

PRELIMINARY REPORT OF 060219

last update on Sun Feb 19 16:45:17 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 2006-02-18 00:00:00 to 2006-02-19 16:45:18

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	47	0	12	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	47	0	12	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	47	0	12	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	47	0	12	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	41	39	9	50
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	41	39	9	50
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	41	39	9	50
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	41	39	9	50

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	20060218 064357
H	20060219 061220

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
<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	-4.008275	0.008773	0.030711
7	P1	-3.003620	0.012152	0.027295
11	P1	-4.090461	0.022050	0.038053
15	P1	-6.062003	0.019120	0.004753
19	P1	-3.263284	0.006620	-0.024027
22	P1	-4.470866	0.017491	0.040483
26	P1	-4.189555	0.013045	0.029744
30	P1	-5.773351	0.010287	0.014161
3	P1	-16.914421	0.262268	-0.143286
7	P1	-16.663275	0.120381	-0.033876
11	P1	-16.589041	0.318140	0.135120
15	P1	-13.146445	0.111382	0.233205
19	P1	-13.897406	0.067623	-0.001469
22	P1	-15.750174	0.542757	0.413583
26	P1	-15.756509	0.259727	-0.022287
30	P1	-16.561567	0.298656	0.202630

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.518867	0.091565	0.200648
7	P2	-22.422844	0.095007	0.074580
11	P2	-16.258425	0.101041	0.057327
15	P2	-7.188000	0.101917	0.064152
19	P2	-9.155580	0.095879	0.056185
22	P2	-17.941101	0.092679	0.043484
26	P2	-16.214138	0.098820	0.034283
30	P2	-19.640230	0.084298	0.027826

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.200355	0.007185	0.033967
7	P3	-8.200355	0.007185	0.033967
11	P3	-8.200355	0.007185	0.033967
15	P3	-8.200355	0.007185	0.033967
19	P3	-8.200355	0.007185	0.033967
22	P3	-8.200355	0.007185	0.033967
26	P3	-8.200355	0.007185	0.033967
30	P3	-8.200355	0.007185	0.033967

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	-3.739218	0.011311	-0.023966
7	P1	-2.745419	0.007678	-0.031884
11	P1	-2.892078	0.014451	-0.063315
15	P1	-3.510202	0.020671	-0.100686
19	P1	-3.380814	0.011324	0.017603
22	P1	-5.150086	0.022069	-0.060442
26	P1	-5.840335	0.019221	0.081719
30	P1	-5.222169	0.027417	0.060174
3	P1	-11.552556	0.045174	-0.061844
7	P1	-9.931694	0.050125	-0.068341
11	P1	-10.155528	0.059616	-0.164786
15	P1	-10.693599	0.101017	-0.172882
19	P1	-15.448162	0.062787	0.085194
22	P1	-20.388145	1.200182	0.418741
26	P1	-16.558256	0.368397	0.498914
30	P1	-18.231947	0.328442	-0.237342

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.282917	0.043024	0.294626
7	P2	-22.725931	0.077431	0.312938
11	P2	-11.344966	0.030396	0.185800
15	P2	-4.873072	0.029830	0.123721
19	P2	-6.885253	0.027661	0.084705
22	P2	-8.176401	0.029179	0.086154
26	P2	-23.950306	0.027668	0.058780
30	P2	-22.085155	0.019767	0.034825

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.034434	0.003161	0.039451
7	P3	-8.034473	0.003155	0.039683
11	P3	-8.034355	0.003161	0.039583
15	P3	-8.034464	0.003163	0.039616
19	P3	-8.034504	0.003165	0.039830
22	P3	-8.034482	0.003166	0.040287
26	P3	-8.034542	0.003161	0.039998
30	P3	-8.034398	0.003166	0.039641

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	0.000559474
	stdev	1.69770e-07
MEAN Q	mean	0.000519129
	stdev	2.13520e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139332
	stdev	0.00117114
STDEV Q	mean	0.139692
	stdev	0.00119032



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006021[789]

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_1PNPDE20060219_004051_000000622045_00174_20769_3606.N1	1	0
ASA_IMM_1PNPDK20060219_083053_000000502045_00179_20774_1057.N1	0	29
ASA_WSM_1PNPDE20060218_112322_000001222045_00166_20761_5431.N1	0	60





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

✘

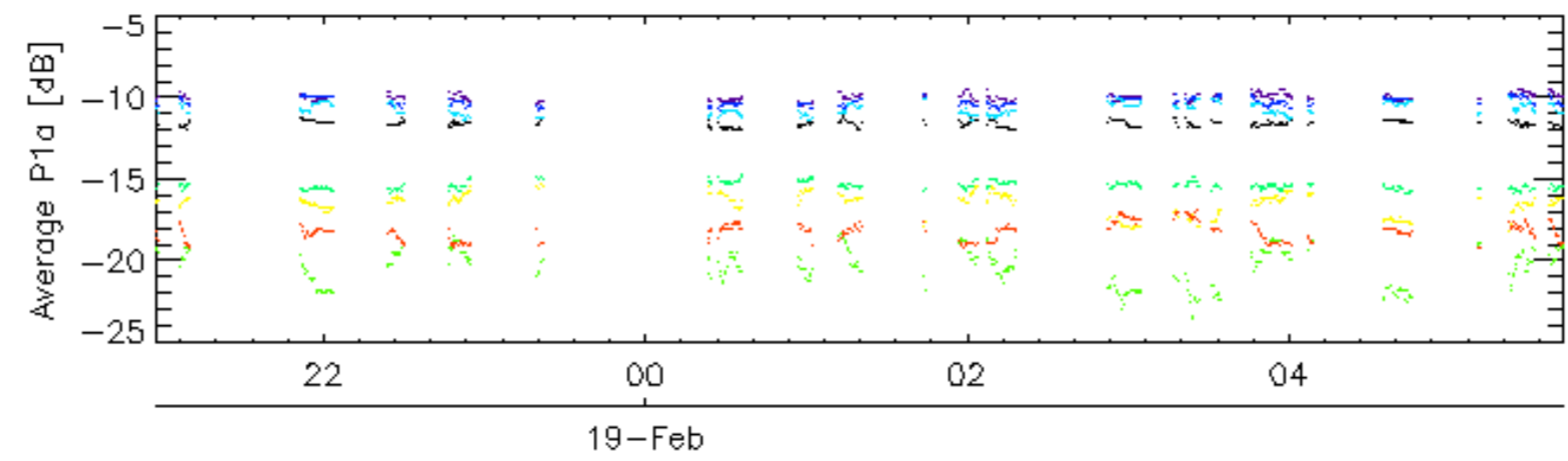
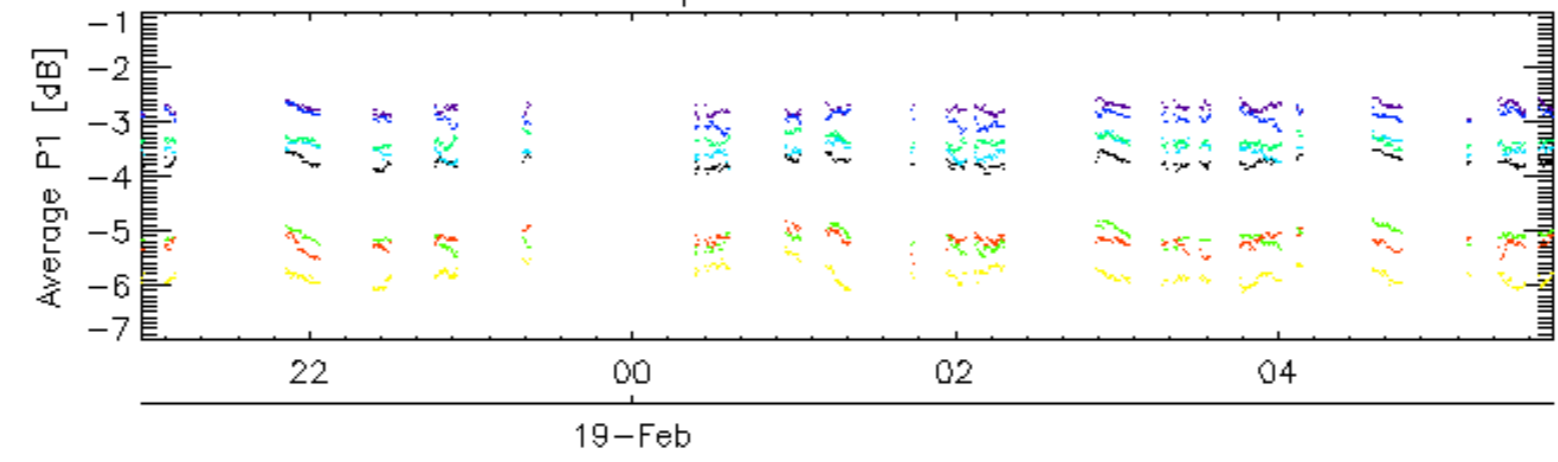
Descending

7.6 - Doppler evolution versus ANX for GM1

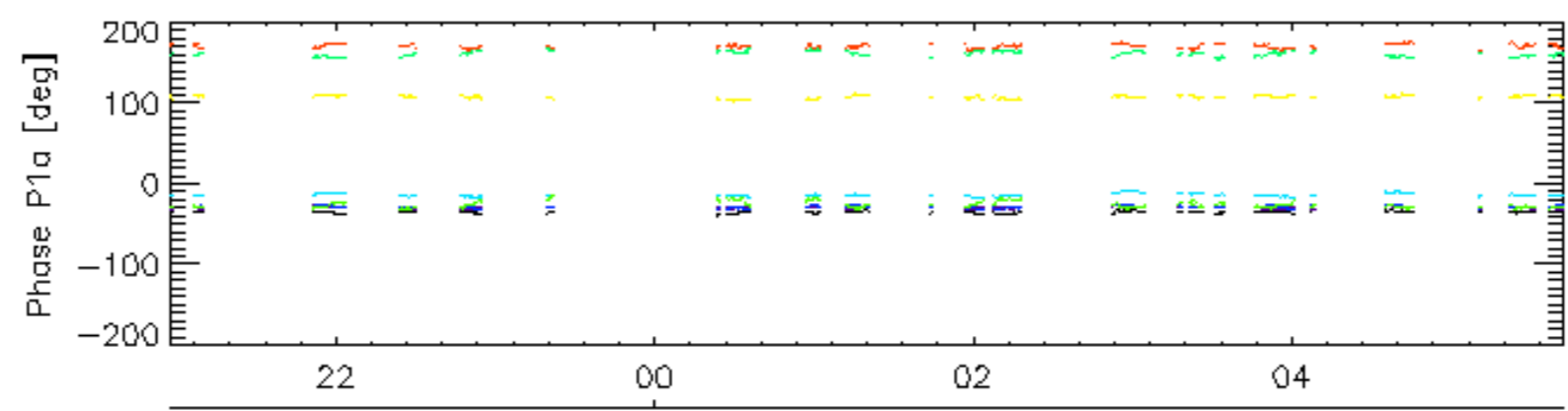
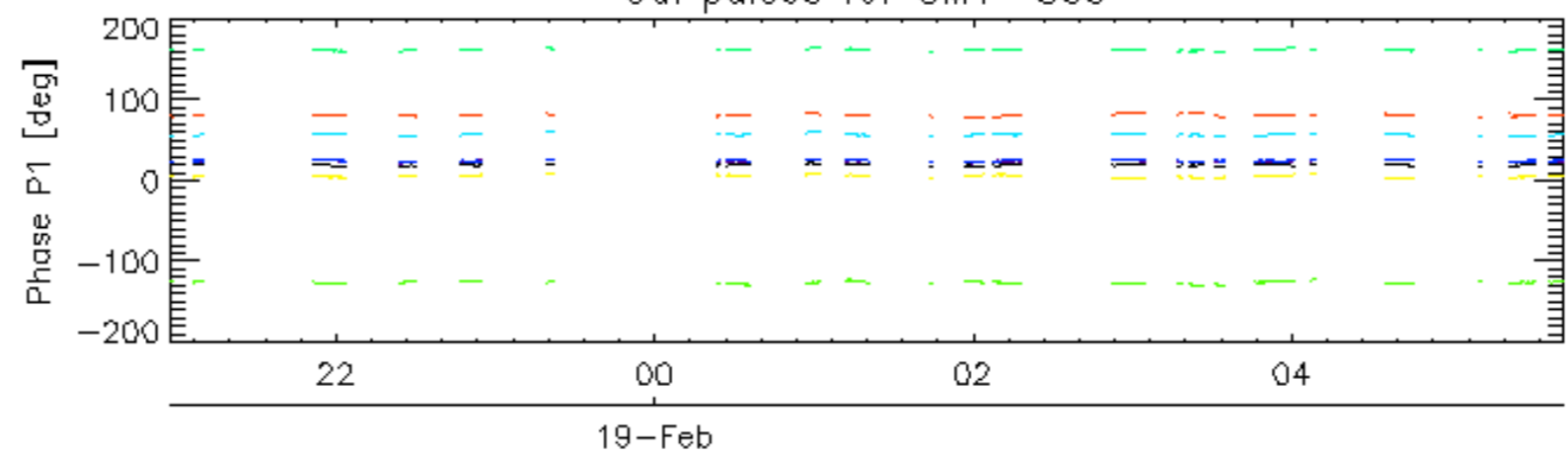
Evolution Doppler error versus ANX

✘

Cal pulses for GM1 SS3

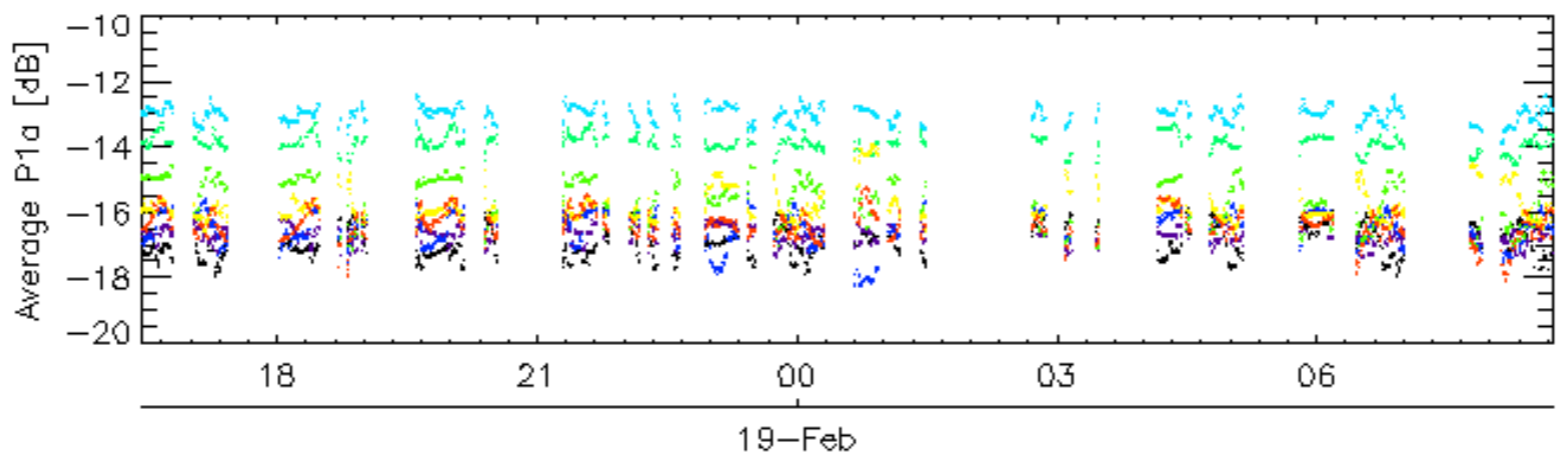
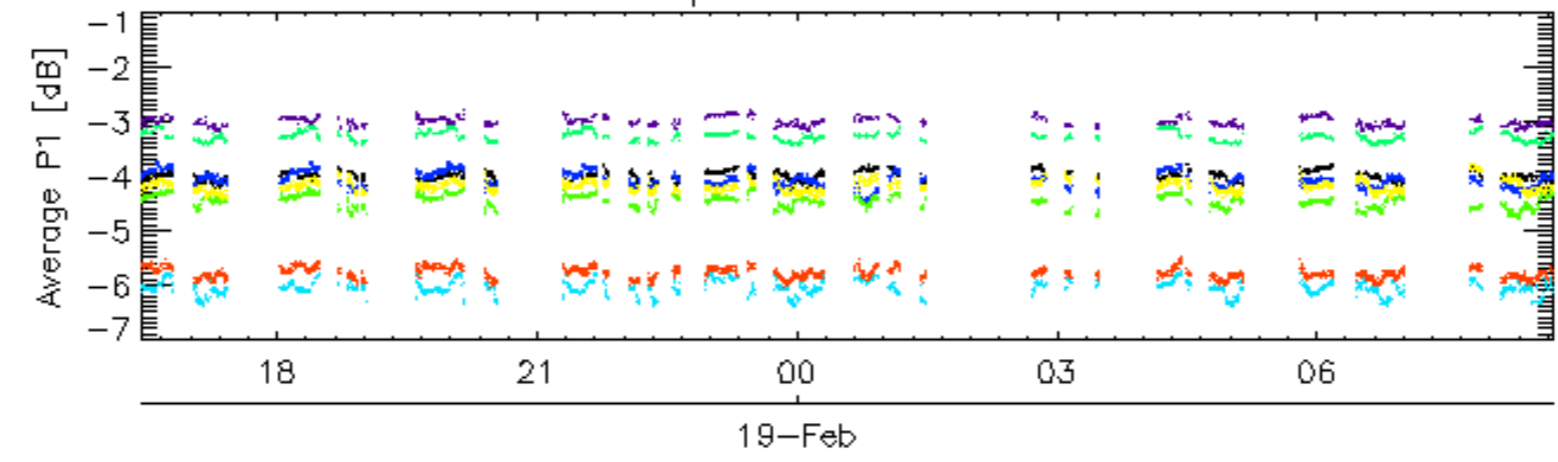


Cal pulses for GM1 SS3

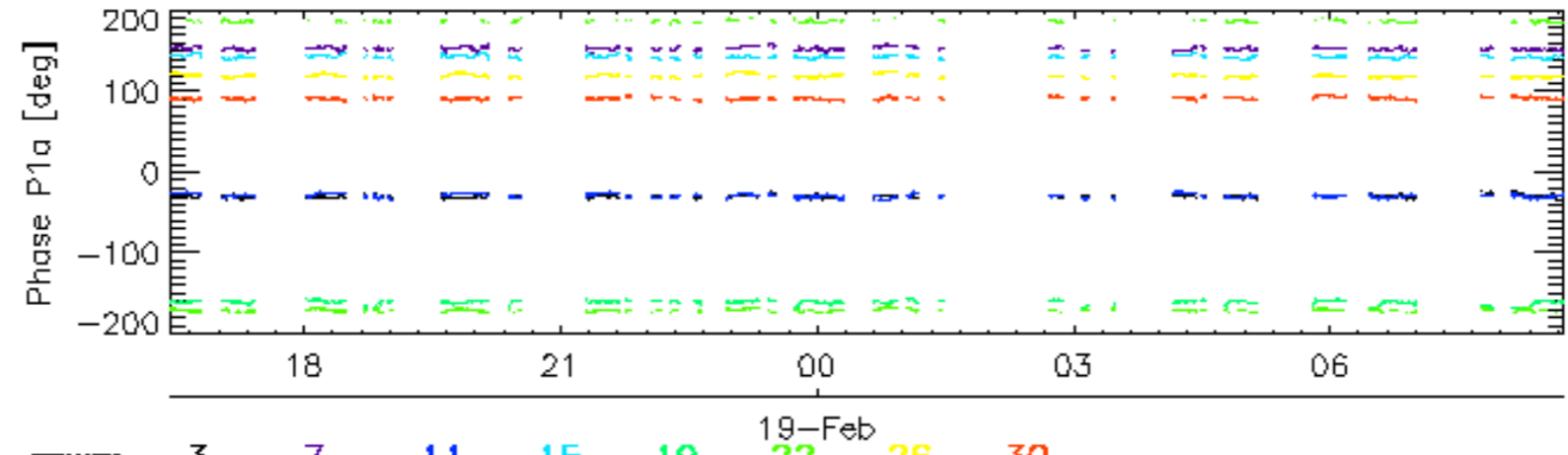
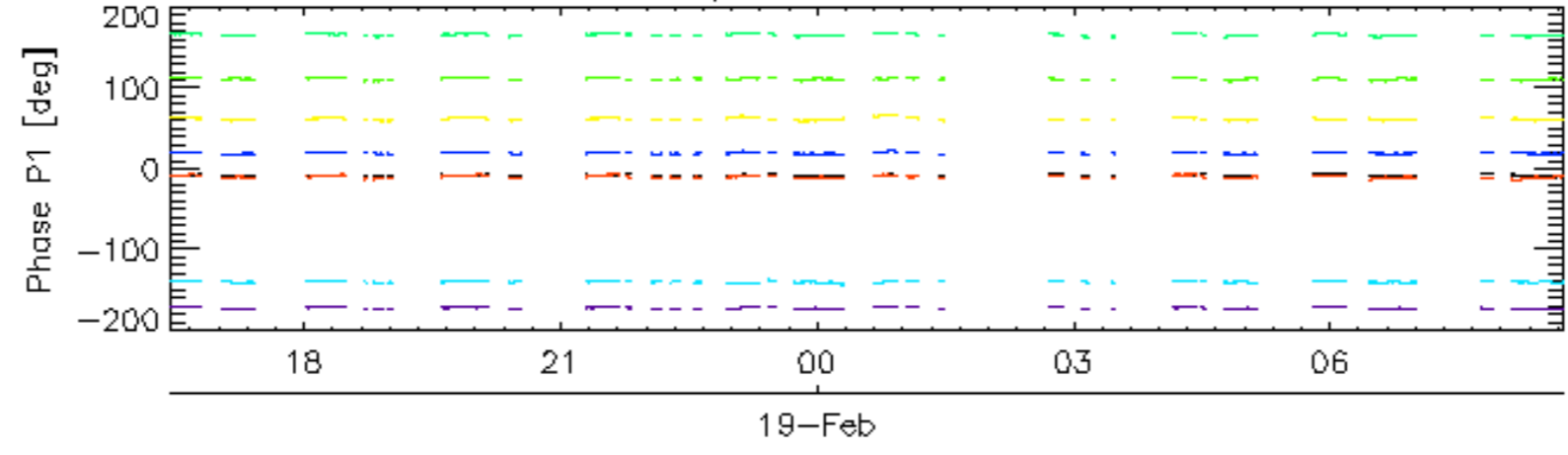


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

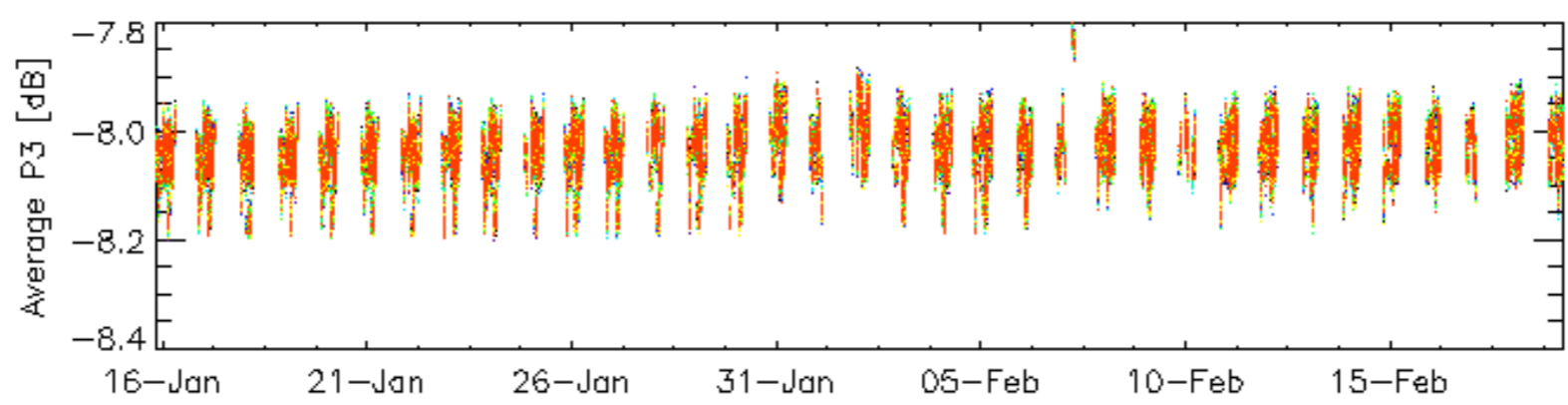
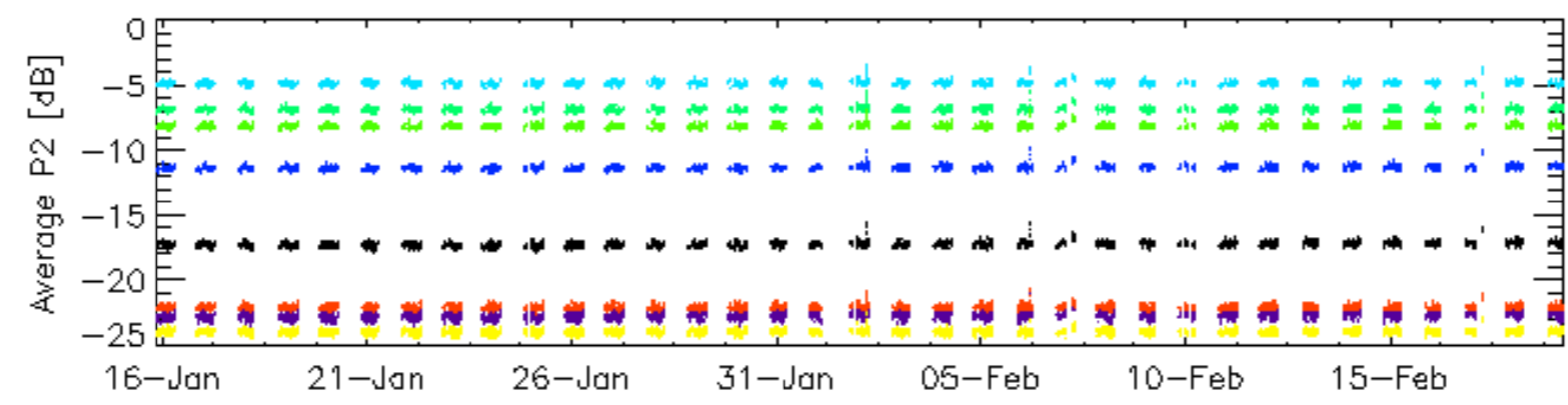
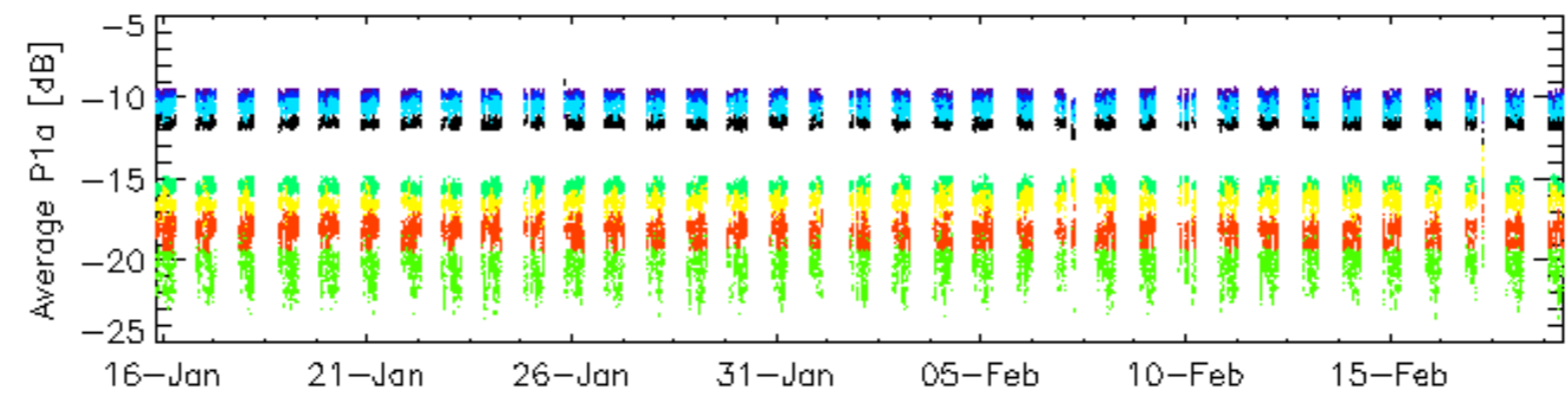
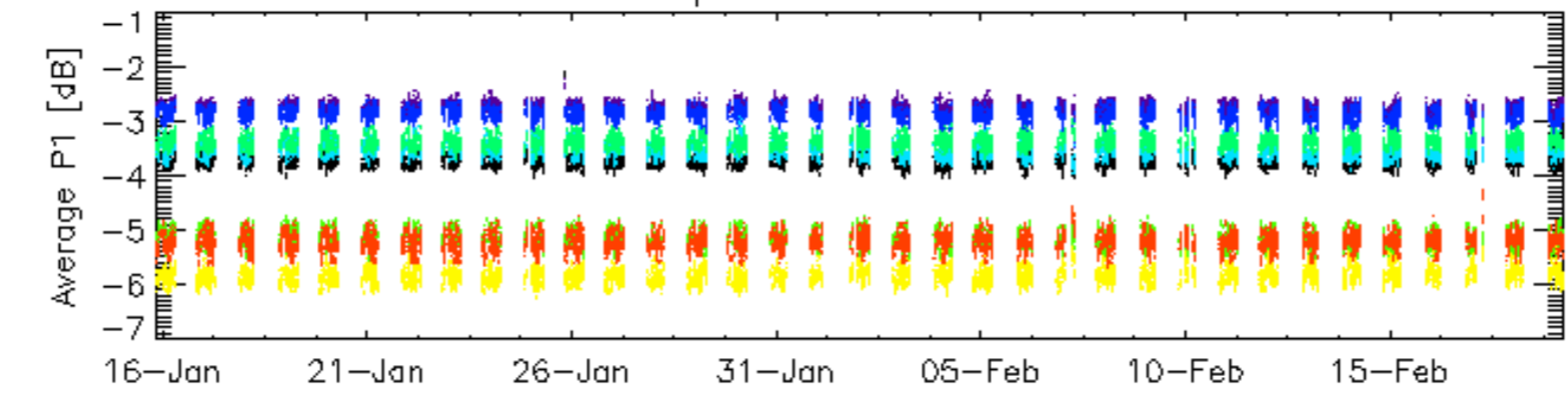


Cal pulses for WVS IS2



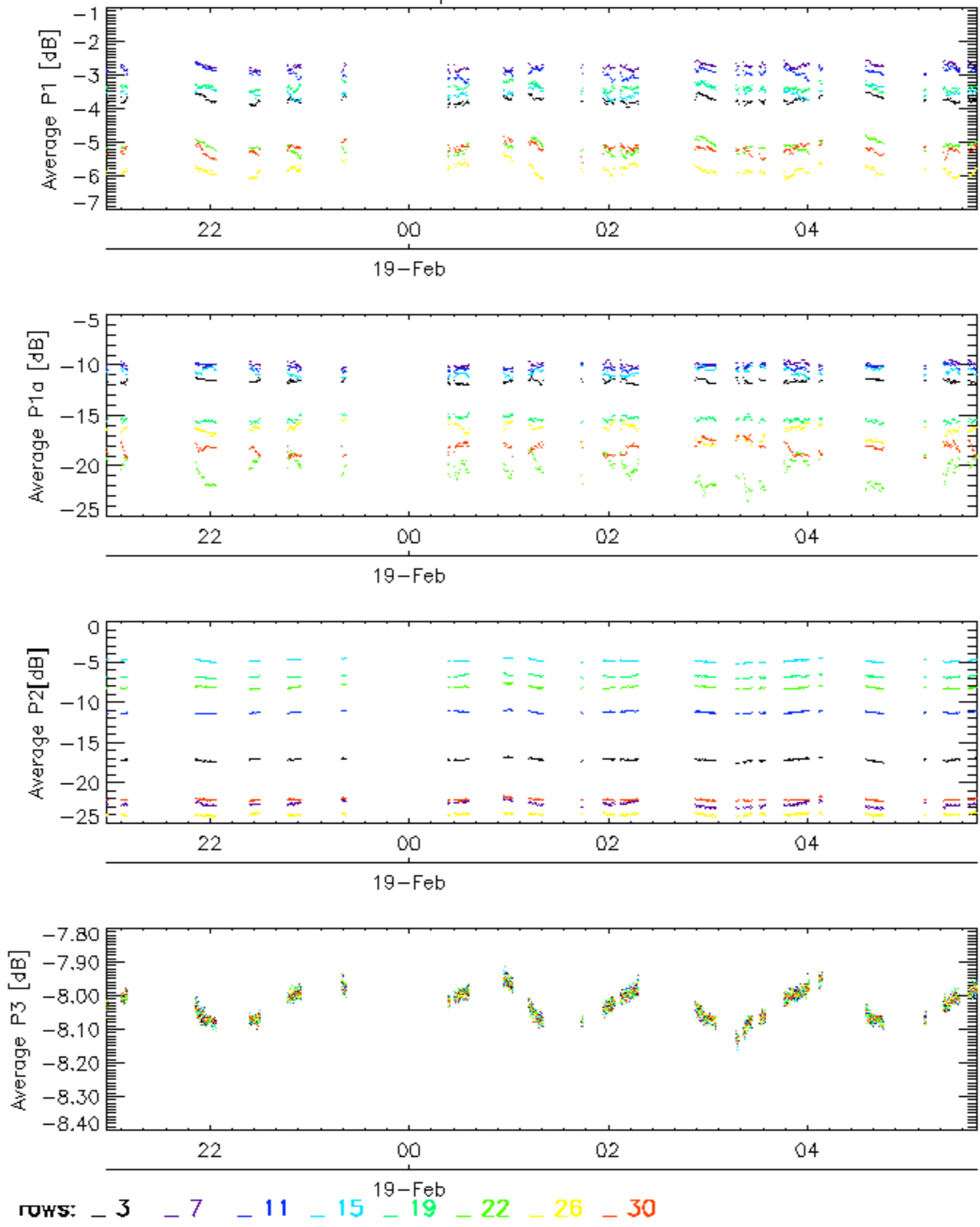
rows: 3 7 11 15 19 22 26 30

Cal pulses for GM1 SS3

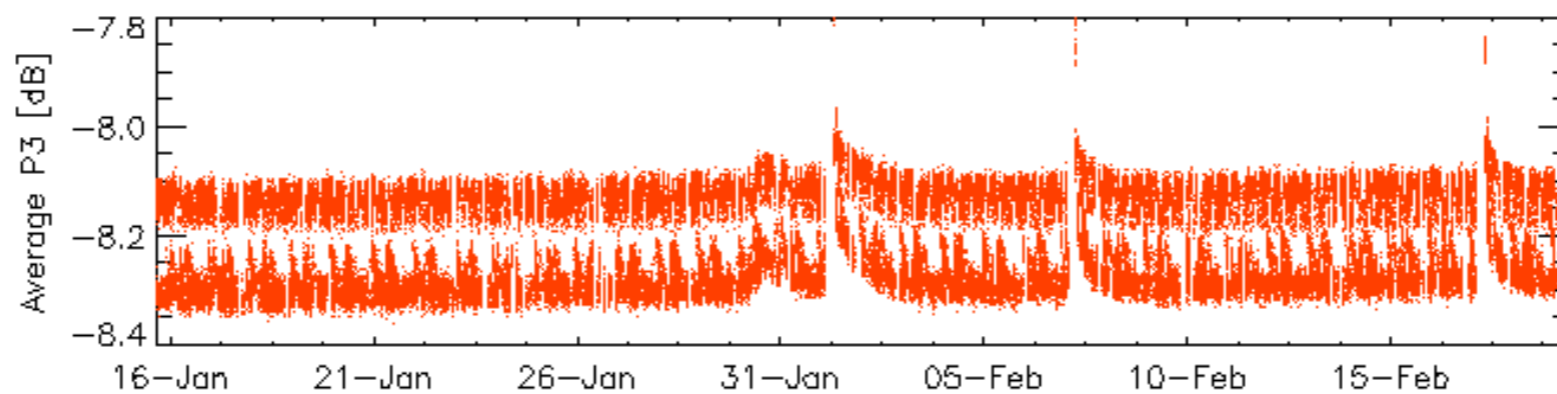
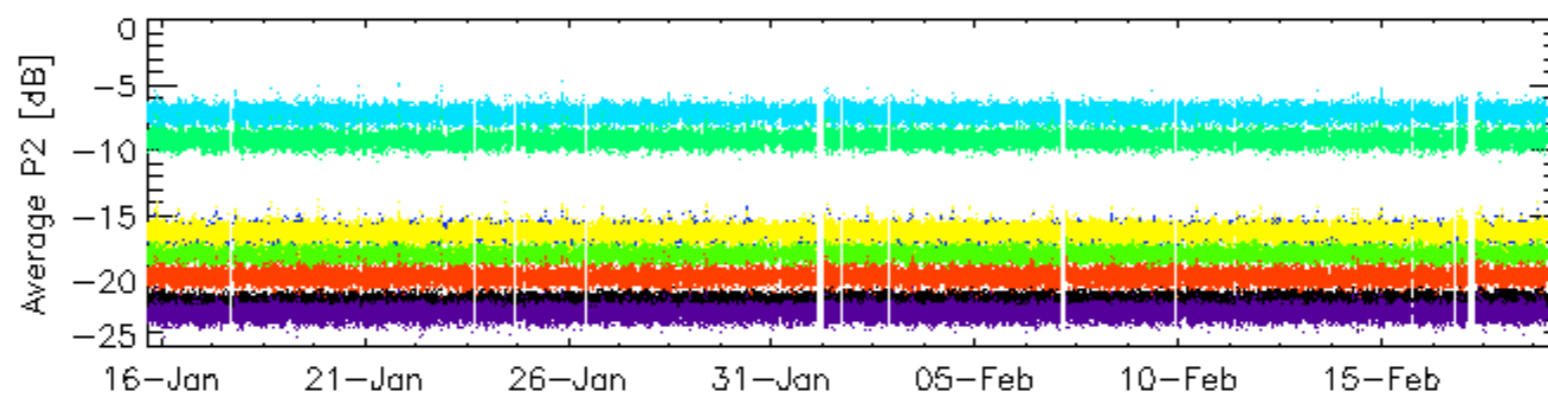
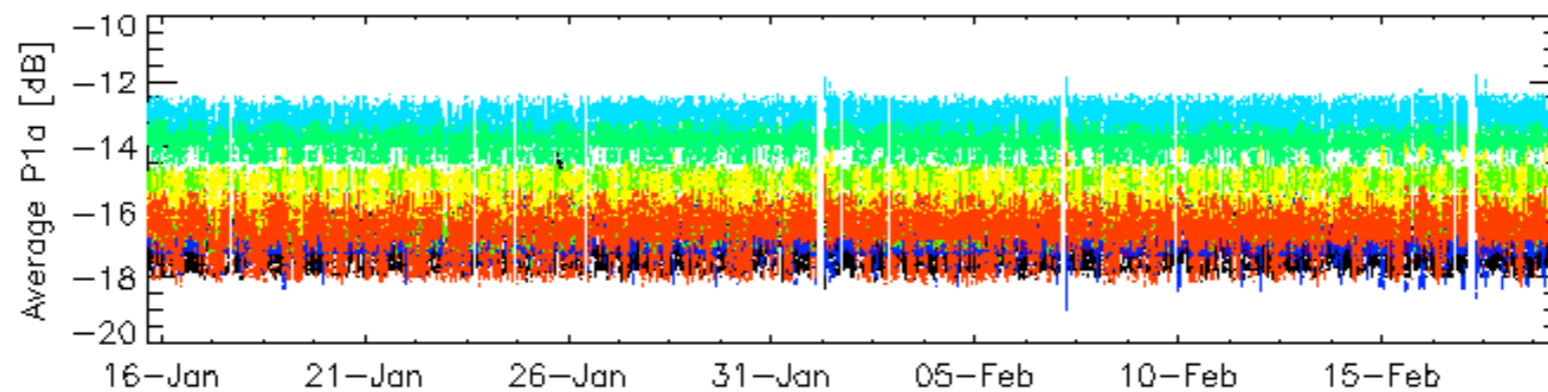
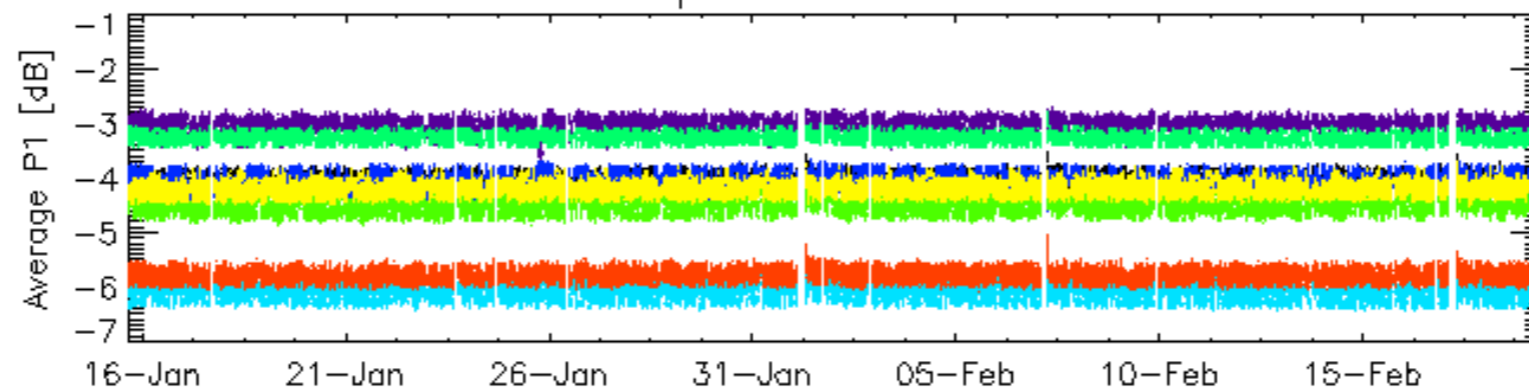


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

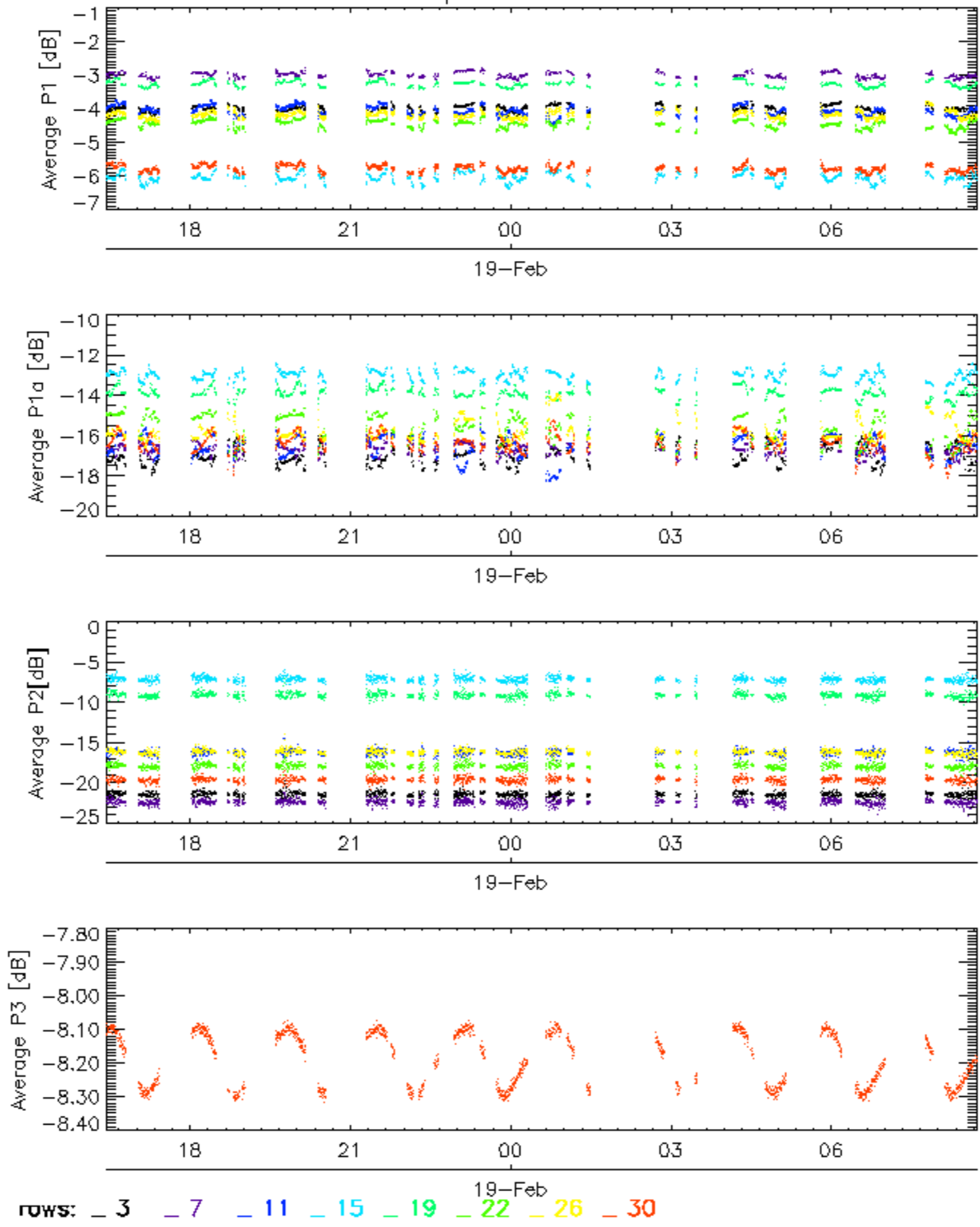


Cal pulses for WVS IS2

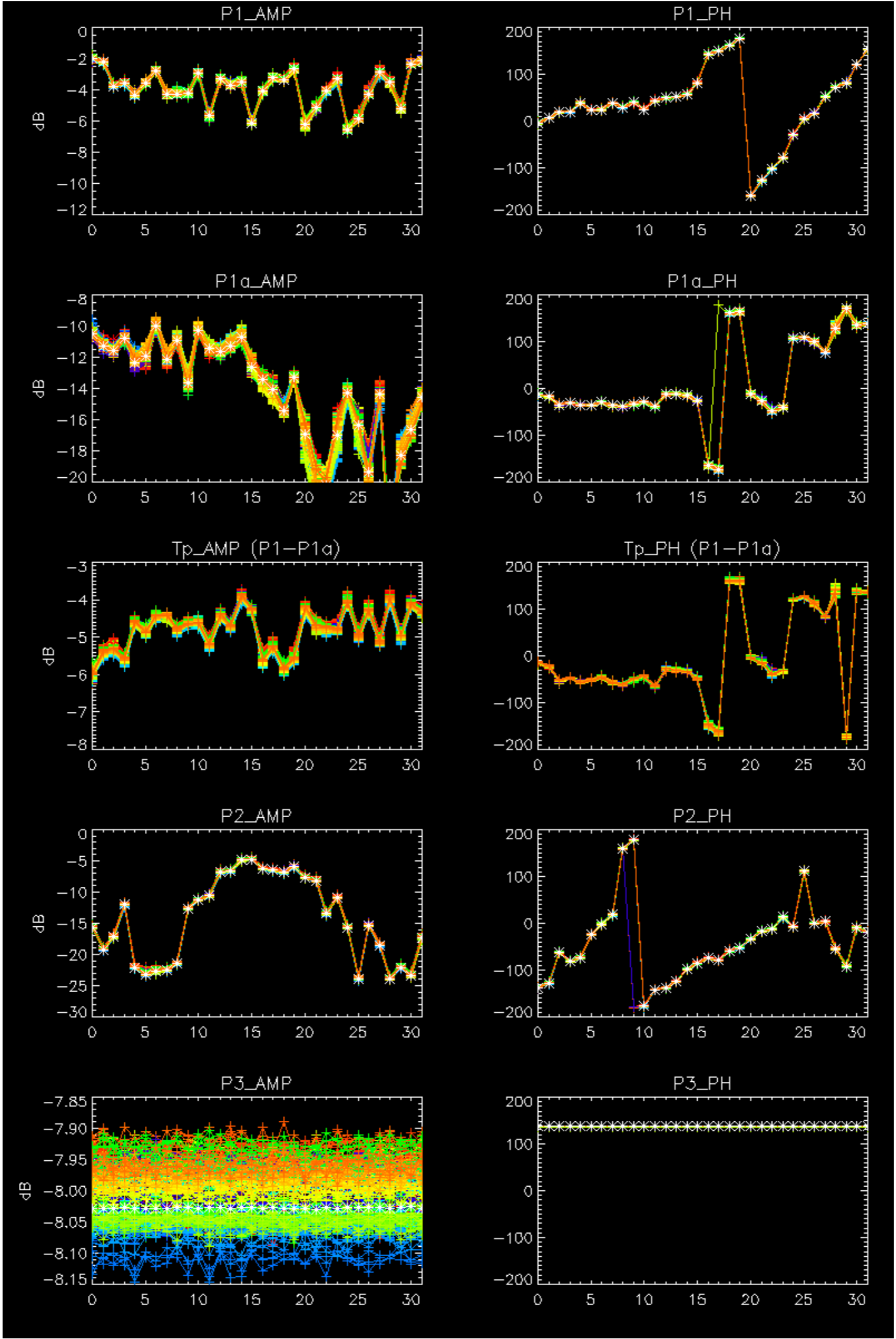


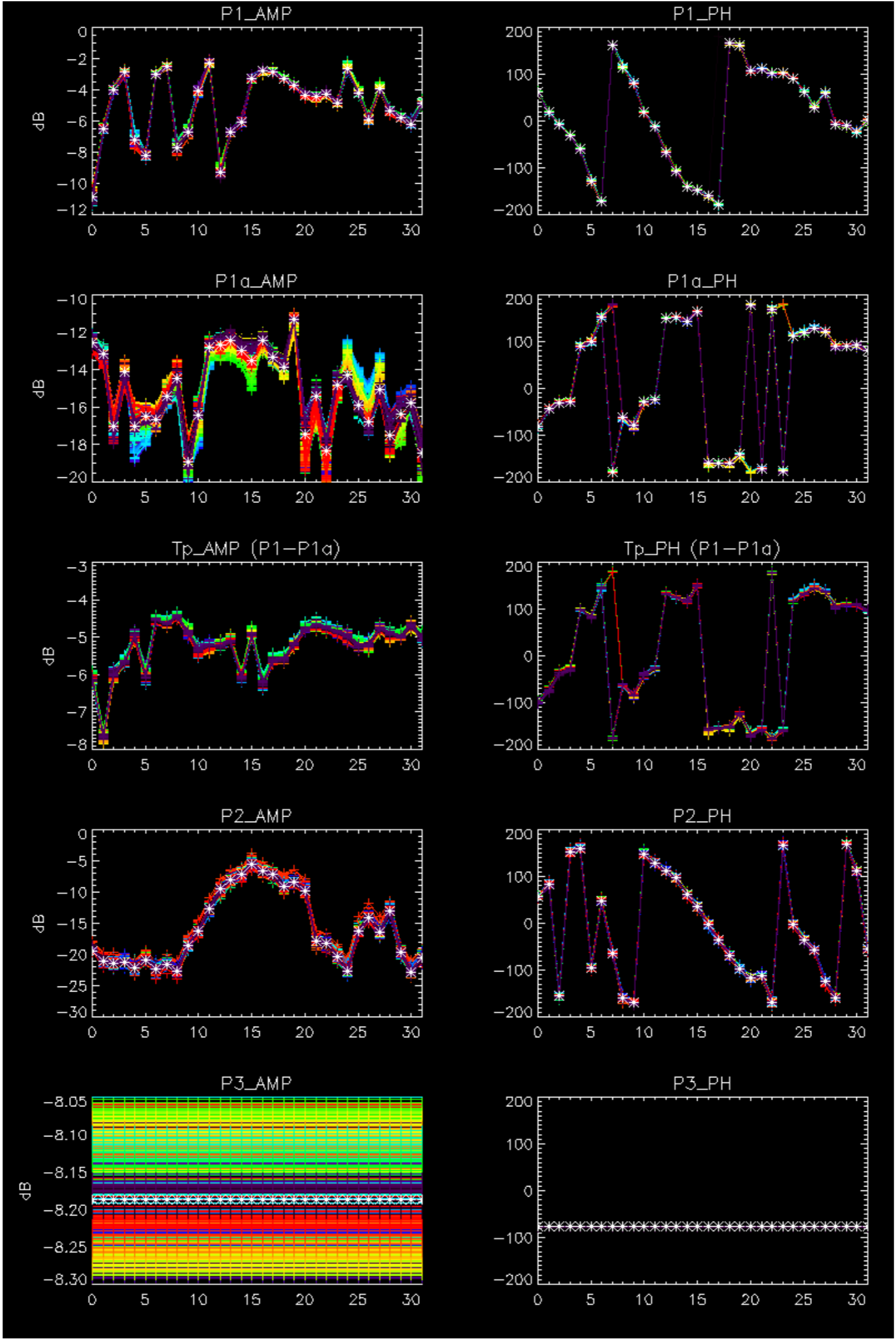
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



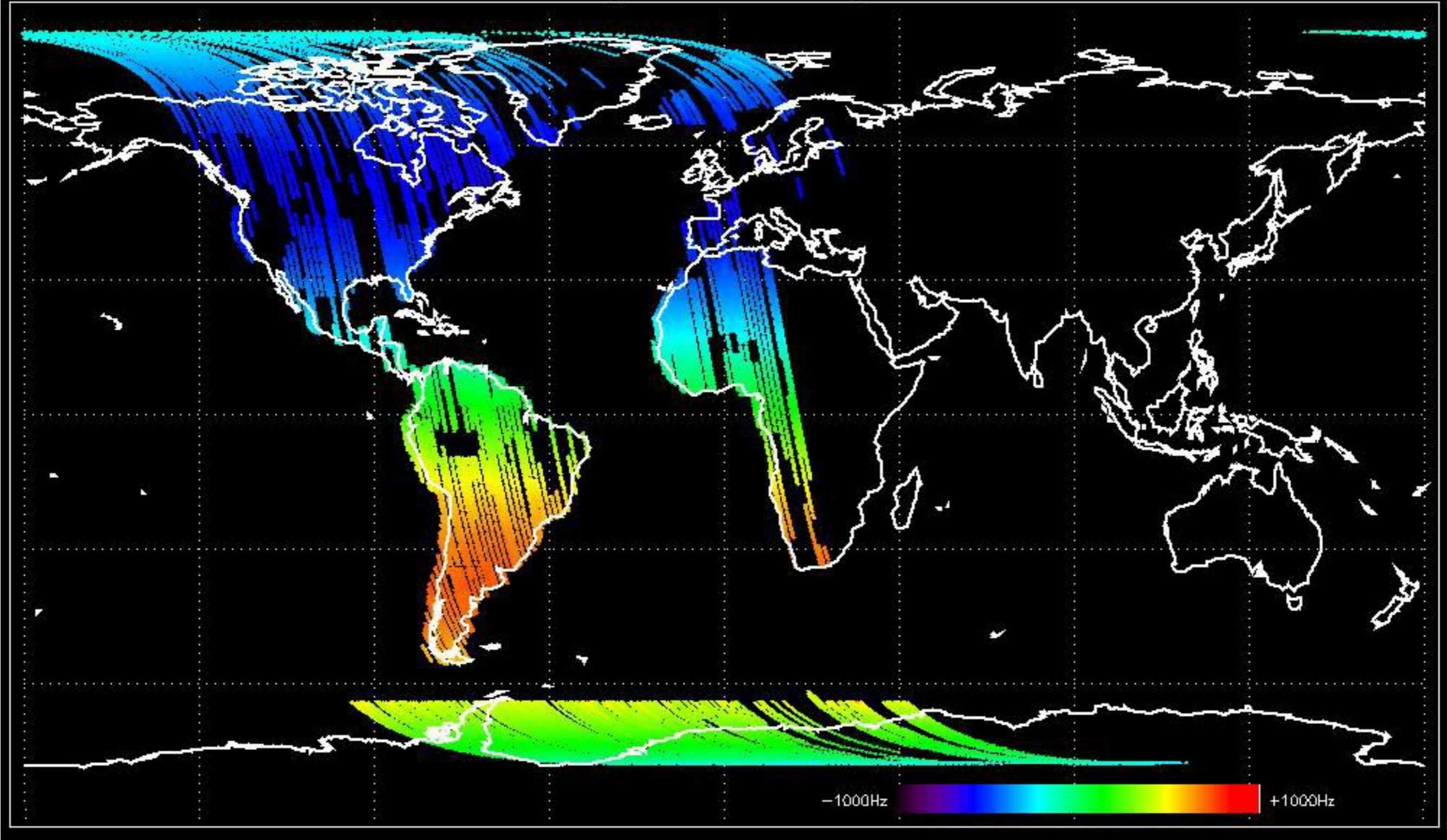
No anomalies observed.



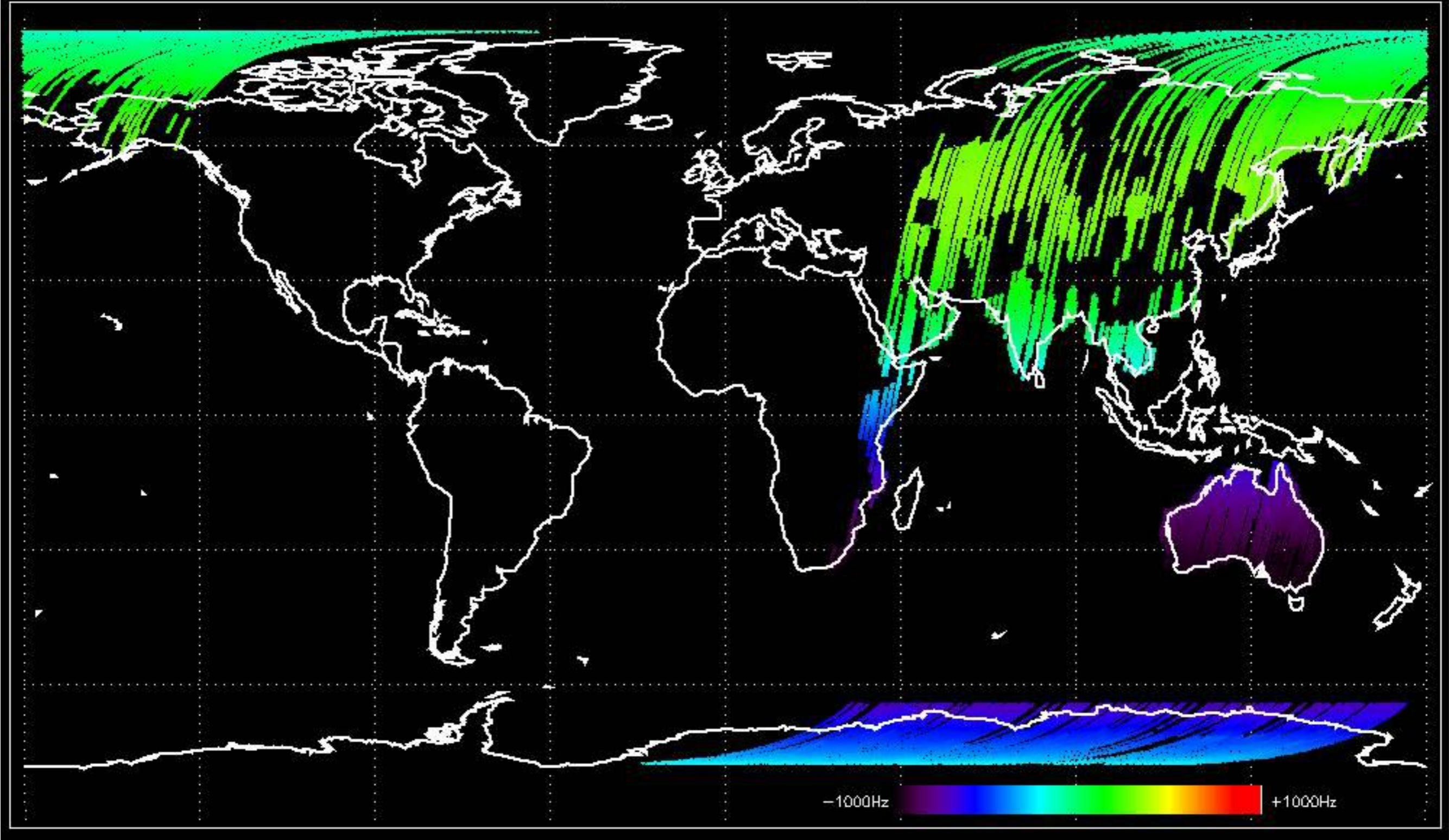


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

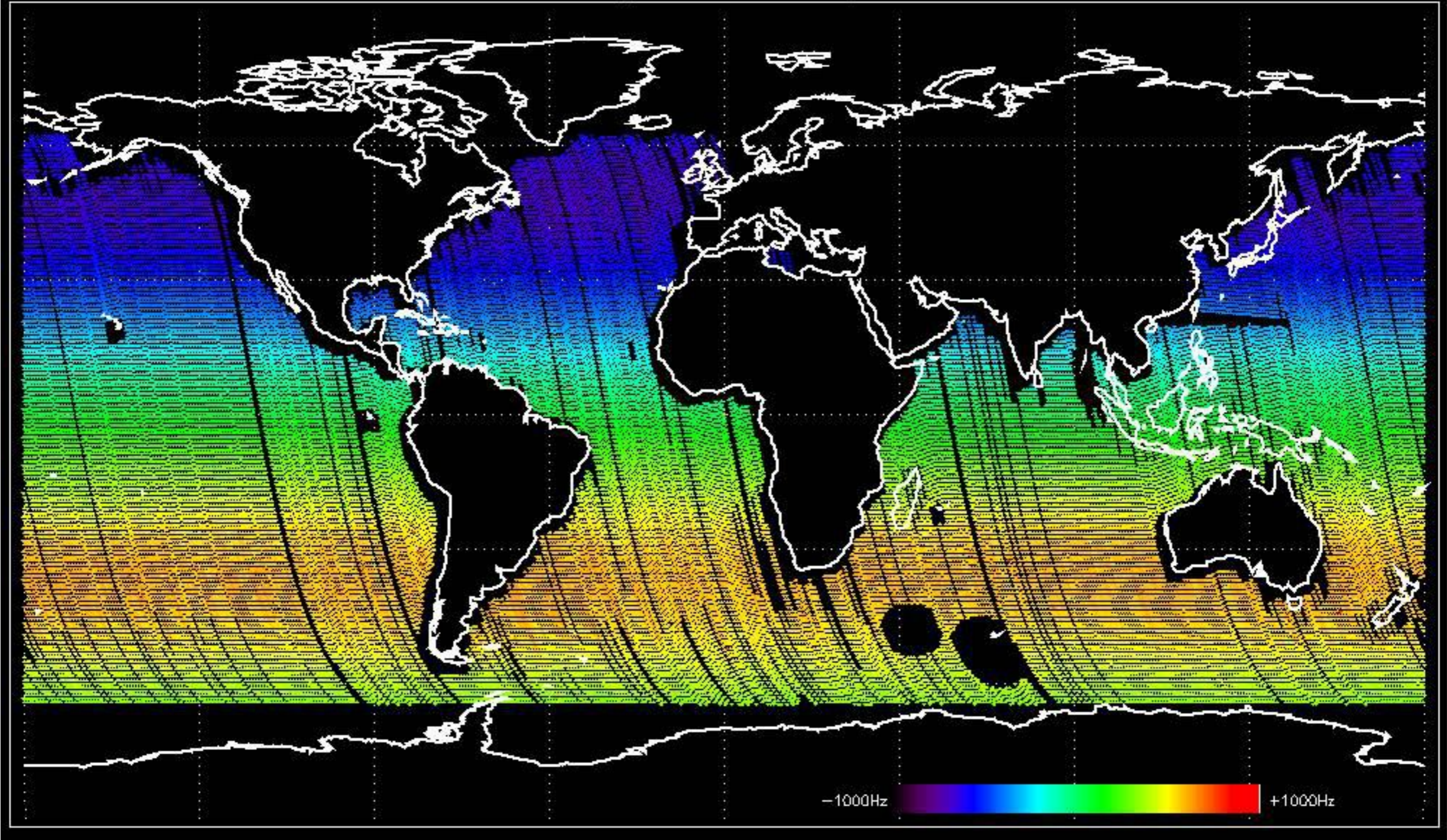
Doppler 'GM1' 'SS1' ascending



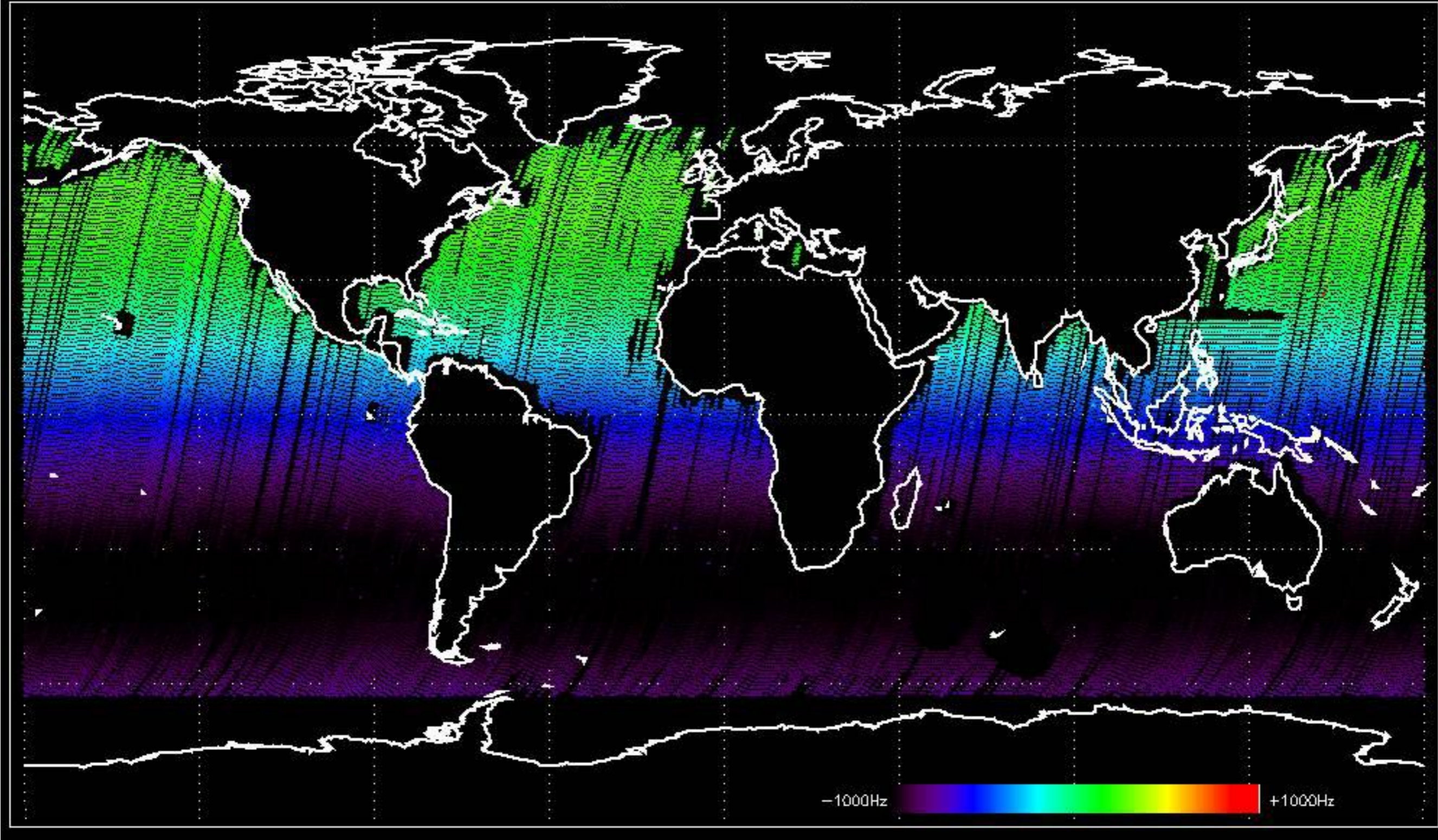
Doppler 'GM1' 'SS1' descending

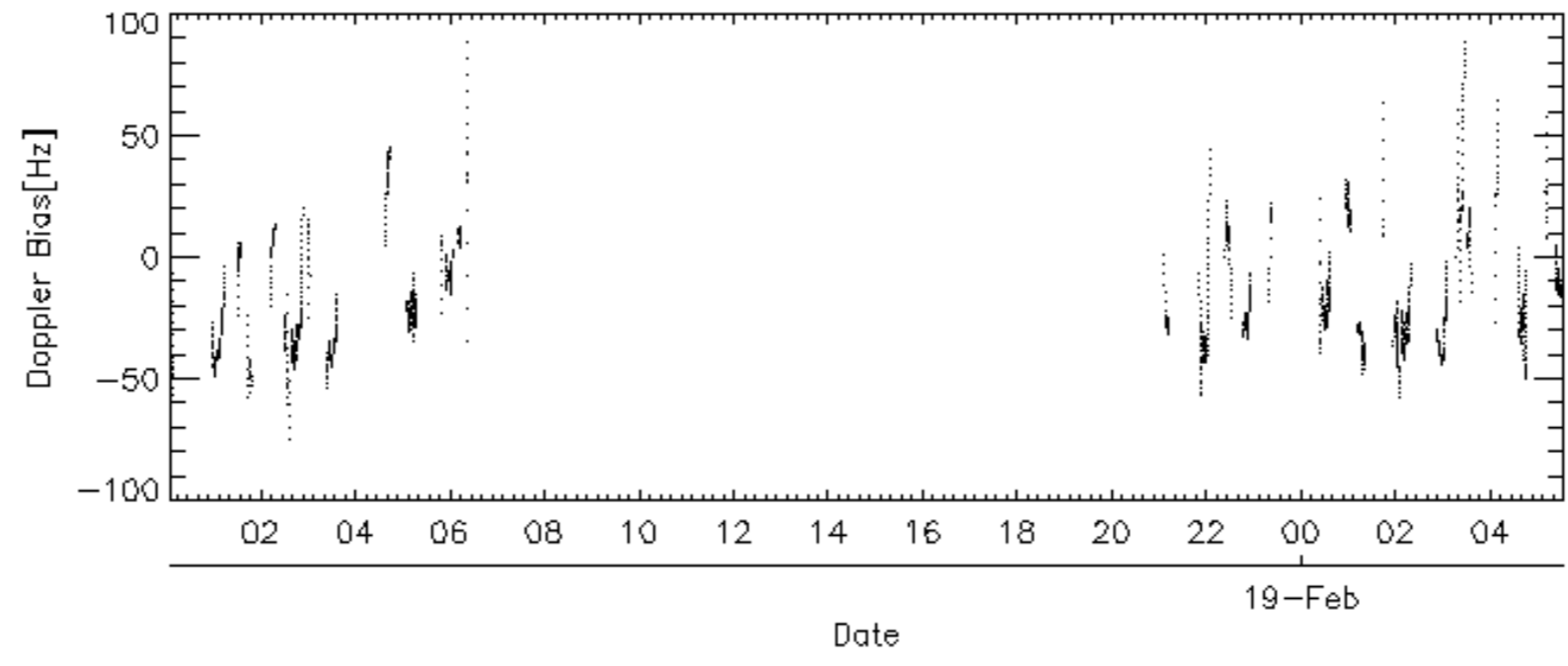
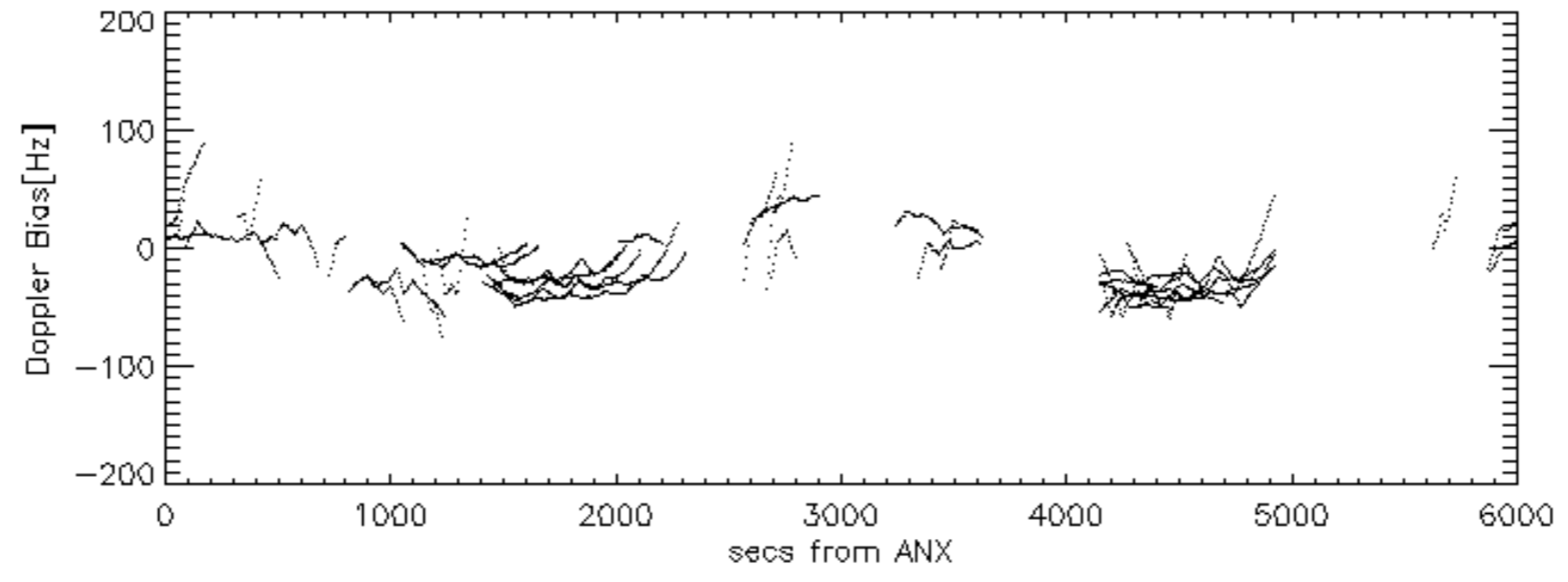
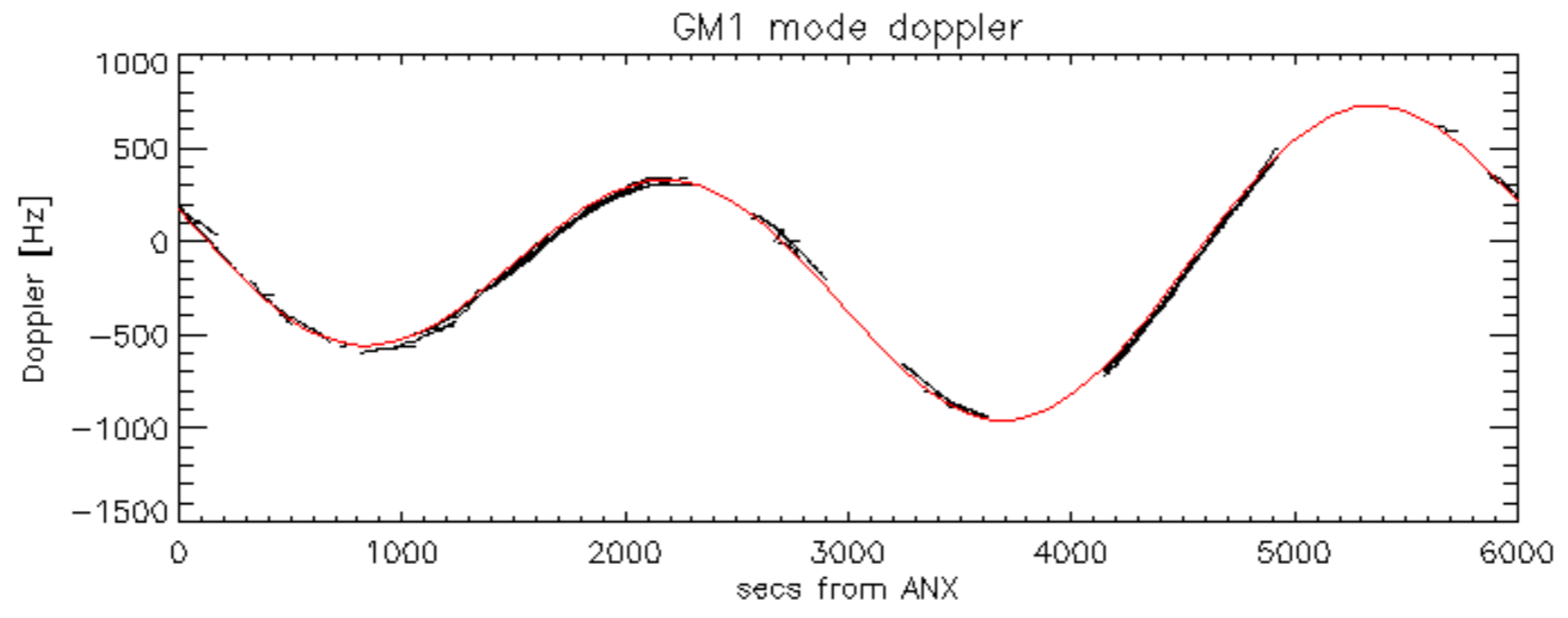


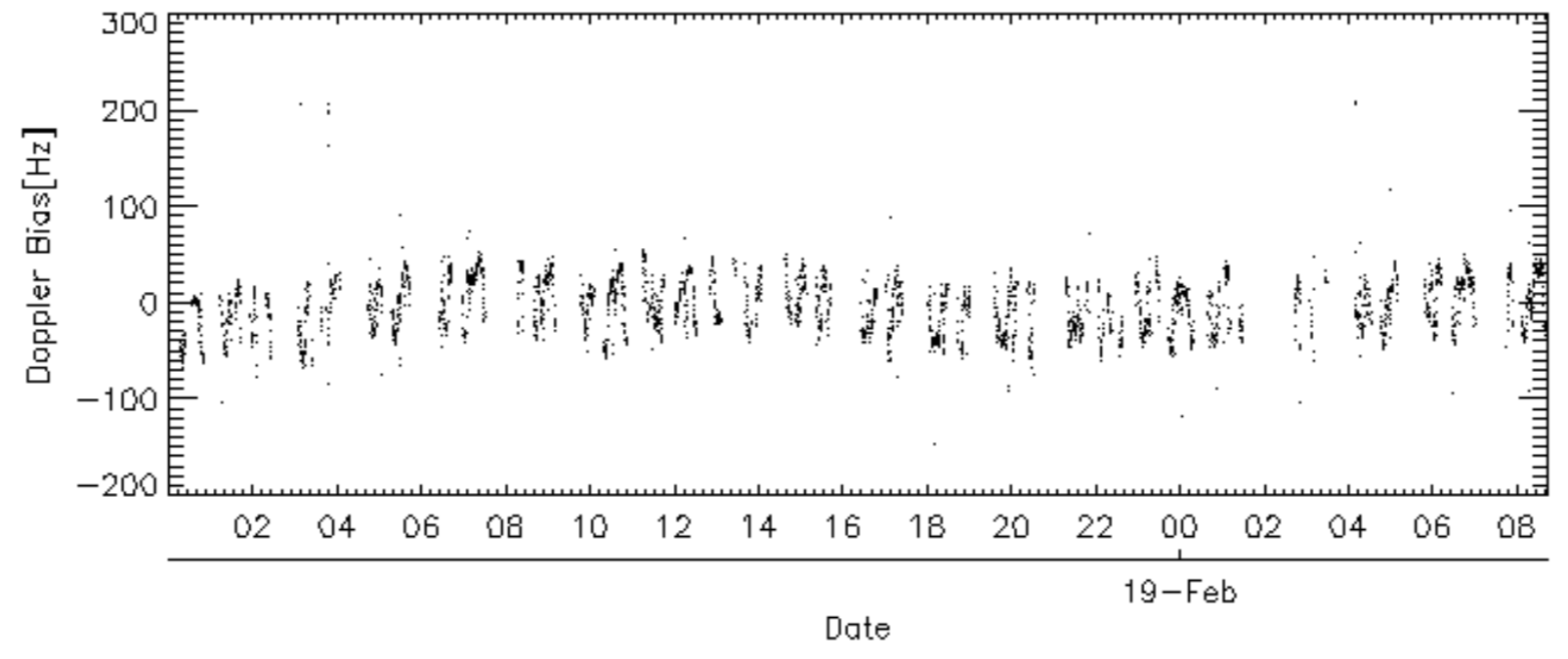
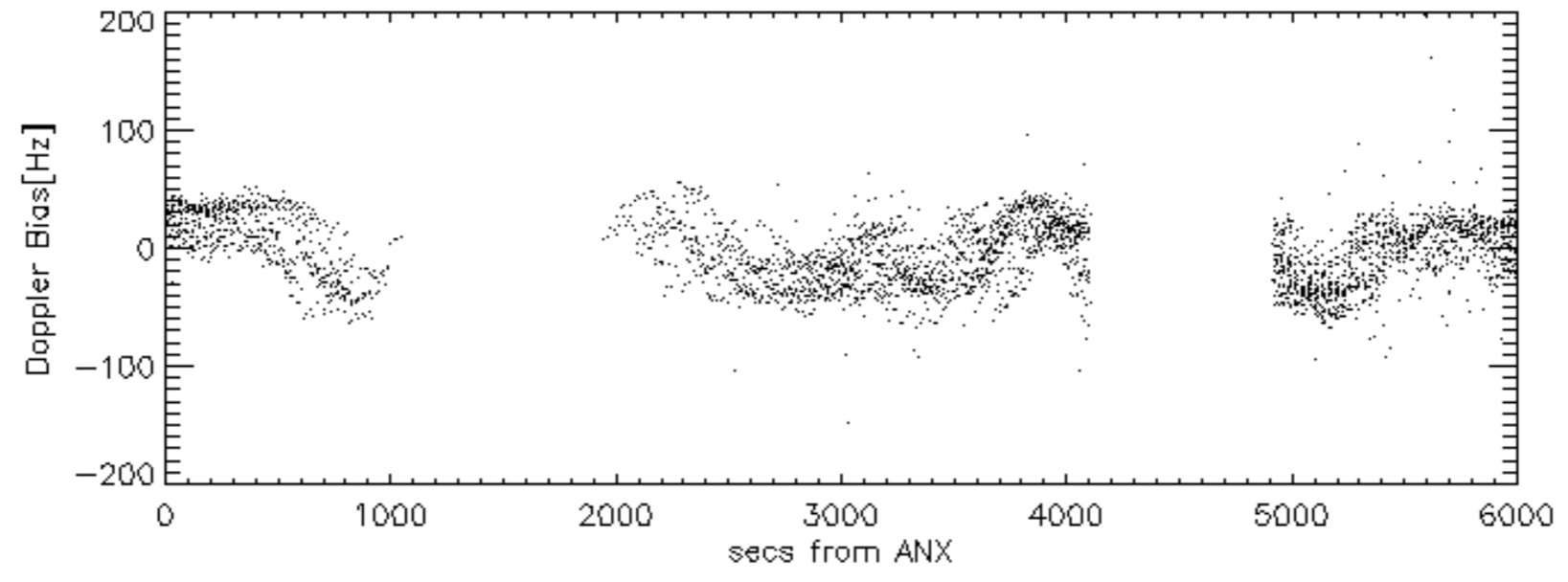
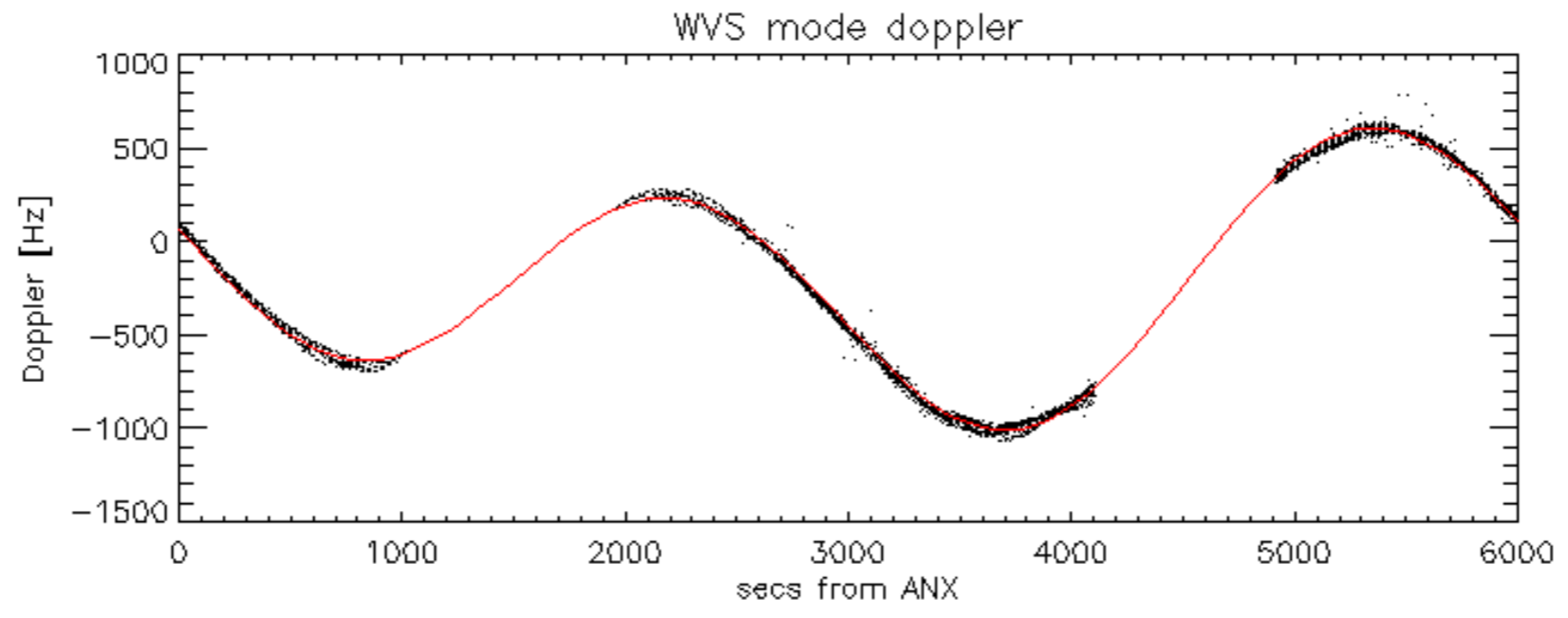
Doppler 'WVS' 'IS2' ascending



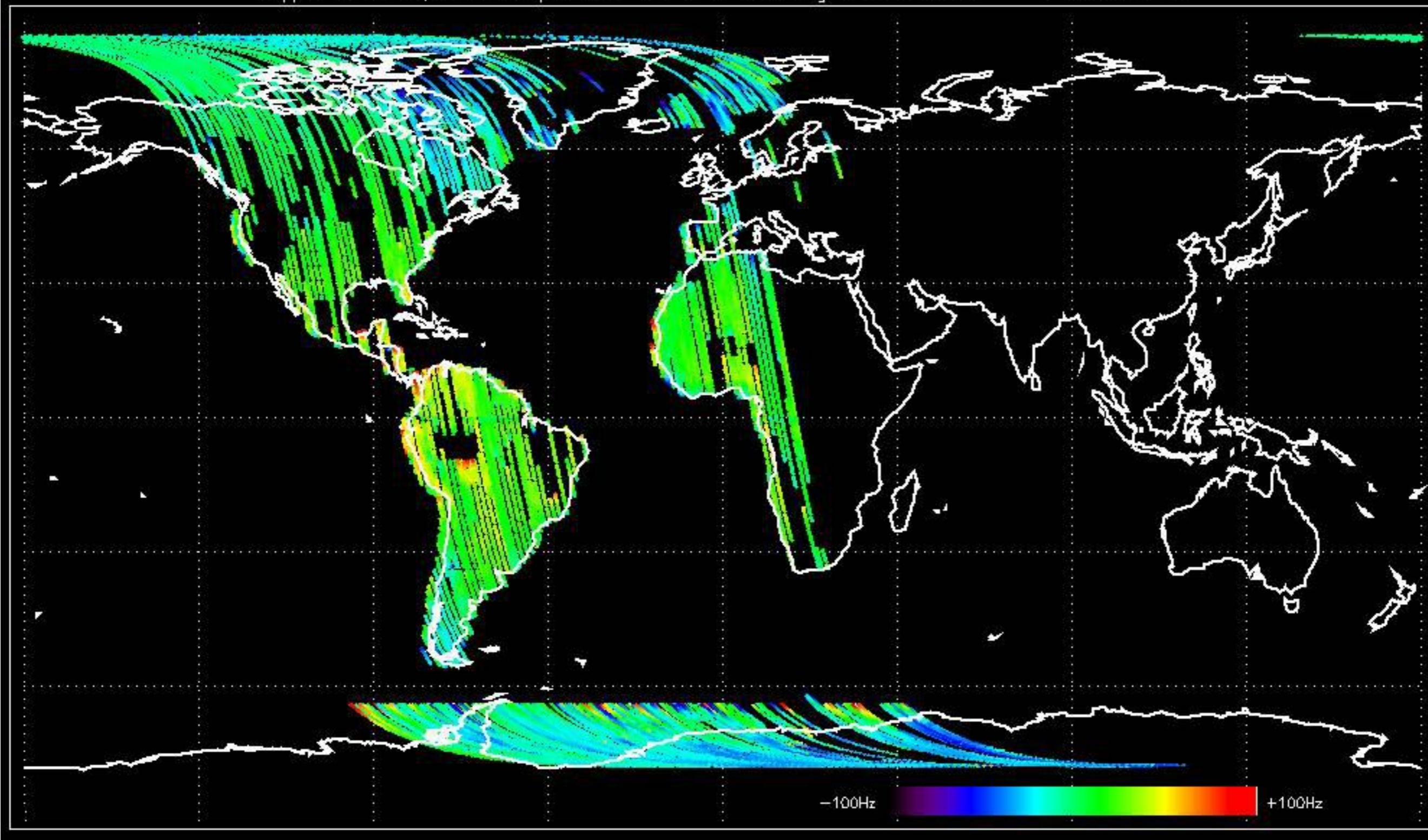
Doppler 'WVS' 'IS2' descending



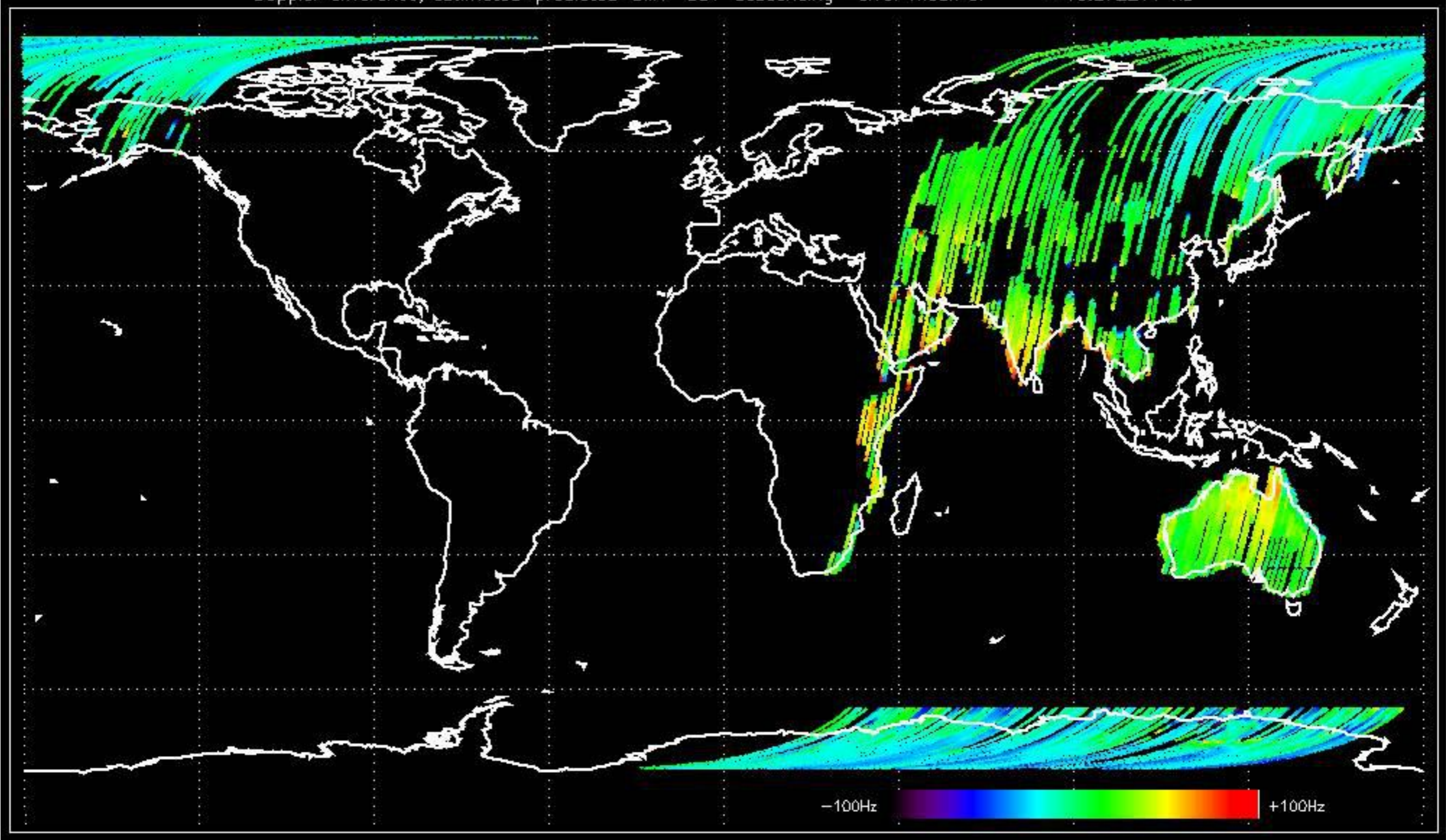




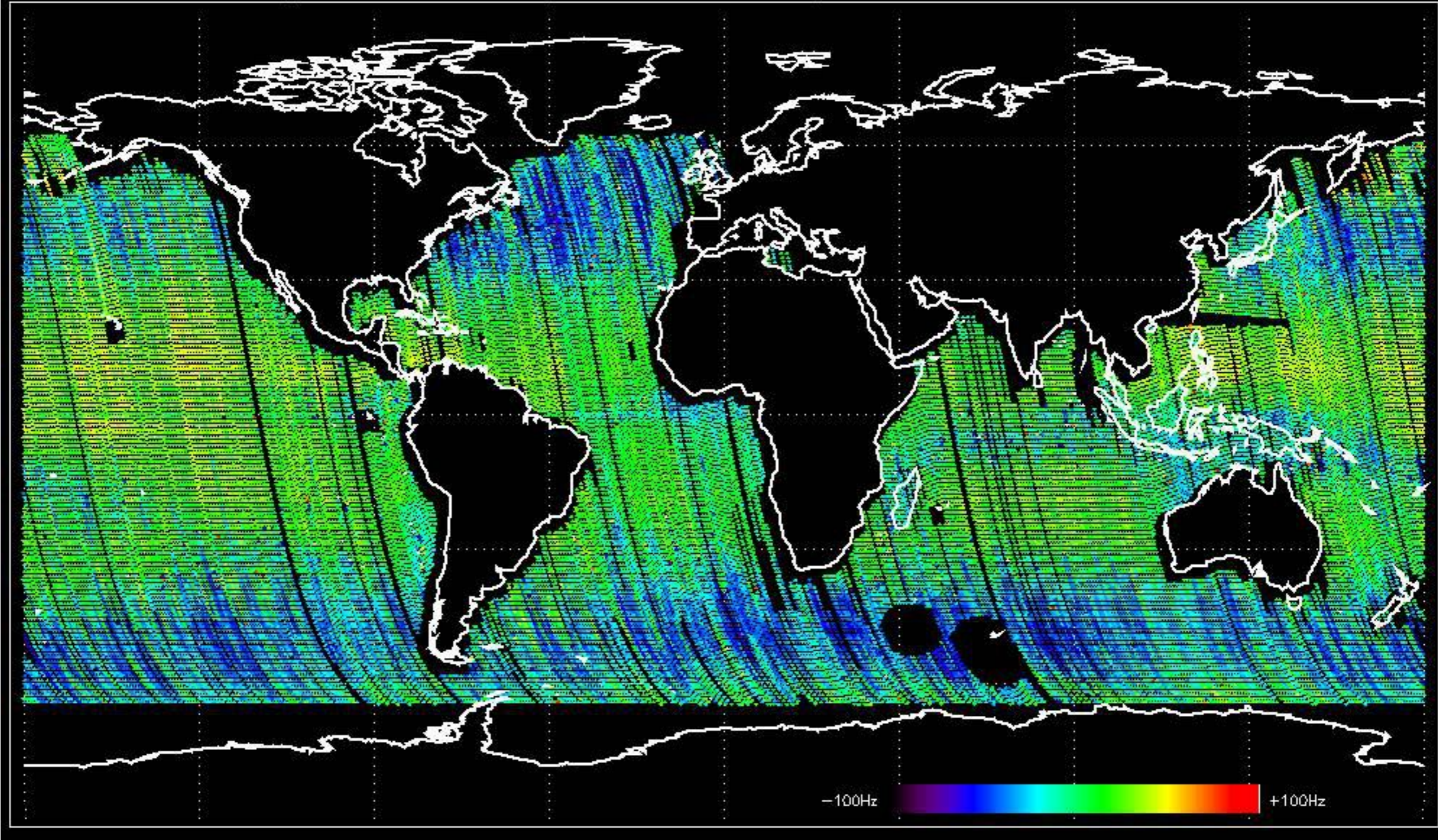
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -10.012472 Hz



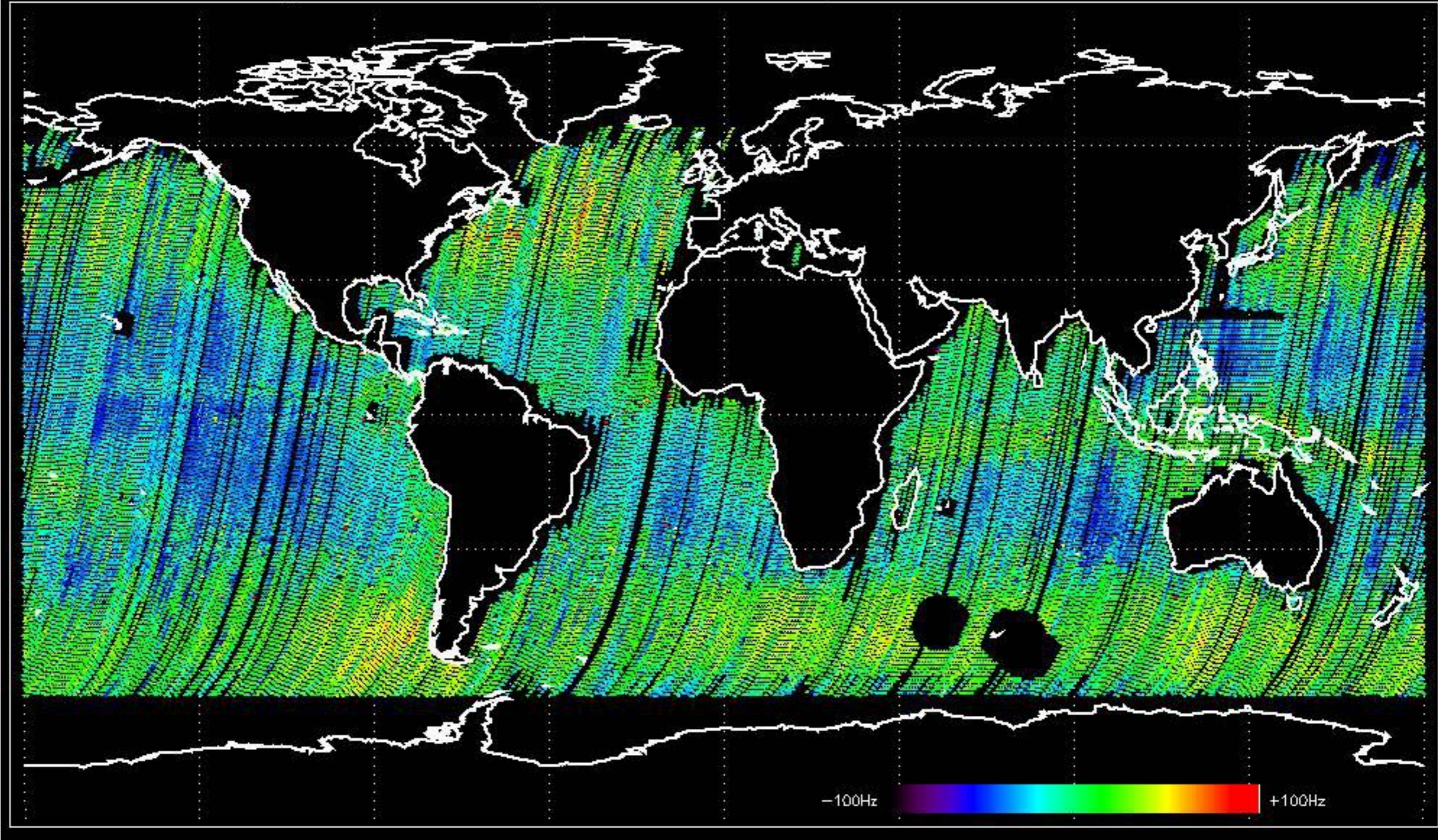
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.272211 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.1161775 Hz

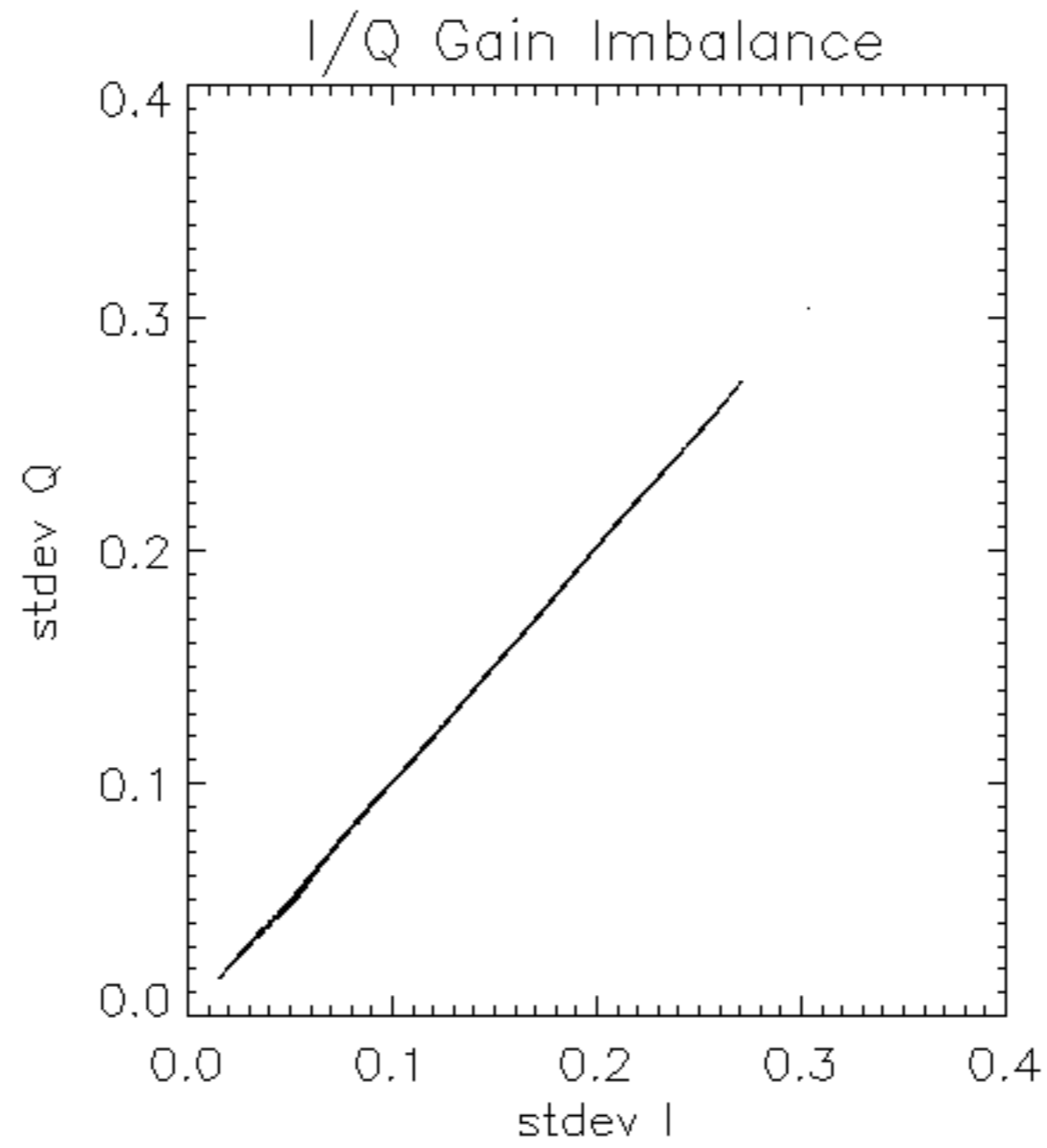


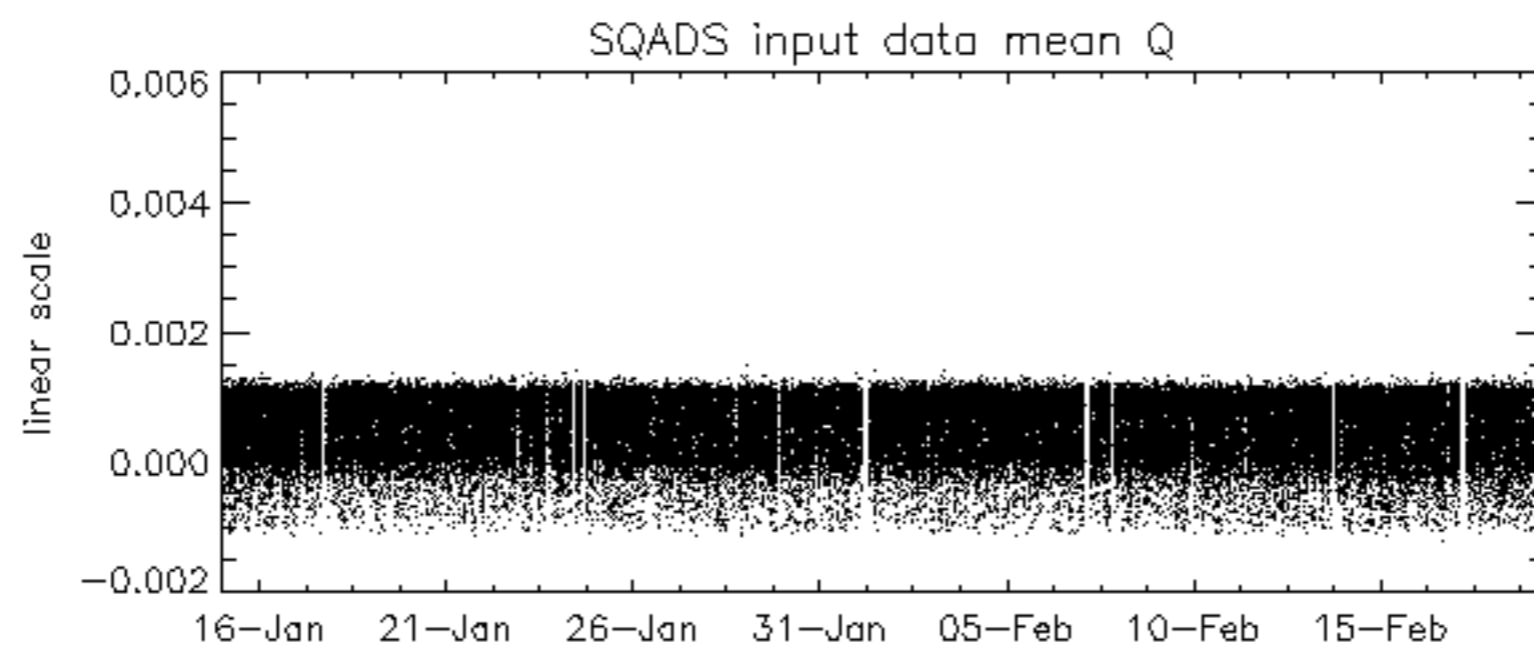
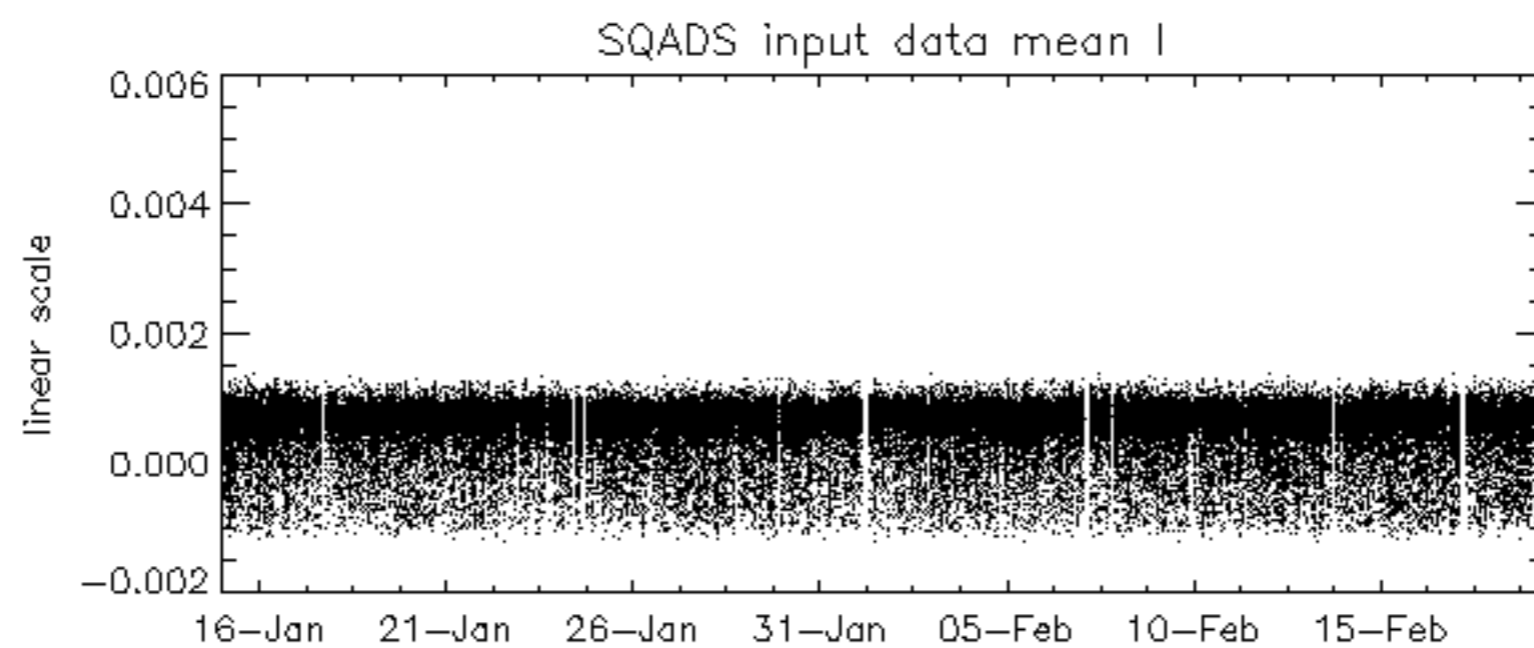
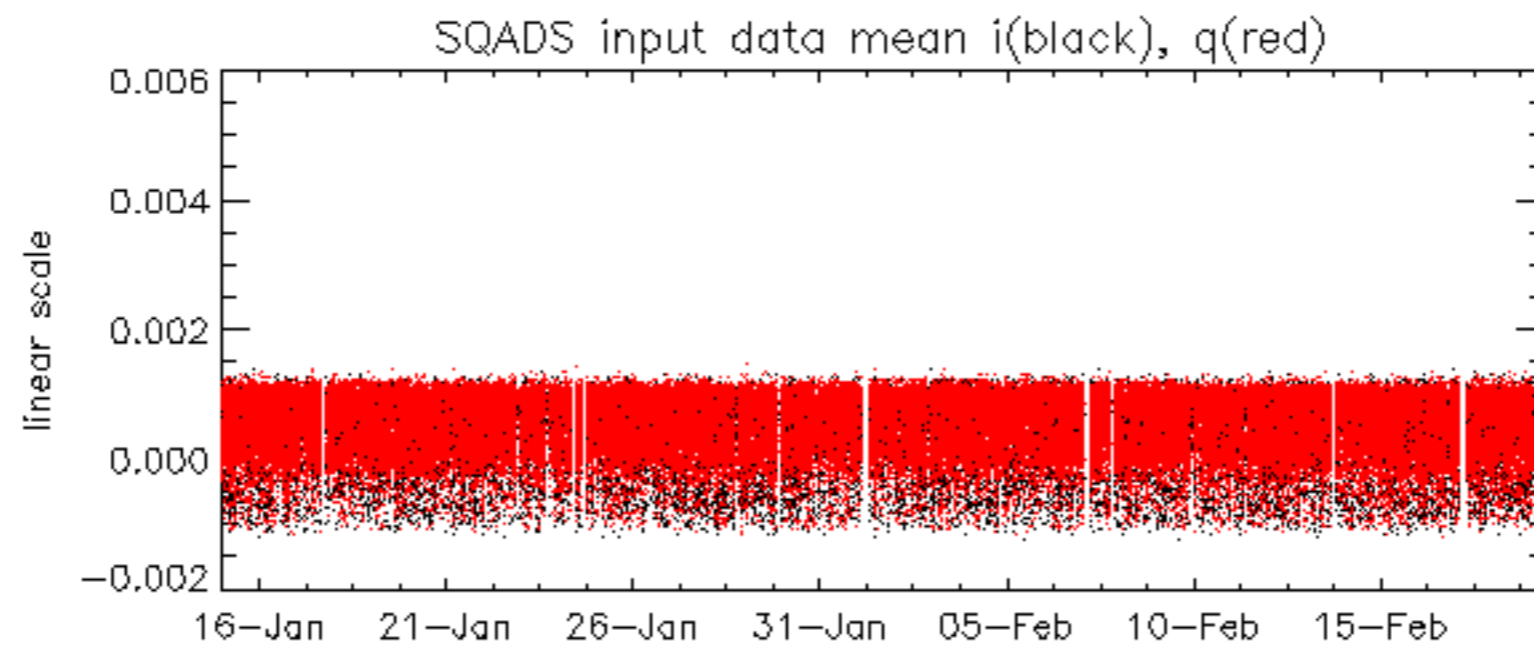
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.0869785 Hz

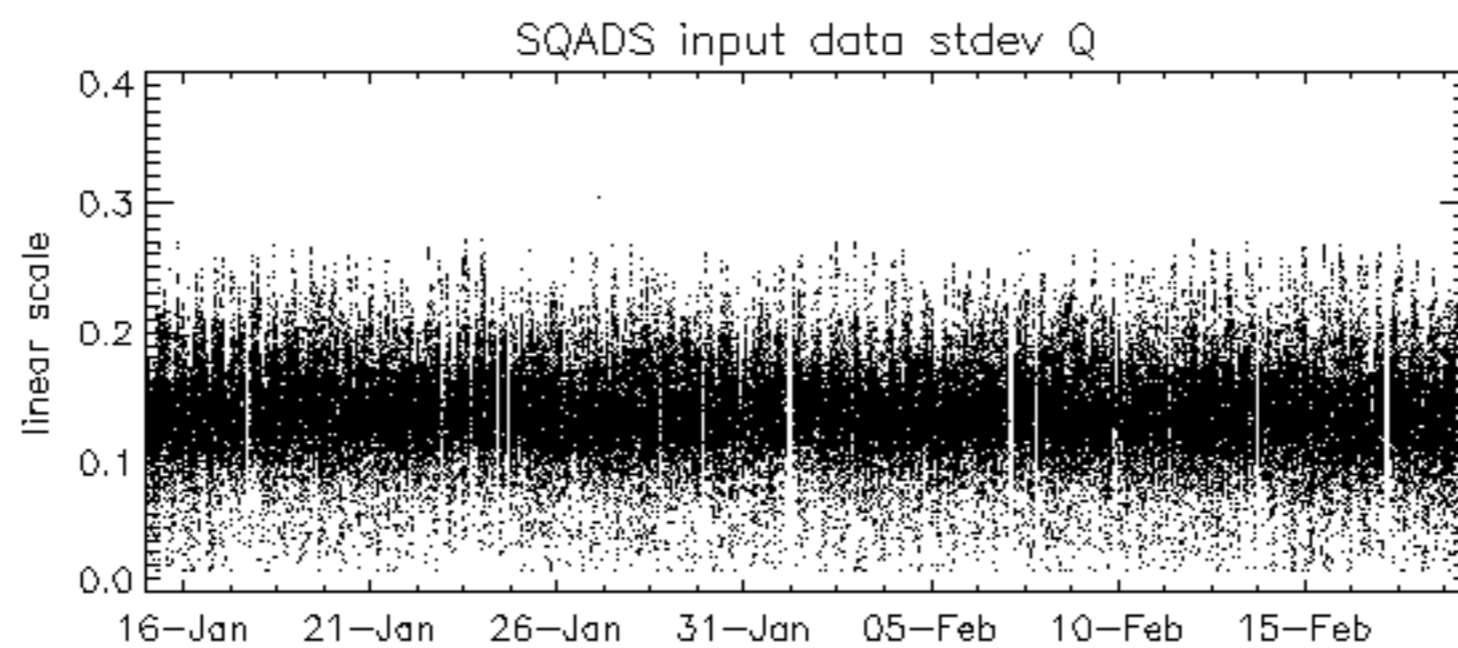
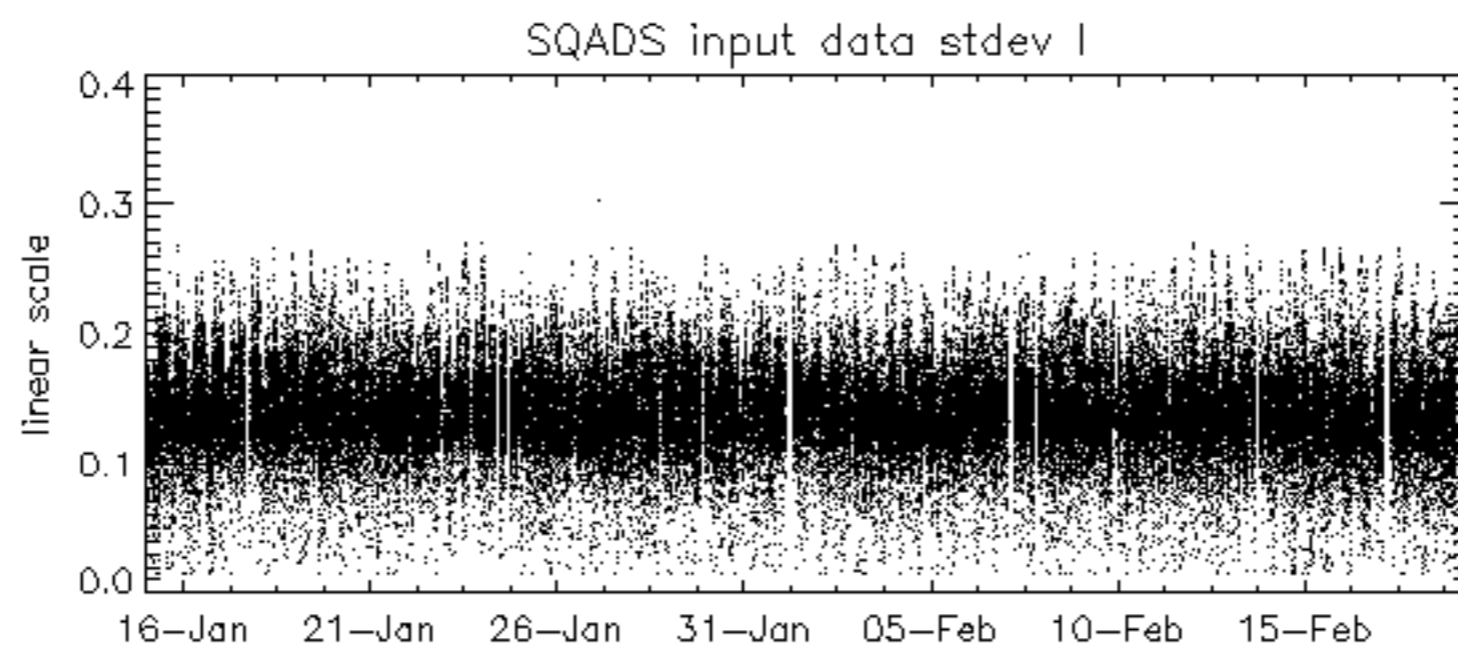
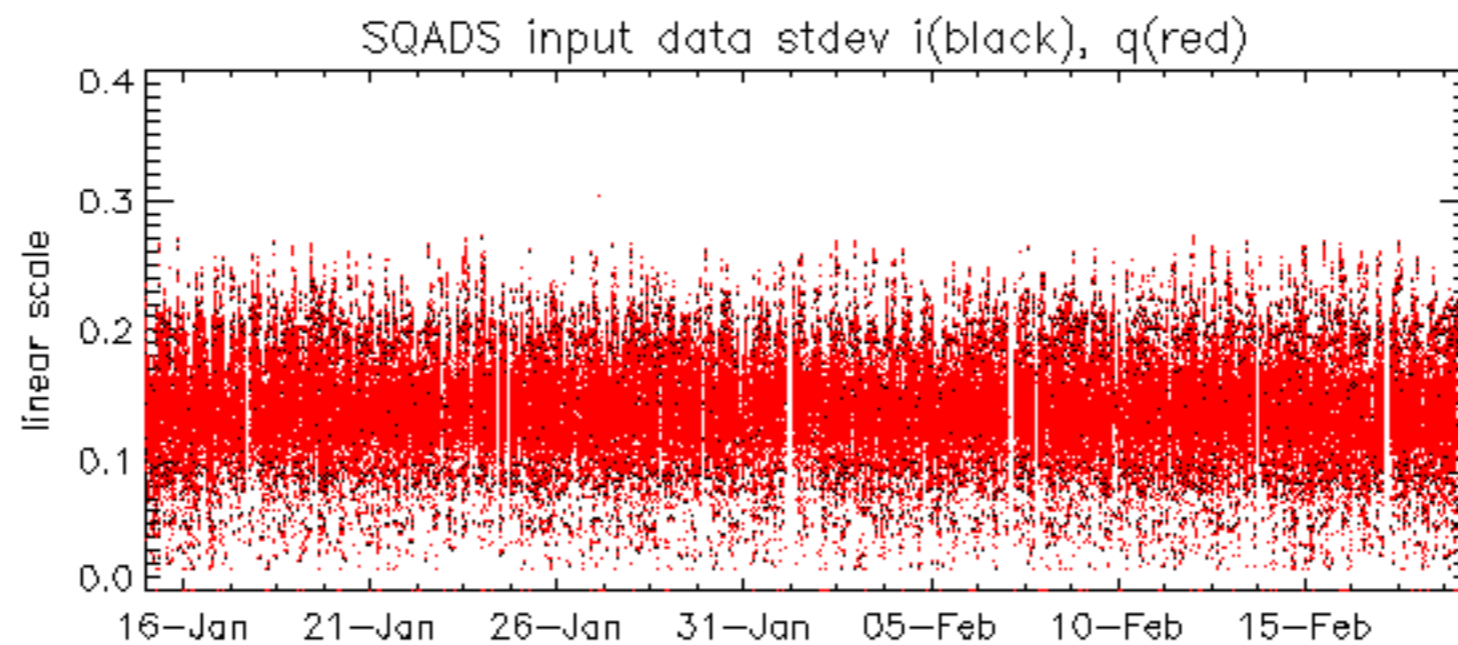


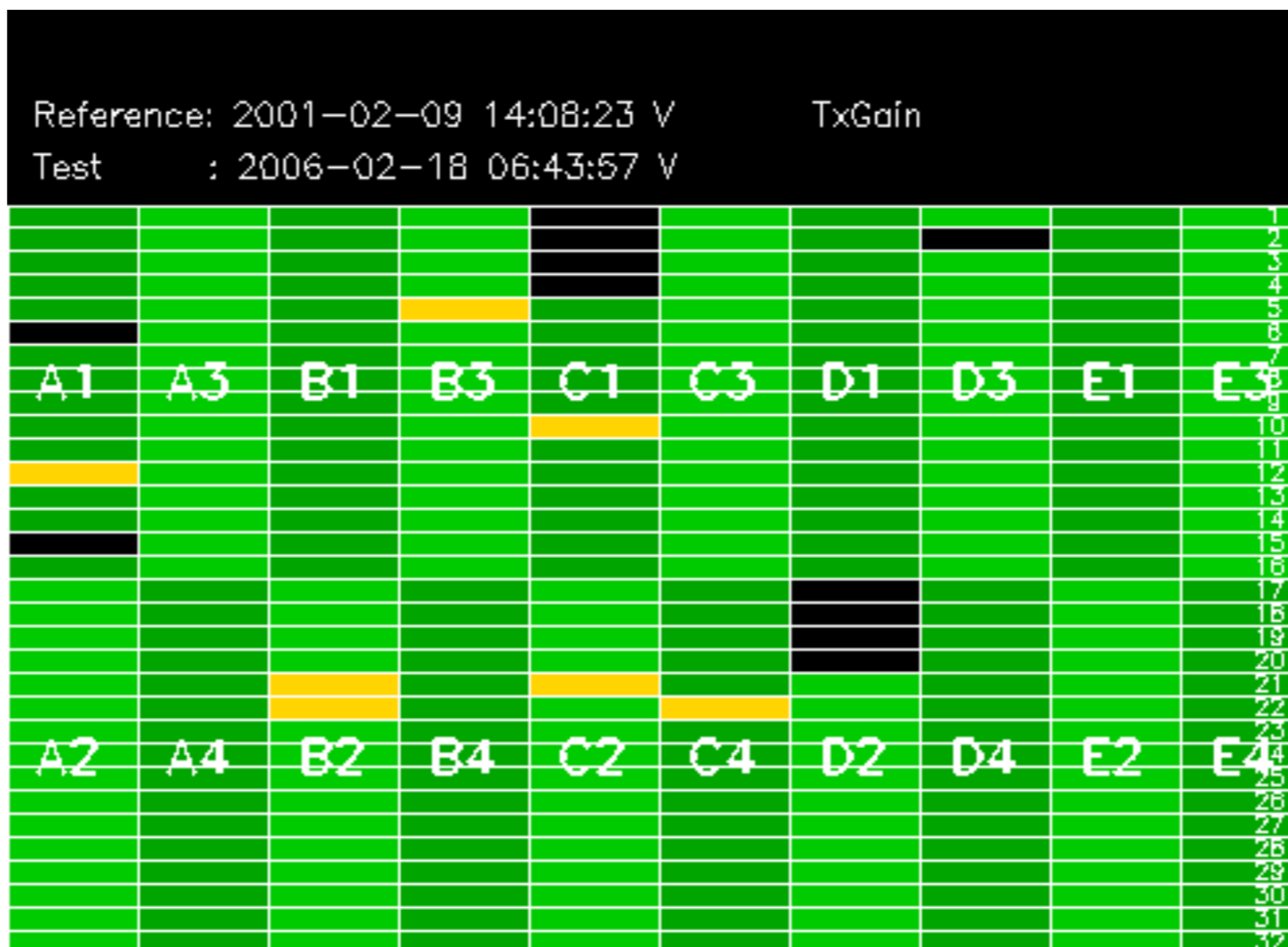
No anomalies observed on available MS products:

No anomalies observed.





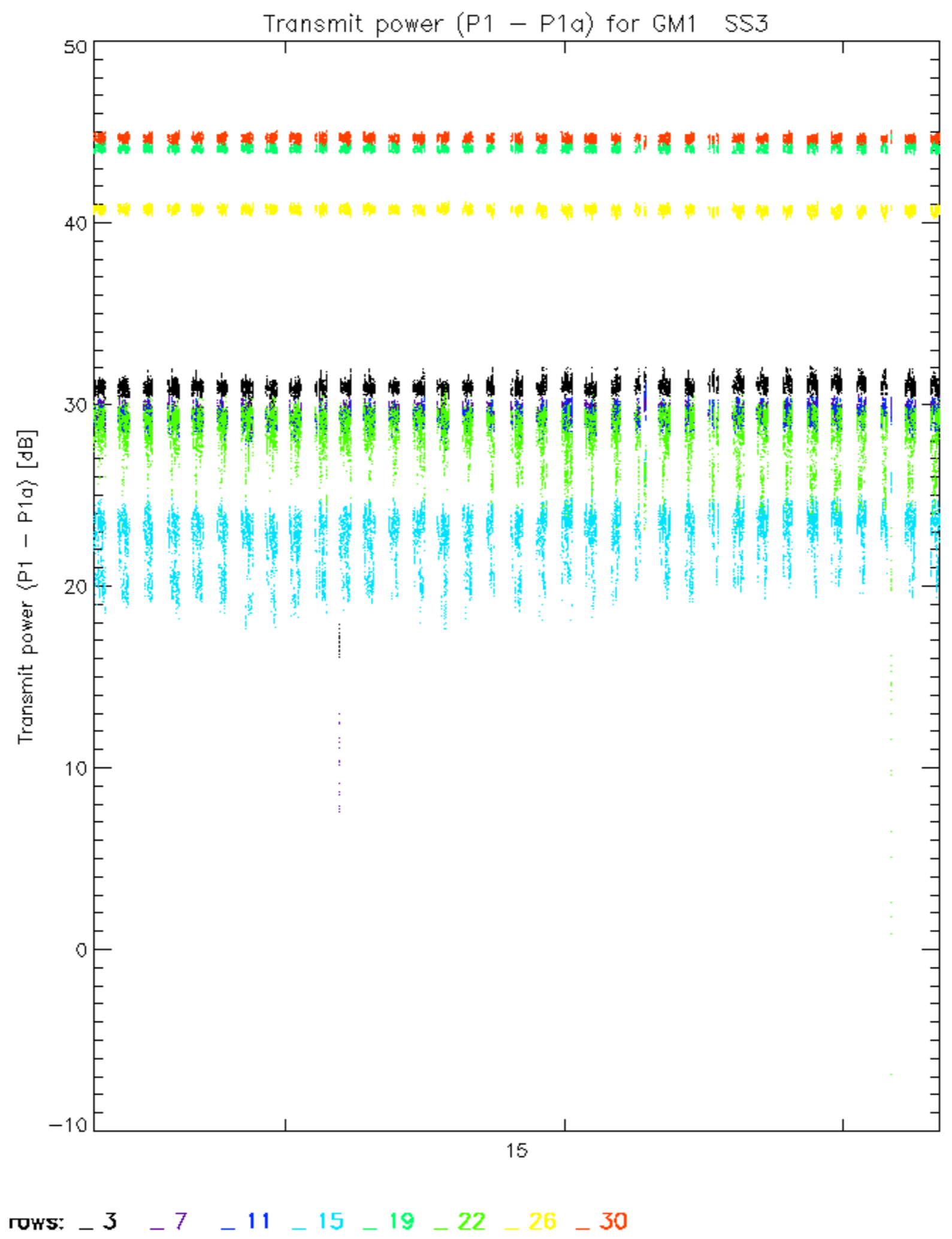


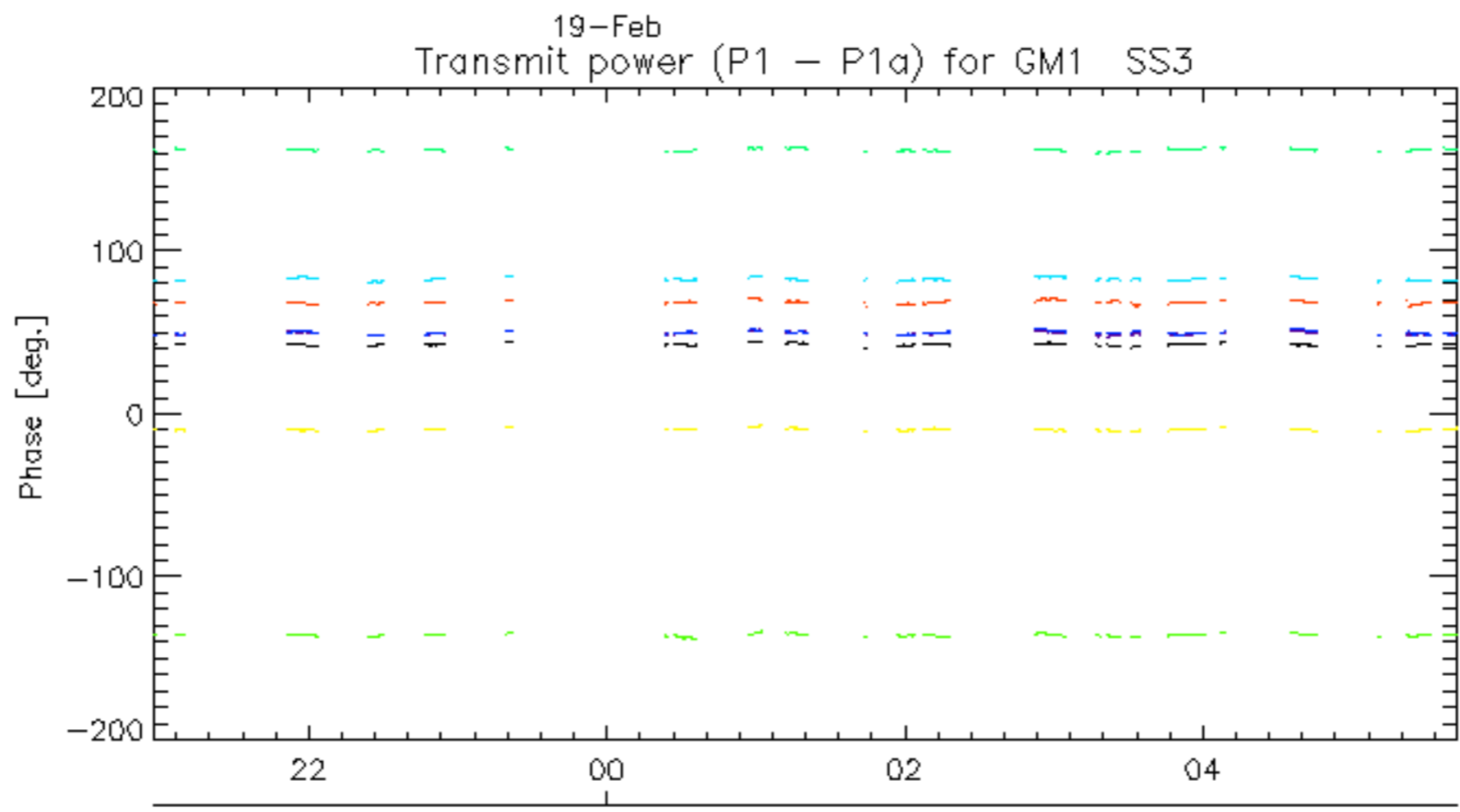
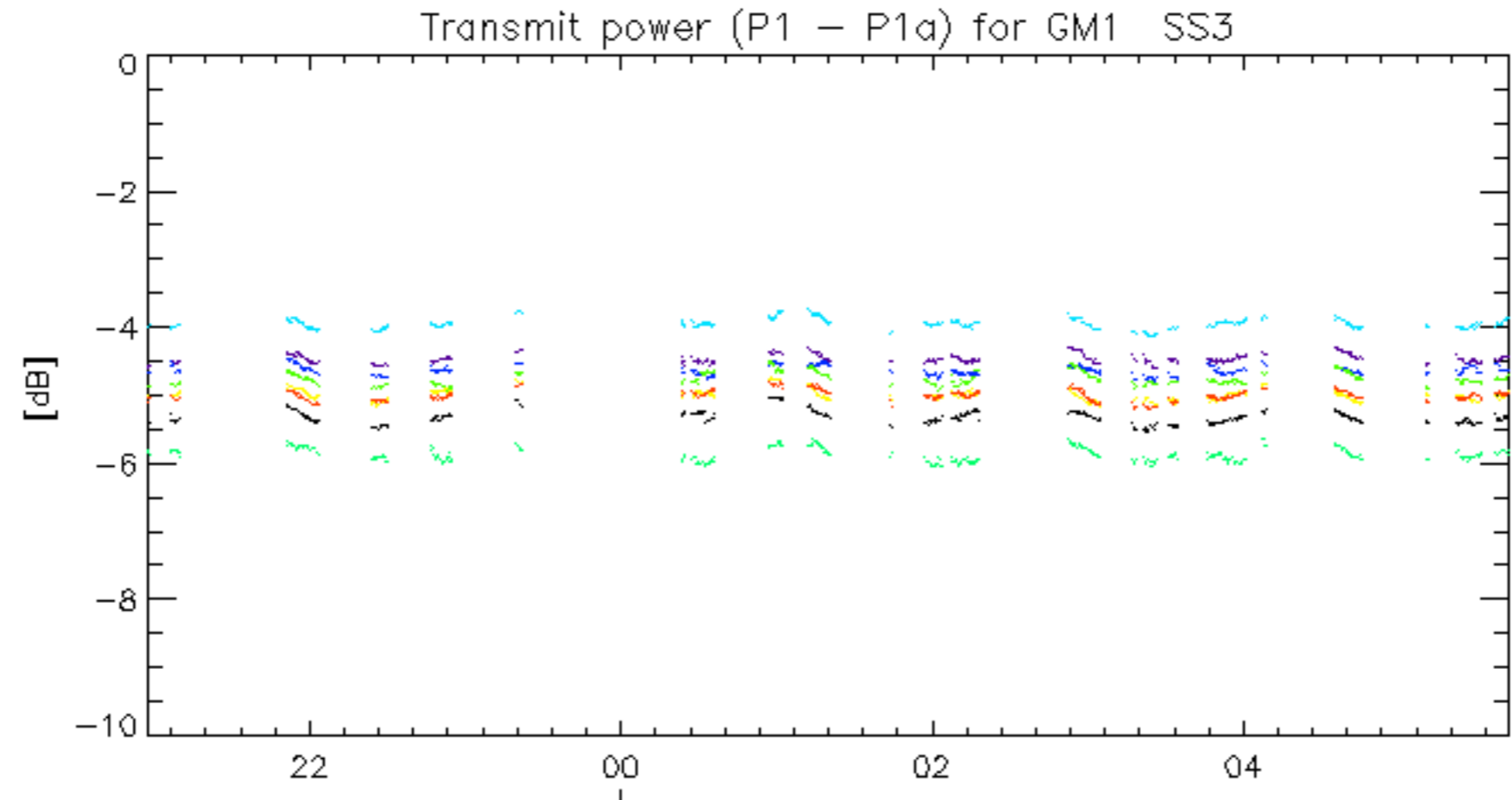


Summary of analysis for the last 3 days 2006021[789]

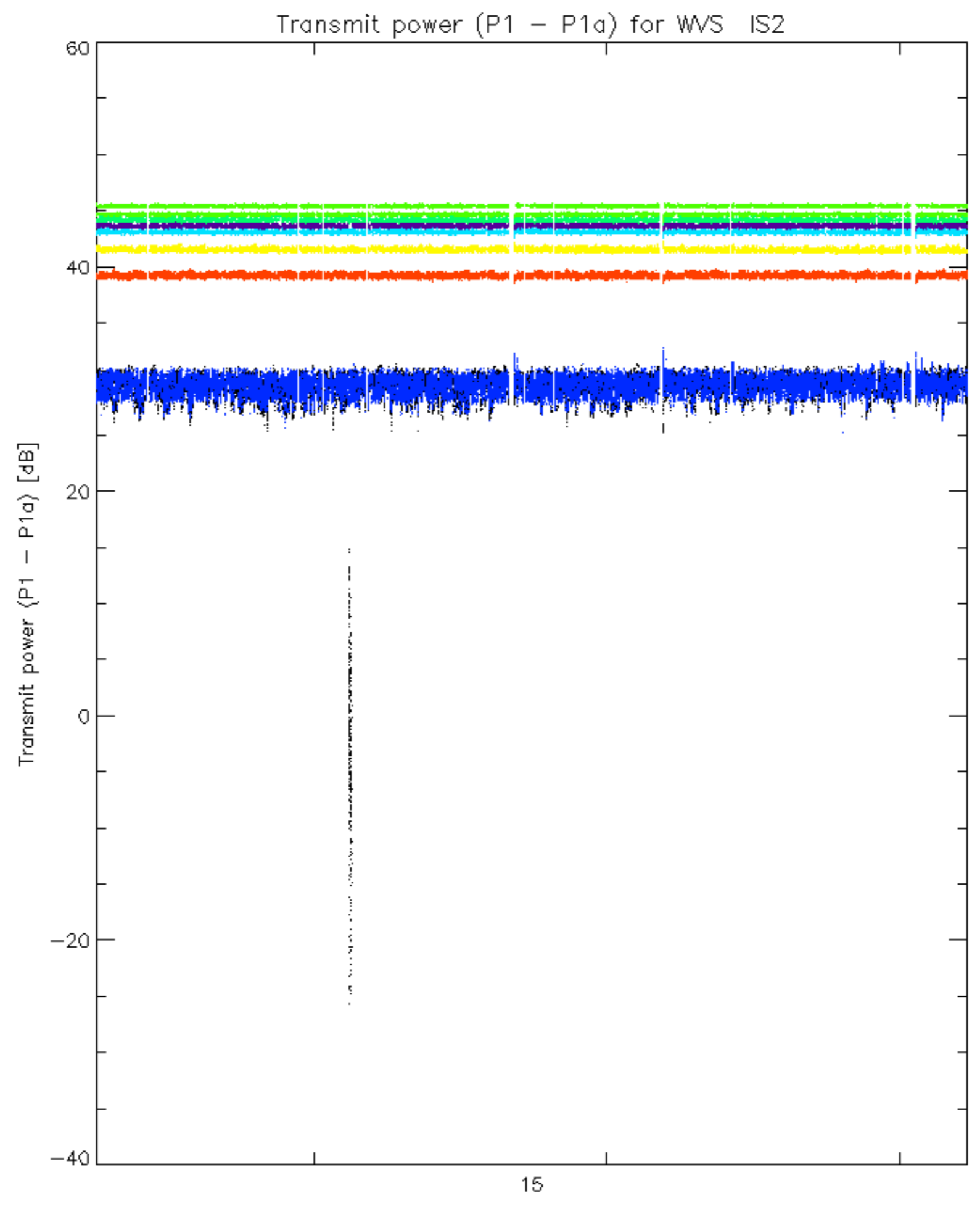
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

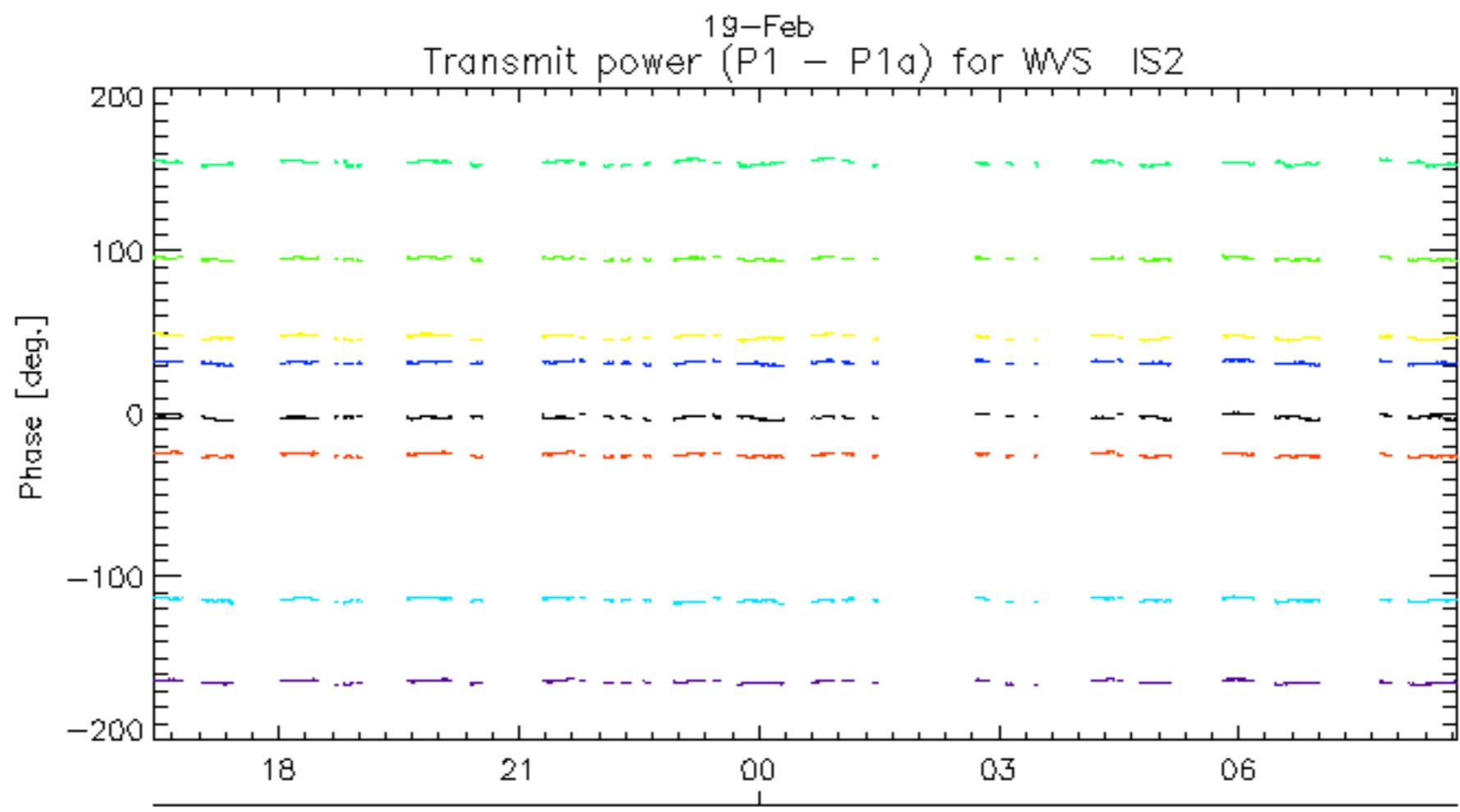
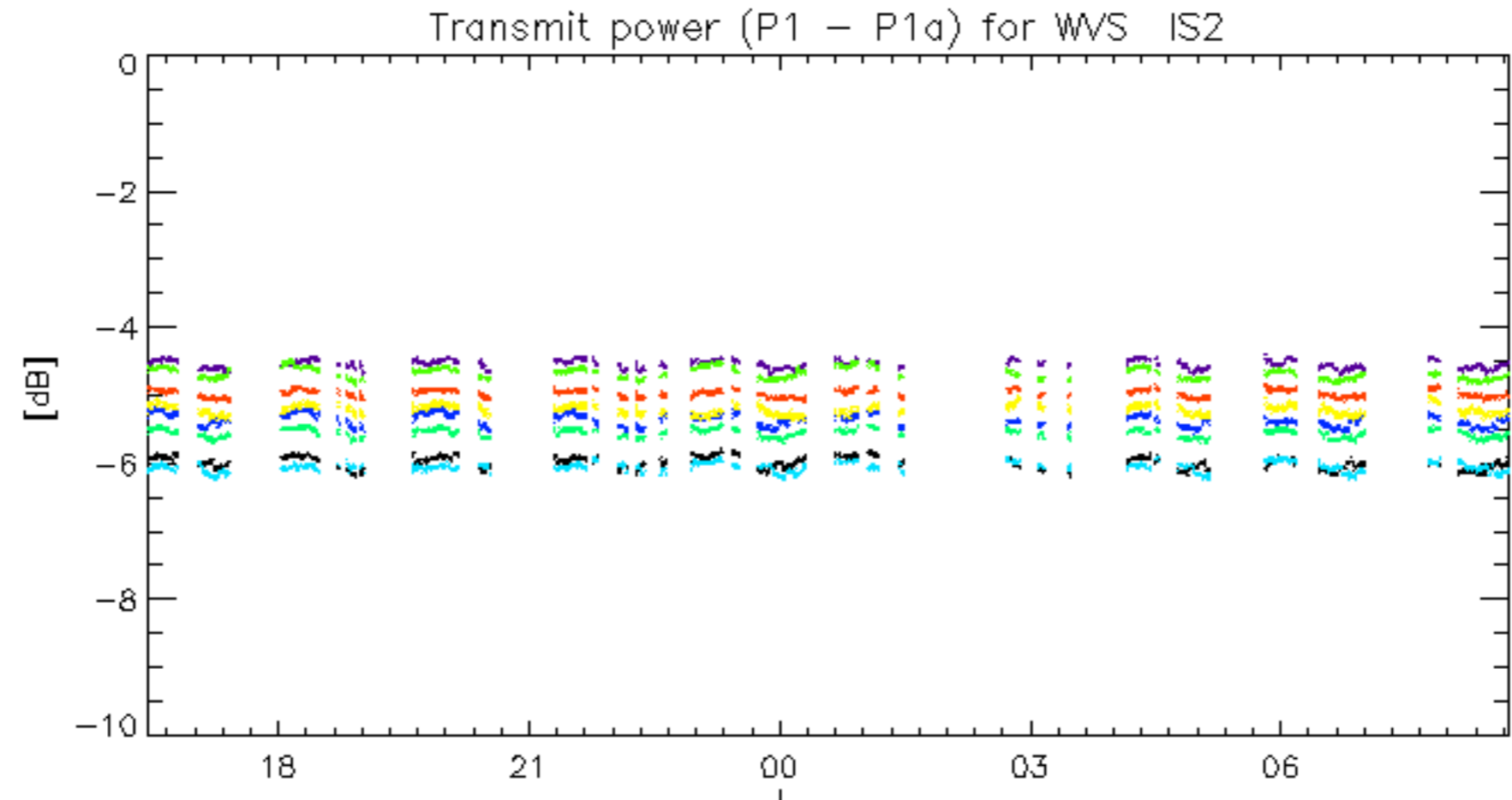
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060219_004051_00000622045_00174_20769_3606.N1	1	0
ASA_IMM_1PNPDK20060219_083053_00000502045_00179_20774_1057.N1	0	29
ASA_WSM_1PNPDE20060218_112322_000001222045_00166_20761_5431.N1	0	60





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





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

No unavailabilities during the reported period.