

PRELIMINARY REPORT OF 060621

last update on Wed Jun 21 16:50:54 GMT 2006

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2006-06-20 00:00:00 to 2006-06-21 16:50:54

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	58	83	12	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	58	83	12	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	58	83	12	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	58	83	12	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	46	32	15	62
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	41	46	32	15	62
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	46	32	15	62
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	46	32	15	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	20060620 042859
H	20060621 071834

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	-3.934784	0.018359	0.031662
7	P1	-3.136368	0.015606	-0.032715
11	P1	-4.107174	0.019490	0.010070
15	P1	-6.149672	0.020240	-0.047282
19	P1	-3.350192	0.008672	-0.065705
22	P1	-4.517441	0.011599	-0.026109
26	P1	-3.969863	0.017062	0.017108
30	P1	-5.751506	0.008948	-0.022281
3	P1	-16.508635	0.249184	0.040080
7	P1	-17.226524	0.148778	-0.115476
11	P1	-16.959452	0.308466	-0.083143
15	P1	-13.207689	0.216500	0.068001
19	P1	-14.335643	0.051818	-0.155890
22	P1	-16.167469	0.368414	0.037837
26	P1	-15.214642	0.229461	0.117458
30	P1	-17.132980	0.406234	-0.144158

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.139206	0.080765	0.126804
7	P2	-22.025335	0.096929	0.101297
11	P2	-15.867620	0.110728	0.118156
15	P2	-7.159138	0.093614	-0.004304
19	P2	-9.172218	0.085306	-0.008915
22	P2	-18.162830	0.082663	-0.063744
26	P2	-16.402739	0.087237	-0.064167
30	P2	-19.559248	0.086627	0.005473

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.185692	0.004019	-0.014669
7	P3	-8.185692	0.004019	-0.014669
11	P3	-8.185692	0.004019	-0.014669
15	P3	-8.185692	0.004019	-0.014669
19	P3	-8.185692	0.004019	-0.014669
22	P3	-8.185692	0.004019	-0.014669
26	P3	-8.185692	0.004019	-0.014669
30	P3	-8.185692	0.004019	-0.014669

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	-3.803150	0.050894	0.012559
7	P1	-2.589167	0.030362	0.047069
11	P1	-2.862071	0.023064	0.022517
15	P1	-3.514147	0.051196	-0.034095
19	P1	-3.409753	0.014379	-0.029721
22	P1	-5.081807	0.019688	-0.003494
26	P1	-5.854591	0.015635	-0.036201
30	P1	-5.191488	0.026655	-0.022572
3	P1	-11.620767	0.053309	-0.004373
7	P1	-9.969584	0.048825	-0.058473
11	P1	-10.218478	0.086547	-0.071858
15	P1	-10.664014	0.159050	-0.115911
19	P1	-15.537534	0.077018	-0.044351
22	P1	-20.937885	1.165171	-0.129750

26	P1	-16.470108	0.329637	0.070356
30	P1	-17.904320	0.370618	0.146221

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.825851	0.073263	0.174578
7	P2	-22.489103	0.130872	0.073840
11	P2	-11.148080	0.049396	0.093810
15	P2	-4.919902	0.049291	-0.029005
19	P2	-6.882868	0.053840	-0.006205
22	P2	-8.208741	0.043297	-0.018958
26	P2	-24.141891	0.069426	-0.087521
30	P2	-22.062420	0.056775	0.021996

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.020029	0.004938	-0.016532
7	P3	-8.020121	0.004915	-0.016560
11	P3	-8.020152	0.004914	-0.016483
15	P3	-8.020090	0.004918	-0.016451
19	P3	-8.020104	0.004921	-0.016469
22	P3	-8.020300	0.004909	-0.016580
26	P3	-8.020243	0.004916	-0.016434
30	P3	-8.020185	0.004911	-0.016505

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	0.000552728
	stdev	1.76086e-07
MEAN Q	mean	0.000524199
	stdev	2.21412e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136341
	stdev	0.00115223
STDEV Q	mean	0.136692
	stdev	0.00116946



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006062[901]

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_1PNPDE20060620_115627_000000512048_00410_22508_8157.N1	1	0
ASA_WSM_1PNPDE20060621_015620_000000972048_00418_22516_4911.N1	0	2
ASA_WSM_1PNPDE20060621_043526_000001832048_00420_22518_4929.N1	0	32





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)


Ascending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Ascending

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

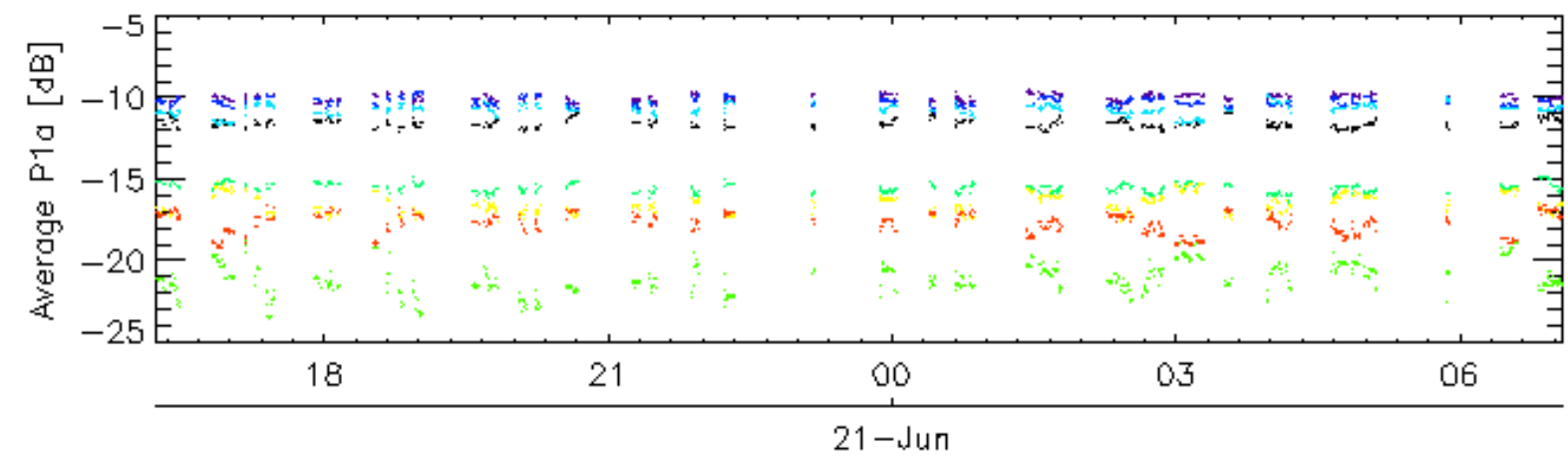
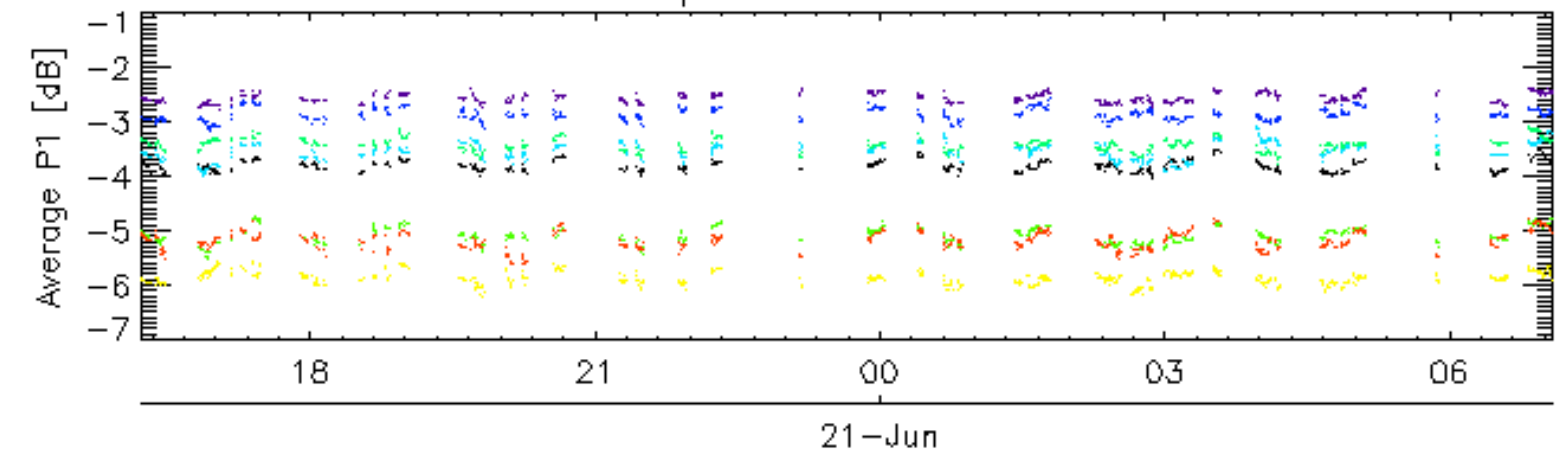
7.5 - Absolute Doppler for GM1

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

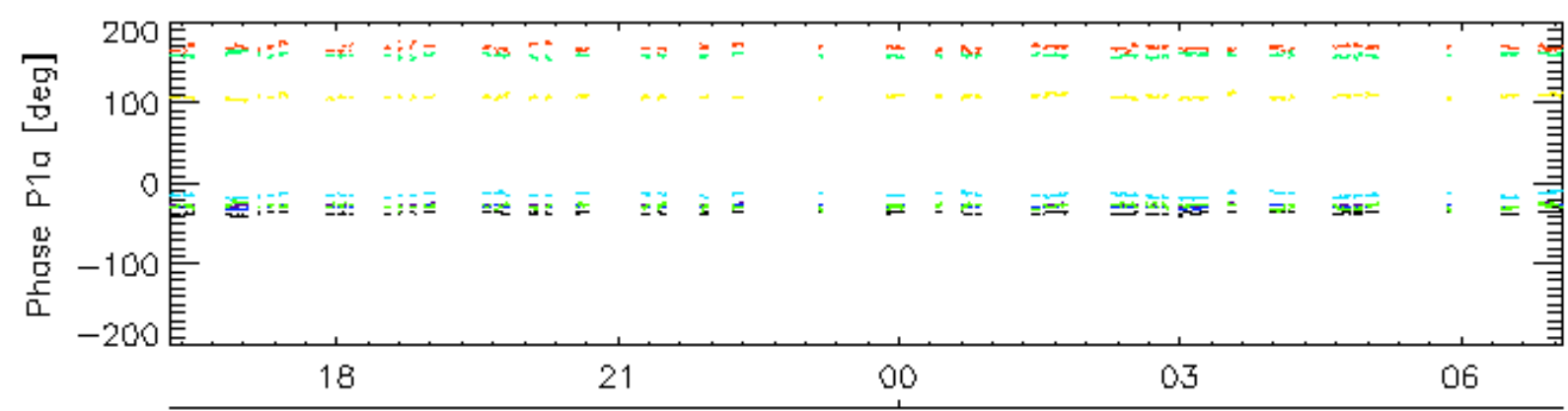
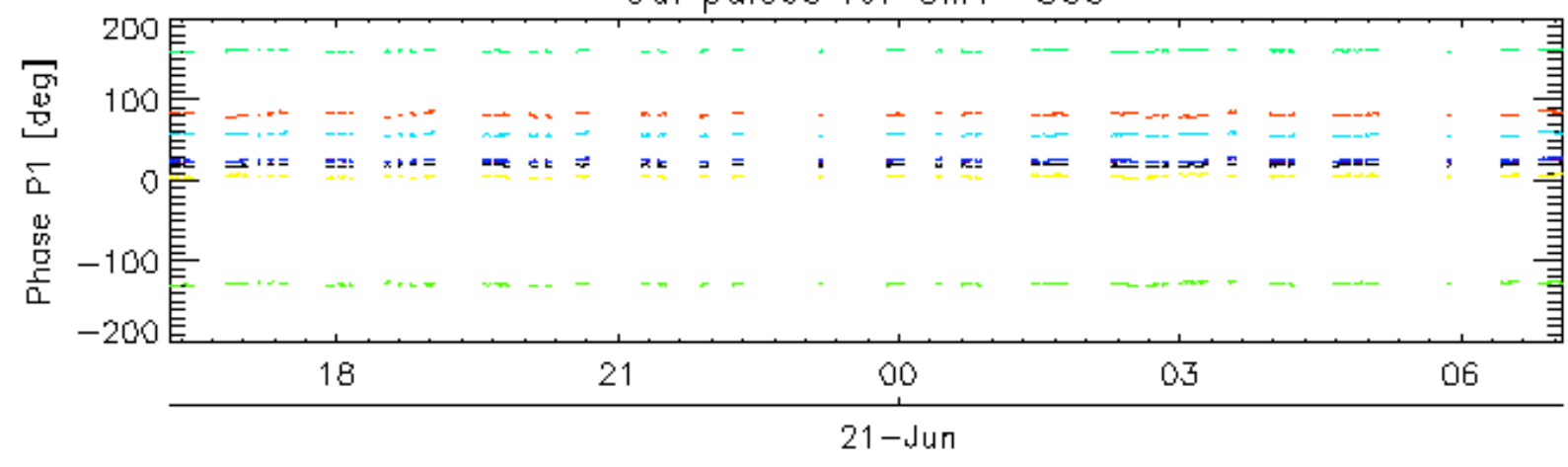
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

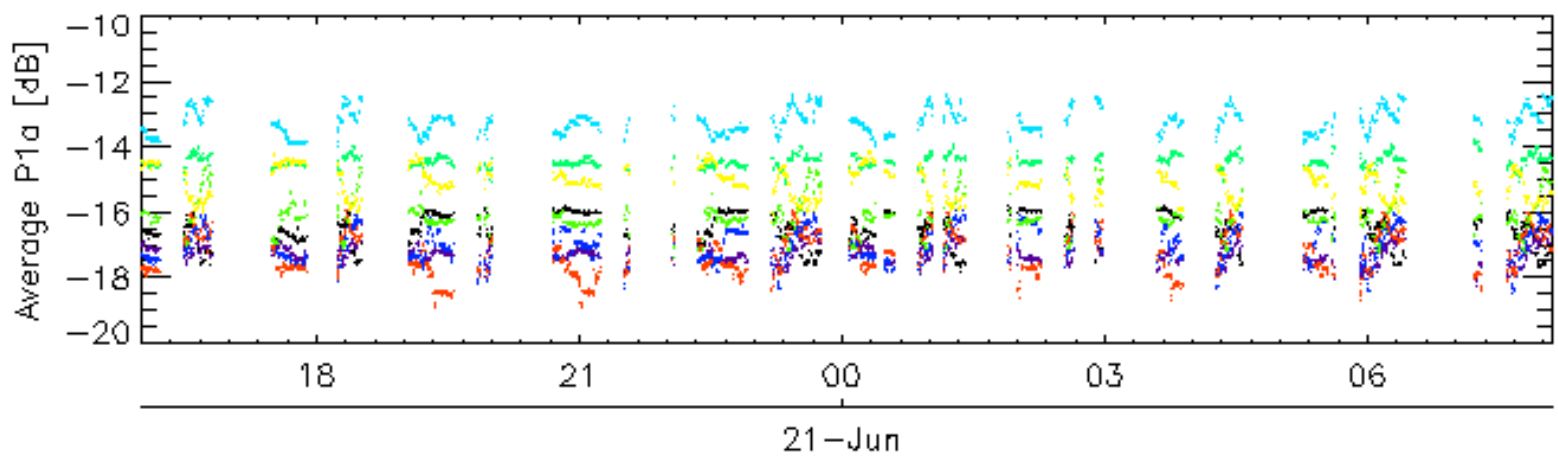
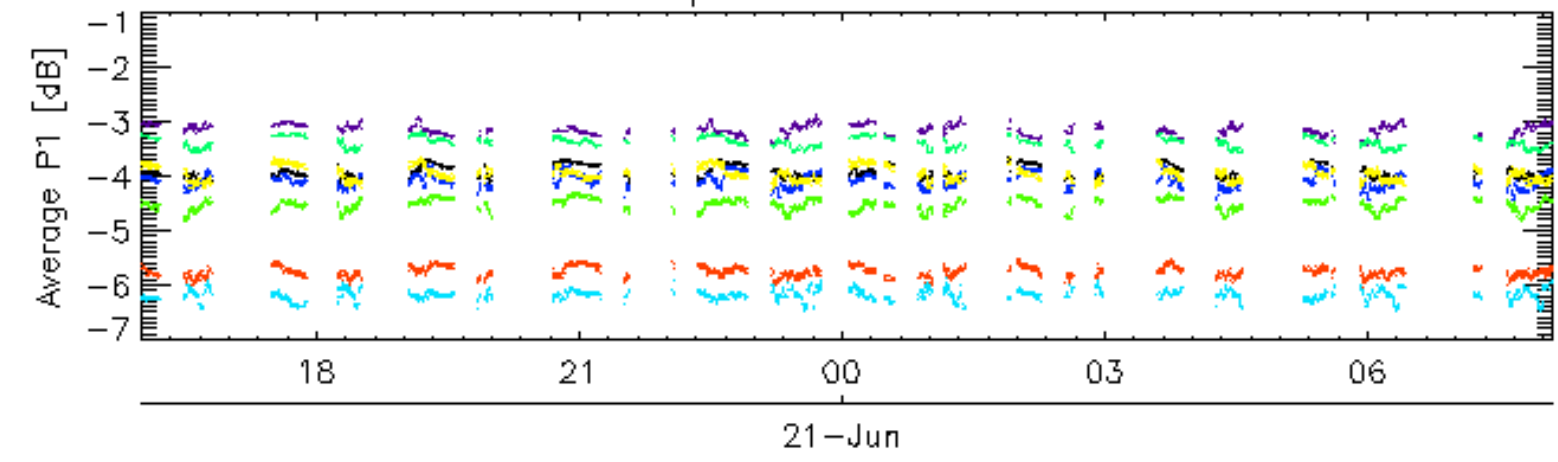


Cal pulses for GM1 SS3

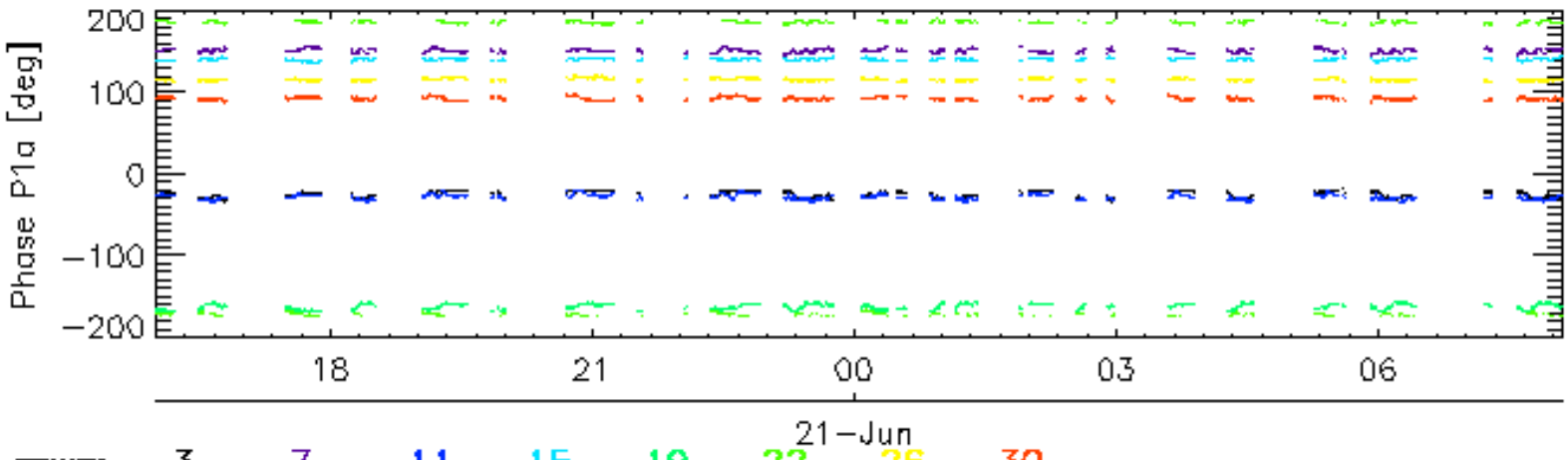
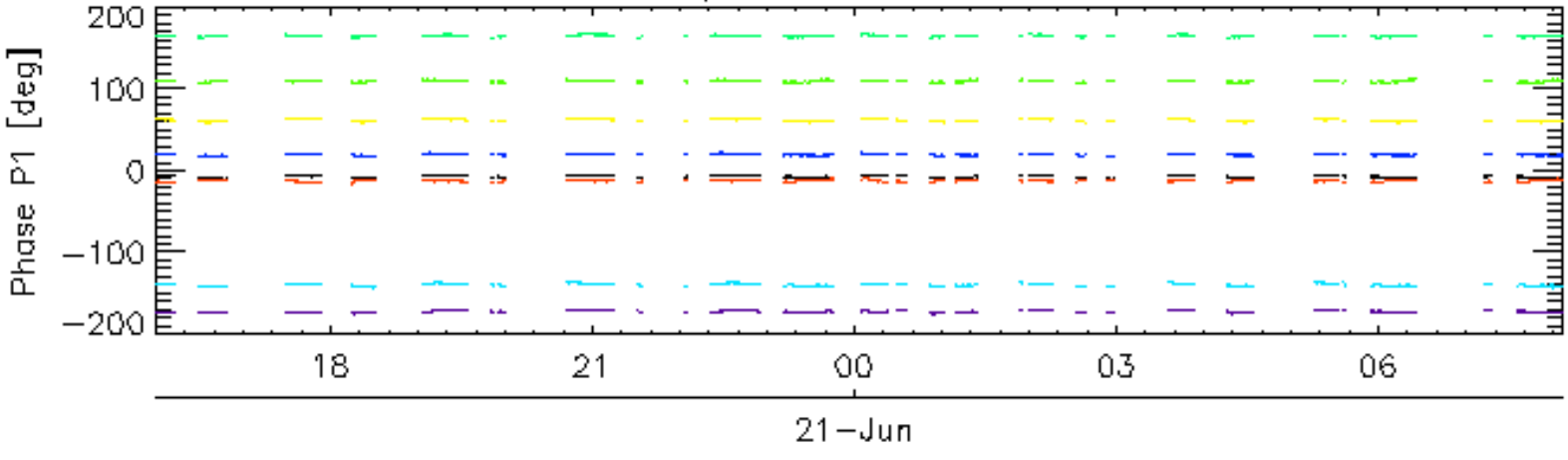


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

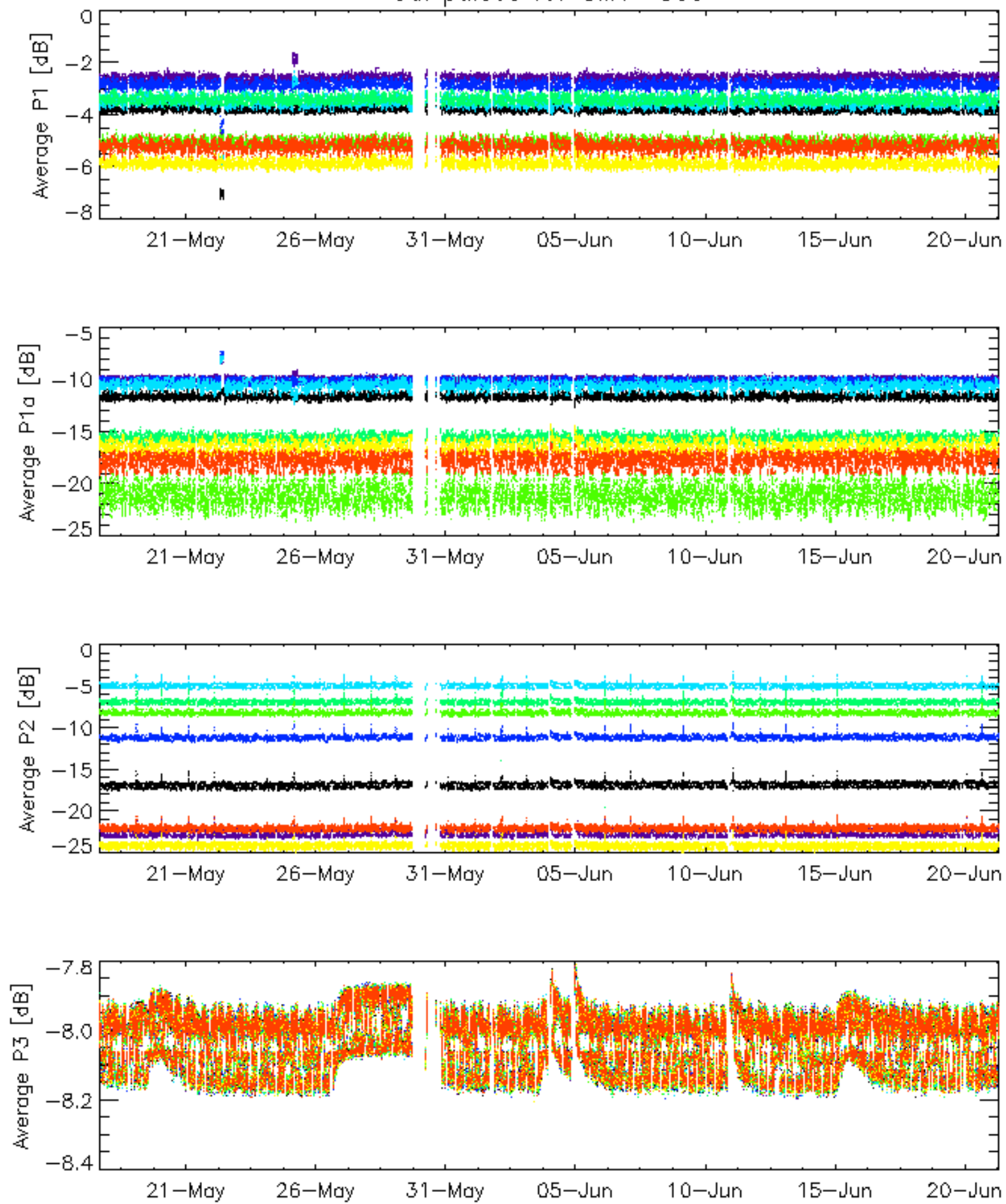


Cal pulses for WVS IS2



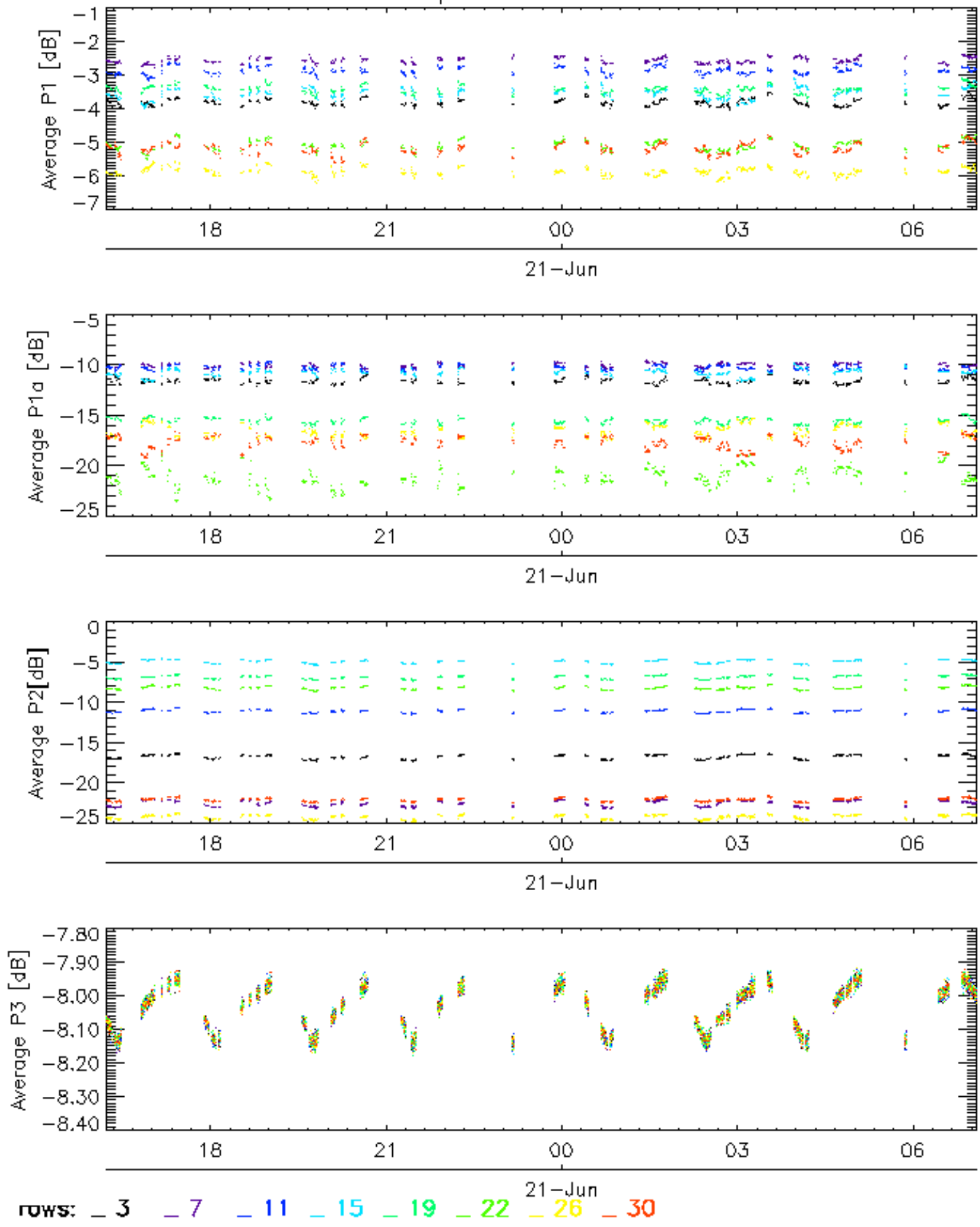
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

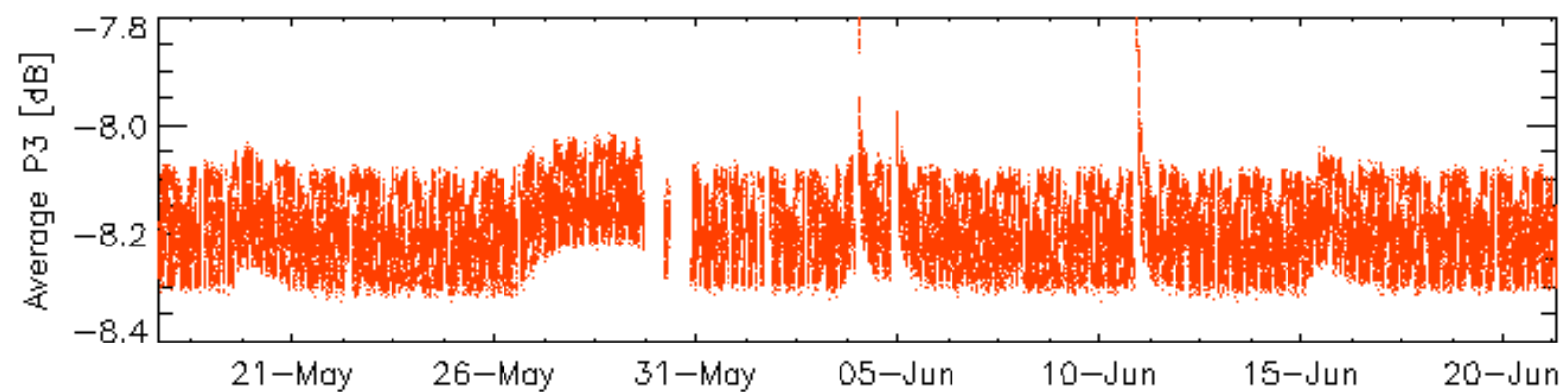
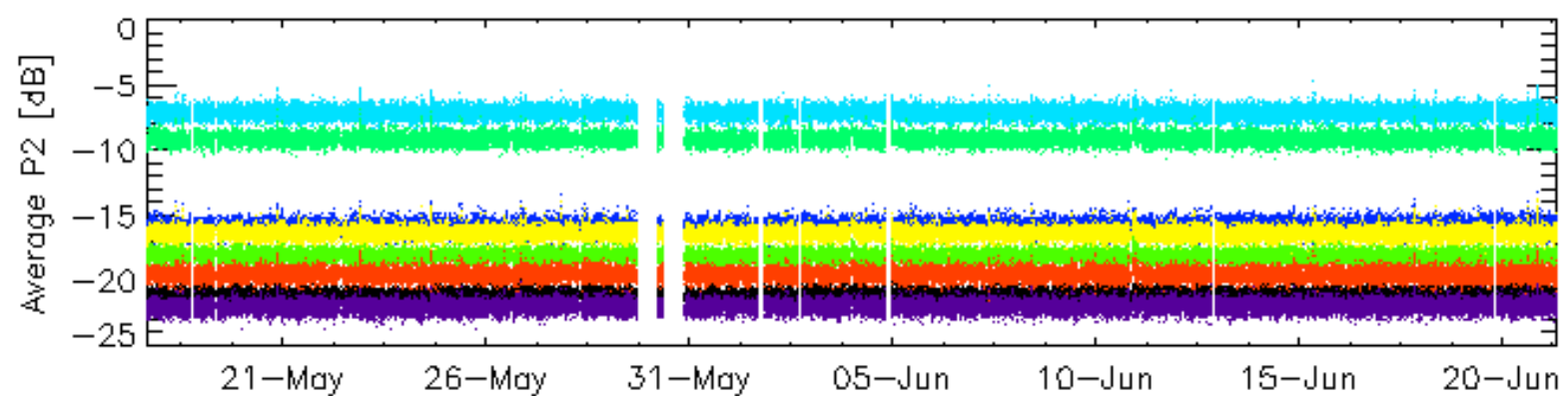
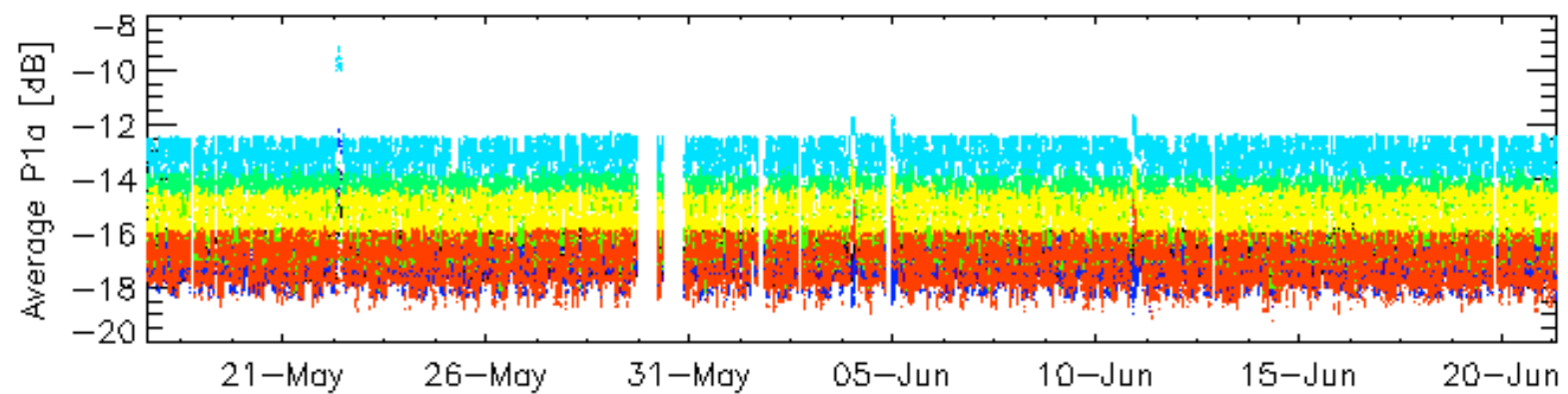
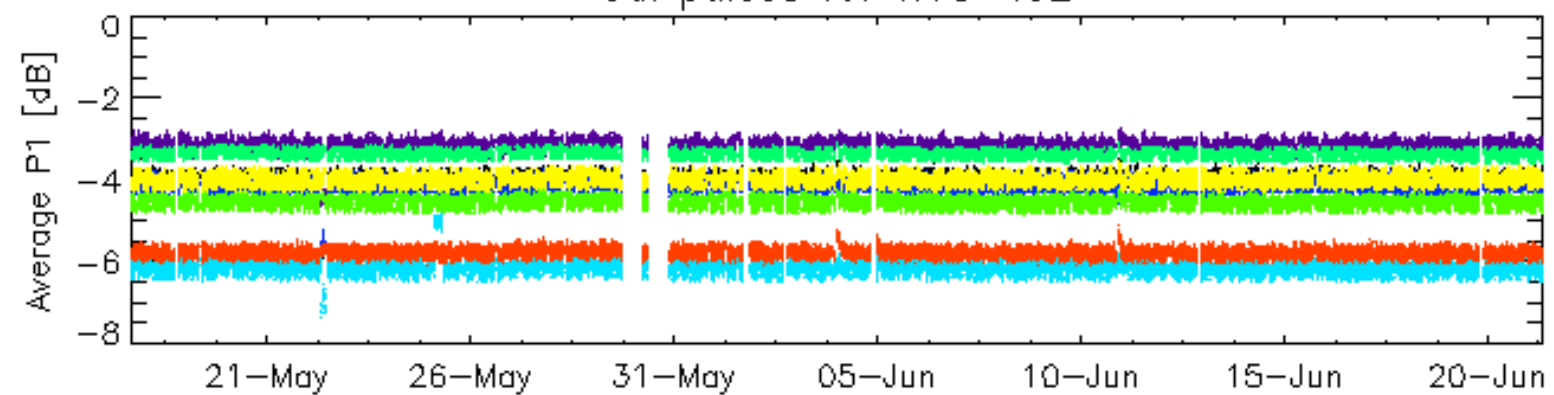


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

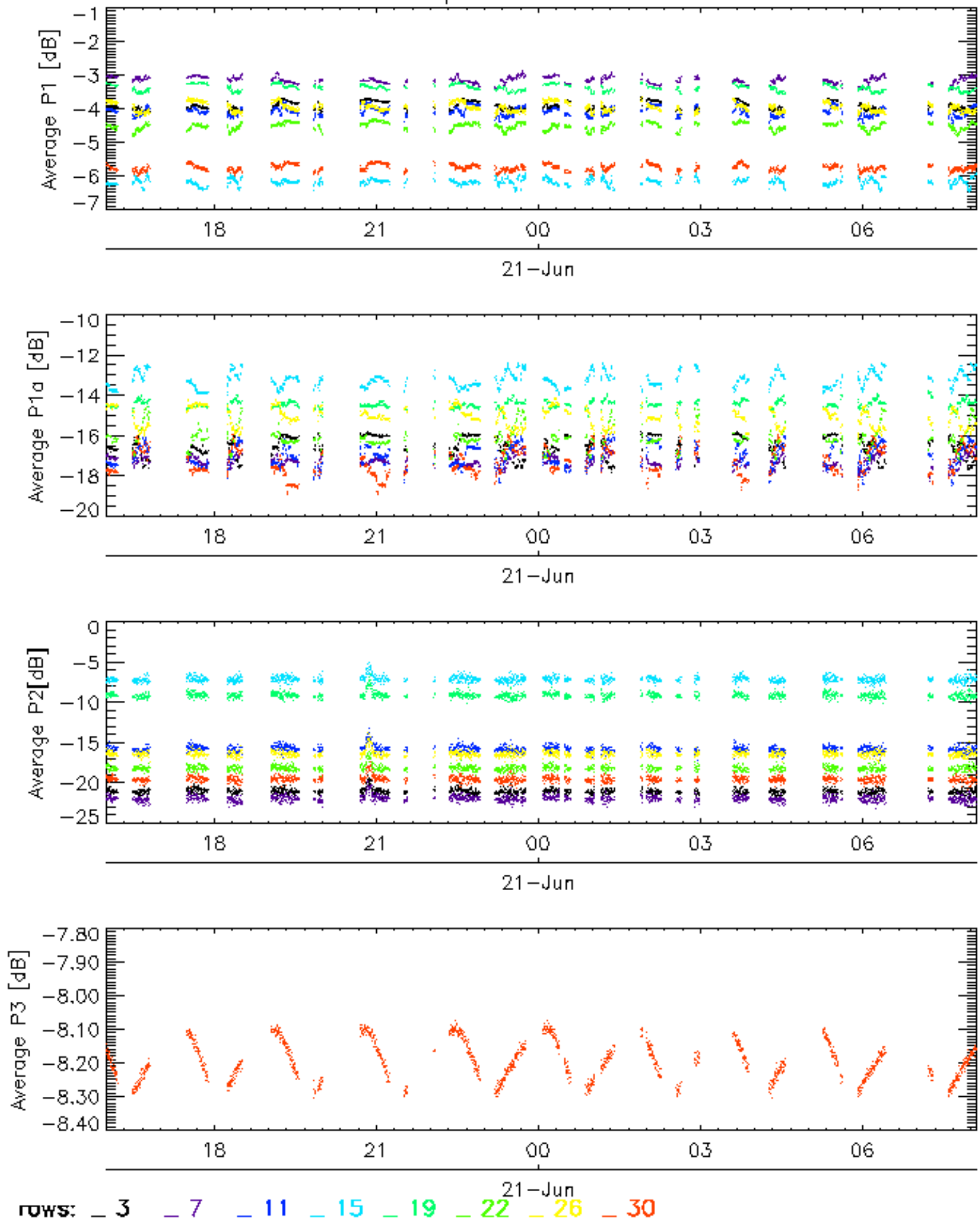


Cal pulses for WVS IS2



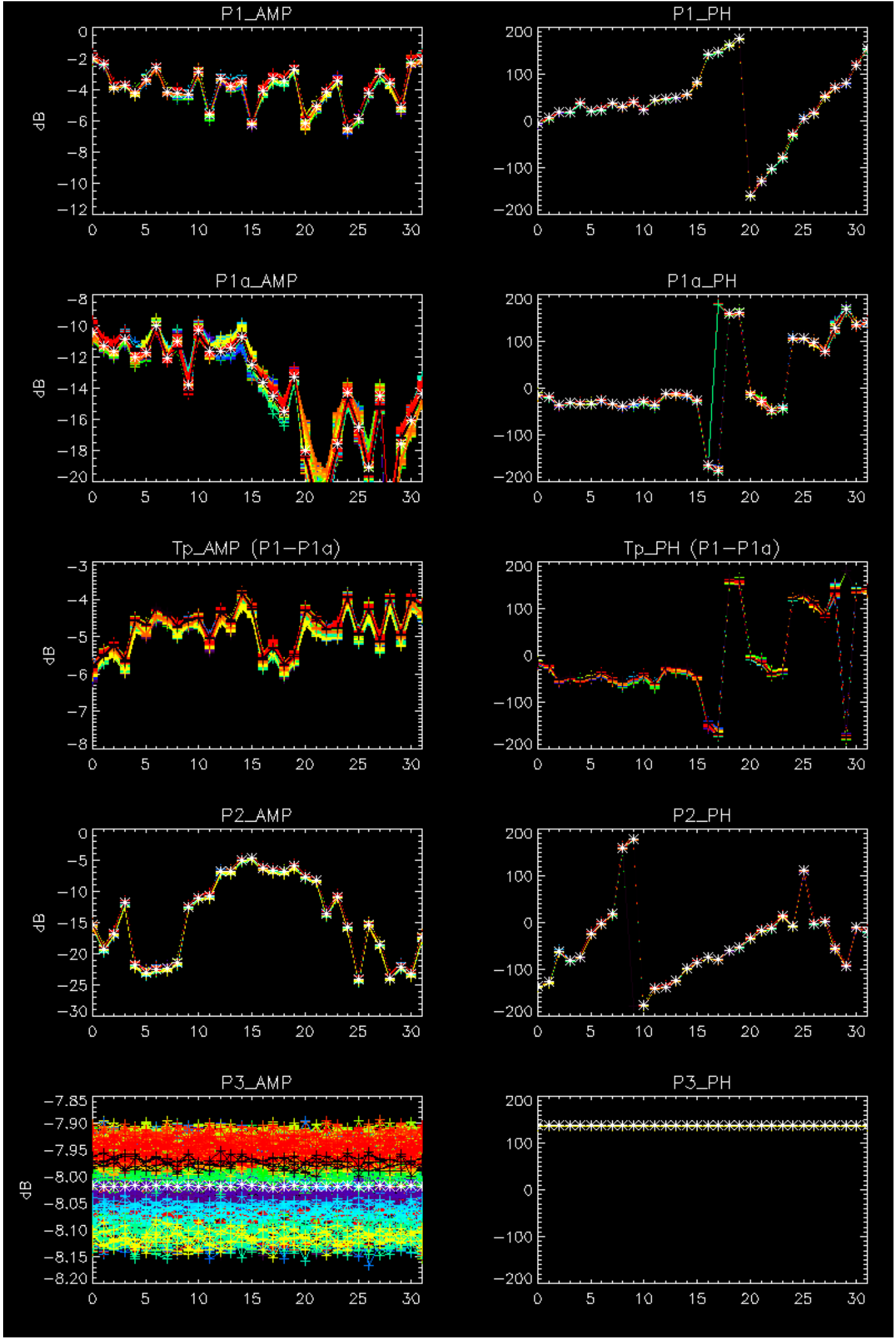
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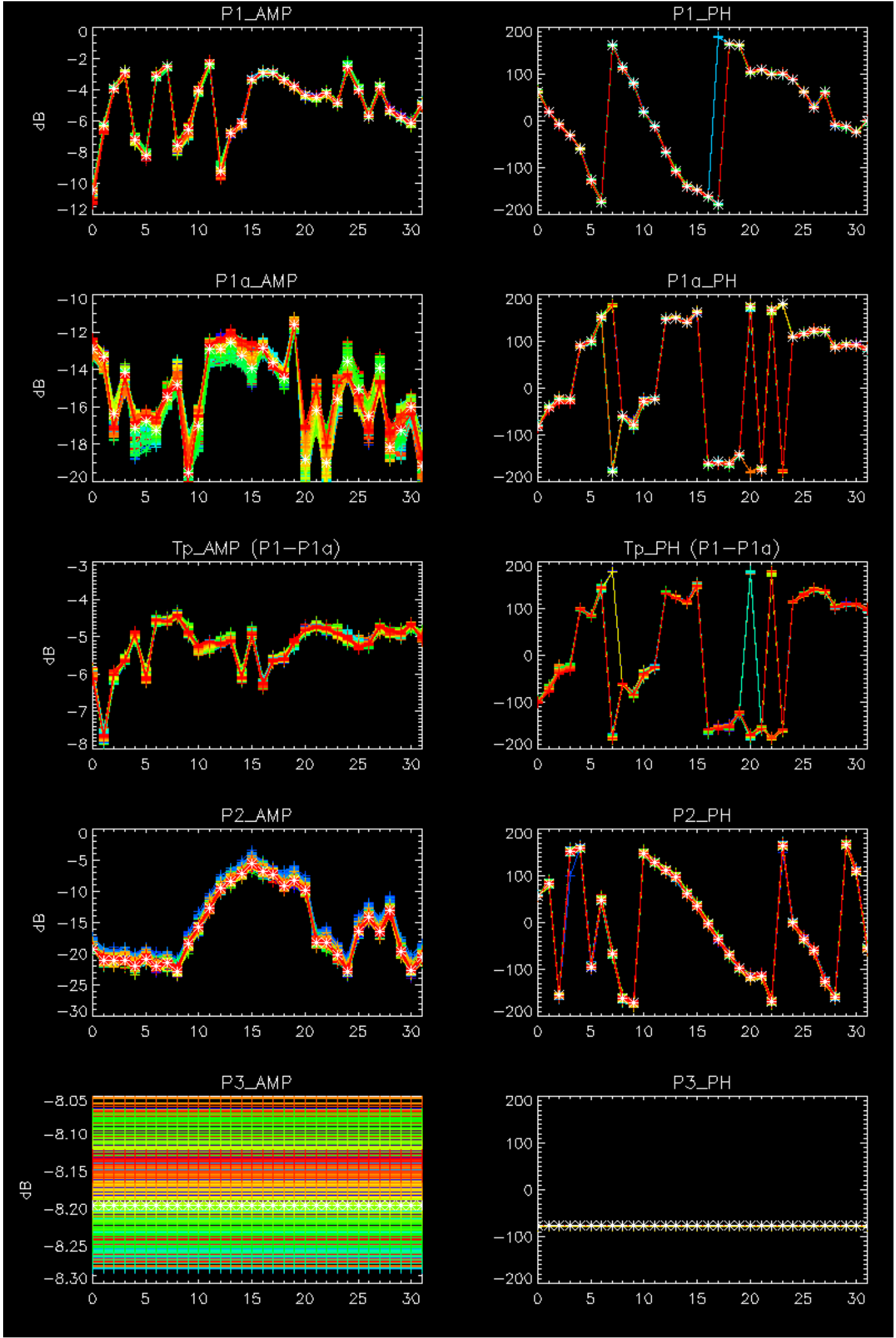
Cal pulses for WVS IS2



No anomalies observed on available browse products

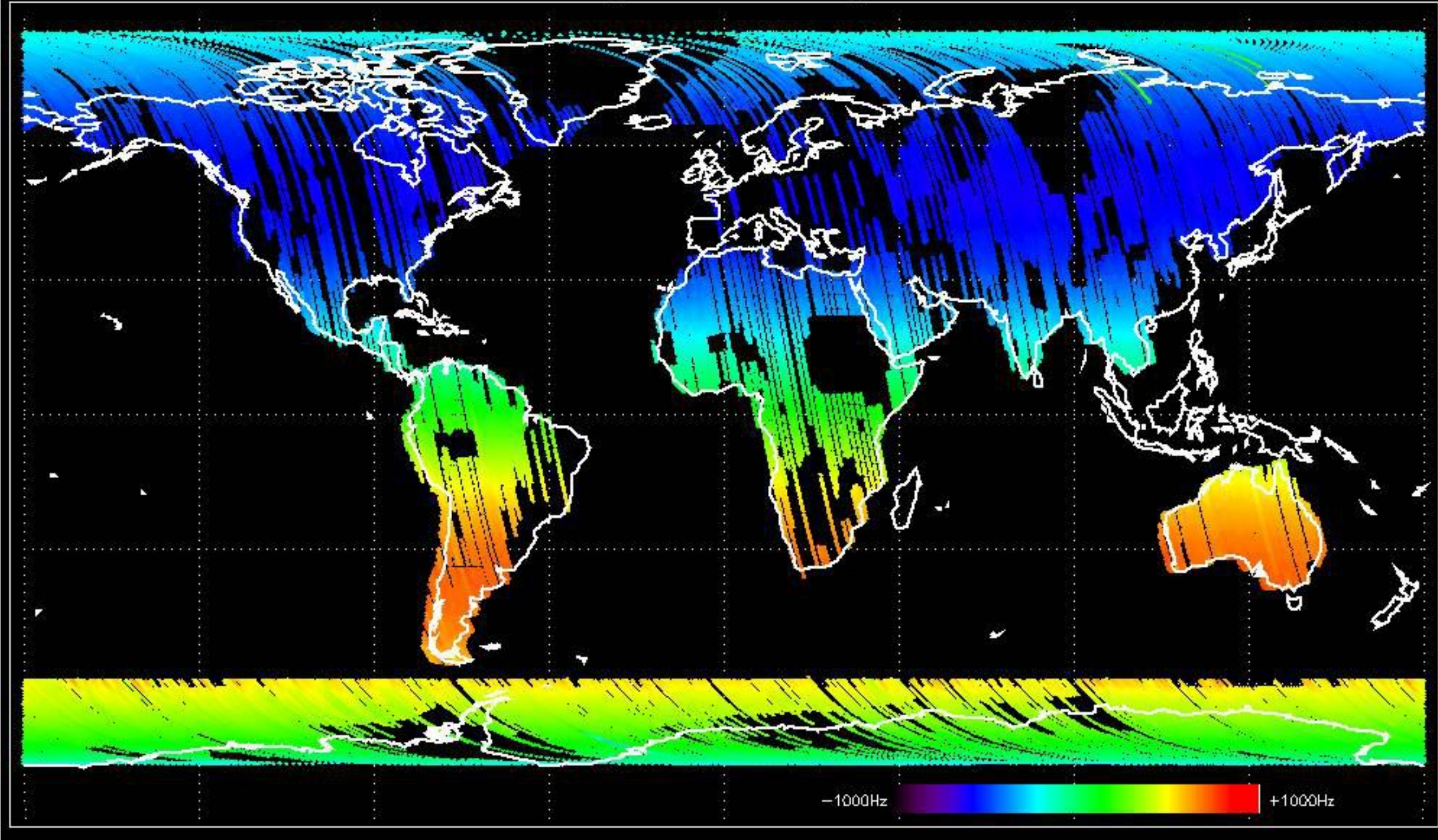
No anomalies observed.



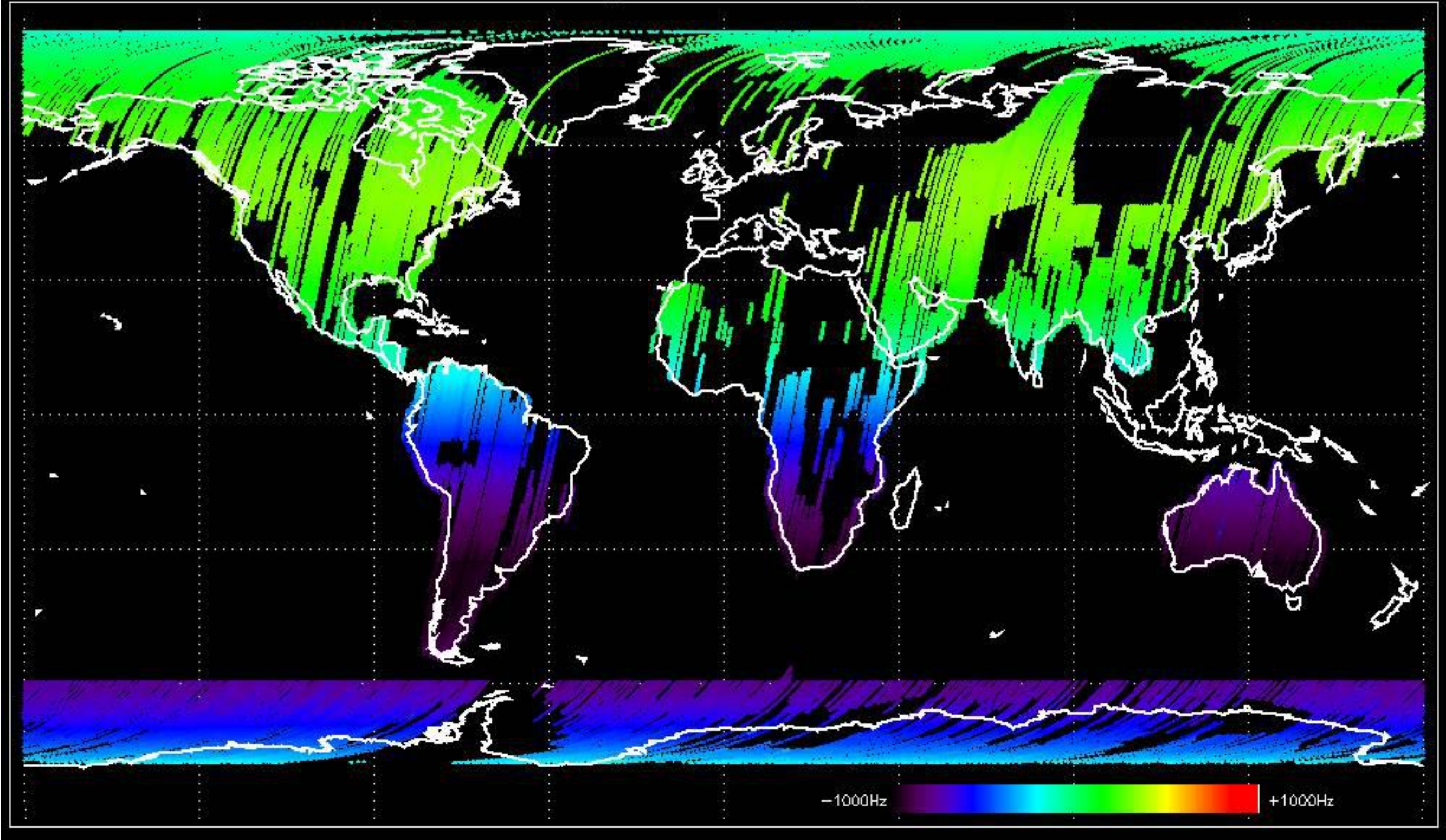


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

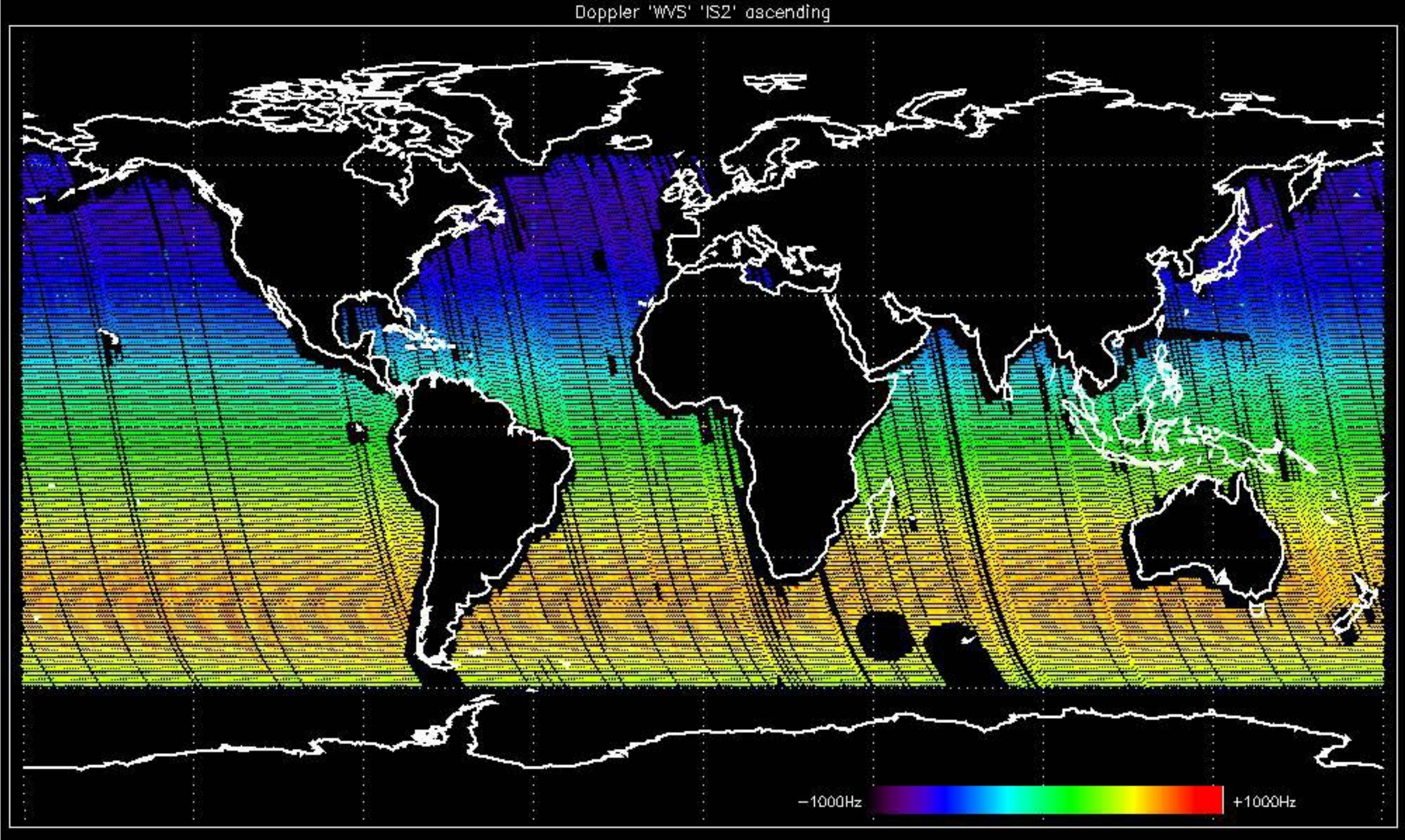
Doppler 'GM1' 'SS1' ascending



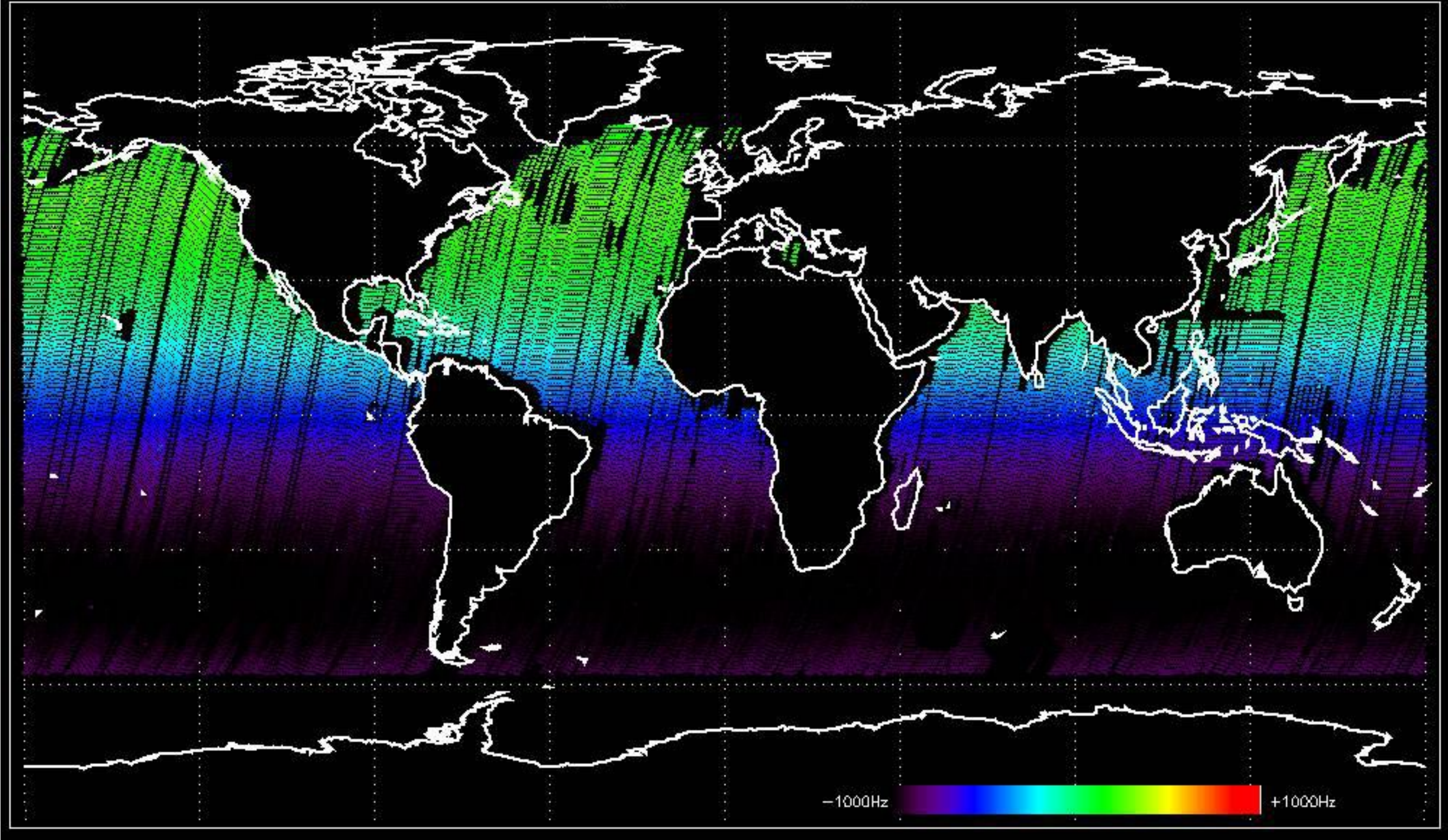
Doppler 'GM1' 'SS1' descending



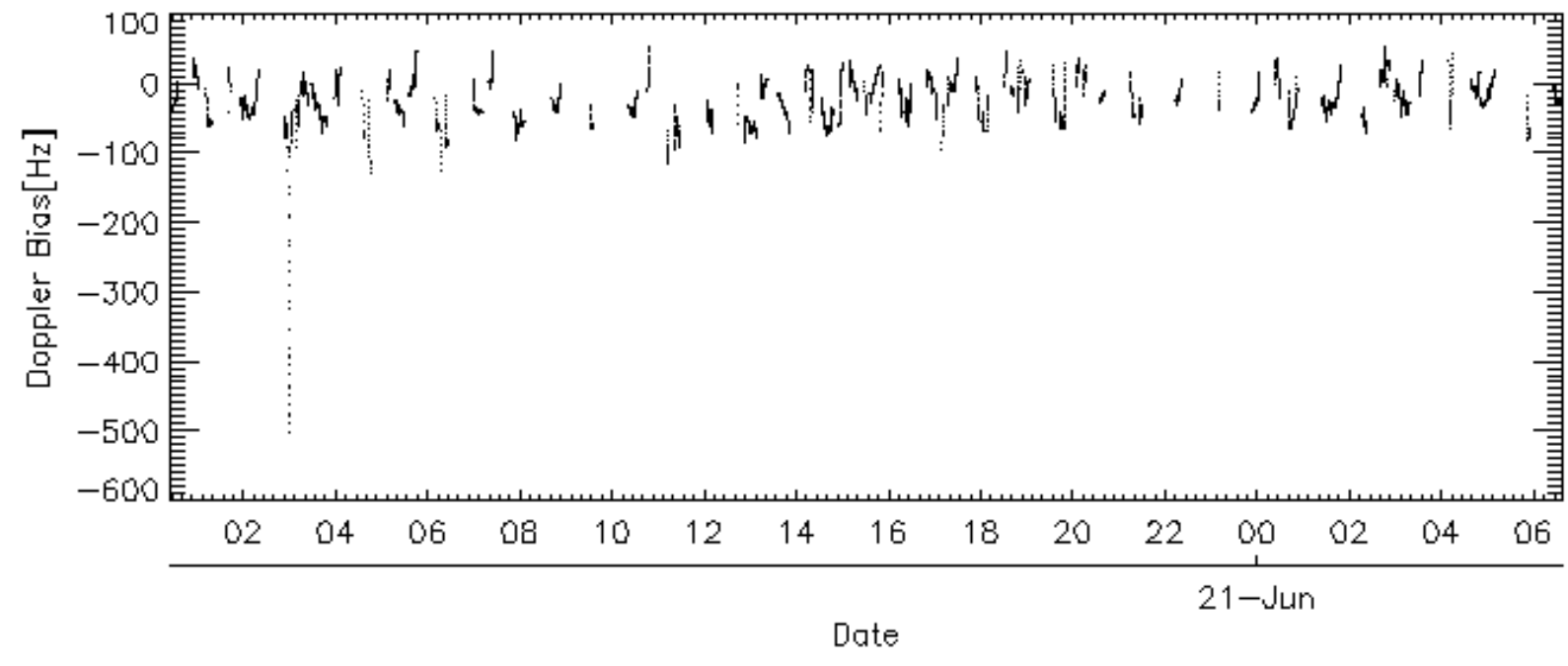
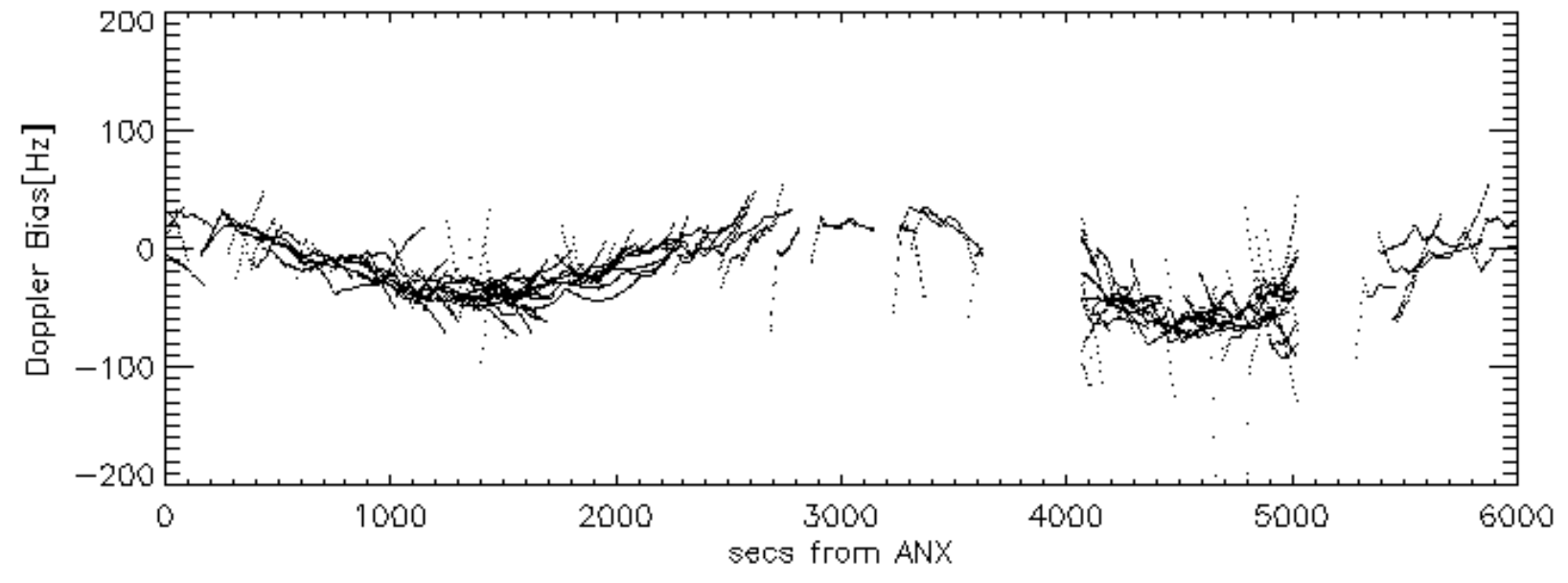
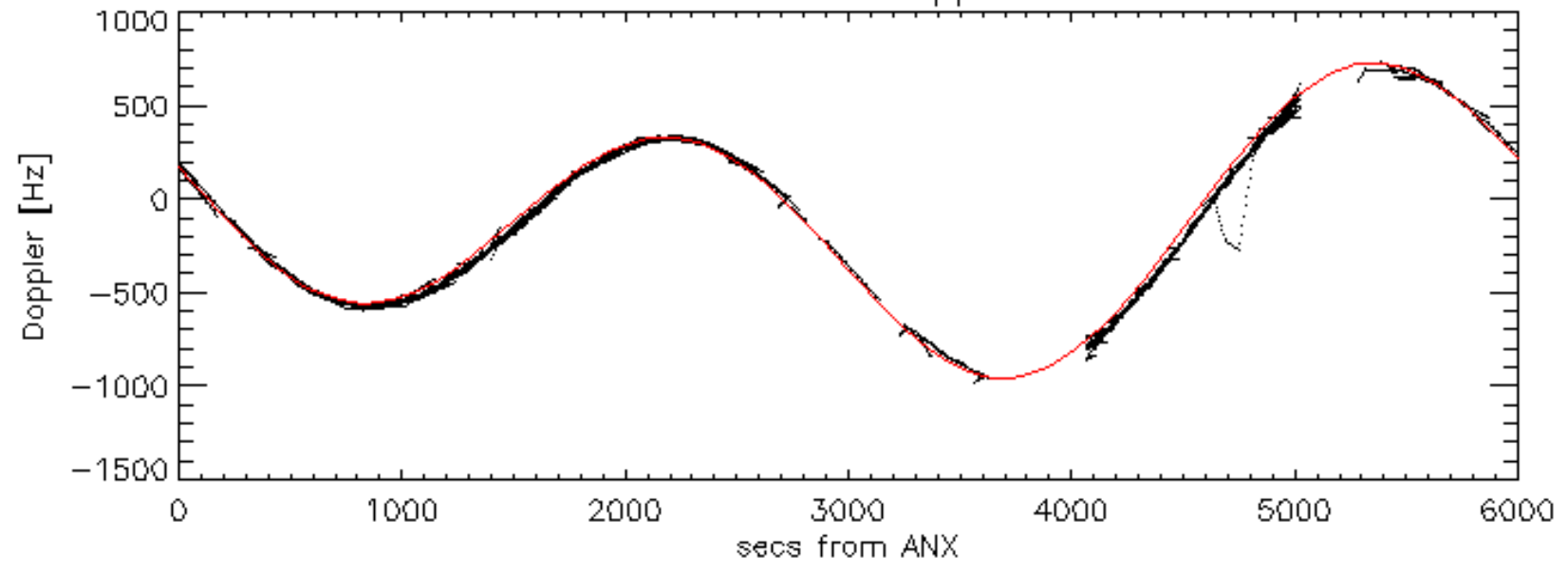
Doppler 'WVS' 'IS2' ascending

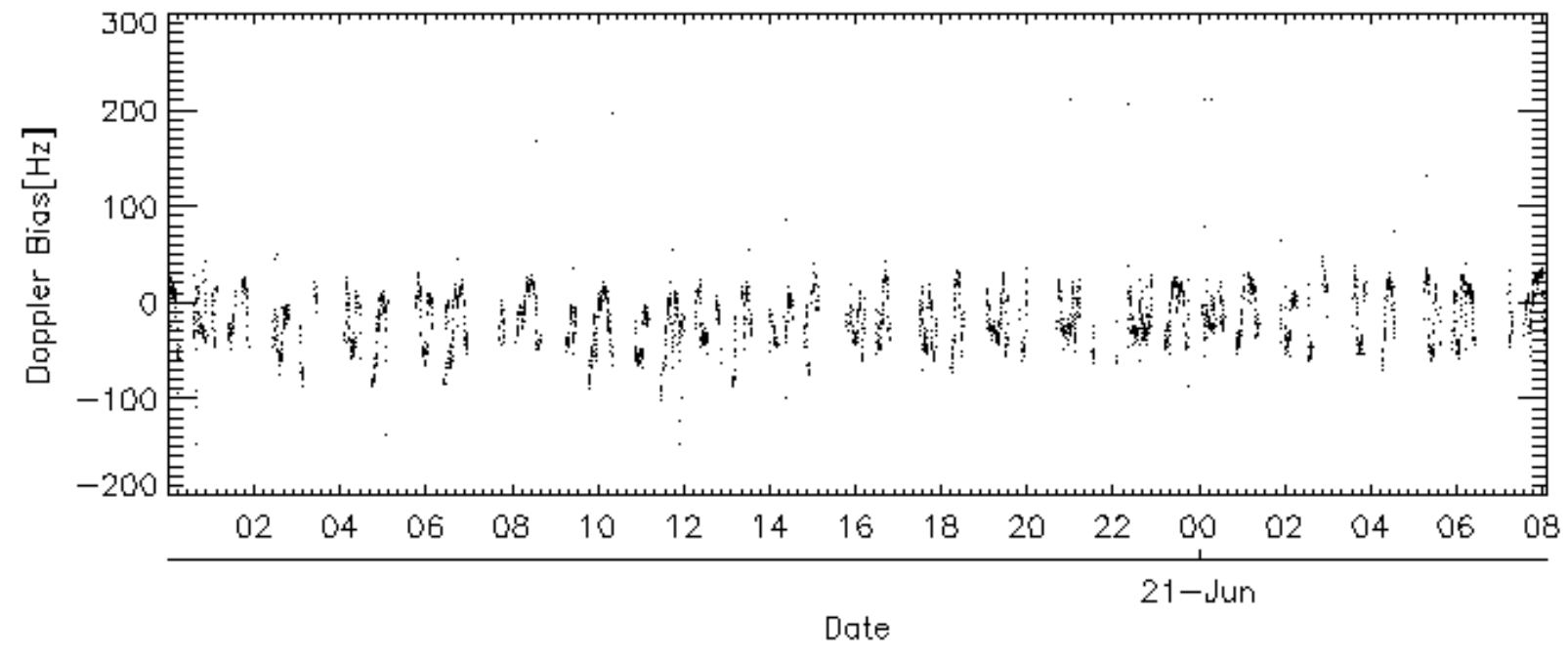
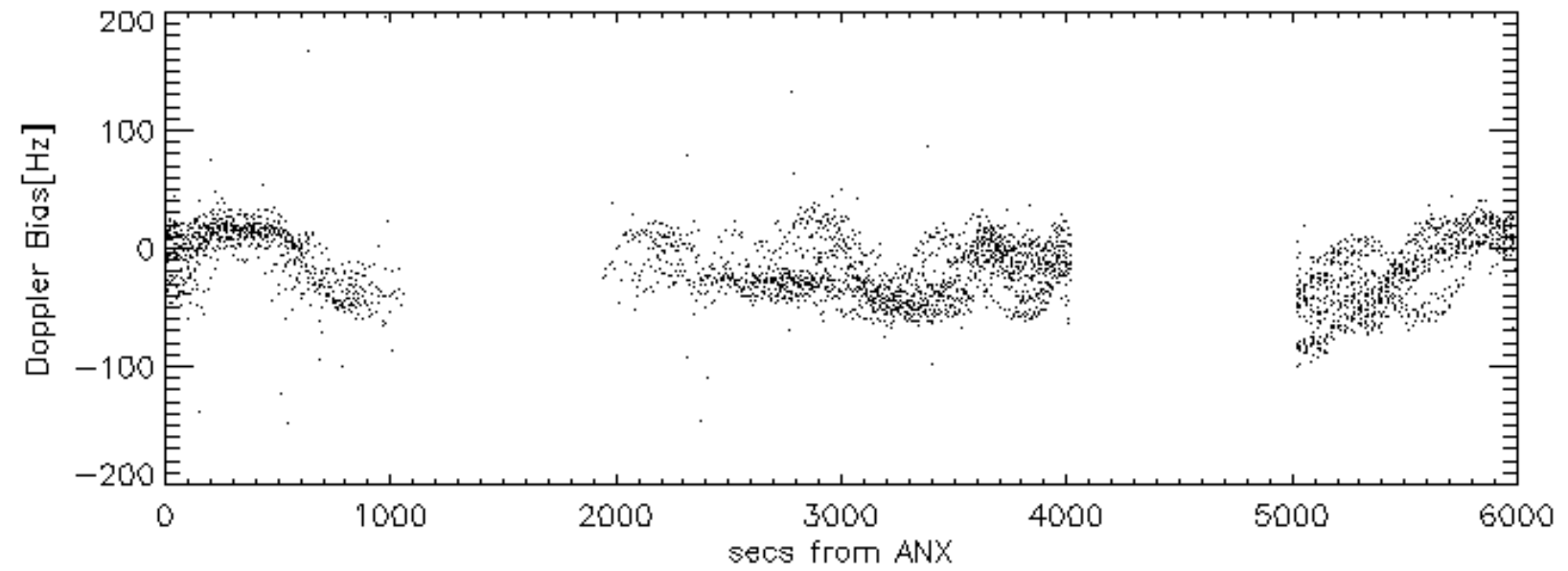
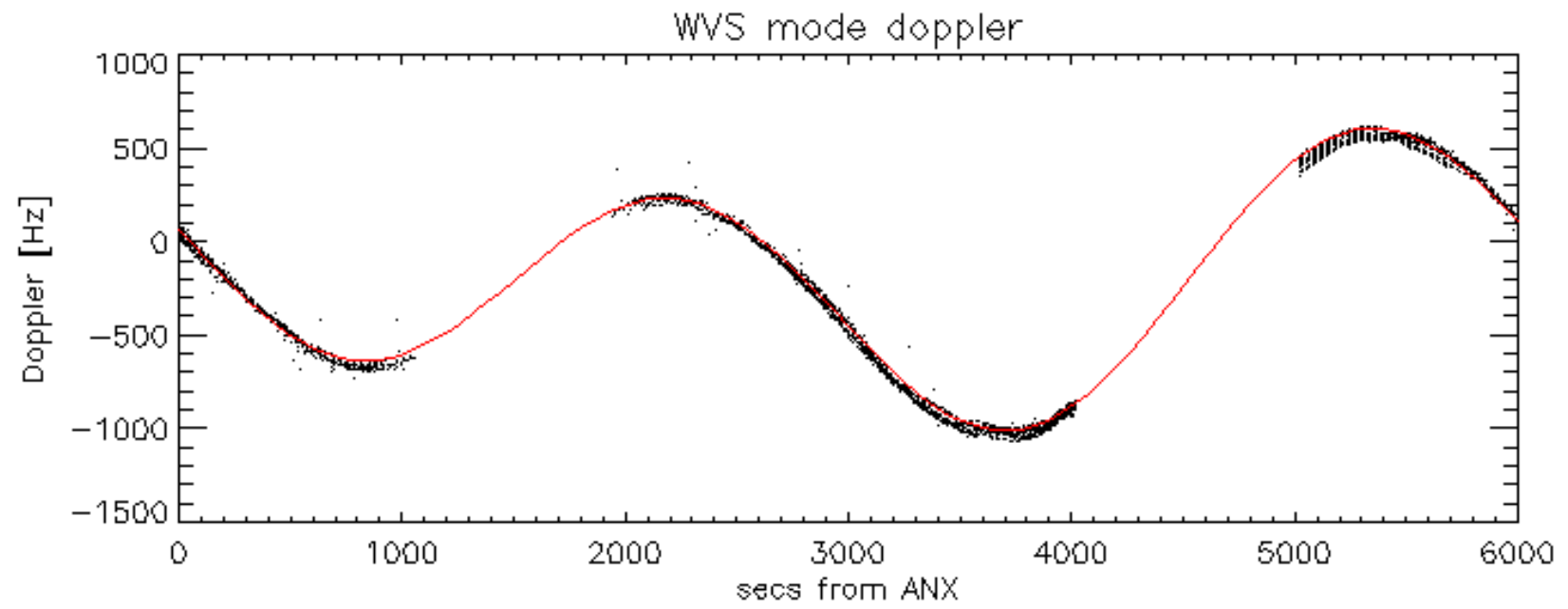


Doppler 'WVS' 'IS2' descending

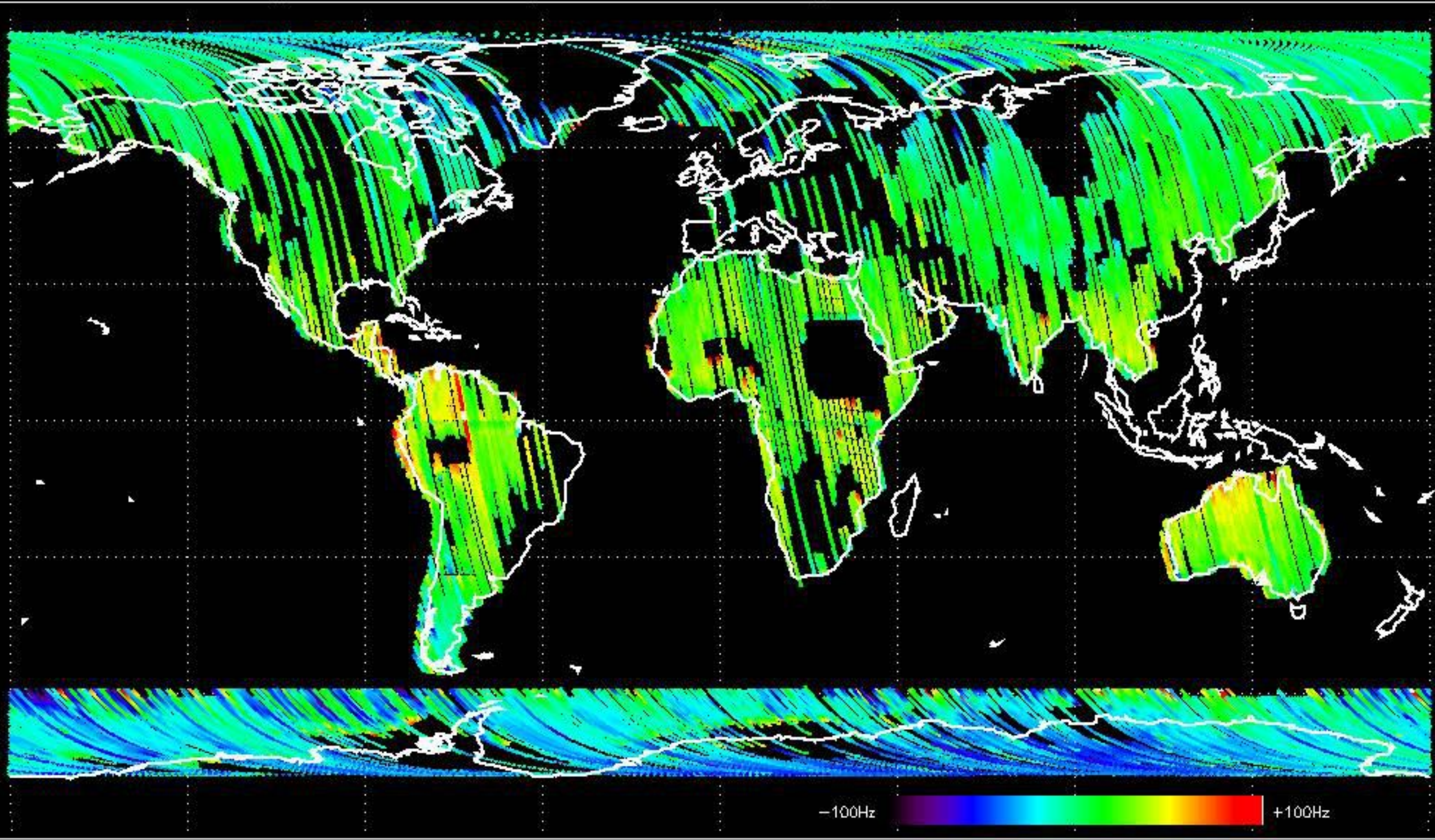


GM1 mode doppler

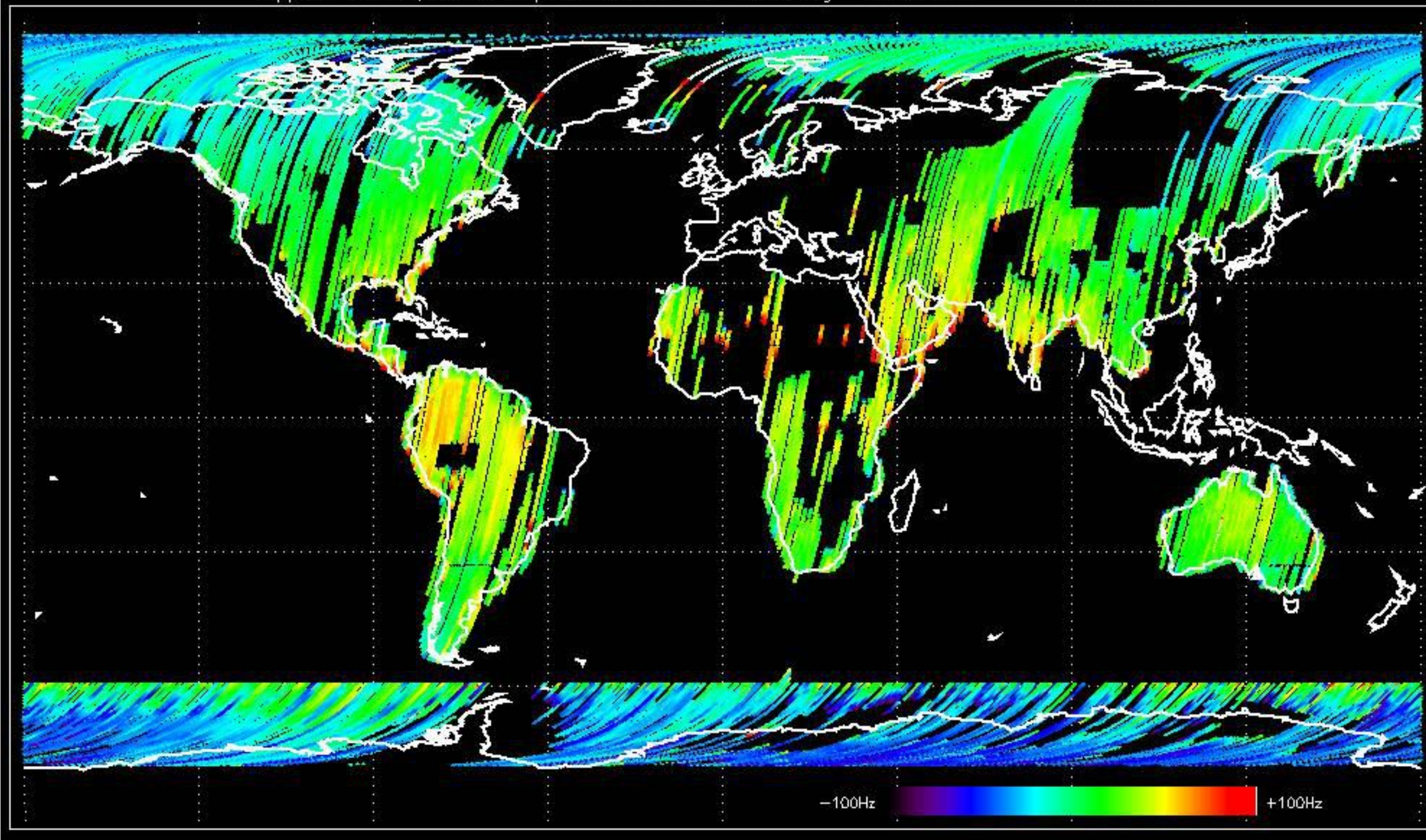




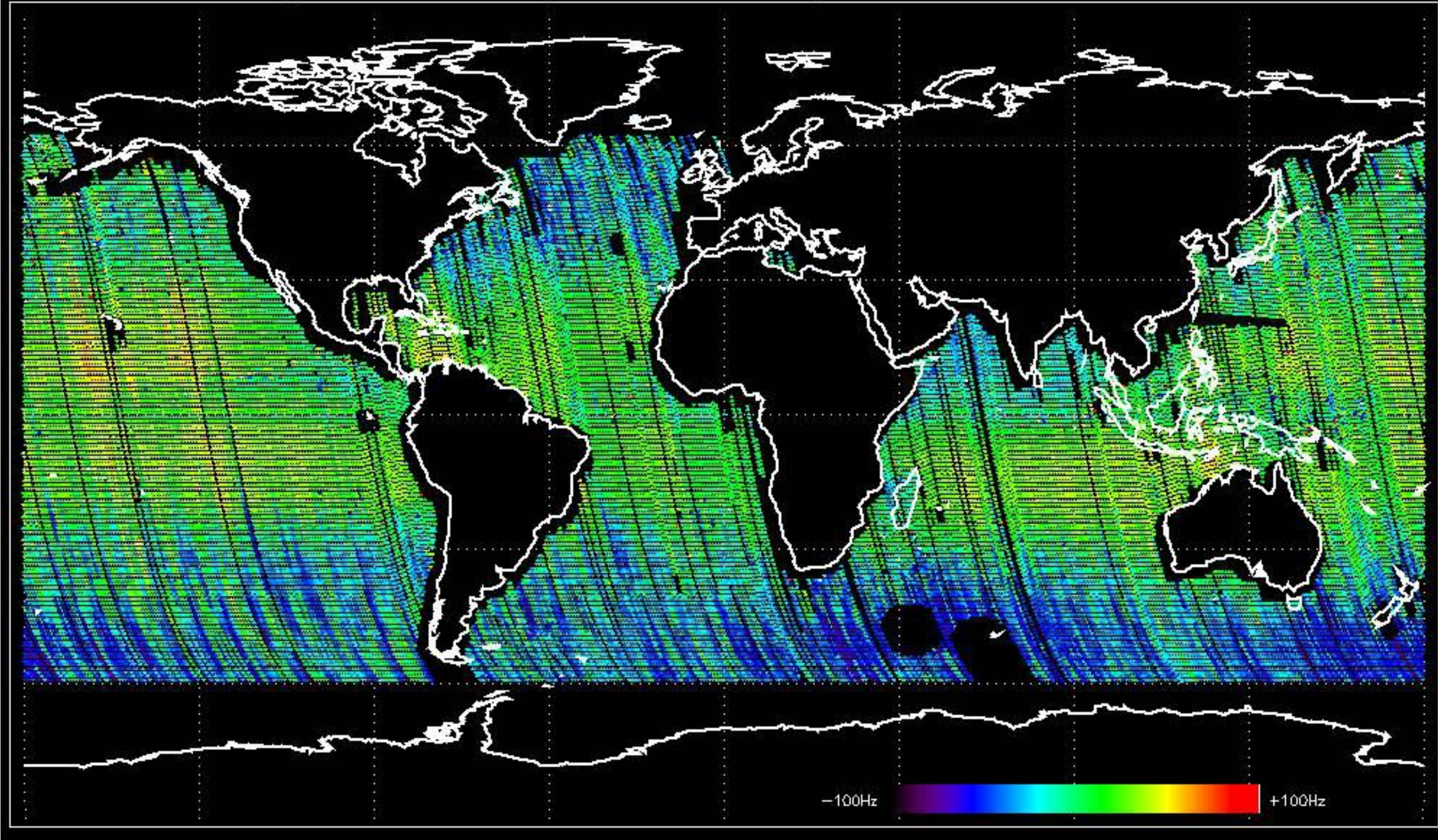
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -17.696800 Hz



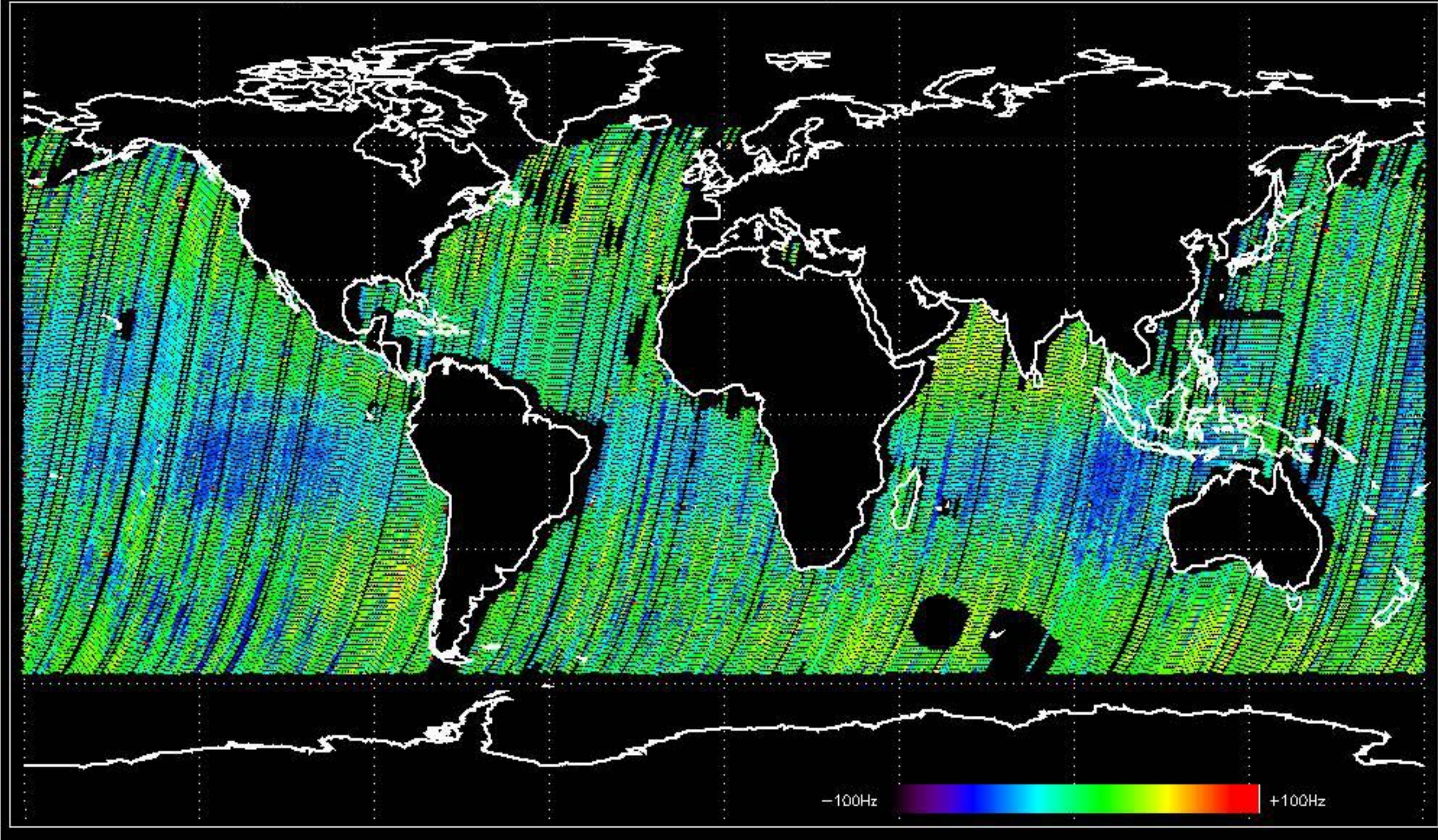
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -7.9192692 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.4449405 Hz

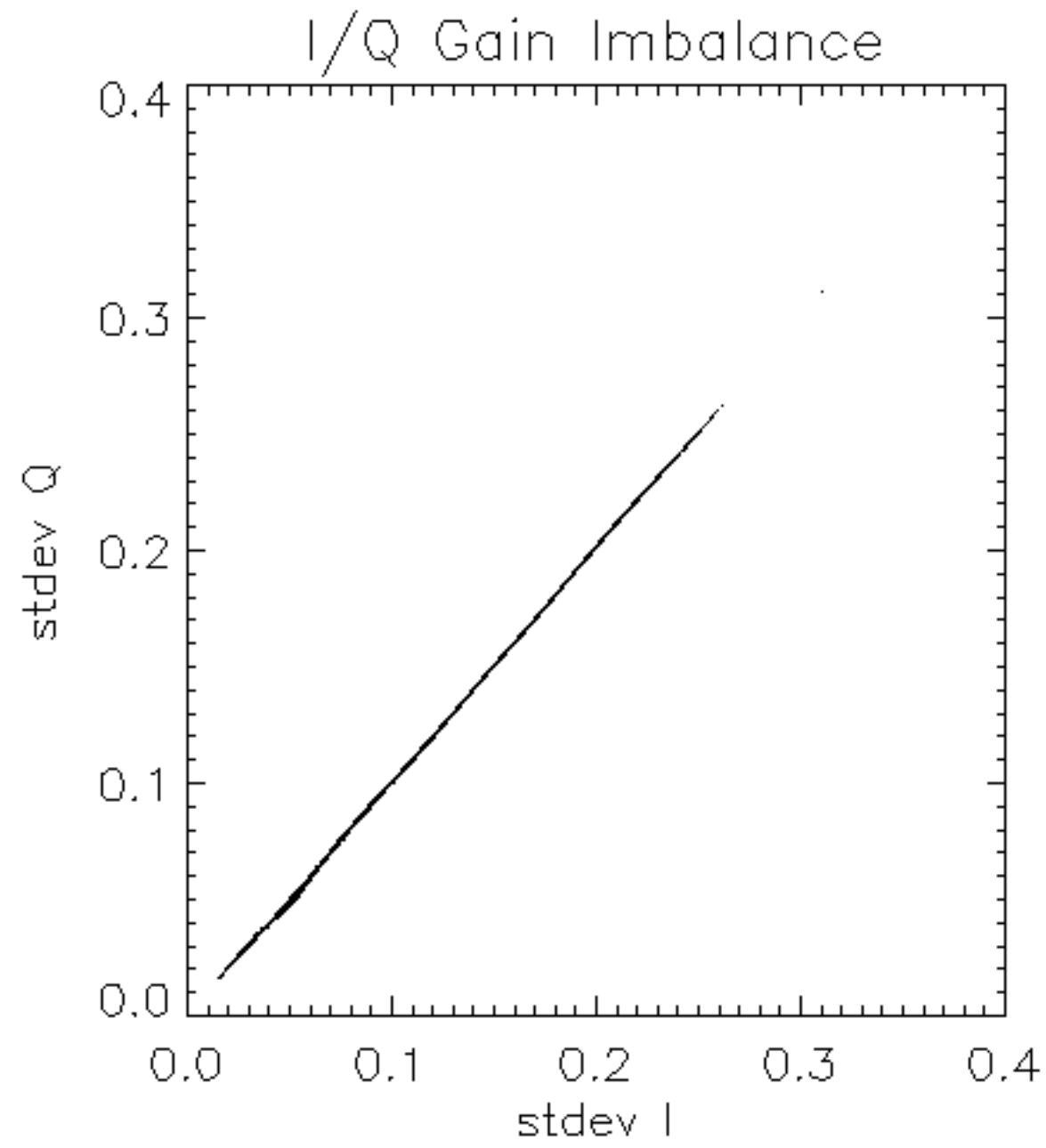


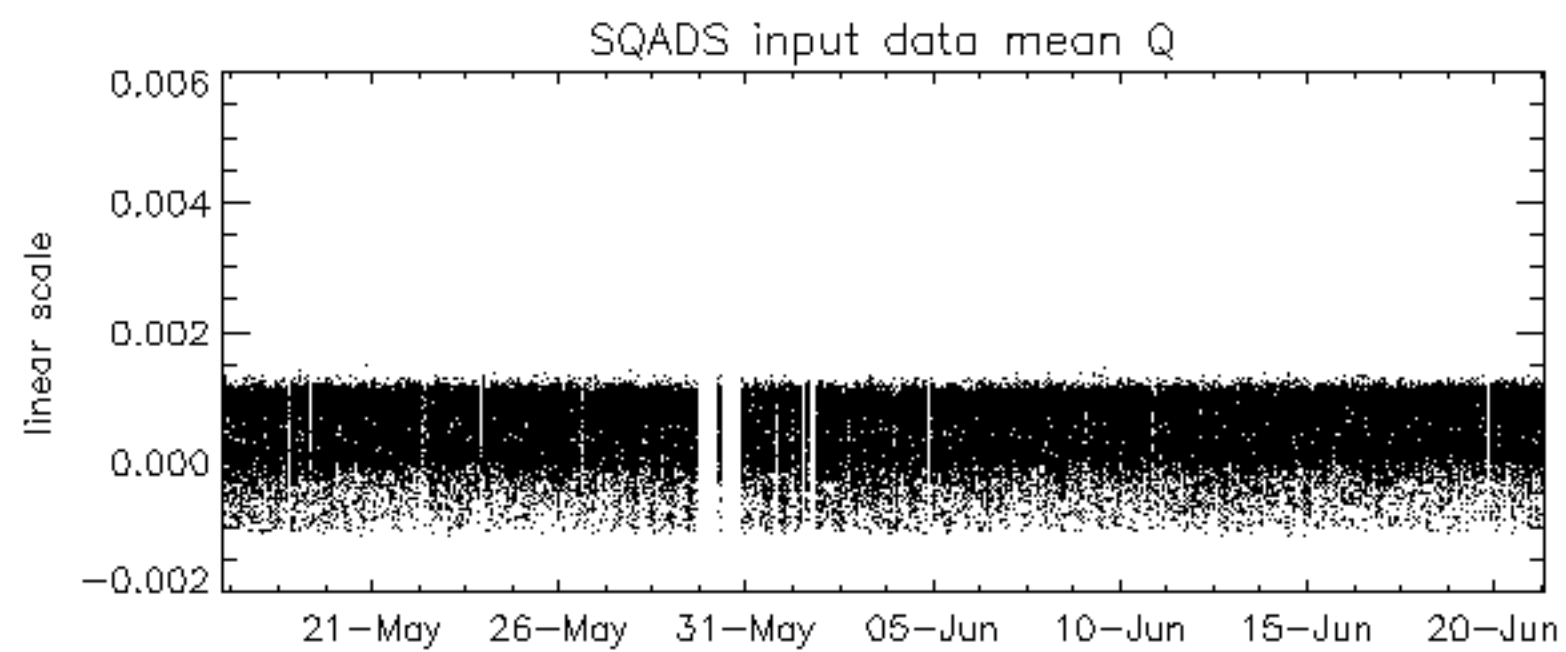
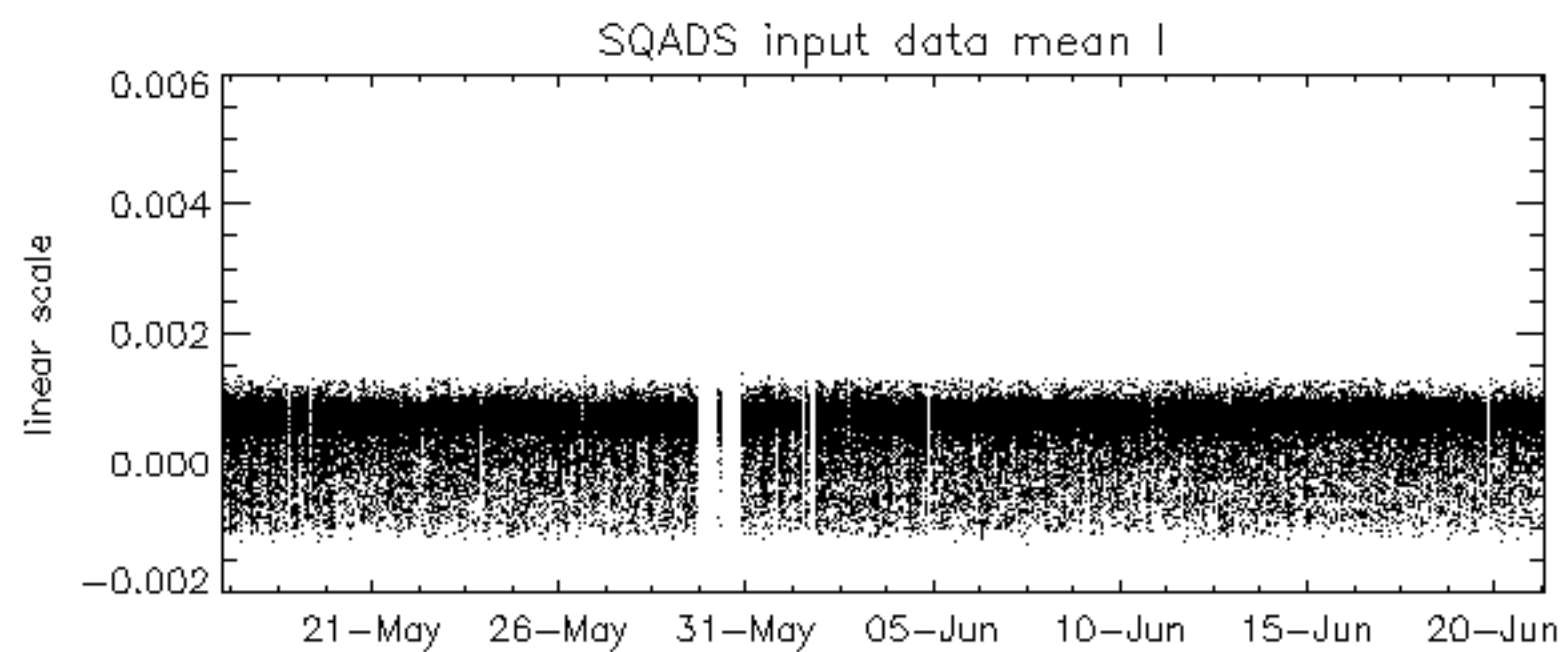
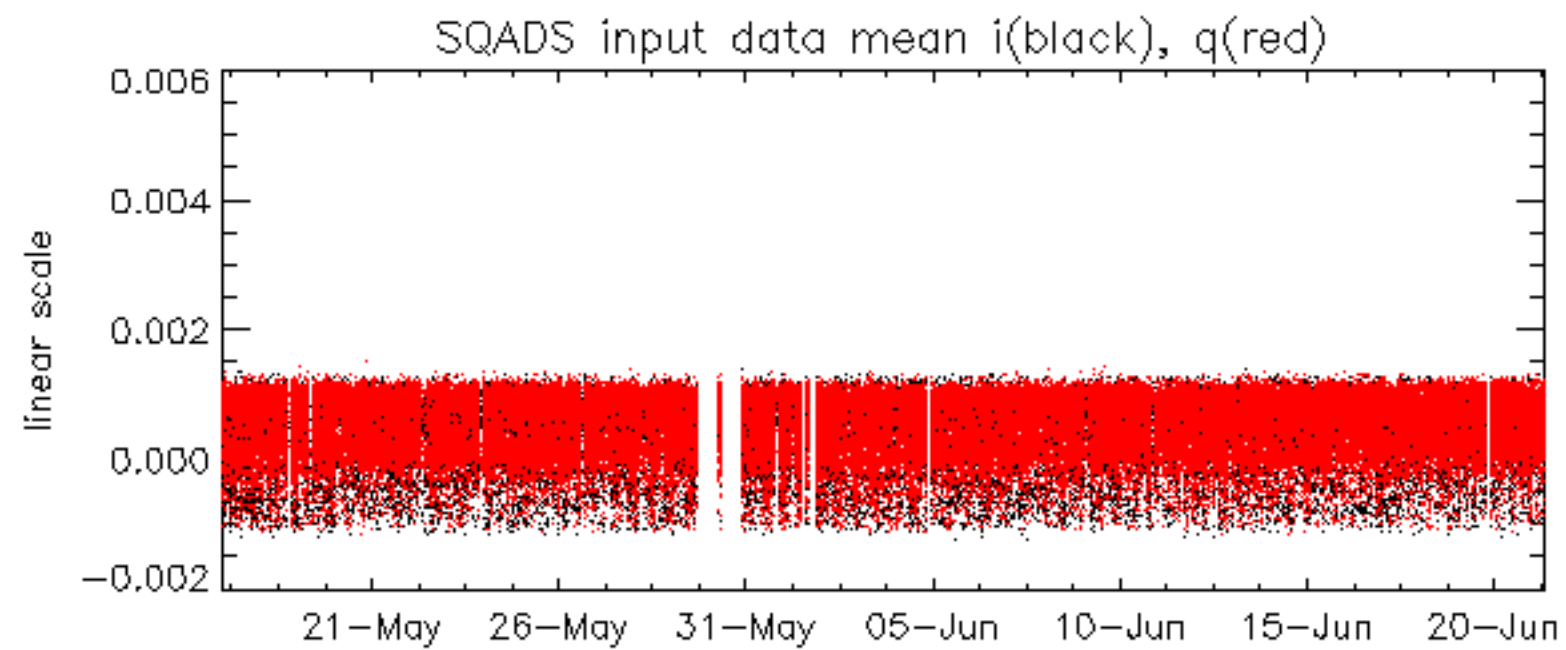
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.304578 Hz

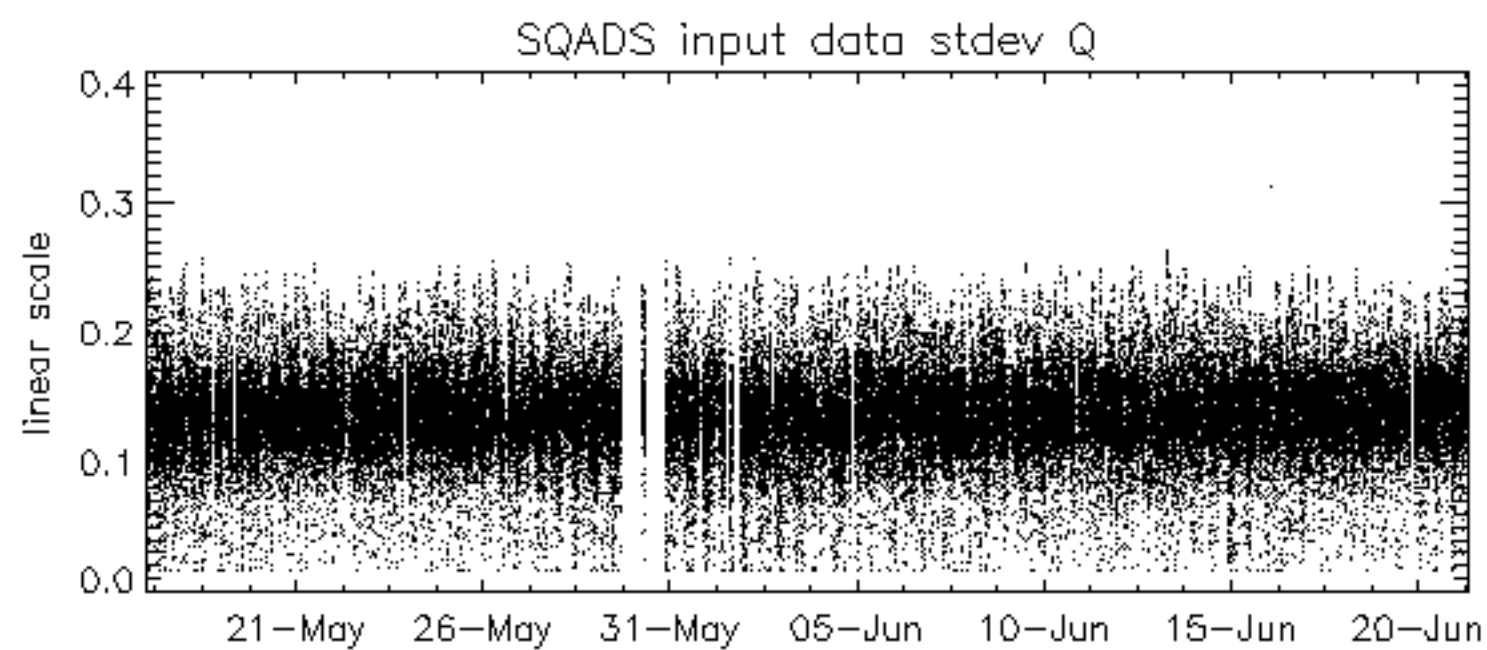
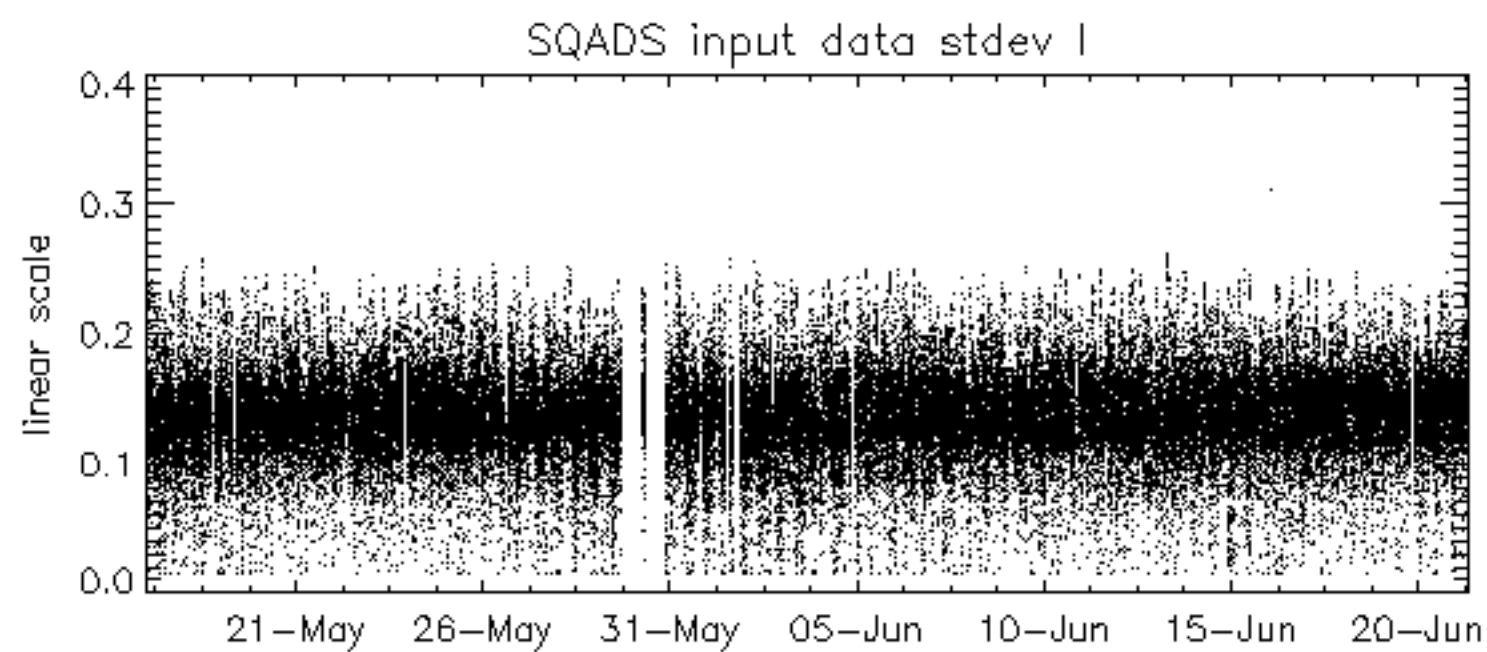
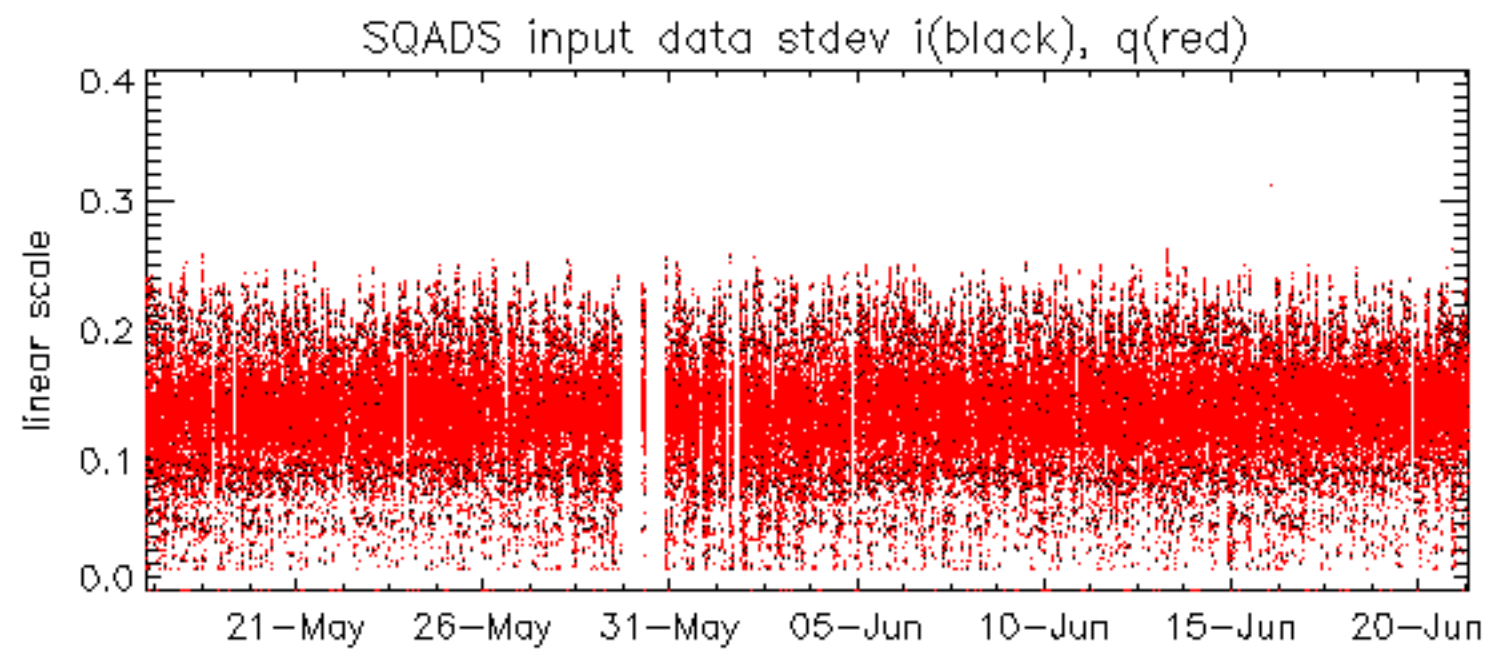


No anomalies observed on available MS products:

No anomalies observed.



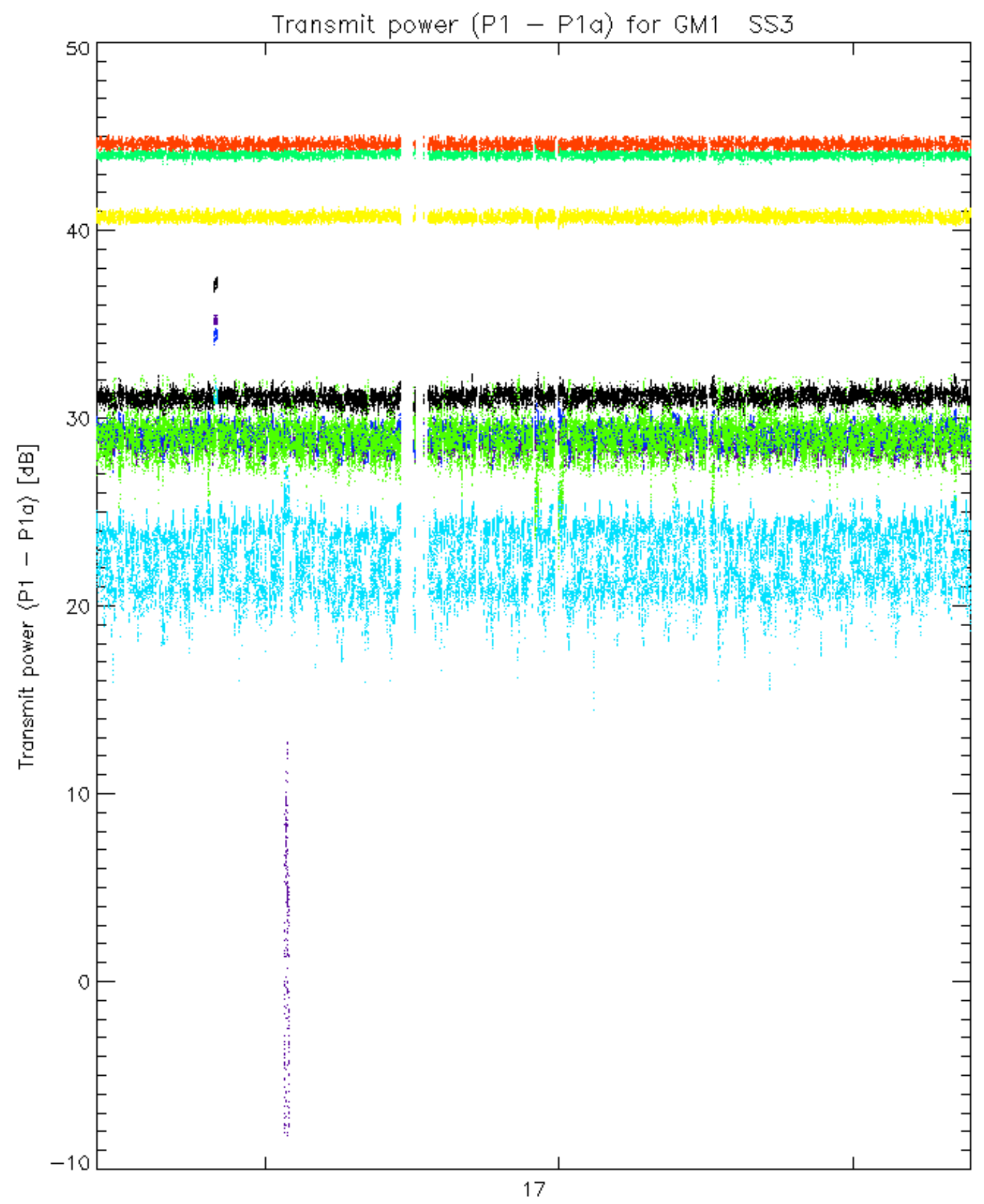


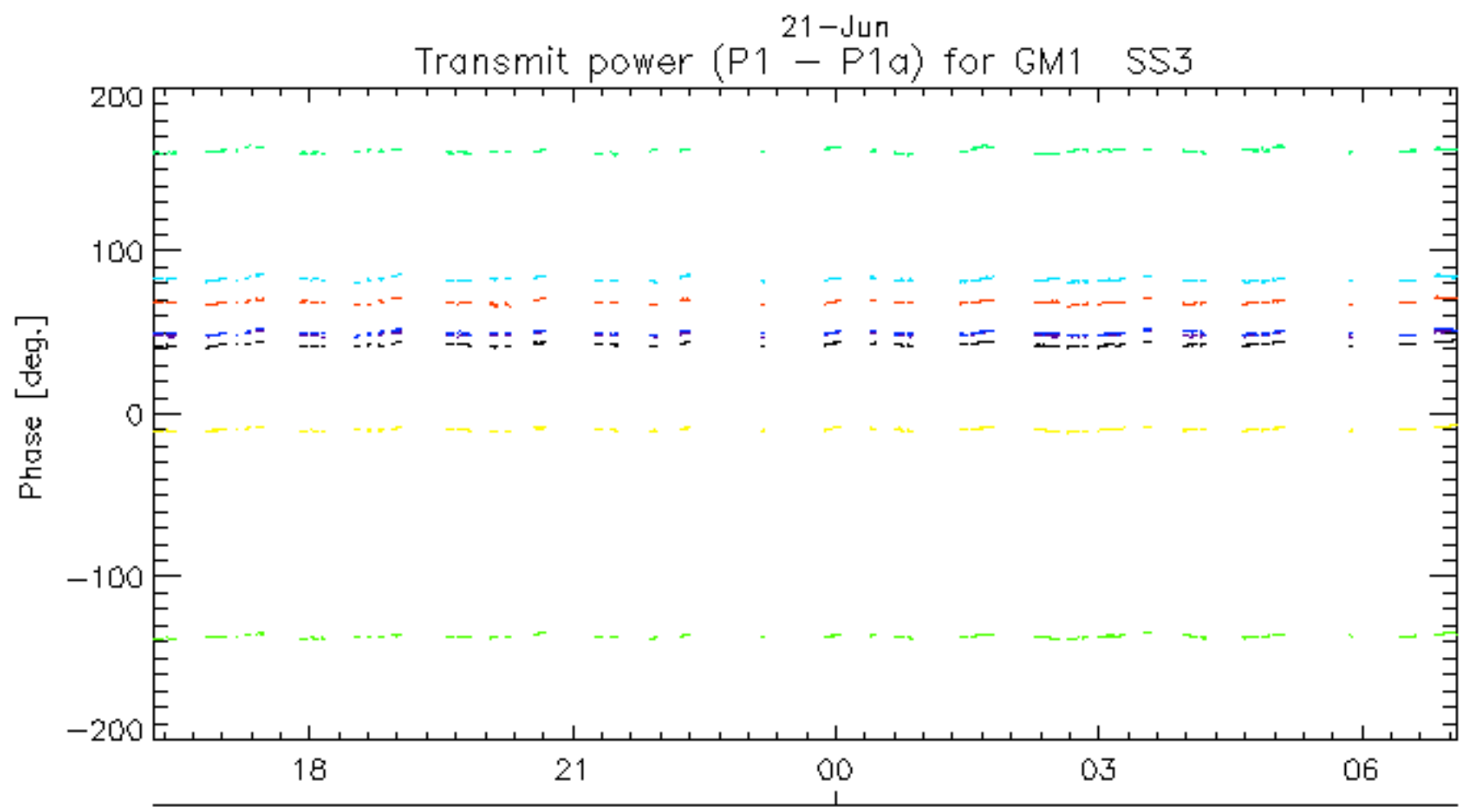
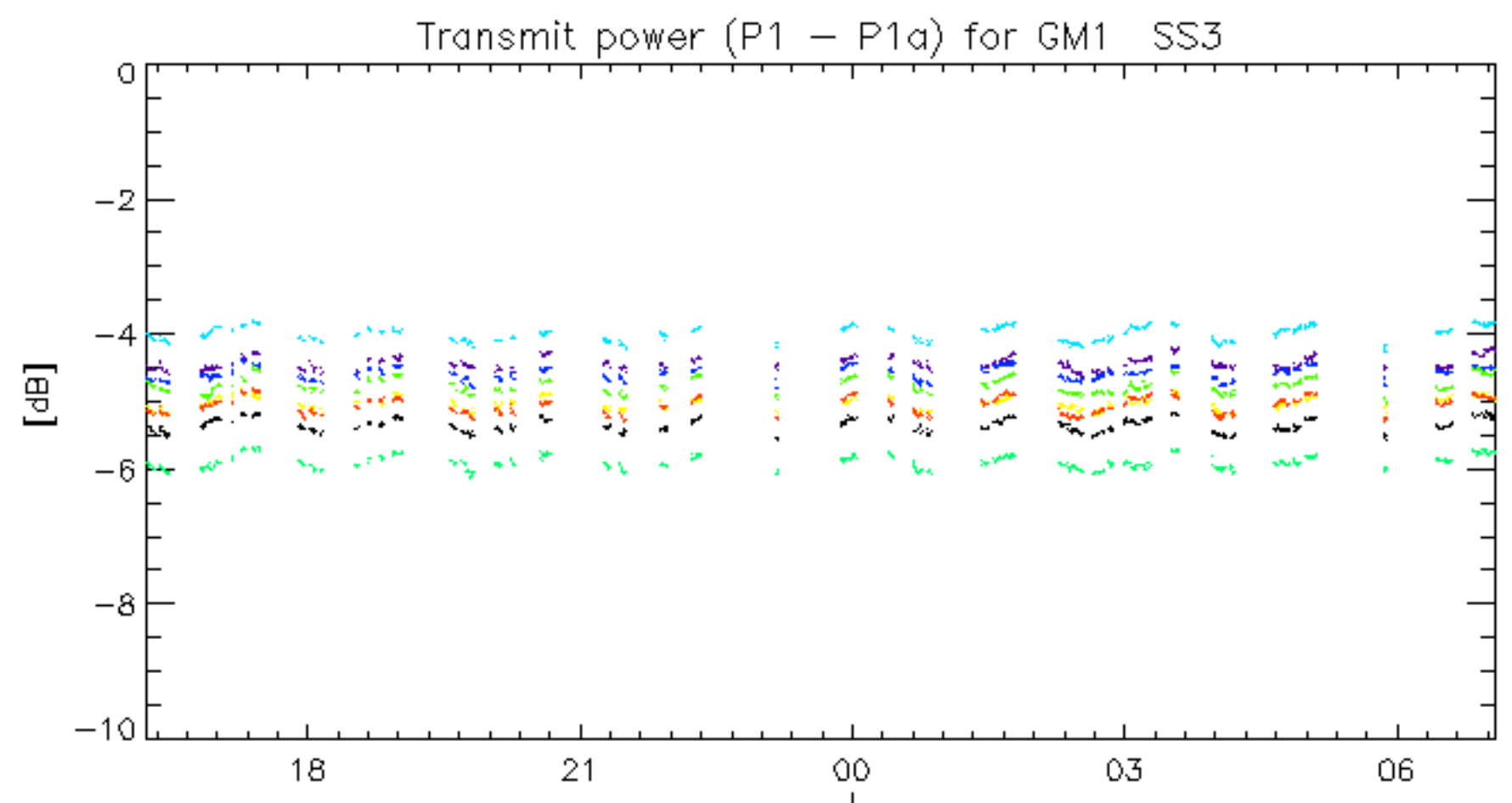


Summary of analysis for the last 3 days 2006062[901]

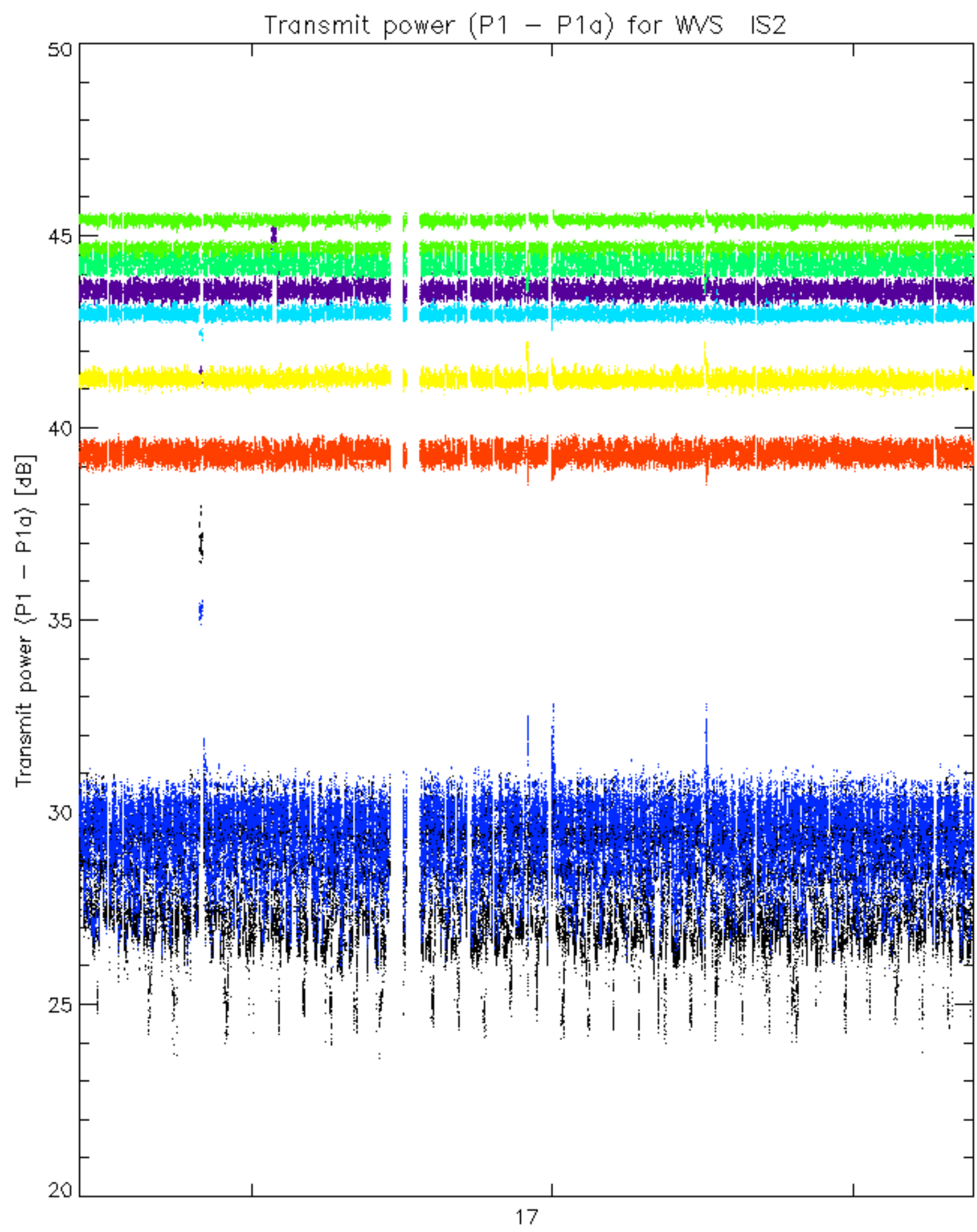
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060620_115627_000000512048_00410_22508_8157.N1	1	0
ASA_WSM_1PNPDE20060621_015620_000000972048_00418_22516_4911.N1	0	2
ASA_WSM_1PNPDE20060621_043526_000001832048_00420_22518_4929.N1	0	32

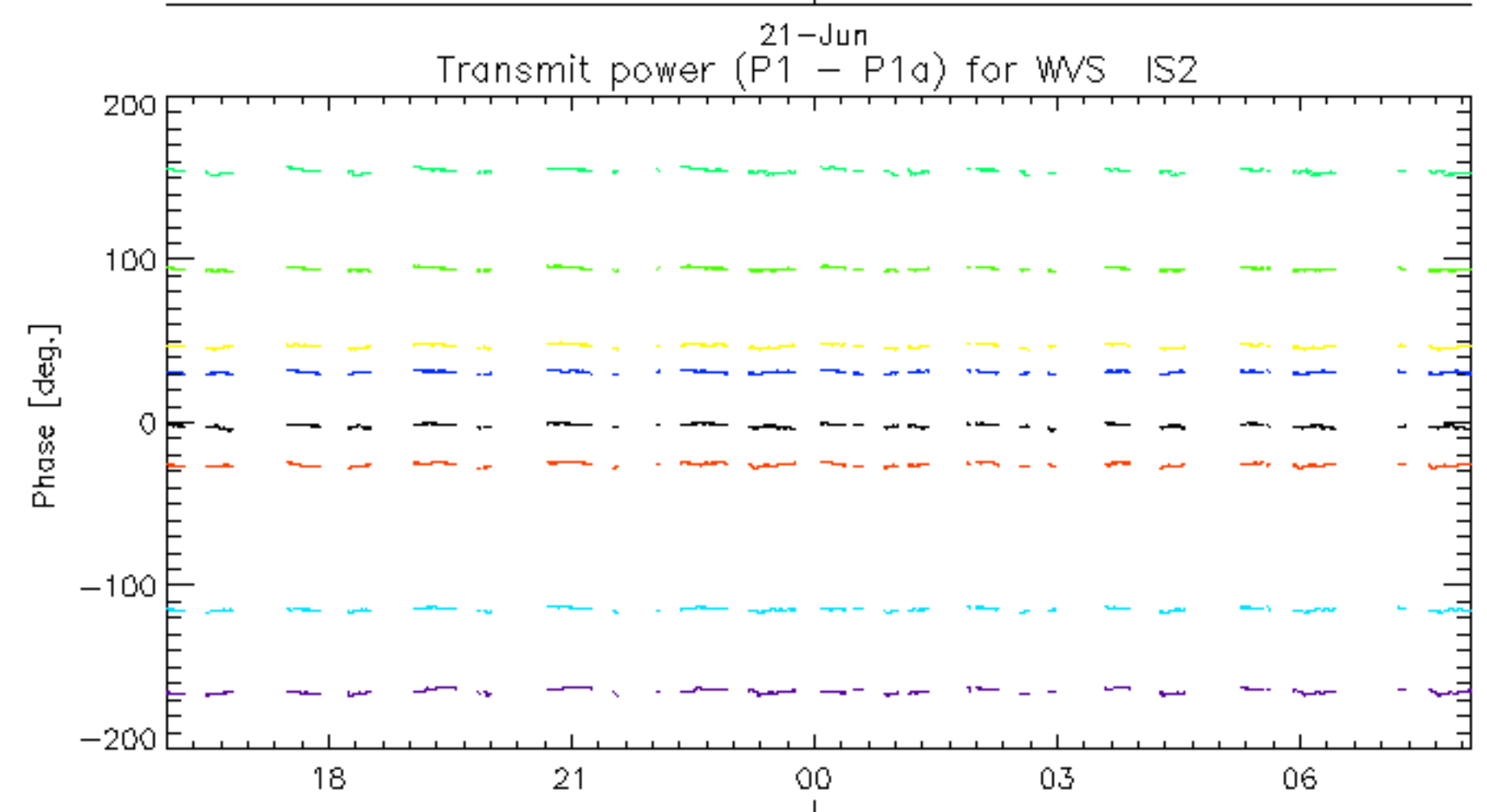
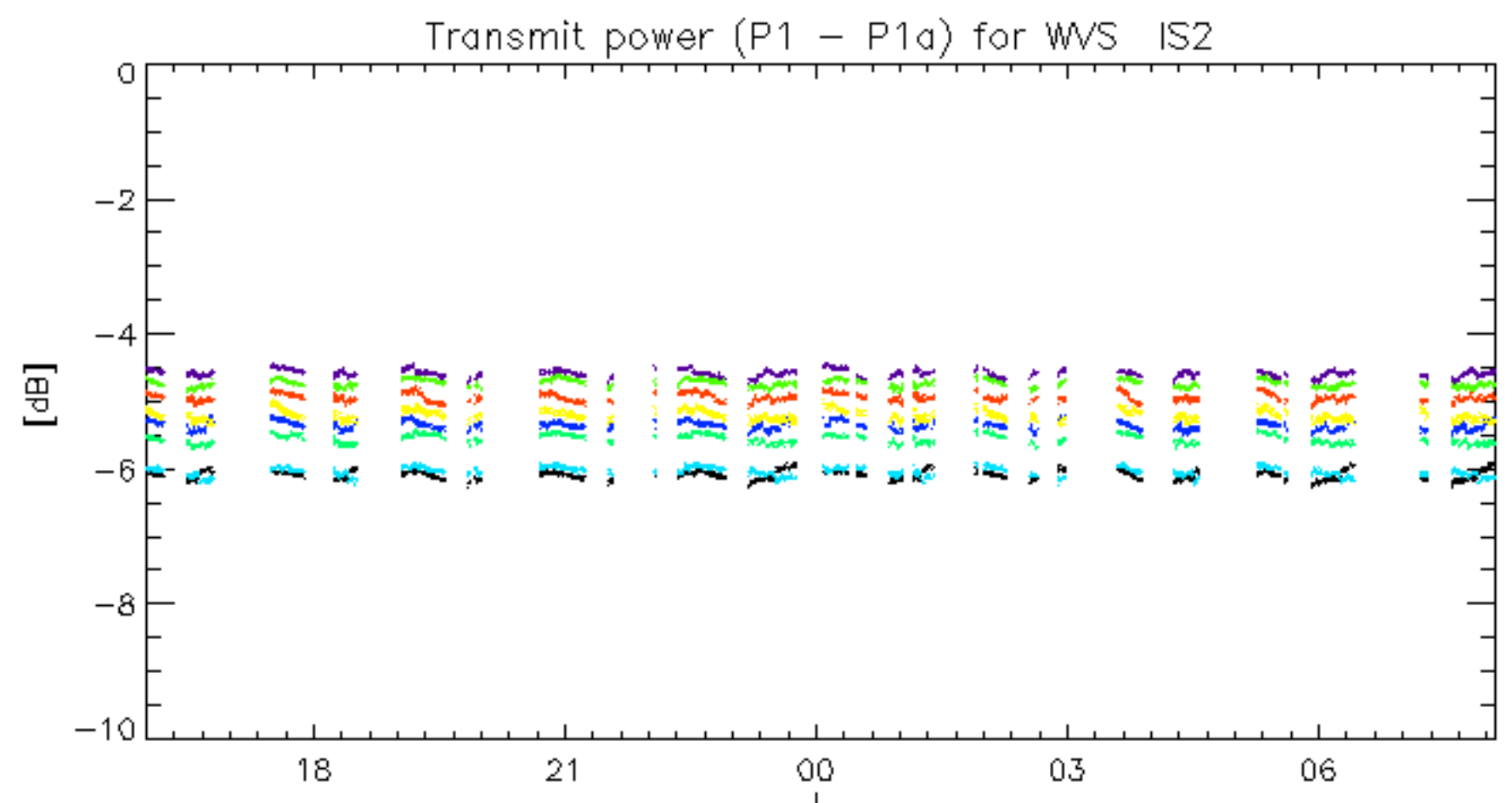




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.