

PRELIMINARY REPORT OF 060614

last update on Wed Jun 14 16:44:42 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 2006-06-13 00:00:00 to 2006-06-14 16:44:43

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	67	14	0	11
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	67	14	0	11
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	67	14	0	11
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	67	14	0	11

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	43	39	20	42
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	41	43	39	20	42
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	43	39	20	42
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	43	39	20	42

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	20060614 073840
H	20060613 081017

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	-3.941757	0.018254	0.050201
7	P1	-3.127533	0.017068	-0.059398
11	P1	-4.109613	0.018955	0.001555
15	P1	-6.141843	0.020151	-0.028189
19	P1	-3.339529	0.008422	-0.060006
22	P1	-4.514617	0.011579	0.003018
26	P1	-3.976830	0.017237	0.017653
30	P1	-5.748287	0.008934	-0.005944
3	P1	-16.522581	0.263185	0.070192
7	P1	-17.203342	0.151246	-0.172680
11	P1	-16.946136	0.309678	-0.085642
15	P1	-13.204489	0.217381	0.044991
19	P1	-14.305366	0.050365	-0.138015
22	P1	-16.167351	0.374588	-0.002674
26	P1	-15.241221	0.234081	0.102392
30	P1	-17.086391	0.403464	-0.255331

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.167761	0.079747	0.119500
7	P2	-22.047493	0.095650	0.106760
11	P2	-15.898247	0.109145	0.124348
15	P2	-7.161258	0.091911	0.005397
19	P2	-9.170227	0.083912	-0.022909
22	P2	-18.148108	0.082030	-0.081087
26	P2	-16.390467	0.086414	-0.069061
30	P2	-19.564487	0.084995	0.034009

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.185265	0.004096	-0.000366
7	P3	-8.185265	0.004096	-0.000366
11	P3	-8.185265	0.004096	-0.000366
15	P3	-8.185265	0.004096	-0.000366
19	P3	-8.185265	0.004096	-0.000366
22	P3	-8.185265	0.004096	-0.000366
26	P3	-8.185265	0.004096	-0.000366
30	P3	-8.185265	0.004096	-0.000366

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	-3.788773	0.064244	-0.052914
7	P1	-2.594246	0.031415	0.023690
11	P1	-2.862449	0.023402	0.004253
15	P1	-3.503560	0.050130	-0.030128
19	P1	-3.404636	0.014404	-0.026063
22	P1	-5.082017	0.019700	0.001692
26	P1	-5.849050	0.015827	-0.028398
30	P1	-5.191499	0.026991	-0.005104
3	P1	-11.611571	0.082820	-0.038385
7	P1	-9.969426	0.053083	-0.030600
11	P1	-10.211700	0.087152	-0.085199
15	P1	-10.638546	0.151711	-0.125331
19	P1	-15.530236	0.076059	-0.051222
22	P1	-20.927425	1.181526	-0.140348
26	P1	-16.484890	0.336379	0.027192
30	P1	-17.945646	0.376011	0.212143

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.857983	0.070327	0.126761
7	P2	-22.498753	0.128122	0.040202
11	P2	-11.165835	0.047997	0.066665
15	P2	-4.914544	0.048352	-0.030904
19	P2	-6.880825	0.053025	-0.016964
22	P2	-8.203738	0.043284	-0.025919
26	P2	-24.125301	0.067917	-0.087076
30	P2	-22.064873	0.055621	-0.003259

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.019233	0.004818	-0.005967
7	P3	-8.019357	0.004804	-0.005870
11	P3	-8.019346	0.004794	-0.005798
15	P3	-8.019232	0.004809	-0.006205
19	P3	-8.019310	0.004809	-0.006068
22	P3	-8.019453	0.004800	-0.006016
26	P3	-8.019358	0.004798	-0.006107
30	P3	-8.019356	0.004801	-0.006359

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	0.000535707
	stdev	1.88108e-07
MEAN Q	mean	0.000509916
	stdev	2.28596e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.134707
	stdev	0.00119175
STDEV Q	mean	0.135050
	stdev	0.00120865



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006061[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_1PNPDE20060612_064716_000000372048_00292_22390_7200.N1	1	0
ASA_IMM_1PNPDE20060613_010016_000000842048_00303_22401_7335.N1	1	0
ASA_IMM_1PNPDE20060613_061630_000000812048_00306_22404_7368.N1	1	0
ASA_WSM_1PNPDE20060612_041708_000002082048_00291_22389_3765.N1	0	39
ASA_WSM_1PNPDE20060612_142133_000000852048_00297_22395_3784.N1	0	16
ASA_WSM_1PNPDE20060613_110750_000001582048_00309_22407_3853.N1	0	66
ASA_WSM_1PNPDK20060612_175711_000000672048_00299_22397_7445.N1	0	5
ASA_WSM_1PNPDK20060613_134955_000001032048_00311_22409_7492.N1	0	21
ASA_APM_1PNPDE20060613_170832_000000412048_00313_22411_3320.N1	0	20



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

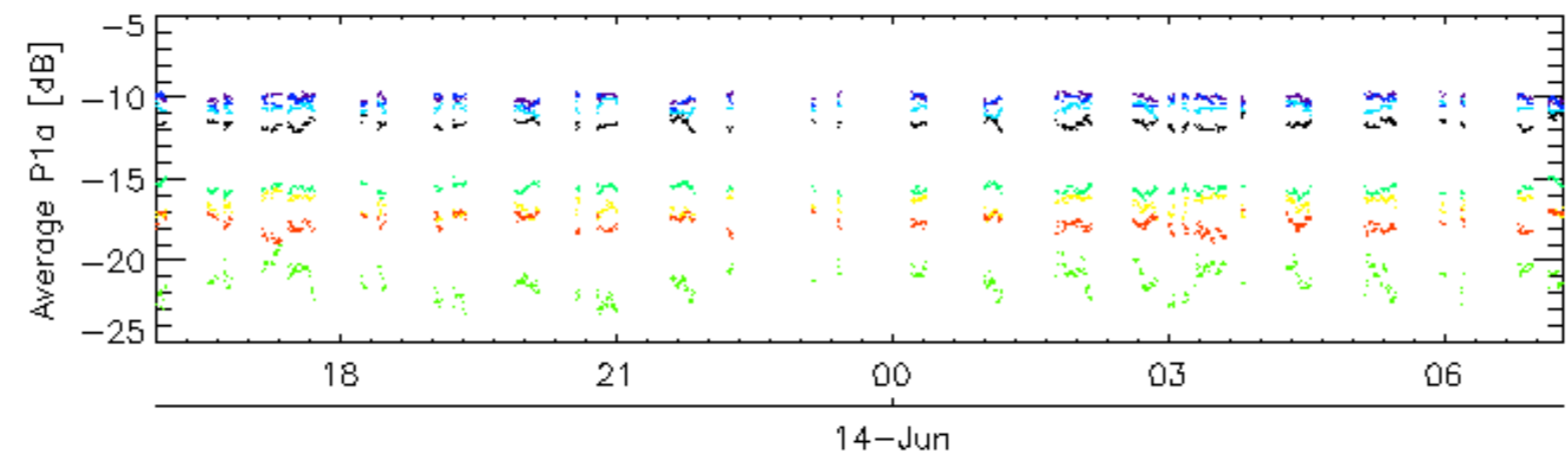
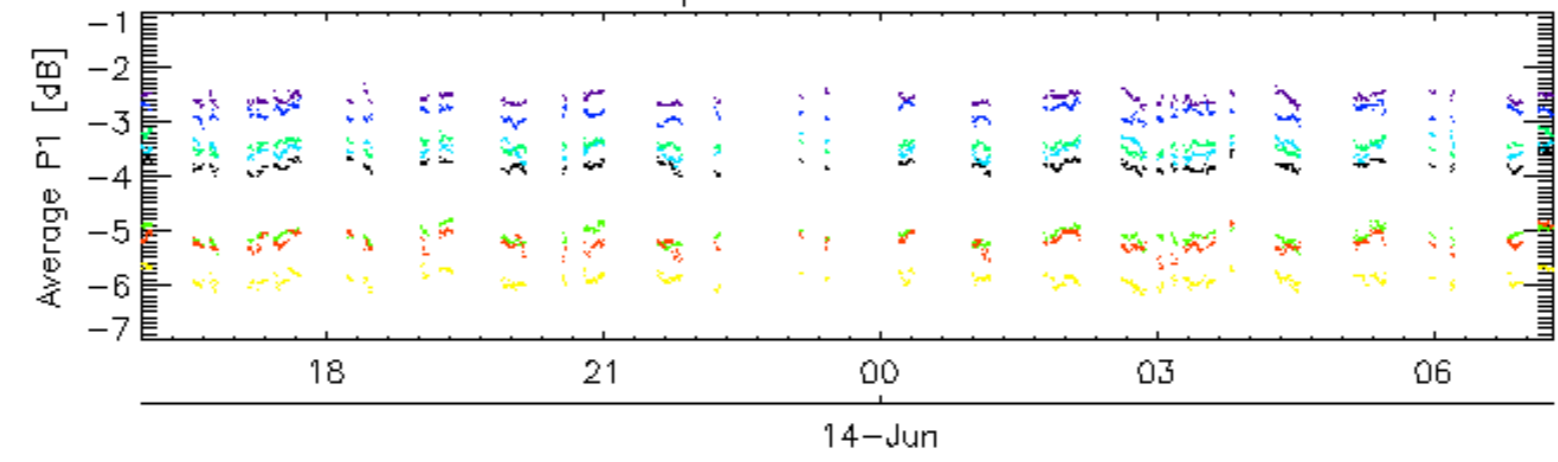
Ascending

Descending

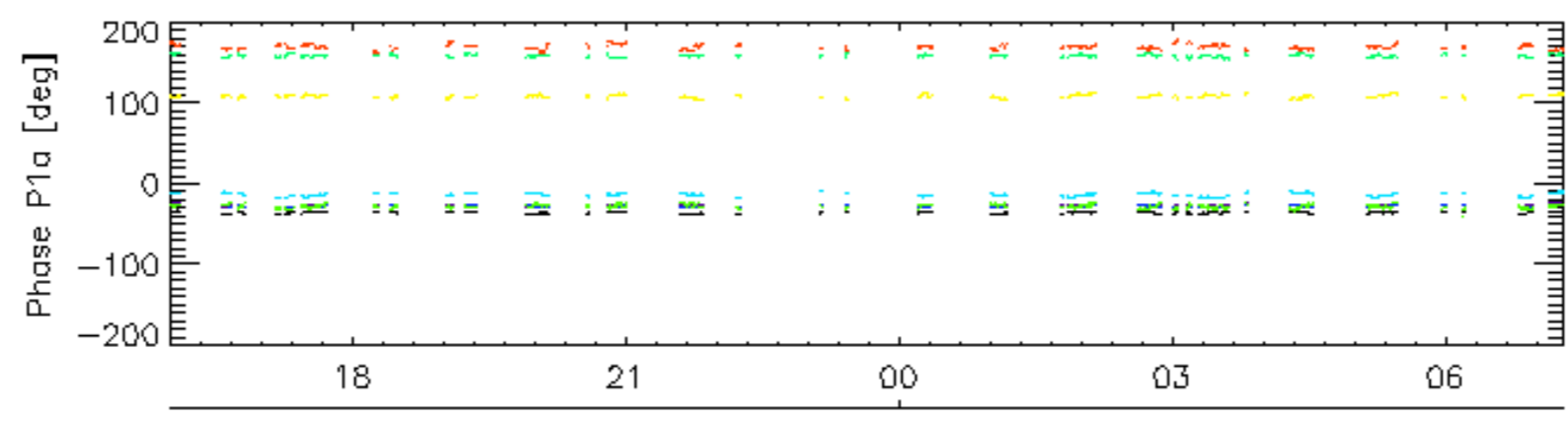
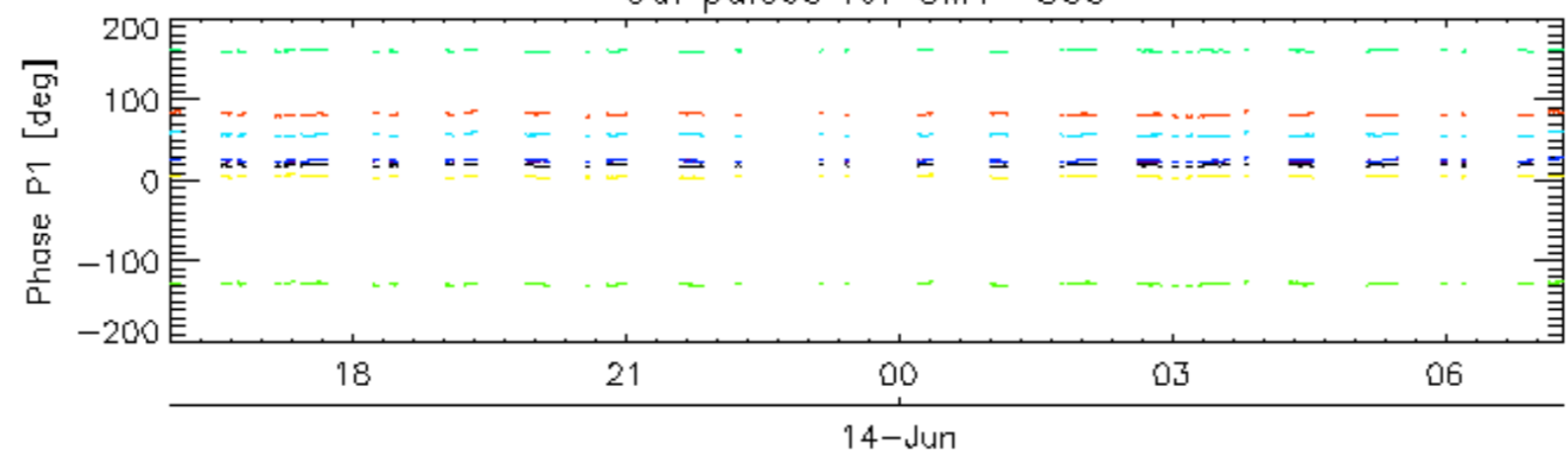
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

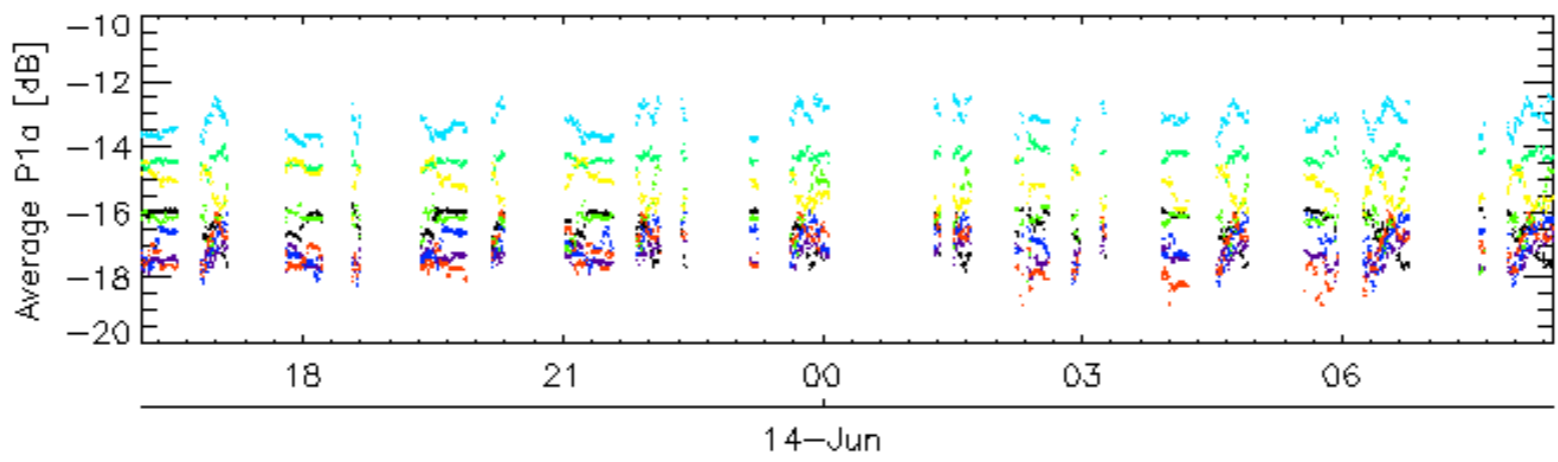
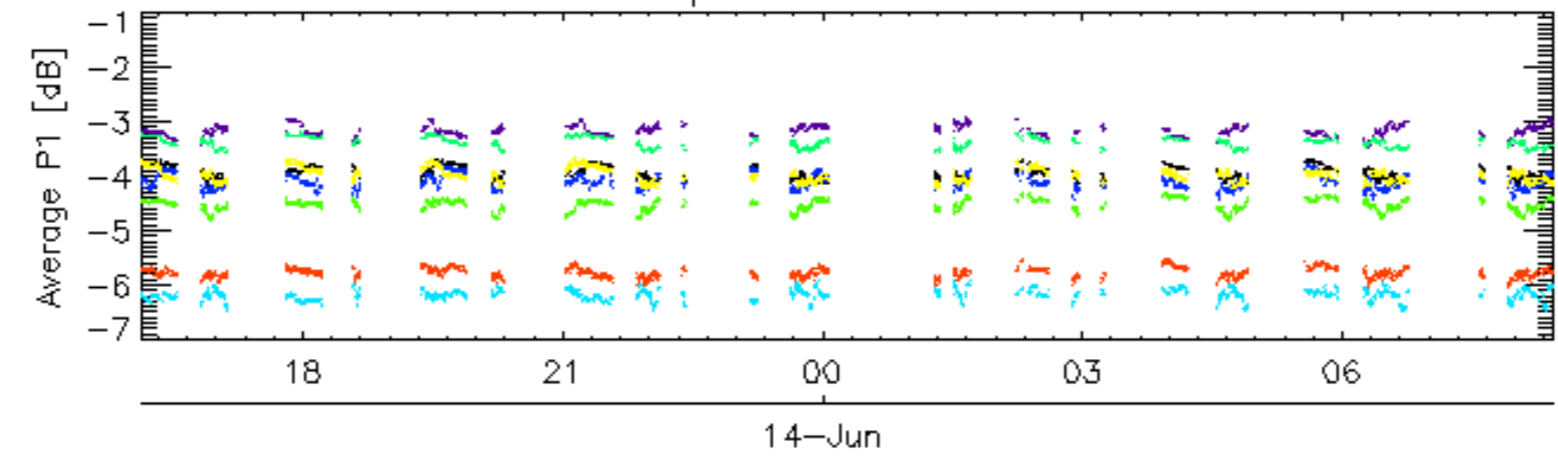


Cal pulses for GM1 SS3

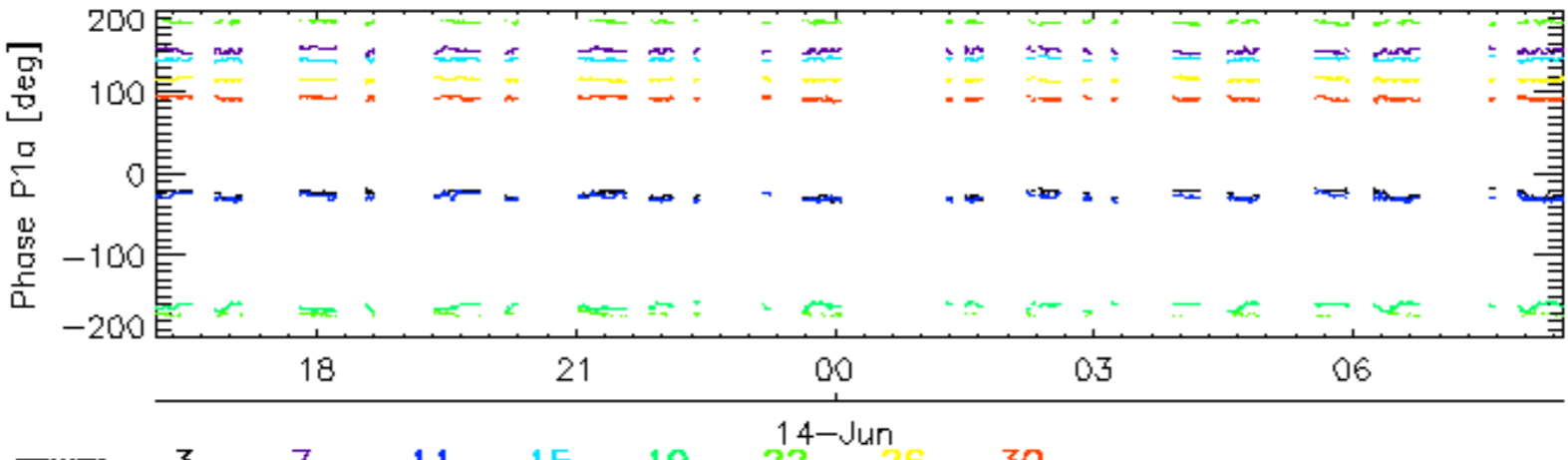
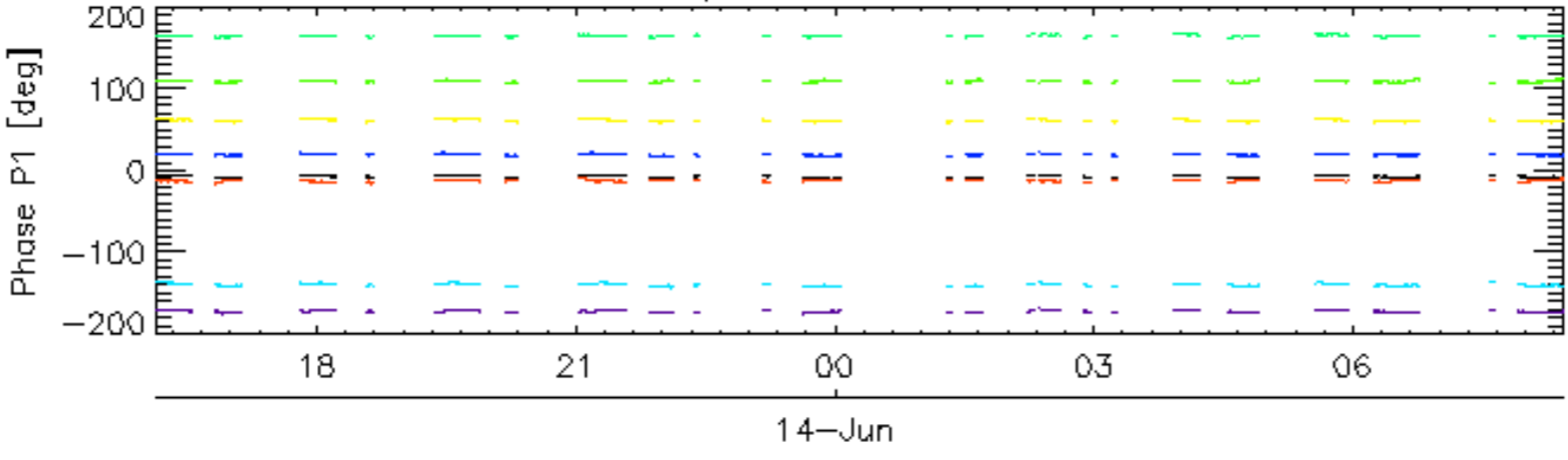


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

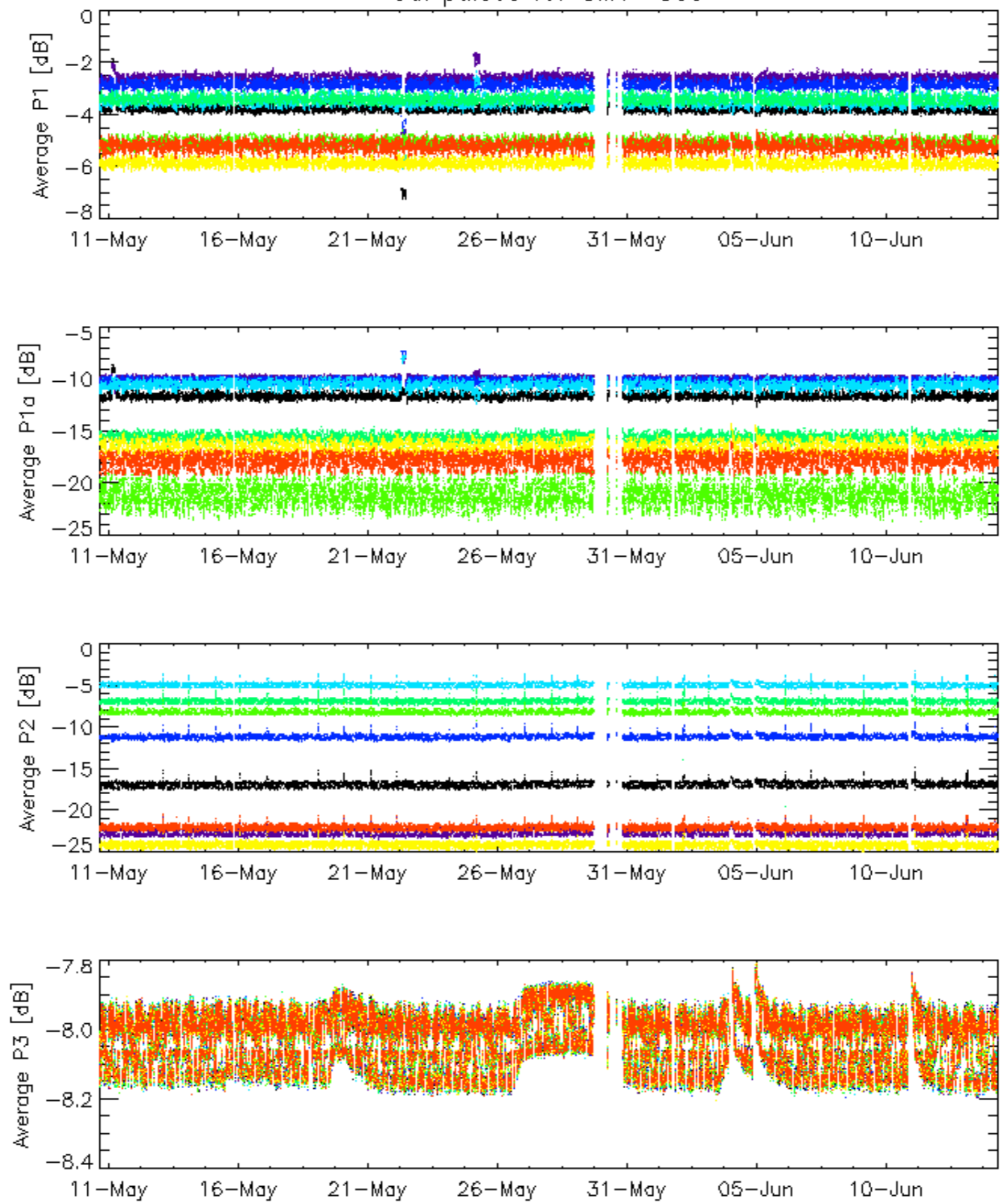


Cal pulses for WVS IS2



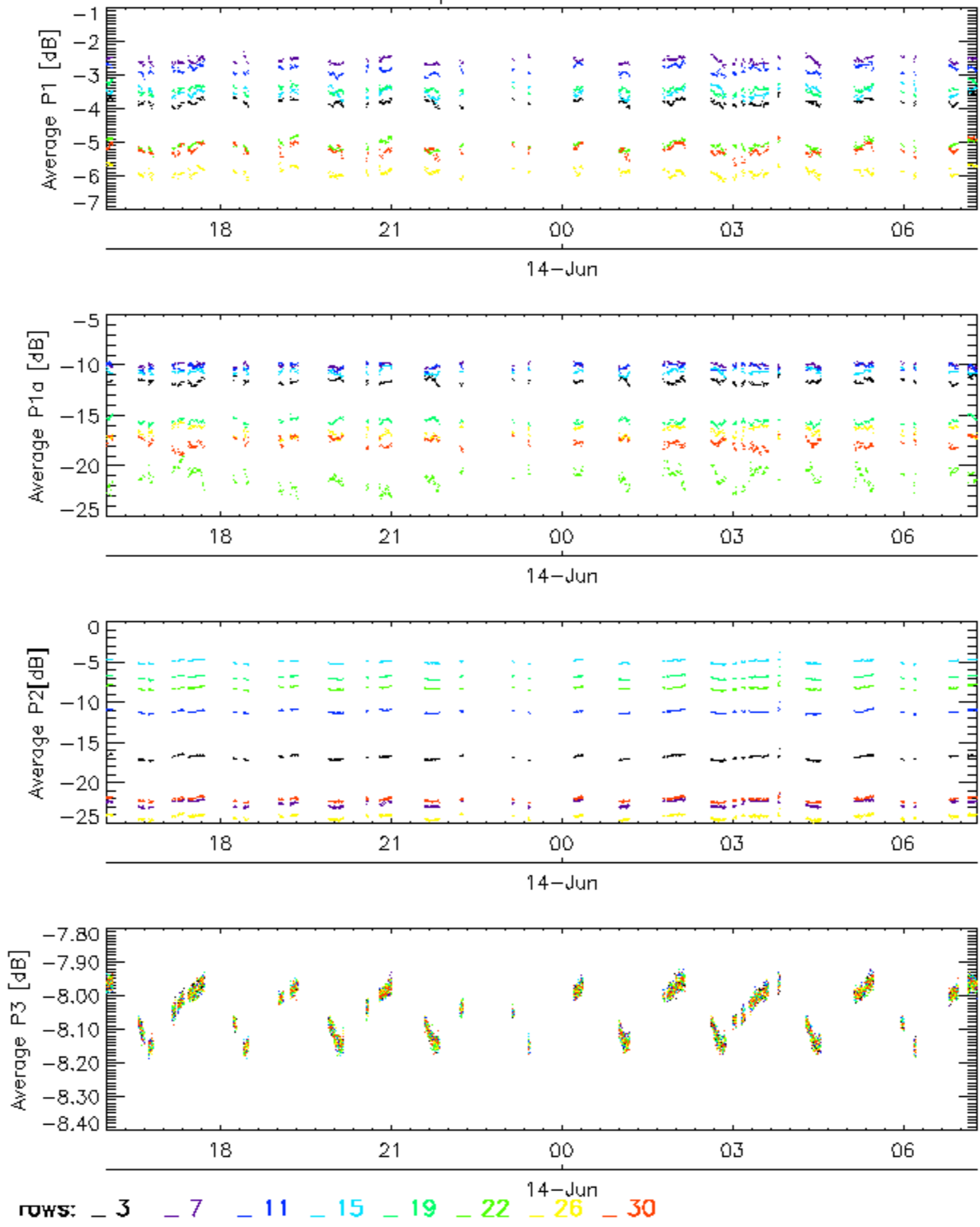
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

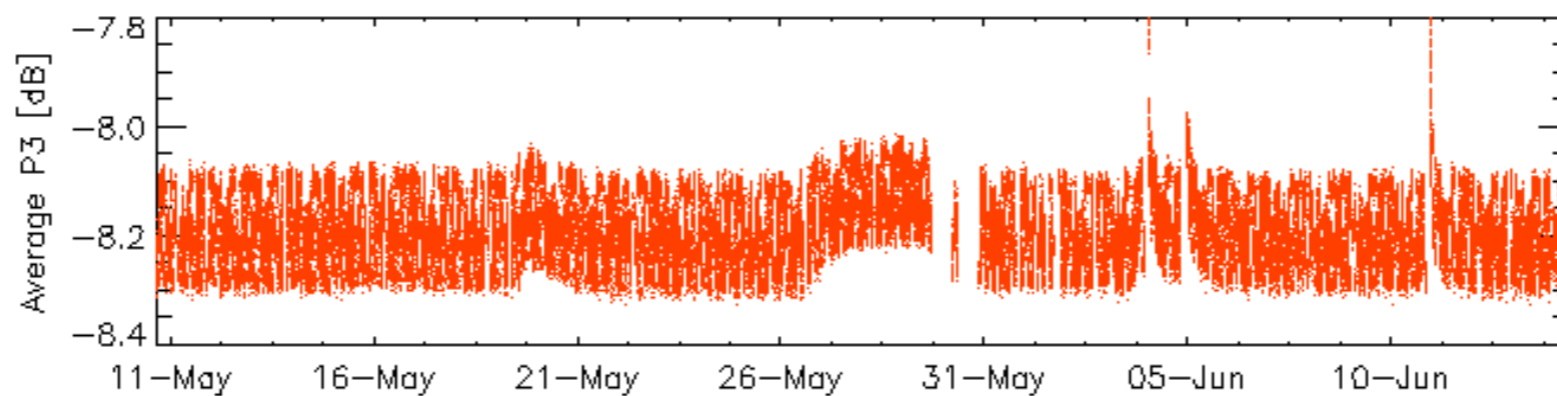
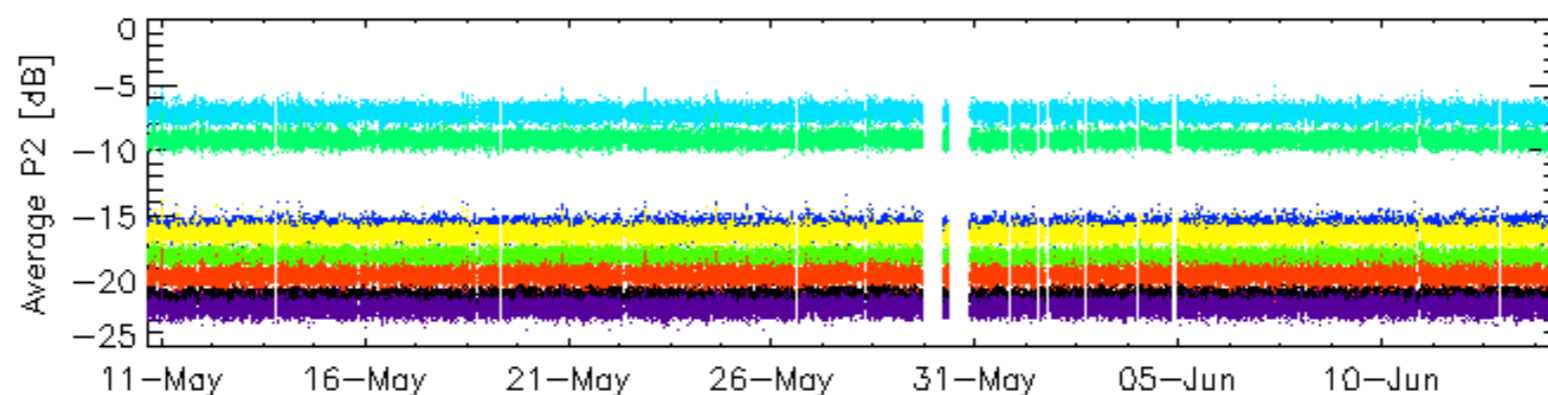
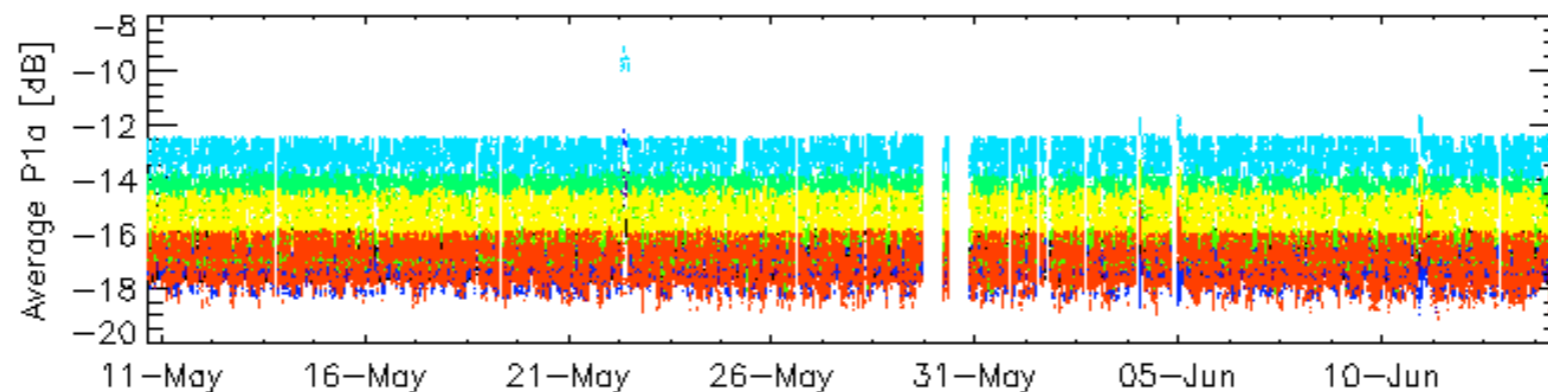
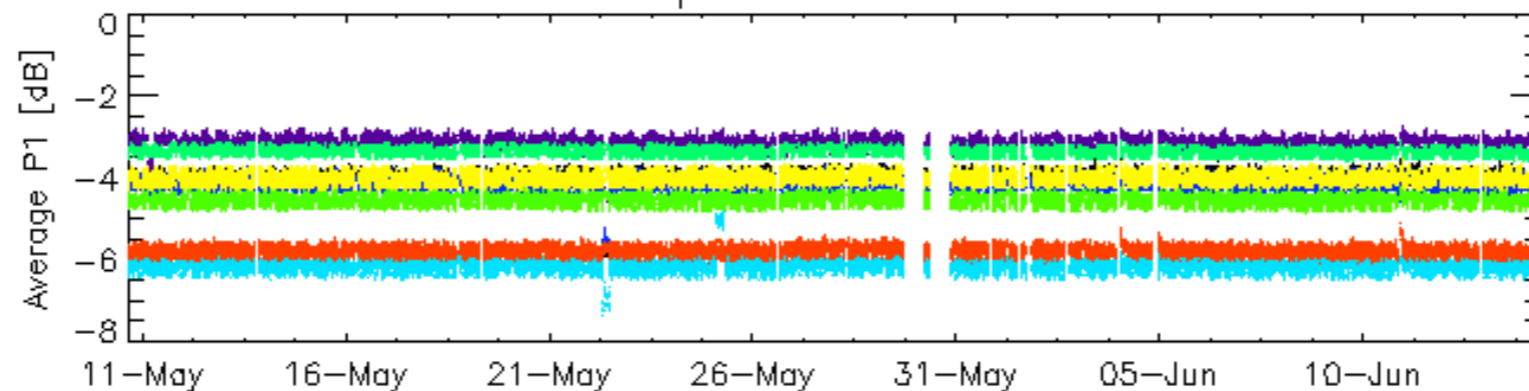


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

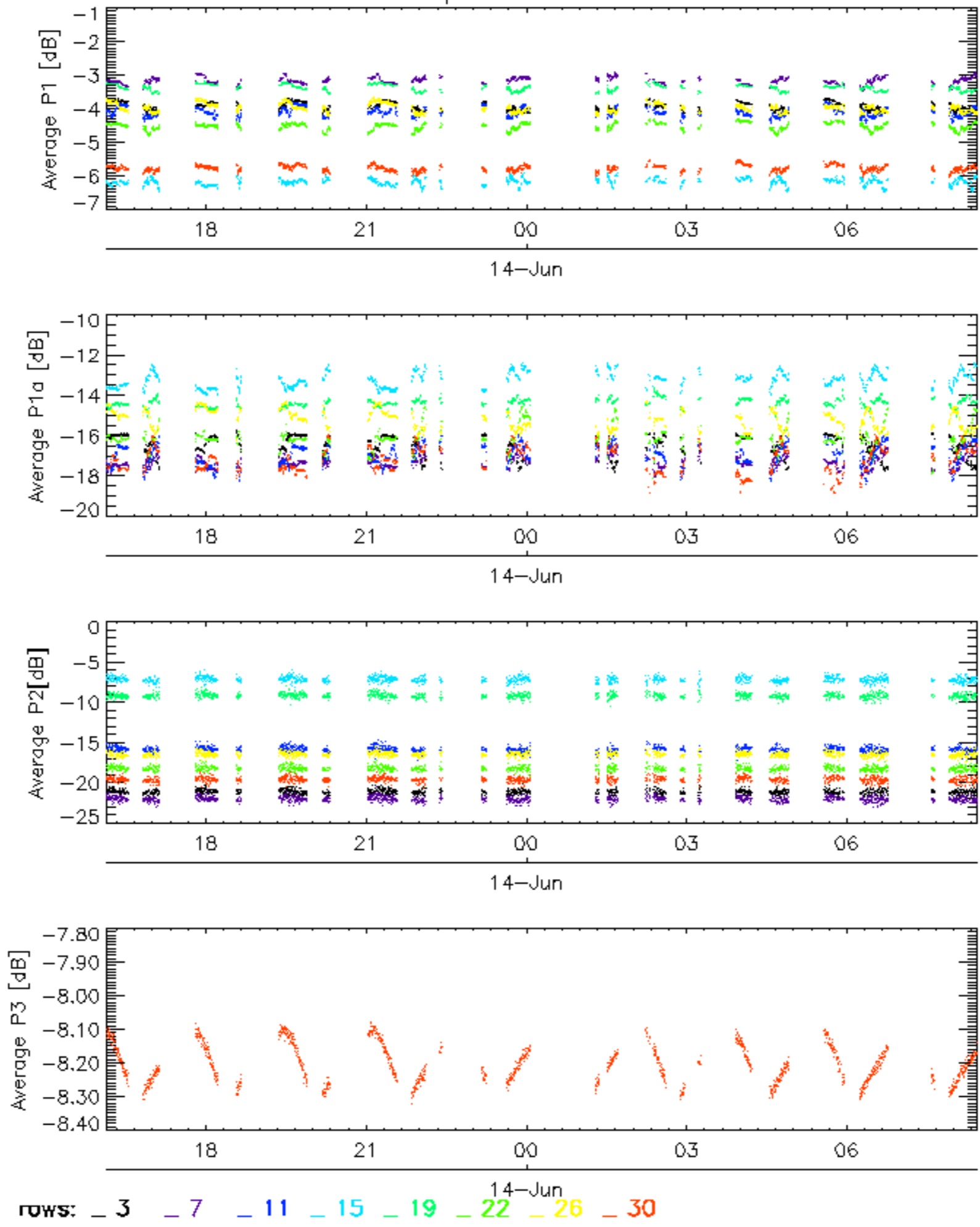


Cal pulses for WVS IS2

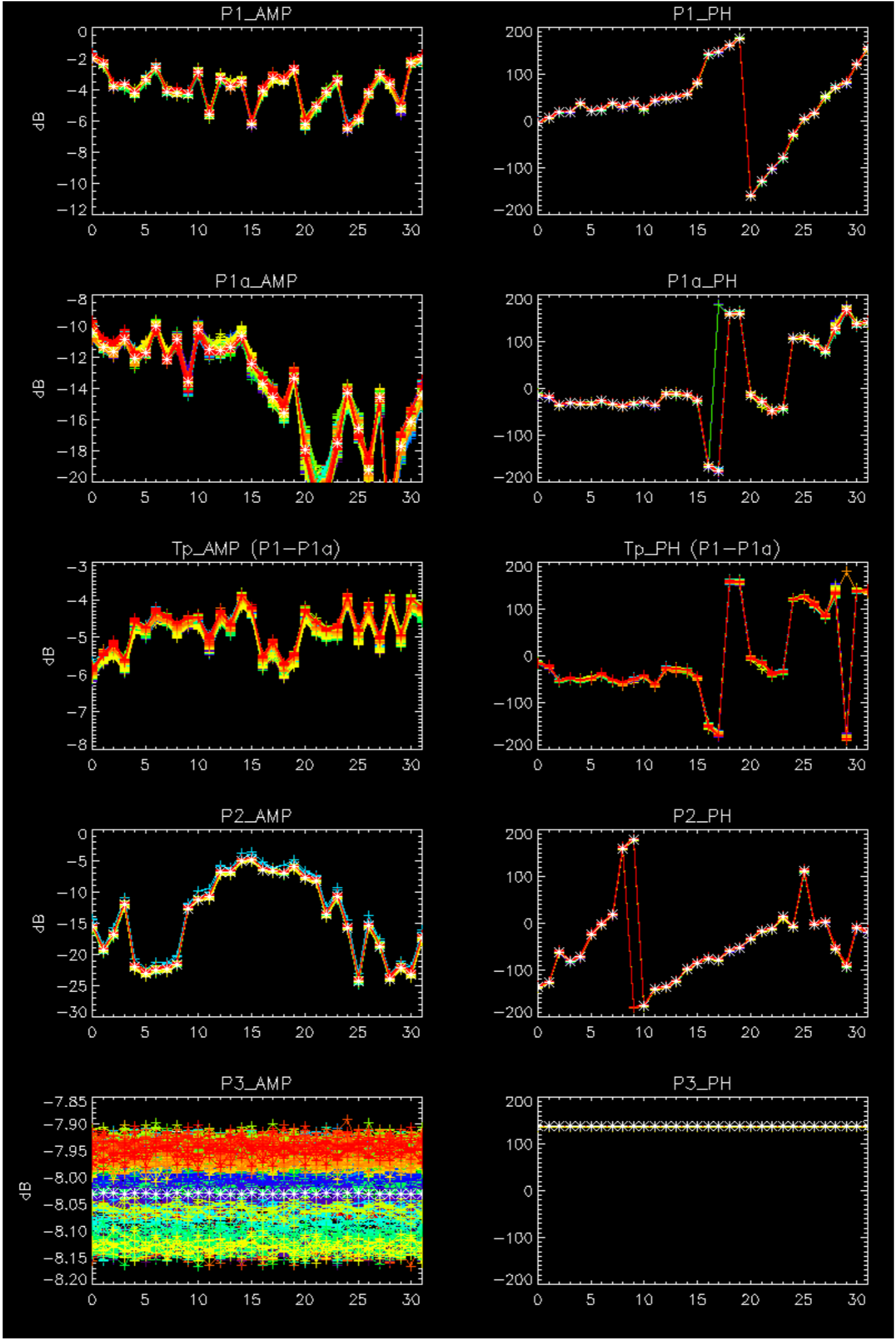


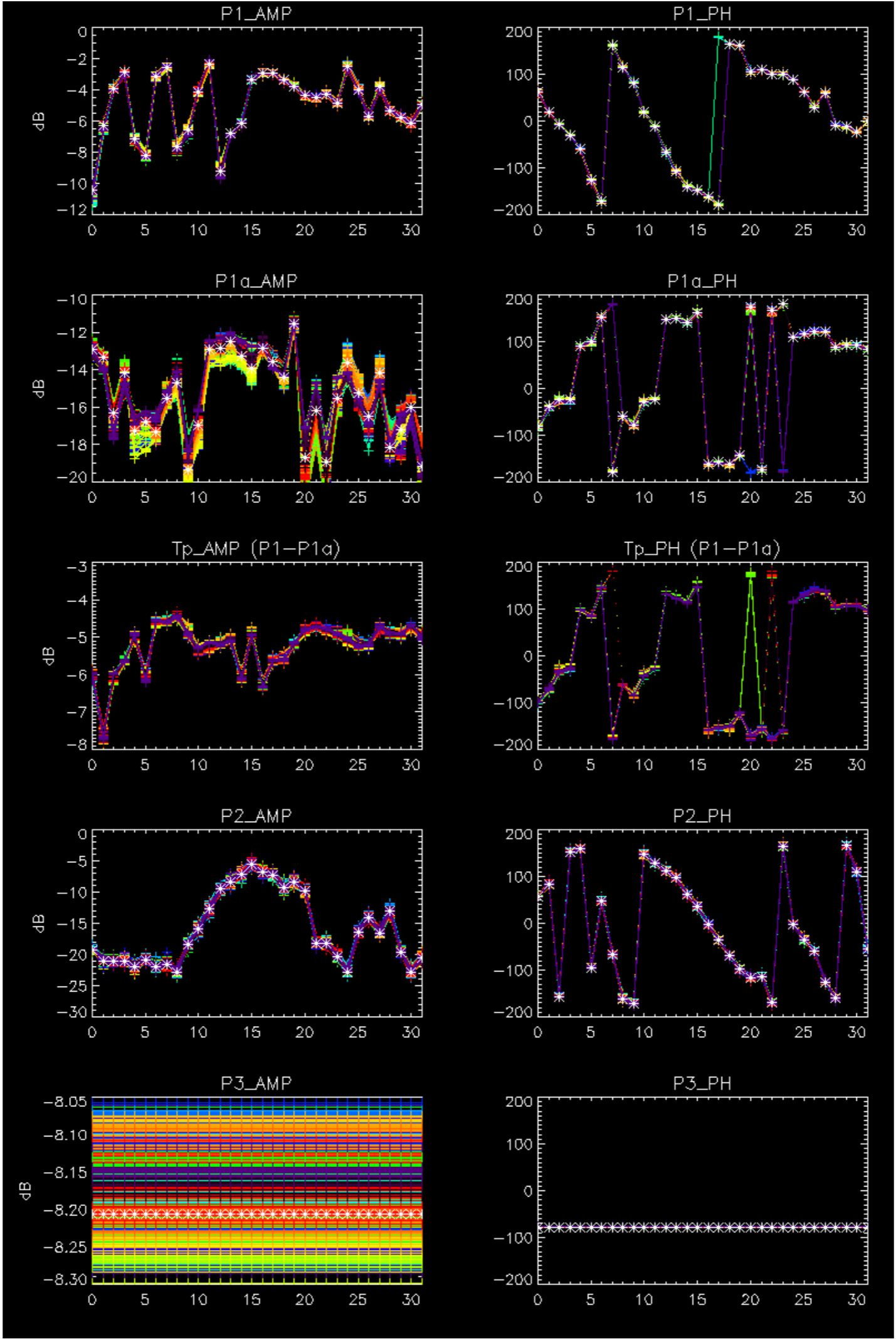
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



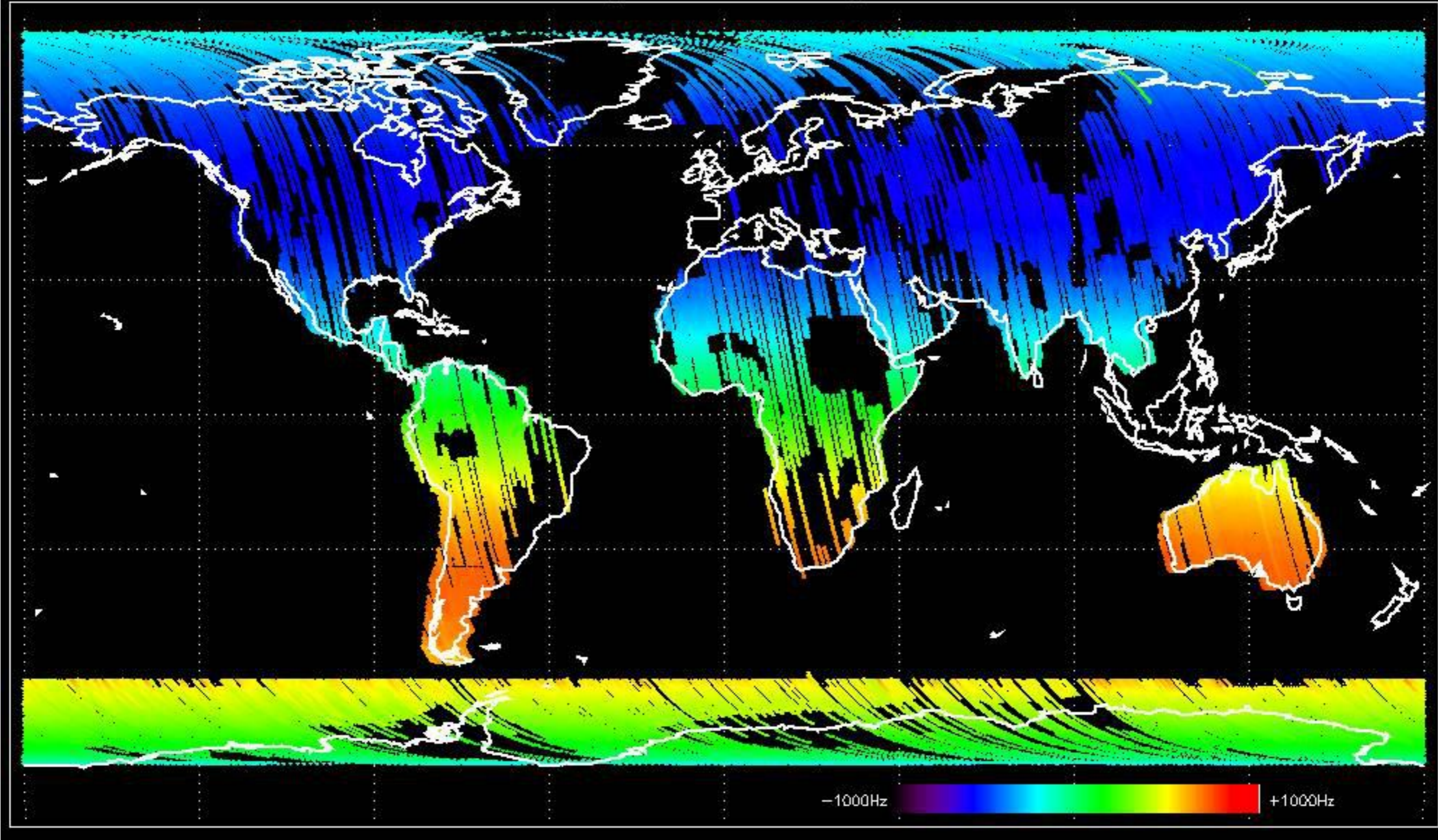
No anomalies observed.



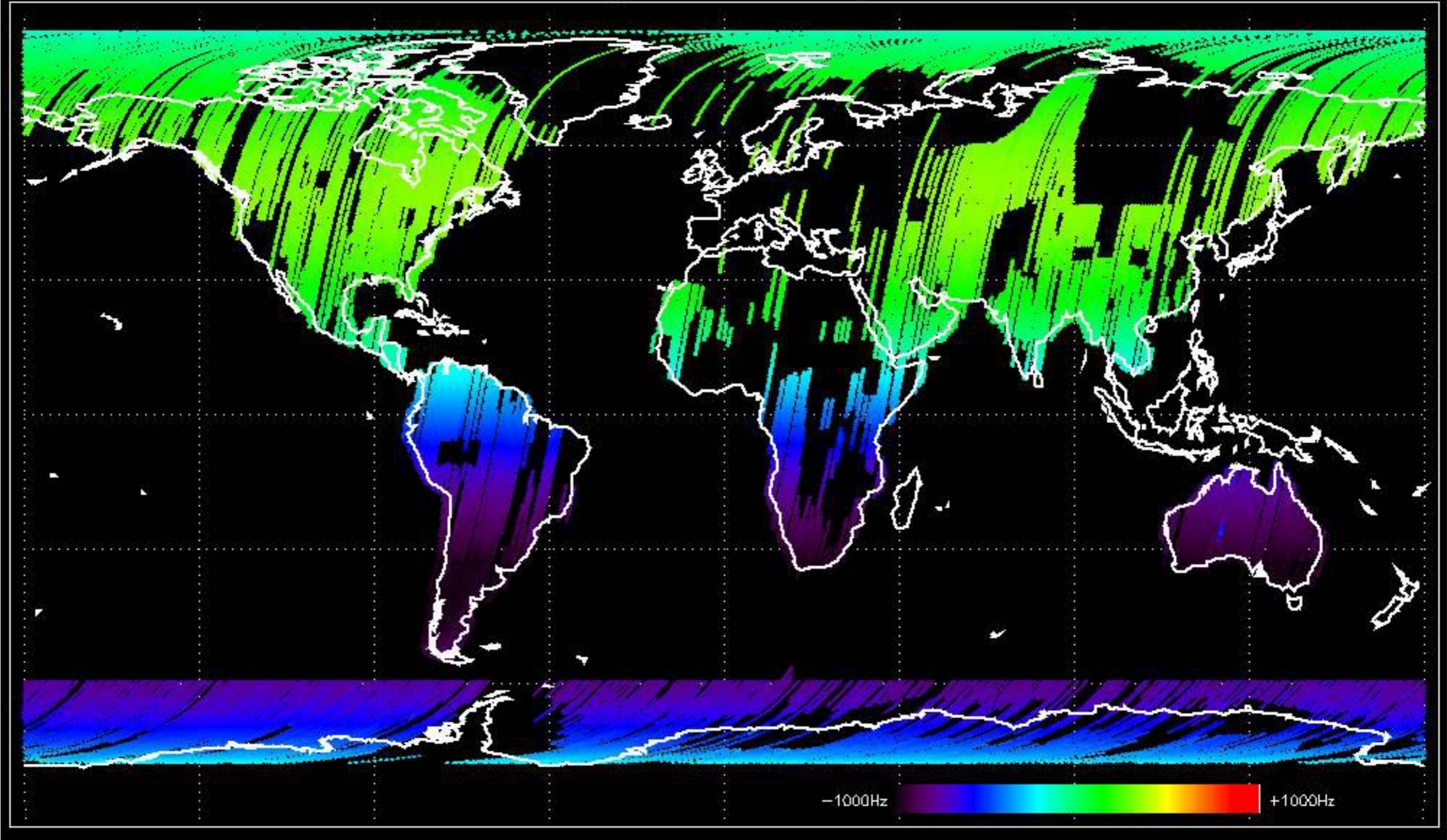


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

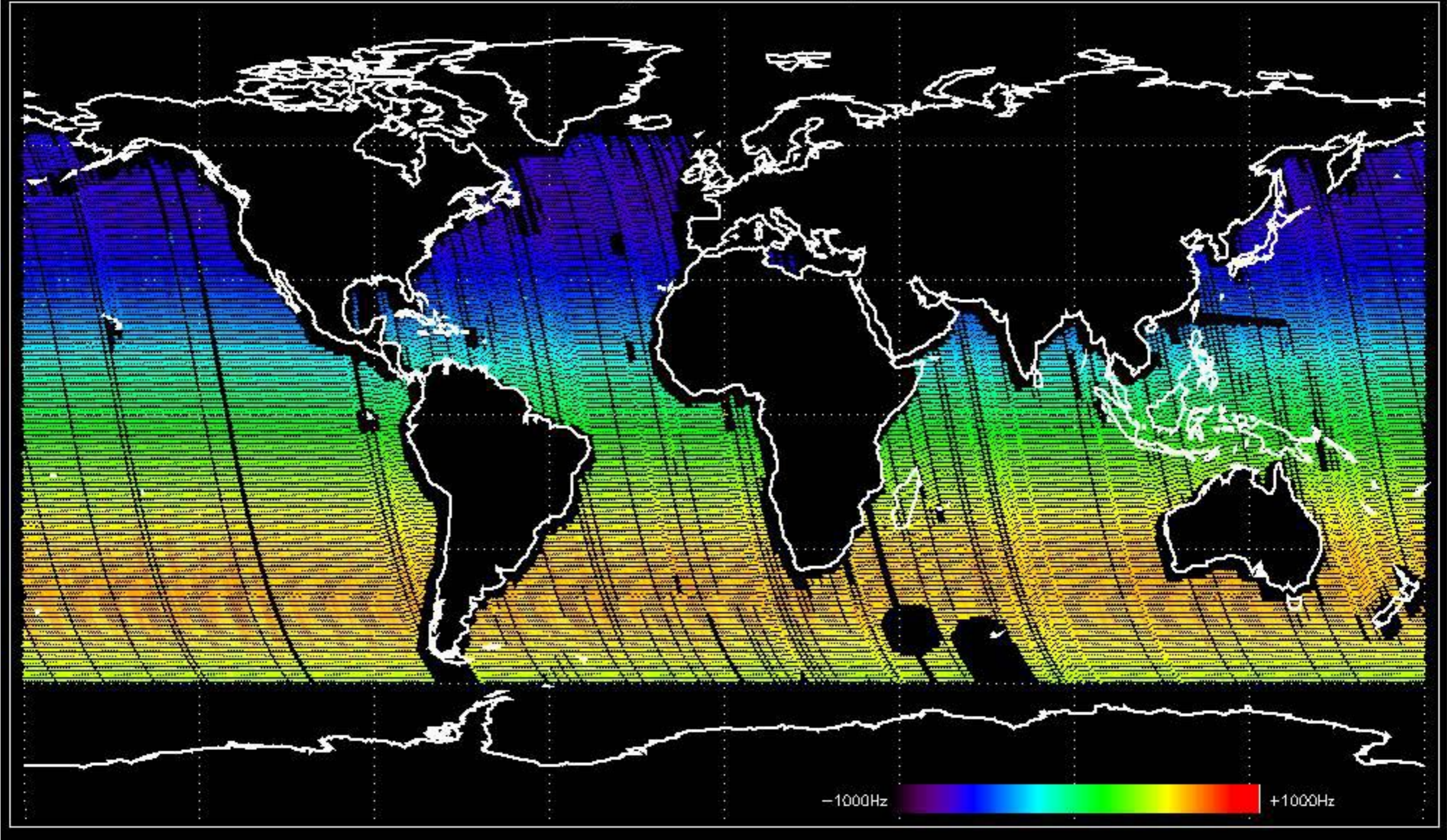
Doppler 'GM1' 'SS1' ascending



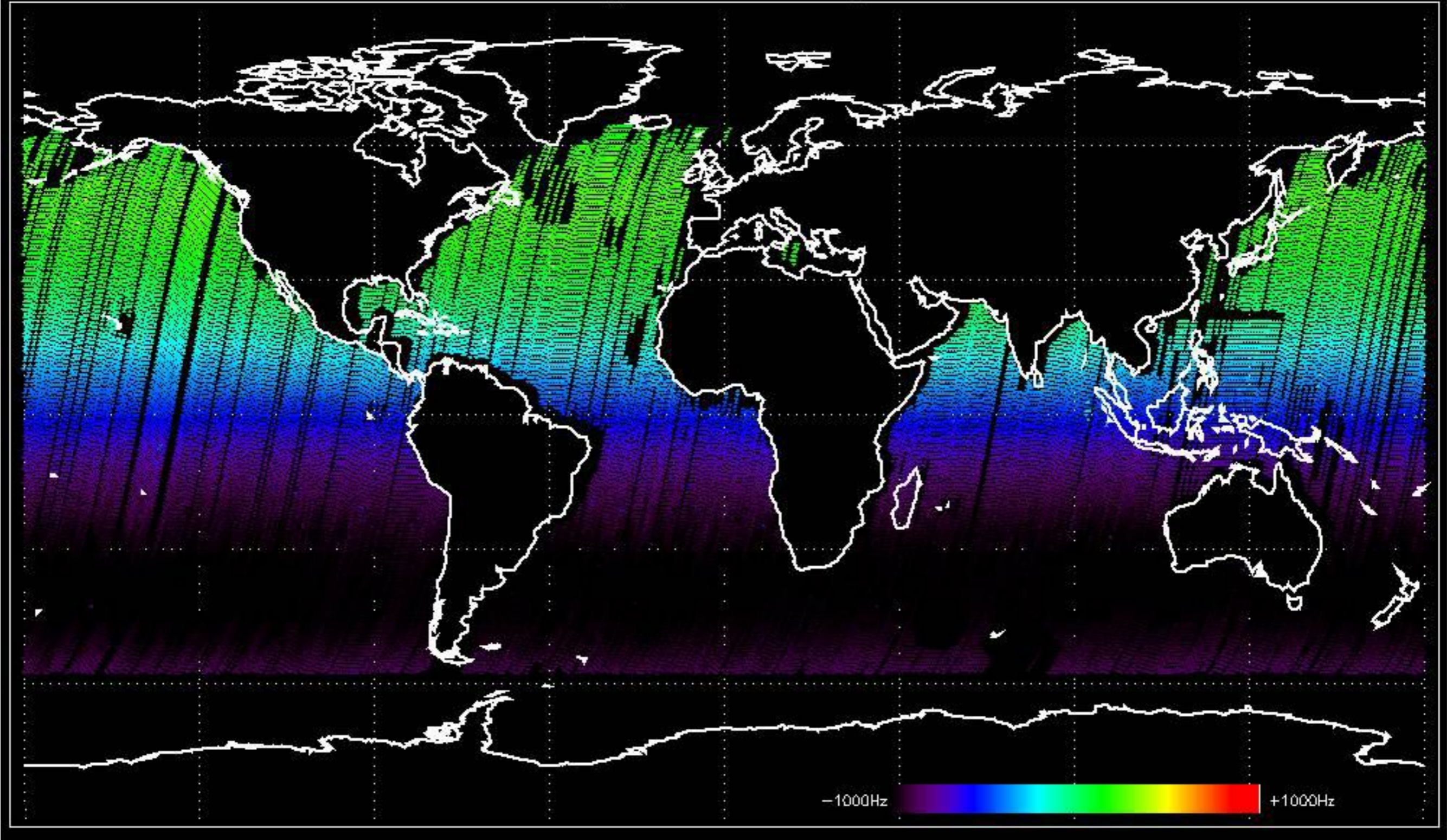
Doppler 'GM1' 'SS1' descending



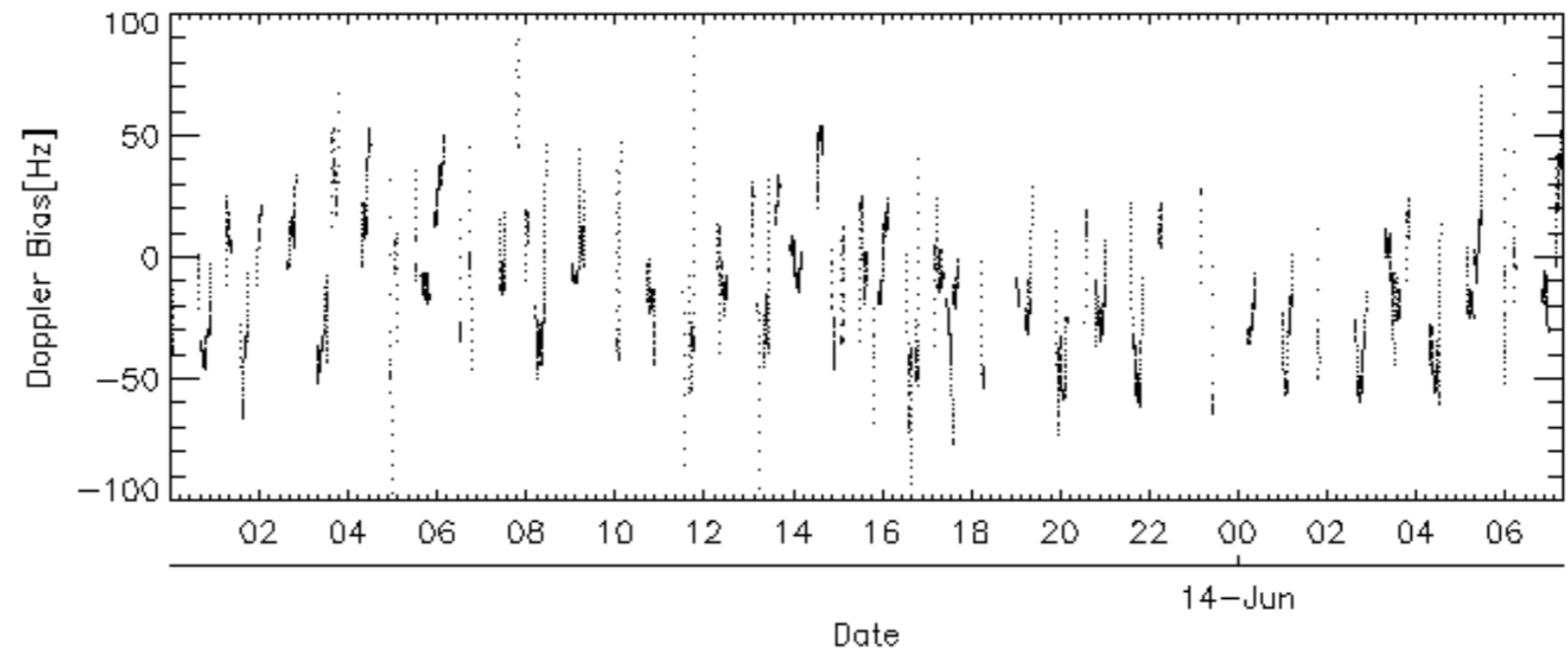
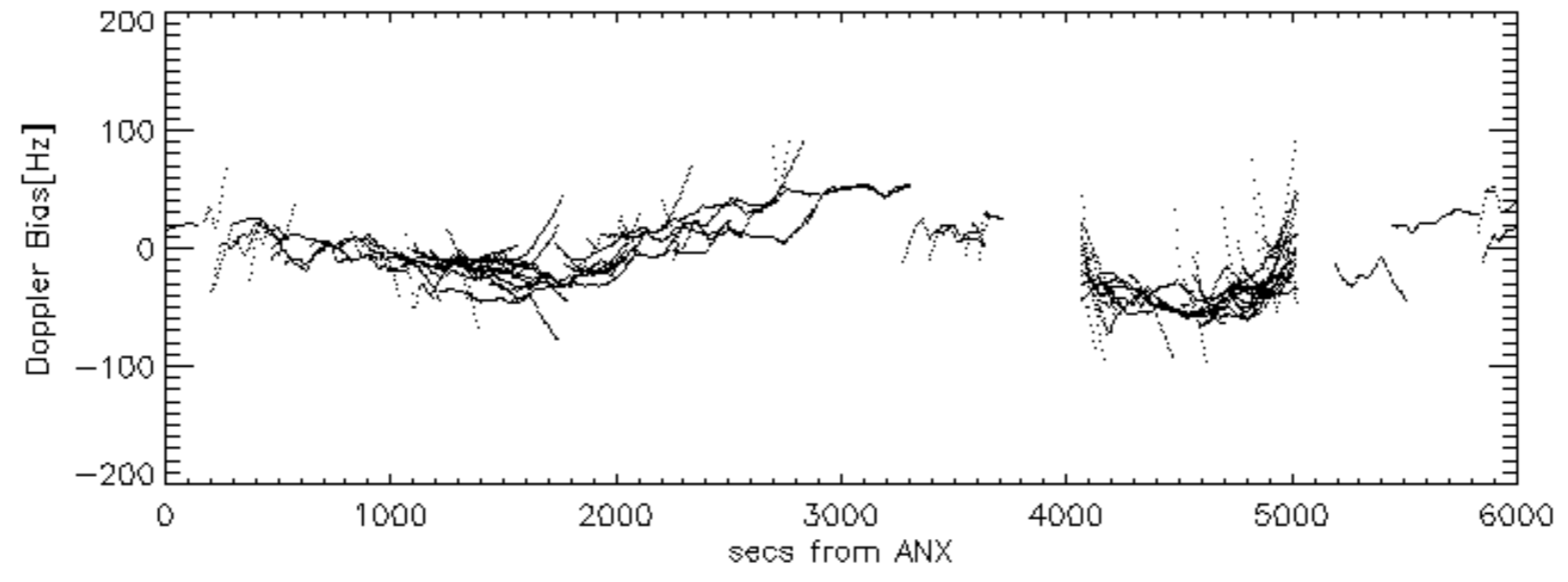
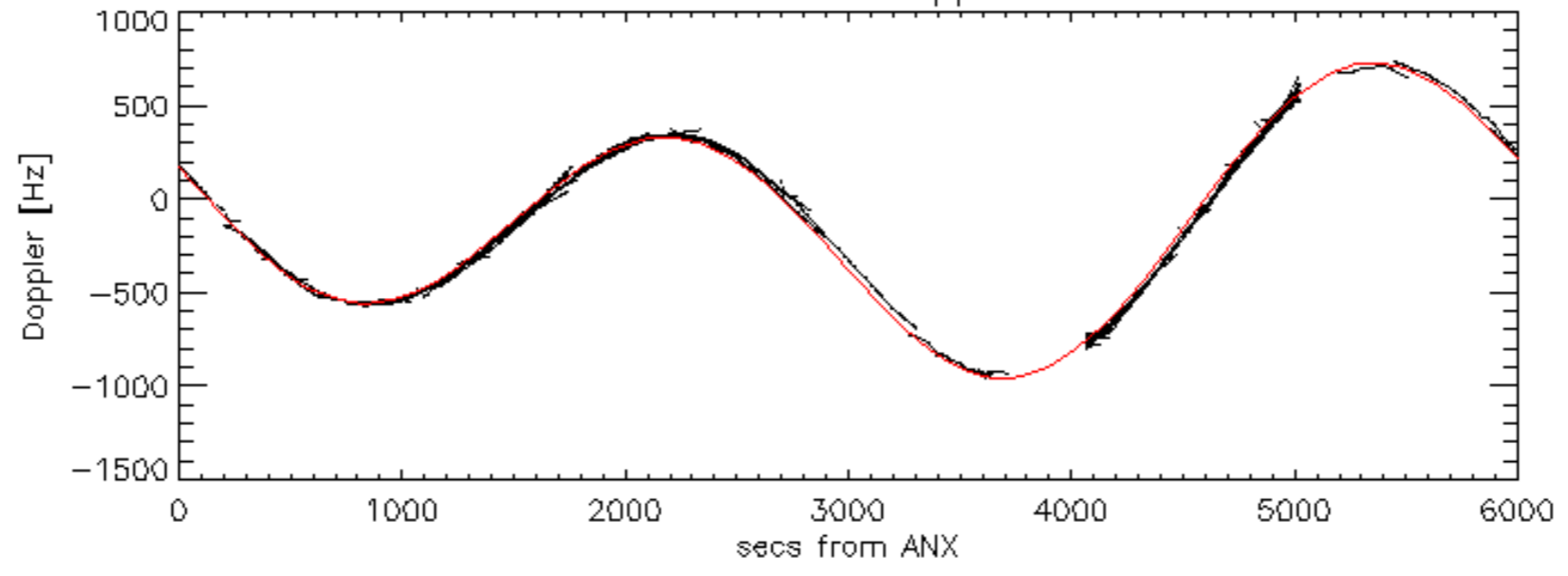
Doppler 'WVS' 'IS2' ascending

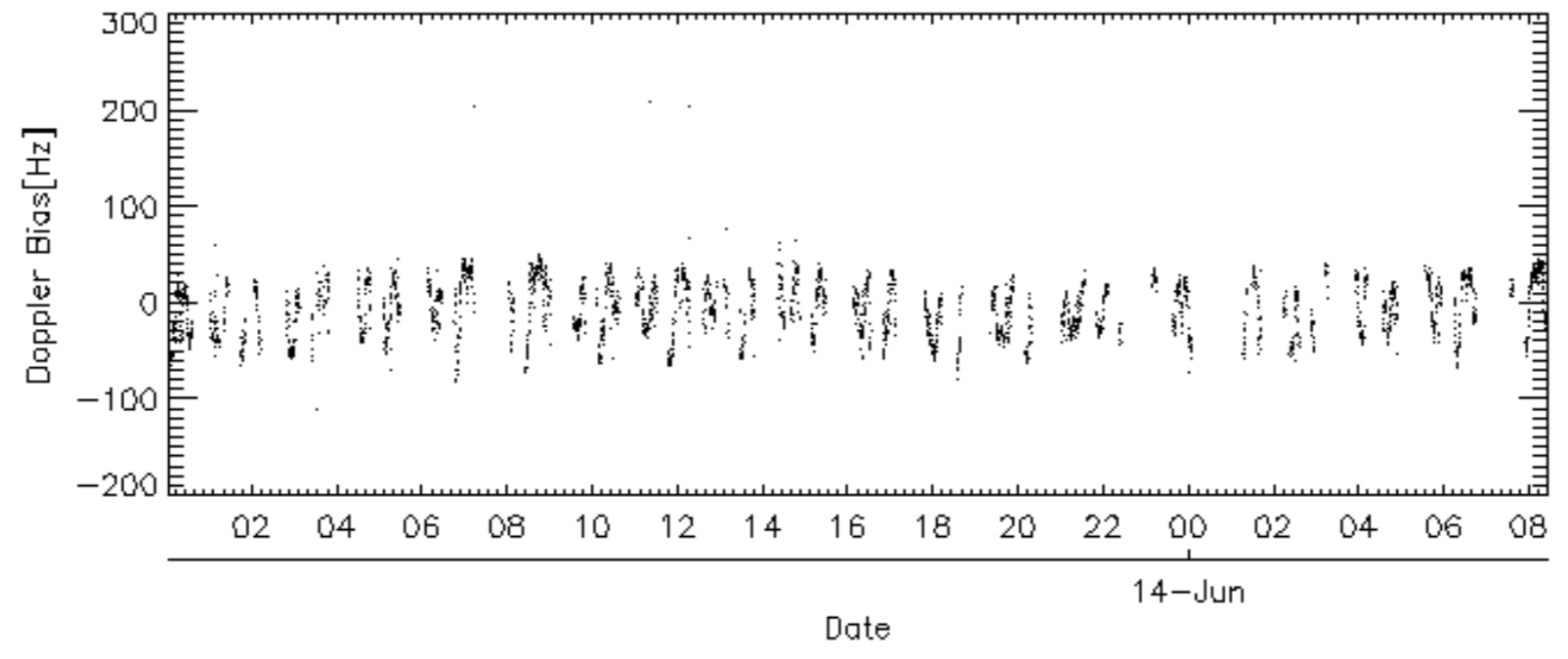
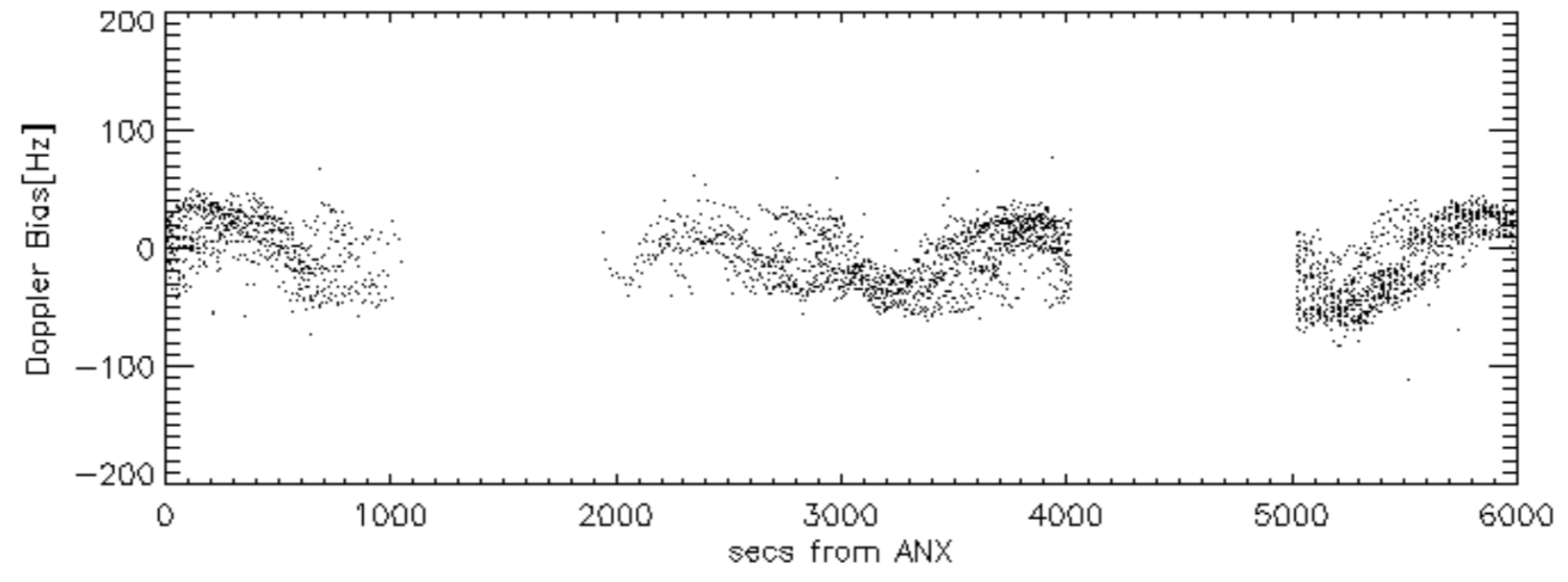
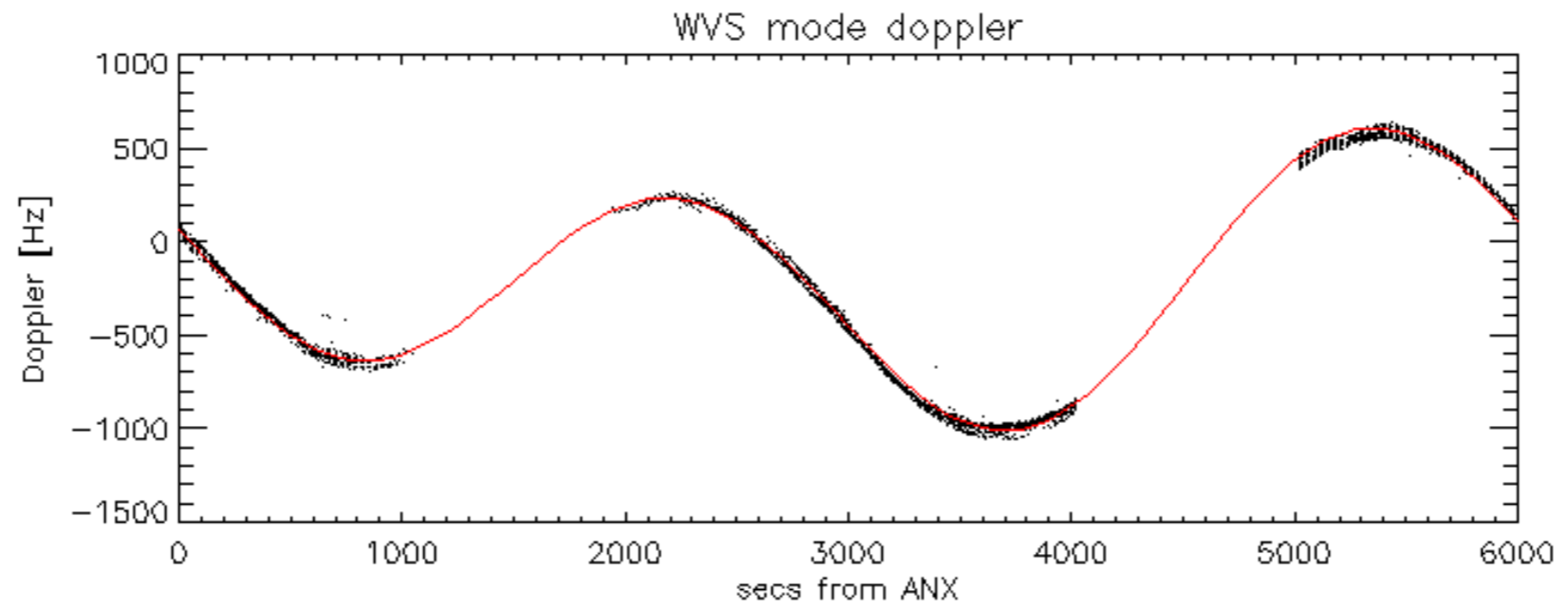


Doppler 'WVS' 'IS2' descending

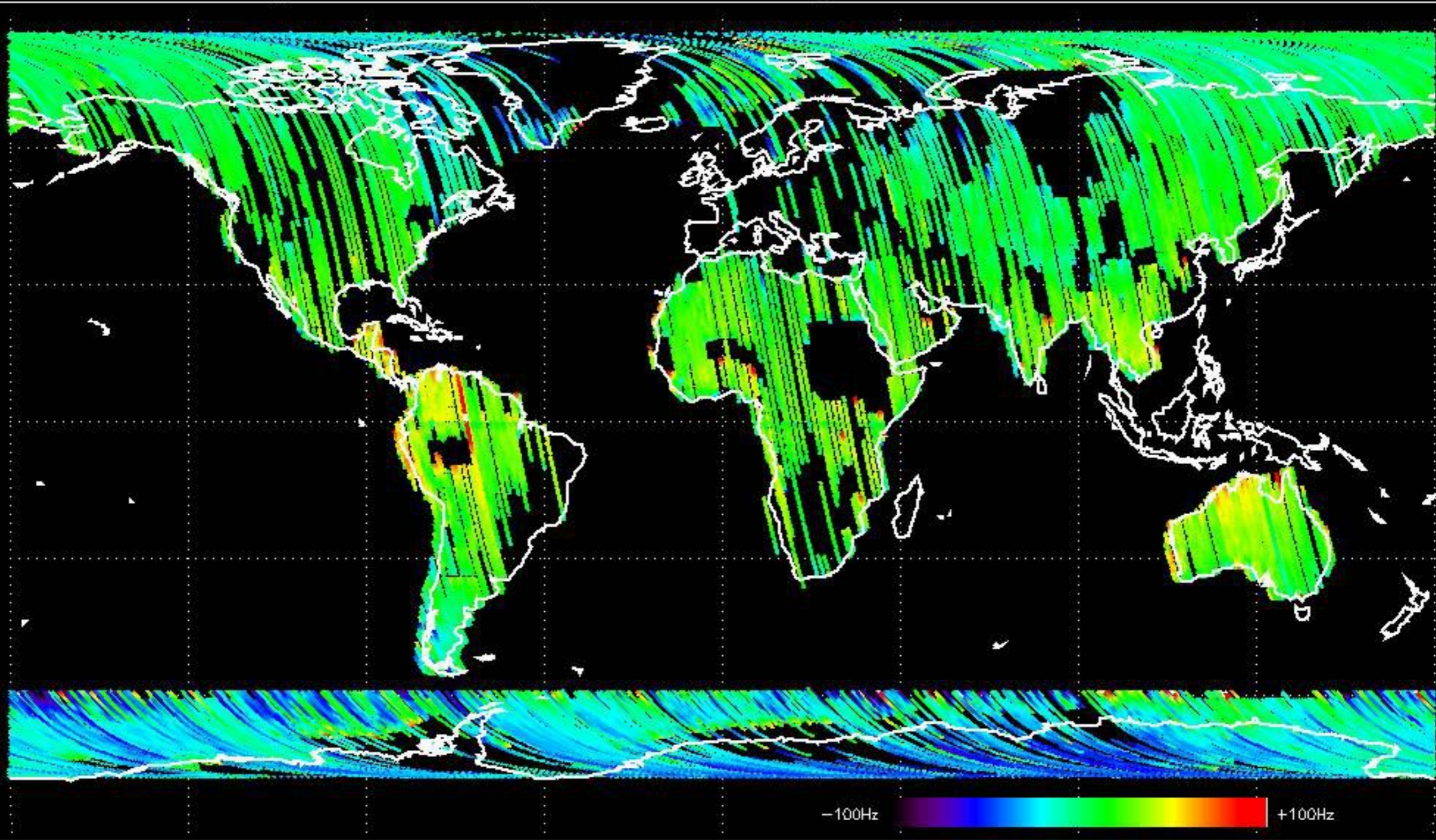


GM1 mode doppler

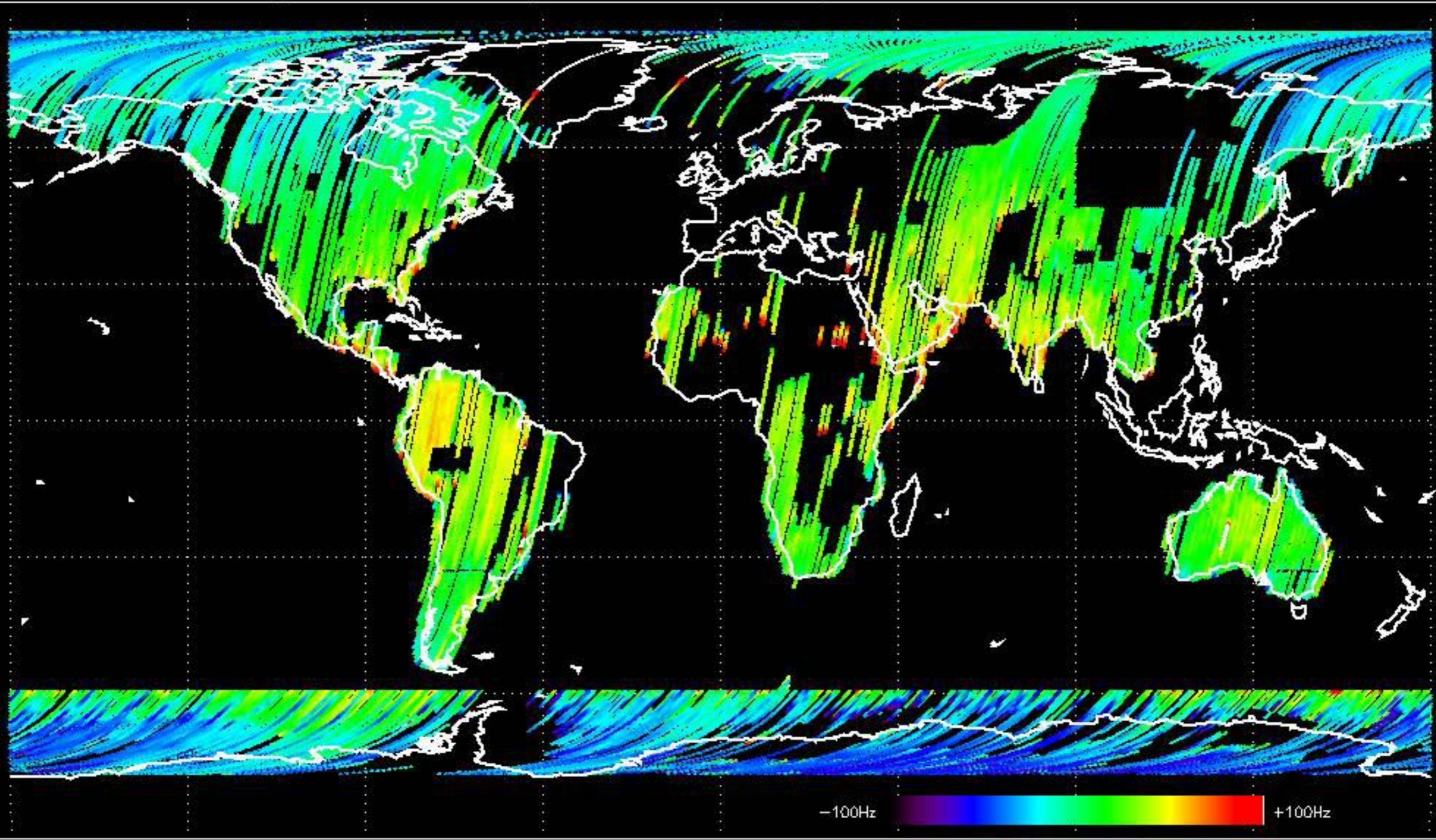




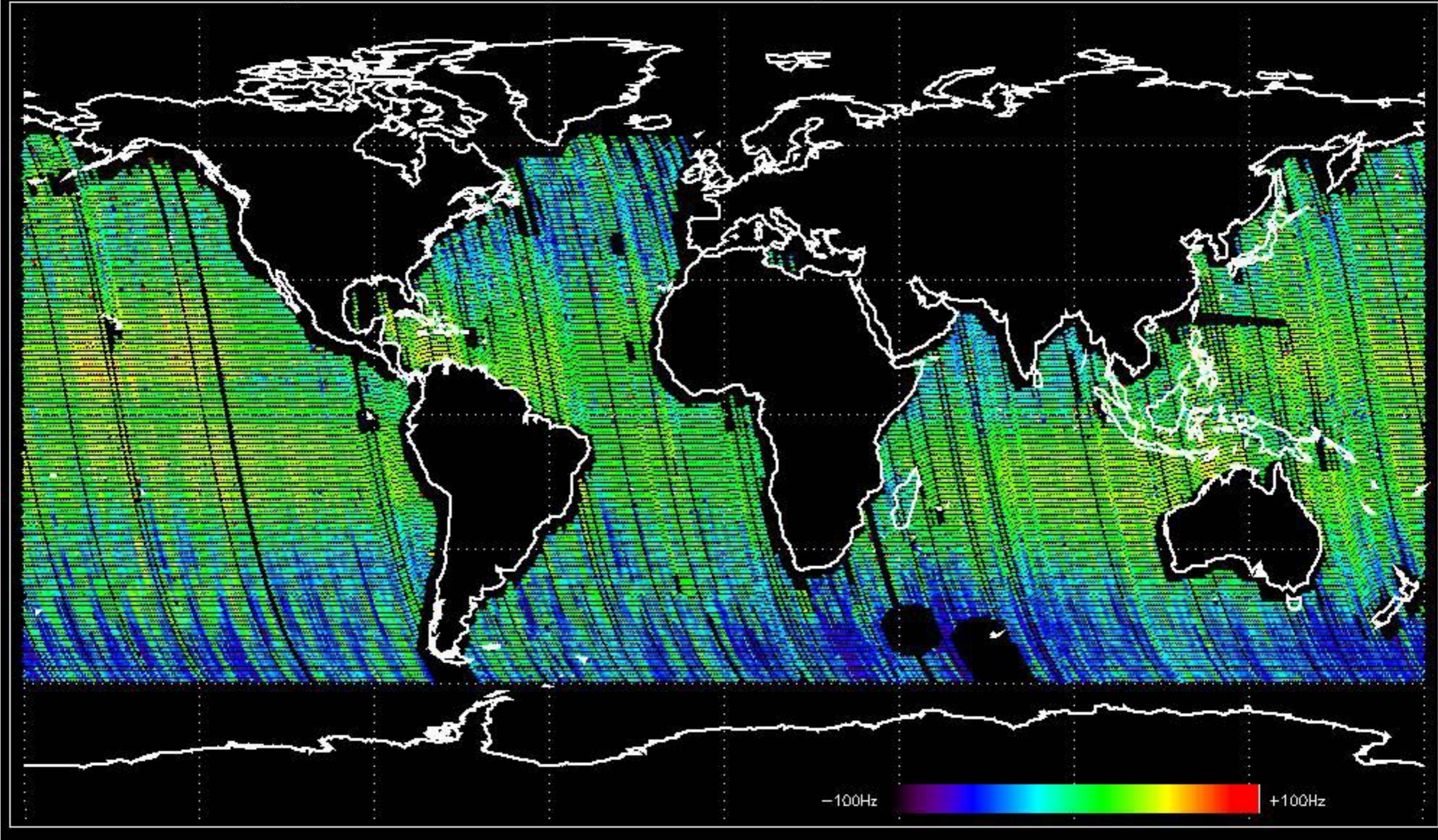
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.064189 Hz



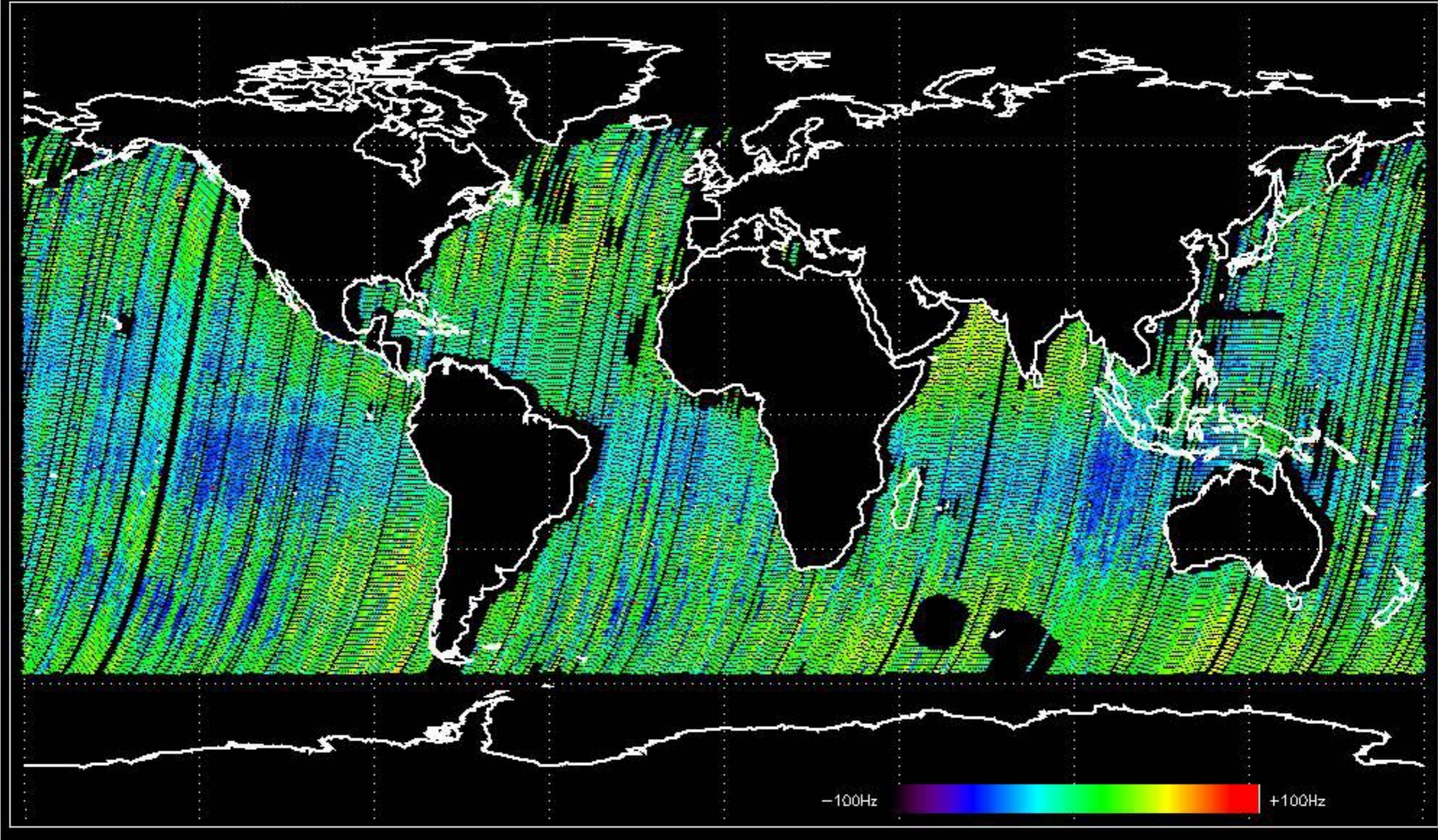
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -6.1165764 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.4934483 Hz

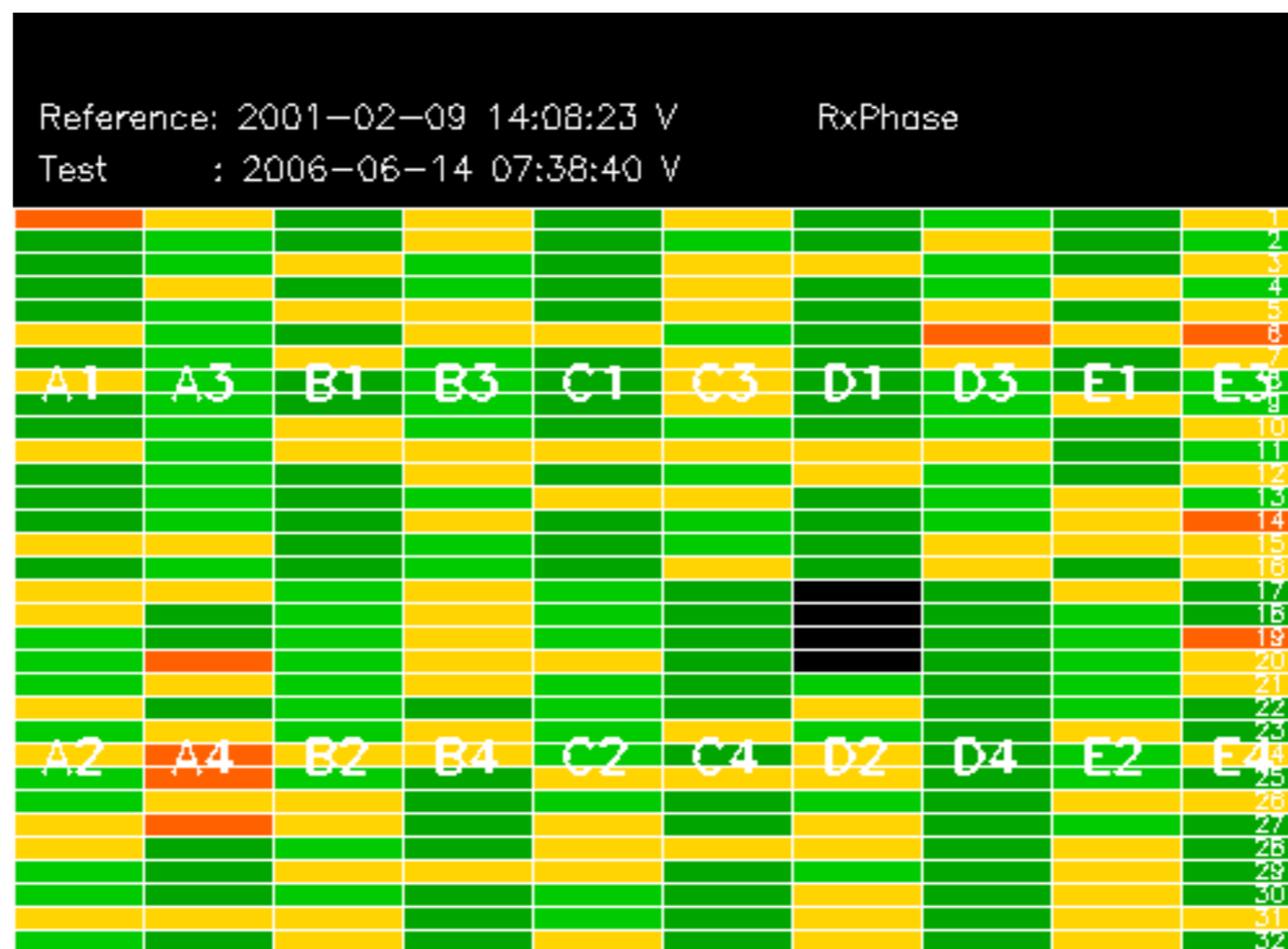


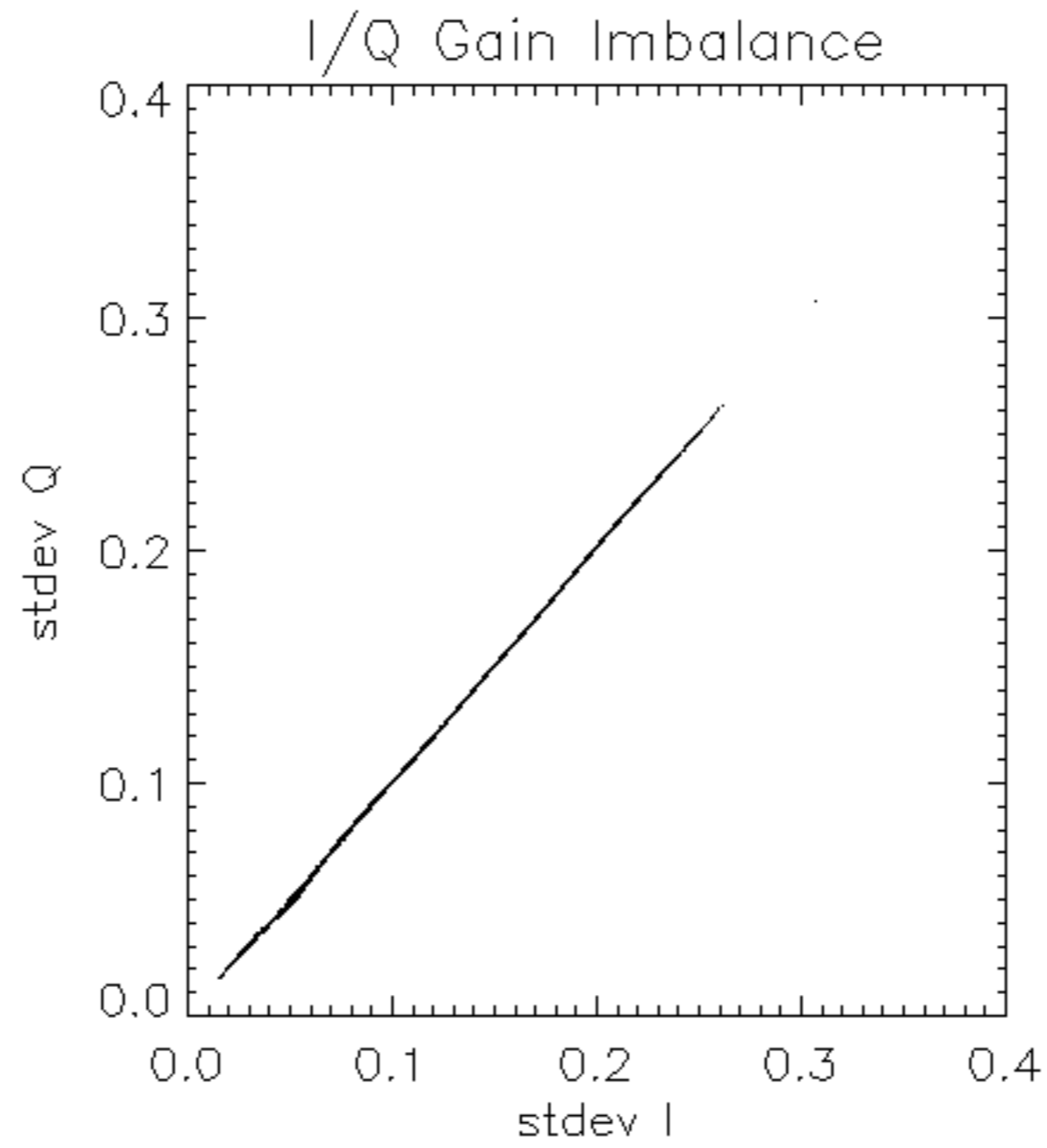
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.779719 Hz

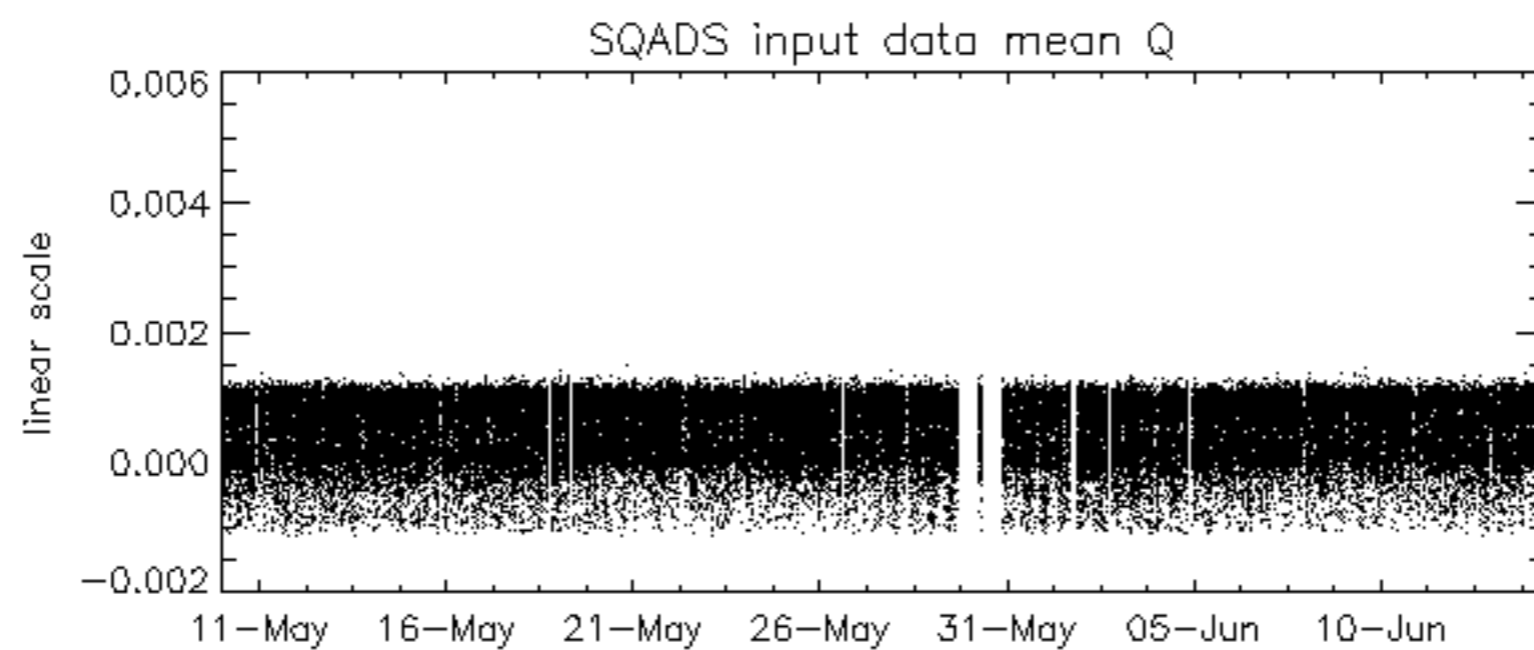
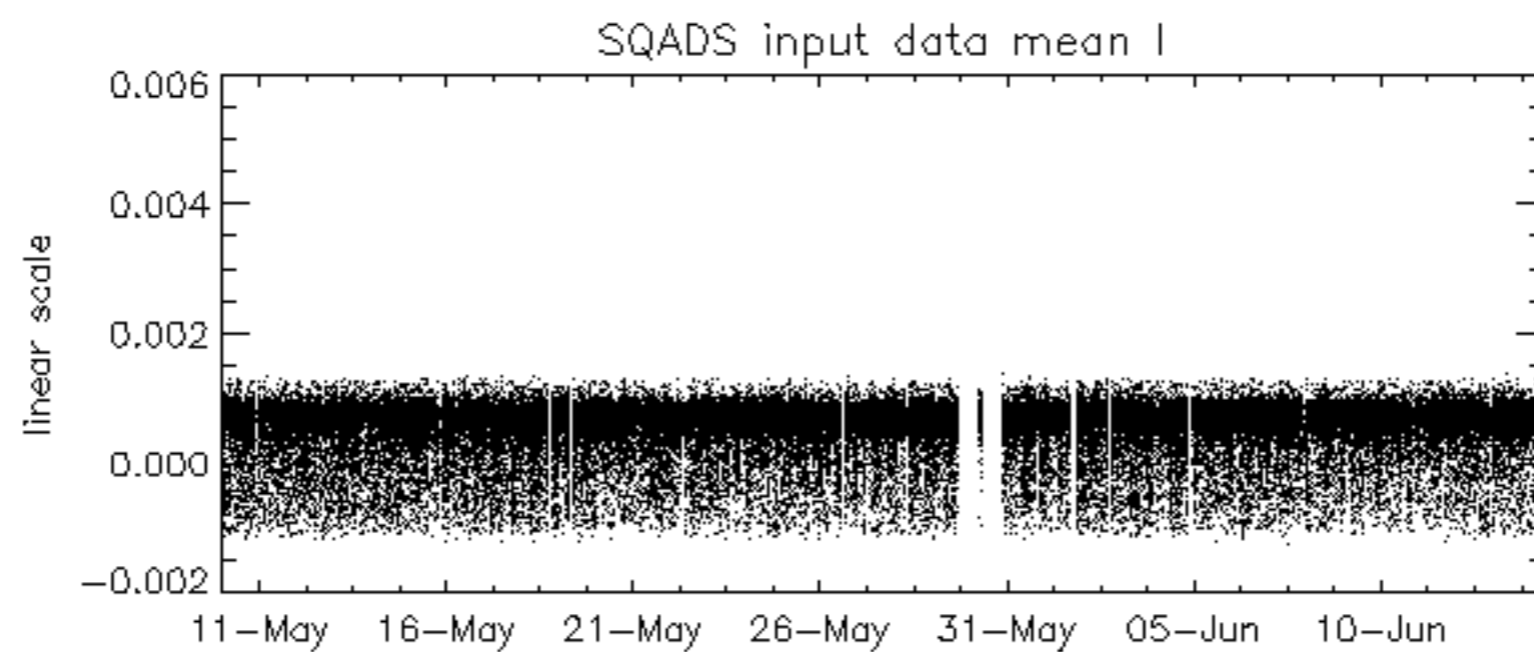
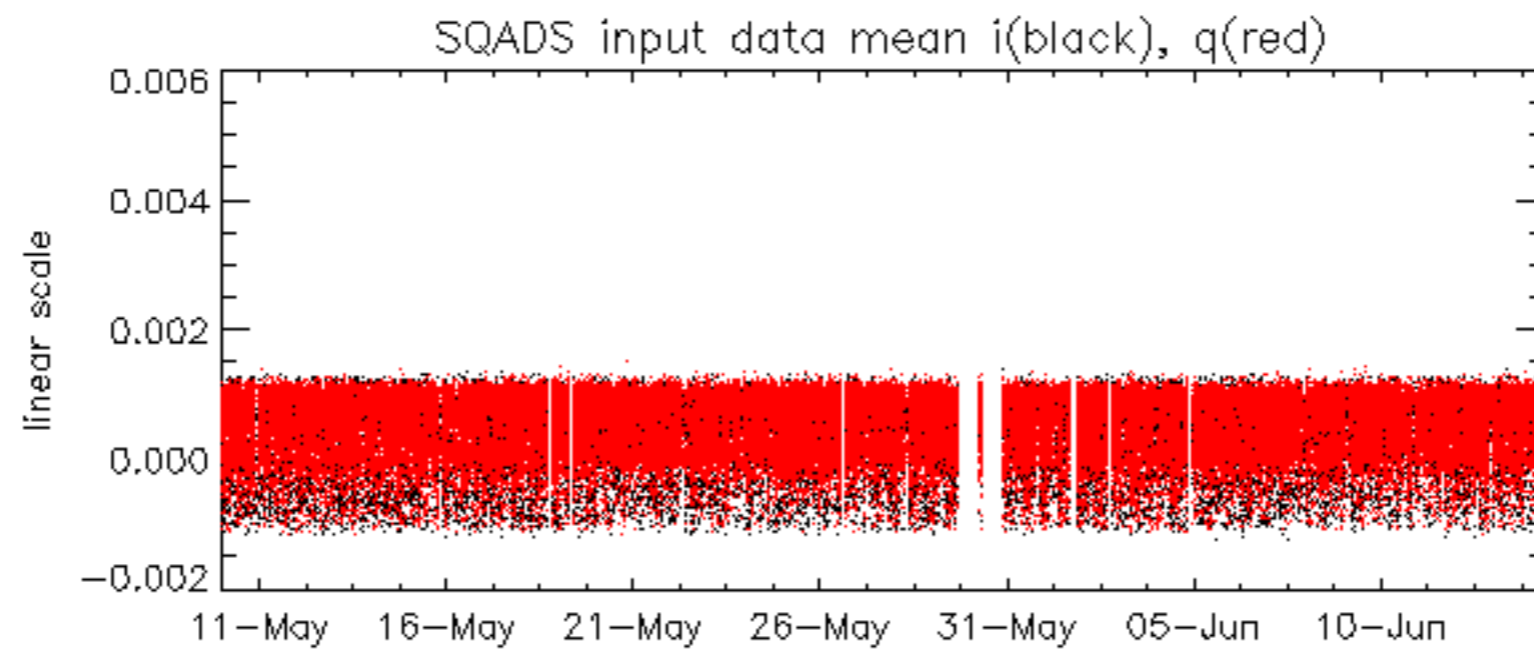


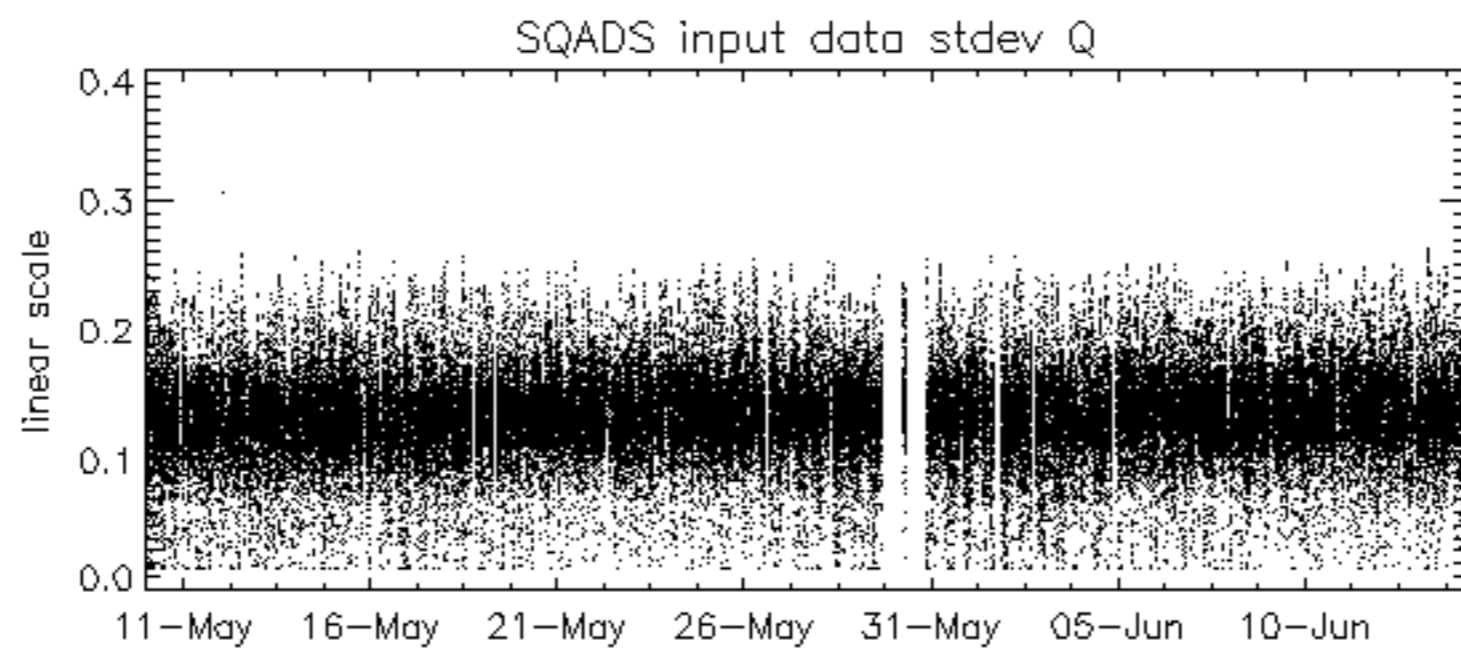
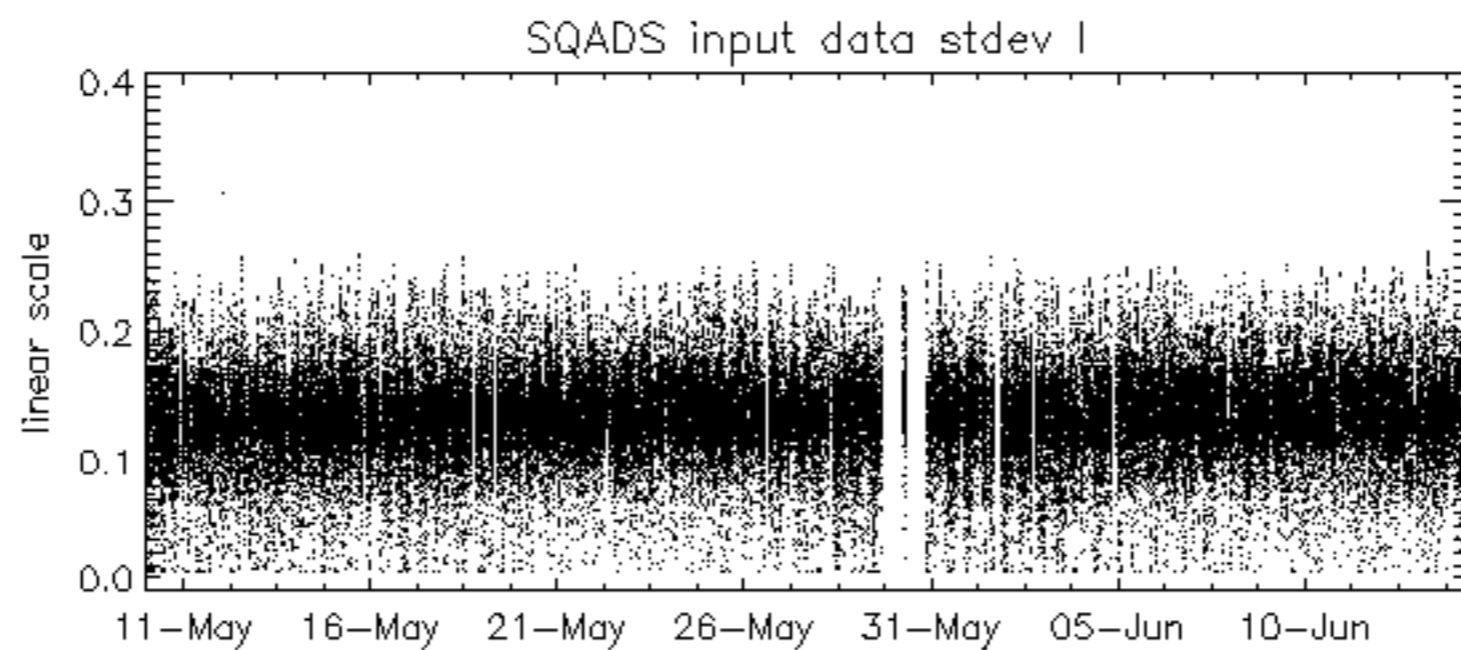
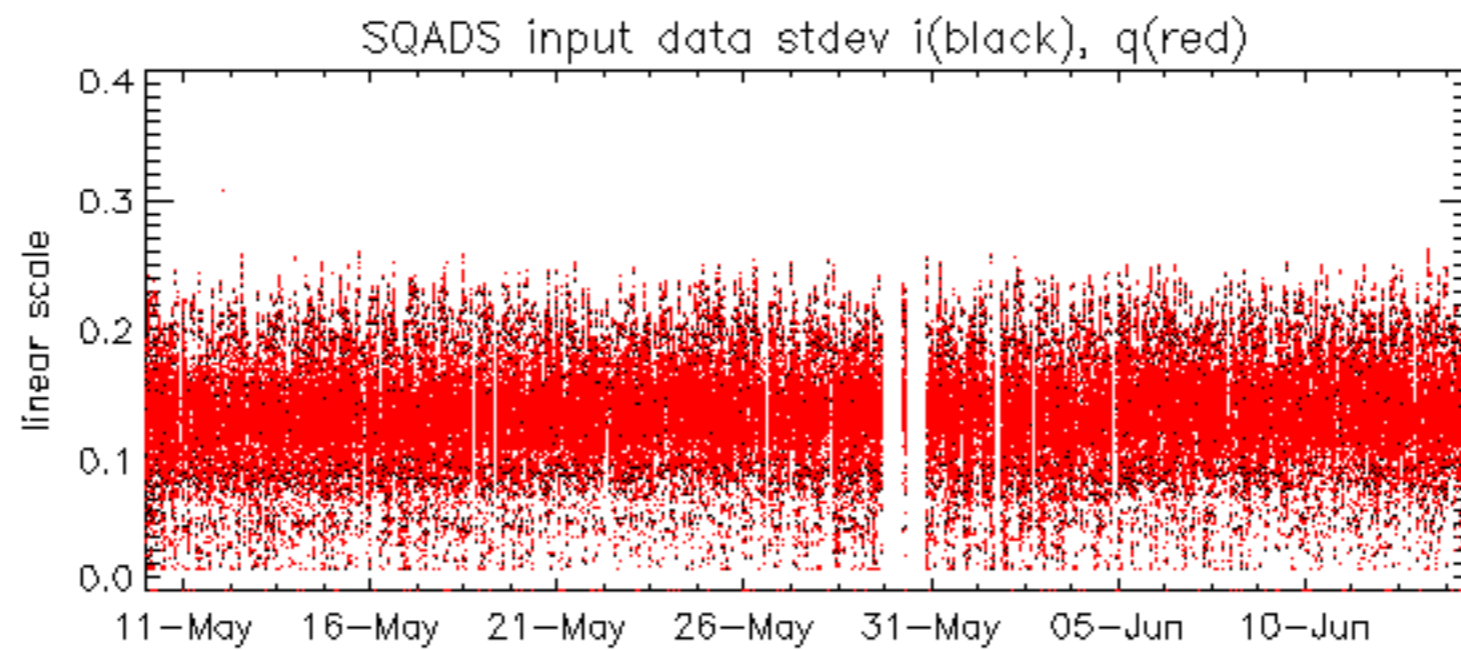
No anomalies observed on available MS products:

No anomalies observed.





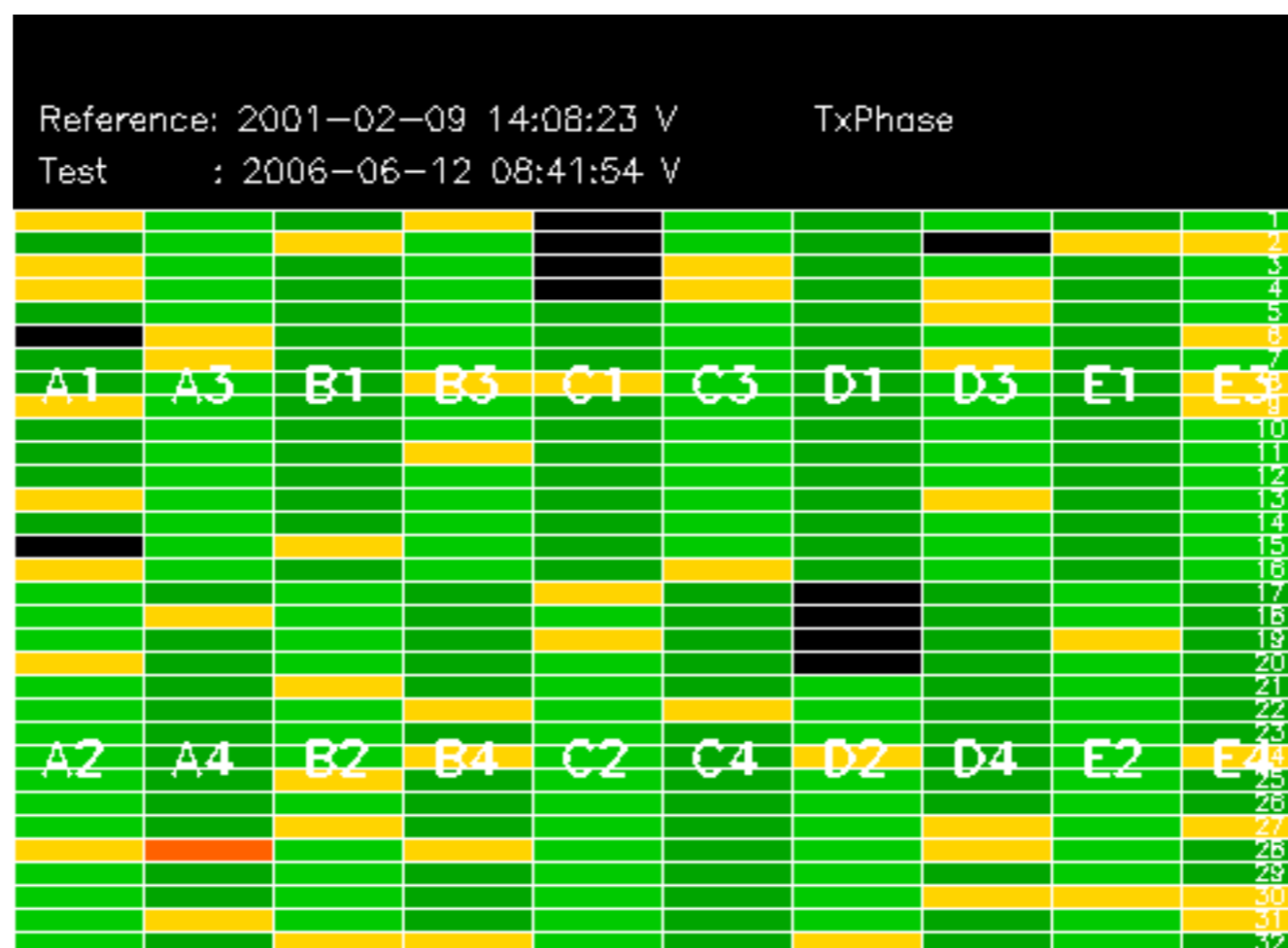




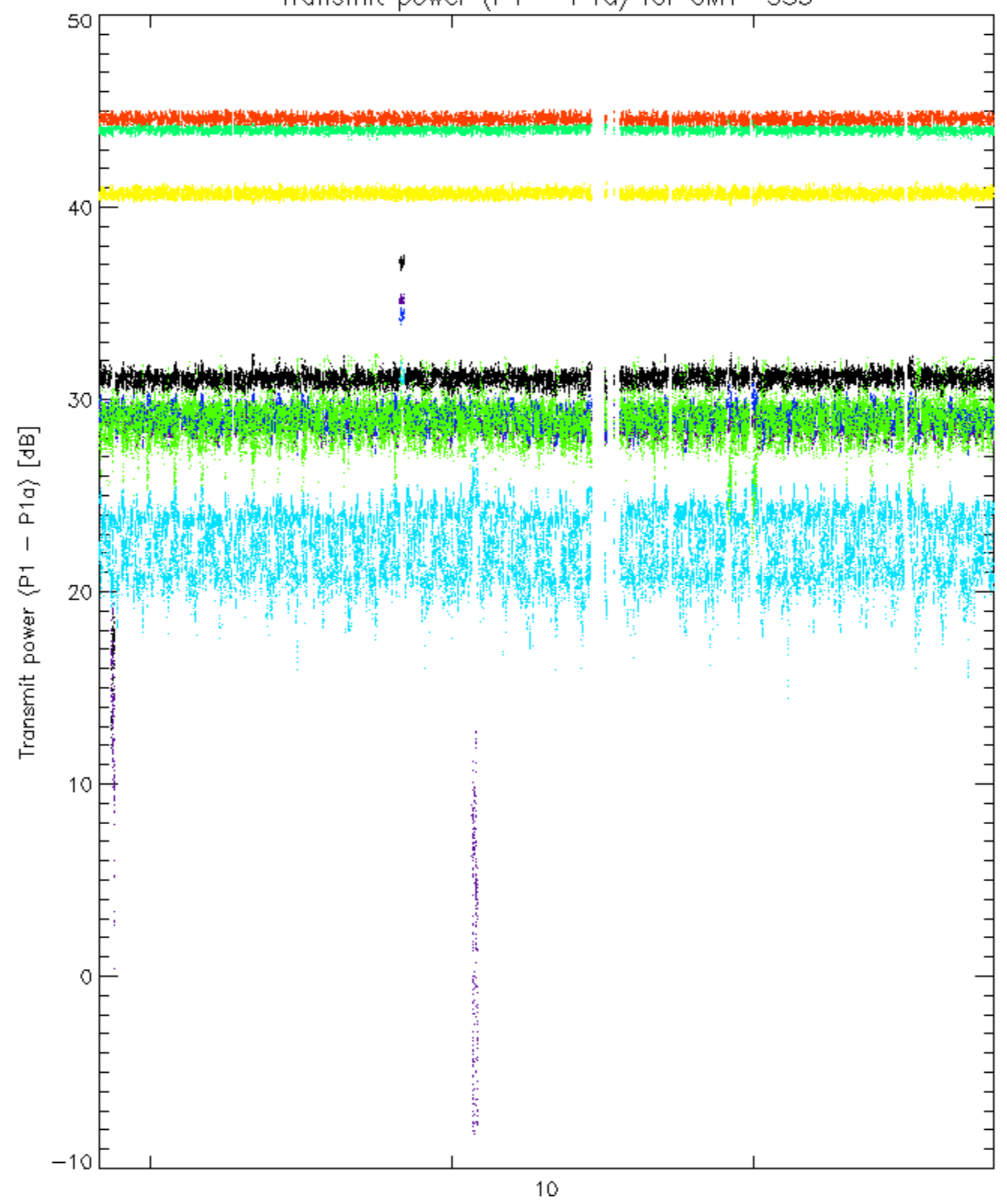
Summary of analysis for the last 3 days 2006061[234]

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

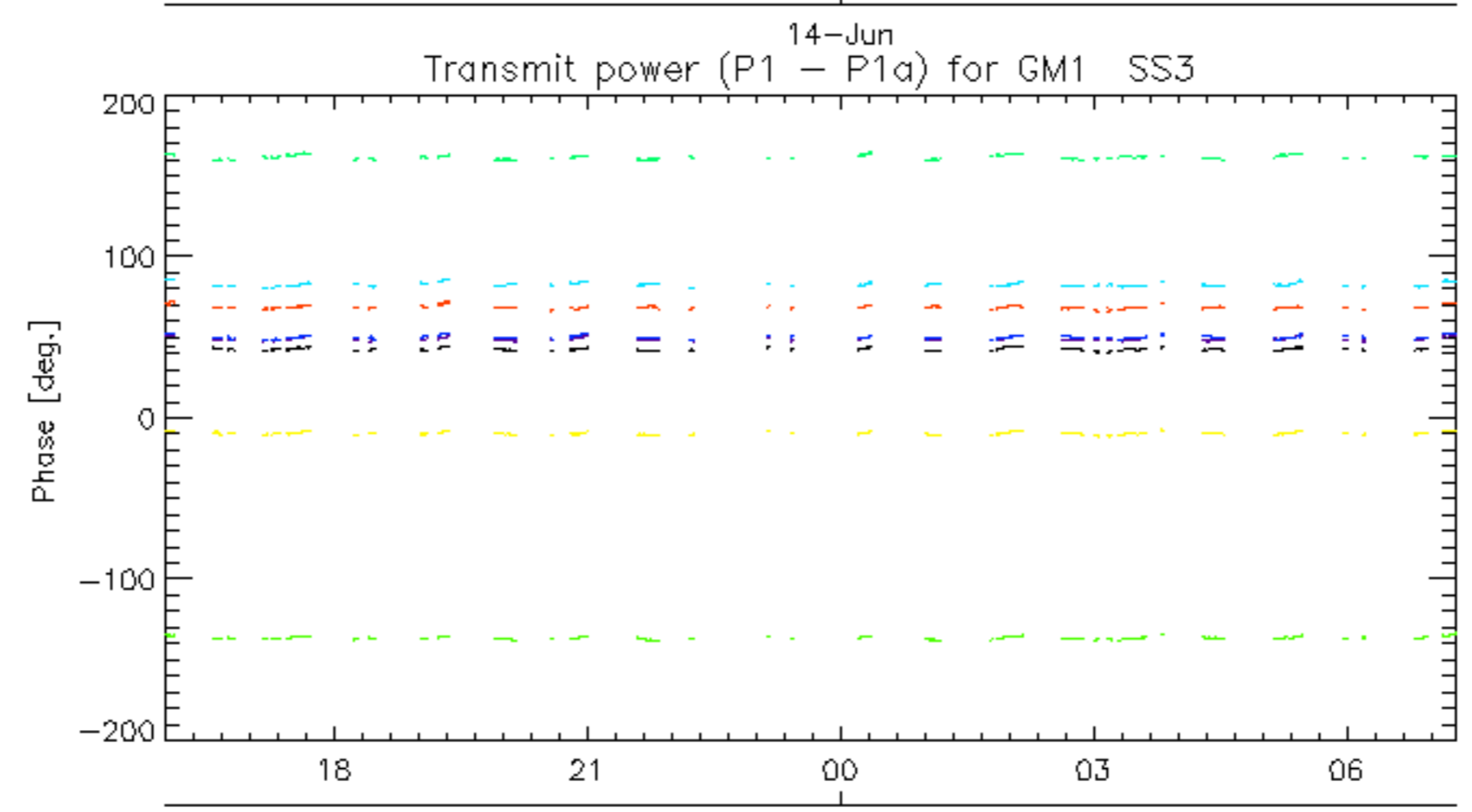
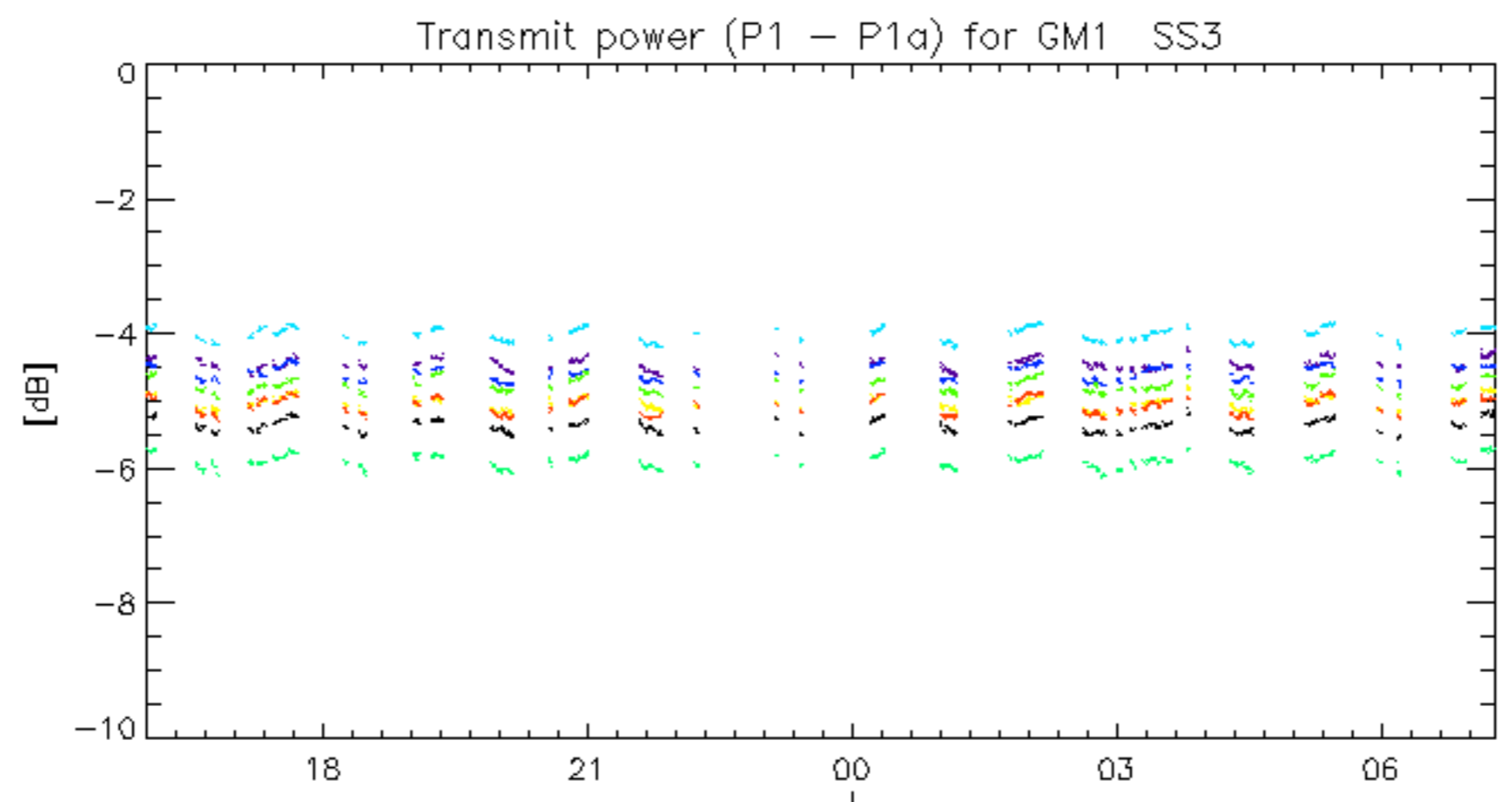
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060612_064716_000000372048_00292_22390_7200.N1	1	0
ASA_IMM_1PNPDE20060613_010016_000000842048_00303_22401_7335.N1	1	0
ASA_IMM_1PNPDE20060613_061630_000000812048_00306_22404_7368.N1	1	0
ASA_WSM_1PNPDE20060612_041708_000002082048_00291_22389_3765.N1	0	39
ASA_WSM_1PNPDE20060612_142133_000000852048_00297_22395_3784.N1	0	16
ASA_WSM_1PNPDE20060613_110750_000001582048_00309_22407_3853.N1	0	66
ASA_WSM_1PNPDK20060612_175711_000000672048_00299_22397_7445.N1	0	5
ASA_WSM_1PNPDK20060613_134955_000001032048_00311_22409_7492.N1	0	21
ASA_APM_1PNPDE20060613_170832_000000412048_00313_22411_3320.N1	0	20



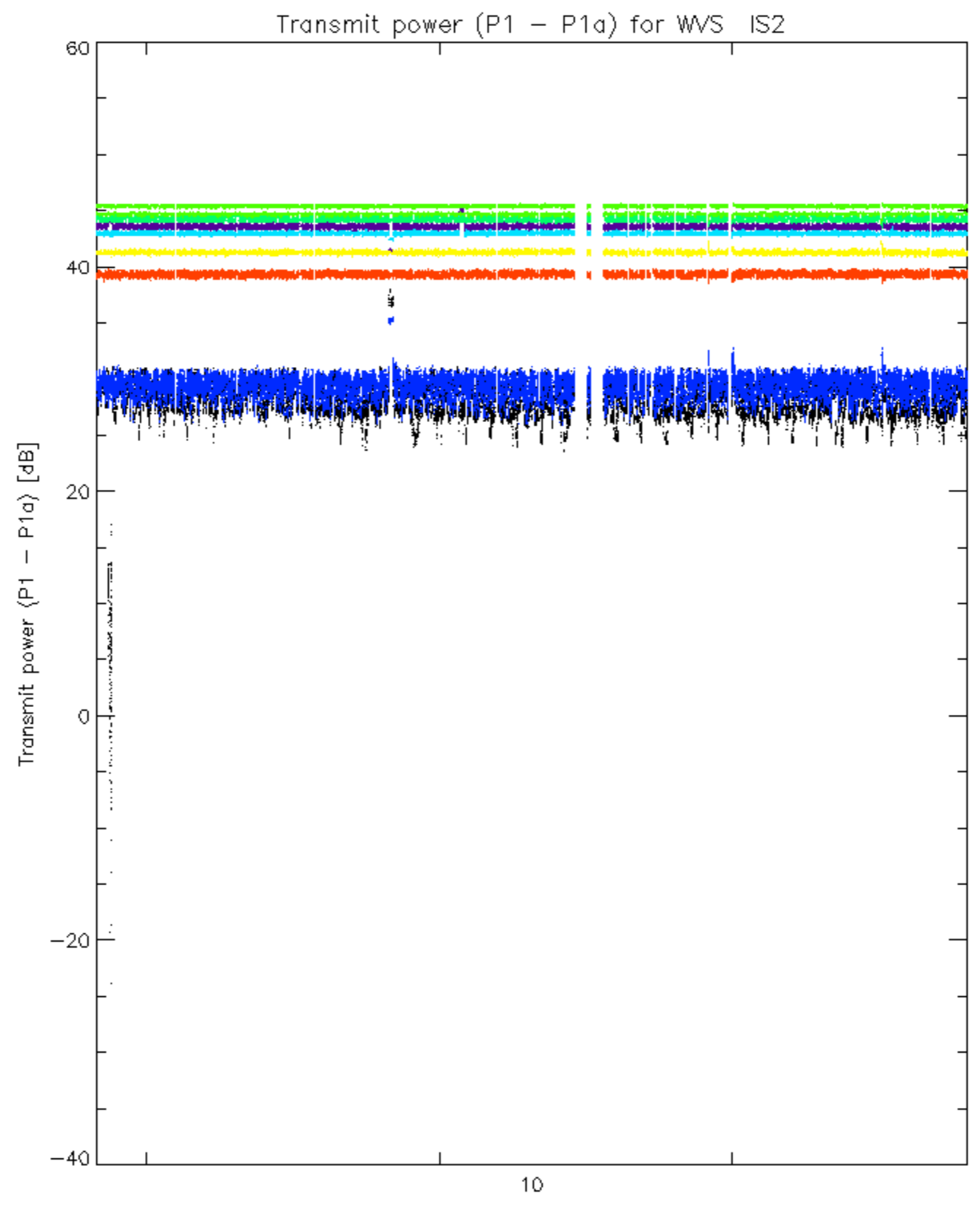
Transmit power (P1 - P1a) for GM1 SS3



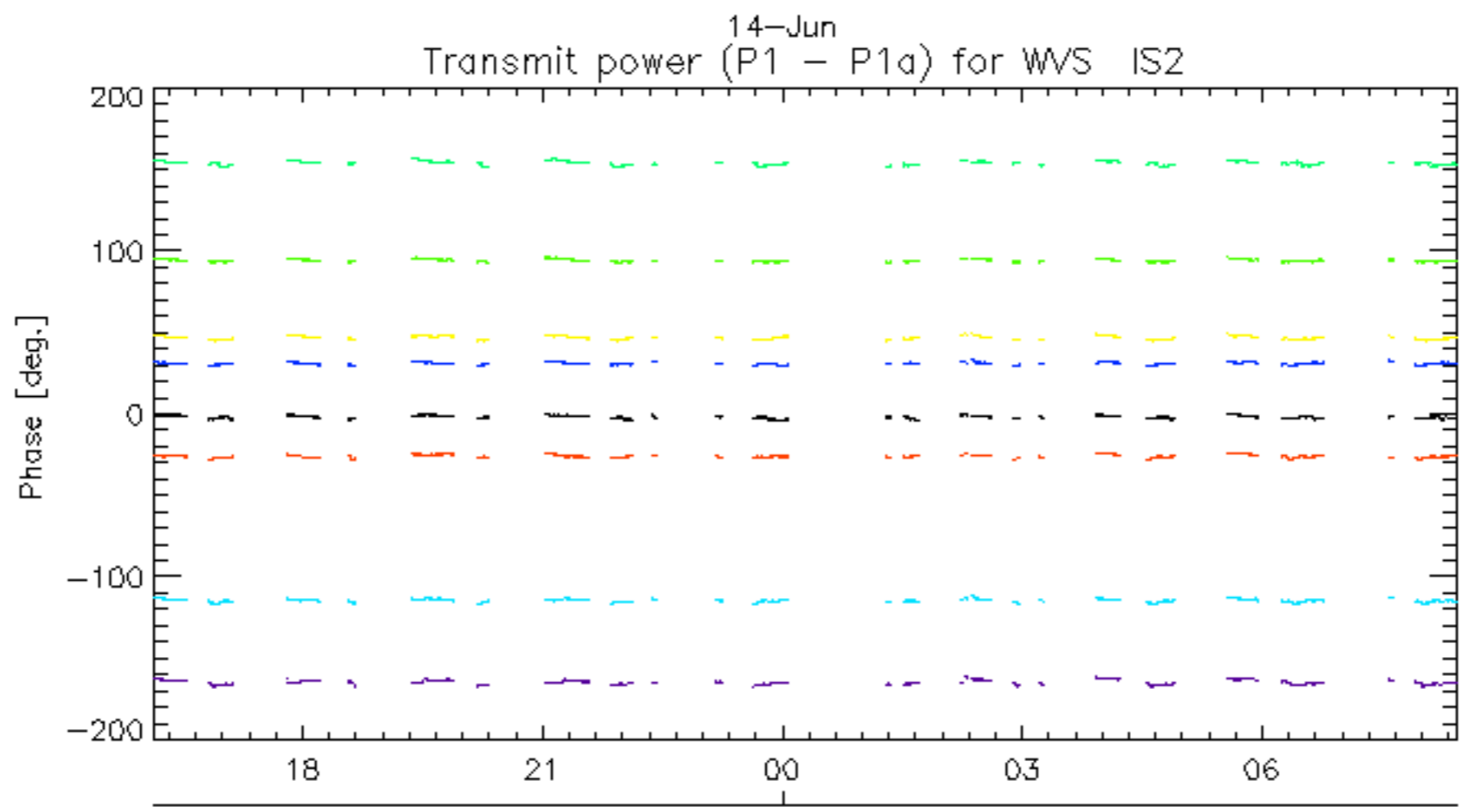
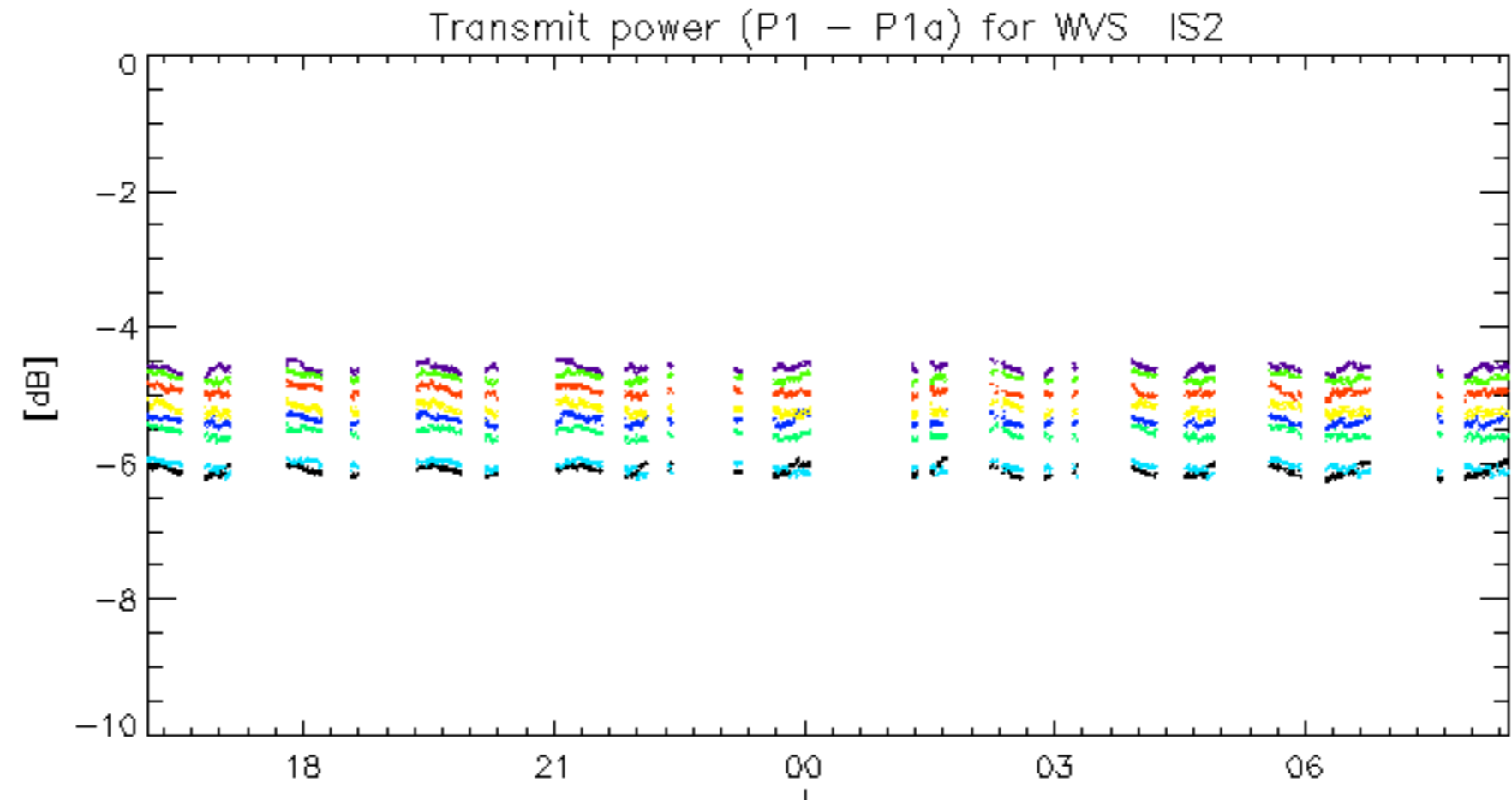
rows: 3 7 11 15 19 22 26 30



14-Jun
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.