

PRELIMINARY REPORT OF 060606

last update on Tue Jun 6 16:44:12 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 2006-06-05 00:00:00 to 2006-06-06 16:44:12

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	31	63	10	1	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	31	63	10	1	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	31	63	10	1	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	31	63	10	1	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	44	57	26	29	71
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	44	57	26	29	71
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	44	57	26	29	71
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	57	26	29	71

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	20060605 054047
H	20060604 061224

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	-3.951888	0.017425	0.057506
7	P1	-3.112919	0.016573	-0.044429
11	P1	-4.108244	0.018276	0.015281
15	P1	-6.136138	0.019854	0.001912
19	P1	-3.325605	0.008417	-0.042662
22	P1	-4.516271	0.011379	0.028913
26	P1	-3.981941	0.018256	0.045601
30	P1	-5.747098	0.008439	0.019385
3	P1	-16.558523	0.260917	0.150876
7	P1	-17.164621	0.147834	-0.138683
11	P1	-16.932823	0.312151	-0.032377
15	P1	-13.211843	0.215153	0.024619
19	P1	-14.275686	0.048319	-0.100603
22	P1	-16.160702	0.381299	-0.014462
26	P1	-15.256459	0.246351	0.103726
30	P1	-17.042721	0.378971	-0.213128

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.195992	0.080639	0.146491
7	P2	-22.077562	0.096636	0.155783
11	P2	-15.924383	0.109616	0.138994
15	P2	-7.161313	0.091657	0.033989
19	P2	-9.165394	0.084201	0.002138
22	P2	-18.129641	0.082146	-0.066289
26	P2	-16.373371	0.087163	-0.046277
30	P2	-19.574121	0.084952	0.076149

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.184864	0.004004	0.025843
7	P3	-8.184864	0.004004	0.025843
11	P3	-8.184864	0.004004	0.025843
15	P3	-8.184864	0.004004	0.025843
19	P3	-8.184864	0.004004	0.025843
22	P3	-8.184864	0.004004	0.025843
26	P3	-8.184864	0.004004	0.025843
30	P3	-8.184864	0.004004	0.025843

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	-3.779845	0.064650	-0.074013
7	P1	-2.602295	0.031885	0.040756
11	P1	-2.865501	0.023742	0.005349
15	P1	-3.499113	0.049439	-0.024299
19	P1	-3.397964	0.014126	-0.014040
22	P1	-5.086680	0.019999	0.018867
26	P1	-5.839963	0.015509	-0.010932
30	P1	-5.186837	0.026519	0.016359
3	P1	-11.613664	0.081168	-0.033036
7	P1	-9.965016	0.054098	0.013151
11	P1	-10.204281	0.085485	-0.029707
15	P1	-10.630666	0.149742	-0.094375
19	P1	-15.511790	0.076325	-0.047083
22	P1	-20.890608	1.221632	-0.060432

26	P1	-16.478386	0.350385	0.055611
30	P1	-17.993078	0.388878	0.251439

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.884745	0.066850	0.124802
7	P2	-22.511112	0.125353	0.080663
11	P2	-11.176540	0.044893	0.070126
15	P2	-4.906286	0.045700	-0.004952
19	P2	-6.876767	0.049803	0.009853
22	P2	-8.196192	0.040591	-0.019440
26	P2	-24.110416	0.064192	-0.041310
30	P2	-22.063505	0.052140	0.005014

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.018059	0.004615	0.024418
7	P3	-8.018127	0.004613	0.024455
11	P3	-8.018088	0.004602	0.024635
15	P3	-8.017945	0.004610	0.024210
19	P3	-8.018076	0.004611	0.024464
22	P3	-8.018101	0.004600	0.024365
26	P3	-8.018091	0.004597	0.023939
30	P3	-8.018033	0.004608	0.024227

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	0.000529146
	stdev	1.92185e-07
MEAN Q	mean	0.000507220
	stdev	2.31583e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.133871
	stdev	0.00120381
STDEV Q	mean	0.134211
	stdev	0.00122067



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006060[456]

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_1PNPDE20060606_003645_000001642048_00202_22300_6709.N1	1	0
ASA_WSM_1PNPDE20060604_165033_000000852048_00184_22282_2609.N1	0	34
ASA_WSM_1PNPDE20060604_183353_000000852048_00185_22283_2624.N1	0	39
ASA_WSM_1PNPDE20060605_015912_000000852048_00189_22287_2669.N1	0	63
ASA_WSM_1PNPDE20060605_043830_000001282048_00191_22289_2688.N1	0	34

ASA_WSM_1PNPDE20060605_180337_000001712048_00199_22297_2784.N1	0	8
ASA_WSM_1PNPDE20060605_202223_000001292048_00200_22298_2823.N1	0	34
ASA_WSM_1PNPDE20060606_040457_000002692048_00205_22303_2880.N1	0	13
ASA_WSM_1PNPDK20060604_083041_000000862048_00179_22277_6799.N1	0	71
ASA_WSM_1PNPDK20060604_133138_000002932048_00182_22280_6822.N1	0	23





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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

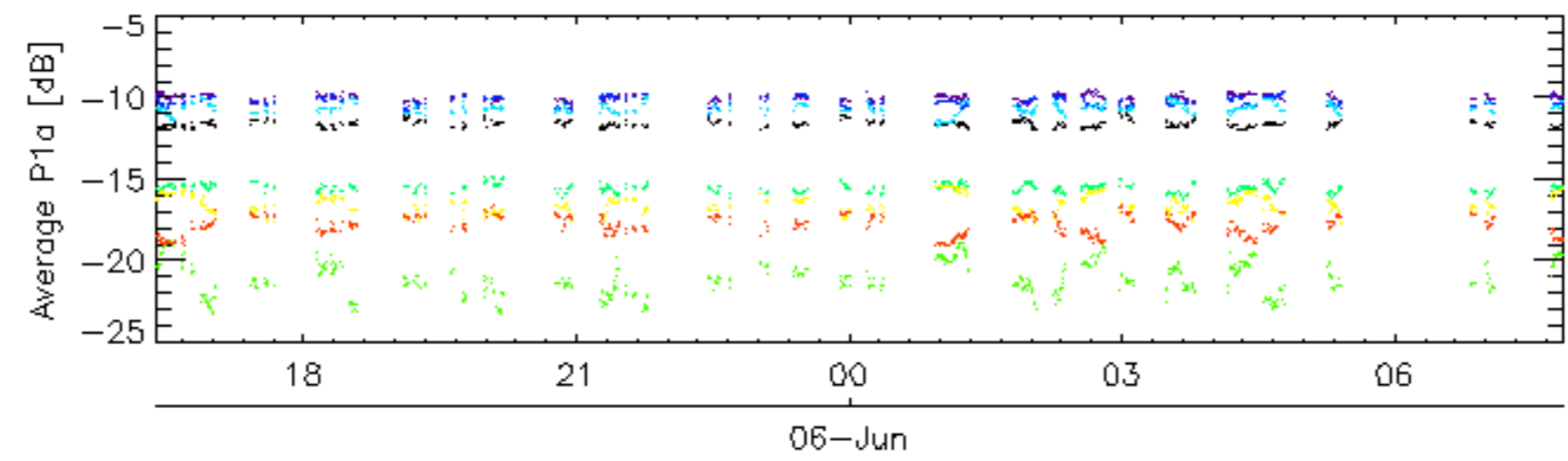
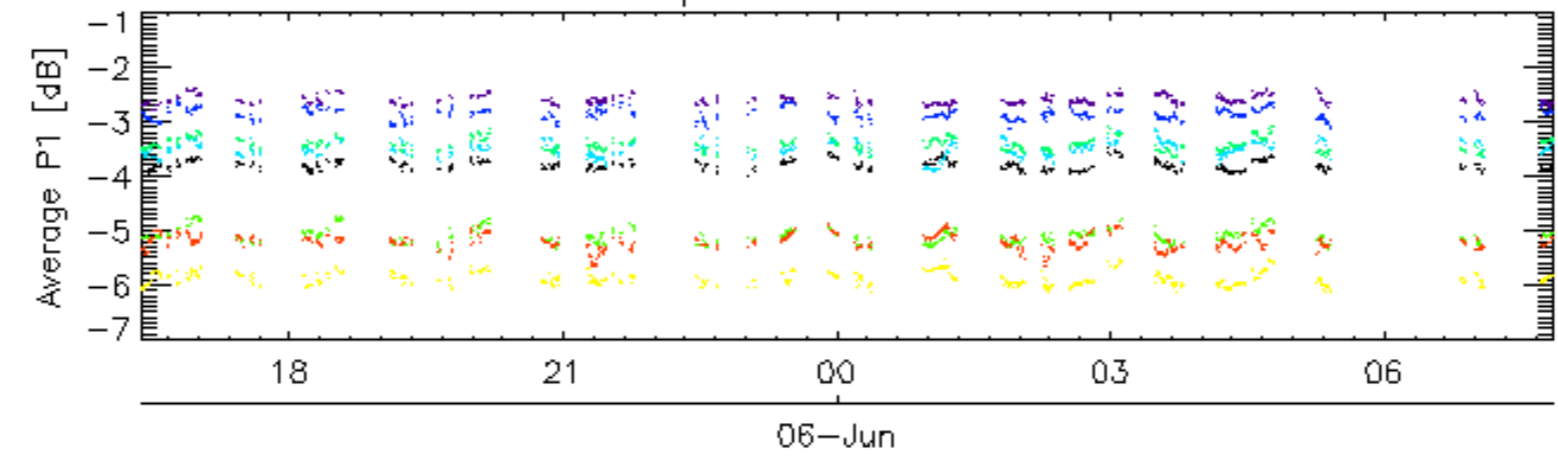
Ascending

Descending

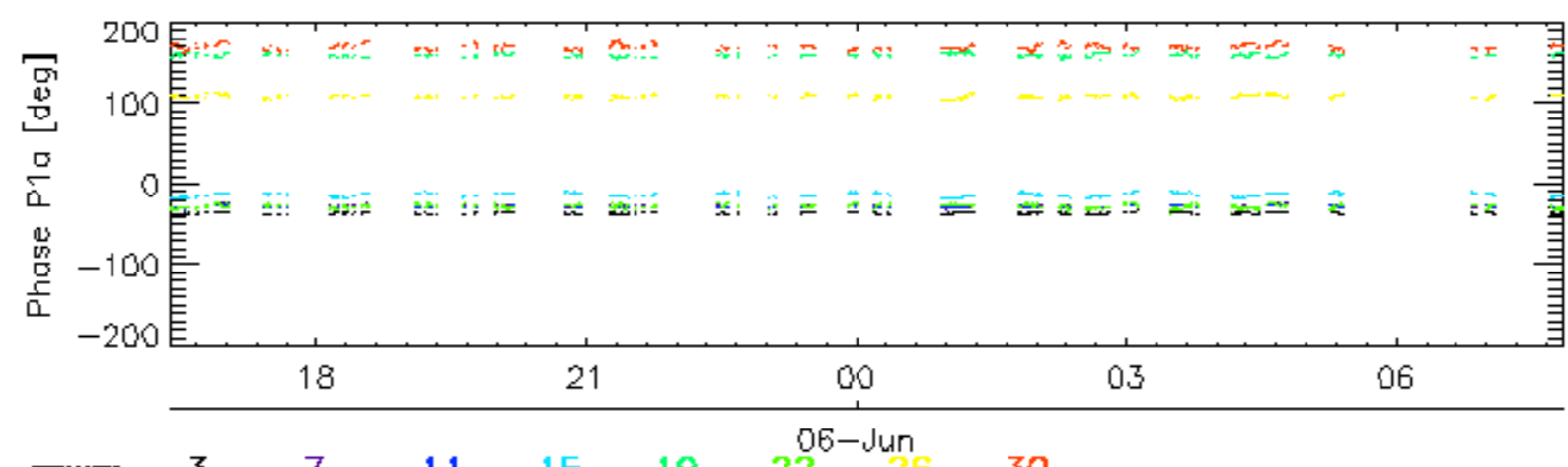
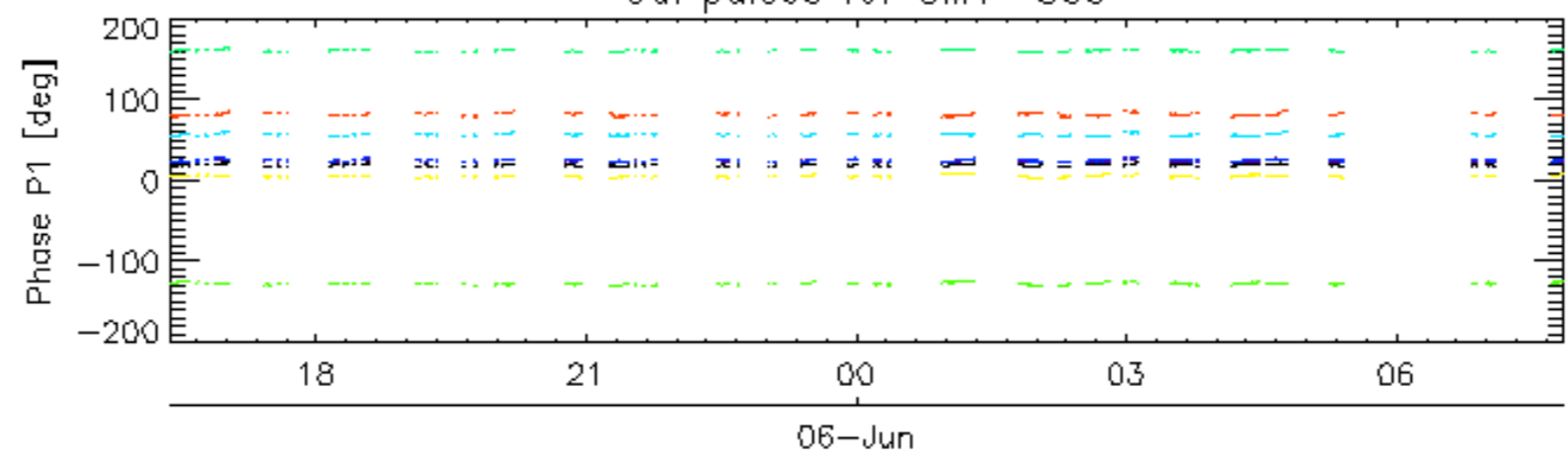
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

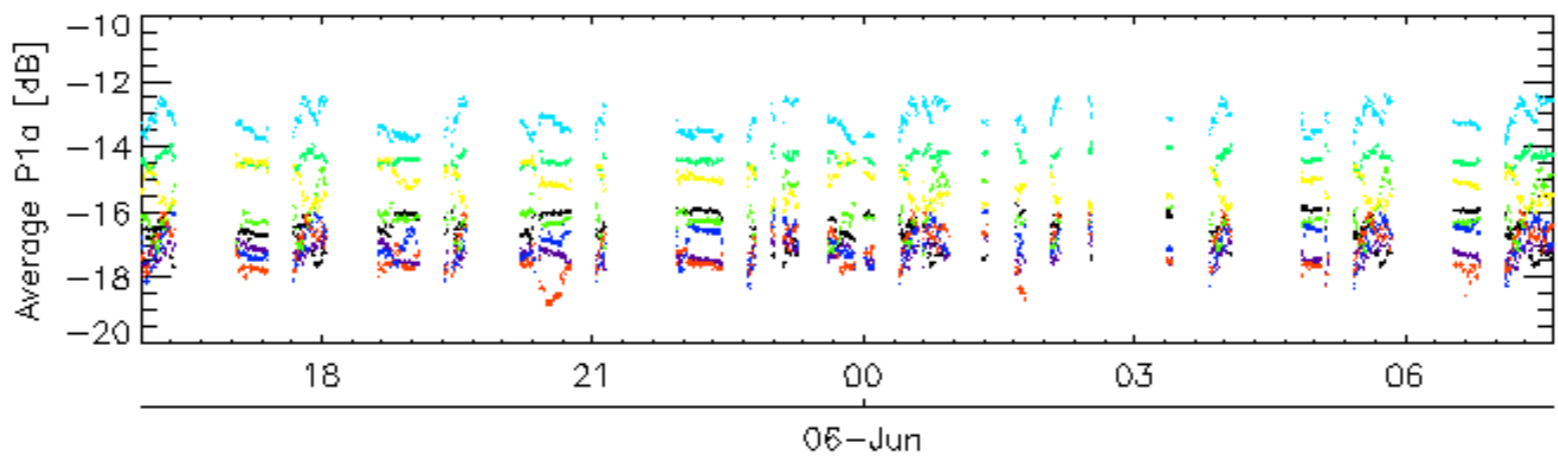
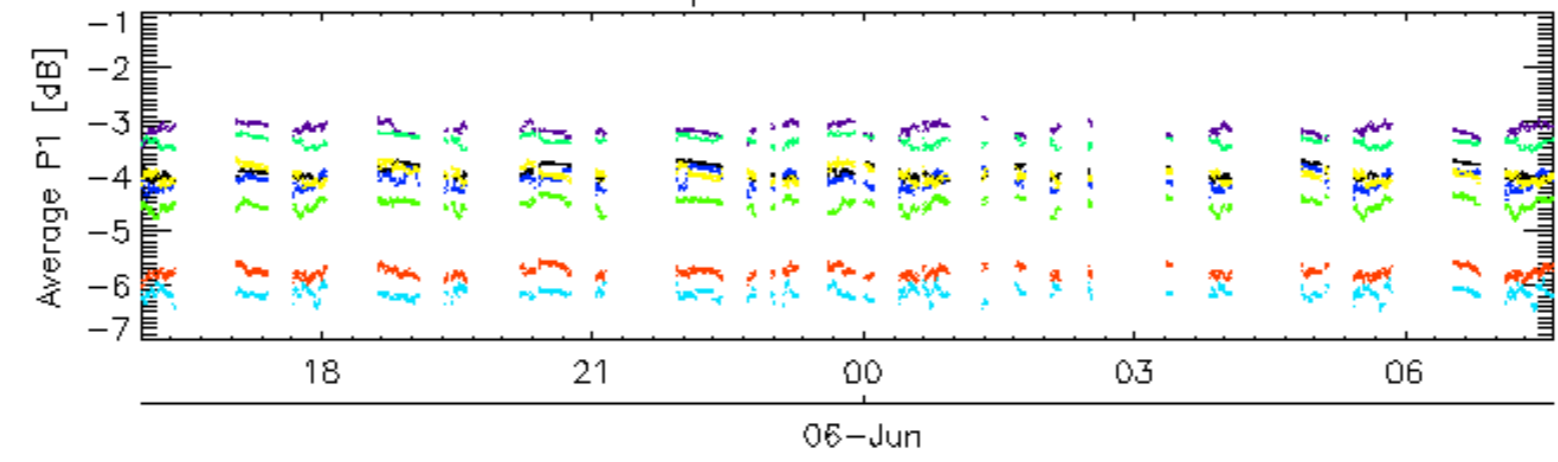


Cal pulses for GM1 SS3

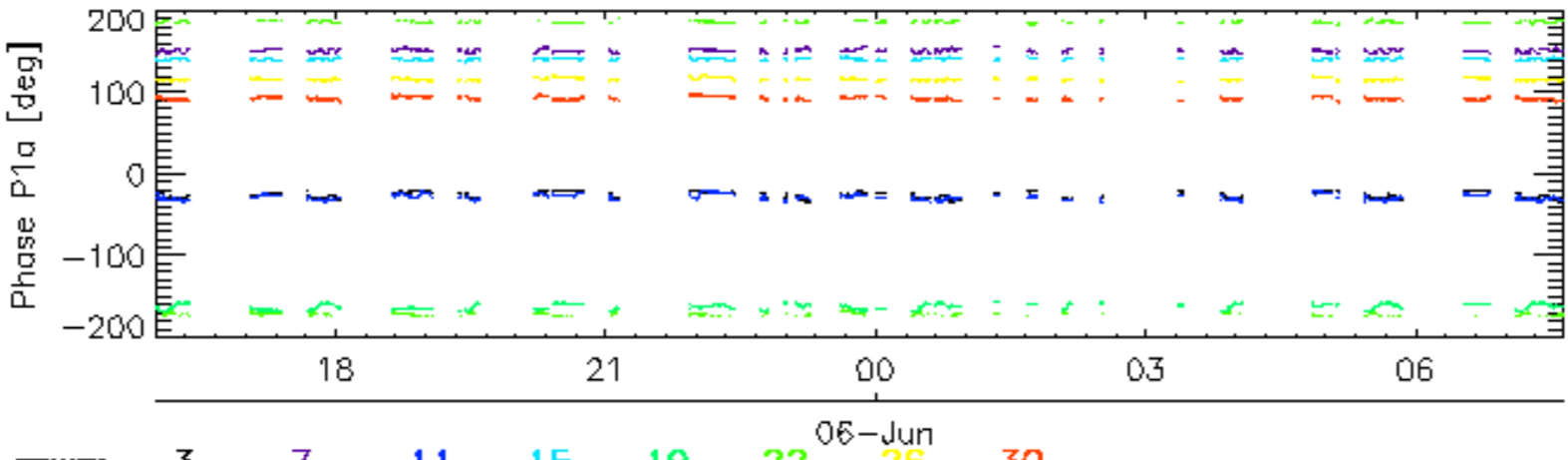
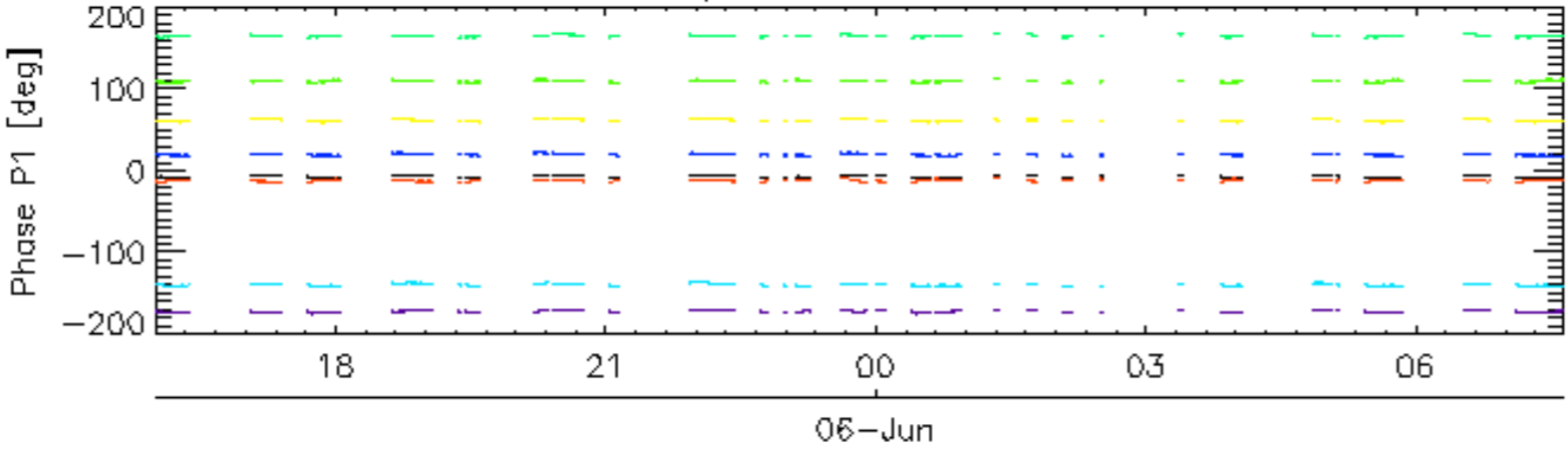


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

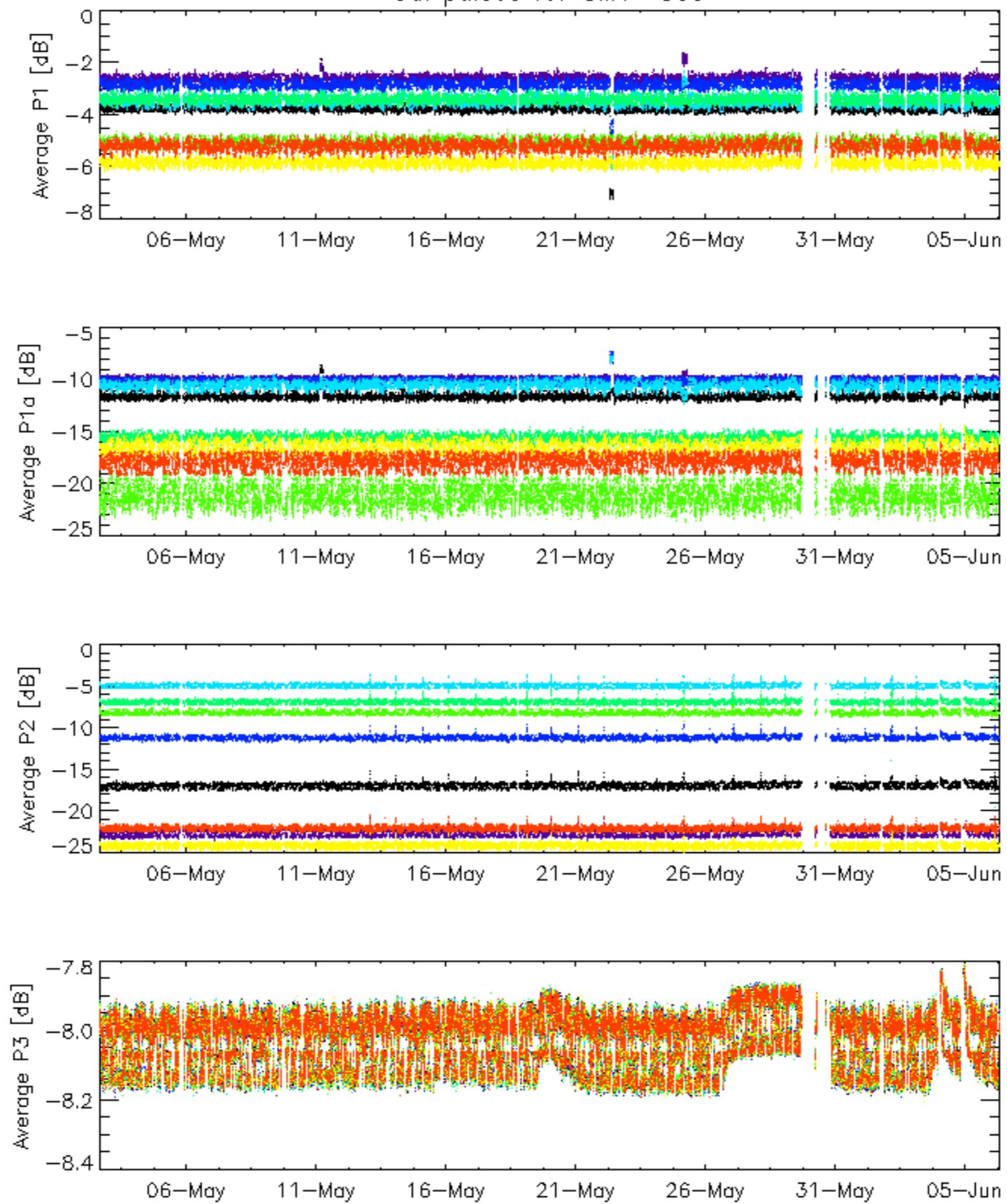


Cal pulses for WVS IS2



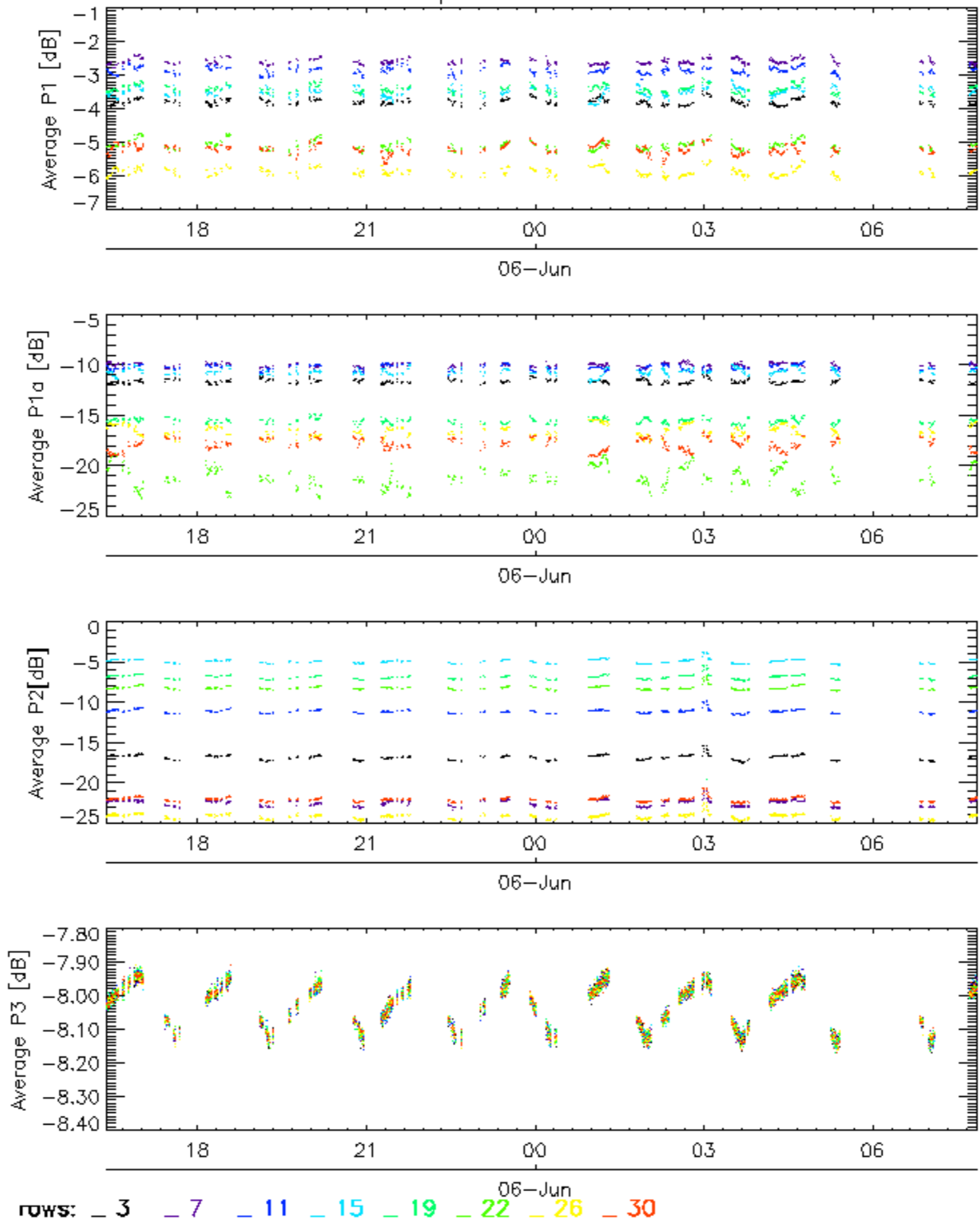
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

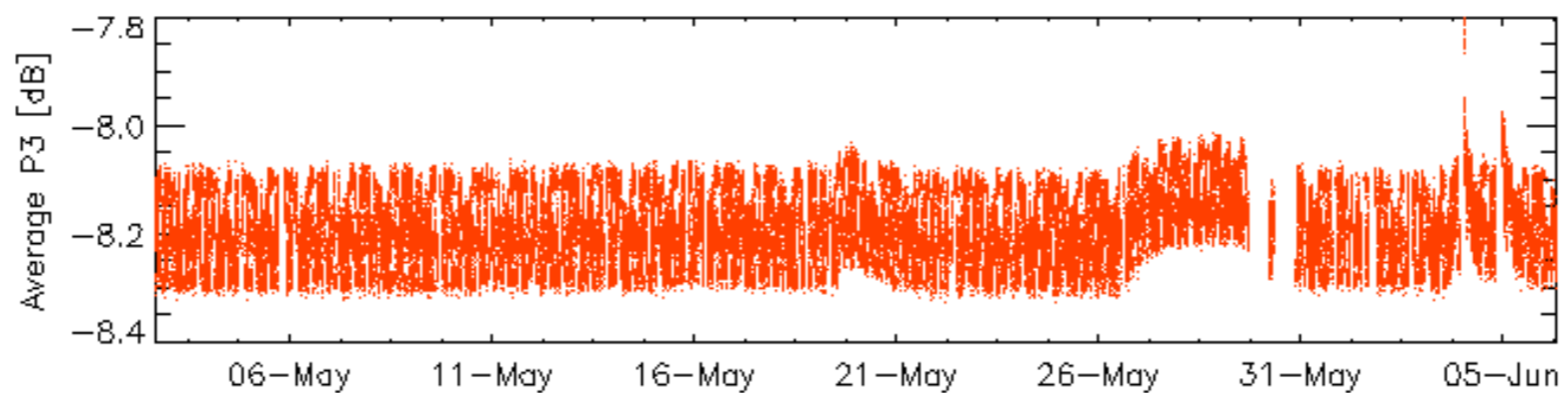
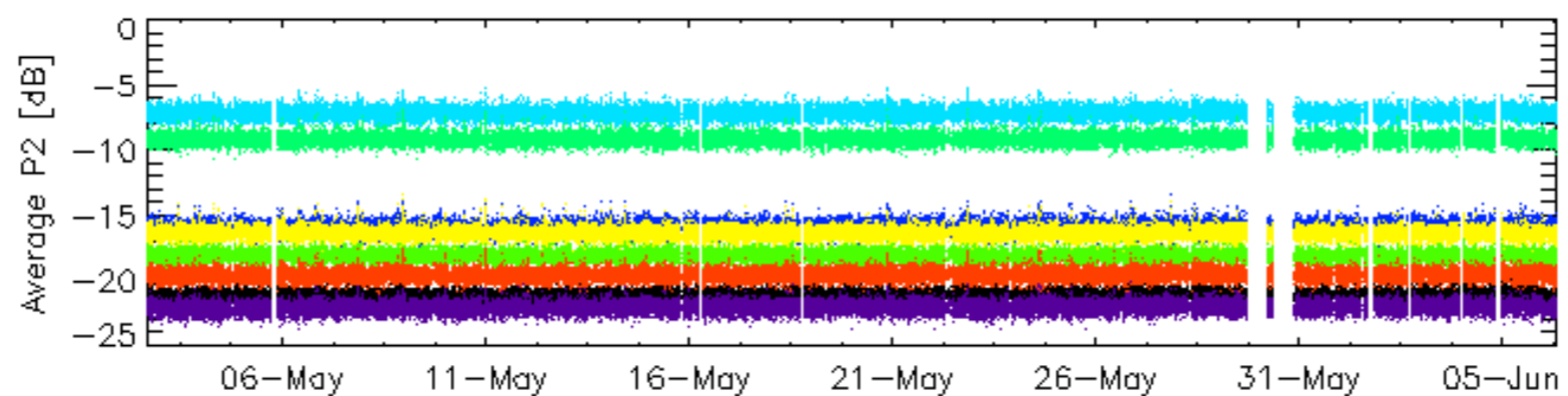
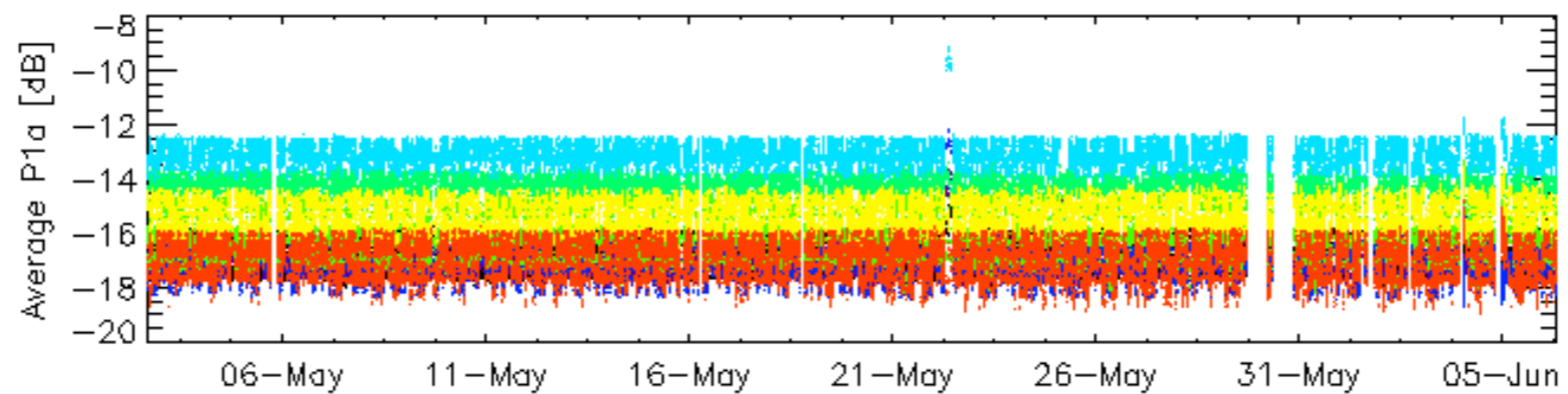
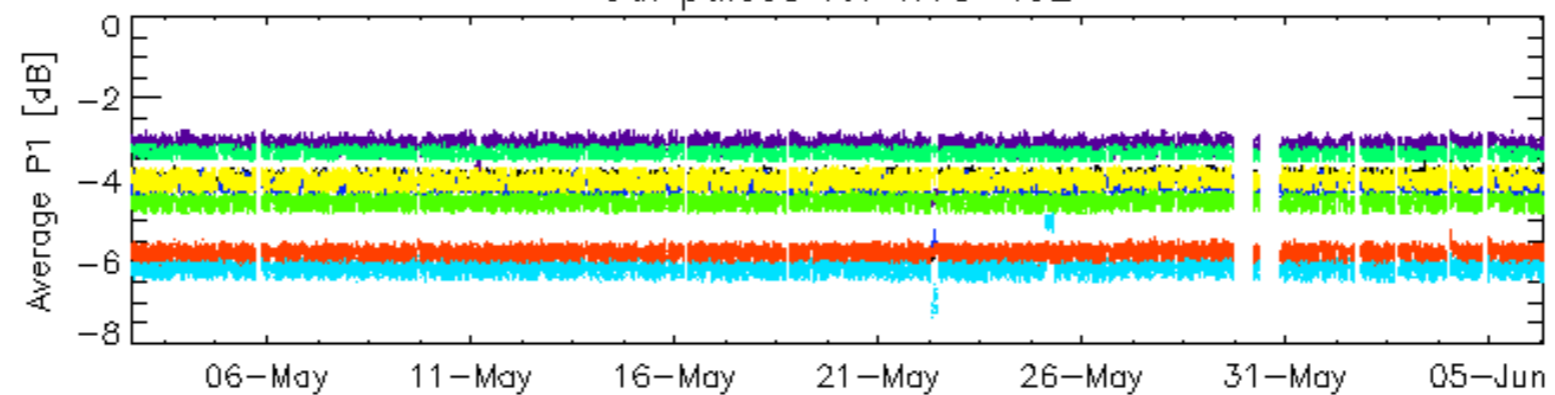


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

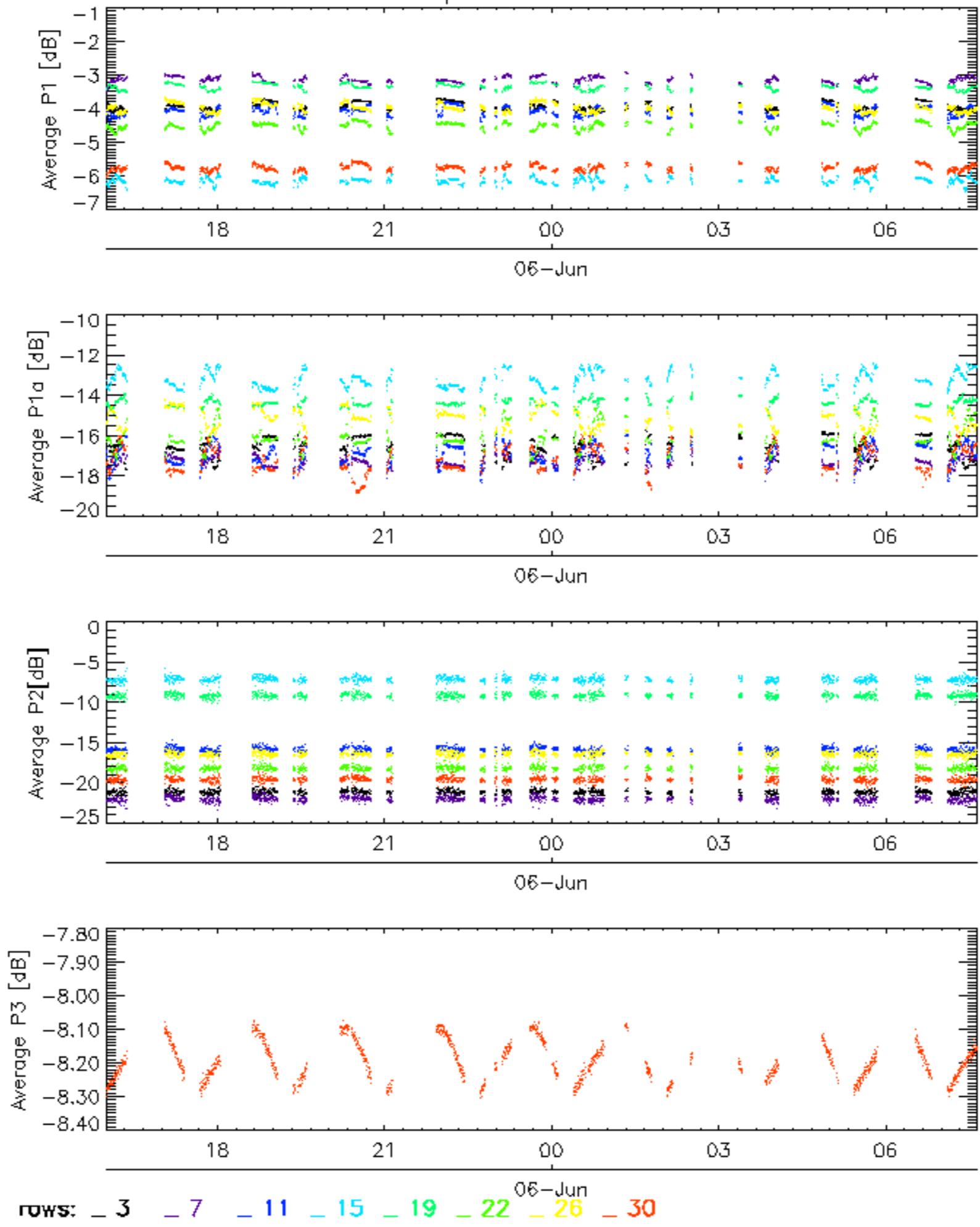


Cal pulses for WVS IS2



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

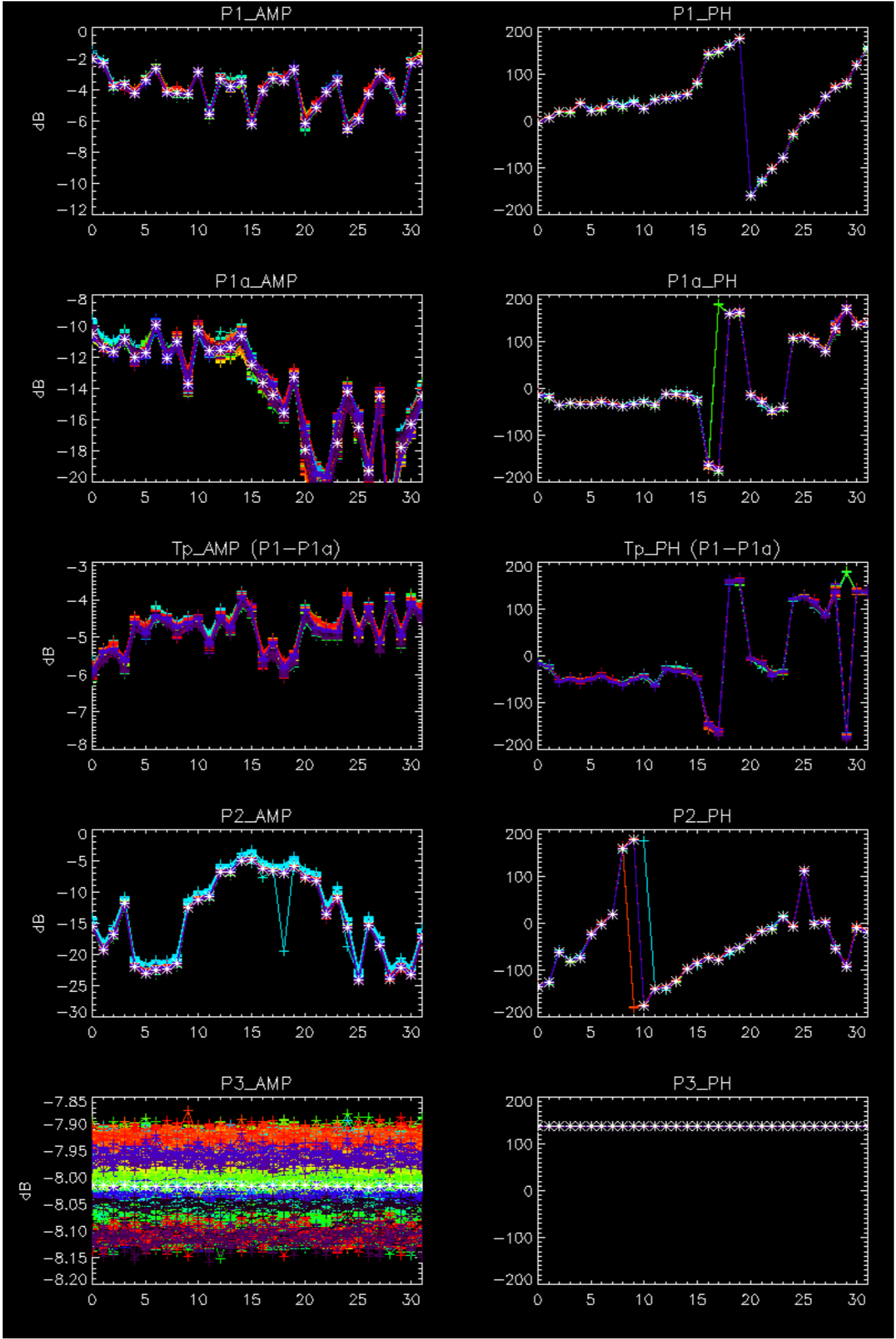
Cal pulses for WVS IS2

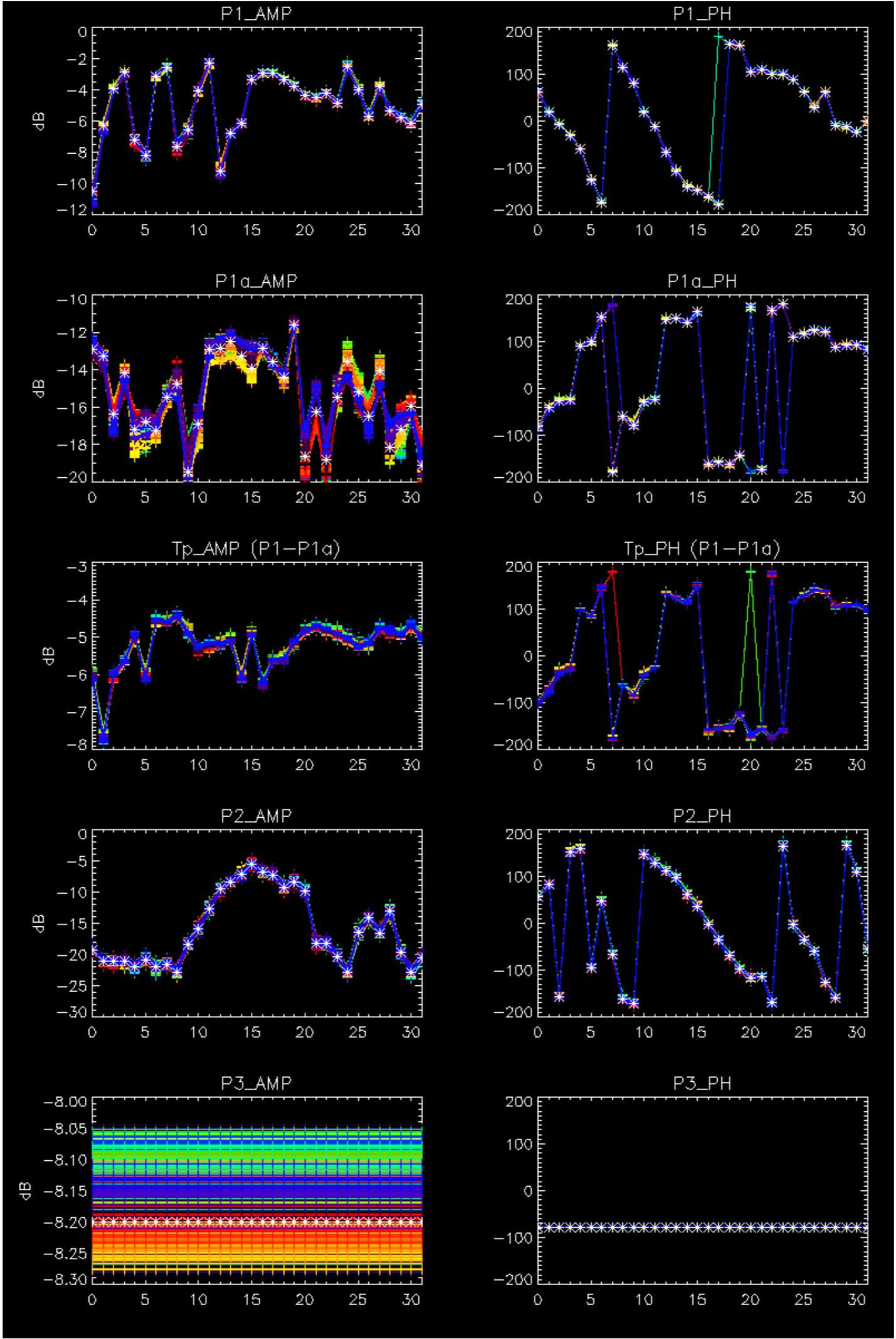


rows: 3 7 11 15 19 22 26 30

No anomalies observed on available browse products

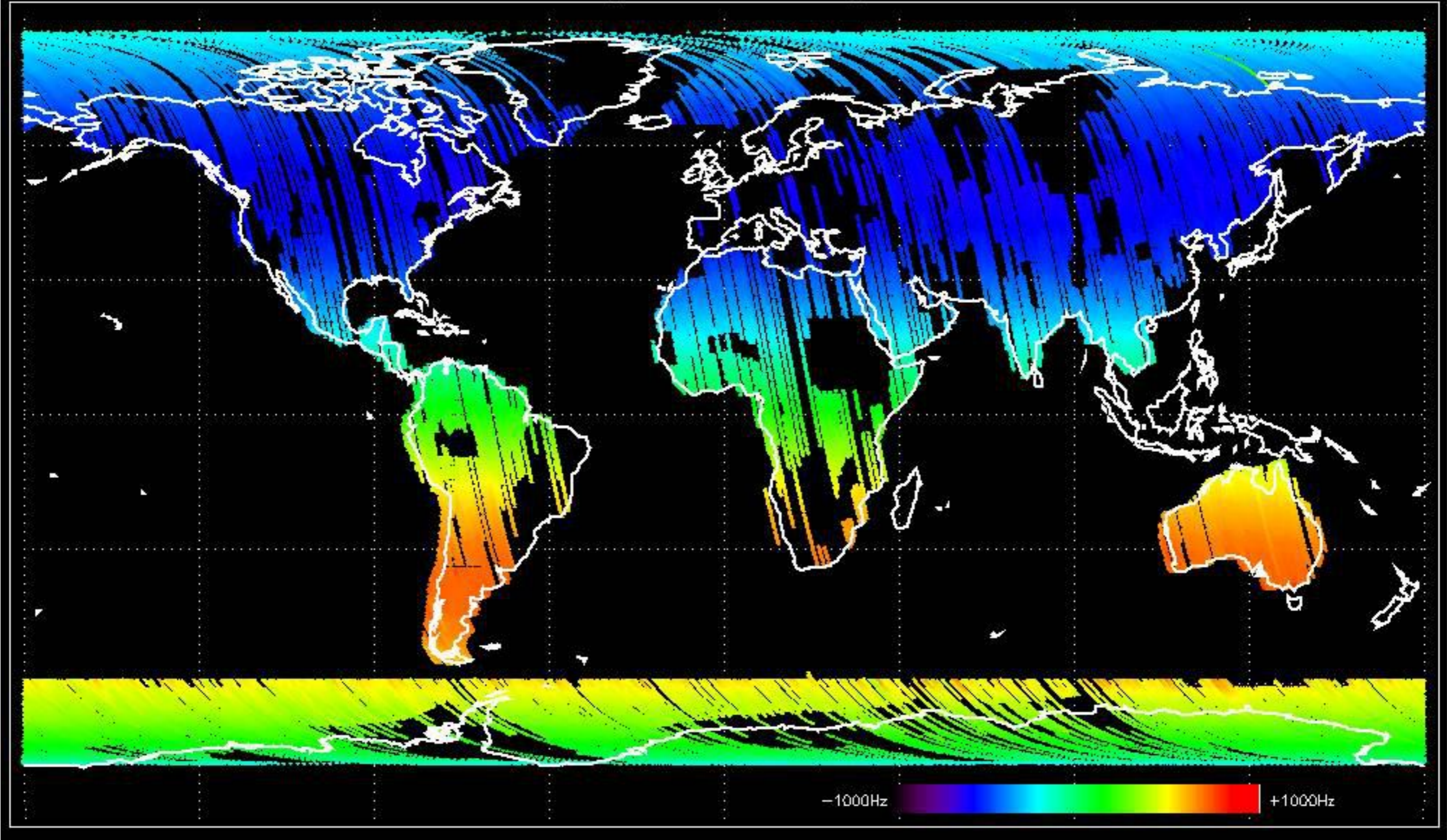
No anomalies observed.



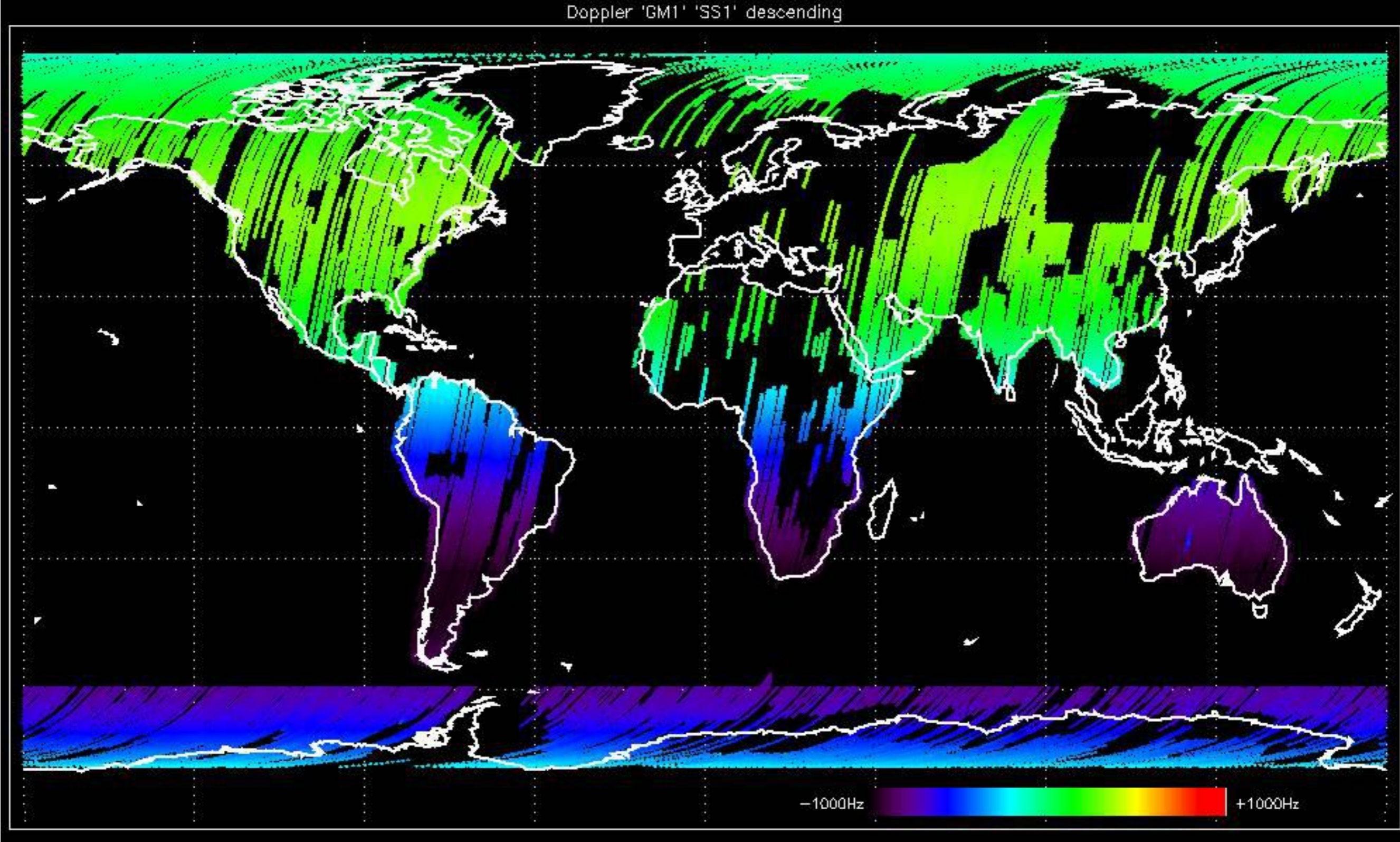


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

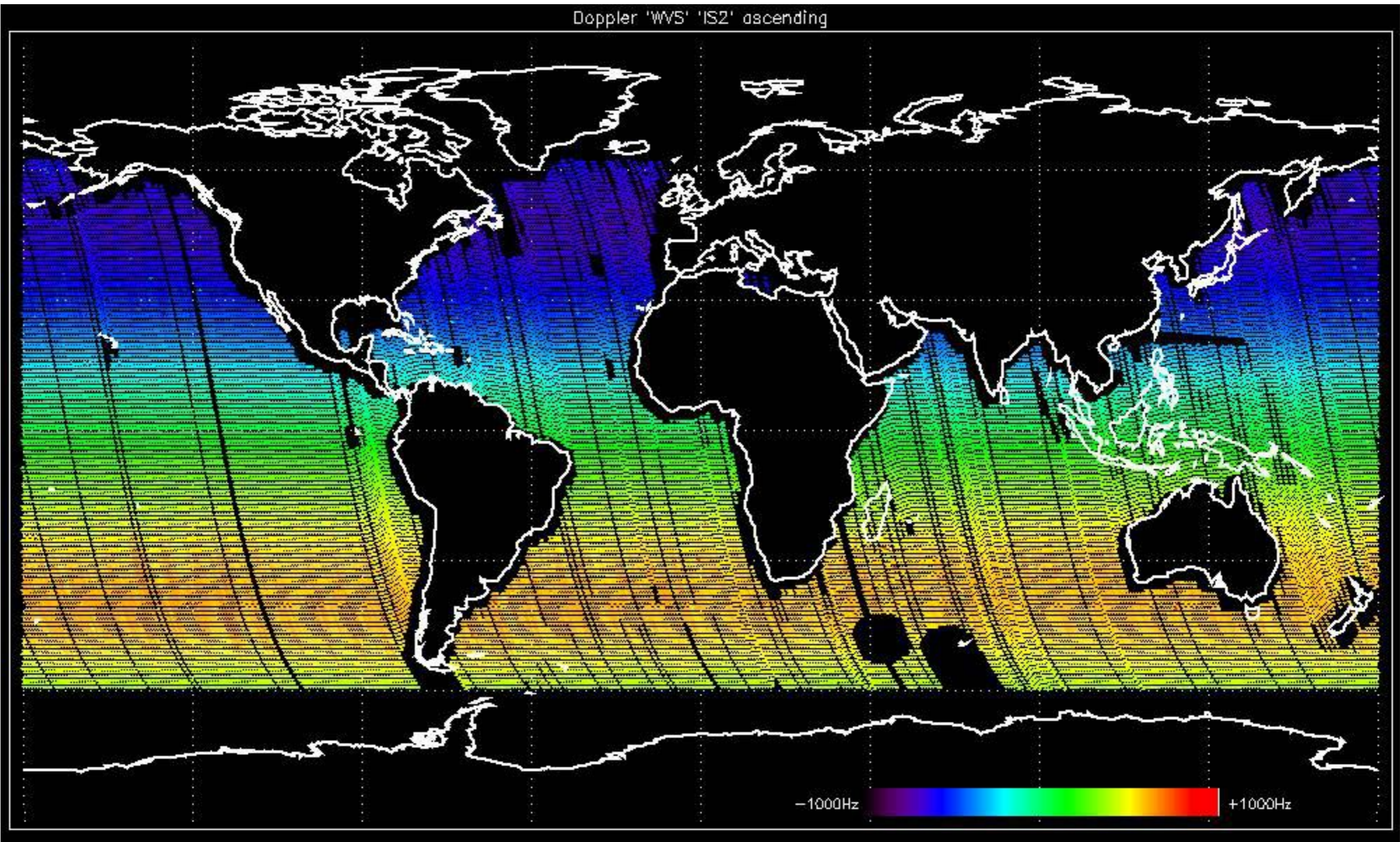
Doppler 'GM1' 'SS1' ascending



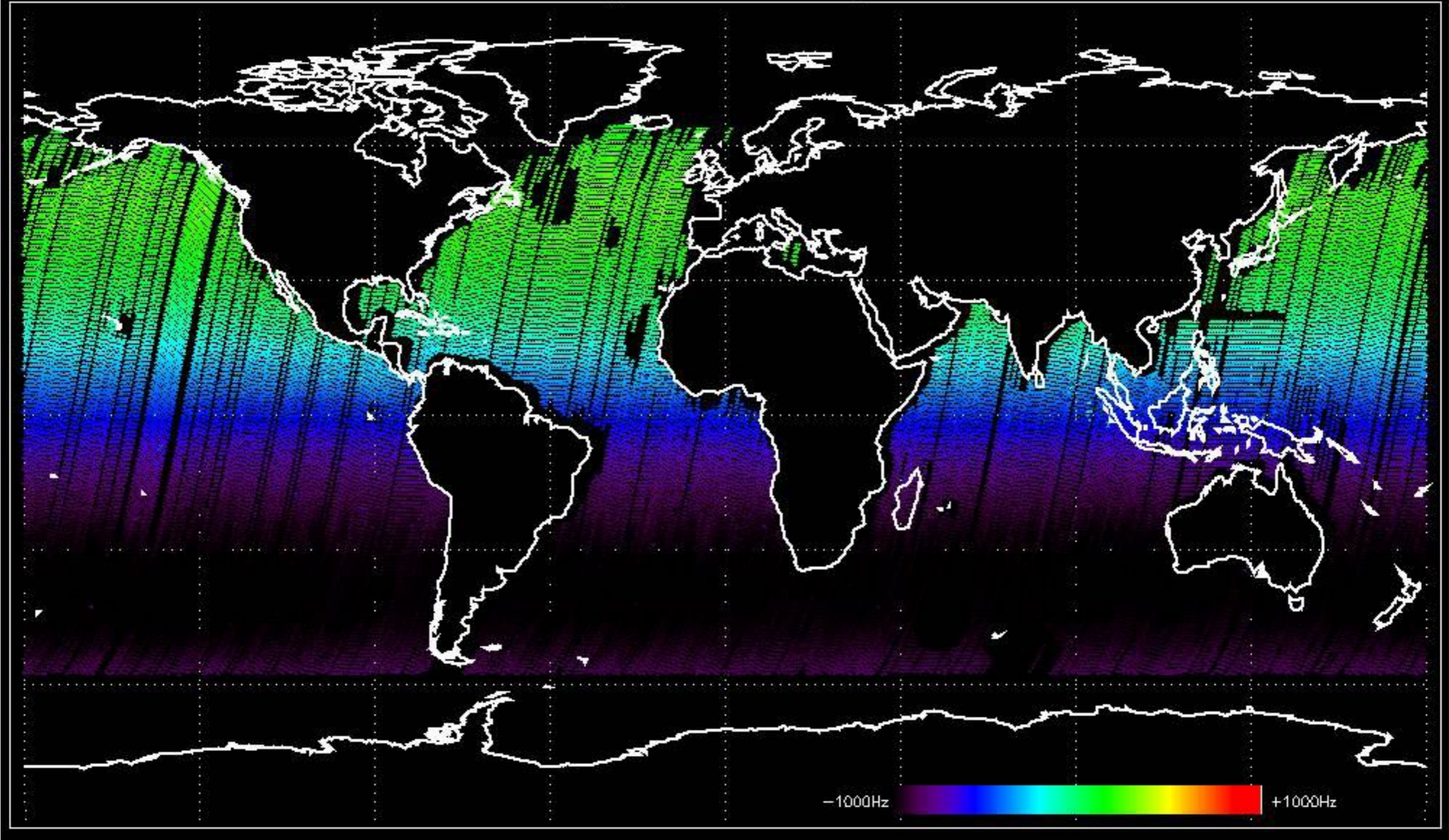
Doppler 'GM1' 'SS1' descending

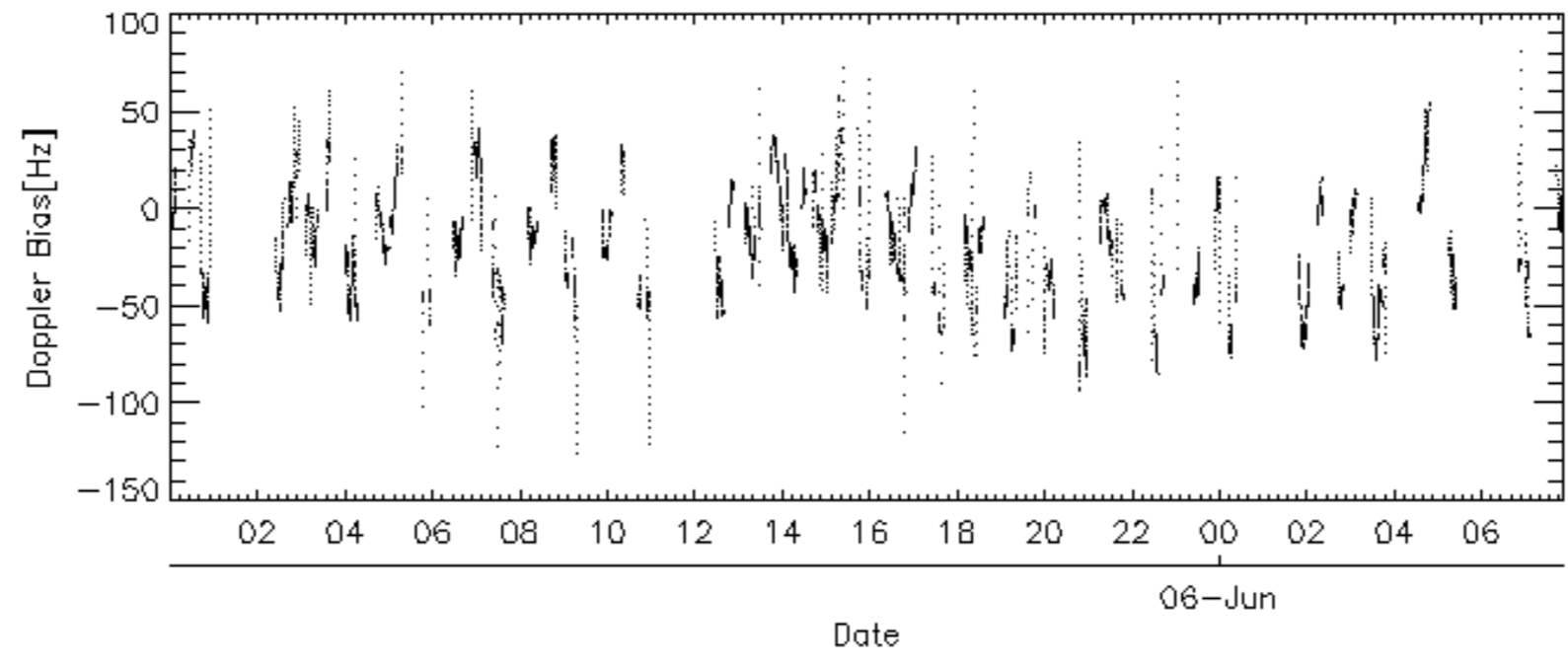
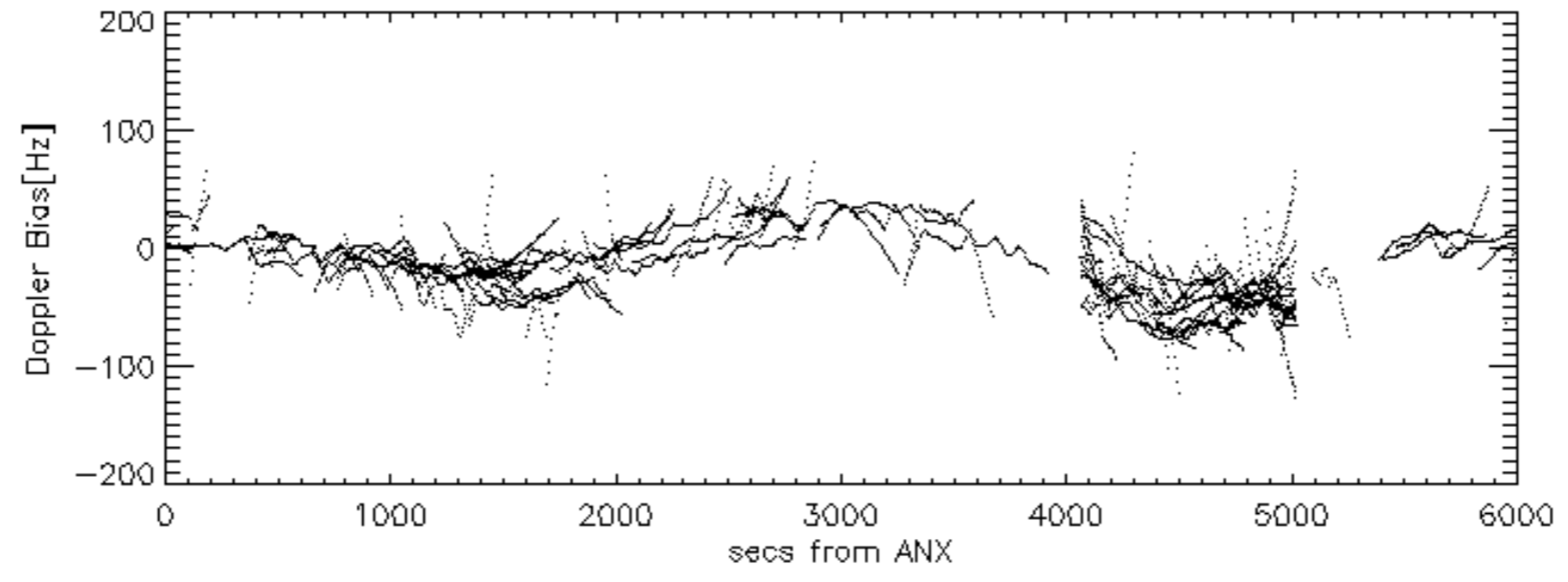
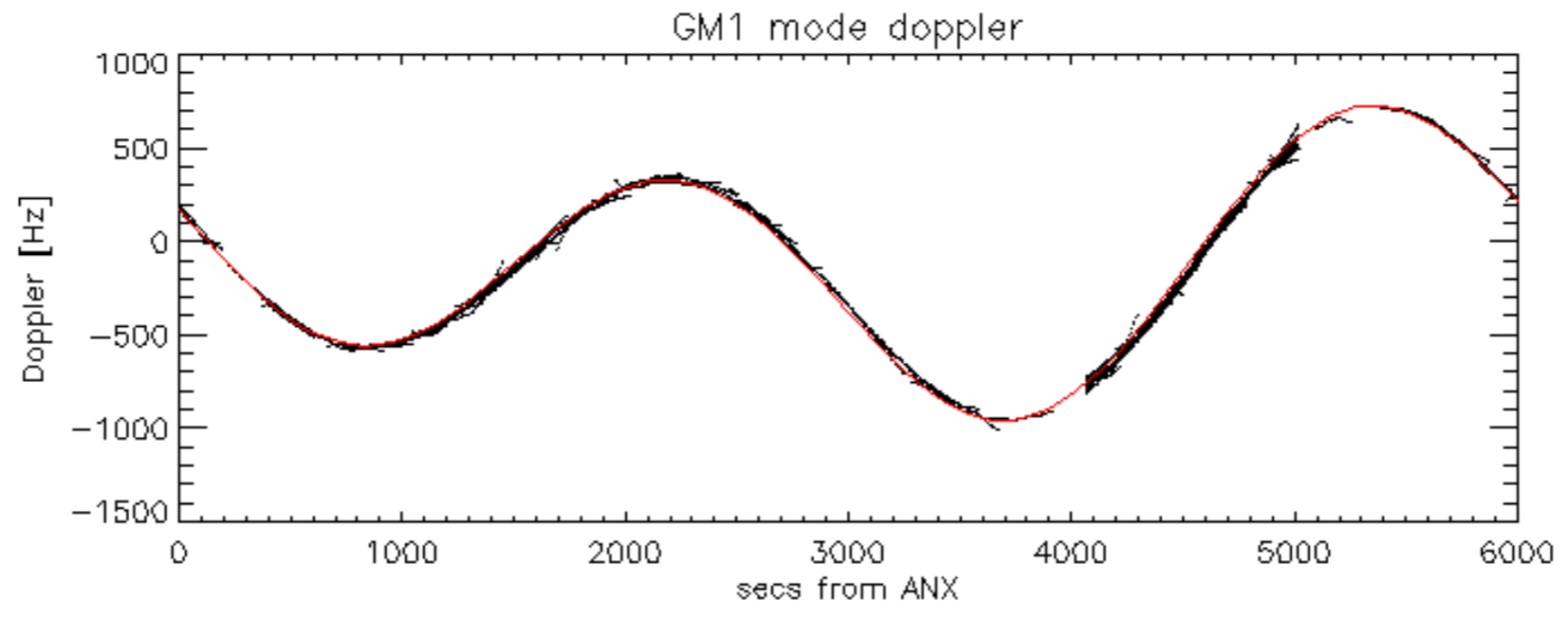


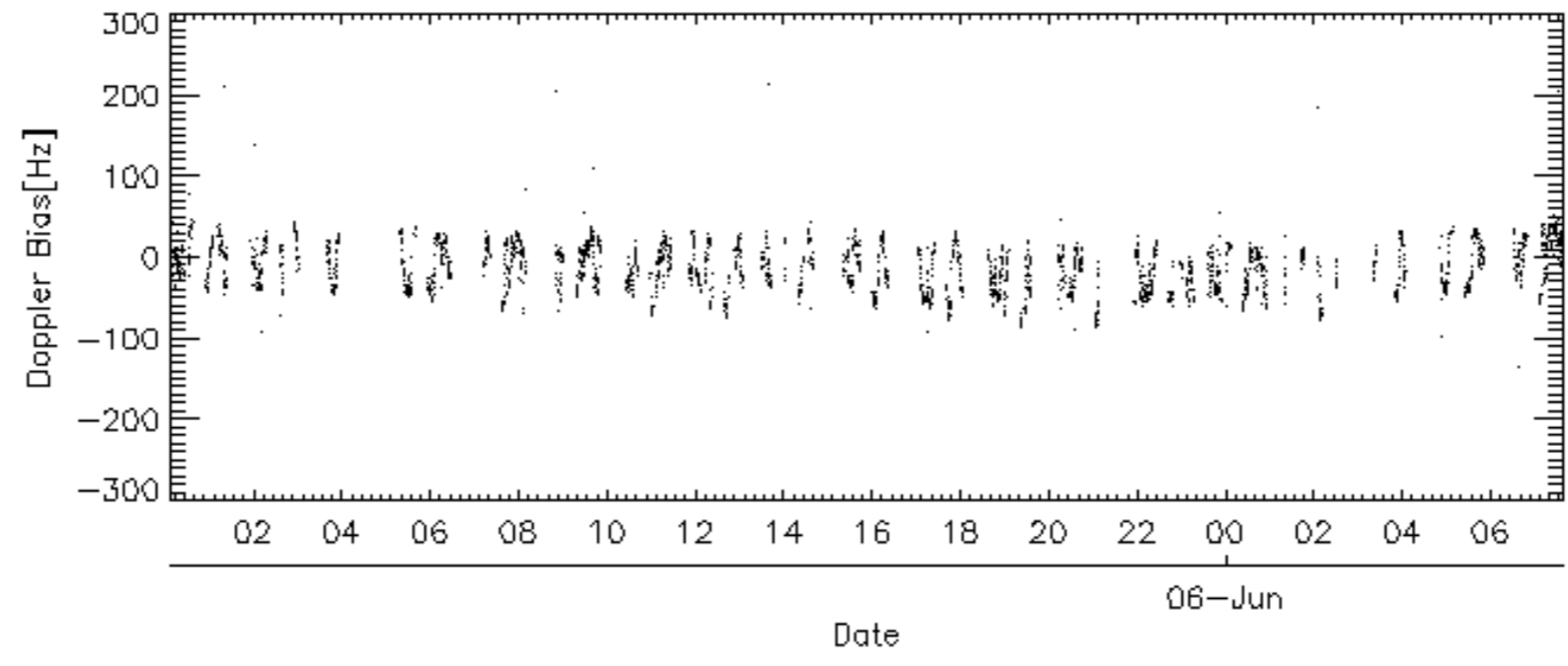
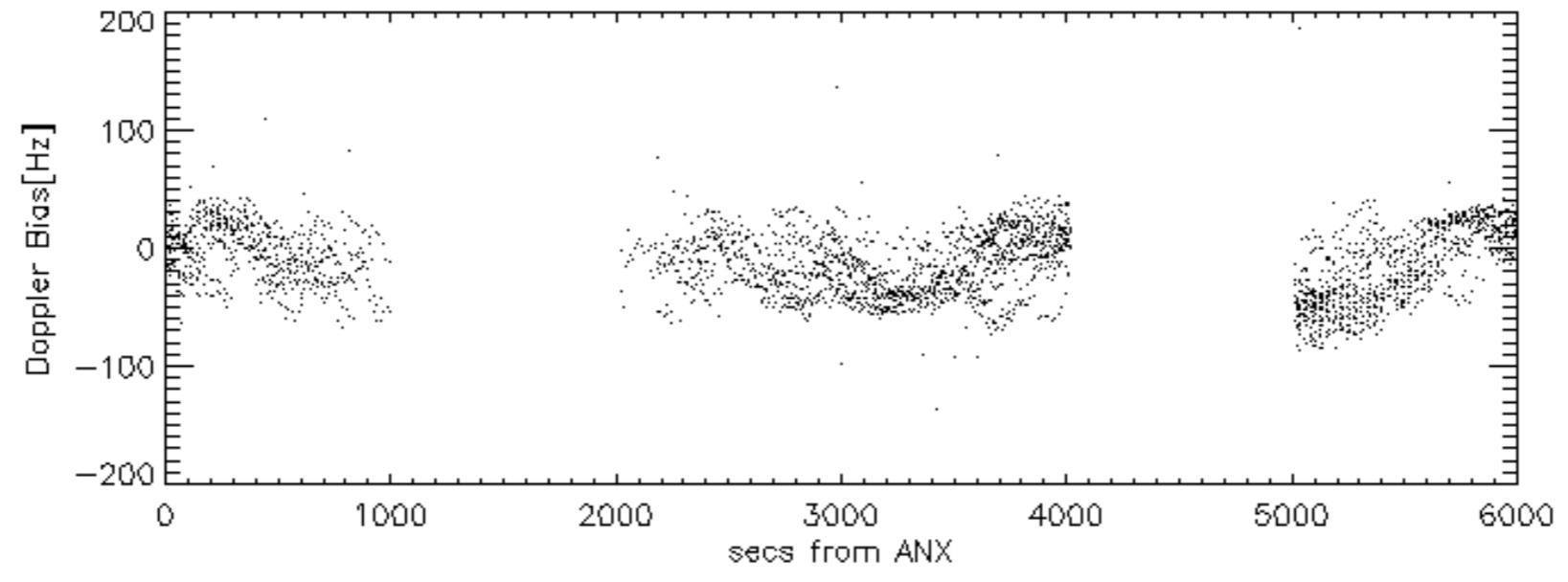
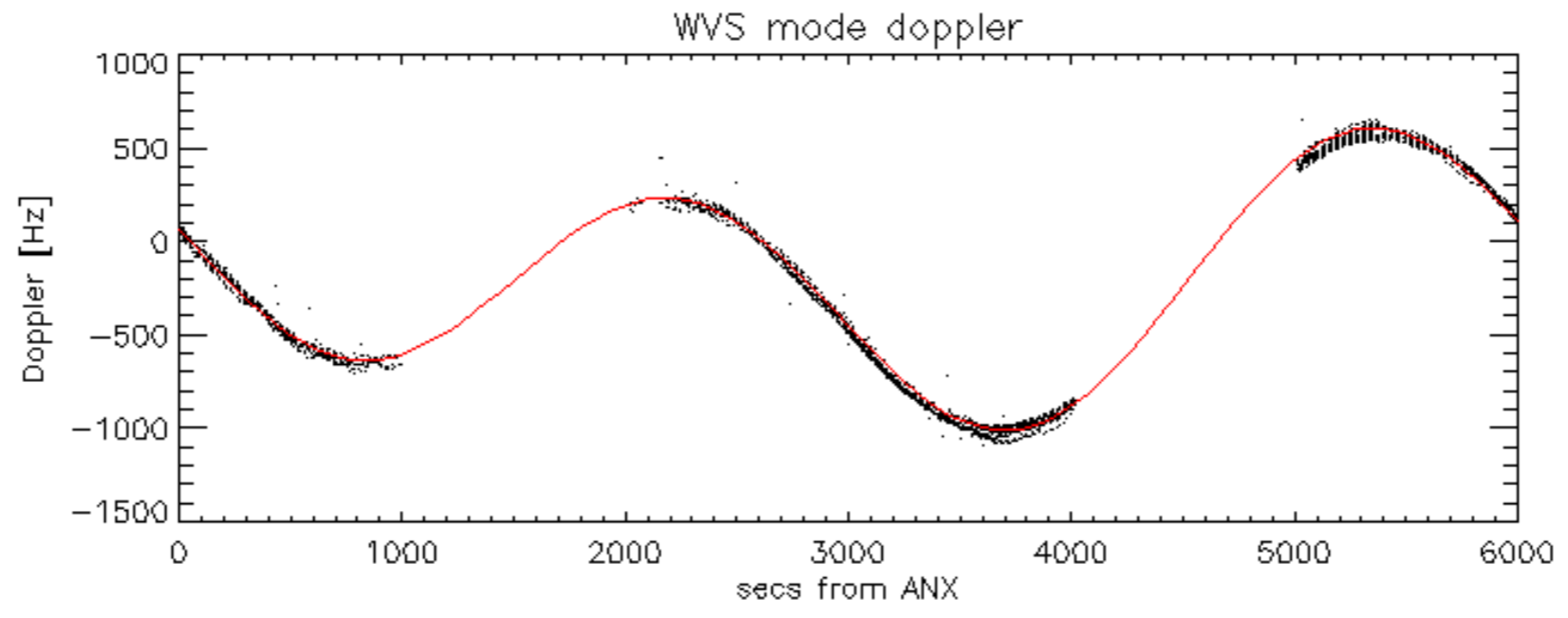
Doppler 'WVS' 'IS2' ascending



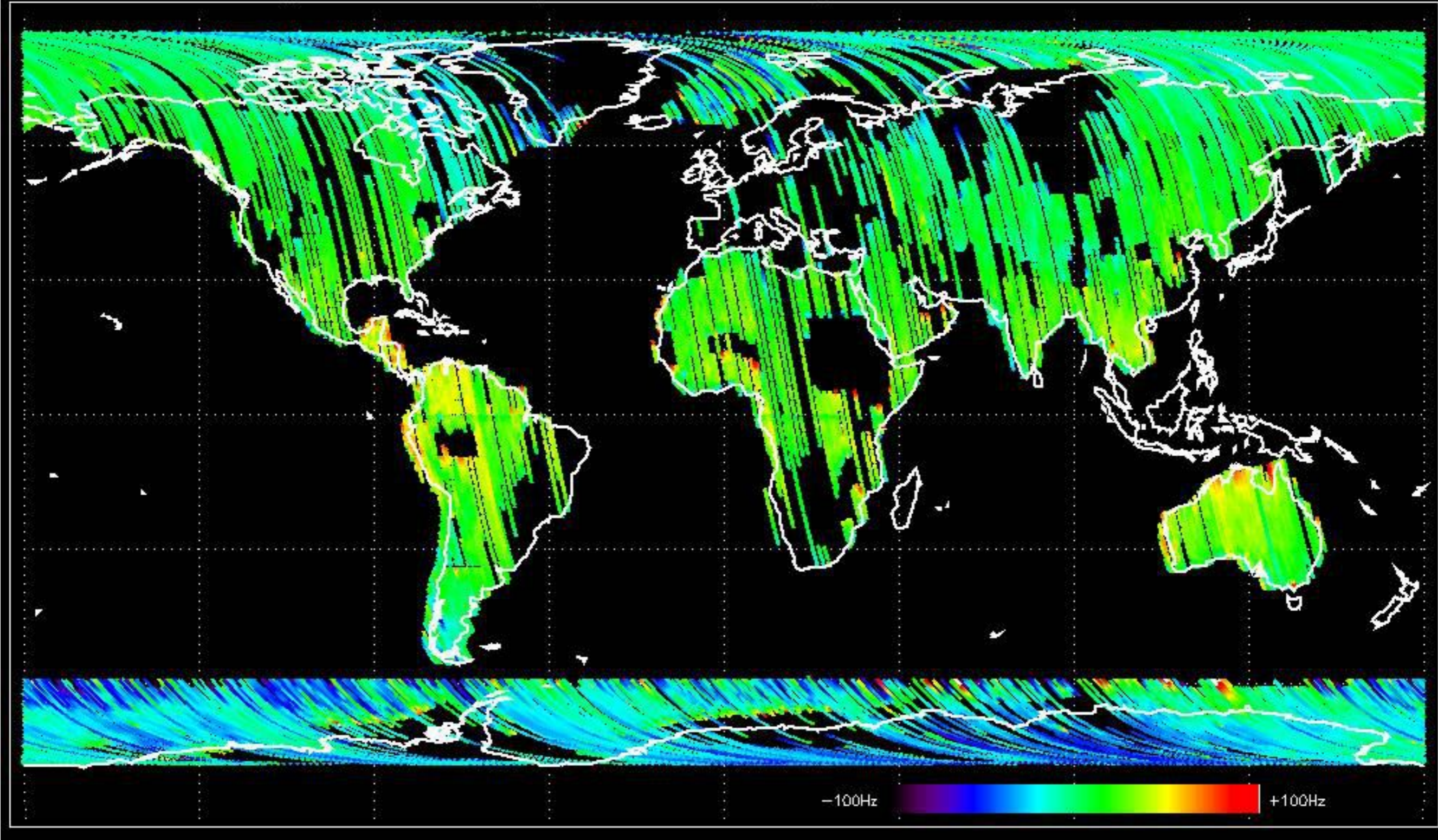
Doppler 'WVS' 'IS2' descending



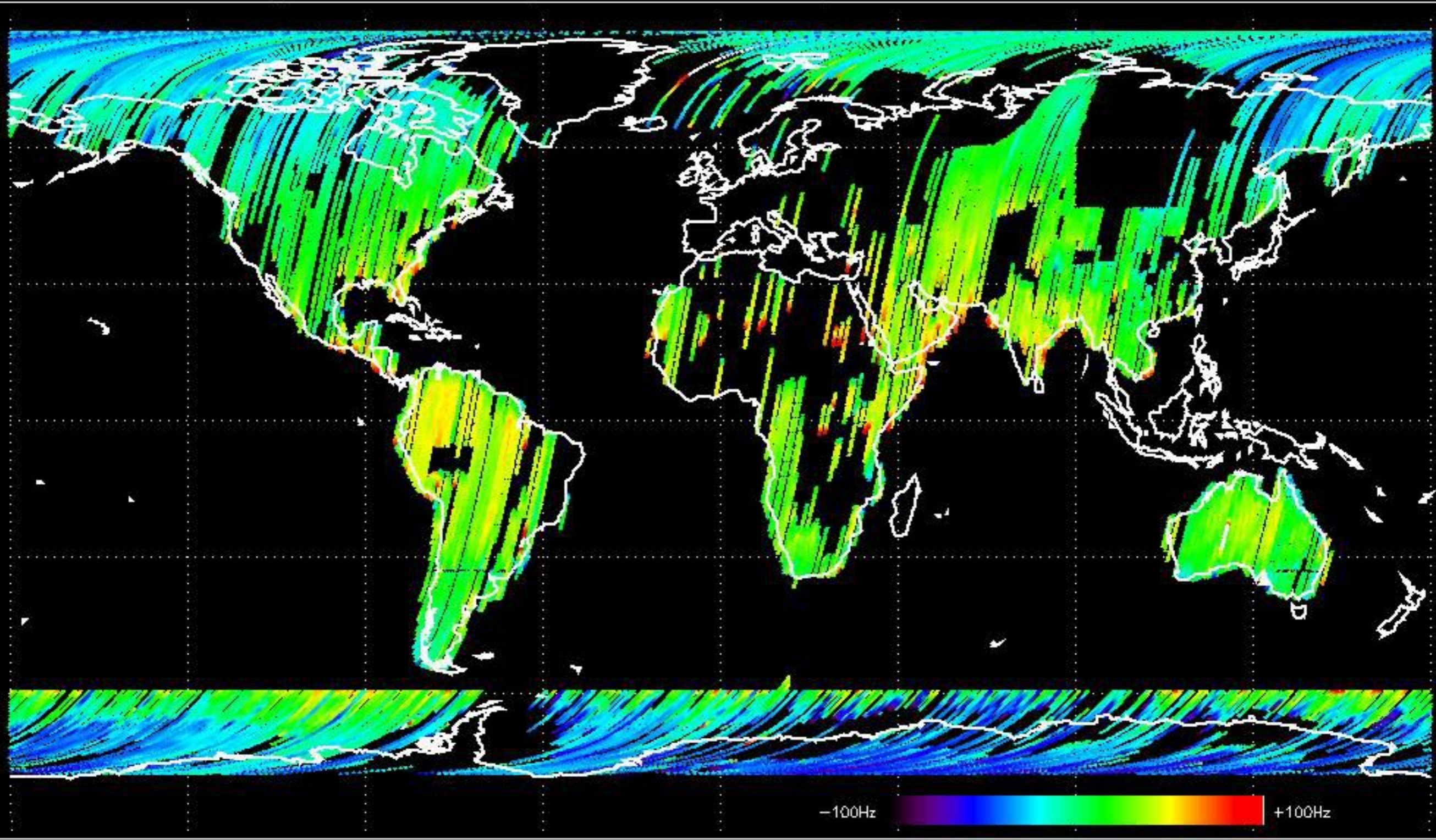




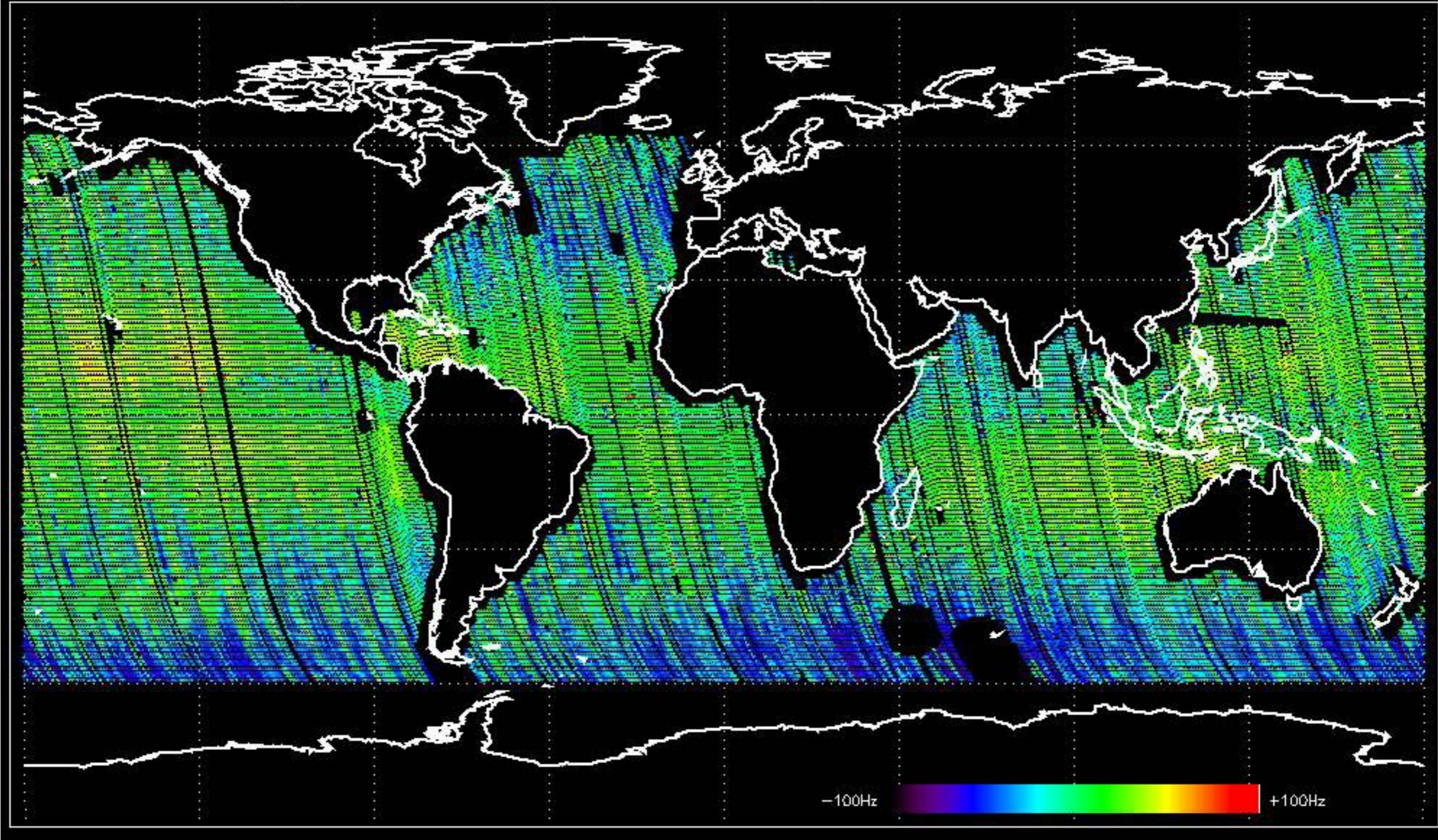
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.540704 Hz



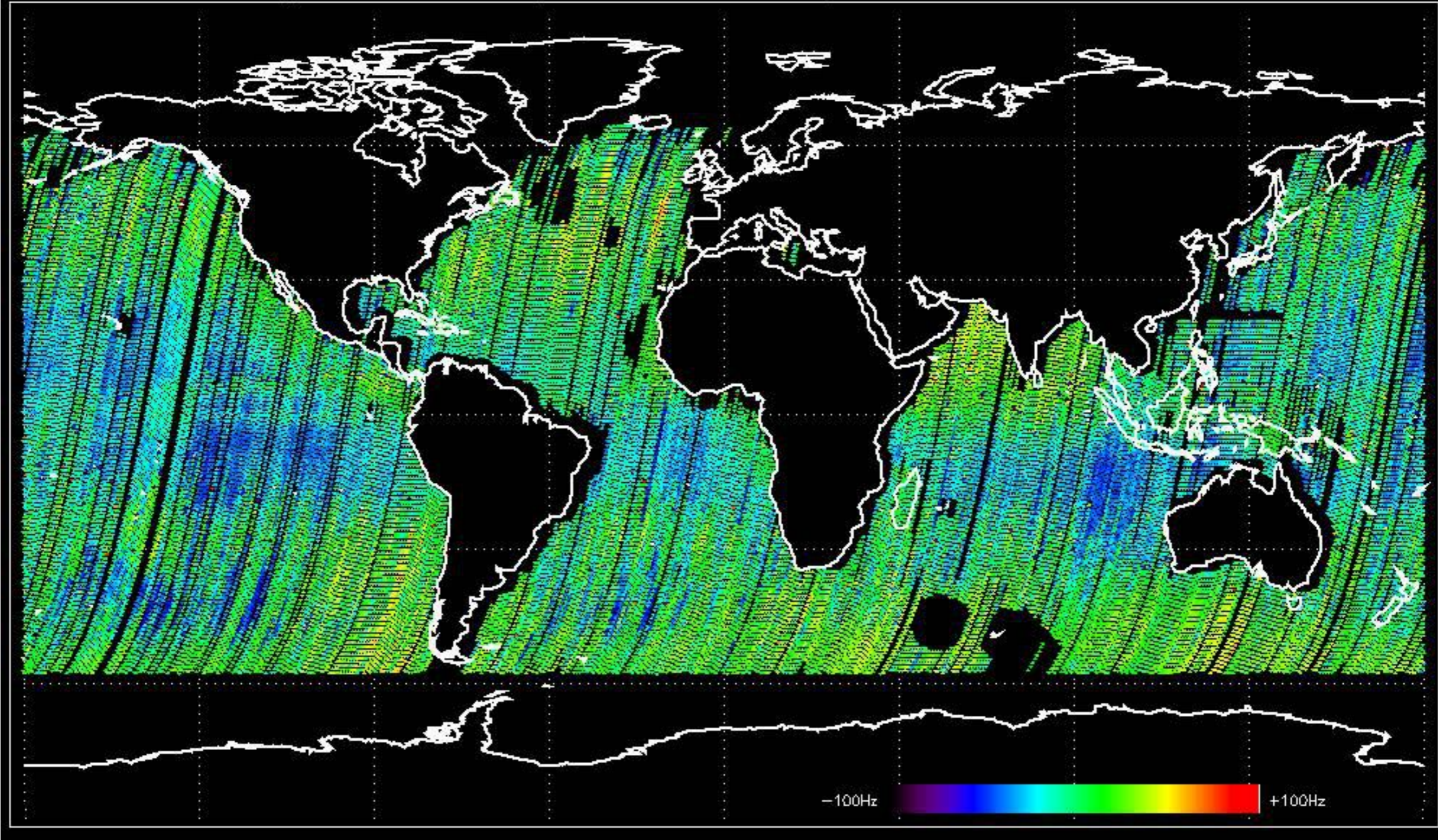
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -5.0227291 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.3919933 Hz

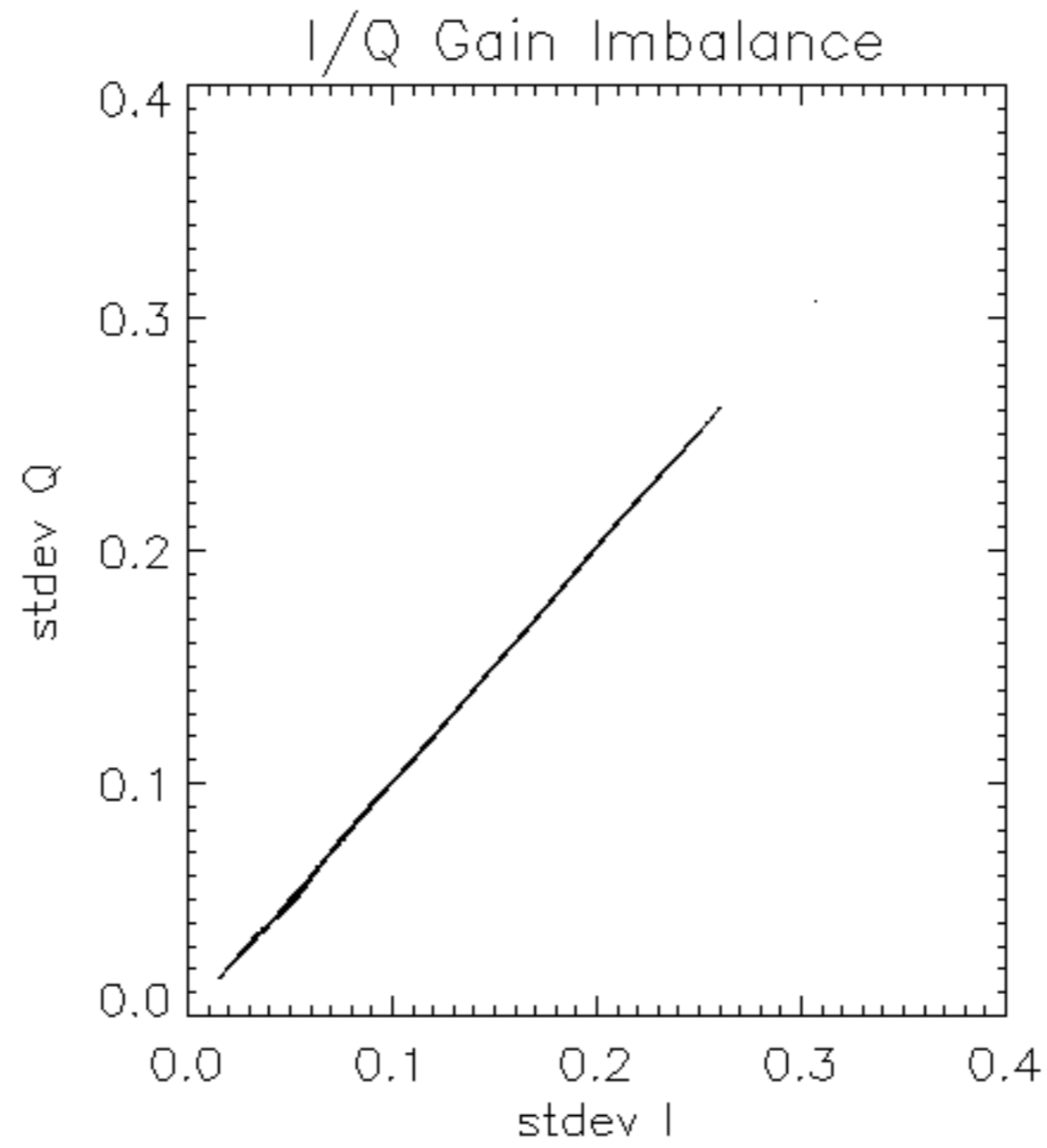


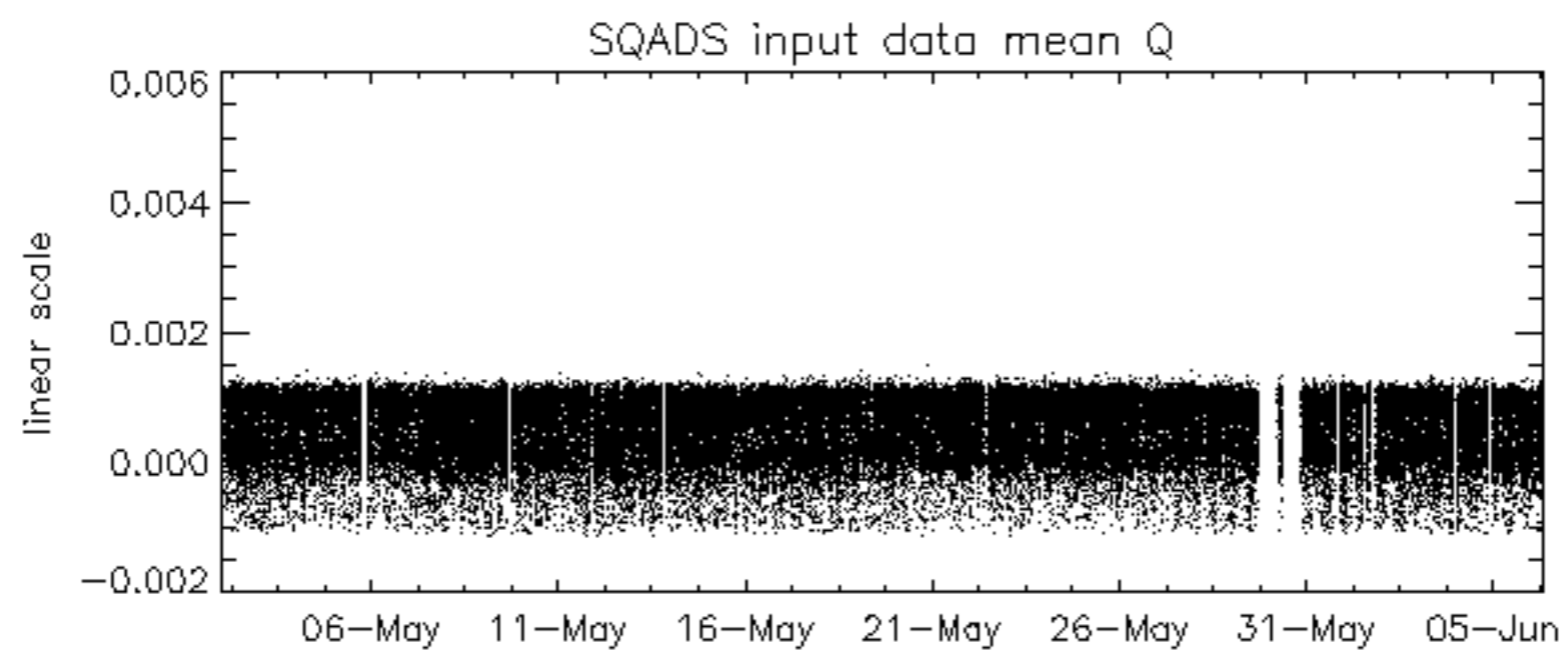
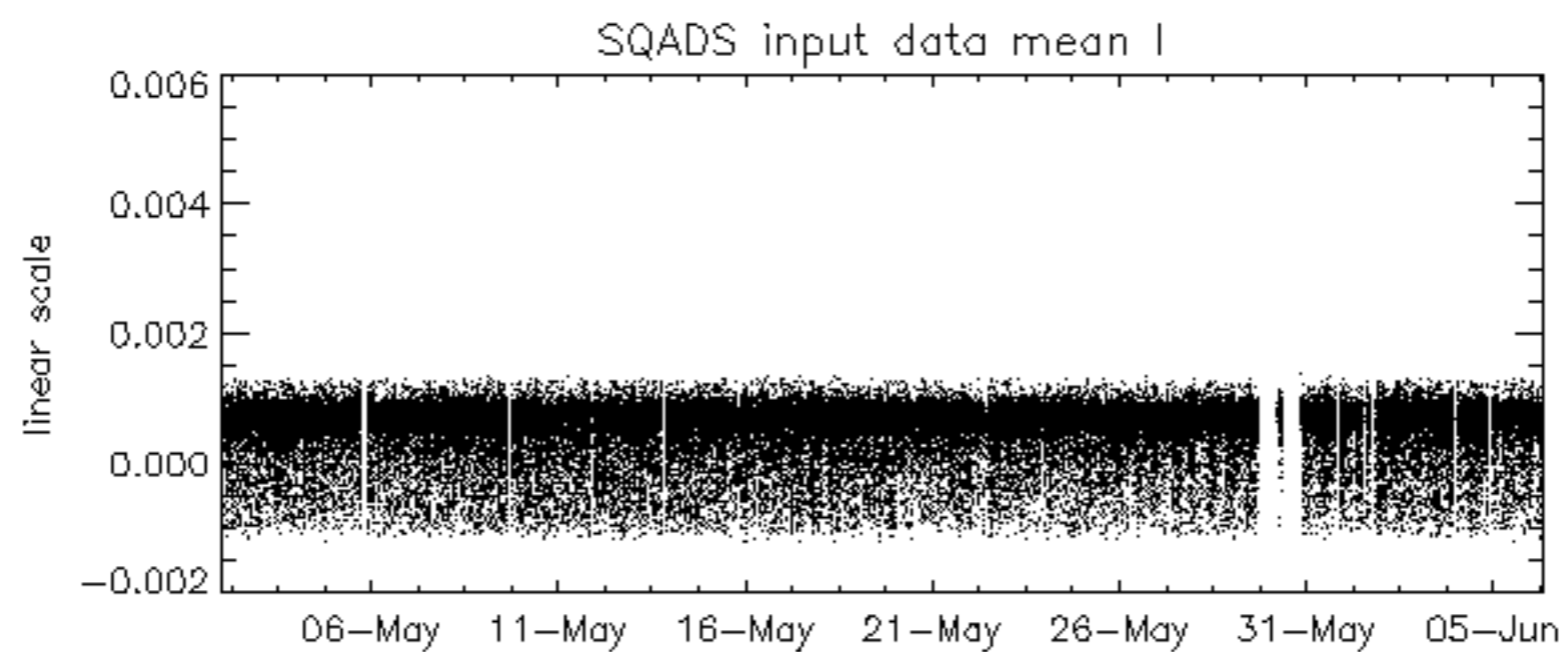
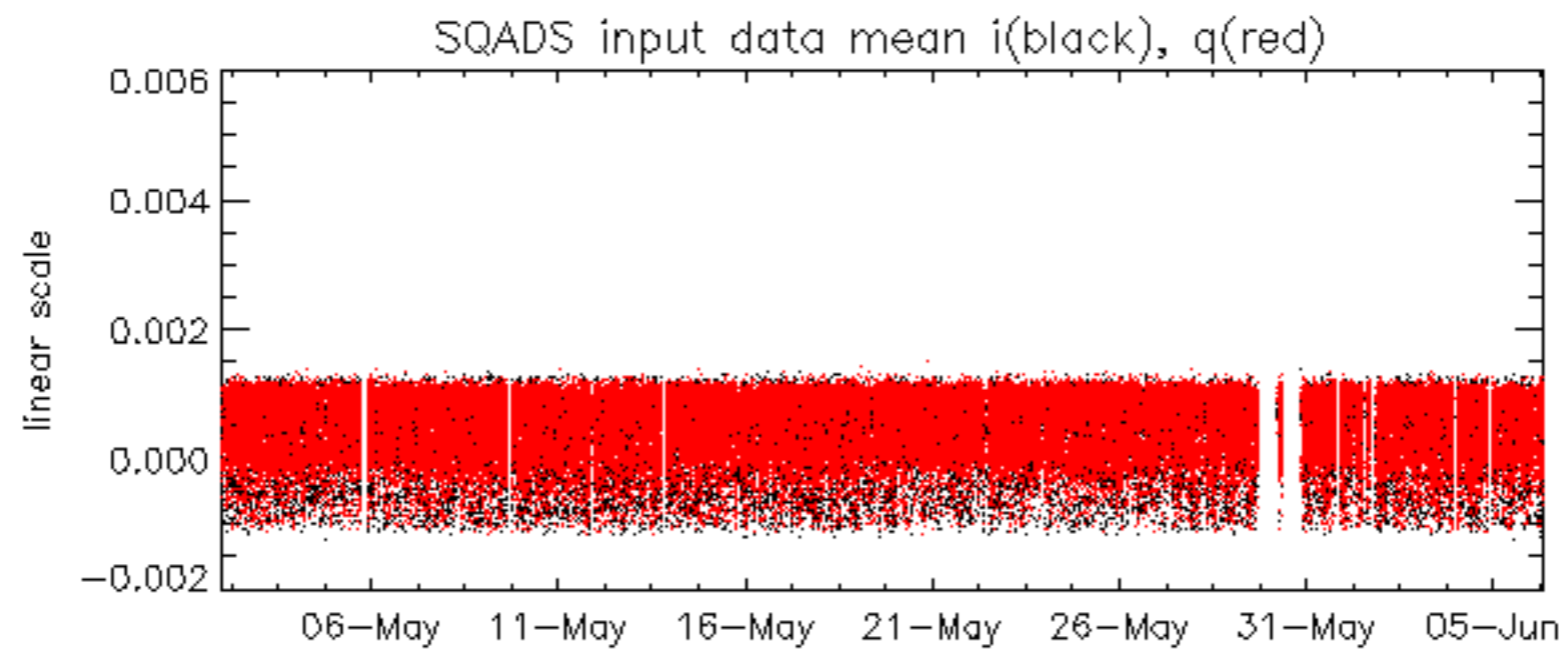
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.517743 Hz

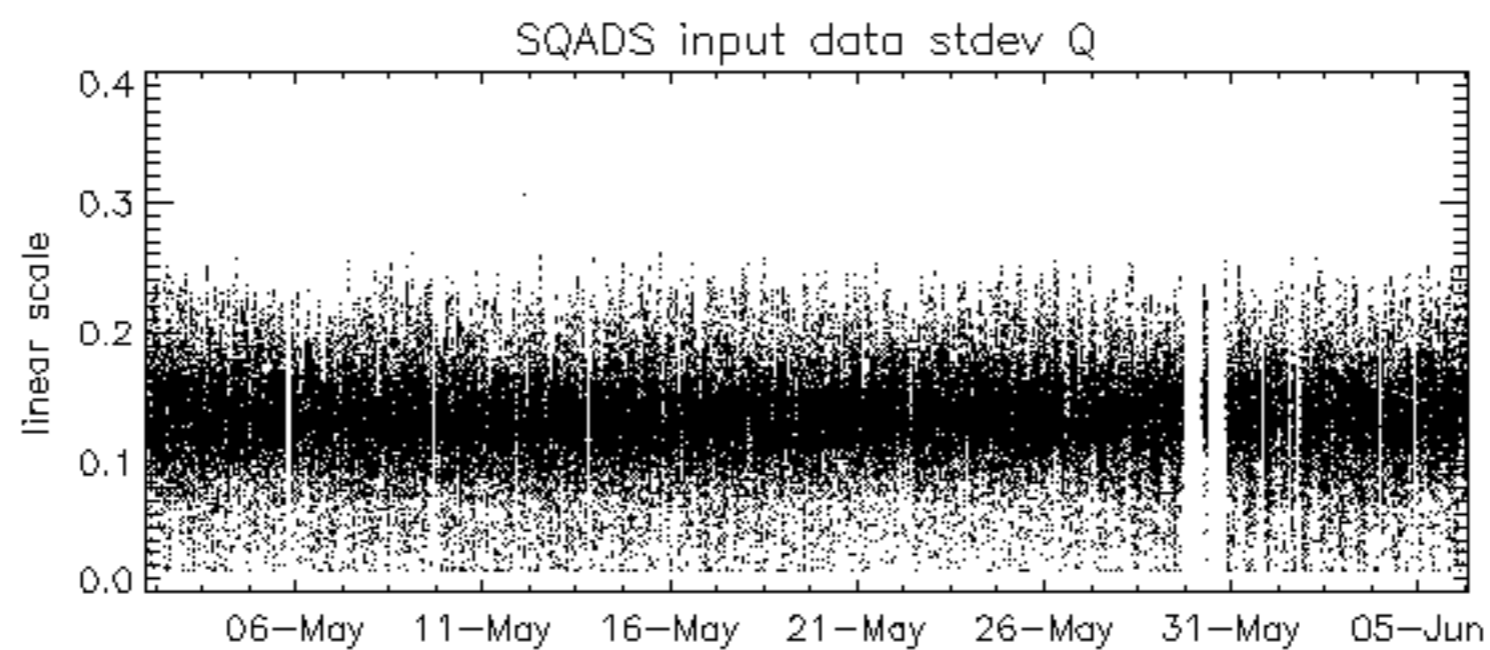
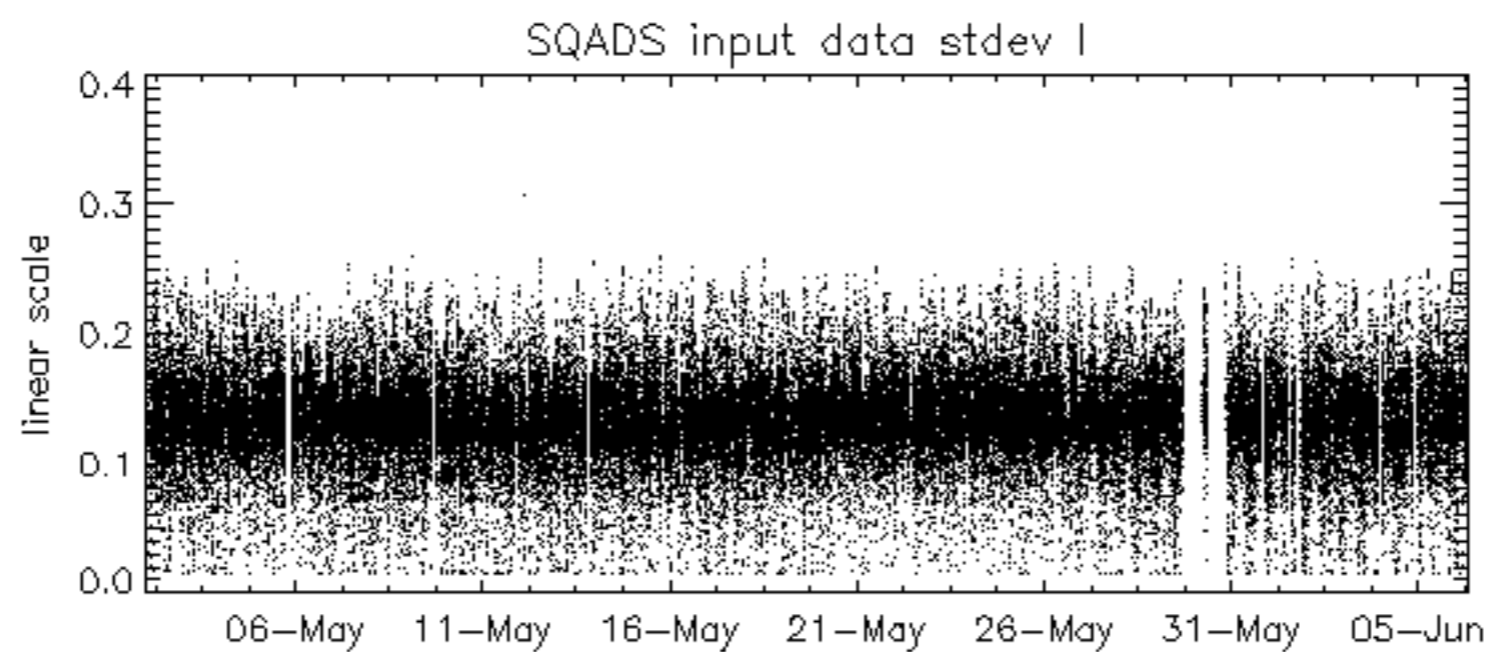
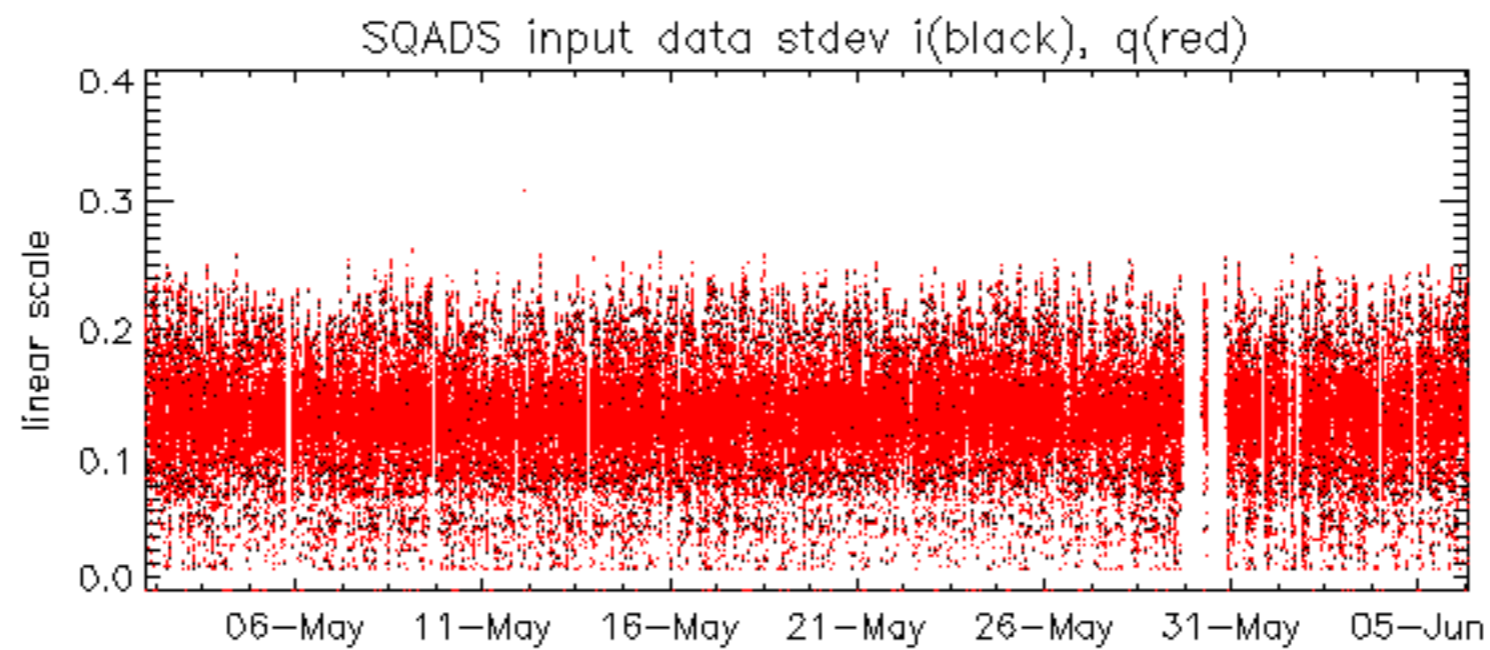


No anomalies observed on available MS products:

No anomalies observed.



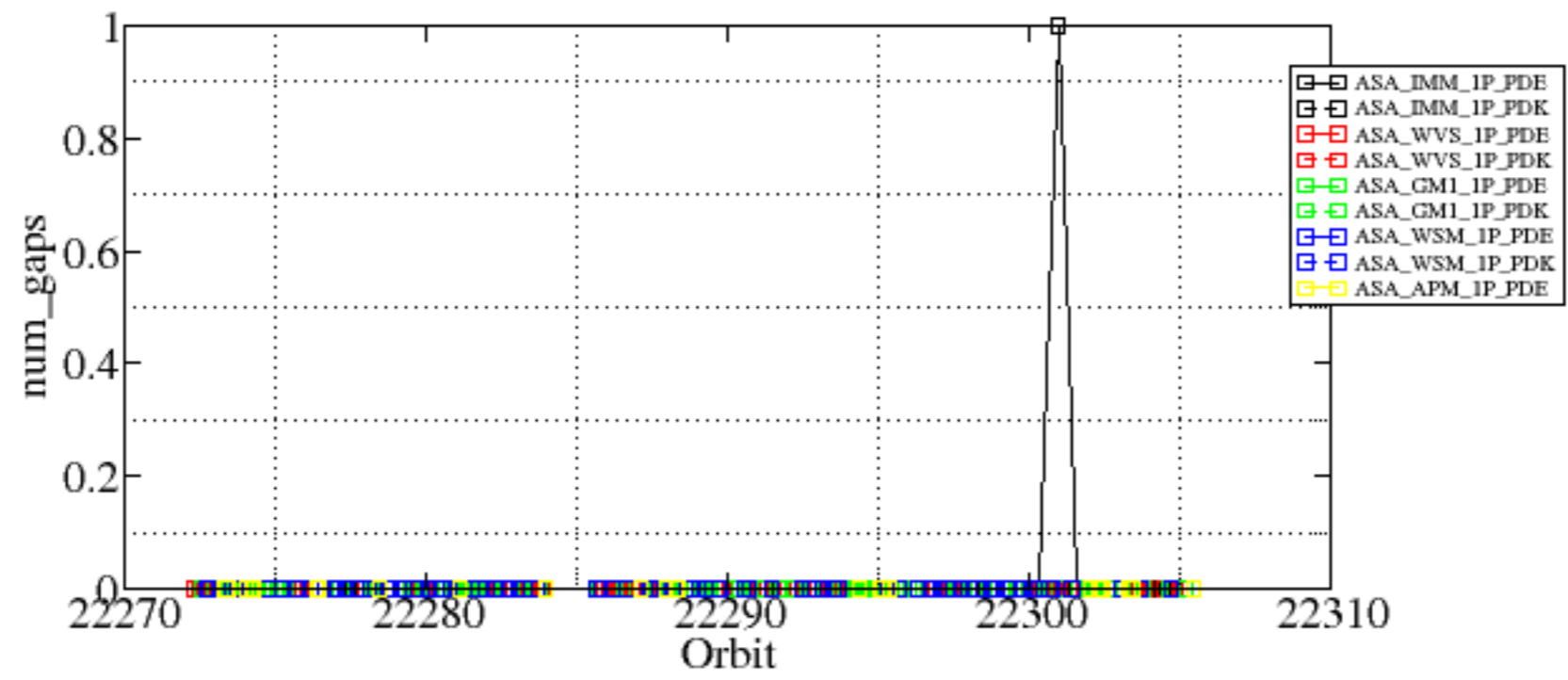


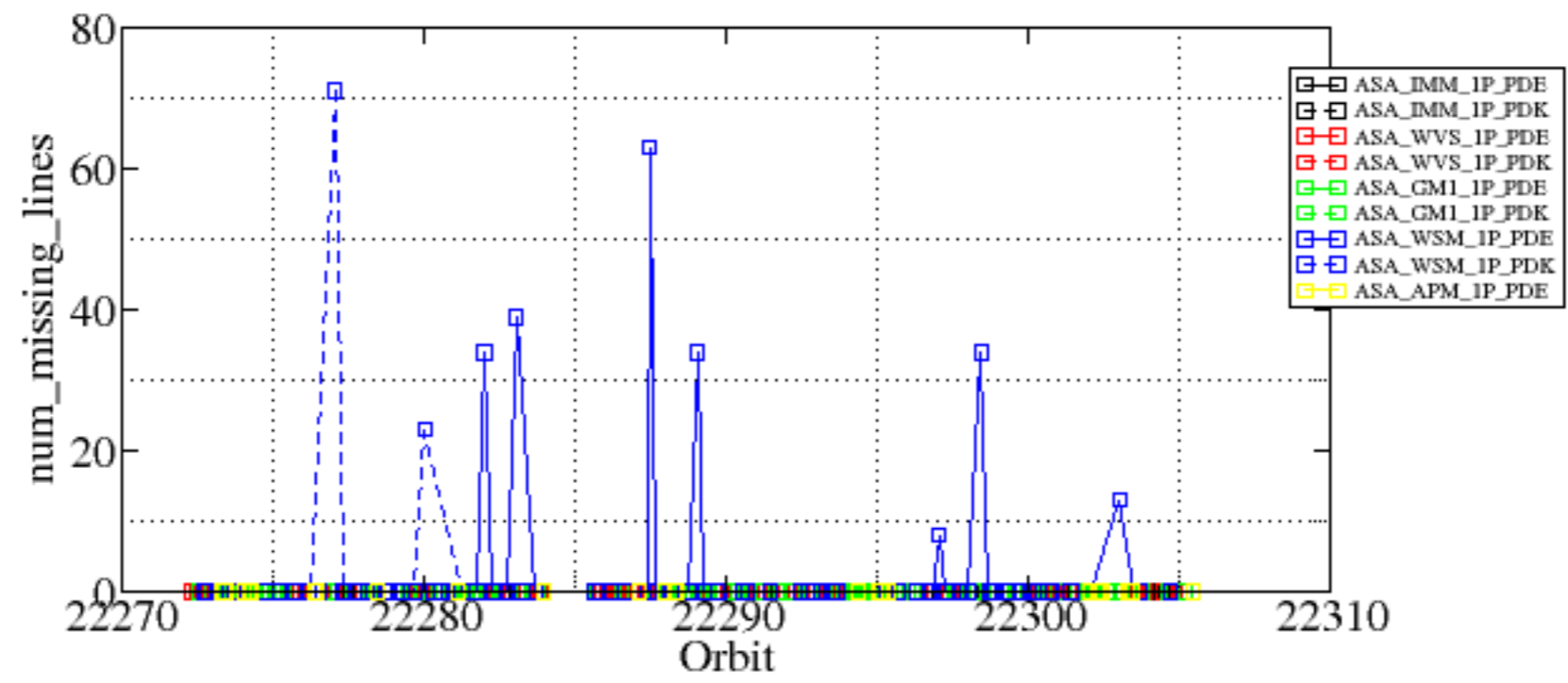


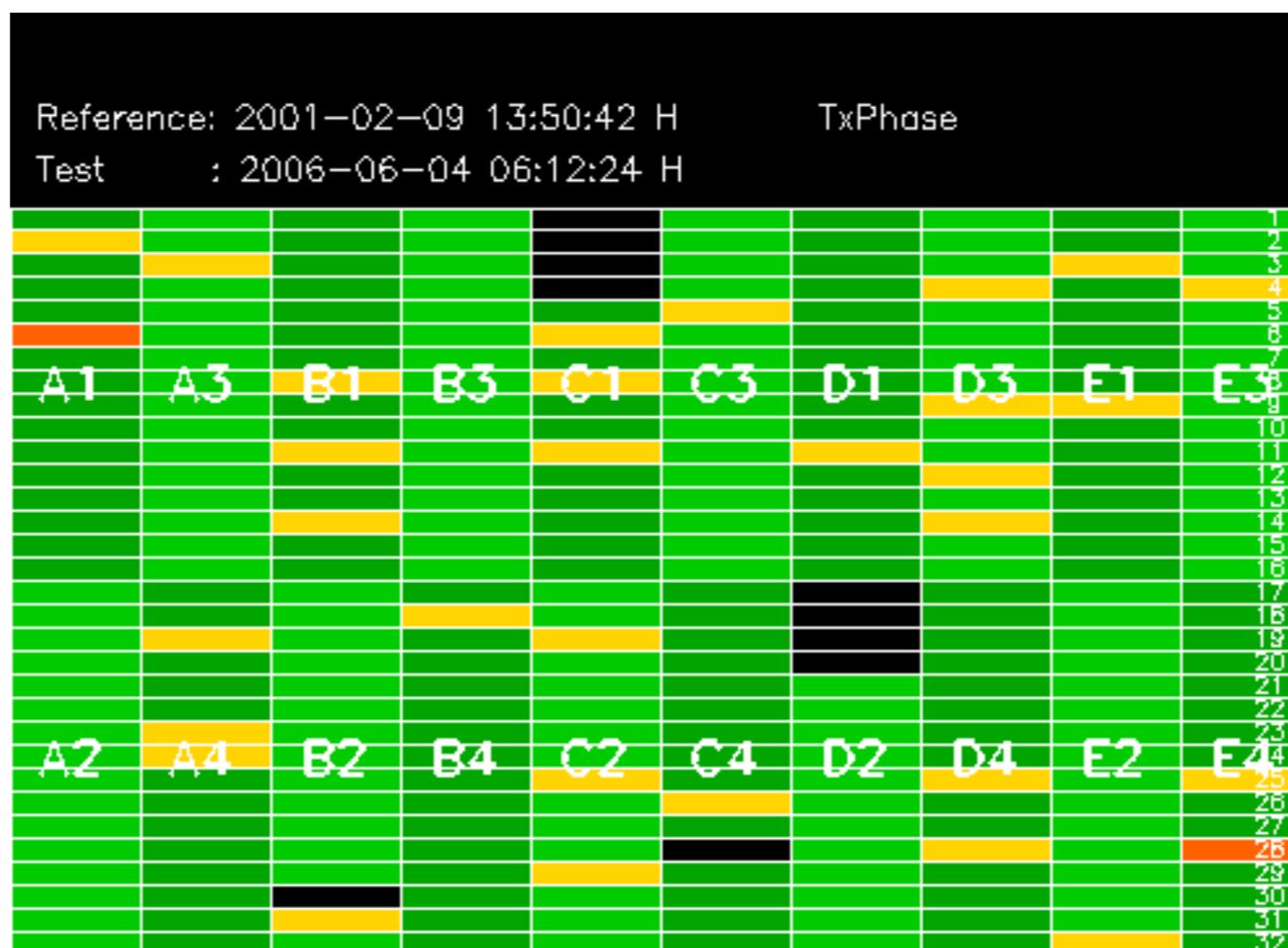
Summary of analysis for the last 3 days 2006060[456]

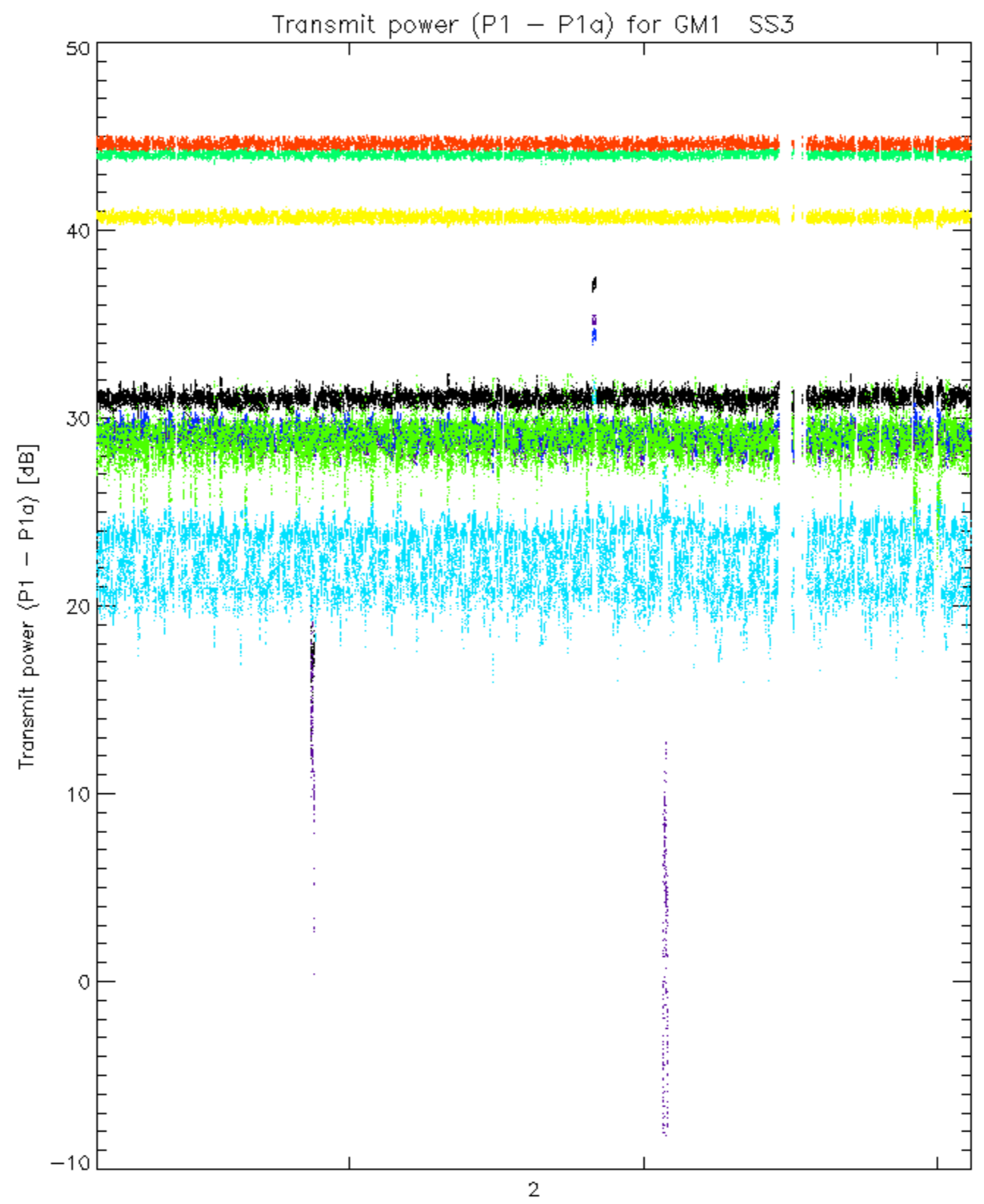
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060606_003645_000001642048_00202_22300_6709.N1	1	0
ASA_WSM_1PNPDE20060604_165033_000000852048_00184_22282_2609.N1	0	34
ASA_WSM_1PNPDE20060604_183353_000000852048_00185_22283_2624.N1	0	39
ASA_WSM_1PNPDE20060605_015912_000000852048_00189_22287_2669.N1	0	63
ASA_WSM_1PNPDE20060605_043830_000001282048_00191_22289_2688.N1	0	34
ASA_WSM_1PNPDE20060605_180337_000001712048_00199_22297_2784.N1	0	8
ASA_WSM_1PNPDE20060605_202223_000001292048_00200_22298_2823.N1	0	34
ASA_WSM_1PNPDE20060606_040457_000002692048_00205_22303_2880.N1	0	13
ASA_WSM_1PNPDK20060604_083041_000000862048_00179_22277_6799.N1	0	71
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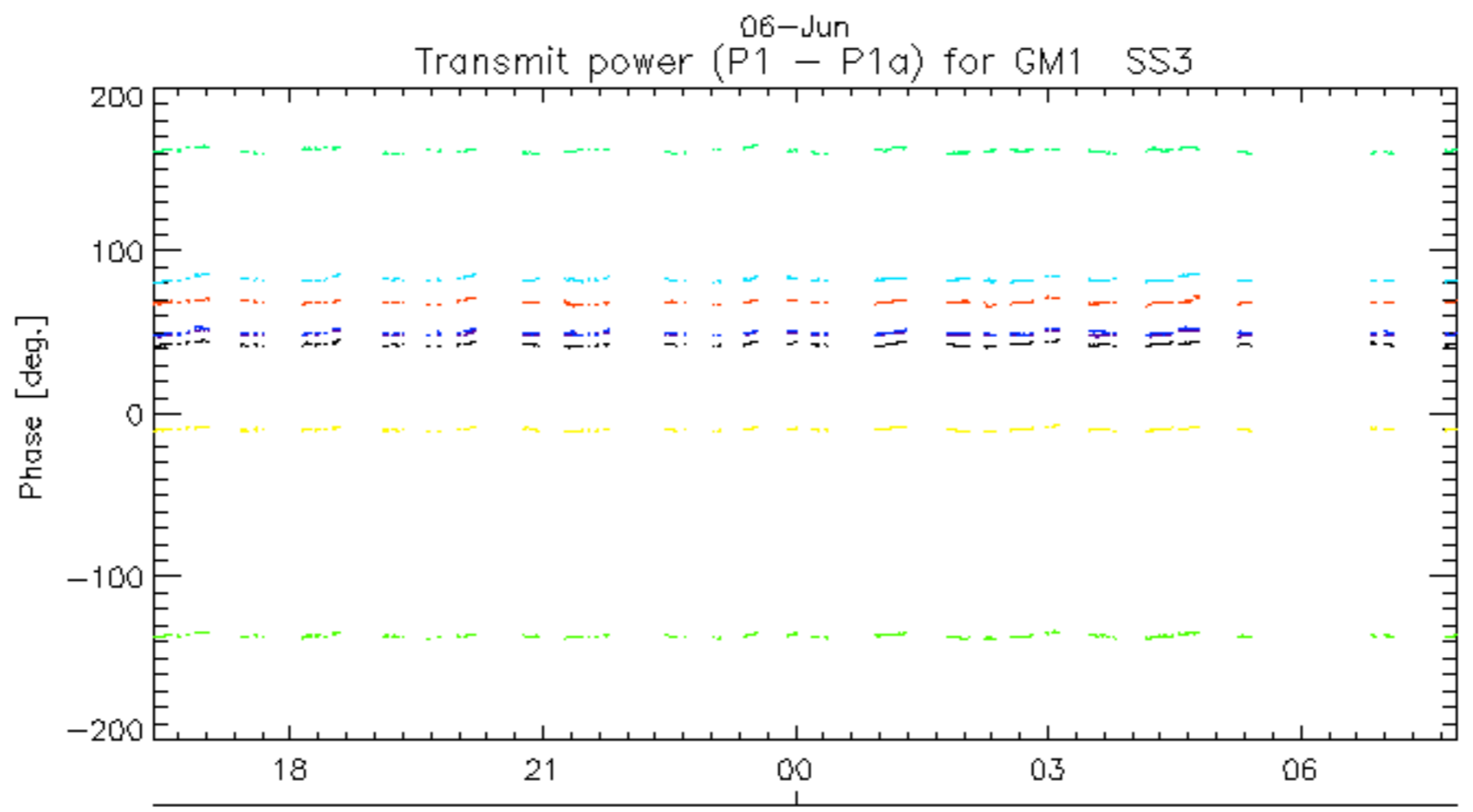
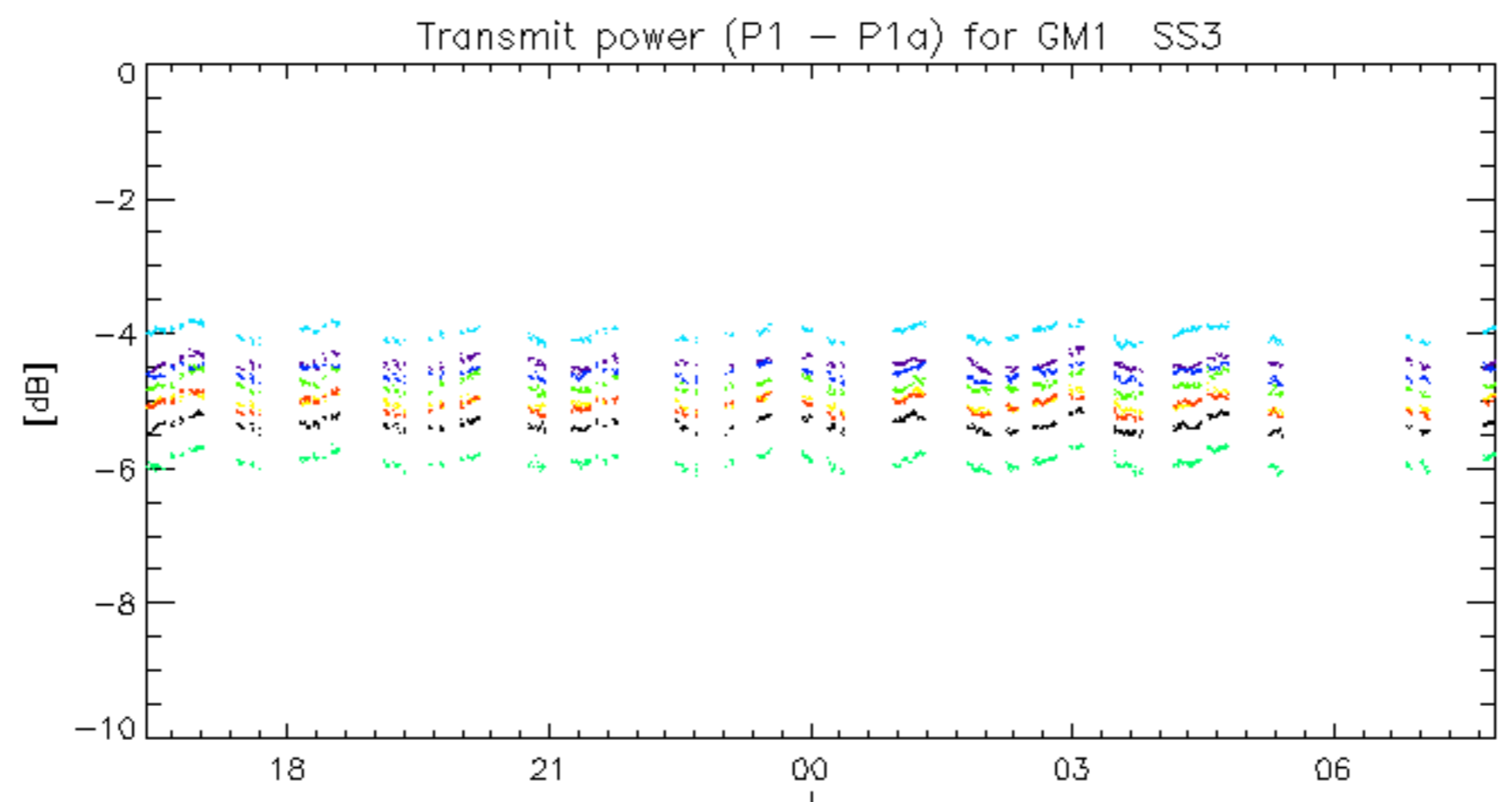




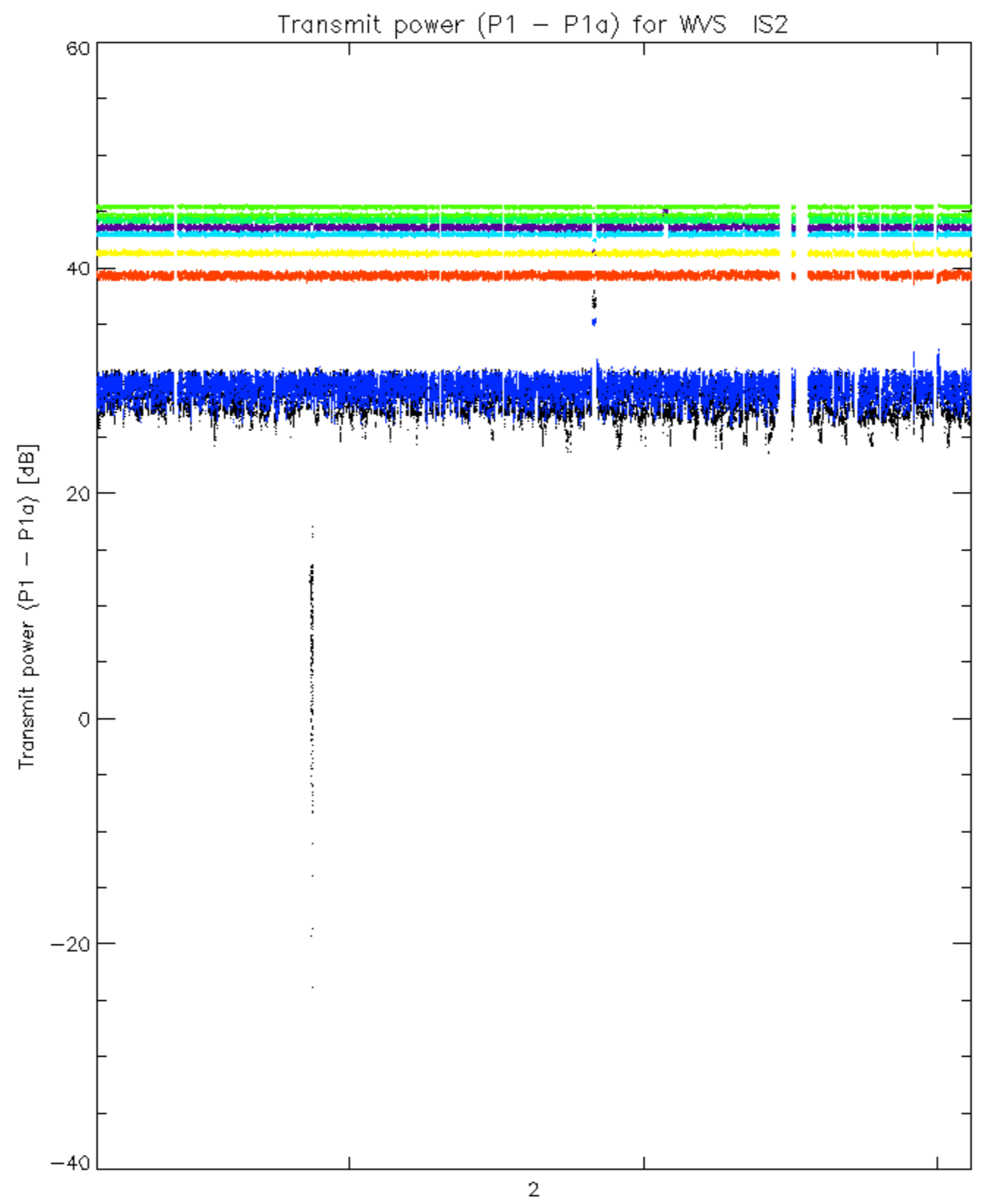




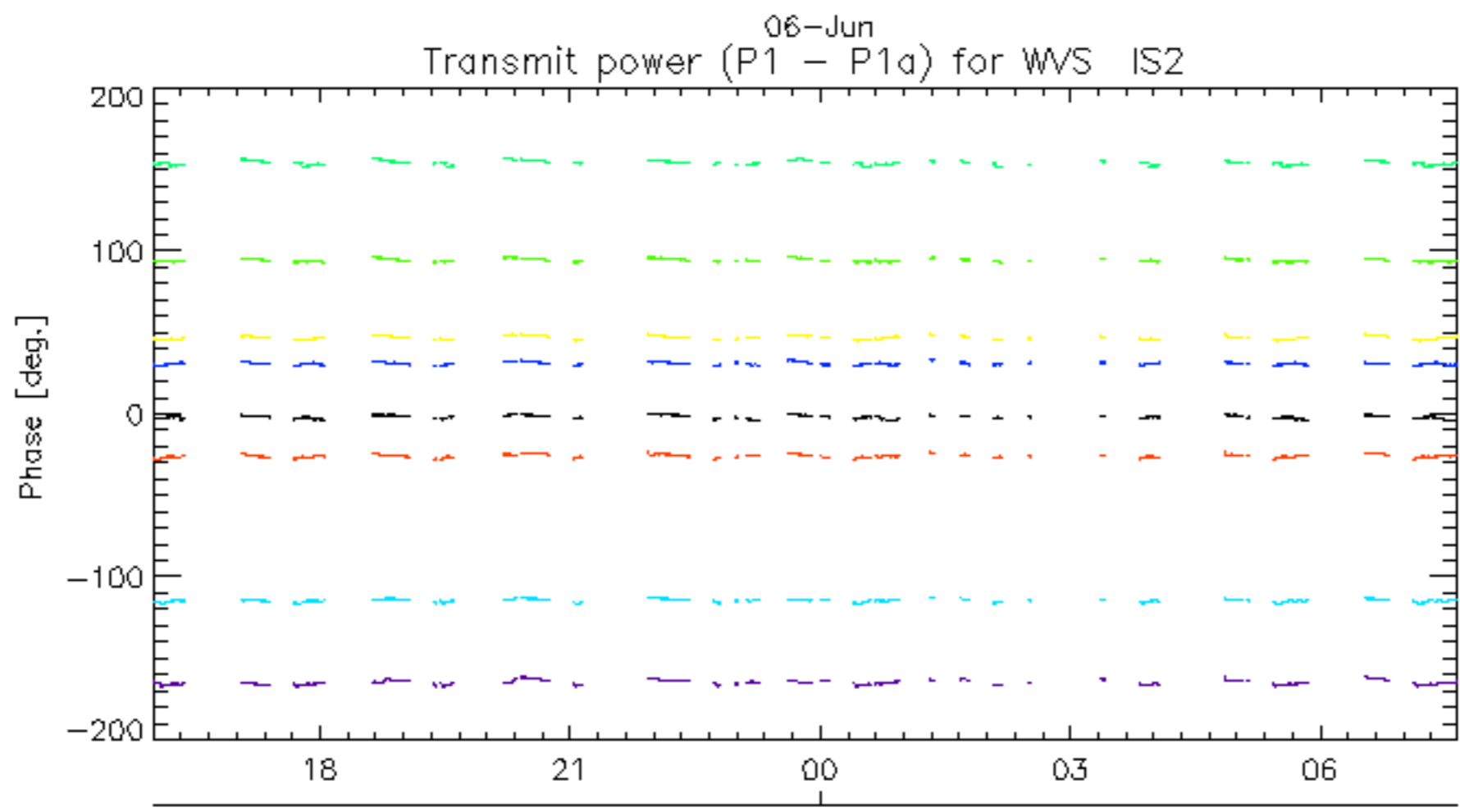
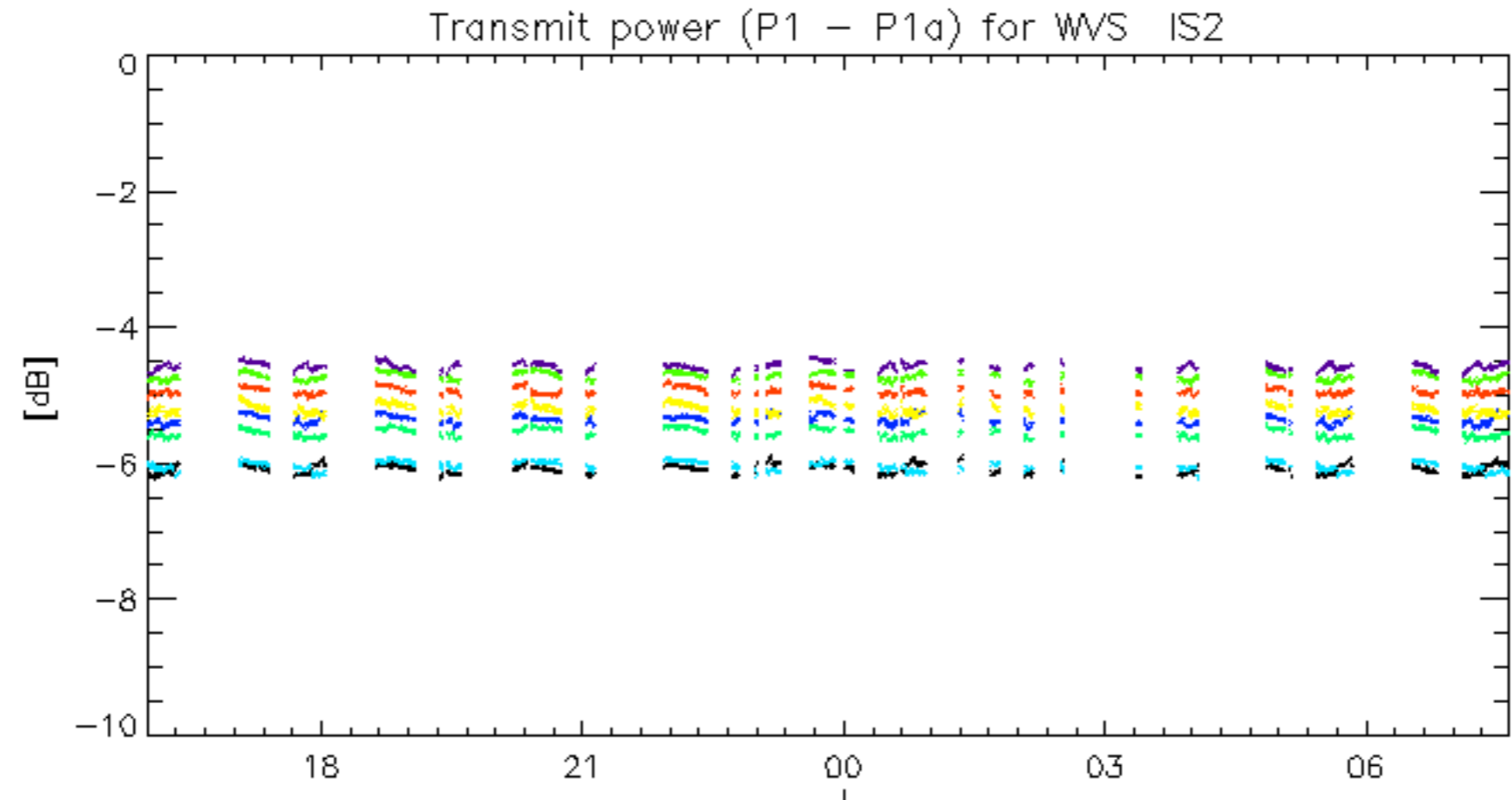
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

No unavailabilities during the reported period.