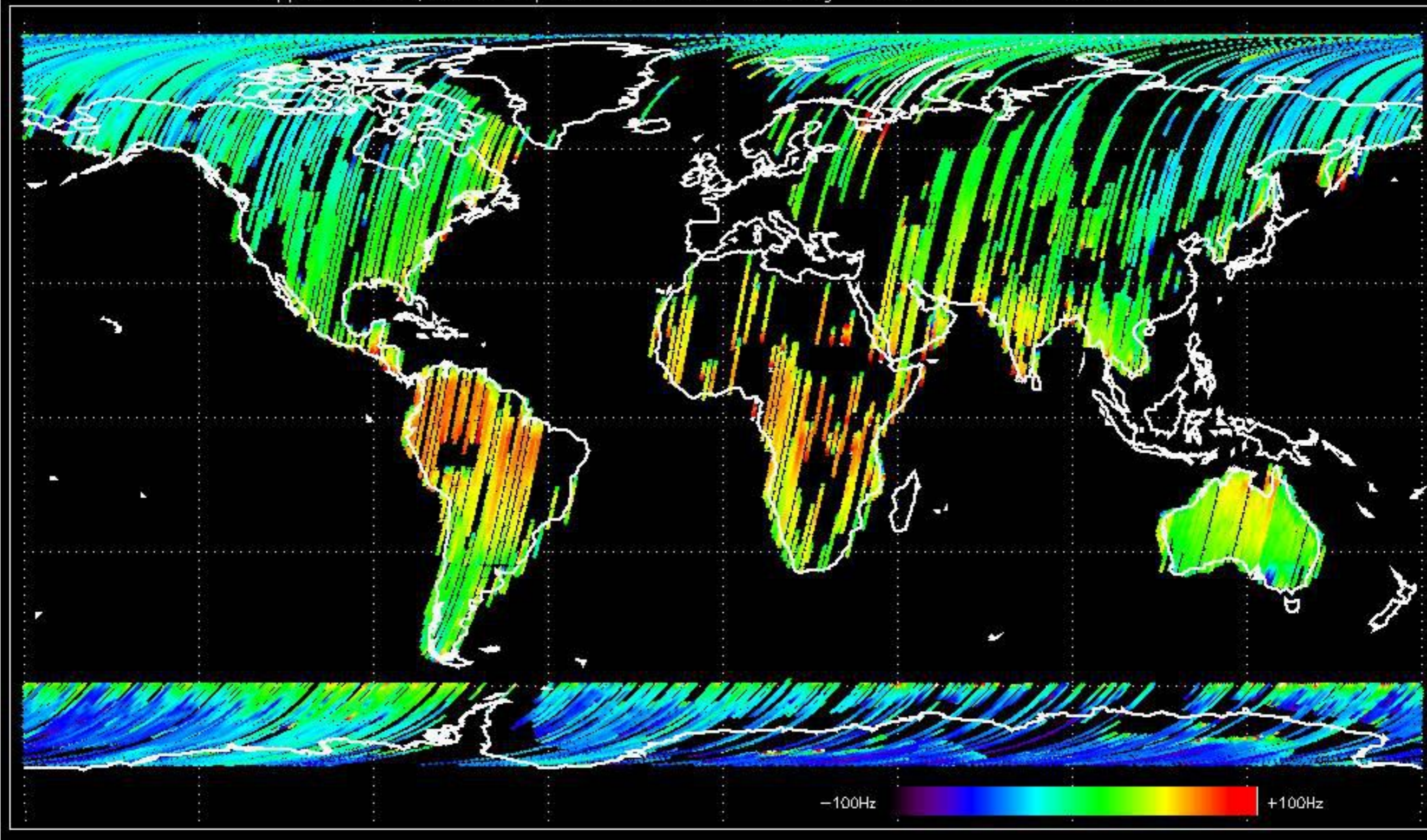




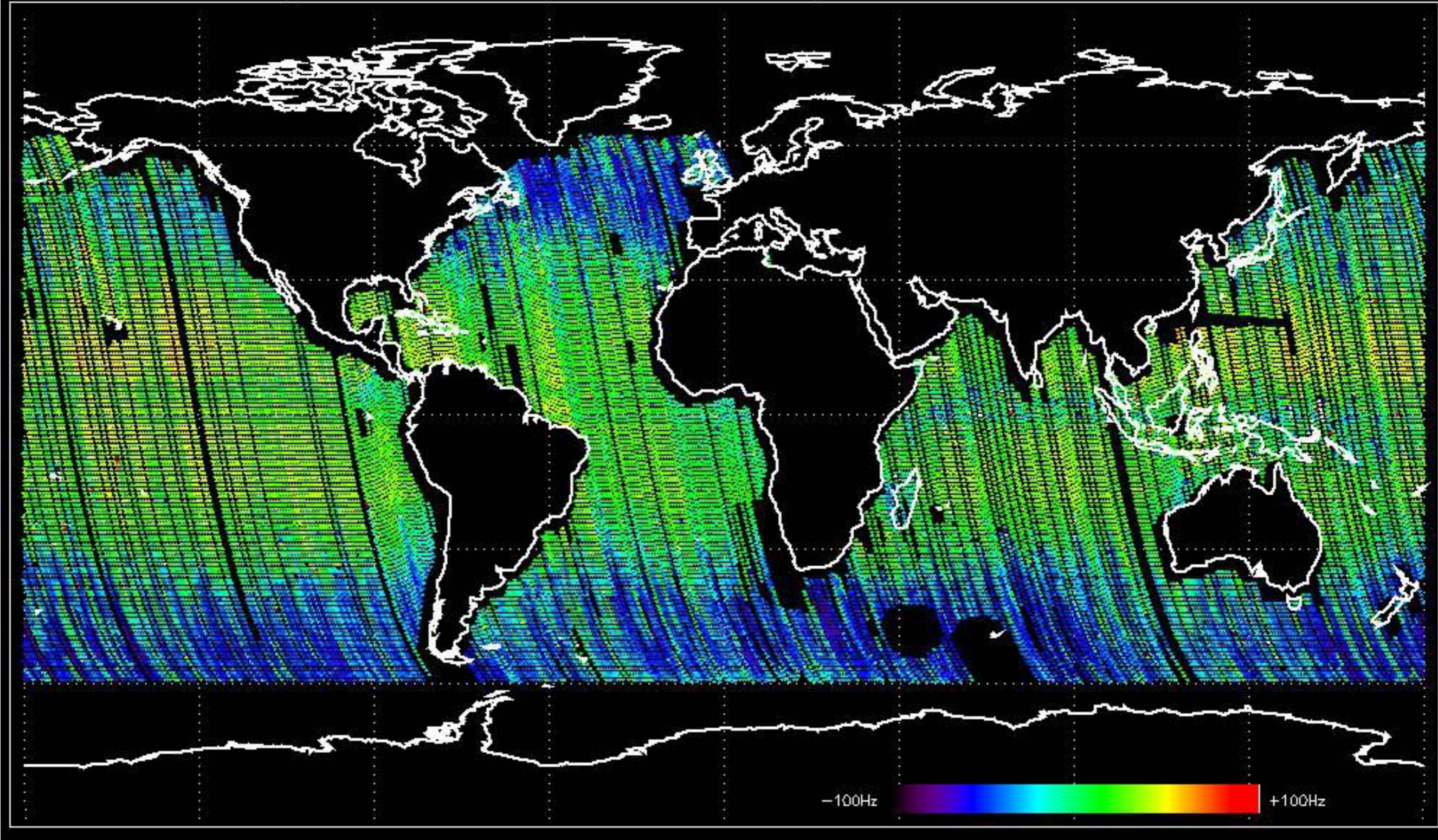
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -18.764450 Hz



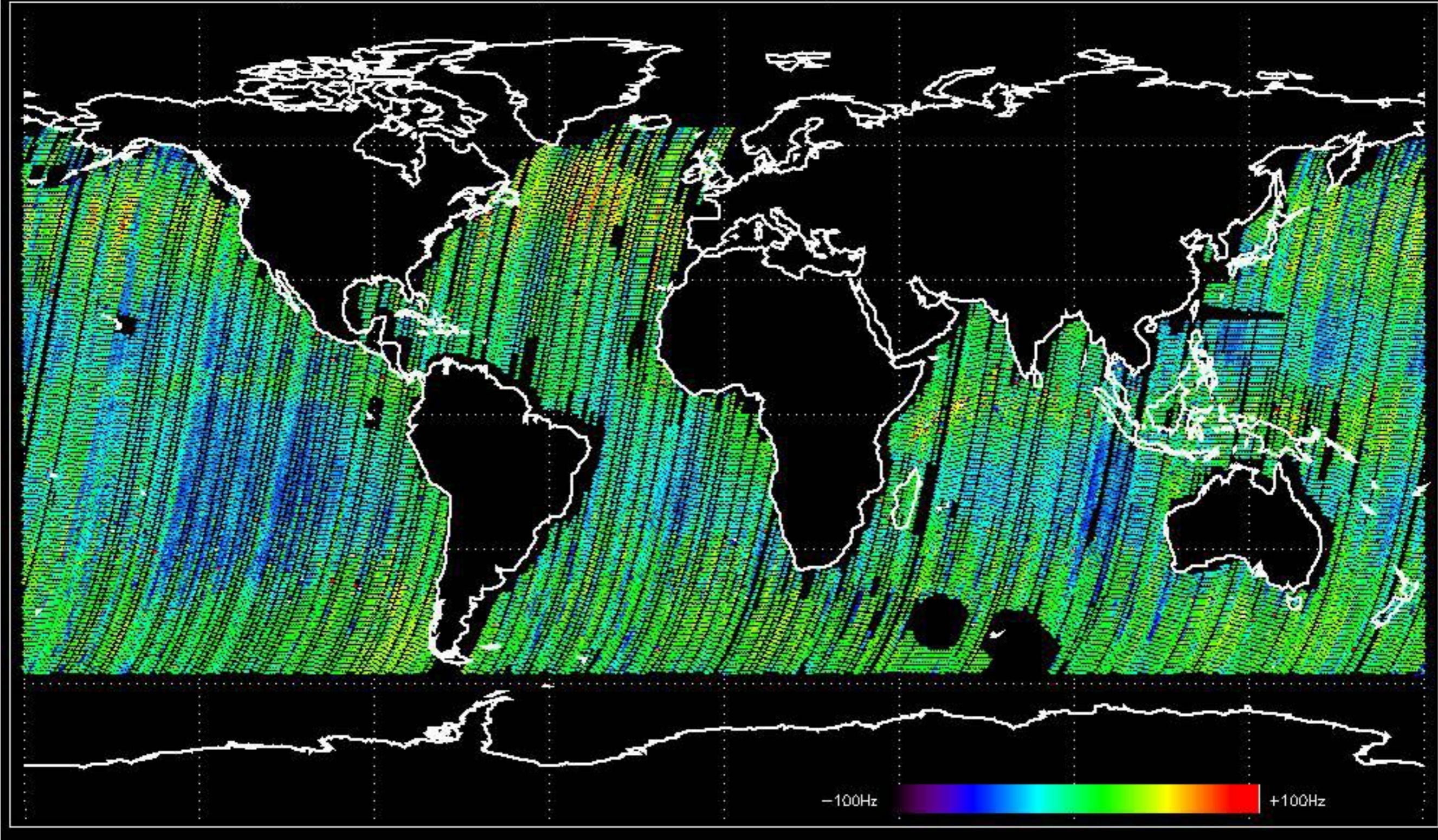
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.419319 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.5491037 Hz

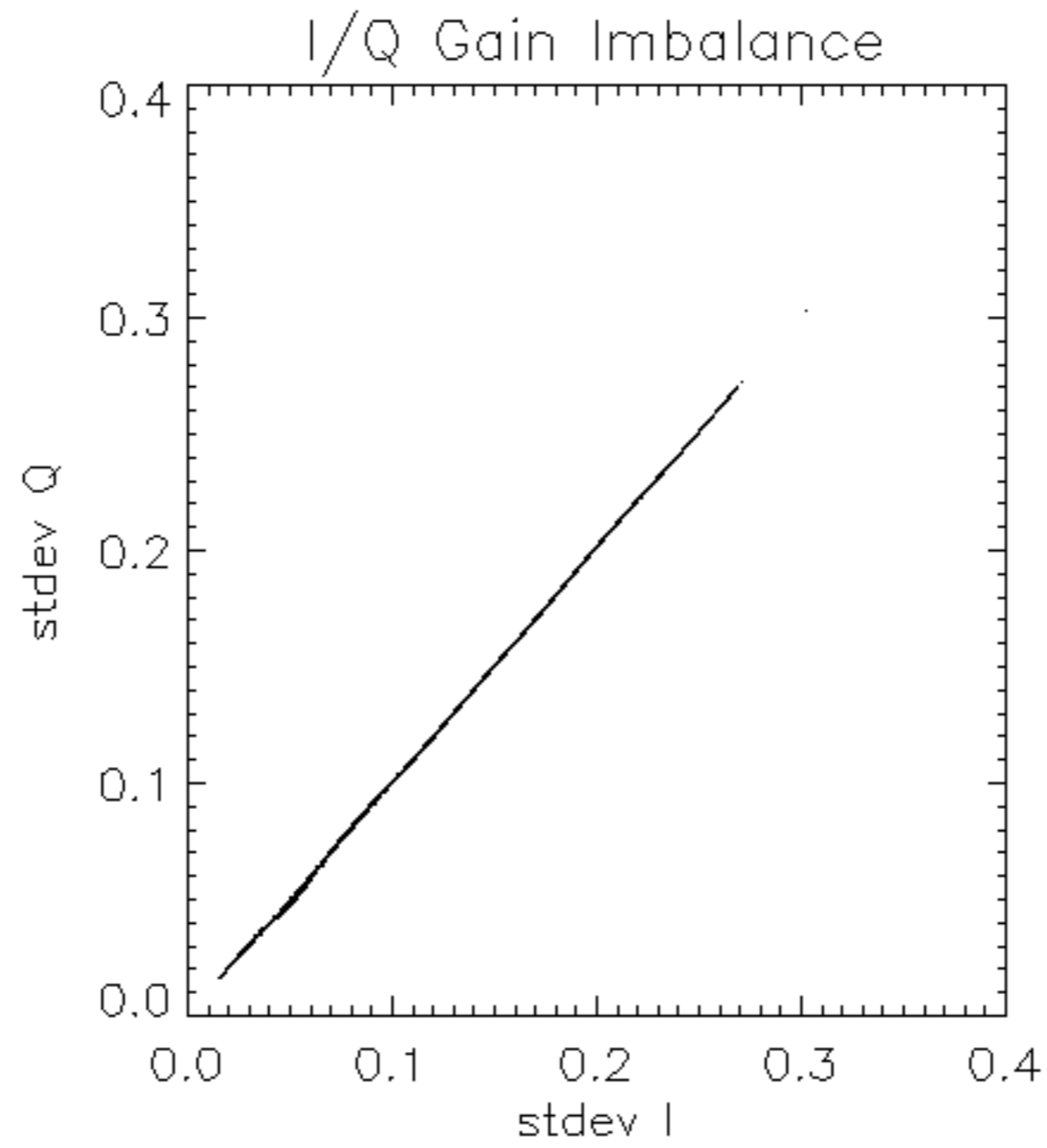


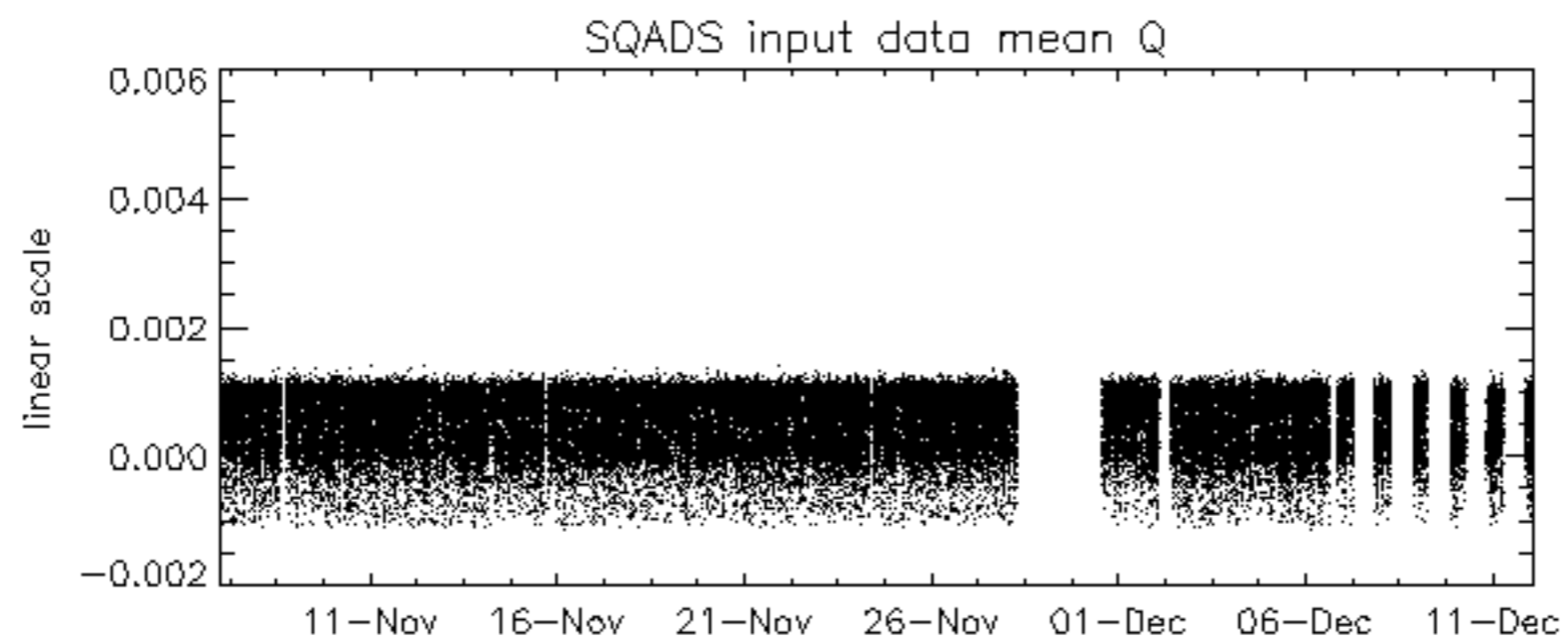
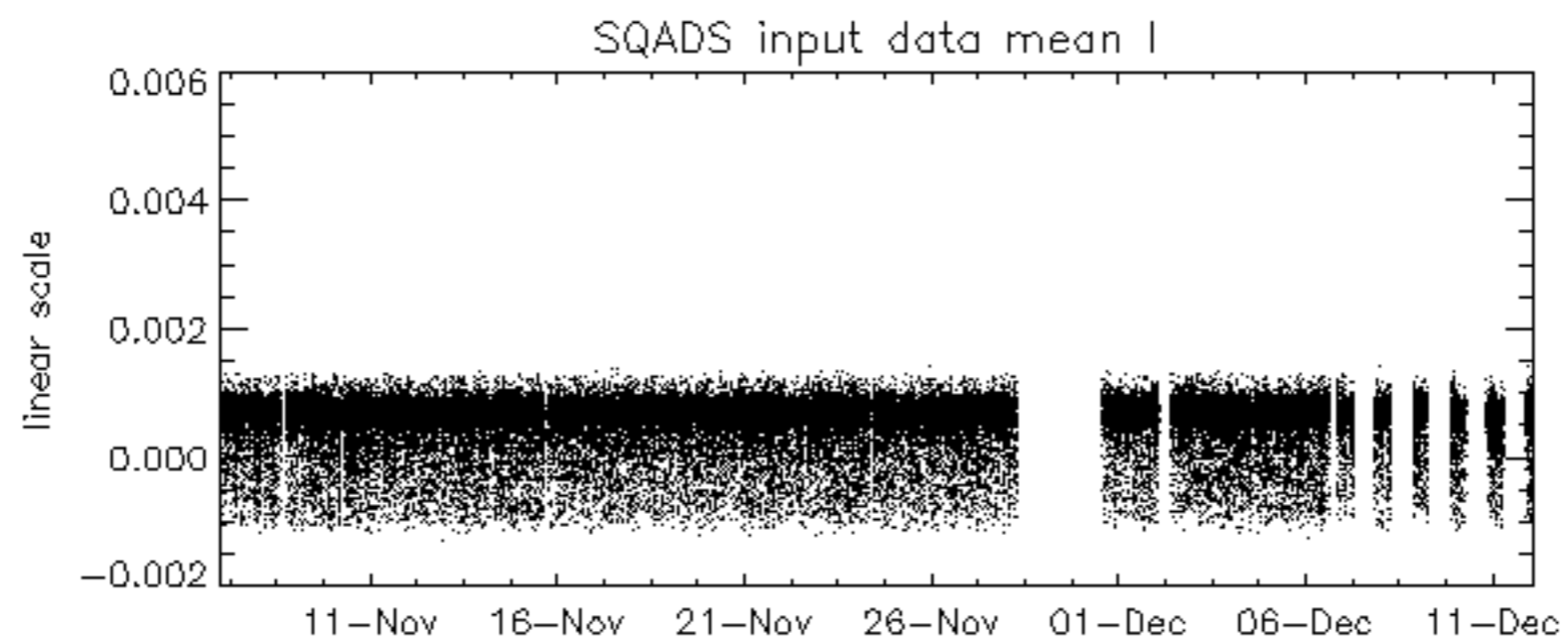
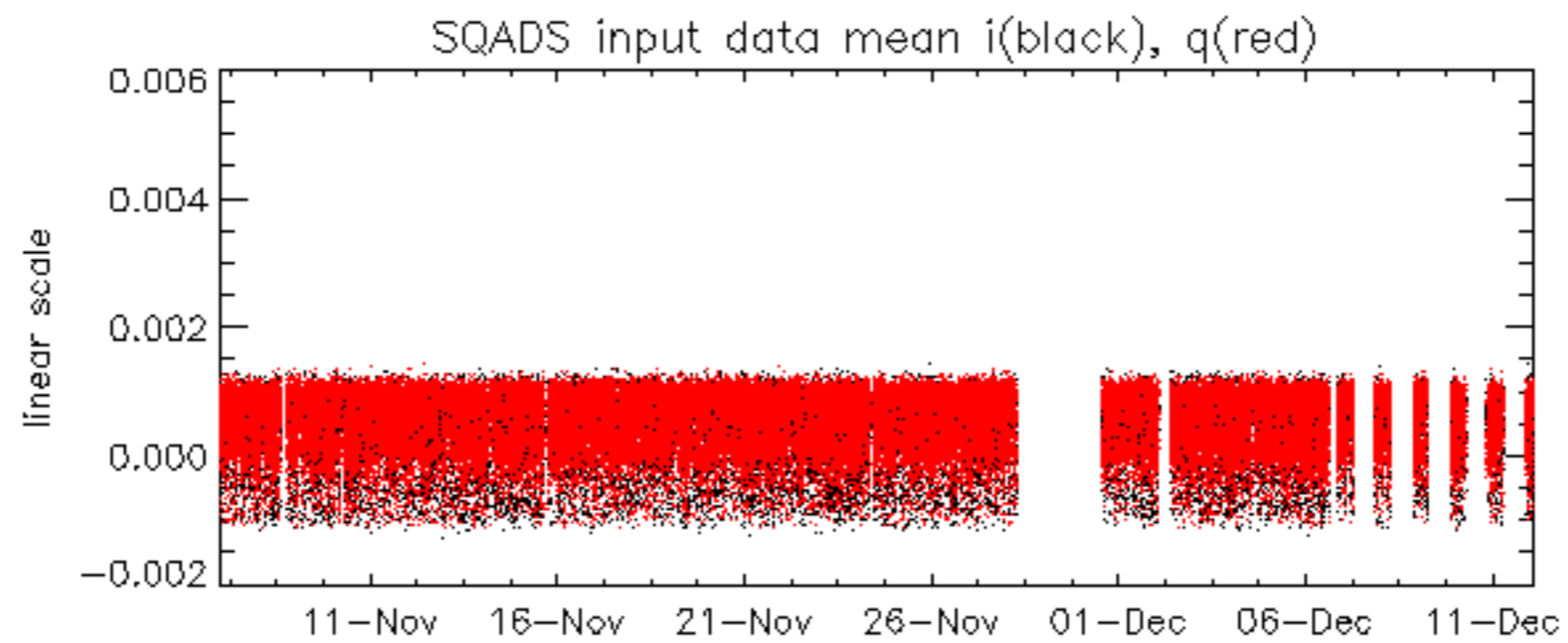
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.3105035 Hz

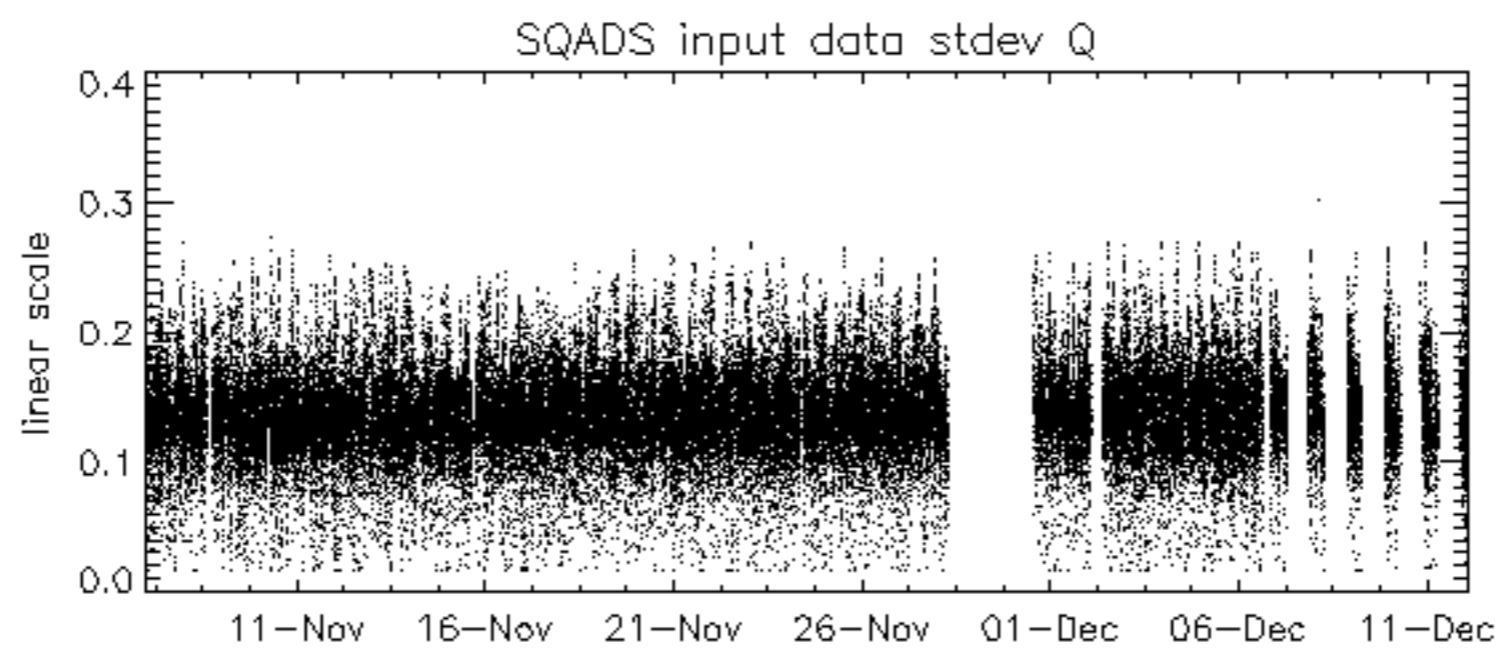
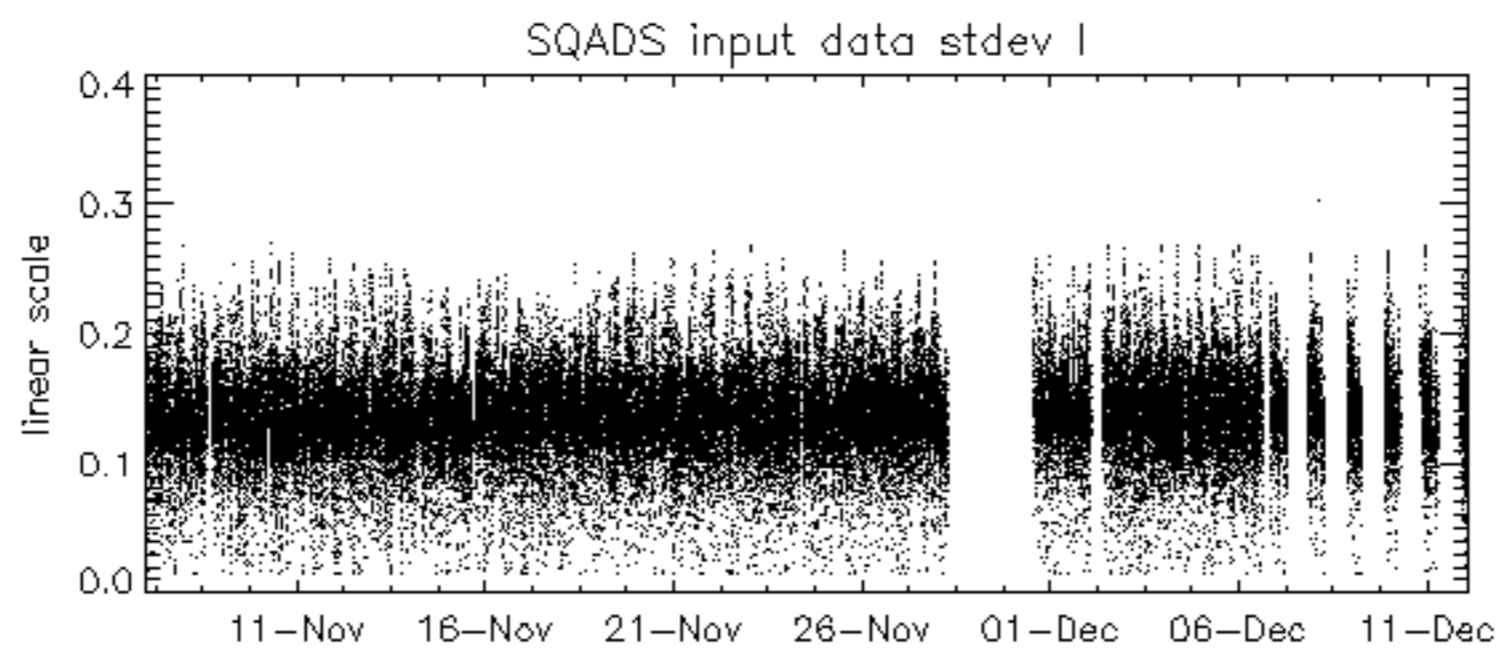
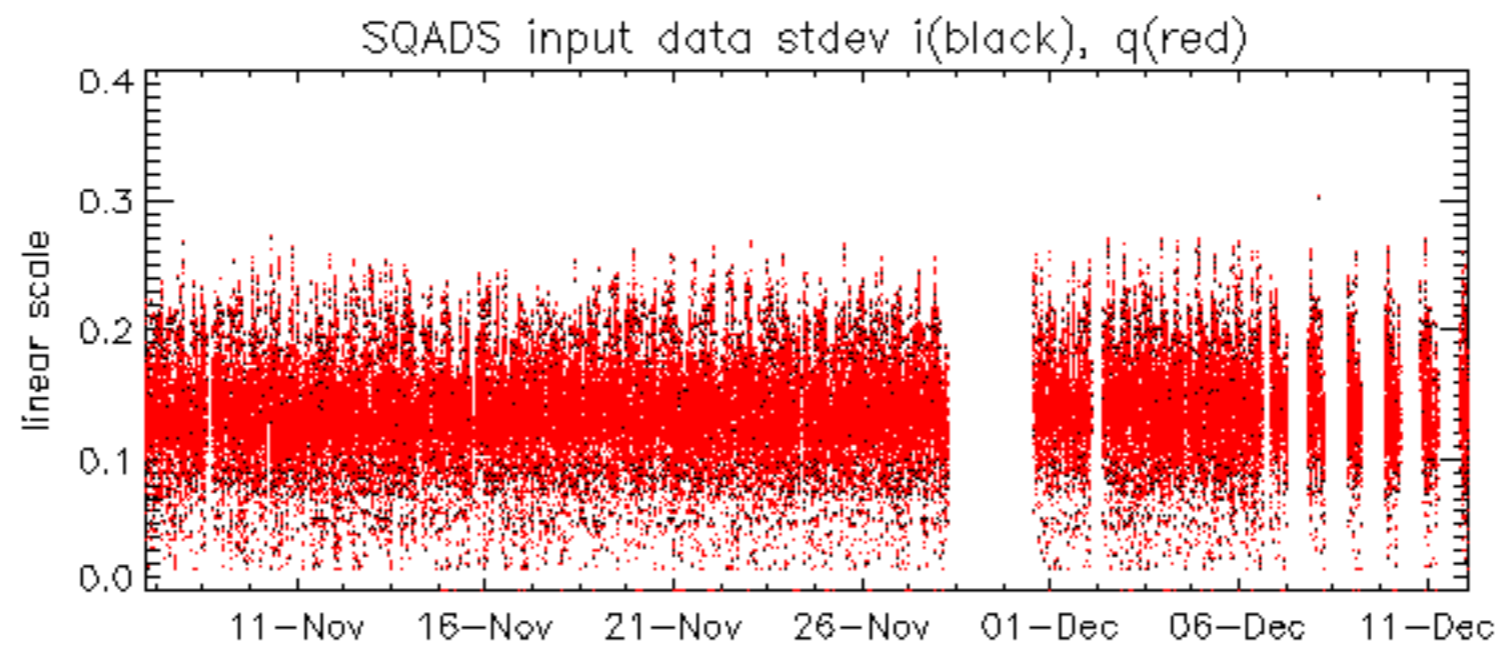


No anomalies observed on available MS products:

No anomalies observed.



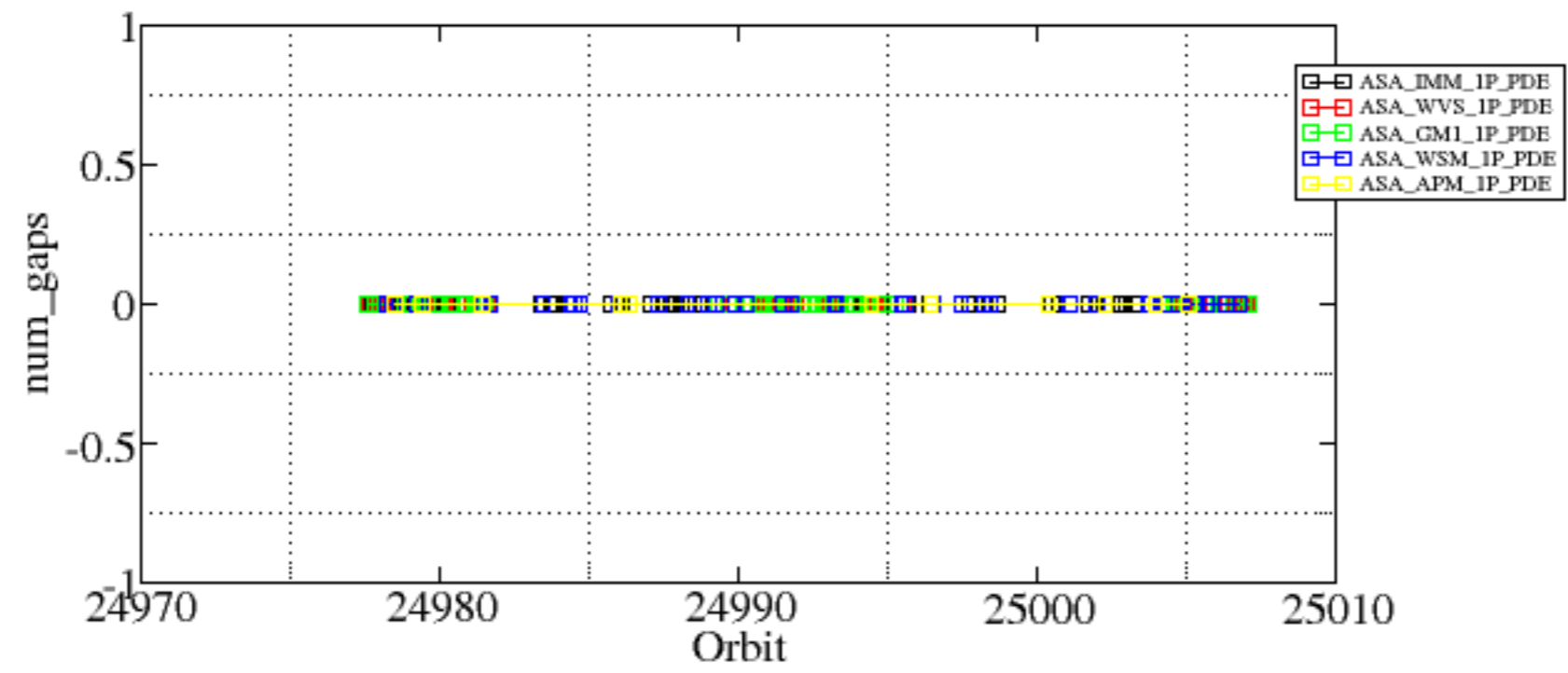


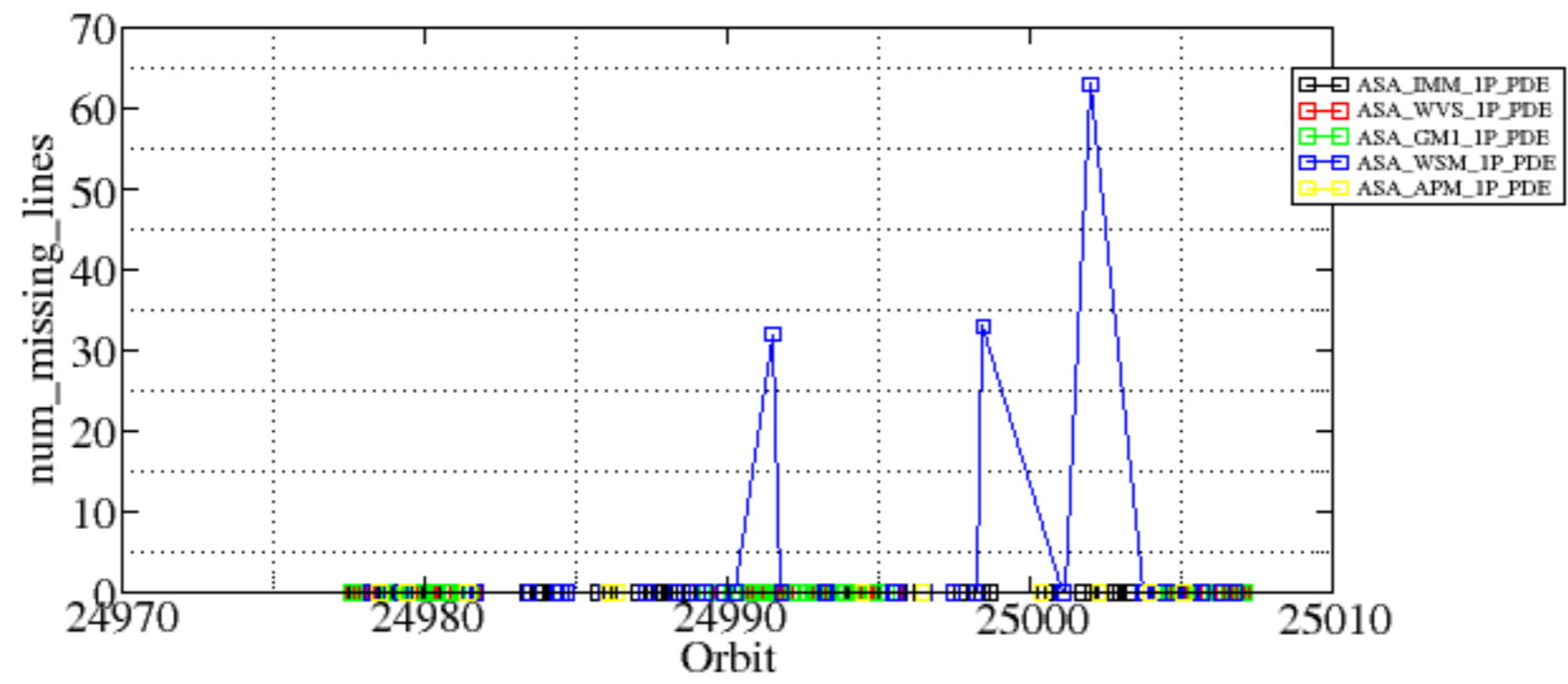


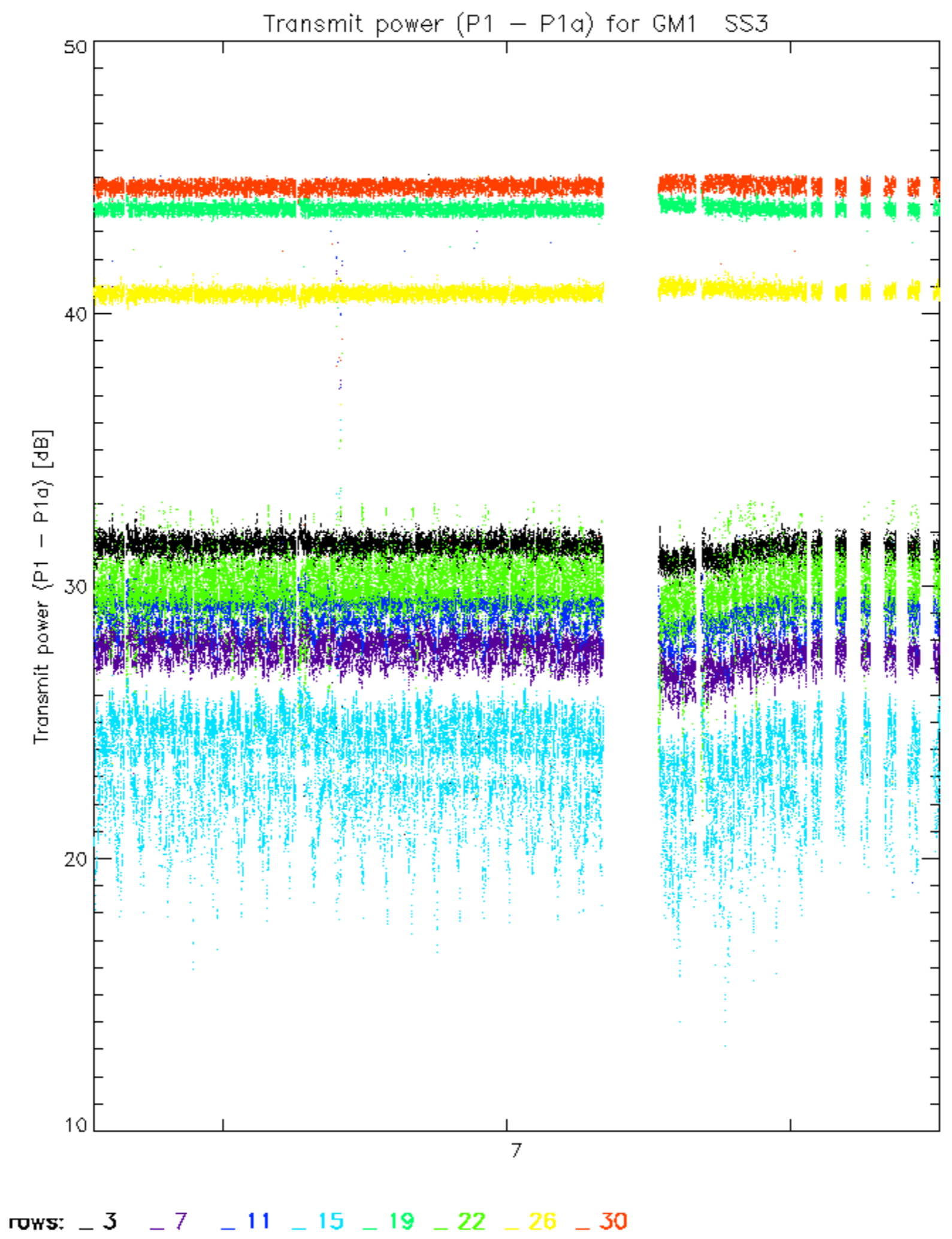
Summary of analysis for the last 3 days 2006121[012]

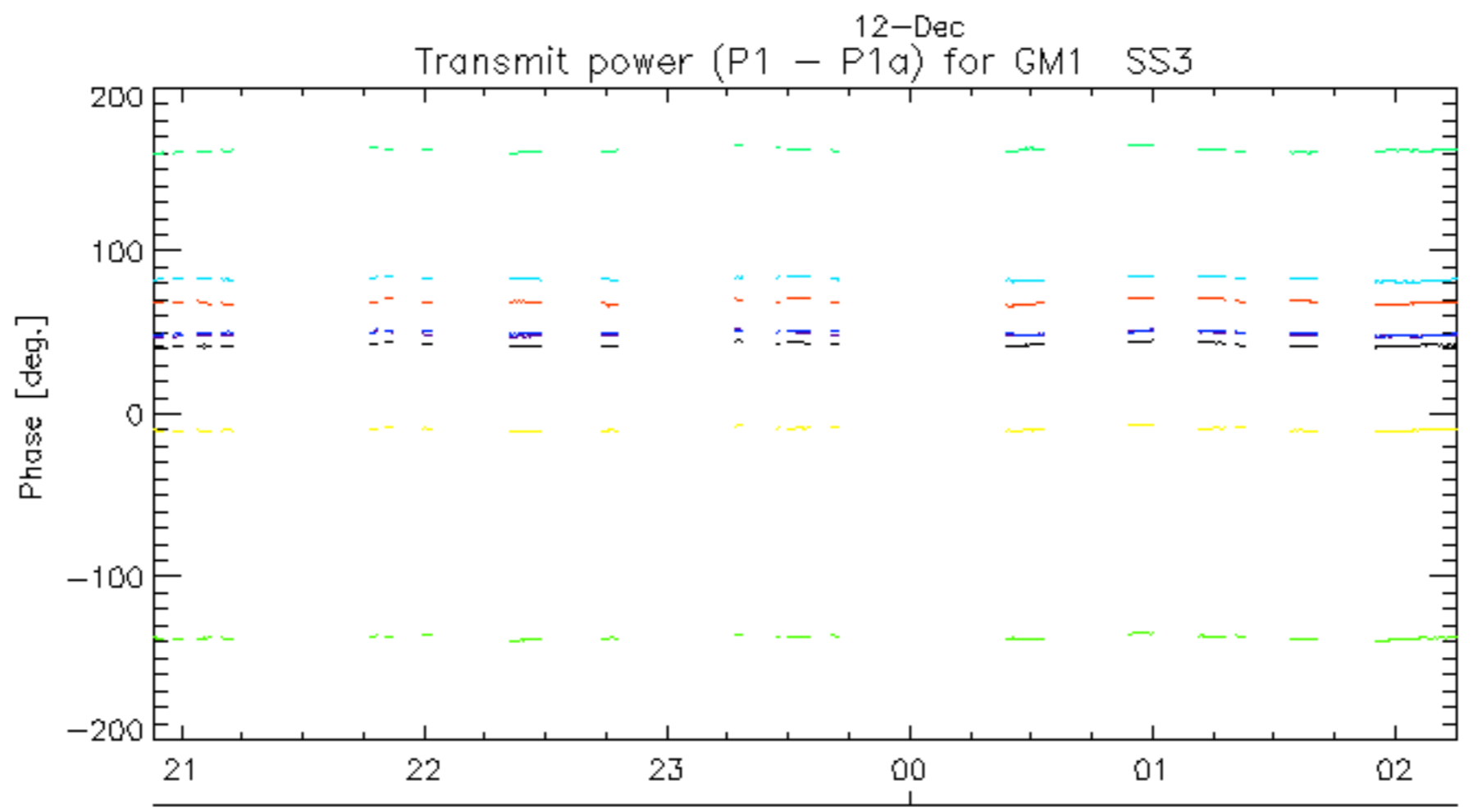
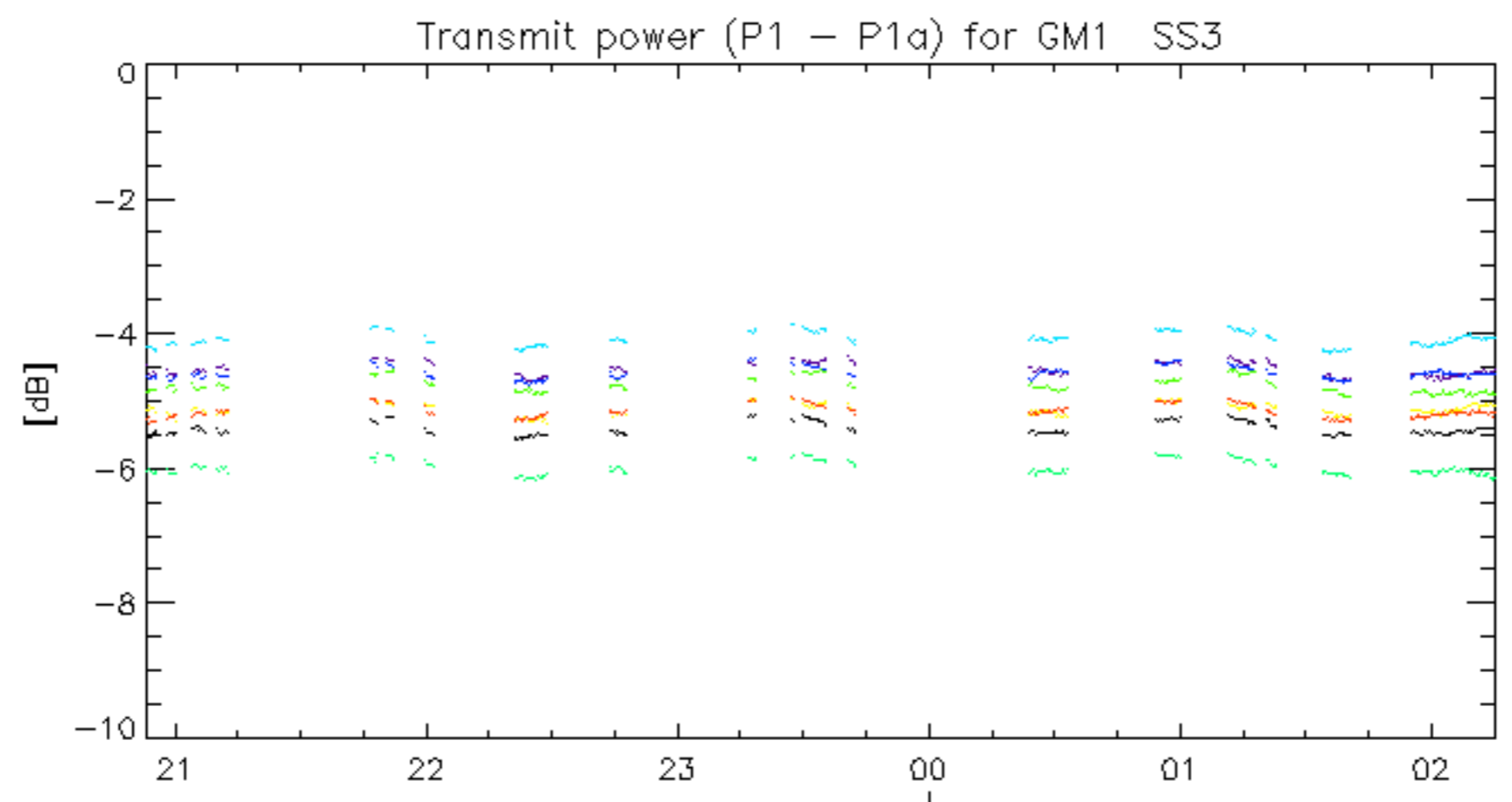
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20061210_234034_000001412053_00388_24991_8054.N1	0	32
ASA_WSM_1PNPDE20061211_112015_000001712053_00395_24998_8986.N1	0	33
ASA_WSM_1PNPDE20061211_171918_000002202053_00399_25002_9112.N1	0	63



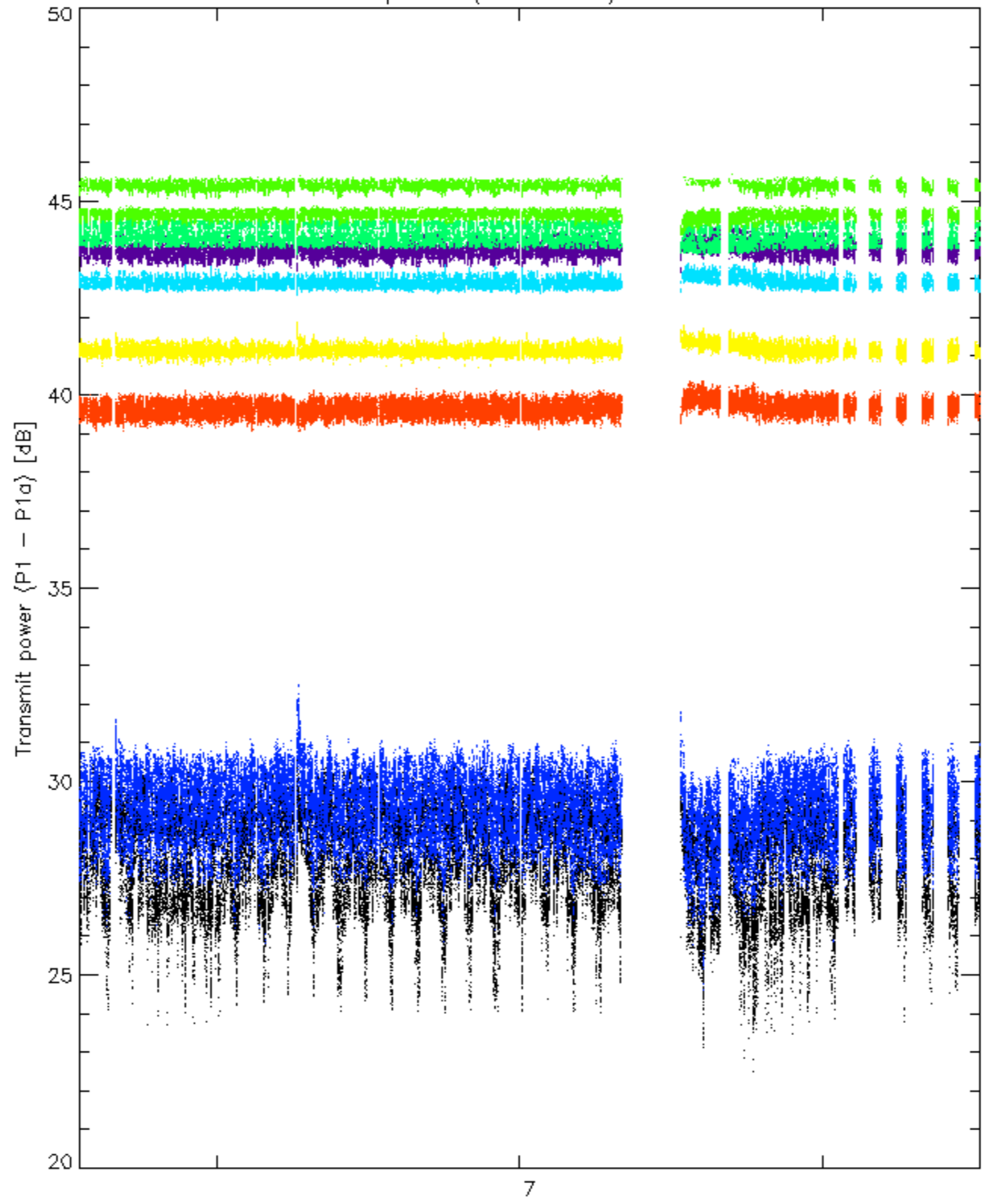




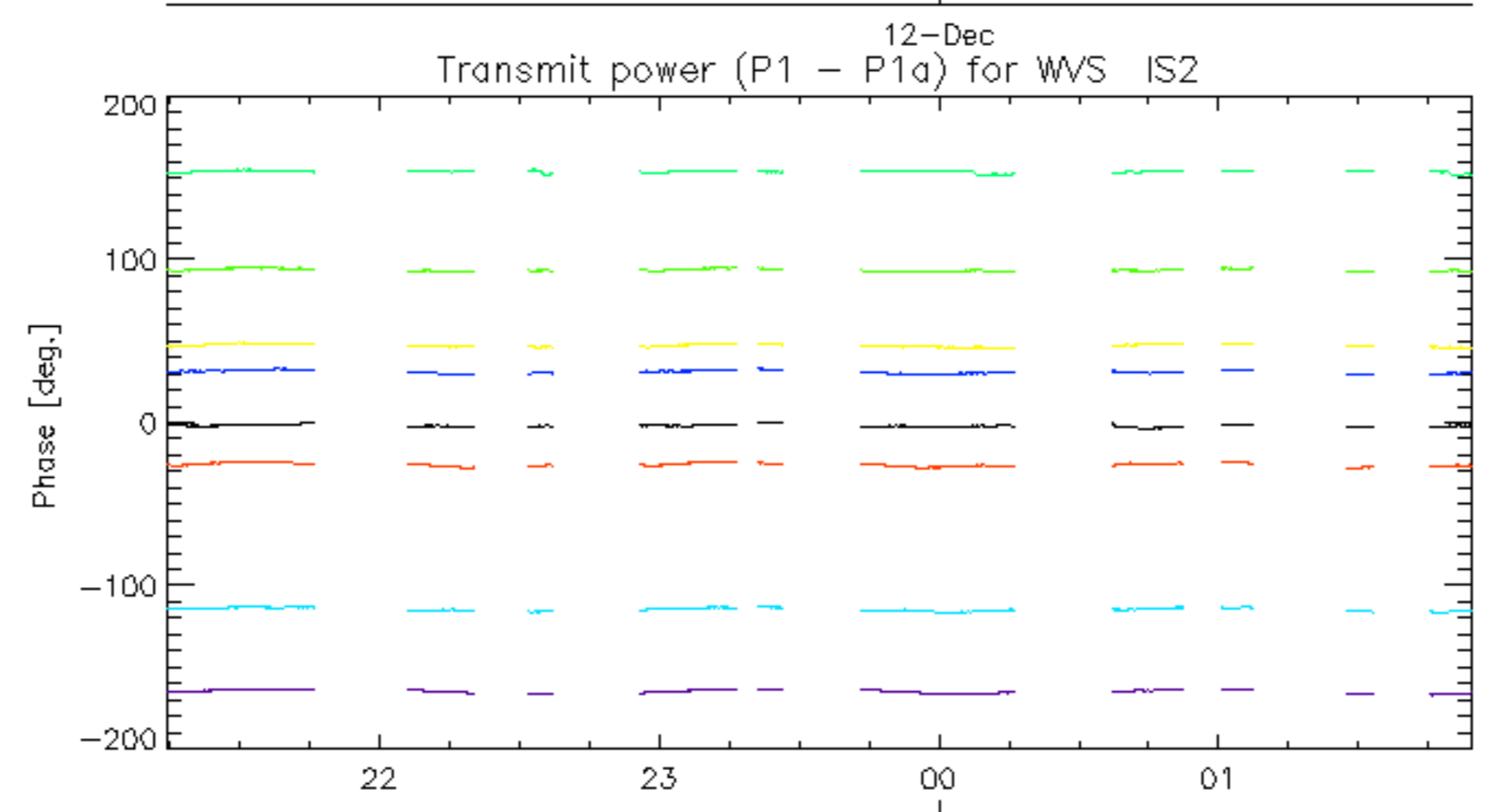
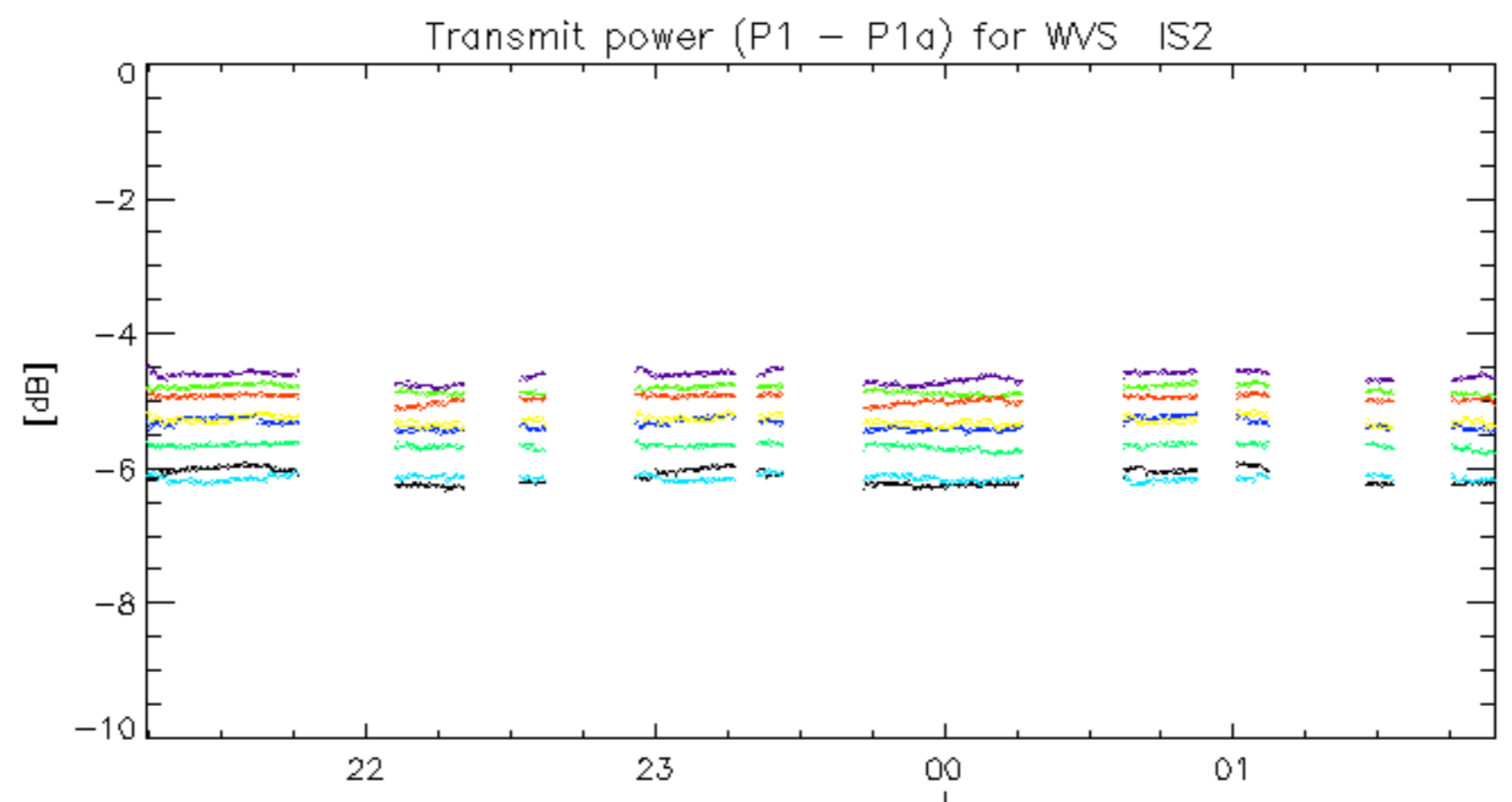


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.