

PRELIMINARY REPORT OF 060930

last update on Sat Sep 30 11:00:01 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 2006-09-29 00:00:00 to 2006-09-30 11:00:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	31	63	15	2	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	31	63	15	2	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	31	63	15	2	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	31	63	15	2	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

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	20060929 063526
H	20060930 060349

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
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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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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.944663	0.010110	-0.022778
7	P1	-3.072284	0.011079	-0.025319
11	P1	-4.069691	0.019606	-0.056815
15	P1	-6.191155	0.015719	-0.045046
19	P1	-3.541728	0.052231	-0.020309
22	P1	-4.593322	0.011149	-0.070535
26	P1	-3.958347	0.018909	-0.036409
30	P1	-5.825687	0.140627	-0.003972
3	P1	-16.598831	0.254258	0.080954
7	P1	-17.118580	0.111391	-0.035419
11	P1	-16.818098	0.345304	-0.115751
15	P1	-12.890651	0.105096	-0.004837
19	P1	-14.669014	0.482429	-0.015945
22	P1	-15.726229	0.487546	-0.215044
26	P1	-15.221327	0.203115	0.014120
30	P1	-16.971375	0.376263	-0.202300

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.817741	0.085283	-0.018300
7	P2	-21.832758	0.096785	0.095780
11	P2	-15.743994	0.108690	0.018224
15	P2	-7.096247	0.101641	-0.034452
19	P2	-9.128988	0.093297	-0.062944
22	P2	-18.133051	0.090183	-0.074318
26	P2	-16.425238	0.097514	-0.086257
30	P2	-19.471987	0.091210	-0.022454

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.188851	0.005813	-0.047145
7	P3	-8.188851	0.005813	-0.047145
11	P3	-8.188851	0.005813	-0.047145

15	P3	-8.188851	0.005813	-0.047145
19	P3	-8.188851	0.005813	-0.047145
22	P3	-8.188851	0.005813	-0.047145
26	P3	-8.188826	0.005812	-0.047066
30	P3	-8.188826	0.005812	-0.047066

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	-3.857609	0.010242	-0.035566
7	P1	-2.540804	0.019398	0.015086
11	P1	-2.884614	0.018656	-0.002303
15	P1	-3.656868	0.029899	-0.009031
19	P1	-3.476255	0.080498	0.012387
22	P1	-5.105004	0.020548	0.034238
26	P1	-5.881945	0.025708	-0.076562
30	P1	-5.221298	0.074233	-0.016814
3	P1	-11.649125	0.049175	-0.020893
7	P1	-10.004584	0.056636	-0.059818
11	P1	-10.352896	0.061984	-0.014943
15	P1	-10.843296	0.145579	0.062706
19	P1	-15.713863	3.716136	0.357511
22	P1	-20.906374	1.258096	-0.299045
26	P1	-15.938757	0.376231	-0.104272
30	P1	-18.102015	0.472171	0.121614

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.406395	0.053163	-0.019272
7	P2	-22.187820	0.088343	0.004413
11	P2	-10.907205	0.042144	-0.048098
15	P2	-4.867186	0.036546	-0.061011
19	P2	-6.854866	0.037084	-0.059979
22	P2	-8.166260	0.032523	-0.064950
26	P2	-24.183624	0.060826	-0.094570
30	P2	-21.965899	0.047322	-0.031786

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.036678	0.004055	-0.059002
7	P3	-8.036551	0.004057	-0.059423
11	P3	-8.036469	0.004077	-0.059879
15	P3	-8.036427	0.004084	-0.059812
19	P3	-8.036543	0.004091	-0.059690
22	P3	-8.036693	0.004064	-0.059514
26	P3	-8.036674	0.004083	-0.059562
30	P3	-8.036659	0.004062	-0.059698

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	0.000559344
	stdev	1.70090e-07
MEAN Q	mean	0.000524664
	stdev	2.17867e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137722
	stdev	0.00114461
STDEV Q	mean	0.138090
	stdev	0.00116269



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006092[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_1PNPDE20060920_001749_000001822051_00217_23818_6049.N1	1	0
ASA_IMM_1PNPDE20060920_015825_000001852051_00218_23819_6068.N1	1	0
ASA_IMM_1PNPDE20060920_234612_000001712051_00231_23832_6130.N1	1	0
ASA_WVS_1PNPDK20060929_062850_000000002051_00349_23950_2312.N1	1	0
ASA_GM1_1PNPDK20060929_145703_000011352051_00354_23955_5391.N1	0	17
ASA_GM1_1PNPDK20060929_145703_000011362051_00354_23955_5417.N1	0	17
ASA_WSM_1PNPDE20060920_163137_000000672051_00226_23827_3061.N1	0	95
ASA_WSM_1PNPDE20060920_183929_000002982051_00228_23829_3078.N1	0	14







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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)



Ascending



Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler



Ascending



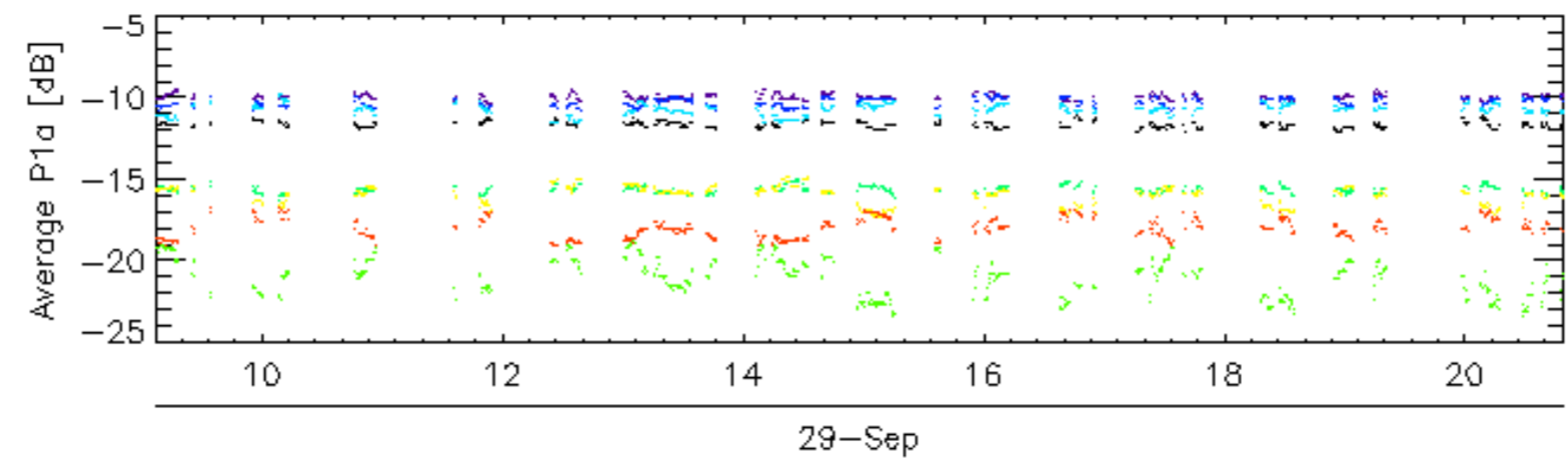
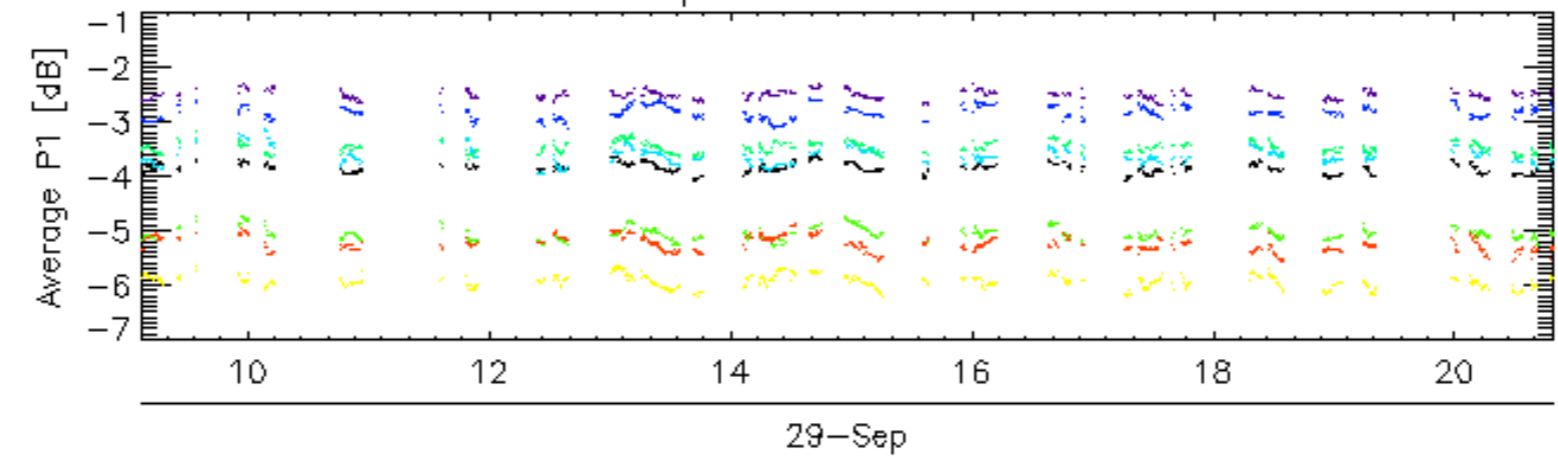
Descending

7.6 - Doppler evolution versus ANX for GM1

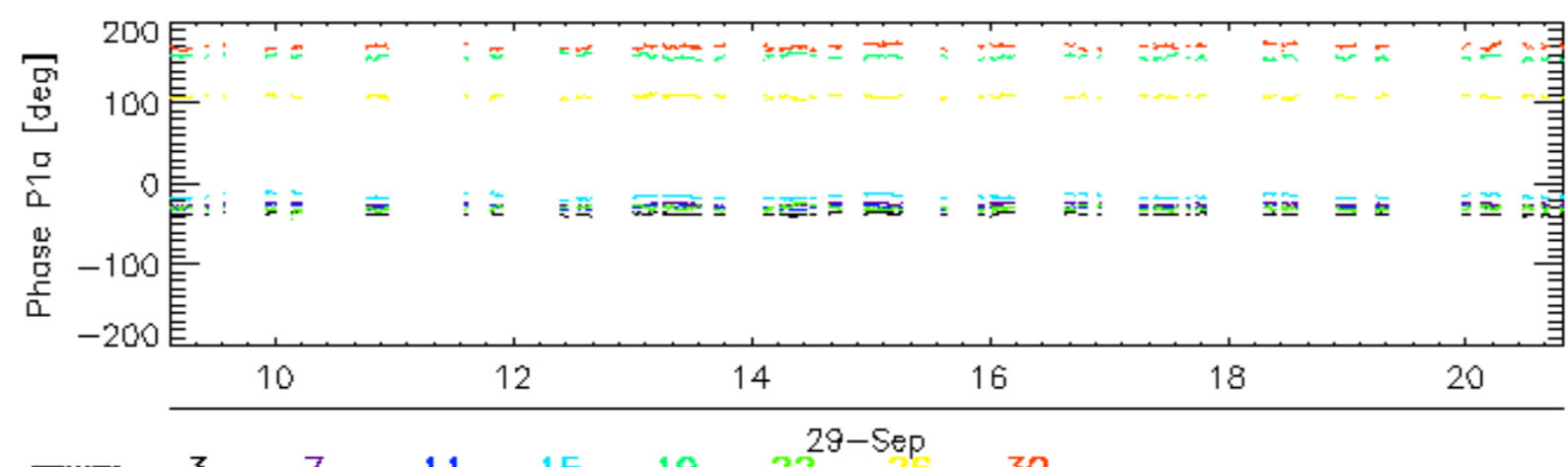
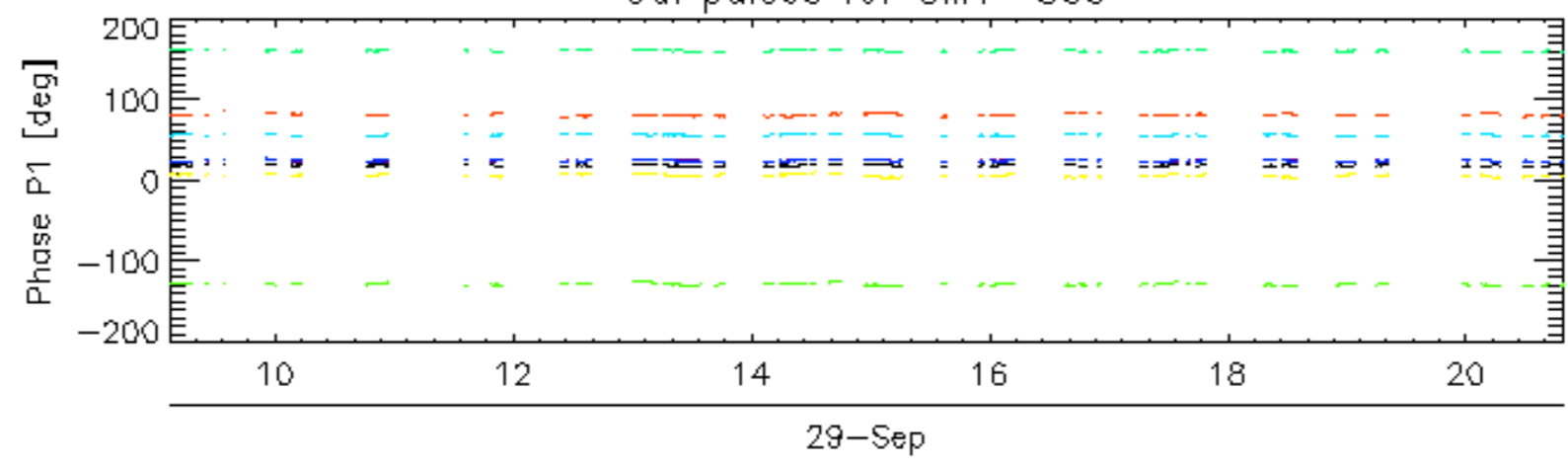
Evolution Doppler error versus ANX



Cal pulses for GM1 SS3

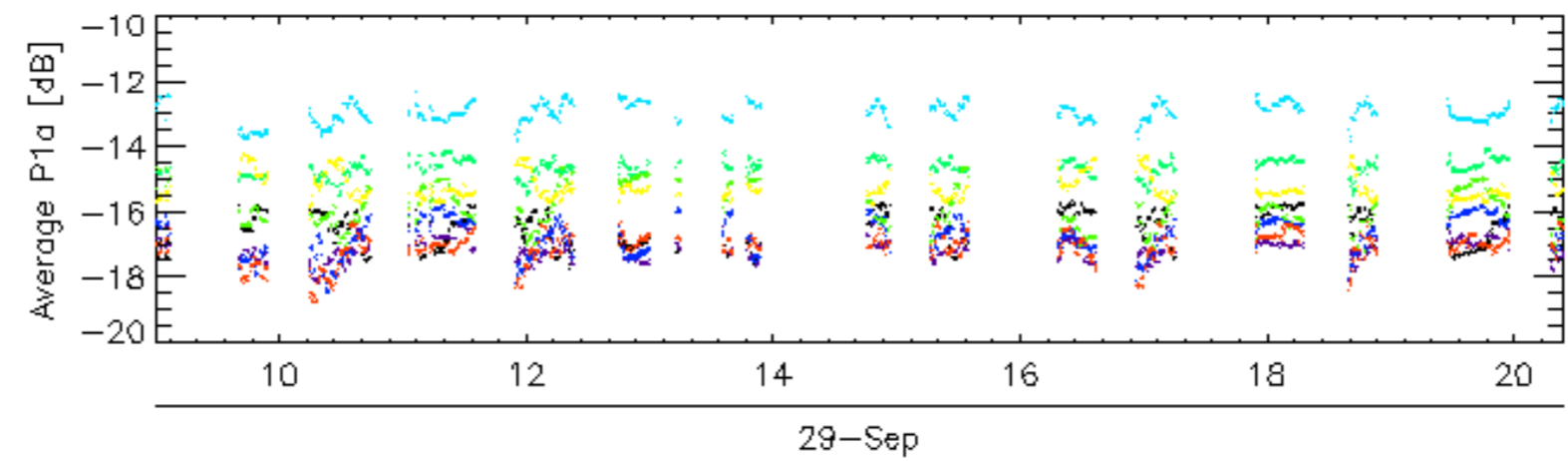
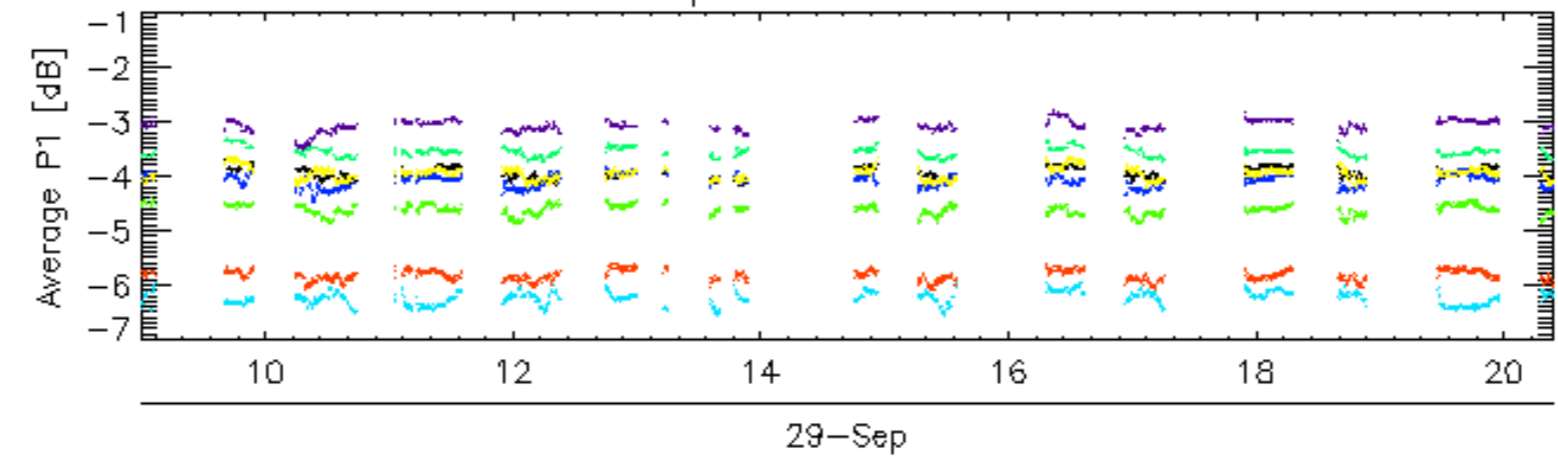


Cal pulses for GM1 SS3

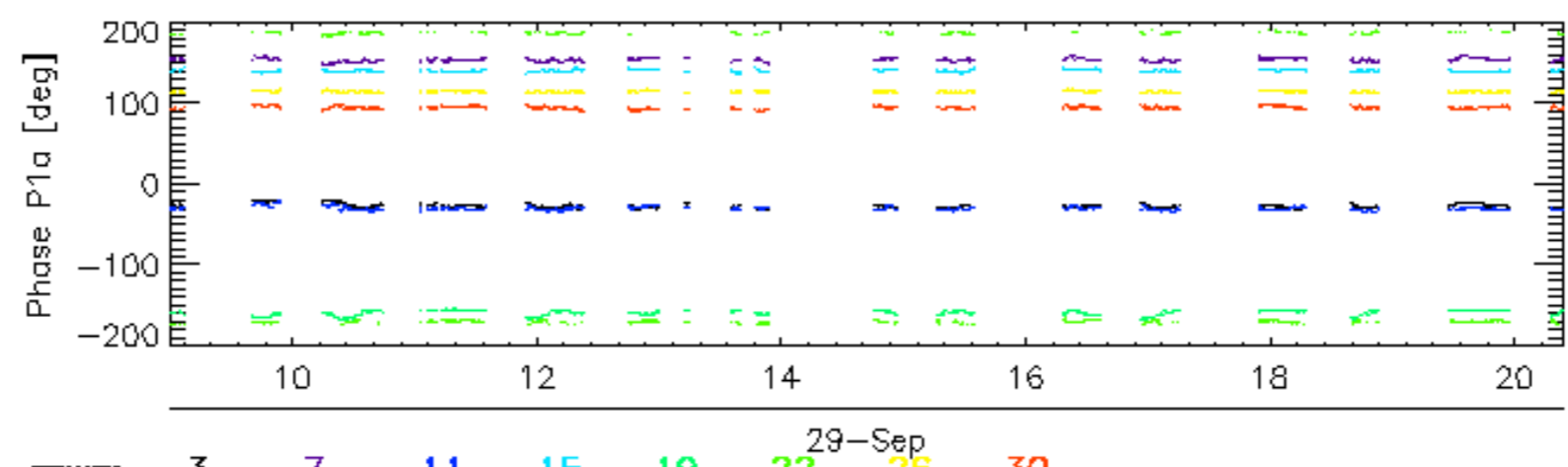
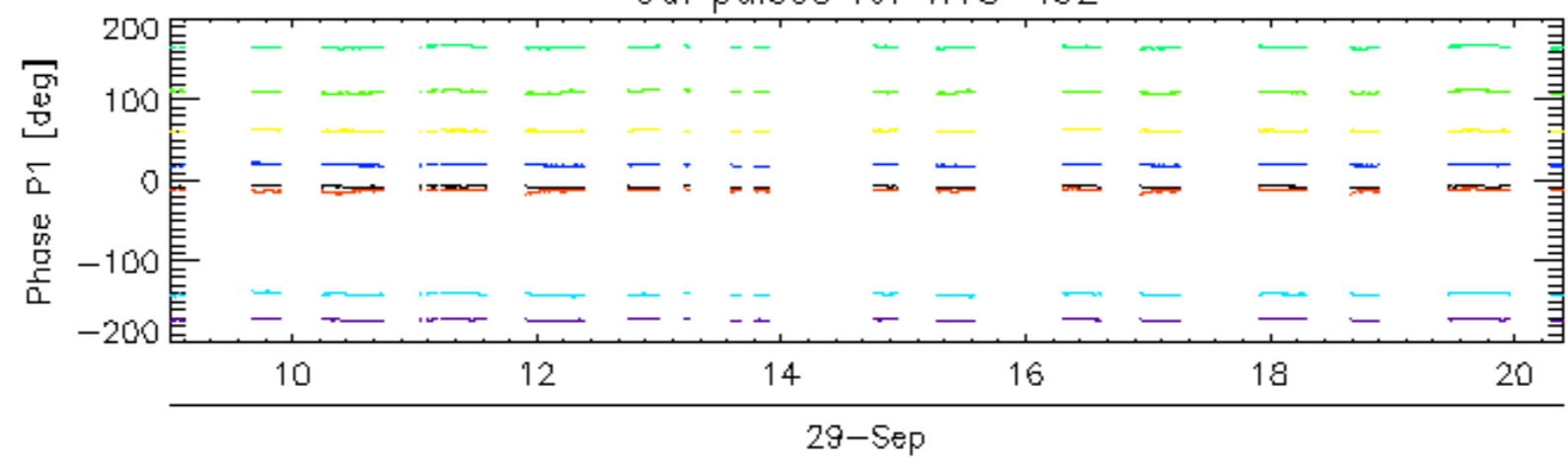


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

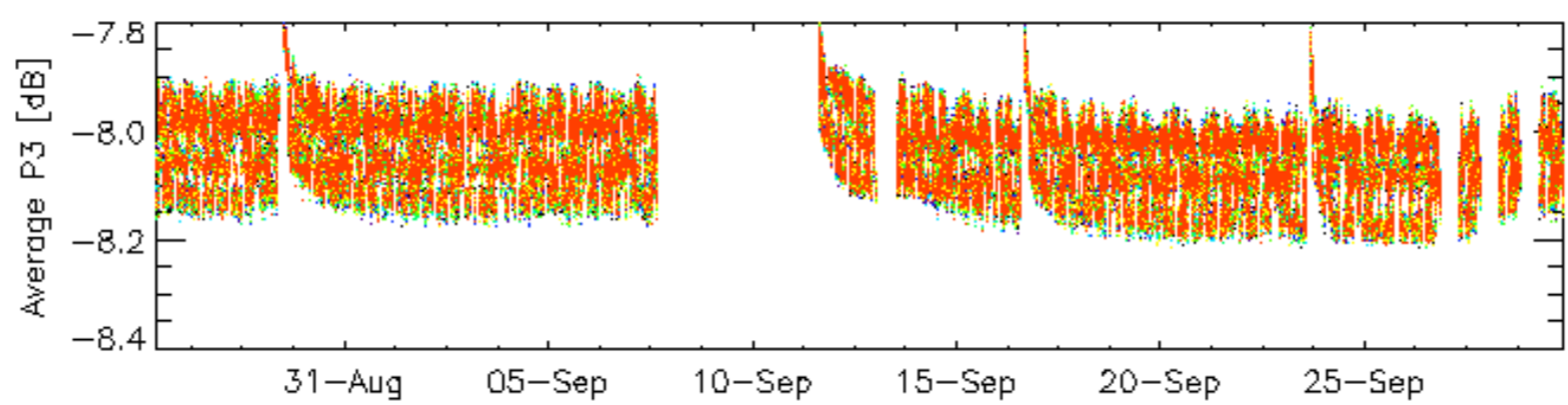
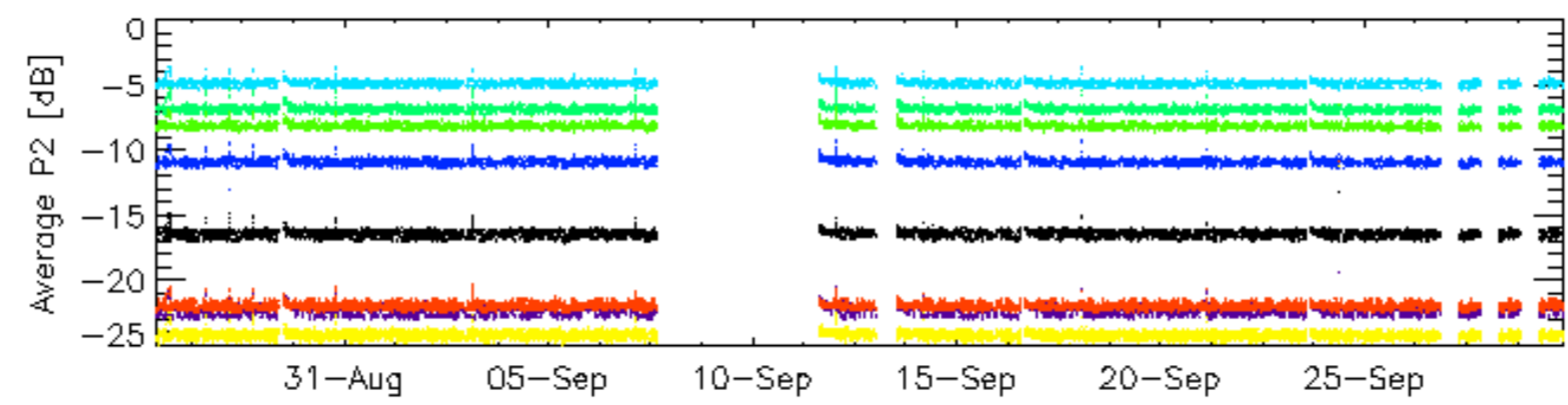
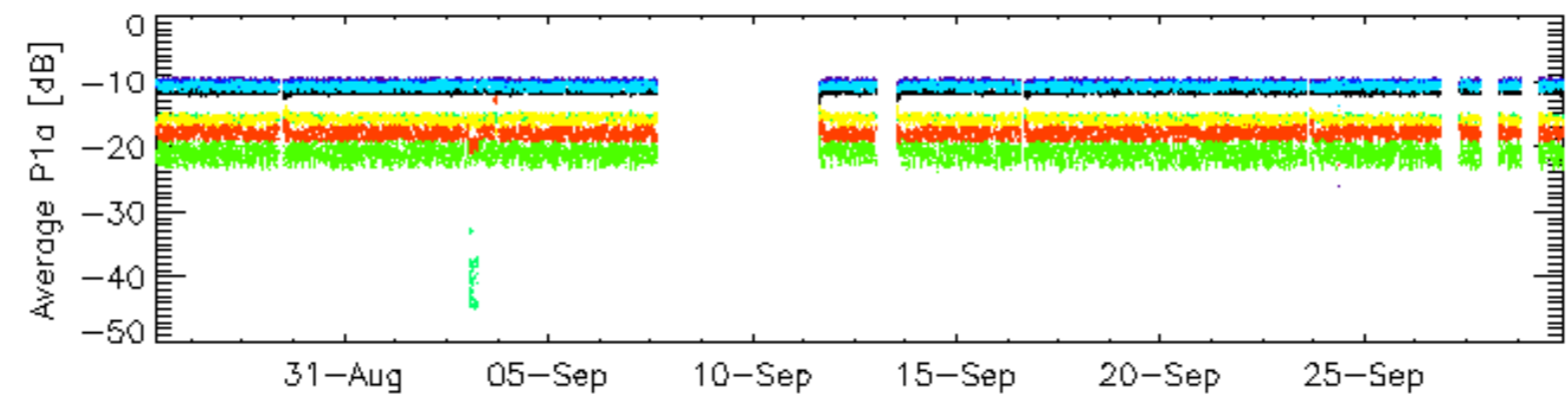
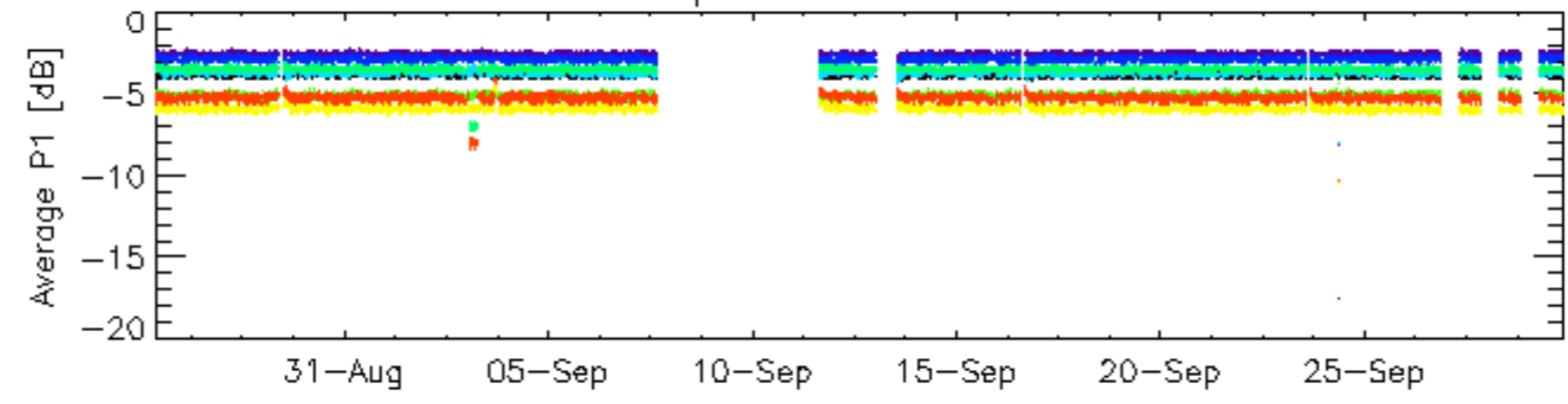


Cal pulses for WVS IS2



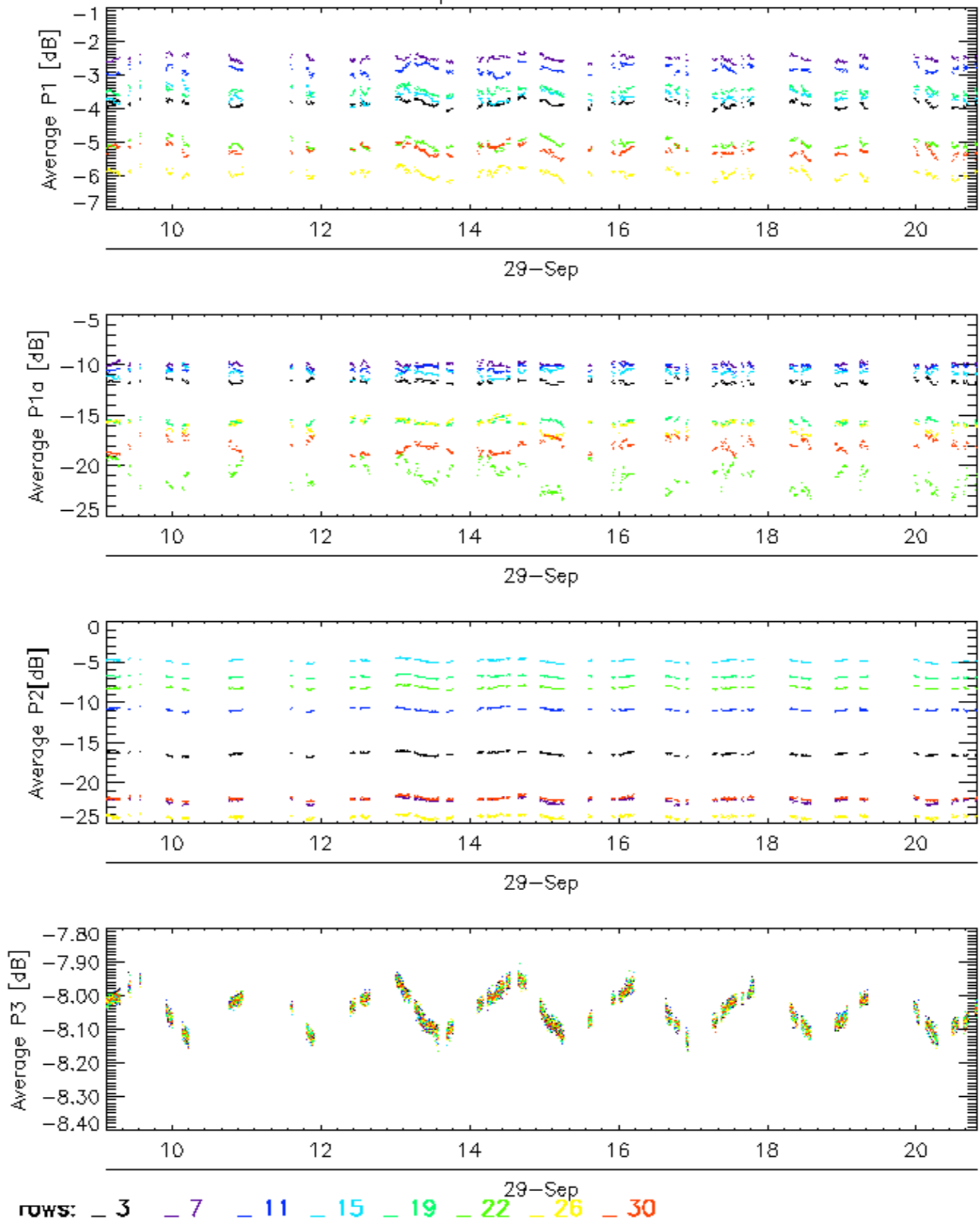
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

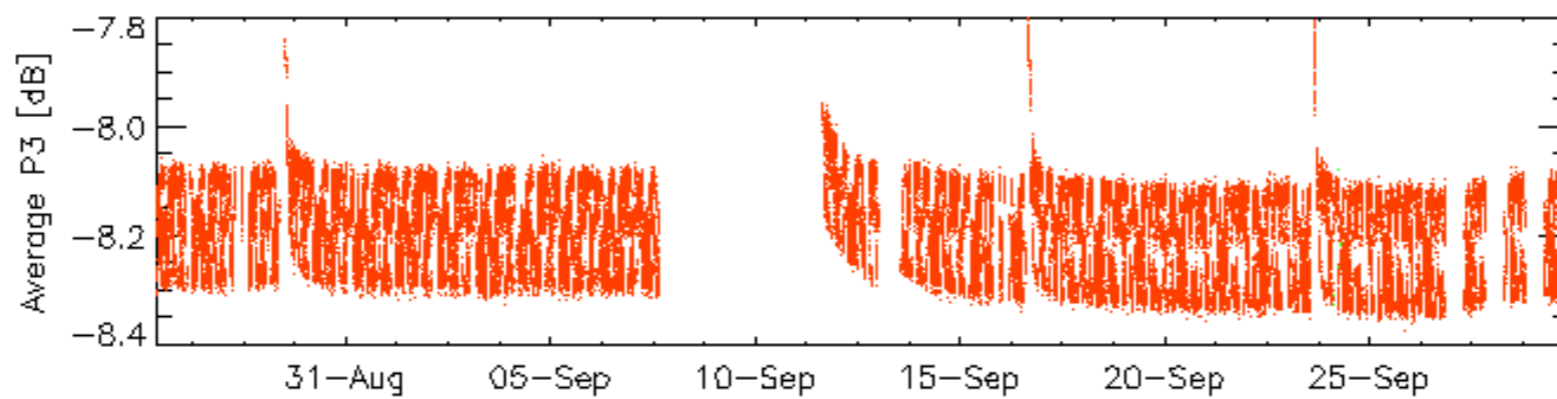
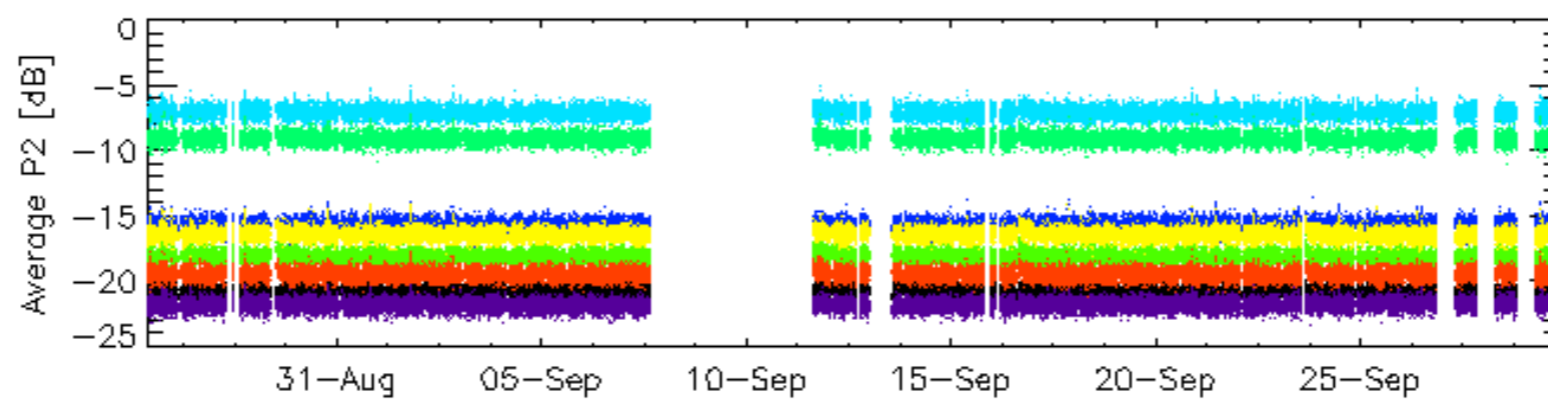
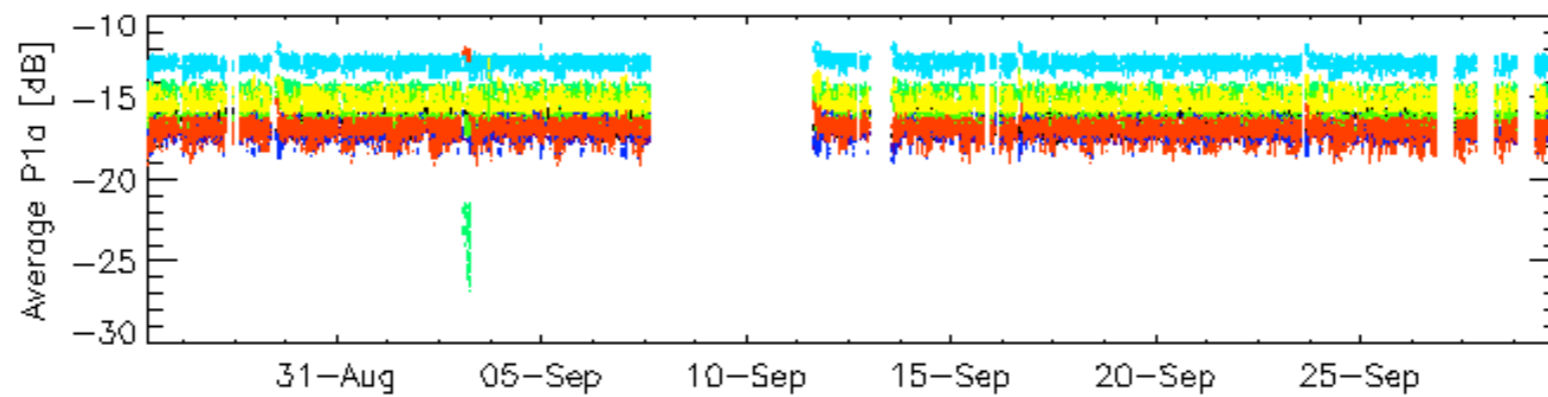
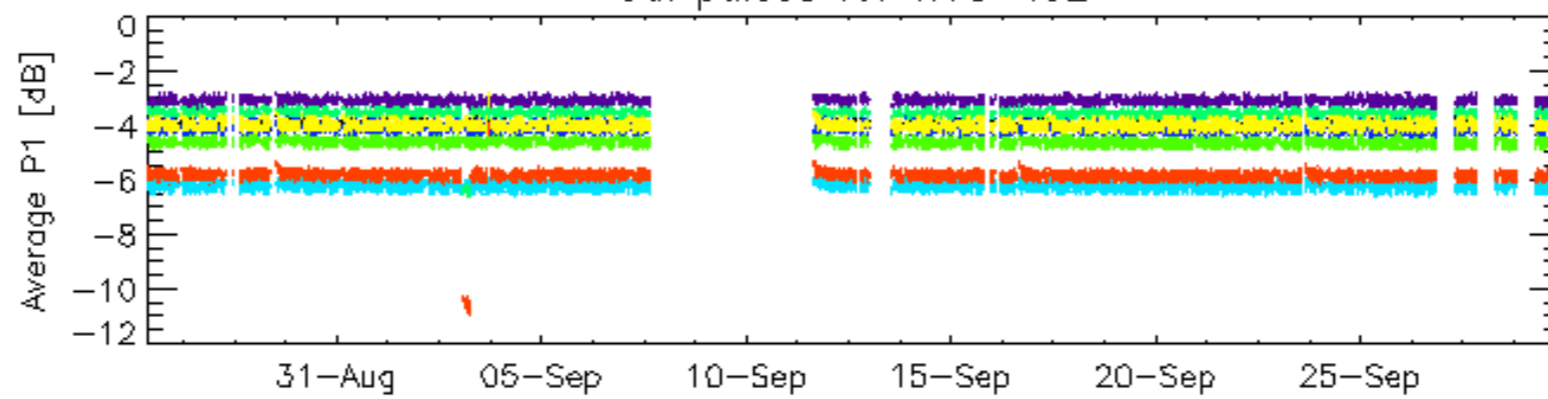


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

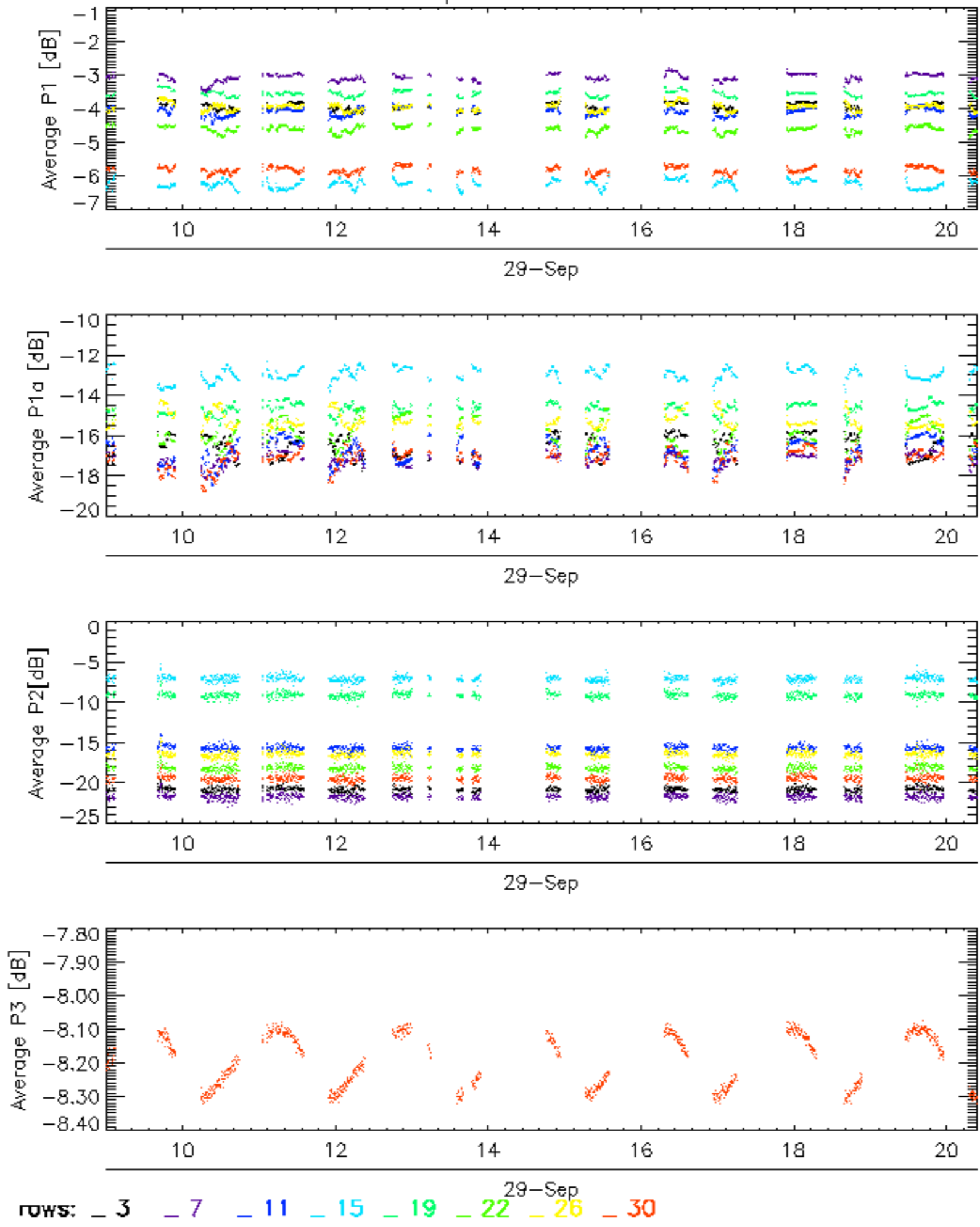


Cal pulses for WVS IS2

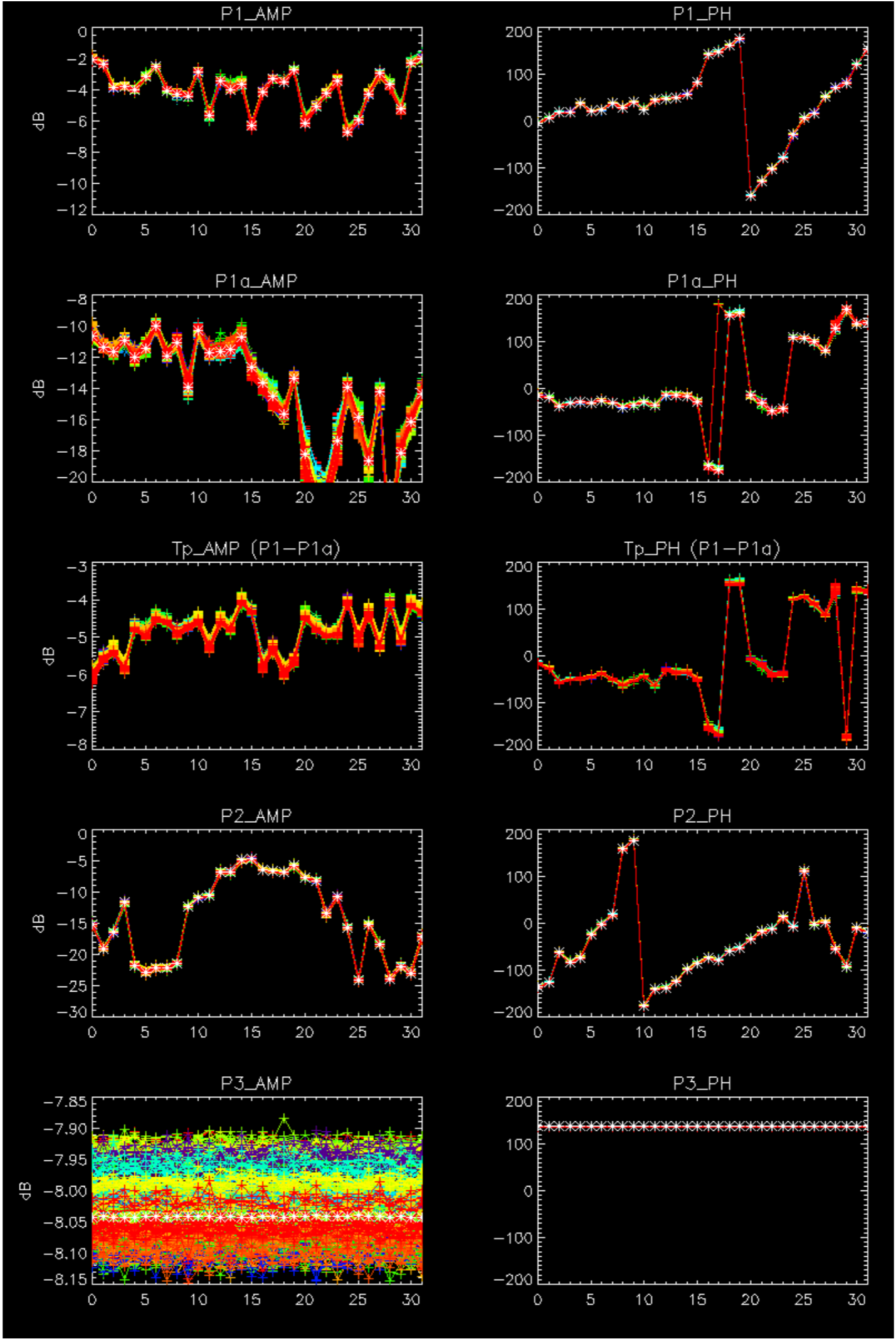


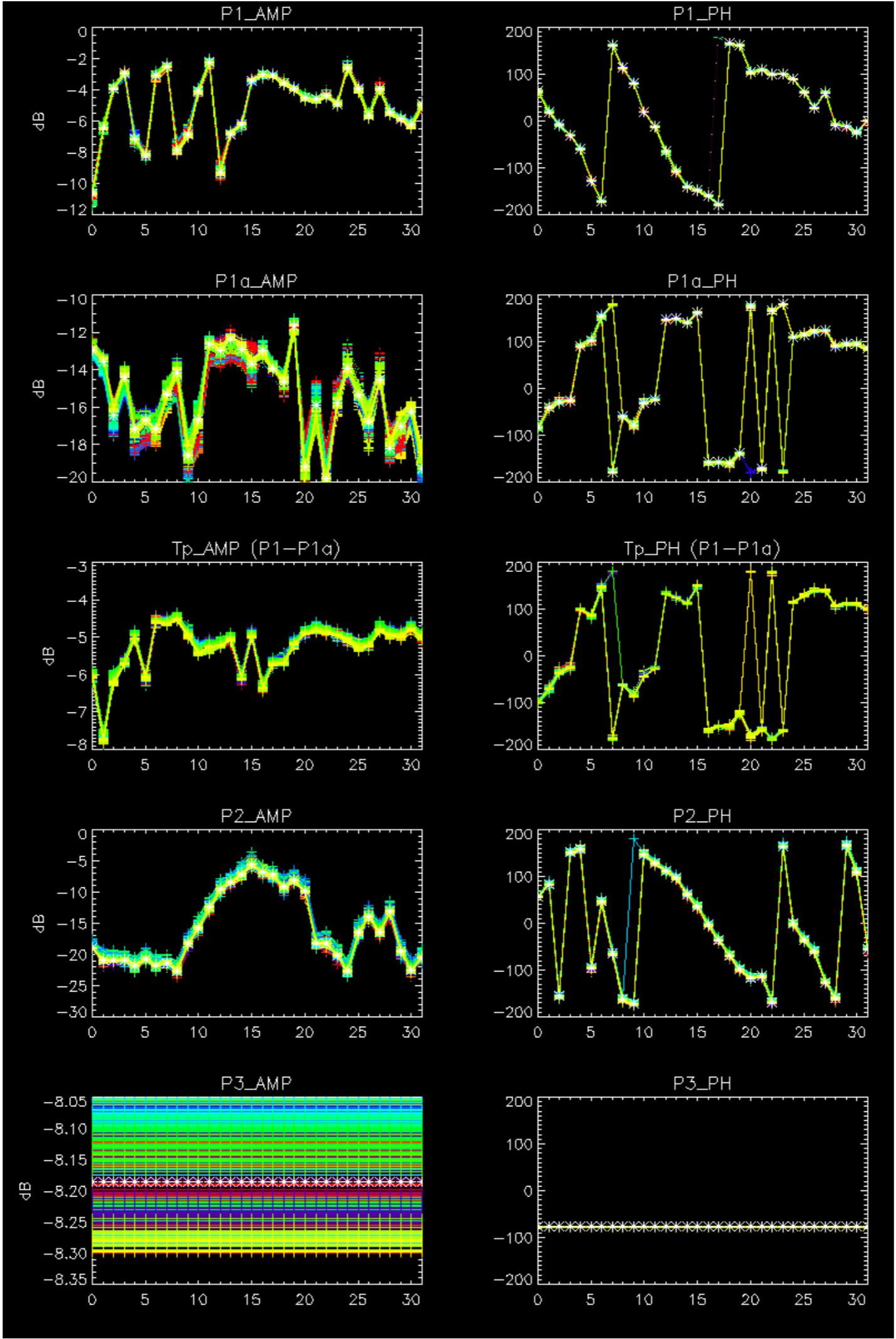
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



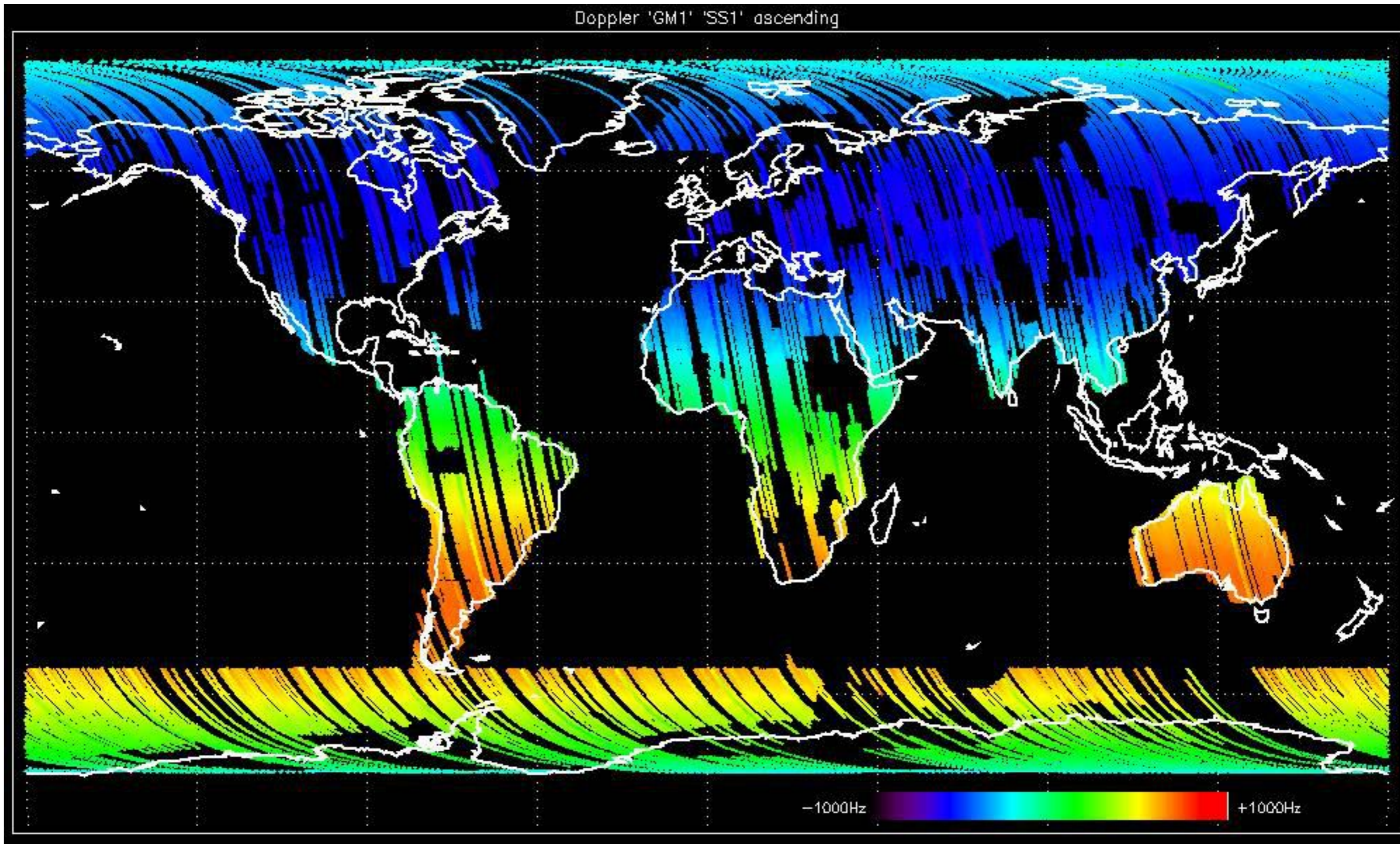
No anomalies observed.



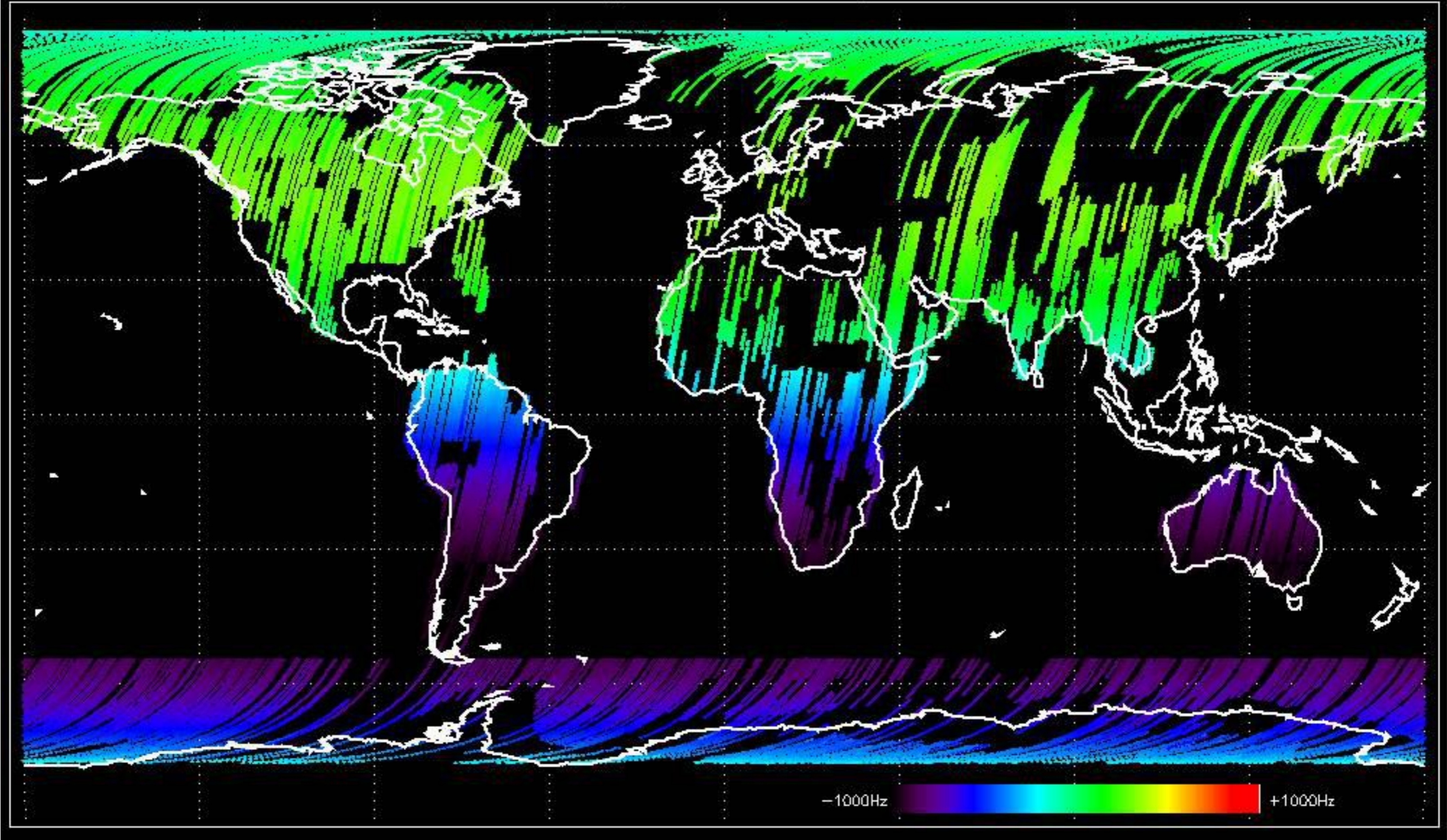


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

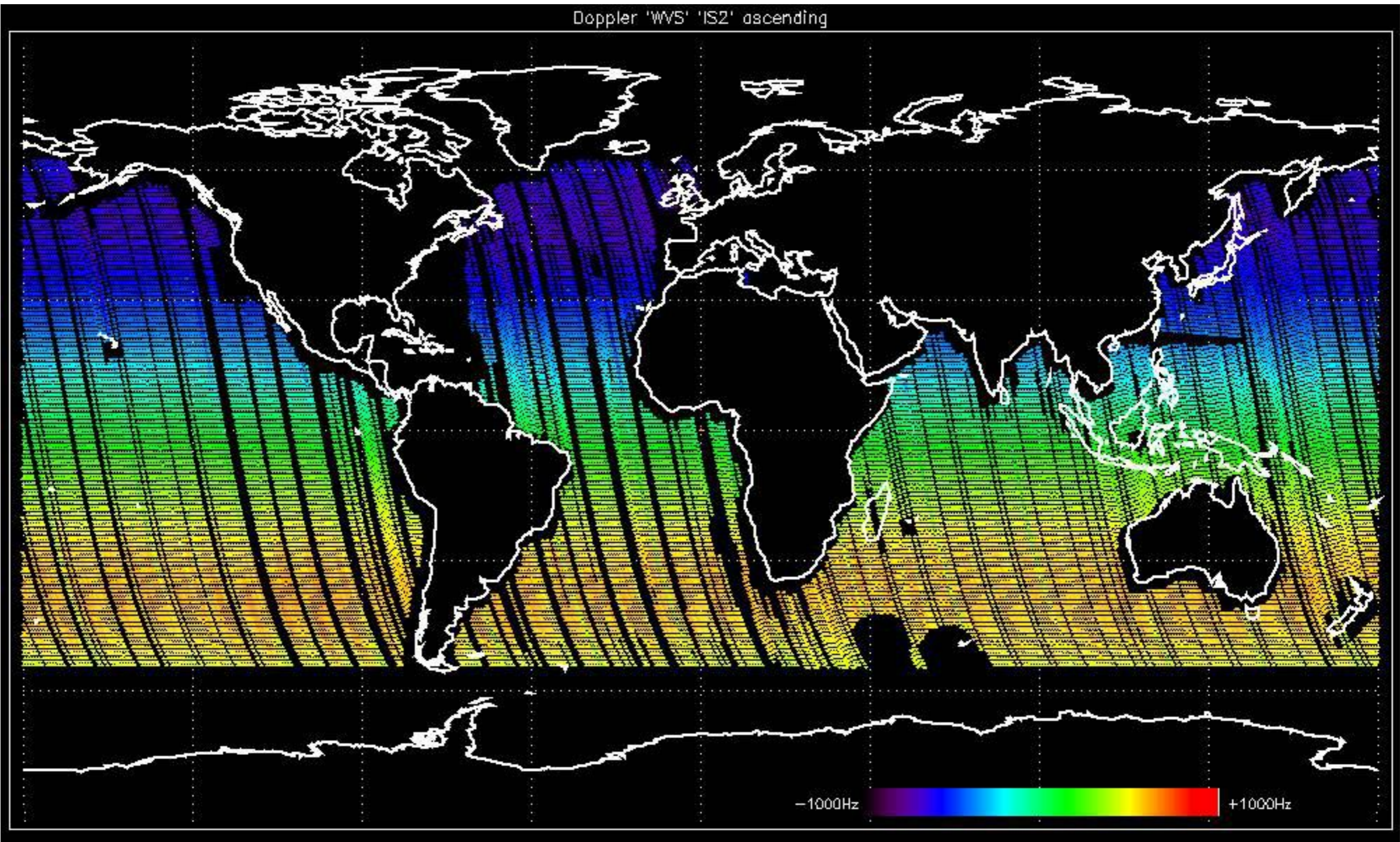
Doppler 'GM1' 'SS1' ascending



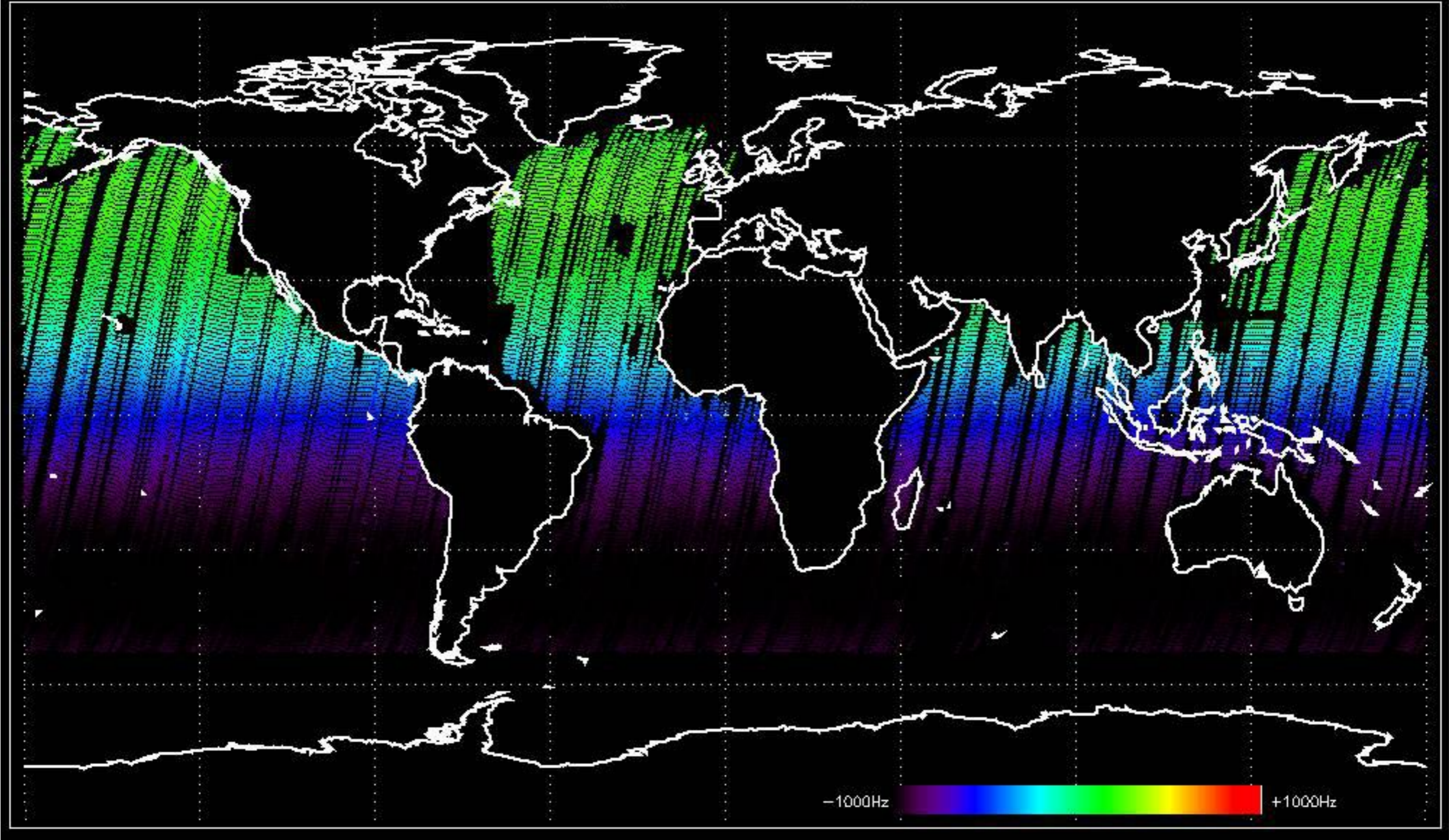
Doppler 'GM1' 'SS1' descending



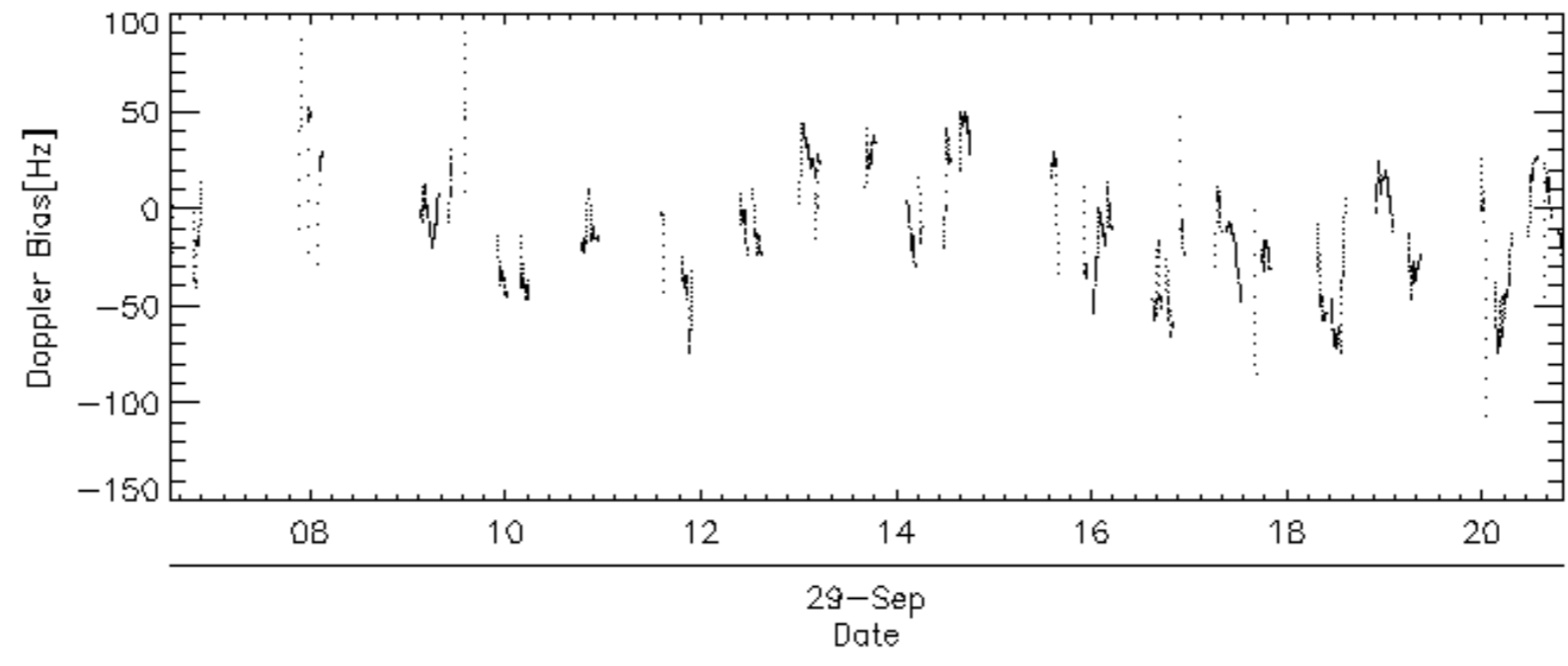
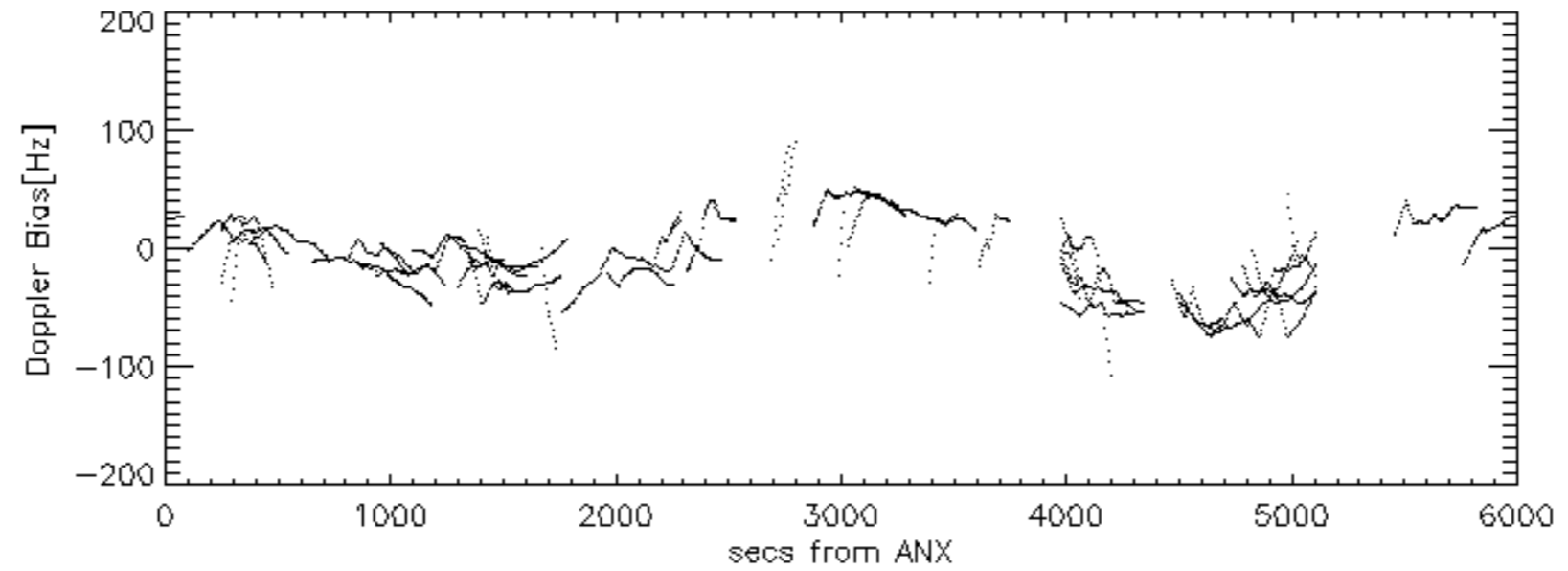
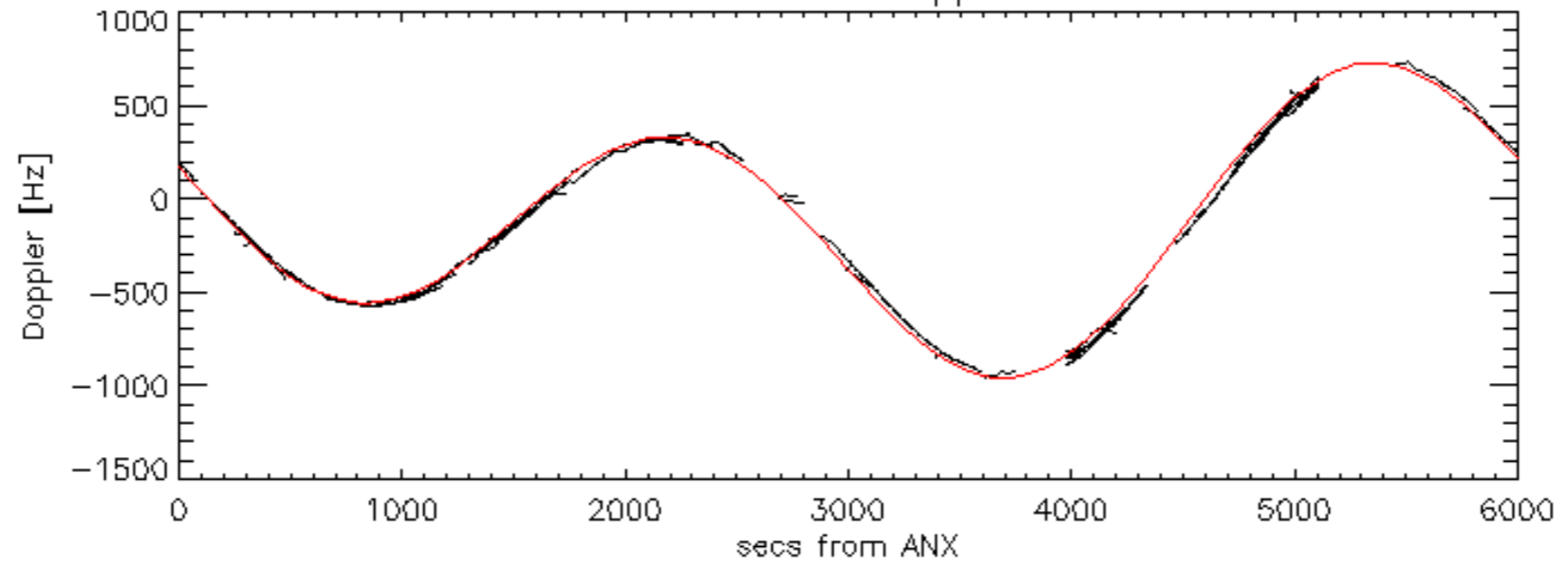
Doppler 'WVS' 'IS2' ascending

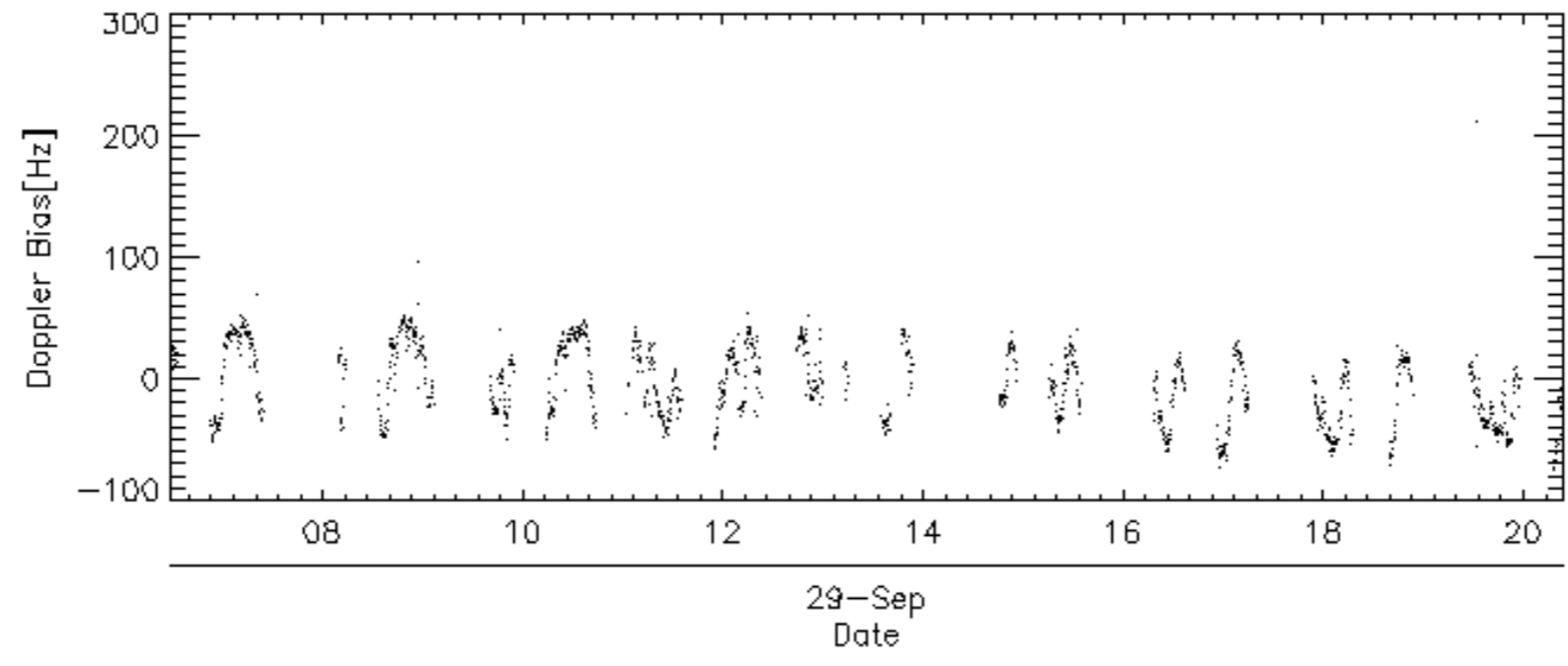
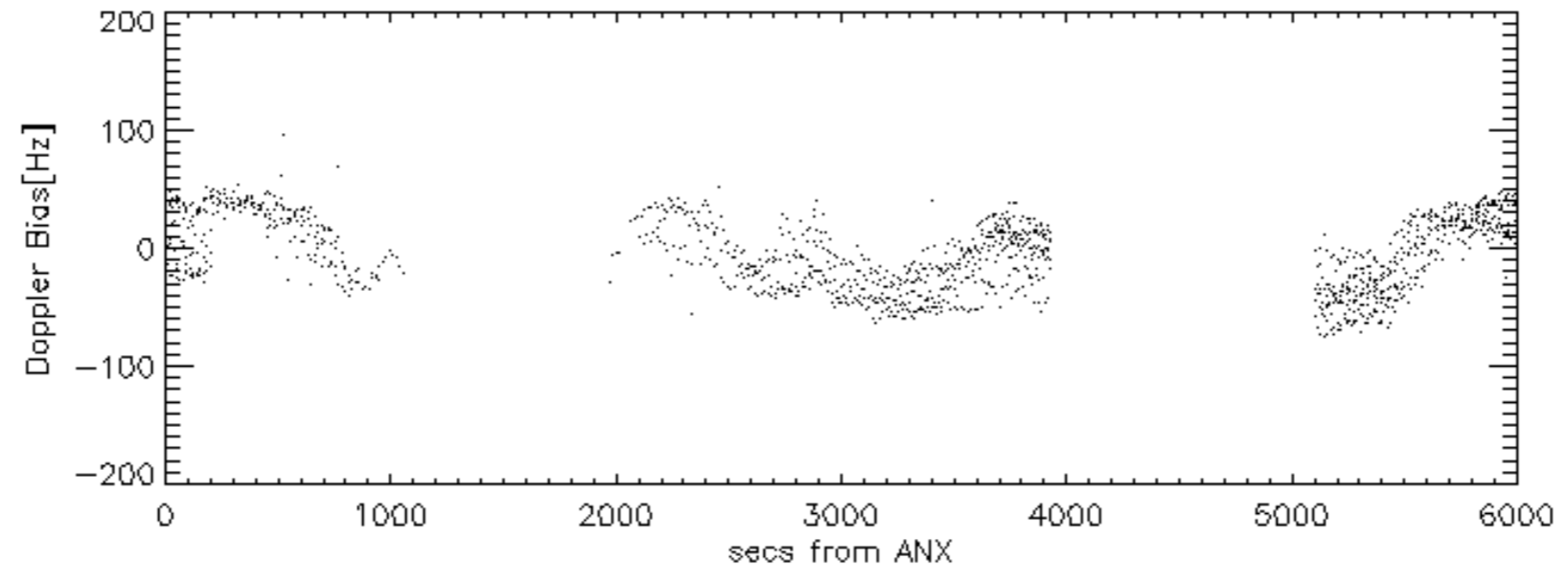
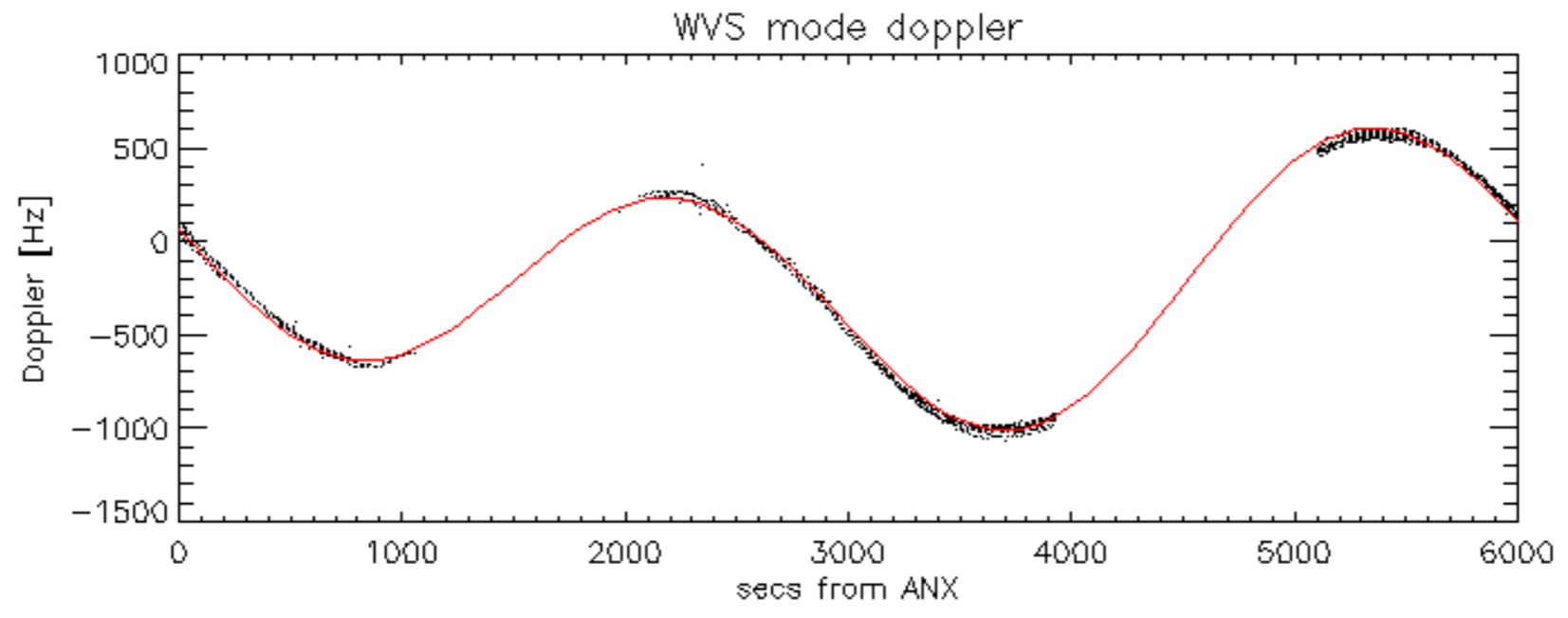


Doppler 'WVS' 'IS2' descending

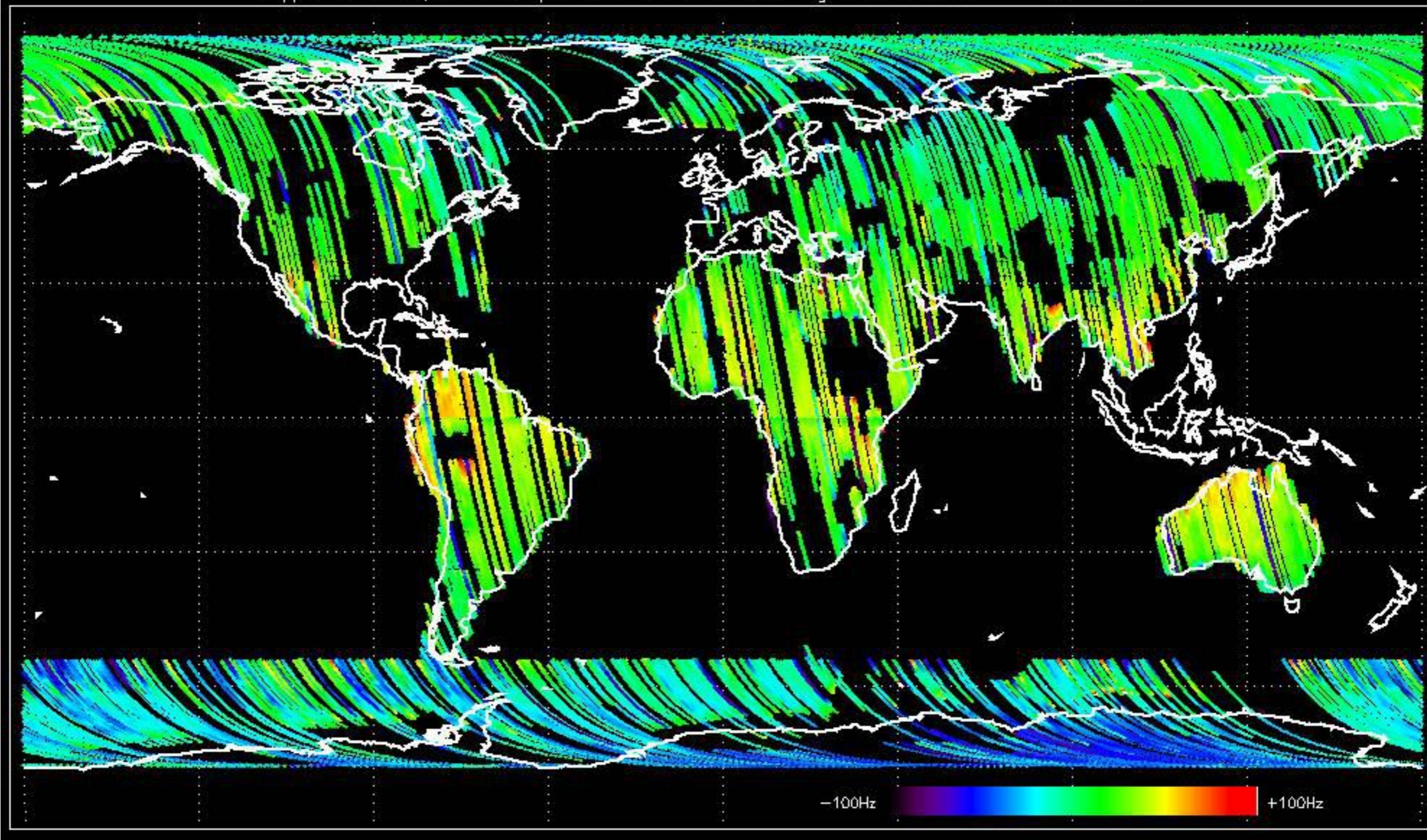


GM1 mode doppler

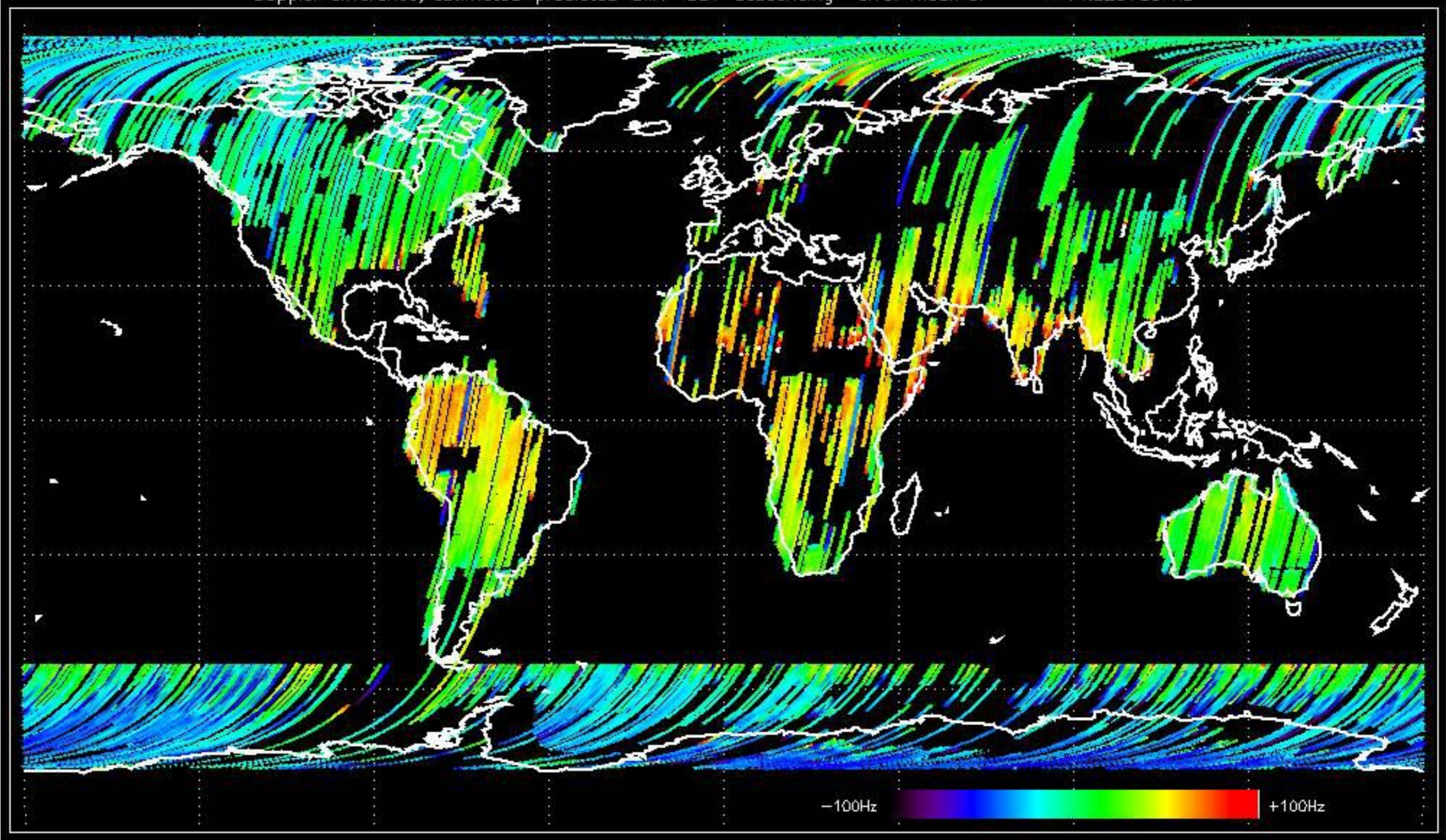




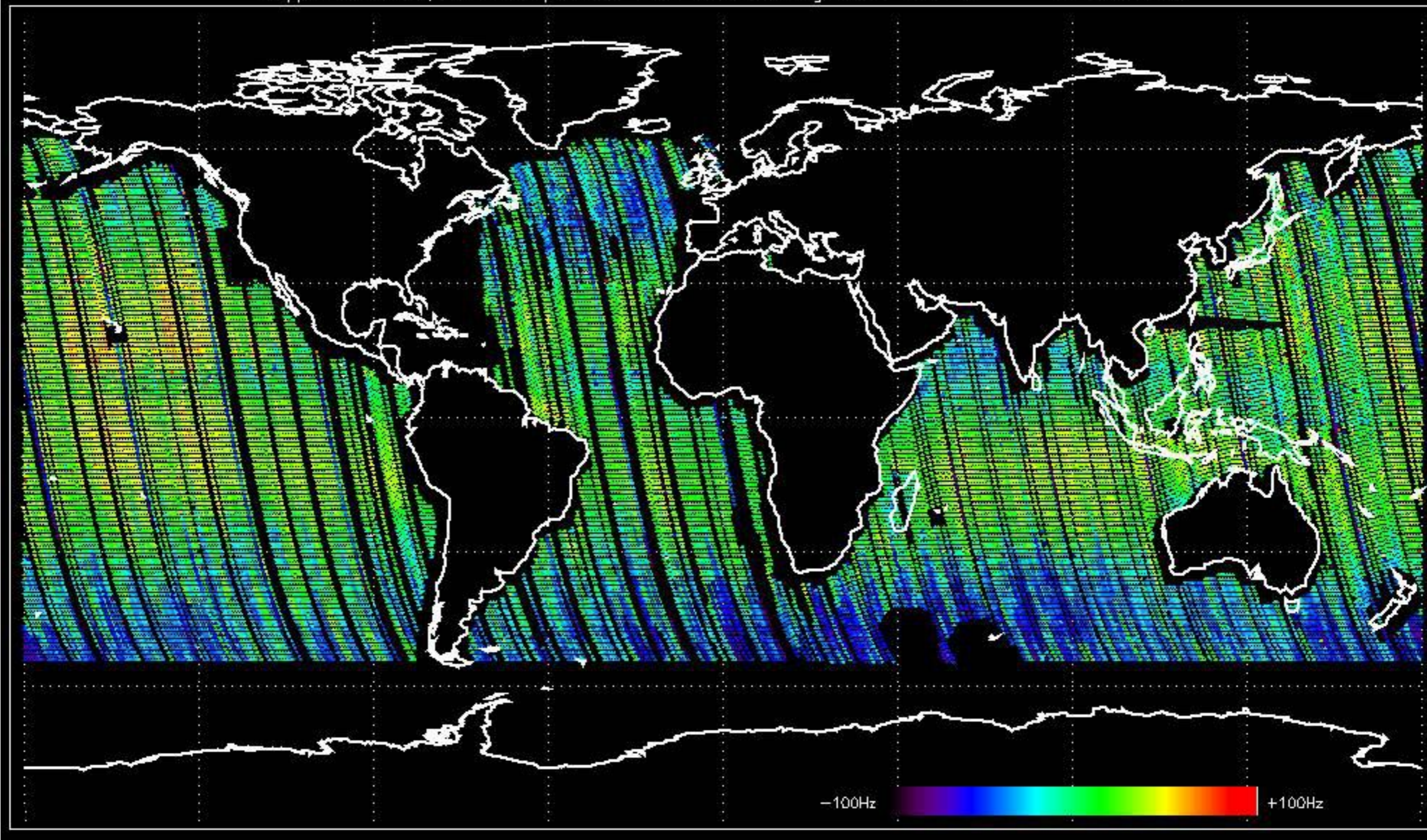
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.280394 Hz



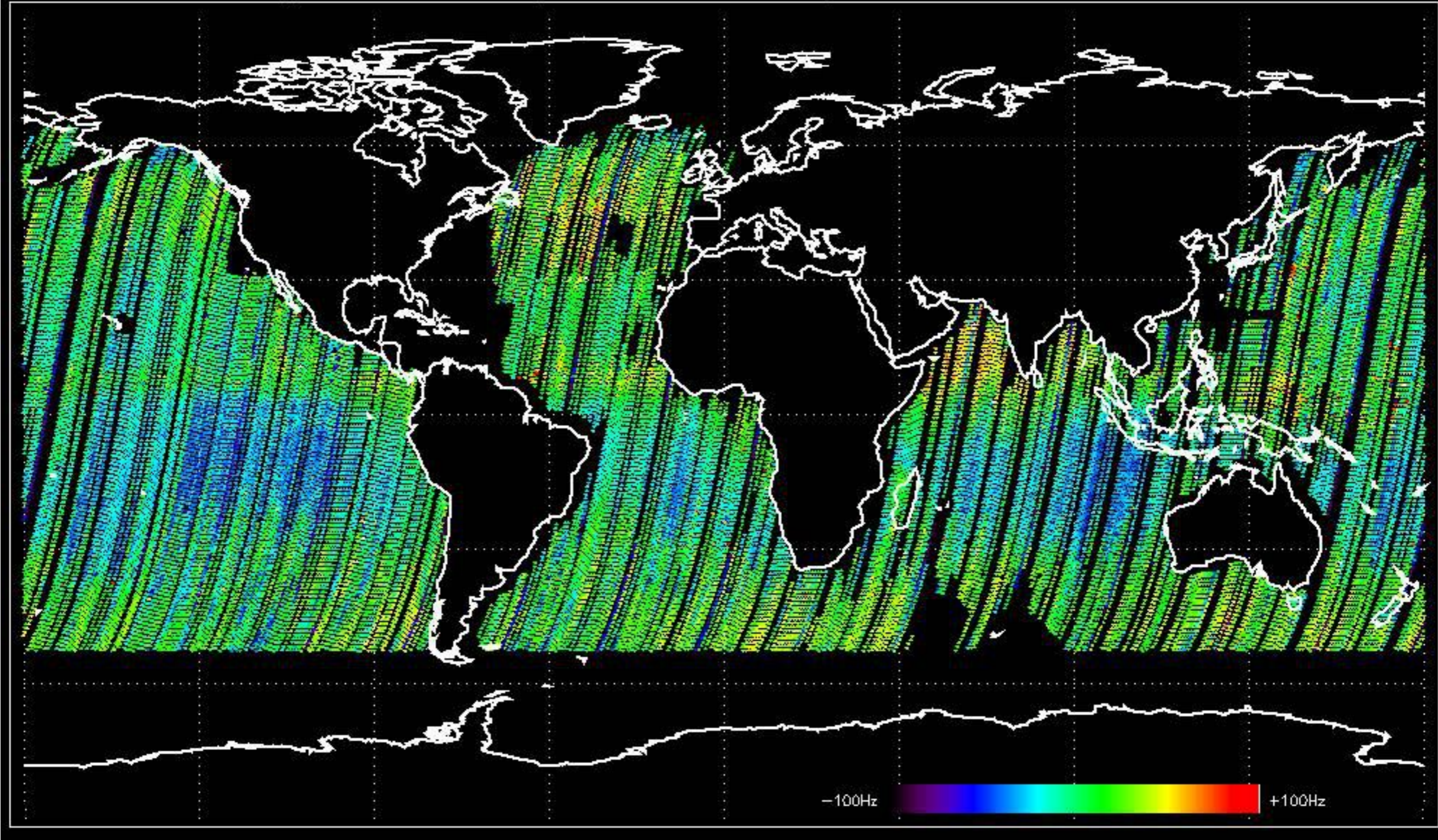
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.529750 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.656071 Hz

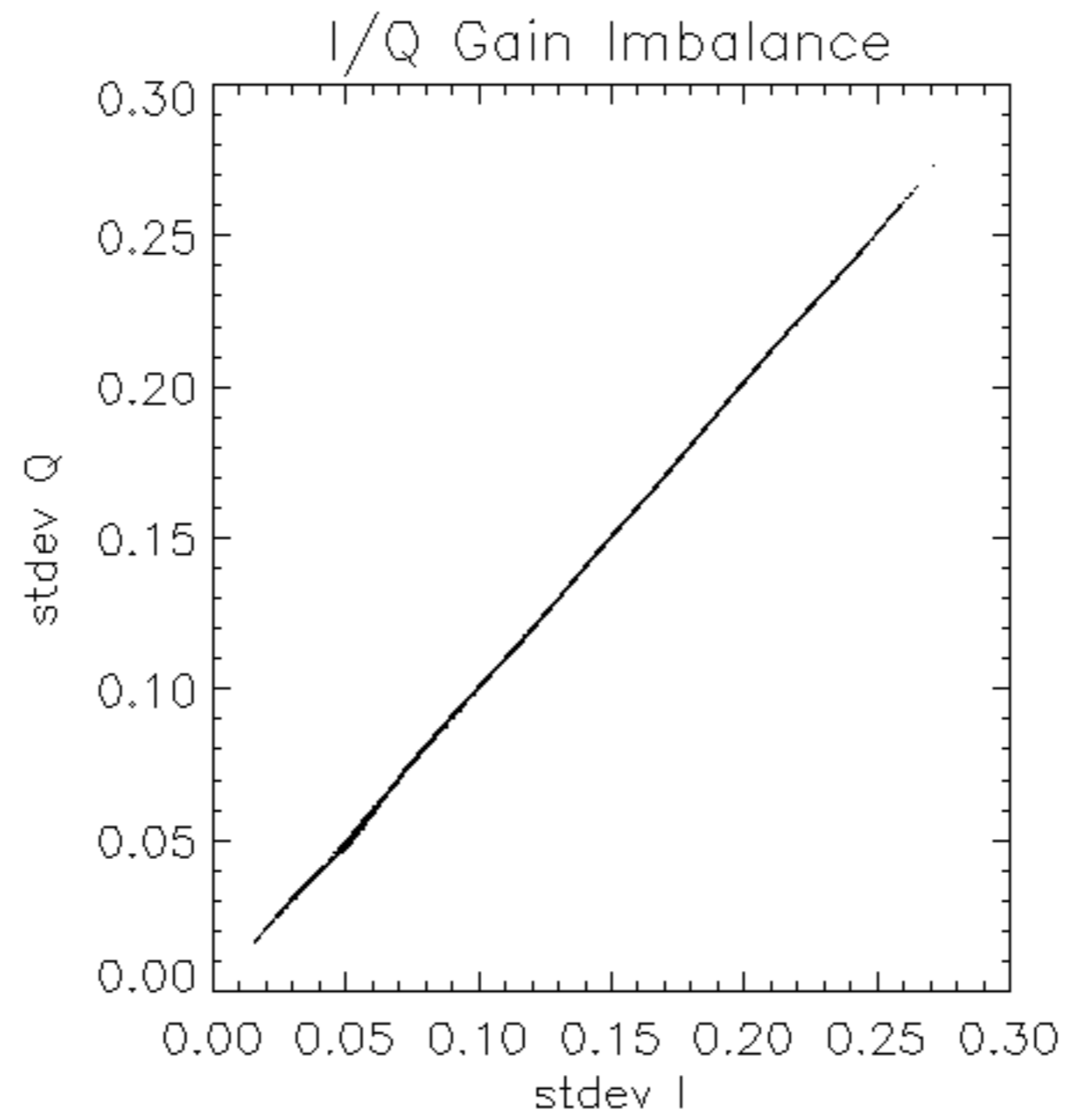


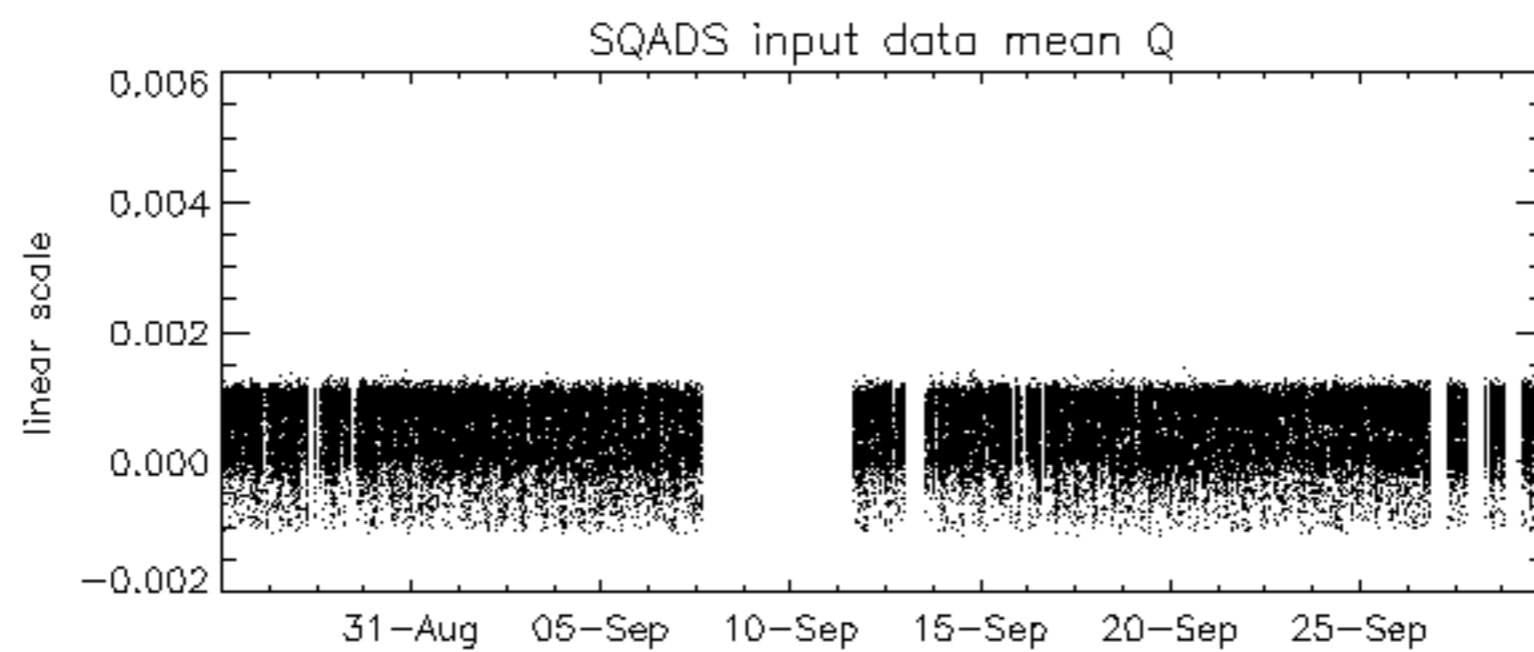
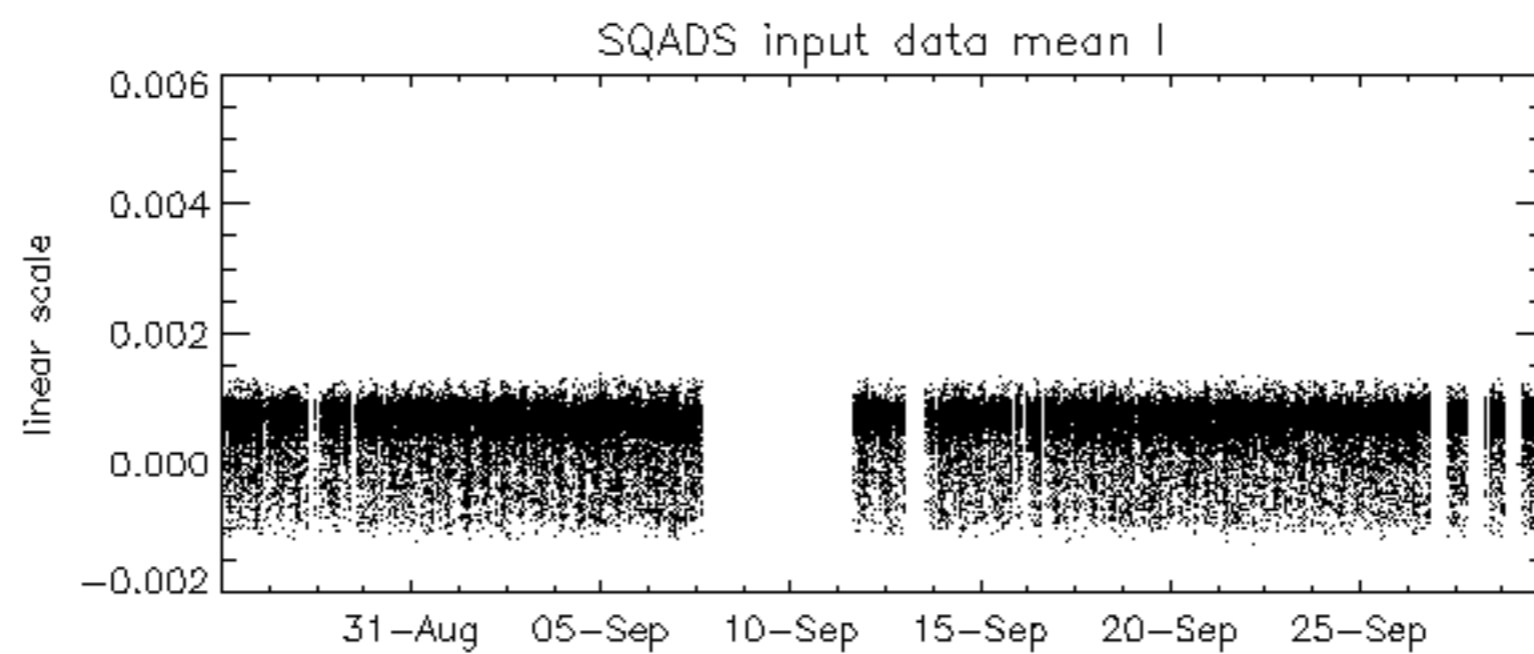
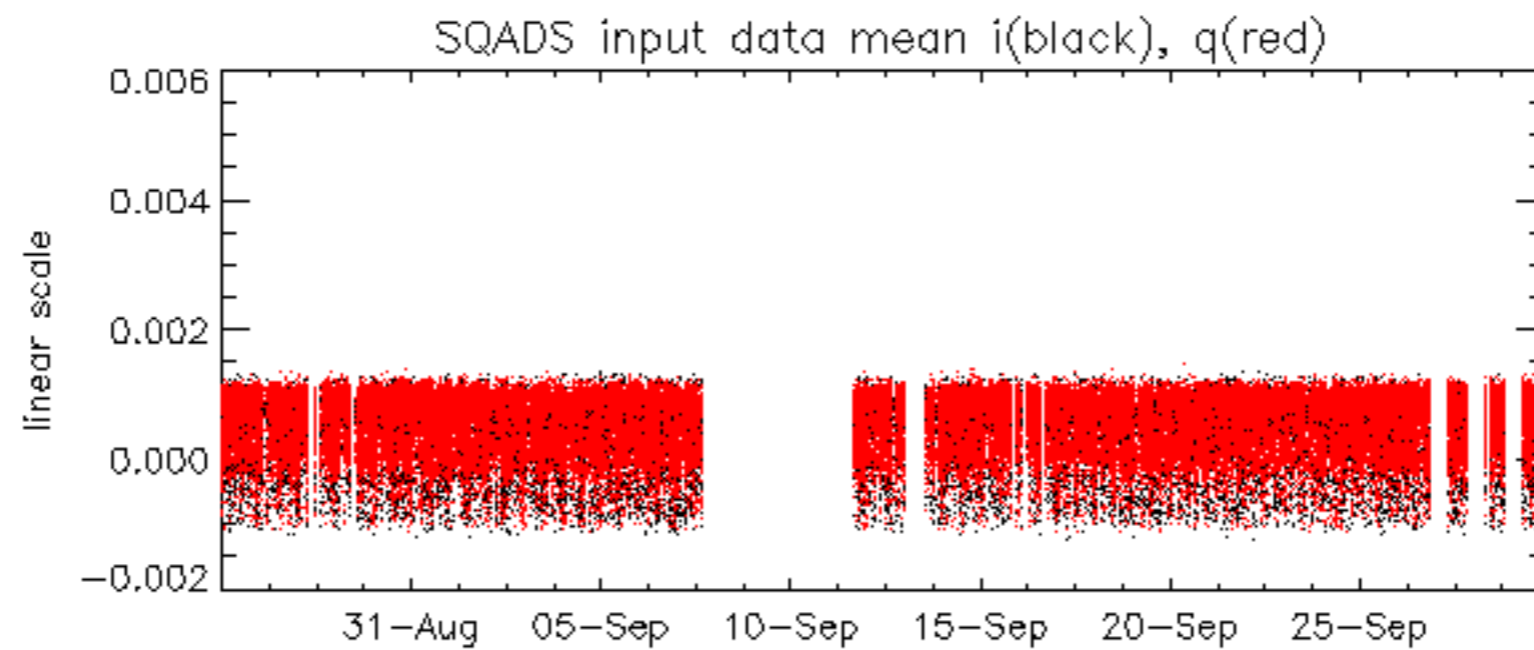
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -15.916208 Hz

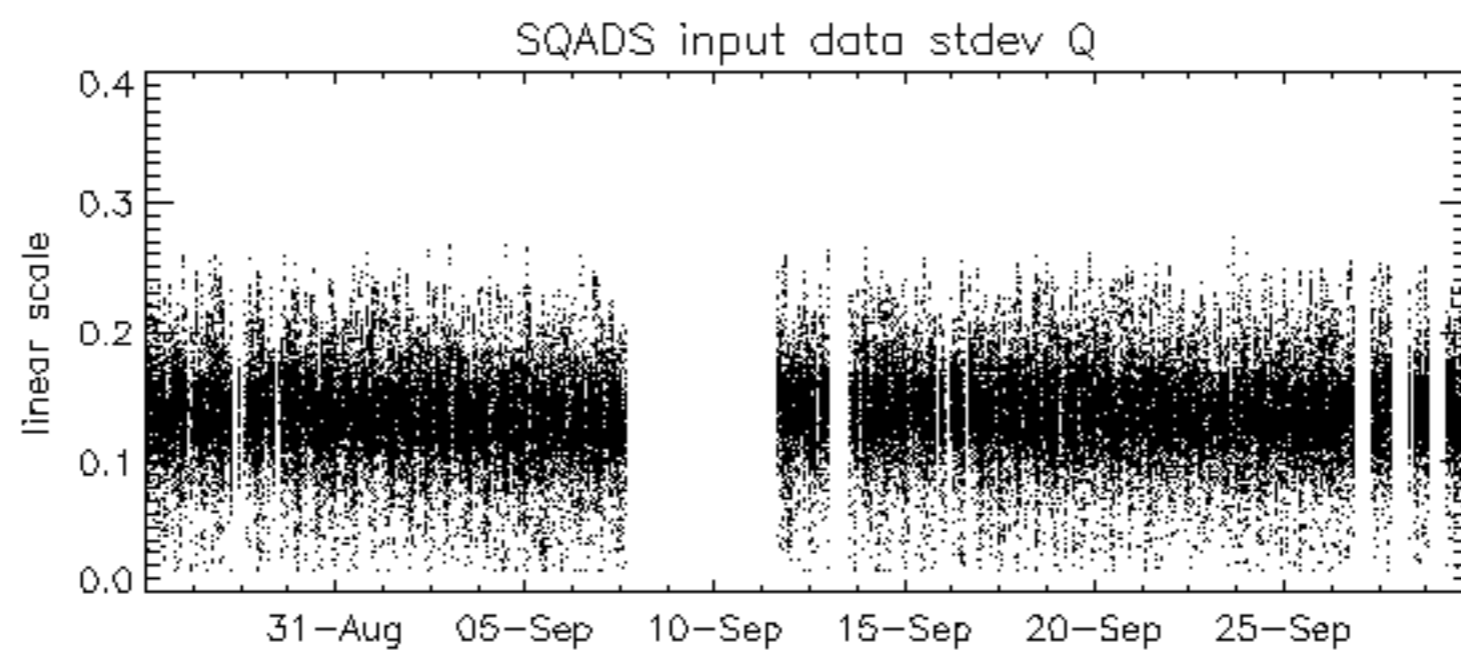
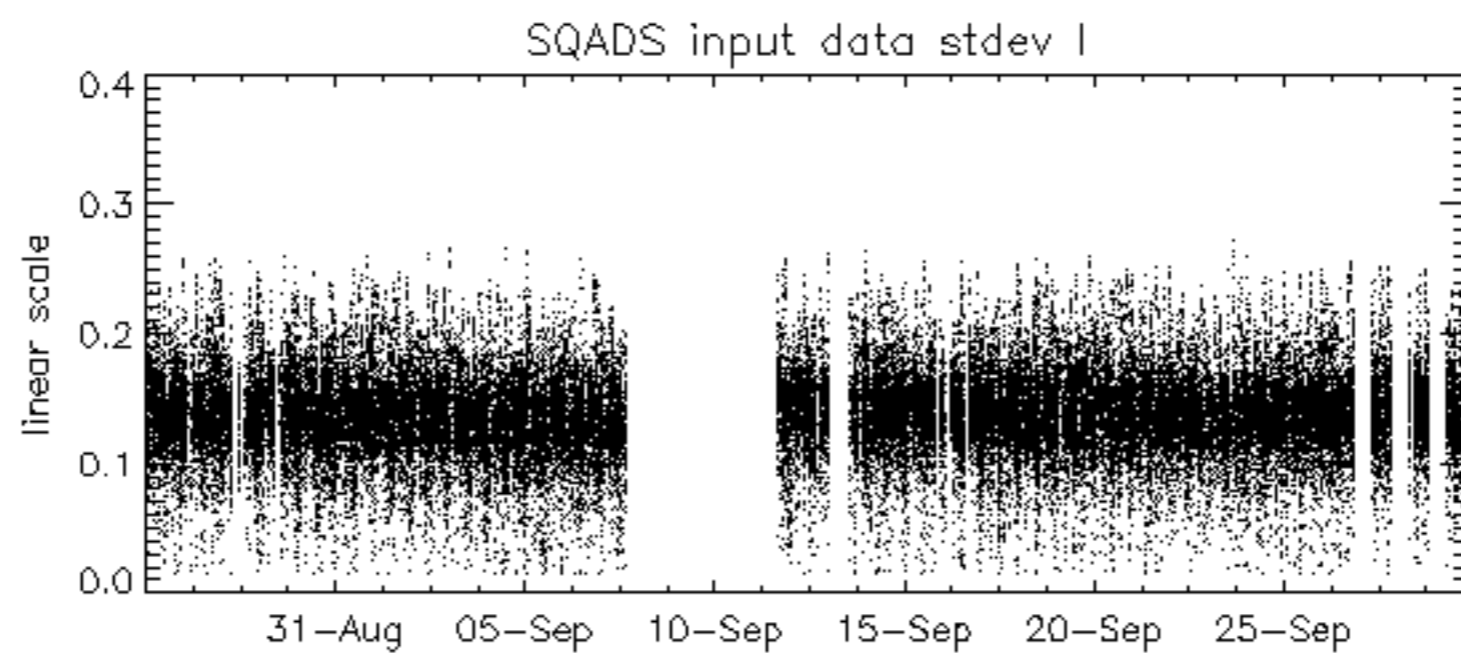
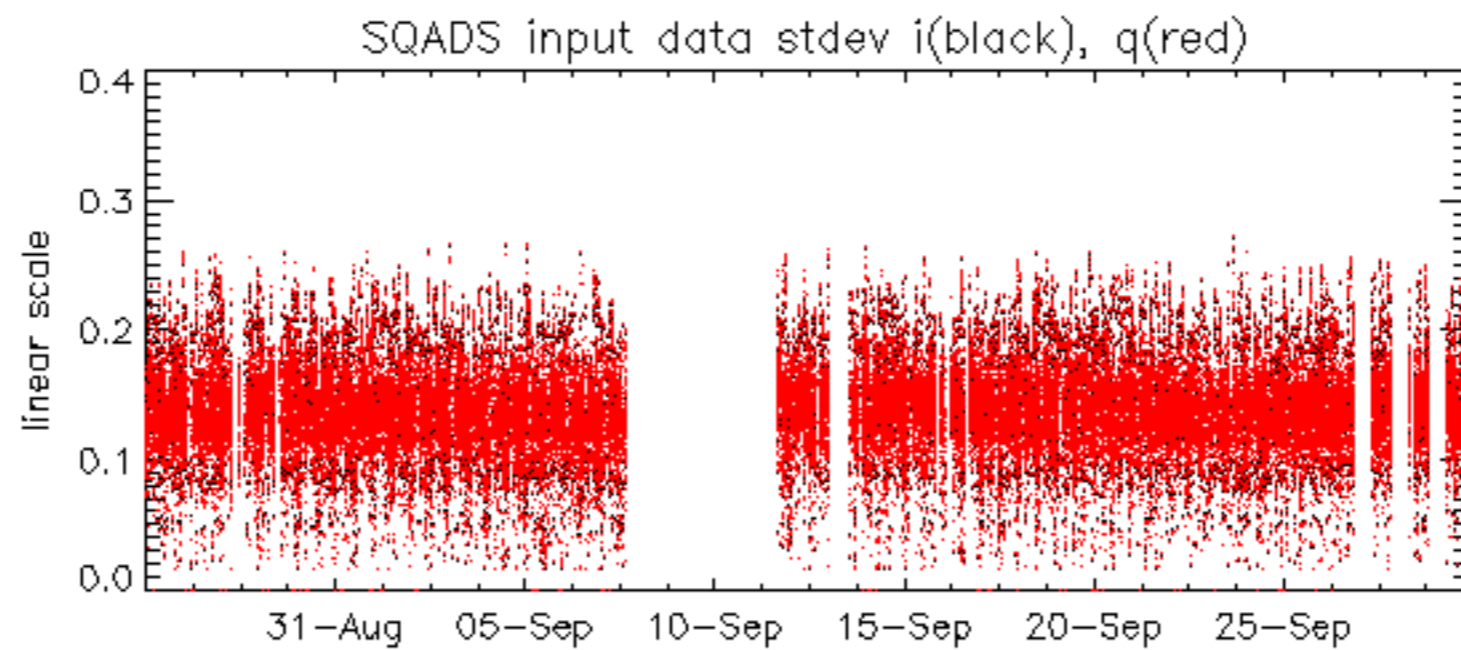


No anomalies observed on available MS products:

No anomalies observed.



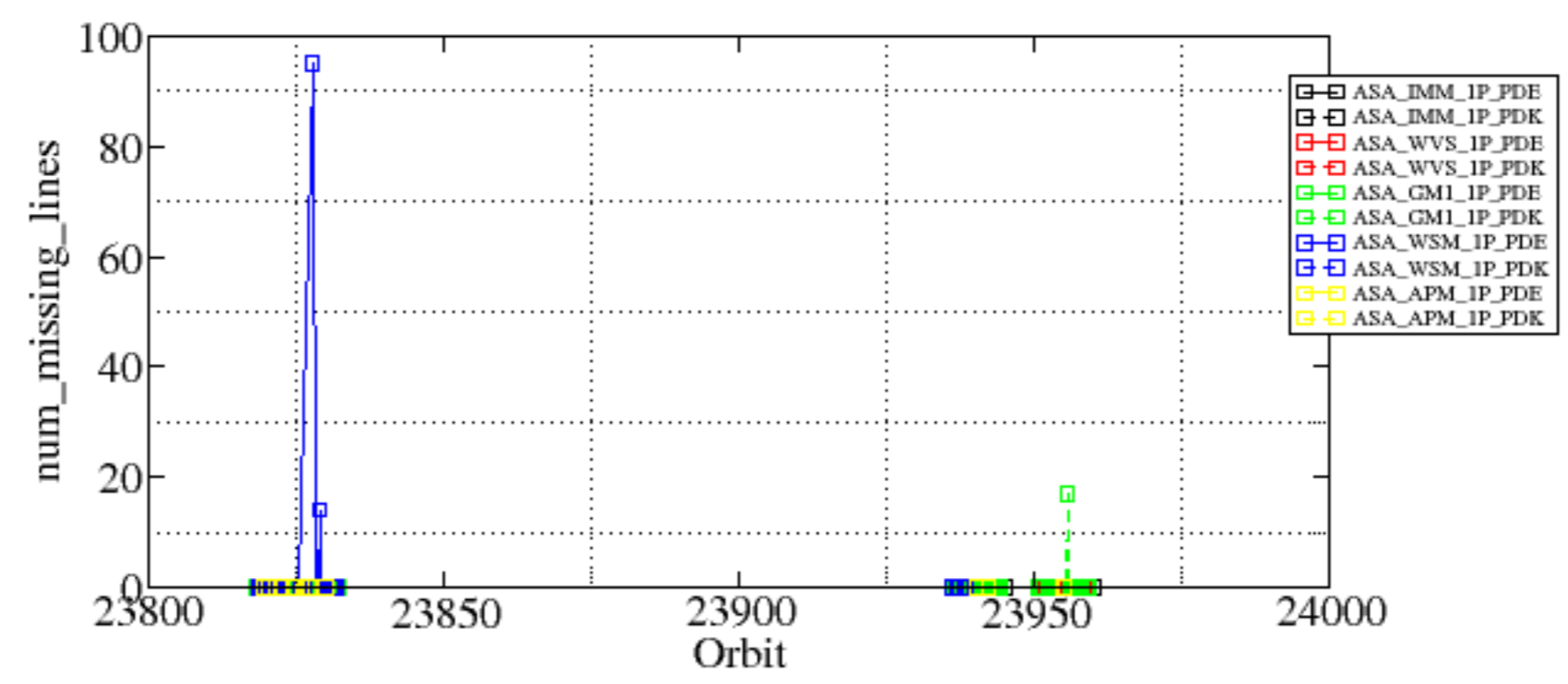


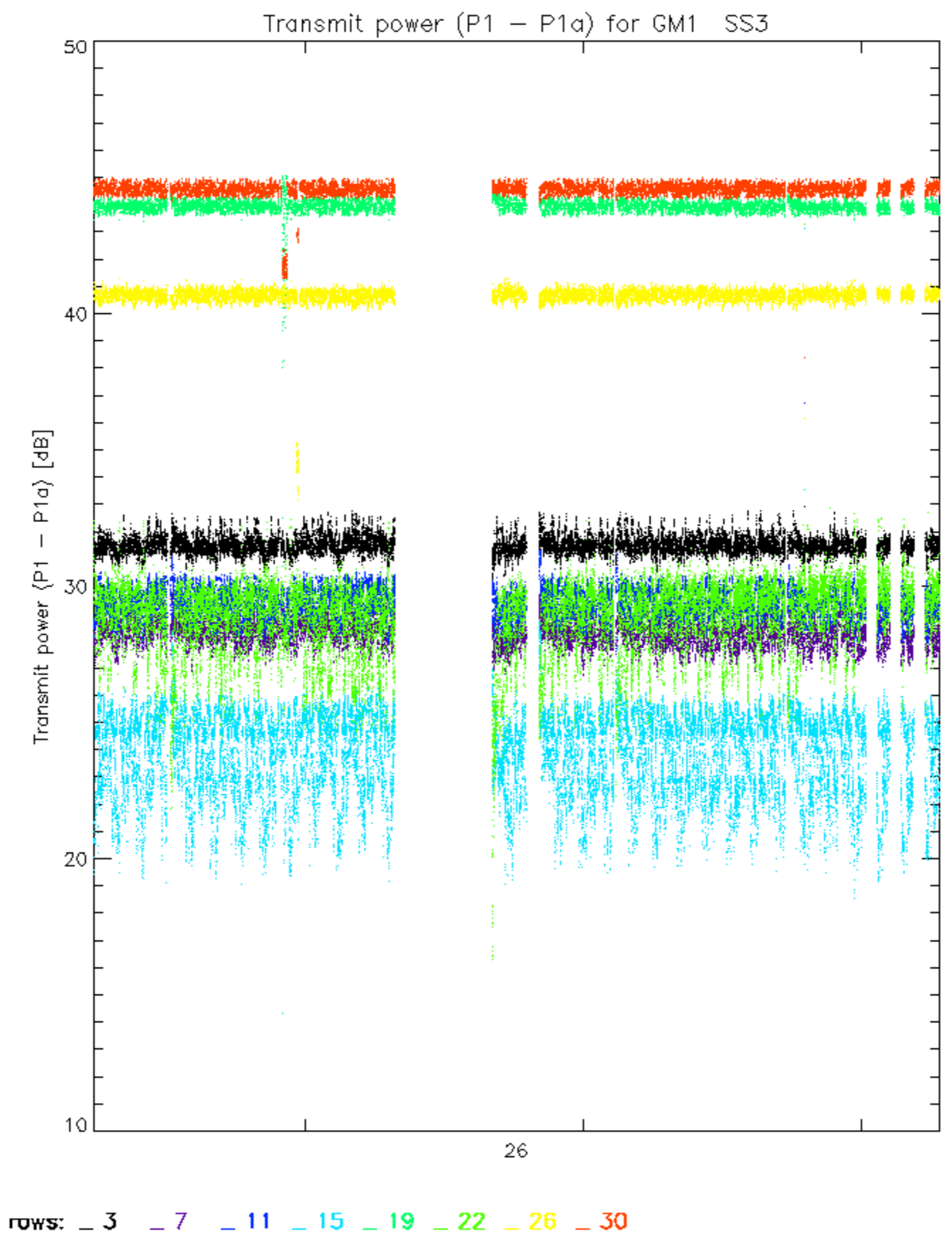


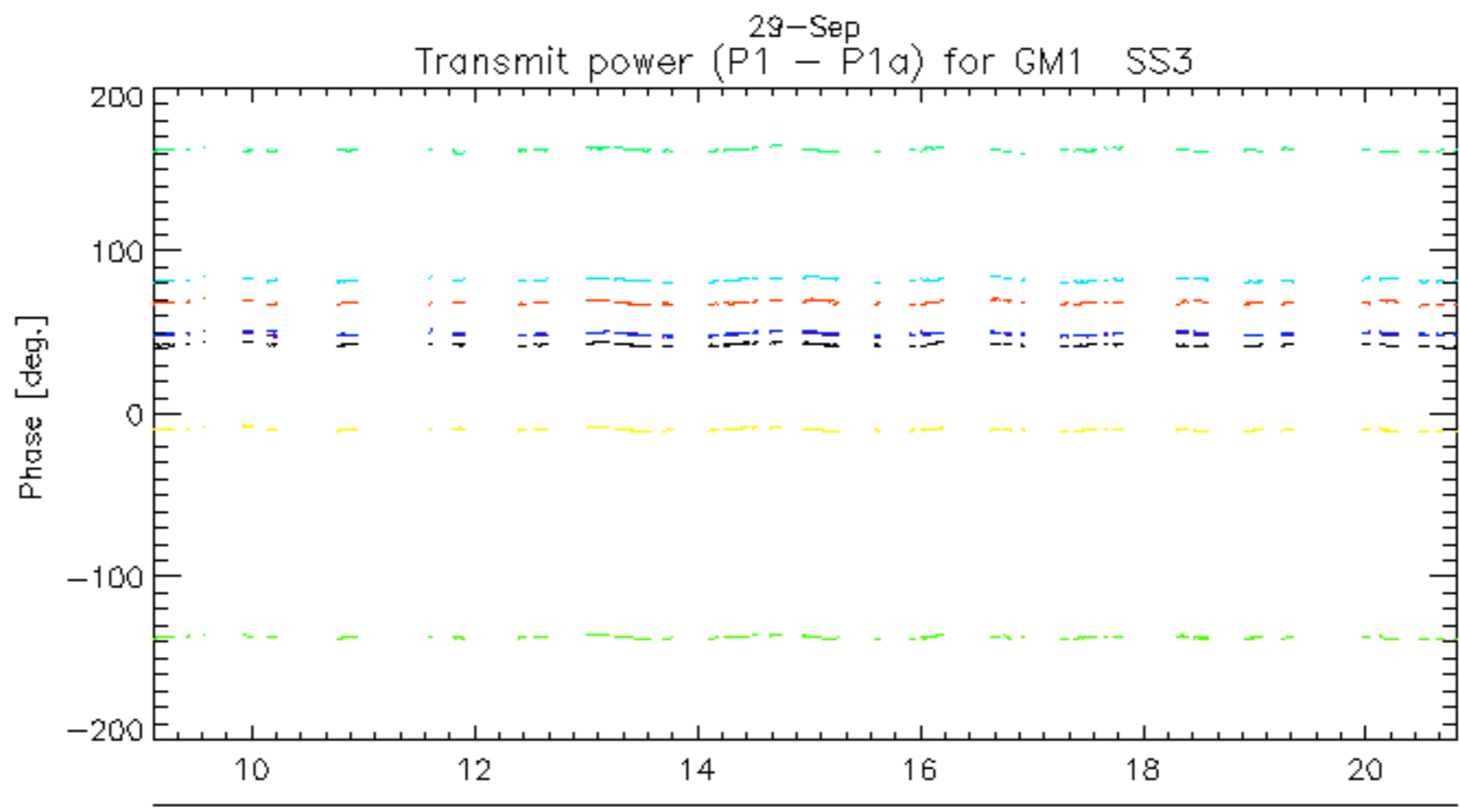
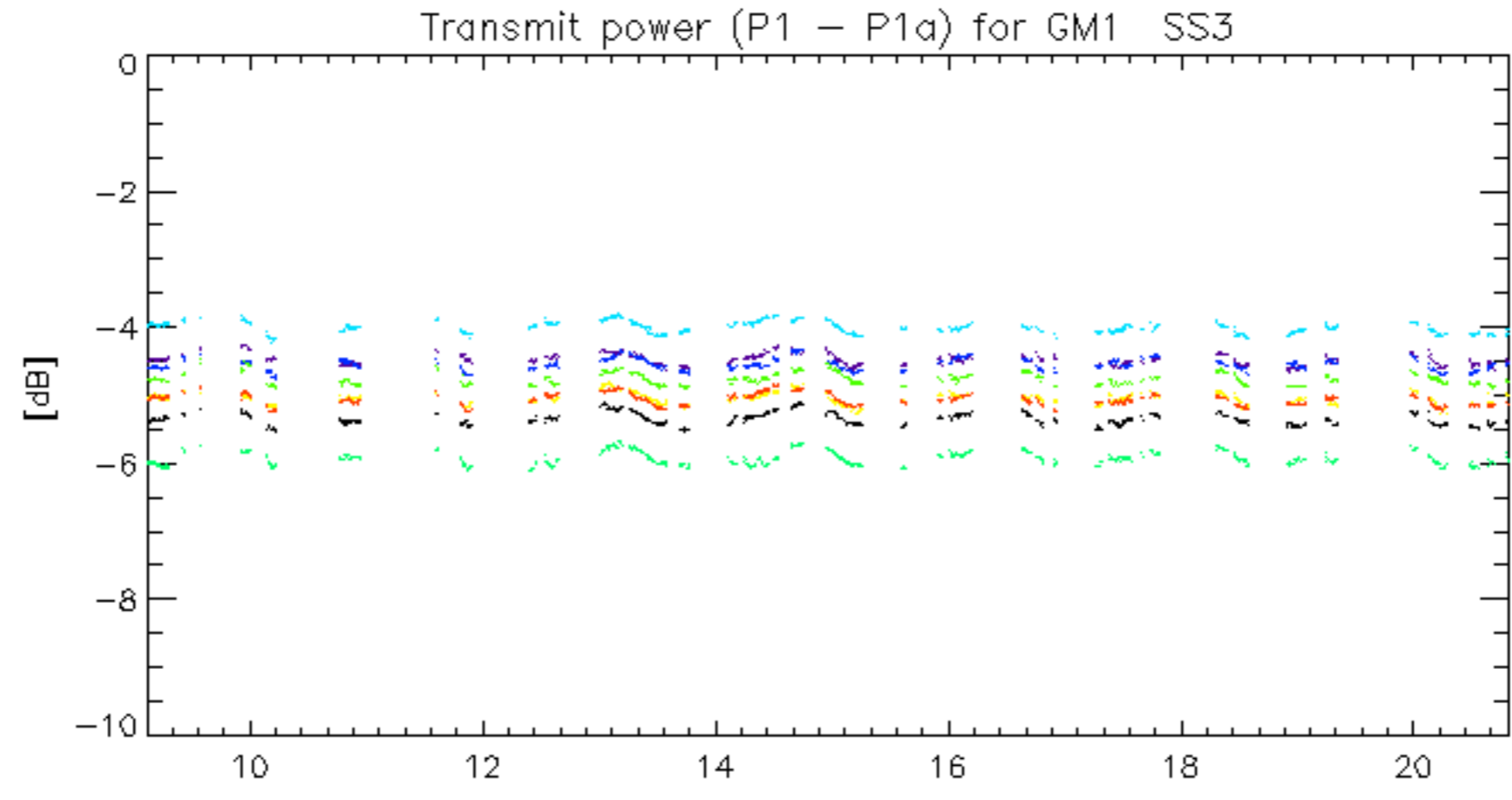
Summary of analysis for the last 3 days 2006092[890]

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

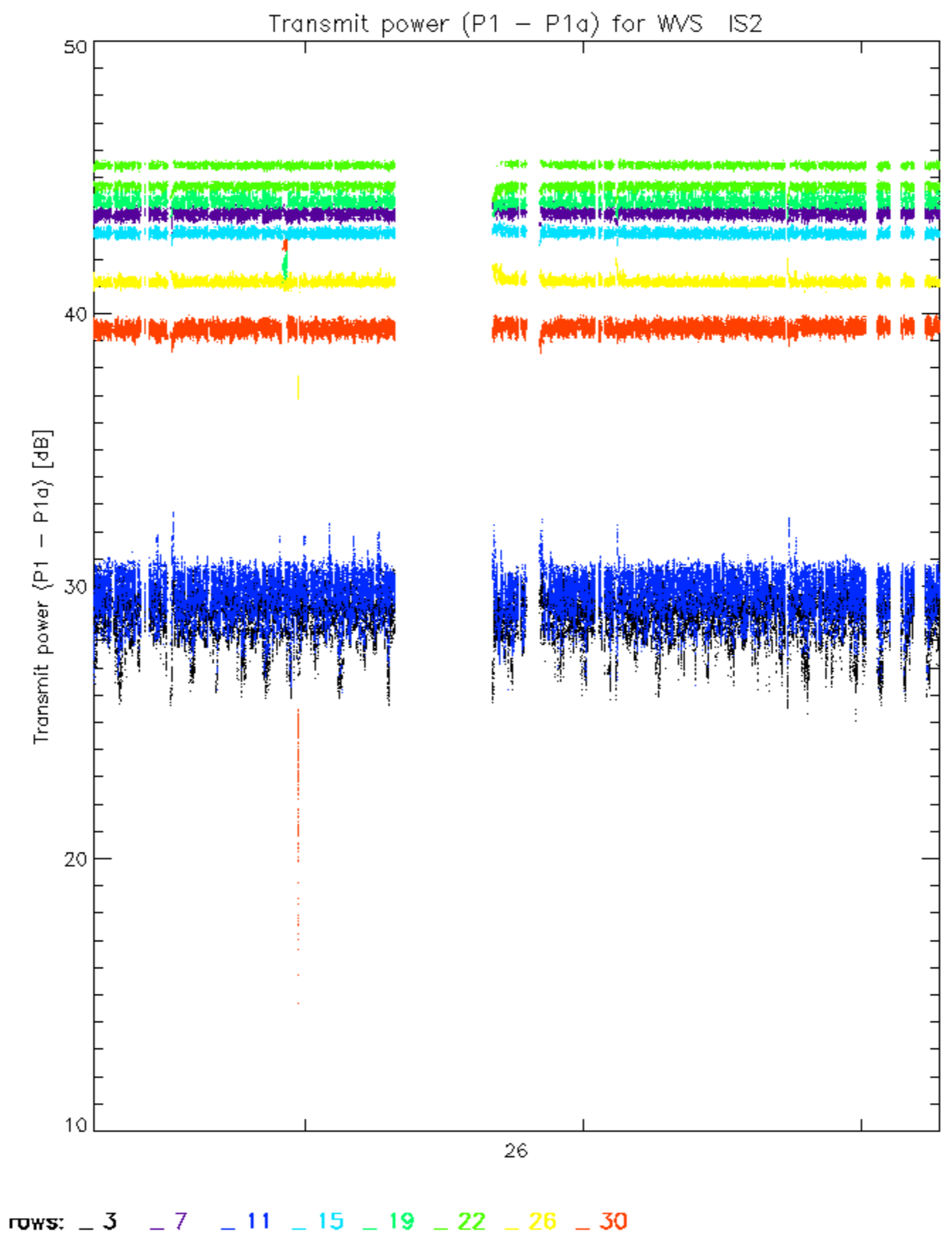
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060920_001749_000001822051_00217_23818_6049.N1	1	0
ASA_IMM_1PNPDE20060920_015825_000001852051_00218_23819_6068.N1	1	0
ASA_IMM_1PNPDE20060920_234612_000001712051_00231_23832_6130.N1	1	0
ASA_WVS_1PNPDK20060929_062850_000000002051_00349_23950_2312.N1	1	0
ASA_GM1_1PNPDK20060929_145703_000011352051_00354_23955_5391.N1	0	17
ASA_GM1_1PNPDK20060929_145703_000011362051_00354_23955_5417.N1	0	17
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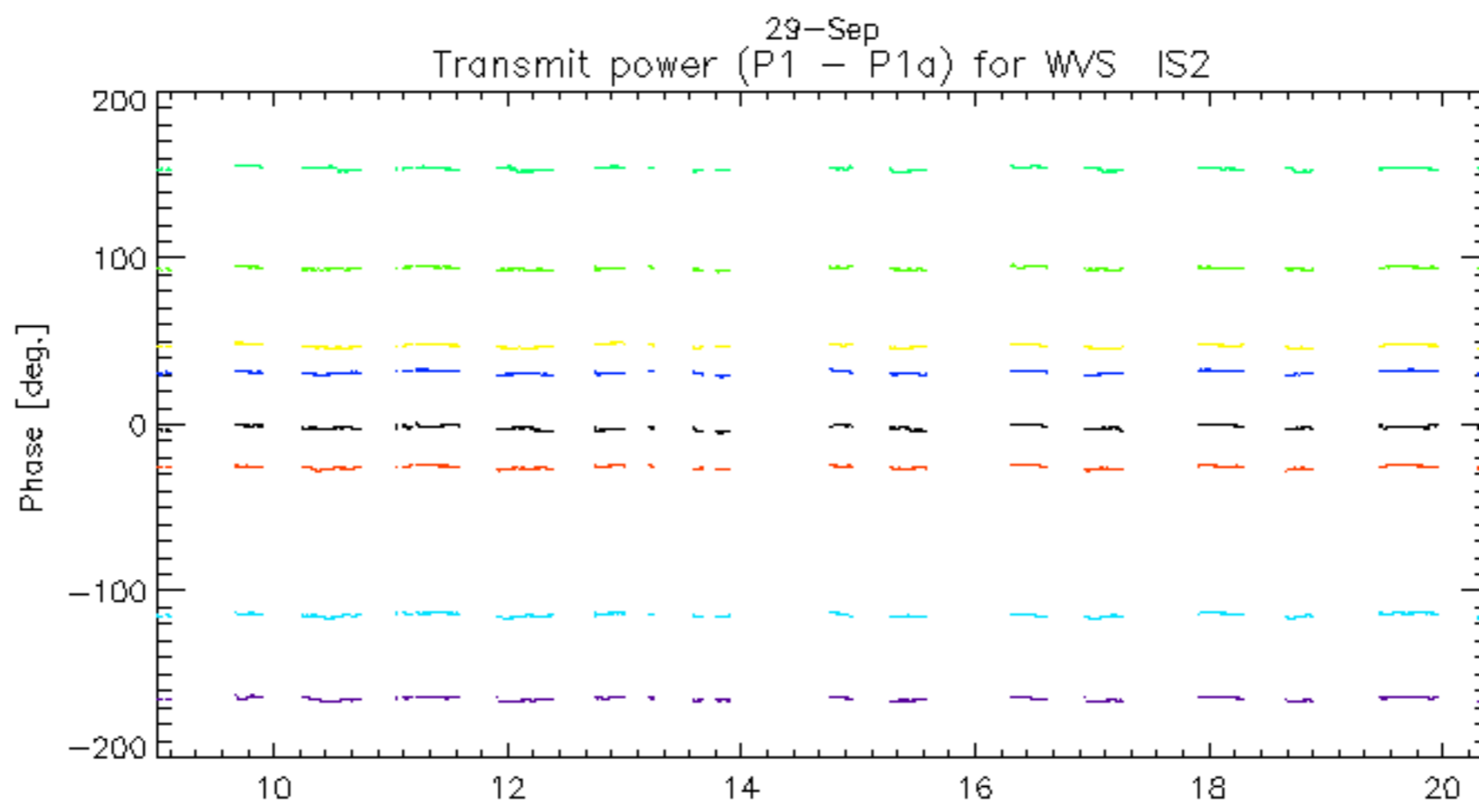
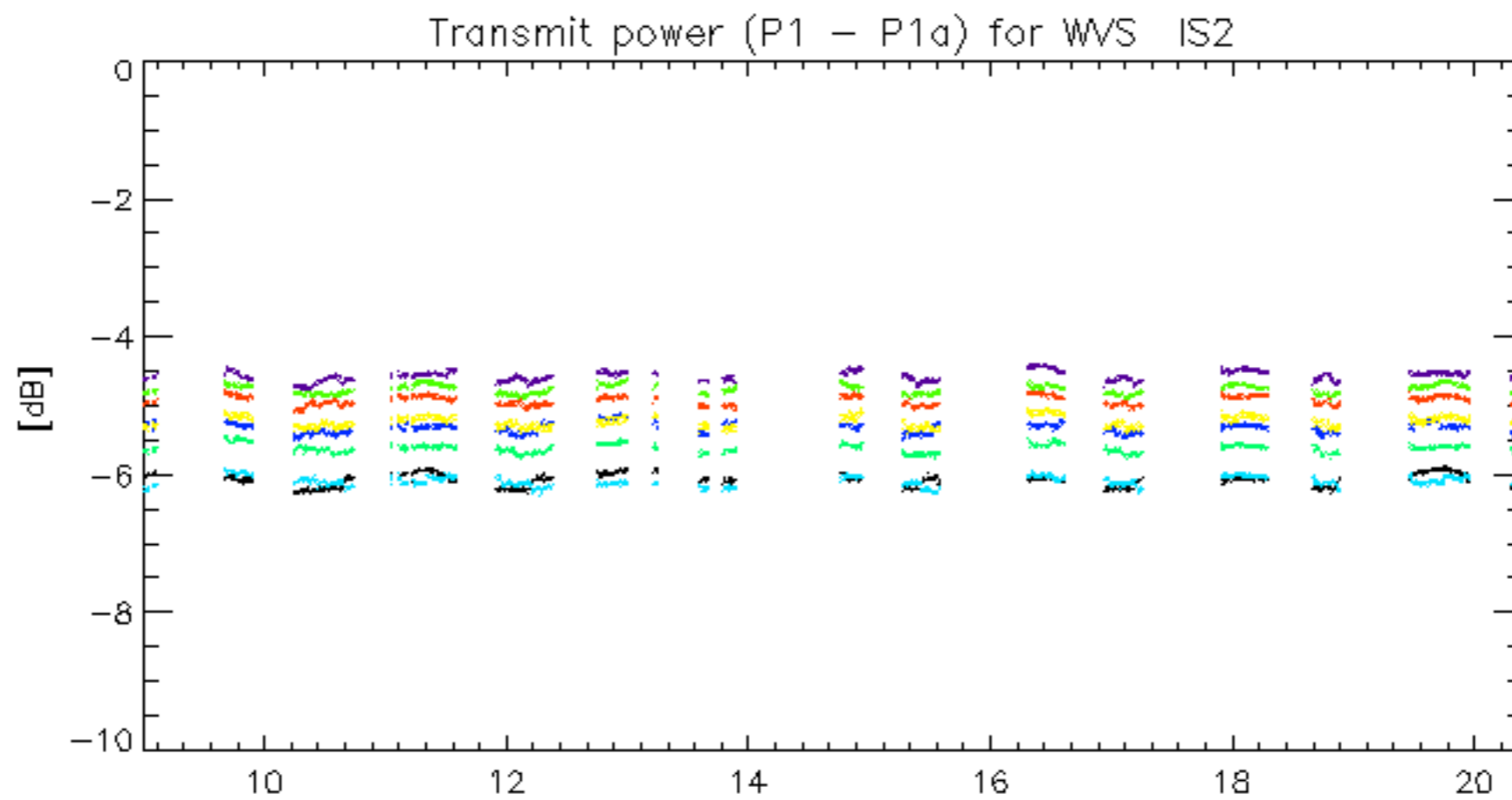






rows: 3 7 11 15 19 22 26 30





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

No unavailabilities during the reported period.