

PRELIMINARY REPORT OF 061117

last update on Fri Nov 17 16:40:59 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 2006-11-16 00:00:00 to 2006-11-17 16:40:59

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	49	83	4	3	17
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	49	83	4	3	17
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	49	83	4	3	17
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	49	83	4	3	17

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	40	44	31	16	59
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	40	44	31	16	59
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	44	31	16	59
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	44	31	16	59

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	20061117 055512
H	20061116 062649

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	-3.955981	0.008951	0.001763
7	P1	-3.136714	0.022552	-0.076665
11	P1	-4.126563	0.024066	-0.040695
15	P1	-6.273674	0.014527	-0.084299
19	P1	-3.610264	0.064673	-0.008725
22	P1	-4.664245	0.130203	0.028442
26	P1	-3.975435	0.087629	0.076628
30	P1	-5.882682	0.168220	0.039306
3	P1	-16.511831	0.232707	0.075418
7	P1	-17.234032	0.203744	-0.229956
11	P1	-17.130333	0.439758	-0.180777
15	P1	-13.026176	0.126255	-0.176058
19	P1	-14.884455	0.374363	-0.120060
22	P1	-15.831787	0.508880	-0.251030
26	P1	-15.072861	0.210023	0.095801
30	P1	-17.348705	0.591912	-0.526280

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.846645	0.088715	-0.004381
7	P2	-21.734032	0.092687	0.018097
11	P2	-15.667929	0.103272	0.059054
15	P2	-7.112882	0.105938	-0.040829
19	P2	-9.179302	0.102146	-0.062345
22	P2	-18.214590	0.094764	-0.076819
26	P2	-16.520643	0.108736	-0.128198
30	P2	-19.472956	0.088389	-0.003071

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.228936	0.008138	-0.036485
7	P3	-8.228936	0.008138	-0.036485
11	P3	-8.228936	0.008138	-0.036485
15	P3	-8.228936	0.008138	-0.036485
19	P3	-8.228936	0.008138	-0.036485
22	P3	-8.228936	0.008138	-0.036485
26	P3	-8.228834	0.008145	-0.036291
30	P3	-8.228834	0.008145	-0.036291

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	-3.903237	0.050366	-0.022994
7	P1	-2.525277	0.304091	0.026046
11	P1	-2.871259	0.047547	0.036370
15	P1	-3.681916	0.055822	0.000889
19	P1	-3.529860	0.107906	-0.001448
22	P1	-5.070629	0.084616	0.079278
26	P1	-6.002637	0.179478	-0.031192
30	P1	-5.310074	0.106485	-0.041544
3	P1	-11.706320	0.121958	-0.034226
7	P1	-10.049575	0.387336	-0.042662
11	P1	-10.347816	0.129767	0.059361
15	P1	-10.791285	0.210265	0.130938
19	P1	-15.763282	2.046181	0.129850
22	P1	-21.260748	1.517539	-0.481938

26	P1	-15.994117	0.394935	-0.171931
30	P1	-17.958492	0.417458	0.168716

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.436300	0.105288	-0.091992
7	P2	-22.186529	0.386275	-0.125622
11	P2	-10.919524	0.094730	-0.077656
15	P2	-4.936378	0.091933	-0.103747
19	P2	-6.920249	0.154702	-0.116054
22	P2	-8.239123	0.160405	-0.077042
26	P2	-24.288187	0.280899	-0.121098
30	P2	-21.941925	0.164840	-0.042413

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.075147	0.003220	-0.032149
7	P3	-8.075096	0.003195	-0.032434
11	P3	-8.075157	0.003202	-0.032735
15	P3	-8.075071	0.003201	-0.032456
19	P3	-8.075163	0.003205	-0.032617
22	P3	-8.075074	0.003210	-0.032610
26	P3	-8.075067	0.003205	-0.032364
30	P3	-8.075089	0.003213	-0.032566

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	0.000544820
	stdev	1.77670e-07
MEAN Q	mean	0.000518944
	stdev	2.20256e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136280
	stdev	0.00111131
STDEV Q	mean	0.136637
	stdev	0.00112823



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006111[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
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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)


Ascending


Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

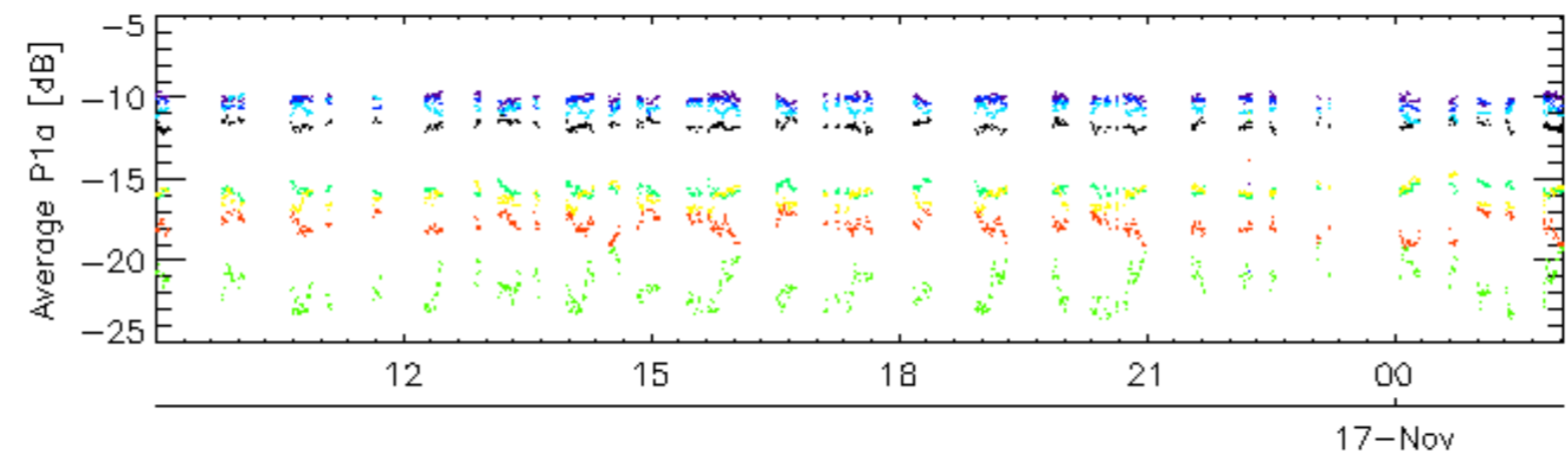
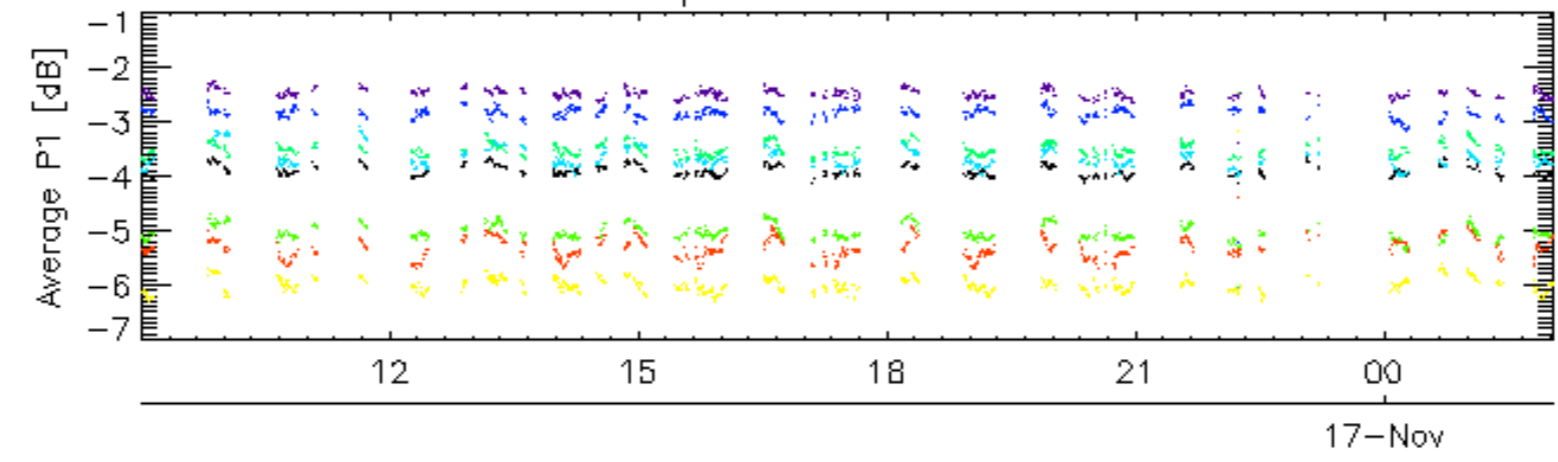
Ascending

Descending

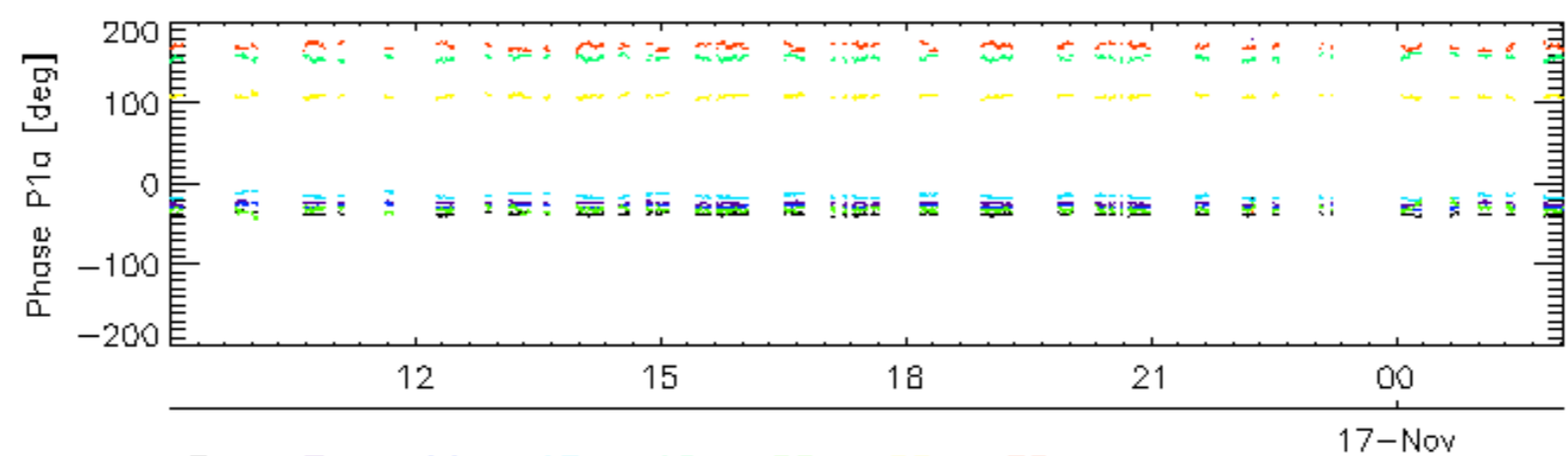
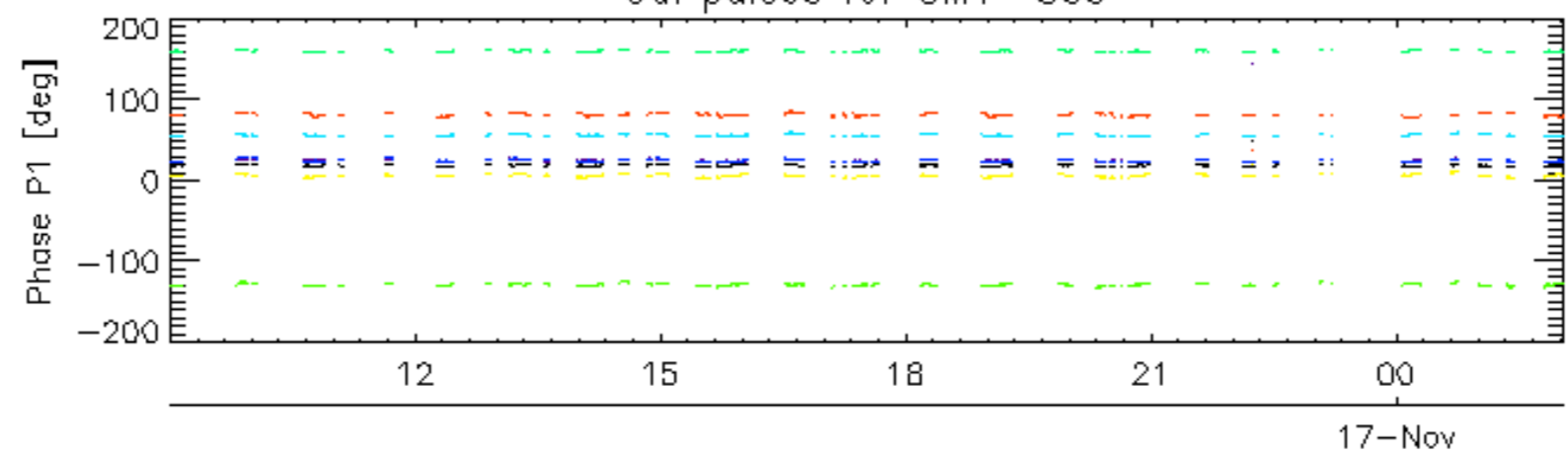
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

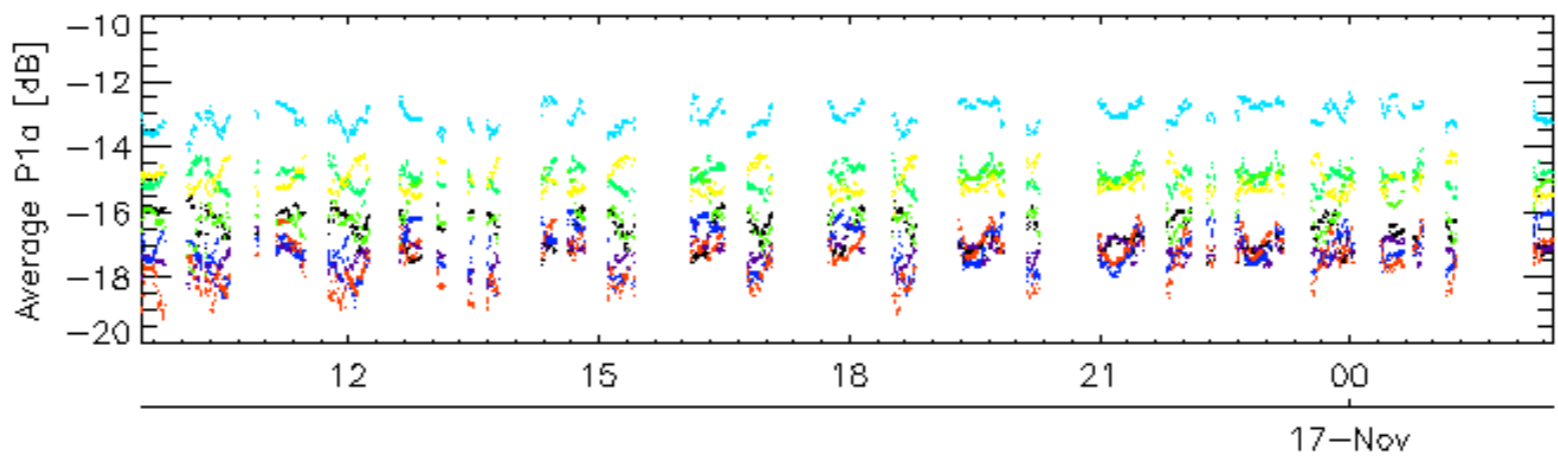
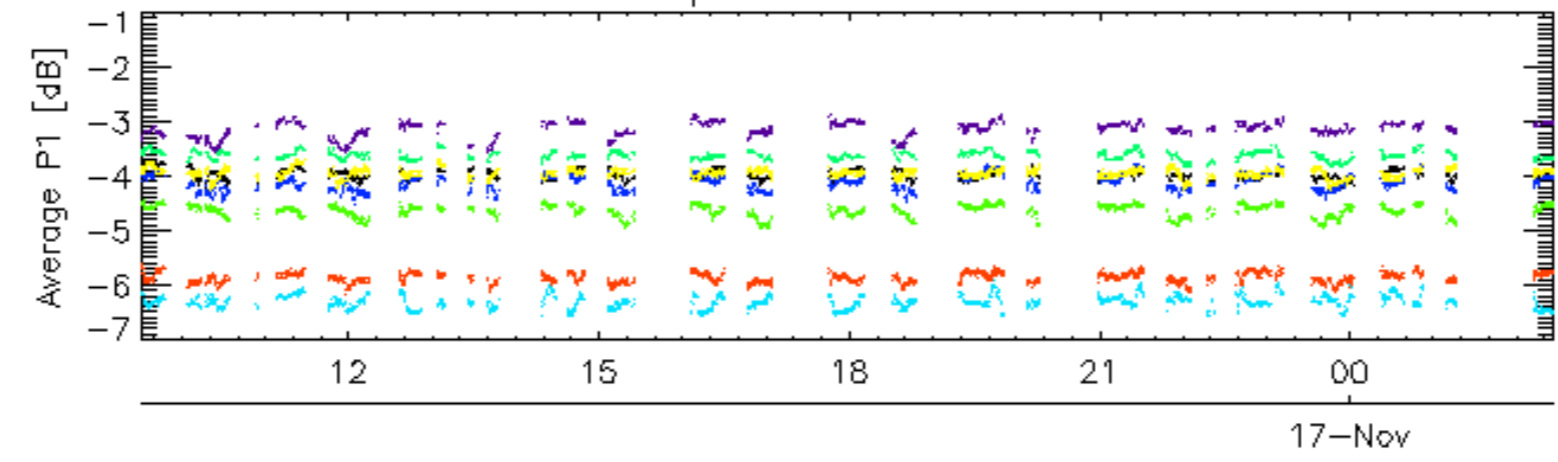


Cal pulses for GM1 SS3

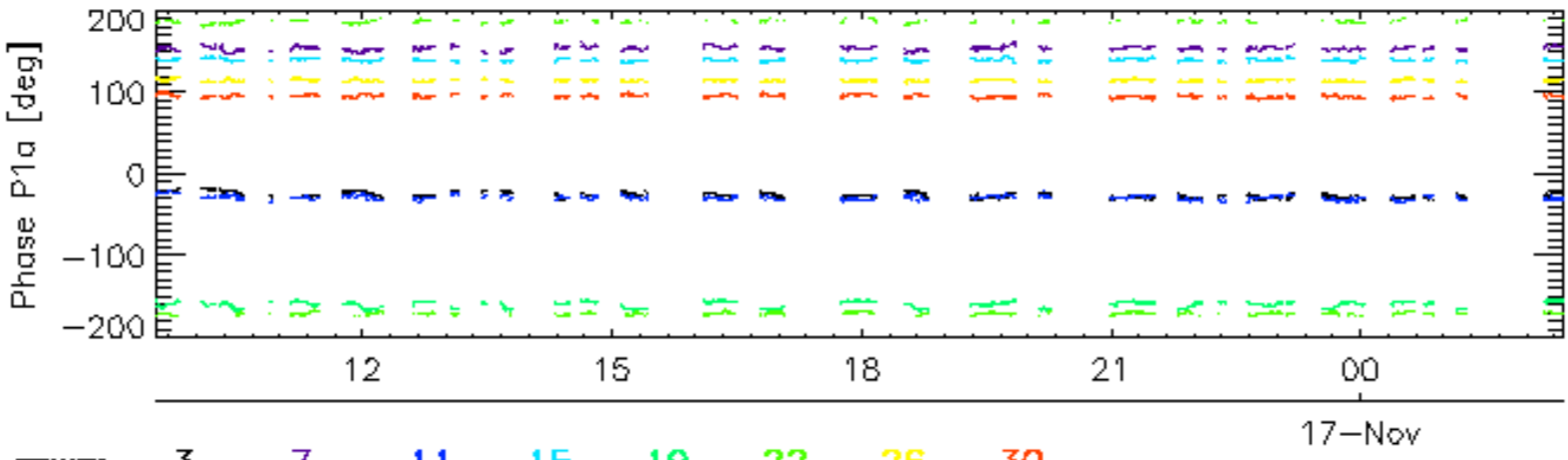
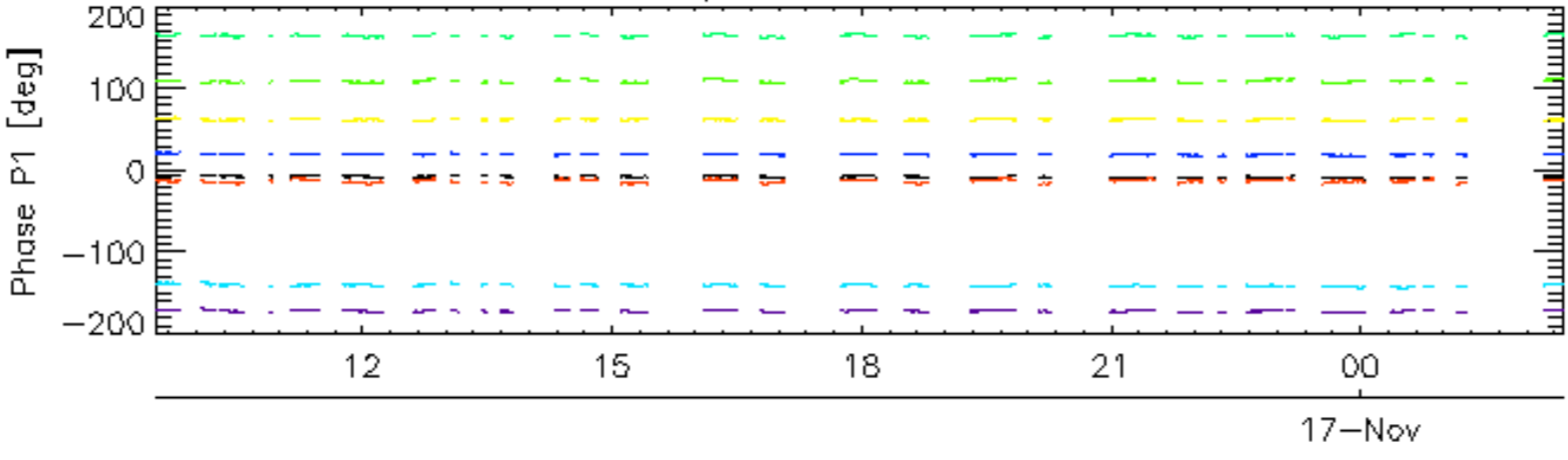


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

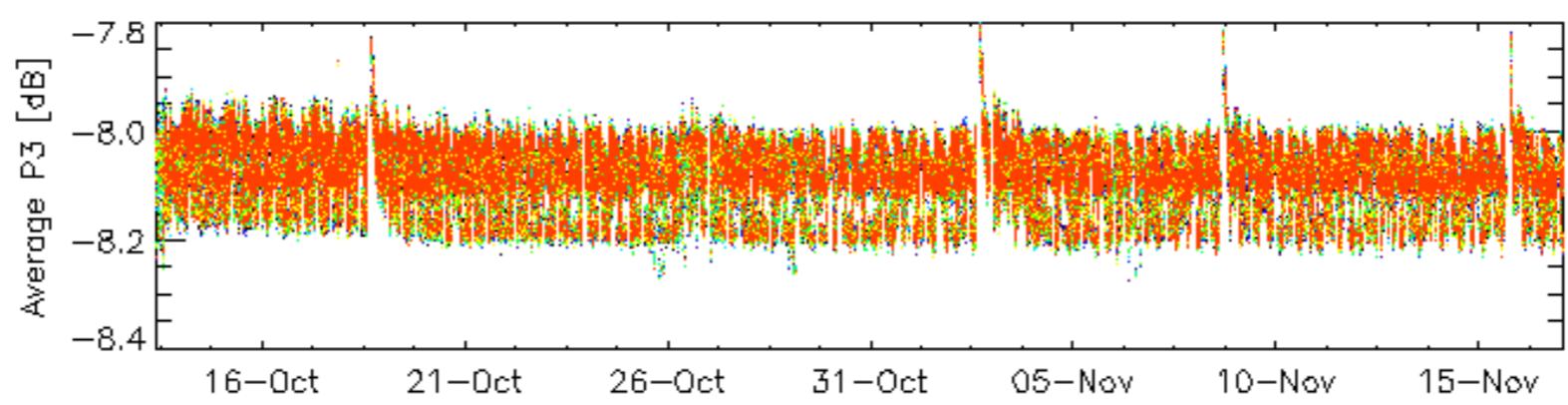
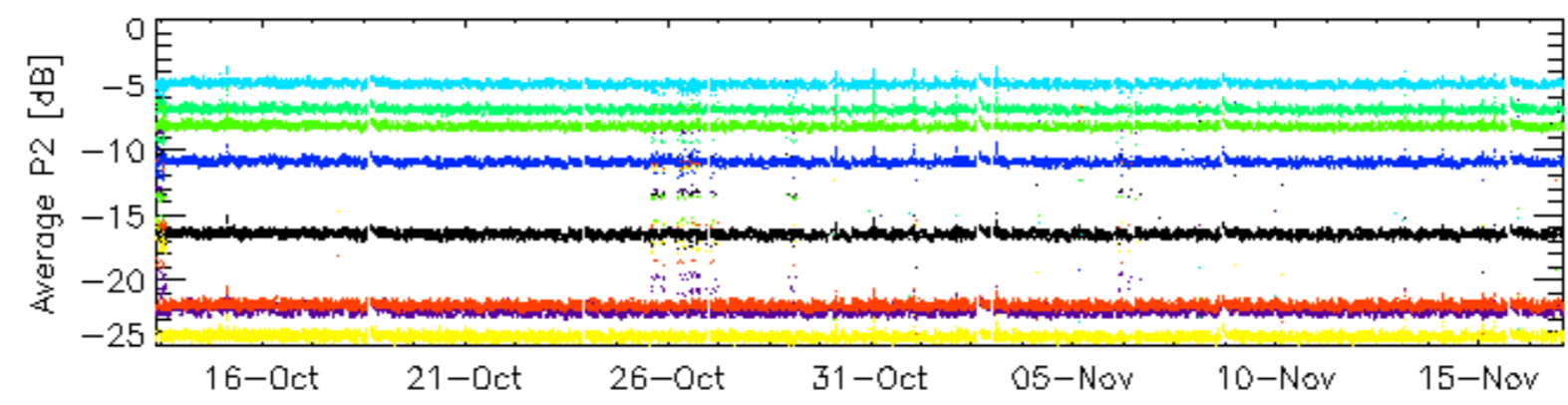
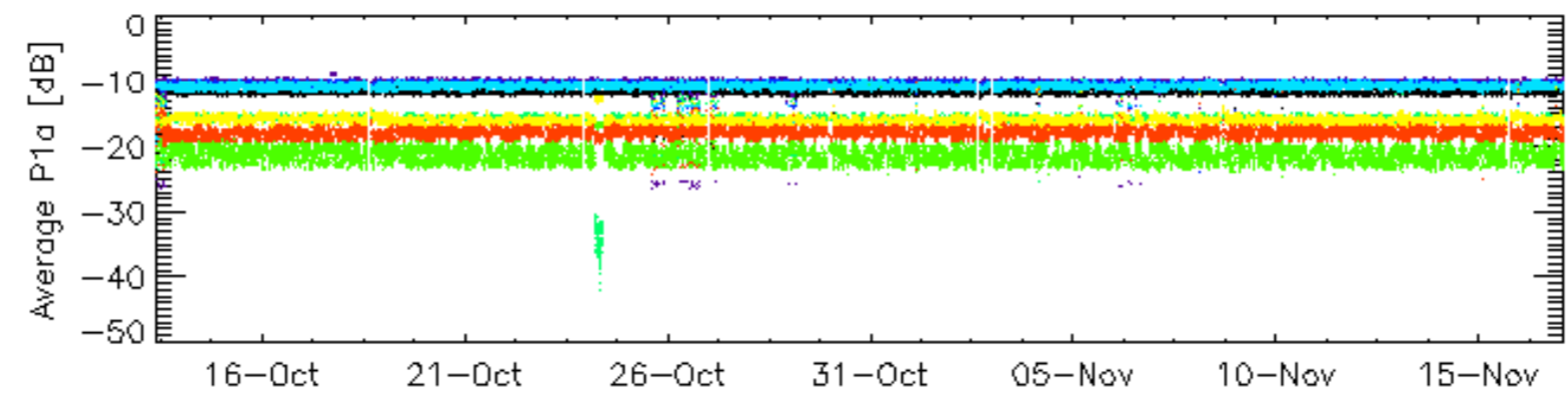
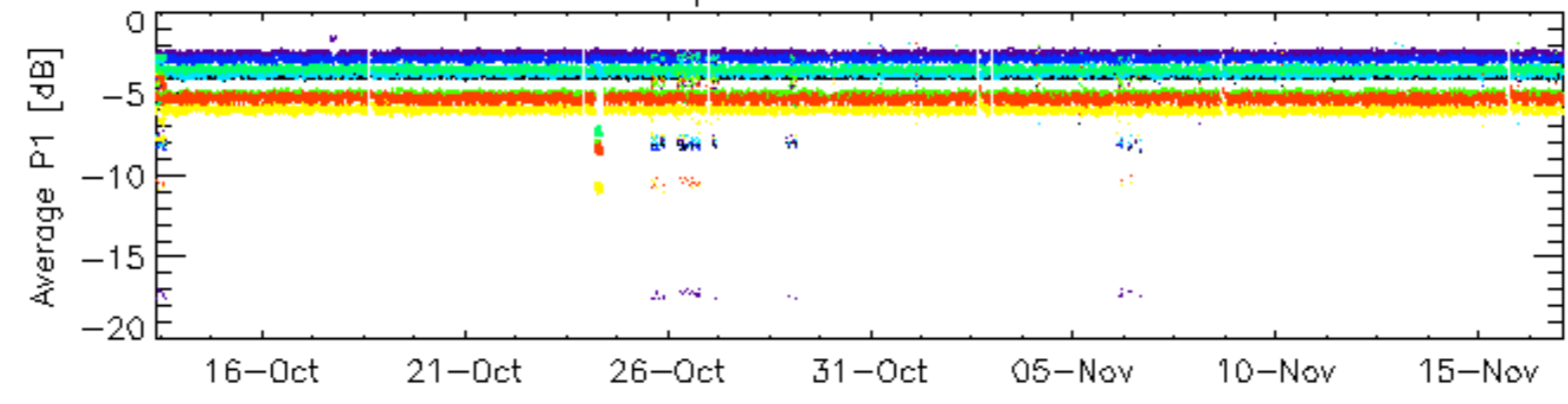


Cal pulses for WVS IS2



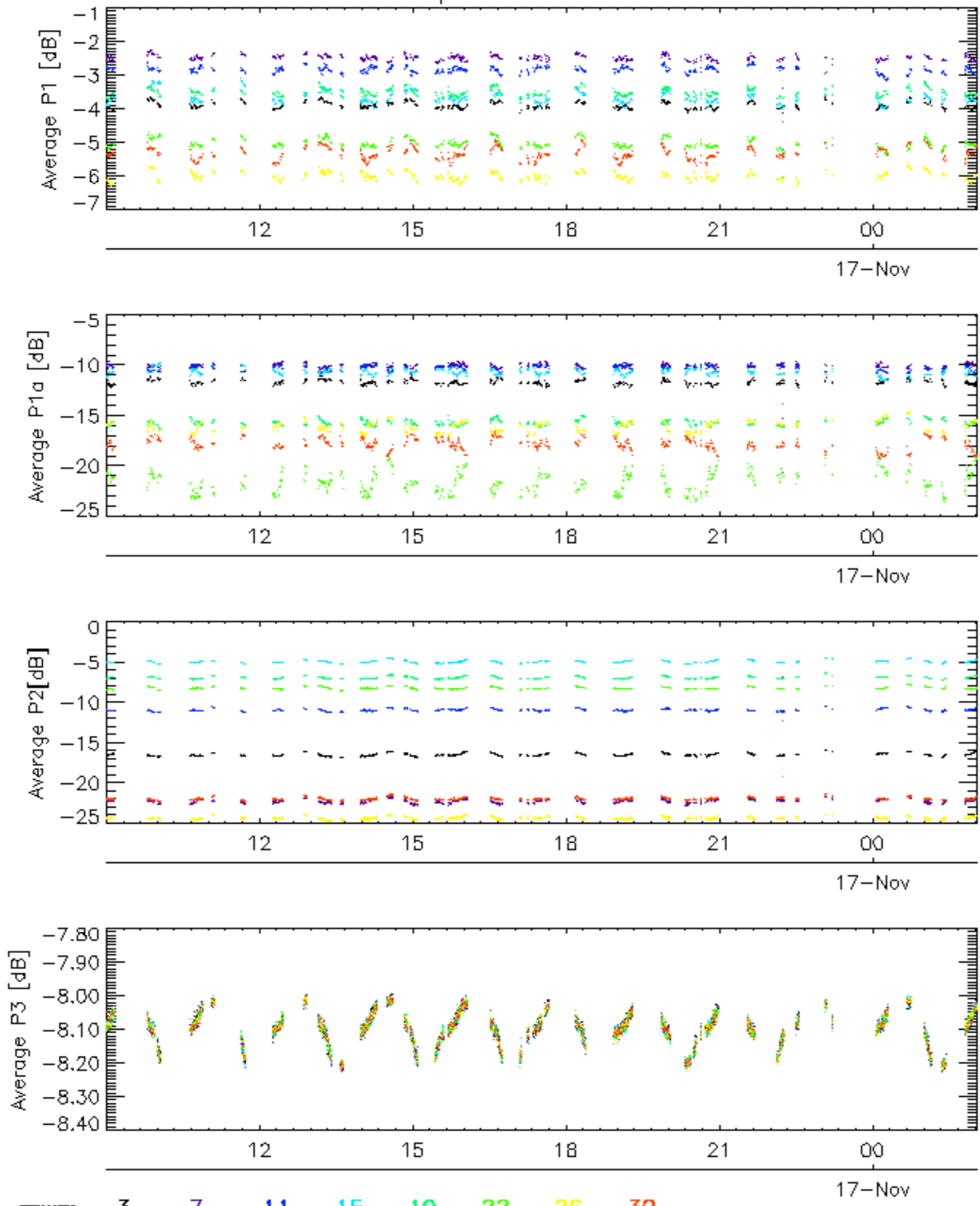
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Cal pulses for GM1 SS3

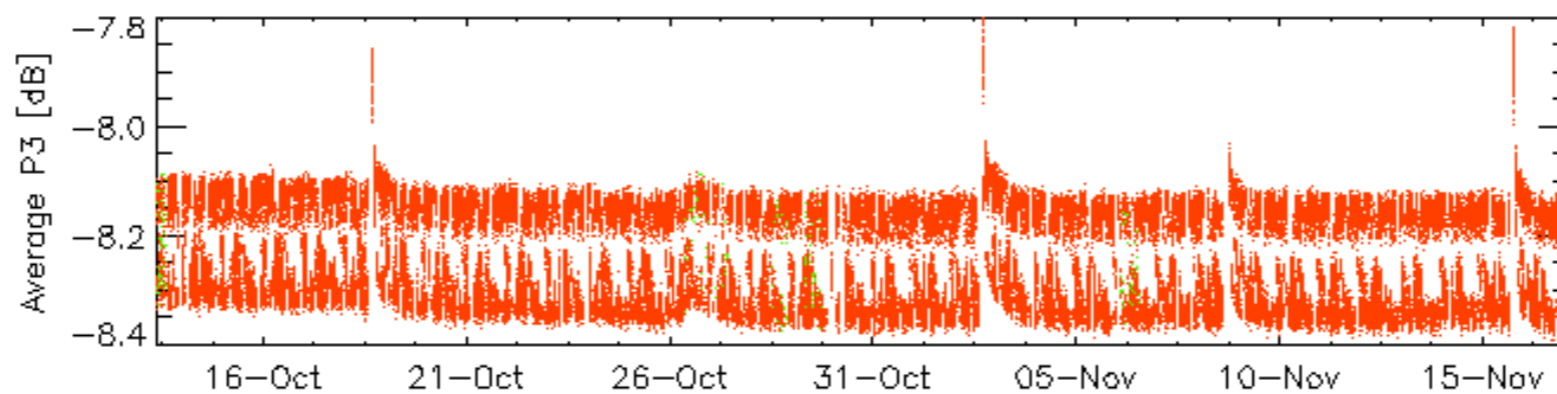
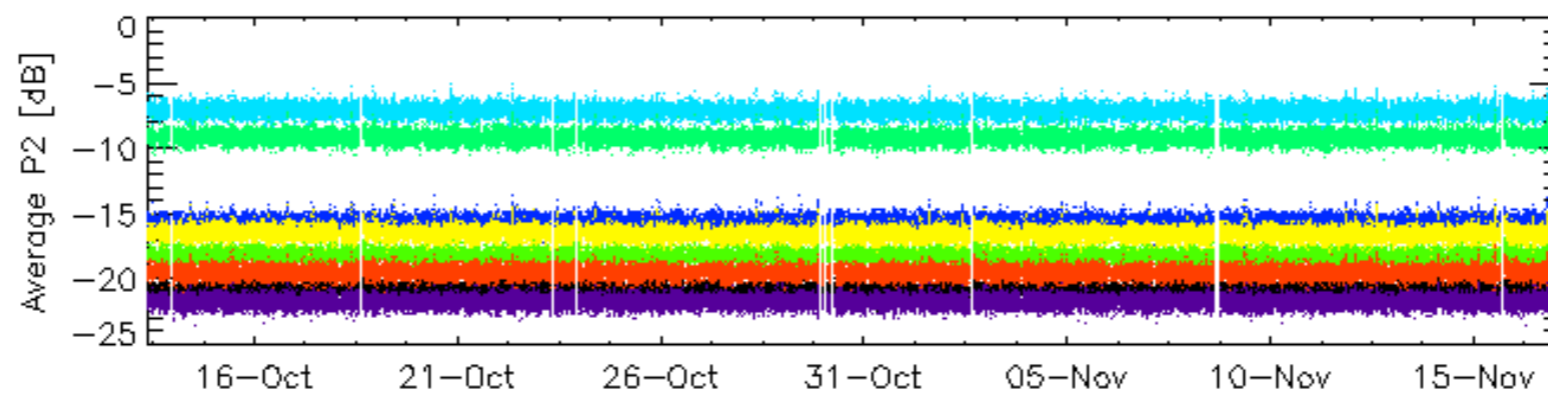
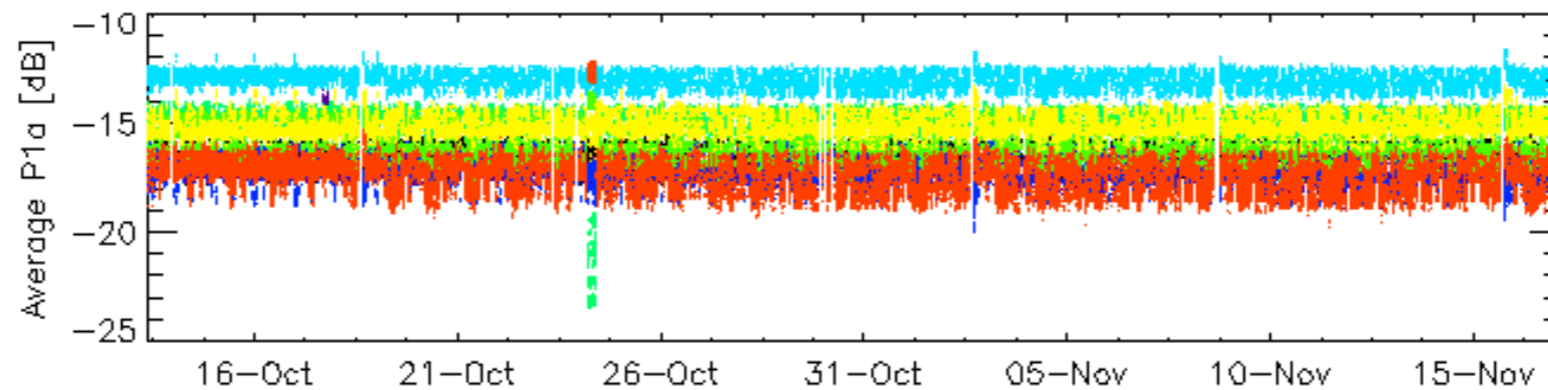
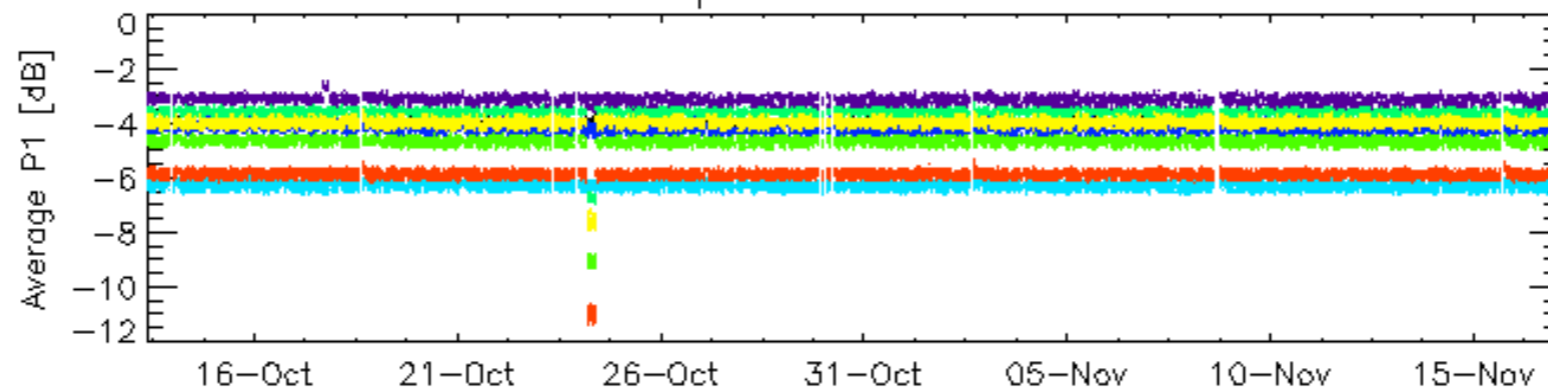


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

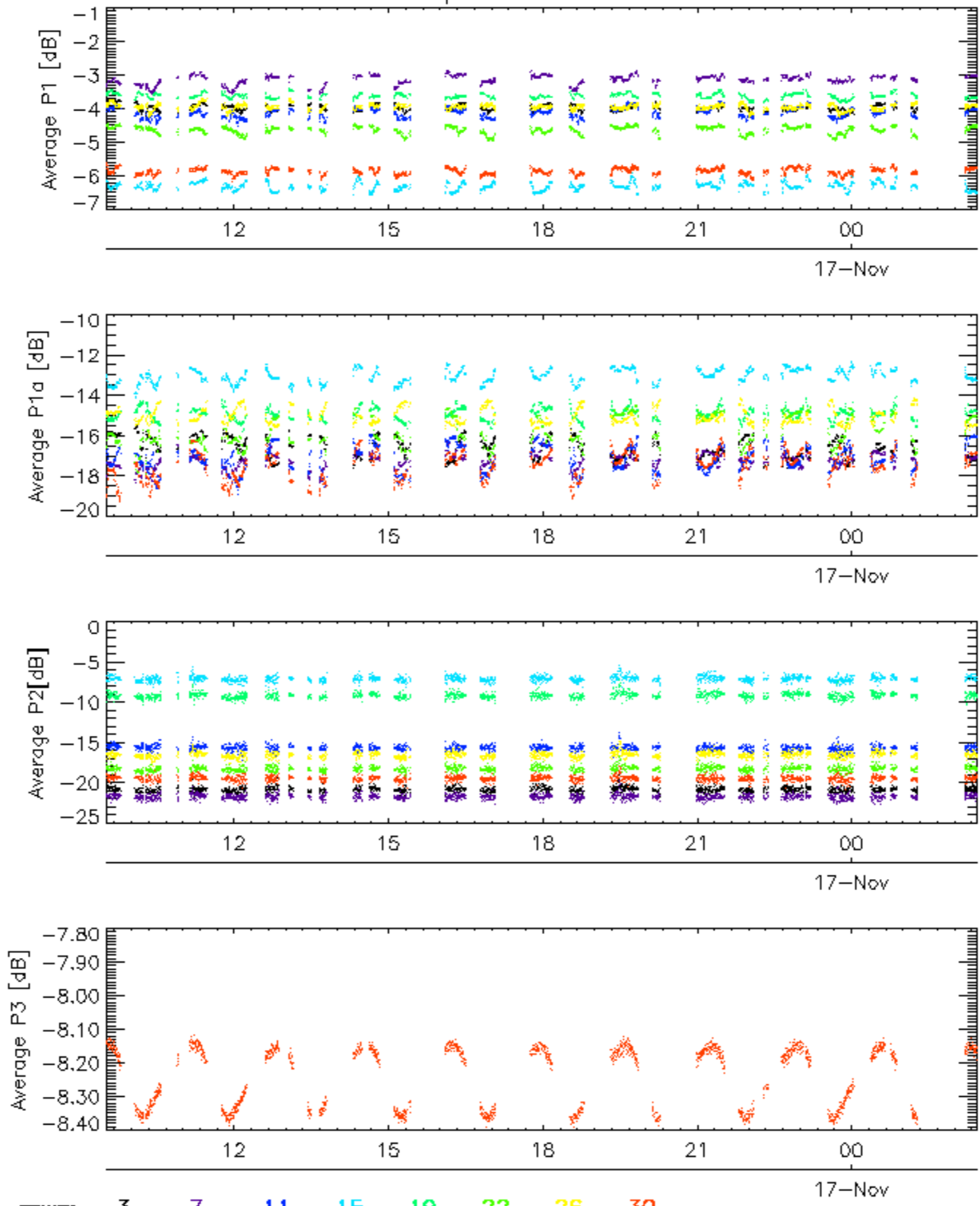


Cal pulses for WVS IS2



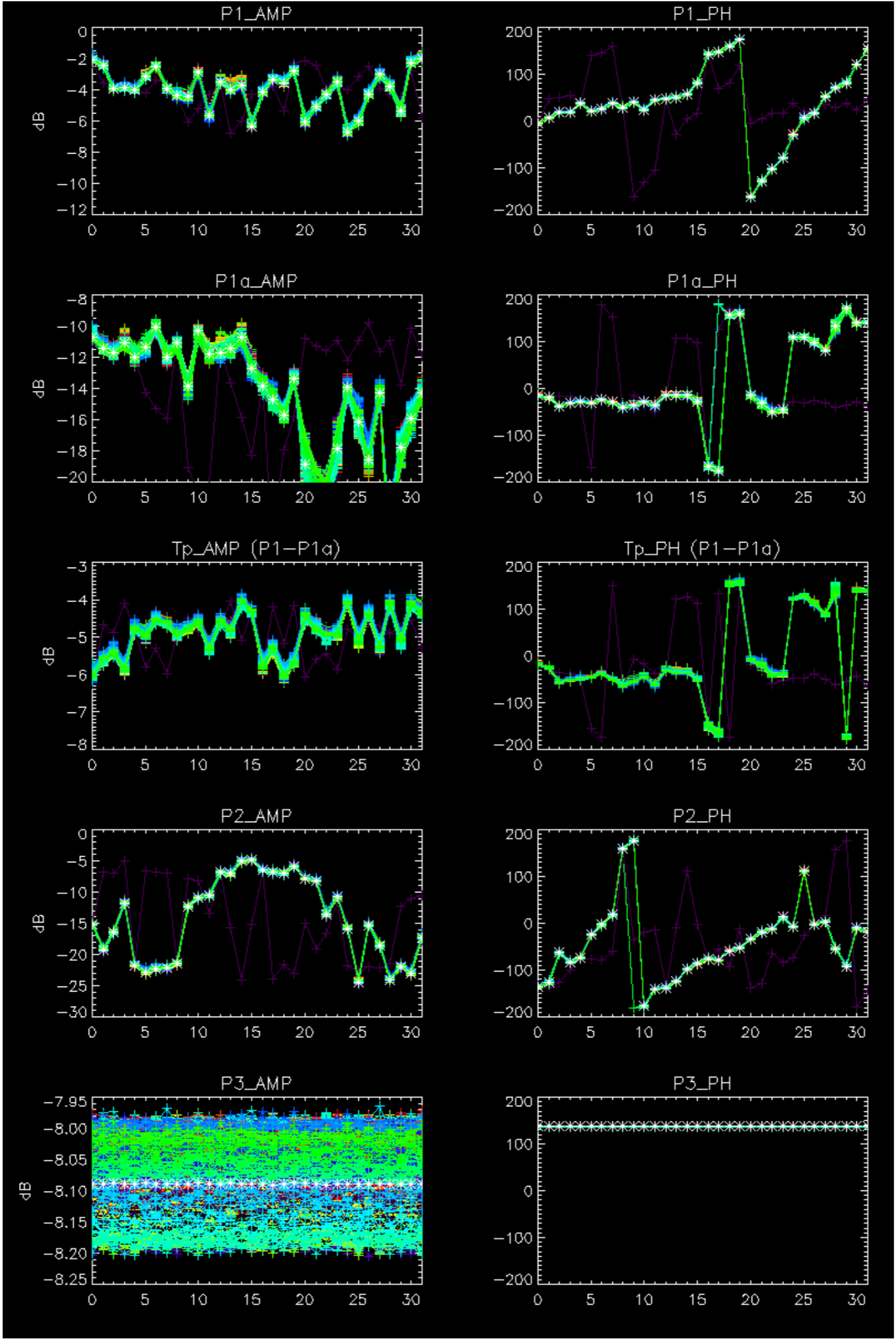
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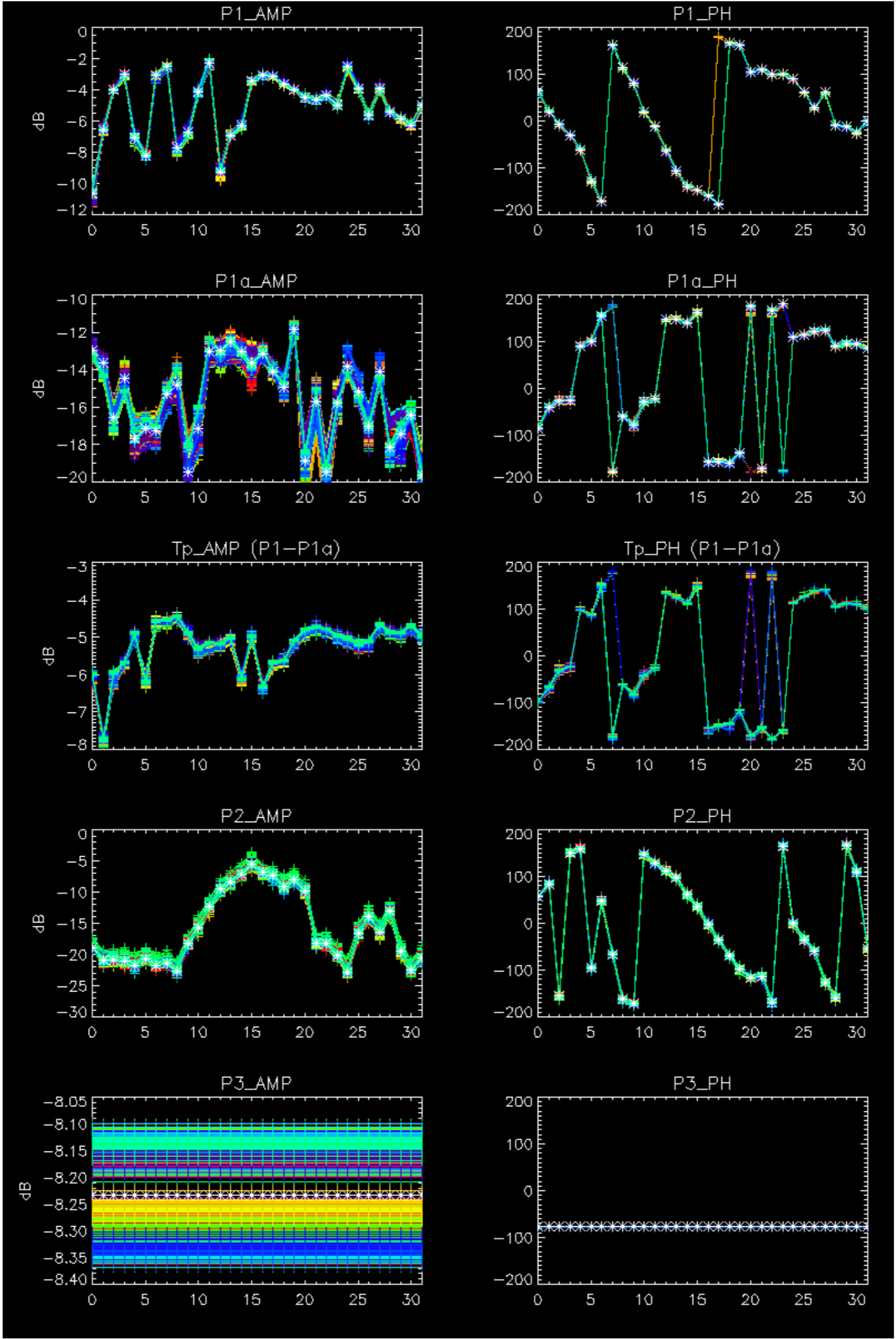
Cal pulses for WVS IS2



No anomalies observed on available browse products

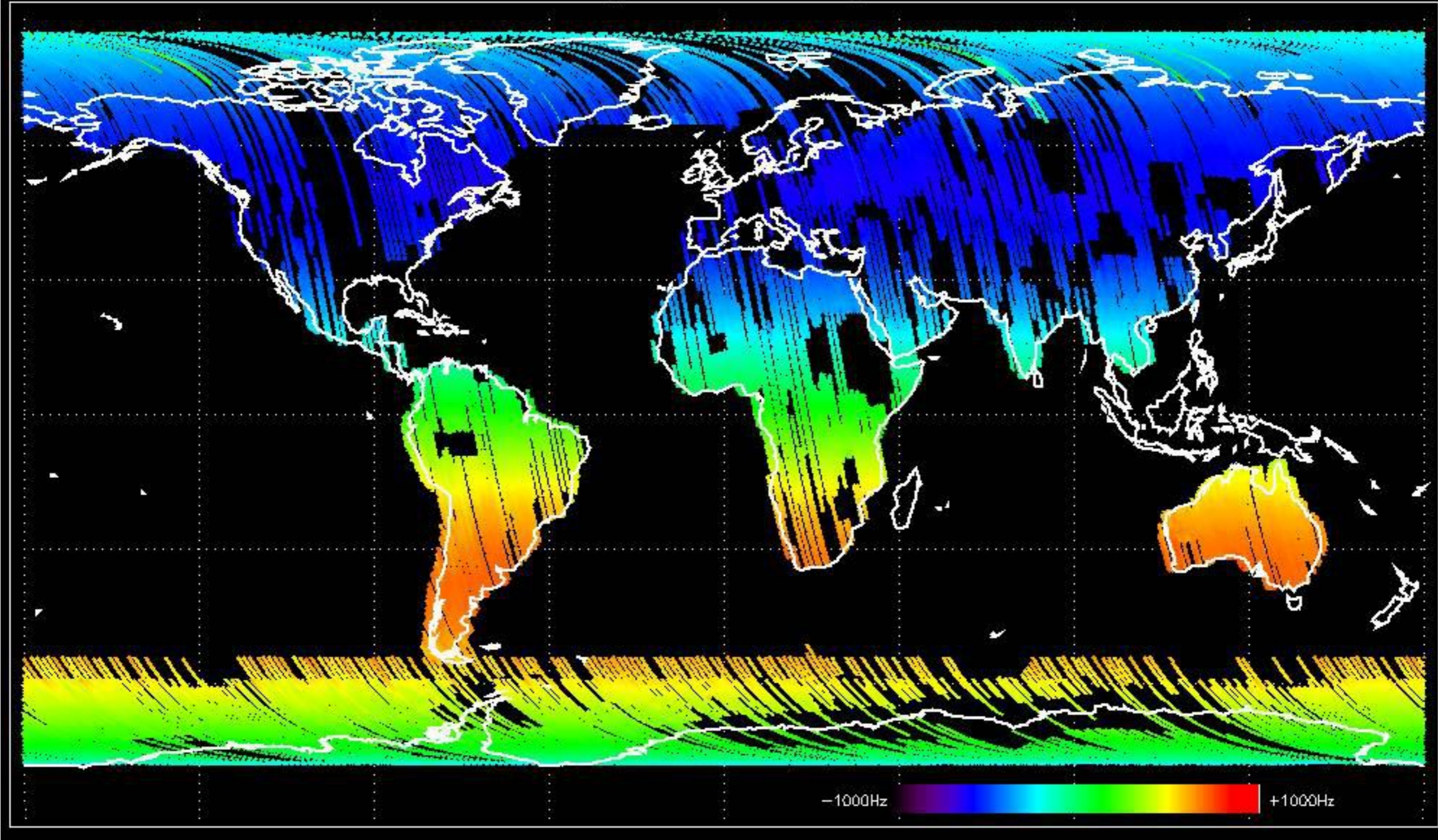
No anomalies observed.



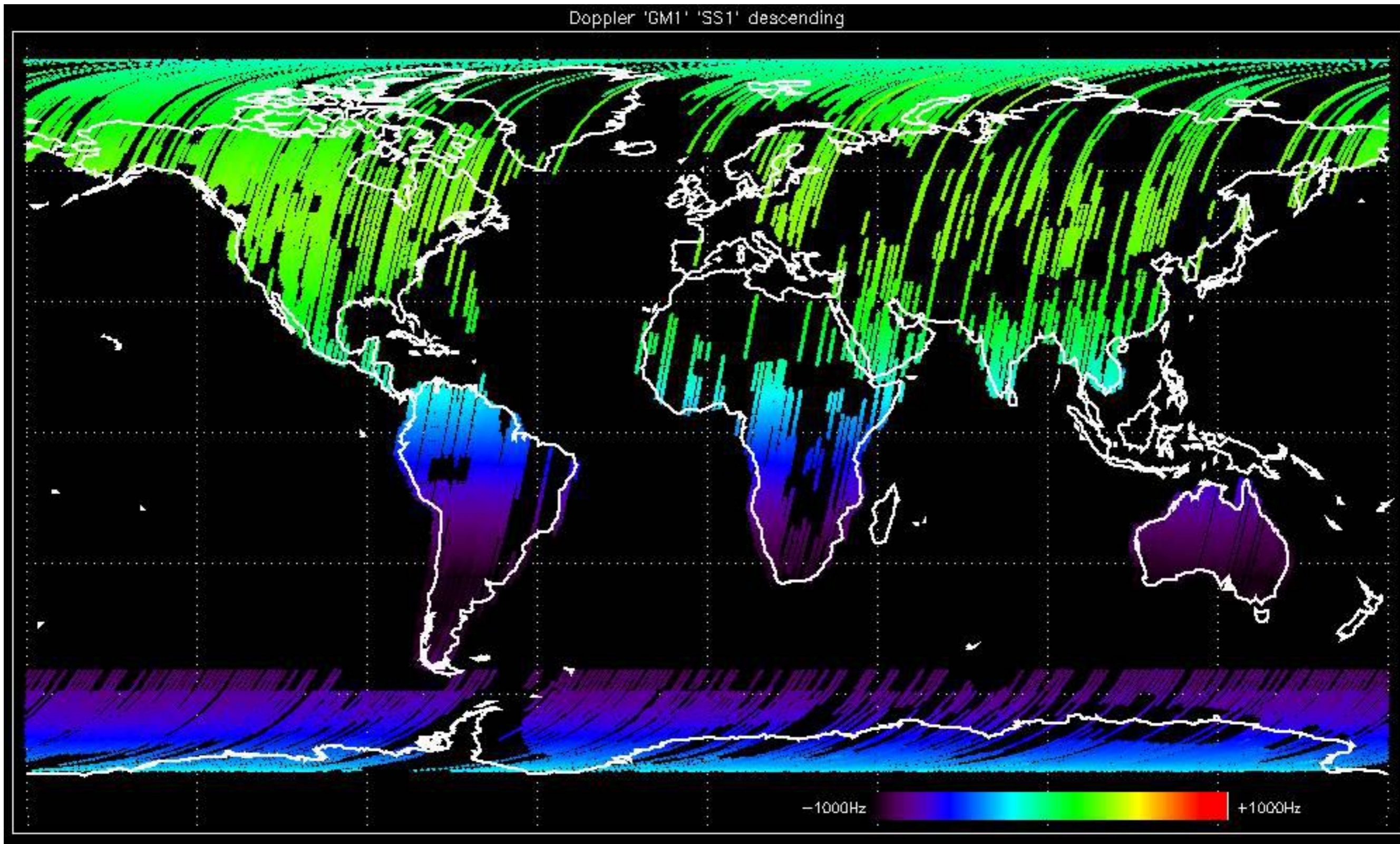


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

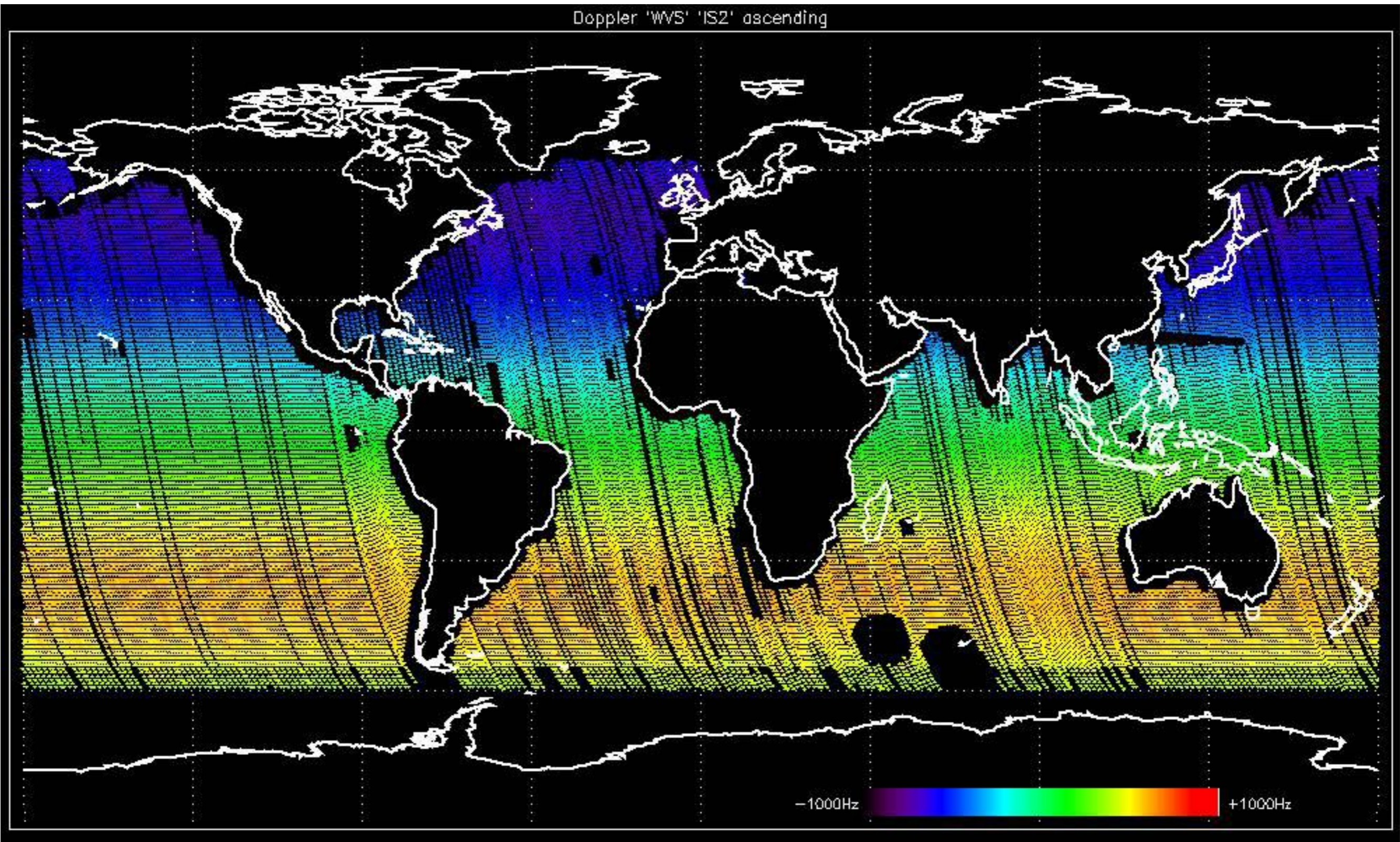
Doppler 'GM1' 'SS1' ascending



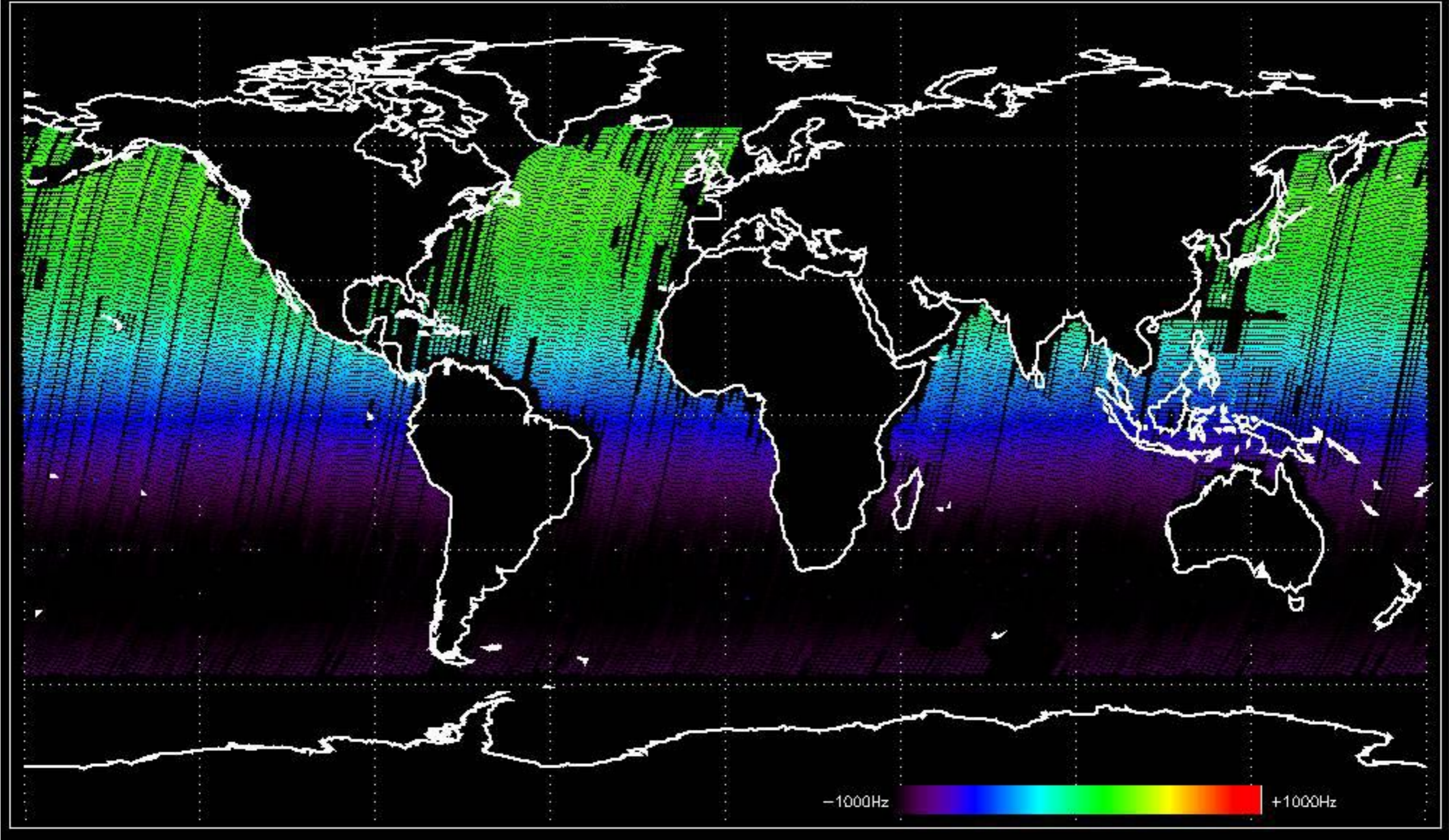
Doppler 'GM1' 'SS1' descending



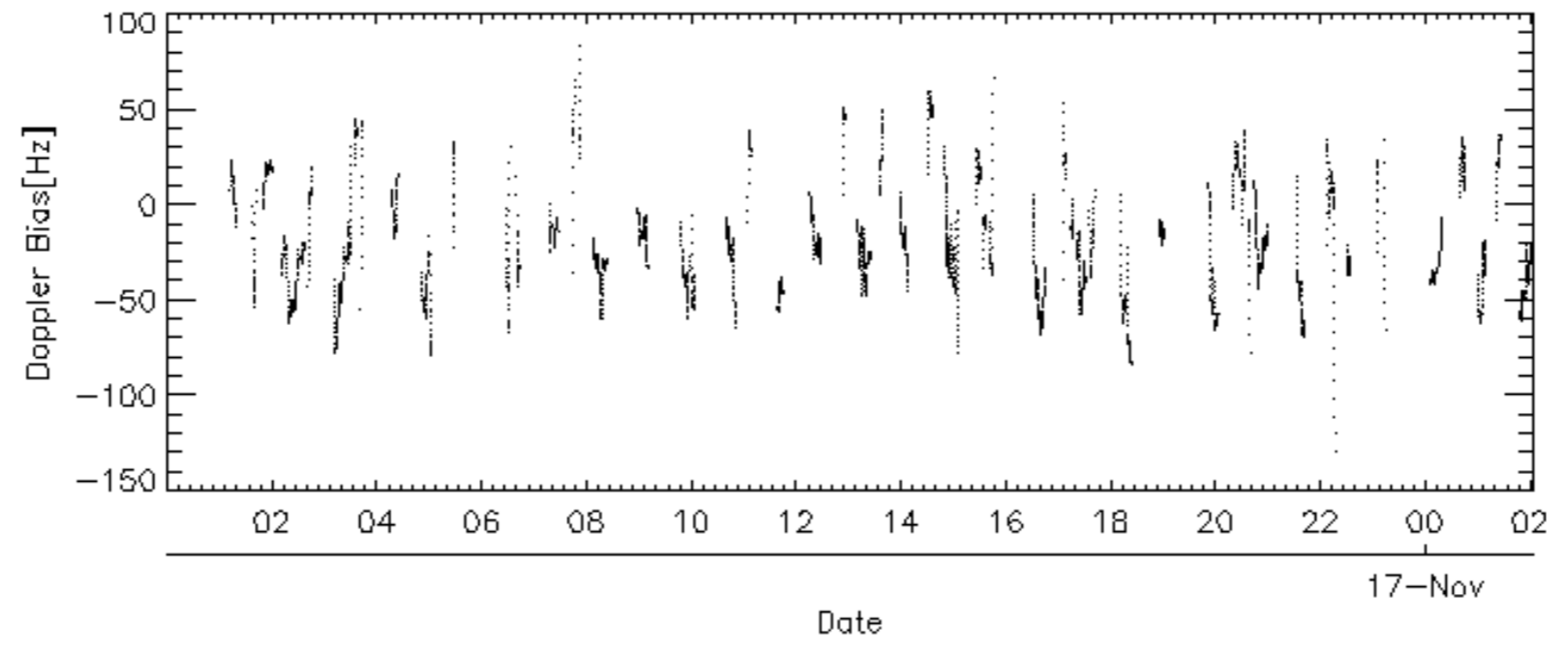
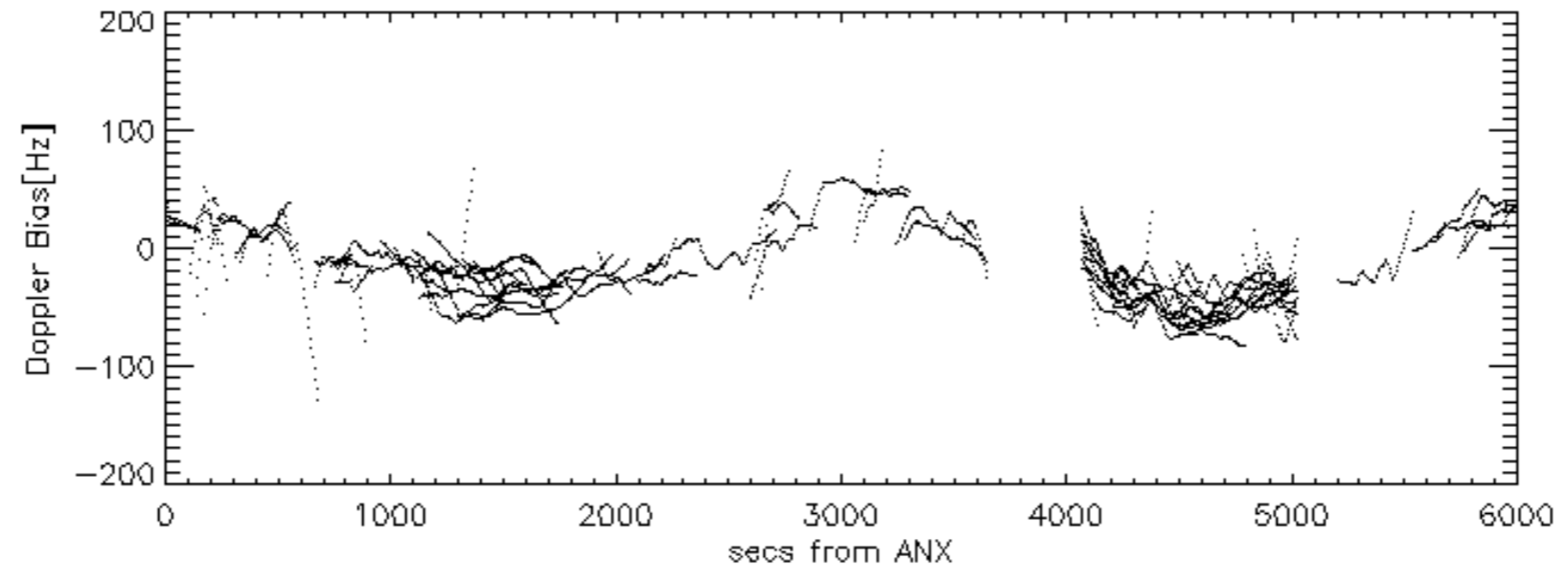
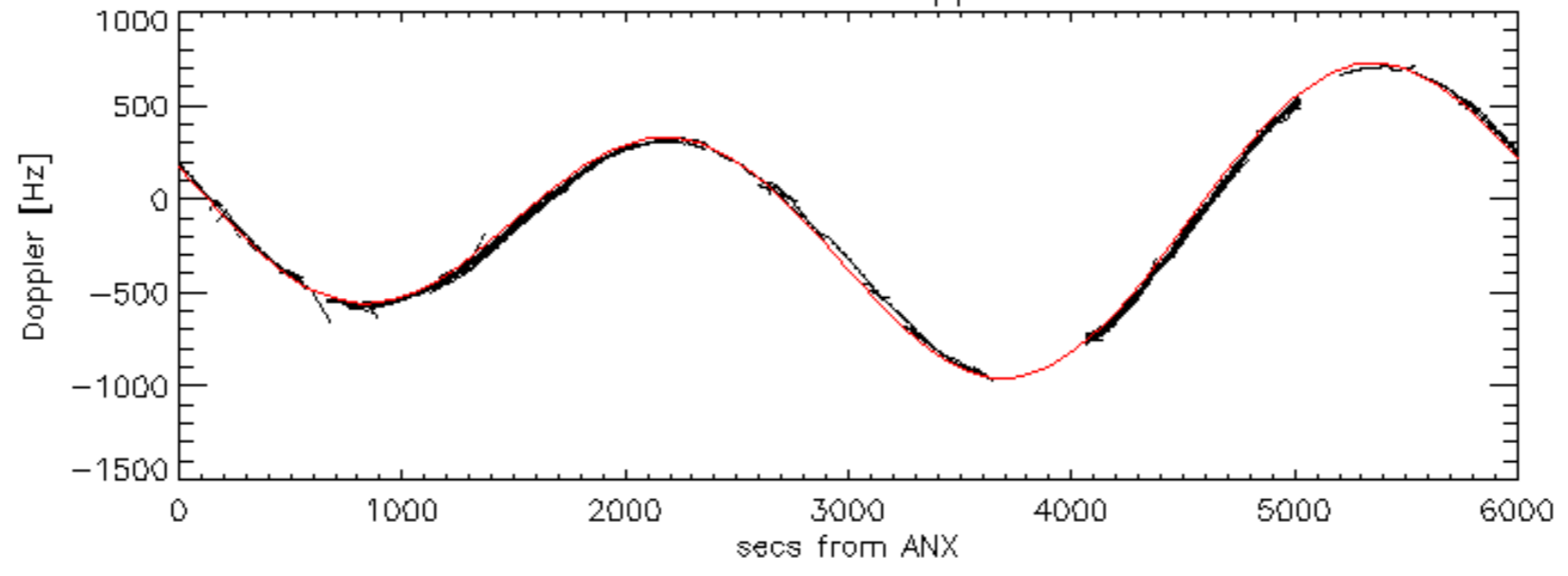
Doppler 'WVS' 'IS2' ascending

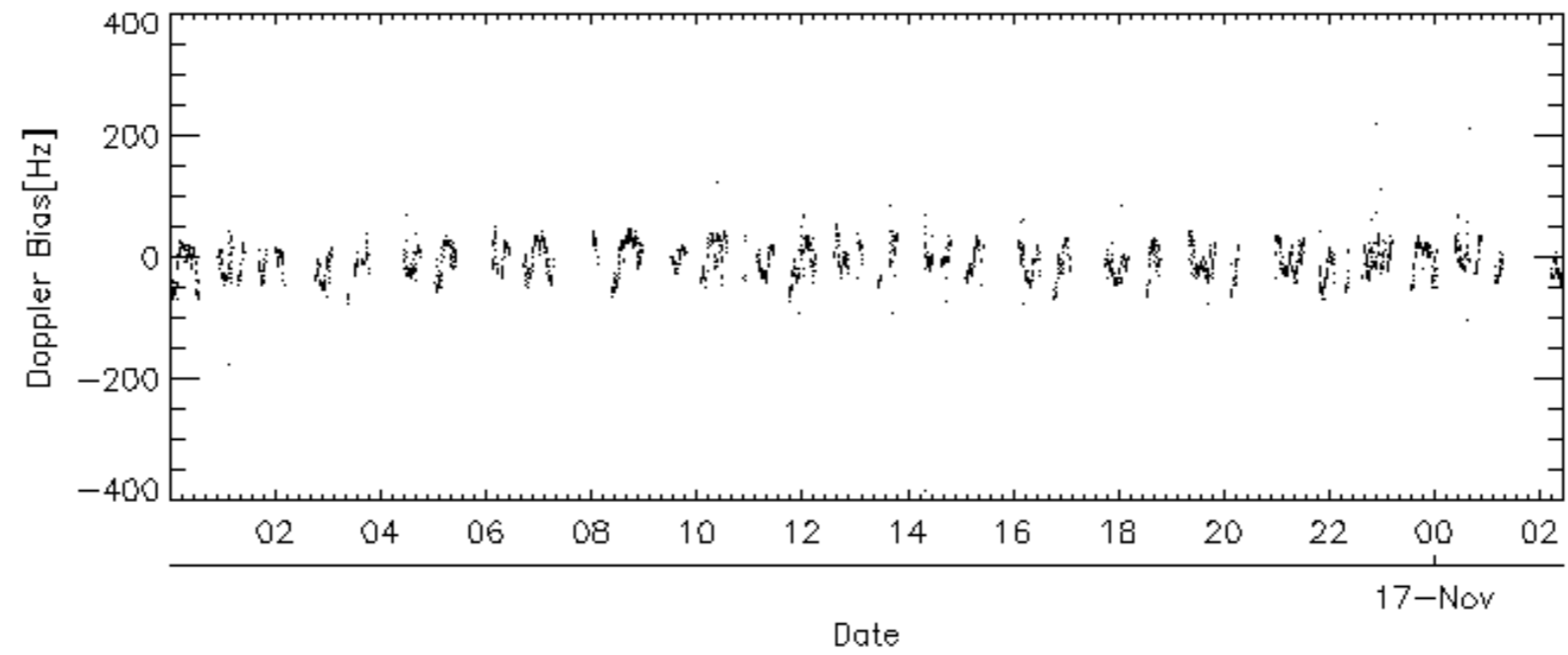
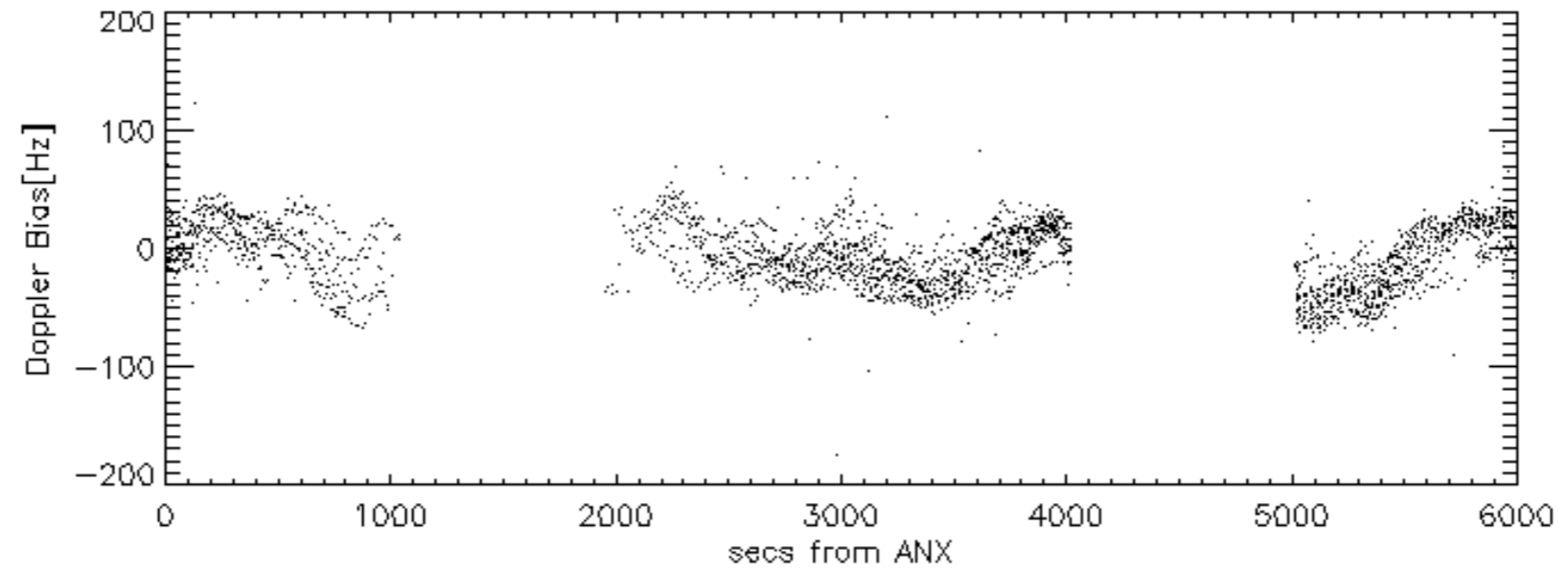
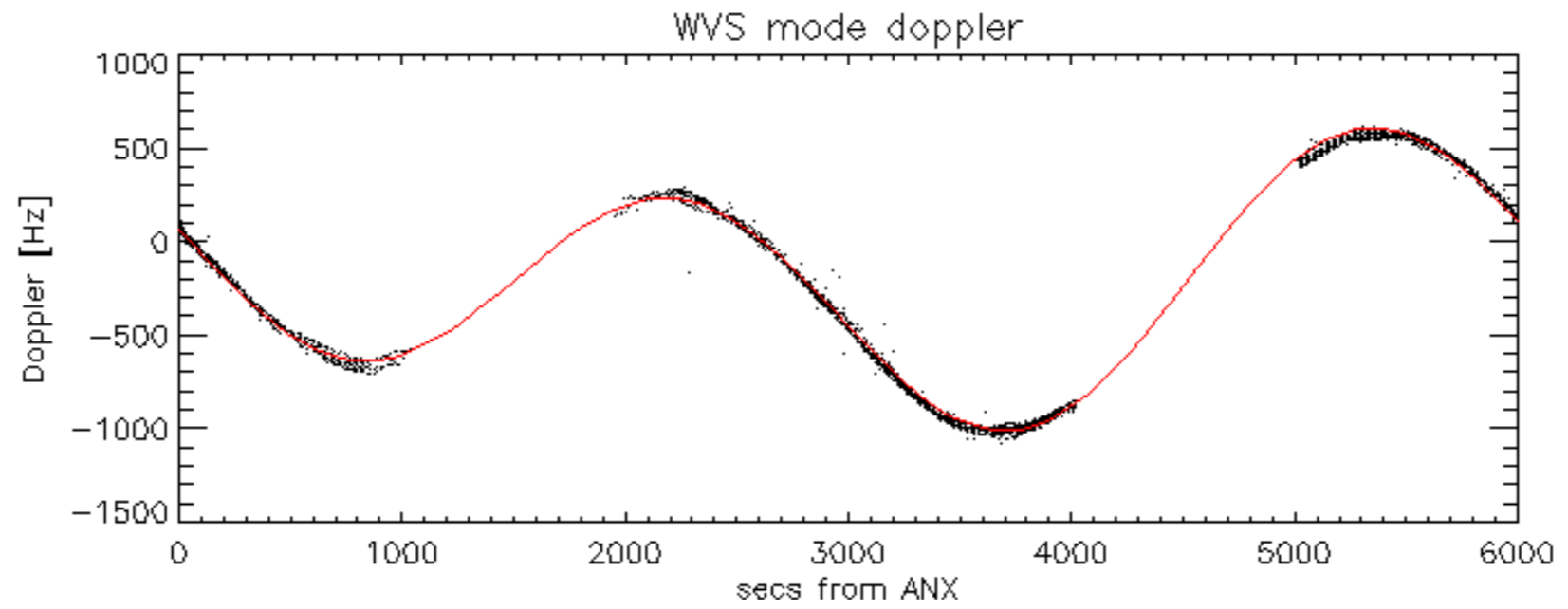


Doppler 'WVS' 'IS2' descending

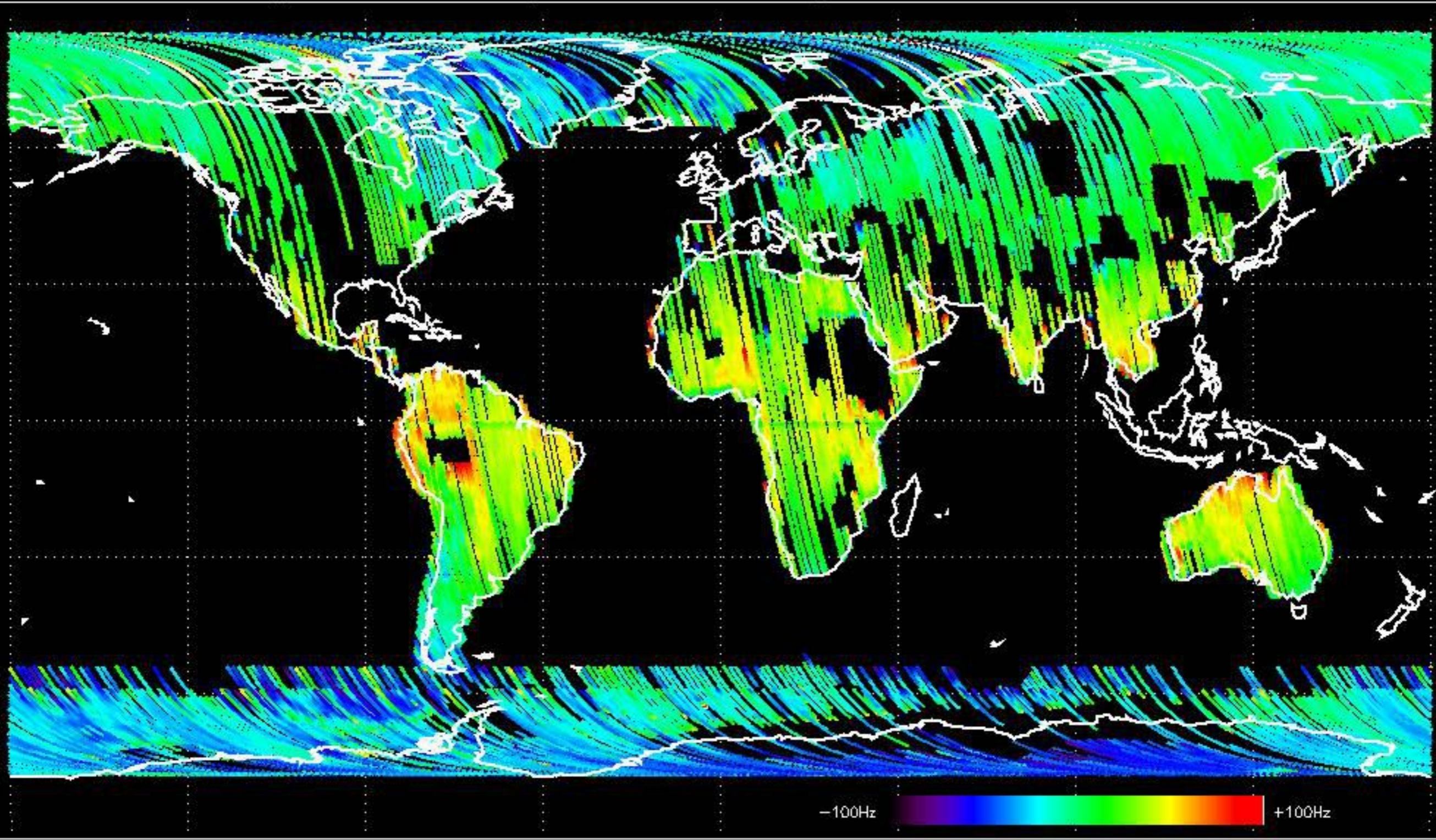


GM1 mode doppler

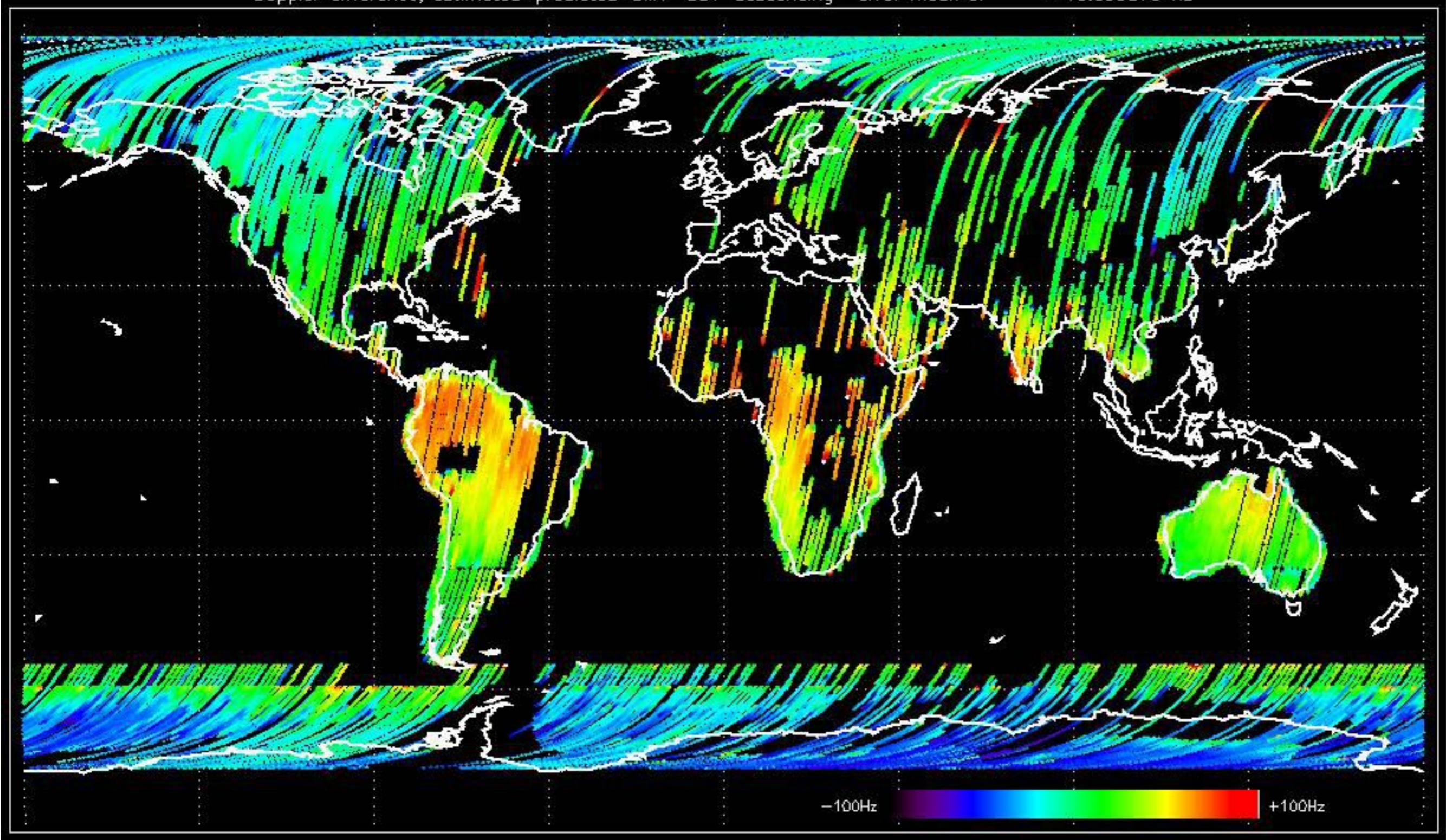




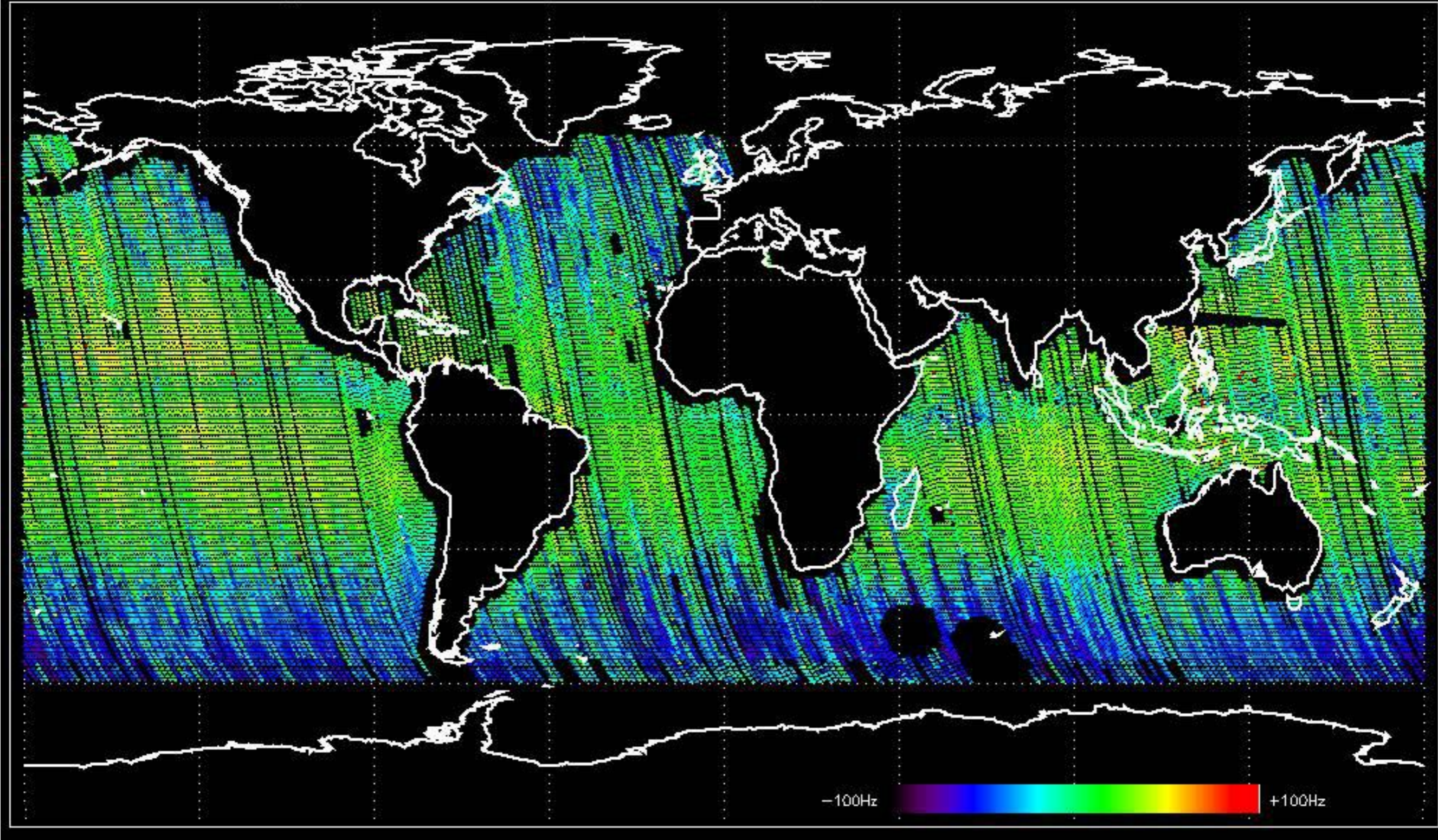
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.471701 Hz



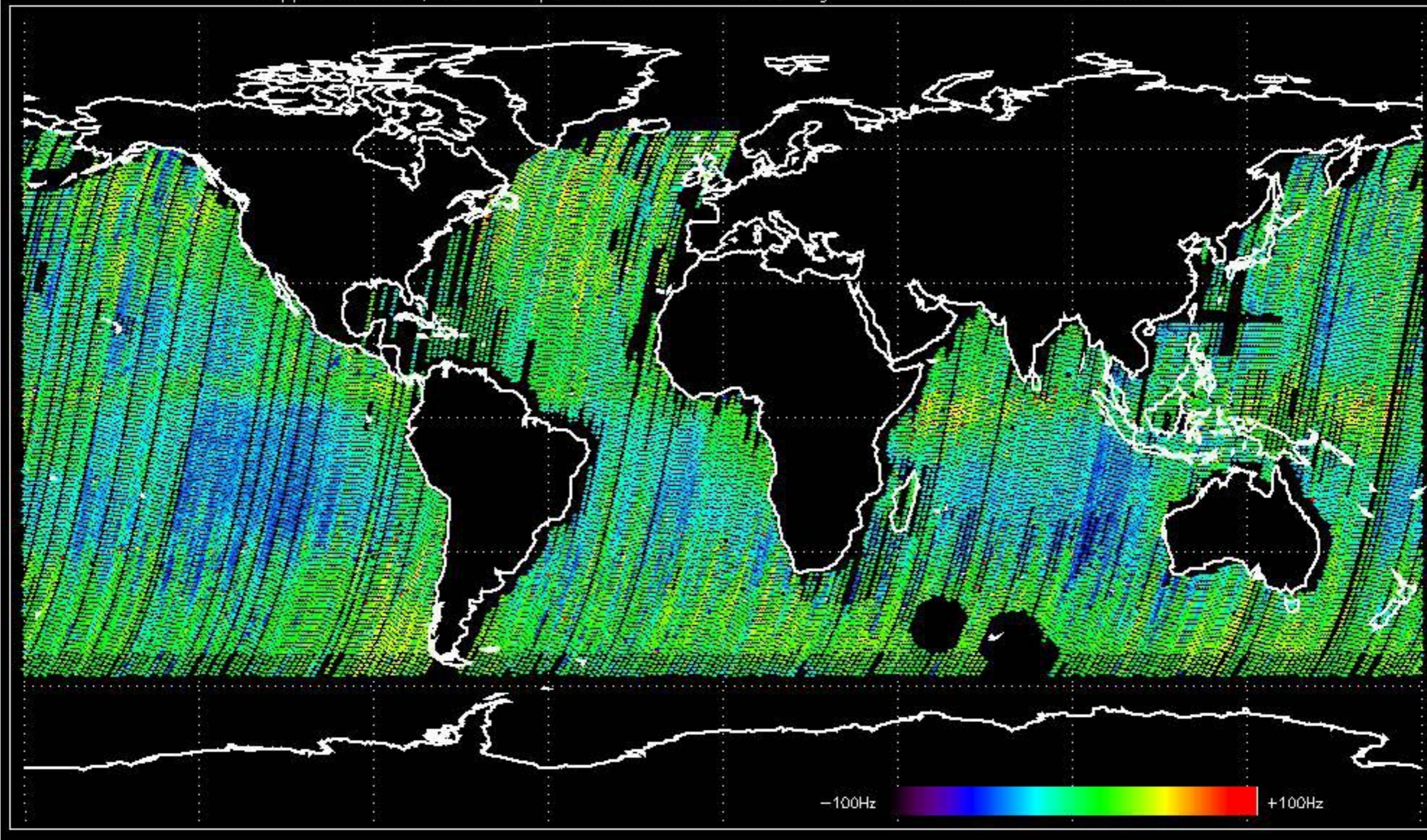
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.699575 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.6150826 Hz

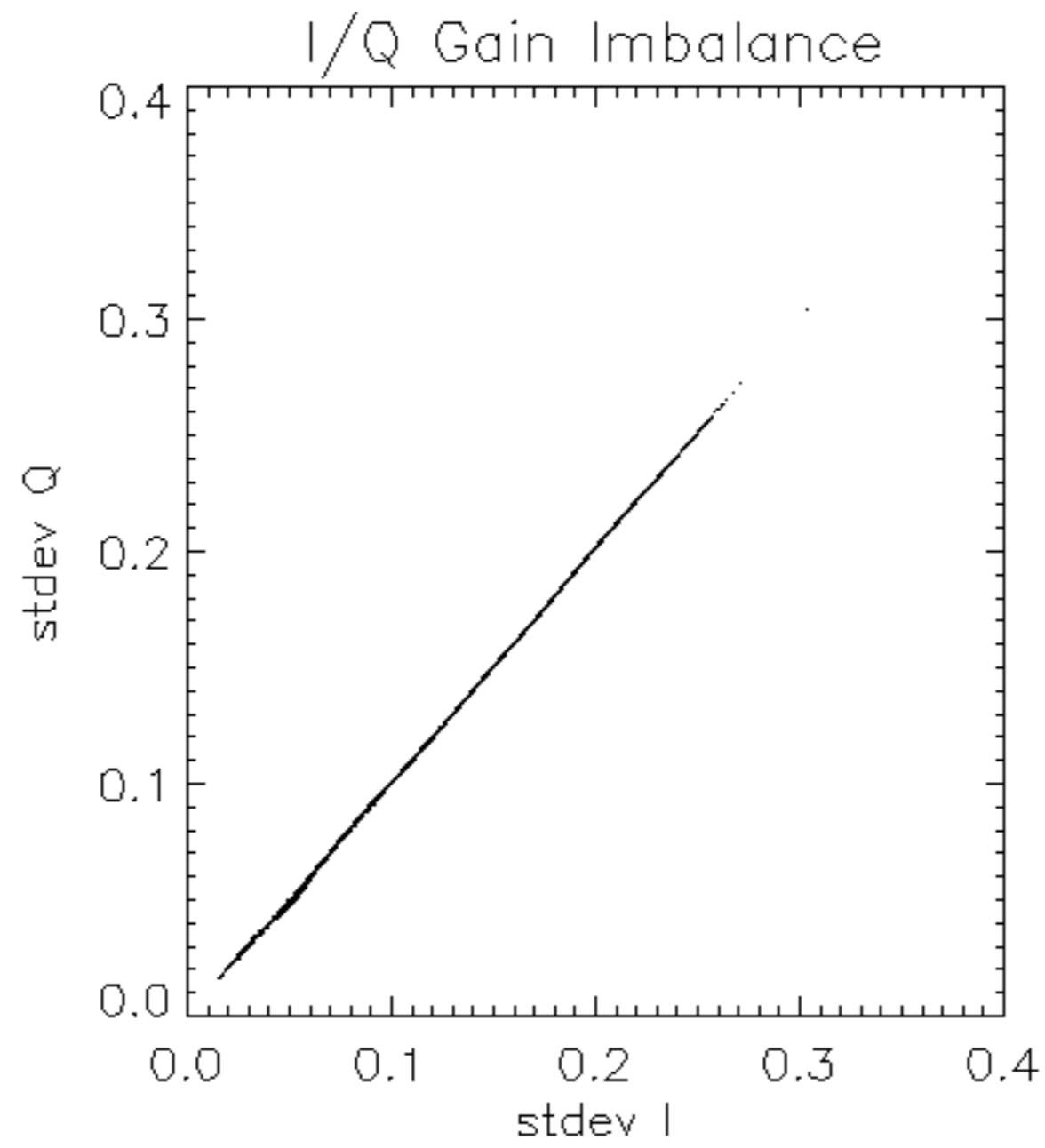


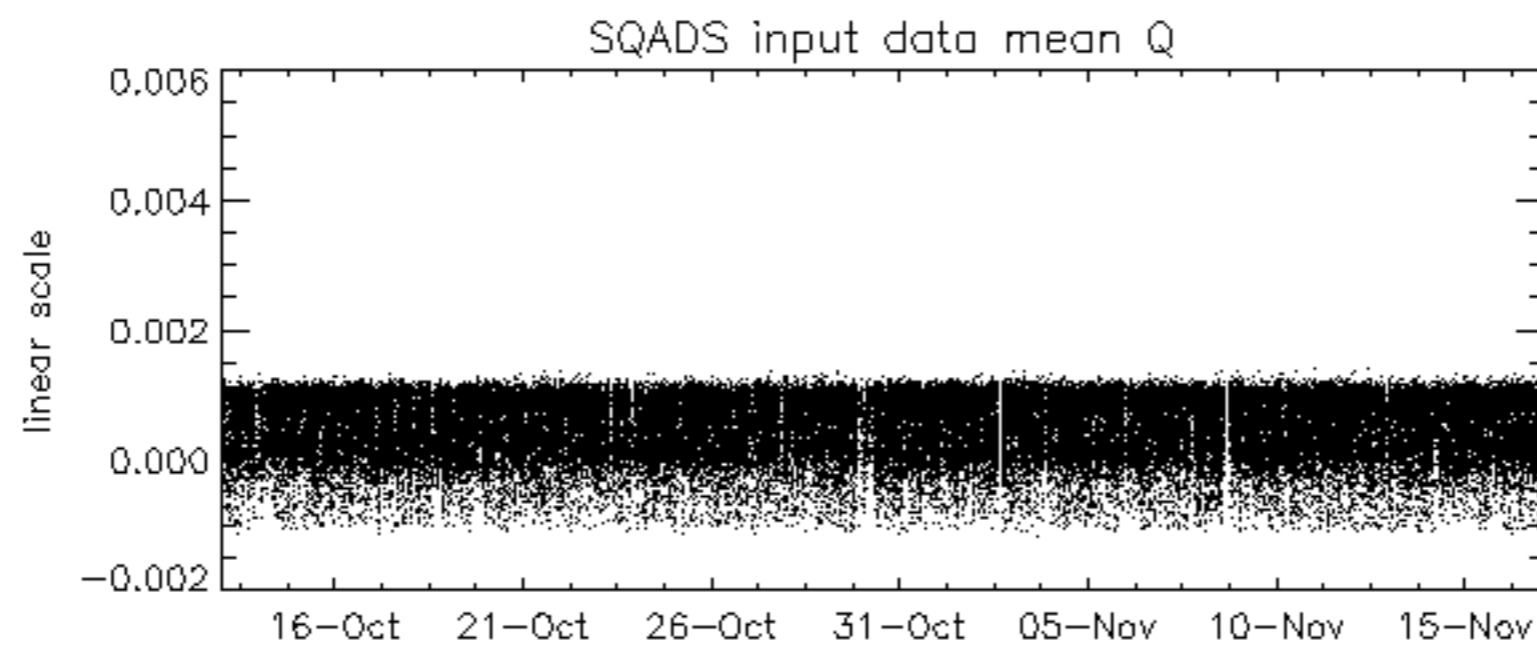
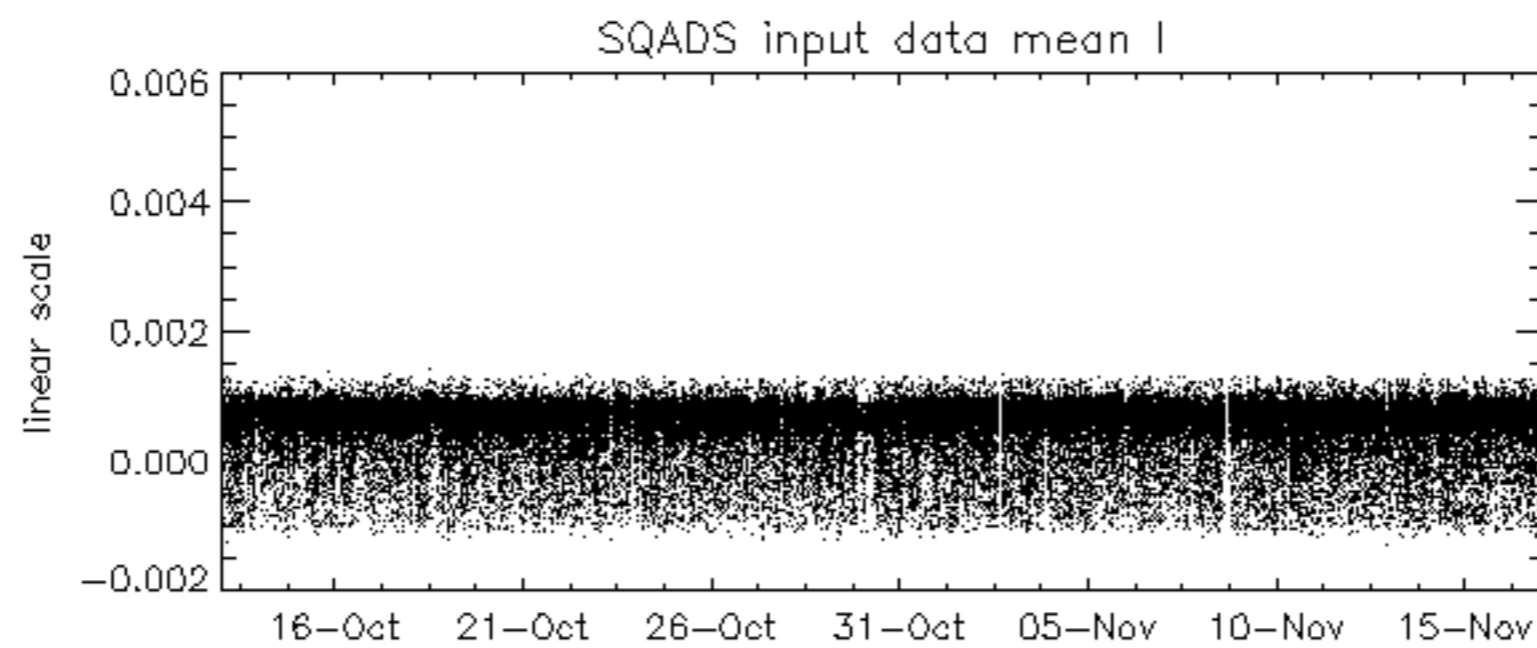
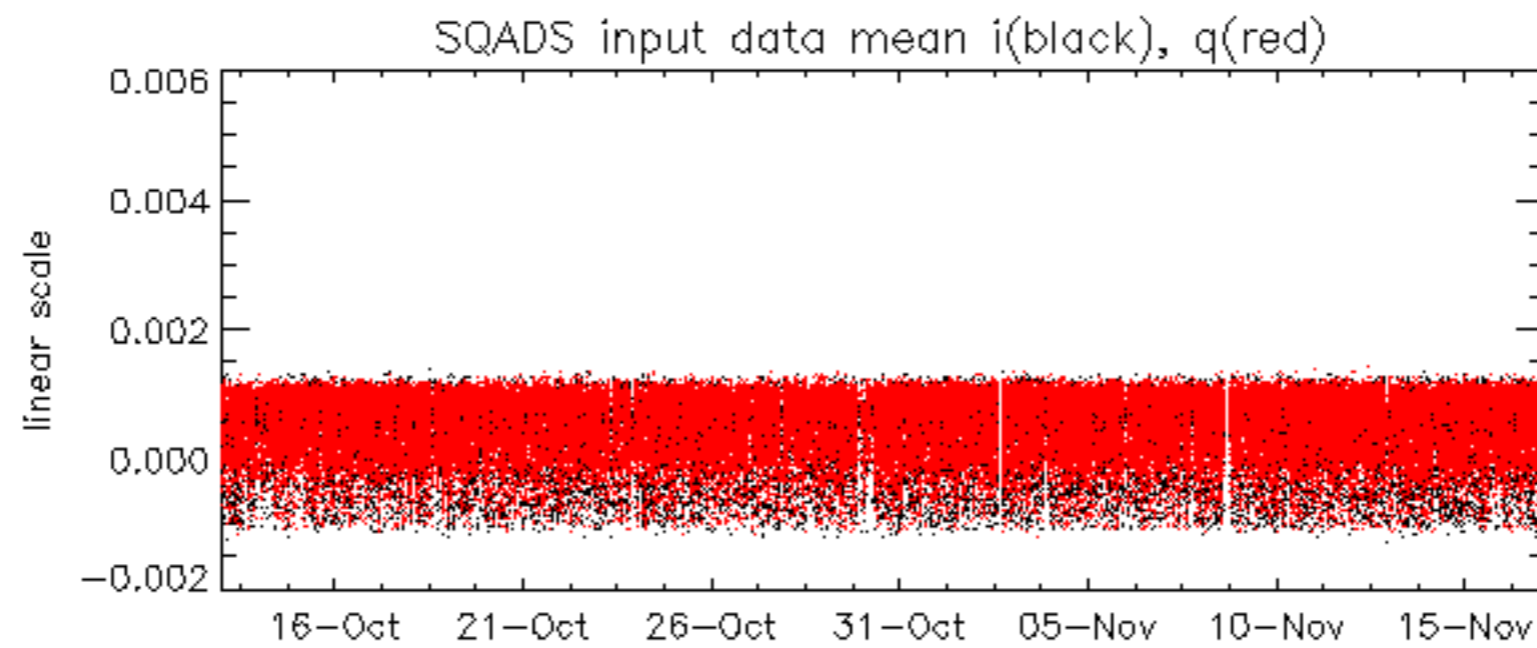
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.6182152 Hz

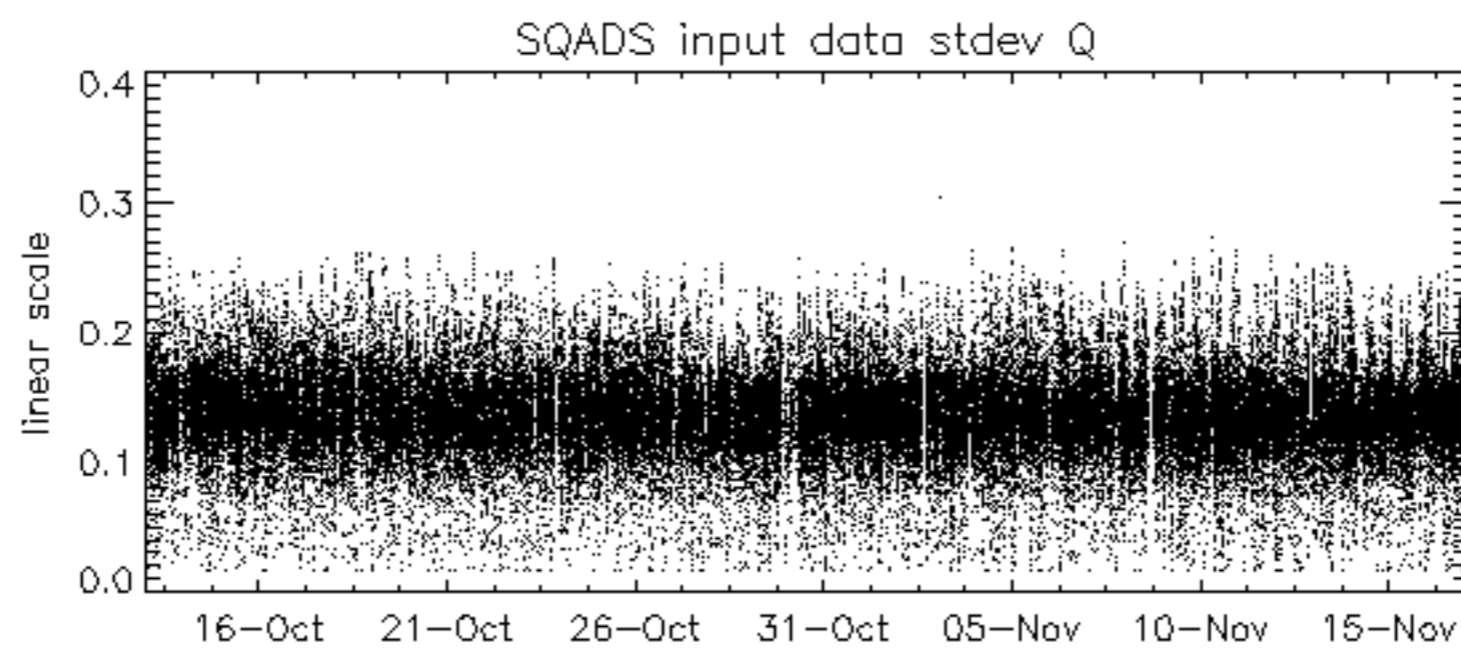
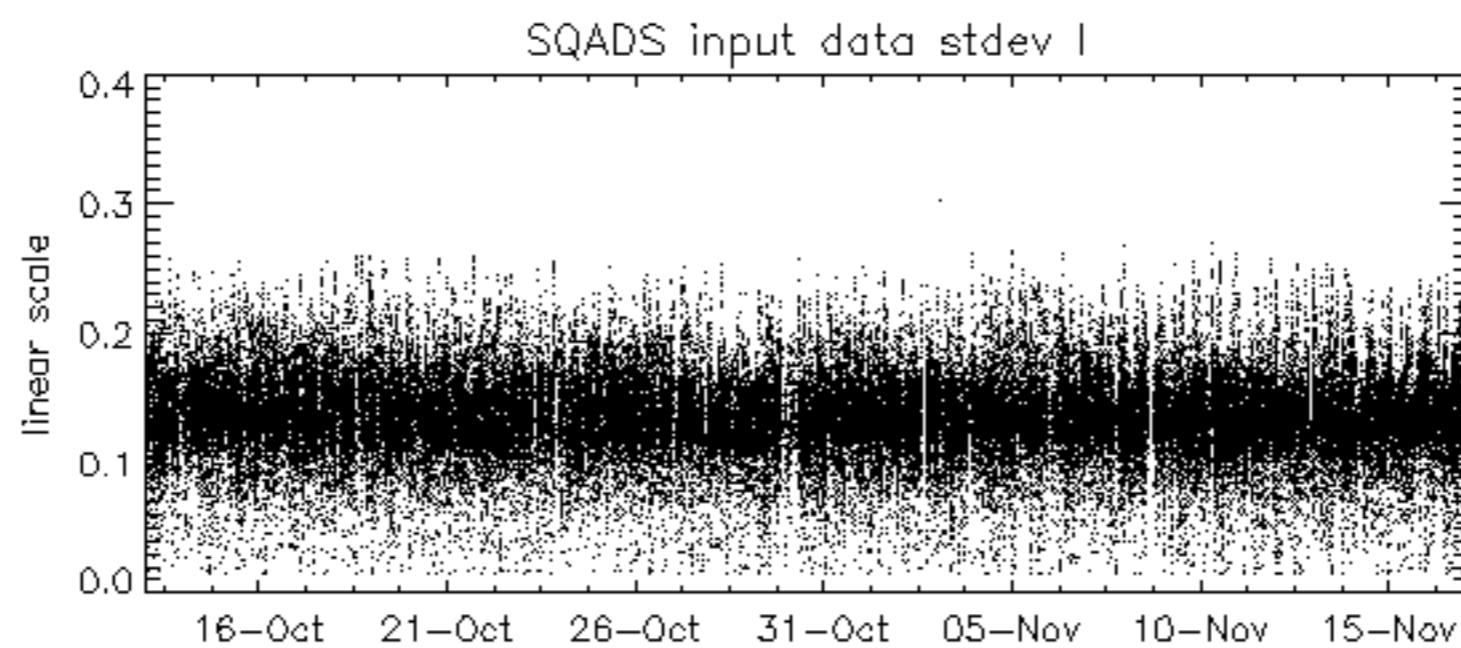
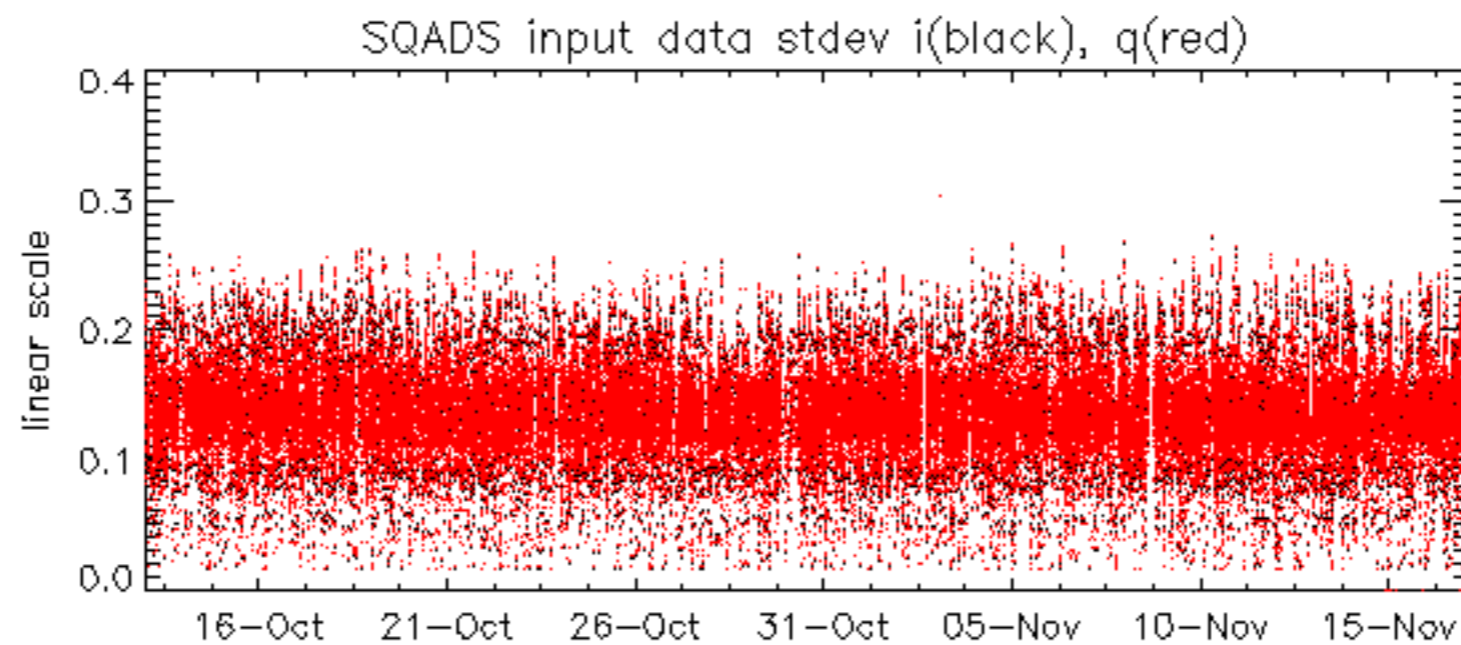


No anomalies observed on available MS products:

No anomalies observed.



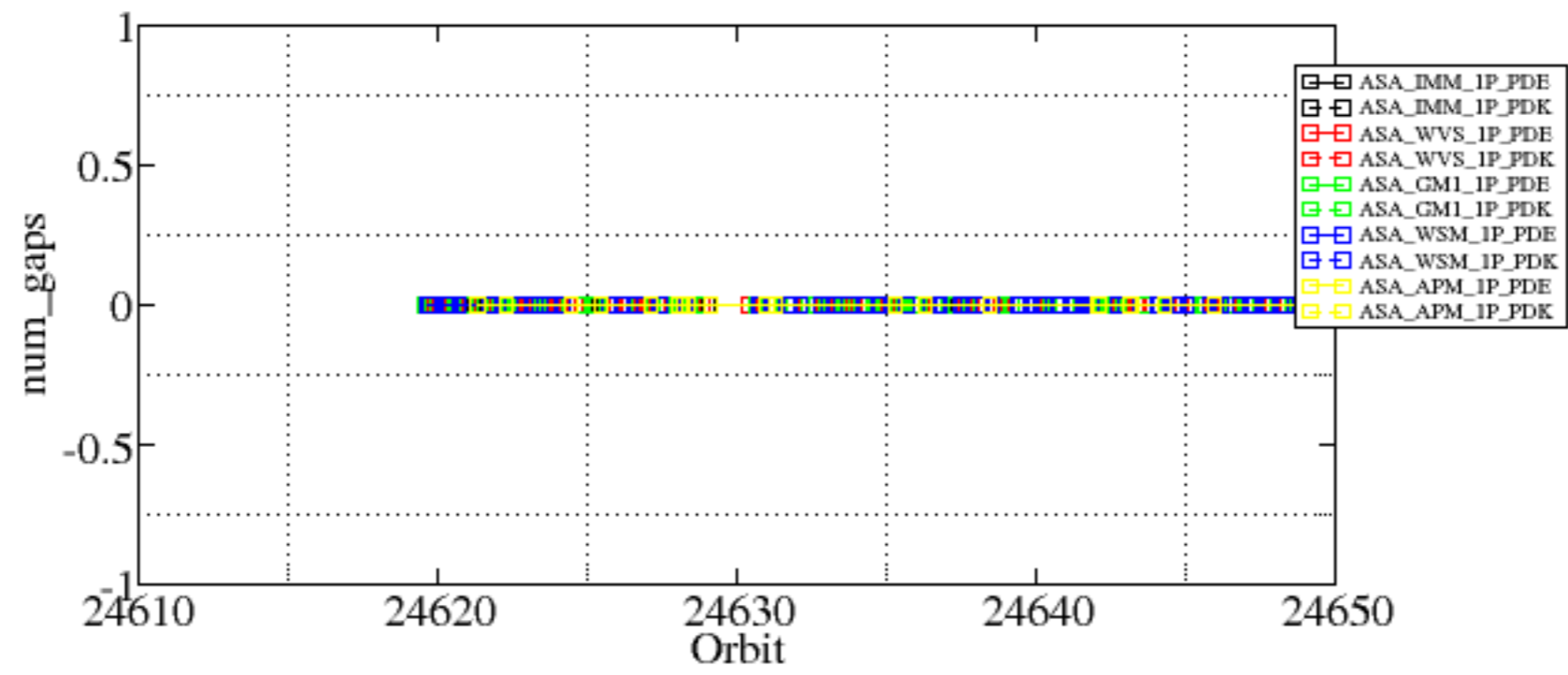


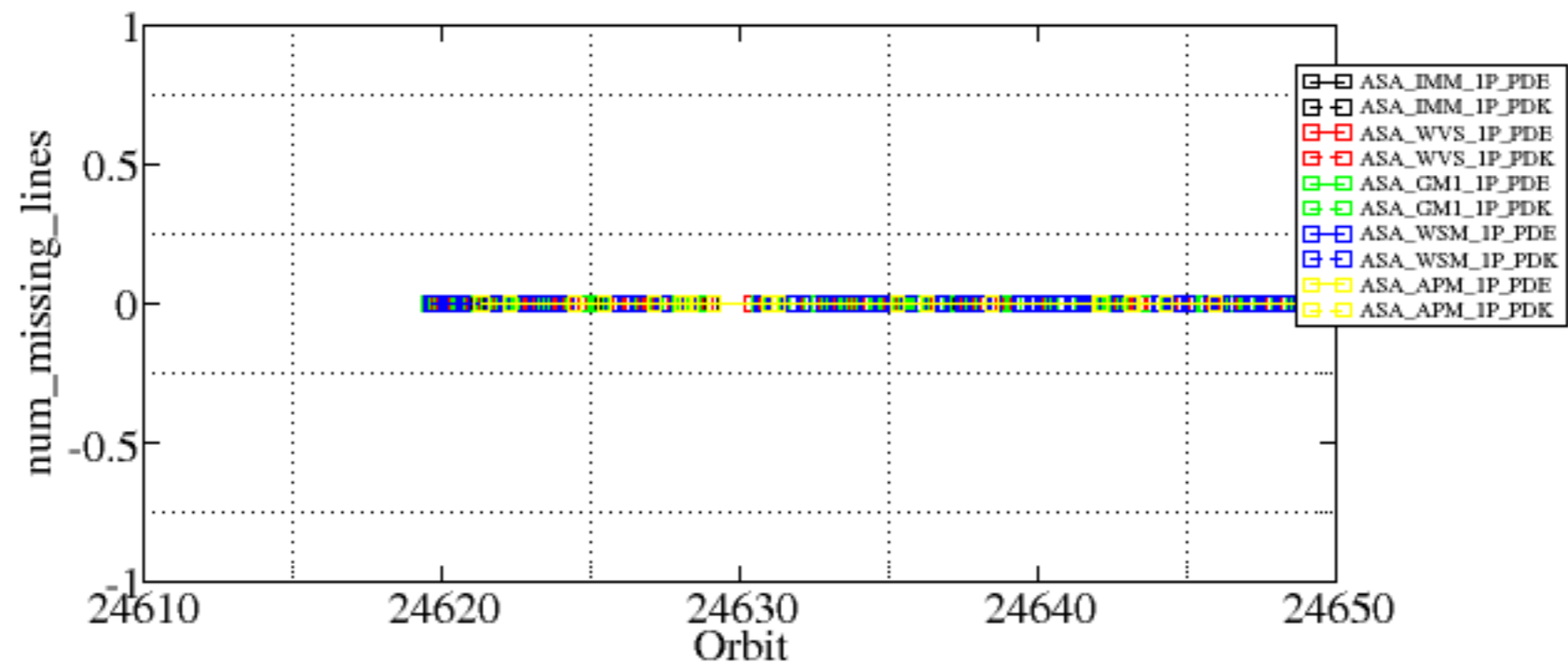


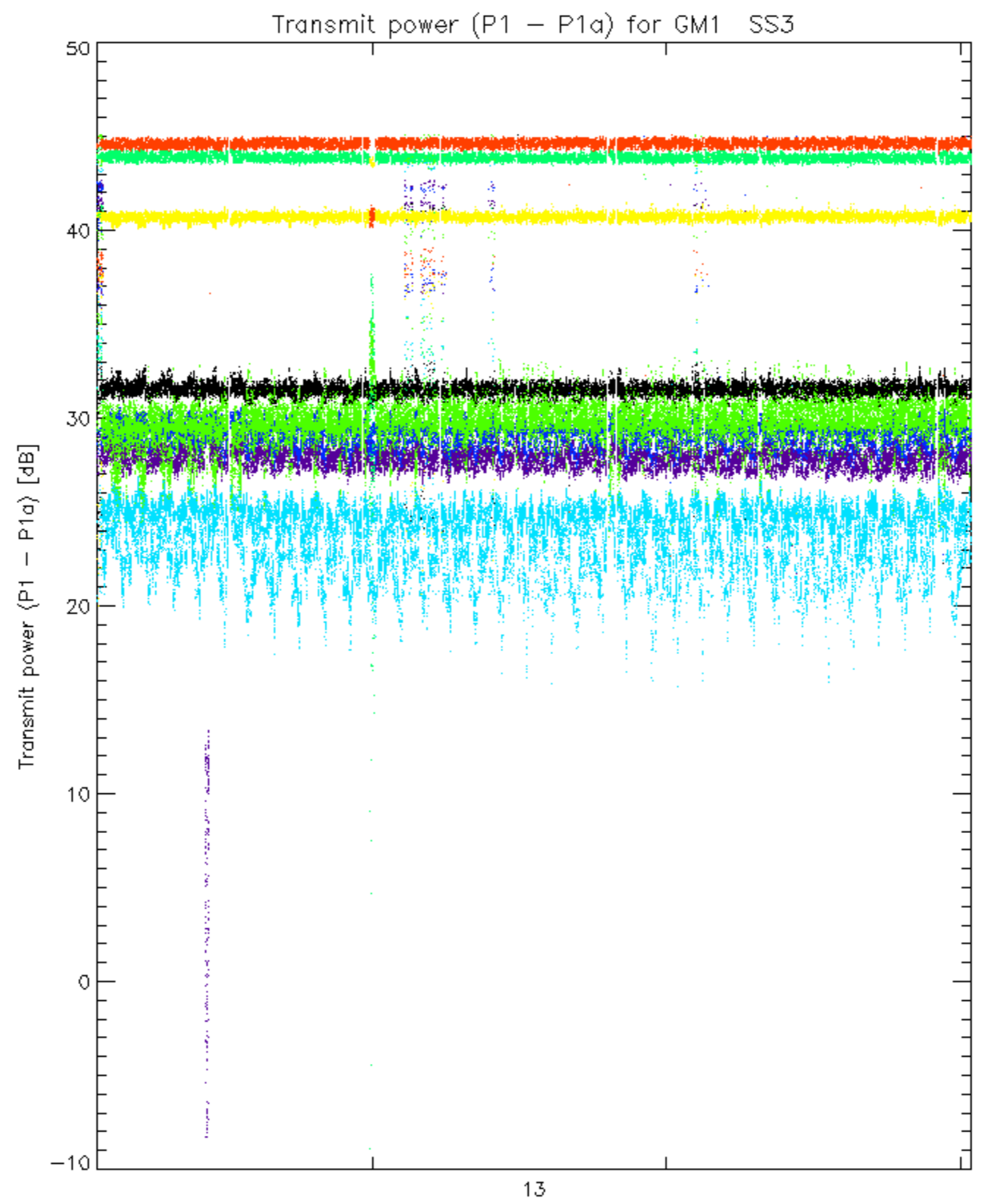
Summary of analysis for the last 3 days 2006111[567]

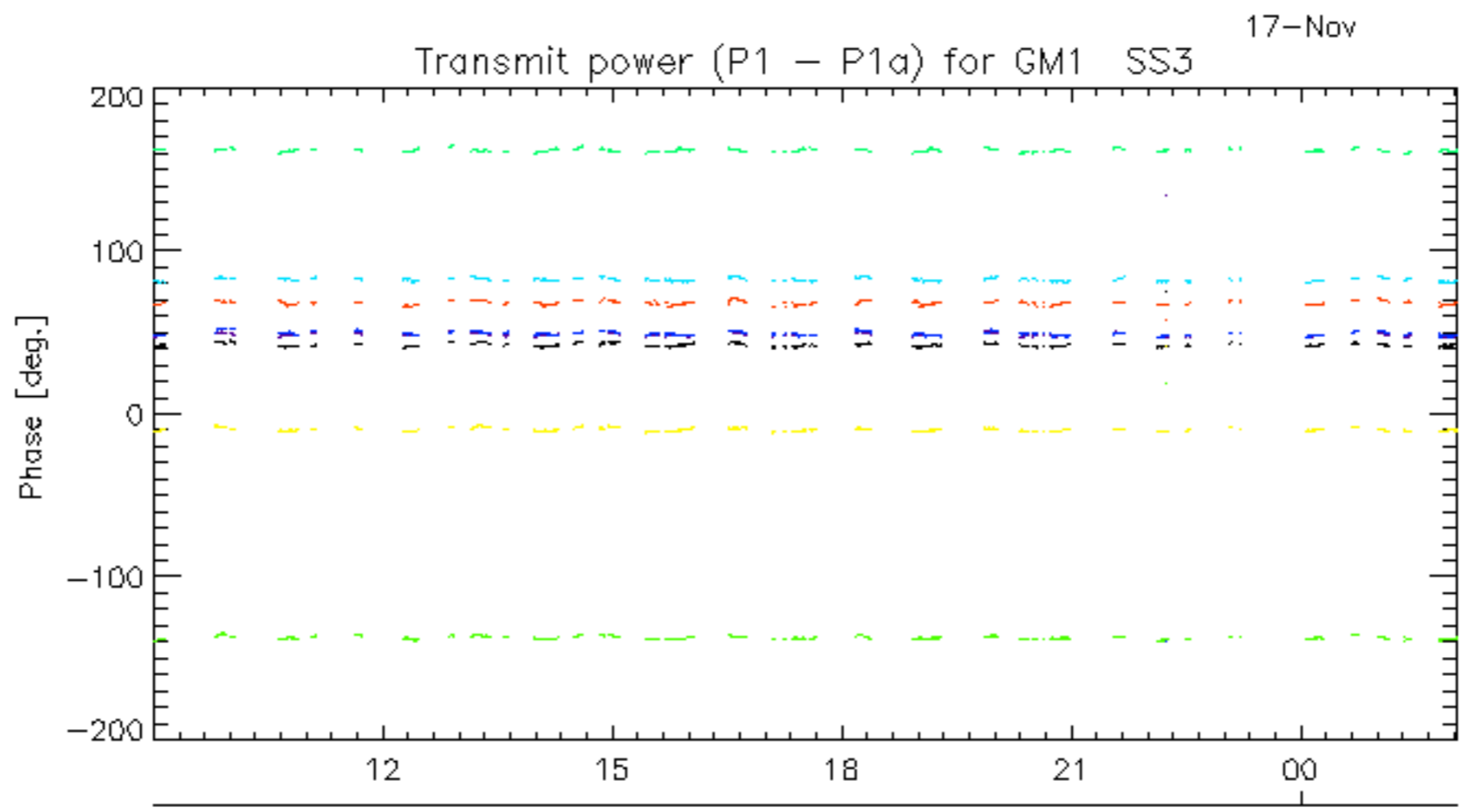
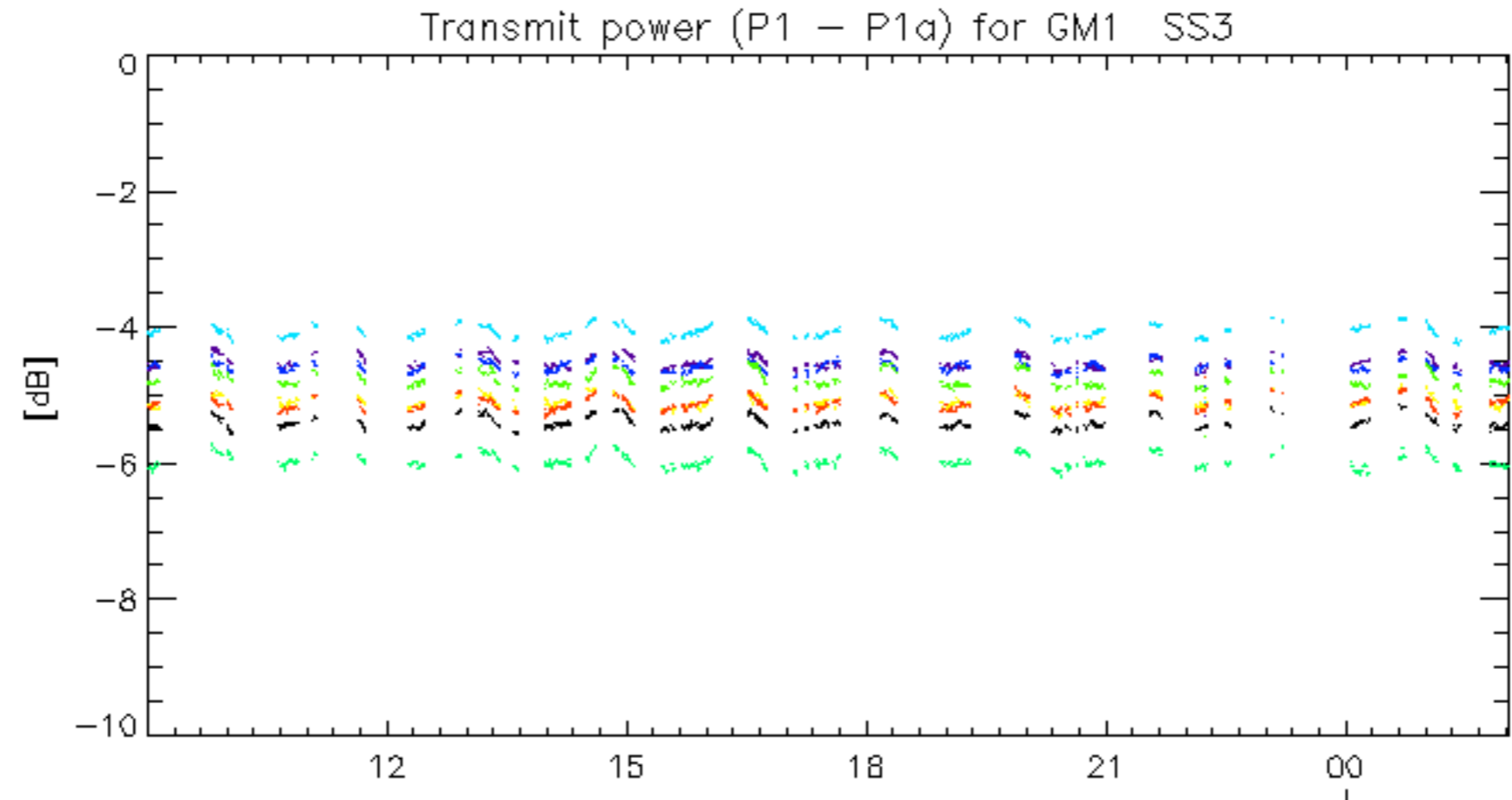
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines

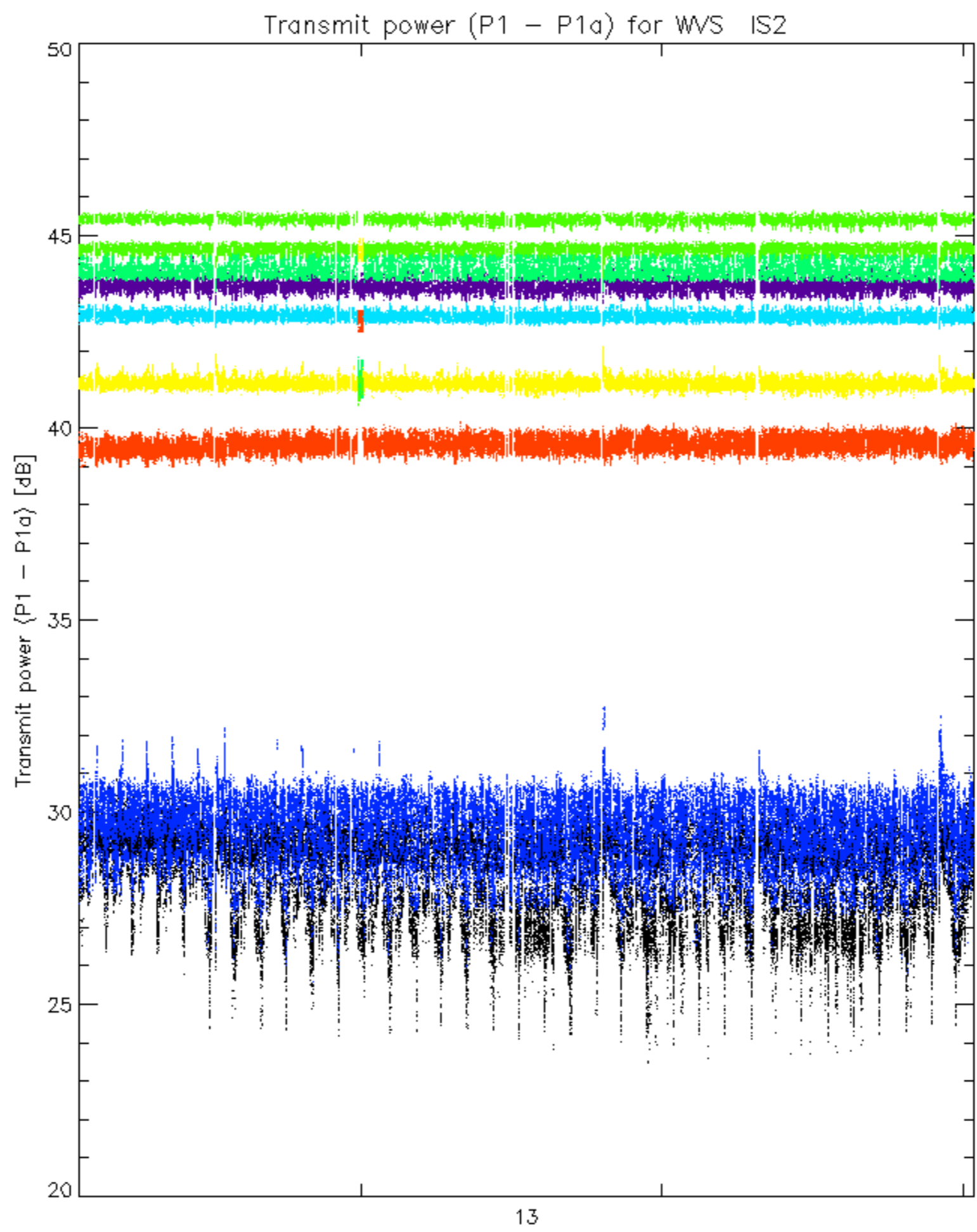




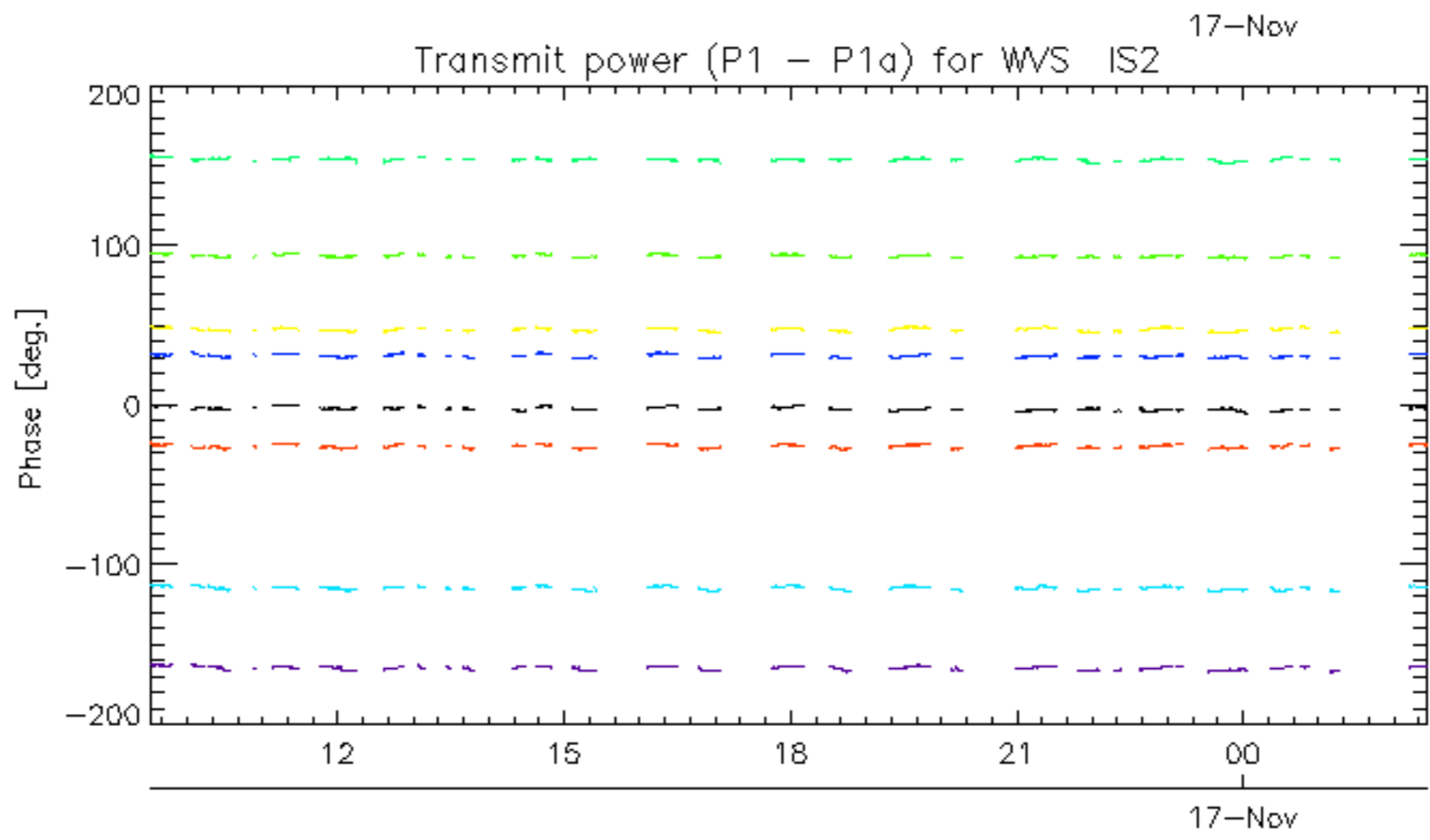
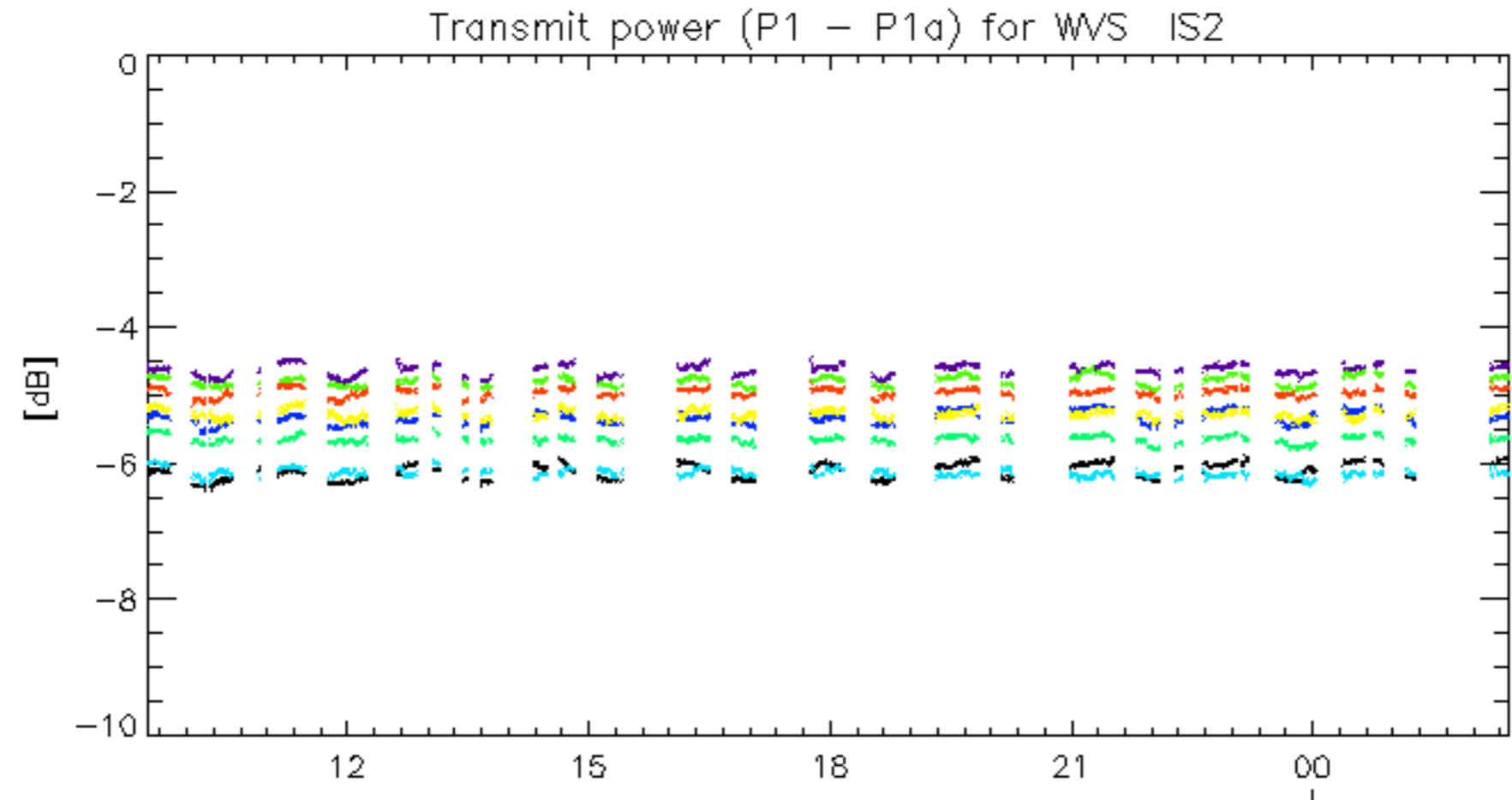




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.