

PRELIMINARY REPORT OF 060504

last update on Thu May 4 16:35:06 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 2006-05-03 00:00:00 to 2006-05-04 16:35:06

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	81	6	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	81	6	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	81	6	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	81	6	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	61	28	16	62
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	42	61	28	16	62
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	61	28	16	62
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	61	28	16	62

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20060503 043733
H	20060502 050910

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

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	-3.975907	0.011730	0.014481
7	P1	-3.047936	0.011305	-0.031824
11	P1	-4.084335	0.016035	-0.035948
15	P1	-6.097982	0.012853	-0.020796
19	P1	-3.311256	0.007262	0.028792
22	P1	-4.515201	0.011353	-0.044537
26	P1	-4.056190	0.019665	0.125099
30	P1	-5.736638	0.022217	0.016780
3	P1	-16.707174	0.314072	0.140059
7	P1	-16.929522	0.147881	-0.142810
11	P1	-16.682711	0.322861	-0.394395
15	P1	-13.083997	0.127271	-0.162111
19	P1	-14.115557	0.048064	-0.216406
22	P1	-15.997739	0.486492	-0.407377
26	P1	-15.506963	0.262638	0.492872
30	P1	-16.733673	0.297372	-0.405524

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.303667	0.086252	0.072477
7	P2	-22.212397	0.100964	0.105946
11	P2	-16.060768	0.111220	0.183448
15	P2	-7.165027	0.097616	0.003407
19	P2	-9.149643	0.090145	-0.018677
22	P2	-18.039255	0.089138	-0.107016
26	P2	-16.295679	0.094926	-0.082719
30	P2	-19.609596	0.088274	0.013071

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.190441	0.004667	0.002239
7	P3	-8.190441	0.004667	0.002239
11	P3	-8.190441	0.004667	0.002239
15	P3	-8.190441	0.004667	0.002239
19	P3	-8.190441	0.004667	0.002239
22	P3	-8.190441	0.004667	0.002239
26	P3	-8.190460	0.004668	0.002207
30	P3	-8.190460	0.004668	0.002207

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	-3.748437	0.029696	0.011477
7	P1	-2.676877	0.120679	0.086557
11	P1	-2.890383	0.035878	0.077760
15	P1	-3.521920	0.031963	0.056606
19	P1	-3.381469	0.013206	-0.011267
22	P1	-5.130500	0.023365	0.081372
26	P1	-5.812012	0.025315	-0.039281
30	P1	-5.177675	0.049561	0.001582
3	P1	-11.590985	0.114873	-0.022509
7	P1	-9.978754	0.181480	0.037467
11	P1	-10.237597	0.089313	0.108663
15	P1	-10.709086	0.137006	0.150508
19	P1	-15.441161	0.089618	-0.085726
22	P1	-20.619383	1.264463	-0.505588

26	P1	-16.365383	0.409724	-0.221009
30	P1	-18.280924	0.488598	0.331159

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.968365	0.071491	0.076574
7	P2	-22.505760	0.191556	-0.075561
11	P2	-11.193724	0.052511	-0.008262
15	P2	-4.860162	0.042964	-0.063789
19	P2	-6.856215	0.051139	-0.036865
22	P2	-8.150547	0.056921	-0.055518
26	P2	-24.036694	0.139246	-0.078997
30	P2	-22.049500	0.094262	0.000475

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024188	0.003710	-0.005744
7	P3	-8.024087	0.003730	-0.005636
11	P3	-8.024313	0.003693	-0.004995
15	P3	-8.024156	0.003717	-0.005621
19	P3	-8.024353	0.003716	-0.005696
22	P3	-8.024319	0.003721	-0.005551
26	P3	-8.024192	0.003708	-0.004861
30	P3	-8.024223	0.003714	-0.005719

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	0.000551777
	stdev	1.81024e-07
MEAN Q	mean	0.000520699
	stdev	2.24332e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136683
	stdev	0.00116501
STDEV Q	mean	0.137043
	stdev	0.00118249



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006050[234]

The assumptions 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_1PNPDE20060502_003712_000001362047_00202_21799_3993.N1	1	0
ASA_WSM_1PNPDE20060502_012718_000001282047_00203_21800_7473.N1	0	66
ASA_WSM_1PNPDE20060502_112806_000001832047_00209_21806_7544.N1	0	2
ASA_WSM_1PNPDE20060503_183927_000002262047_00228_21825_7761.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

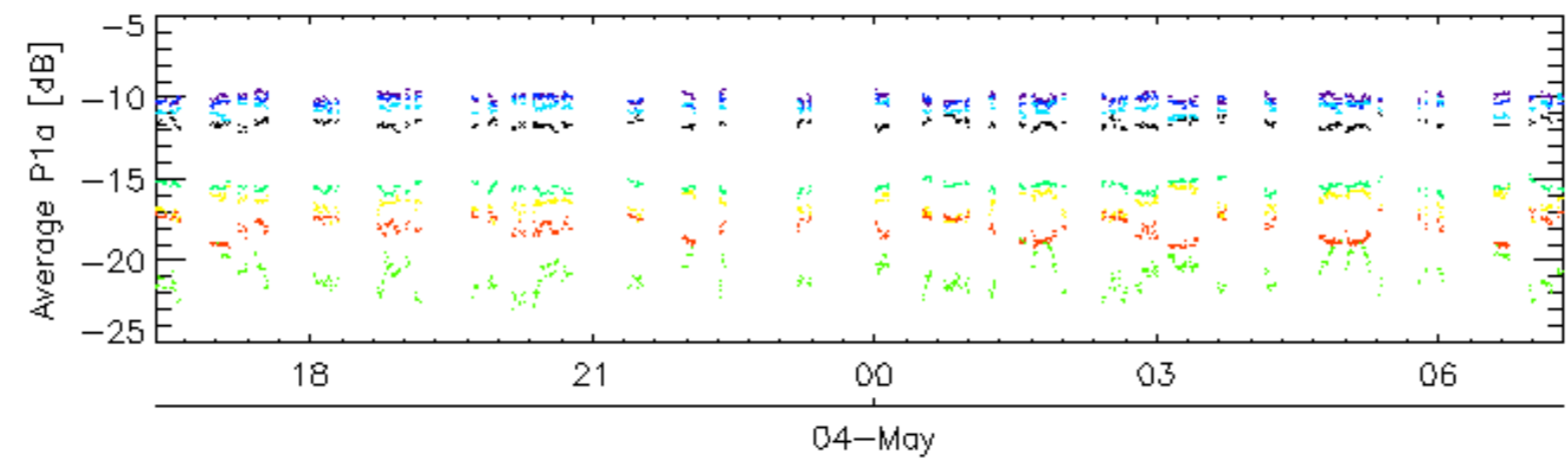
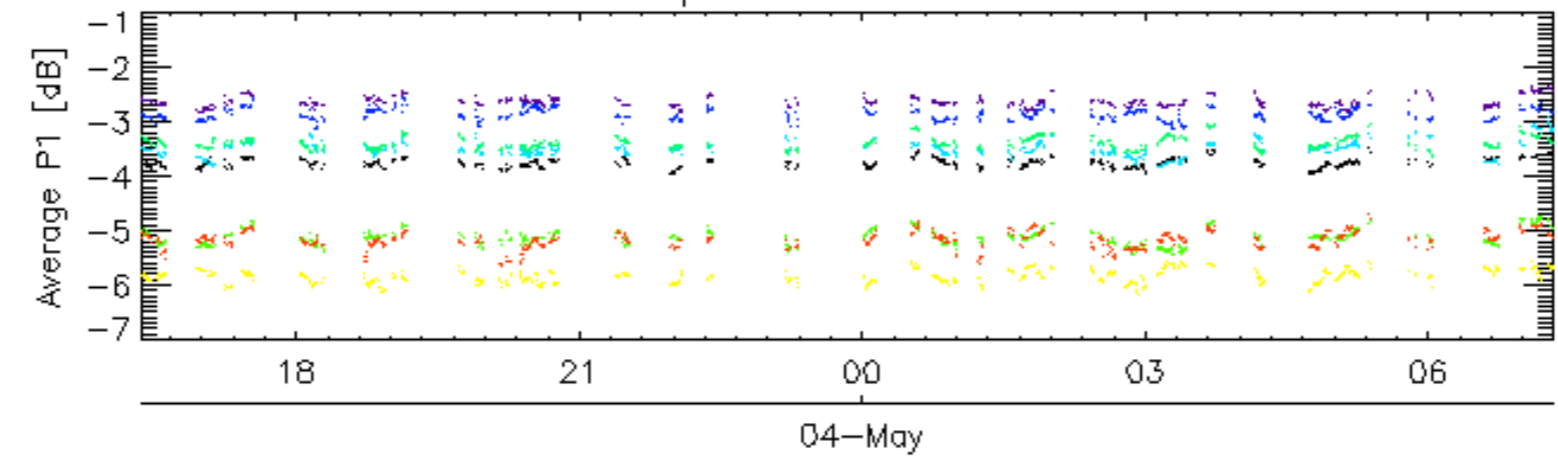
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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Acsending
<input type="checkbox"/>
Descending

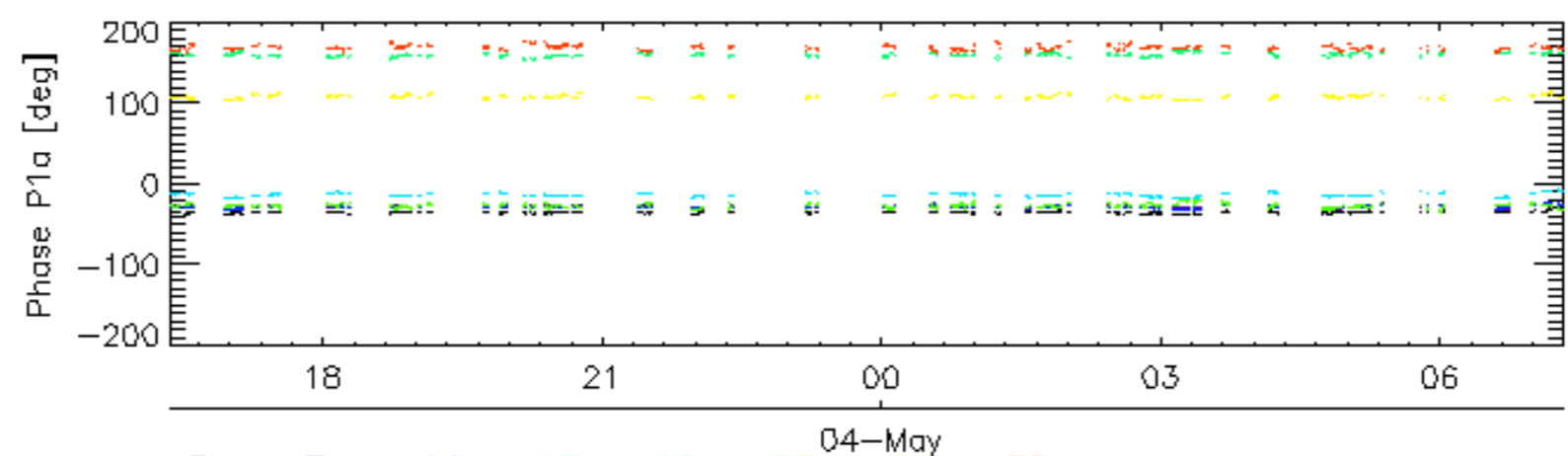
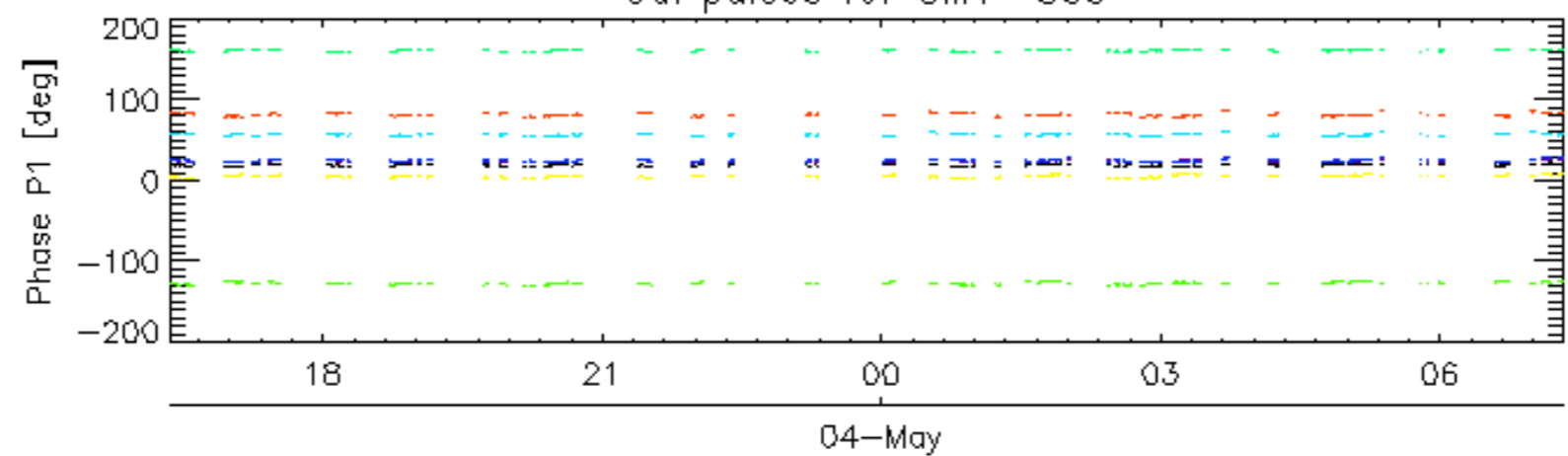
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

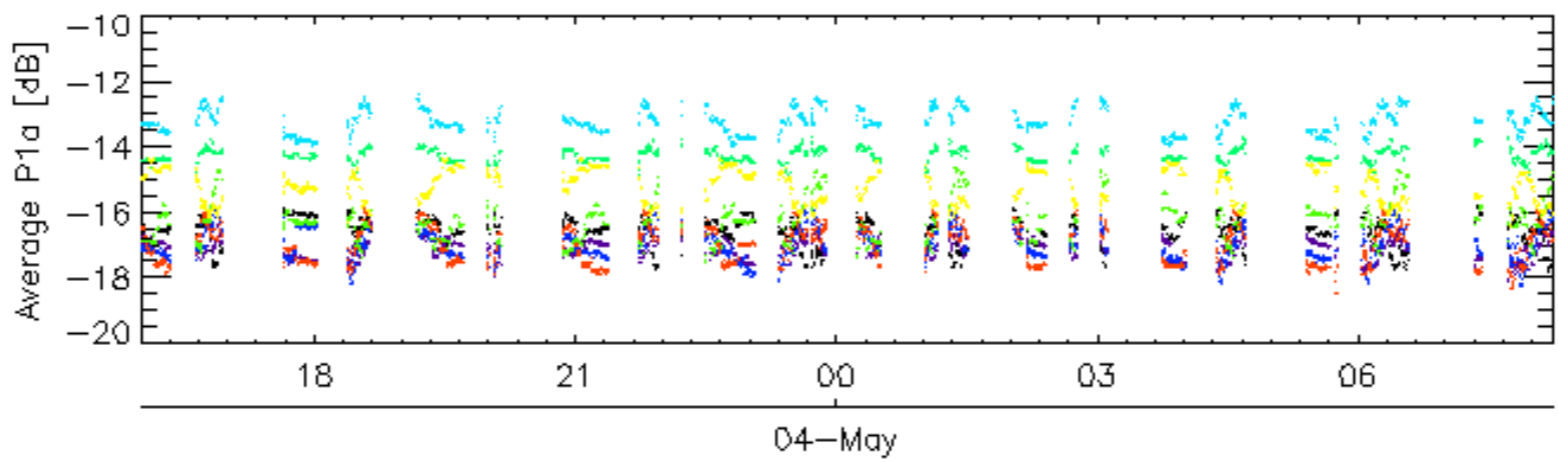
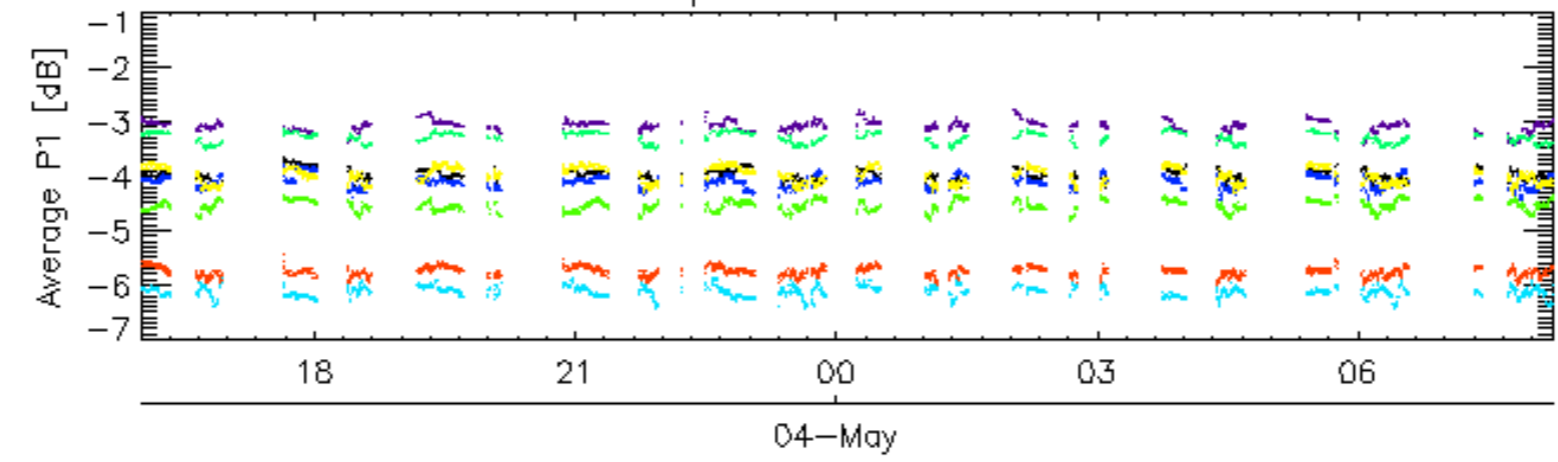


Cal pulses for GM1 SS3

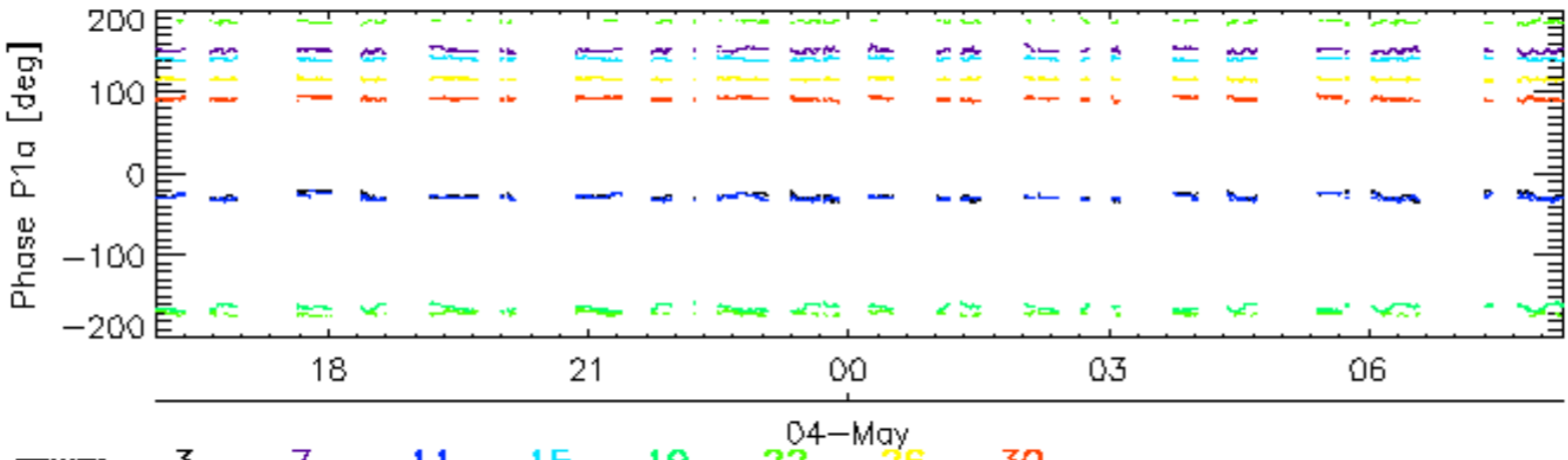
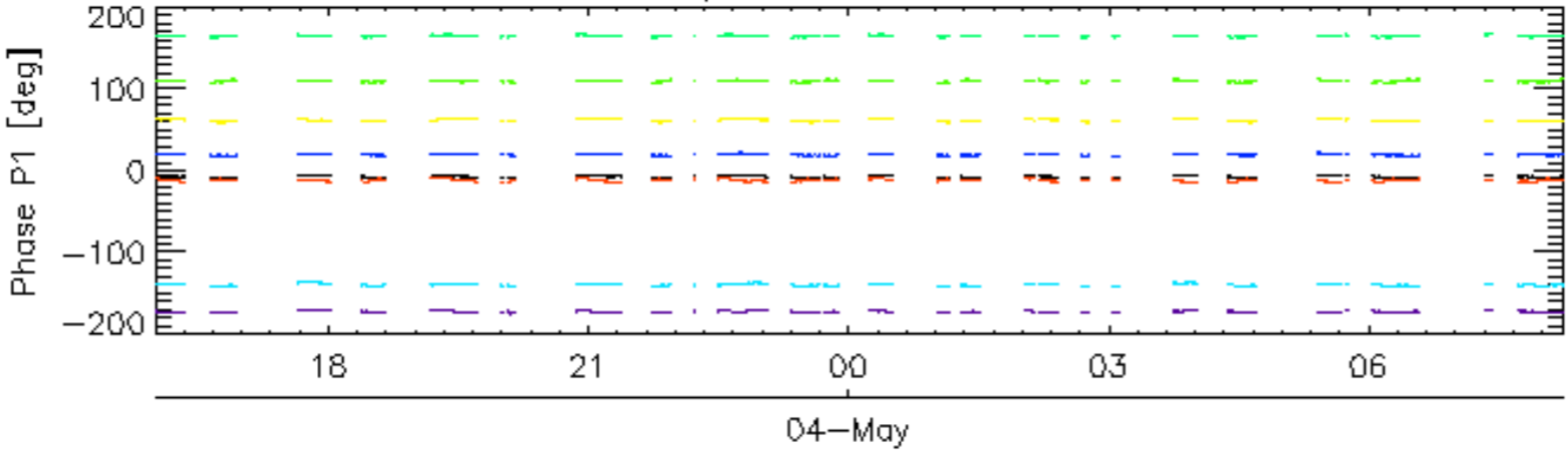


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

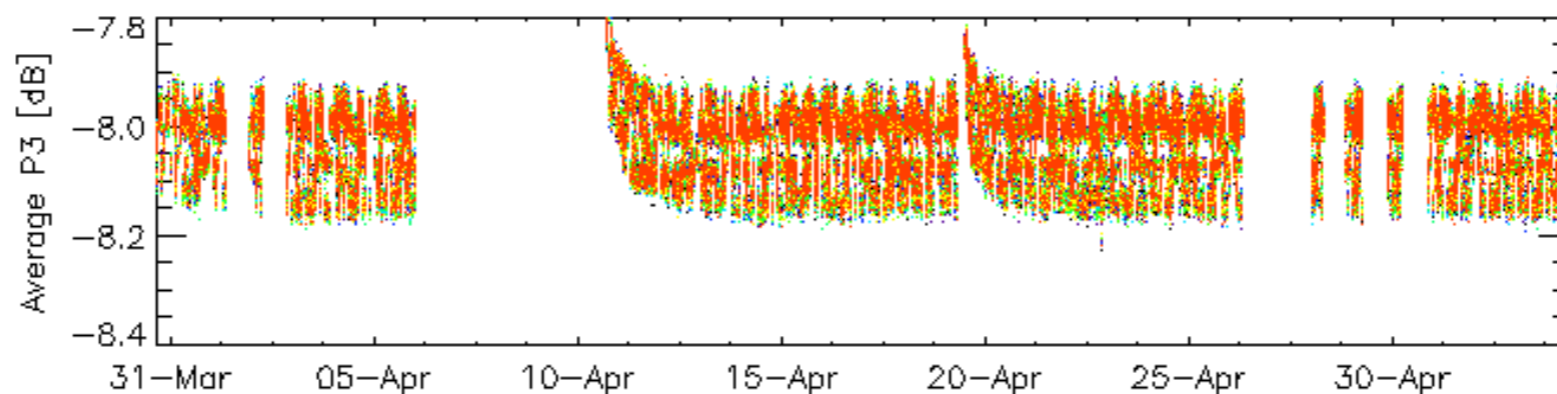
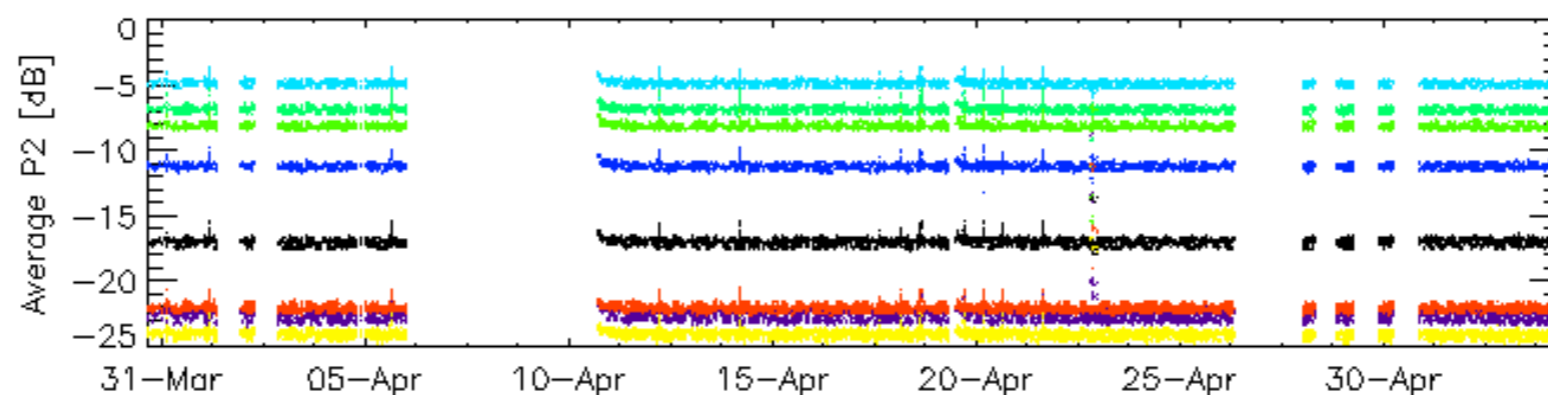
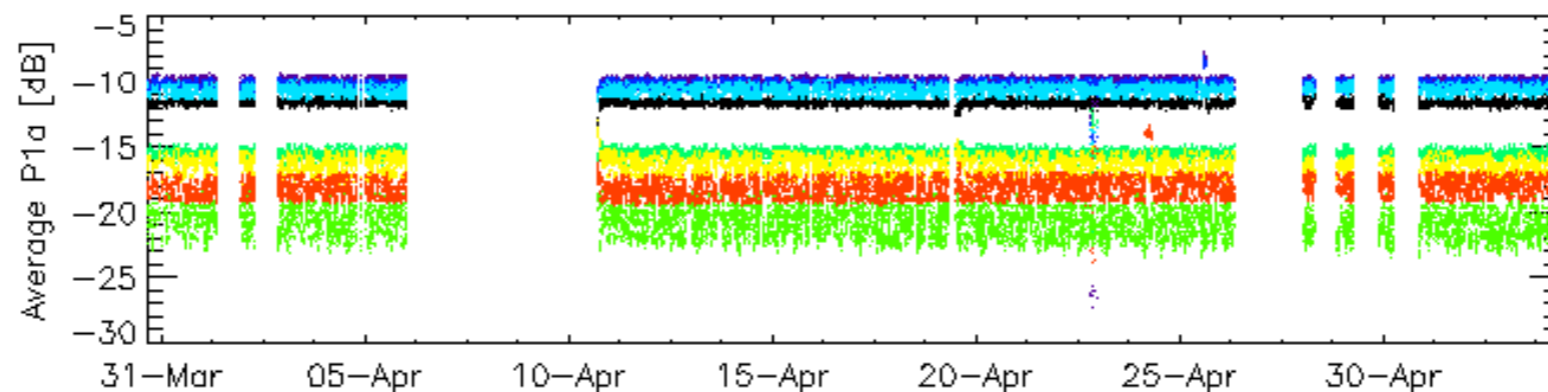
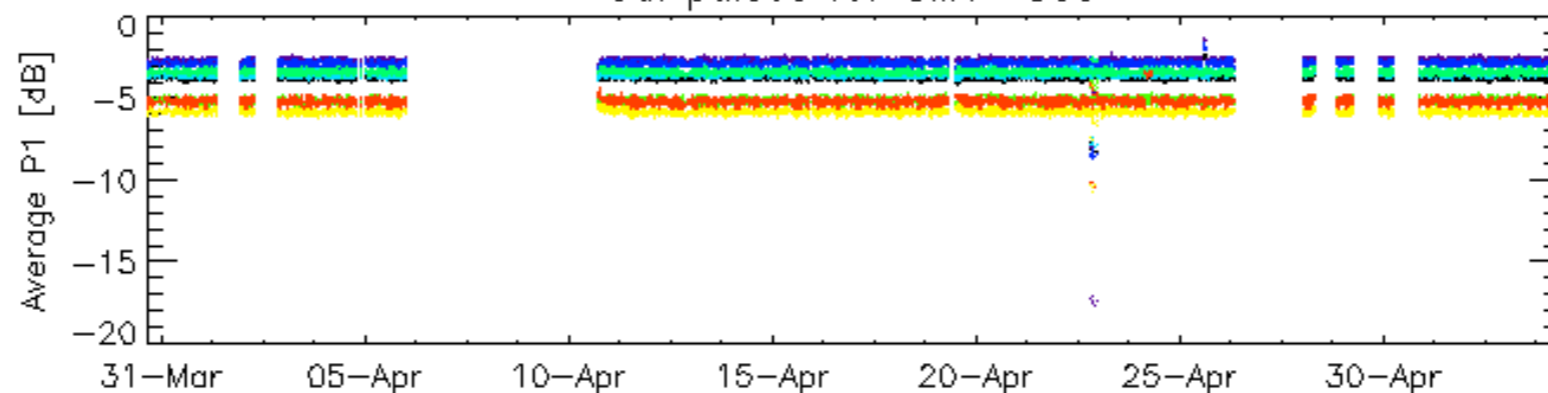


Cal pulses for WVS IS2



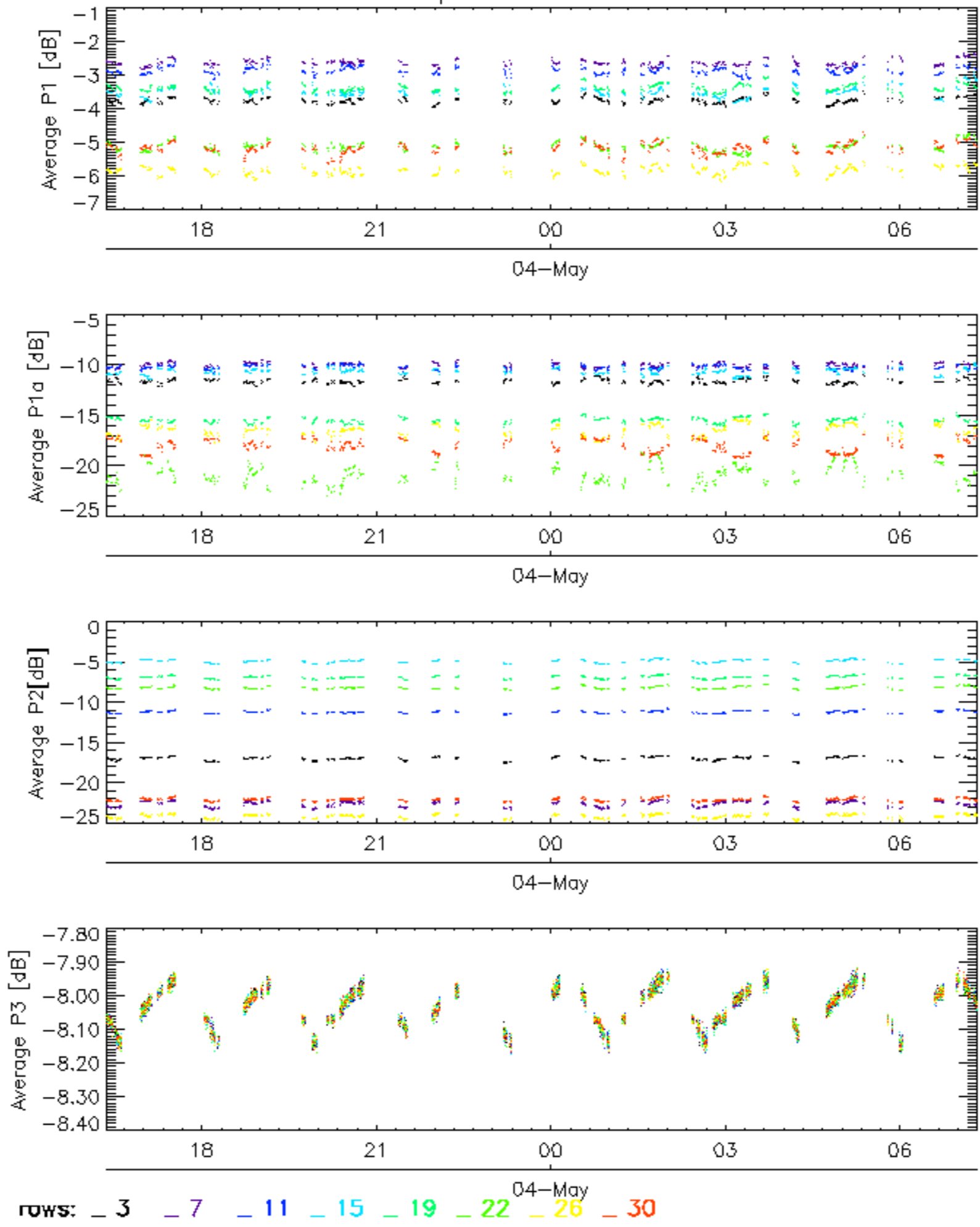
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

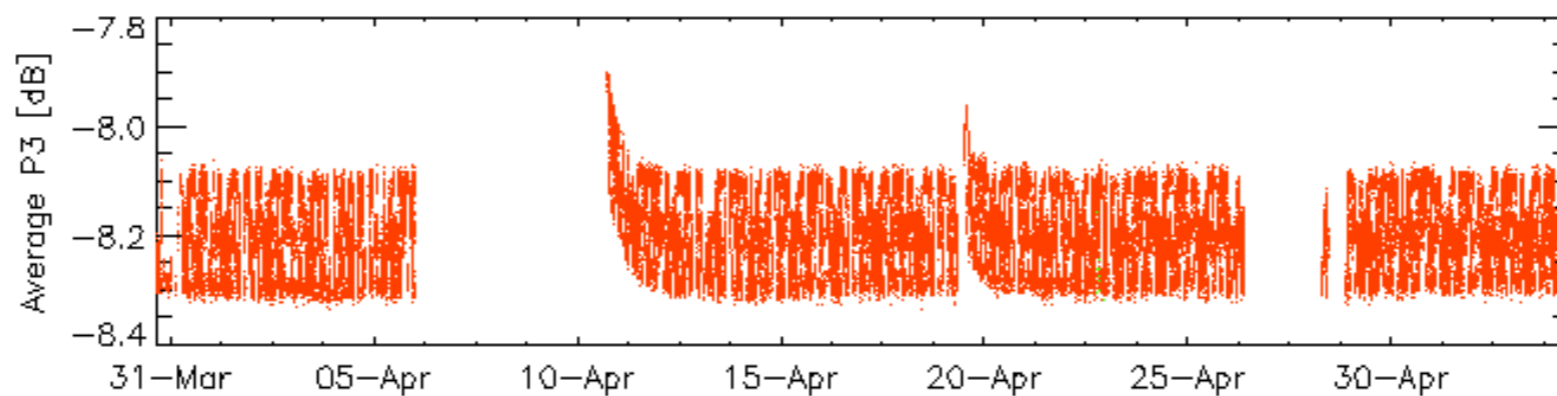
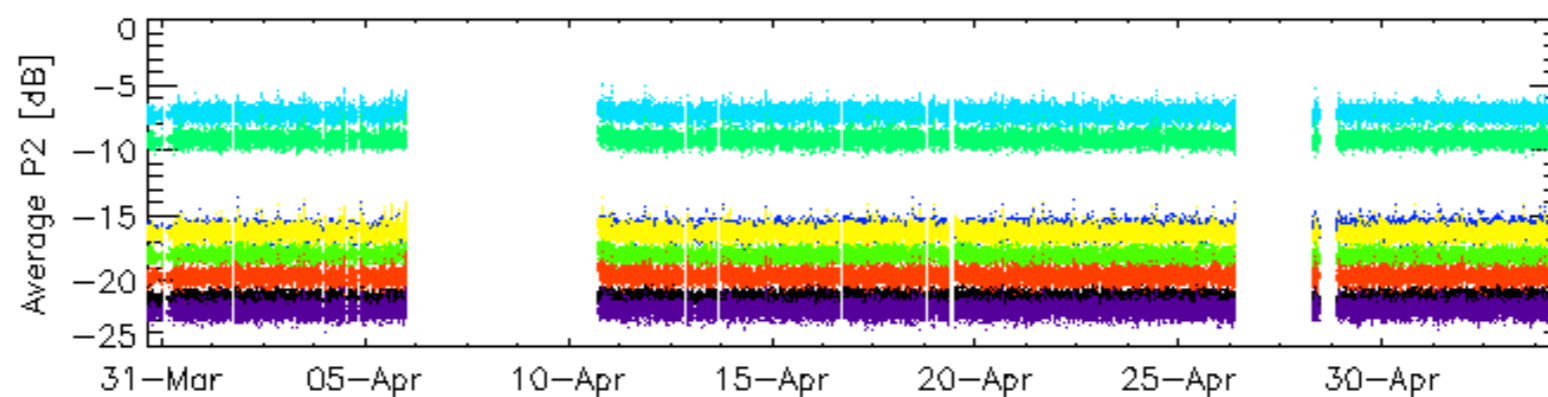
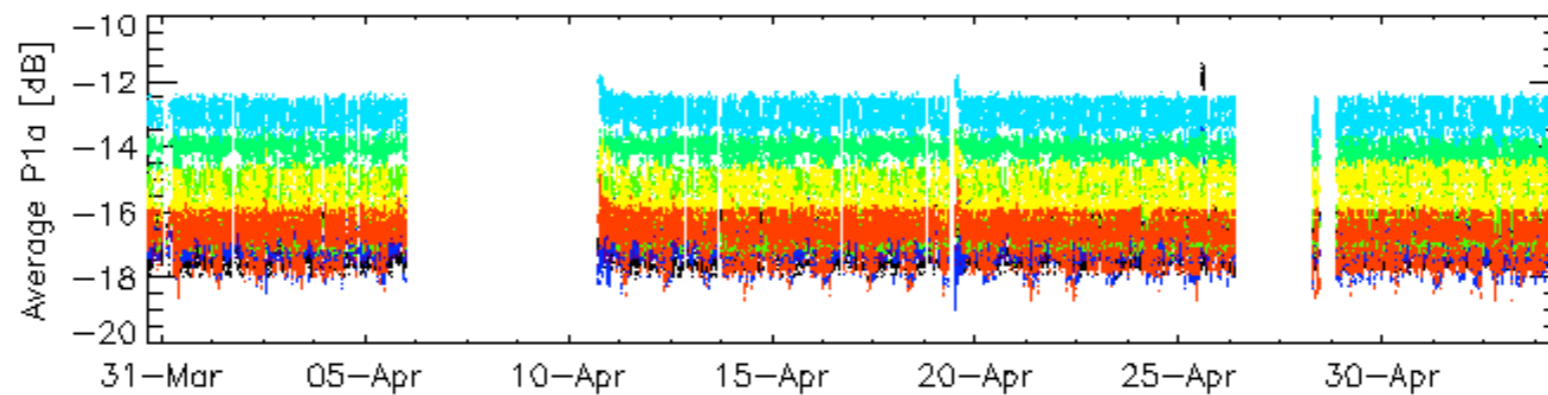
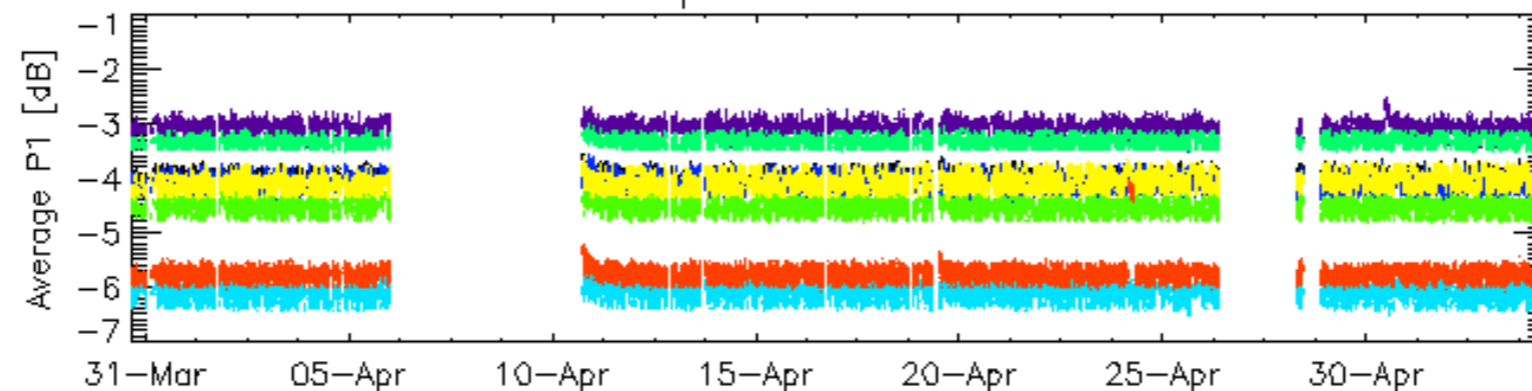


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

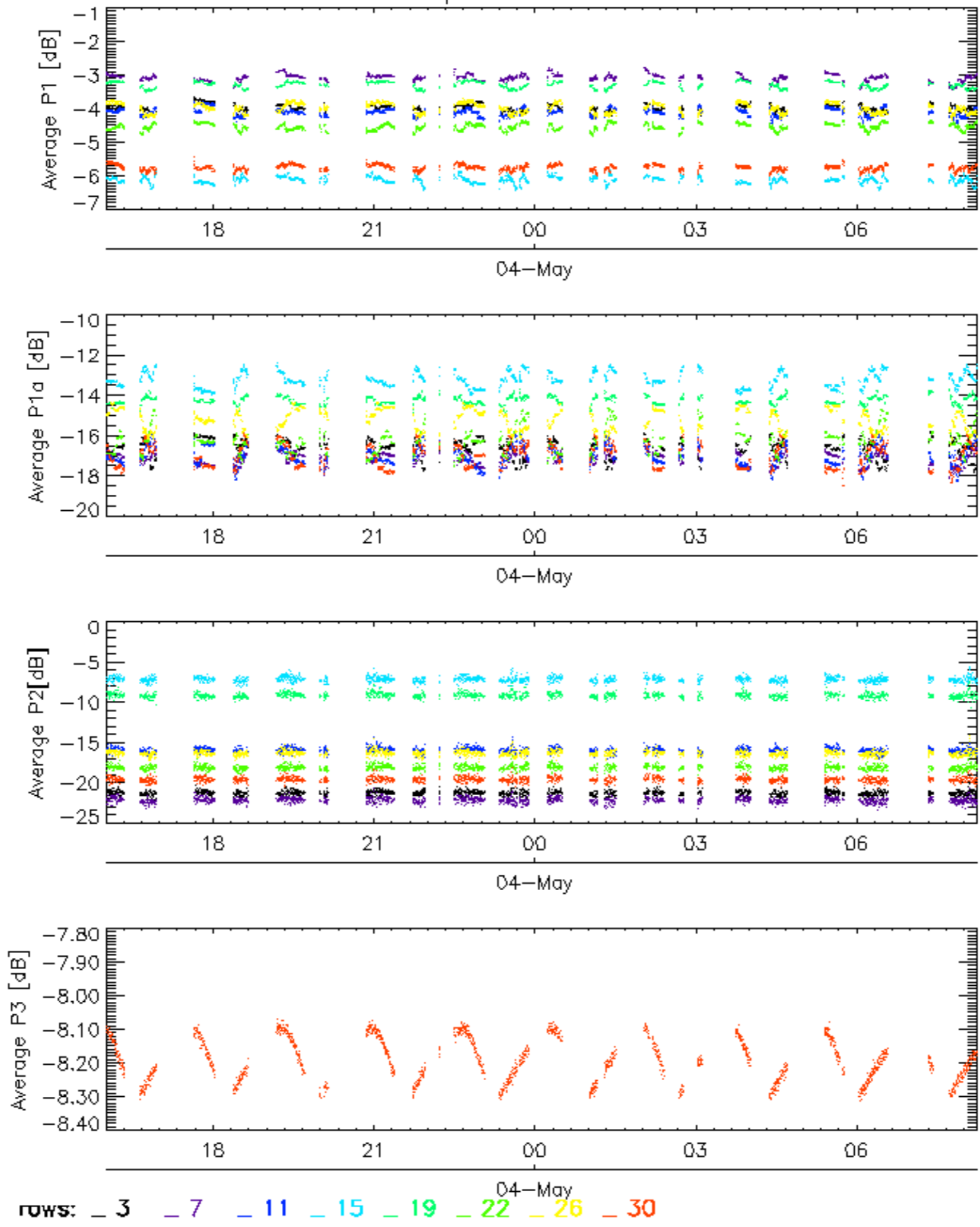


Cal pulses for WVS IS2



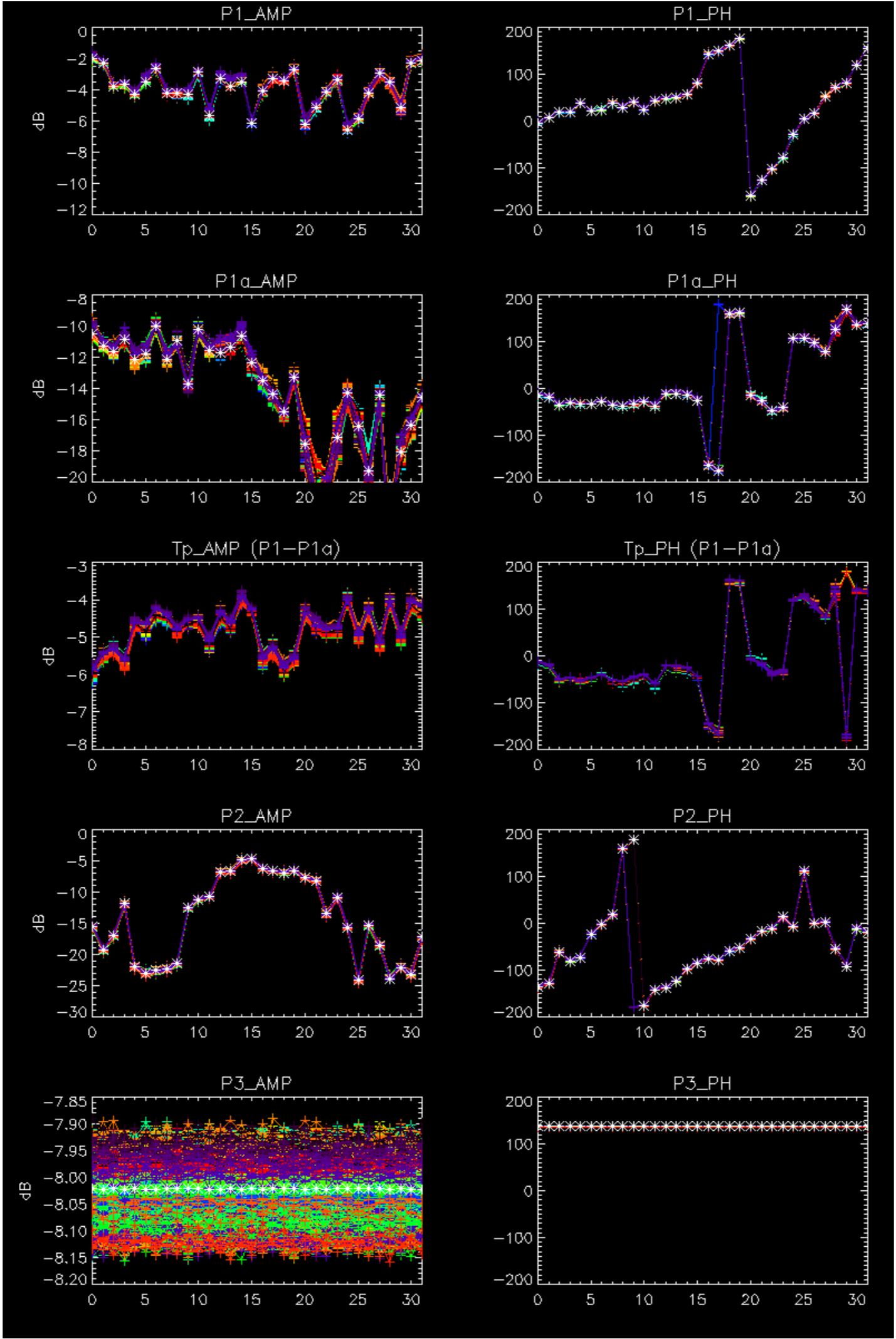
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

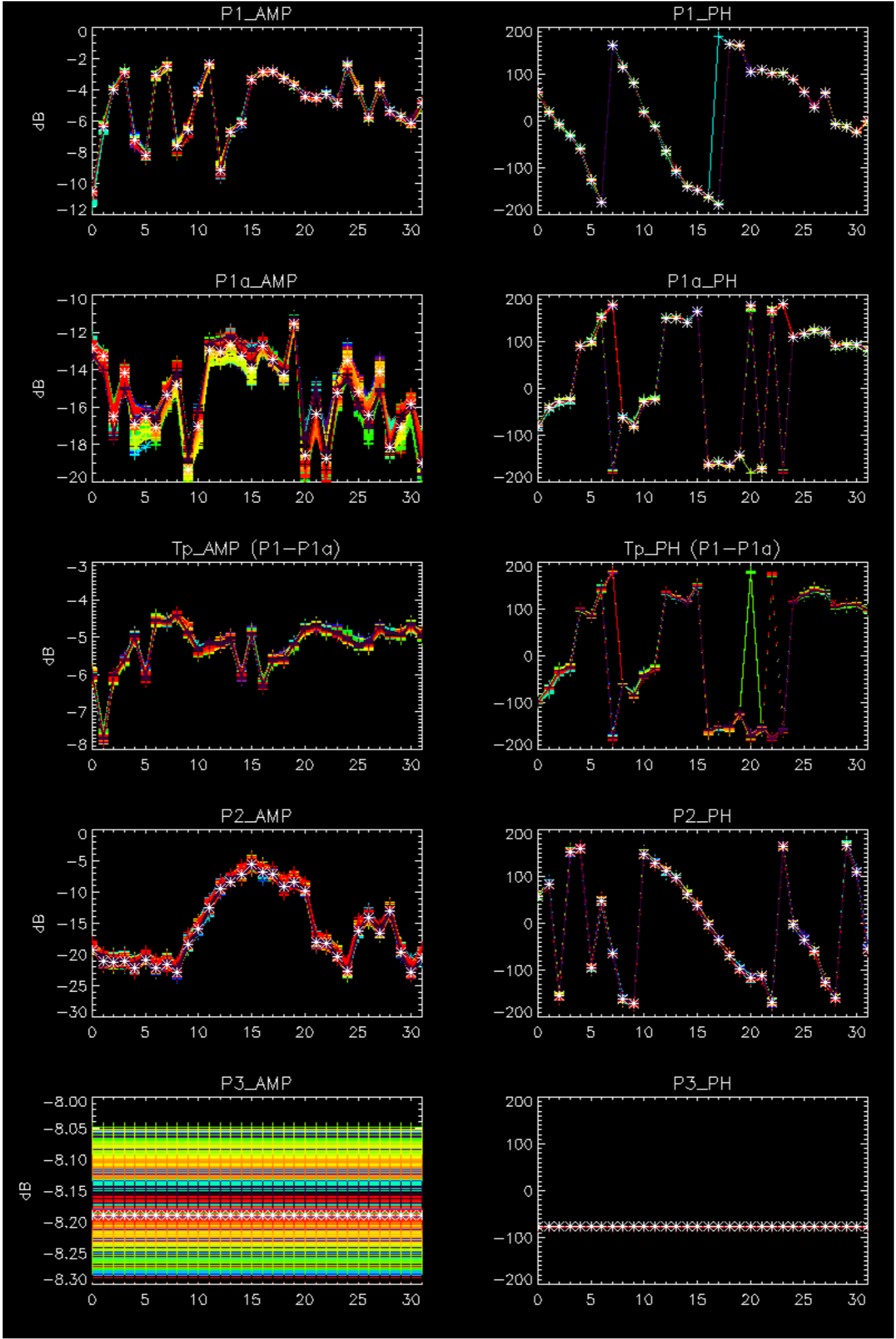
Cal pulses for WVS IS2



No anomalies observed on available browse products

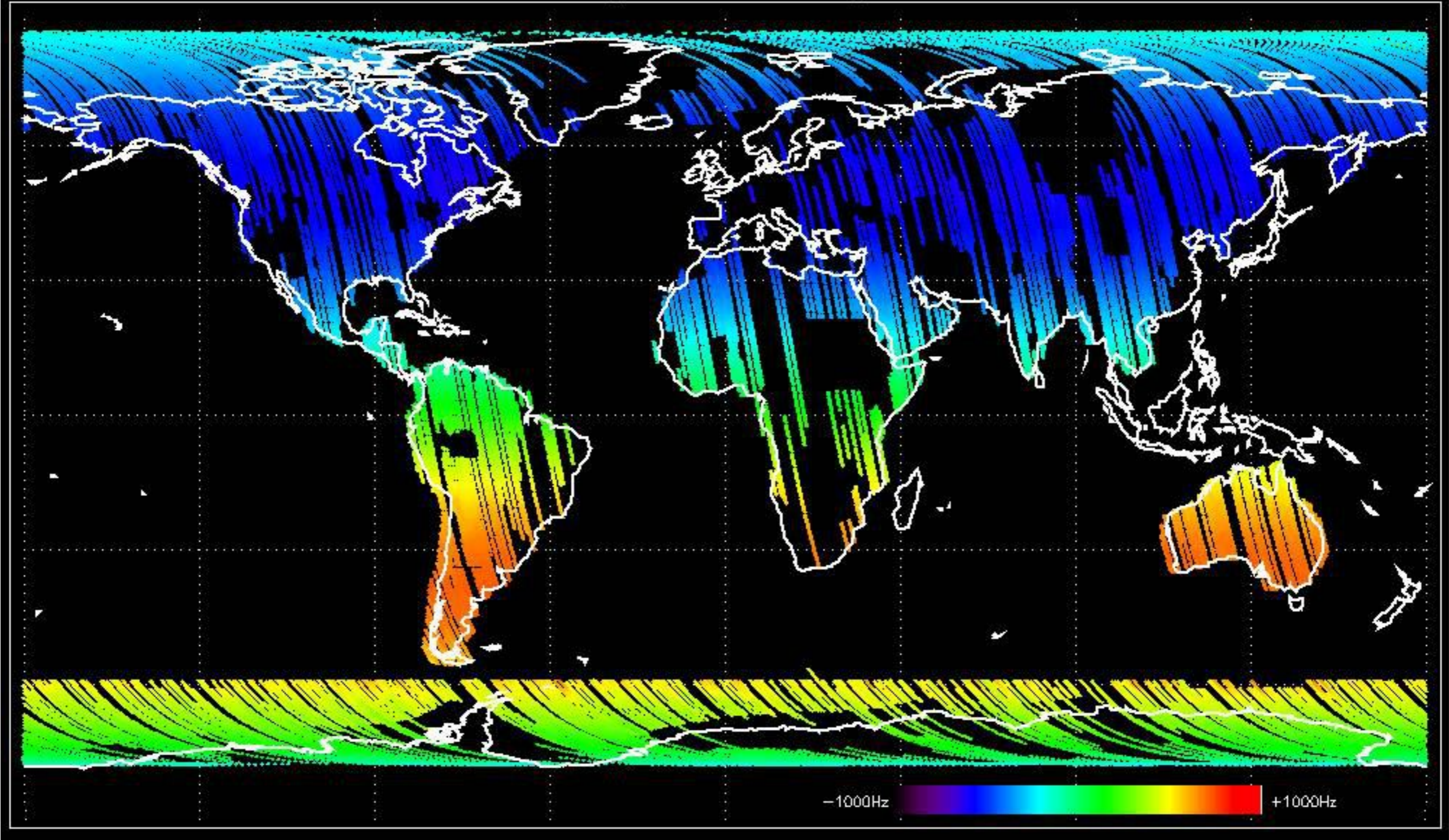
No anomalies observed.



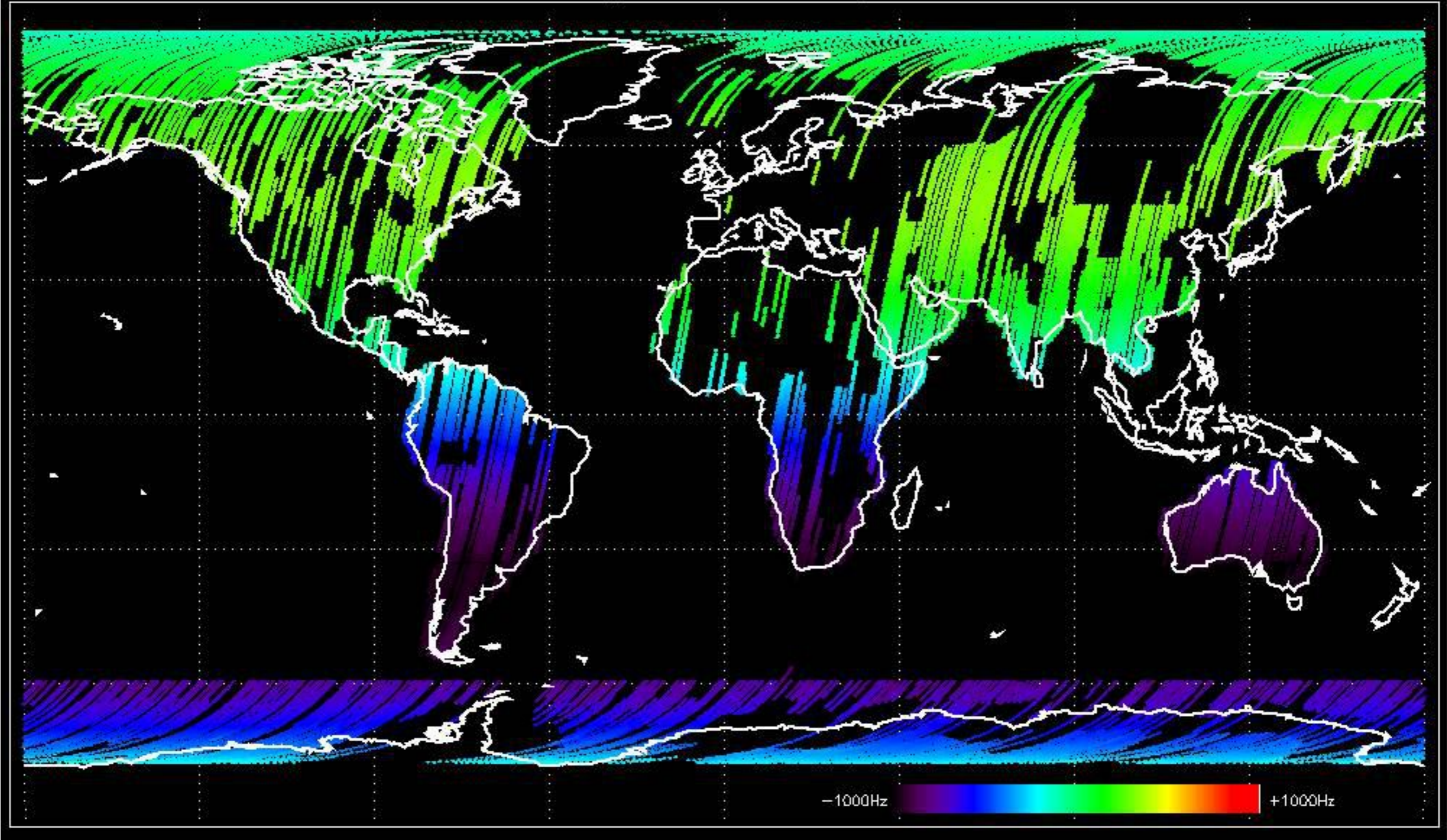


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

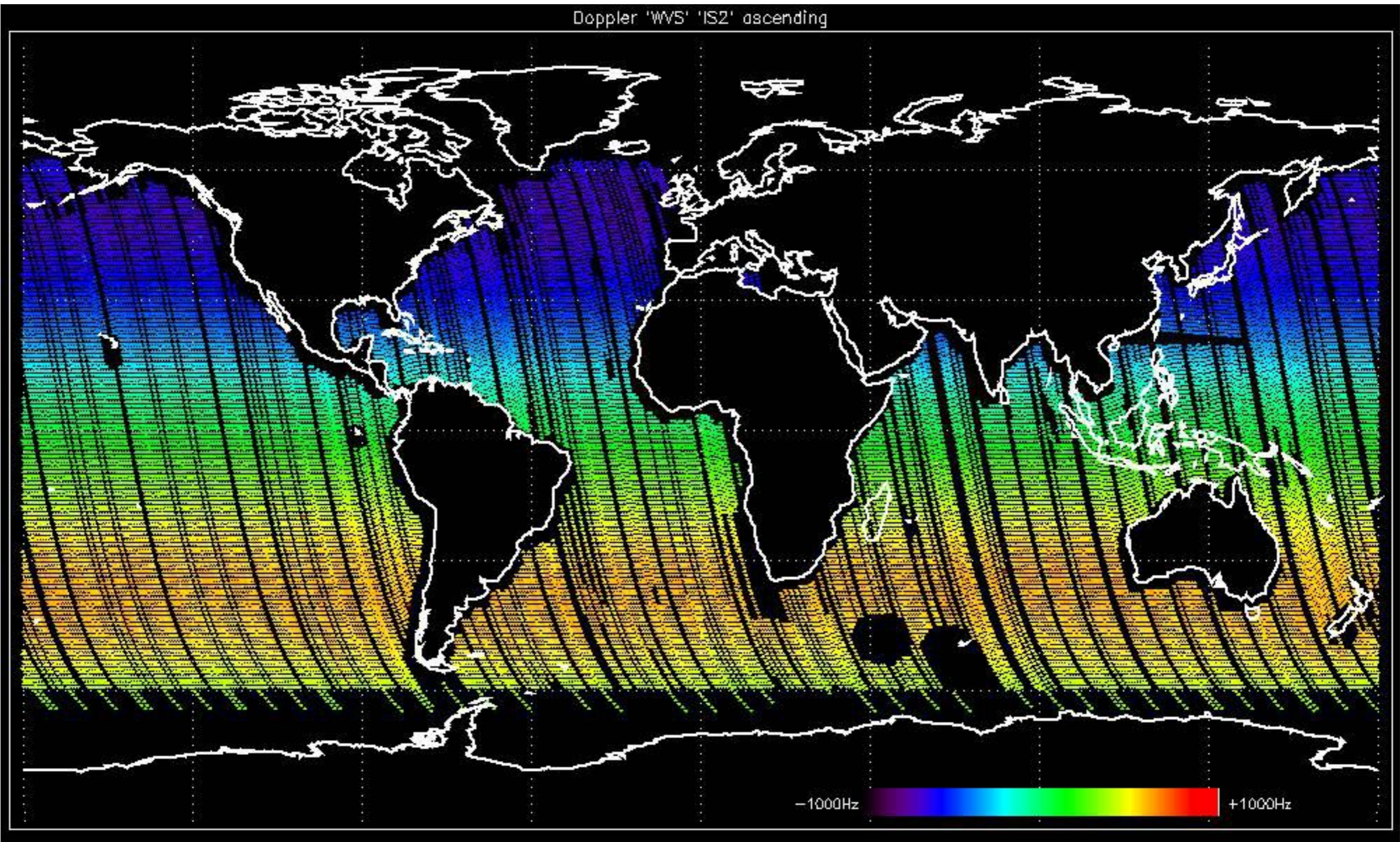
Doppler 'GM1' 'SS1' ascending



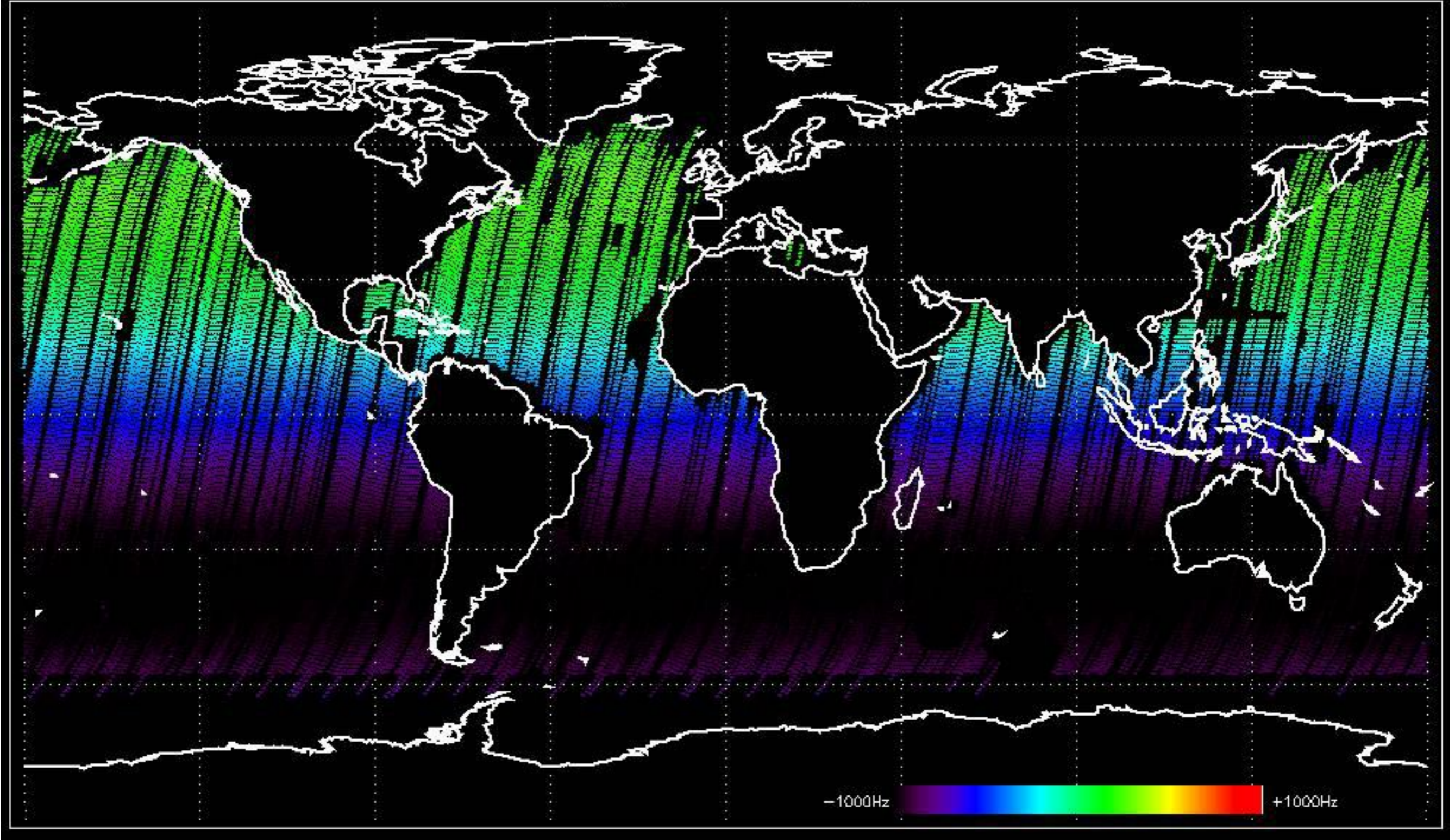
Doppler 'GM1' 'SS1' descending

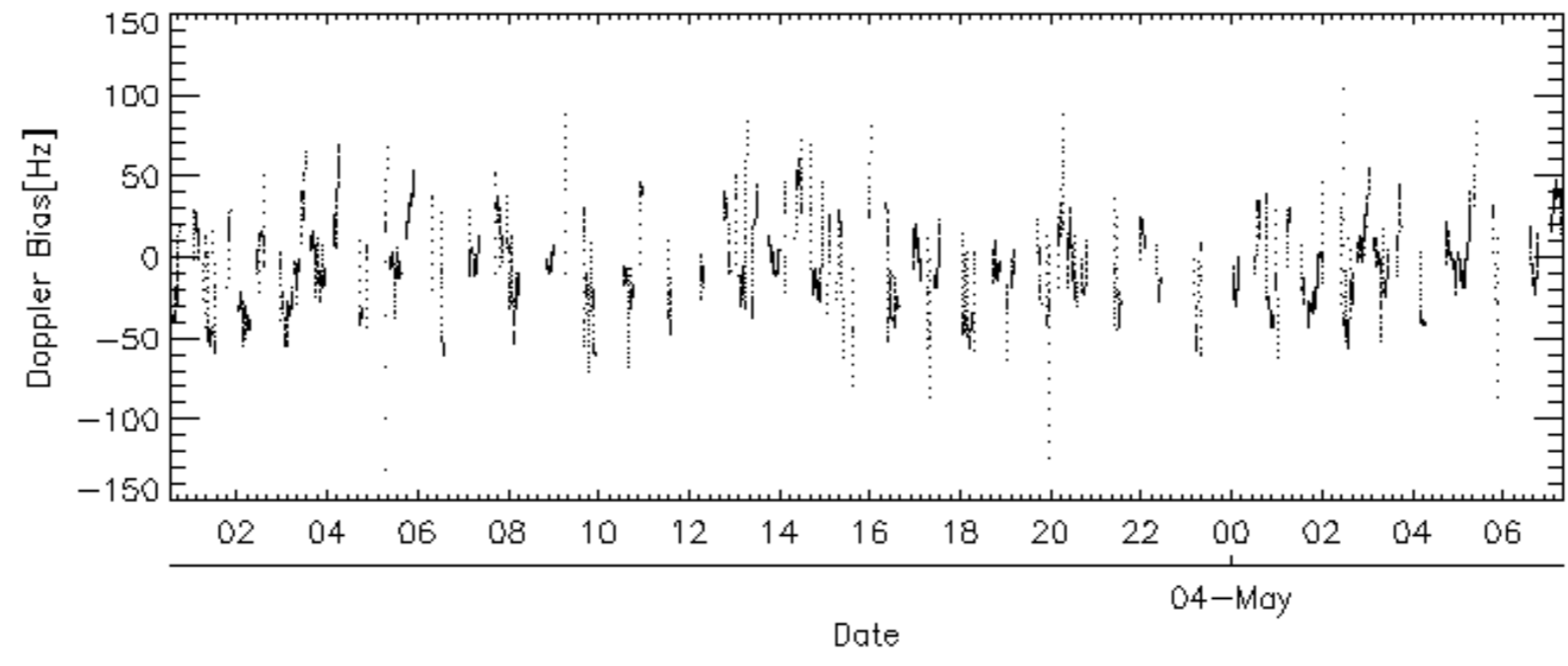
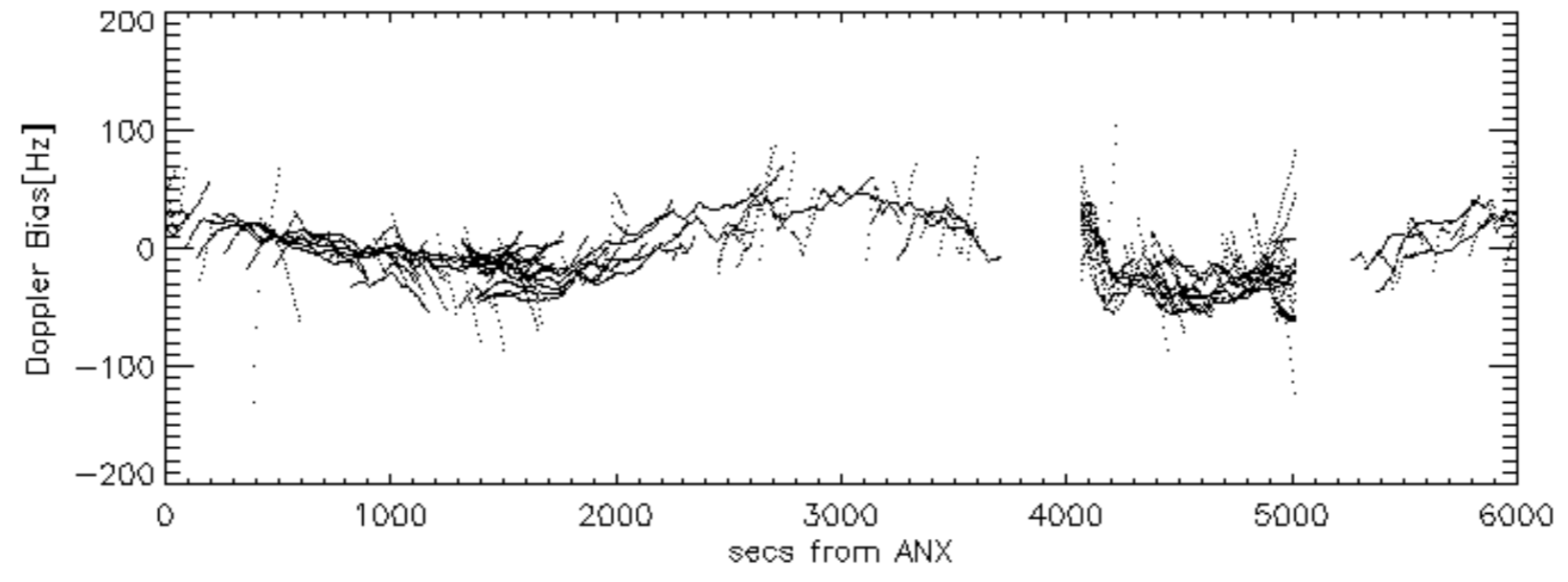
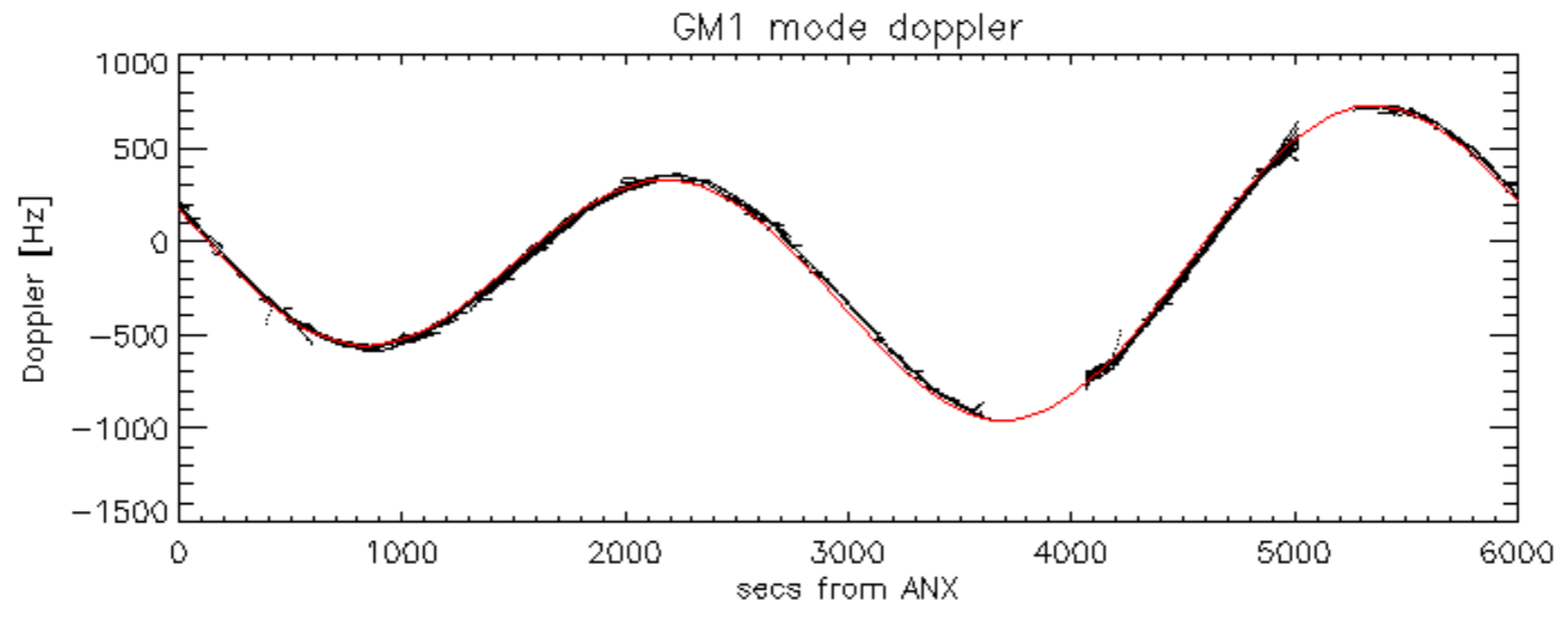


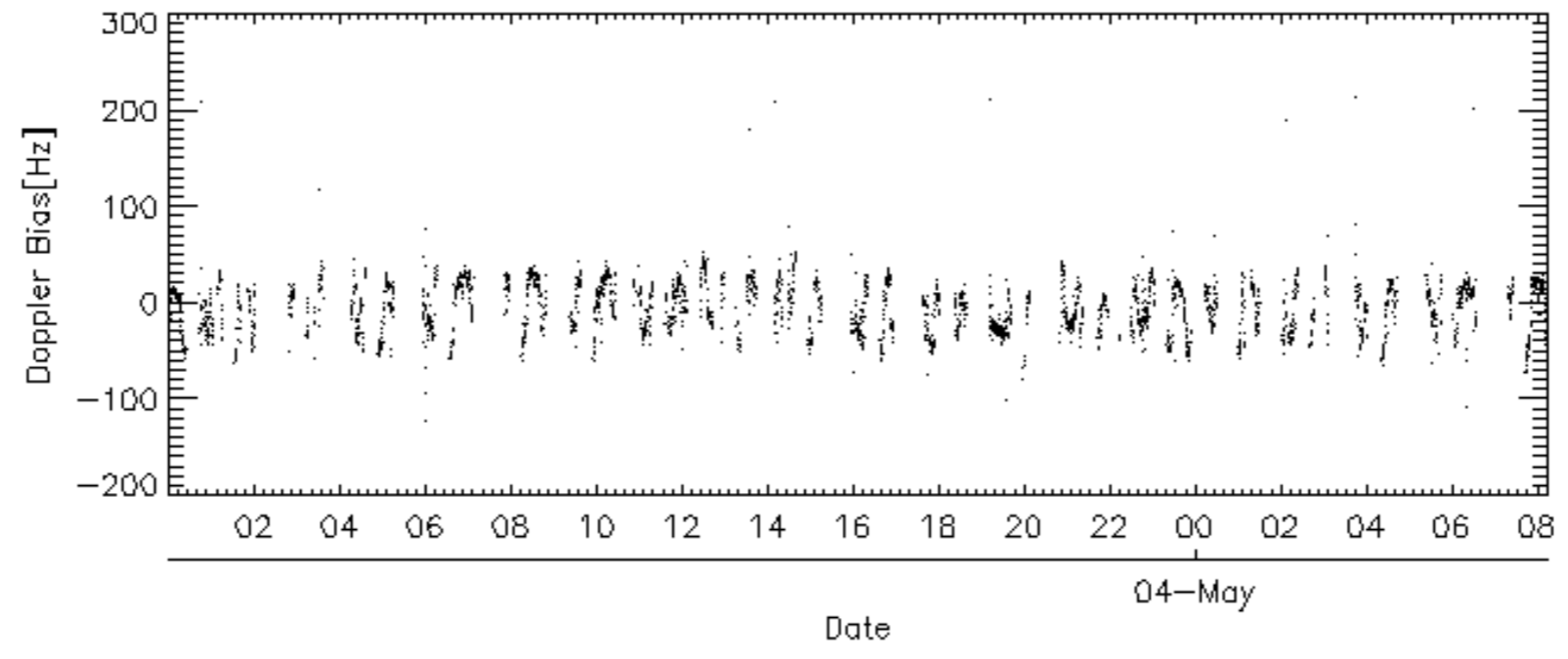
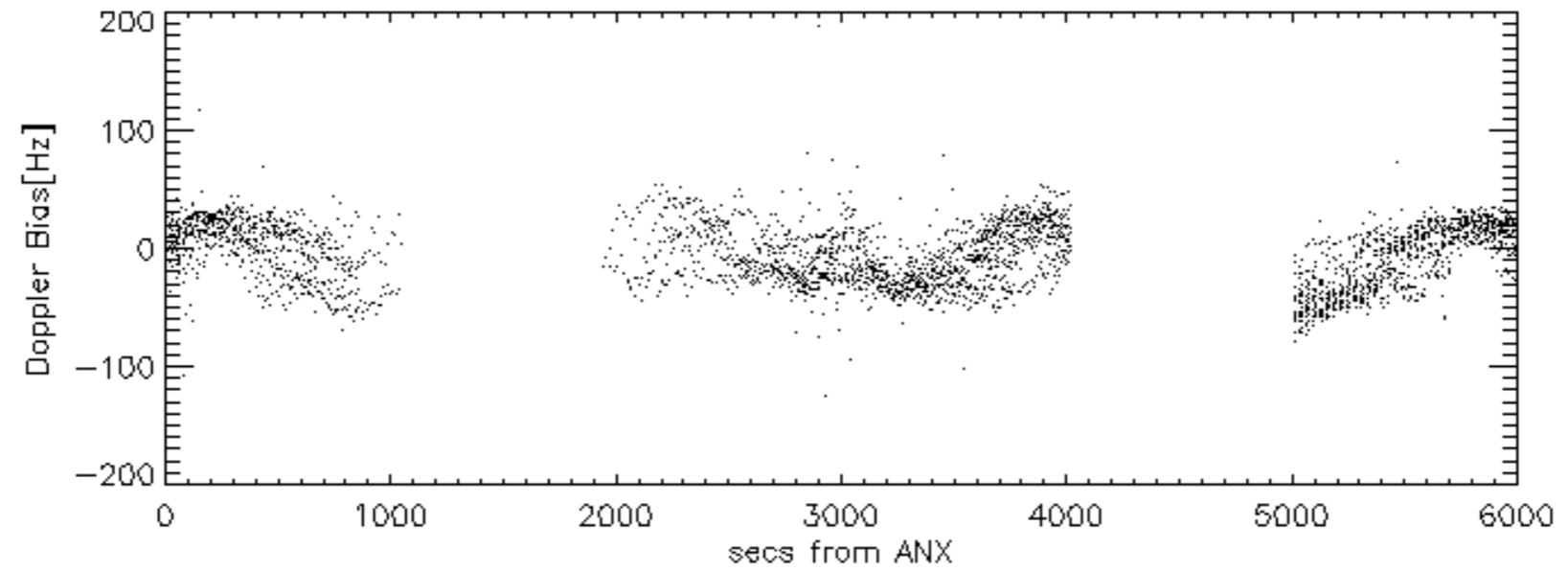
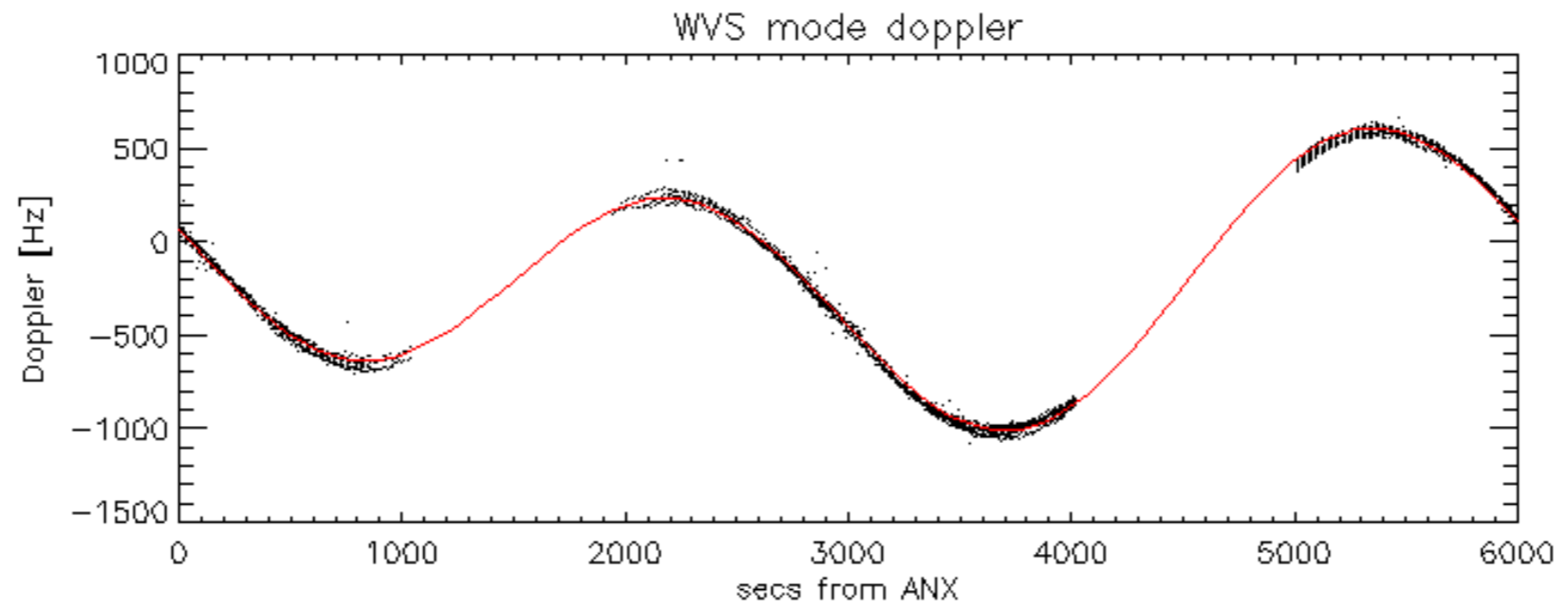
Doppler 'WVS' 'IS2' ascending



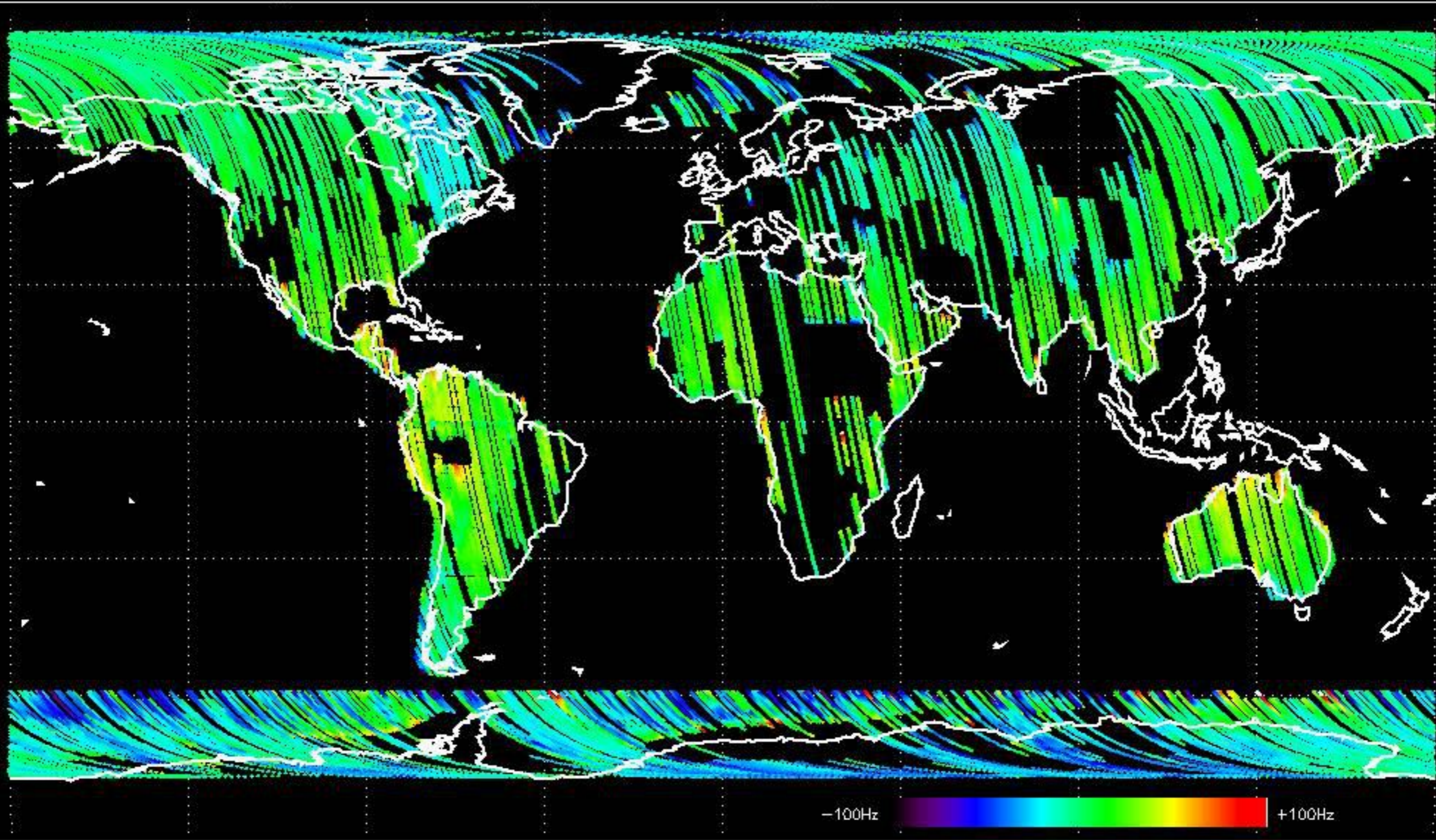
Doppler 'WVS' 'IS2' descending



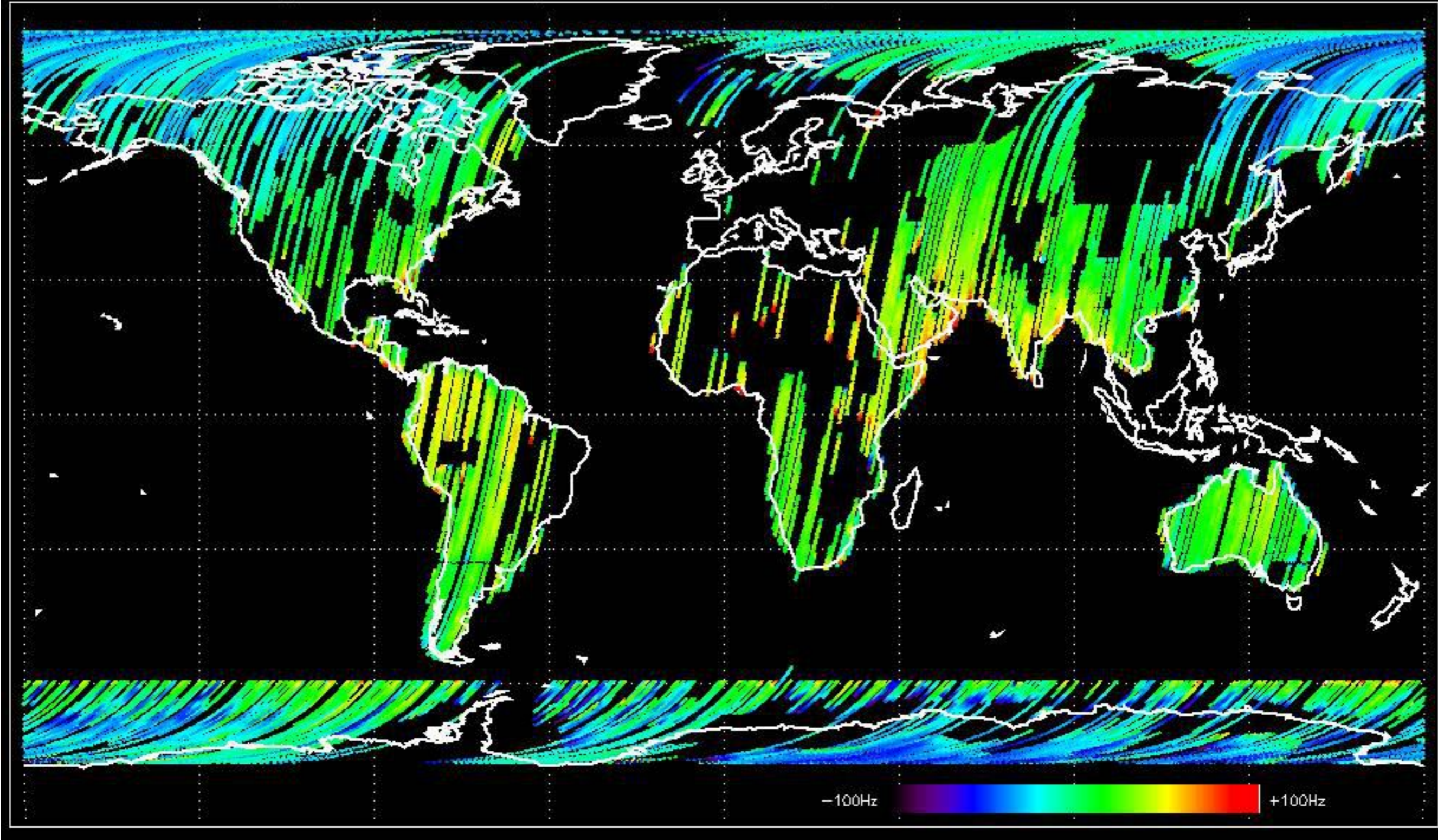




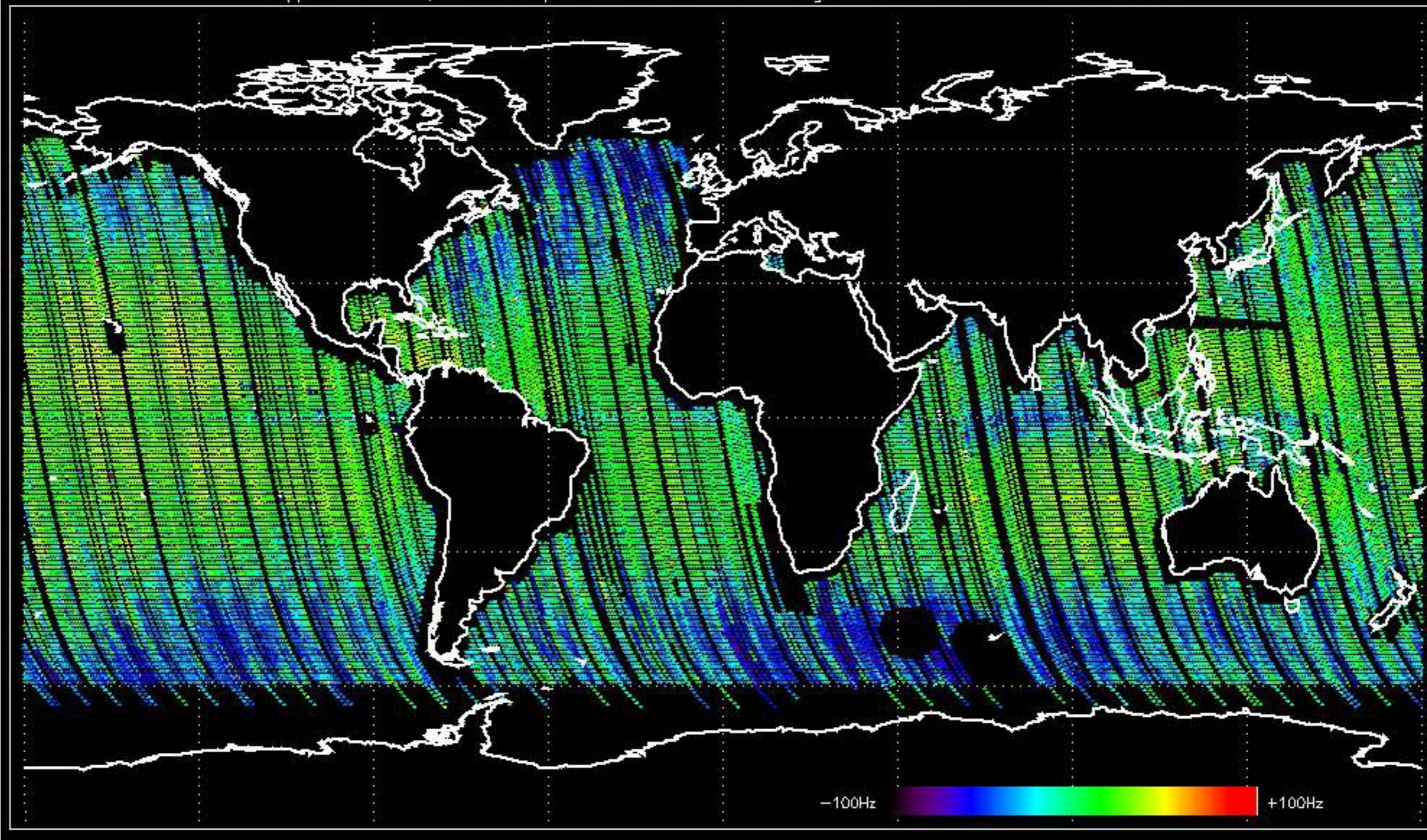
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -11.798230 Hz



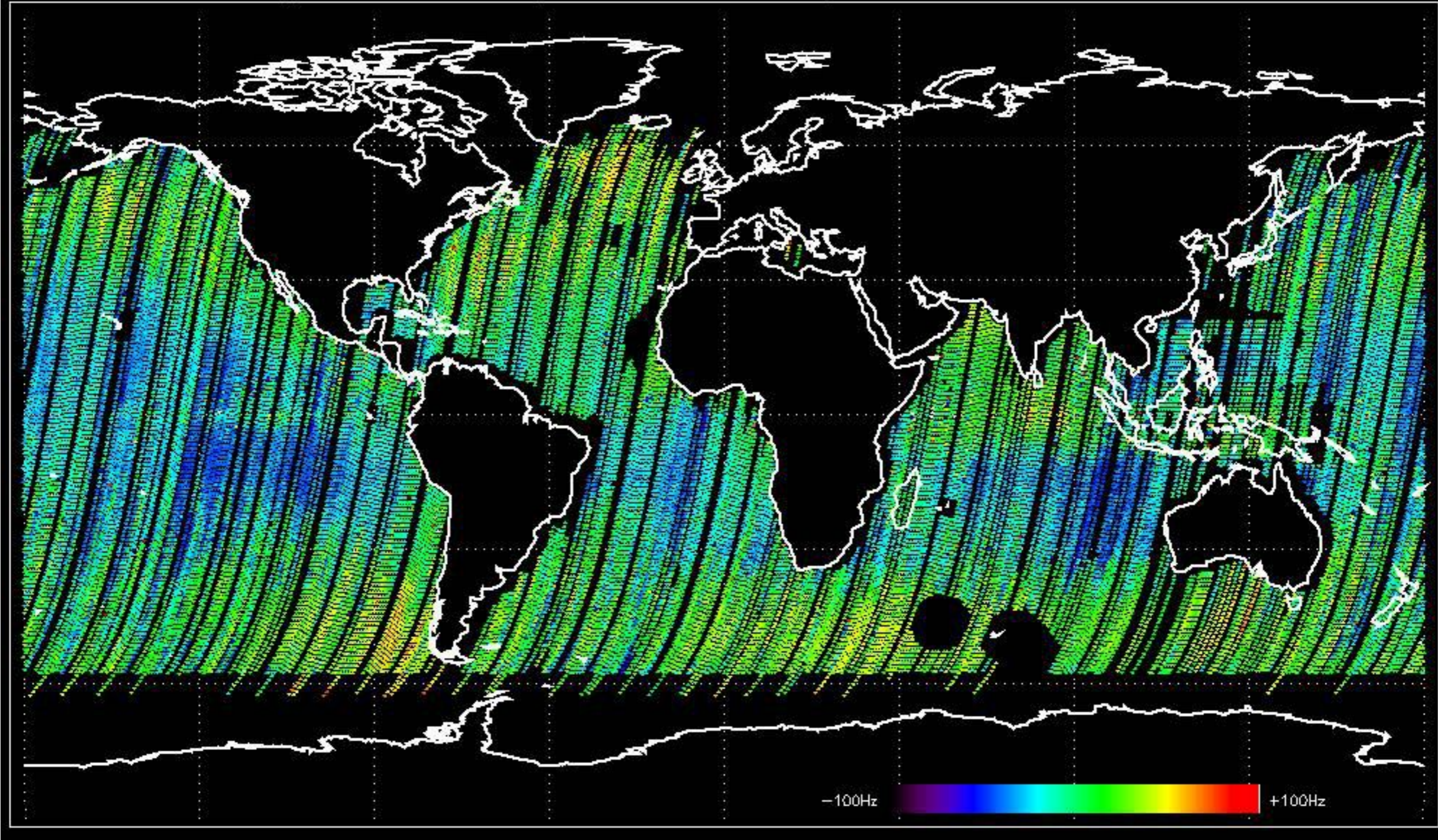
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -3.4080887 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.5780893 Hz

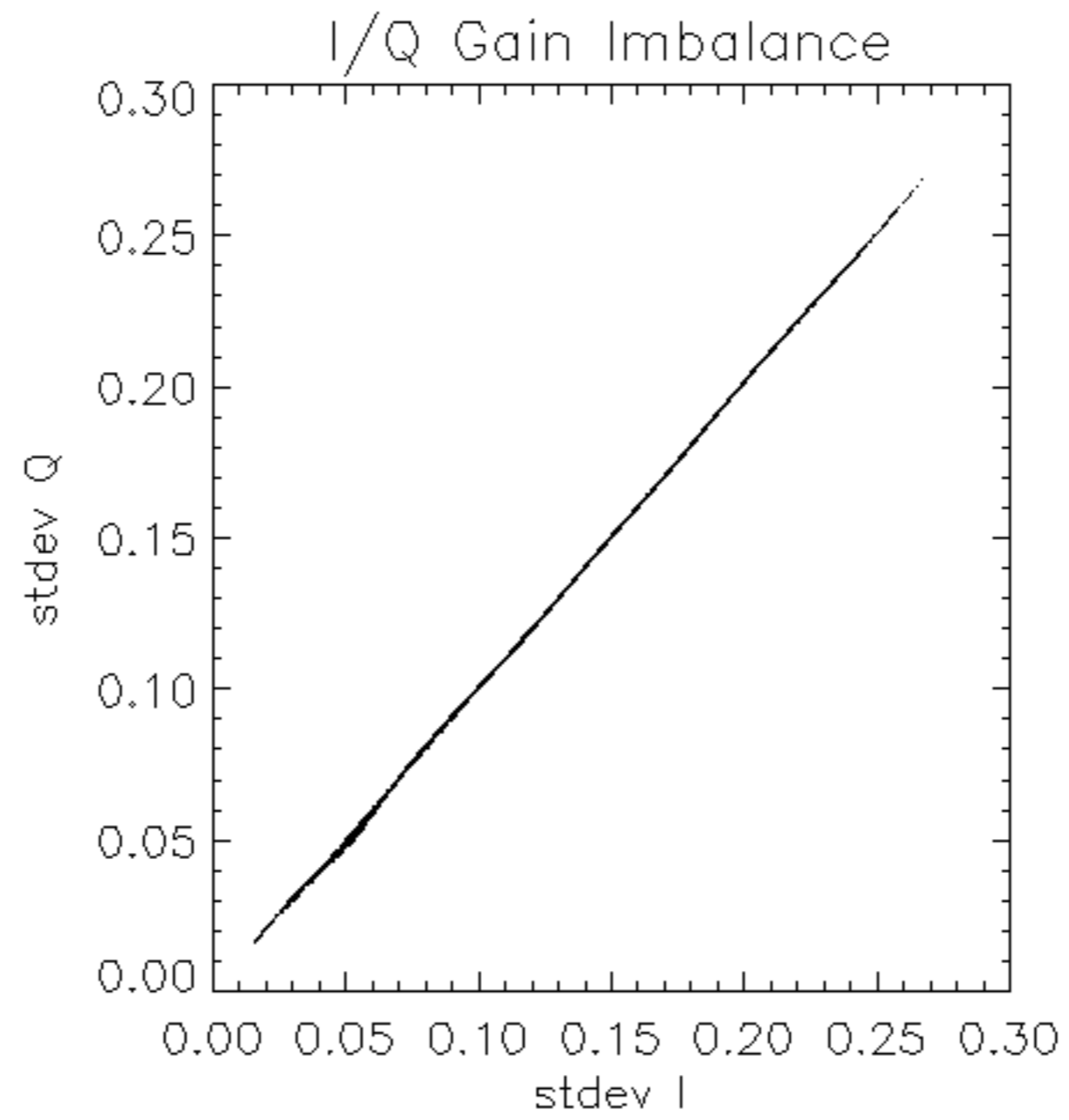


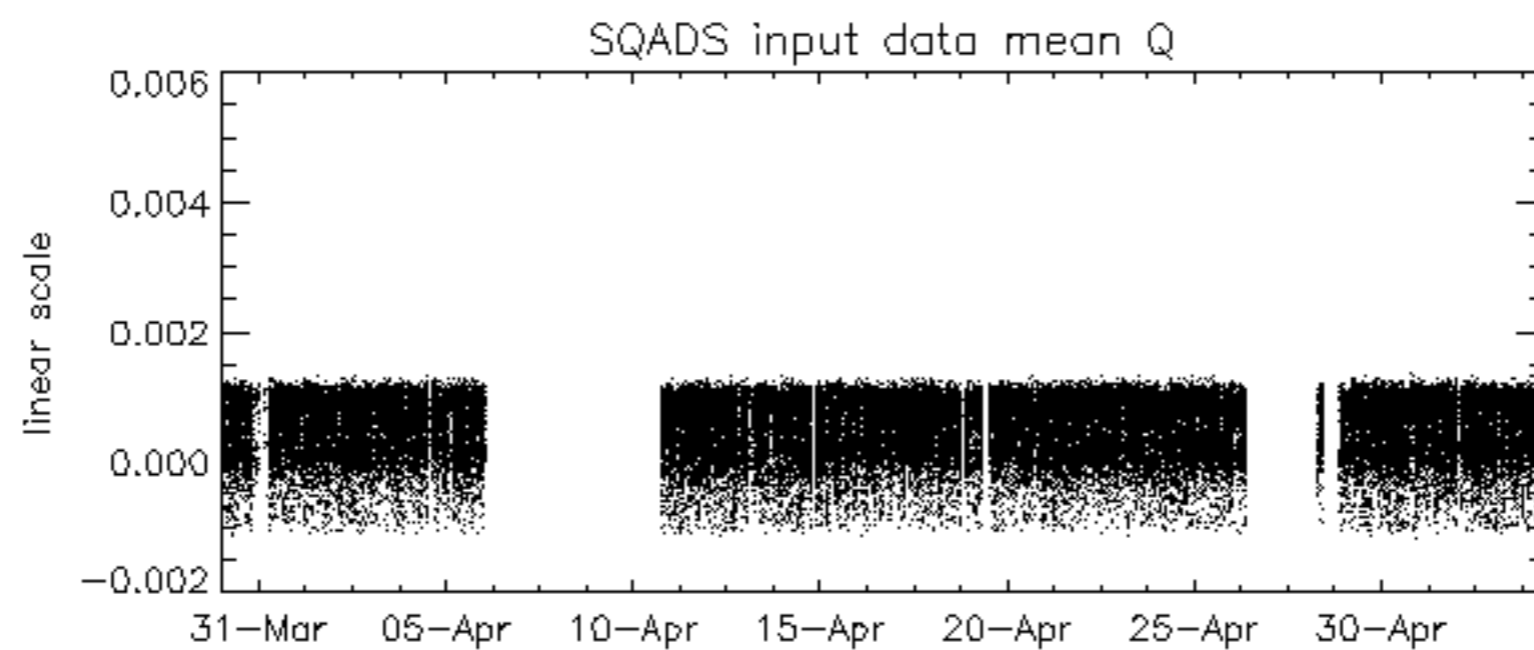
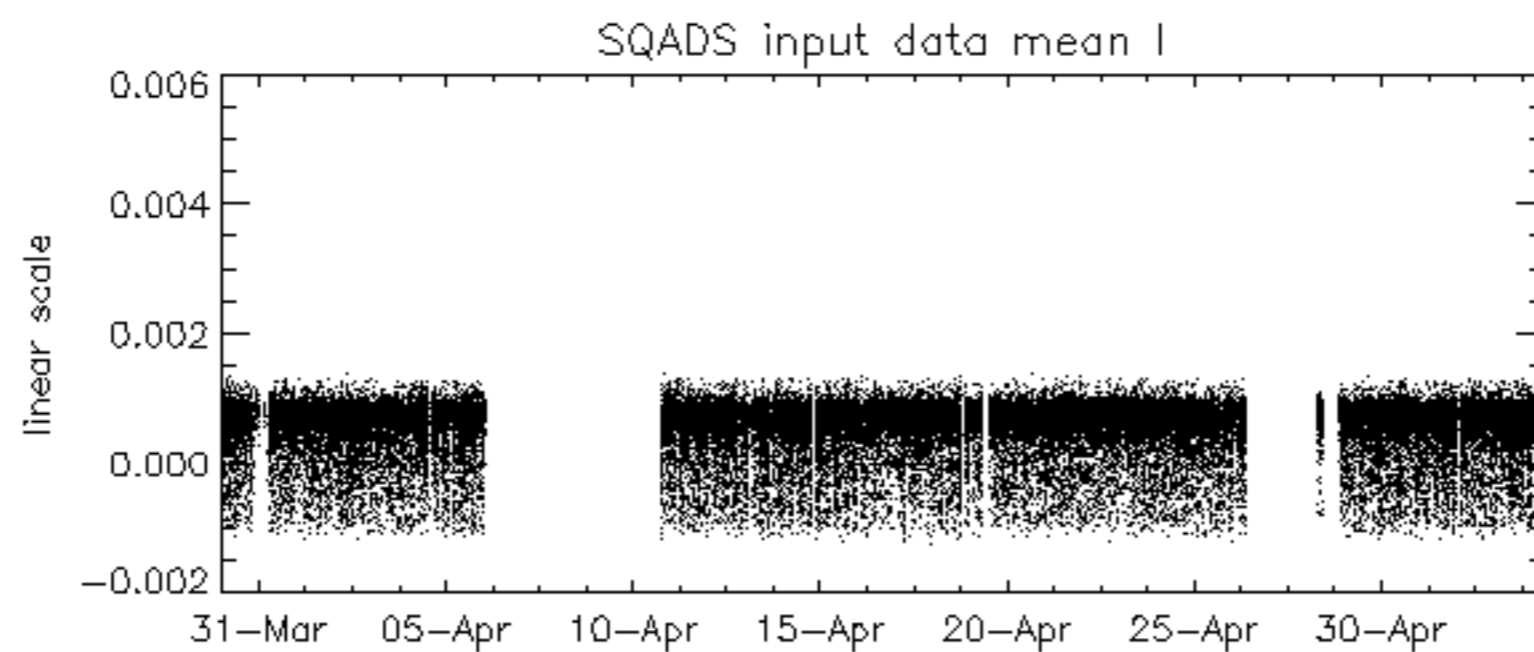
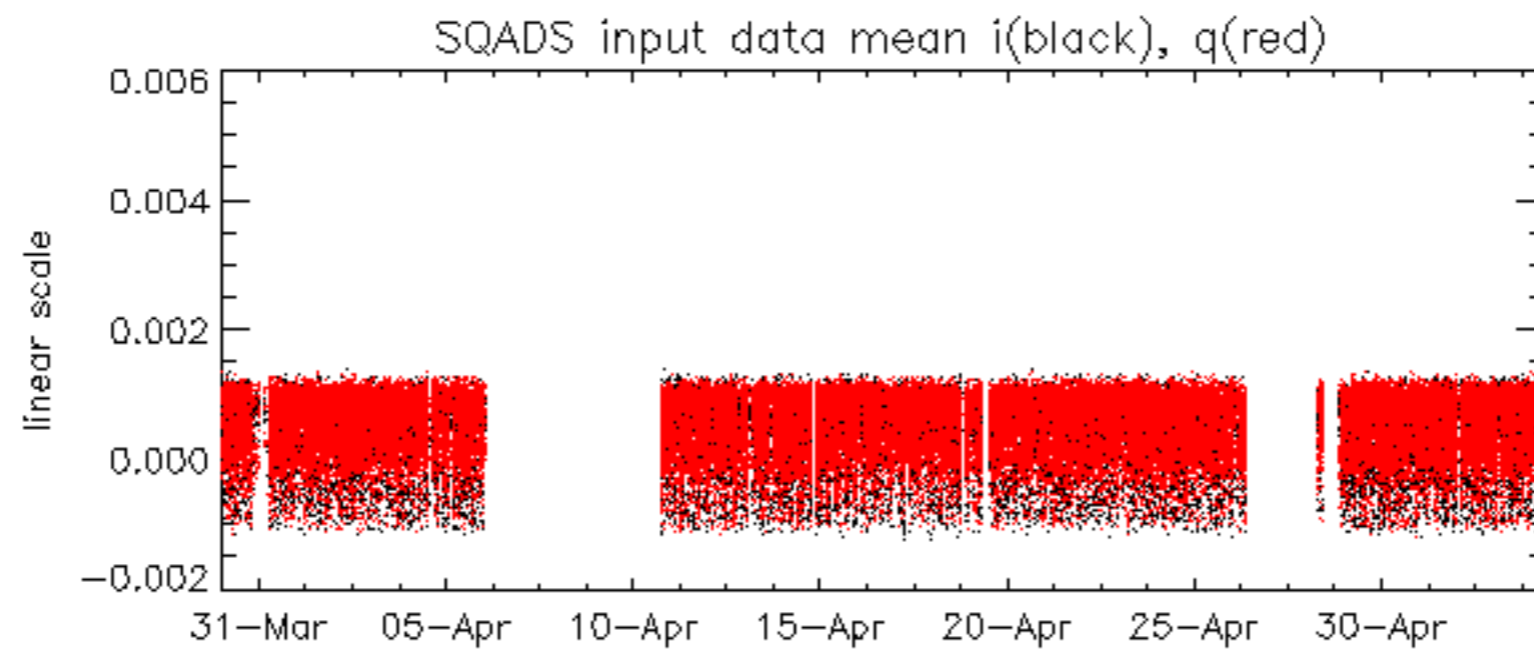
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.190829 Hz

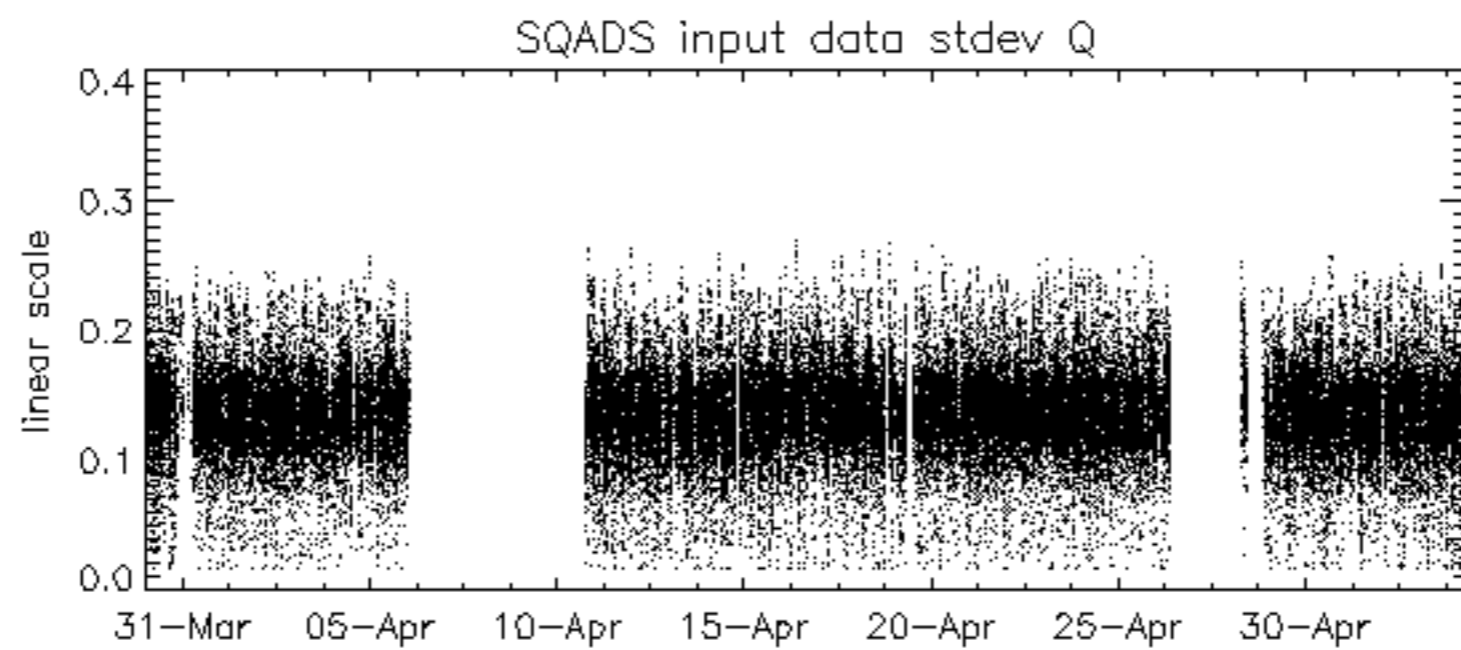
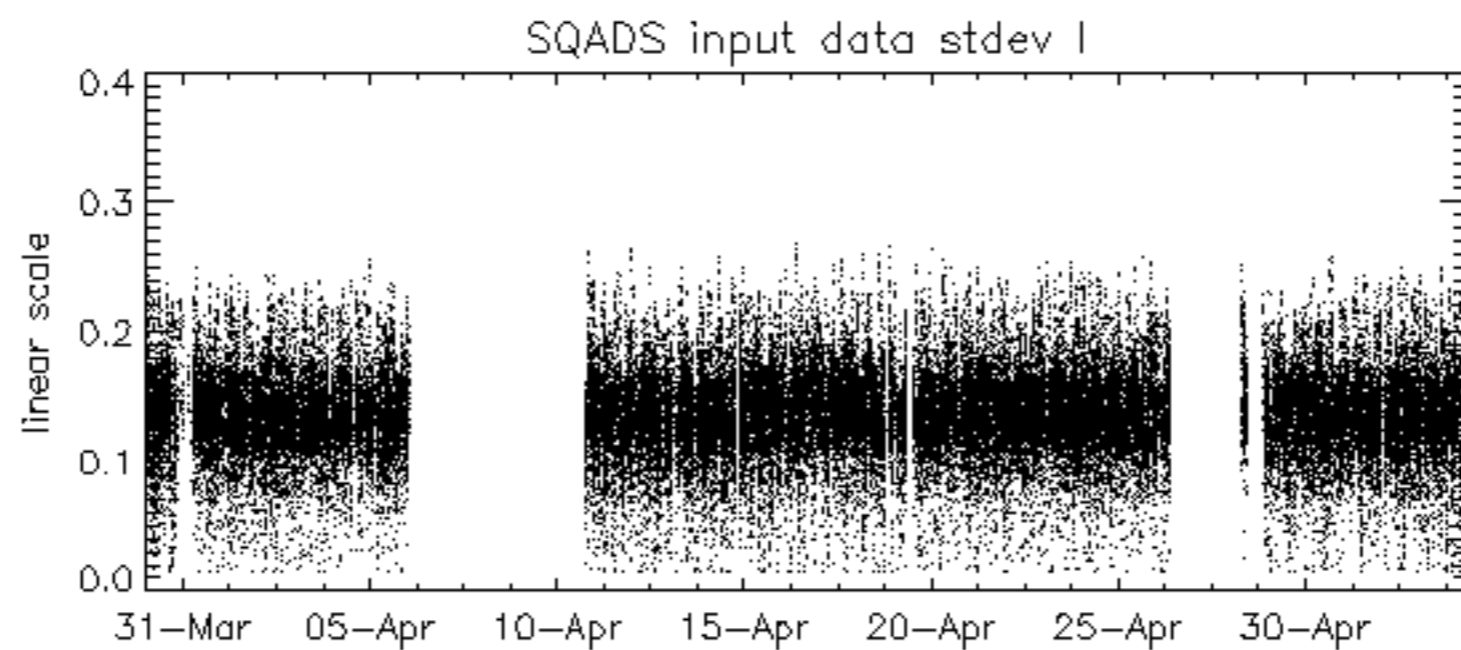
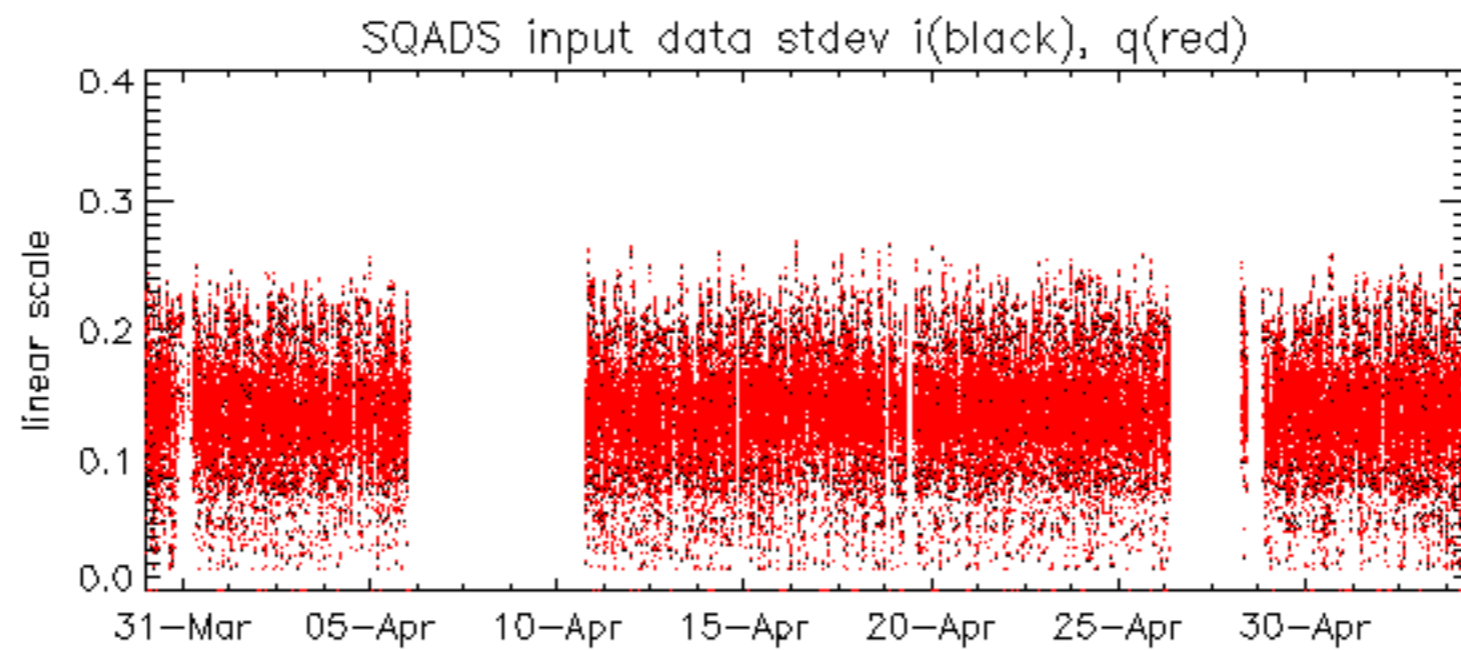


No anomalies observed on available MS products:

No anomalies observed.



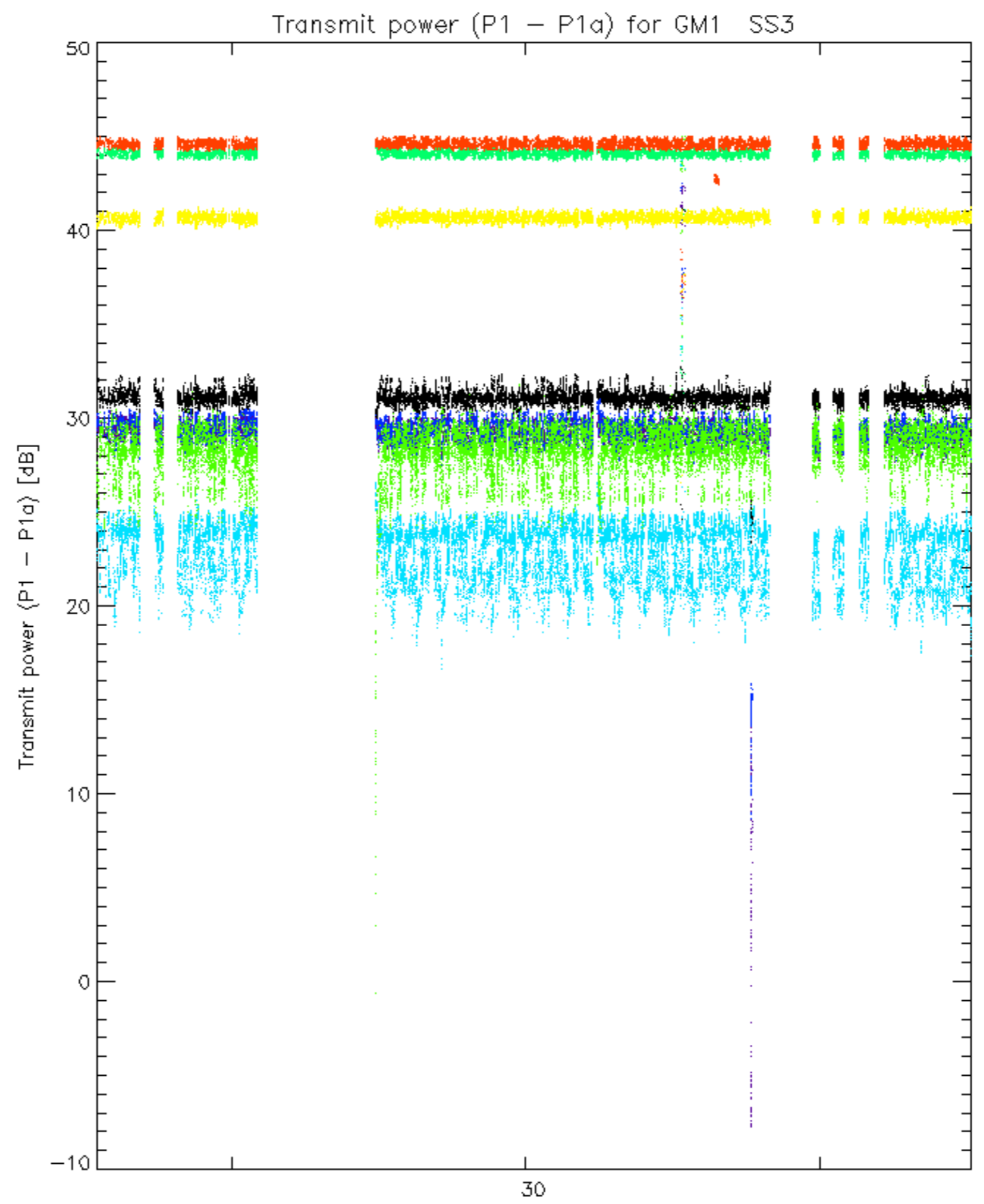




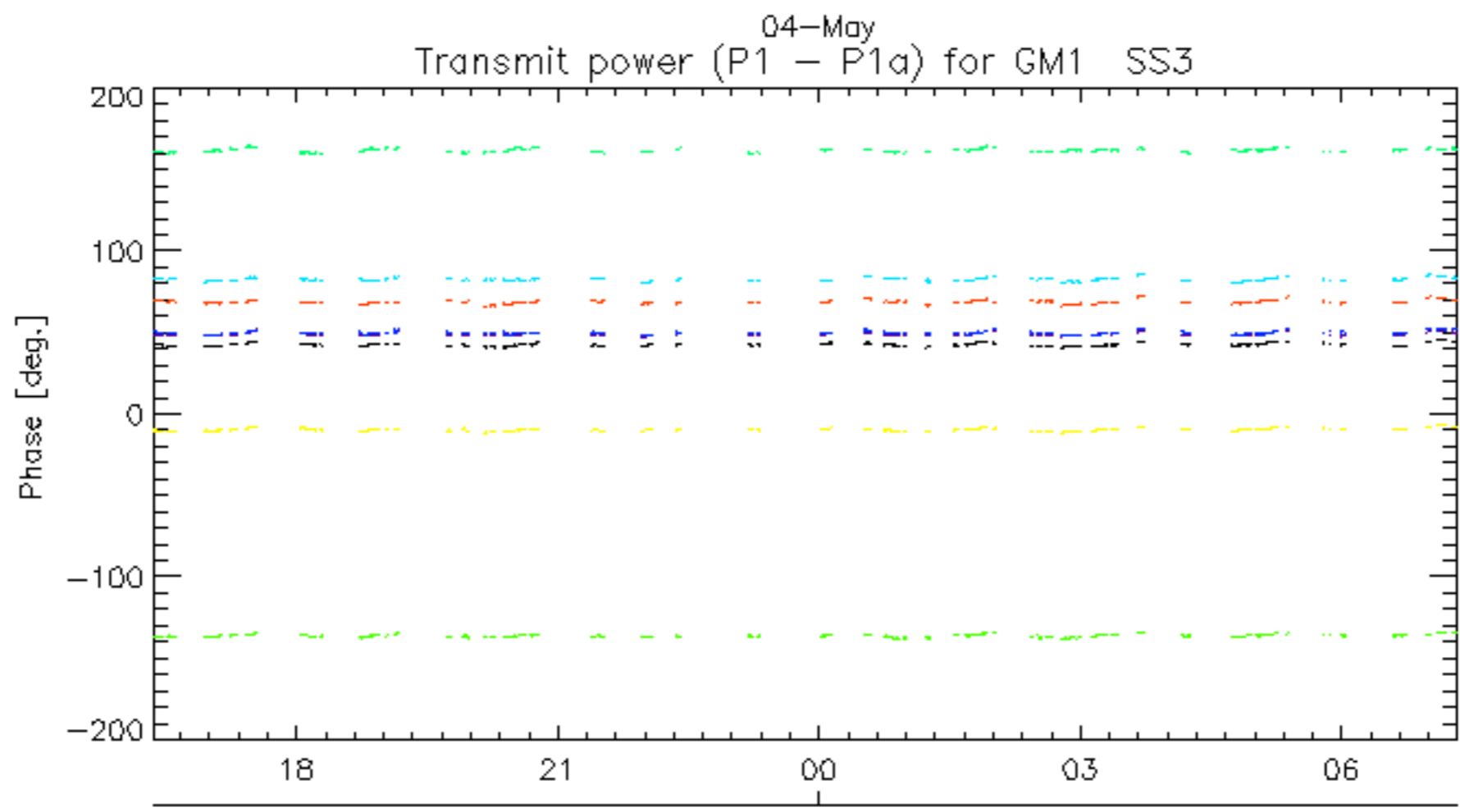
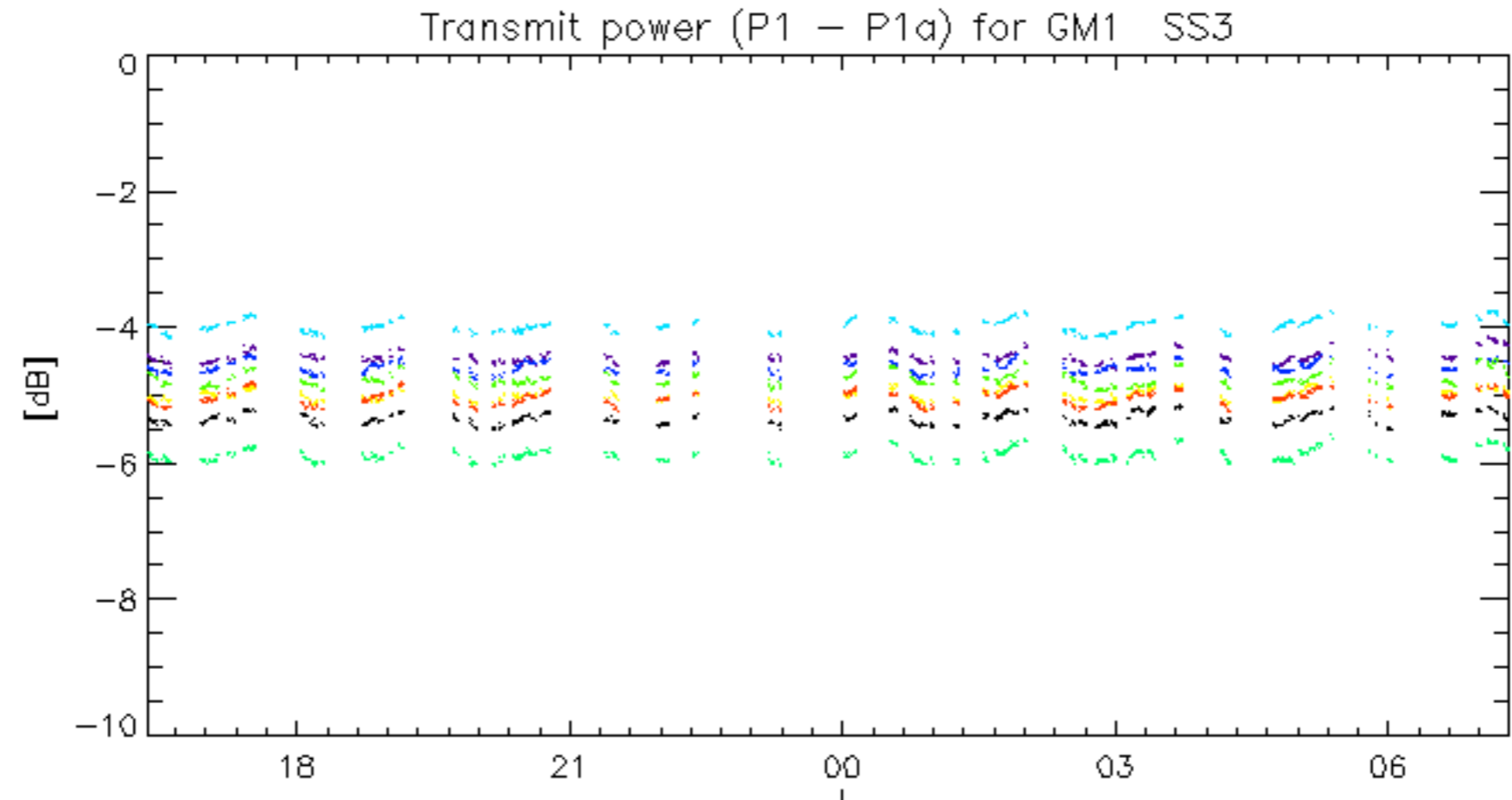
Summary of analysis for the last 3 days 2006050[234]

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

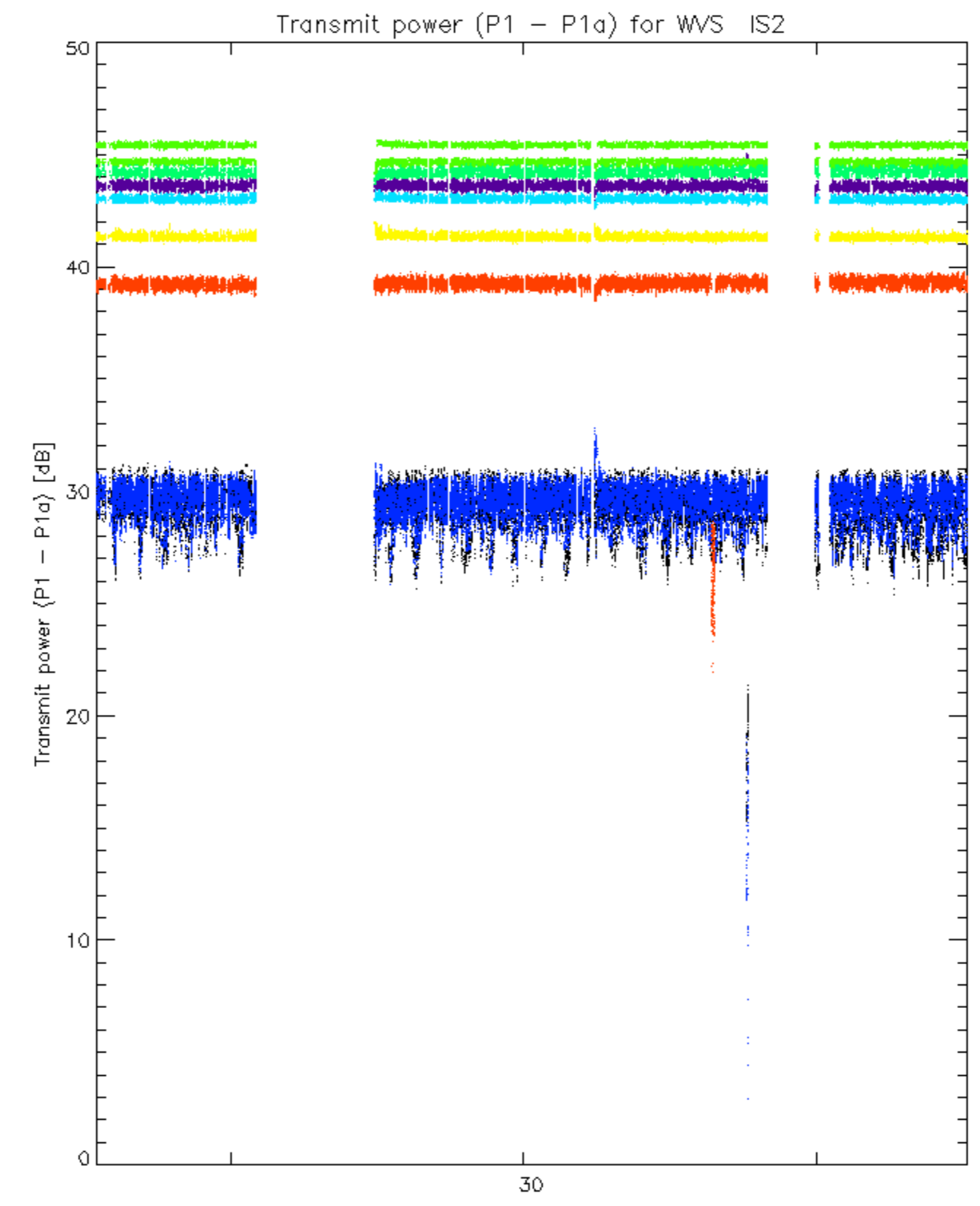
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060502_003712_000001362047_00202_21799_3993.N1	1	0
ASA_WSM_1PNPDE20060502_012718_000001282047_00203_21800_7473.N1	0	66
ASA_WSM_1PNPDE20060502_112806_000001832047_00209_21806_7544.N1	0	2
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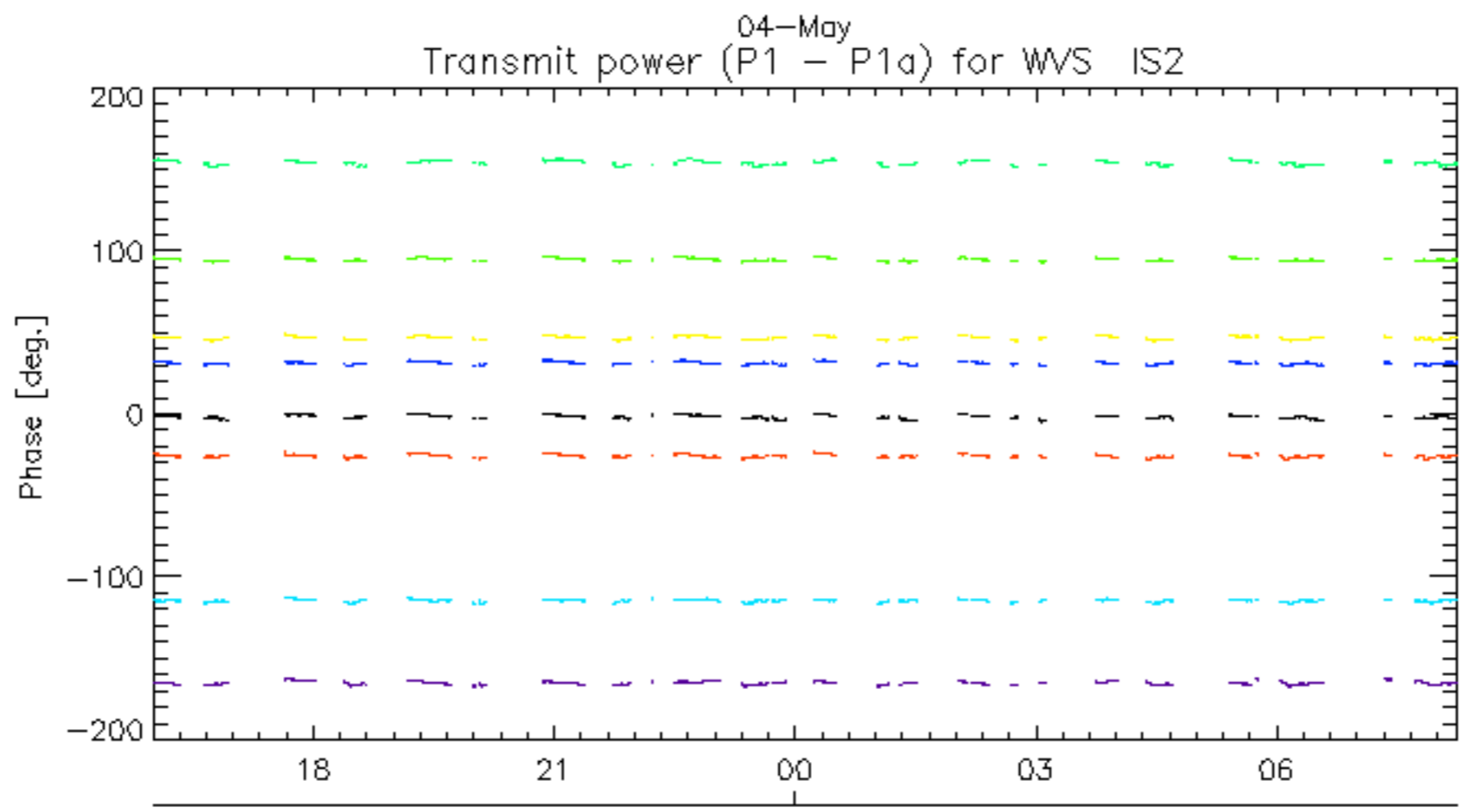
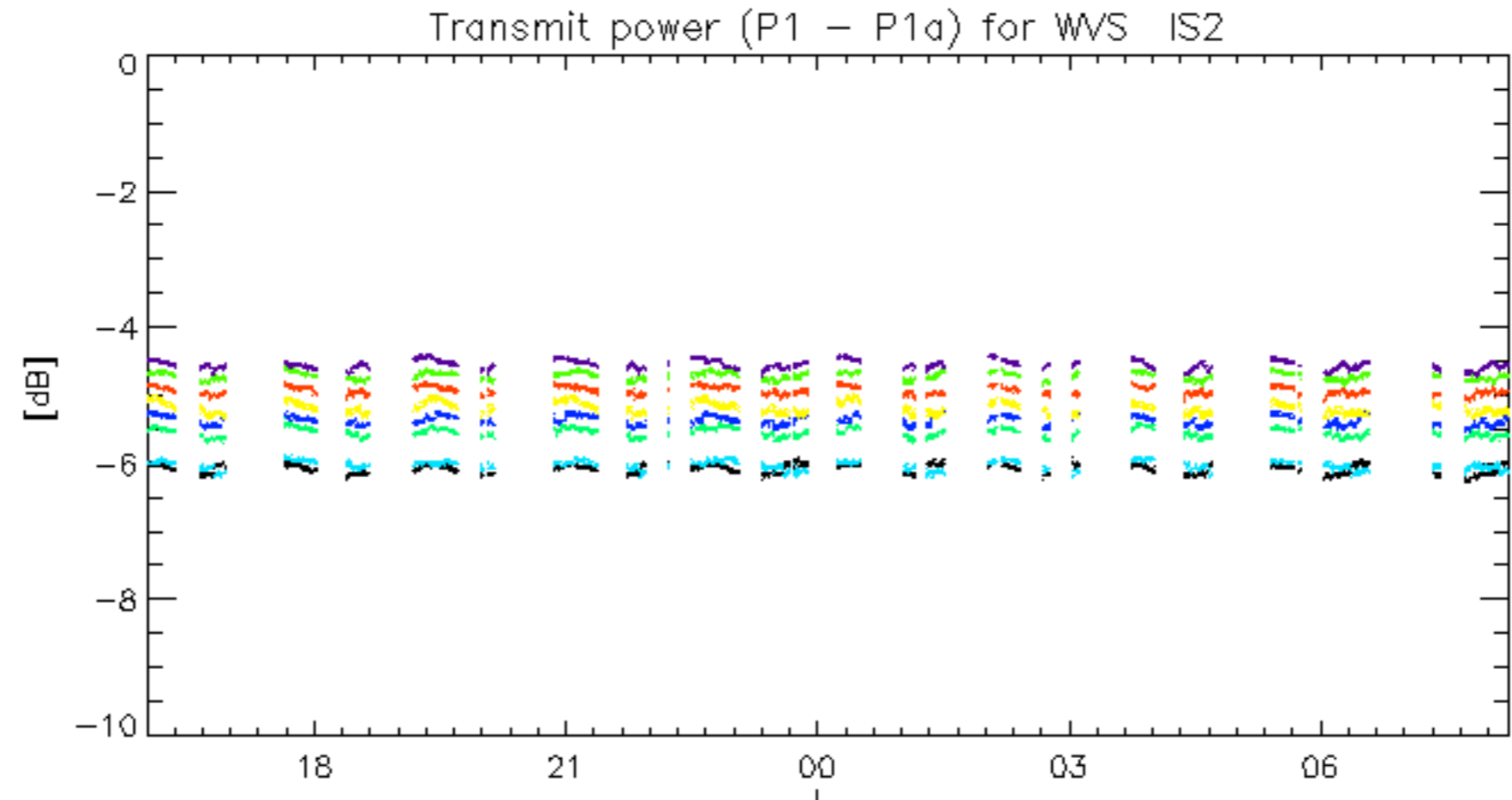
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No unavailabilities during the reported period.