

PRELIMINARY REPORT OF 050921

last update on Wed Sep 21 10:50:01 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 2005-09-20 00:00:00 to 2005-09-21 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	24	41	11	1	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	24	41	11	1	0
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	24	41	11	1	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	24	41	11	1	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	39	53	29	16	46
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	39	53	29	16	46
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	39	53	29	16	46
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	39	53	29	16	46

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	20050919 180518
H	20050920 173341

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	-3.406443	0.088992	-0.487732
7	P1	-3.144450	0.027132	0.157906
11	P1	-4.646063	0.103337	0.416872
15	P1	-5.718256	0.063906	-0.393556
19	P1	-3.584330	0.233519	0.954026
22	P1	-4.597636	0.019519	0.109892
26	P1	-4.767591	0.073925	0.301631
30	P1	-6.865242	0.561949	1.699934
3	P1	-15.916702	1.907878	-1.316700
7	P1	-16.392691	5.693402	-3.018841
11	P1	-21.407837	8.461711	2.332478
15	P1	-12.676264	12.055963	-5.075471
19	P1	-14.249724	0.313405	1.151166
22	P1	-17.053703	26.316683	-5.745314
26	P1	-18.407553	22.316223	-4.135140
30	P1	-18.464384	8.524446	-1.810020

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.743622	0.097933	-0.156874
7	P2	-22.073839	0.289815	-0.987574
11	P2	-14.245131	2.522756	-3.602507
15	P2	-7.108829	0.124996	-0.299984
19	P2	-9.397008	0.241173	0.686687
22	P2	-16.952831	0.204936	-0.715152
26	P2	-16.429415	0.128667	0.308763
30	P2	-19.023565	0.251238	-0.931404

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.159846	0.004366	-0.023020
7	P3	-8.159846	0.004366	-0.023020
11	P3	-8.159846	0.004366	-0.023020
15	P3	-8.159846	0.004366	-0.023020
19	P3	-8.159846	0.004366	-0.023020
22	P3	-8.159846	0.004366	-0.023020
26	P3	-8.159850	0.004366	-0.022999
30	P3	-8.159850	0.004366	-0.022999

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	-2.851670	0.170824	-0.424332
7	P1	-3.004304	0.083514	-0.170549
11	P1	-3.840274	0.217277	0.907741
15	P1	-3.598128	0.033254	0.160979
19	P1	-3.501121	0.090659	0.523735
22	P1	-5.486508	0.253948	0.941437
26	P1	-6.821578	0.984783	2.166583
30	P1	-5.902445	0.577834	1.550259
3	P1	-11.270102	0.586019	-1.182727
7	P1	-11.845247	21.296913	-4.698880
11	P1	-14.101929	37.406998	-4.665422
15	P1	-13.334878	35.346748	-5.729955
19	P1	-15.319463	0.222728	0.473507
22	P1	-24.362036	5.000753	4.180882
26	P1	-16.261786	6.978085	-4.317771
30	P1	-20.132086	2.077037	-0.062723

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.462641	0.060108	-0.247623
7	P2	-22.250813	0.301775	-1.198813
11	P2	-10.004207	1.045710	-2.380489
15	P2	-5.040009	0.038447	0.128957
19	P2	-6.749492	0.128075	0.283861
22	P2	-7.204612	0.190402	-0.864067
26	P2	-23.936483	0.039052	0.036633
30	P2	-22.007059	0.078519	-0.332626

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.004768	0.003595	-0.015388
7	P3	-8.004764	0.003599	-0.014836
11	P3	-8.004663	0.003599	-0.014790
15	P3	-8.004663	0.003601	-0.014995
19	P3	-8.004788	0.003590	-0.015510
22	P3	-8.004607	0.003591	-0.014882
26	P3	-8.004715	0.003592	-0.015360
30	P3	-8.004611	0.003606	-0.015562

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	0.000475399
	stdev	2.09736e-07
MEAN Q	mean	0.000501226
	stdev	2.24447e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.130073
	stdev	0.000983547
STDEV Q	mean	0.130337
	stdev	0.000994714



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005092[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_WSM_1PNPDE20050920_162919_000001842041_00012_18603_9656.N1	0	59



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

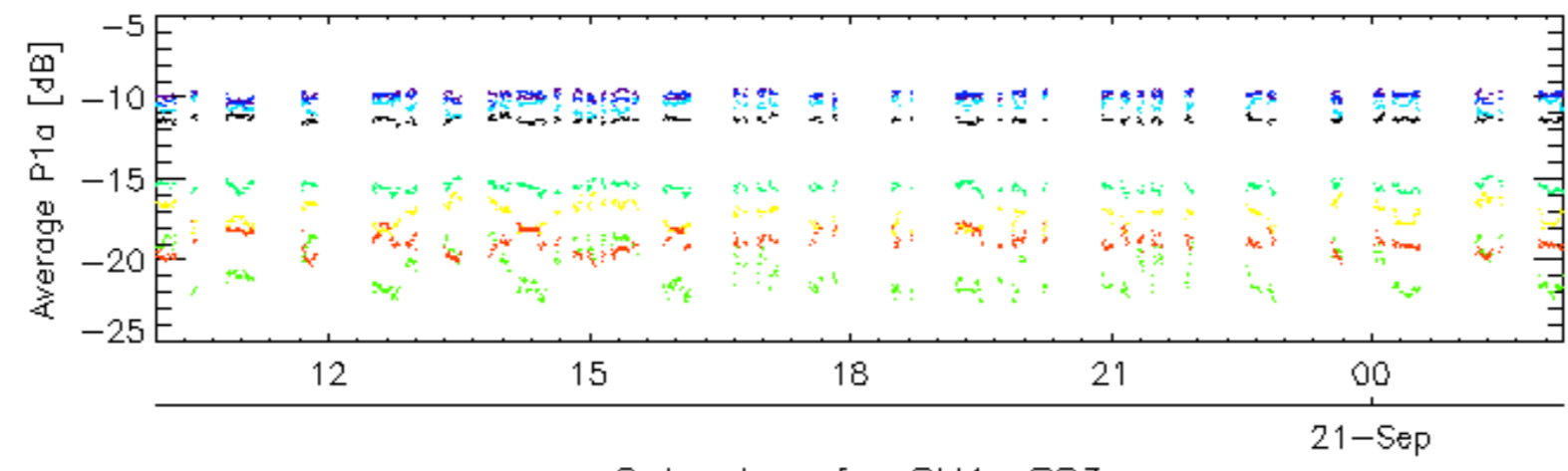
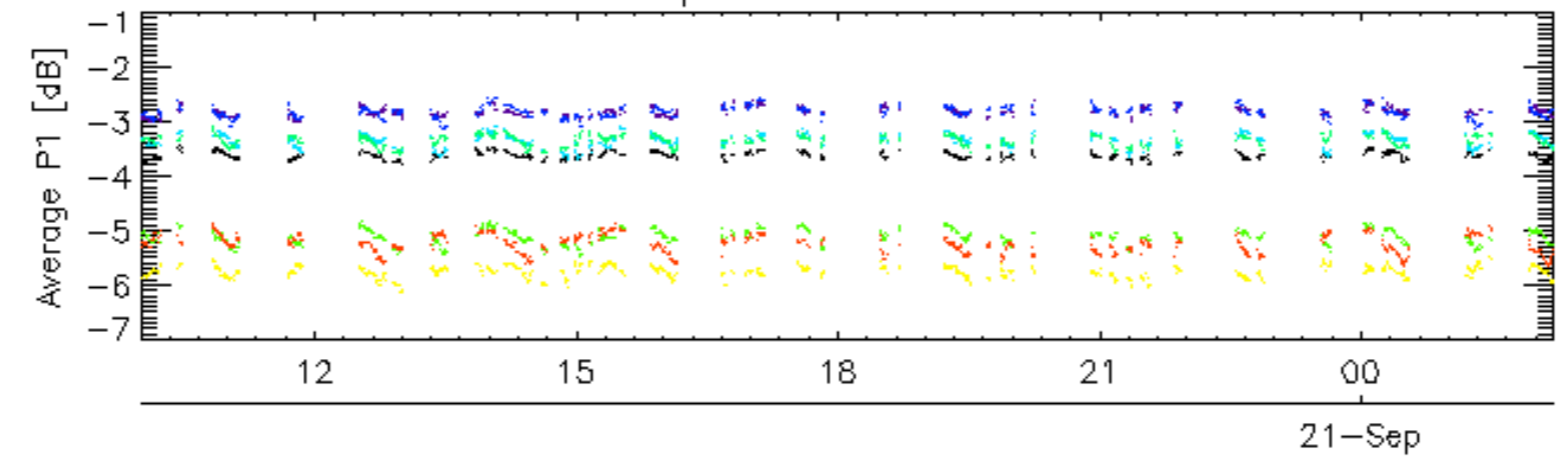
Ascending

Descending

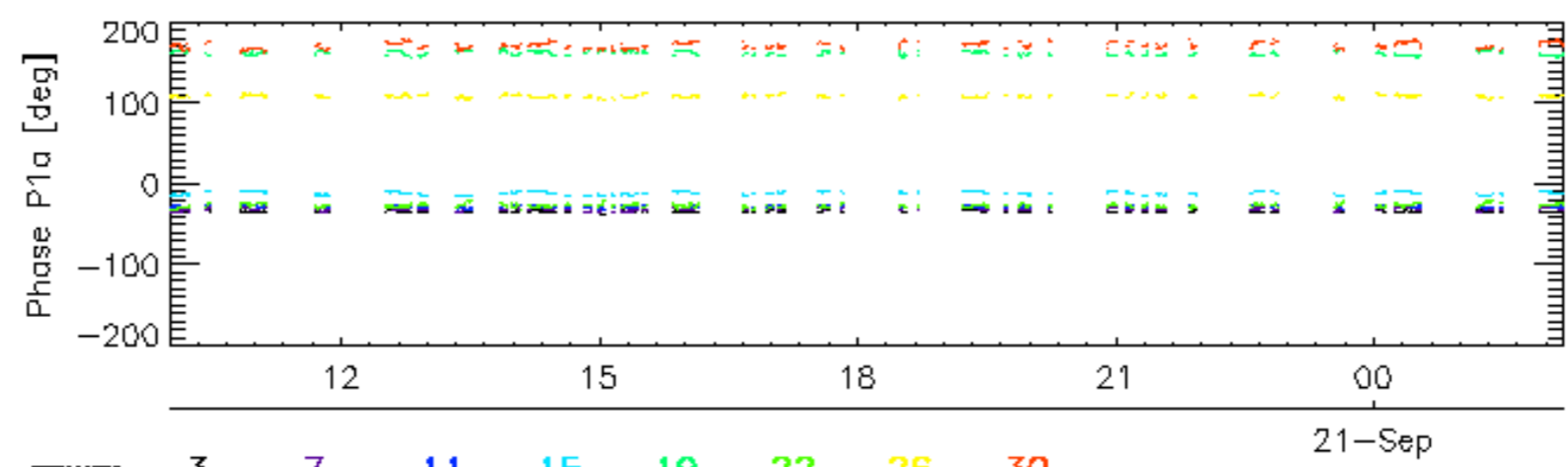
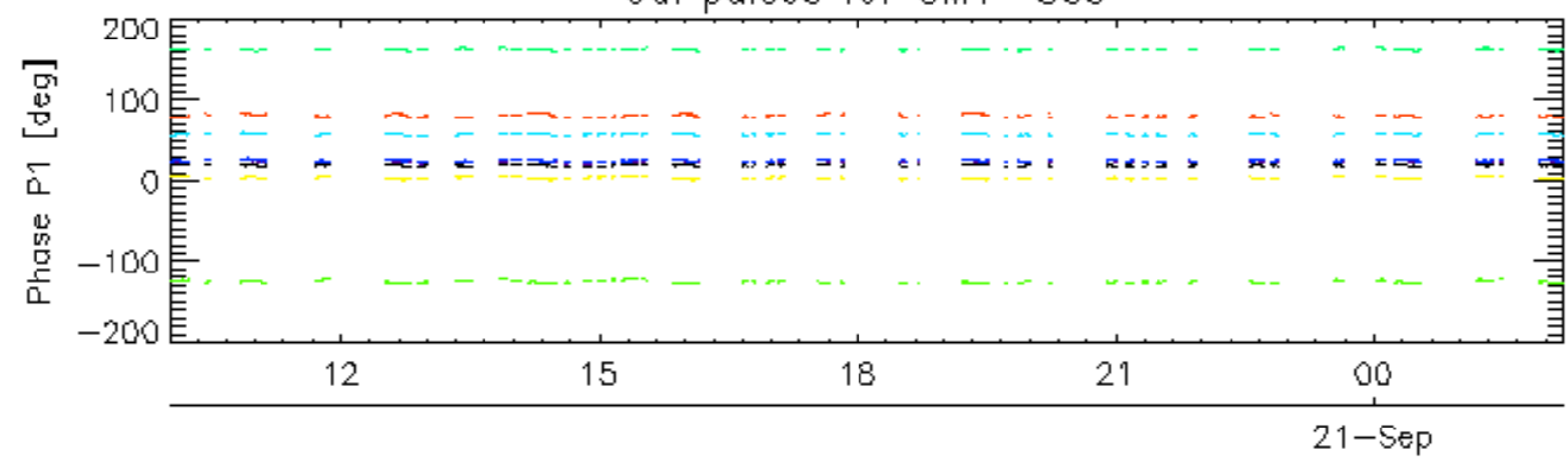
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

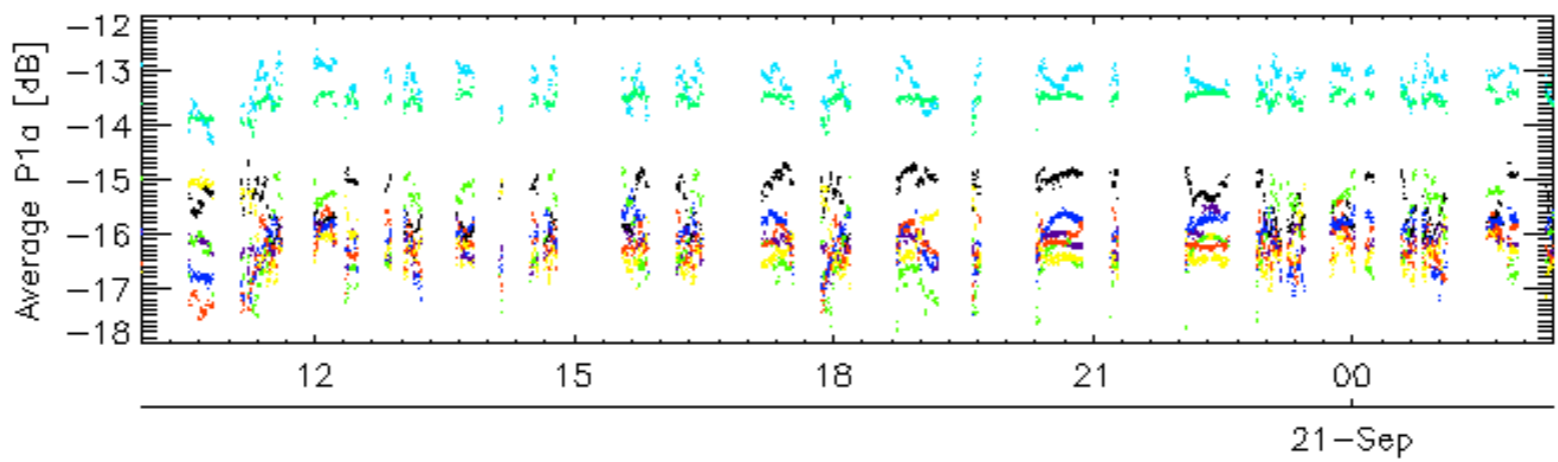
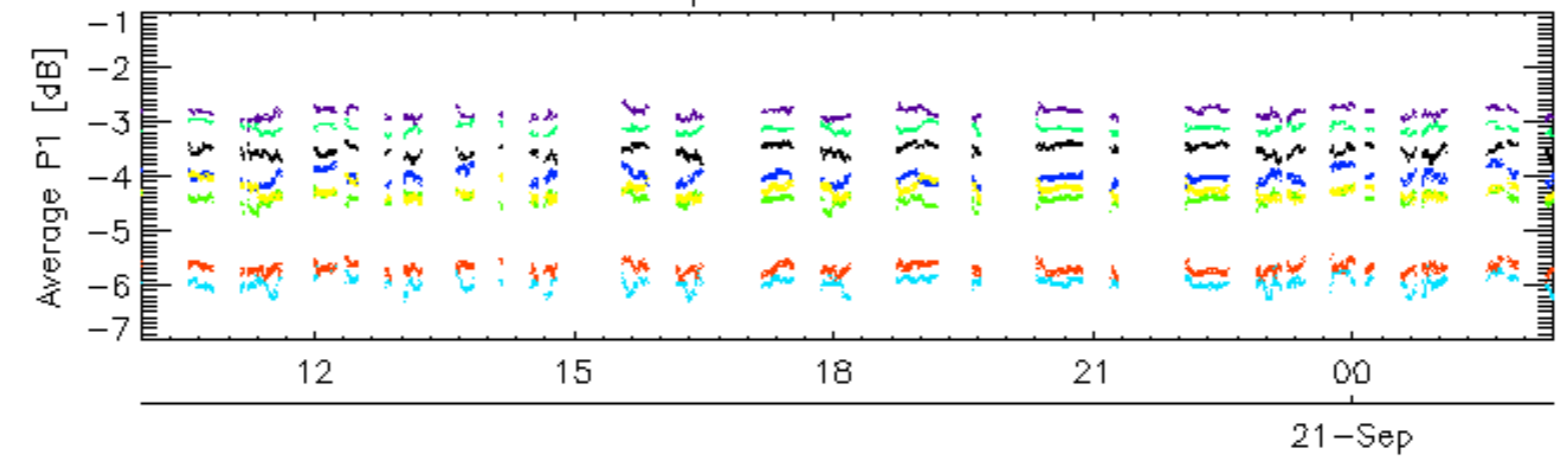


Cal pulses for GM1 SS3

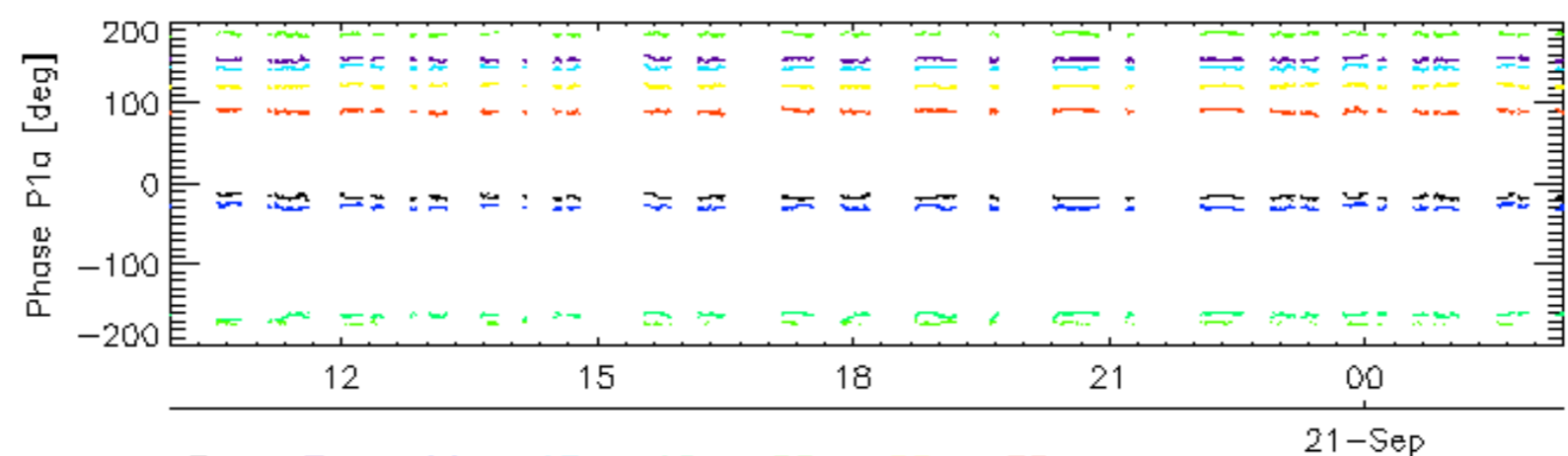
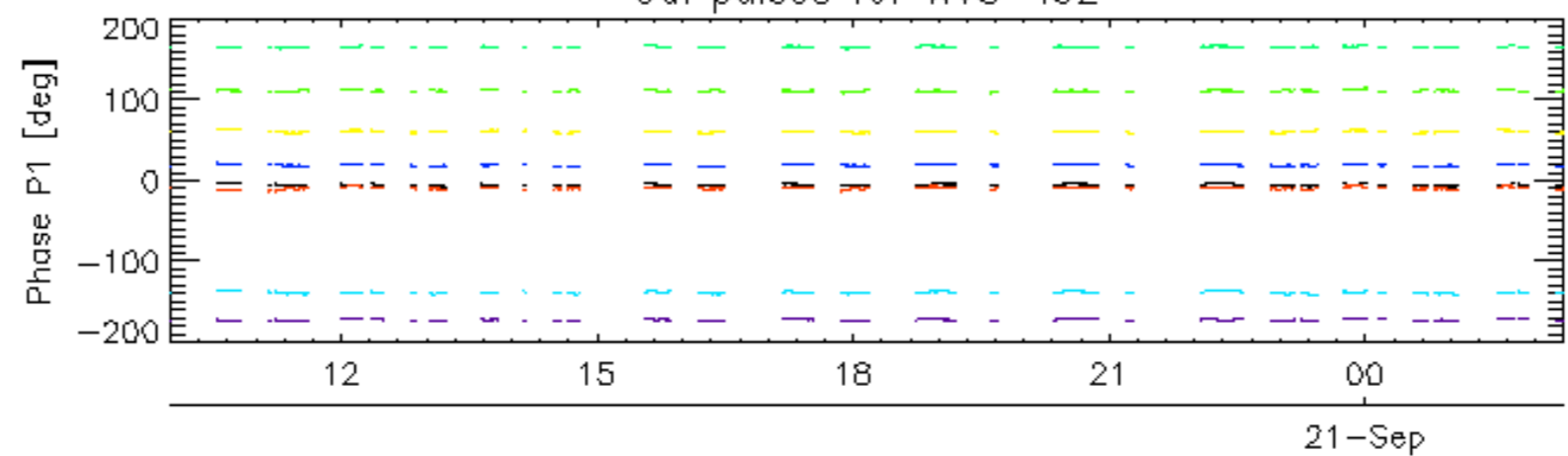


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

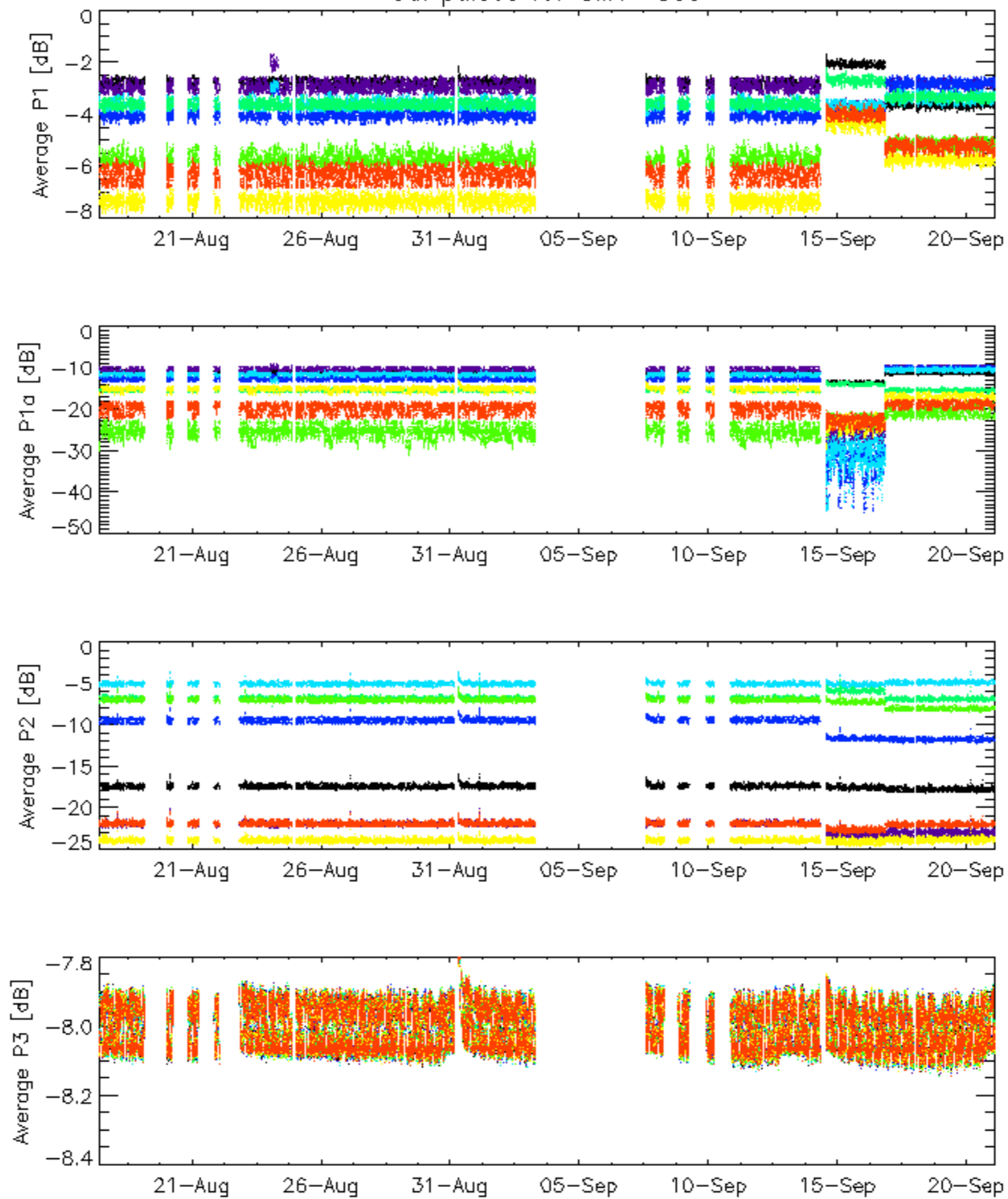


Cal pulses for WVS IS2



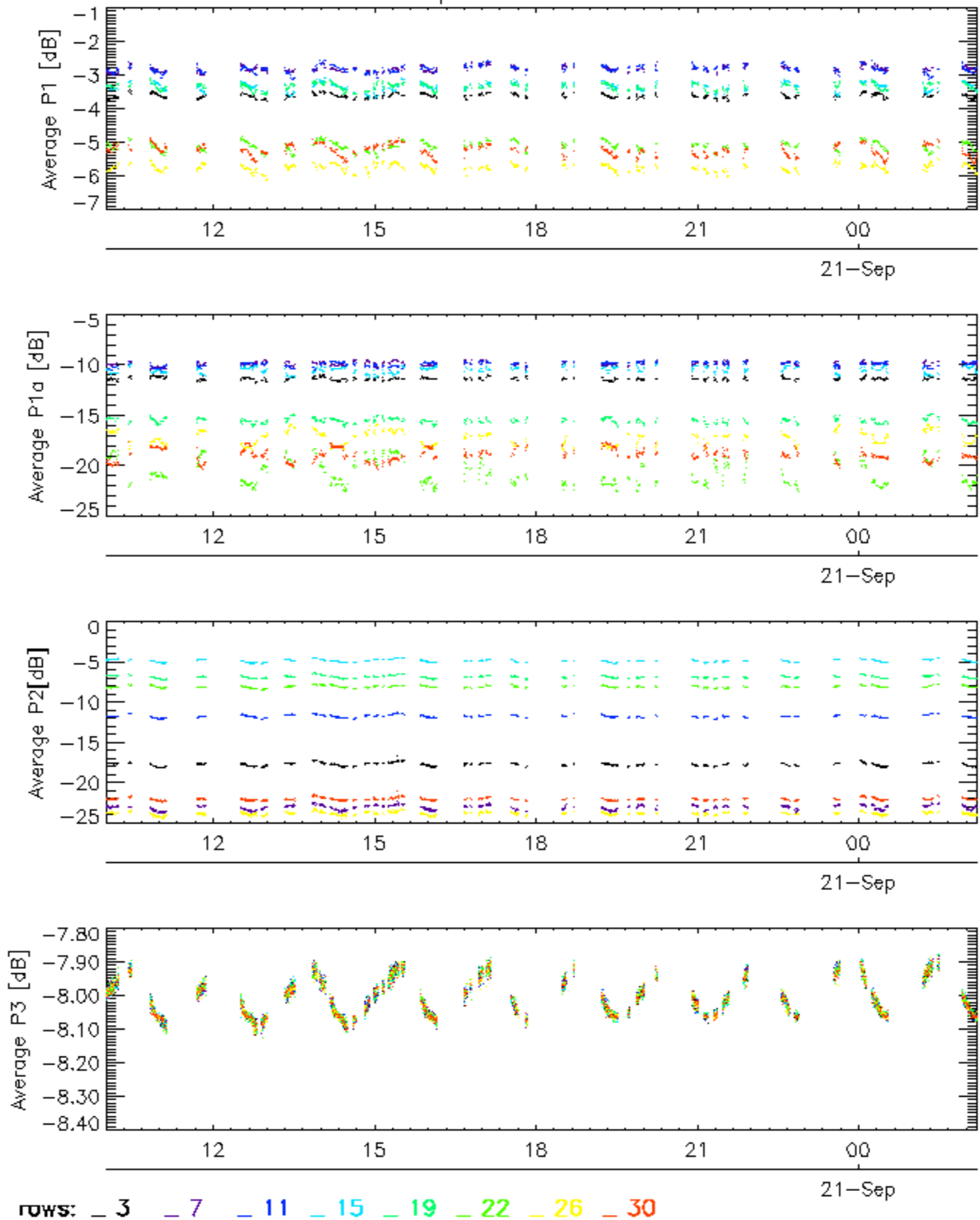
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

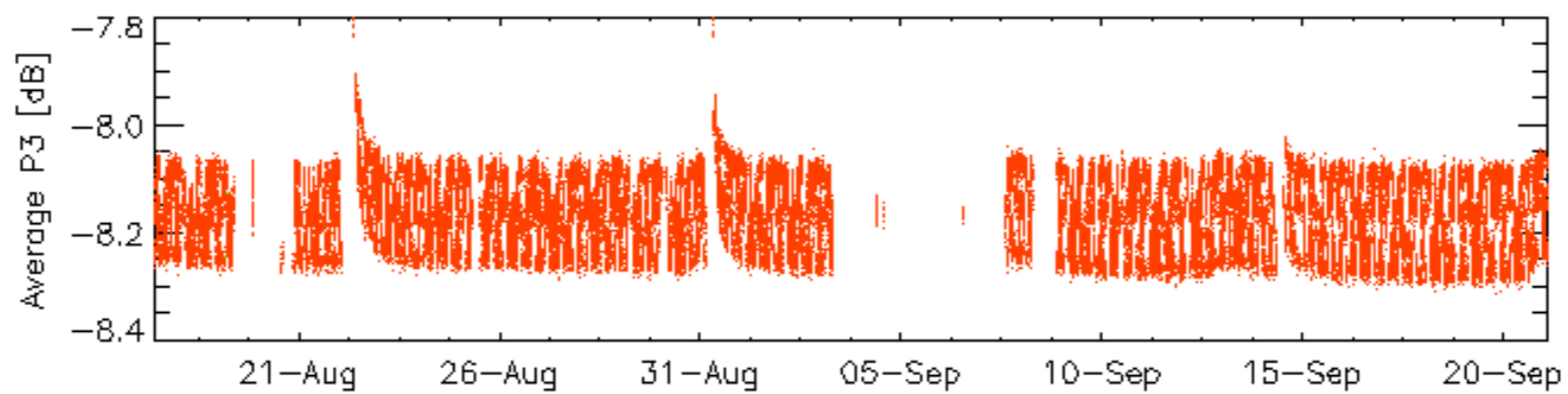
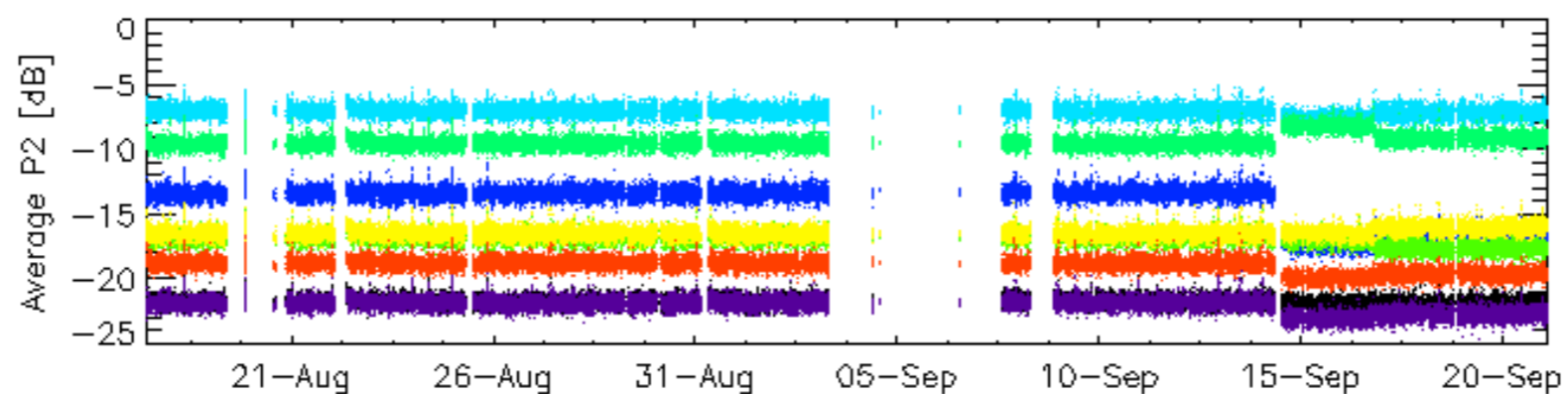
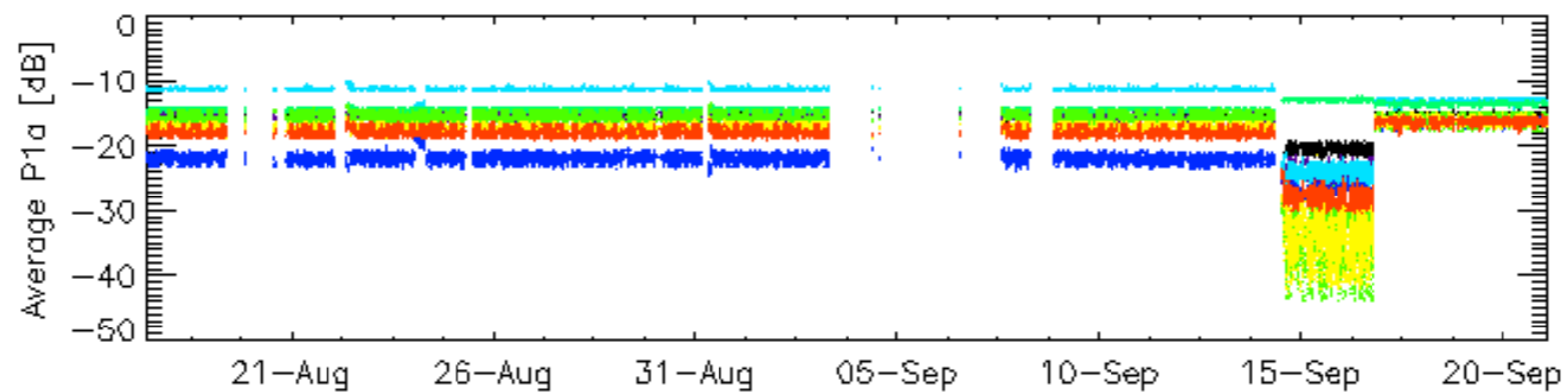
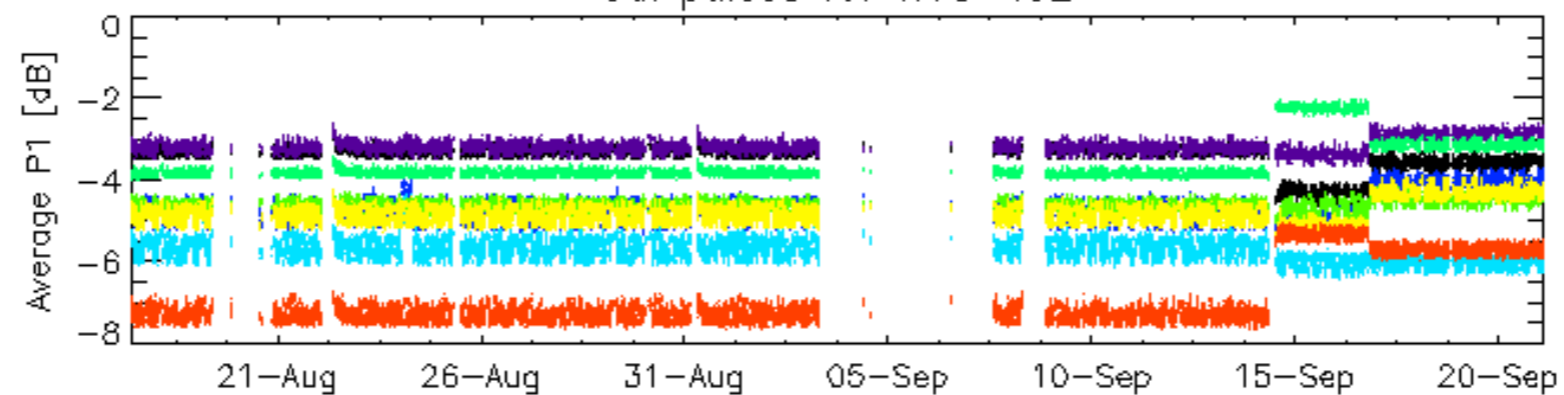


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

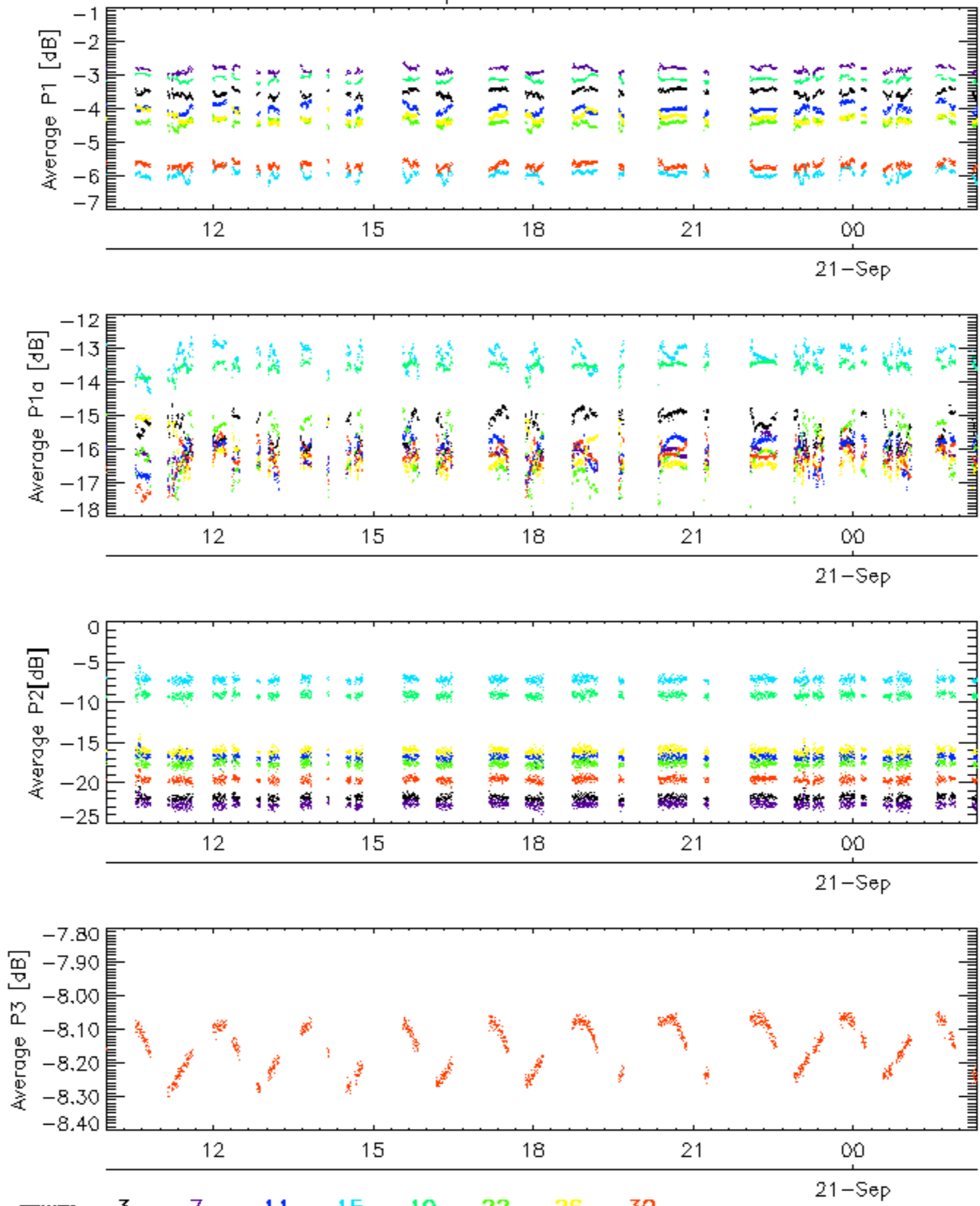


Cal pulses for WVS IS2



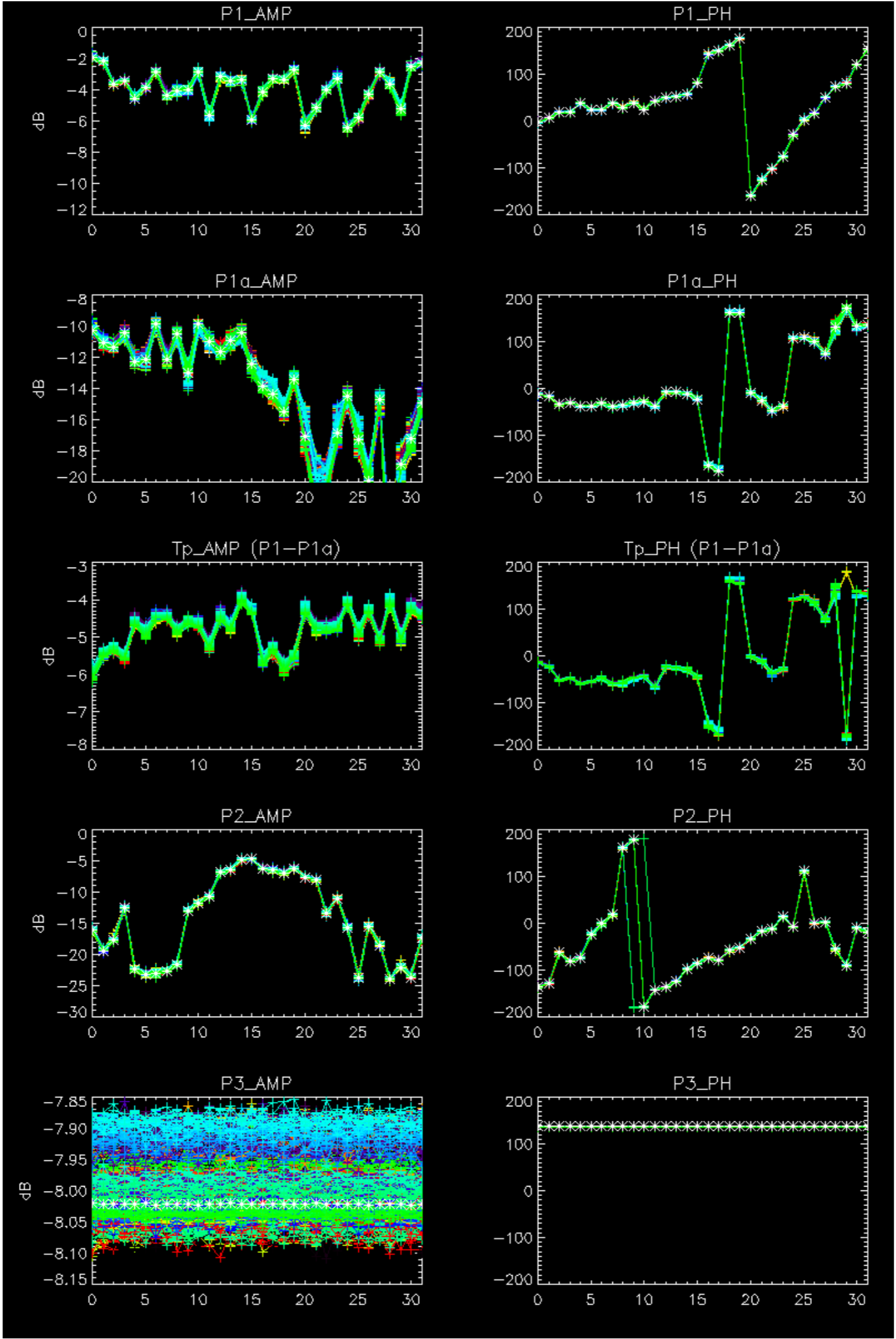
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

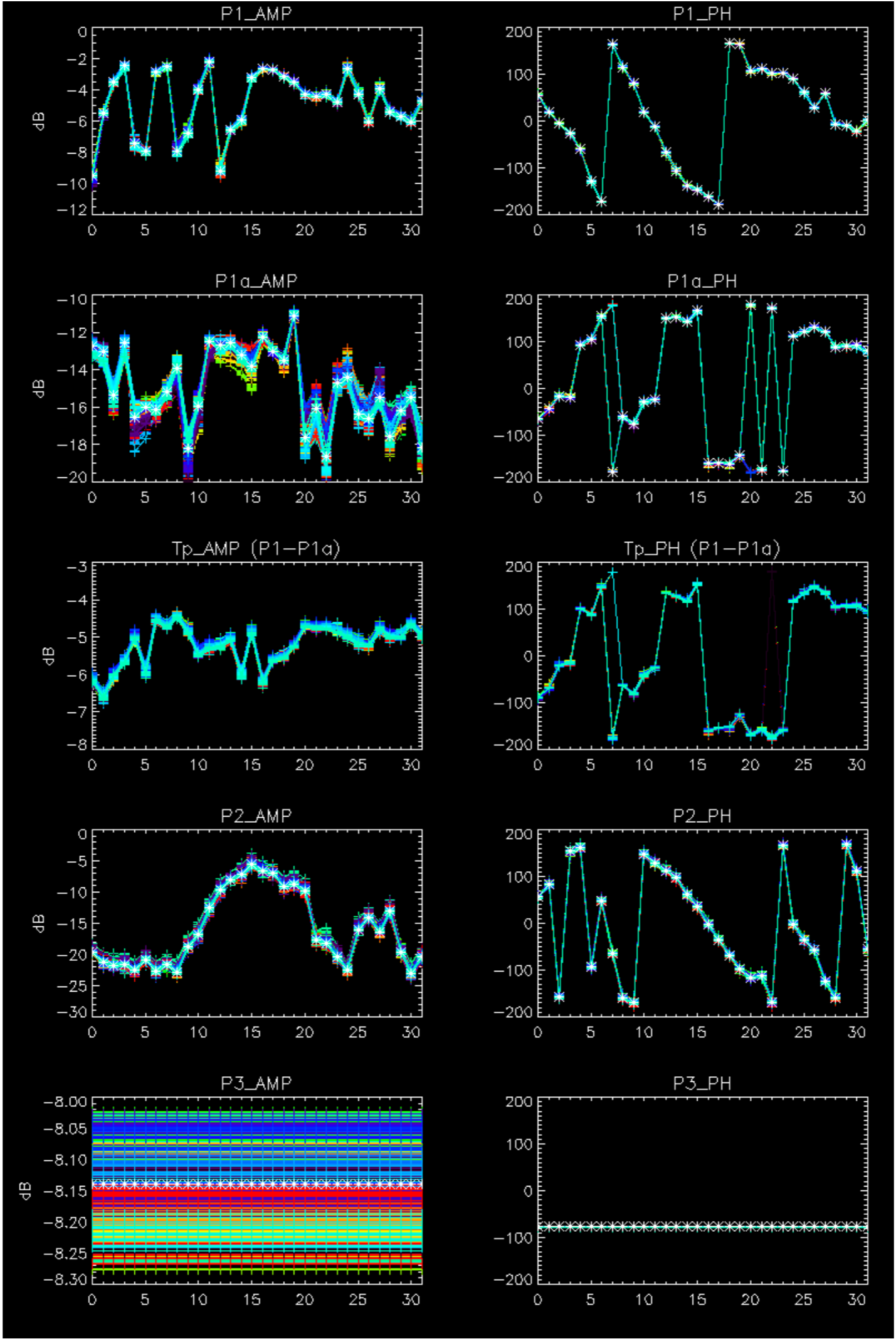
Cal pulses for WVS IS2



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

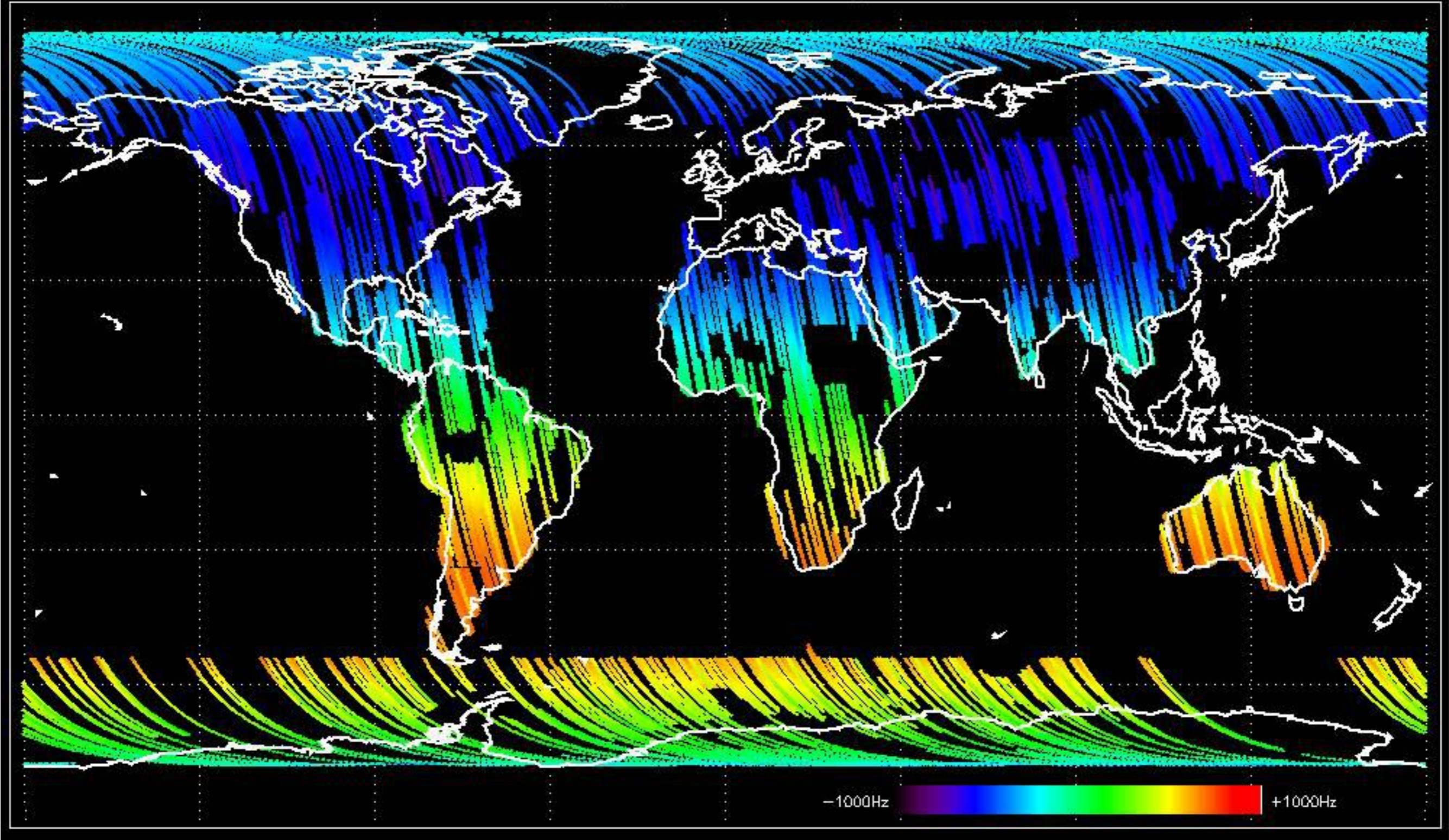
No anomalies observed.



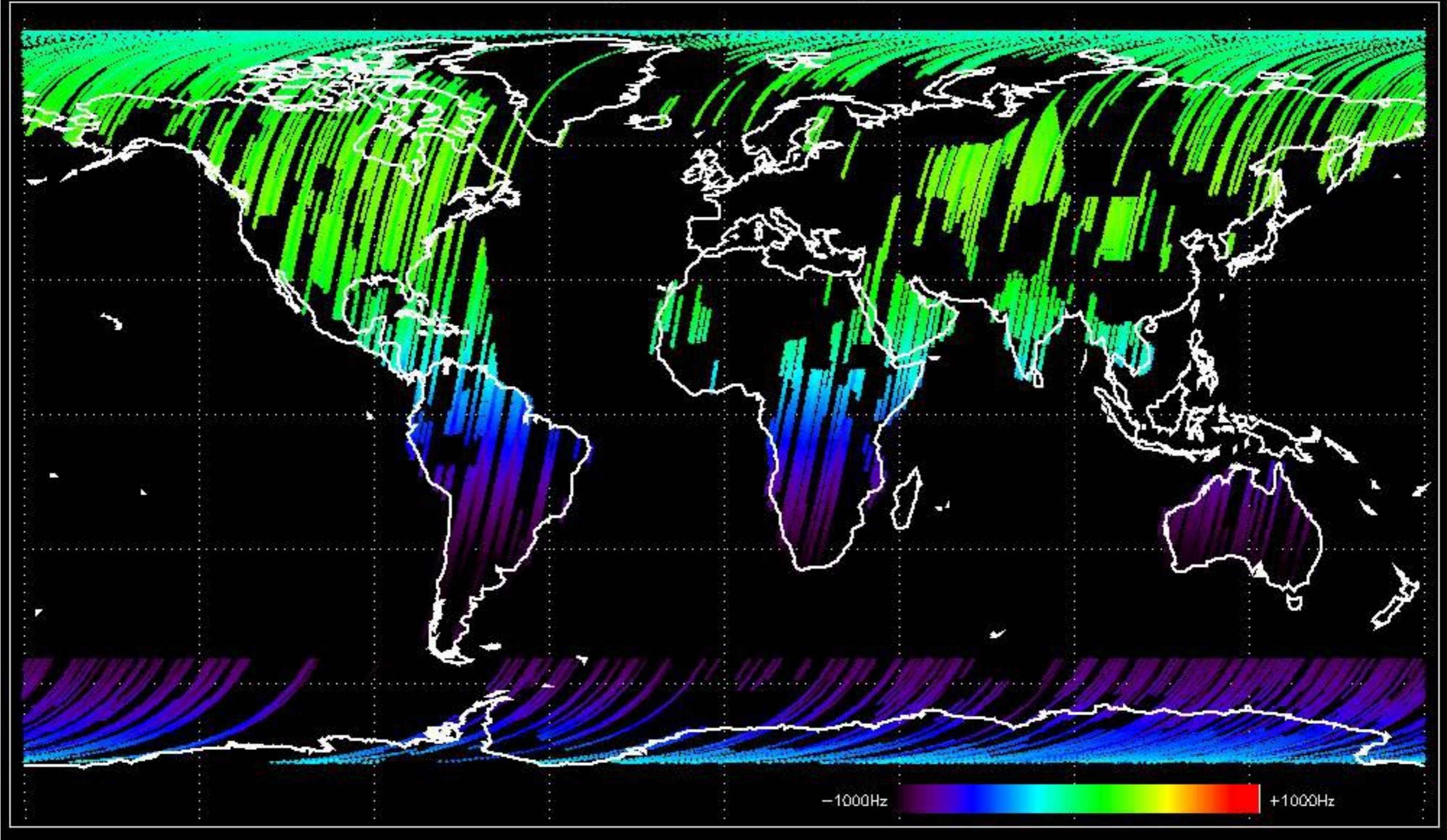


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

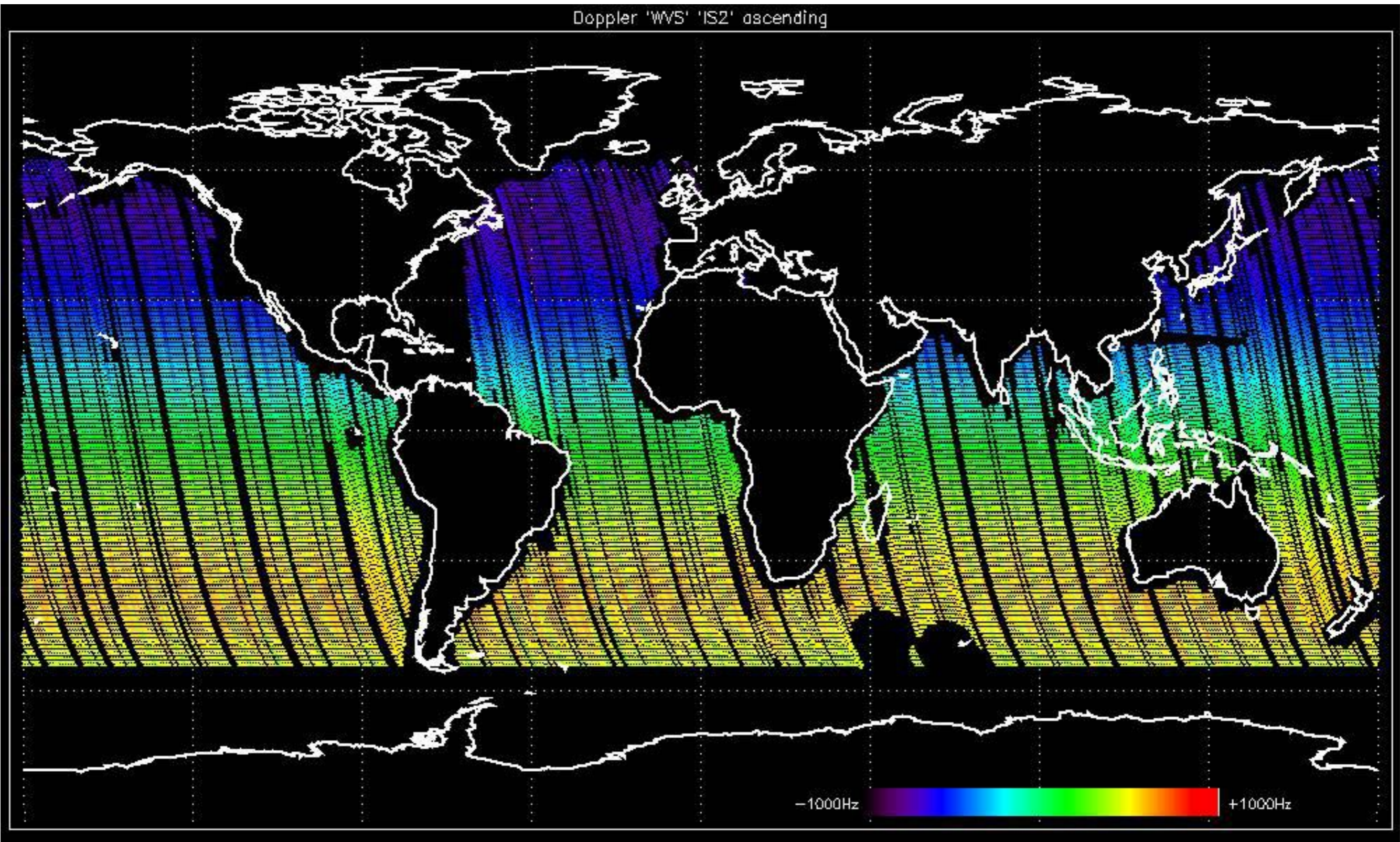
Doppler 'GM1' 'SS1' ascending



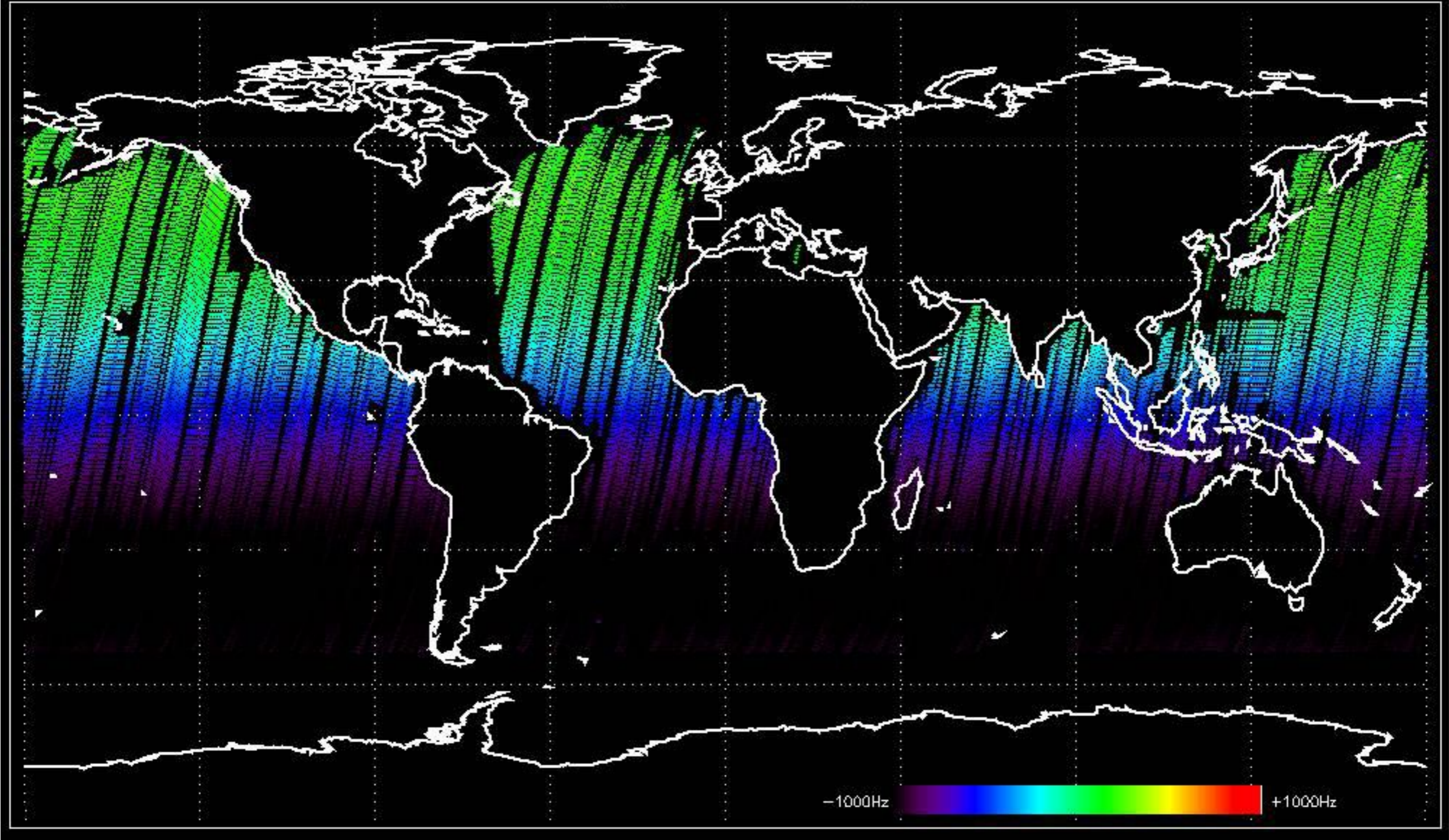
Doppler 'GM1' 'SS1' descending



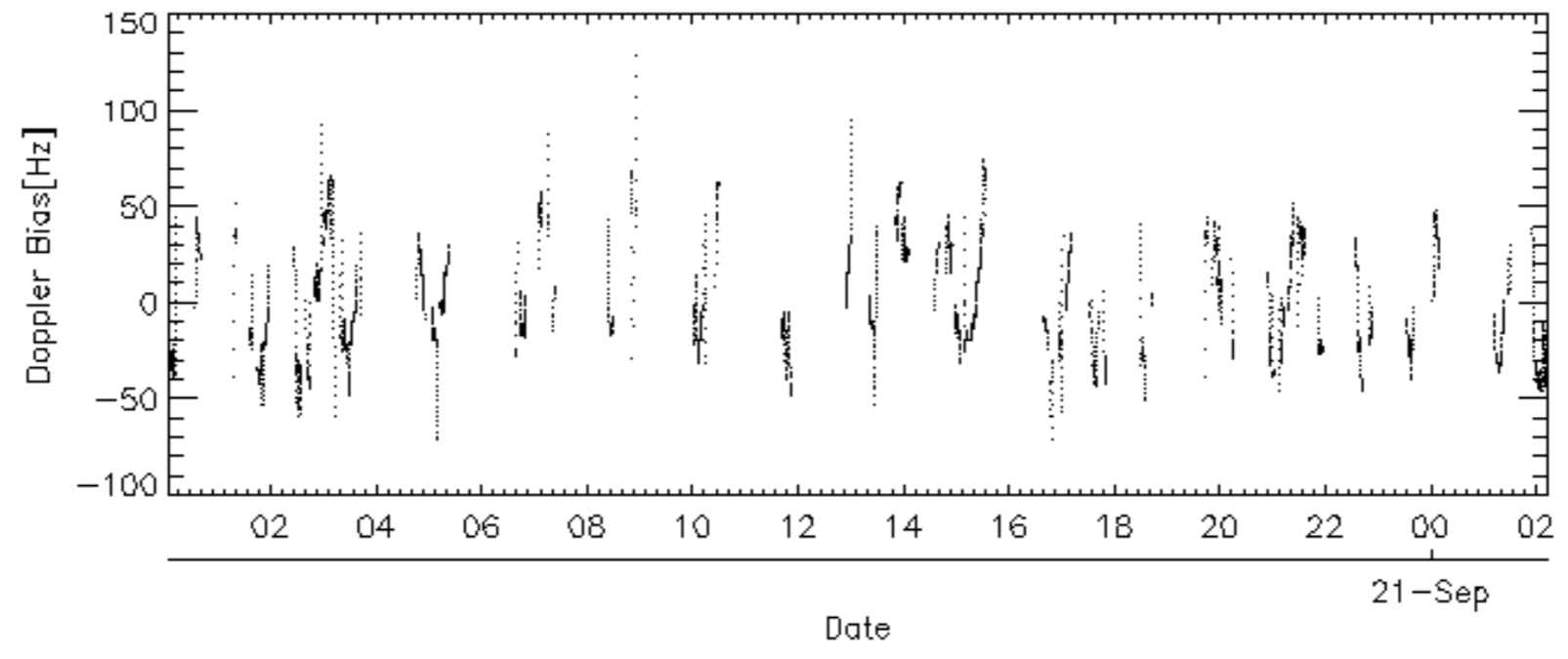
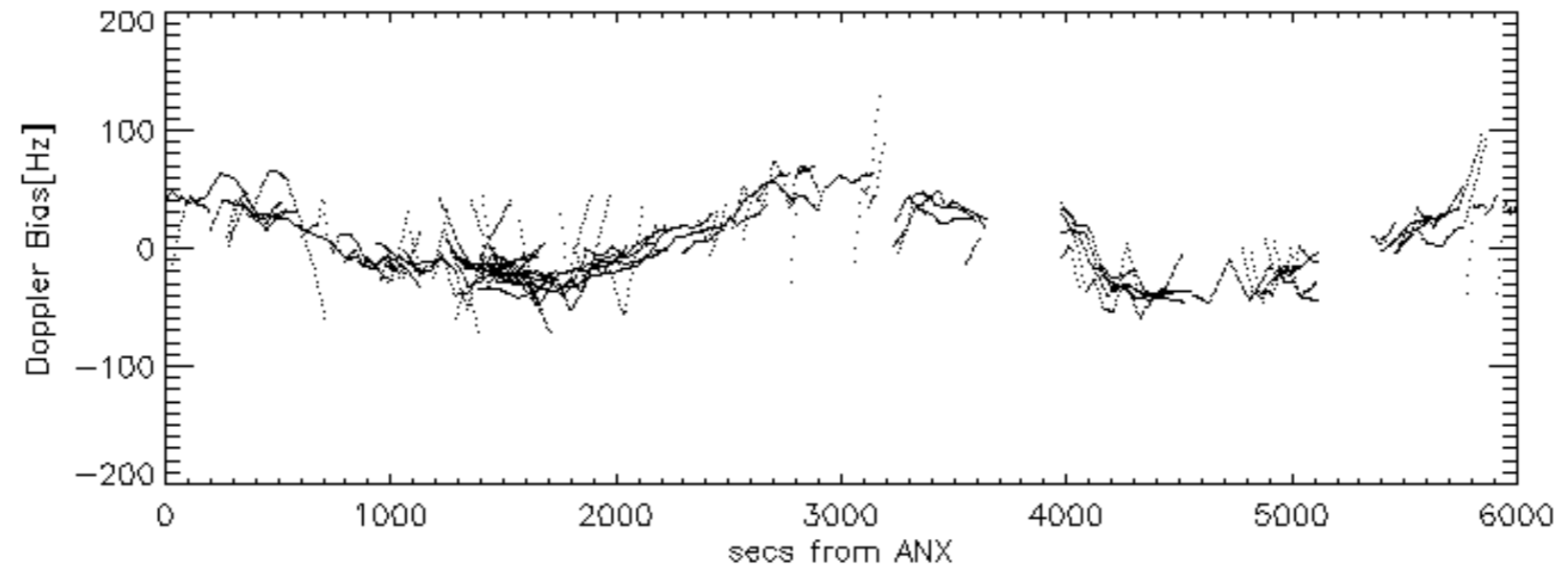
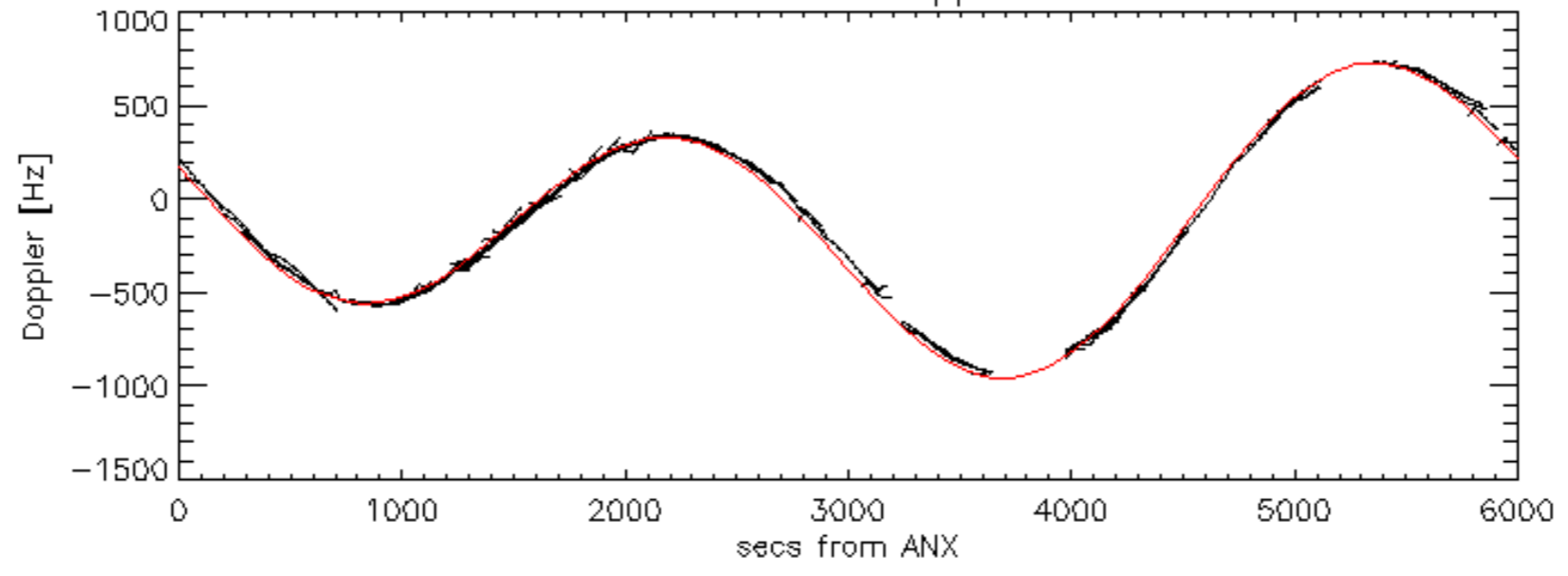
Doppler 'WVS' 'IS2' ascending

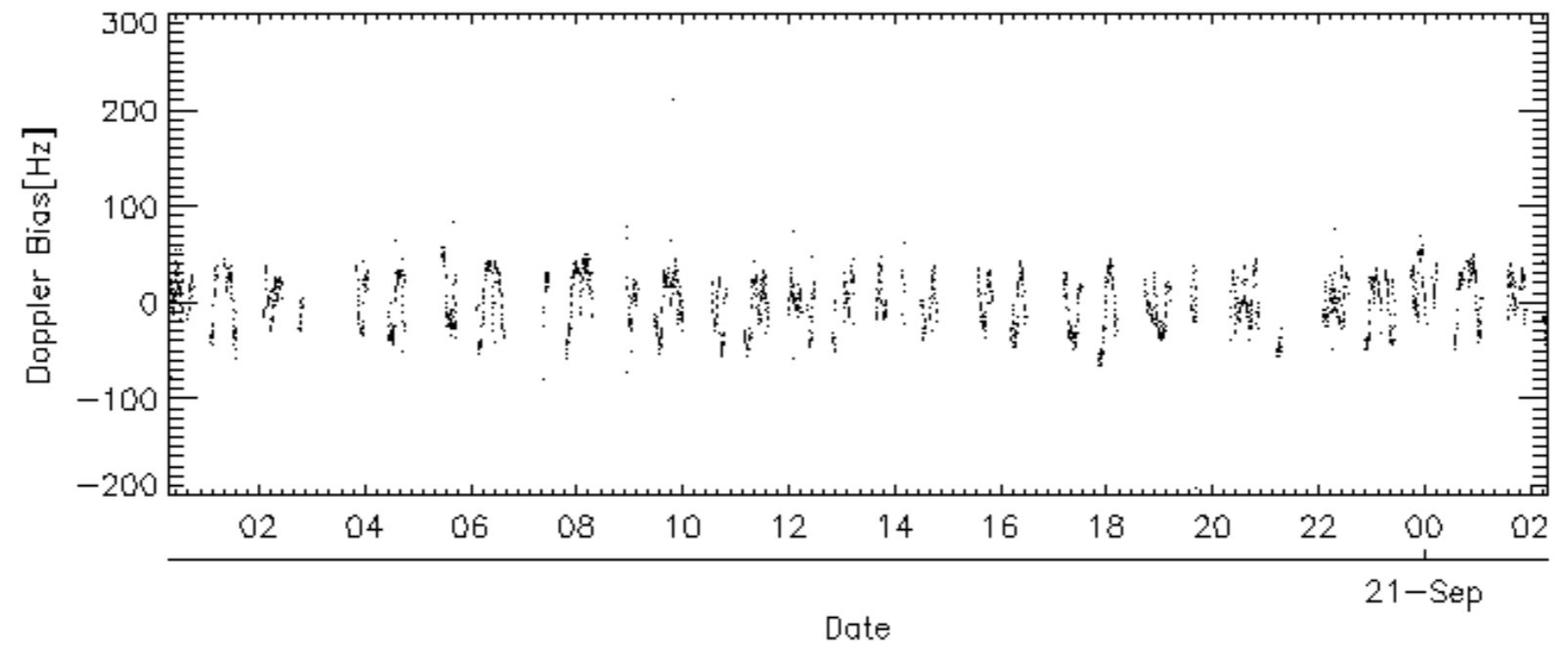
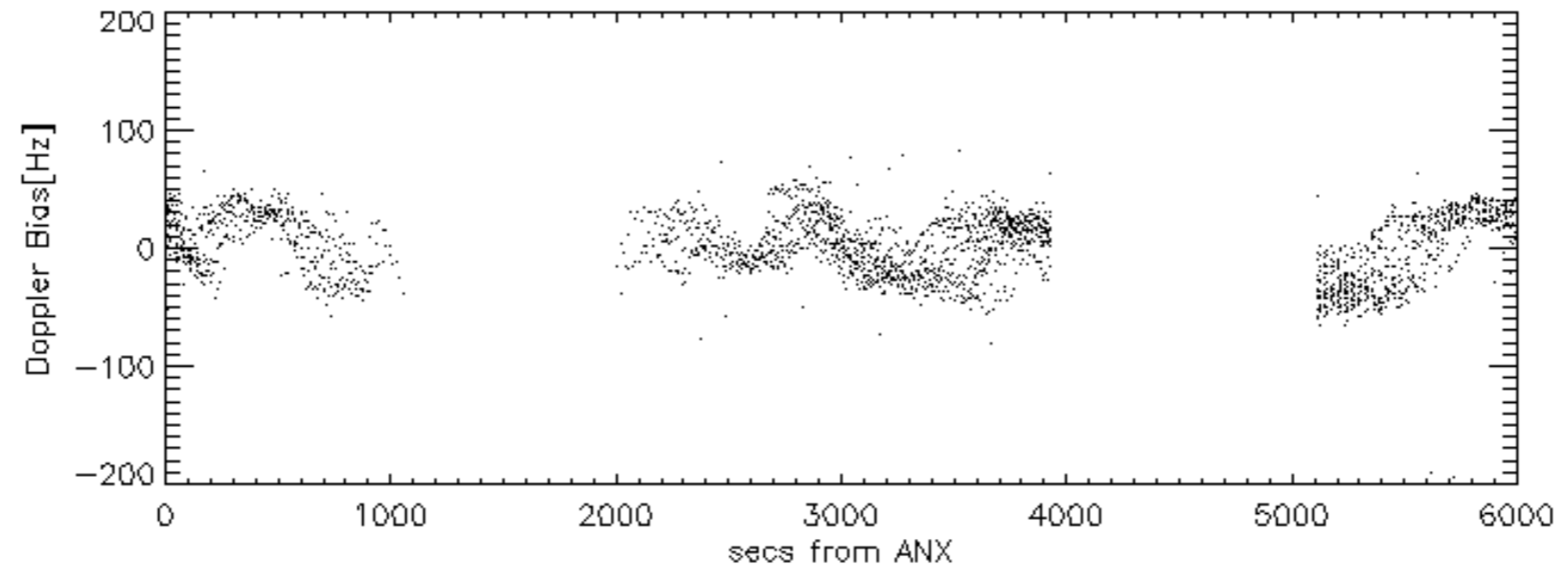
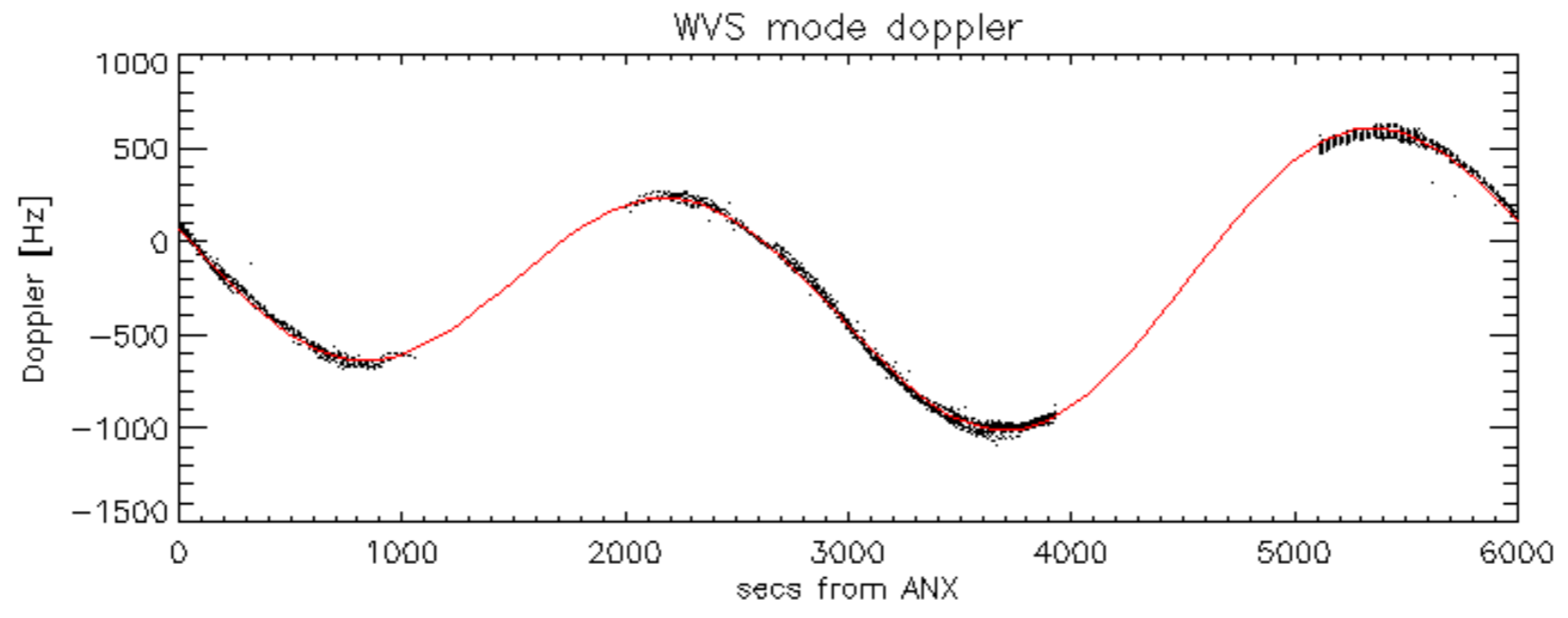


Doppler 'WVS' 'IS2' descending

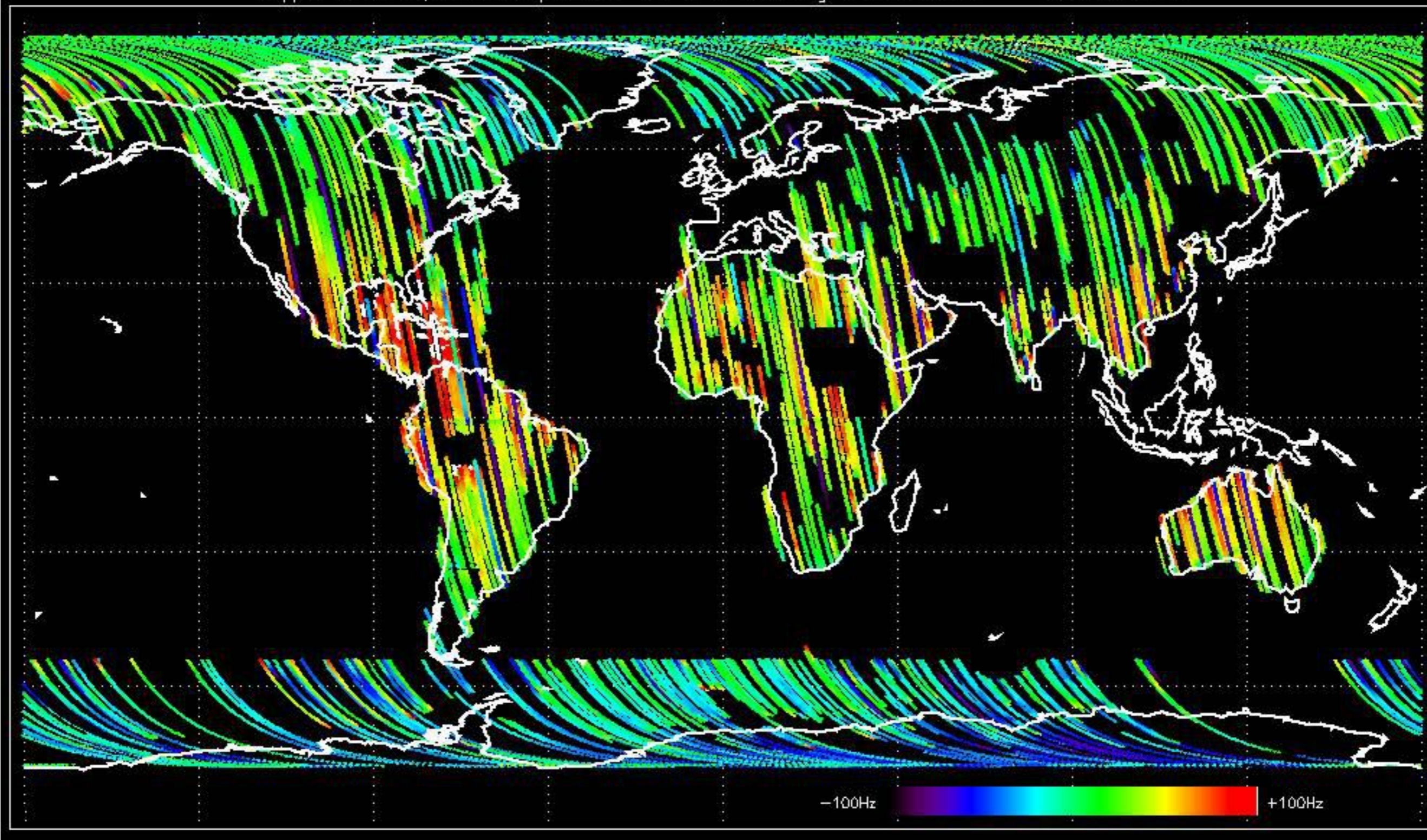


GM1 mode doppler

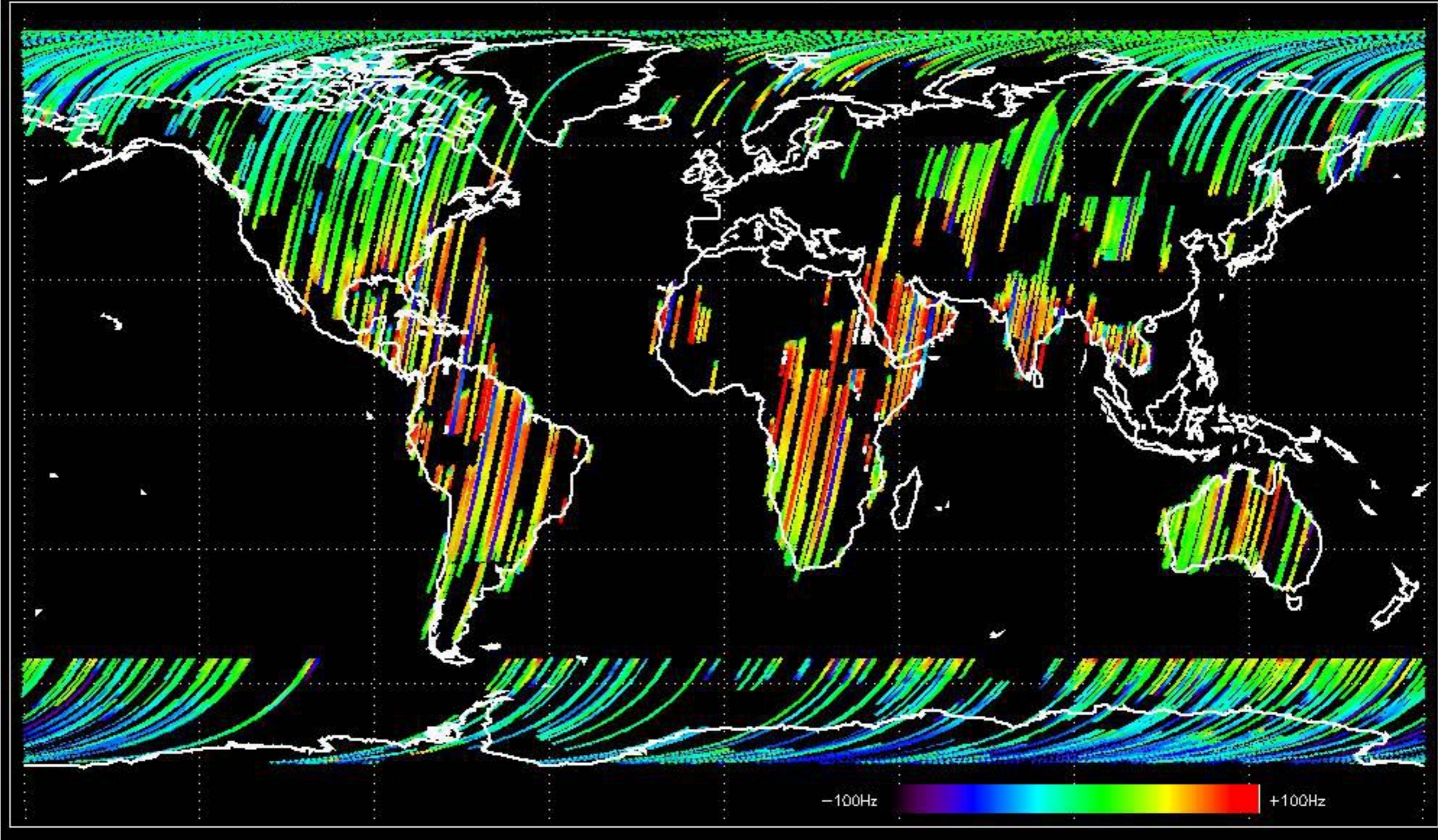




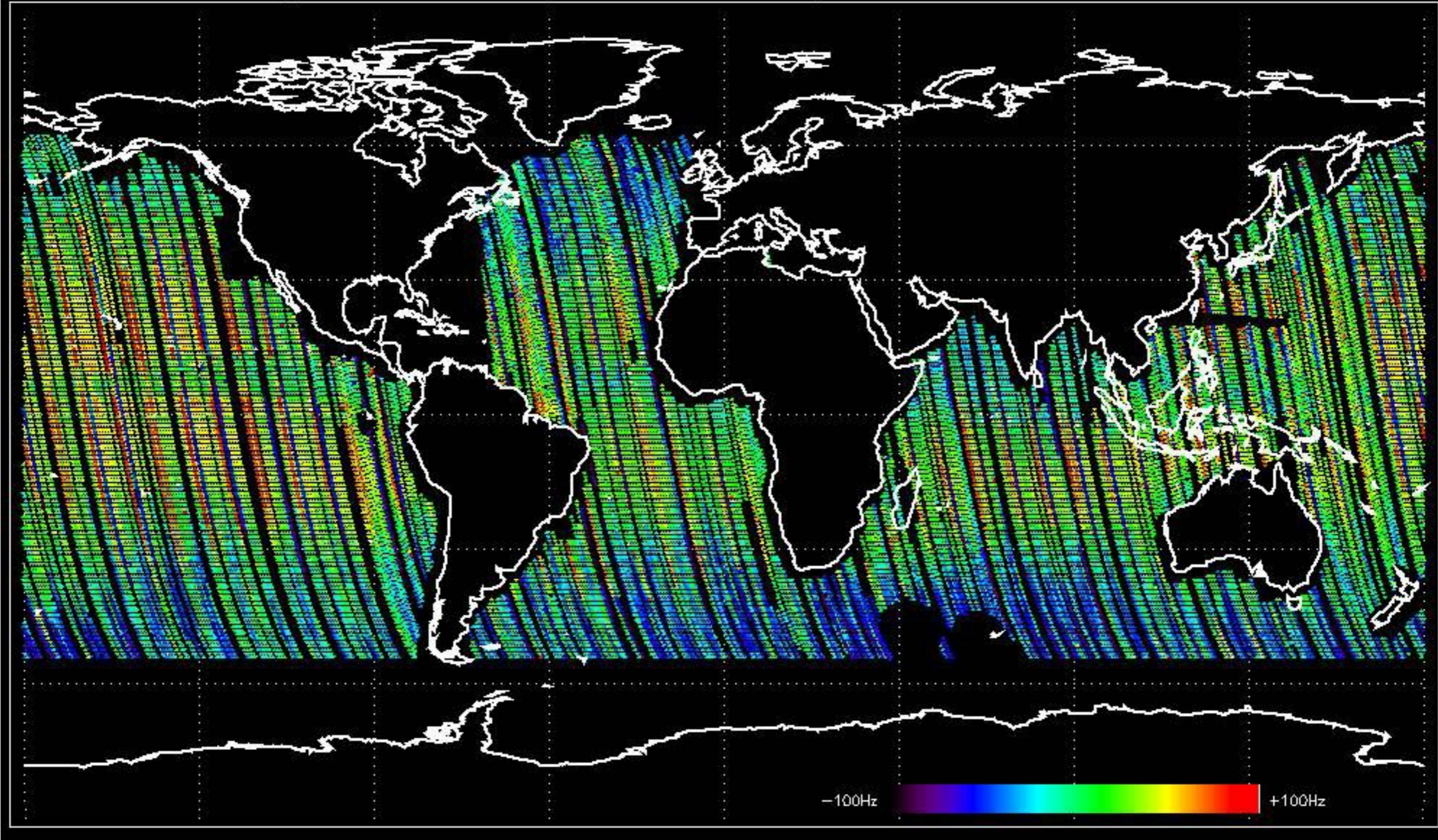
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -38.803820 Hz



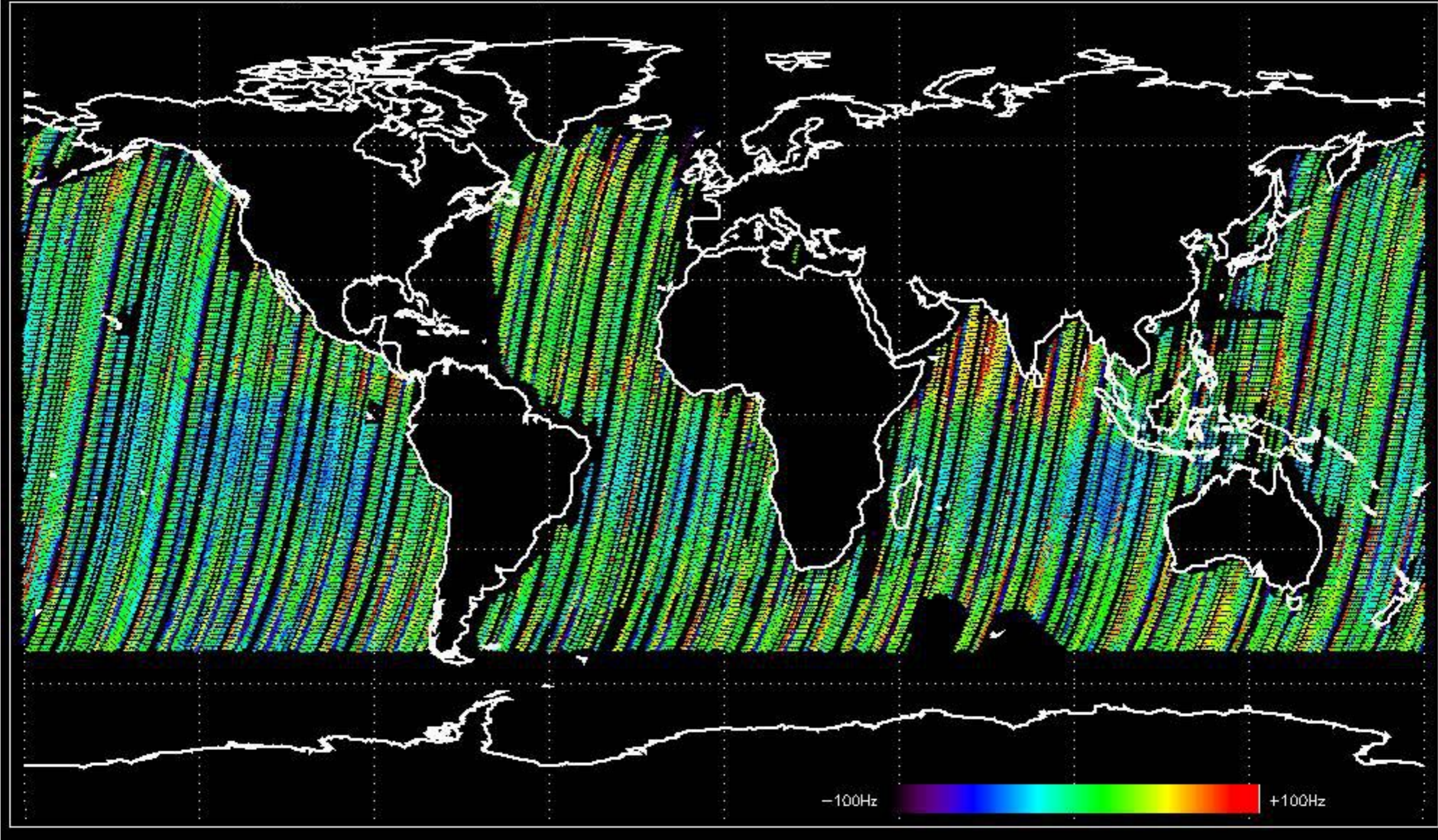
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -33.991266 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -38.478304 Hz

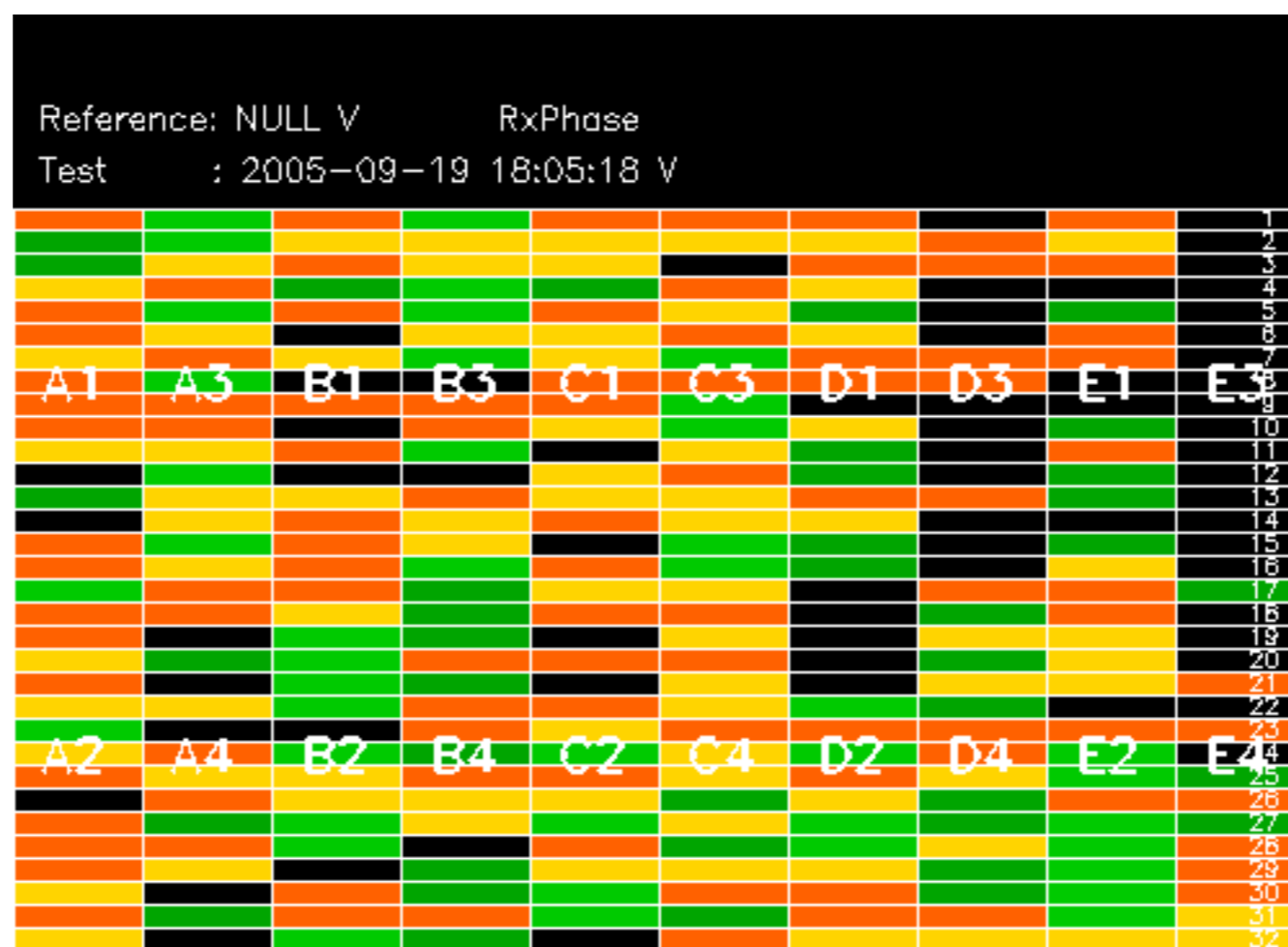


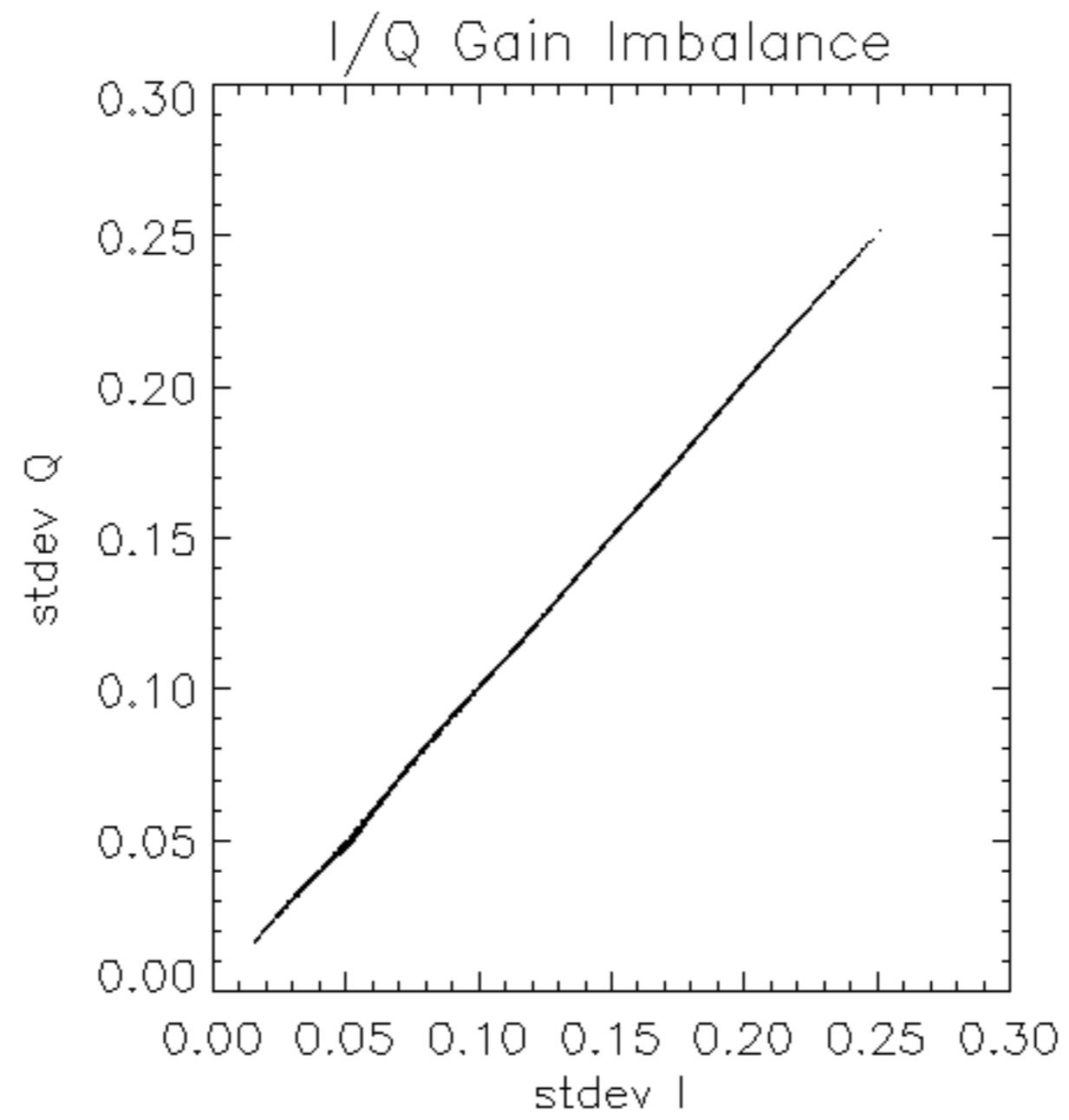
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -42.973749 Hz

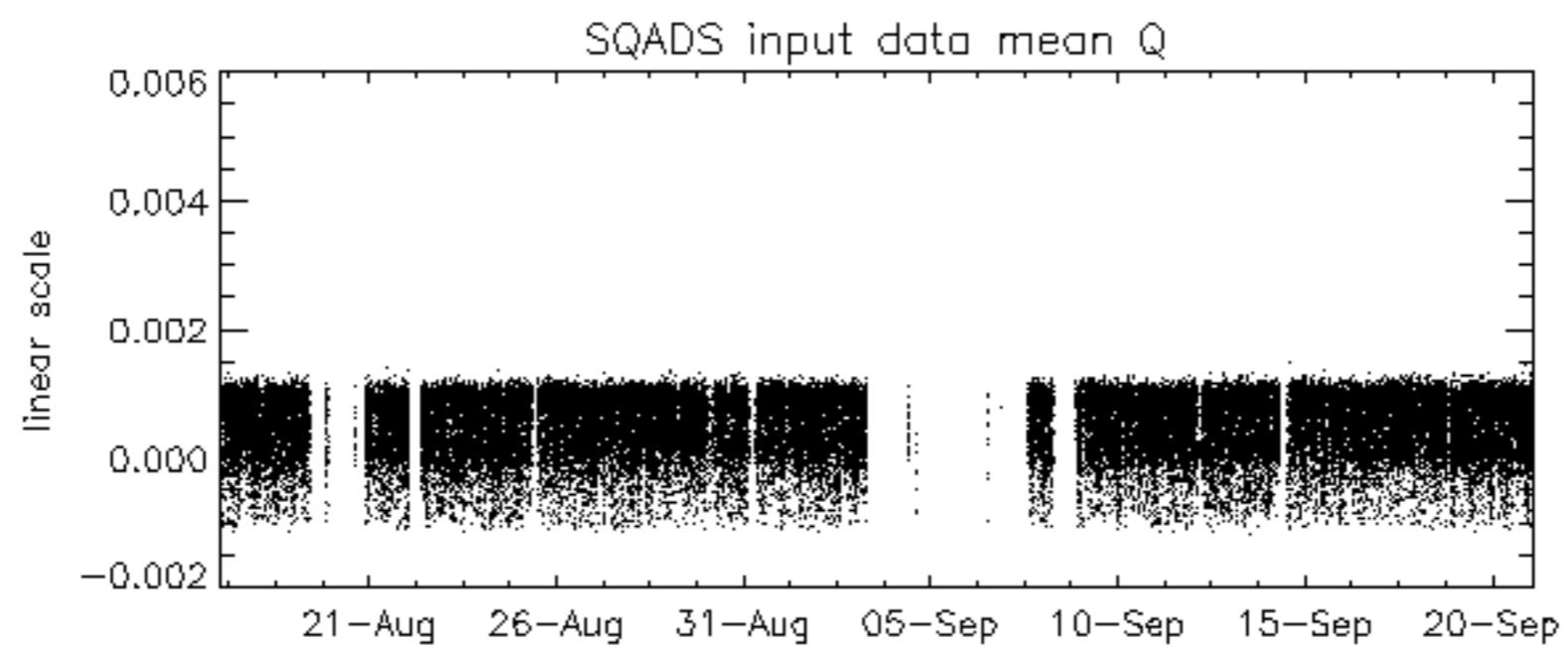
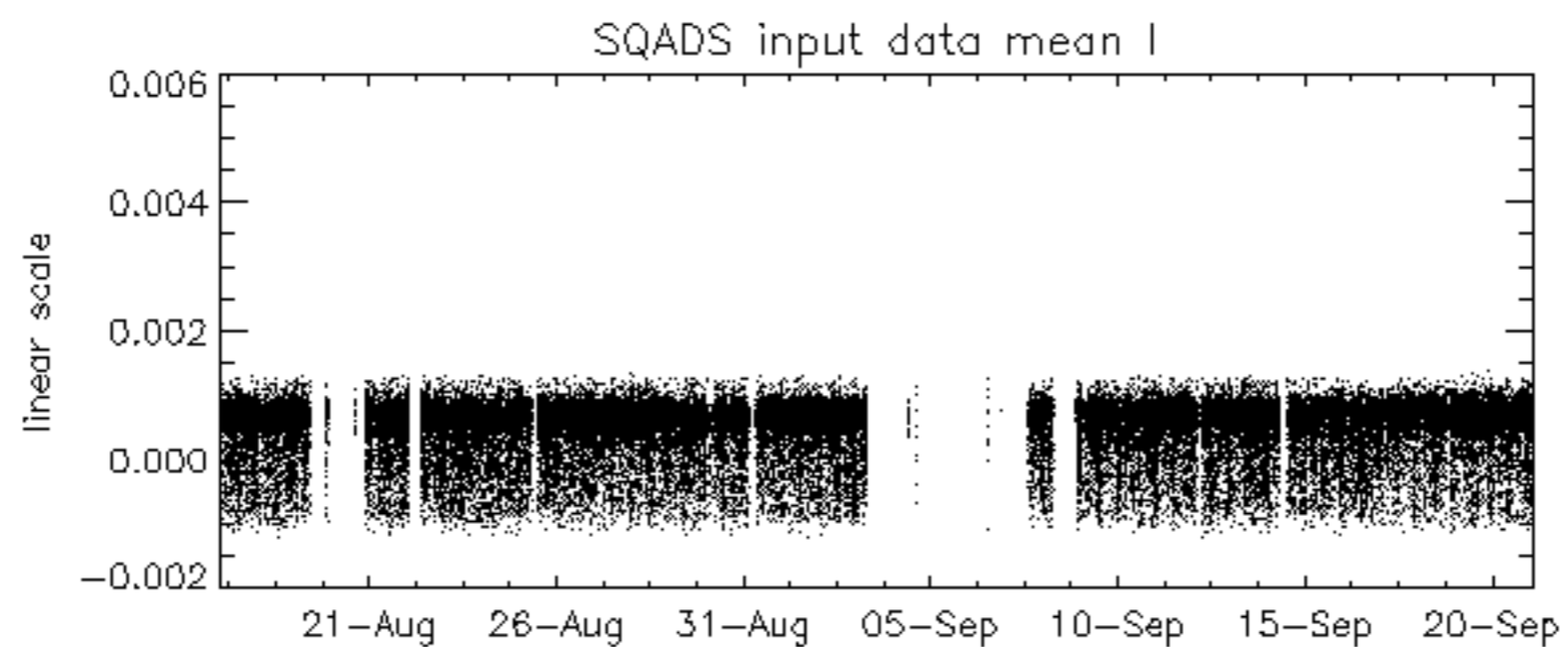
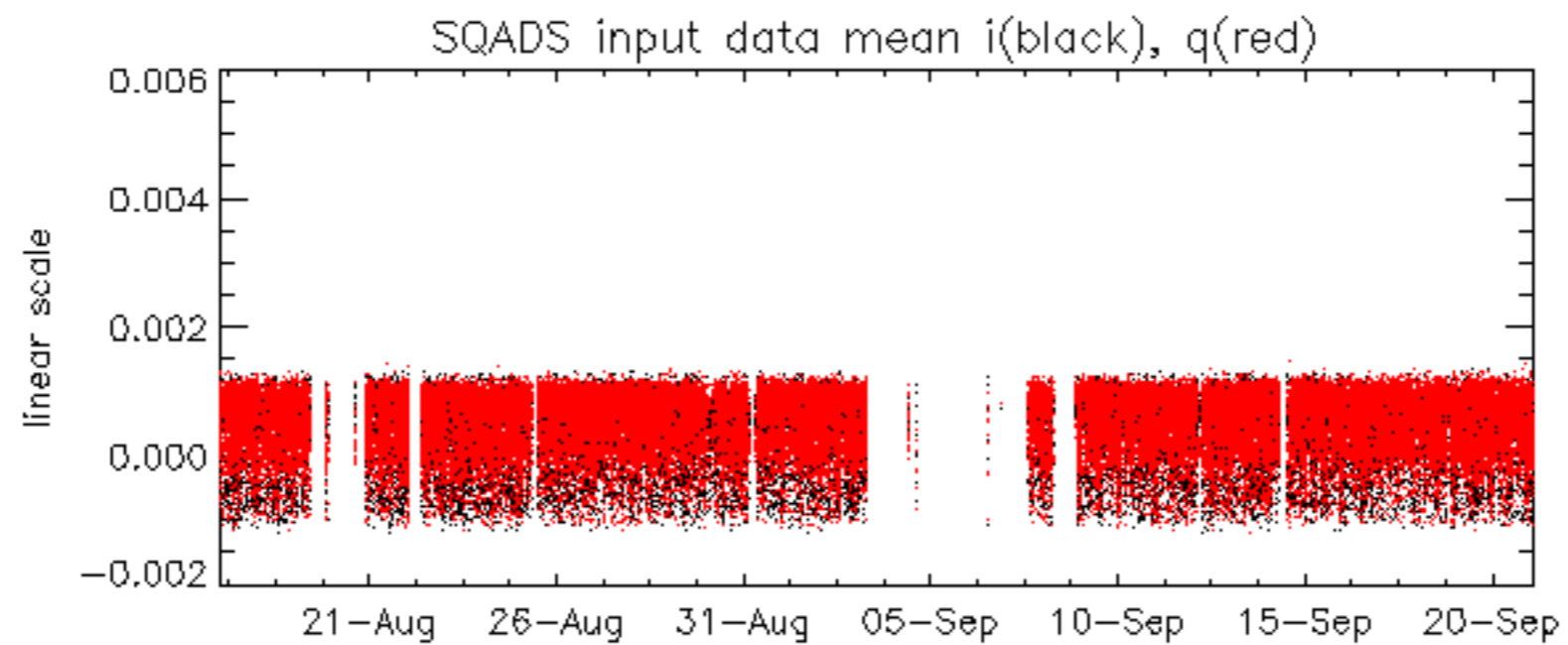


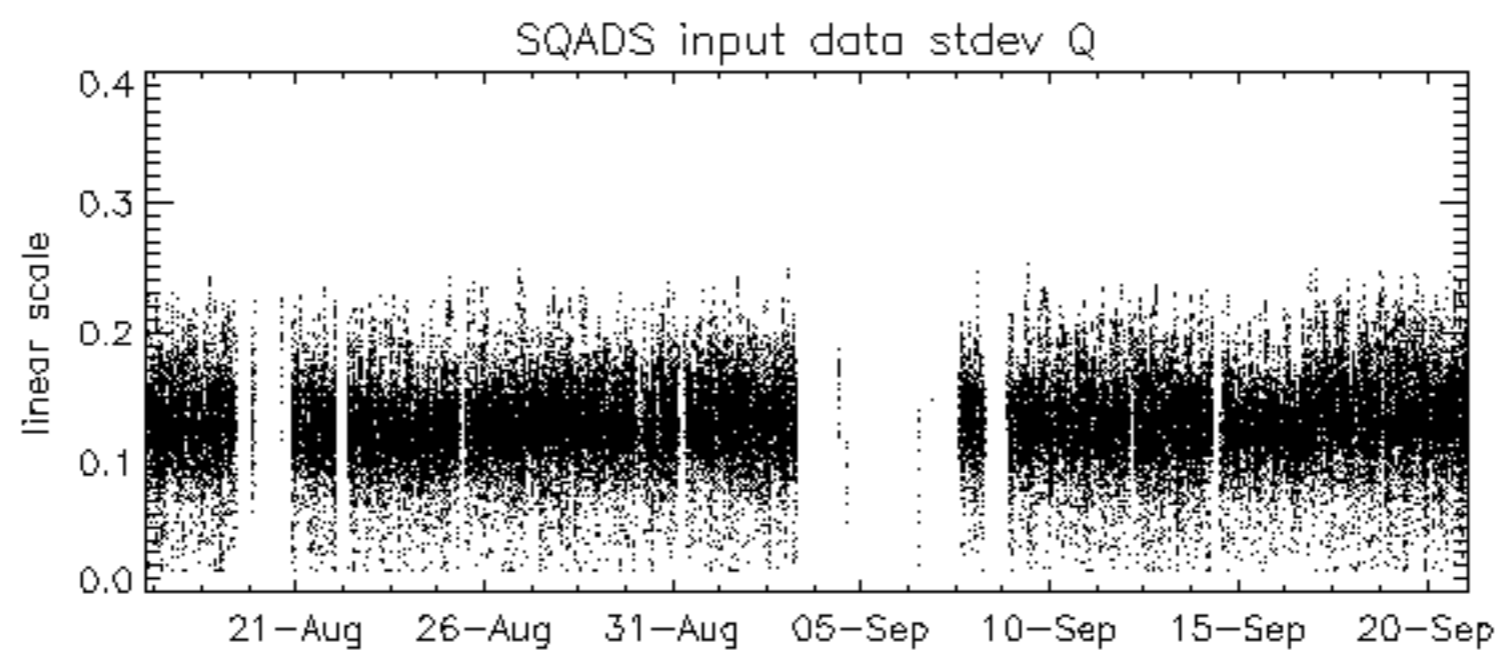
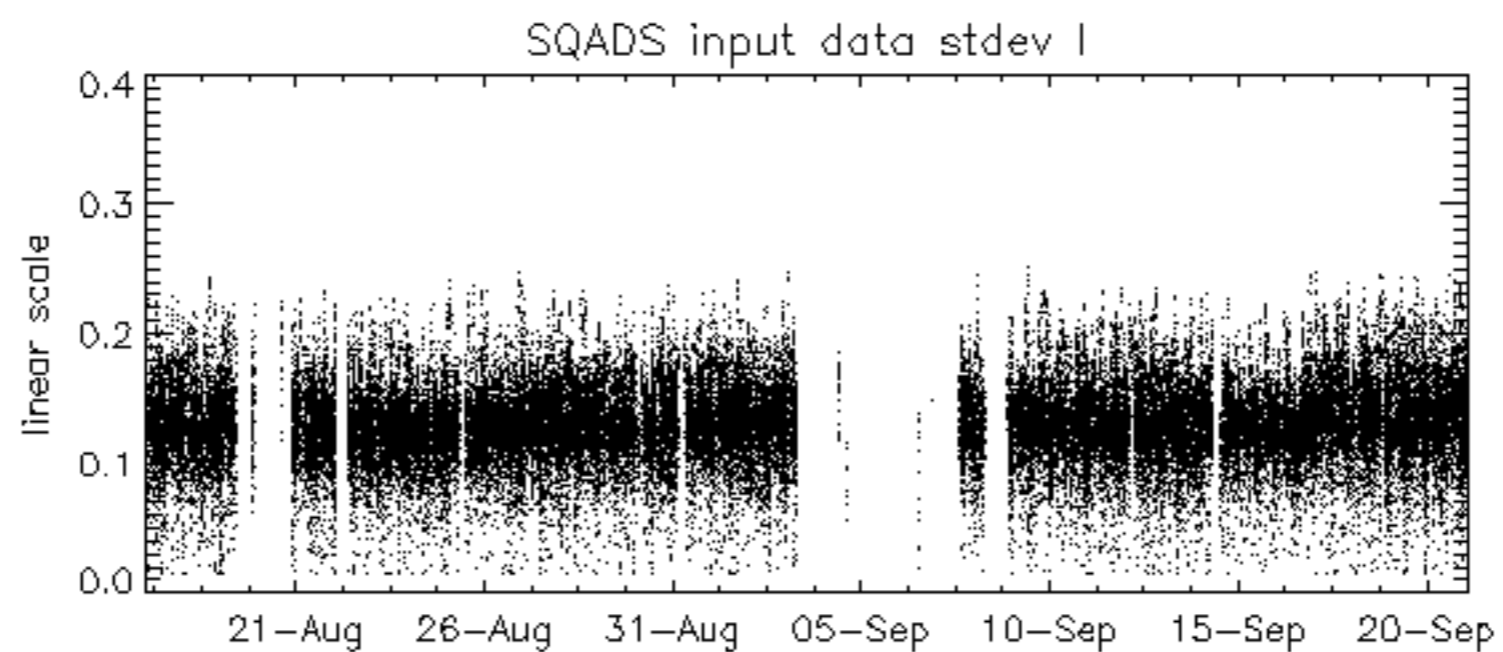
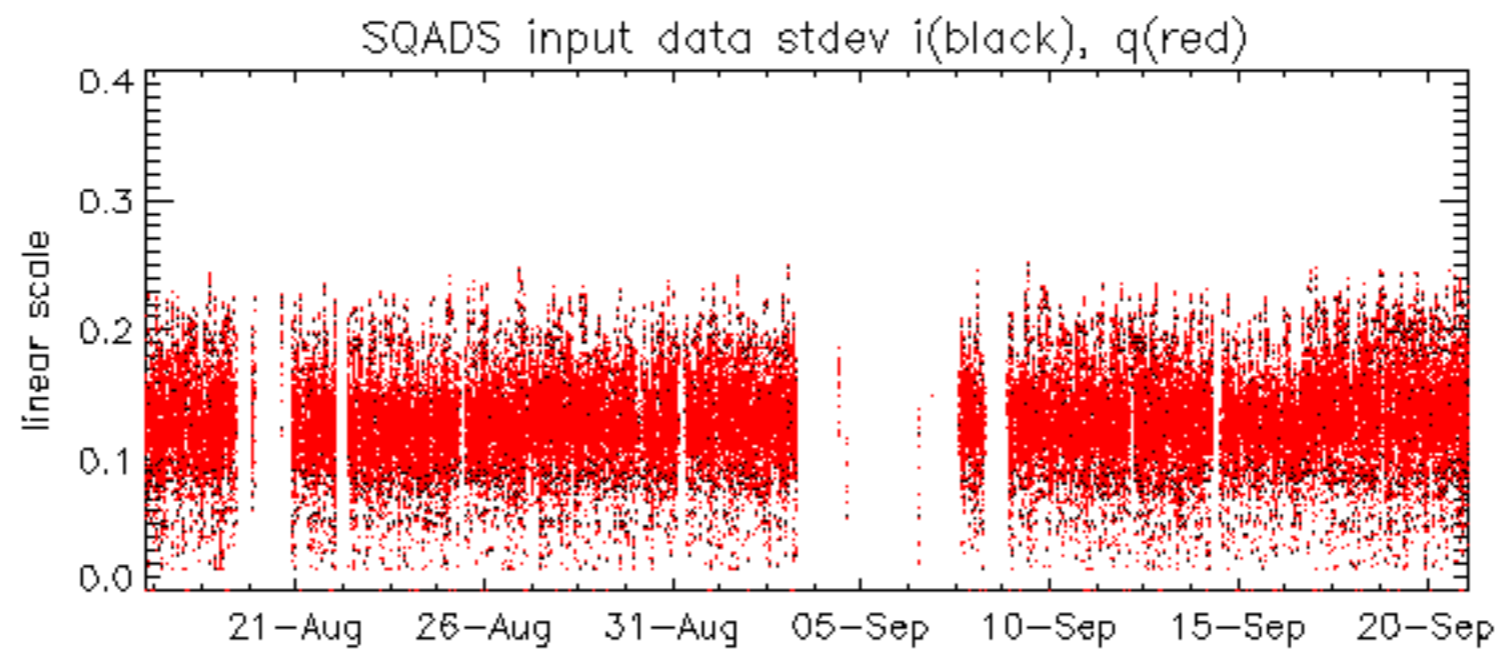
No anomalies observed on available MS products:

No anomalies observed.





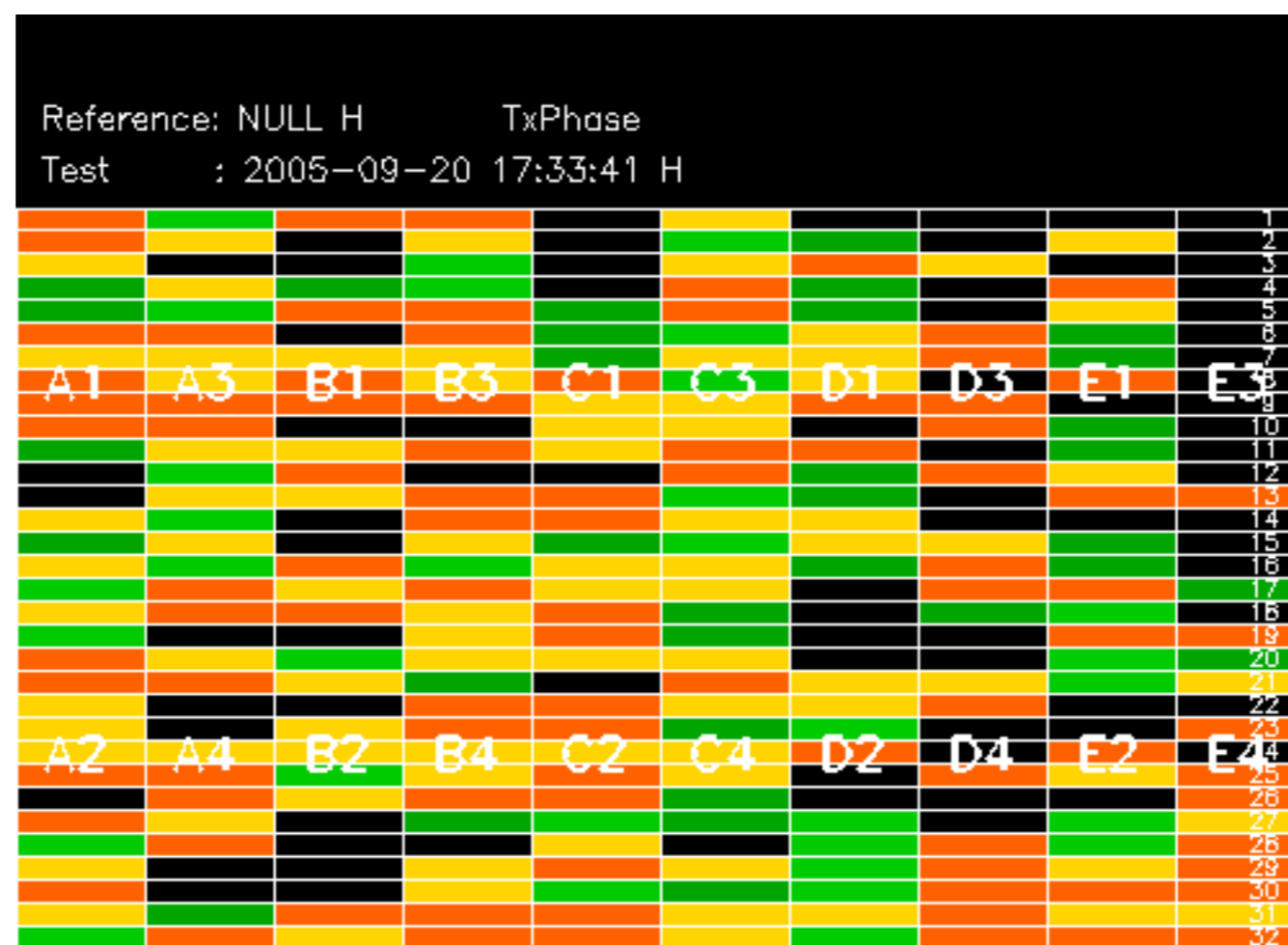


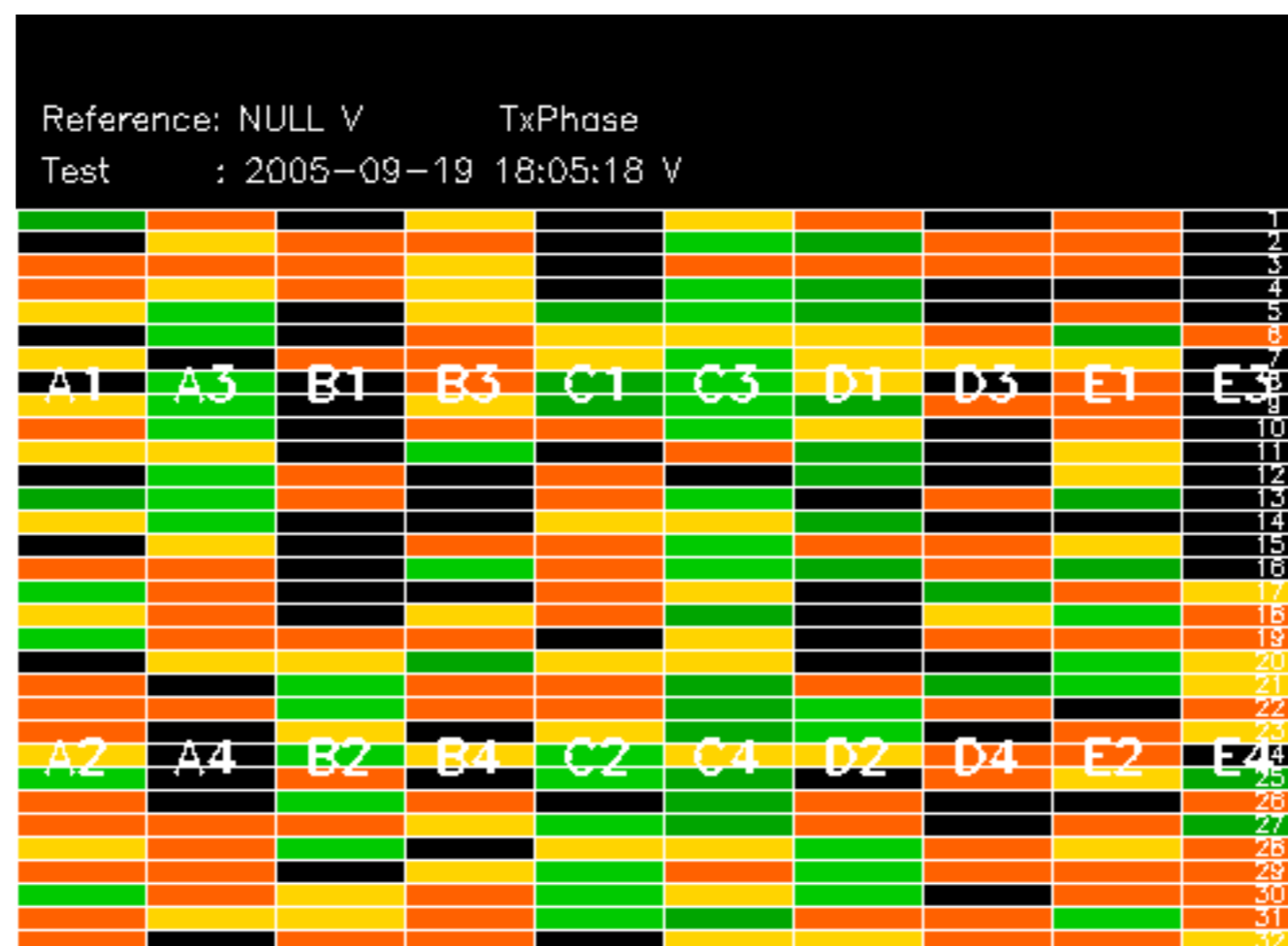


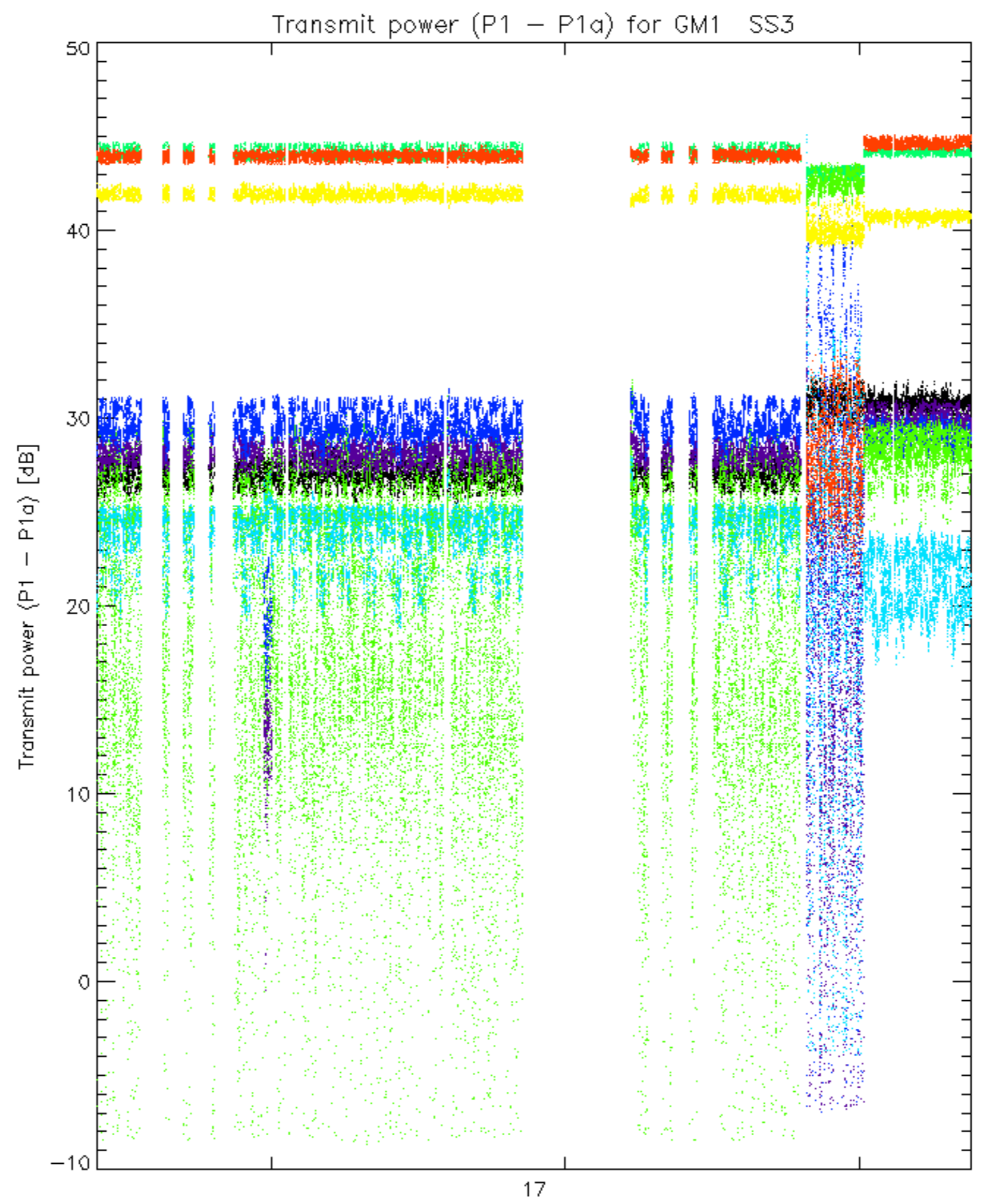
Summary of analysis for the last 3 days 2005092[901]

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

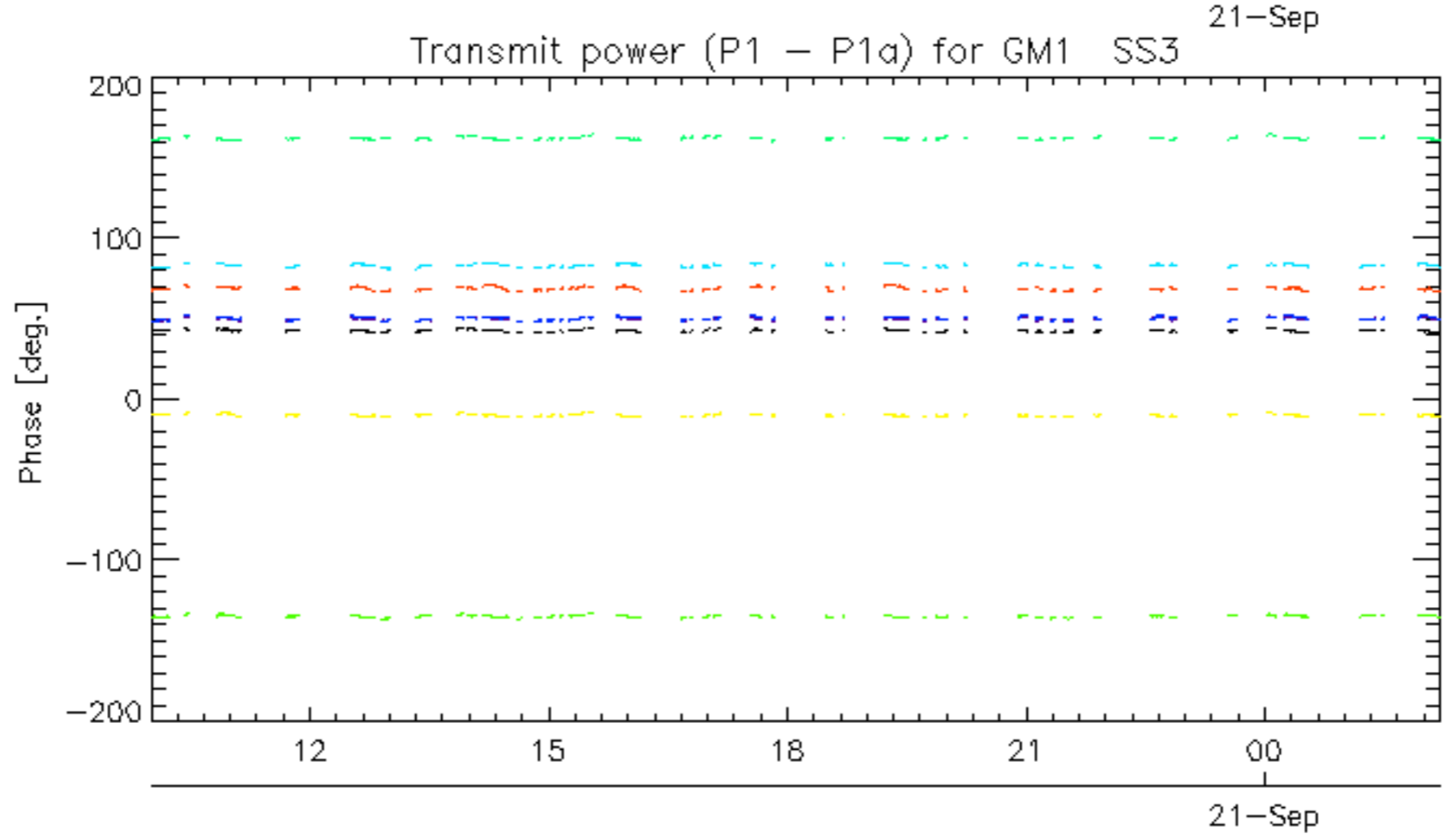
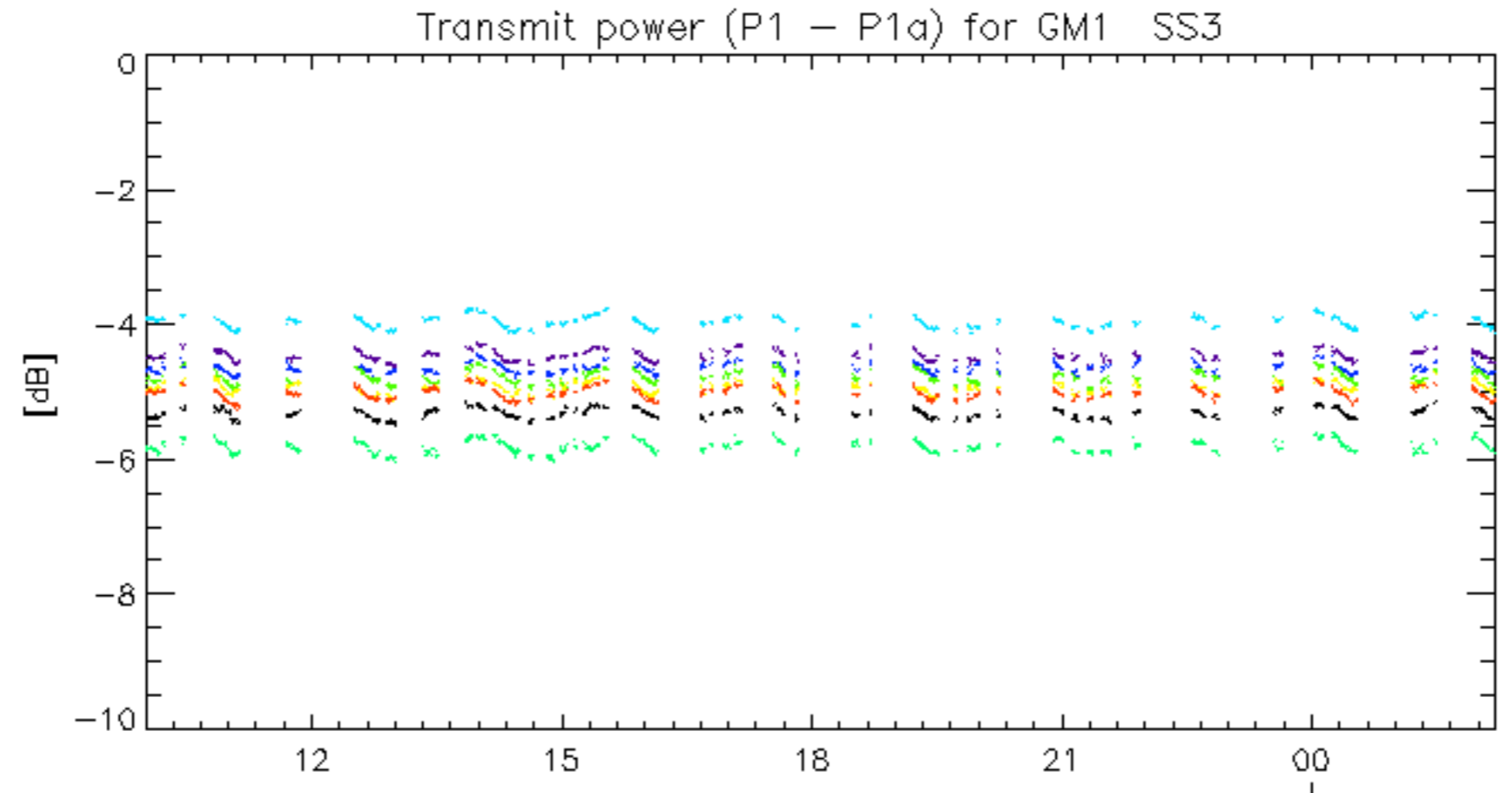
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20050920_162919_000001842041_00012_18603_9656.N1	0	59



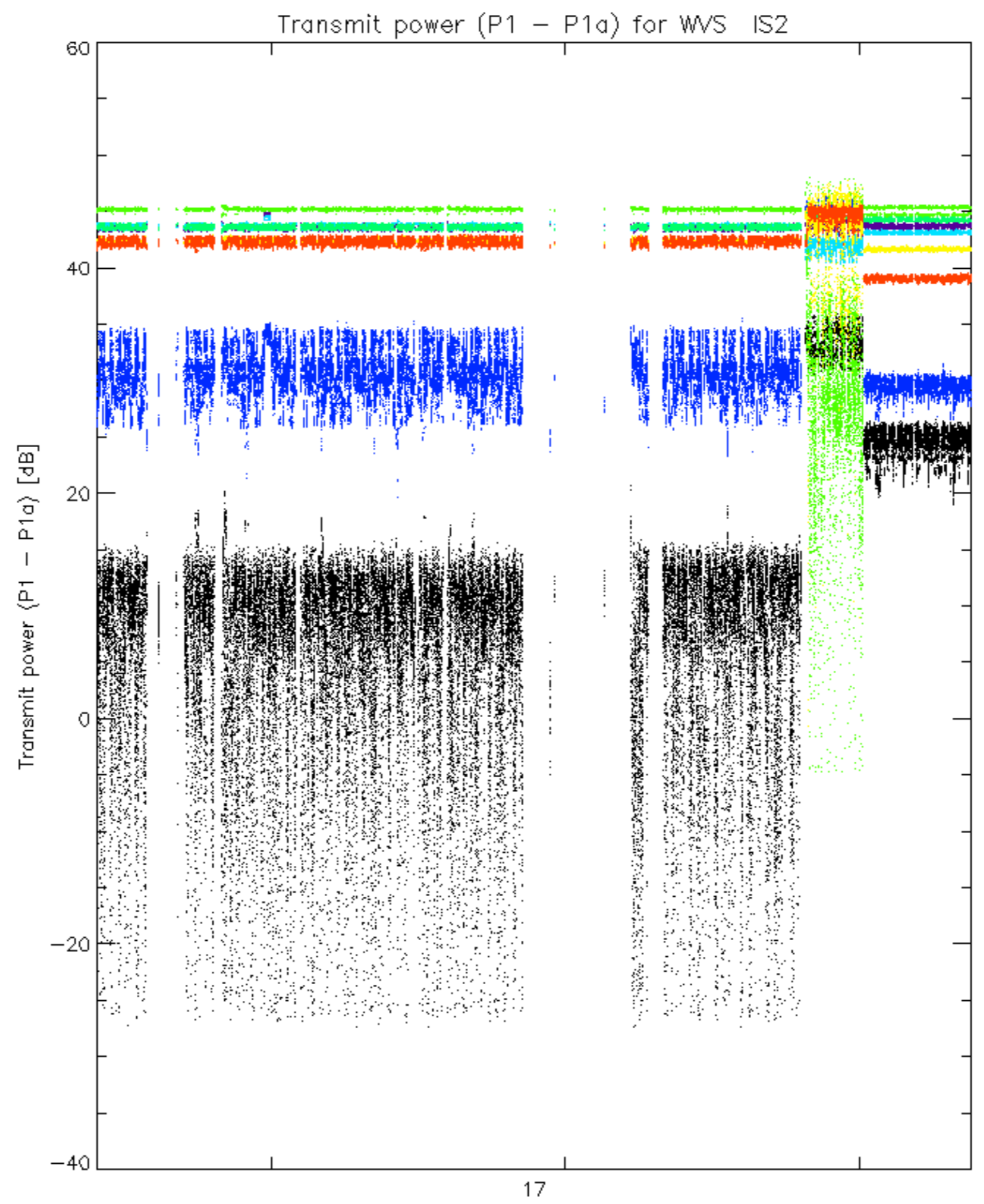


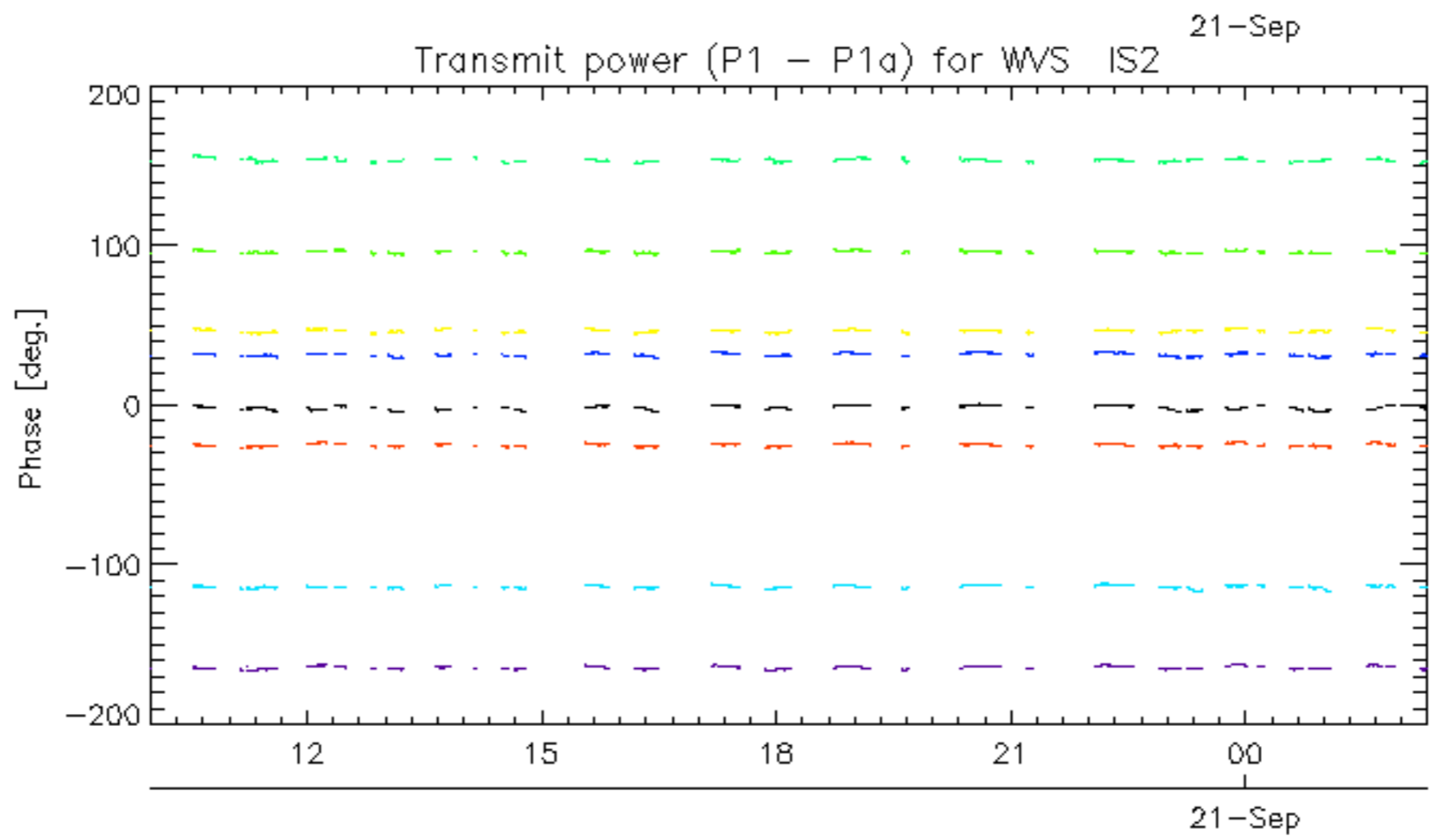
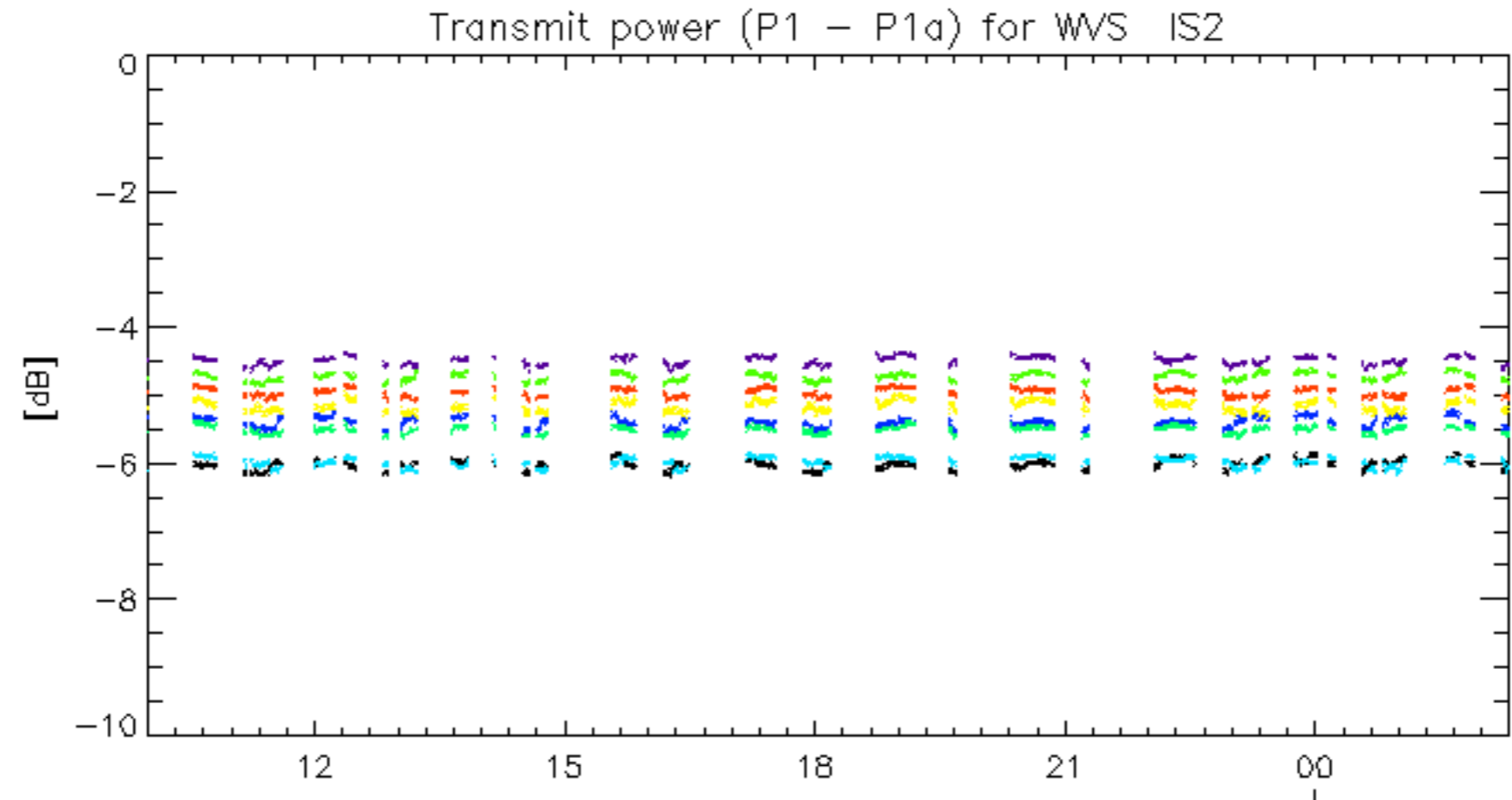


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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





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

No unavailabilities during the reported period.