

PRELIMINARY REPORT OF 051030

last update on Sun Oct 30 16:55:23 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 2005-10-29 00:00:00 to 2005-10-30 16:55:23

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	22	37	9	5	24
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	22	37	9	5	24
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	22	37	9	5	24
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	22	37	9	5	24

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	40	61	30	11	61
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	40	61	30	11	61
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	61	30	11	61
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	40	61	30	11	61

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	20051028 055516
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	-3.525425	0.008796	0.036426
7	P1	-2.913420	0.012677	-0.093000
11	P1	-4.084347	0.017218	-0.094779
15	P1	-6.035494	0.014578	-0.048431
19	P1	-3.162582	0.005454	-0.035139
22	P1	-4.458711	0.013781	-0.066250
26	P1	-4.263908	0.014698	0.054841
30	P1	-5.715053	0.008800	-0.047616
3	P1	-15.347343	0.179184	0.283923
7	P1	-16.309469	0.120958	-0.193030
11	P1	-16.289238	0.306893	-0.383252
15	P1	-13.365003	0.112702	-0.144666
19	P1	-13.648668	0.045645	-0.180081
22	P1	-16.187393	0.472599	-0.360533
26	P1	-16.087528	0.259215	0.390898
30	P1	-16.446501	0.210998	-0.248161

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.864969	0.098879	-0.003077
7	P2	-22.684385	0.104156	0.082677
11	P2	-16.718000	0.113929	0.165058
15	P2	-7.229597	0.101531	-0.048130
19	P2	-9.184196	0.094576	-0.063760
22	P2	-17.749132	0.100544	-0.146375
26	P2	-16.120314	0.096305	-0.132840
30	P2	-19.627321	0.090631	-0.022454

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.196995	0.006010	-0.040680
7	P3	-8.196995	0.006010	-0.040680
11	P3	-8.196995	0.006010	-0.040680
15	P3	-8.196995	0.006010	-0.040680
19	P3	-8.196995	0.006010	-0.040680
22	P3	-8.196995	0.006010	-0.040680
26	P3	-8.196995	0.006010	-0.040680
30	P3	-8.196995	0.006010	-0.040680

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	-3.663423	0.007070	-0.006723
7	P1	-2.817858	0.012018	0.086986
11	P1	-2.852475	0.012169	-0.002195
15	P1	-3.382718	0.018256	0.028270
19	P1	-3.353815	0.011188	-0.034464
22	P1	-5.137266	0.019350	0.051069
26	P1	-5.786867	0.017112	-0.050442
30	P1	-5.216461	0.026446	-0.042926
3	P1	-11.407117	0.034205	-0.019872
7	P1	-9.926707	0.041168	0.003837
11	P1	-10.018327	0.057826	-0.019622
15	P1	-10.565500	0.091892	0.088144
19	P1	-15.470193	0.069477	-0.103703
22	P1	-20.538273	1.155510	-0.537796
26	P1	-17.130615	0.374065	-0.270189
30	P1	-18.676287	0.386357	0.592724

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.706675	0.037010	-0.009640
7	P2	-23.067509	0.088573	-0.107263
11	P2	-11.746161	0.026398	0.017030
15	P2	-4.908335	0.029271	-0.109522
19	P2	-6.909761	0.025099	-0.060076
22	P2	-8.118286	0.024742	-0.076203
26	P2	-23.884693	0.038553	-0.142904
30	P2	-22.069372	0.026803	-0.064738

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.040240	0.002810	-0.042184
7	P3	-8.040355	0.002819	-0.041980
11	P3	-8.040302	0.002815	-0.042173
15	P3	-8.040301	0.002812	-0.042233
19	P3	-8.040327	0.002826	-0.042114
22	P3	-8.040320	0.002828	-0.042448
26	P3	-8.040400	0.002828	-0.041992
30	P3	-8.040302	0.002821	-0.042260

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	0.000561428
	stdev	1.69527e-07
MEAN Q	mean	0.000544762
	stdev	2.13300e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137795
	stdev	0.00111343
STDEV Q	mean	0.138139
	stdev	0.00112995



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005102[890]

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_1PNPDE20051028_054402_00000352042_00048_19140_9592.N1	1	0
ASA_IMM_1PNPDE20051029_005058_00002402042_00059_19151_9651.N1	1	0



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

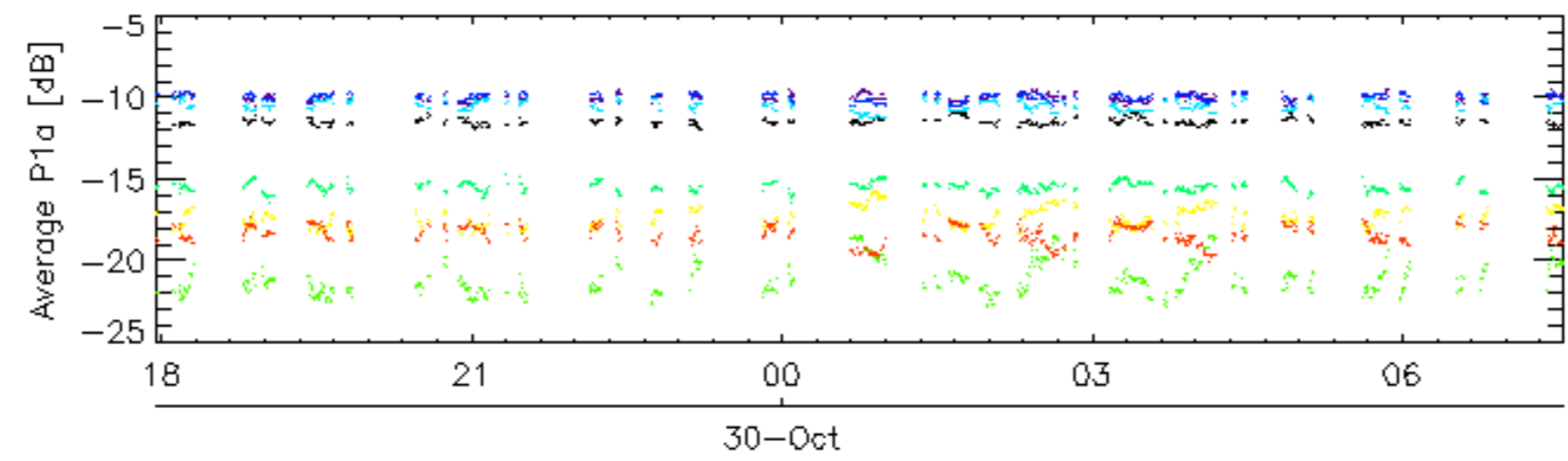
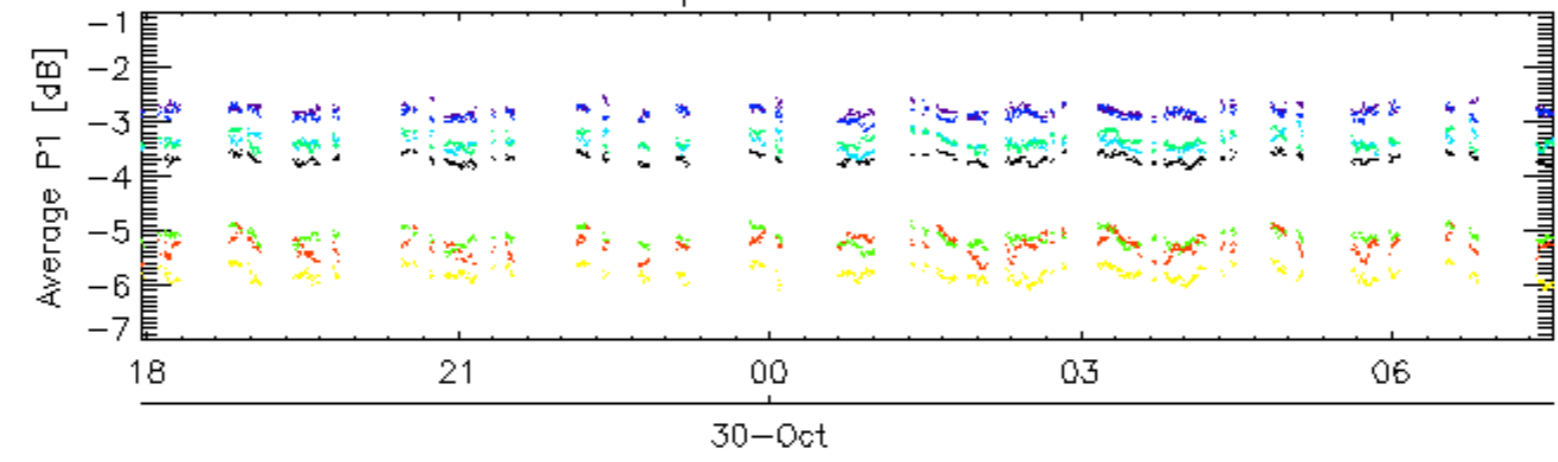
Ascending

Descending

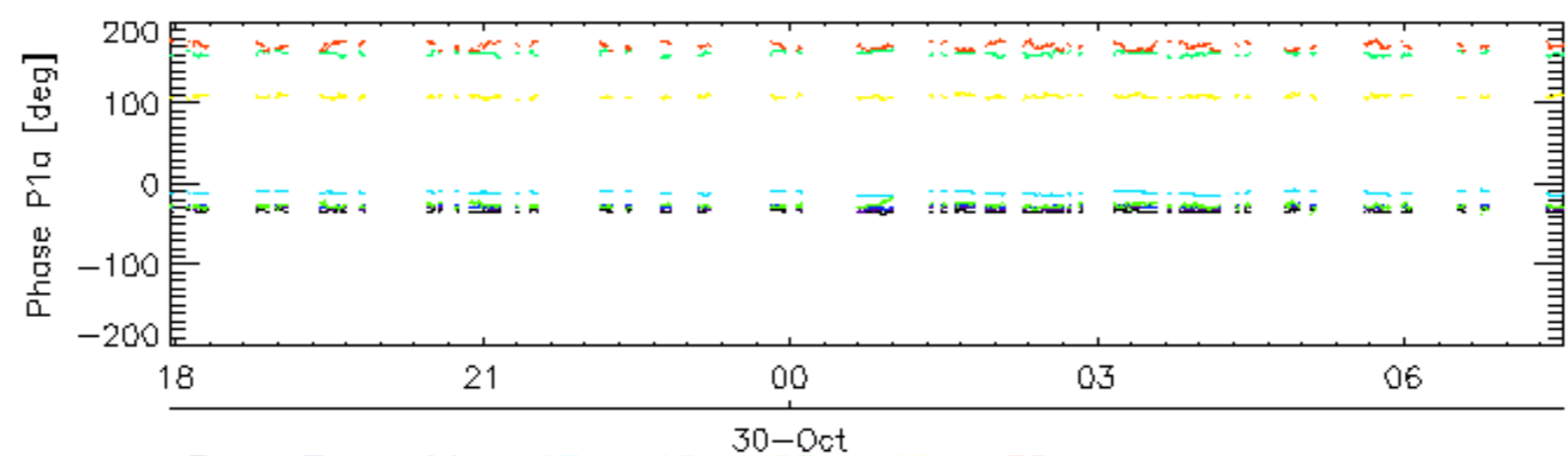
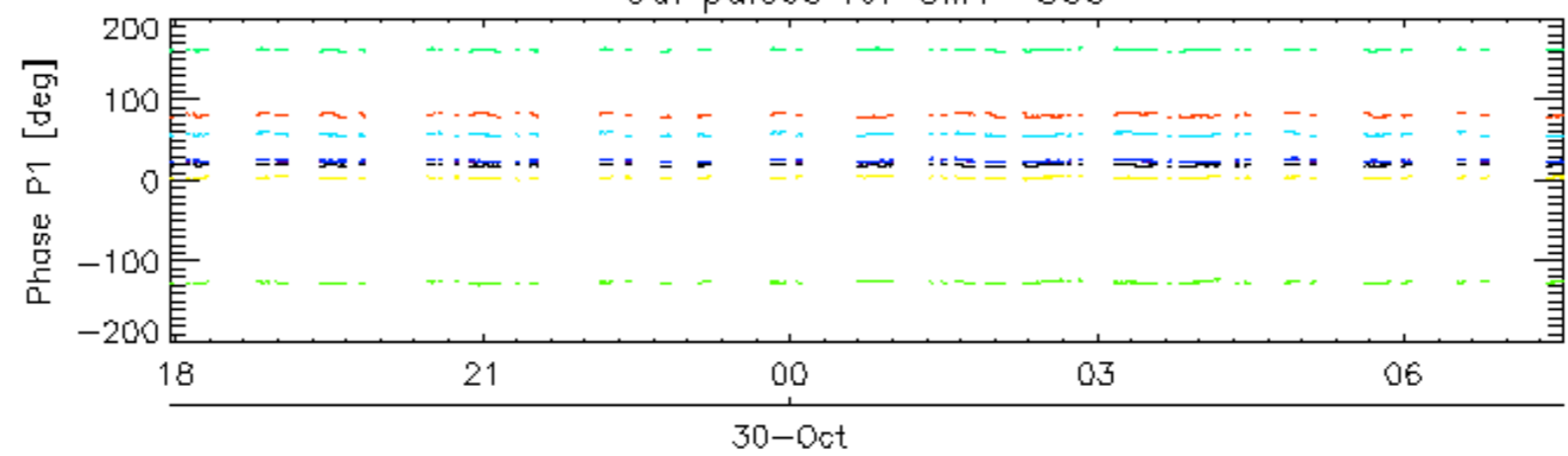
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

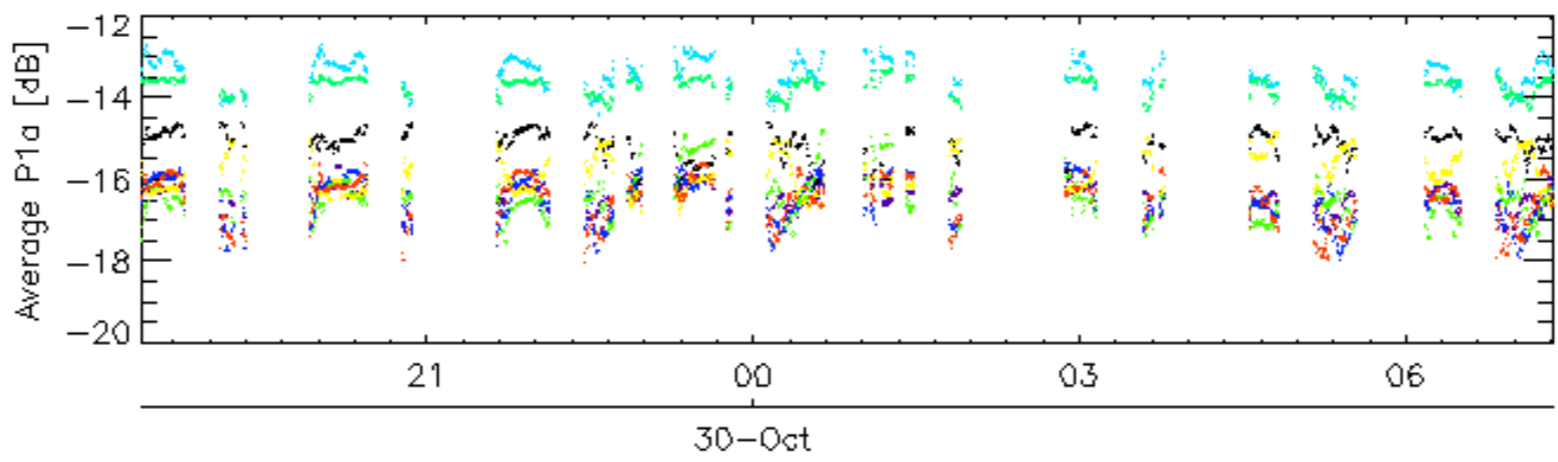
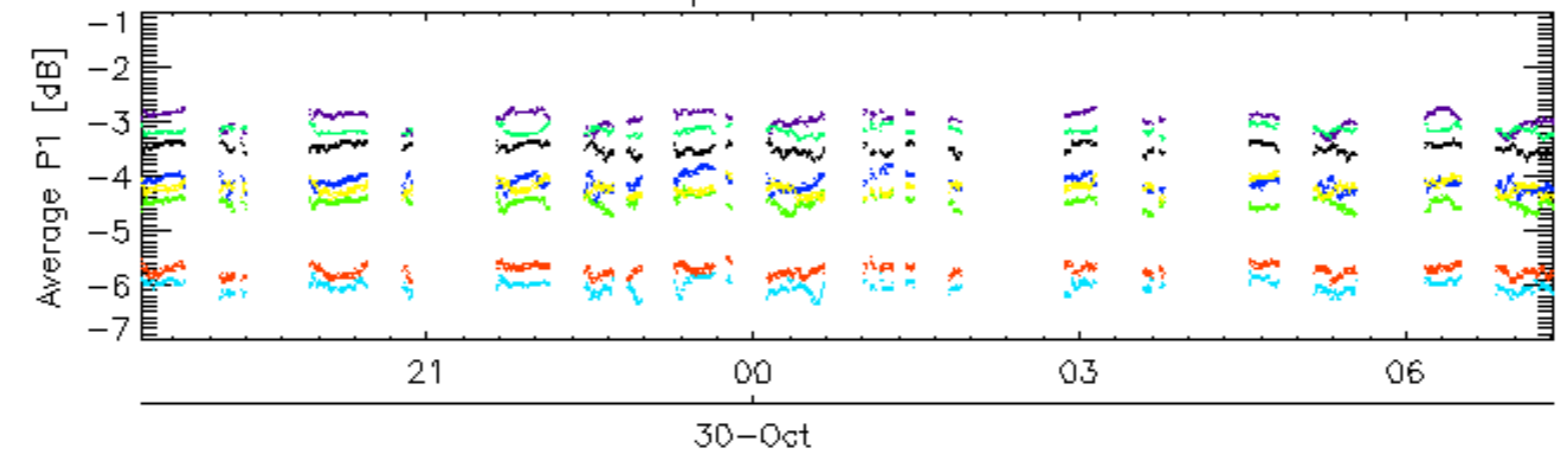


Cal pulses for GM1 SS3

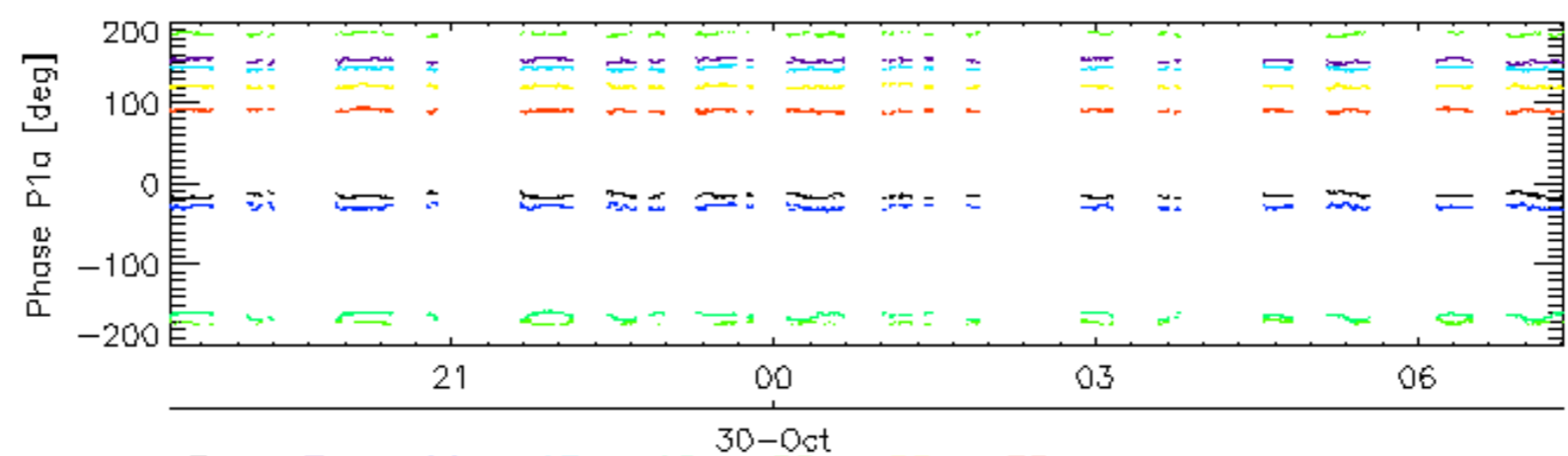
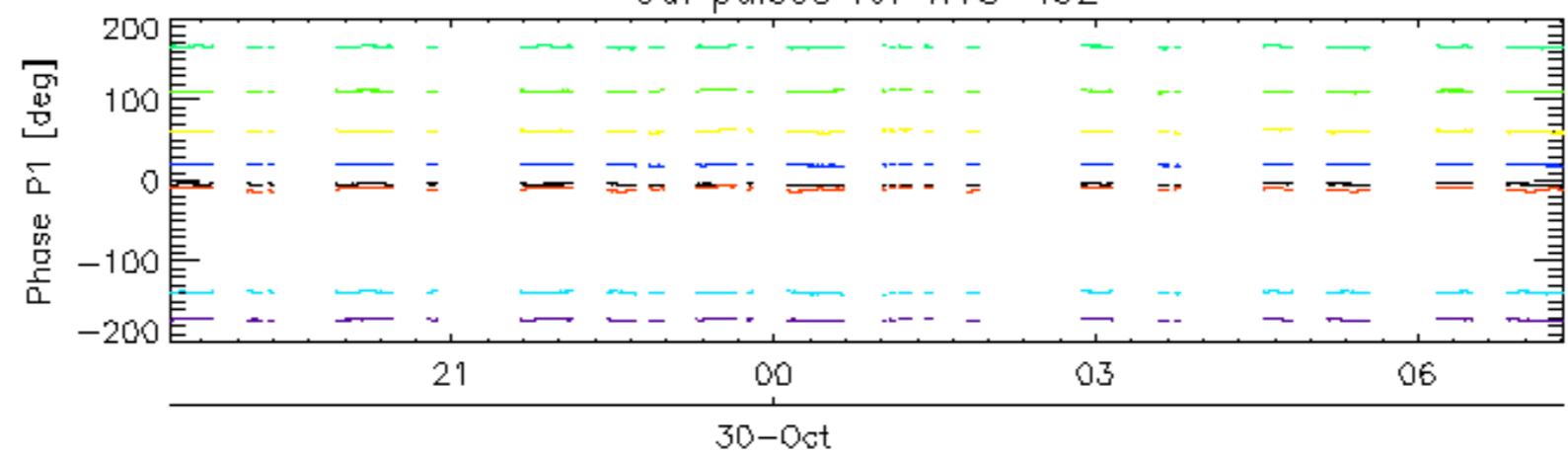


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

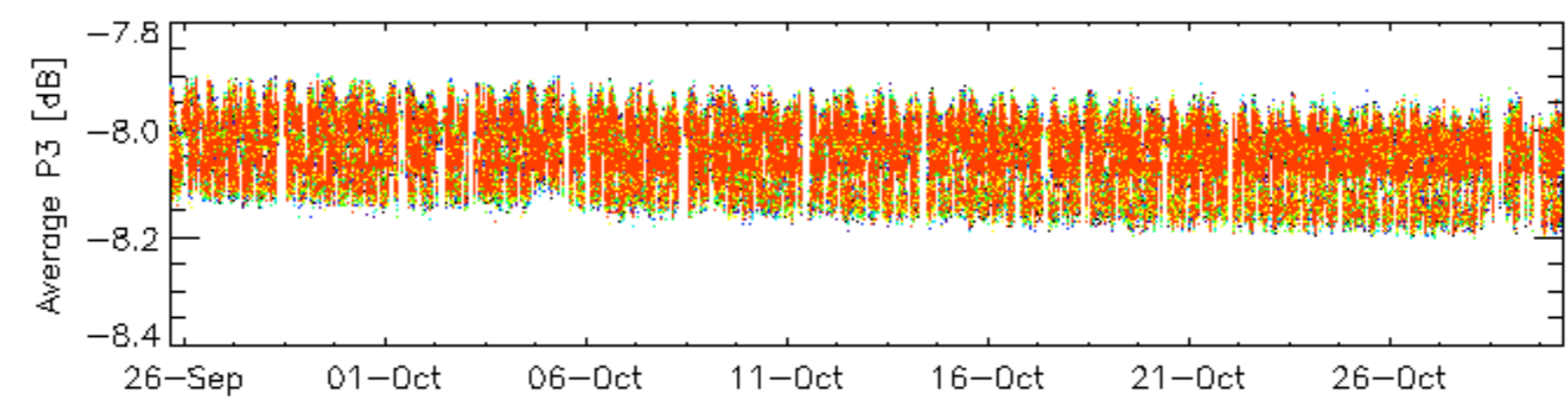
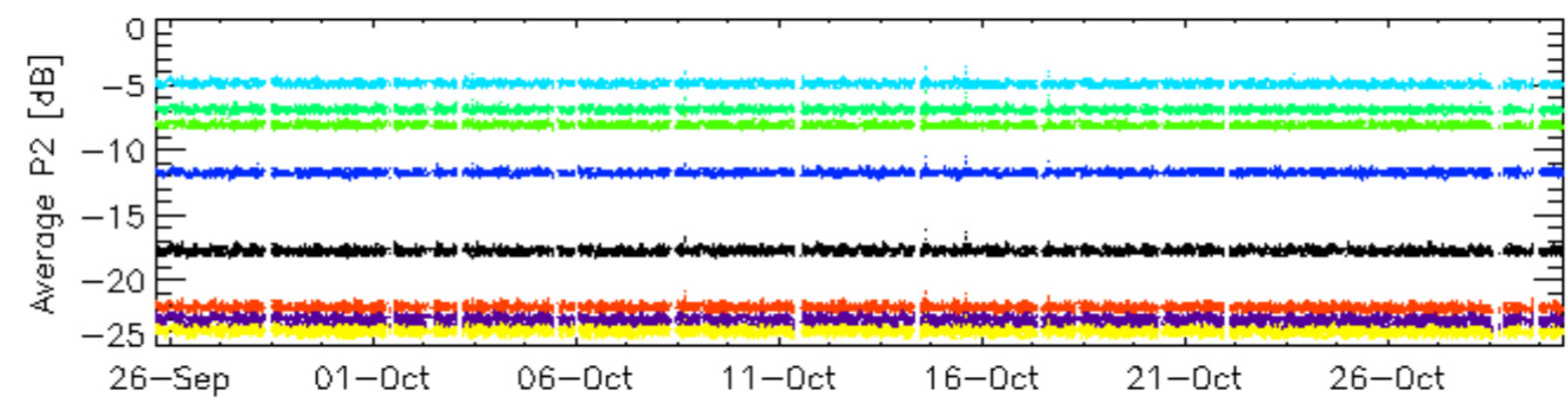
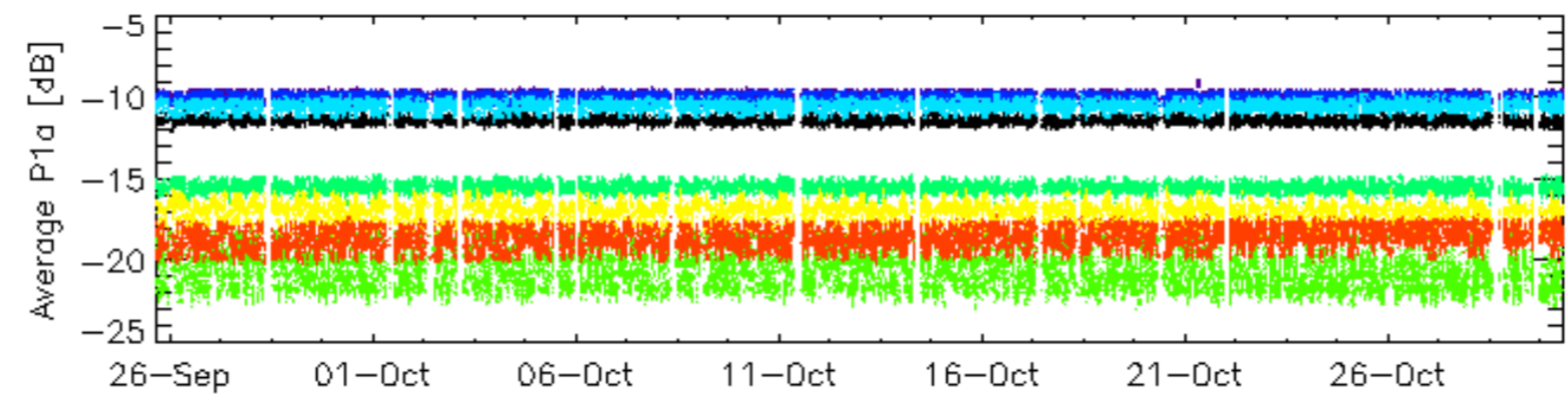
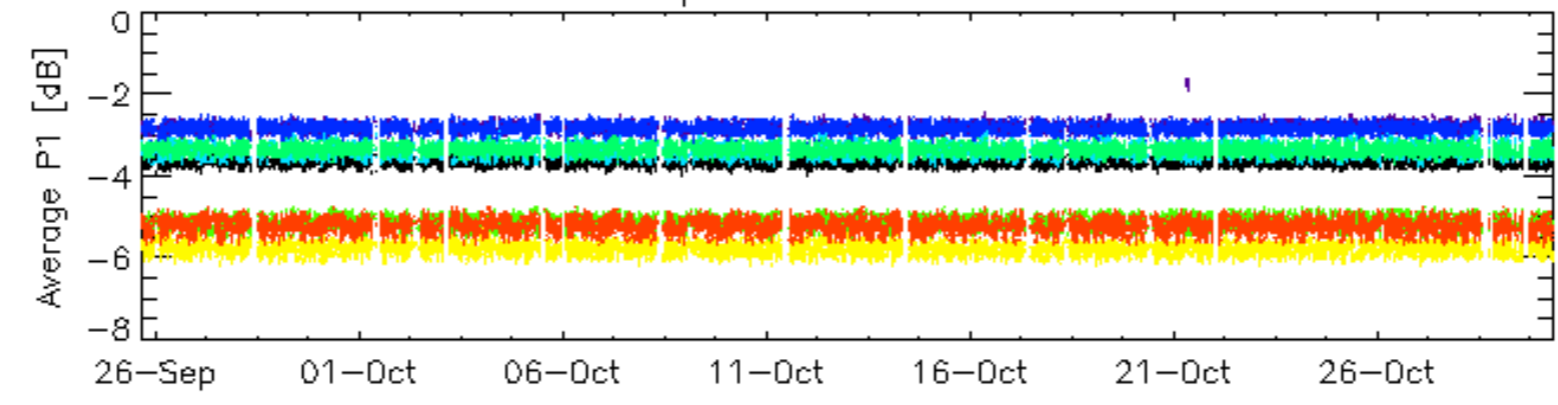


Cal pulses for WVS IS2



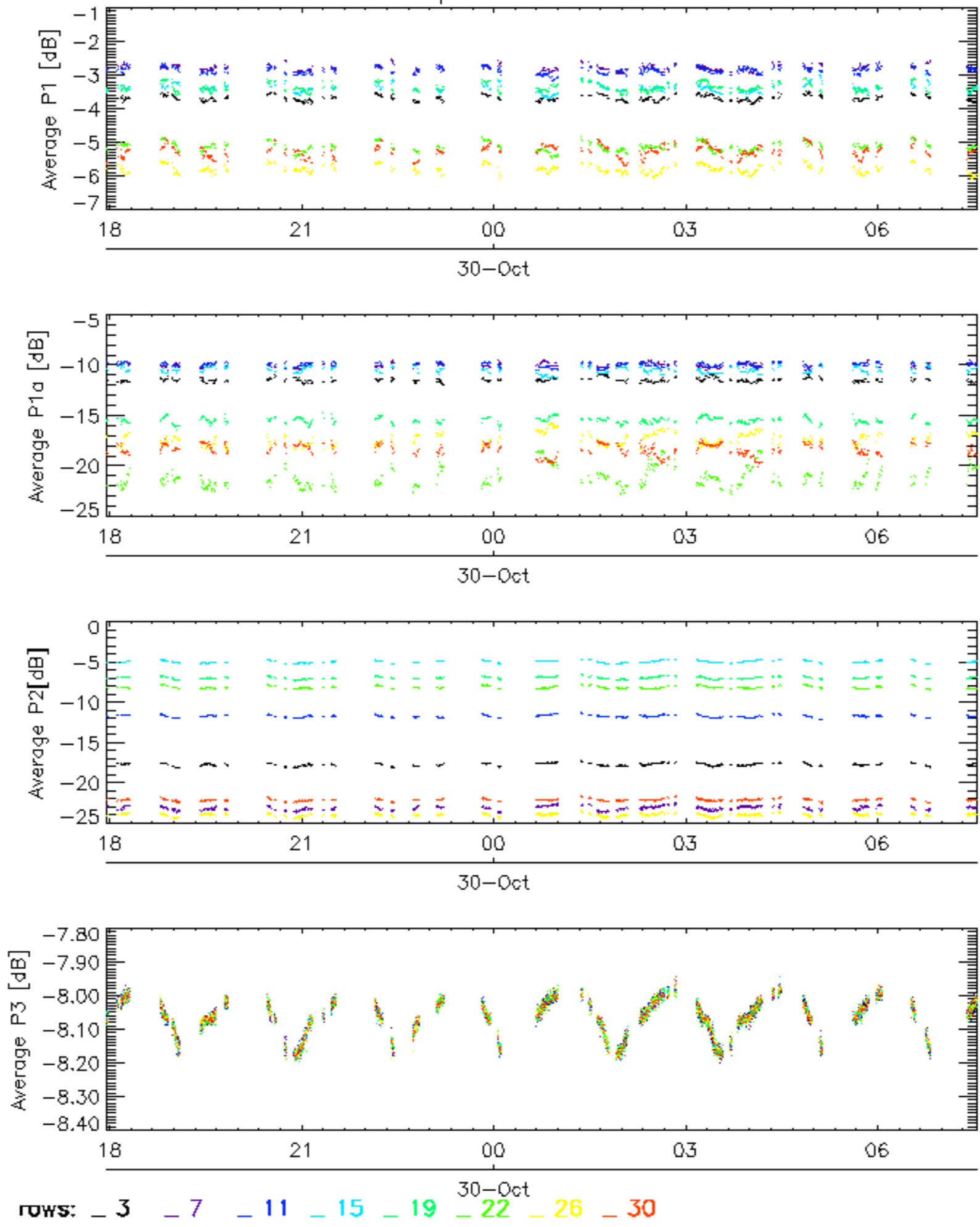
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

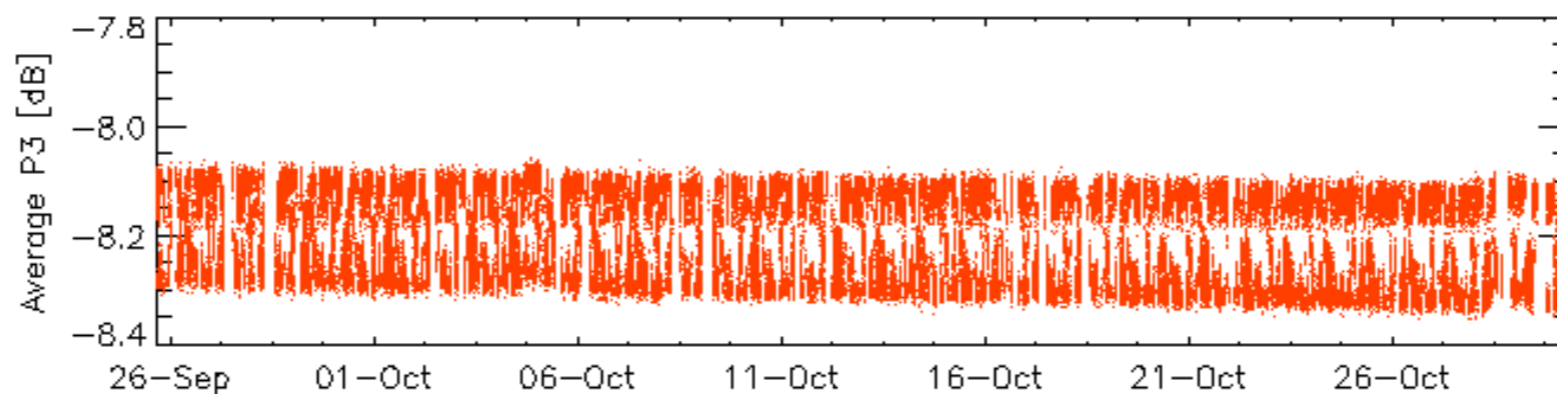
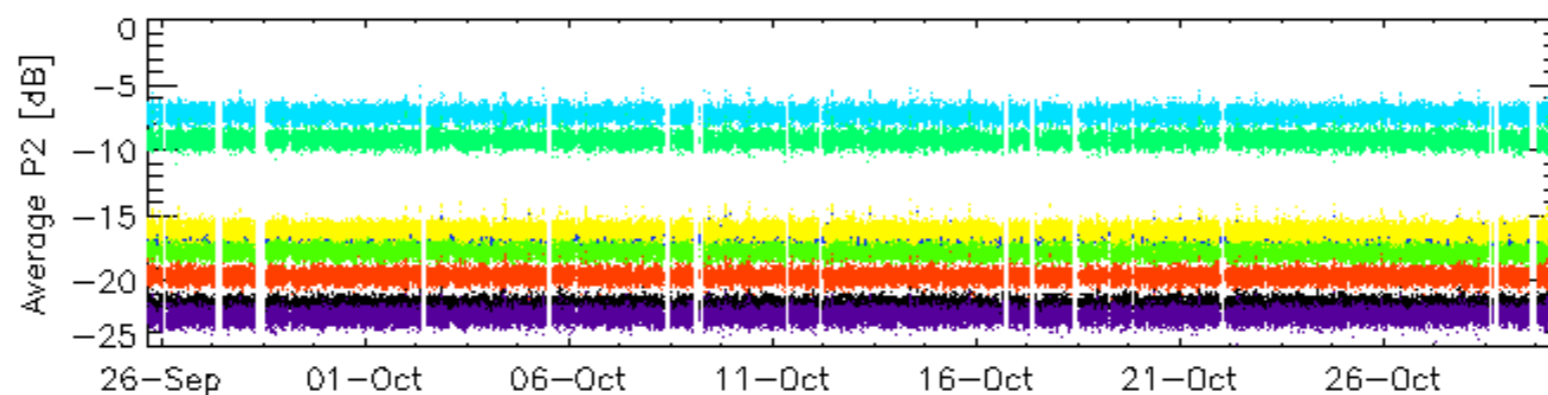
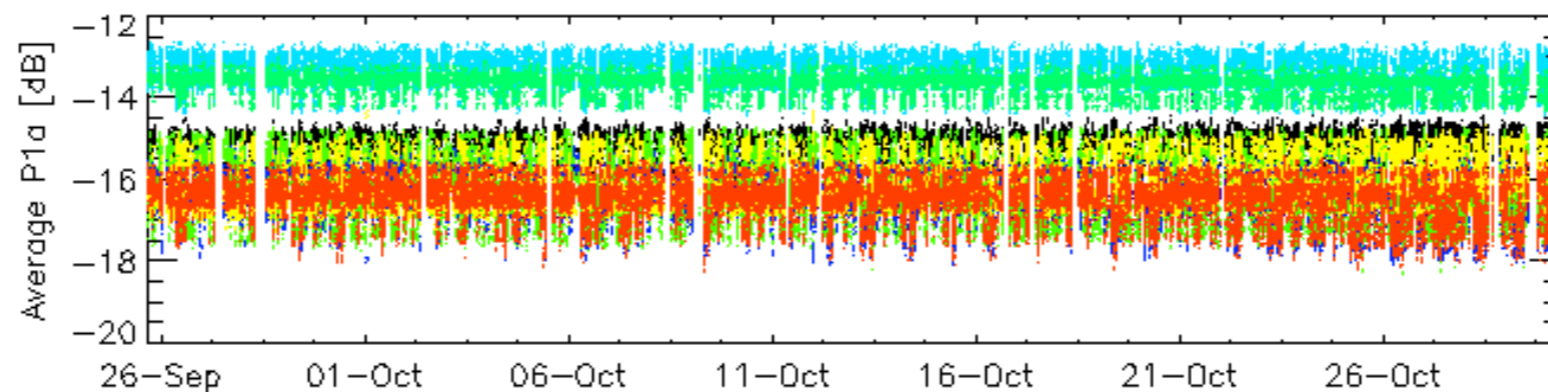
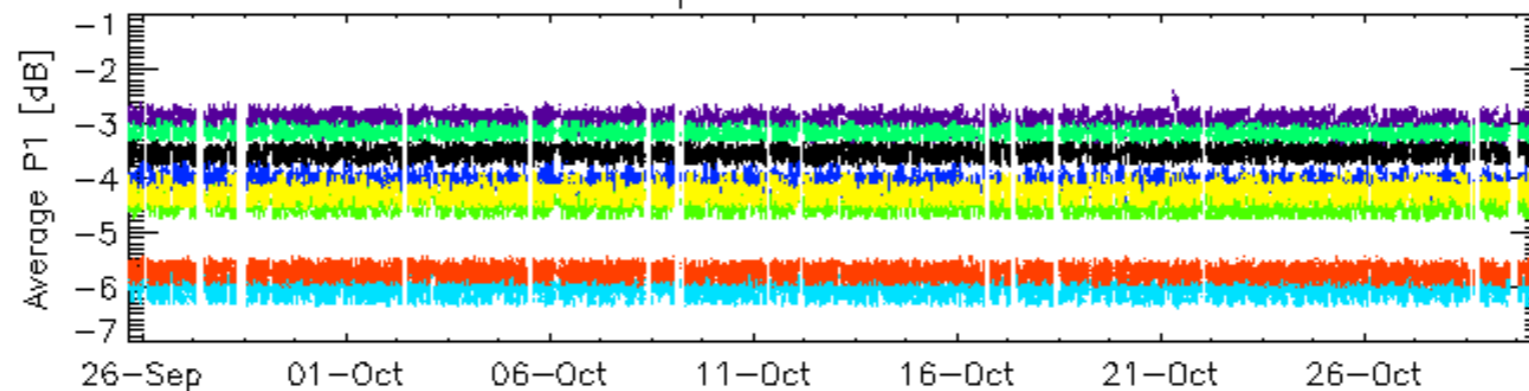


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

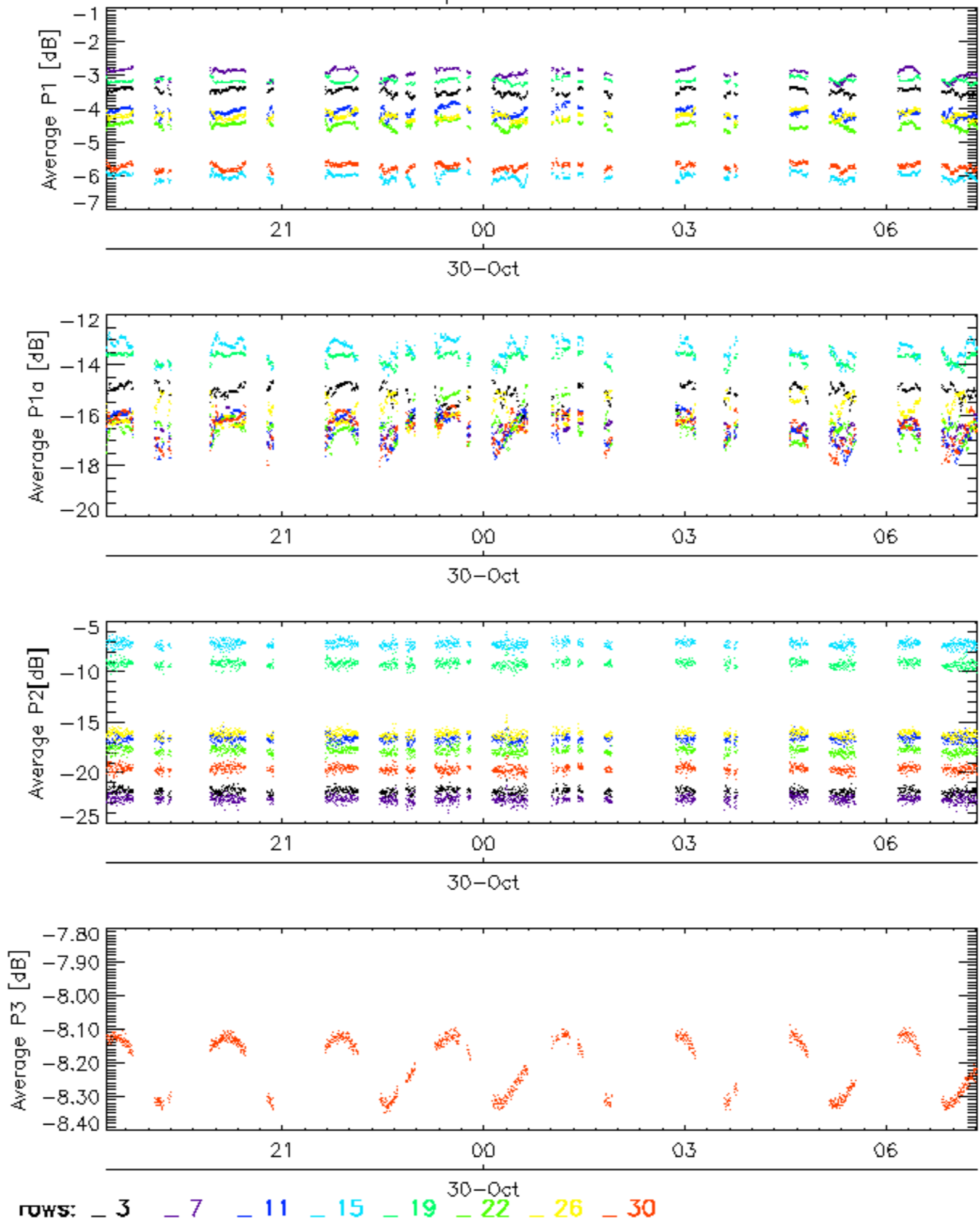


Cal pulses for WVS IS2

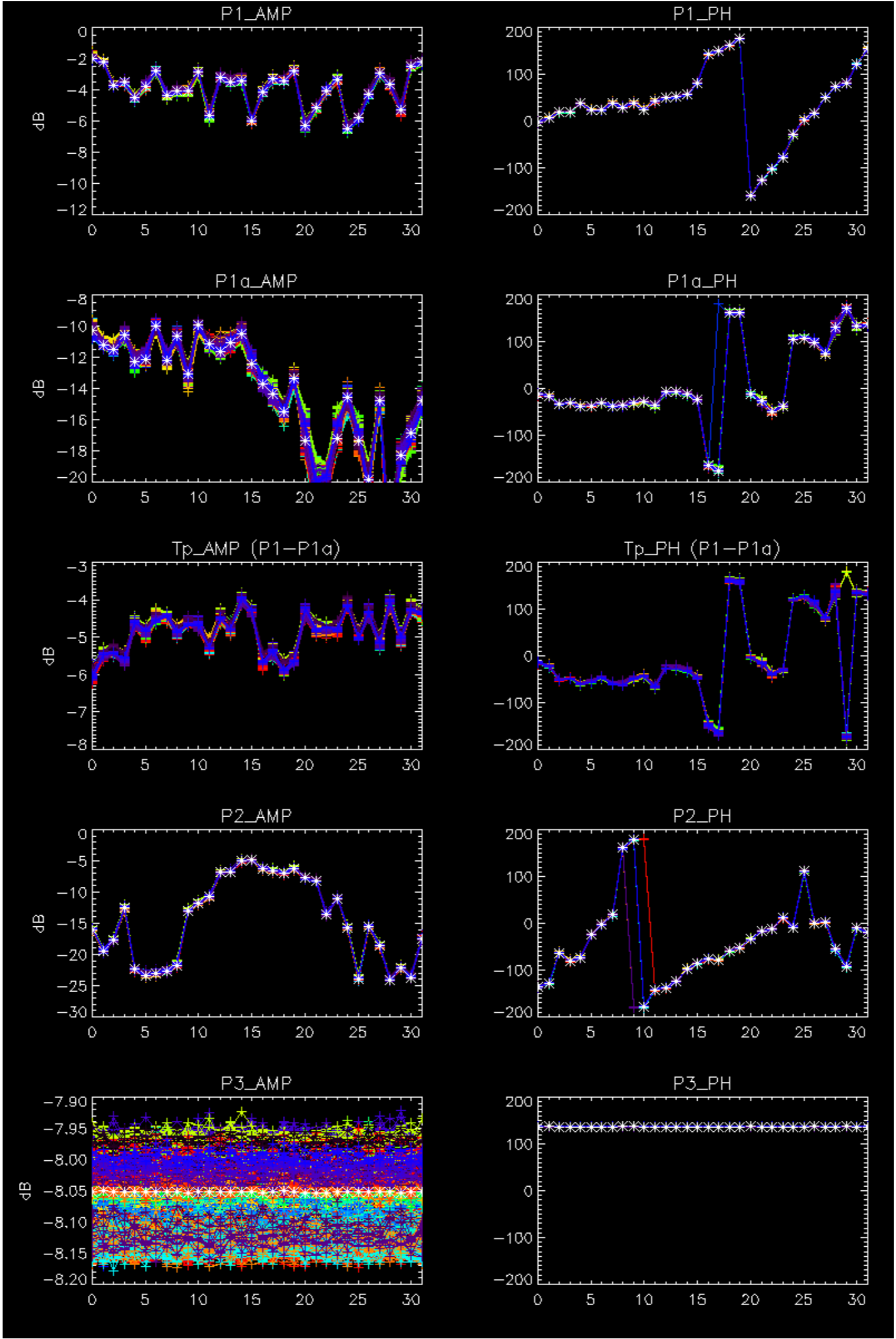


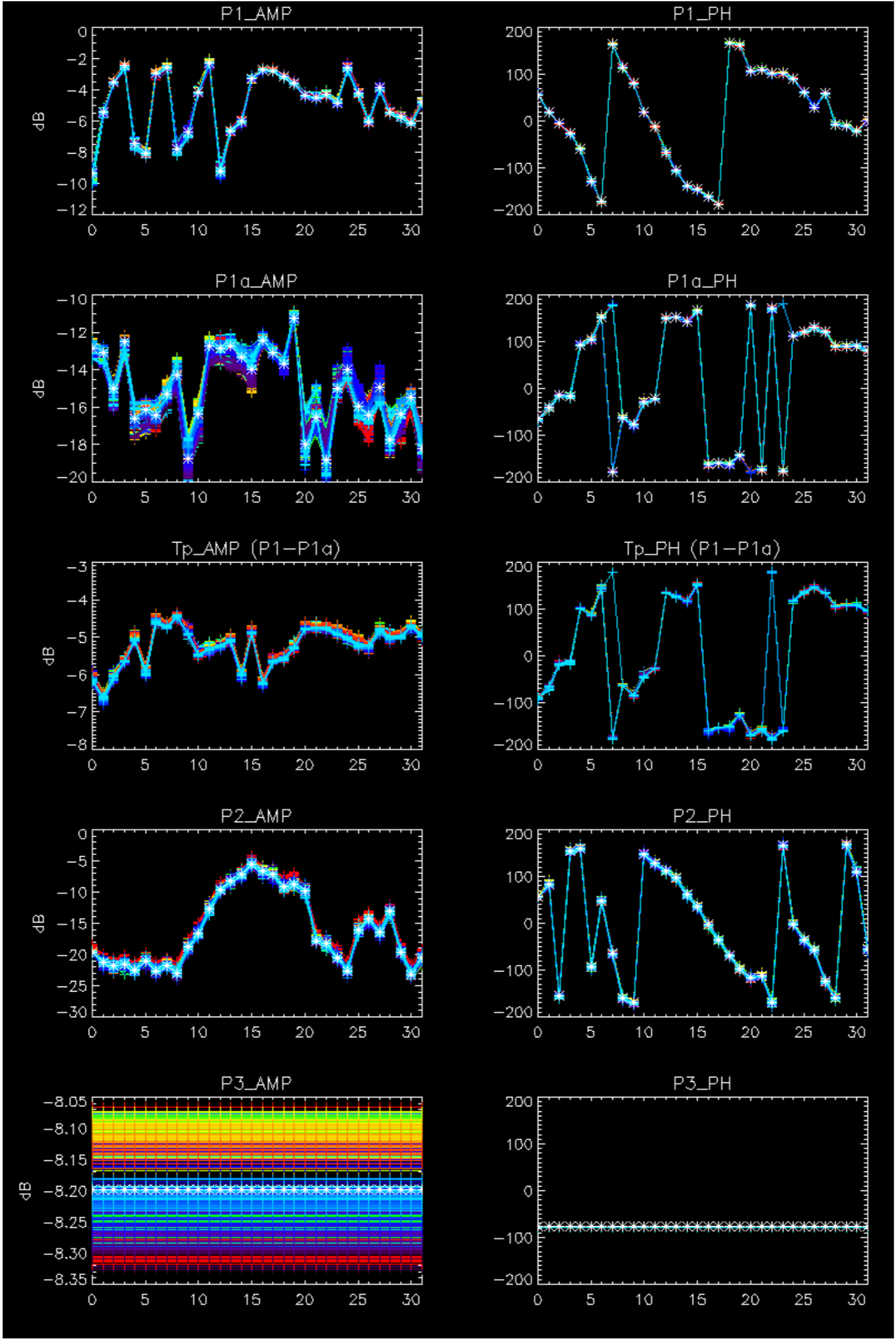
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



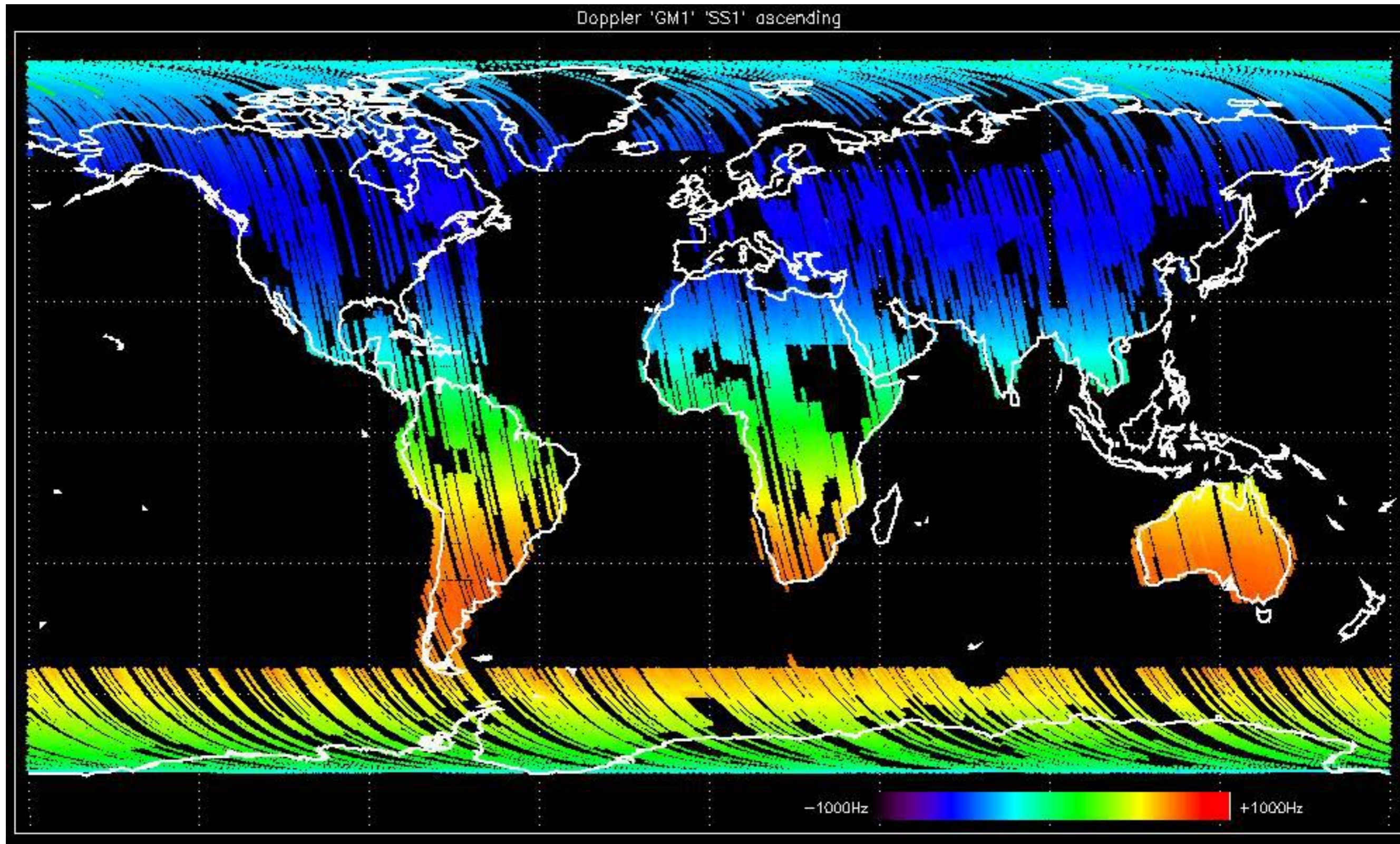
No anomalies observed.



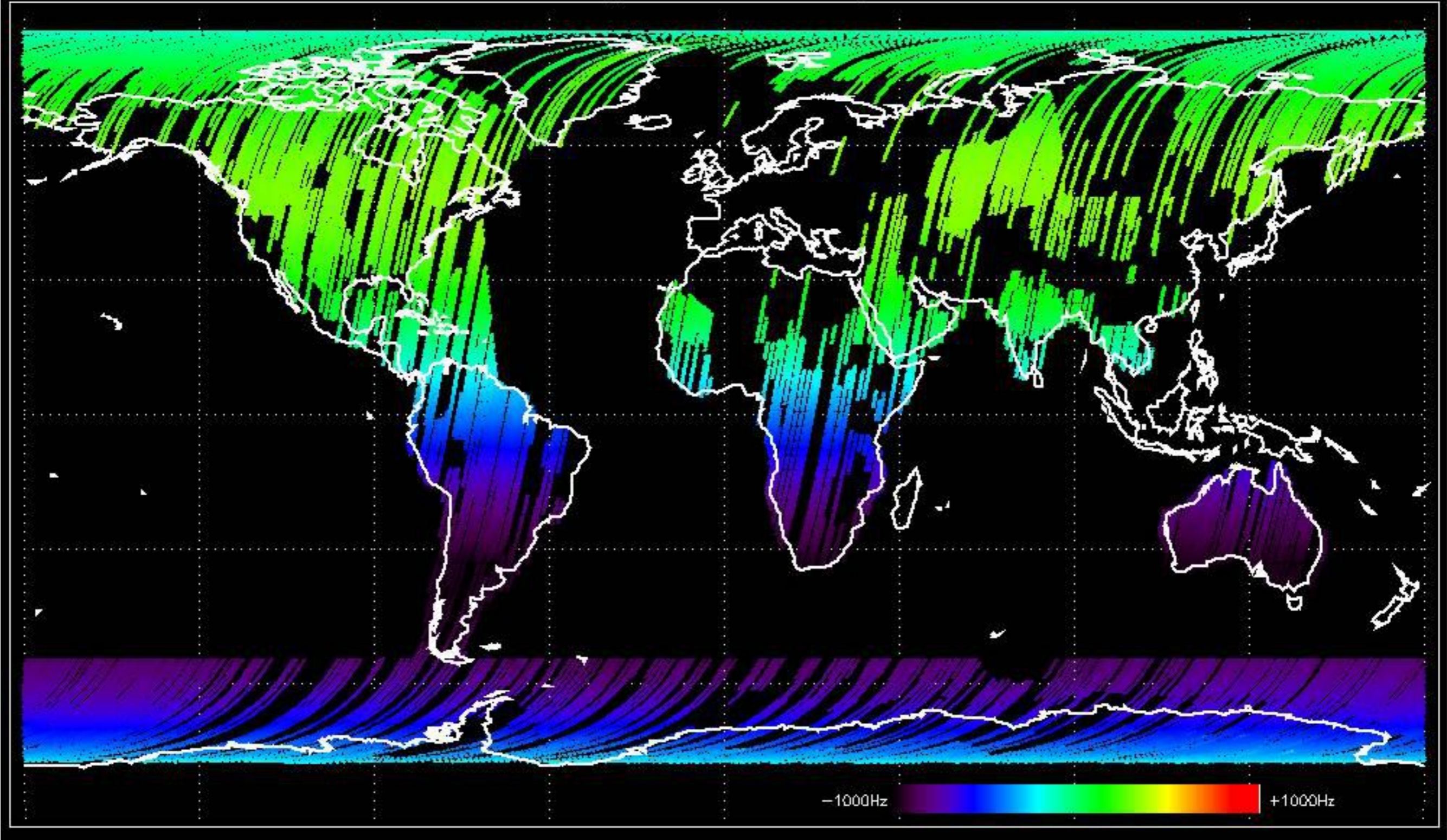


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

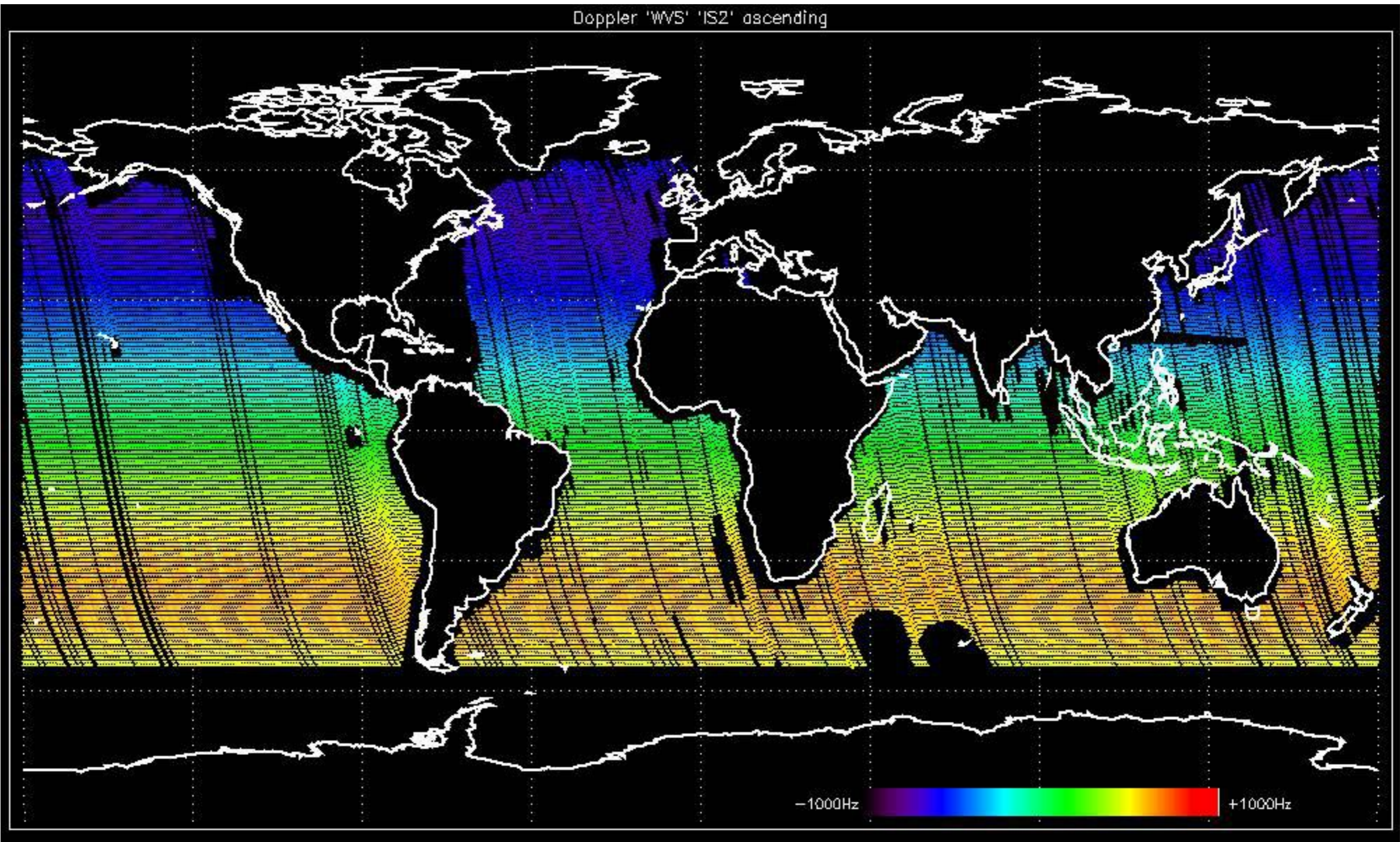
Doppler 'GM1' 'SS1' ascending



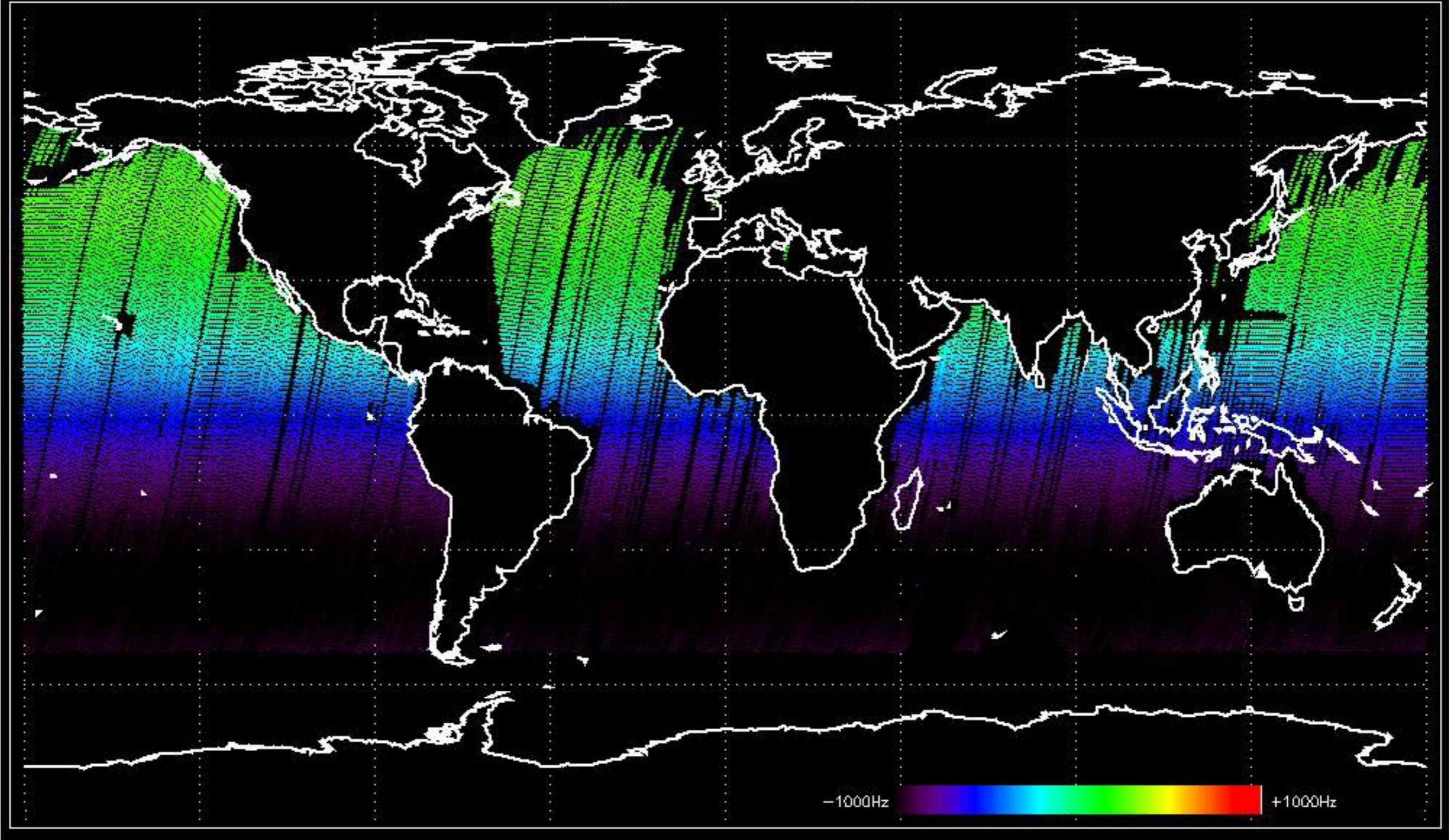
Doppler 'GM1' 'SS1' descending



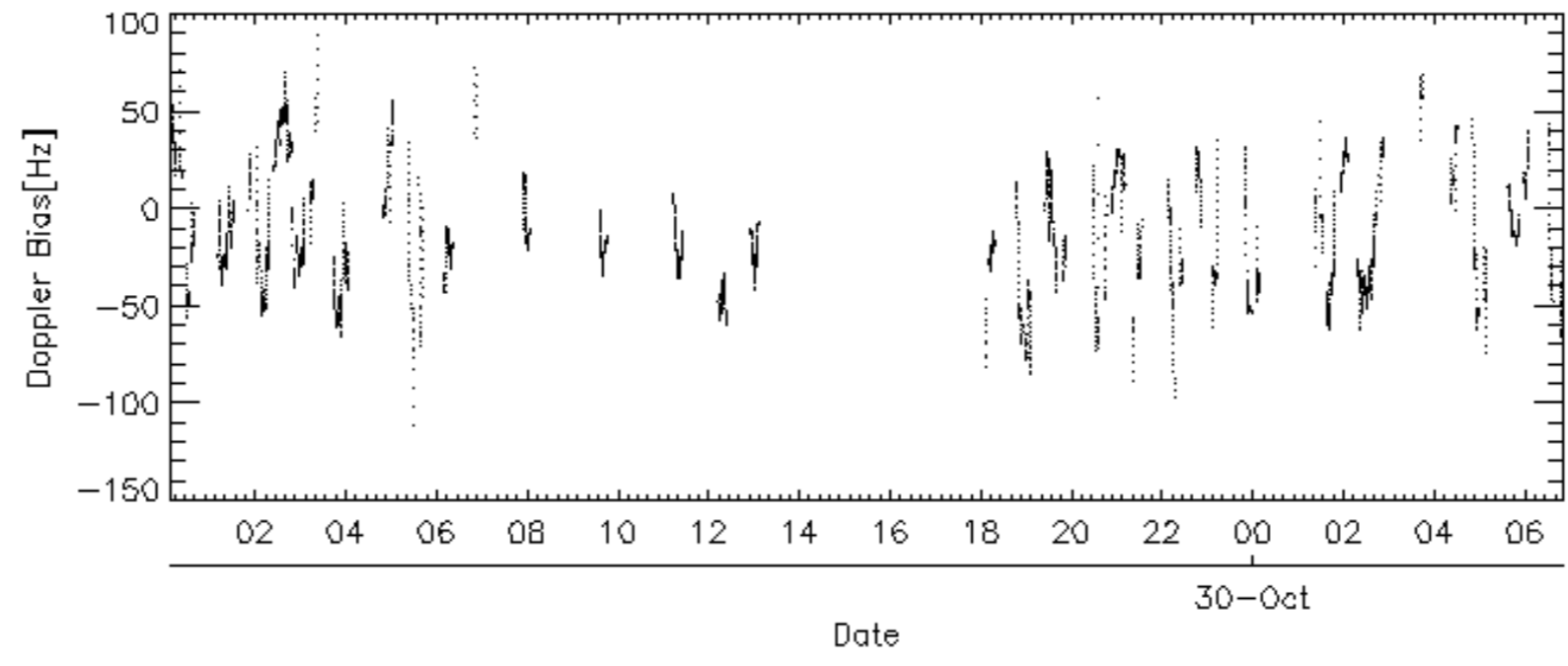
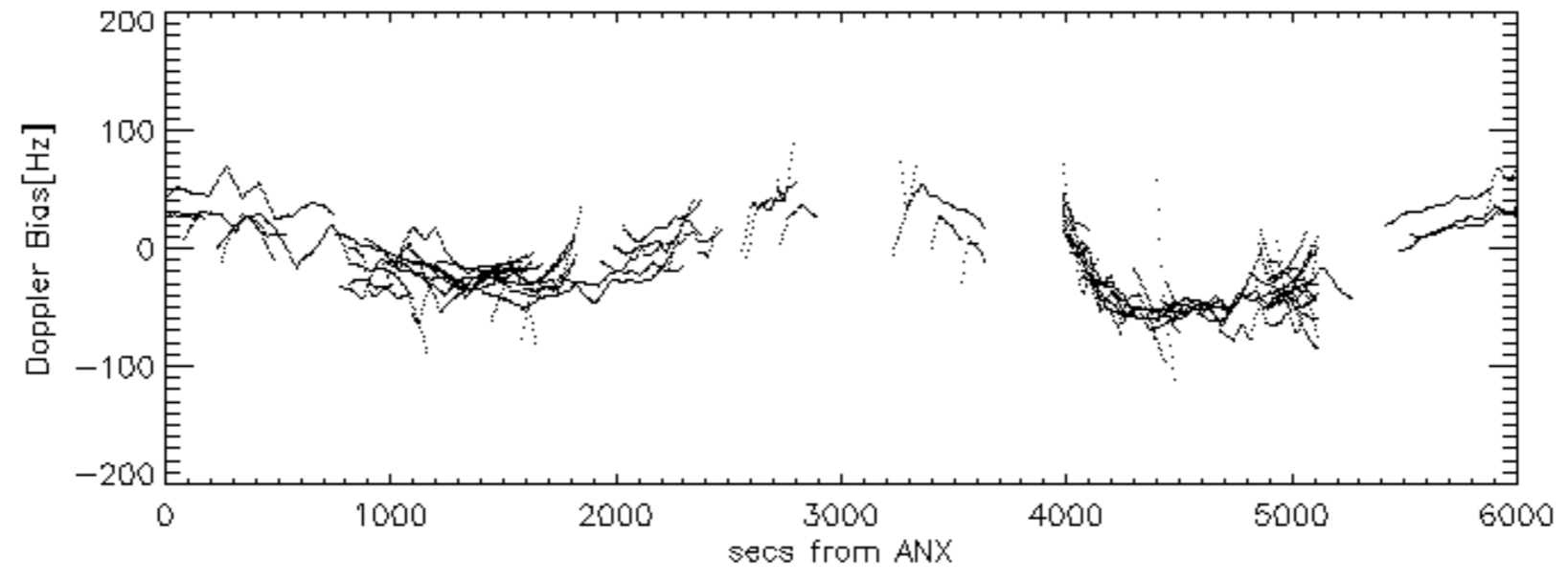
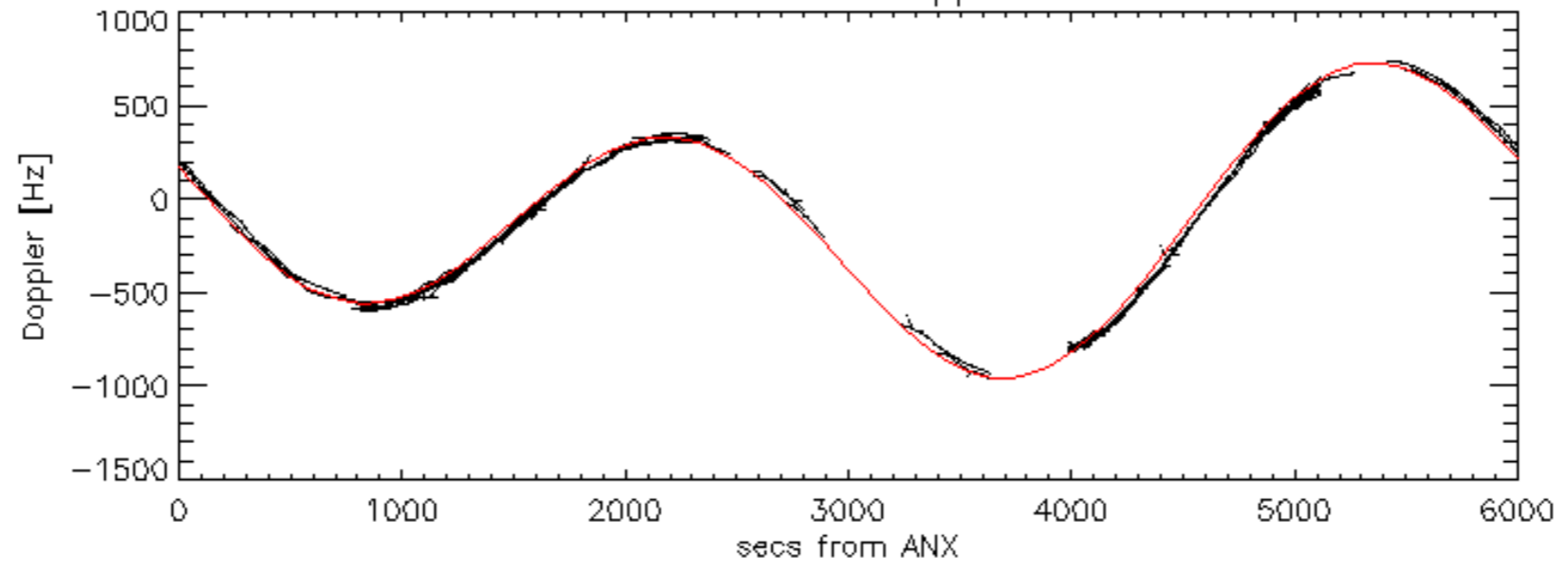
Doppler 'WVS' 'IS2' ascending

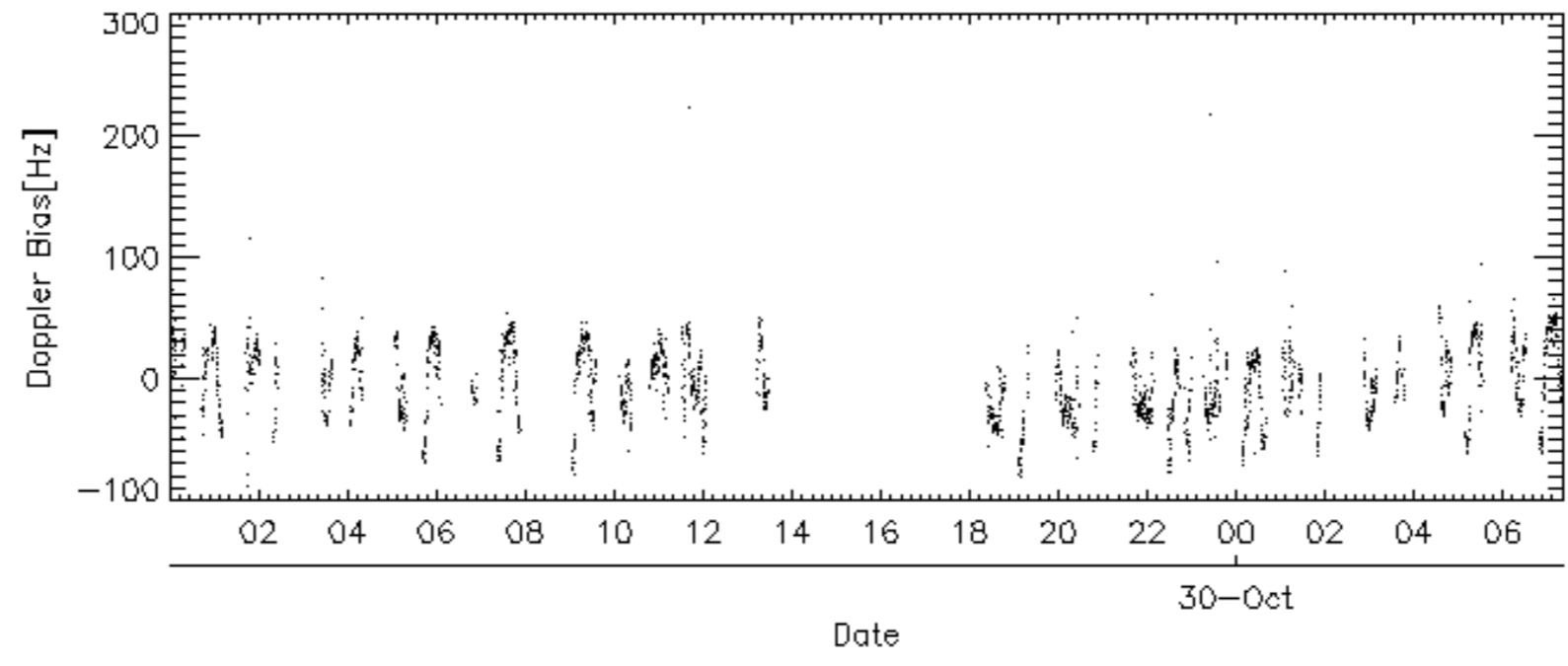
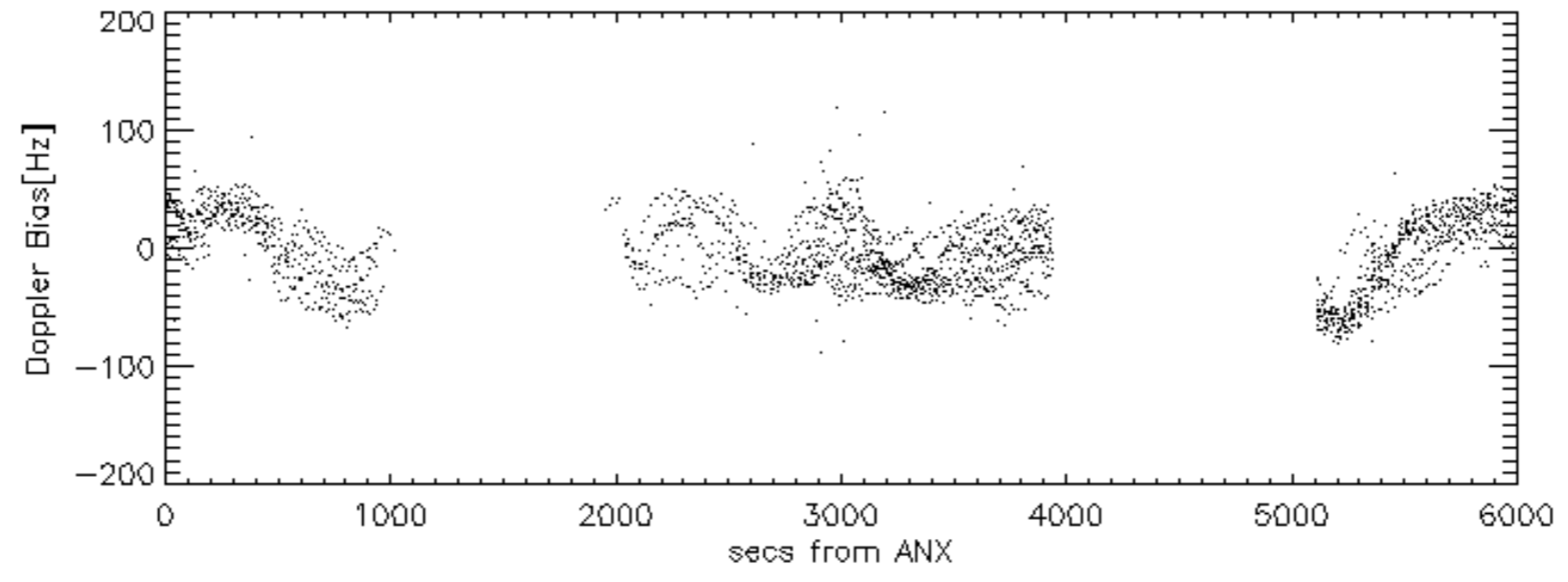
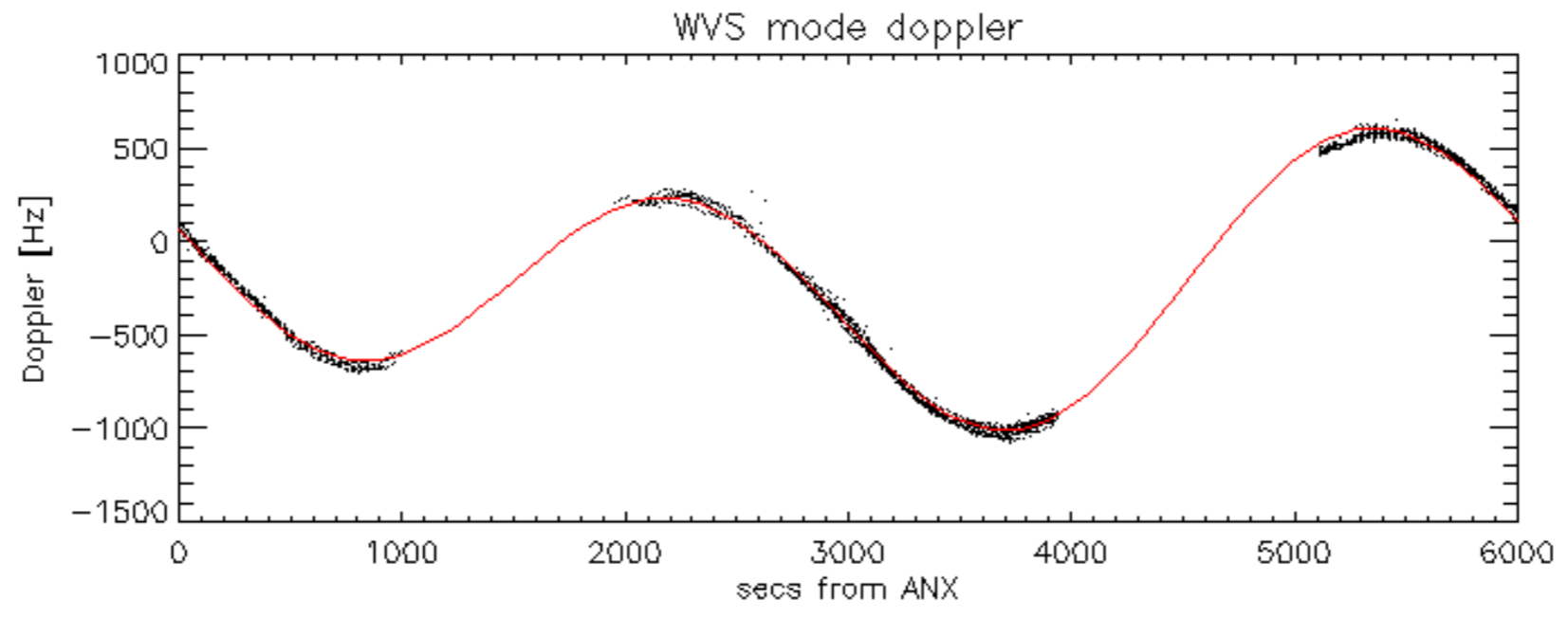


Doppler 'WVS' 'IS2' descending

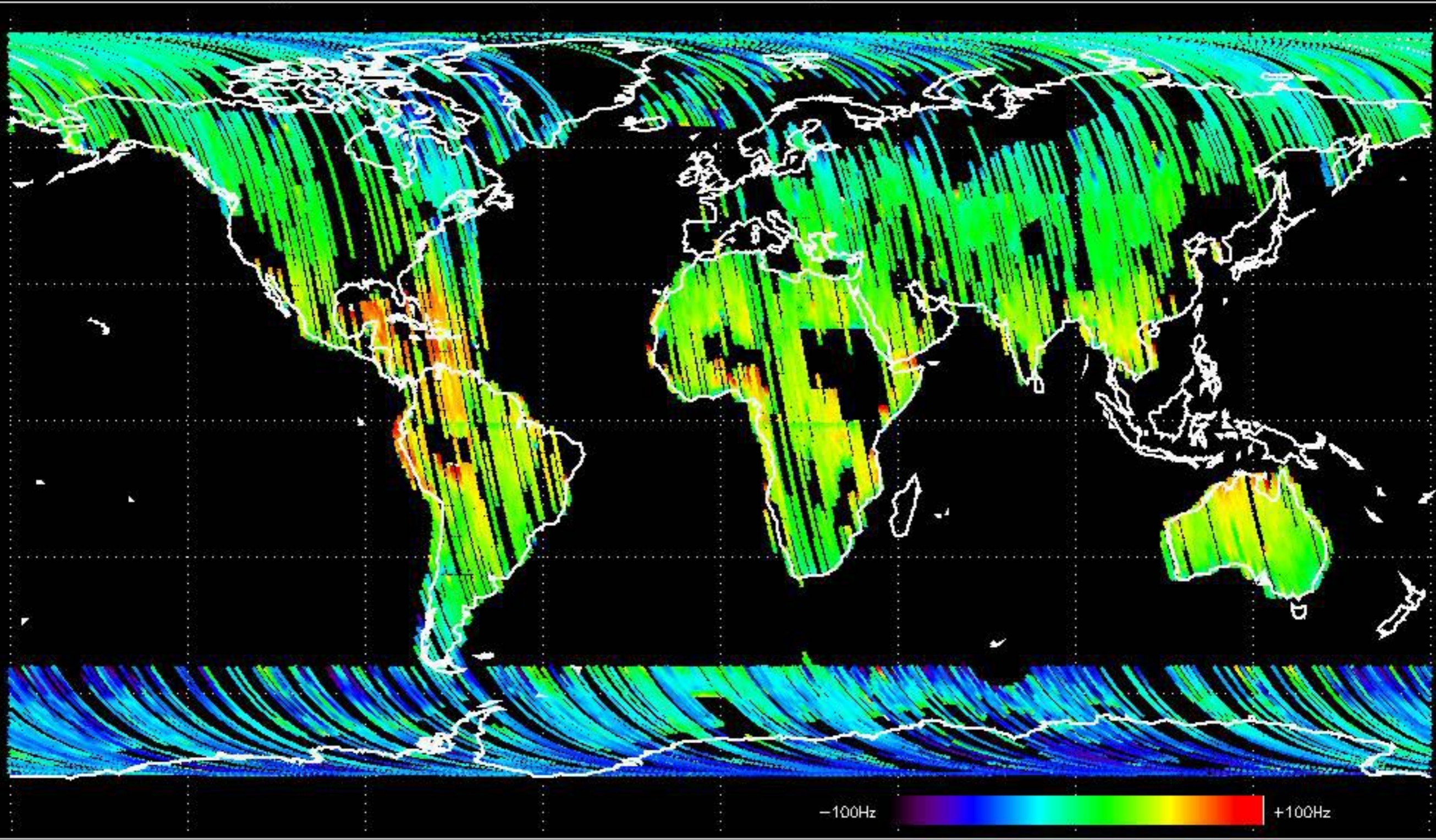


GM1 mode doppler

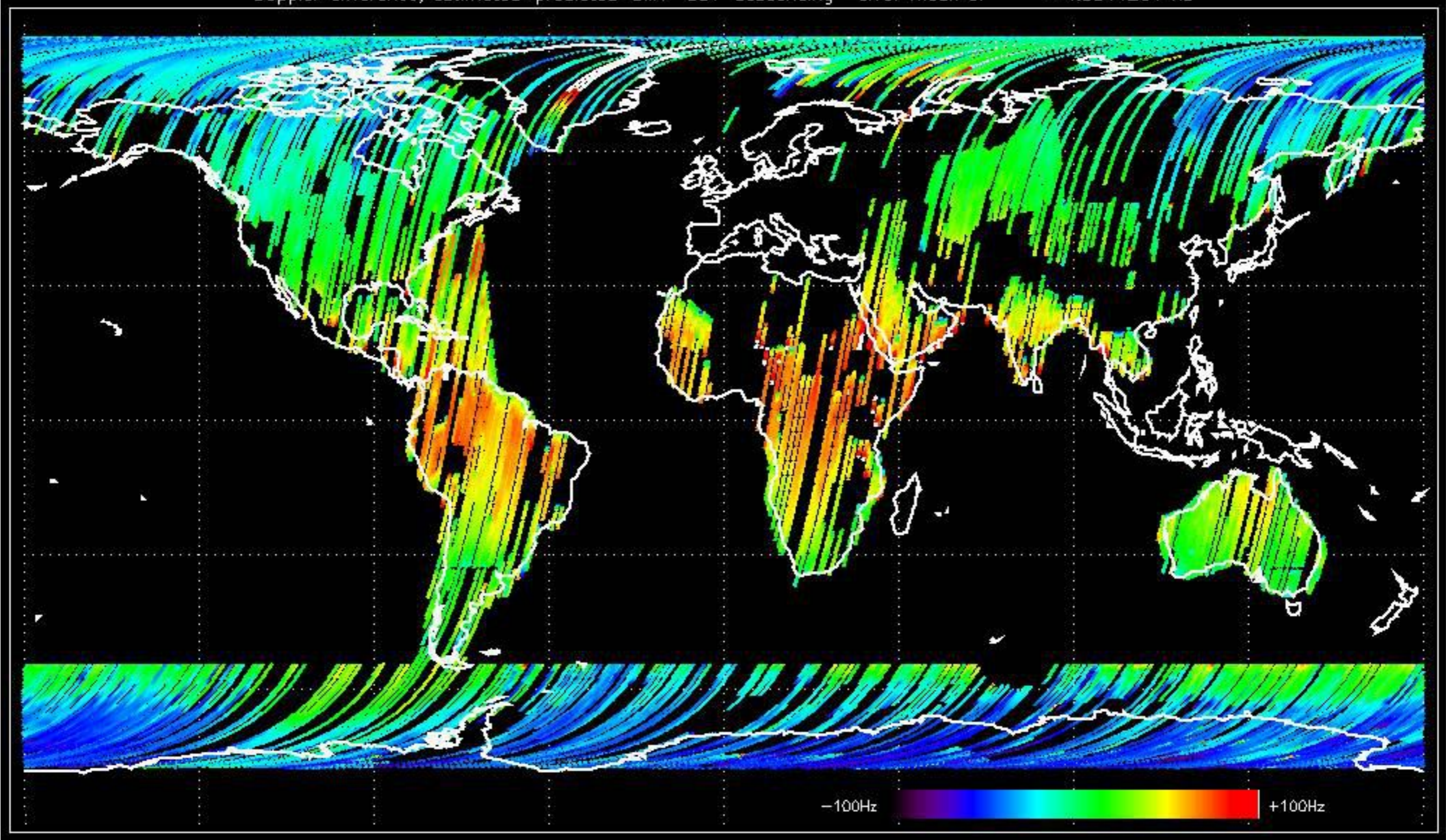




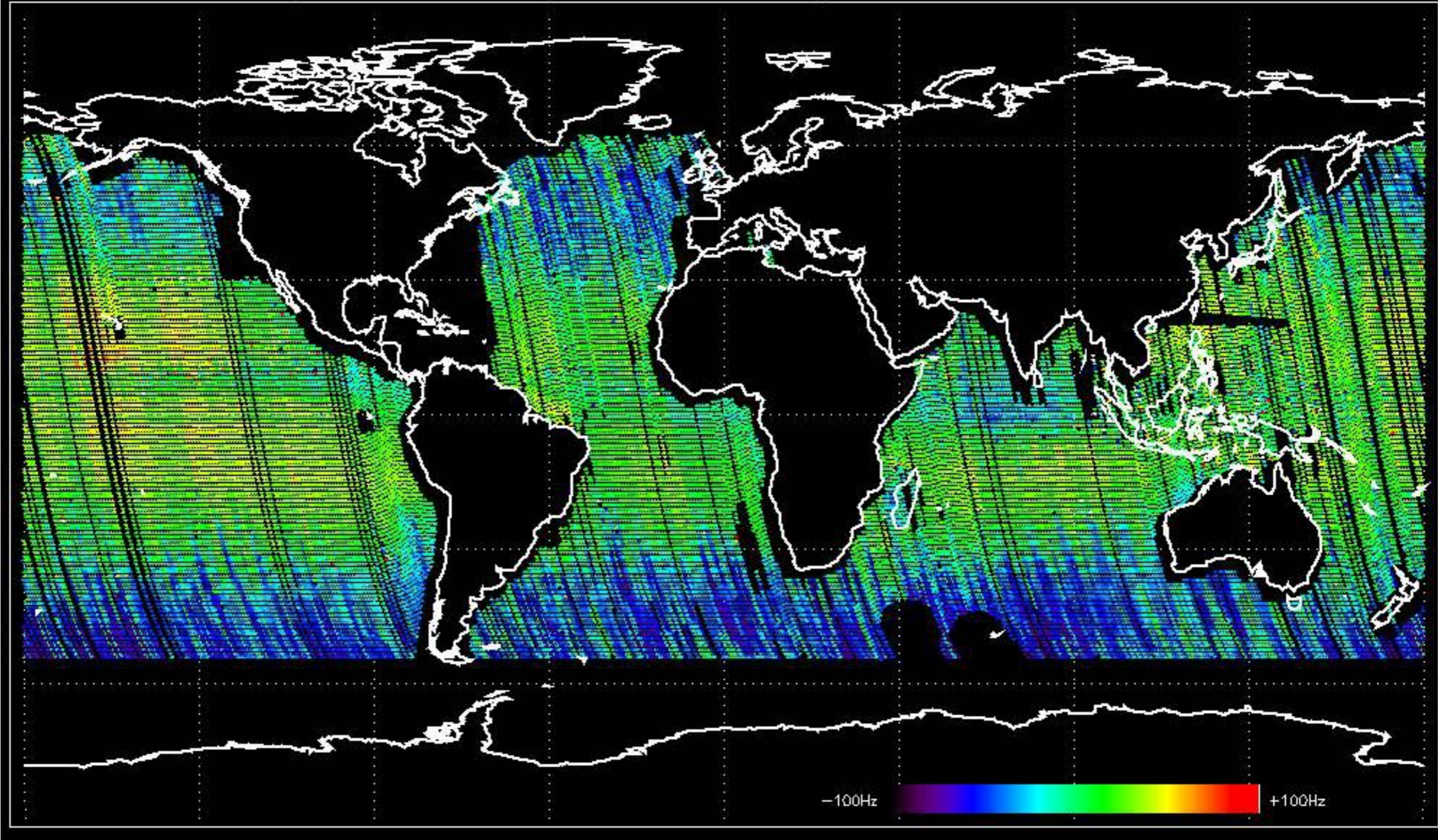
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.8791337 Hz



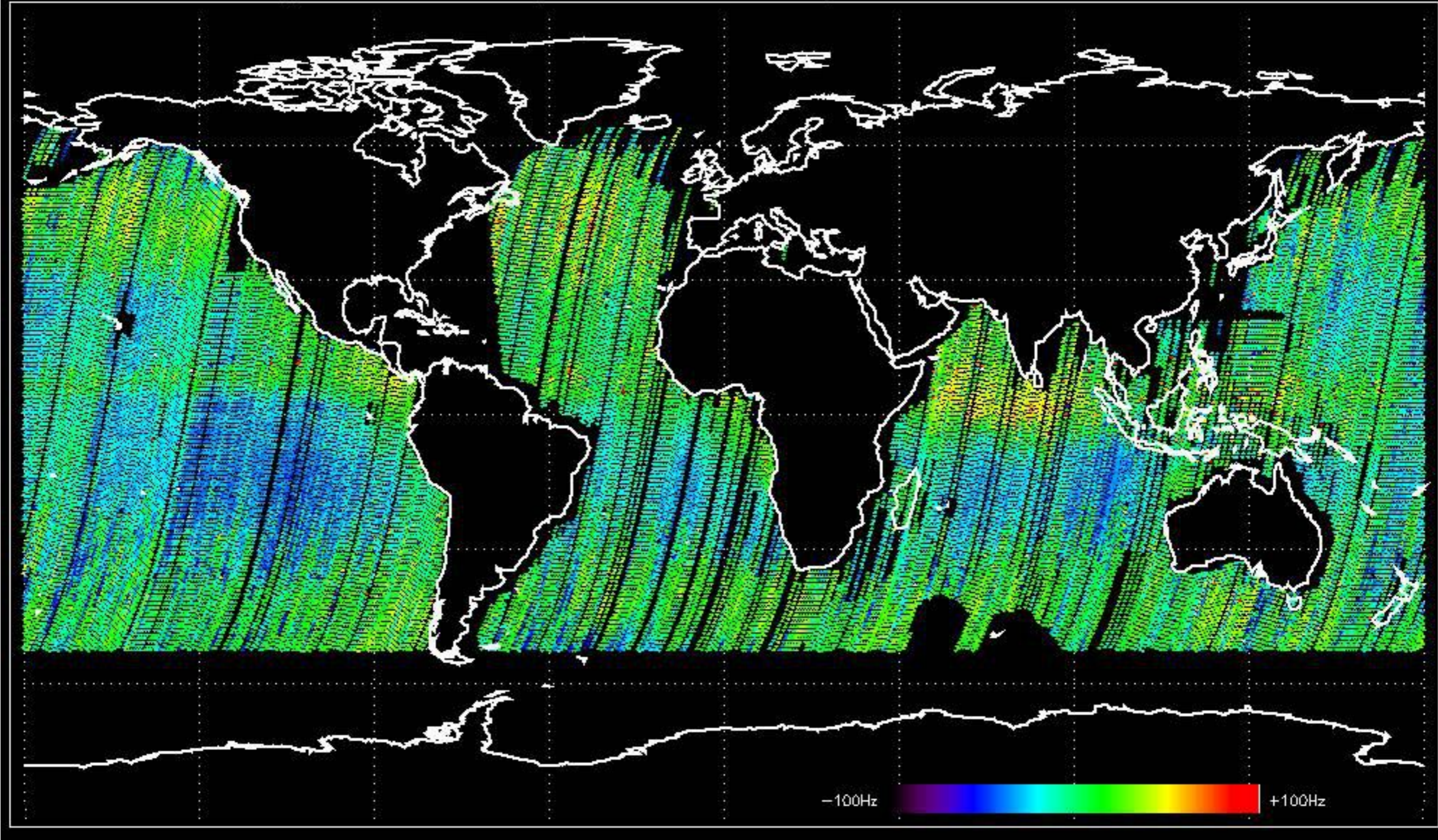
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -4.9844264 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of 0.27404813 Hz

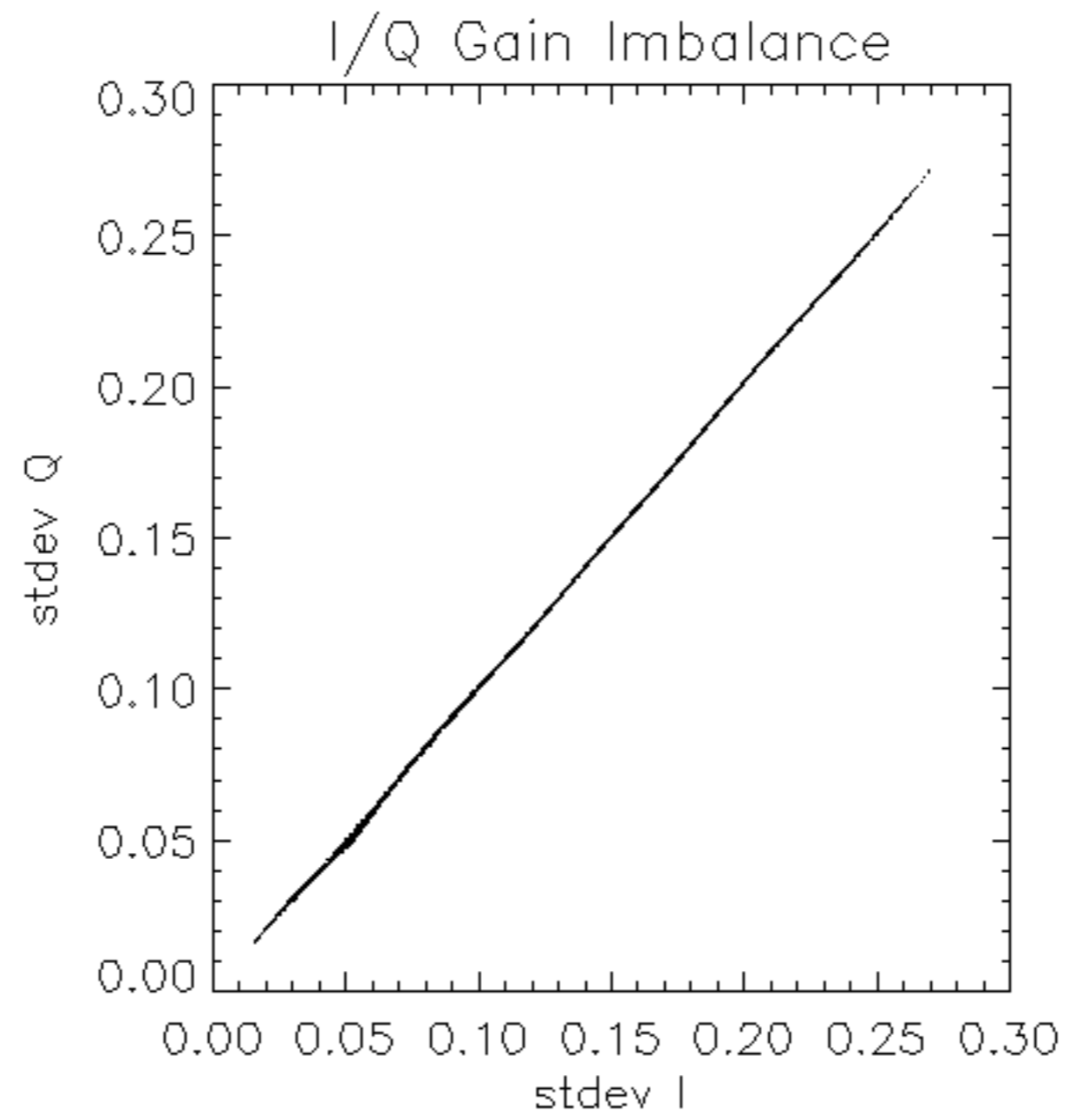


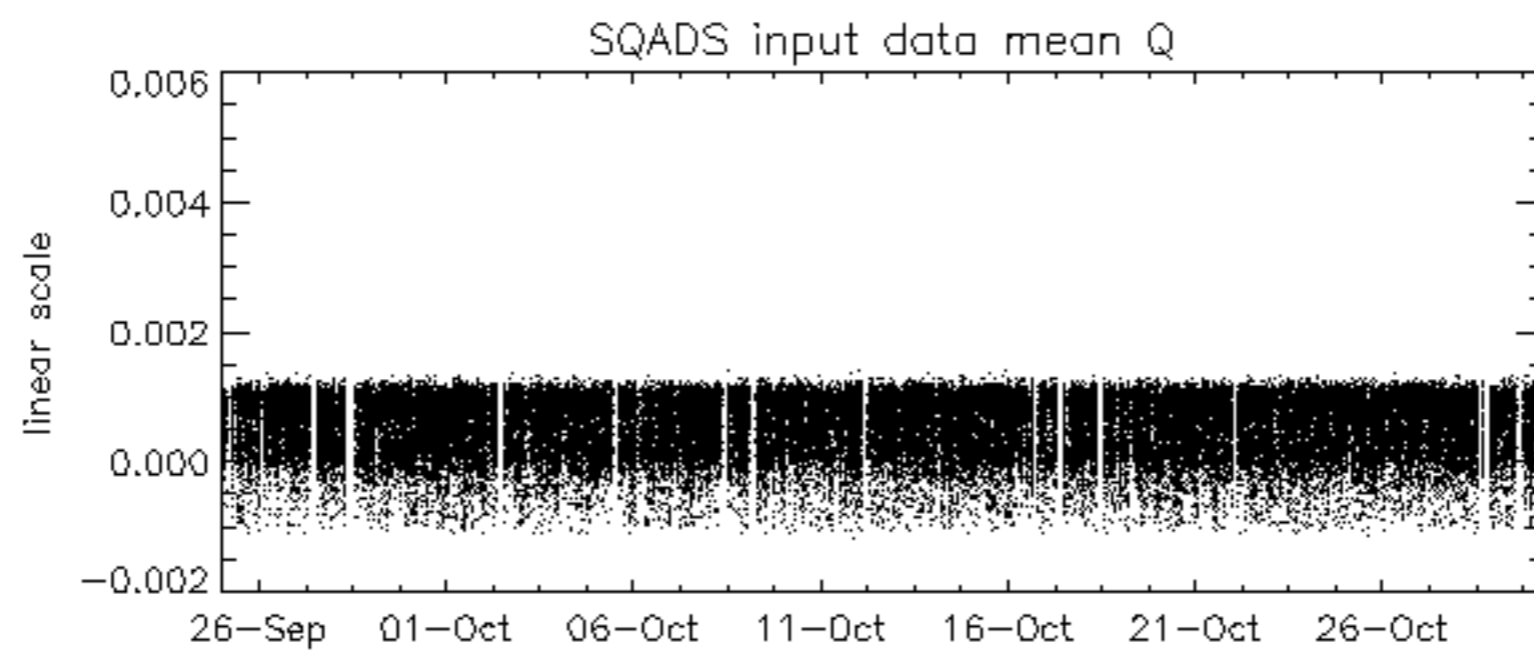
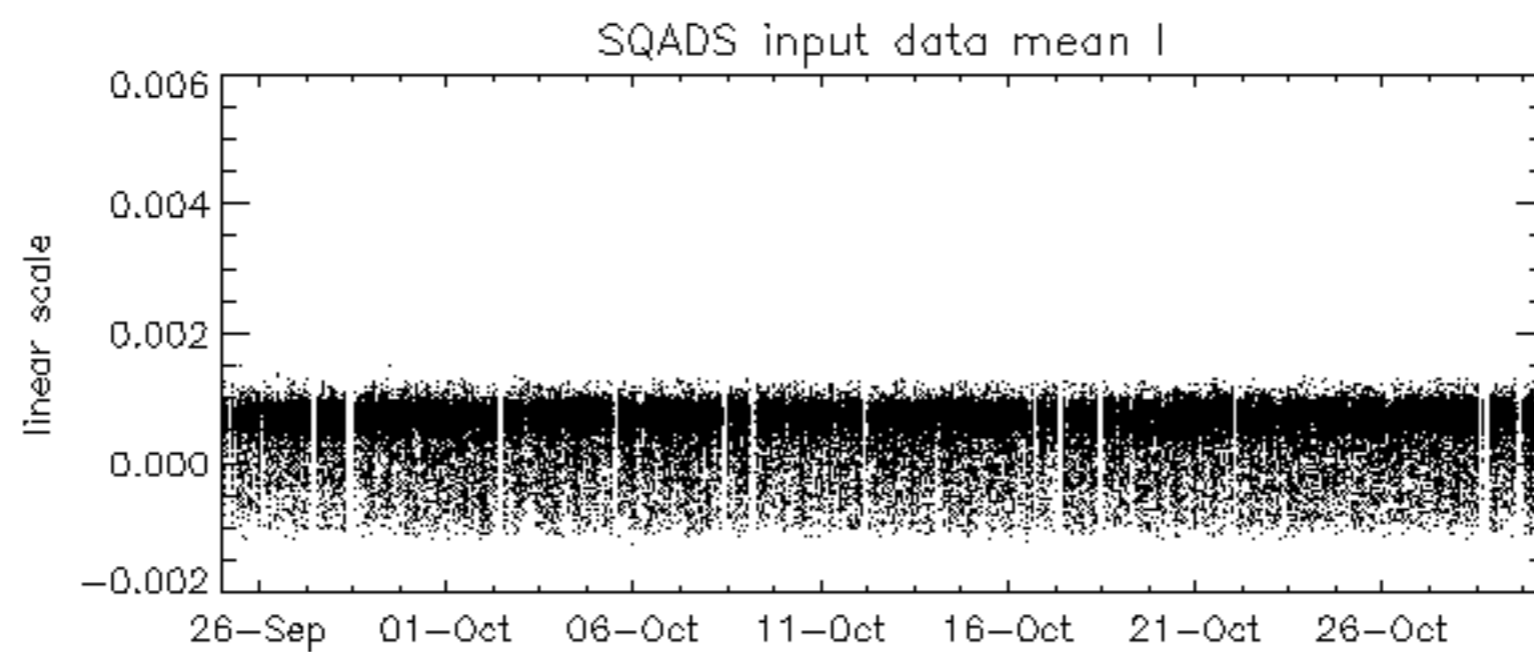
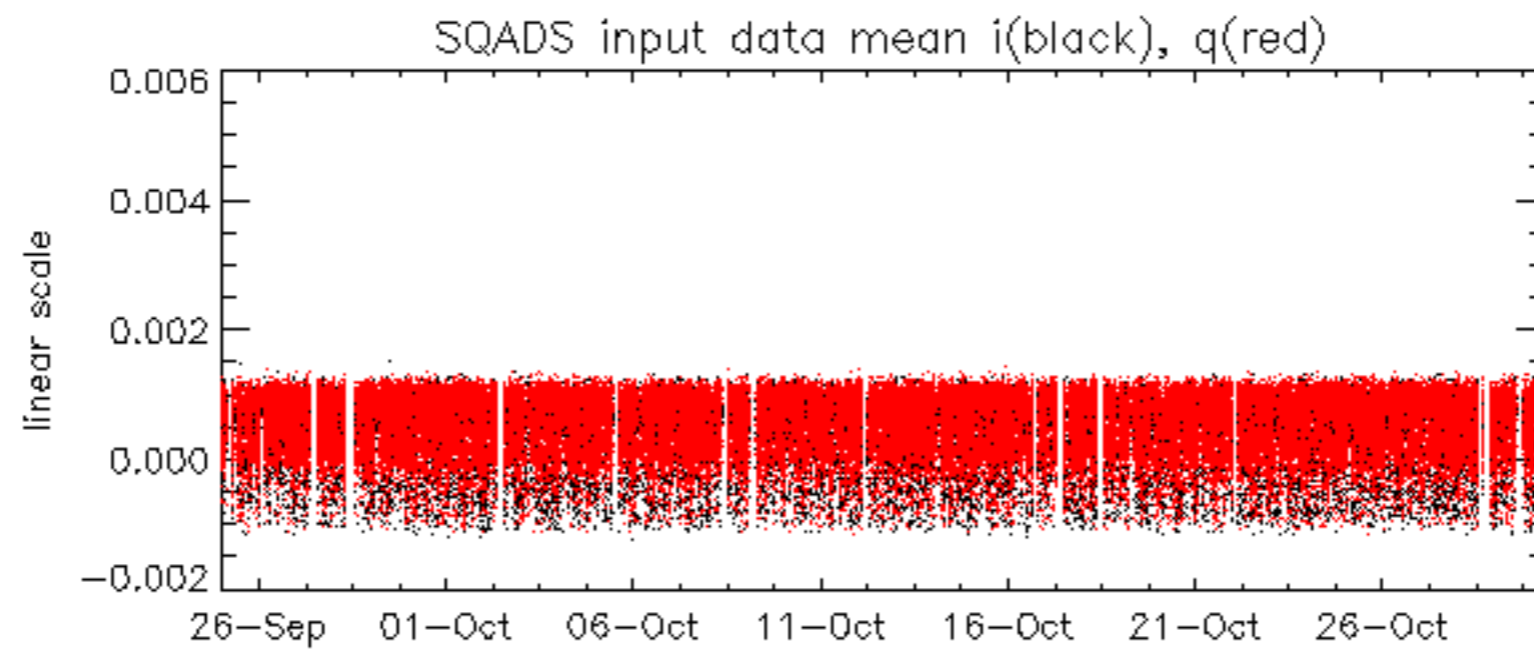
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -4.0337592 Hz

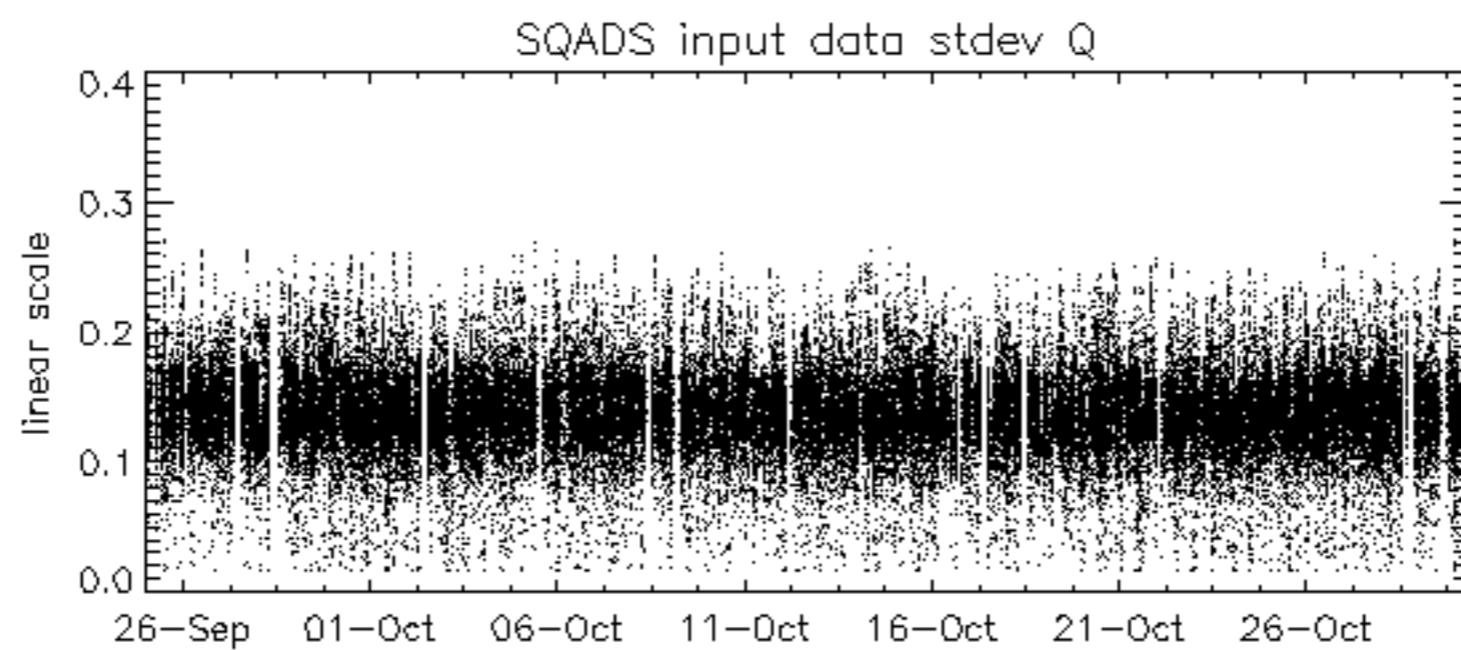
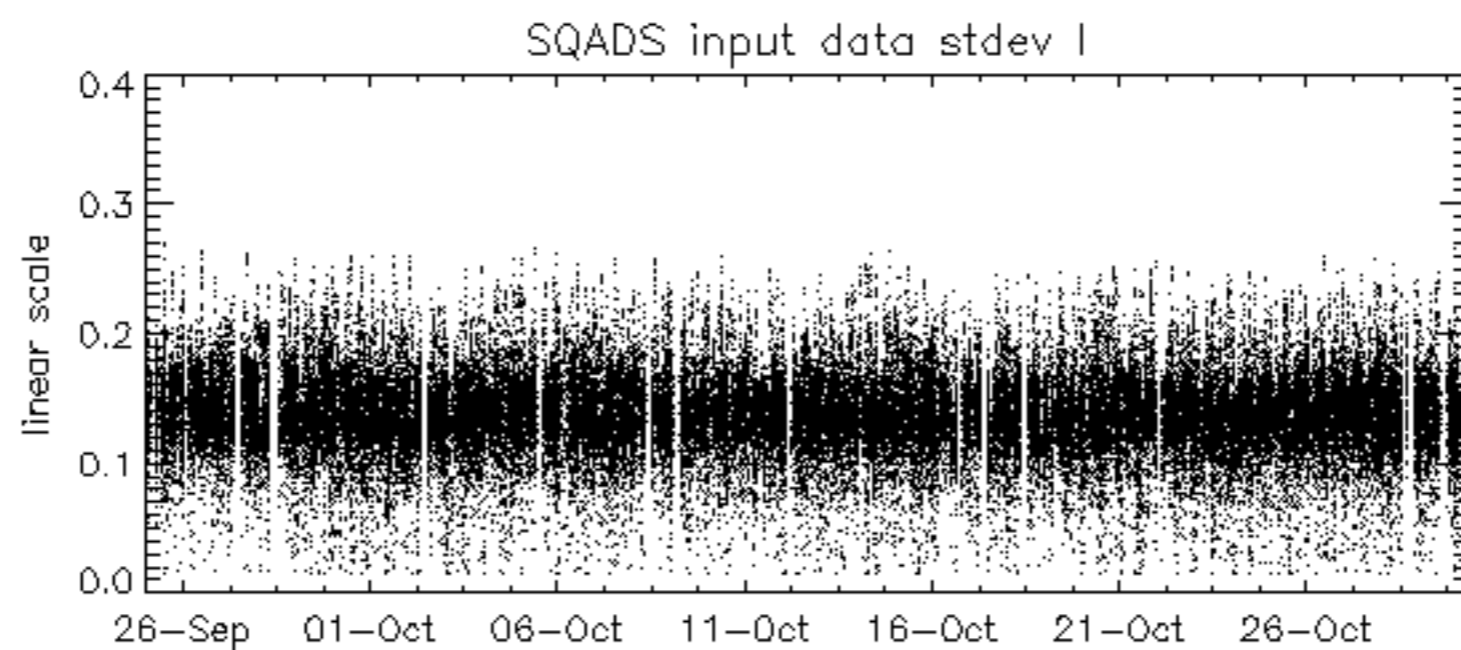
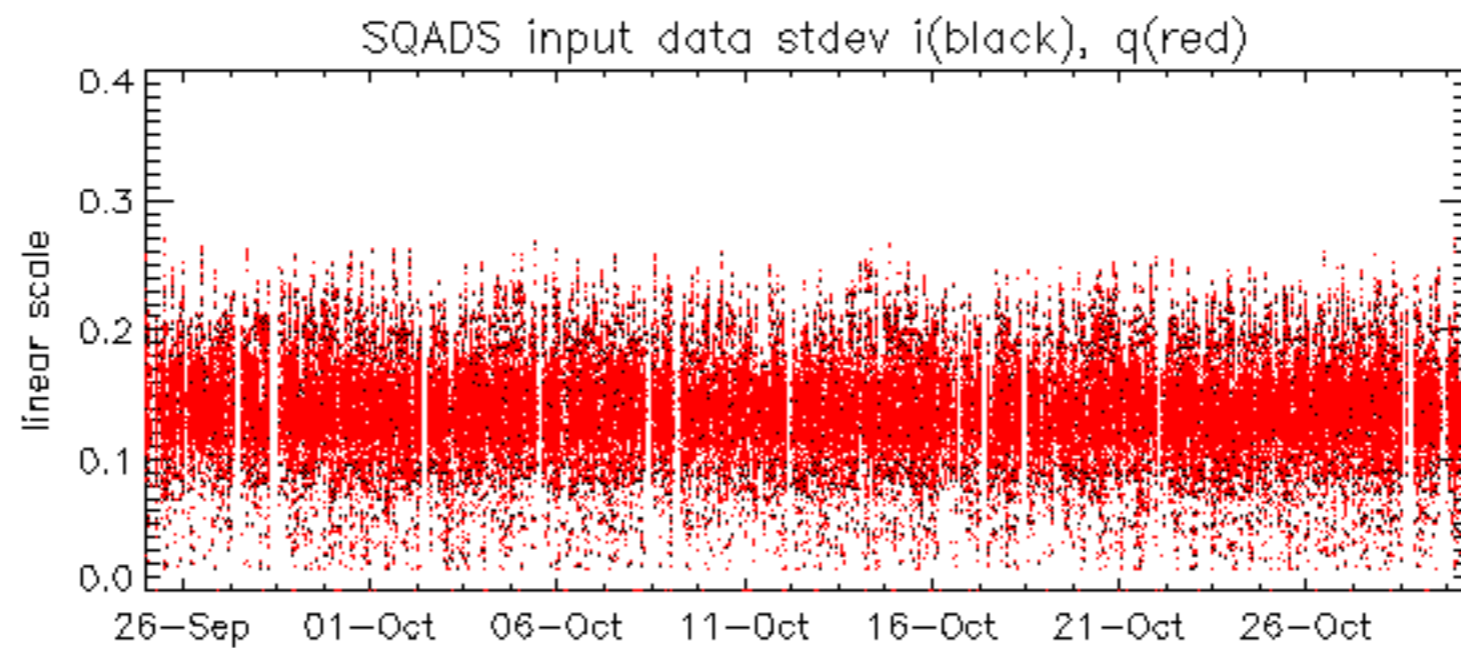


No anomalies observed on available MS products:

No anomalies observed.



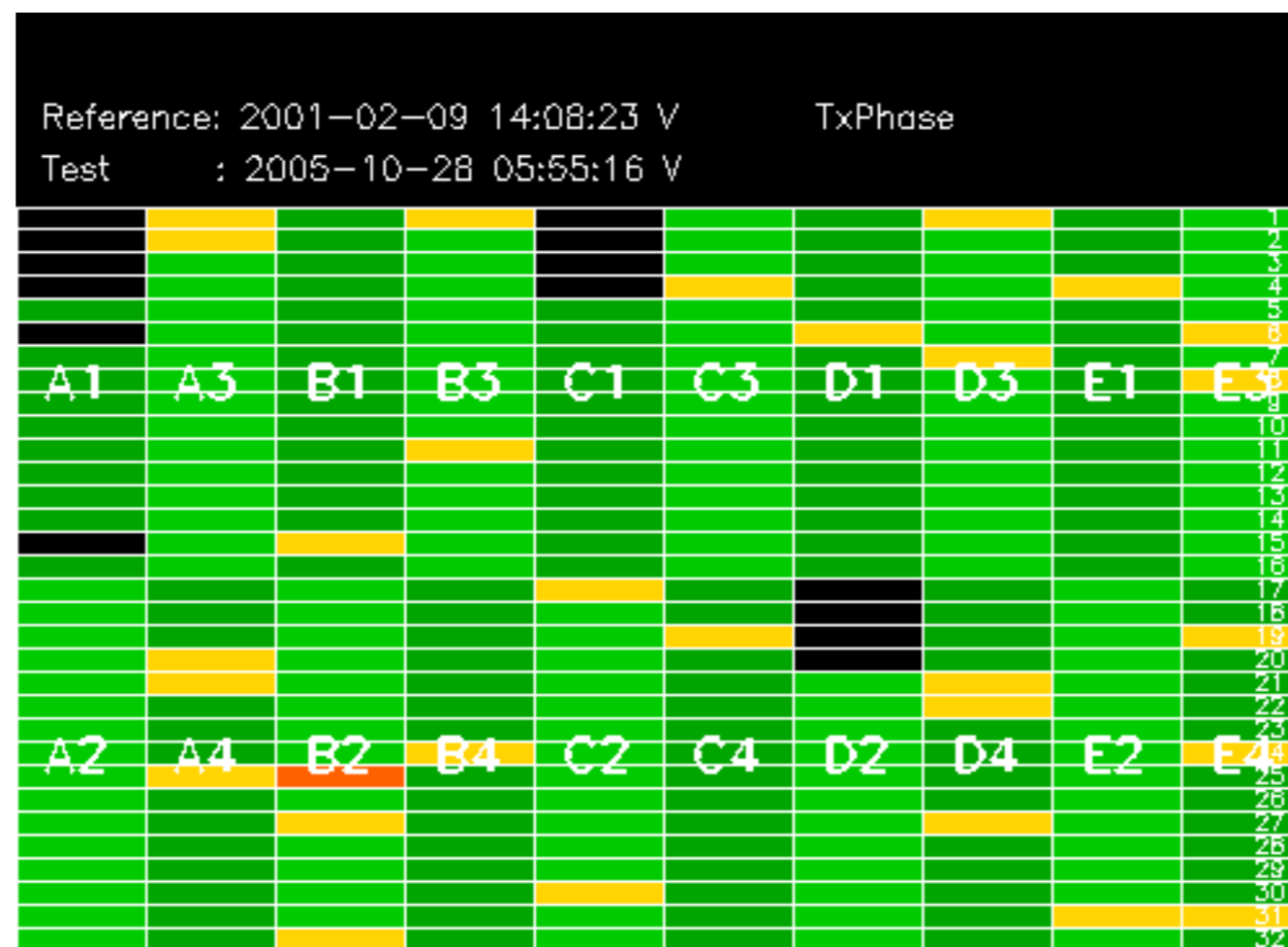


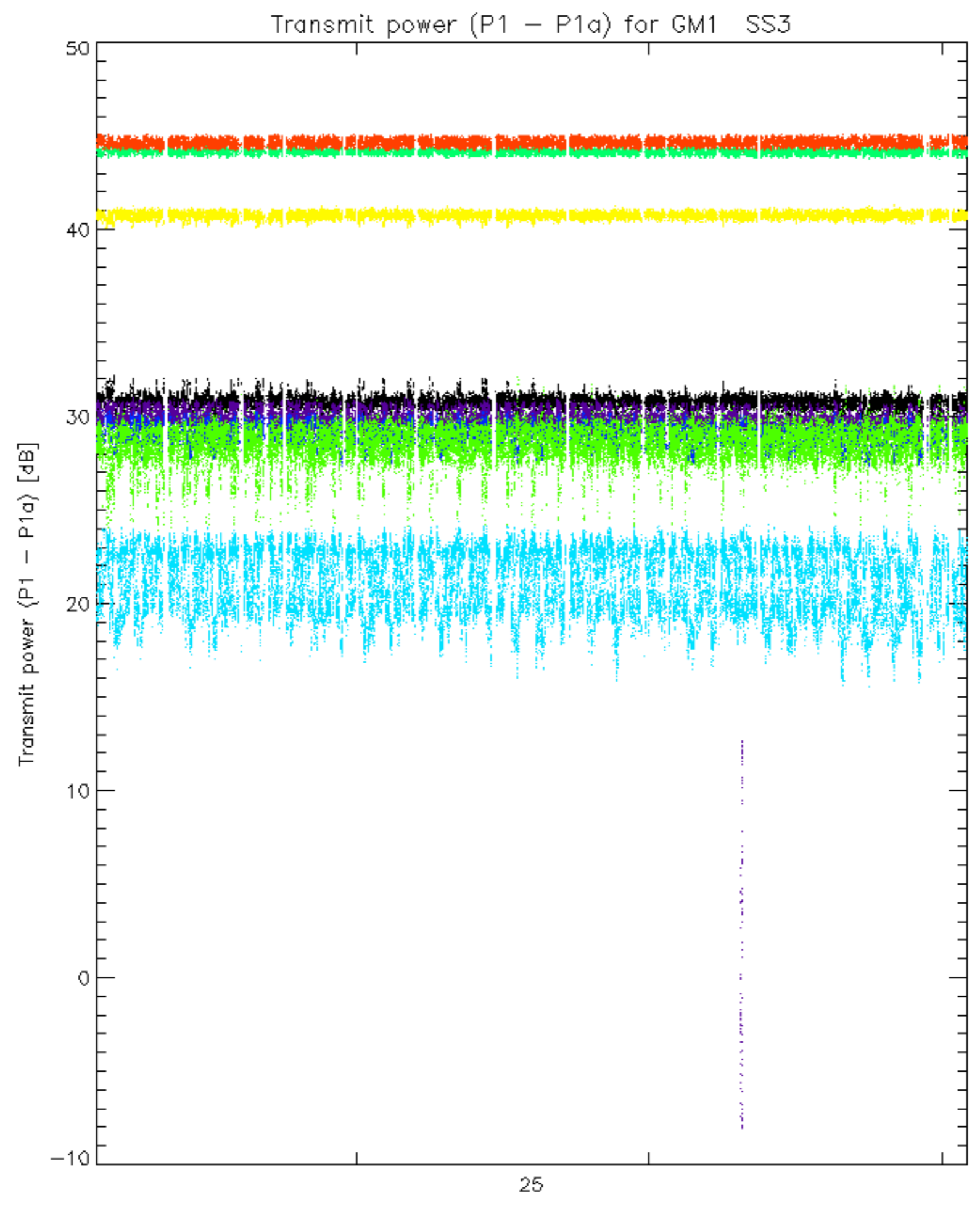


Summary of analysis for the last 3 days 2005102[890]

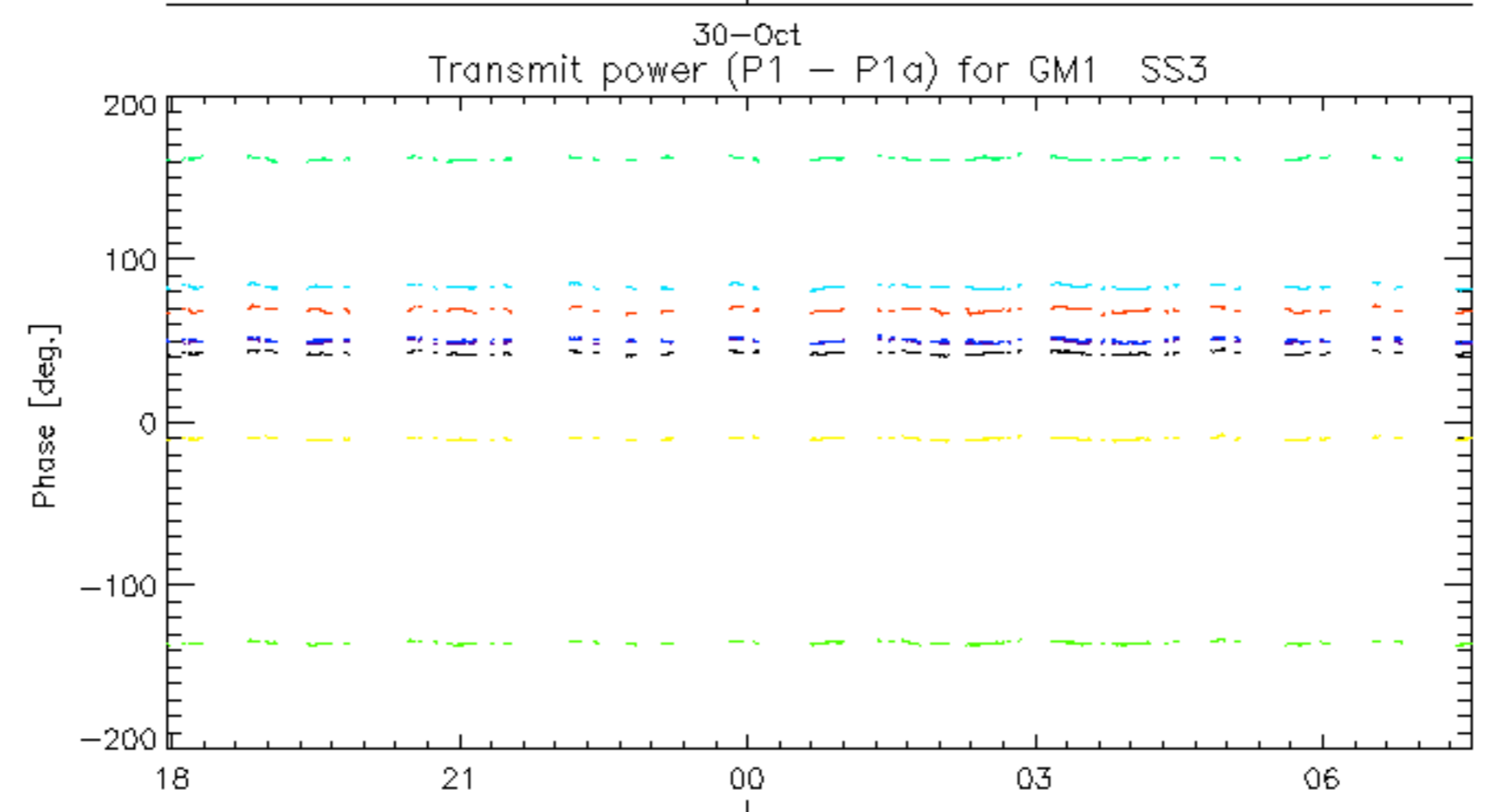
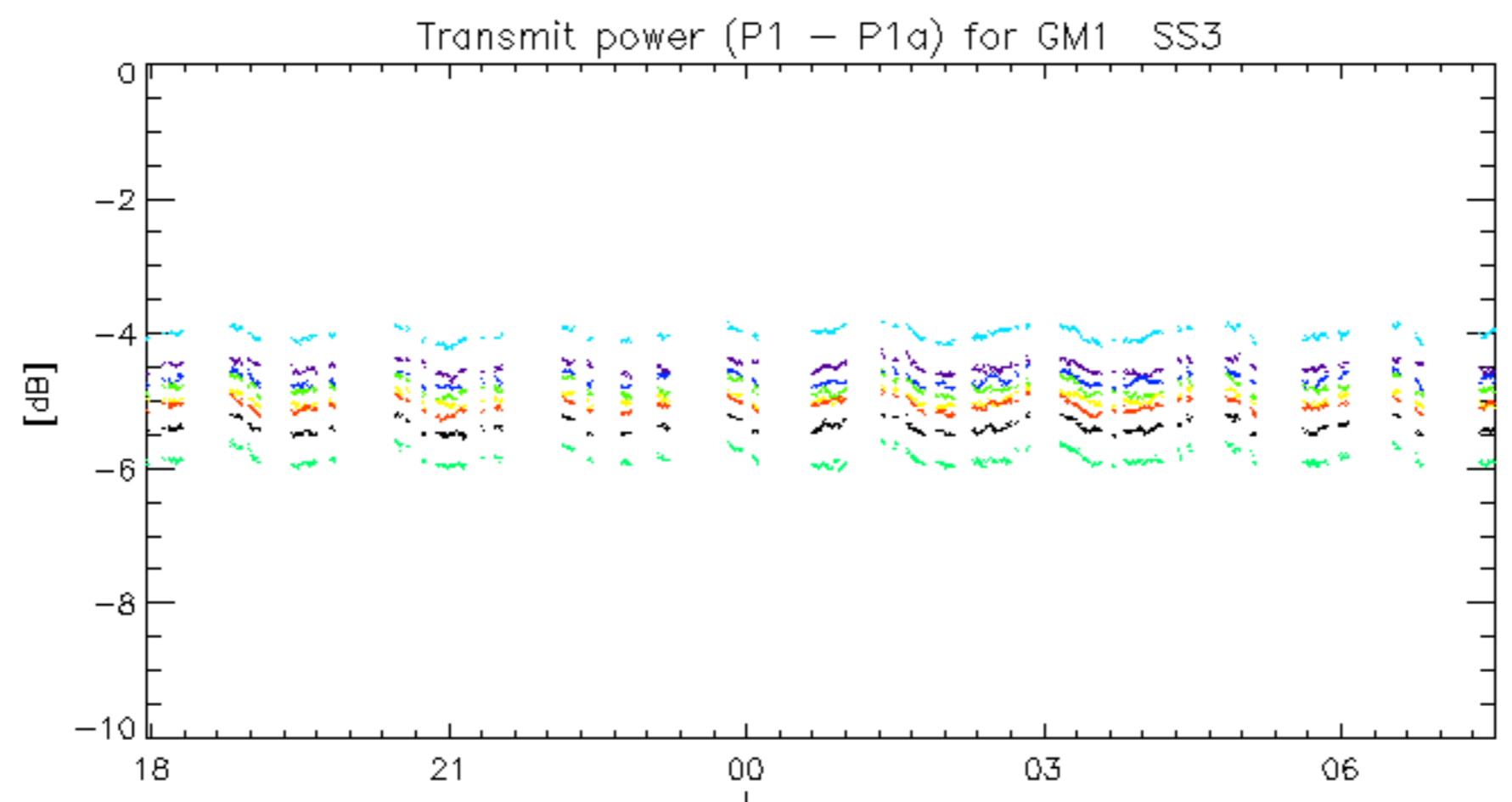
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051028_054402_000000352042_00048_19140_9592.N1	1	0
ASA_IMM_1PNPDE20051029_005058_000002402042_00059_19151_9651.N1	1	0

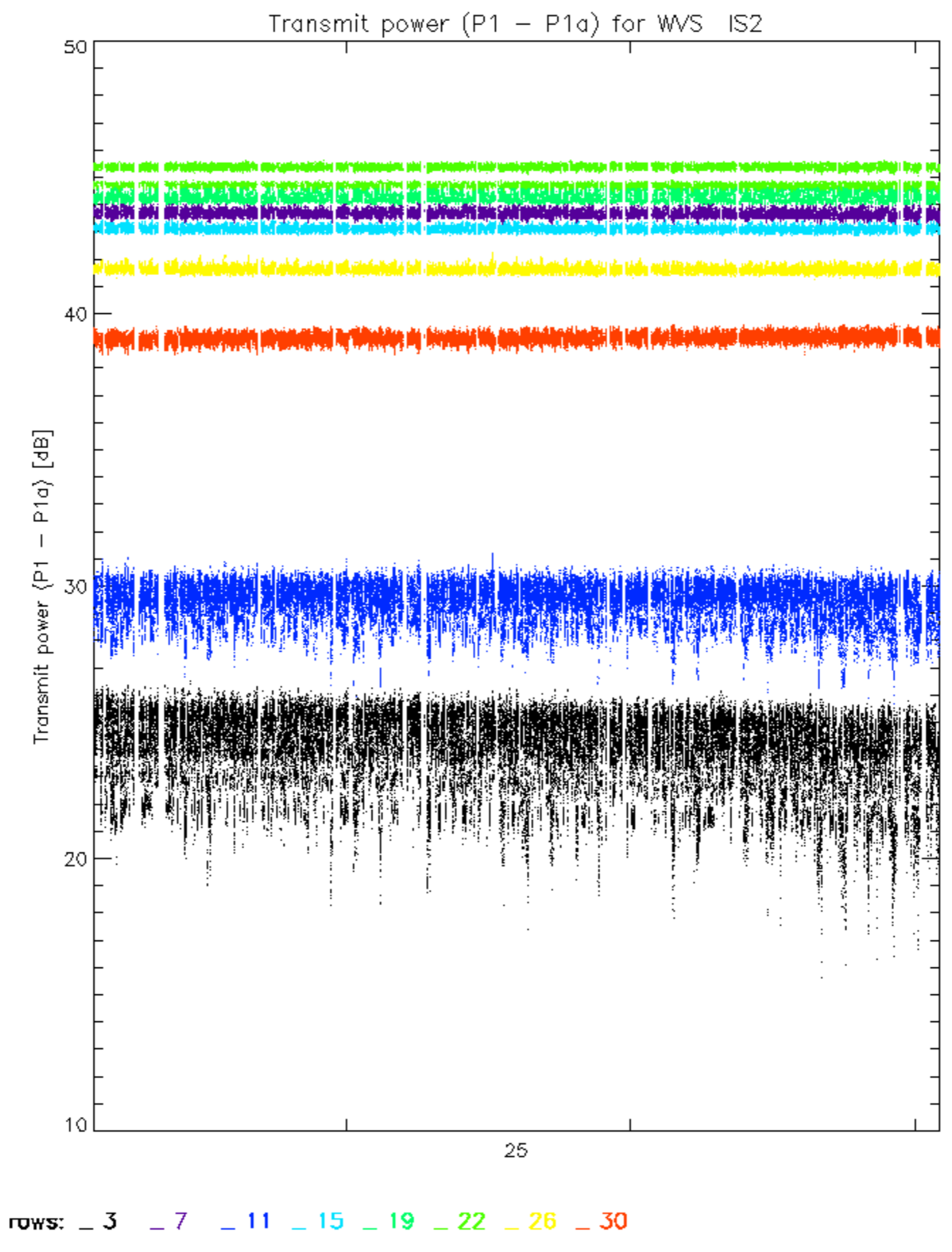


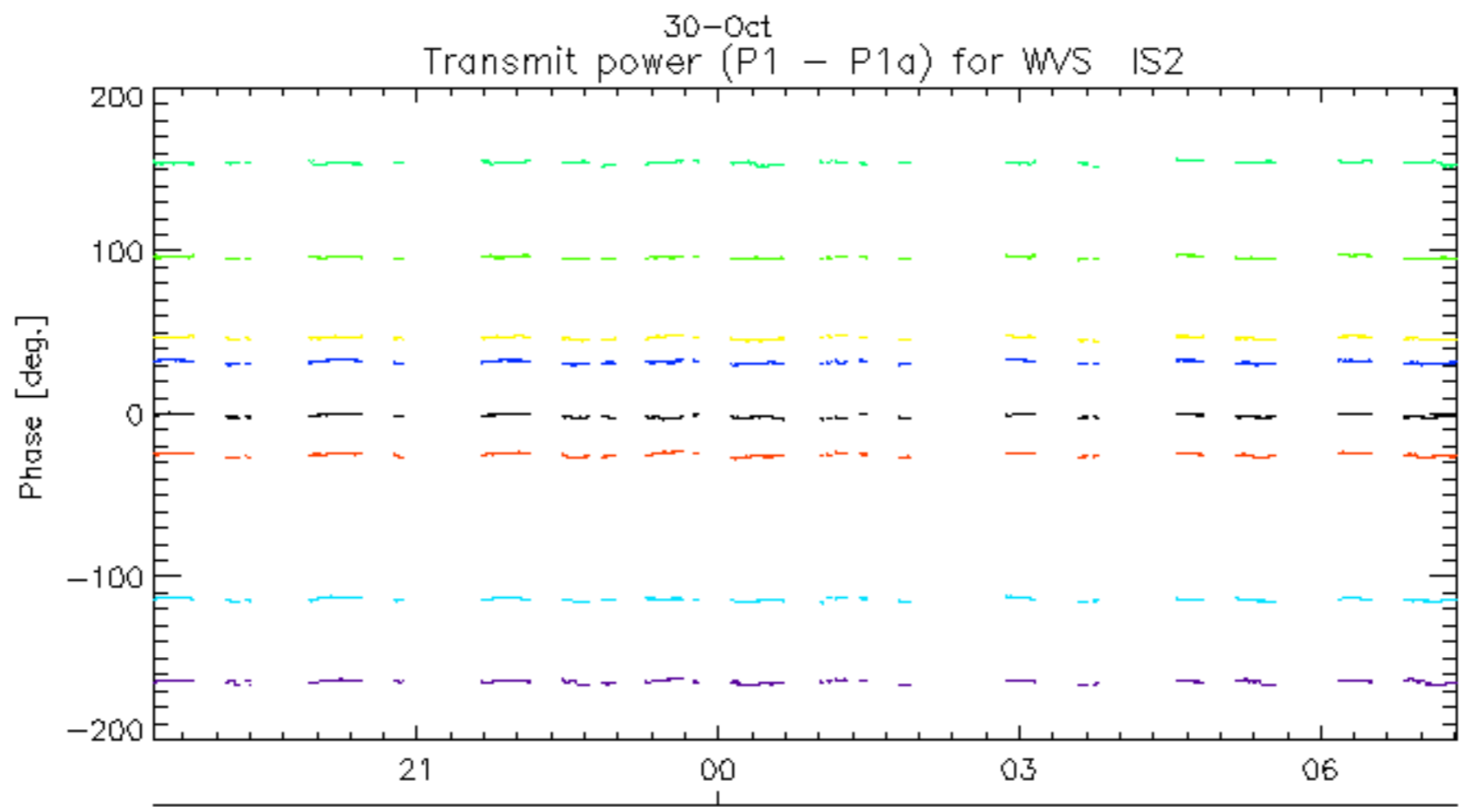
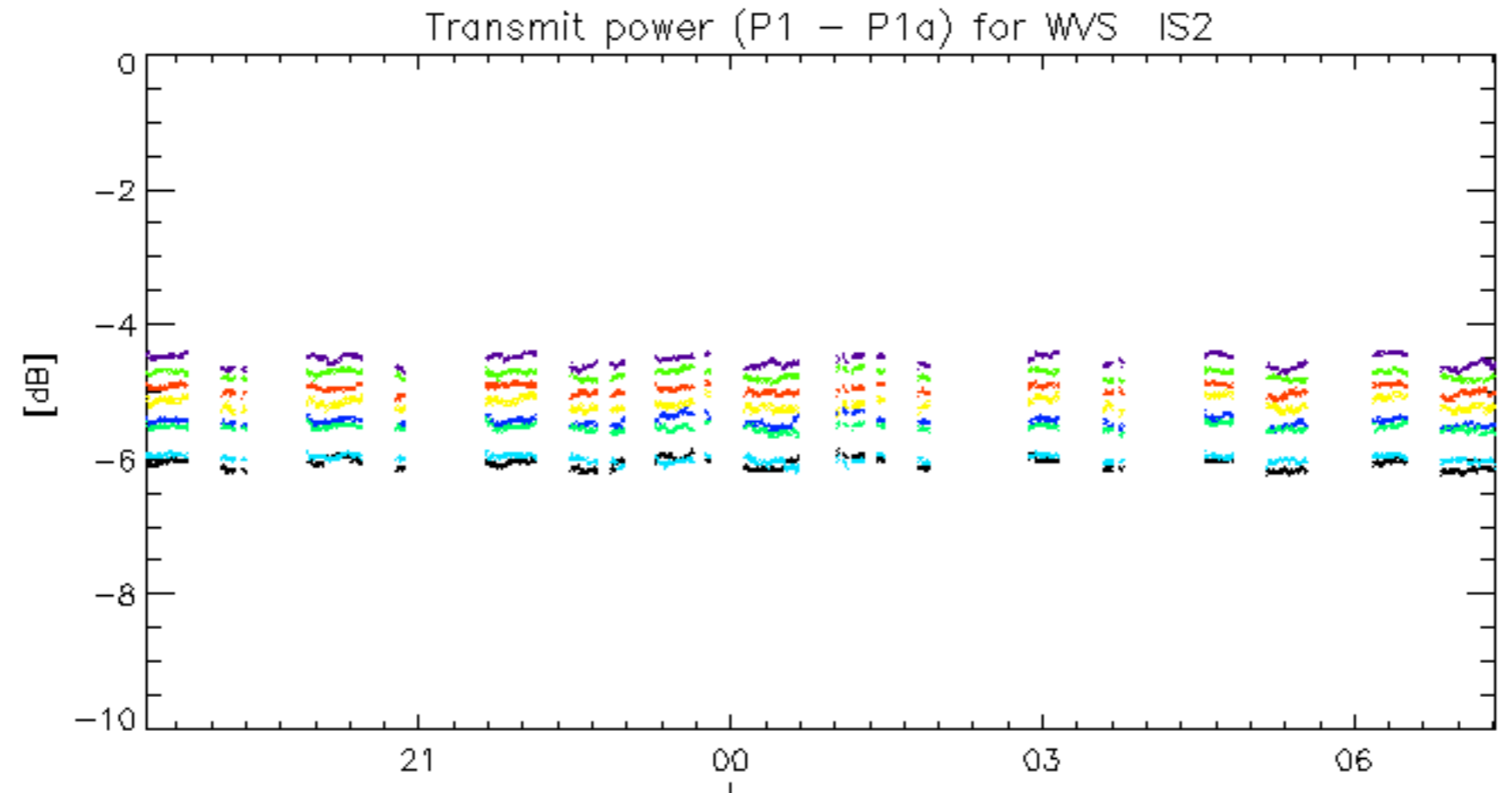


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.