

PRELIMINARY REPORT OF 060310

last update on Fri Mar 10 16:27:15 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 2006-03-09 00:00:00 to 2006-03-10 16:27:15

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	39	57	14	1	22
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	39	57	14	1	22
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	39	57	14	1	22
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	39	57	14	1	22

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	45	49	20	37
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	45	49	20	37
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	45	49	20	37
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	45	49	20	37

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	20060309 100800
H	20060308 071825

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	-4.002694	0.009672	-0.012091
7	P1	-3.002988	0.008775	-0.031385
11	P1	-4.069439	0.021013	0.052364
15	P1	-6.075520	0.021982	-0.048509
19	P1	-3.284730	0.006751	-0.040972
22	P1	-4.459239	0.015036	0.005320
26	P1	-4.205602	0.112622	0.047498
30	P1	-5.806058	0.159894	-0.073360
3	P1	-16.977644	0.249664	-0.066907
7	P1	-16.699772	0.103322	-0.117265
11	P1	-16.507828	0.331324	0.138497
15	P1	-13.058043	0.095348	0.029029
19	P1	-13.920276	0.056085	-0.086044
22	P1	-15.592913	0.475706	0.107230
26	P1	-15.764185	0.322067	-0.077060
30	P1	-16.482639	0.321963	0.001970

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.420975	0.087476	0.122853
7	P2	-22.390778	0.093912	0.061455
11	P2	-16.232735	0.099939	0.037012
15	P2	-7.167666	0.098529	0.007882
19	P2	-9.134989	0.090693	0.008629
22	P2	-17.934723	0.090469	-0.034369
26	P2	-16.208021	0.094015	-0.016721
30	P2	-19.642130	0.084224	-0.037888

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.194008	0.006274	-0.007709
7	P3	-8.194008	0.006274	-0.007709
11	P3	-8.194008	0.006274	-0.007709
15	P3	-8.194008	0.006274	-0.007709
19	P3	-8.194008	0.006274	-0.007709
22	P3	-8.194008	0.006274	-0.007709
26	P3	-8.194008	0.006274	-0.007709
30	P3	-8.194008	0.006274	-0.007710

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	-3.860559	3.912427	0.105671
7	P1	-2.858443	4.105553	0.161346
11	P1	-3.043424	4.132065	0.122611
15	P1	-3.687483	4.095885	0.129832
19	P1	-3.487733	3.972016	0.085088
22	P1	-5.277145	3.646845	0.091165
26	P1	-5.987813	3.871733	0.227991
30	P1	-5.318595	3.687676	0.096536
3	P1	-11.659913	2.563885	0.104064
7	P1	-10.052809	2.838344	0.089737
11	P1	-10.343293	2.827069	0.020196
15	P1	-10.884479	2.825745	0.050050
19	P1	-15.483408	2.079085	0.006366
22	P1	-20.326708	2.647290	0.038225

26	P1	-16.346474	2.650750	0.111775
30	P1	-18.361948	1.888288	0.034908

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.122374	2.697335	0.126169
7	P2	-22.554104	3.145421	-0.009611
11	P2	-11.293981	2.931846	0.115496
15	P2	-4.936573	3.810211	0.102432
19	P2	-6.942264	3.430498	0.105399
22	P2	-8.229053	3.218048	0.058711
26	P2	-23.872347	3.231912	-0.130513
30	P2	-22.025875	3.054959	-0.076117

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024403	0.002619	-0.004001
7	P3	-8.024345	0.002615	-0.003932
11	P3	-8.024422	0.002626	-0.004078
15	P3	-8.024508	0.002618	-0.004314
19	P3	-8.024390	0.002636	-0.003598
22	P3	-8.024518	0.002612	-0.004186
26	P3	-8.024490	0.002619	-0.003758
30	P3	-8.024330	0.002618	-0.003641

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	0.000553720
	stdev	1.76873e-07
MEAN Q	mean	0.000512662
	stdev	2.22034e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138041
	stdev	0.00119528
STDEV Q	mean	0.138401
	stdev	0.00121330



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006030[890]

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_1PNPDE20060309_003426_000001152045_00431_21026_0116.N1	1	0
ASA_IMM_1PNPDE20060309_023016_000000742045_00433_21028_0141.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)

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

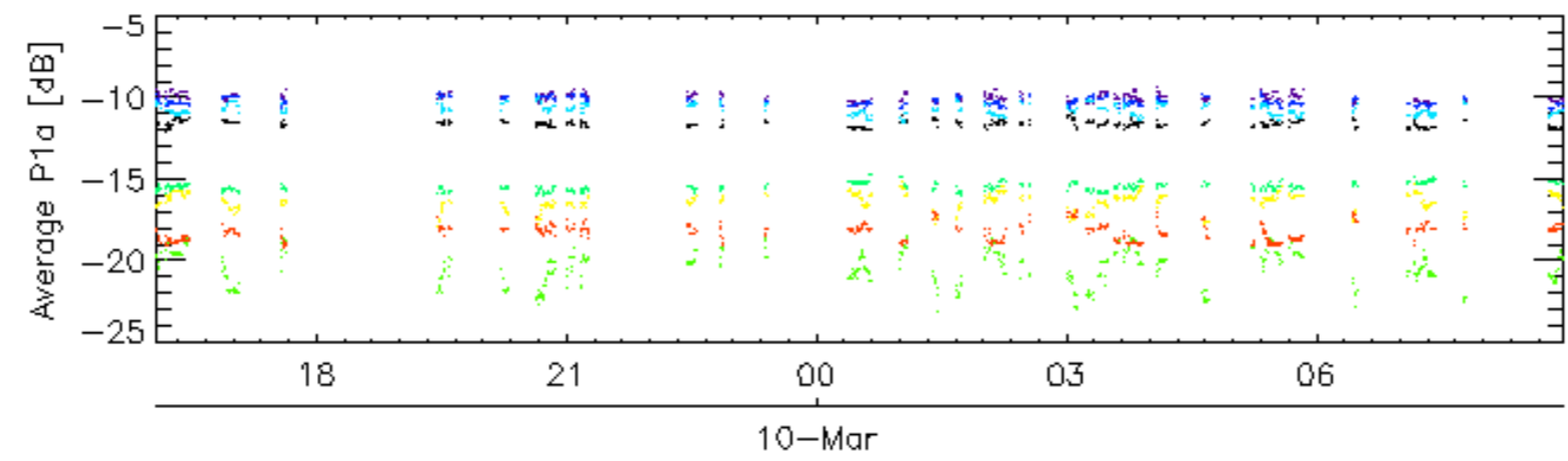
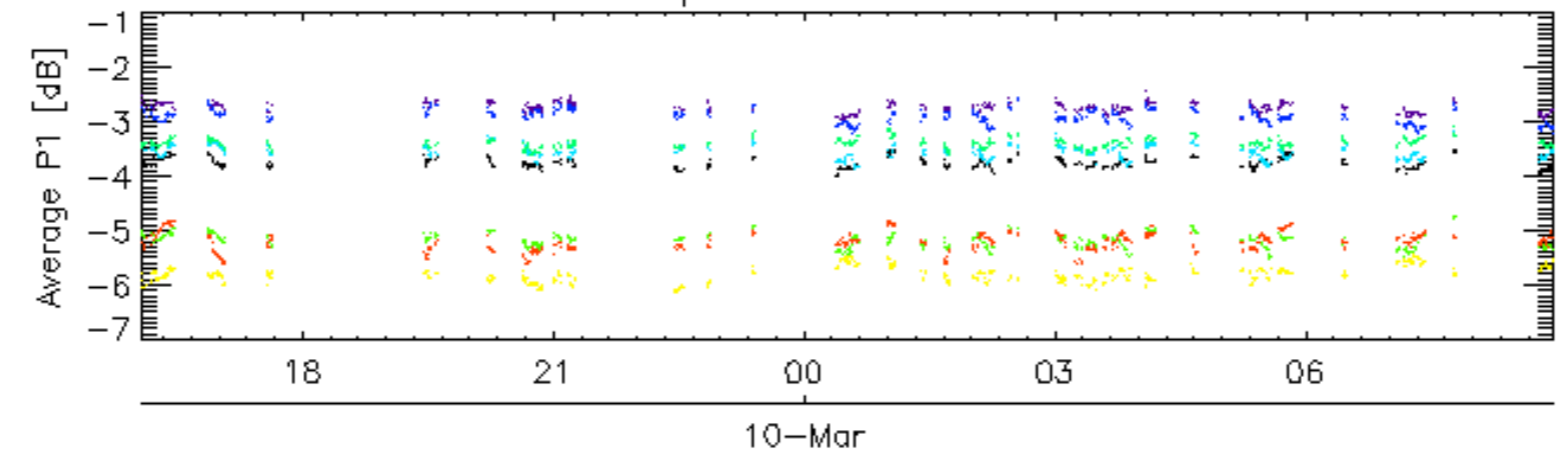
7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

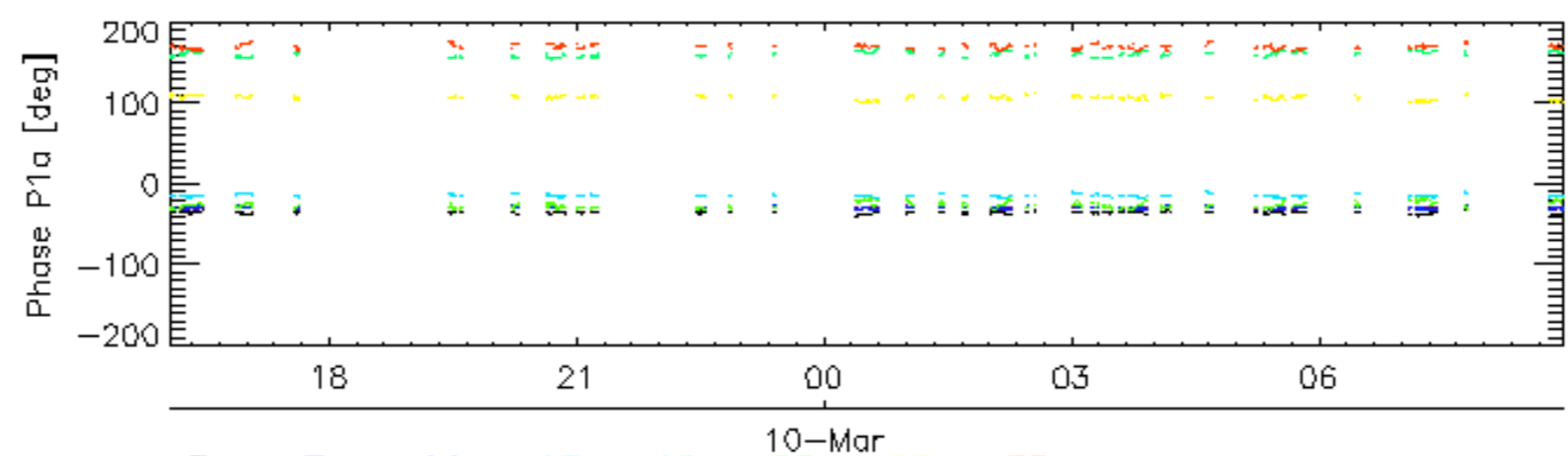
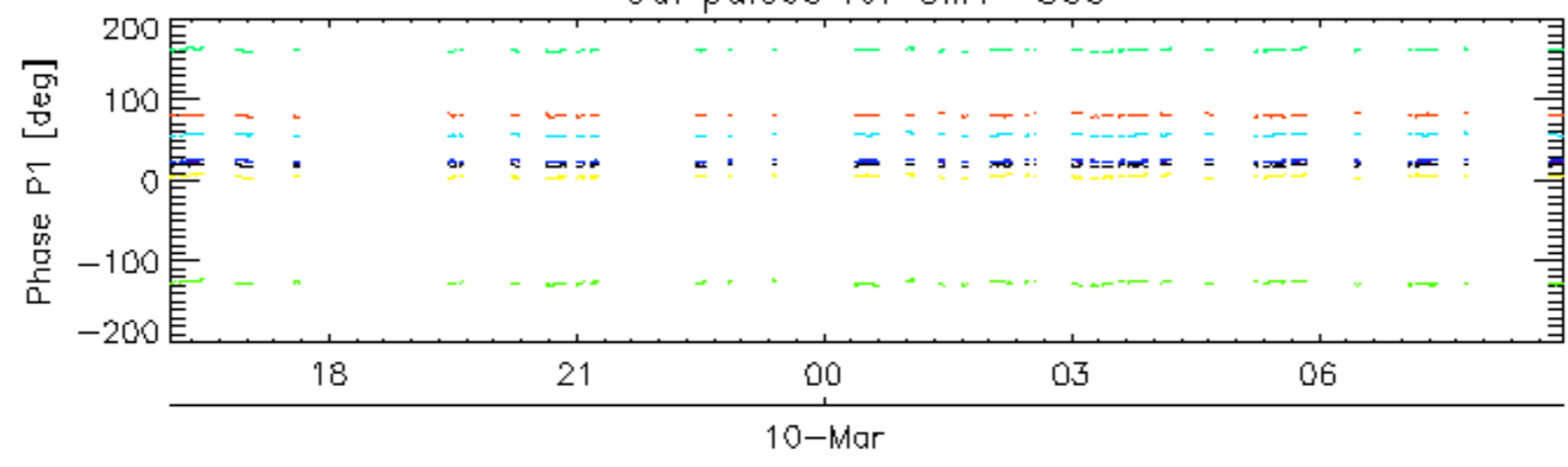
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

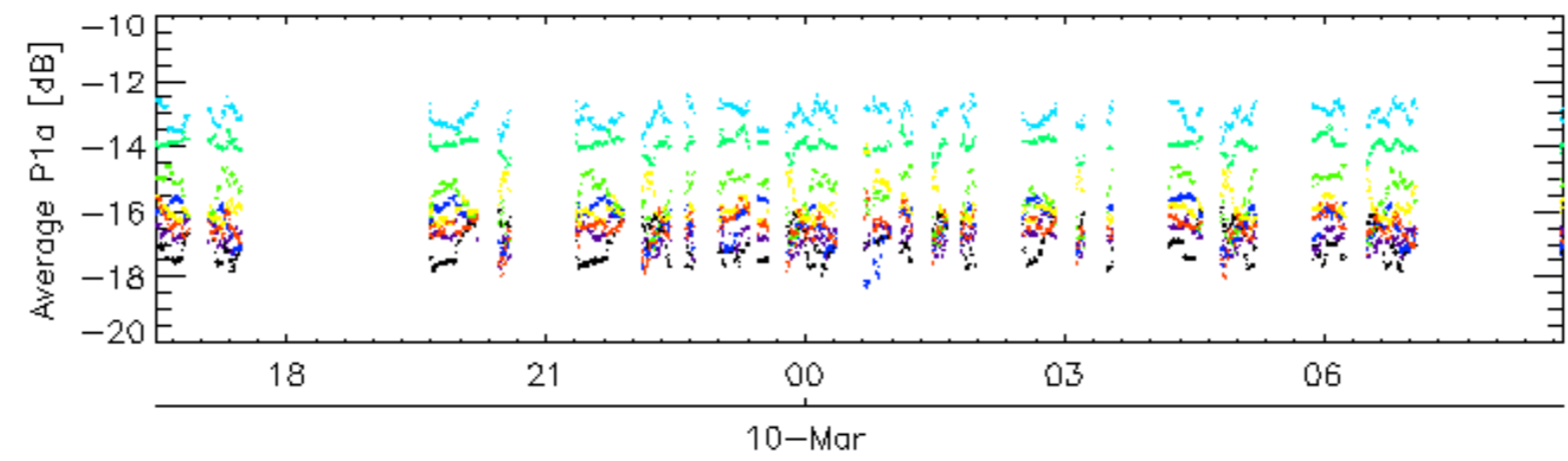
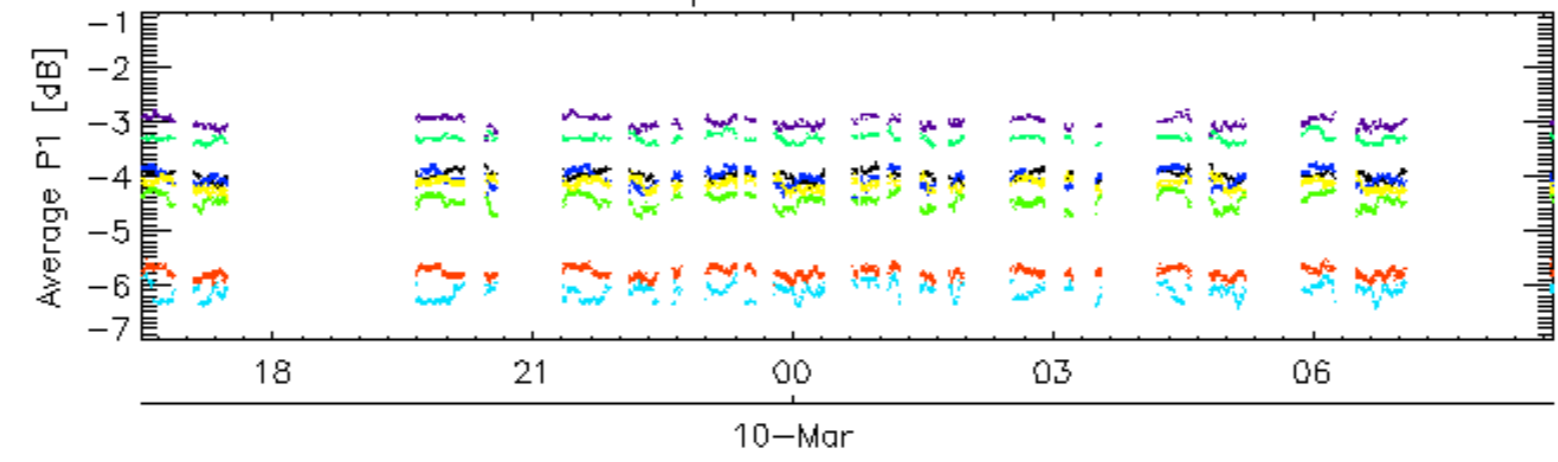


Cal pulses for GM1 SS3

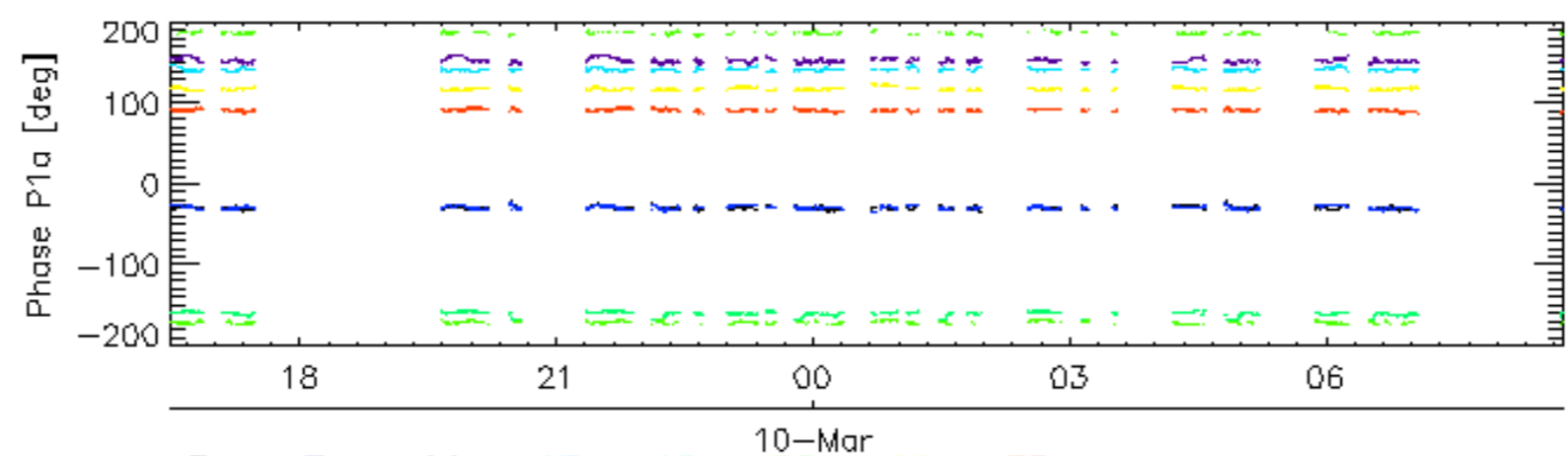
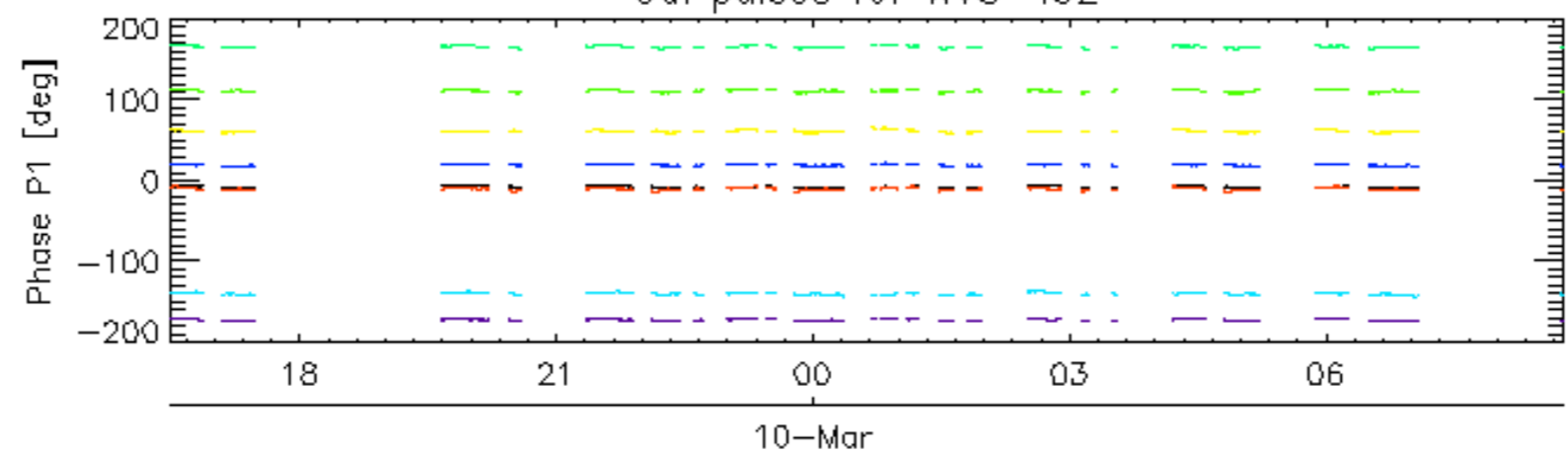


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

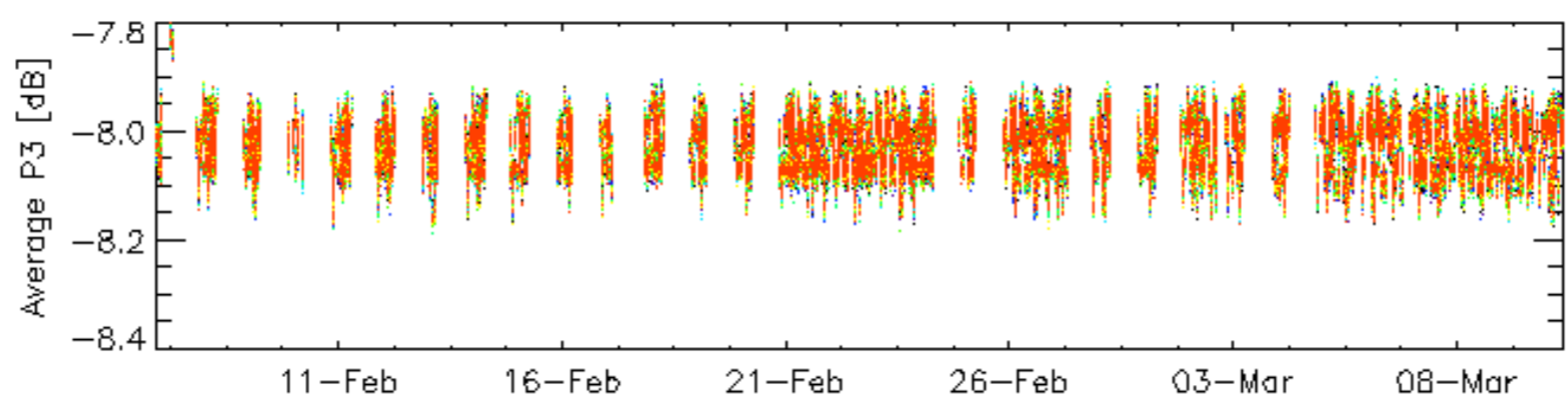
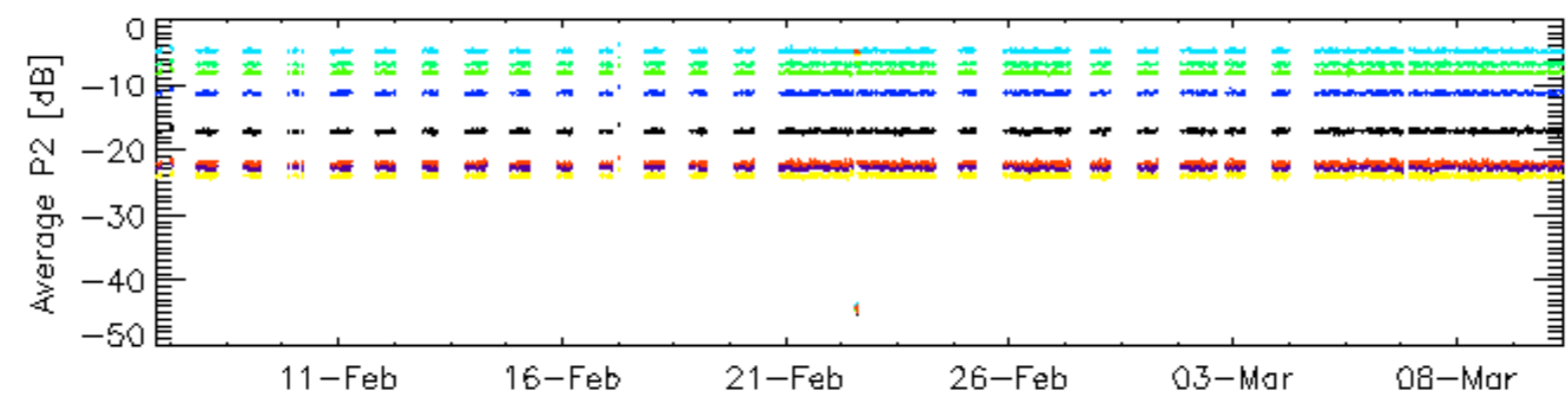
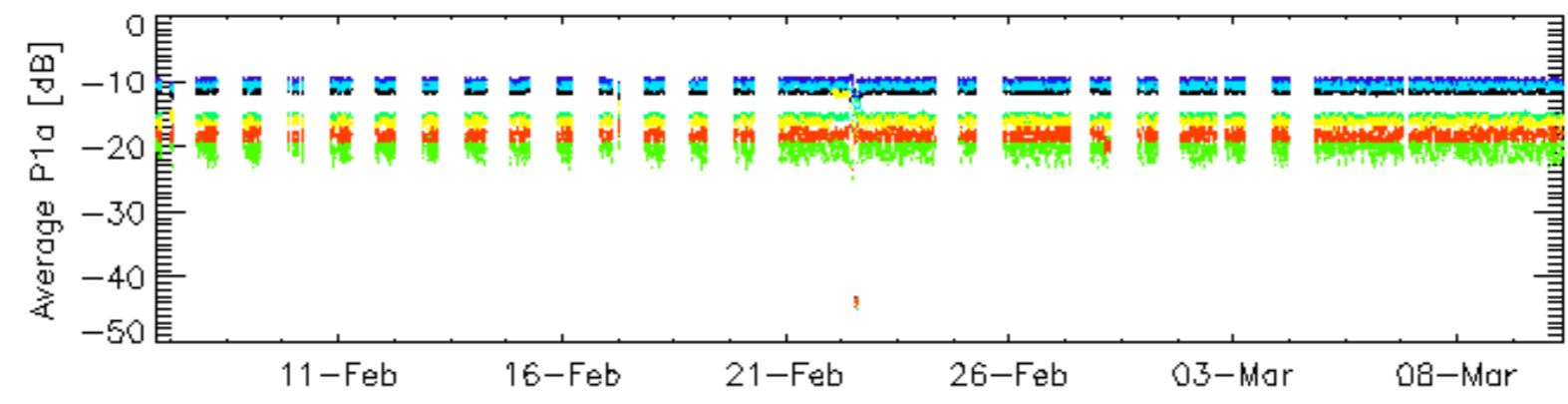
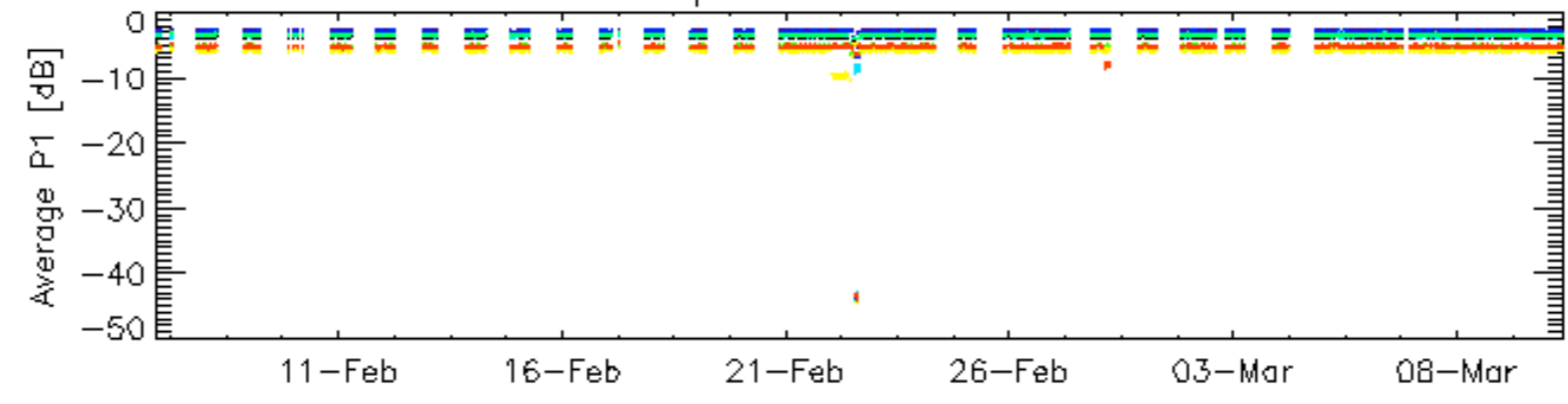


Cal pulses for WVS IS2



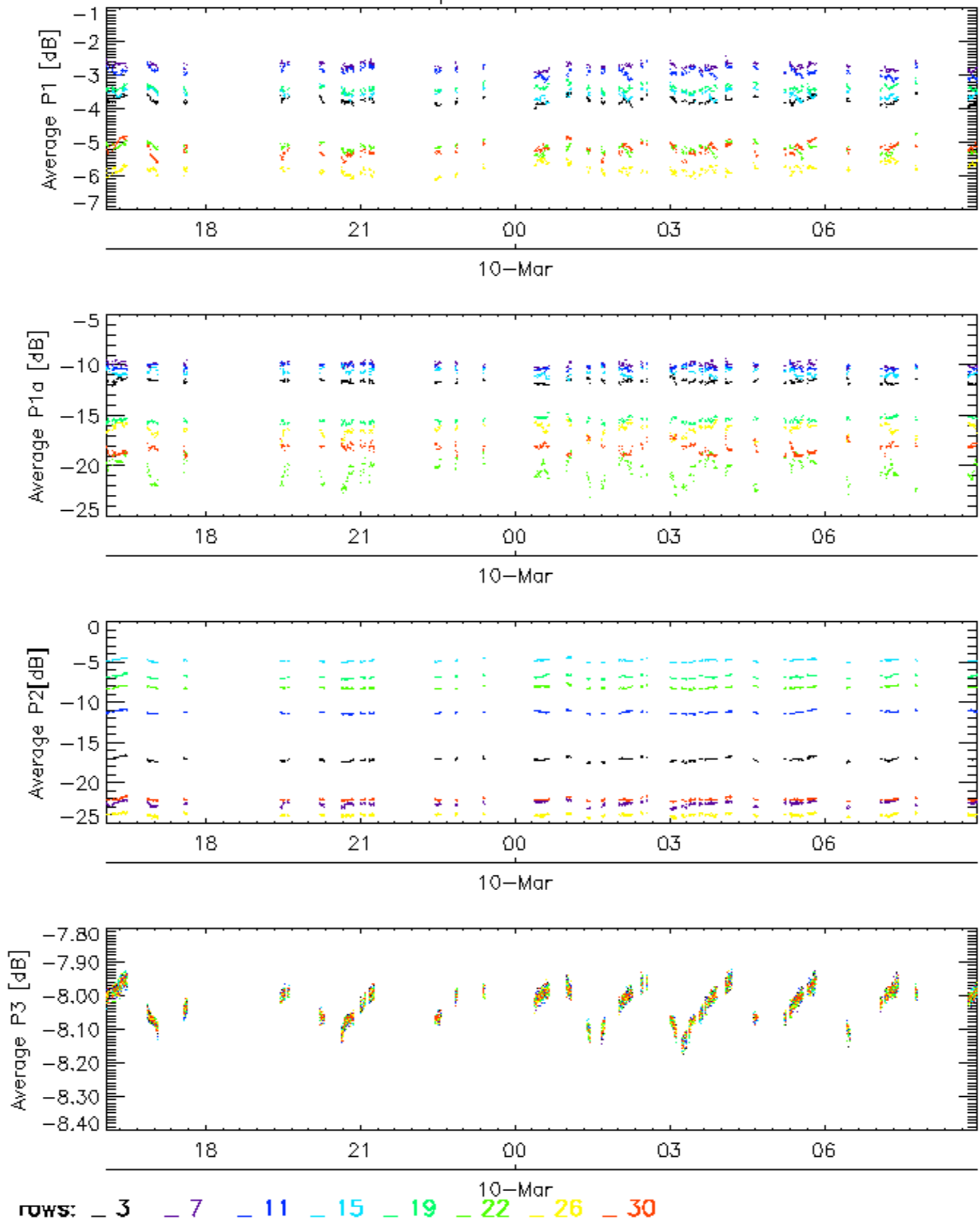
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Cal pulses for GM1 SS3

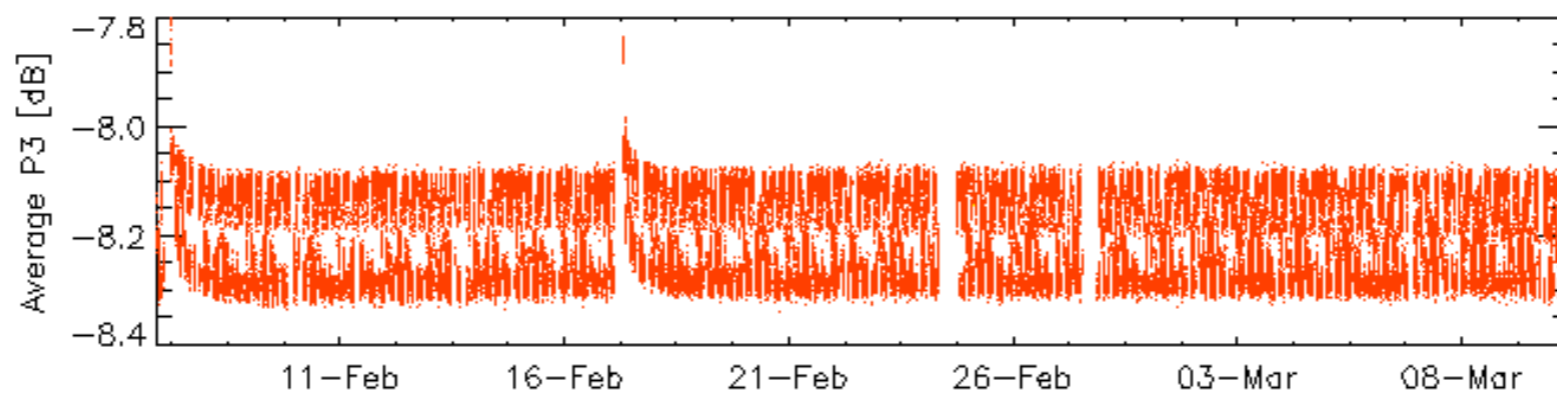
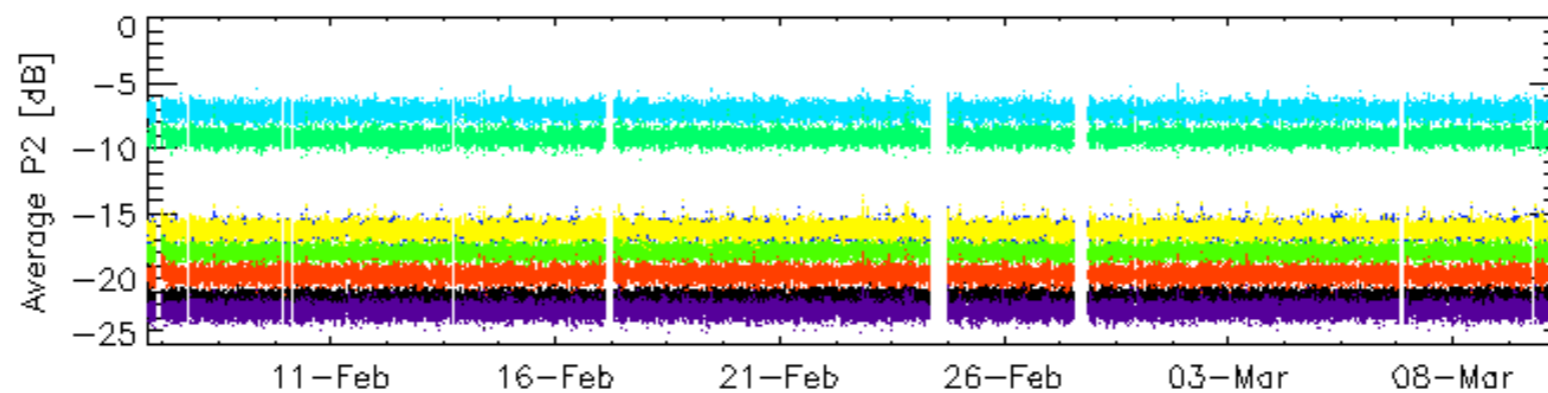
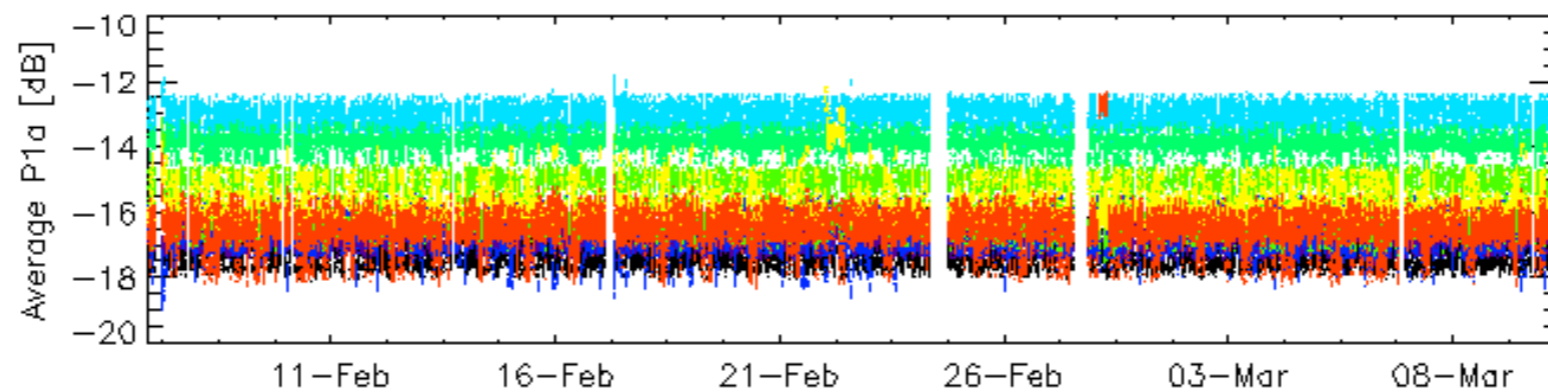
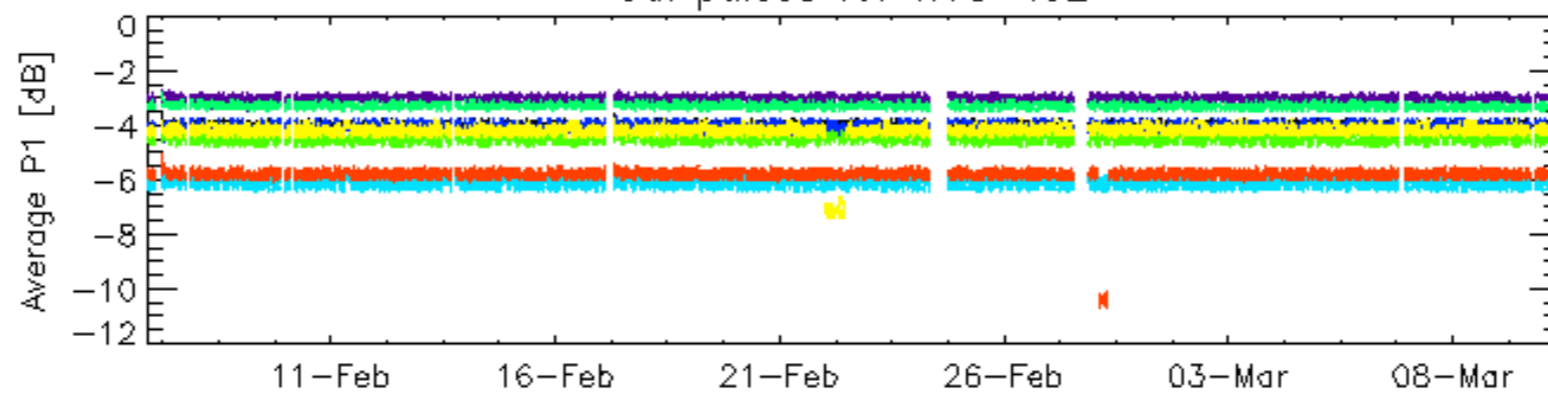


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

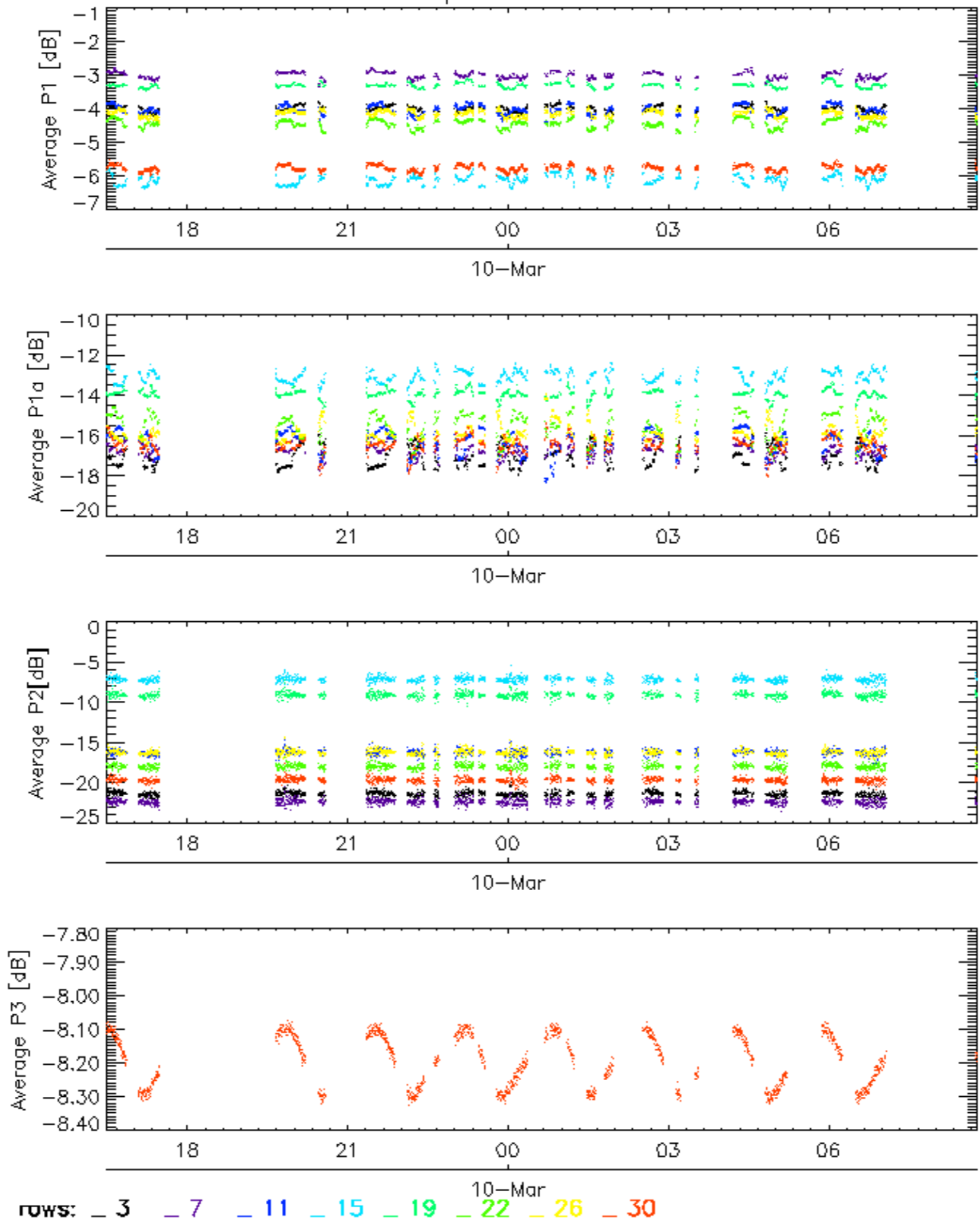


Cal pulses for WVS IS2



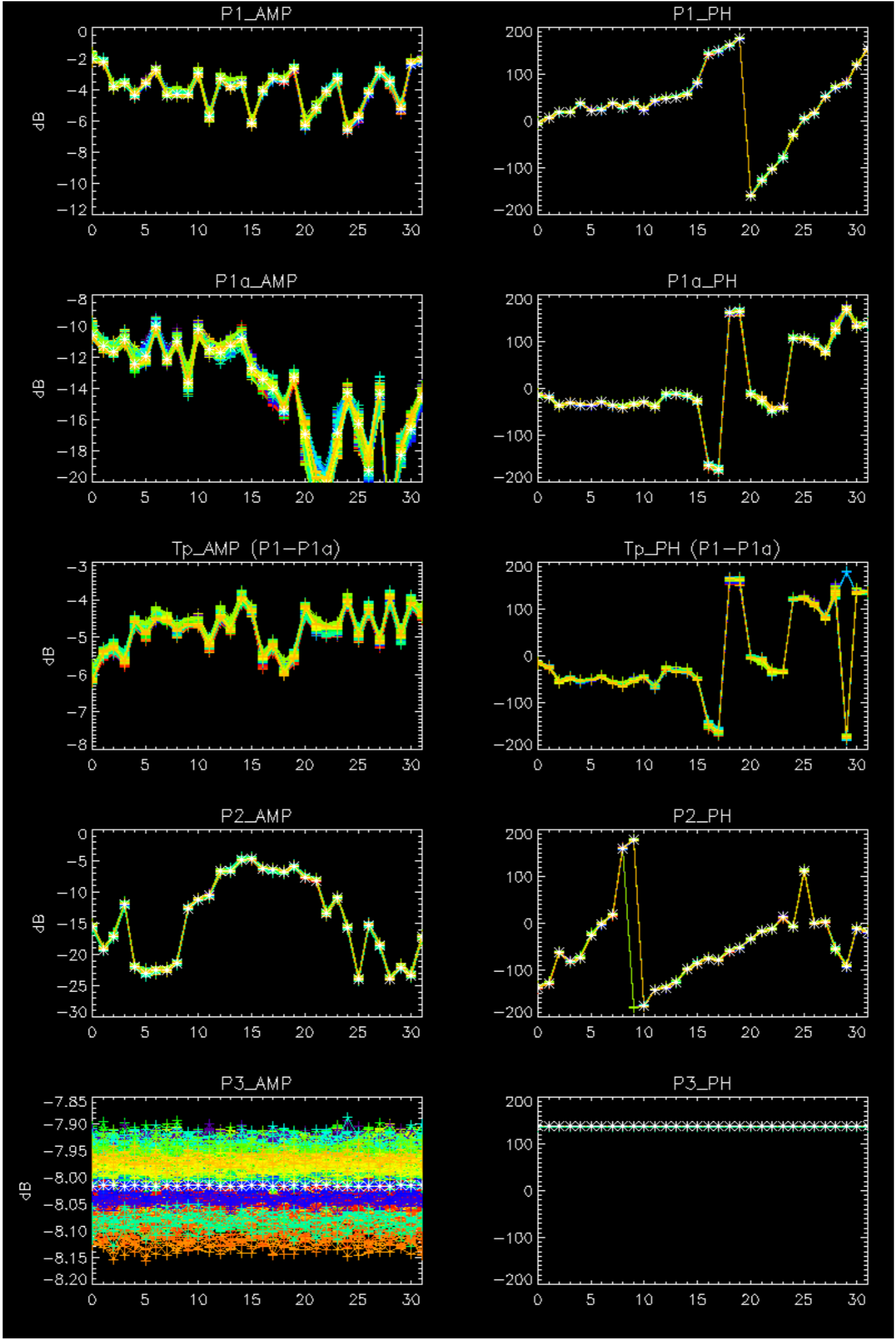
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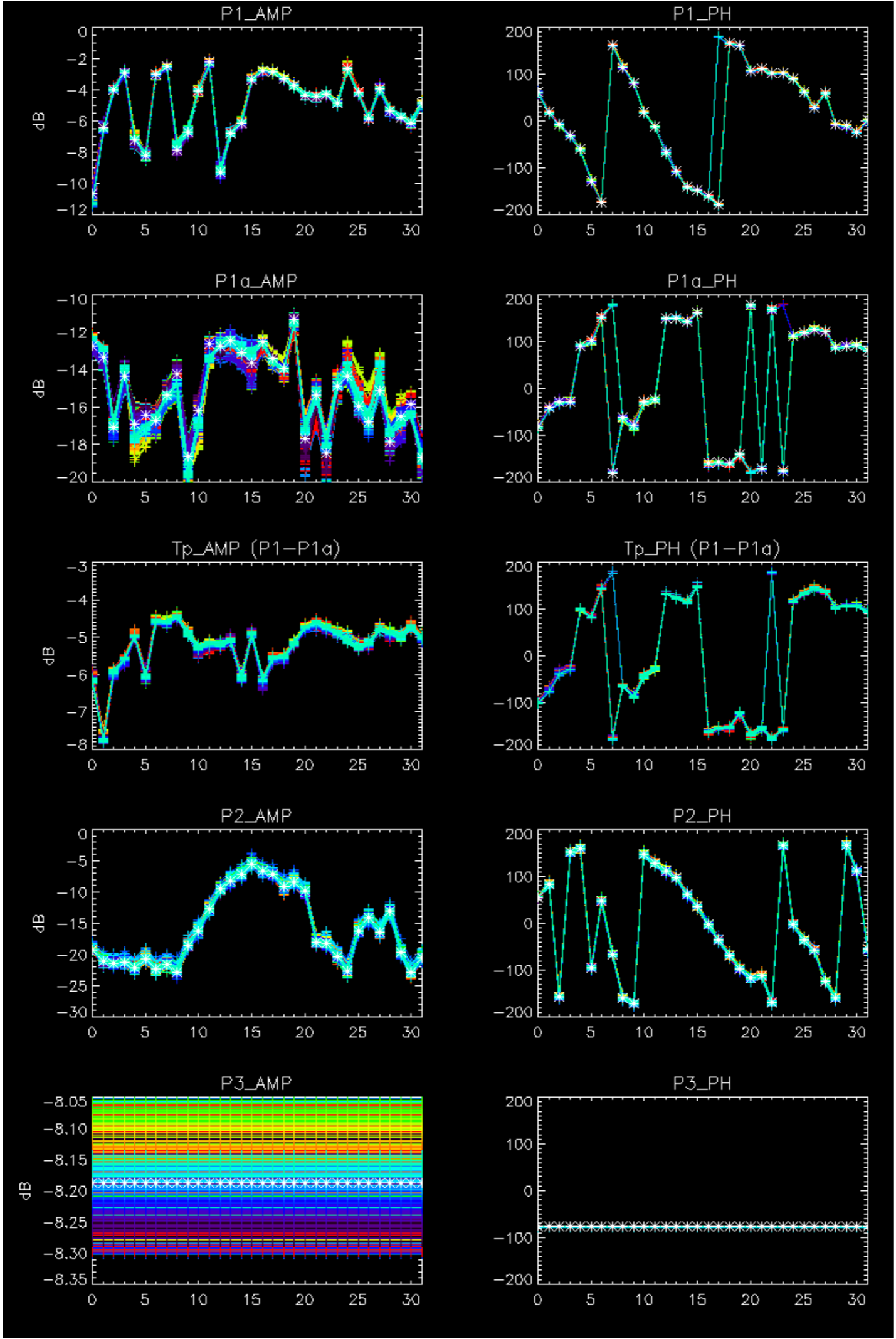
Cal pulses for WVS IS2



No anomalies observed on available browse products

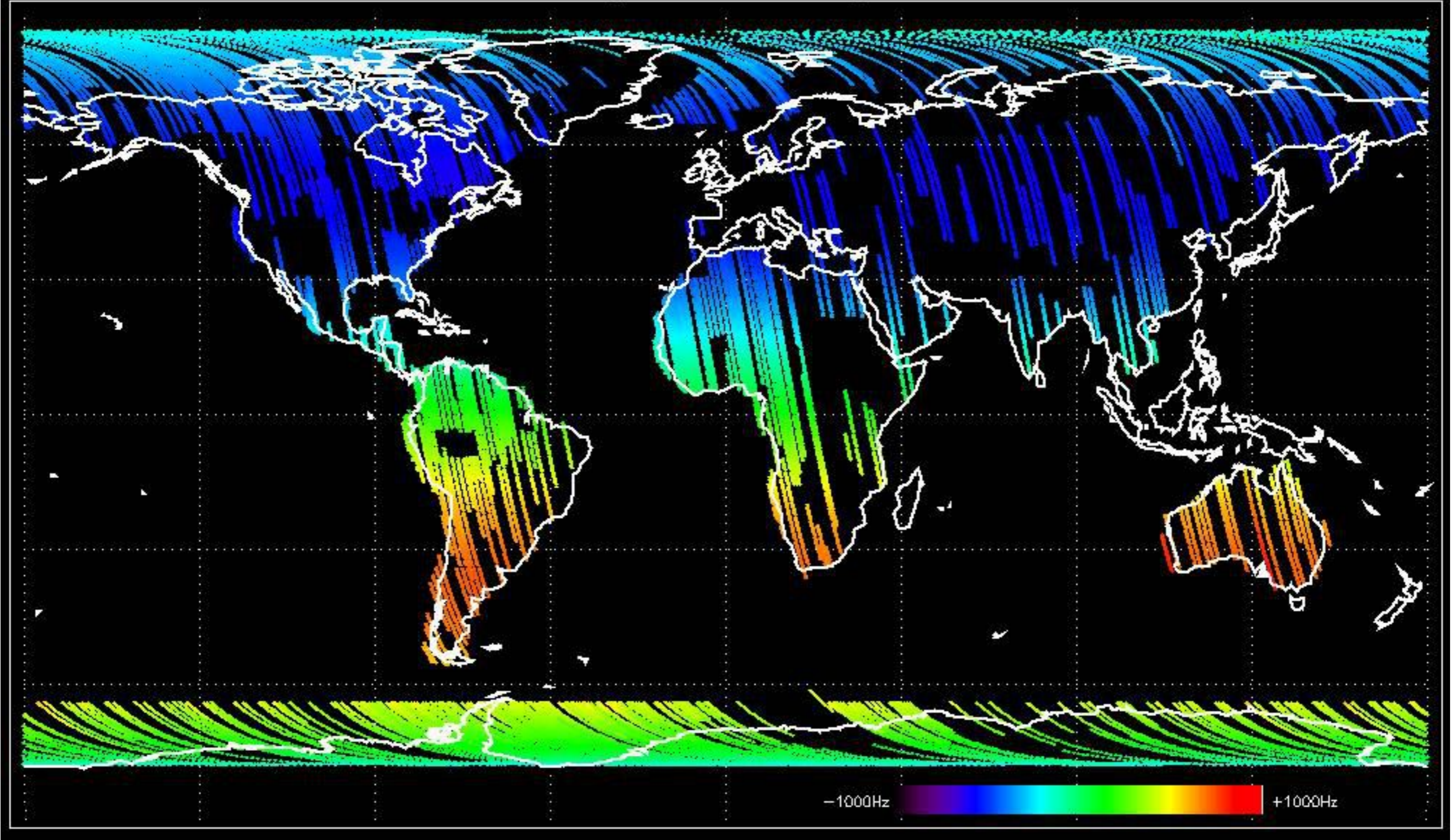
No anomalies observed.



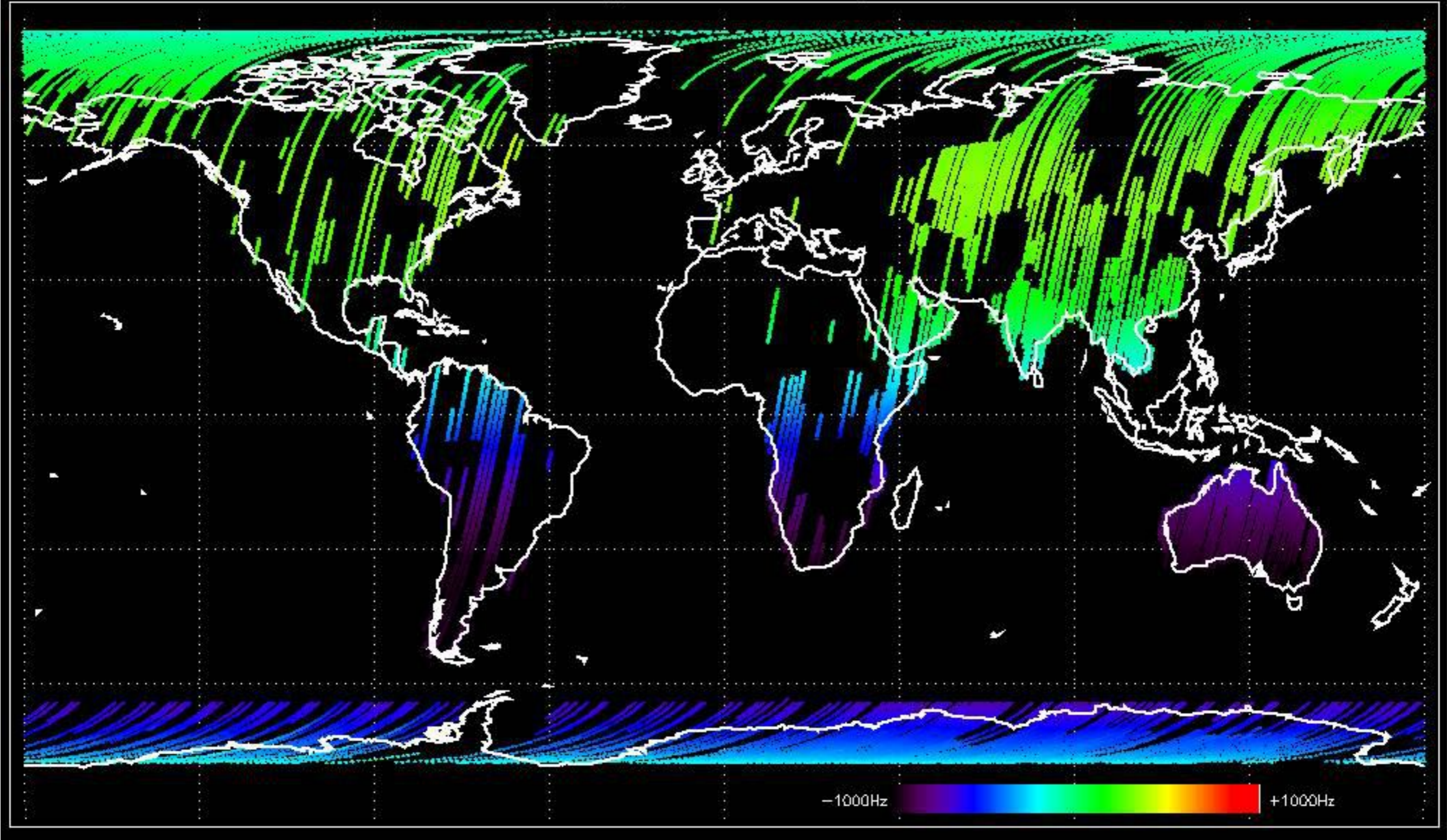


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

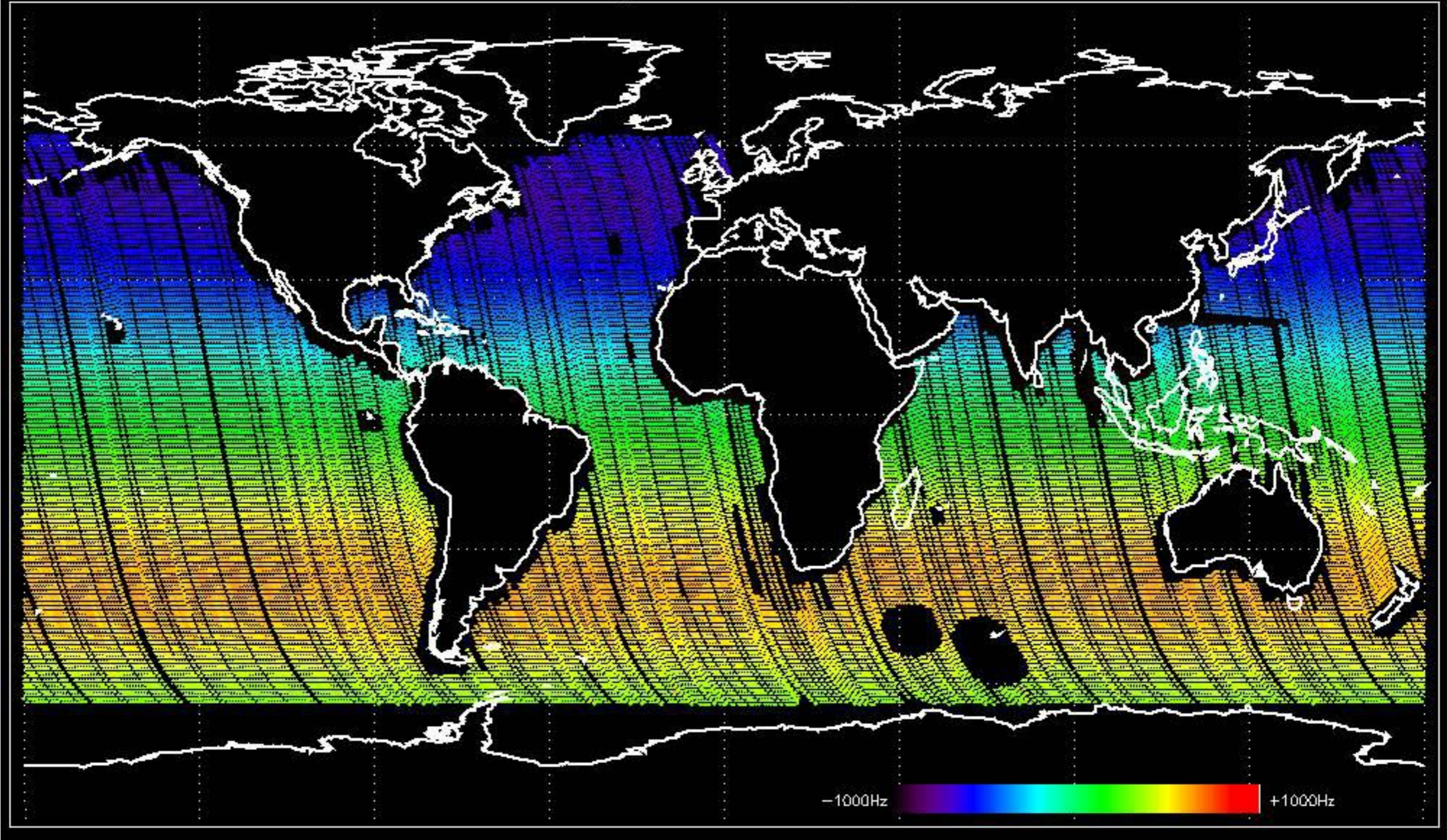
Doppler 'GM1' 'SS1' ascending



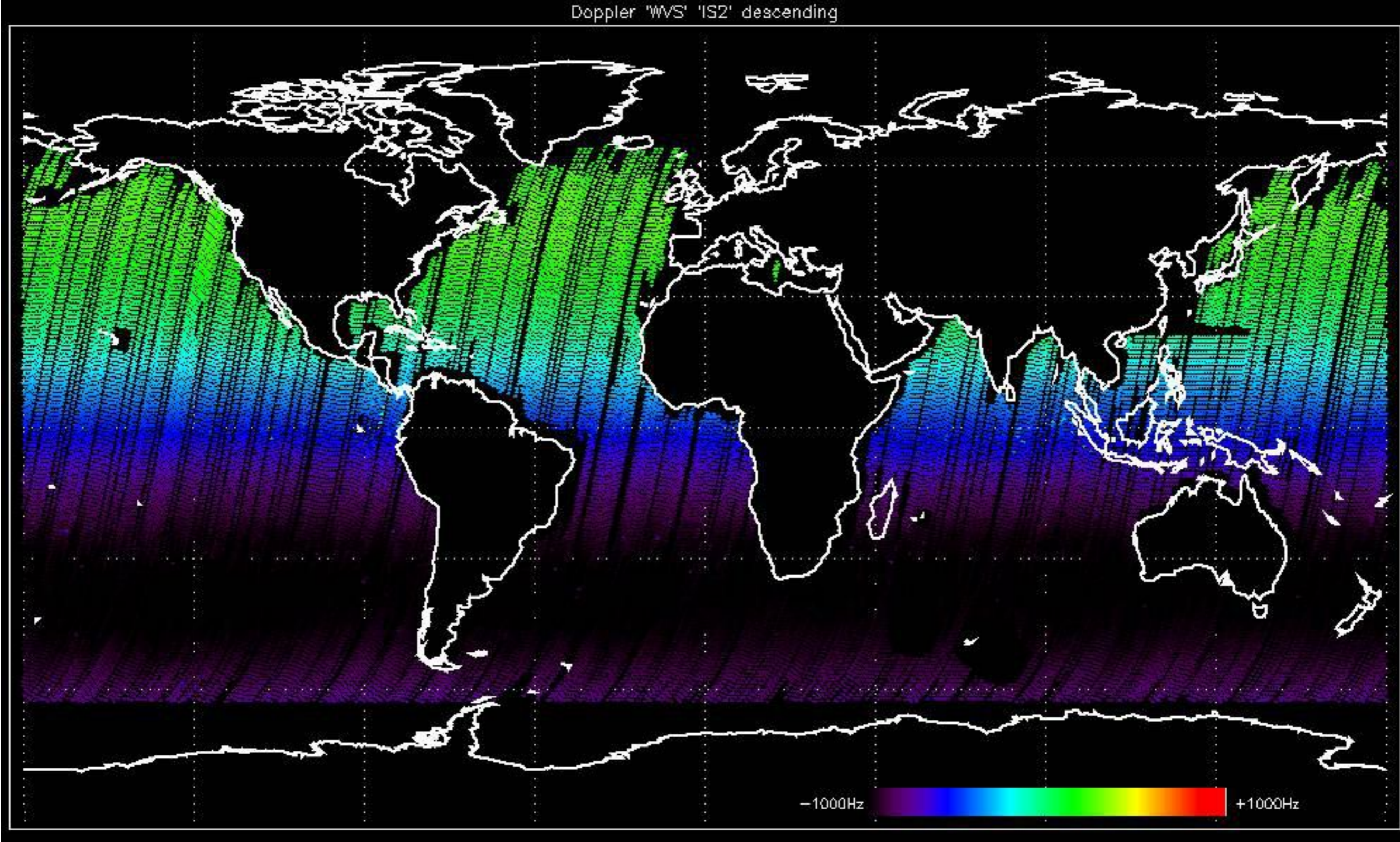
Doppler 'GM1' 'SS1' descending



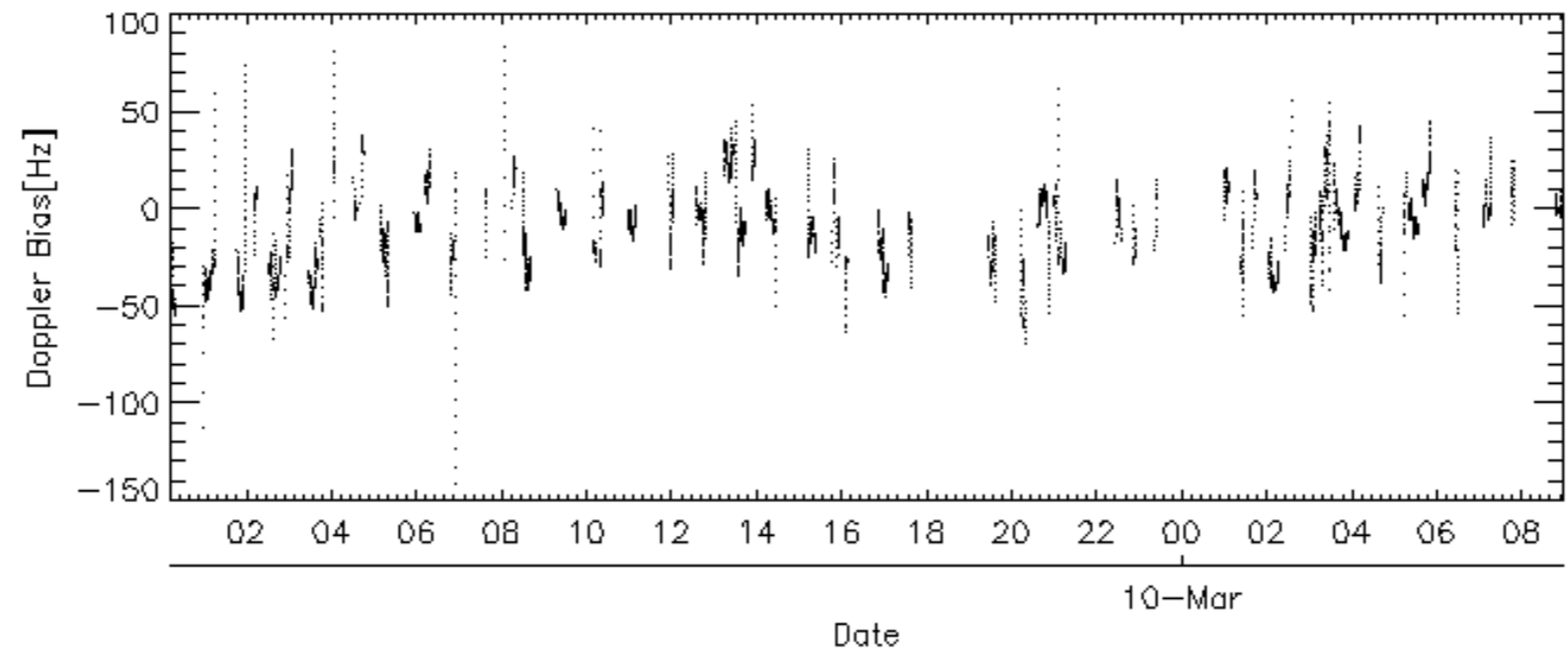
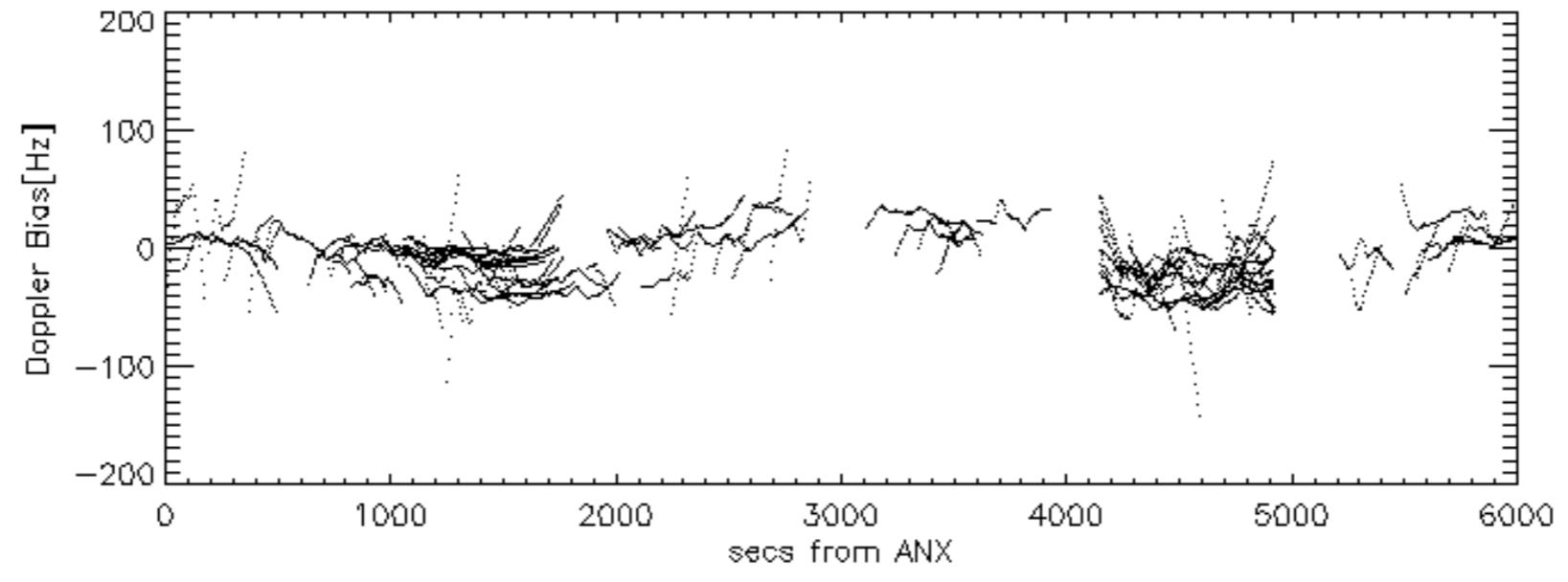
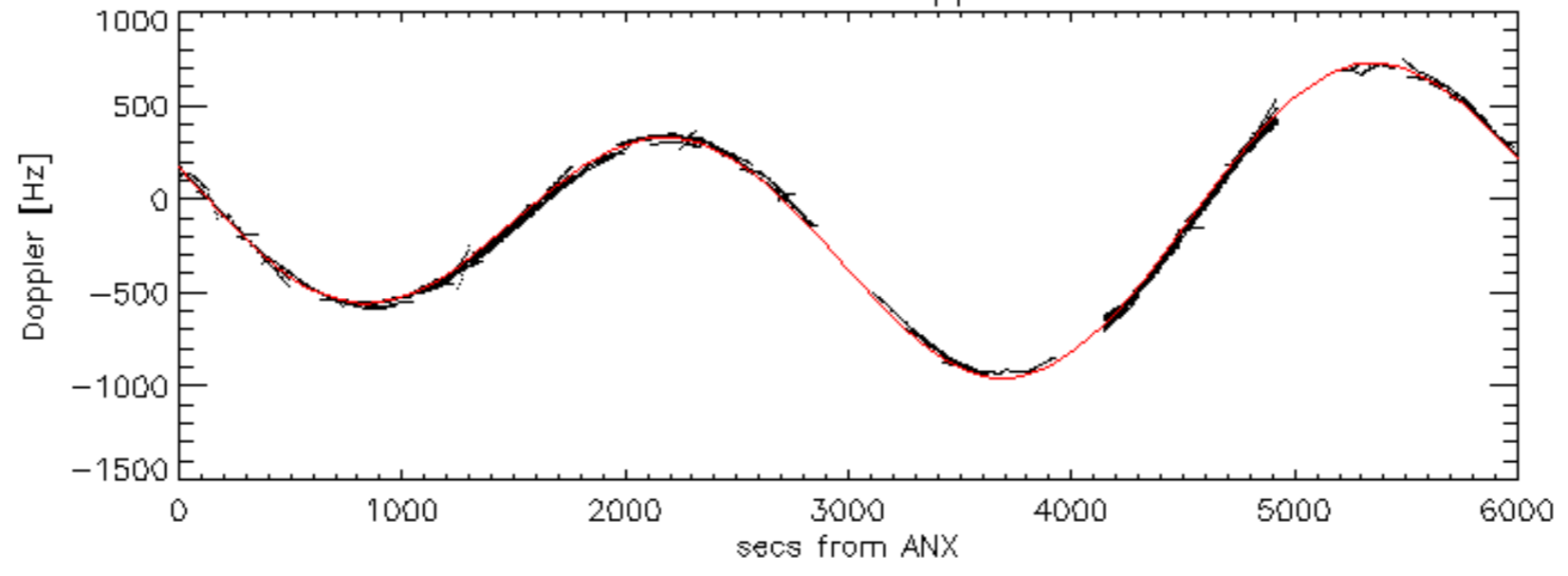
Doppler 'WVS' 'IS2' ascending

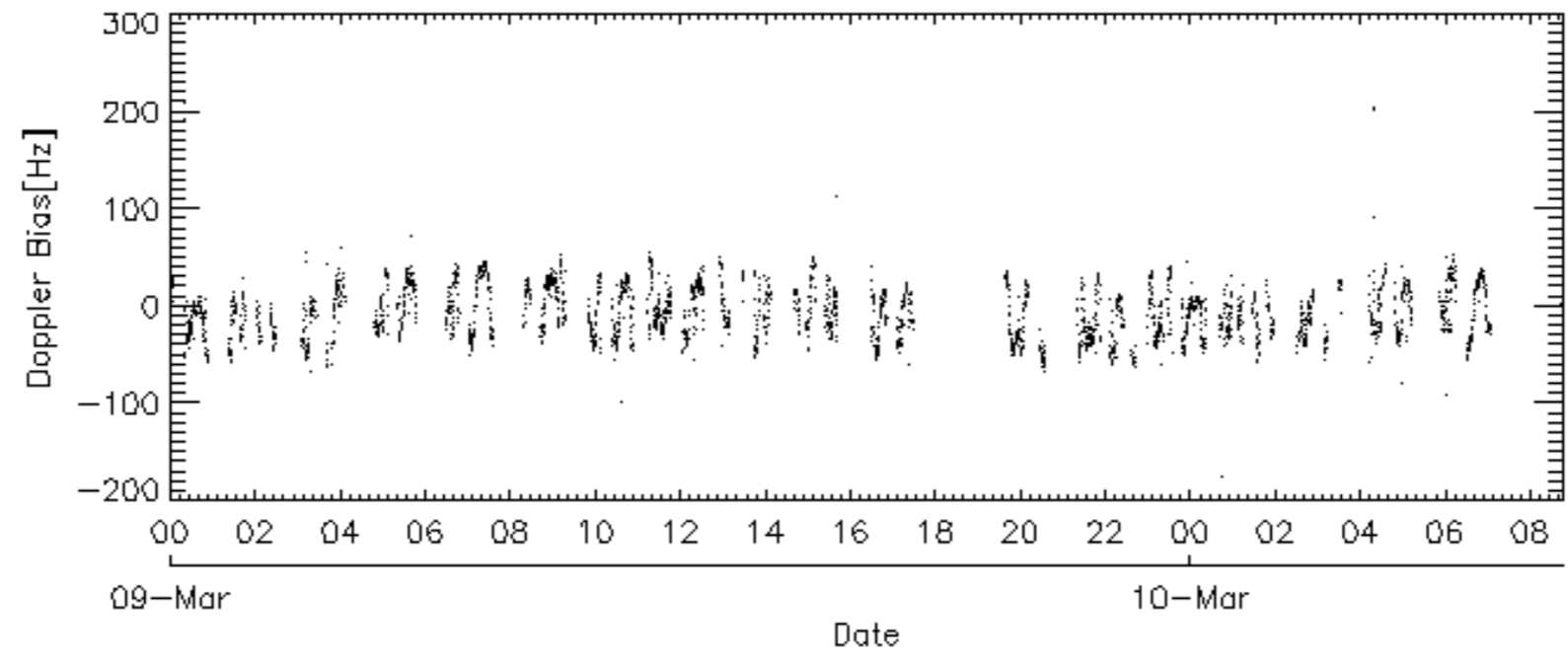
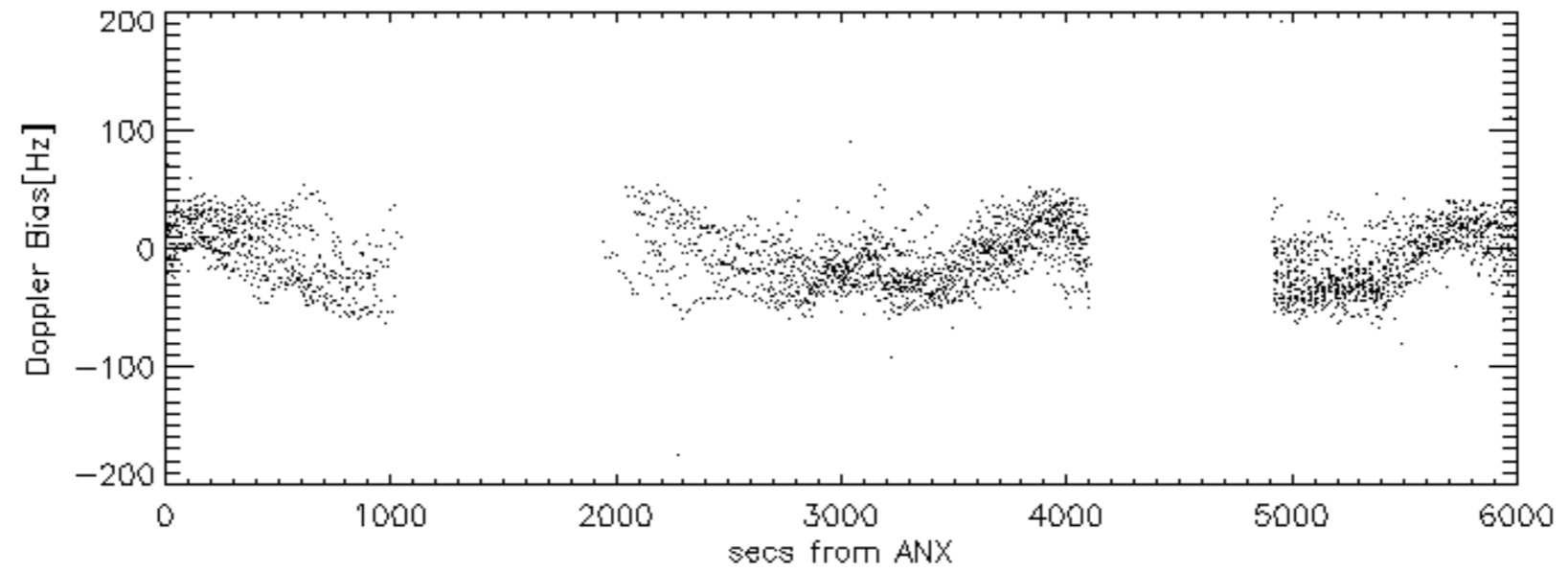
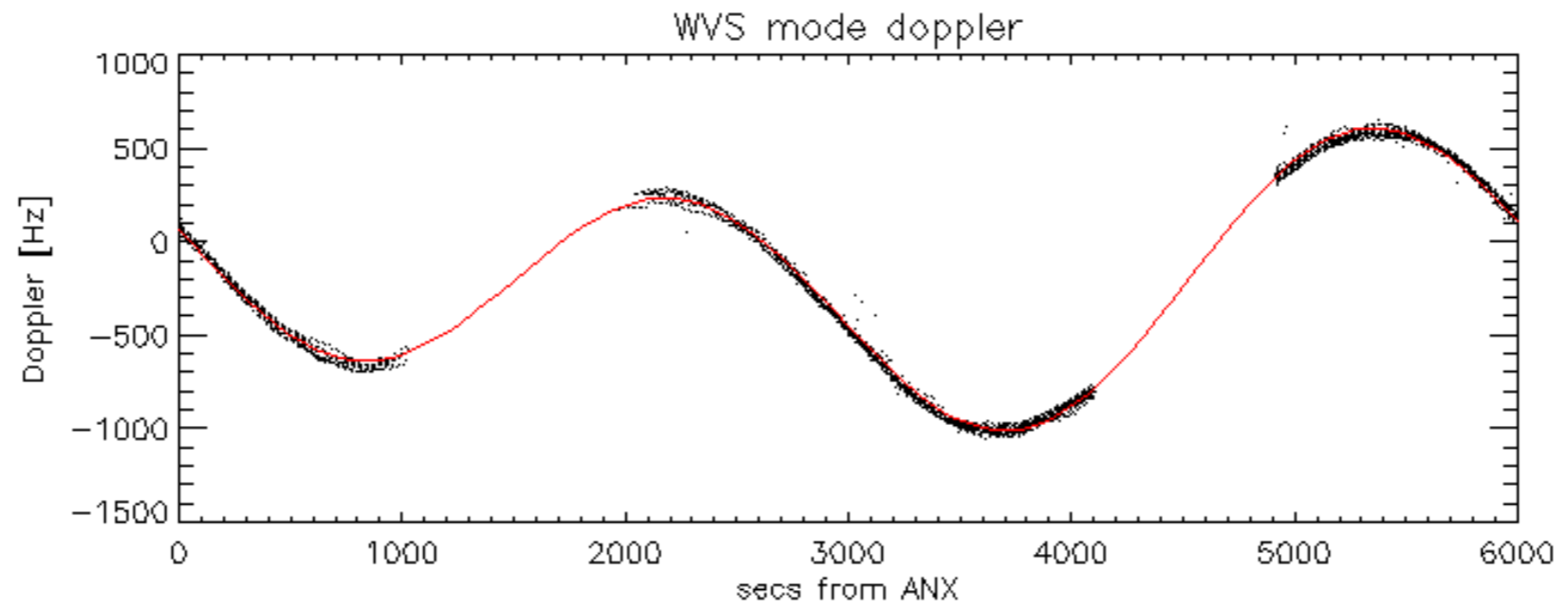


Doppler 'WVS' 'IS2' descending

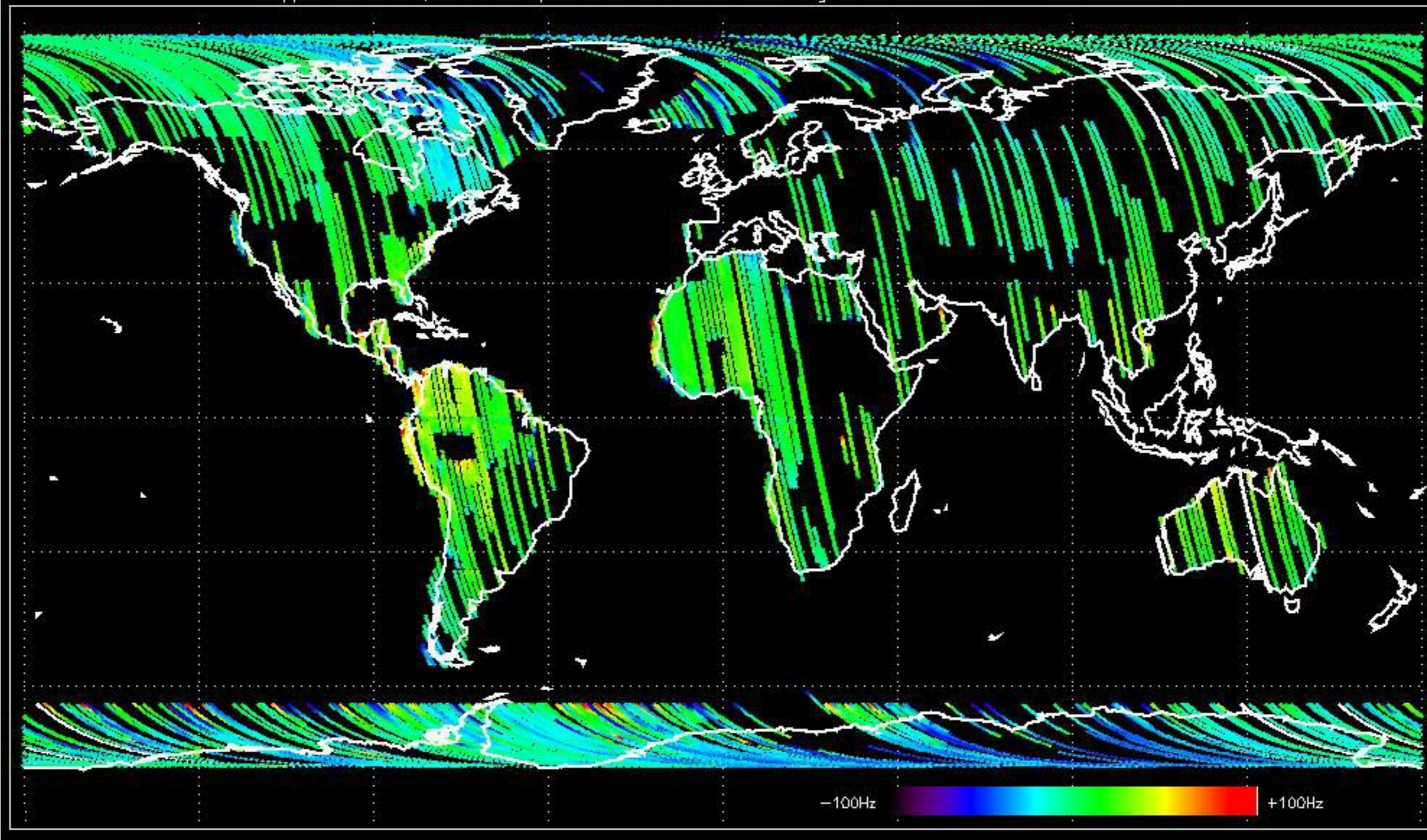


GM1 mode doppler

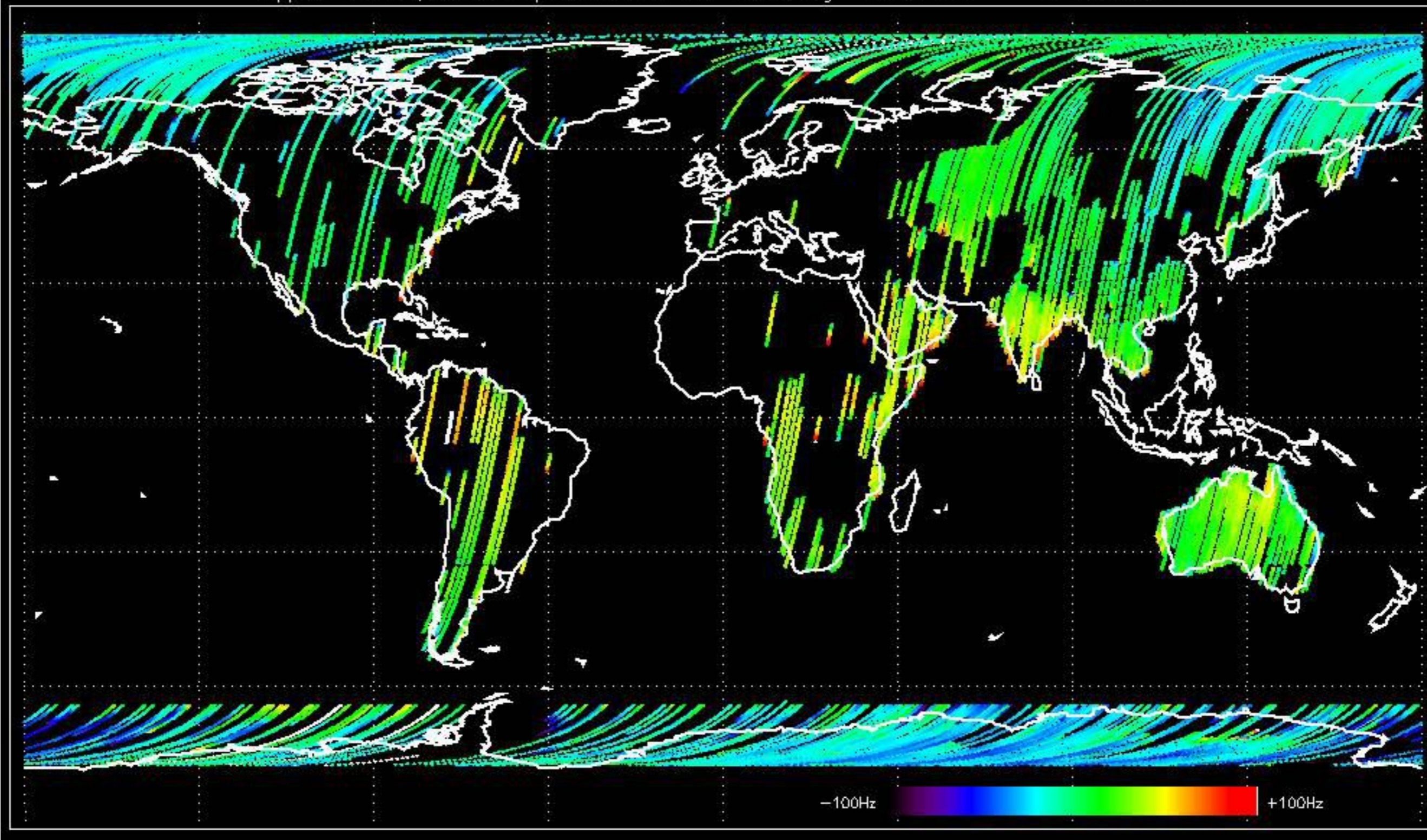




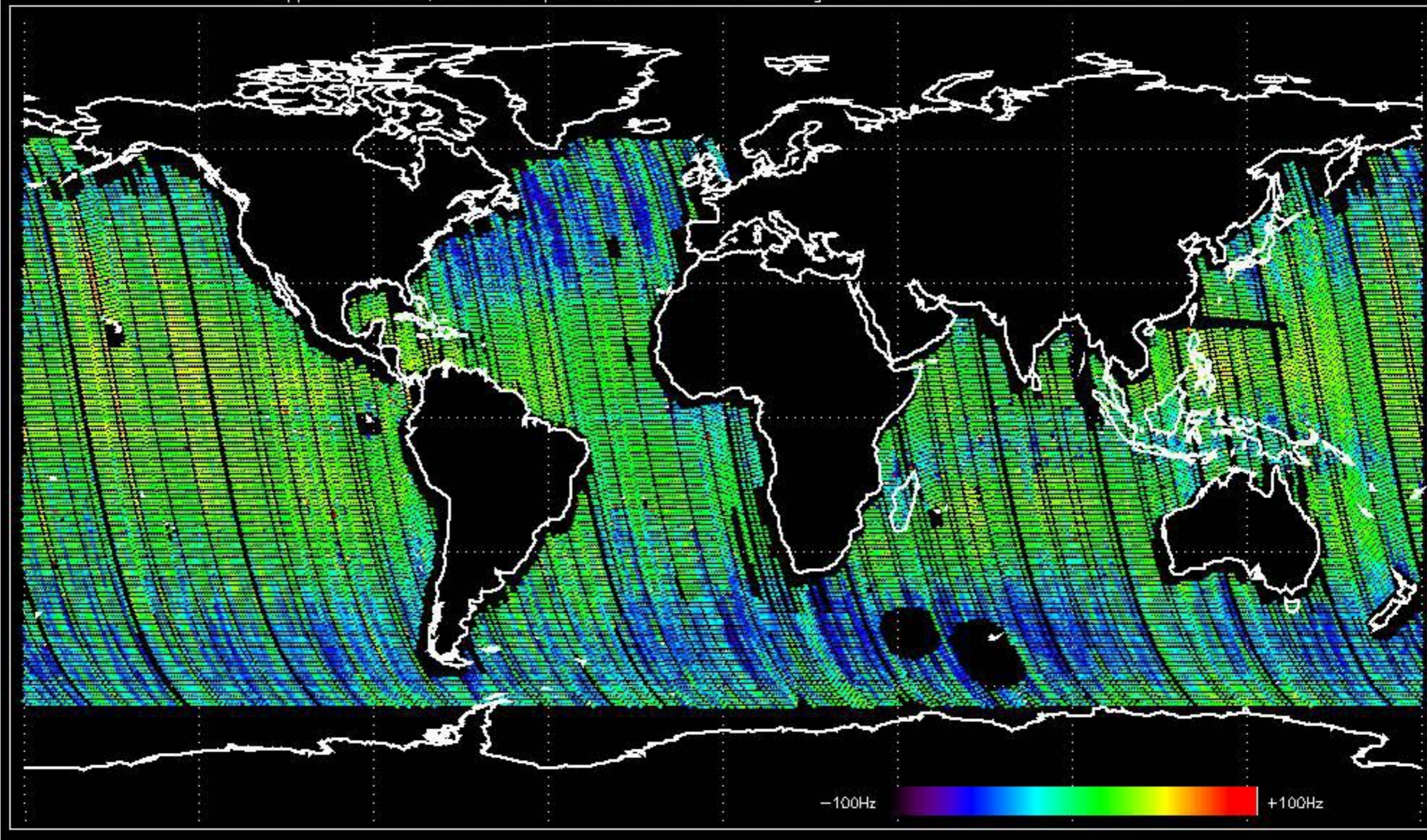
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -9.4513639 Hz



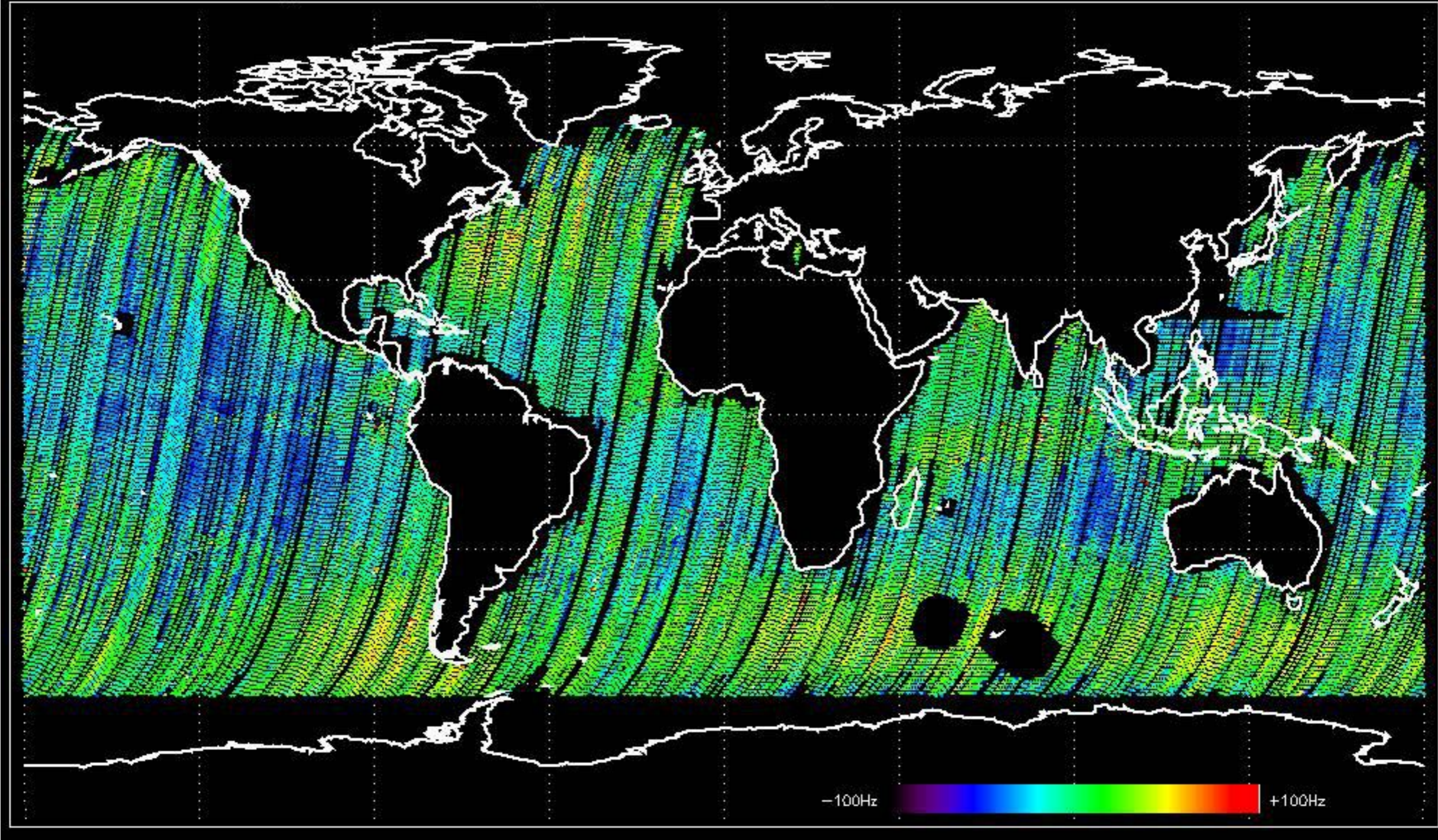
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.7983185 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.9741199 Hz

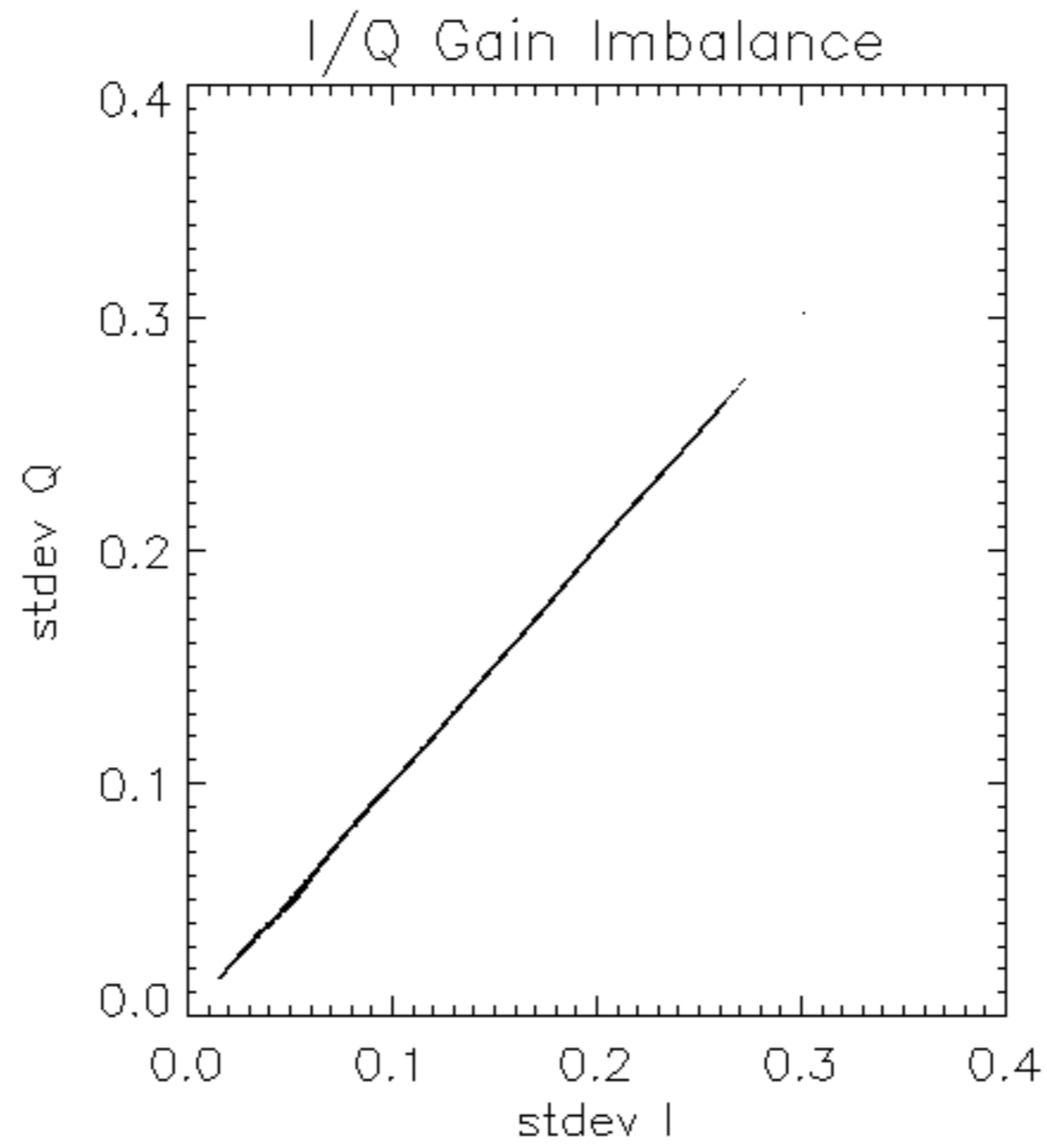


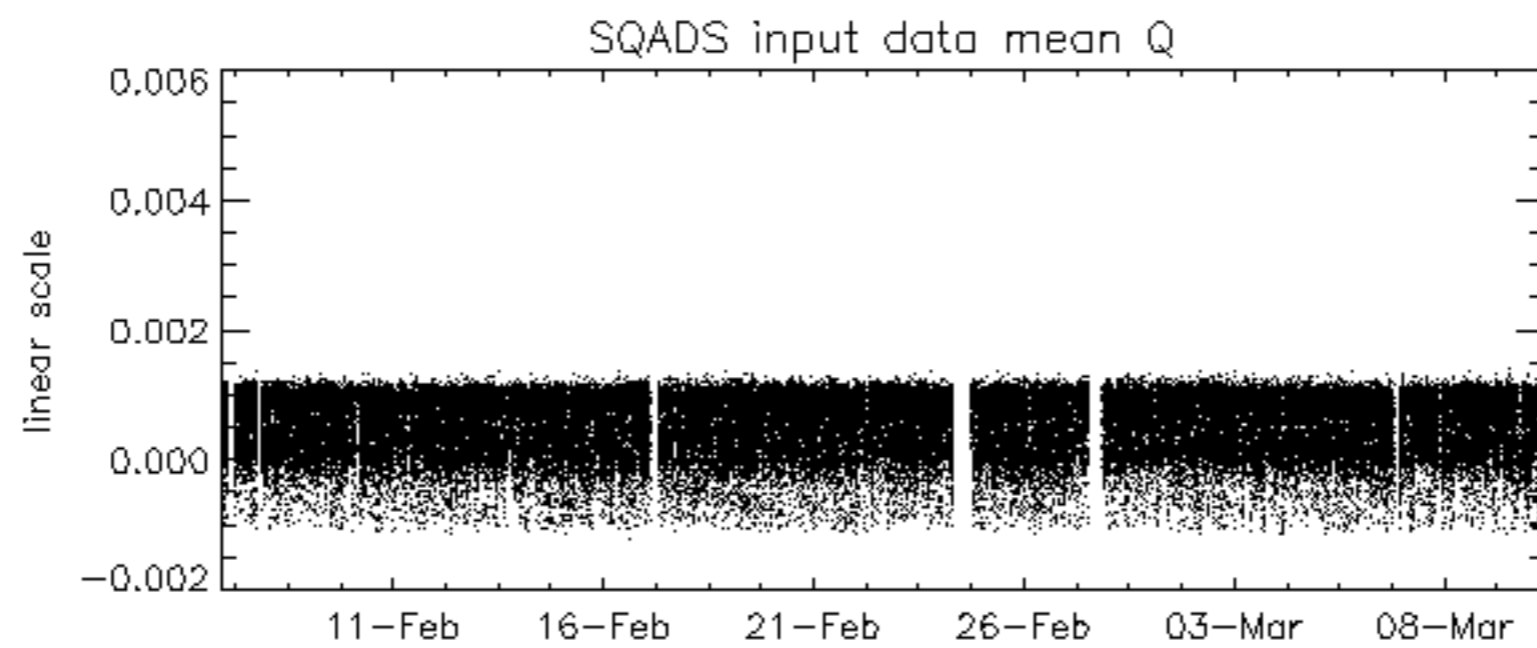
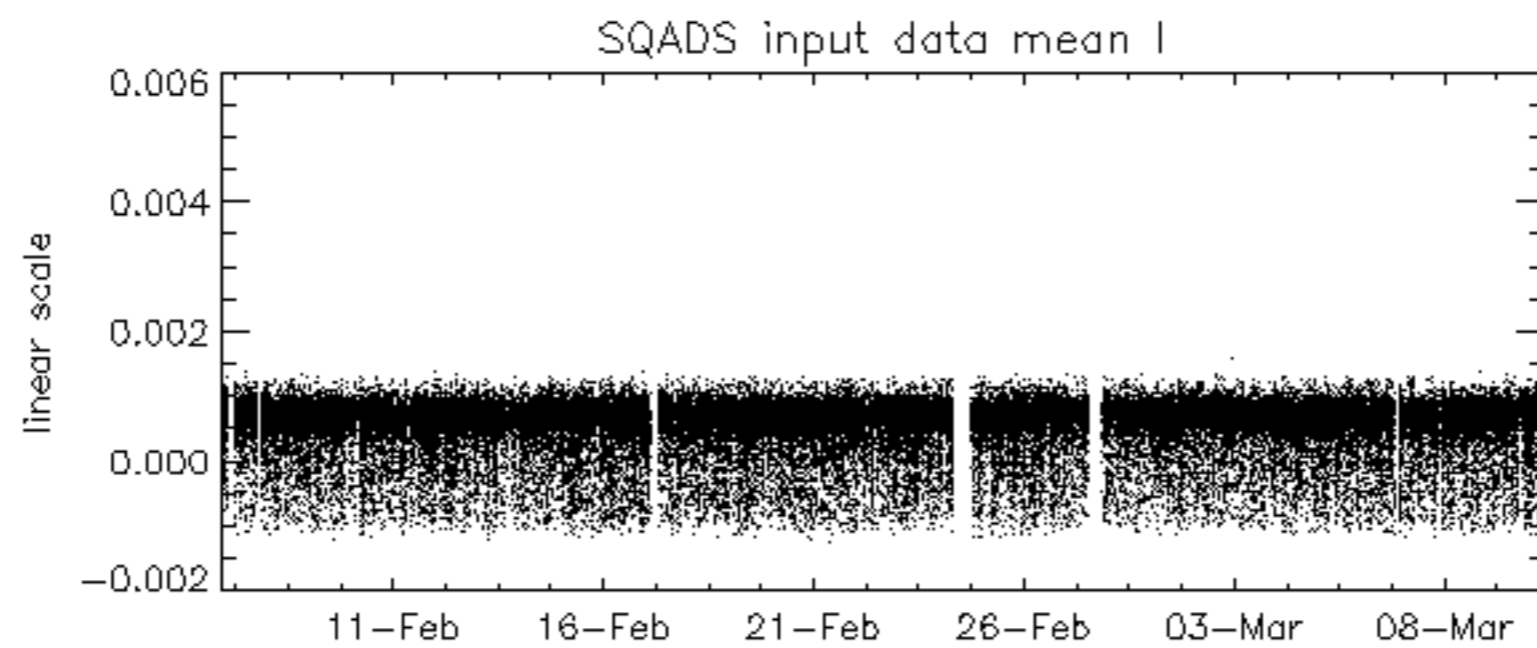
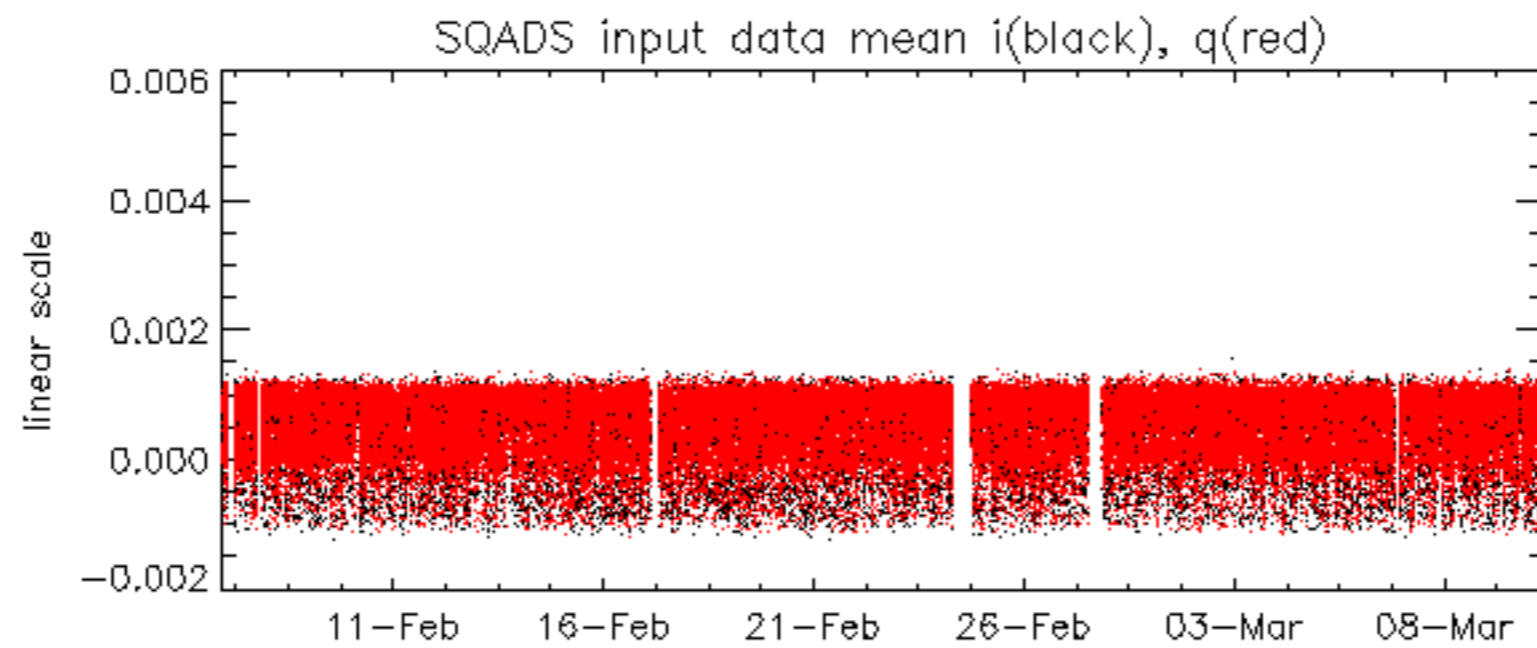
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.4967916 Hz

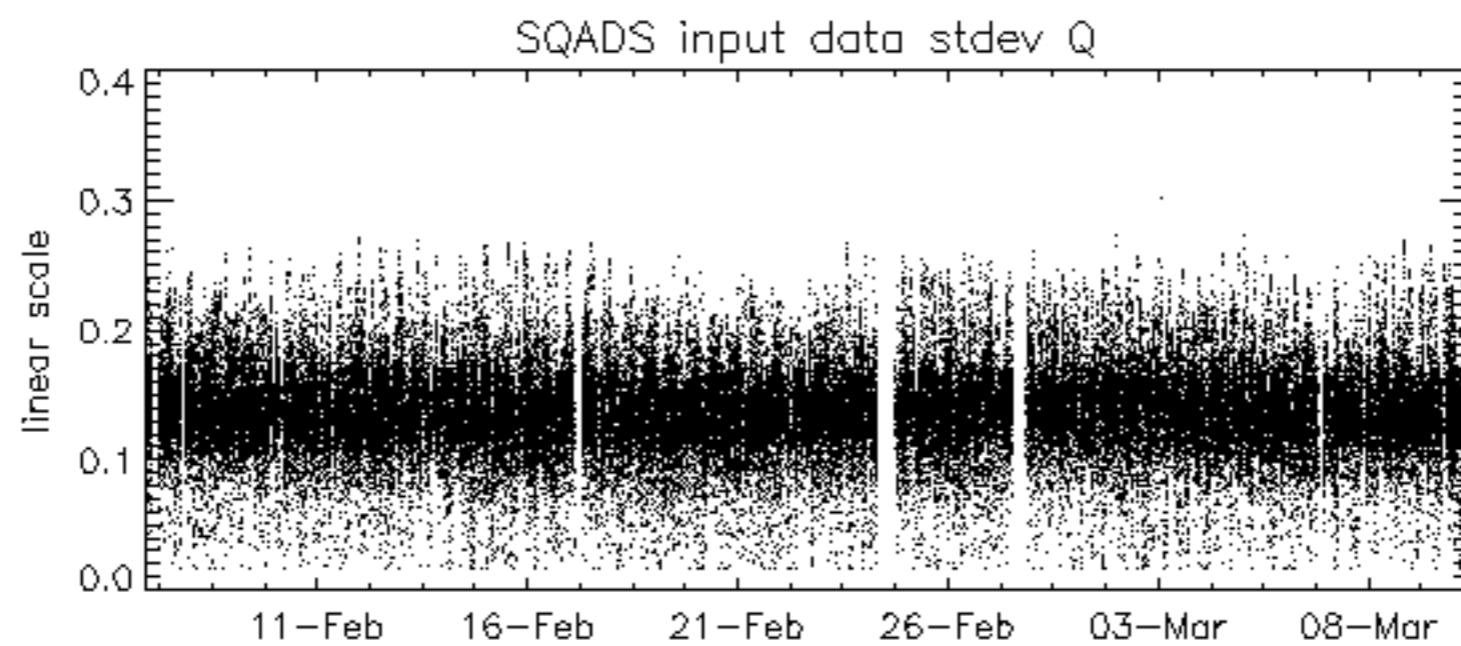
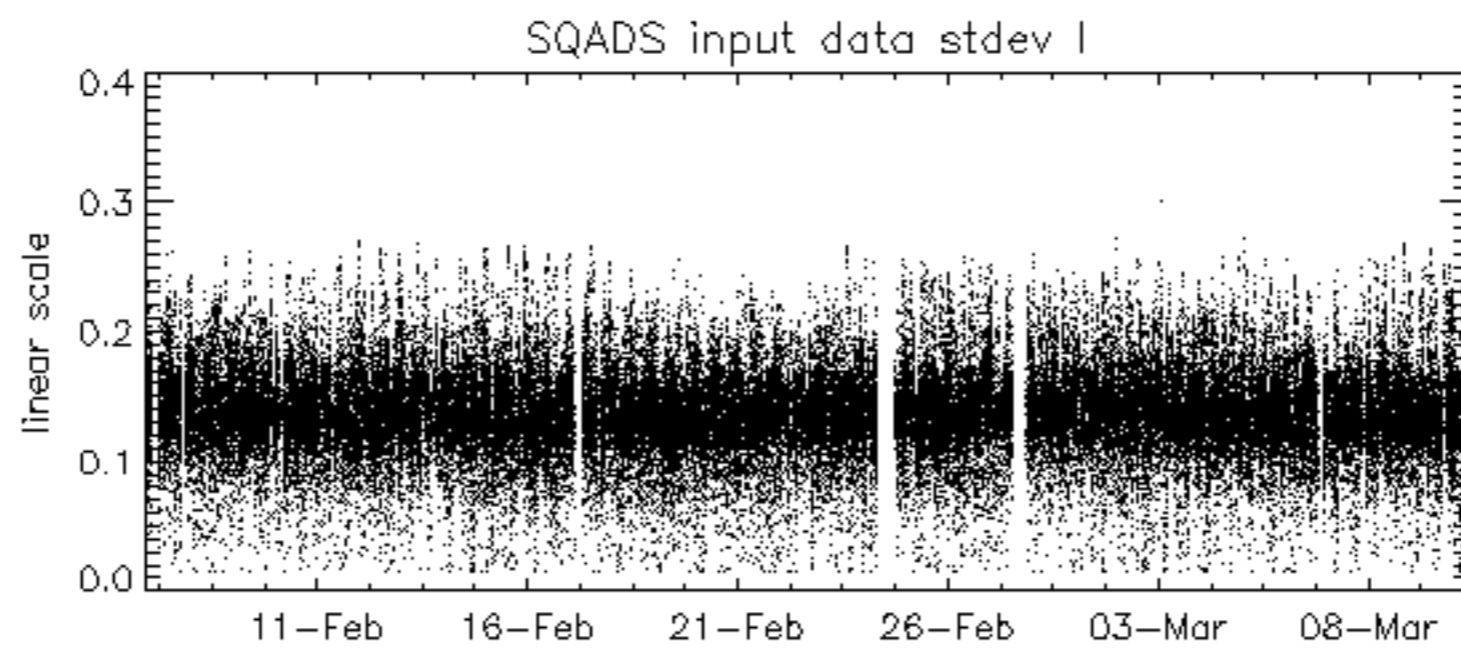
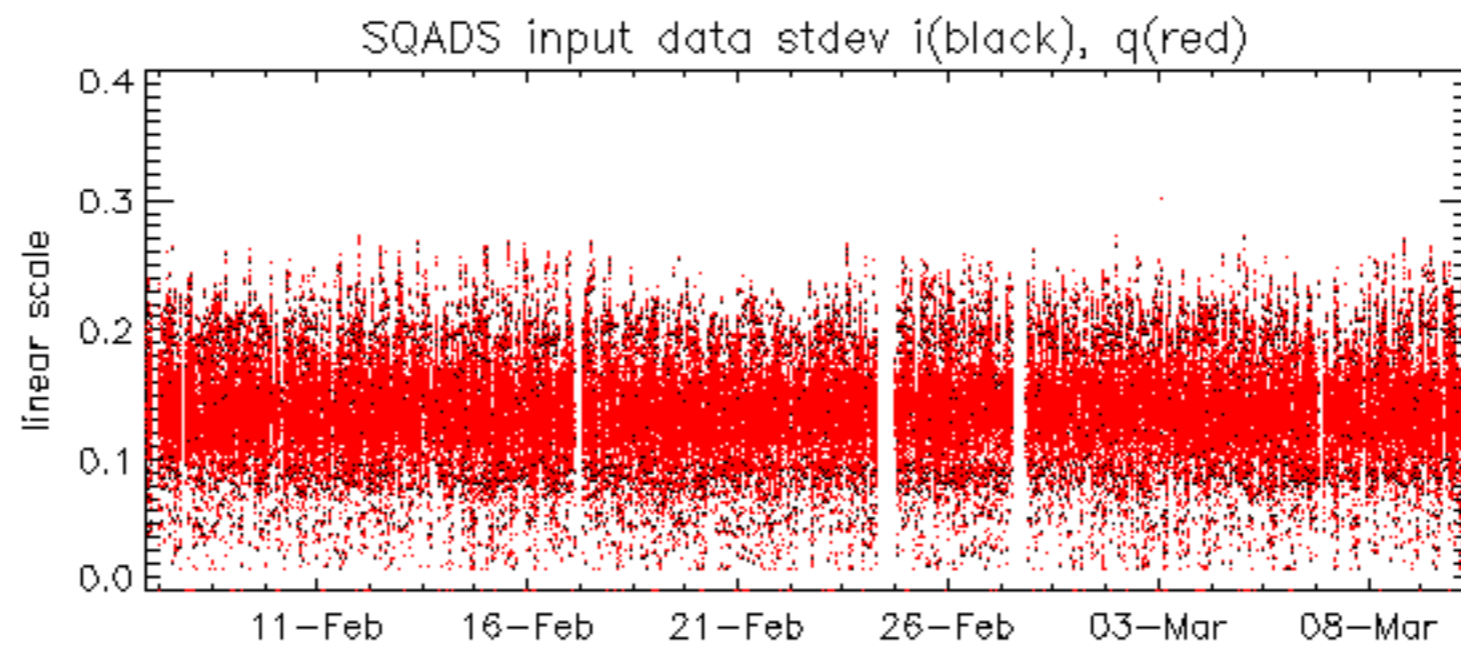


No anomalies observed on available MS products:

No anomalies observed.



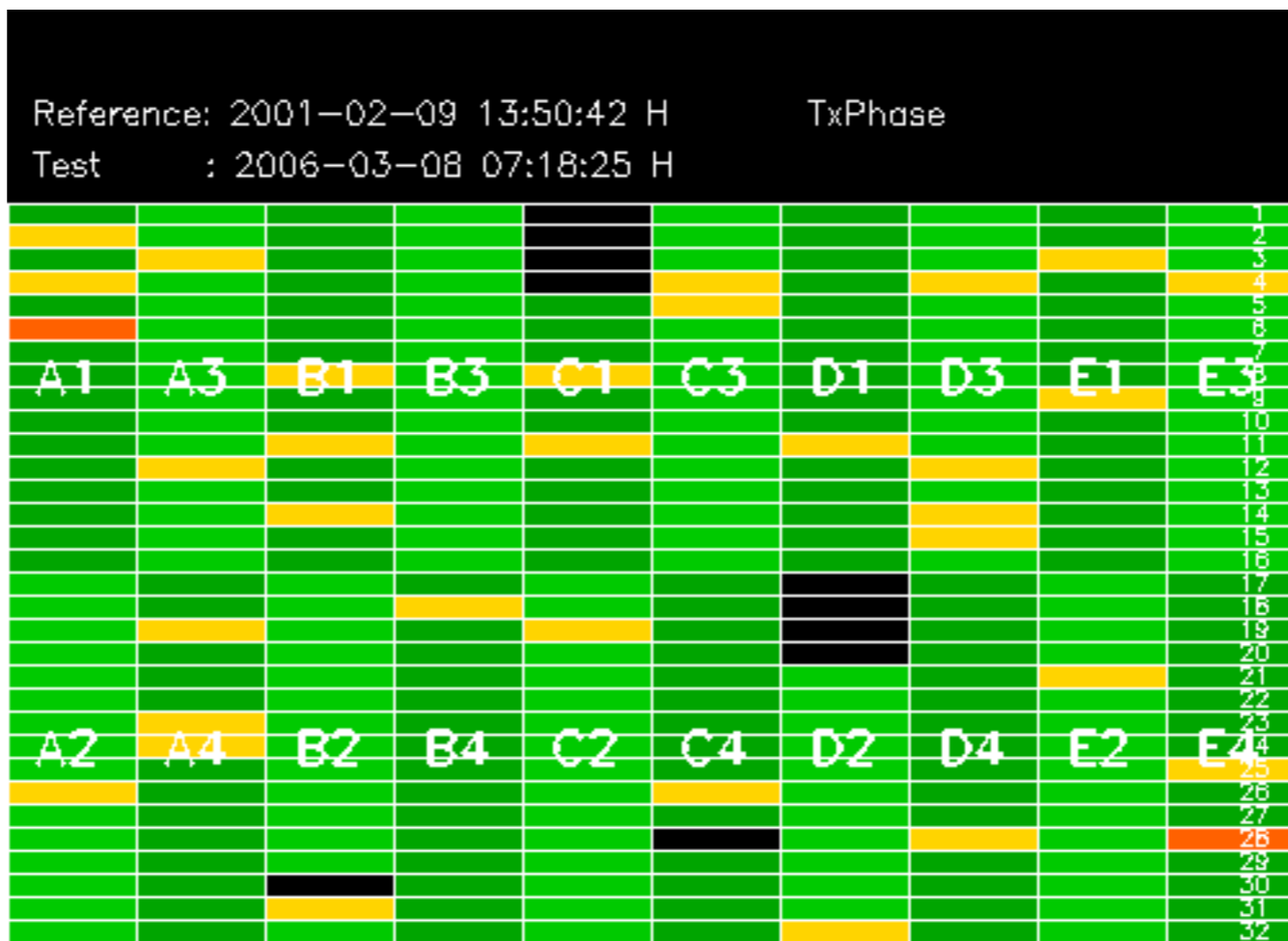


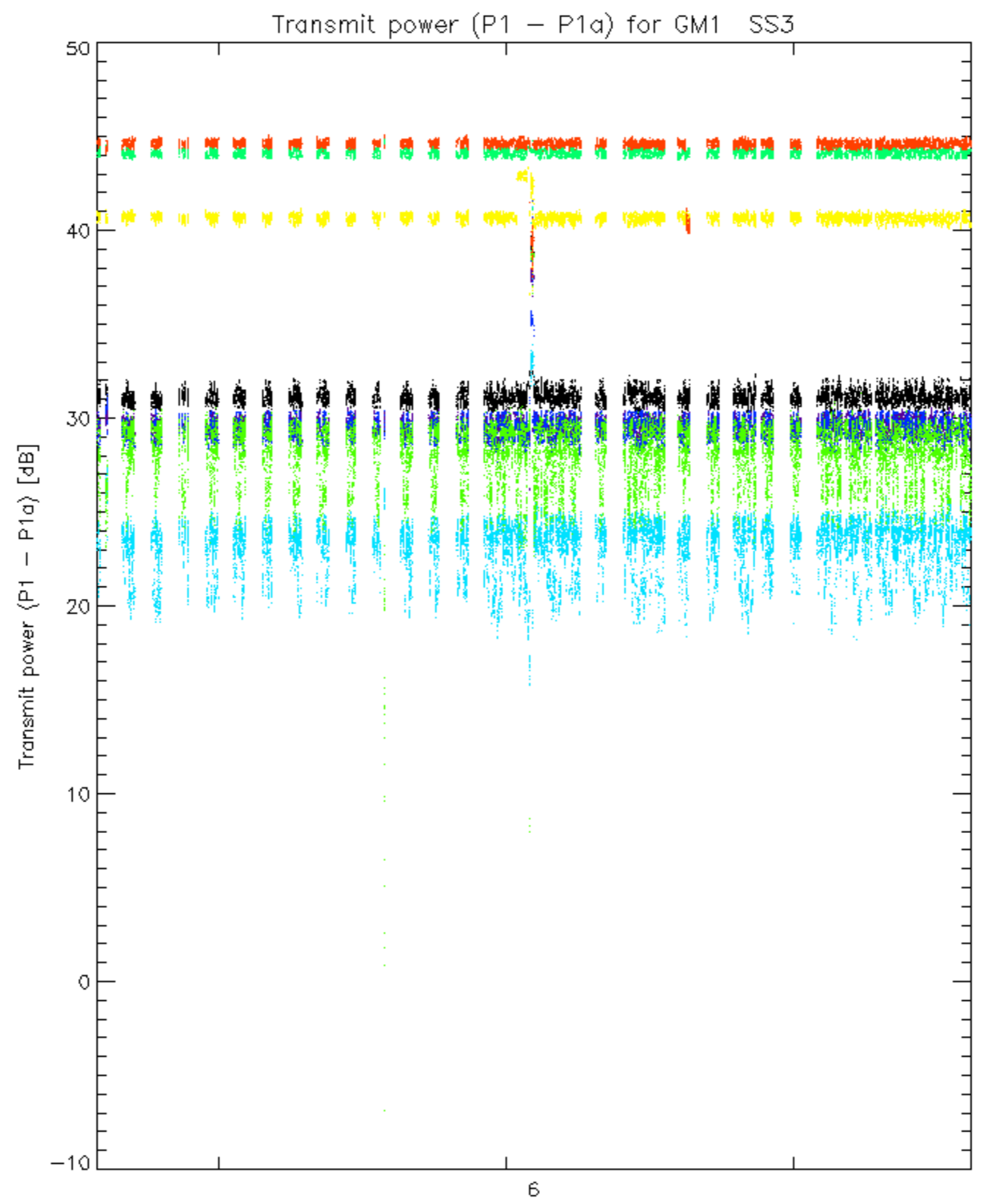


Summary of analysis for the last 3 days 2006030[890]

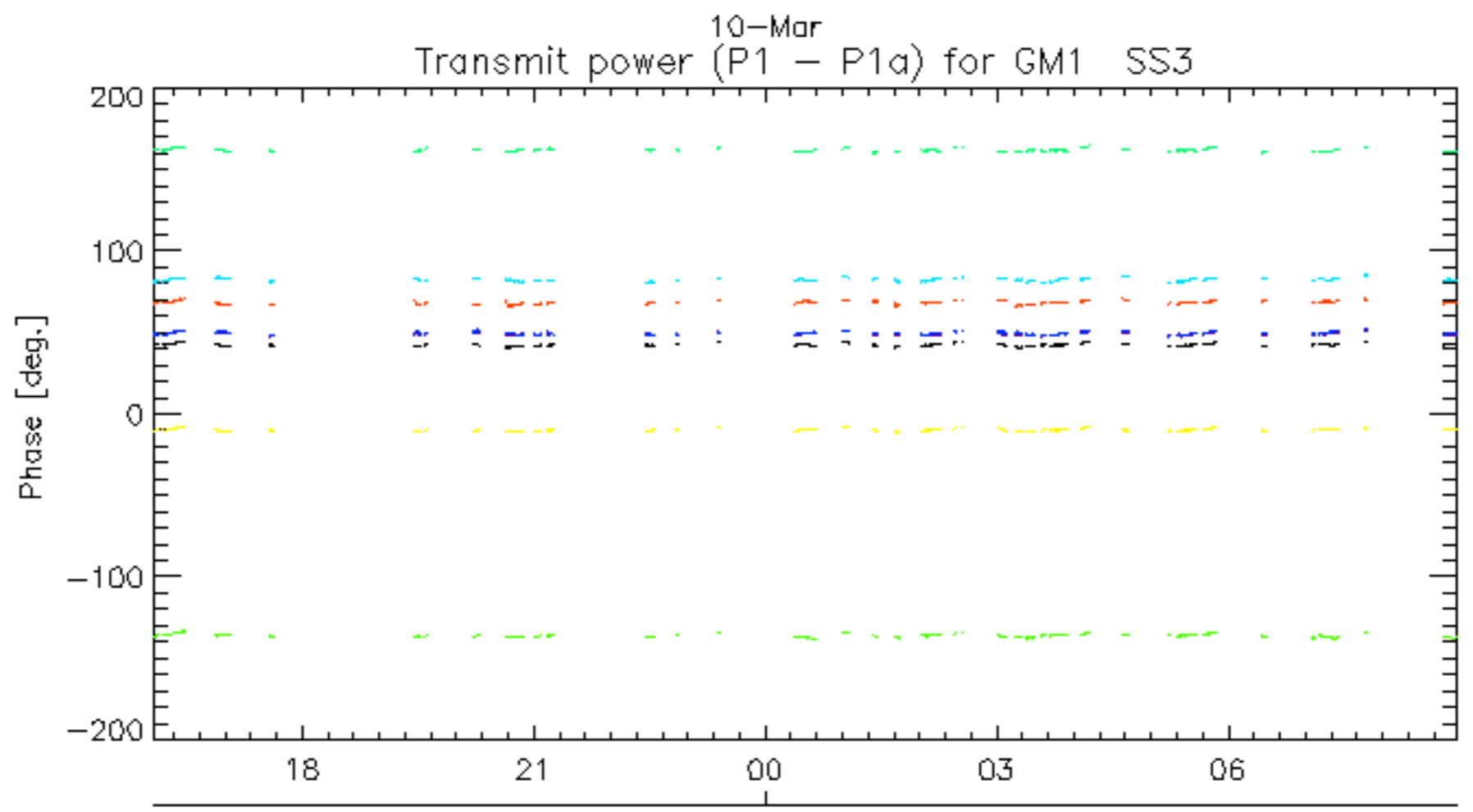
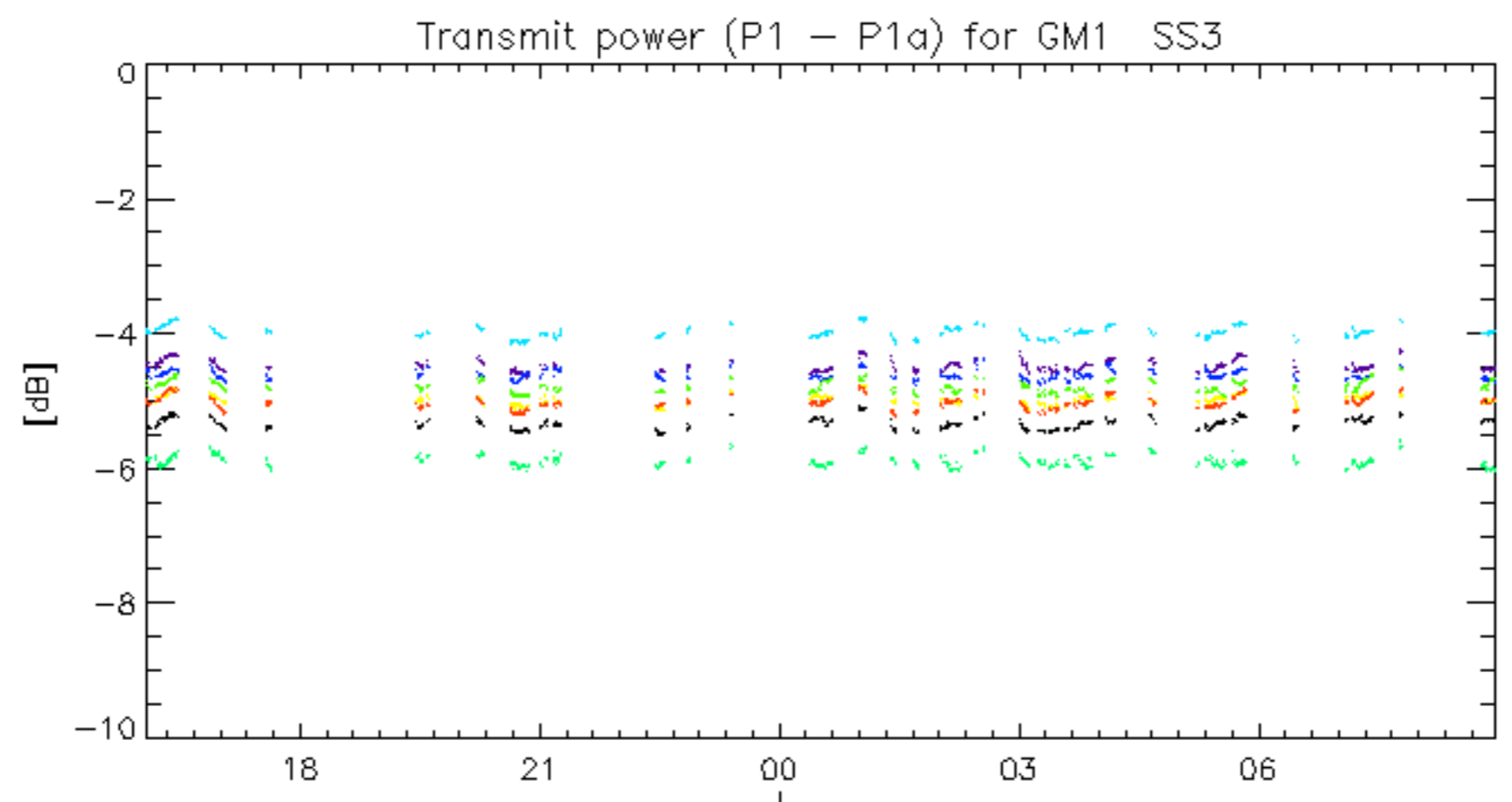
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060309_003426_000001152045_00431_21026_0116.N1	1	0
ASA_IMM_1PNPDE20060309_023016_00000742045_00433_21028_0141.N1	1	0

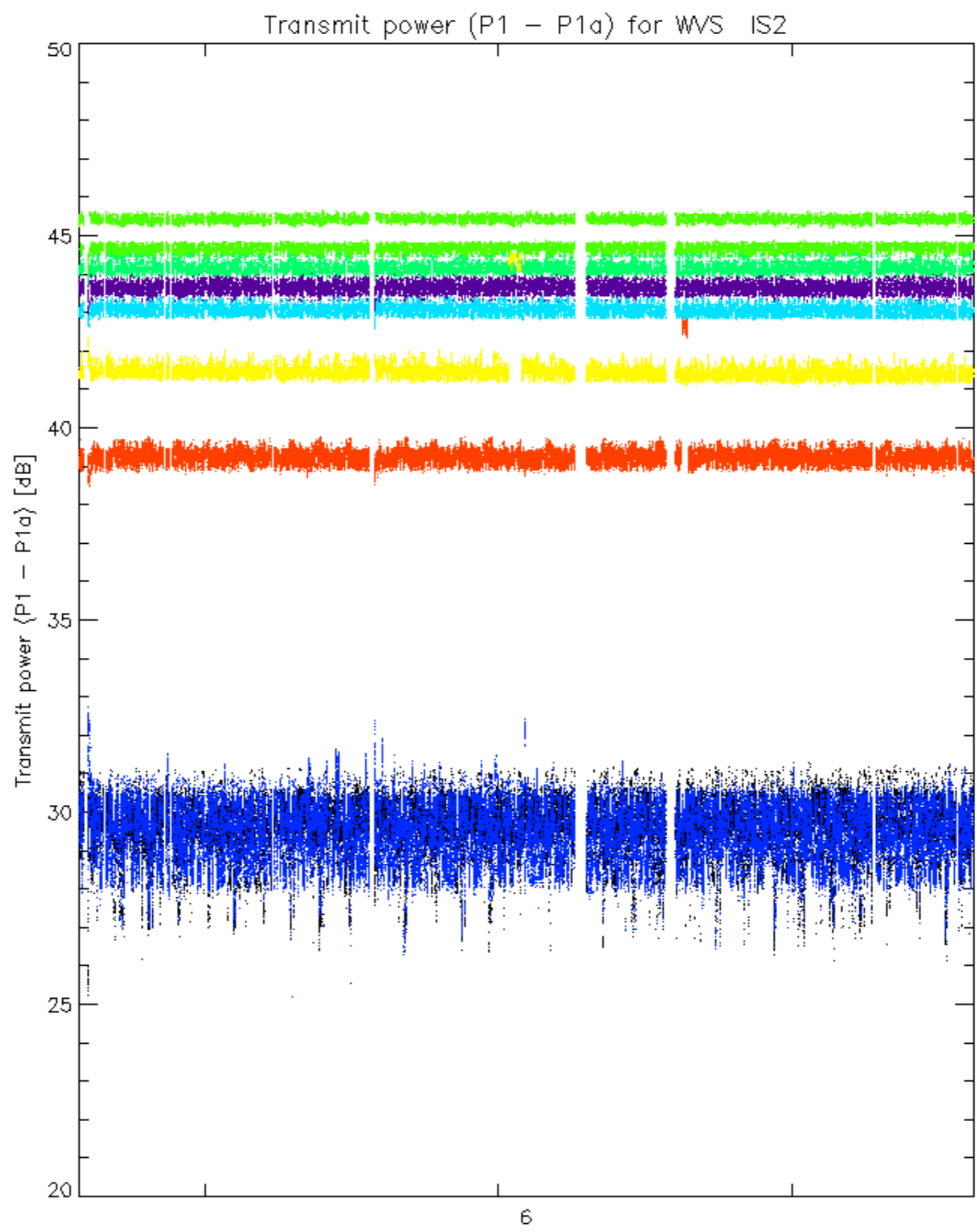




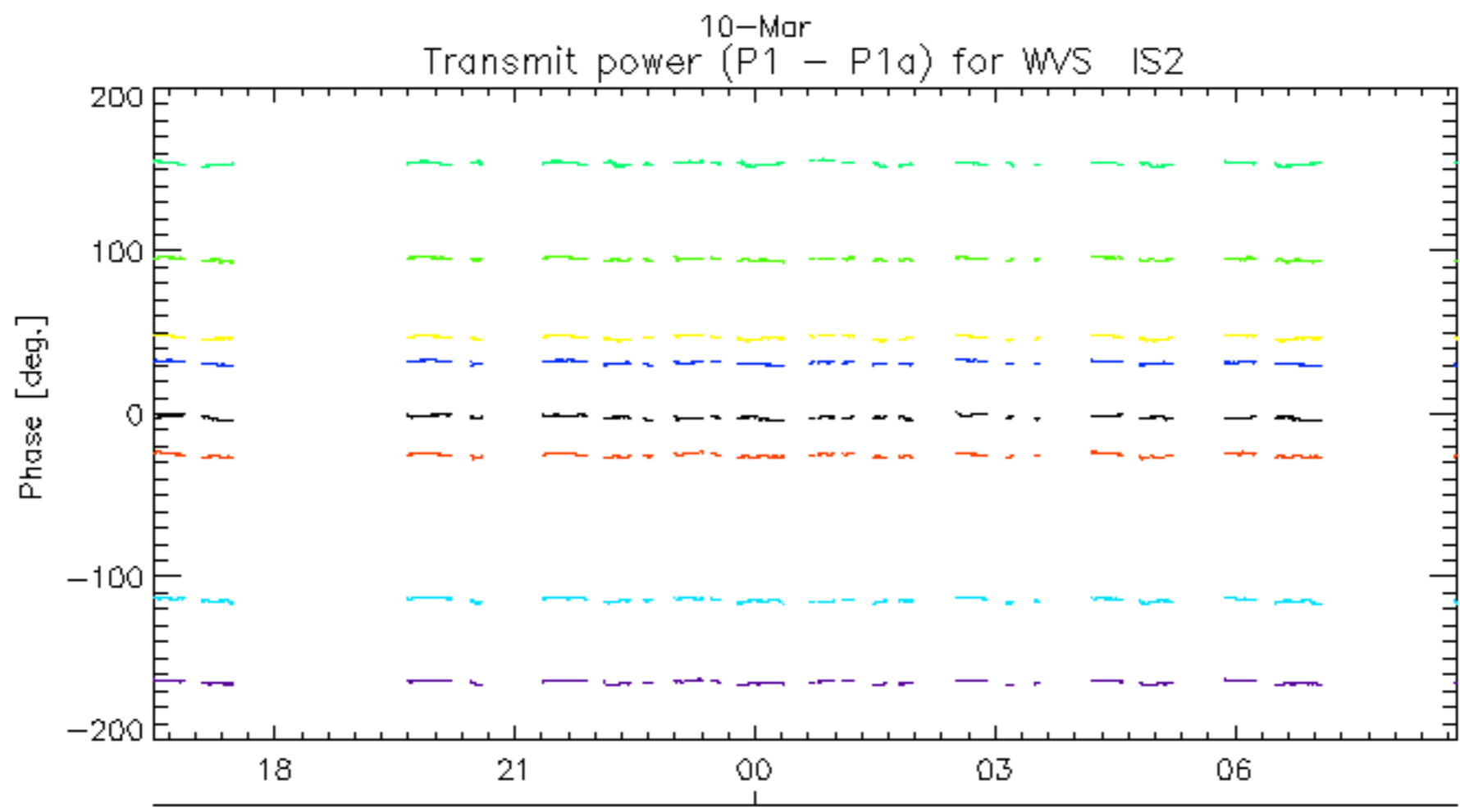
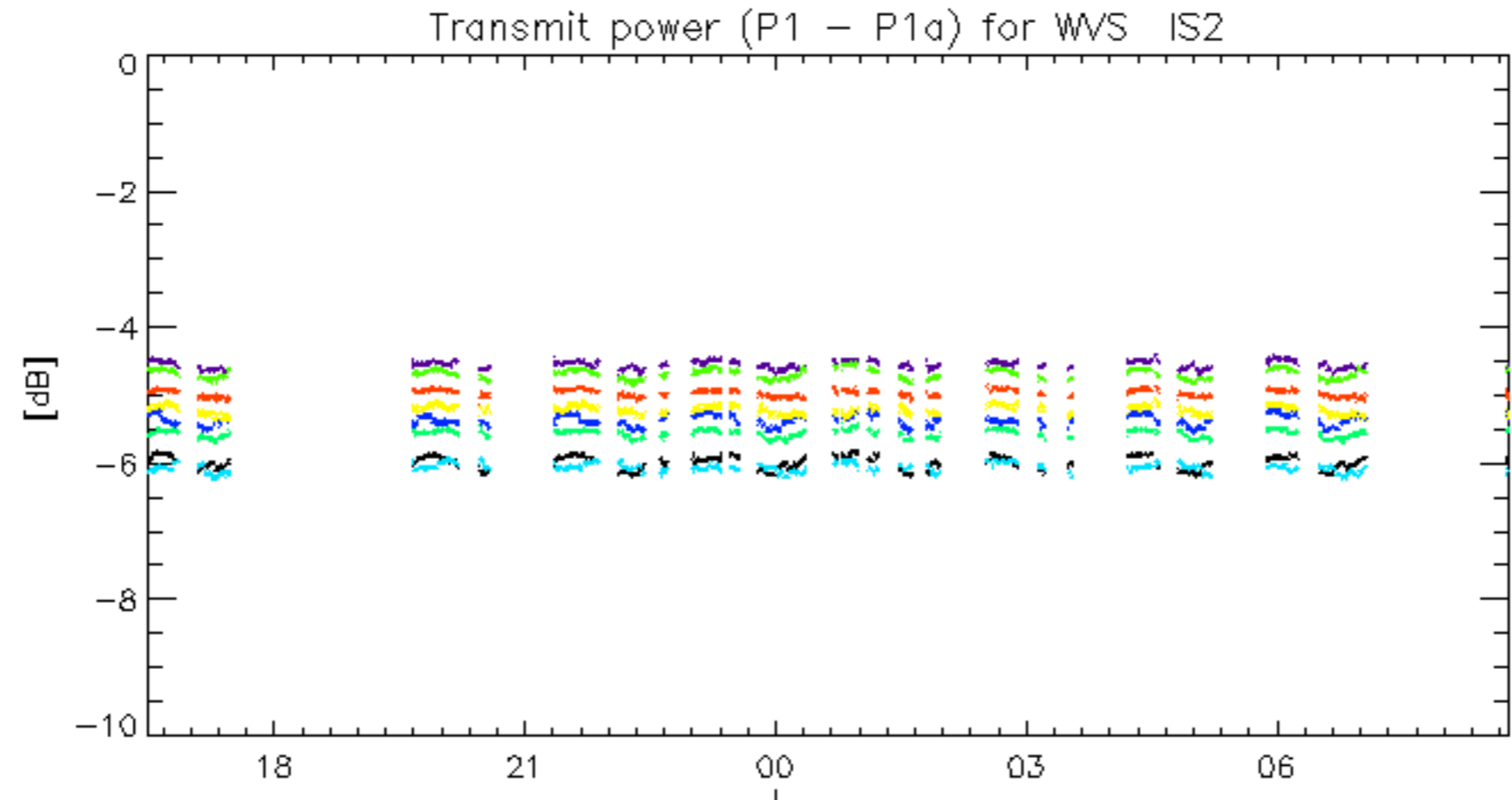
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.