

PRELIMINARY REPORT OF 060205

last update on Sun Feb 5 16:39:43 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 2006-02-04 00:00:00 to 2006-02-05 16:39:43

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	0	8	0	25
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	0	8	0	25
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	0	8	0	25
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	0	8	0	25

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	48	48	44	14	36
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	48	48	44	14	36
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	48	48	44	14	36
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	48	48	44	14	36

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	20060204 204858
H	20060203 143811

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	-4.021480	0.007867	0.052164
7	P1	-3.002159	0.013499	-0.018816
11	P1	-4.095076	0.022402	0.019284
15	P1	-6.060148	0.017419	0.007054
19	P1	-3.253278	0.006280	-0.017345
22	P1	-4.477591	0.019289	0.023173
26	P1	-4.202713	0.012982	0.040858
30	P1	-5.770865	0.010095	0.002193
3	P1	-16.917124	0.264838	0.119679
7	P1	-16.634466	0.126322	-0.123535
11	P1	-16.601522	0.298381	-0.025023
15	P1	-13.202729	0.112993	0.111207
19	P1	-13.888280	0.072681	-0.027981
22	P1	-15.841864	0.567312	0.218694
26	P1	-15.764876	0.248647	0.051653
30	P1	-16.591131	0.321735	-0.000153

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.578035	0.093380	0.136236
7	P2	-22.450684	0.096963	0.101431
11	P2	-16.284786	0.103095	0.093226
15	P2	-7.203269	0.103941	0.047952
19	P2	-9.165845	0.098046	0.025373
22	P2	-17.941040	0.094164	-0.020672
26	P2	-16.216143	0.101592	0.006116
30	P2	-19.645529	0.084351	0.025860

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.206950	0.007316	0.023467
7	P3	-8.206950	0.007316	0.023467
11	P3	-8.206950	0.007316	0.023467
15	P3	-8.206950	0.007316	0.023467
19	P3	-8.206950	0.007316	0.023467
22	P3	-8.206950	0.007316	0.023467
26	P3	-8.206950	0.007316	0.023467
30	P3	-8.206950	0.007316	0.023467

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	-3.727753	0.011021	-0.035370
7	P1	-2.745177	0.007624	0.015316
11	P1	-2.871673	0.011817	-0.056370
15	P1	-3.477176	0.019513	-0.082682
19	P1	-3.378400	0.012332	-0.028131
22	P1	-5.130814	0.021536	-0.075191
26	P1	-5.851433	0.016306	-0.000422
30	P1	-5.238794	0.028473	0.024365
3	P1	-11.530631	0.039166	-0.040094
7	P1	-9.918820	0.048233	-0.024326
11	P1	-10.099764	0.050562	-0.145761
15	P1	-10.640884	0.091052	-0.104069
19	P1	-15.465471	0.060709	0.018008
22	P1	-20.522427	1.252008	0.385799
26	P1	-16.717466	0.342716	0.417553
30	P1	-18.183779	0.327628	-0.146197

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.373972	0.034254	0.183715
7	P2	-22.810898	0.065530	0.190445
11	P2	-11.401802	0.021736	0.113259
15	P2	-4.900208	0.026755	0.048713
19	P2	-6.906185	0.023123	0.023733
22	P2	-8.187986	0.023609	-0.007650
26	P2	-23.959324	0.025106	0.005909
30	P2	-22.089464	0.018851	-0.001037

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.045563	0.002522	0.028764
7	P3	-8.045403	0.002523	0.028062
11	P3	-8.045449	0.002521	0.029021
15	P3	-8.045545	0.002535	0.028657
19	P3	-8.045567	0.002524	0.028916
22	P3	-8.045507	0.002518	0.028381
26	P3	-8.045513	0.002518	0.028097
30	P3	-8.045526	0.002533	0.028794

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	0.000566174
	stdev	1.64306e-07
MEAN Q	mean	0.000526889
	stdev	2.10970e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139880
	stdev	0.00116108
STDEV Q	mean	0.140241
	stdev	0.00118059



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006020[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_1PNPDE20060205_022547_000000362044_00476_20570_2062.N1	1	0
ASA_IMM_1PNPDK20060203_083342_000000502044_00451_20545_0626.N1	0	2
ASA_WSM_1PNPDE20060203_151324_000001292044_00455_20549_3596.N1	0	60
ASA_WSM_1PNPDE20060203_183519_000002252044_00457_20551_3602.N1	0	76
ASA_WSM_1PNPDE20060204_033233_000002132044_00462_20556_3632.N1	0	1
ASA_WSM_1PNPDE20060204_162501_000002452044_00470_20564_3708.N1	0	20





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)

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

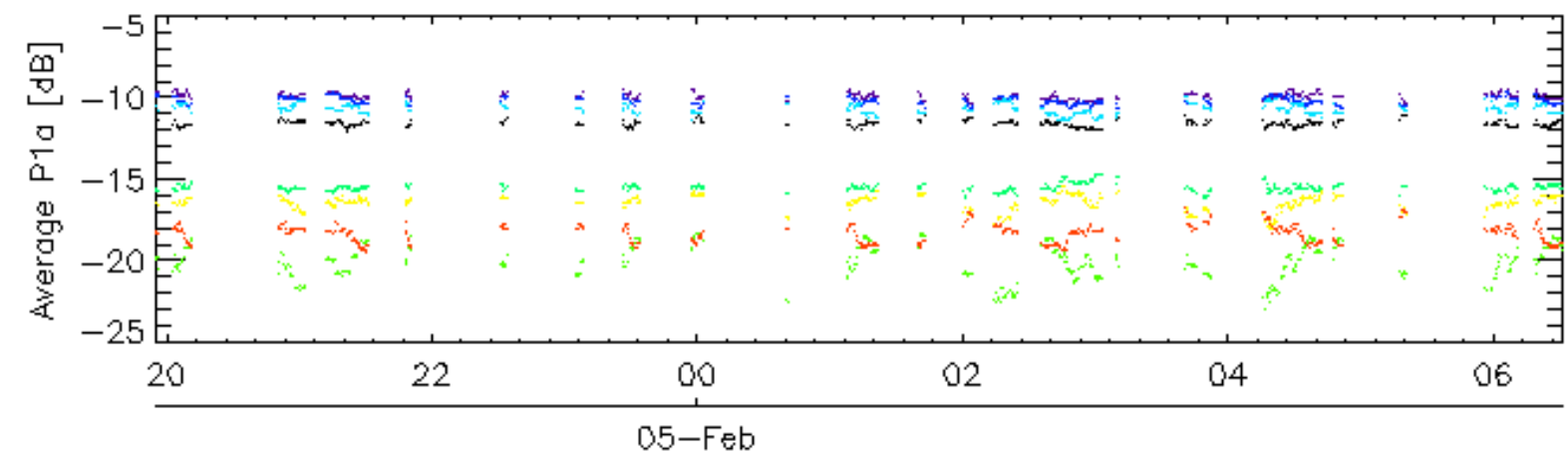
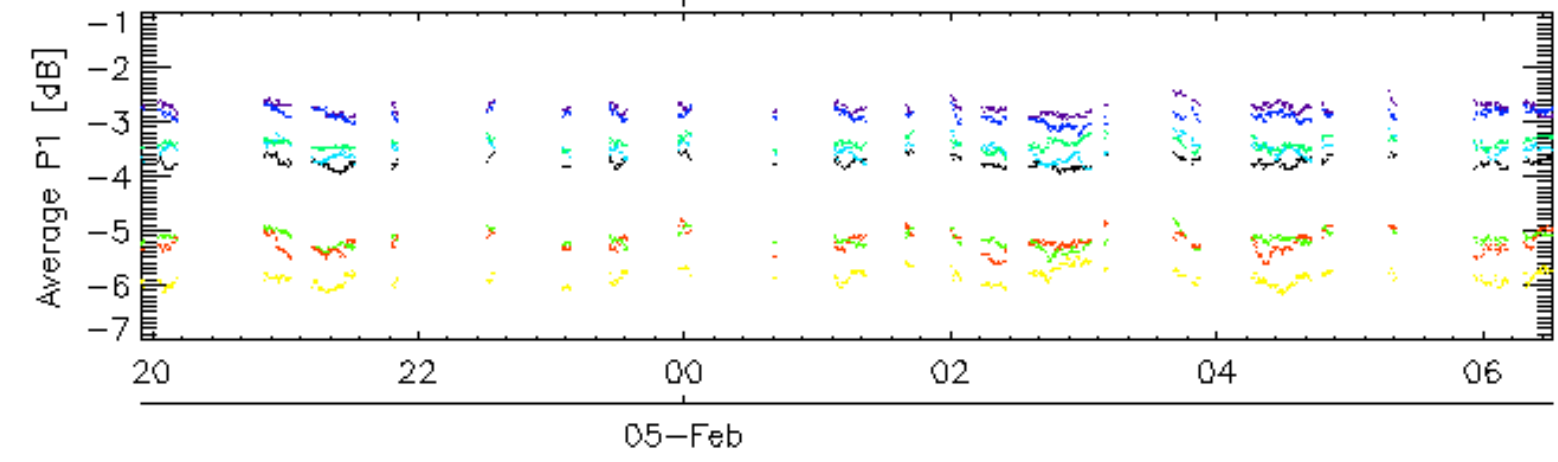
7.5 - Absolute Doppler for GM1

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

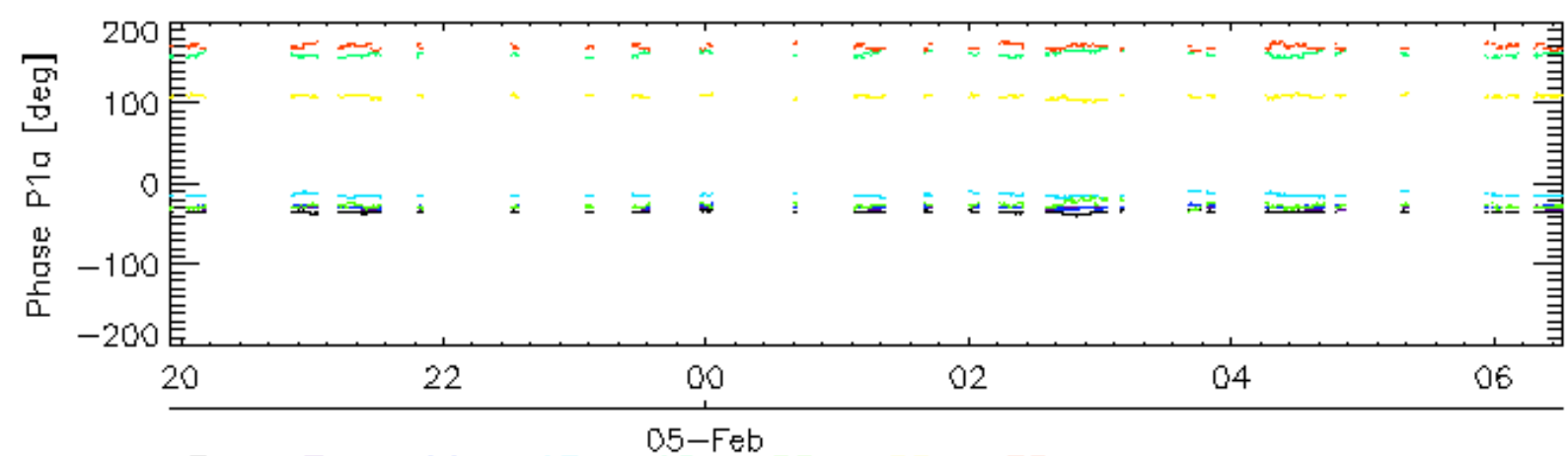
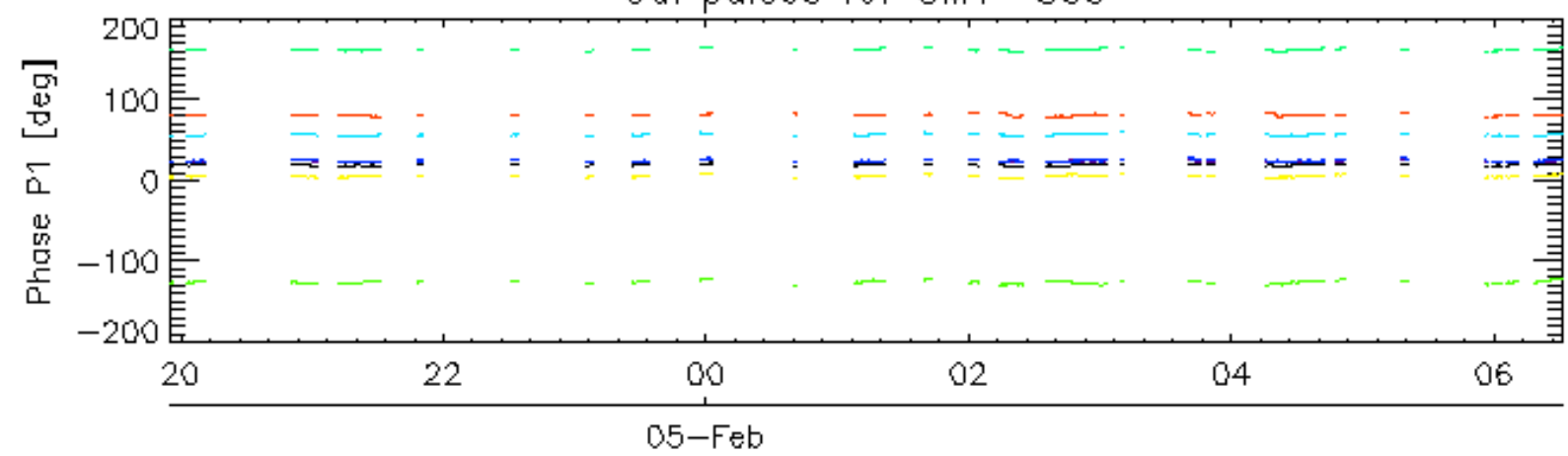
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

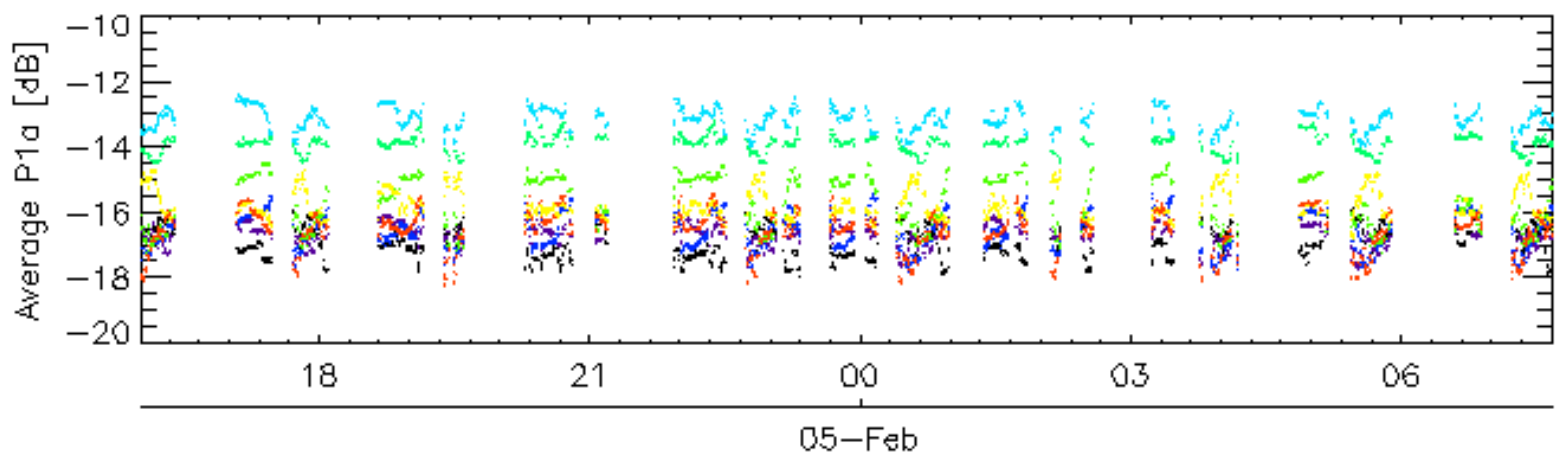
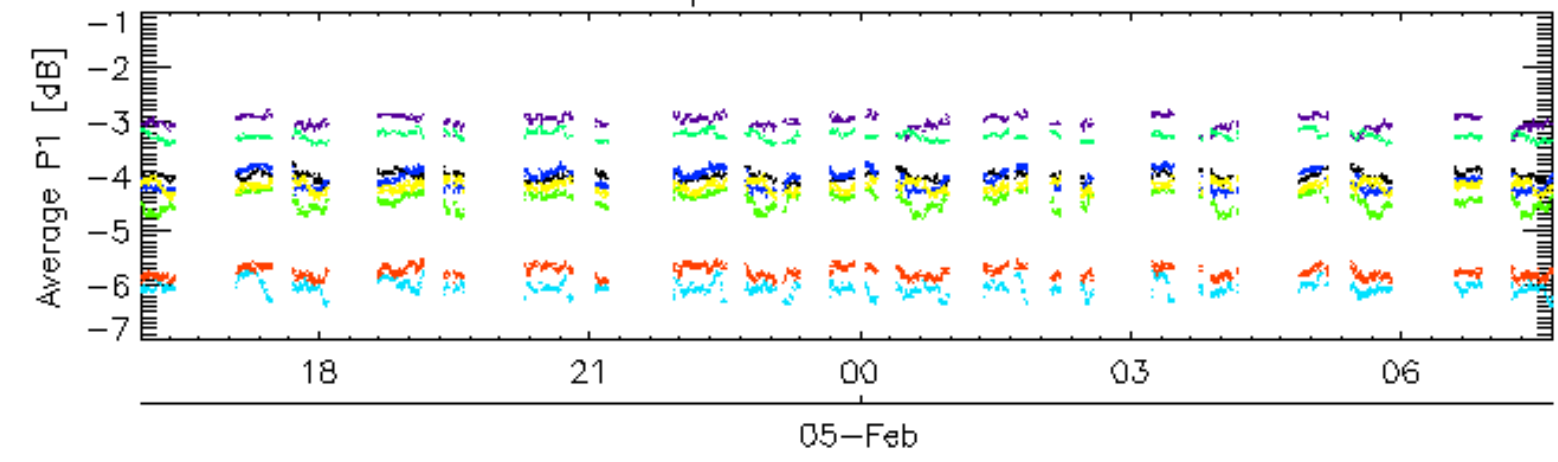


Cal pulses for GM1 SS3

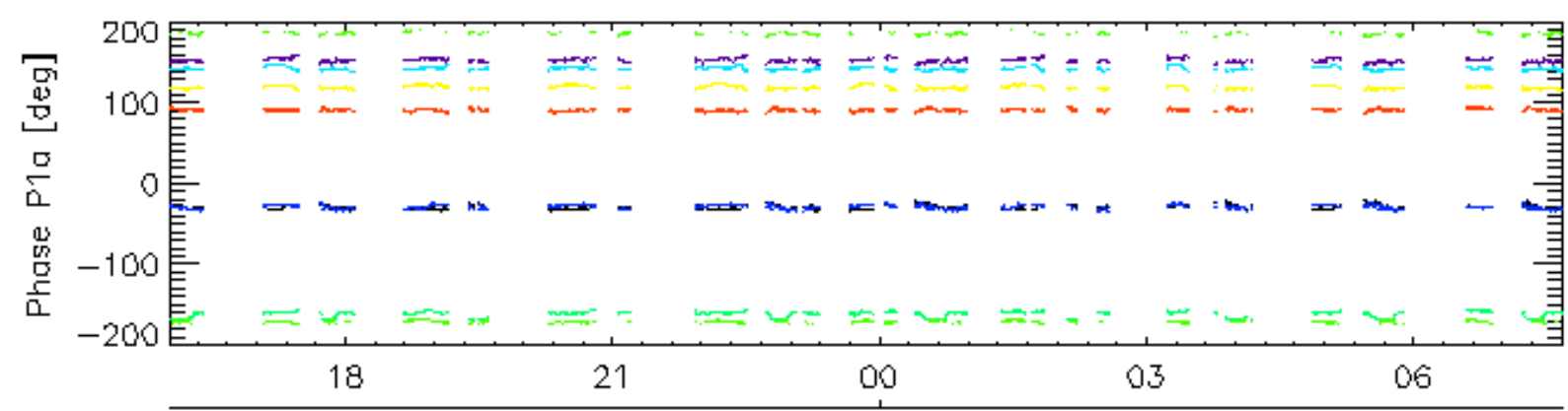
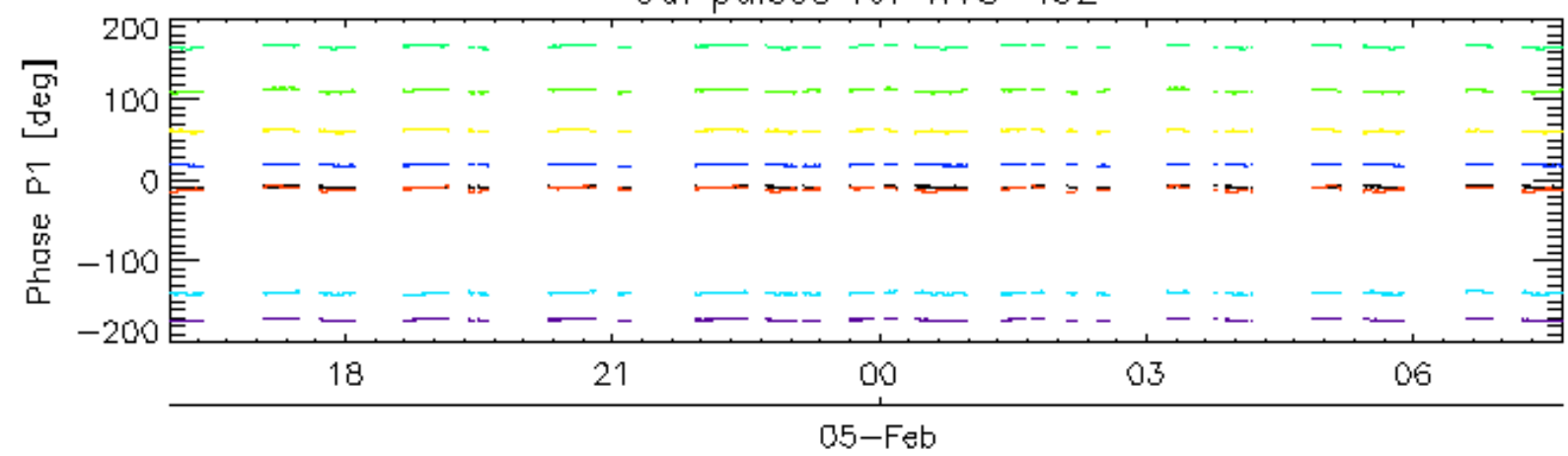


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

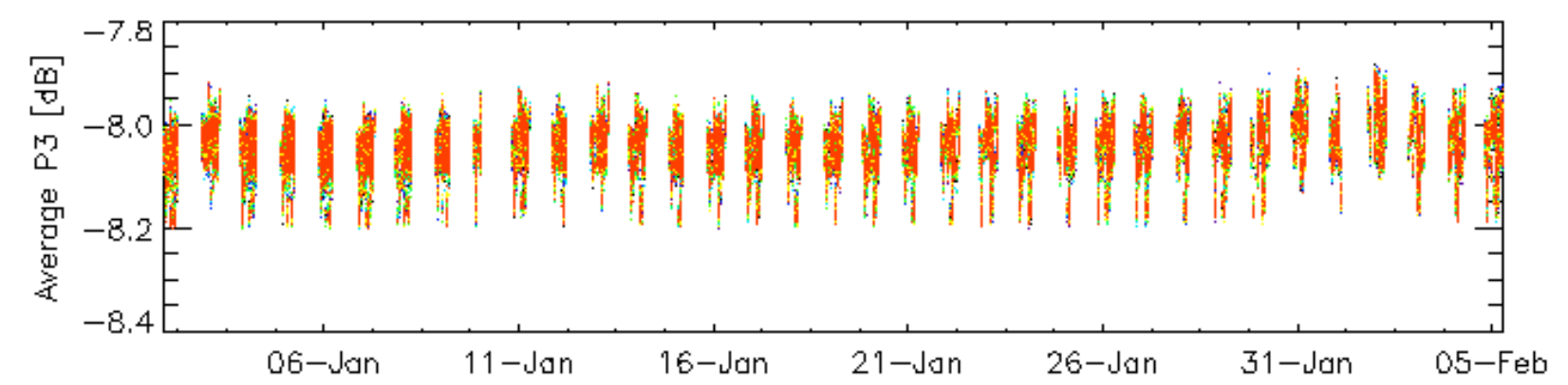
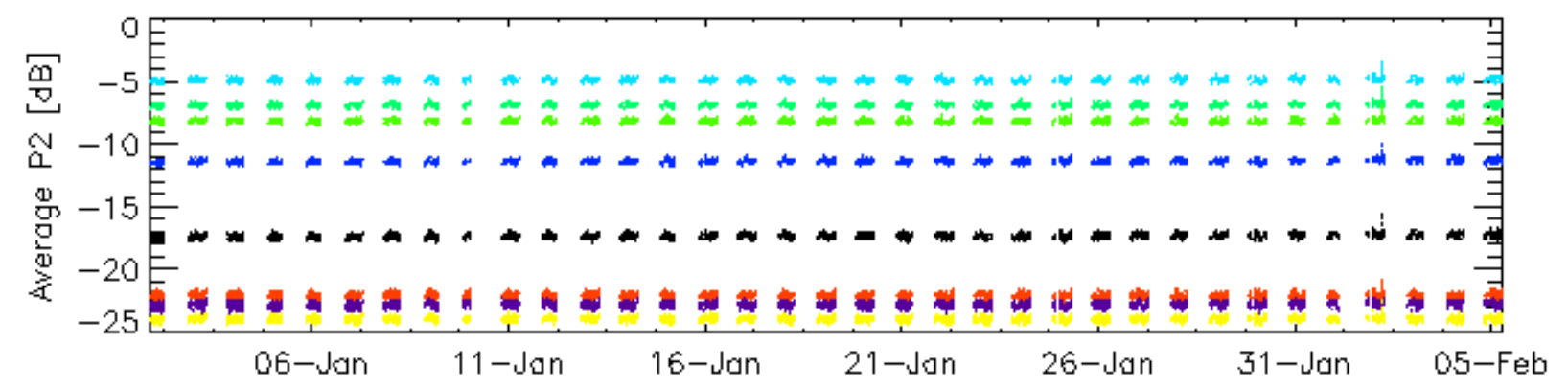
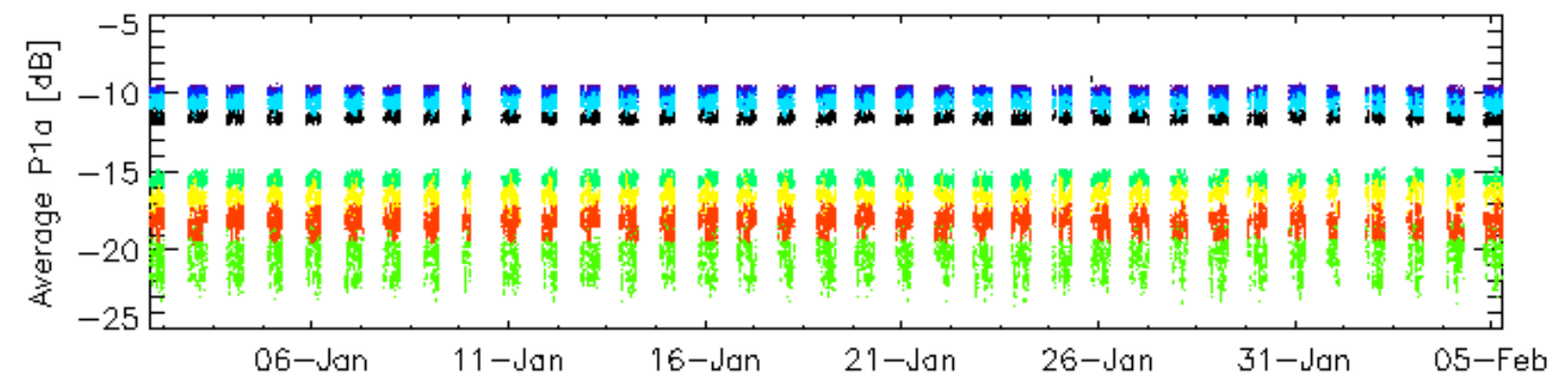
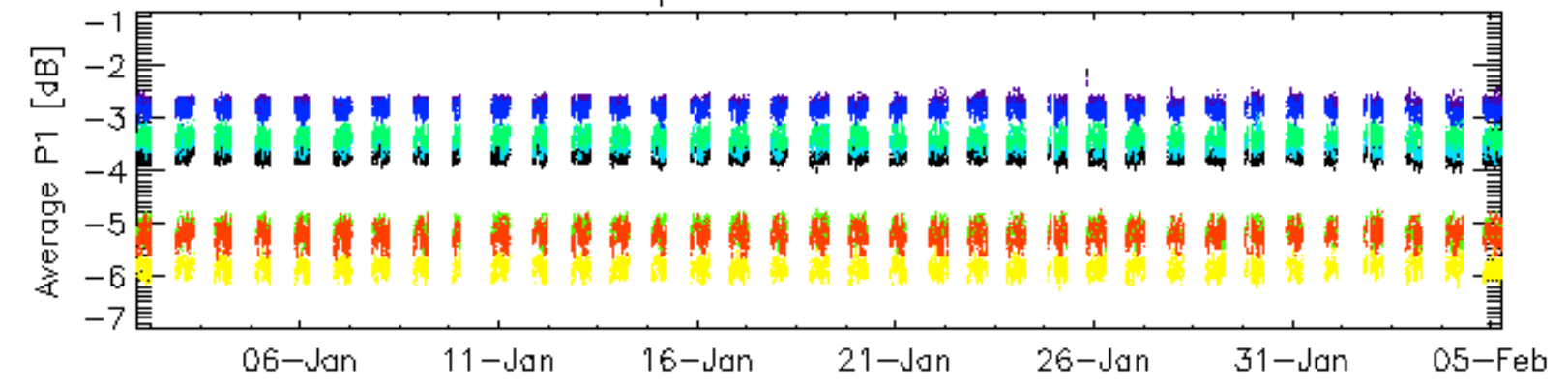


Cal pulses for WVS IS2



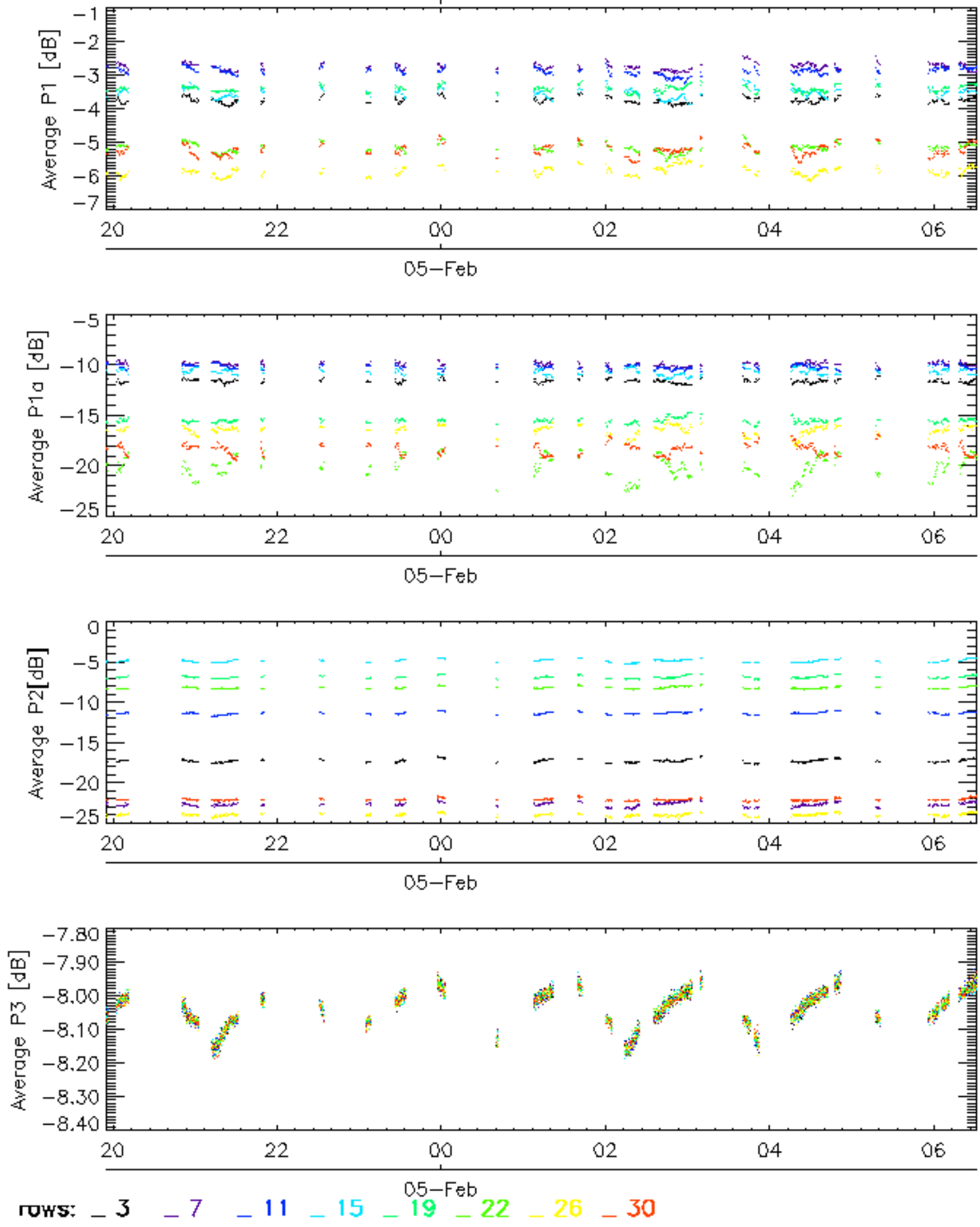
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

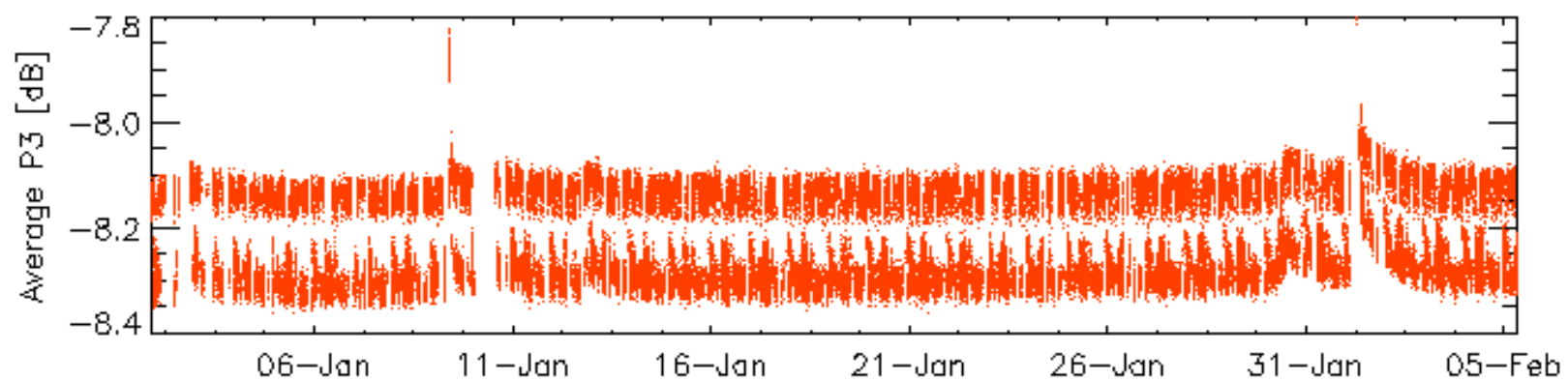
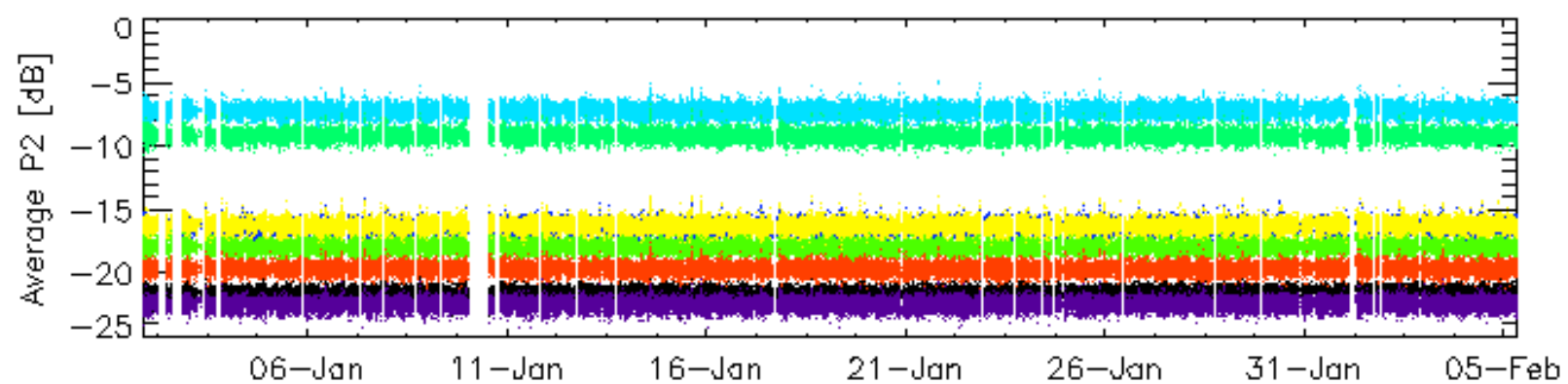
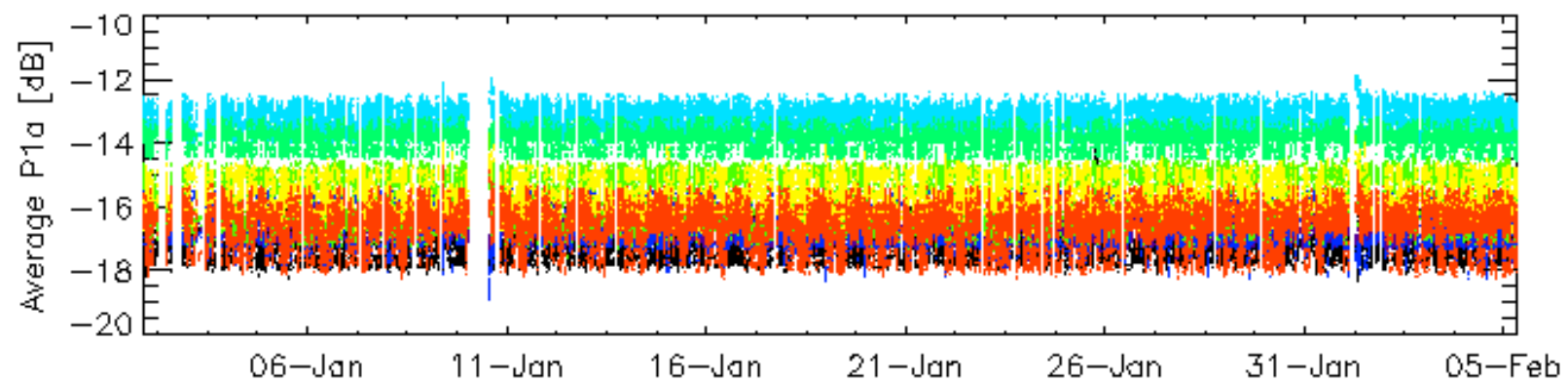
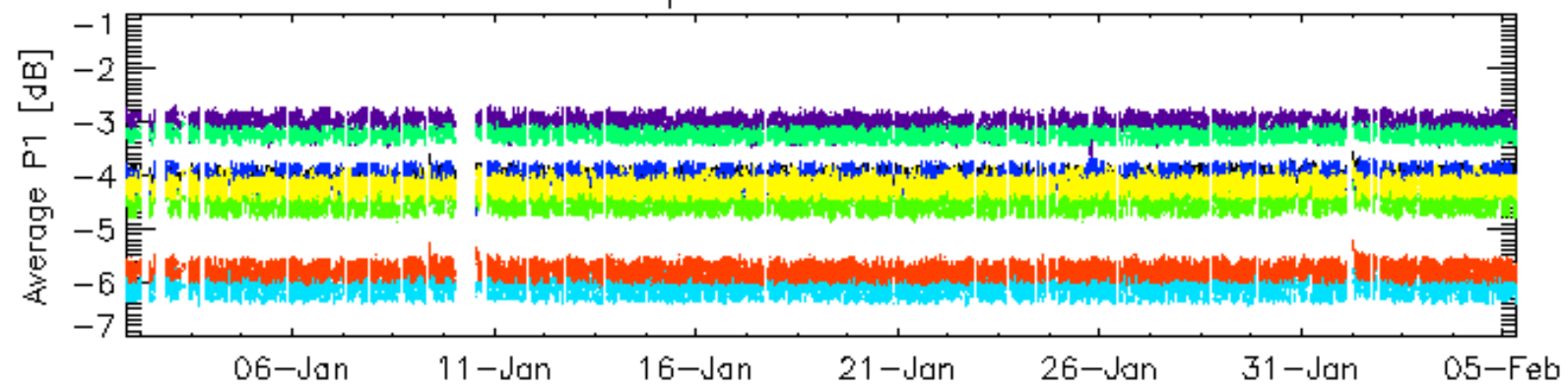


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

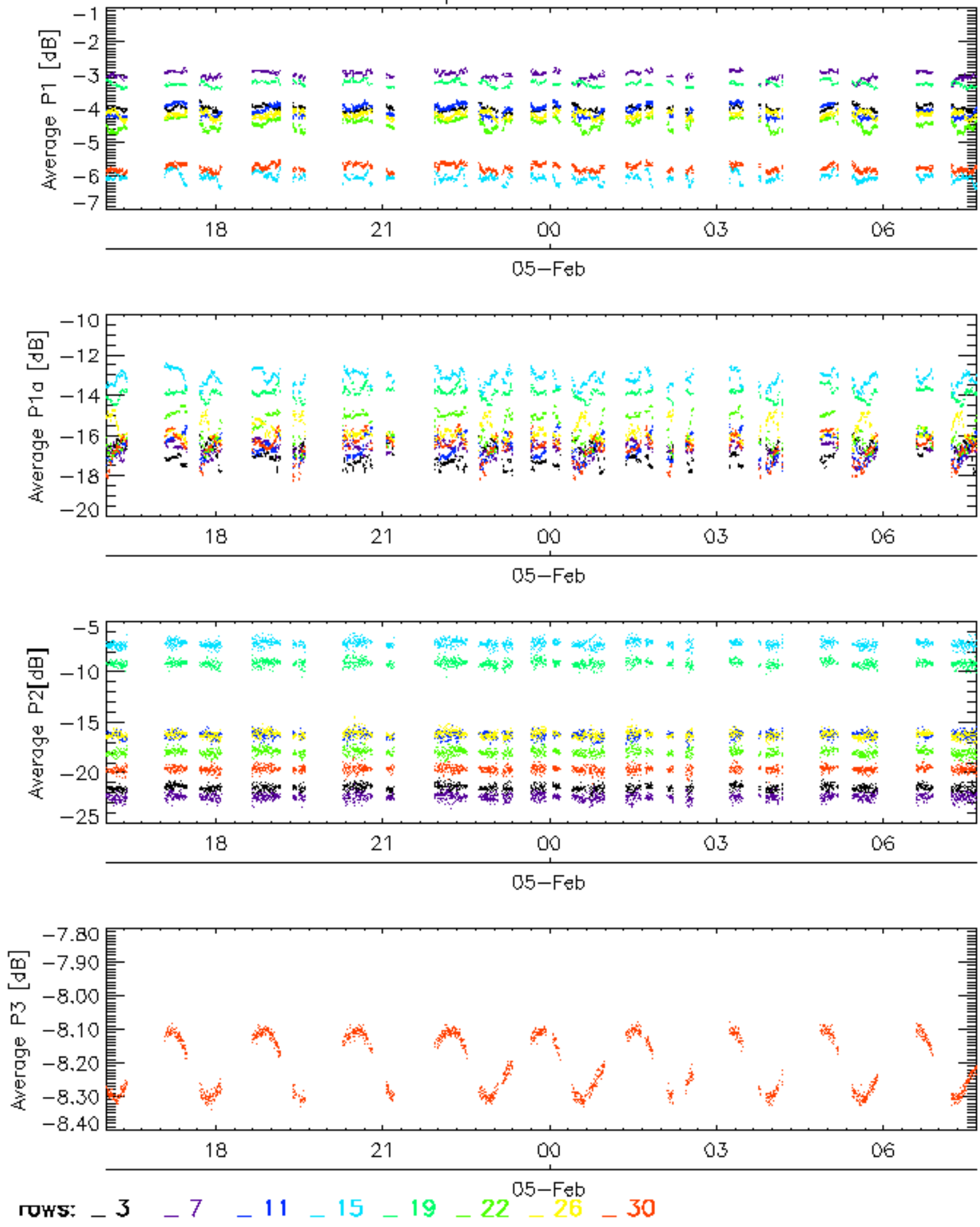


Cal pulses for WVS IS2

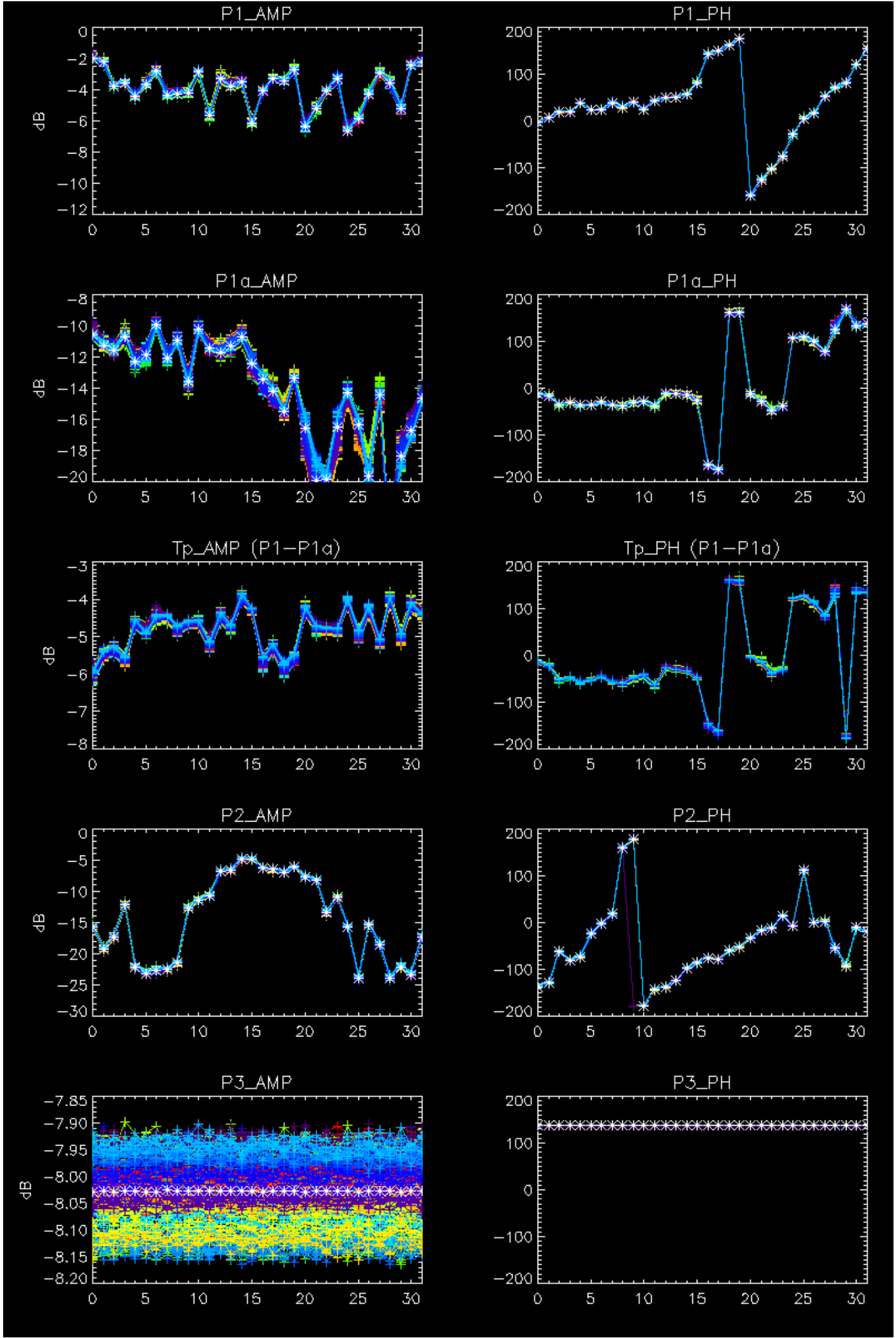


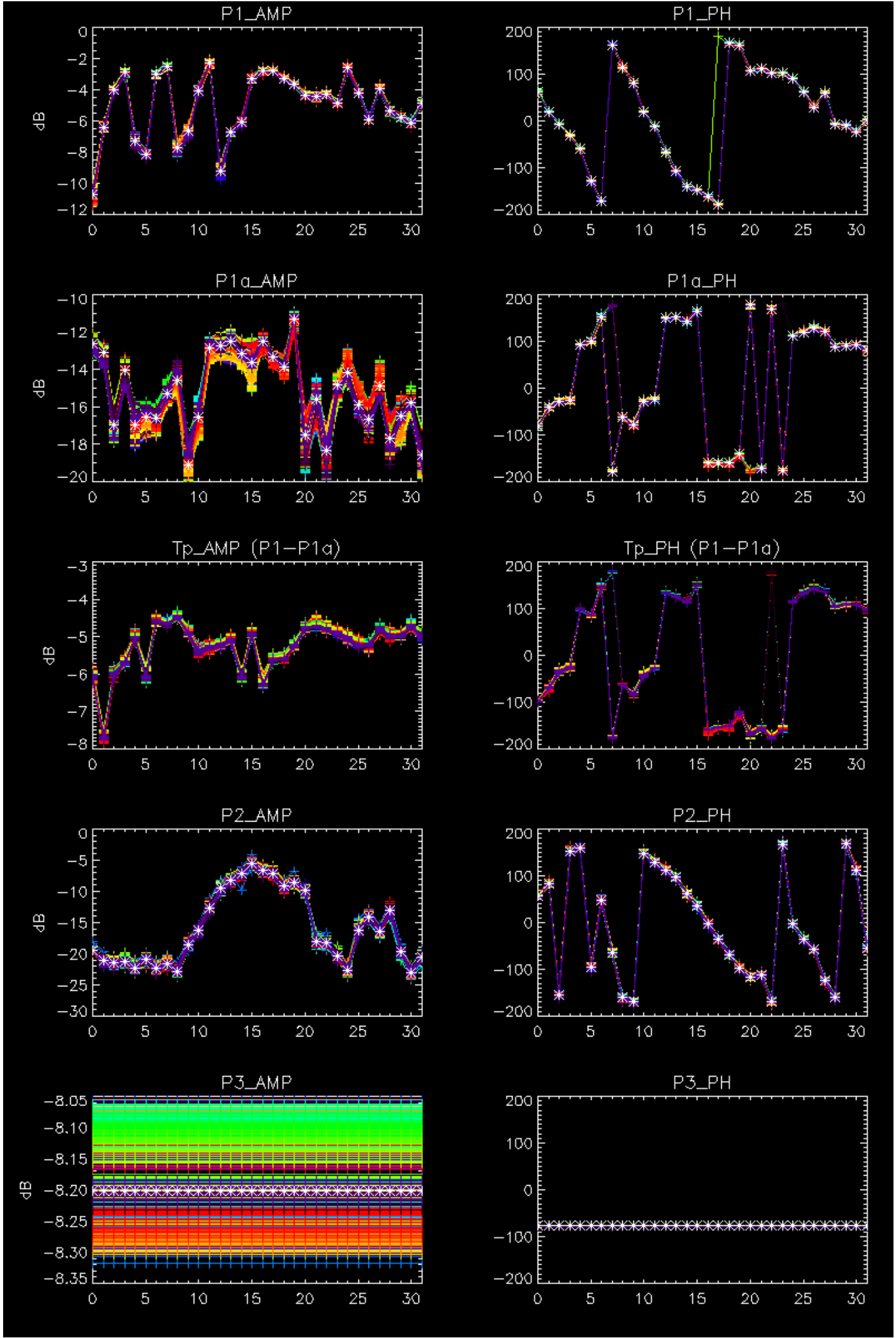
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



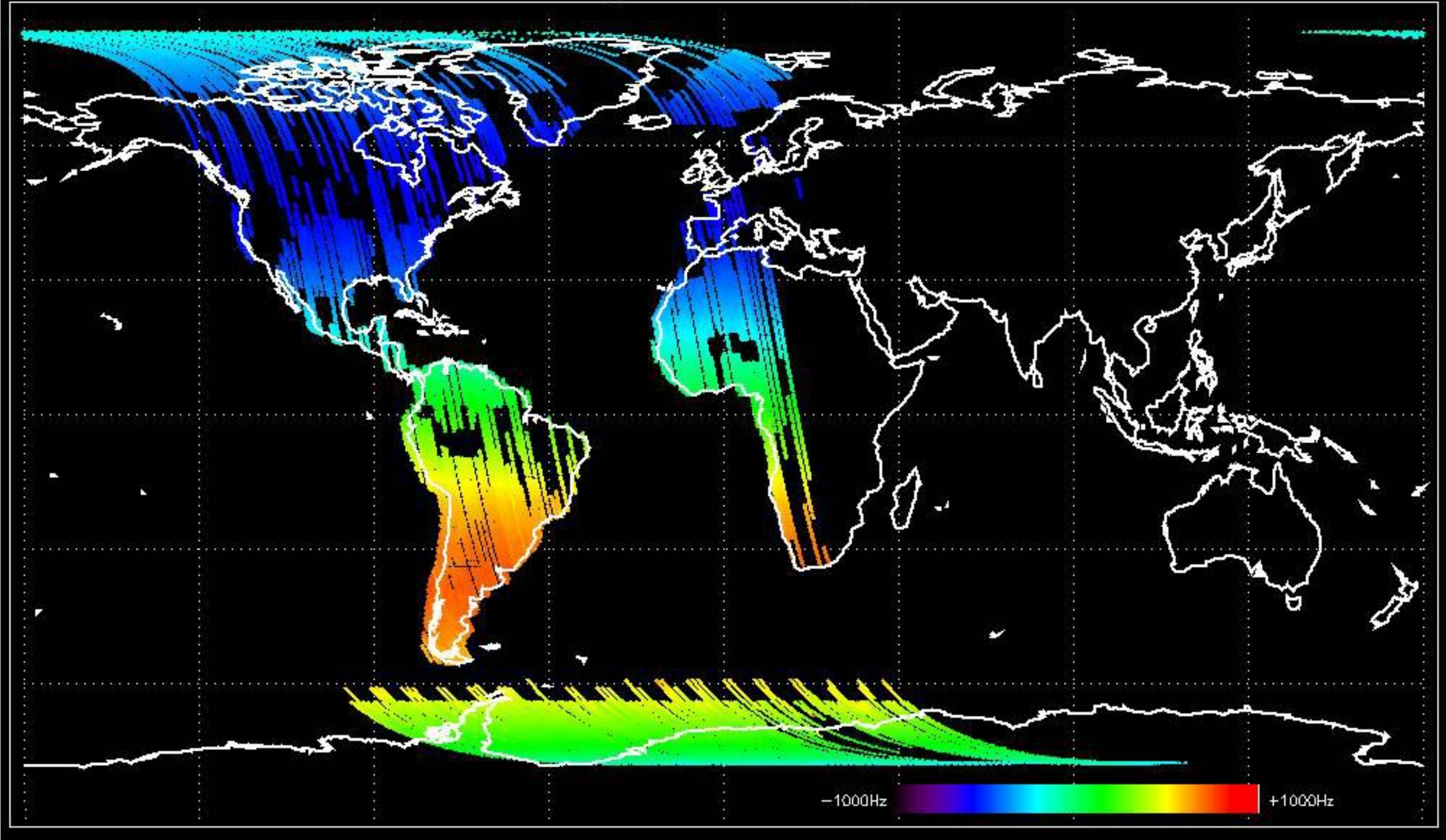
No anomalies observed.



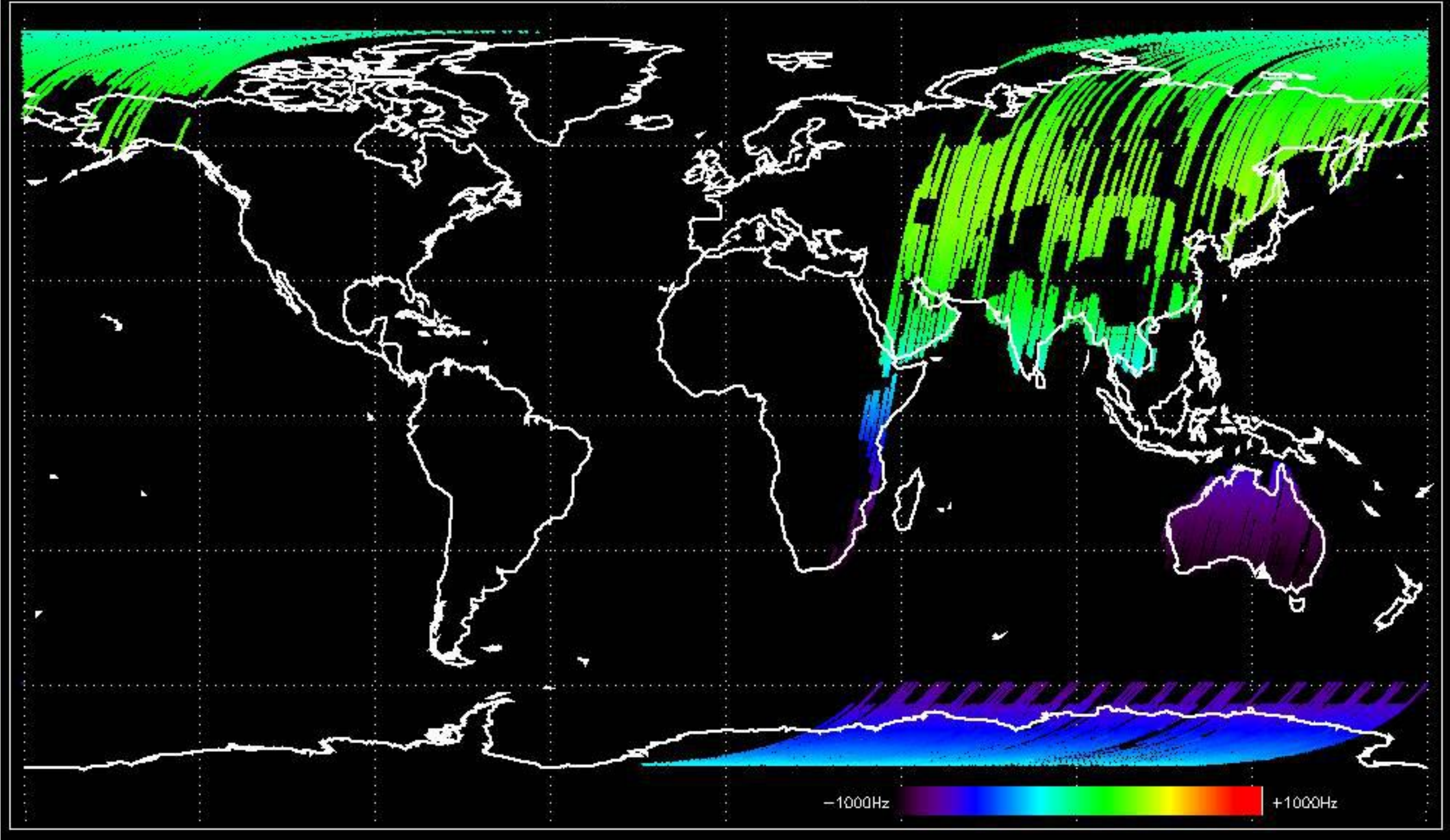


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

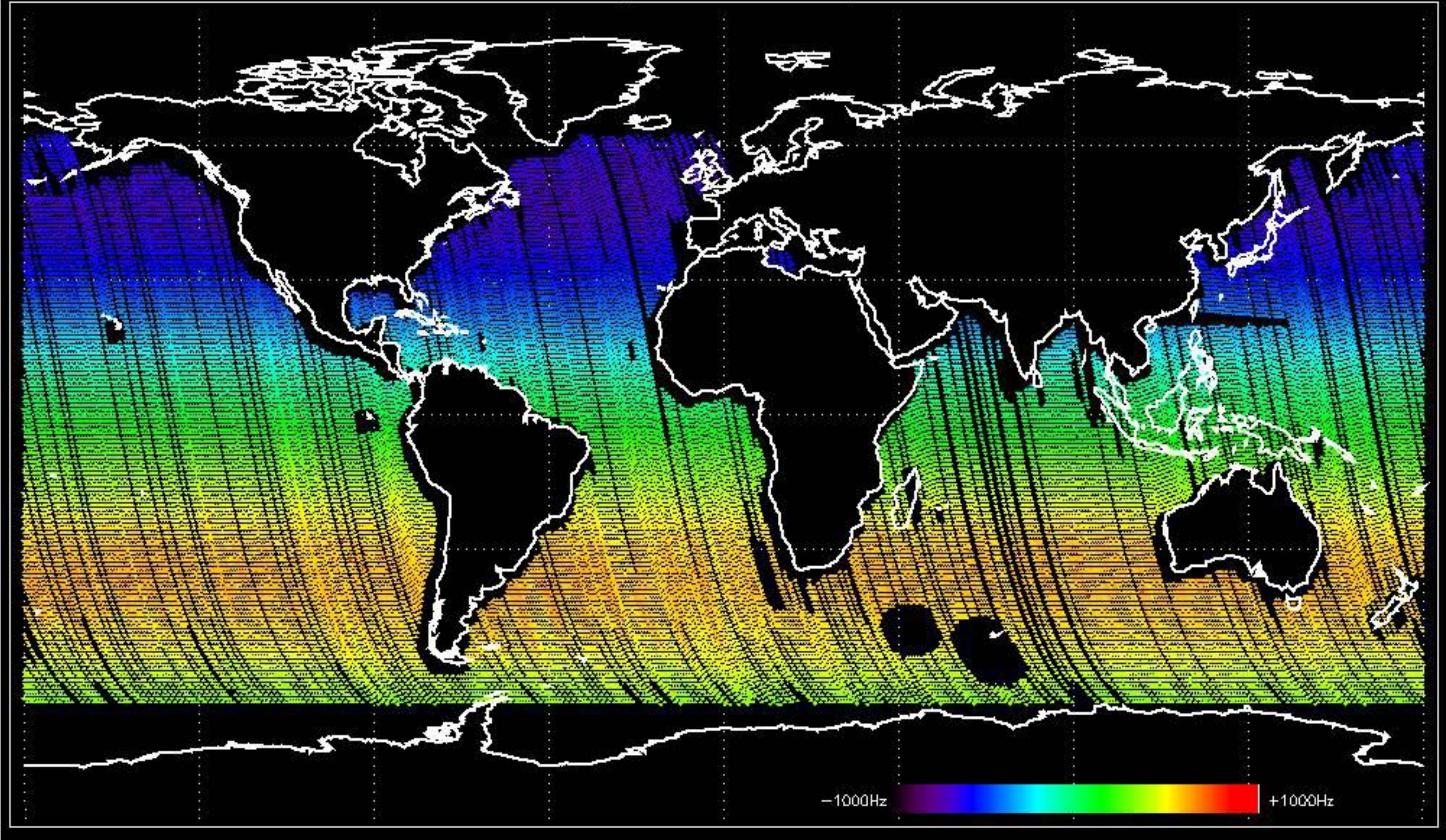
Doppler 'GM1' 'SS1' ascending



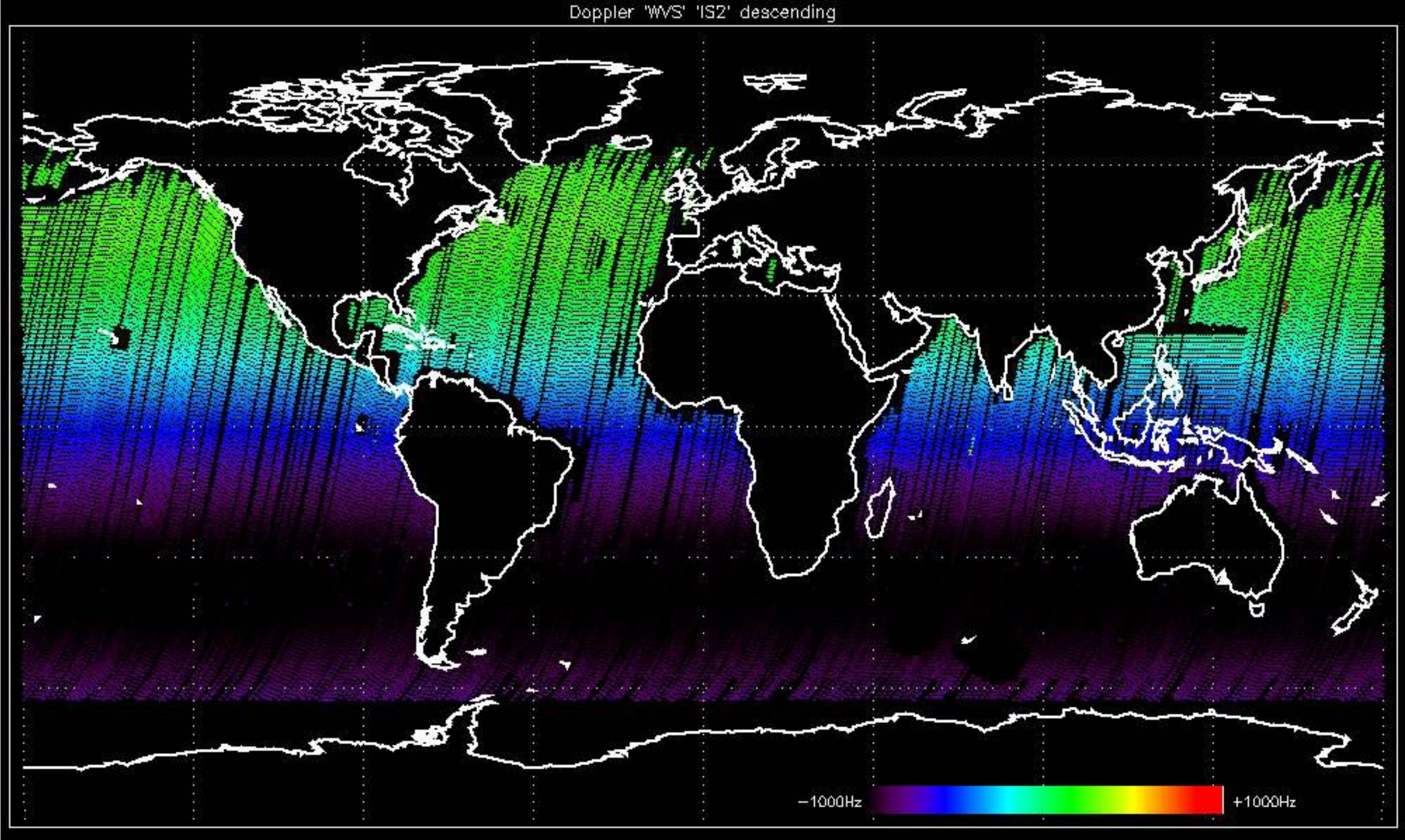
Doppler 'GM1' 'SS1' descending



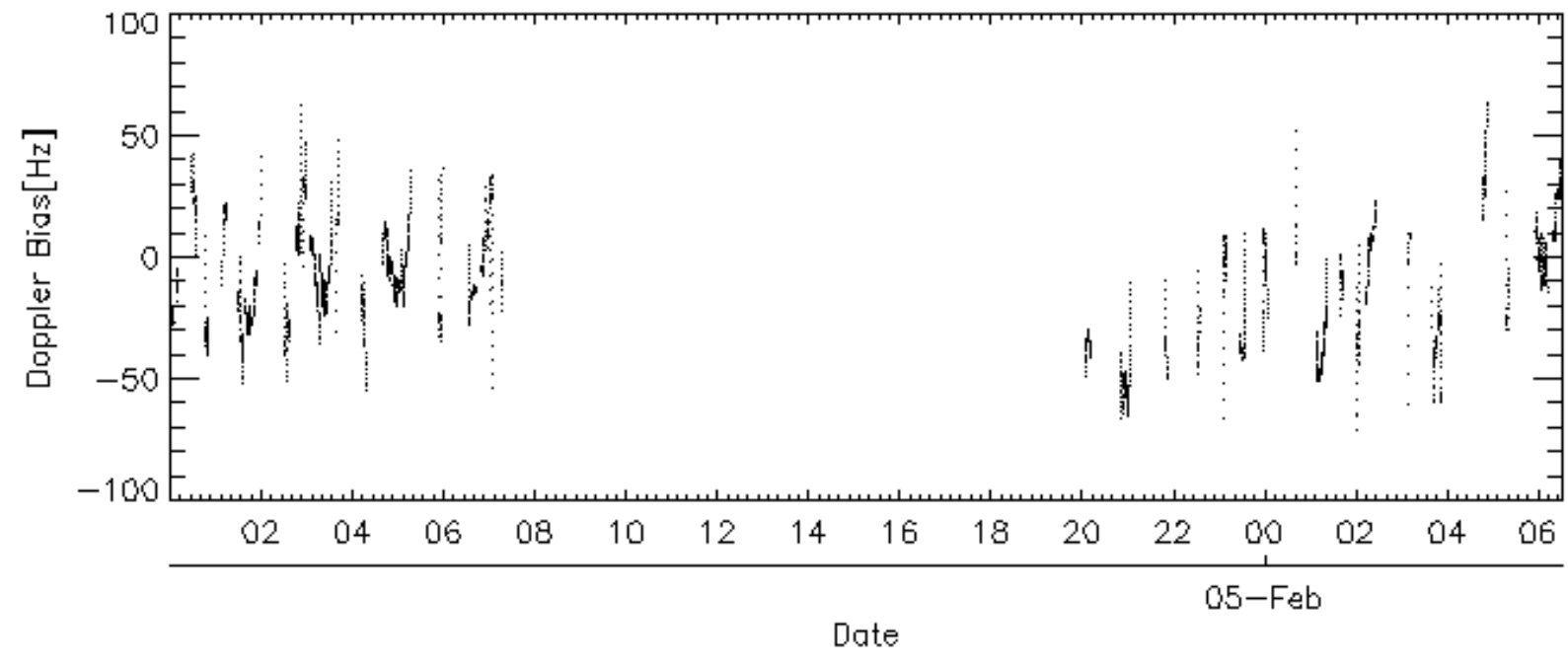
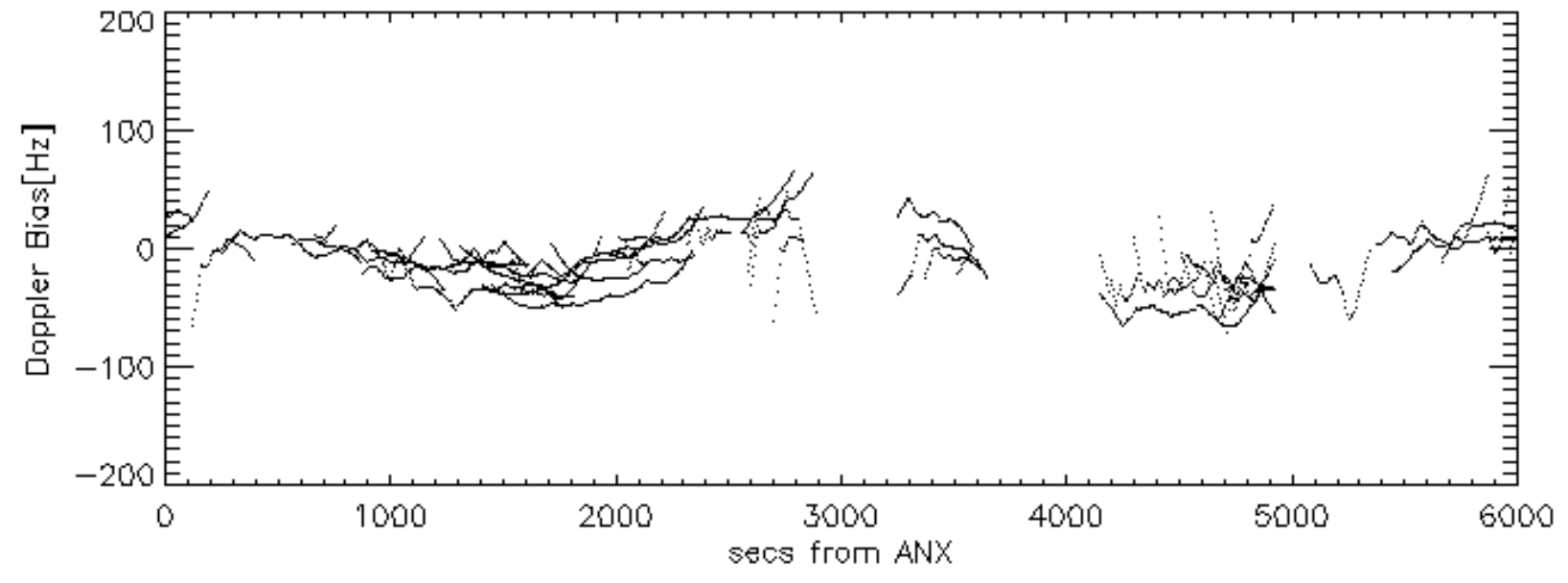
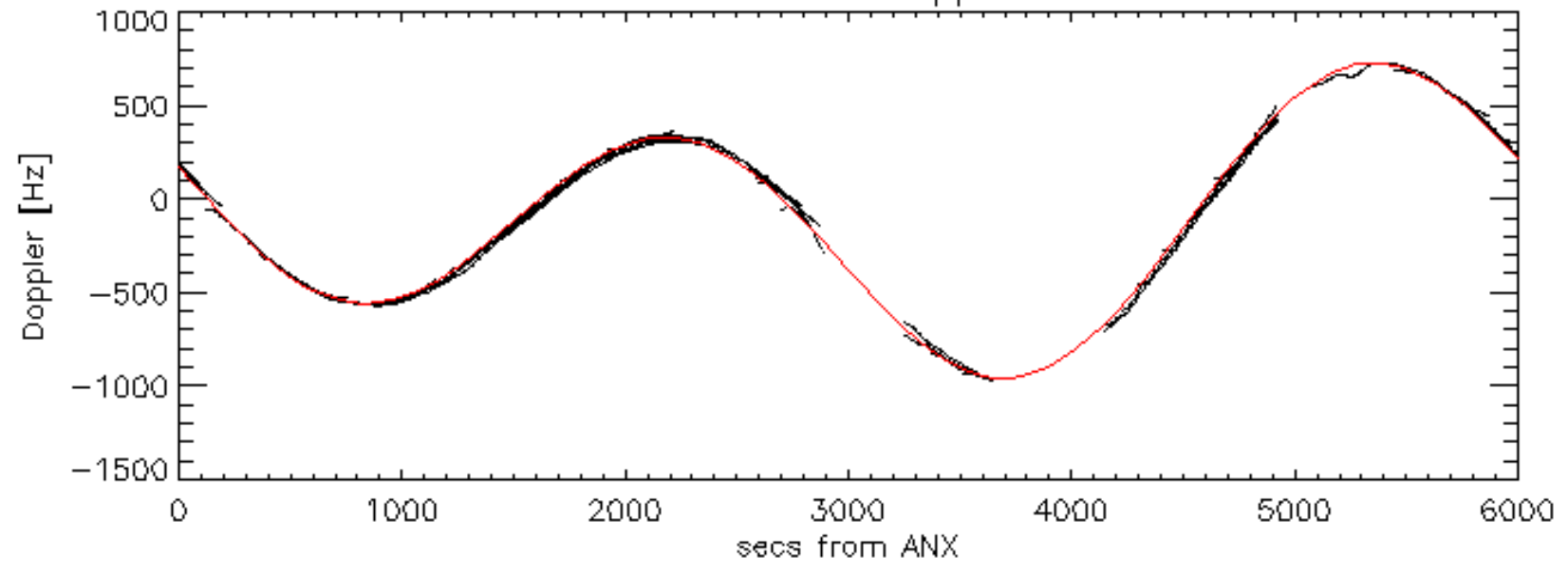
Doppler 'WVS' 'IS2' ascending



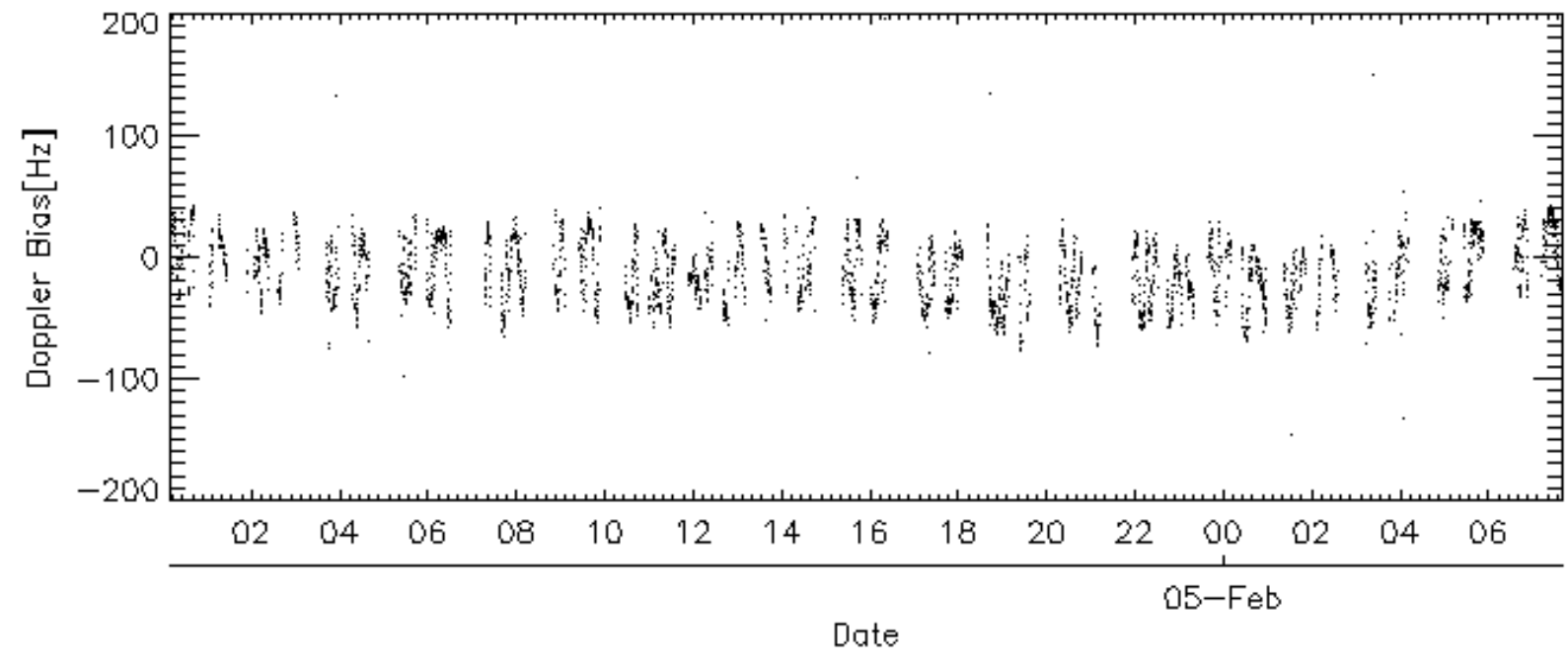
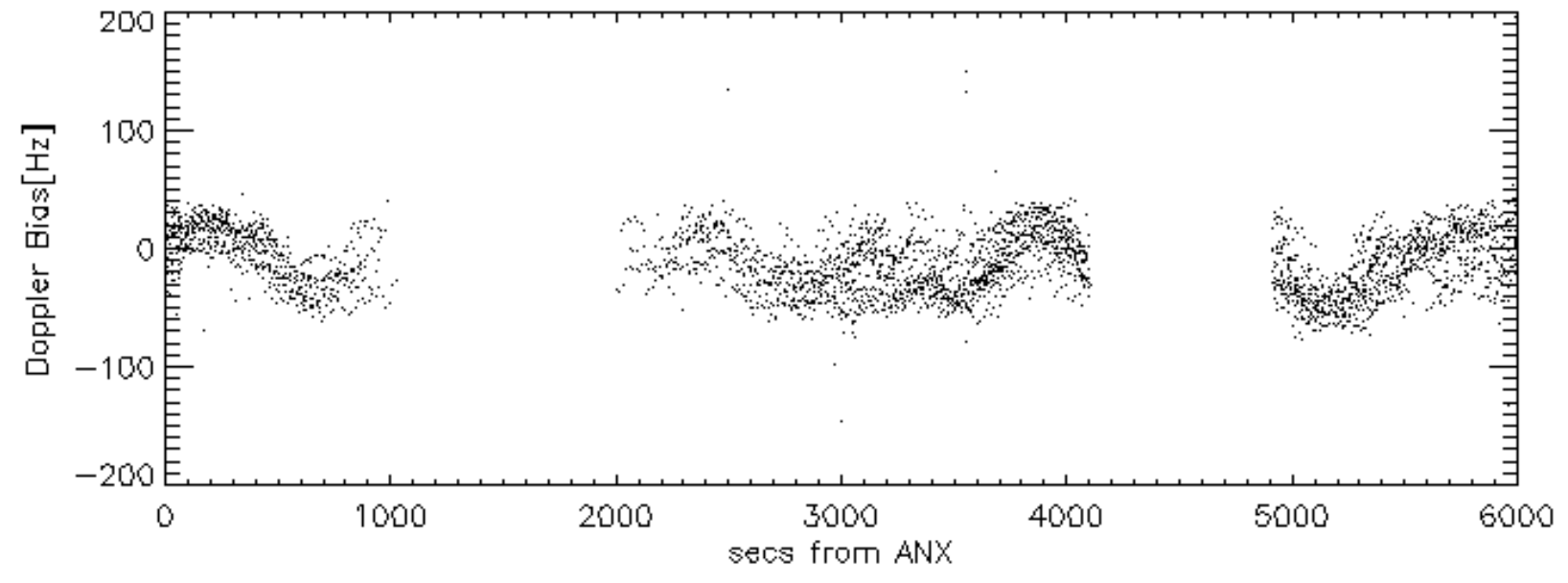
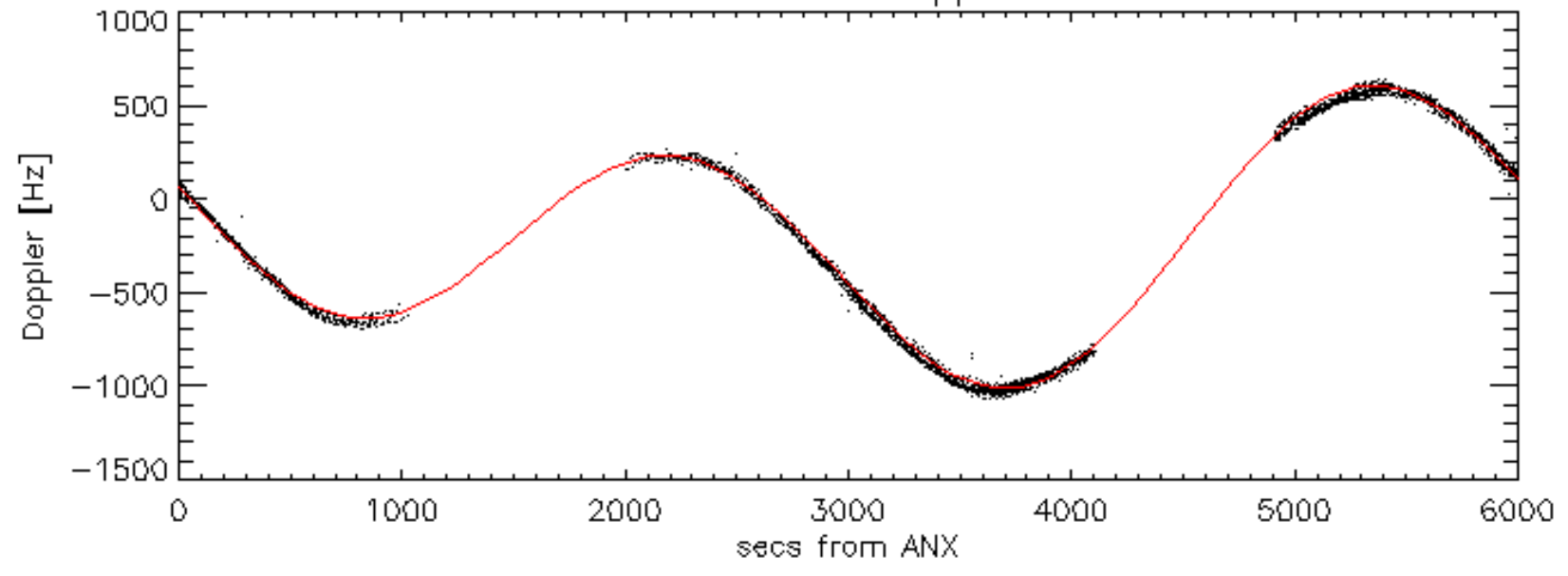
Doppler 'WVS' 'IS2' descending



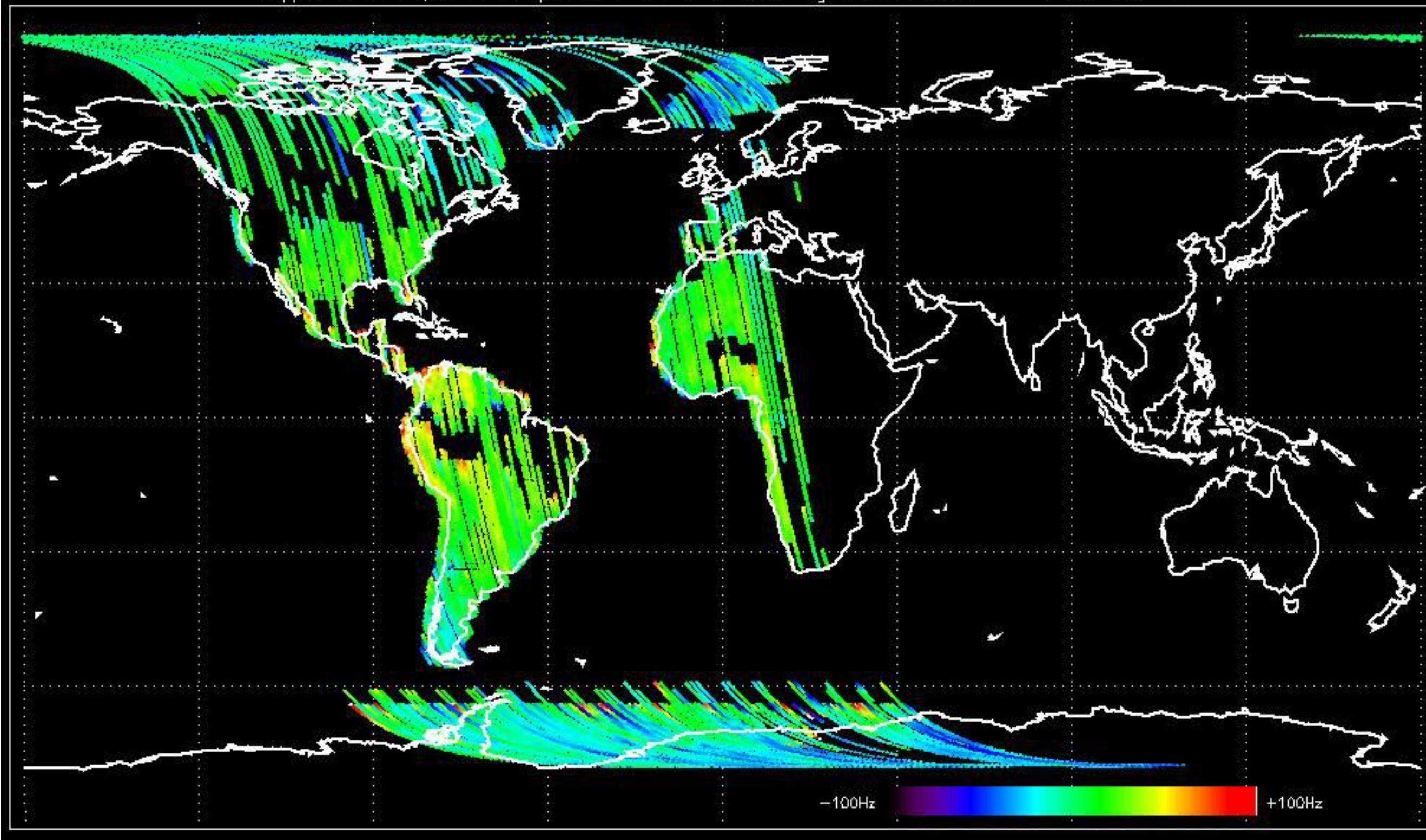
GM1 mode doppler



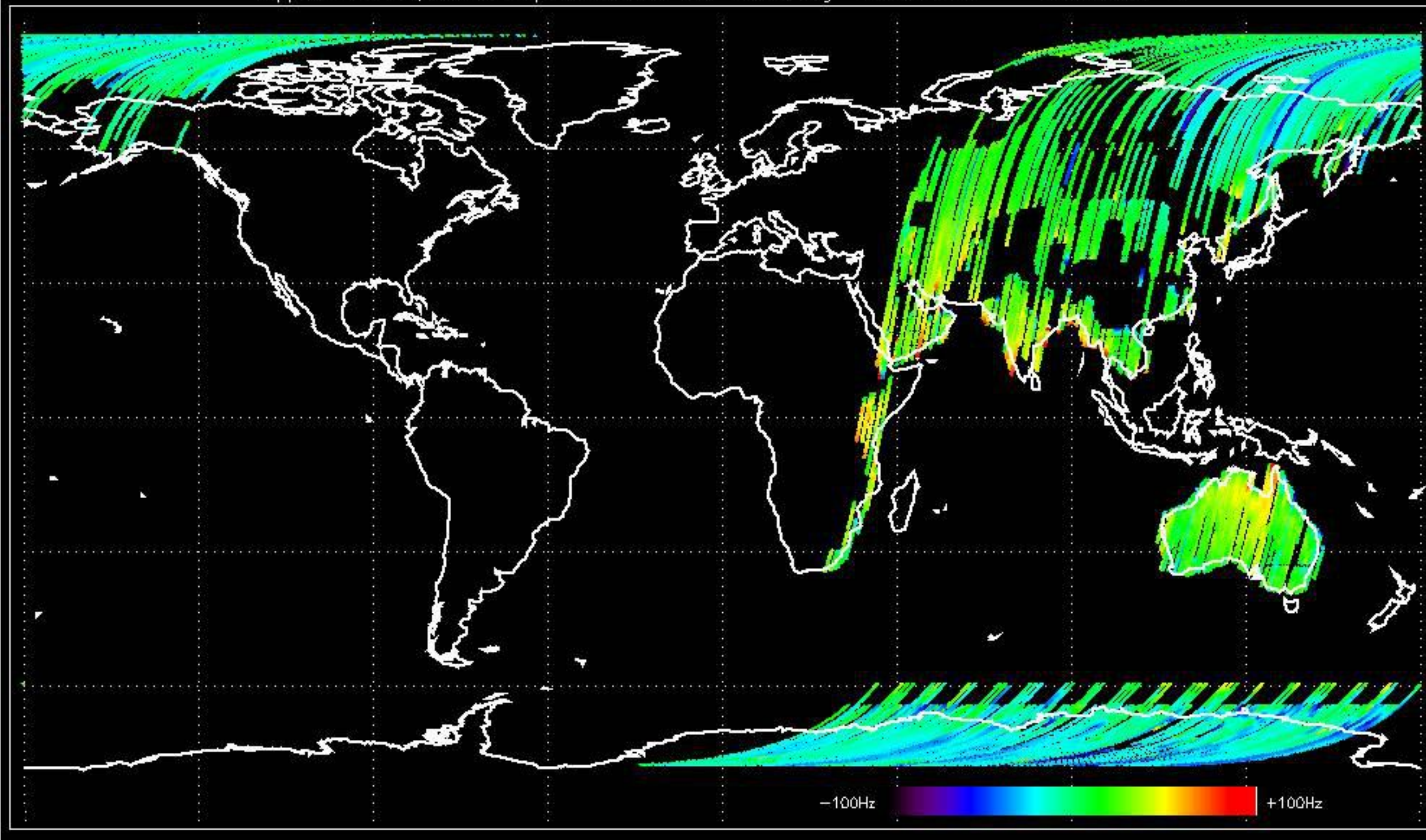
WVS mode doppler



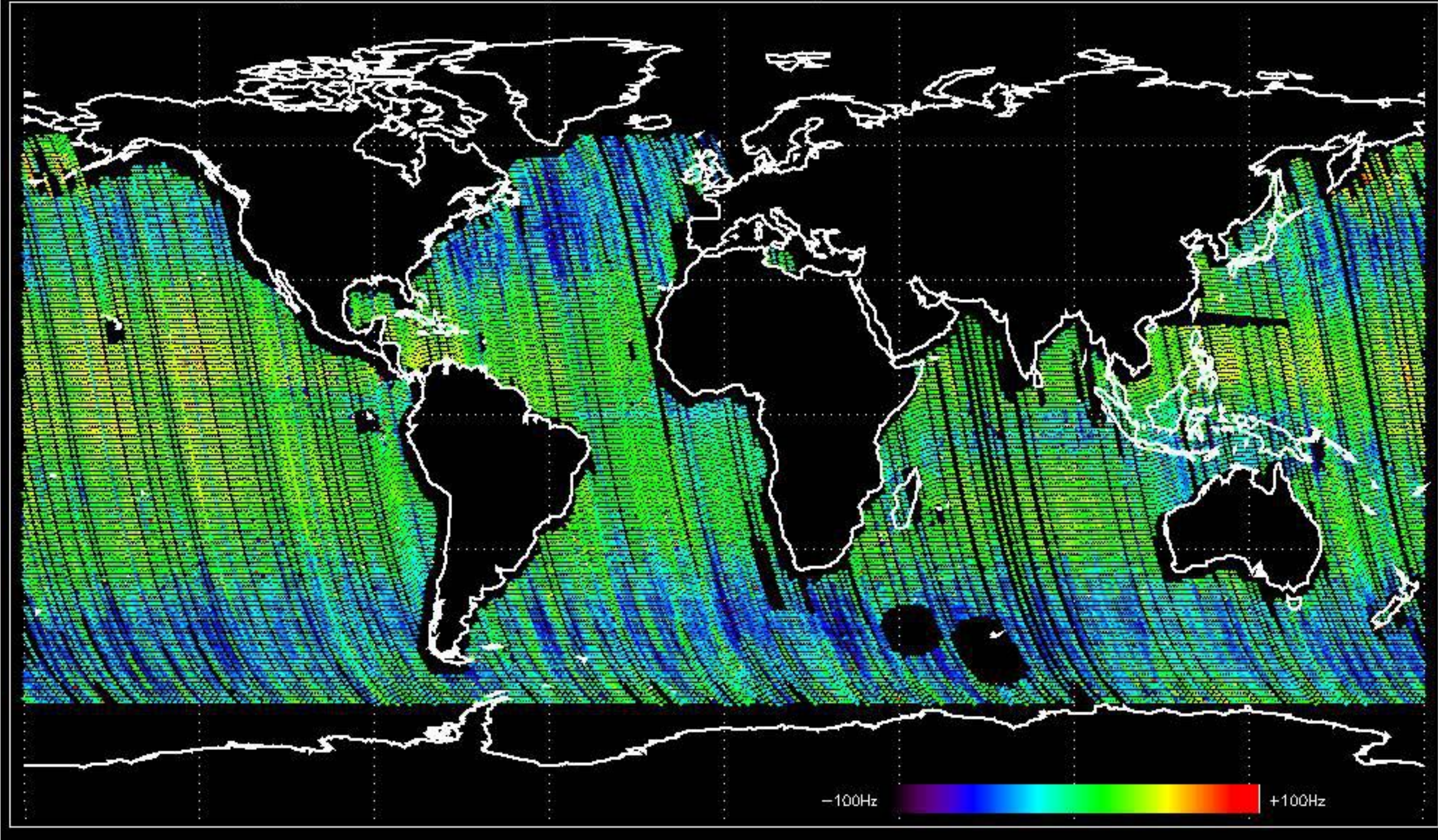
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -10.659998 Hz



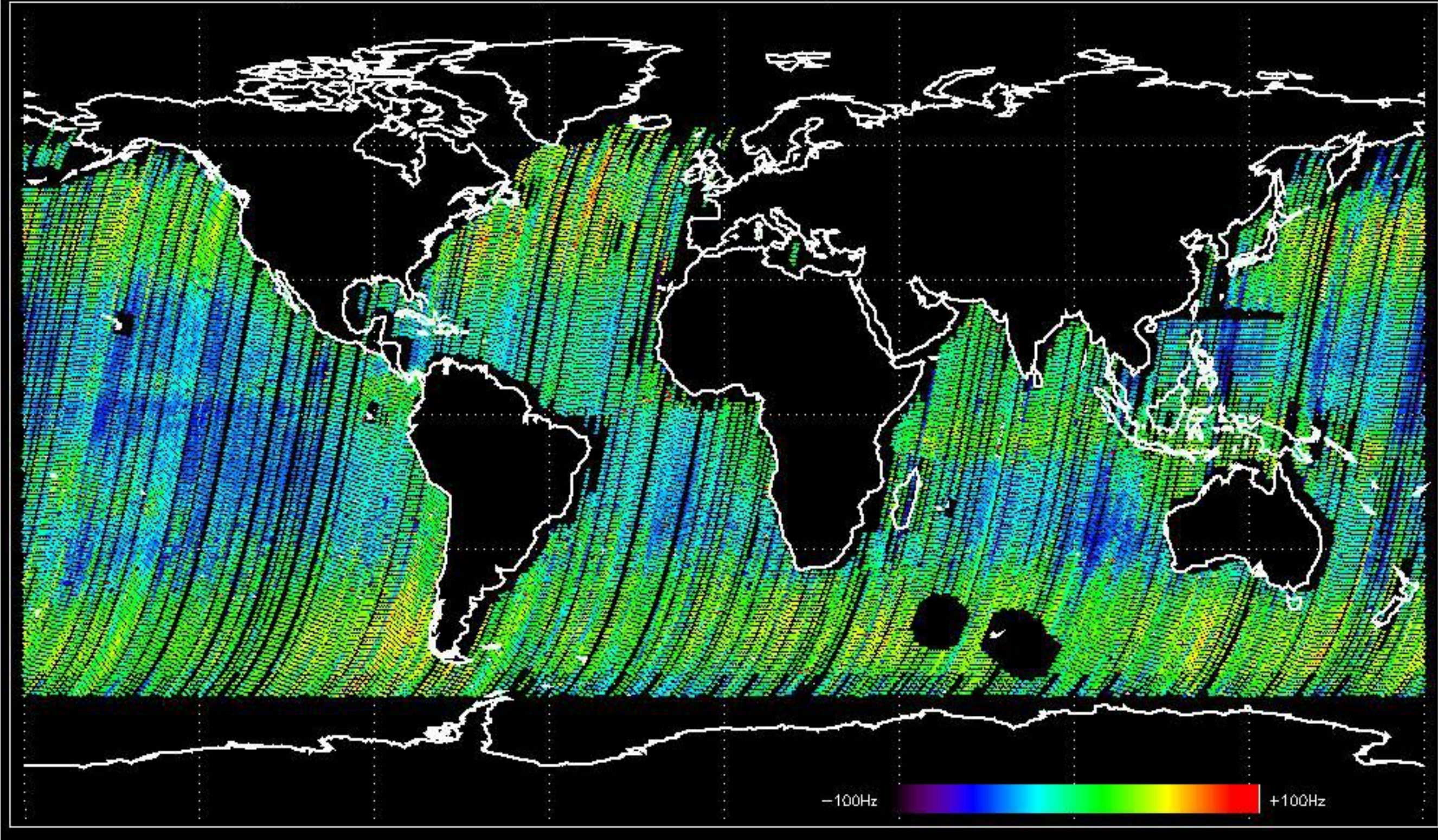
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.394051 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.5628911 Hz

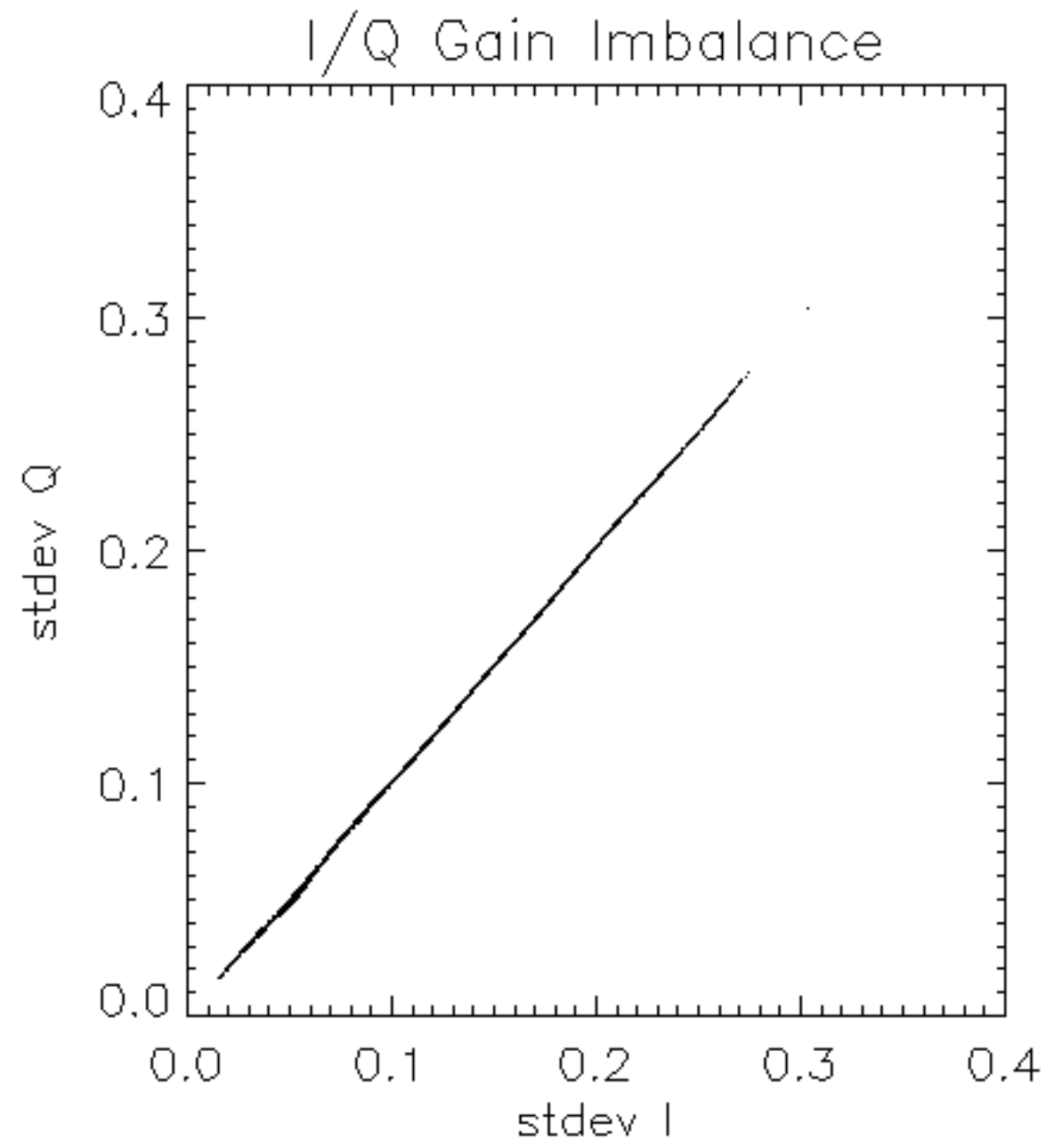


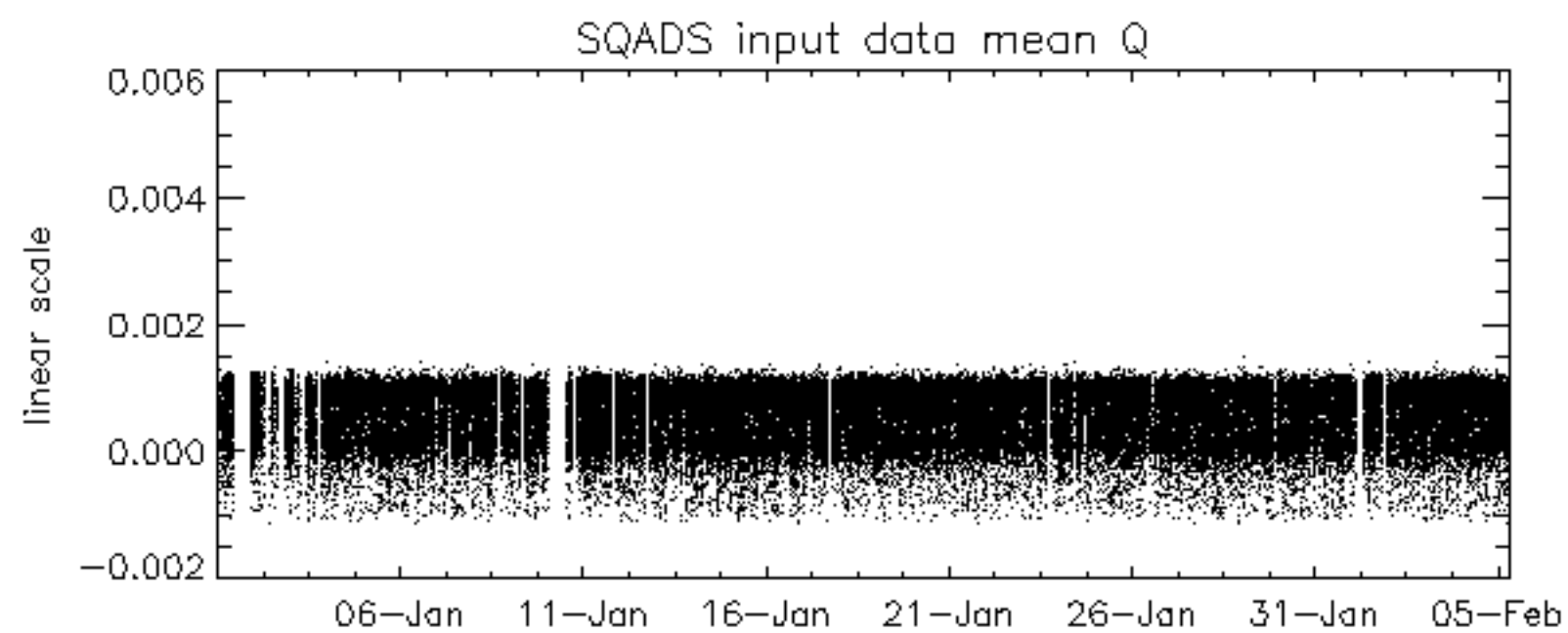
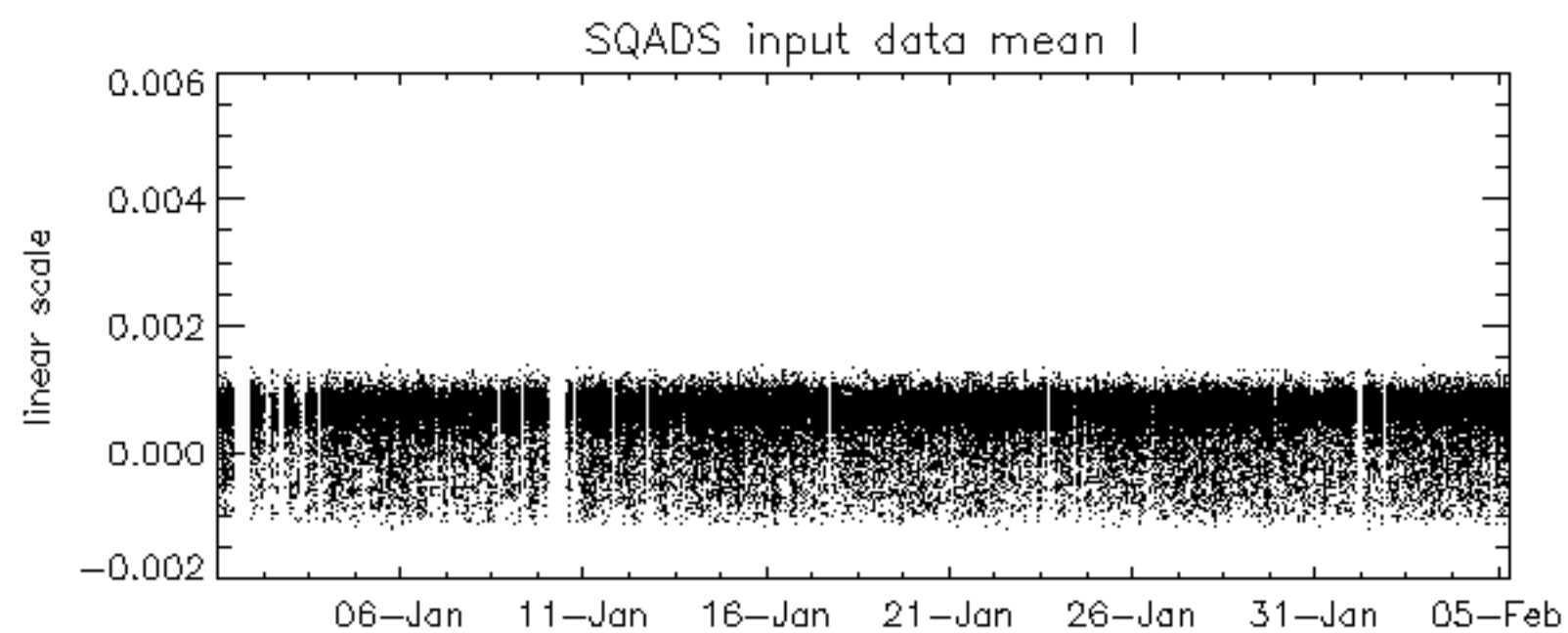
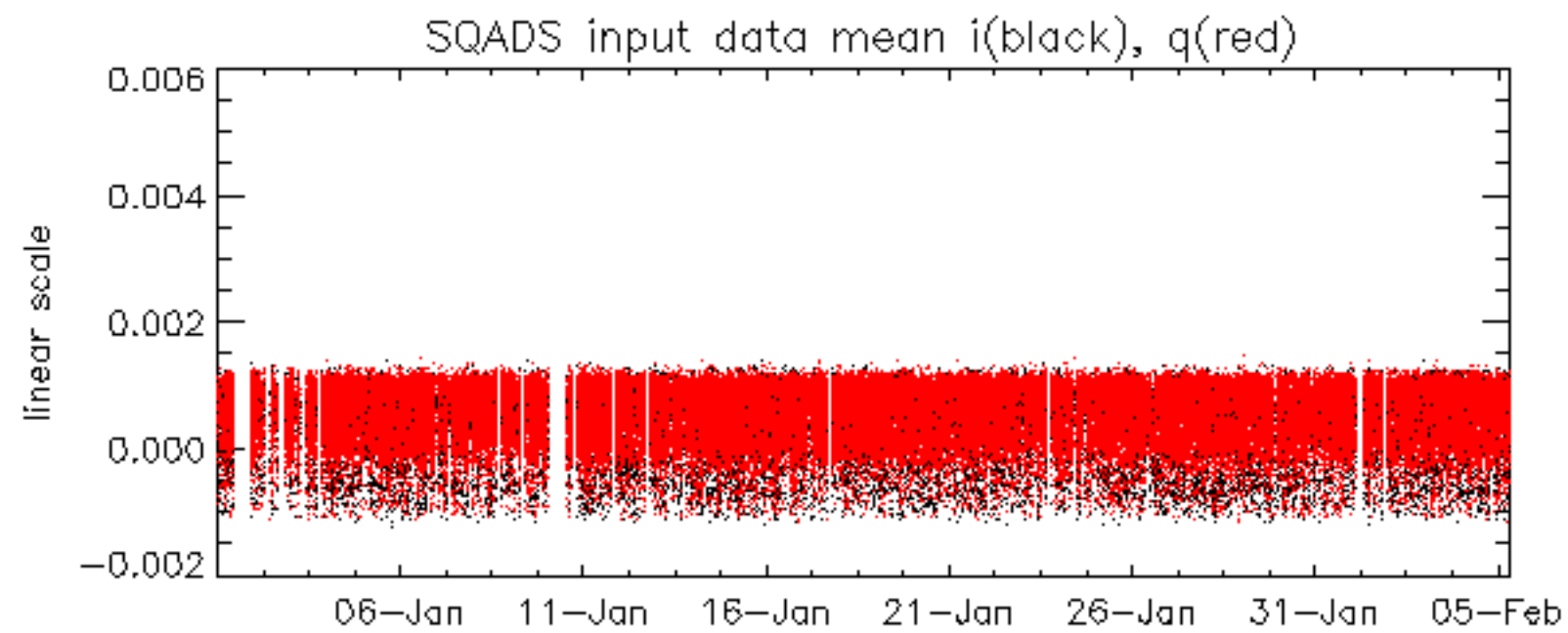
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.389409 Hz

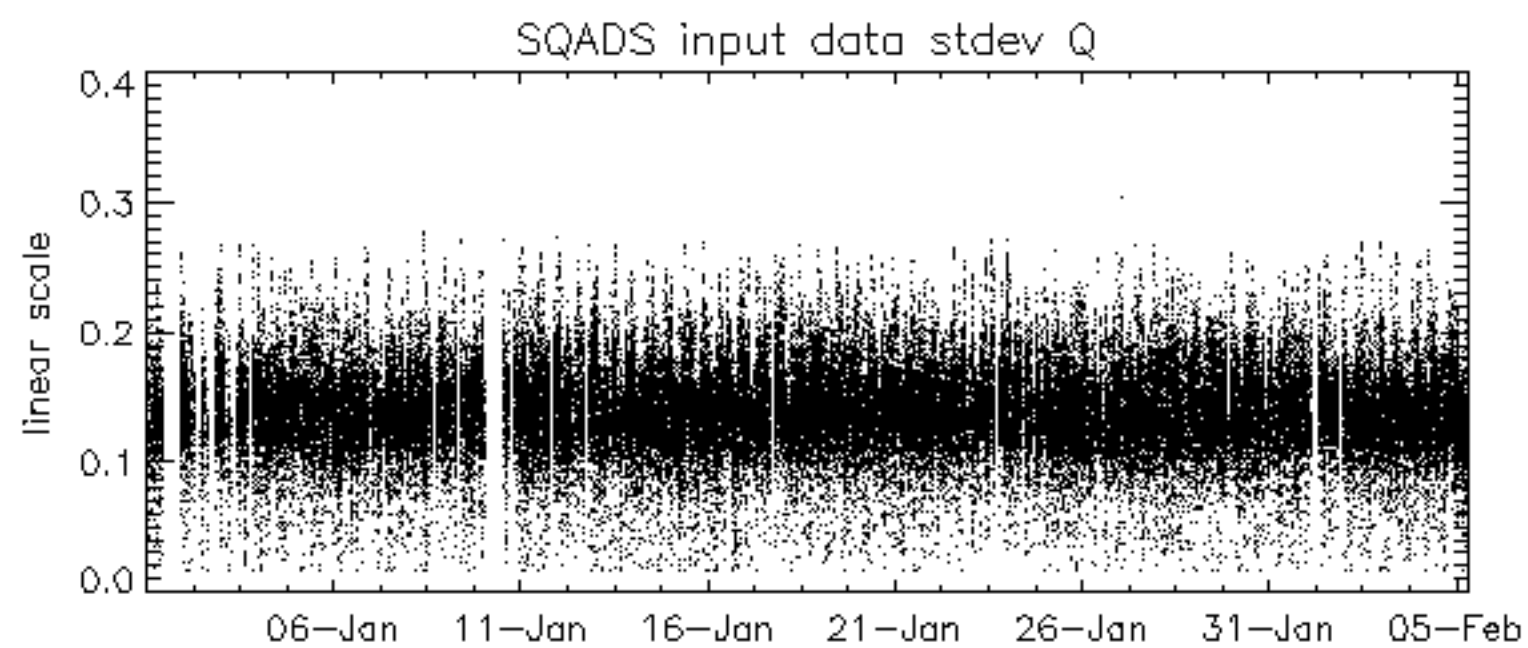
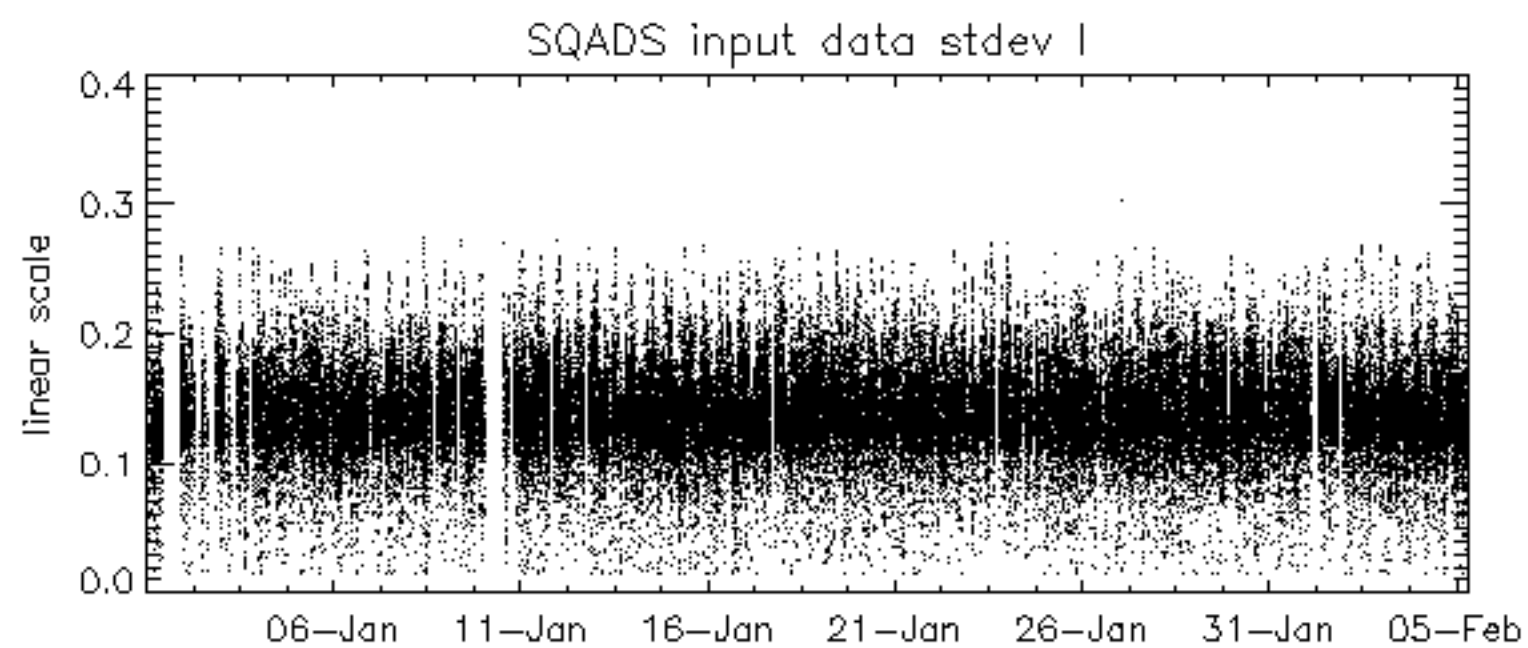
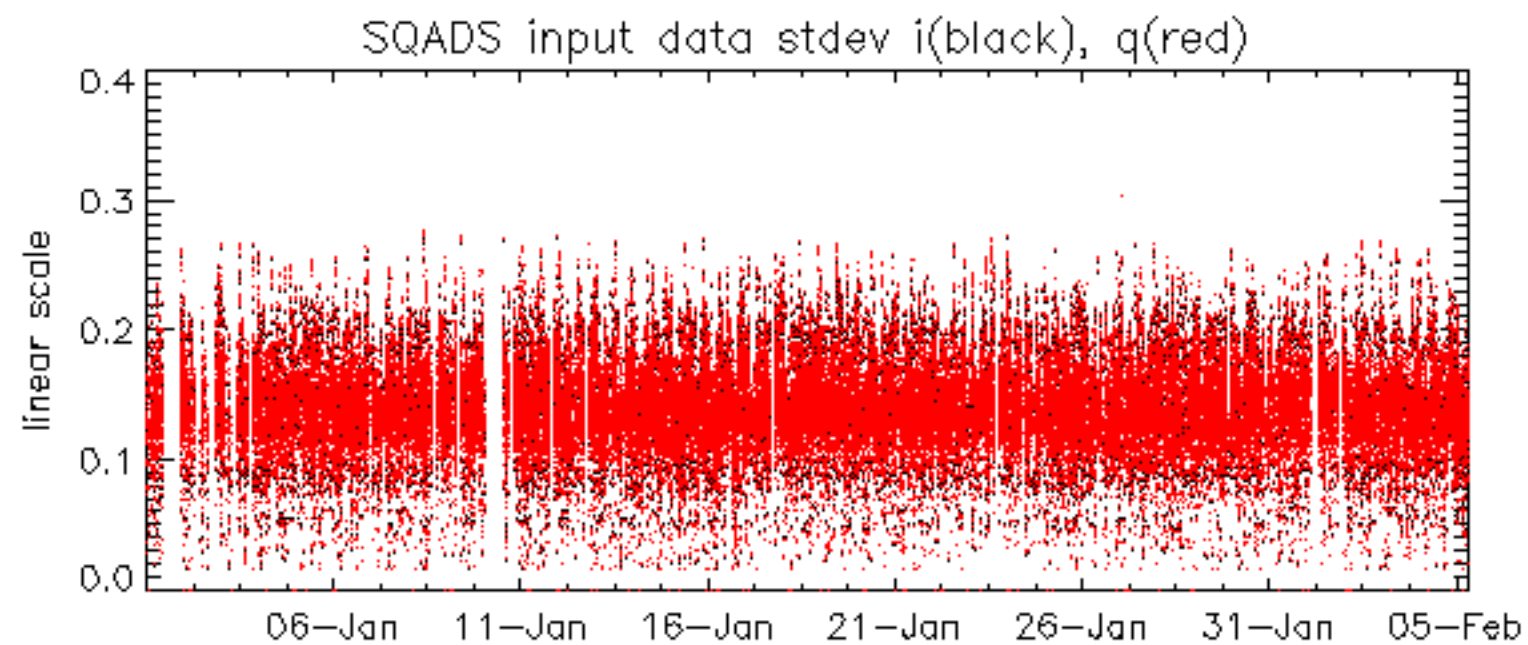


No anomalies observed on available MS products:

No anomalies observed.





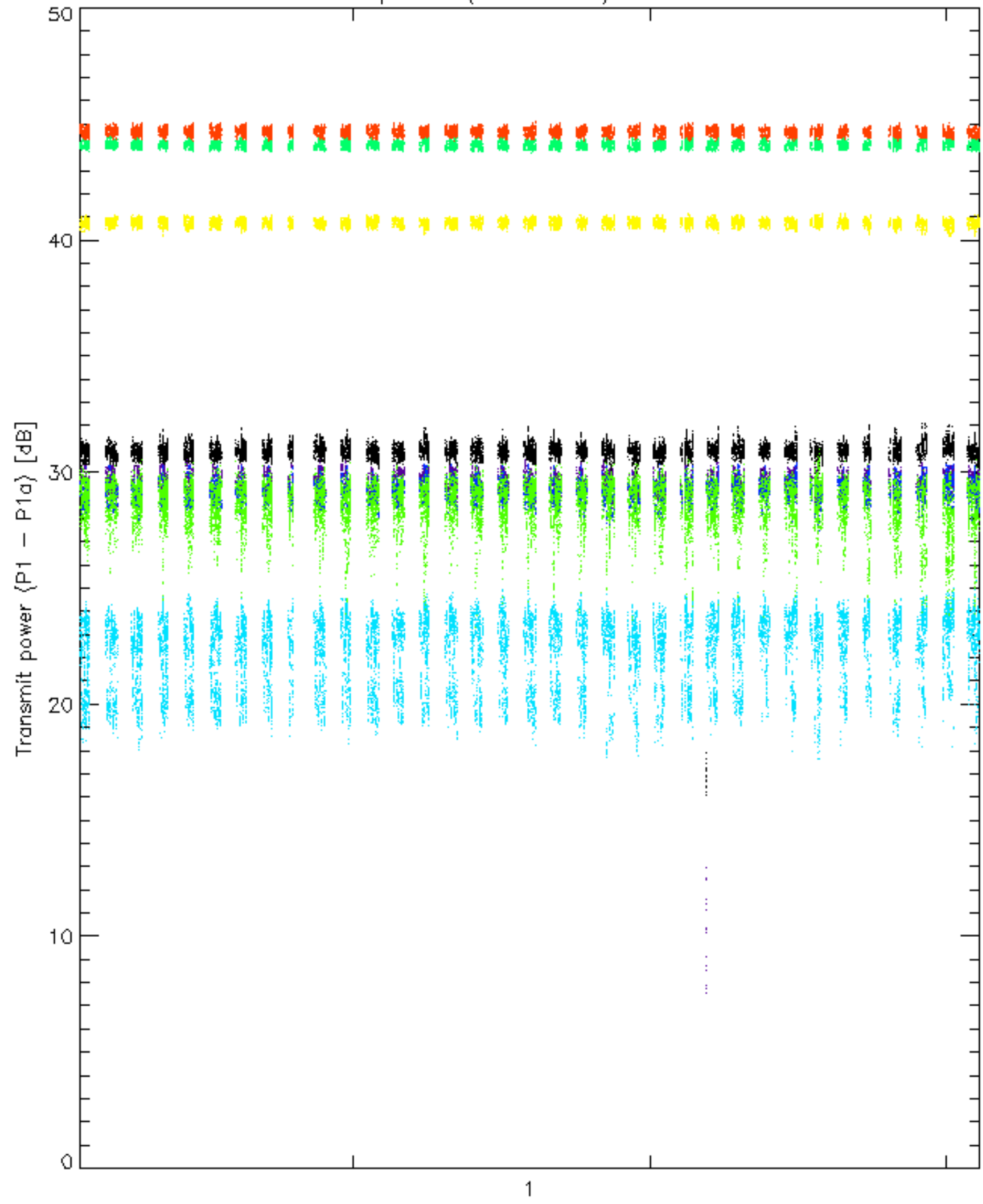


Summary of analysis for the last 3 days 2006020[345]

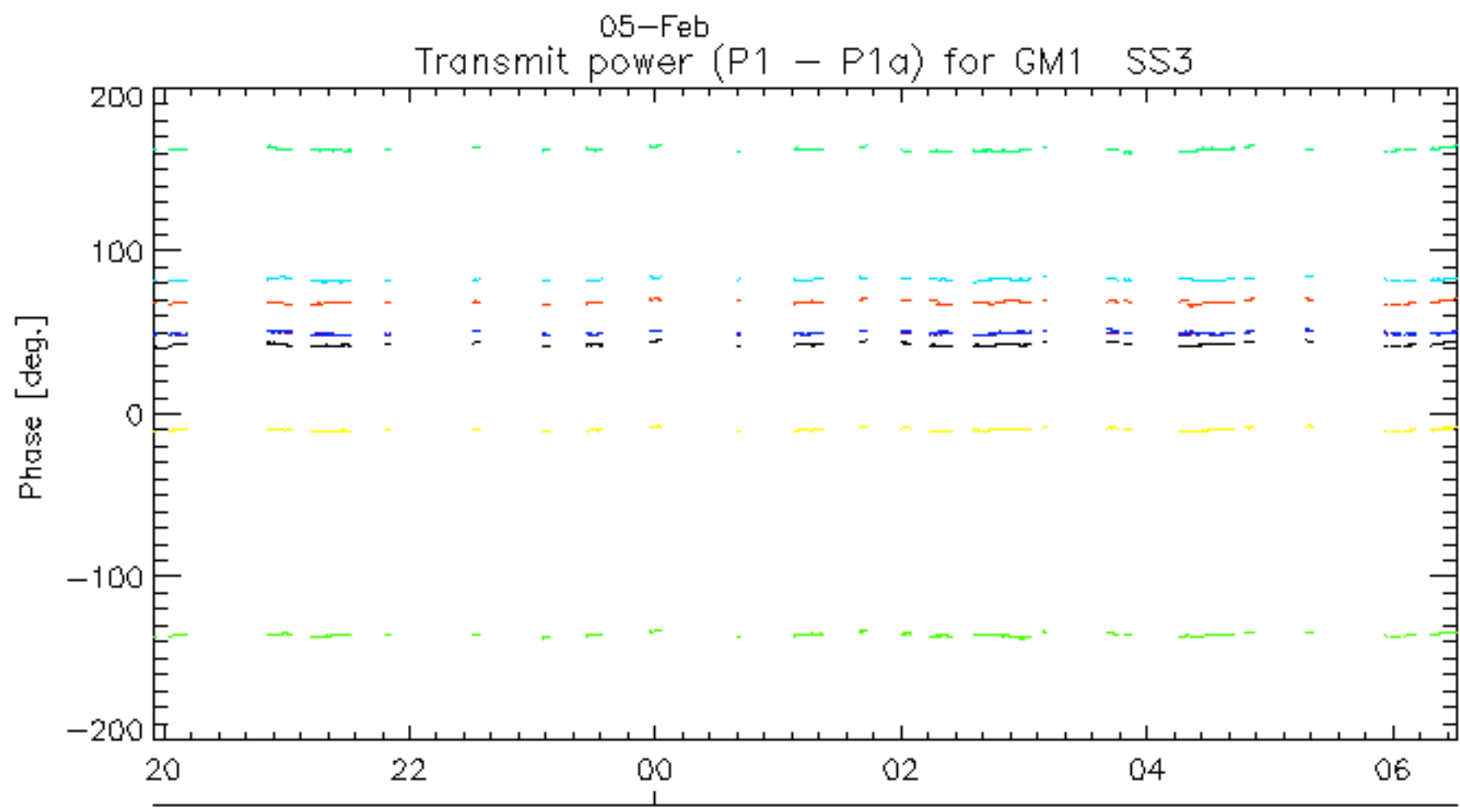
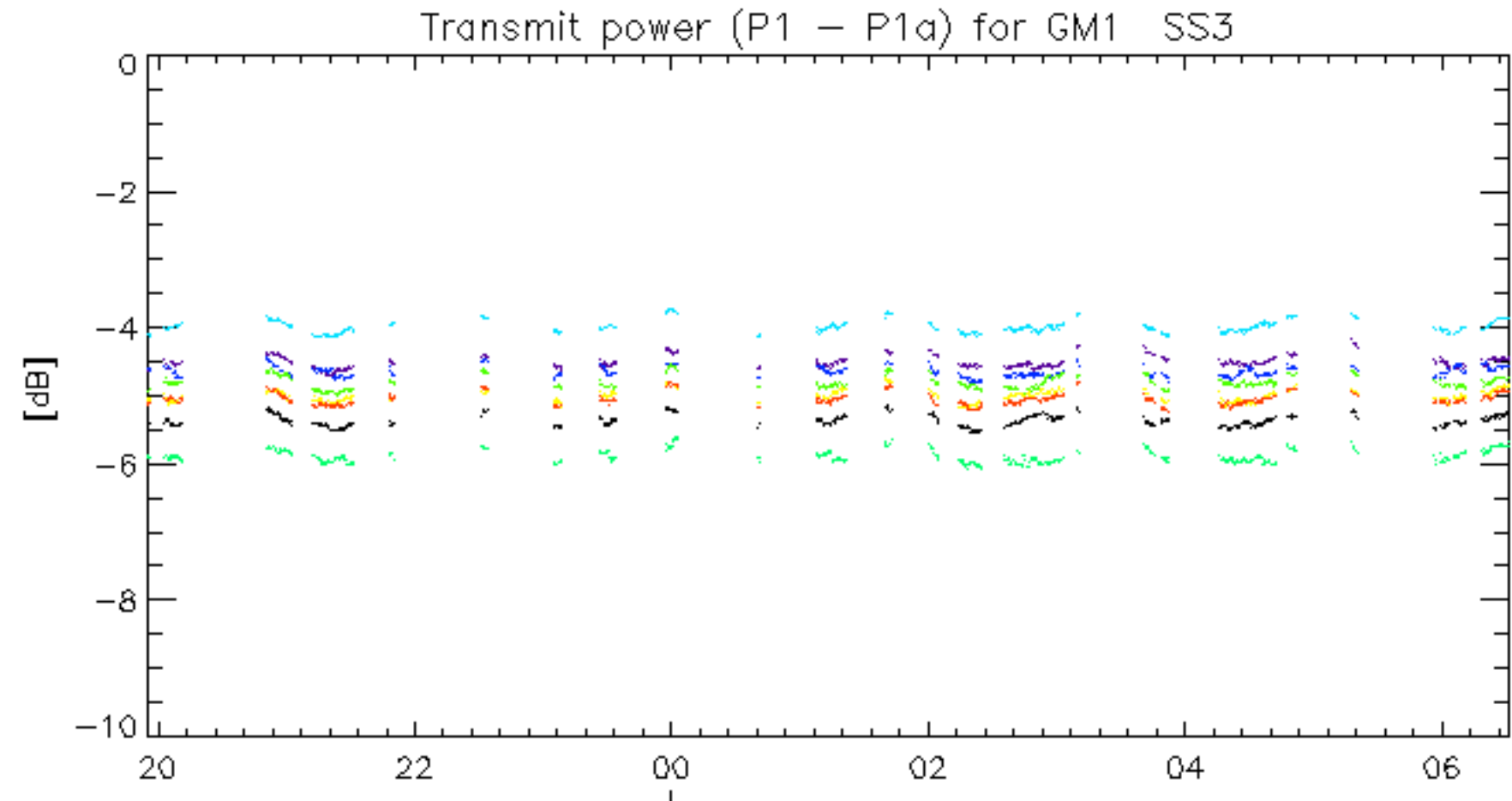
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060205_022547_00000362044_00476_20570_2062.N1	1	0
ASA_IMM_1PNPDK20060203_083342_00000502044_00451_20545_0626.N1	0	2
ASA_WSM_1PNPDE20060203_151324_000001292044_00455_20549_3596.N1	0	60
ASA_WSM_1PNPDE20060203_183519_000002252044_00457_20551_3602.N1	0	76
ASA_WSM_1PNPDE20060204_033233_000002132044_00462_20556_3632.N1	0	1
ASA_WSM_1PNPDE20060204_162501_000002452044_00470_20564_3708.N1	0	20

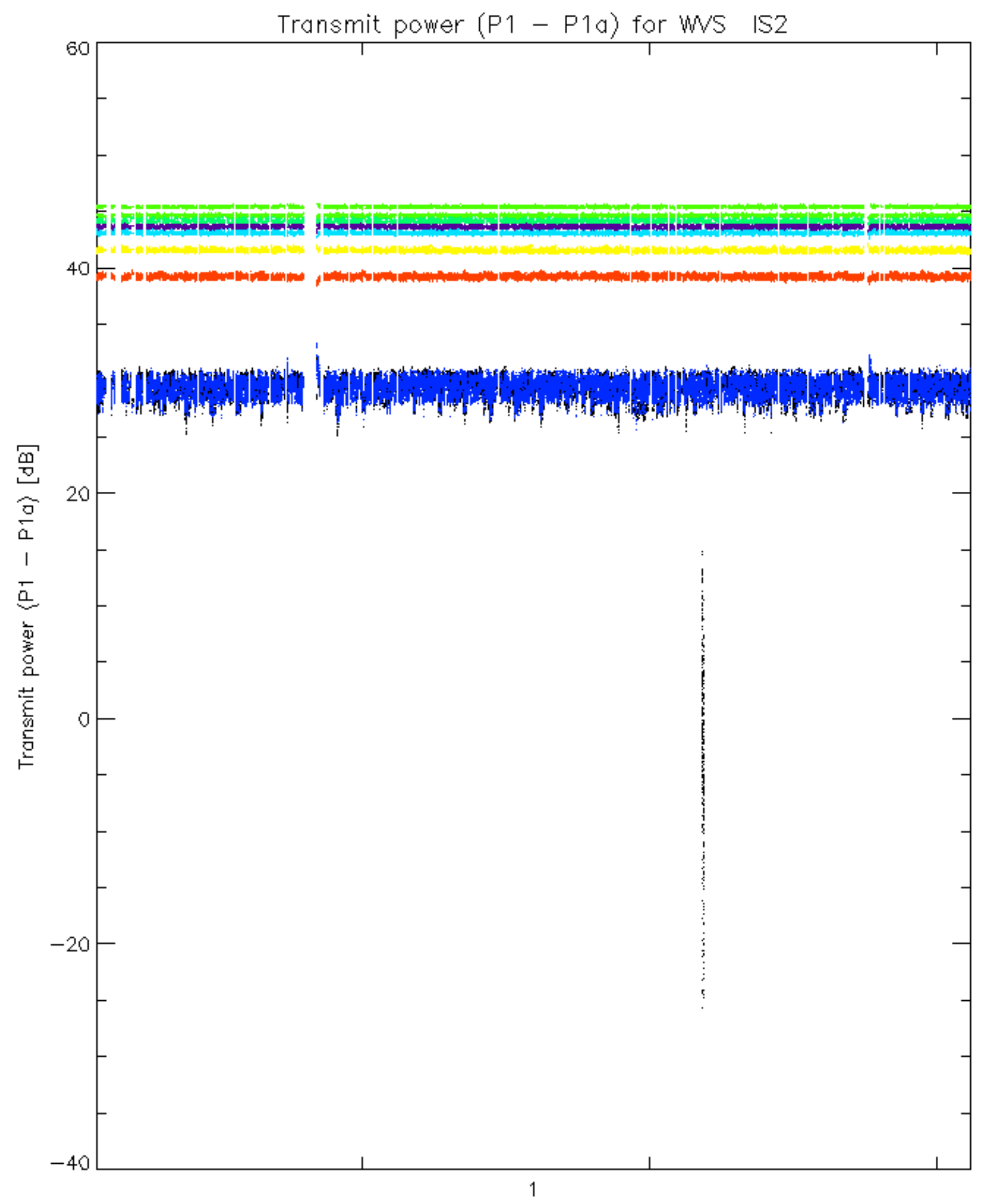
Transmit power (P1 - P1a) for GM1 SS3



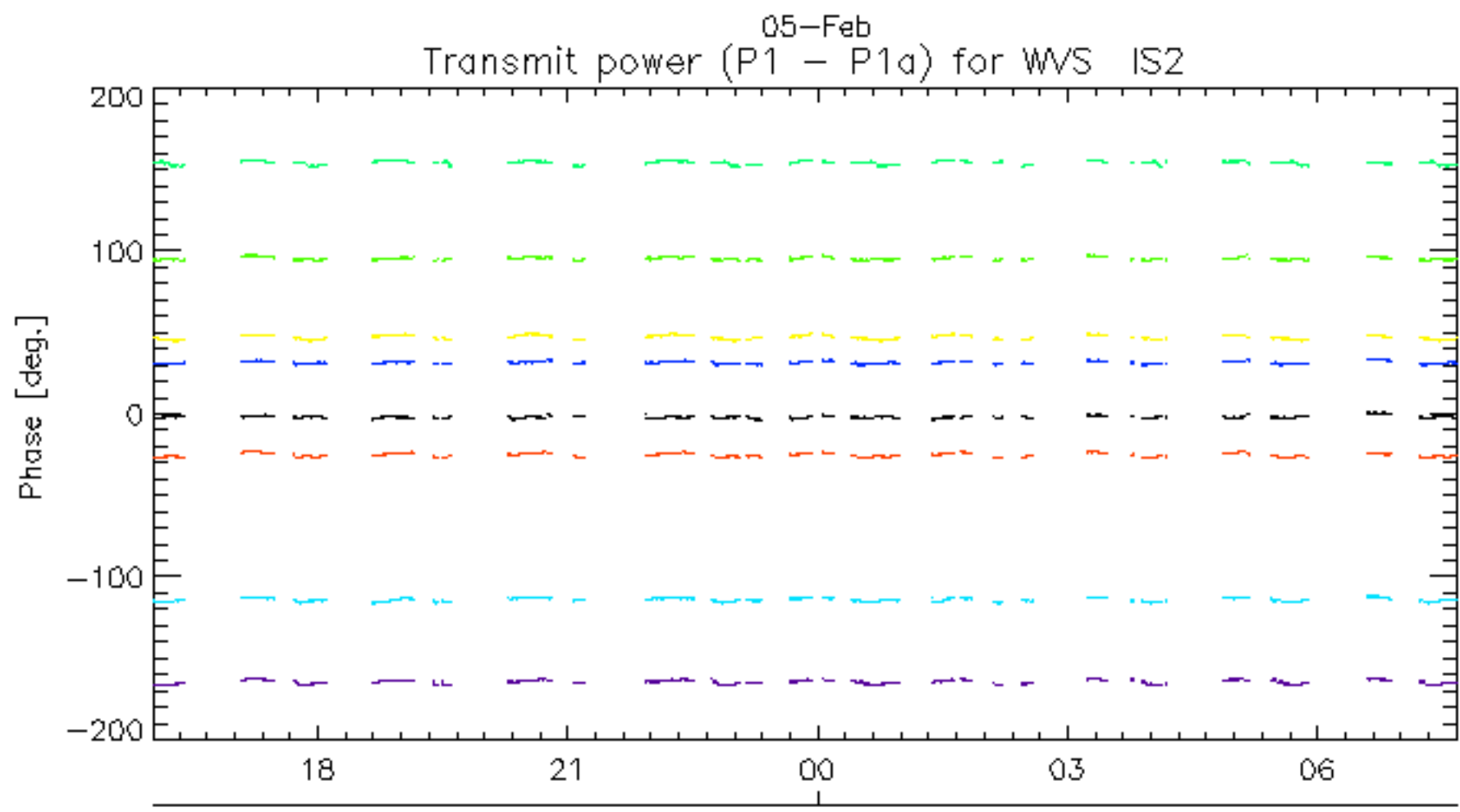
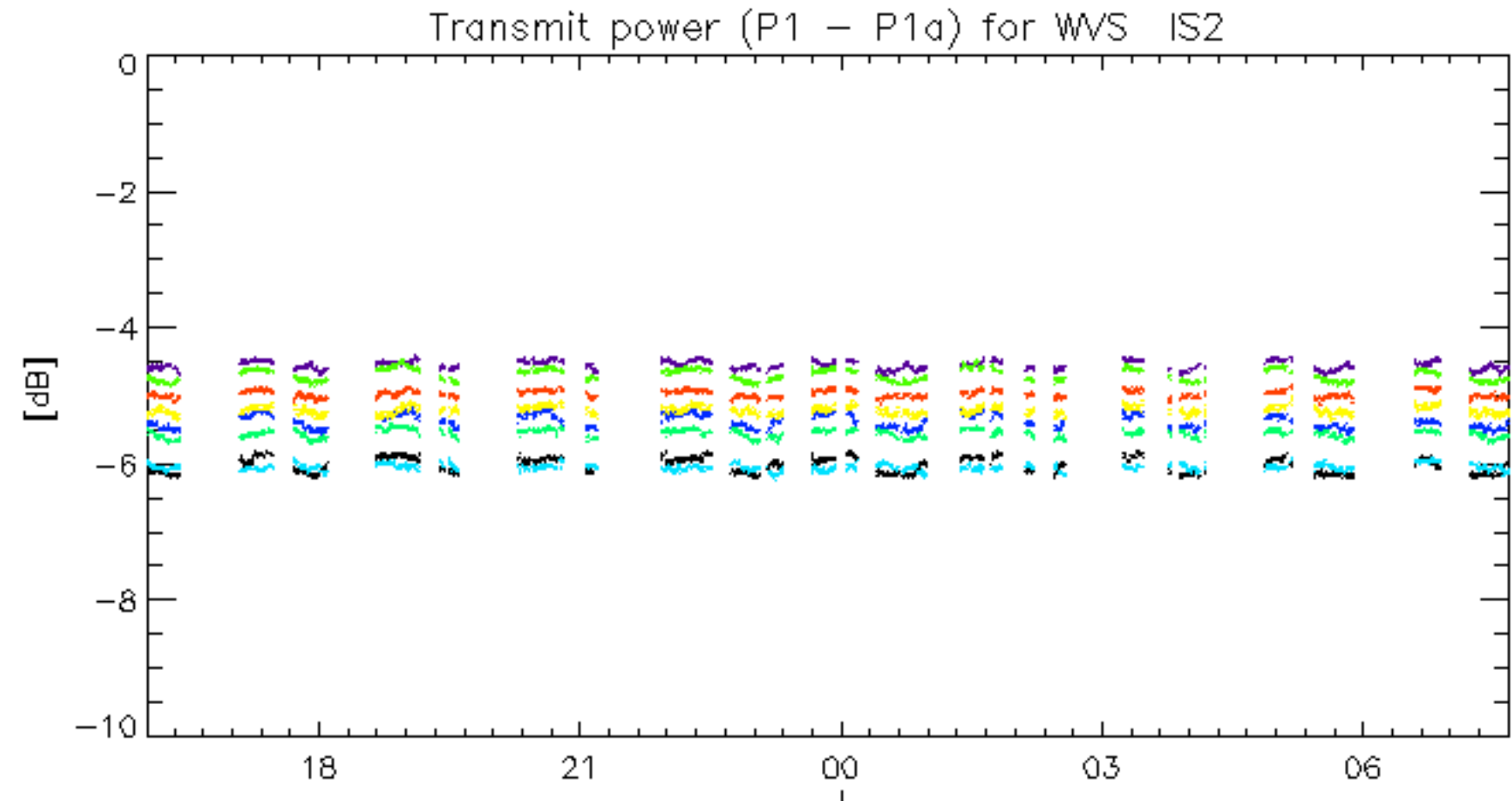
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.