

PRELIMINARY REPORT OF 051011

last update on Tue Oct 11 16:42:43 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 2005-10-10 00:00:00 to 2005-10-11 16:42:43

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	42	57	13	3	18
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	42	57	13	3	18
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	42	57	13	3	18
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	42	57	13	3	18

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	39	59	36	9	51
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	39	59	36	9	51
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	39	59	36	9	51
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	39	59	36	9	51

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	20051010 084157
H	20051011 081021

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

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	-3.543937	0.065088	-0.065287
7	P1	-2.977104	0.035686	0.396177
11	P1	-4.256859	0.137047	0.899507
15	P1	-5.942584	0.041190	-0.390182
19	P1	-3.216686	0.158179	0.450778
22	P1	-4.493325	0.023017	0.237682
26	P1	-4.452411	0.103238	0.776581
30	P1	-5.985183	0.444030	1.482914
3	P1	-15.816106	1.822426	1.315438
7	P1	-16.694754	4.666707	1.222822
11	P1	-18.132689	12.840492	8.361950
15	P1	-13.698138	9.051128	0.502988
19	P1	-13.732541	0.230805	0.750887
22	P1	-17.226185	22.830013	3.501366
26	P1	-17.683228	21.481279	5.285328
30	P1	-17.510445	8.983458	4.240887

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.830709	0.103071	-0.178577
7	P2	-22.563042	0.246514	-0.770196
11	P2	-16.140253	2.079789	-3.218877
15	P2	-7.205908	0.117737	-0.089987
19	P2	-9.176636	0.188749	0.170432
22	P2	-17.471441	0.239653	-1.089828
26	P2	-16.190876	0.131505	0.503880
30	P2	-19.481131	0.209292	-0.731122

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.176816	0.004914	-0.035416
7	P3	-8.176816	0.004914	-0.035416
11	P3	-8.176816	0.004914	-0.035416
15	P3	-8.176816	0.004914	-0.035416
19	P3	-8.176816	0.004914	-0.035416
22	P3	-8.176816	0.004914	-0.035416
26	P3	-8.176816	0.004914	-0.035416
30	P3	-8.176816	0.004914	-0.035416

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	-3.369368	0.265926	-1.254892
7	P1	-2.933433	0.066503	0.365173
11	P1	-3.155553	0.277265	1.406029
15	P1	-3.458220	0.032094	0.320950
19	P1	-3.343867	0.061157	0.078793
22	P1	-5.173189	0.160773	0.251692
26	P1	-5.940387	0.612575	1.028150
30	P1	-5.302642	0.353911	0.640332
3	P1	-11.496943	0.426920	0.218841
7	P1	-11.353960	19.875673	5.089871
11	P1	-12.354927	39.044289	8.883489
15	P1	-12.501624	33.762157	6.925496
19	P1	-15.330361	0.215452	-0.397514
22	P1	-21.559290	5.279996	5.343775

26	P1	-17.279873	5.067119	0.092010
30	P1	-19.405987	1.852741	2.388000

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.634626	0.059724	-0.365801
7	P2	-22.858335	0.268487	-0.970937
11	P2	-11.313079	0.863289	-2.204641
15	P2	-4.931045	0.046054	0.208855
19	P2	-6.795579	0.110288	-0.370933
22	P2	-7.825789	0.230438	-1.254954
26	P2	-23.879627	0.042820	0.119301
30	P2	-22.075838	0.058108	0.032409

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.019897	0.002923	-0.039421
7	P3	-8.019942	0.002924	-0.039873
11	P3	-8.019750	0.002928	-0.040029
15	P3	-8.019823	0.002929	-0.039950
19	P3	-8.020027	0.002927	-0.039613
22	P3	-8.019792	0.002930	-0.039963
26	P3	-8.020074	0.002926	-0.039937
30	P3	-8.019850	0.002937	-0.039646

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	0.000535157
	stdev	1.83017e-07
MEAN Q	mean	0.000525932
	stdev	2.18600e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135583
	stdev	0.00110580
STDEV Q	mean	0.135906
	stdev	0.00112149



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005101[901]

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_1PNPDE20051010_155732_000002332041_00298_18889_8044.N1	1	0
ASA_IMM_1PNPDK20051010_124847_000000882041_00296_18887_5483.N1	1	0
ASA_WSM_1PNPDE20051010_041813_000001592041_00291_18882_3248.N1	0	37
ASA_WSM_1PNPDE20051011_010913_000003062041_00303_18894_3388.N1	0	19





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)	
	
	Ascending
	
	Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Ascending
	
	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)

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

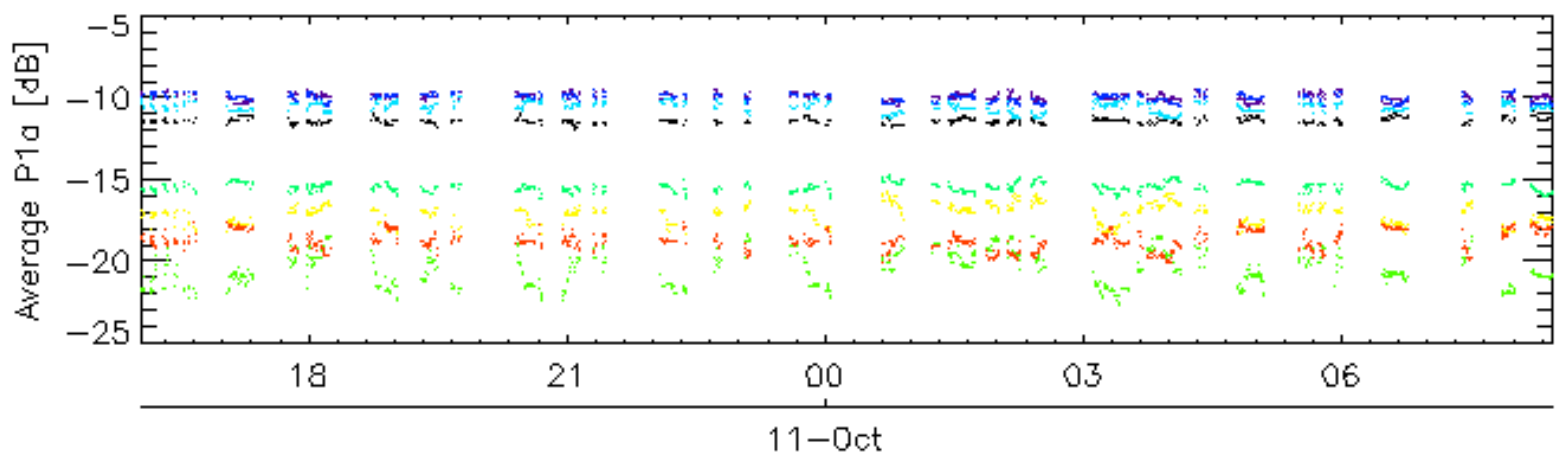
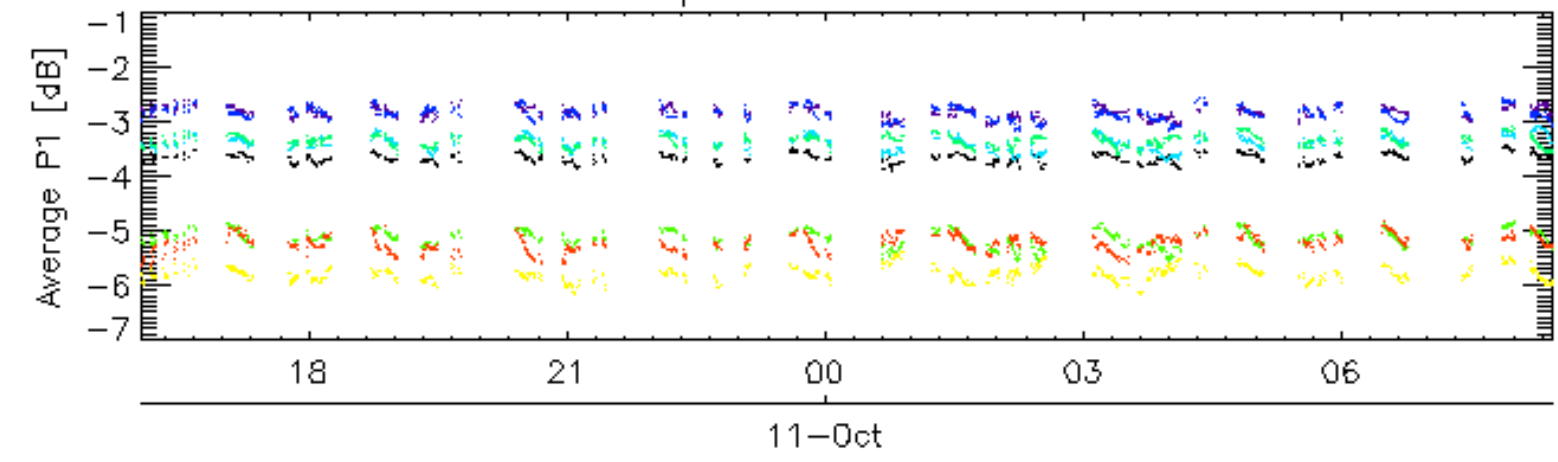
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

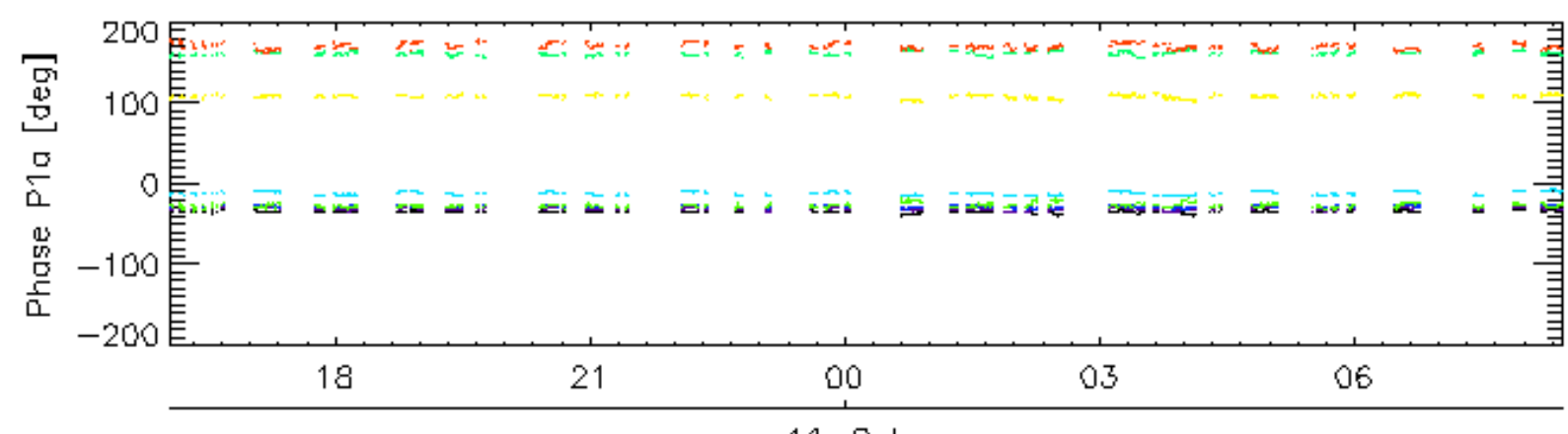
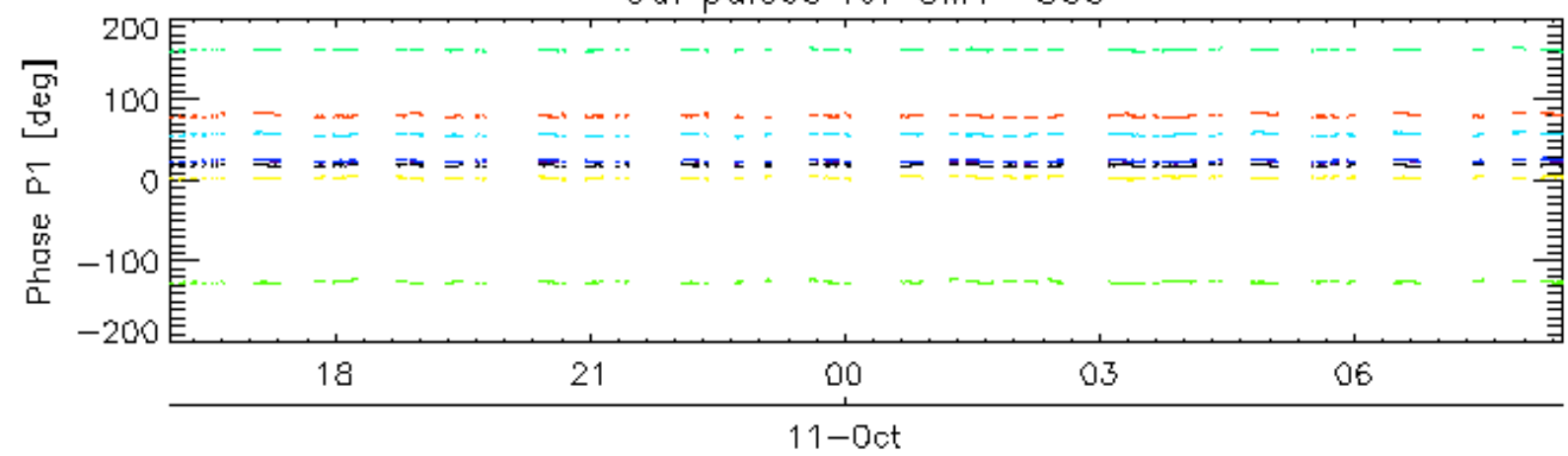
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

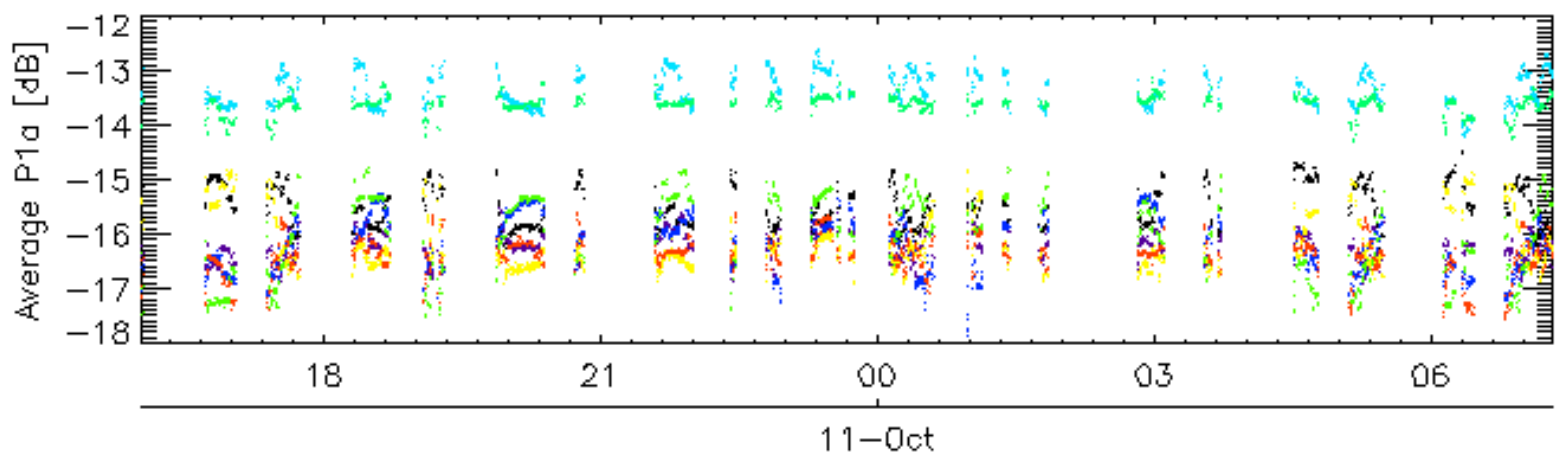
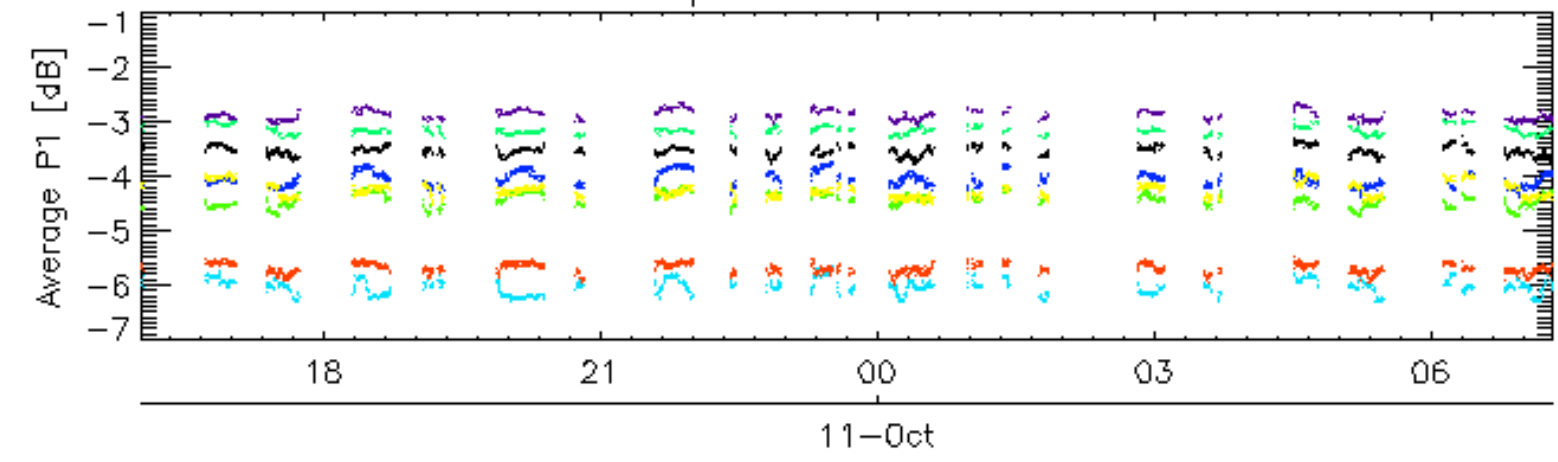


Cal pulses for GM1 SS3

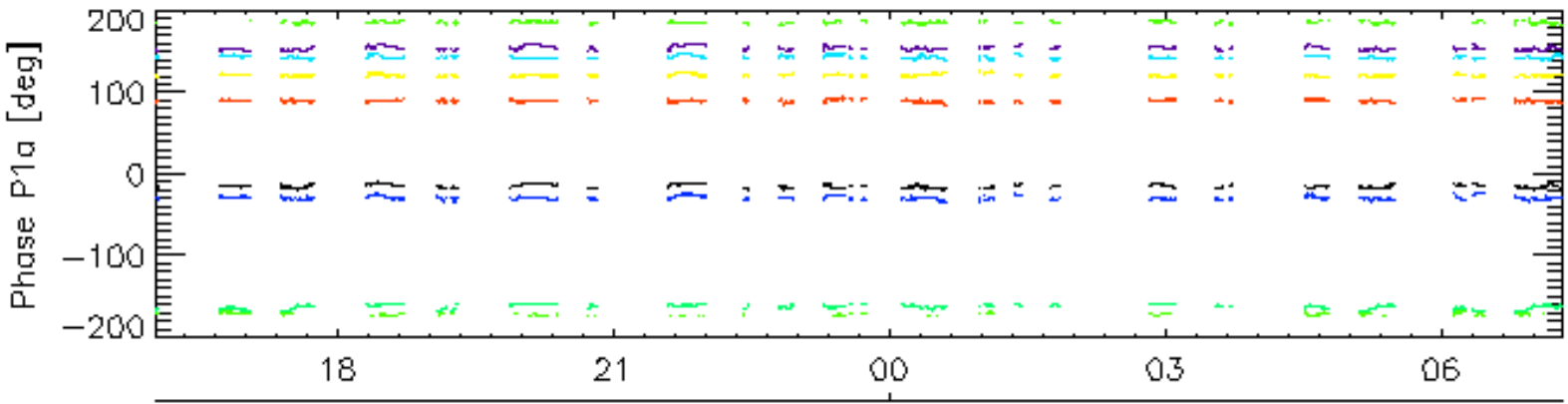
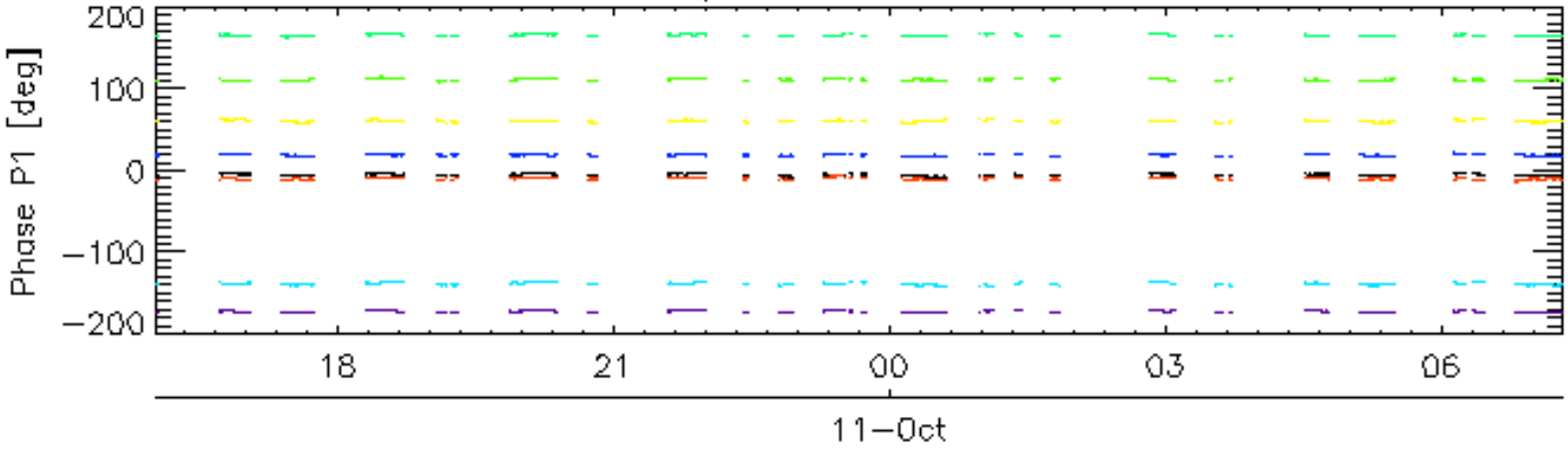


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

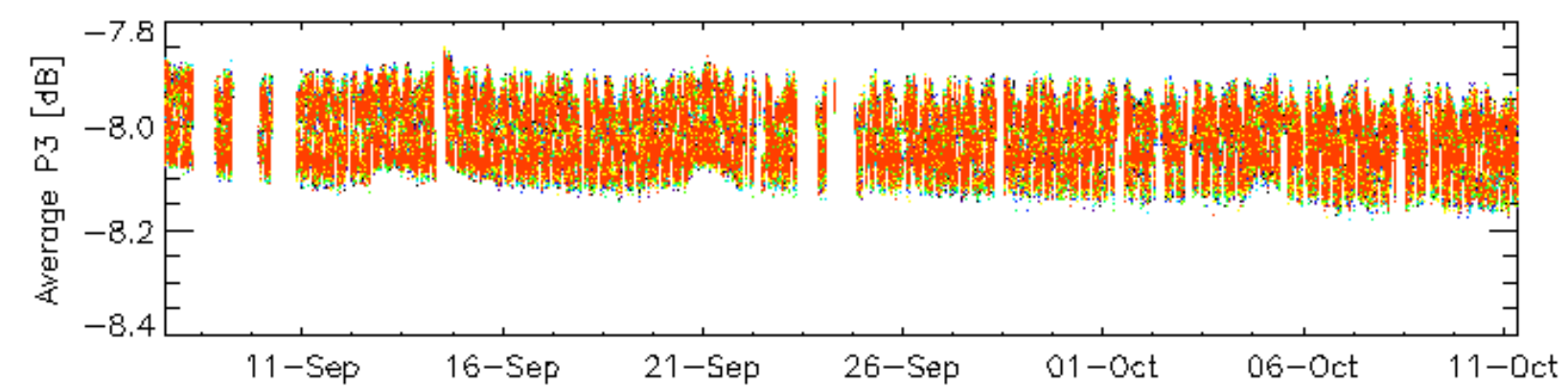
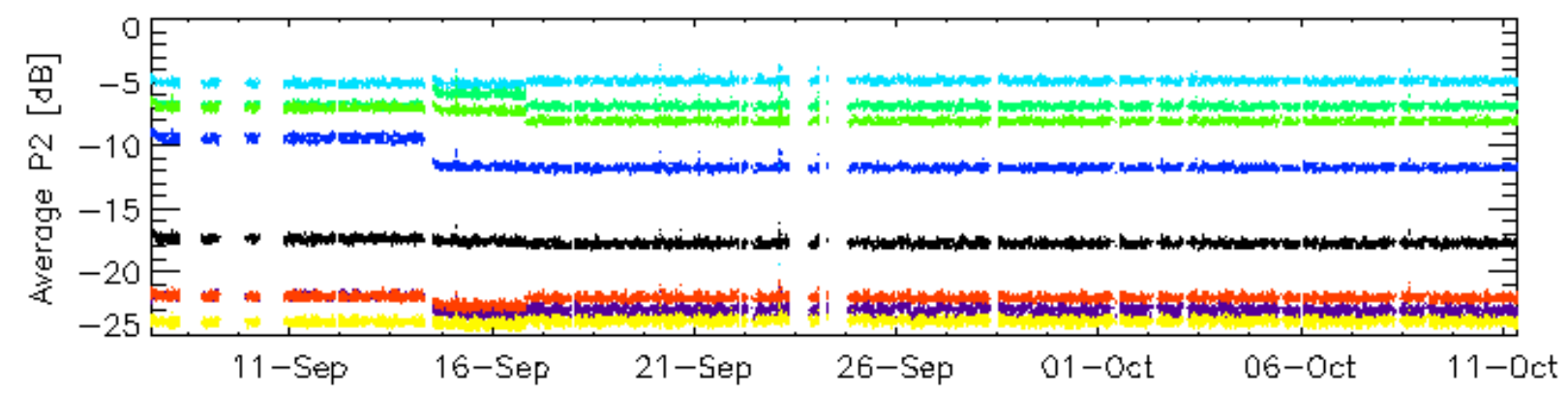
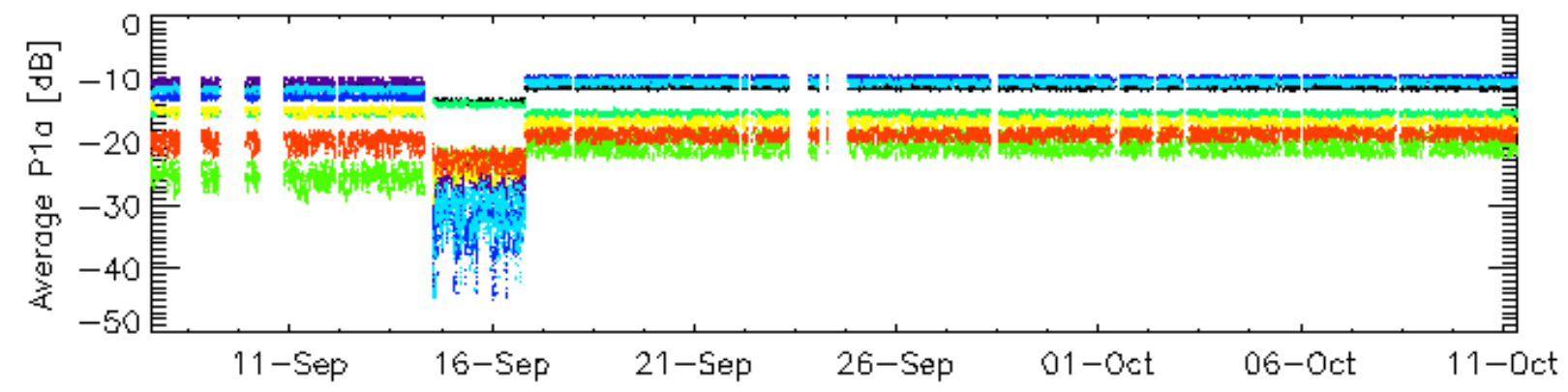
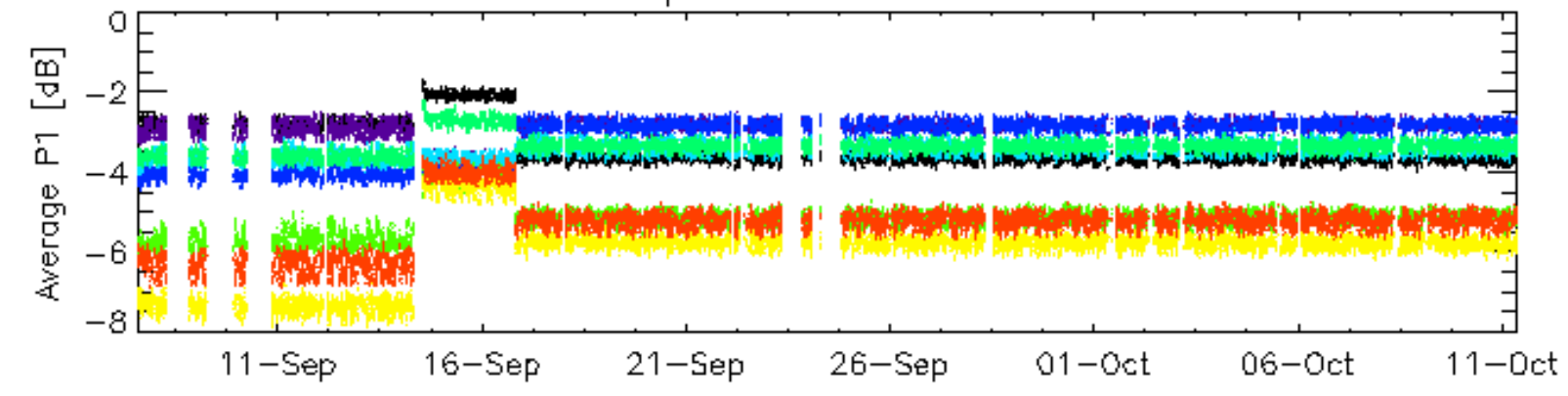


Cal pulses for WVS IS2



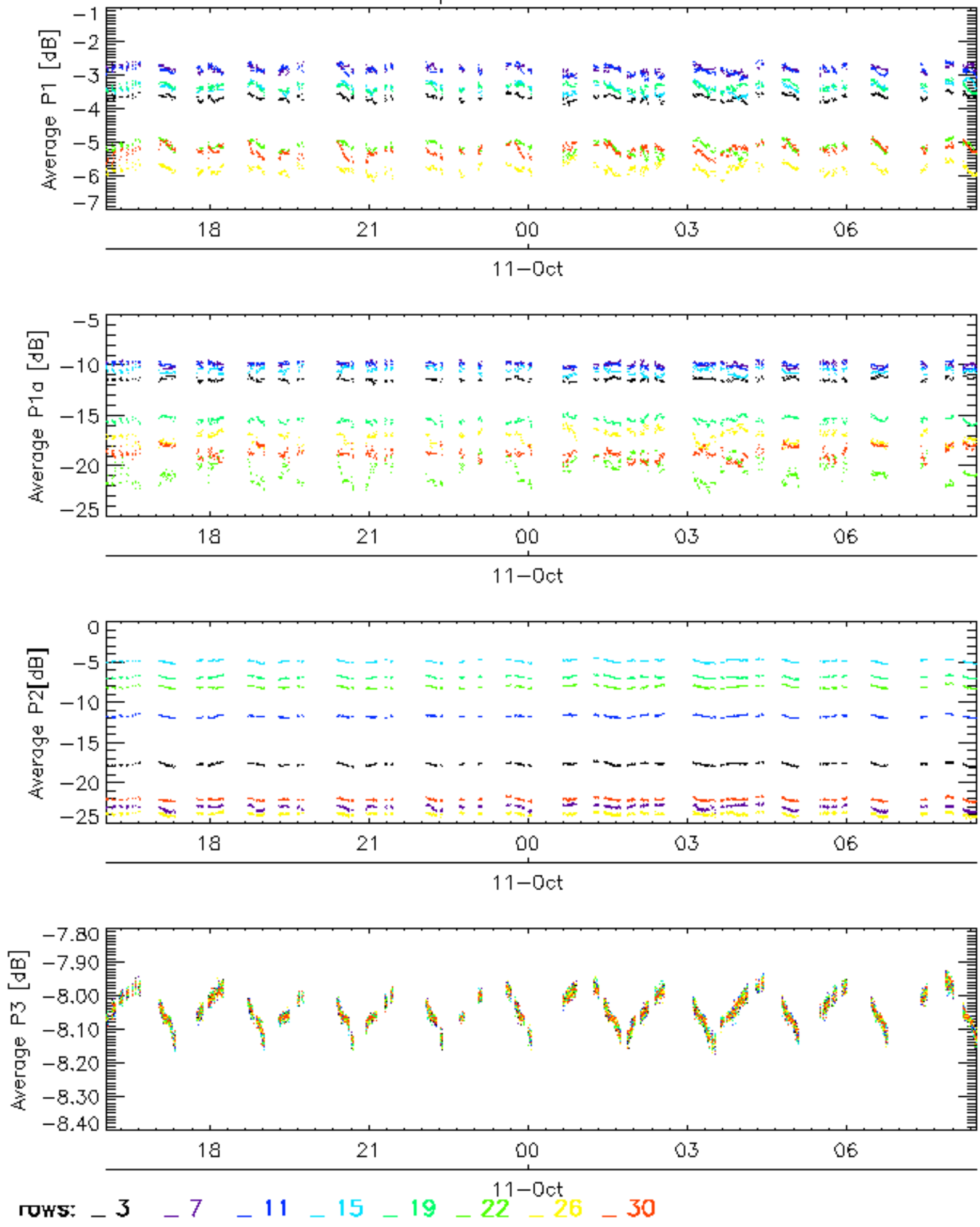
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 11-Oct

Cal pulses for GM1 SS3

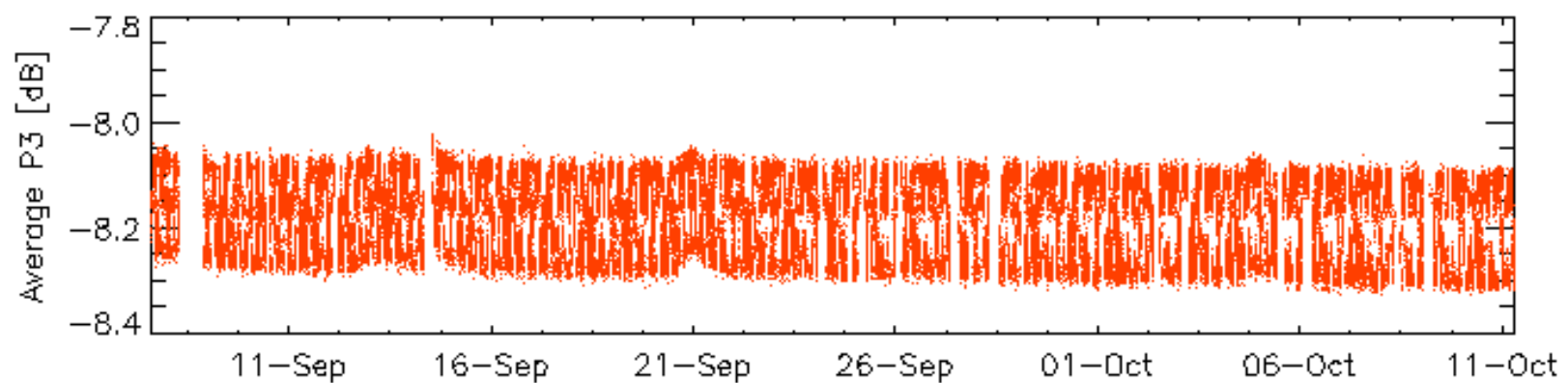
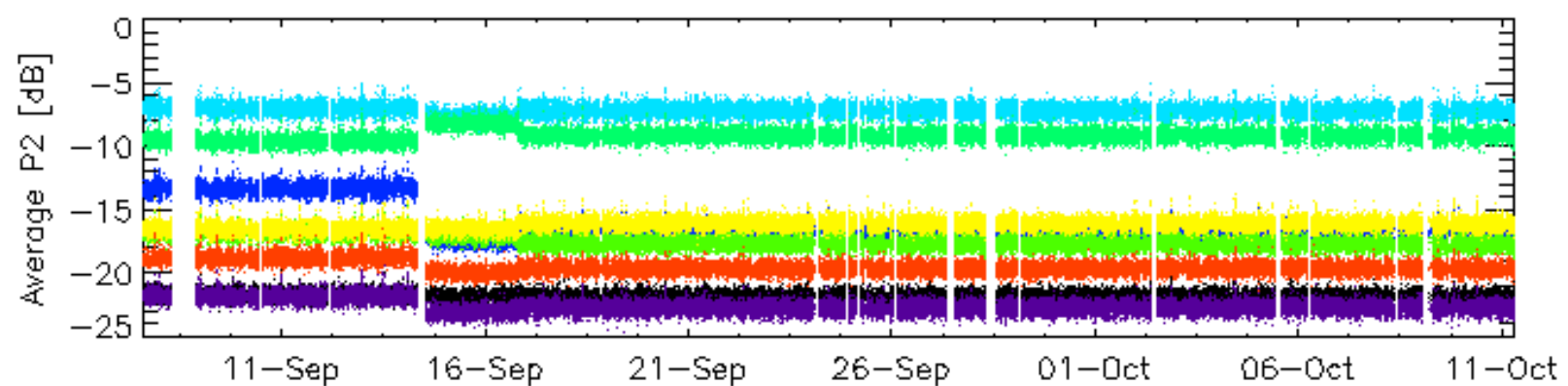
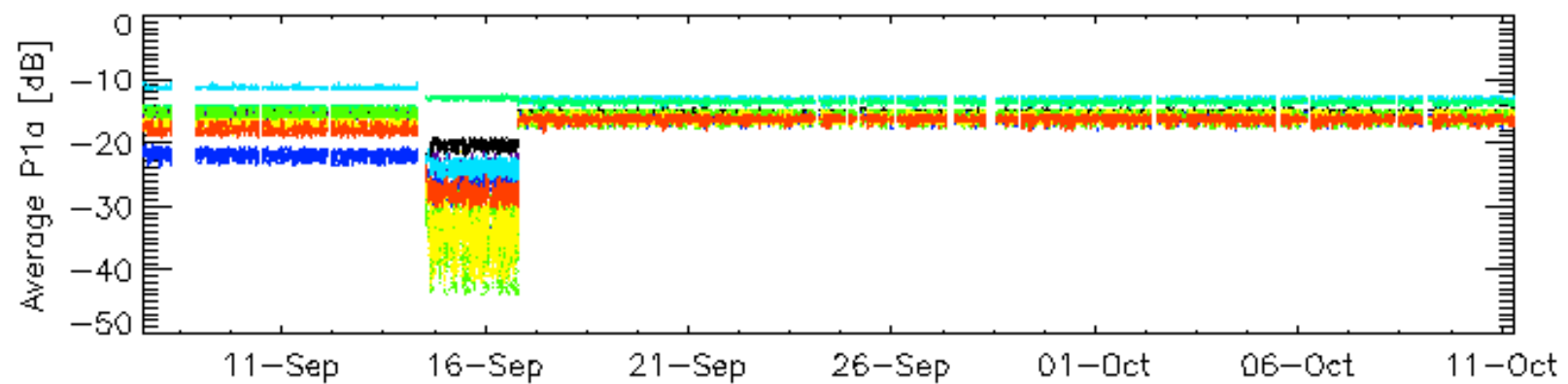
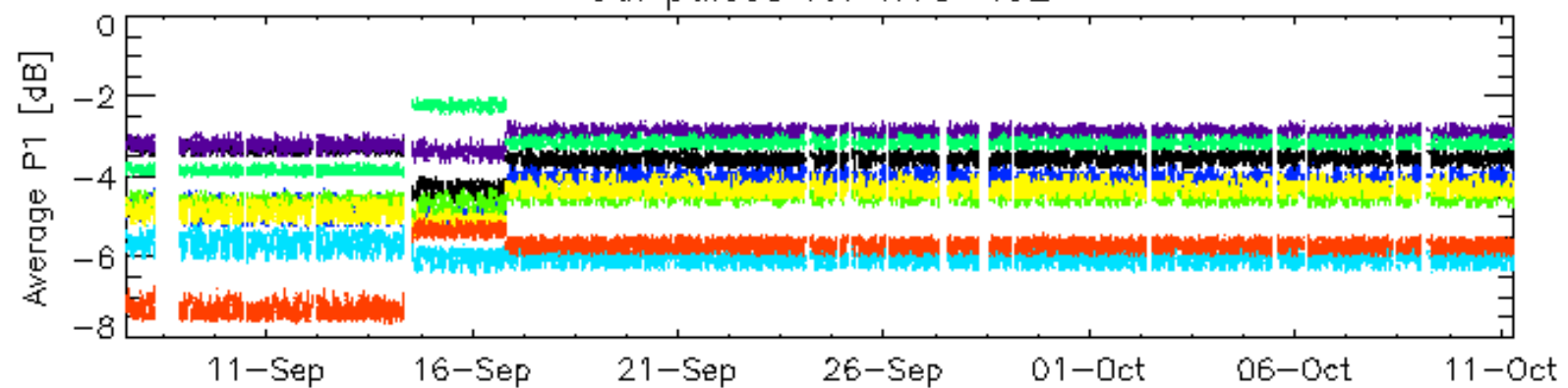


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

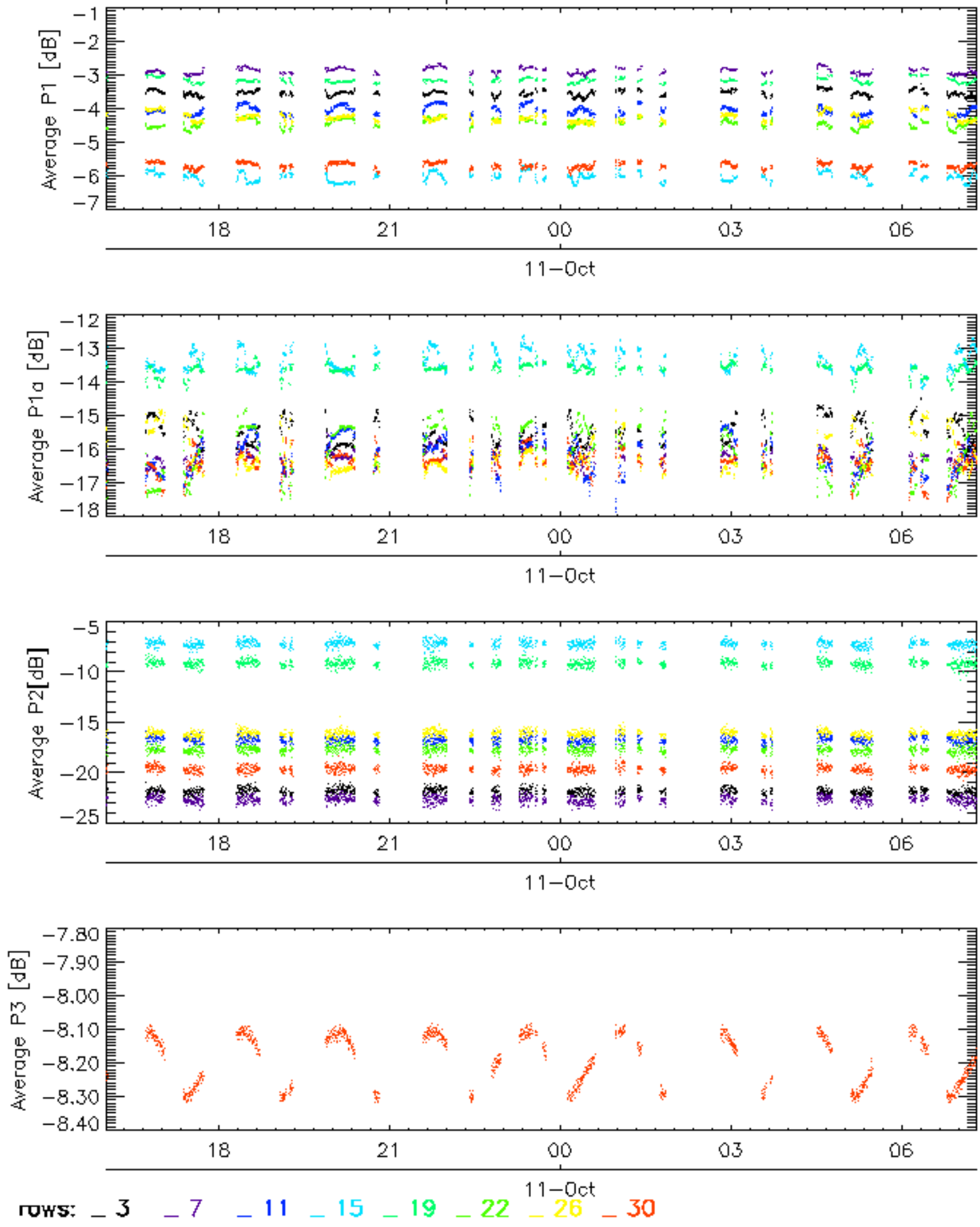


Cal pulses for WVS IS2



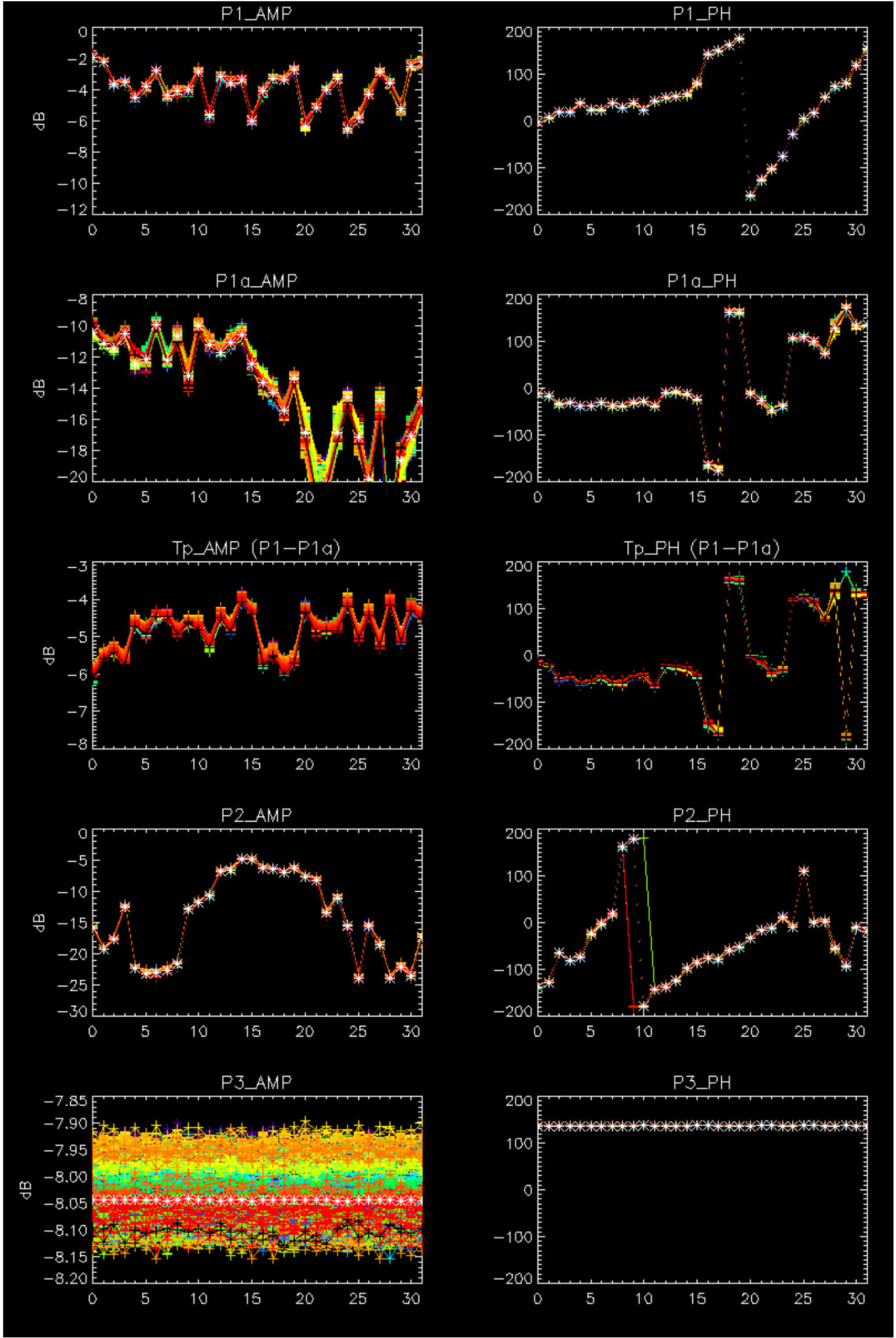
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

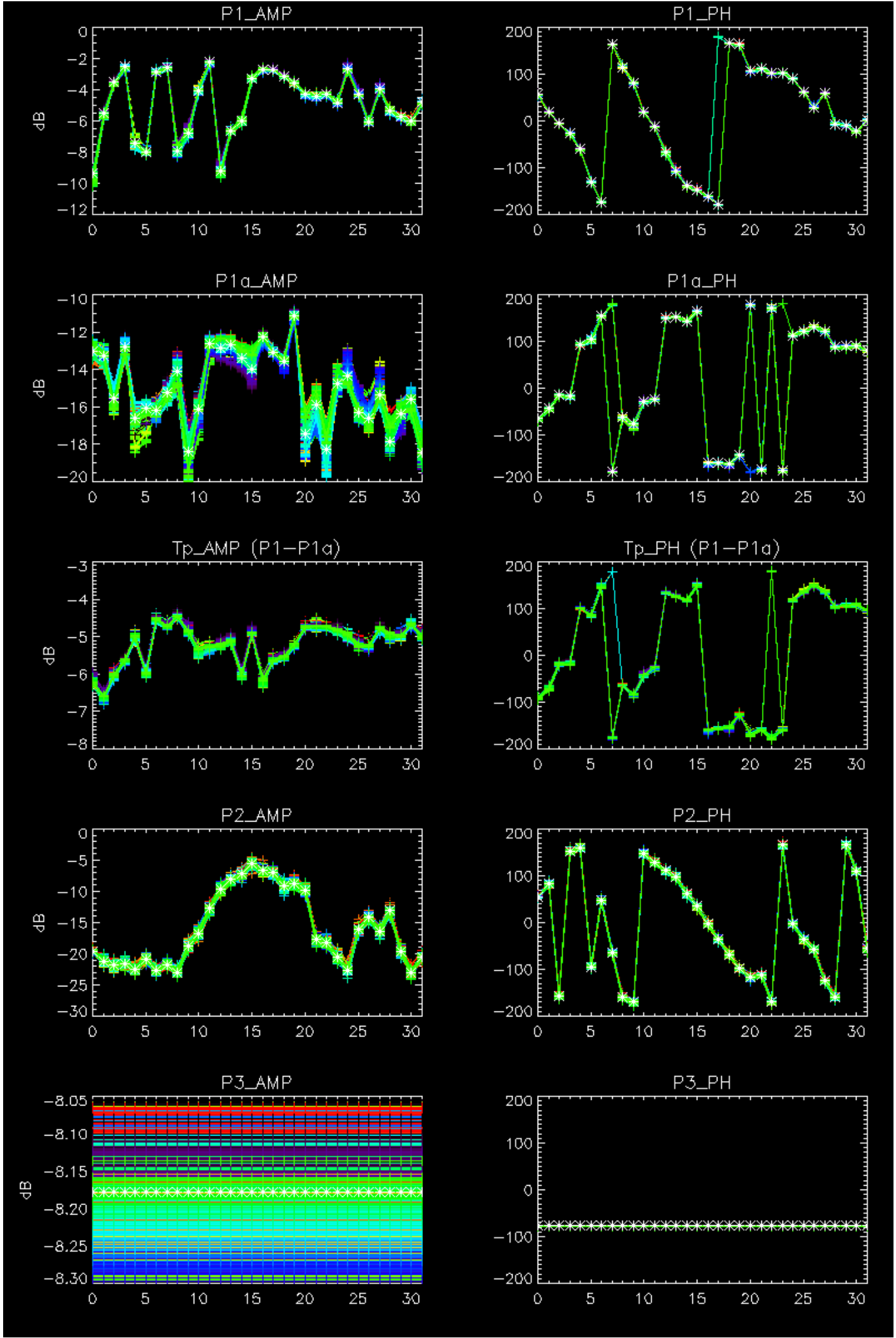
Cal pulses for WVS IS2



No anomalies observed on available browse products

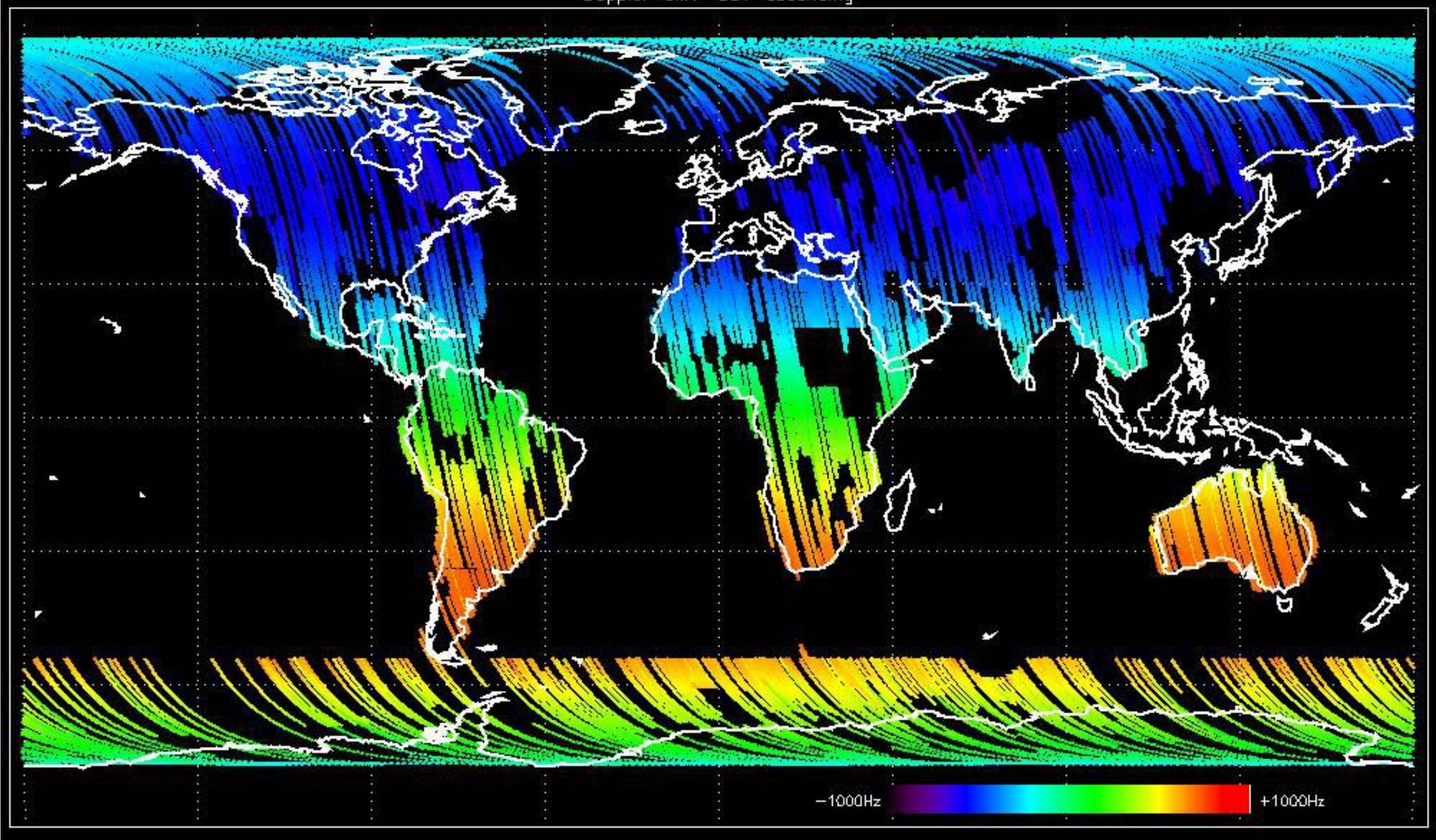
No anomalies observed.



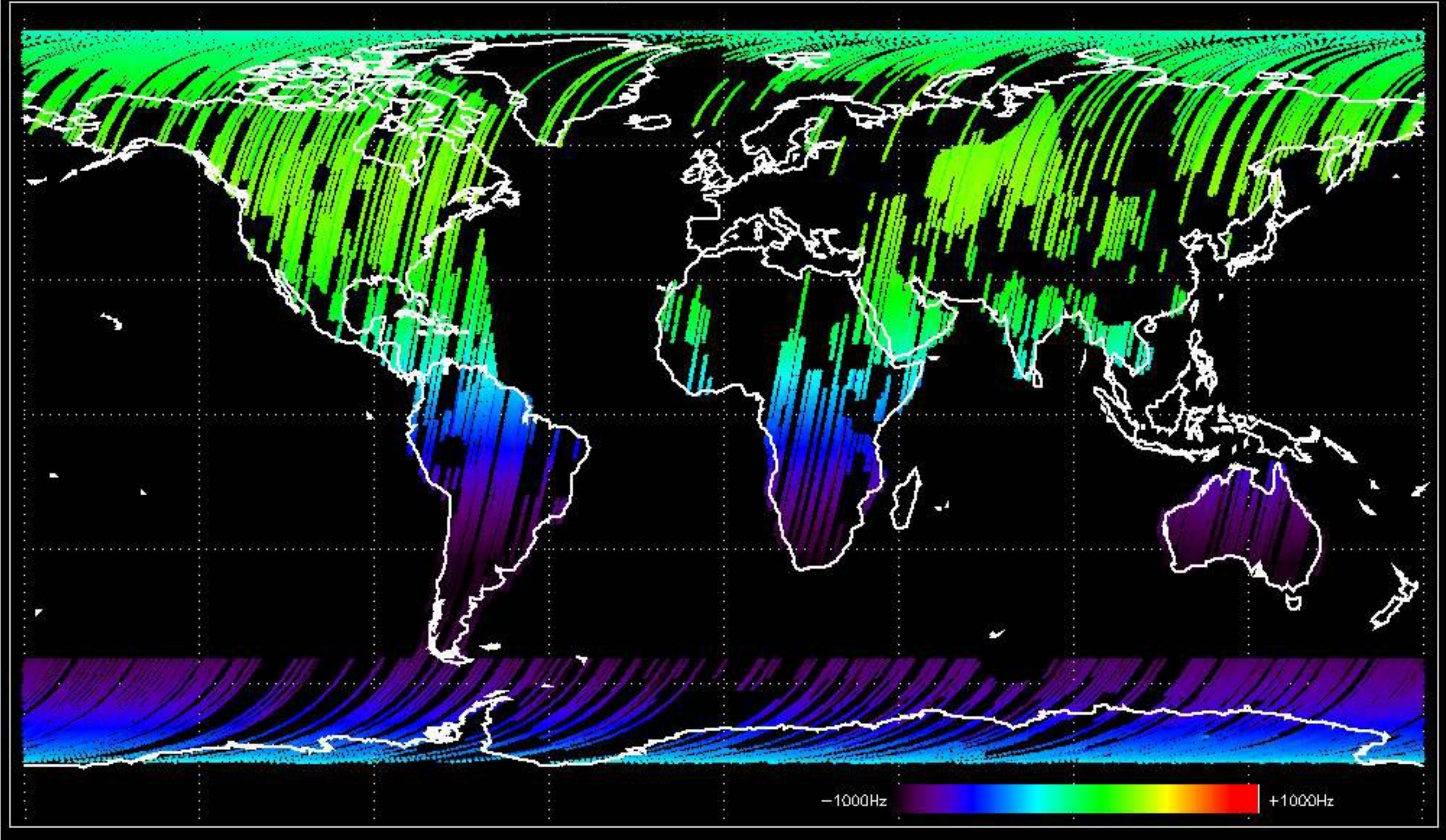


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

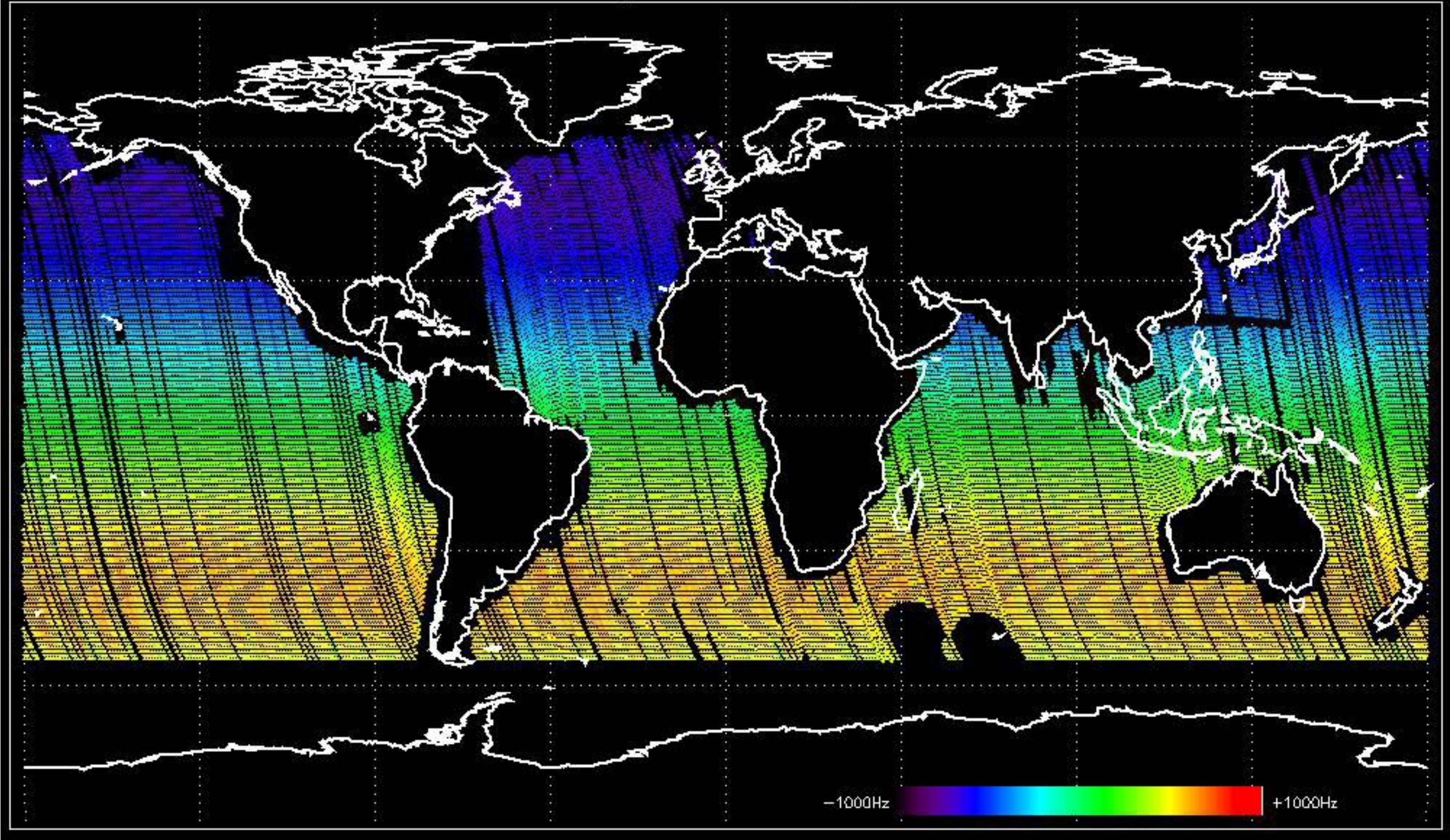
Doppler 'GM1' 'SS1' ascending



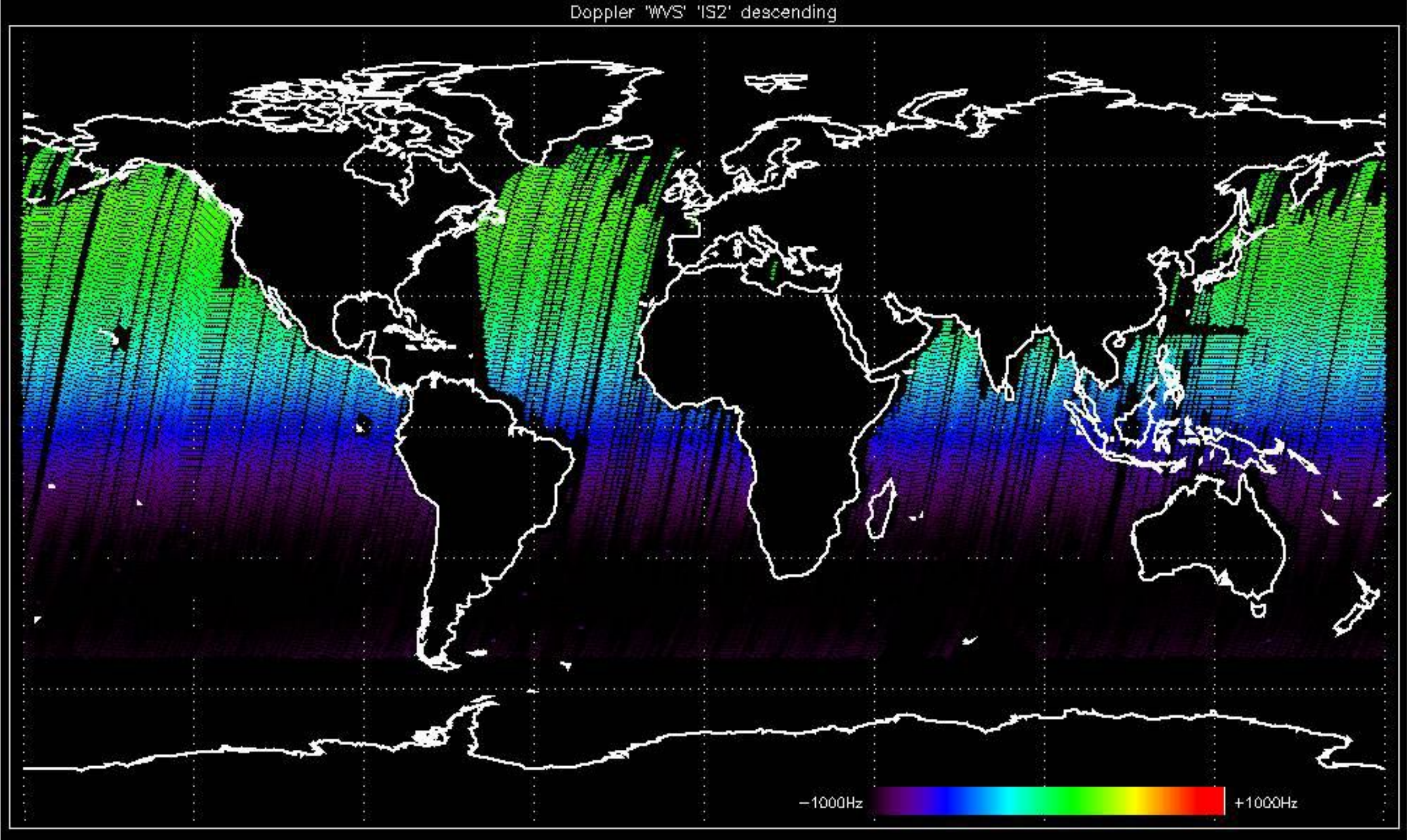
Doppler 'GM1' 'SS1' descending



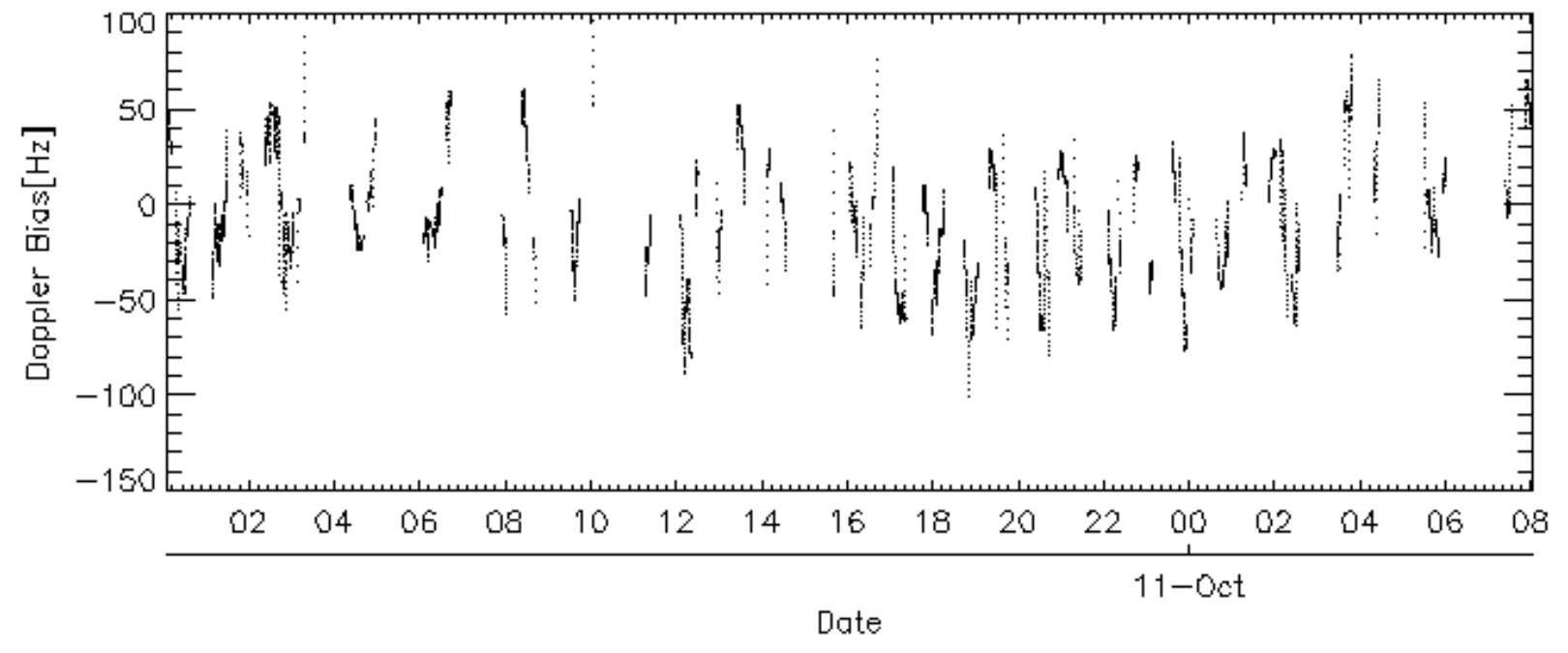
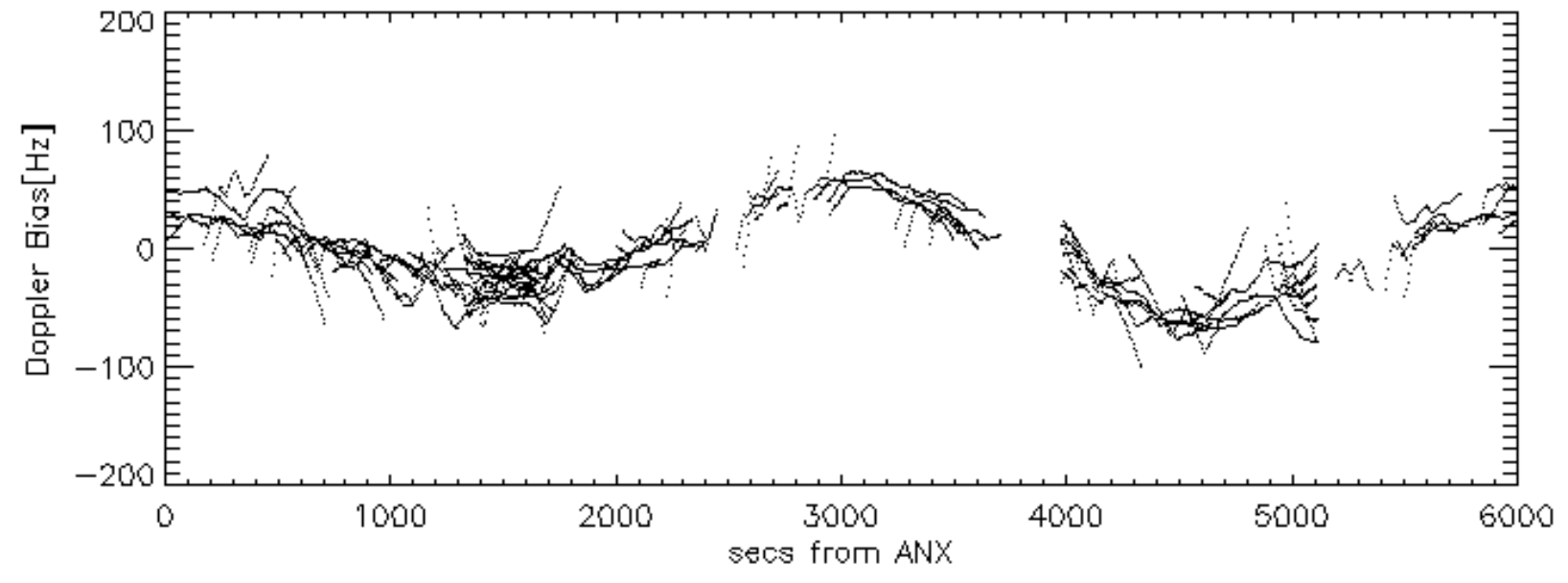
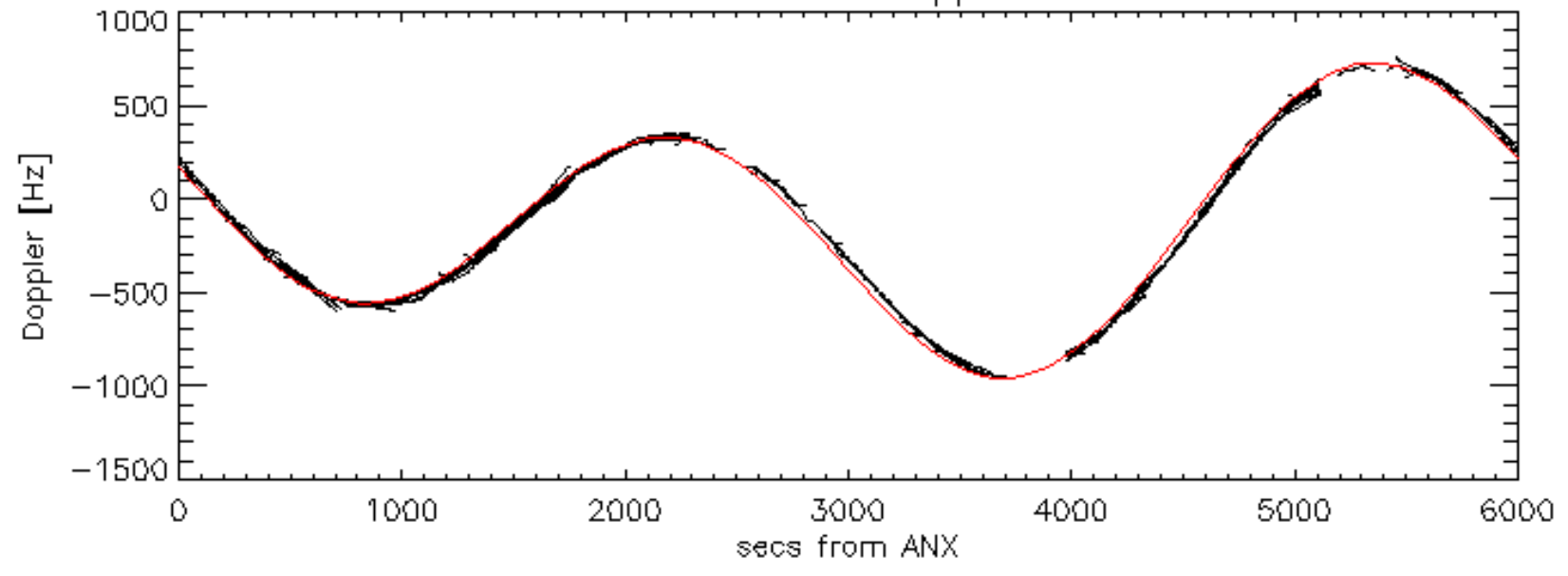
Doppler 'WVS' 'IS2' ascending

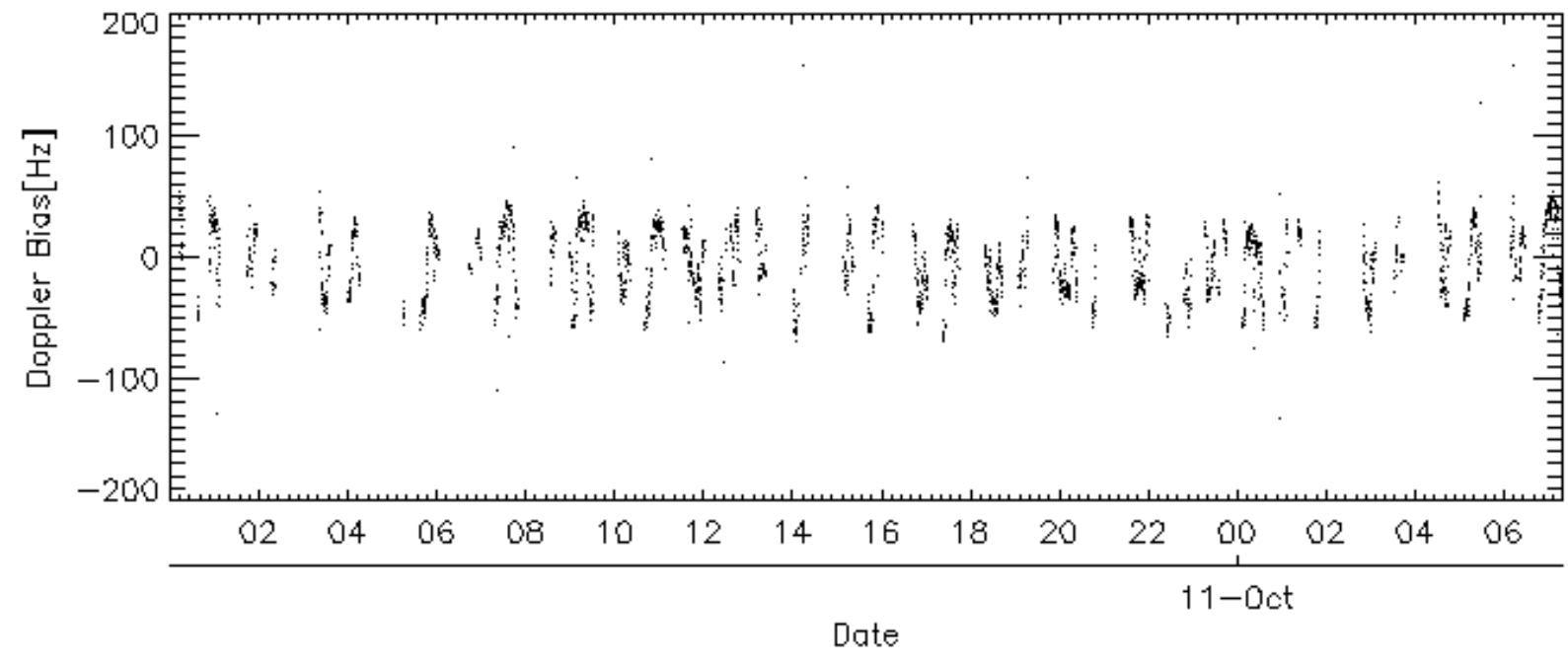
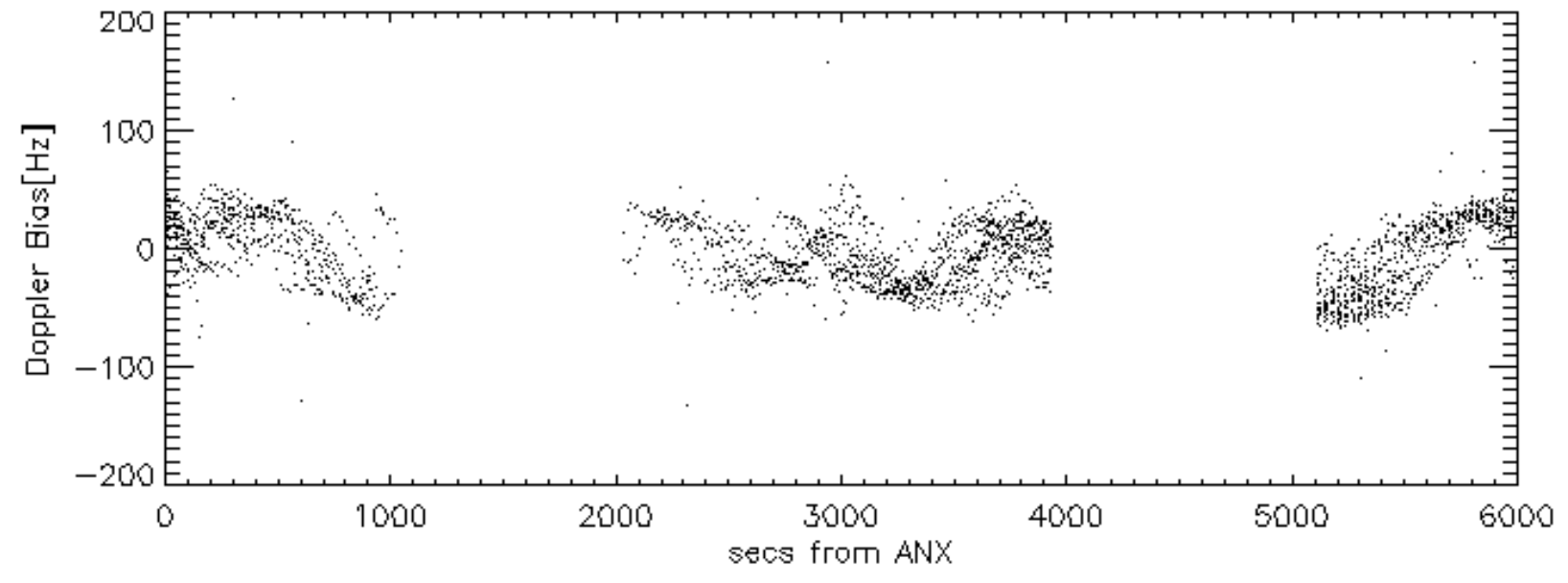
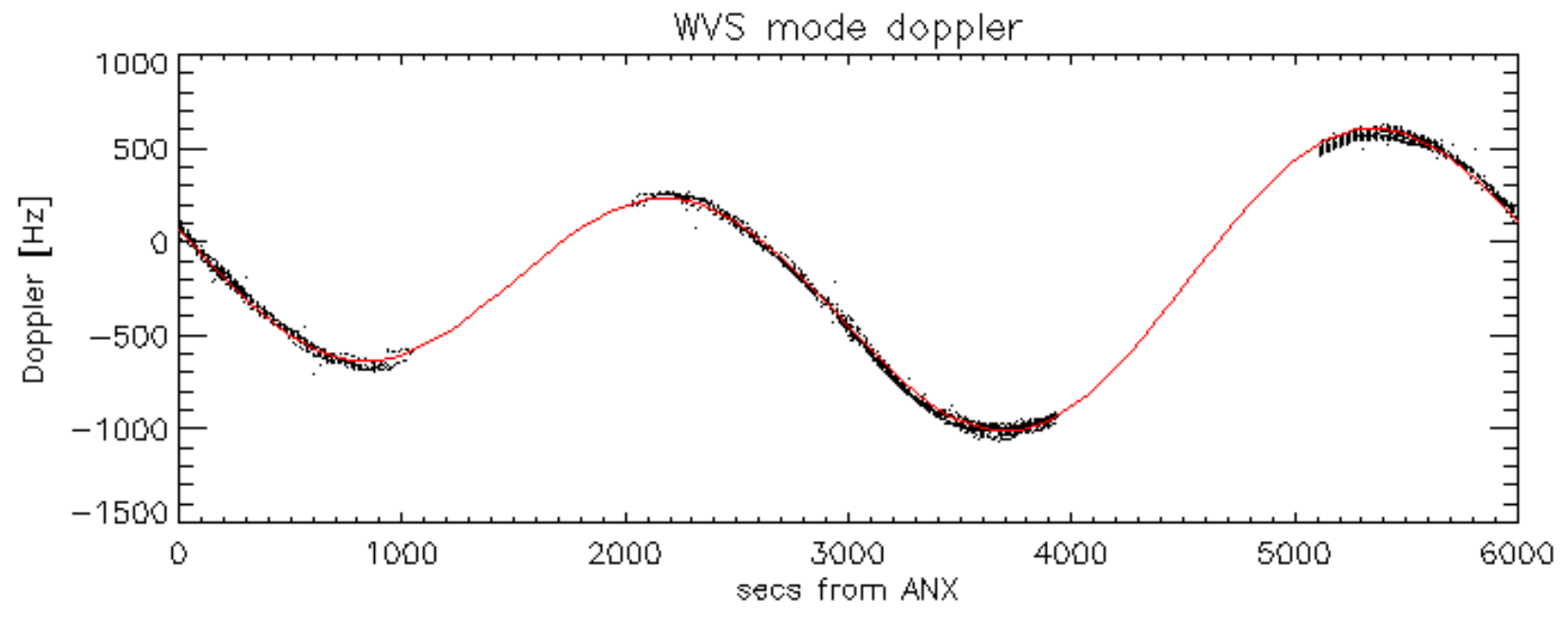


Doppler 'WVS' 'IS2' descending

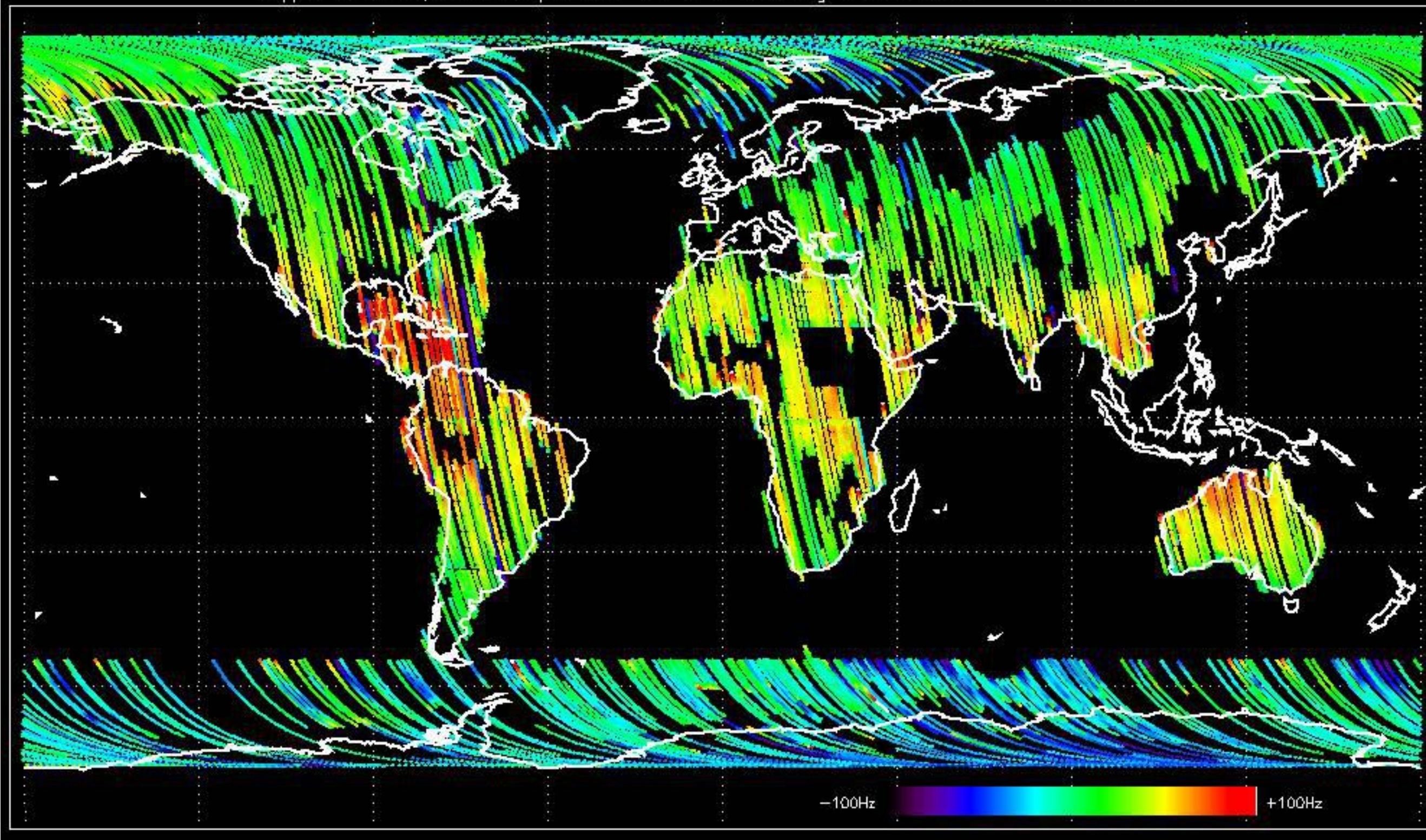


GM1 mode doppler

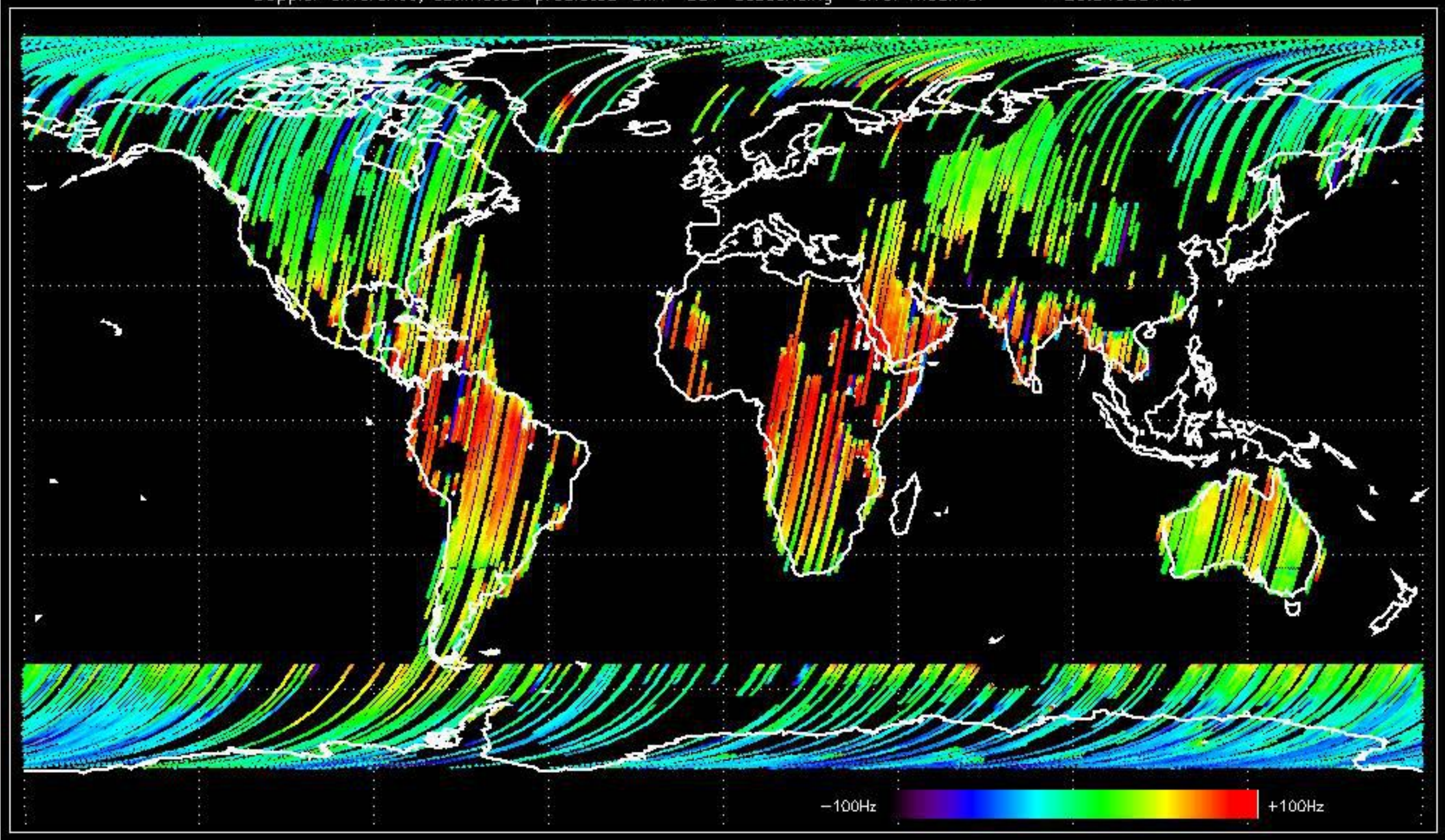




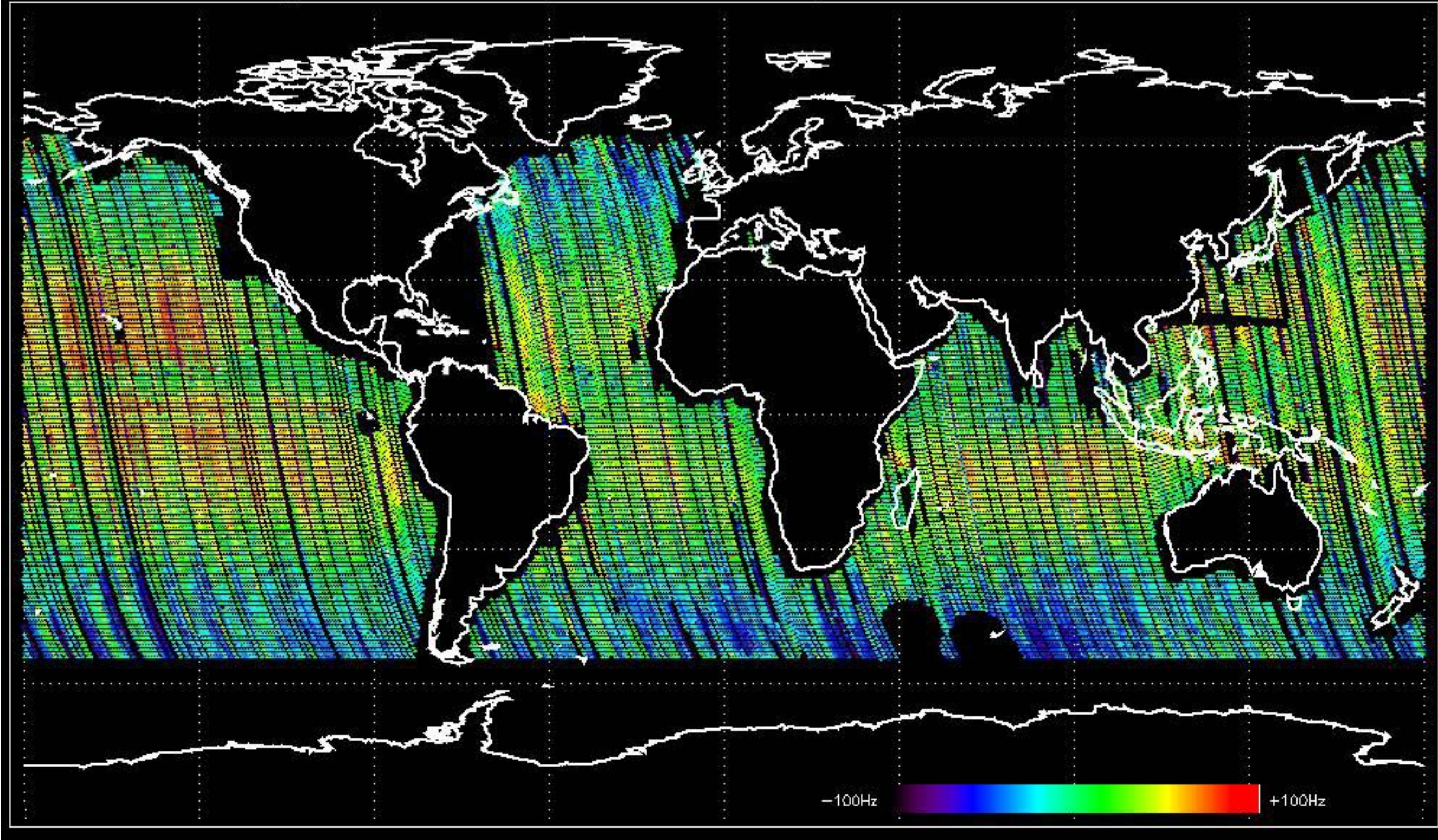
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.187320 Hz



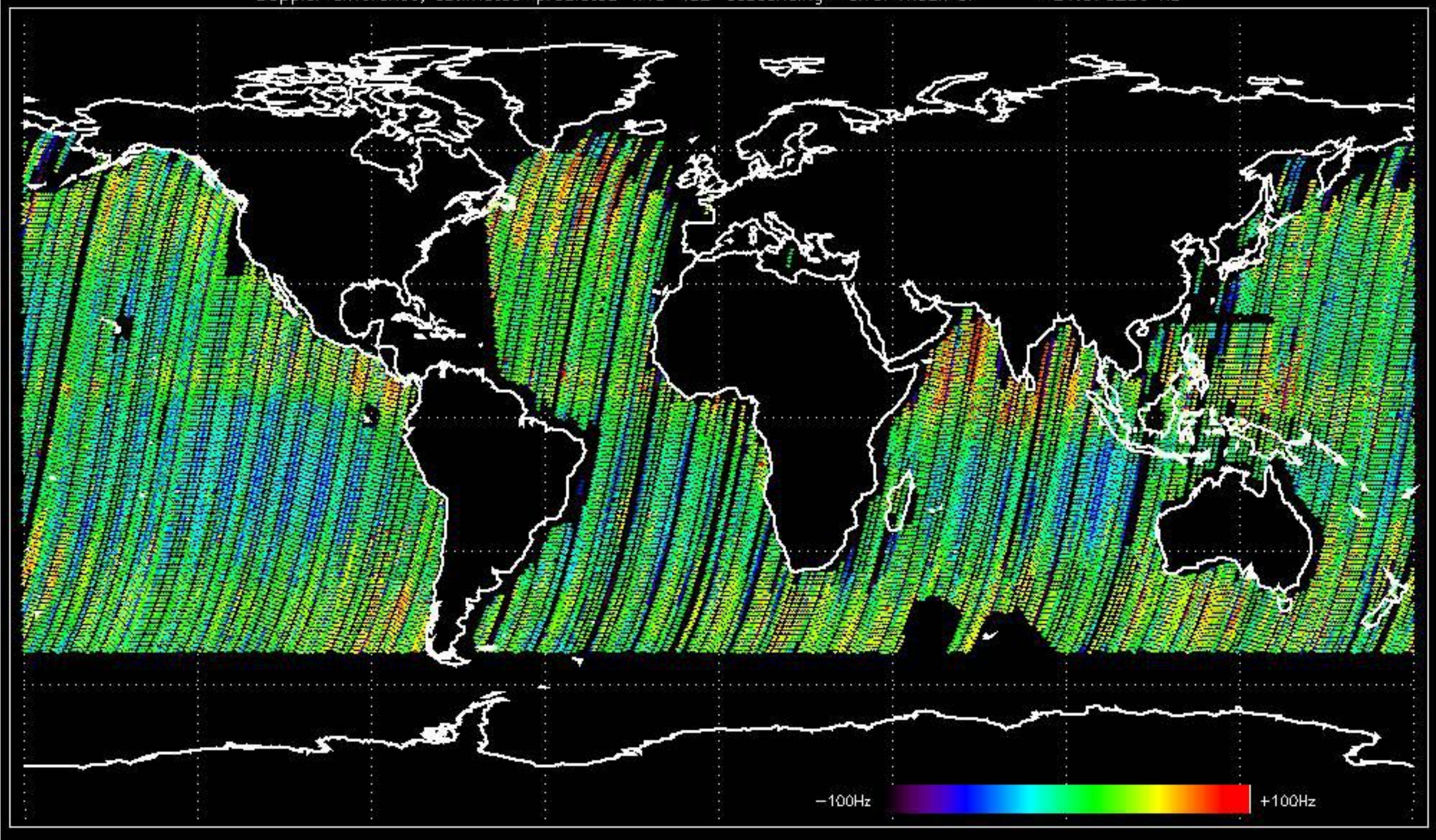
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -20.349854 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -17.495664 Hz

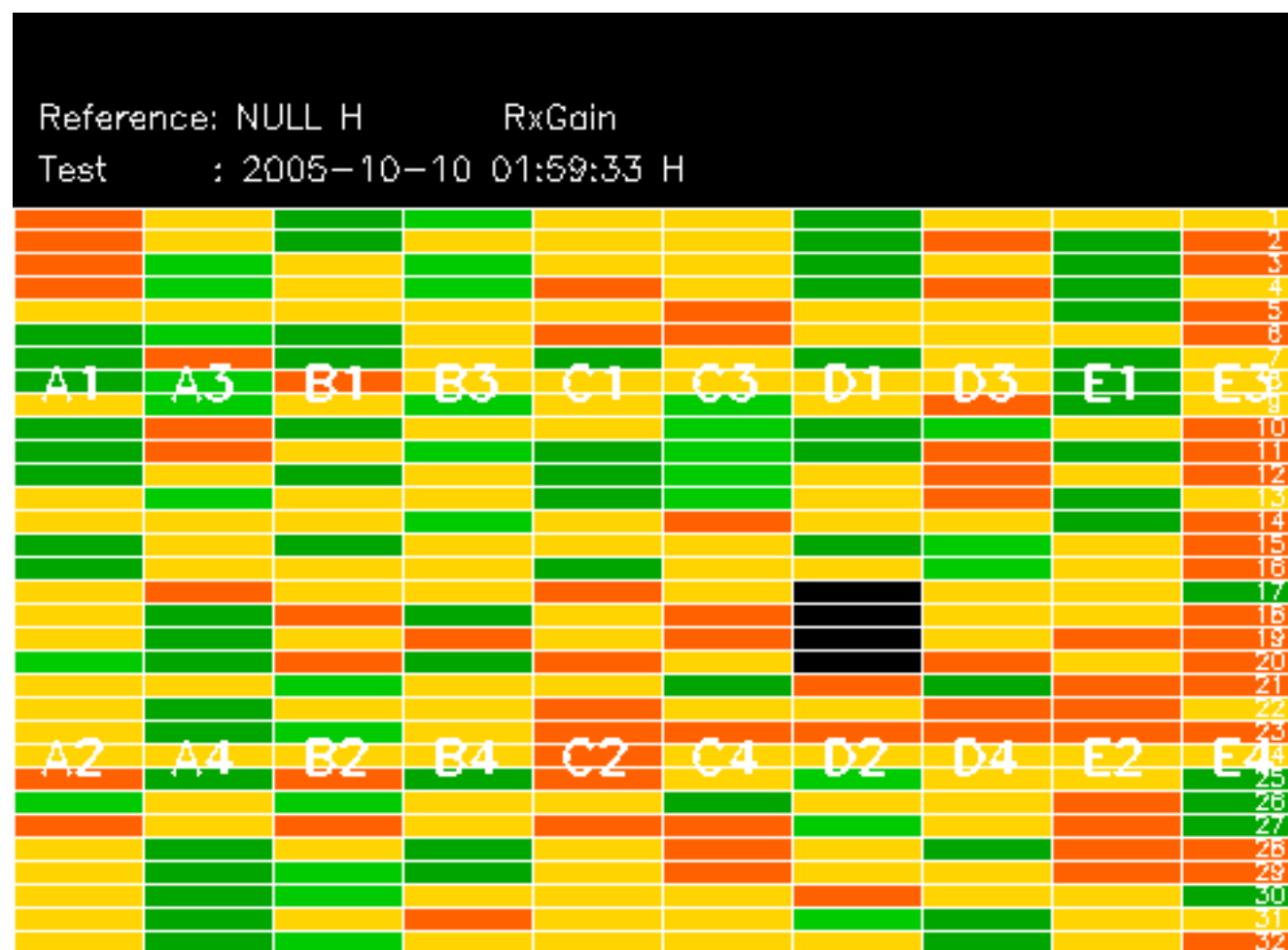


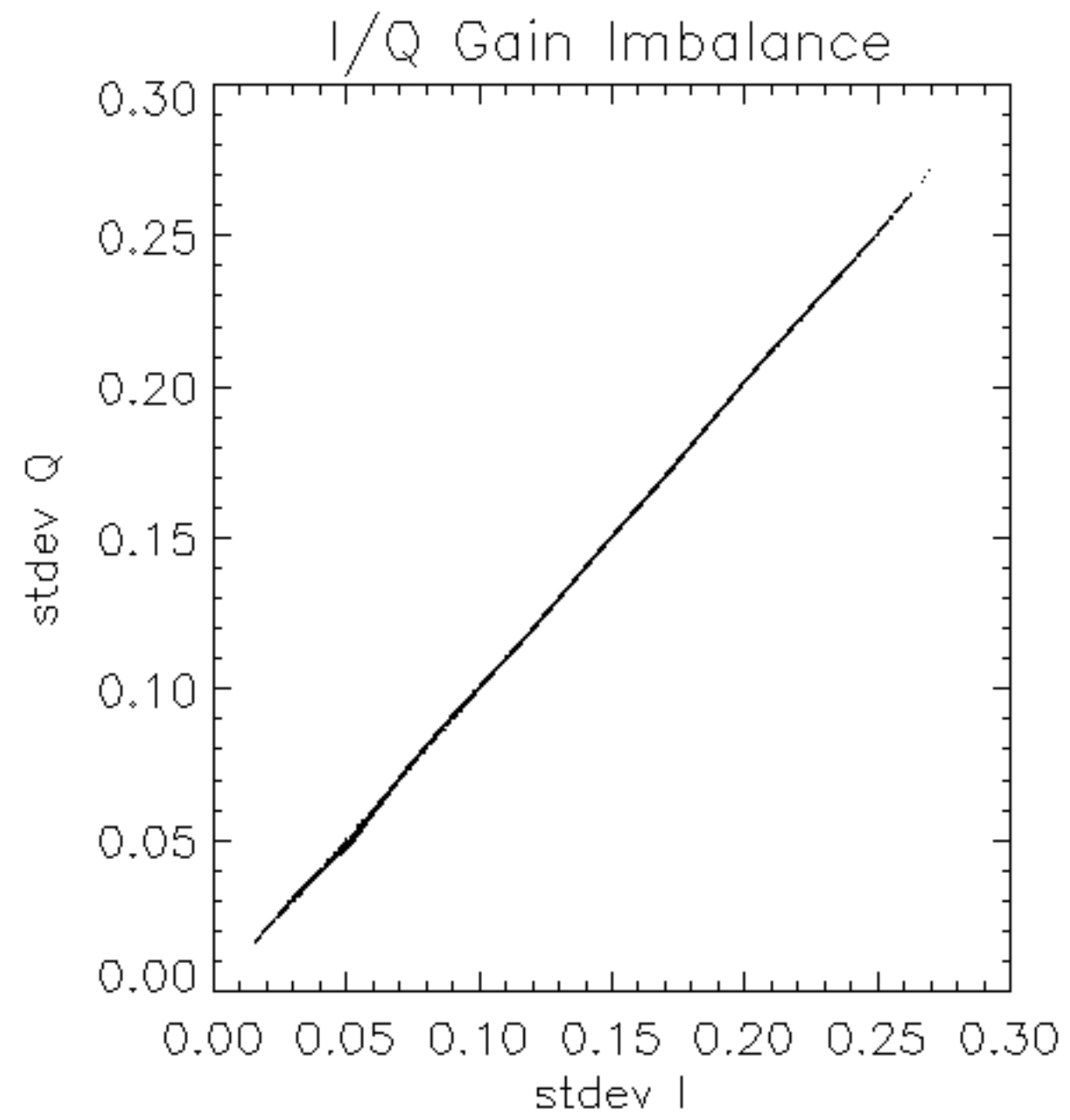
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.676206 Hz

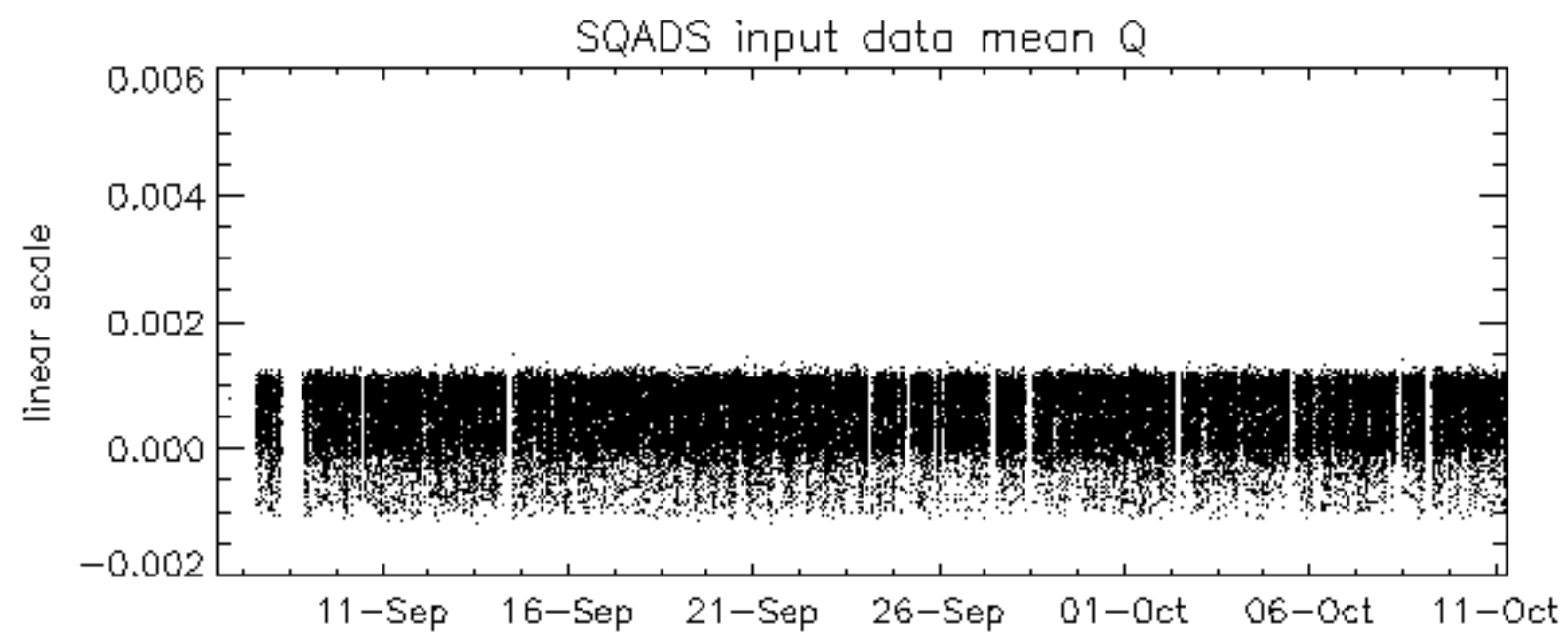
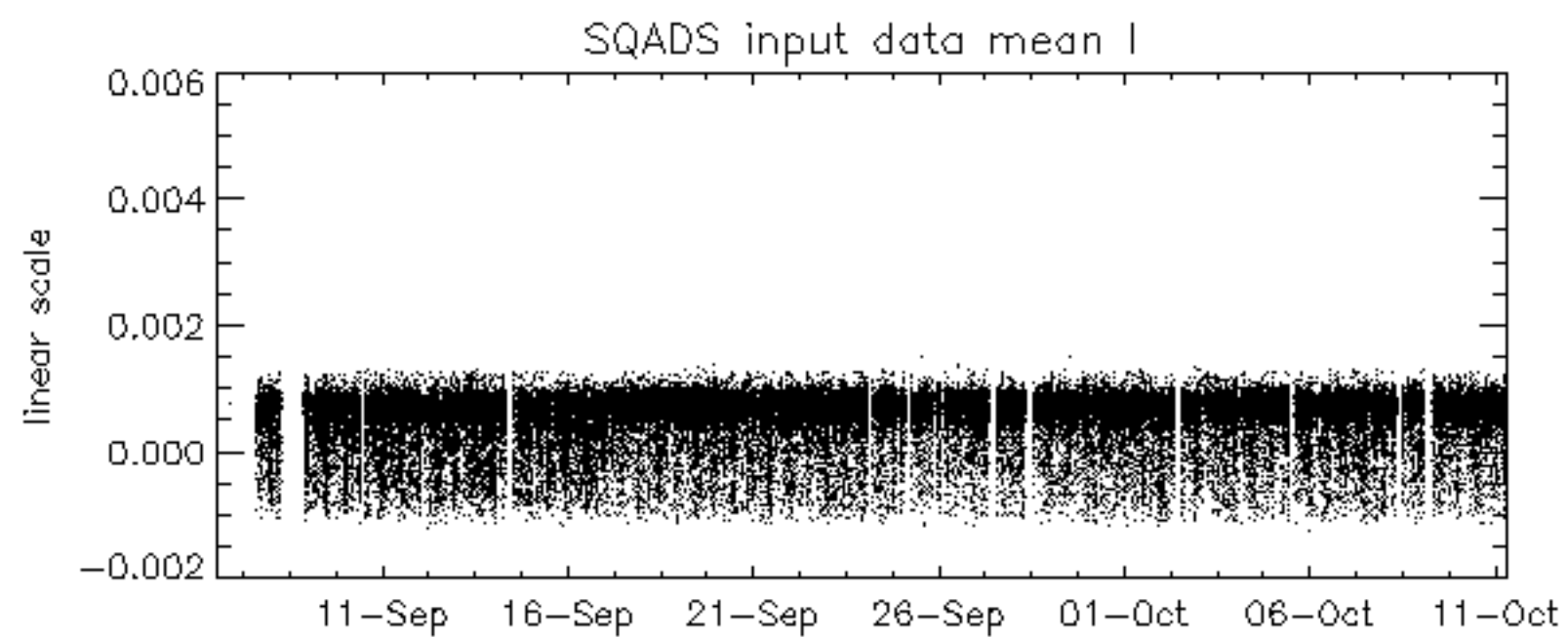
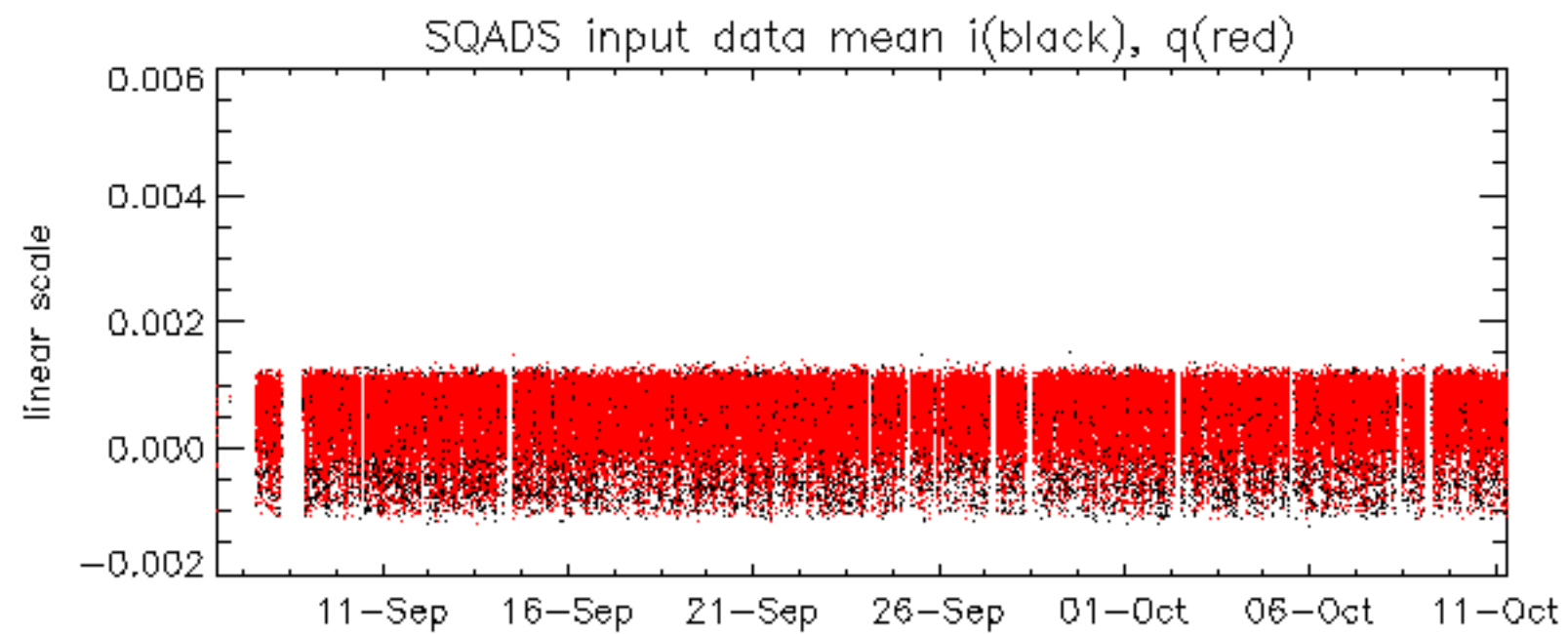


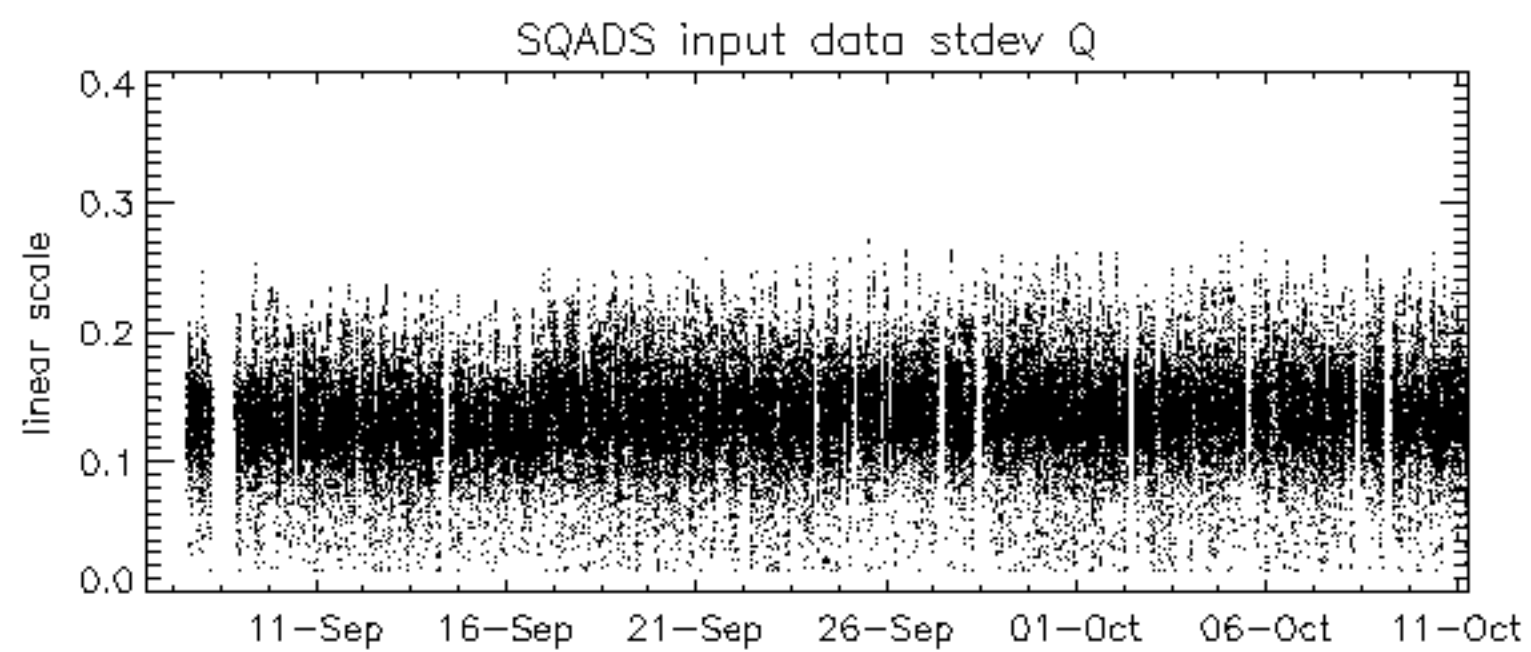
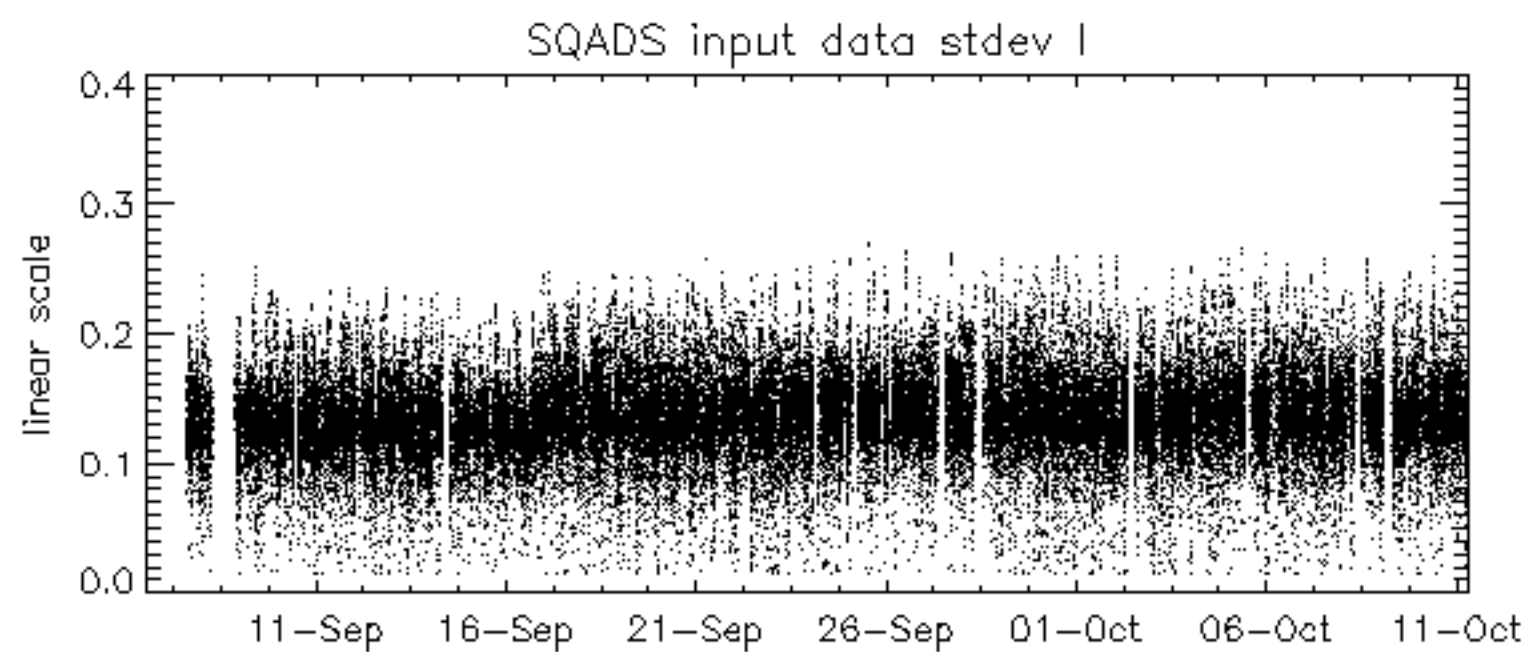
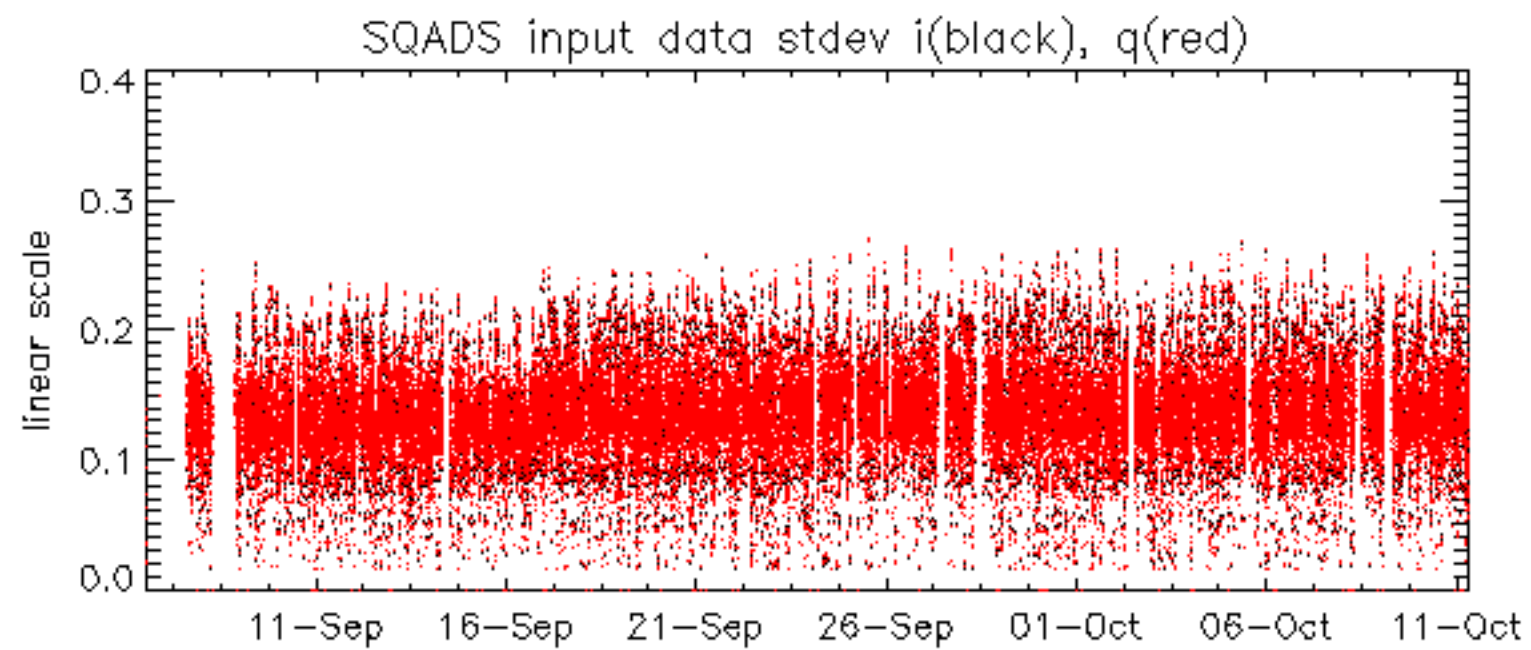
No anomalies observed on available MS products:

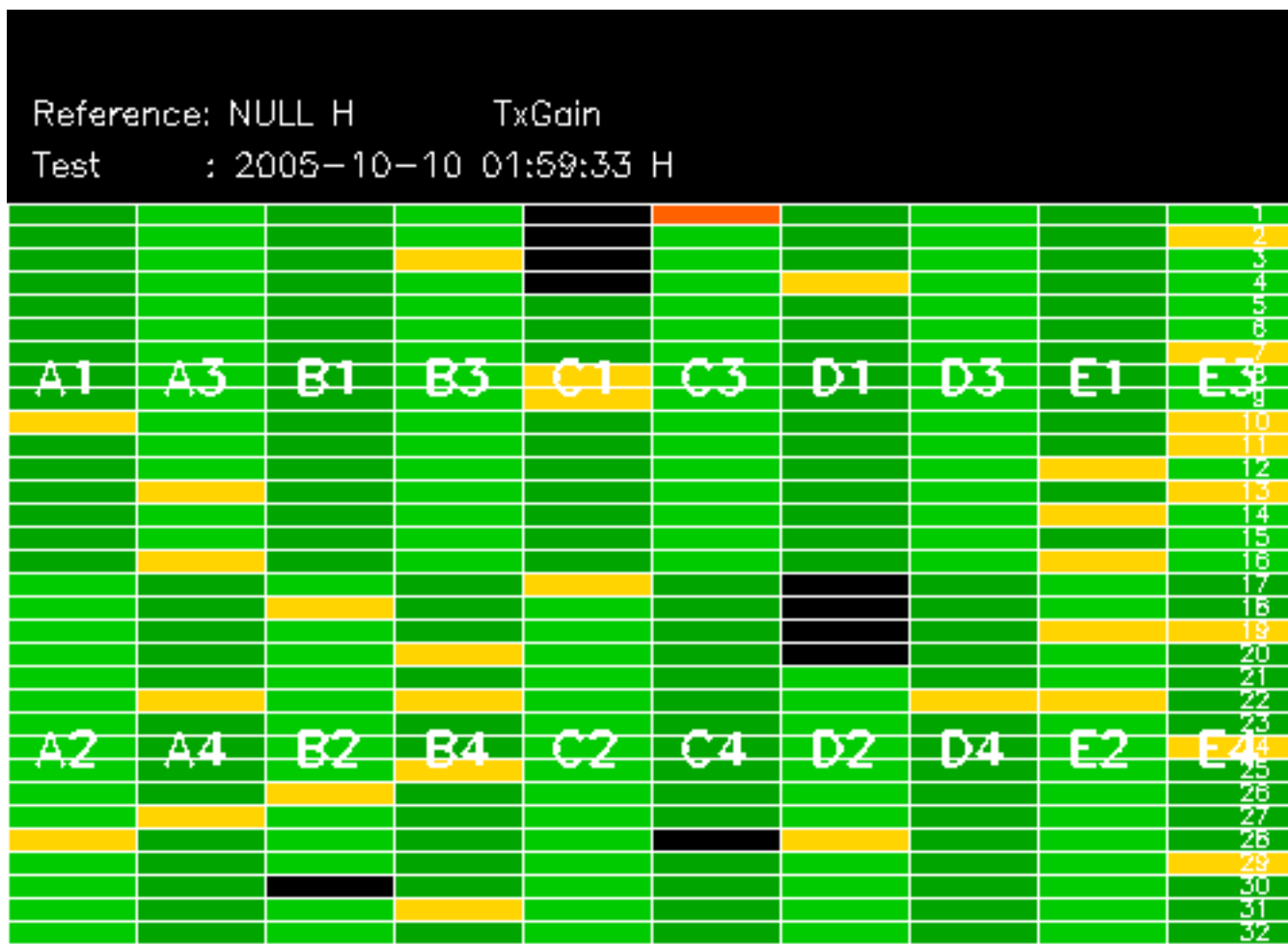
No anomalies observed.







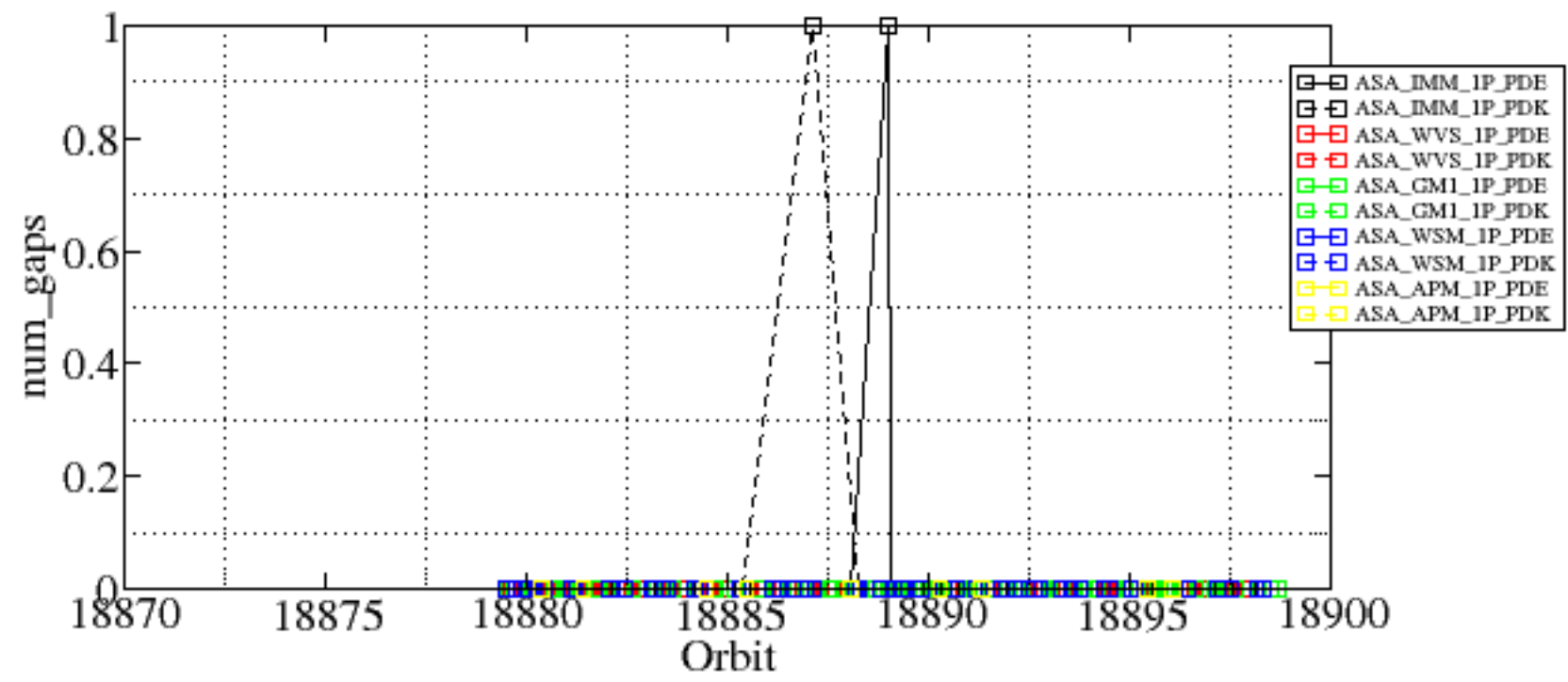


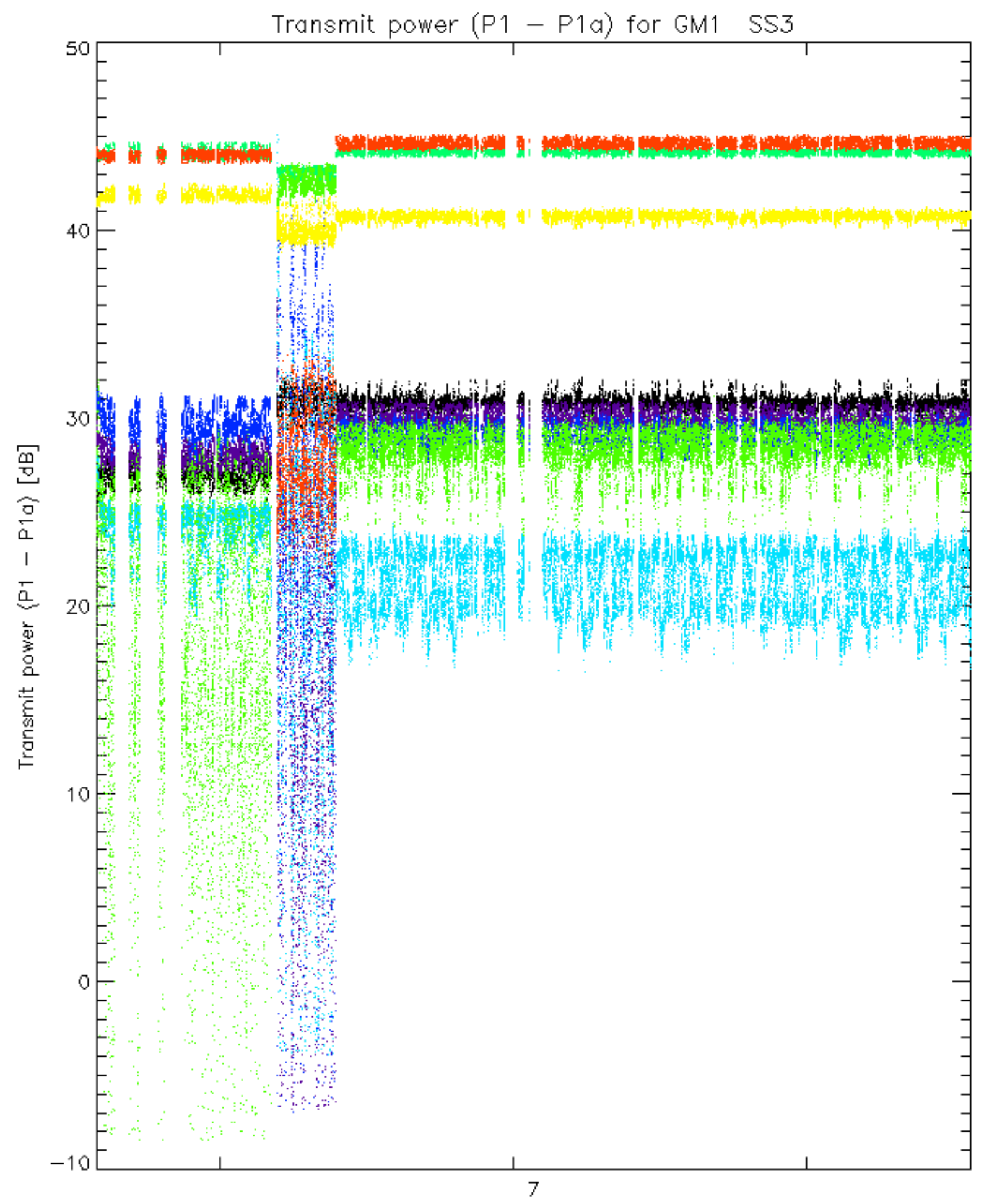


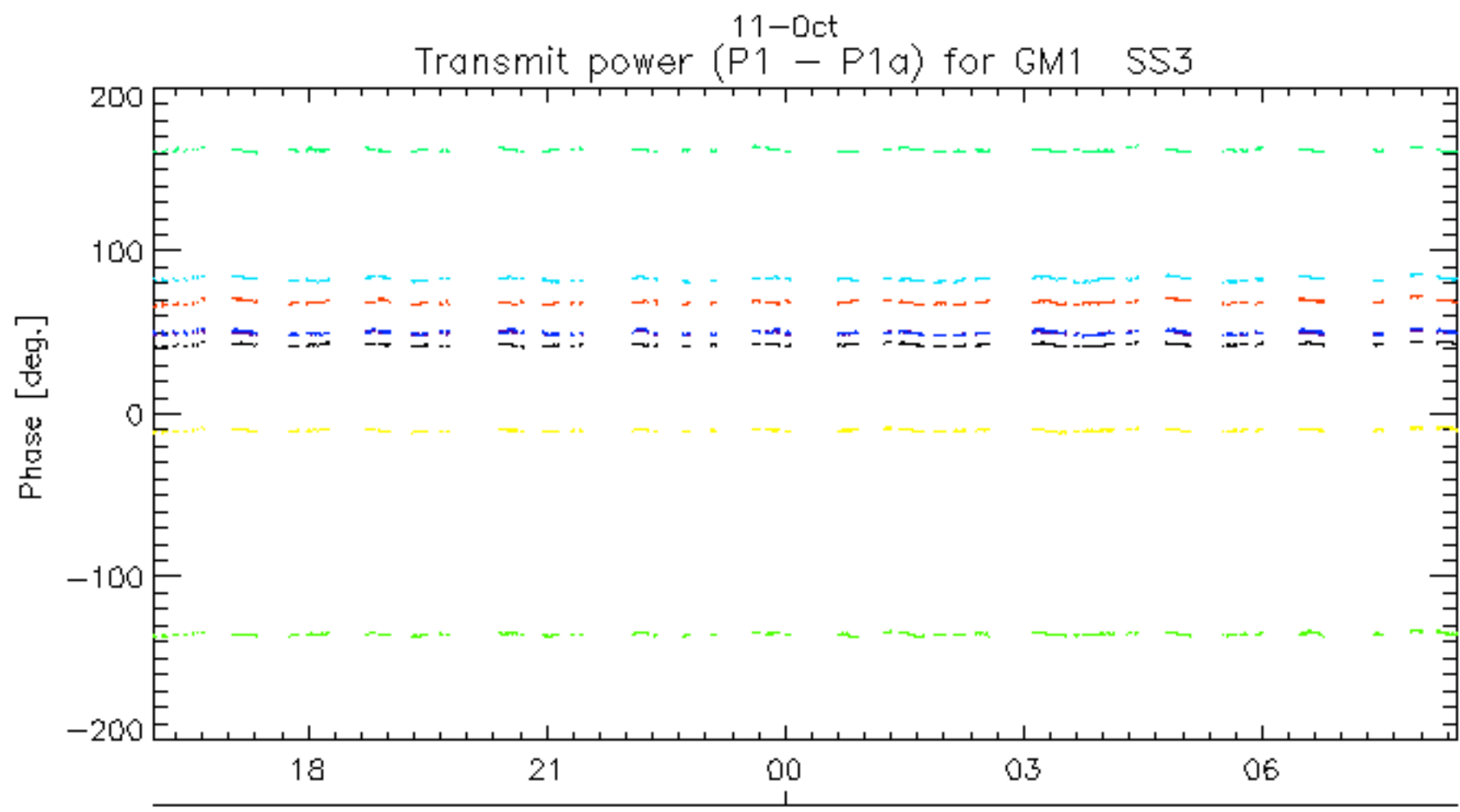
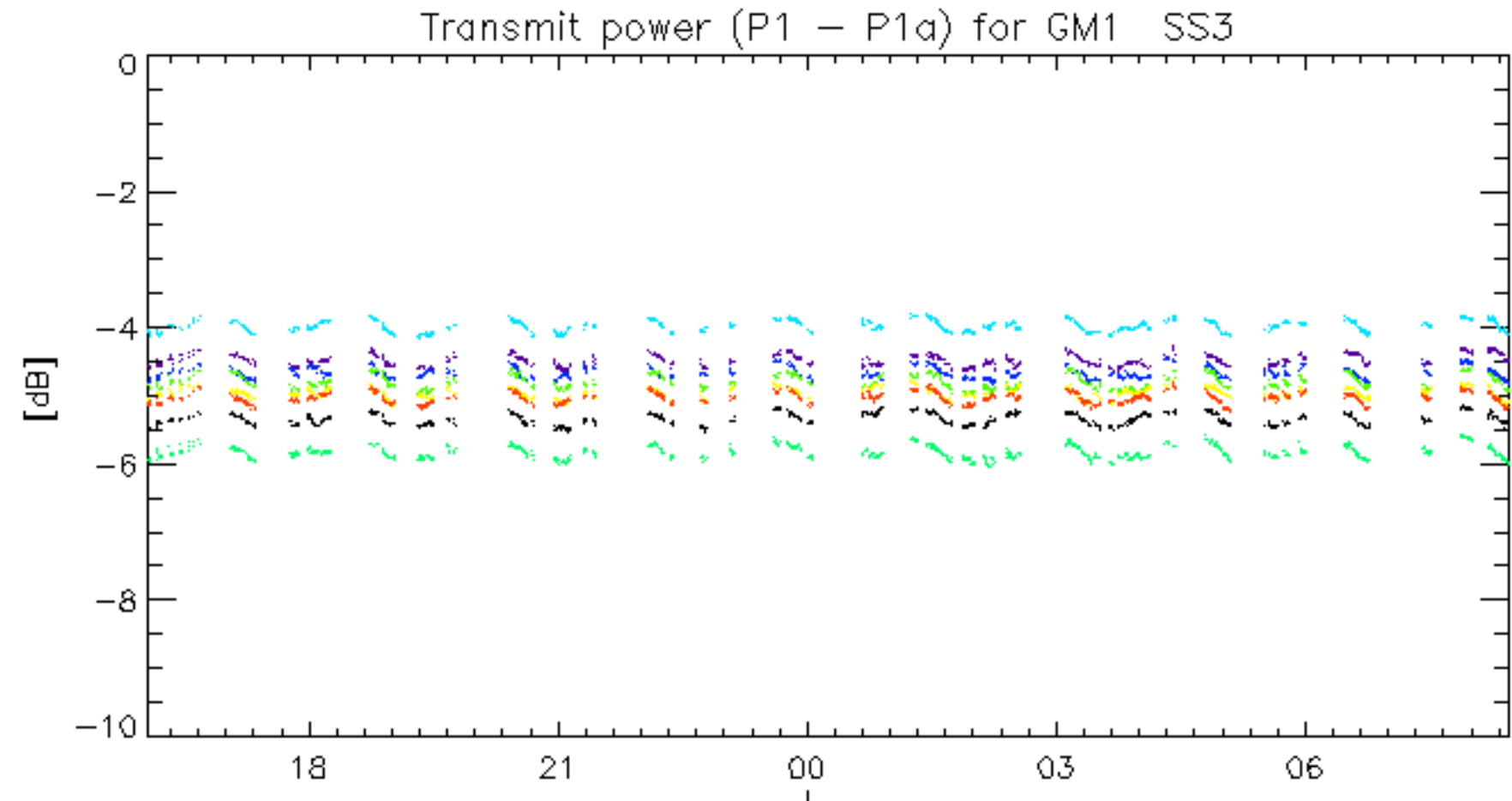
Summary of analysis for the last 3 days 2005101[901]

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

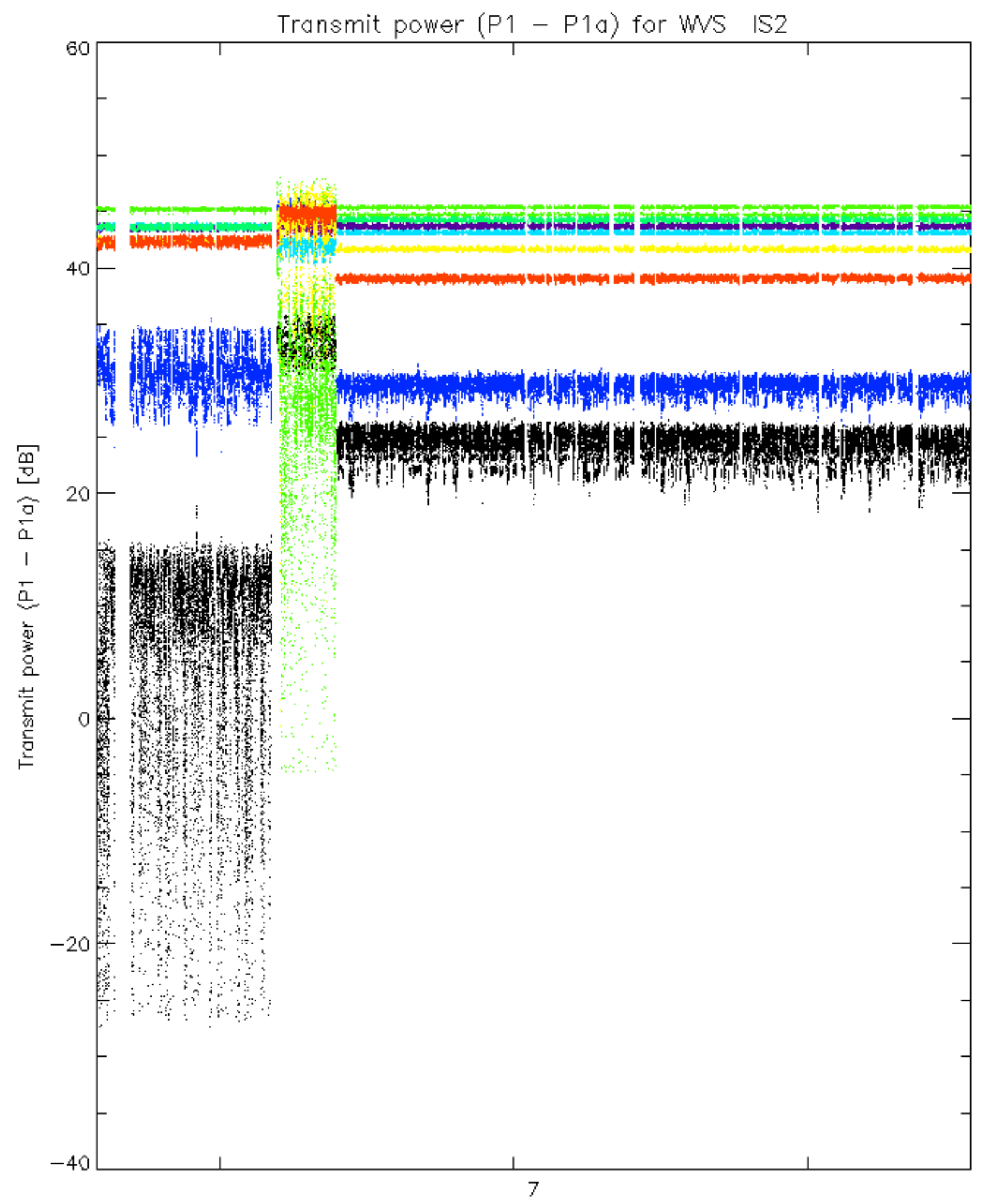
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051010_155732_000002332041_00298_18889_8044.N1	1	0
ASA_IMM_1PNPDK20051010_124847_000000882041_00296_18887_5483.N1	1	0
ASA_WSM_1PNPDE20051010_041813_000001592041_00291_18882_3248.N1	0	37
ASA_WSM_1PNPDE20051011_010913_000003062041_00303_18894_3388.N1	0	19



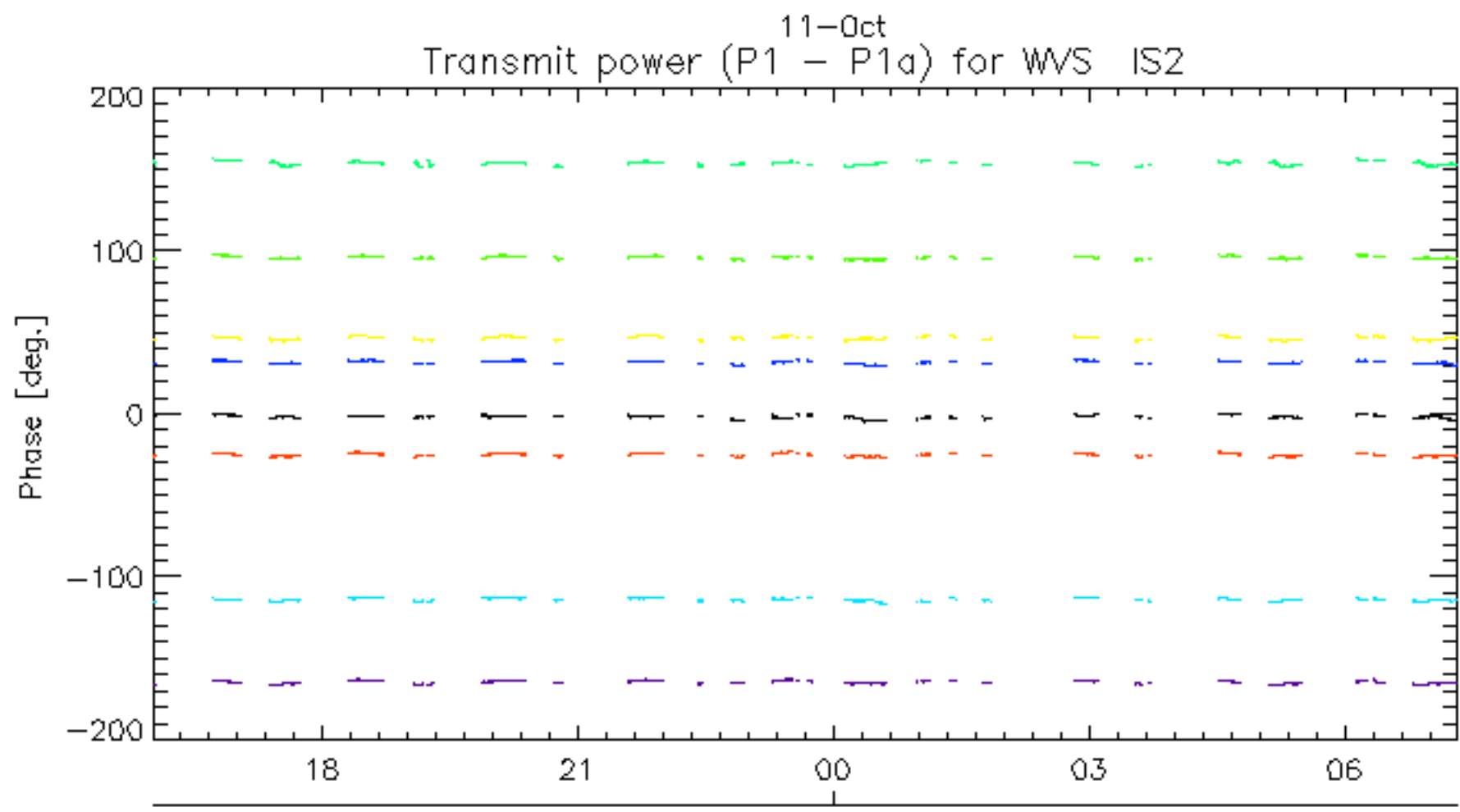
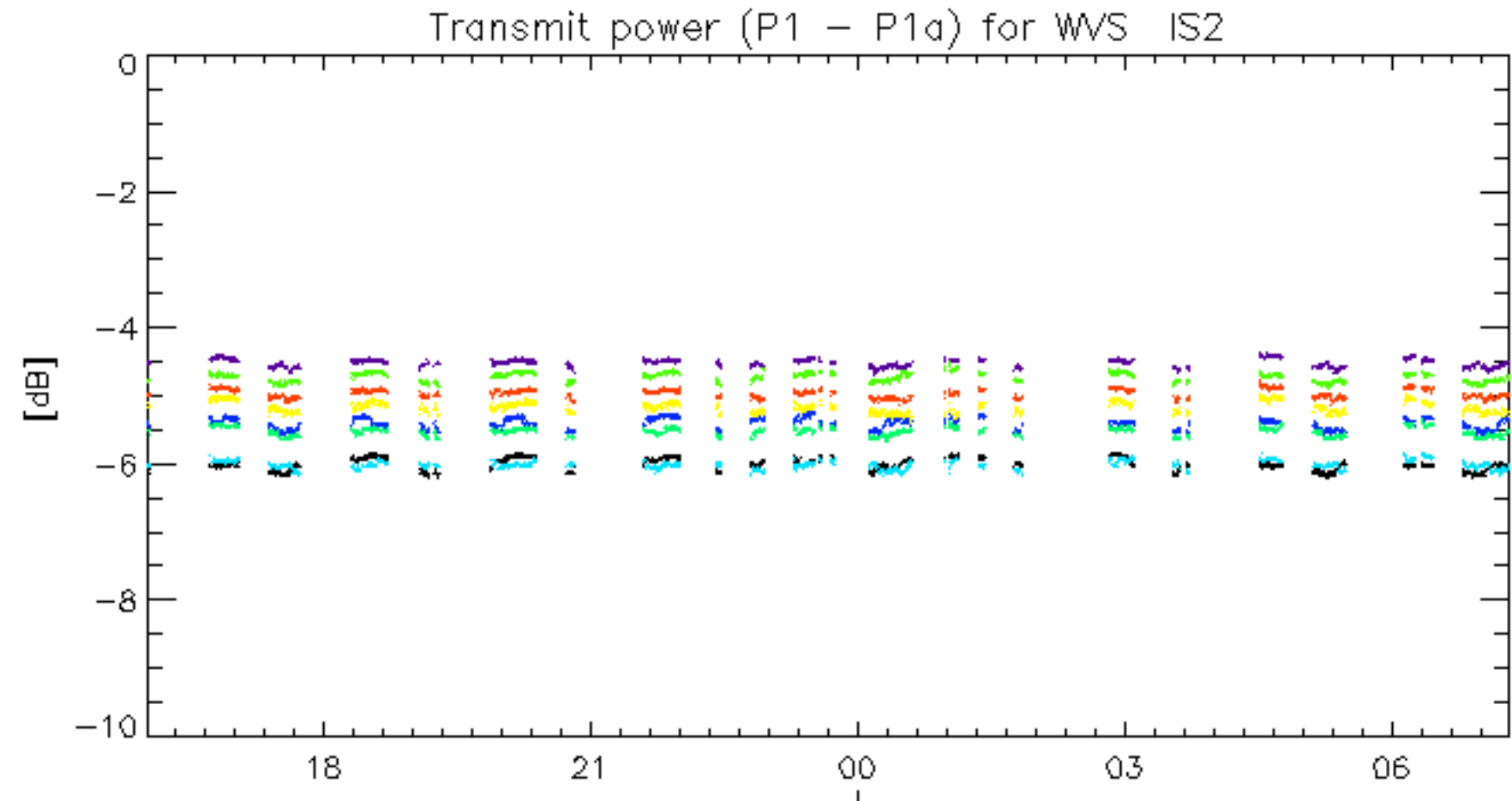




11-Oct
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.