

PRELIMINARY REPORT OF 060204

last update on Sat Feb 4 16:38:38 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 2006-02-03 00:00:00 to 2006-02-04 16:38:38

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	0	10	0	28
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	0	10	0	28
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	0	10	0	28
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	0	10	0	28

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	50	39	16	34
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	50	39	16	34
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	50	39	16	34
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	50	39	16	34

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	20060202 100800
H	20060203 143811

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
<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	-4.022617	0.007874	0.054491
7	P1	-3.002777	0.013604	-0.011790
11	P1	-4.095956	0.022322	0.022931
15	P1	-6.060934	0.017441	0.011797
19	P1	-3.252854	0.006266	-0.016233
22	P1	-4.478518	0.019210	0.025447
26	P1	-4.203844	0.012976	0.040312
30	P1	-5.771517	0.010094	0.002867
3	P1	-16.917526	0.264744	0.114370
7	P1	-16.633352	0.126124	-0.101447
11	P1	-16.602499	0.298612	-0.013830
15	P1	-13.206935	0.114352	0.130075
19	P1	-13.887556	0.072751	-0.017251
22	P1	-15.849182	0.565745	0.252978
26	P1	-15.765455	0.249848	0.045238
30	P1	-16.593447	0.323000	0.023810

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.582336	0.093475	0.136024
7	P2	-22.453754	0.097046	0.102569
11	P2	-16.287218	0.103376	0.091317
15	P2	-7.205005	0.104040	0.057126
19	P2	-9.167317	0.098288	0.034363
22	P2	-17.941141	0.094248	-0.013095
26	P2	-16.217232	0.101760	0.015623
30	P2	-19.646833	0.084652	0.032310

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.207815	0.007361	0.027898
7	P3	-8.207815	0.007361	0.027898
11	P3	-8.207815	0.007361	0.027898
15	P3	-8.207815	0.007361	0.027898
19	P3	-8.207815	0.007361	0.027898
22	P3	-8.207815	0.007361	0.027898
26	P3	-8.207815	0.007361	0.027898
30	P3	-8.207815	0.007361	0.027898

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	-3.726606	0.011013	-0.030983
7	P1	-2.745041	0.007543	0.021760
11	P1	-2.870961	0.011746	-0.050147
15	P1	-3.474028	0.019420	-0.080567
19	P1	-3.377963	0.012396	-0.018067
22	P1	-5.129530	0.021581	-0.065489
26	P1	-5.850883	0.015946	0.002733
30	P1	-5.239951	0.028909	0.032098
3	P1	-11.527945	0.039106	-0.032278
7	P1	-9.921236	0.048615	-0.011944
11	P1	-10.096135	0.050816	-0.134358
15	P1	-10.637123	0.090256	-0.105661
19	P1	-15.466026	0.061076	0.037773
22	P1	-20.553675	1.247132	0.407807
26	P1	-16.737680	0.346084	0.439218
30	P1	-18.172306	0.325423	-0.147343

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.382879	0.034700	0.202000
7	P2	-22.821327	0.065587	0.200818
11	P2	-11.406527	0.021980	0.130279
15	P2	-4.903999	0.026561	0.061422
19	P2	-6.909545	0.023201	0.037313
22	P2	-8.187693	0.023595	0.003210
26	P2	-23.962399	0.025326	0.023628
30	P2	-22.091209	0.018869	0.010059

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.046821	0.002558	0.033675
7	P3	-8.046672	0.002555	0.032813
11	P3	-8.046762	0.002550	0.033685
15	P3	-8.046839	0.002574	0.033734
19	P3	-8.046879	0.002562	0.033465
22	P3	-8.046802	0.002552	0.033143
26	P3	-8.046804	0.002557	0.032995
30	P3	-8.046798	0.002573	0.033582

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	0.000565859
	stdev	1.64998e-07
MEAN Q	mean	0.000525368
	stdev	2.11867e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139878
	stdev	0.00116875
STDEV Q	mean	0.140241
	stdev	0.00118825



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006020[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_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







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

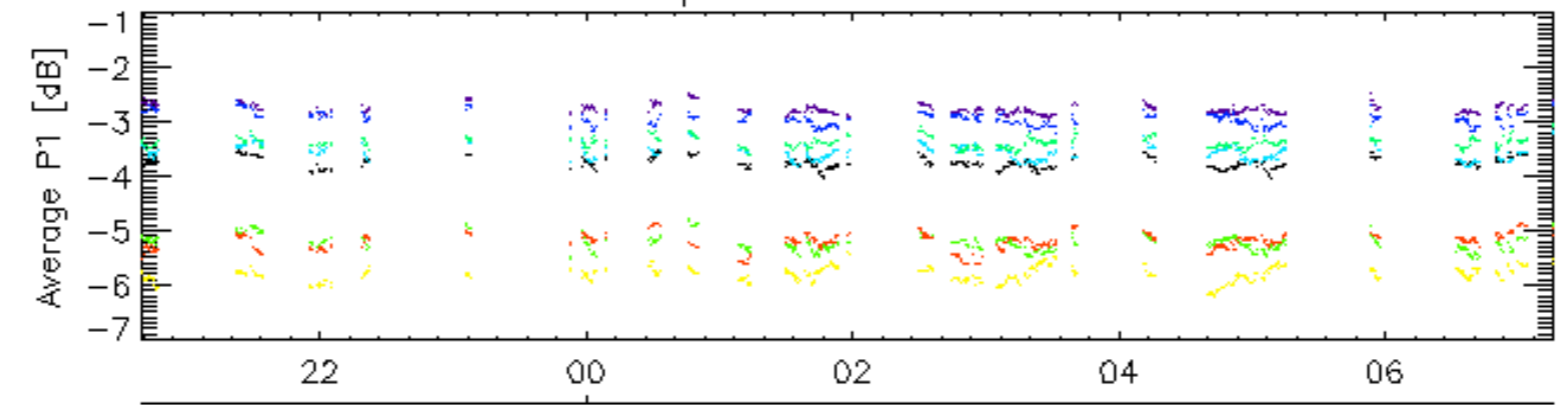
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

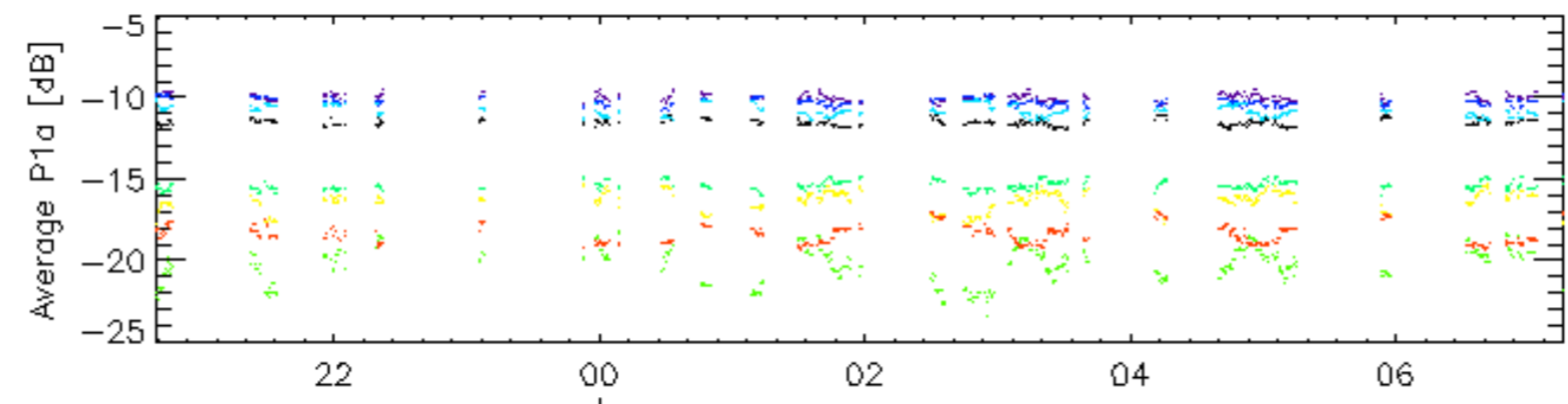
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

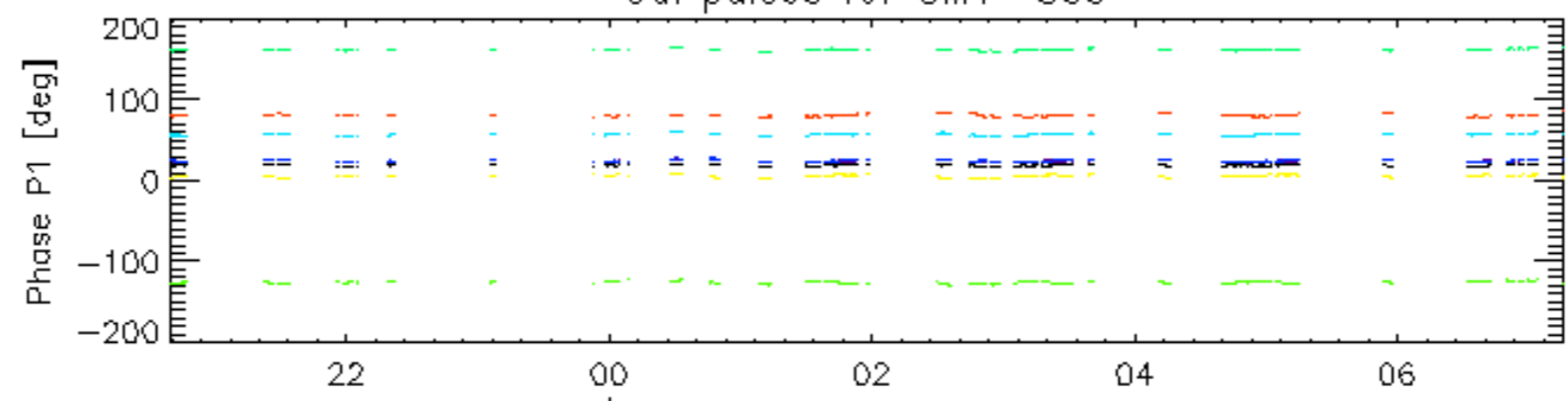


04-Feb

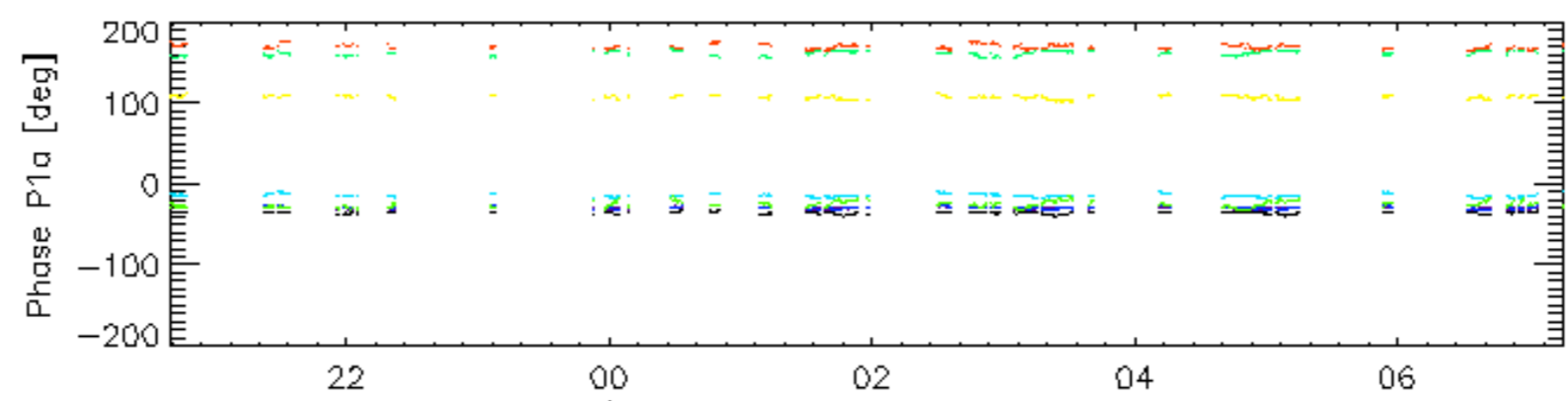


04-Feb

Cal pulses for GM1 SS3

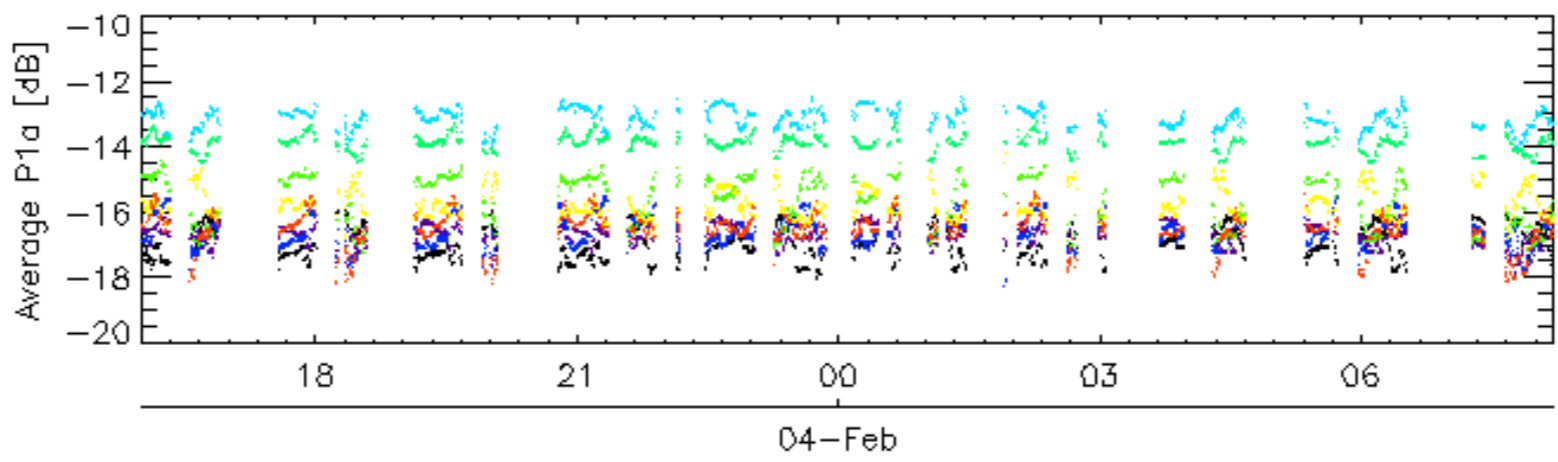
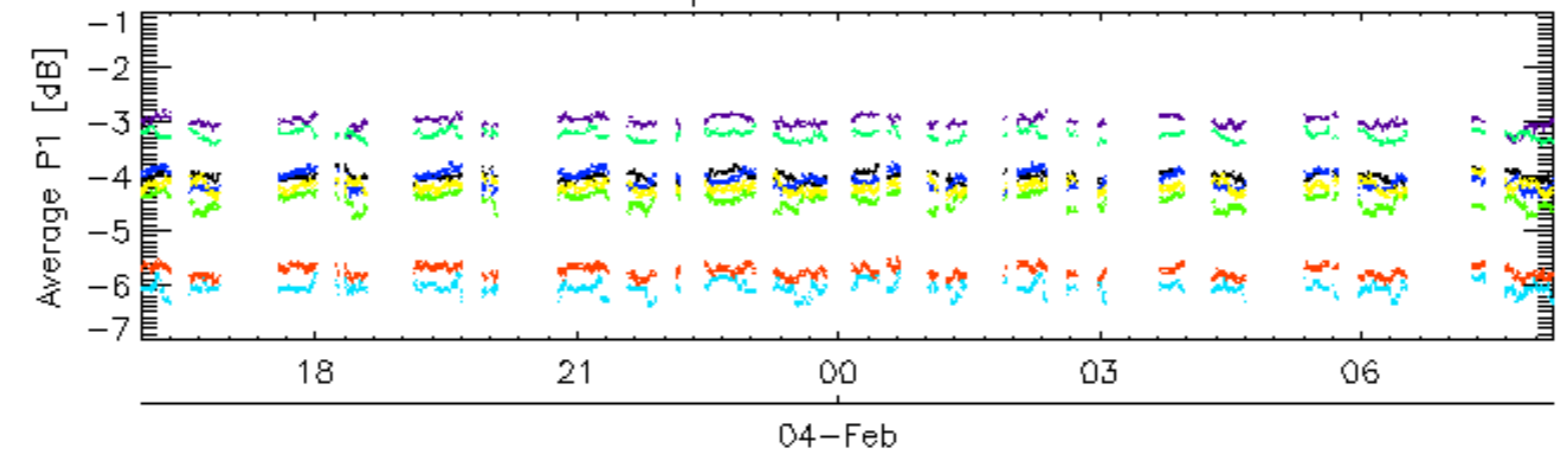


04-Feb

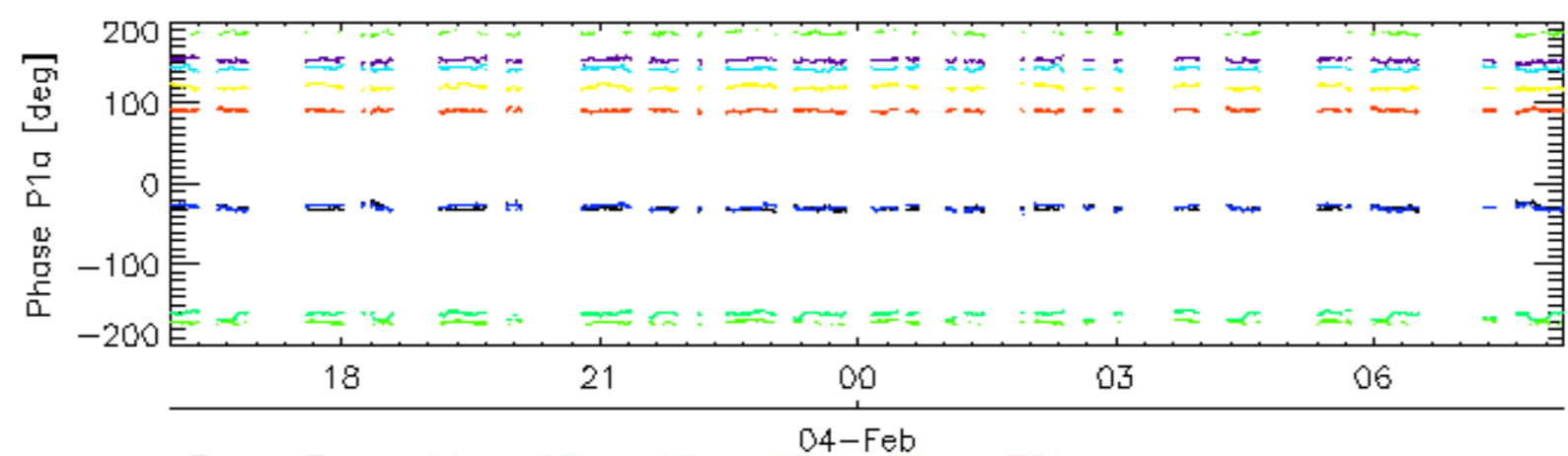
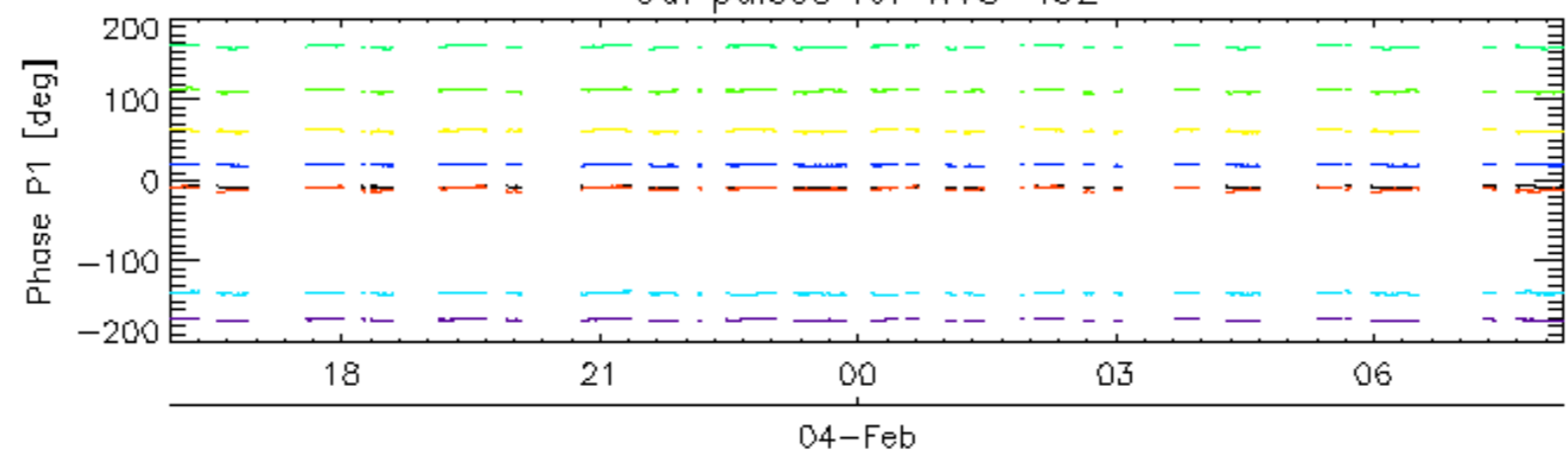


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

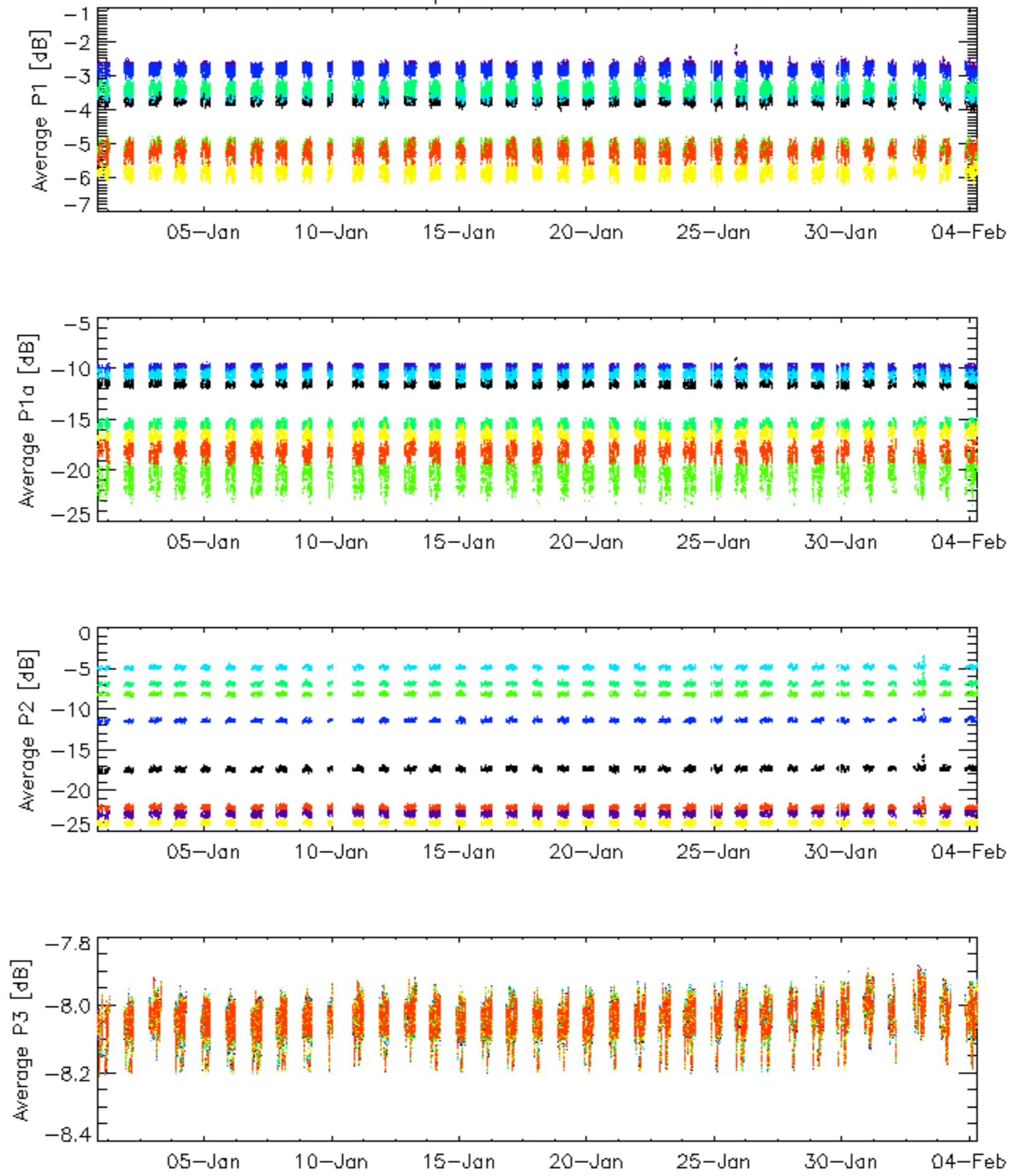


Cal pulses for WVS IS2



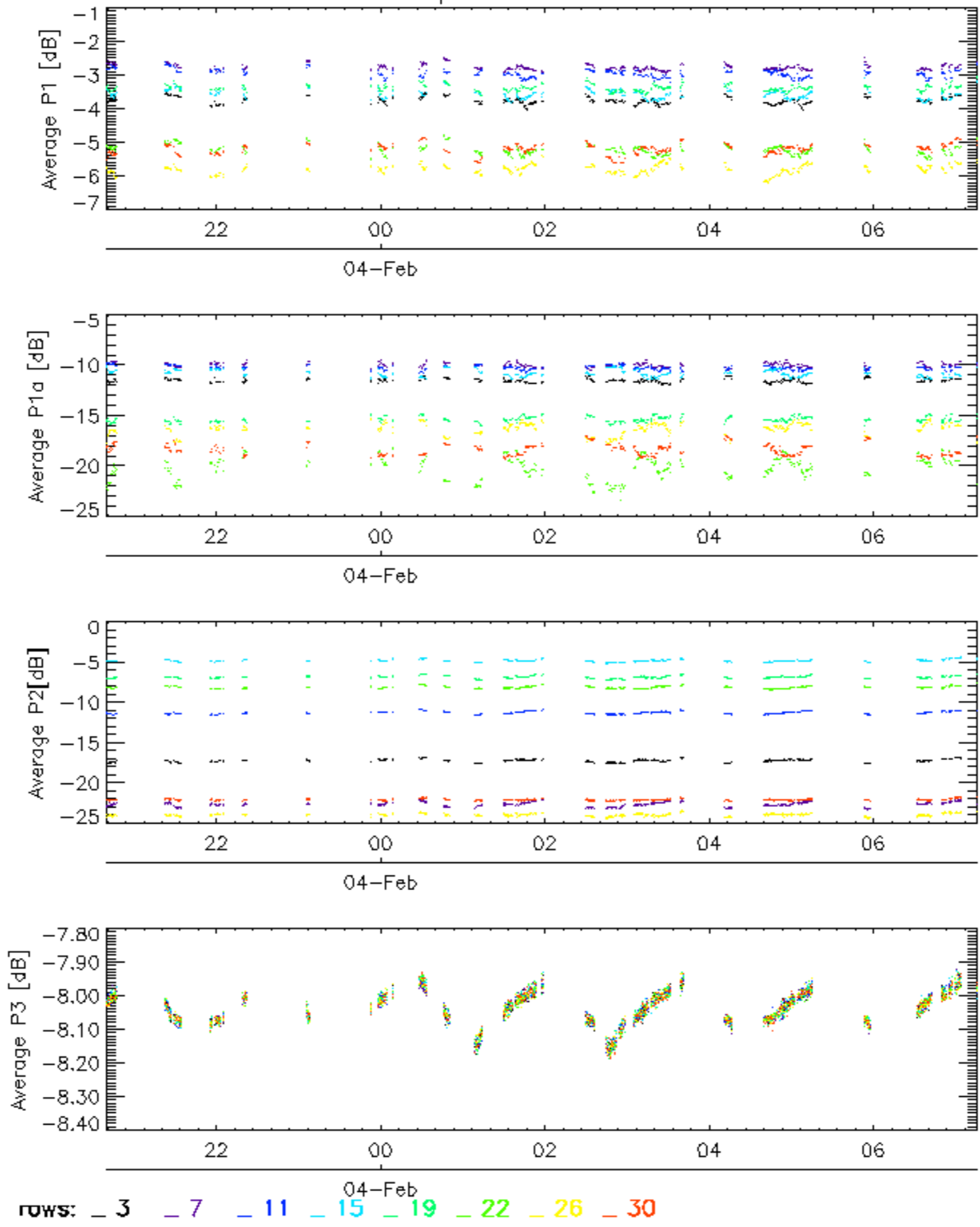
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

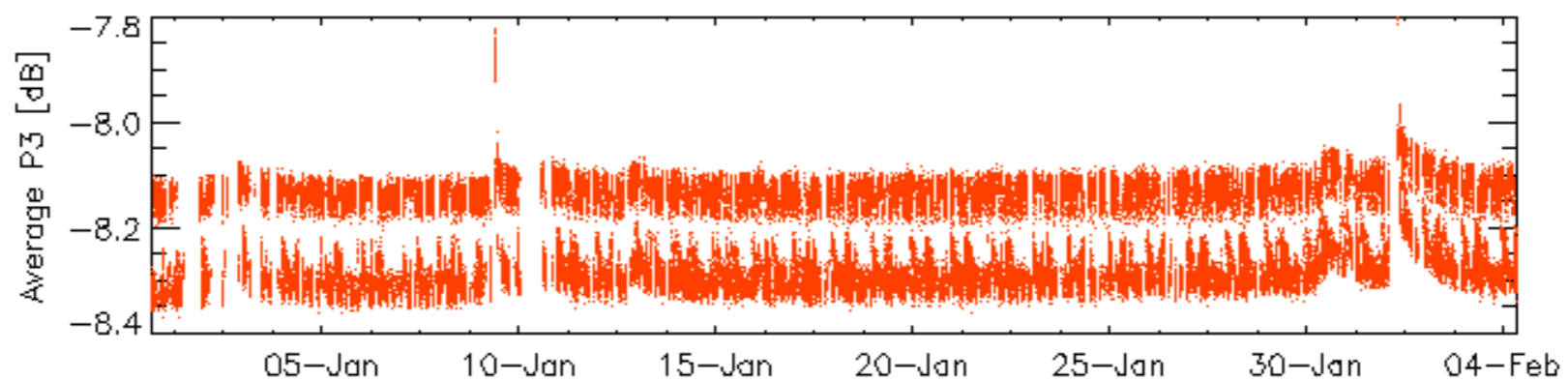
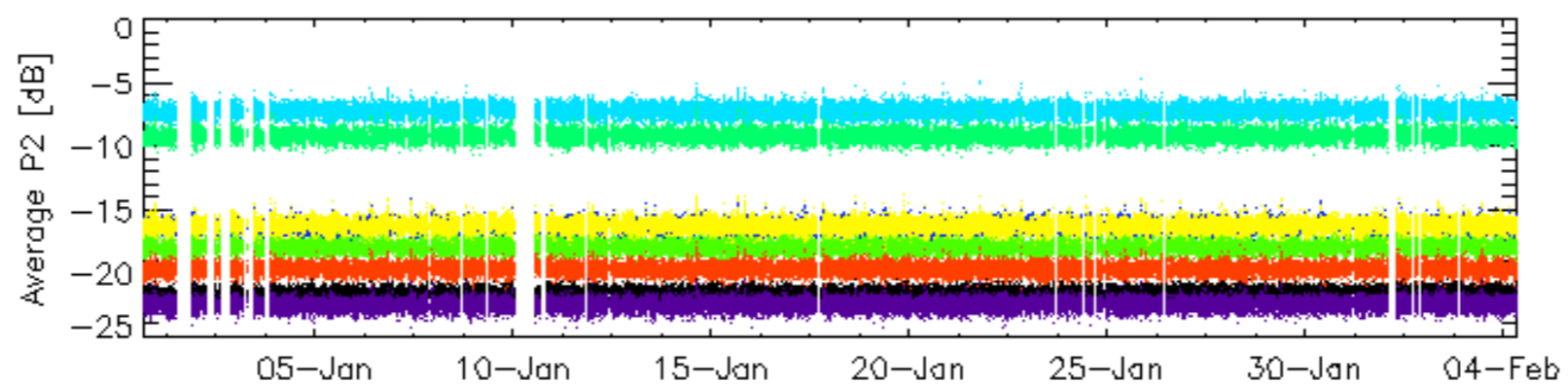
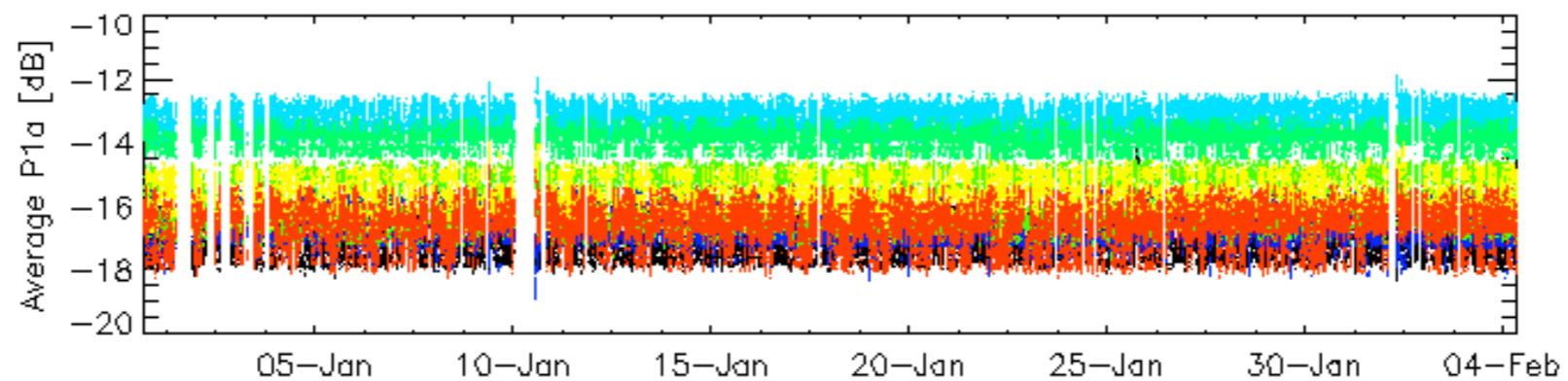
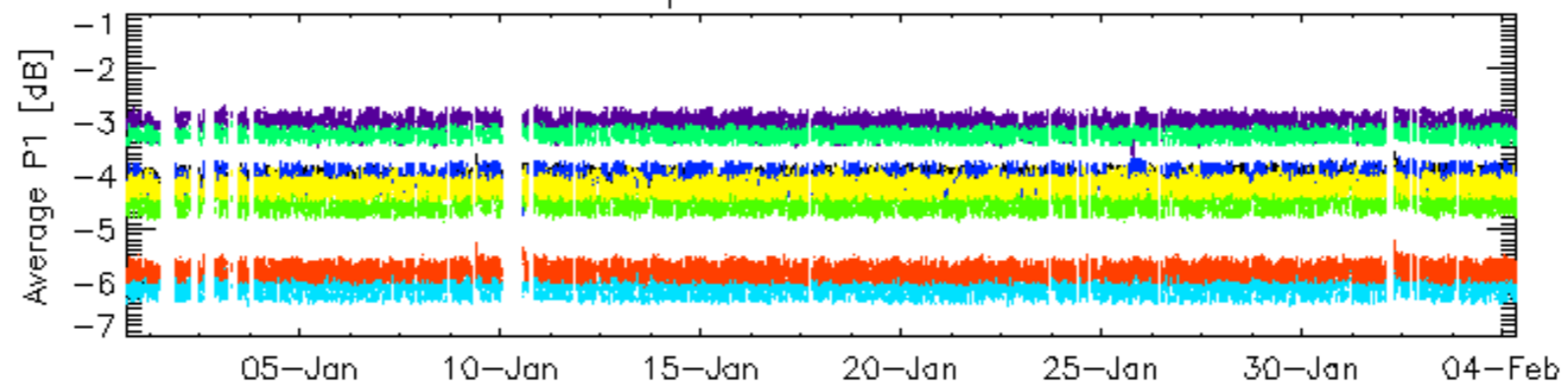


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

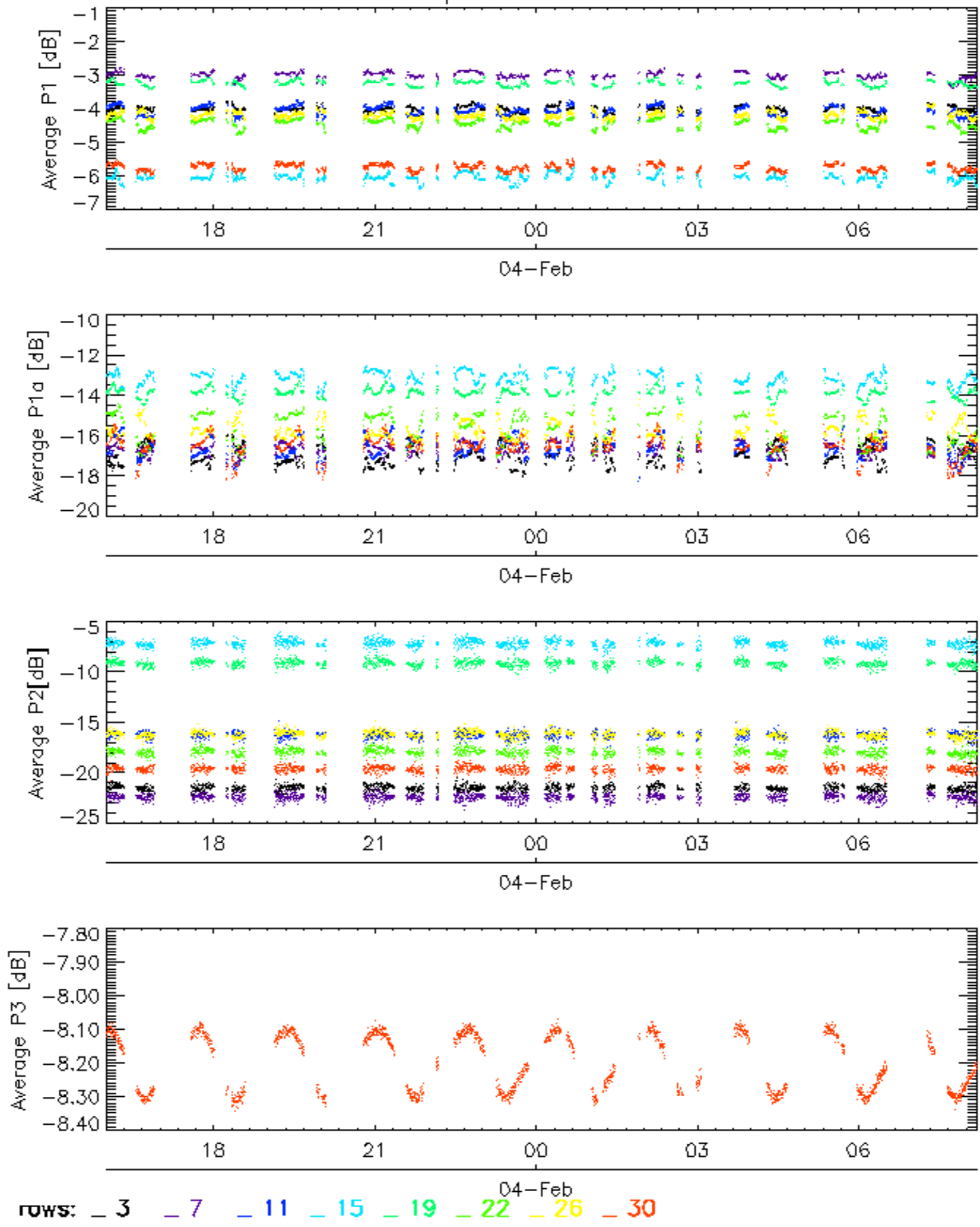


Cal pulses for WVS IS2

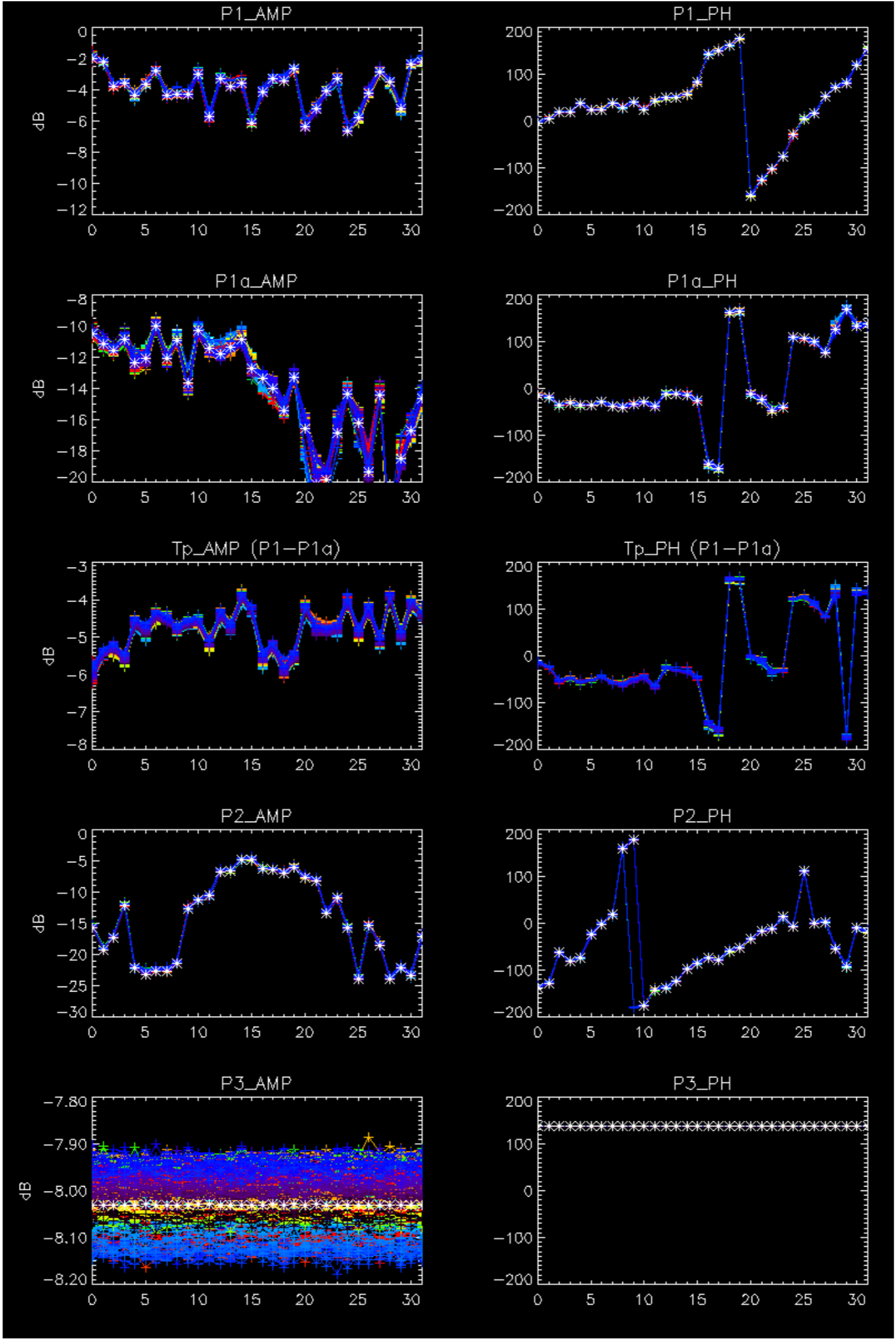


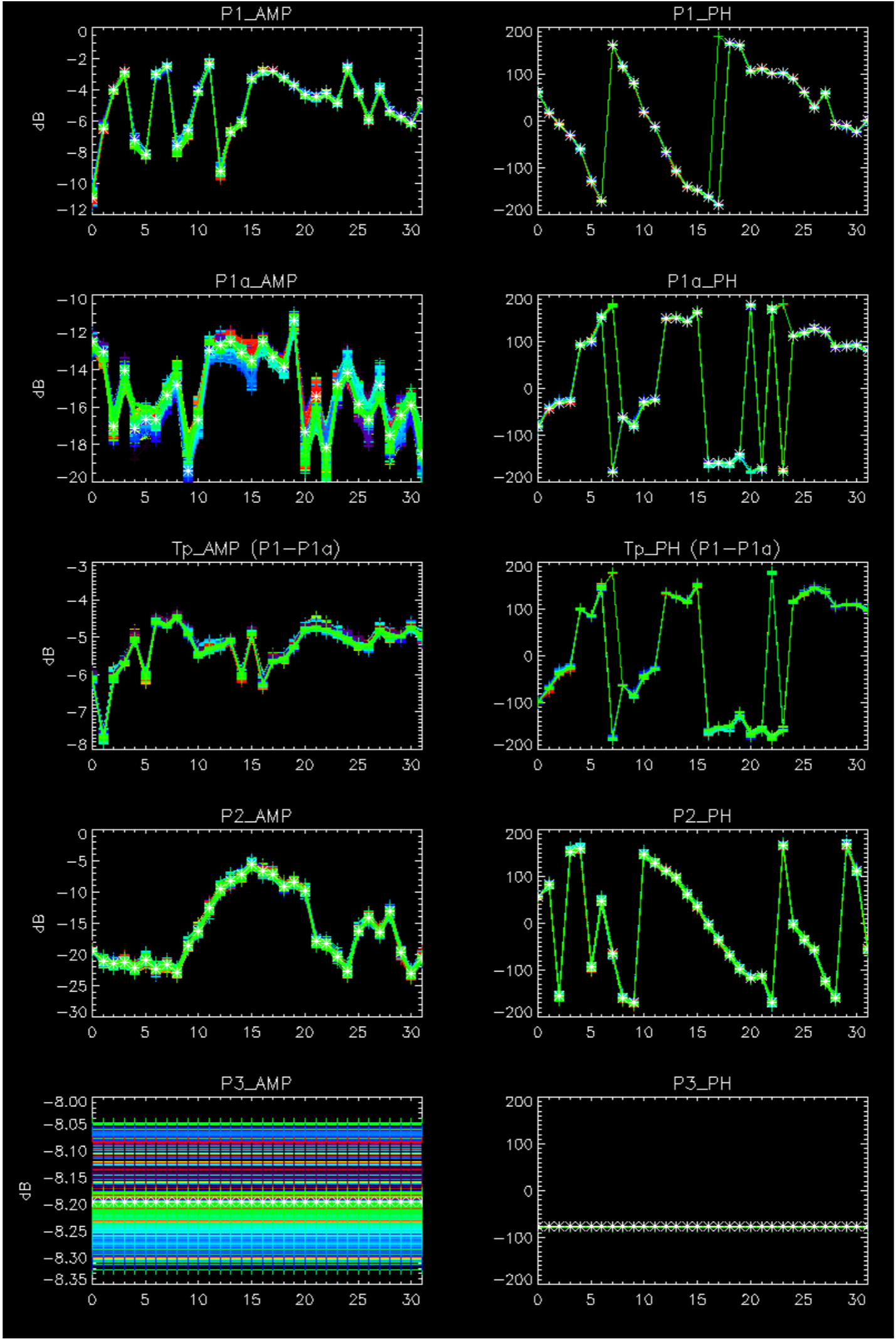
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



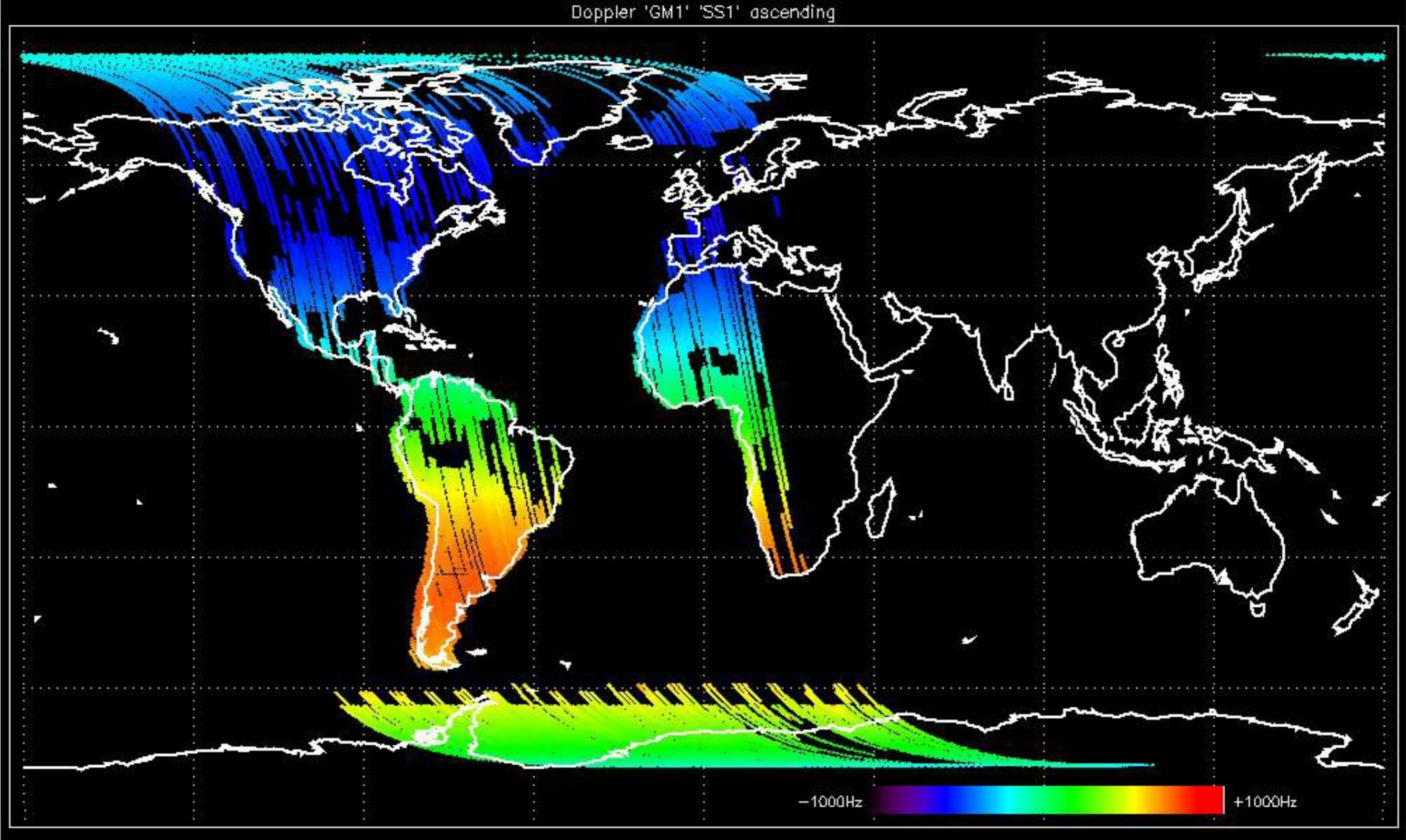
No anomalies observed.



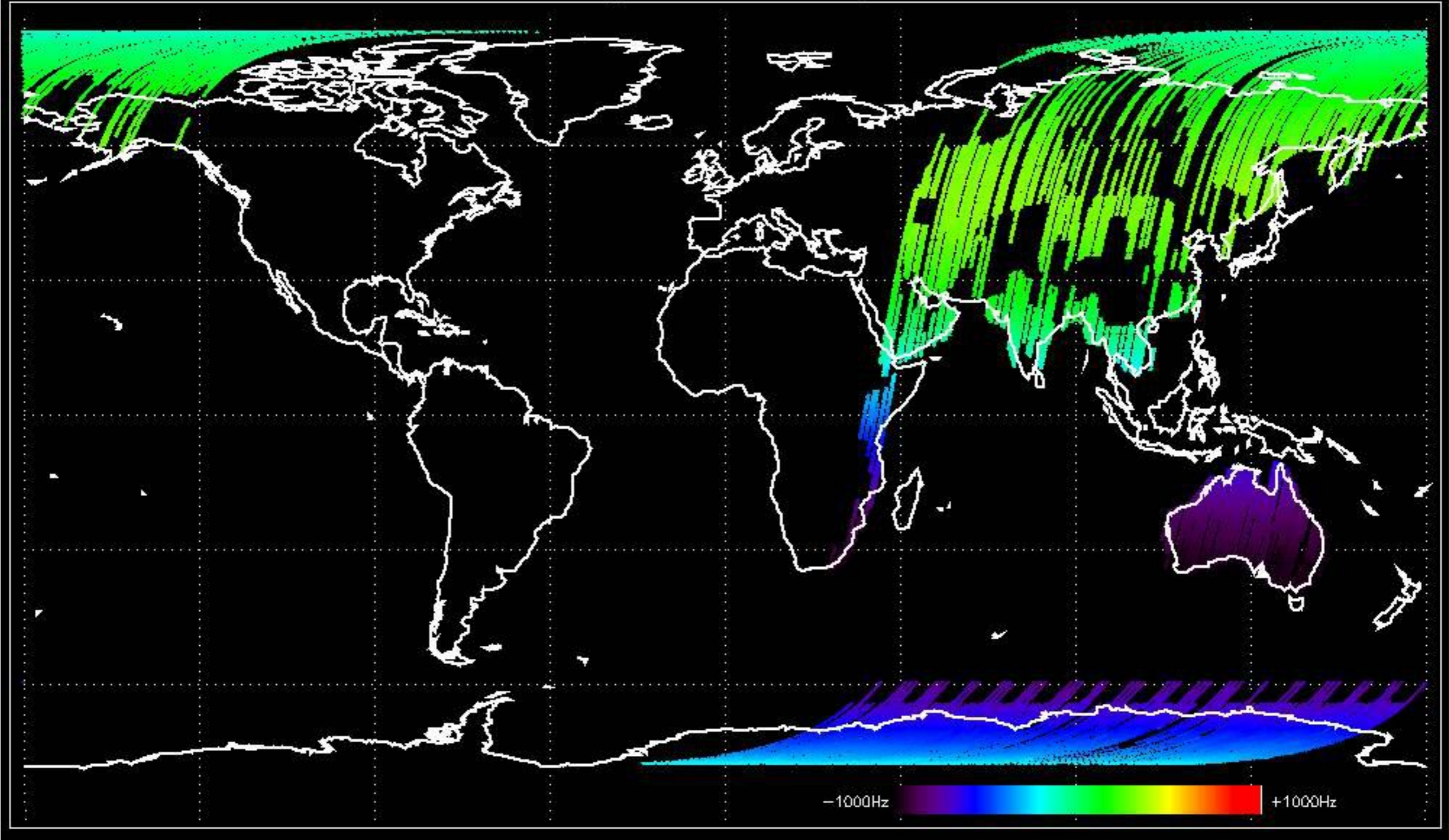


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

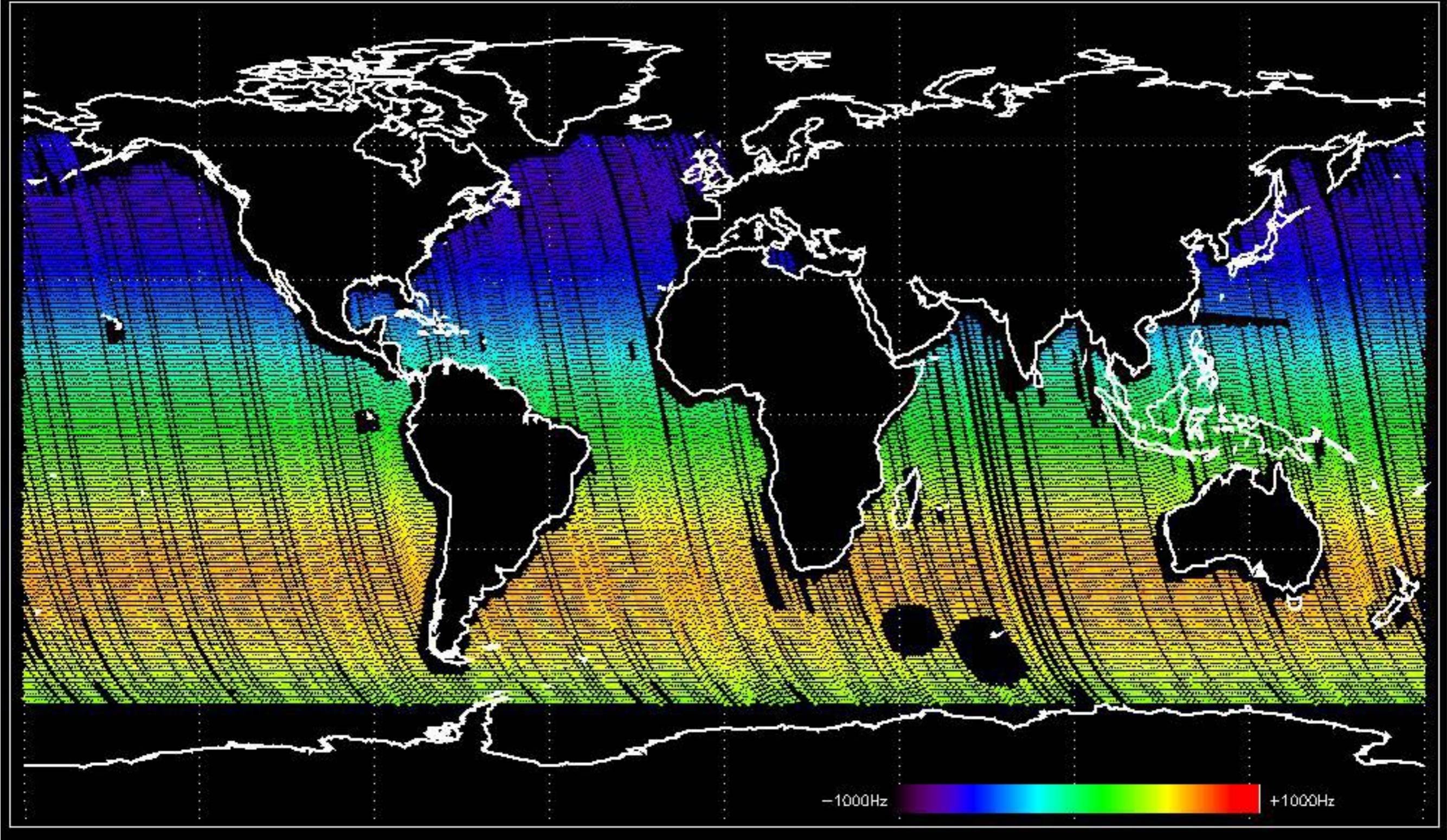
Doppler 'GM1' 'SS1' ascending



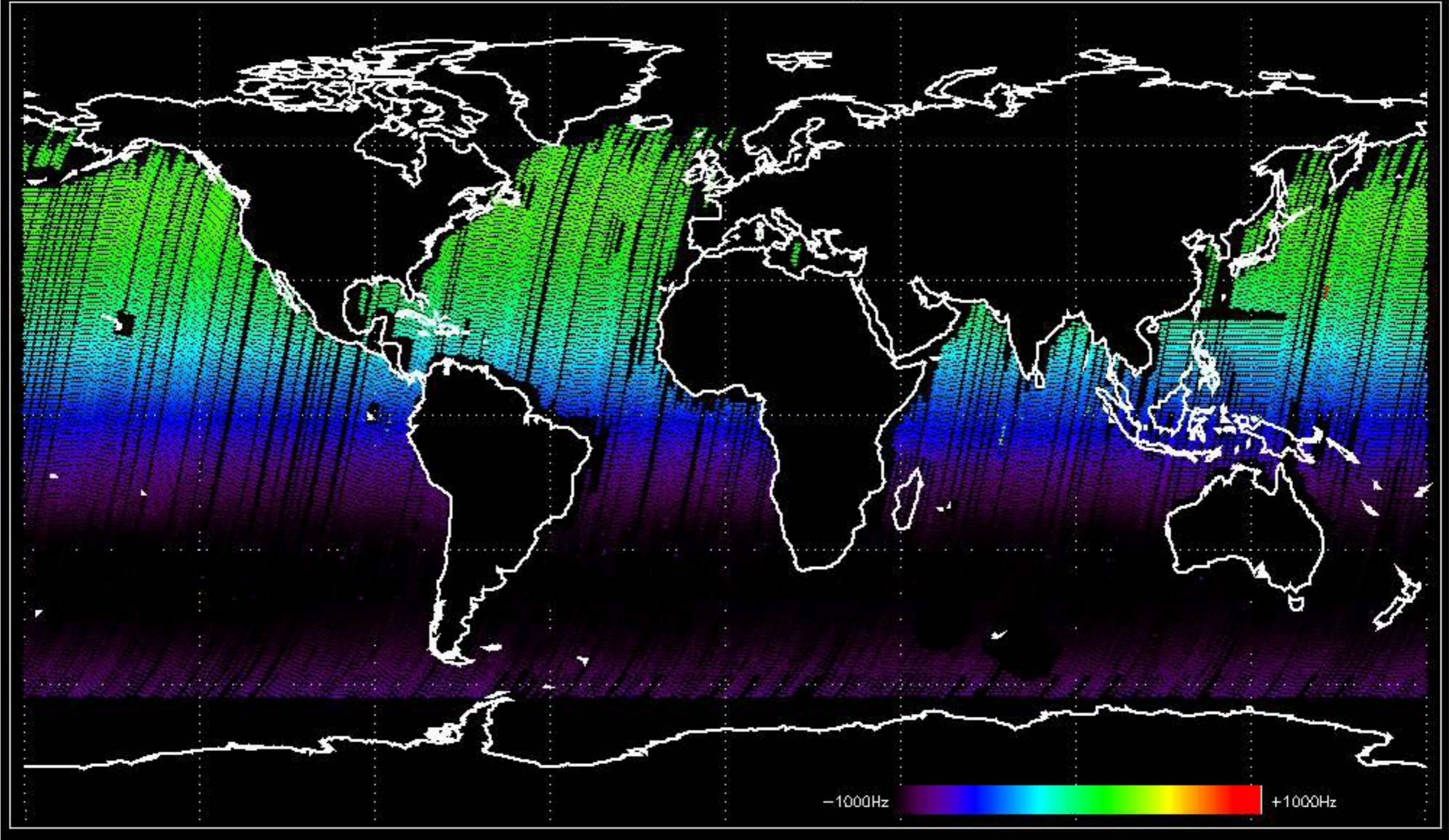
Doppler 'GM1' 'SS1' descending



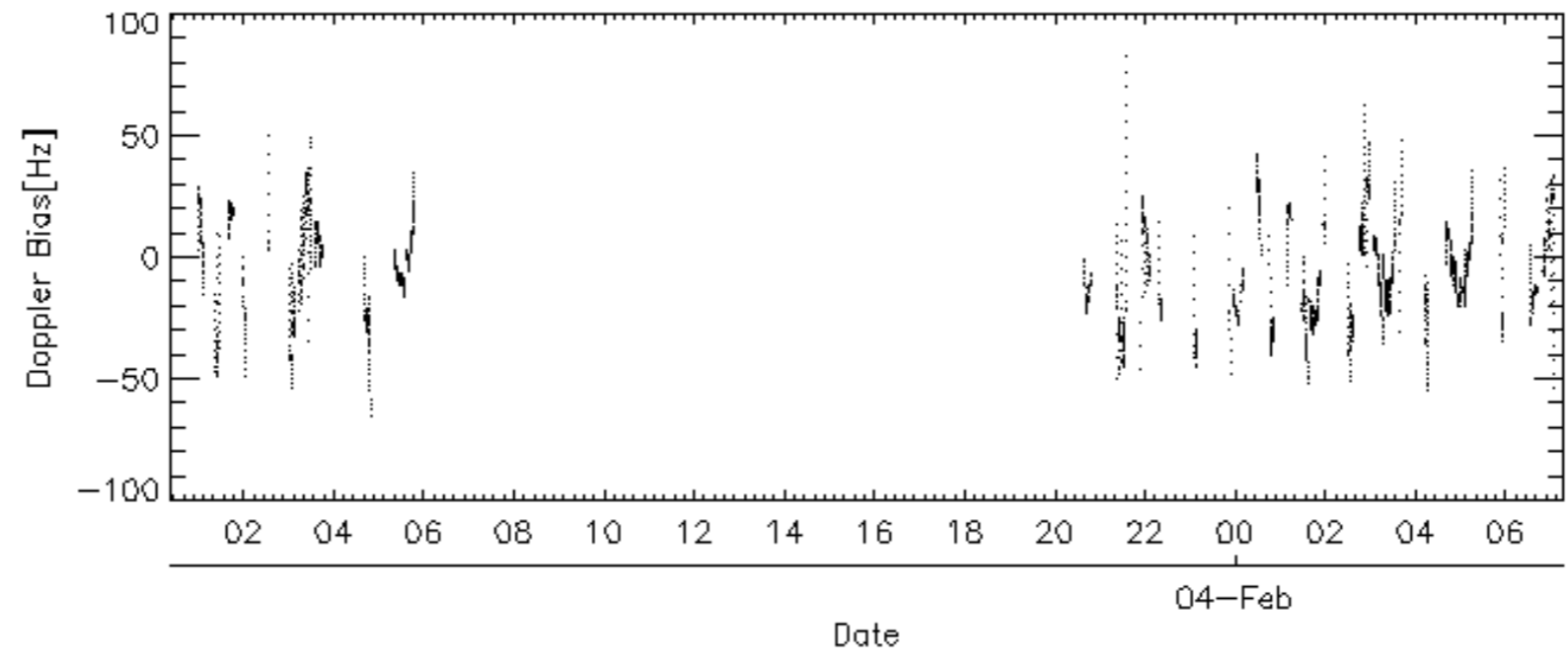
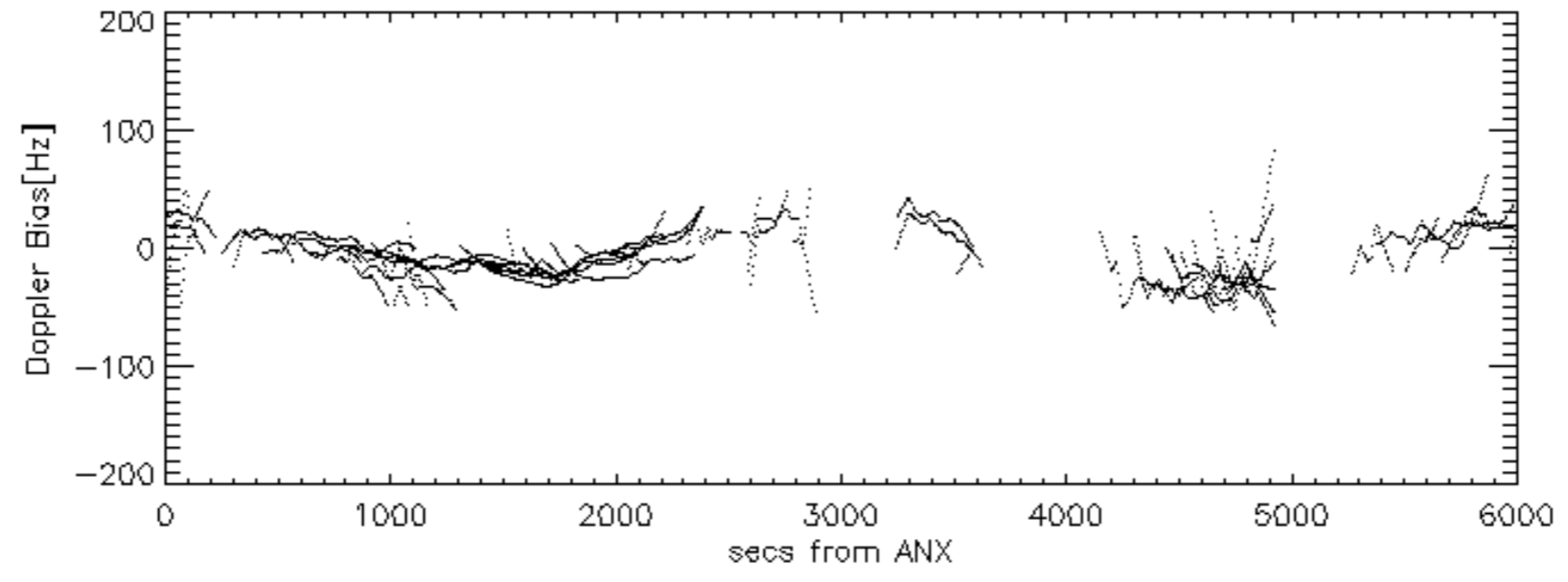
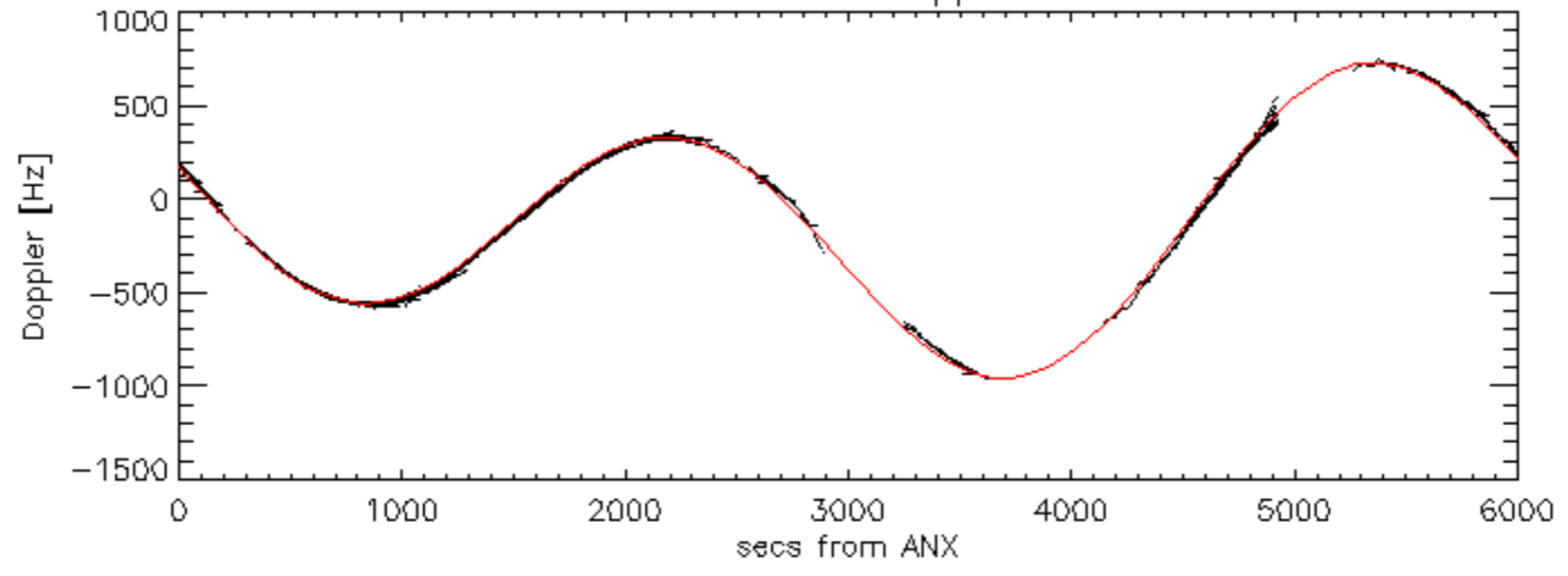
Doppler 'WVS' 'IS2' ascending

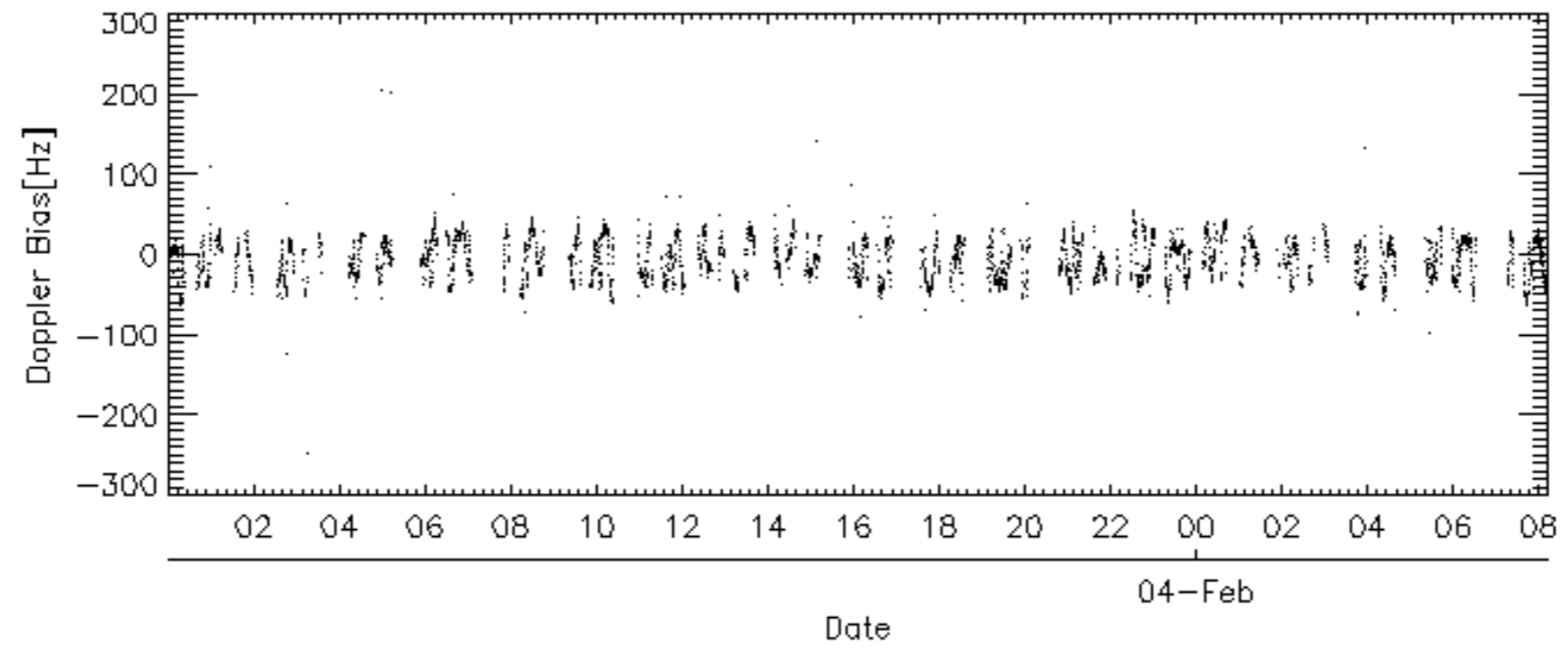
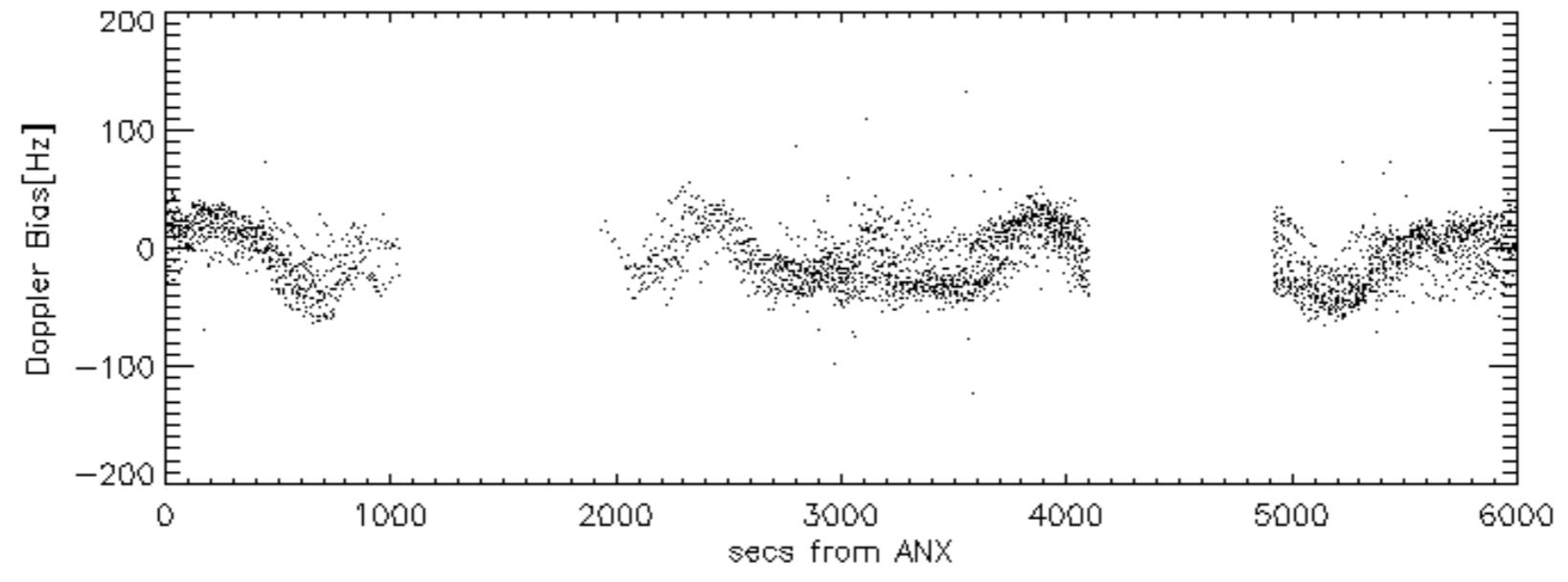
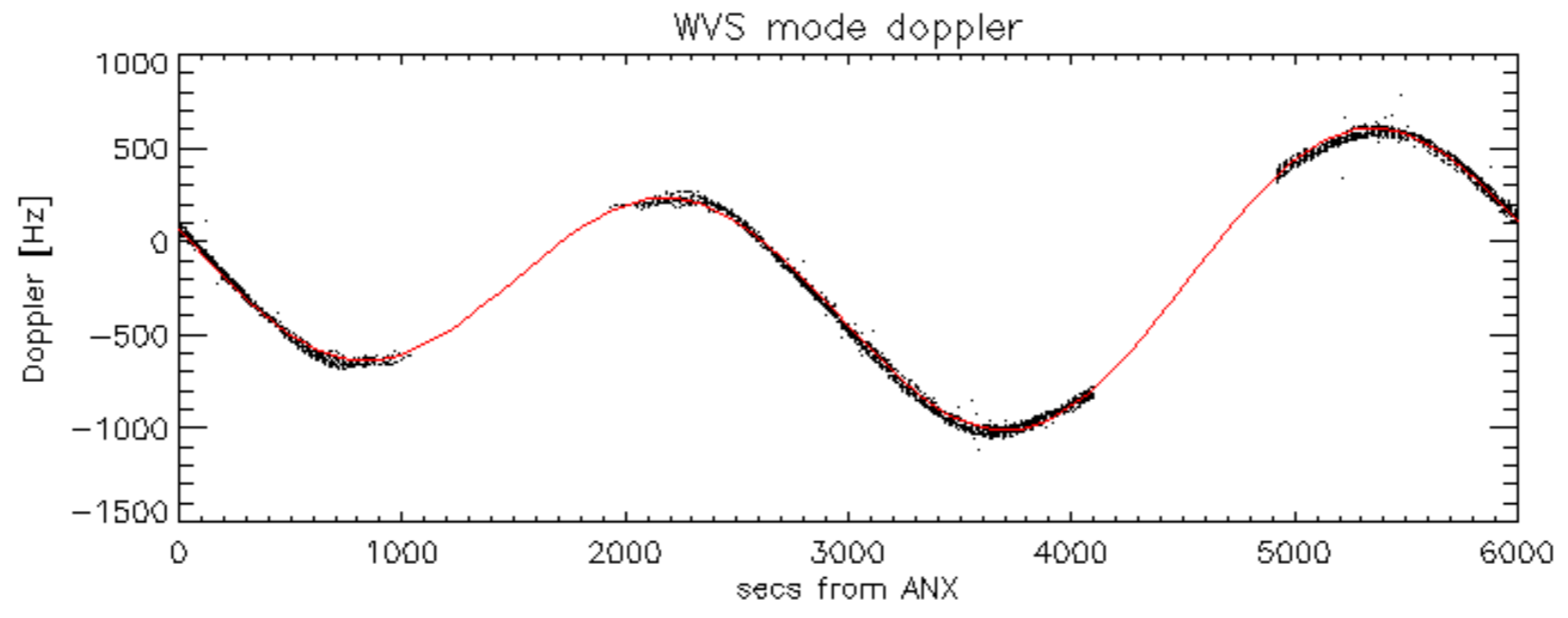


Doppler 'WVS' 'IS2' descending

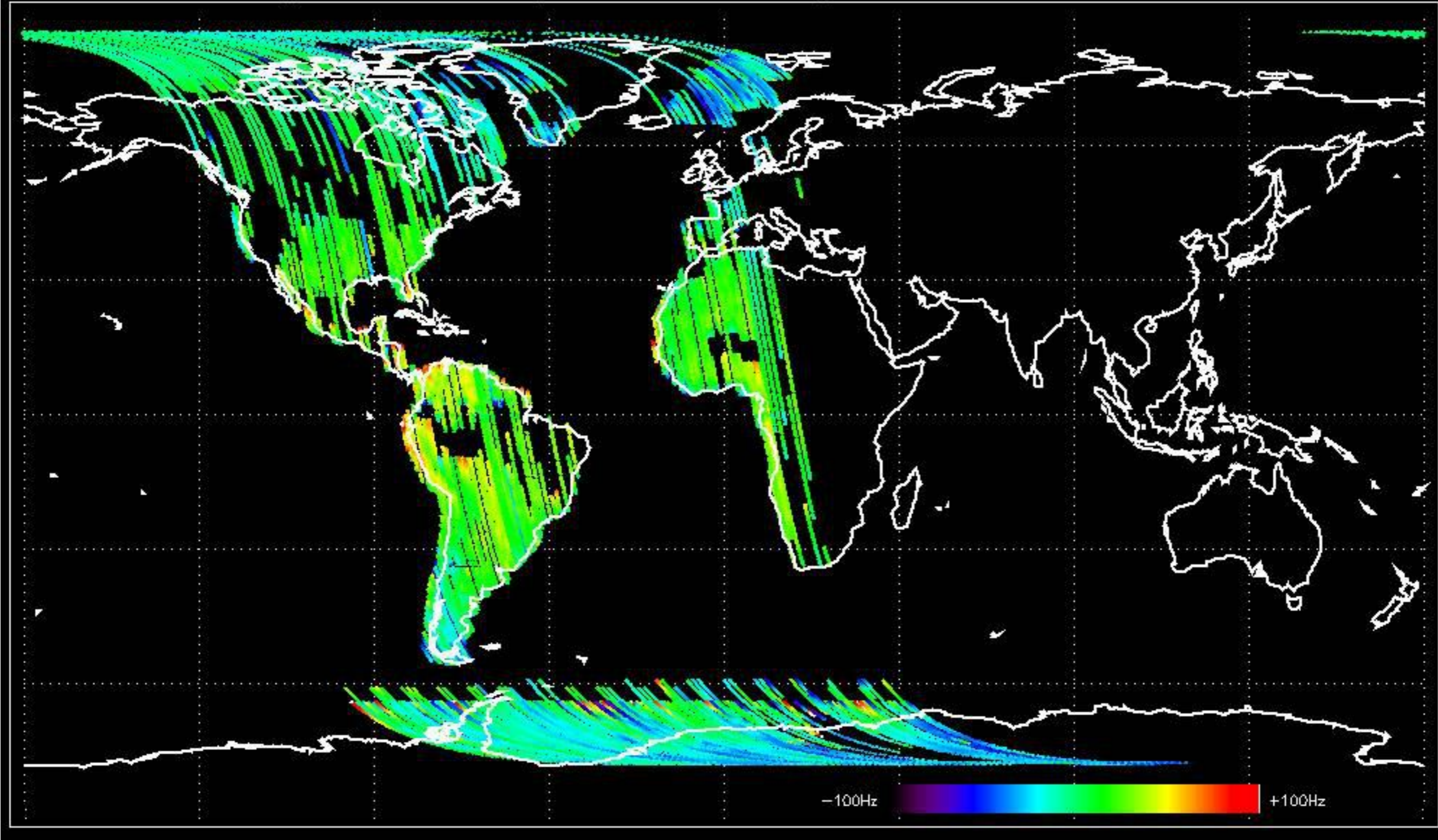


GM1 mode doppler

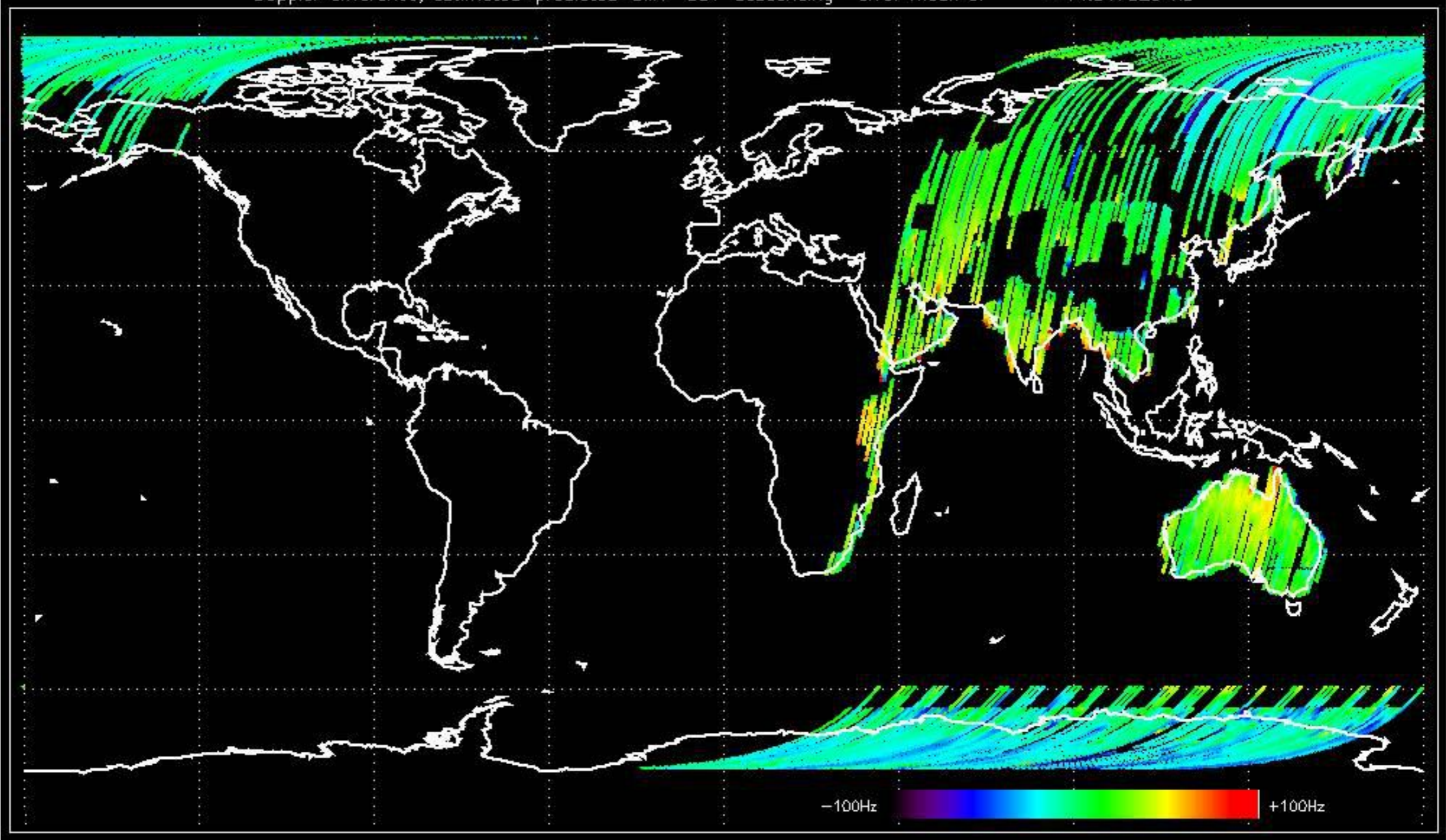




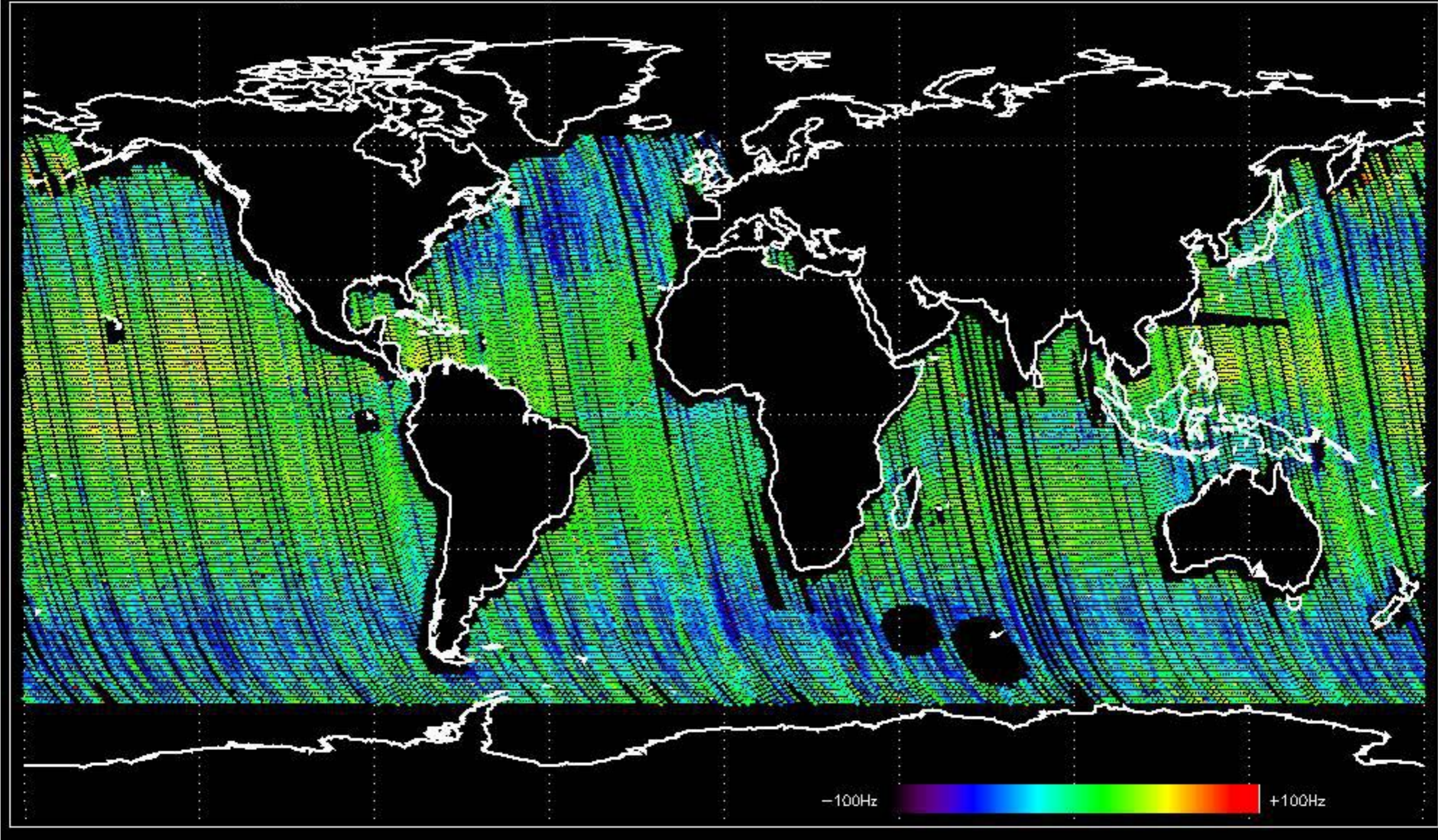
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -10.471366 Hz



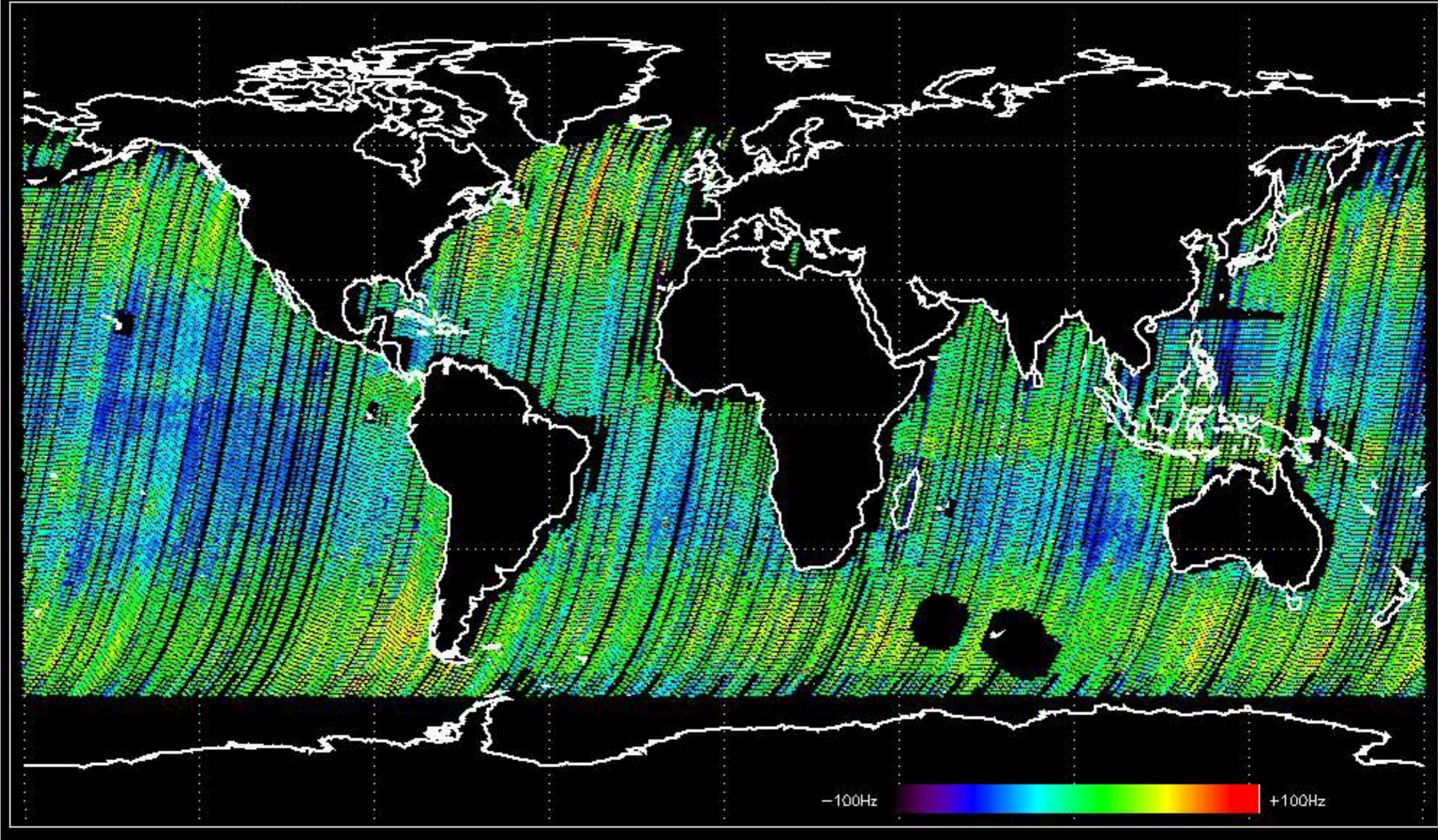
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.547829 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.5840760 Hz

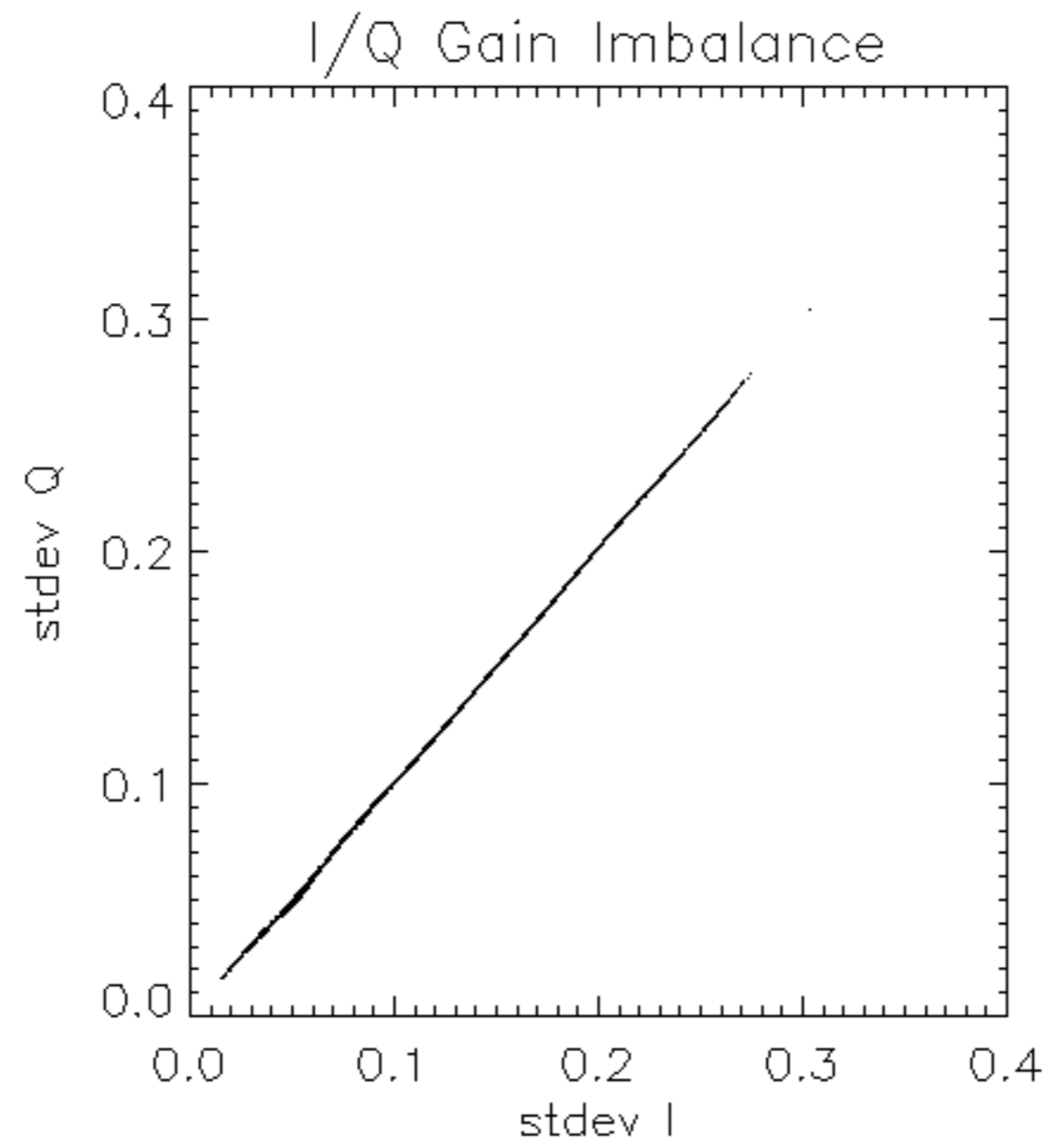


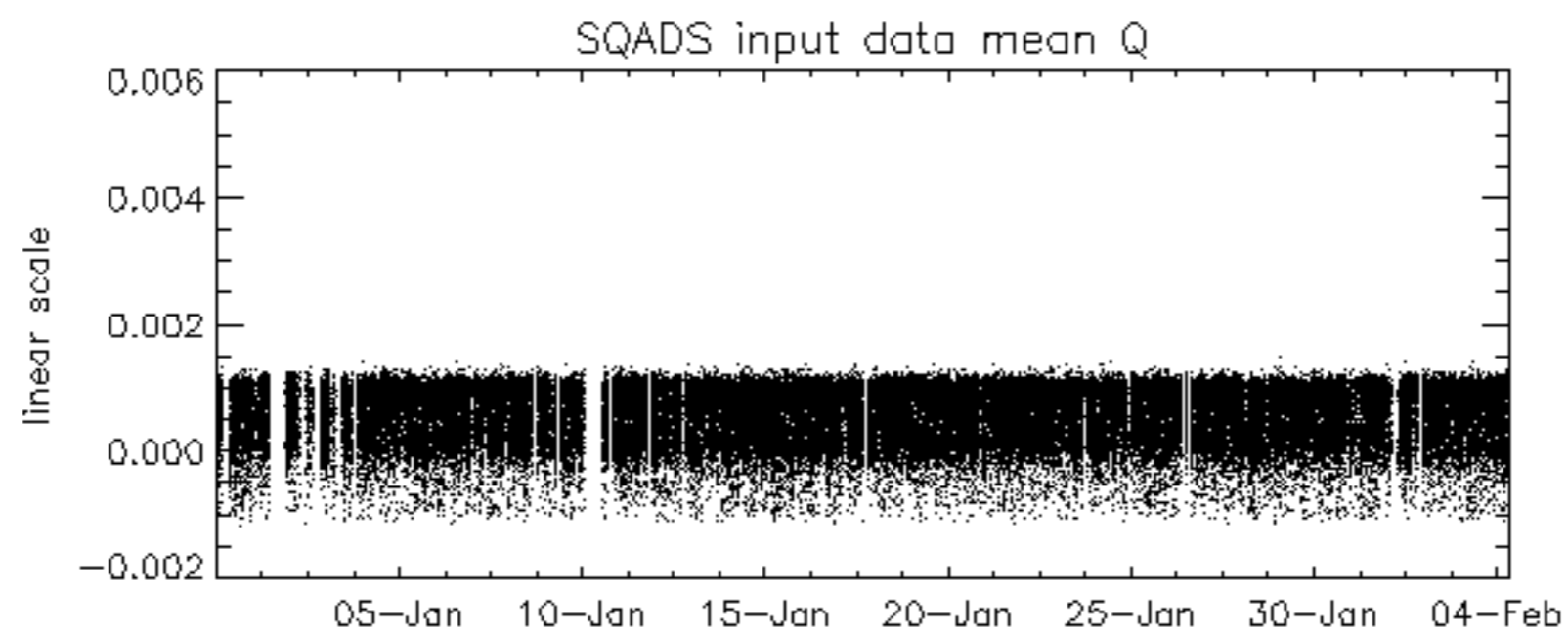
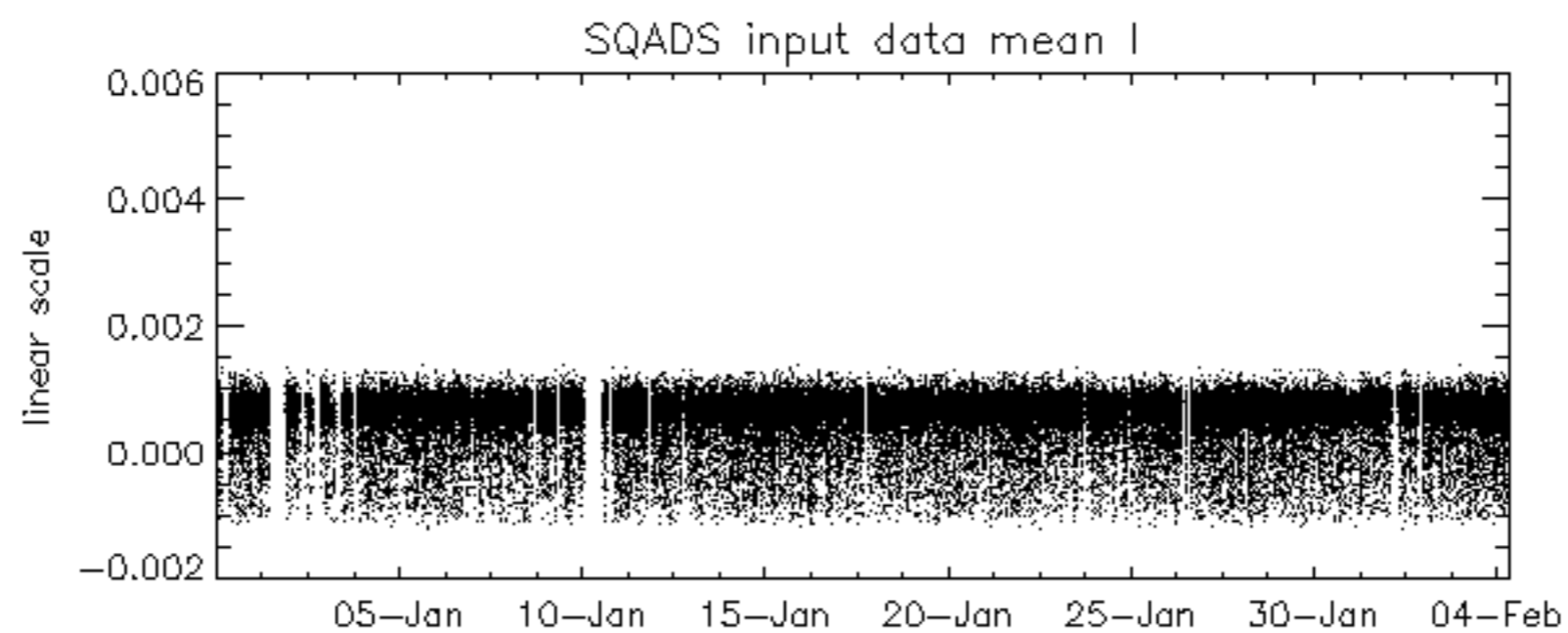
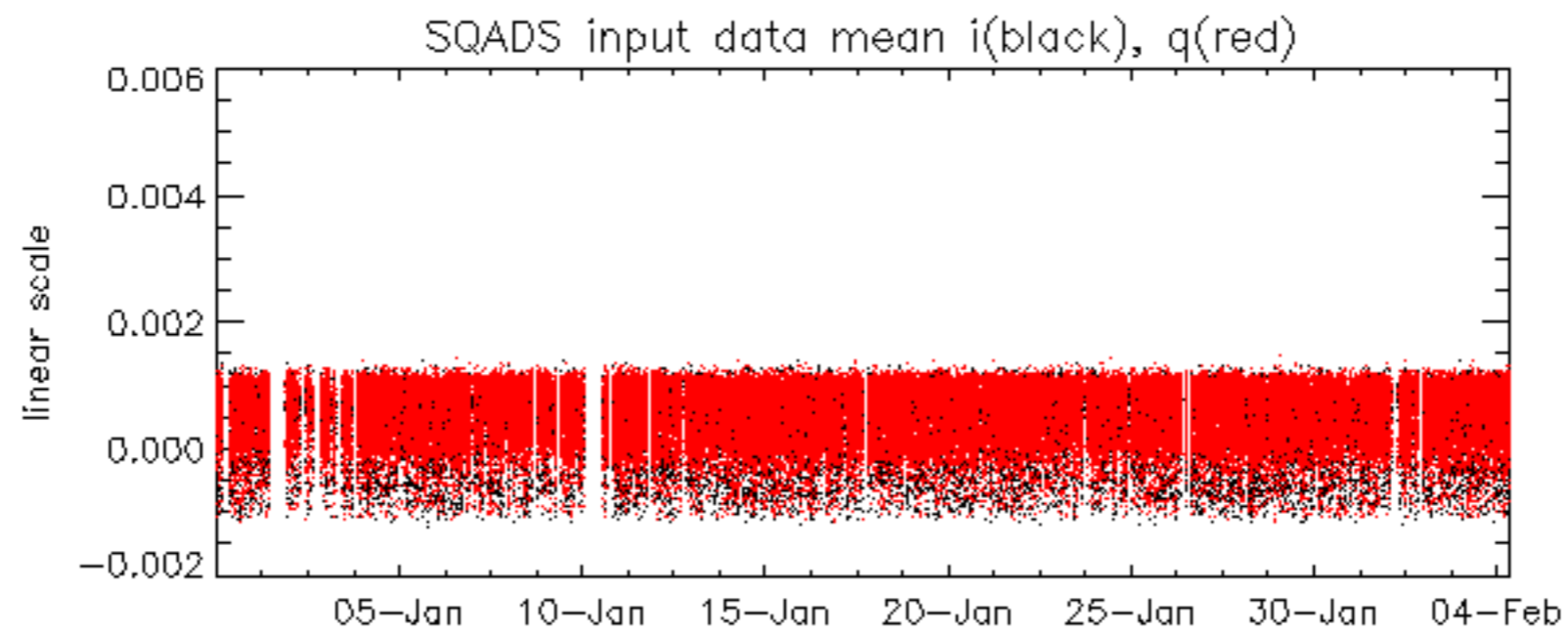
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.328148 Hz

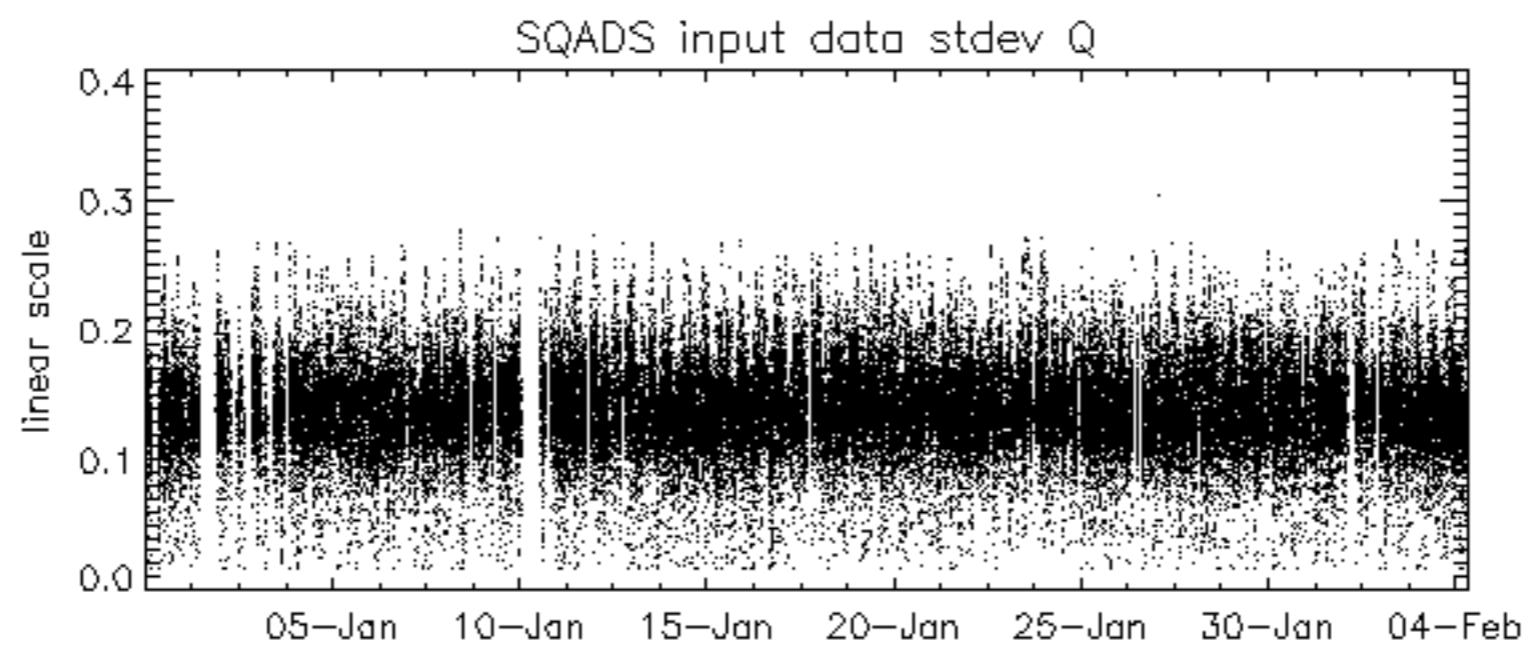
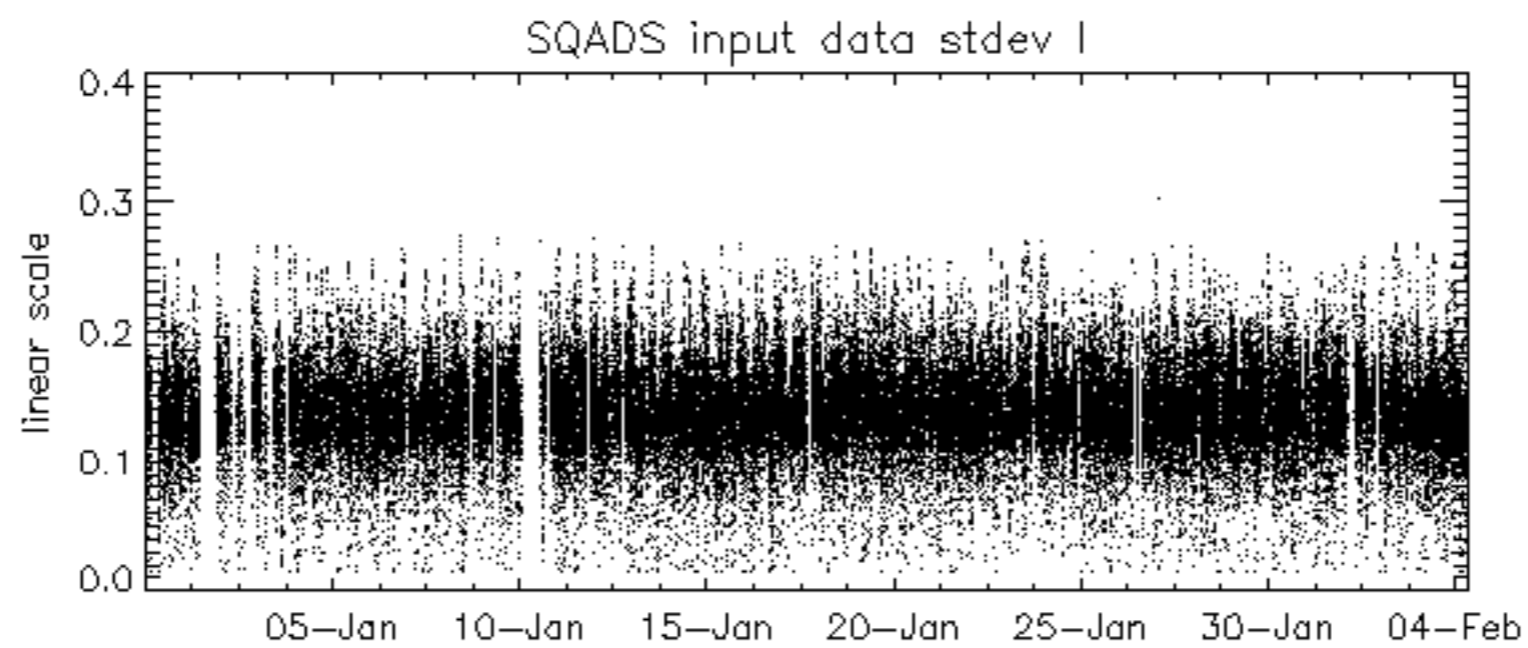
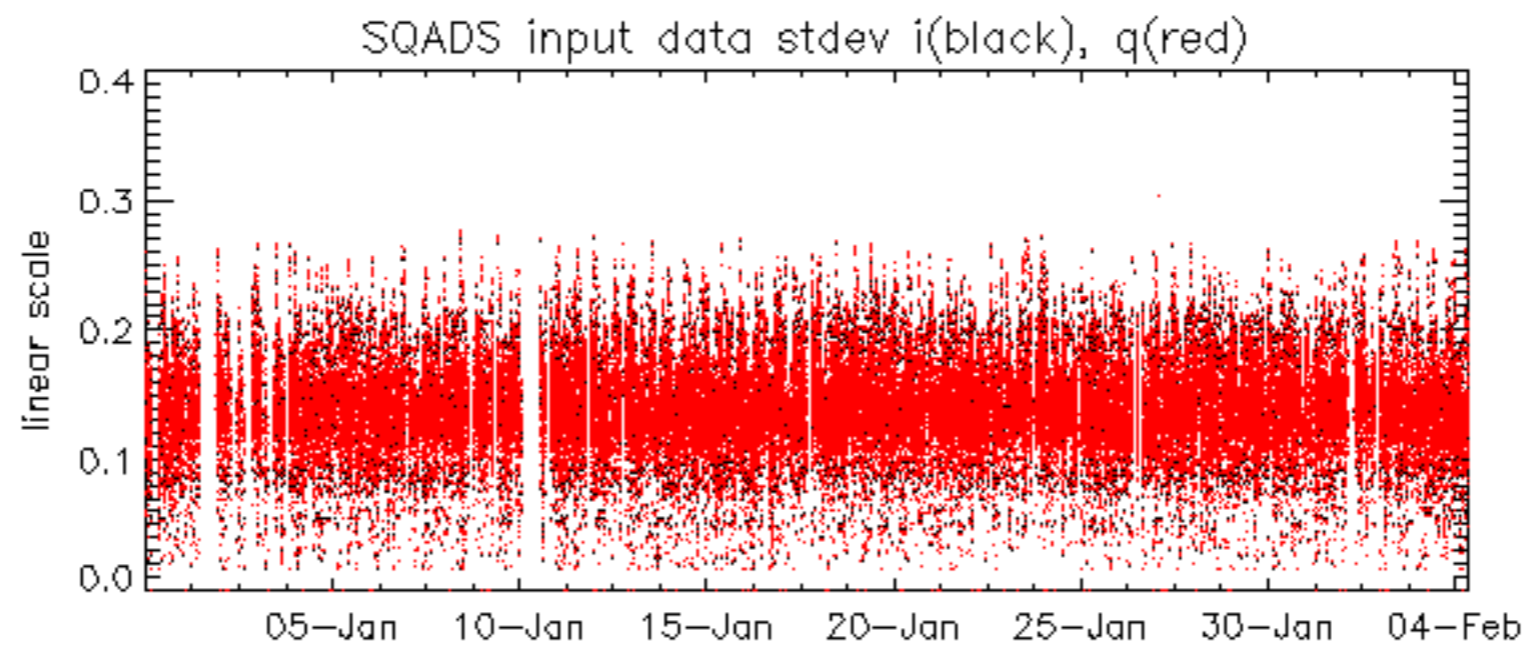


No anomalies observed on available MS products:

No anomalies observed.



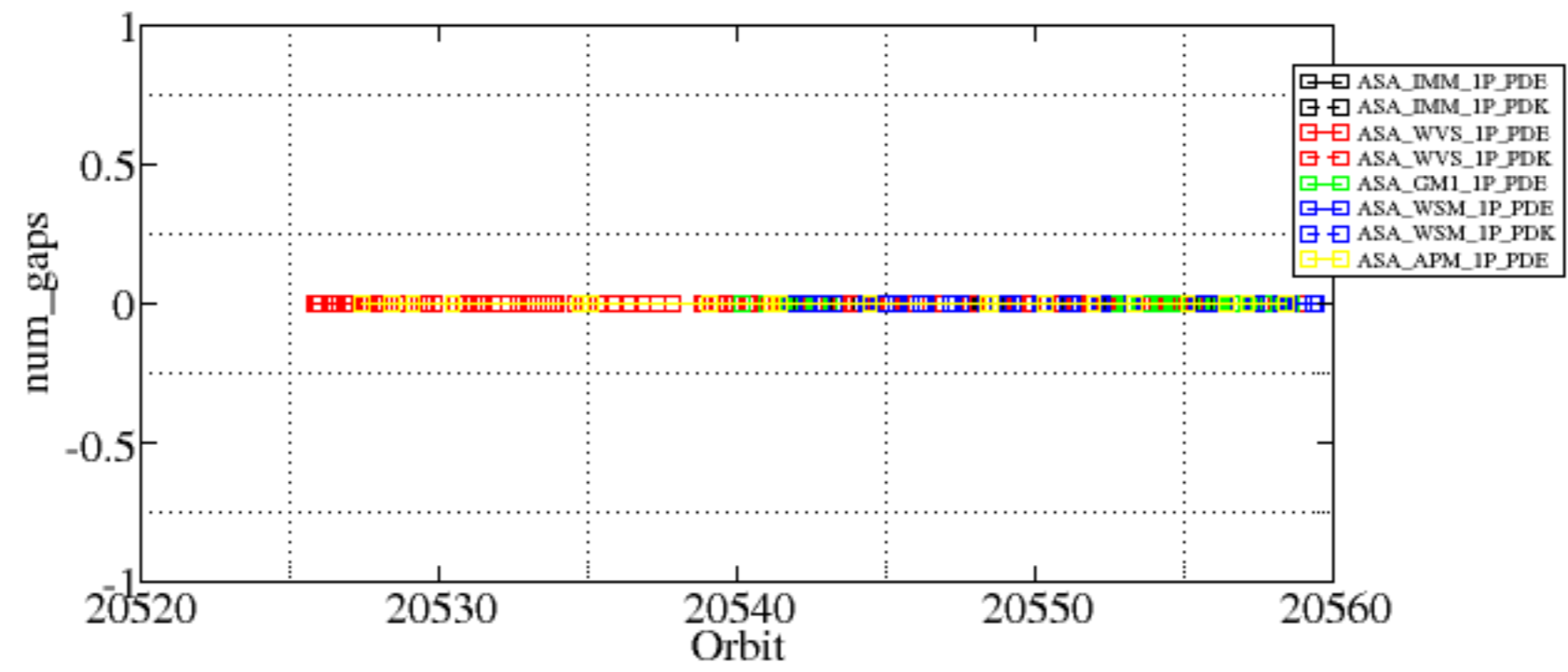


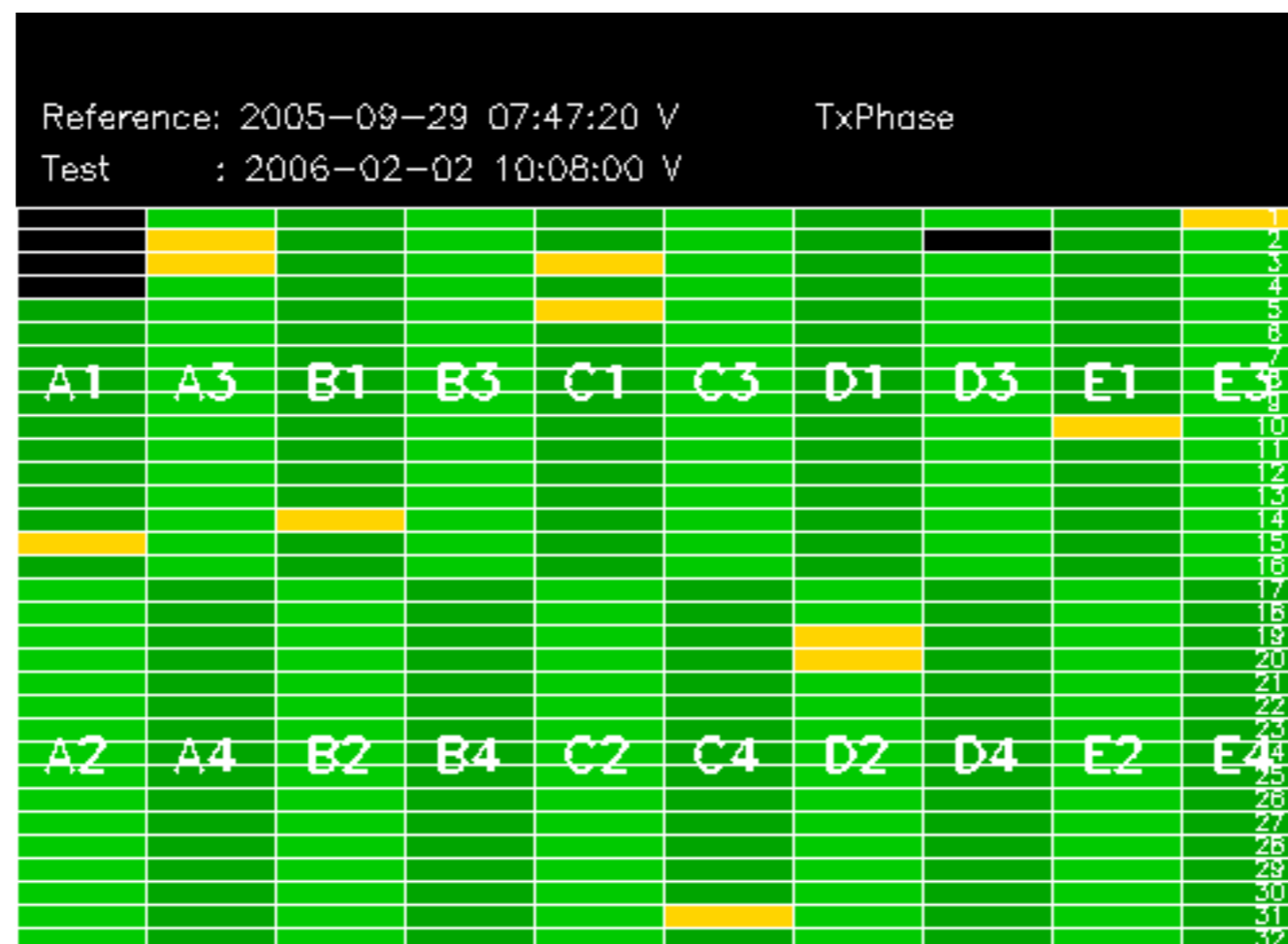


Summary of analysis for the last 3 days 2006020[234]

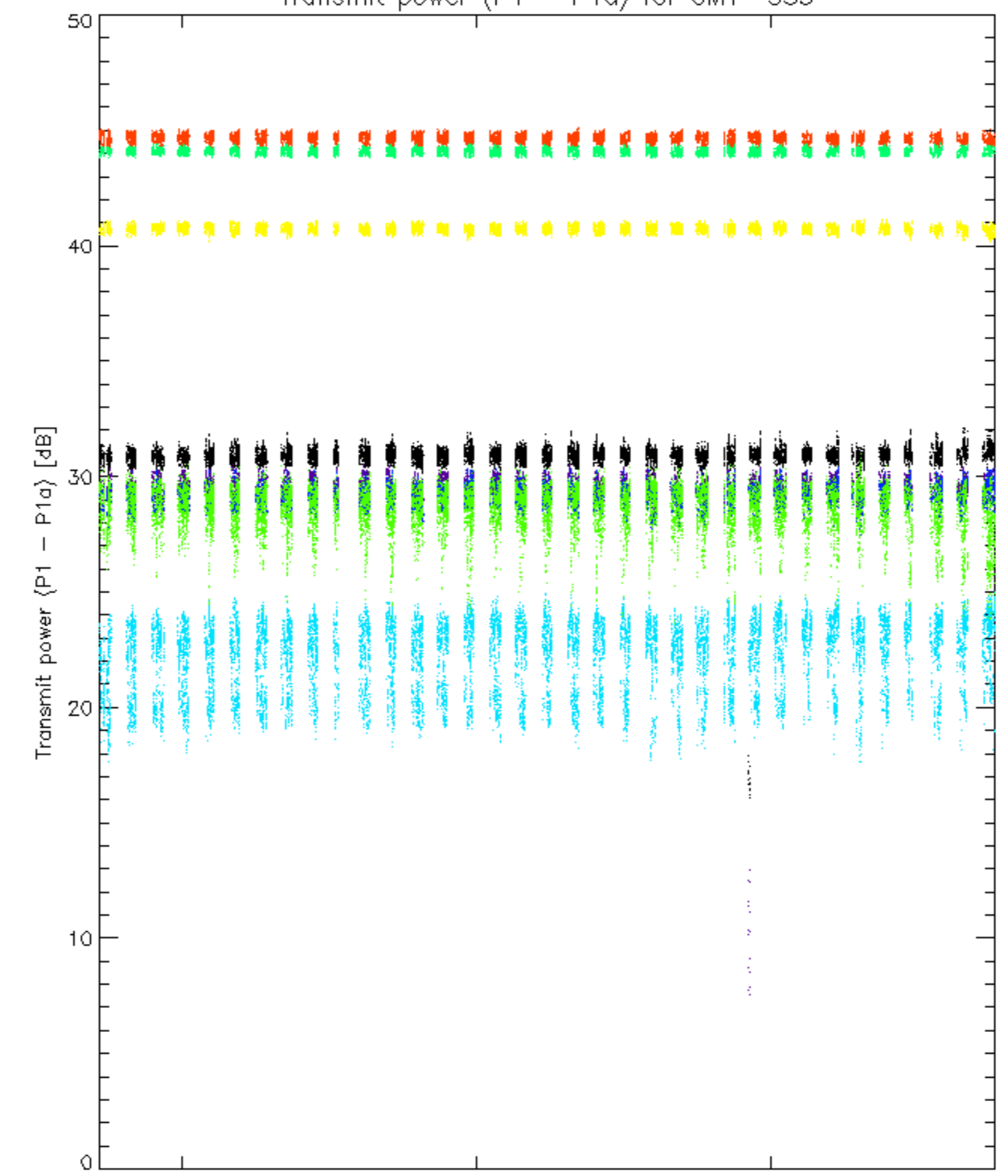
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_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

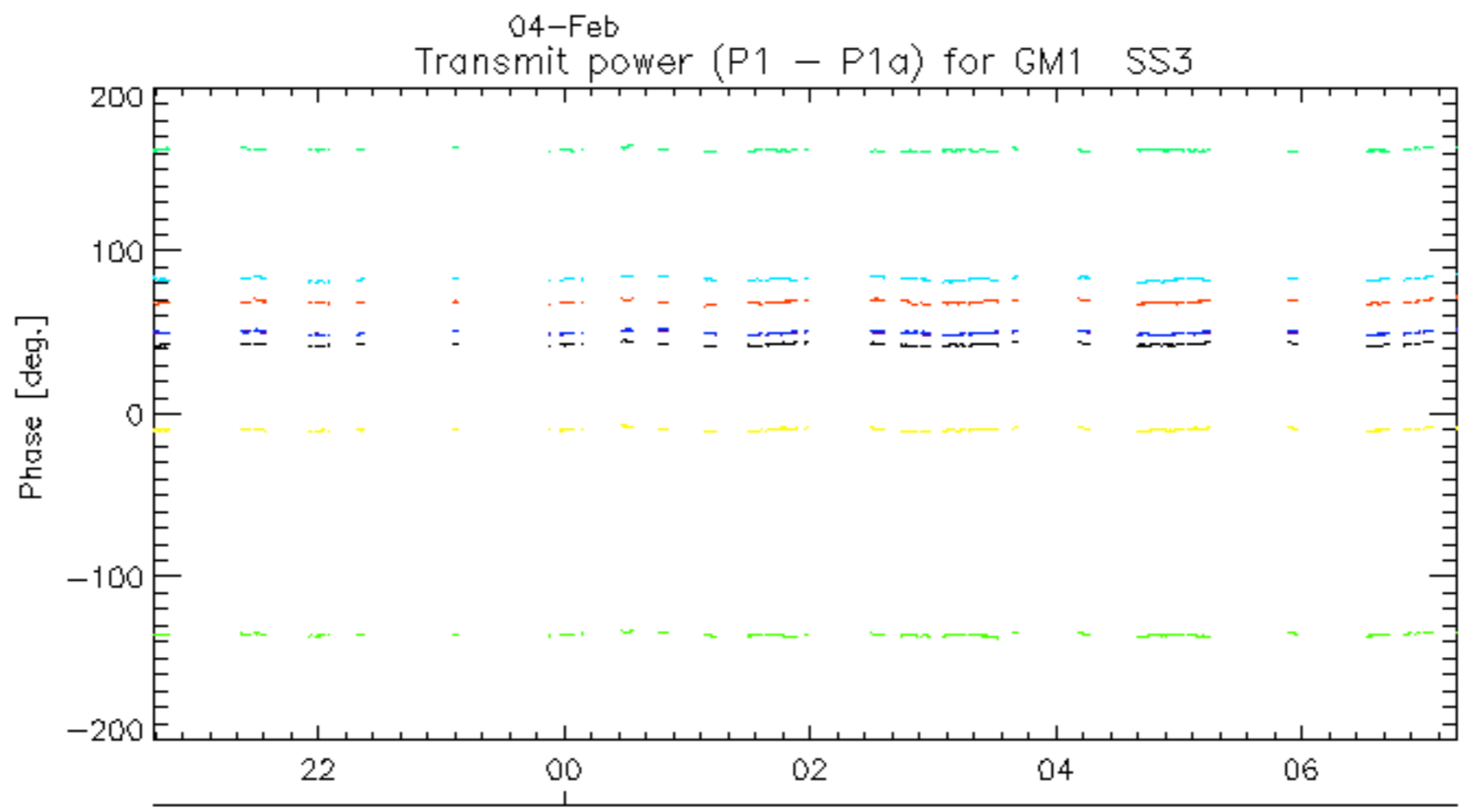
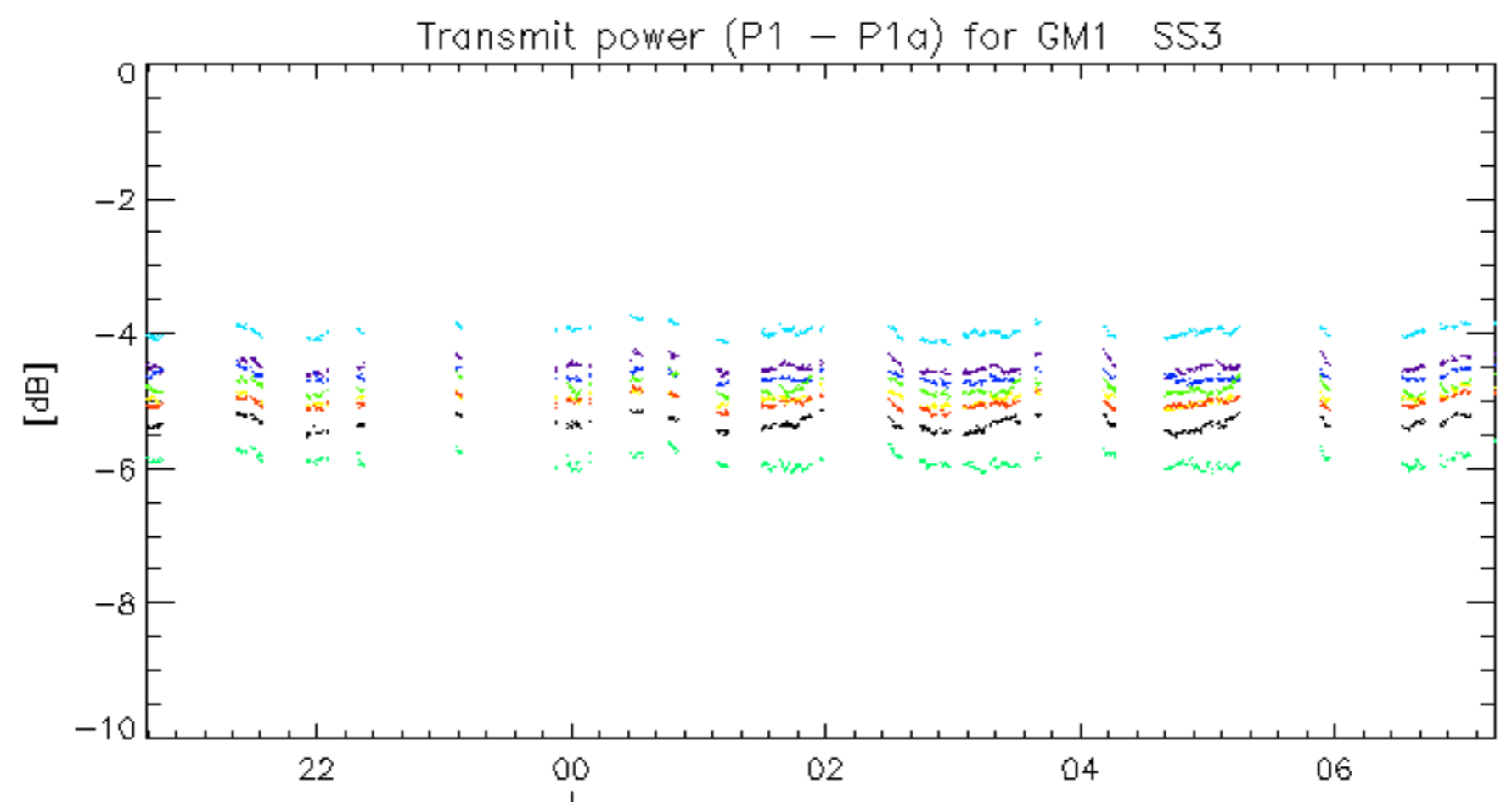




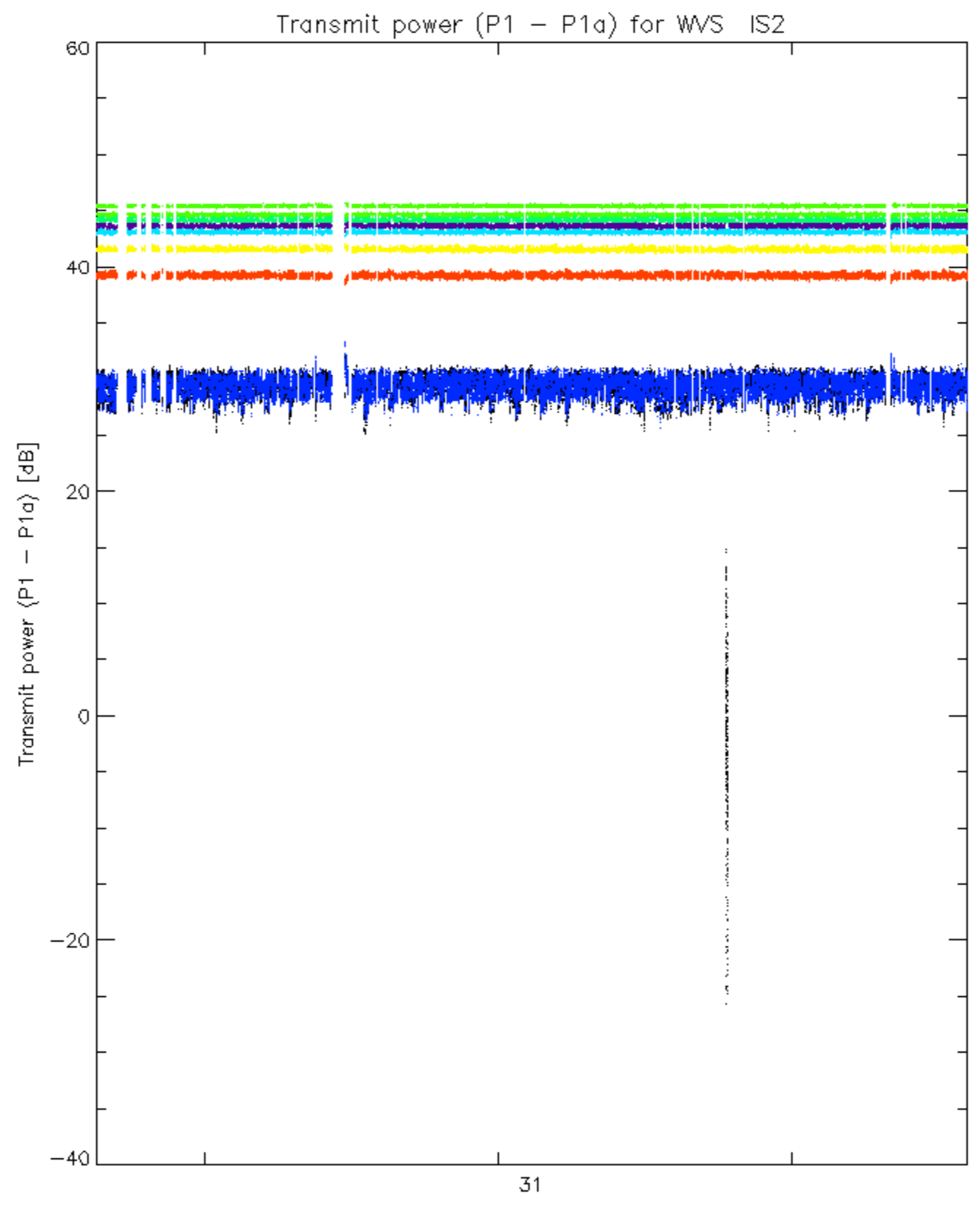
Transmit power (P1 - P1a) for GM1 SS3



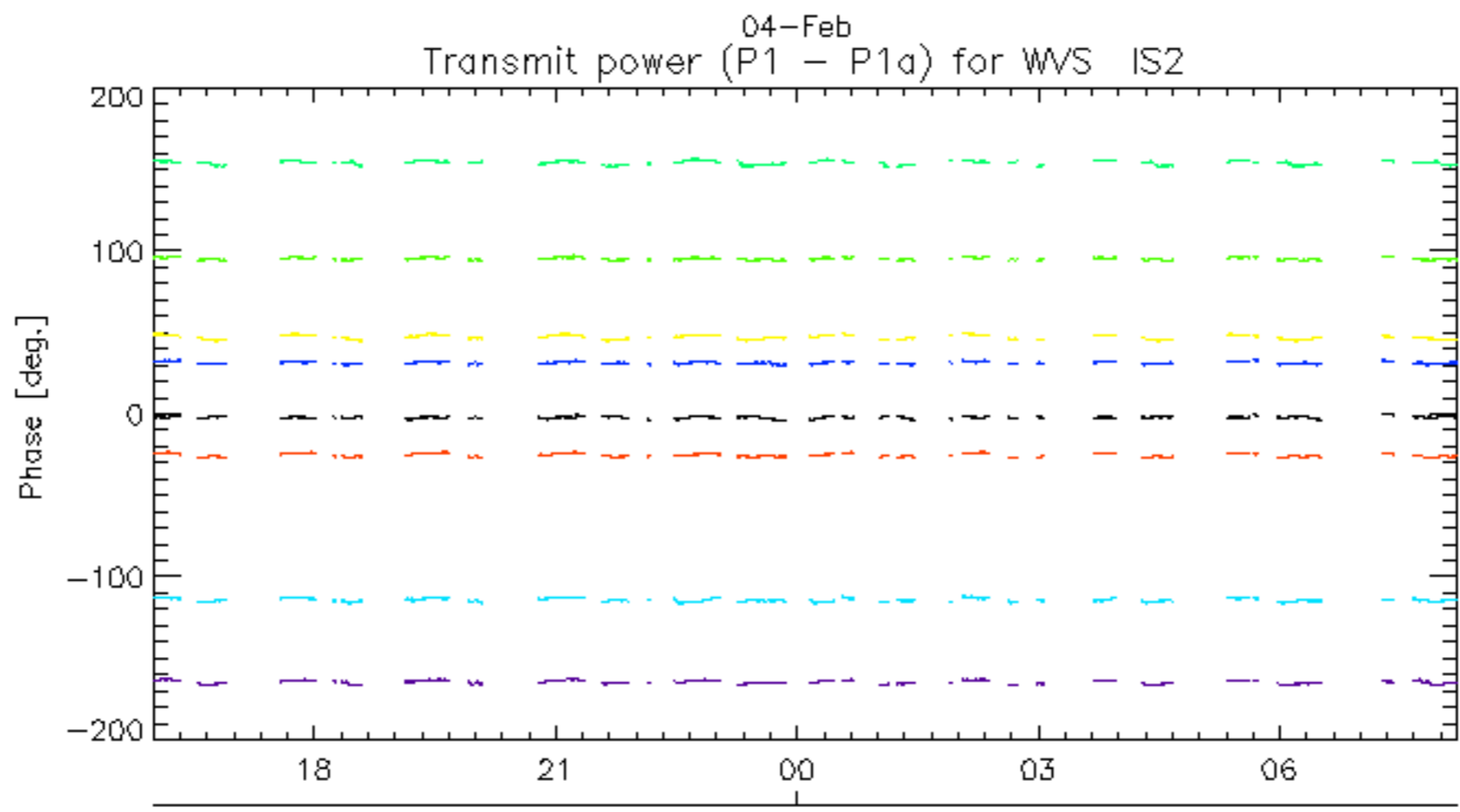
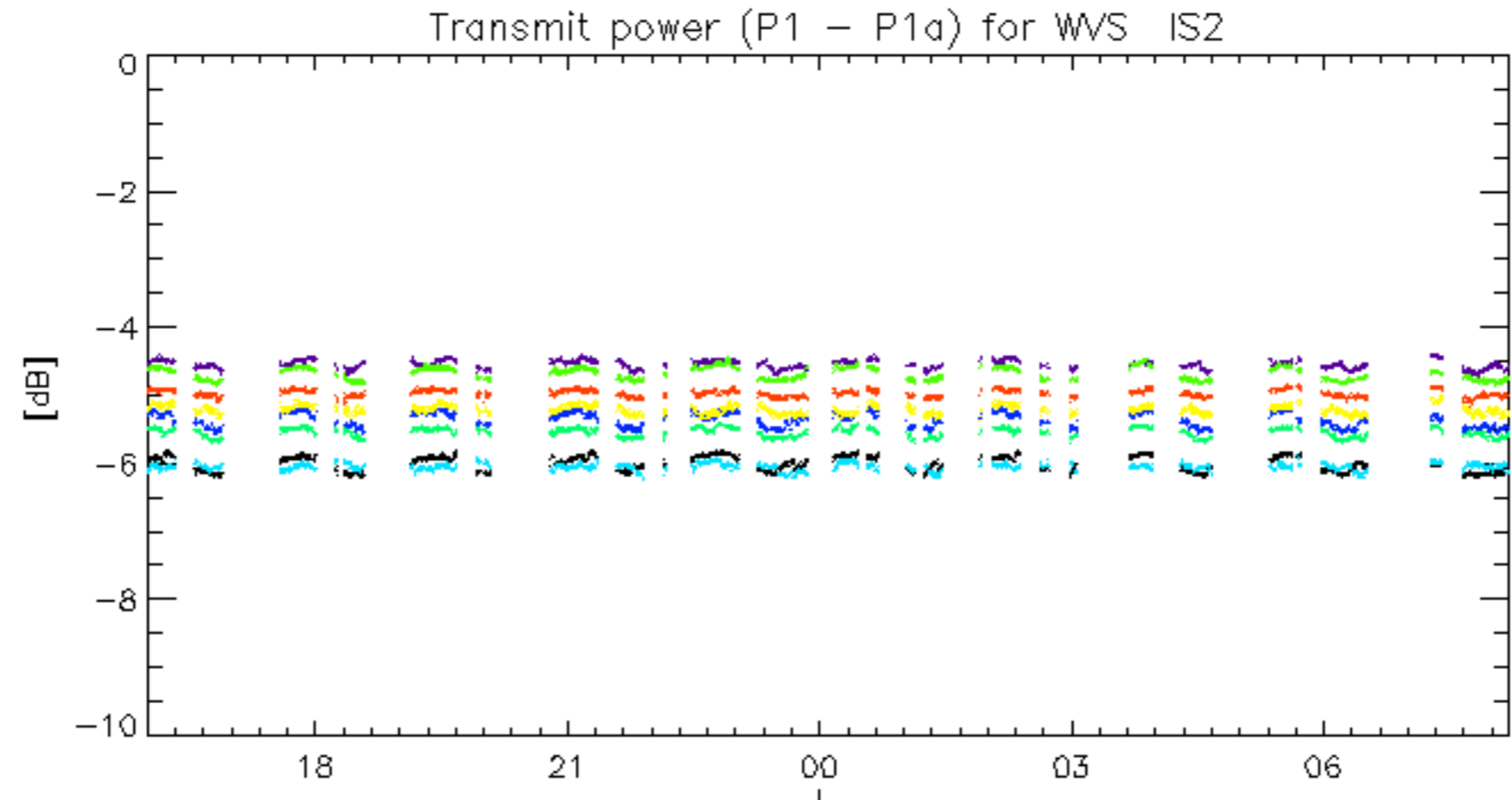
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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No unavailabilities during the reported period.