

PRELIMINARY REPORT OF 051219

last update on Mon Dec 19 16:44:16 GMT 2005

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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 2005-12-18 00:00:00 to 2005-12-19 16:44:16

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	34	0	16	0	15
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	34	0	16	0	15
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	34	0	16	0	15
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	34	0	16	0	15

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	37	46	34	16	44
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	37	46	34	16	44
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	46	34	16	44
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	37	46	34	16	44

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	20051219 084151
H	20051217 030241

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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	-3.641088	0.235457	-0.038591
7	P1	-2.754330	0.126280	0.237777
11	P1	-4.148028	0.031986	-0.016815
15	P1	-5.117682	1.715357	1.002089
19	P1	-3.040101	0.063176	0.155267
22	P1	-4.438555	0.022039	0.059138
26	P1	-4.395884	0.060407	-0.152270
30	P1	-5.655288	0.034014	0.111439
3	P1	-15.540236	2.549337	-0.001954
7	P1	-15.319512	2.643435	1.150812
11	P1	-16.321329	0.475955	0.296596
15	P1	-12.782430	0.991349	0.871622
19	P1	-13.428166	0.352407	0.350022
22	P1	-16.018042	0.630371	0.417010
26	P1	-15.117217	1.099176	0.835456
30	P1	-15.594381	2.458772	1.142886

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.846449	0.110031	0.113677
7	P2	-22.551016	0.105013	0.025772
11	P2	-16.559824	0.124929	0.103027
15	P2	-7.278407	0.103978	-0.017150
19	P2	-9.218861	0.102201	0.016883
22	P2	-17.869032	0.111259	0.010580
26	P2	-16.365463	0.132894	-0.185454
30	P2	-19.787678	0.118737	-0.113761

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.235271	0.007509	-0.005143
7	P3	-8.235271	0.007509	-0.005143
11	P3	-8.235271	0.007509	-0.005143
15	P3	-8.235271	0.007509	-0.005143
19	P3	-8.235271	0.007509	-0.005143
22	P3	-8.235271	0.007509	-0.005143
26	P3	-8.235271	0.007509	-0.005143
30	P3	-8.235271	0.007509	-0.005143

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	-3.699907	0.008050	-0.017482
7	P1	-2.776555	0.011690	0.027223
11	P1	-2.876890	0.014614	0.001357
15	P1	-3.407226	0.021477	-0.016019
19	P1	-3.386962	0.013618	-0.021452
22	P1	-5.122861	0.019389	-0.003565
26	P1	-5.836703	0.016318	-0.036058
30	P1	-5.277936	0.033292	-0.027453
3	P1	-11.475145	0.041473	-0.026179
7	P1	-9.969438	0.045964	-0.010624
11	P1	-10.051143	0.060566	0.016313
15	P1	-10.571075	0.080695	0.083988
19	P1	-15.511606	0.073003	-0.056057
22	P1	-20.956837	0.969927	-0.148930

26	P1	-17.187613	0.304164	0.019439
30	P1	-18.291252	0.311889	0.254149

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.624372	0.030110	0.045856
7	P2	-23.052240	0.058890	-0.039496
11	P2	-11.633875	0.021310	0.109425
15	P2	-4.984920	0.021555	-0.045979
19	P2	-6.964523	0.022443	-0.051694
22	P2	-8.192509	0.023073	-0.059631
26	P2	-24.049332	0.031543	-0.033095
30	P2	-22.123264	0.018888	-0.052794

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.076178	0.002447	-0.009011
7	P3	-8.076249	0.002446	-0.009105
11	P3	-8.076175	0.002431	-0.009471
15	P3	-8.076202	0.002447	-0.009832
19	P3	-8.076202	0.002449	-0.009417
22	P3	-8.076236	0.002451	-0.009422
26	P3	-8.076110	0.002421	-0.009876
30	P3	-8.075915	0.002443	-0.009494

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	0.000464117
	stdev	2.16697e-07
MEAN Q	mean	0.000481023
	stdev	2.36808e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129125
	stdev	0.00107791
STDEV Q	mean	0.129411
	stdev	0.00109000



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005121[789]

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_IMM_1PNPDE20051218_003640_000001812043_00274_19867_4206.N1	1	0
ASA_IMM_1PNPDE20051219_004807_000002122043_00288_19881_4281.N1	1	0
ASA_IMM_1PNPDK20051217_134633_000001902043_00268_19861_9338.N1	1	0
ASA_WSM_1PNPDE20051217_170153_000002442043_00270_19863_4690.N1	0	8
ASA_WSM_1PNPDE20051218_163148_000001292043_00284_19877_4793.N1	0	70

ASA_WSM_1PNPDE20051218_181506_000001292043_00285_19878_4809.N1	0	8
ASA_WSM_1PNPDE20051218_231423_000001102043_00288_19881_4861.N1	0	12
ASA_WSM_1PNPDE20051219_041808_000001462043_00291_19884_4882.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)
<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

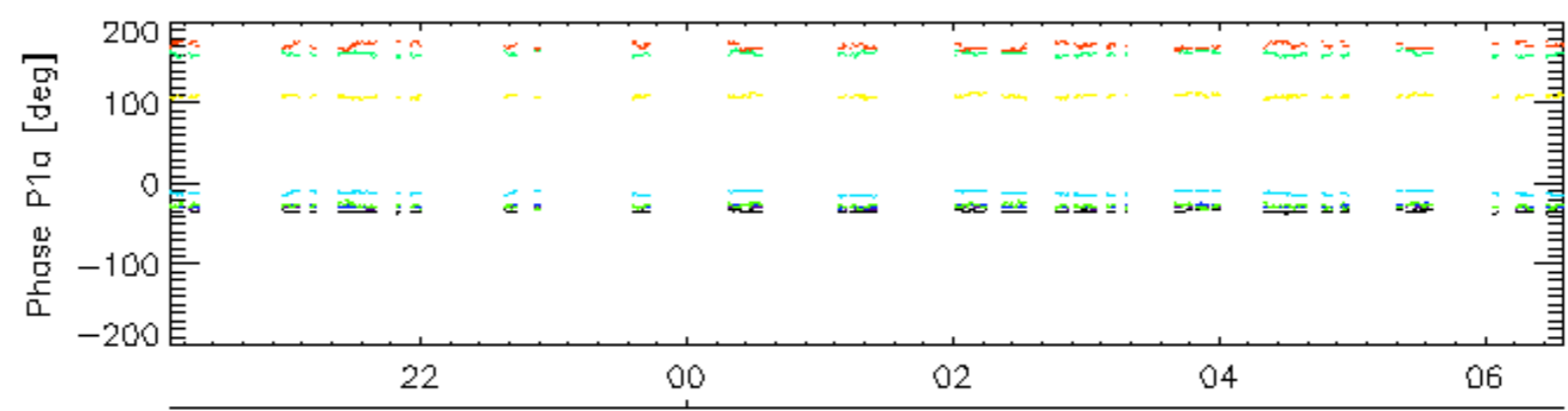
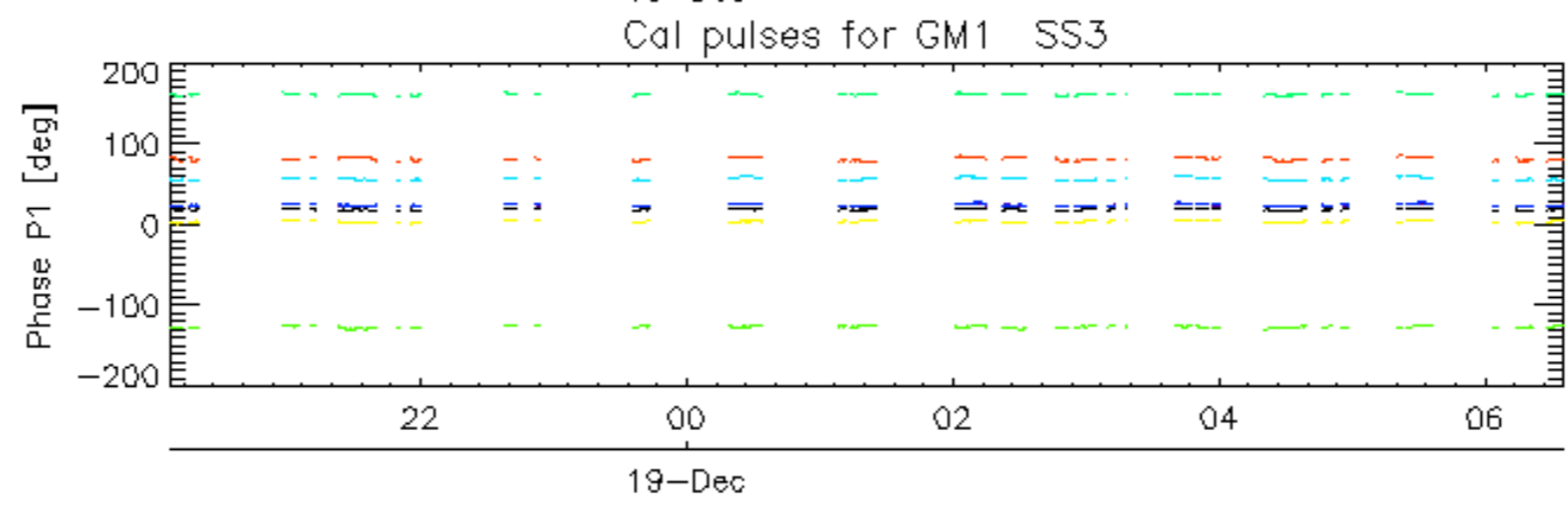
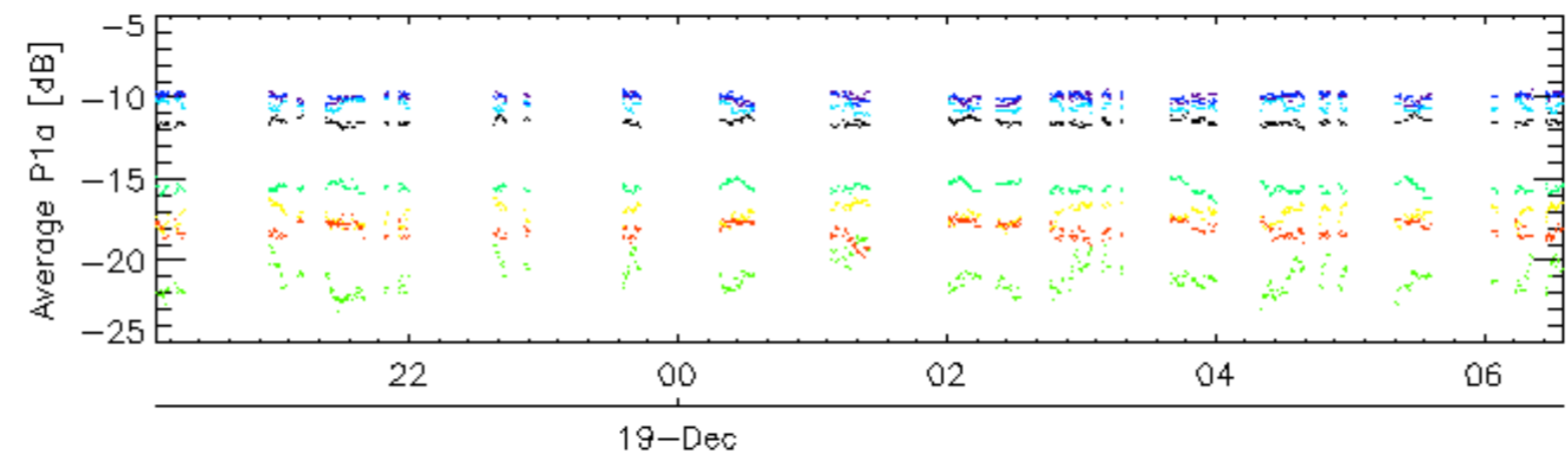
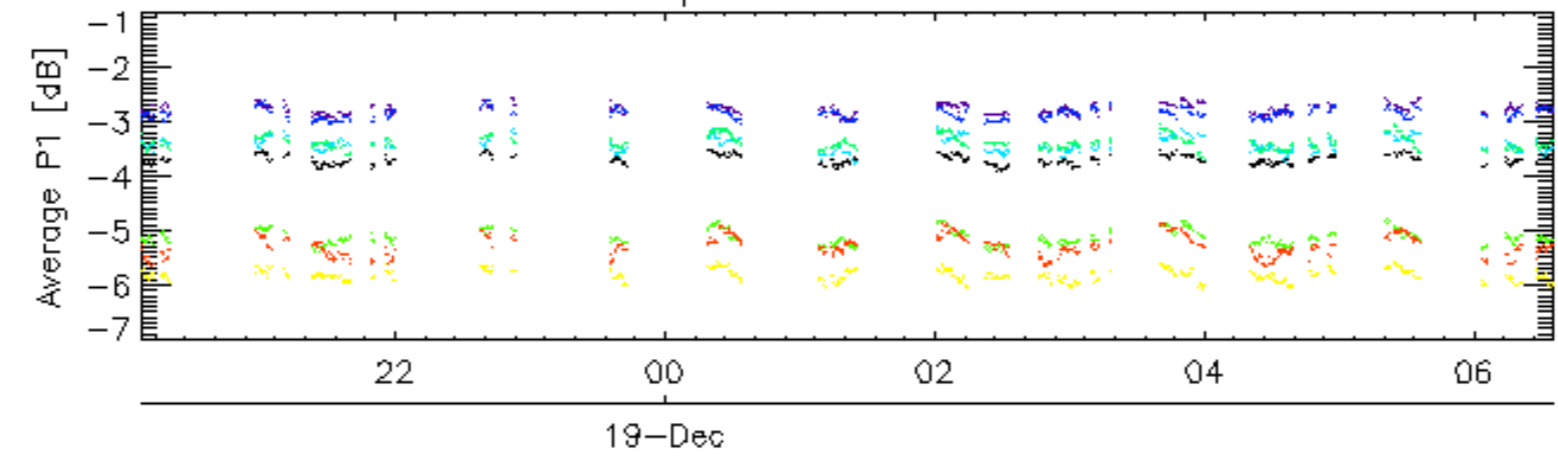
<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

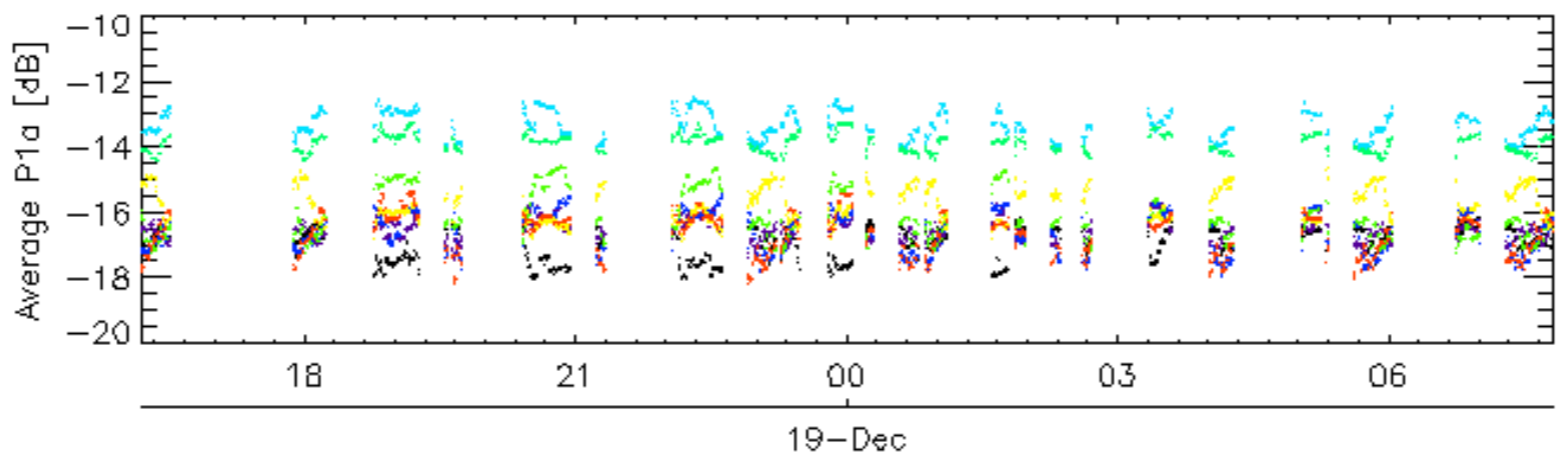
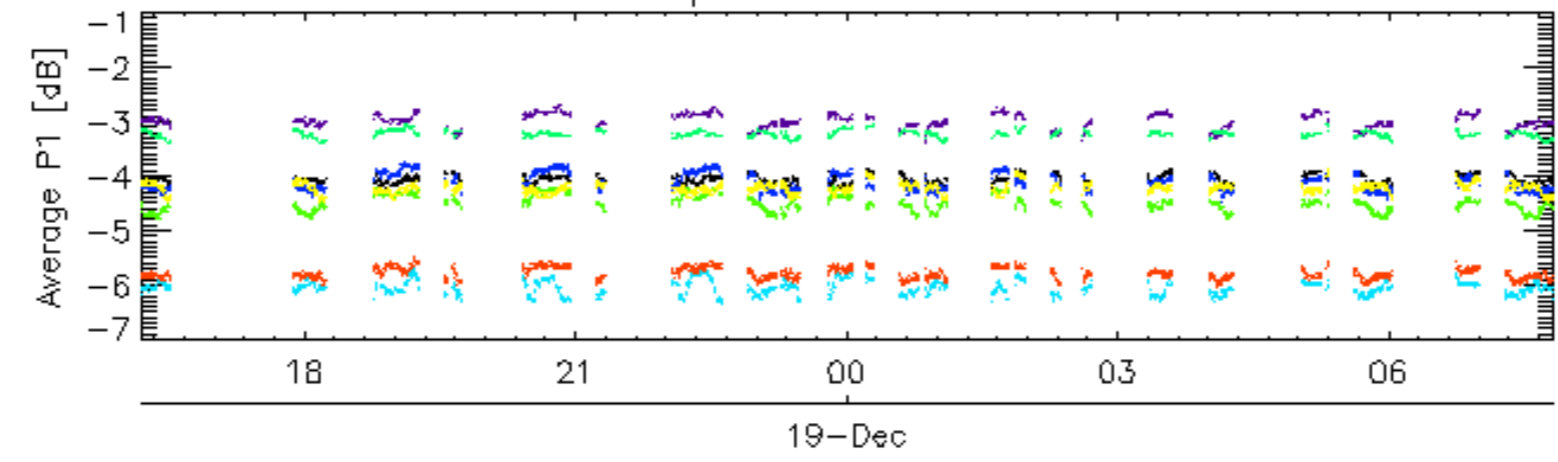
<input type="checkbox"/>

Cal pulses for GM1 SS3

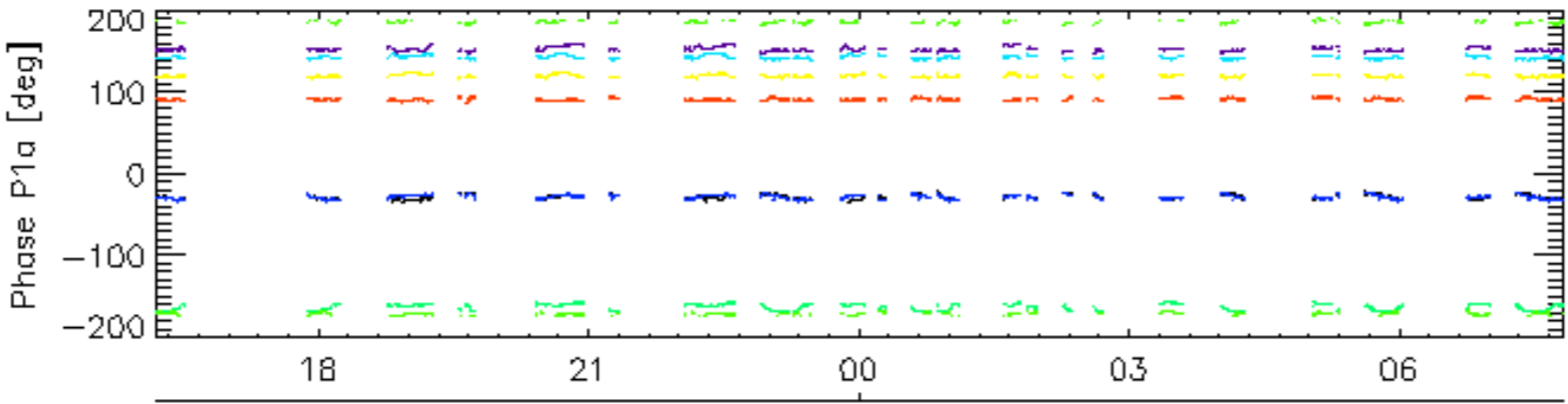
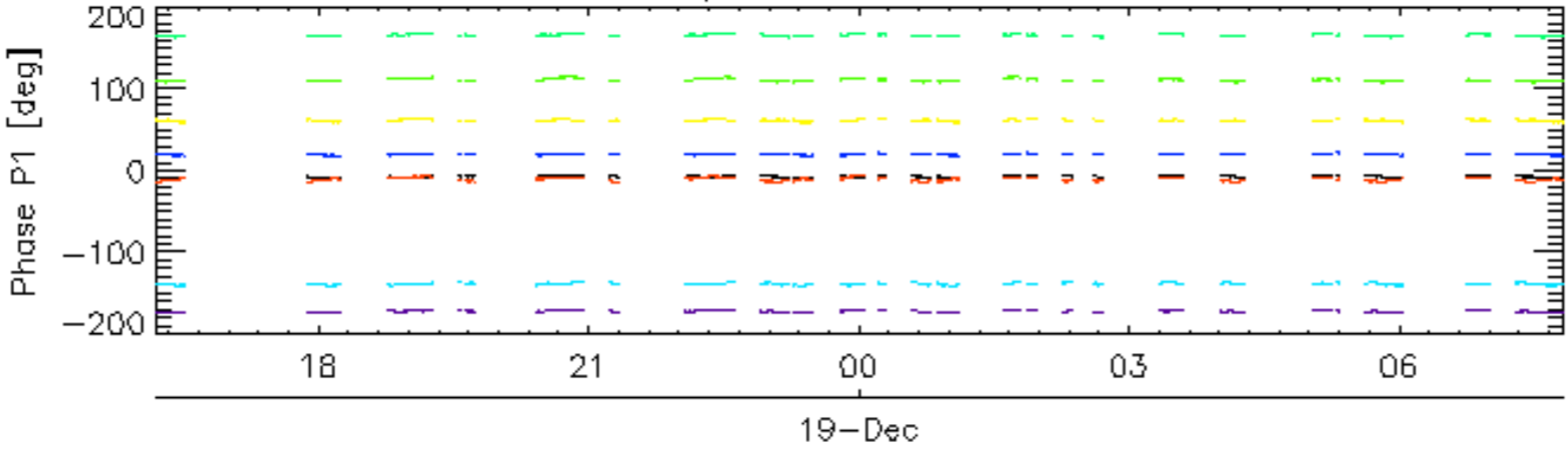


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

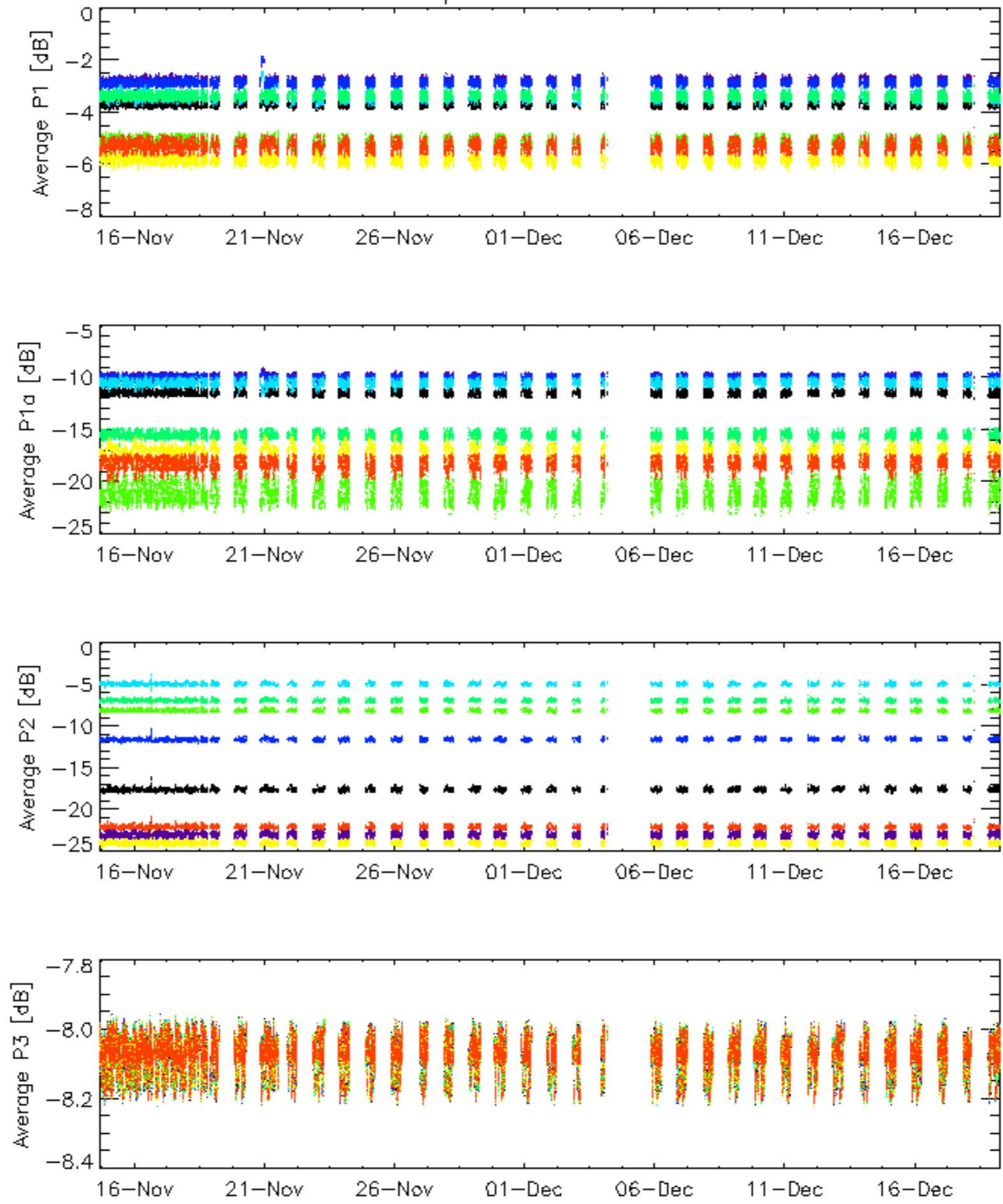


Cal pulses for WVS IS2



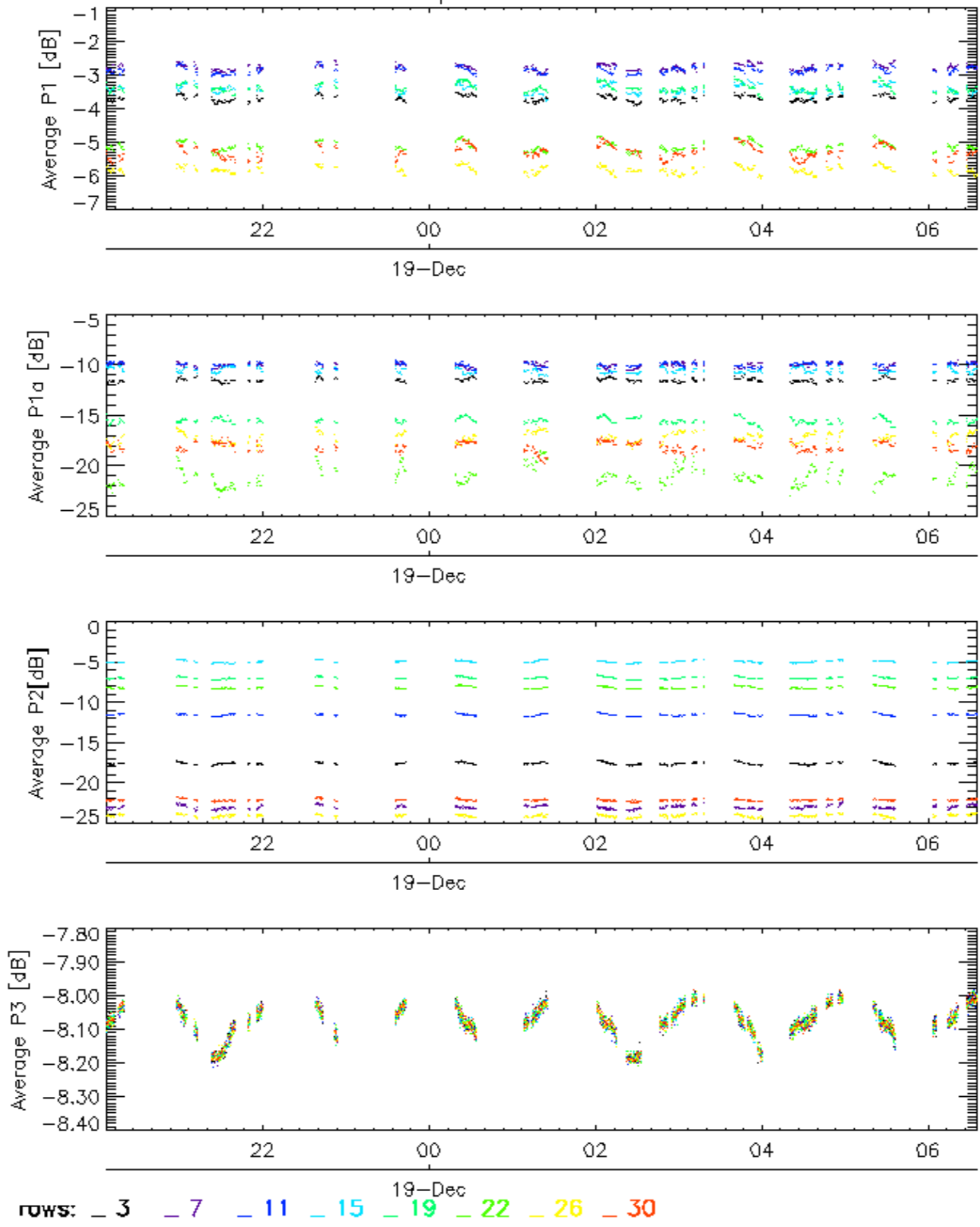
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

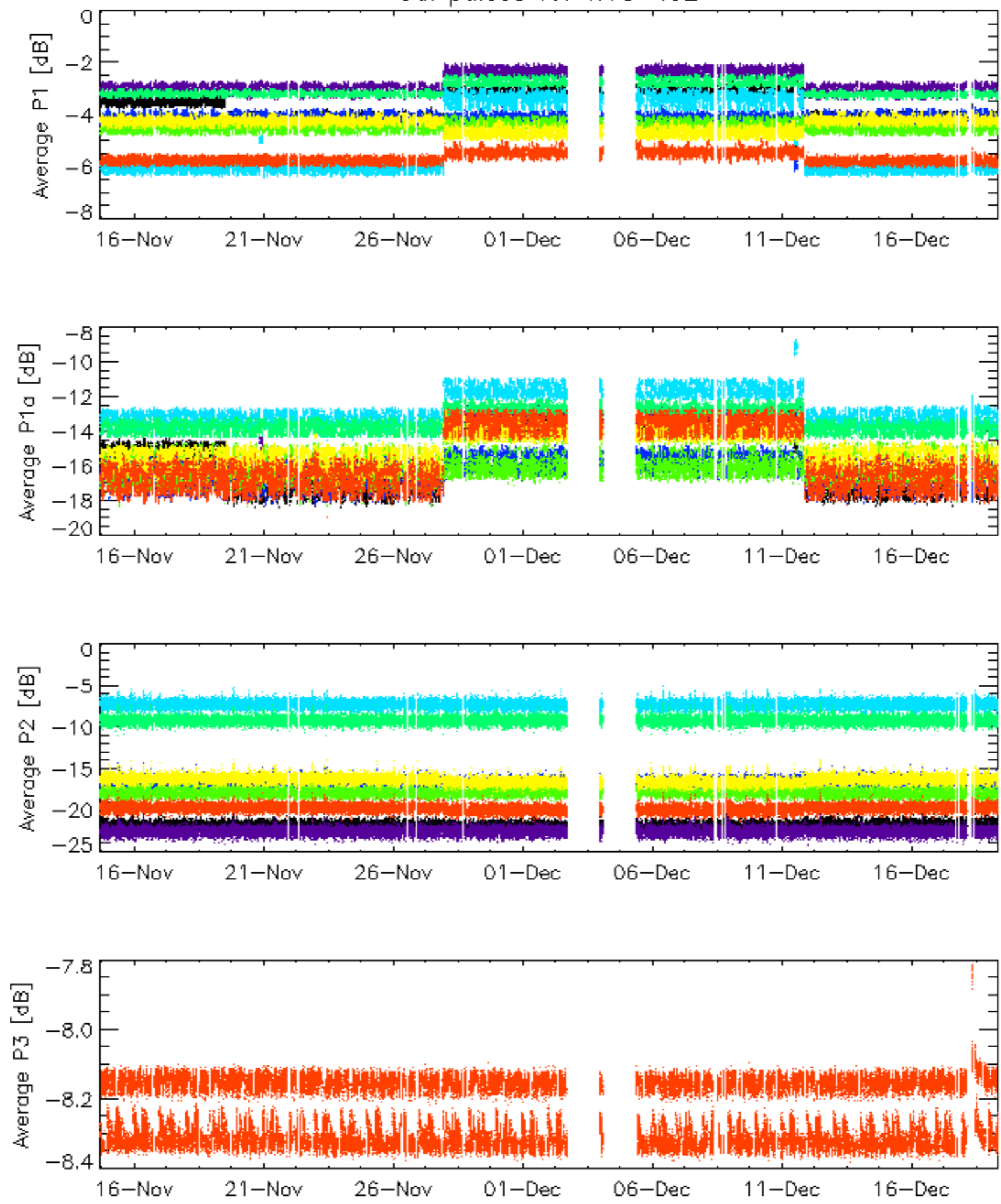


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

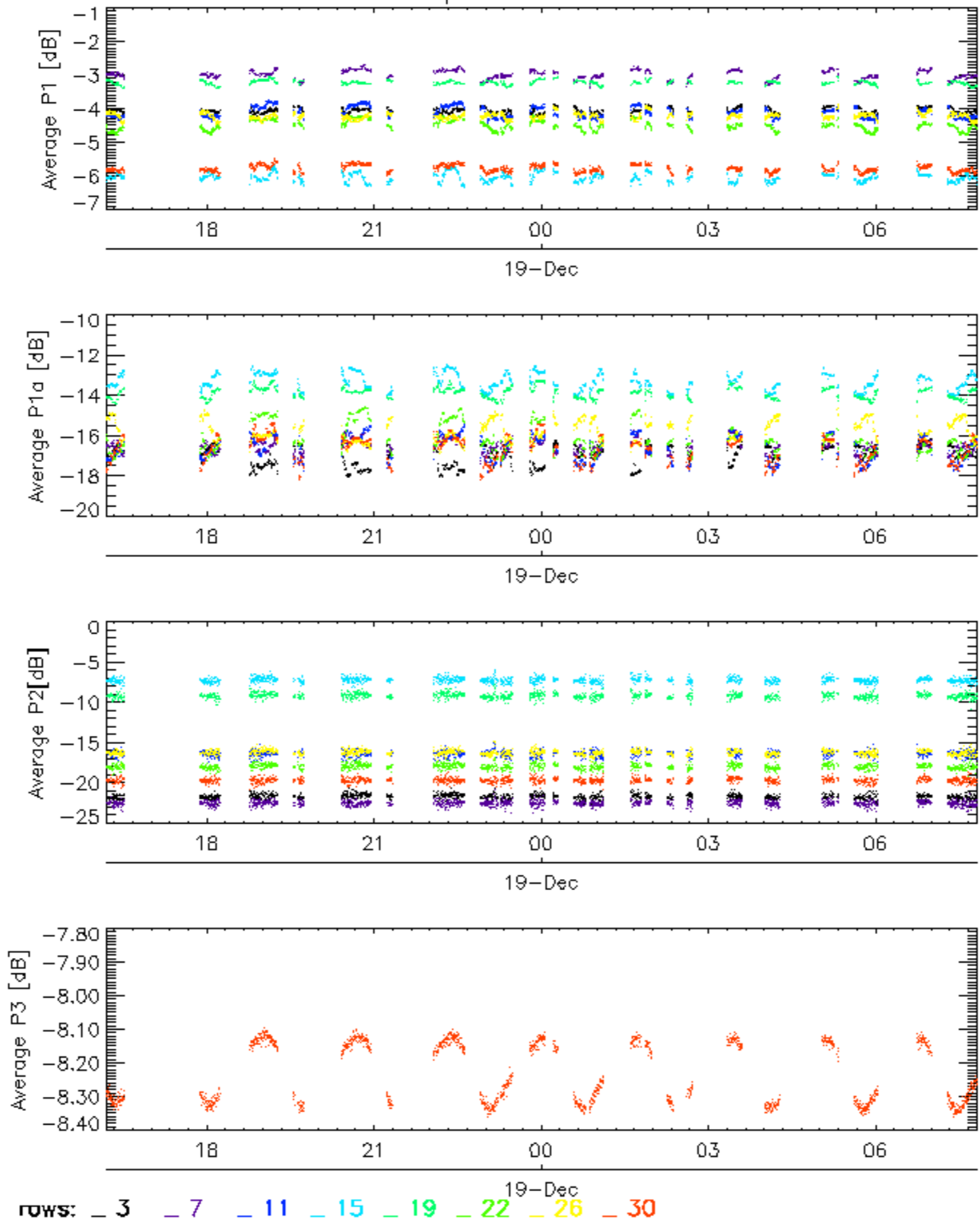


Cal pulses for WVS IS2



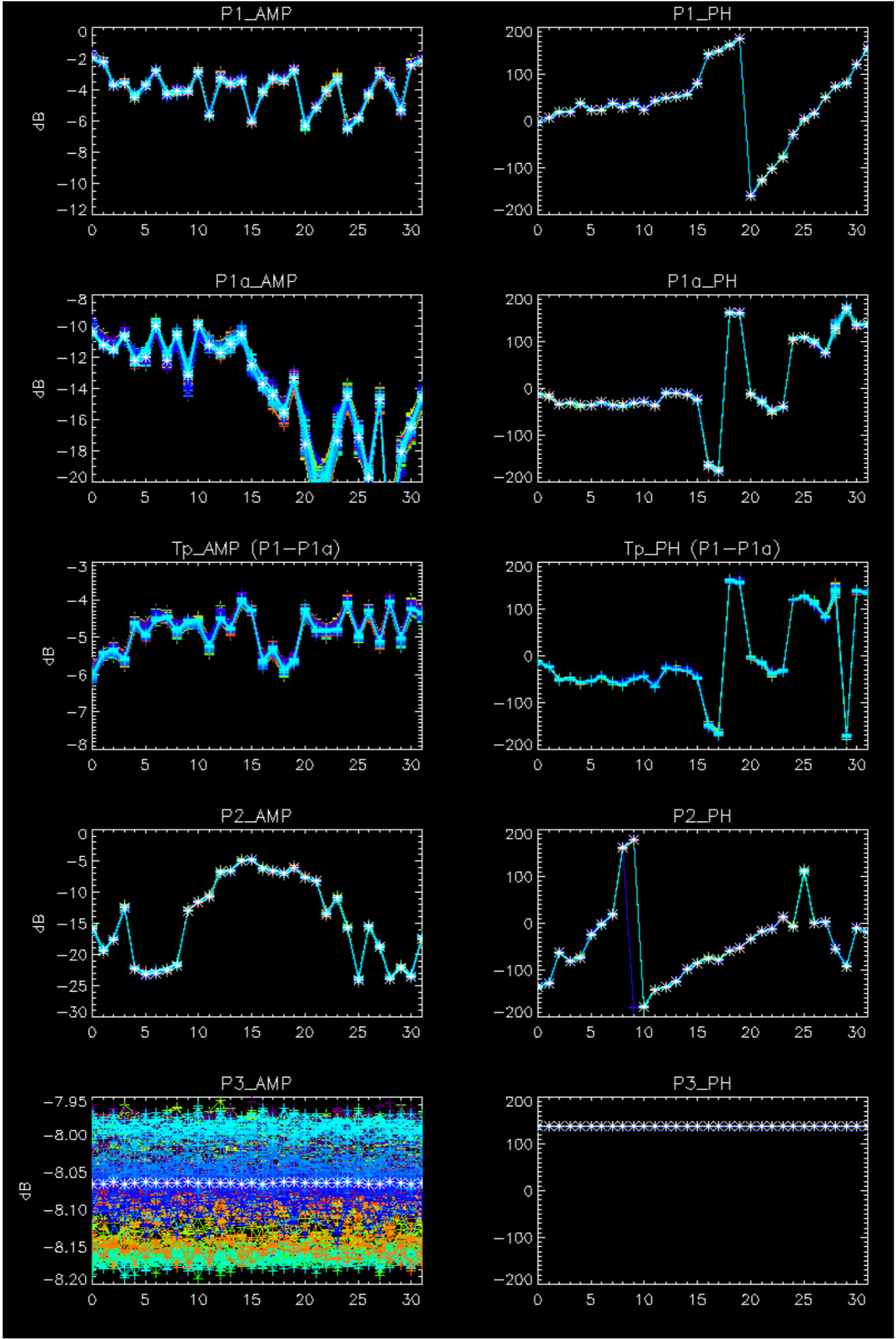
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

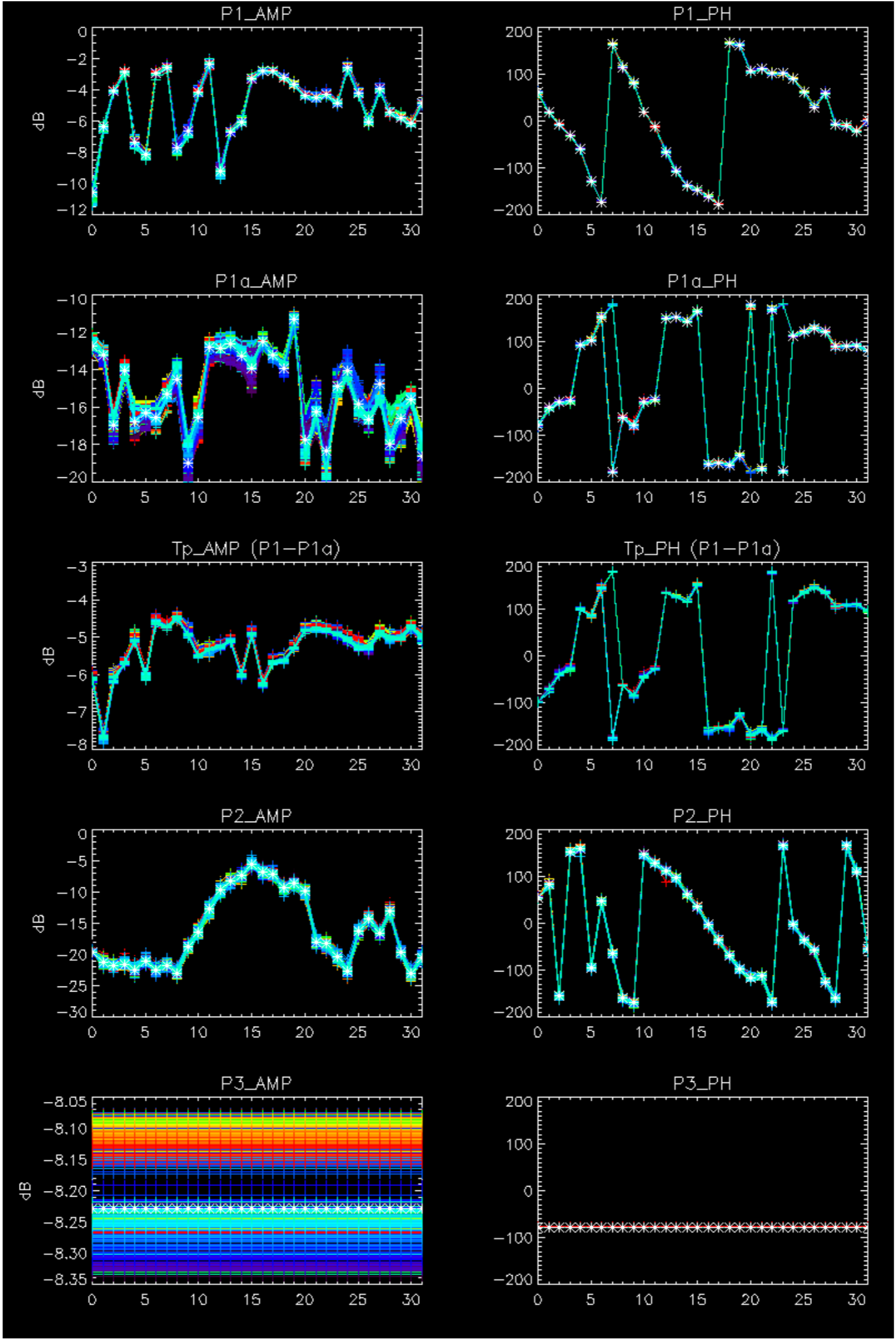
Cal pulses for WVS IS2



No anomalies observed on available browse products

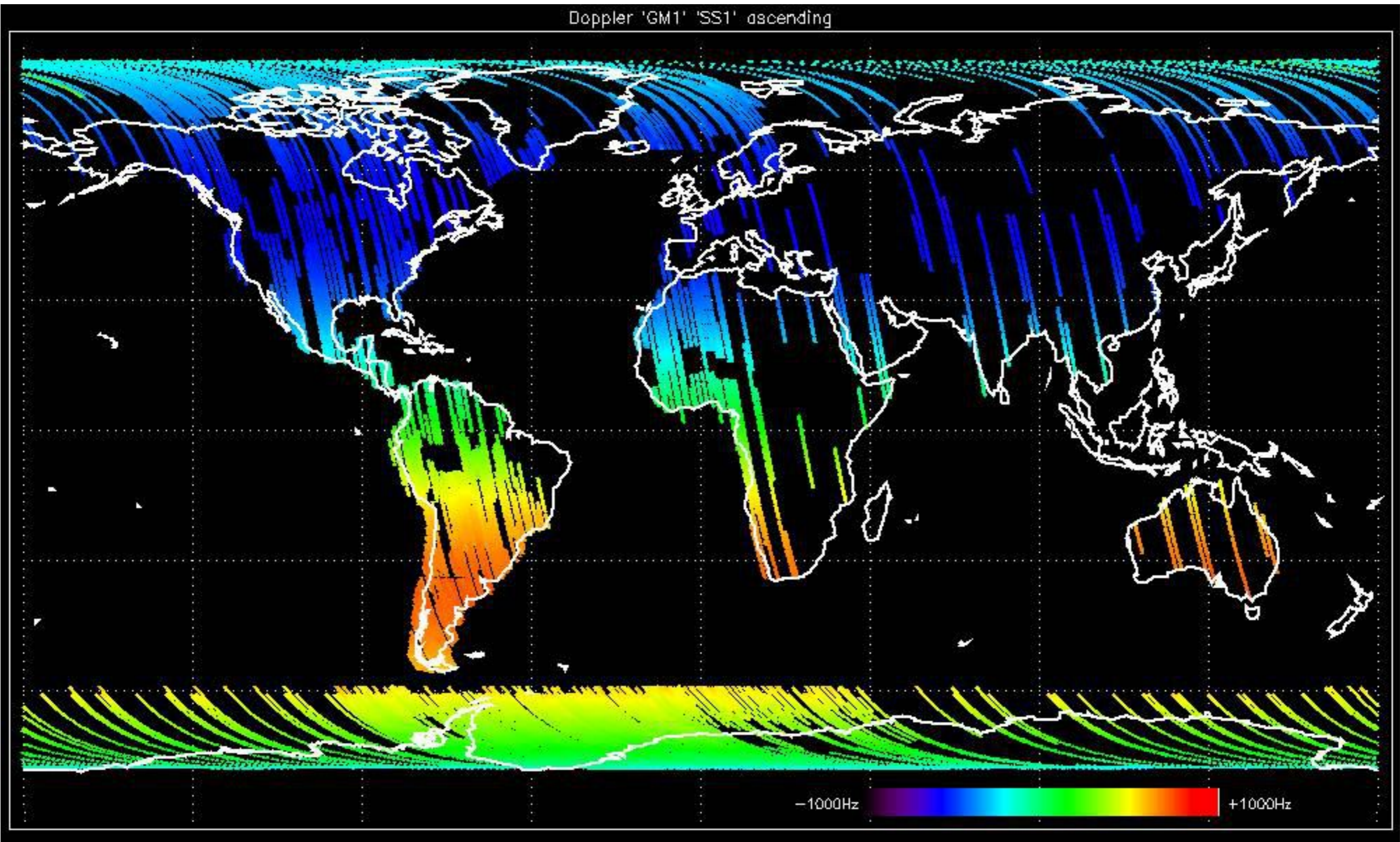
No anomalies observed.



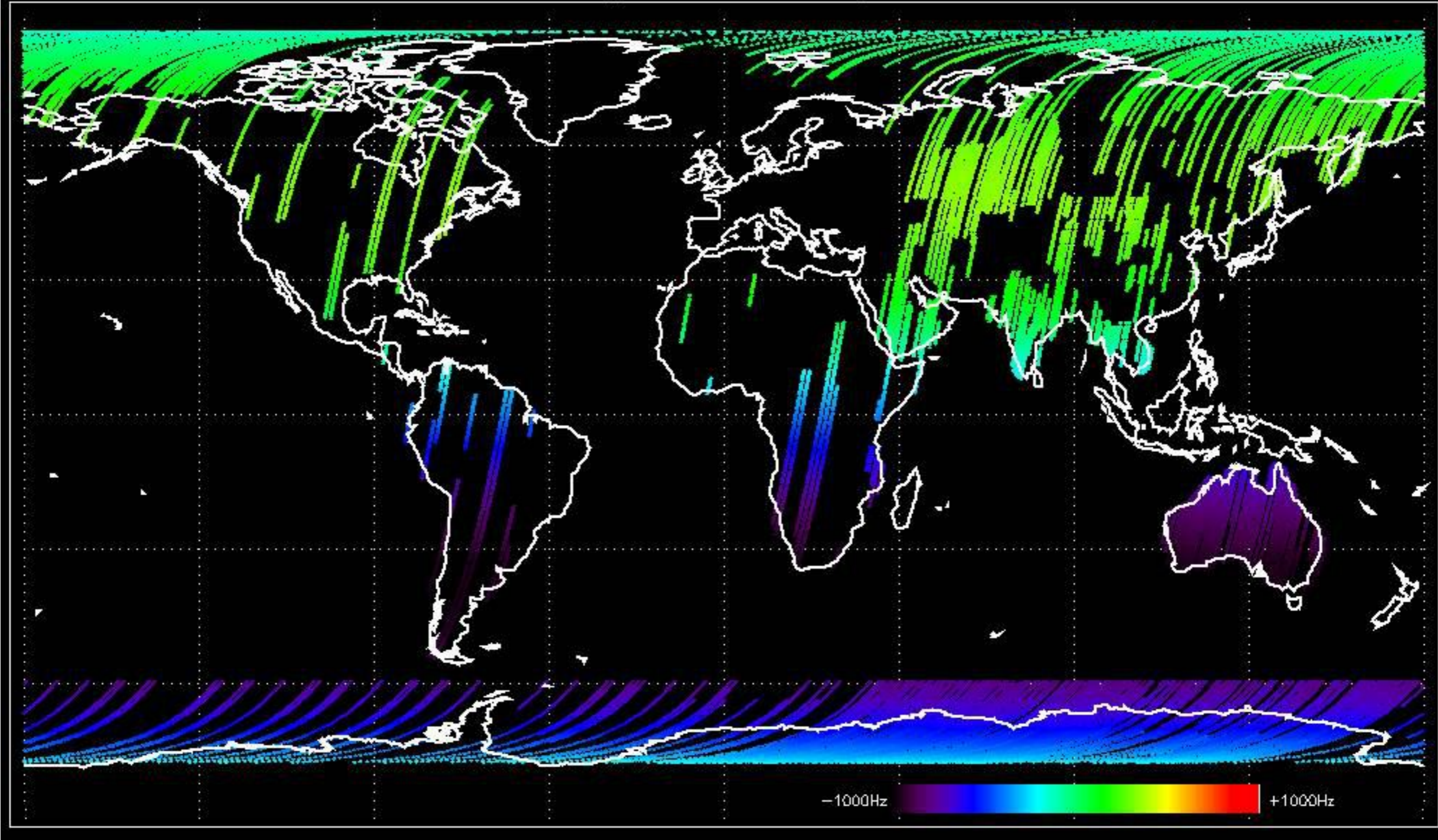


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

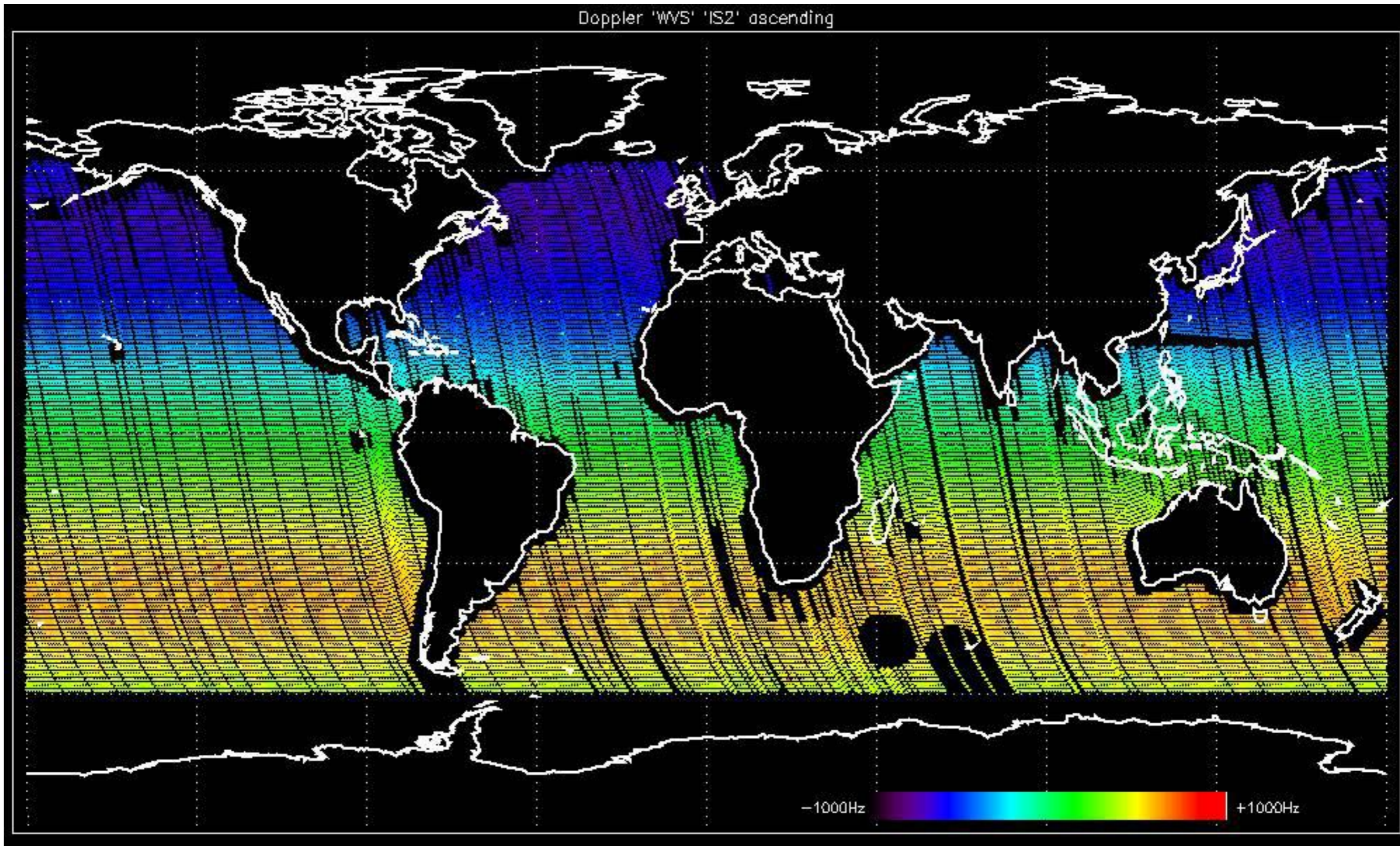
Doppler 'GM1' 'SS1' ascending



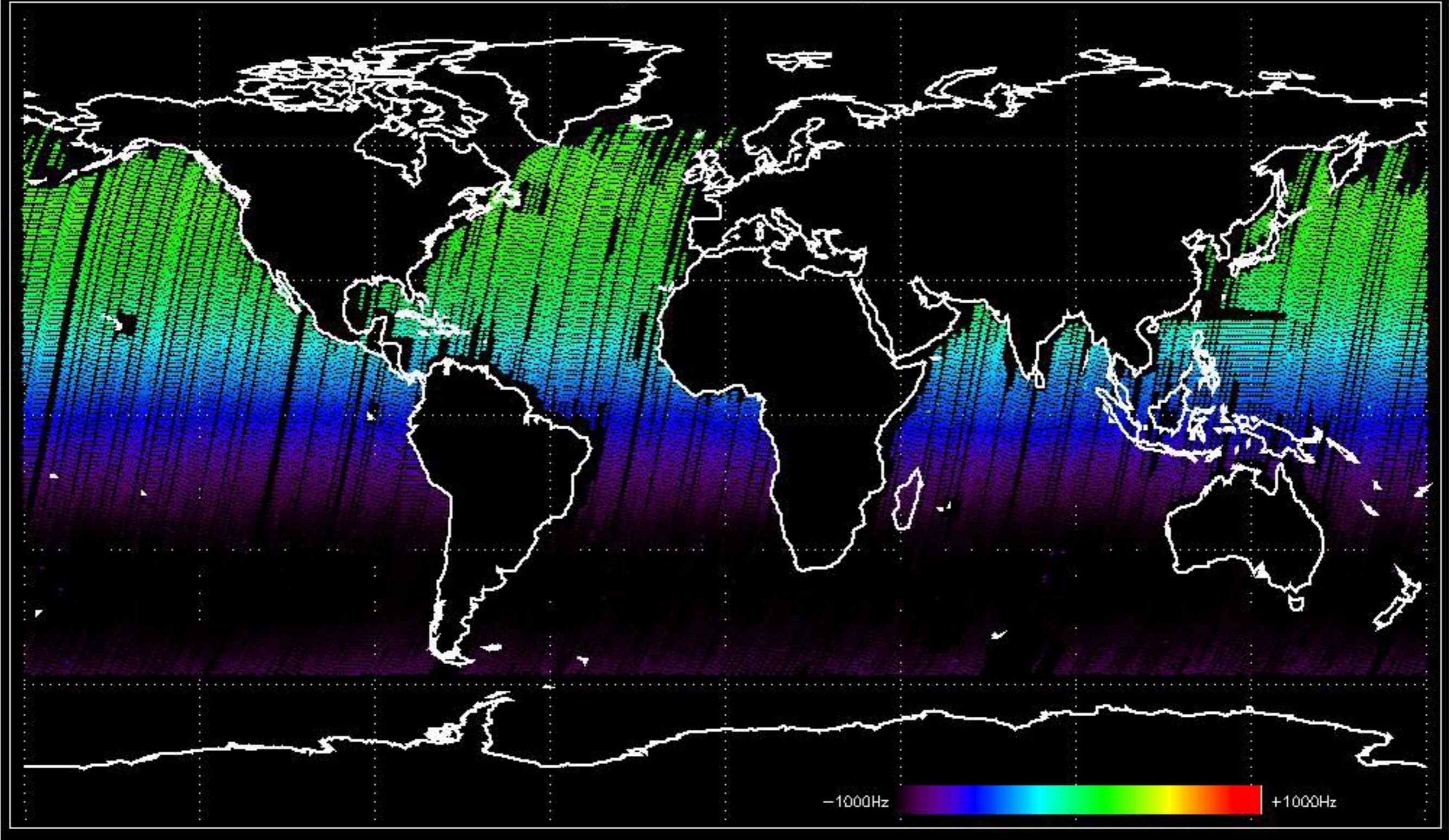
Doppler 'GM1' 'SS1' descending



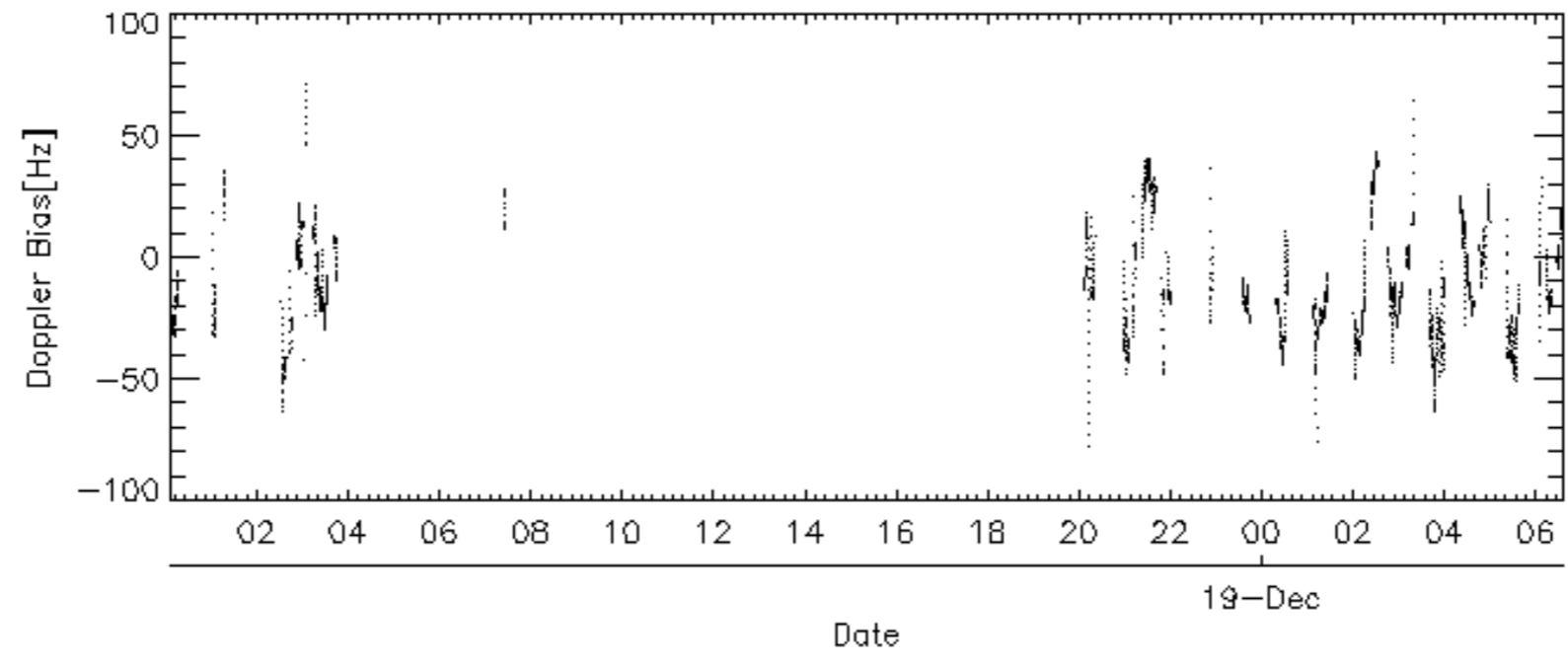
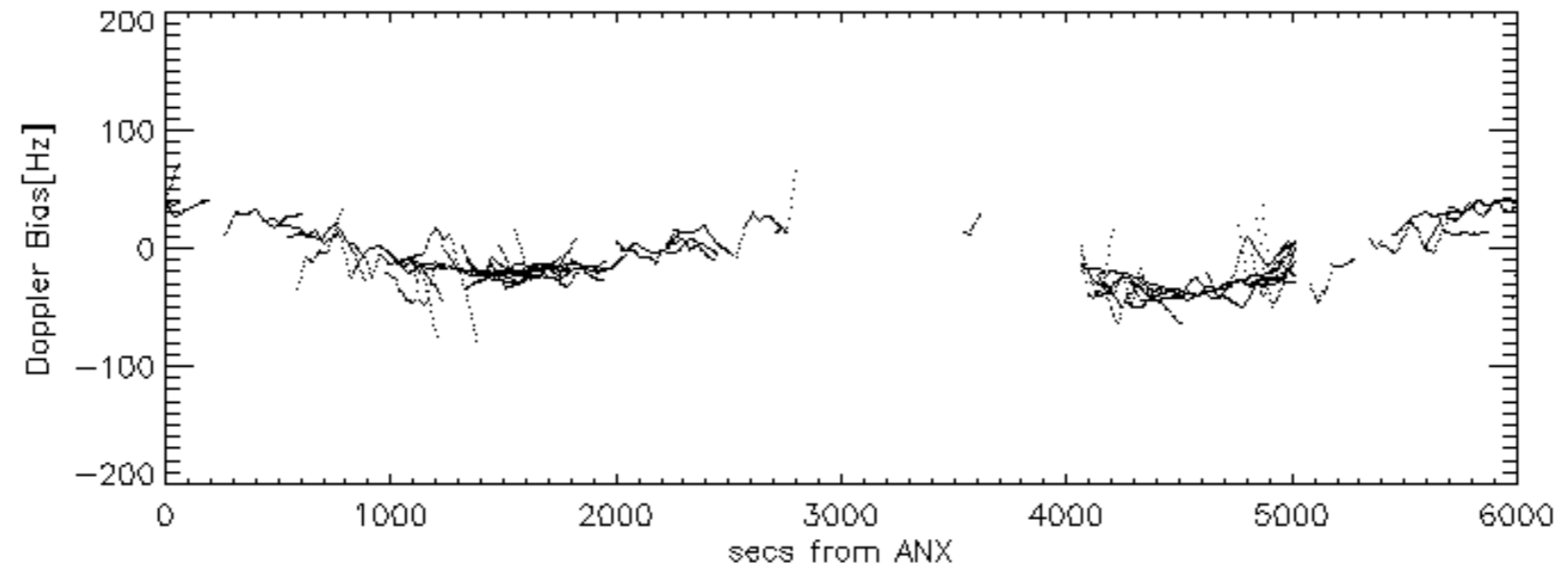
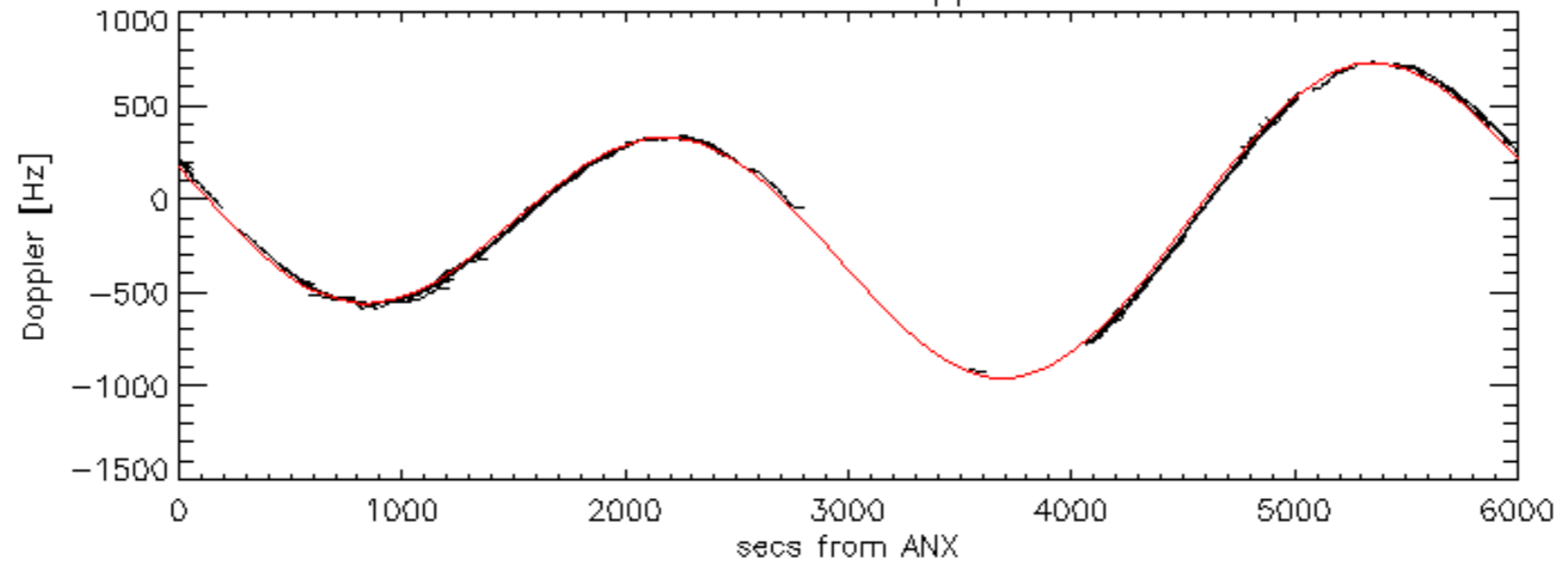
Doppler 'WVS' 'IS2' ascending

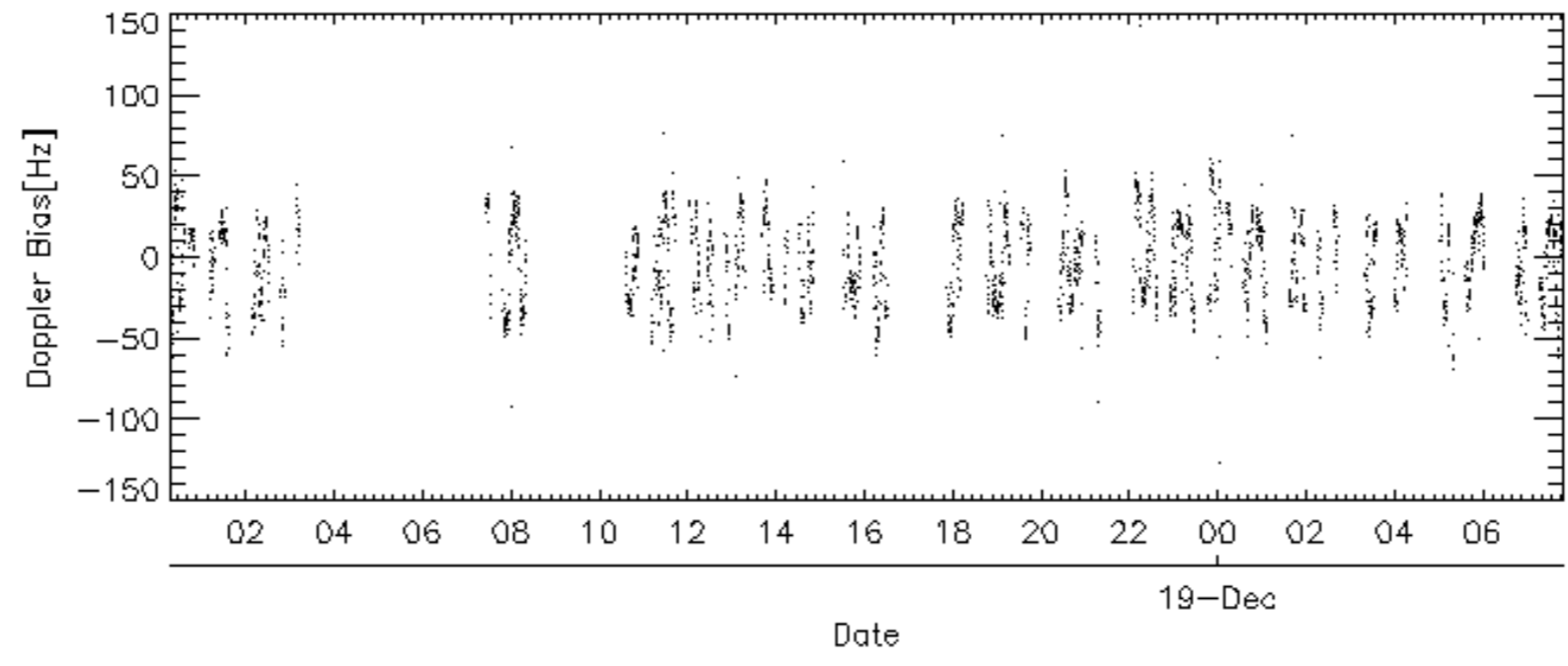
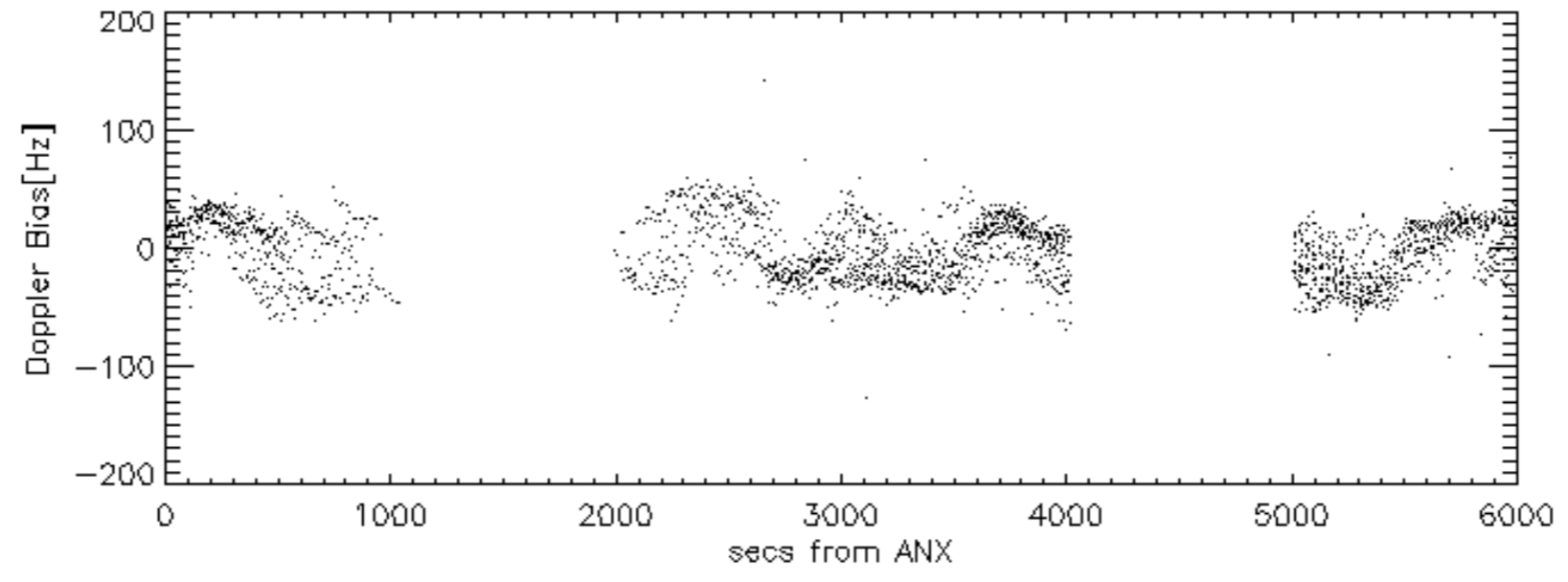
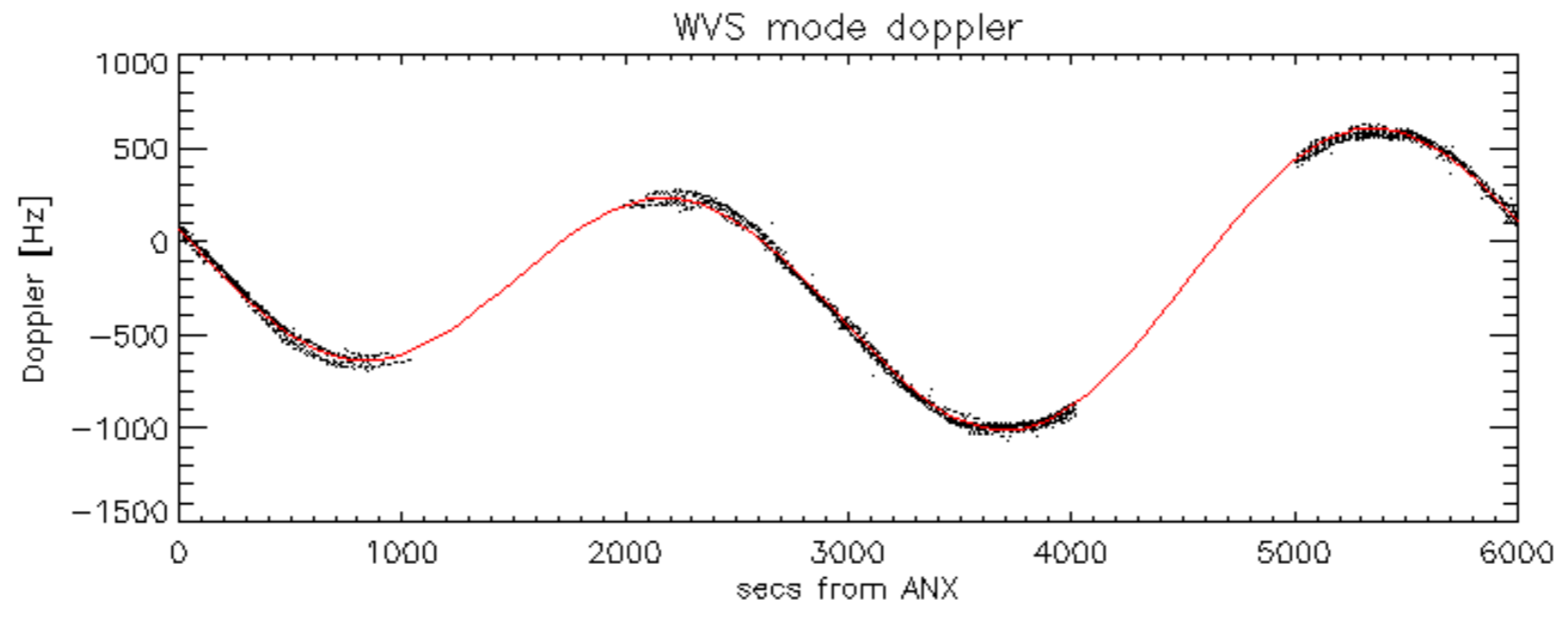


Doppler 'WVS' 'IS2' descending

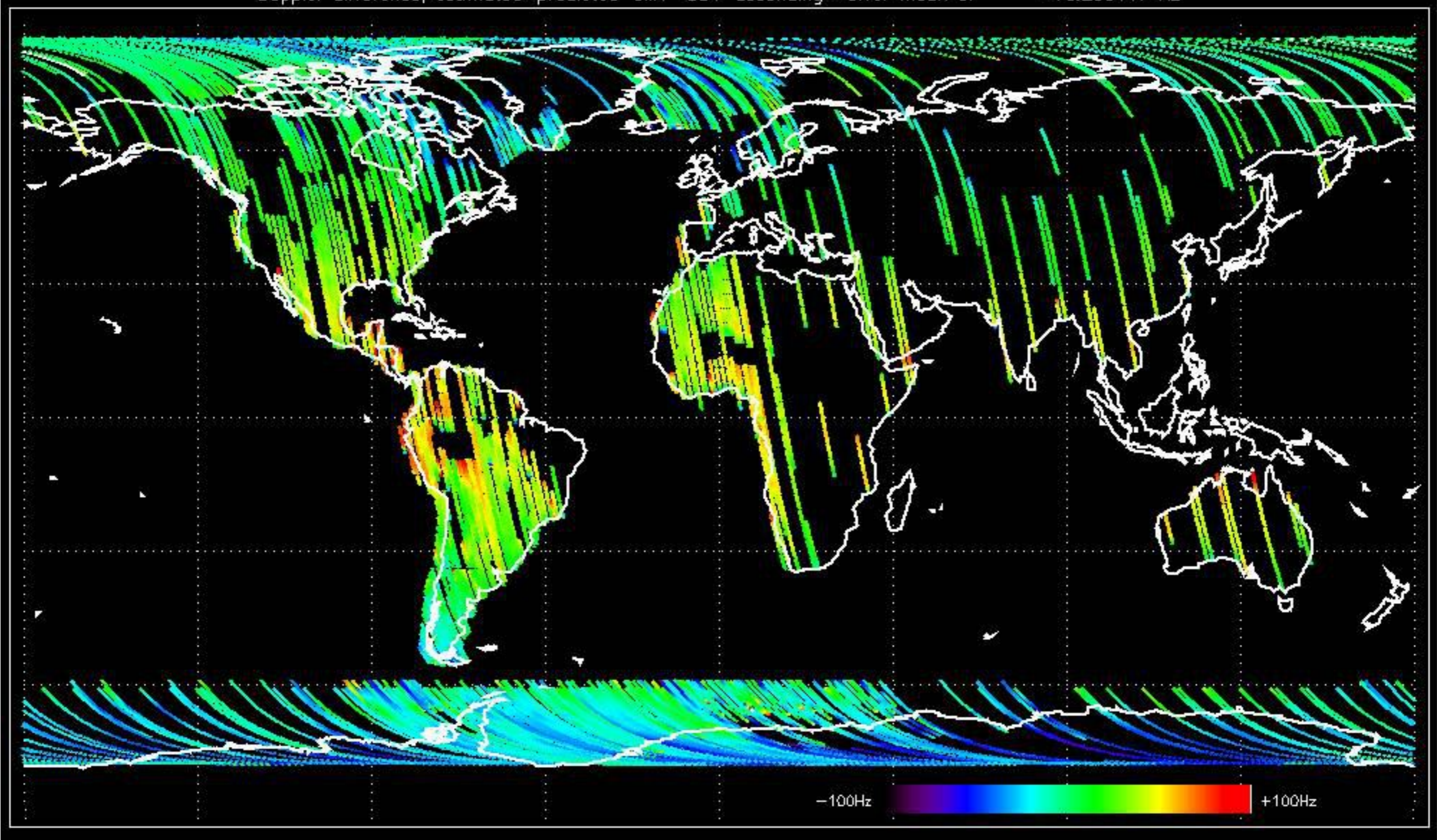


GM1 mode doppler

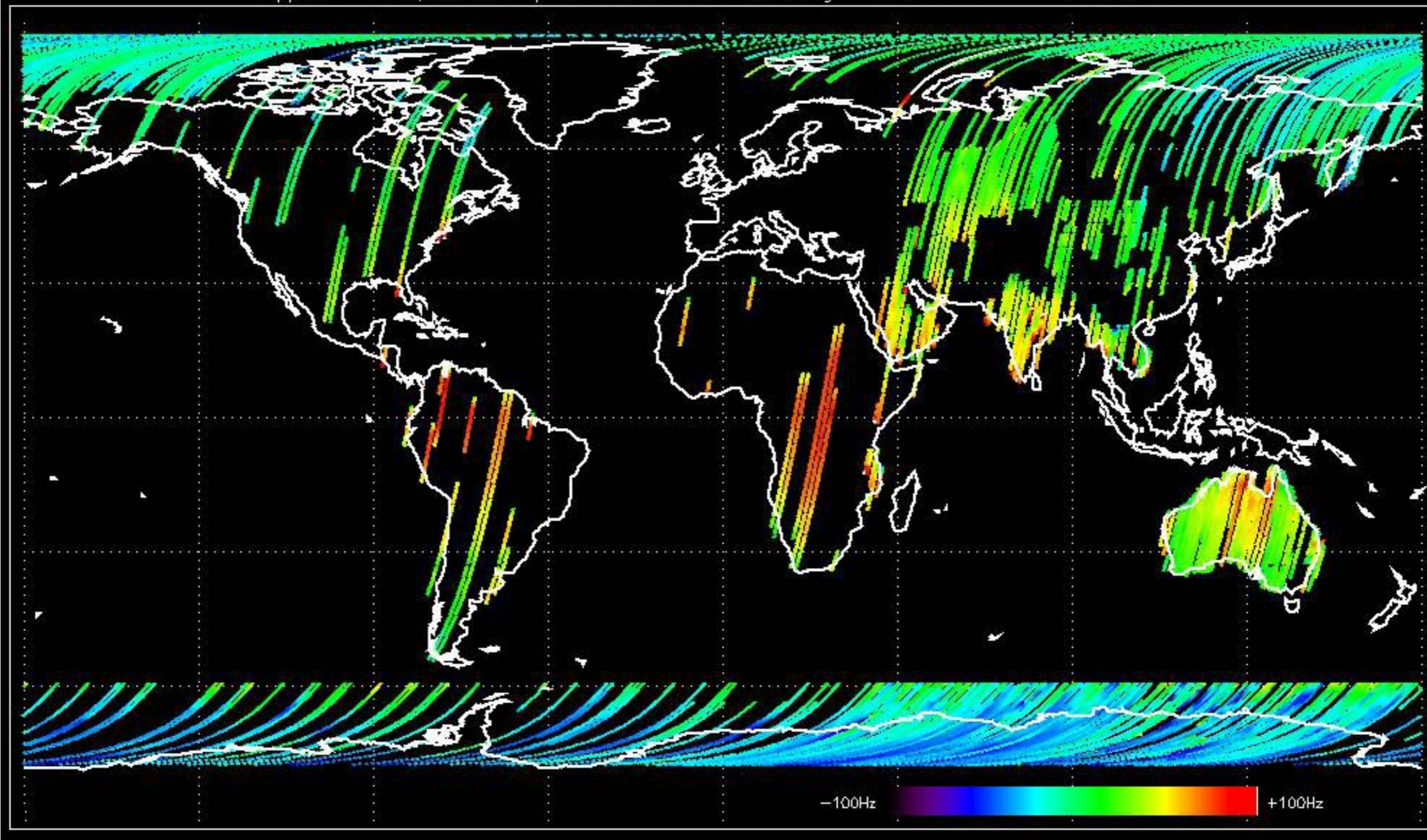




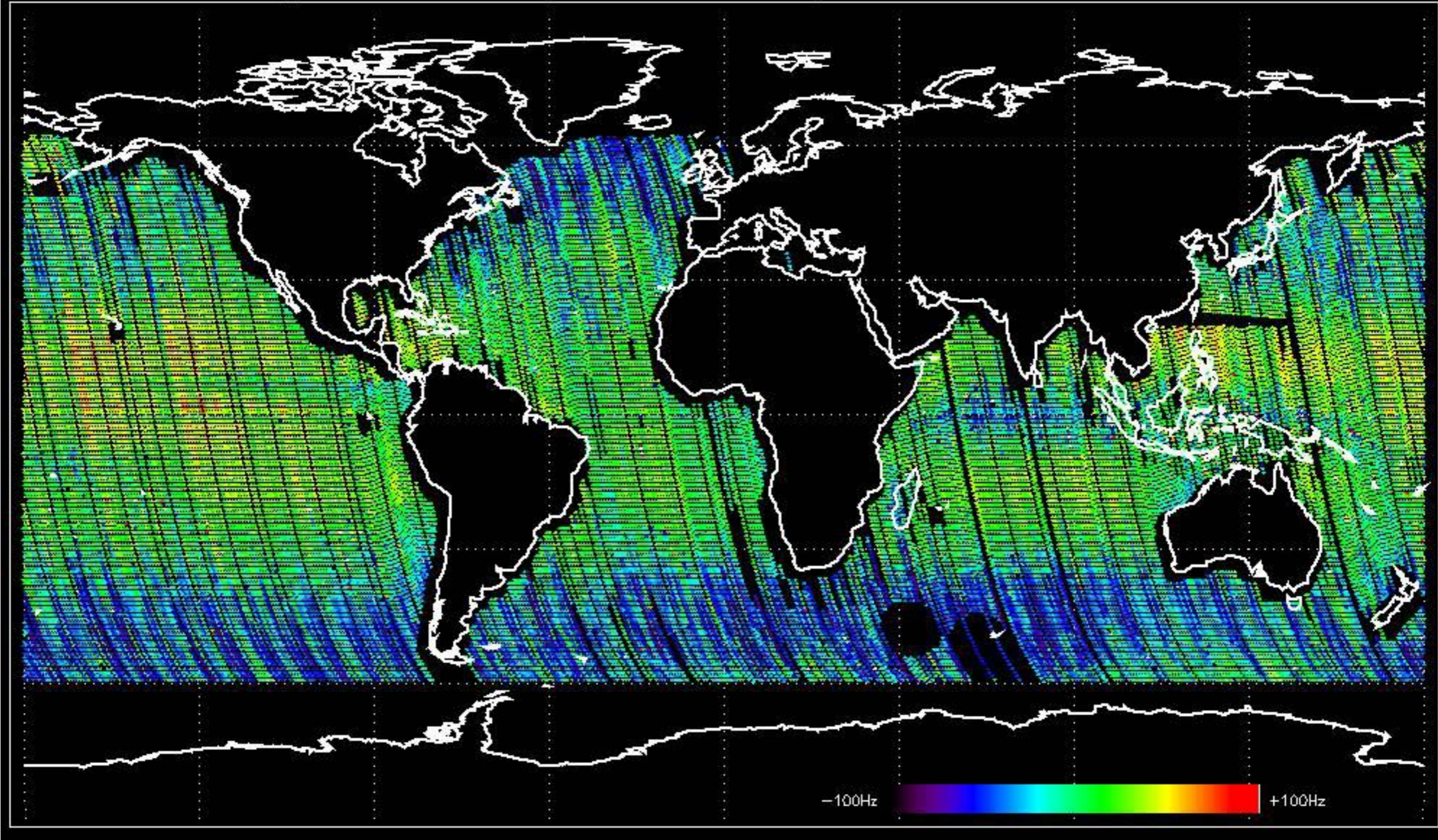
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.259117 Hz



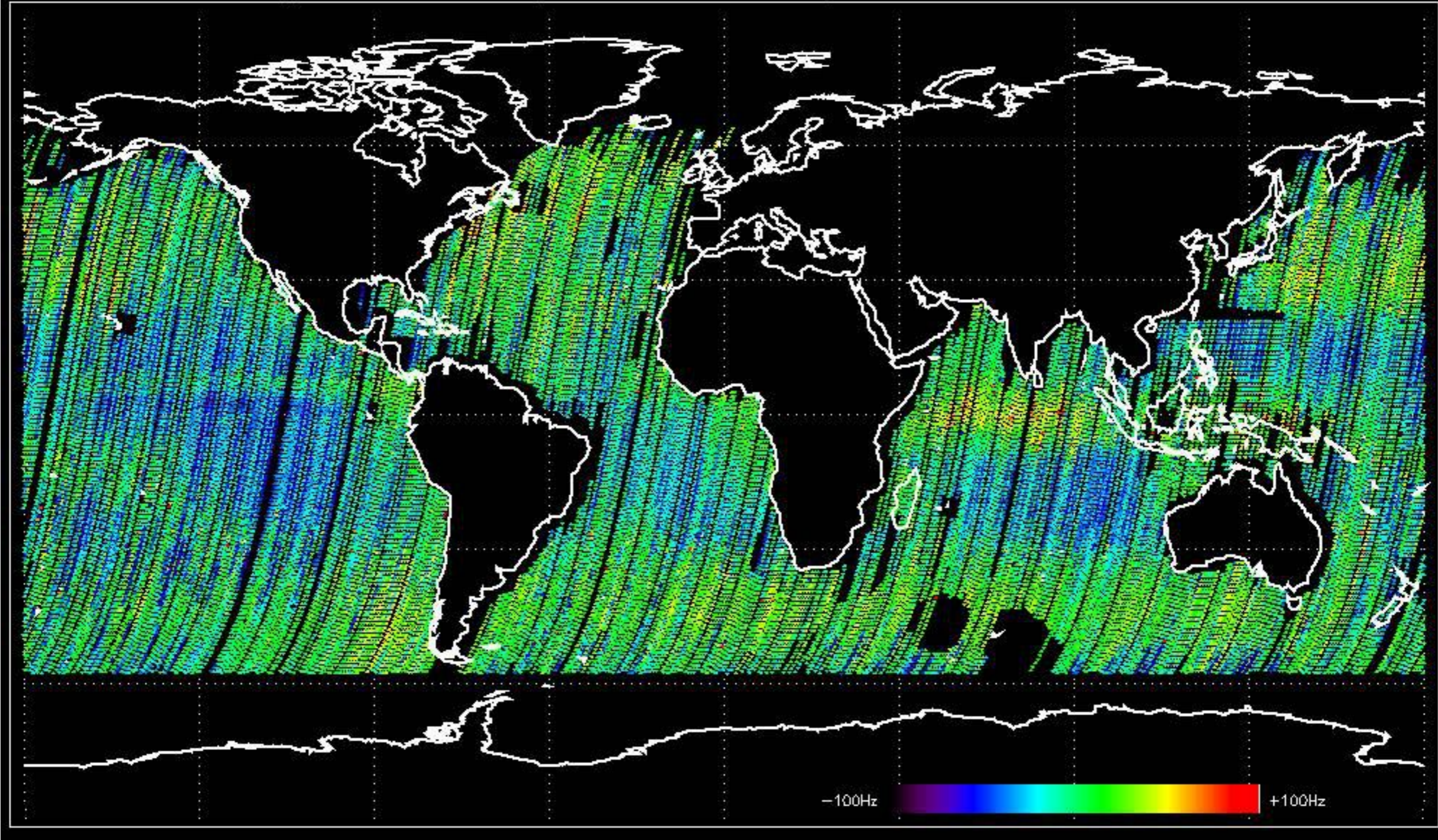
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -16.523517 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.8209658 Hz

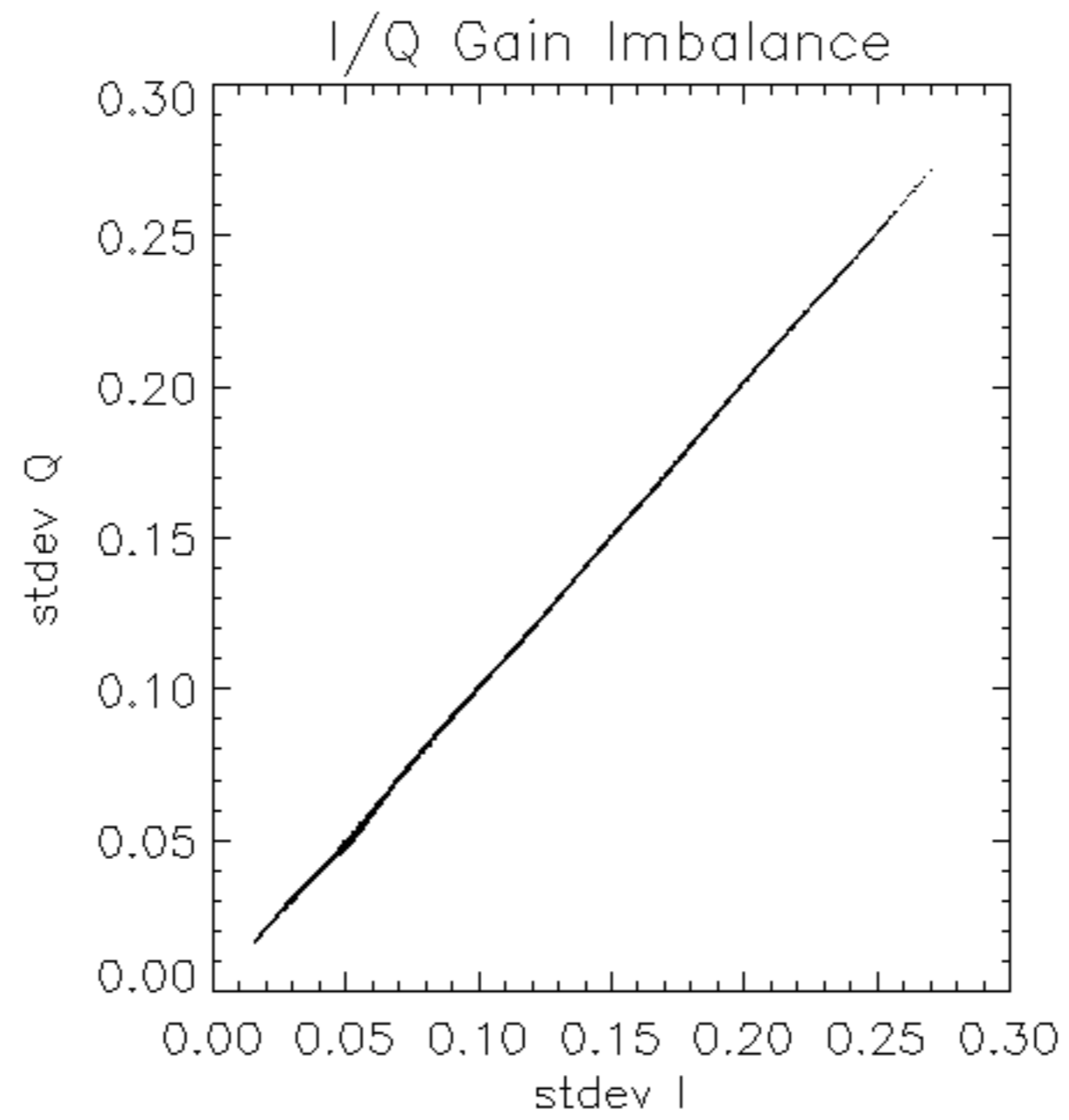


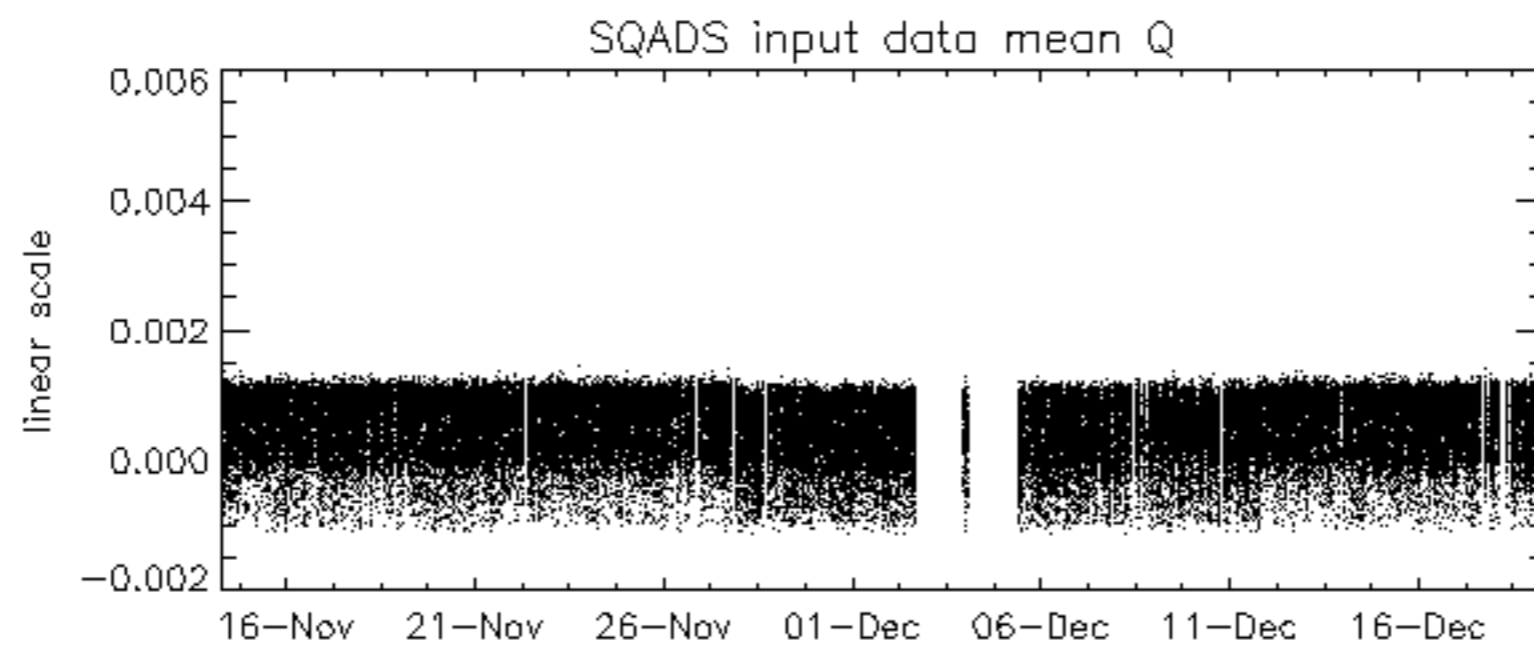
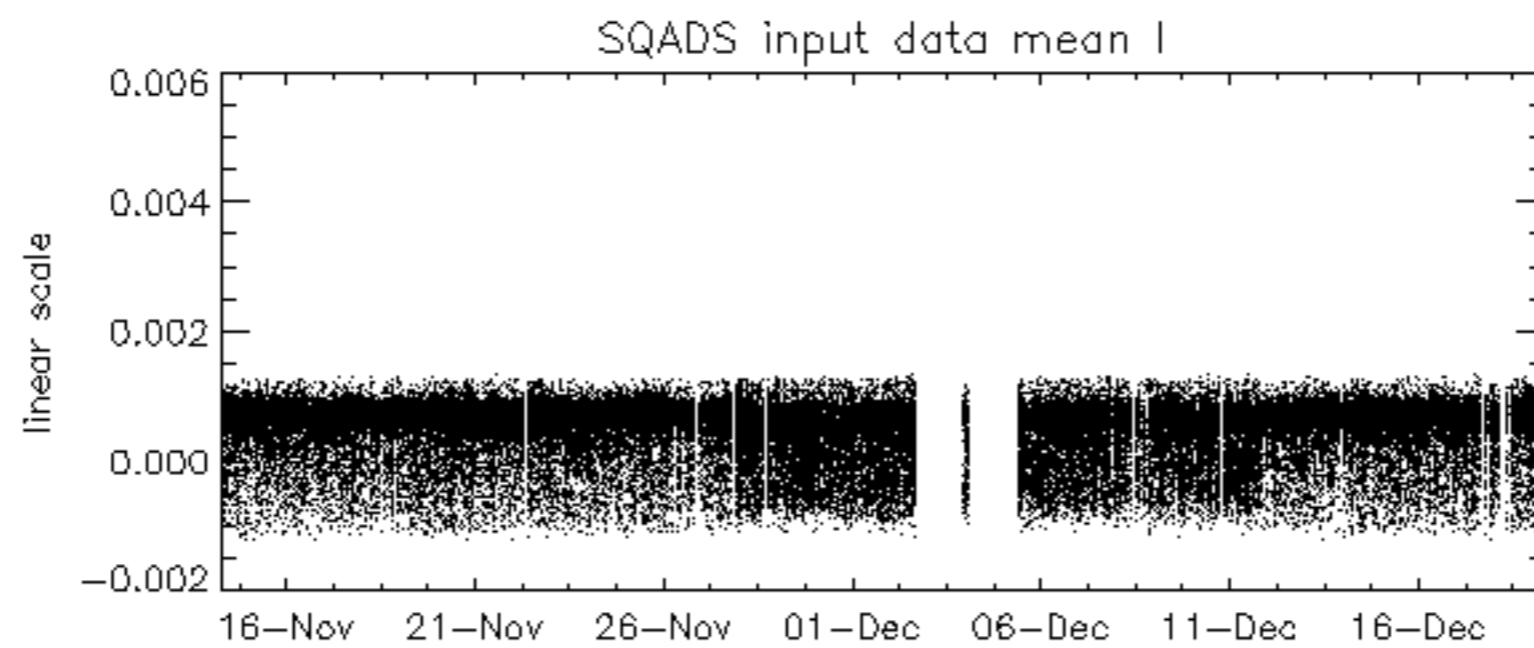
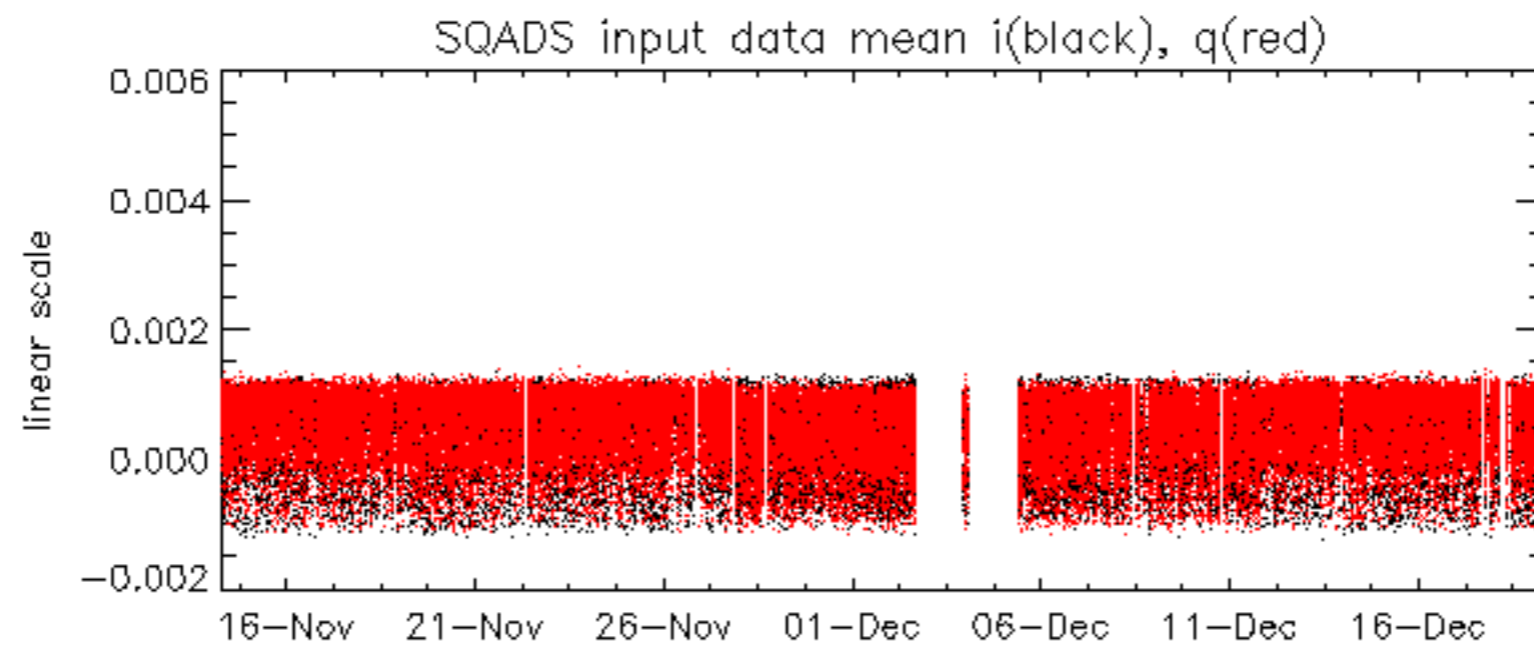
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.588992 Hz

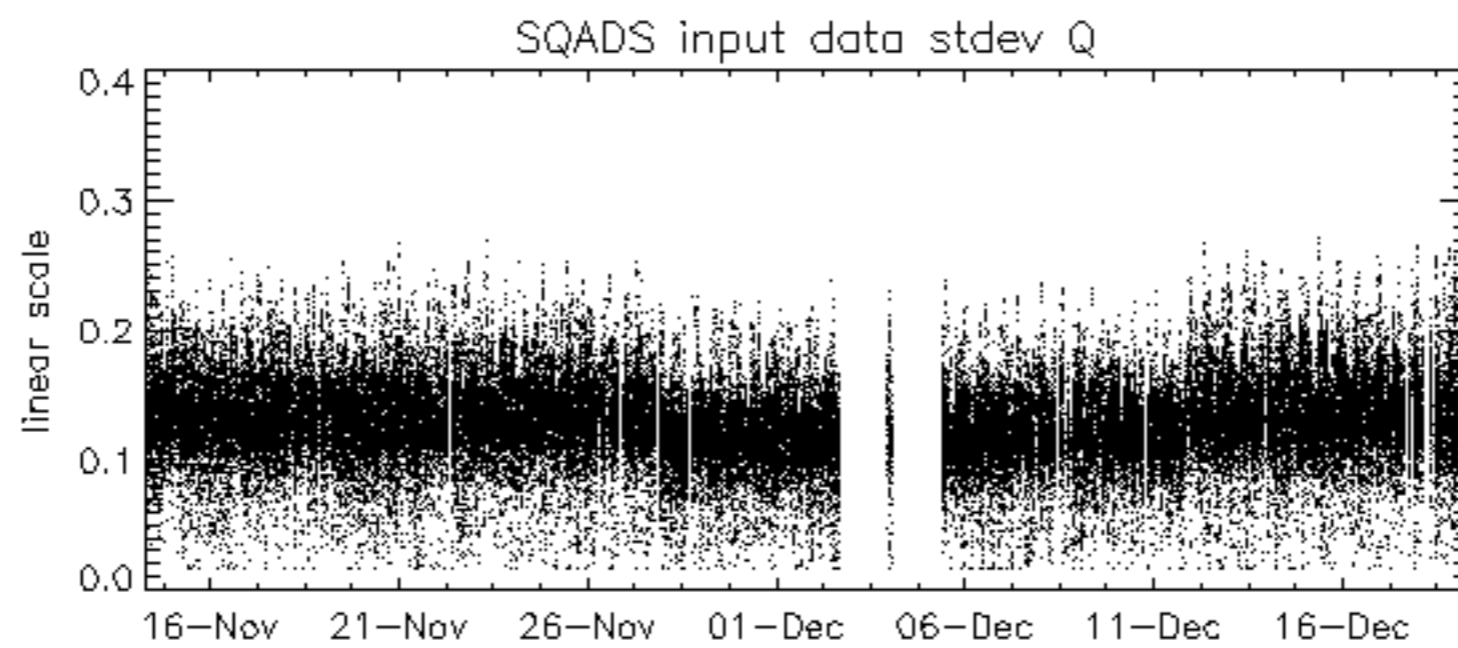
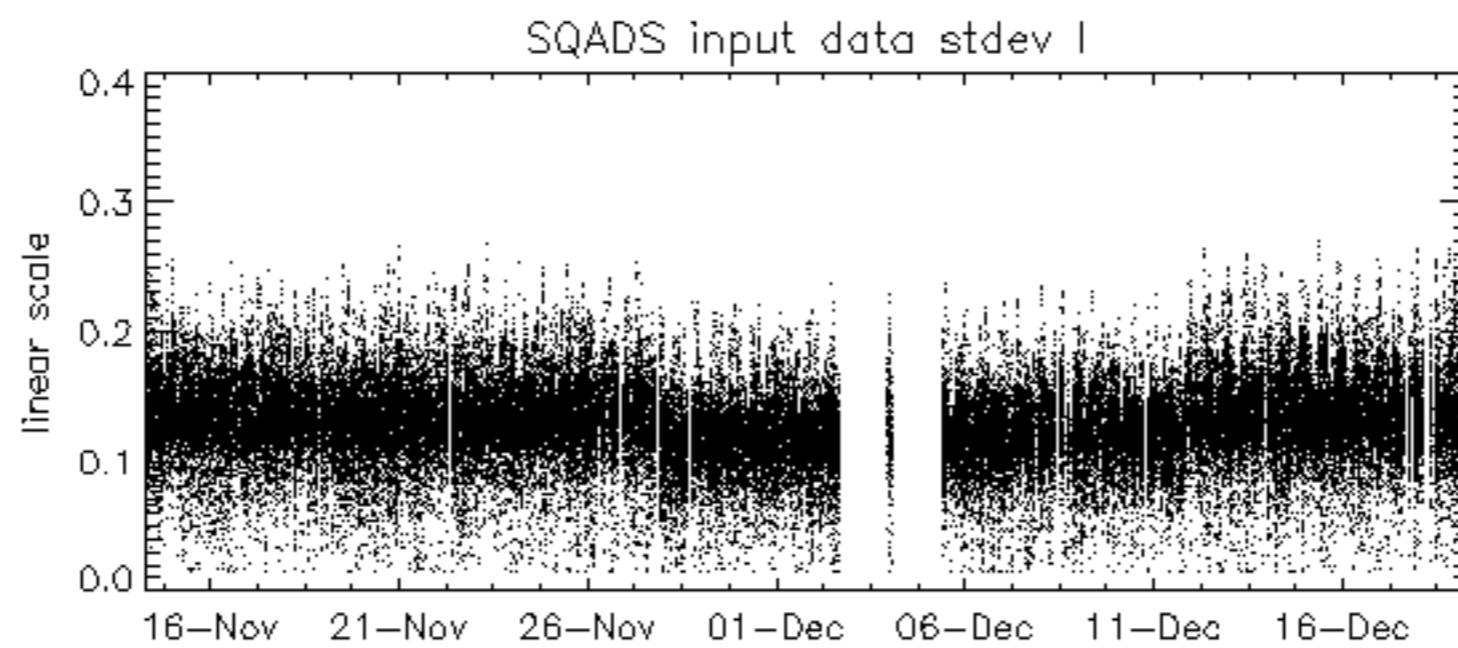
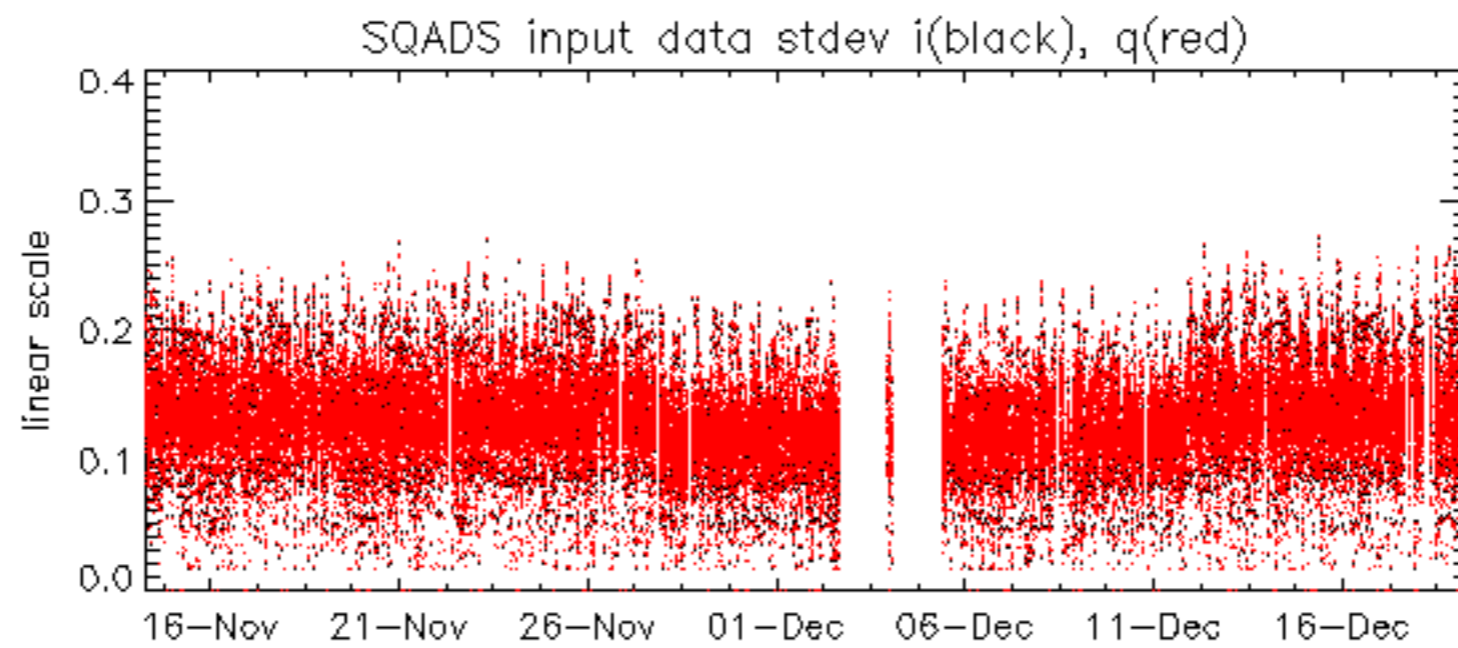


No anomalies observed on available MS products:

No anomalies observed.



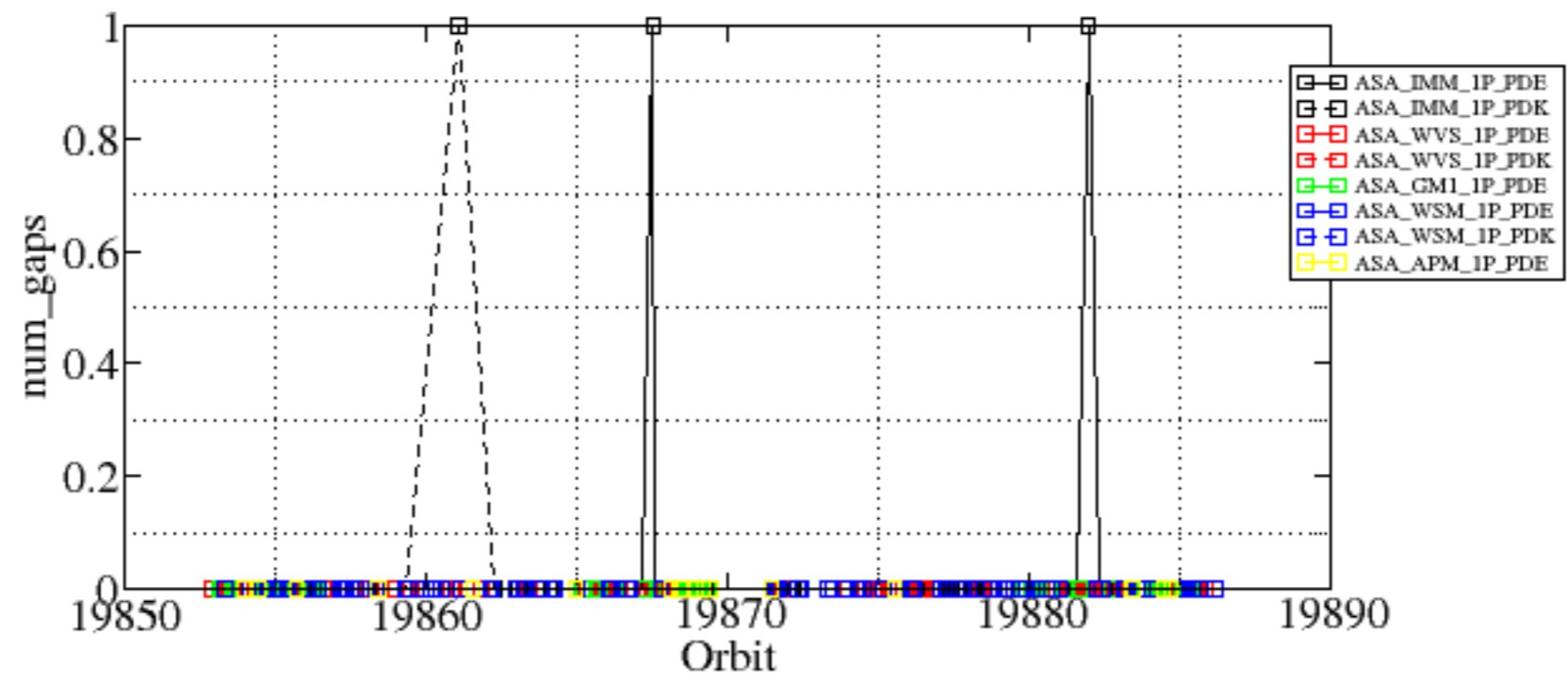


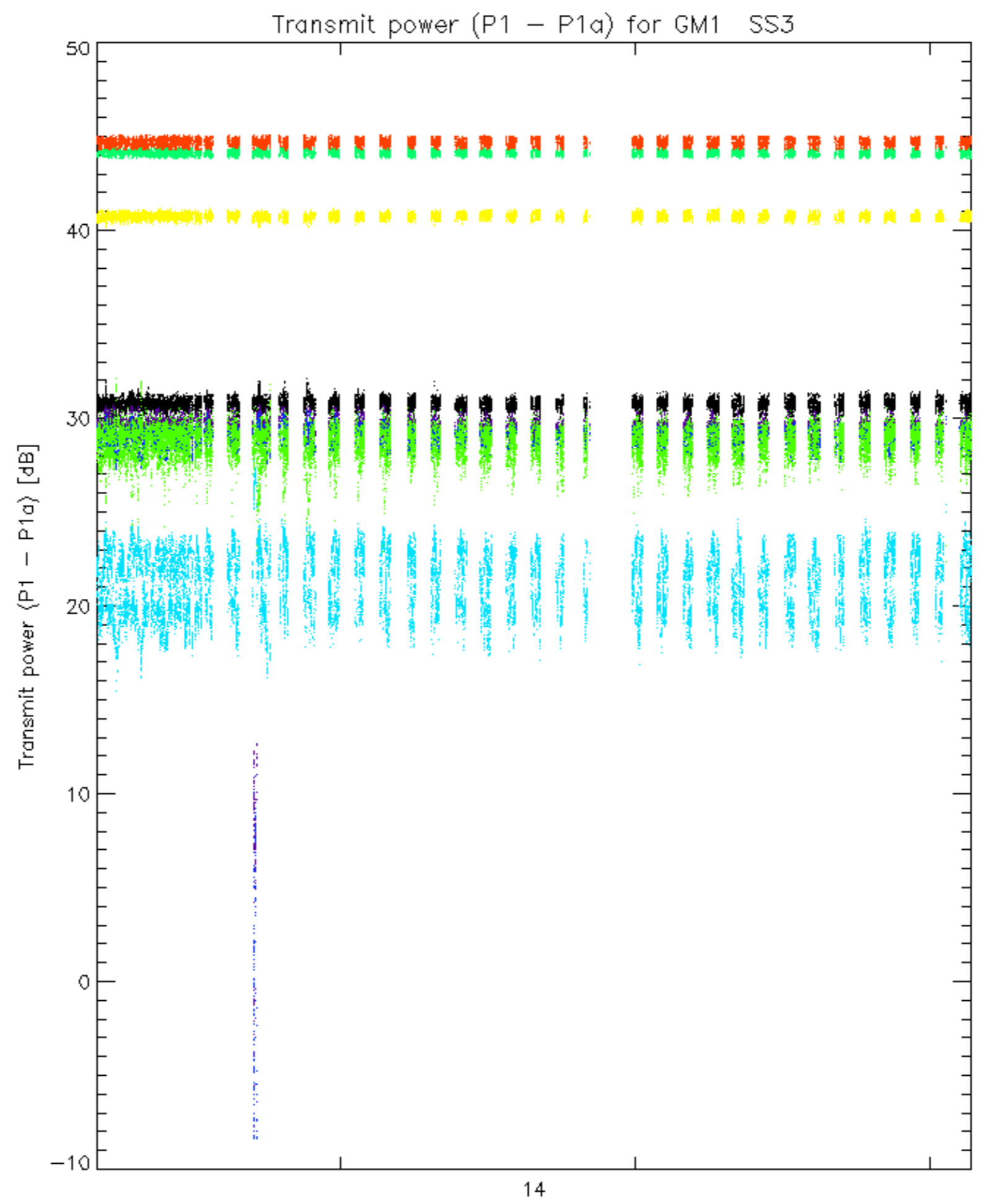


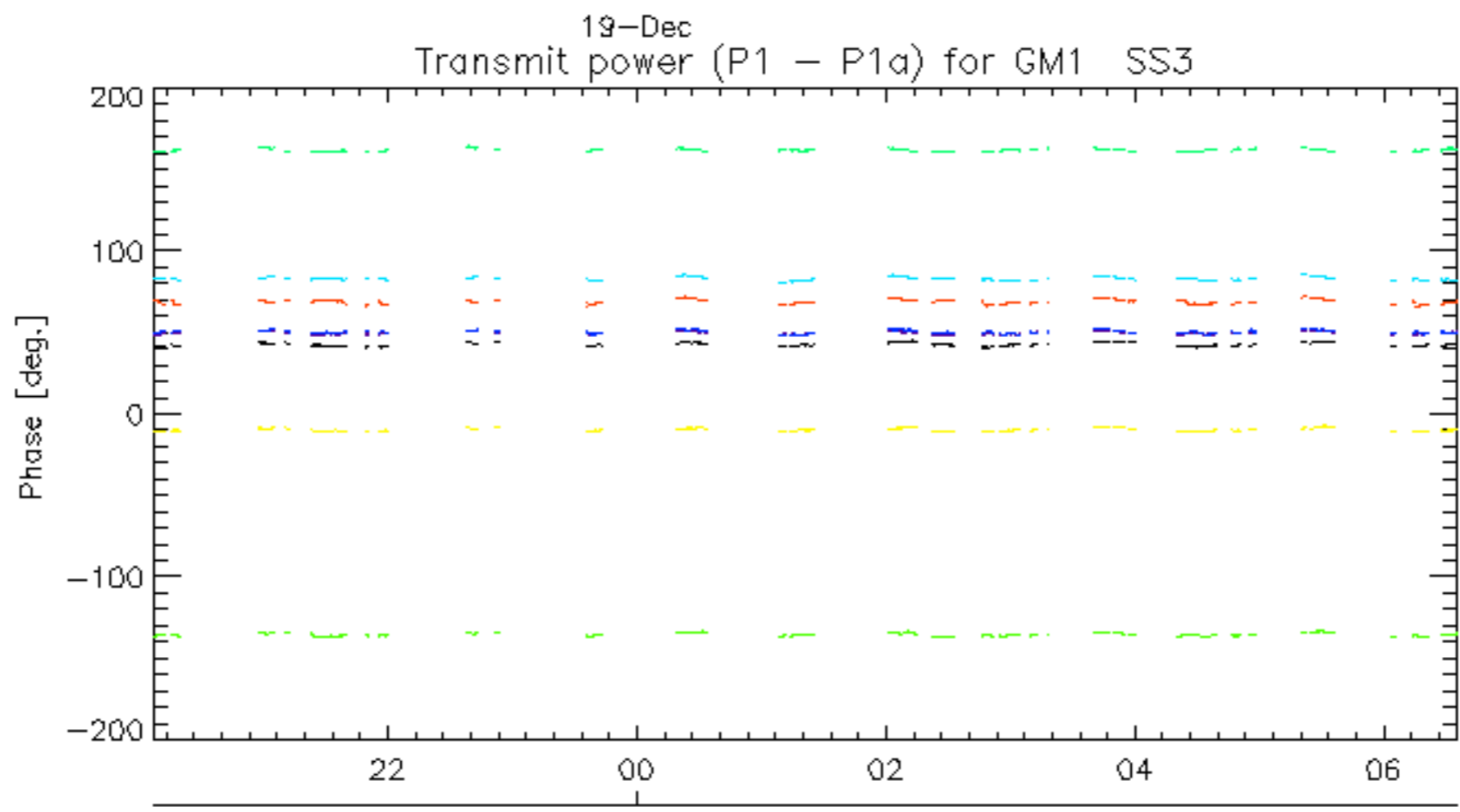
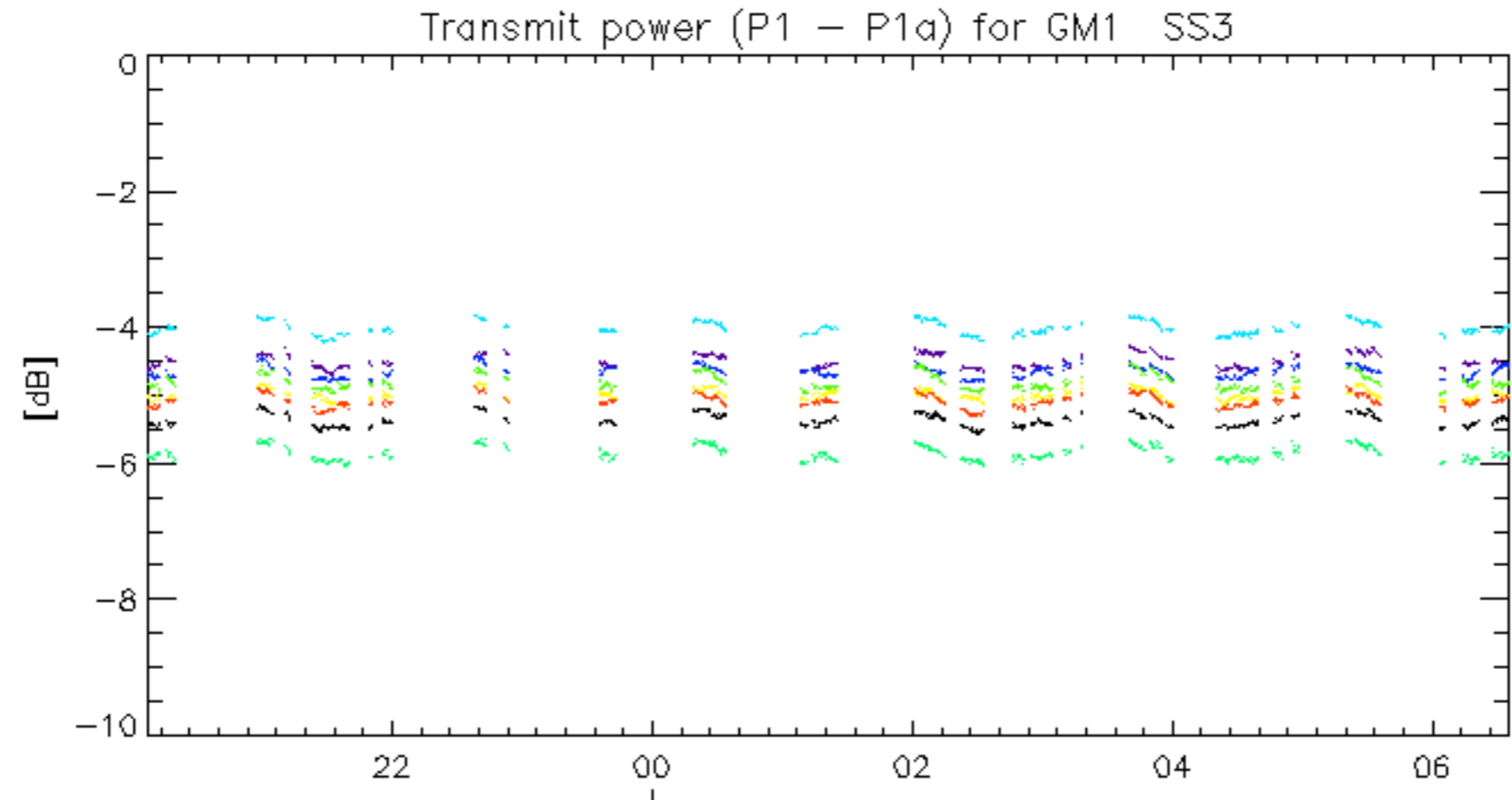
Summary of analysis for the last 3 days 2005121[789]

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

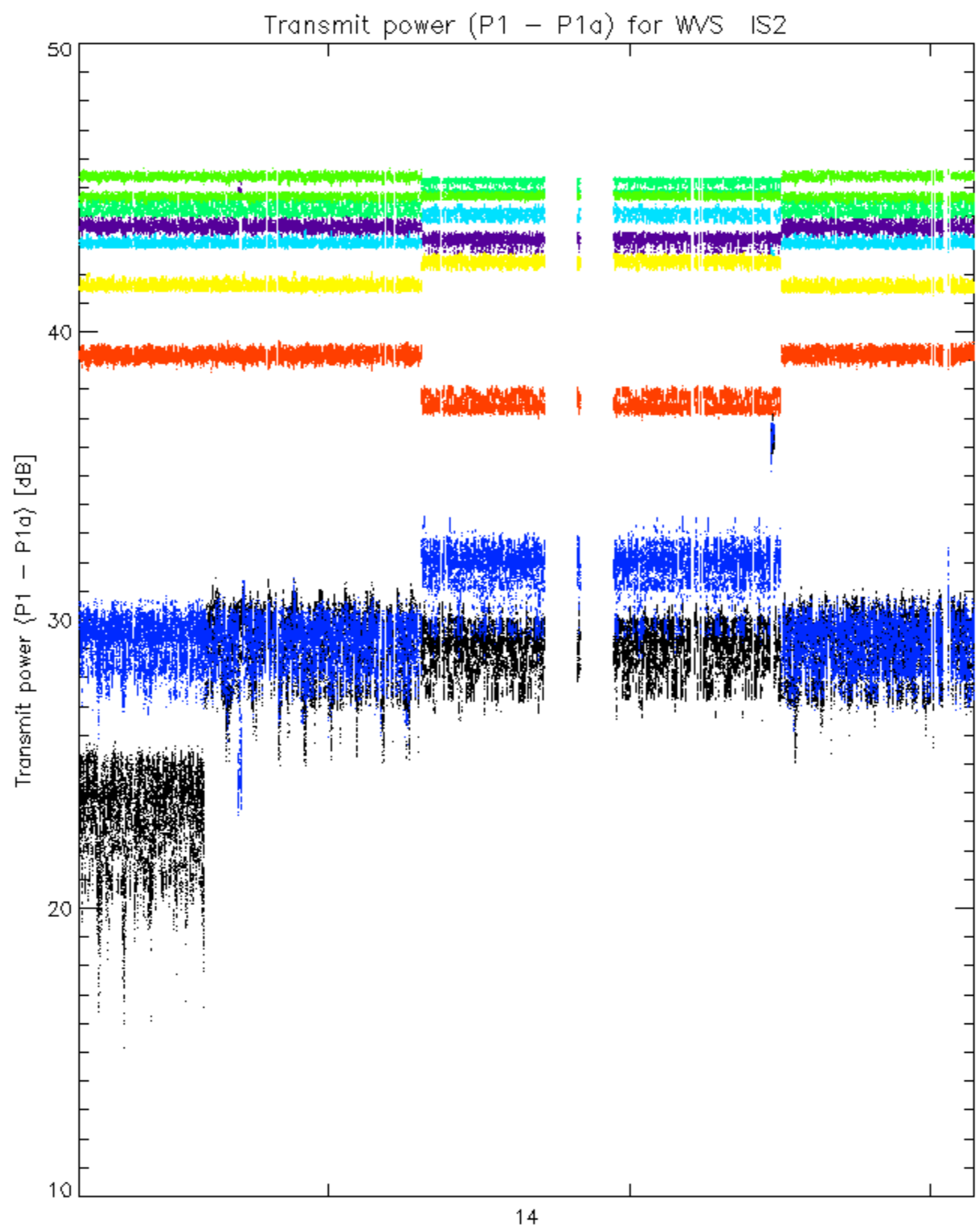
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051218_003640_000001812043_00274_19867_4206.N1	1	0
ASA_IMM_1PNPDE20051219_004807_000002122043_00288_19881_4281.N1	1	0
ASA_IMM_1PNPDK20051217_134633_000001902043_00268_19861_9338.N1	1	0
ASA_WSM_1PNPDE20051217_170153_000002442043_00270_19863_4690.N1	0	8
ASA_WSM_1PNPDE20051218_163148_000001292043_00284_19877_4793.N1	0	70
ASA_WSM_1PNPDE20051218_181506_000001292043_00285_19878_4809.N1	0	8
ASA_WSM_1PNPDE20051218_231423_000001102043_00288_19881_4861.N1	0	12
ASA_WSM_1PNPDE20051219_041808_000001462043_00291_19884_4882.N1	0	29

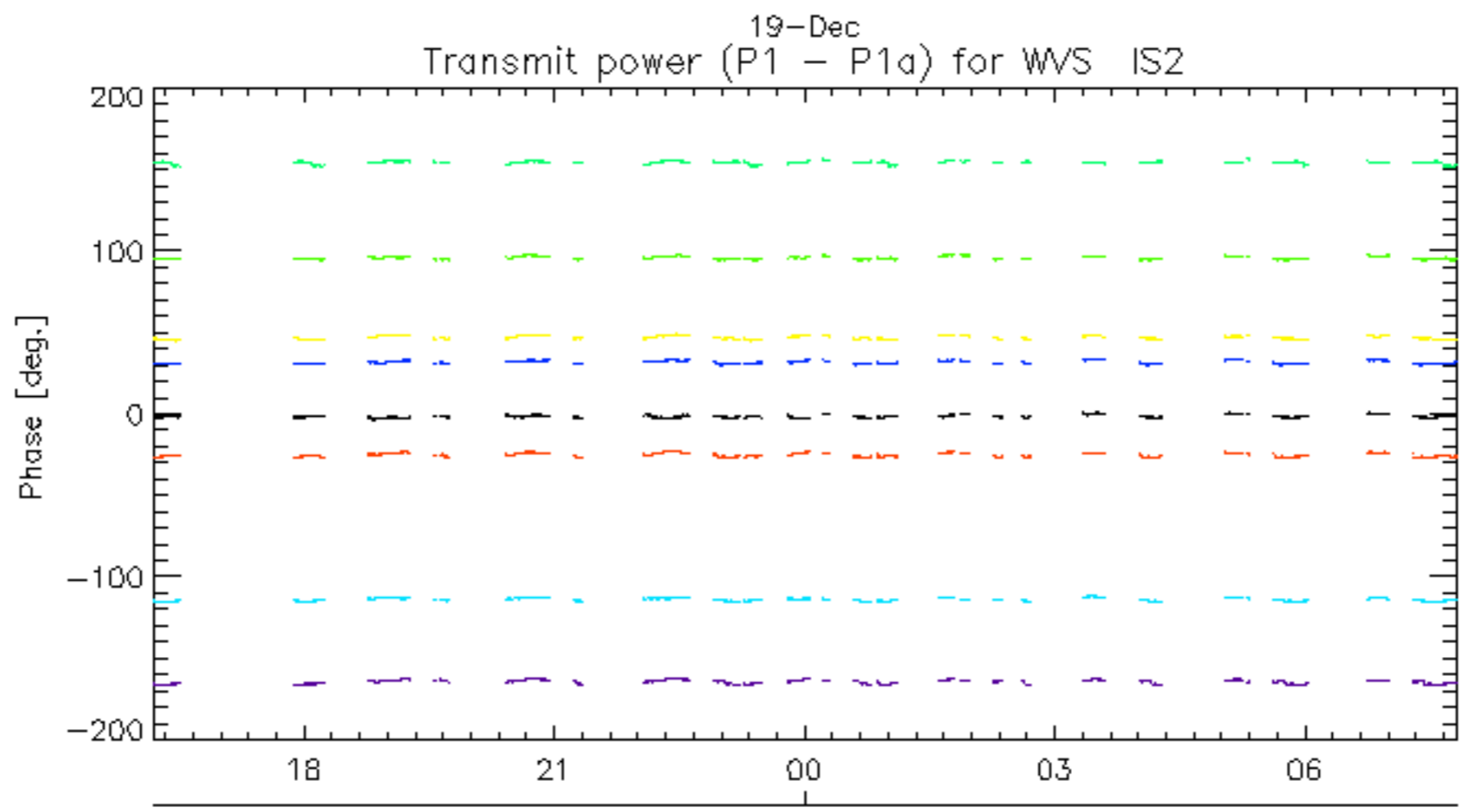
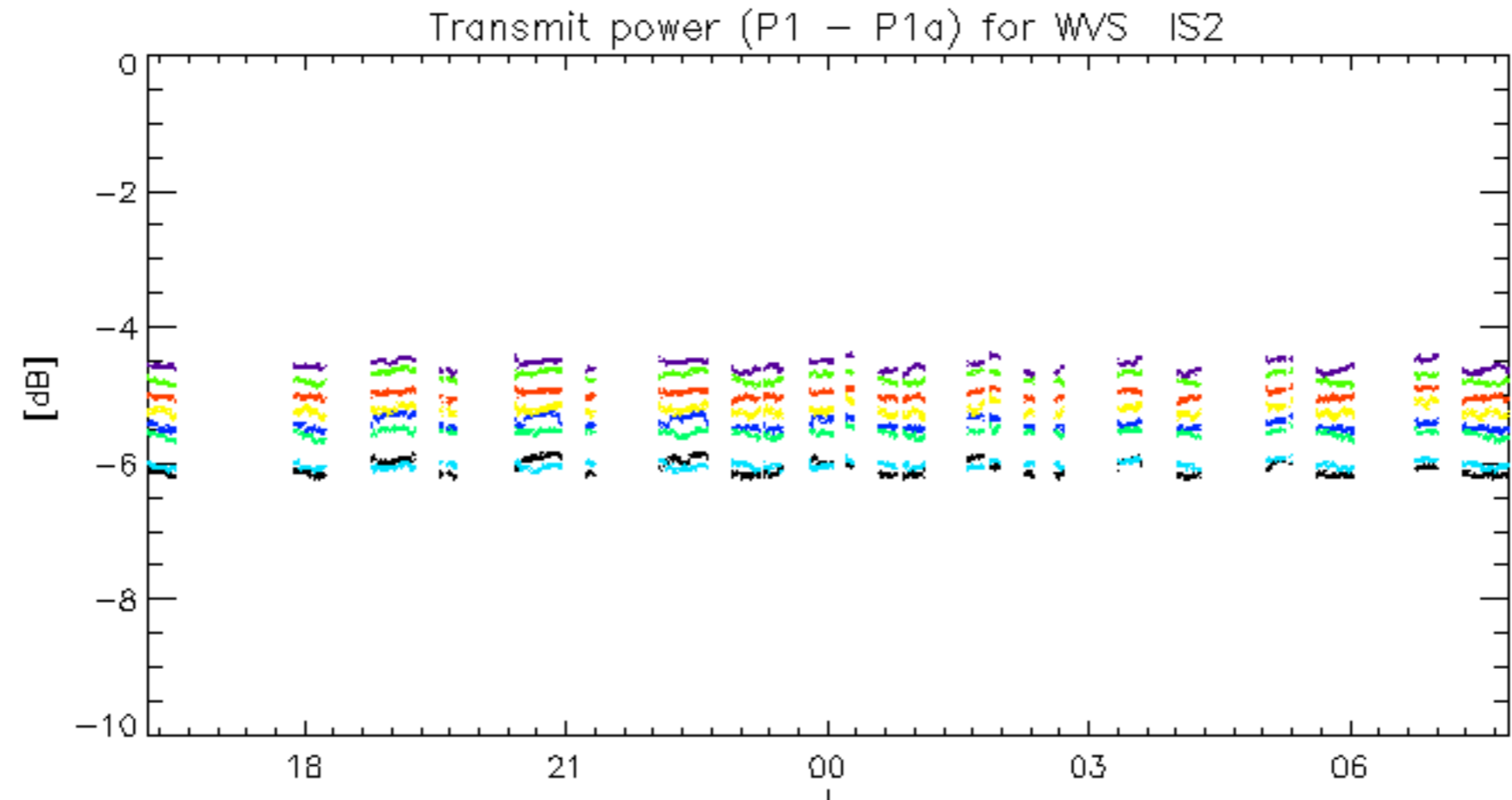






19-Dec
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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

No unavailabilities during the reported period.