

PRELIMINARY REPORT OF 051027

last update on Thu Oct 27 17:00:30 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 2005-10-26 00:00:00 to 2005-10-27 17:00:30

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	42	77	16	2	1
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	42	77	16	2	1
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	77	16	2	1
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	42	77	16	2	1

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	38	64	28	9	69
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	38	64	28	9	69
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	38	64	28	9	69
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	38	64	28	9	69

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	20051026 170206
H	20051027 062653

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	-3.529264	0.008833	0.038131
7	P1	-2.904411	0.011359	-0.079880
11	P1	-4.075832	0.016780	-0.094934
15	P1	-6.034111	0.014917	-0.041543
19	P1	-3.160814	0.005498	-0.039442
22	P1	-4.452995	0.013563	-0.068253
26	P1	-4.269471	0.014832	0.048055
30	P1	-5.710954	0.008798	-0.050334
3	P1	-15.378486	0.181602	0.284705
7	P1	-16.286491	0.115172	-0.165193
11	P1	-16.245569	0.296194	-0.340774
15	P1	-13.354938	0.108220	-0.091383
19	P1	-13.632194	0.042885	-0.165845
22	P1	-16.149300	0.478752	-0.359942
26	P1	-16.128738	0.252565	0.376045
30	P1	-16.423279	0.191621	-0.189000

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.864216	0.098710	-0.002646
7	P2	-22.693235	0.104751	0.084488
11	P2	-16.734028	0.113824	0.156146
15	P2	-7.224753	0.101602	-0.050993
19	P2	-9.178884	0.093403	-0.061307
22	P2	-17.736189	0.099721	-0.134962
26	P2	-16.110264	0.095224	-0.124449
30	P2	-19.625757	0.090505	-0.017194

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.193942	0.005854	-0.041356
7	P3	-8.193942	0.005854	-0.041356
11	P3	-8.193942	0.005854	-0.041356
15	P3	-8.193942	0.005854	-0.041356
19	P3	-8.193942	0.005854	-0.041356
22	P3	-8.193942	0.005854	-0.041356
26	P3	-8.193942	0.005854	-0.041356
30	P3	-8.193942	0.005854	-0.041356

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	-3.662505	0.007115	-0.005690
7	P1	-2.822440	0.011999	0.084480
11	P1	-2.851870	0.012572	0.003349
15	P1	-3.384134	0.018013	0.023602
19	P1	-3.352063	0.010920	-0.026462
22	P1	-5.139705	0.019441	0.048043
26	P1	-5.784231	0.017487	-0.049690
30	P1	-5.214774	0.026272	-0.033102
3	P1	-11.405090	0.033239	-0.009032
7	P1	-9.923206	0.040657	0.001812
11	P1	-10.016377	0.057496	-0.021240
15	P1	-10.569176	0.092300	0.067692
19	P1	-15.467226	0.068345	-0.080898
22	P1	-20.505491	1.166845	-0.419753
26	P1	-17.115965	0.380743	-0.235520
30	P1	-18.716125	0.383713	0.583413

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.704788	0.037651	0.004921
7	P2	-23.060287	0.090191	-0.091500
11	P2	-11.746727	0.026914	0.013318
15	P2	-4.901726	0.036956	-0.091764
19	P2	-6.904538	0.025901	-0.056380
22	P2	-8.113999	0.024940	-0.071172
26	P2	-23.875097	0.038757	-0.139326
30	P2	-22.064074	0.027026	-0.049971

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.038060	0.002799	-0.041876
7	P3	-8.038177	0.002811	-0.041881
11	P3	-8.038086	0.002809	-0.042038
15	P3	-8.038145	0.002807	-0.042022
19	P3	-8.038170	0.002817	-0.042001
22	P3	-8.038107	0.002820	-0.042132
26	P3	-8.038241	0.002823	-0.041886
30	P3	-8.038117	0.002812	-0.041979

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	0.000561422
	stdev	1.69895e-07
MEAN Q	mean	0.000543399
	stdev	2.14964e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137712
	stdev	0.00111902
STDEV Q	mean	0.138057
	stdev	0.00113531



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005102[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_IMM_1PNPDE20051026_155415_000001532042_00025_19117_9386.N1	1	0
ASA_GM1_1PNPDK20051026_152007_000011362042_00025_19117_9646.N1	0	38



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

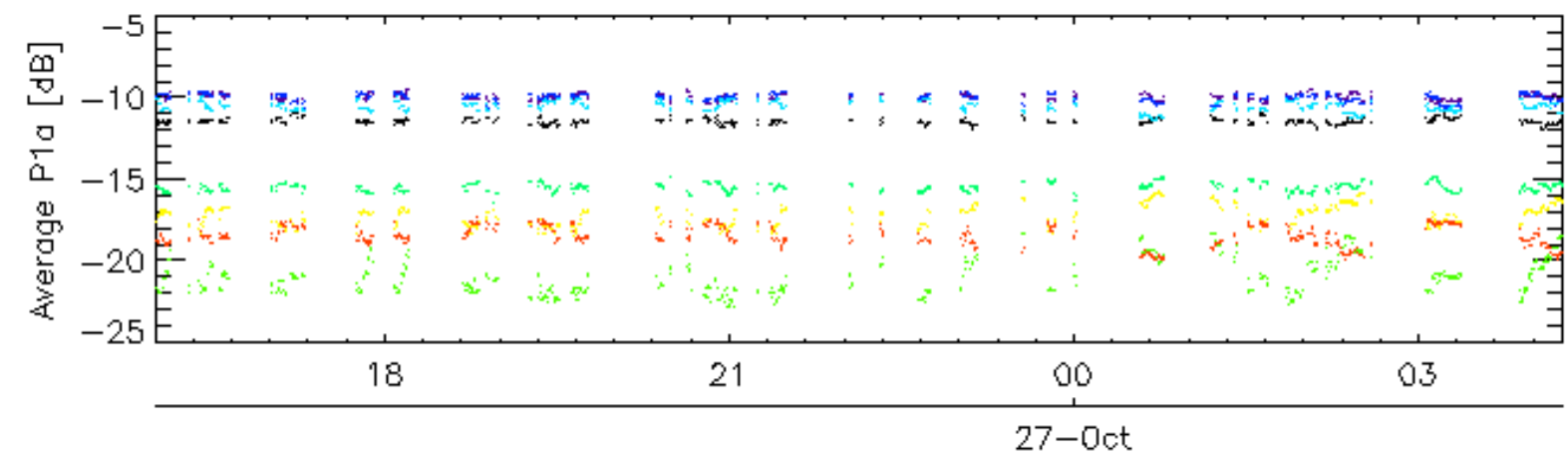
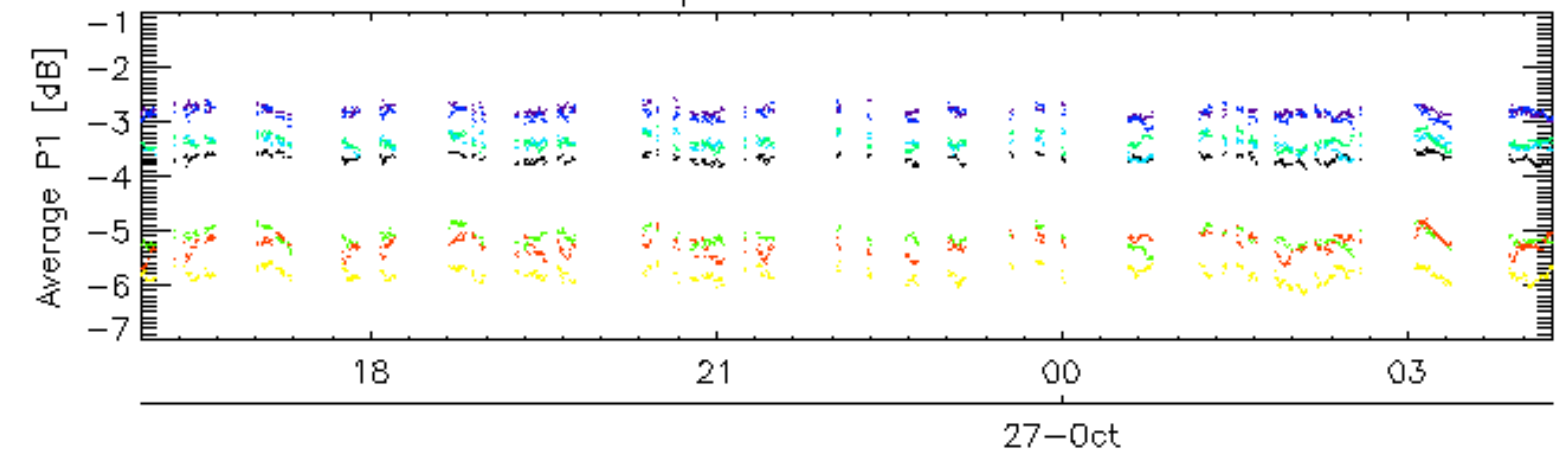
Ascending

Descending

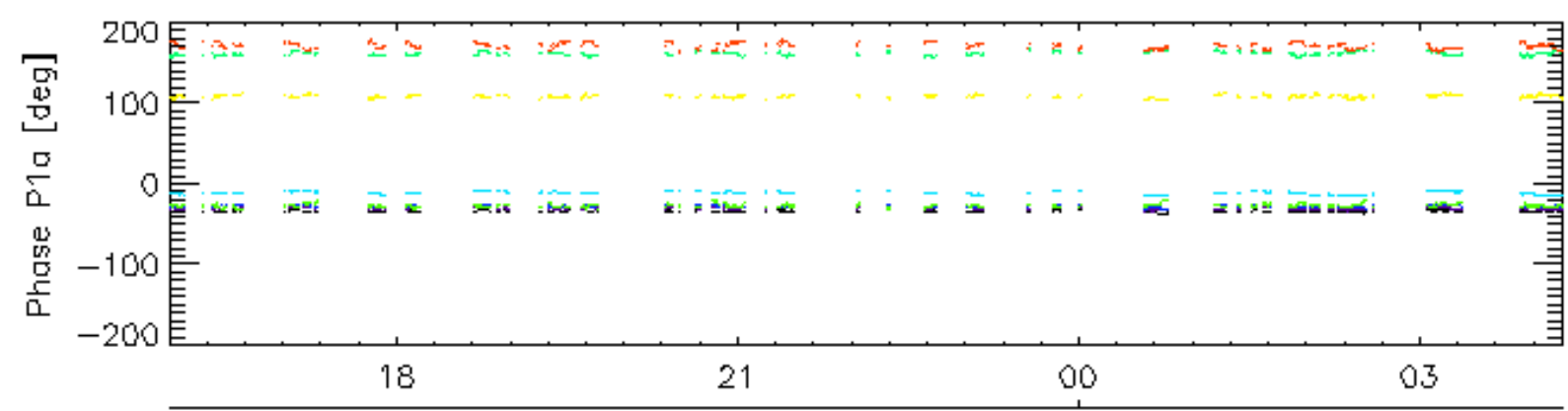
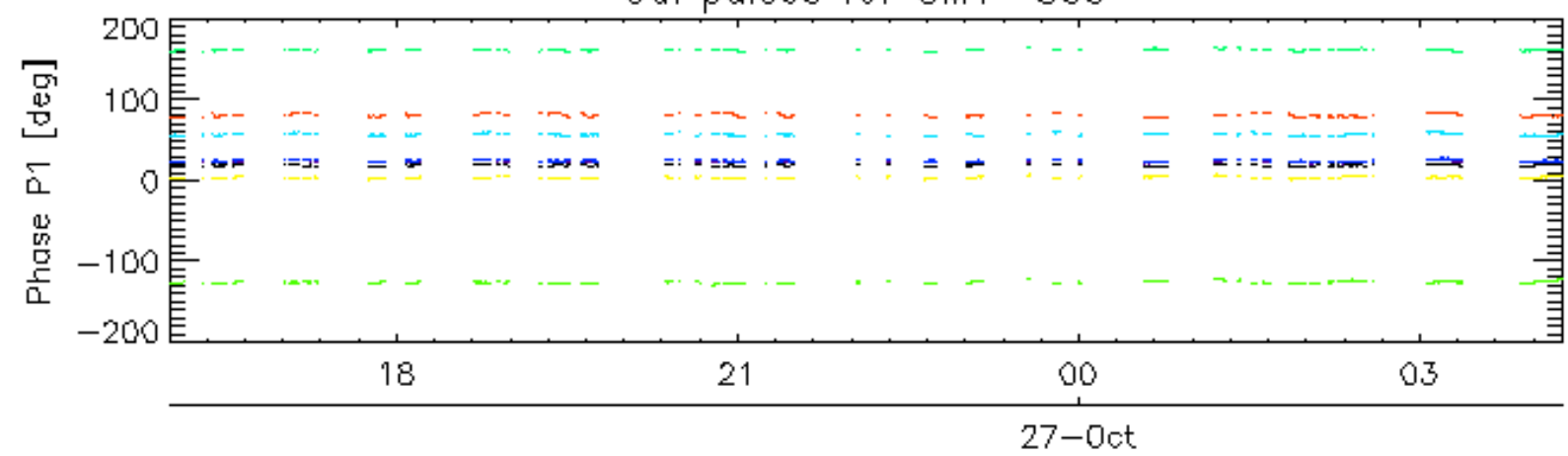
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

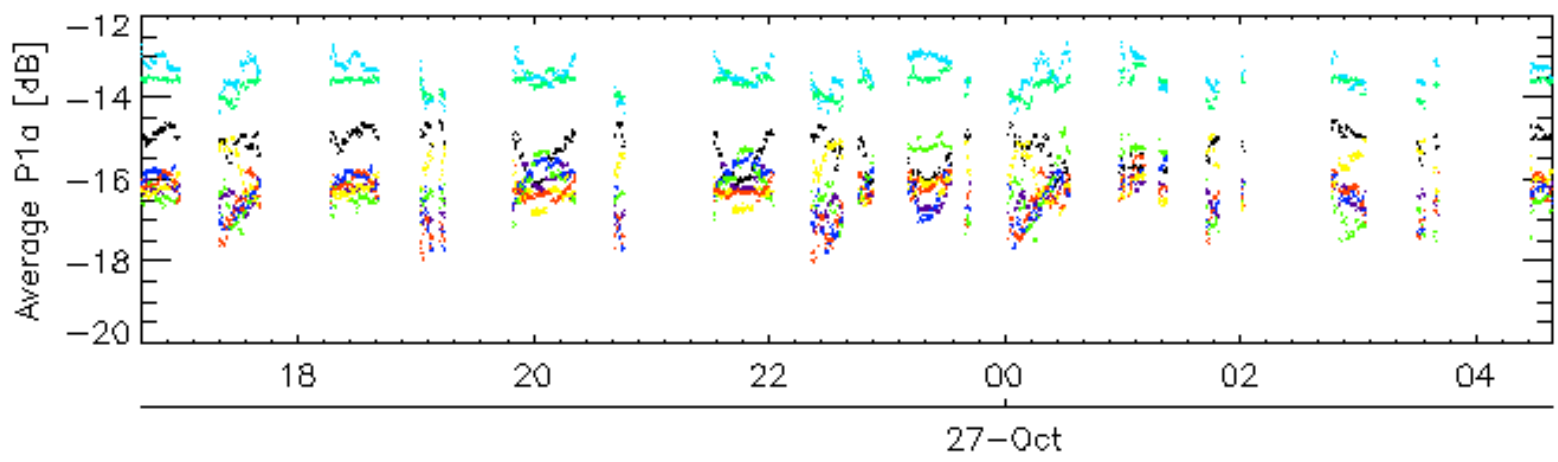
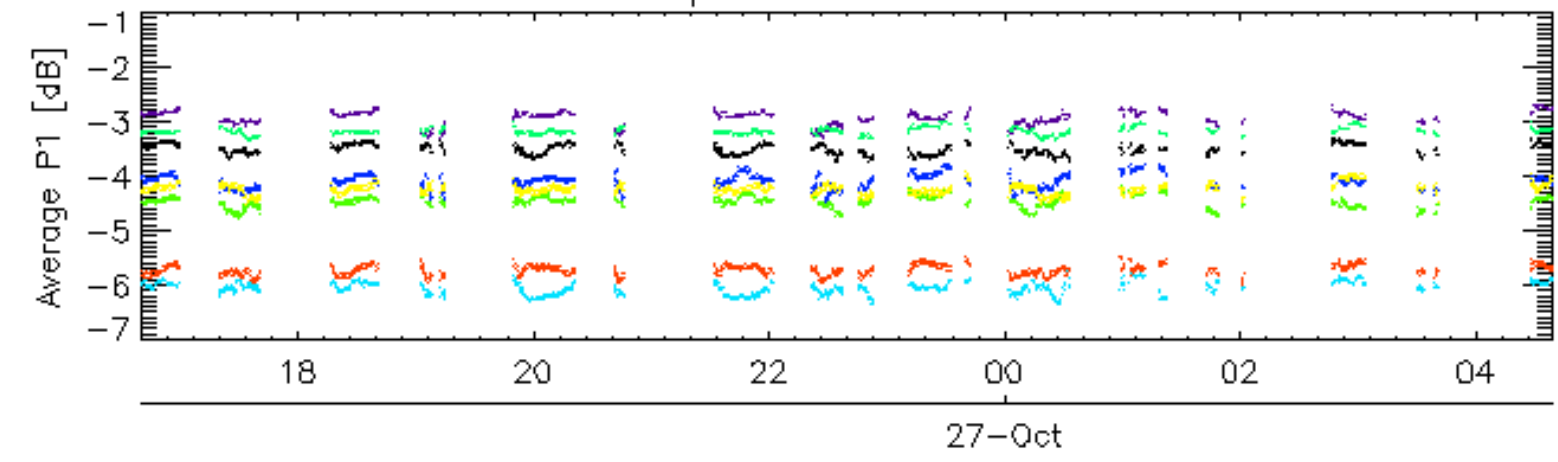


Cal pulses for GM1 SS3

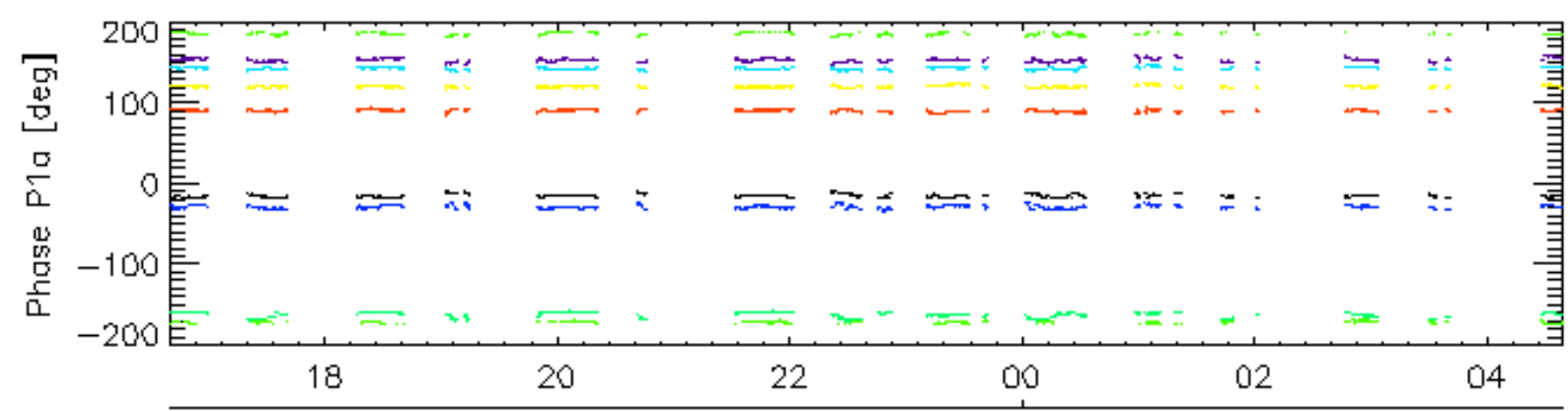
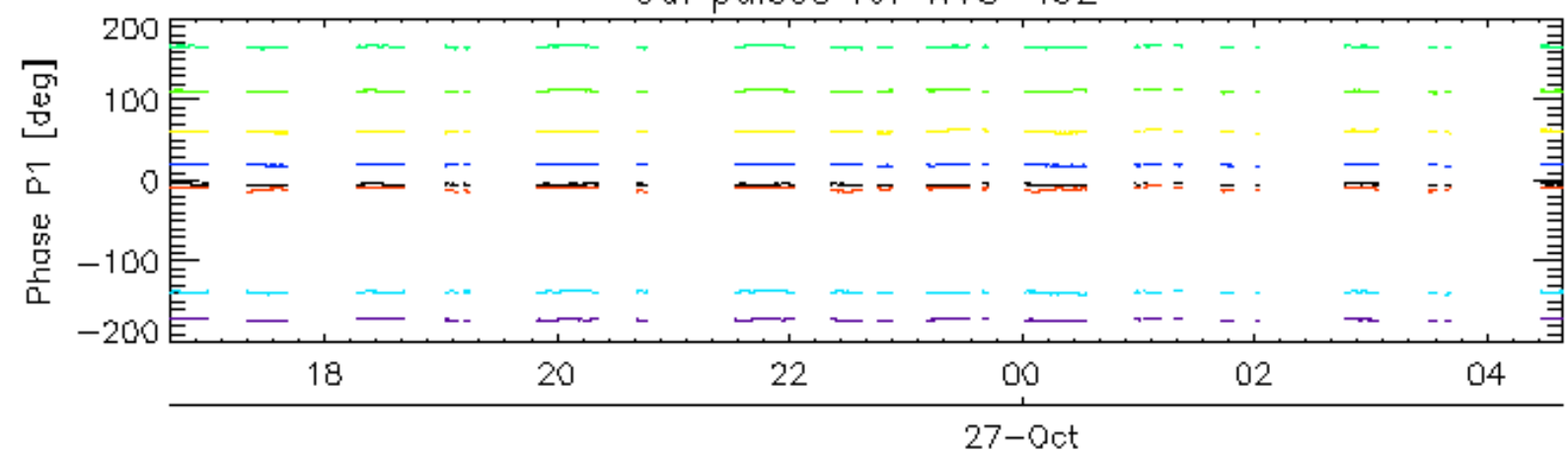


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

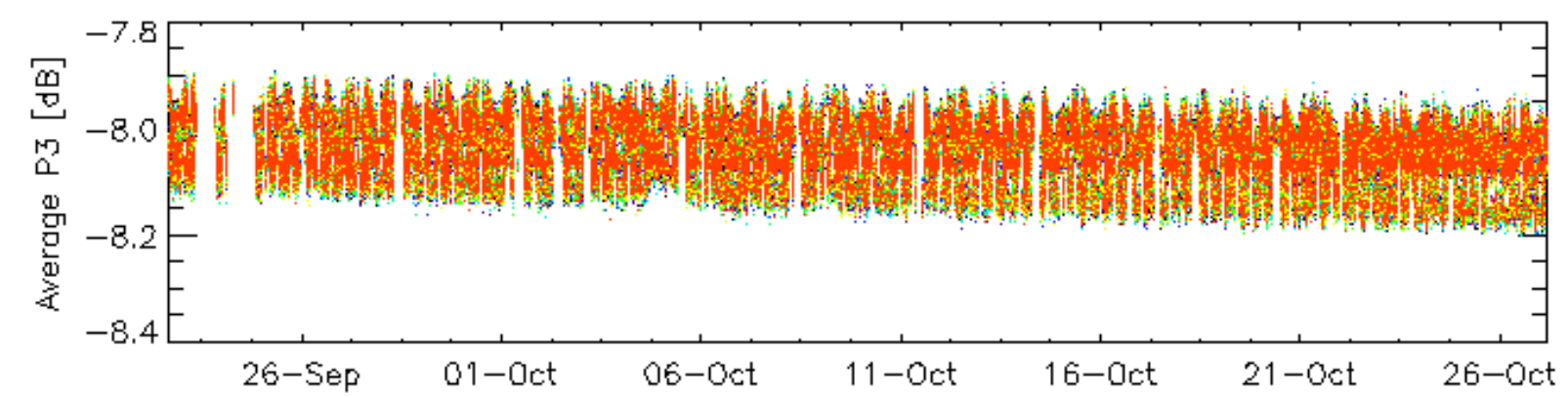
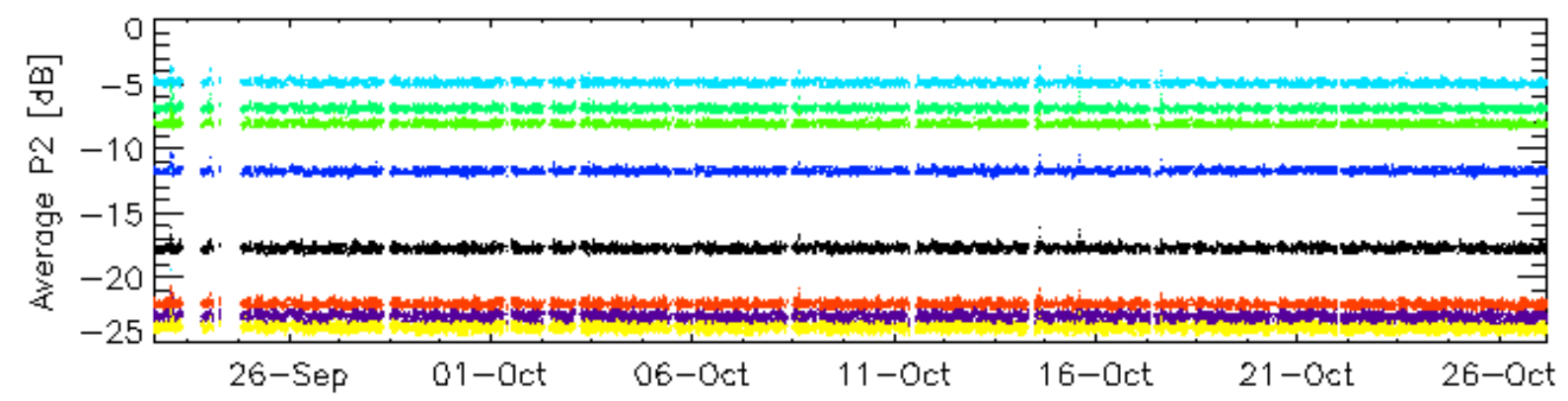
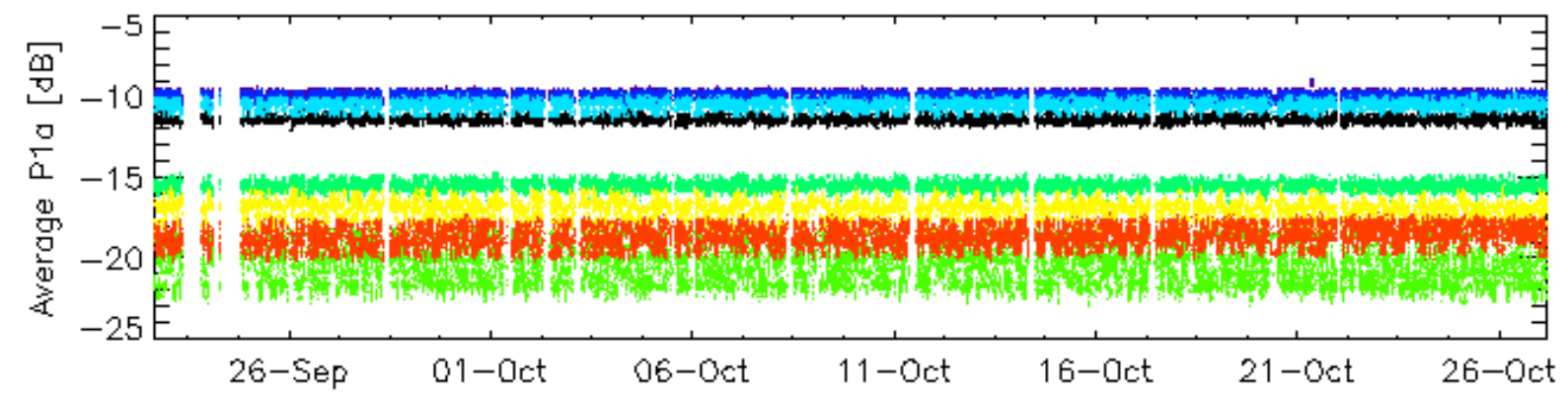
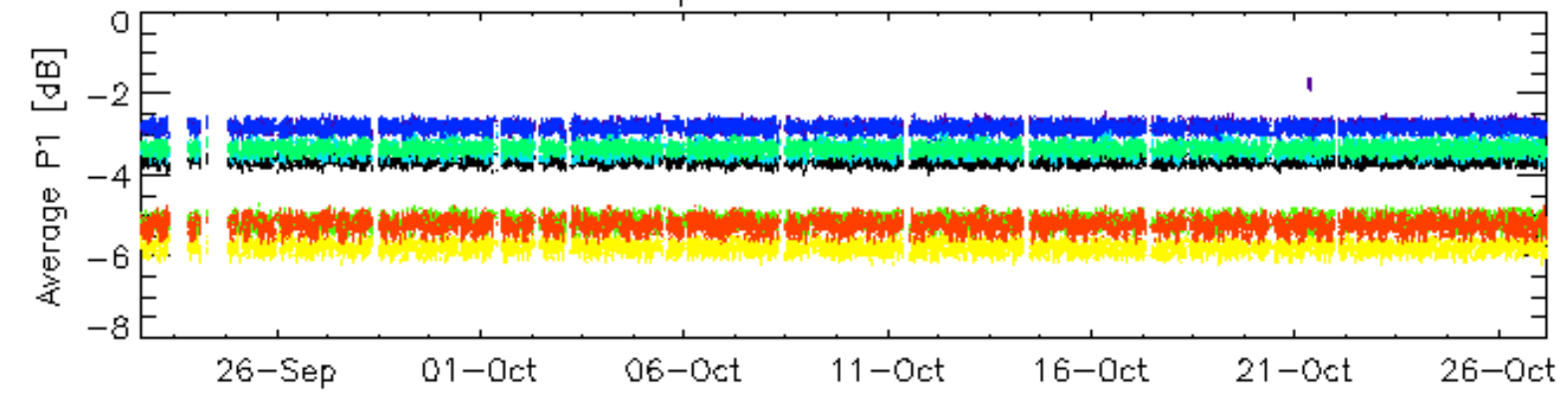


Cal pulses for WVS IS2



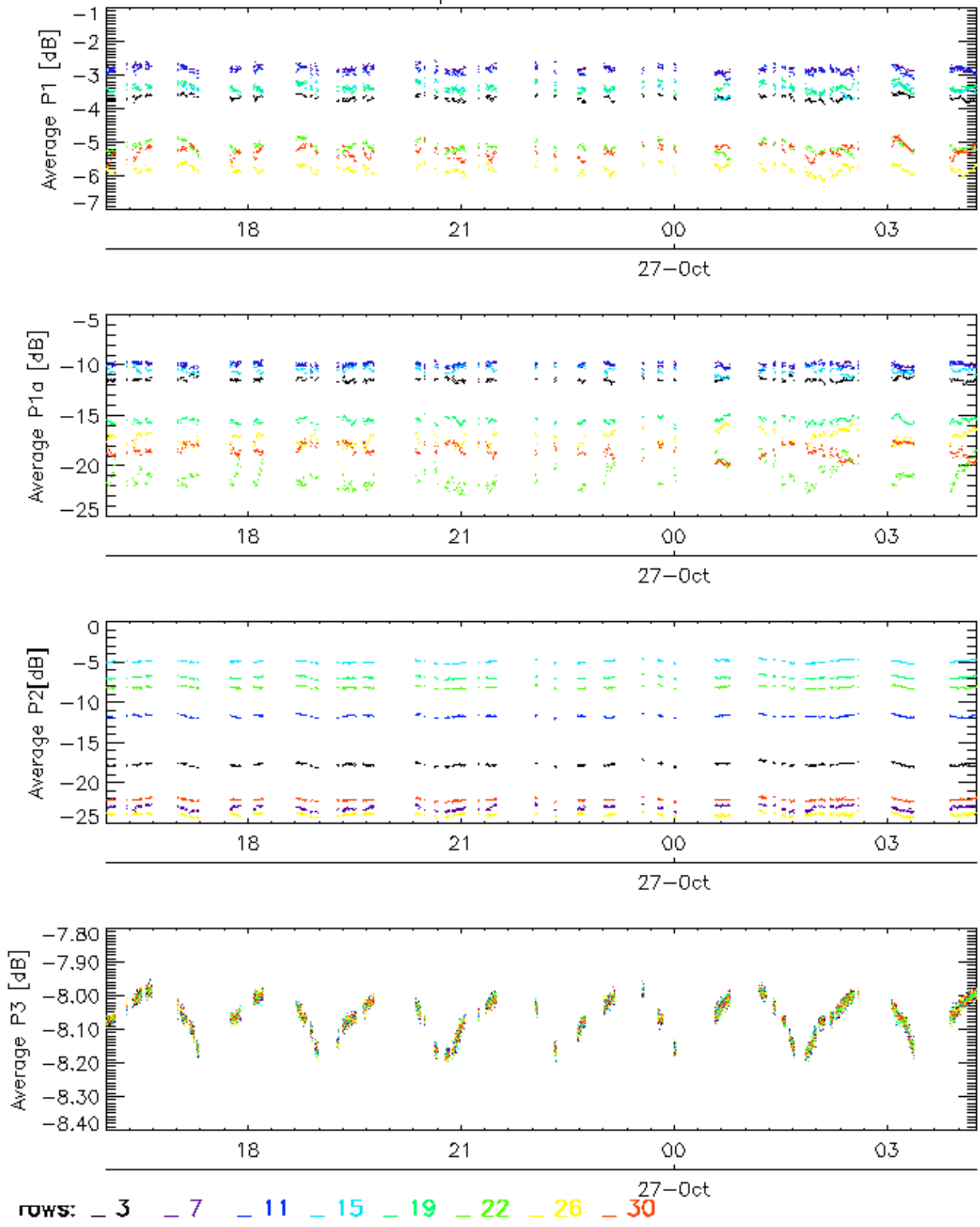
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 27-Oct

Cal pulses for GM1 SS3

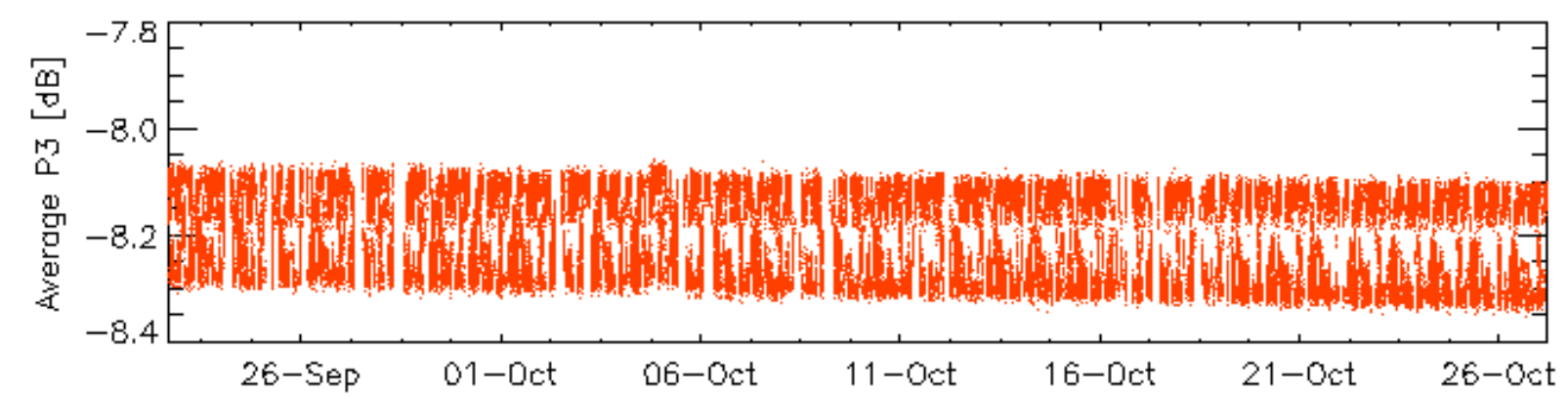
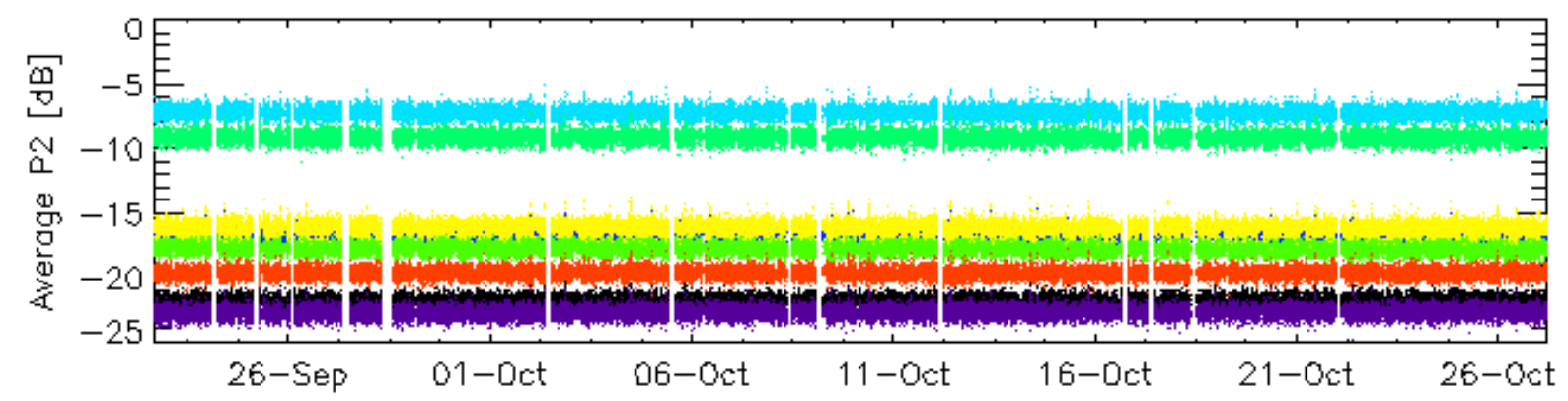
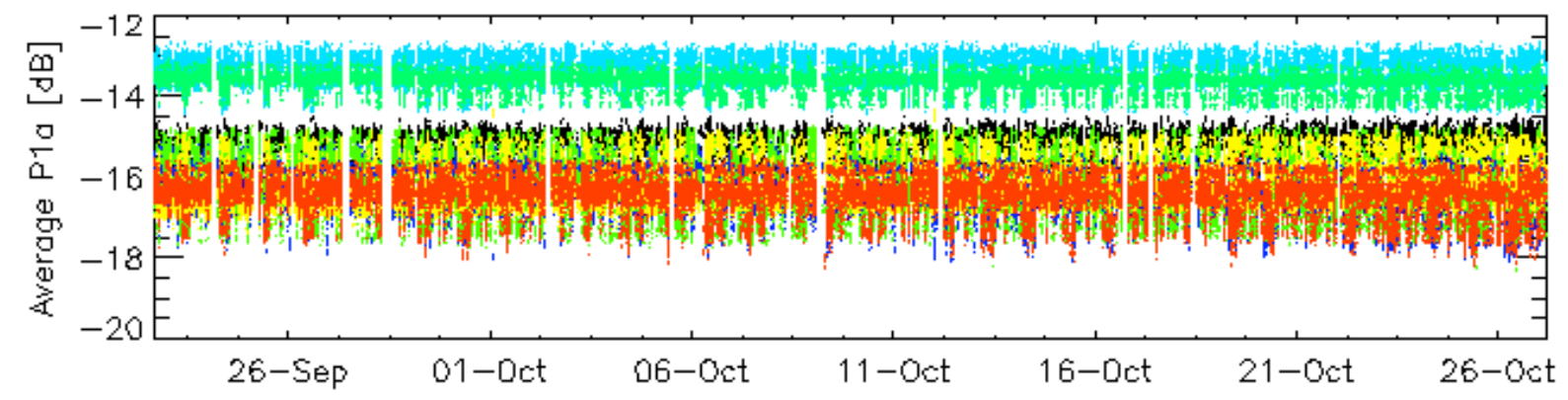
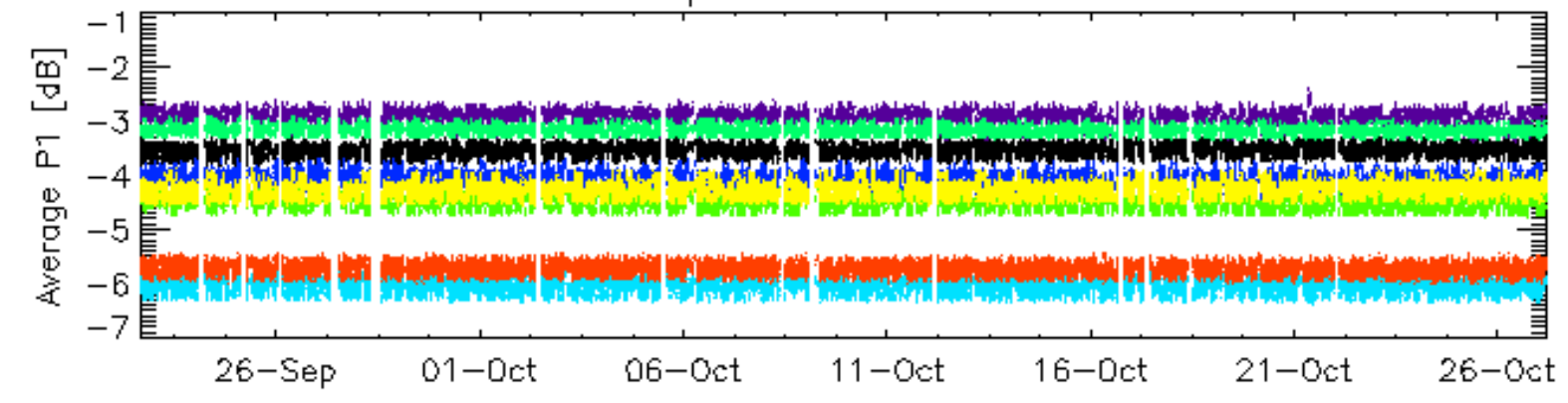


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

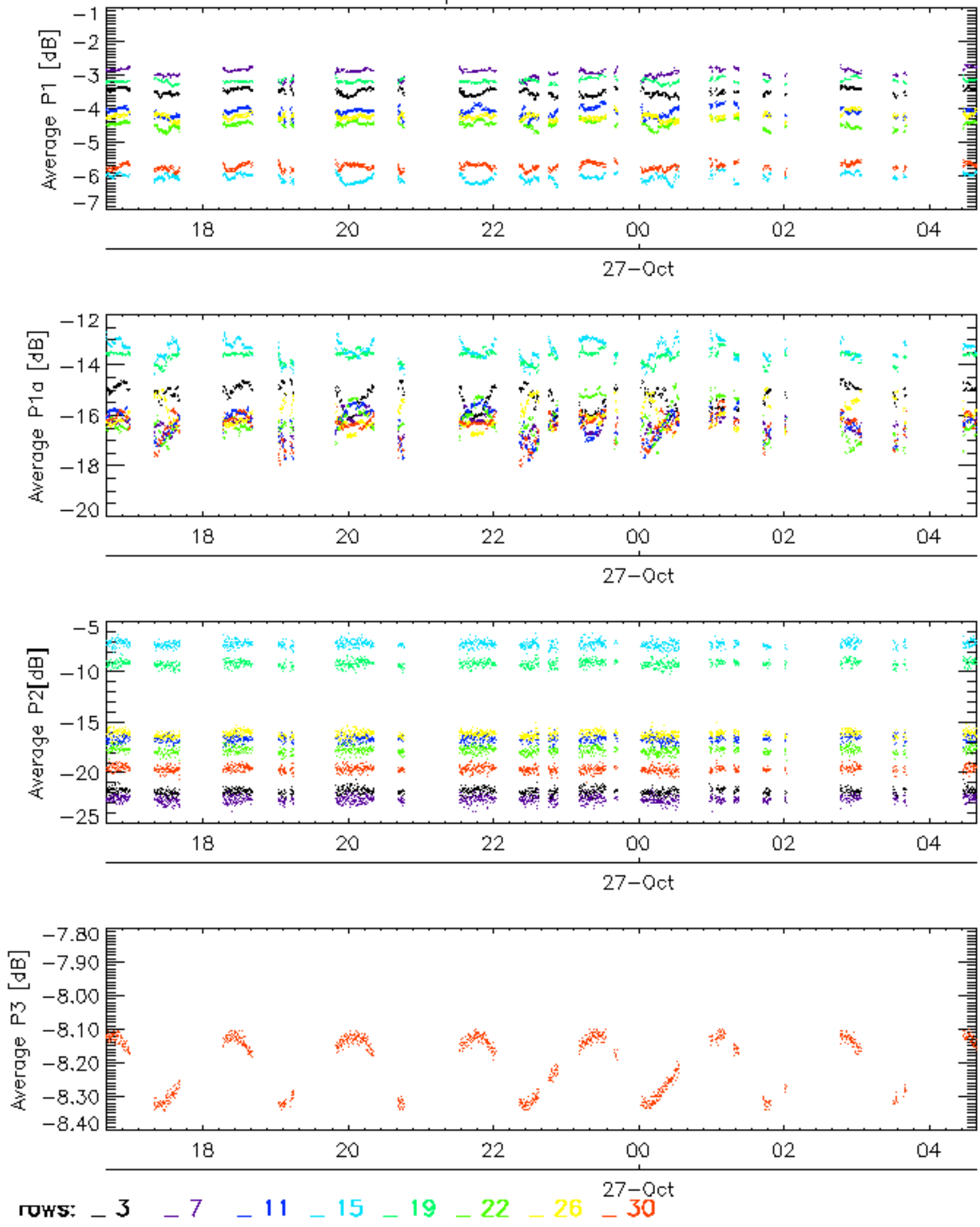


Cal pulses for WVS IS2

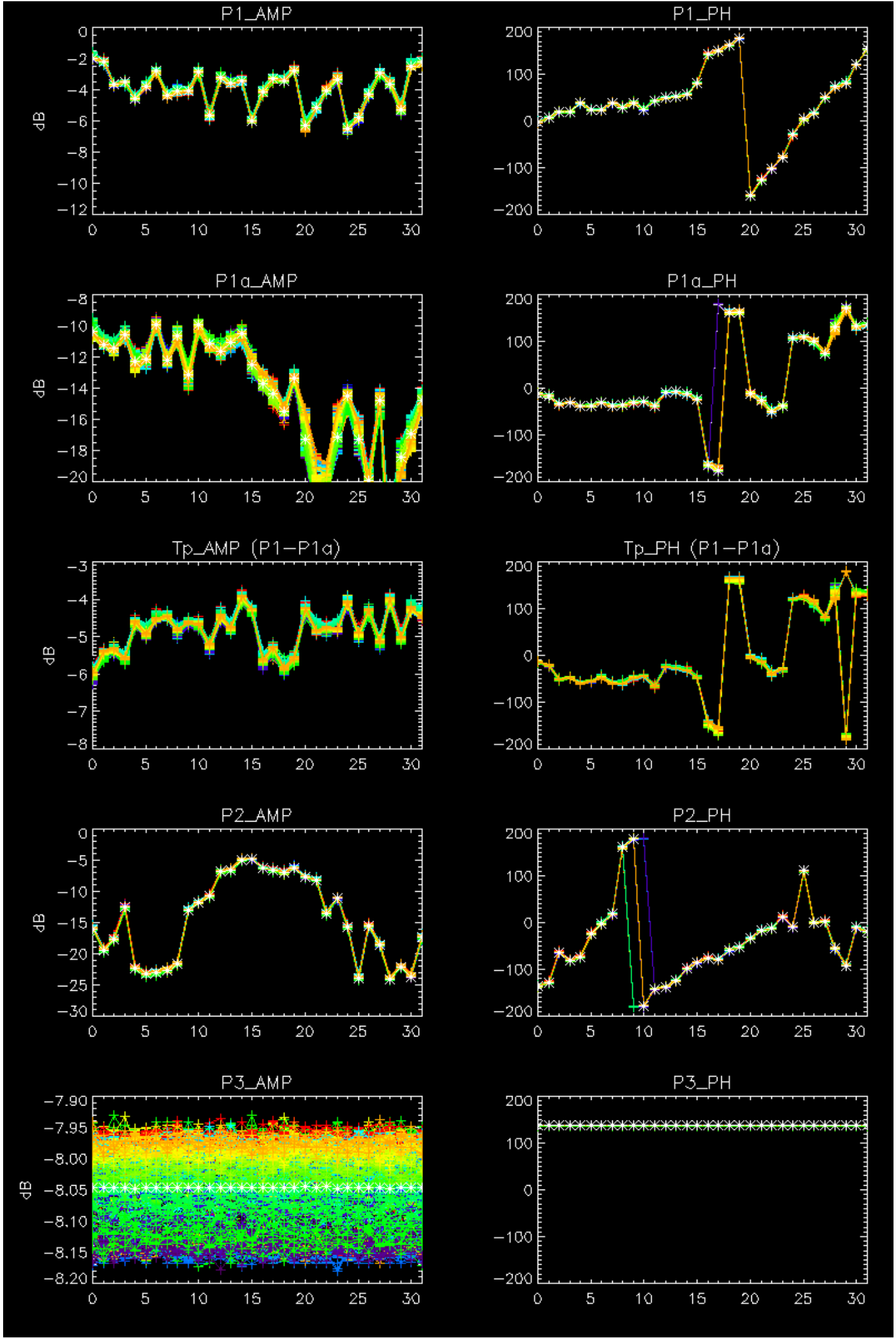


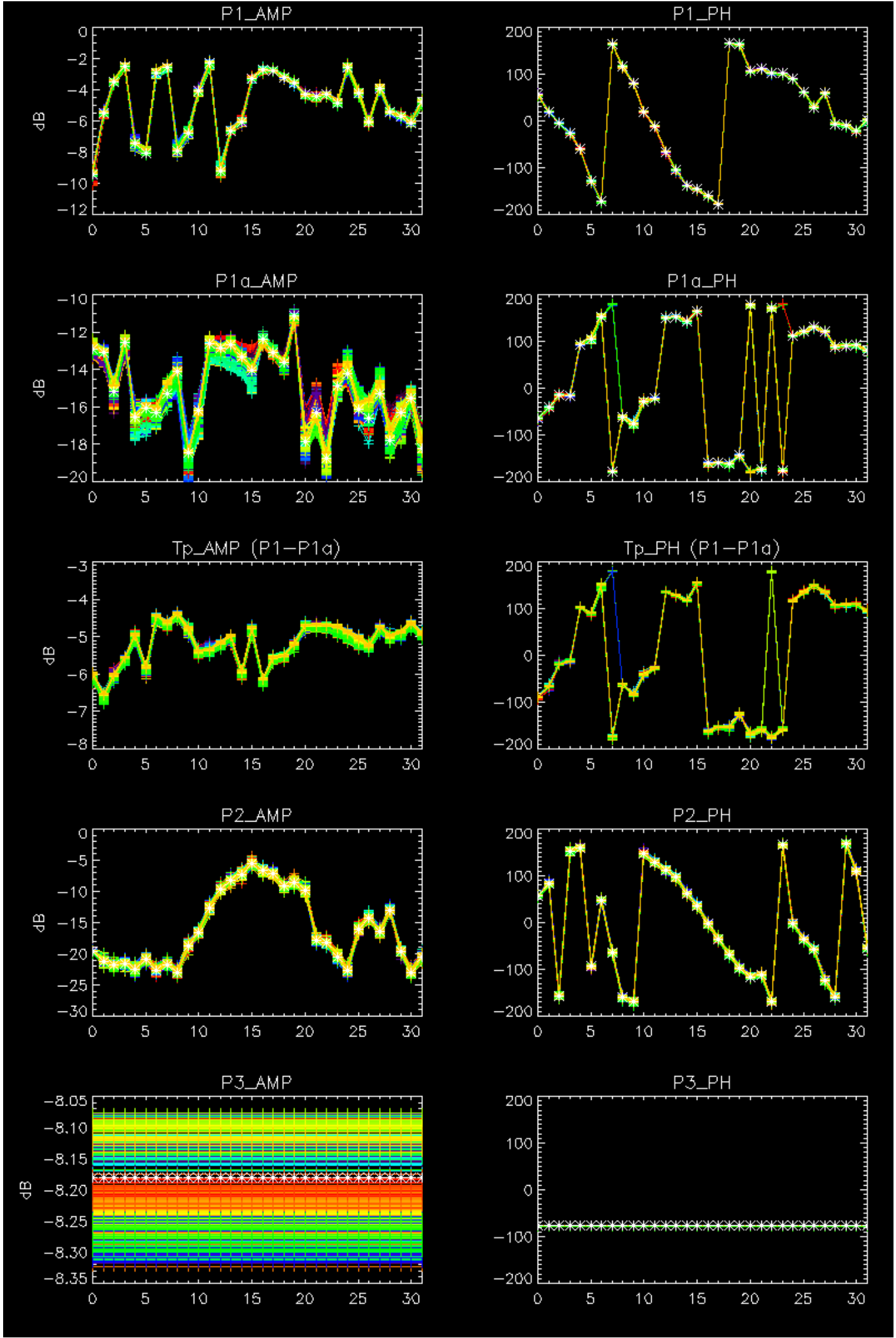
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



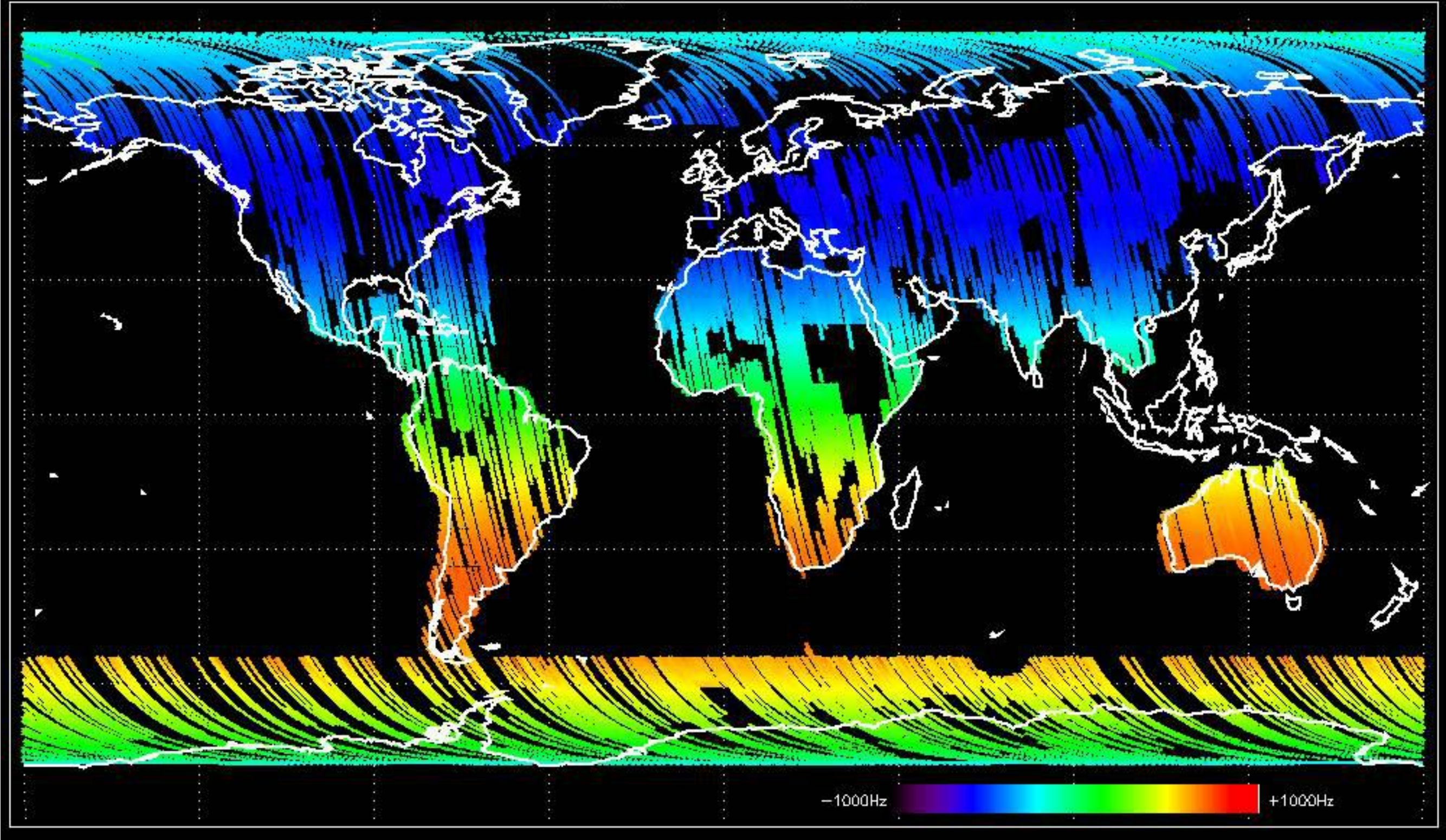
No anomalies observed.



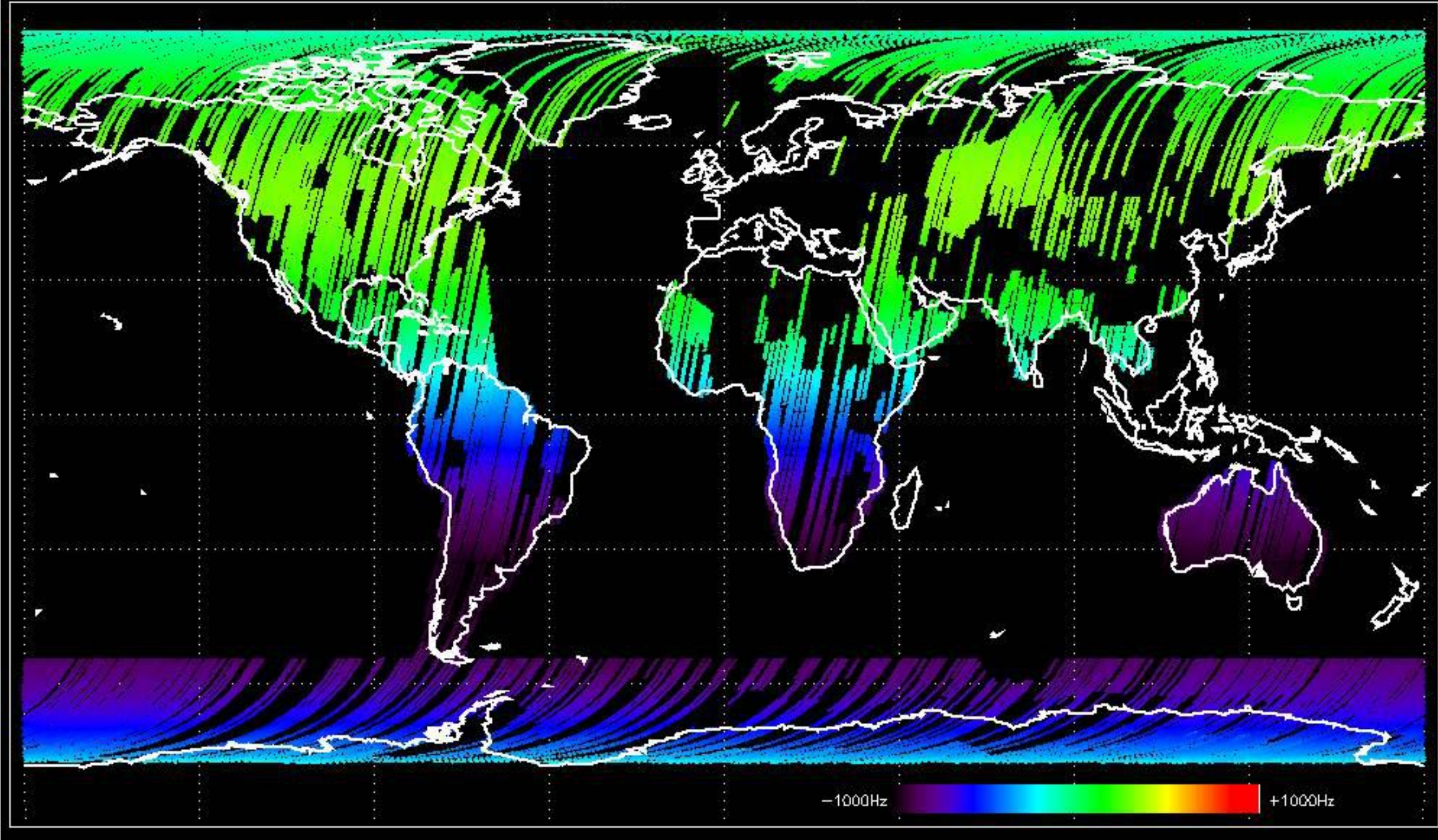


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

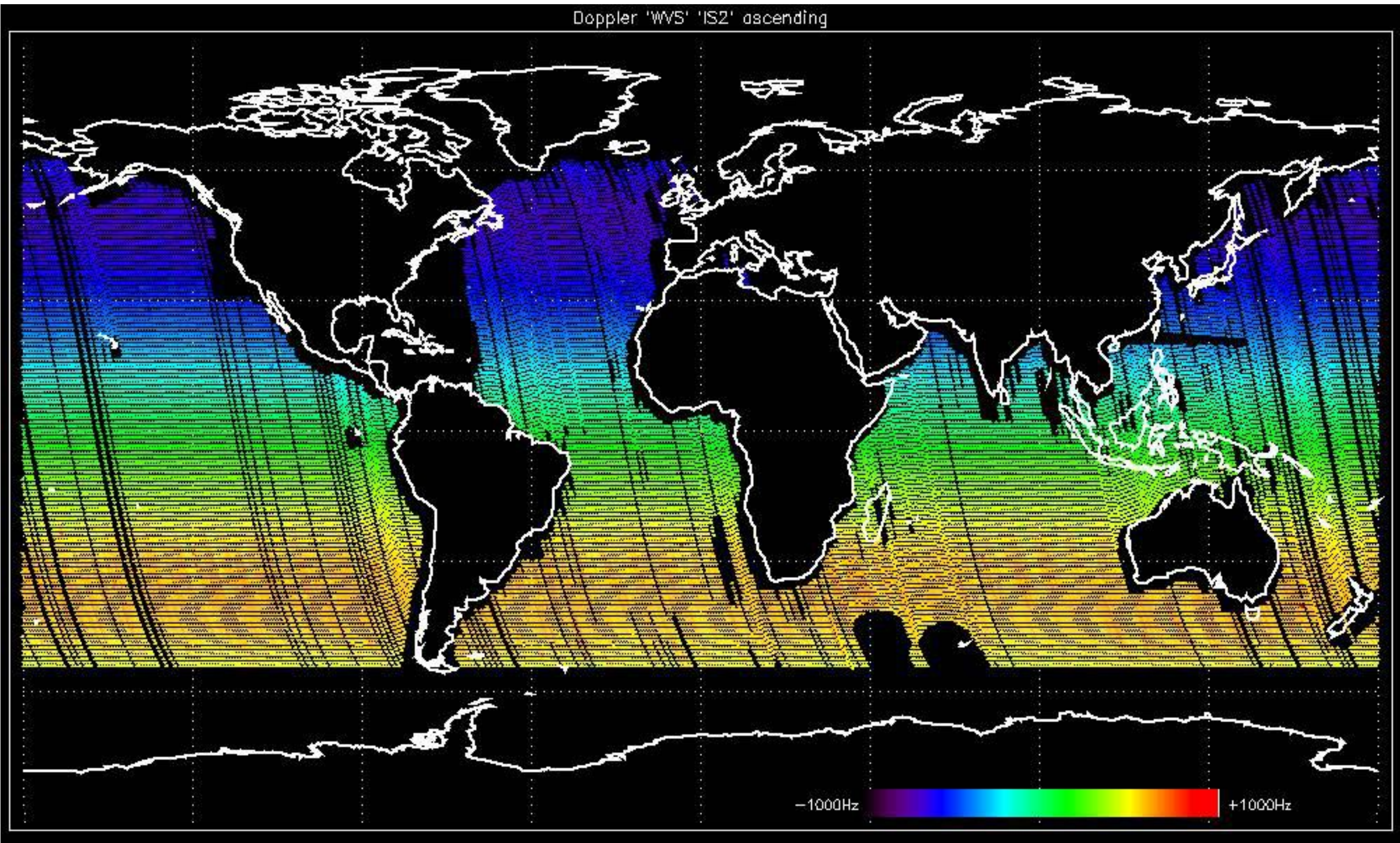
Doppler 'GM1' 'SS1' ascending



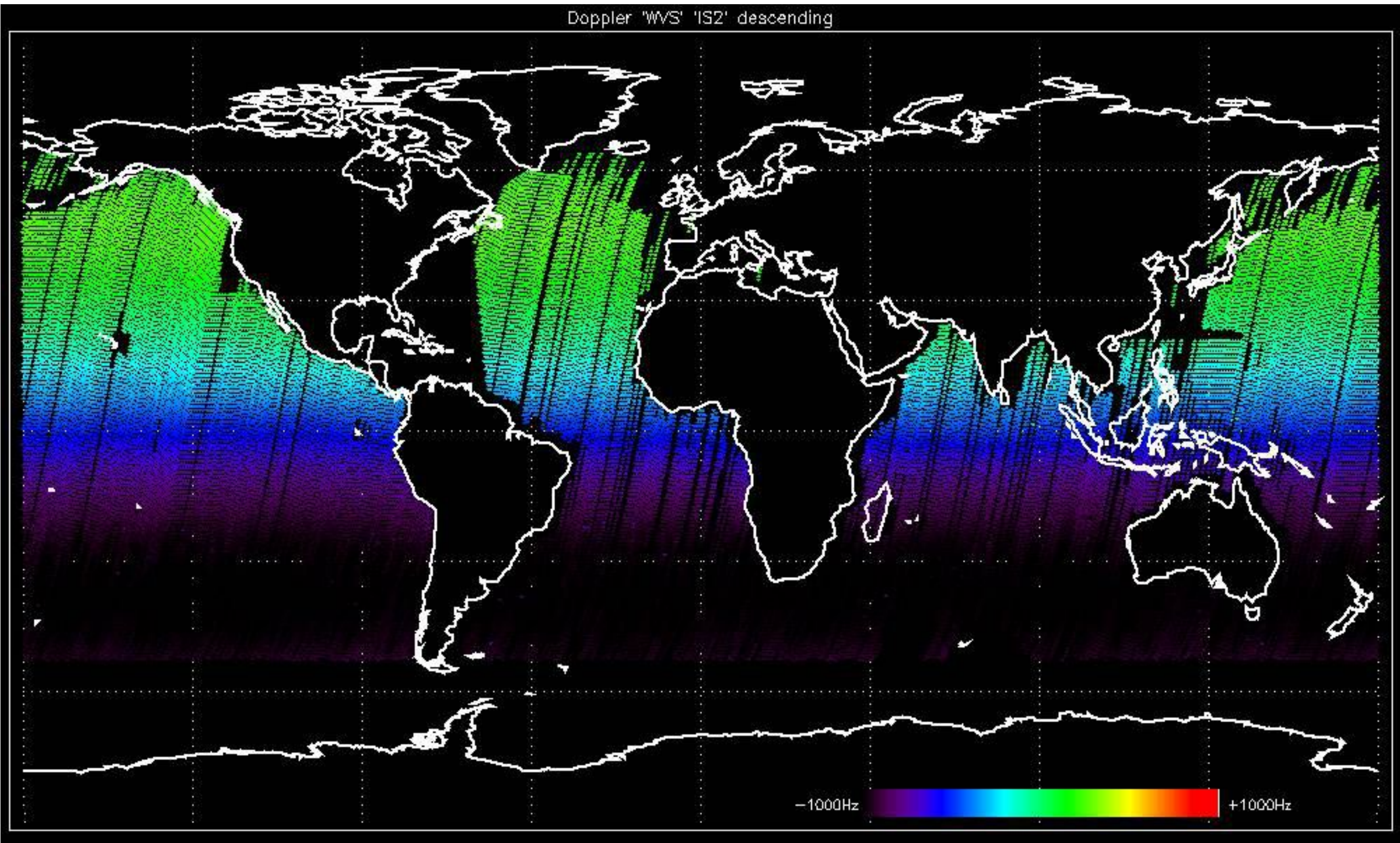
Doppler 'GM1' 'SS1' descending



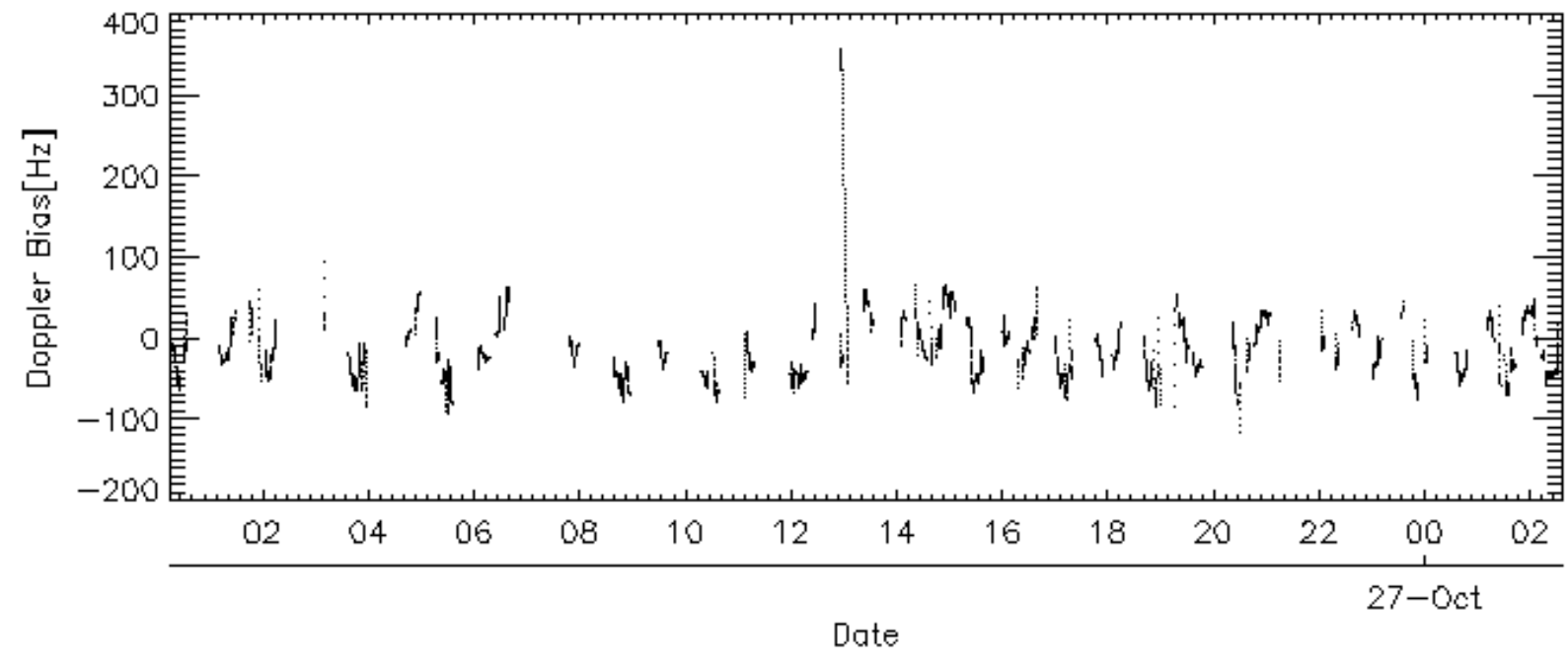
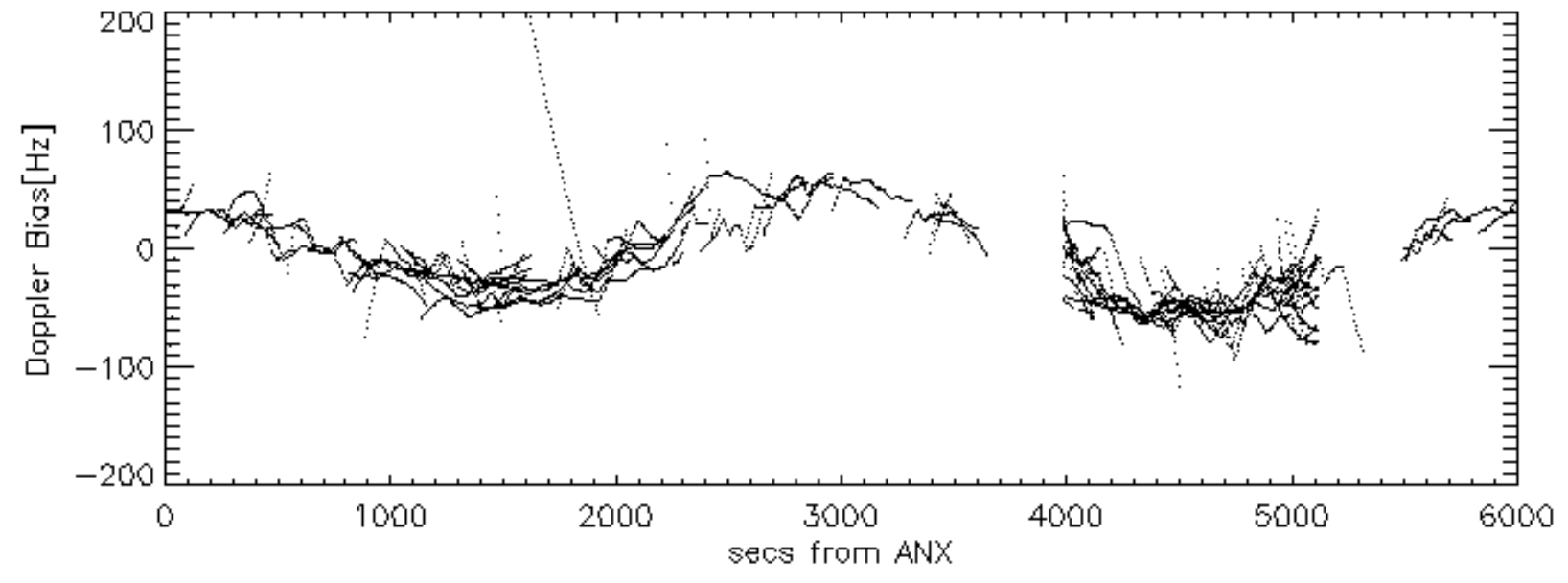
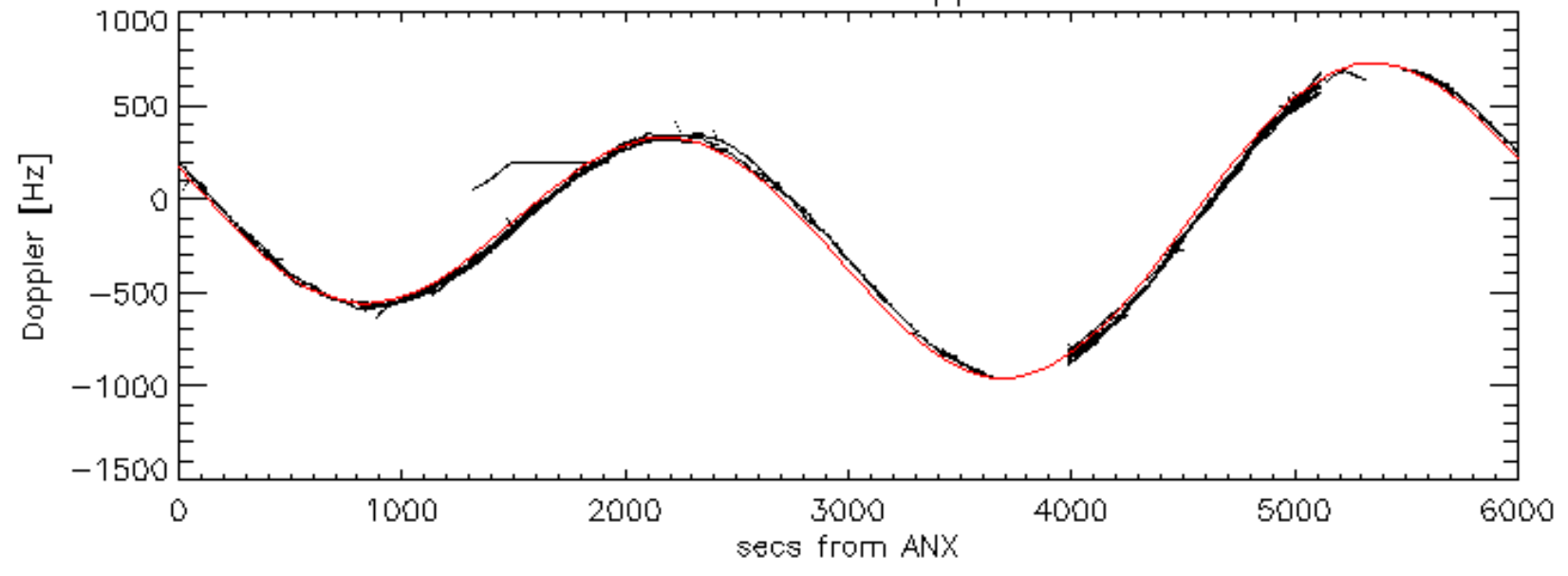
Doppler 'WVS' 'IS2' ascending

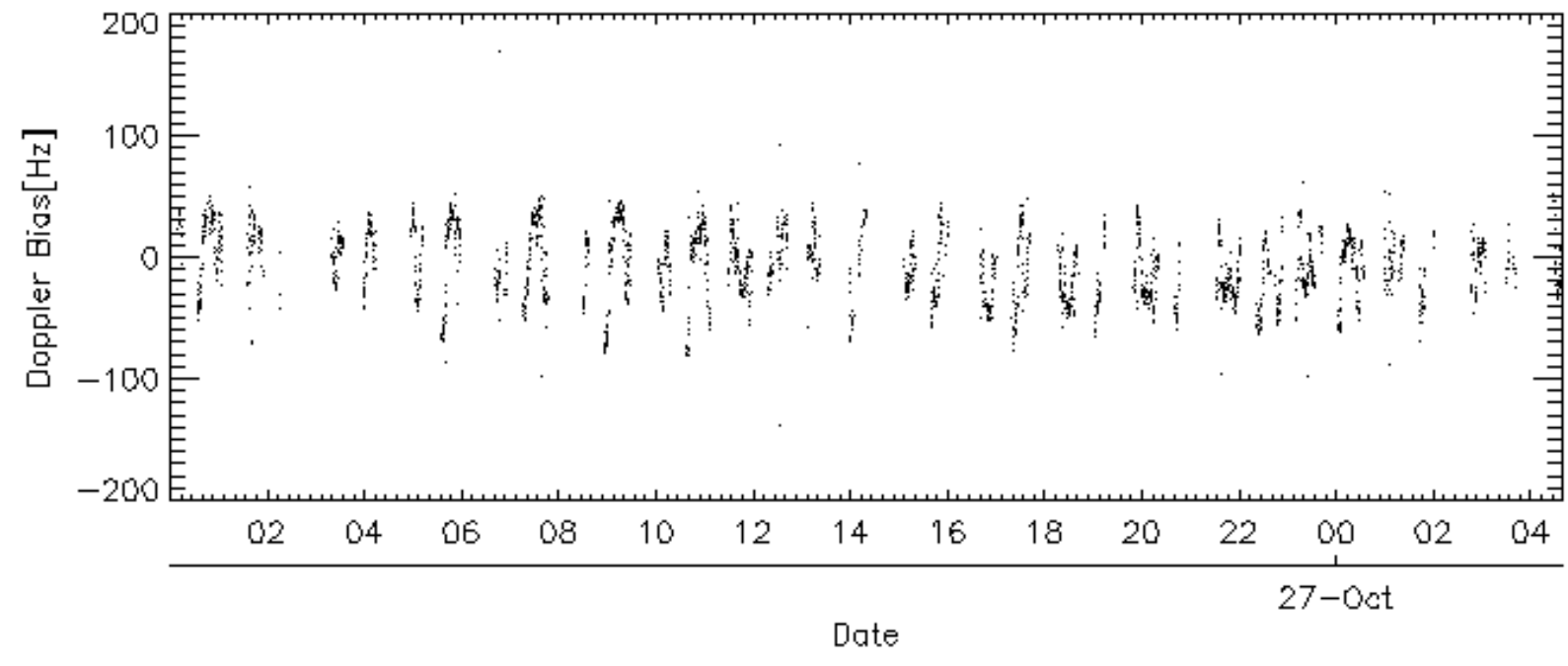
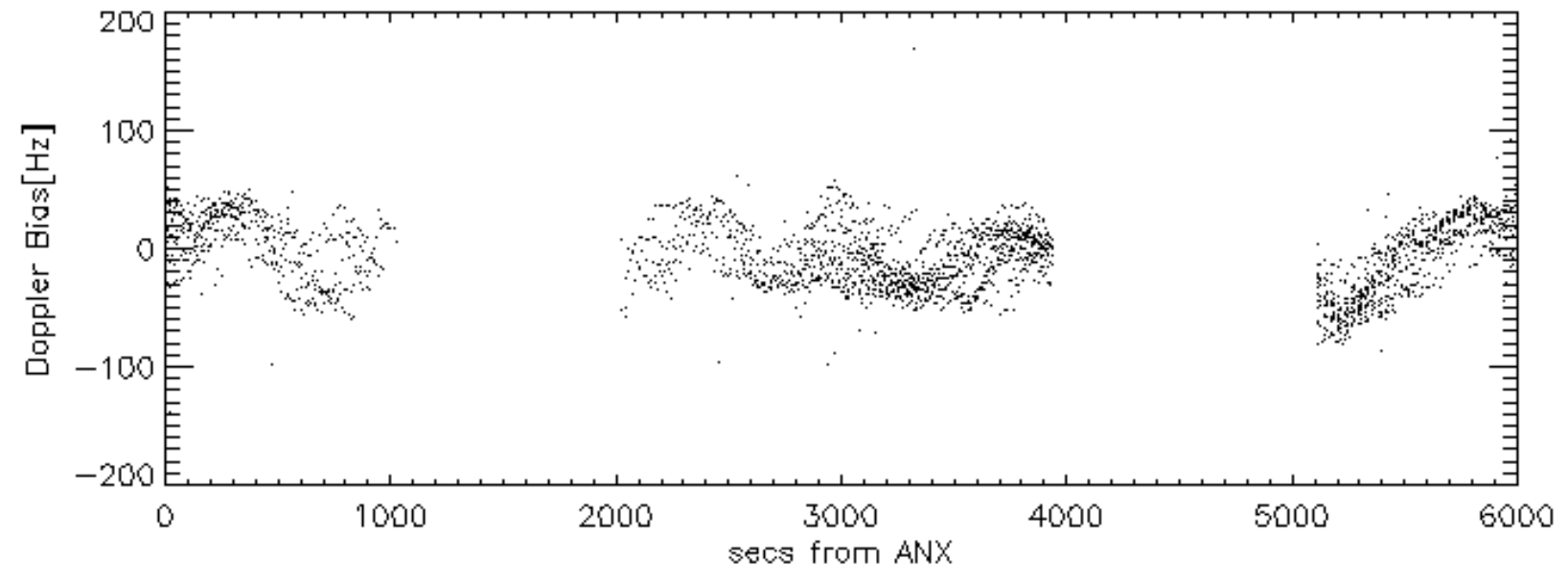
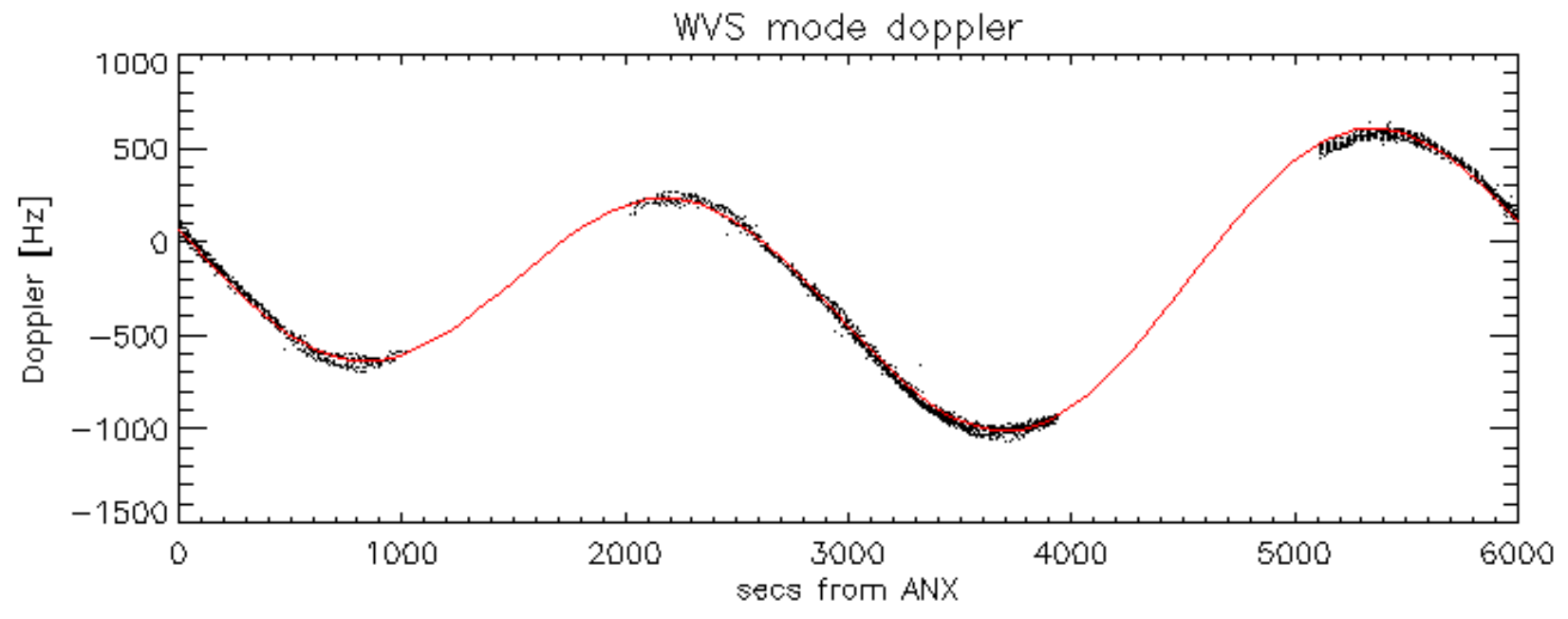


Doppler 'WVS' 'IS2' descending

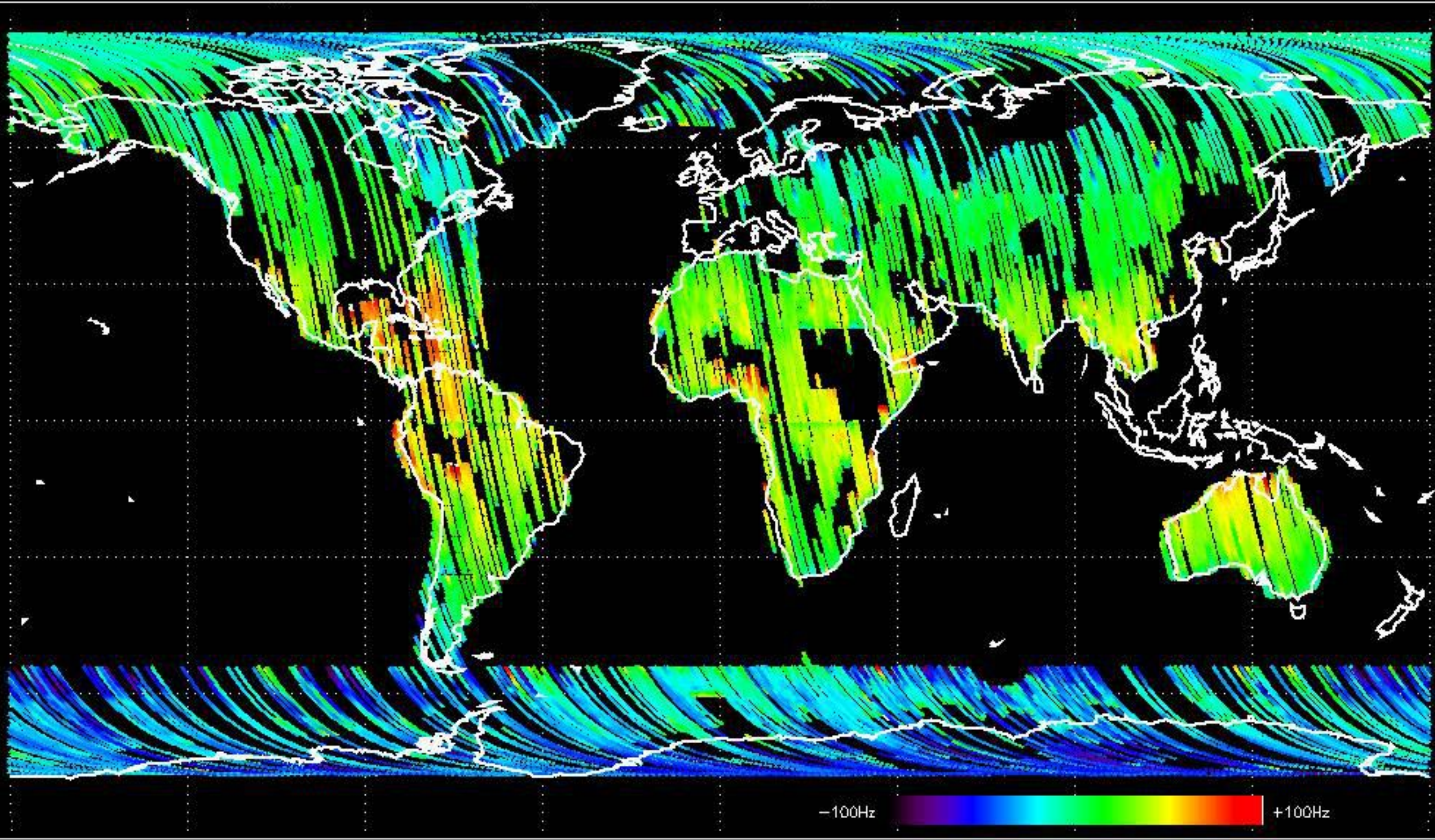


GM1 mode doppler

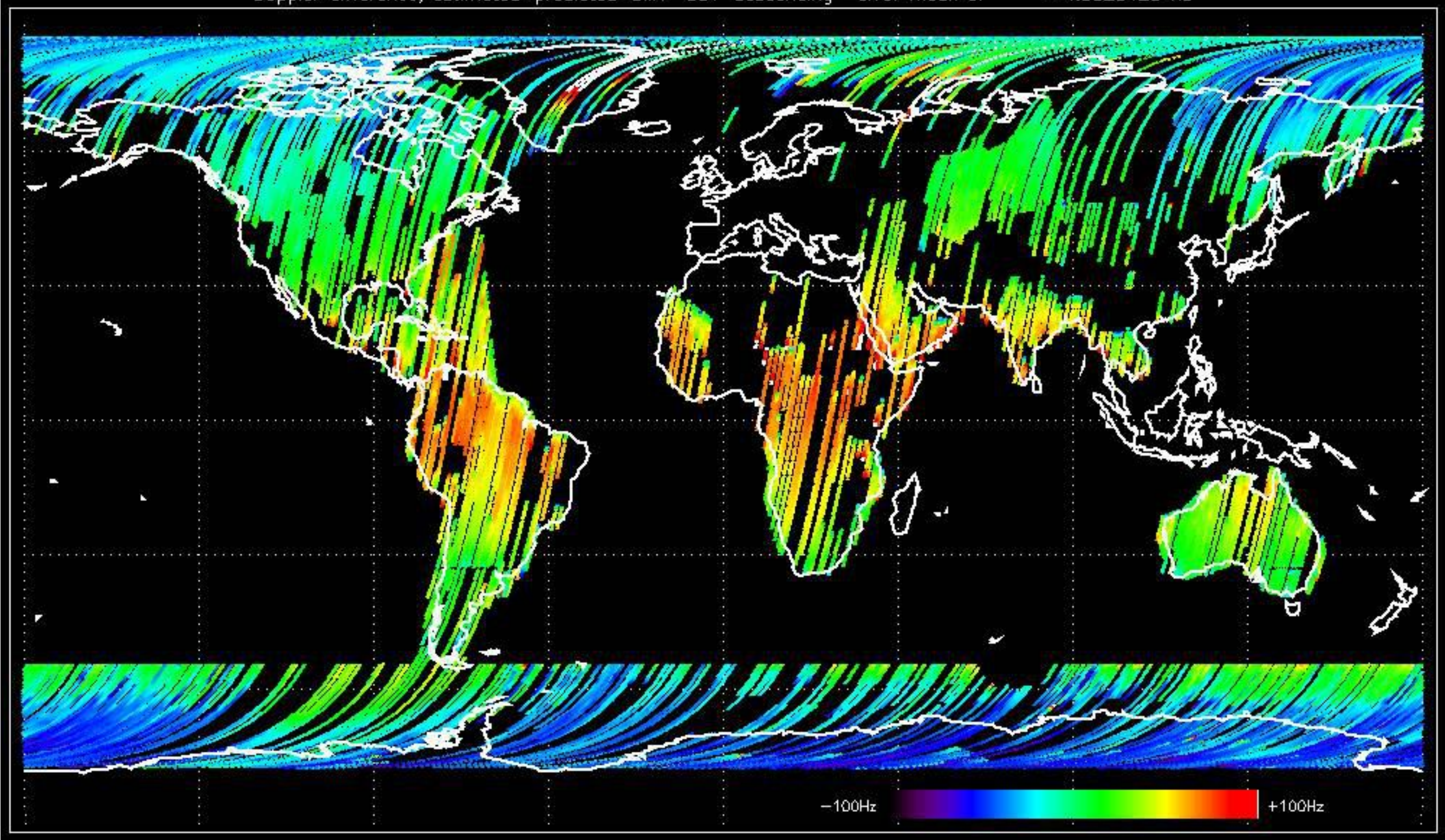




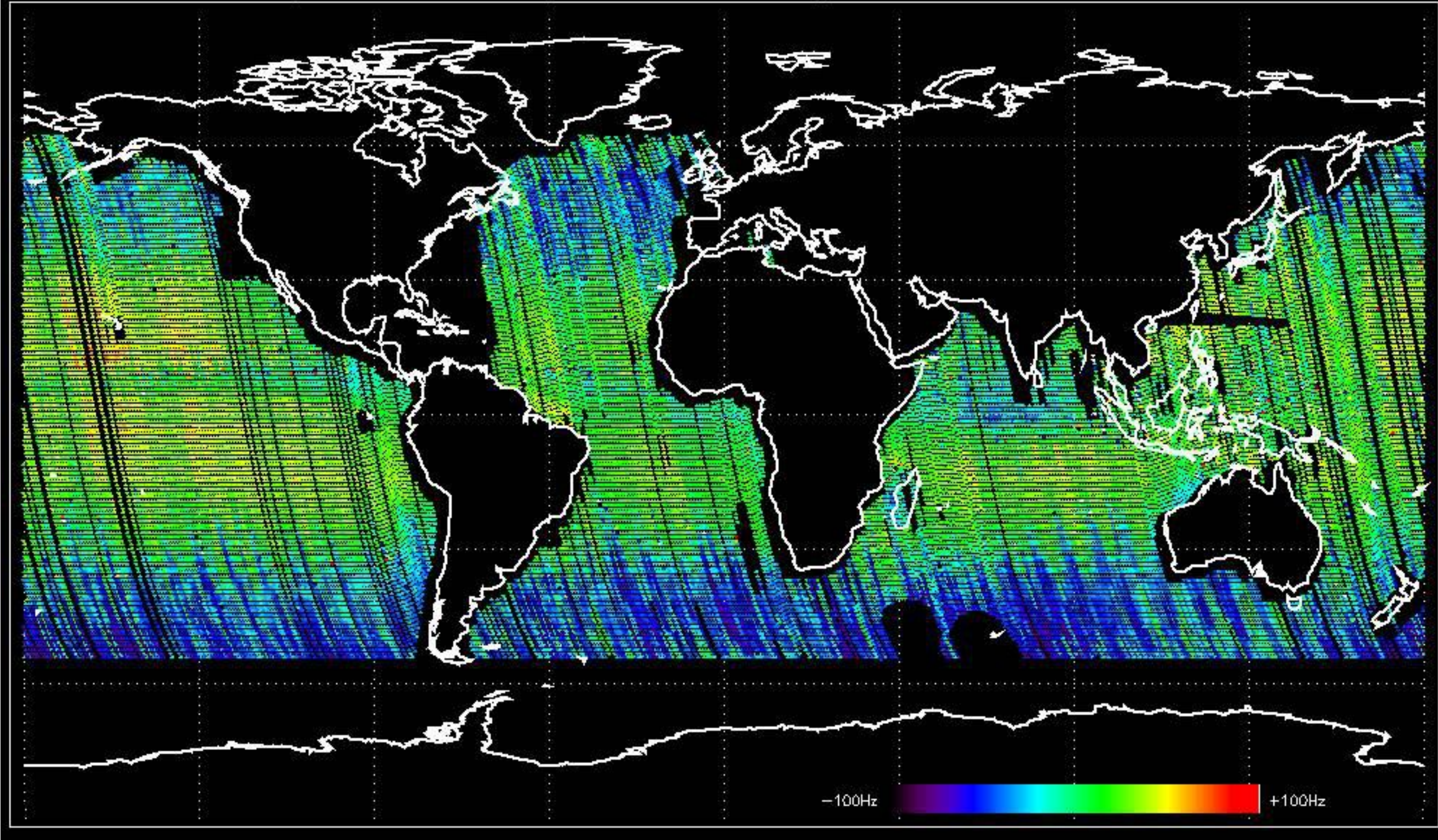
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.5345237 Hz



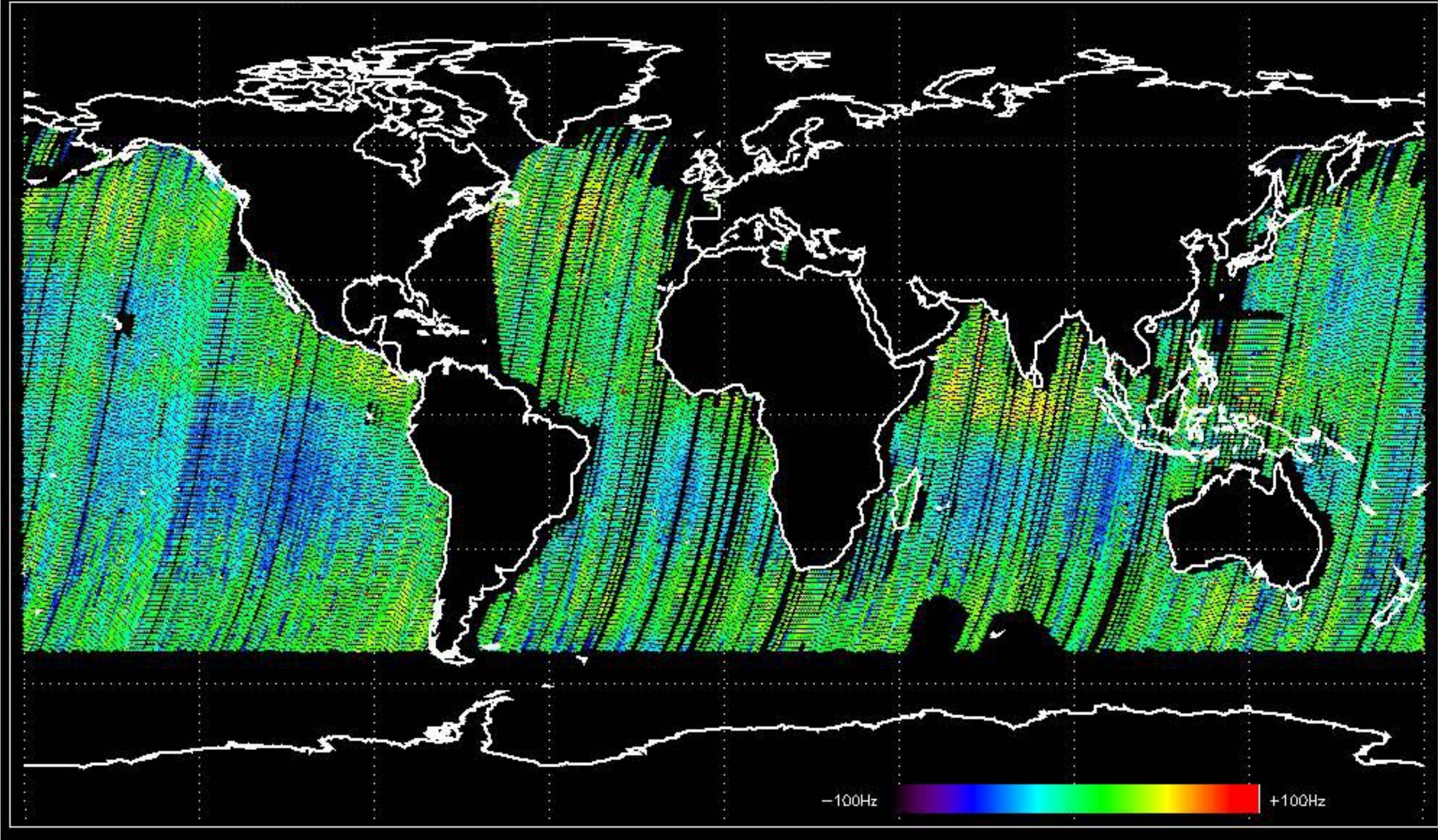
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -4.8828428 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of 0.29645144 Hz

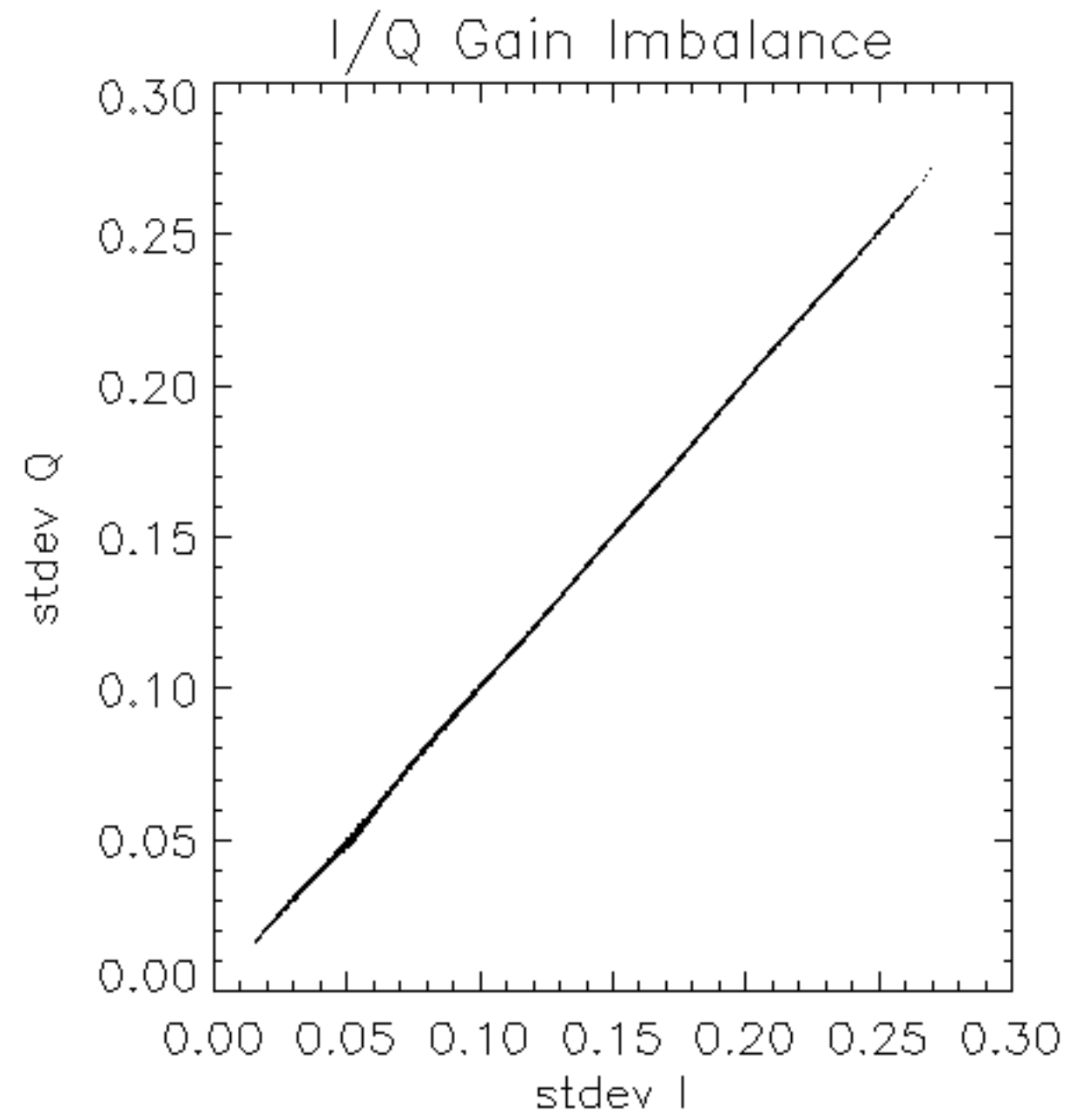


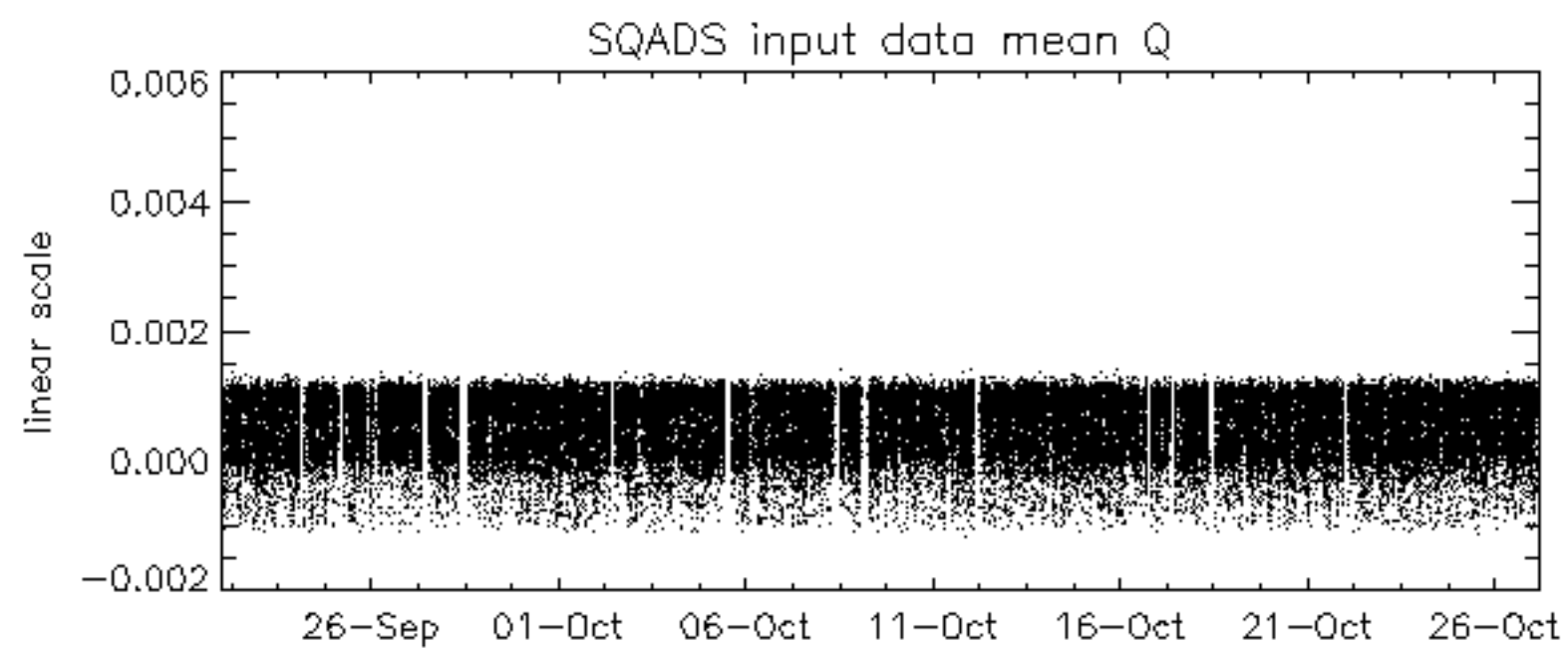
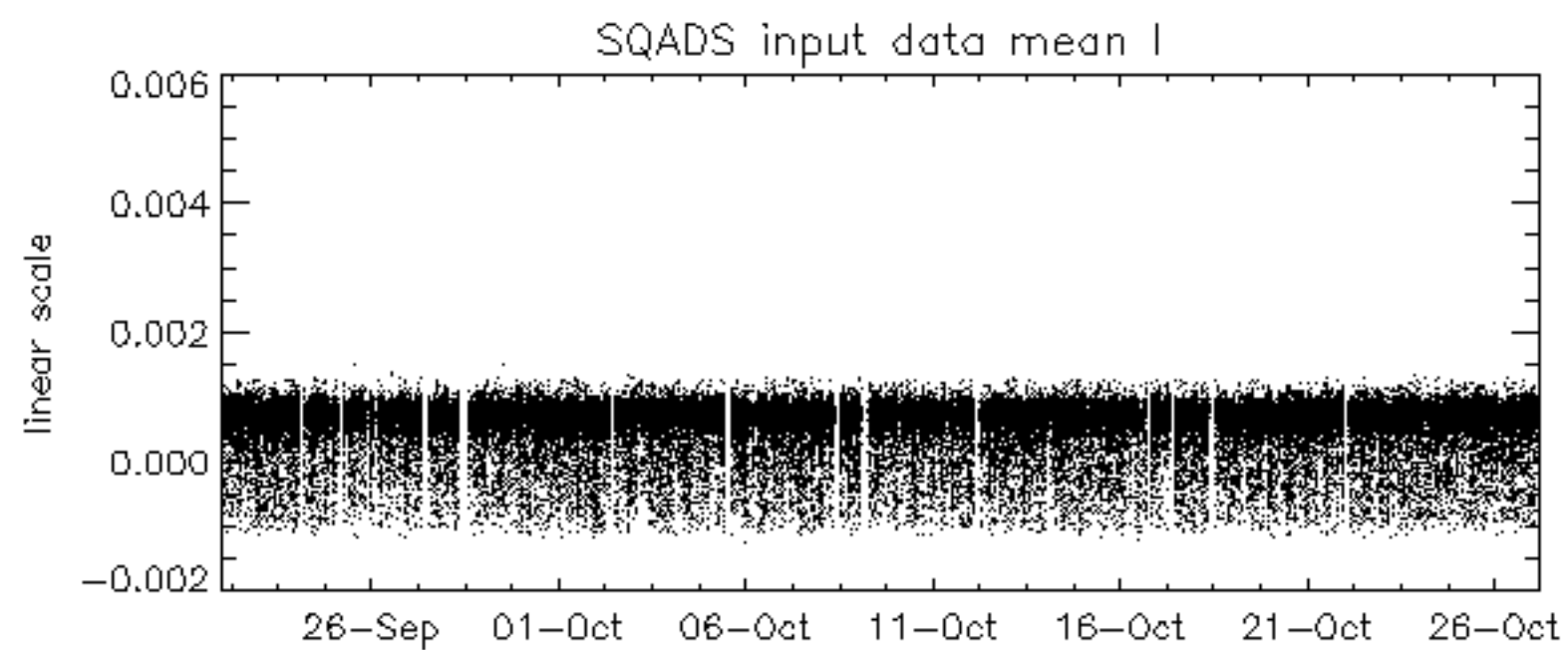
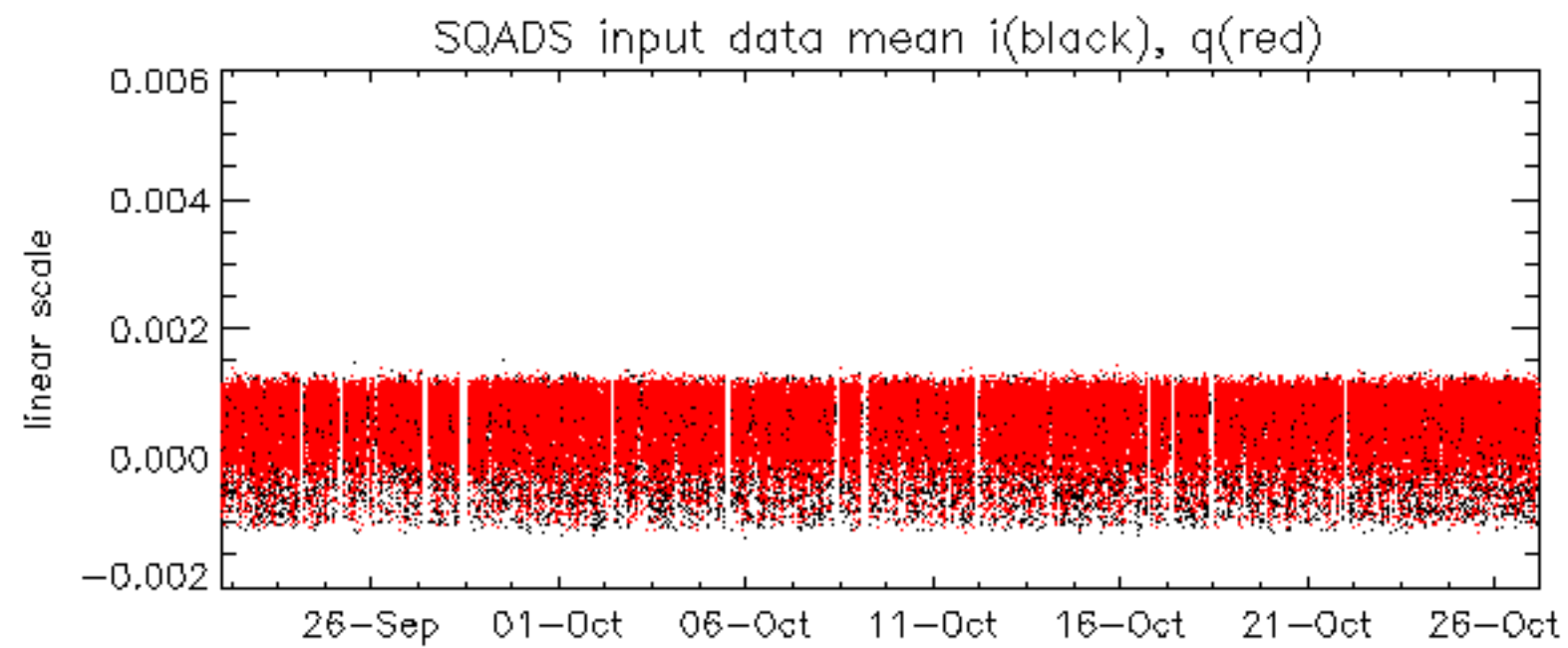
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -3.9476074 Hz

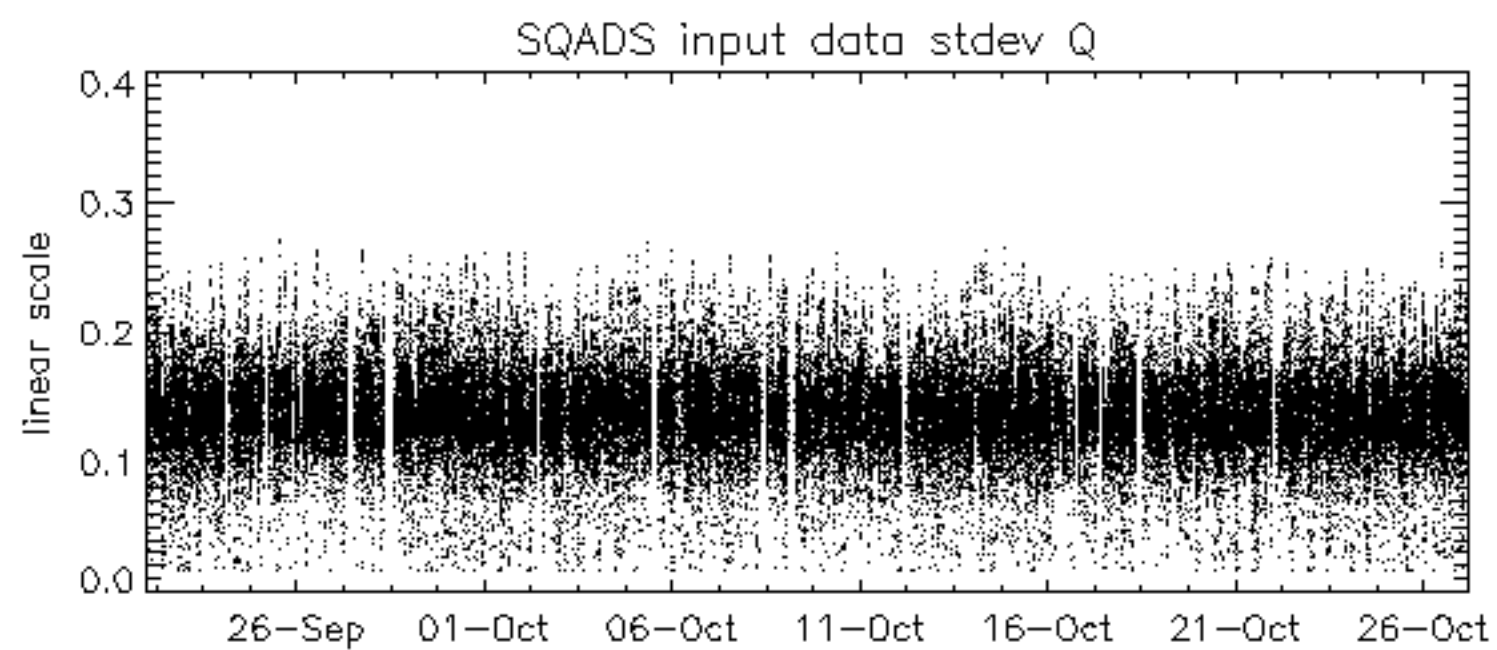
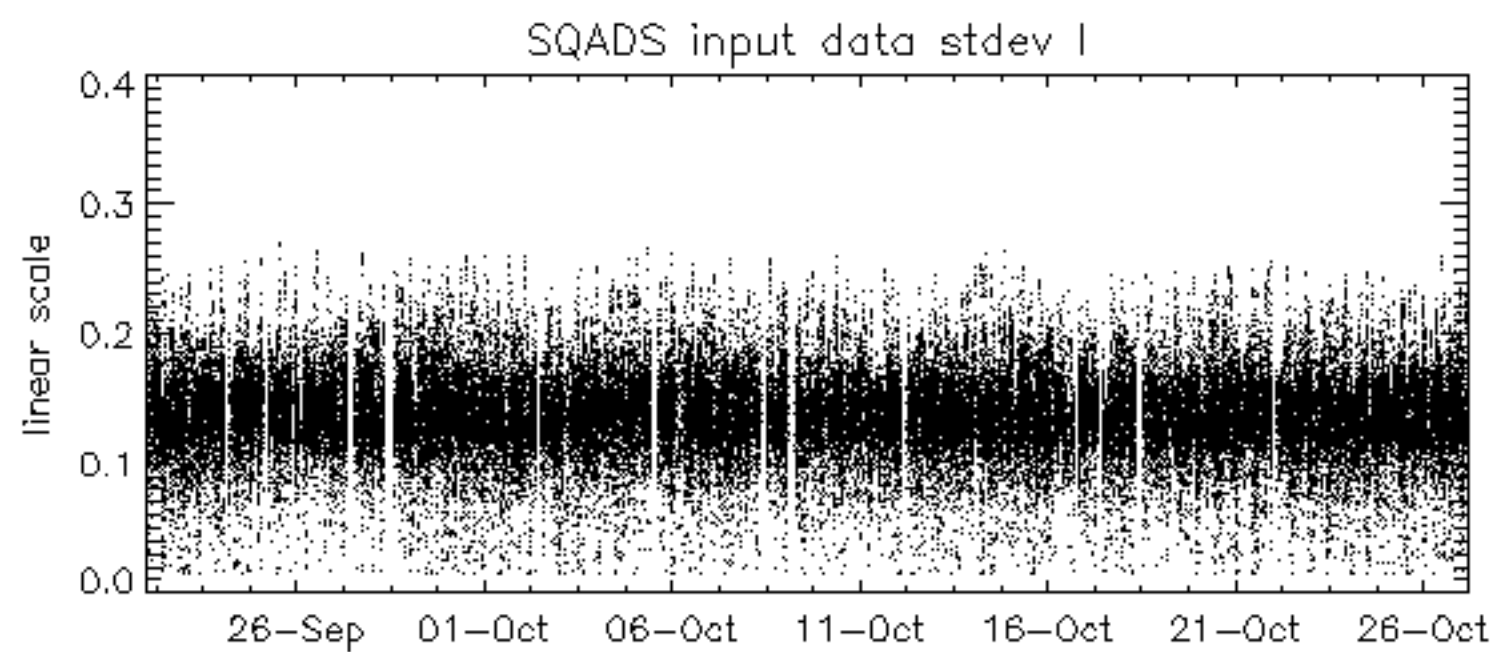
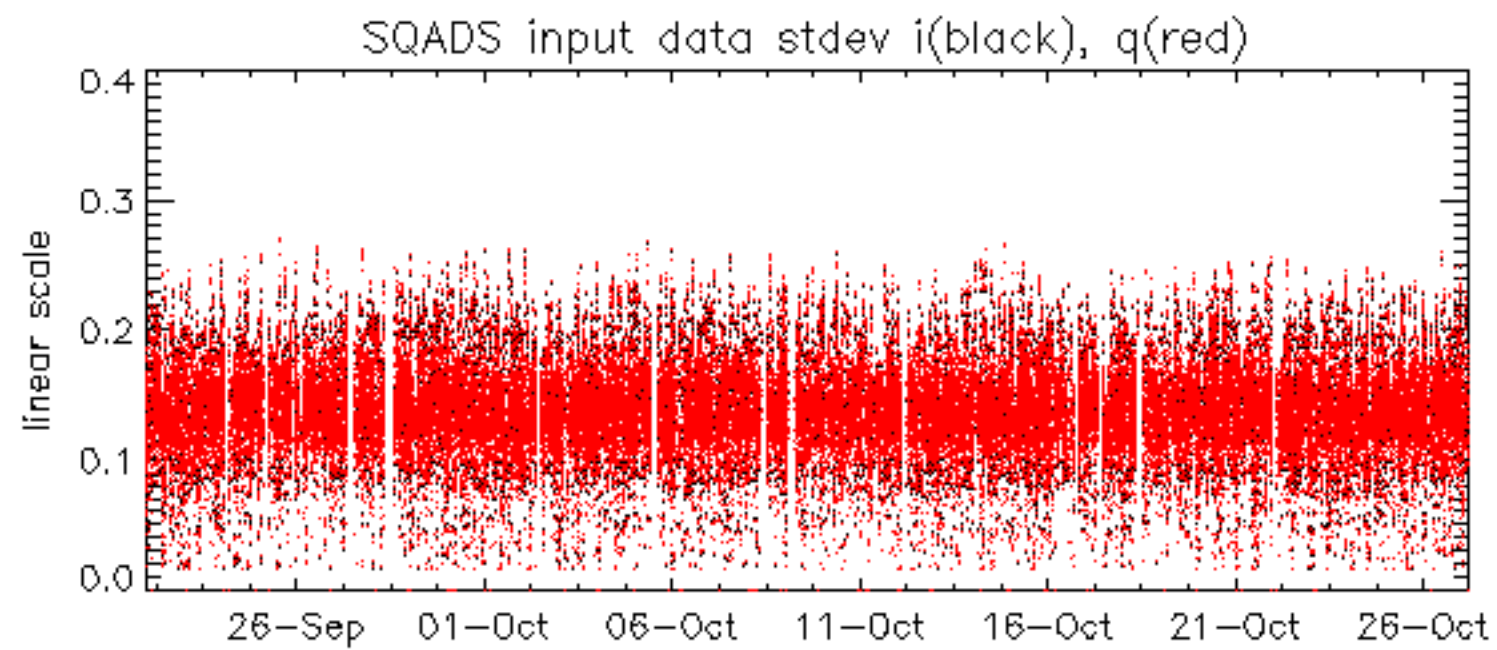


No anomalies observed on available MS products:

No anomalies observed.



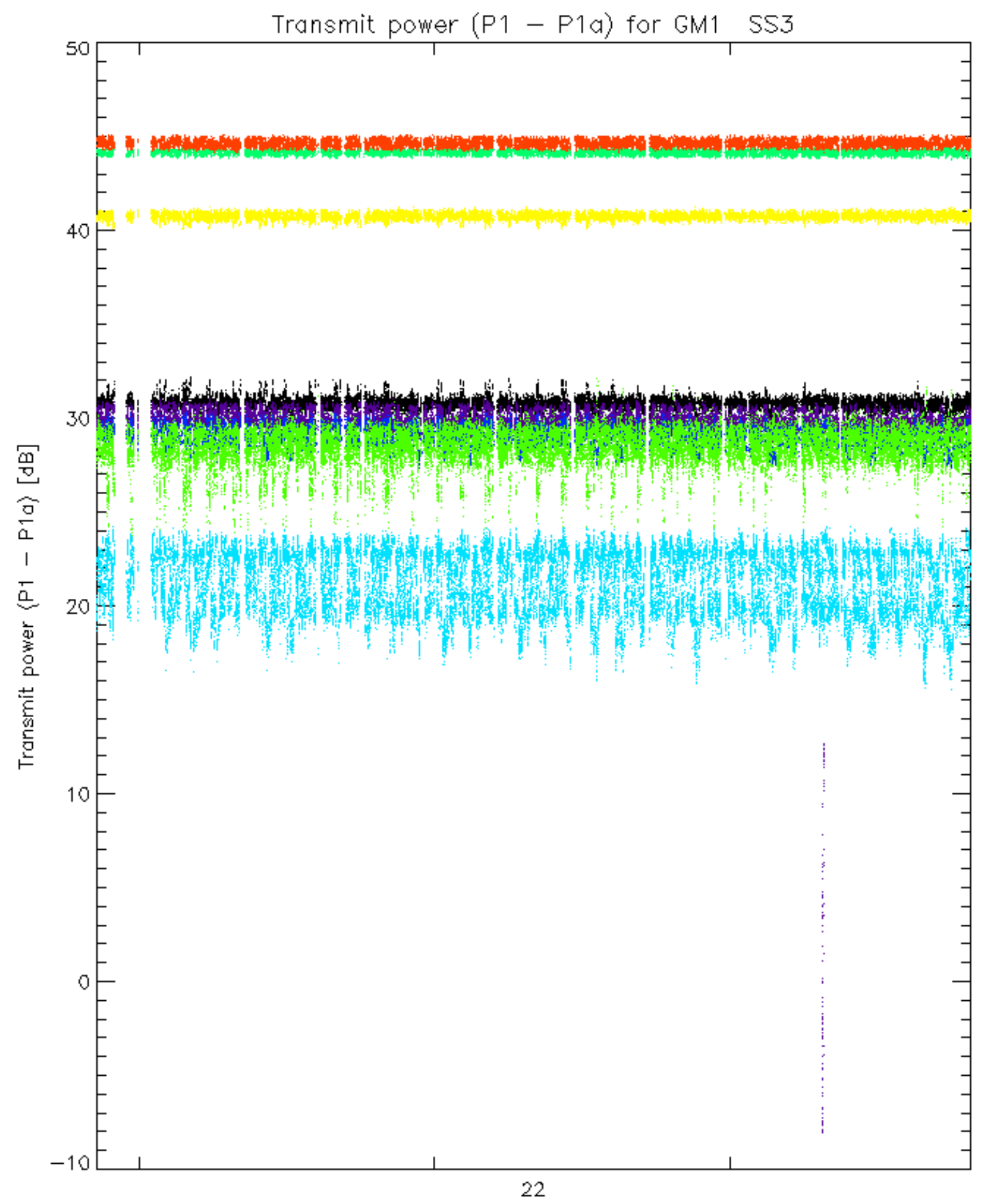




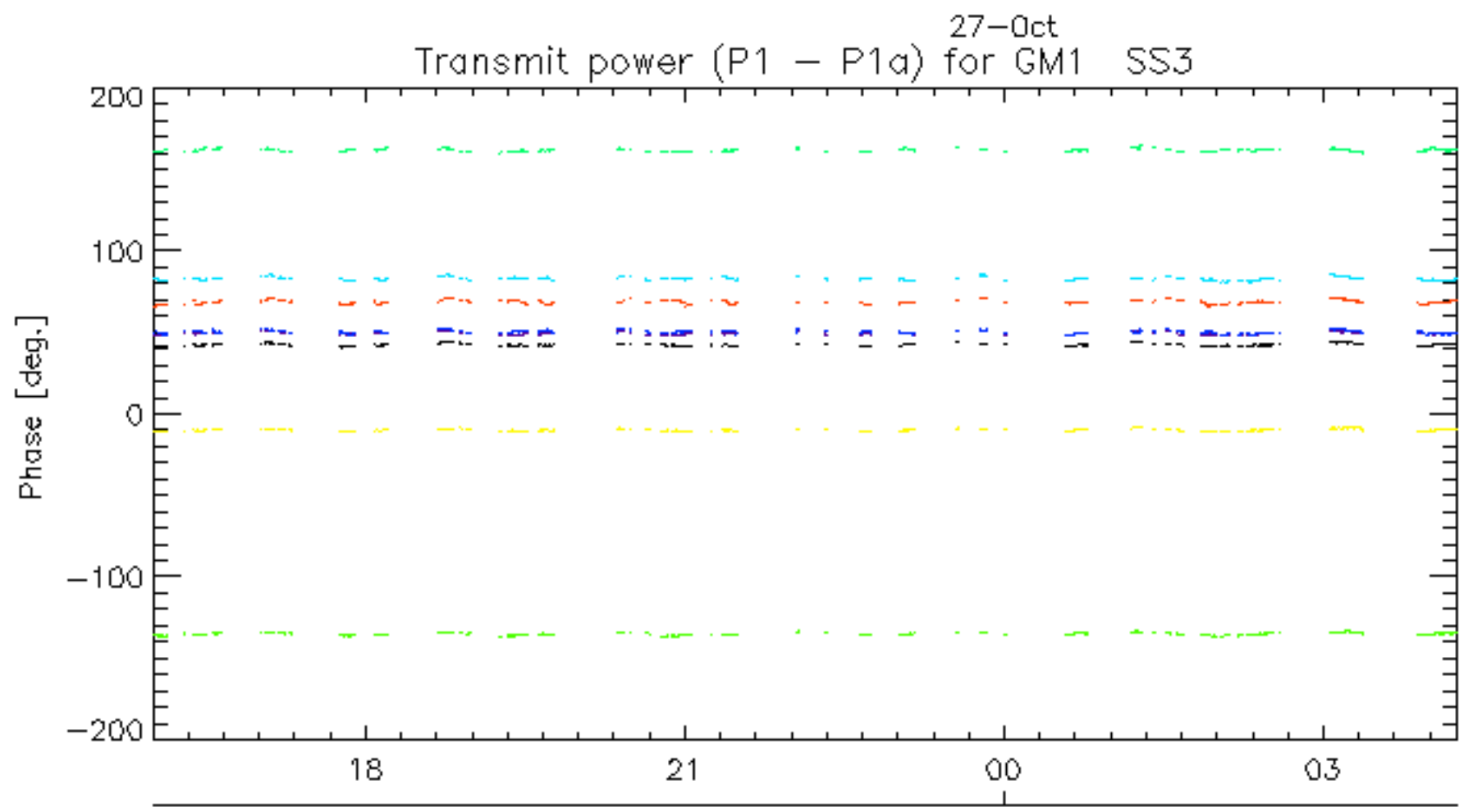
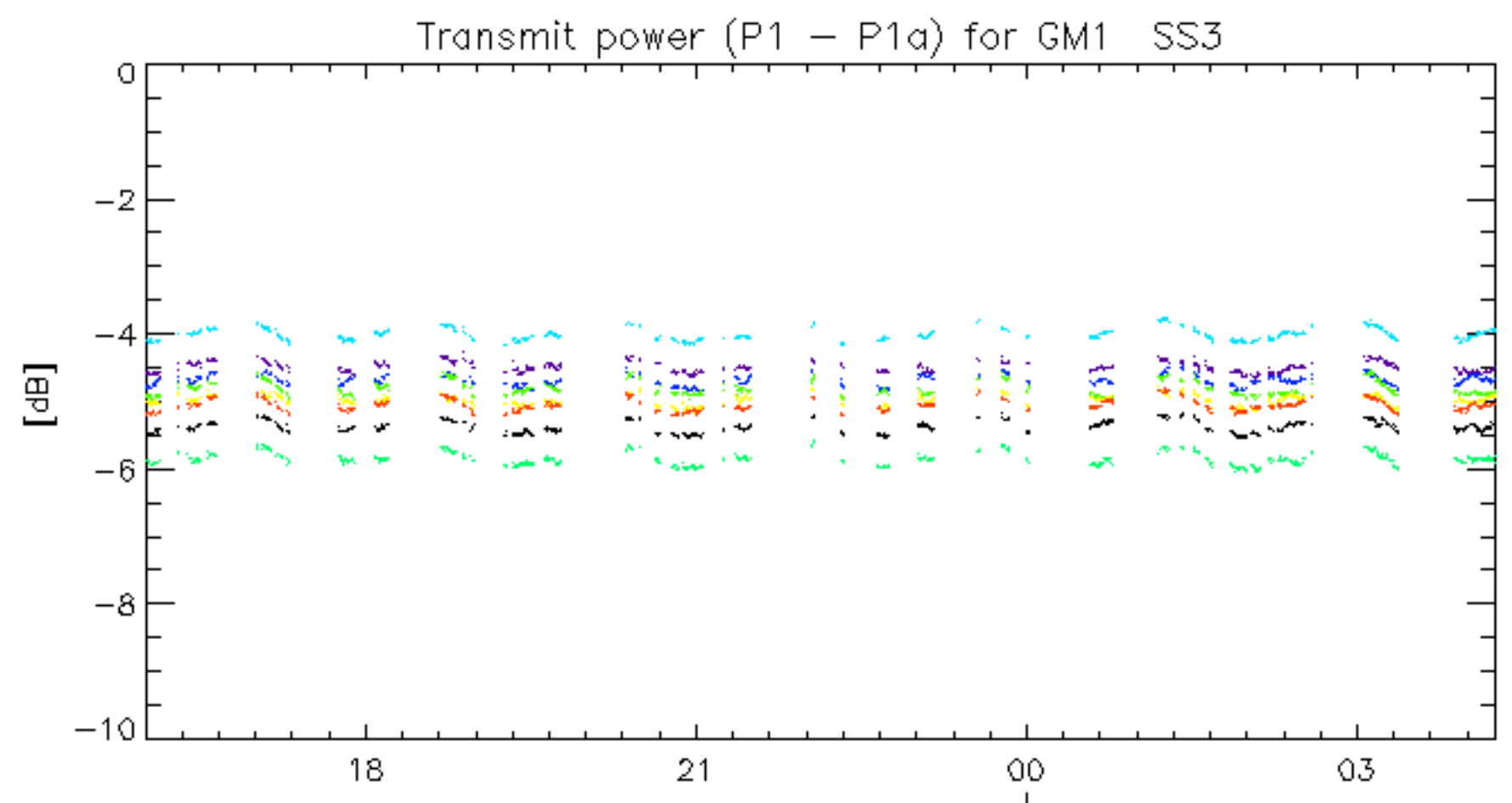
Summary of analysis for the last 3 days 2005102[567]

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

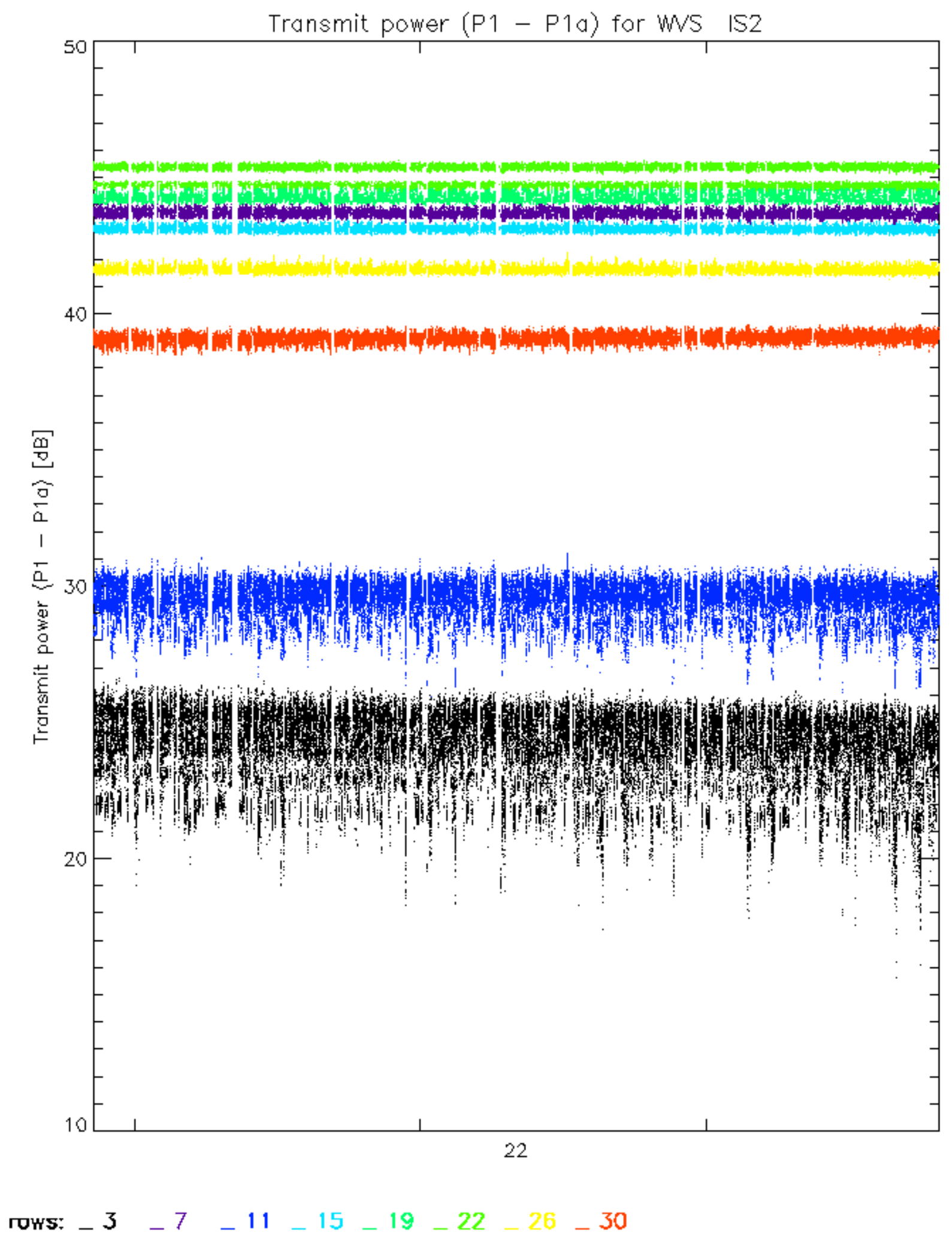
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051026_155415_000001532042_00025_19117_9386.N1	1	0
ASA_GM1_1PNPK20051026_152007_000011362042_00025_19117_9646.N1	0	38

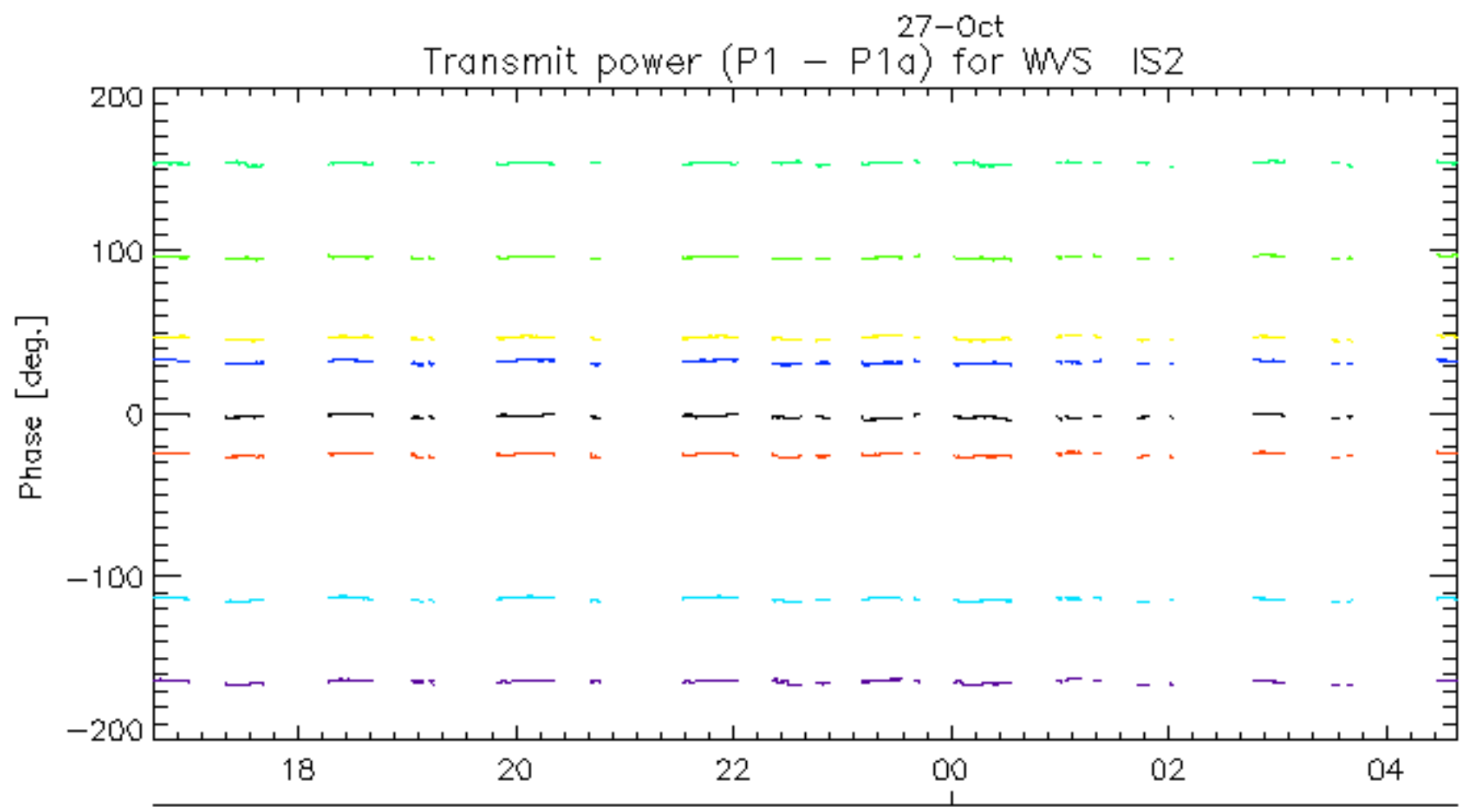
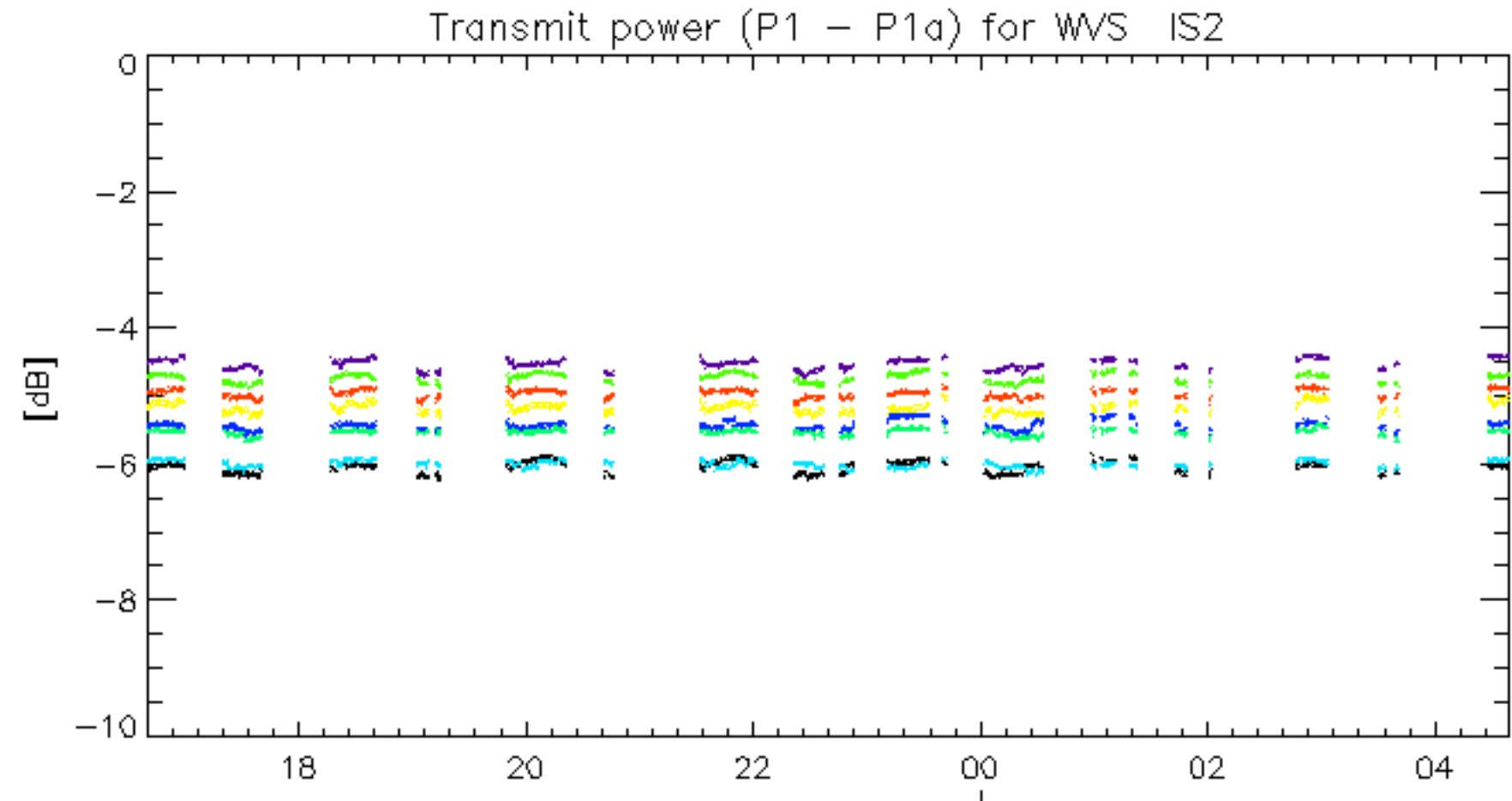


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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

No unavailabilities during the reported period.