

PRELIMINARY REPORT OF 051018

last update on Tue Oct 18 16:42:27 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 2005-10-17 00:00:00 to 2005-10-18 16:42:28

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	37	68	4	4	25
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	37	68	4	4	25
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	68	4	4	25
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	37	68	4	4	25

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	35	56	25	13	49
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	35	56	25	13	49
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	35	56	25	13	49
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	35	56	25	13	49

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	20051016 053216
H	20051017 050039

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"/>
<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

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	-3.585152	0.050520	0.272523
7	P1	-2.928912	0.026116	0.158920
11	P1	-4.136793	0.078972	0.357499
15	P1	-6.010624	0.019378	-0.091435
19	P1	-3.099770	0.074514	-0.291118
22	P1	-4.462819	0.018885	0.077351
26	P1	-4.350204	0.069842	0.407162
30	P1	-5.708178	0.073341	0.020970
3	P1	-15.772958	1.825757	1.988857
7	P1	-16.808006	4.362053	2.742338
11	P1	-17.120073	9.698173	4.739482
15	P1	-14.039403	7.742134	3.666206
19	P1	-13.571981	0.087054	-0.222187
22	P1	-17.329044	21.906200	6.278854
26	P1	-17.454803	21.338232	6.850279
30	P1	-17.221148	8.847991	4.318617

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.867371	0.099095	-0.004772
7	P2	-22.711779	0.131067	0.073368
11	P2	-16.736423	0.395398	-0.107303
15	P2	-7.237720	0.112675	0.089951
19	P2	-9.111188	0.153042	-0.328231
22	P2	-17.642023	0.144601	-0.446378
26	P2	-16.123163	0.108190	0.130224
30	P2	-19.625553	0.111426	0.001148

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.183607	0.005321	-0.040255
7	P3	-8.183607	0.005321	-0.040255
11	P3	-8.183607	0.005321	-0.040255
15	P3	-8.183607	0.005321	-0.040255
19	P3	-8.183607	0.005321	-0.040255
22	P3	-8.183607	0.005321	-0.040255
26	P3	-8.183607	0.005321	-0.040255
30	P3	-8.183607	0.005321	-0.040255

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	-3.518547	0.195206	-0.765016
7	P1	-2.906531	0.062243	0.393156
11	P1	-2.957416	0.118193	0.577350
15	P1	-3.413551	0.023993	0.144148
19	P1	-3.304326	0.043950	-0.241656
22	P1	-5.084861	0.097943	-0.305004
26	P1	-5.699506	0.224159	-0.417066
30	P1	-5.140718	0.162975	-0.365689
3	P1	-11.555642	0.362215	0.771462
7	P1	-11.183088	19.067339	6.610517
11	P1	-11.827285	37.721760	9.520732
15	P1	-12.230118	32.513927	8.673998
19	P1	-15.345782	0.211526	-0.610735
22	P1	-20.739799	2.217973	1.635328

26	P1	-17.568354	4.036973	2.473010
30	P1	-19.169937	1.609483	2.078319

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.687653	0.043146	-0.080056
7	P2	-23.033653	0.116765	-0.079003
11	P2	-11.691067	0.147973	-0.343509
15	P2	-4.905507	0.041909	0.070607
19	P2	-6.812947	0.104489	-0.446626
22	P2	-8.011167	0.099917	-0.531838
26	P2	-23.868664	0.043136	0.044539
30	P2	-22.095608	0.051439	0.193361

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.026251	0.002876	-0.040029
7	P3	-8.026327	0.002883	-0.040305
11	P3	-8.026199	0.002888	-0.040631
15	P3	-8.026286	0.002880	-0.040297
19	P3	-8.026382	0.002883	-0.039963
22	P3	-8.026190	0.002891	-0.040369
26	P3	-8.026477	0.002886	-0.040258
30	P3	-8.026291	0.002886	-0.040177

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	0.000548710
	stdev	1.76686e-07
MEAN Q	mean	0.000534965
	stdev	2.17329e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136725
	stdev	0.00111115
STDEV Q	mean	0.137059
	stdev	0.00112707



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005101[678]

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_1PNPDE20051018_003757_000000842041_00403_18994_8685.N1	1	0
ASA_WSM_1PNPDE20051017_011919_000003912041_00389_18980_4497.N1	0	68
ASA_WSM_1PNPDE20051017_035606_000001472041_00391_18982_4517.N1	0	41
ASA_WSM_1PNPDE20051018_022852_000002392041_00404_18995_4709.N1	0	49
ASA_WSM_1PNPDK20051016_124418_000001832041_00381_18972_7198.N1	0	1



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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

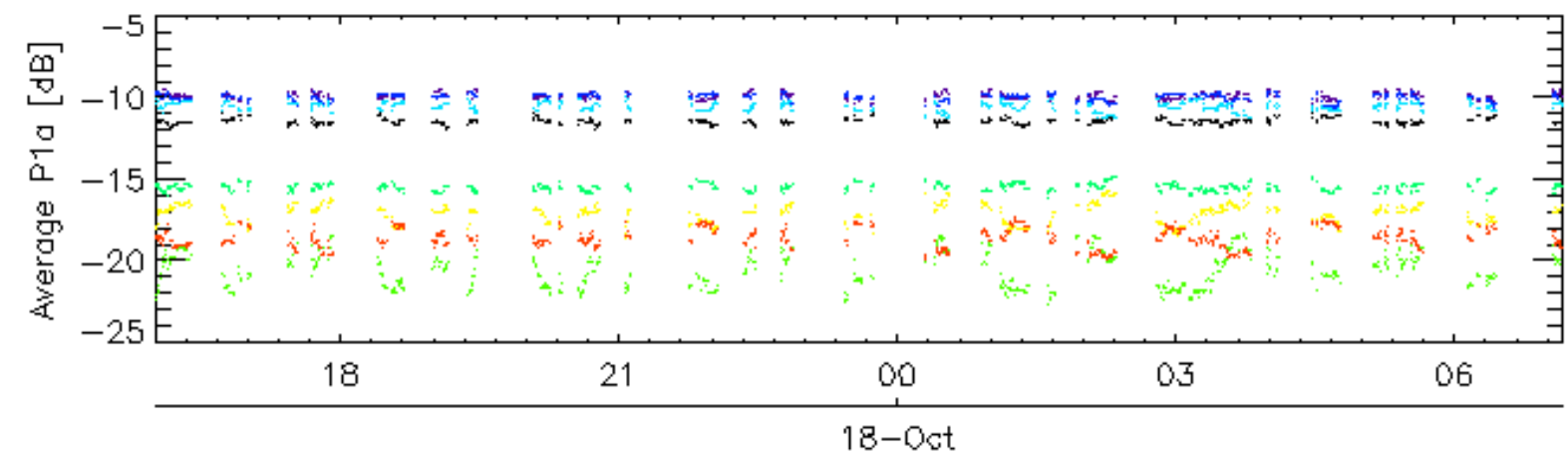
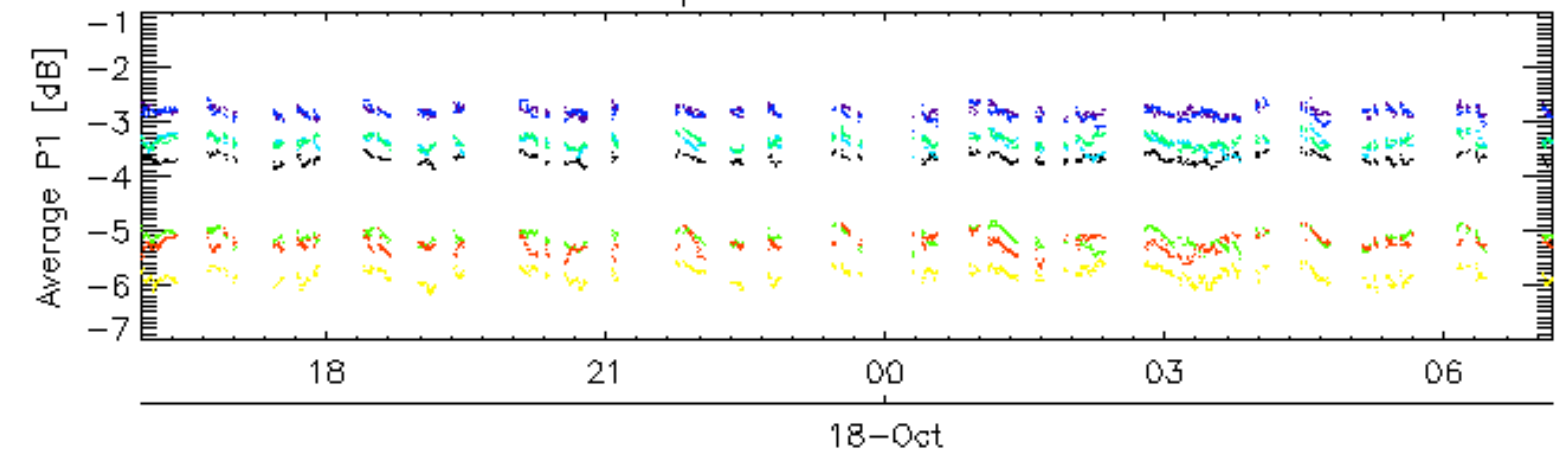
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.6 - Doppler evolution versus ANX for GM1

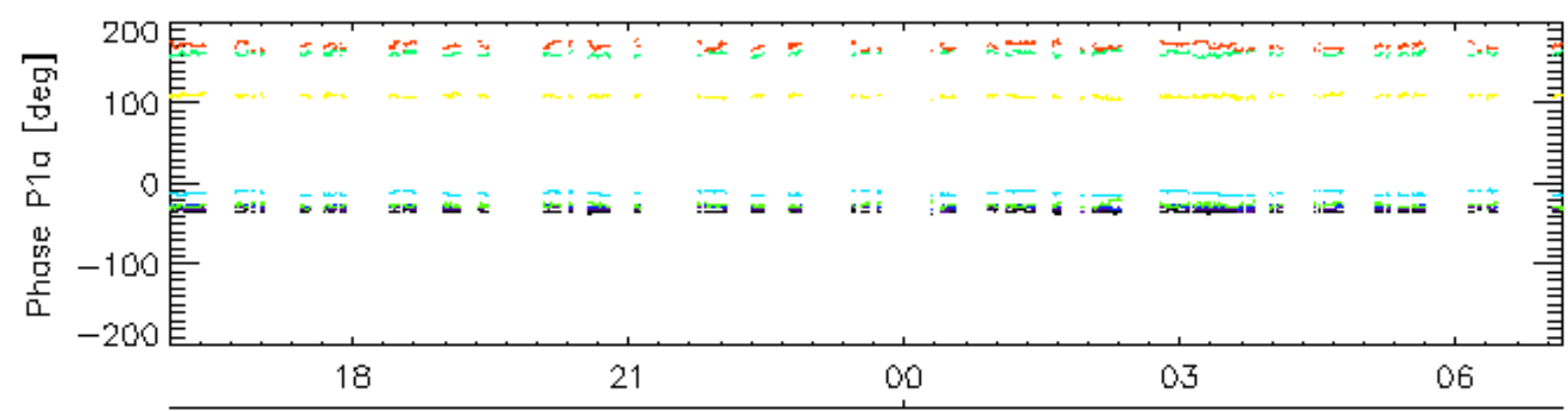
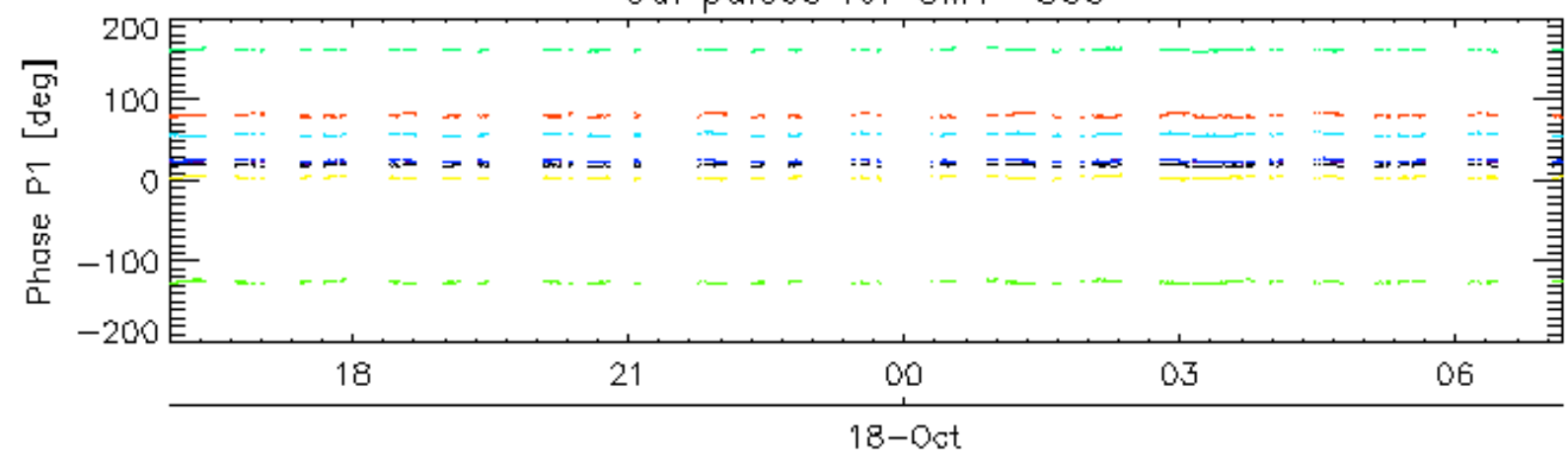
Evolution Doppler error versus ANX

<input type="checkbox"/>	
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Cal pulses for GM1 SS3

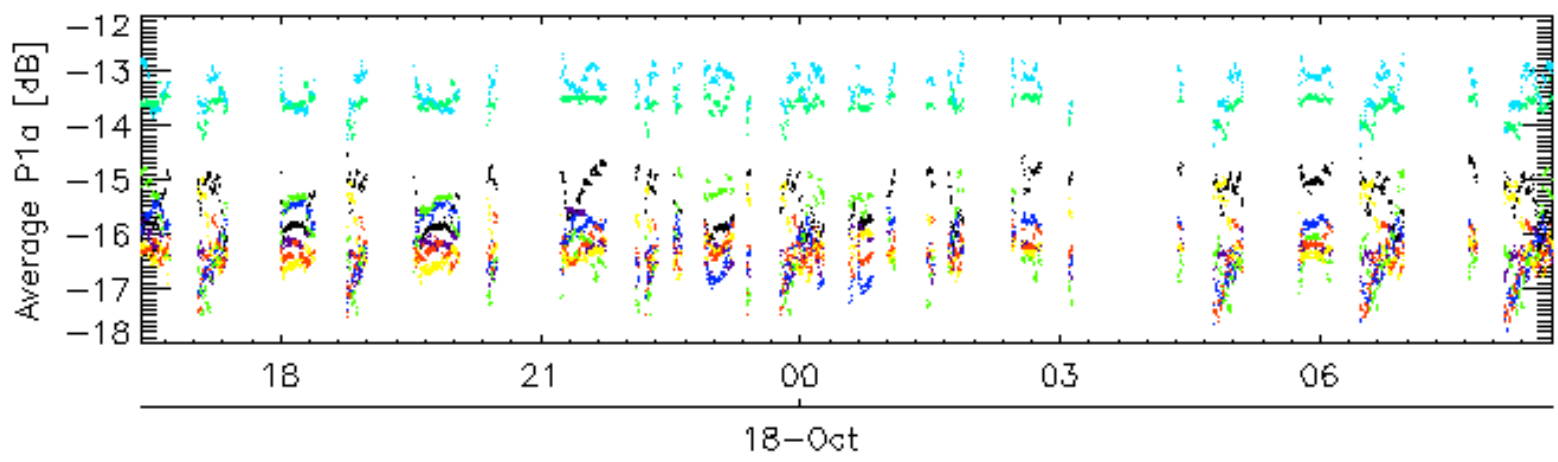
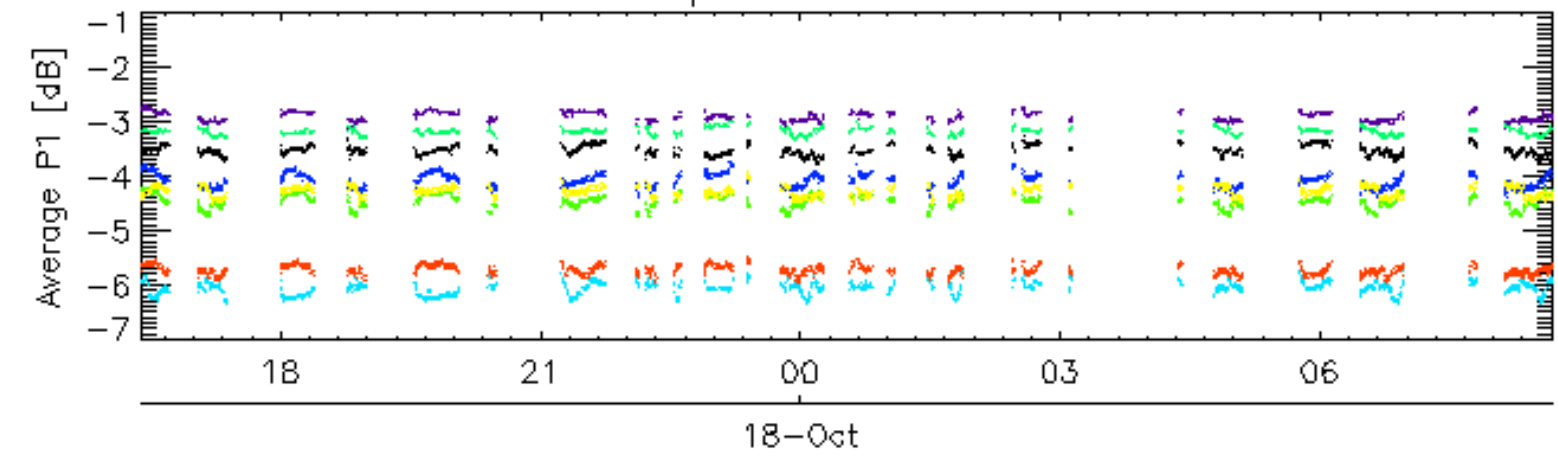


Cal pulses for GM1 SS3

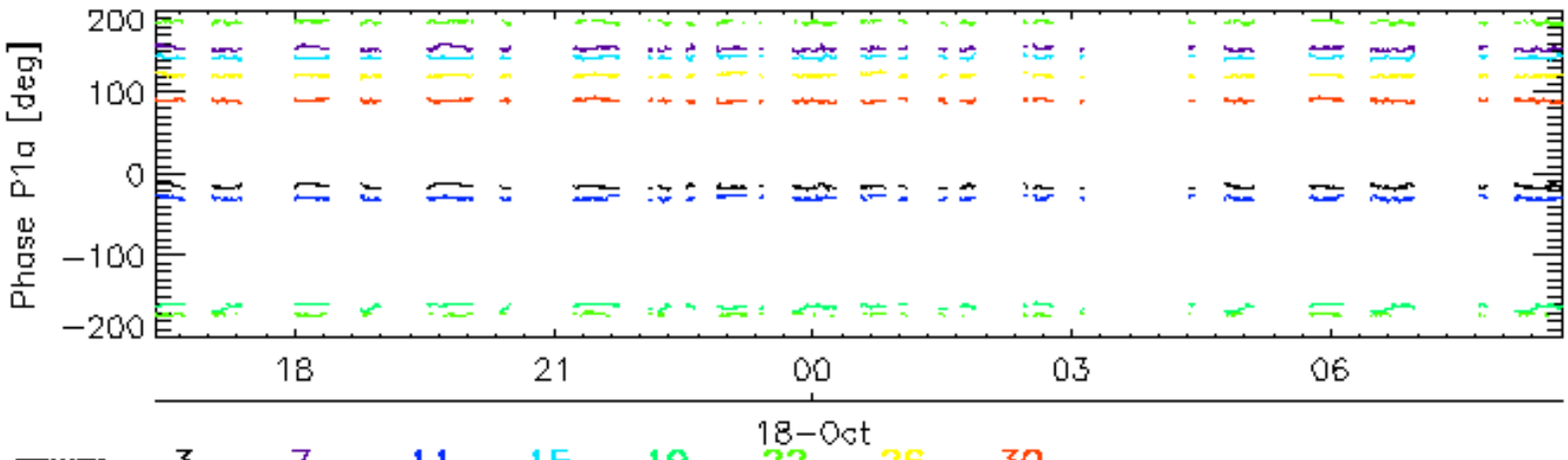
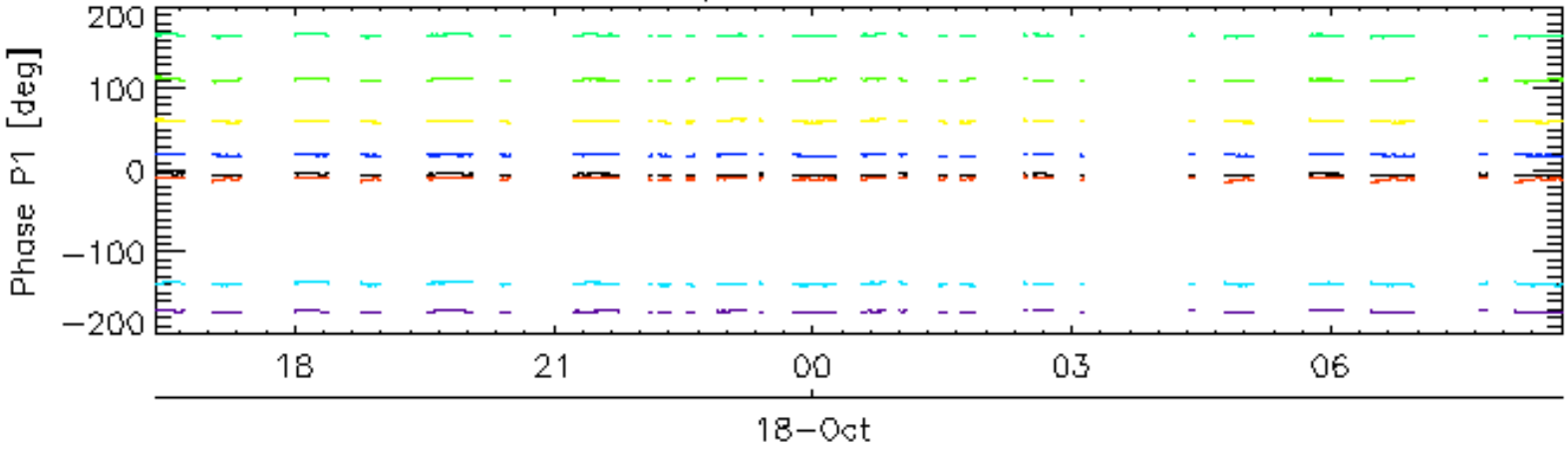


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 18-Oct

Cal pulses for WVS IS2

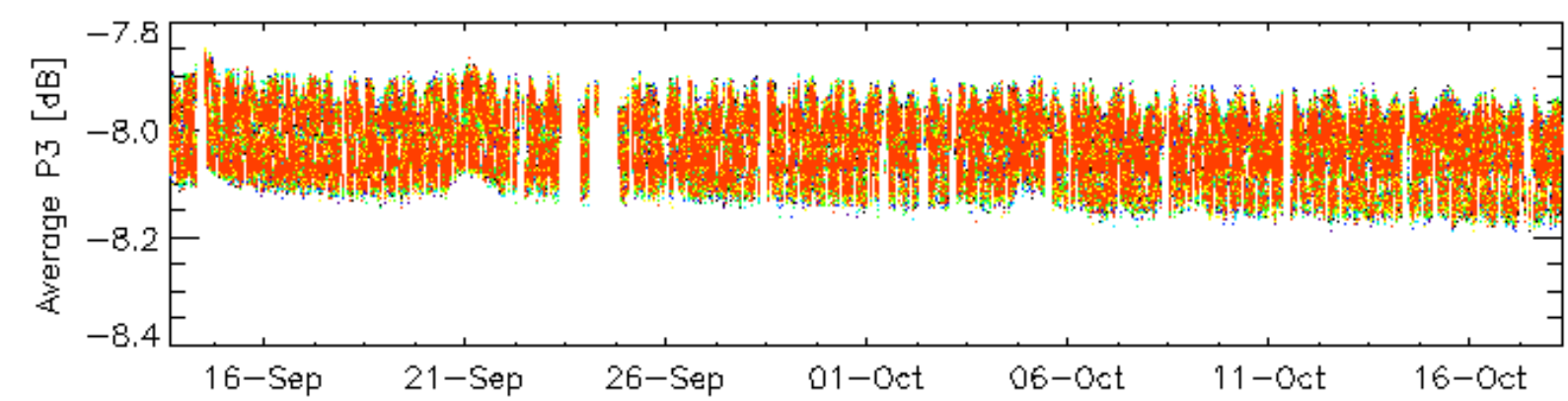
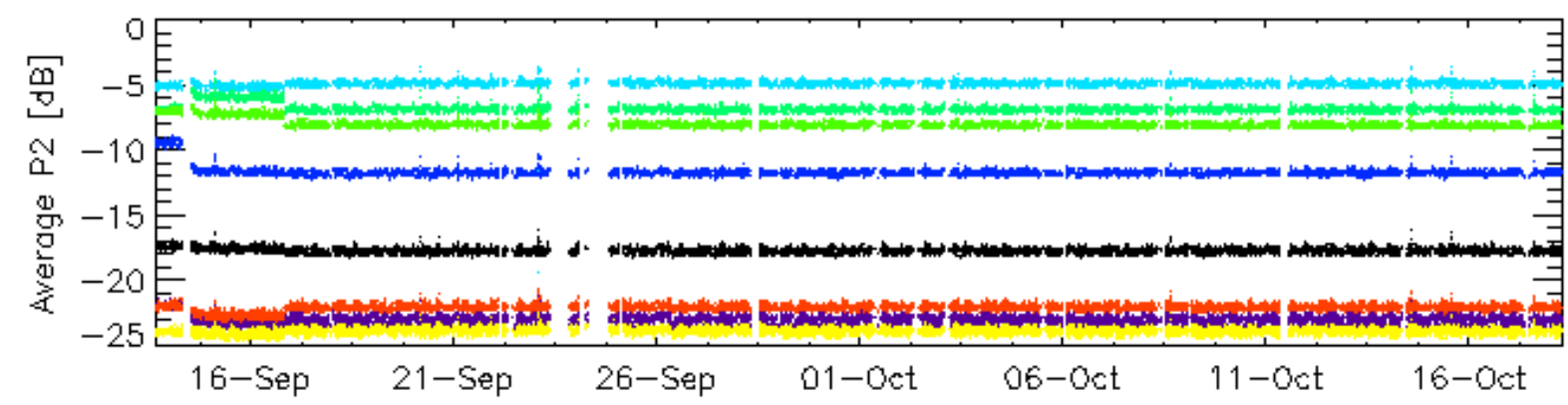
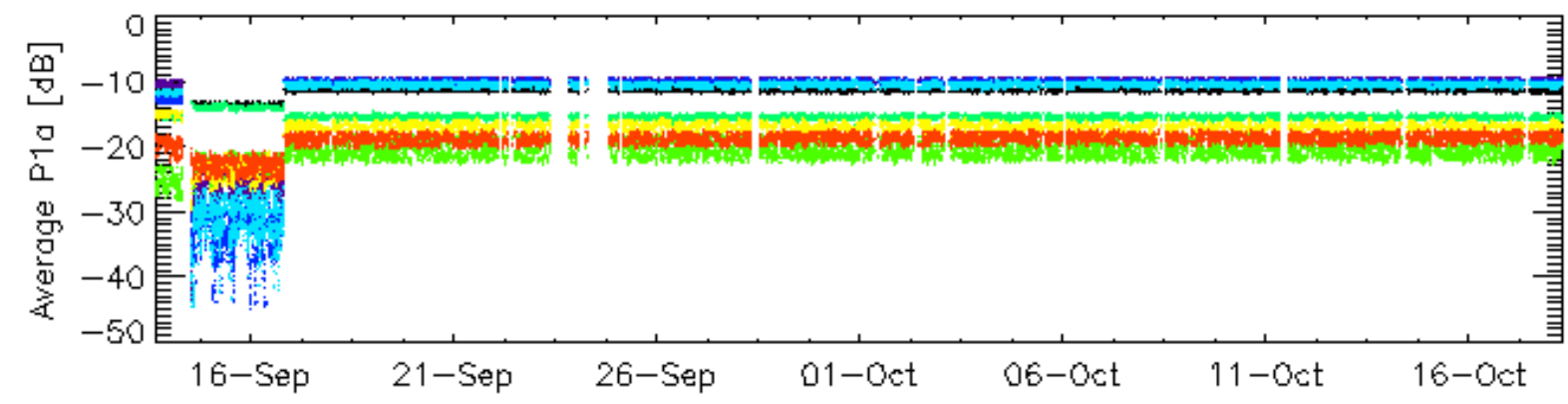
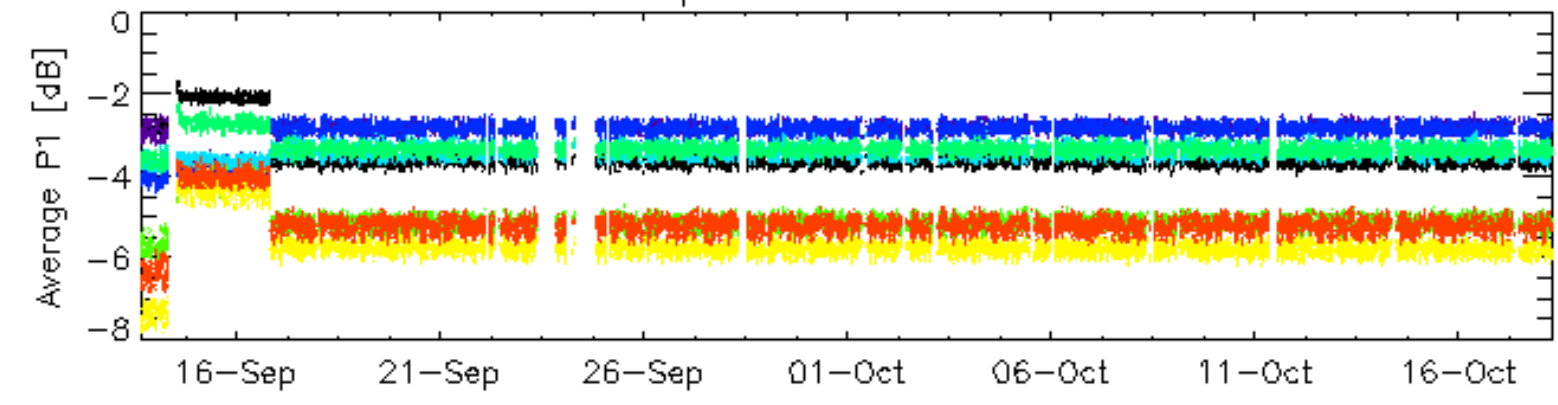


Cal pulses for WVS IS2



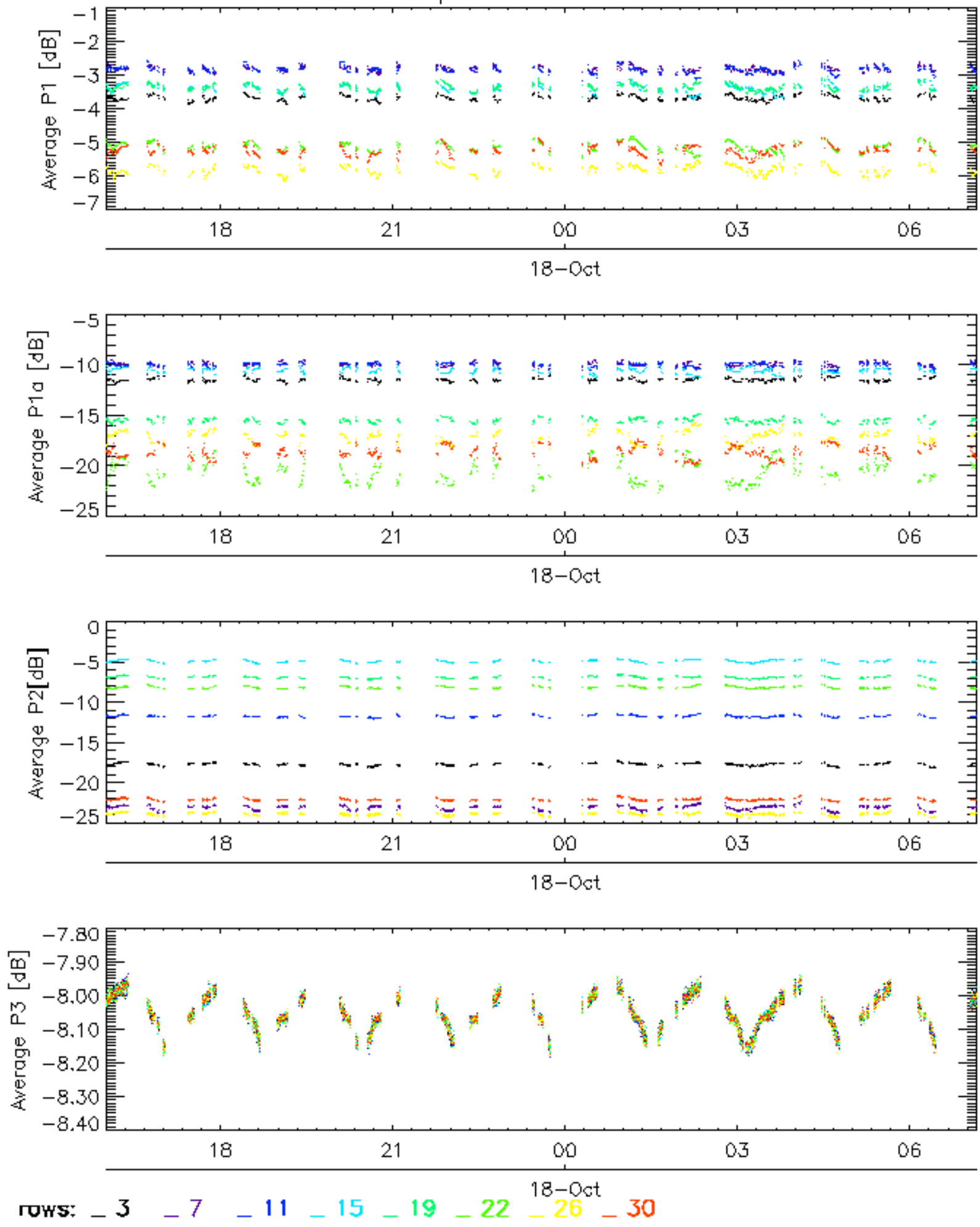
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

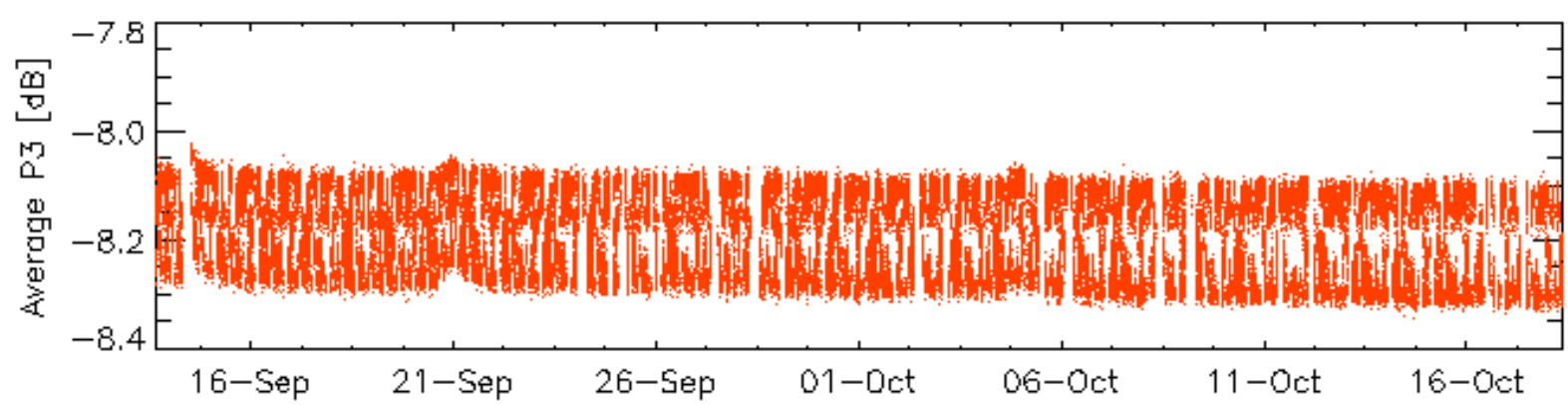
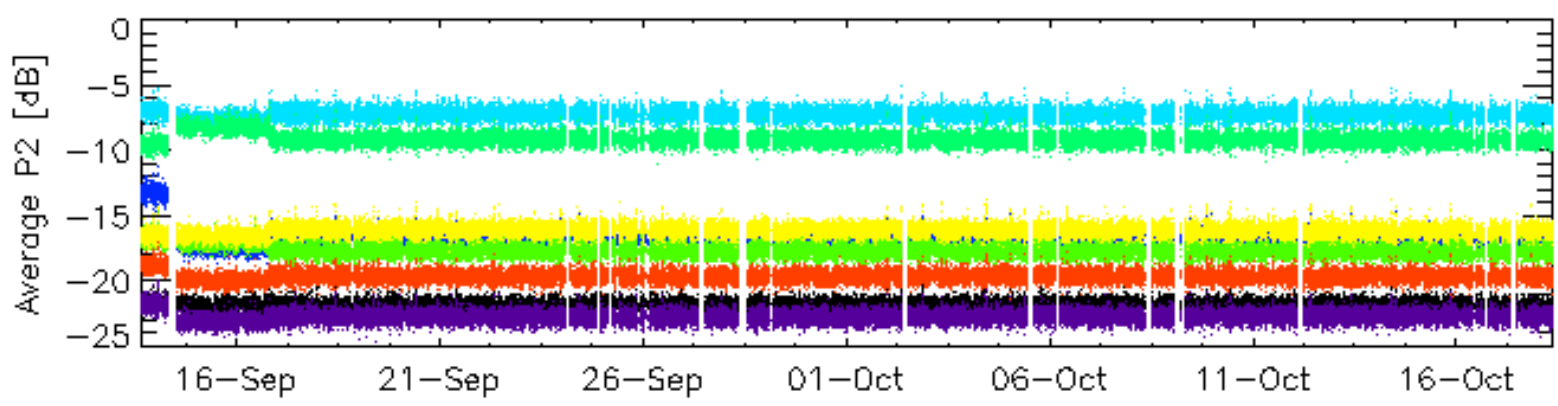
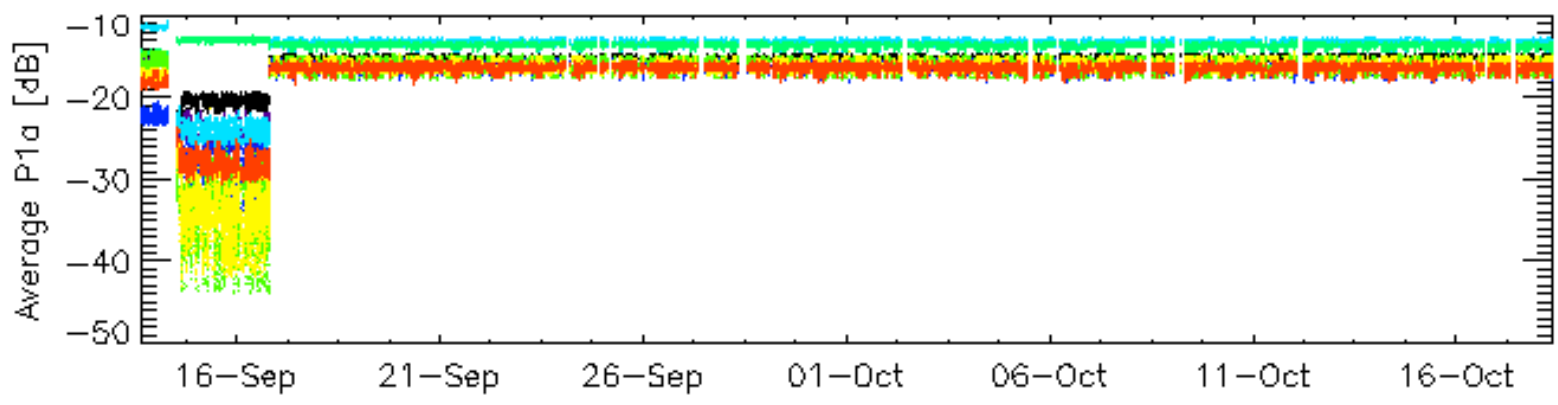
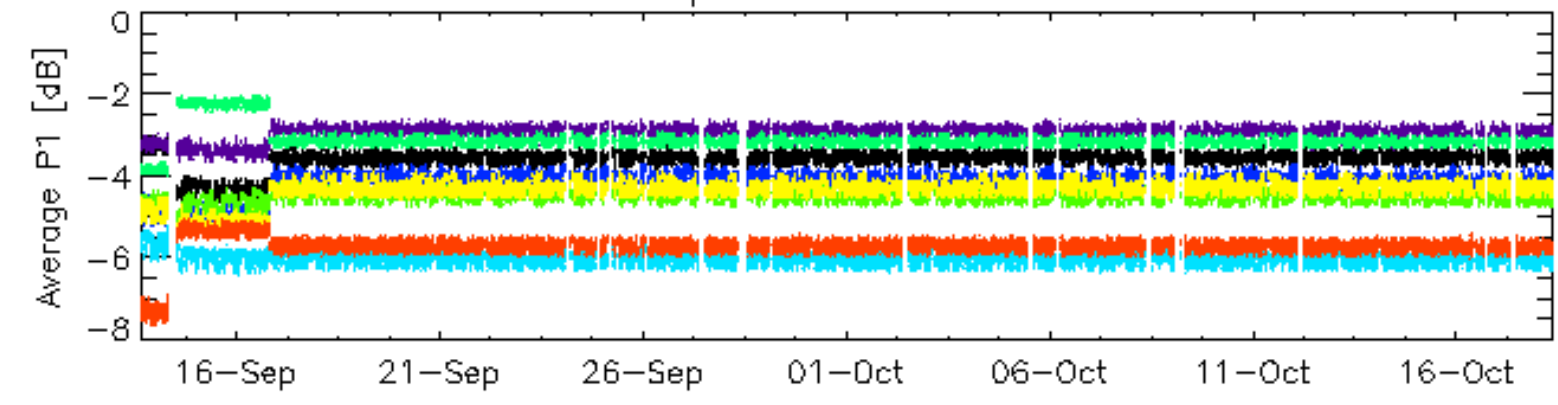


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

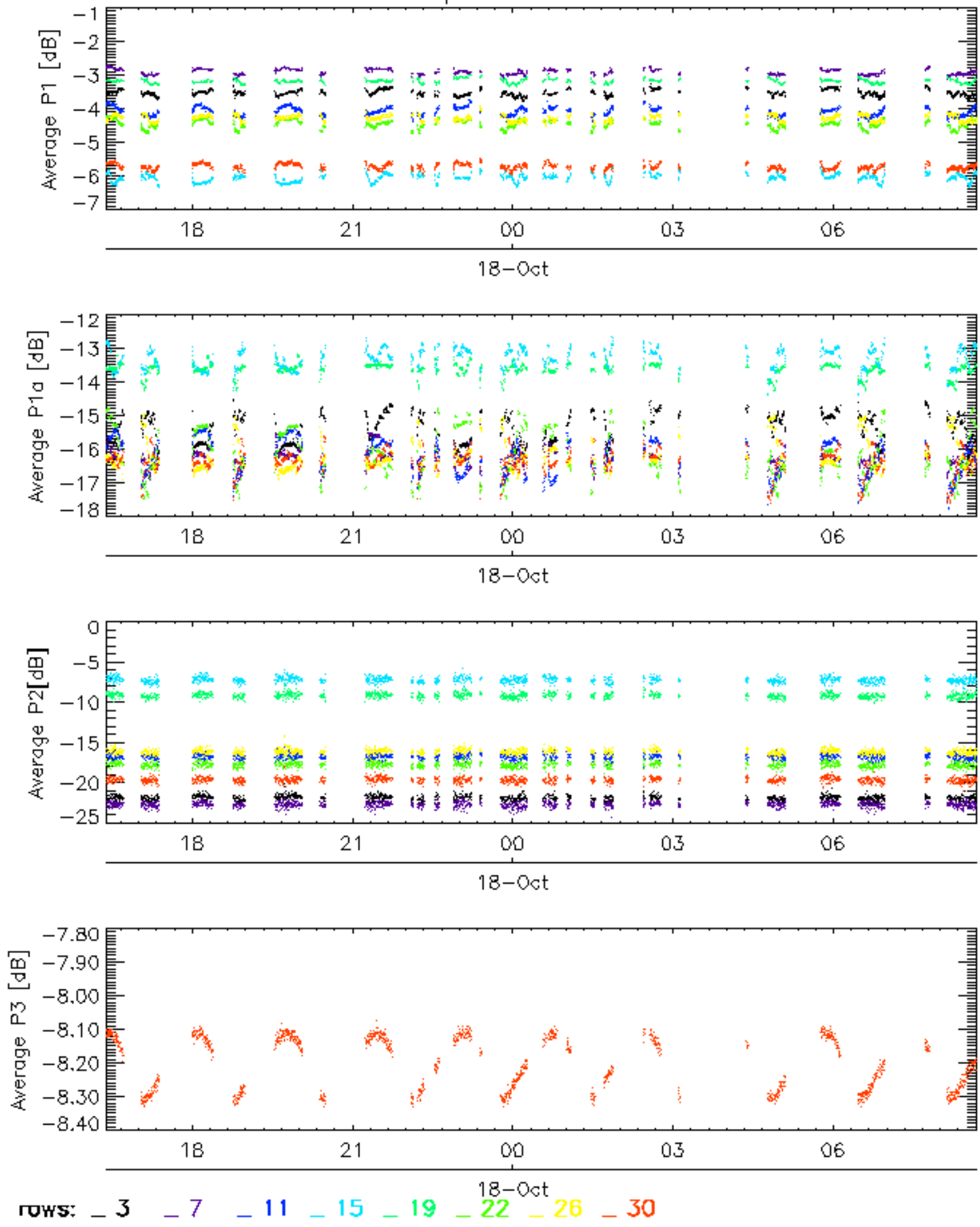


Cal pulses for WVS IS2



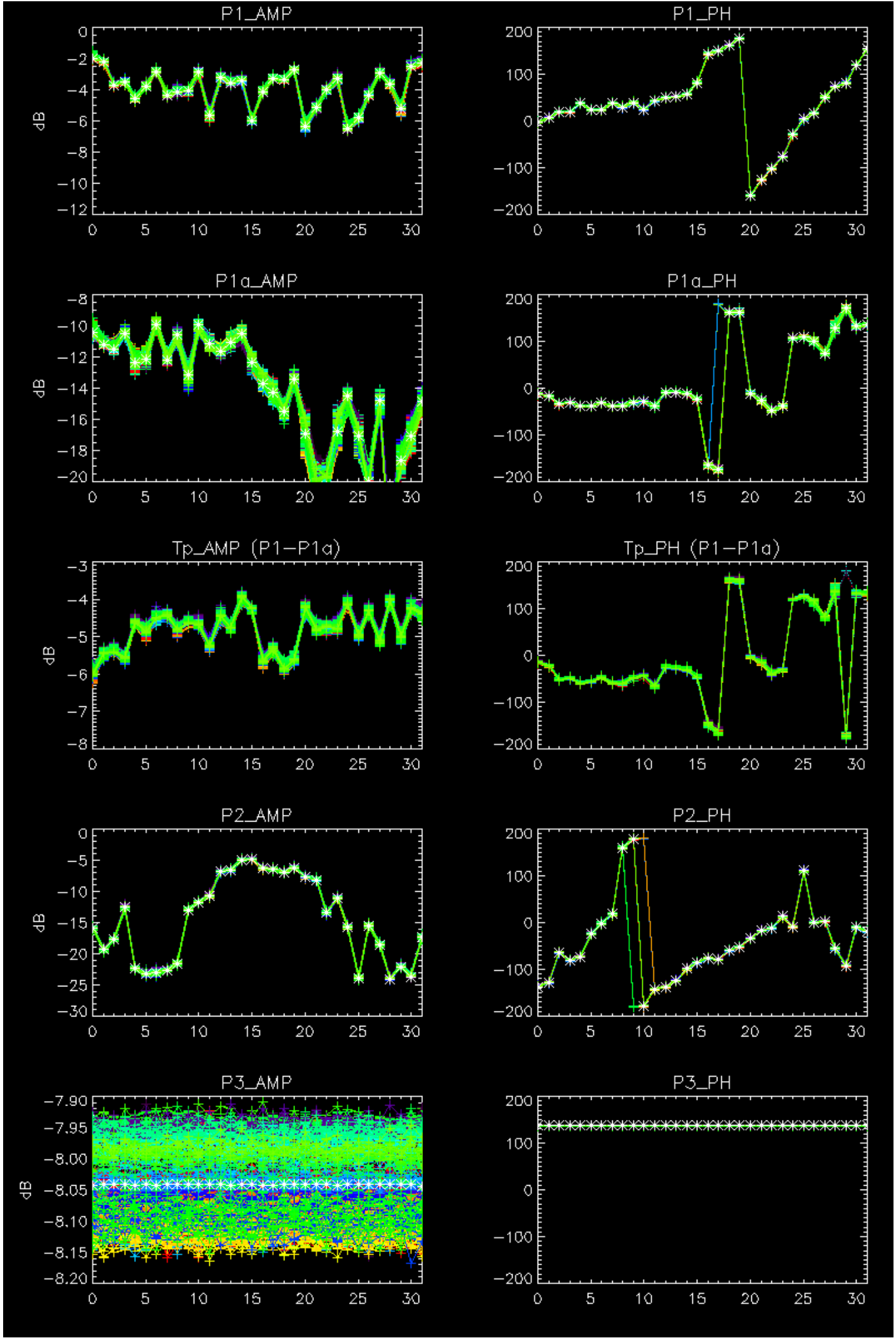
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

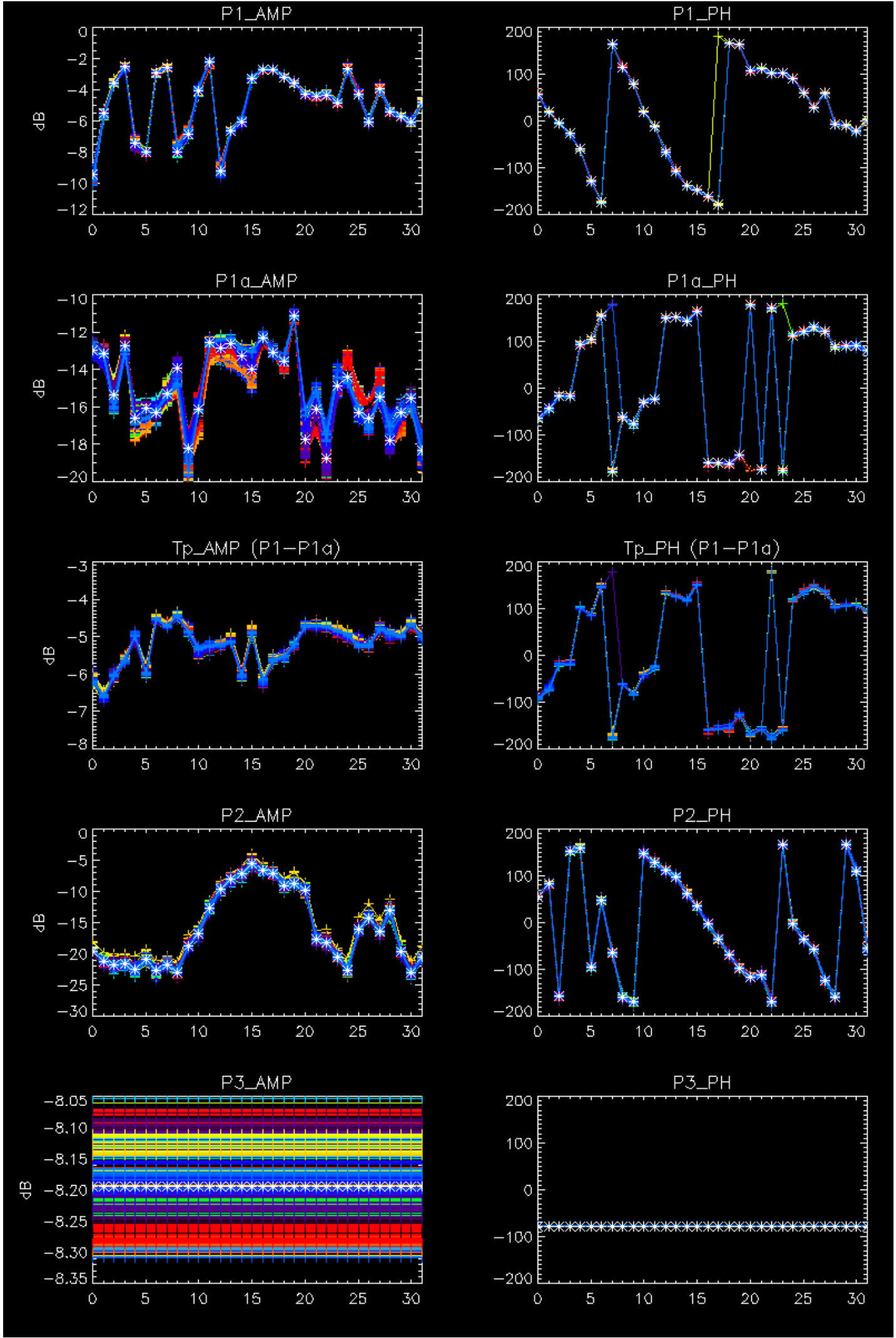
Cal pulses for WVS IS2



No anomalies observed on available browse products

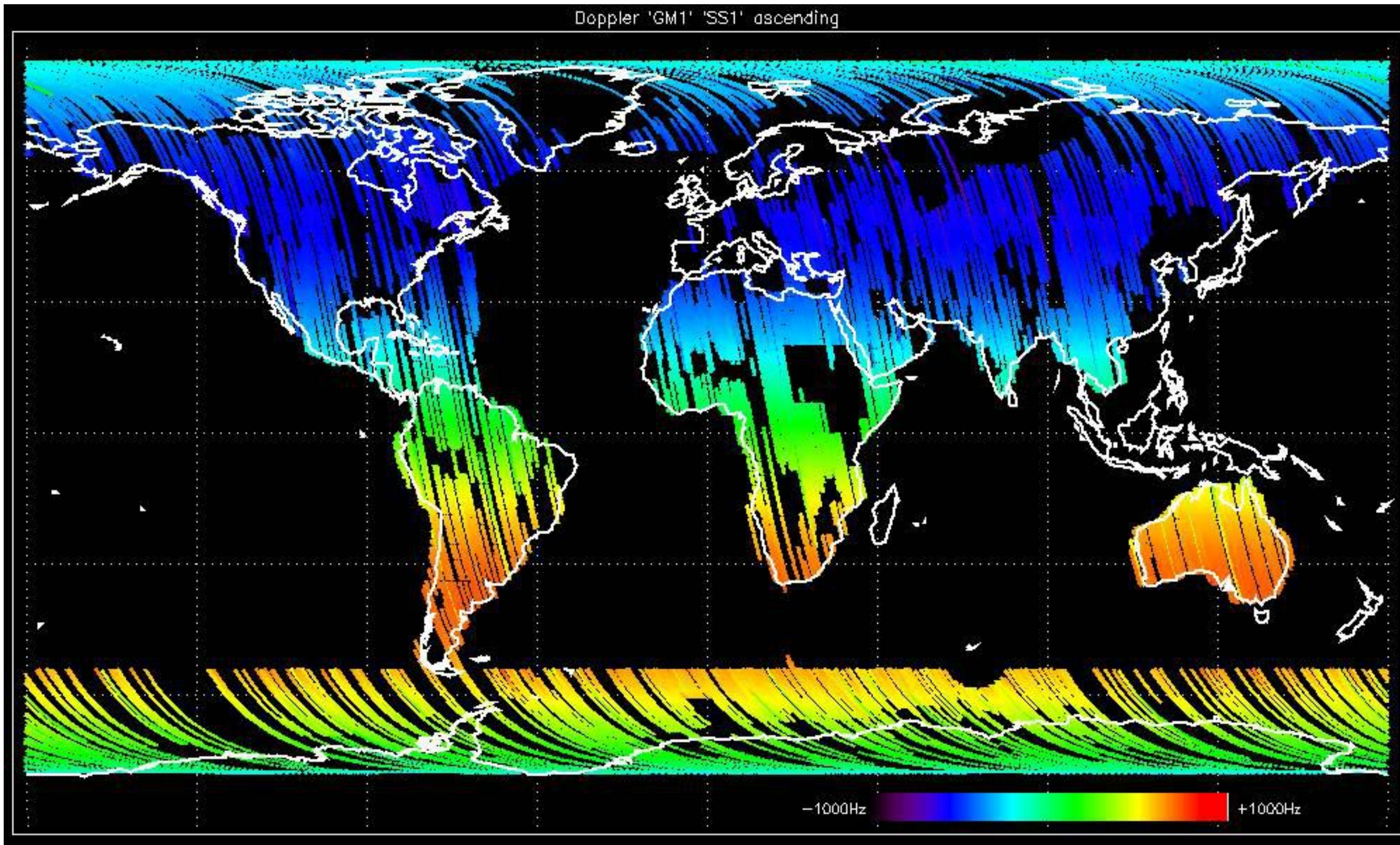
No anomalies observed.



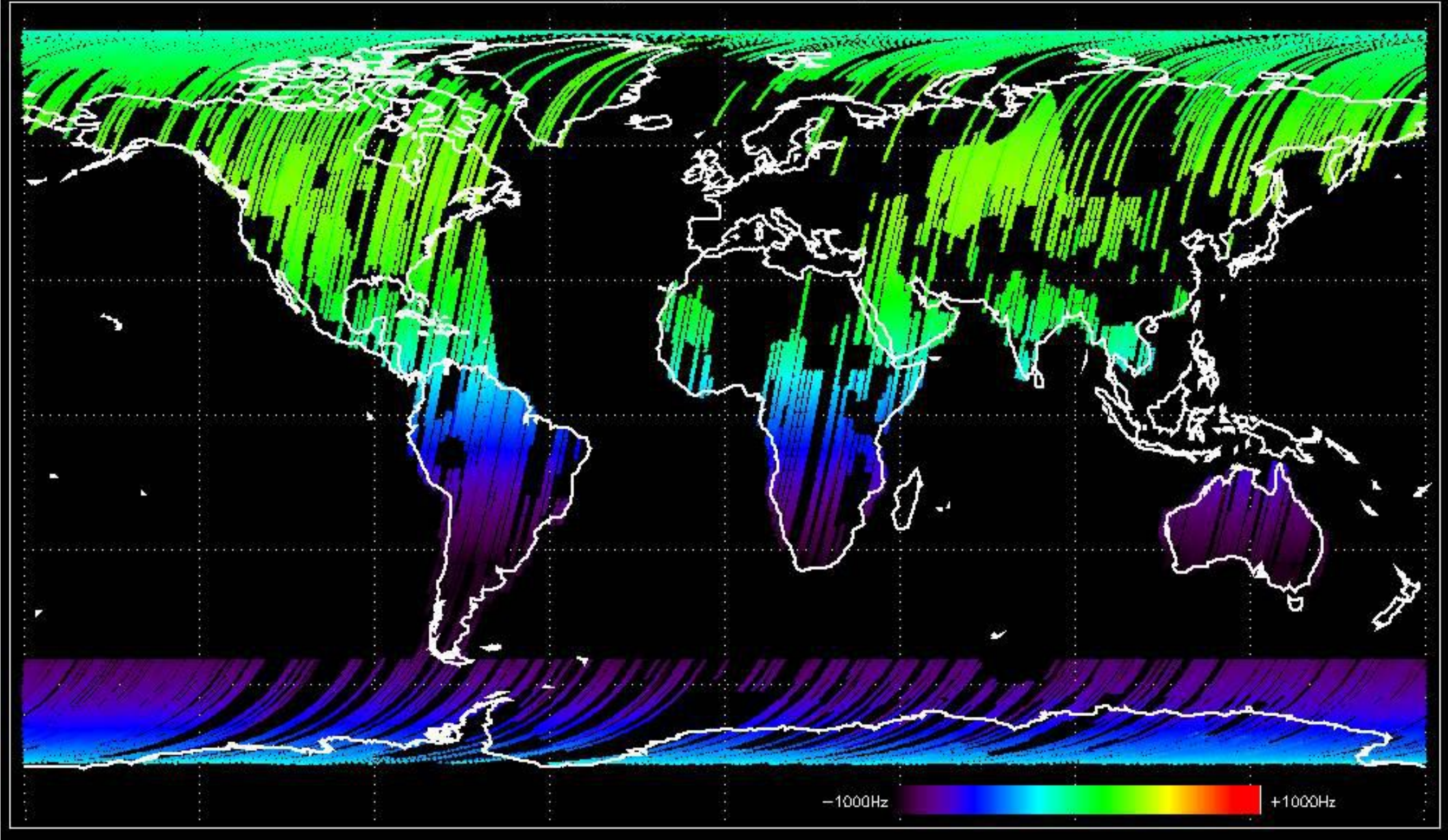


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

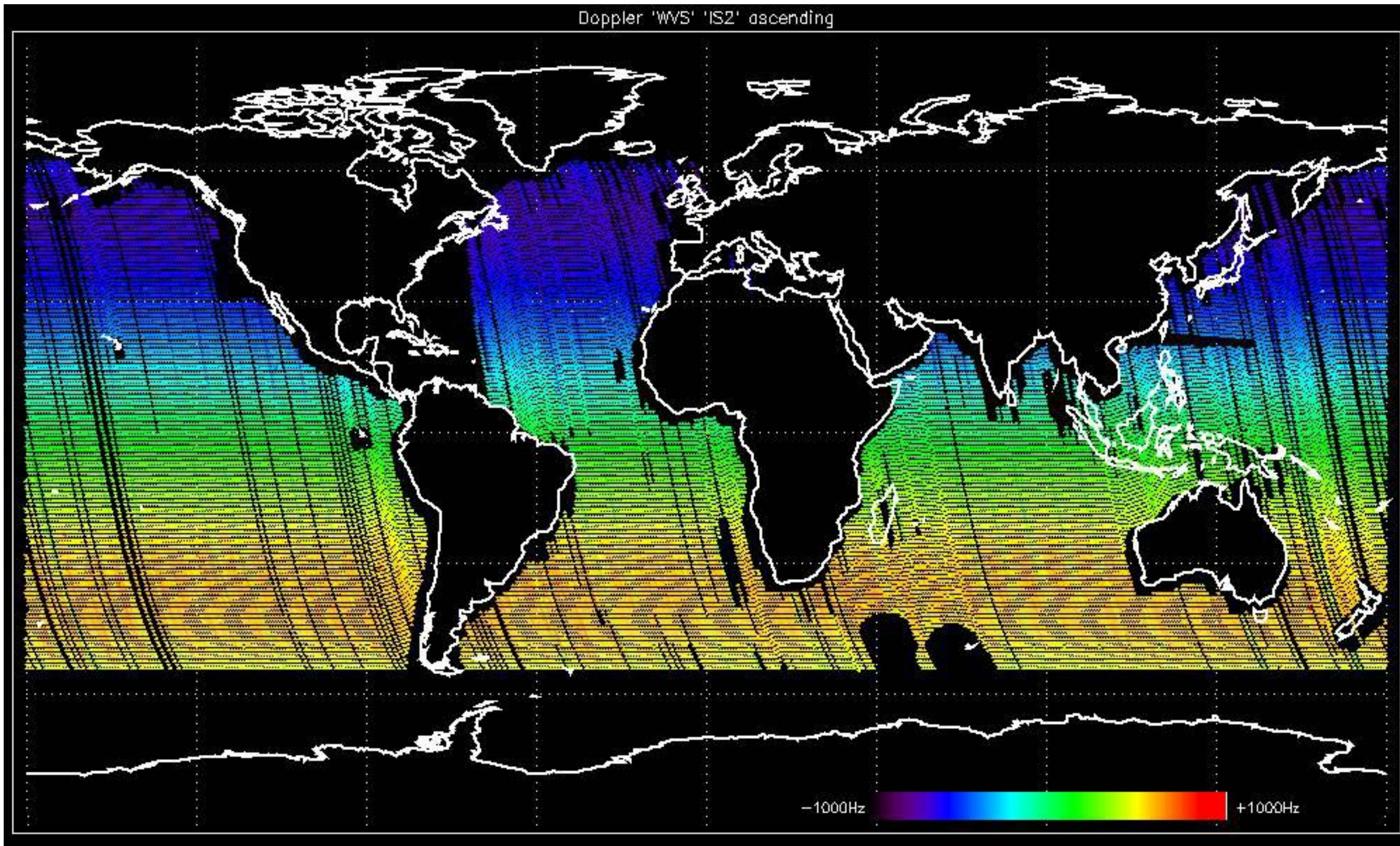
Doppler 'GM1' 'SS1' ascending



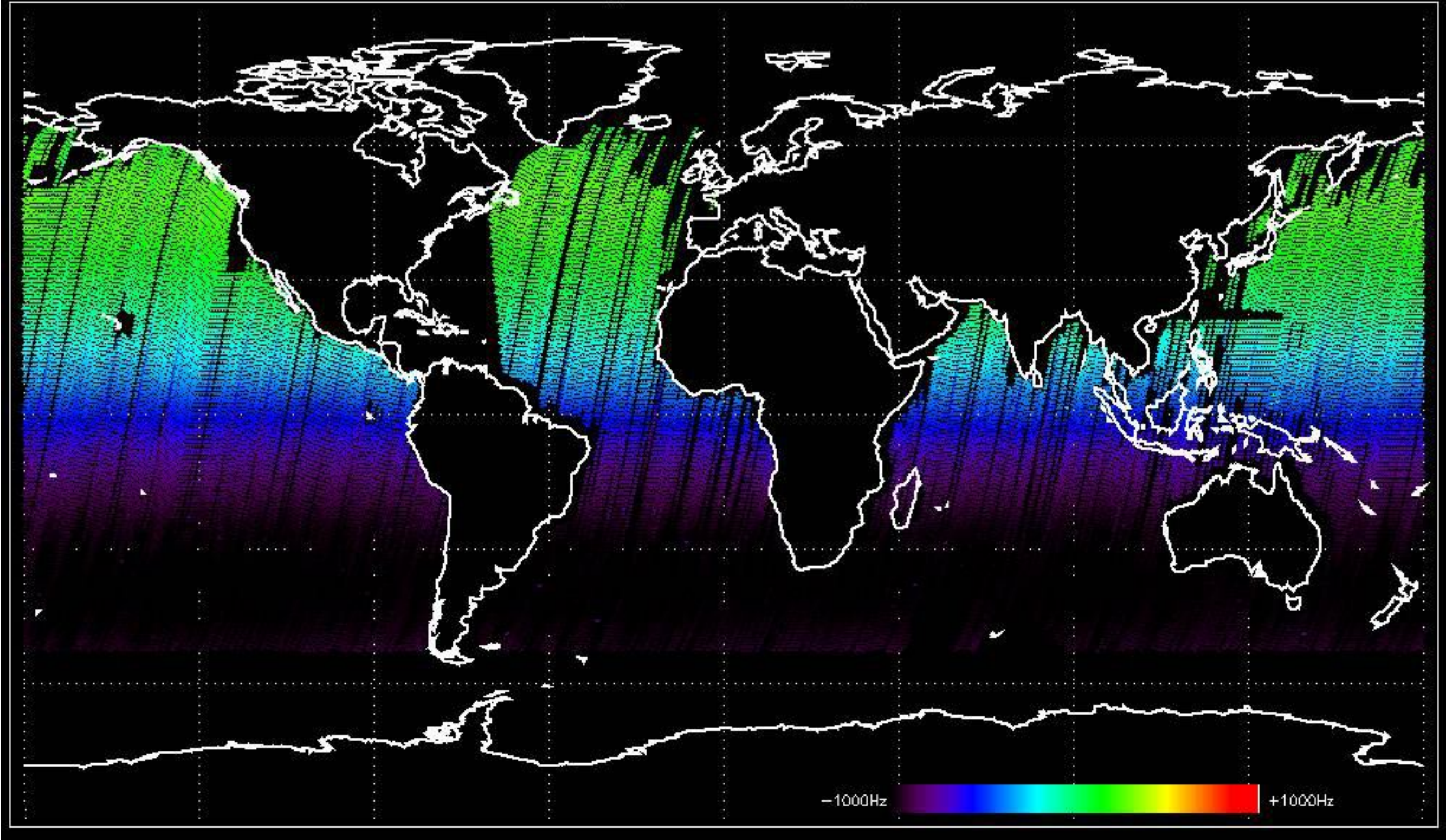
Doppler 'GM1' 'SS1' descending

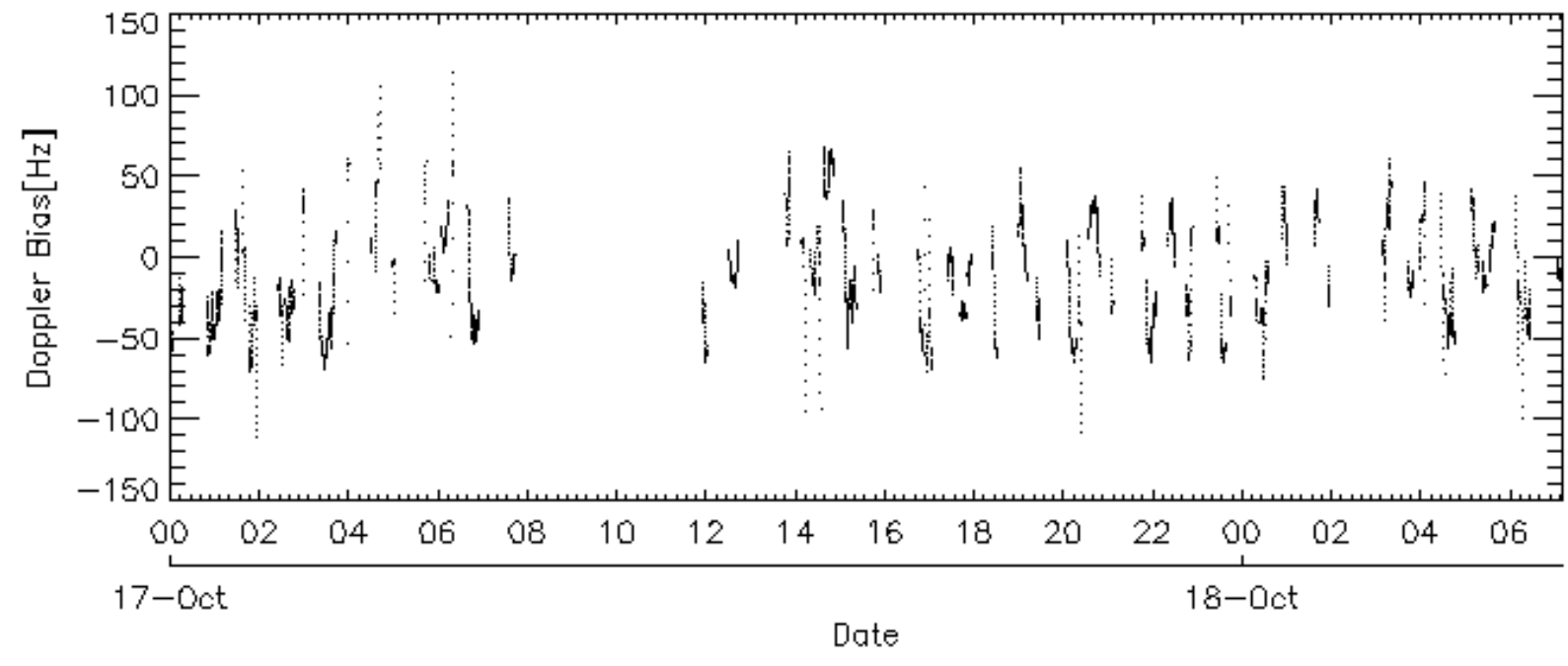
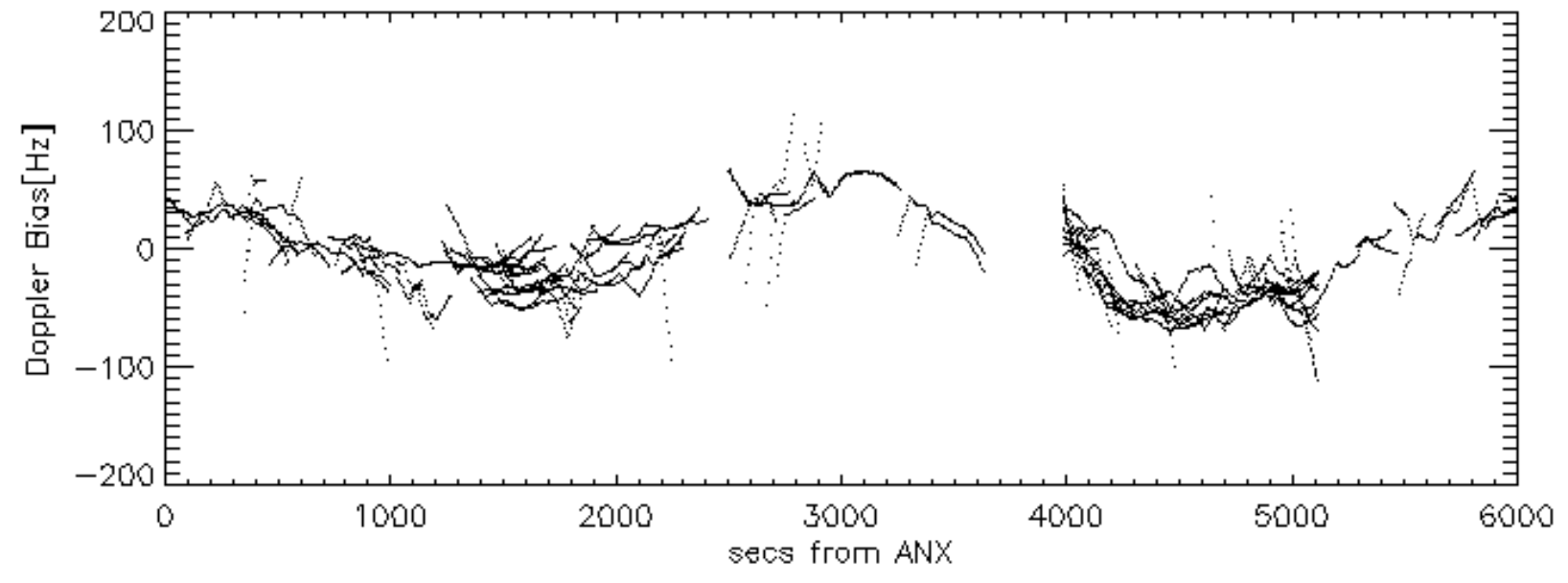
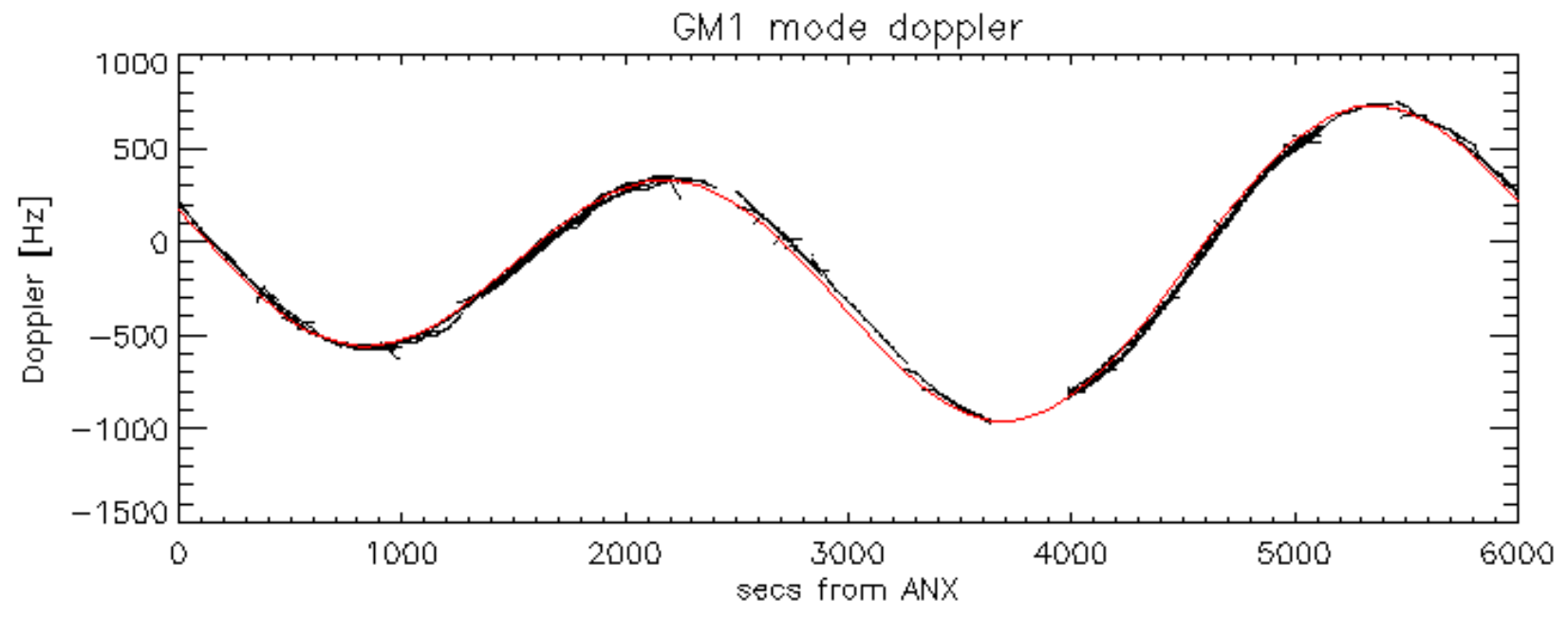


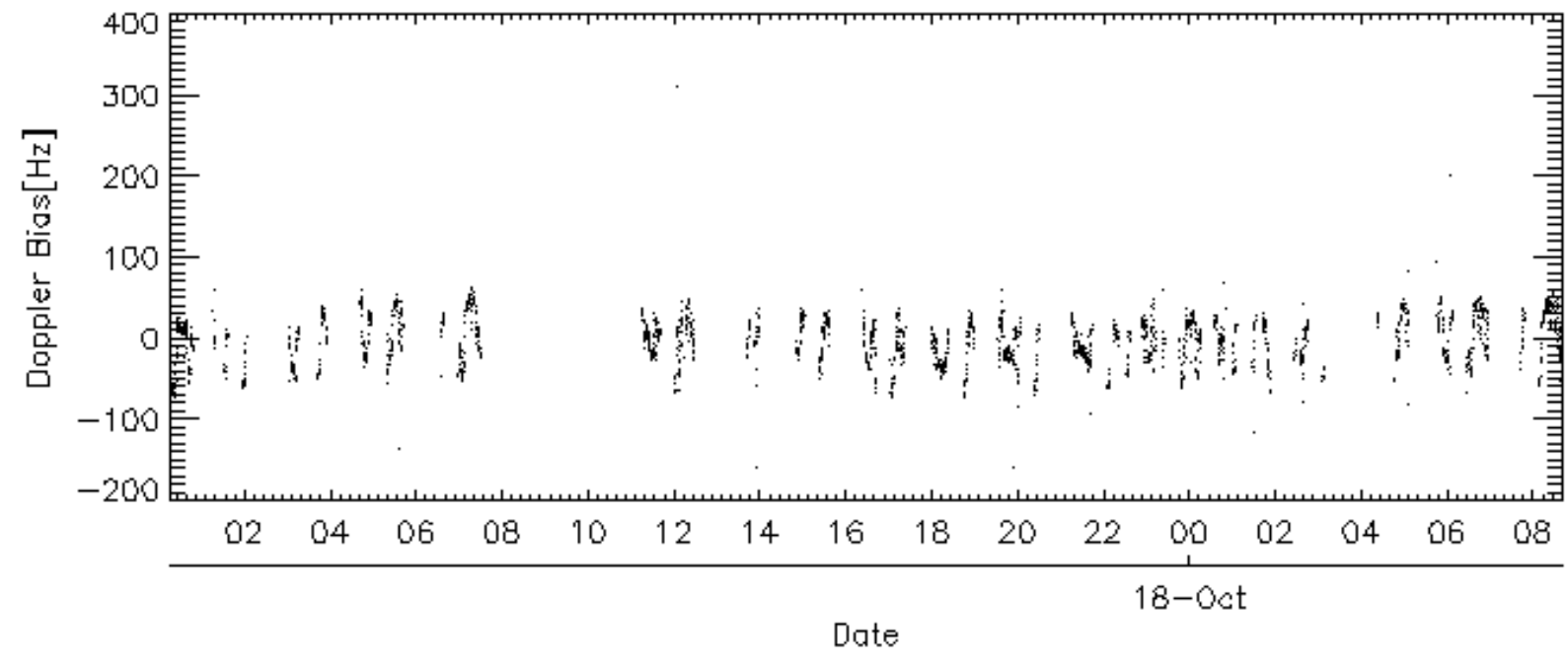
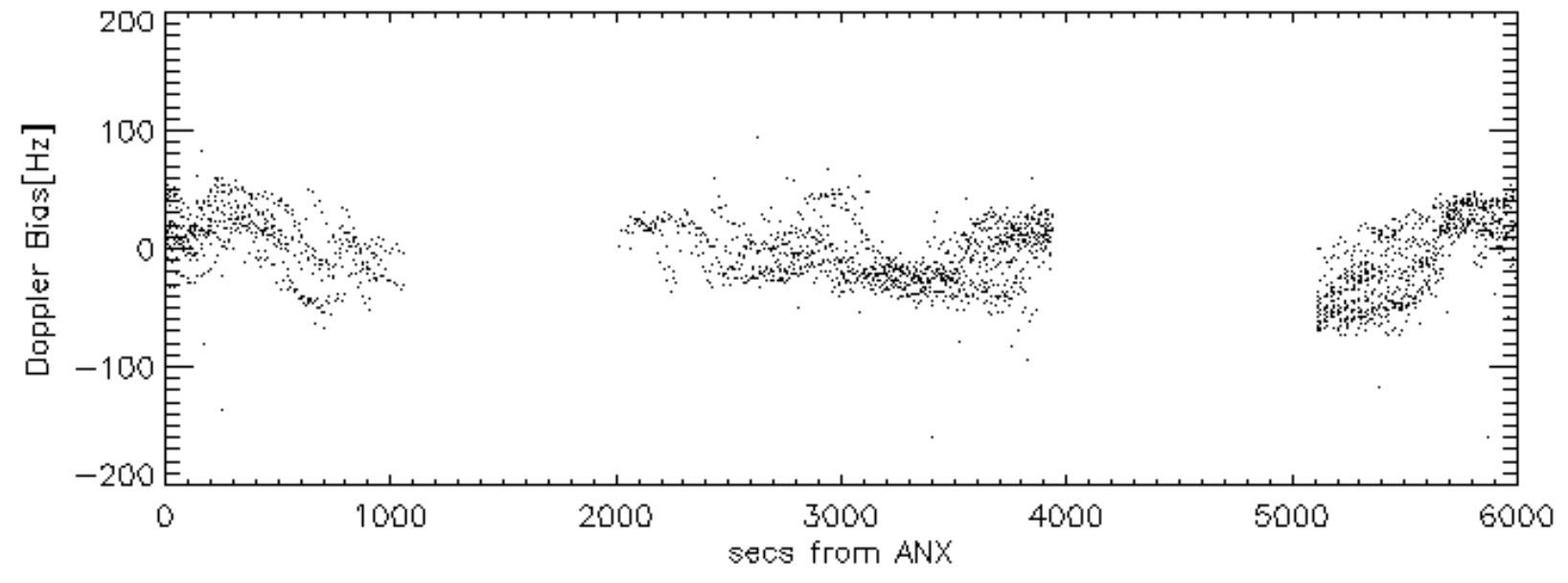
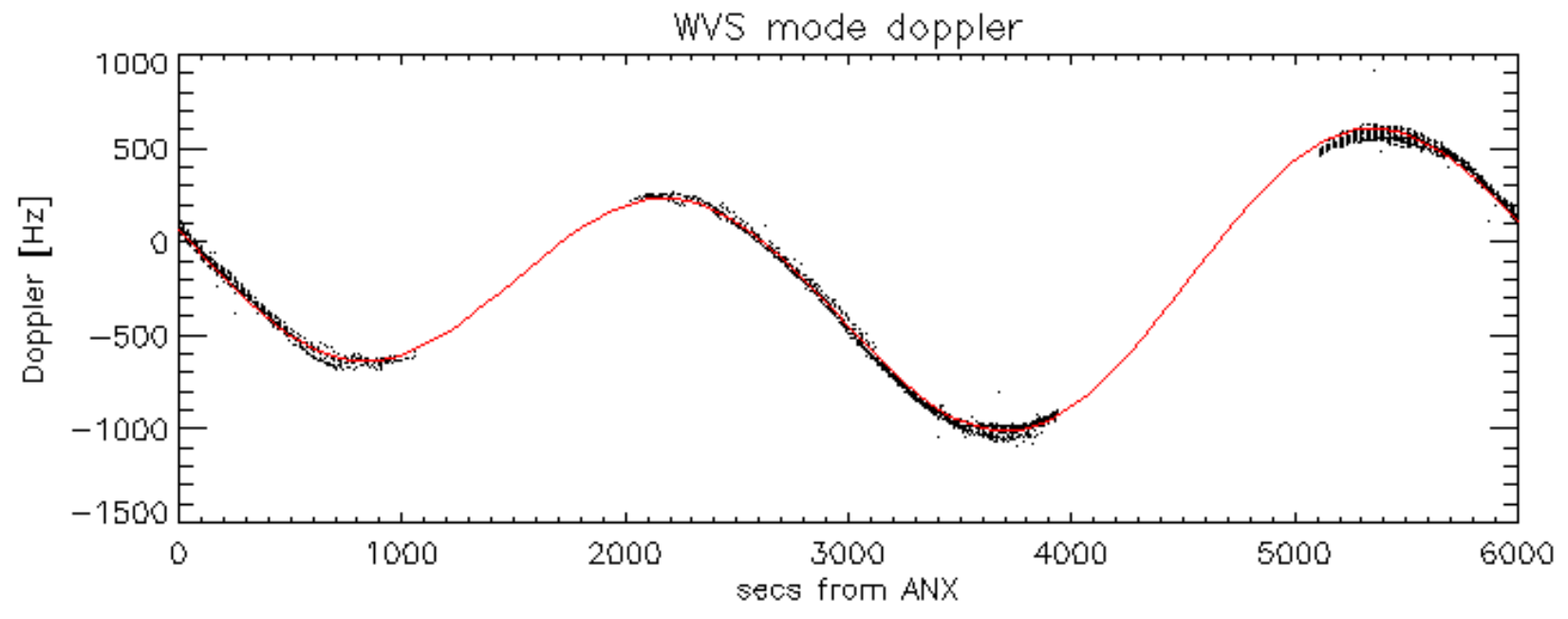
Doppler 'WVS' 'IS2' ascending



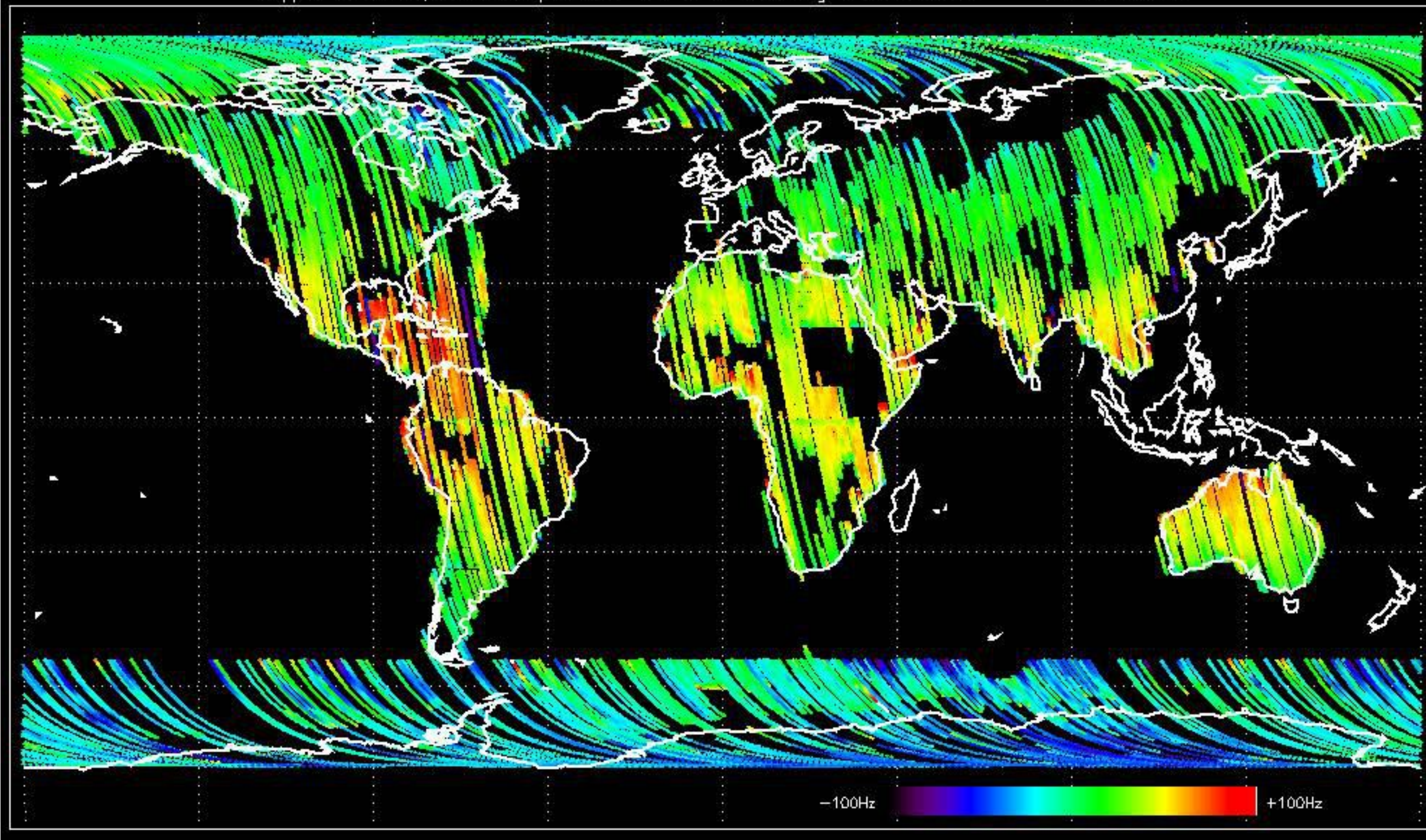
Doppler 'WVS' 'IS2' descending



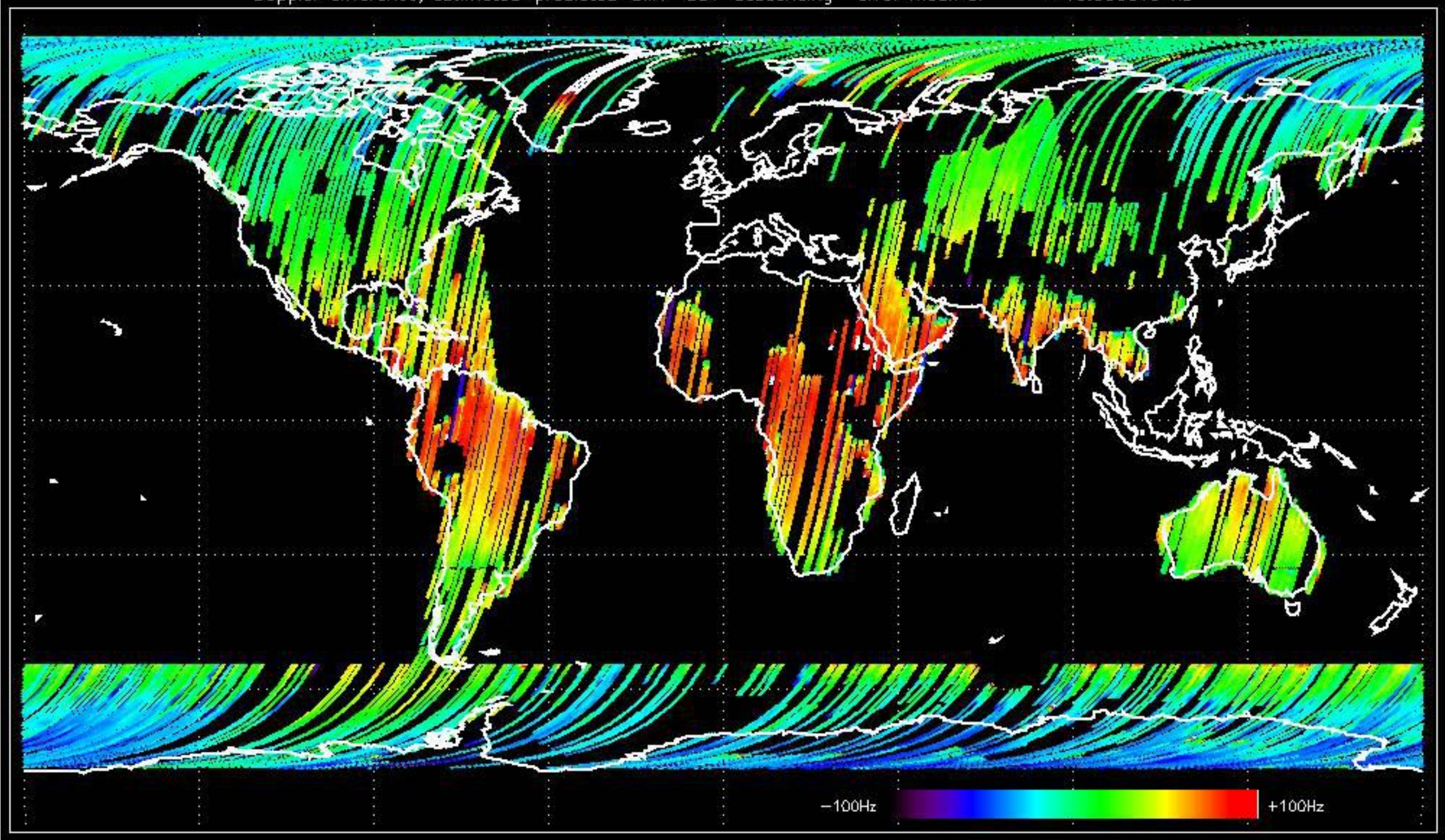




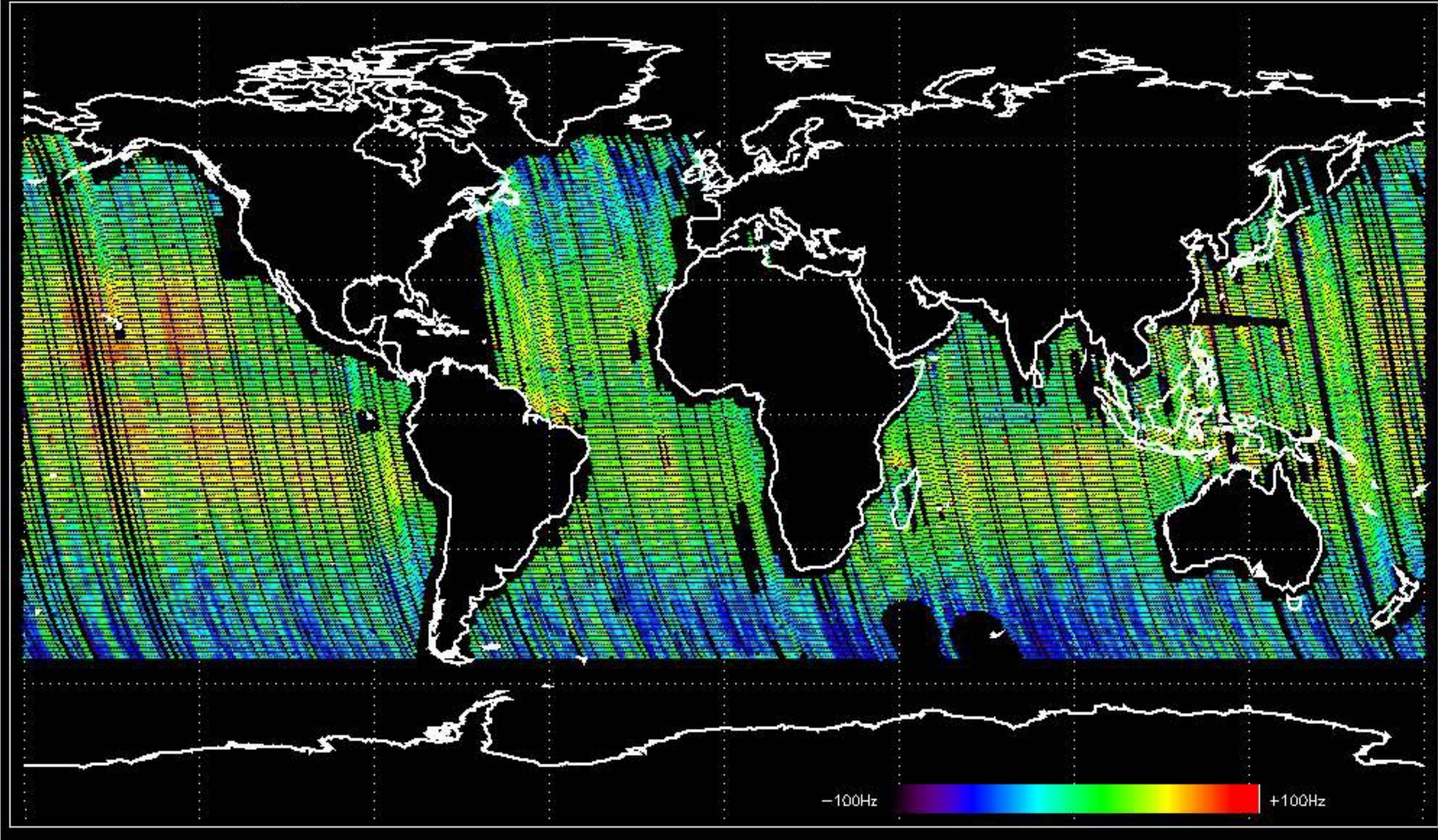
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.878439 Hz



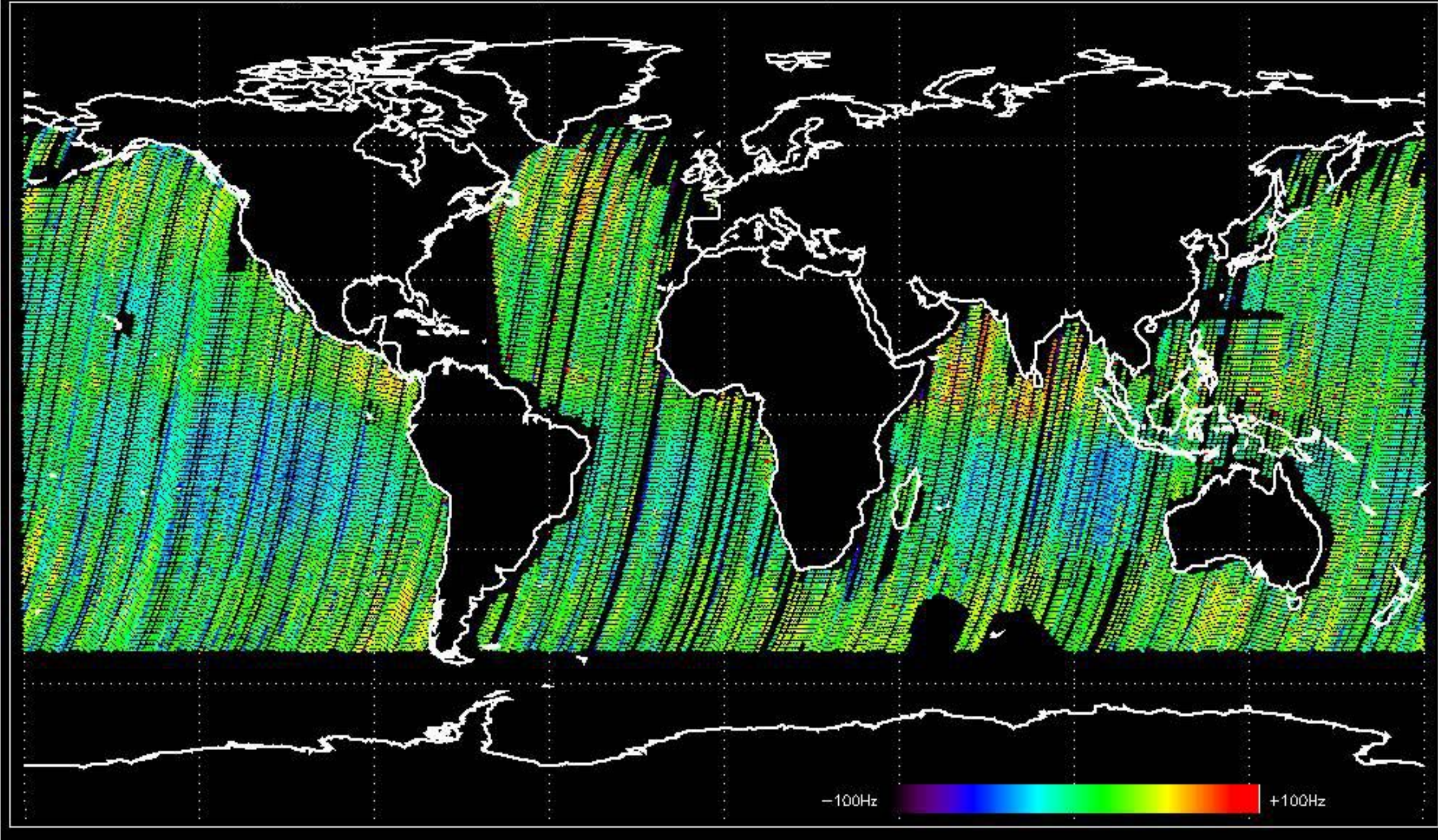
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -15.600613 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.405602 Hz

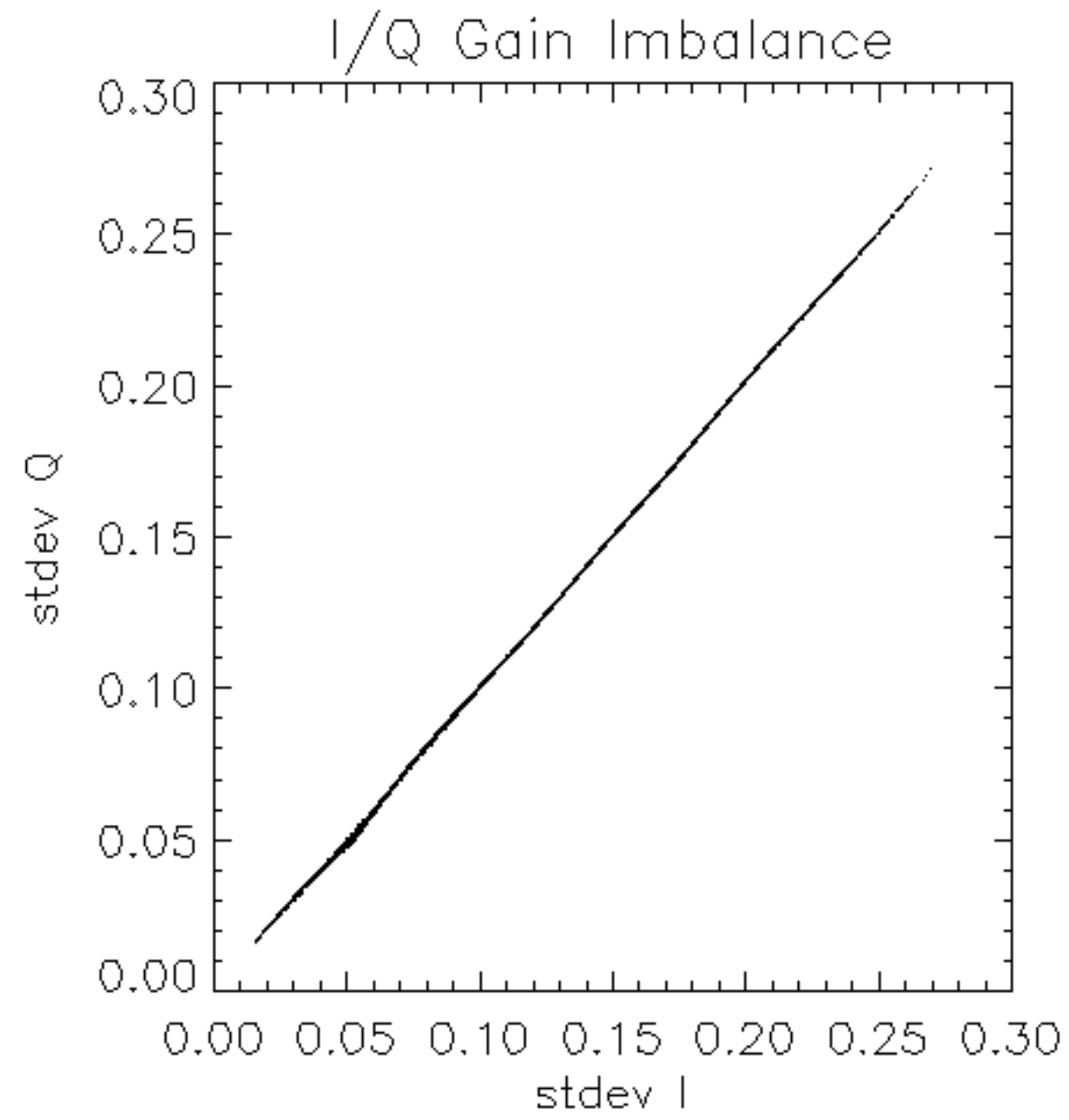


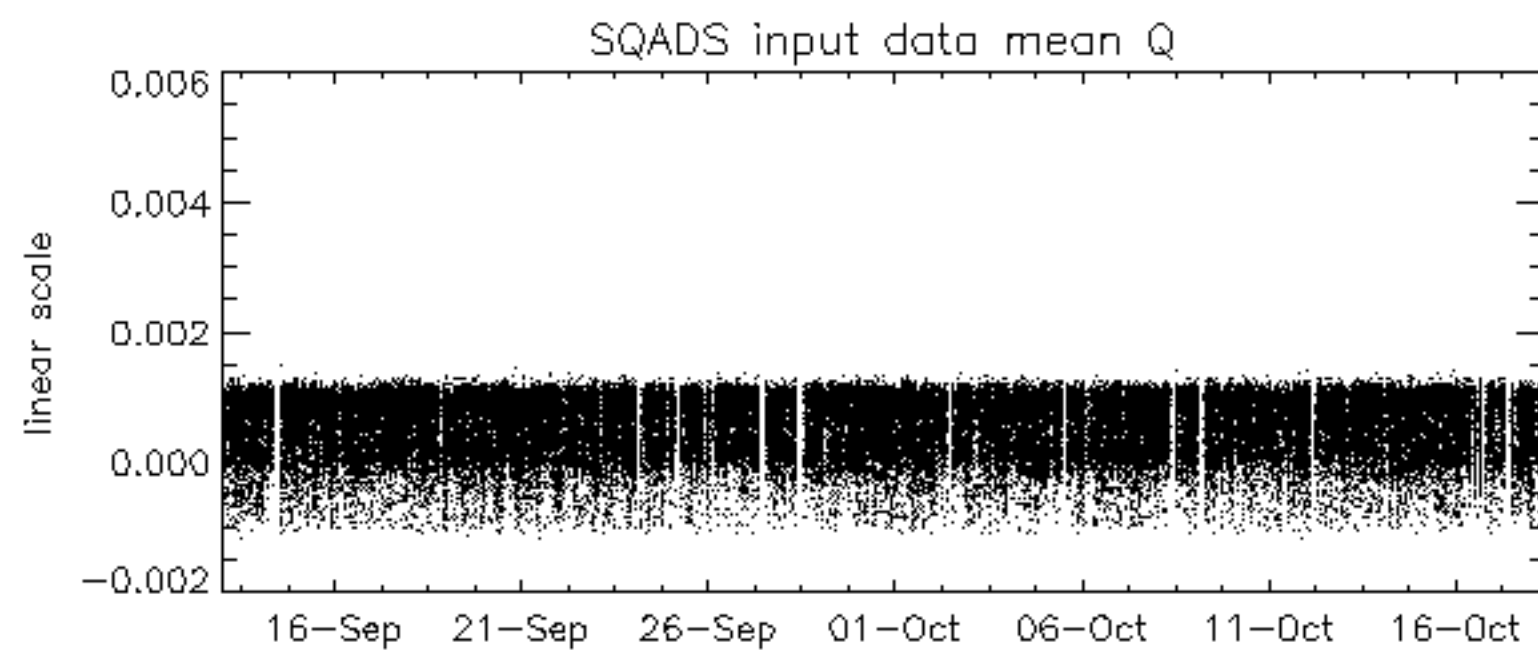
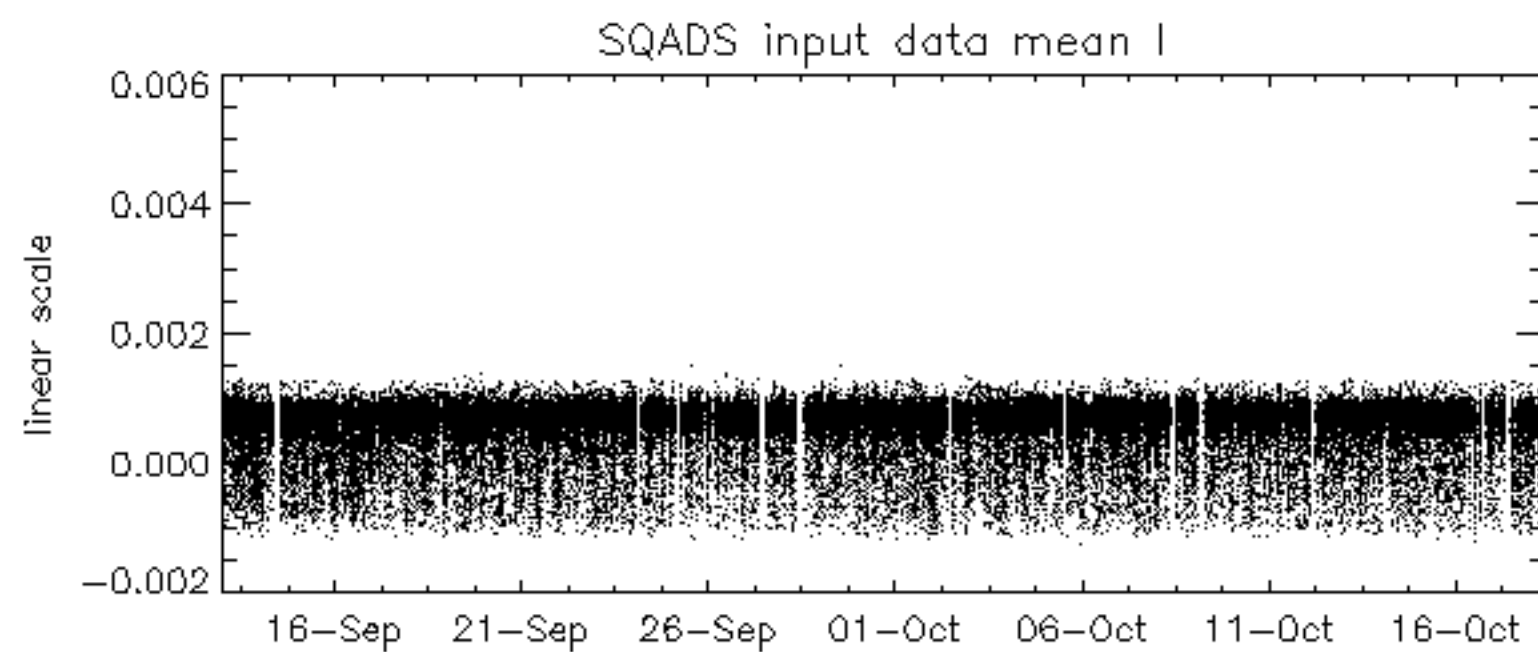
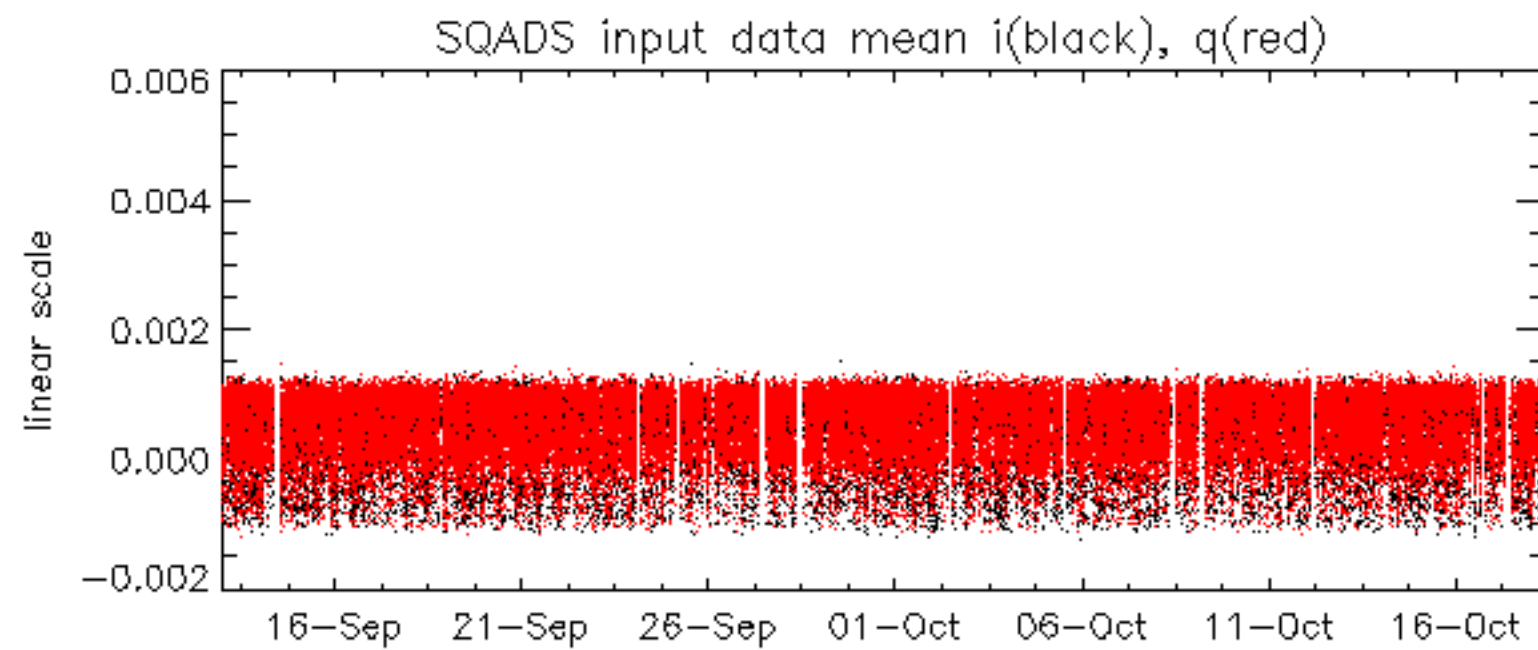
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.937098 Hz

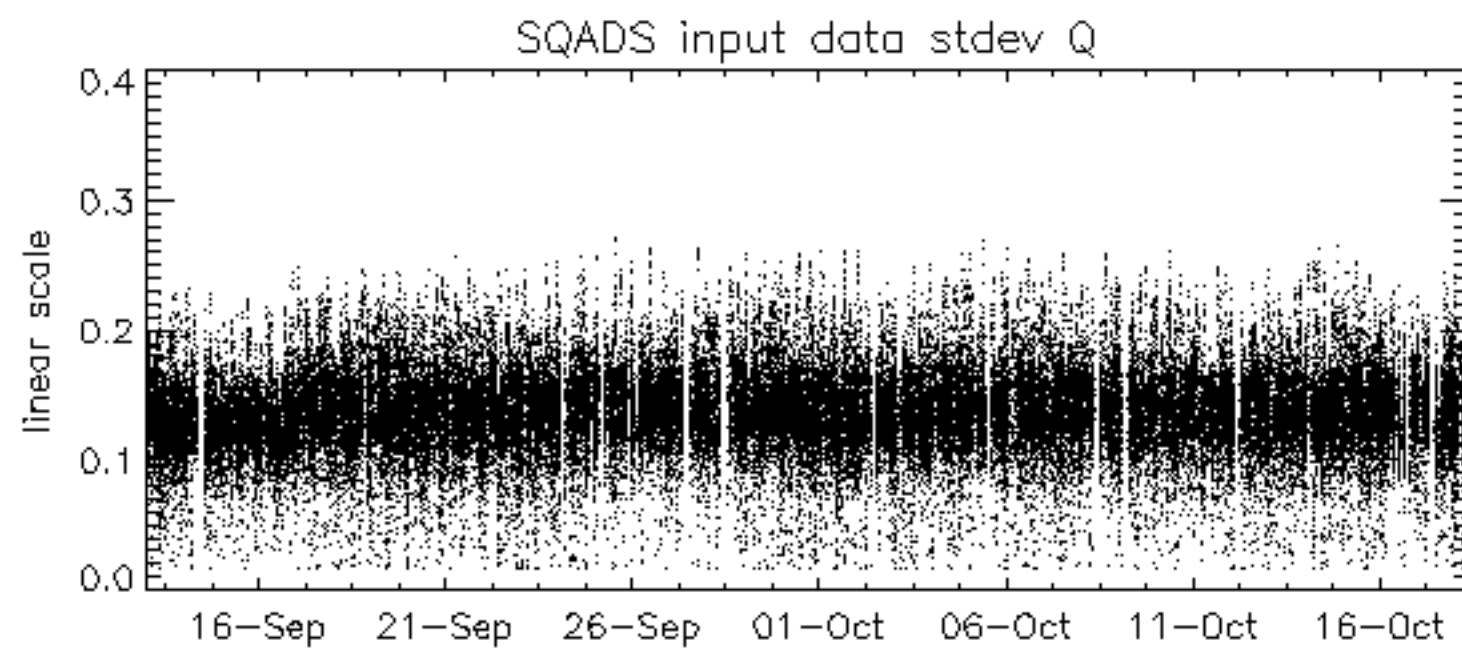
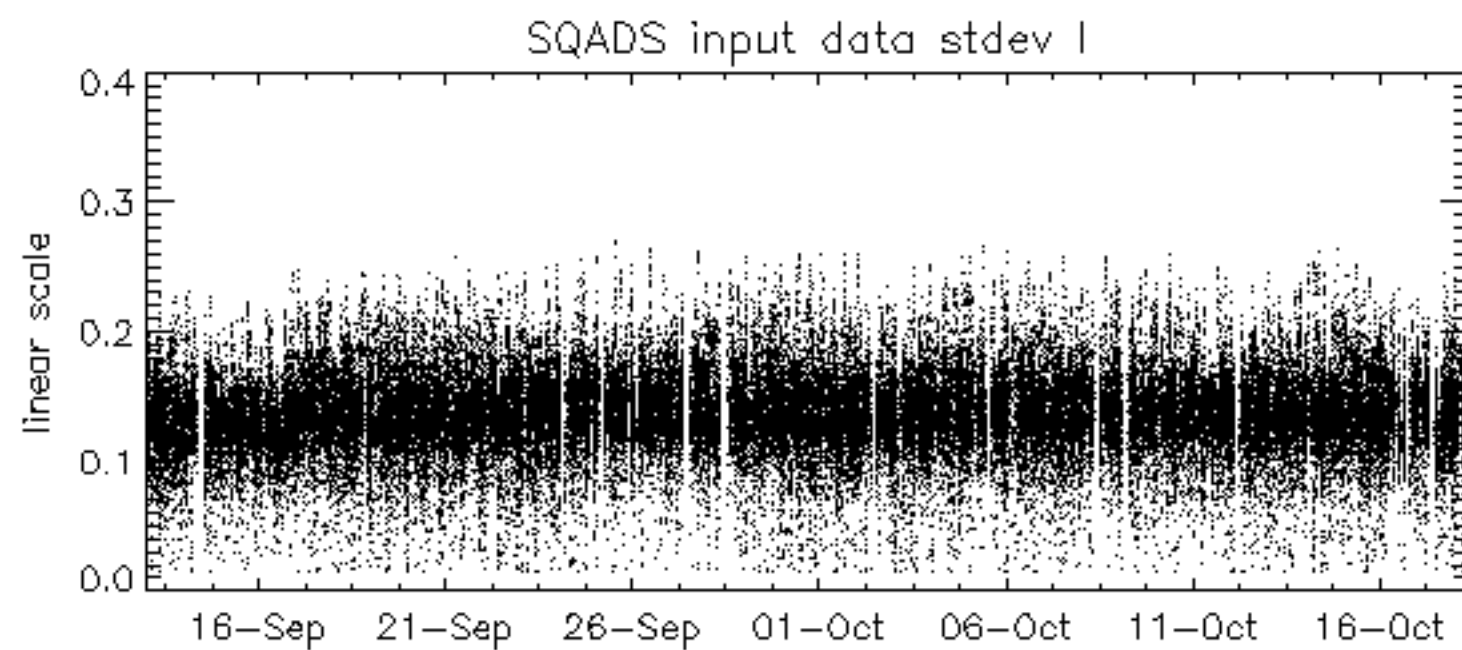
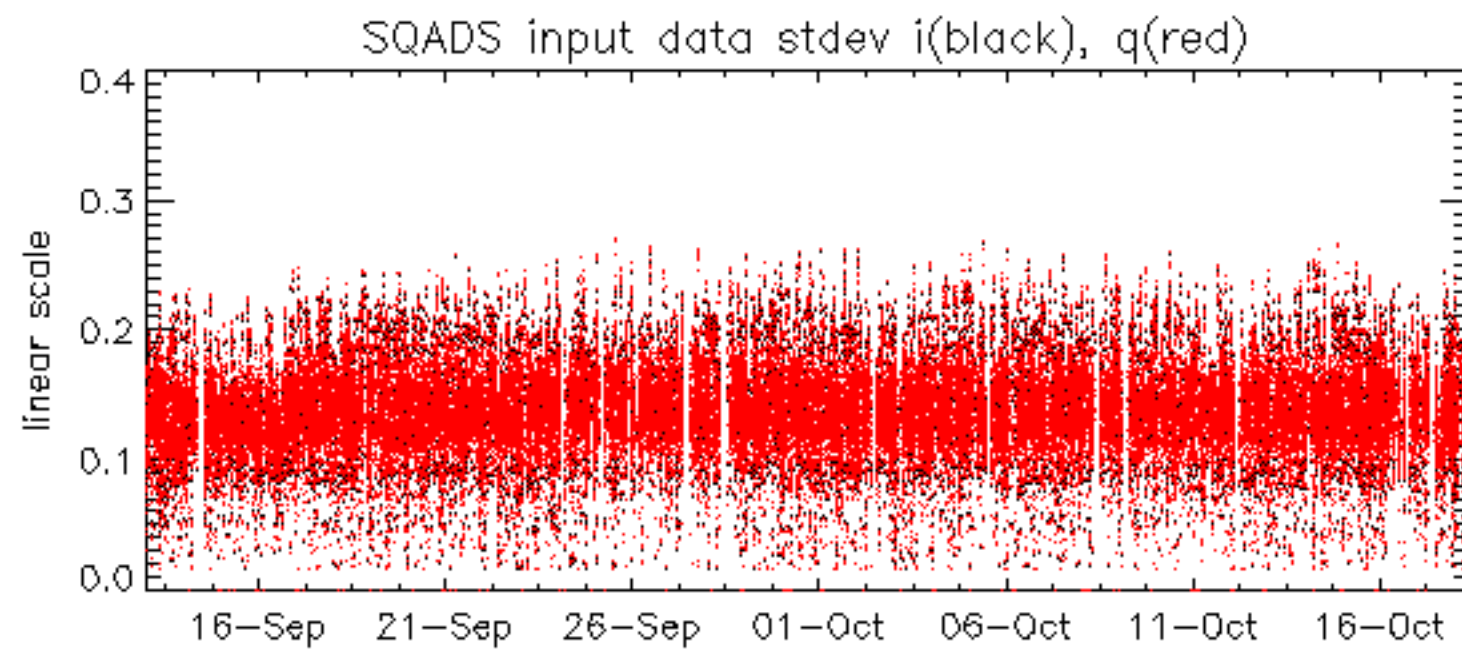


No anomalies observed on available MS products:

No anomalies observed.



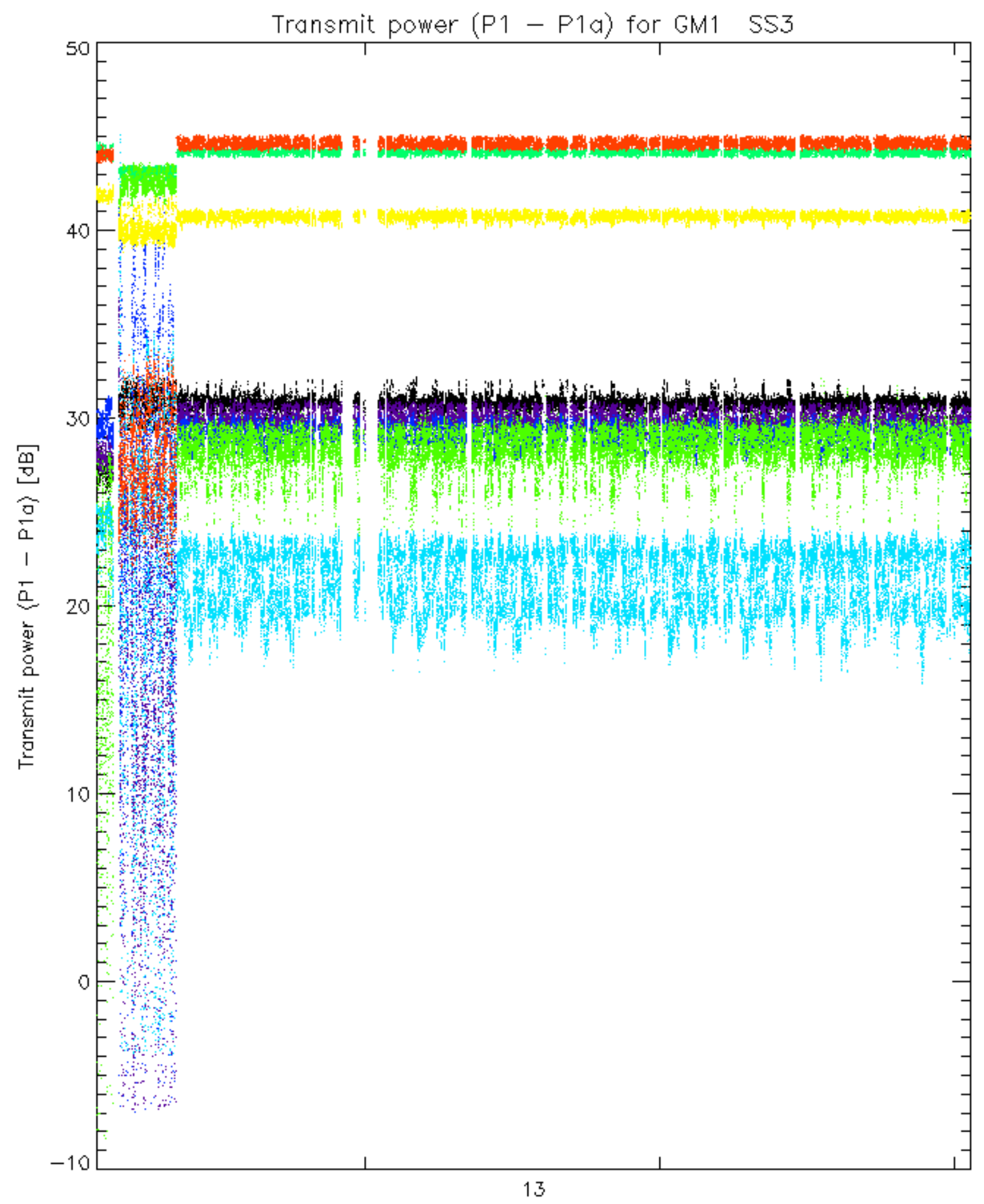


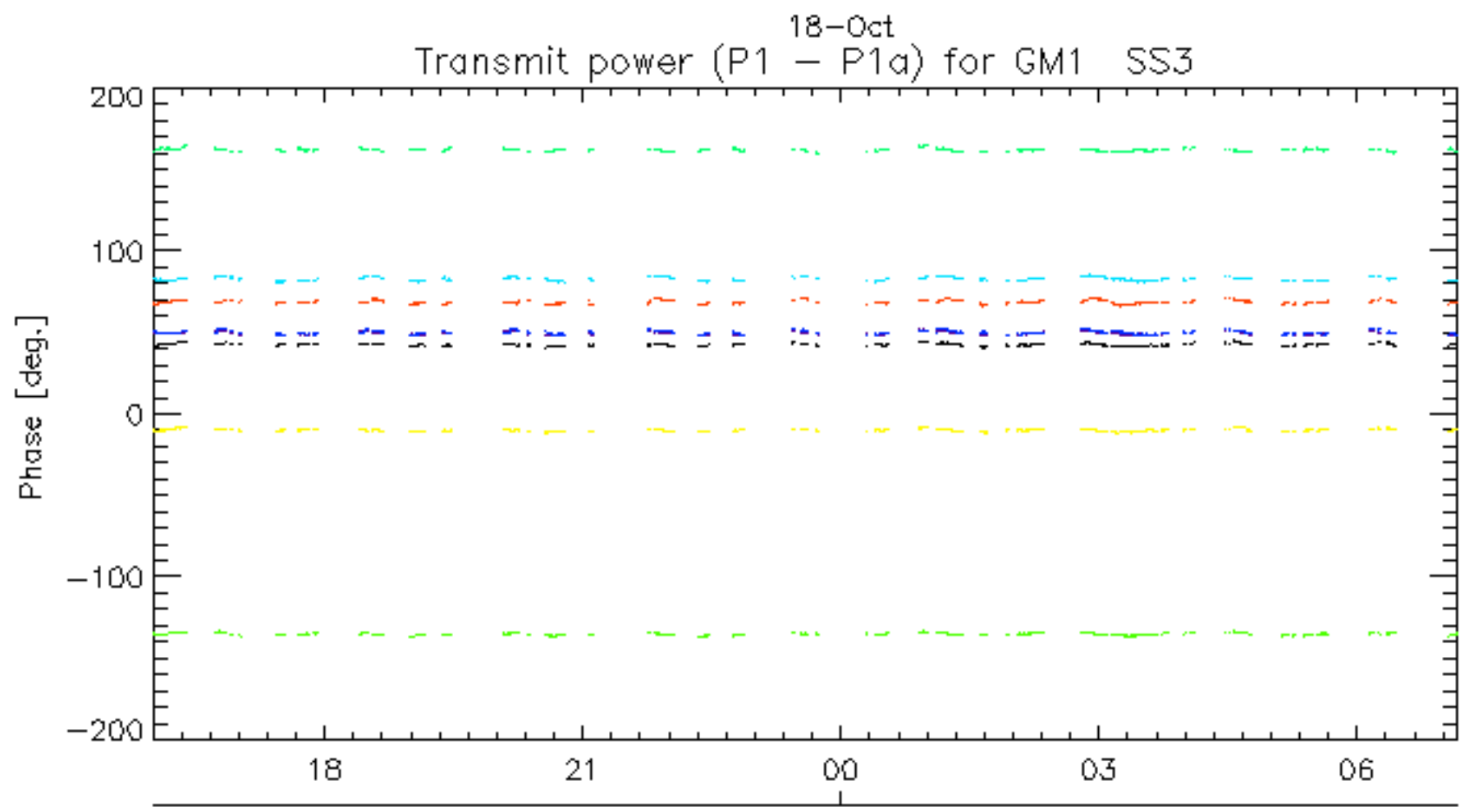
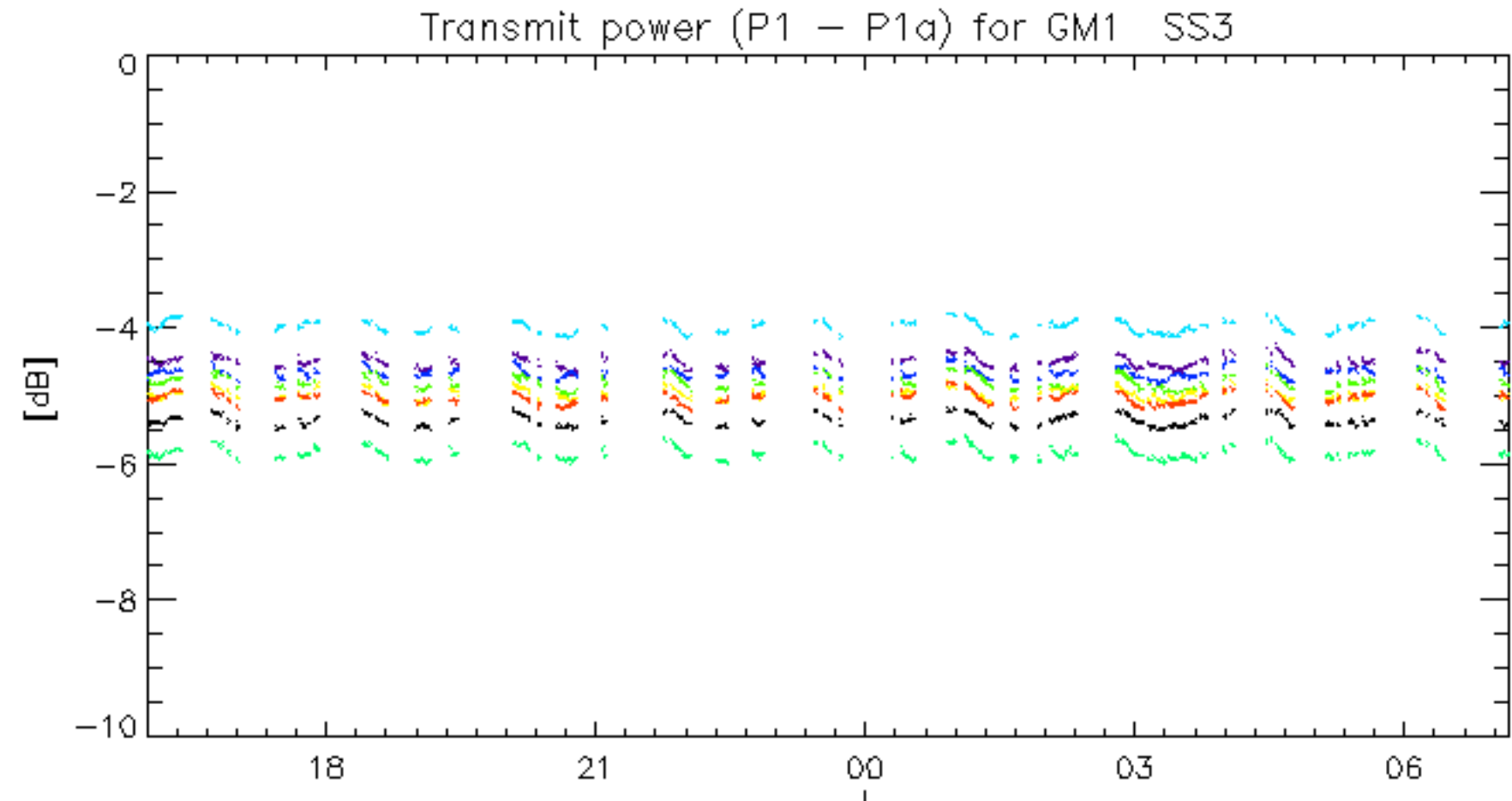


Summary of analysis for the last 3 days 2005101[678]

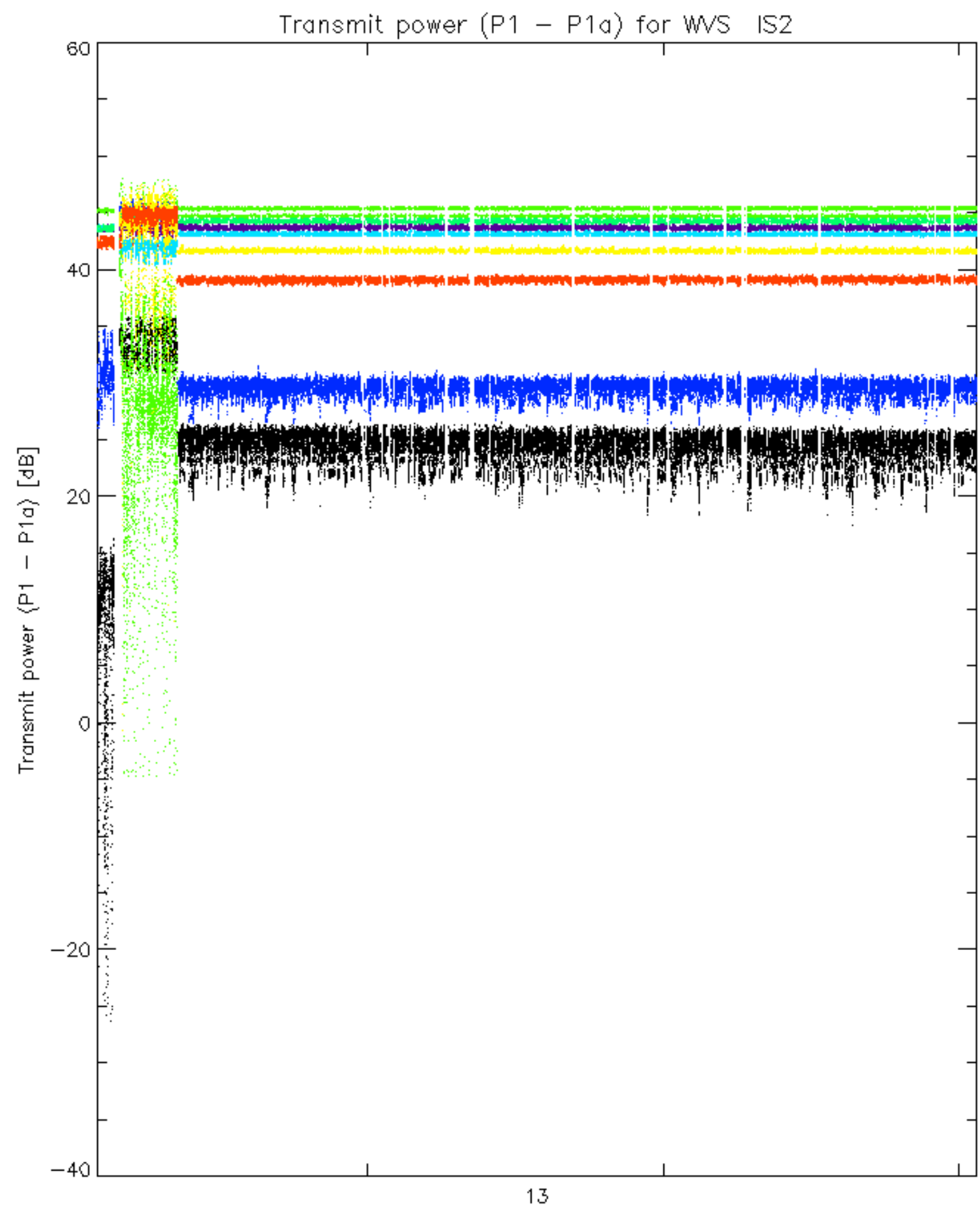
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051018_003757_000000842041_00403_18994_8685.N1	1	0
ASA_WSM_1PNPDE20051017_011919_000003912041_00389_18980_4497.N1	0	68
ASA_WSM_1PNPDE20051017_035606_000001472041_00391_18982_4517.N1	0	41
ASA_WSM_1PNPDE20051018_022852_000002392041_00404_18995_4709.N1	0	49
ASA_WSM_1PNPDK20051016_124418_000001832041_00381_18972_7198.N1	0	1
ASA_WSM_1PNPDK20051016_124420_000001282041_00381_18972_7244.N1	0	1

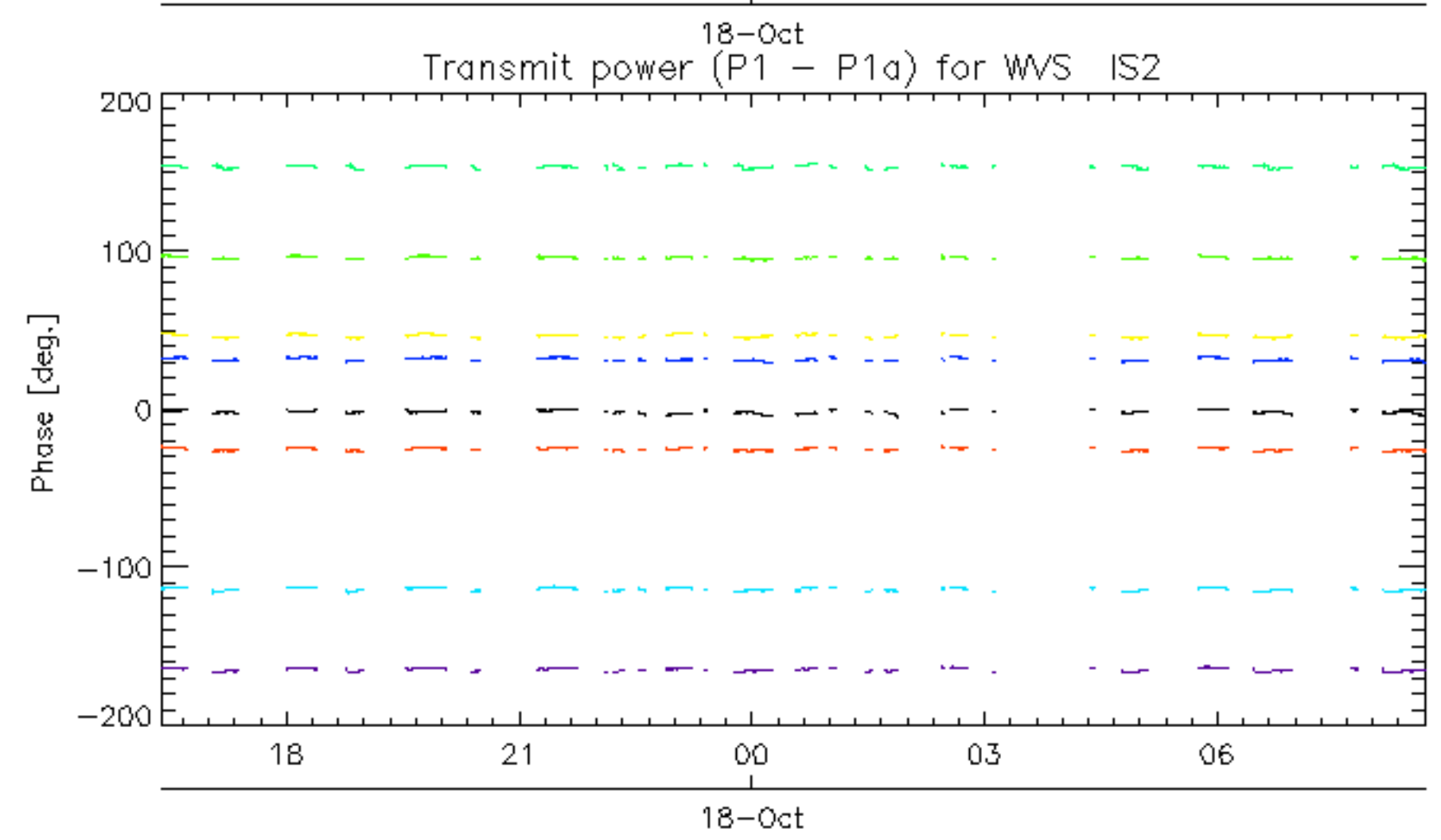
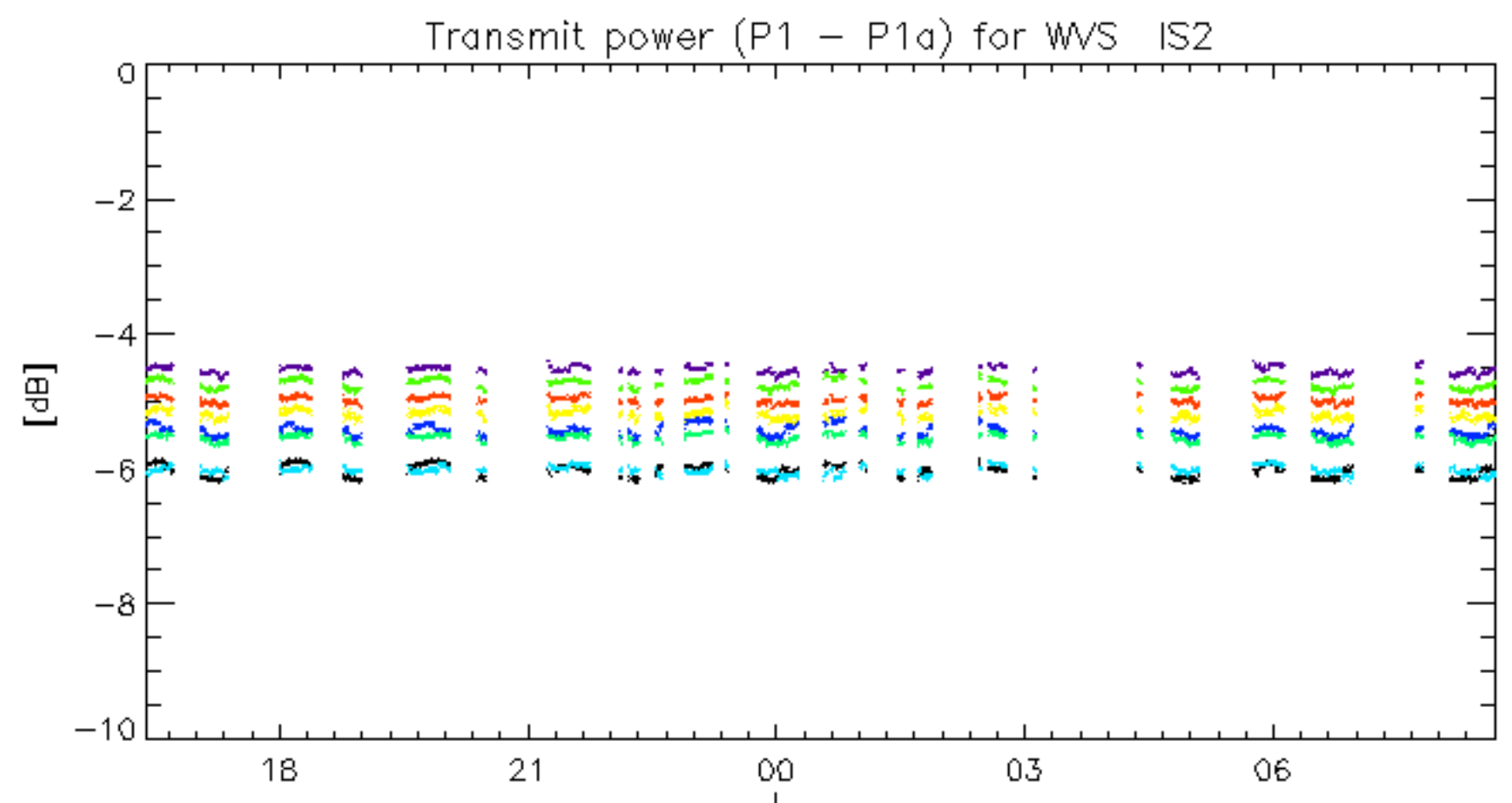




18-Oct
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.