

PRELIMINARY REPORT OF 060325

last update on Sat Mar 25 16:48:52 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 2006-03-24 00:00:00 to 2006-03-25 16:48:52

PDHS-K

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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PDHS-E

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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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	20060325 064353
H	20060324 071531

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

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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

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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	-4.002640	0.009157	0.003698
7	P1	-3.011782	0.008395	-0.023401
11	P1	-4.059867	0.018677	-0.003494
15	P1	-6.093409	0.020587	-0.058139
19	P1	-3.299752	0.006594	-0.044814
22	P1	-4.461883	0.014319	-0.024437
26	P1	-4.177542	0.113523	0.238800
30	P1	-5.786913	0.172165	0.154509
3	P1	-16.974018	0.253618	0.053323
7	P1	-16.740828	0.101972	-0.115133
11	P1	-16.478601	0.312034	0.029970
15	P1	-13.053848	0.092352	-0.023636
19	P1	-13.953184	0.051560	-0.104300
22	P1	-15.584379	0.459216	-0.078753
26	P1	-15.749112	0.365143	0.019051
30	P1	-16.505030	0.319527	-0.148222

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.382429	0.086534	0.072136
7	P2	-22.352623	0.096161	0.132100
11	P2	-16.220379	0.100311	0.030859
15	P2	-7.166211	0.097887	-0.009201
19	P2	-9.134458	0.090008	-0.019270
22	P2	-17.952681	0.087961	-0.070435
26	P2	-16.220192	0.094026	-0.060232
30	P2	-19.651506	0.084156	-0.022683

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.195600	0.005608	-0.001981
7	P3	-8.195600	0.005608	-0.001981
11	P3	-8.195600	0.005608	-0.001981
15	P3	-8.195600	0.005608	-0.001981
19	P3	-8.195600	0.005608	-0.001981
22	P3	-8.195600	0.005608	-0.001981

26	P3	-8.195600	0.005608	-0.001981
30	P3	-8.195601	0.005608	-0.001979

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)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.829422	2.580947	0.367094
7	P1	-2.810329	2.710157	0.429342
11	P1	-3.009163	2.728995	0.420336
15	P1	-3.653433	2.705640	0.445087
19	P1	-3.453160	2.620501	0.378664
22	P1	-5.252673	2.409899	0.342560
26	P1	-5.908006	2.584044	0.719132
30	P1	-5.255982	2.448691	0.475256
3	P1	-11.639246	1.700268	0.266170
7	P1	-10.033491	1.883965	0.296989
11	P1	-10.335265	1.877916	0.304310
15	P1	-10.883979	1.894562	0.282069
19	P1	-15.450753	1.398585	0.250051
22	P1	-20.330027	2.072954	0.108460
26	P1	-16.279974	1.898366	0.148959
30	P1	-18.302635	1.617968	0.363642

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.076653	1.788406	0.094841
7	P2	-22.527798	2.101048	-0.048806

11	P2	-11.259022	1.940821	0.194362
15	P2	-4.900284	2.521470	0.366887
19	P2	-6.907886	2.269007	0.332558
22	P2	-8.200266	2.127830	0.285673
26	P2	-23.915434	2.144035	-0.313646
30	P2	-22.043118	2.021841	-0.182080

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.023024	0.002286	0.007436
7	P3	-8.022974	0.002286	0.007679
11	P3	-8.022941	0.002300	0.007805
15	P3	-8.023051	0.002291	0.007991
19	P3	-8.022972	0.002297	0.007578
22	P3	-8.023067	0.002286	0.007949
26	P3	-8.023051	0.002290	0.007760
30	P3	-8.022903	0.002298	0.007719

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	0.000563062
	stdev	1.71087e-07
MEAN Q	mean	0.000523056

stdev 2.18456e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138514
	stdev	0.00116832
STDEV Q	mean	0.138880
	stdev	0.00118656



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006032[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_1PNPDE20060323_171613_00000622046_00141_21237_1423.N1	0	11
ASA_IMM_1PNPDE20060324_042639_00000522046_00147_21243_1443.N1	1	0
ASA_IMM_1PNPDE20060325_022726_00000692046_00161_21257_1486.N1	1	0
ASA_WSM_1PNPDE20060323_022501_000001282046_00132_21228_2100.N1	0	40
ASA_WSM_1PNPDE20060323_193804_00000182046_00142_21238_2168.N1	0	329
ASA_WSM_1PNPDE20060324_001349_000002262046_00145_21241_2219.N1	0	34
ASA_WSM_1PNPDE20060324_133838_000000852046_00153_21249_2321.N1	0	27
ASA_WSM_1PNPDE20060324_161721_000002202046_00155_21251_2319.N1	0	18



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

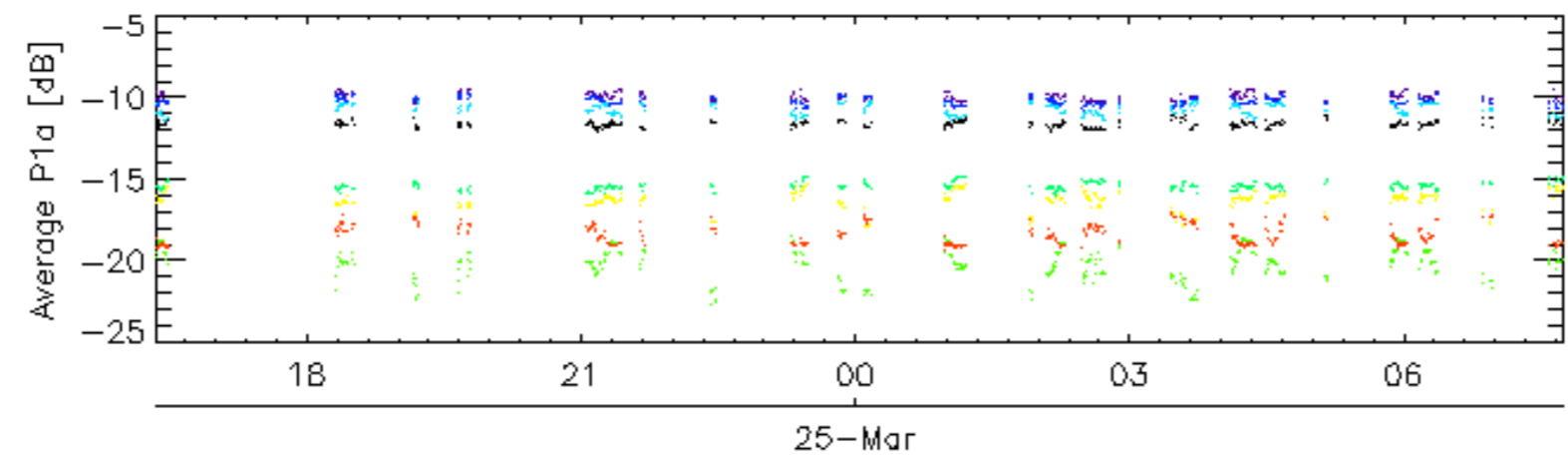
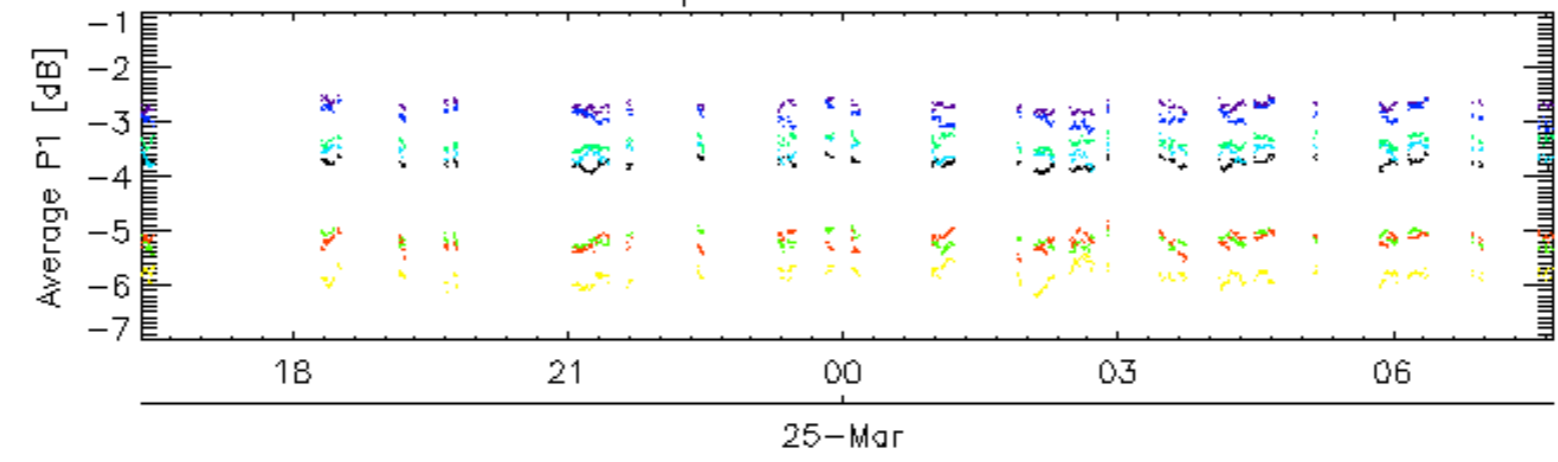
Ascending

Descending

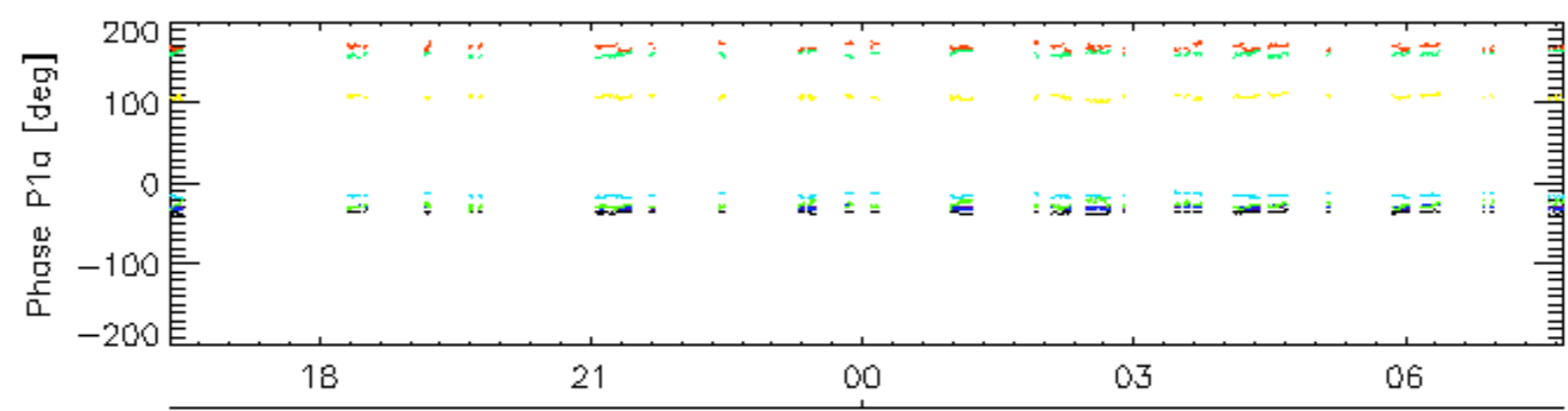
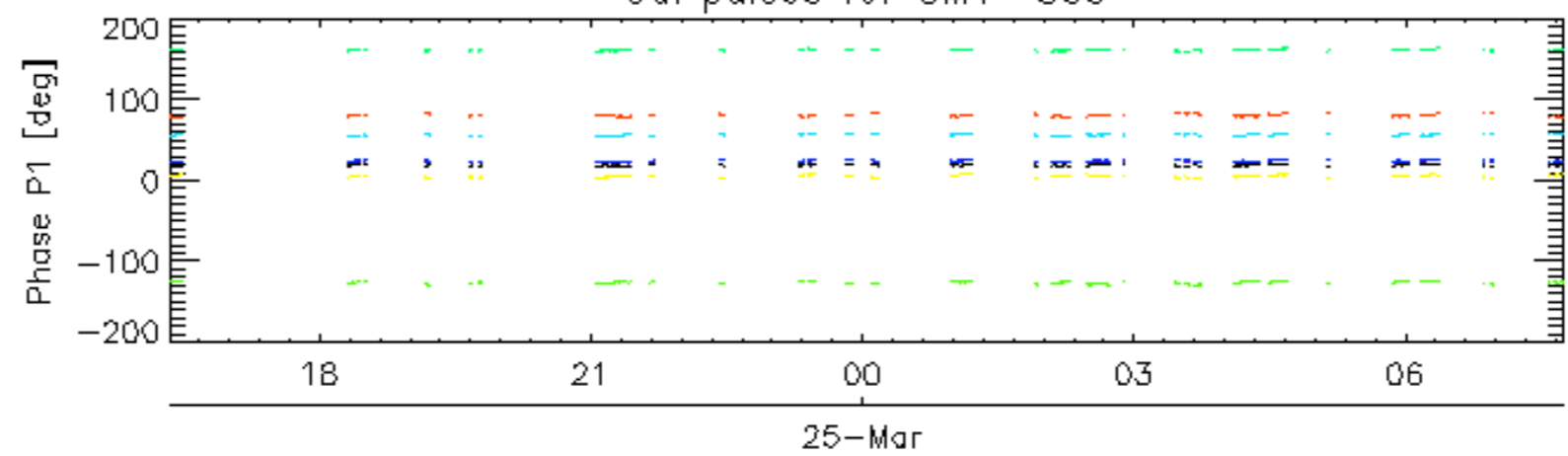
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

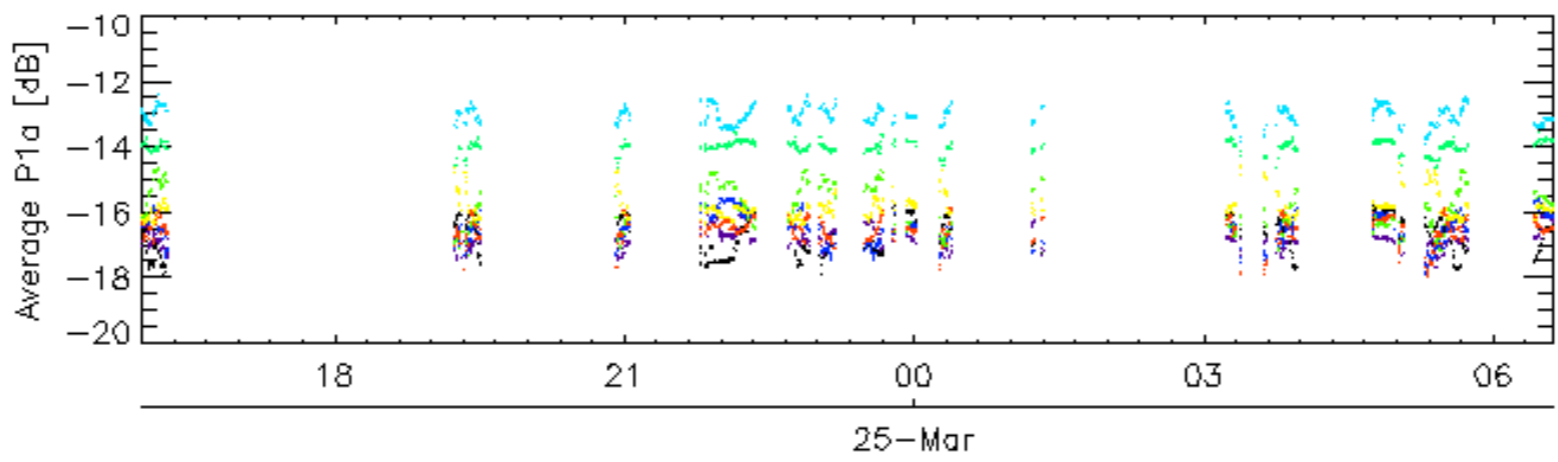
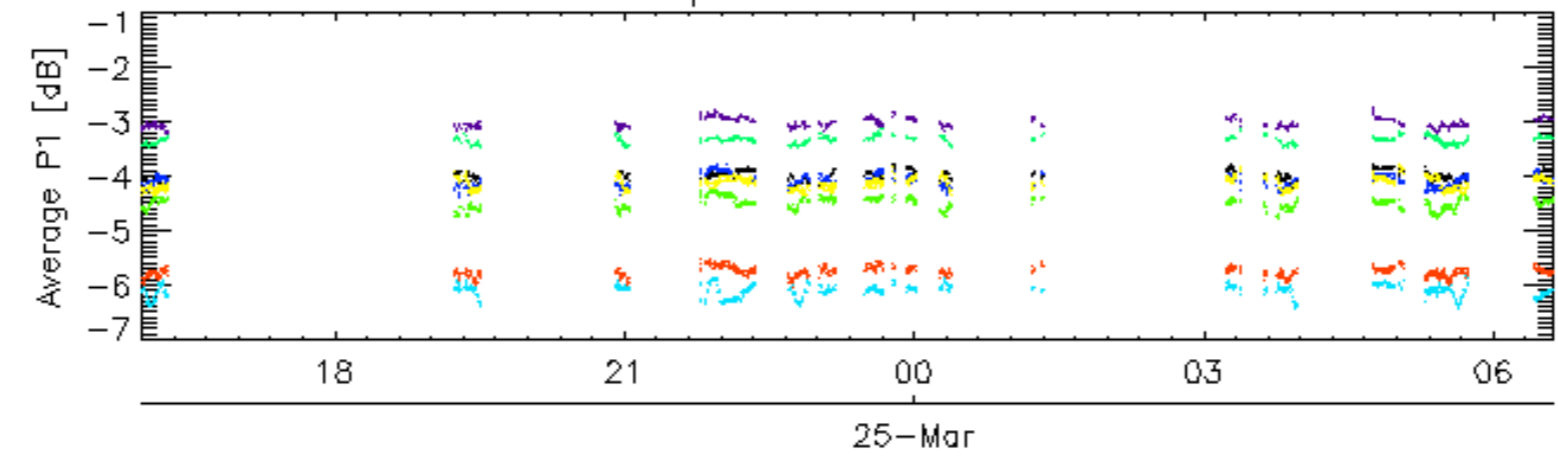


Cal pulses for GM1 SS3

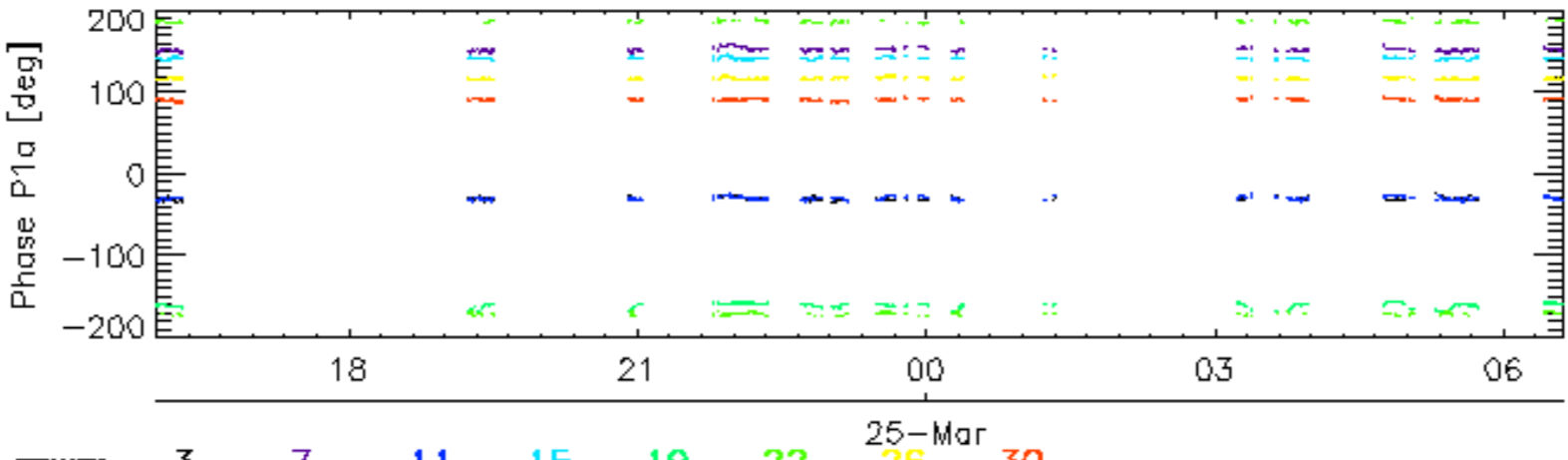
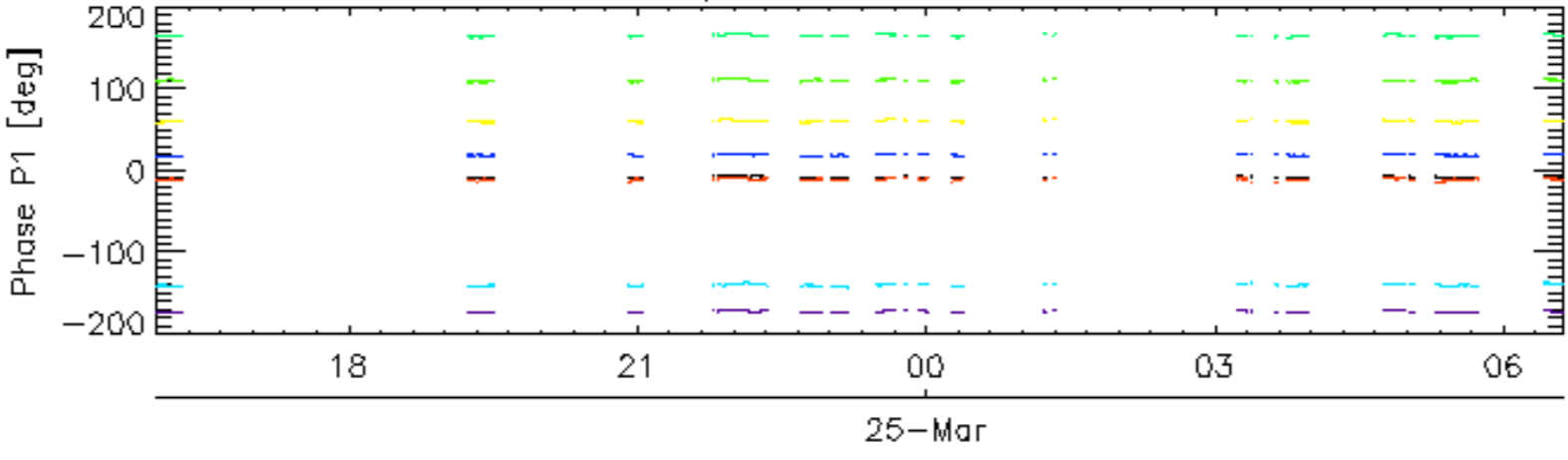


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

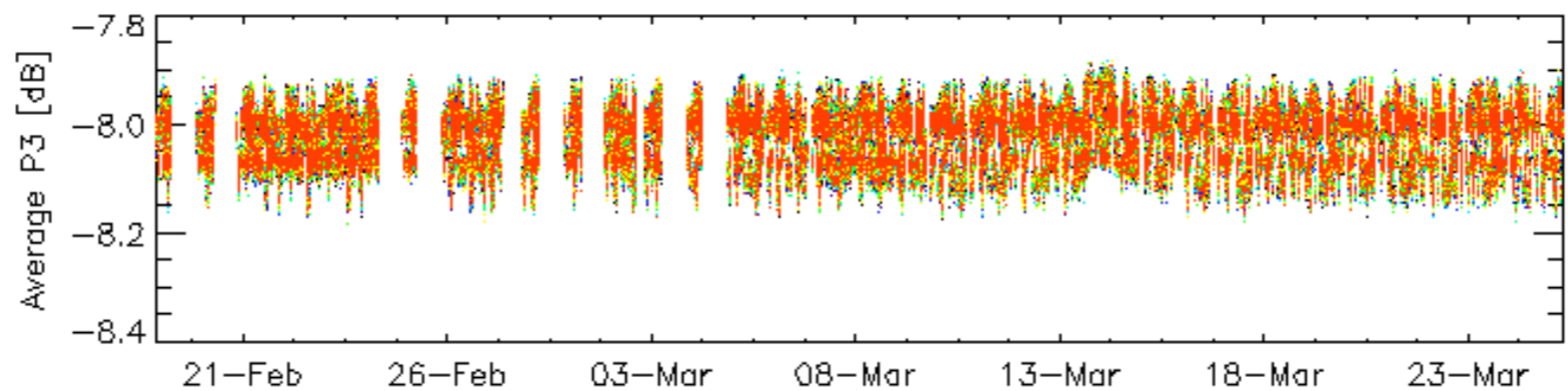
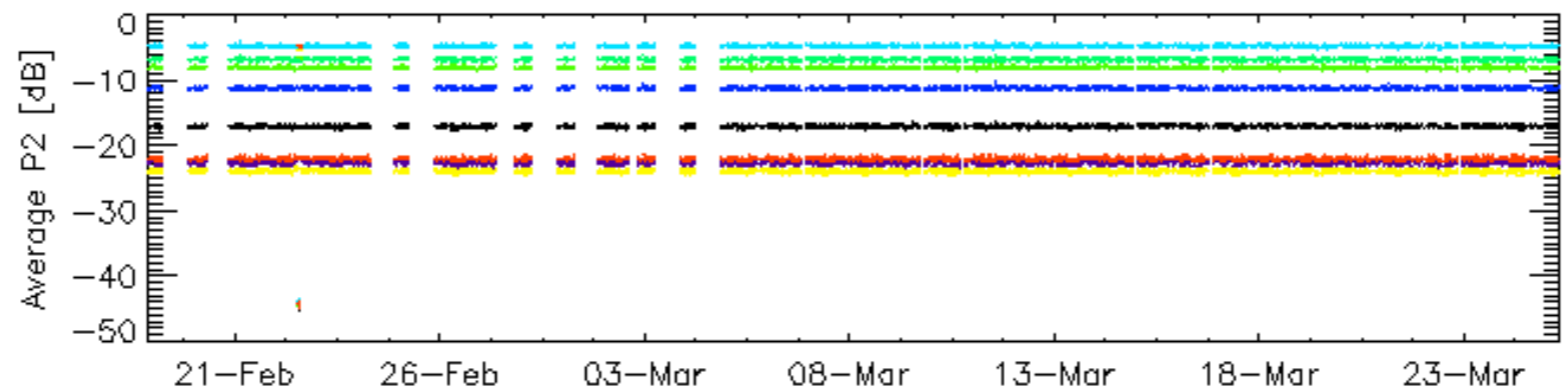
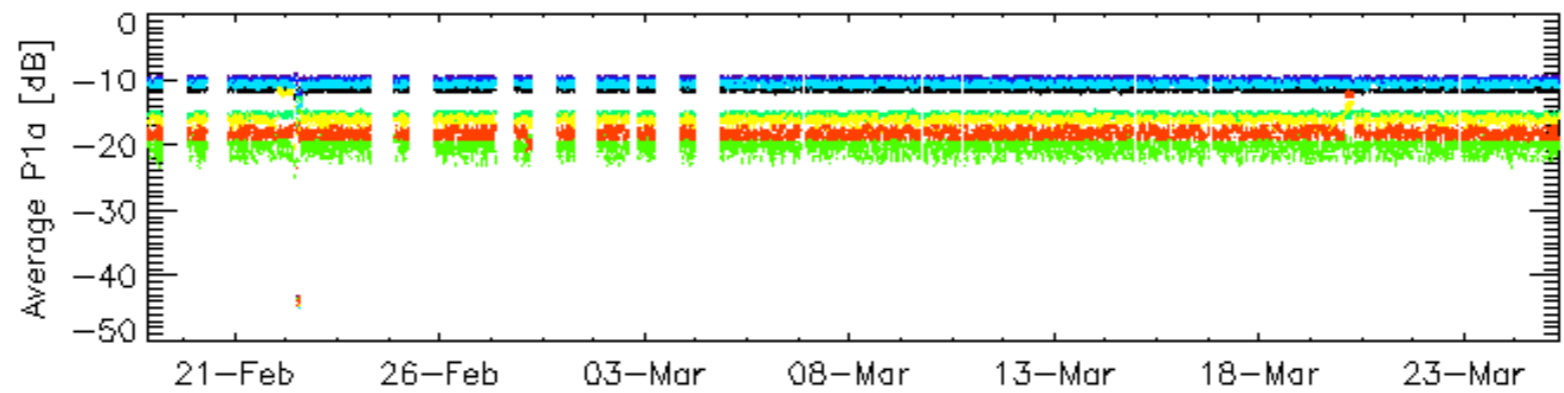
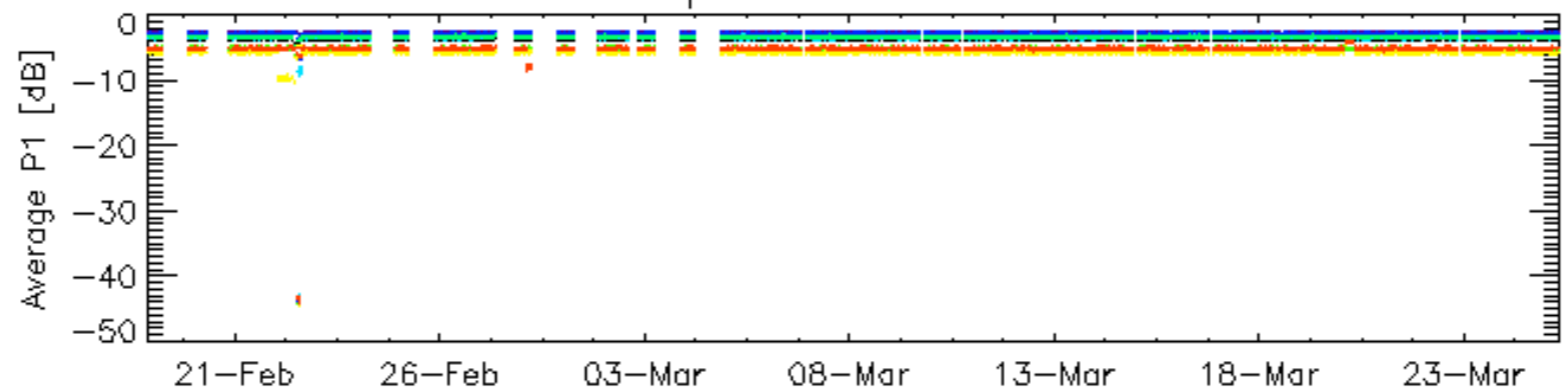


Cal pulses for WVS IS2



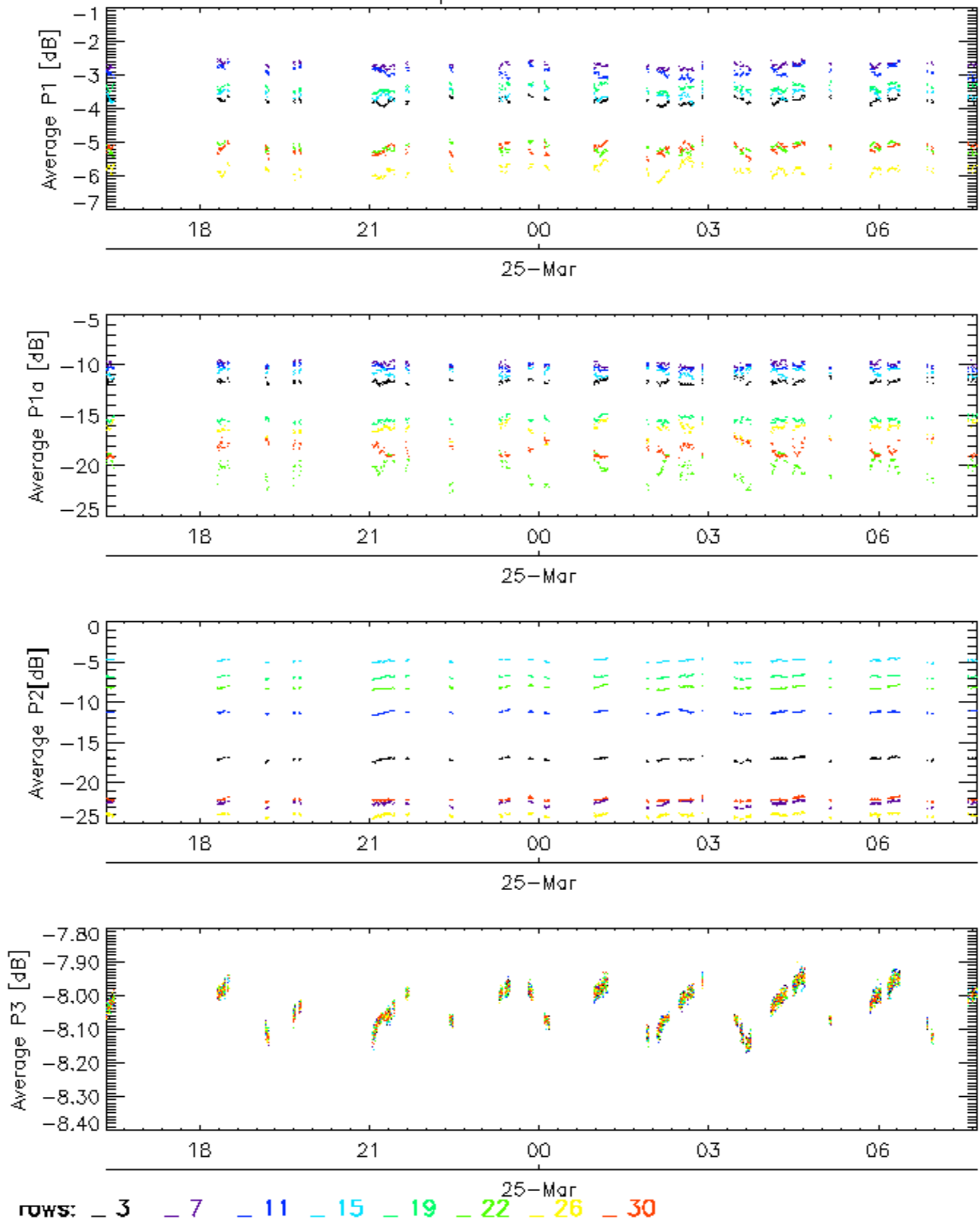
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

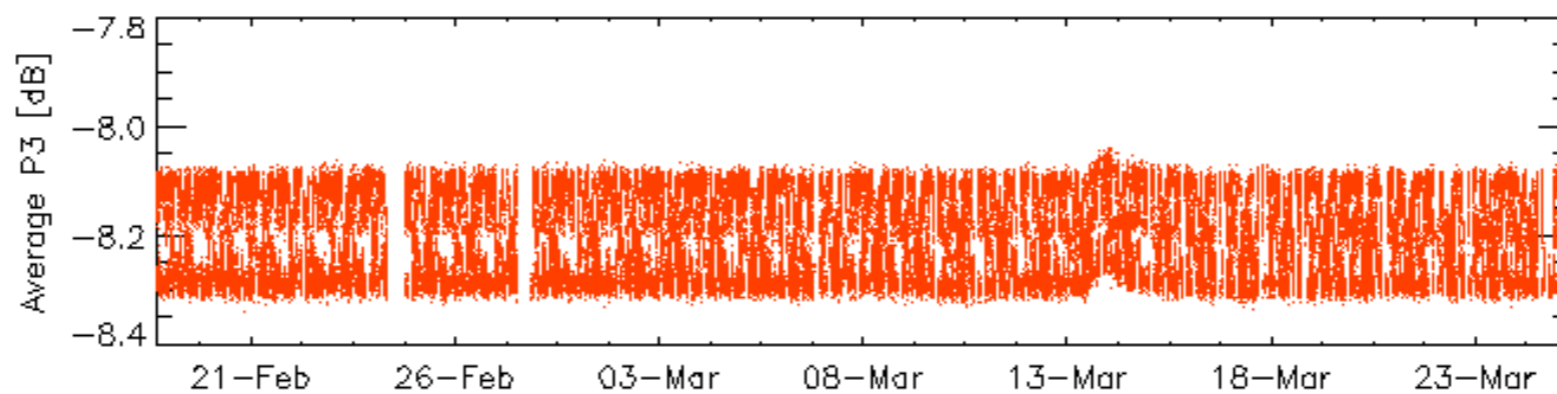
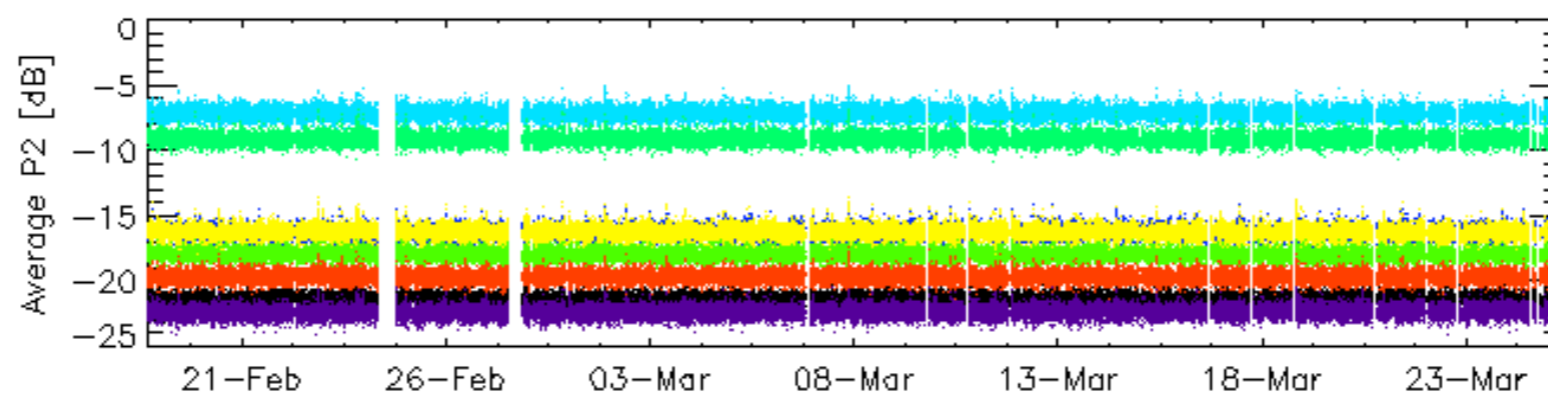
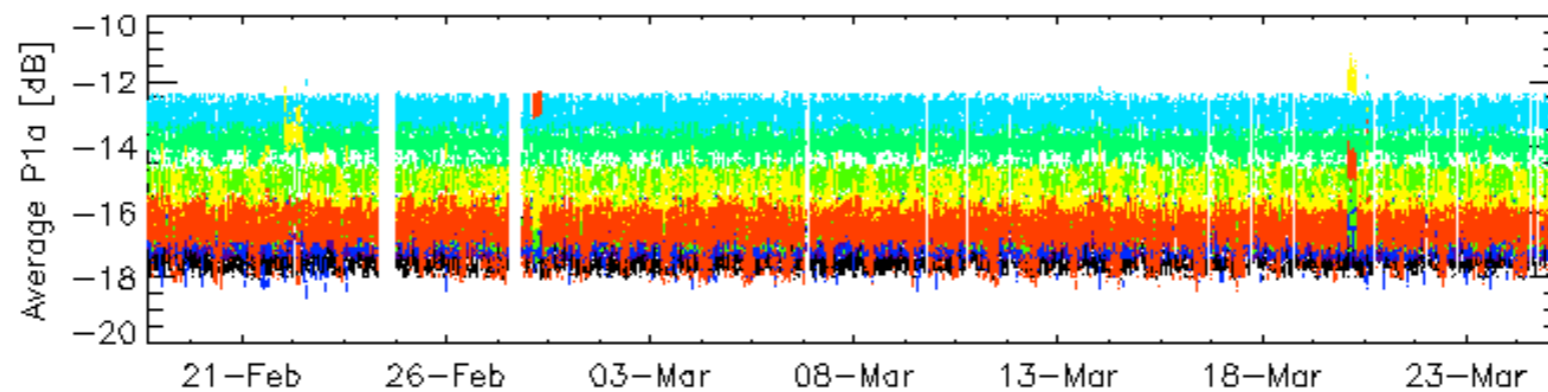
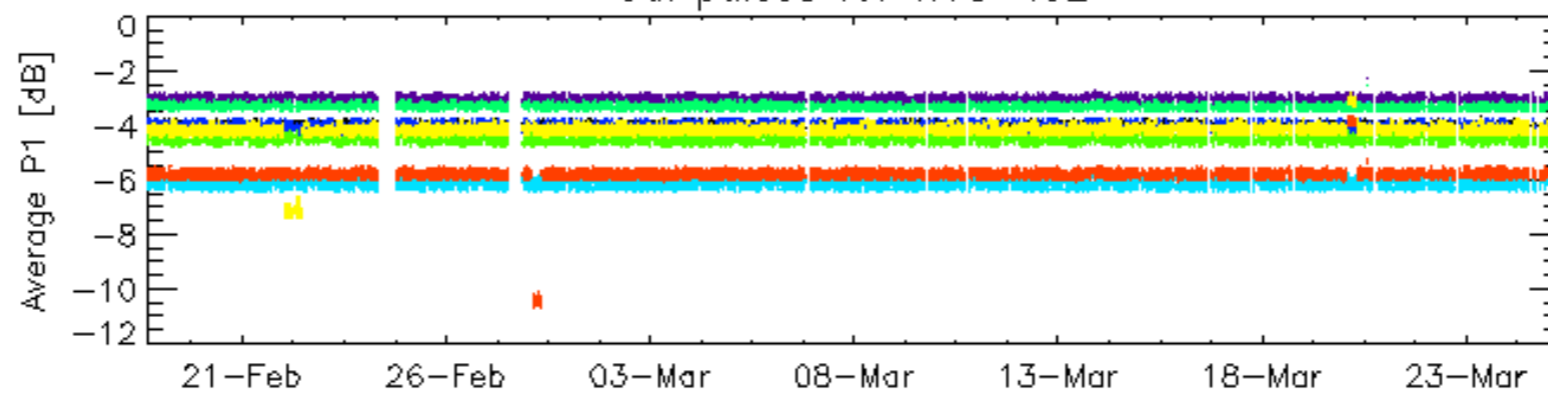


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

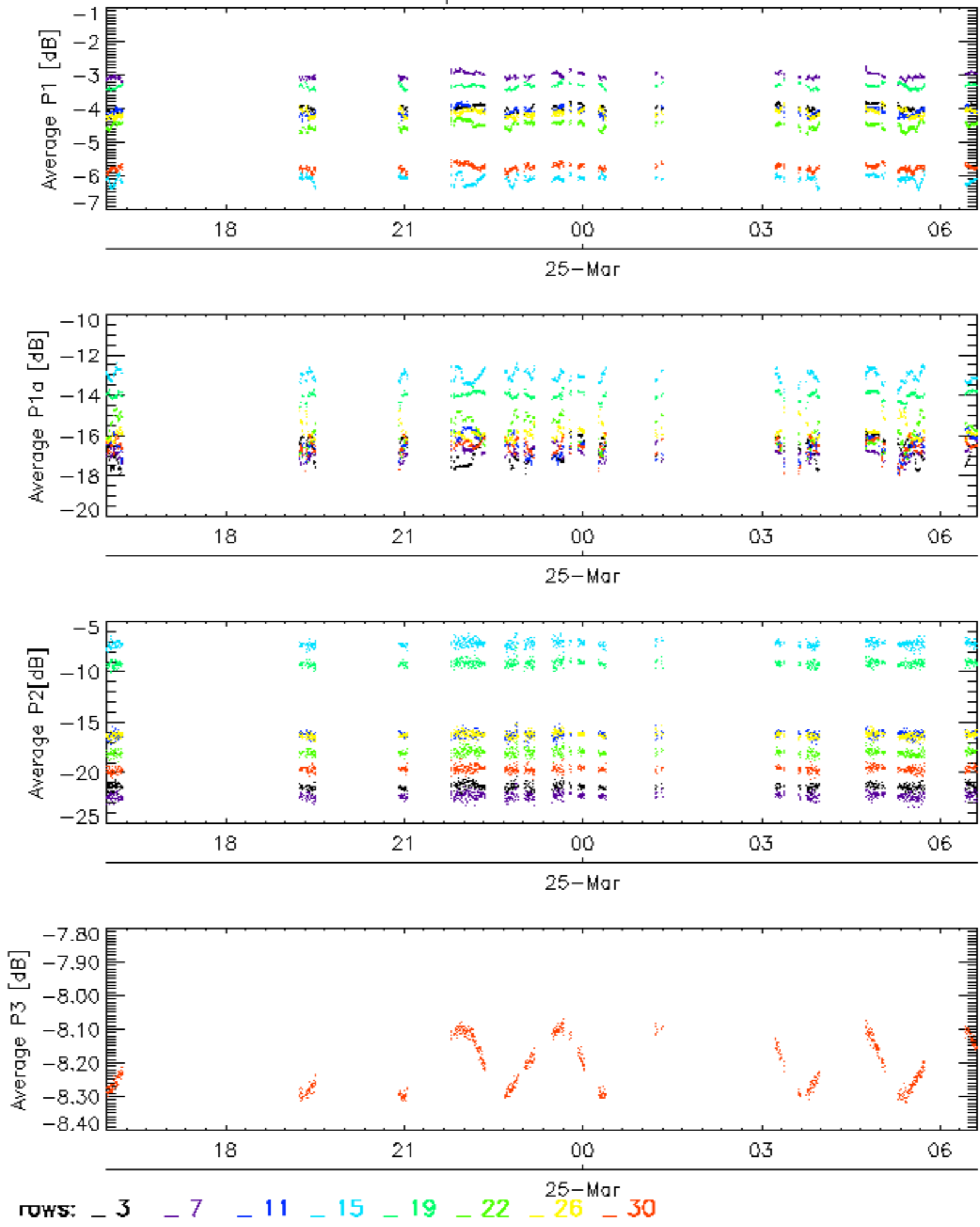


Cal pulses for WVS IS2

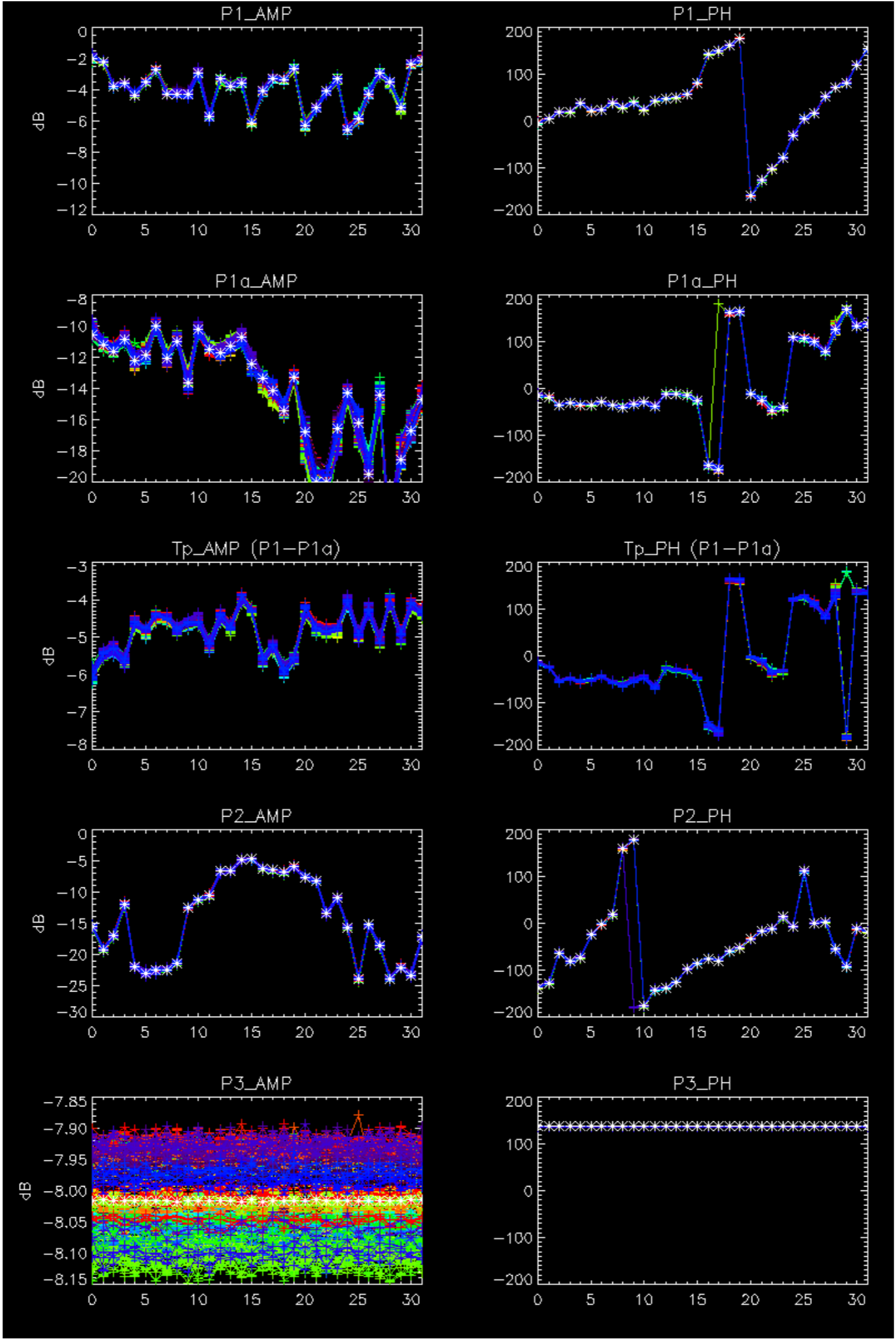


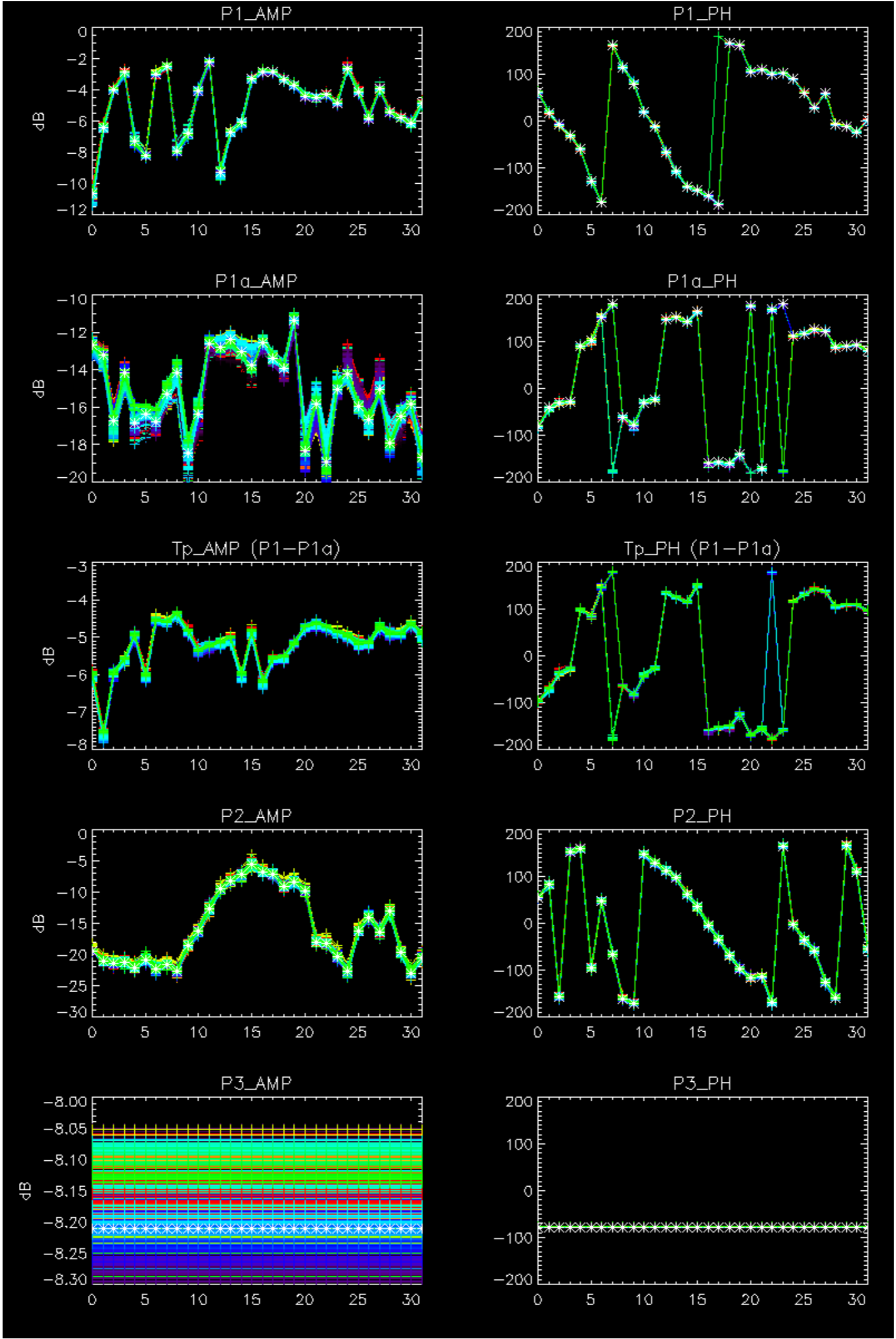
rows: [3](#) [7](#) [11](#) [15](#) [19](#) [22](#) [26](#) [30](#)

Cal pulses for WVS IS2



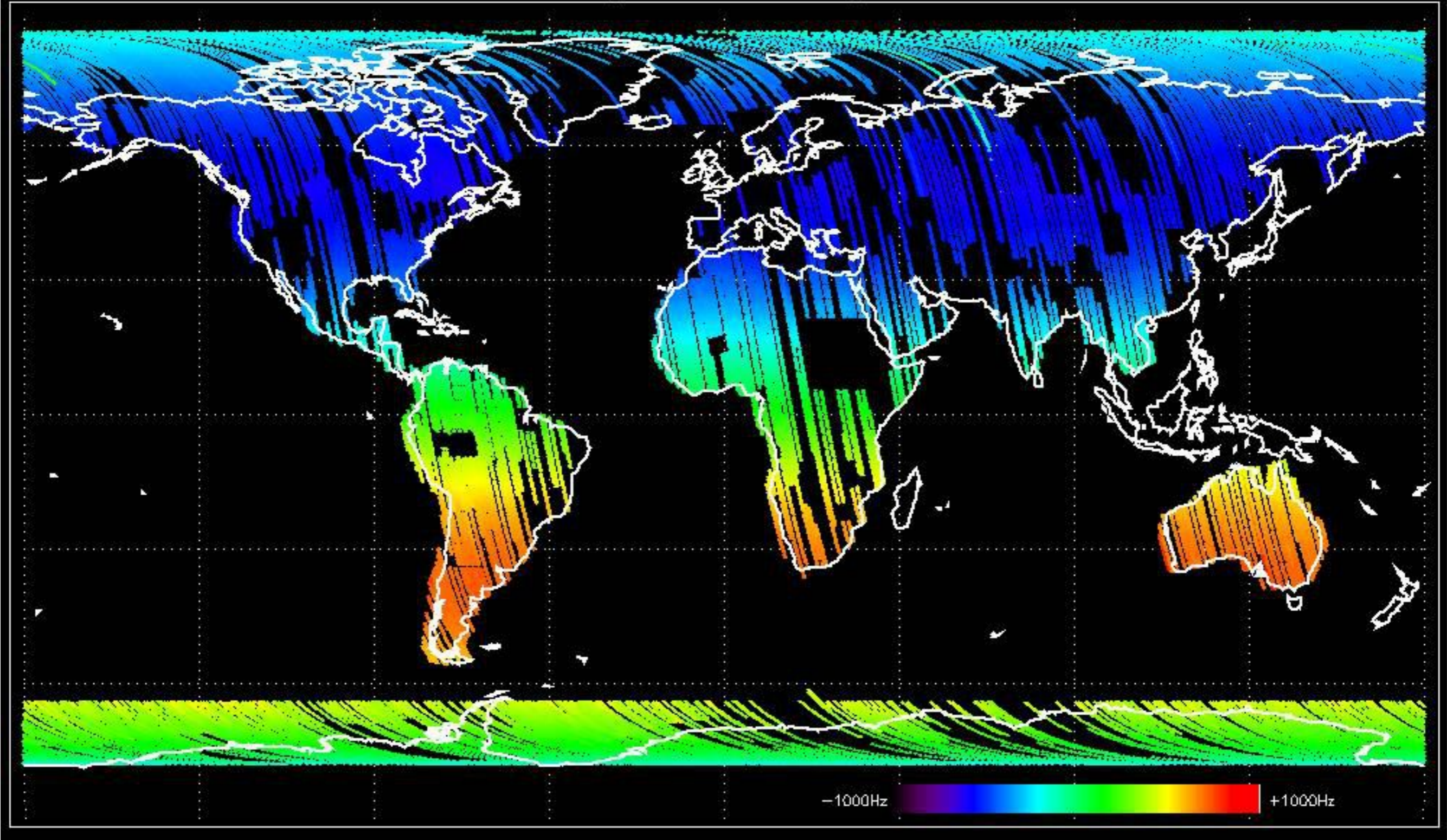
No anomalies observed.



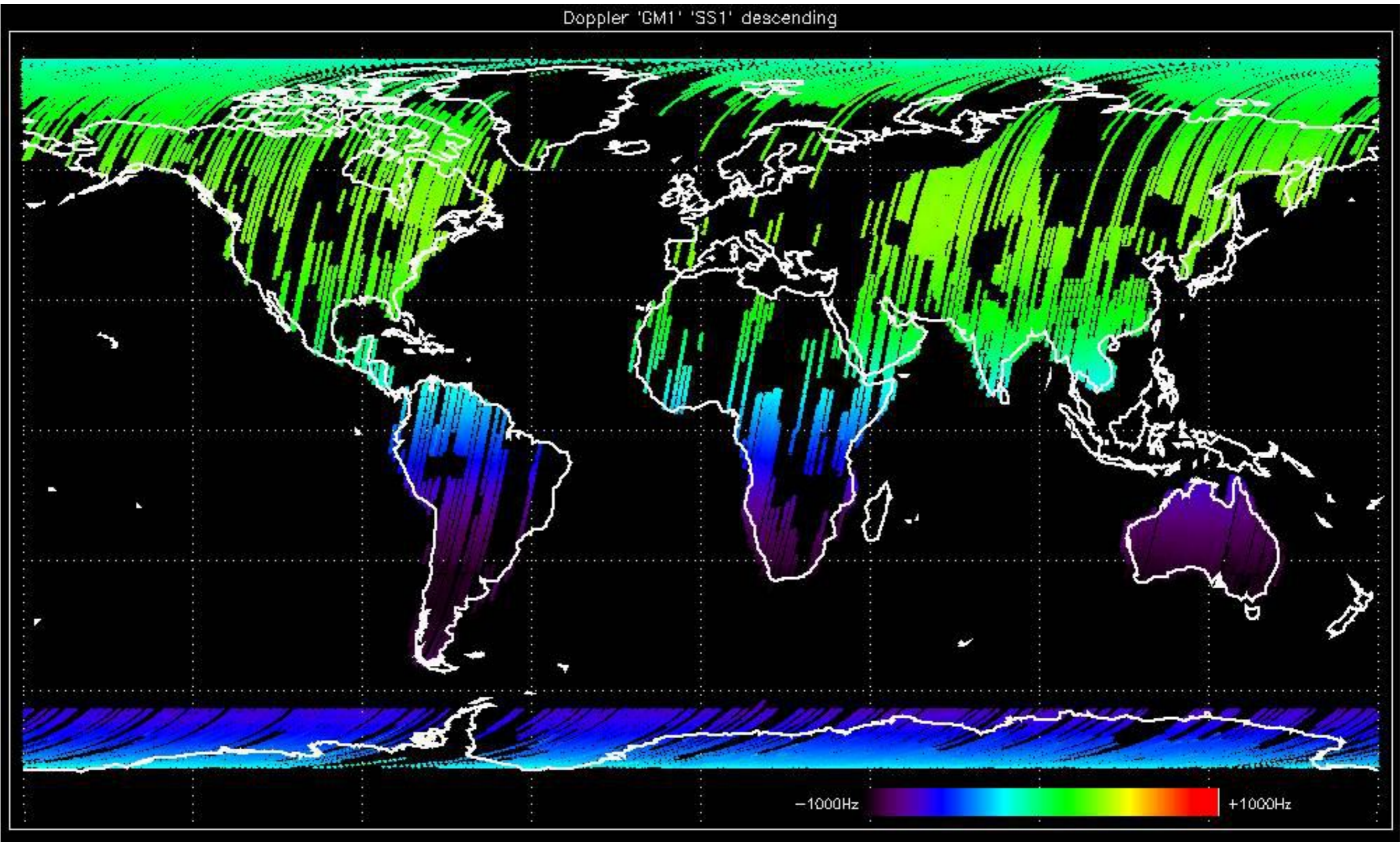


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

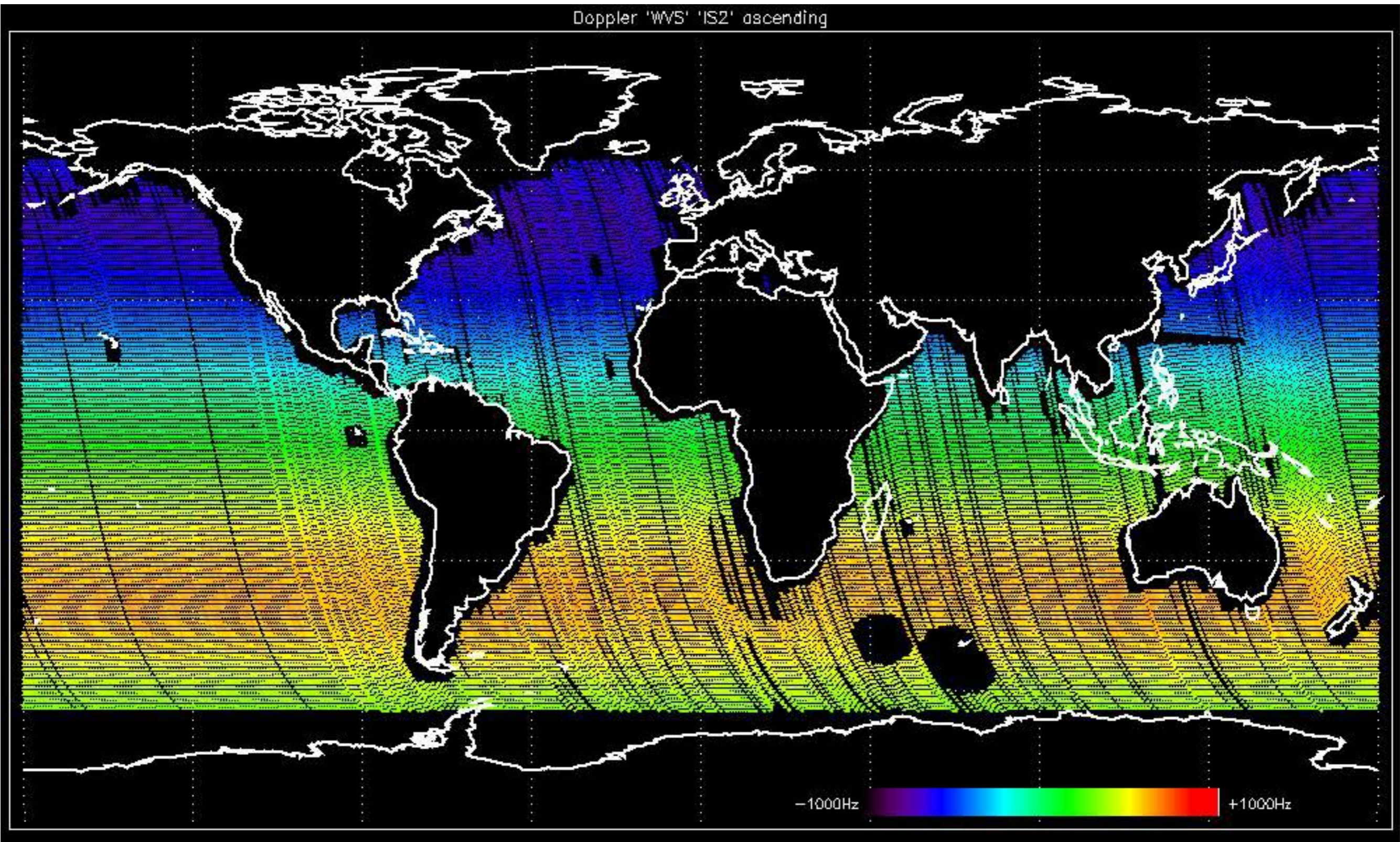
Doppler 'GM1' 'SS1' ascending



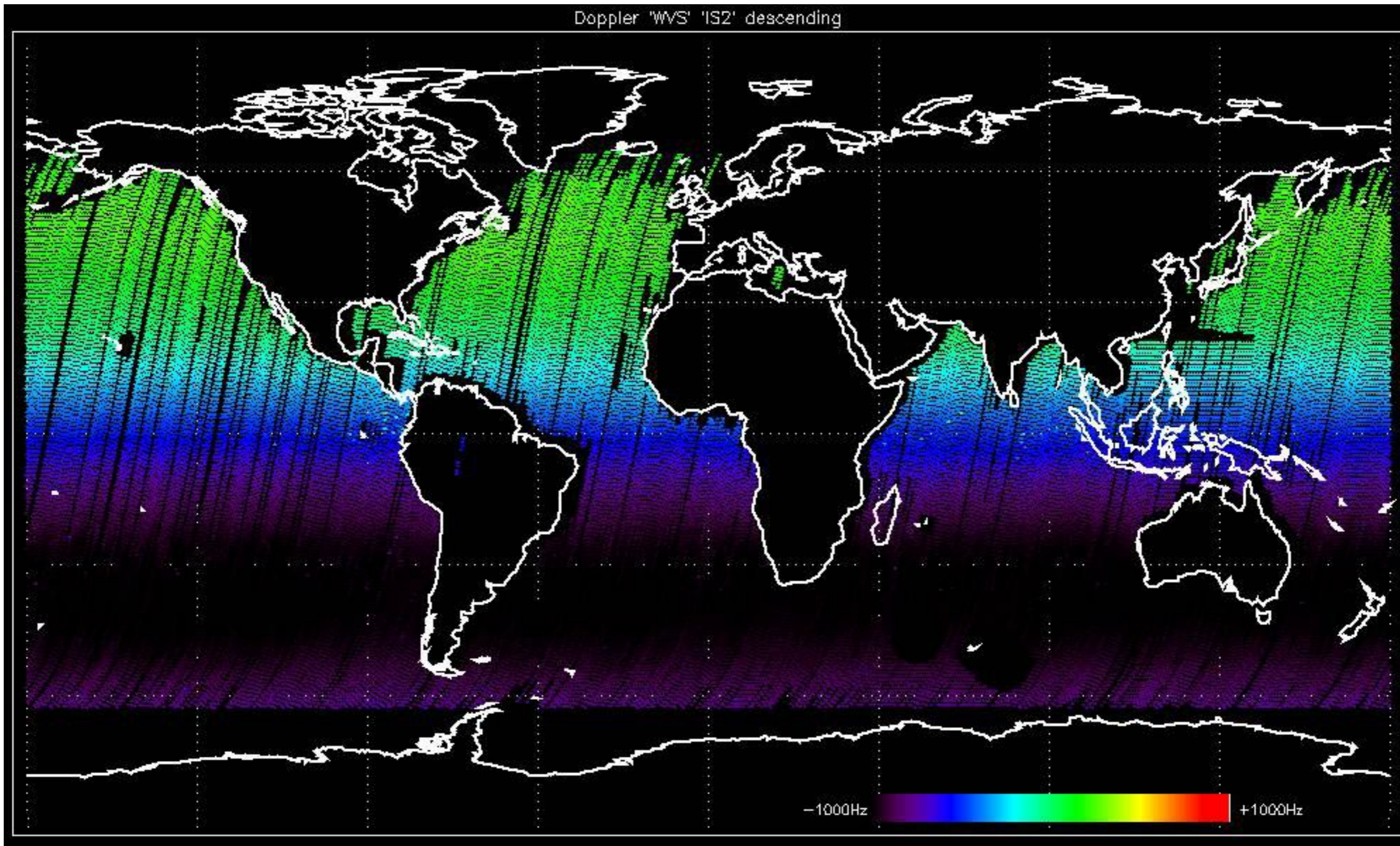
Doppler 'GM1' 'SS1' descending

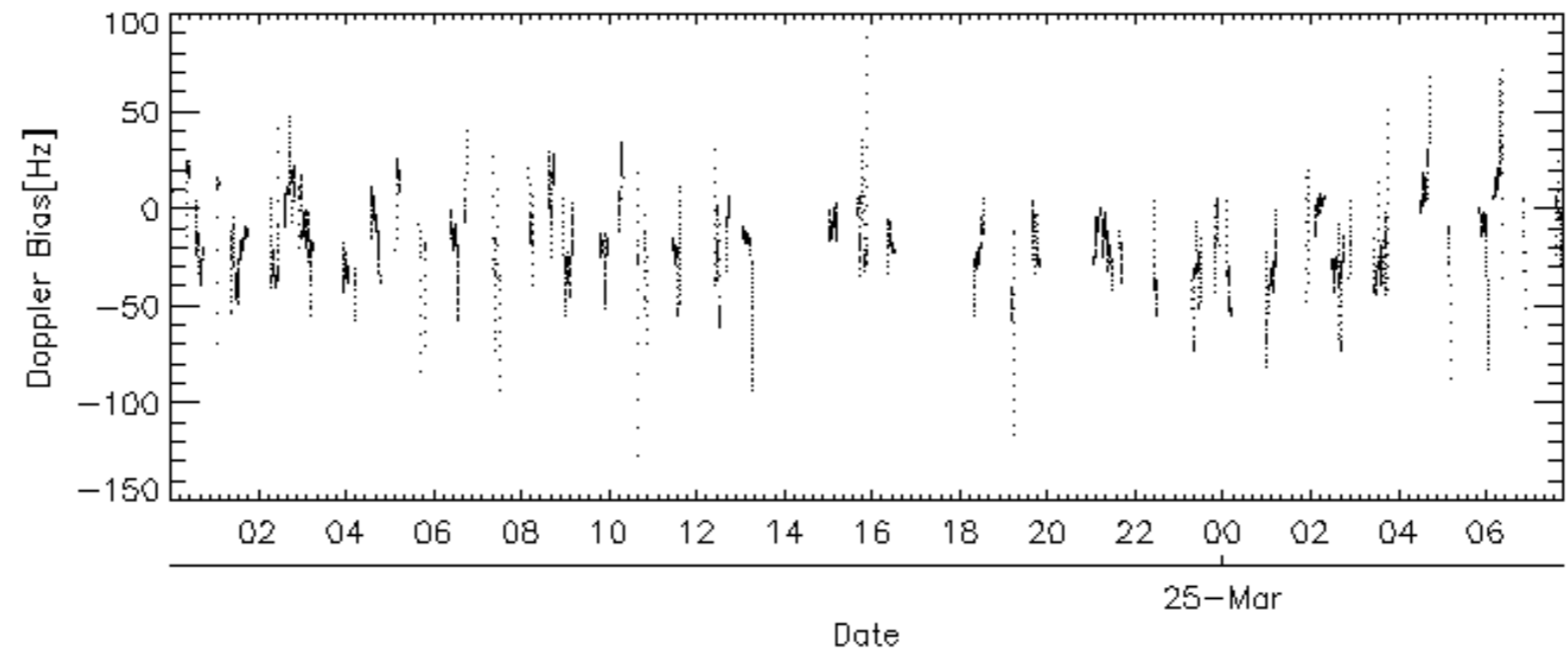
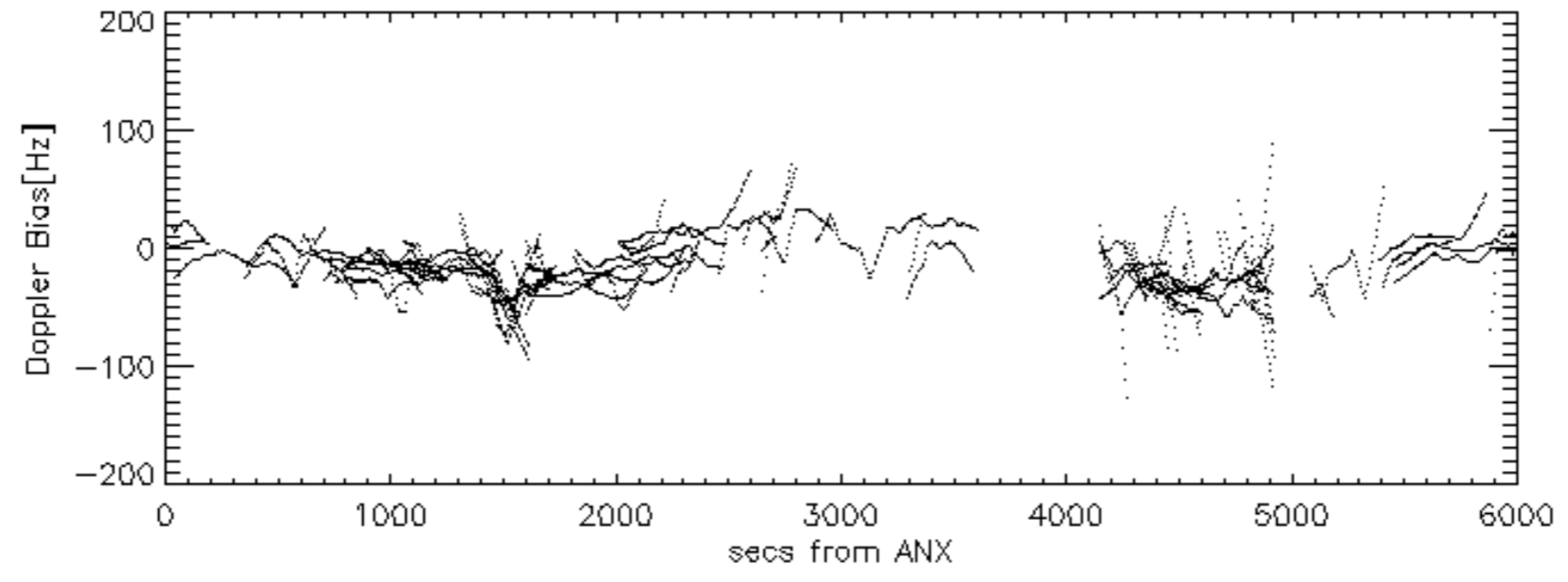
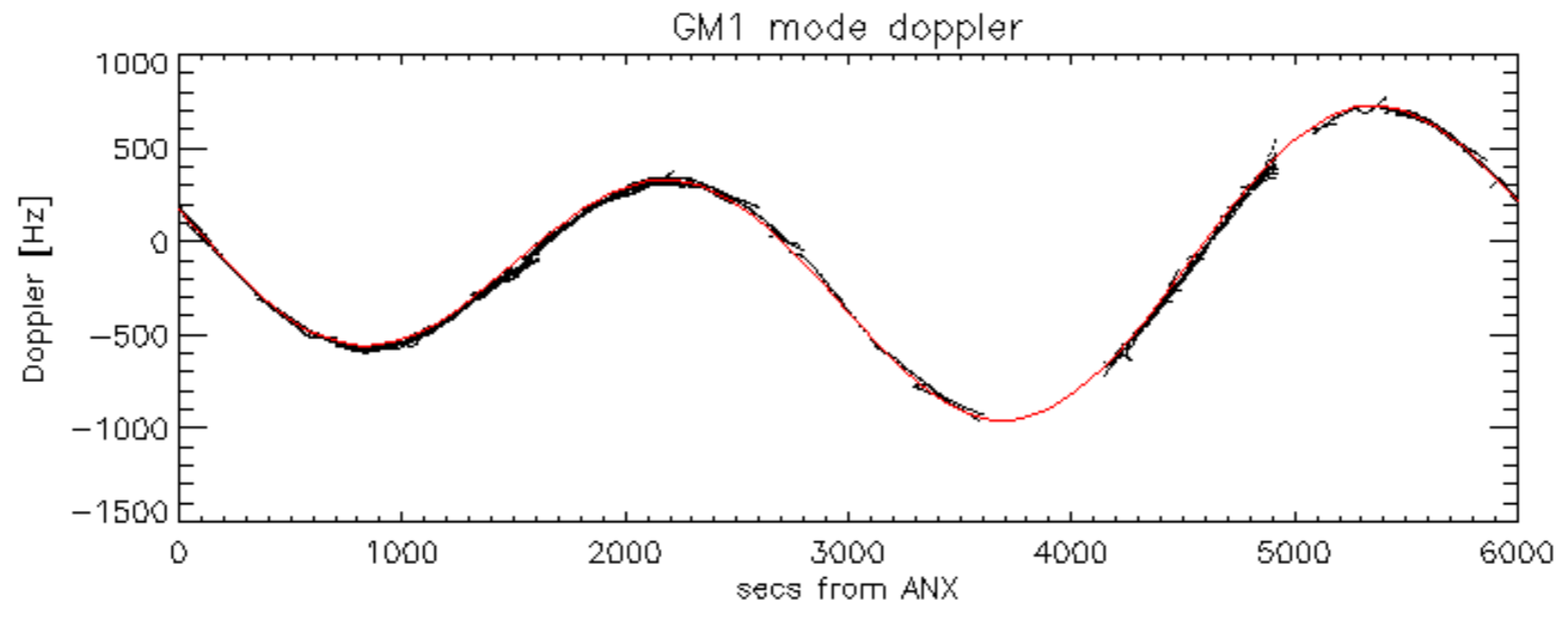


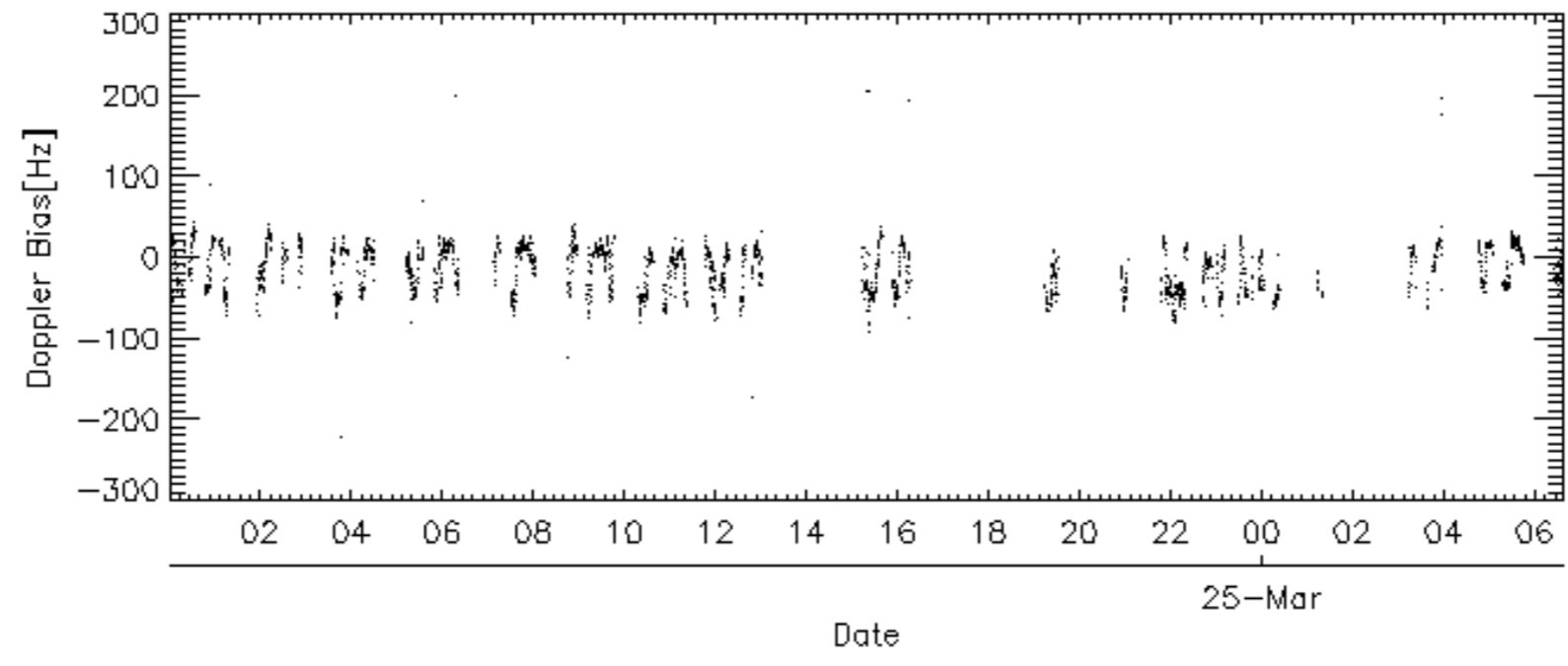
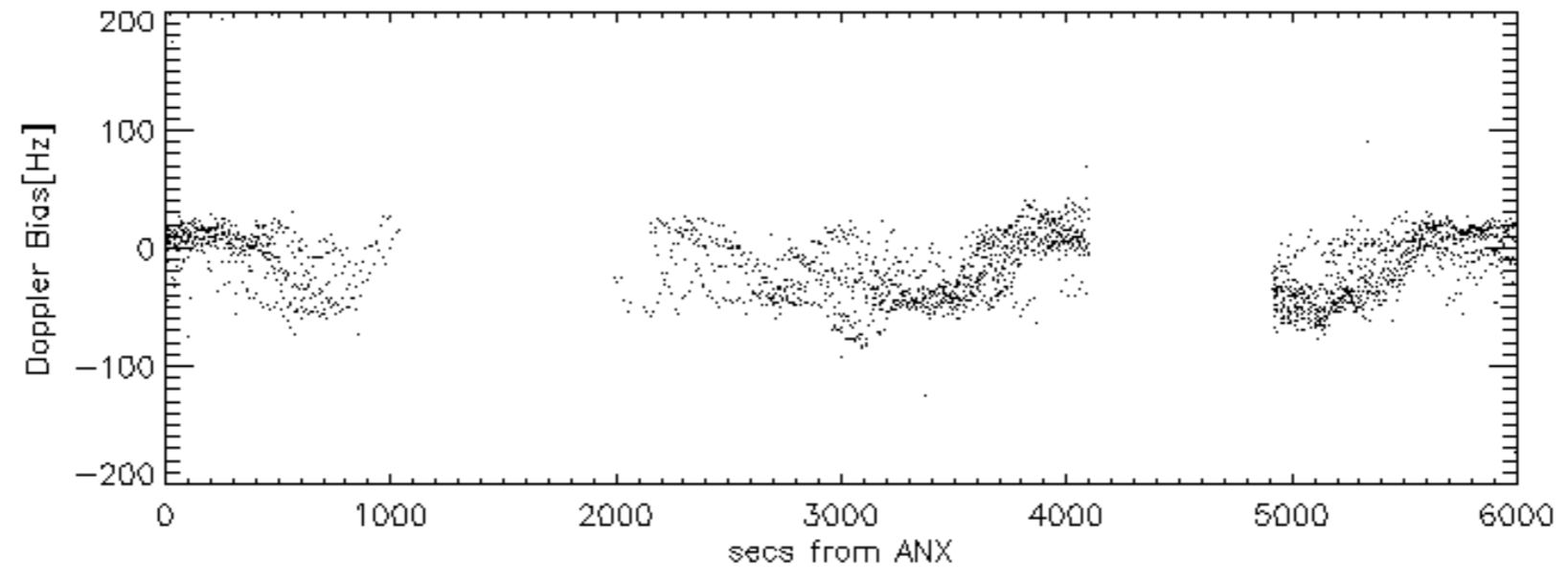
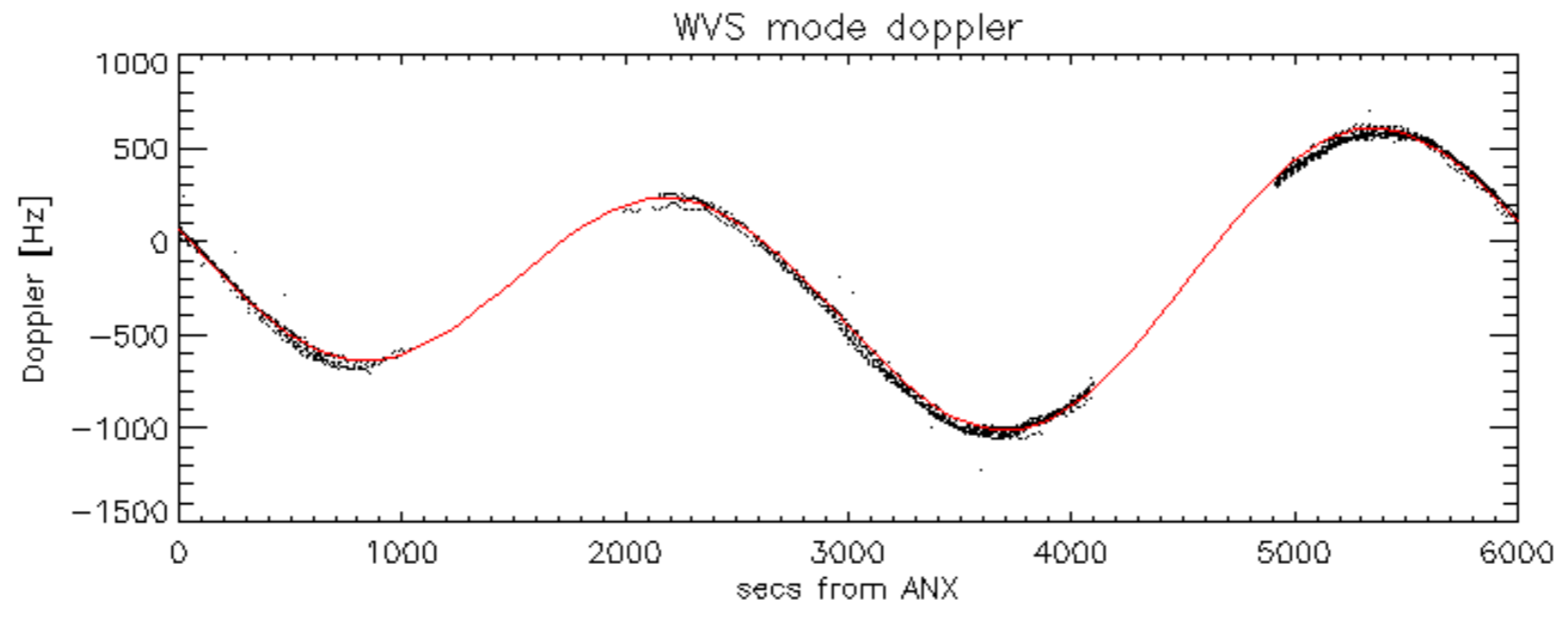
Doppler 'WVS' 'IS2' ascending



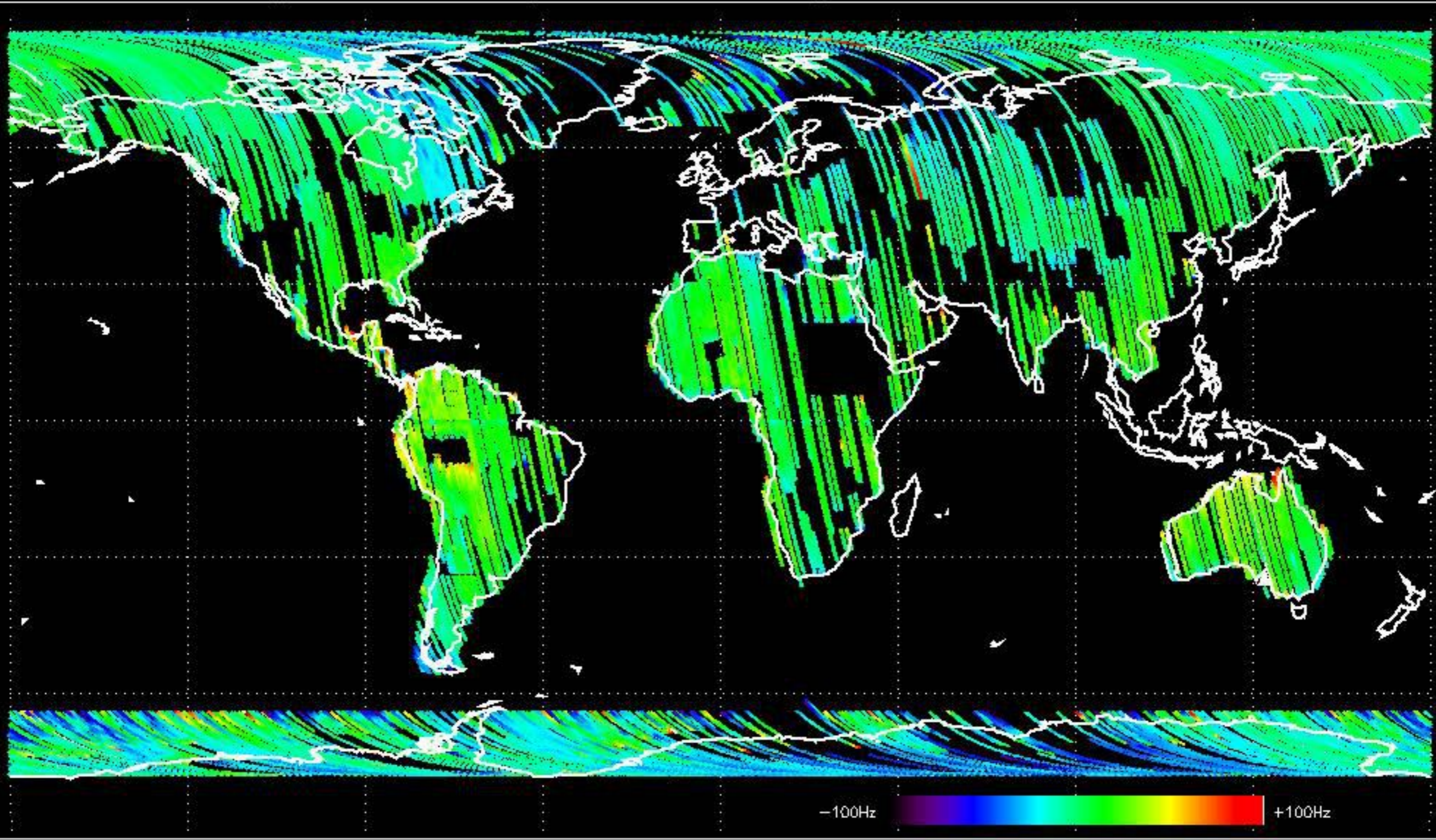
Doppler 'WVS' 'IS2' descending



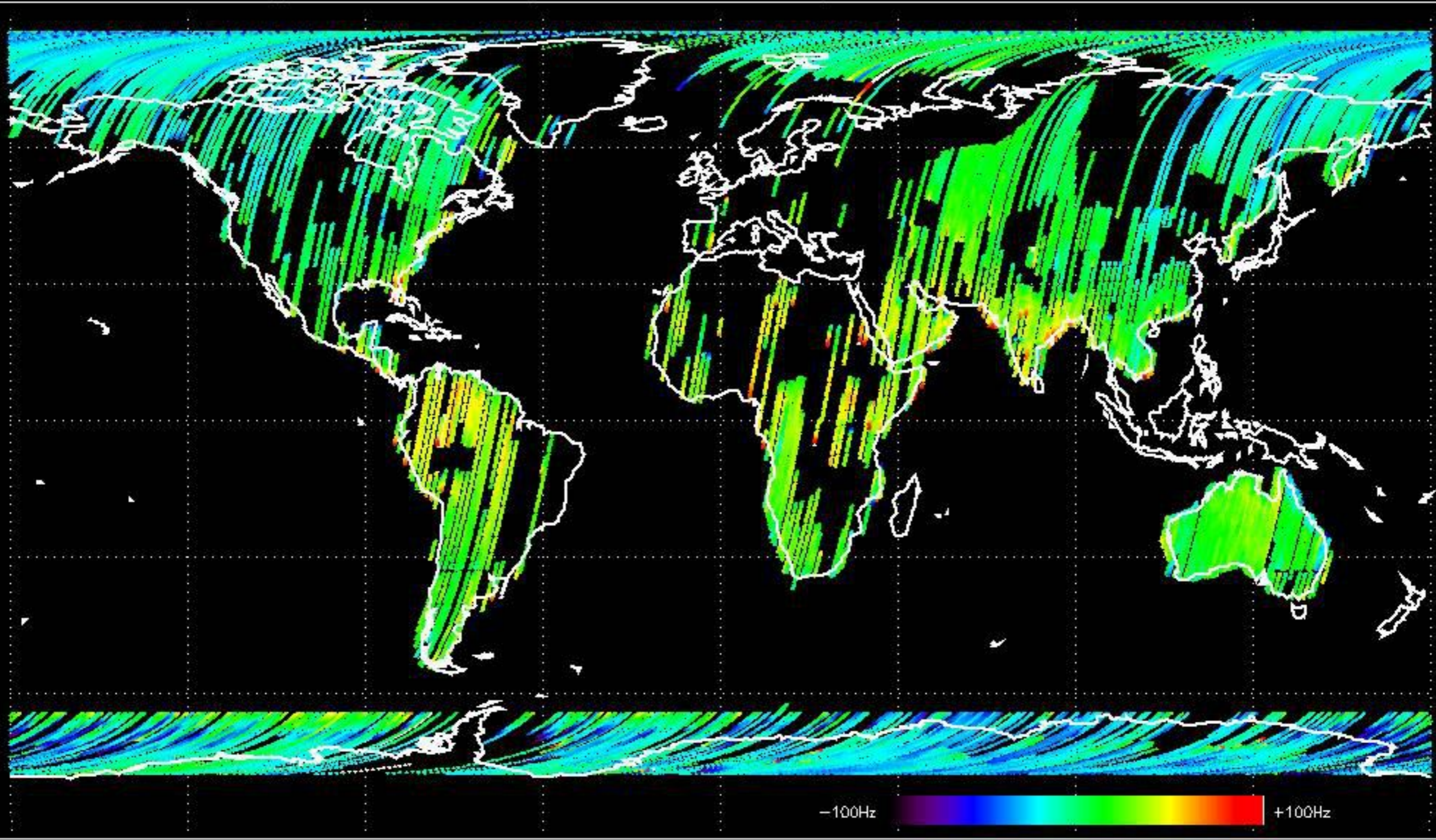




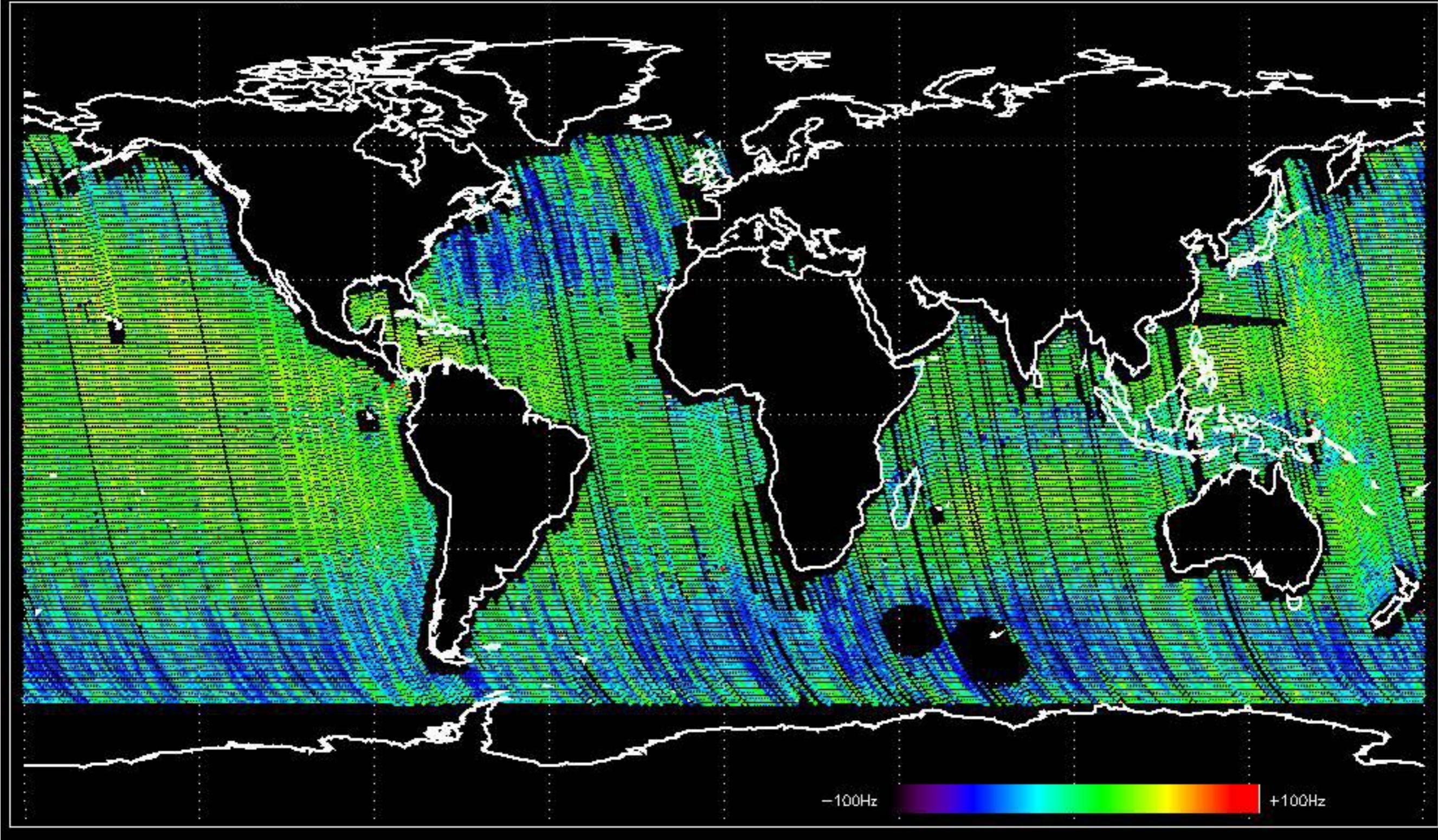
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.1281321 Hz



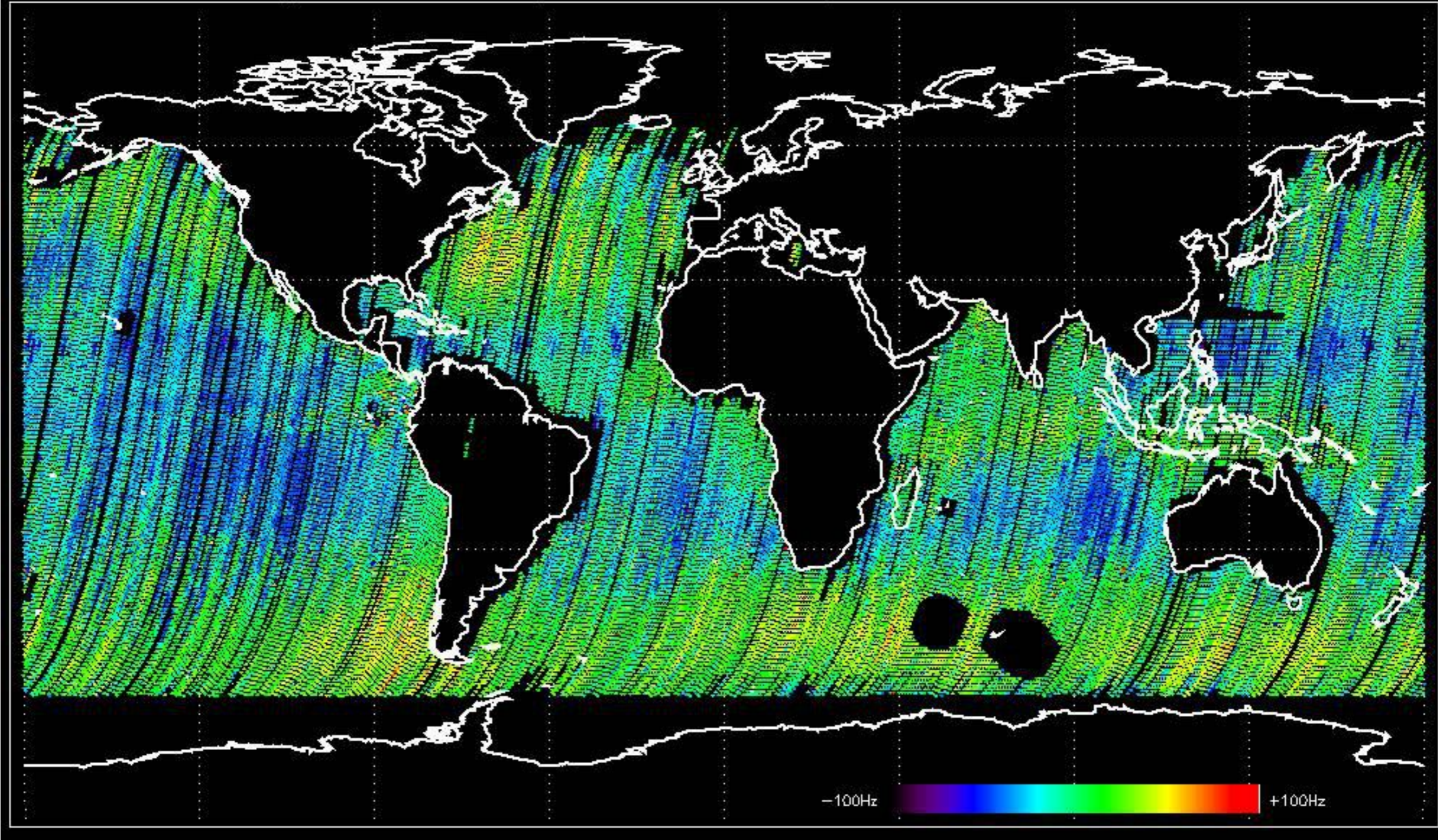
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.9033618 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.7536648 Hz

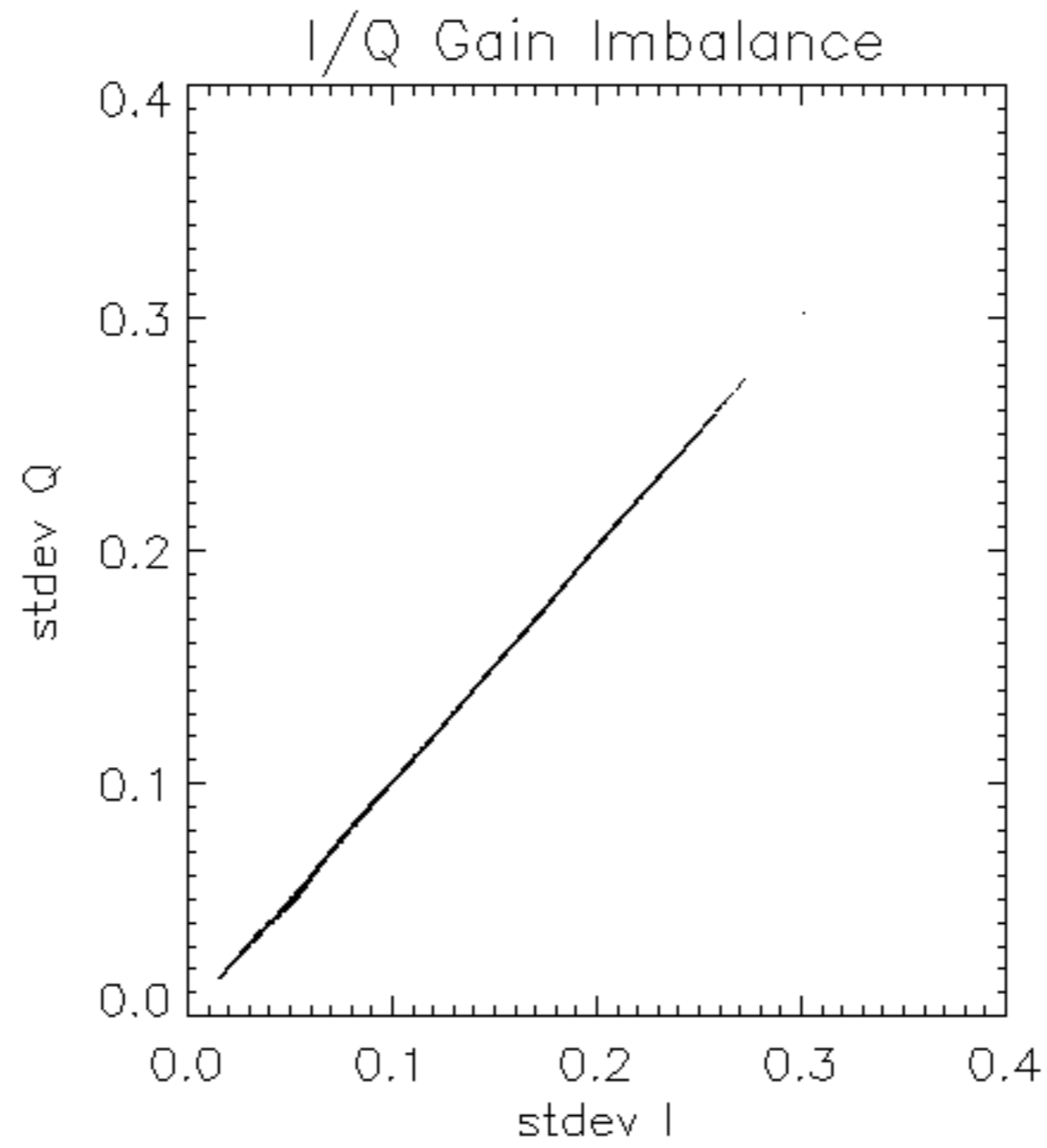


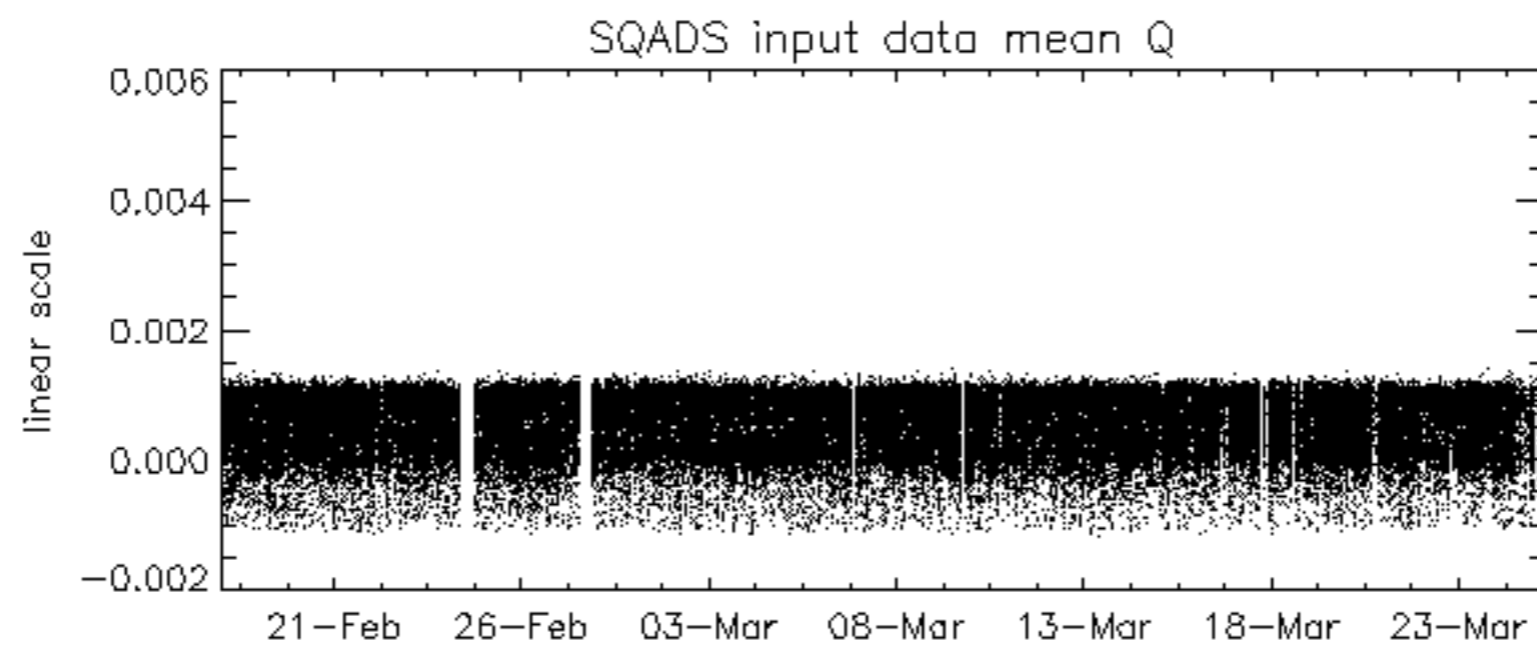
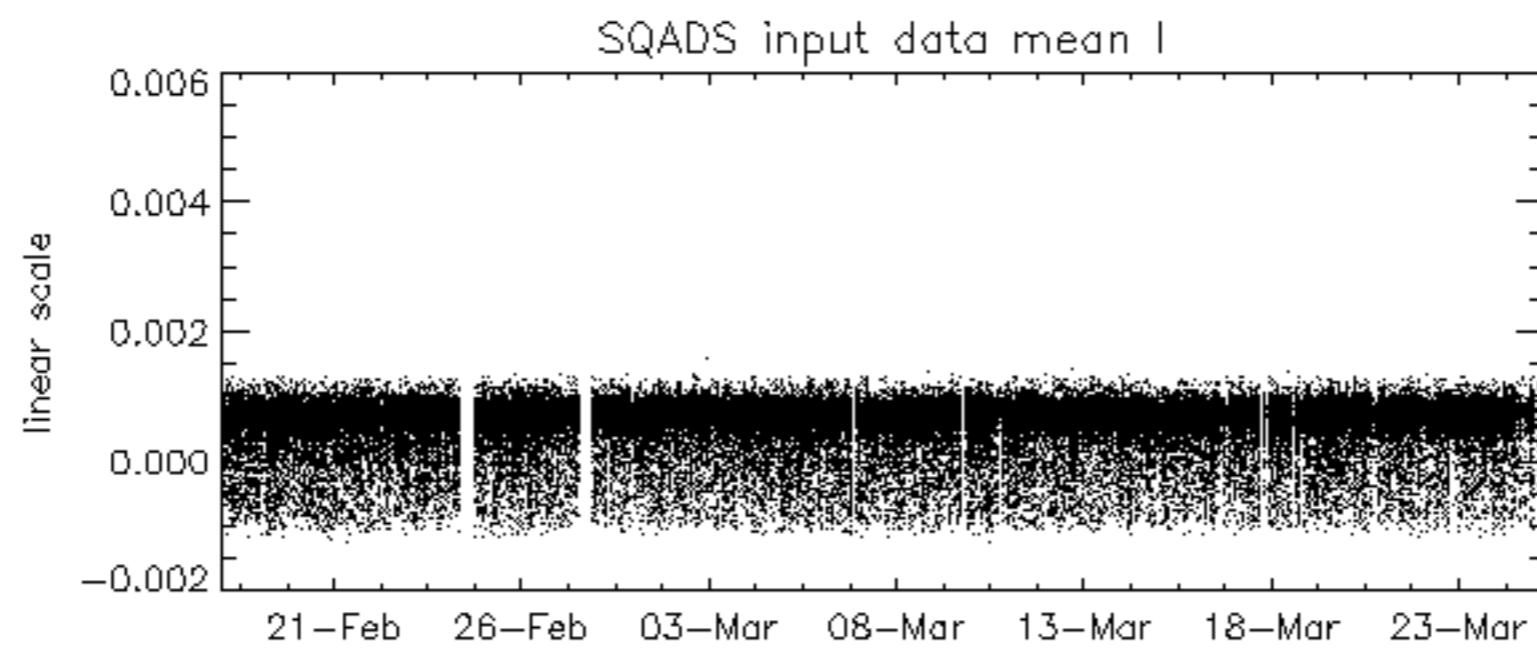
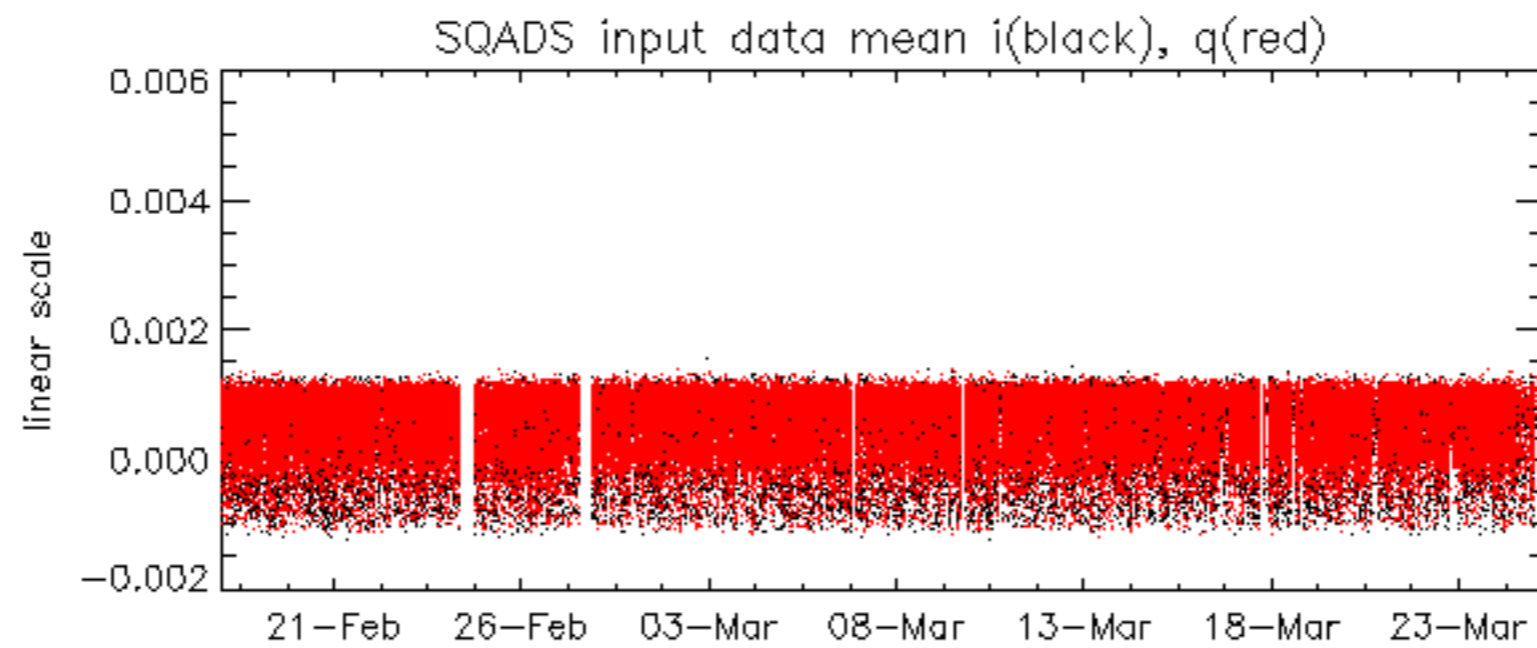
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.4933741 Hz

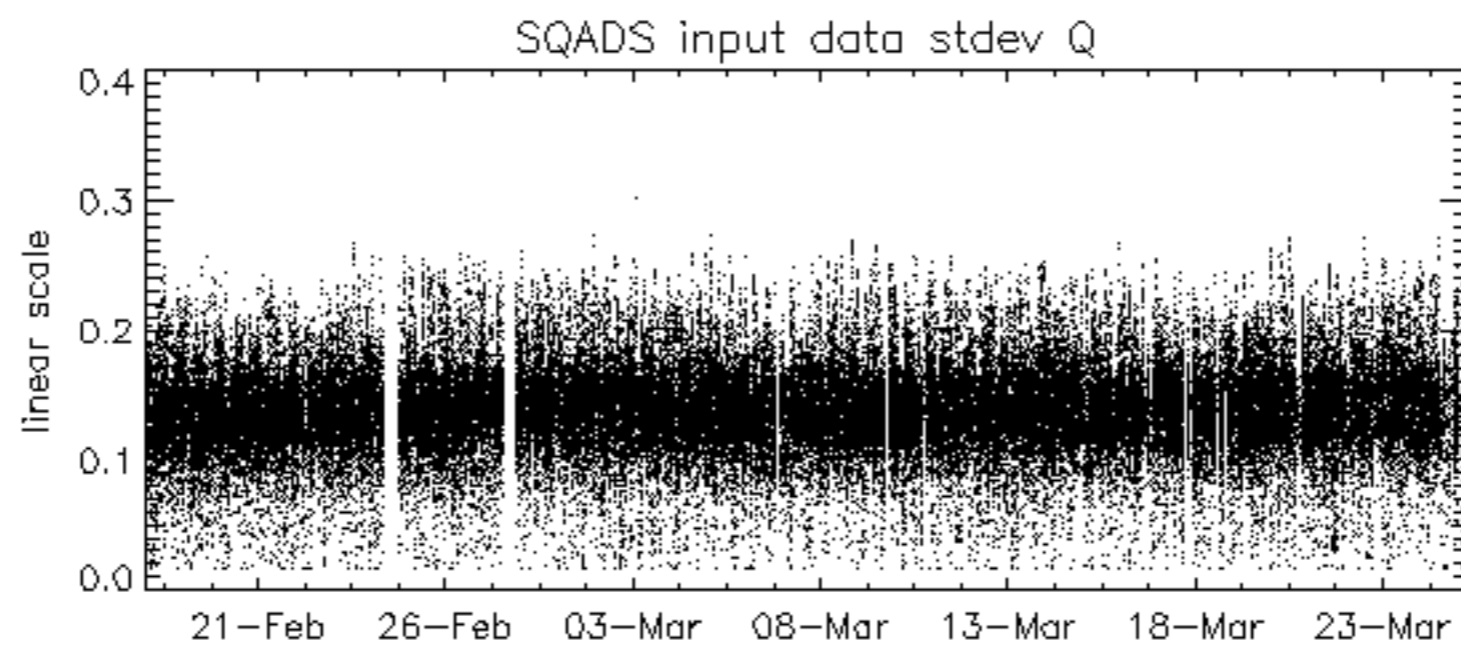
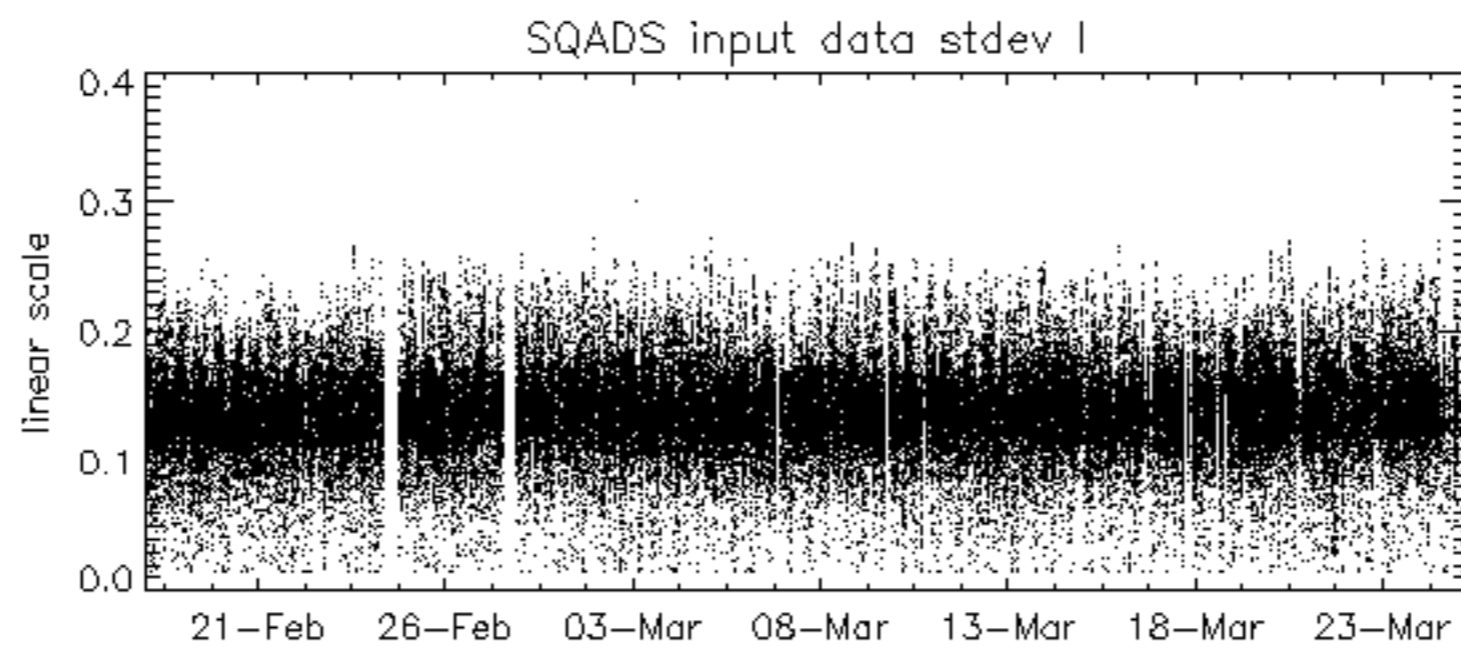
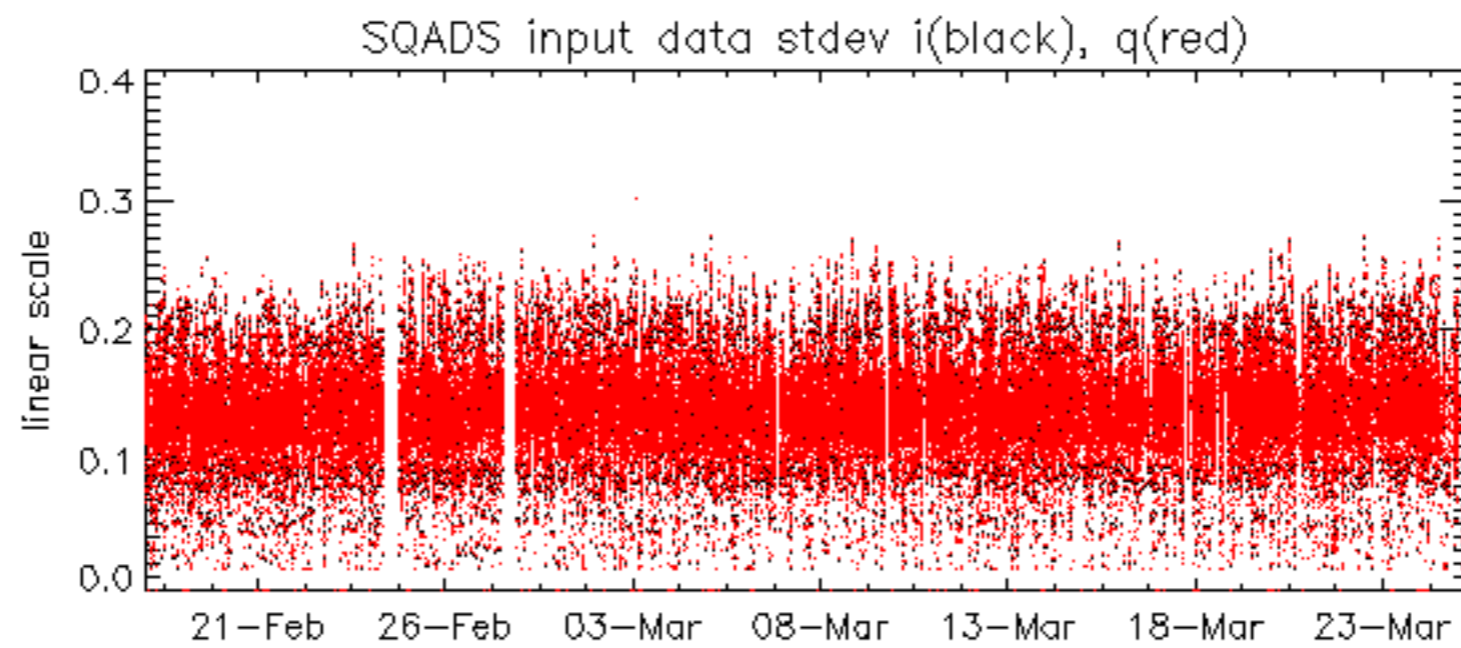


No anomalies observed on available MS products:

No anomalies observed.



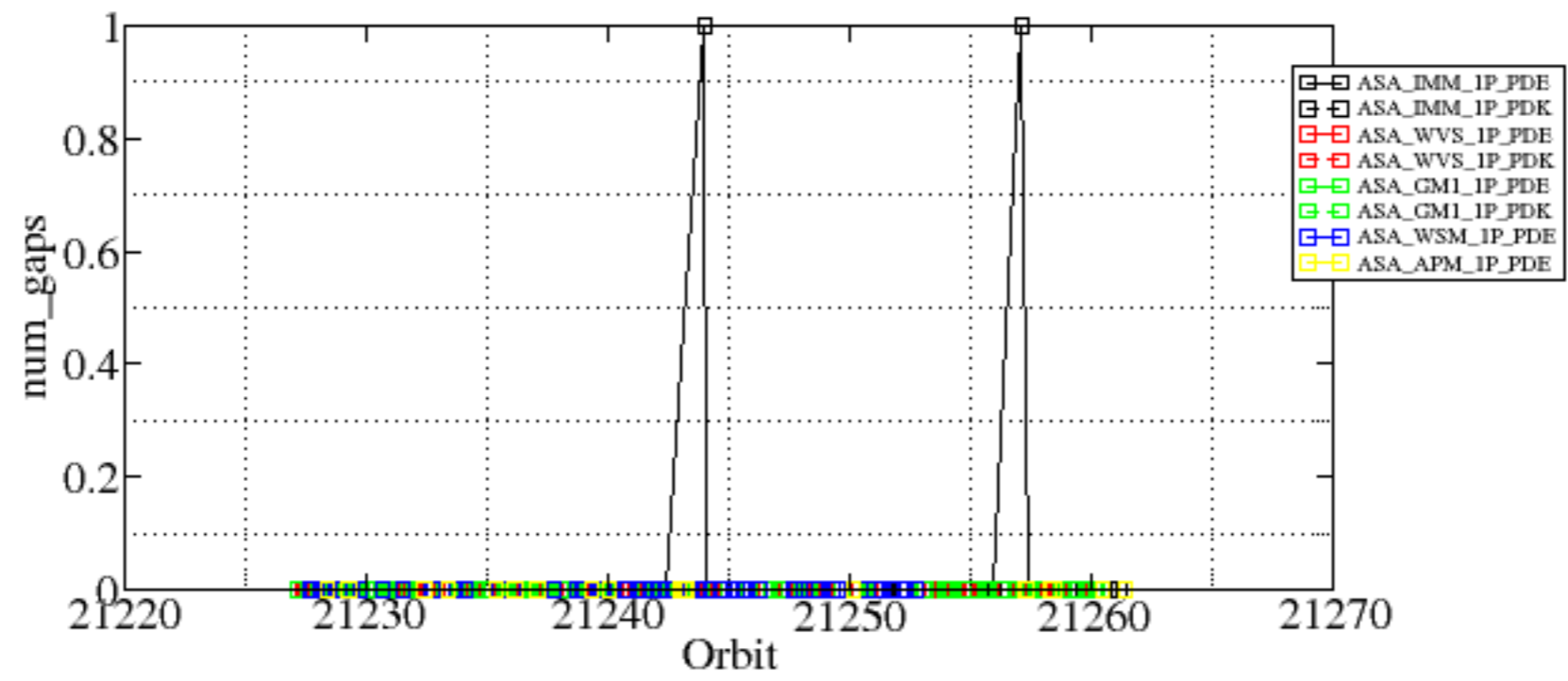




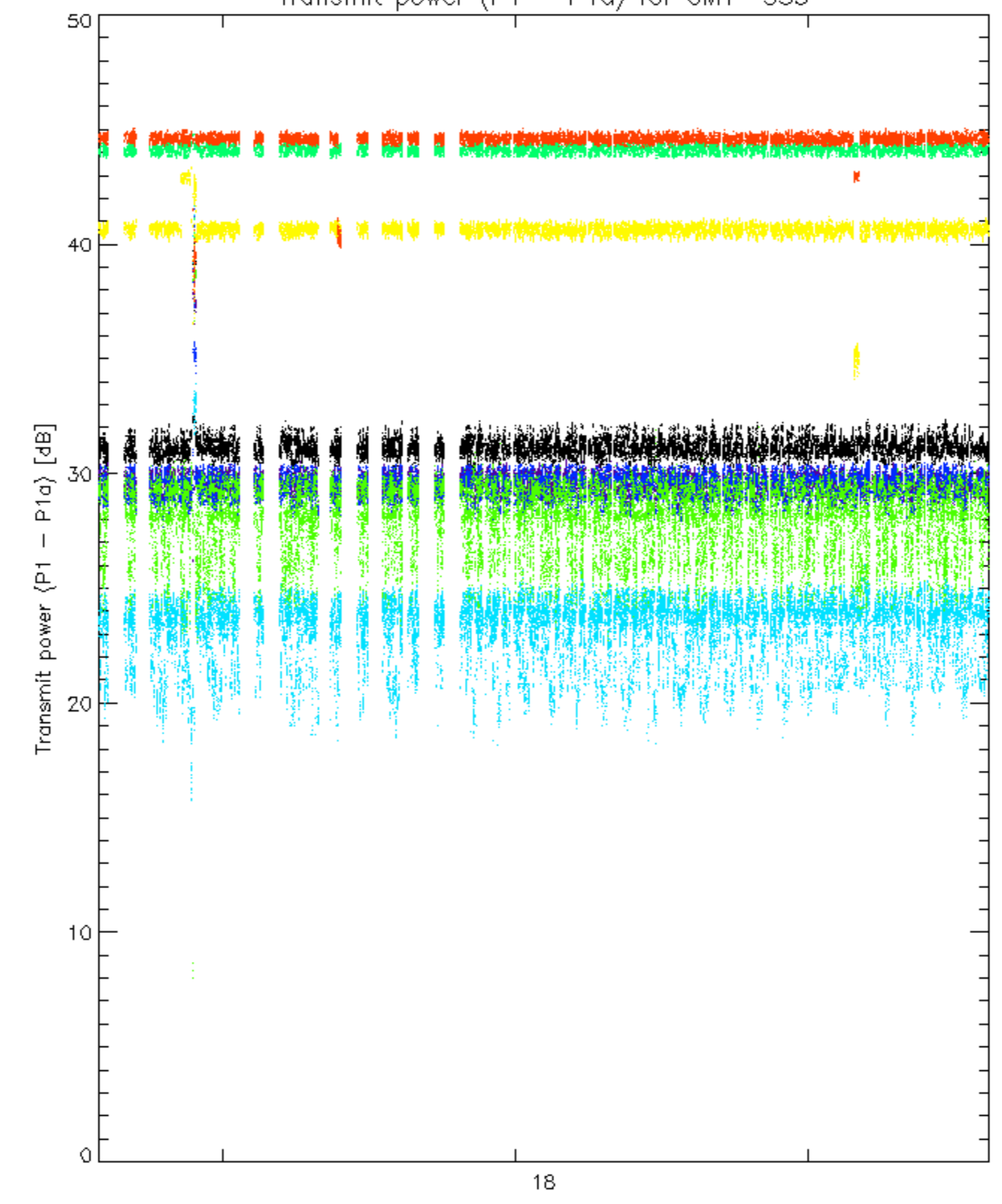
Summary of analysis for the last 3 days 2006032[345]

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

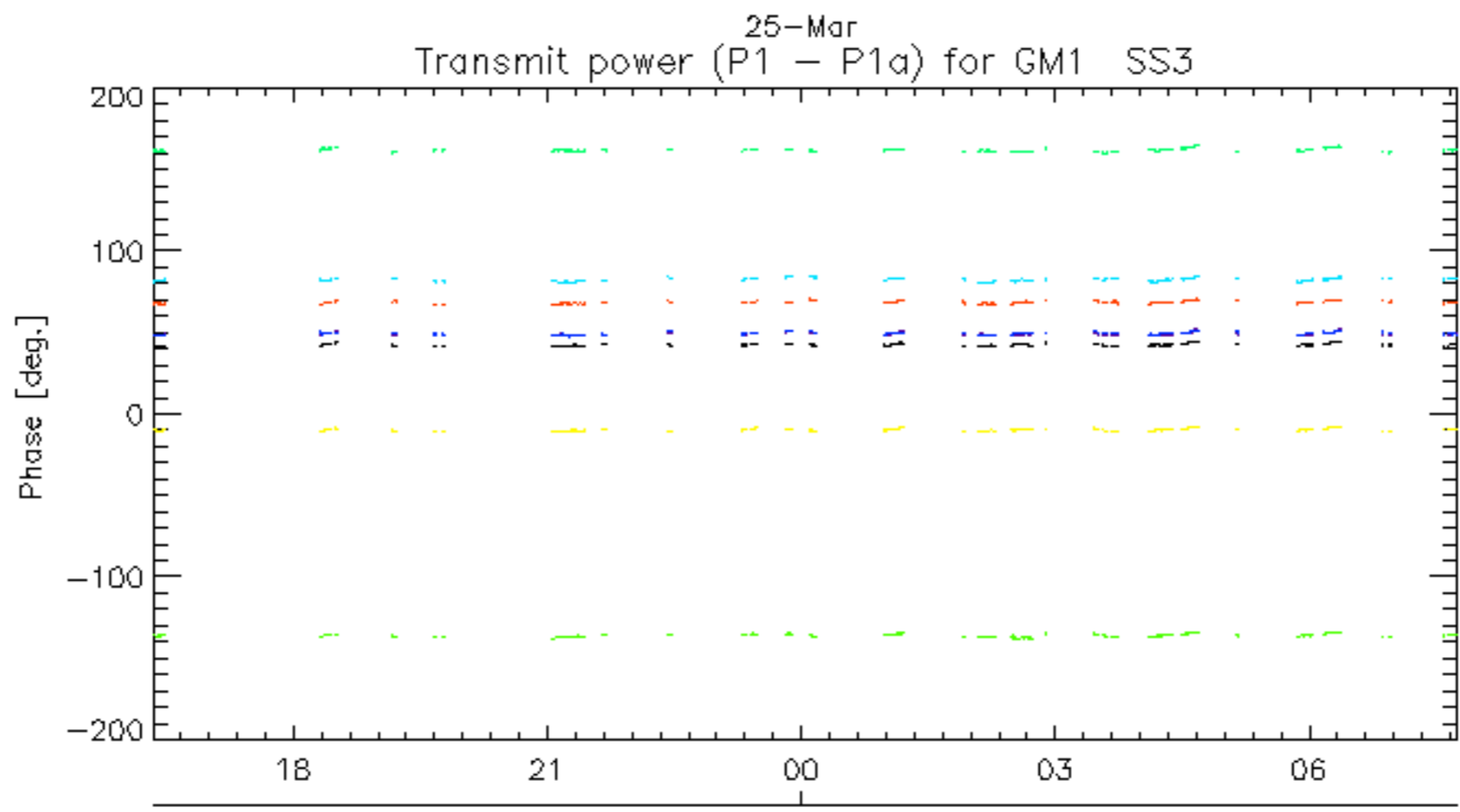
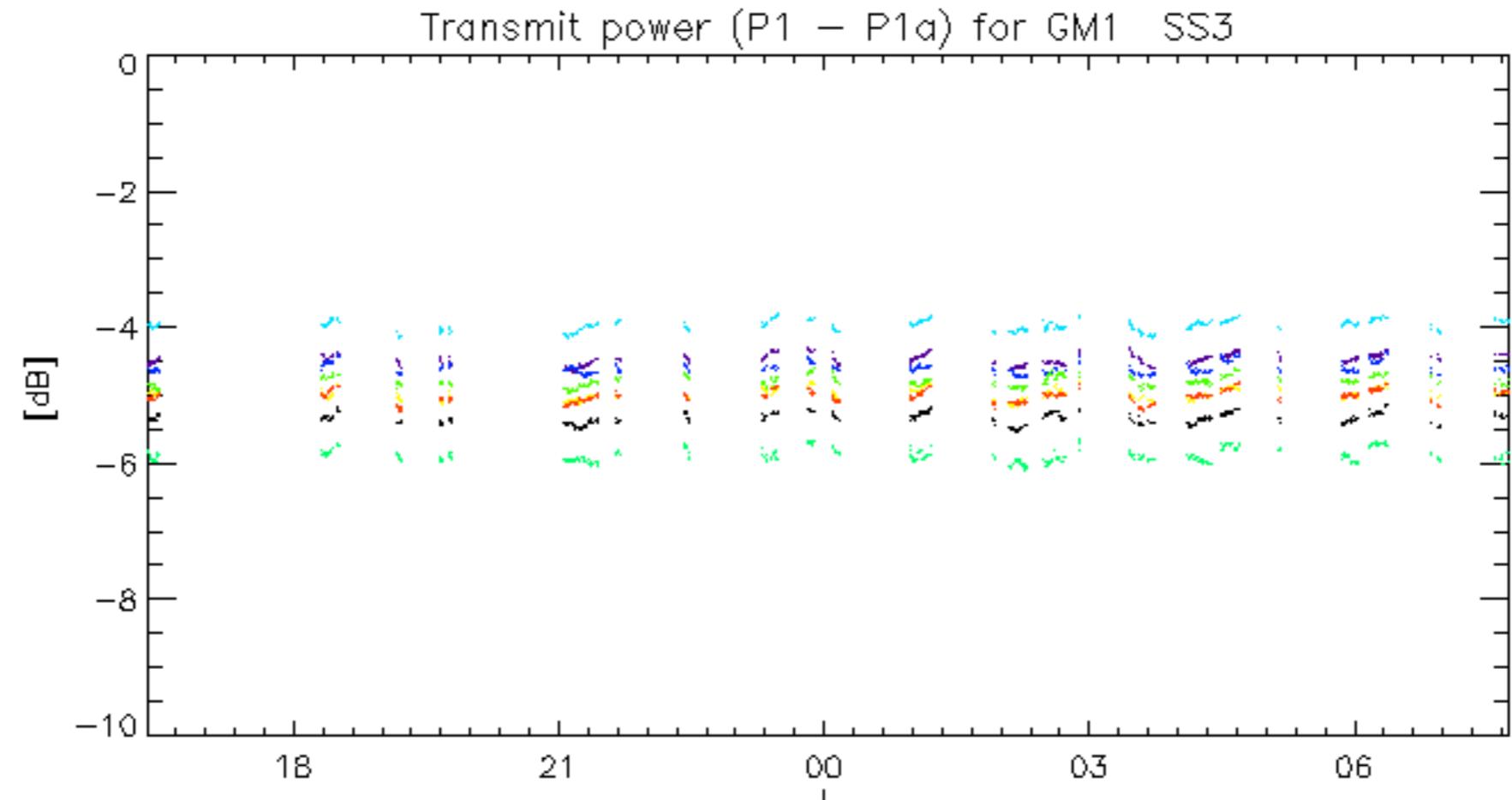
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060323_171613_00000622046_00141_21237_1423.N1	0	11
ASA_IMM_1PNPDE20060324_042639_00000522046_00147_21243_1443.N1	1	0
ASA_IMM_1PNPDE20060325_022726_00000692046_00161_21257_1486.N1	1	0
ASA_WSM_1PNPDE20060323_022501_000001282046_00132_21228_2100.N1	0	40
ASA_WSM_1PNPDE20060323_193804_00000182046_00142_21238_2168.N1	0	329
ASA_WSM_1PNPDE20060324_001349_000002262046_00145_21241_2219.N1	0	34
ASA_WSM_1PNPDE20060324_133838_00000852046_00153_21249_2321.N1	0	27
ASA_WSM_1PNPDE20060324_161721_000002202046_00155_21251_2319.N1	0	18



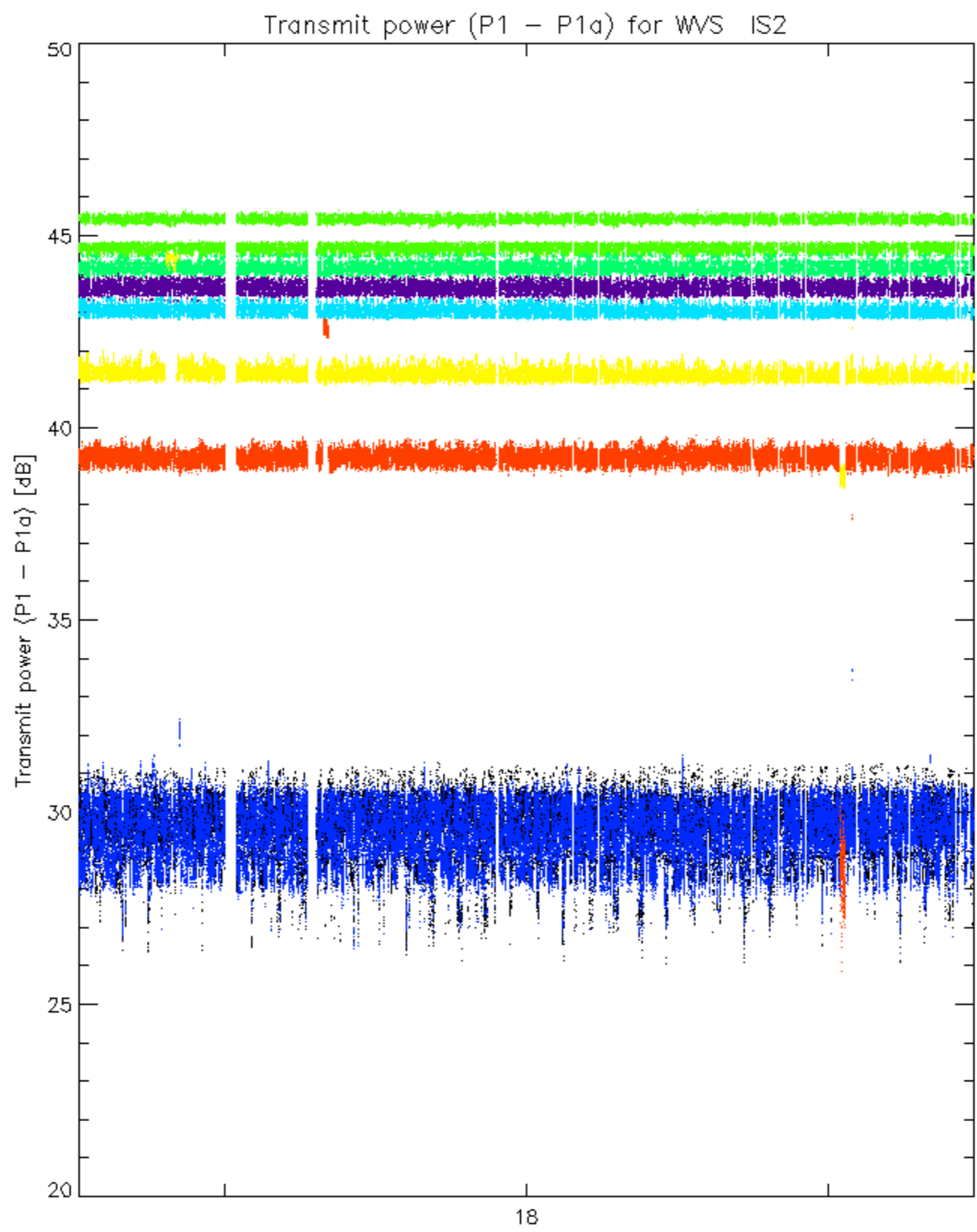
Transmit power (P1 - P1a) for GM1 SS3



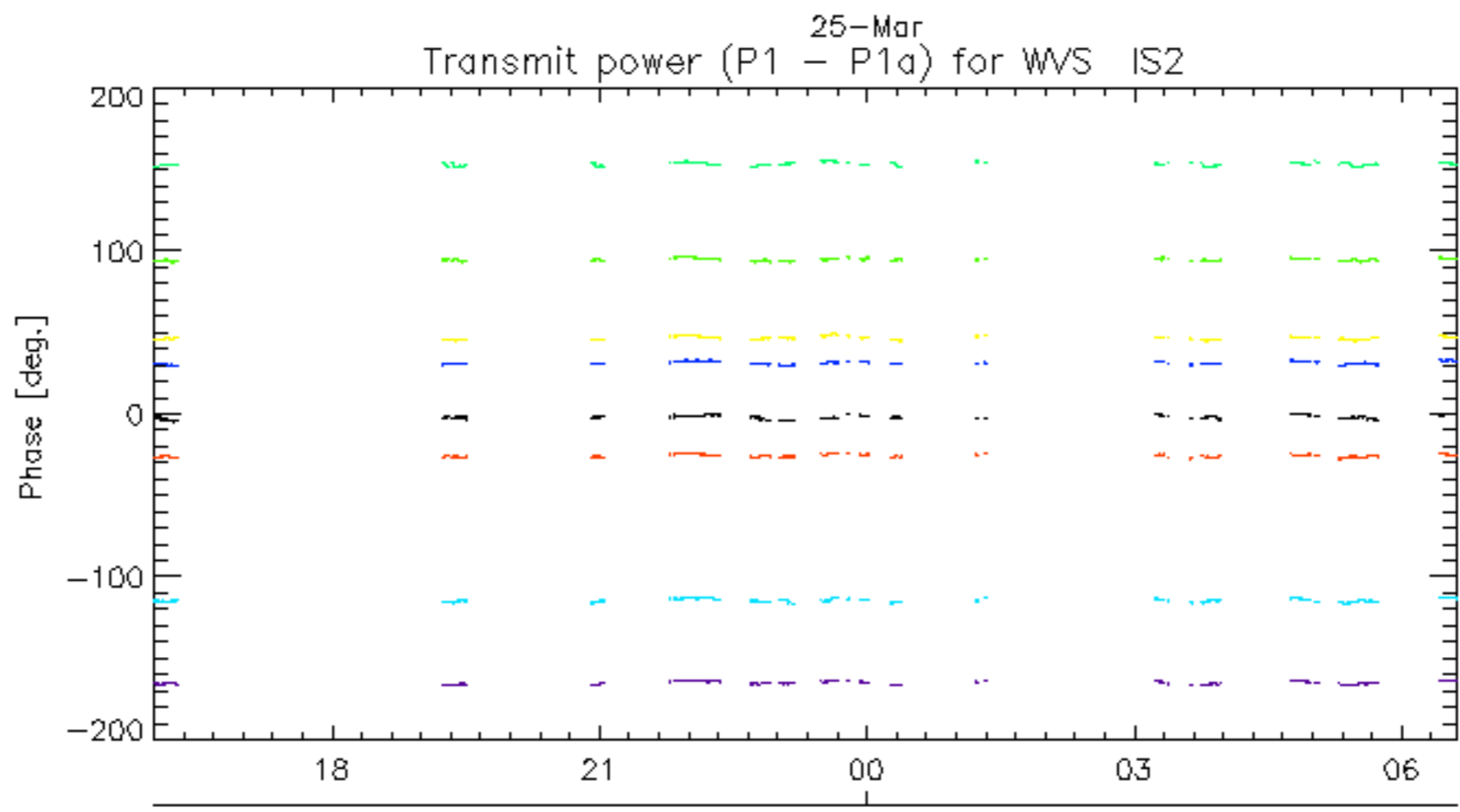
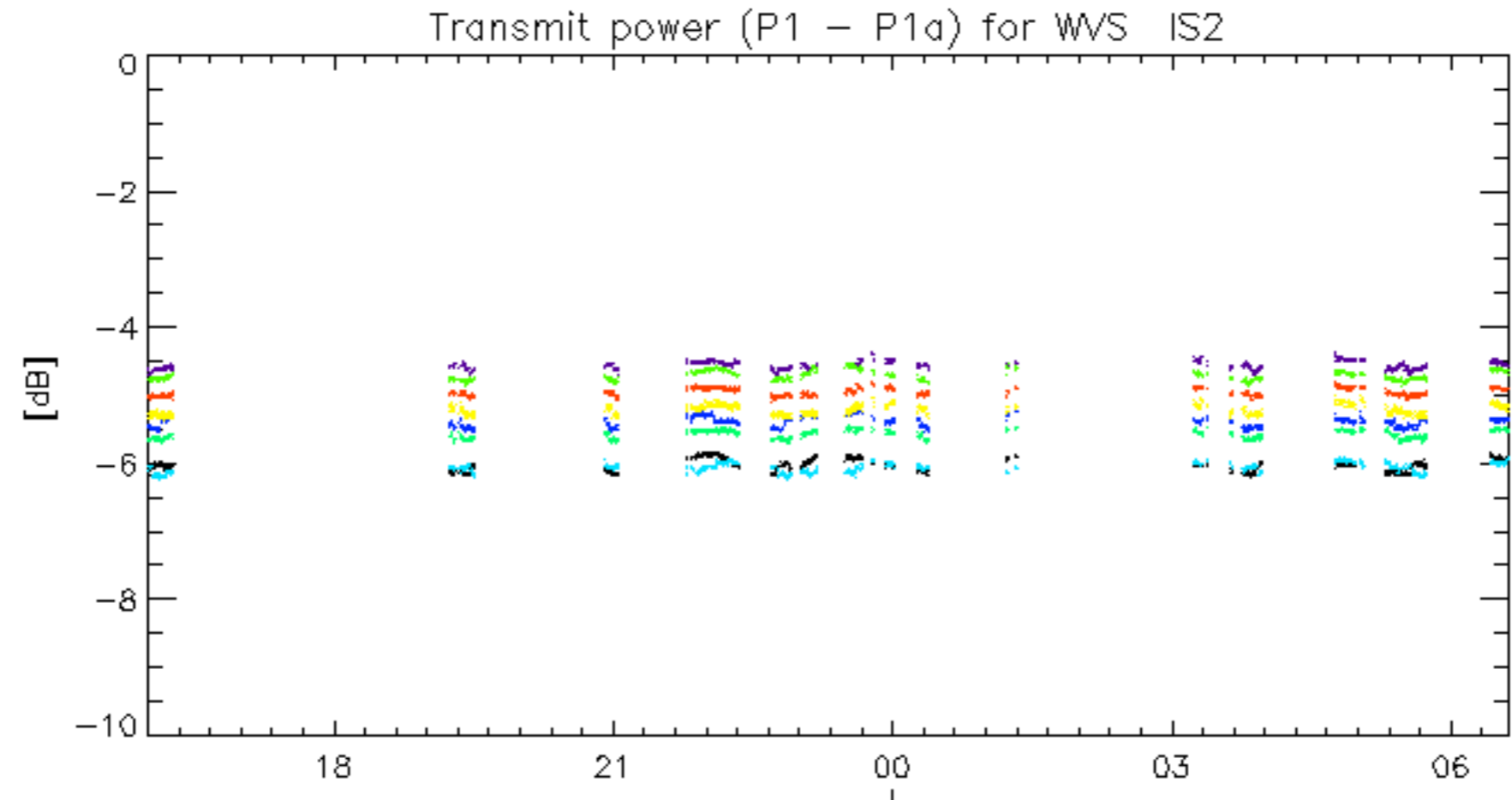
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.