

PRELIMINARY REPORT OF 070210

last update on Sat Feb 10 16:14:50 GMT 2007

Due to an ASAR test acquisition campaign, the daily analysis on WVS products will be based on IS4 instead of IS2 during the following periods:

From orbit 25621 (23-Jan-2007) to 25720 (30-Jan-2007) in HH polarization
From orbit 26122 (27-Feb-2007) to 26221 (06-Mar-2007) in HH polarization
From orbit 25721 (30-Jan-2007) to 25820 (06-Feb-2007) in VV polarization
From orbit 26222 (06-Mar-2007) to 26321 (13-Mar-2007) in VV polarization

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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 2007-02-09 00:00:00 to 2007-02-10 16:14:50

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	23	43	3	1	20
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	23	43	3	1	20
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	23	43	3	1	20
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	23	43	3	1	20

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	41	55	37	16	60
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	41	55	37	16	60
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	55	37	16	60
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	41	55	37	16	60

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	20070209 033417
H	20070210 030240

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
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⊗	
⊗	

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
⊗	
⊗	
⊗	
⊗	

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

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4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

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⊗

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)
3	P1a	-15.370460	0.535382	3.600354
7	P1a	-17.372936	0.113939	-0.493316
11	P1a	-17.327120	0.368636	-0.089578
15	P1a	-12.794108	0.109728	-0.303621
19	P1a	-15.070647	0.090683	-0.135608
22	P1a	-15.447894	0.442852	-0.485222
26	P1a	-14.989357	0.247727	-0.114455
30	P1a	-17.214651	0.328991	-0.451321

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.368175	0.490860	-3.847823
7	P1	-3.100325	0.009361	-0.134627
11	P1	-4.123059	0.021181	-0.187421
15	P1	-6.312203	0.017567	-0.095023
19	P1	-3.710746	0.008460	-0.042636
22	P1	-4.670866	0.013787	-0.019385
26	P1	-3.933462	0.013203	-0.014888
30	P1	-5.916783	0.012197	-0.093182

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.269291	0.676968	-4.260439
7	P2	-21.628984	0.087555	0.009499
11	P2	-15.499779	0.102648	-0.004764
15	P2	-7.013083	0.103707	-0.136221
19	P2	-9.080919	0.091157	-0.122709
22	P2	-18.098835	0.088101	-0.167465

26	P2	-16.501324	0.102834	-0.198738
30	P2	-19.341581	0.082747	-0.115091

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.204955	0.007270	-0.039719
7	P3	-8.204955	0.007270	-0.039719
11	P3	-8.204955	0.007270	-0.039719
15	P3	-8.204955	0.007270	-0.039719
19	P3	-8.204955	0.007270	-0.039719
22	P3	-8.204955	0.007270	-0.039719
26	P3	-8.204955	0.007270	-0.039719
30	P3	-8.204955	0.007270	-0.039719

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1
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P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1a	-11.476379	0.150342	1.890181
7	P1a	-10.027193	0.052345	-0.094223
11	P1a	-10.545936	0.063010	-0.435938
15	P1a	-10.839561	0.133929	-0.135041
19	P1a	-15.743640	0.062951	0.027430
22	P1a	-20.921671	1.323014	0.535058
26	P1a	-15.466908	0.255444	0.321597
30	P1a	-18.328226	0.360783	-0.143968

P1t Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-5.822870	3.988632	-11.759506
7	P1	-2.440935	0.006024	-0.004673

11	P1	-2.869407	0.017490	-0.161656
15	P1	-3.784421	0.033302	-0.126563
19	P1	-3.549520	0.013403	-0.013425
22	P1	-5.024032	0.024081	-0.010023
26	P1	-5.998255	0.022284	0.012521
30	P1	-5.289794	0.023051	0.004901

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.967846	0.801017	-4.972212
7	P2	-22.024134	0.048086	0.106718
11	P2	-10.686974	0.030047	0.099977
15	P2	-4.839261	0.026215	0.032140
19	P2	-6.837173	0.026871	0.055073
22	P2	-8.146592	0.029280	0.045835
26	P2	-24.253038	0.031070	0.027336
30	P2	-21.795736	0.033917	0.048829

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.054580	0.002527	0.014353
7	P3	-8.054543	0.002531	0.012730
11	P3	-8.054549	0.002518	0.013930
15	P3	-8.054549	0.002511	0.013953
19	P3	-8.054532	0.002517	0.013528
22	P3	-8.054580	0.002516	0.014477
26	P3	-8.054440	0.002521	0.014655
30	P3	-8.054539	0.002525	0.013816

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	0.000673063
	stdev	2.77017e-07
MEAN Q	mean	0.000294251
	stdev	2.48382e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.0764300
	stdev	0.00200517
STDEV Q	mean	0.0761534
	stdev	0.00204450



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007020[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_1PNPDE20070208_015344_000001402055_00232_25837_9161.N1	7	101
ASA_IMM_1PNPDE20070209_044539_000001392055_00248_25853_0947.N1	15	1731

ASA_IMM_1PNPDE20070209_044539_000001392055_00248_25853_0987.N1	15	1731
ASA_IMM_1PNPDE20070209_044539_000001392055_00248_25853_1132.N1	15	1731
ASA_IMM_1PNPDE20070209_044842_000000212055_00248_25853_0817.N1	15	1557
ASA_GM1_1PNPDK20070208_131157_000009672055_00239_25844_8717.N1	0	30
ASA_WSM_1PNPDE20070208_012926_000000862055_00232_25837_9154.N1	17	4430
ASA_WSM_1PNPDE20070208_013746_000001222055_00232_25837_9217.N1	0	56
ASA_WSM_1PNPDE20070208_013853_000000552055_00232_25837_9136.N1	0	44
ASA_WSM_1PNPDE20070208_022638_000000672055_00232_25837_9174.N1	40	13228
ASA_WSM_1PNPDE20070208_022638_000000672055_00232_25837_9789.N1	40	13228
ASA_WSM_1PNPDE20070208_022846_000001162055_00232_25837_9196.N1	8	1599
ASA_WSM_1PNPDE20070208_022846_000001162055_00232_25837_9825.N1	8	1599
ASA_WSM_1PNPDE20070209_052422_000002262055_00248_25853_1134.N1	3	480
ASA_WSM_1PNPDE20070209_065803_000001832055_00249_25854_1157.N1	0	69
ASA_WSM_1PNPDE20070209_070208_000000782055_00249_25854_1158.N1	11	1663
ASA_WSM_1PNPDE20070209_194602_000000862055_00257_25862_1419.N1	5	652
ASA_WSM_1PNPDE20070209_202340_000001292055_00257_25862_1421.N1	2	535
ASA_WSM_1PNPDE20070209_225626_000000982055_00259_25864_1705.N1	12	1782
ASA_WSM_1PNPDE20070209_230248_000001292055_00259_25864_1754.N1	4	547
ASA_WSM_1PNPDE20070209_234825_000003912055_00259_25864_1752.N1	7	1127
ASA_WSM_1PNPDE20070209_234825_000003912055_00259_25864_2406.N1	7	1127
ASA_WSM_1PNPDK20070208_094718_000000852055_00237_25842_8500.N1	0	32

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

7.5 - Absolute Doppler for GM1

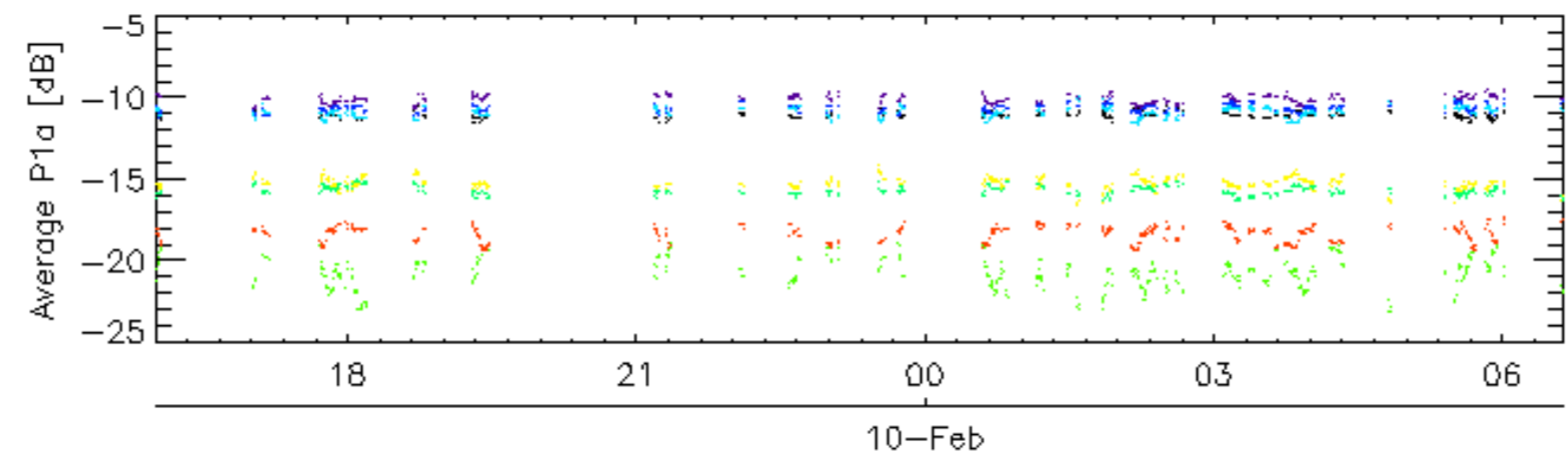
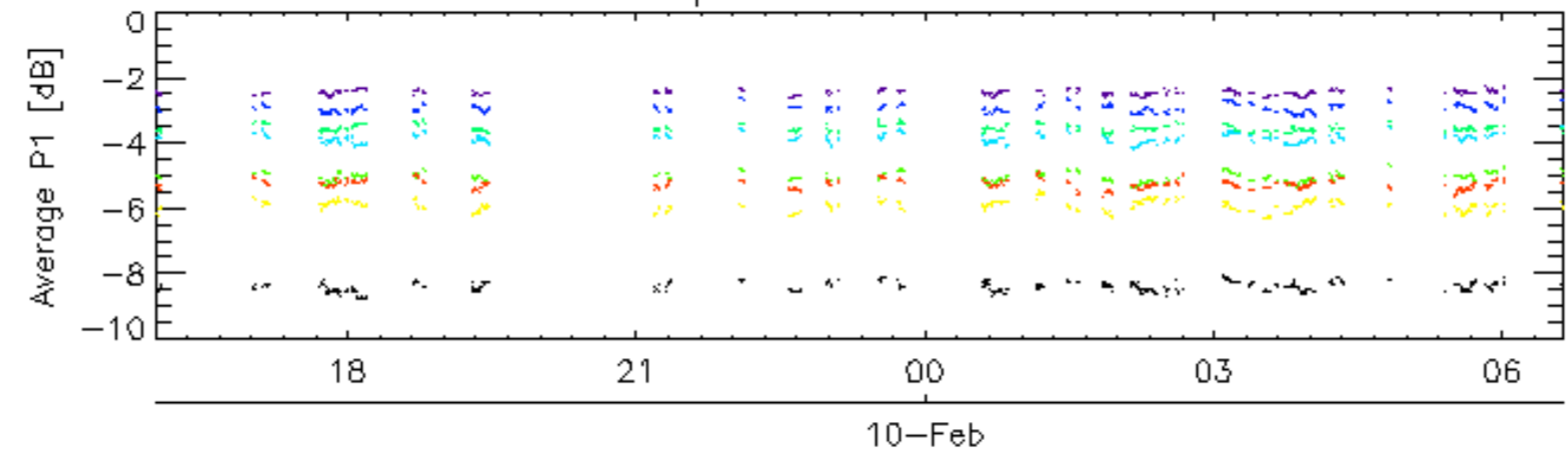
Evolution of Absolute Doppler	
<input type="checkbox"/>	
	Acsending
<input type="checkbox"/>	
	Descending

7.6 - Doppler evolution versus ANX for GM1

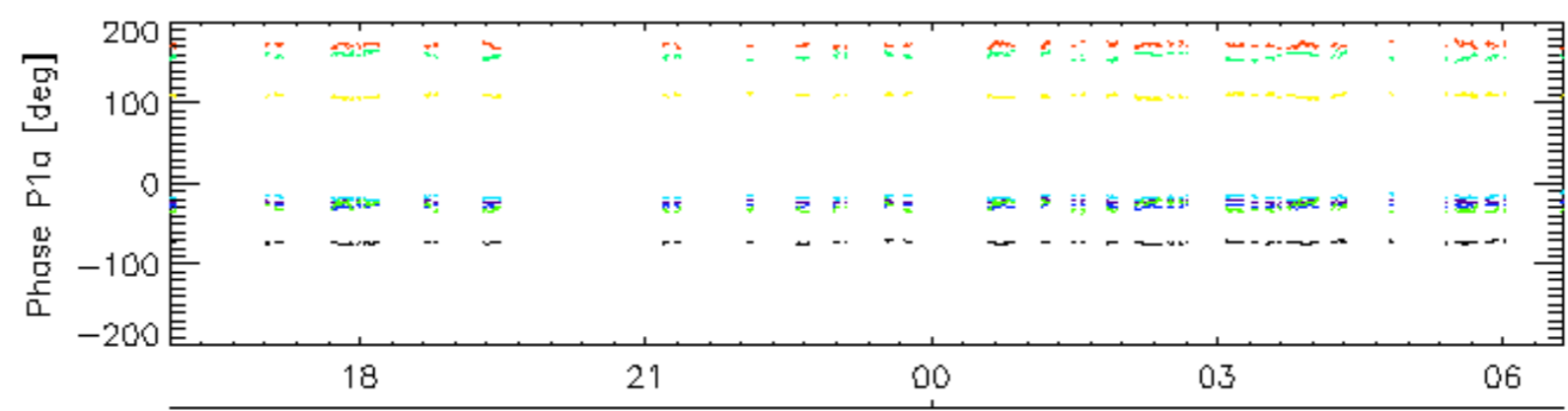
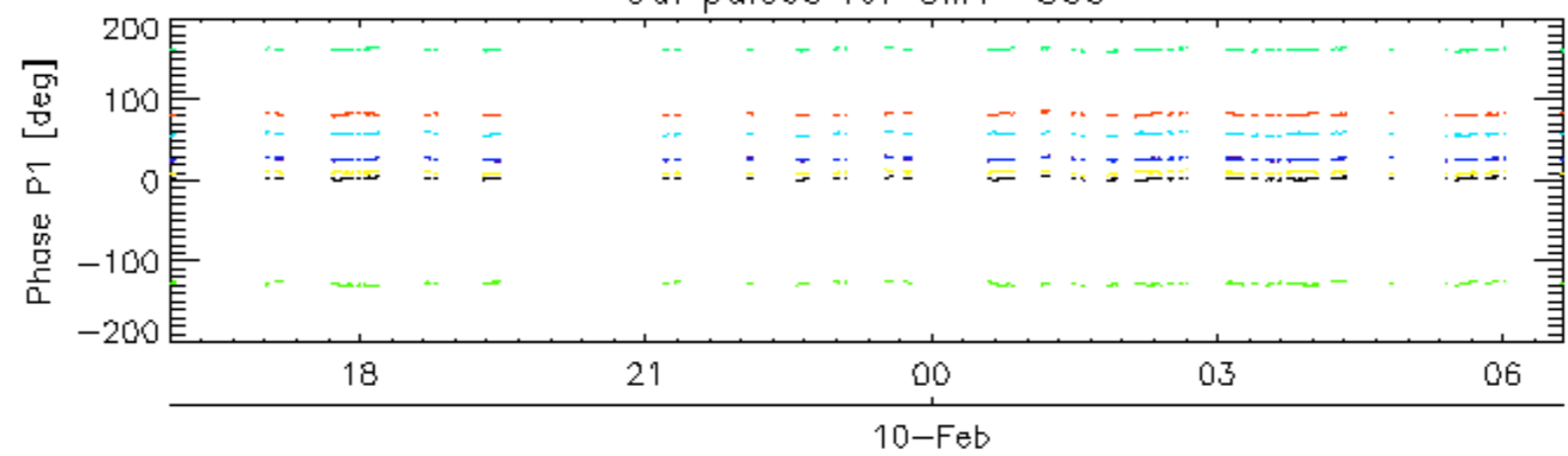
Evolution Doppler error versus ANX



Cal pulses for GM1 SS3

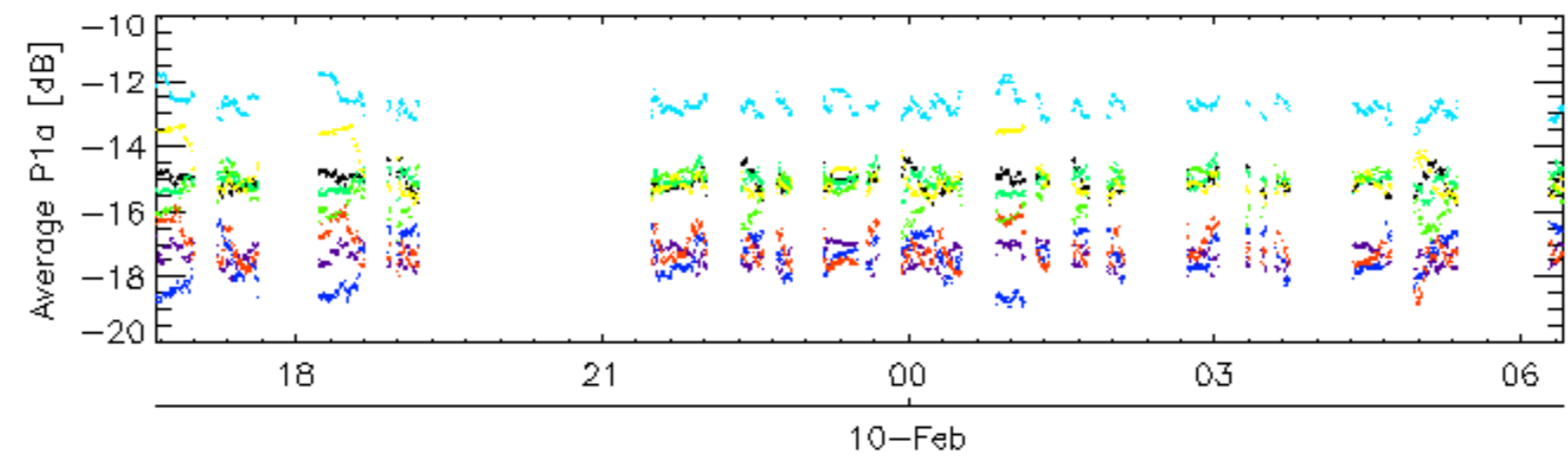
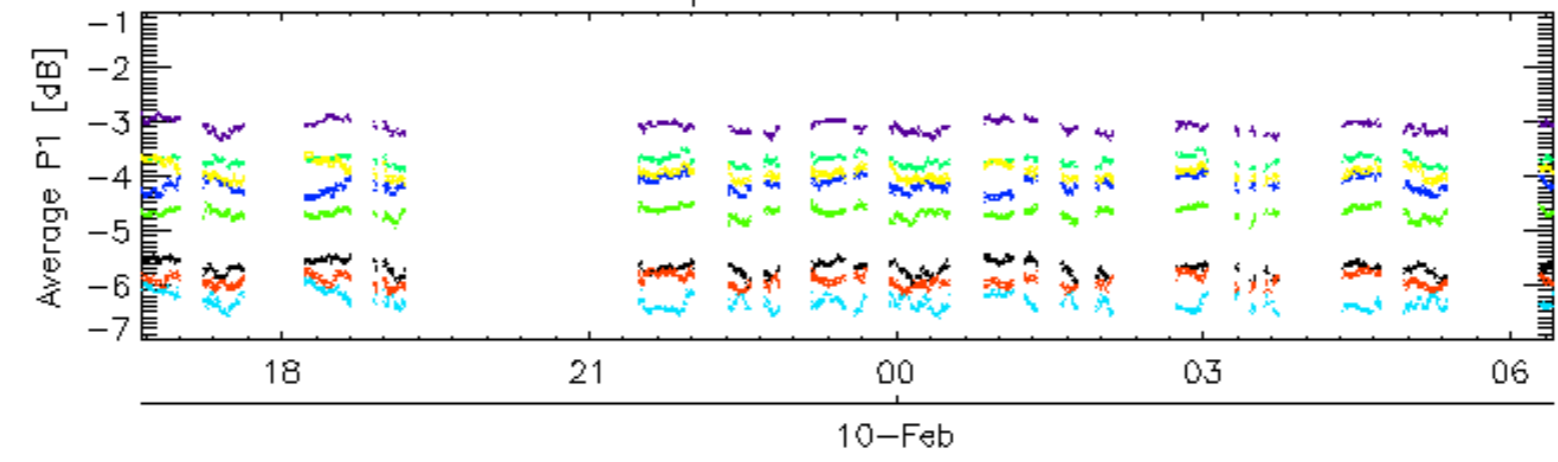


Cal pulses for GM1 SS3

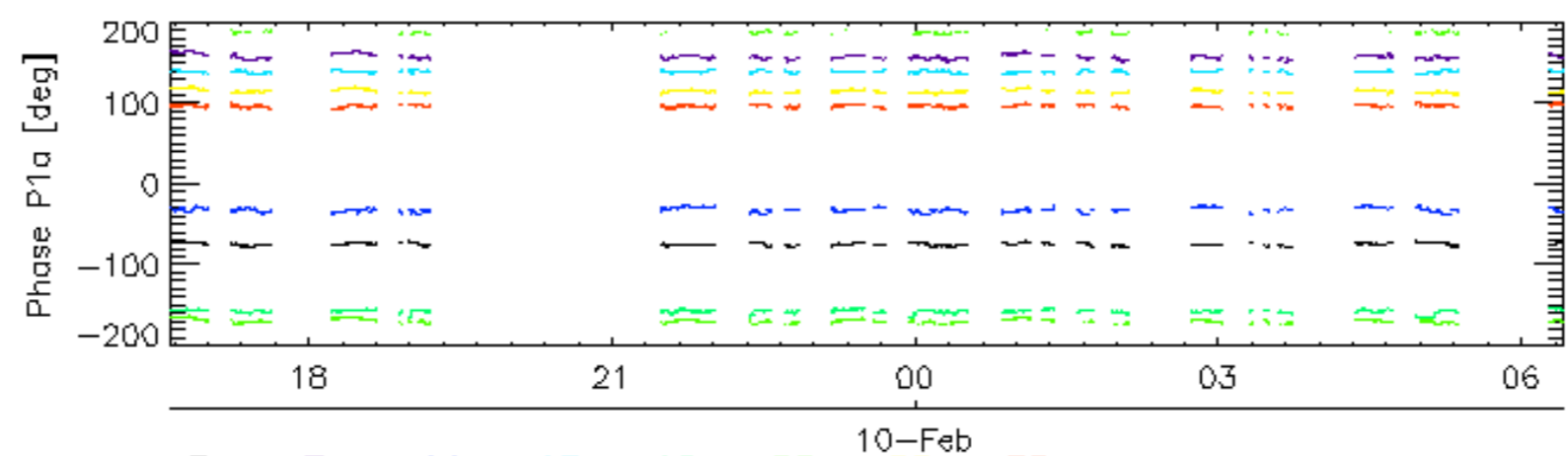
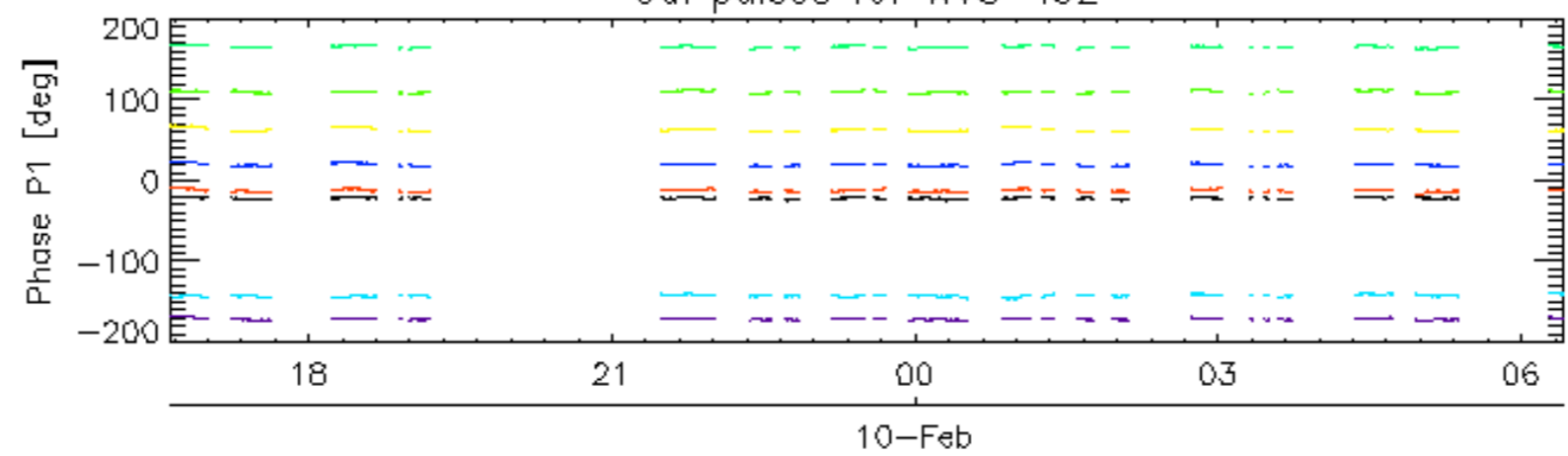


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

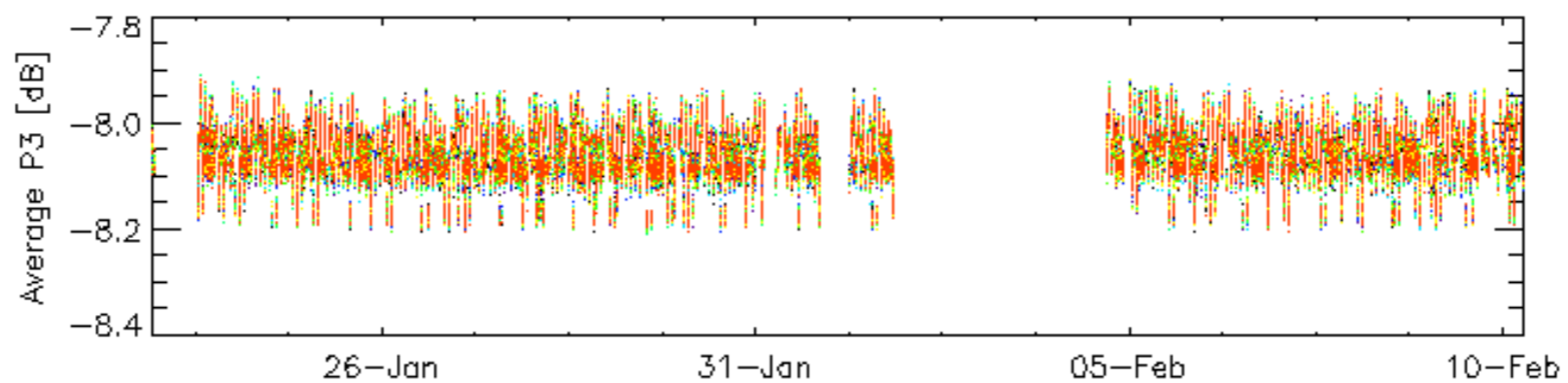
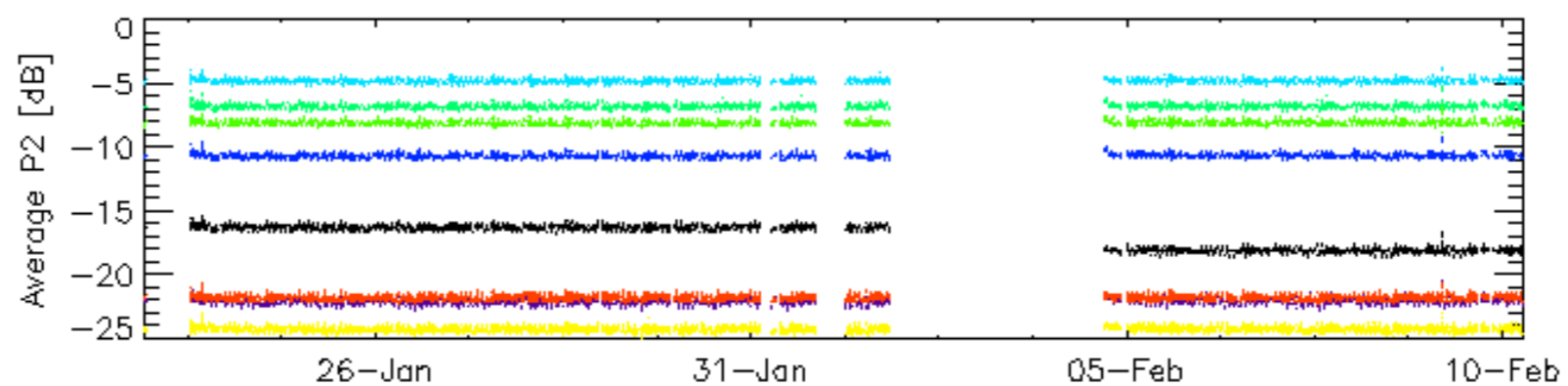
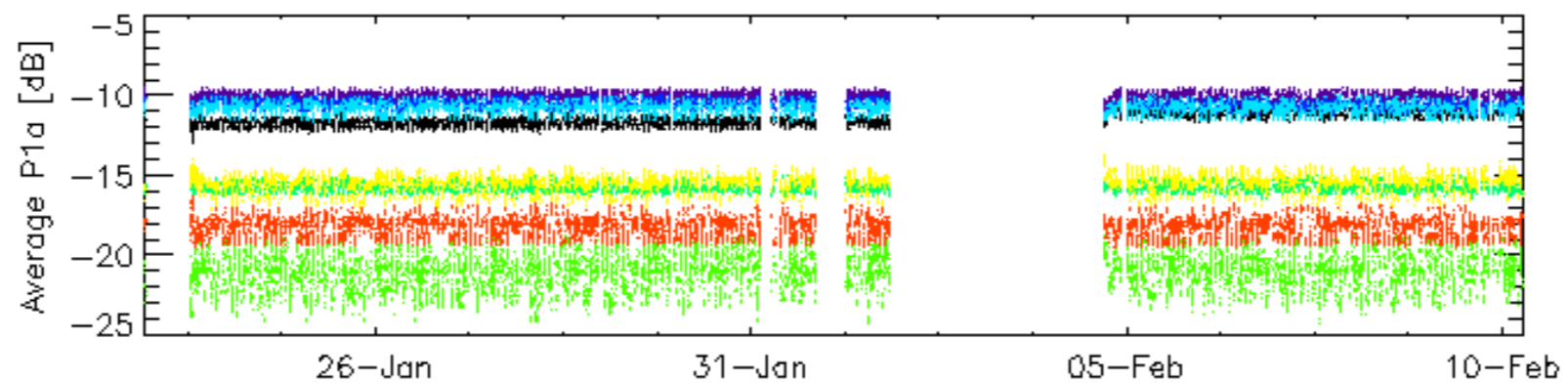
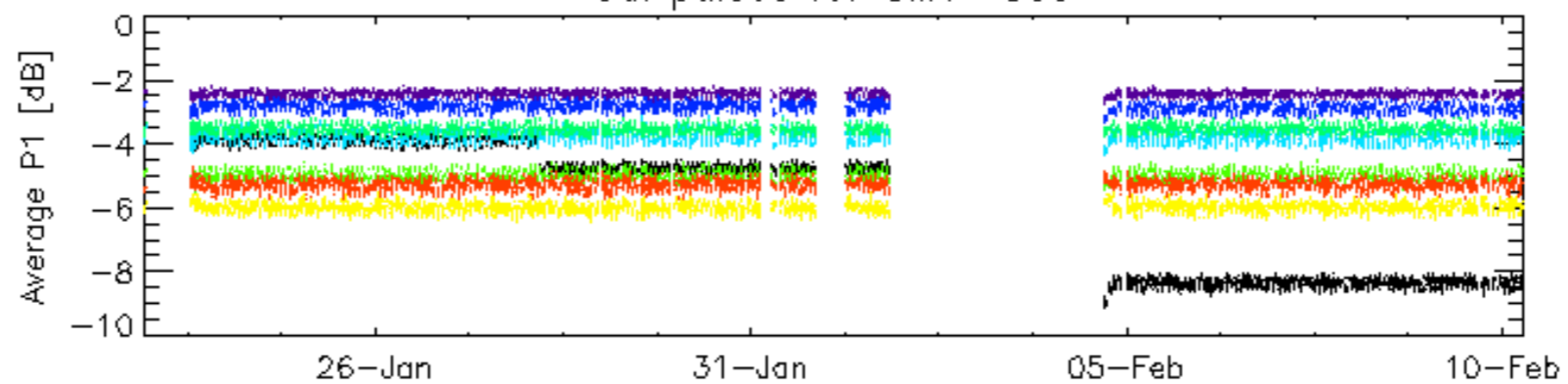


Cal pulses for WVS IS2



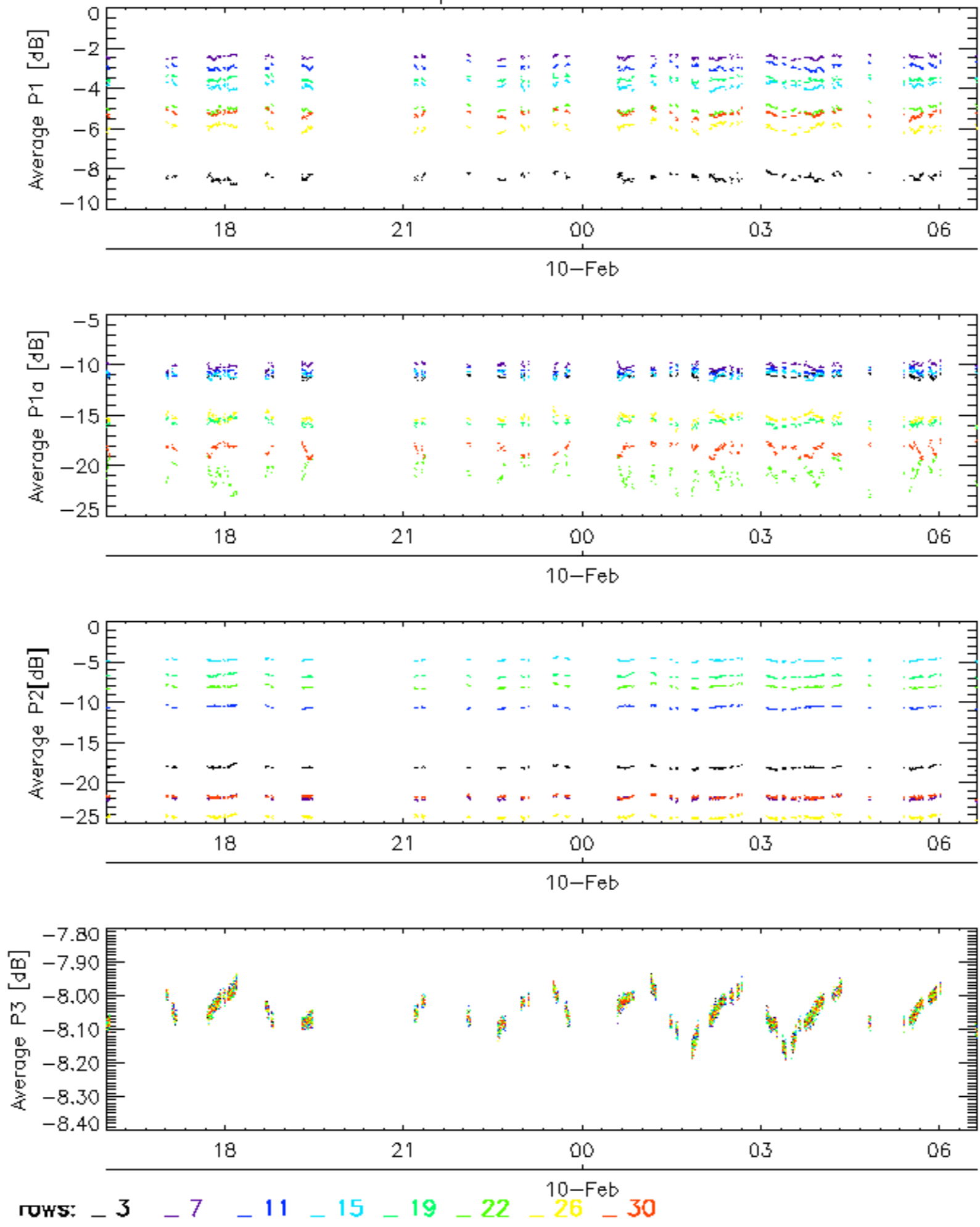
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

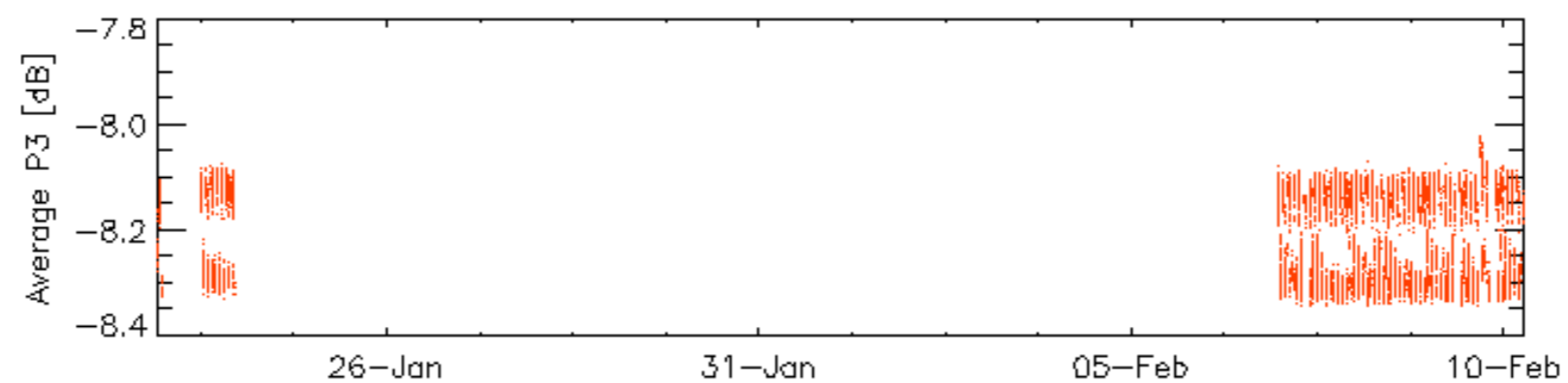
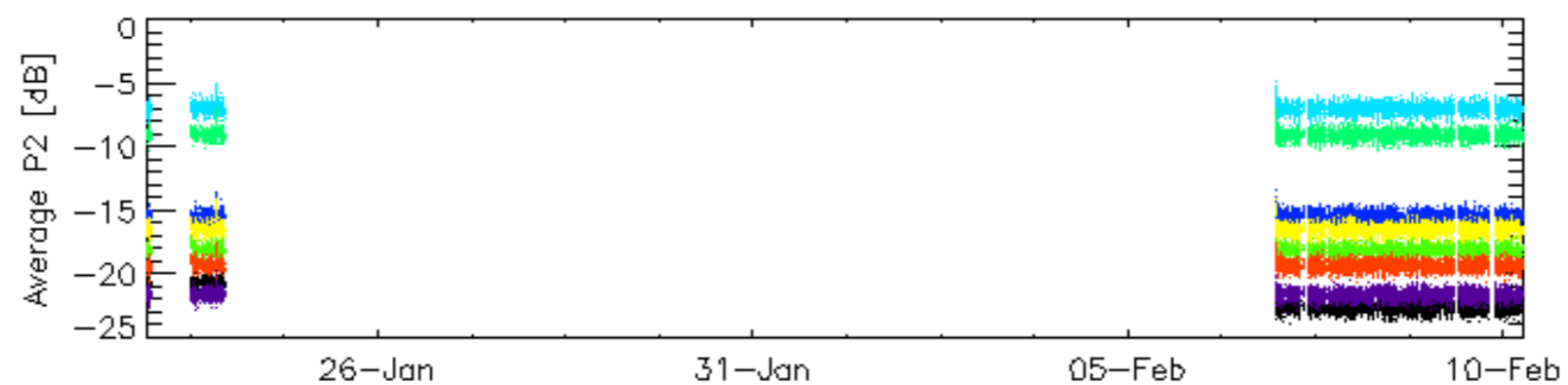
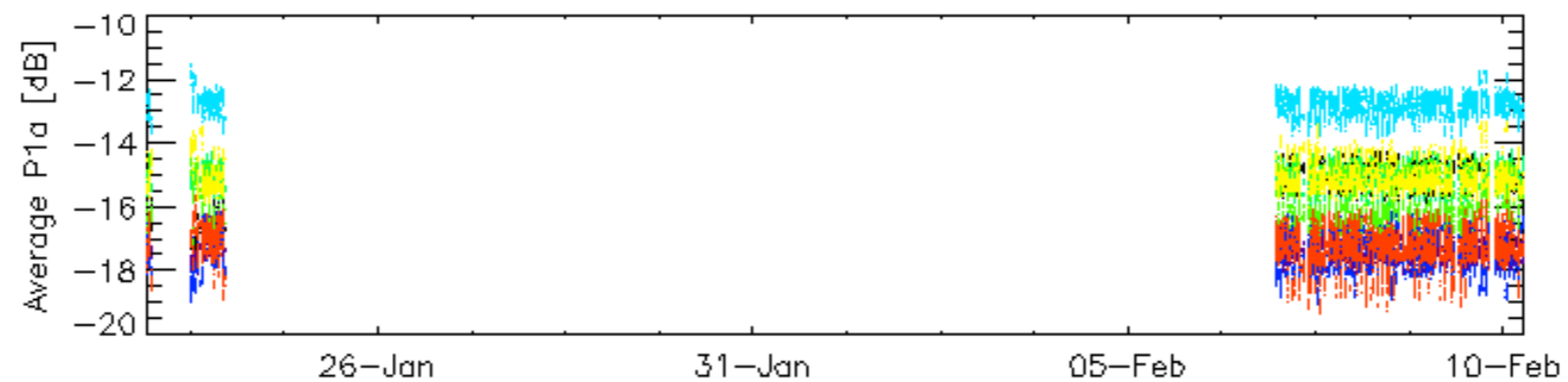
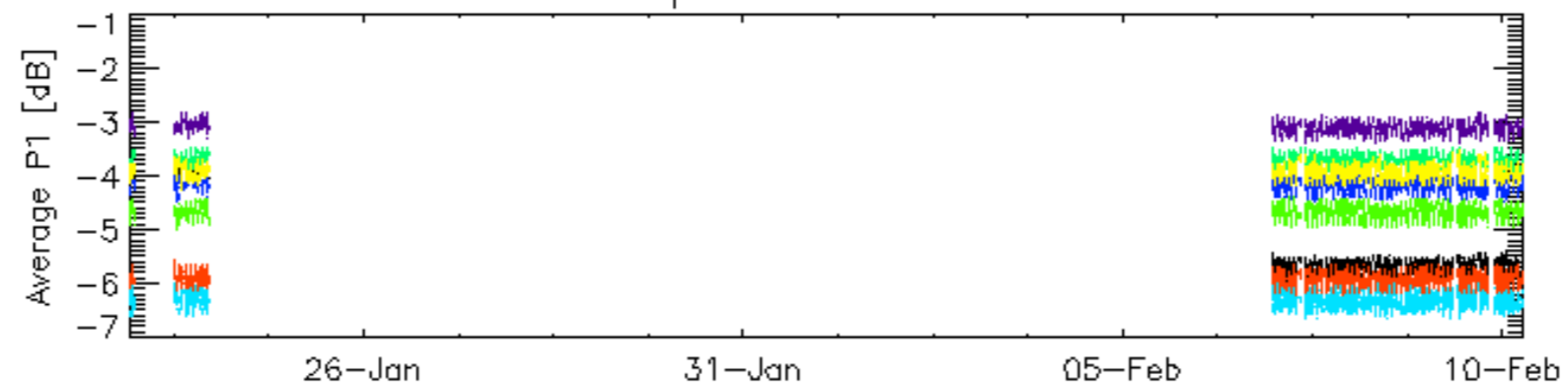


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

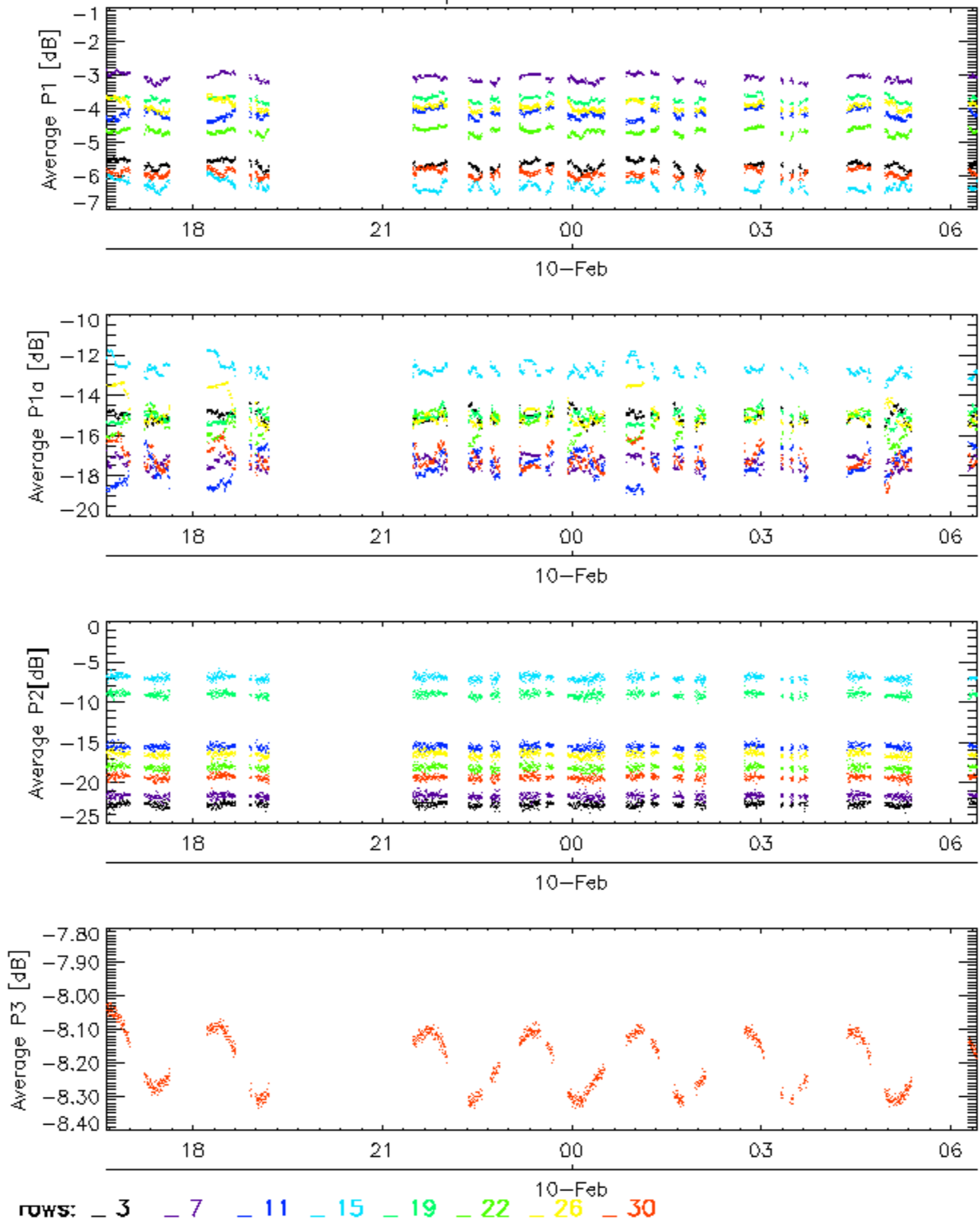


Cal pulses for WVS IS2

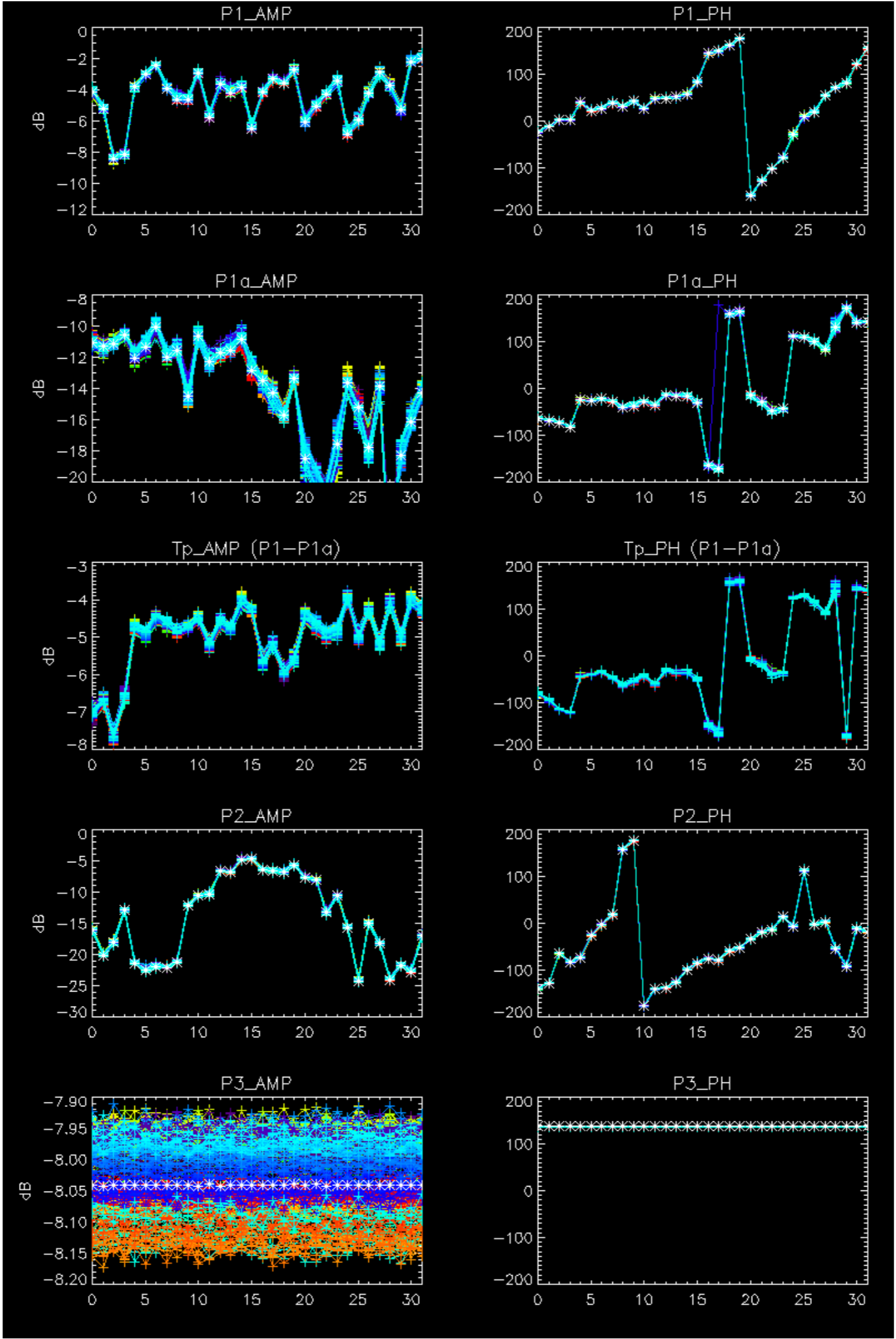


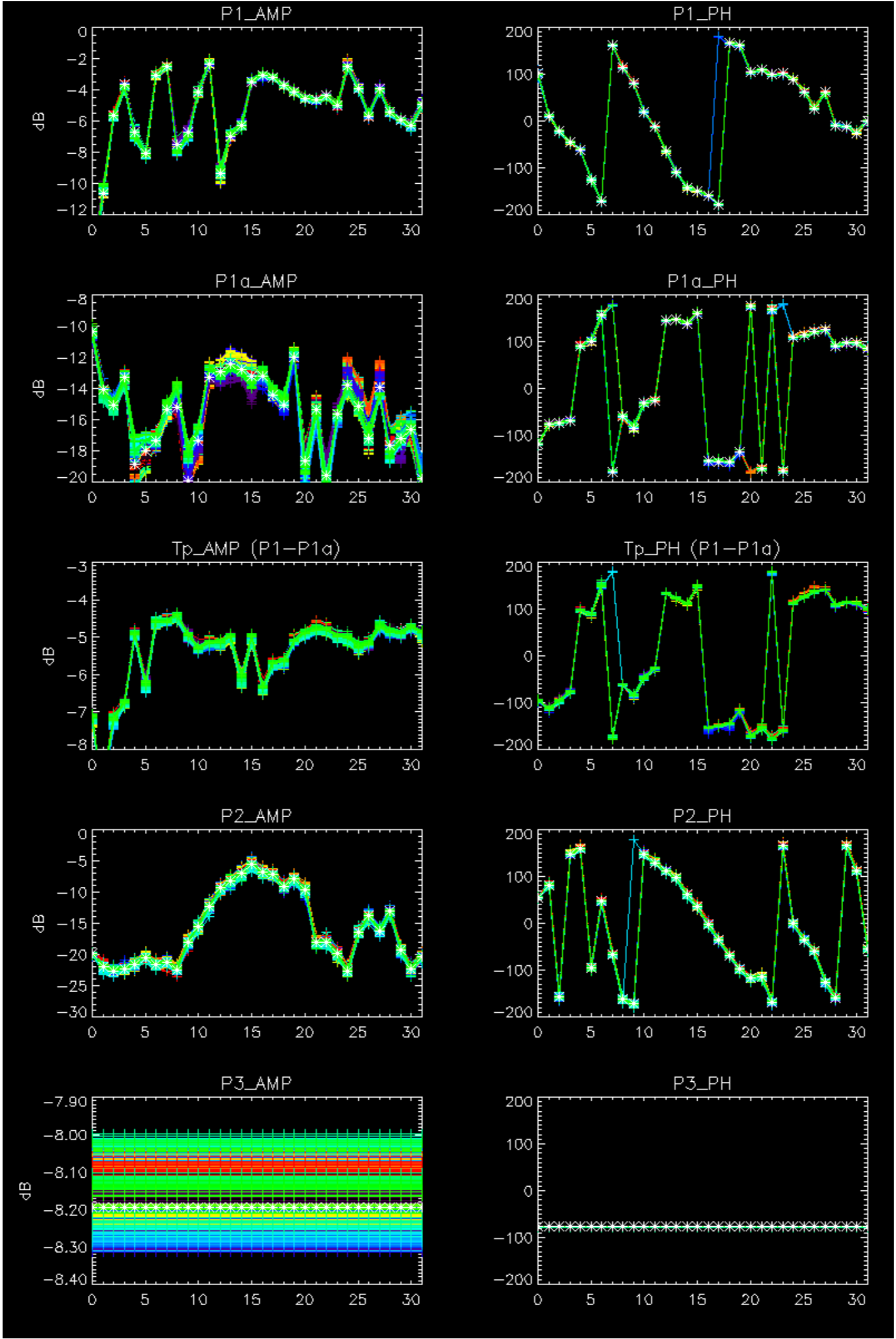
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



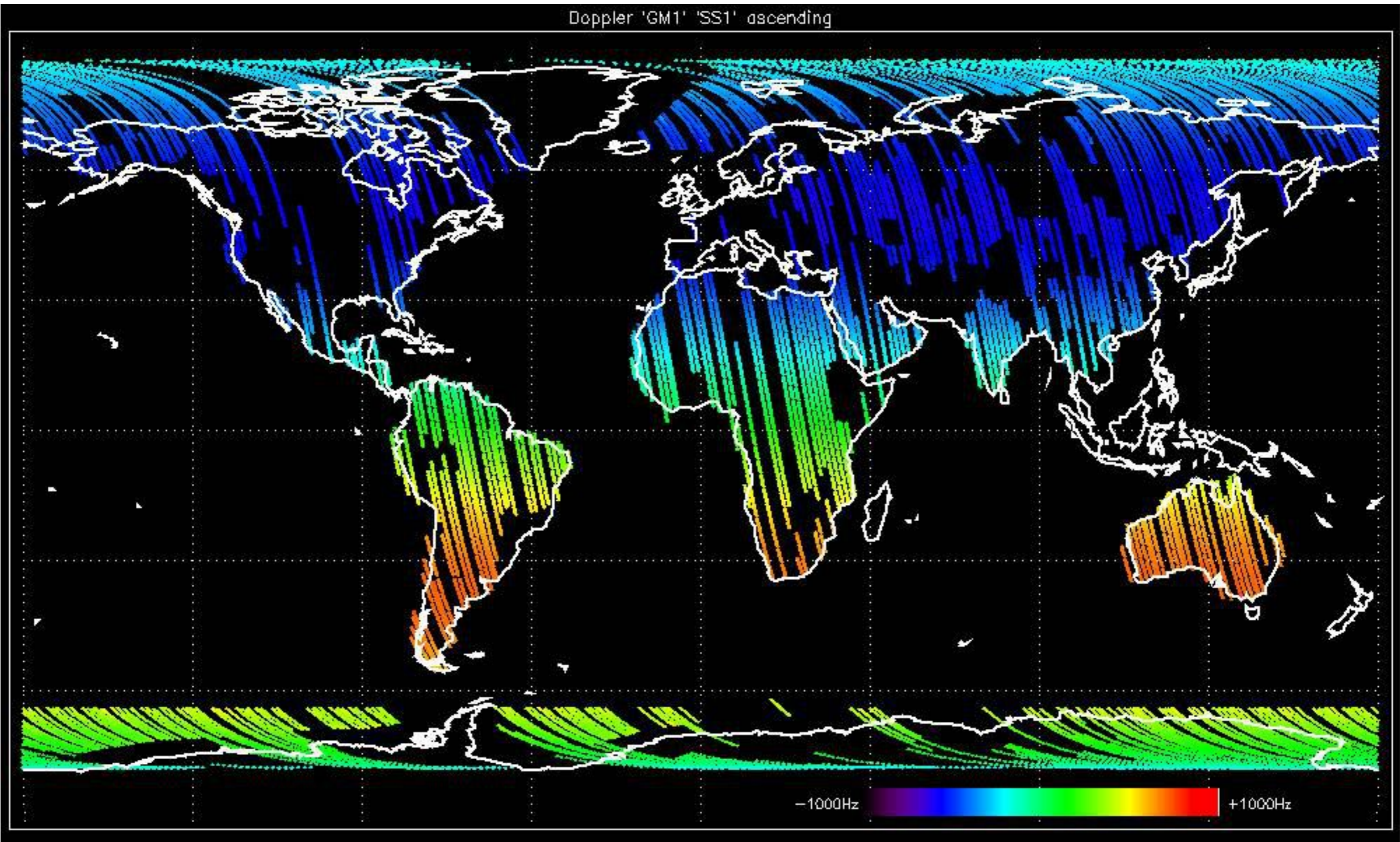
No anomalies observed.



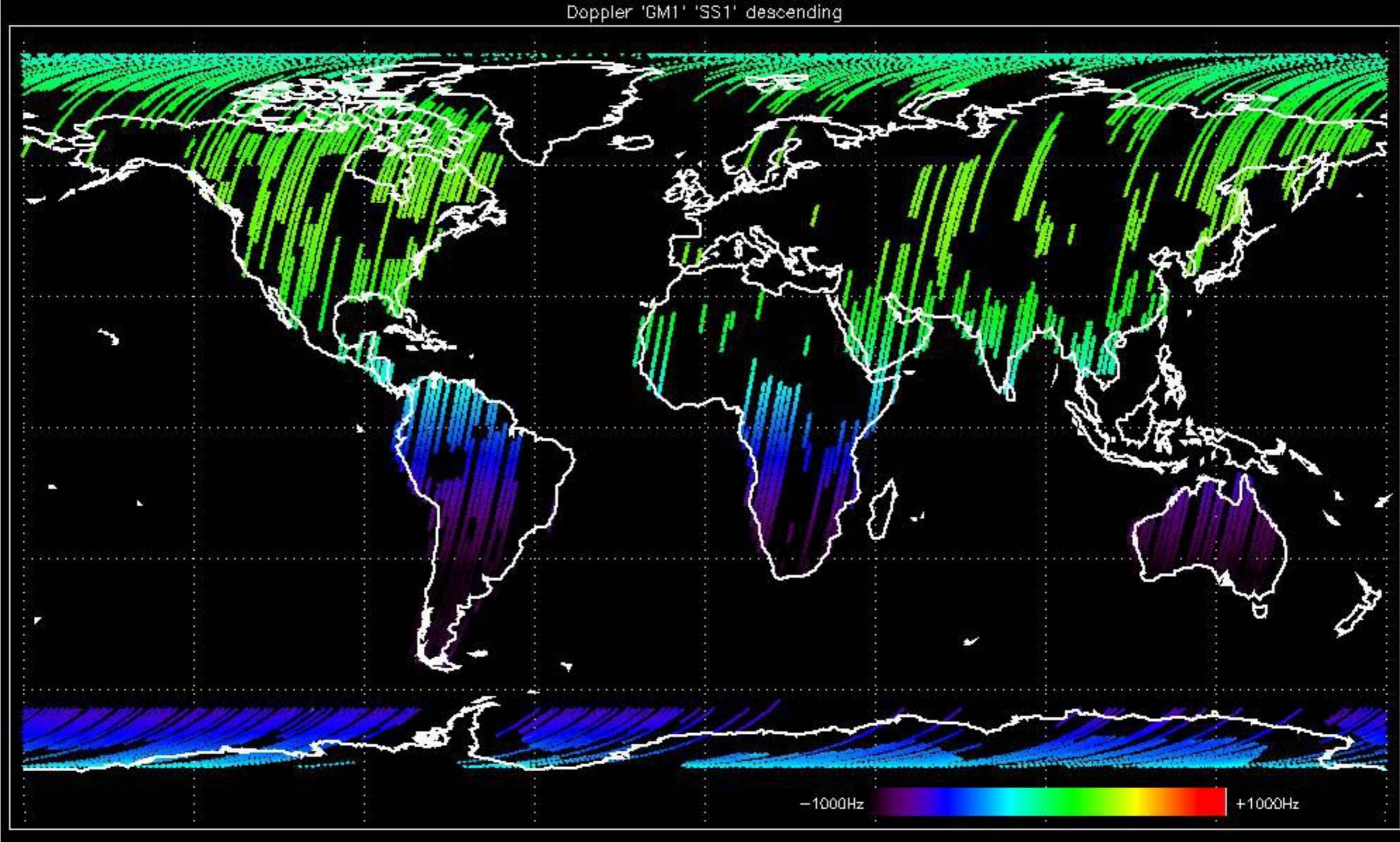


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

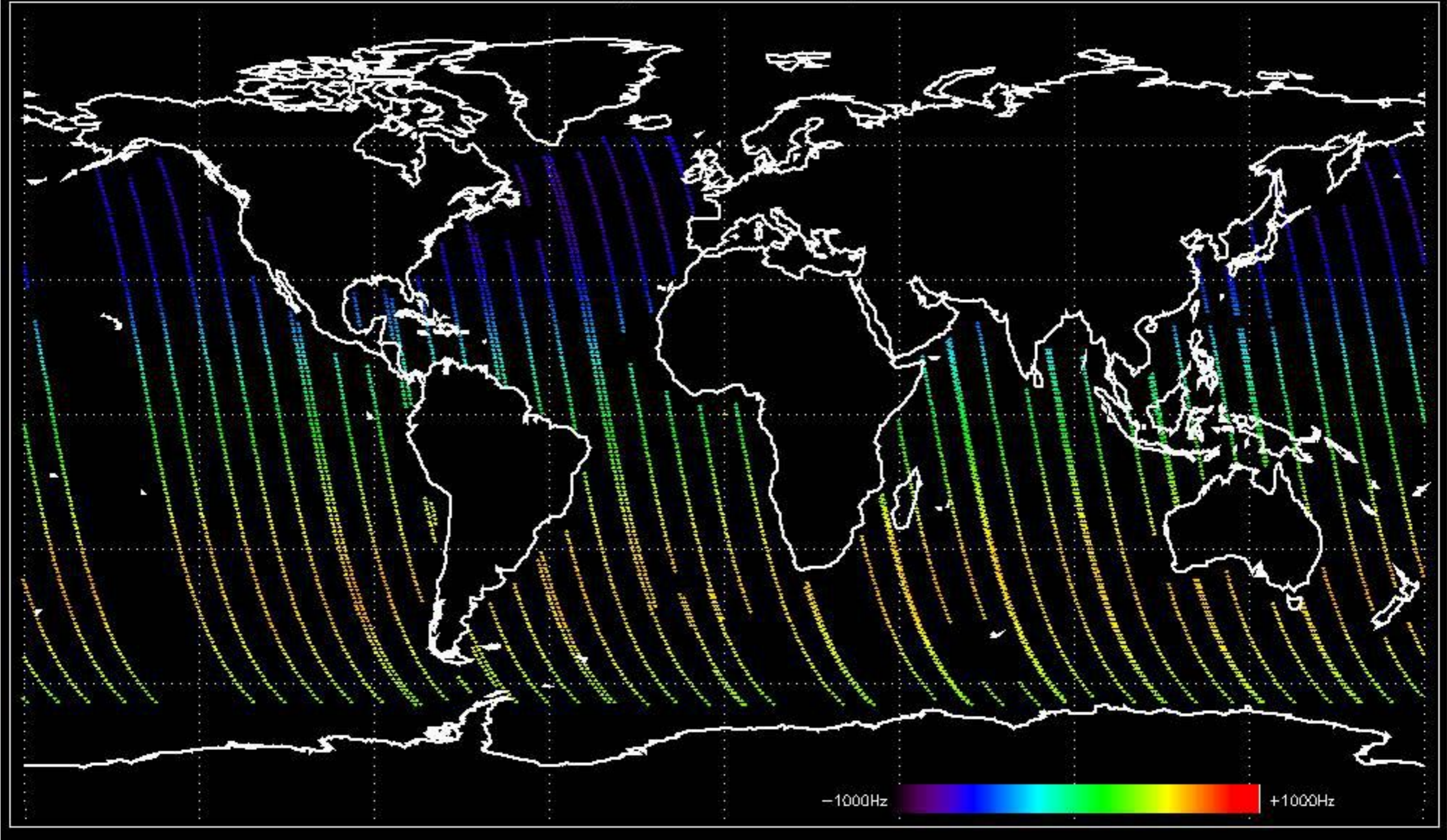
Doppler 'GM1' 'SS1' ascending



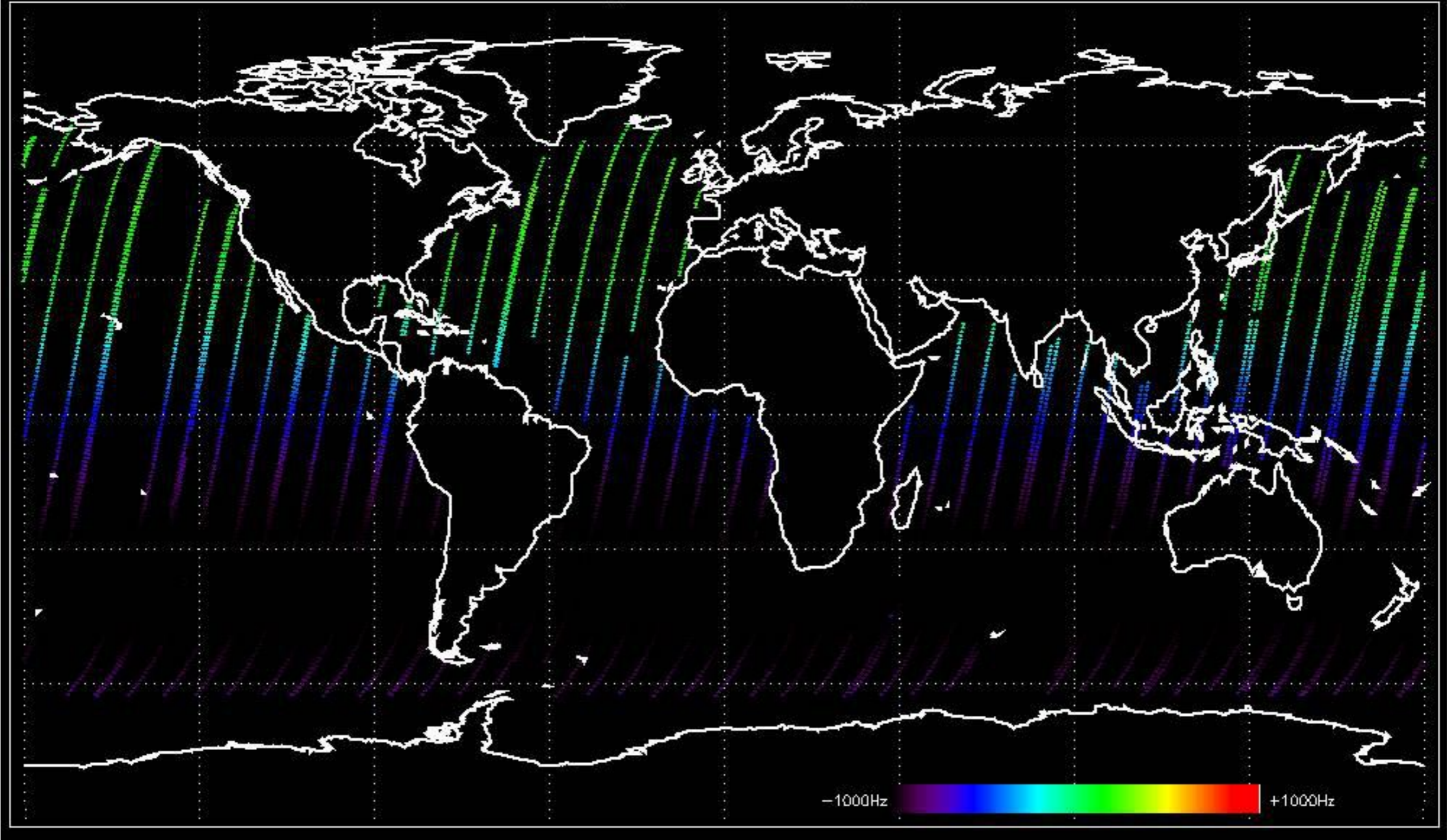
Doppler 'GM1' 'SS1' descending



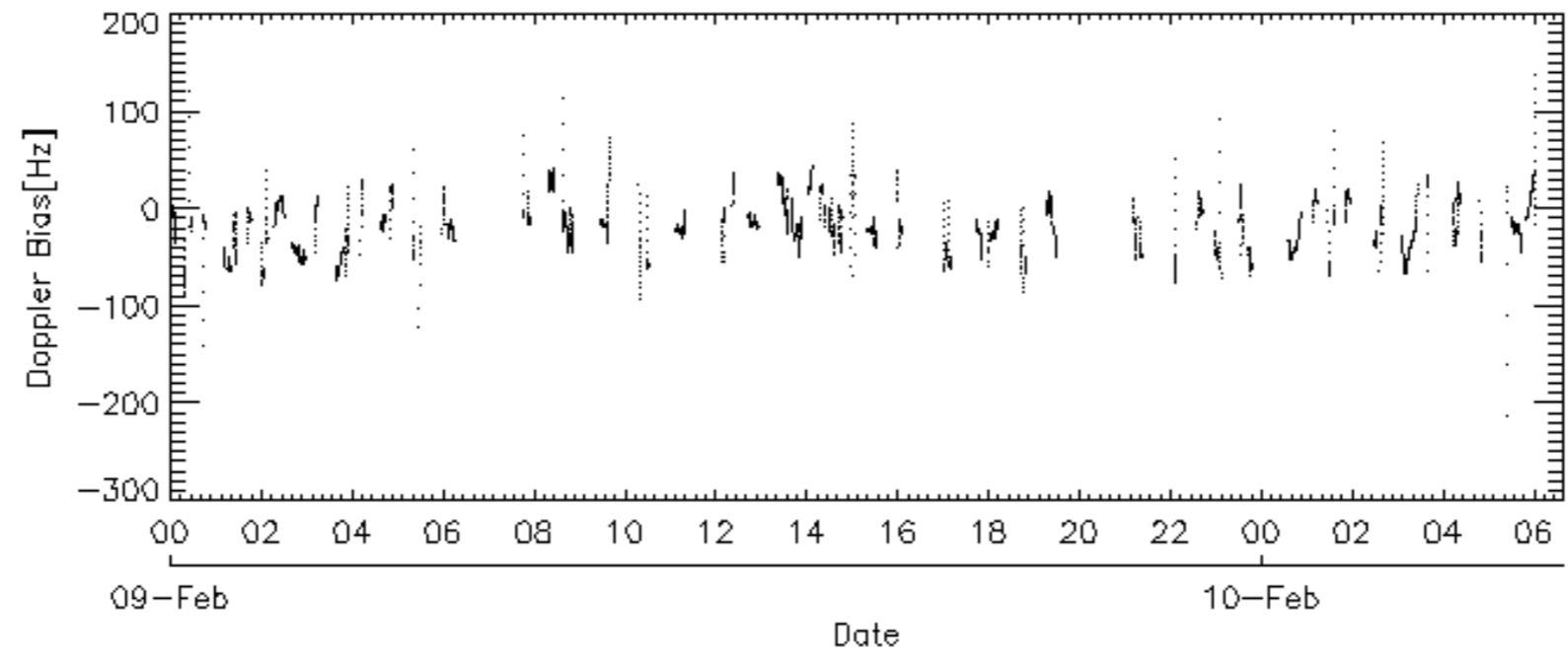
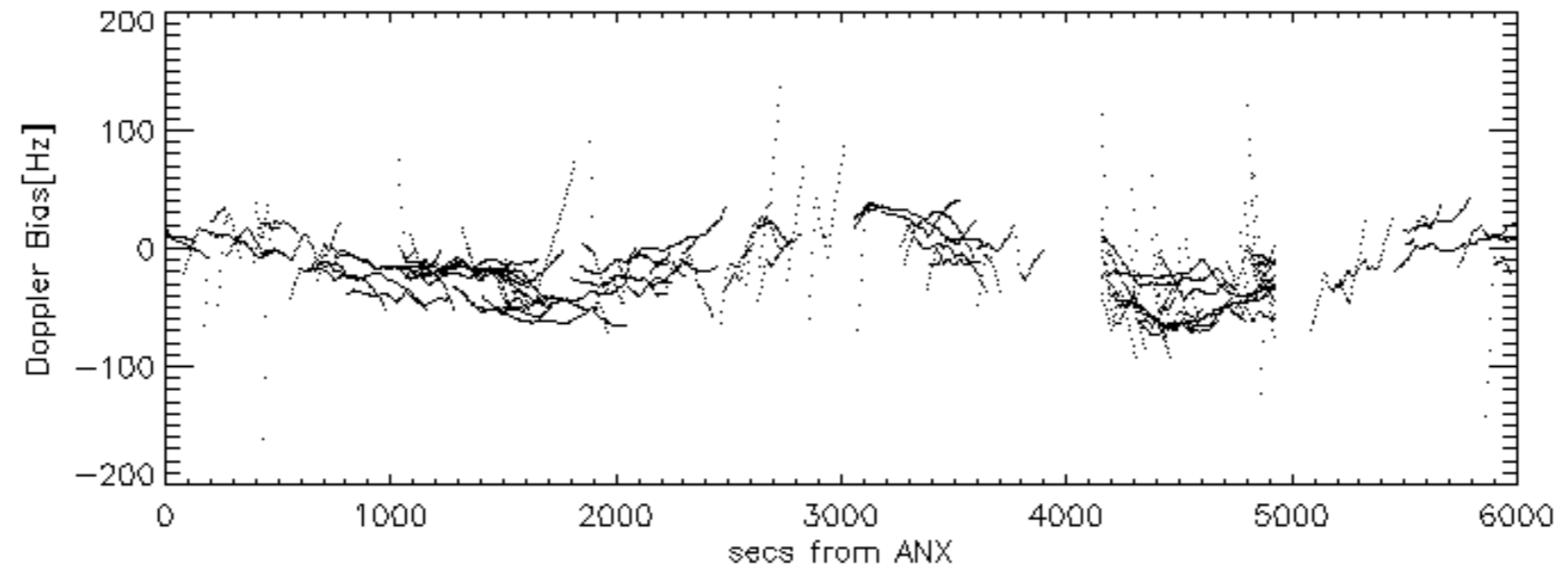
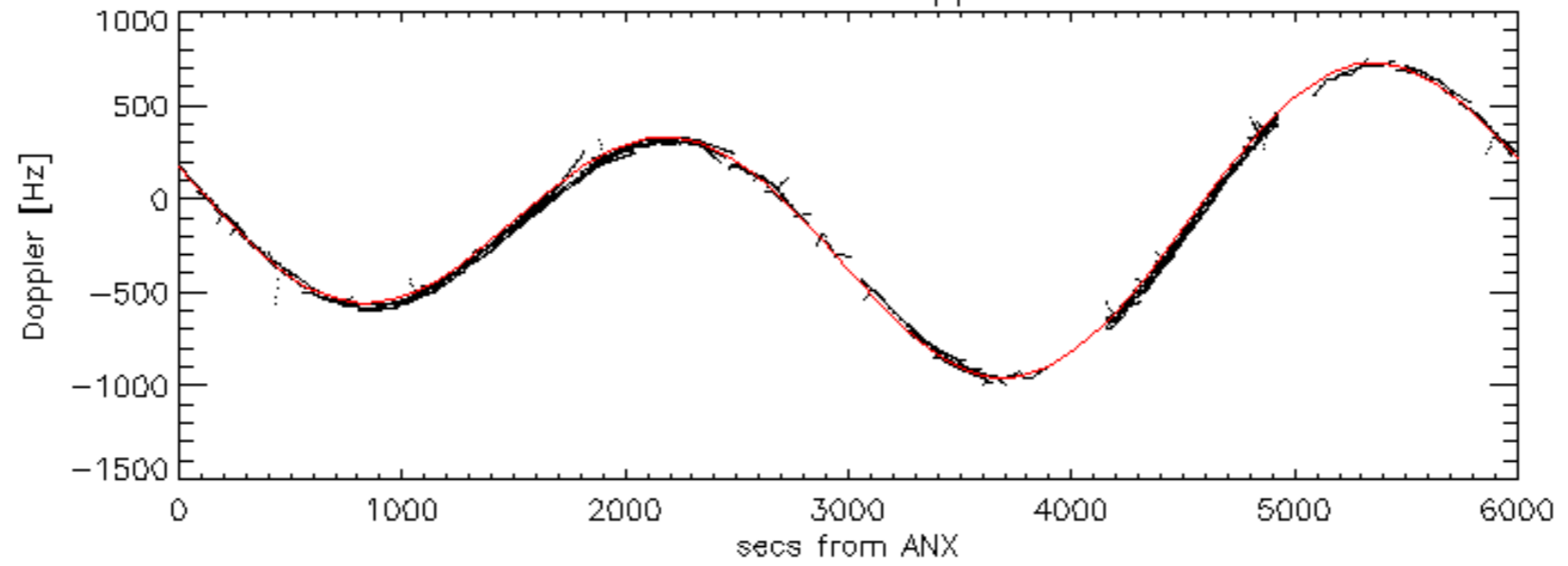
Doppler 'WVS' 'IS2' ascending

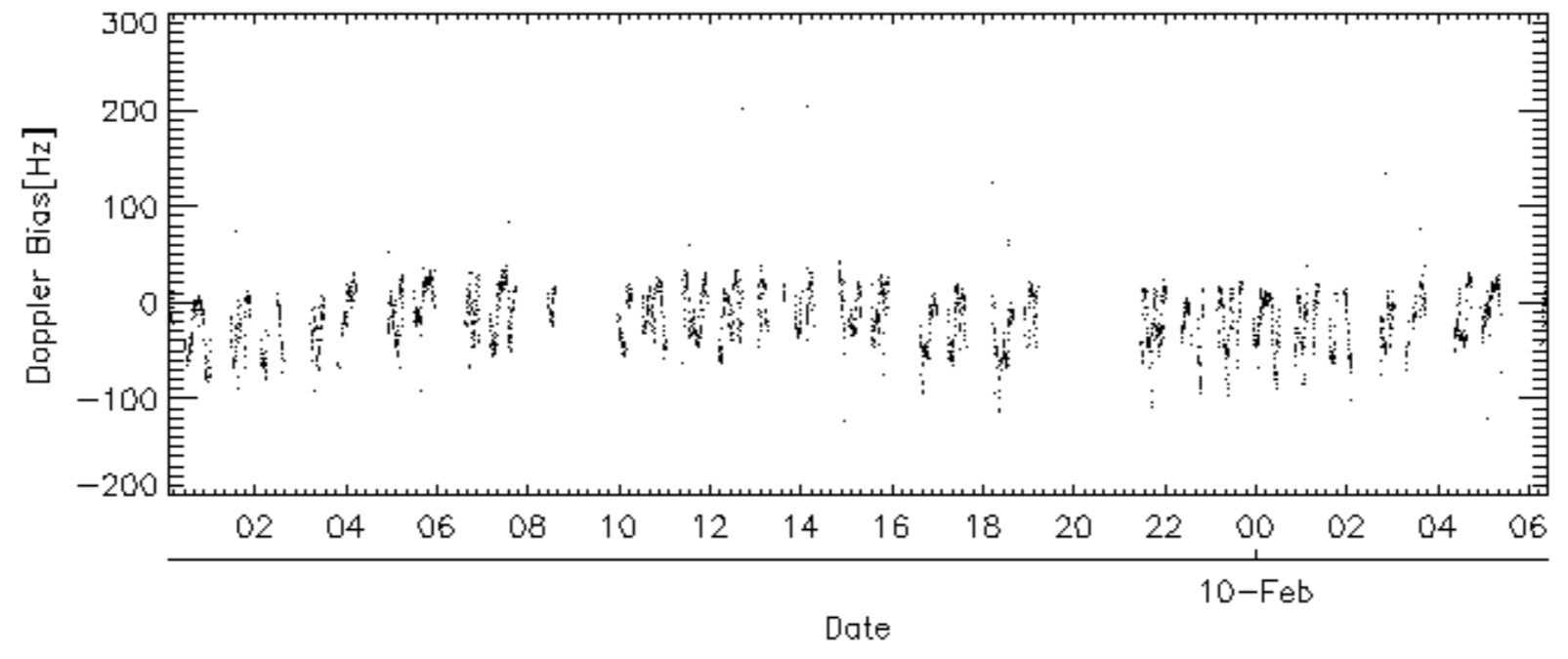
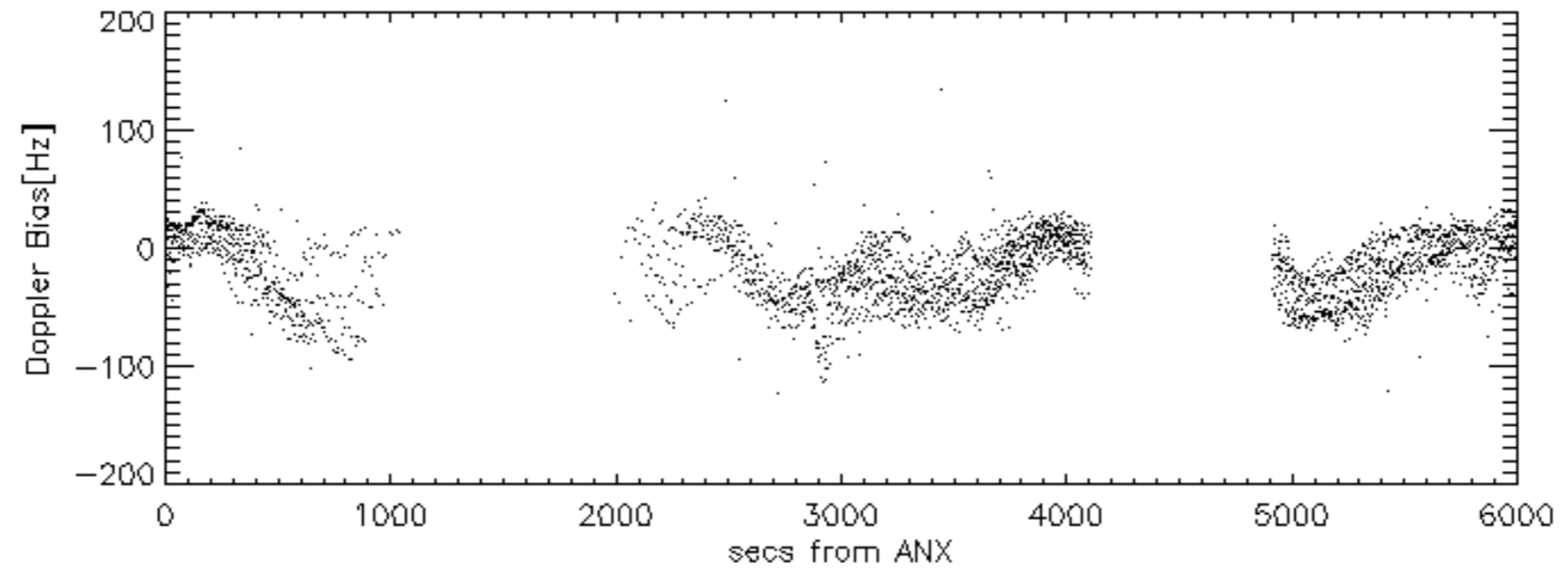
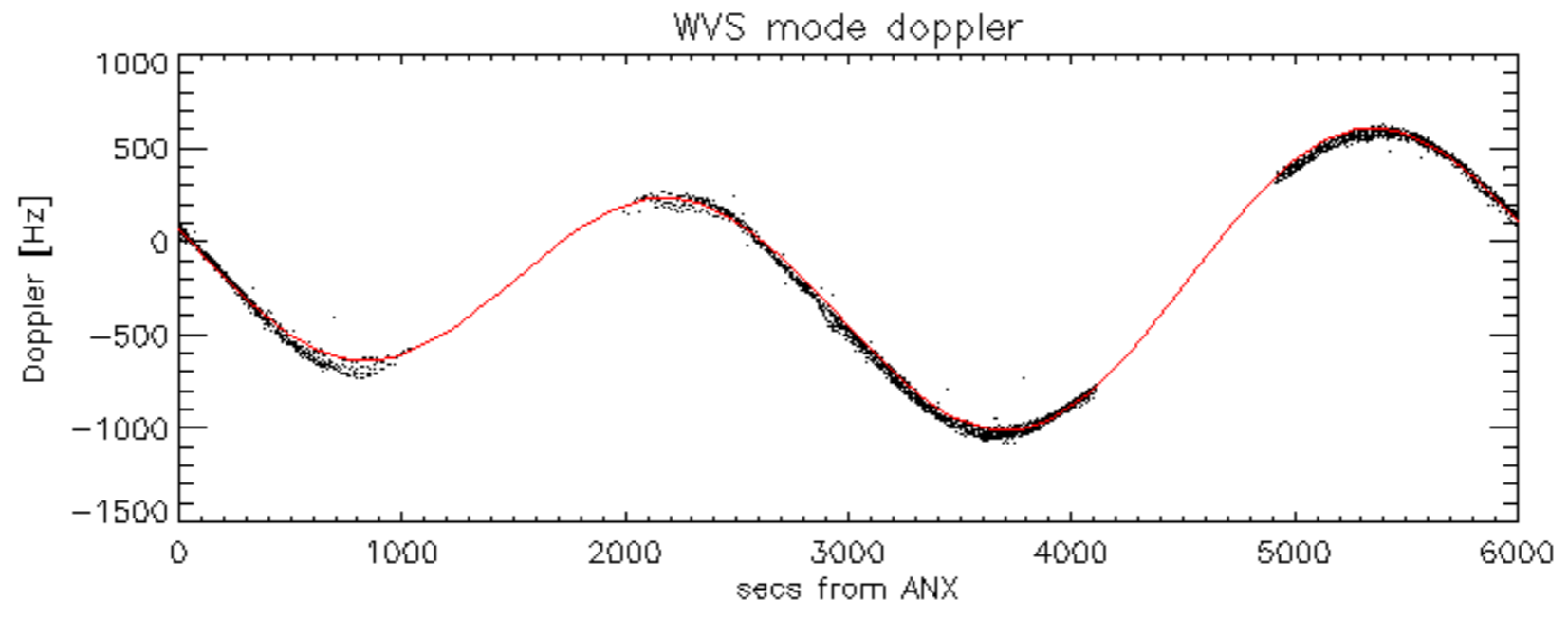


Doppler 'WVS' 'IS2' descending

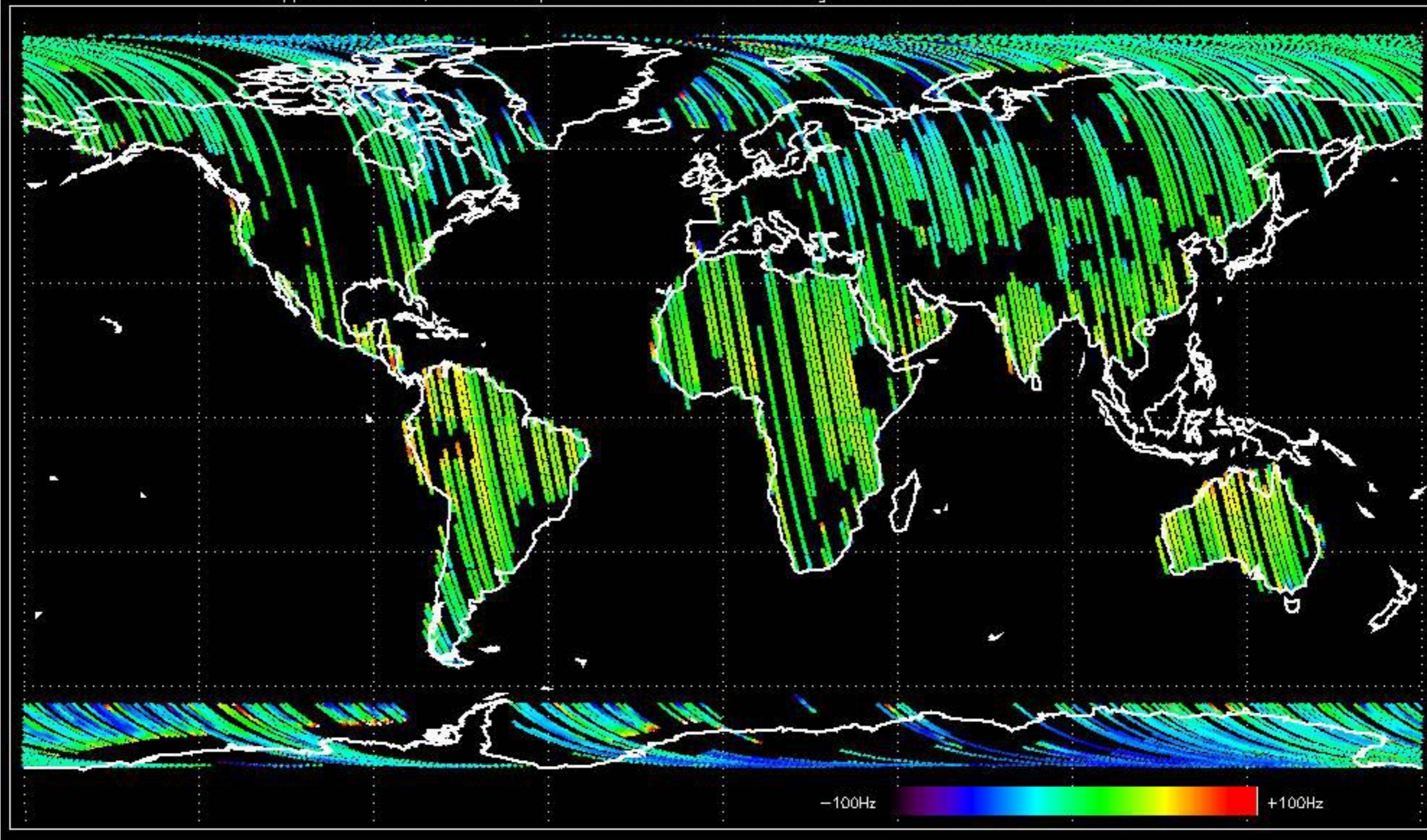


GM1 mode doppler

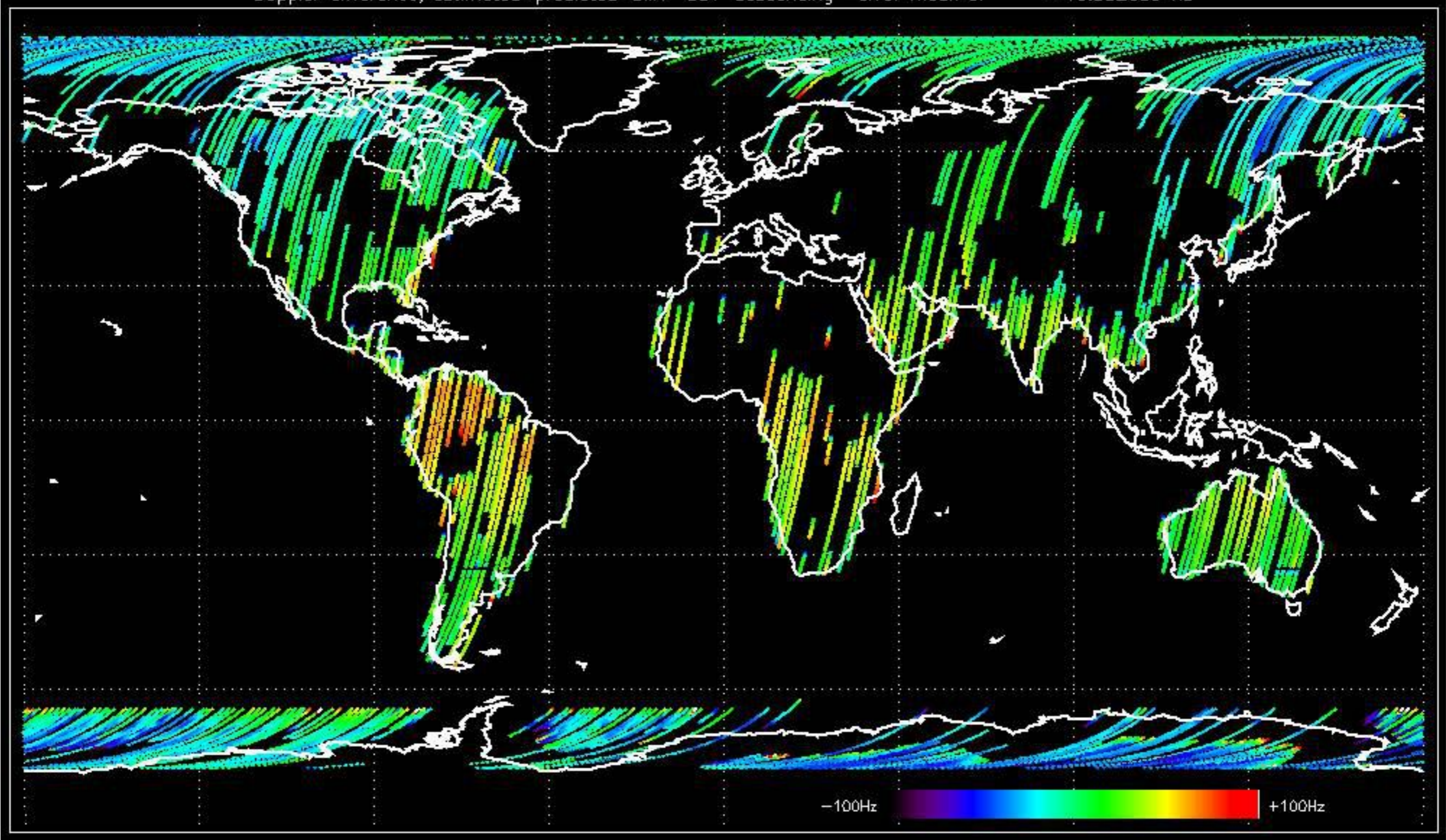




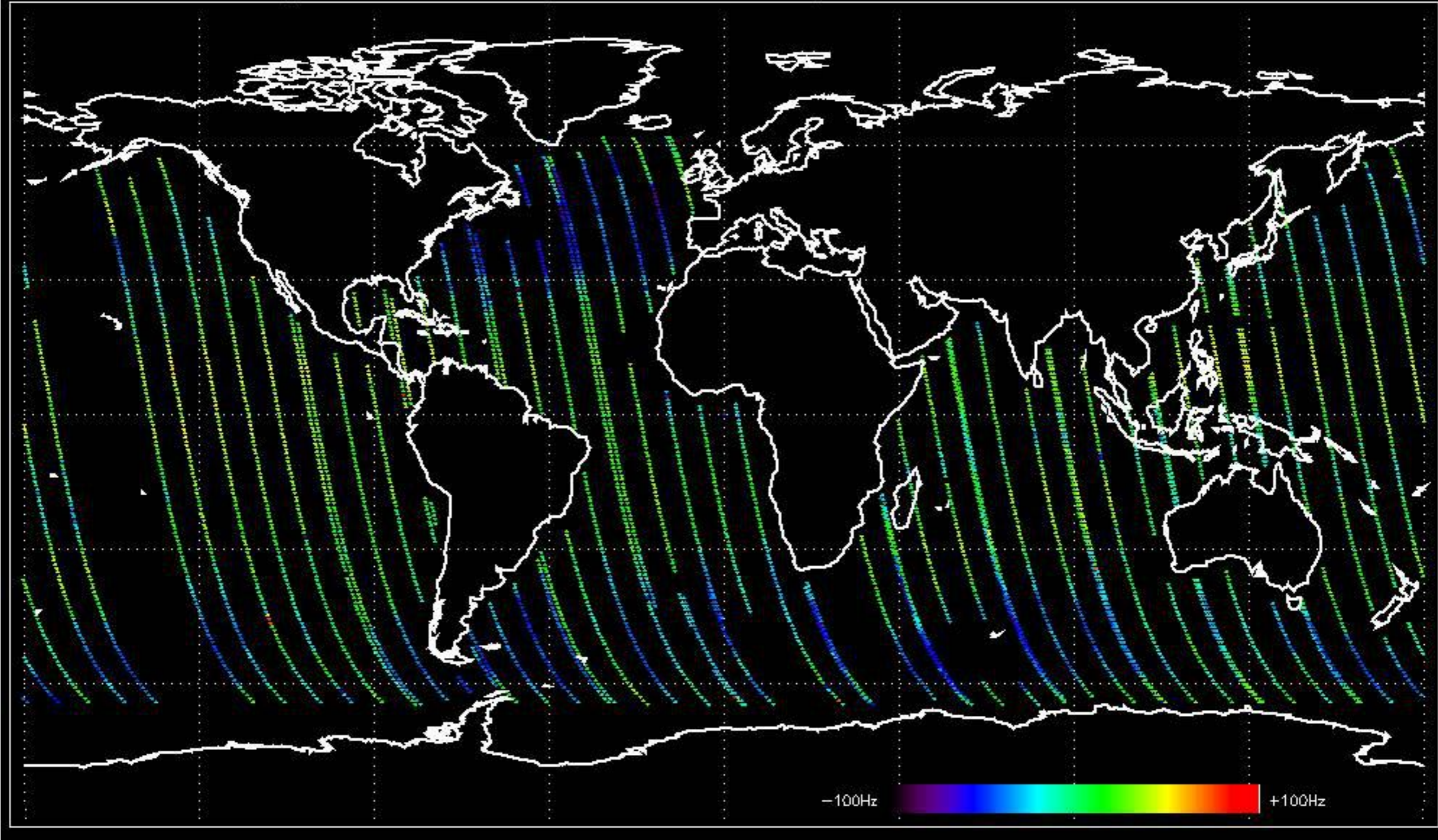
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.522823 Hz



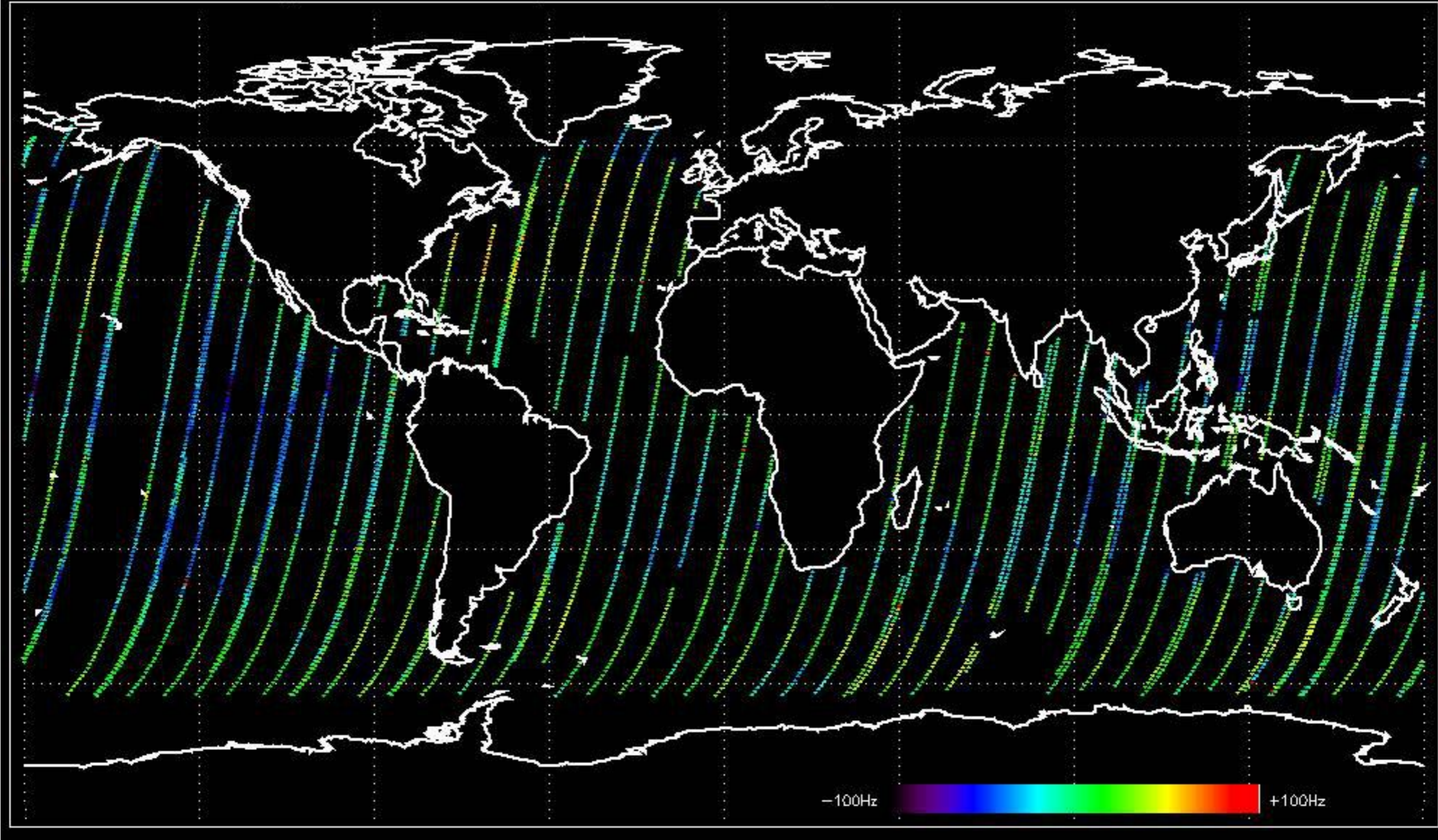
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.932683 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -17.246640 Hz

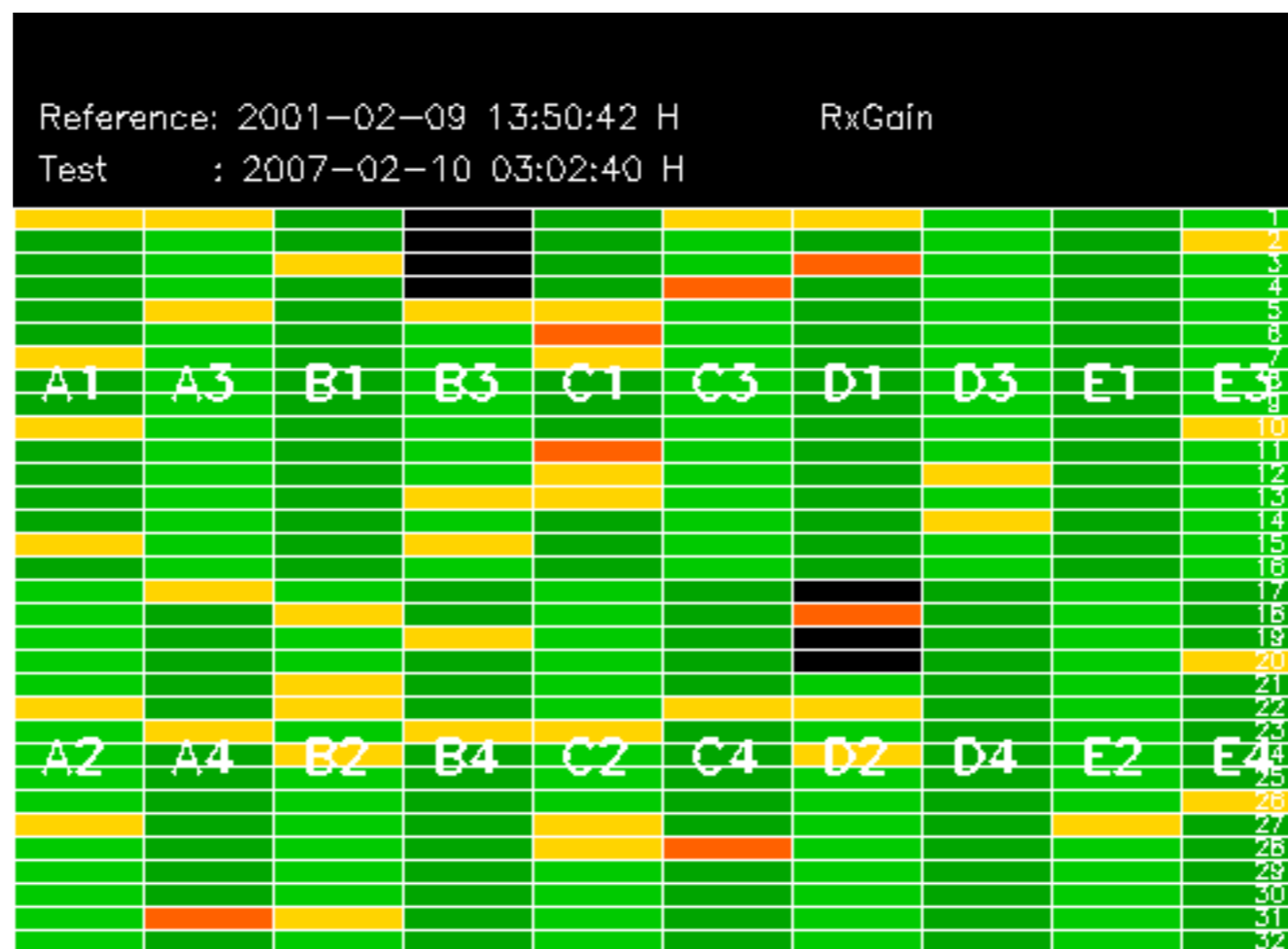


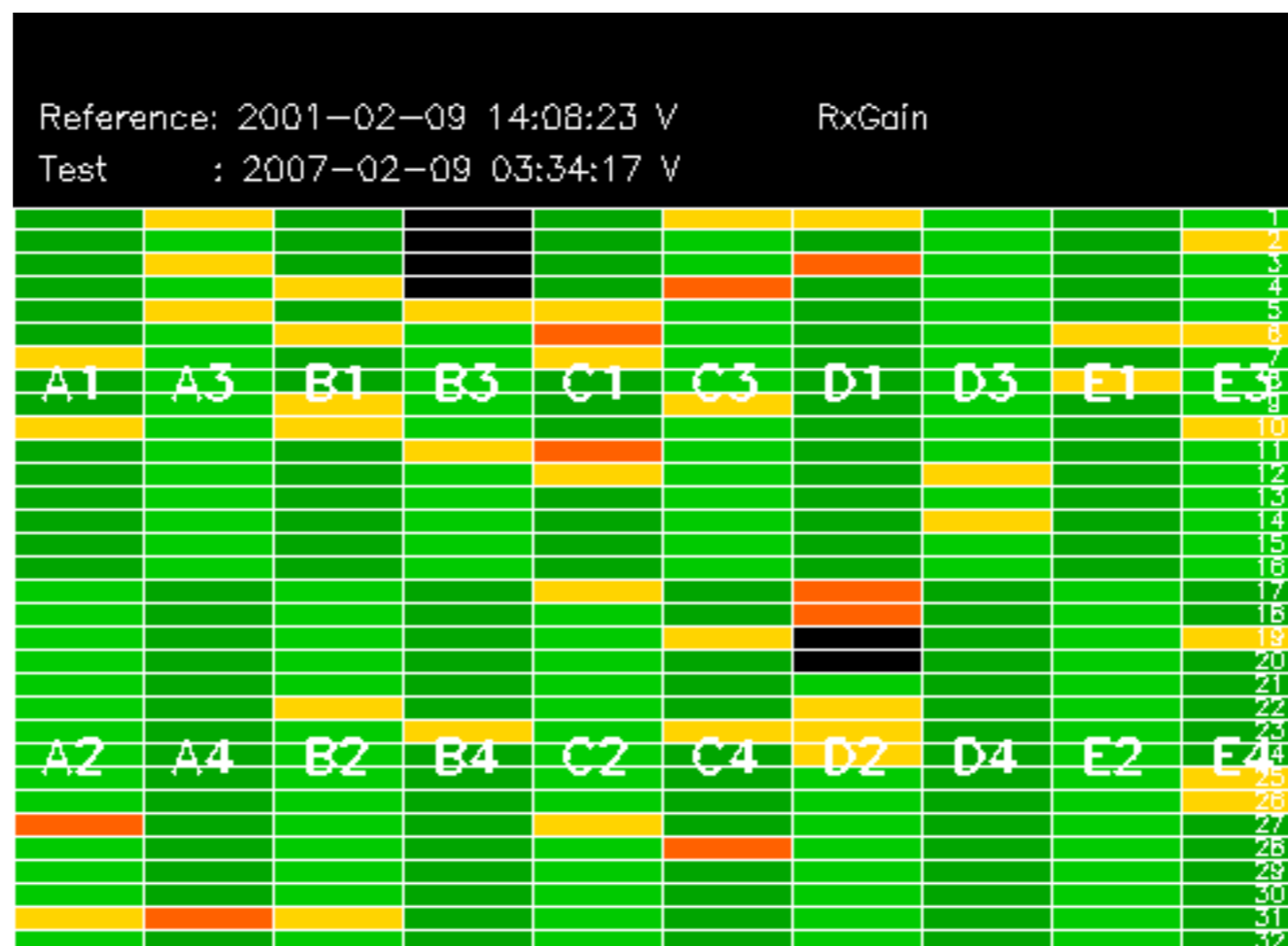
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -19.903447 Hz

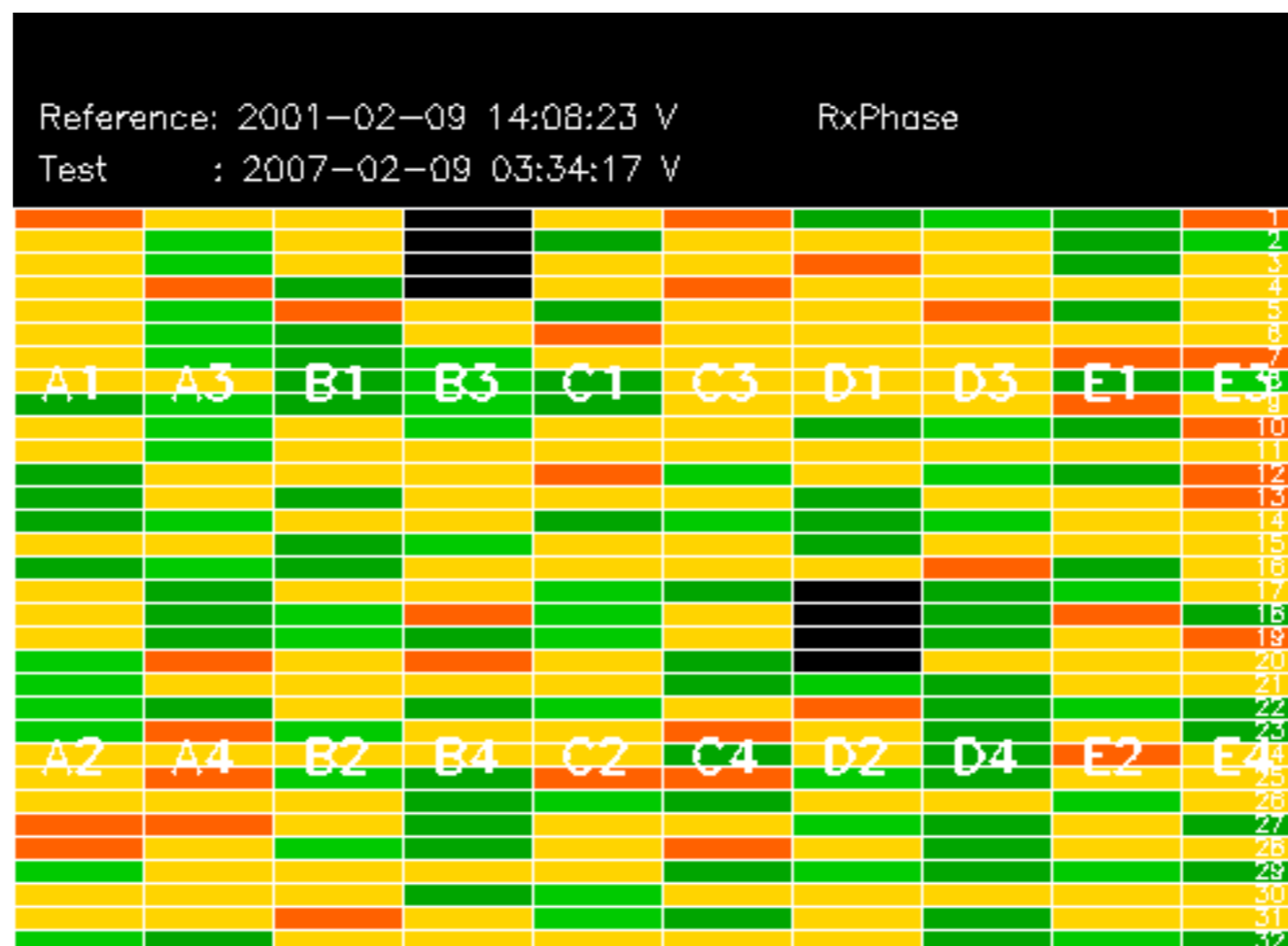


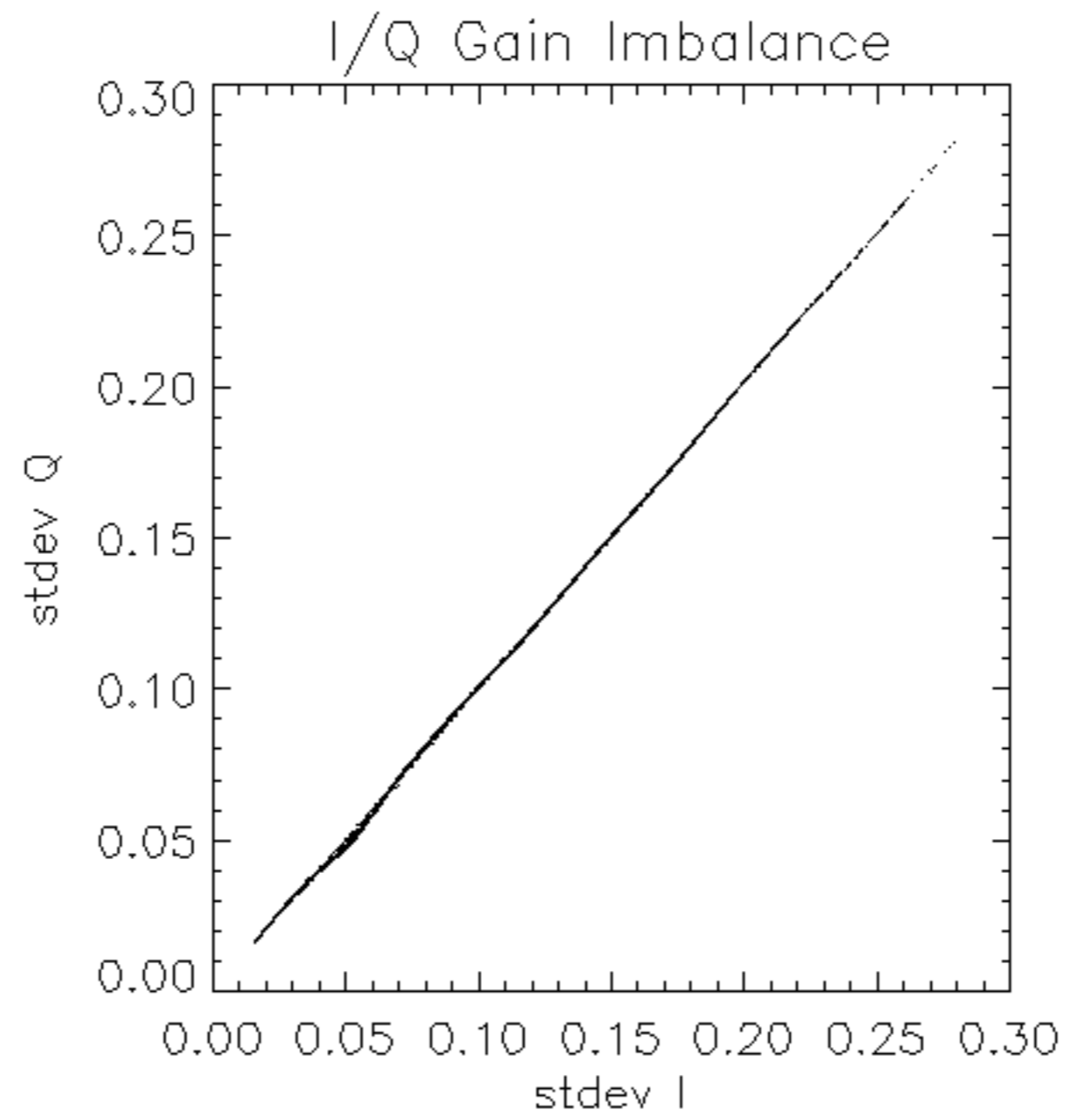
No anomalies observed on available MS products:

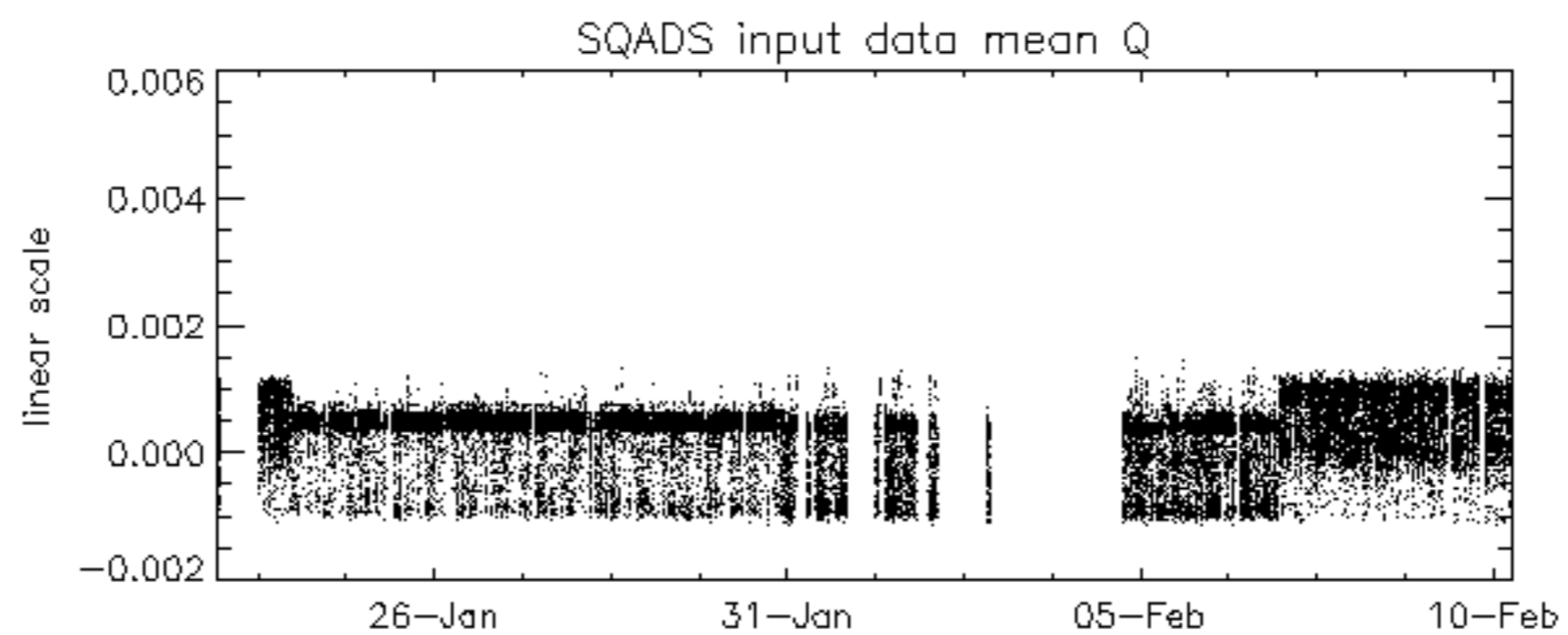
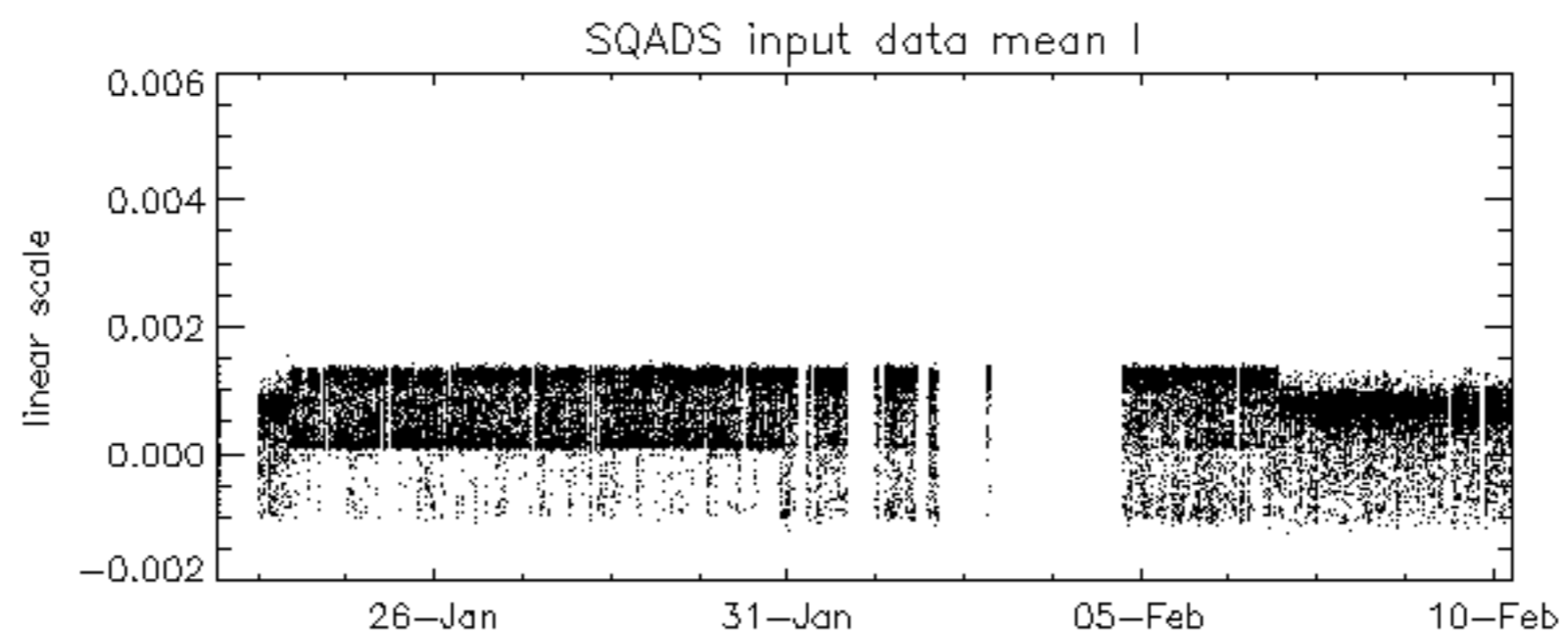
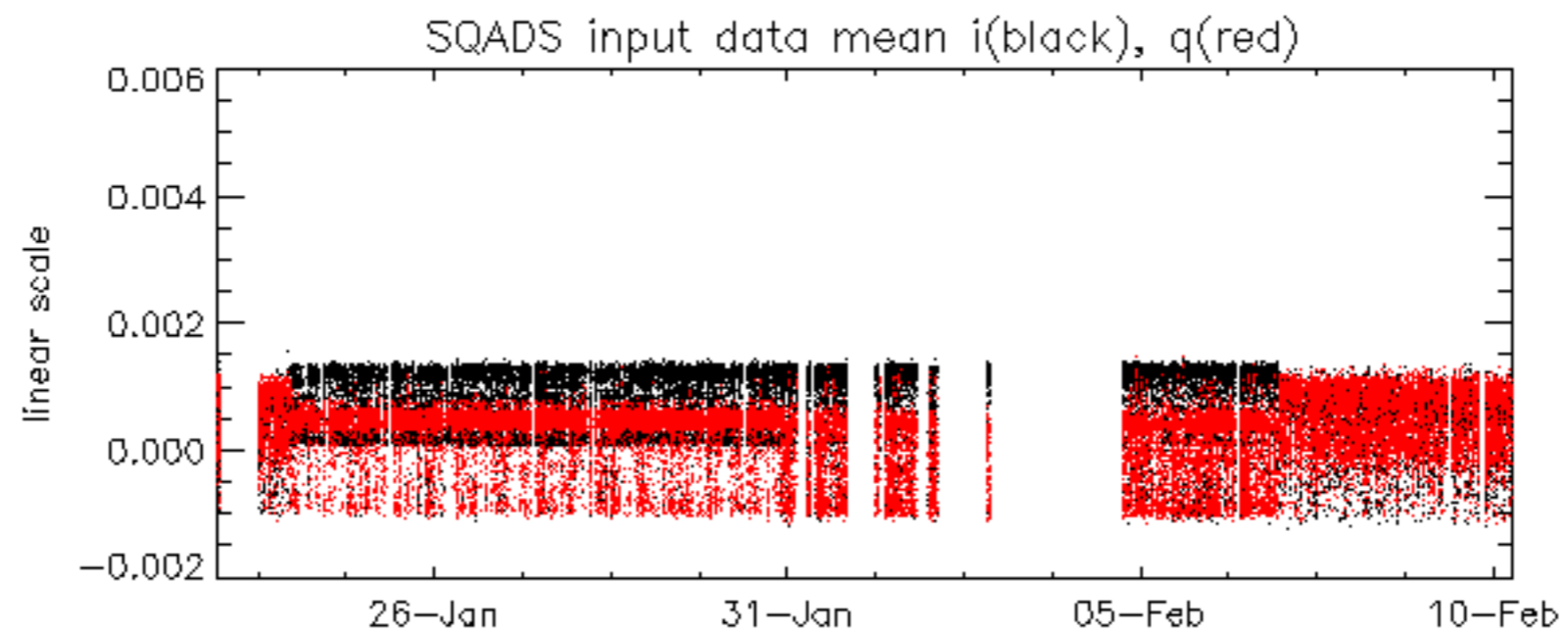
No anomalies observed.

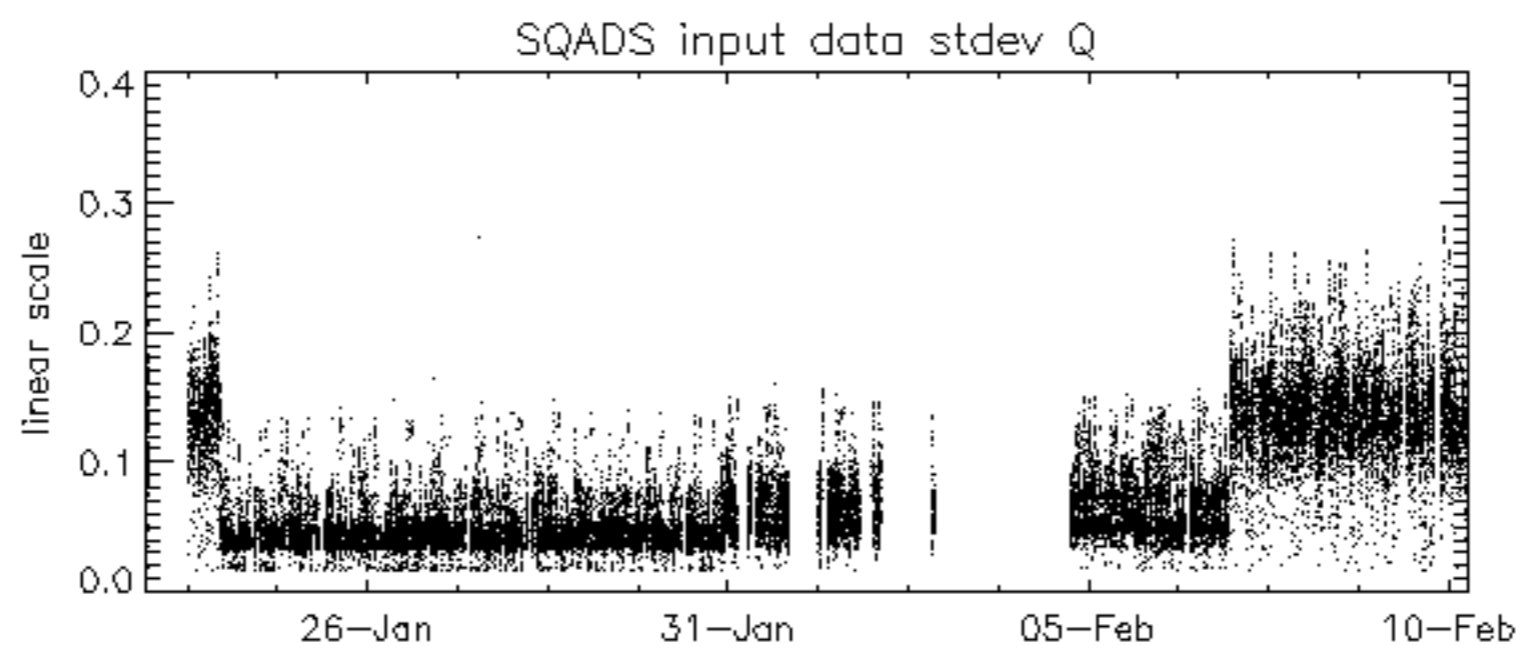
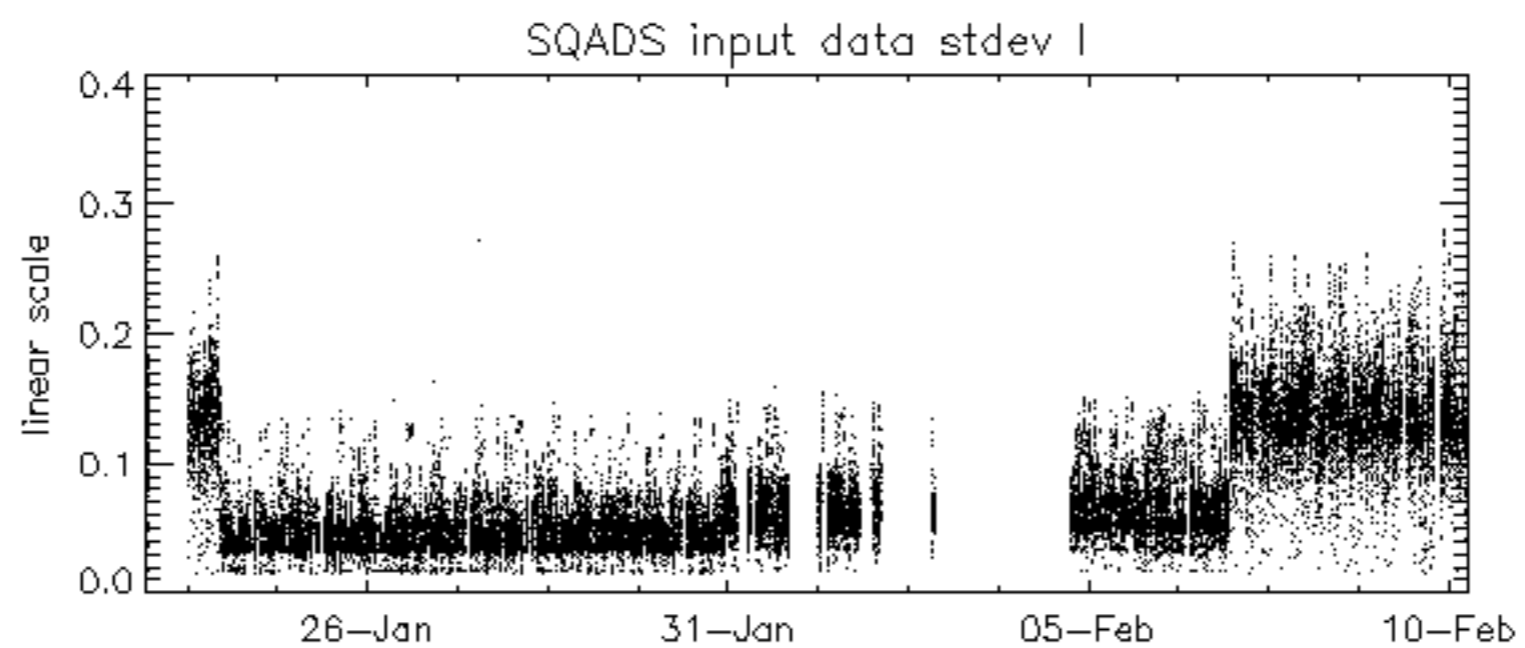
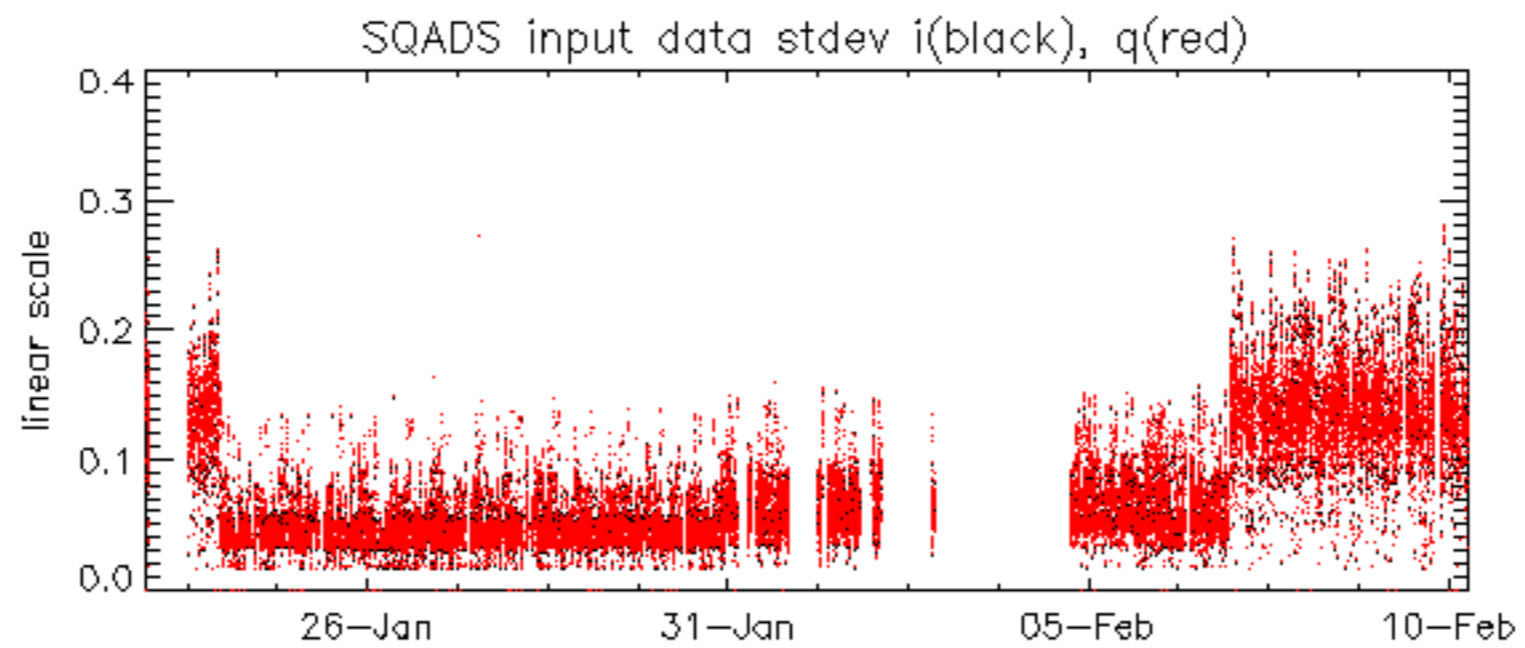








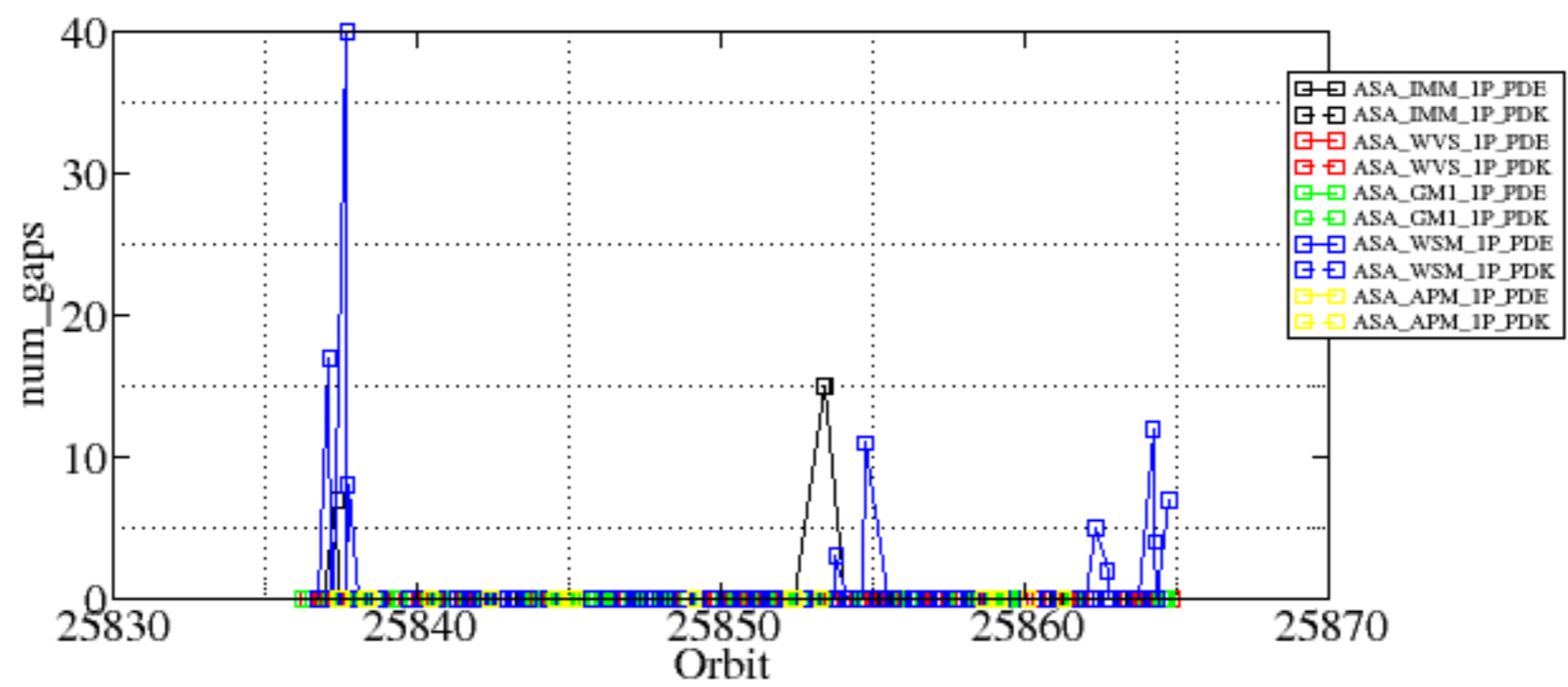


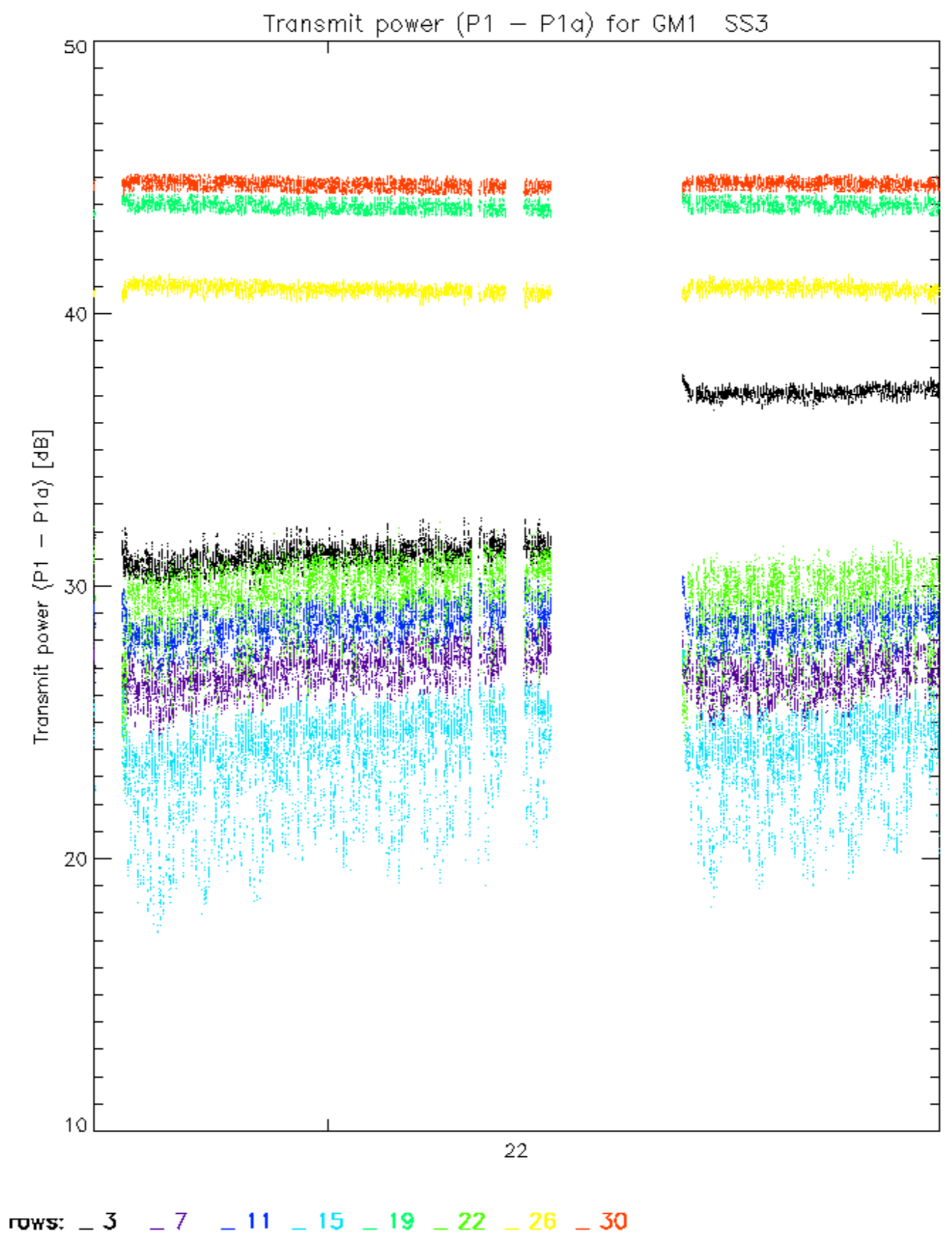


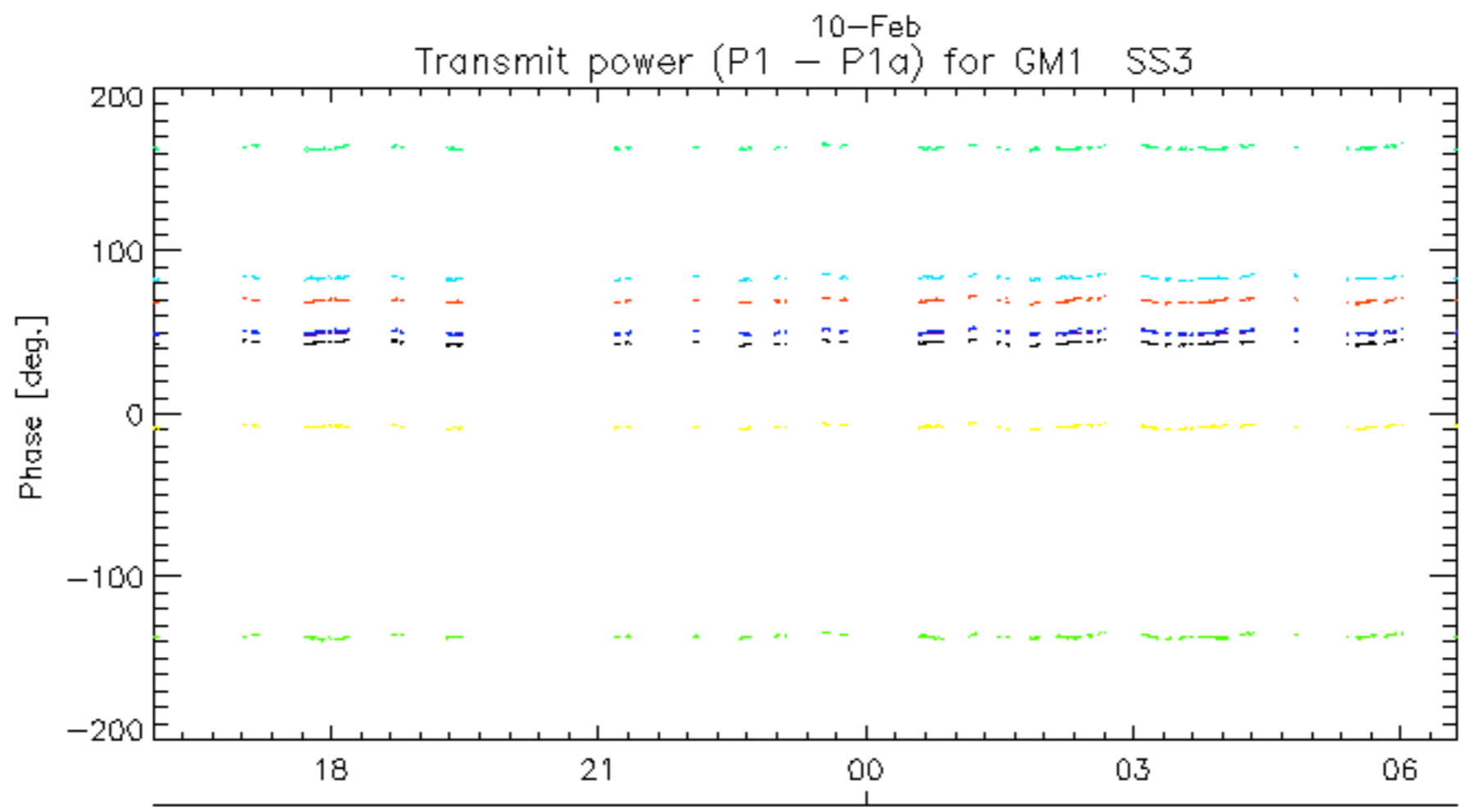
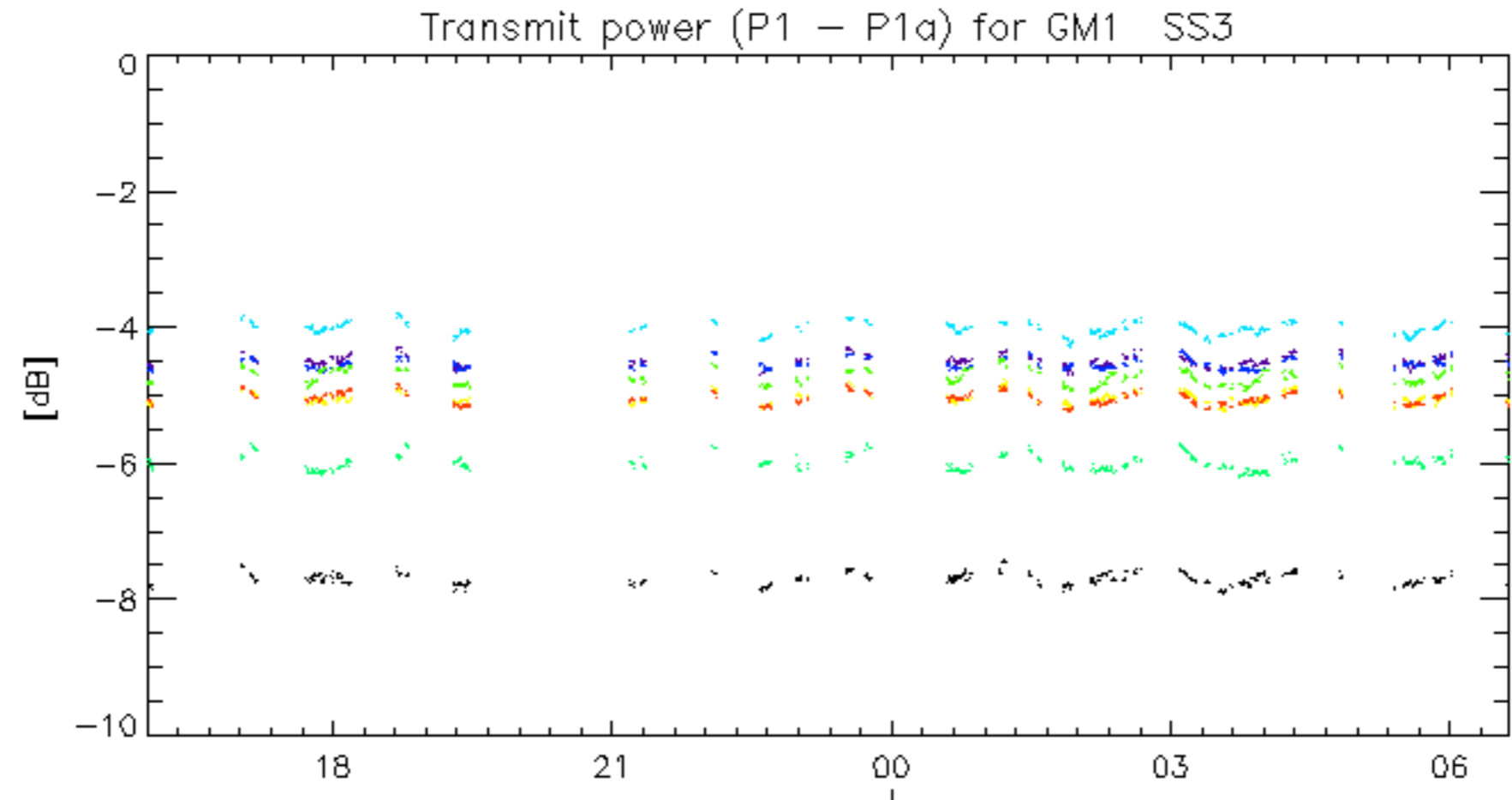
Summary of analysis for the last 3 days 2007020[890]

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

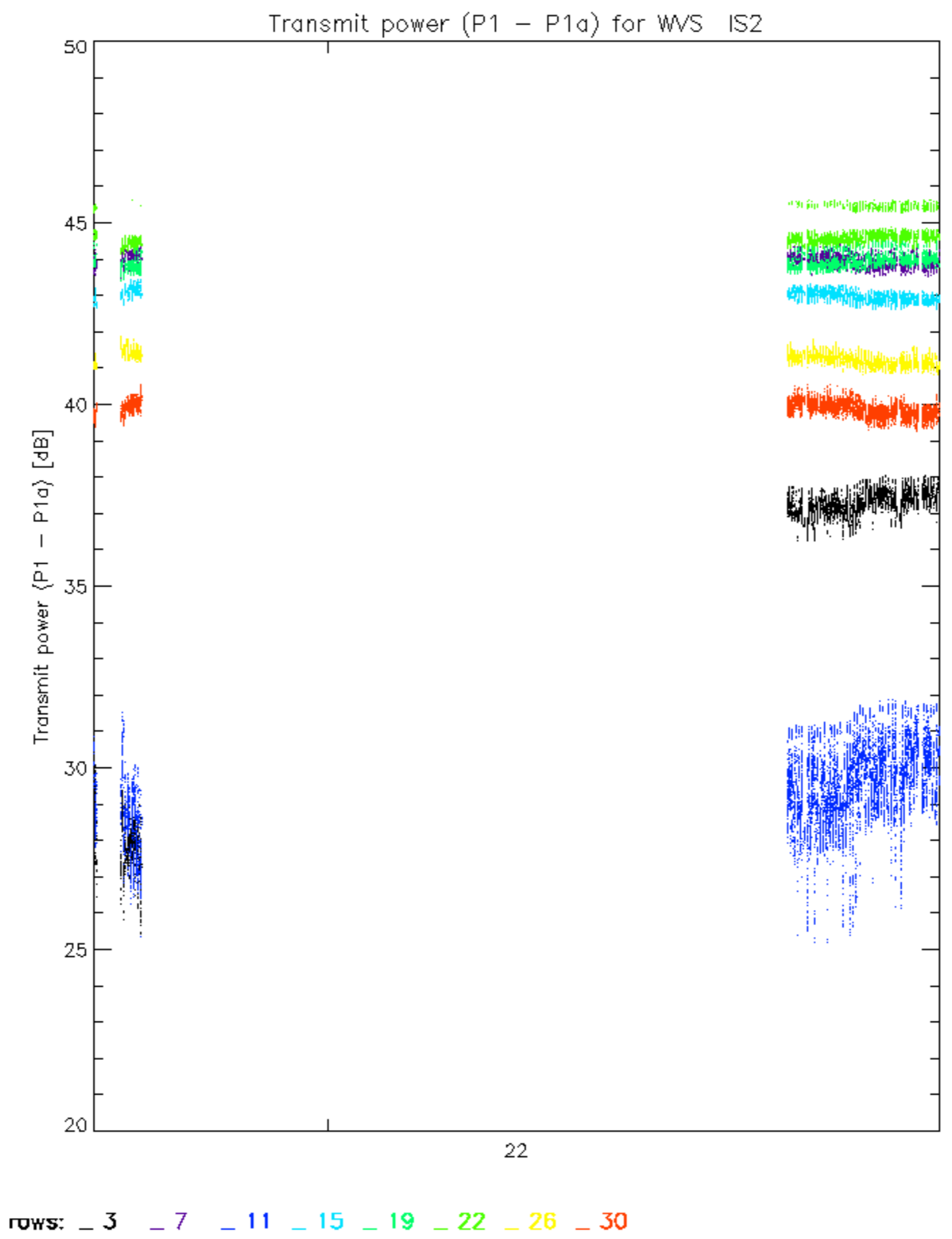
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070208_015344_000001402055_00232_25837_9161.N1	7	101
ASA_IMM_1PNPDE20070209_044539_000001392055_00248_25853_0947.N1	15	1731
ASA_IMM_1PNPDE20070209_044539_000001392055_00248_25853_0987.N1	15	1731
ASA_IMM_1PNPDE20070209_044539_000001392055_00248_25853_1132.N1	15	1731
ASA_IMM_1PNPDE20070209_044842_00000212055_00248_25853_0817.N1	15	1557
ASA_GM1_1PNPDK20070208_131157_000009672055_00239_25844_8717.N1	0	30
ASA_WSM_1PNPDE20070208_012926_000000862055_00232_25837_9154.N1	17	4430
ASA_WSM_1PNPDE20070208_013746_000001222055_00232_25837_9217.N1	0	56
ASA_WSM_1PNPDE20070208_013853_000000552055_00232_25837_9136.N1	0	44
ASA_WSM_1PNPDE20070208_022638_000000672055_00232_25837_9174.N1	40	13228
ASA_WSM_1PNPDE20070208_022638_000000672055_00232_25837_9789.N1	40	13228
ASA_WSM_1PNPDE20070208_022846_000001162055_00232_25837_9196.N1	8	1599
ASA_WSM_1PNPDE20070208_022846_000001162055_00232_25837_9825.N1	8	1599
ASA_WSM_1PNPDE20070209_052422_000002262055_00248_25853_1134.N1	3	480
ASA_WSM_1PNPDE20070209_065803_000001832055_00249_25854_1157.N1	0	69
ASA_WSM_1PNPDE20070209_070208_000000782055_00249_25854_1158.N1	11	1663
ASA_WSM_1PNPDE20070209_194602_000000862055_00257_25862_1419.N1	5	652
ASA_WSM_1PNPDE20070209_202340_000001292055_00257_25862_1421.N1	2	535
ASA_WSM_1PNPDE20070209_225626_000000982055_00259_25864_1705.N1	12	1782
ASA_WSM_1PNPDE20070209_230248_000001292055_00259_25864_1754.N1	4	547
ASA_WSM_1PNPDE20070209_234825_000003912055_00259_25864_1752.N1	7	1127
ASA_WSM_1PNPDE20070209_234825_000003912055_00259_25864_2406.N1	7	1127
ASA_WSM_1PNPDK20070208_094718_000000852055_00237_25842_8500.N1	0	32

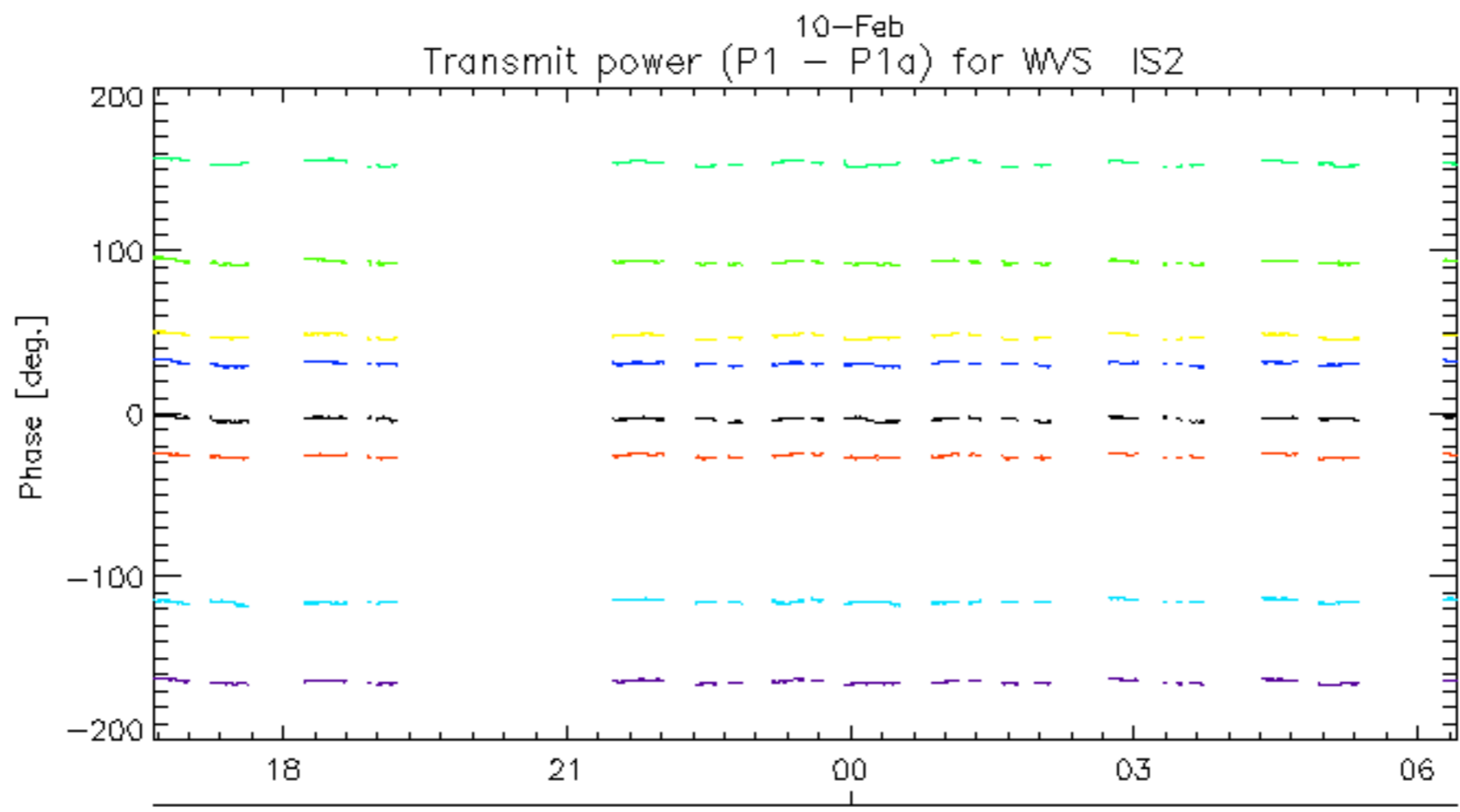
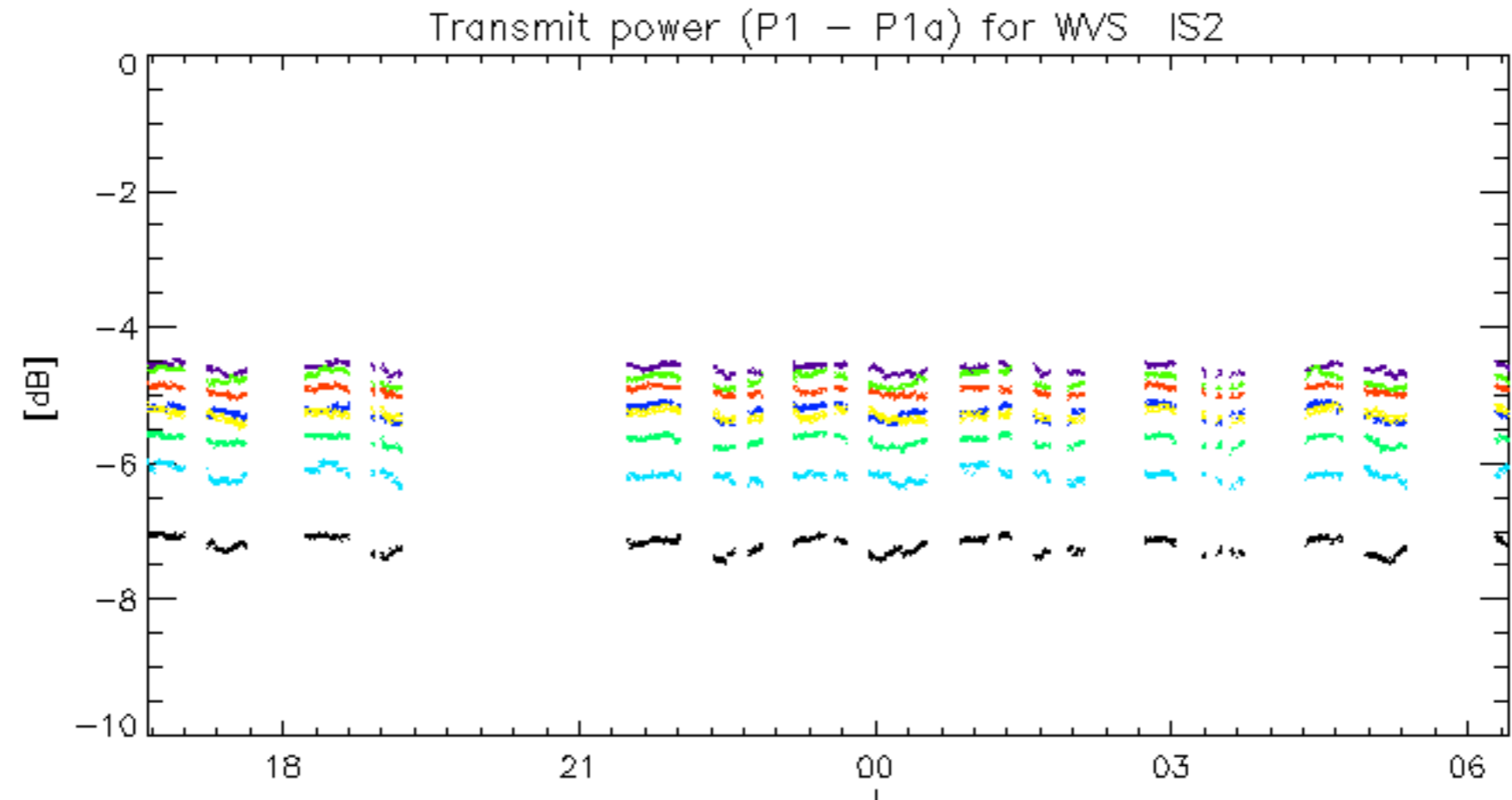






rows: 3 7 11 15 19 22 26 30





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

No unavailabilities during the reported period.