

PRELIMINARY REPORT OF 060218

last update on Sat Feb 18 16:45:13 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 2006-02-17 00:00:00 to 2006-02-18 16:45:13

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	0	11	0	5
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	40	0	11	0	5
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	0	11	0	5
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	0	11	0	5

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	40	34	36	6	39
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	40	34	36	6	39
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	40	34	36	6	39
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	40	34	36	6	39

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	20060217 071534

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	-4.009558	0.008688	0.032889
7	P1	-3.003405	0.012175	0.024852
11	P1	-4.091031	0.021872	0.037218
15	P1	-6.062233	0.018985	0.001035
19	P1	-3.262902	0.006587	-0.023363
22	P1	-4.471552	0.017702	0.039274
26	P1	-4.191216	0.013062	0.031749
30	P1	-5.773206	0.010310	0.014391
3	P1	-16.913425	0.263583	-0.123854
7	P1	-16.660692	0.120468	-0.039826
11	P1	-16.589327	0.312631	0.142754
15	P1	-13.151531	0.111362	0.219345
19	P1	-13.896619	0.067691	0.000195
22	P1	-15.756527	0.547339	0.401965
26	P1	-15.761166	0.255196	-0.029875
30	P1	-16.564705	0.296387	0.173223

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.524950	0.091849	0.197390
7	P2	-22.425304	0.095089	0.080409
11	P2	-16.261425	0.101365	0.062929
15	P2	-7.189628	0.102286	0.064637
19	P2	-9.157067	0.096020	0.055320
22	P2	-17.941814	0.092778	0.038170
26	P2	-16.214220	0.099491	0.033641
30	P2	-19.641394	0.084242	0.029073

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.201265	0.007223	0.034696
7	P3	-8.201265	0.007223	0.034696
11	P3	-8.201265	0.007223	0.034696
15	P3	-8.201265	0.007223	0.034696
19	P3	-8.201265	0.007223	0.034696
22	P3	-8.201265	0.007223	0.034696
26	P3	-8.201265	0.007223	0.034696
30	P3	-8.201265	0.007223	0.034696

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	-3.739083	0.011323	-0.022121
7	P1	-2.745941	0.007685	-0.022577
11	P1	-2.891068	0.014423	-0.057921
15	P1	-3.509655	0.020830	-0.098659
19	P1	-3.380465	0.011388	0.017436
22	P1	-5.150722	0.022330	-0.056446
26	P1	-5.840019	0.019012	0.080933
30	P1	-5.224290	0.027666	0.066932
3	P1	-11.551680	0.045082	-0.053822
7	P1	-9.931126	0.049859	-0.065158
11	P1	-10.151489	0.059411	-0.157633
15	P1	-10.692161	0.101283	-0.171149
19	P1	-15.448596	0.063006	0.081732
22	P1	-20.392117	1.197963	0.417933
26	P1	-16.563187	0.368417	0.514533
30	P1	-18.233904	0.329097	-0.210356

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.290585	0.042878	0.292133
7	P2	-22.729832	0.076867	0.313769
11	P2	-11.349653	0.030545	0.187781
15	P2	-4.873722	0.029758	0.126787
19	P2	-6.887802	0.027616	0.084291
22	P2	-8.176248	0.029037	0.087638
26	P2	-23.952131	0.027716	0.058230
30	P2	-22.084890	0.019735	0.039320

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.035103	0.003193	0.044075
7	P3	-8.035104	0.003187	0.044014
11	P3	-8.034980	0.003190	0.044035
15	P3	-8.035115	0.003190	0.043974
19	P3	-8.035179	0.003195	0.044070
22	P3	-8.035140	0.003199	0.044762
26	P3	-8.035215	0.003193	0.044242
30	P3	-8.035084	0.003200	0.044225

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	0.000560013
	stdev	1.69136e-07
MEAN Q	mean	0.000519510
	stdev	2.13015e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139427
	stdev	0.00117186
STDEV Q	mean	0.139788
	stdev	0.00119111



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006021[678]

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_1PNPDE20060216_113801_000000992045_00137_20732_3352.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"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.2 - Absolute Doppler for WVS

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

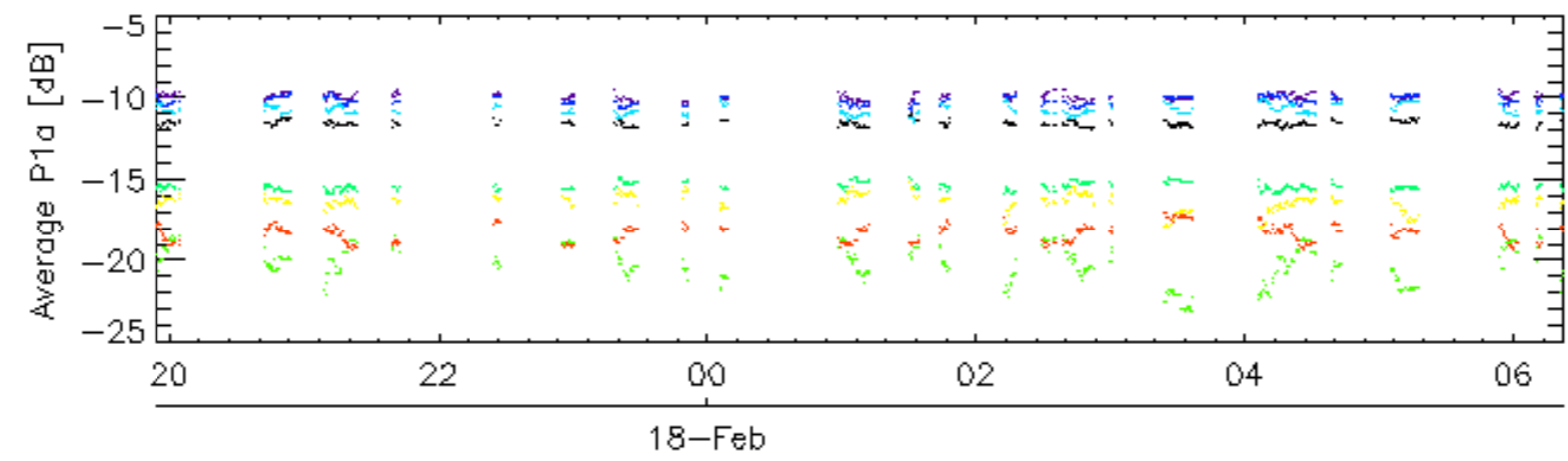
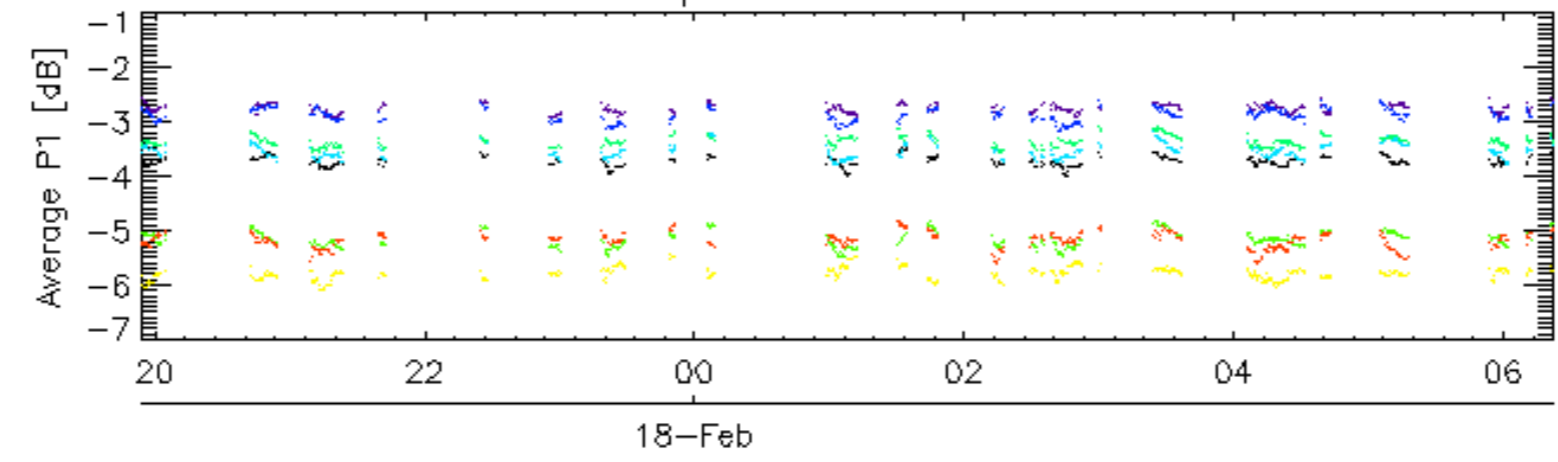
Ascending

Descending

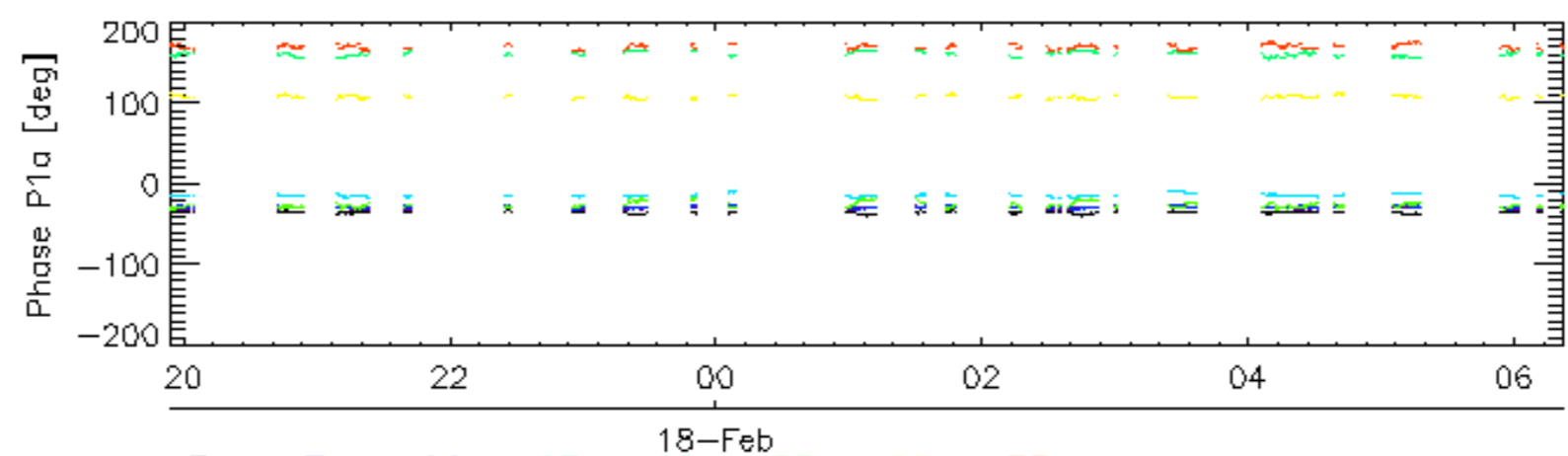
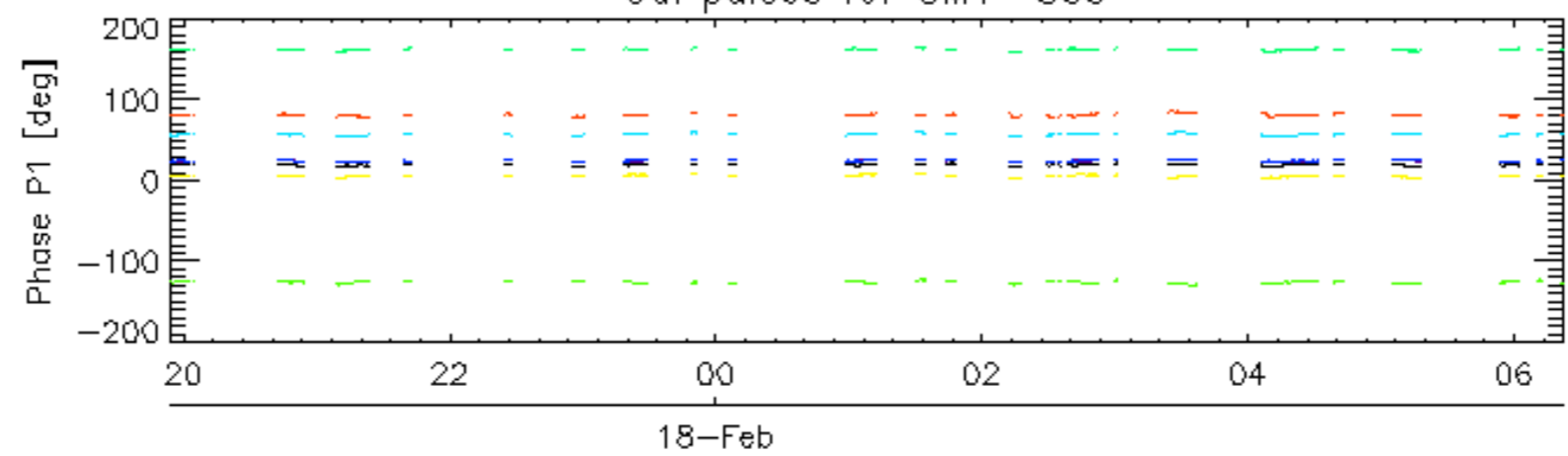
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

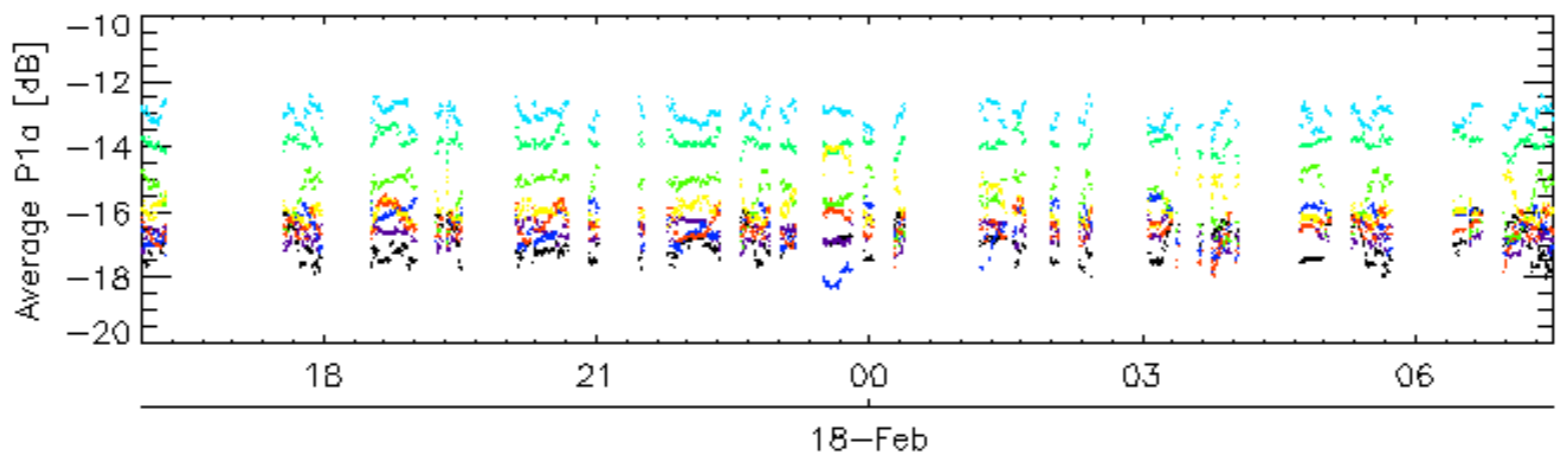
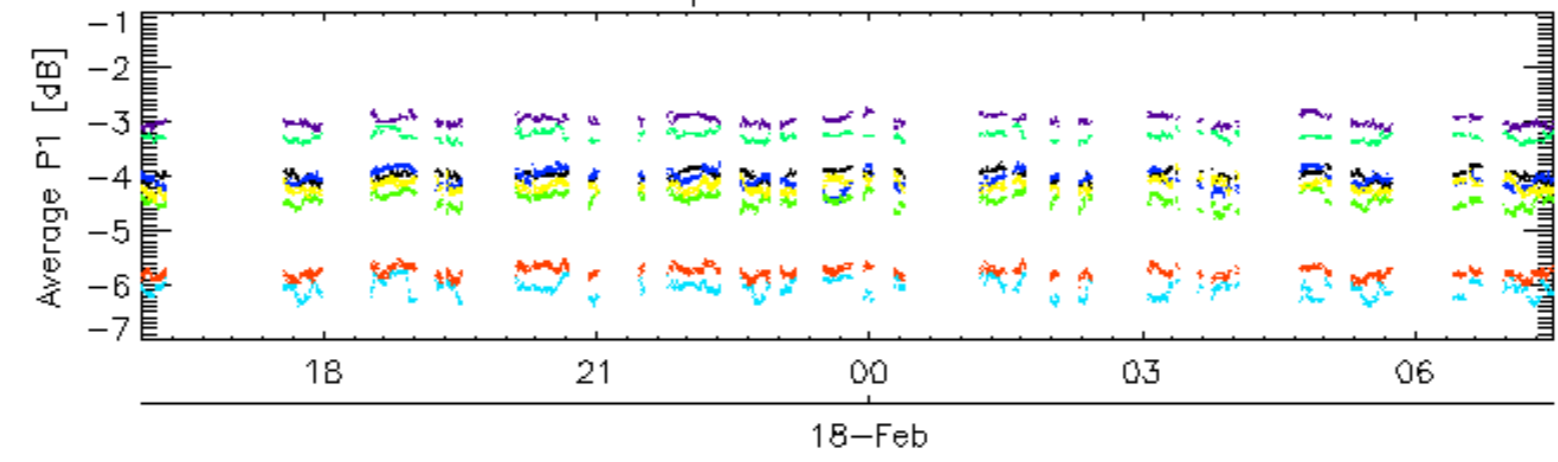


Cal pulses for GM1 SS3

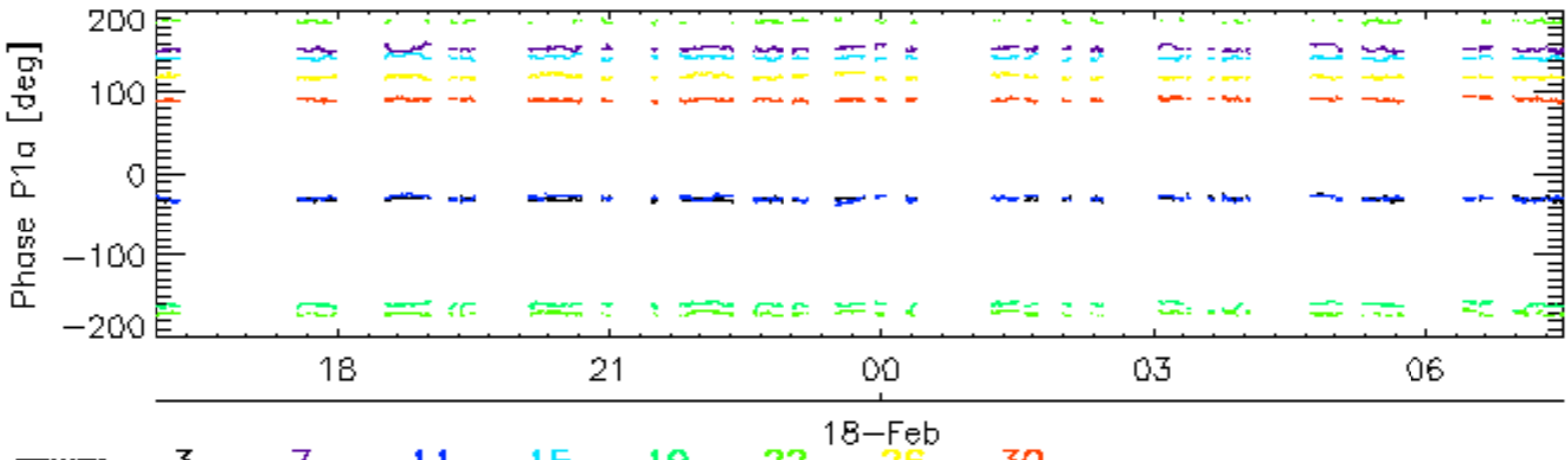
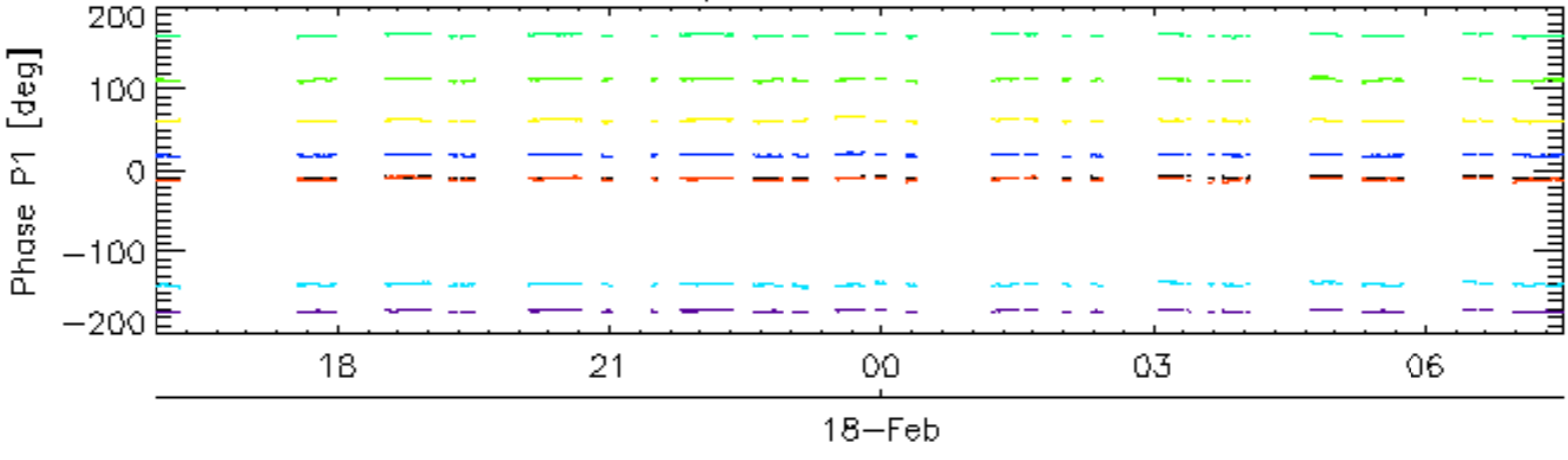


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

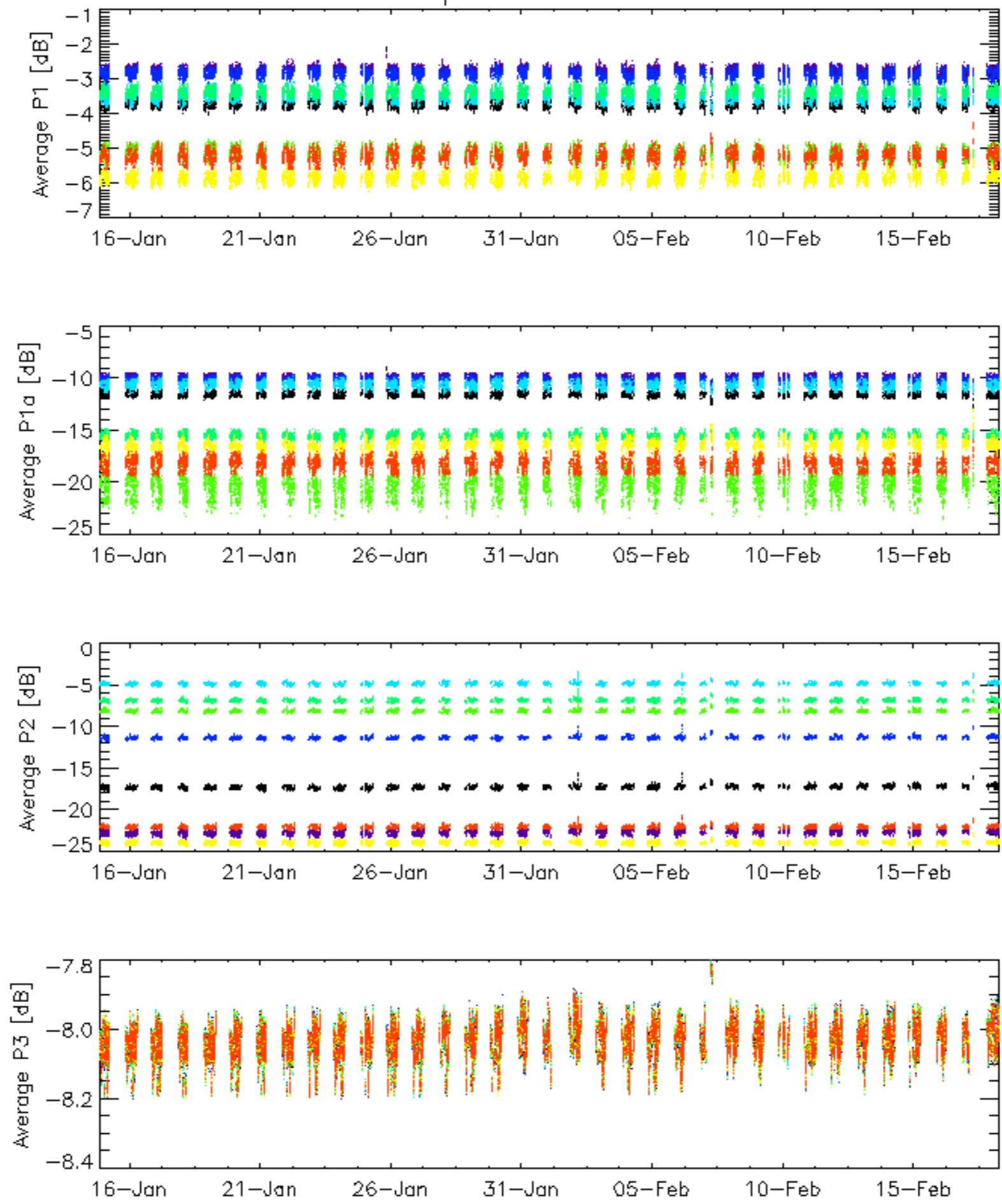


Cal pulses for WVS IS2



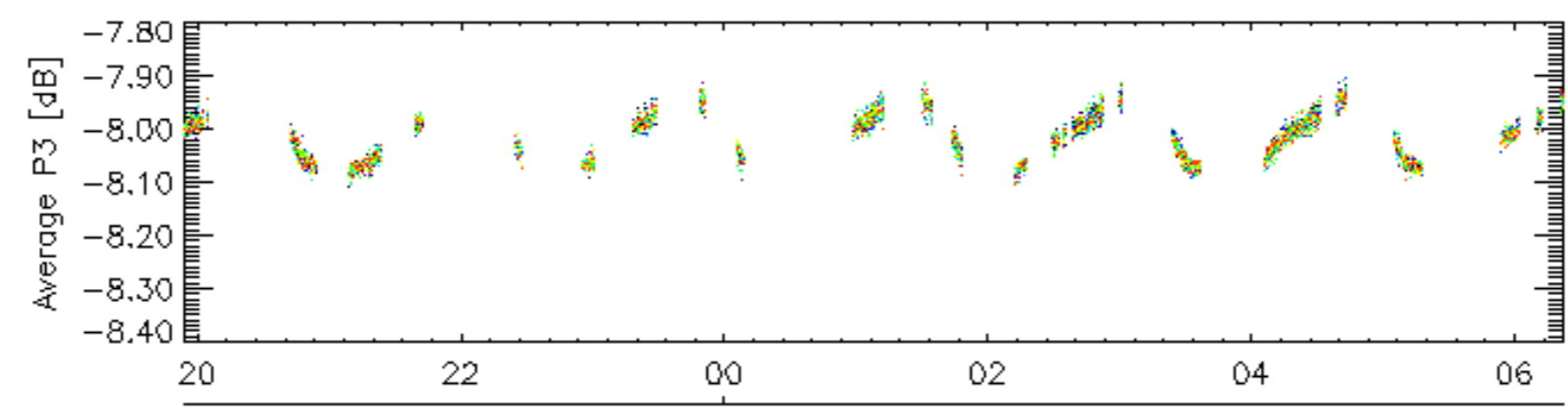
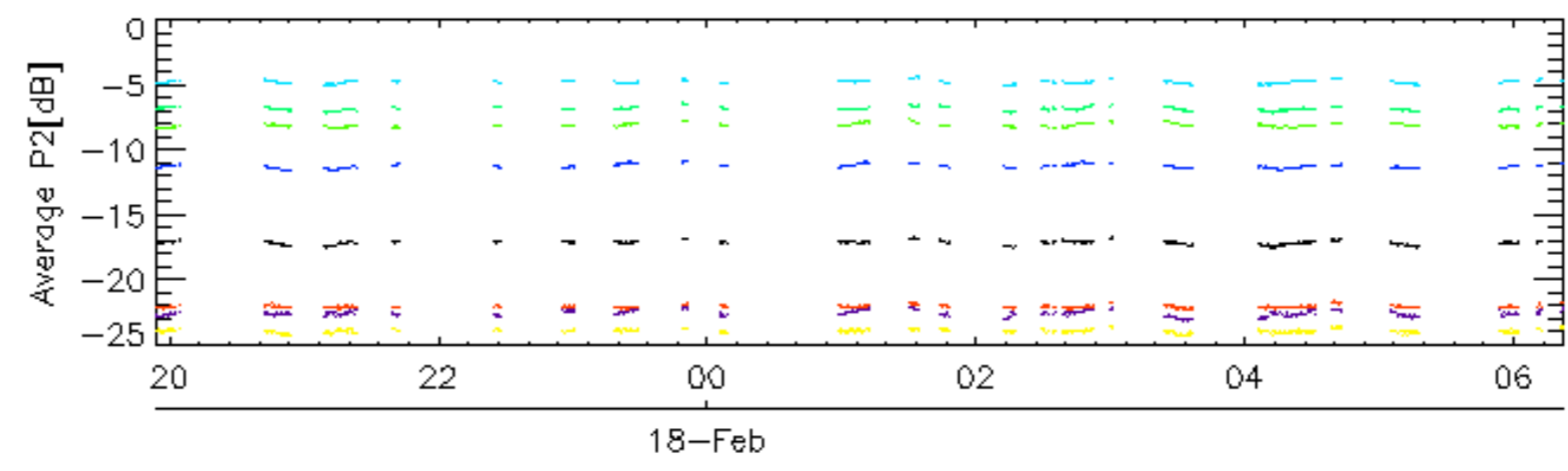
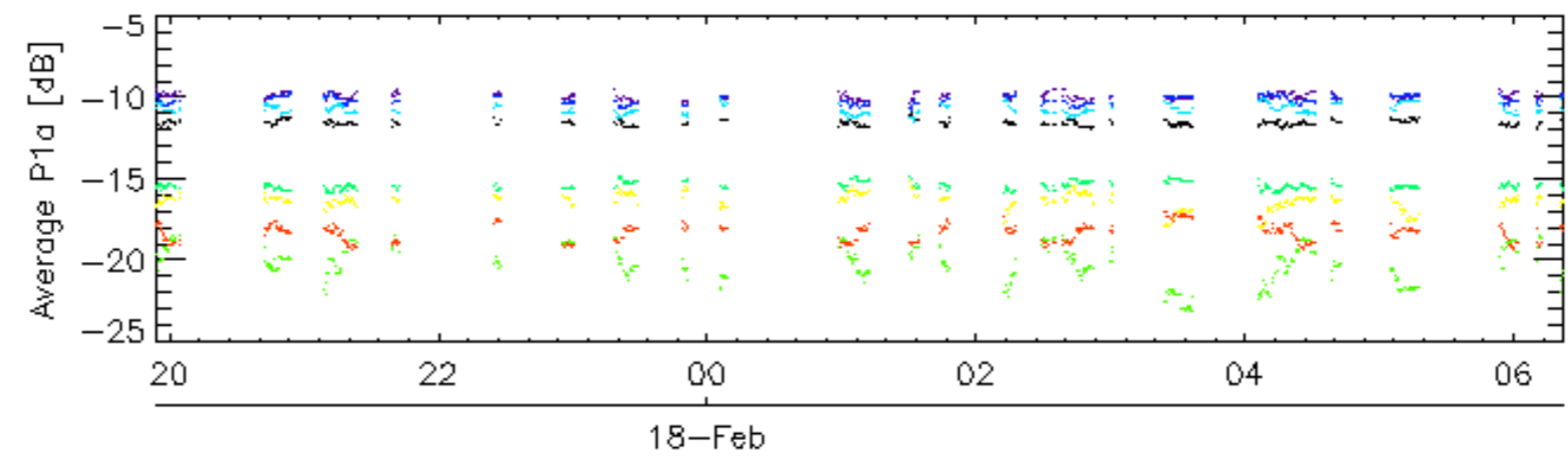
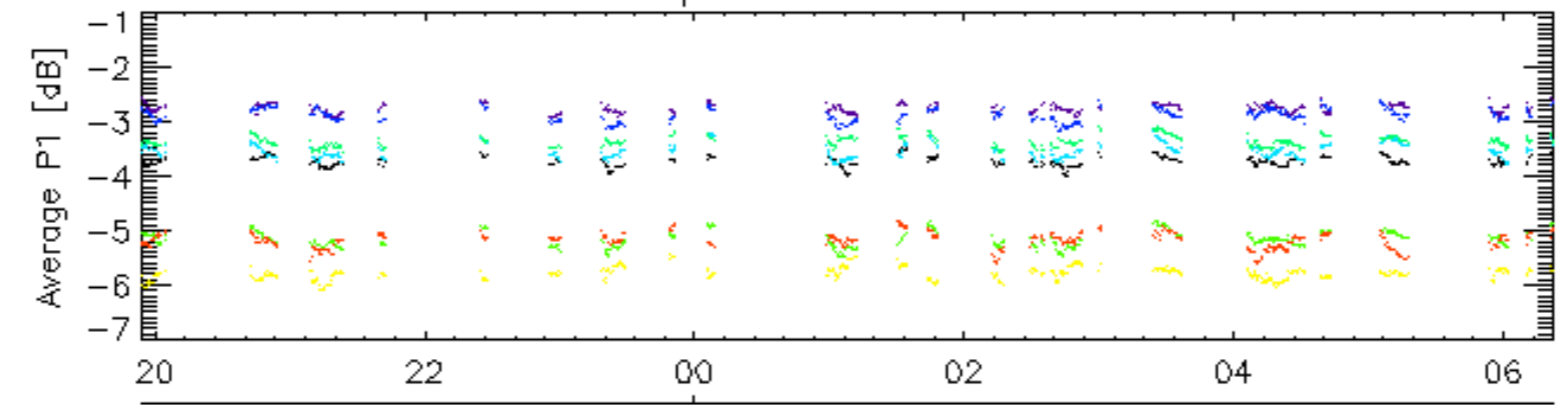
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



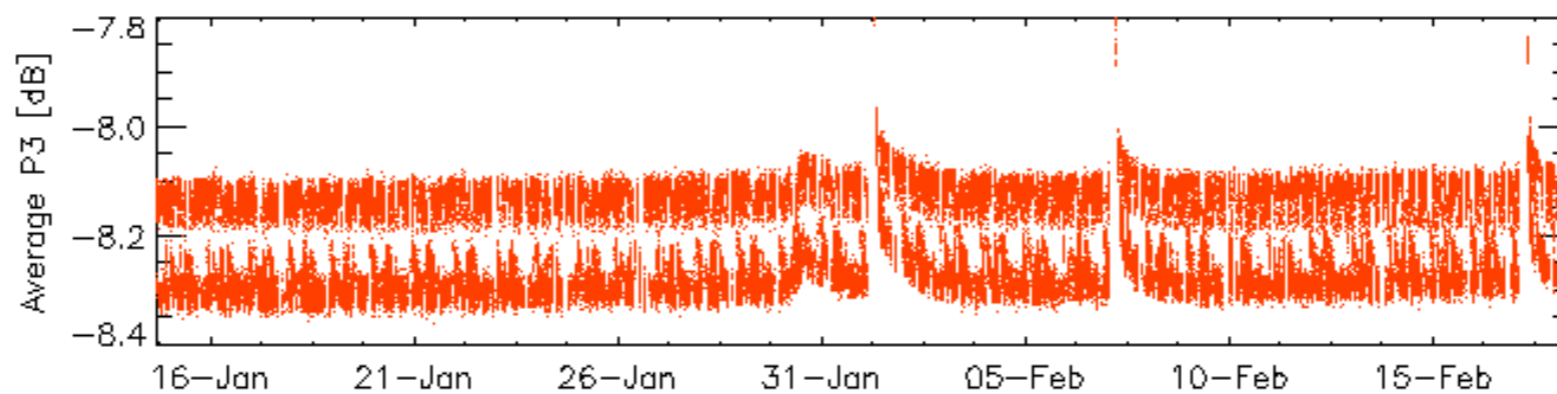
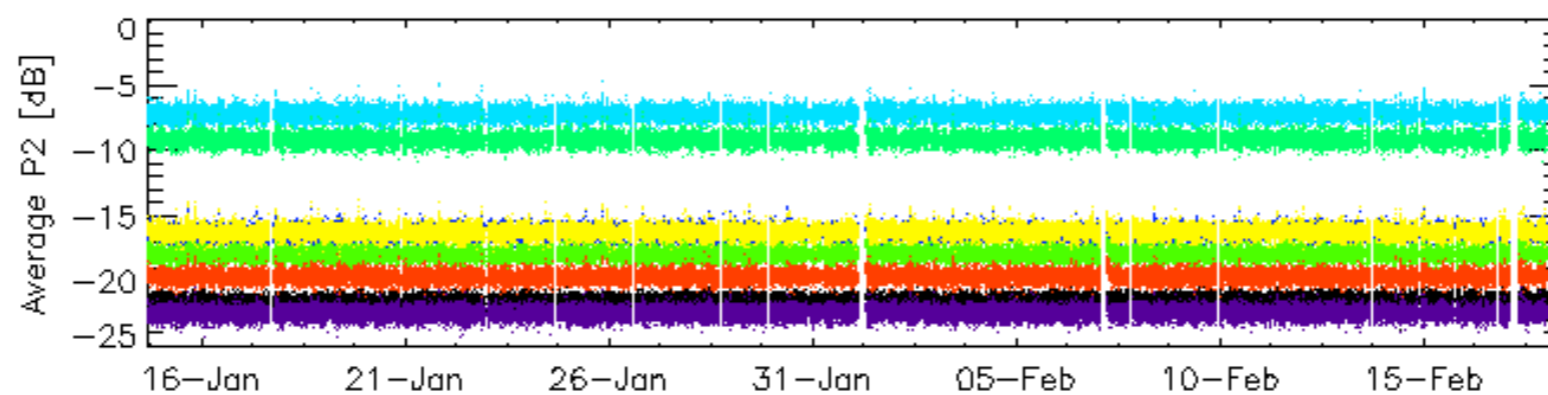
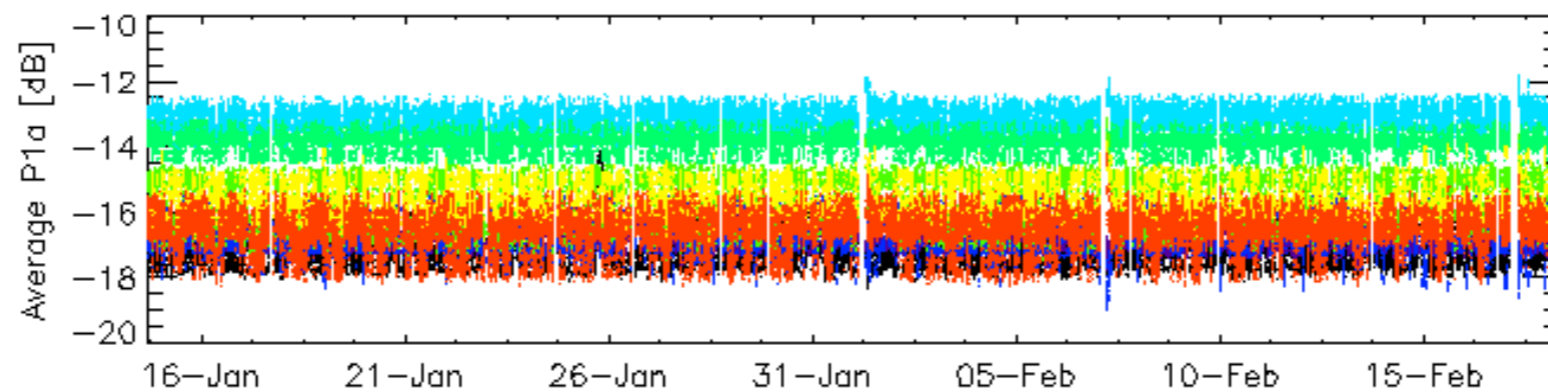
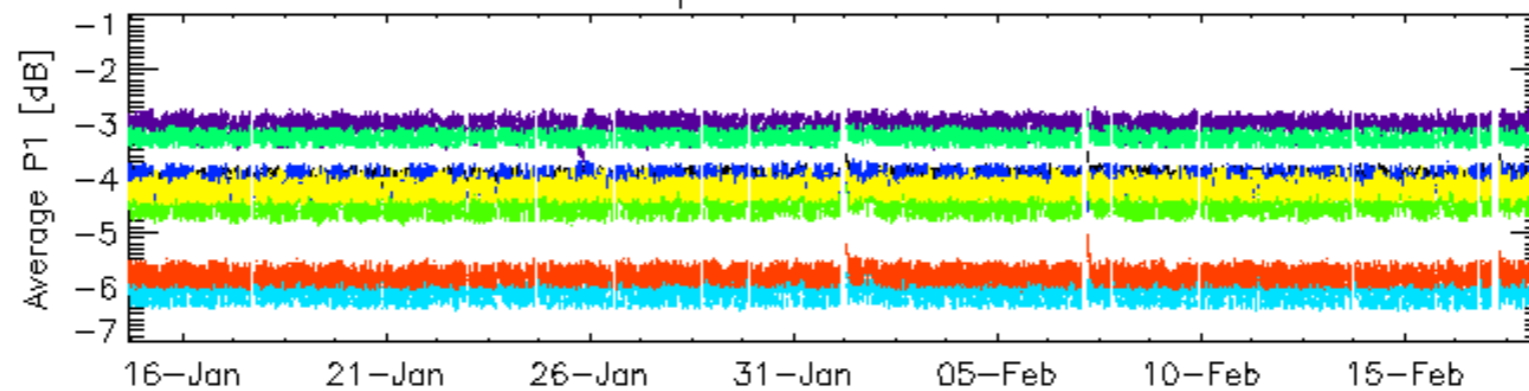
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



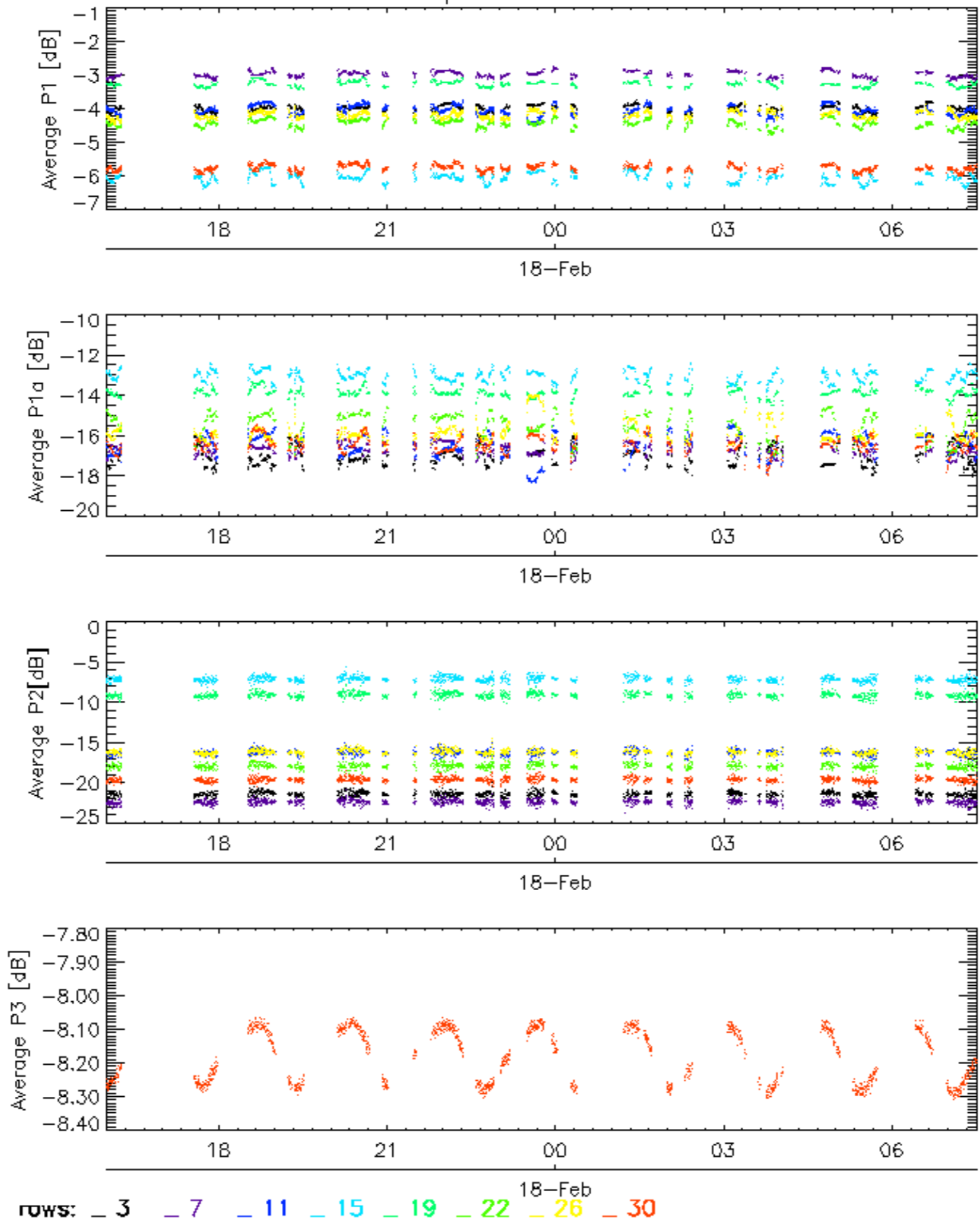
rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

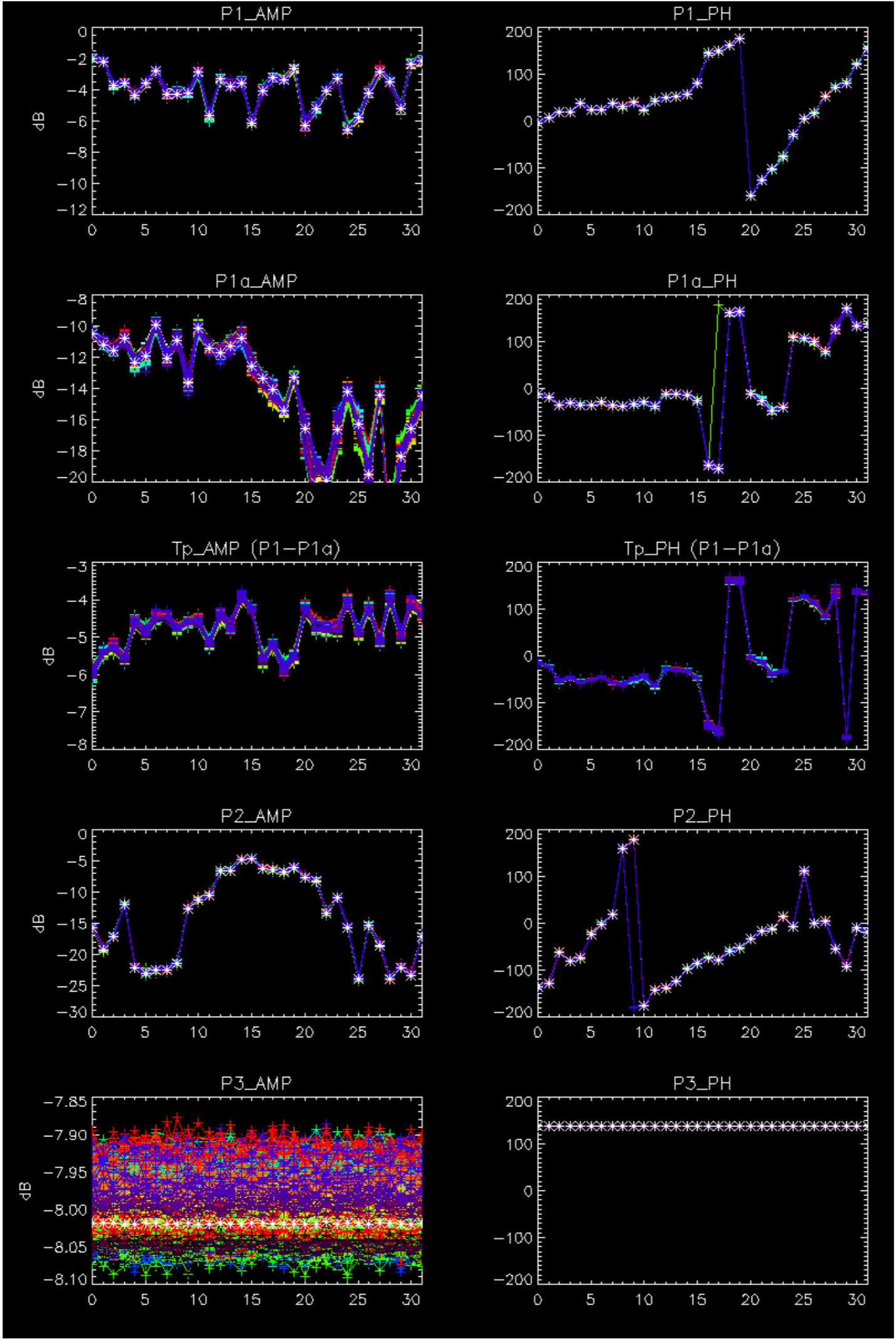


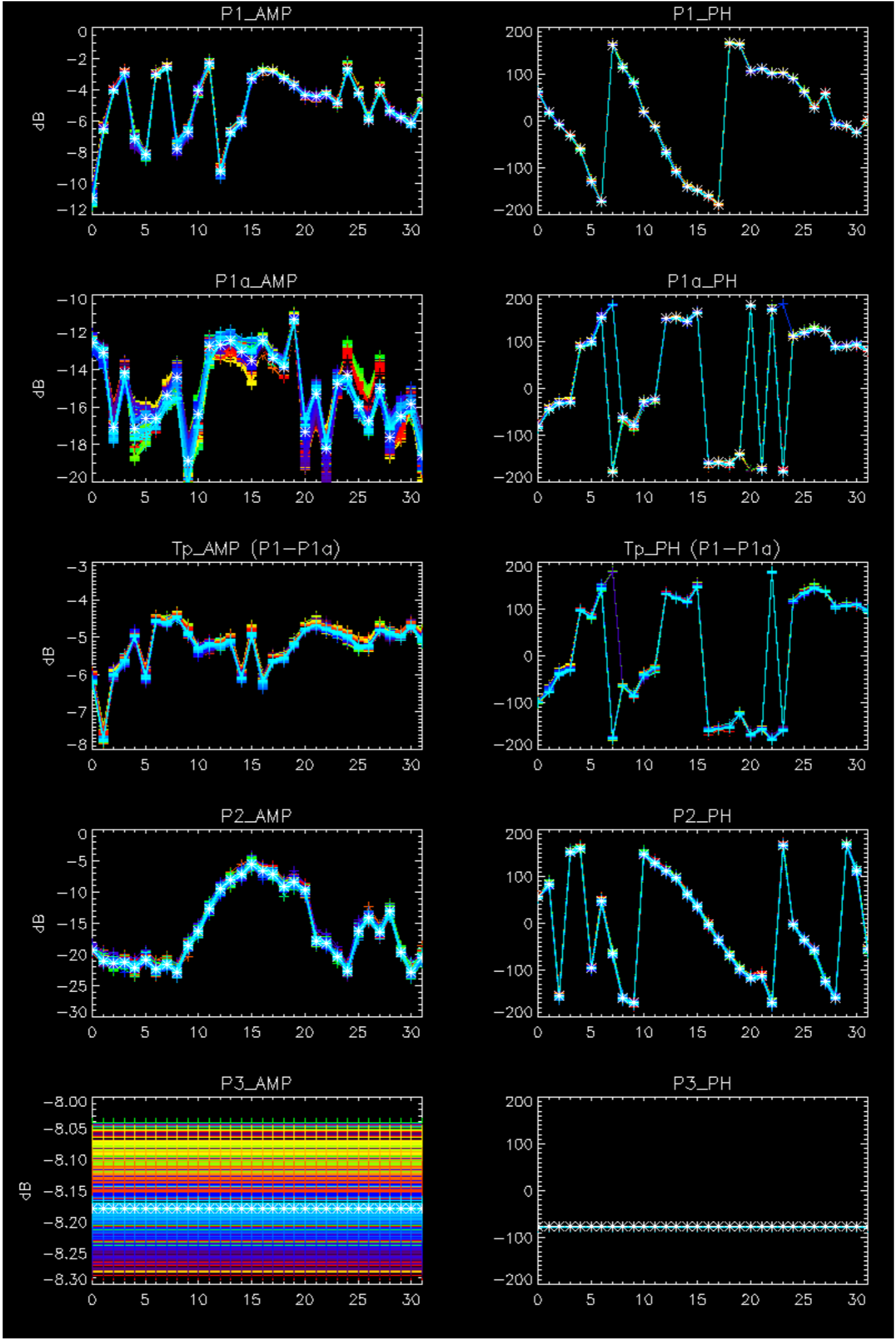
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



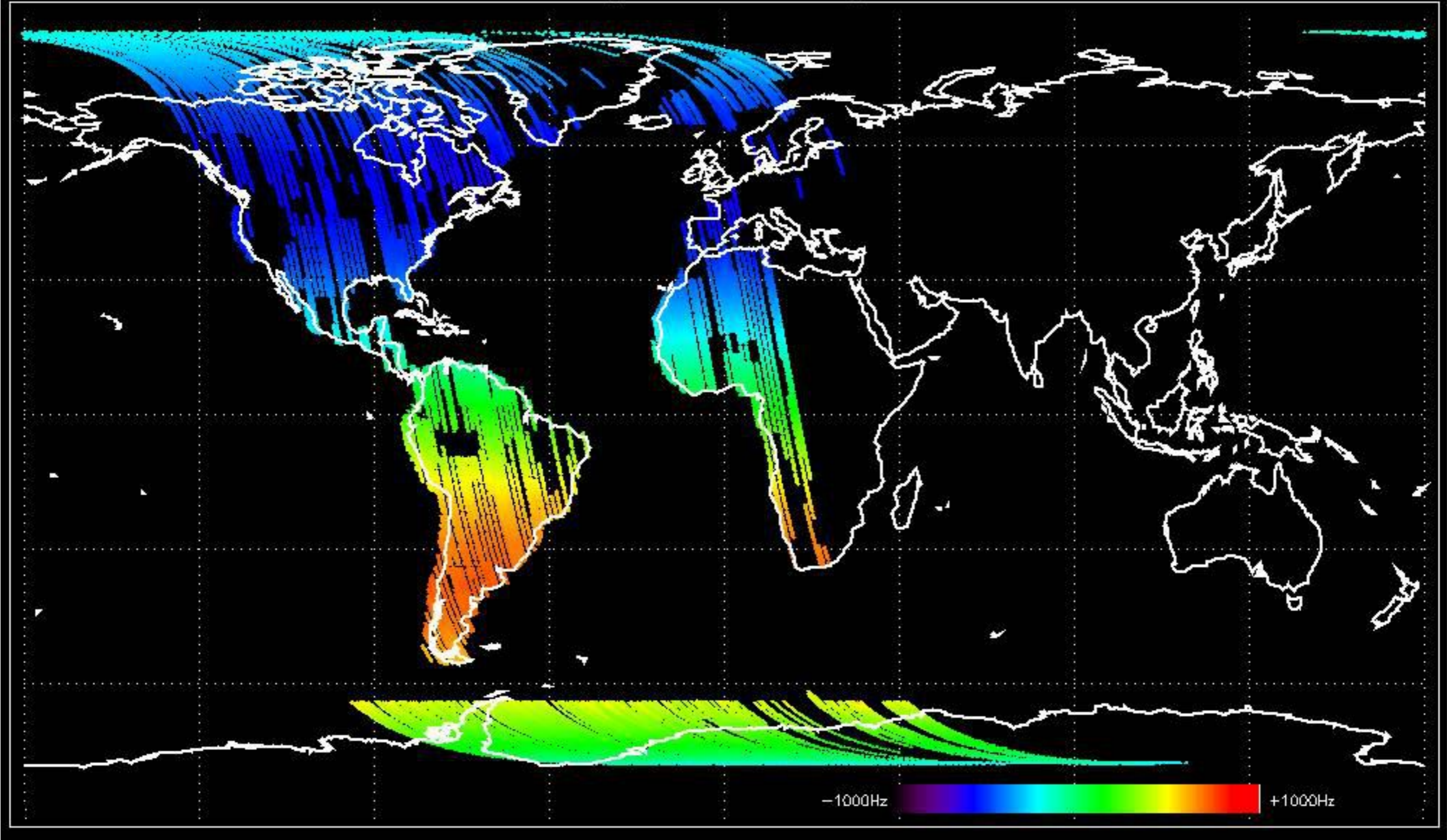
No anomalies observed.



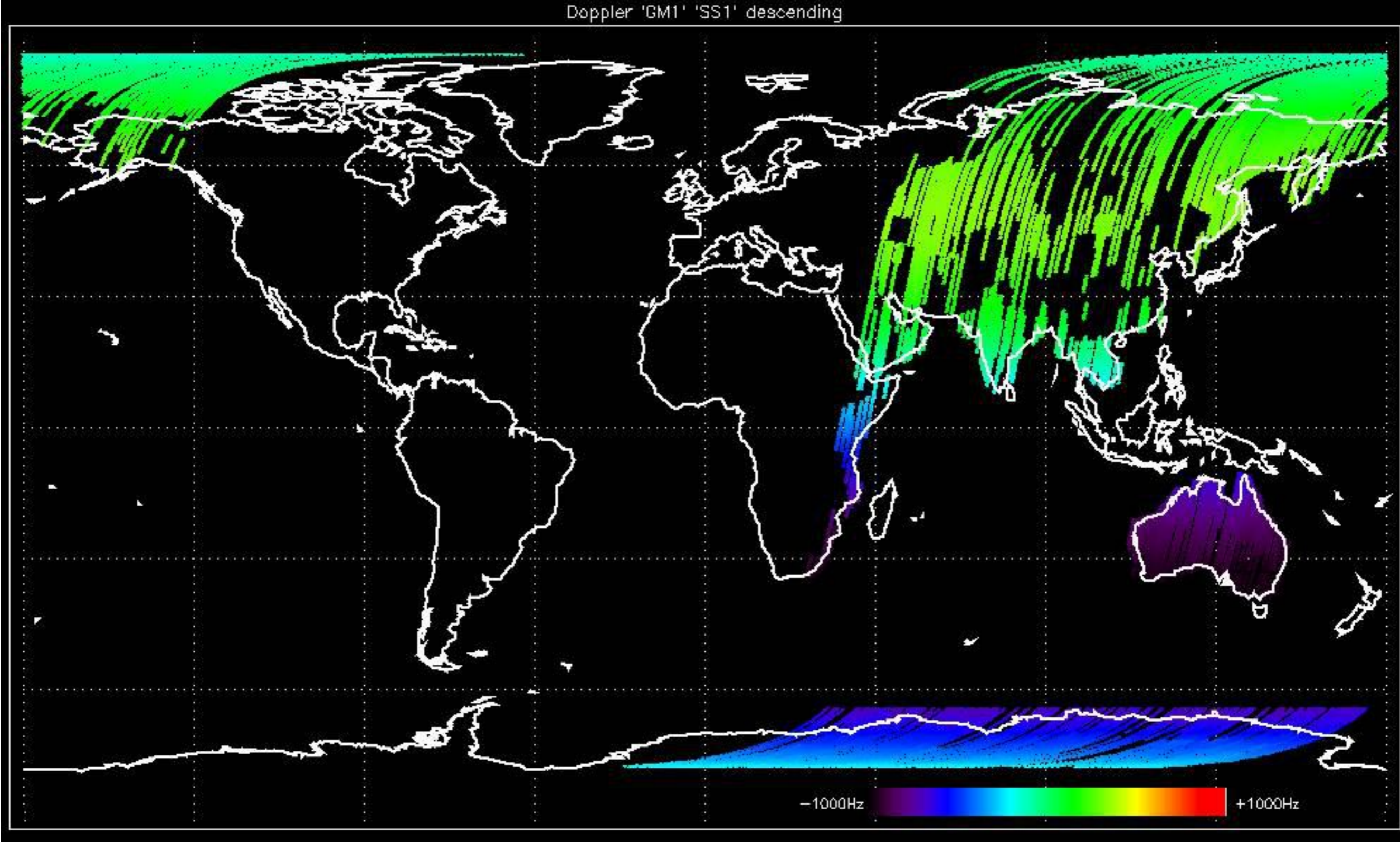


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

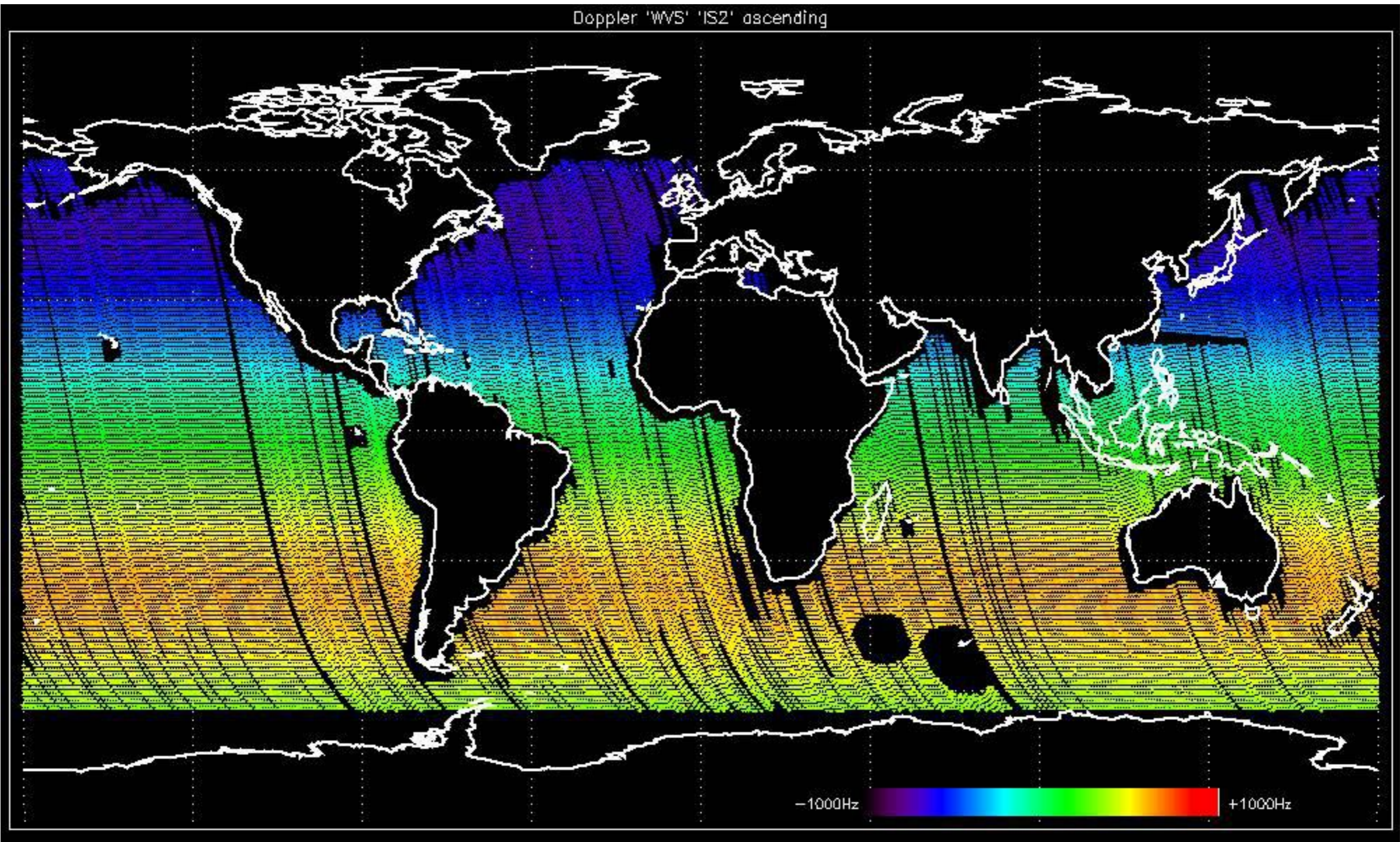
Doppler 'GM1' 'SS1' ascending



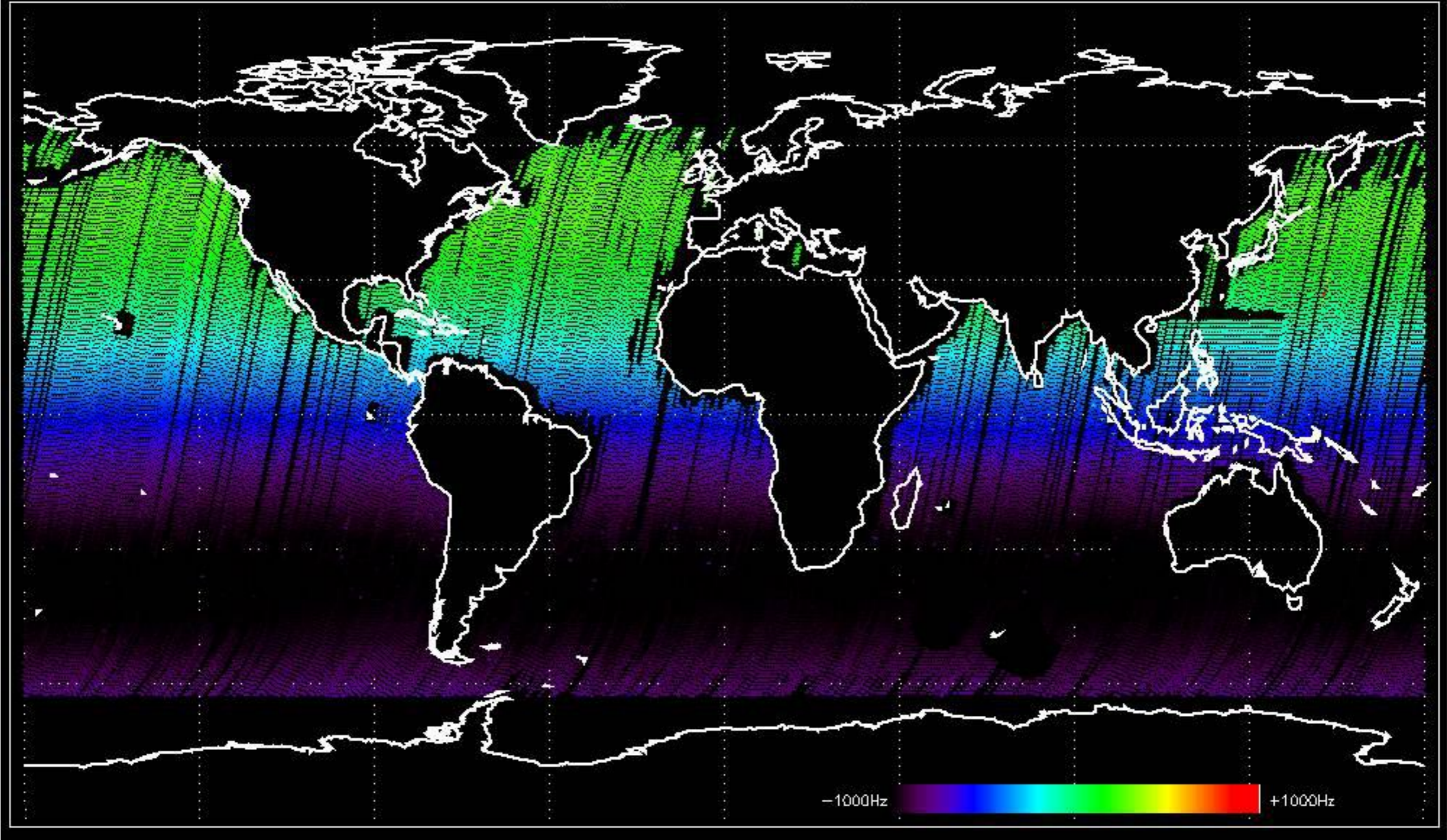
Doppler 'GM1' 'SS1' descending

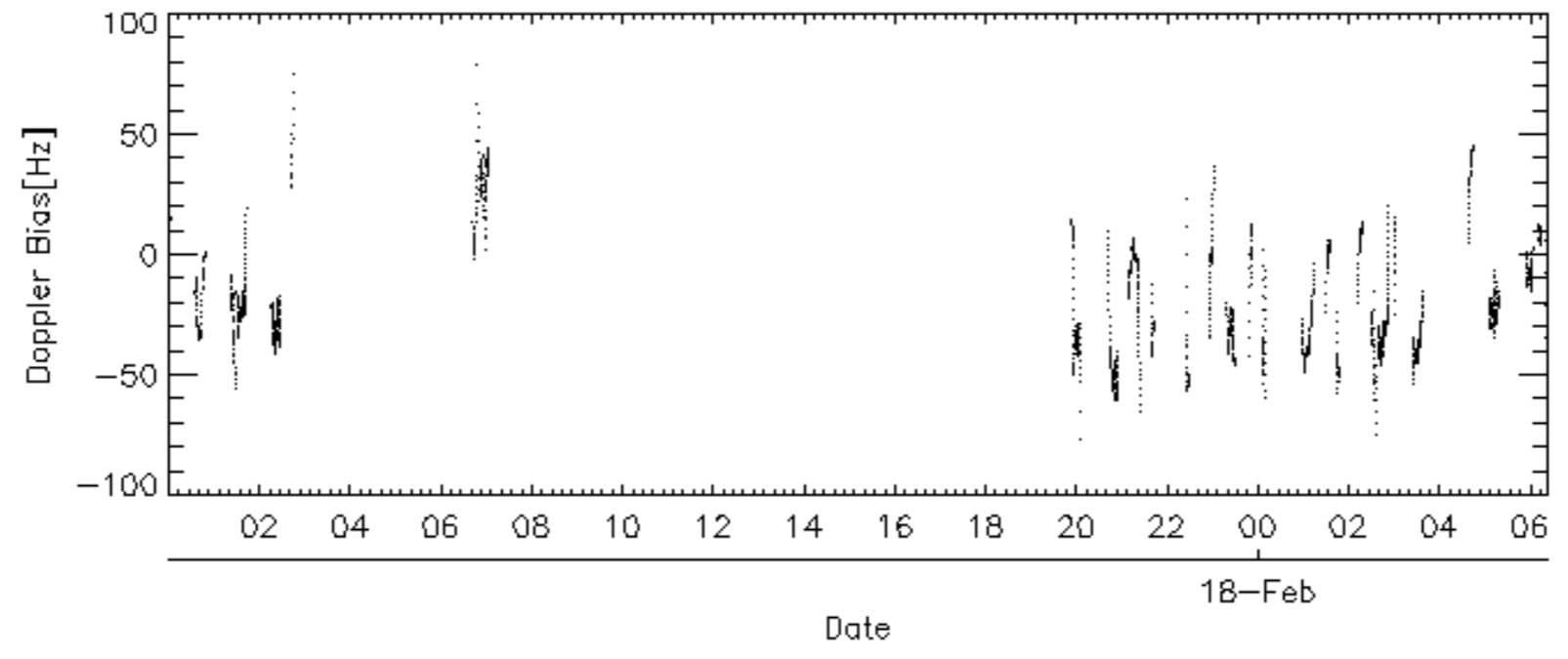
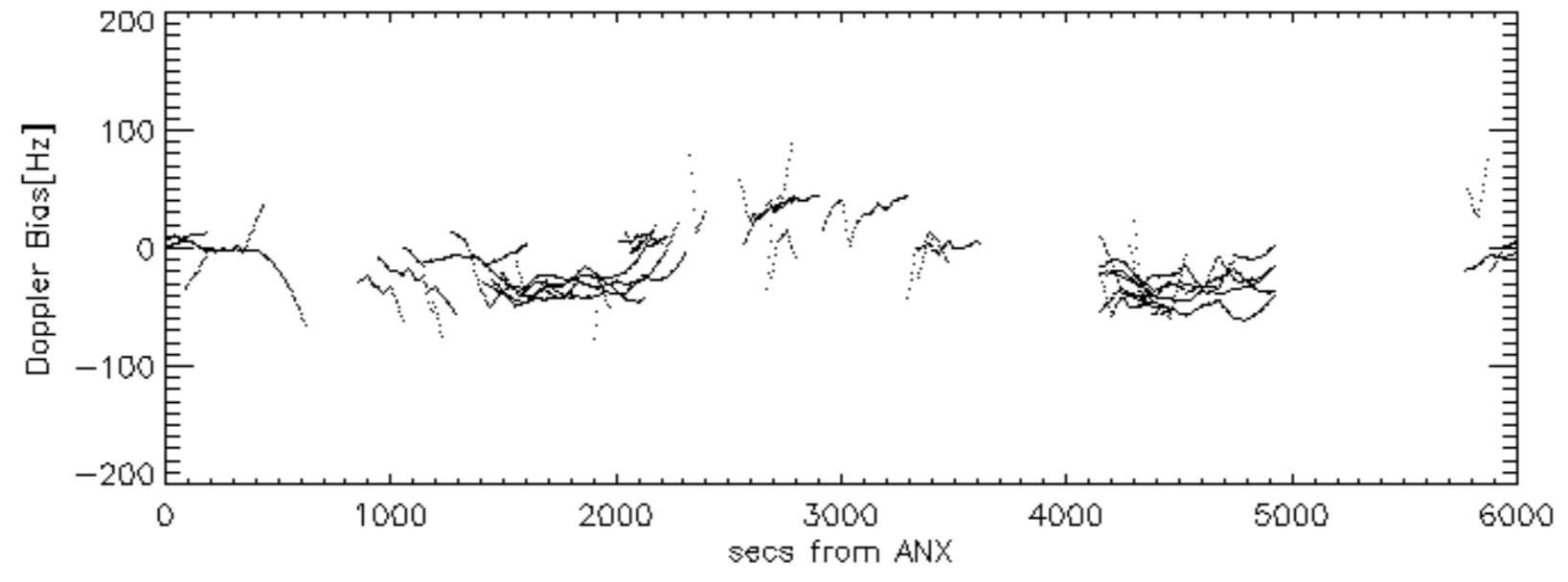
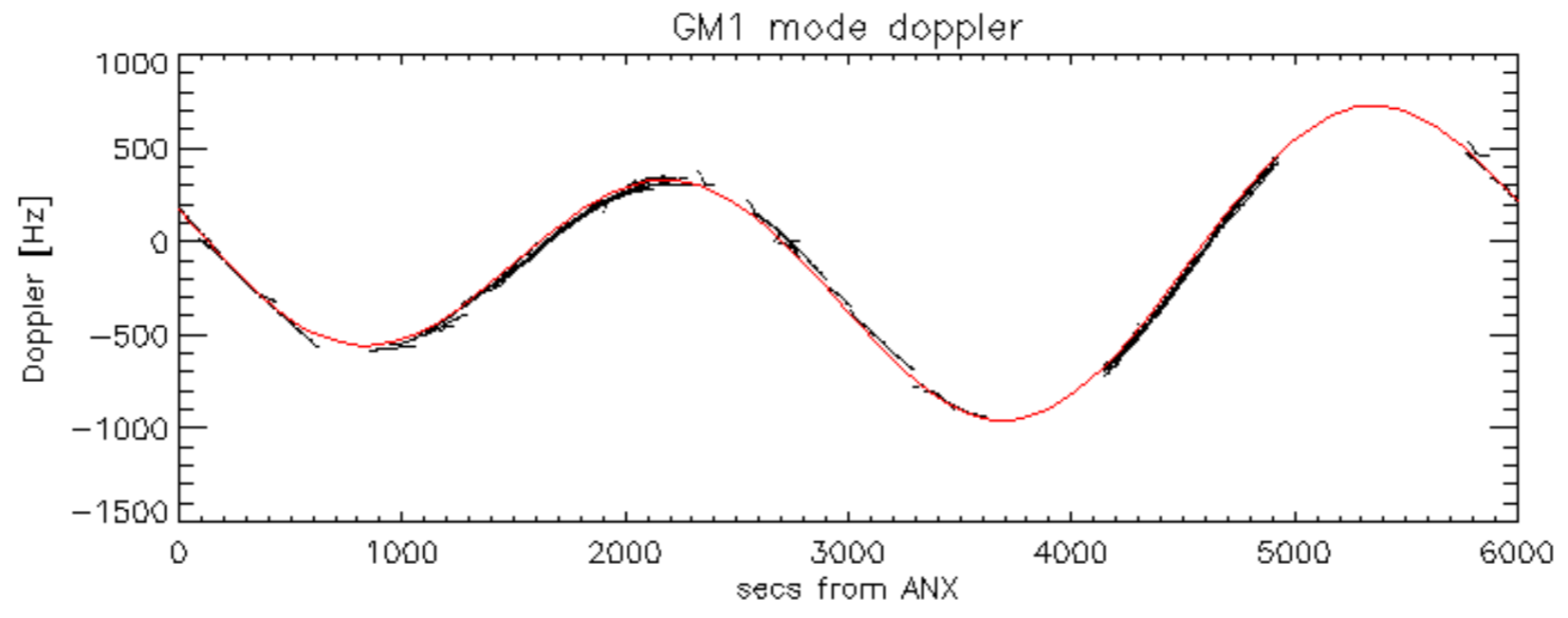


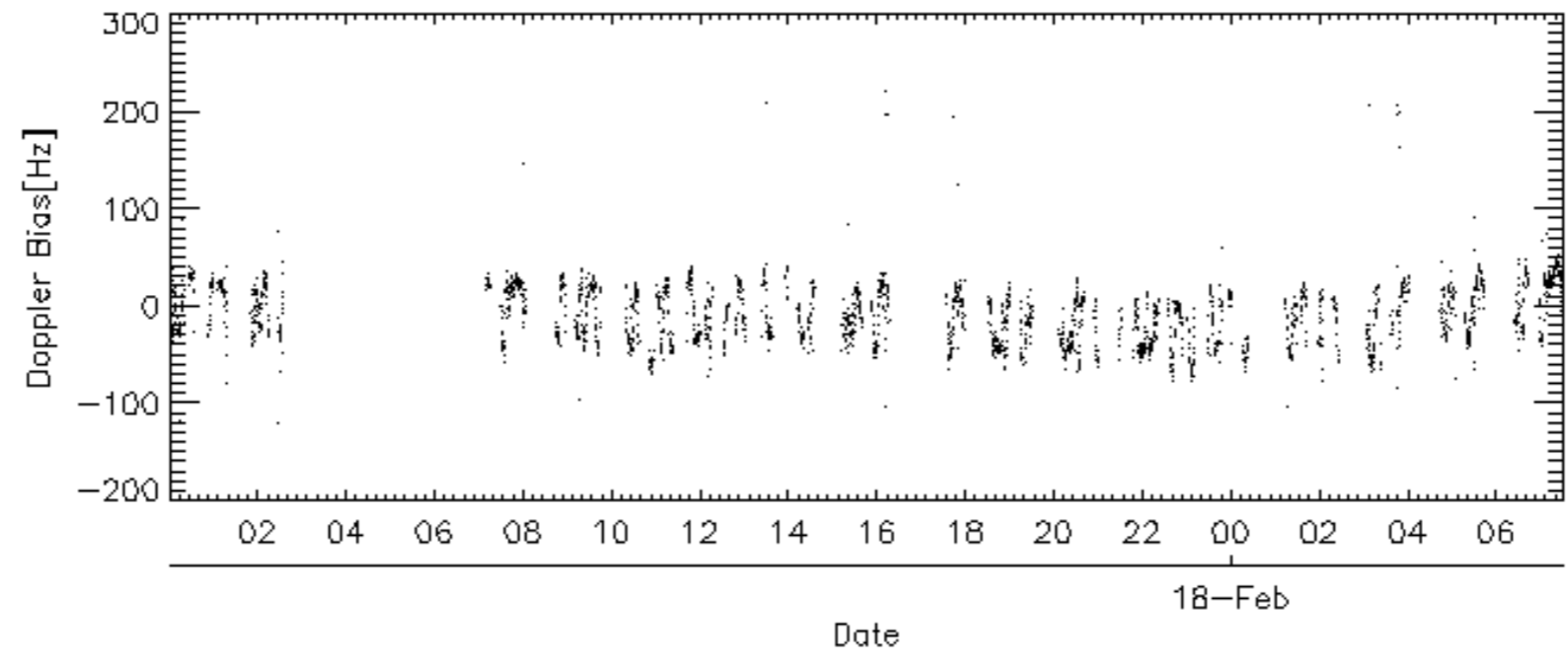
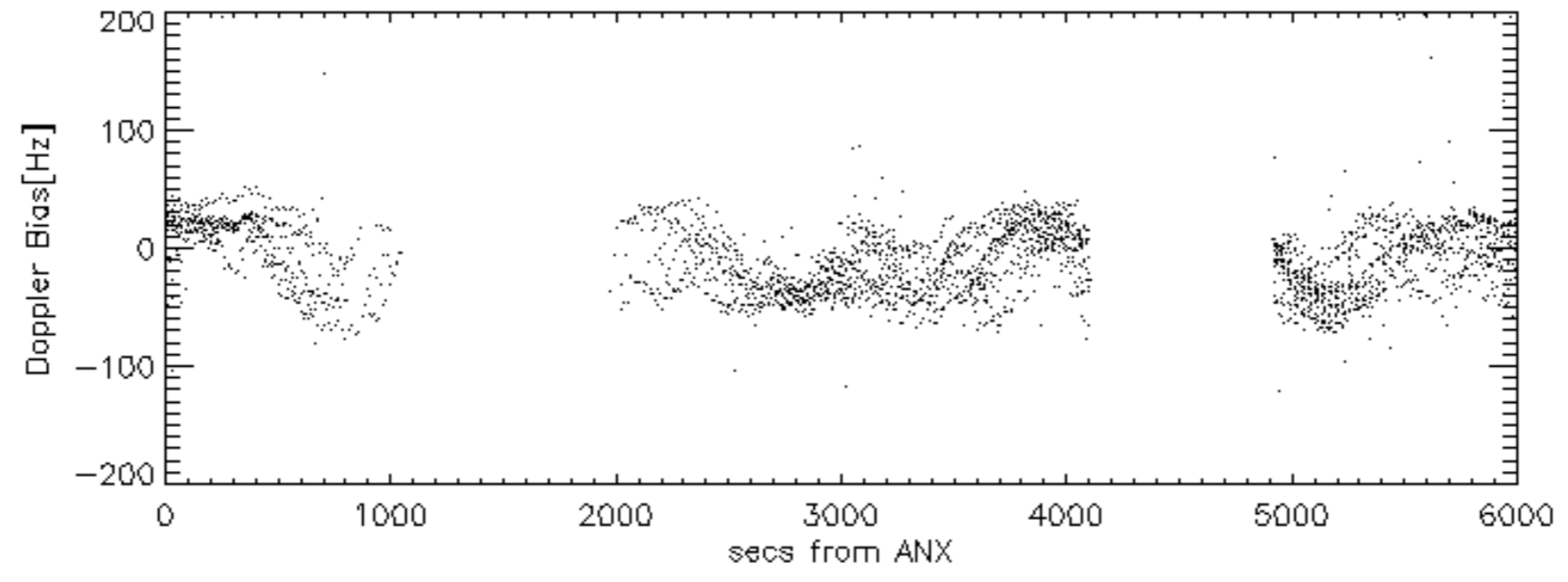
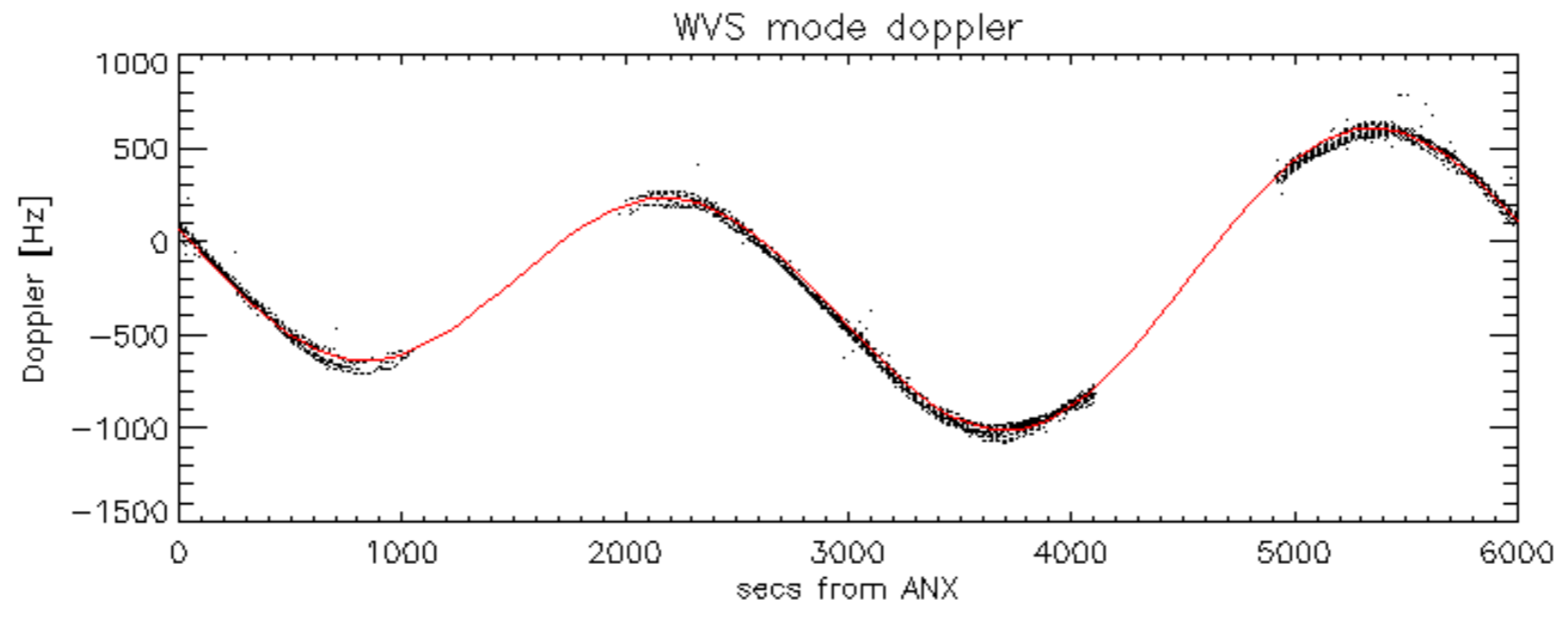
Doppler 'WVS' 'IS2' ascending



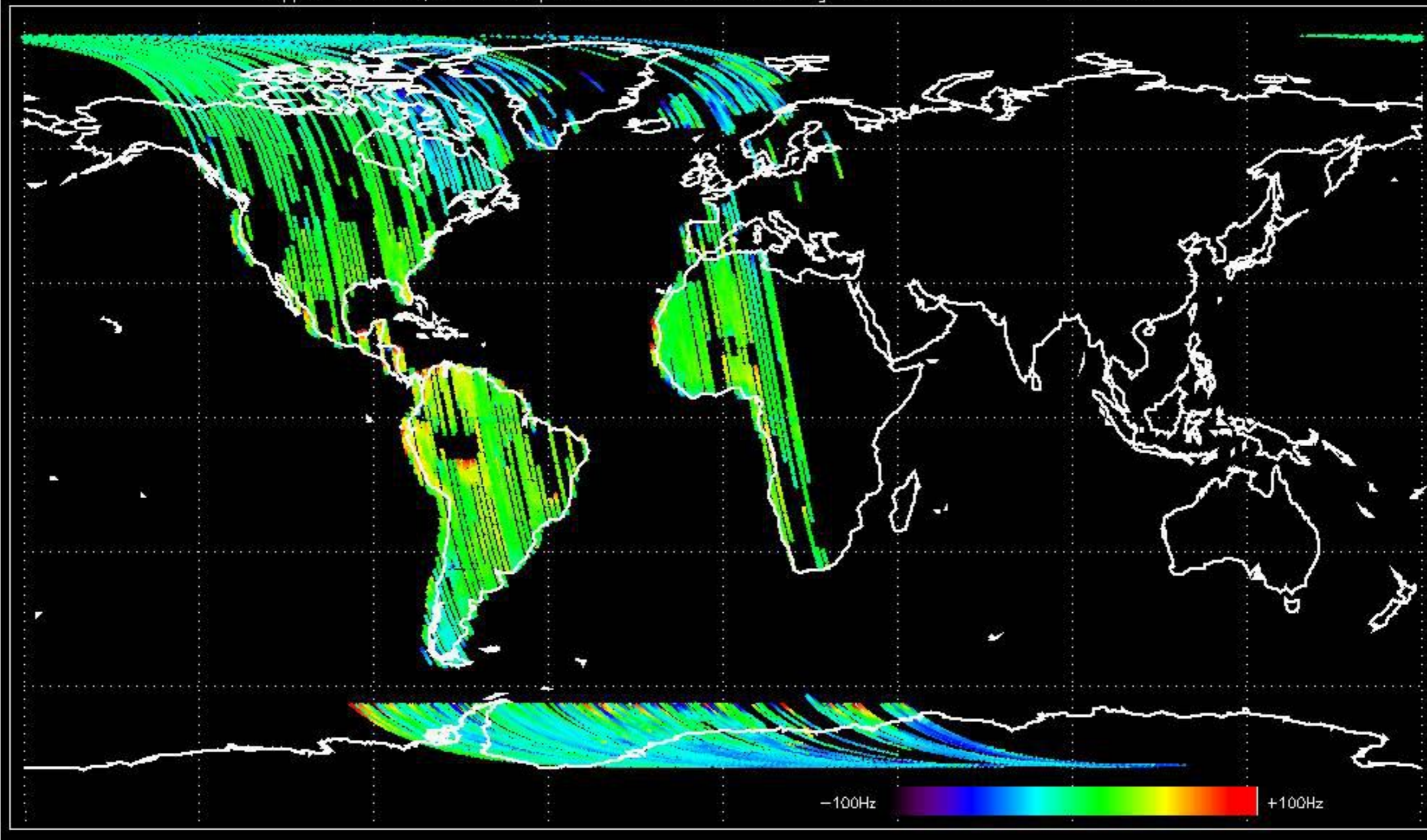
Doppler 'WVS' 'IS2' descending



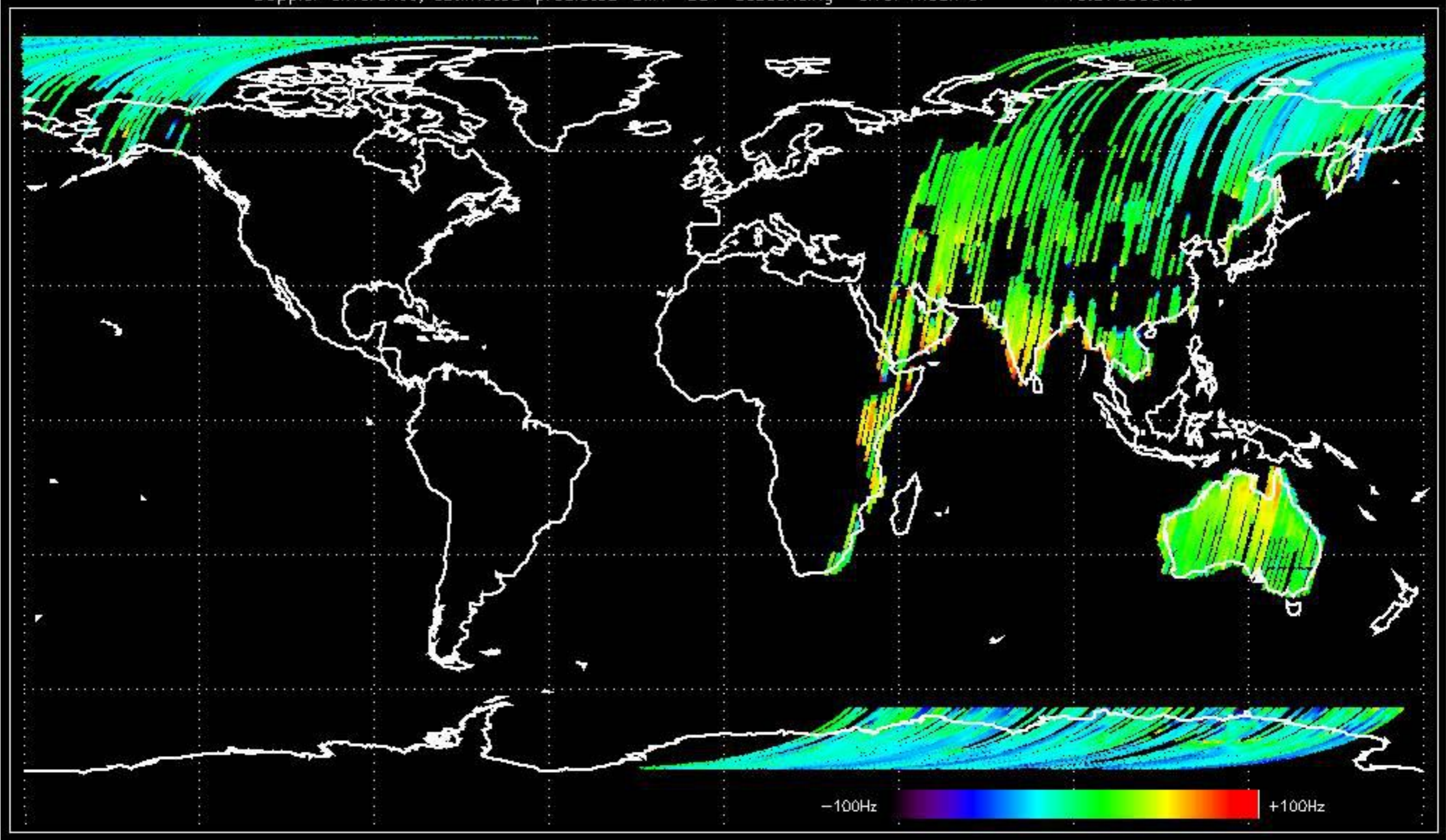




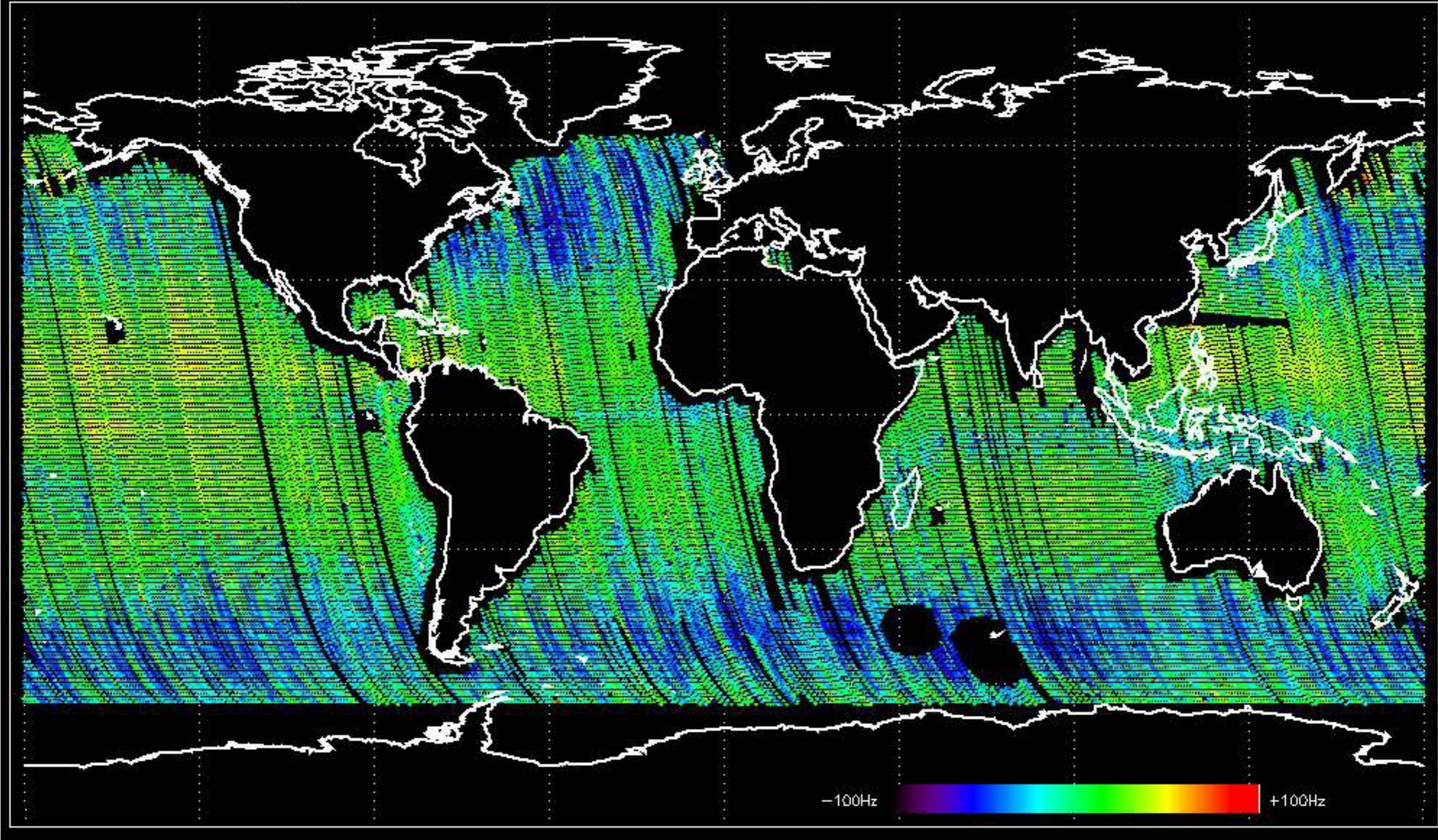
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -10.205913 Hz



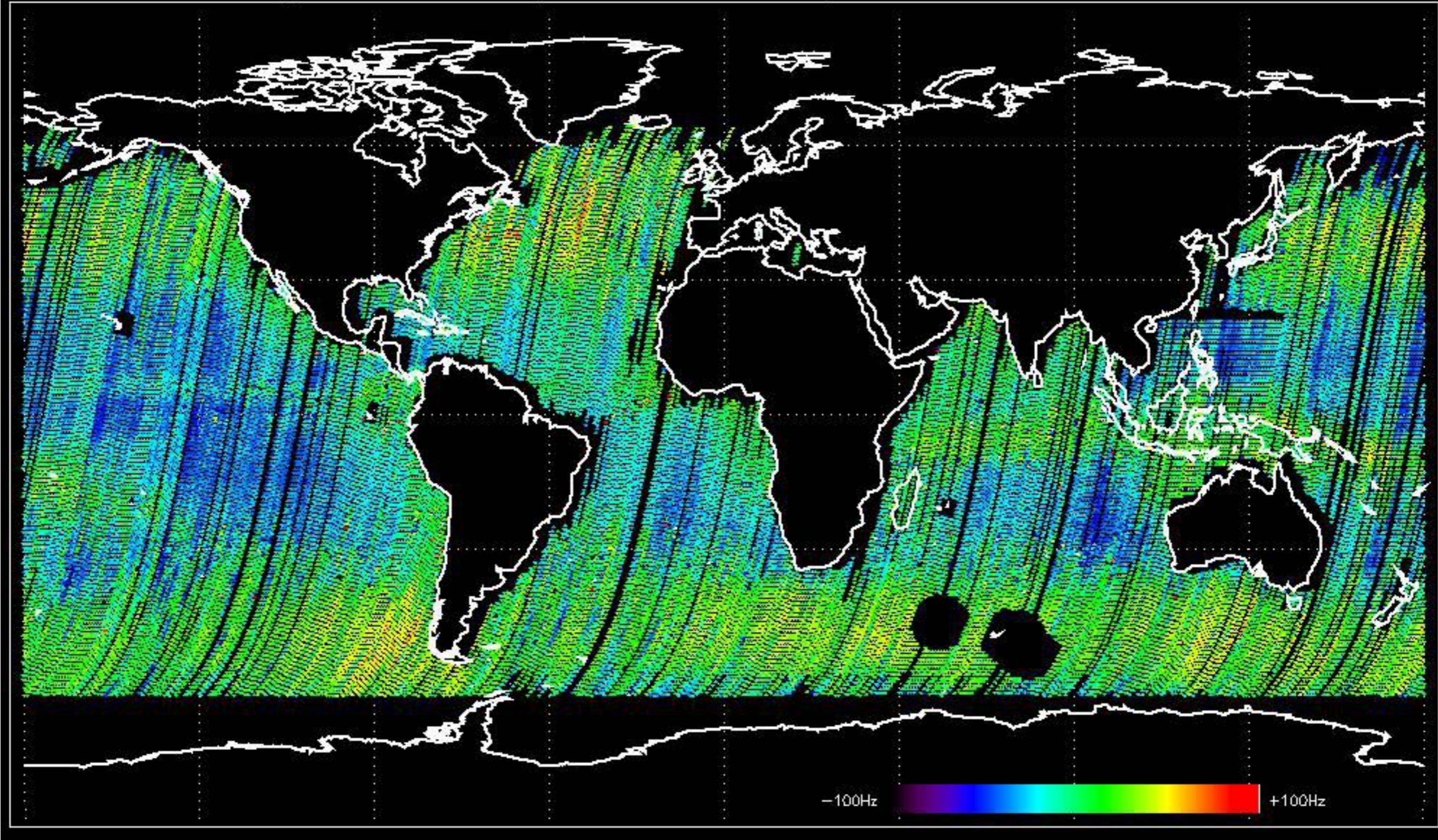
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.370999 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.2784521 Hz

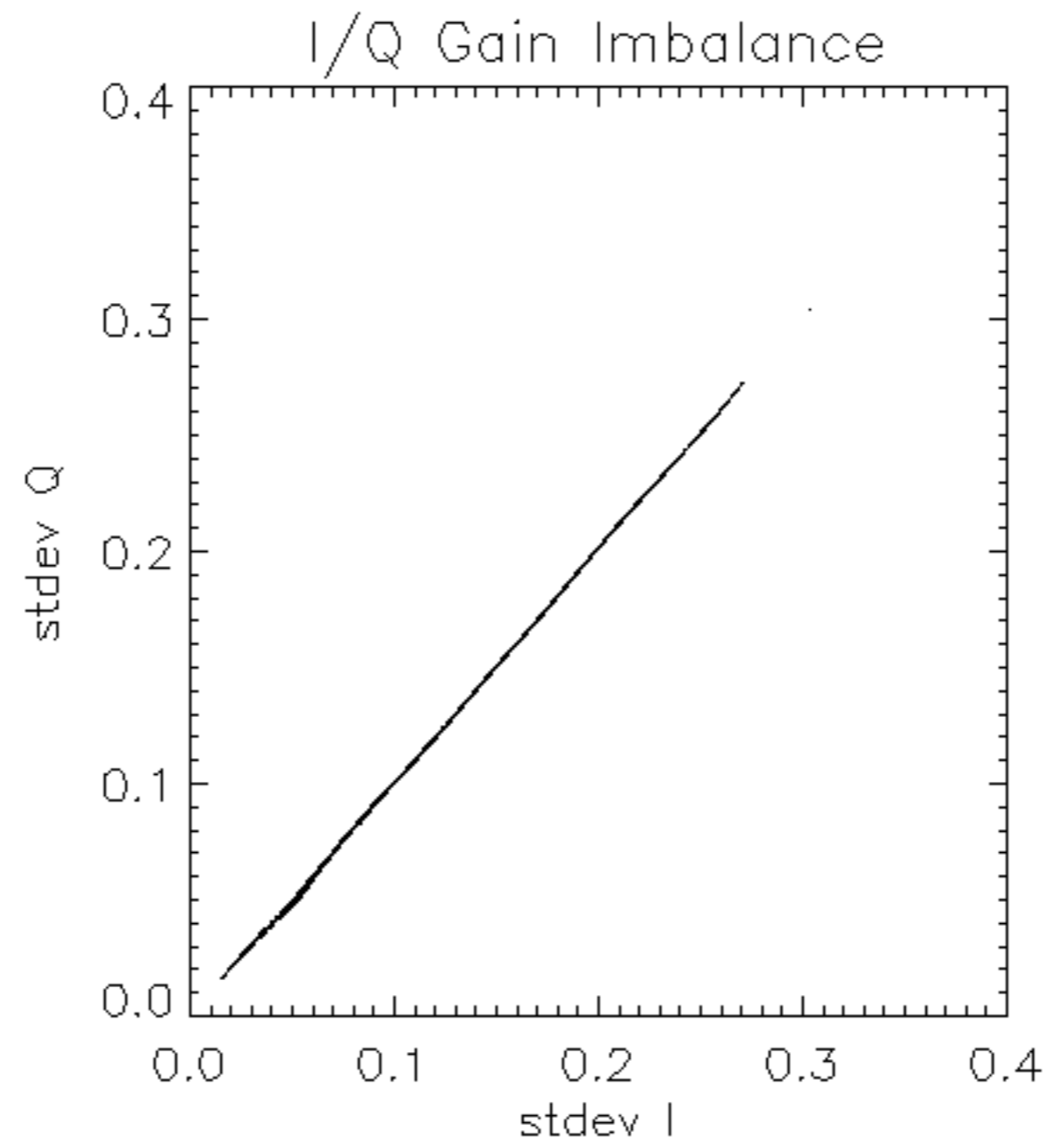


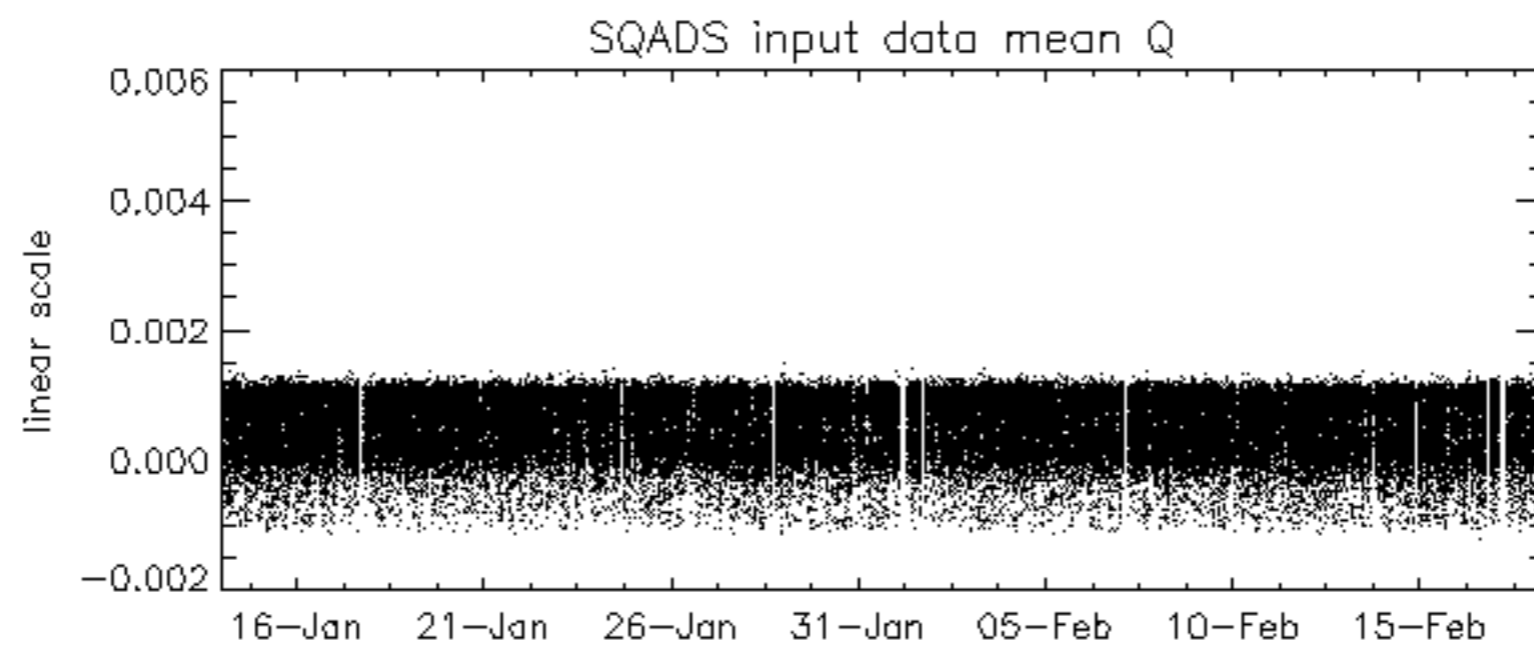
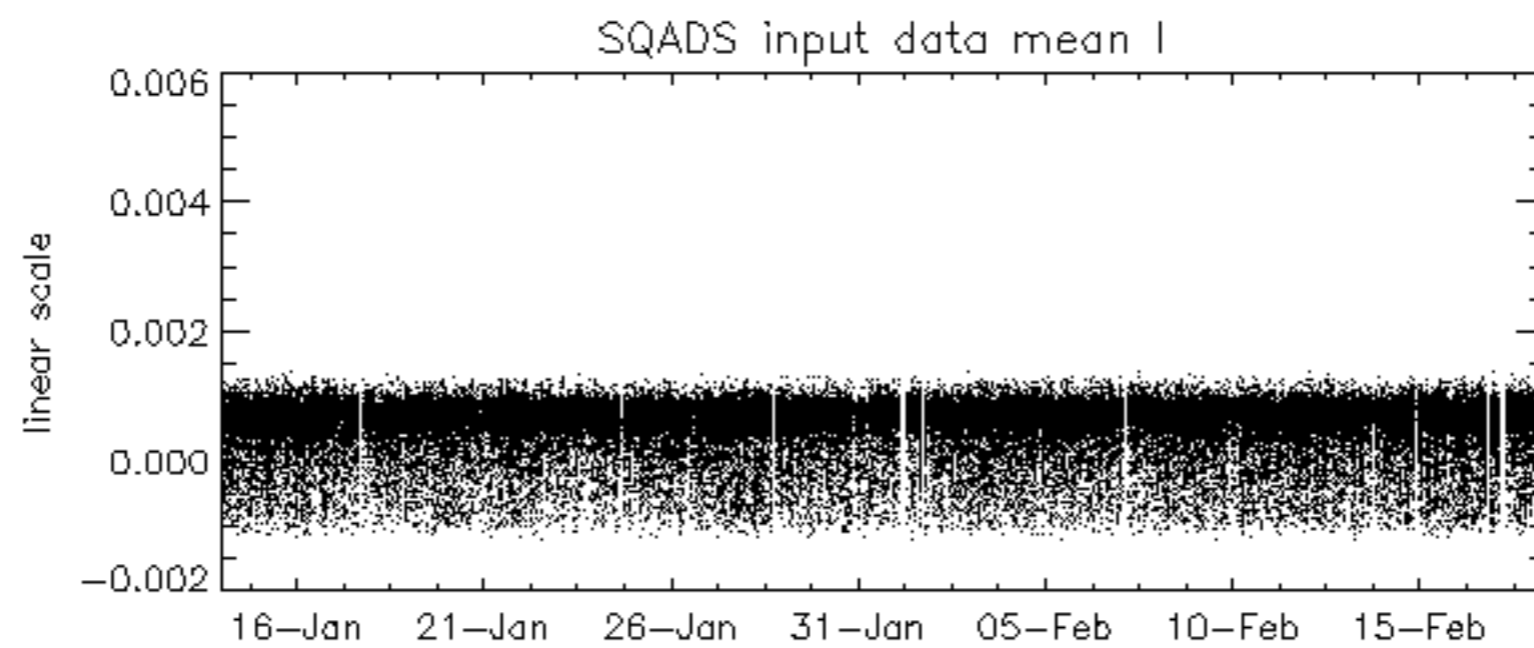
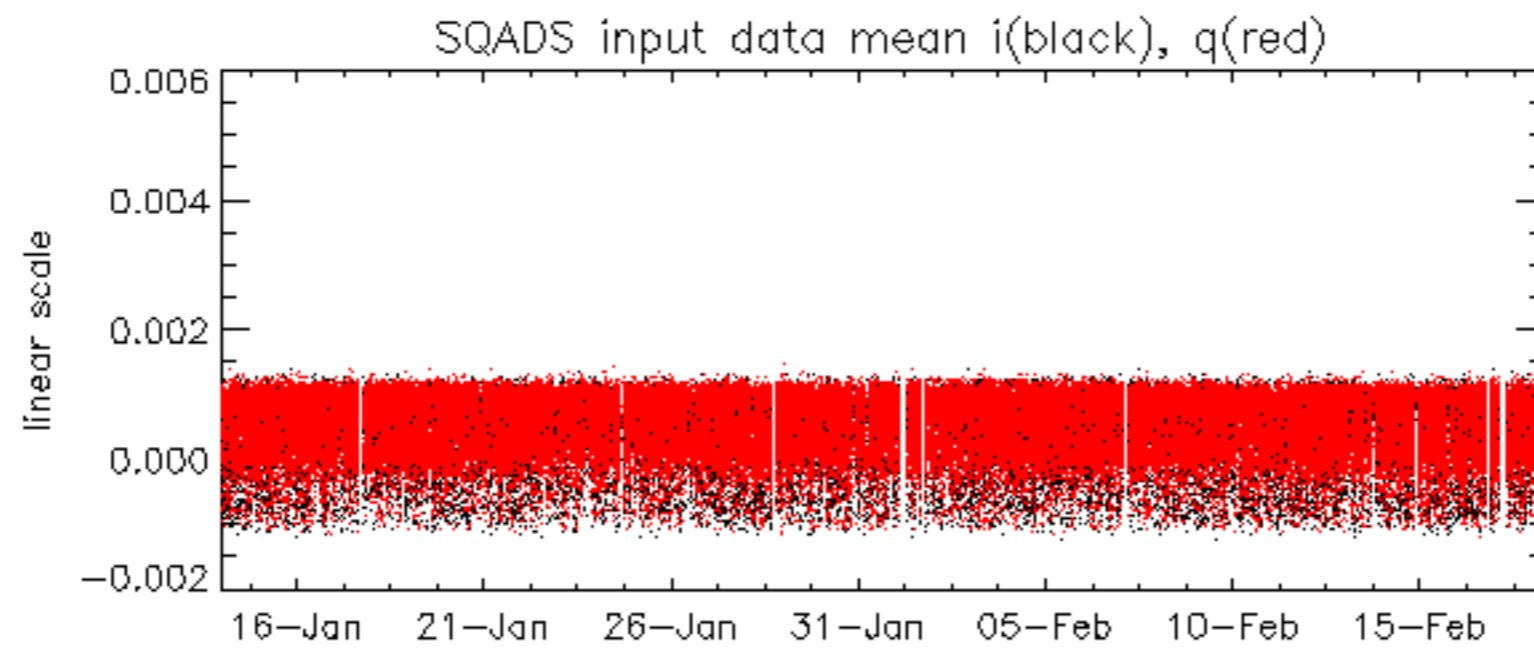
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.3493249 Hz

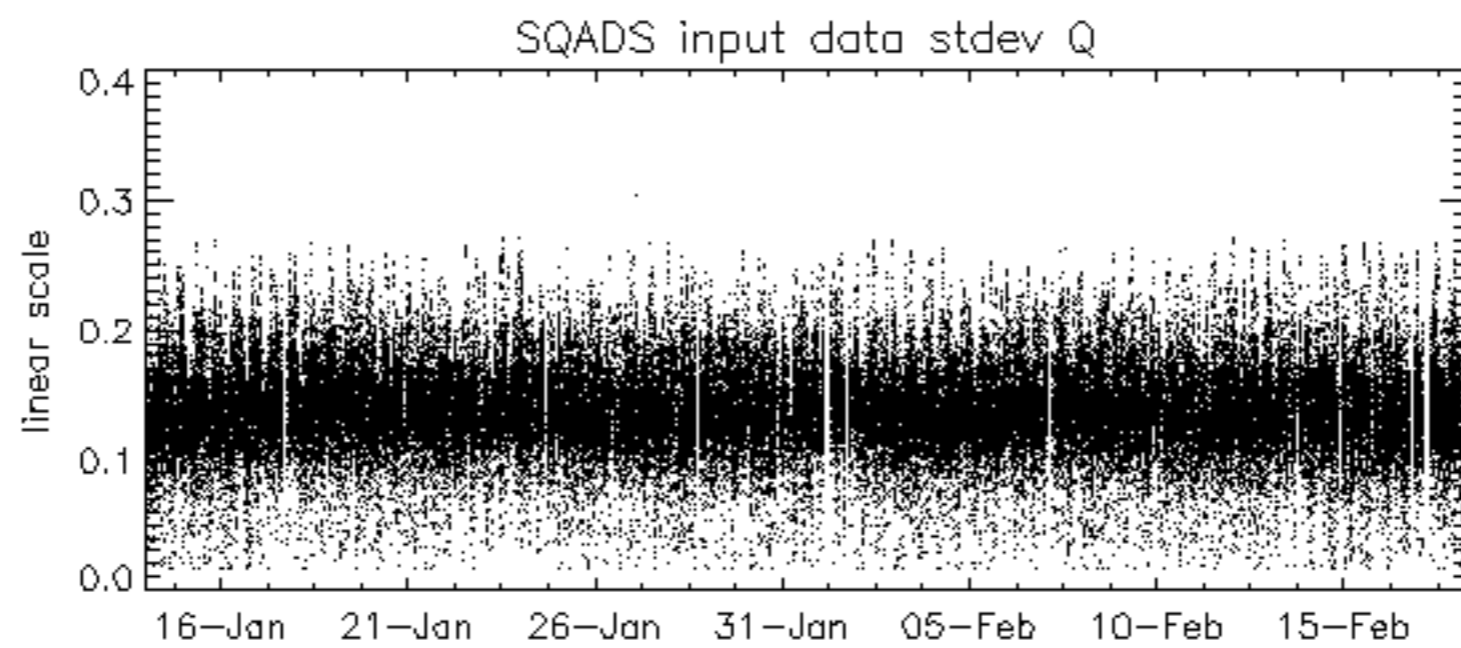
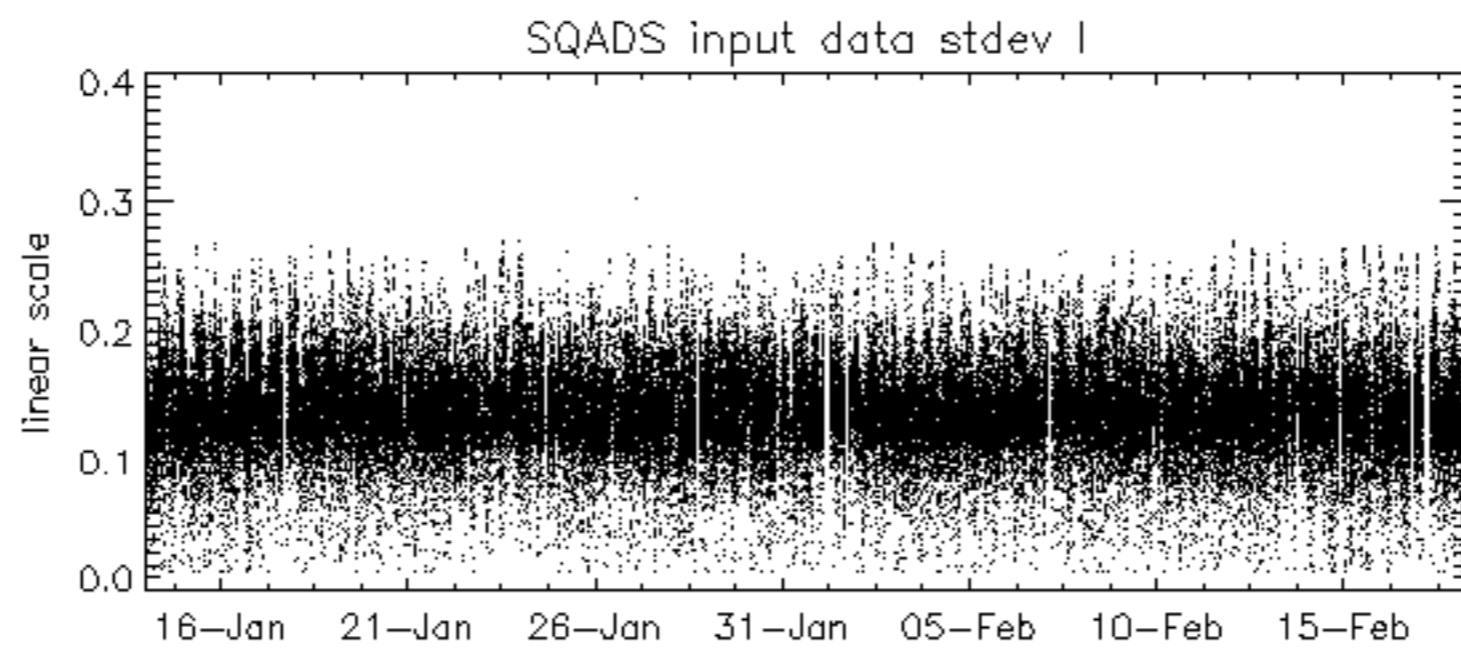
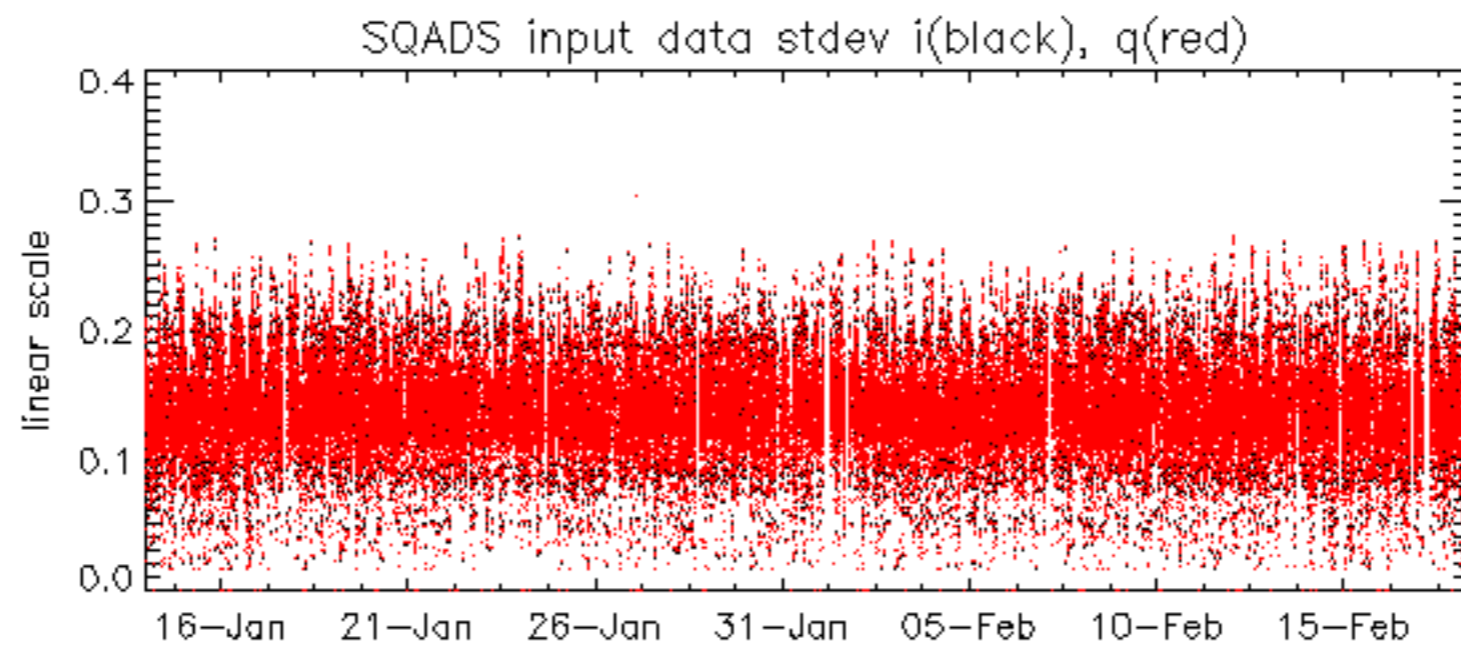


No anomalies observed on available MS products:

No anomalies observed.



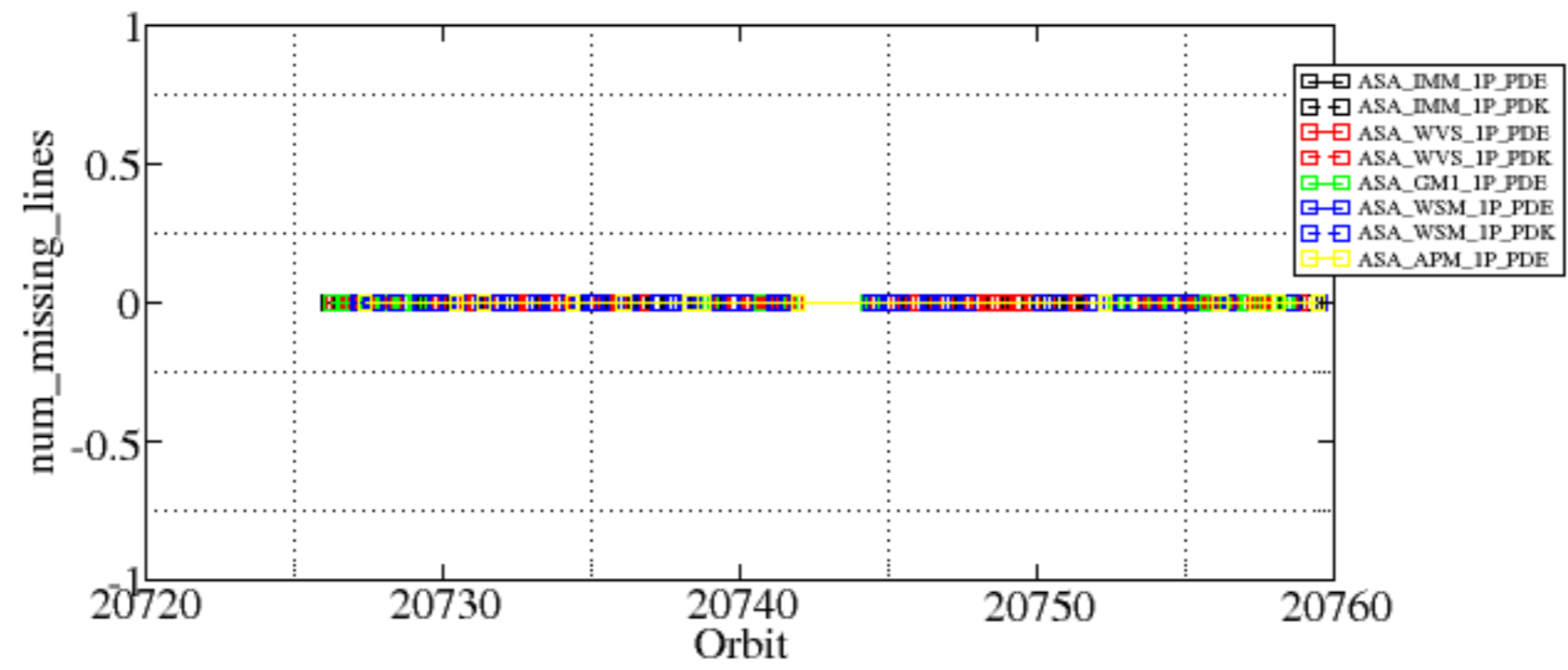


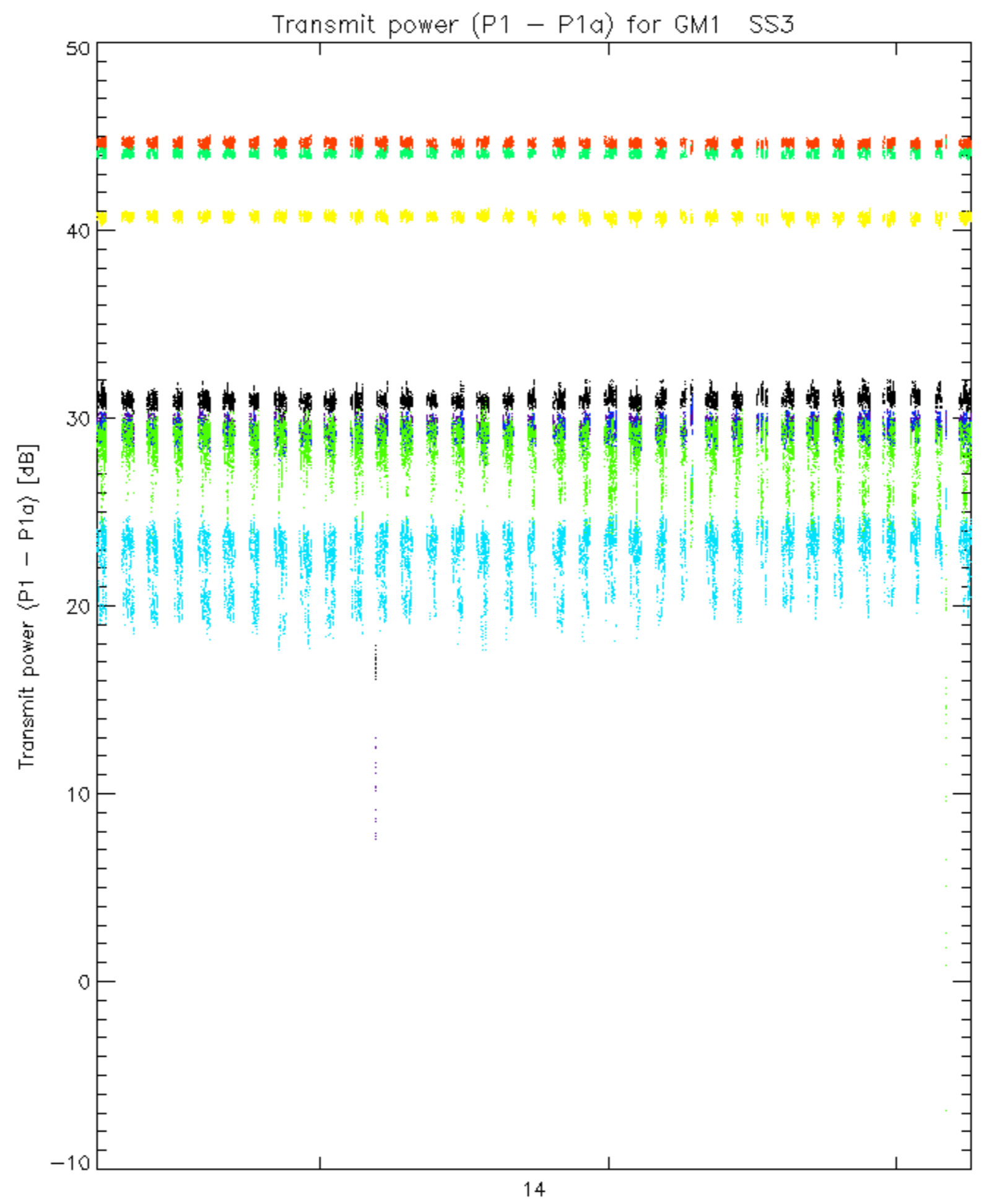


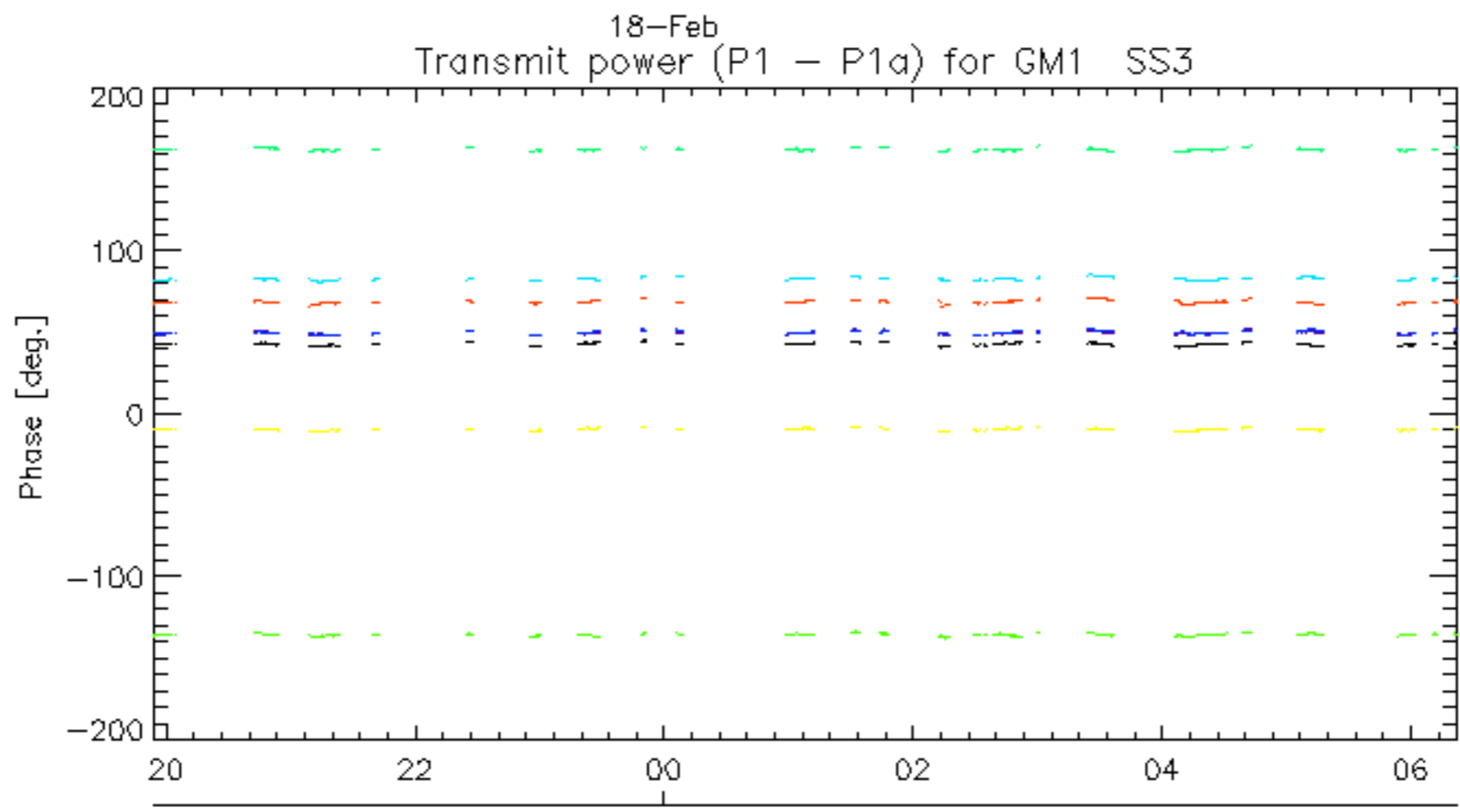
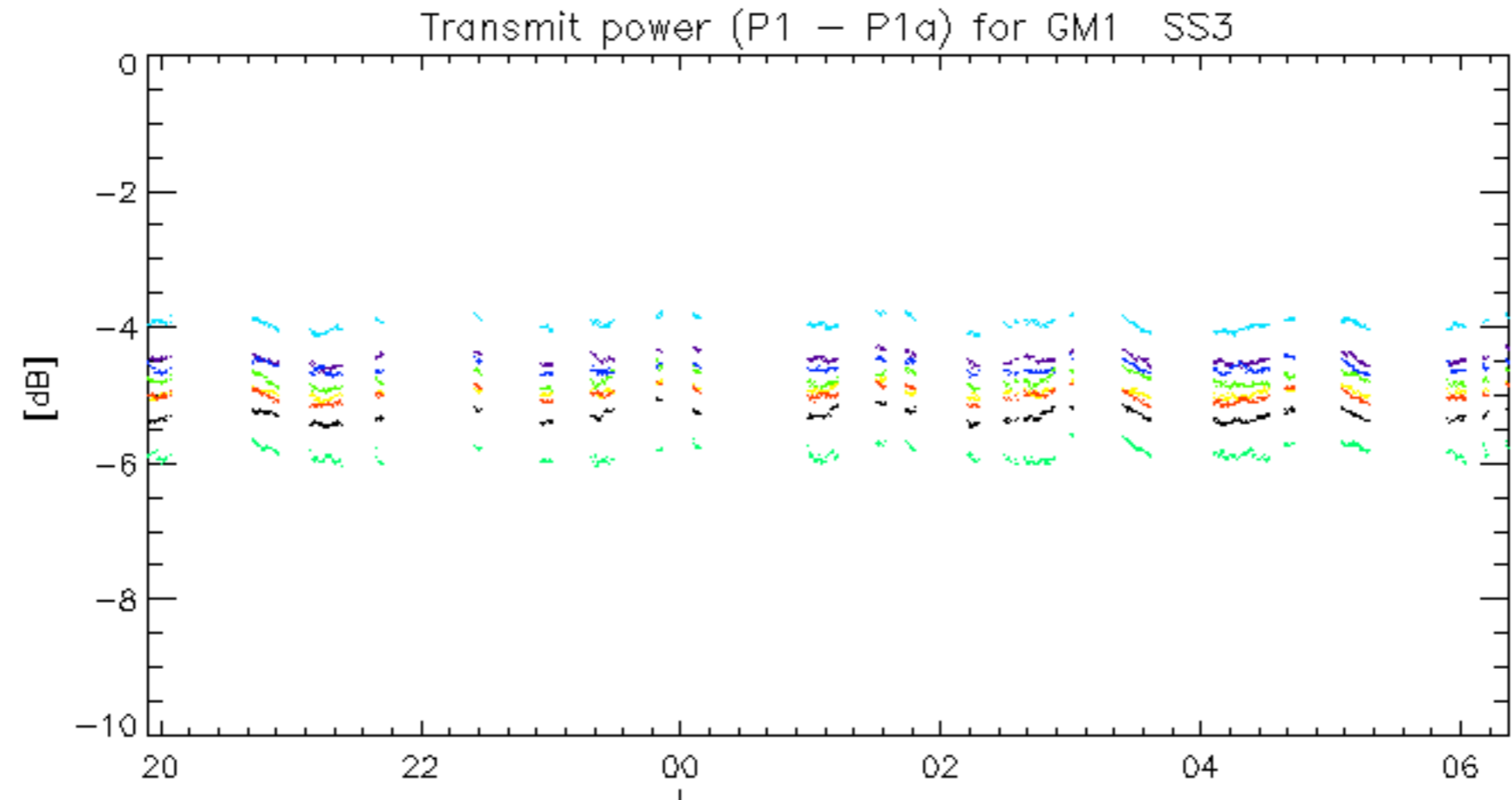
Summary of analysis for the last 3 days 2006021[678]

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

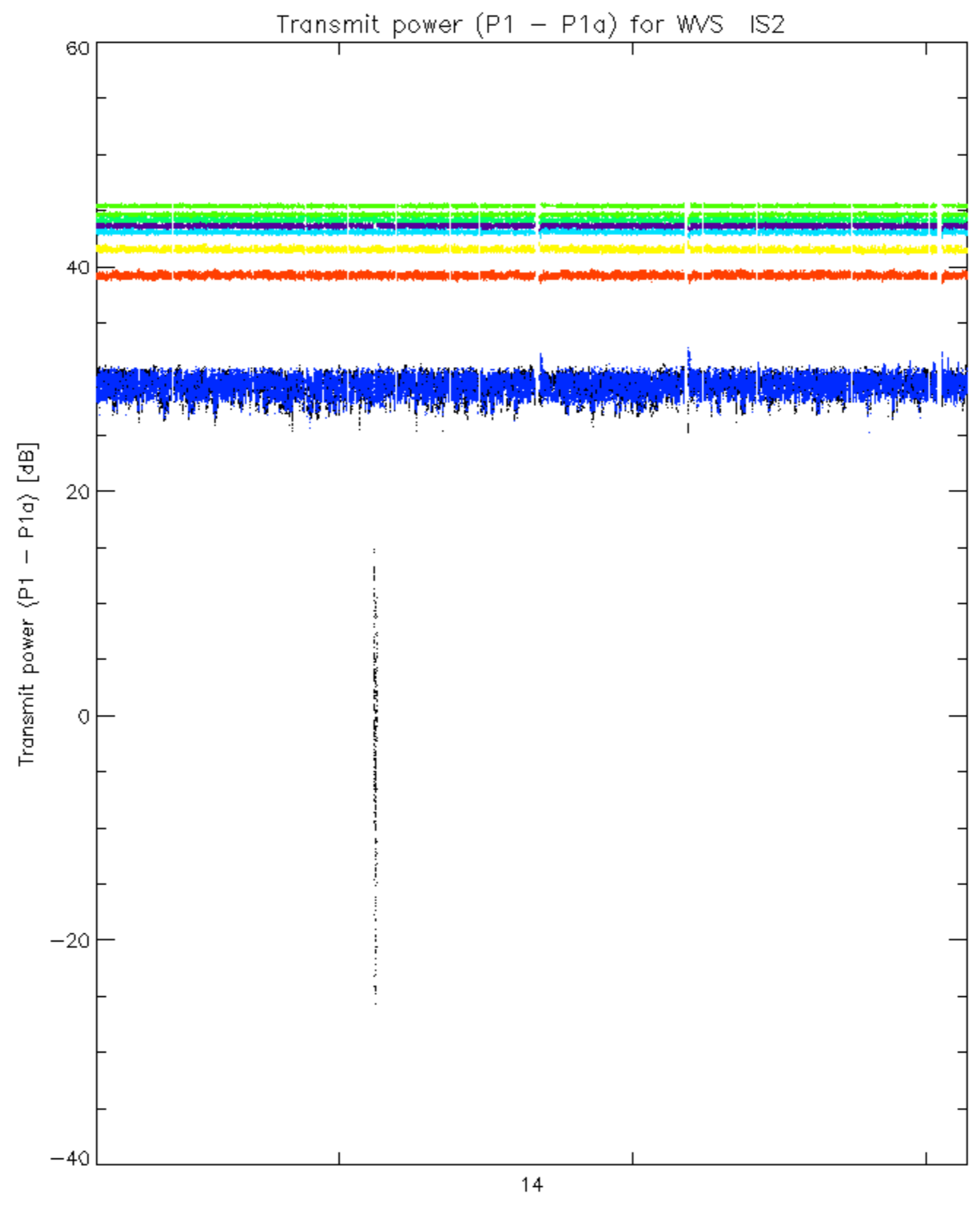
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060216_113801_00000992045_00137_20732_3352.N1	1	0



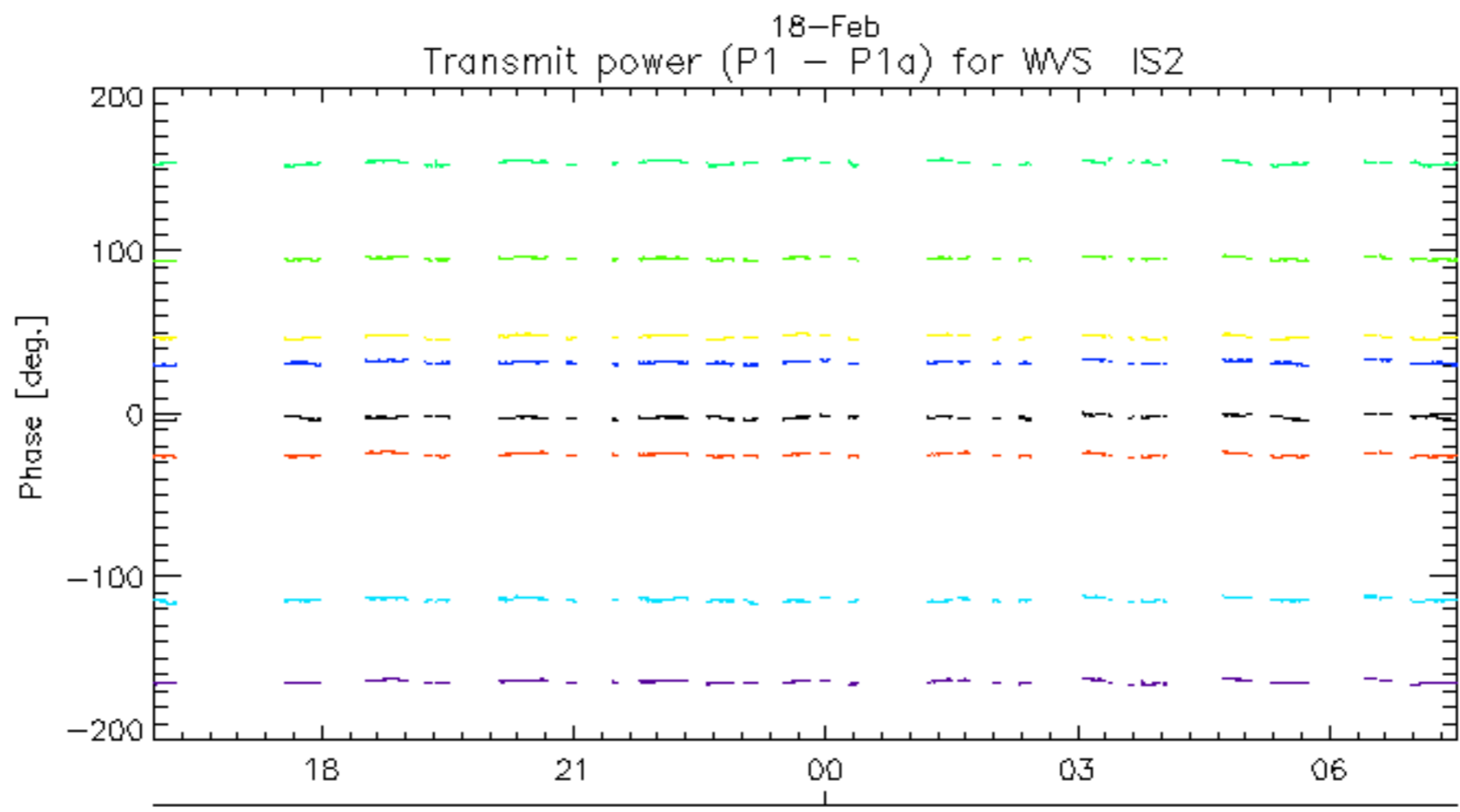
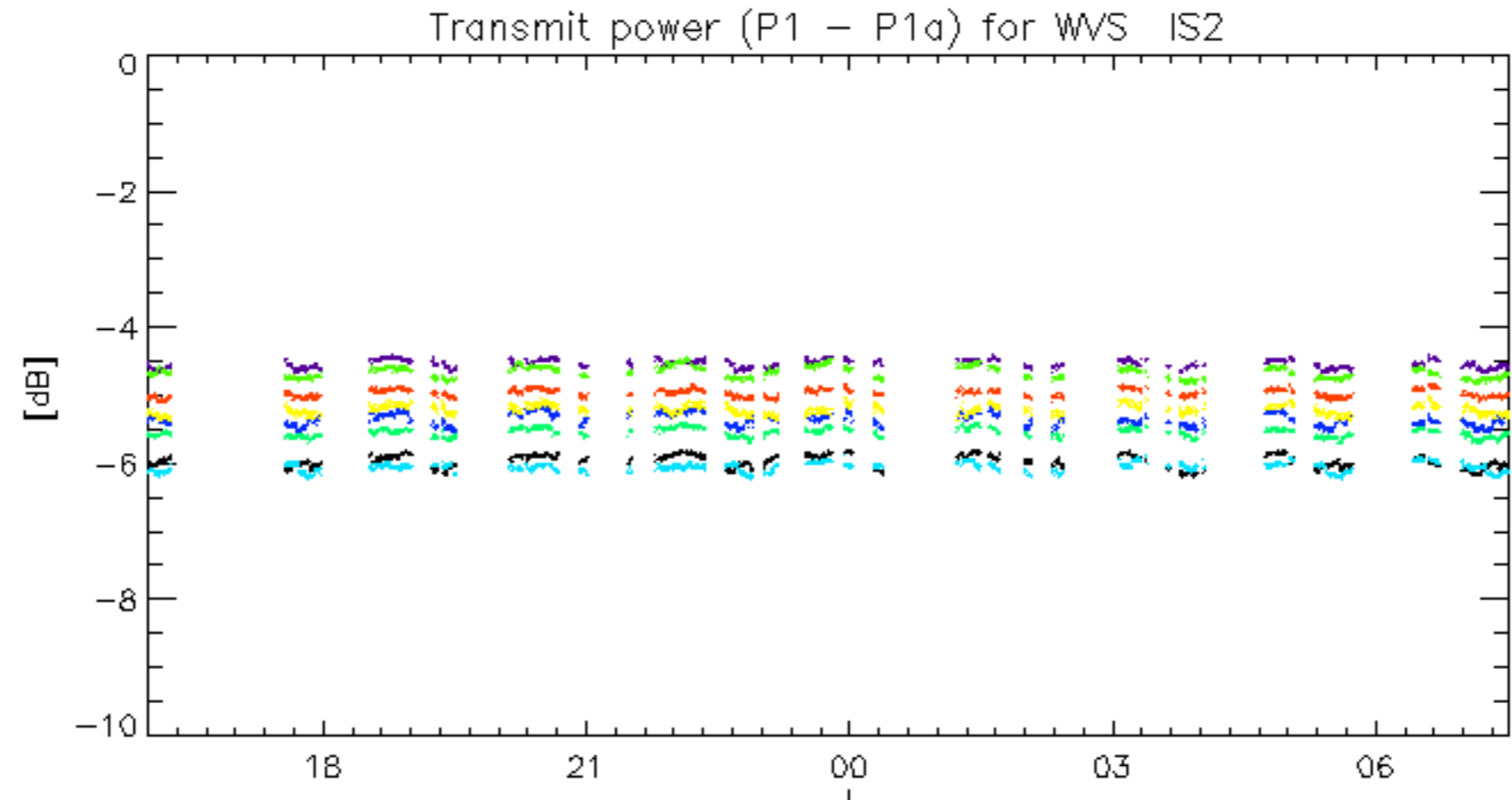




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.