

PRELIMINARY REPORT OF 061005

last update on Thu Oct 5 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 2006-10-04 00:00:00 to 2006-10-05 11:00:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	29	57	15	2	0
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	29	57	15	2	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	29	57	15	2	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	29	57	15	2	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	24	41	8	6	8
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	24	41	8	6	8
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	24	41	8	6	8
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	24	41	8	6	8

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	20061004 071833

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	-3.943485	0.010393	-0.001335
7	P1	-3.074108	0.011056	-0.016758
11	P1	-4.076818	0.021460	-0.055183
15	P1	-6.191752	0.015858	-0.019705
19	P1	-3.549340	0.052149	0.031330
22	P1	-4.596368	0.010873	-0.042828
26	P1	-3.962380	0.018932	-0.018251
30	P1	-5.832438	0.141732	0.066295
3	P1	-16.609369	0.239397	0.000737
7	P1	-17.123098	0.110370	-0.046368
11	P1	-16.877342	0.373596	-0.298769
15	P1	-12.865864	0.110944	0.078165
19	P1	-14.689067	0.481994	0.119239
22	P1	-15.691791	0.481870	0.022443
26	P1	-15.181040	0.237732	0.201446
30	P1	-16.958824	0.381278	-0.158240

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.818138	0.085657	-0.017562
7	P2	-21.822033	0.097122	0.124612
11	P2	-15.743636	0.108687	0.030186
15	P2	-7.089121	0.103339	0.033373
19	P2	-9.127906	0.094528	-0.004669
22	P2	-18.131105	0.091094	-0.020816
26	P2	-16.425236	0.098586	-0.020723
30	P2	-19.470293	0.091844	0.019705

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.190664	0.006122	-0.020029
7	P3	-8.190664	0.006122	-0.020029
11	P3	-8.190664	0.006122	-0.020029
15	P3	-8.190664	0.006122	-0.020029
19	P3	-8.190664	0.006122	-0.020029
22	P3	-8.190664	0.006122	-0.020029
26	P3	-8.190650	0.006124	-0.020063
30	P3	-8.190650	0.006124	-0.020063

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	-3.868495	0.017713	-0.050611
7	P1	-2.545330	0.045198	-0.004236
11	P1	-2.894619	0.021283	-0.022588
15	P1	-3.672340	0.033284	-0.050442
19	P1	-3.478209	0.082198	0.079581
22	P1	-5.106043	0.021635	0.033706
26	P1	-5.878287	0.029660	-0.047240
30	P1	-5.219385	0.075389	0.053412
3	P1	-11.663158	0.062808	-0.093414
7	P1	-10.023767	0.084268	-0.078330
11	P1	-10.377297	0.072662	-0.070172
15	P1	-10.863786	0.161300	-0.024116
19	P1	-15.706777	3.748561	0.709714
22	P1	-20.931421	1.261487	-0.247360
26	P1	-15.889003	0.373455	0.141291
30	P1	-18.099129	0.464398	0.120653

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.388563	0.060073	0.056011
7	P2	-22.151245	0.152246	0.157828
11	P2	-10.890423	0.052526	0.042029
15	P2	-4.860097	0.034768	0.004183
19	P2	-6.843721	0.038477	0.040685
22	P2	-8.161733	0.049295	-0.013599
26	P2	-24.180153	0.084979	-0.024394
30	P2	-21.958651	0.055272	0.024101

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.039367	0.003811	-0.026364
7	P3	-8.039233	0.003810	-0.026506
11	P3	-8.039311	0.003815	-0.027096
15	P3	-8.039222	0.003826	-0.026782
19	P3	-8.039308	0.003833	-0.026964
22	P3	-8.039439	0.003808	-0.026522
26	P3	-8.039310	0.003830	-0.026756
30	P3	-8.039248	0.003809	-0.026357

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	0.000561276
	stdev	1.68545e-07
MEAN Q	mean	0.000526163
	stdev	2.16030e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137801
	stdev	0.00112756
STDEV Q	mean	0.138166
	stdev	0.00114514



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006100[345]

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_1PNPDK20061003_115626_00000502051_00410_24011_2298.N1	1	0
ASA_IMM_1PNPDK20061003_210129_00000532051_00415_24016_2306.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

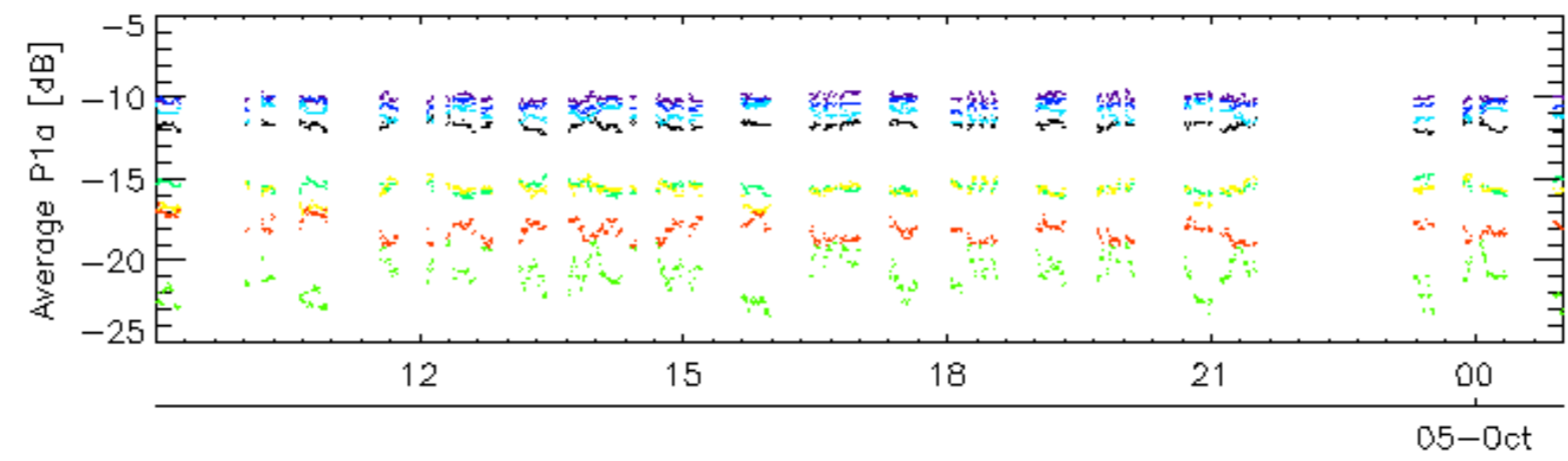
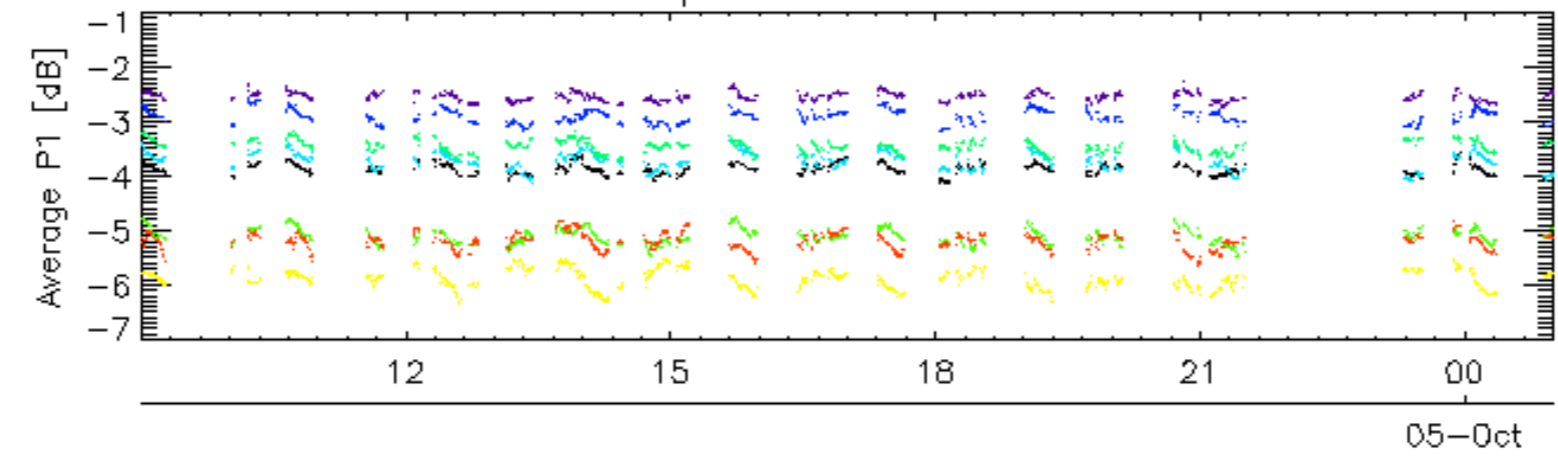
Ascending

Descending

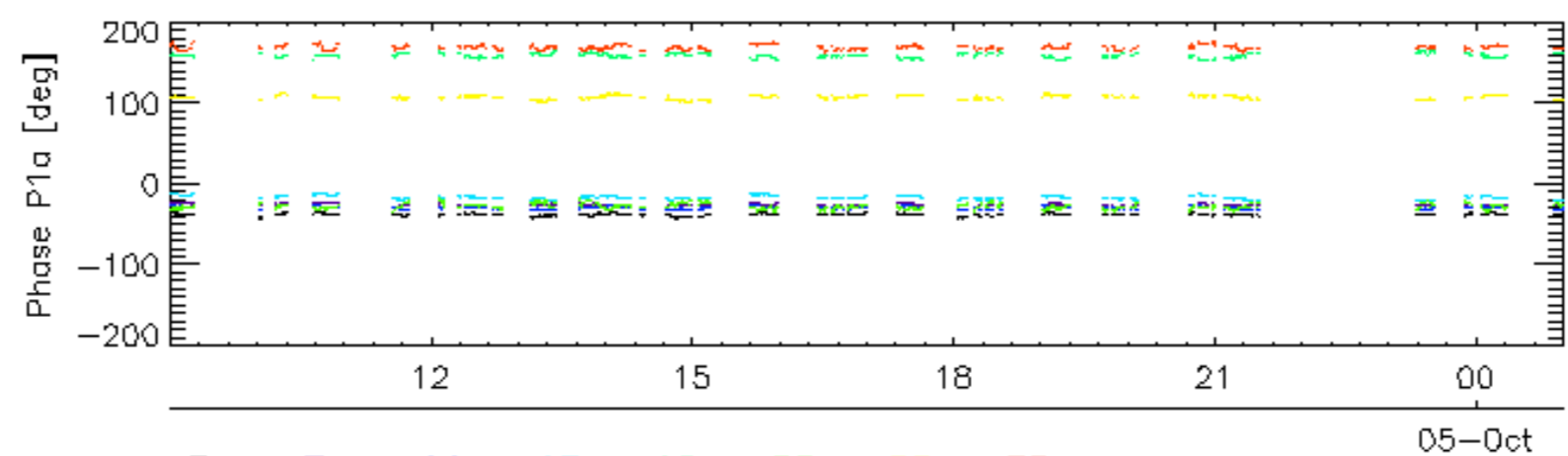
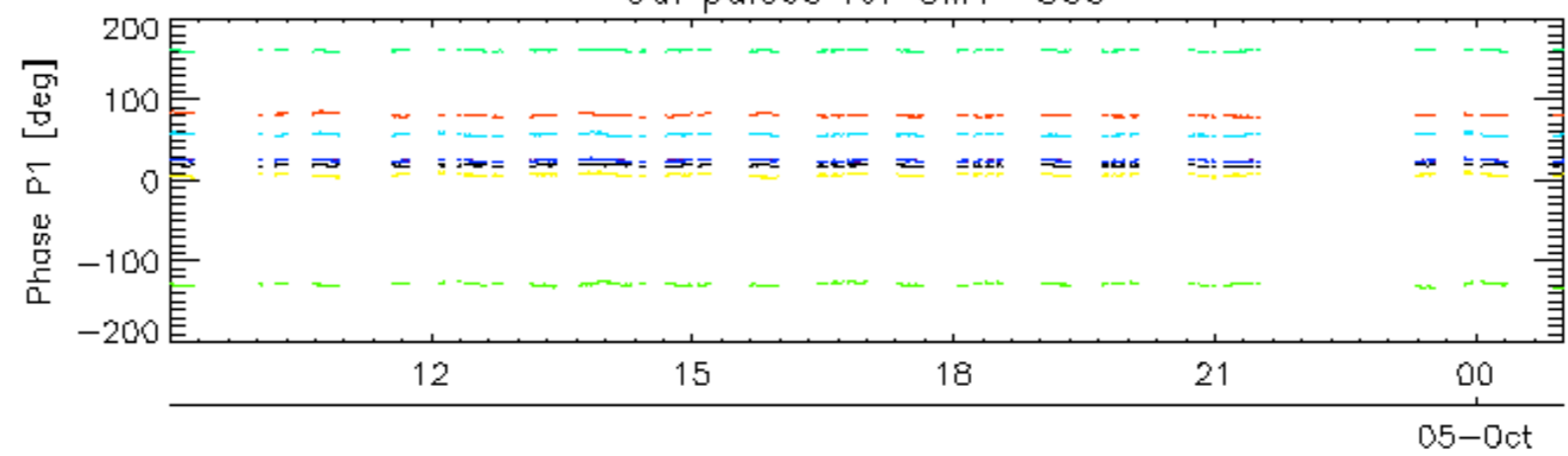
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

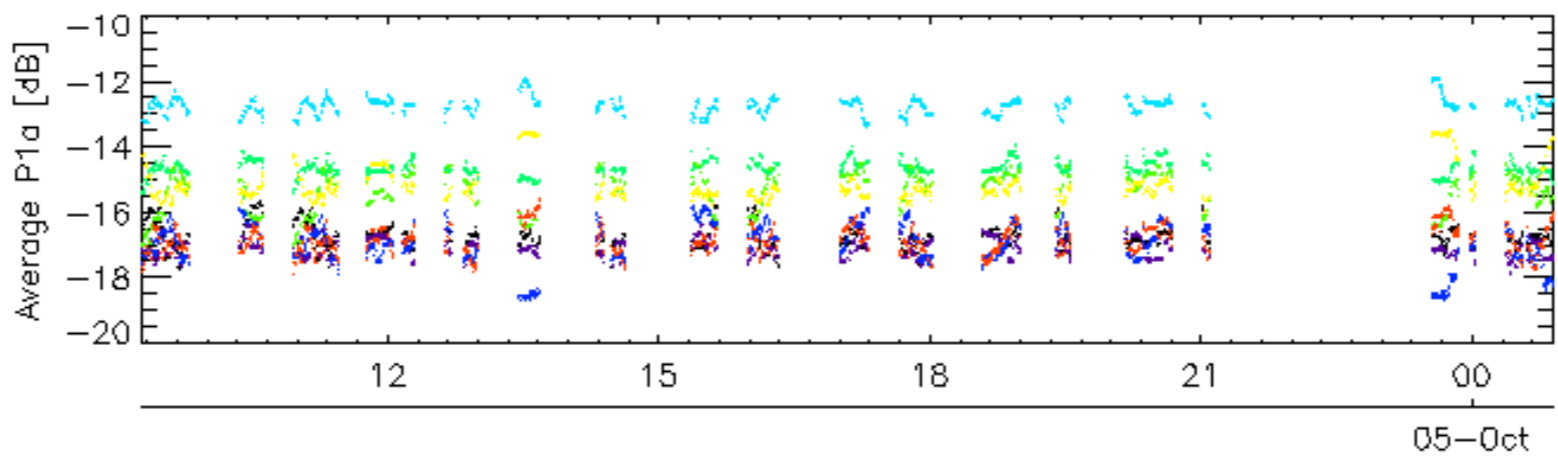
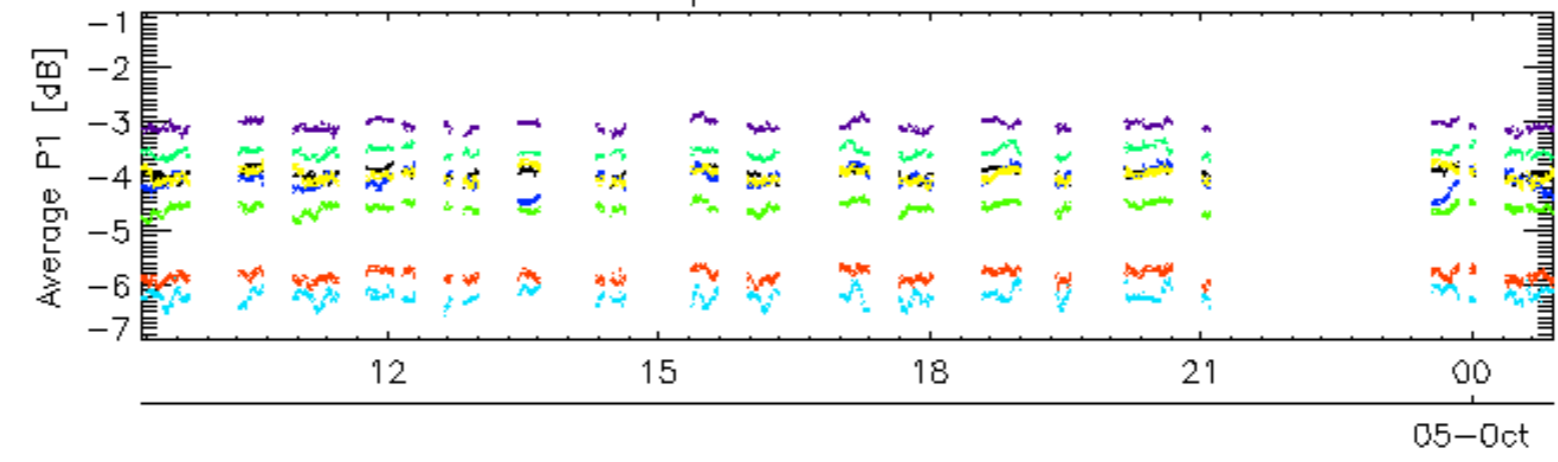


Cal pulses for GM1 SS3

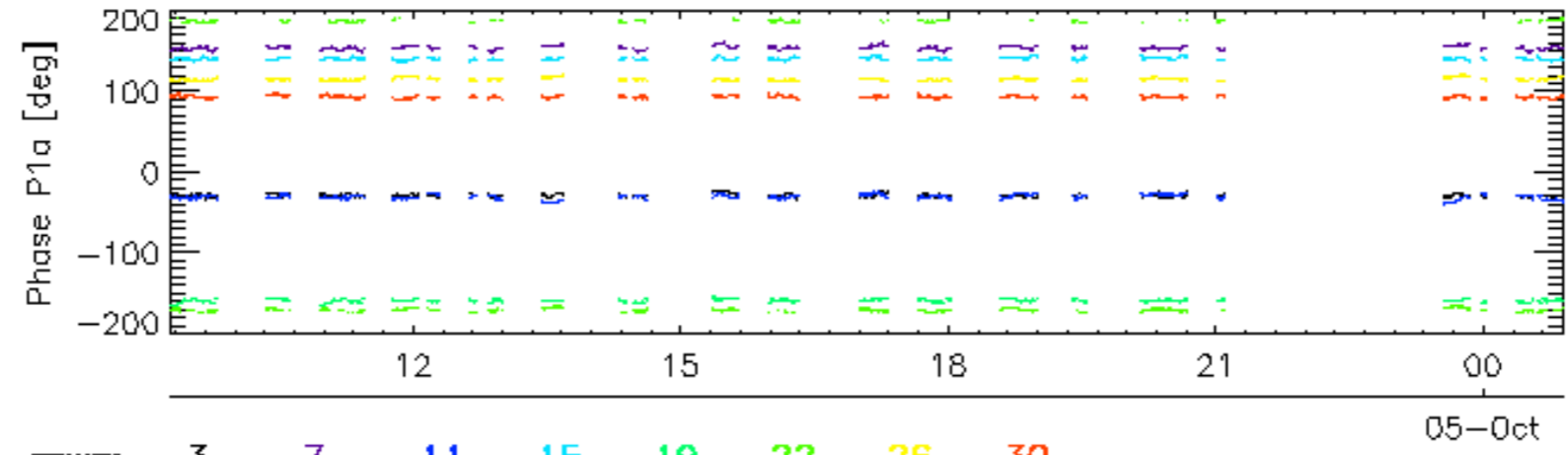
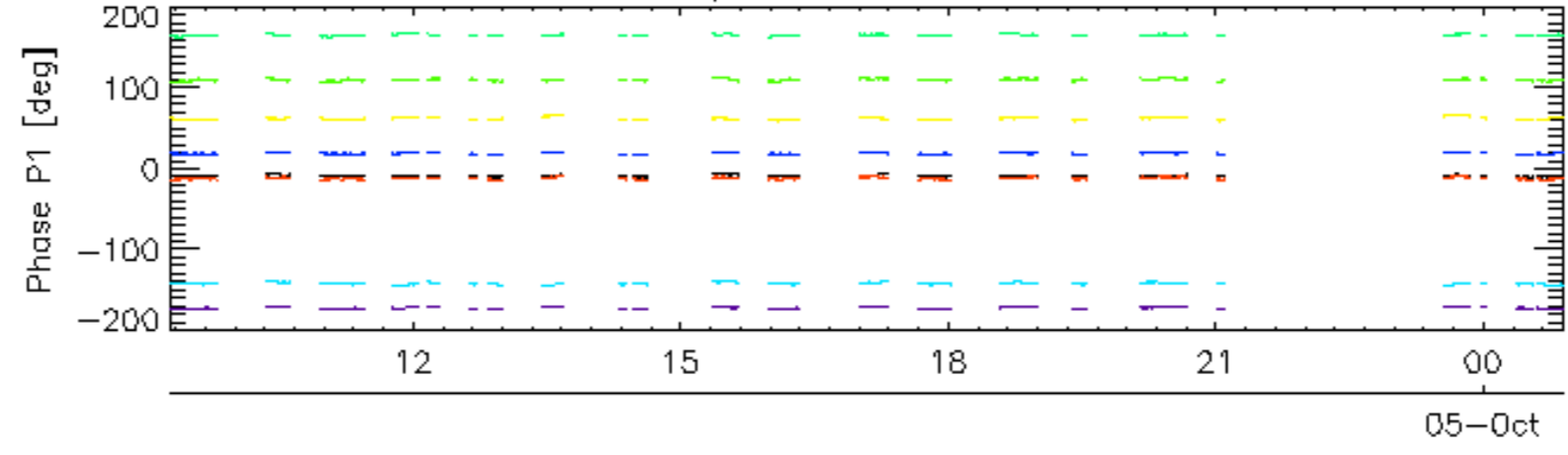


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

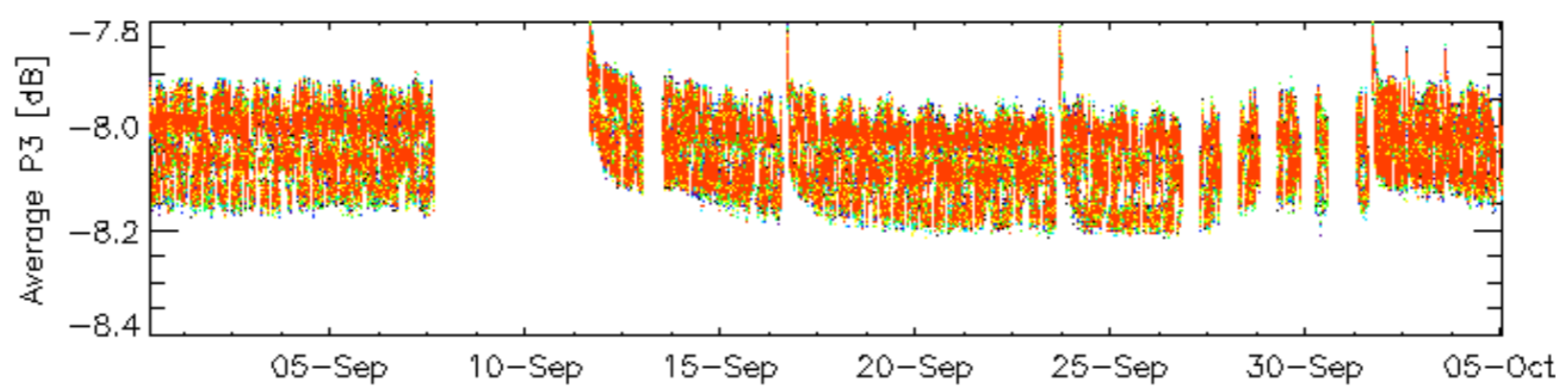
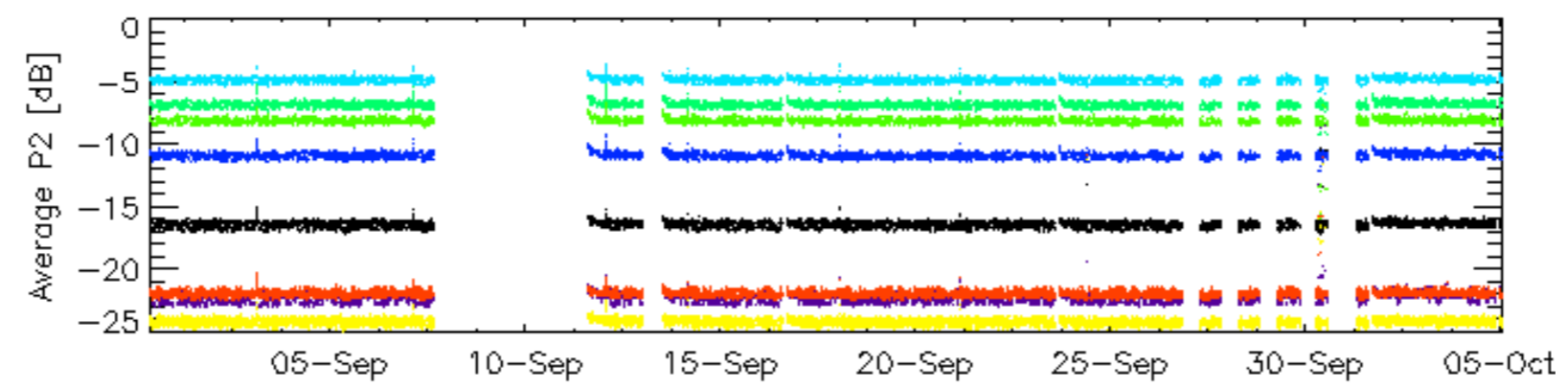
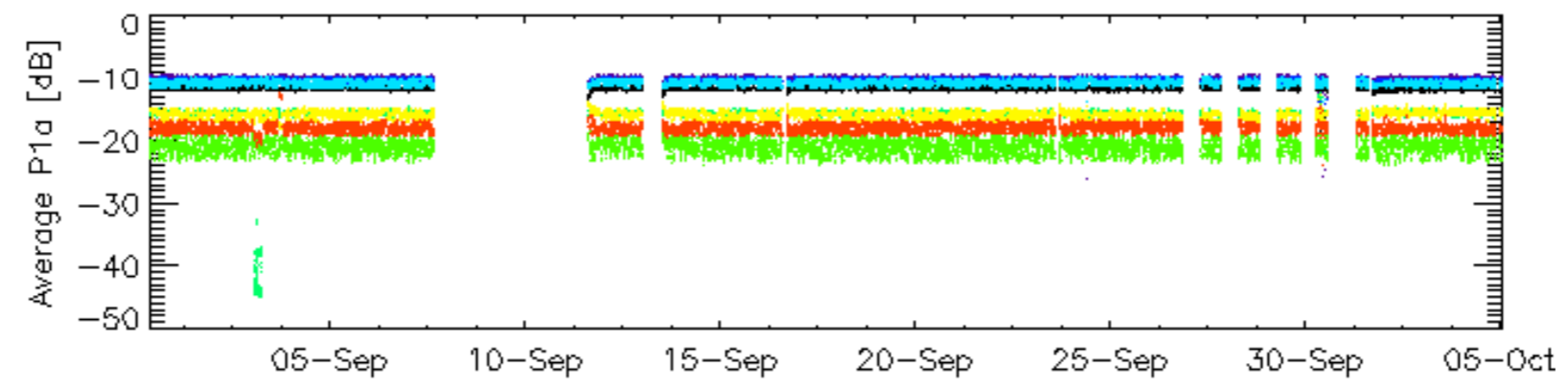
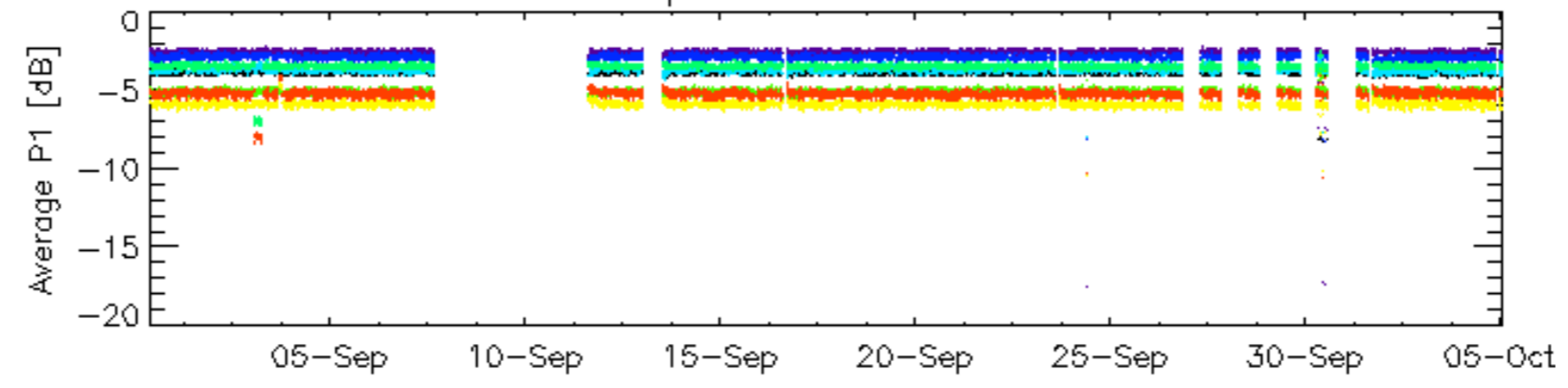


Cal pulses for WVS IS2



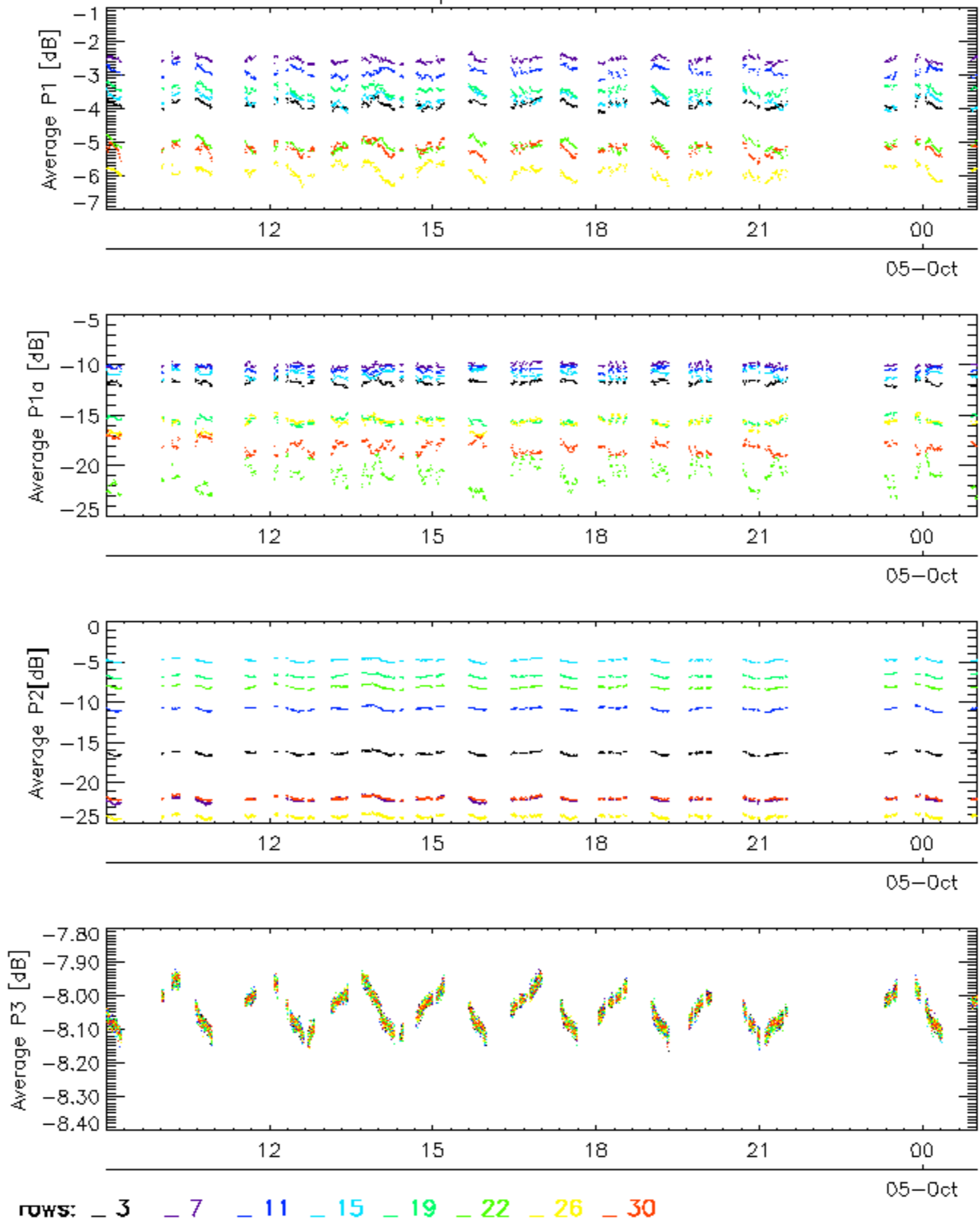
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Cal pulses for GM1 SS3

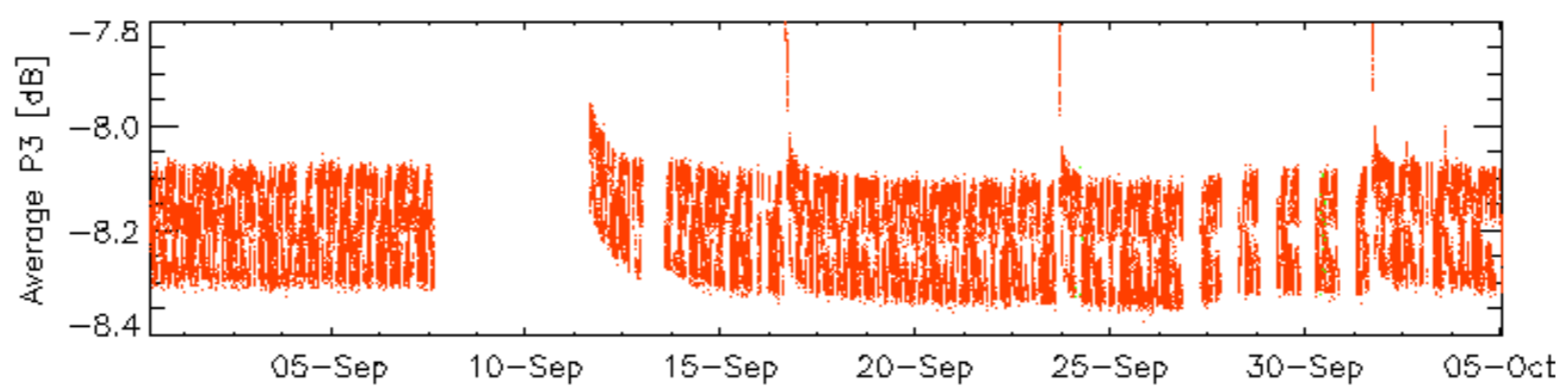
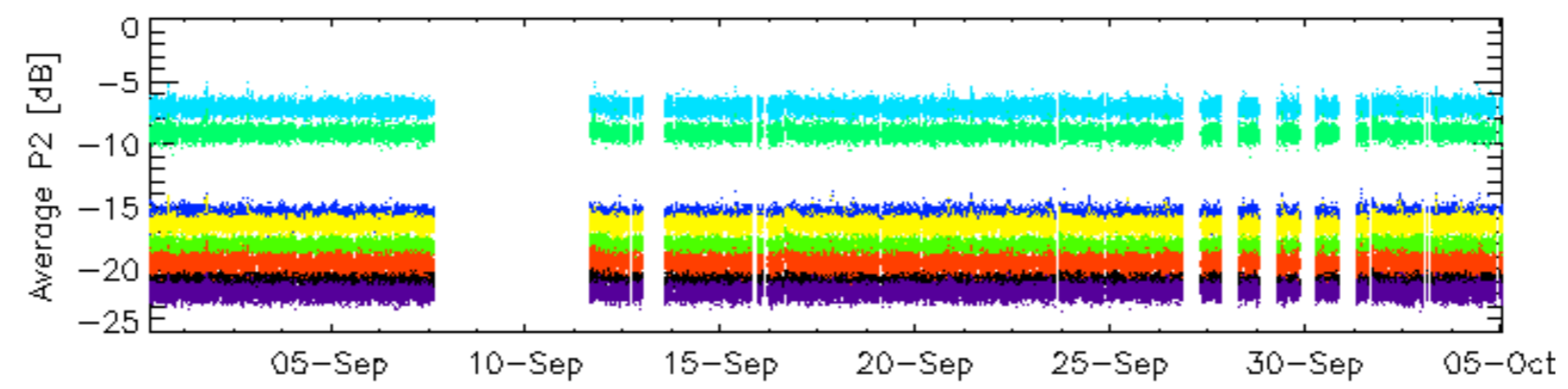
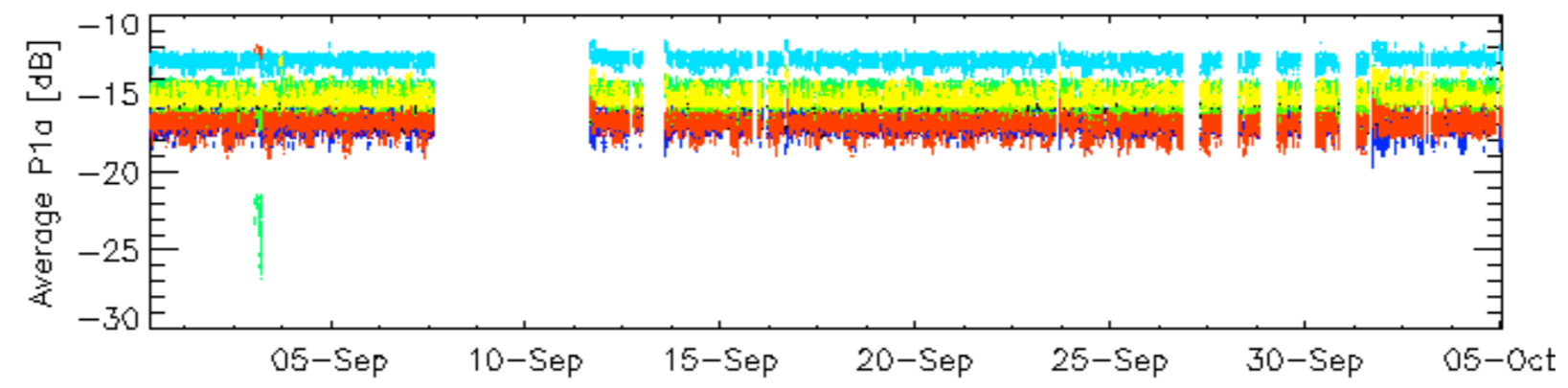
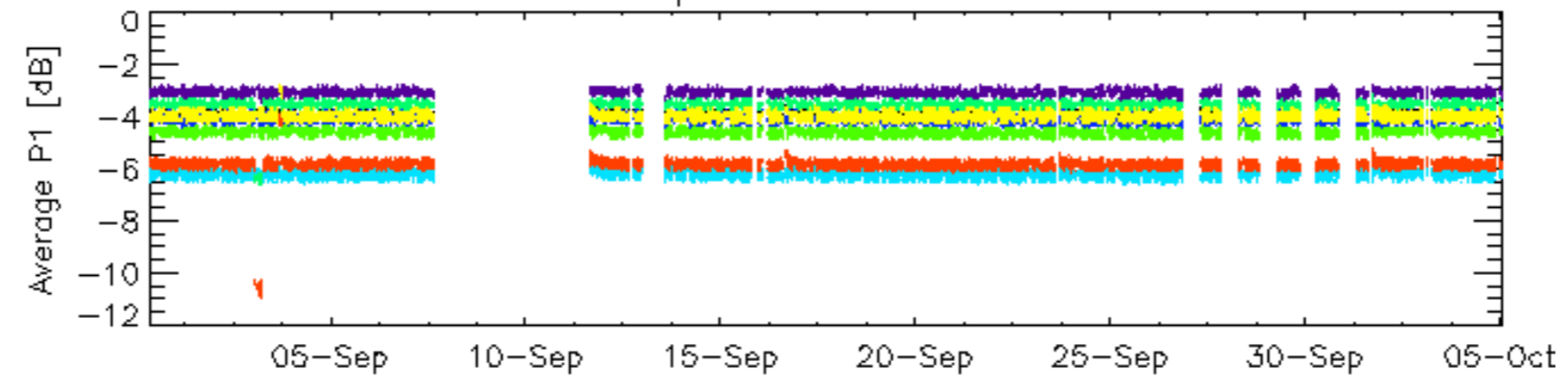


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

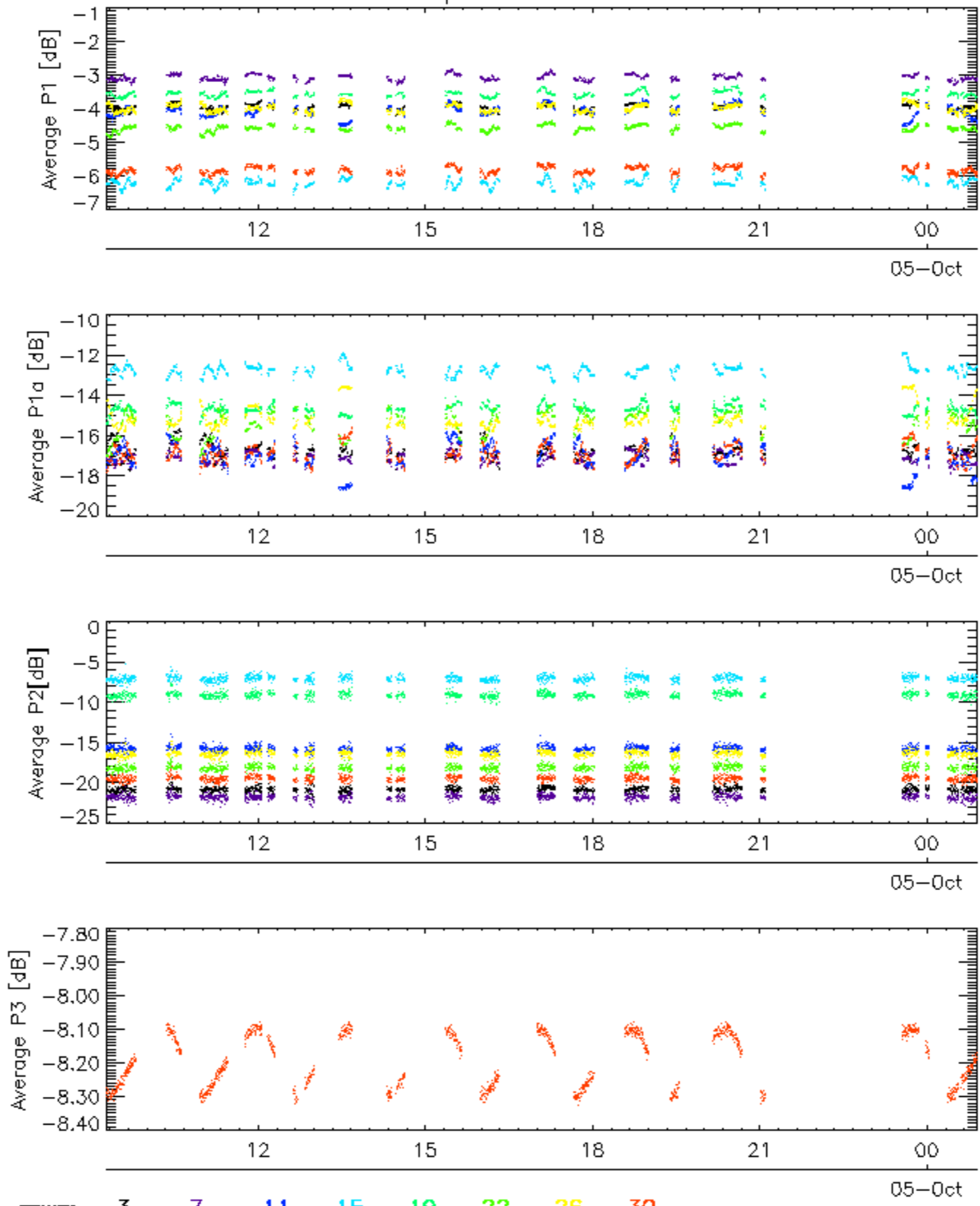


Cal pulses for WVS IS2



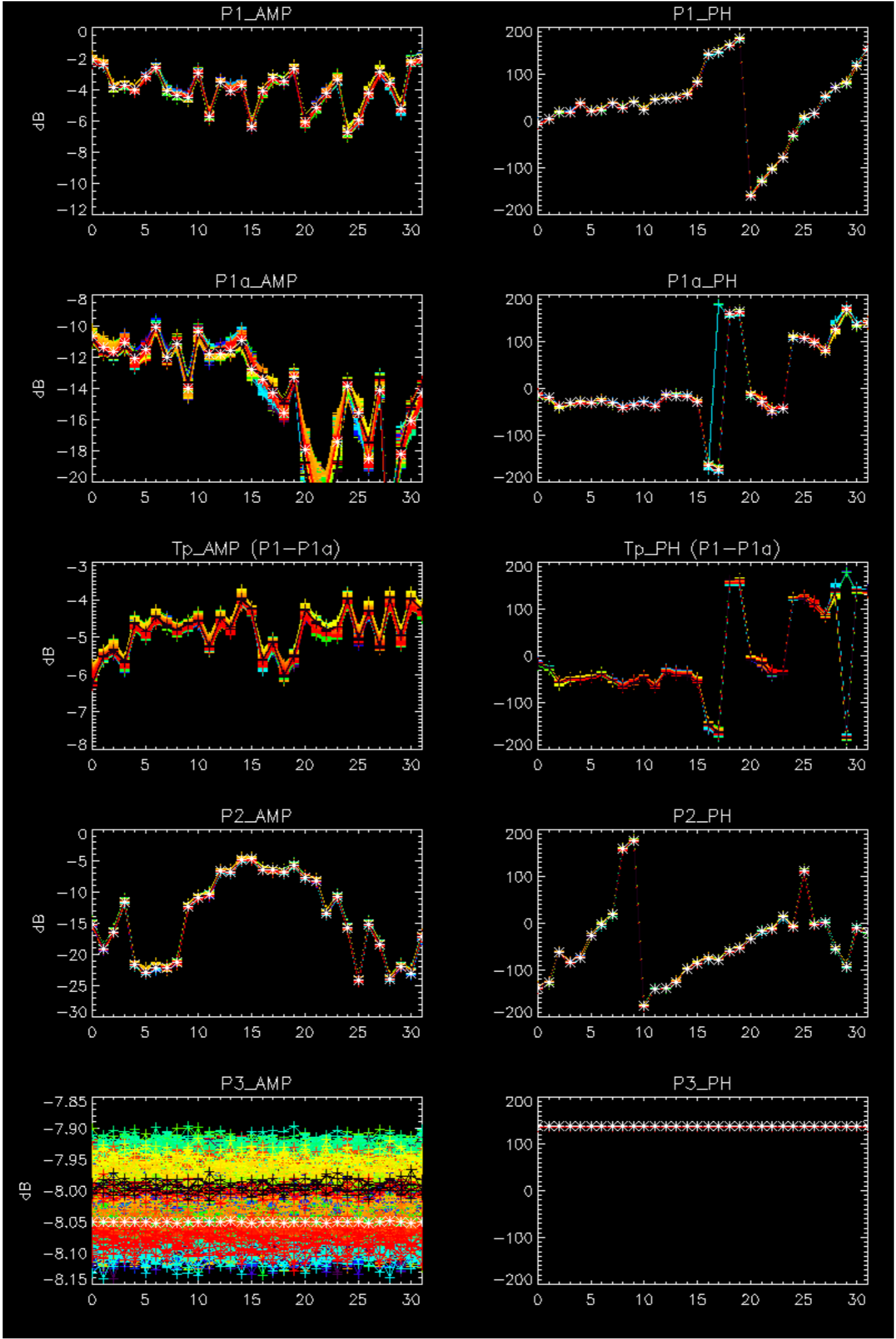
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

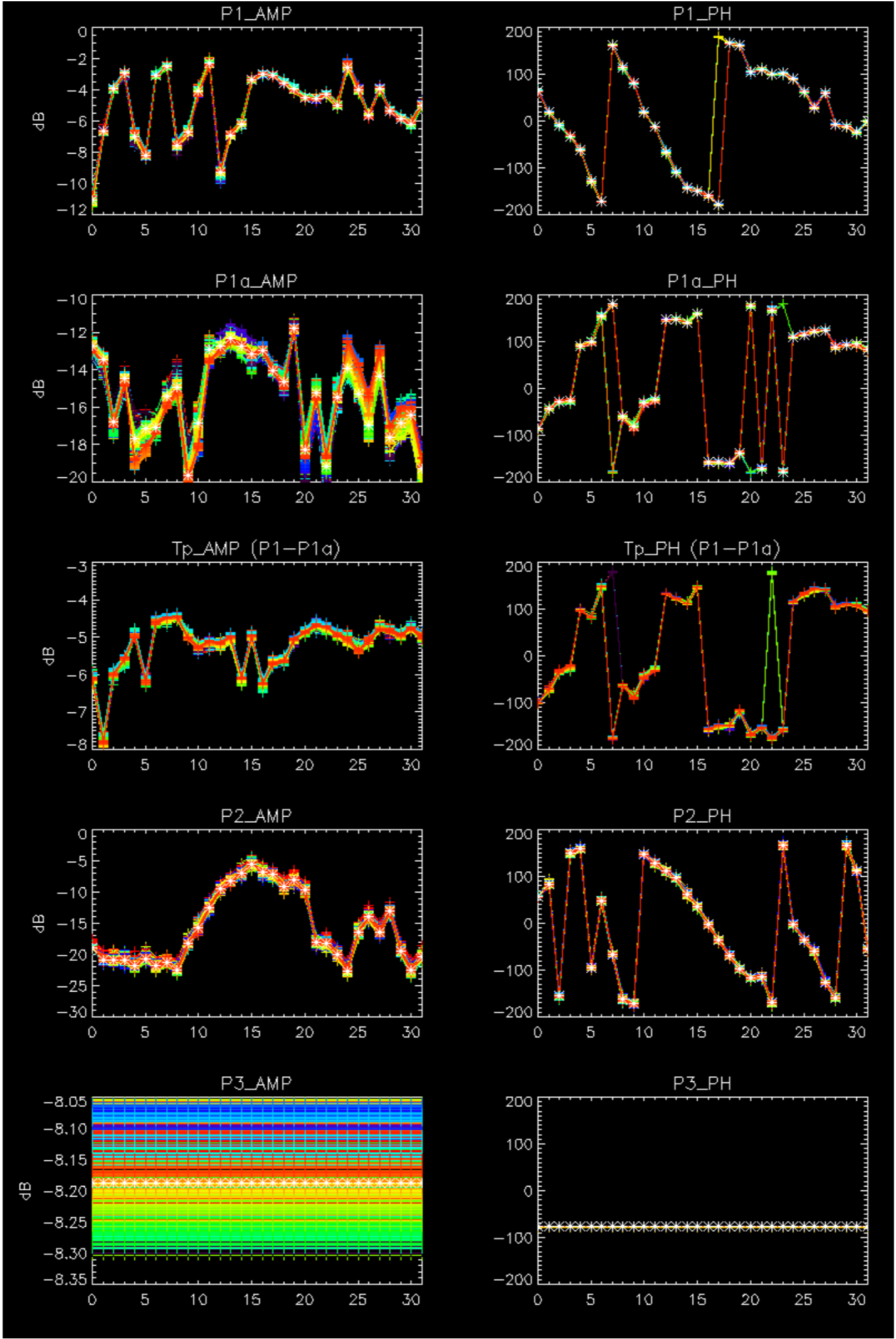
Cal pulses for WVS IS2



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

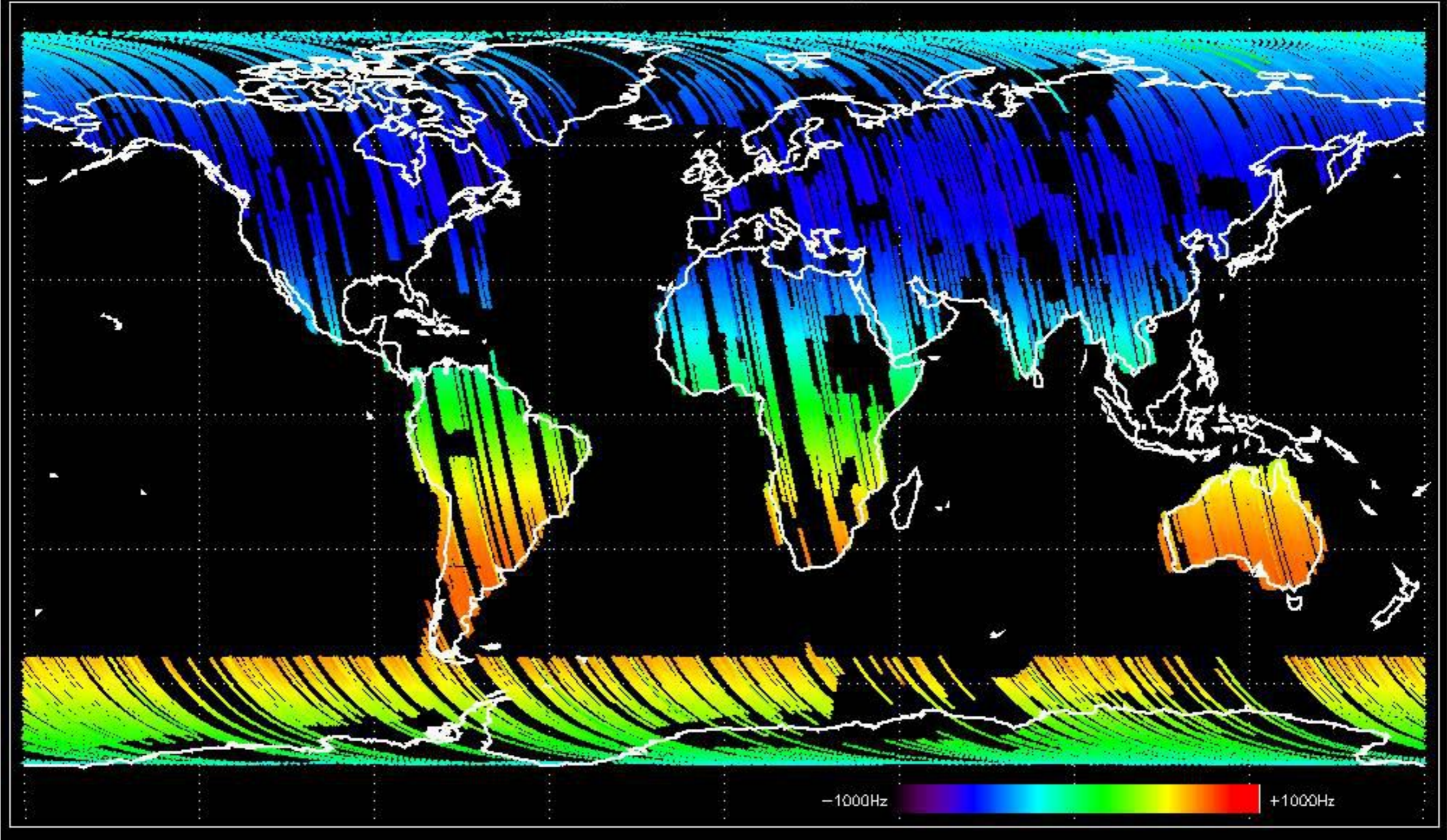
No anomalies observed.



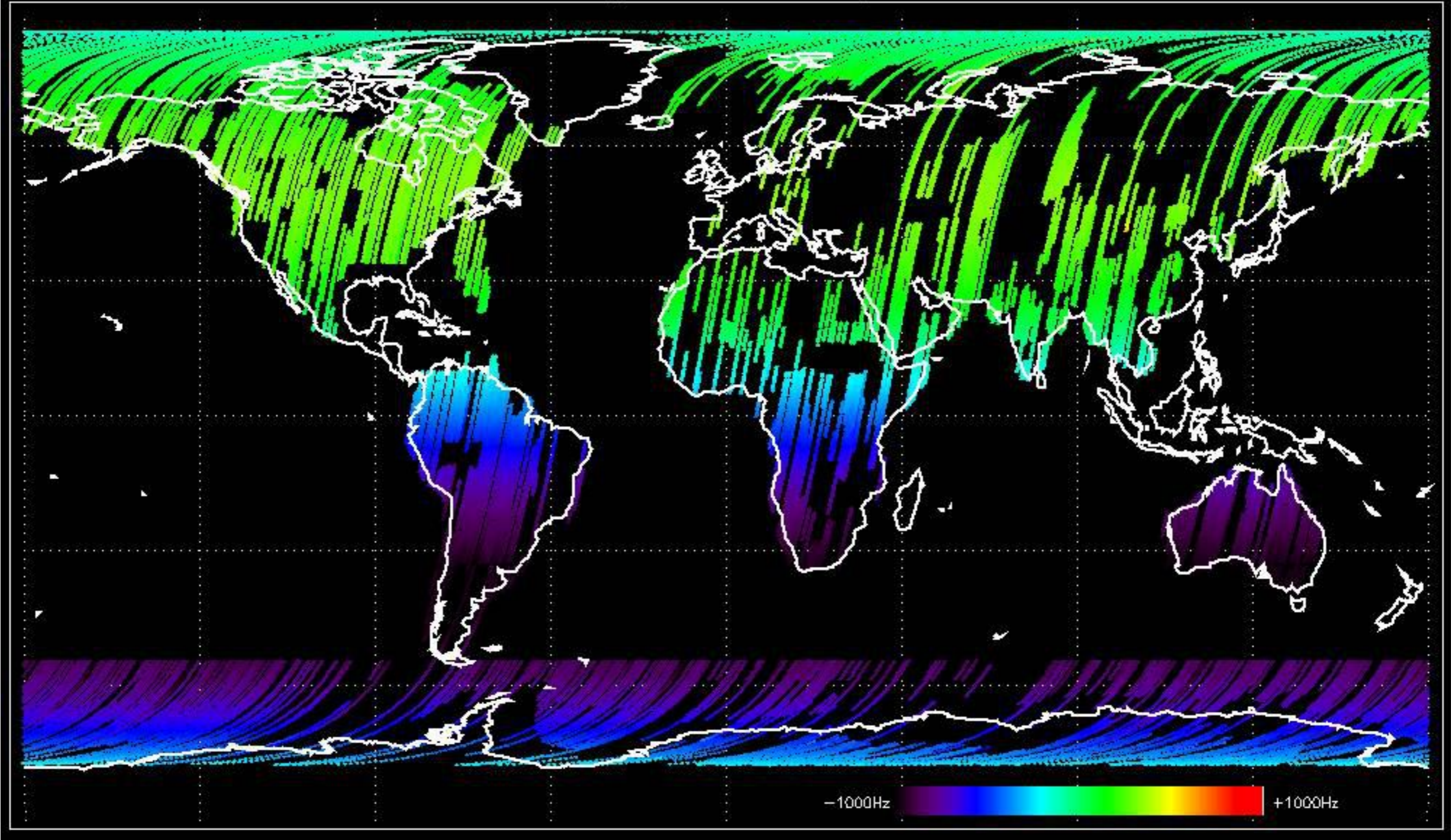


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

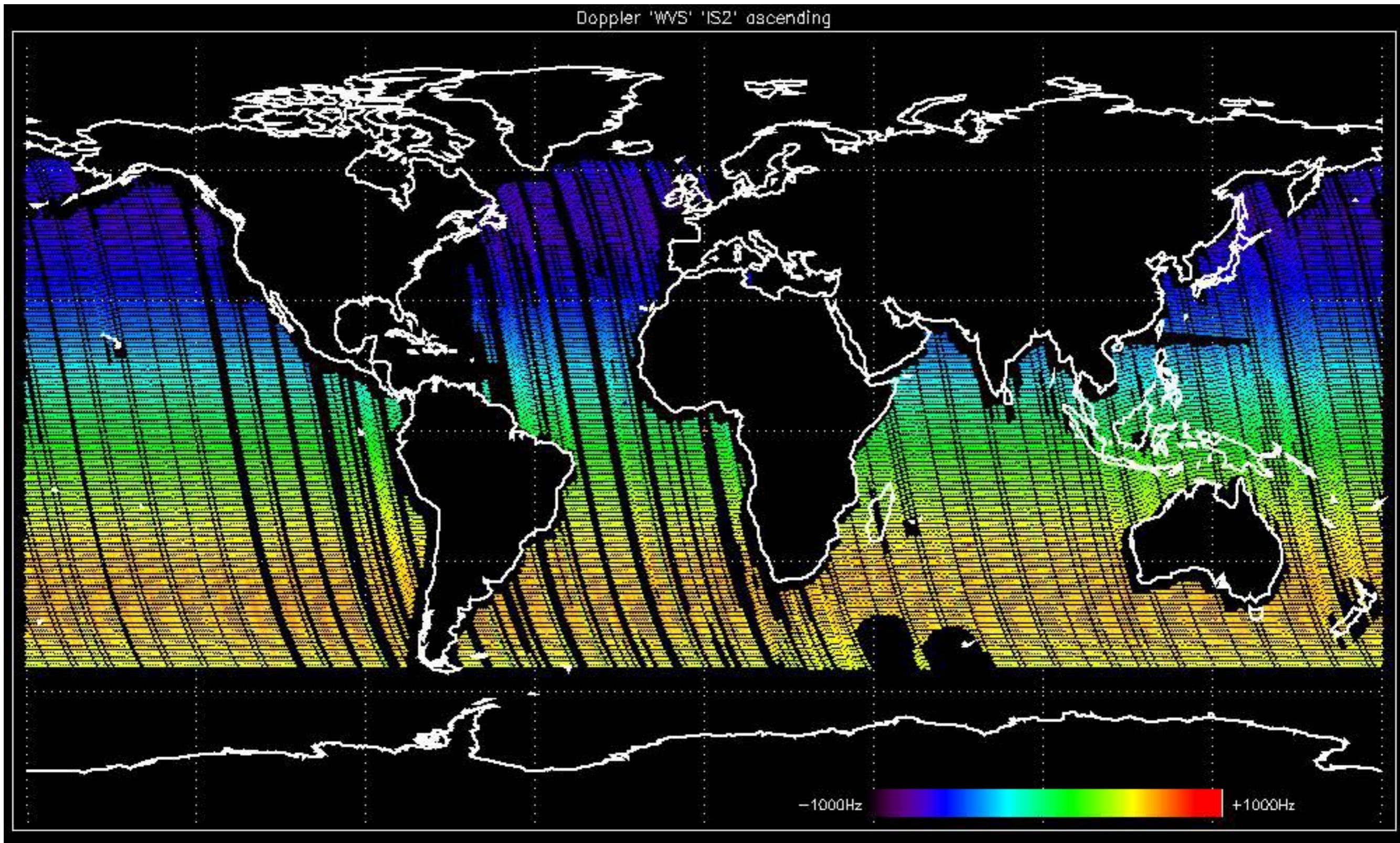
Doppler 'GM1' 'SS1' ascending



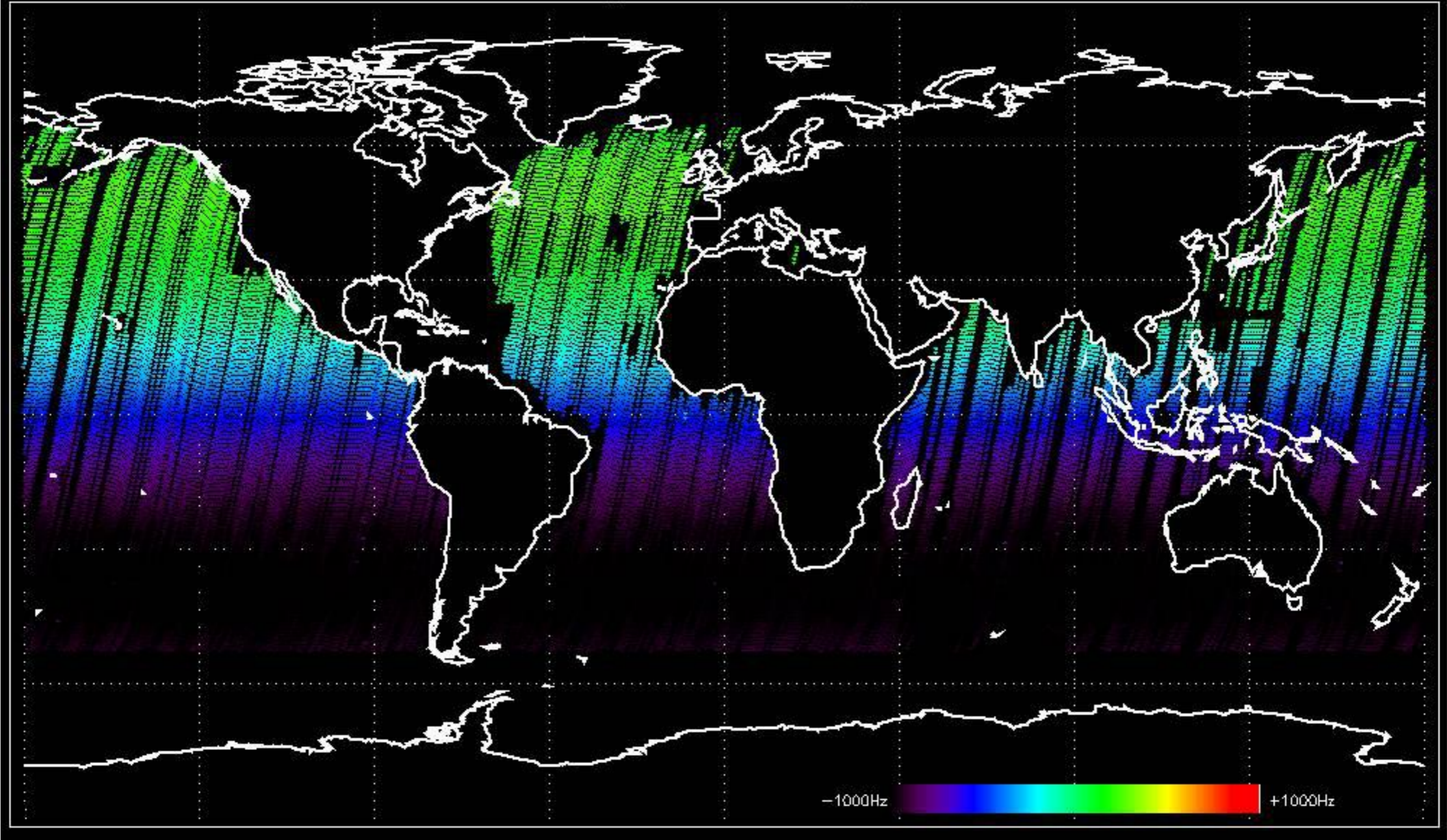
Doppler 'GM1' 'SS1' descending



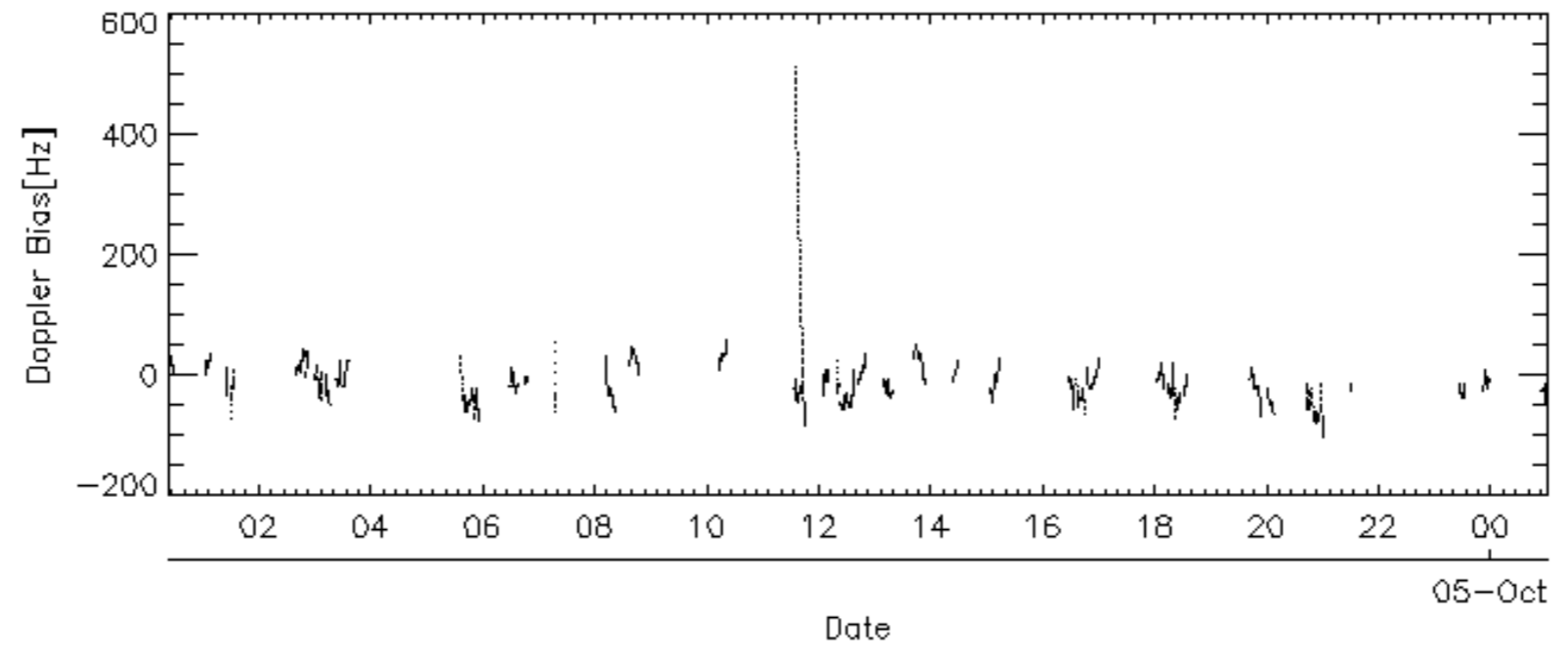
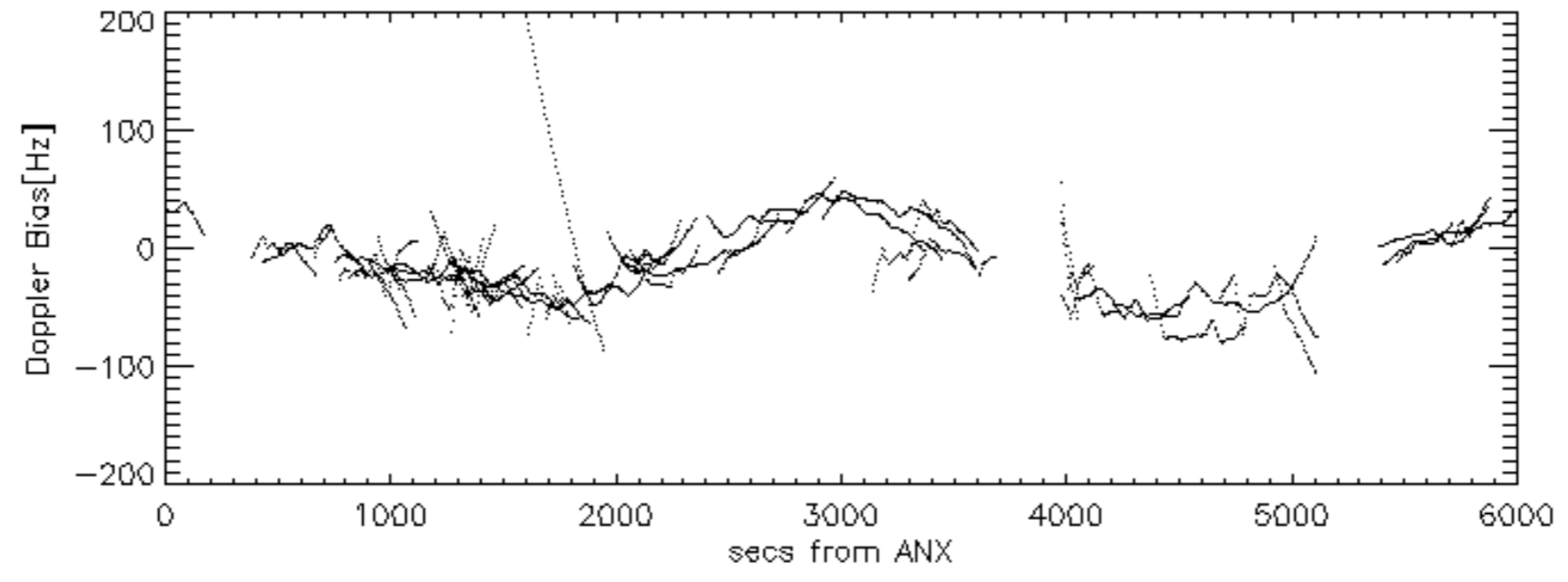
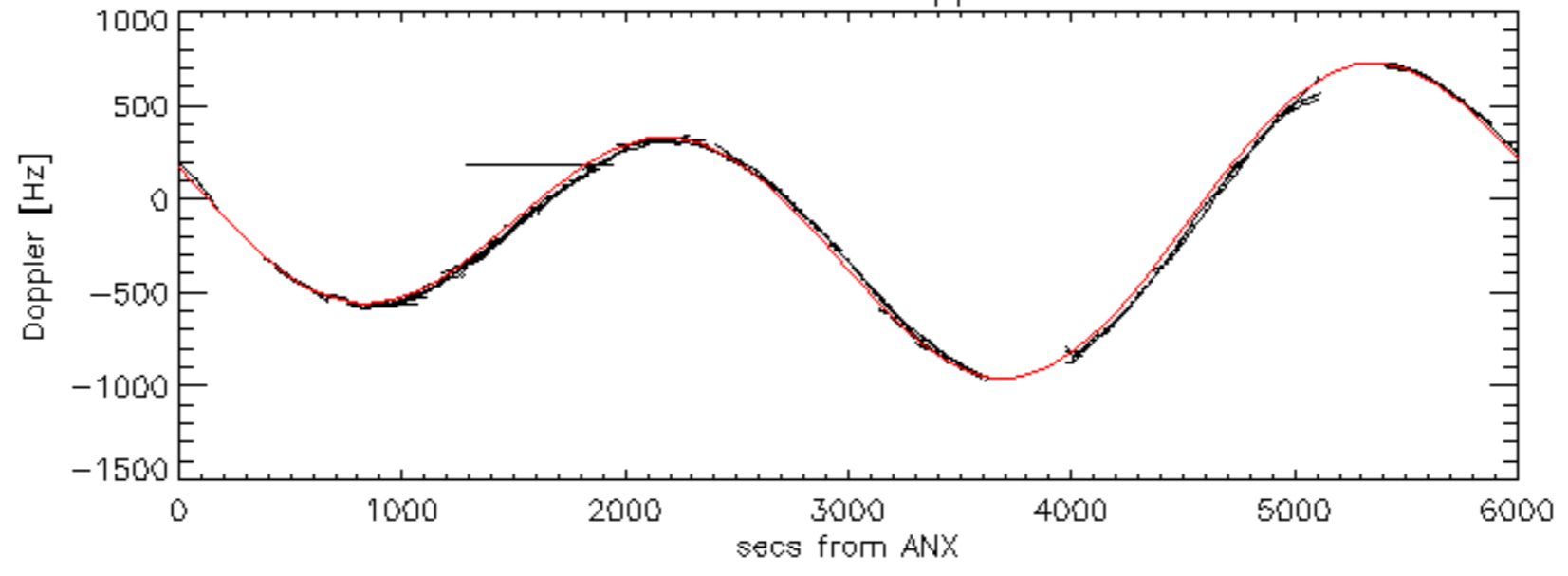
Doppler 'WVS' 'IS2' ascending

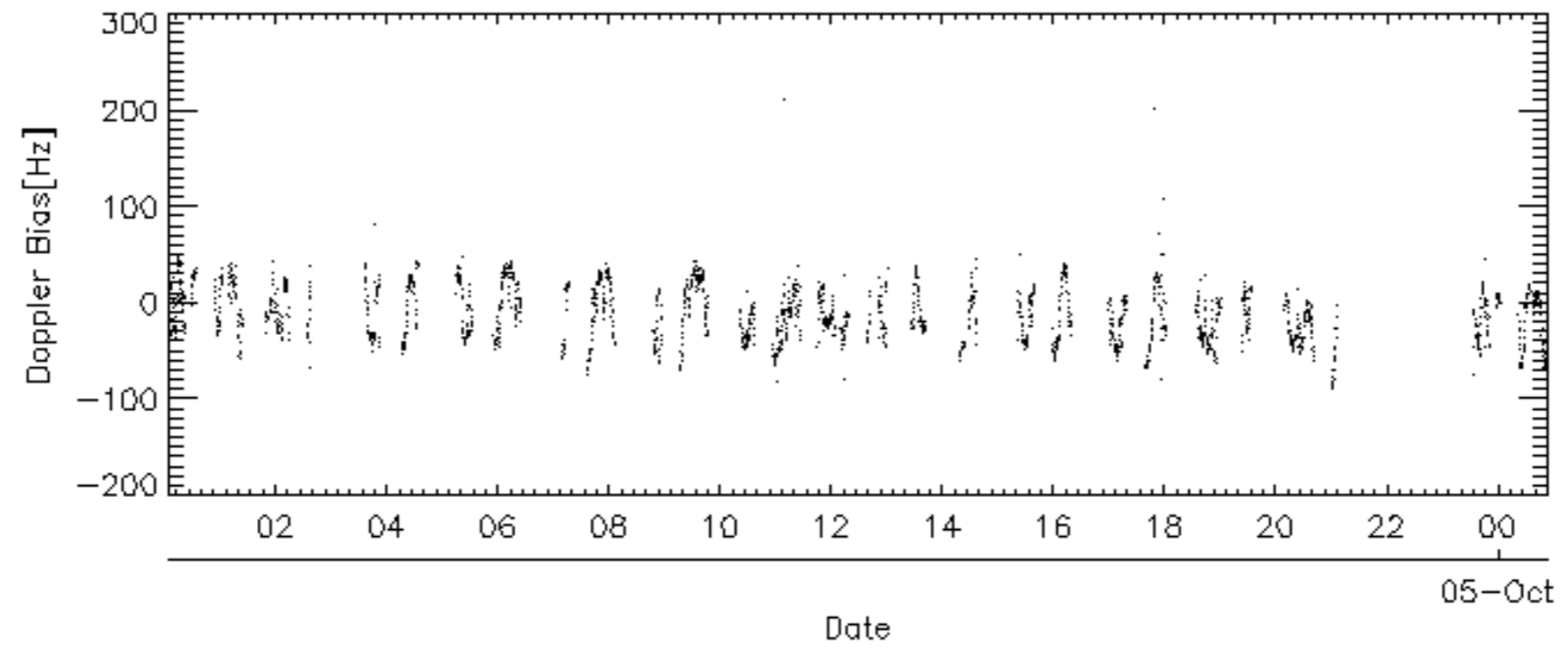
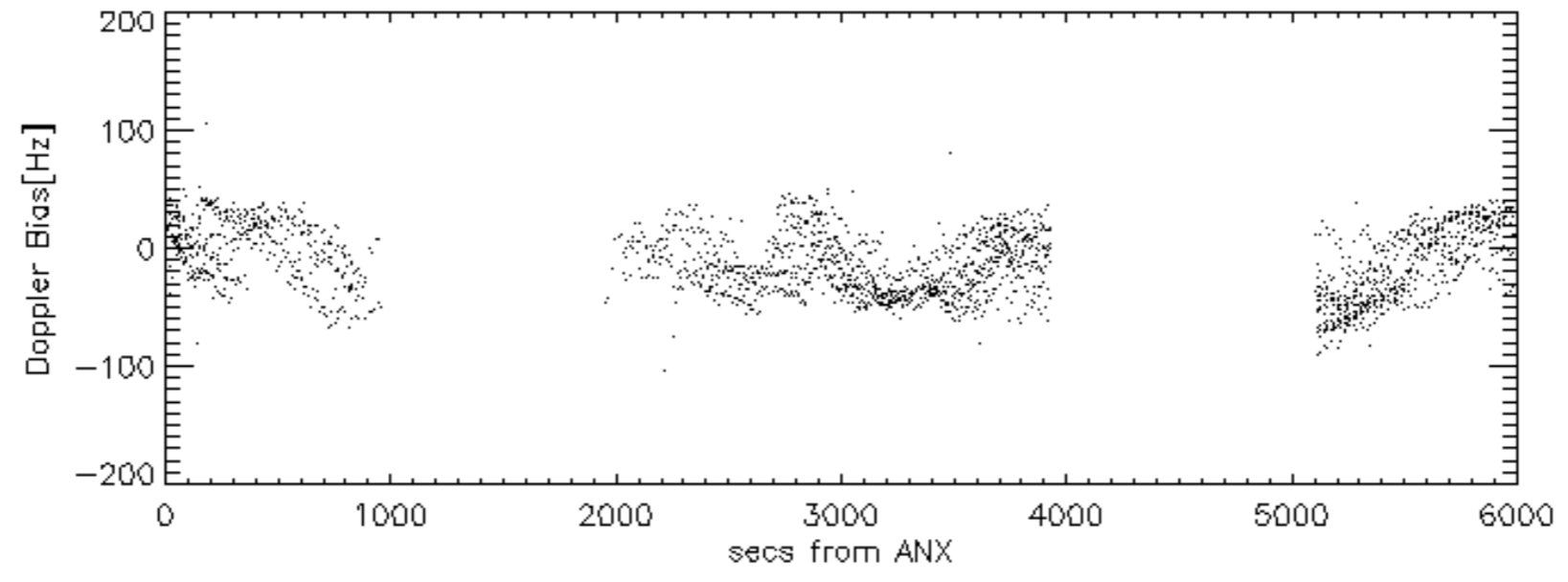
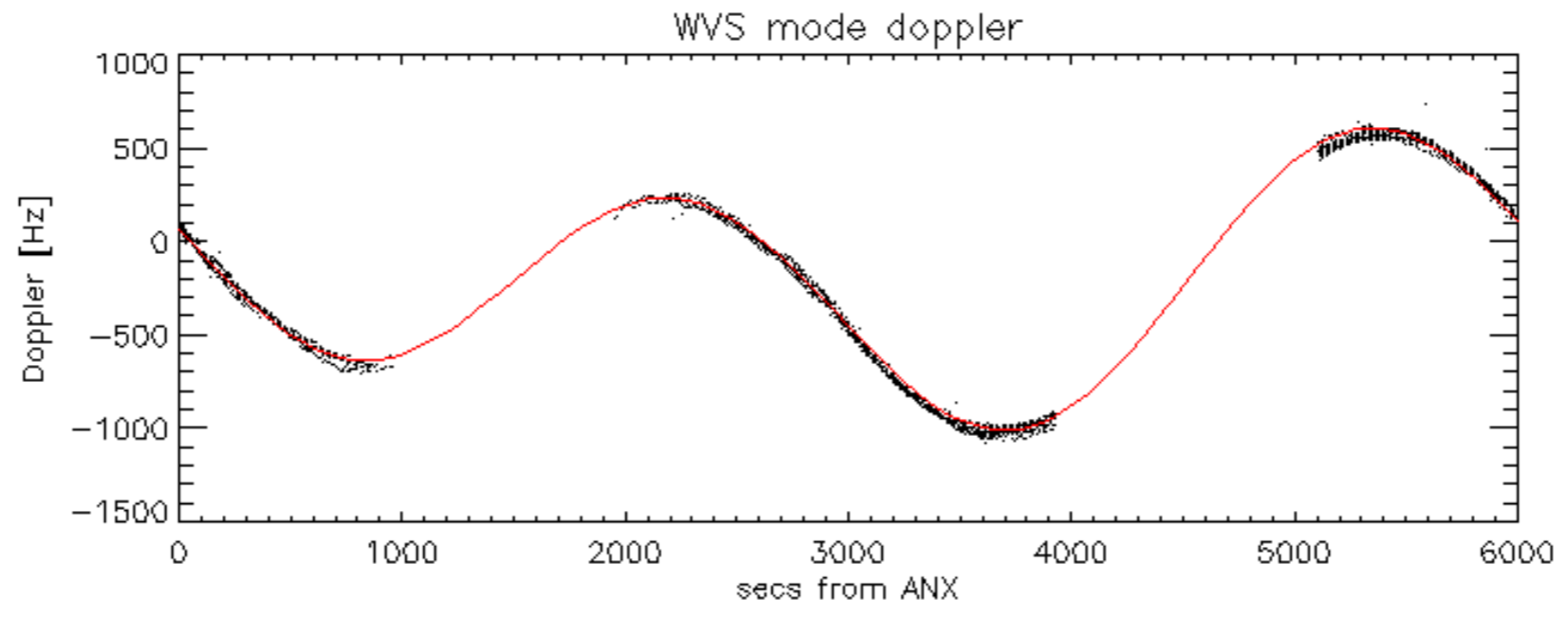


Doppler 'WVS' 'IS2' descending

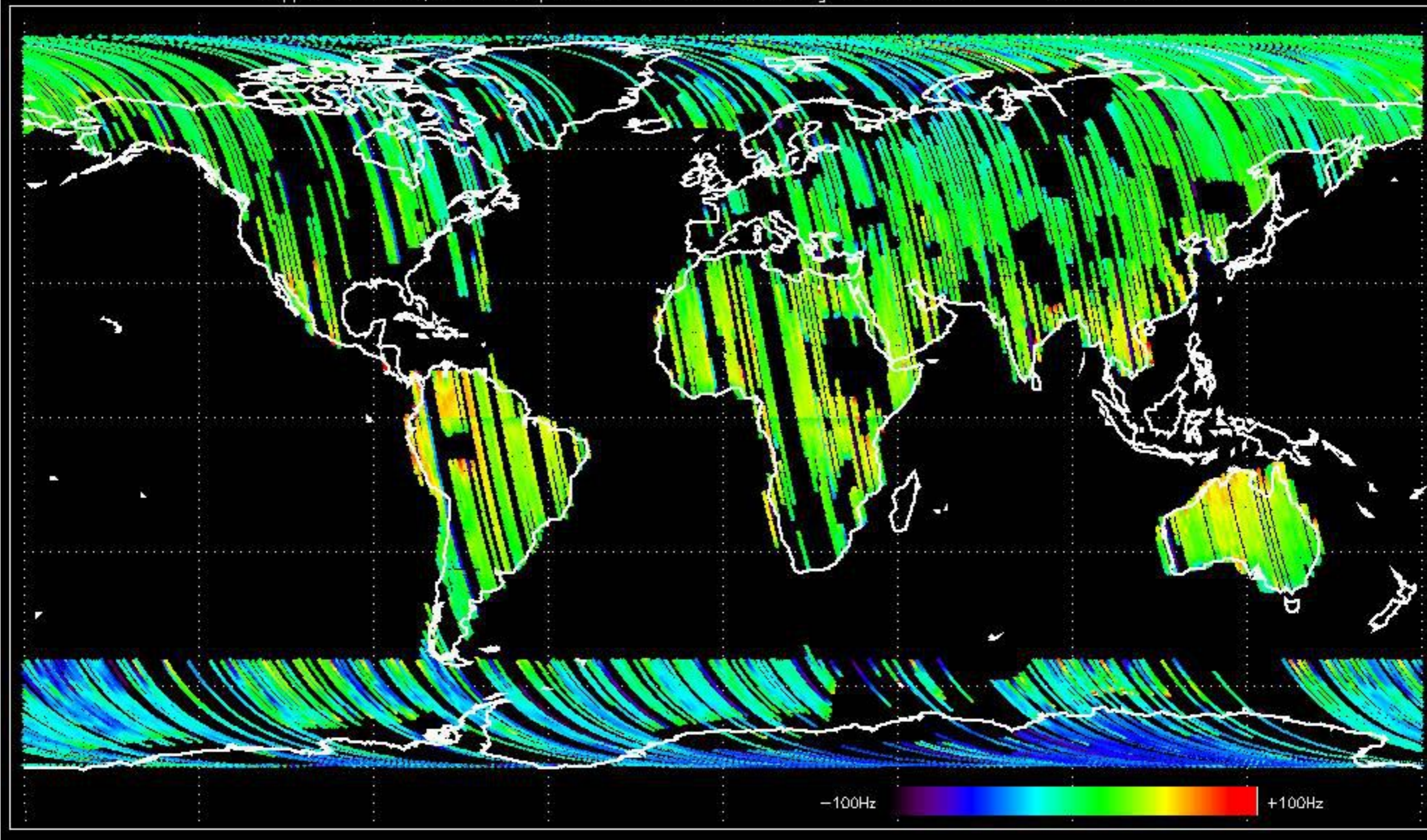


GM1 mode doppler

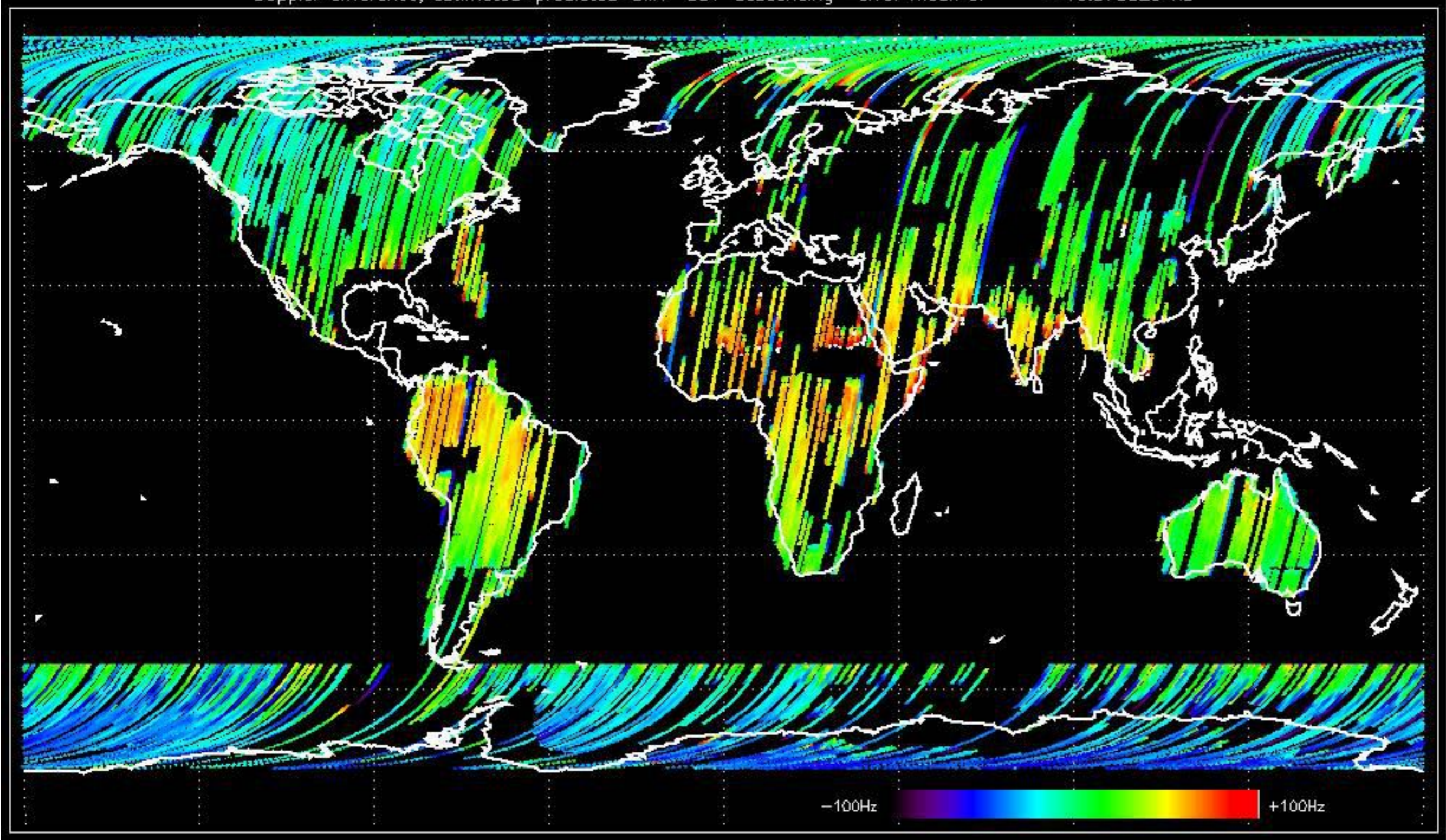




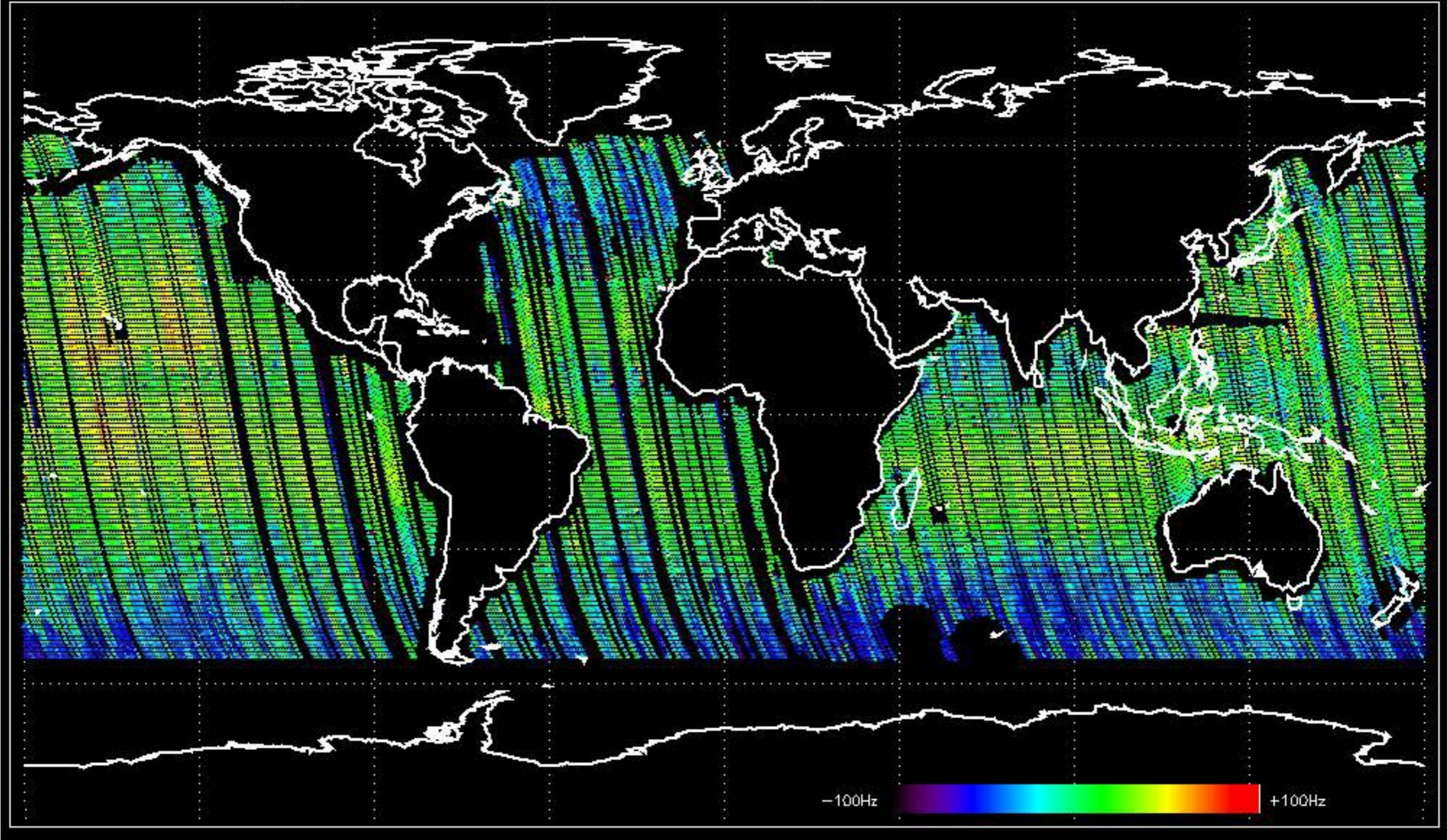
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.558243 Hz



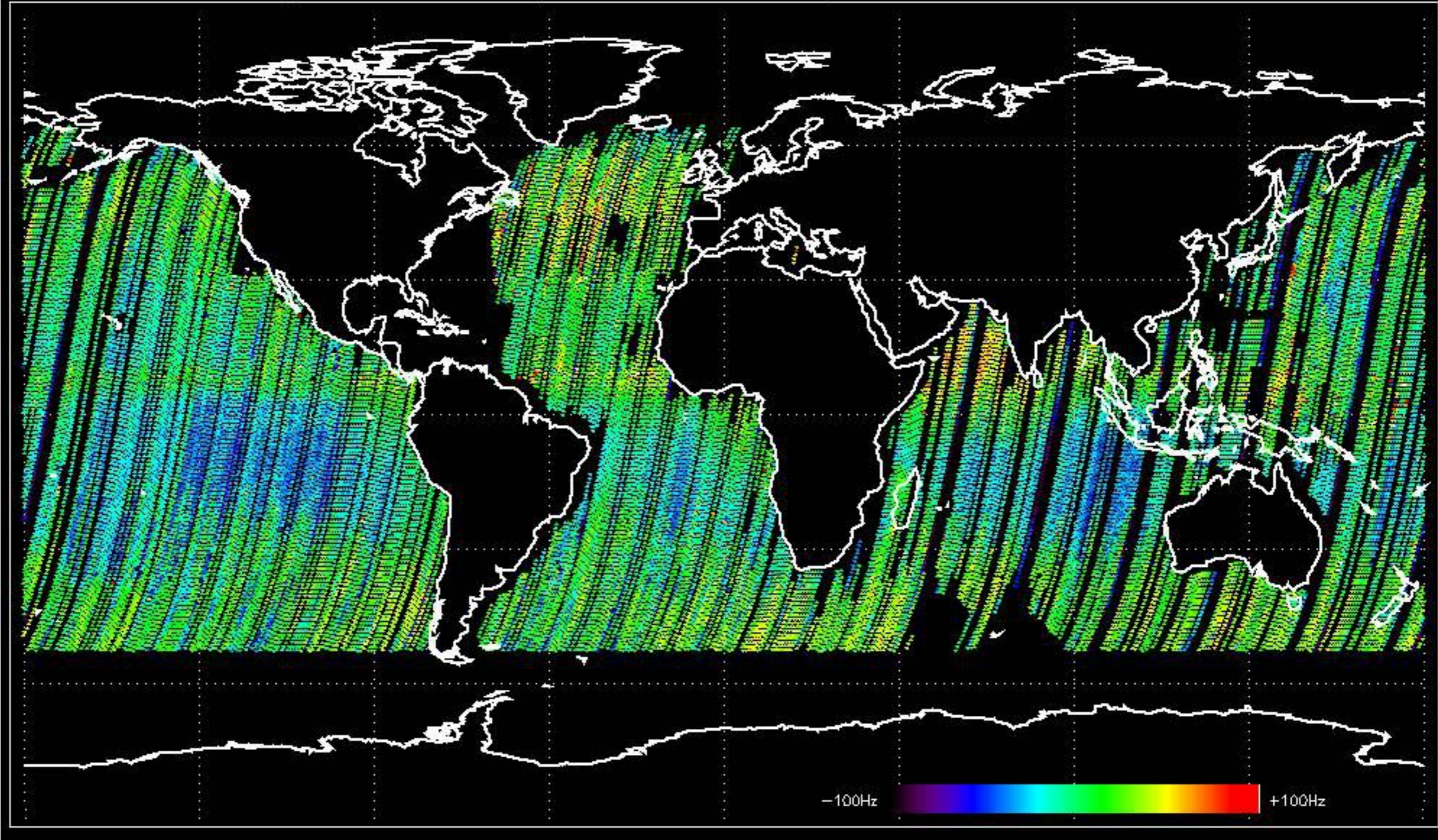
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.975520 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.8134499 Hz

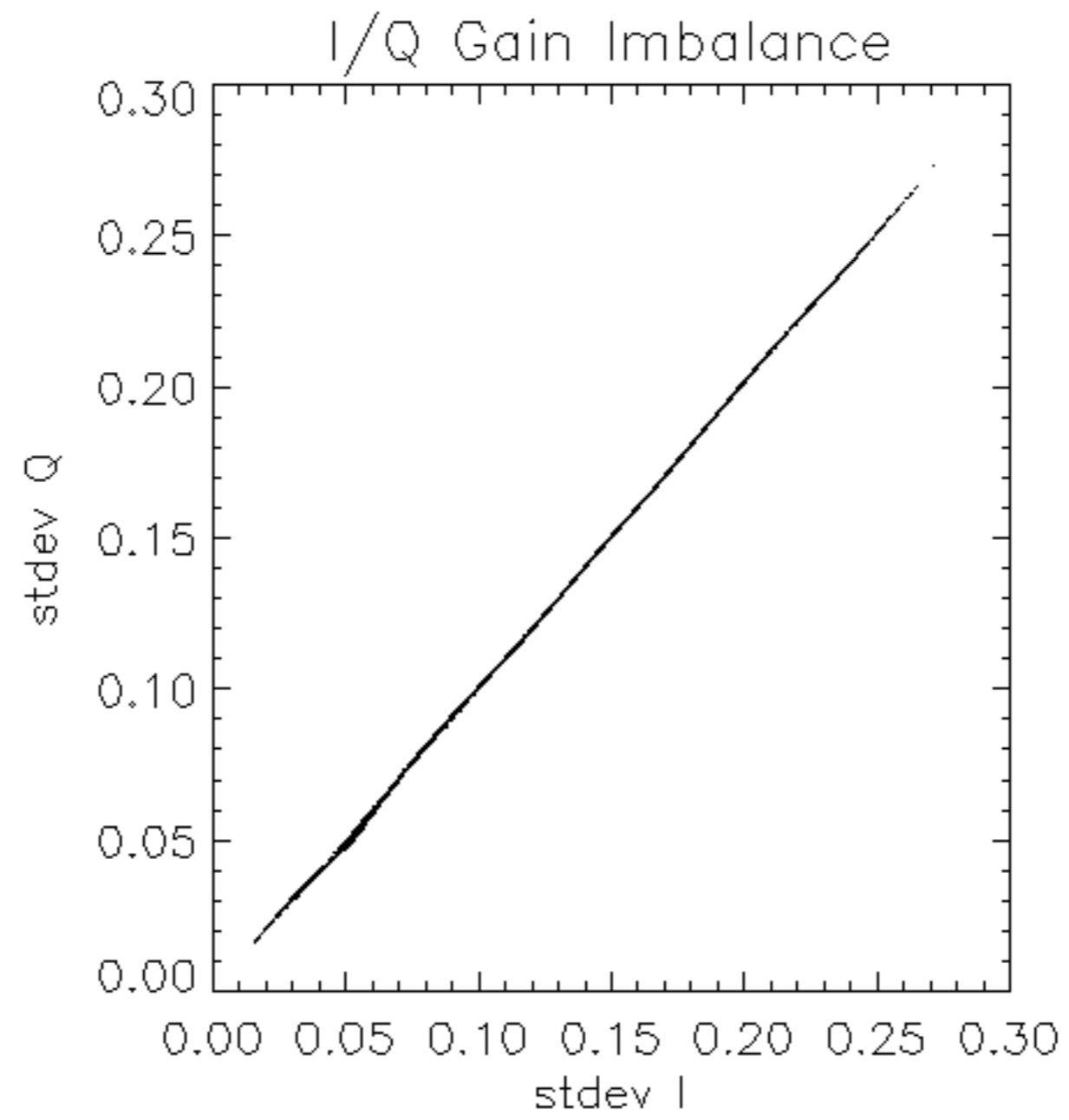


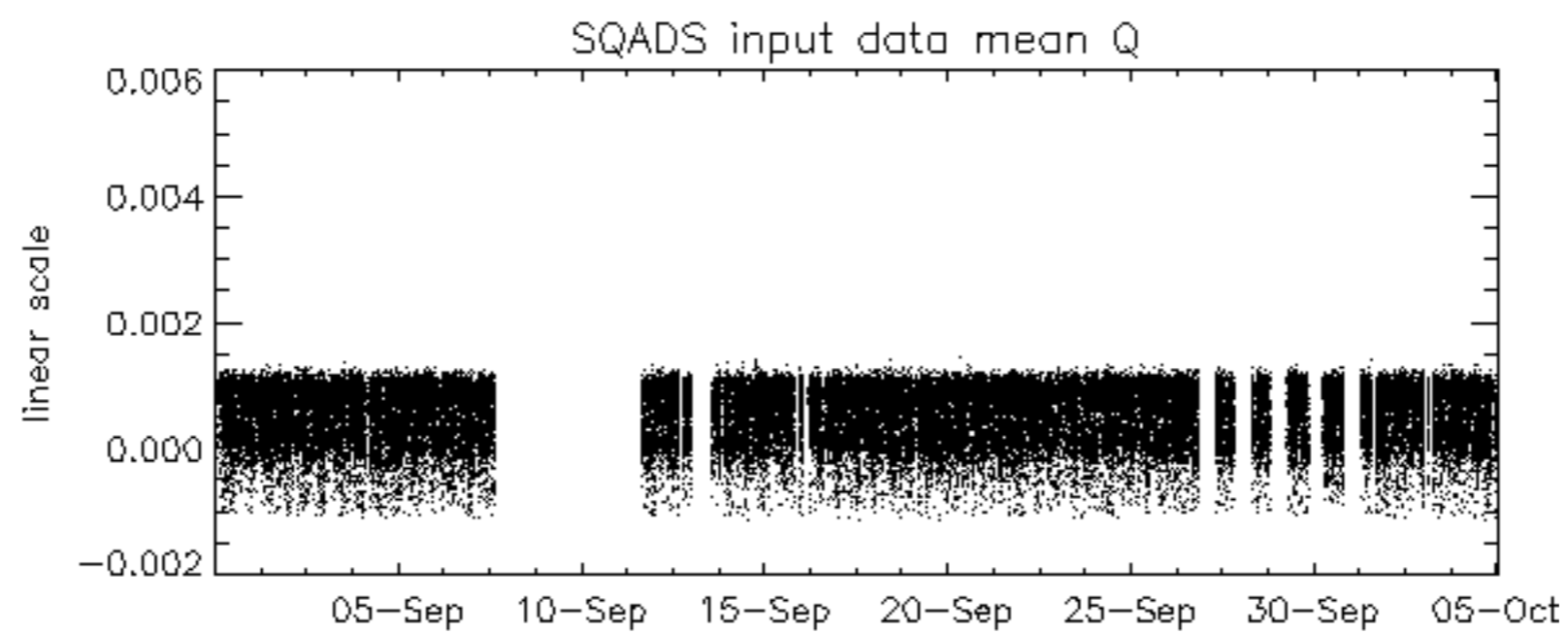
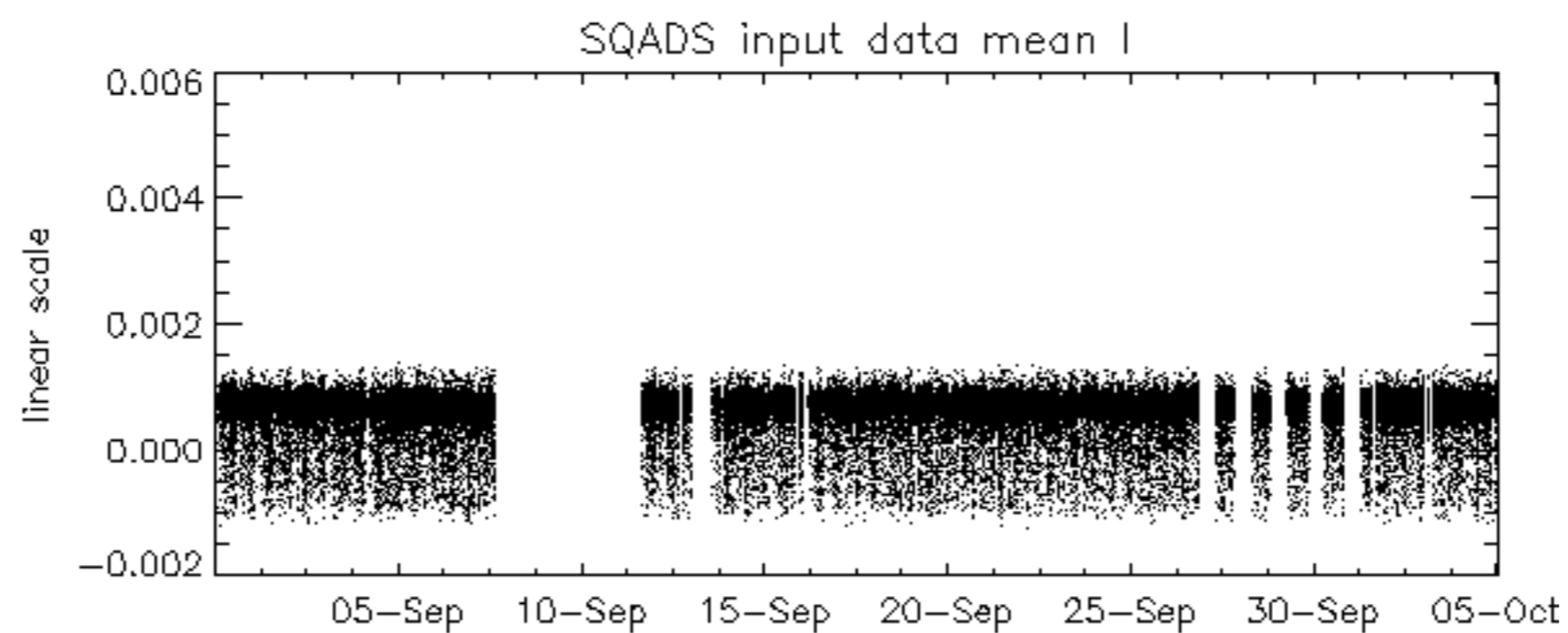
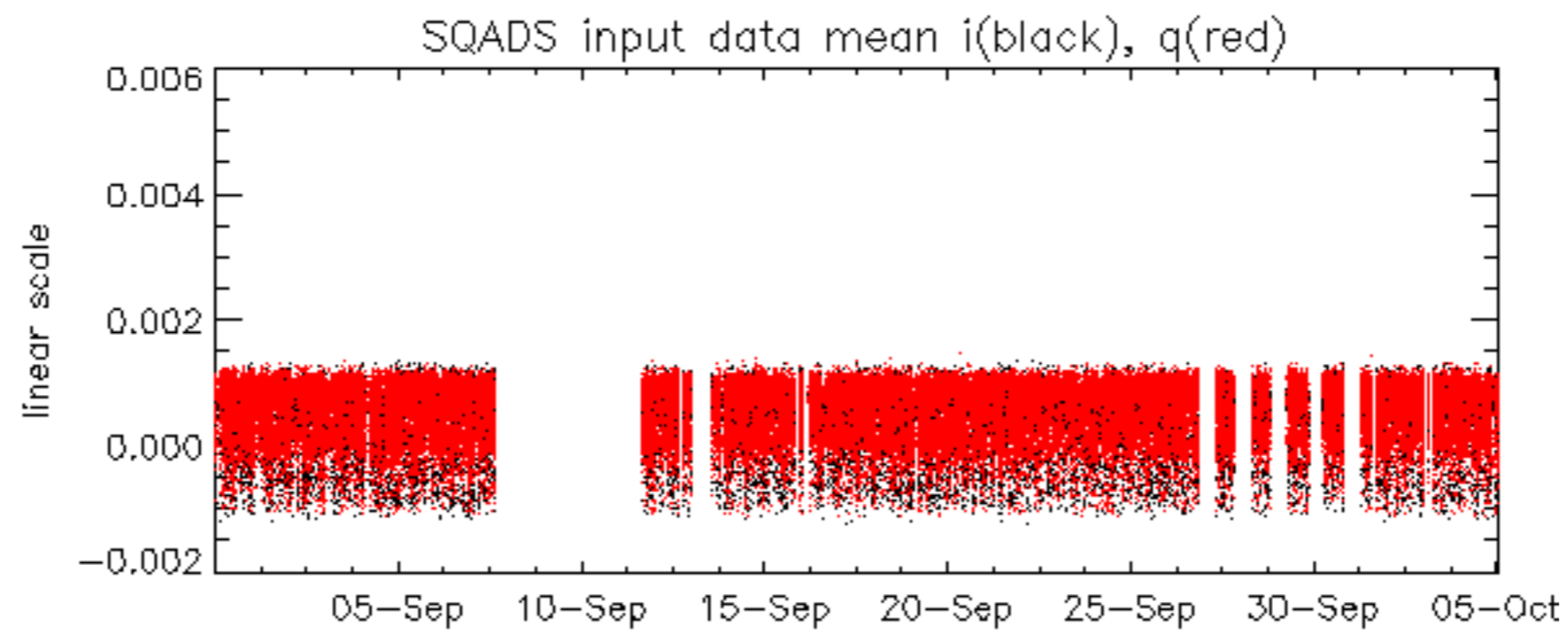
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -16.763725 Hz

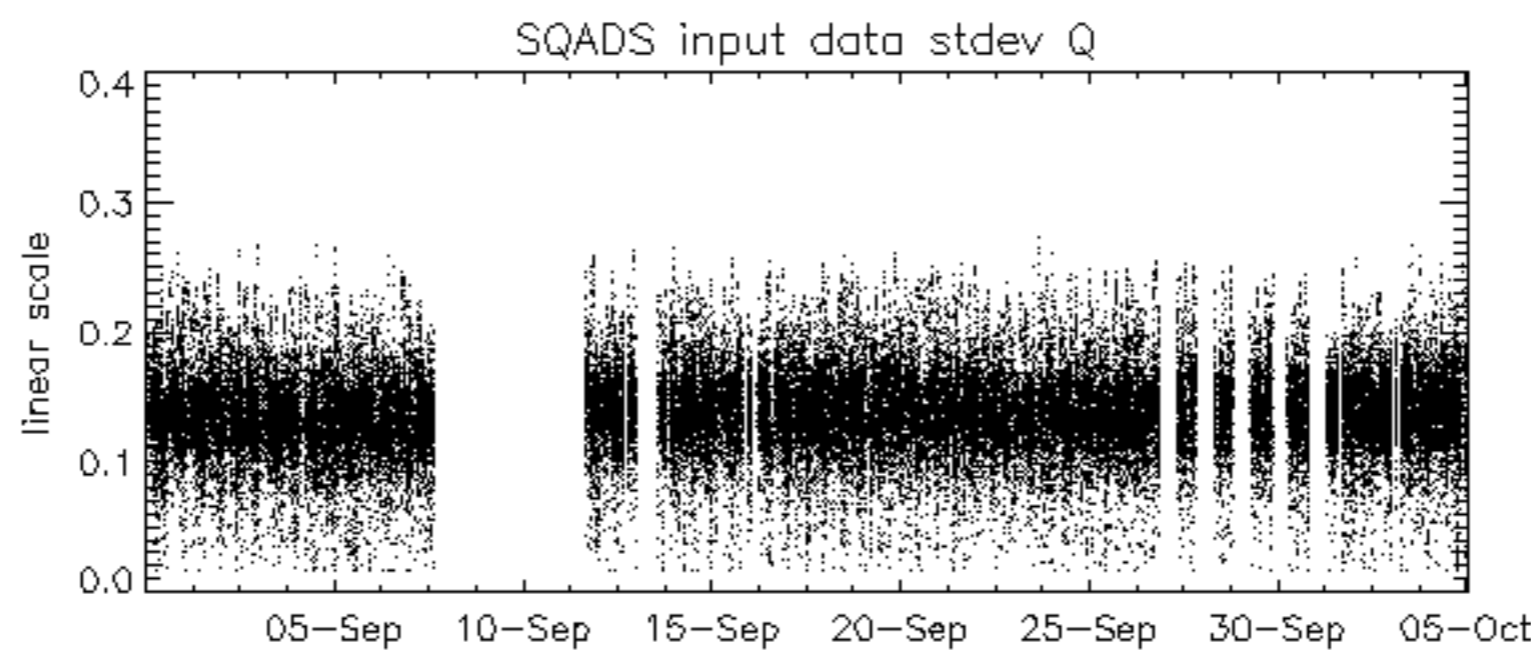
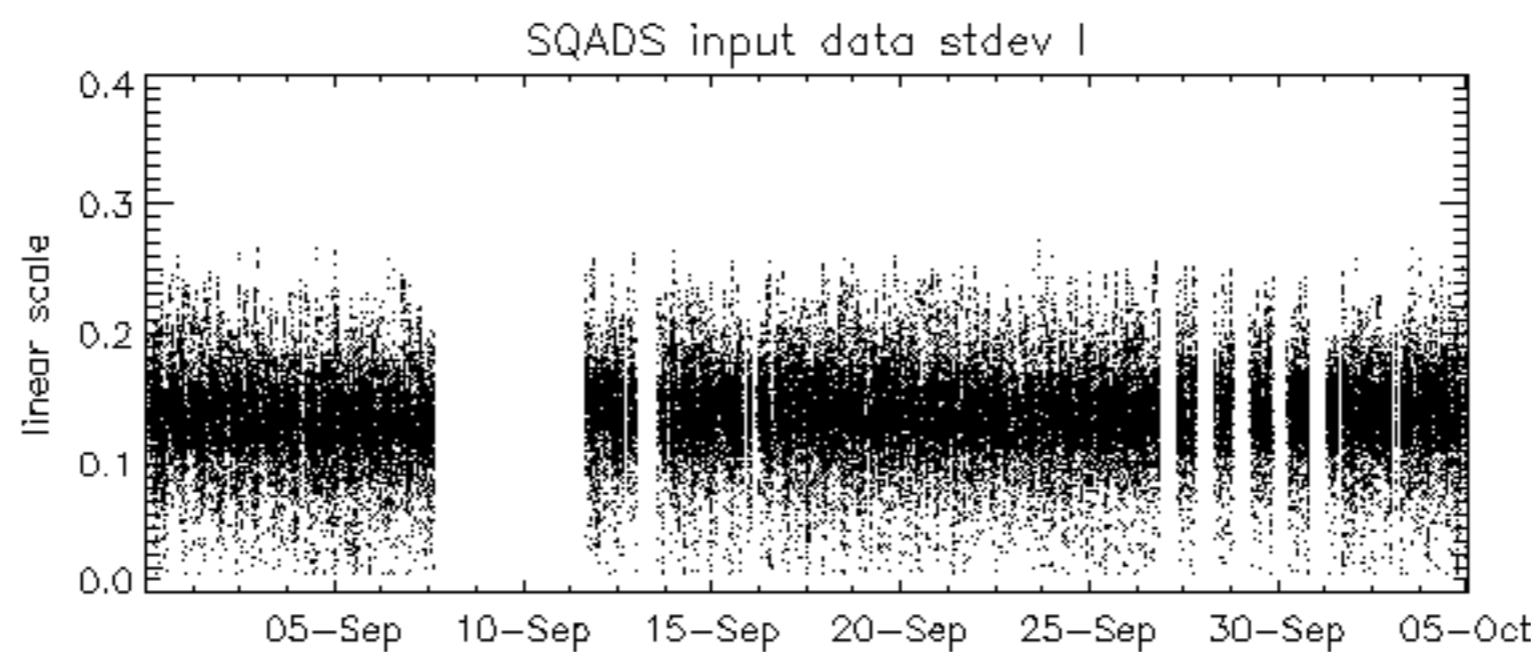
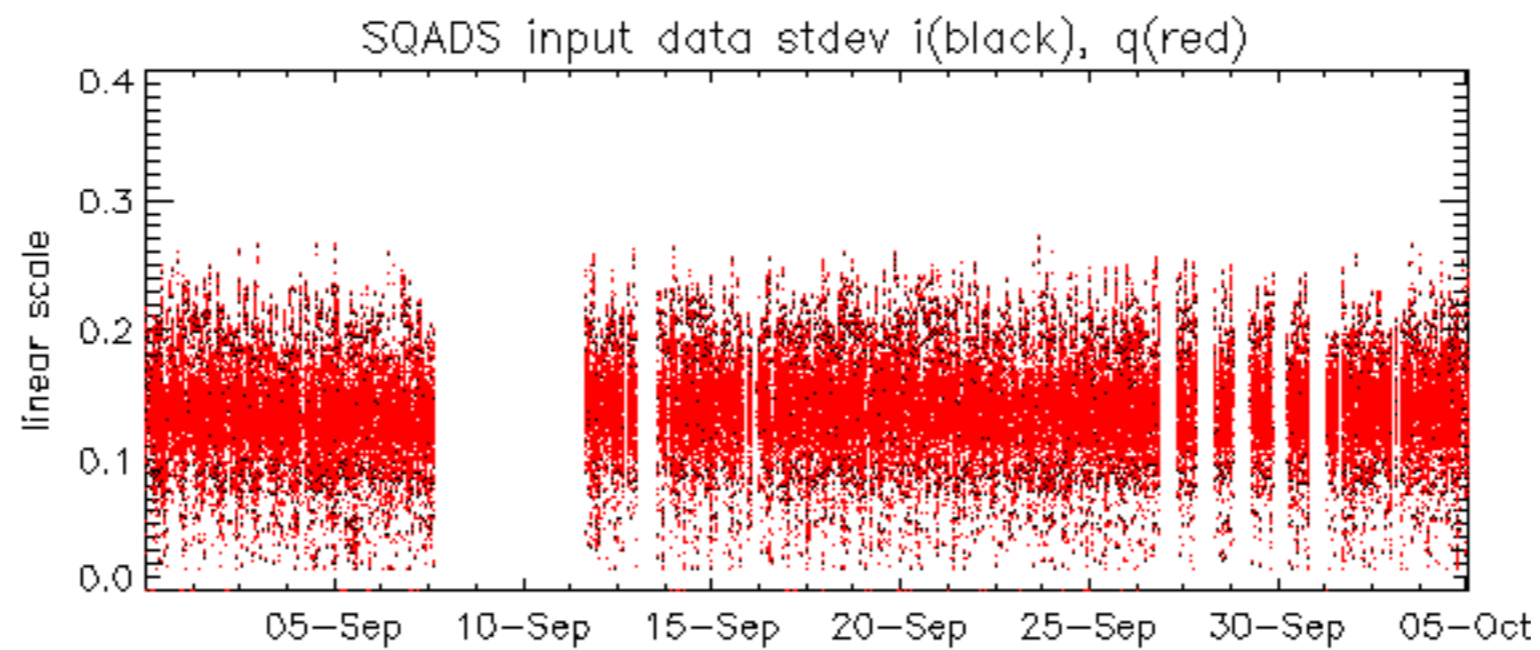


No anomalies observed on available MS products:

No anomalies observed.



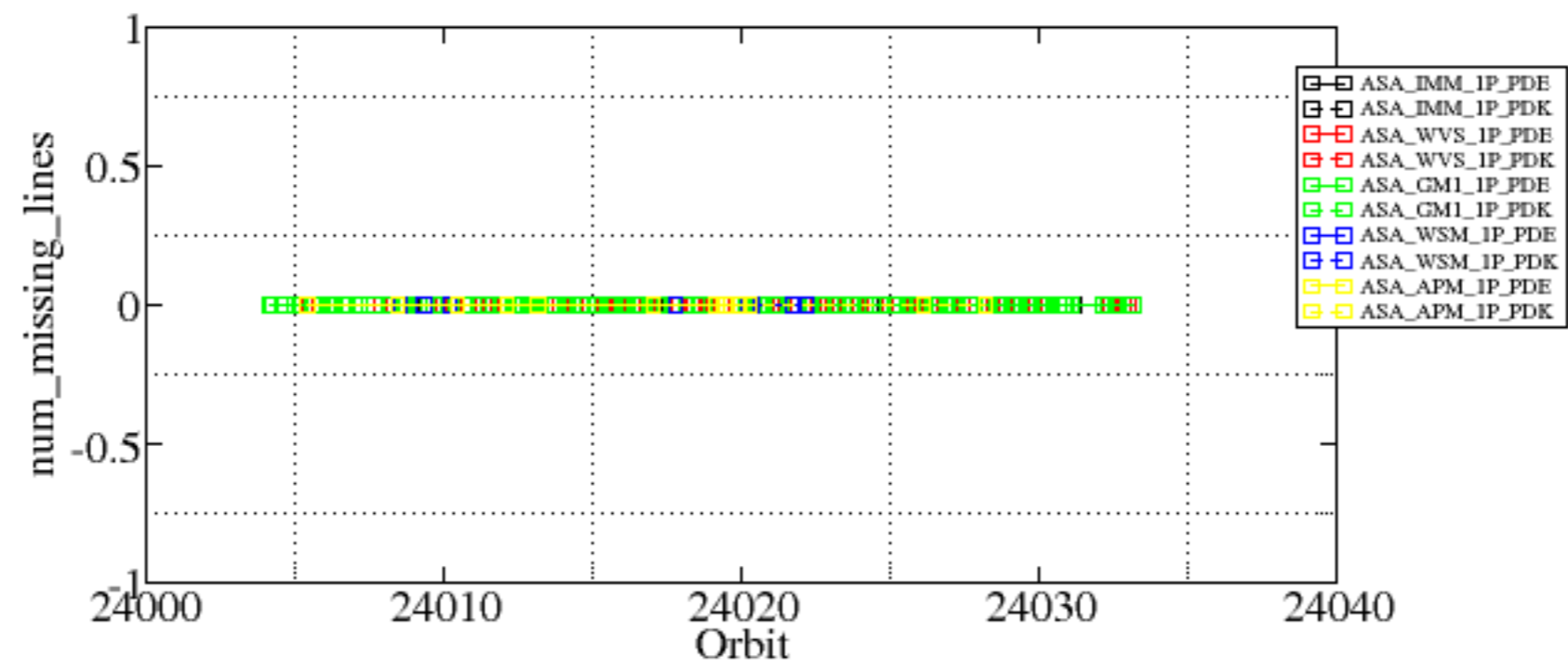




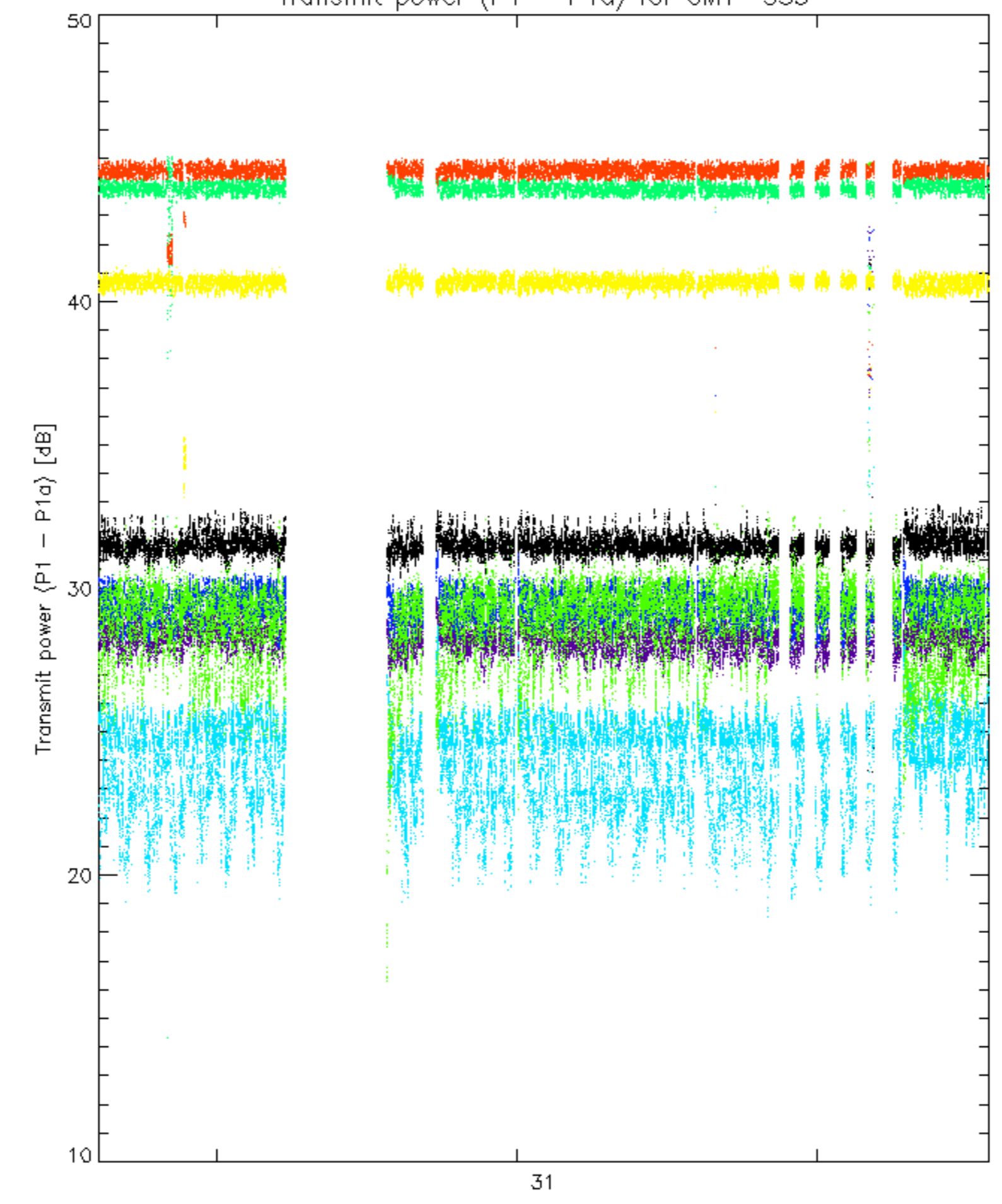
Summary of analysis for the last 3 days 2006100[345]

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

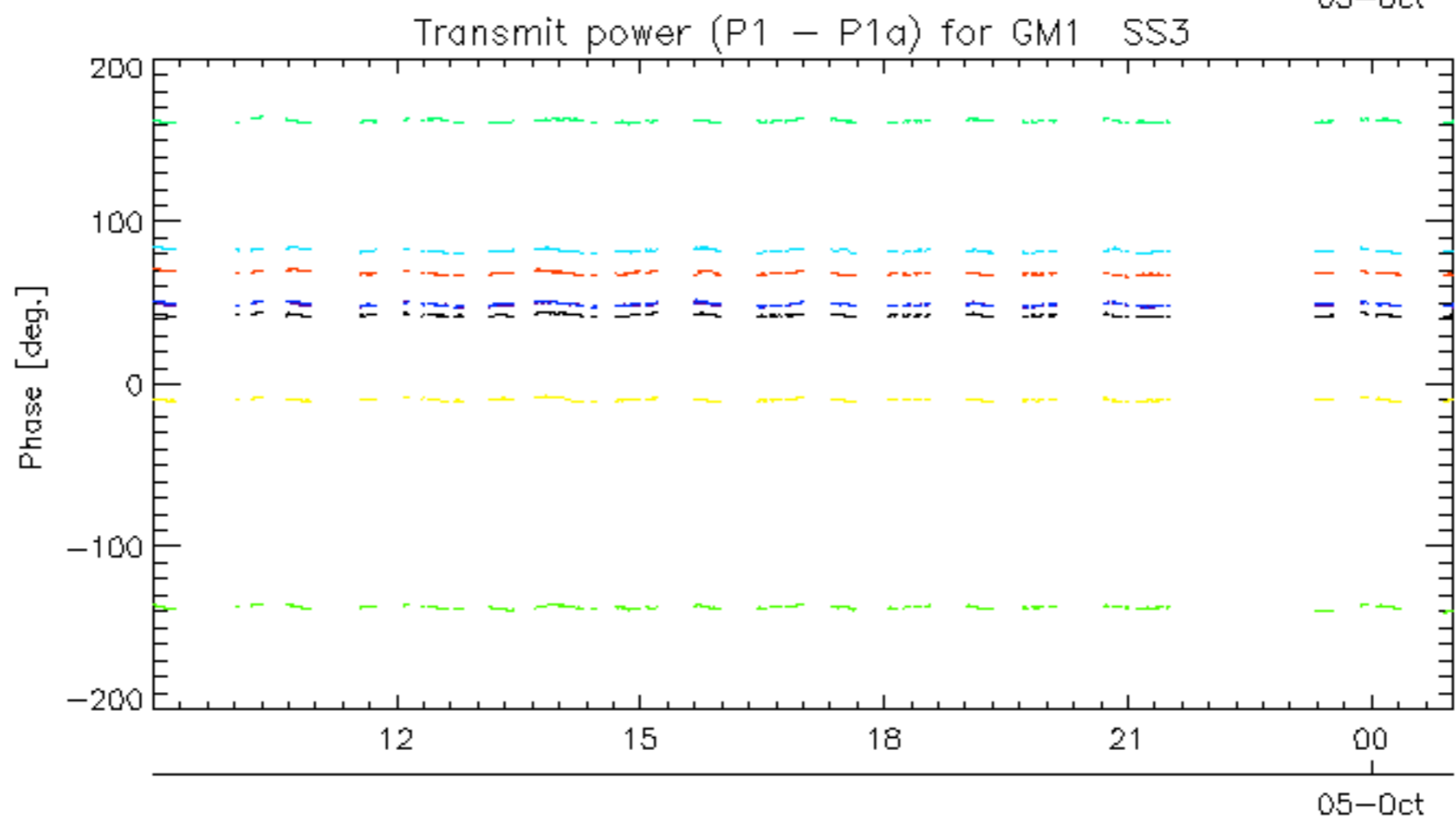
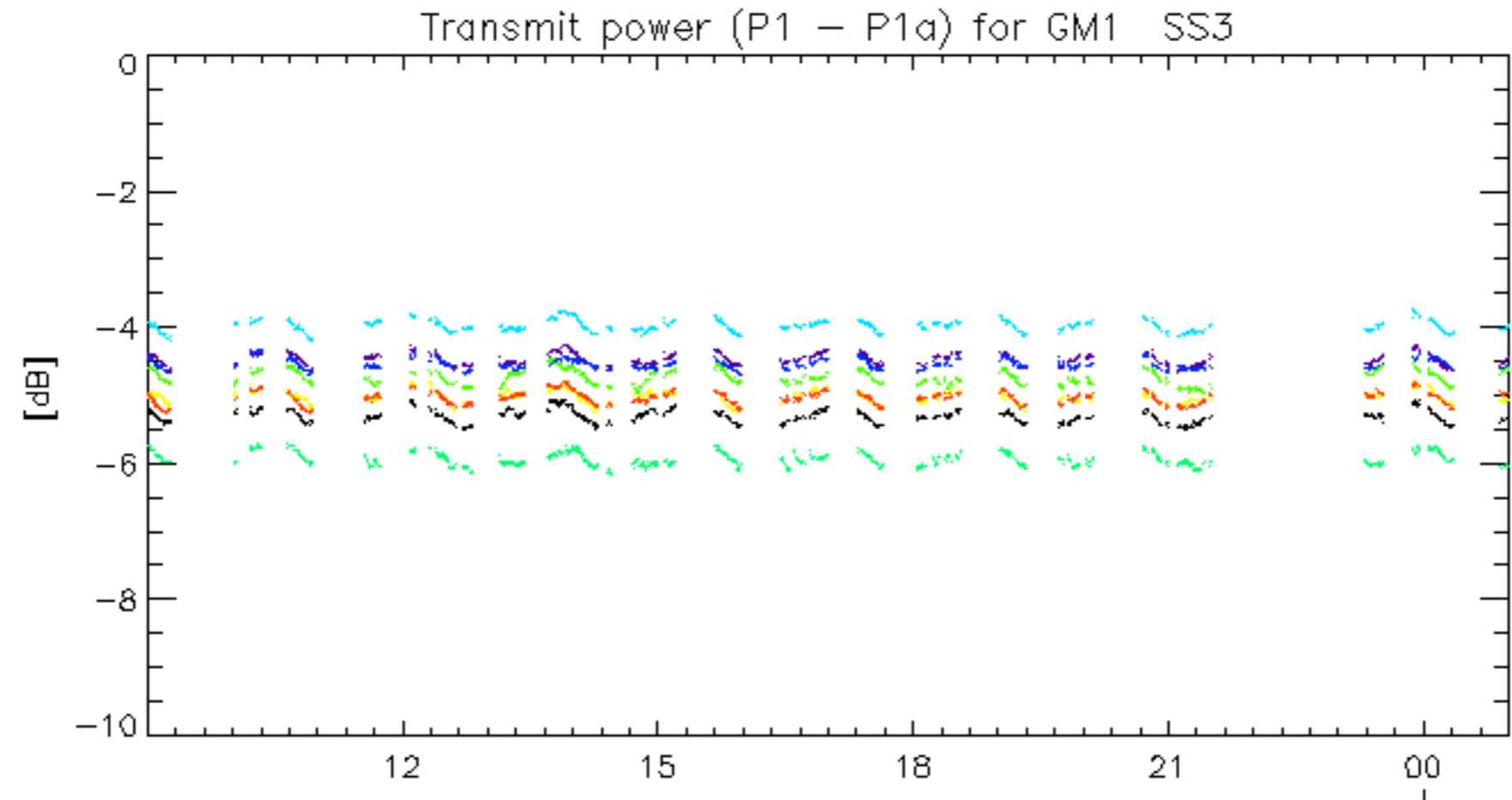
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20061003_115626_00000502051_00410_24011_2298.N1	1	0
ASA_IMM_1PNPDK20061003_210129_00000532051_00415_24016_2306.N1	1	0



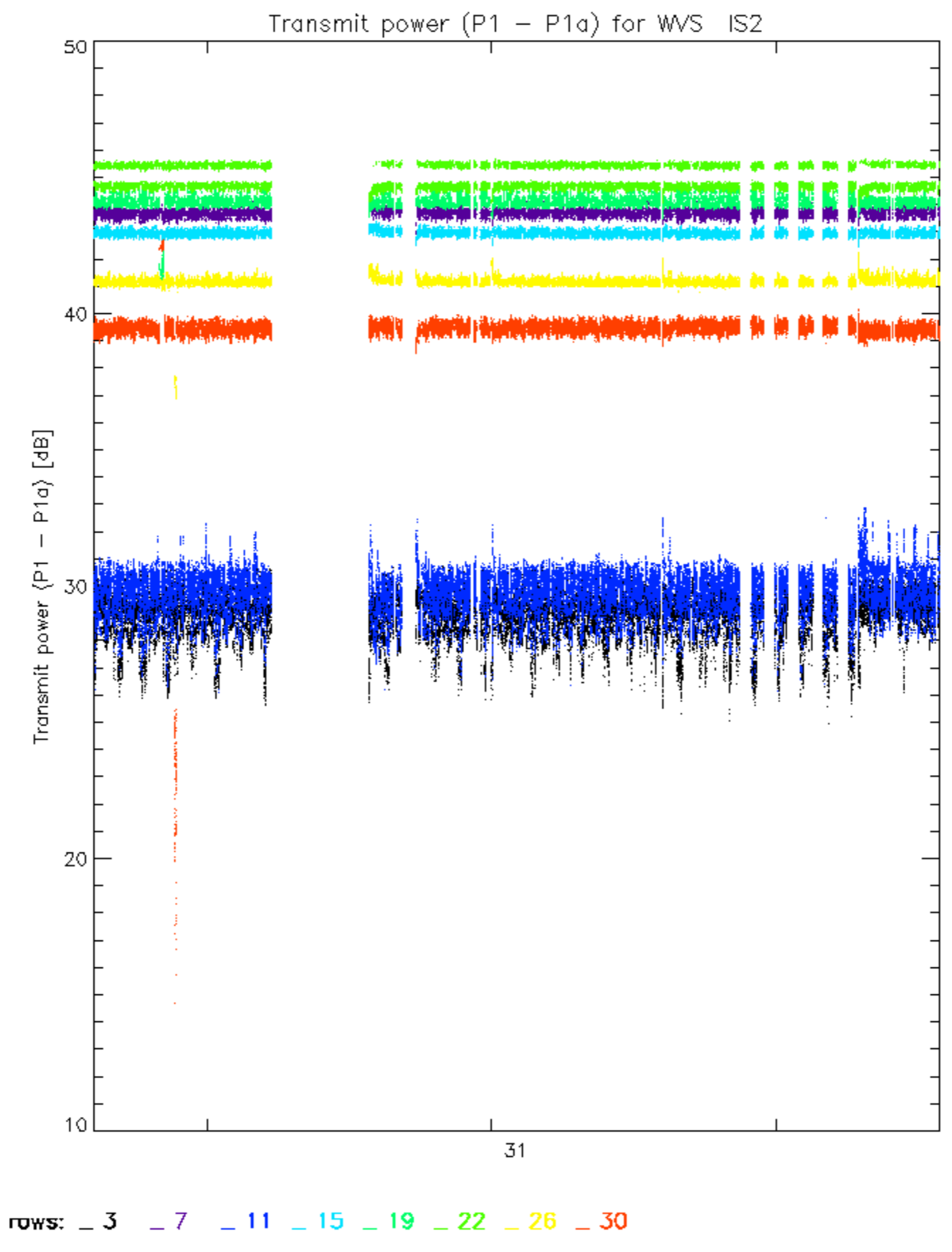
Transmit power (P1 - P1a) for GM1 SS3

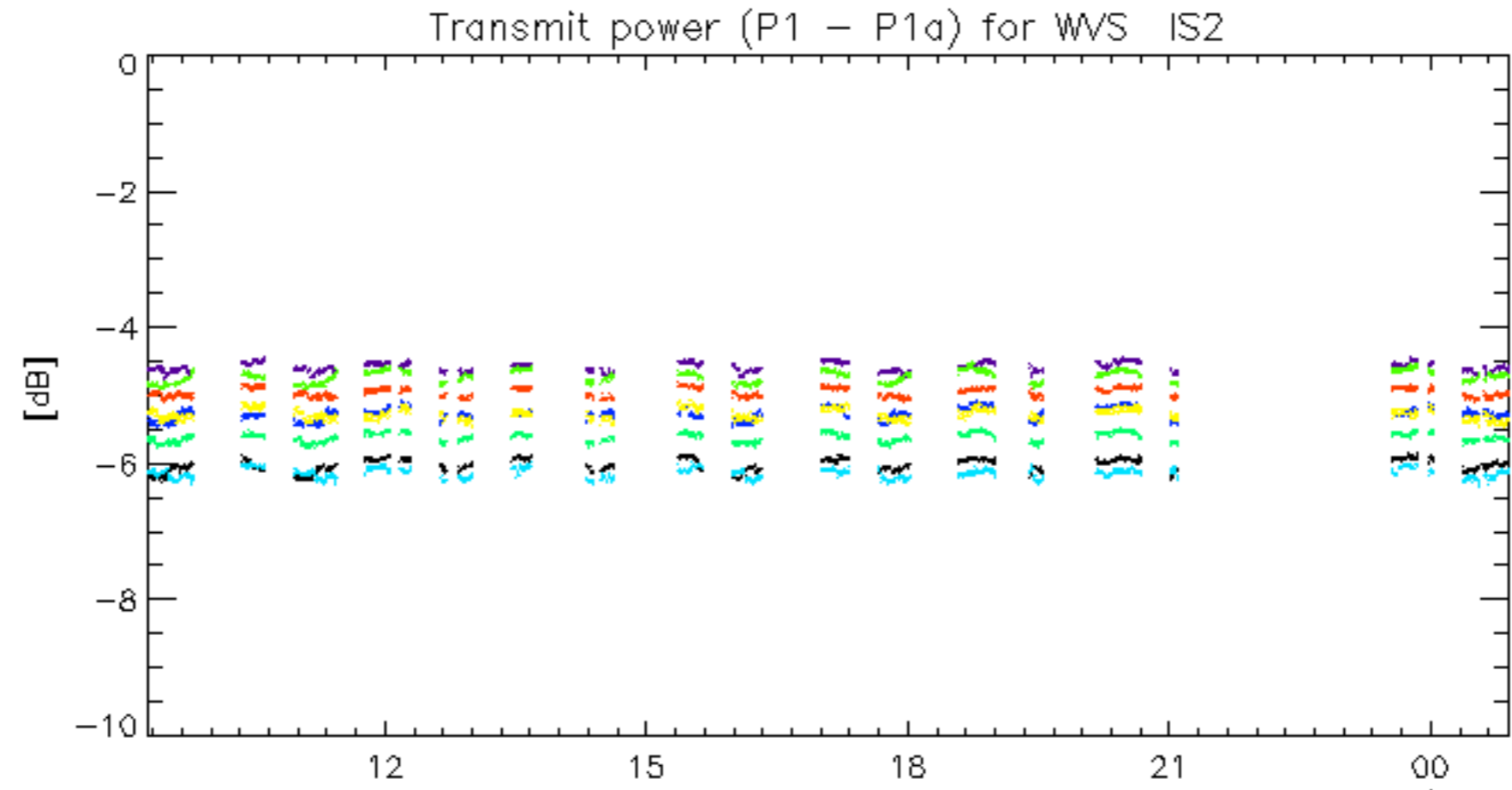


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

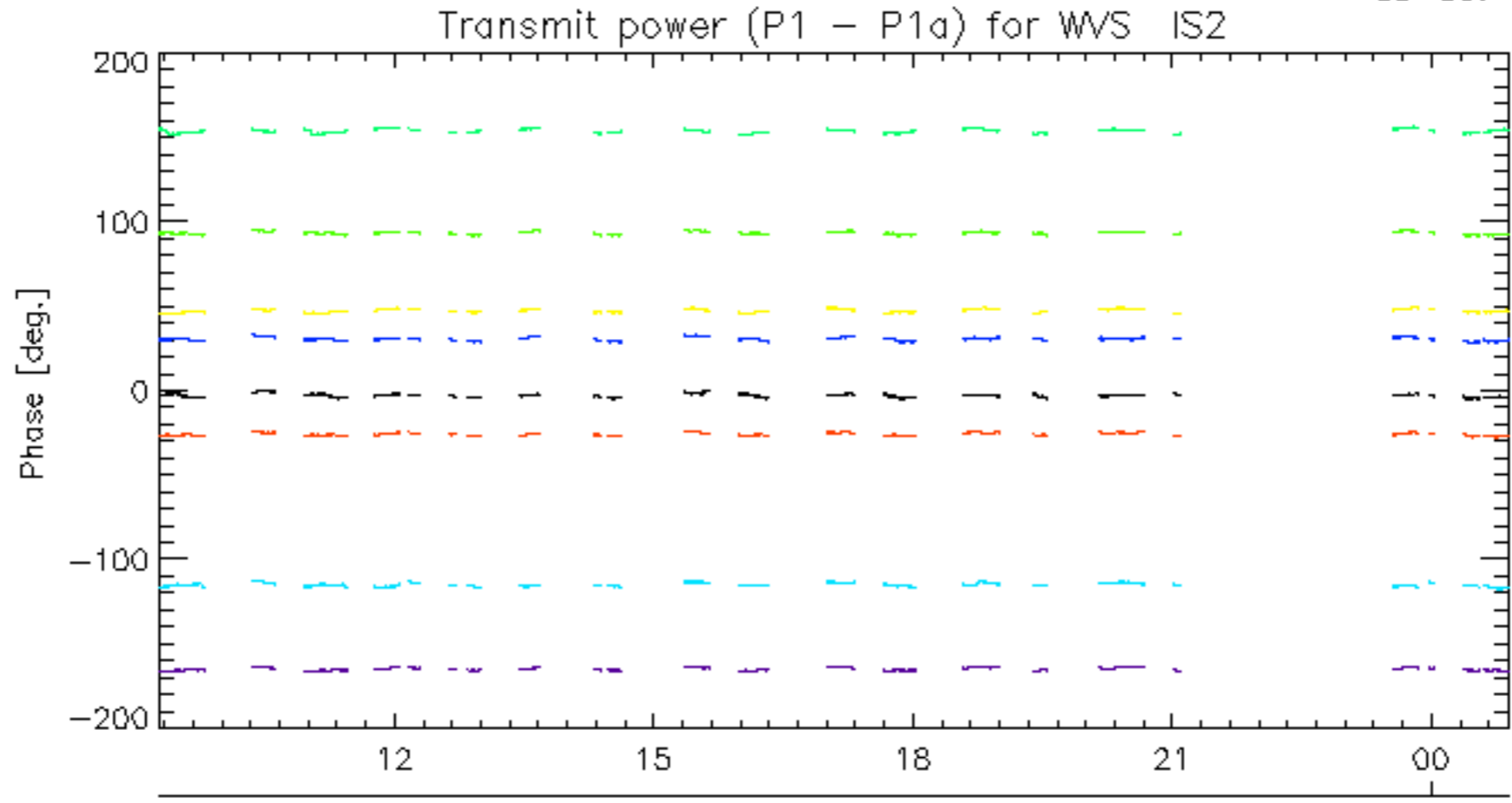


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05-Oct



05-Oct

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

No unavailabilities during the reported period.