

PRELIMINARY REPORT OF 050609

last update on Thu Jun 9 11:29:09 GMT 2005

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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 2005-06-08 00:00:00 to 2005-06-09 11:29:09

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	30	49	8	3	2
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	30	49	8	3	2
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	30	49	8	3	2
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	30	49	8	3	2

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	43	60	0	0	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	43	60	0	0	0
ASA_XCA_AXVIEC20041027_164238_20040412_000000_20051231_000000	43	60	0	0	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	43	60	0	0	0

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	20050608 170207
H	20050609 062654

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
☒	☒
☒	☒
☒	☒
☒	☒

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
☒
☒

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
☒
☒

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	-3.334605	0.008122	0.024519
7	P1	-3.141188	0.015029	-0.031508
11	P1	-4.624479	0.034559	0.038449
15	P1	-5.495246	0.043214	0.038486
19	P1	-3.738926	0.004355	-0.022807
22	P1	-4.585144	0.016407	-0.012680
26	P1	-4.853142	0.022191	0.039173
30	P1	-7.139301	0.027669	-0.002134
3	P1	-15.582609	0.118671	0.177937
7	P1	-15.591191	0.116217	-0.094688
11	P1	-21.358681	0.301489	-0.065416
15	P1	-11.310620	0.047969	0.086575
19	P1	-14.407920	0.032043	-0.061173
22	P1	-15.939750	0.325338	-0.015554
26	P1	-17.730827	0.407761	-0.038382
30	P1	-17.841427	0.215389	0.012302

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.021086	0.078410	0.080438
7	P2	-22.202965	0.096365	0.031956
11	P2	-13.973298	0.094091	0.215320
15	P2	-7.136211	0.086593	-0.036266
19	P2	-9.621377	0.089044	0.033626
22	P2	-16.884769	0.087061	0.015499
26	P2	-16.506342	0.089872	-0.009862
30	P2	-18.799576	0.075786	0.044521

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.164727	0.002671	0.000646
7	P3	-8.164727	0.002671	0.000646
11	P3	-8.164727	0.002671	0.000646
15	P3	-8.164727	0.002671	0.000646
19	P3	-8.164727	0.002671	0.000646
22	P3	-8.164727	0.002671	0.000646
26	P3	-8.164727	0.002671	0.000646
30	P3	-8.164727	0.002671	0.000646

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	-2.795805	0.013540	-0.024230
7	P1	-2.940977	0.031160	0.071858
11	P1	-3.958510	0.018199	-0.020773
15	P1	-3.529151	0.023886	-0.019047
19	P1	-3.633497	0.015915	-0.016505
22	P1	-5.639908	0.045791	0.021535
26	P1	-7.294955	0.038910	0.016952
30	P1	-6.288914	0.045158	-0.069514
3	P1	-10.836881	0.041469	-0.030346
7	P1	-10.374762	0.167248	0.114353
11	P1	-12.548724	0.115075	-0.068527
15	P1	-11.608272	0.084046	-0.019812
19	P1	-15.615256	0.064041	-0.008632
22	P1	-26.015308	3.291323	-0.403119
26	P1	-15.633560	0.383079	0.069753
30	P1	-20.214851	1.131457	0.345104

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.763973	0.041550	0.038962
7	P2	-22.155342	0.039699	0.076130
11	P2	-9.912651	0.057272	0.155418
15	P2	-5.119213	0.045112	-0.049240
19	P2	-6.912133	0.058173	-0.016587
22	P2	-7.105198	0.037409	-0.009091
26	P2	-23.954960	0.036877	-0.017872
30	P2	-21.950394	0.039286	-0.019681

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.996895	0.003844	-0.001539
7	P3	-7.996704	0.003843	-0.001779
11	P3	-7.996852	0.003837	-0.001708
15	P3	-7.996816	0.003830	-0.001296
19	P3	-7.996715	0.003845	-0.001779
22	P3	-7.996949	0.003831	-0.001167
26	P3	-7.996813	0.003842	-0.001807
30	P3	-7.996873	0.003848	-0.001518

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	0.000455044
	stdev	2.19899e-07
MEAN Q	mean	0.000494427
	stdev	2.30932e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127471
	stdev	0.000974974
STDEV Q	mean	0.127707
	stdev	0.000985555



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005060[789]

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_1PNPDK20050608_124608_000000692038_00024_17112_0070.N1	1	0



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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
<input type="checkbox"/>	
	Ascending
<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"/>	
	Ascending
<input type="checkbox"/>	
	Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

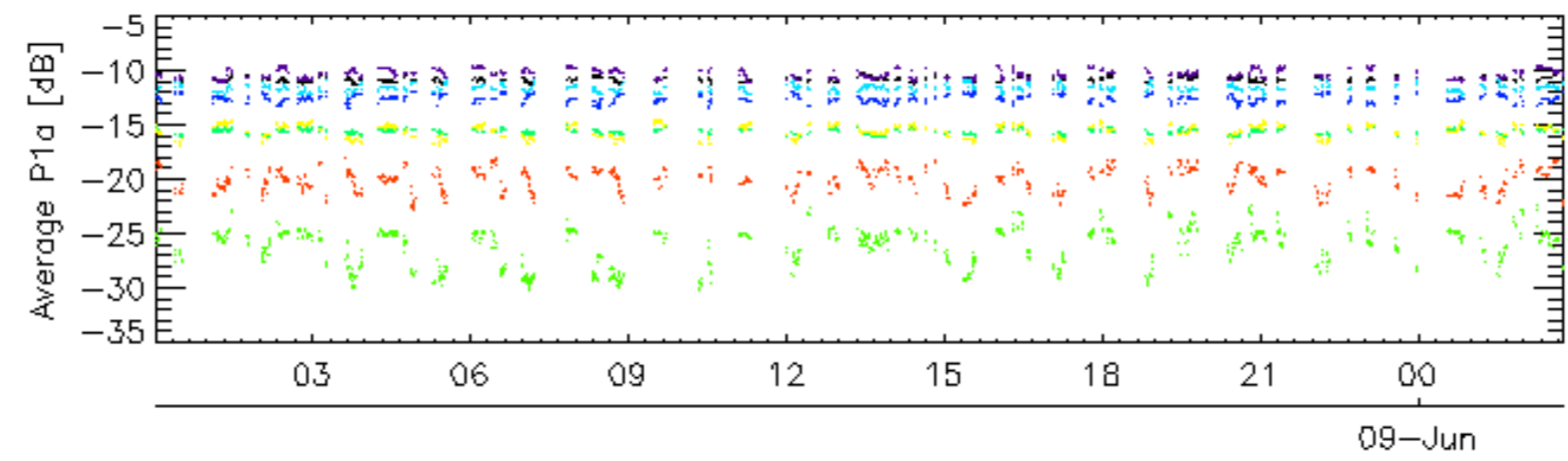
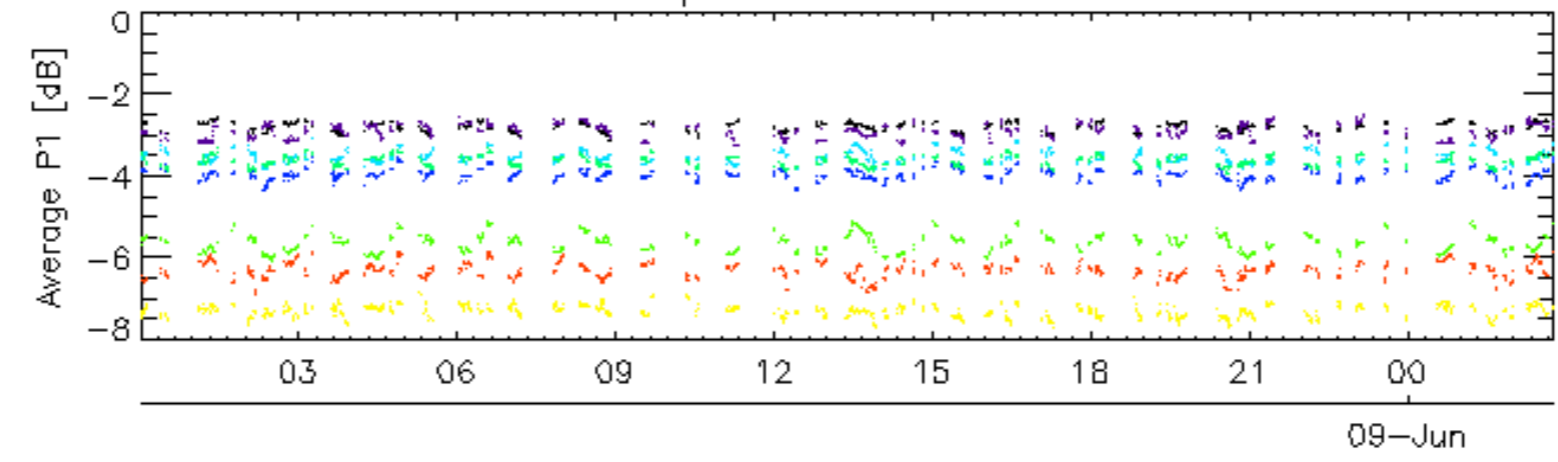
Ascending

Descending

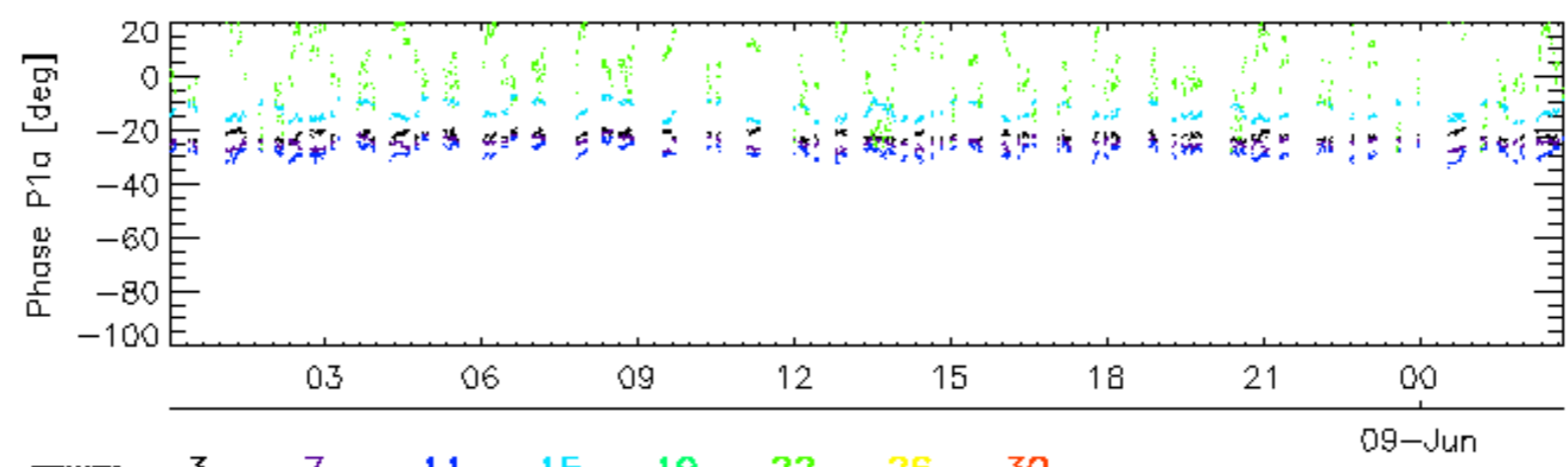
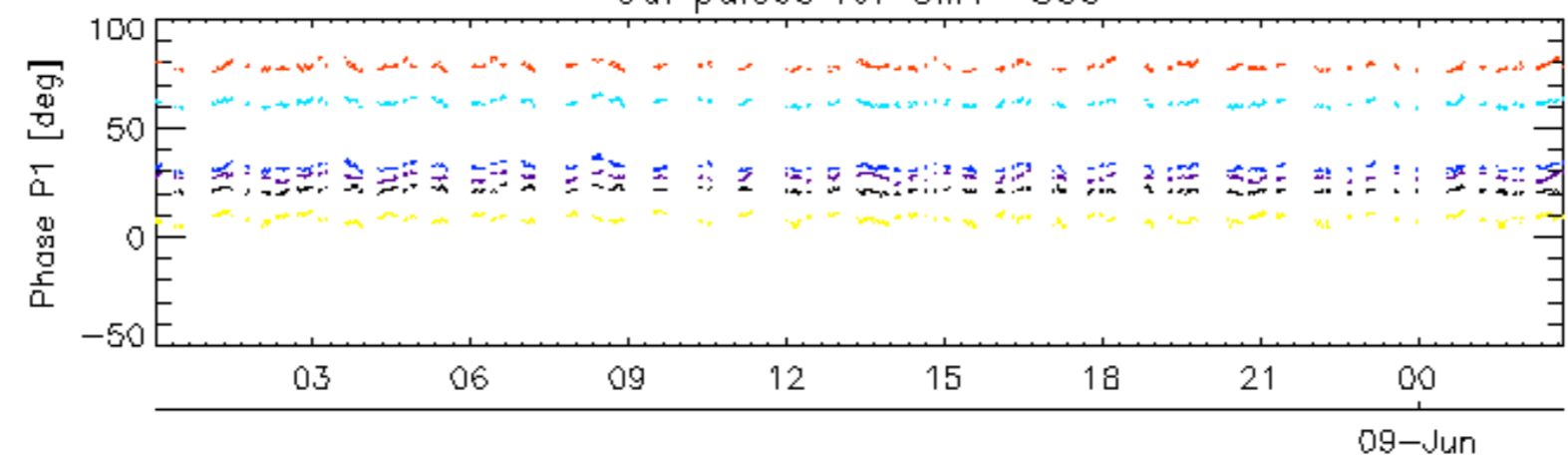
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

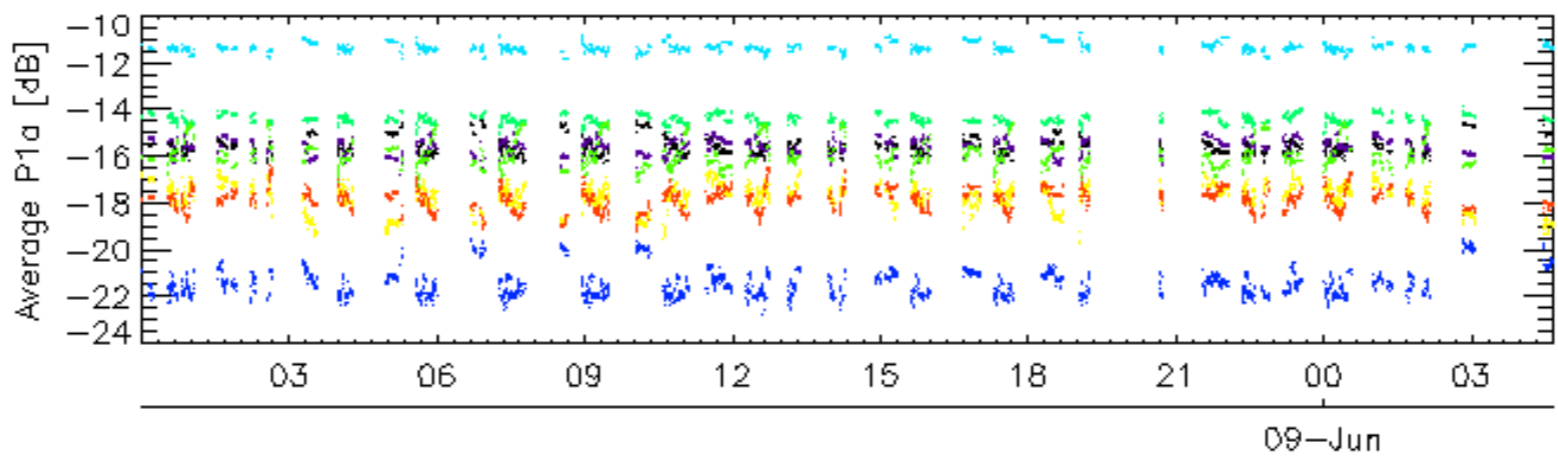
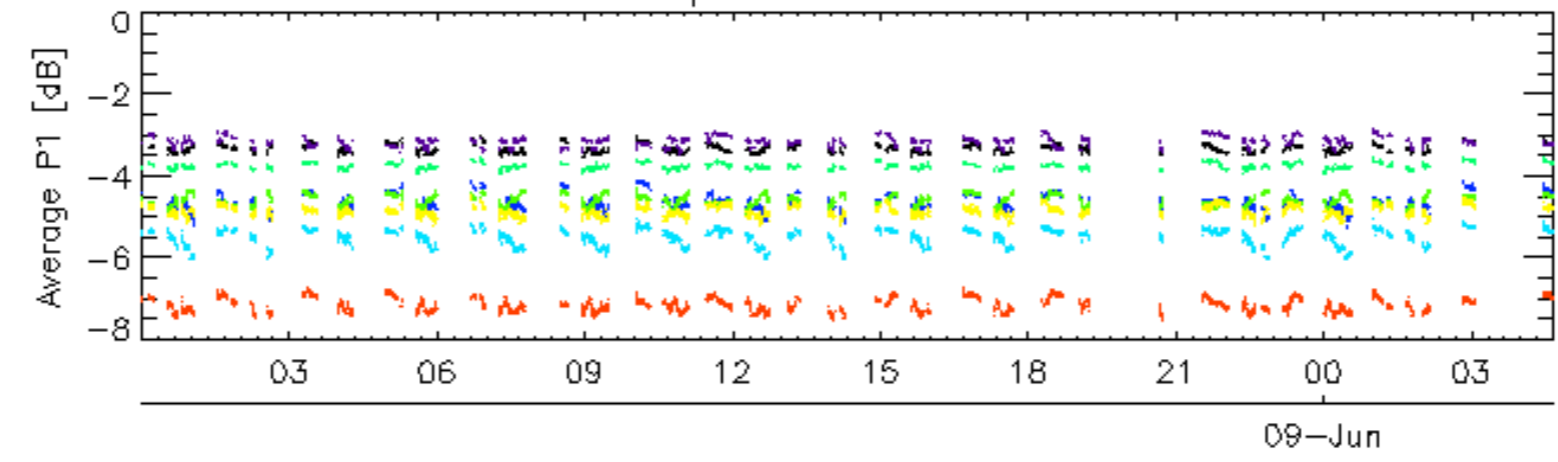


Cal pulses for GM1 SS3

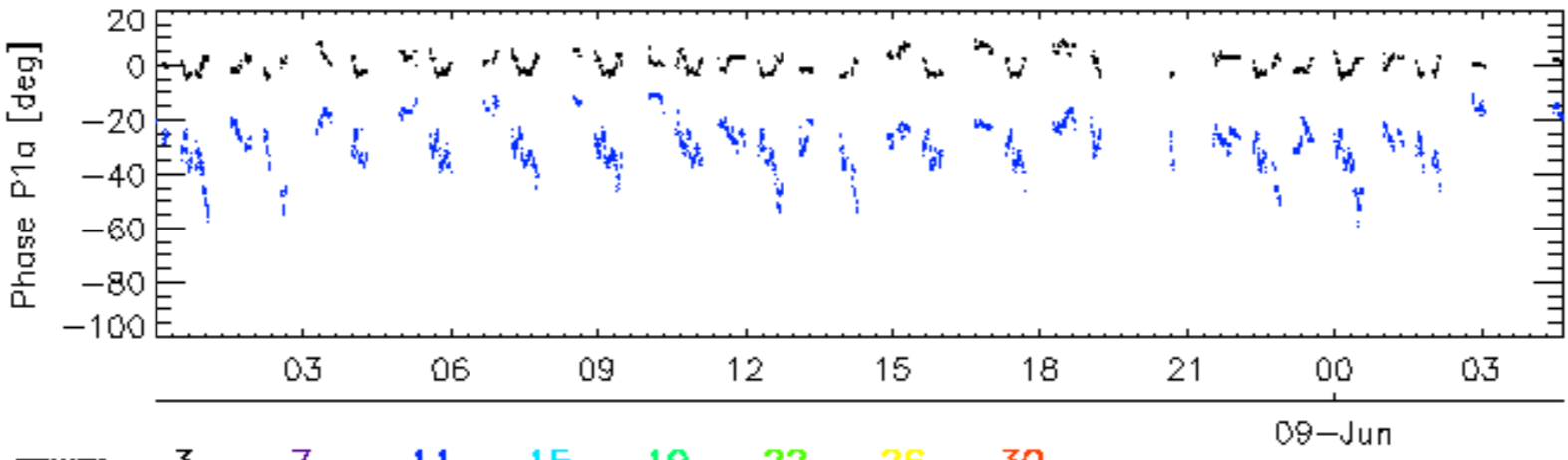
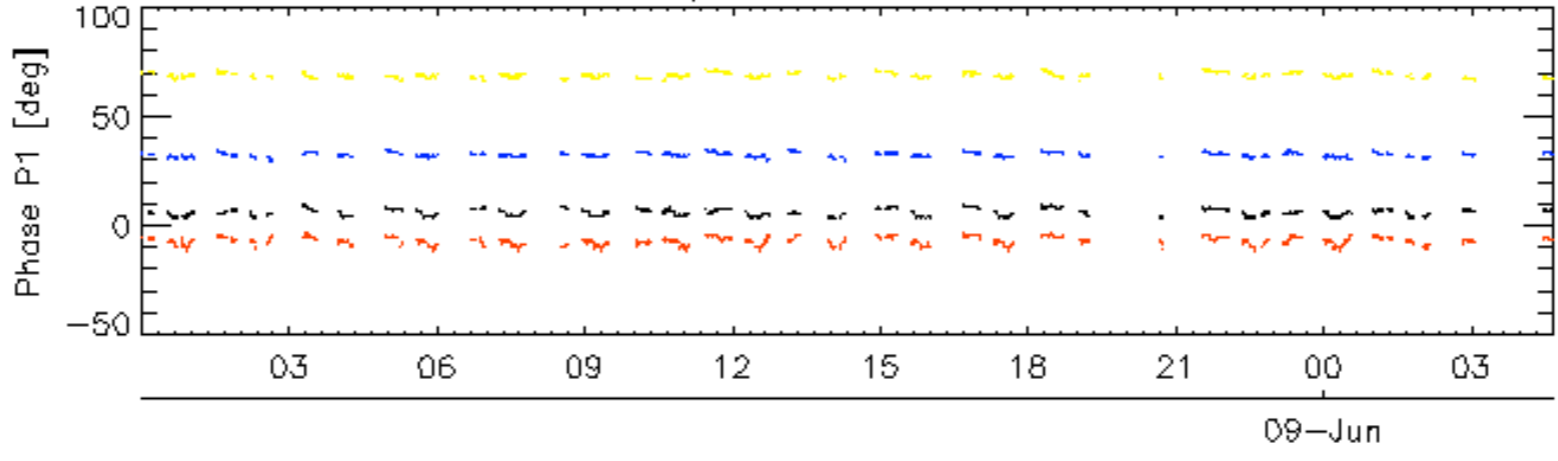


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

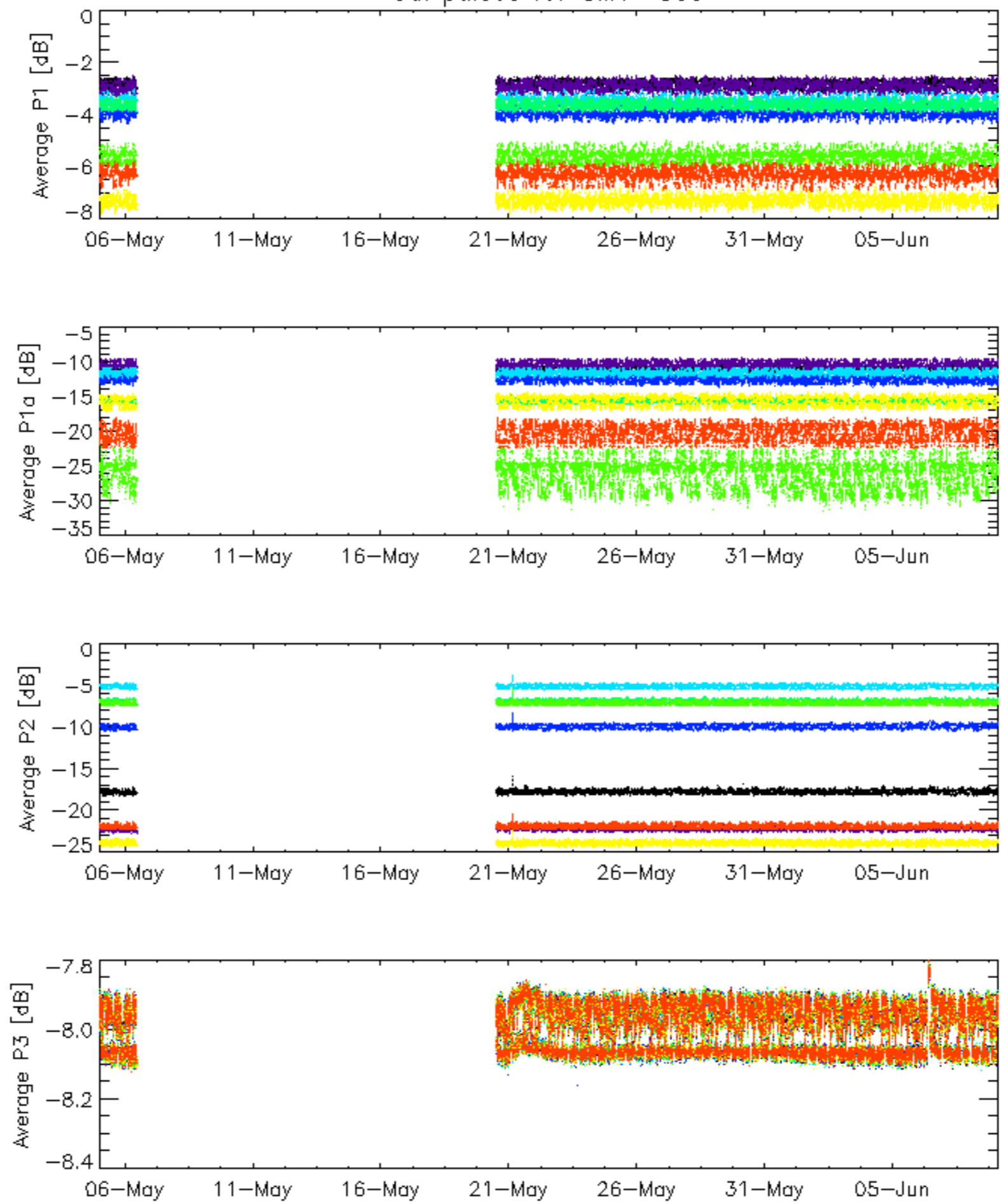


Cal pulses for WVS IS2



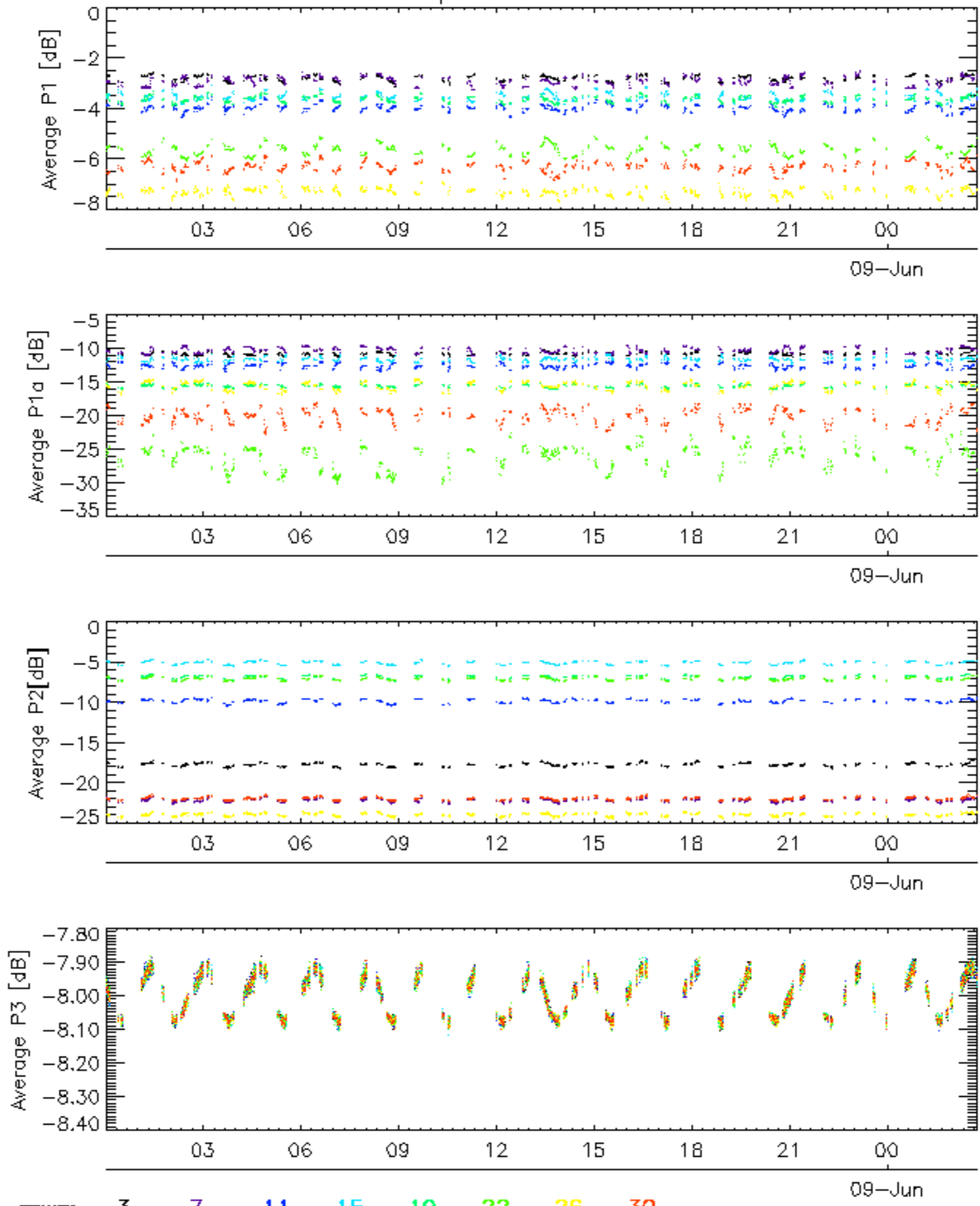
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

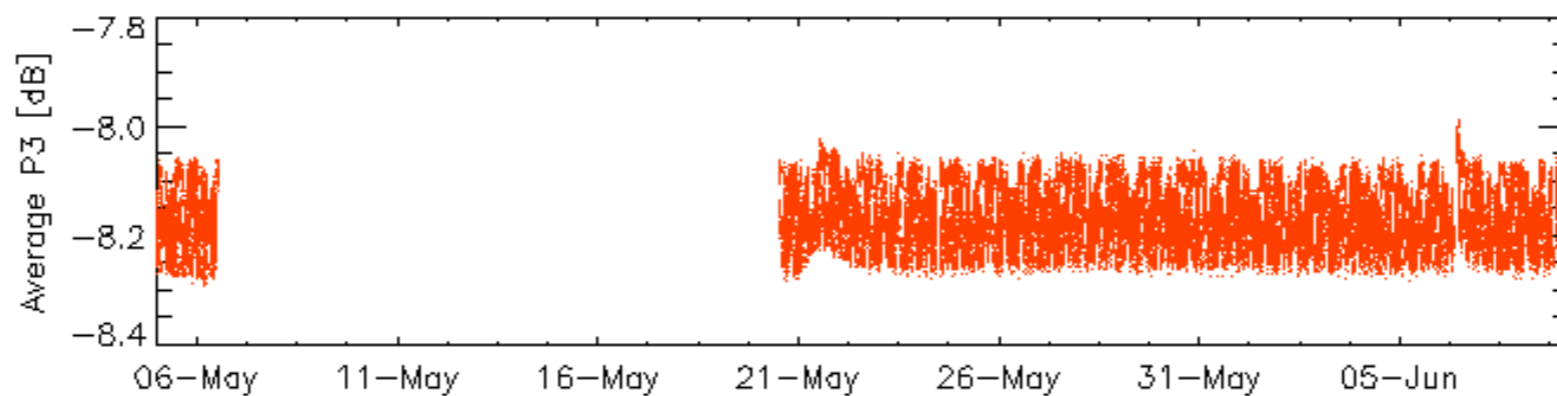
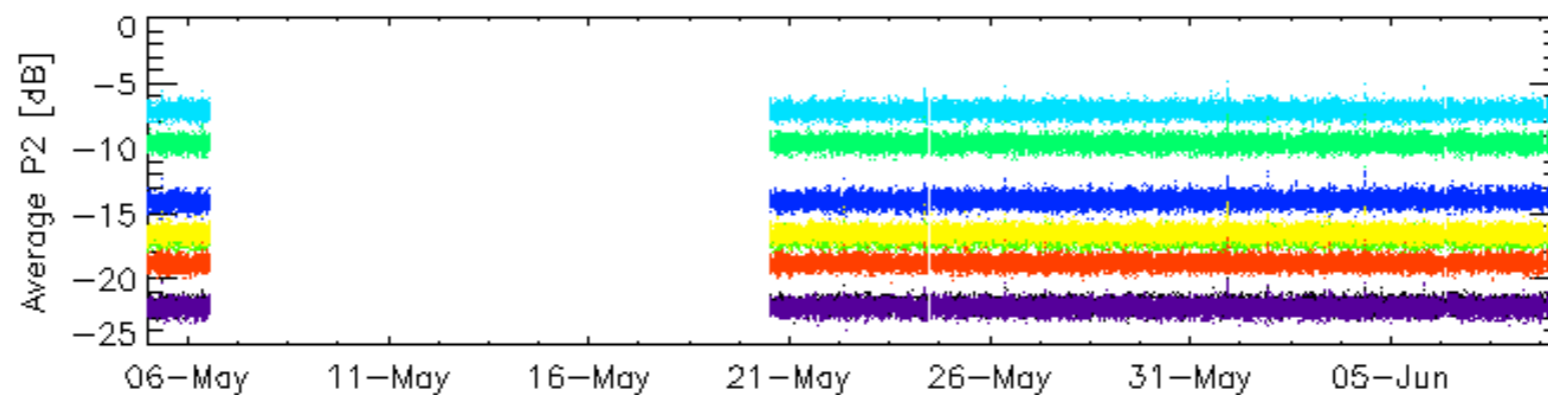
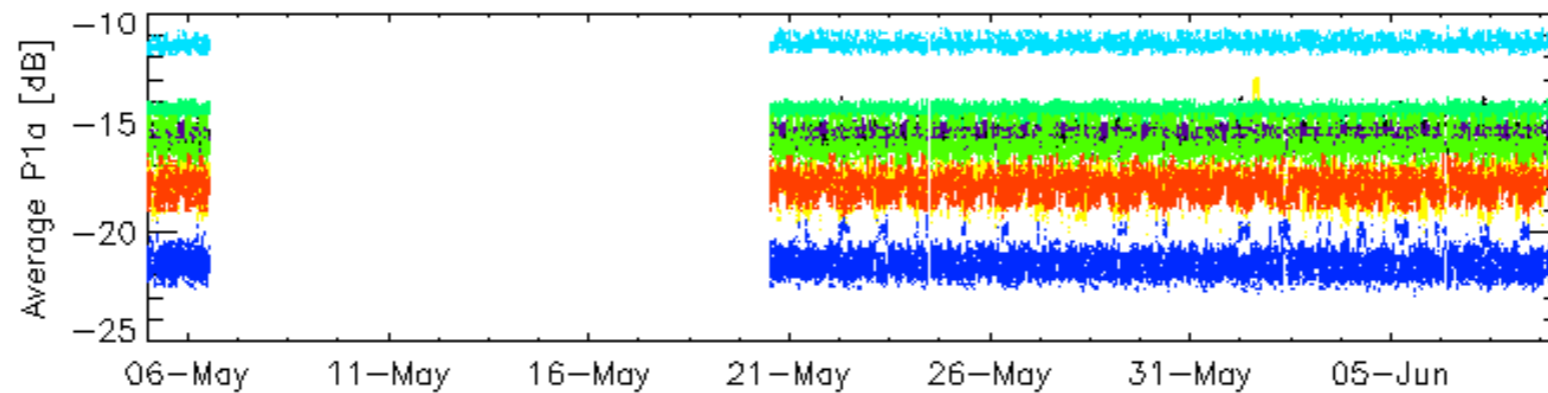
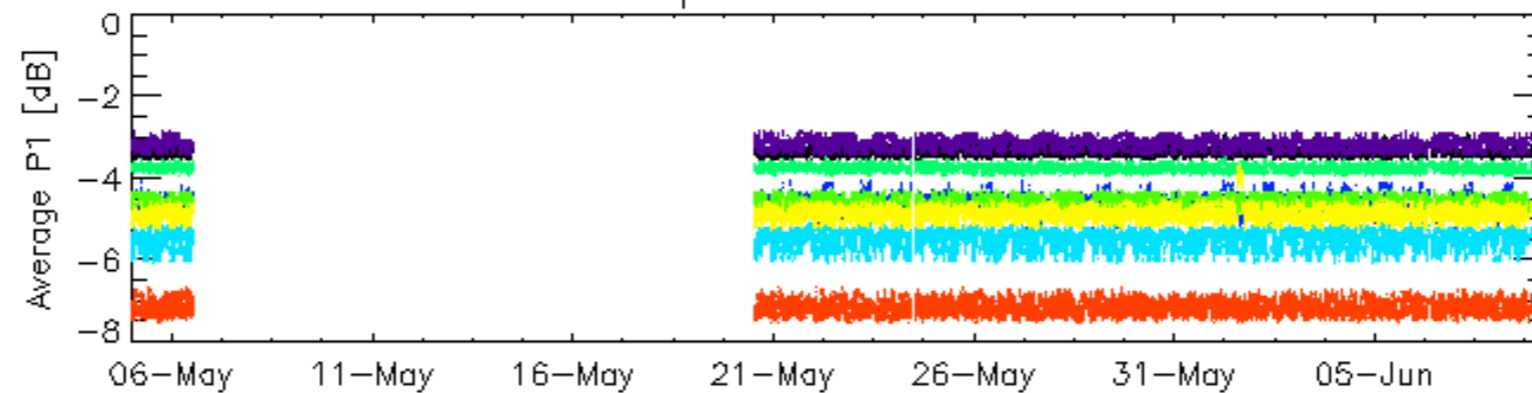


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

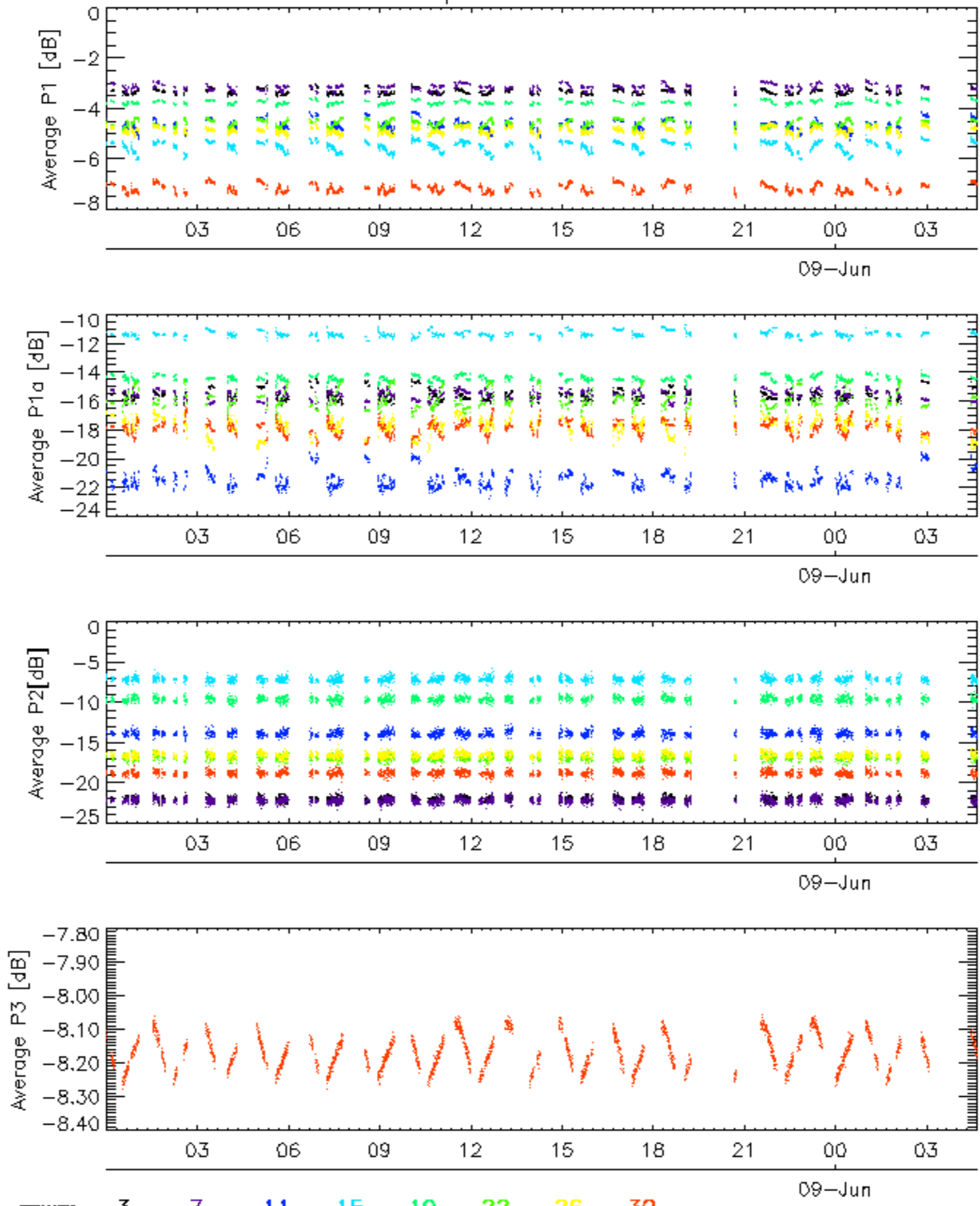


Cal pulses for WVS IS2



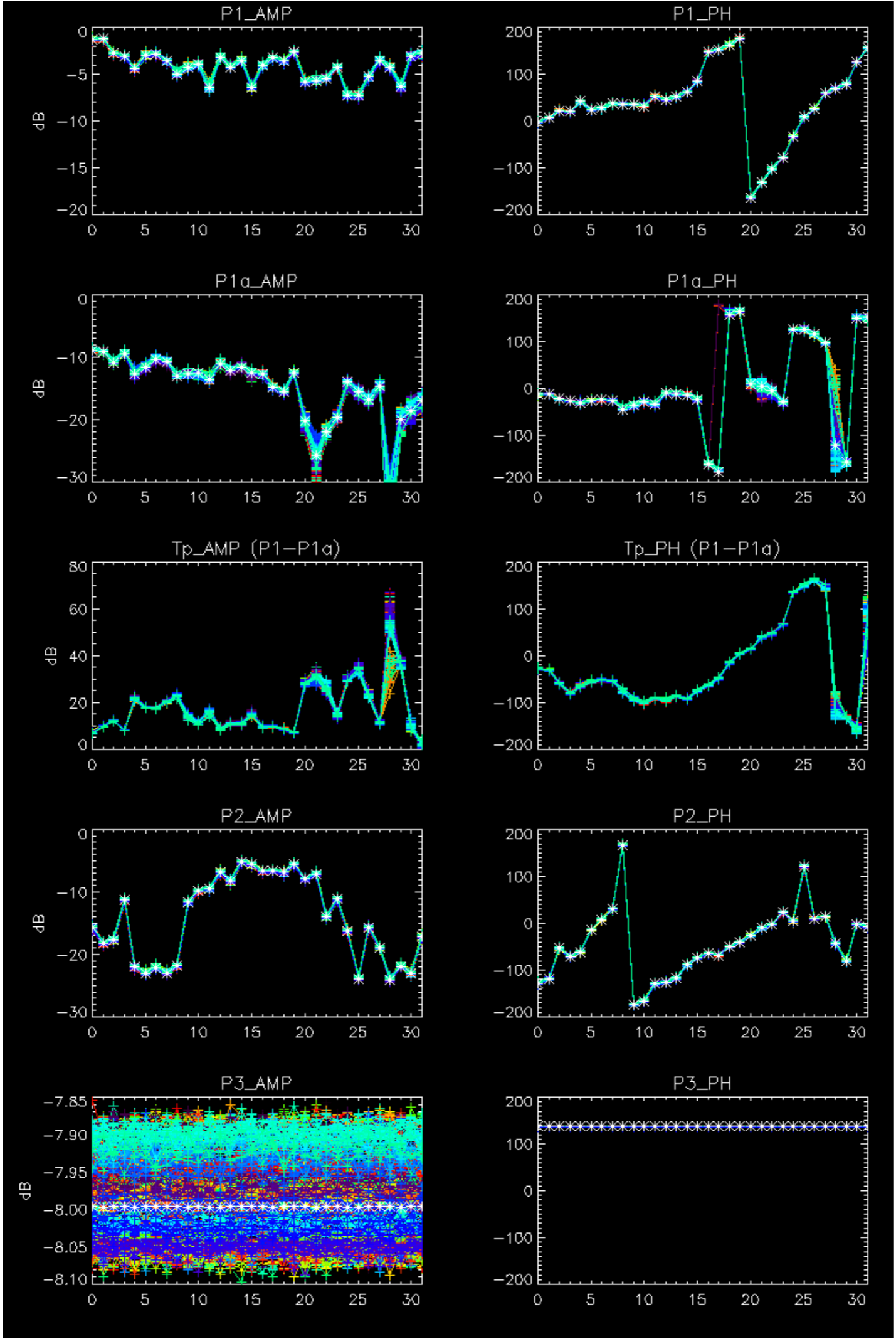
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

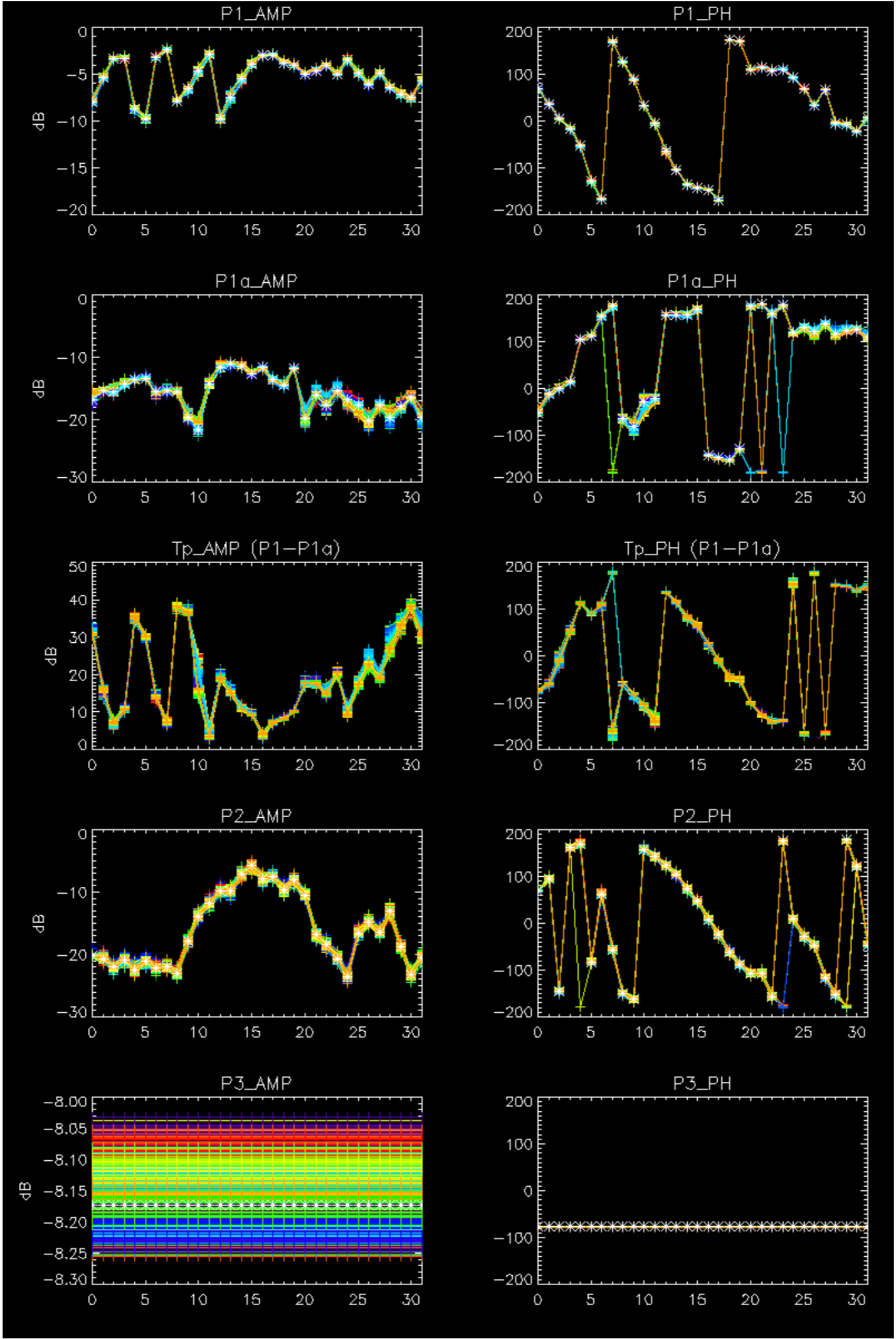
Cal pulses for WVS IS2



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

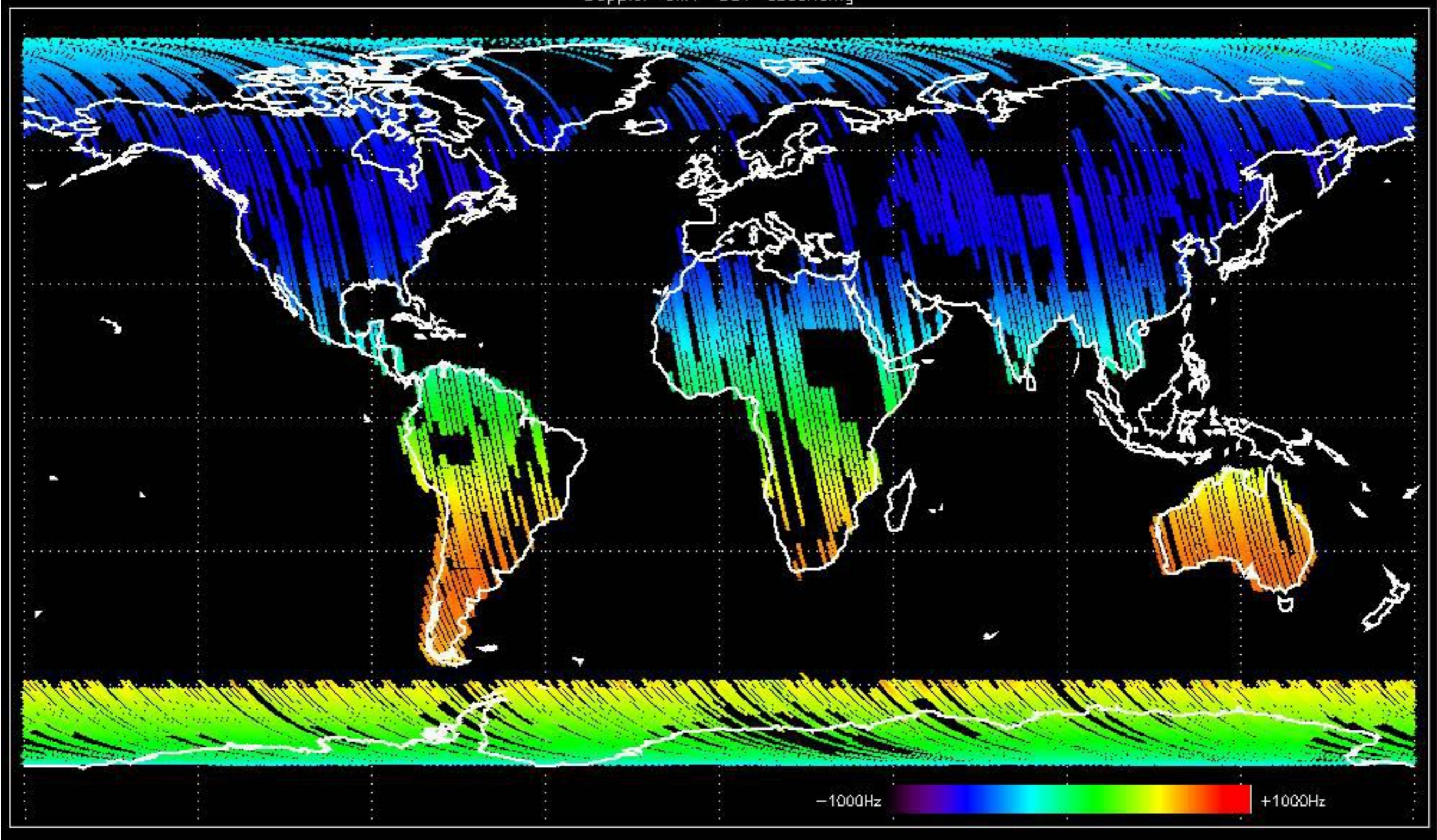
No anomalies observed.



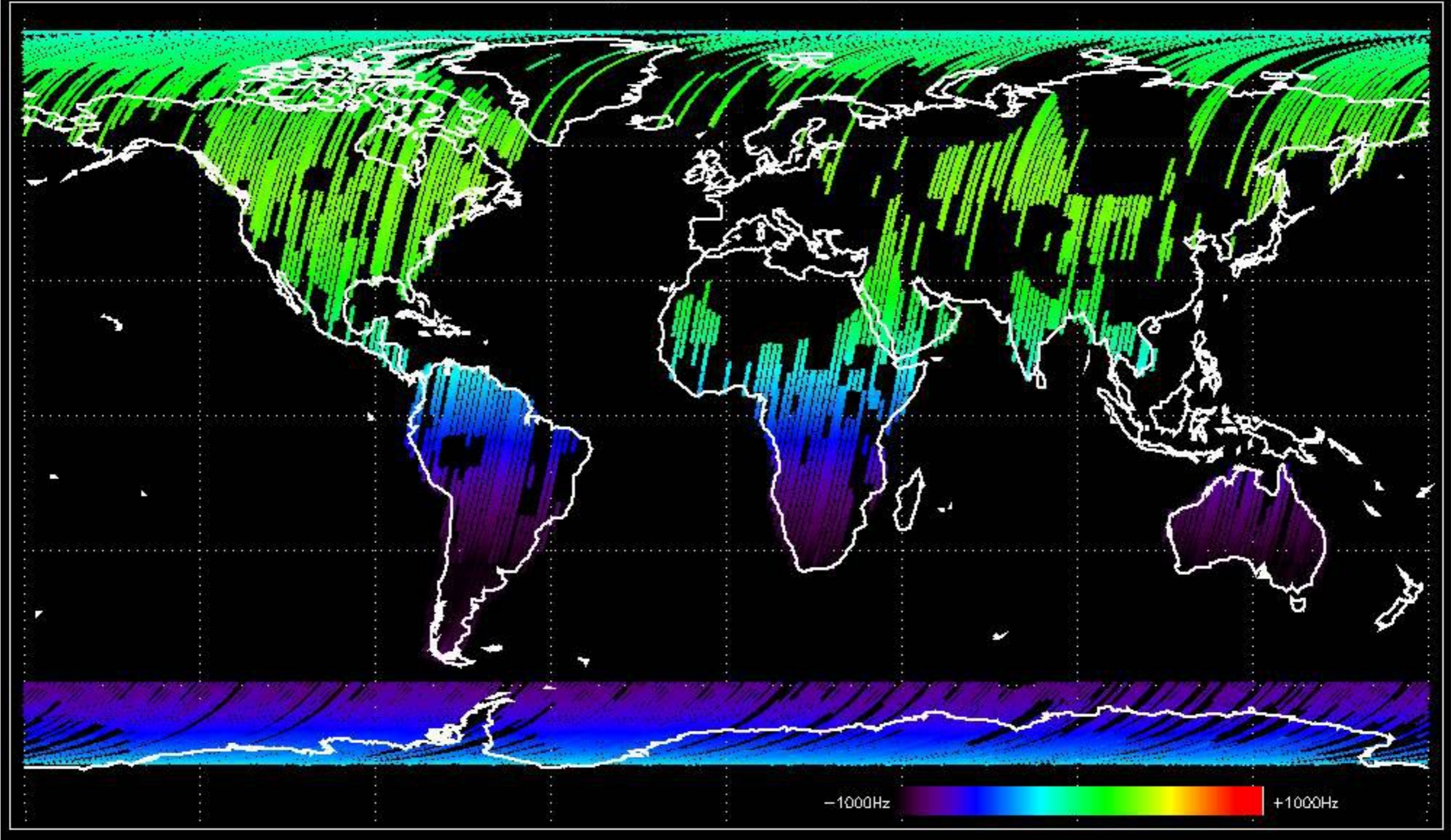


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

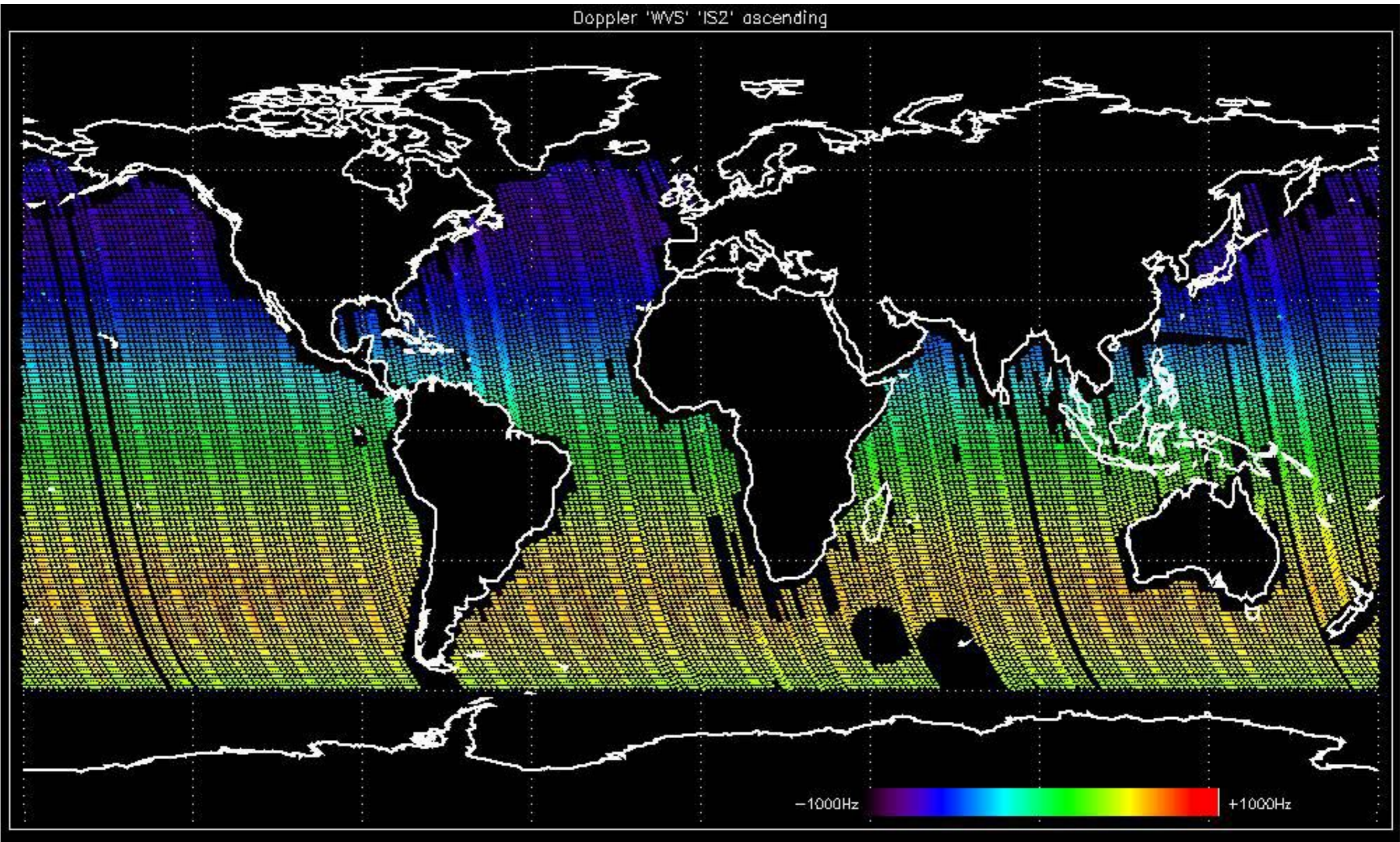
Doppler 'GM1' 'SS1' ascending



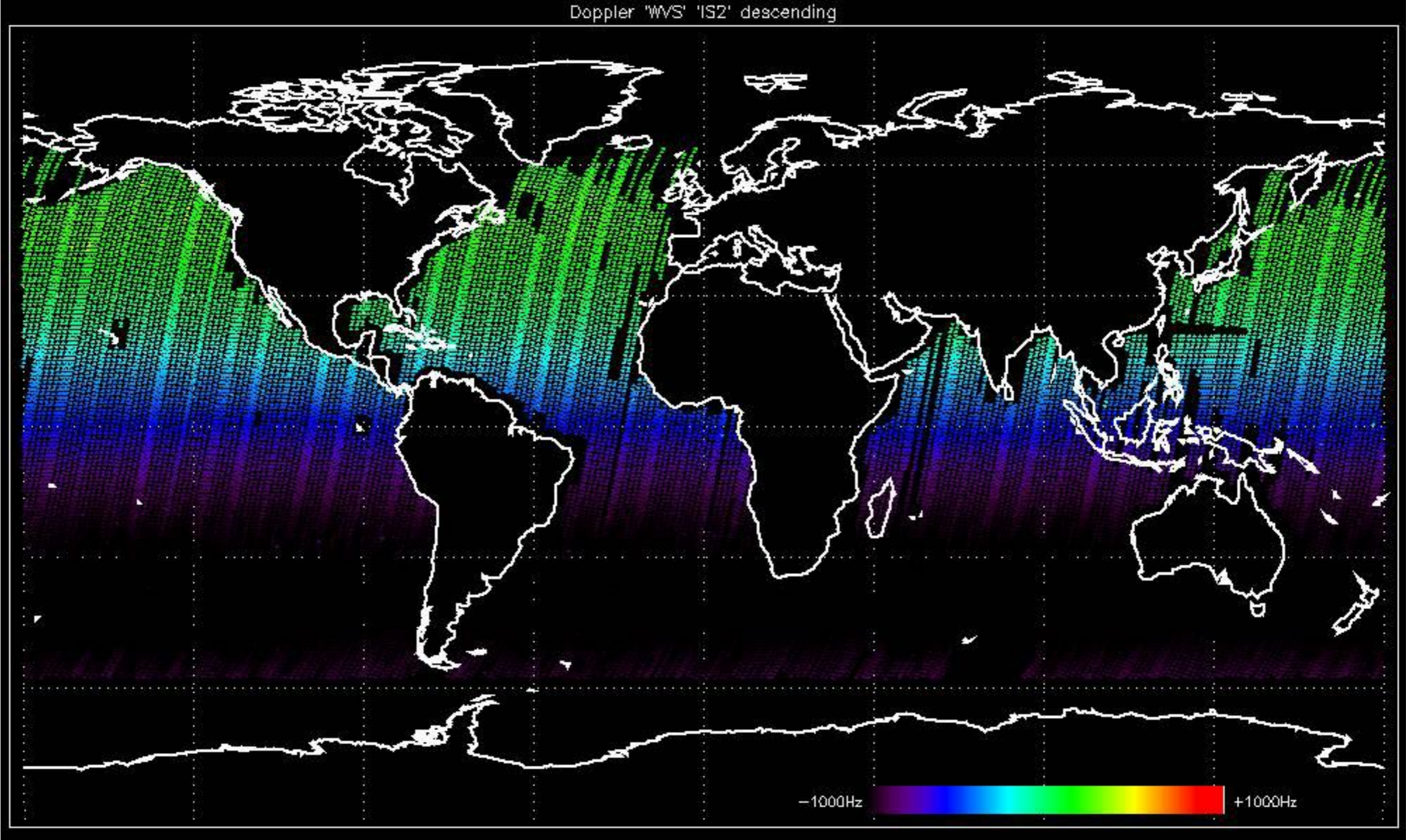
Doppler 'GM1' 'SS1' descending



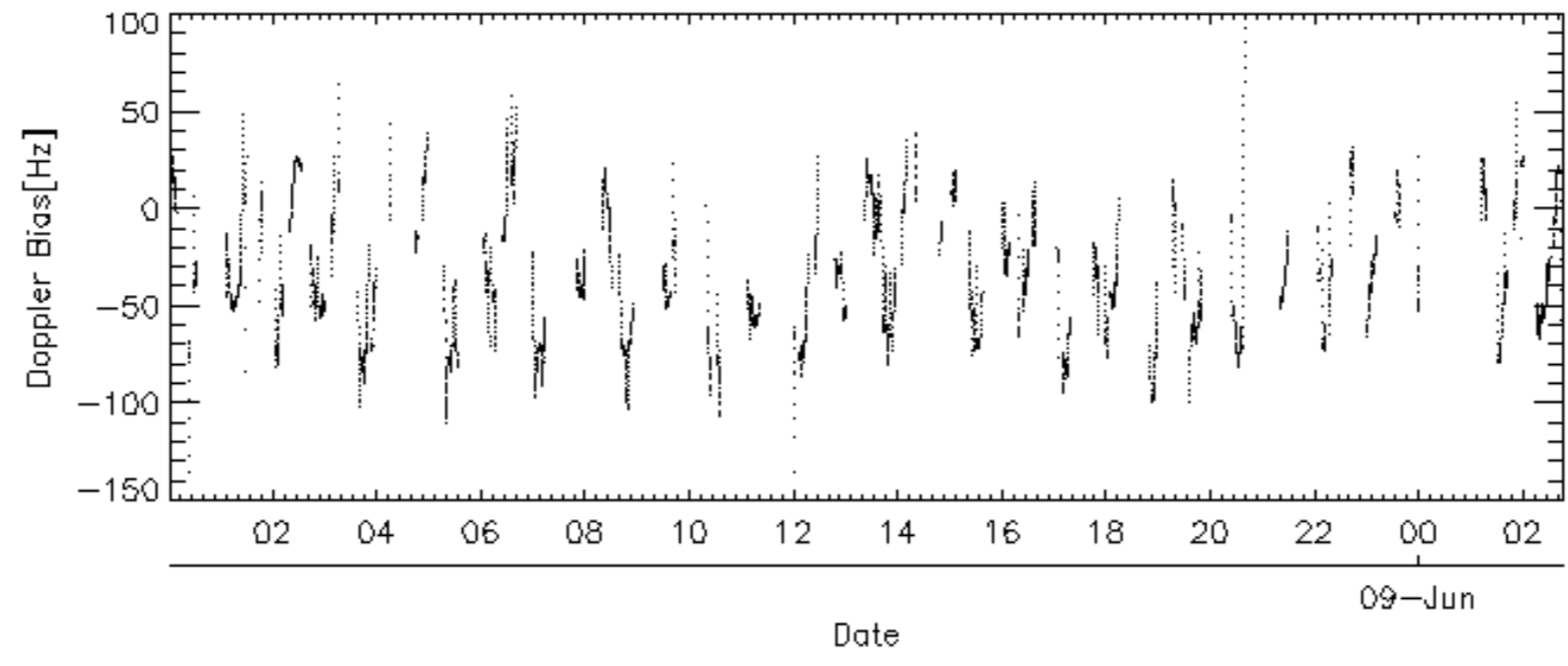
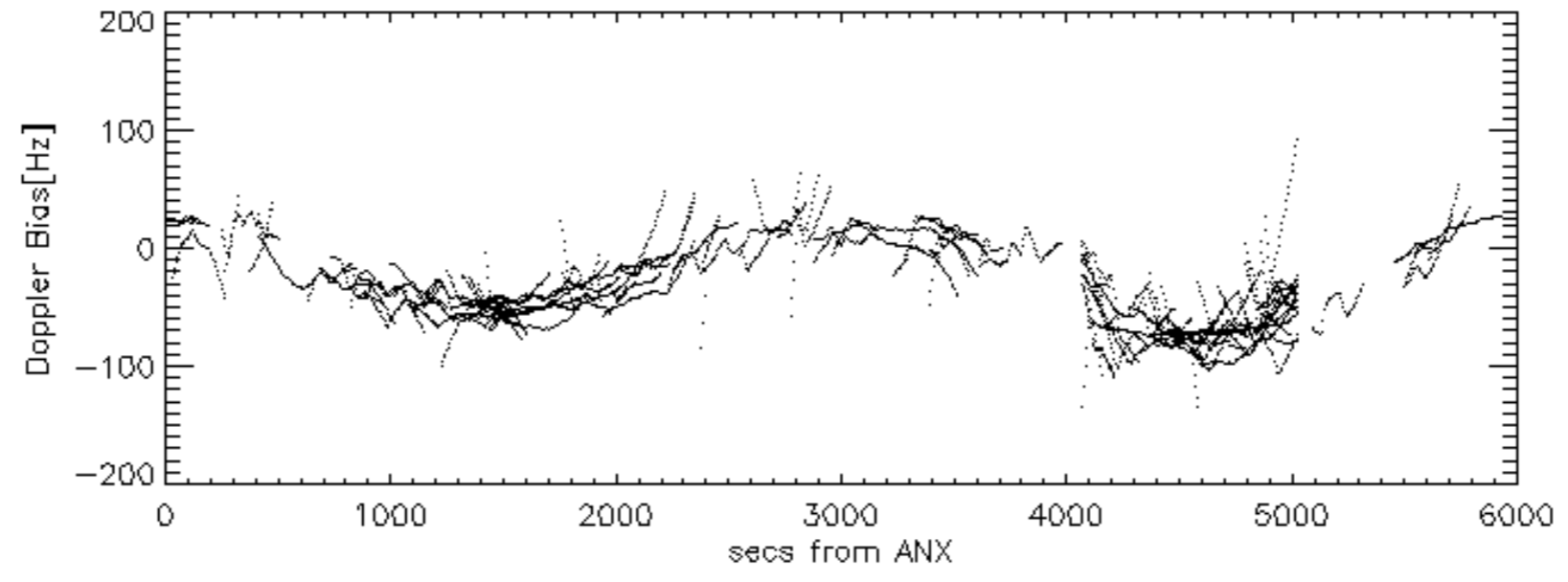
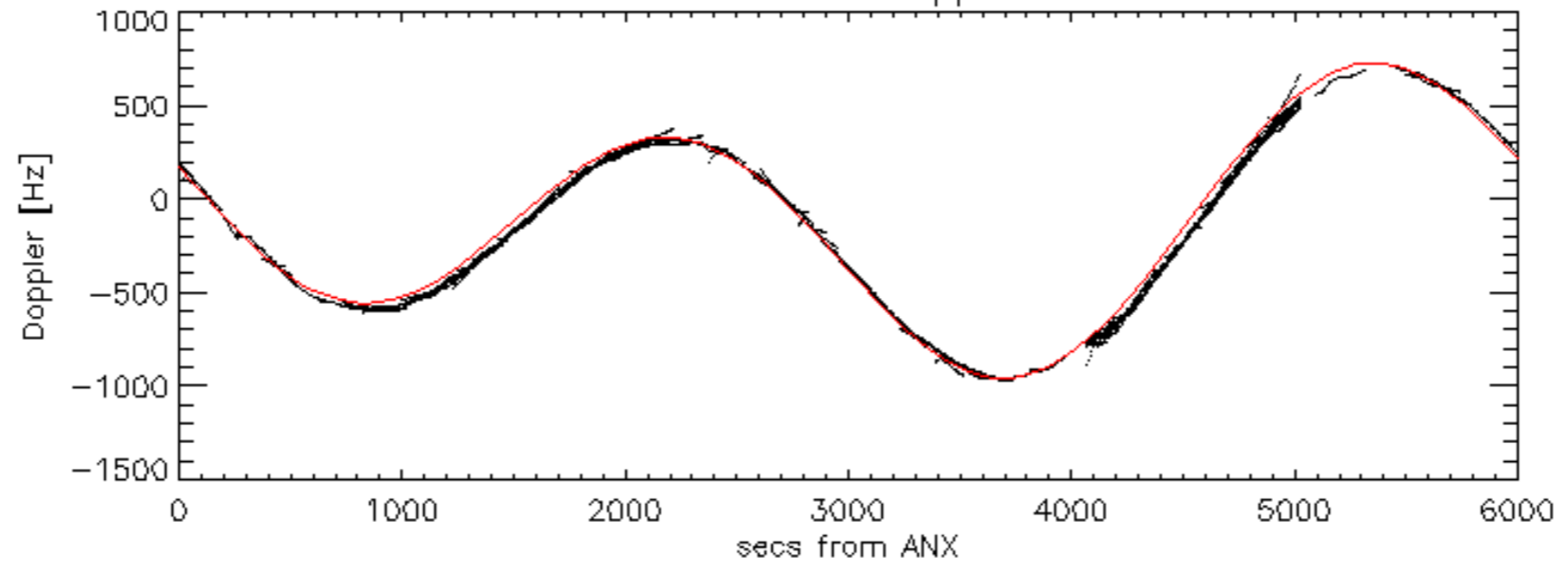
Doppler 'WVS' 'IS2' ascending

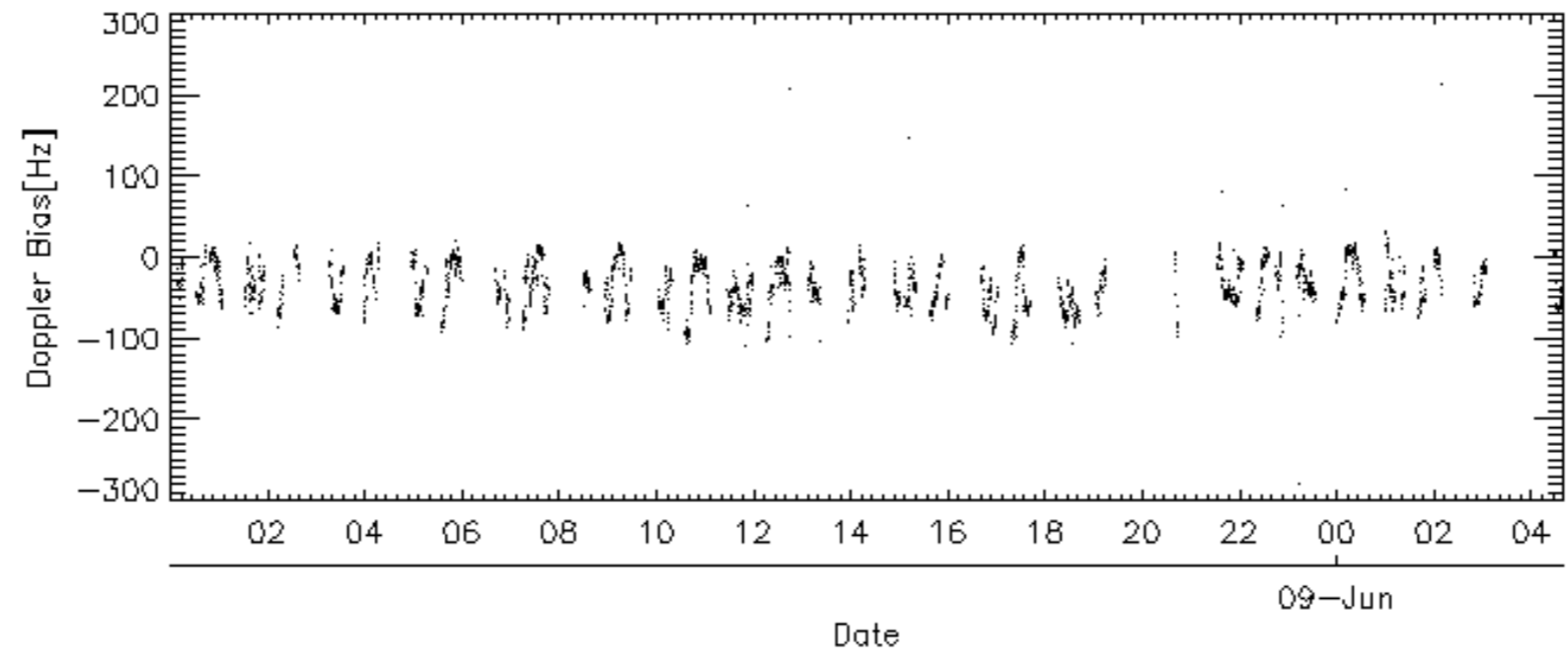
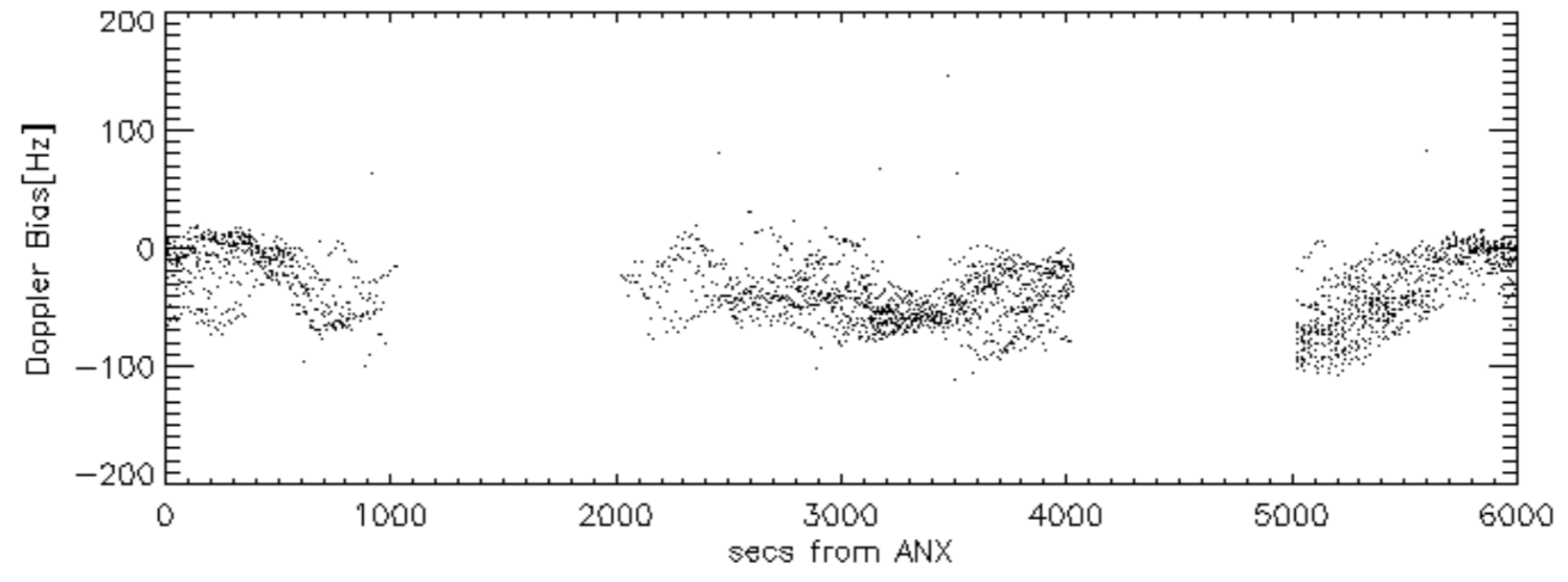
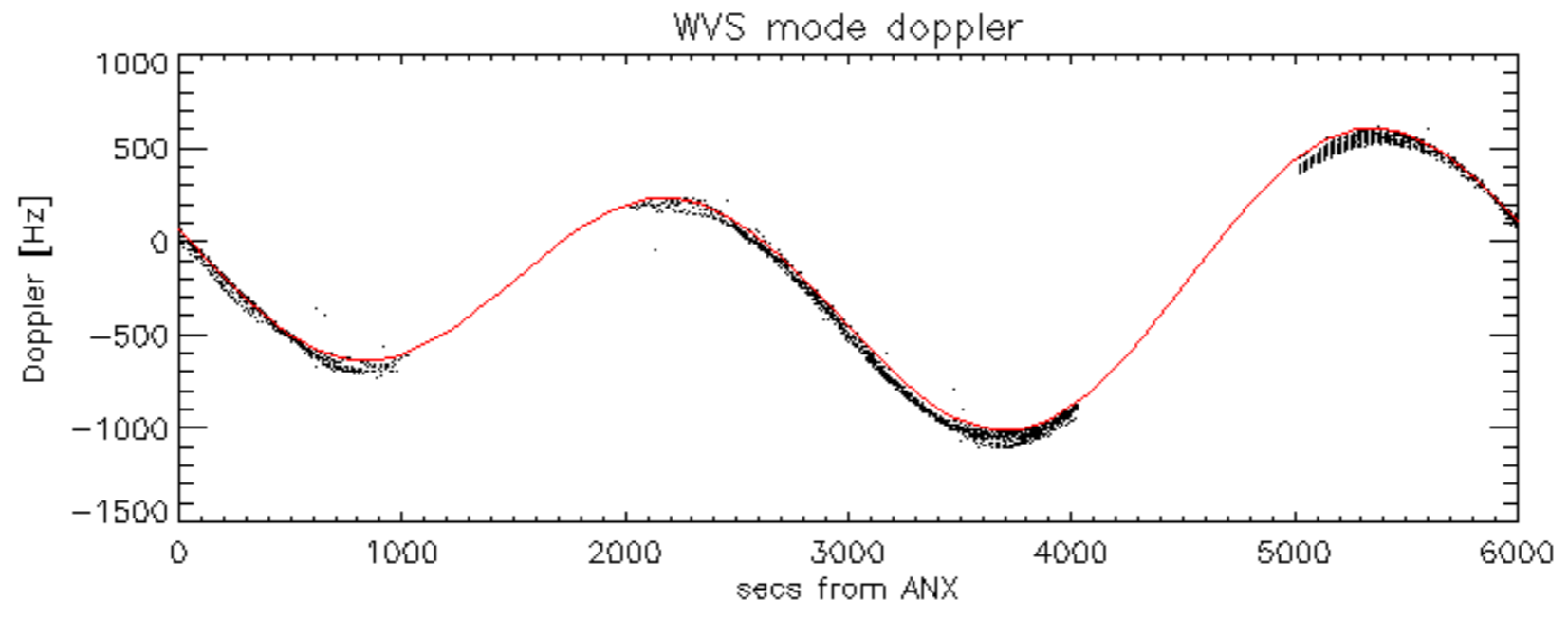


Doppler 'WVS' 'IS2' descending

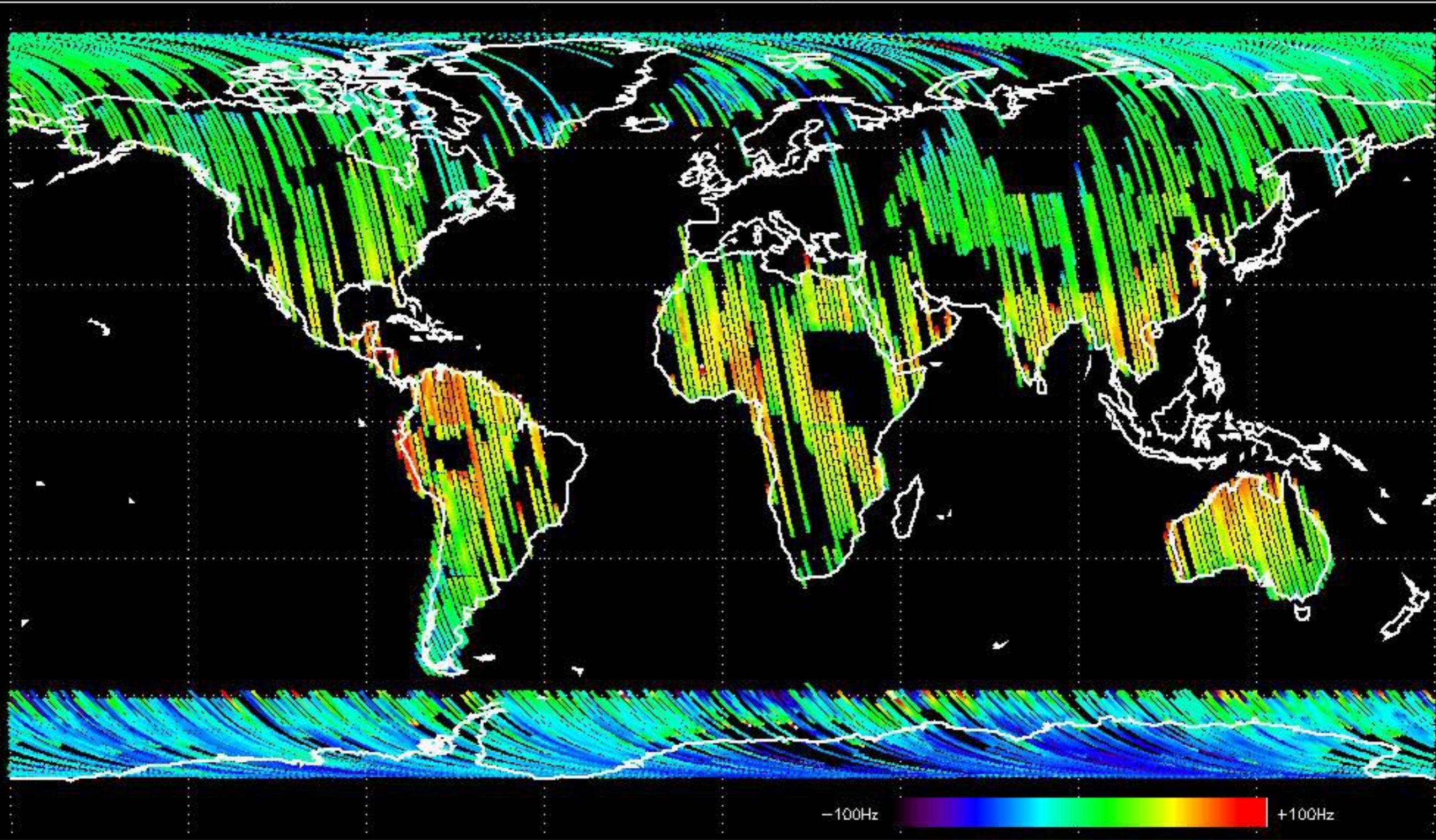


GM1 mode doppler

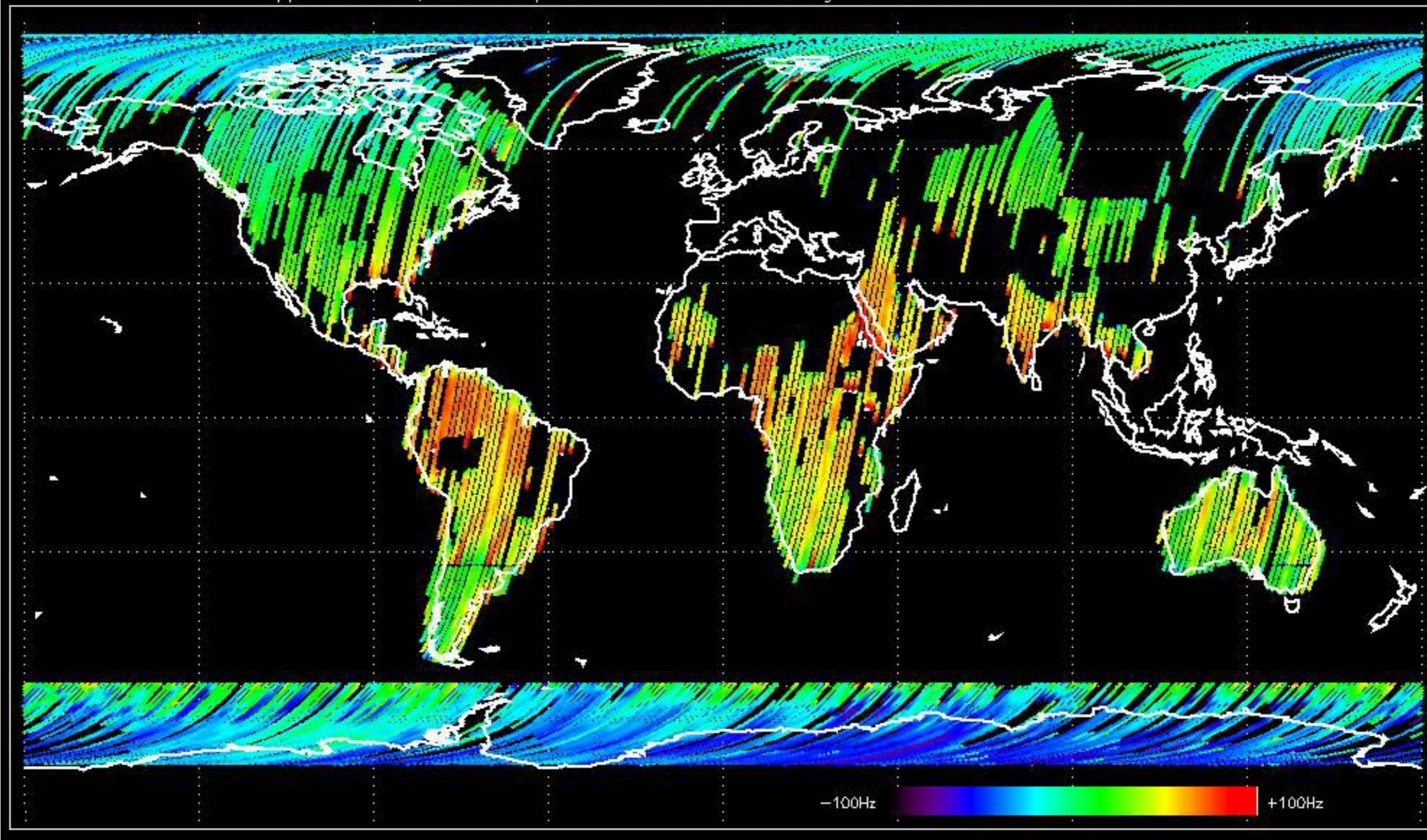




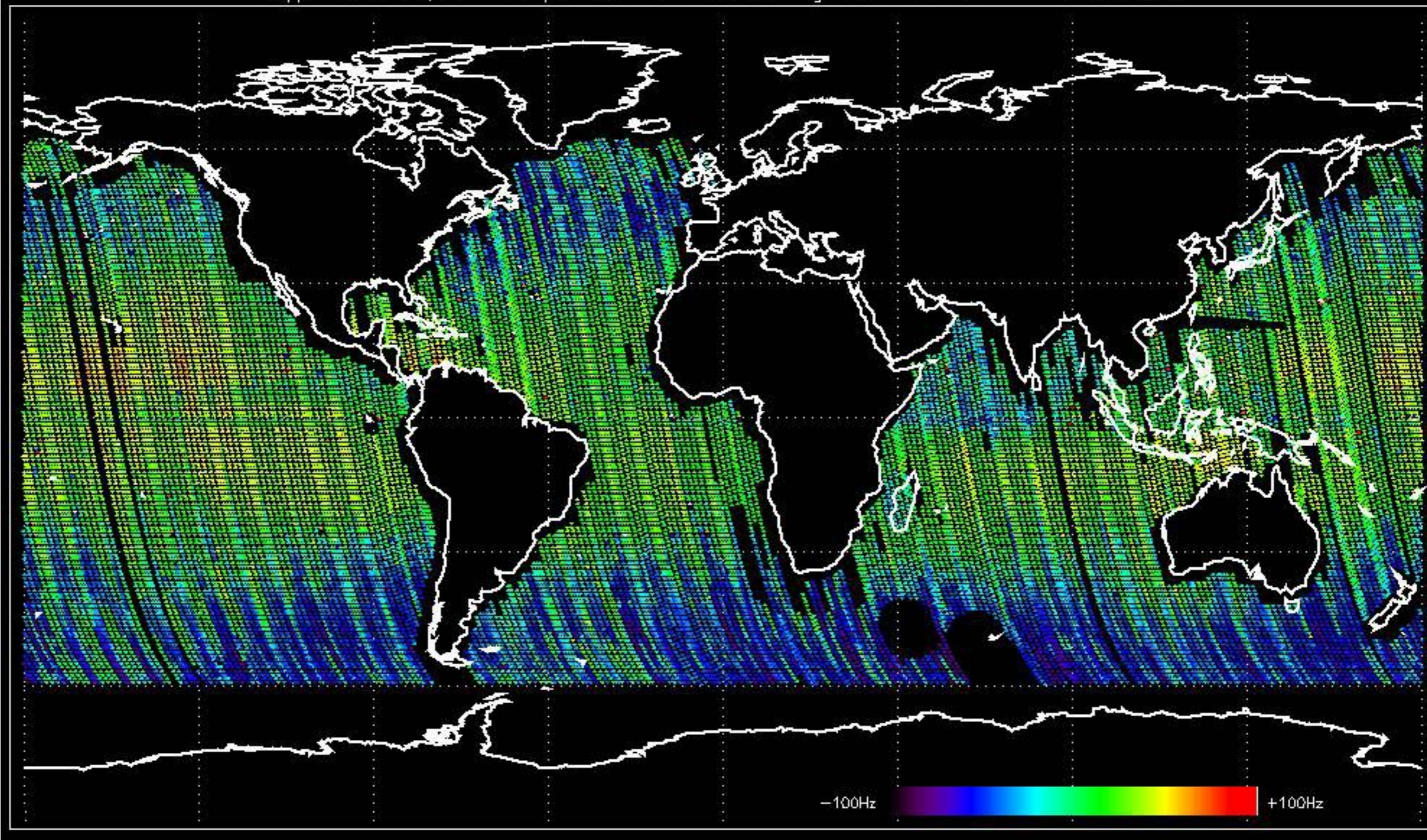
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -39.398159 Hz



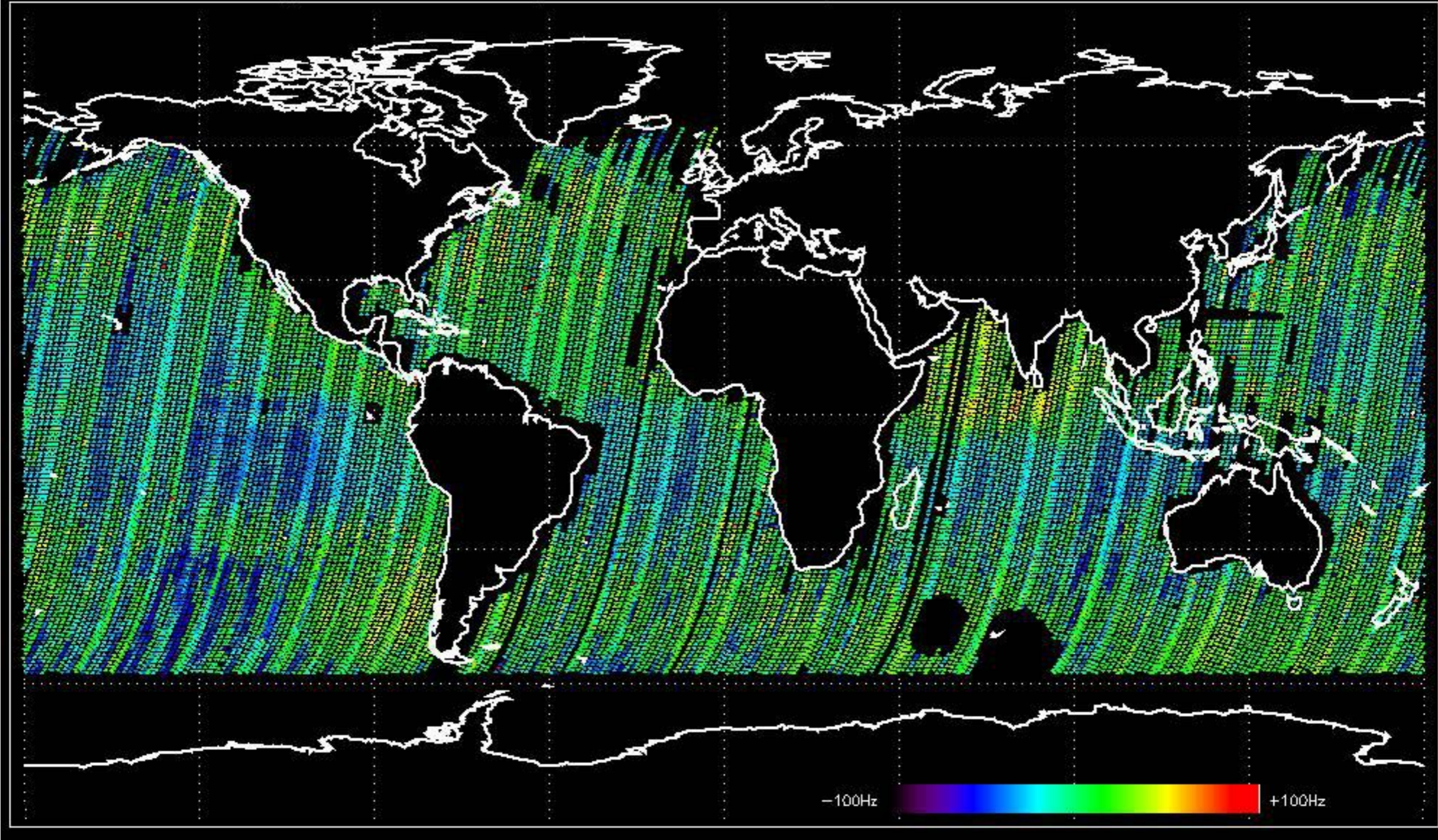
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -35.005813 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -30.974368 Hz

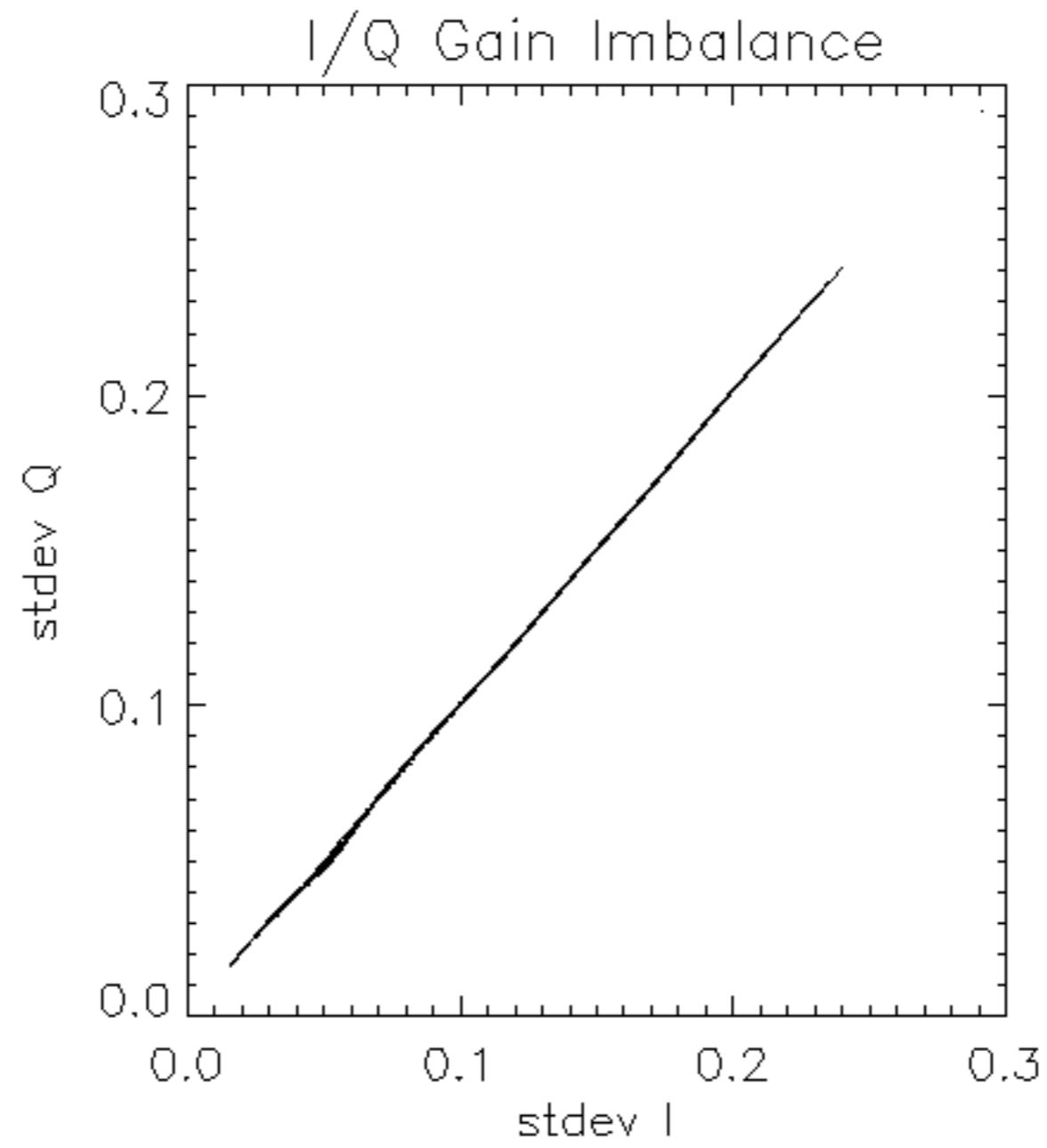


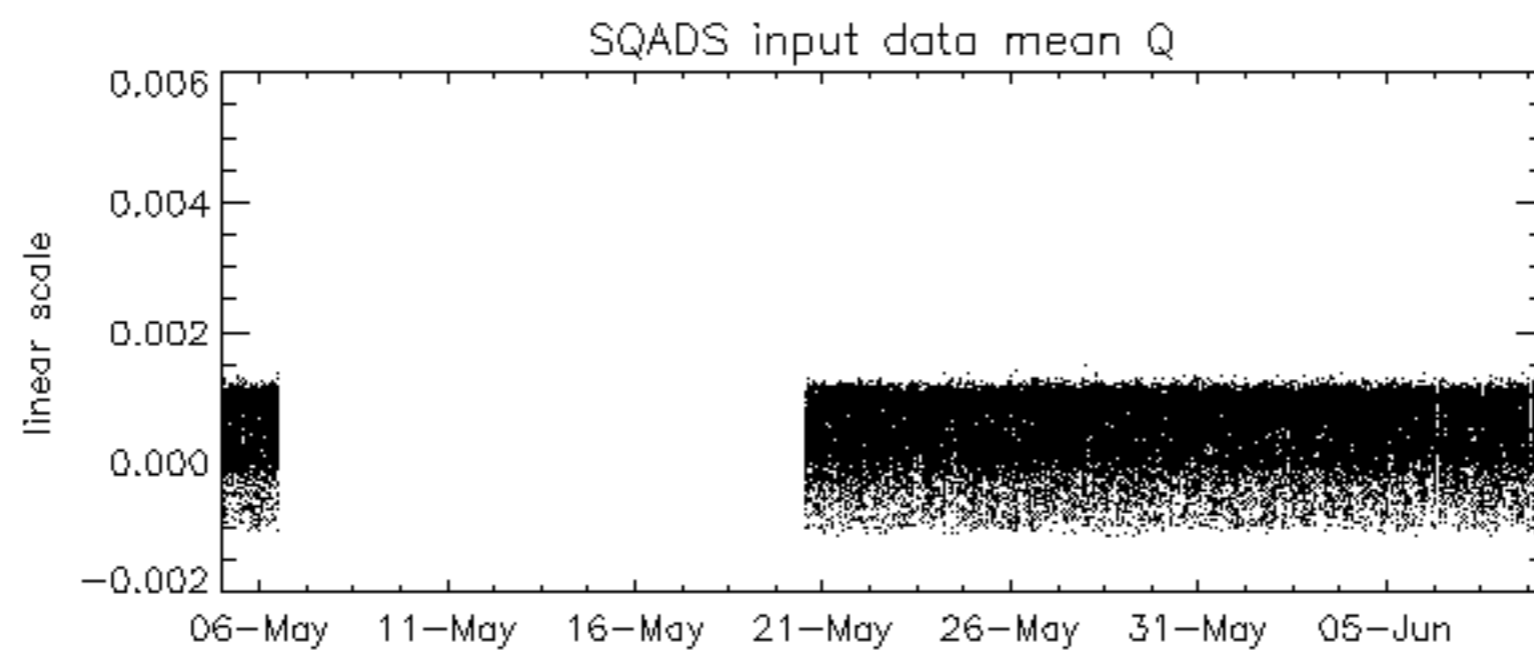
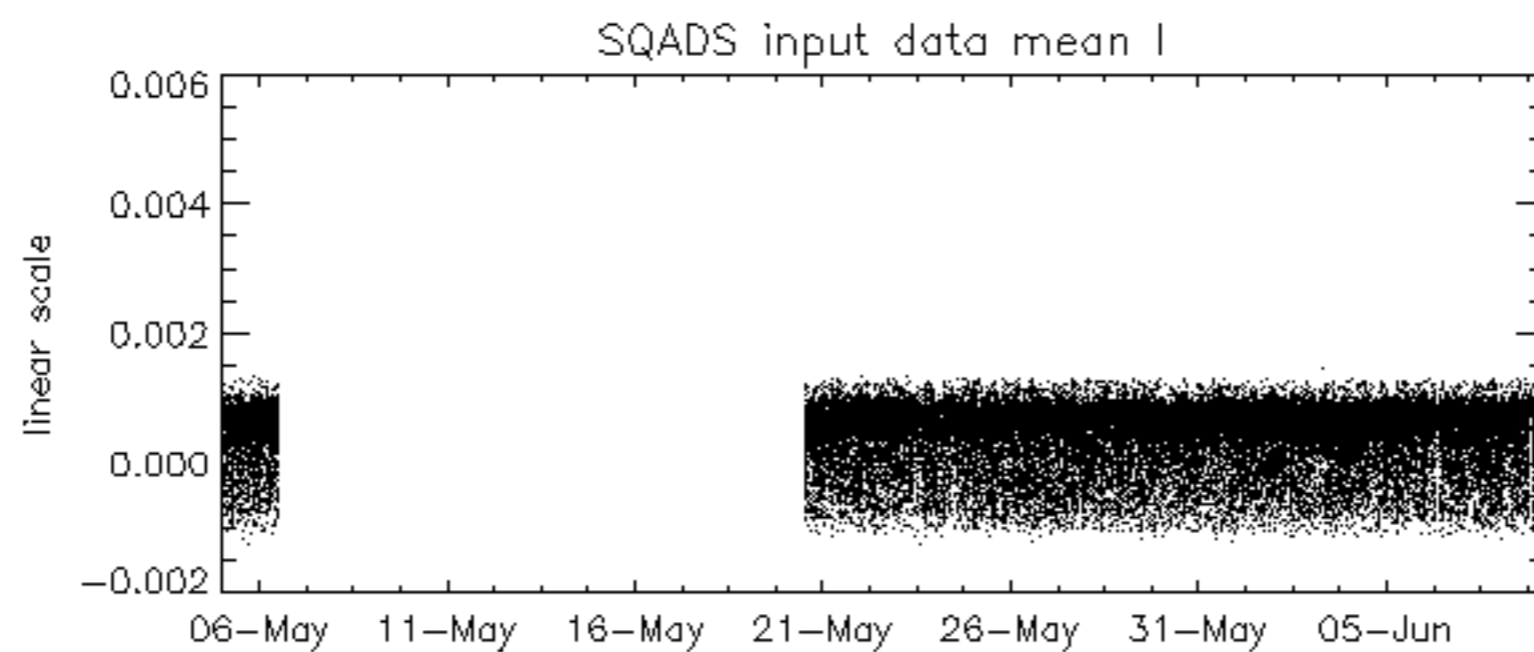
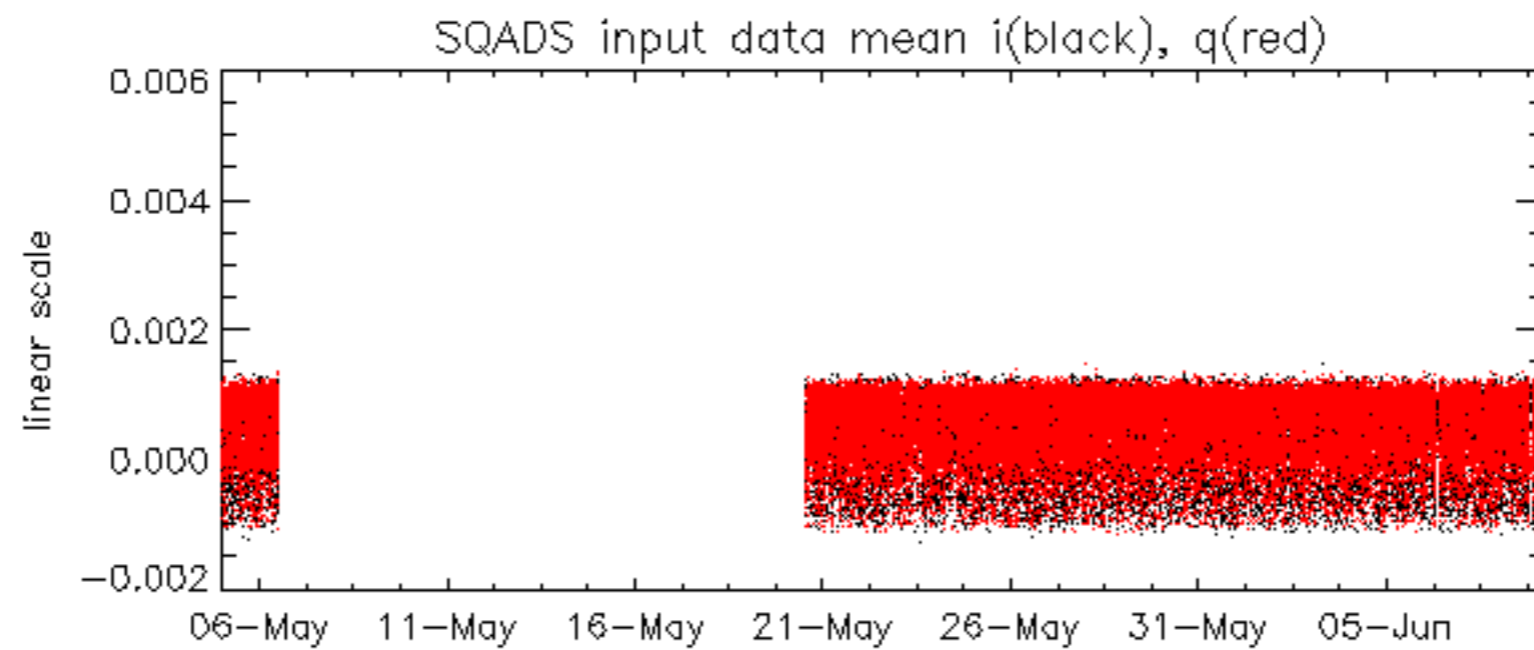
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -38.816075 Hz

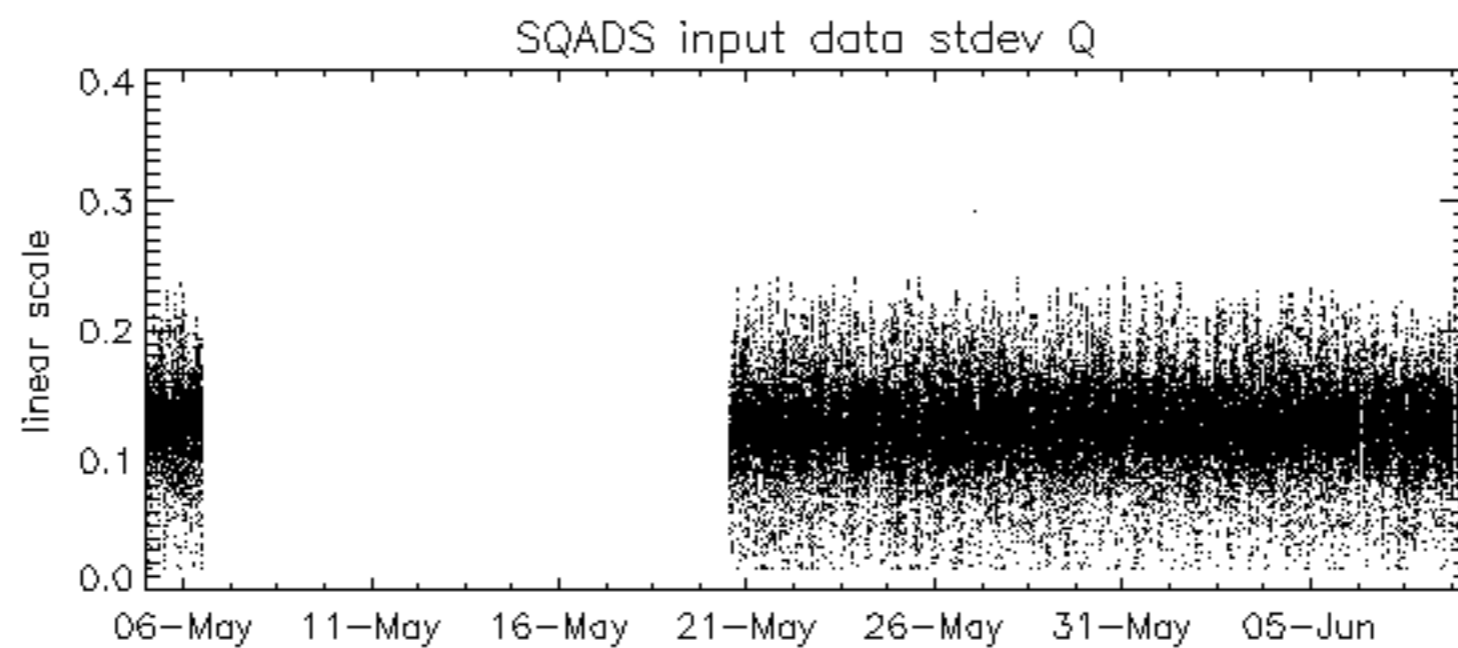
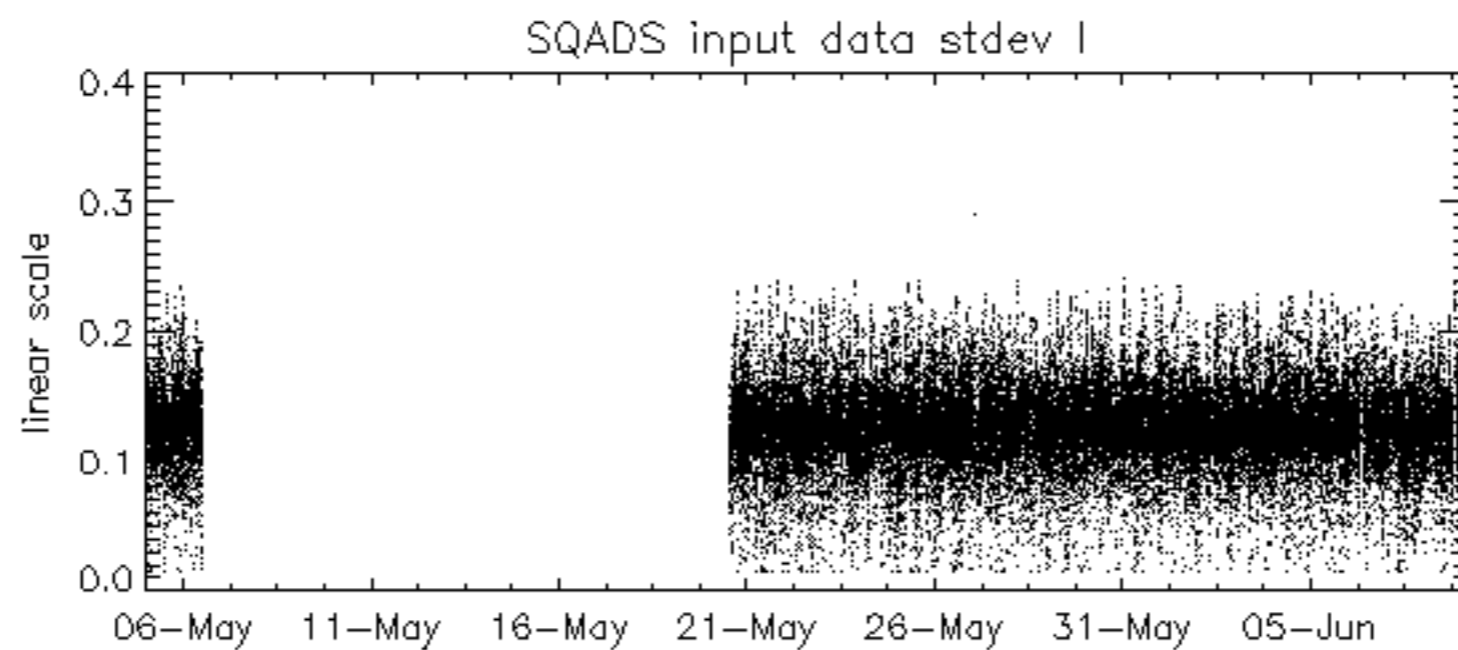
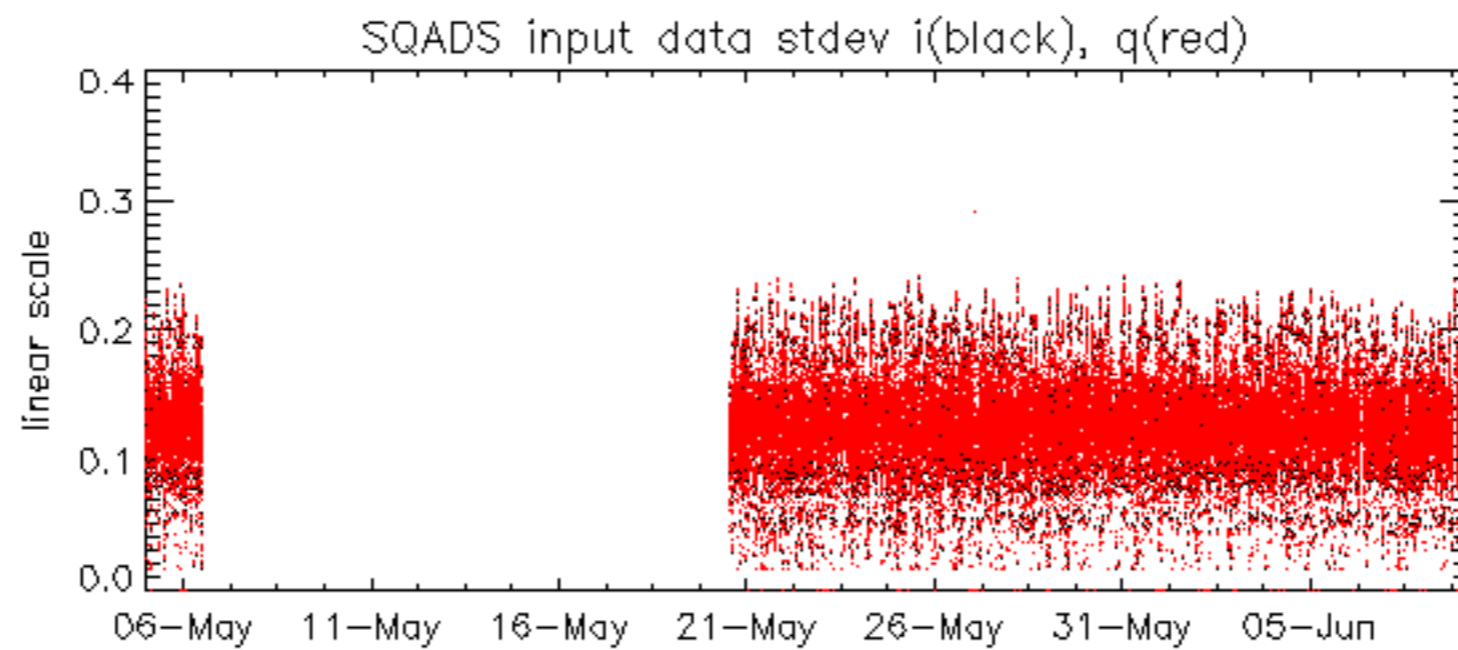


No anomalies observed on available MS products:

No anomalies observed.



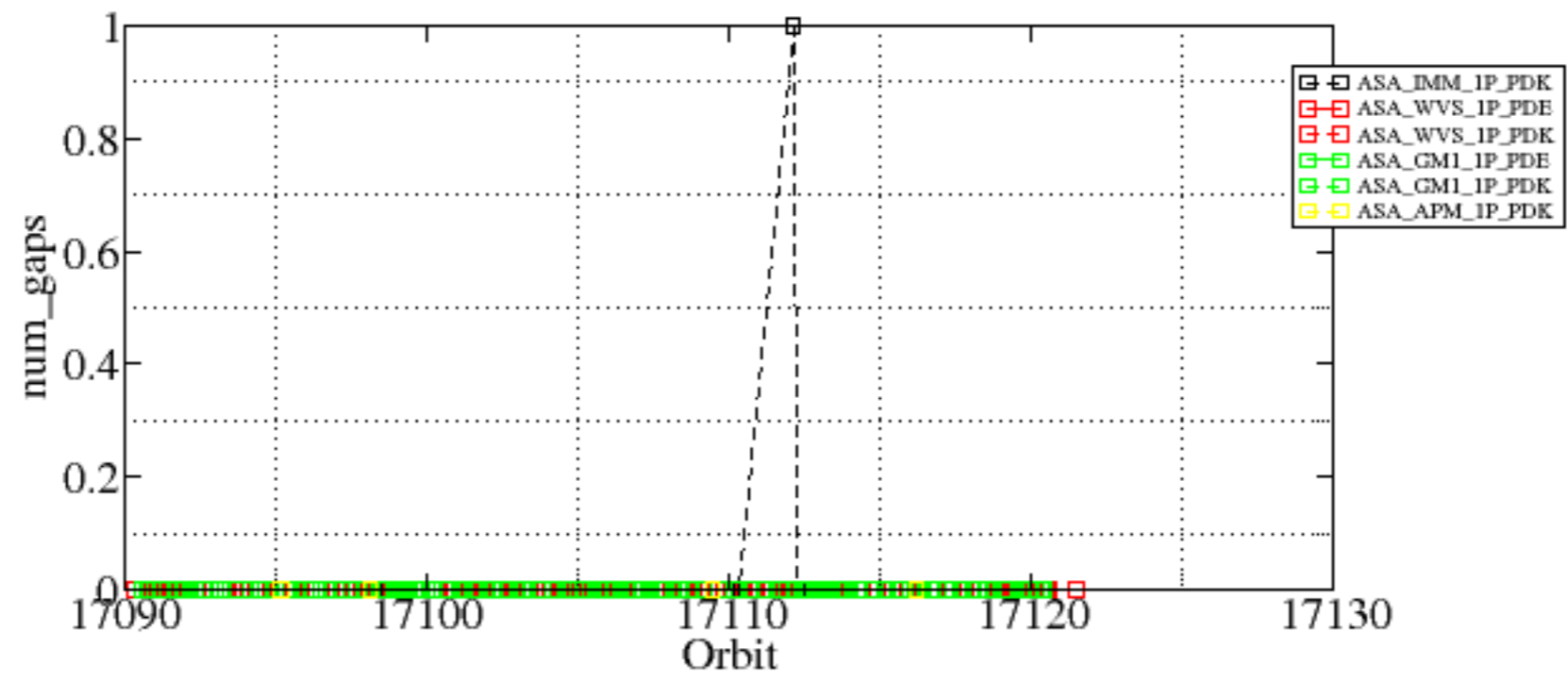


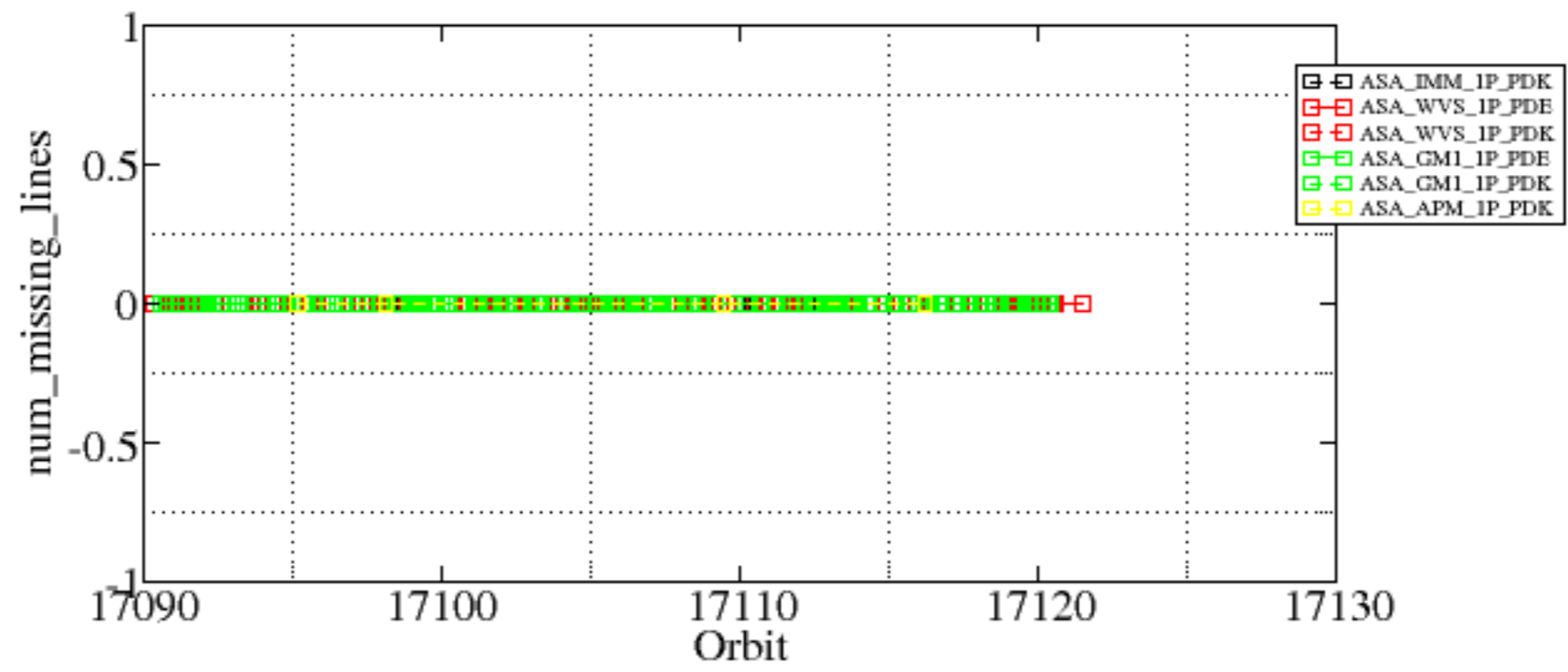


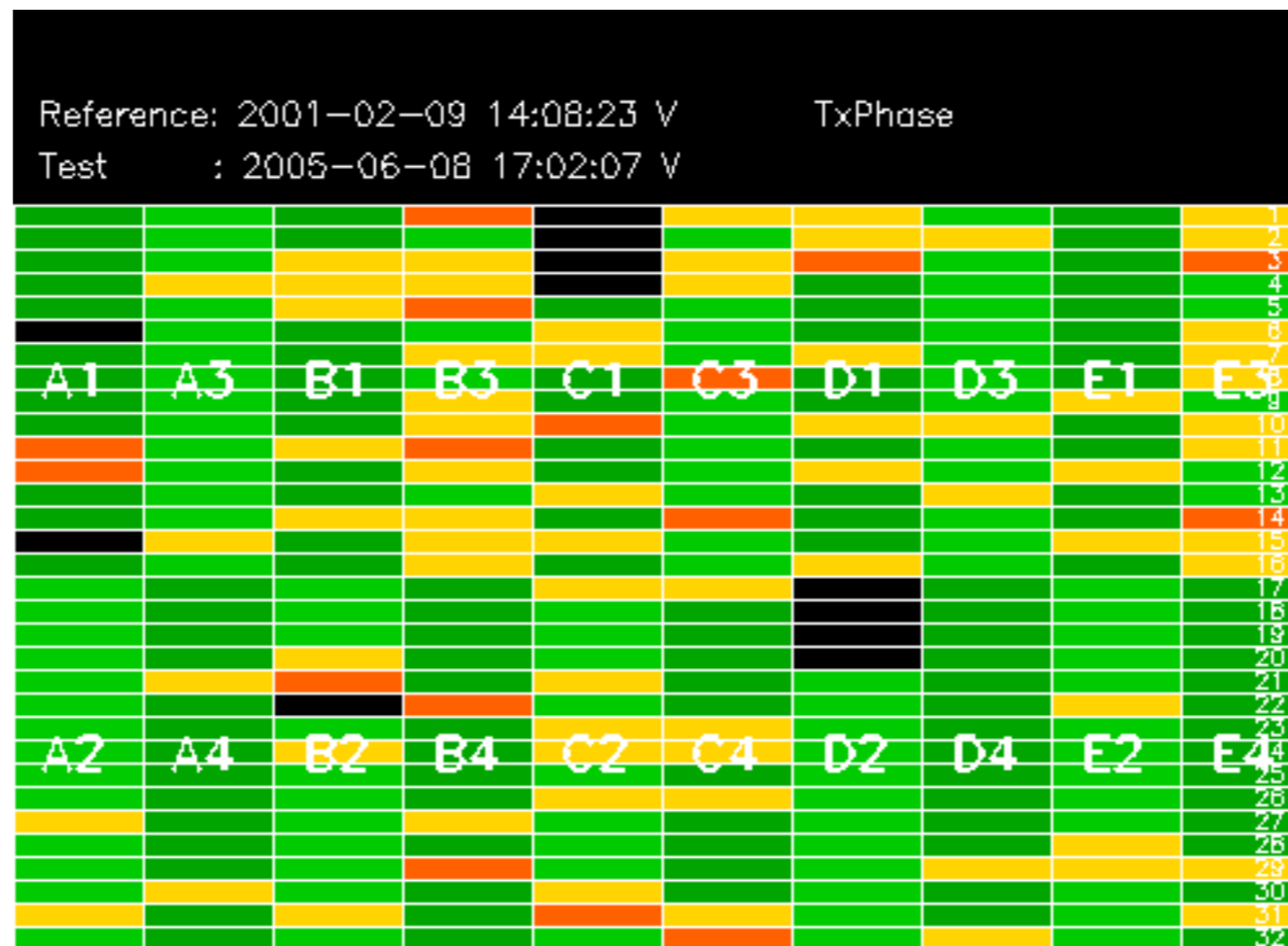
Summary of analysis for the last 3 days 2005060[789]

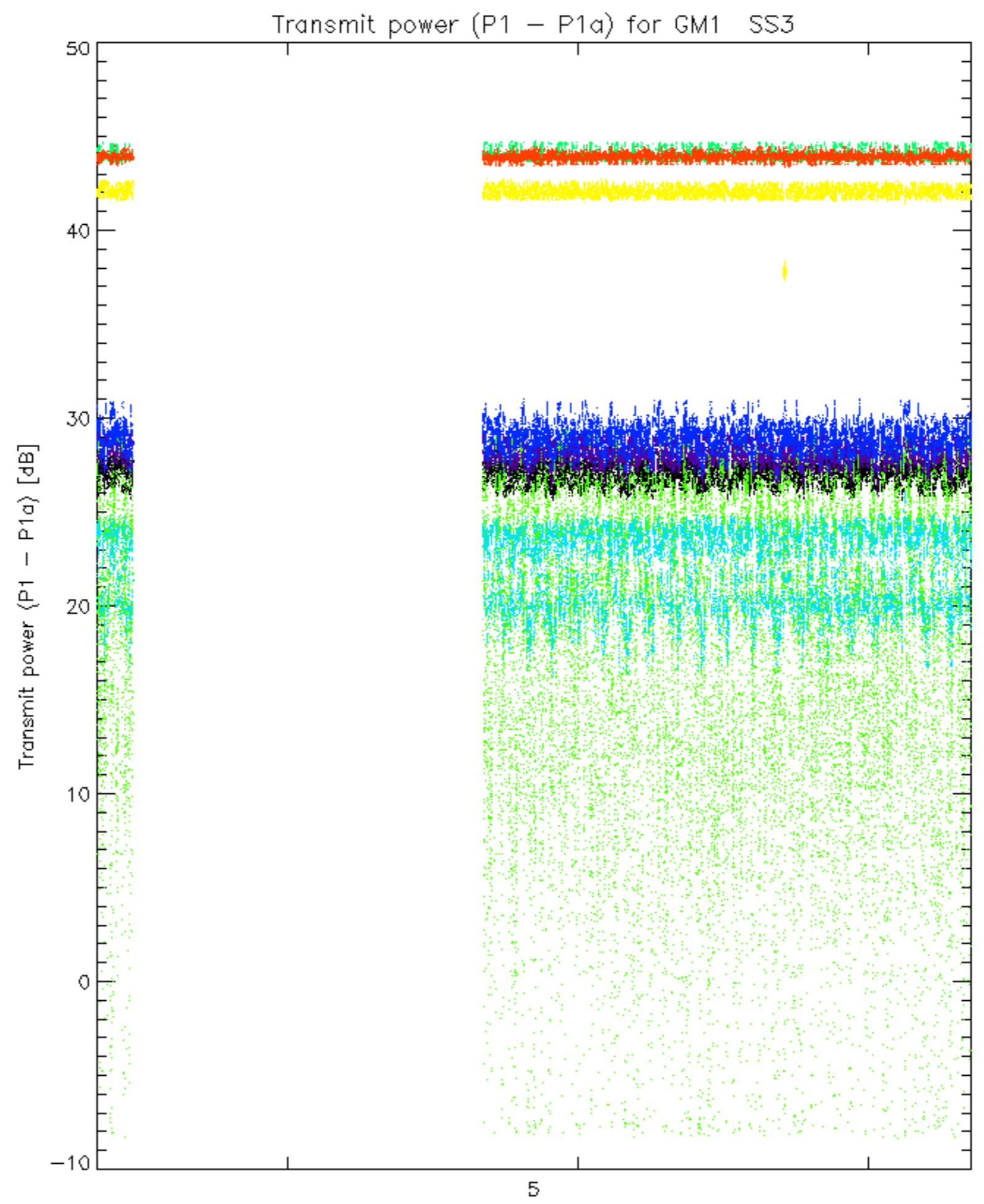
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDK20050608_124608_00000692038_00024_17112_0070.N1	1	0

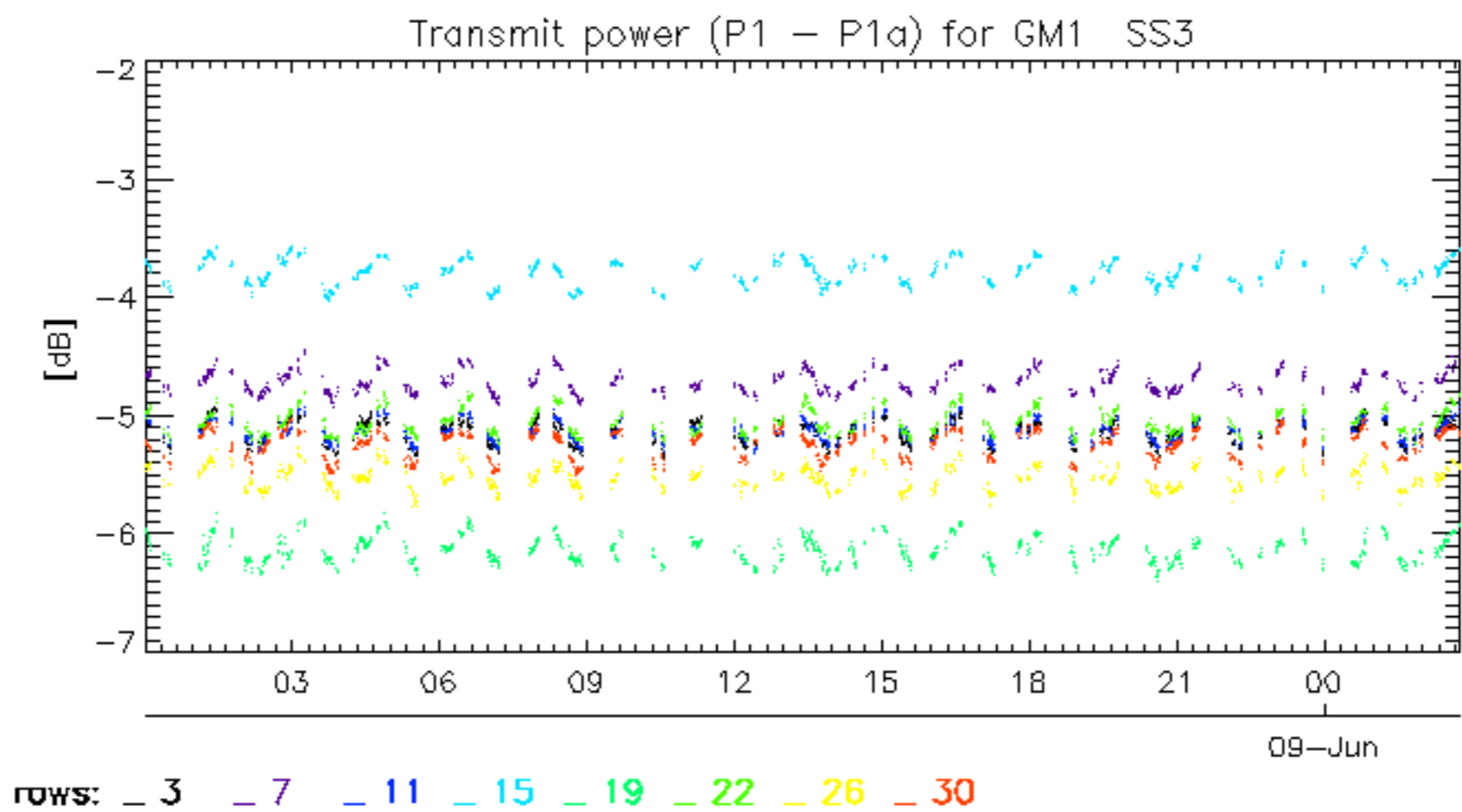


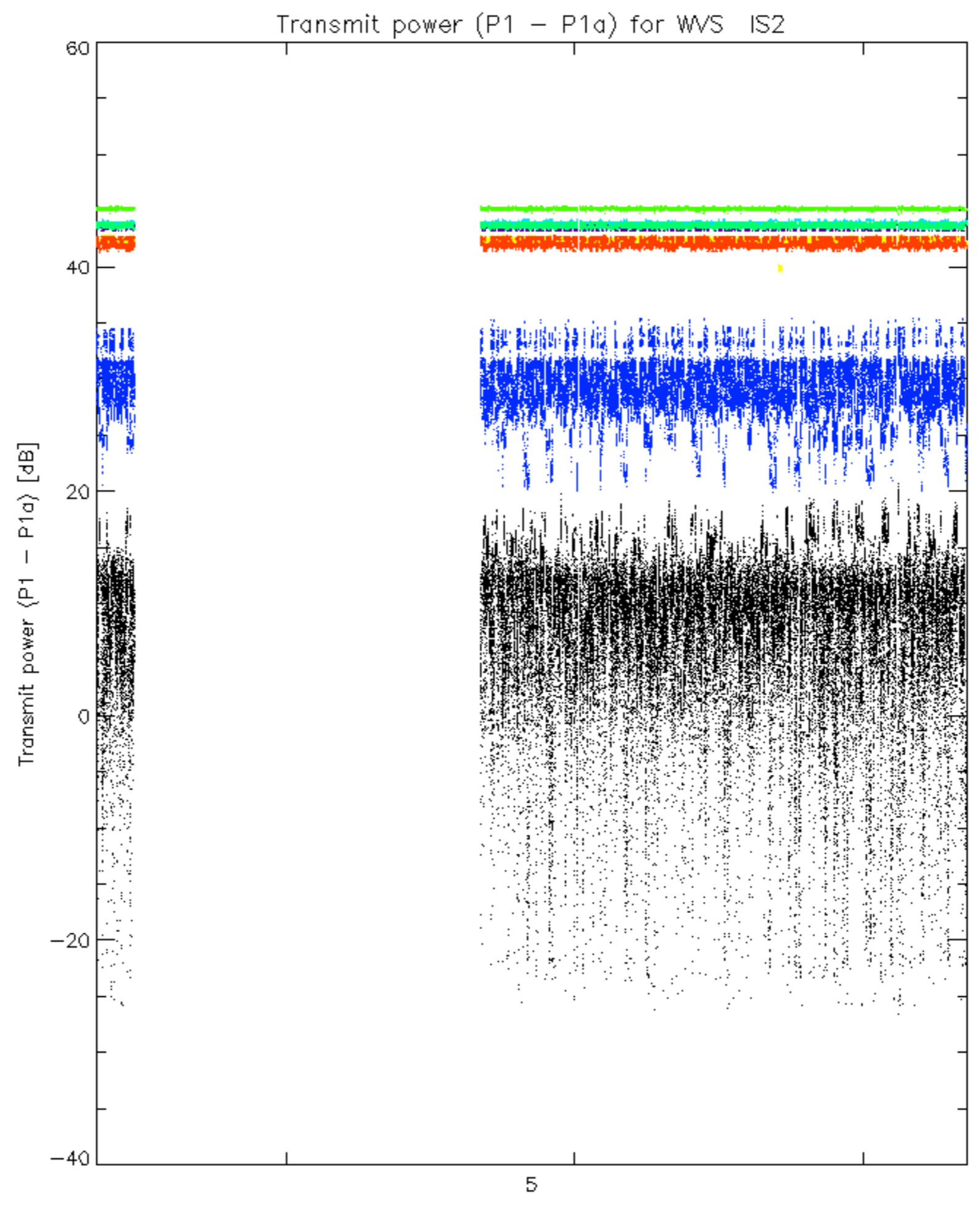


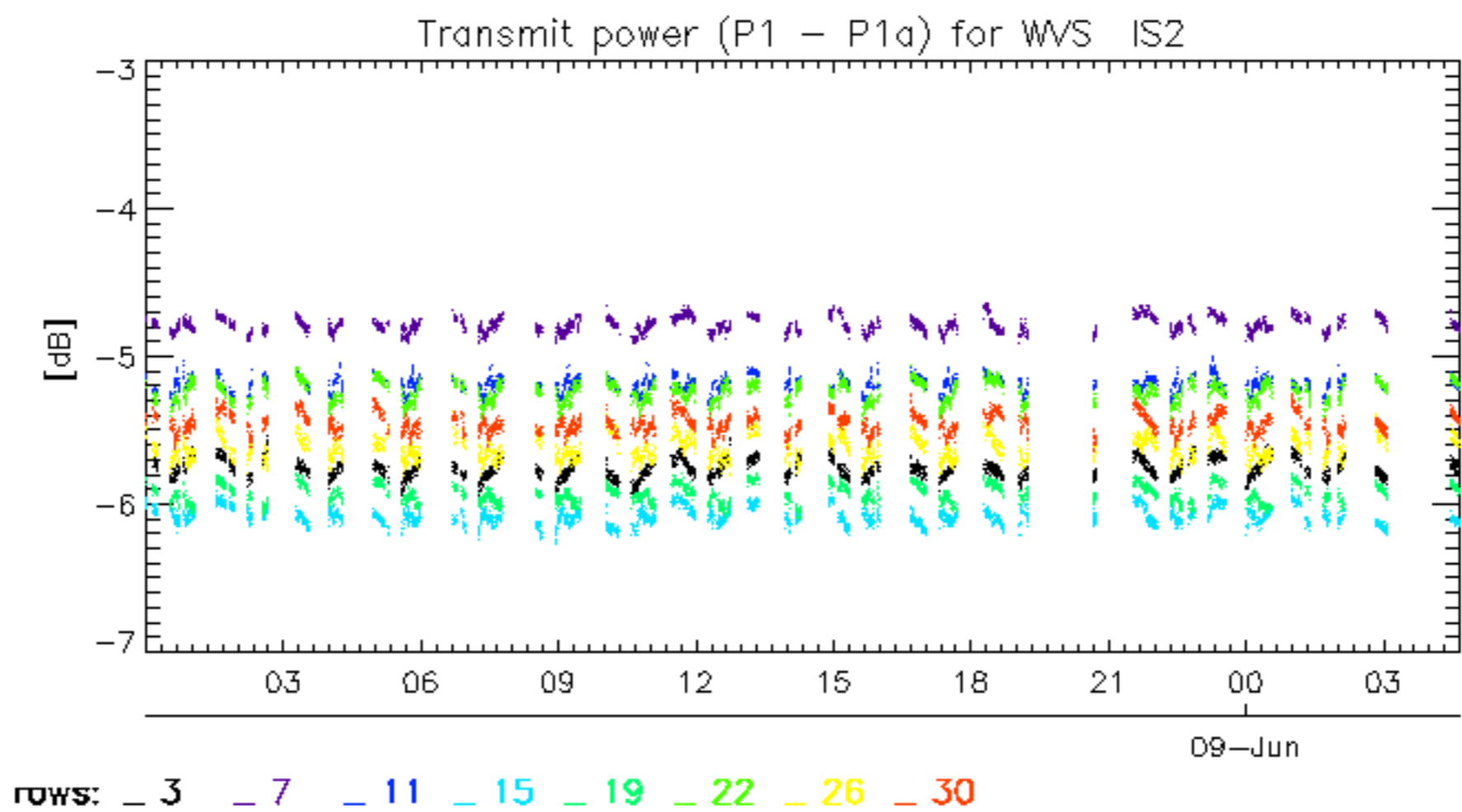




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30







No unavailabilities during the reported period.