

PRELIMINARY REPORT OF 060314

last update on Tue Mar 14 09:29:22 GMT 2006

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2006-03-13 00:00:00 to 2006-03-14 09:29:22

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	28	47	6	0	13
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	28	47	6	0	13
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	28	47	6	0	13
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	28	47	6	0	13

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	37	40	35	15	47
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	37	40	35	15	47
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	37	40	35	15	47
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	37	40	35	15	47

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	20060313 180507
H	20060312 183644

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	-4.002470	0.009455	-0.001141
7	P1	-3.004502	0.008840	-0.028563
11	P1	-4.066735	0.020695	0.044465
15	P1	-6.077814	0.021604	-0.044321
19	P1	-3.286905	0.006578	-0.035272
22	P1	-4.459569	0.014940	0.005626
26	P1	-4.199032	0.102723	0.071368
30	P1	-5.802811	0.144185	-0.024200
3	P1	-16.973253	0.249692	-0.047196
7	P1	-16.705448	0.103462	-0.123452
11	P1	-16.503857	0.321588	0.071072
15	P1	-13.059364	0.094994	0.036020
19	P1	-13.927101	0.055426	-0.086818
22	P1	-15.594400	0.469930	0.119784
26	P1	-15.768046	0.304725	-0.043995
30	P1	-16.494261	0.308403	-0.037351

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.415112	0.087655	0.113777
7	P2	-22.383783	0.094934	0.081508
11	P2	-16.230755	0.100303	0.041639
15	P2	-7.166539	0.099118	0.021589
19	P2	-9.134500	0.091268	0.019357
22	P2	-17.938078	0.089755	-0.026356
26	P2	-16.209303	0.094667	-0.006350
30	P2	-19.645174	0.084134	-0.027534

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.194462	0.006022	0.000725
7	P3	-8.194462	0.006022	0.000725
11	P3	-8.194462	0.006022	0.000725
15	P3	-8.194462	0.006022	0.000725
19	P3	-8.194462	0.006022	0.000725
22	P3	-8.194462	0.006022	0.000725
26	P3	-8.194462	0.006022	0.000725
30	P3	-8.194462	0.006022	0.000725

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	-3.844137	3.277503	0.154437
7	P1	-2.837398	3.439825	0.215918
11	P1	-3.024022	3.463219	0.175018
15	P1	-3.668028	3.433802	0.184114
19	P1	-3.471921	3.327212	0.150119
22	P1	-5.264511	3.057242	0.133827
26	P1	-5.957032	3.248641	0.324481
30	P1	-5.296035	3.092168	0.193961
3	P1	-11.643771	2.151759	0.129972
7	P1	-10.039224	2.384117	0.121448
11	P1	-10.333336	2.375463	0.048700
15	P1	-10.875657	2.382917	0.070096
19	P1	-15.473518	1.752189	0.071253
22	P1	-20.314713	2.372535	0.133261
26	P1	-16.333996	2.275172	0.174520
30	P1	-18.359032	1.630456	0.043269

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.113379	2.263898	0.142733
7	P2	-22.554123	2.645207	0.009040
11	P2	-11.284113	2.458384	0.146909
15	P2	-4.919842	3.194646	0.173656
19	P2	-6.928762	2.875532	0.166768
22	P2	-8.216901	2.697435	0.126485
26	P2	-23.890141	2.712150	-0.165494
30	P2	-22.034611	2.561274	-0.085287

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024208	0.002448	0.006946
7	P3	-8.024186	0.002445	0.007087
11	P3	-8.024188	0.002457	0.007184
15	P3	-8.024291	0.002448	0.006840
19	P3	-8.024180	0.002460	0.007294
22	P3	-8.024275	0.002448	0.006942
26	P3	-8.024263	0.002449	0.007319
30	P3	-8.024117	0.002446	0.007320

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	0.000555823
	stdev	1.76086e-07
MEAN Q	mean	0.000513358
	stdev	2.21567e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138194
	stdev	0.00119819
STDEV Q	mean	0.138557
	stdev	0.00121638



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006031[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_1PNPDE20060312_003948_000001552045_00474_21069_0566.N1	1	0
ASA_IMM_1PNPDE20060312_005604_000000362045_00475_21070_0559.N1	1	0
ASA_IMM_1PNPDE20060312_022546_000000362045_00476_21071_0586.N1	1	0
ASA_IMM_1PNPDE20060312_022546_000000362045_00476_21071_0595.N1	1	0
ASA_IMM_1PNPDK20060312_124030_000000362045_00482_21077_0195.N1	1	0
ASA_WSM_1PNPDE20060312_113127_000001842045_00481_21076_0468.N1	0	62
ASA_WSM_1PNPDE20060313_165856_000001292045_00499_21094_0582.N1	0	76
ASA_APM_1PNPDE20060312_141416_000000412045_00483_21078_0171.N1	0	11



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)

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

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

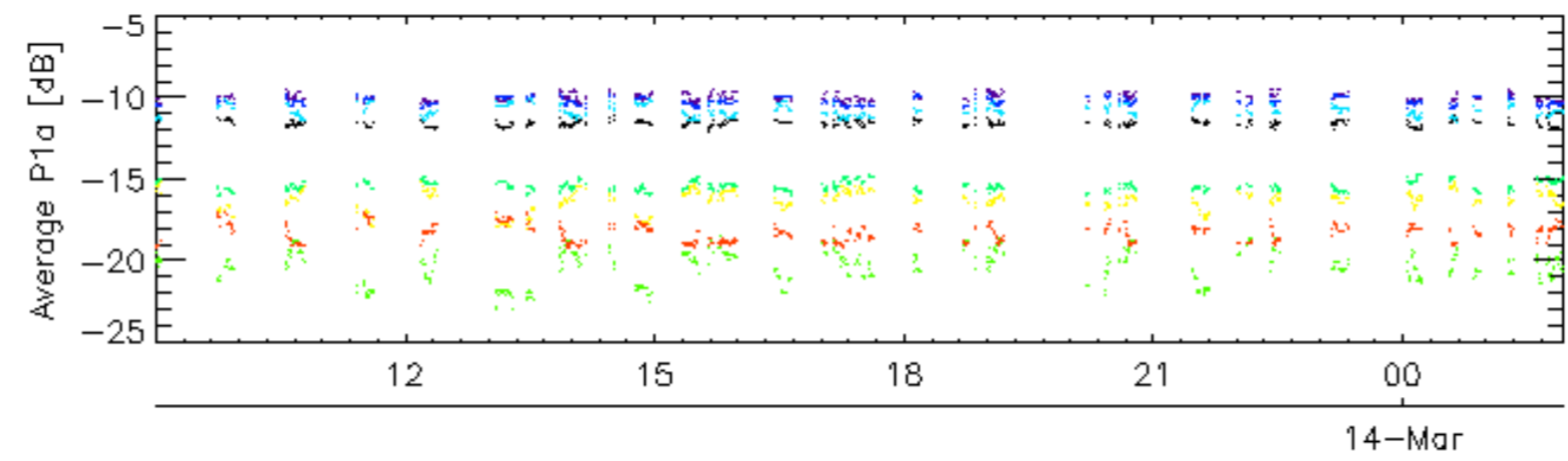
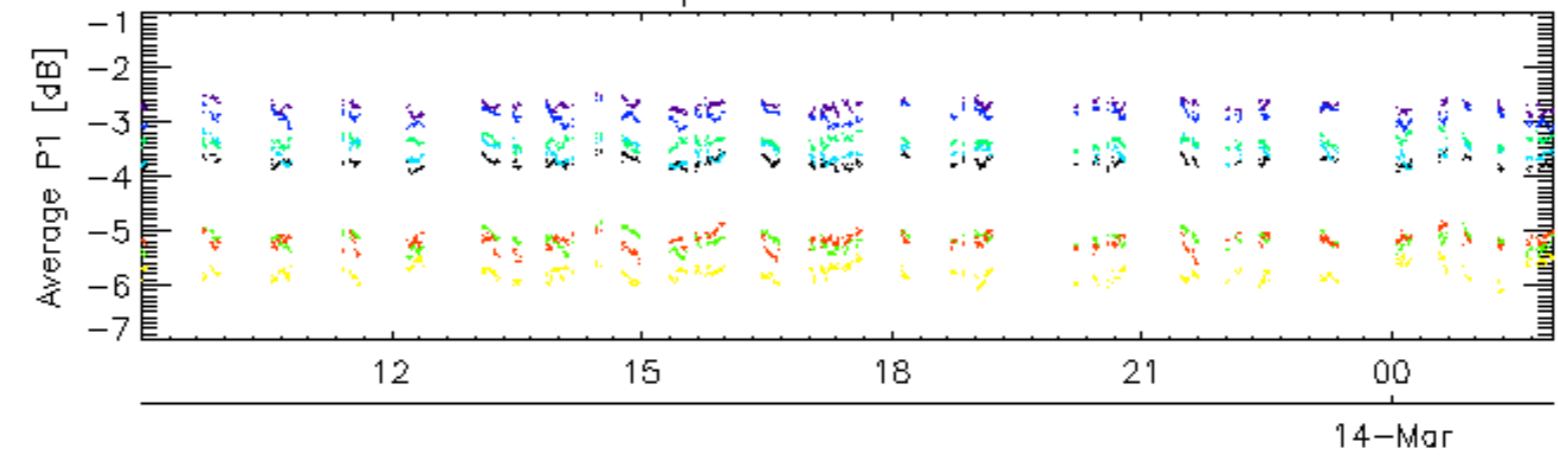
<input type="checkbox"/>
Acsending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

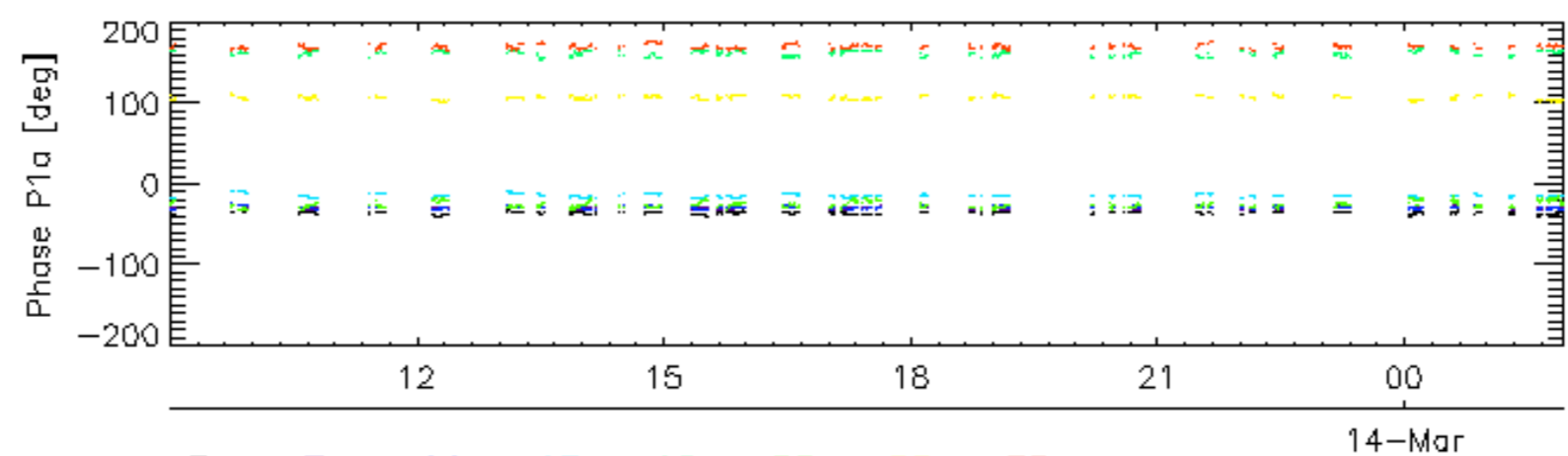
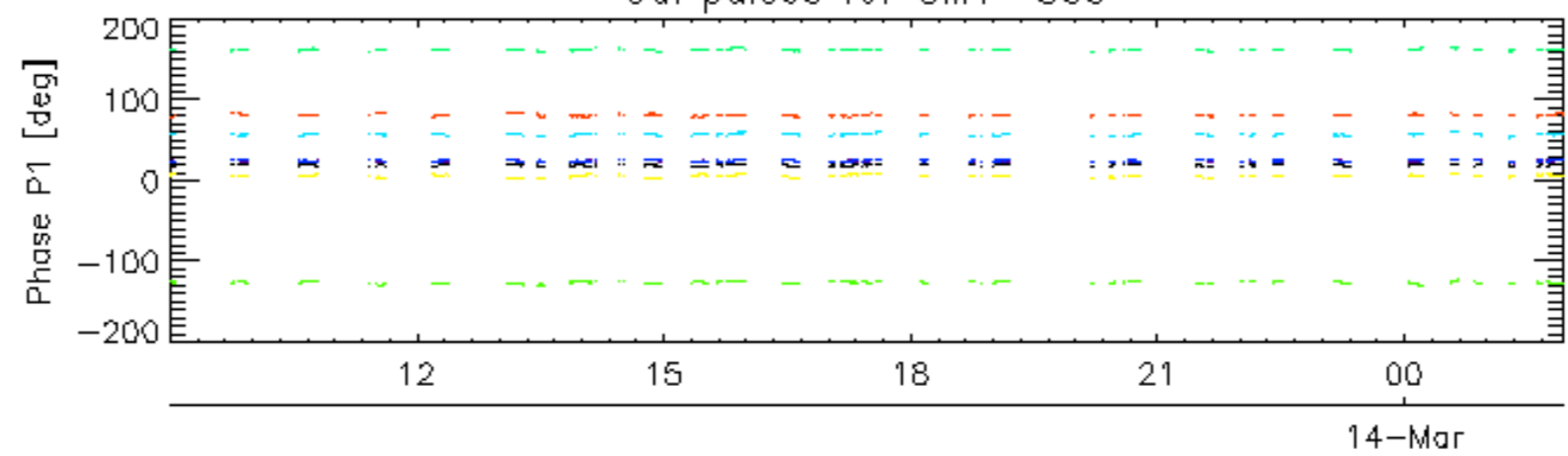
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

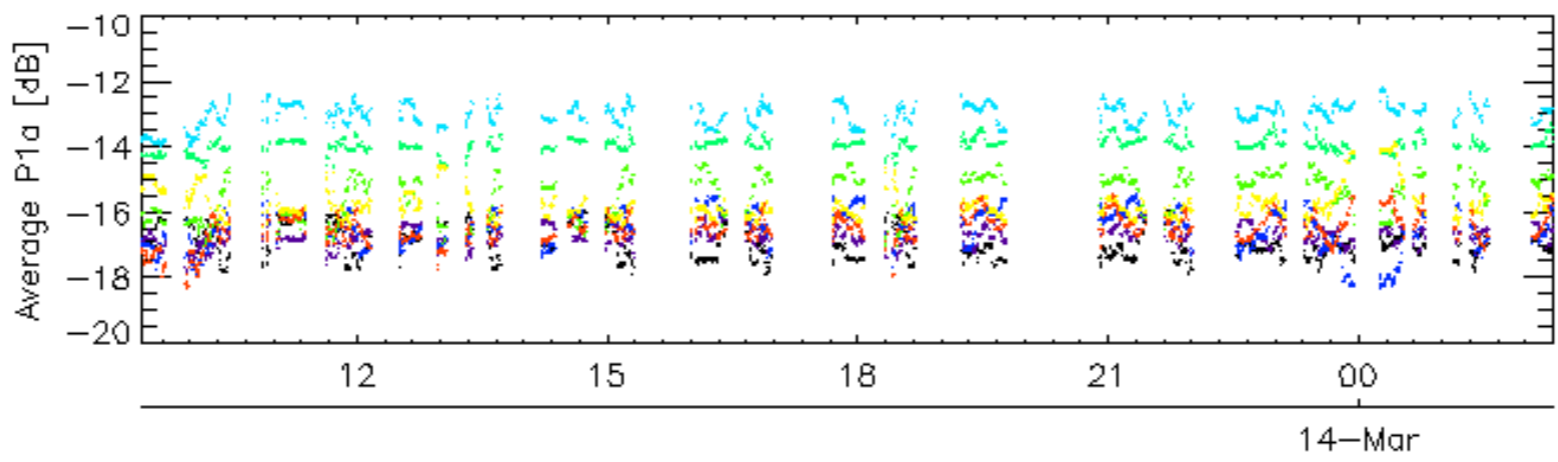
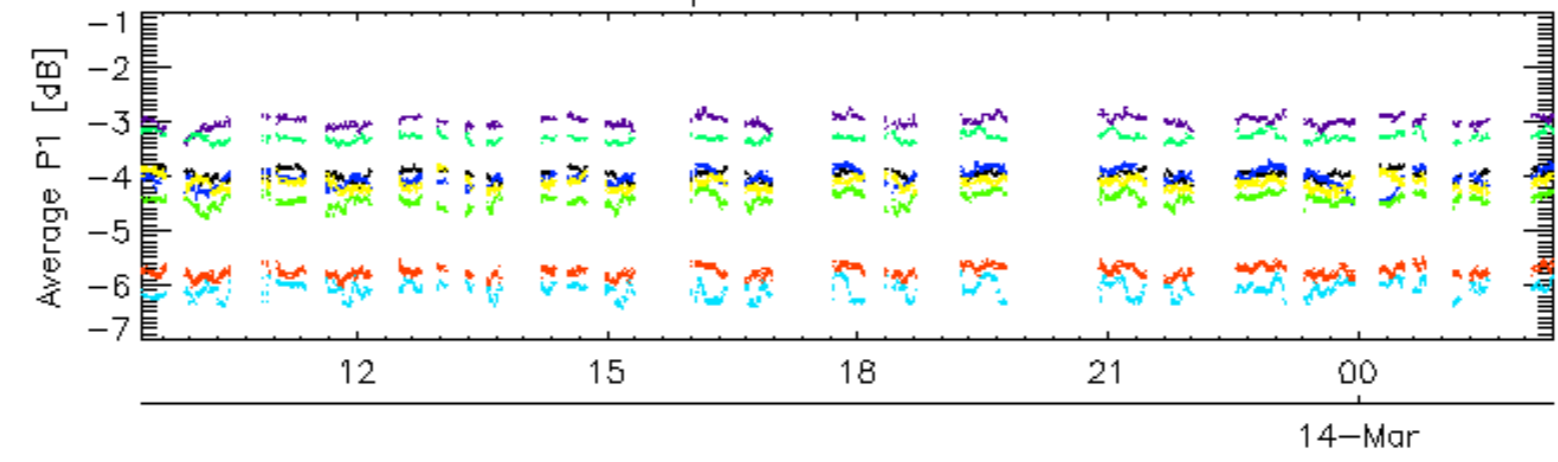


Cal pulses for GM1 SS3

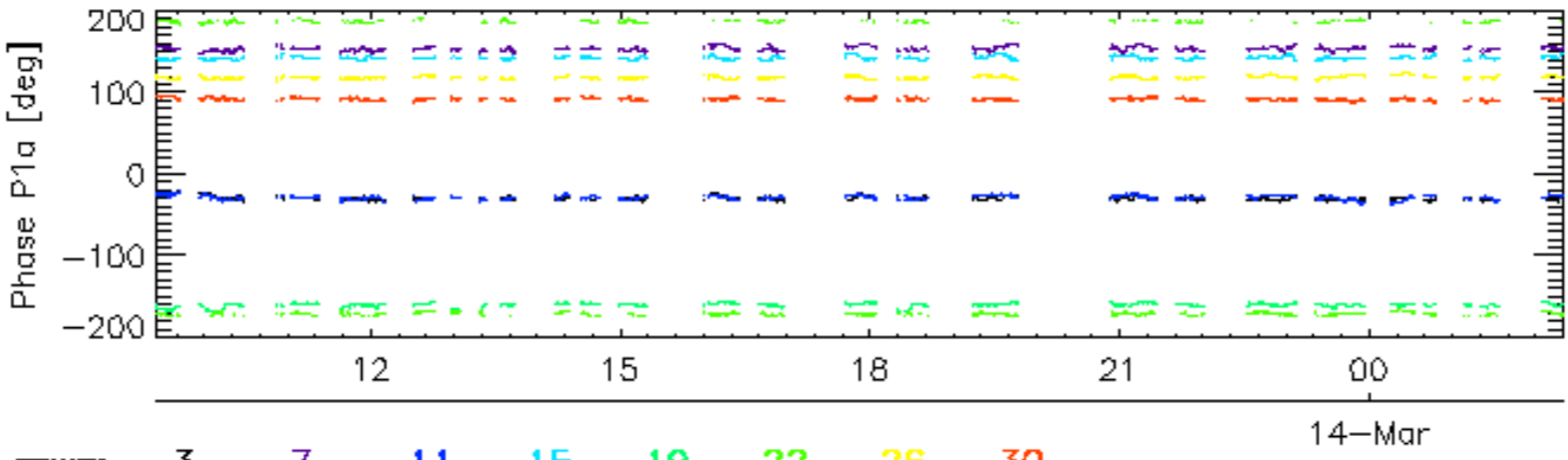
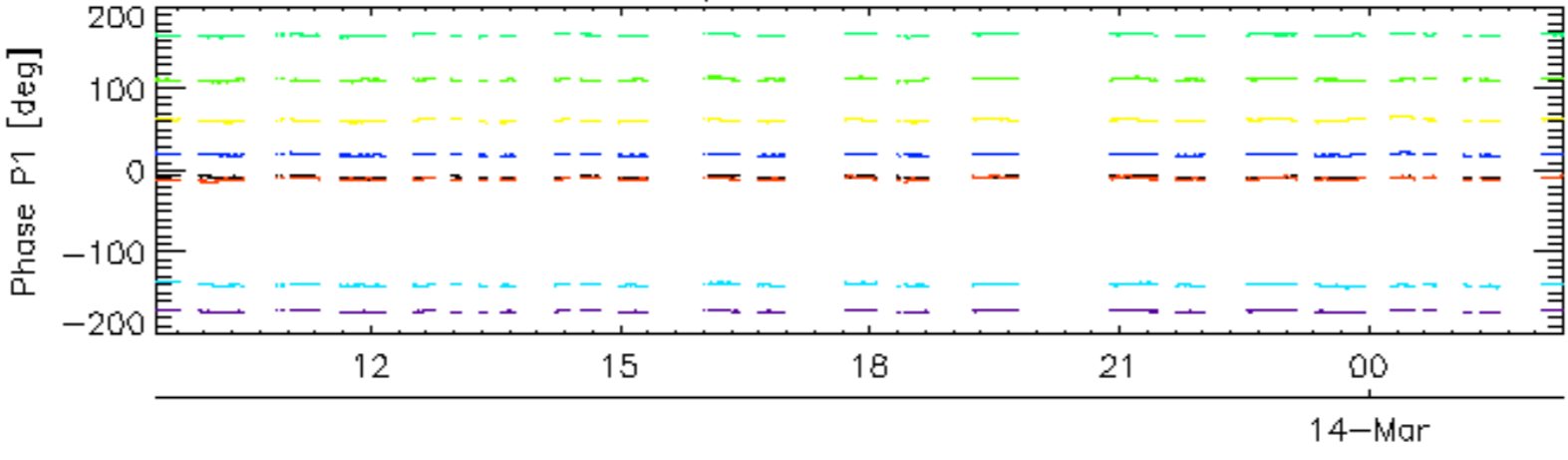


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

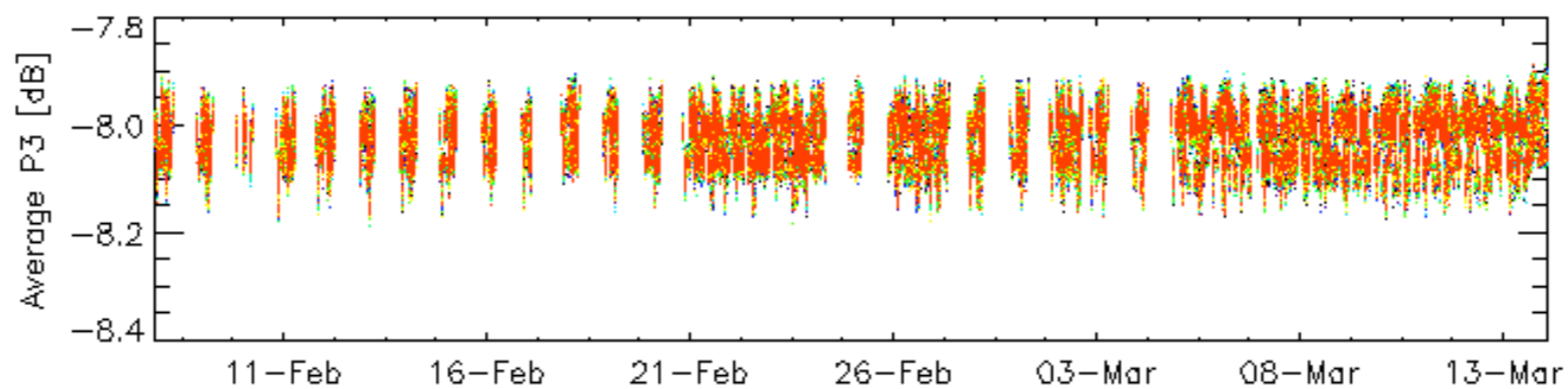
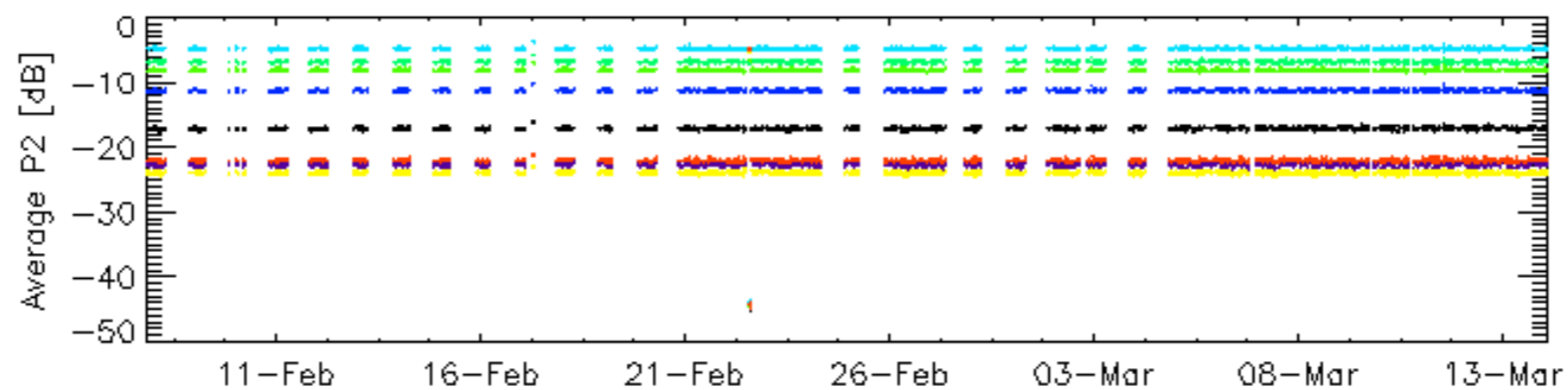
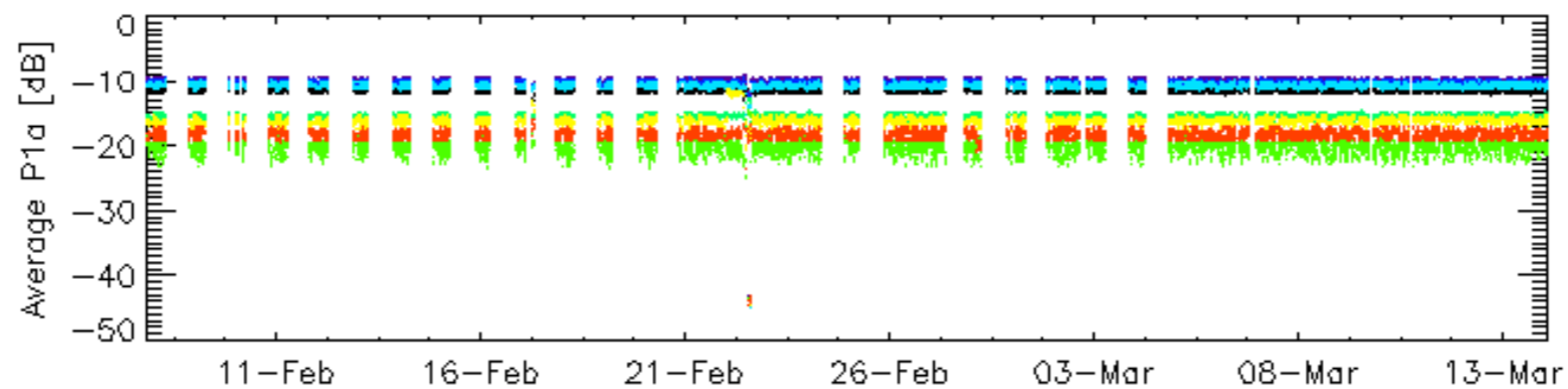
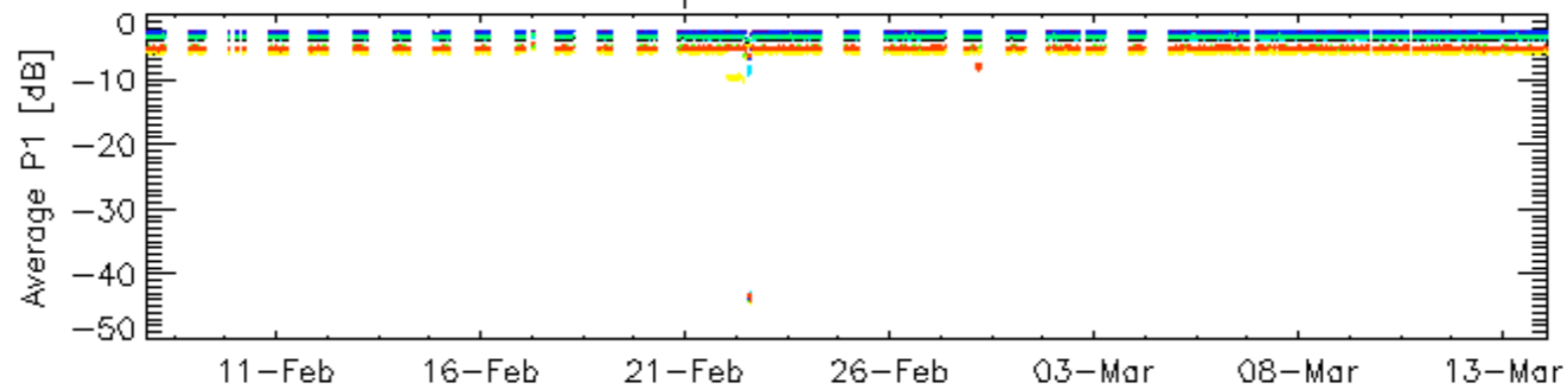


Cal pulses for WVS IS2



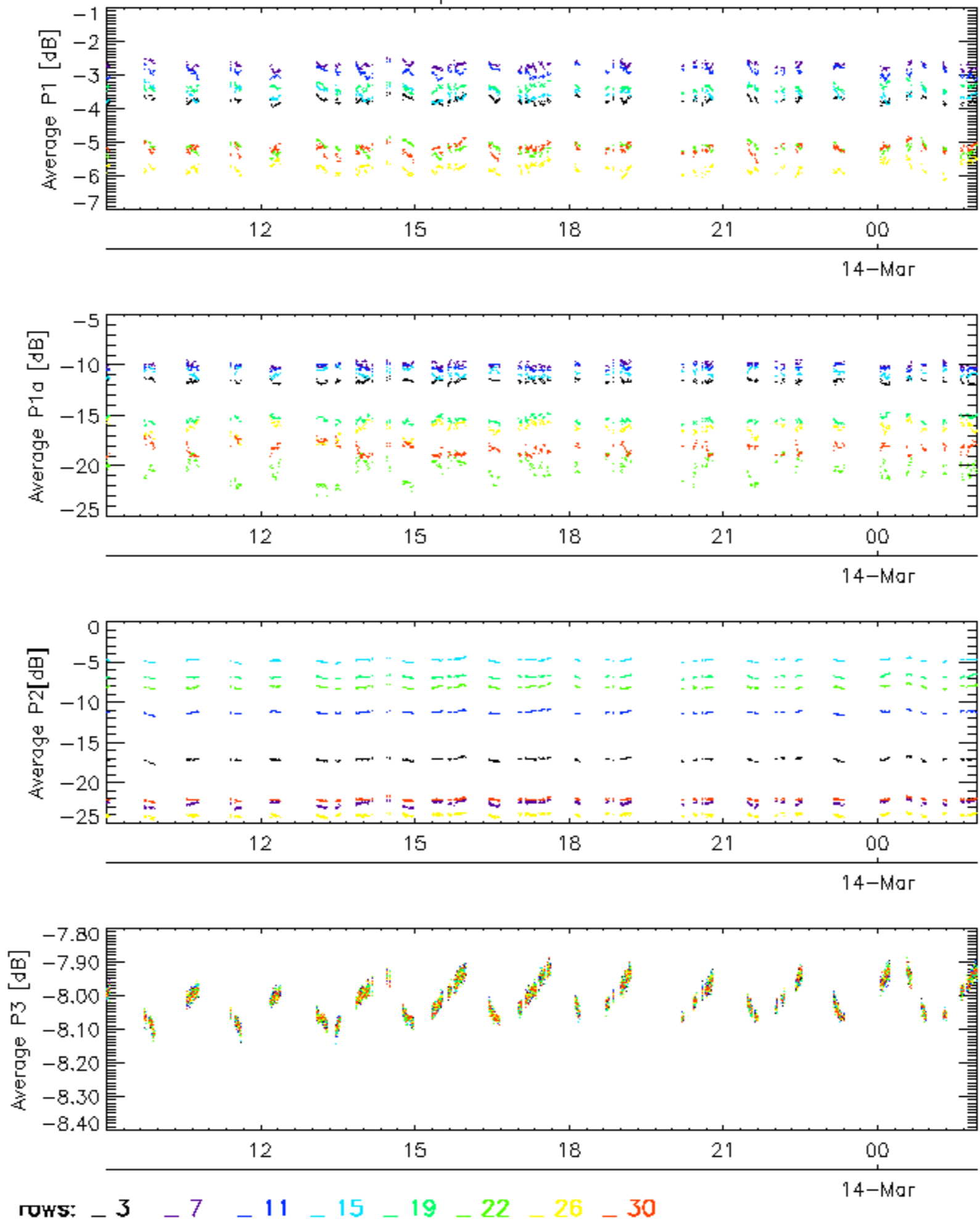
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

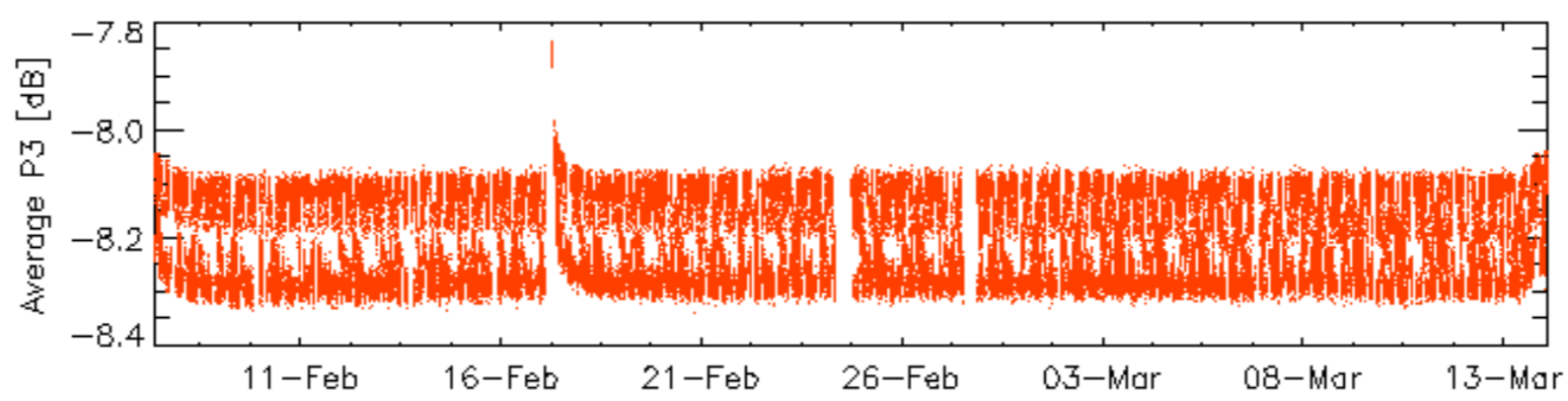
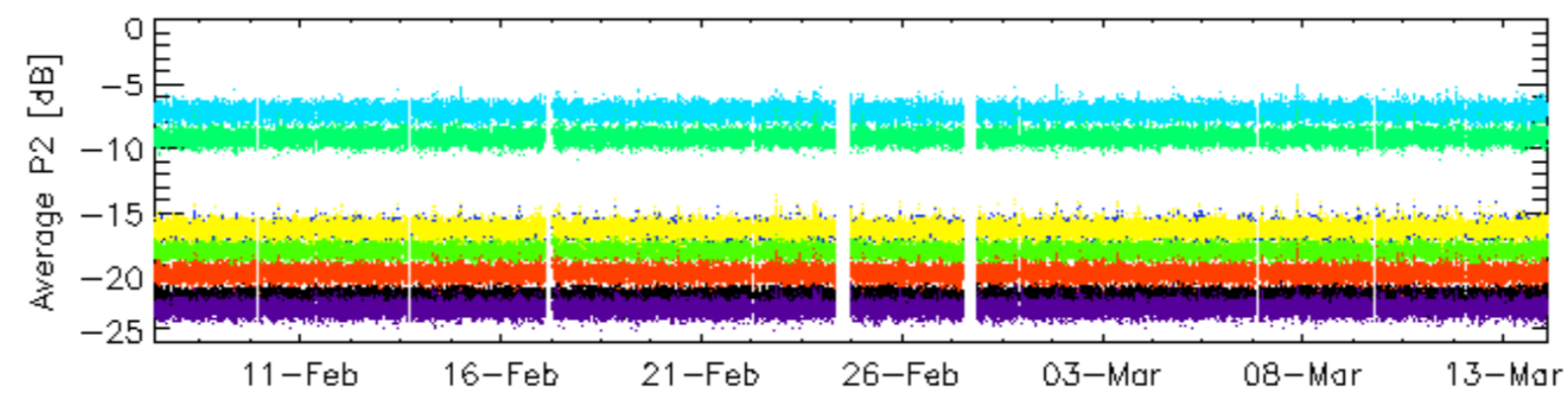
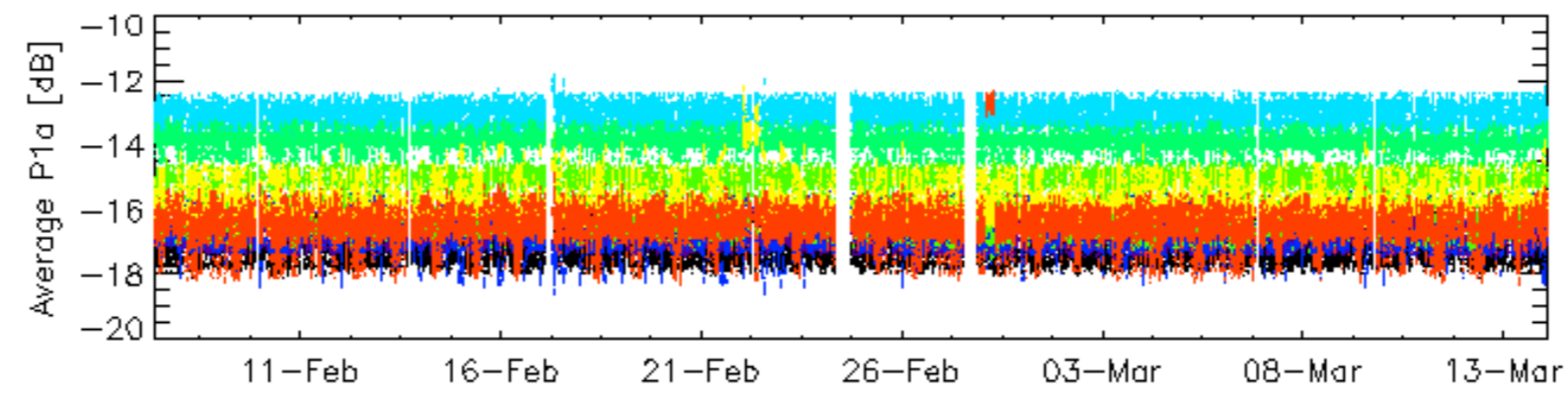
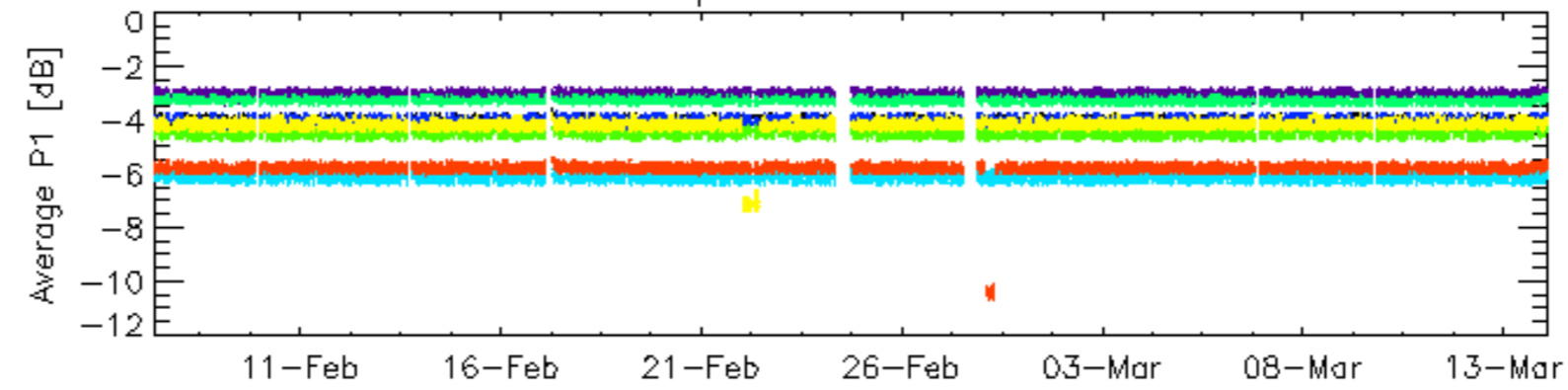


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

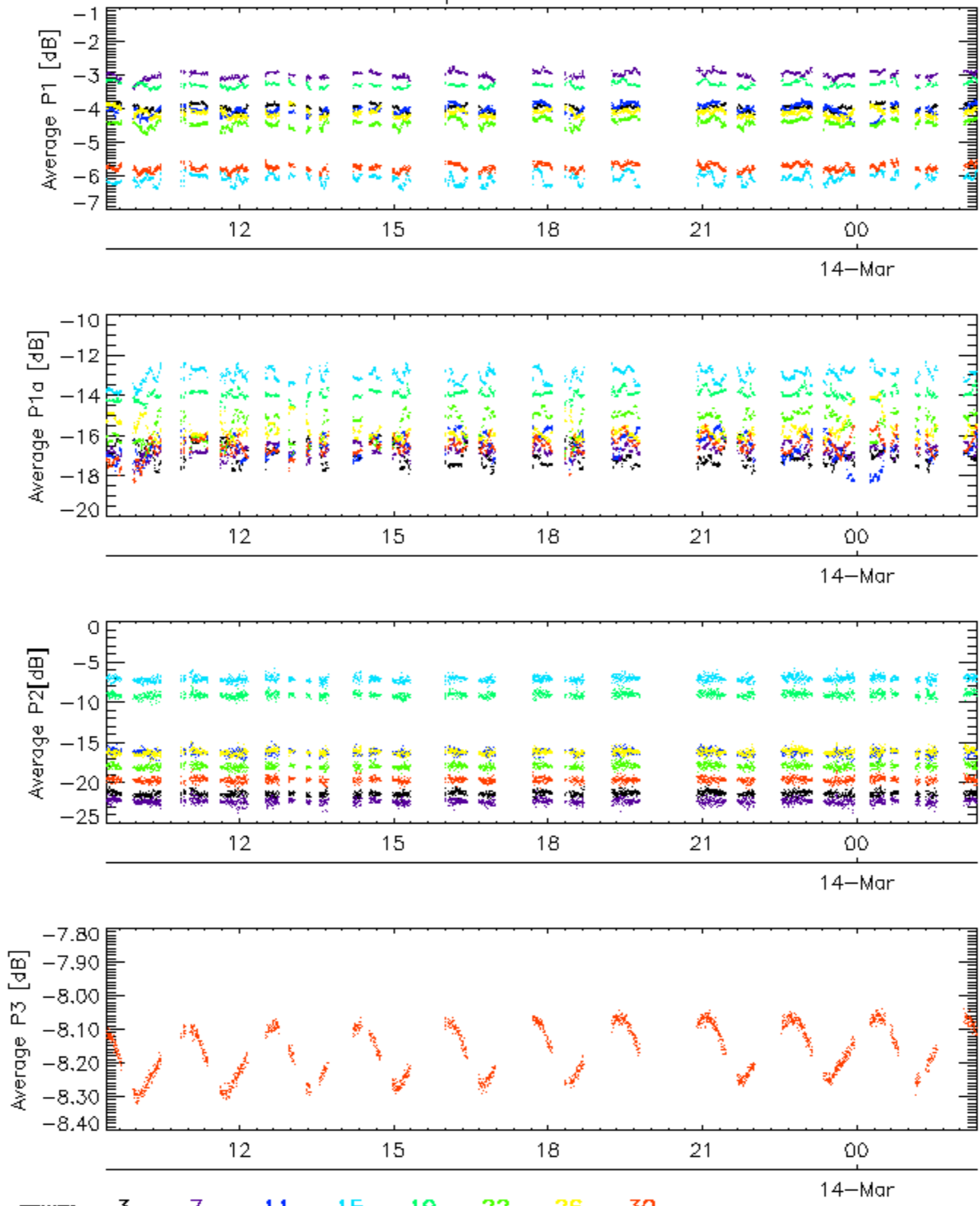


Cal pulses for WVS IS2



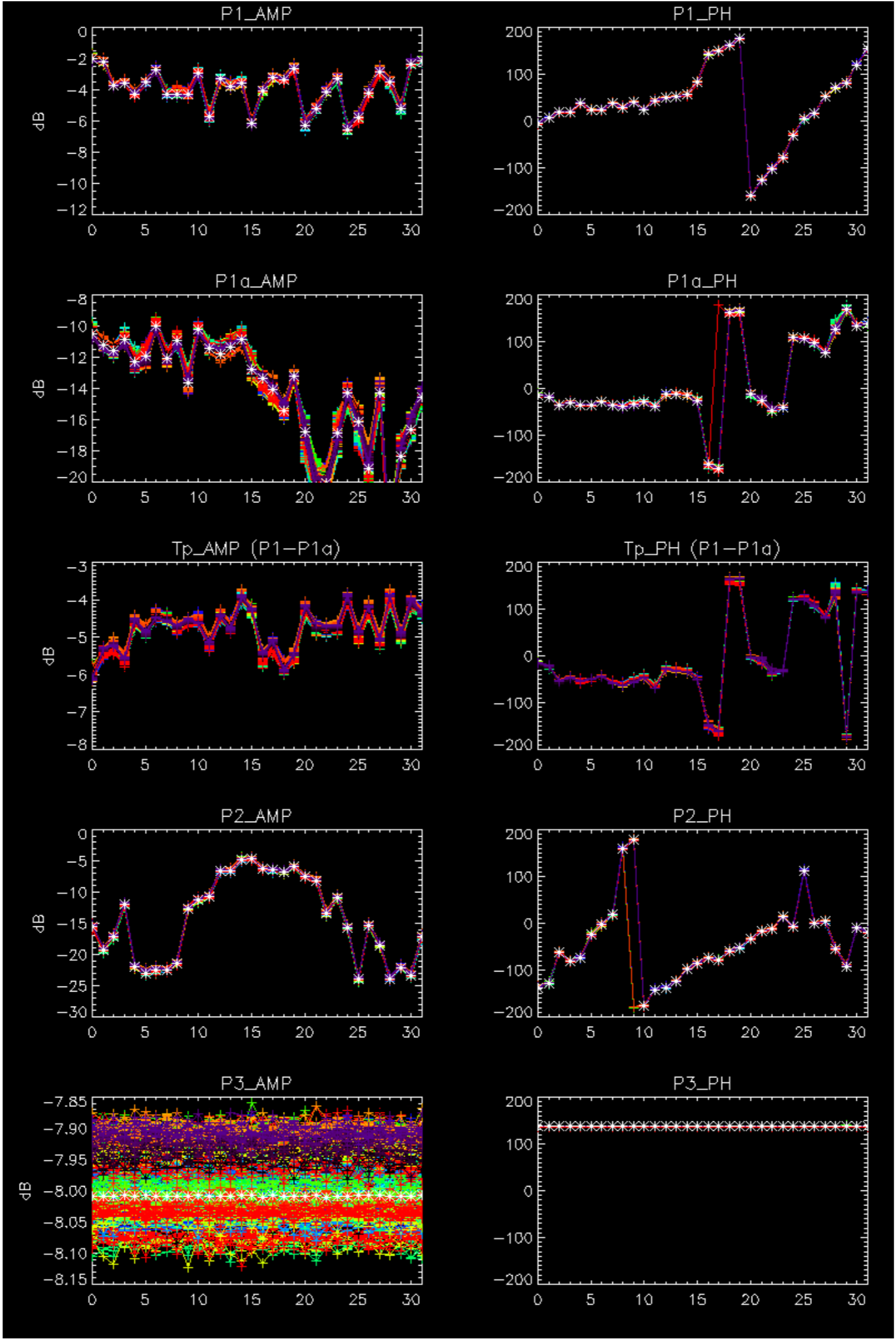
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

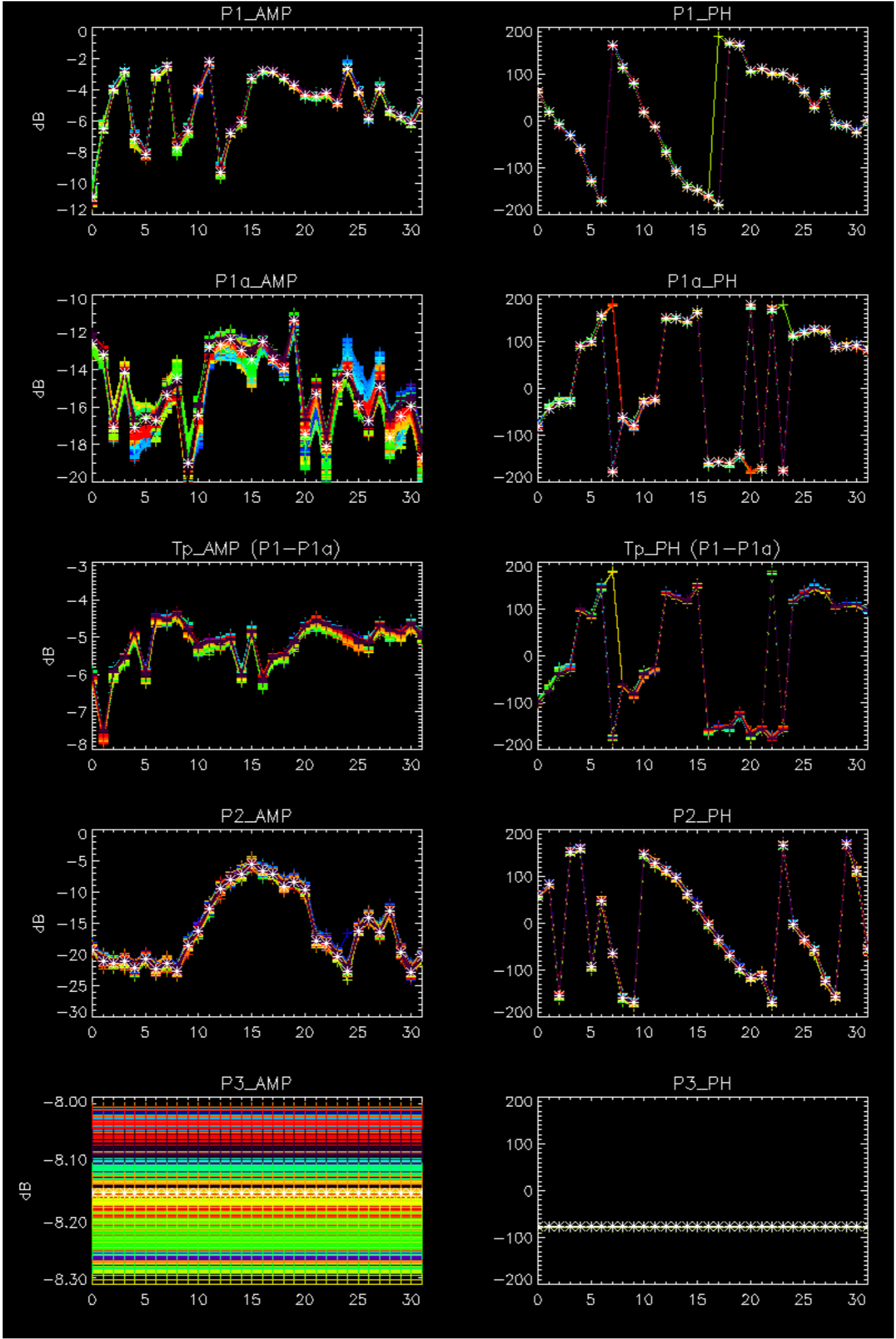
Cal pulses for WVS IS2



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

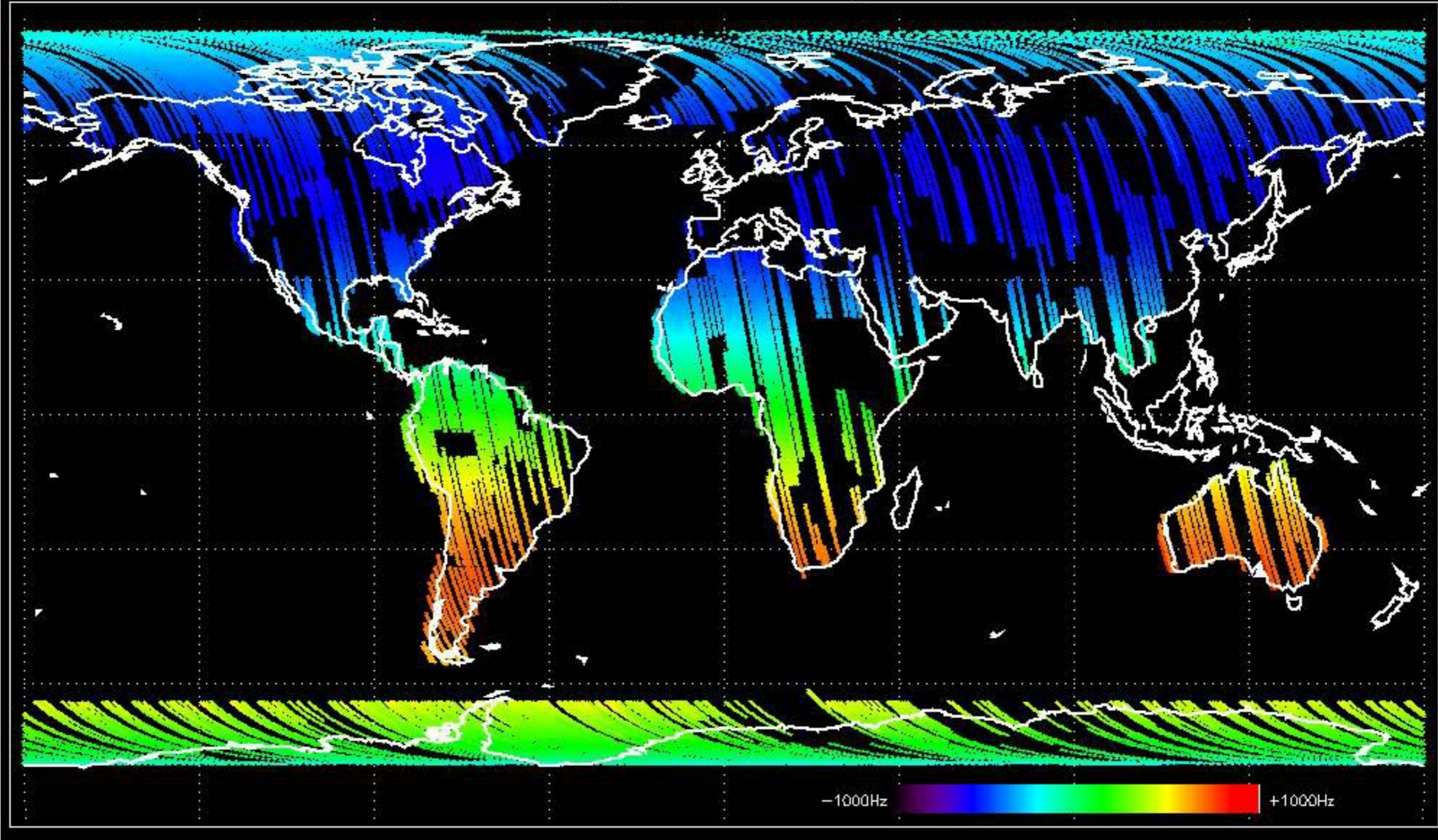
No anomalies observed.



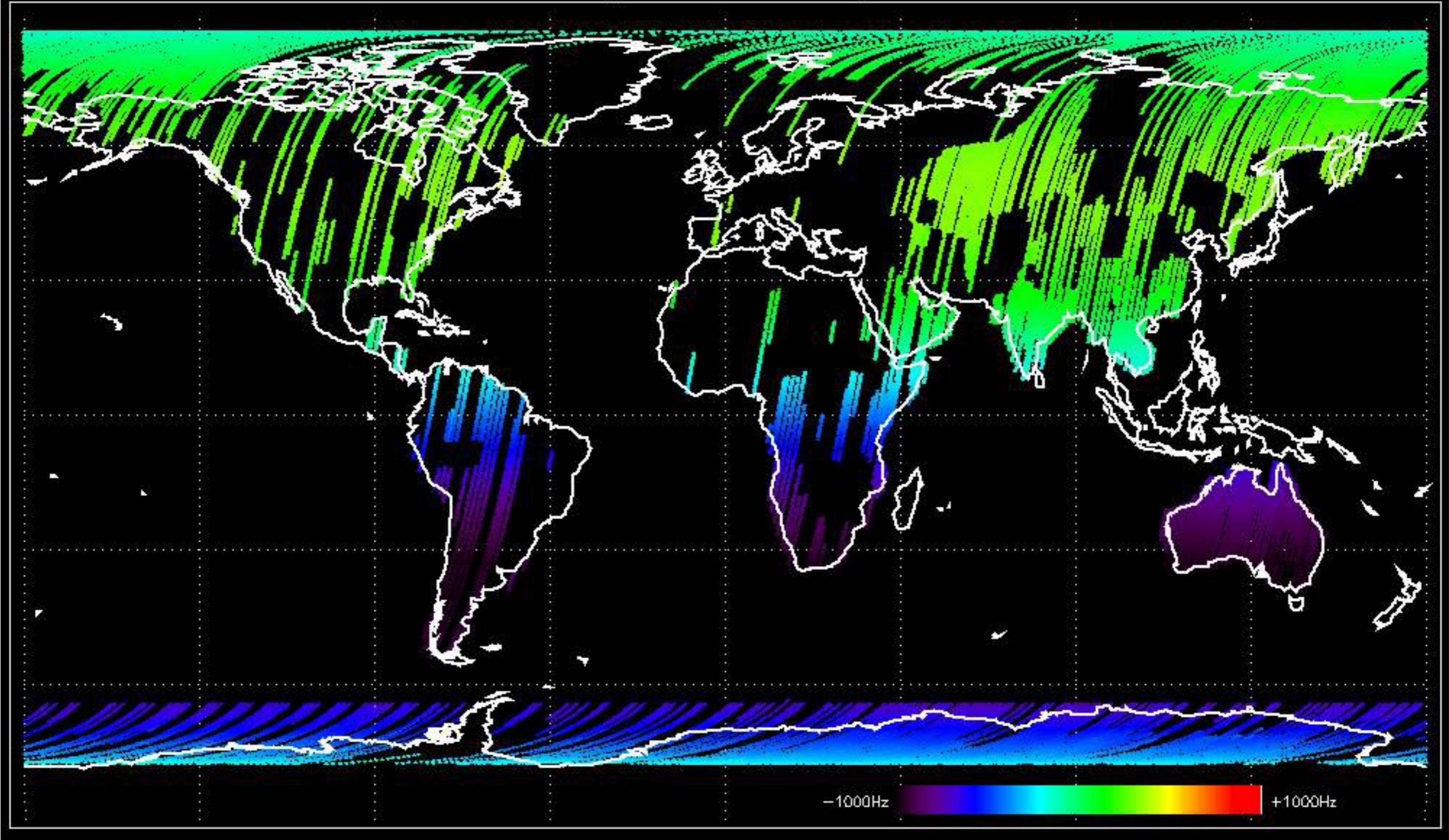


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

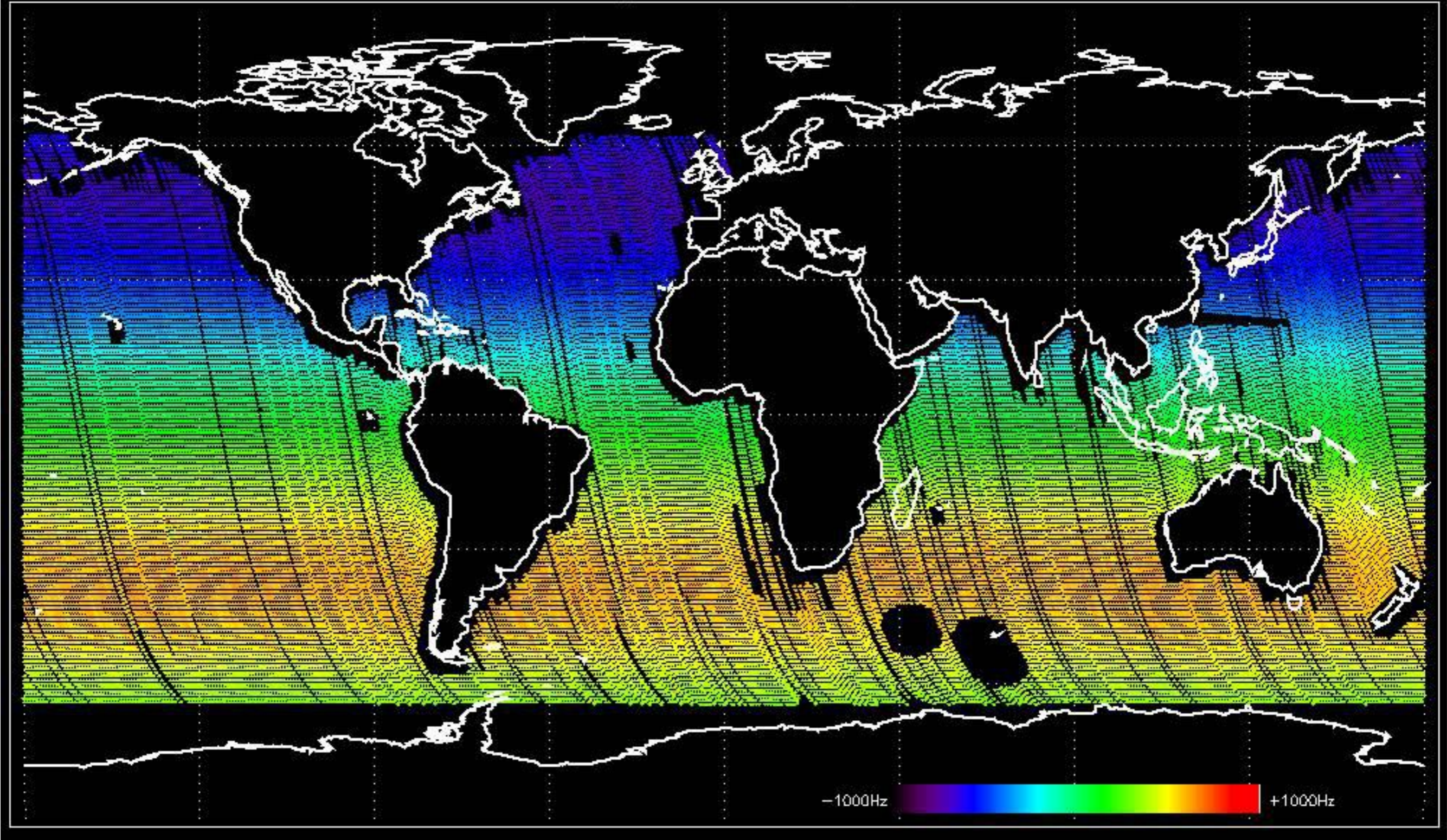
Doppler 'GM1' 'SS1' ascending



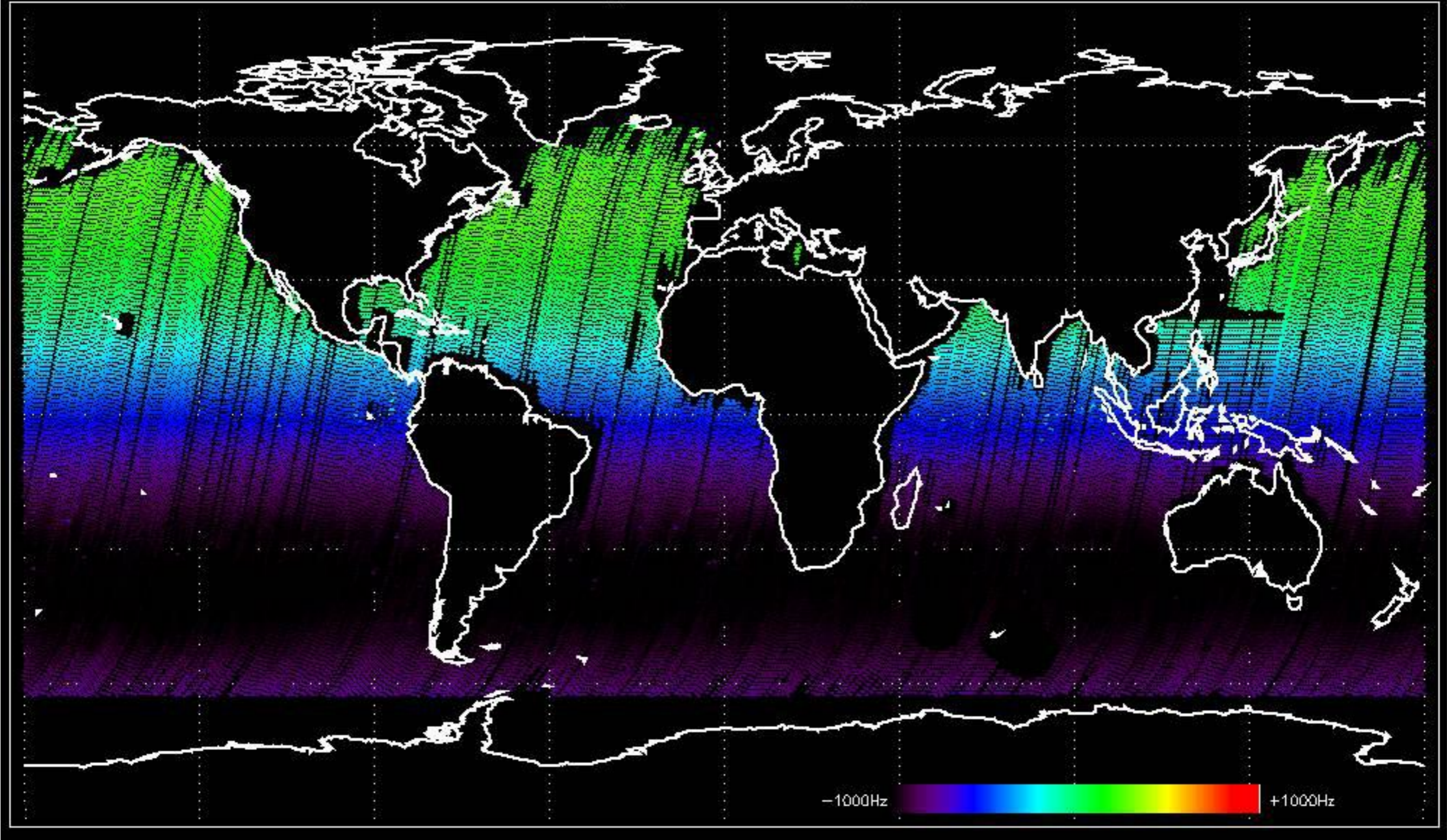
Doppler 'GM1' 'SS1' descending

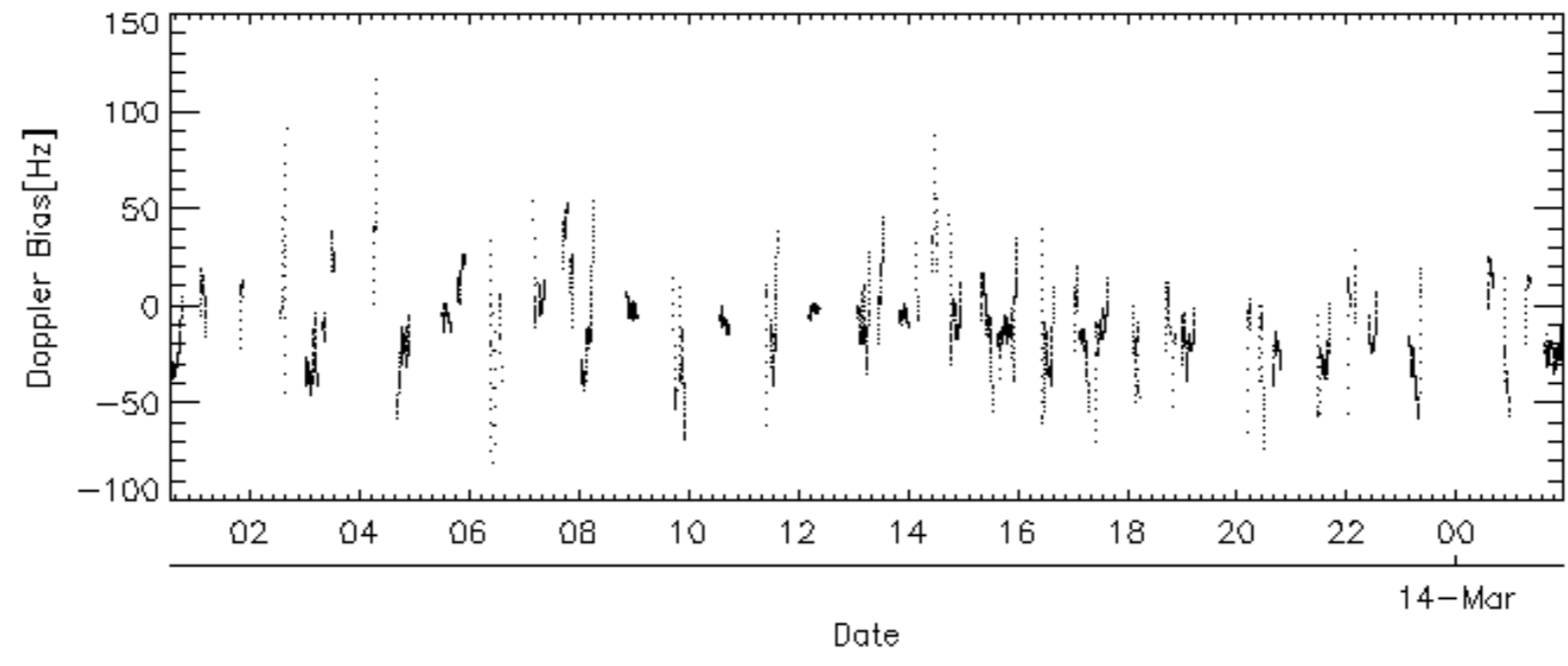
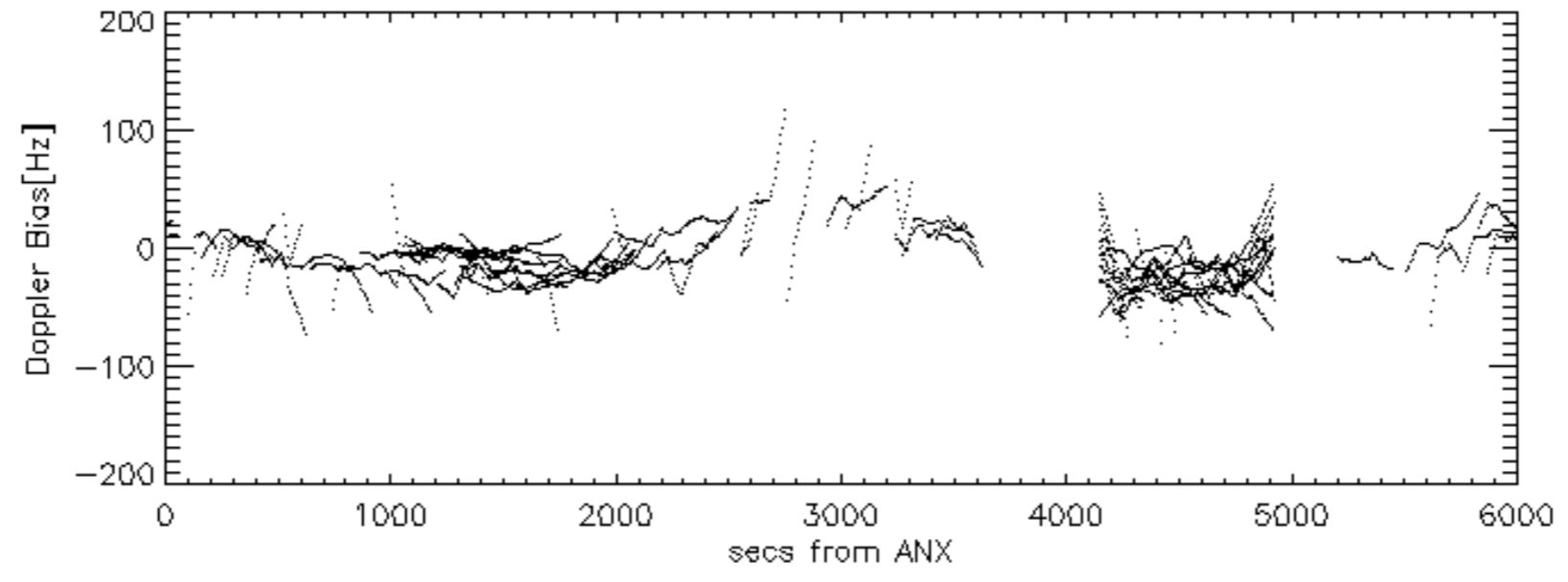
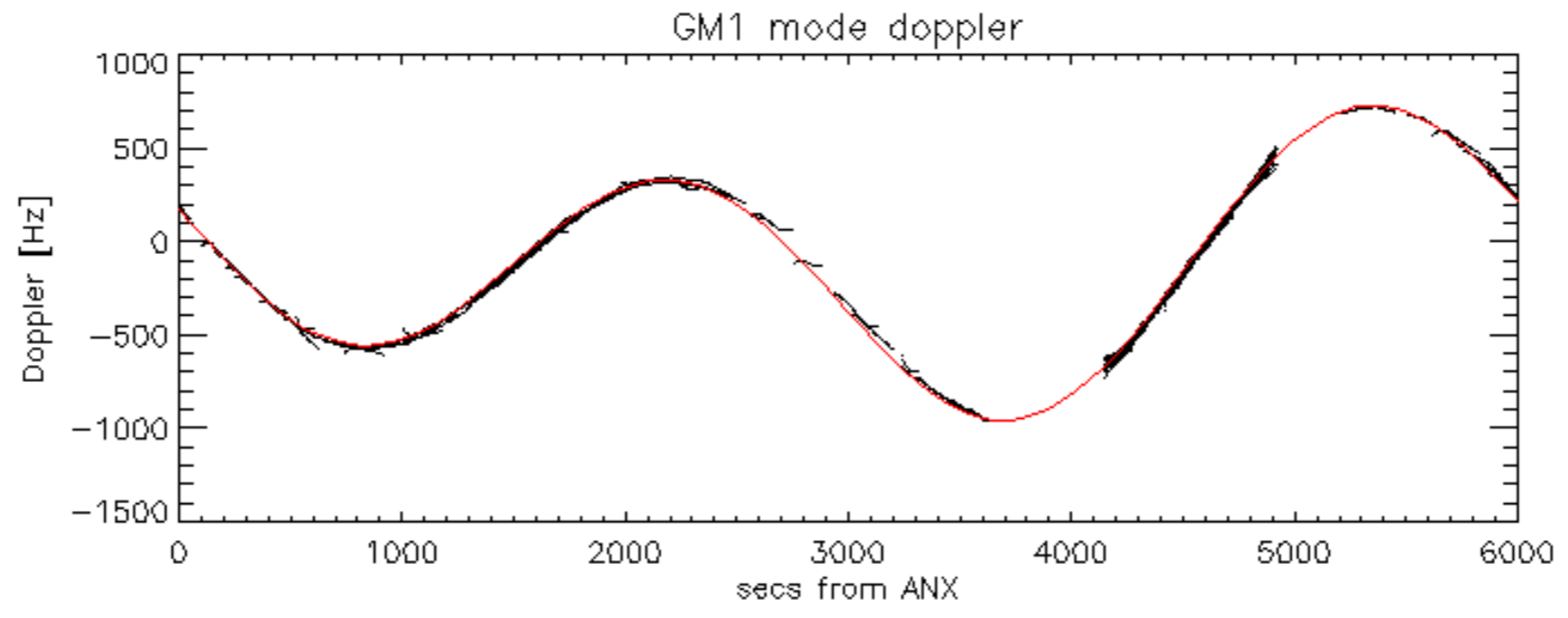


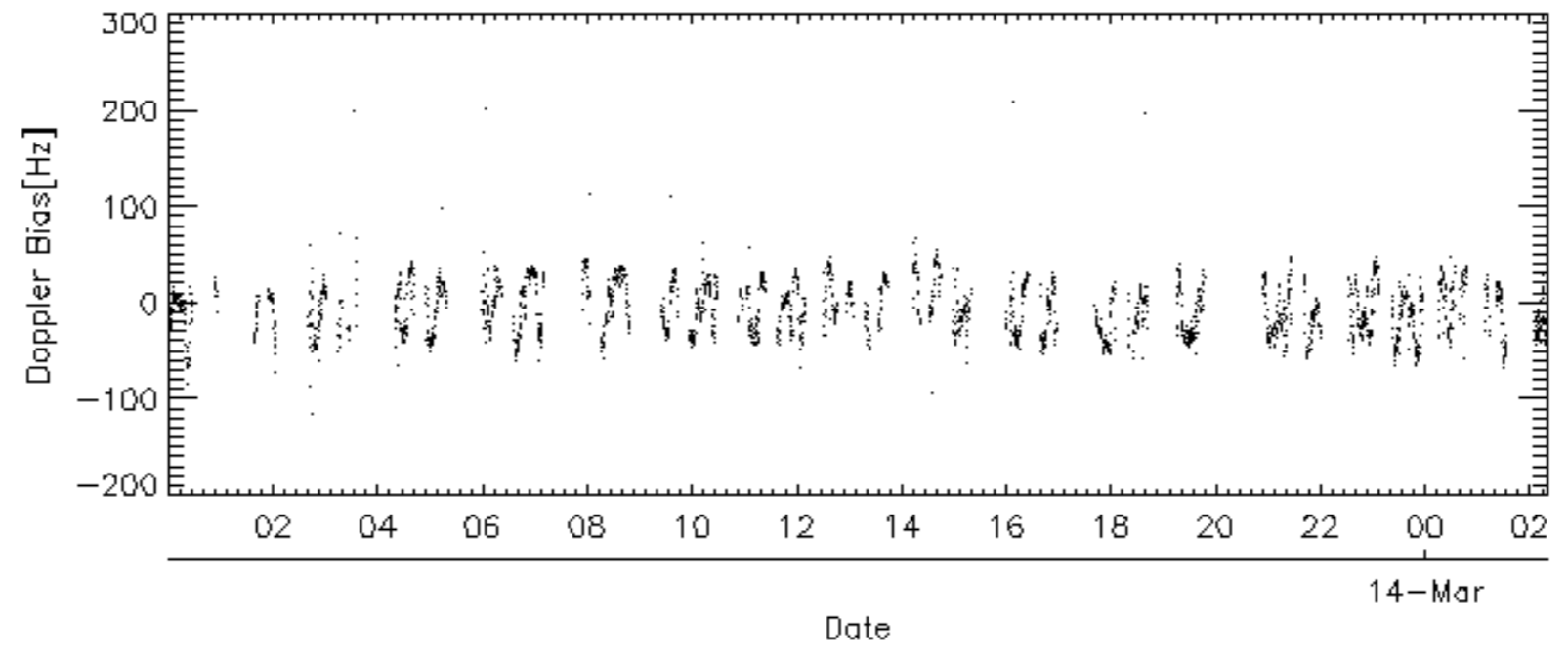
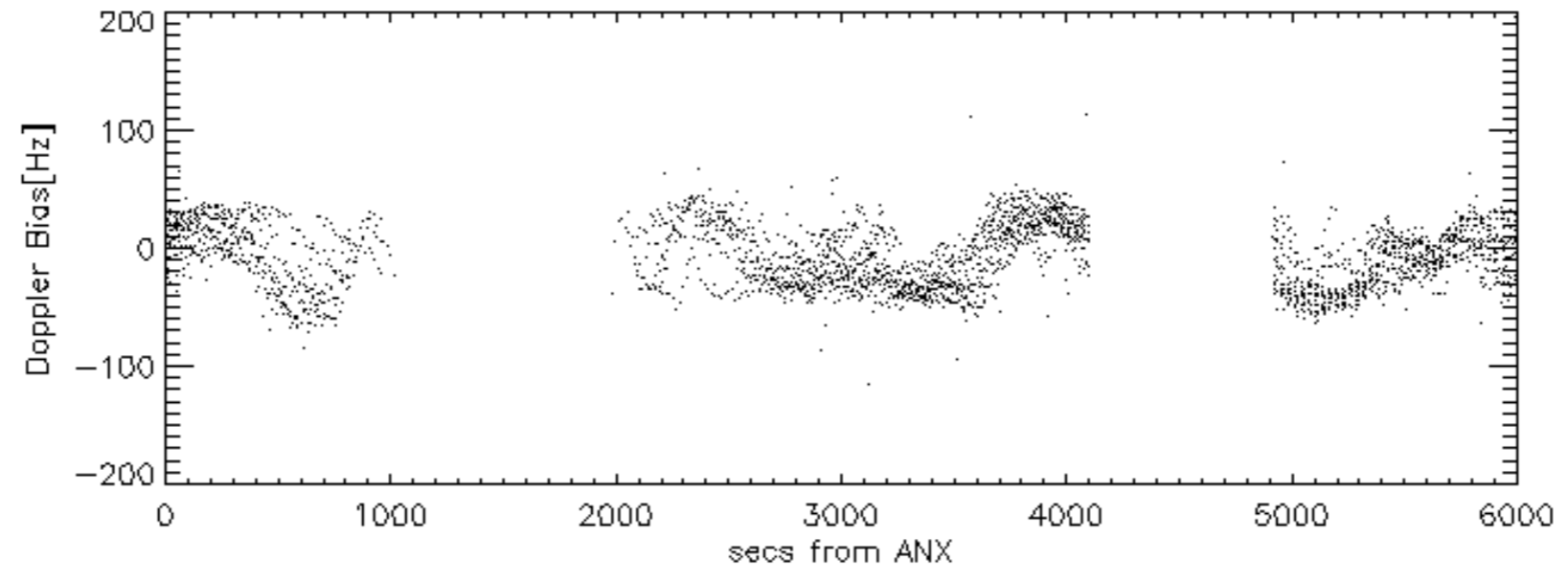
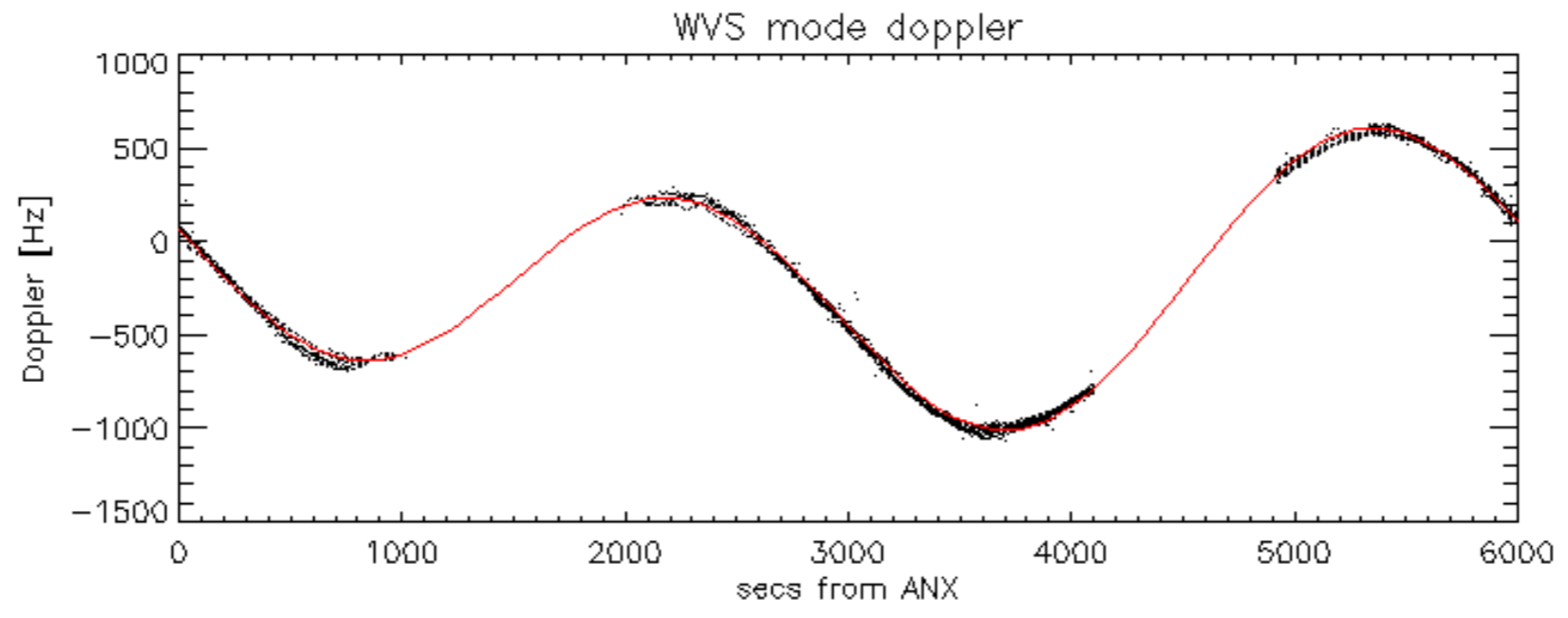
Doppler 'WVS' 'IS2' ascending



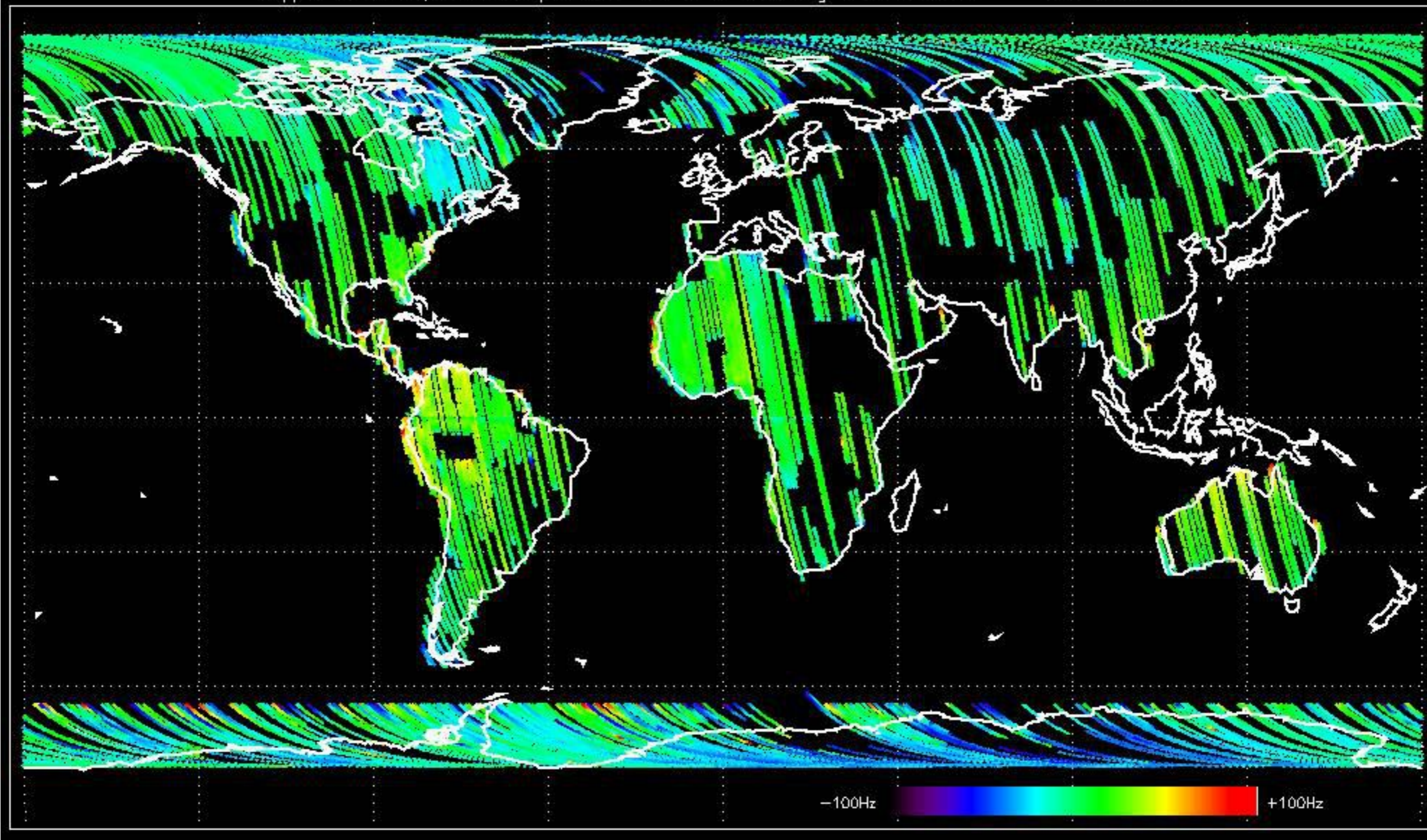
Doppler 'WVS' 'IS2' descending



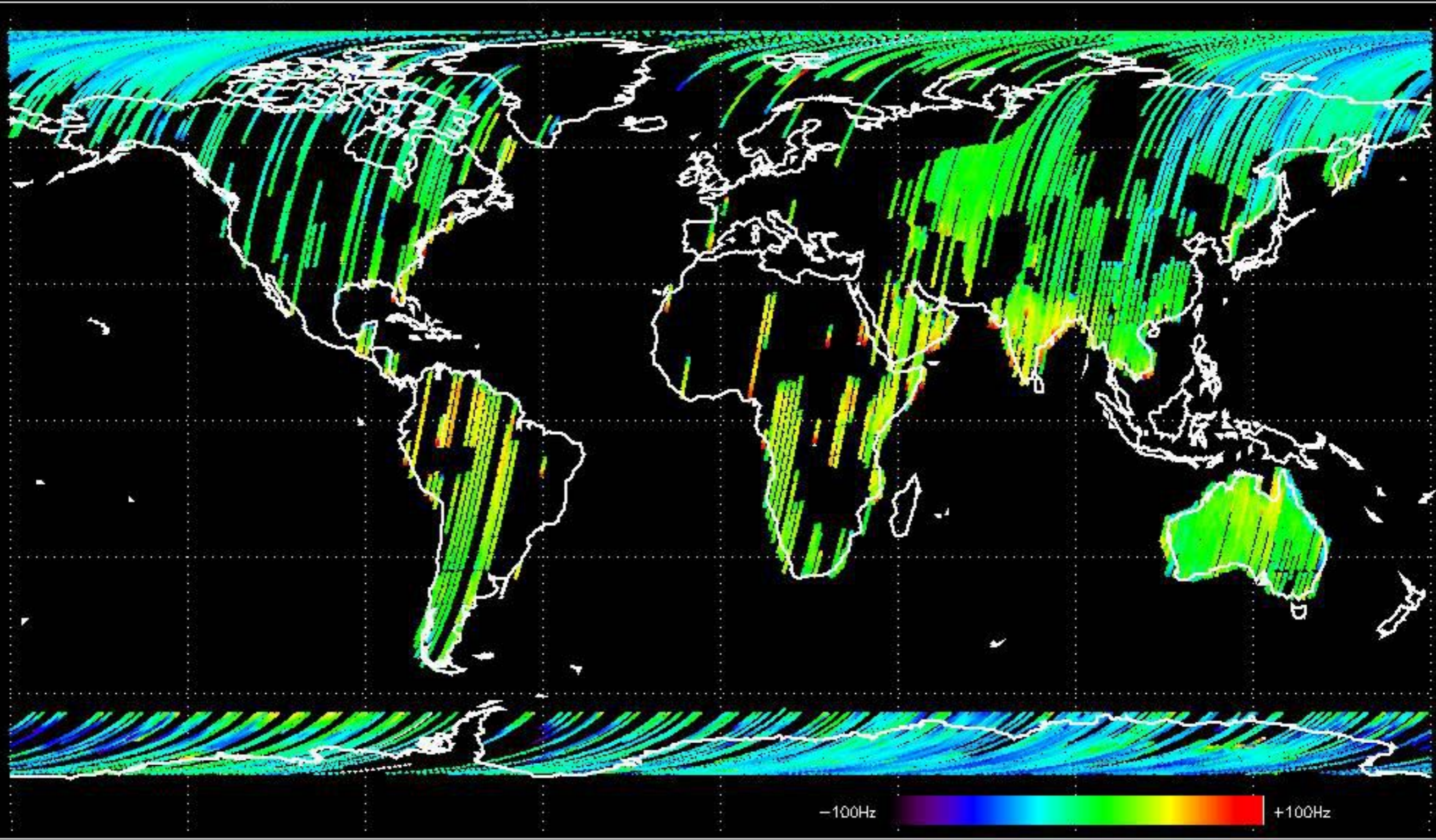




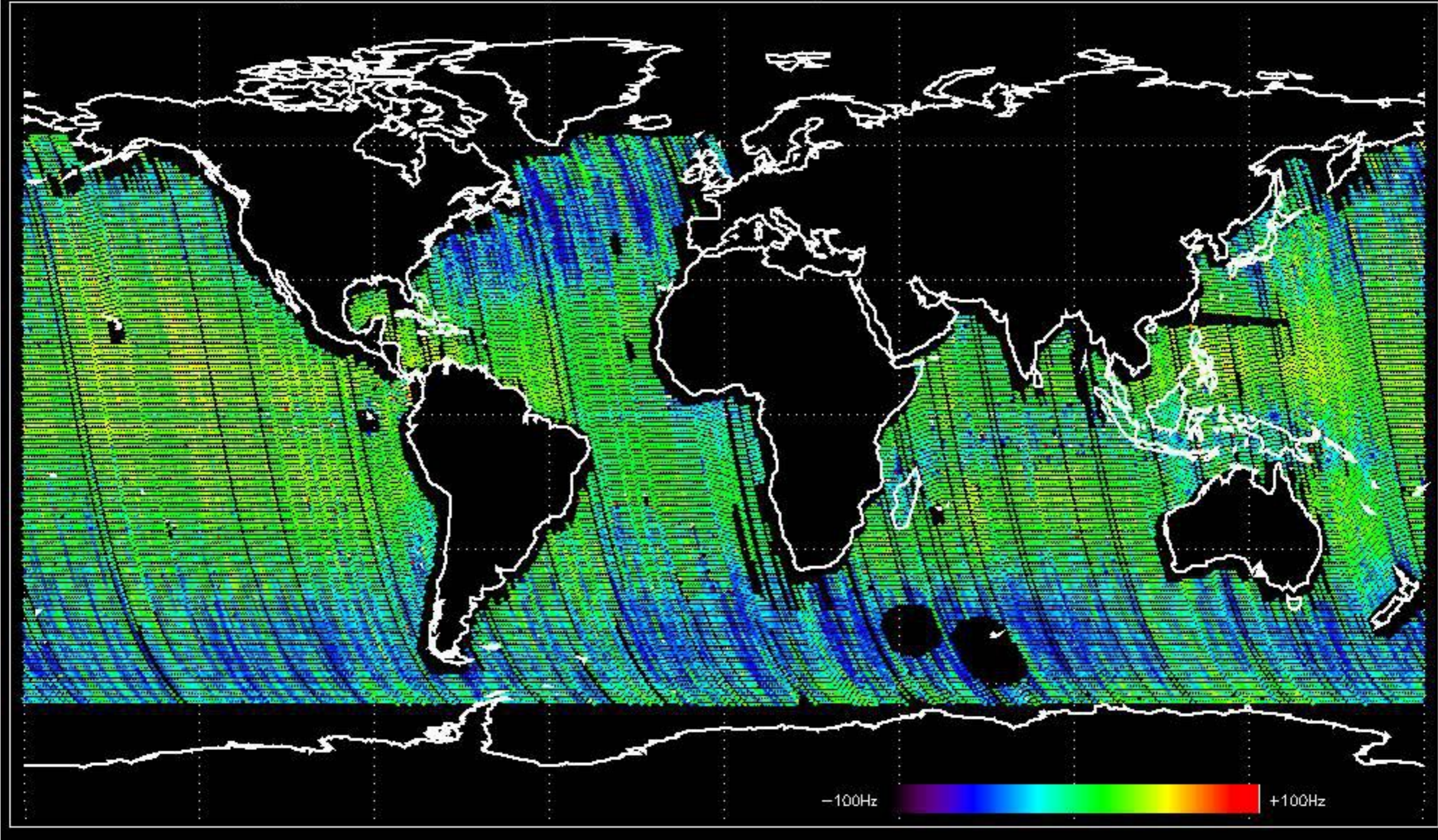
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -9.6237402 Hz



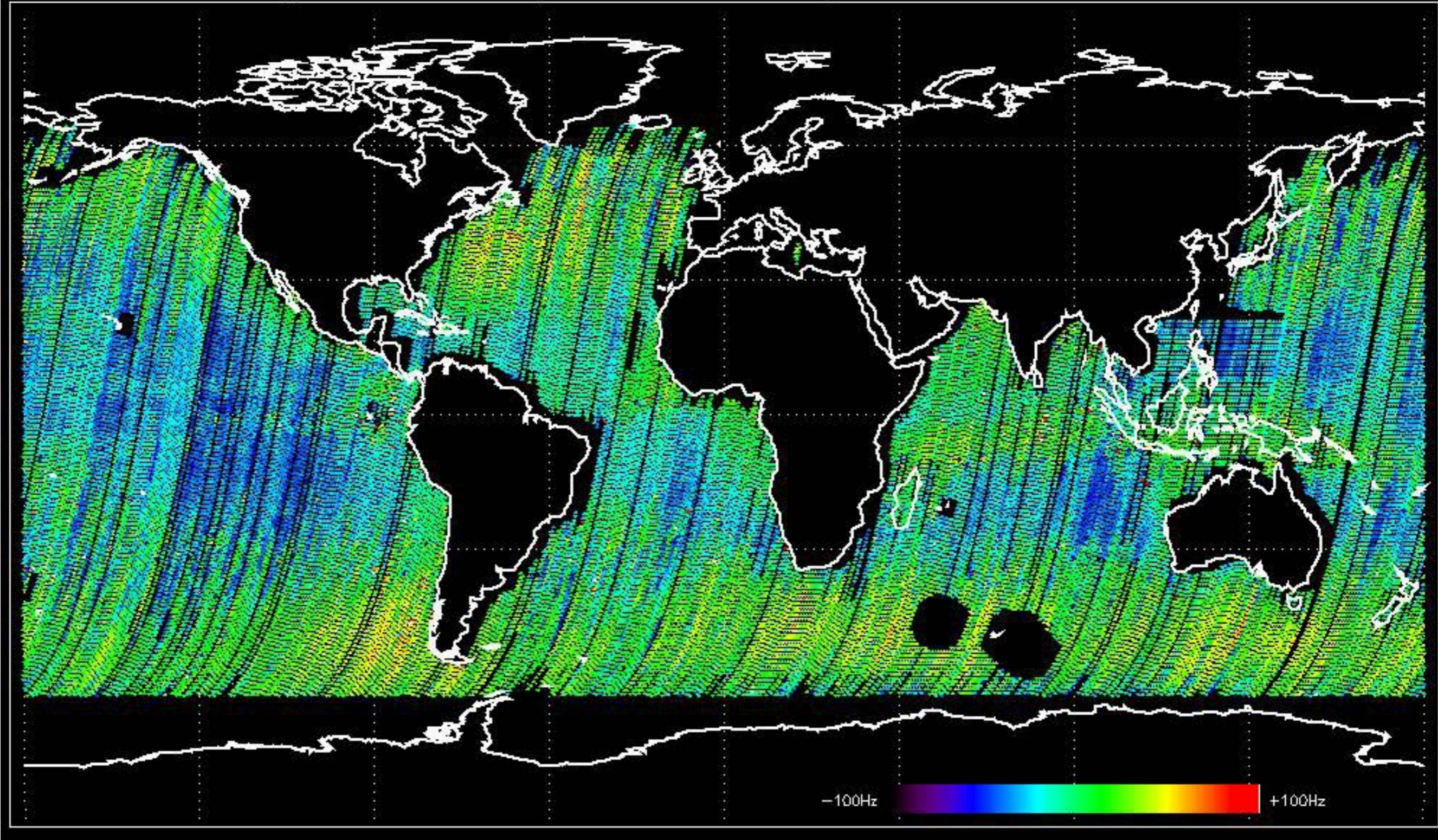
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -8.3438307 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.2321650 Hz

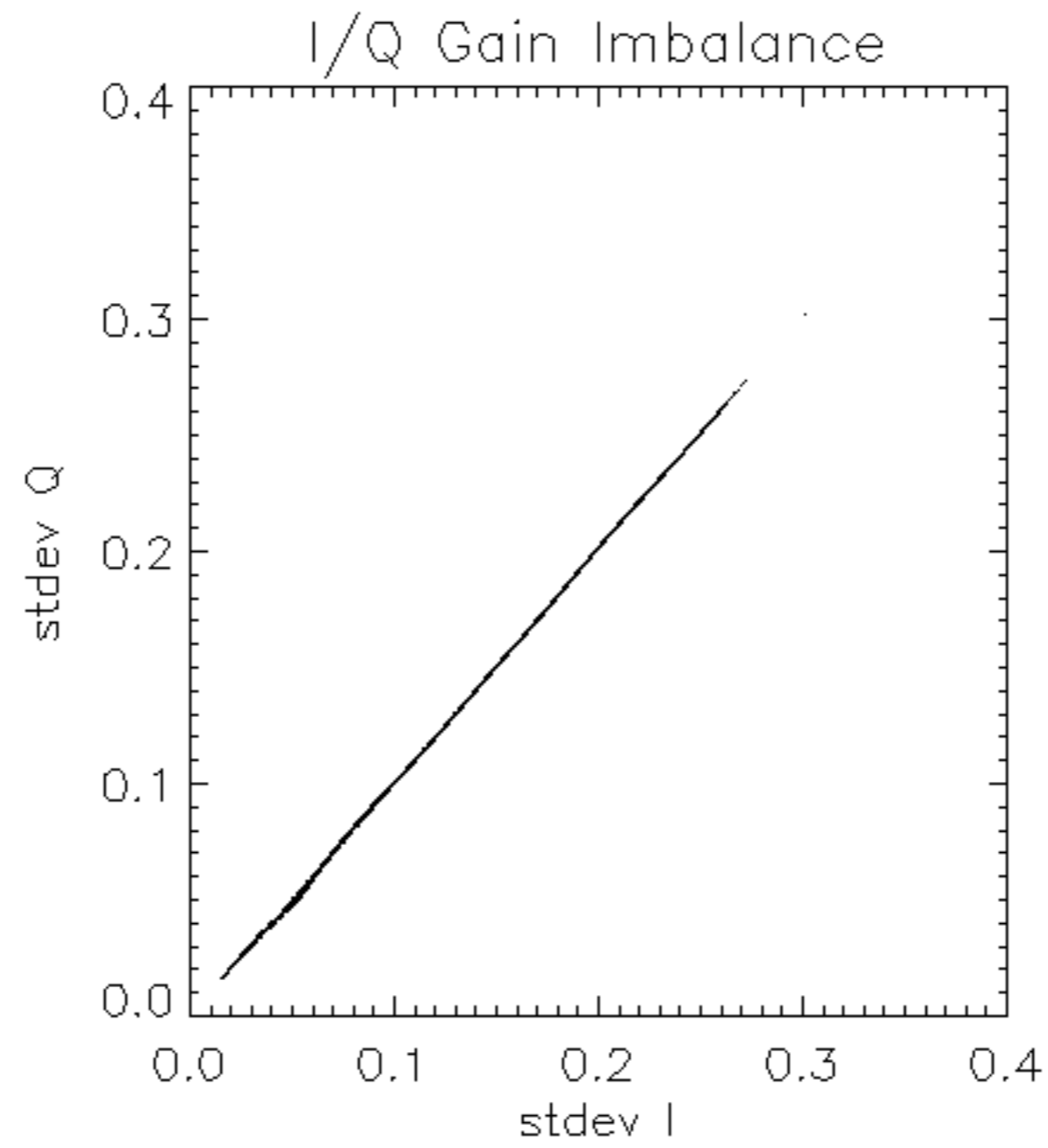


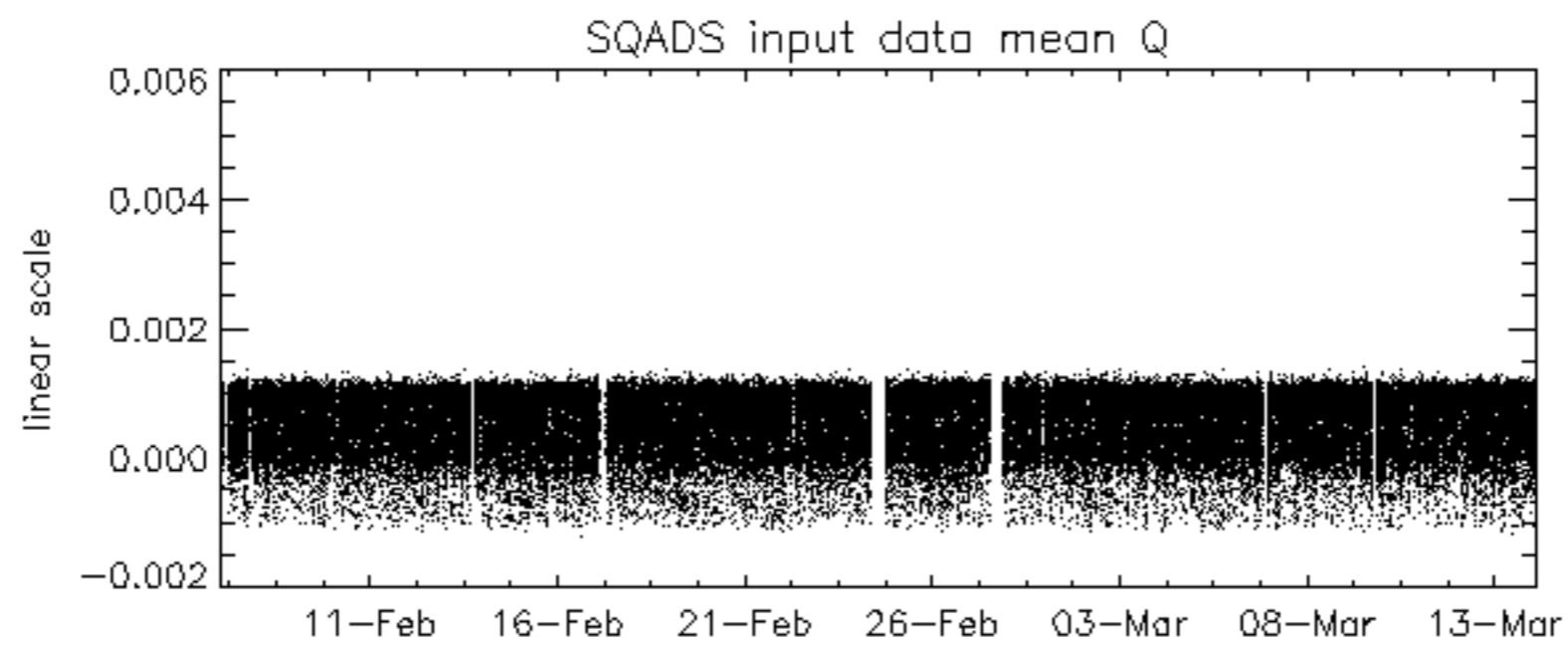
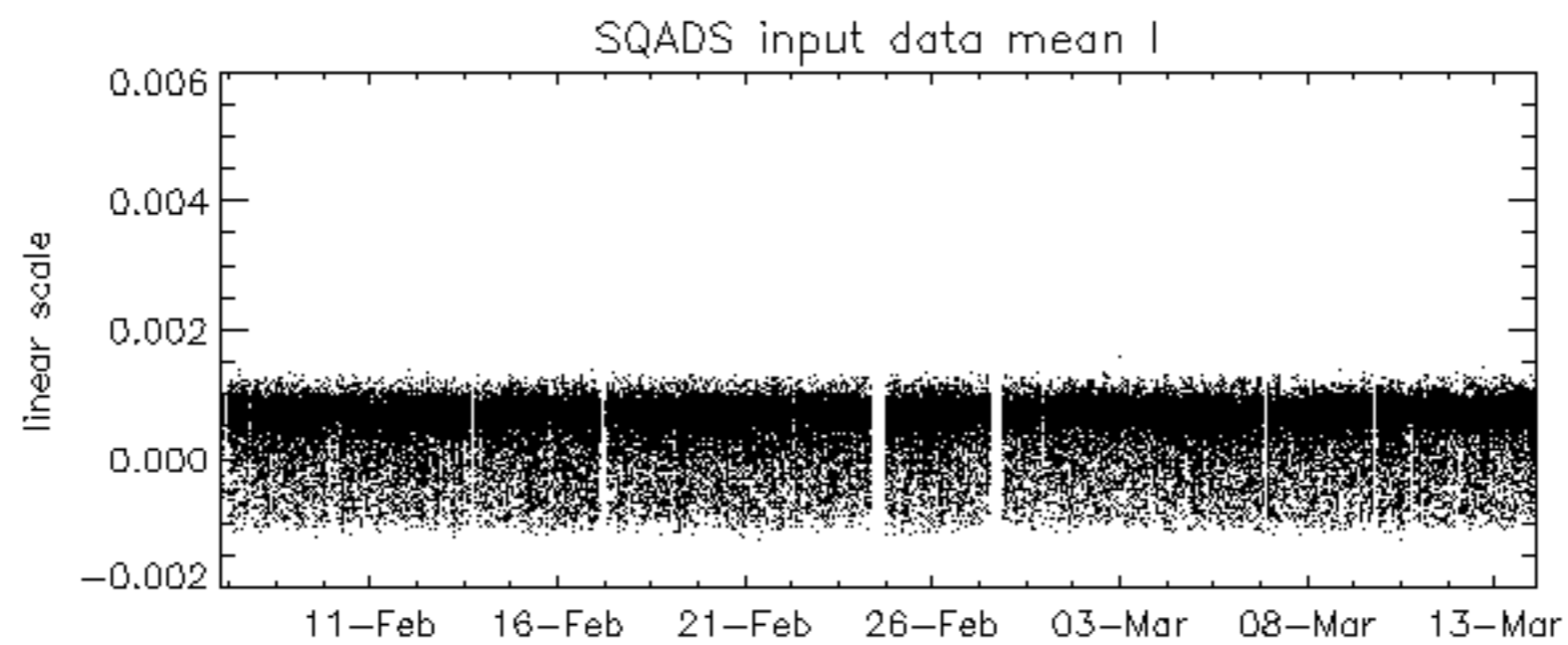
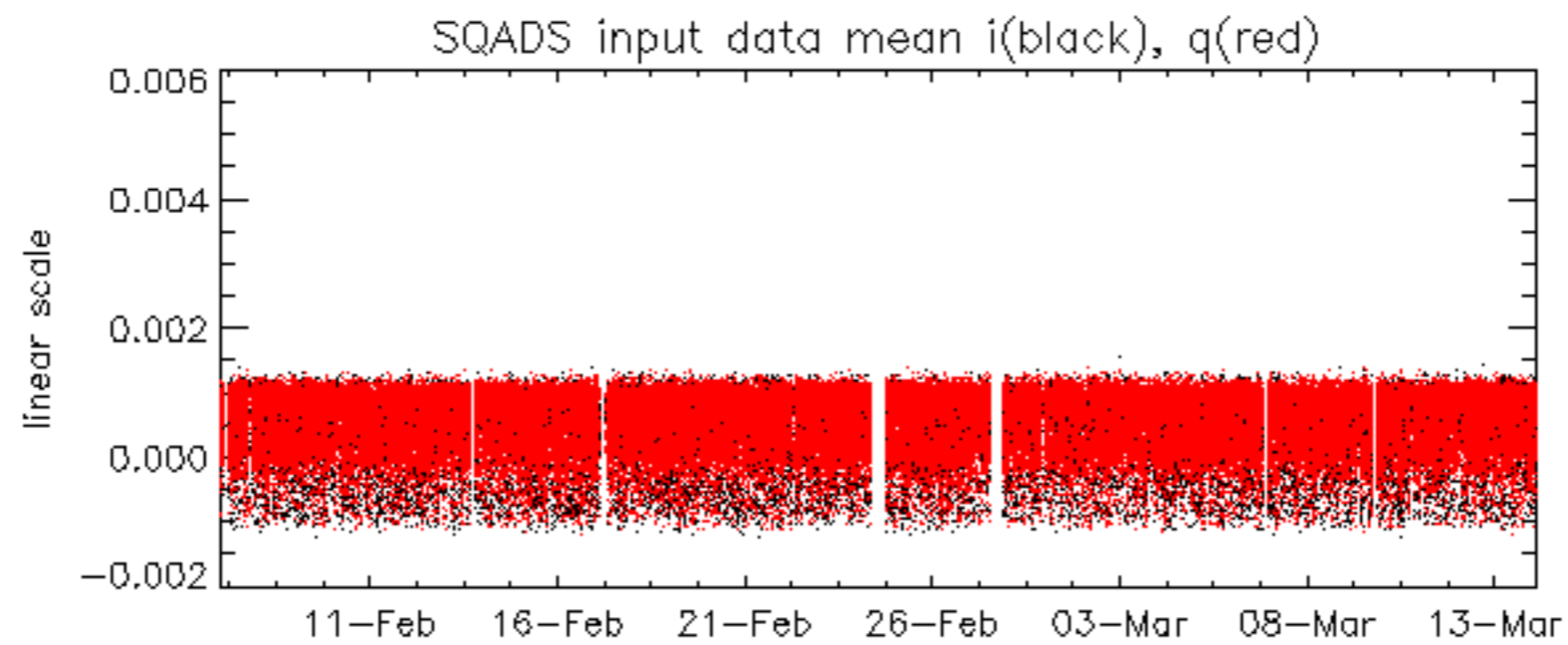
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.4672992 Hz

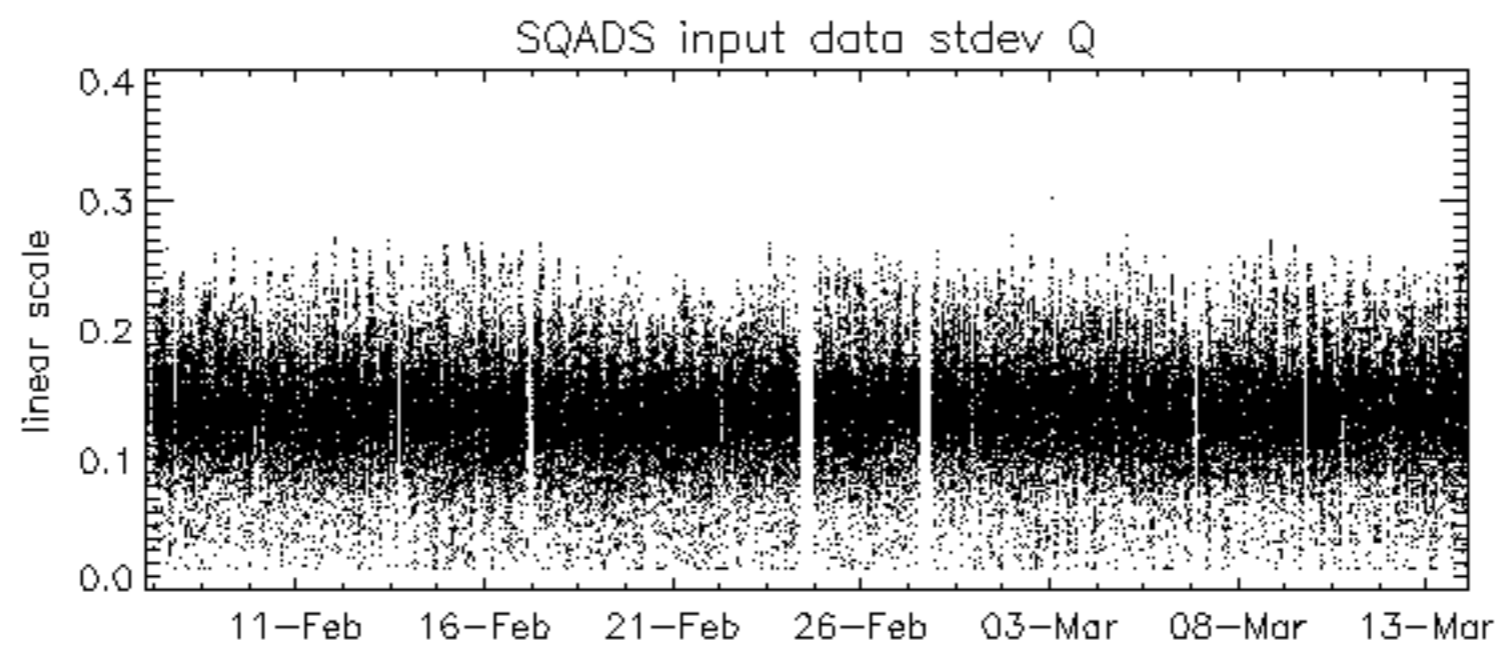
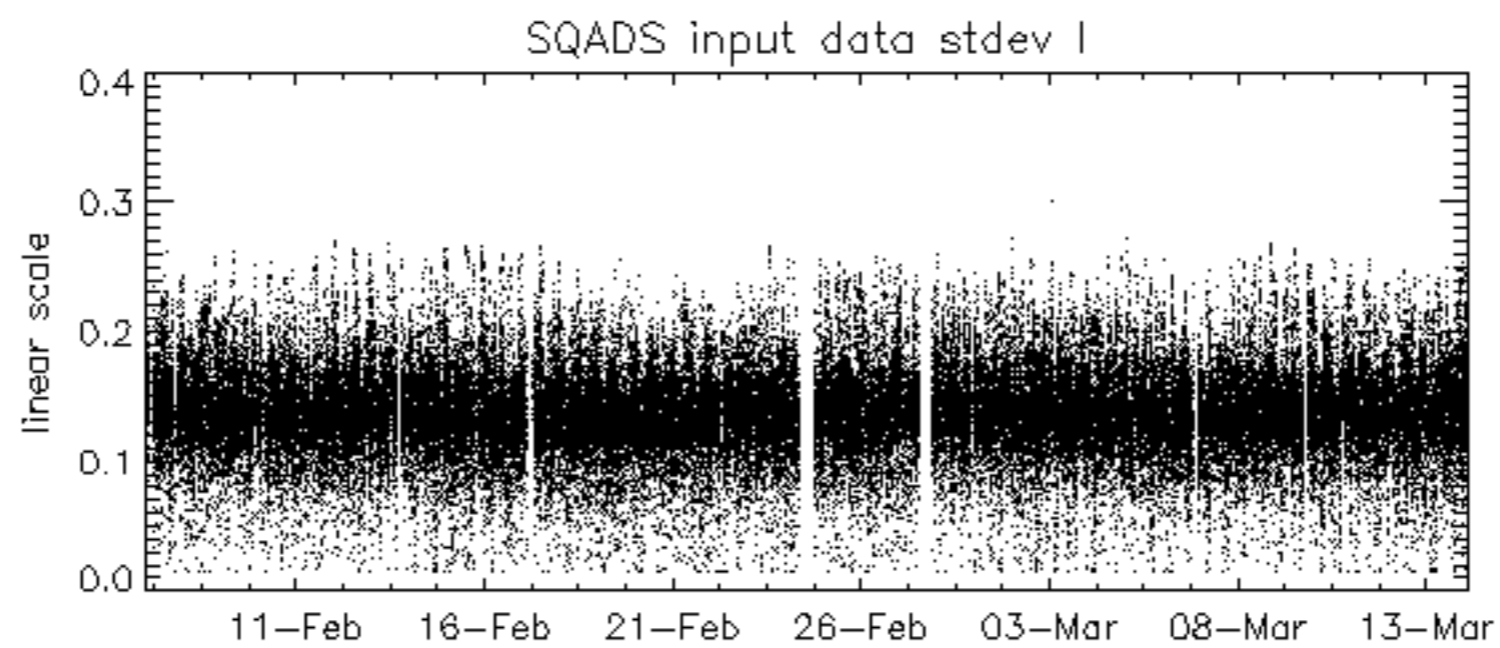
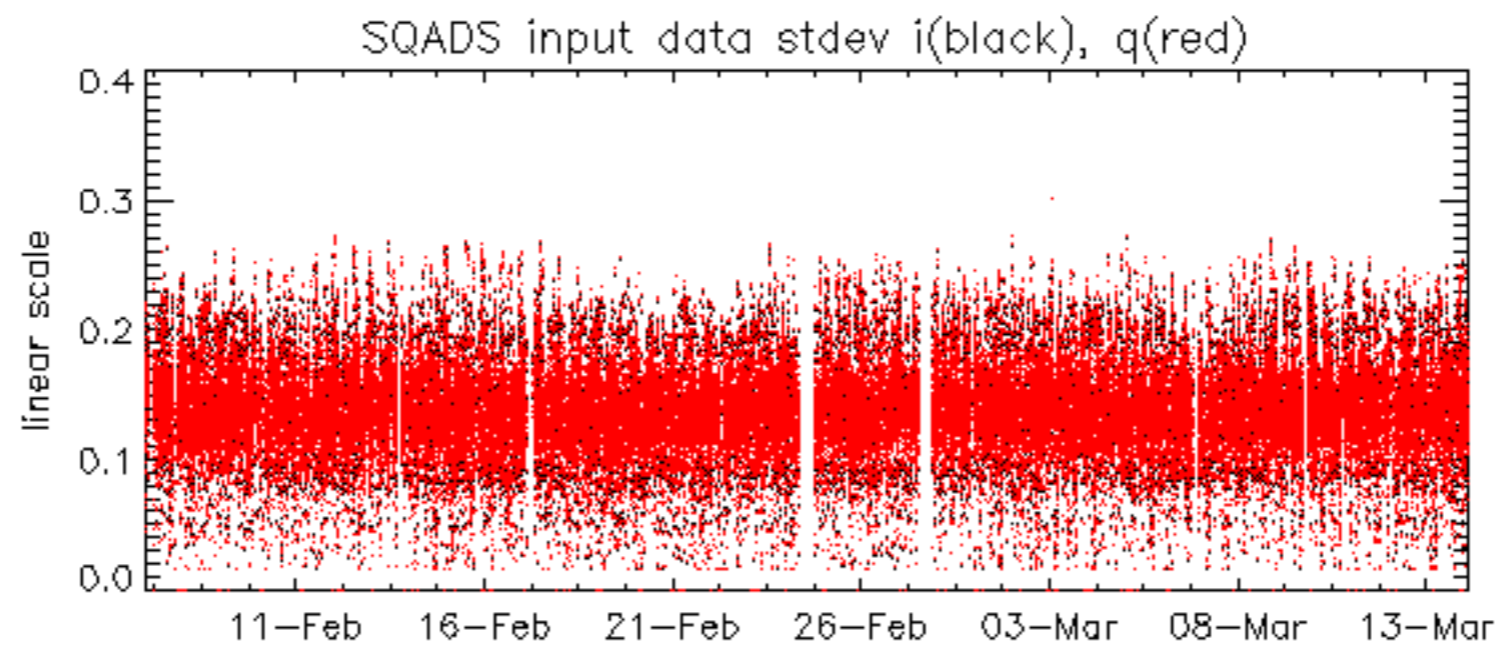


No anomalies observed on available MS products:

No anomalies observed.



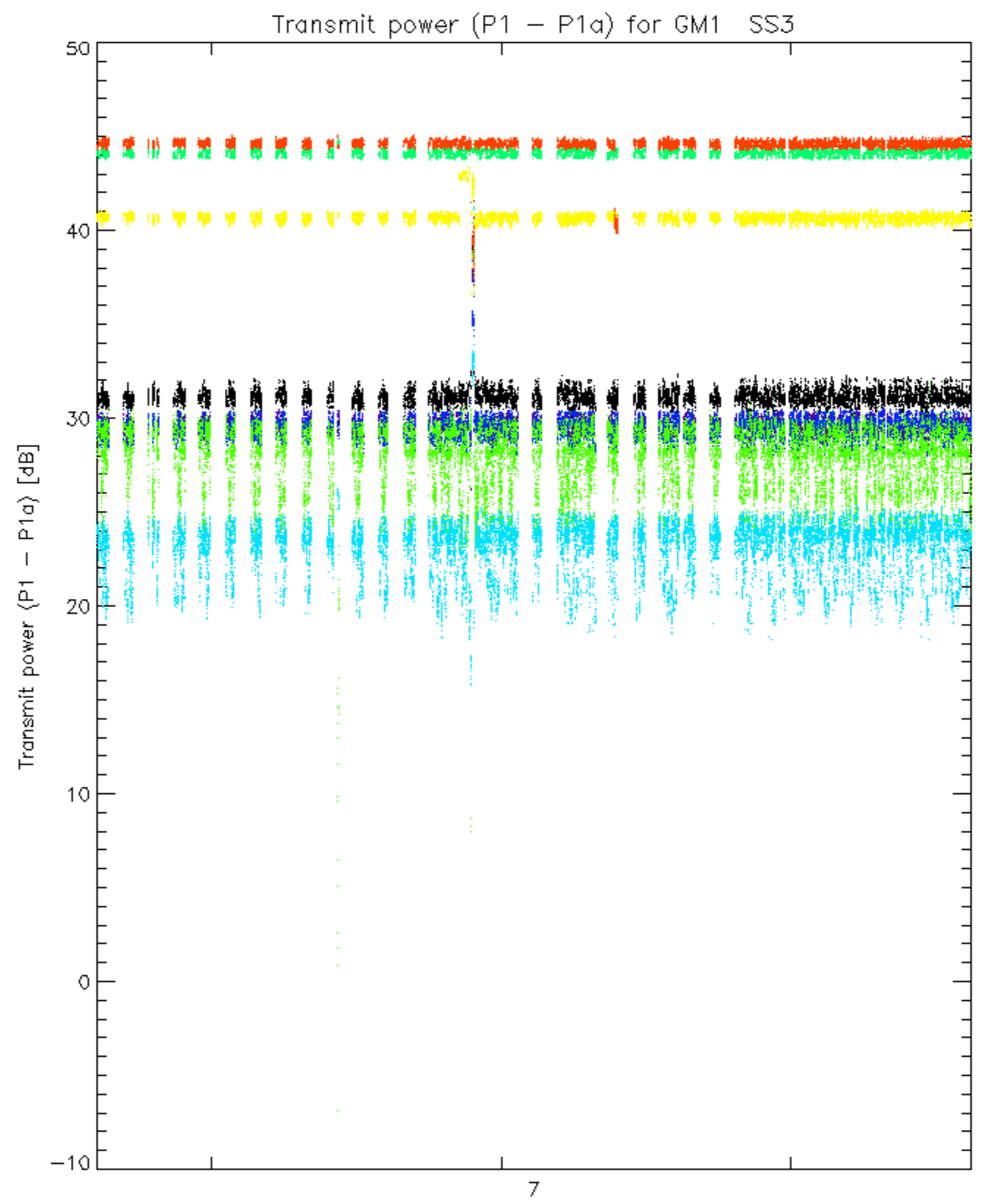


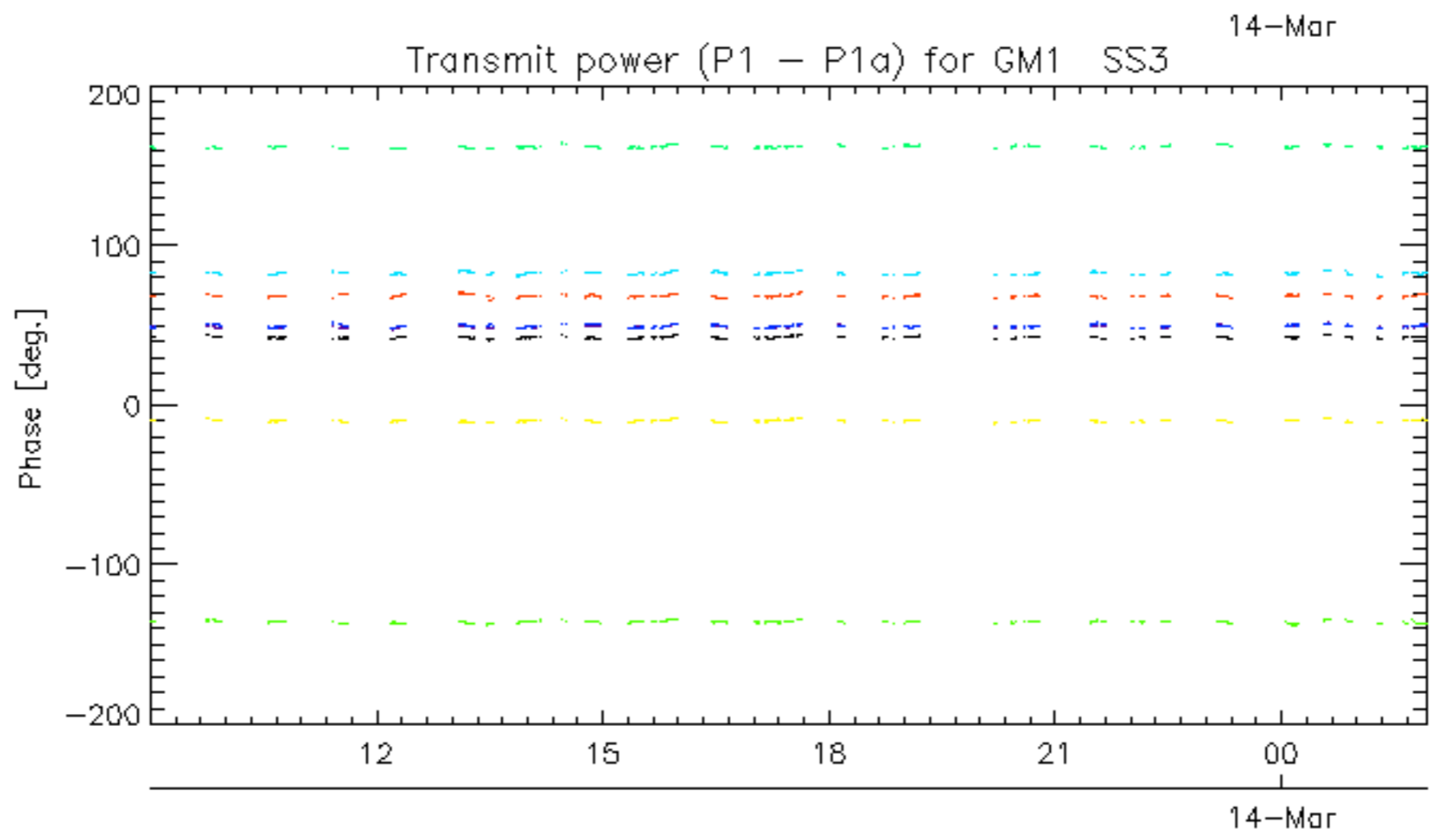
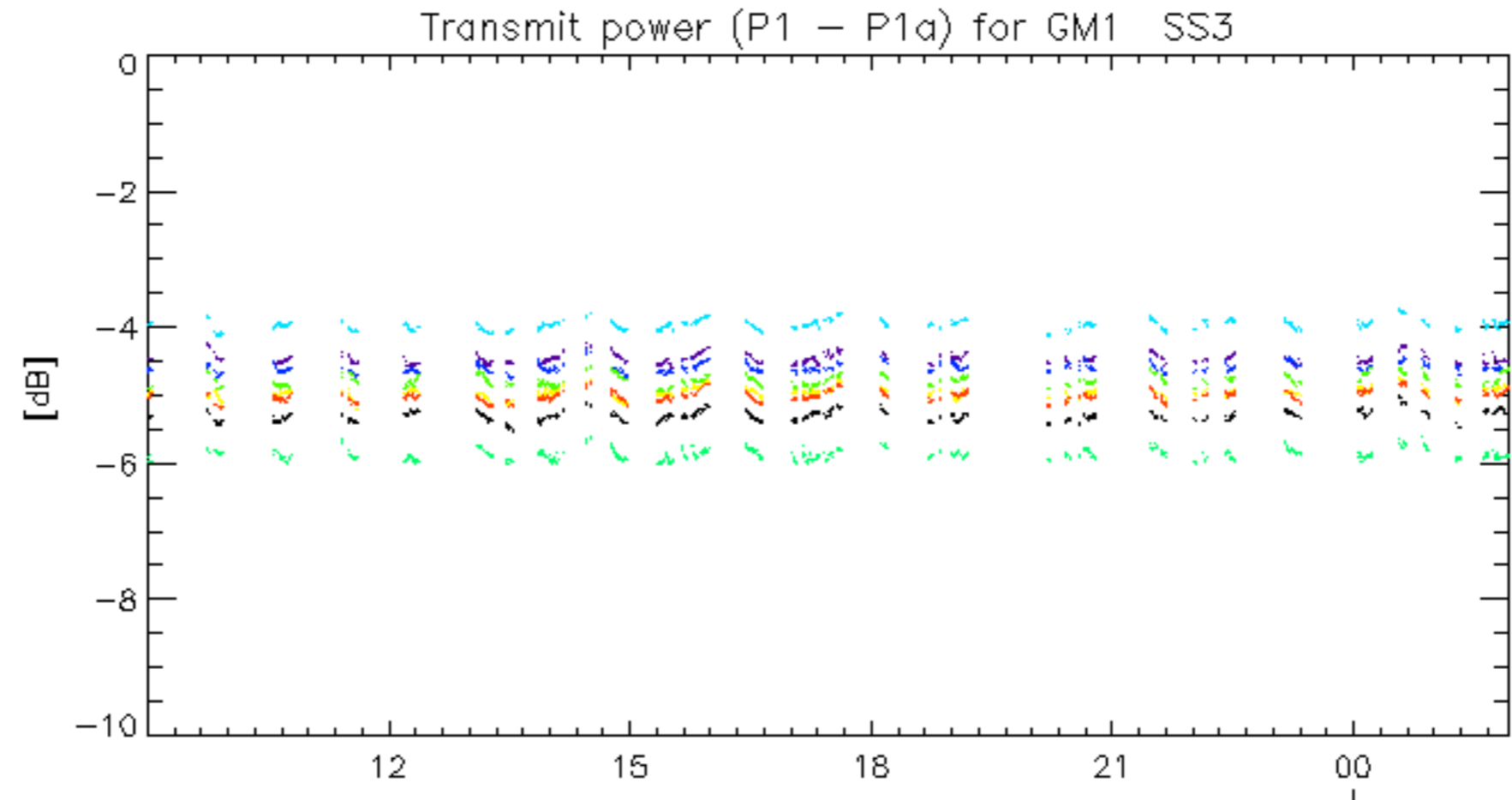


Summary of analysis for the last 3 days 2006031[234]

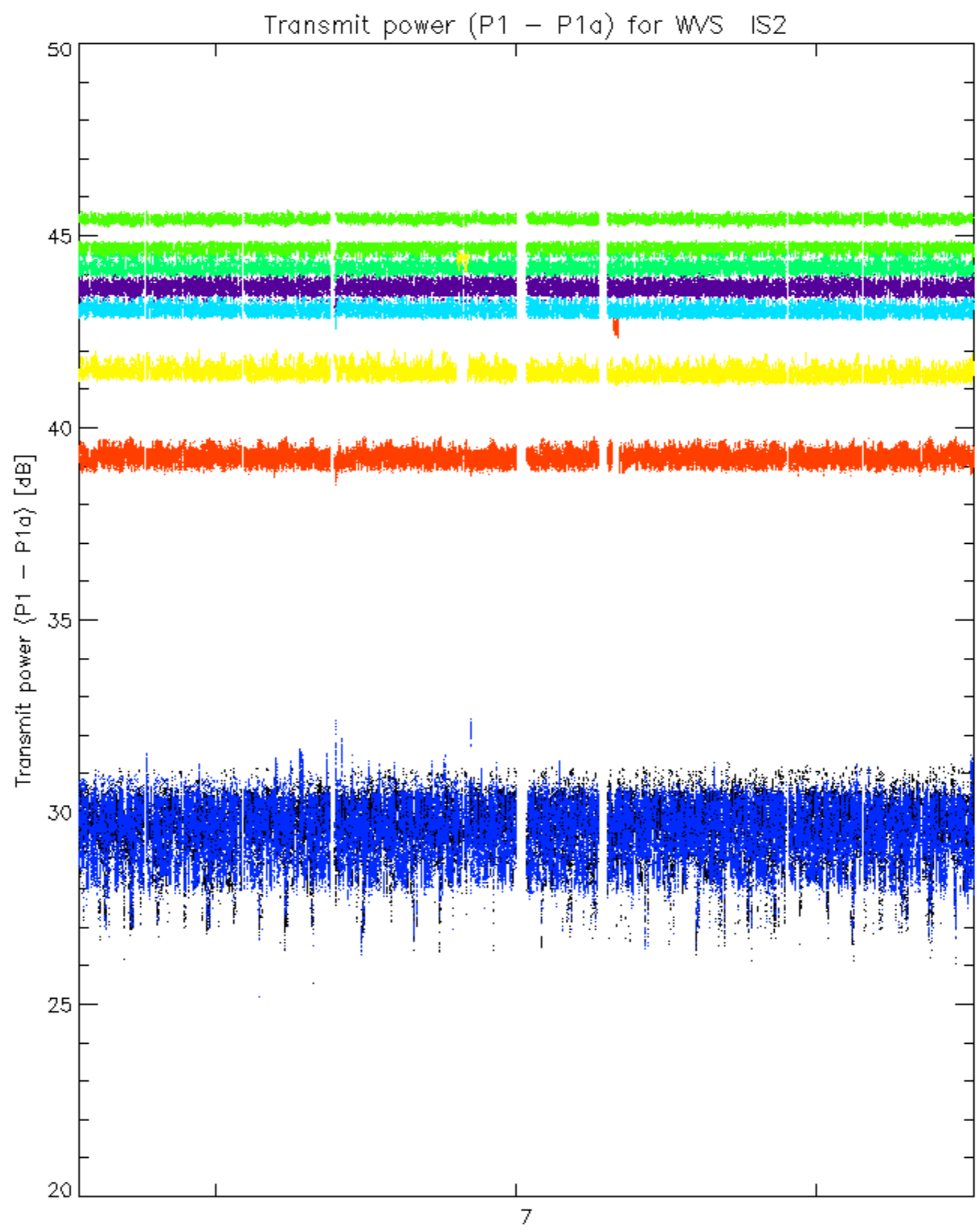
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060312_003948_000001552045_00474_21069_0566.N1	1	0
ASA_IMM_1PNPDE20060312_005604_000000362045_00475_21070_0559.N1	1	0
ASA_IMM_1PNPDE20060312_022546_000000362045_00476_21071_0586.N1	1	0
ASA_IMM_1PNPDE20060312_022546_000000362045_00476_21071_0595.N1	1	0
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ASA_WSM_1PNPDE20060313_165856_000001292045_00499_21094_0582.N1	0	76
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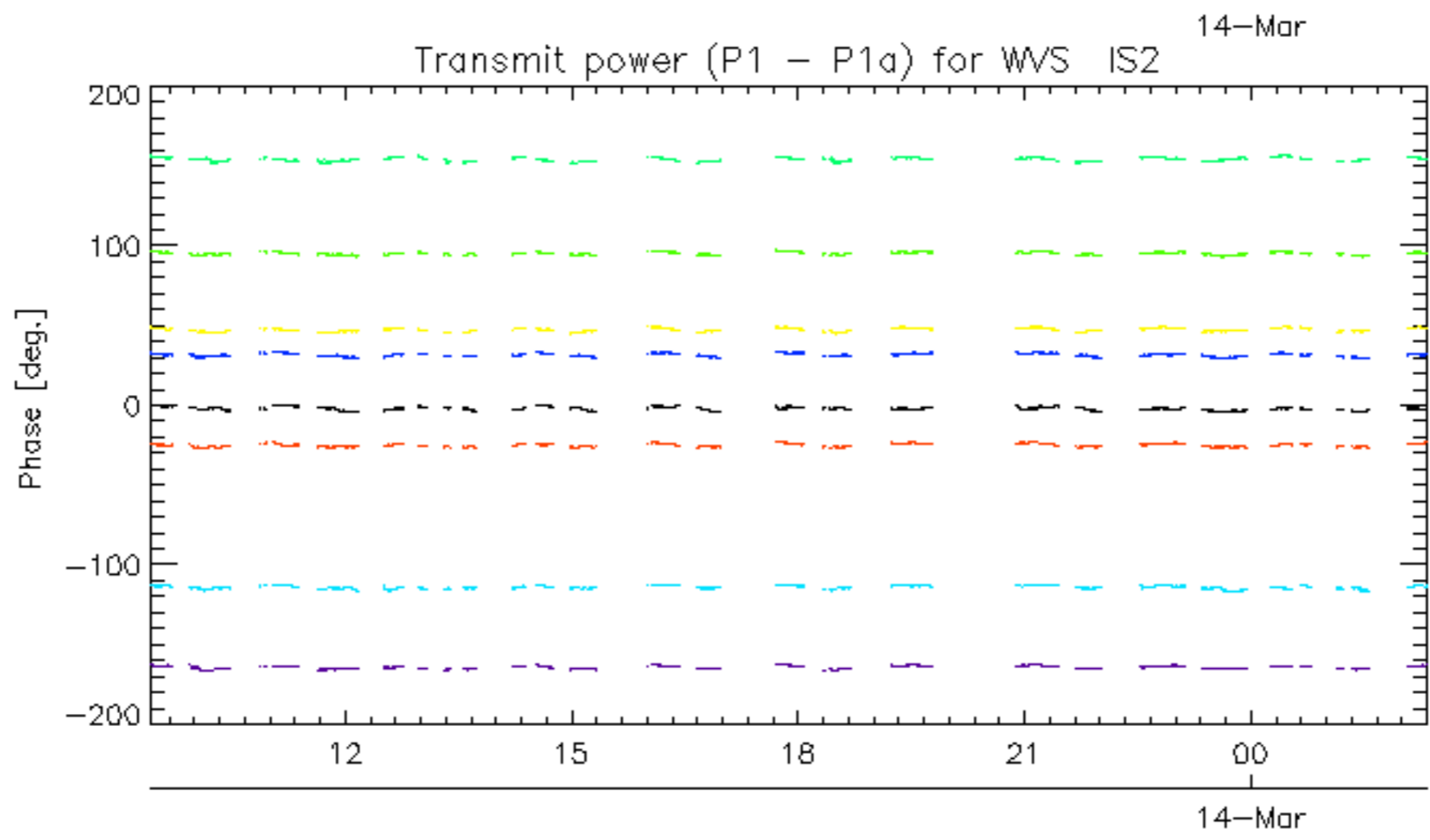
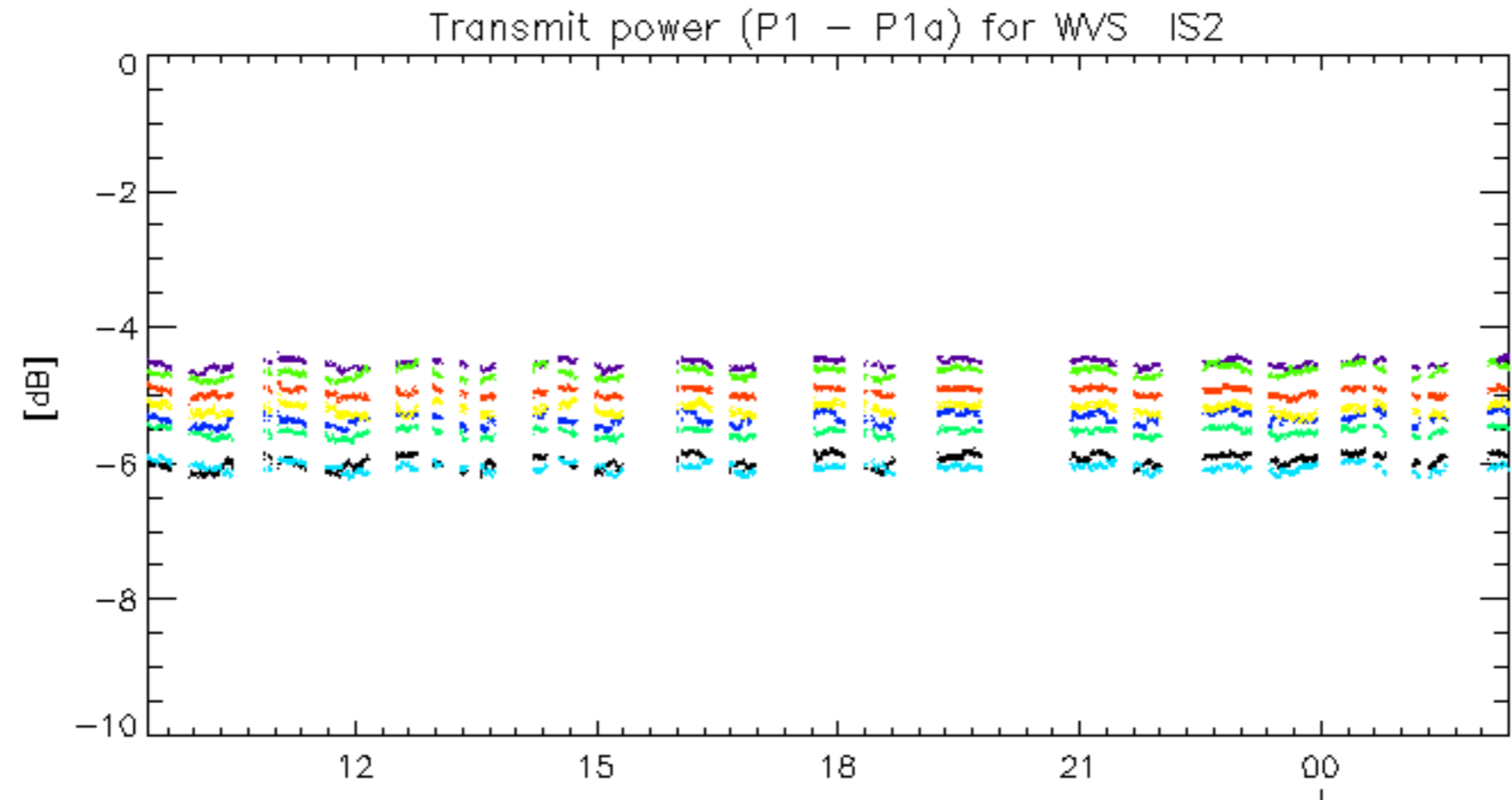




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No unavailabilities during the reported period.