

PRELIMINARY REPORT OF 060104

last update on Wed Jan 4 16:34:53 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 2006-01-03 00:00:00 to 2006-01-04 16:34:53

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	20	0	3	0	17
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	20	0	3	0	17
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	20	0	3	0	17
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	20	0	3	0	17

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	29	34	23	4	36
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	29	34	23	4	36
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	29	34	23	4	36
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	29	34	23	4	36

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	20051231 204859
H	20051230 143812

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
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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	-3.752916	0.239089	-1.369593
7	P1	-2.780001	0.122768	-0.959358
11	P1	-4.135855	0.037002	0.097321
15	P1	-5.205402	1.633569	-3.789214
19	P1	-3.068804	0.064495	-0.717715
22	P1	-4.444146	0.024001	-0.219402
26	P1	-4.374176	0.060059	0.654691
30	P1	-5.668398	0.034062	-0.450699
3	P1	-15.918484	2.693002	-4.757675
7	P1	-15.466829	2.611112	-4.747633
11	P1	-16.350250	0.474307	-1.111174
15	P1	-12.760583	0.857716	-2.385945
19	P1	-13.493540	0.364571	-1.650857
22	P1	-15.924126	0.618513	-0.476416
26	P1	-15.147039	1.015378	-2.657788
30	P1	-15.679089	2.359493	-4.201751

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.769424	0.114591	0.372443
7	P2	-22.535524	0.106109	0.052400
11	P2	-16.468843	0.132842	0.483010
15	P2	-7.269243	0.106718	0.107593
19	P2	-9.207417	0.105147	0.012004
22	P2	-17.888527	0.112503	-0.250222
26	P2	-16.361193	0.132679	0.532162
30	P2	-19.775791	0.116928	0.429248

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.233501	0.007686	0.026461
7	P3	-8.233501	0.007686	0.026461
11	P3	-8.233501	0.007686	0.026461
15	P3	-8.233501	0.007686	0.026461
19	P3	-8.233501	0.007686	0.026461
22	P3	-8.233501	0.007686	0.026461
26	P3	-8.233501	0.007686	0.026461
30	P3	-8.233501	0.007686	0.026461

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	-3.711843	0.008537	-0.031494
7	P1	-2.767624	0.007691	0.003442
11	P1	-2.875823	0.009378	0.006064
15	P1	-3.422718	0.016729	-0.054729
19	P1	-3.393089	0.014473	-0.003110
22	P1	-5.124352	0.019174	-0.009102
26	P1	-5.854181	0.015983	-0.017551
30	P1	-5.278118	0.033612	0.024929
3	P1	-11.491401	0.040168	-0.042560
7	P1	-9.966300	0.047847	0.055525
11	P1	-10.054184	0.056534	-0.036215
15	P1	-10.565305	0.070594	-0.080933
19	P1	-15.520142	0.074473	0.024843
22	P1	-20.943296	0.934245	0.453854

26	P1	-17.118326	0.290666	0.358936
30	P1	-18.173466	0.277225	0.165008

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.580057	0.029541	0.158091
7	P2	-23.035284	0.055309	0.170191
11	P2	-11.561210	0.019794	0.186458
15	P2	-4.989595	0.021188	0.067359
19	P2	-6.974161	0.021626	0.033993
22	P2	-8.213054	0.022409	-0.004825
26	P2	-24.046482	0.030049	0.078322
30	P2	-22.135958	0.017318	0.018230

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.077372	0.002473	0.013123
7	P3	-8.077580	0.002471	0.013093
11	P3	-8.077640	0.002455	0.012705
15	P3	-8.077547	0.002454	0.013288
19	P3	-8.077577	0.002471	0.013474
22	P3	-8.077490	0.002458	0.013427
26	P3	-8.077472	0.002442	0.013826
30	P3	-8.077319	0.002464	0.012629

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	0.000465248
	stdev	2.17125e-07
MEAN Q	mean	0.000469601
	stdev	2.34970e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.130095
	stdev	0.00115546
STDEV Q	mean	0.130388
	stdev	0.00116902



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006010[234]

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_1PNPDE20060104_004520_000001852044_00016_20110_5463.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)


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)


Acsending

<input type="checkbox"/>
Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

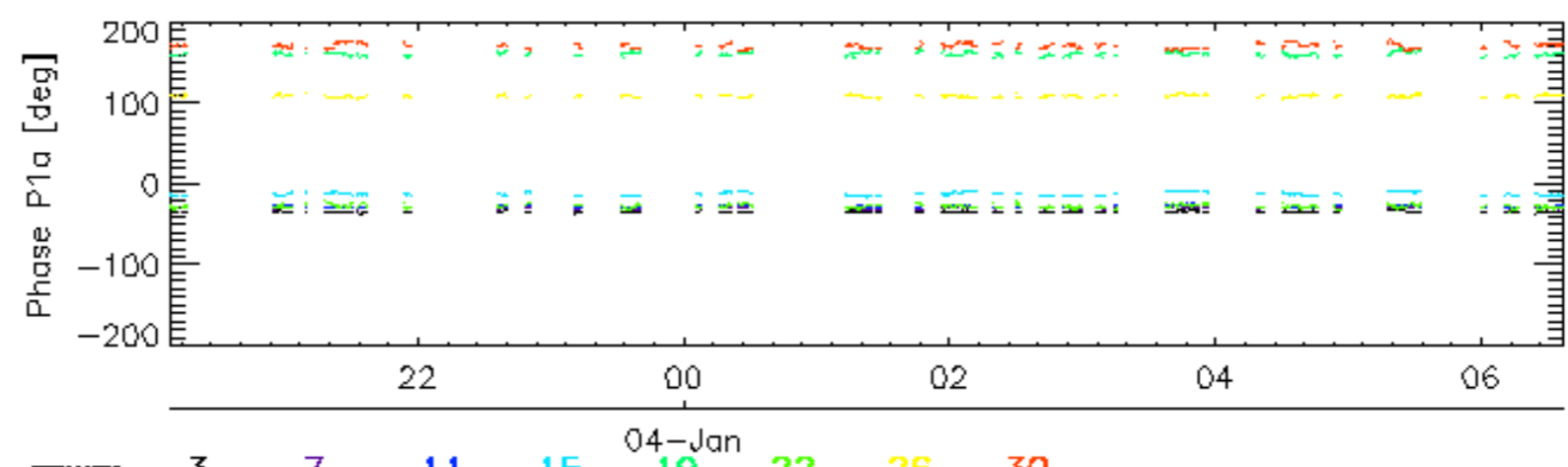
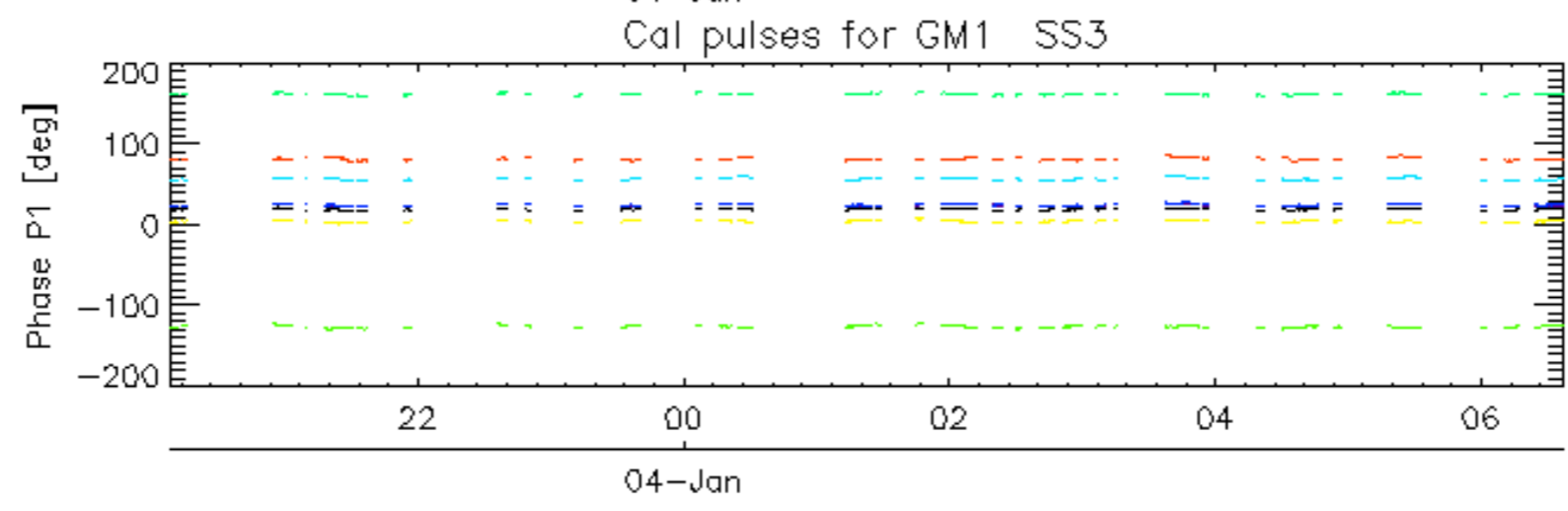
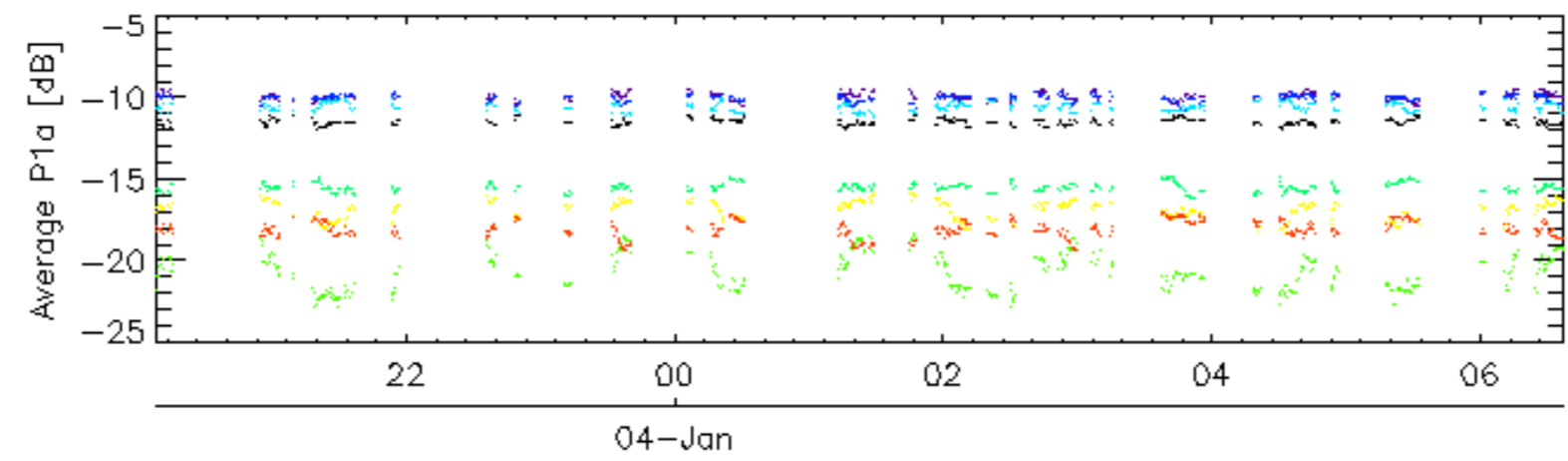
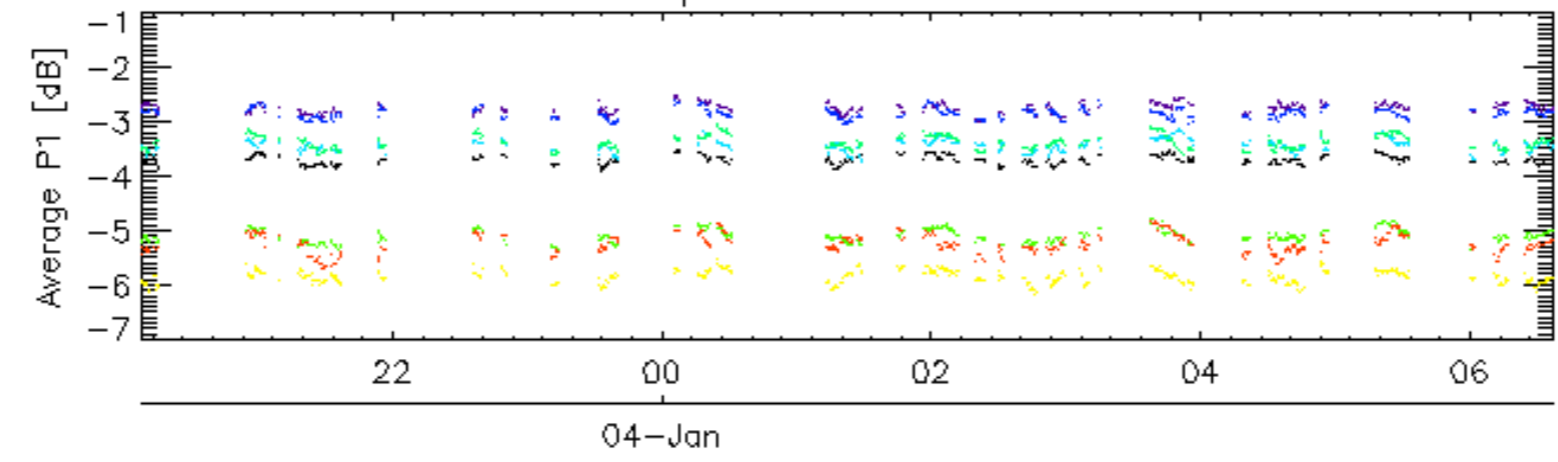
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

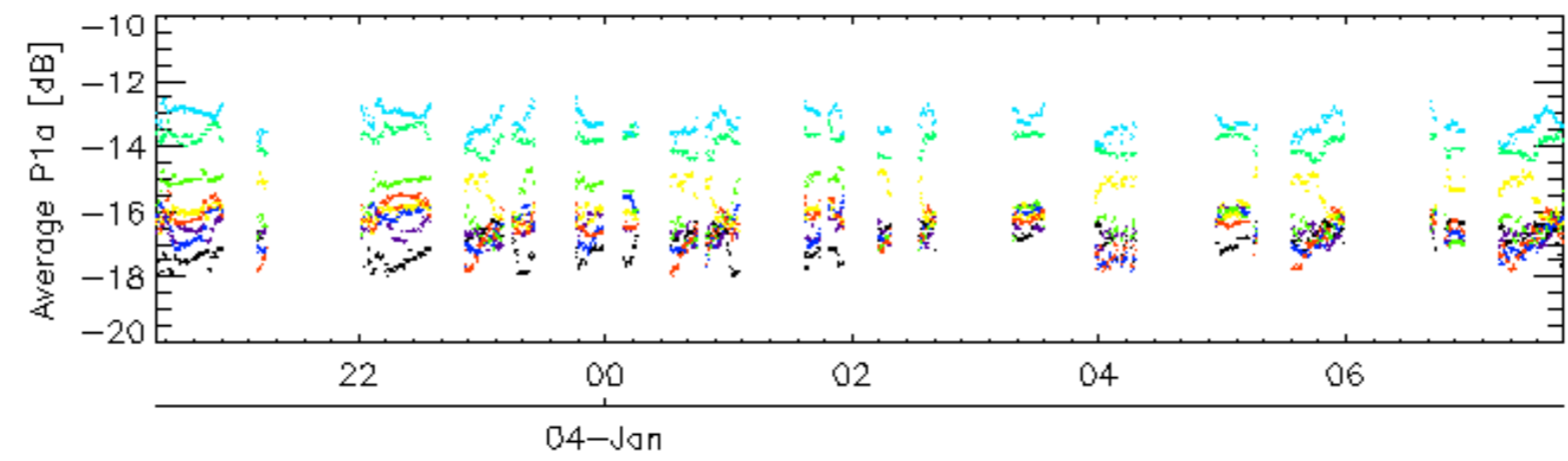
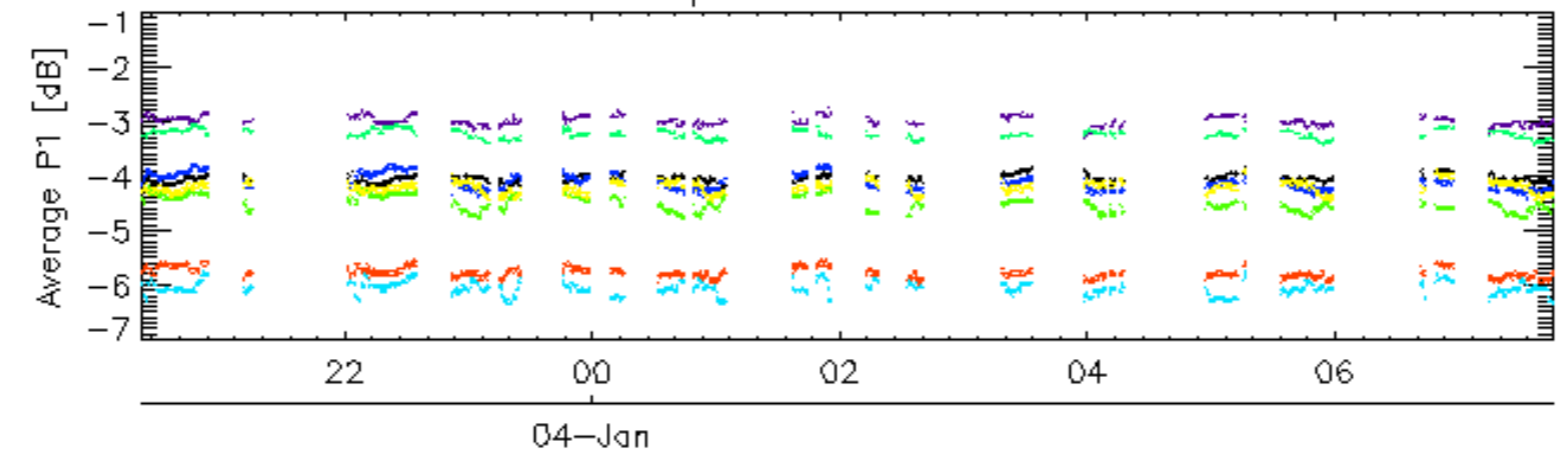
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Cal pulses for GM1 SS3

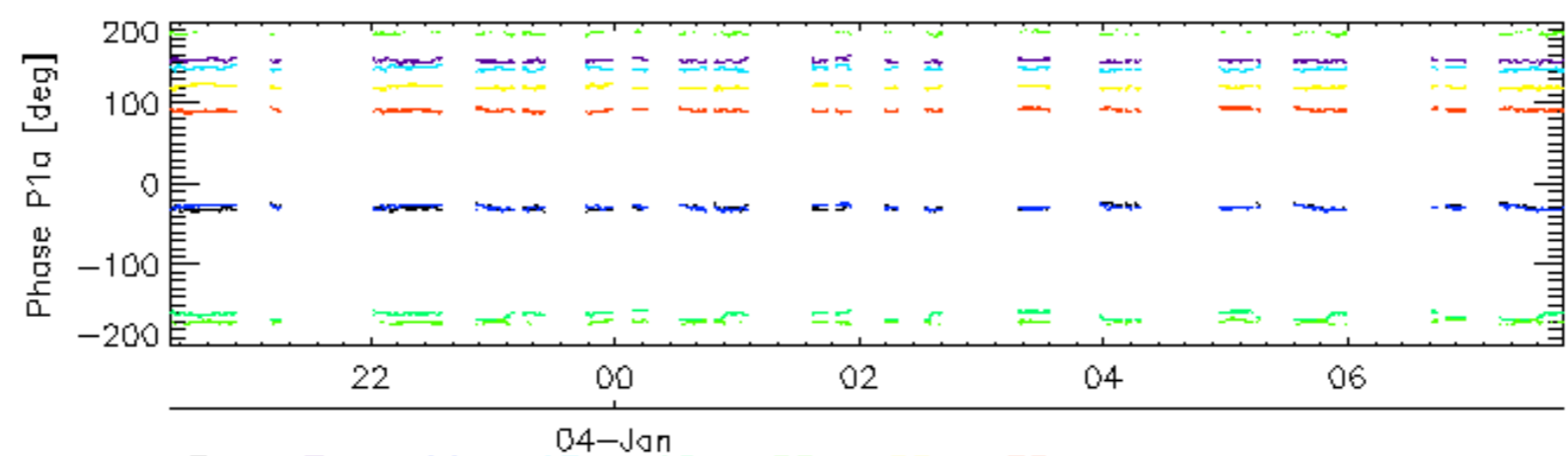
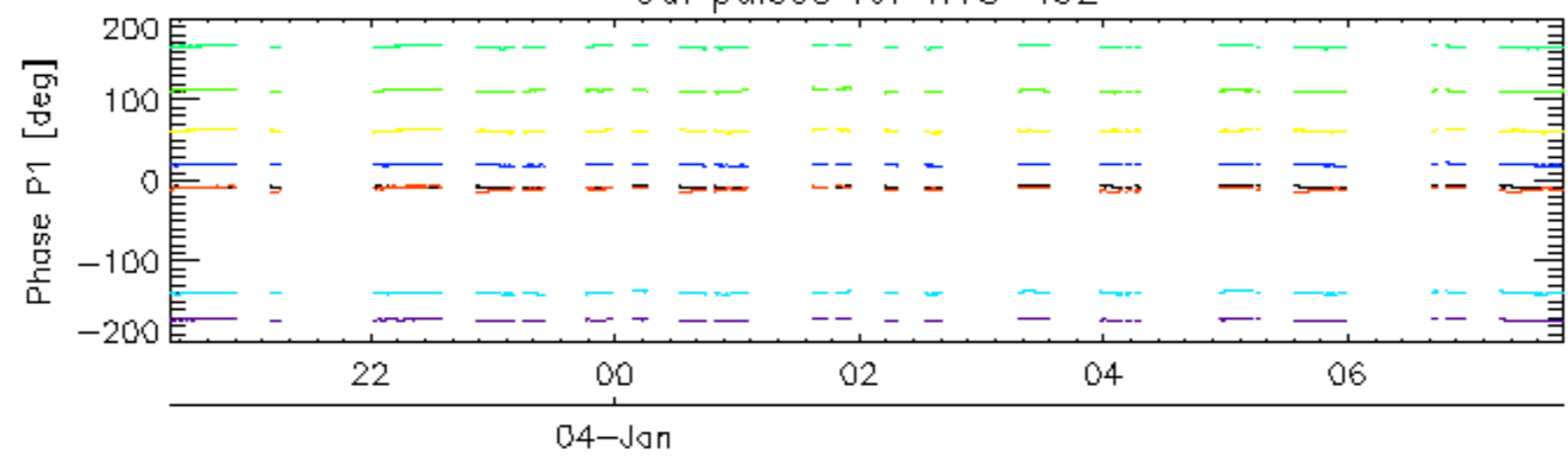


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

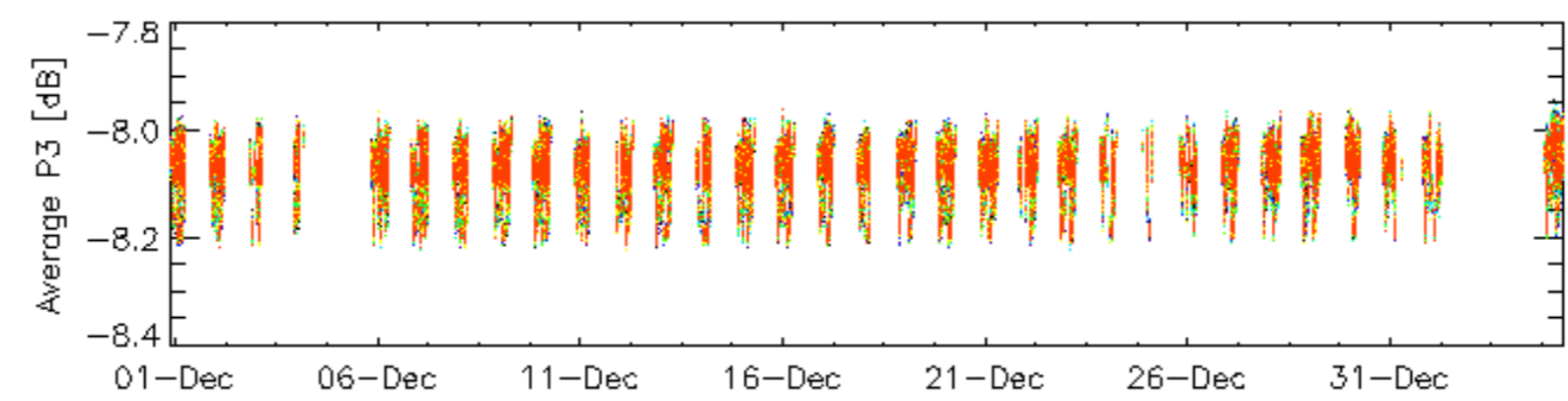
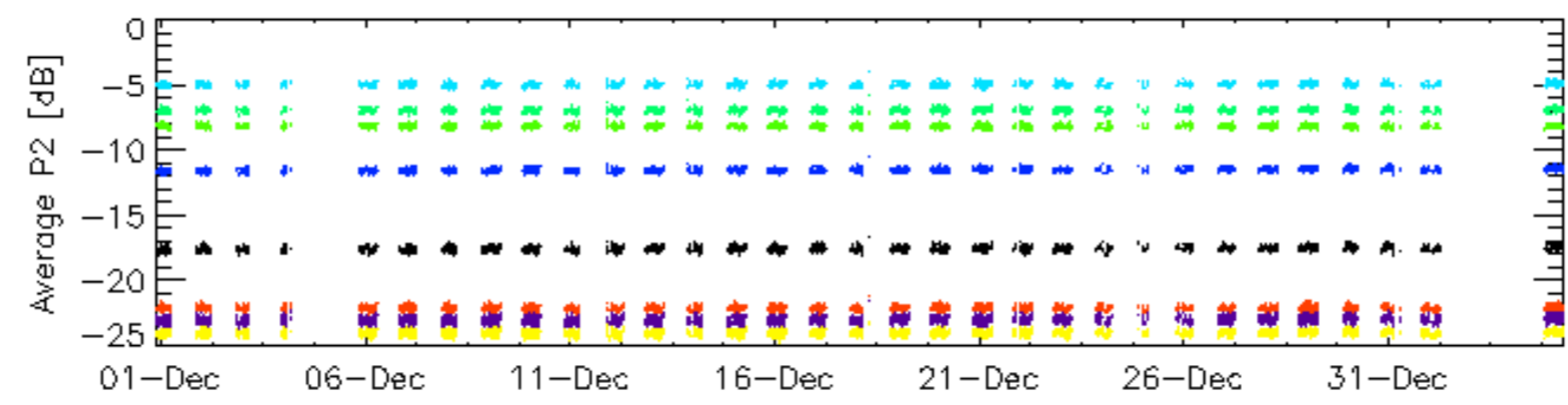
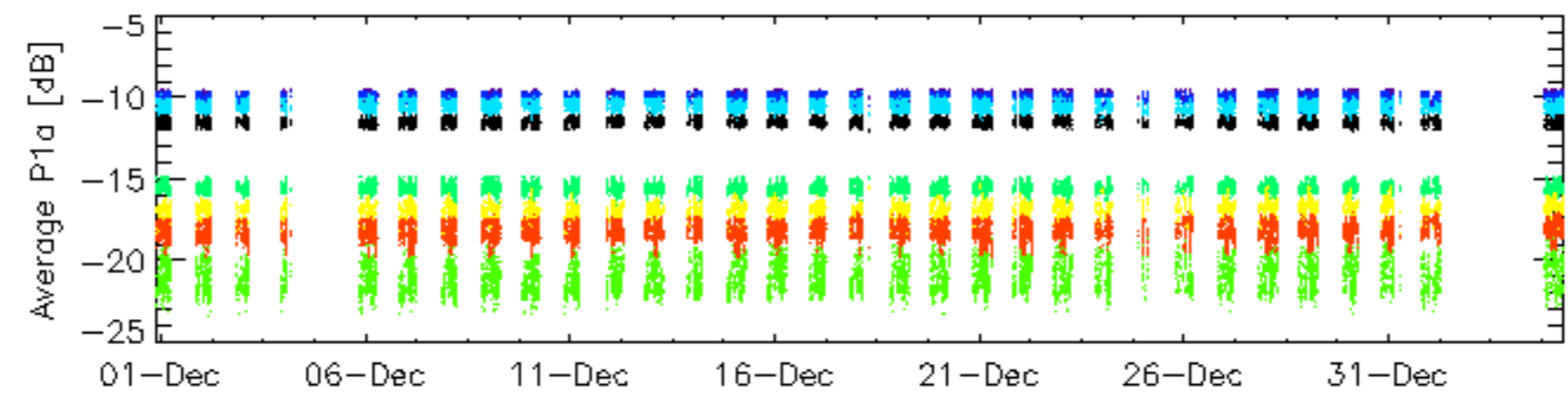
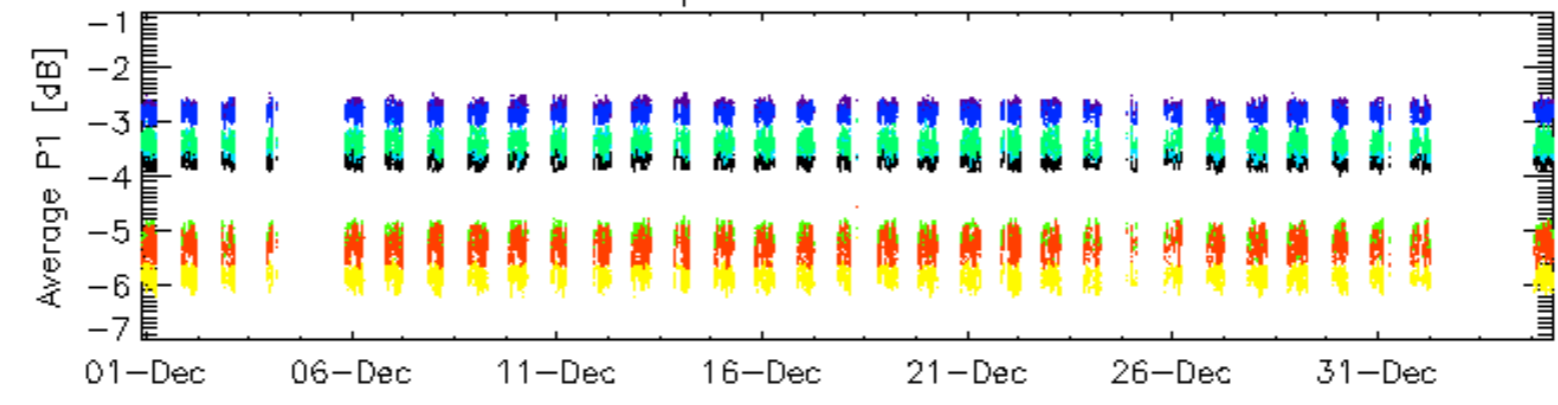


Cal pulses for WVS IS2



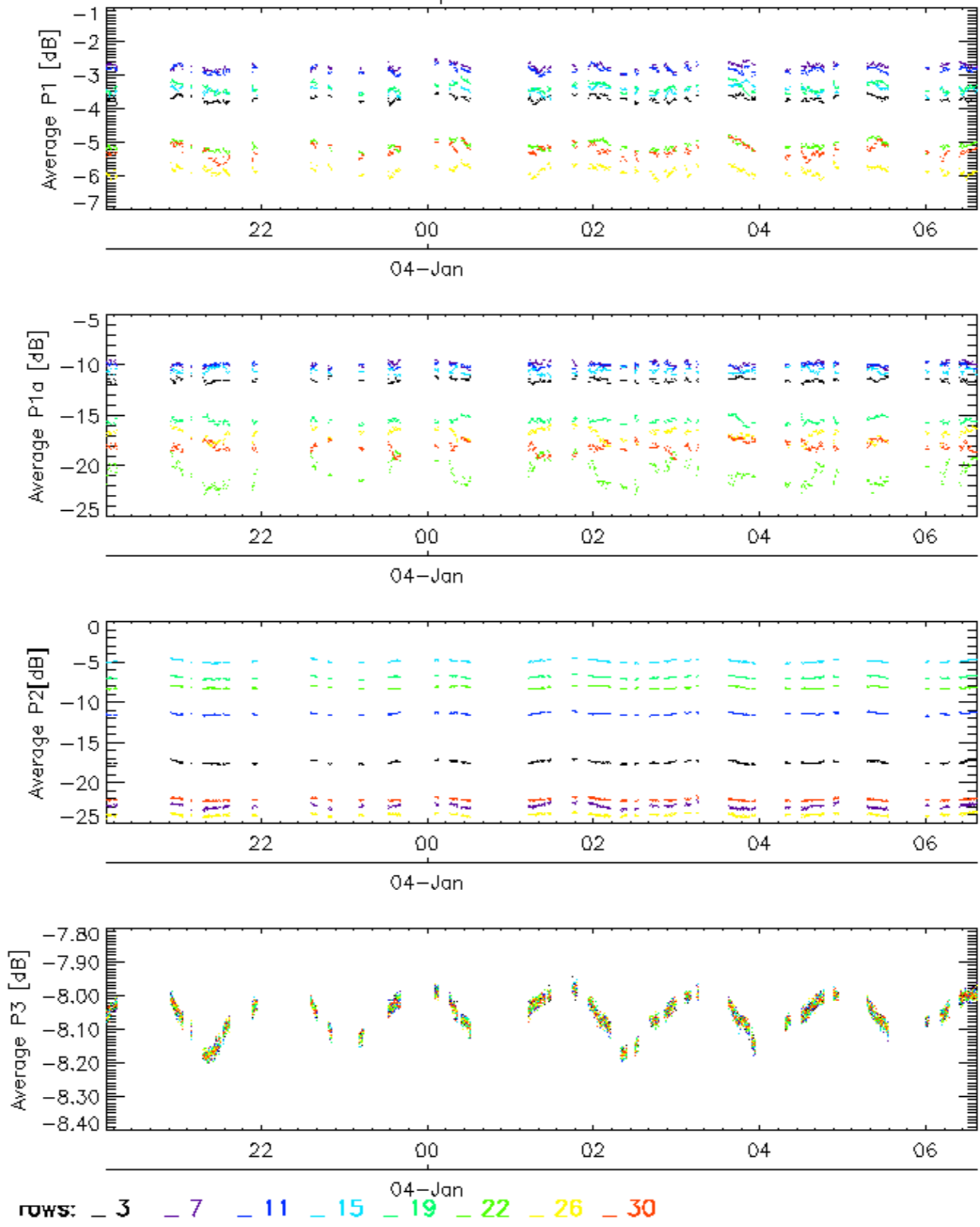
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

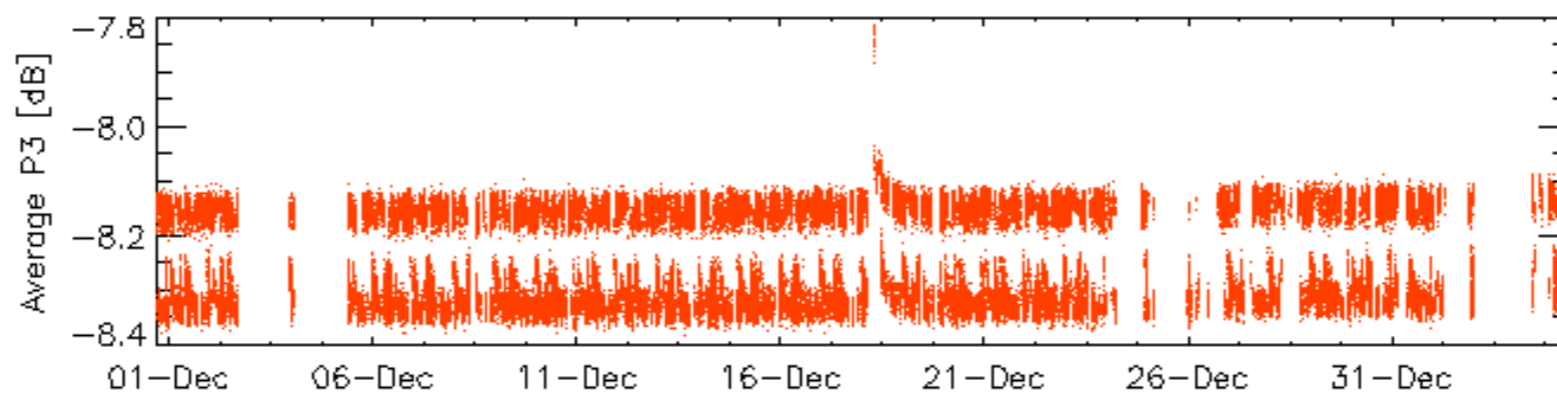
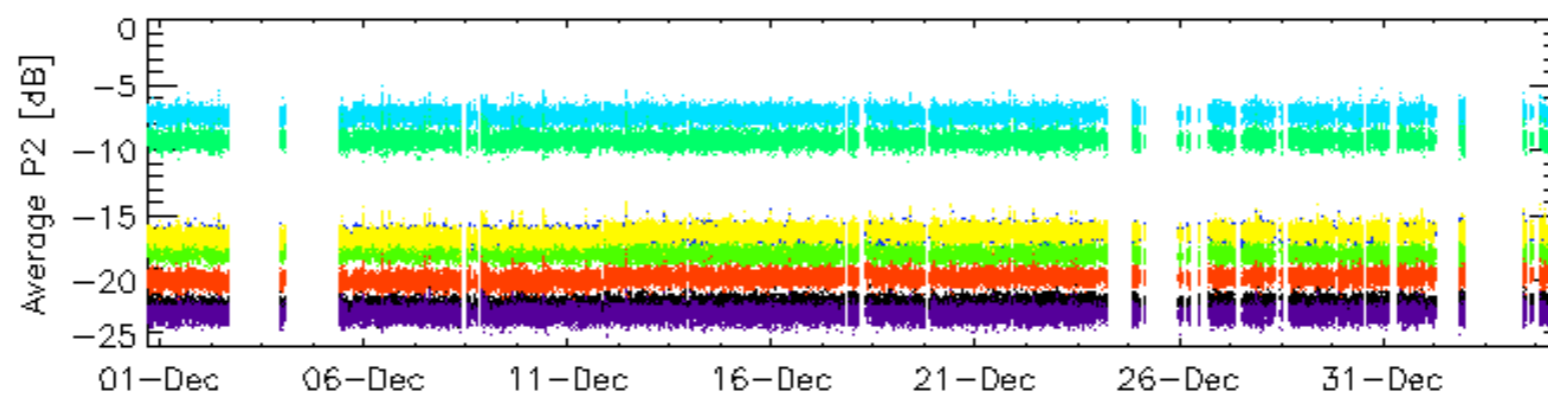
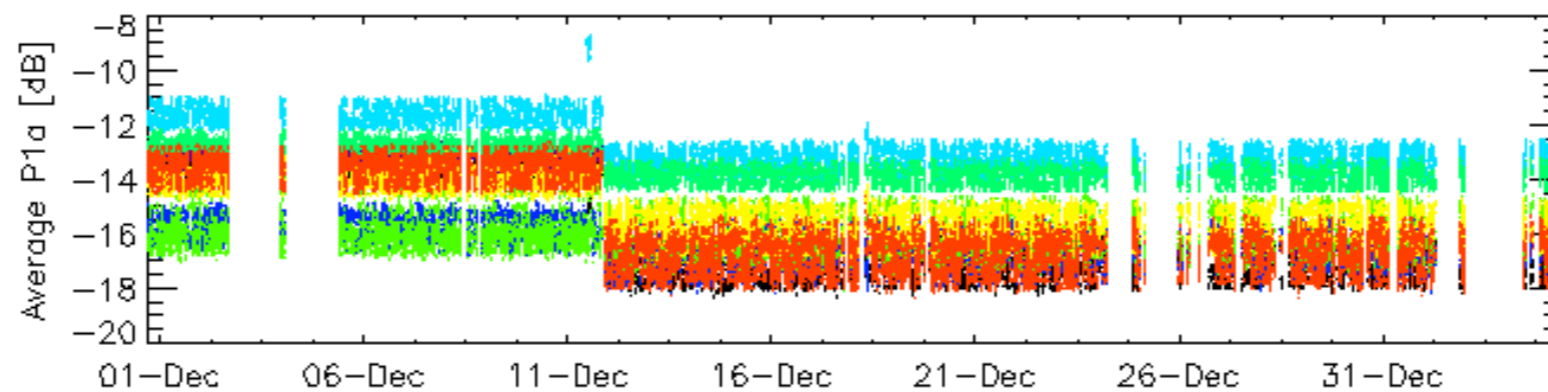
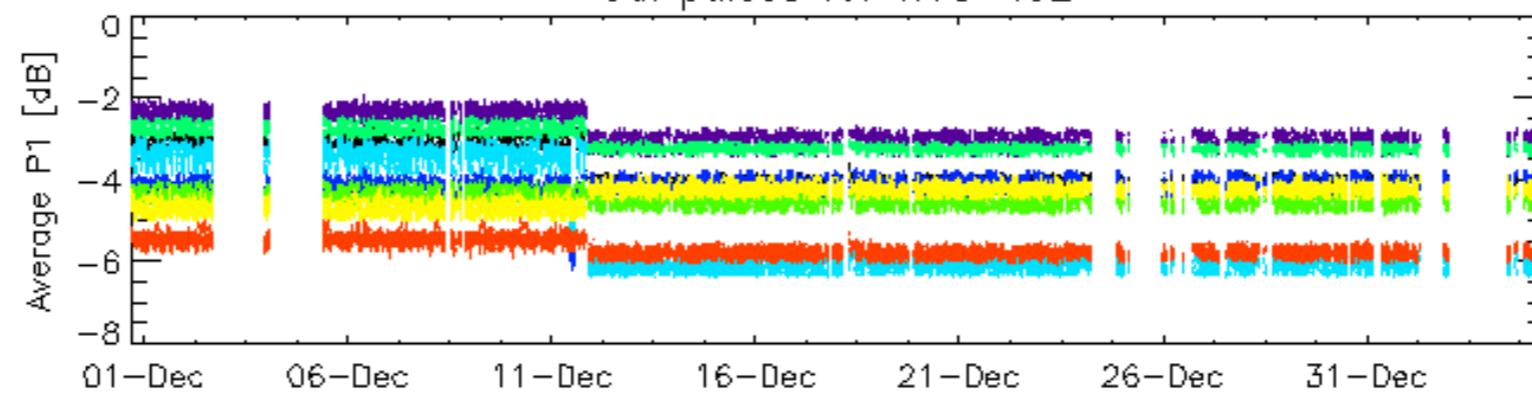


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

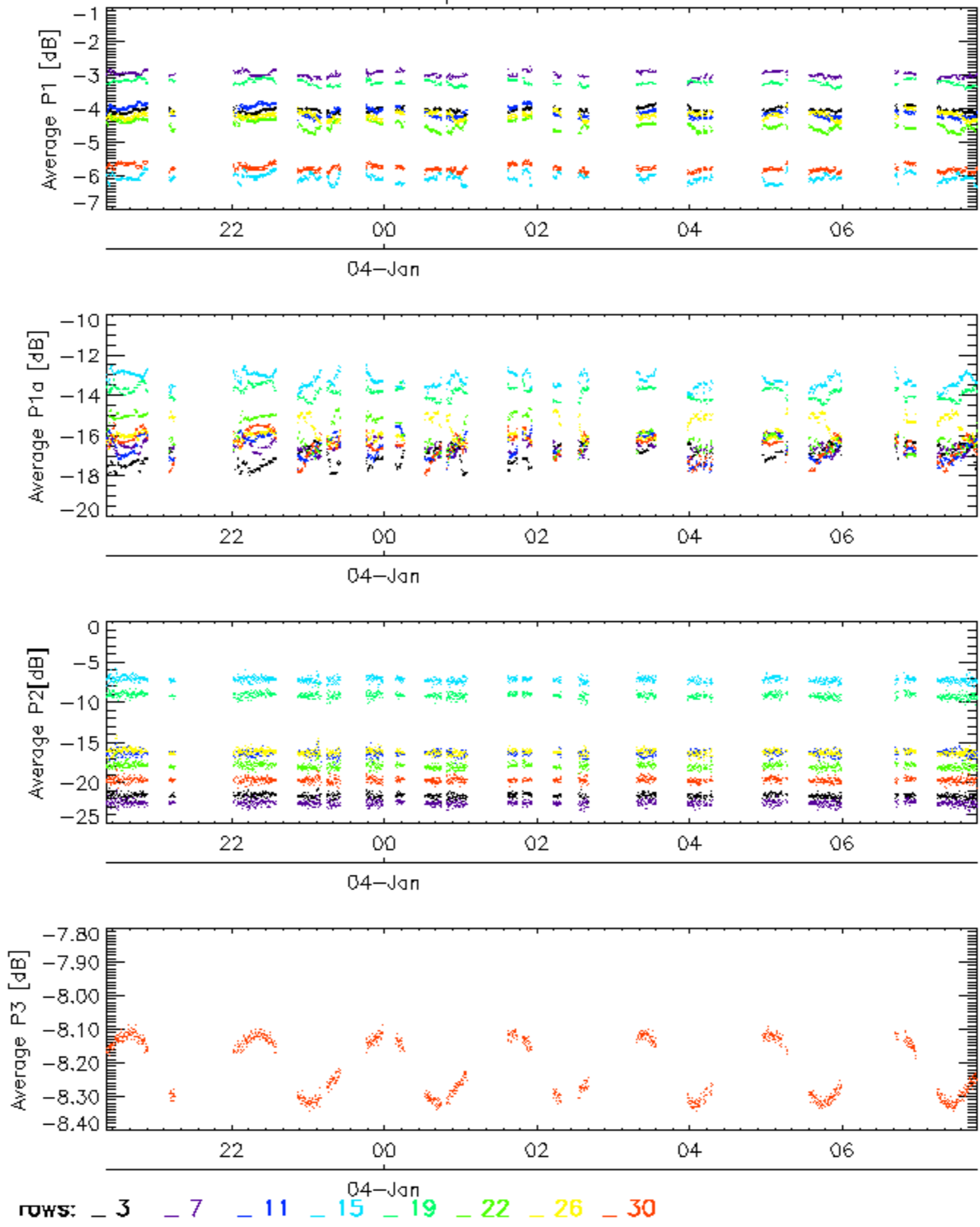


Cal pulses for WVS IS2



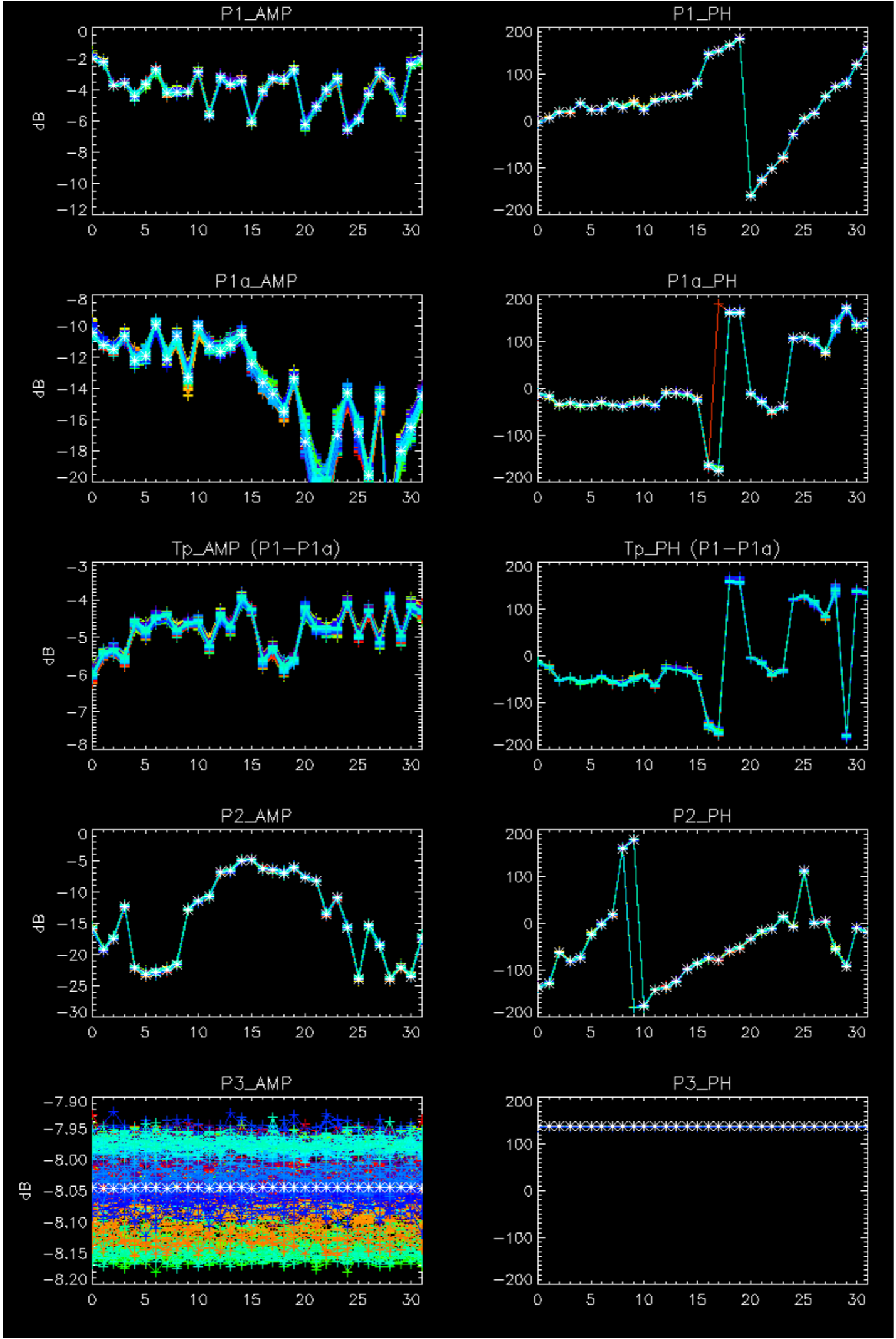
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

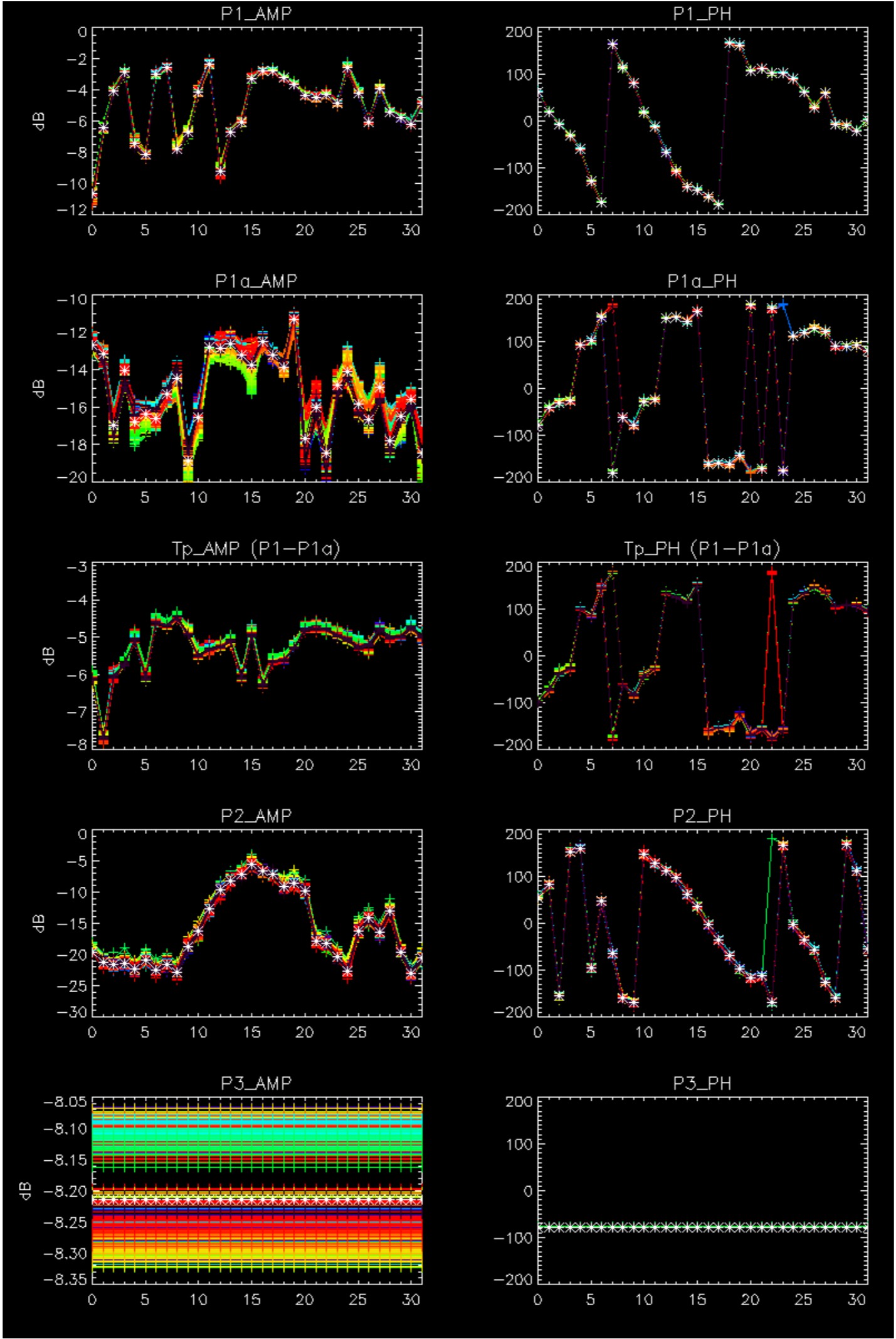
Cal pulses for WVS IS2



No anomalies observed on available browse products

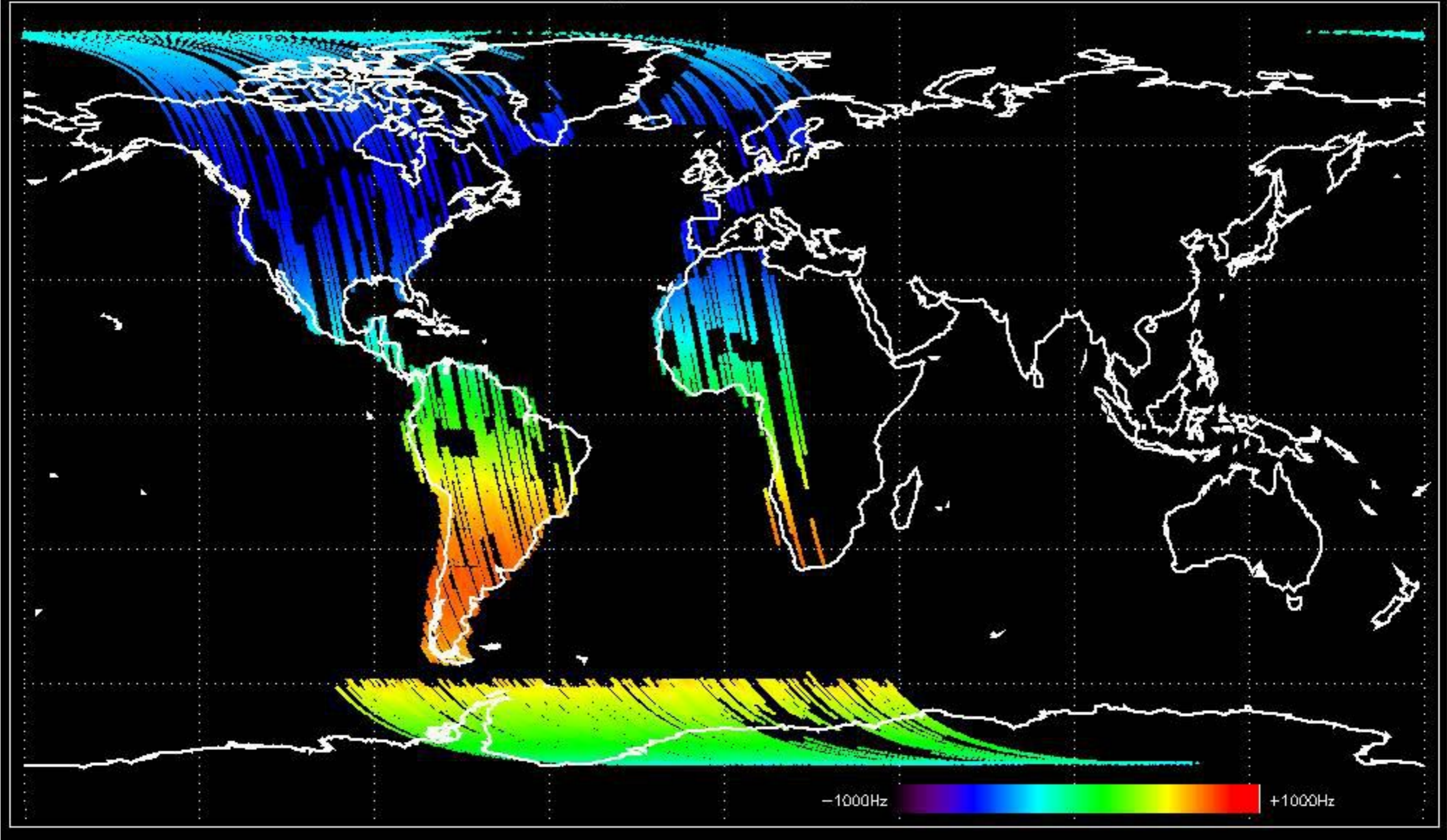
No anomalies observed.



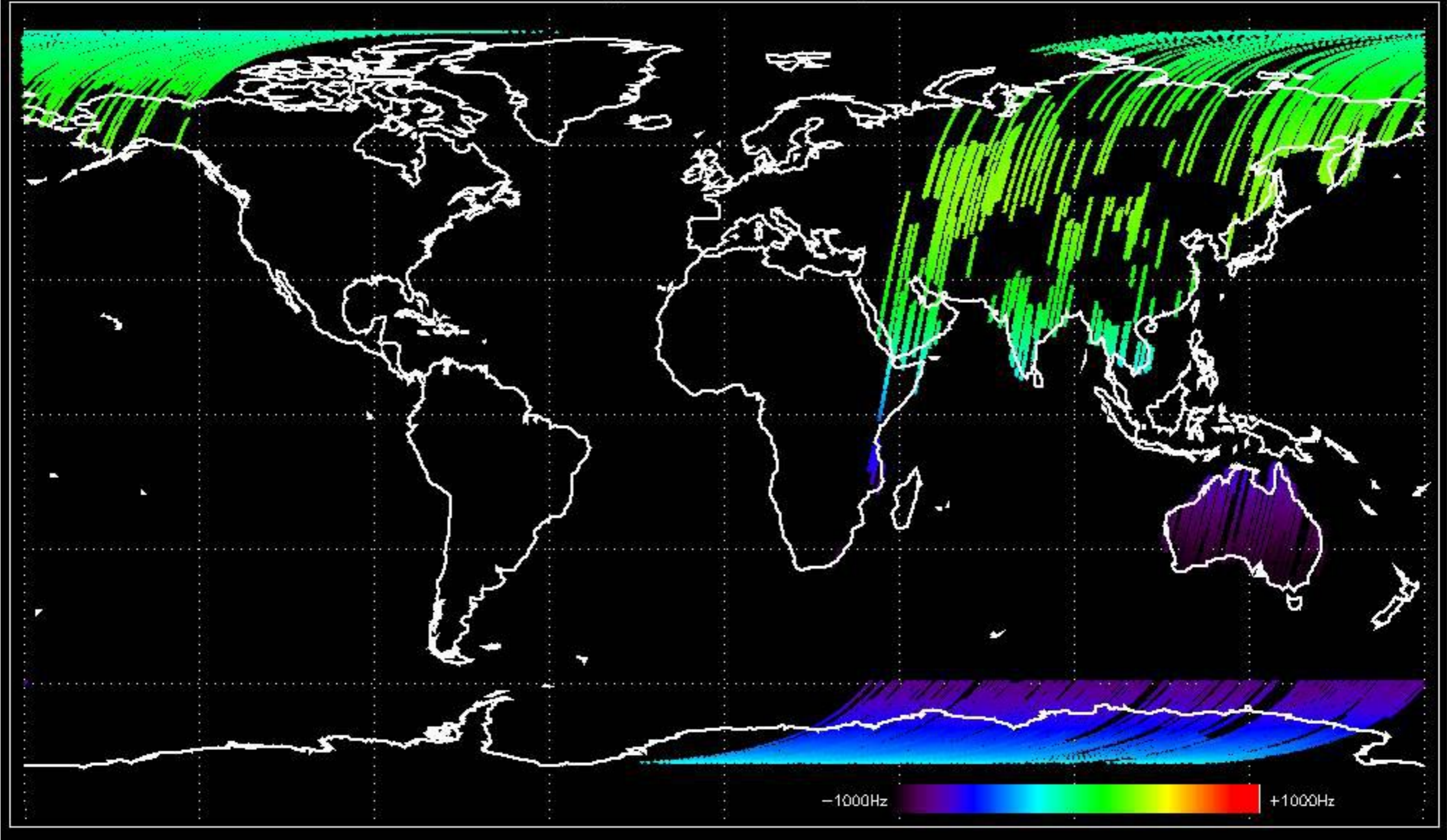


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

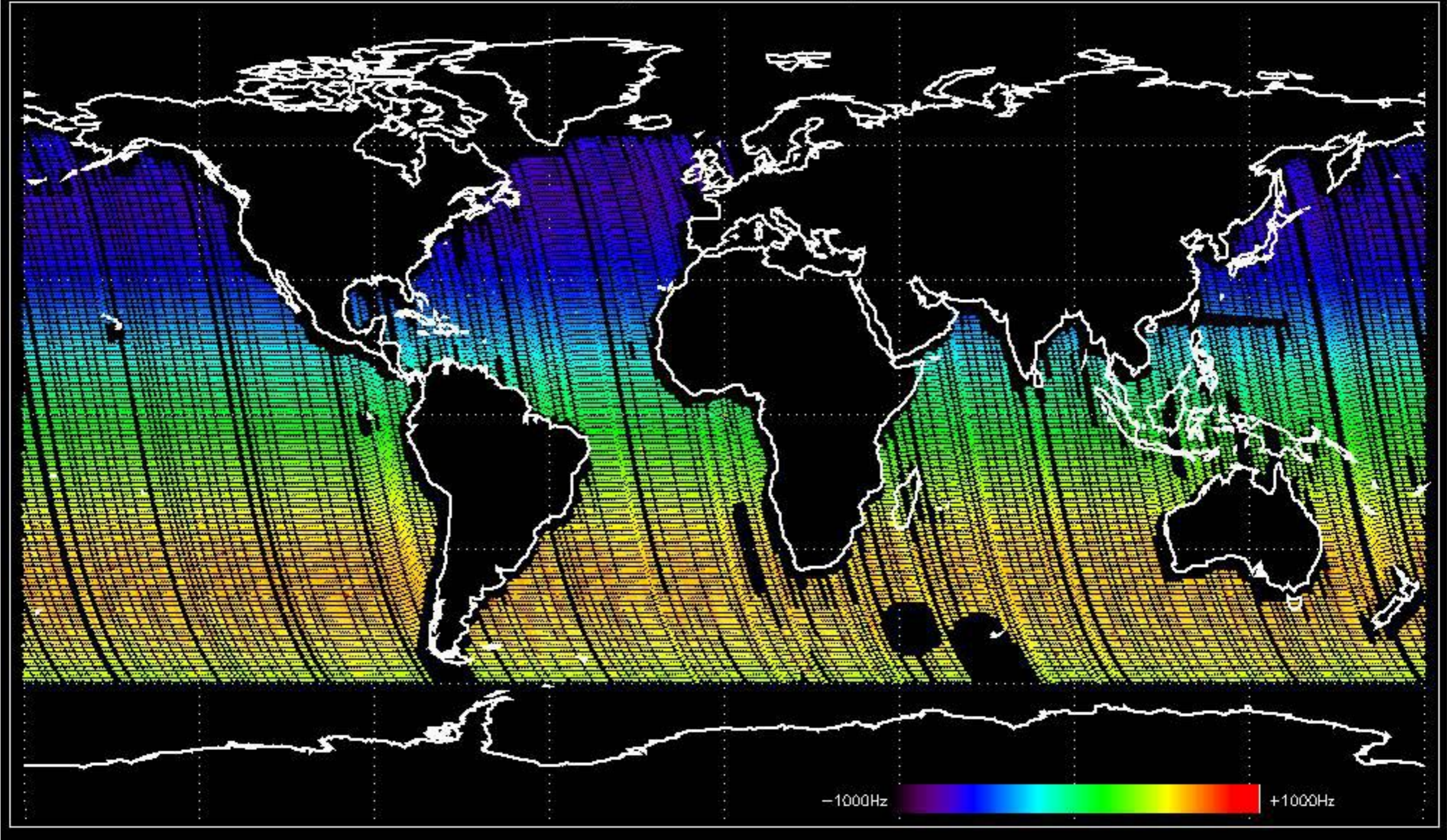
Doppler 'GM1' 'SS1' ascending



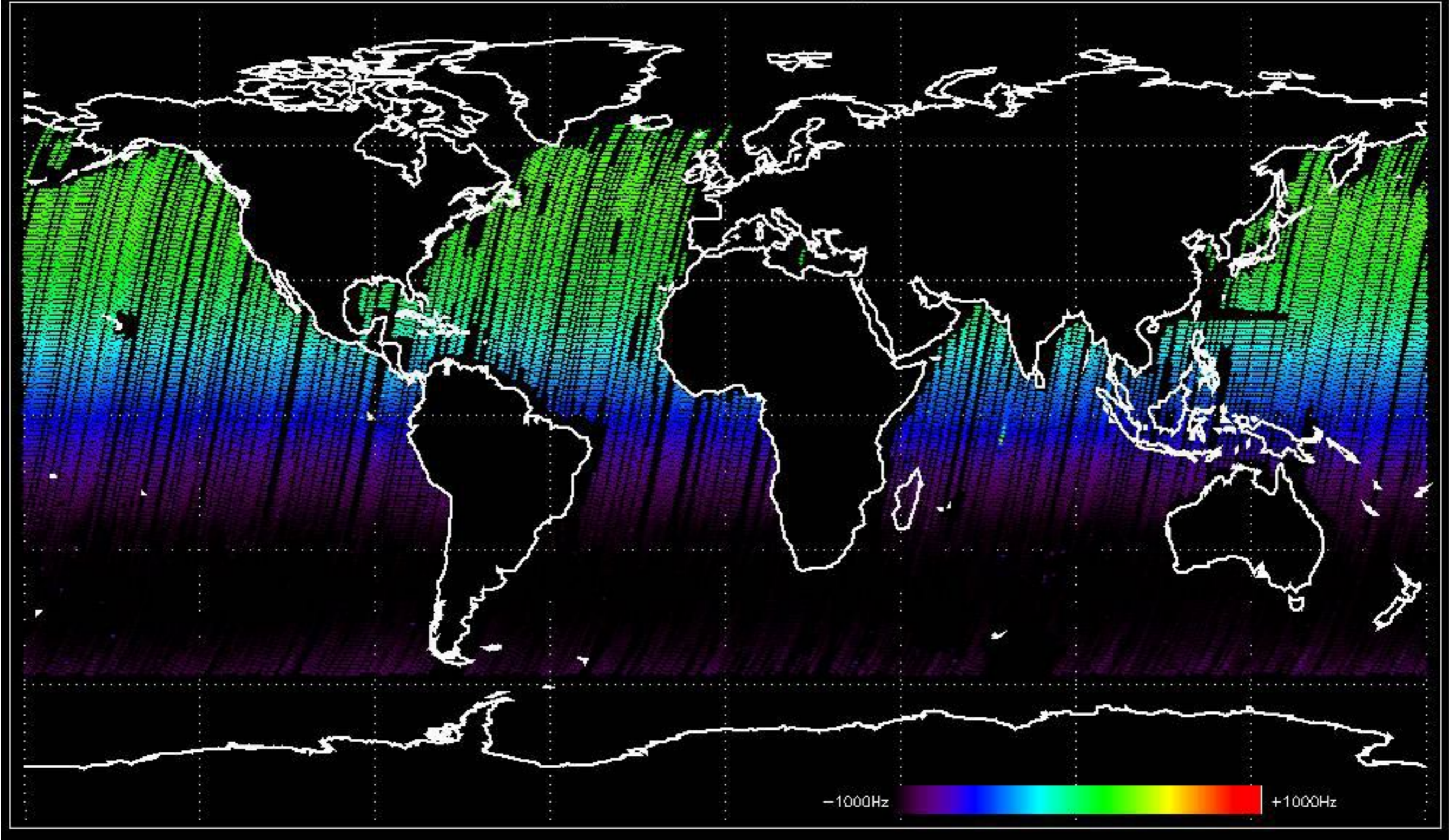
Doppler 'GM1' 'SS1' descending



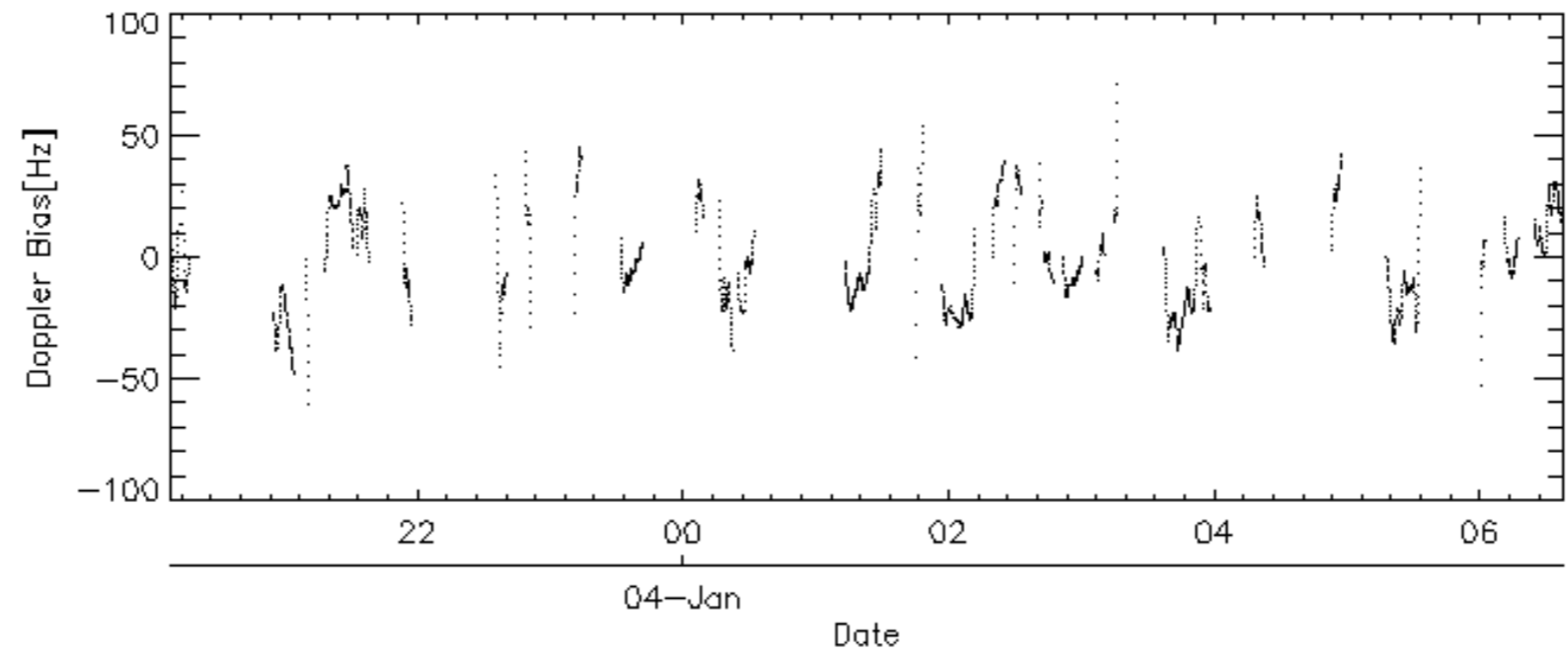
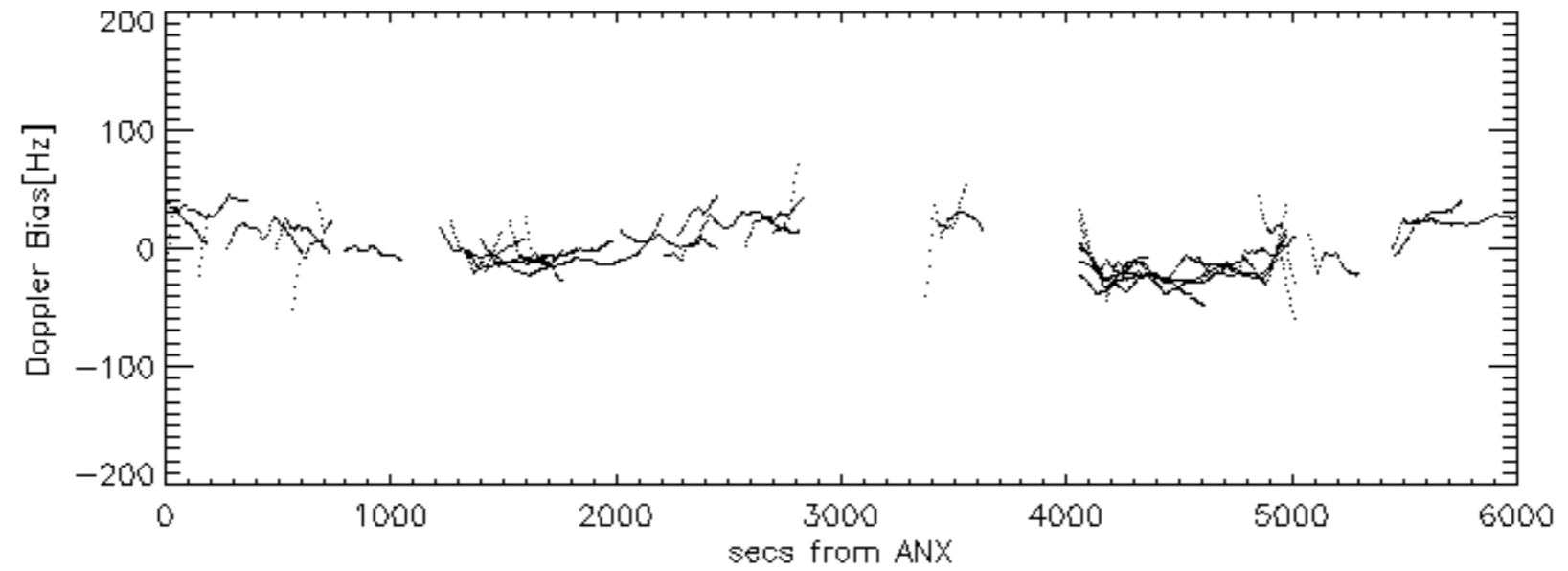
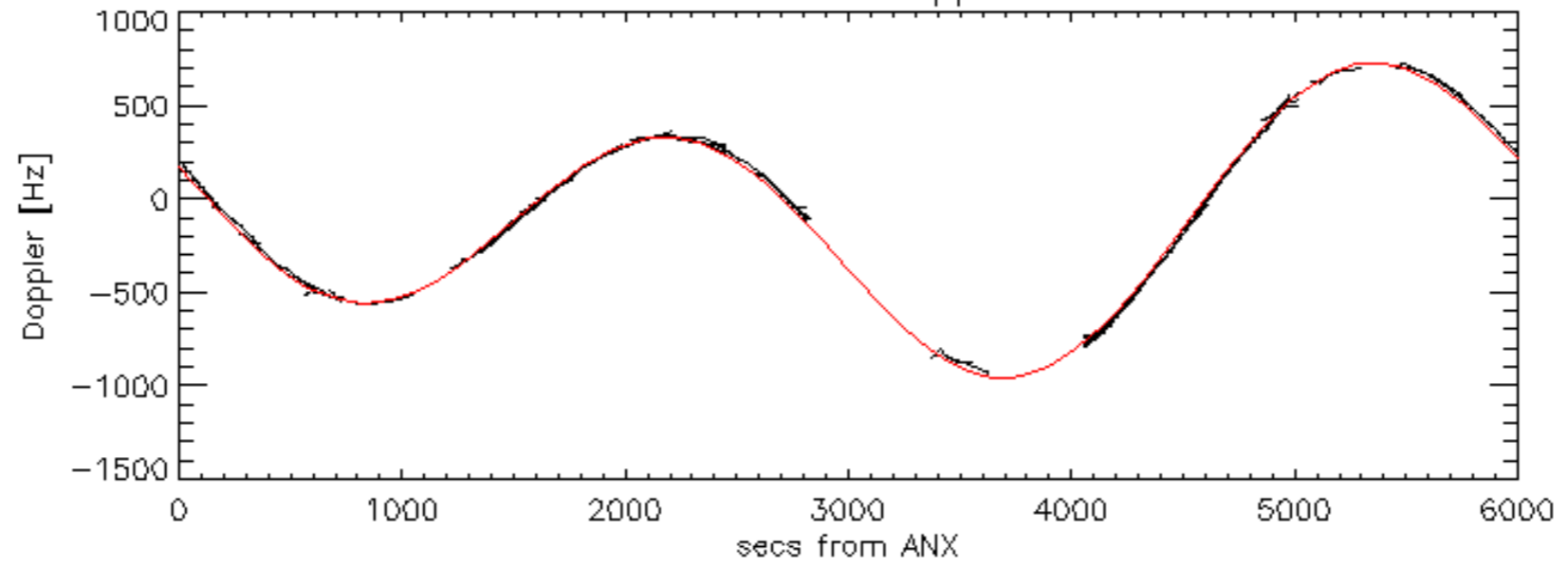
Doppler 'WVS' 'IS2' ascending

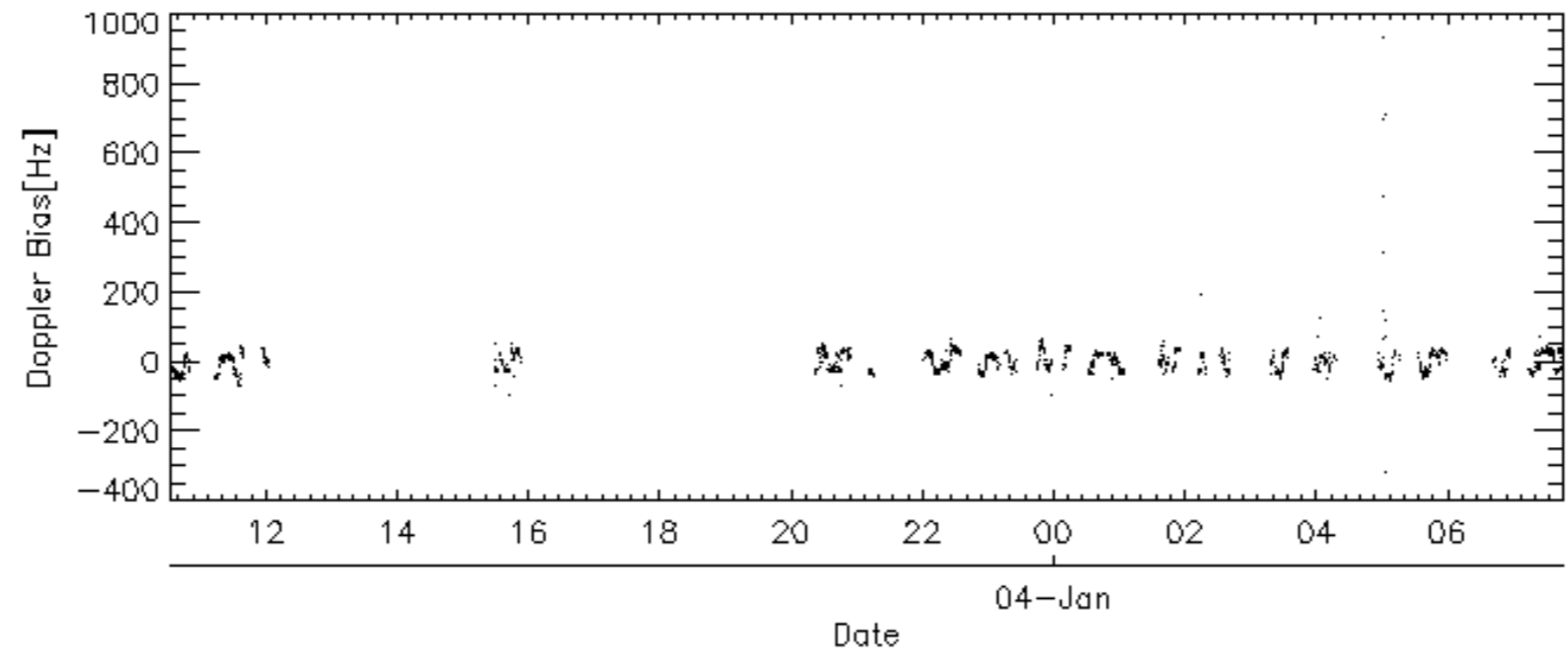
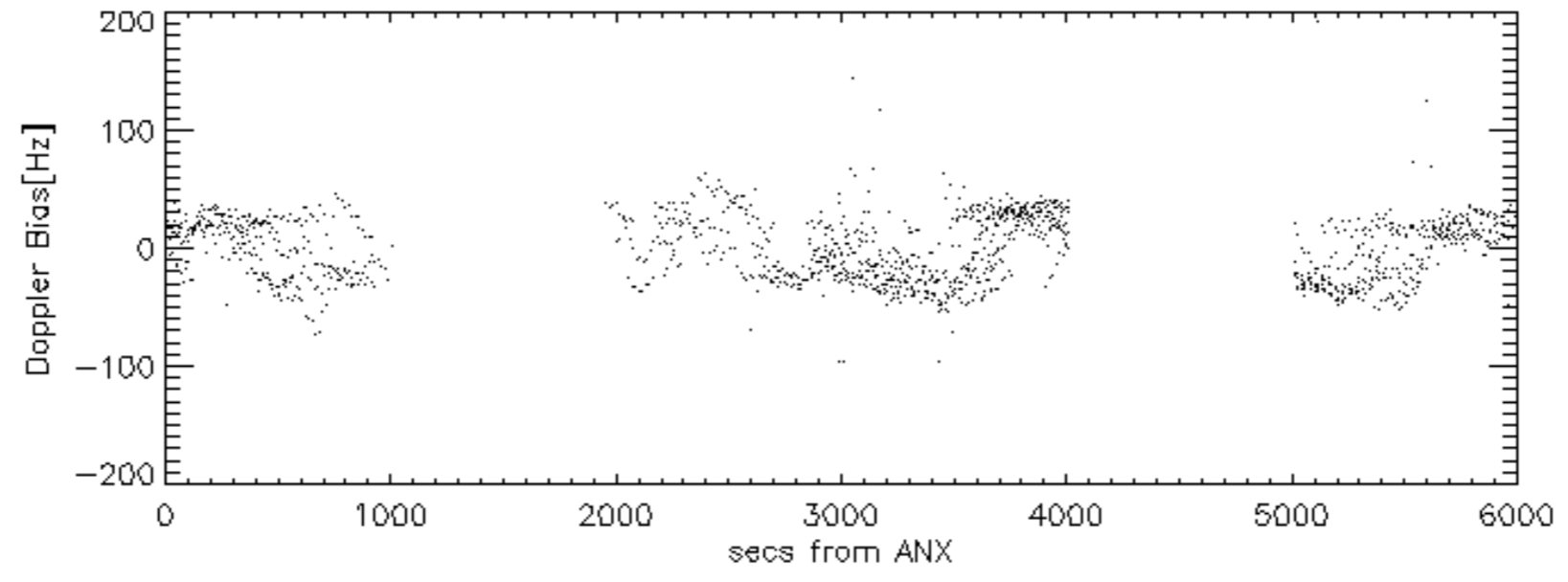
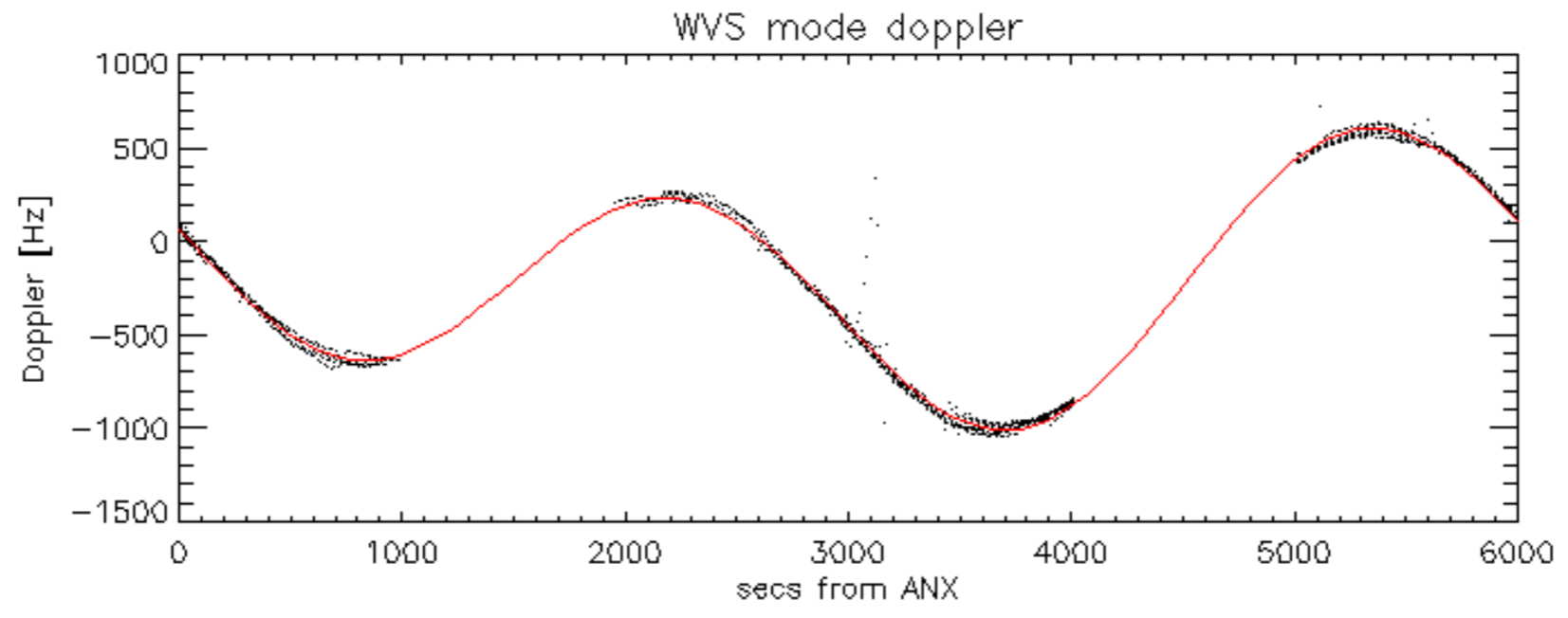


Doppler 'WVS' 'IS2' descending

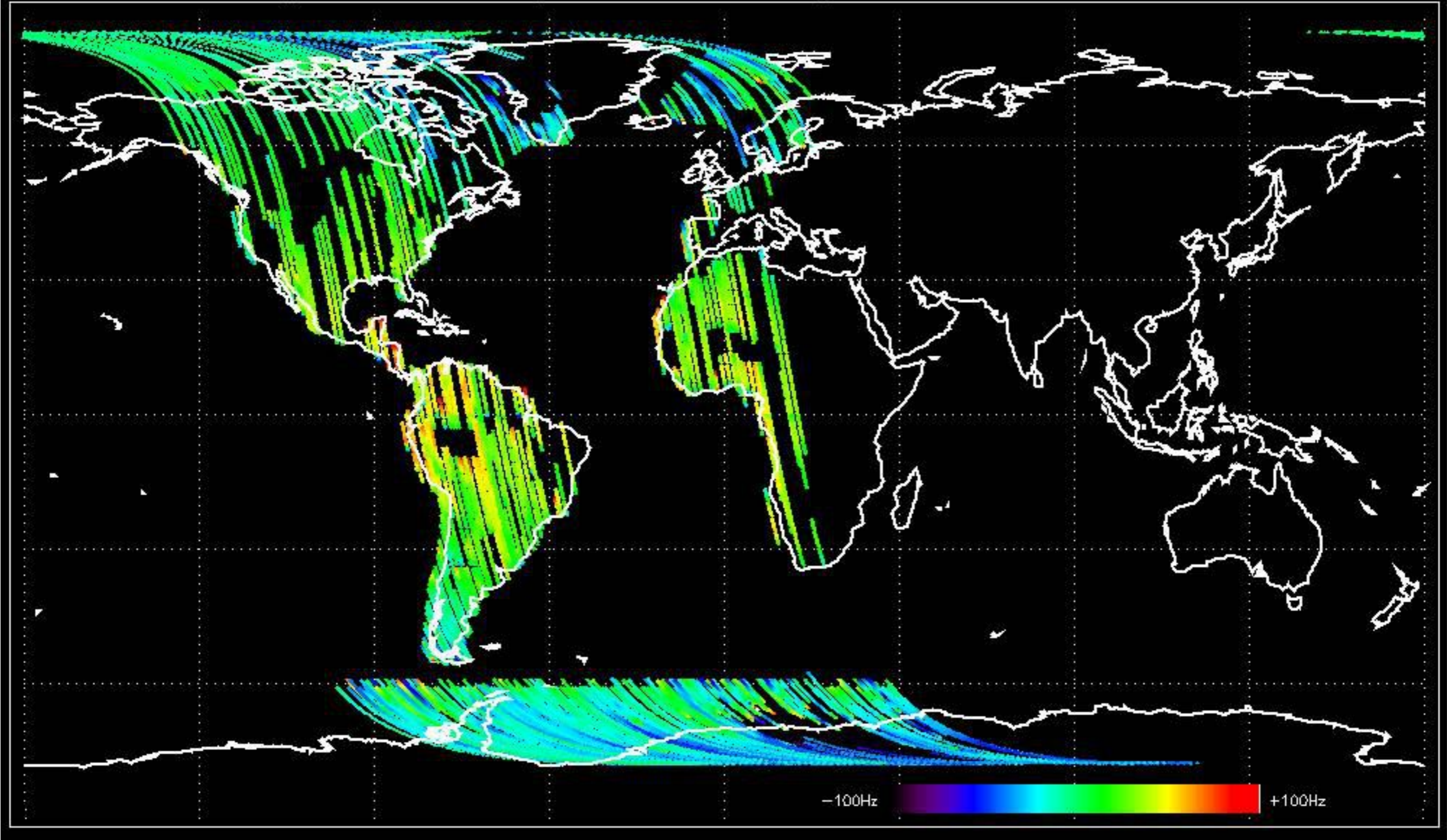


GM1 mode doppler

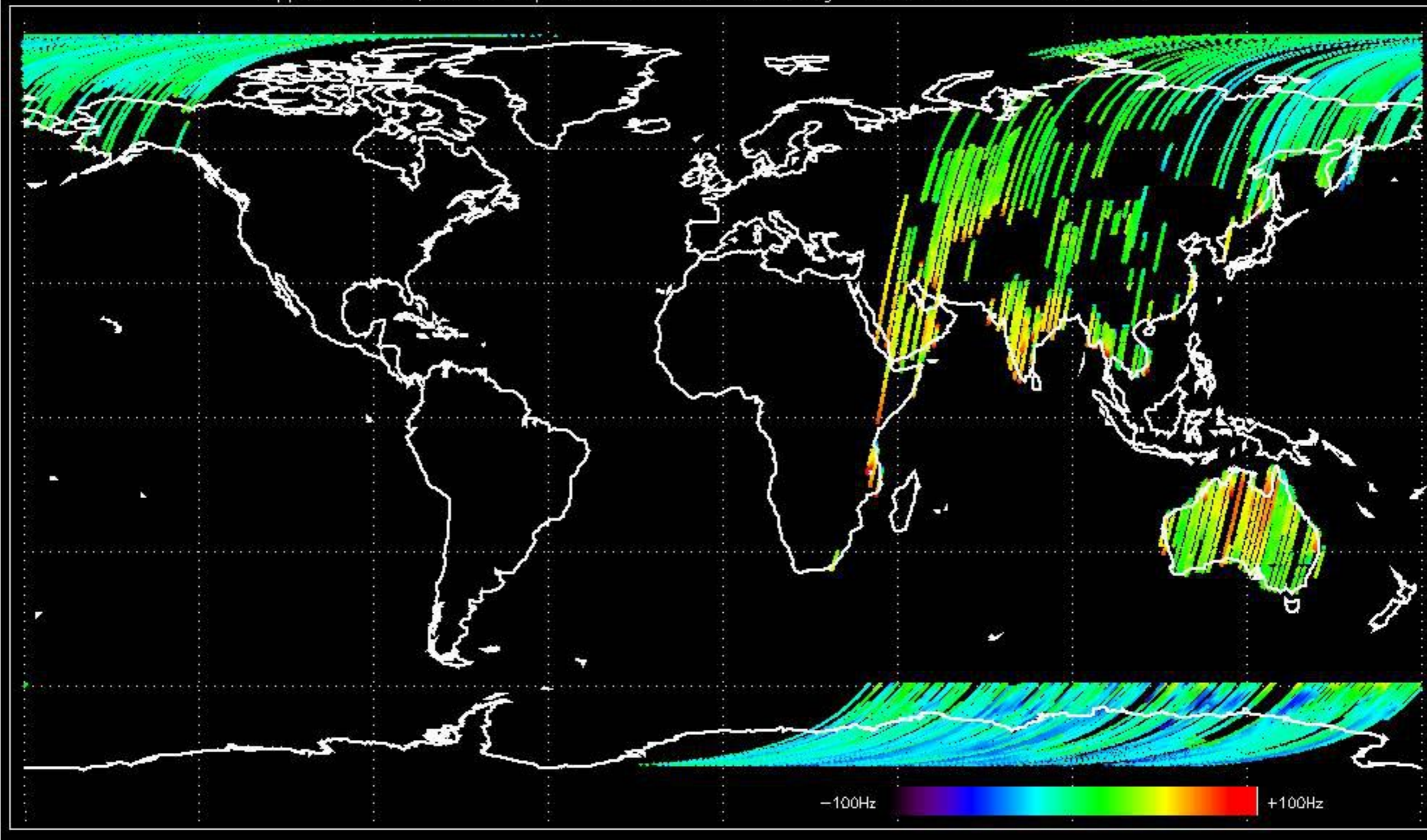




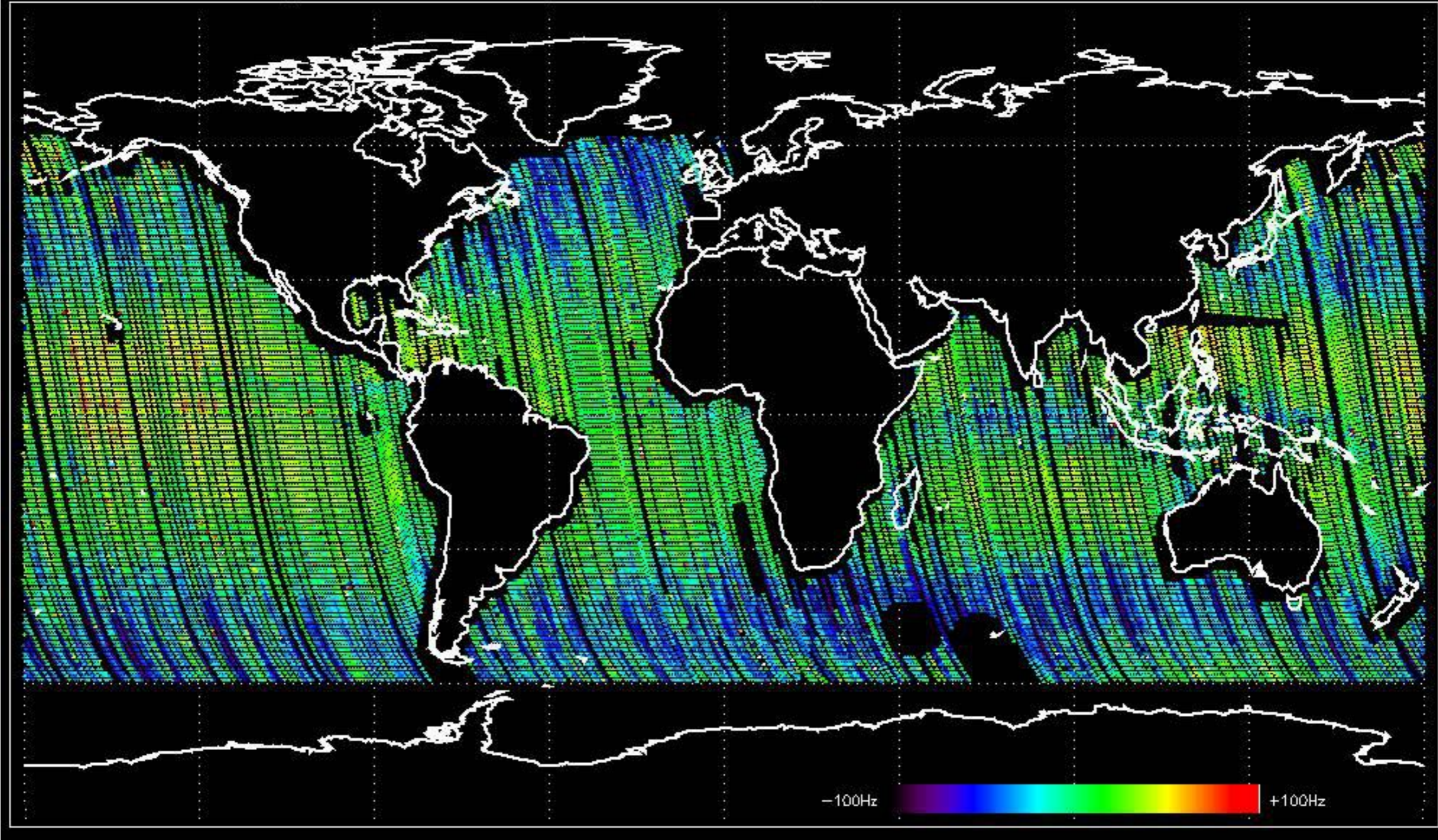
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -13.779385 Hz



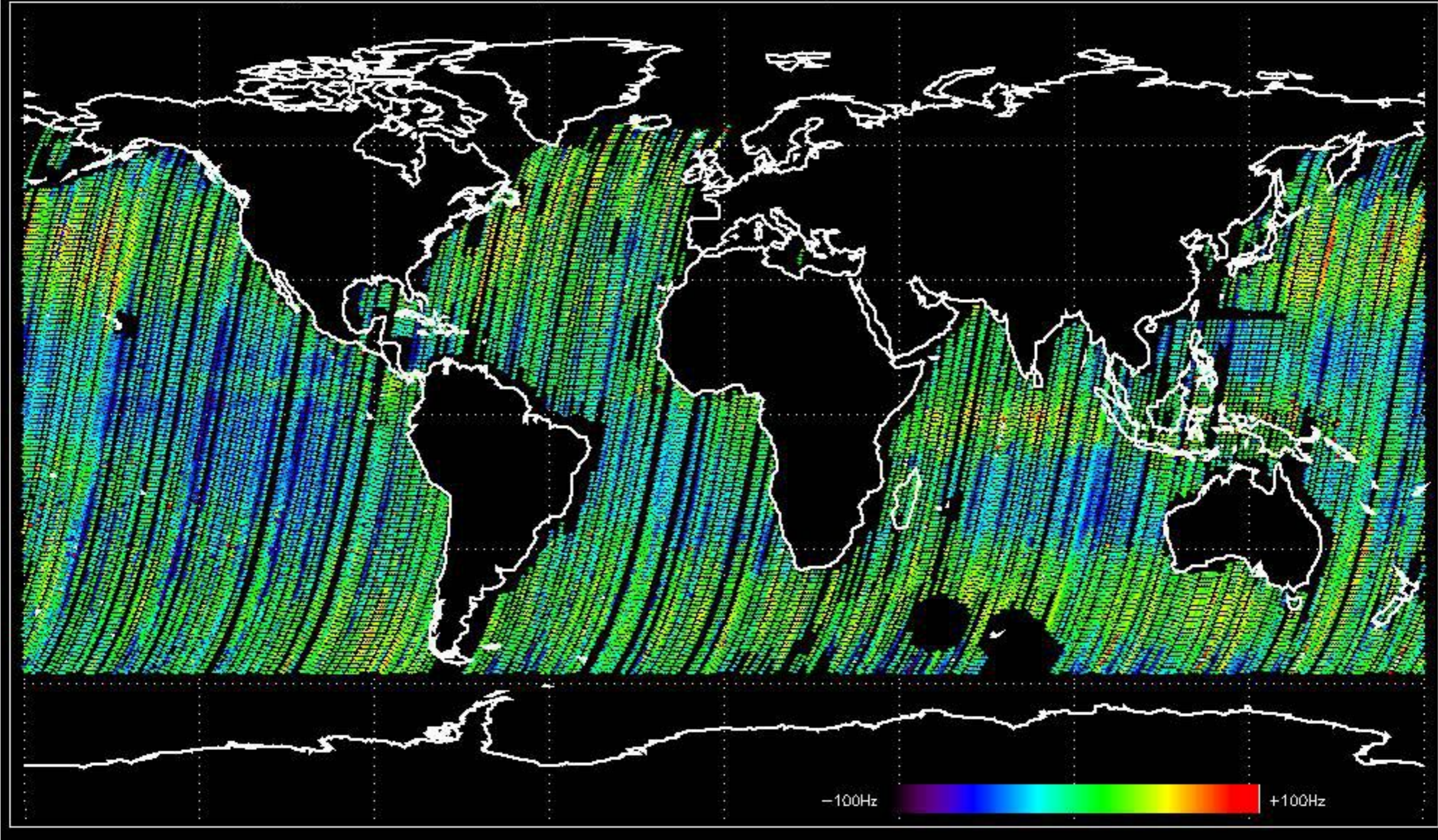
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.837761 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -10.995677 Hz

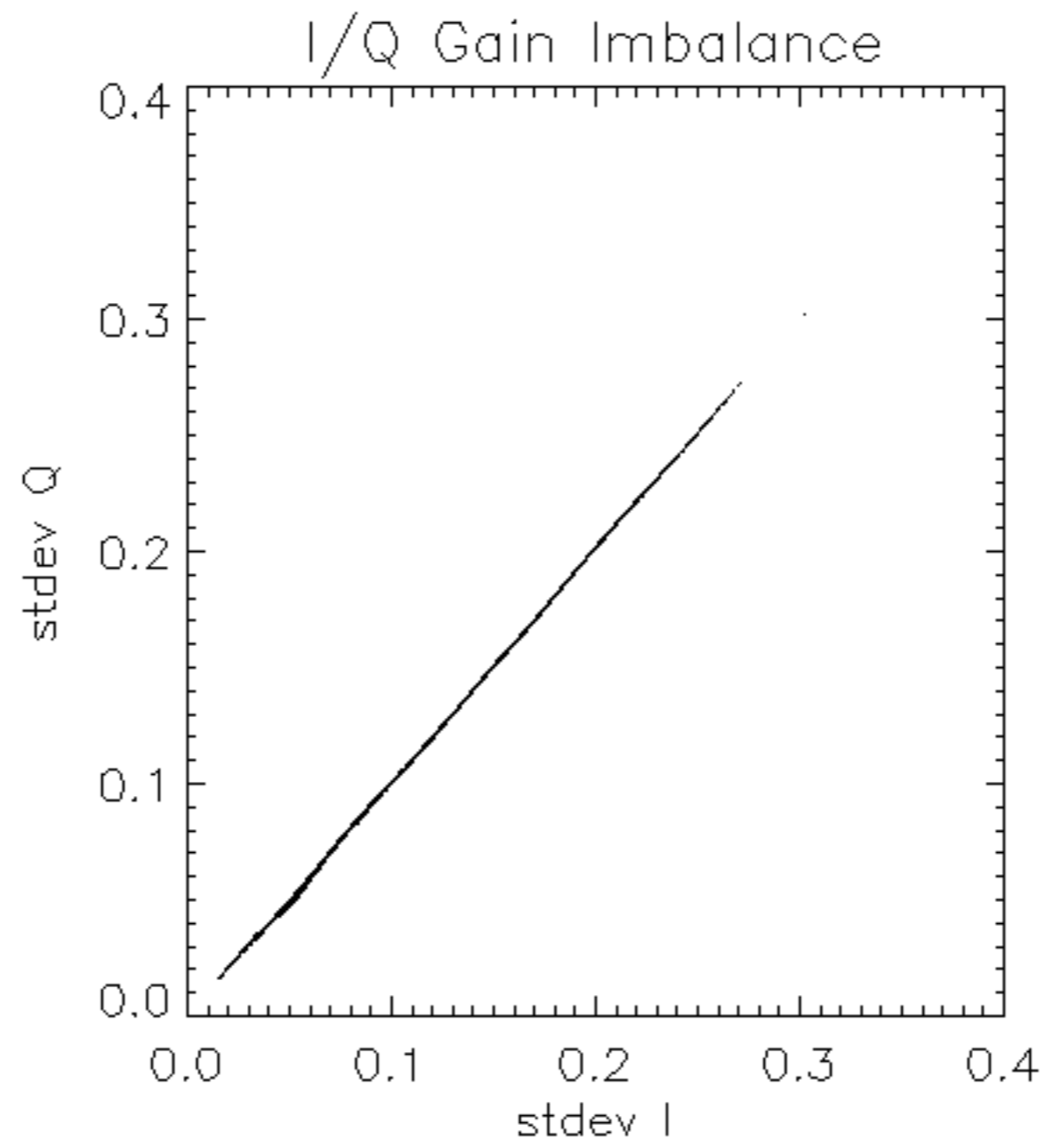


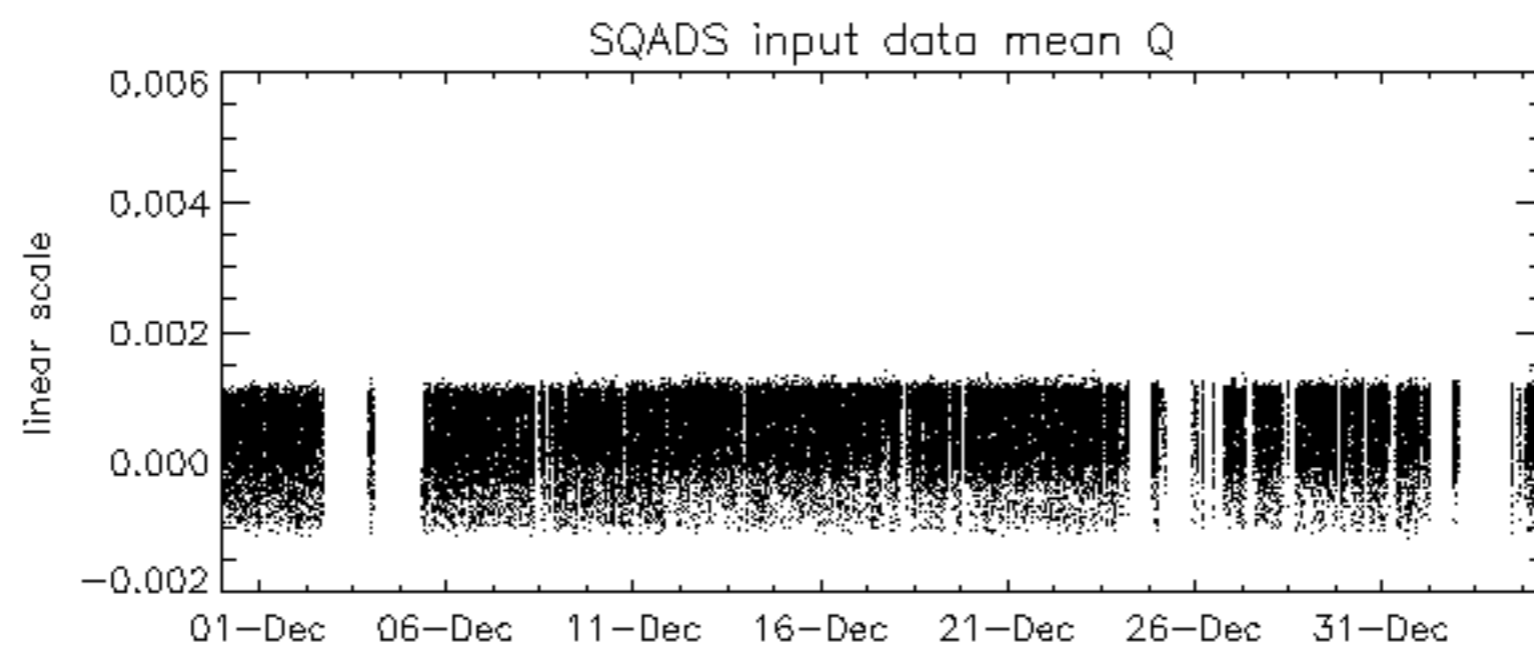
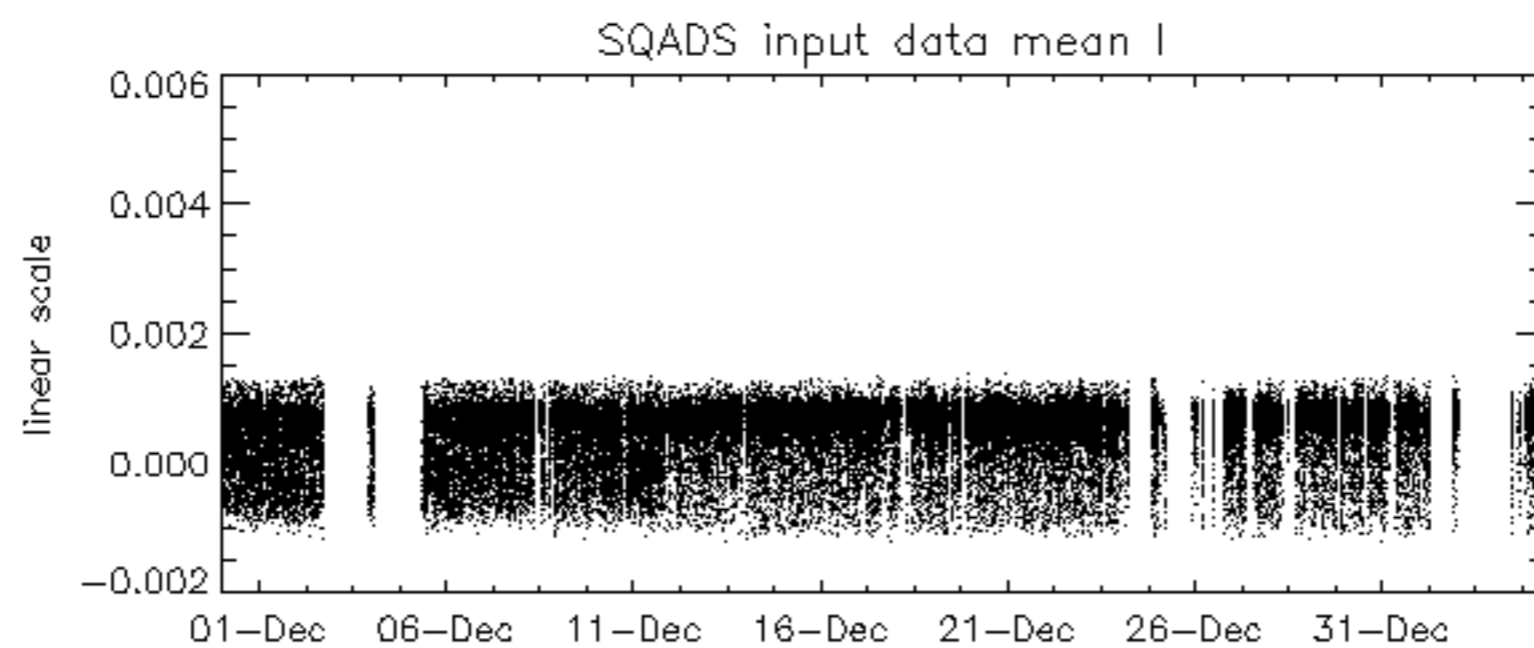
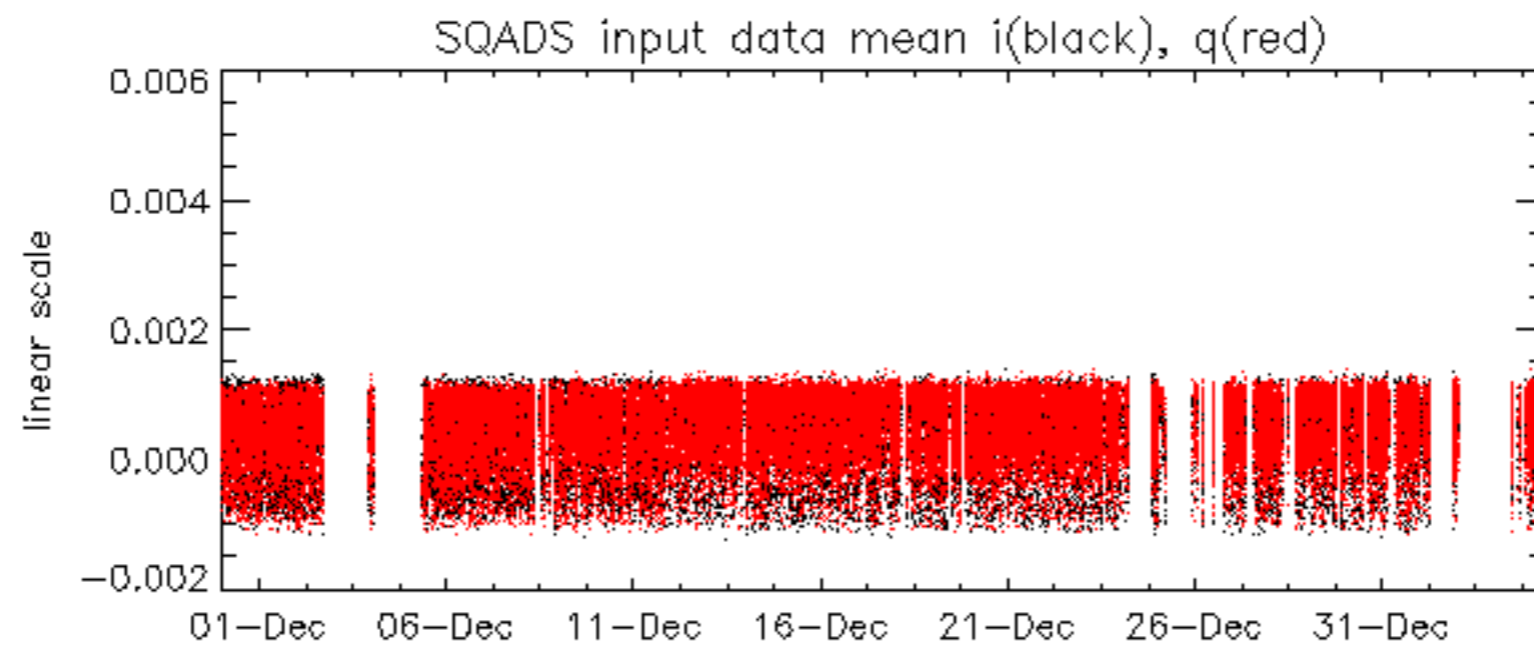
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.987213 Hz

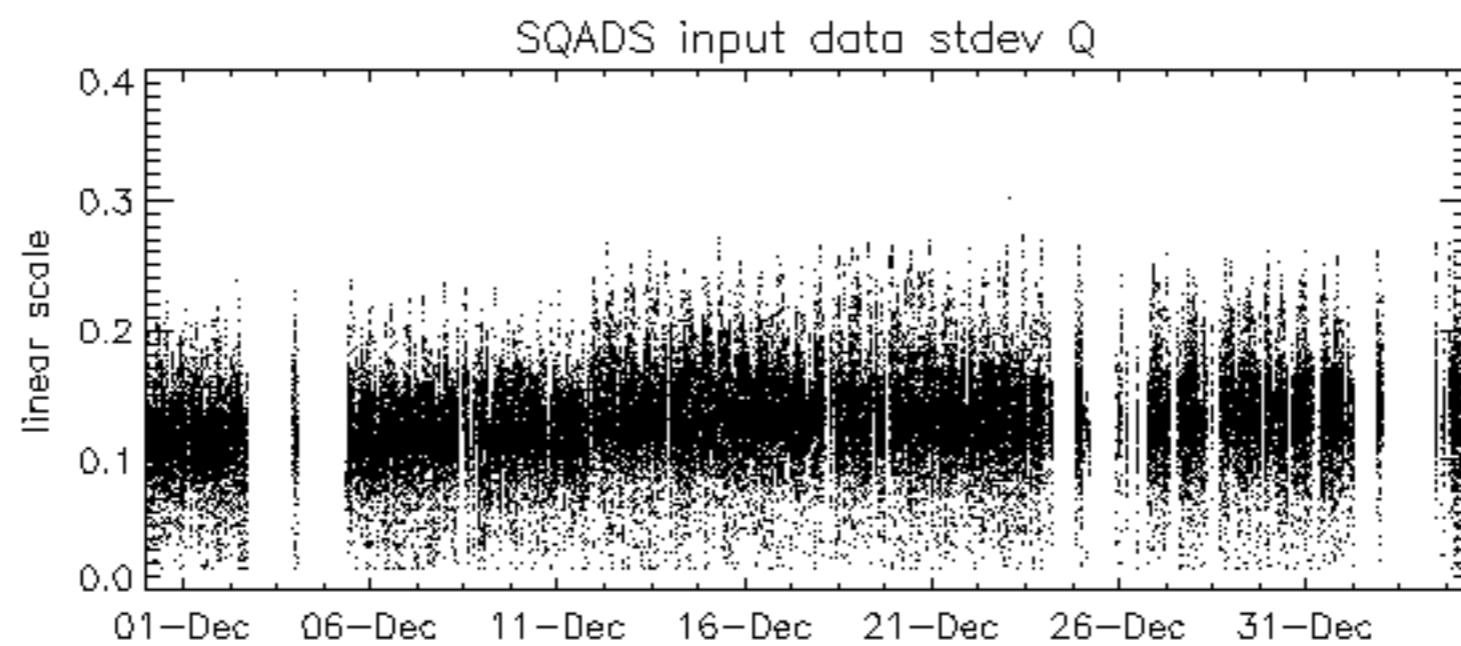
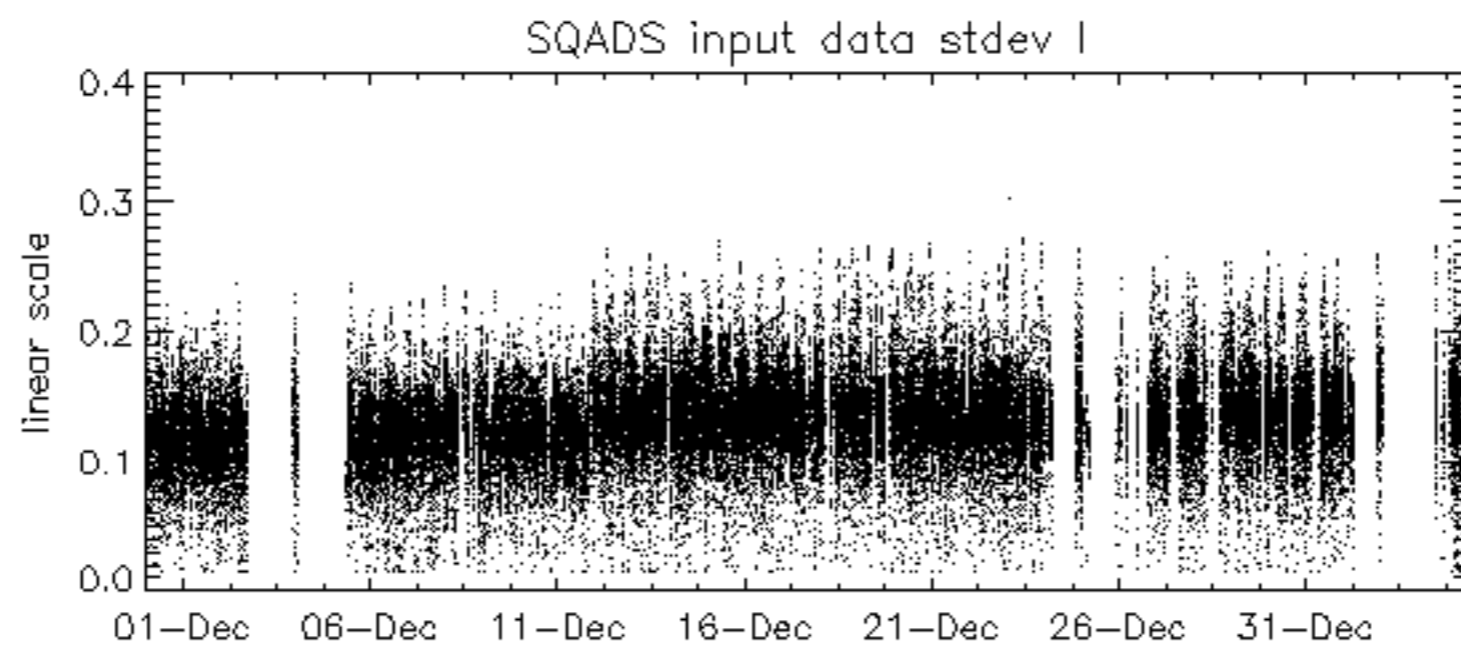
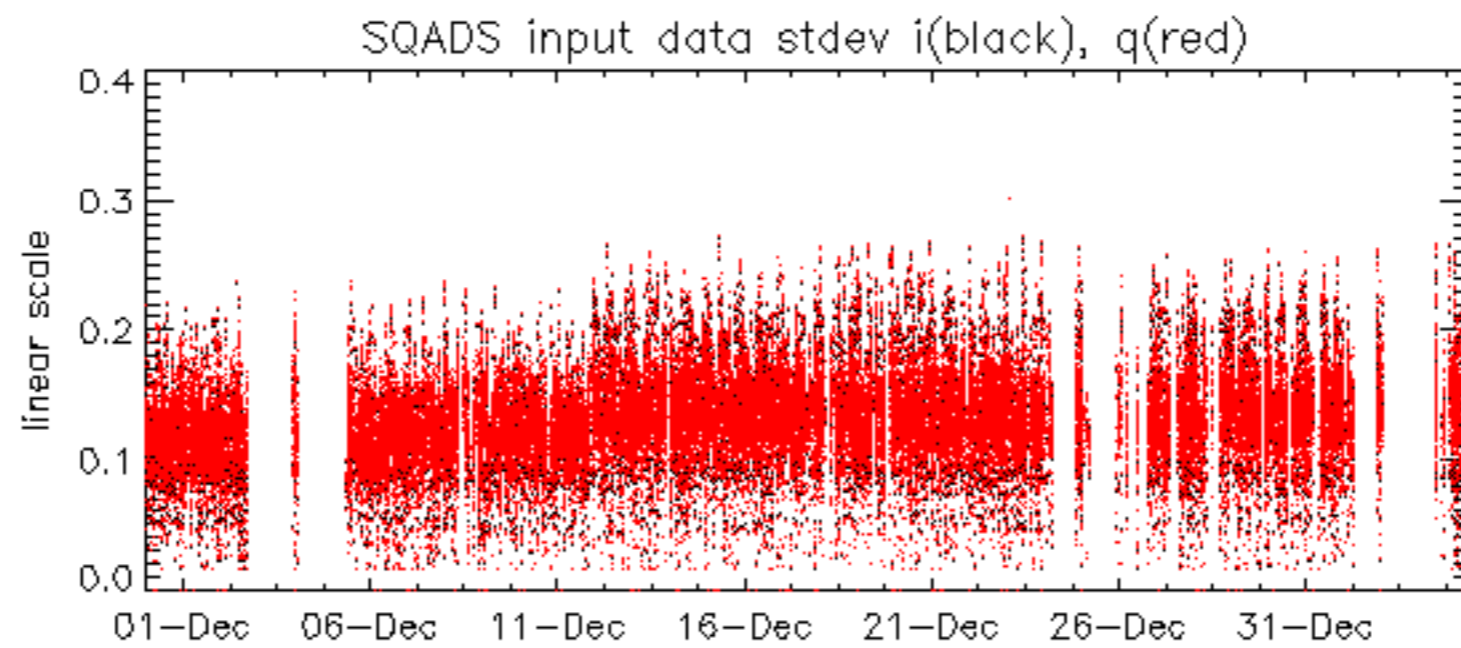


No anomalies observed on available MS products:

No anomalies observed.



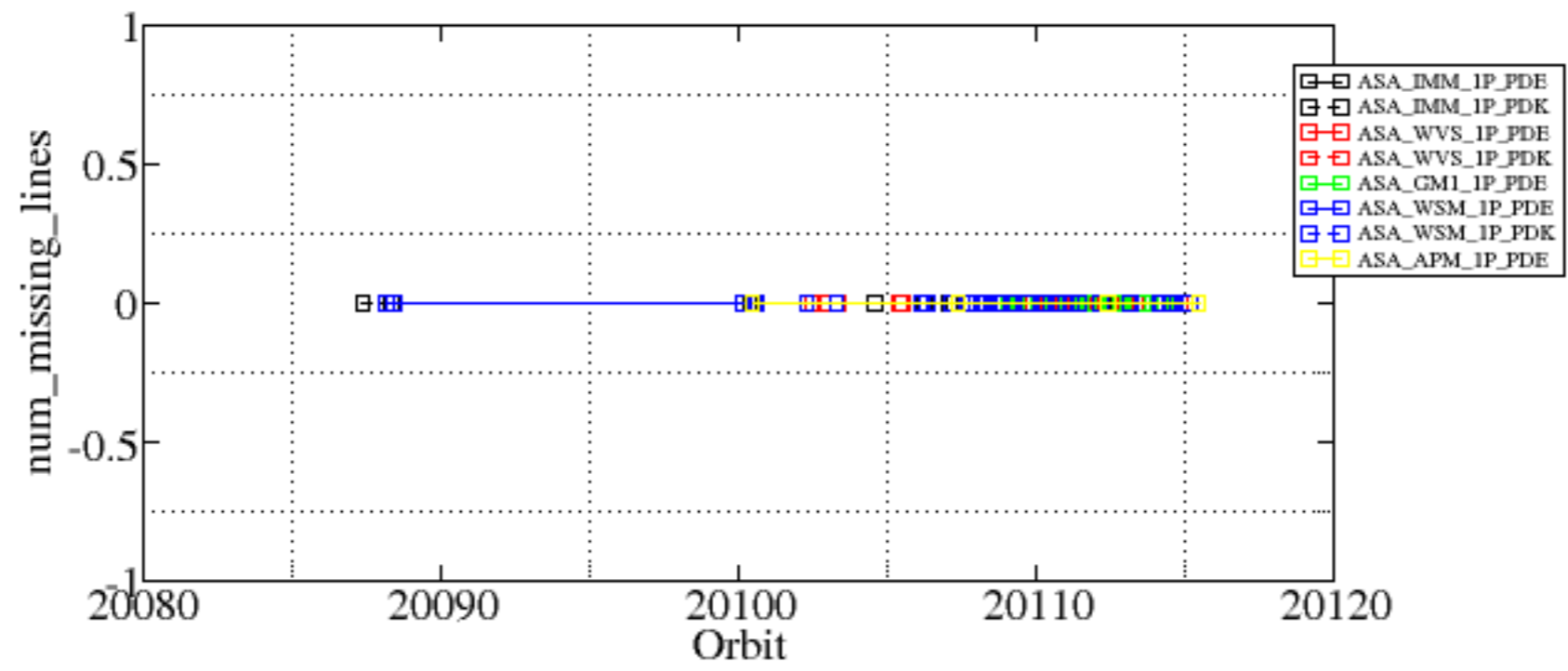




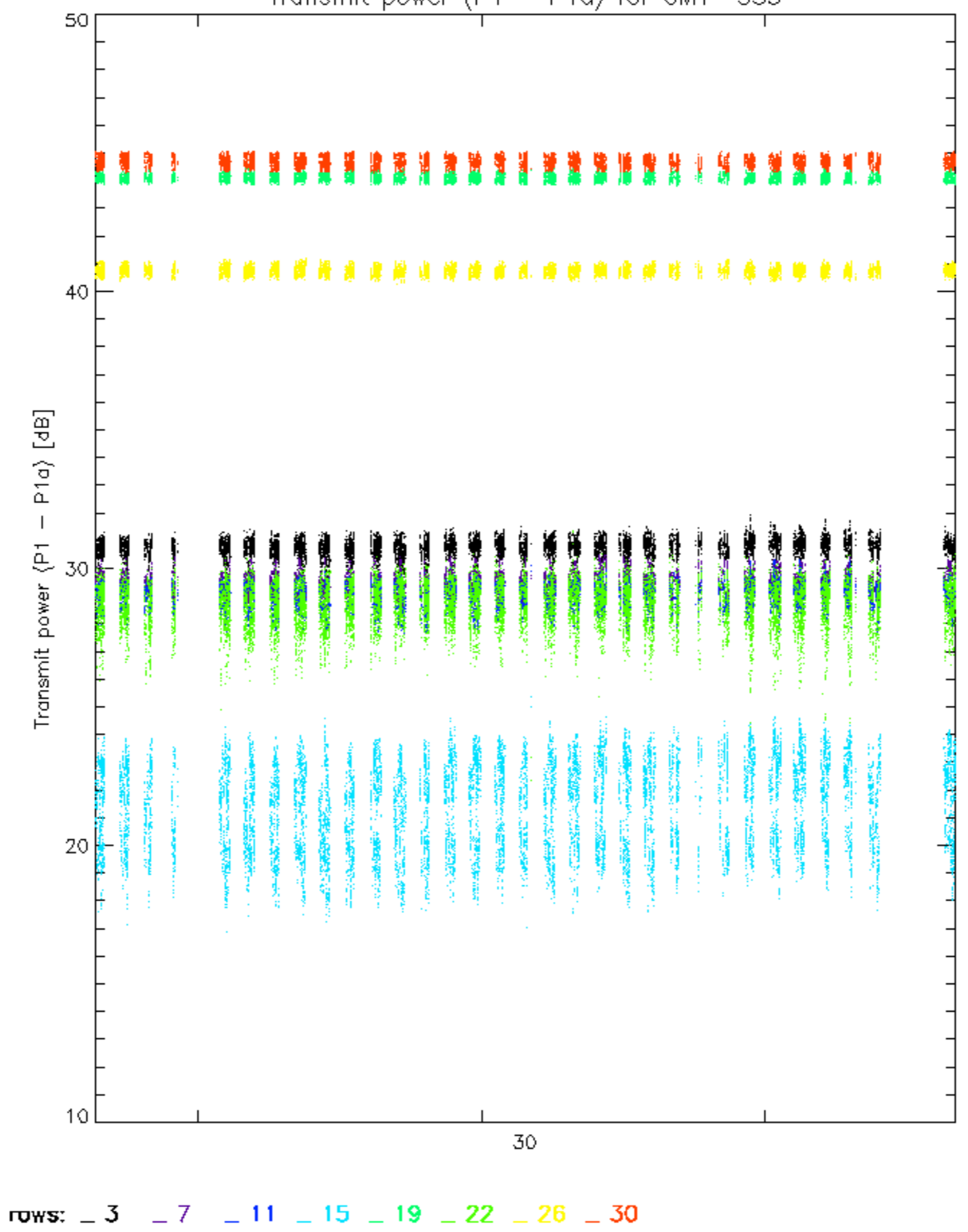
Summary of analysis for the last 3 days 2006010[234]

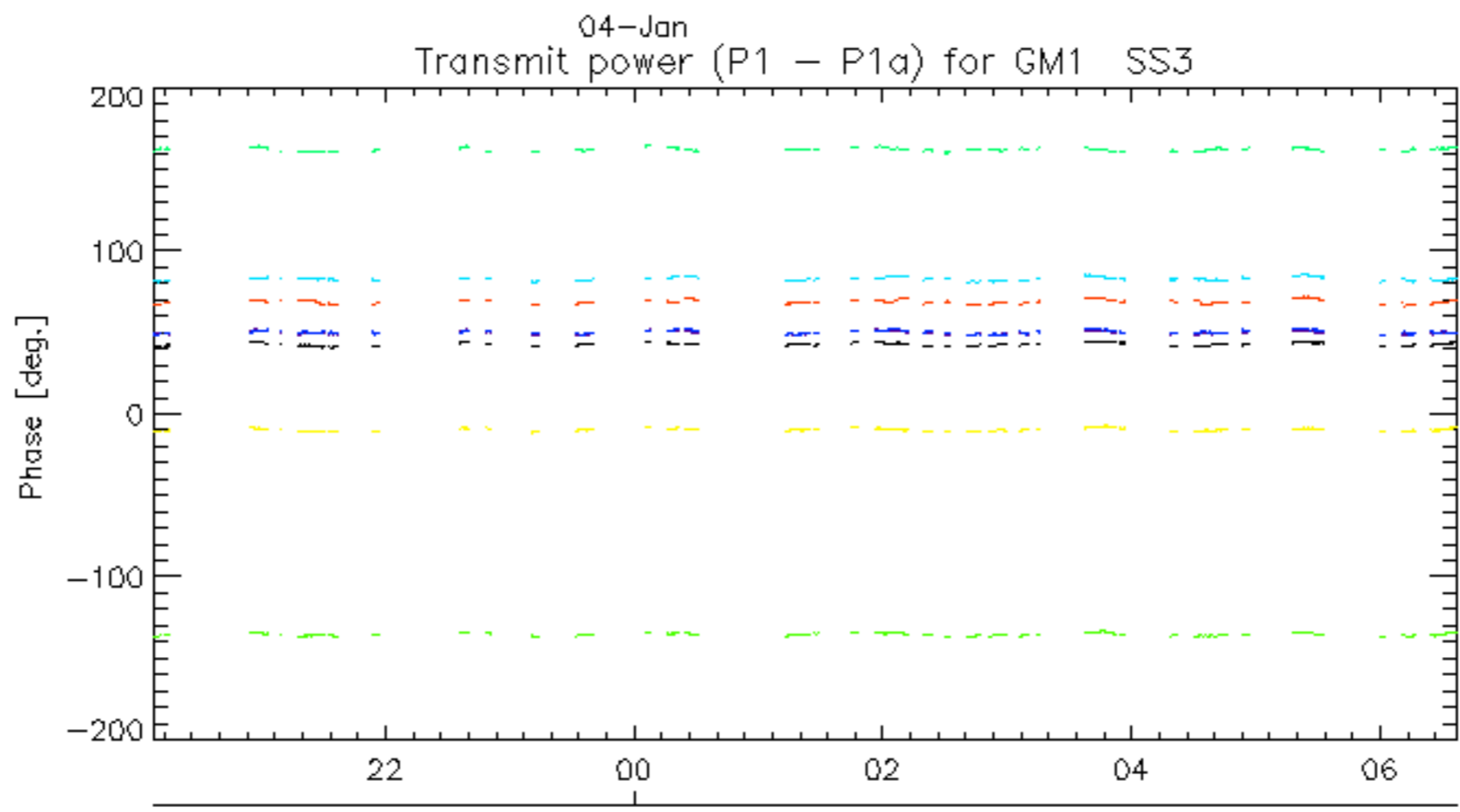
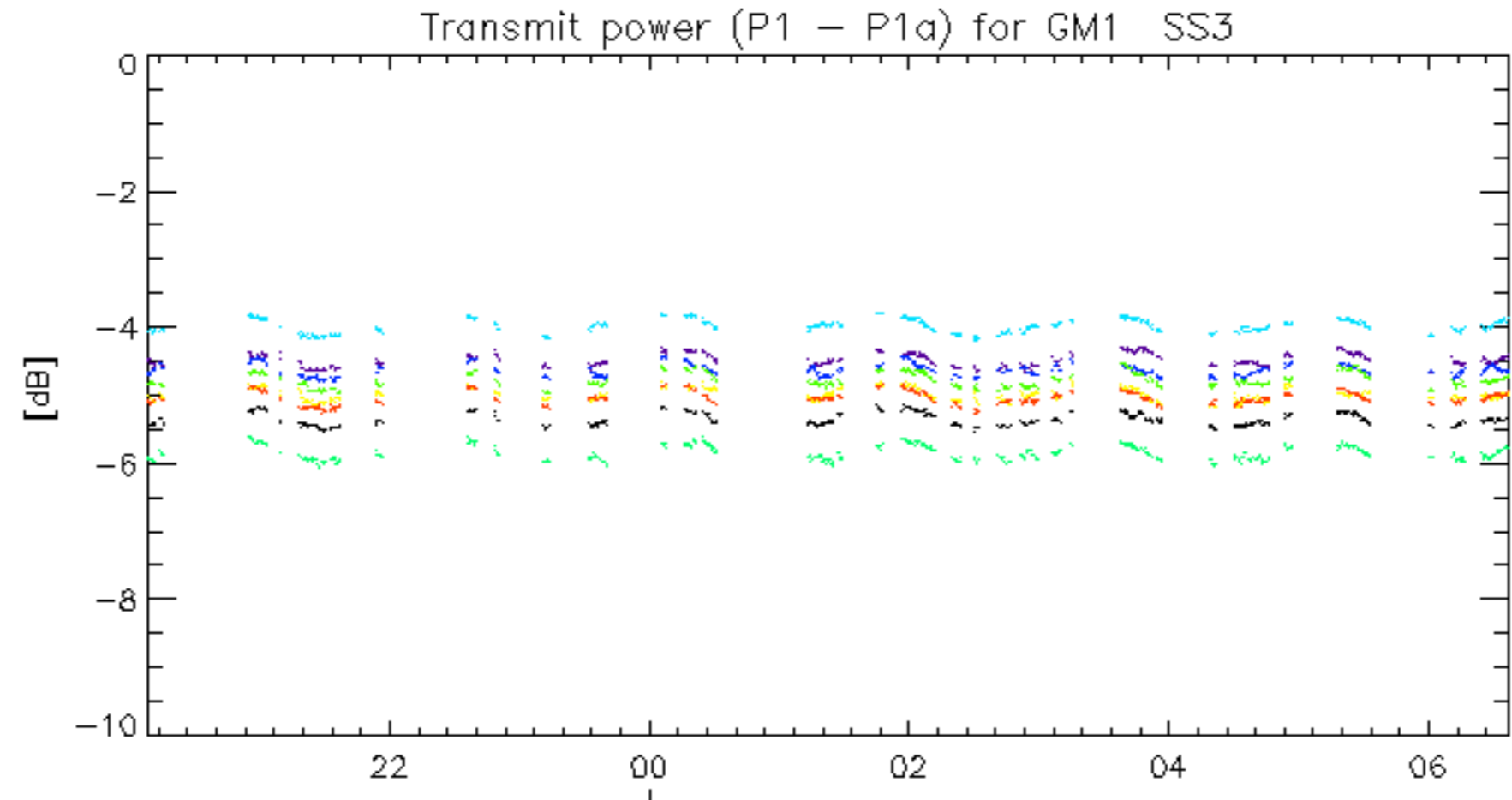
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060104_004520_000001852044_00016_20110_5463.N1	1	0

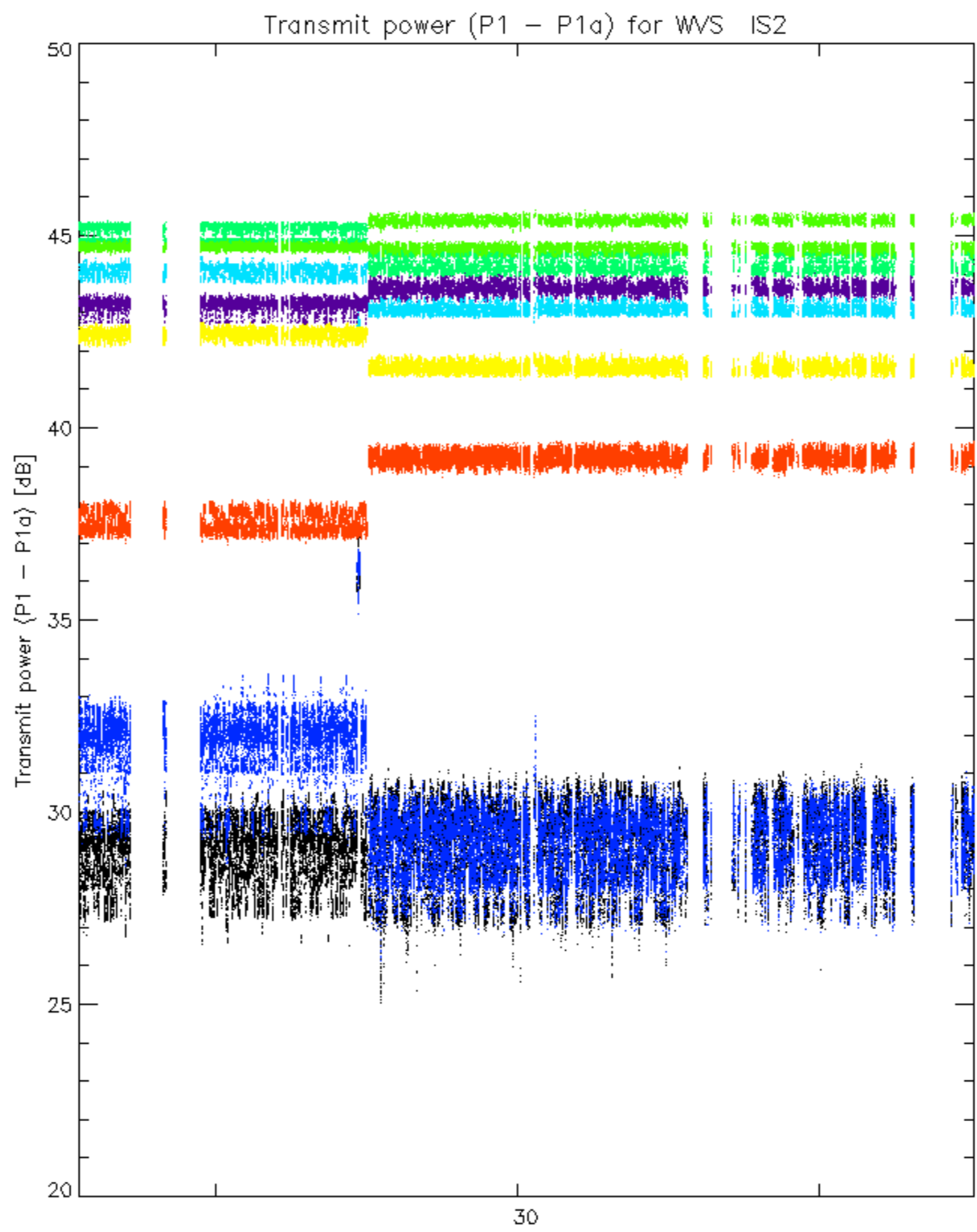


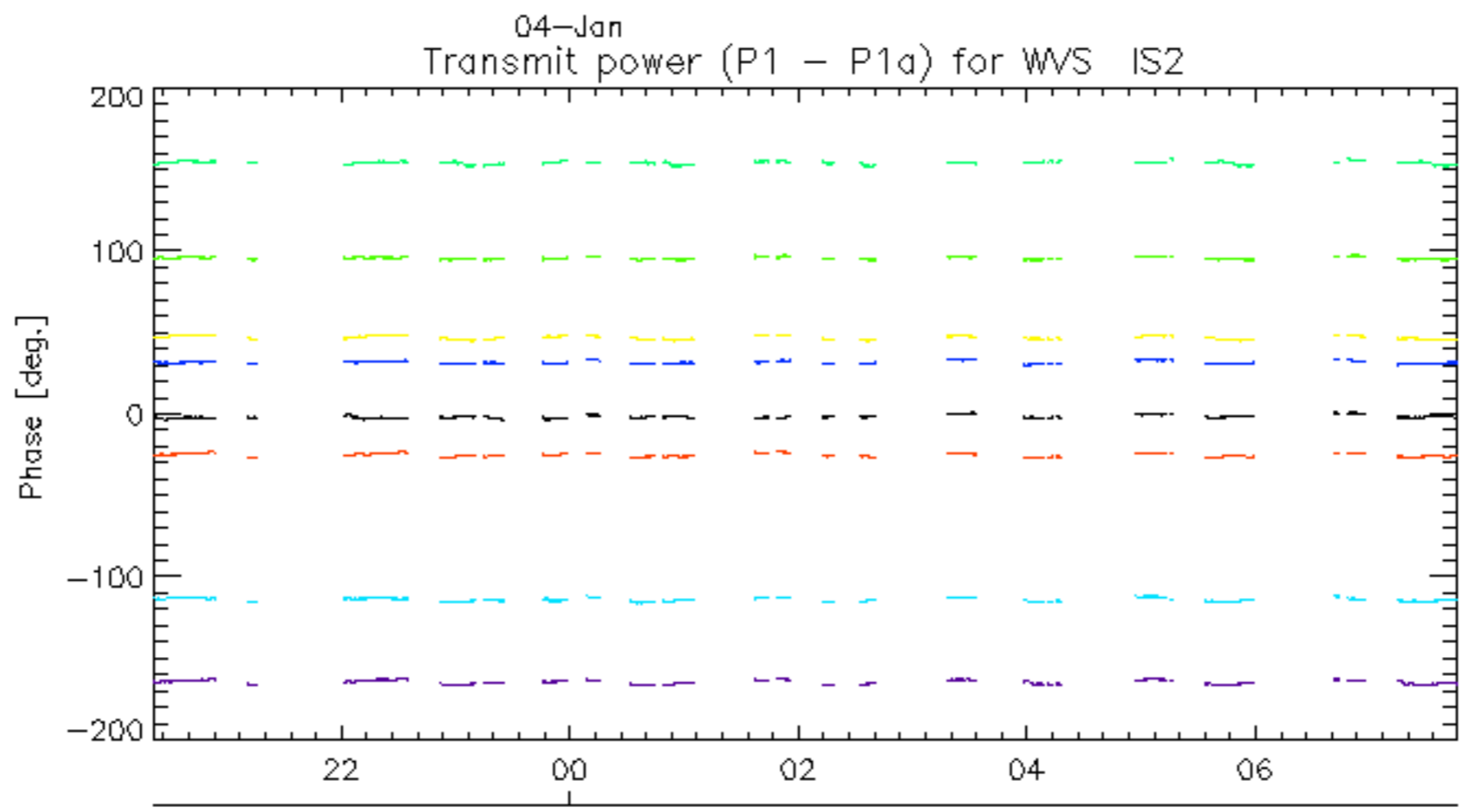
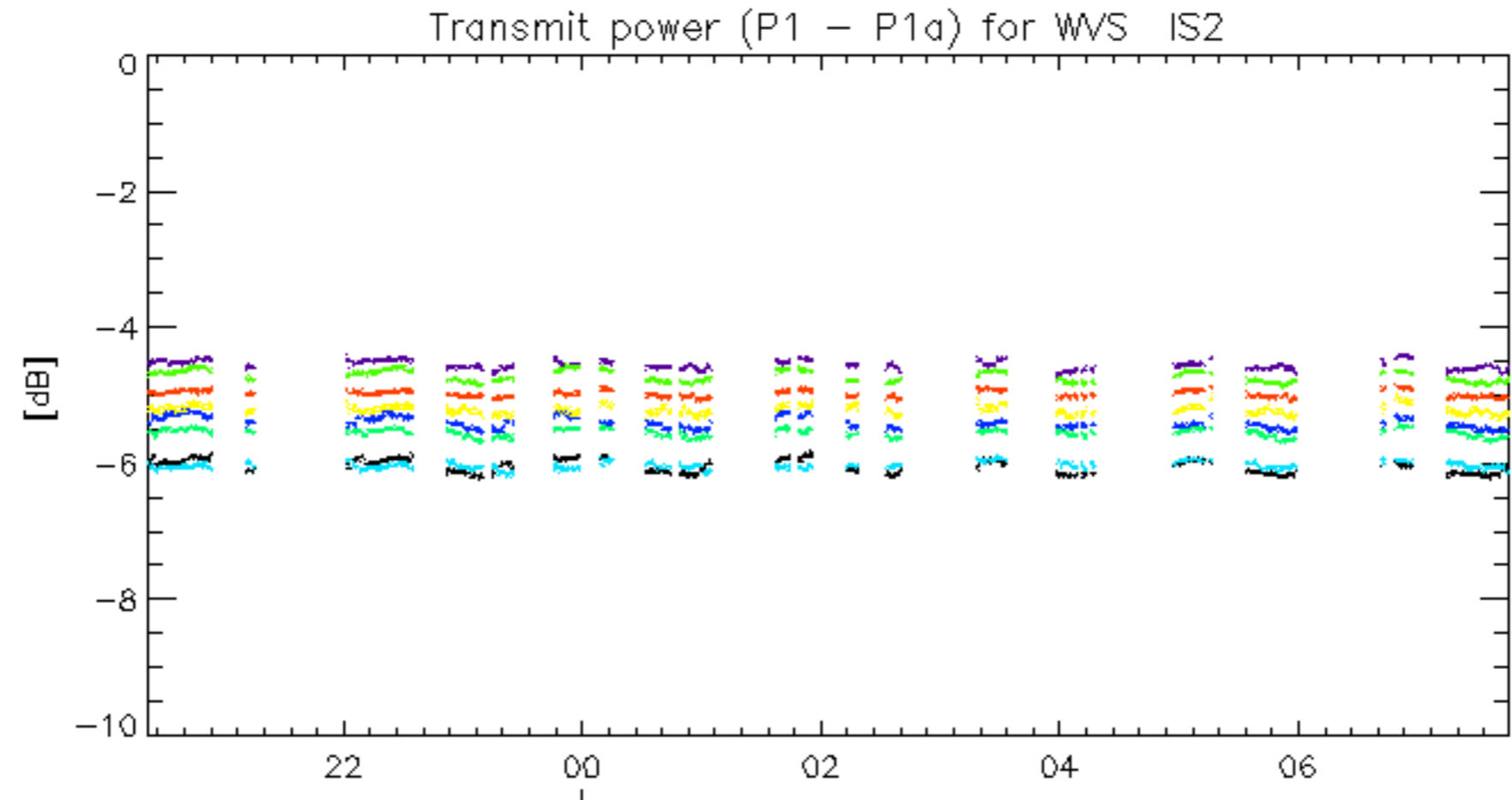
Transmit power (P1 - P1a) for GM1 SS3





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





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

No unavailabilities during the reported period.