

PRELIMINARY REPORT OF 051010

last update on Mon Oct 10 16:41:09 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 2005-10-09 00:00:00 to 2005-10-10 16:41:09

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	36	62	13	1	26
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	36	62	13	1	26
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	36	62	13	1	26
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	36	62	13	1	26

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	36	58	36	12	52
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	36	58	36	12	52
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	36	58	36	12	52
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	36	58	36	12	52

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	20051010 084157
H	20051008 030247

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	-3.543902	0.066936	-0.072662
7	P1	-2.979956	0.036310	0.417323
11	P1	-4.262975	0.139670	0.950283
15	P1	-5.939381	0.041683	-0.409582
19	P1	-3.218649	0.162942	0.485096
22	P1	-4.494884	0.023189	0.251818
26	P1	-4.458776	0.104634	0.812849
30	P1	-5.994522	0.455281	1.572984
3	P1	-15.826663	1.871202	1.375095
7	P1	-16.708288	4.806140	1.250130
11	P1	-18.194057	13.120499	8.803555
15	P1	-13.707535	9.332262	0.482454
19	P1	-13.735299	0.236769	0.810126
22	P1	-17.262577	23.491598	3.604771
26	P1	-17.733624	22.068197	5.475272
30	P1	-17.544430	9.225624	4.442232

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.829975	0.103217	-0.192362
7	P2	-22.559225	0.250383	-0.824972
11	P2	-16.121052	2.131978	-3.423681
15	P2	-7.205680	0.118161	-0.098138
19	P2	-9.176972	0.191626	0.186773
22	P2	-17.462971	0.241879	-1.145446
26	P2	-16.193758	0.132415	0.536540
30	P2	-19.476233	0.212318	-0.773861

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.176180	0.004885	-0.035340
7	P3	-8.176180	0.004885	-0.035340
11	P3	-8.176180	0.004885	-0.035340
15	P3	-8.176180	0.004885	-0.035340
19	P3	-8.176180	0.004885	-0.035340
22	P3	-8.176180	0.004885	-0.035340
26	P3	-8.176180	0.004885	-0.035340
30	P3	-8.176180	0.004885	-0.035340

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	-3.359014	0.271889	-1.318170
7	P1	-2.937029	0.068143	0.379805
11	P1	-3.166320	0.283127	1.482495
15	P1	-3.460807	0.032398	0.337517
19	P1	-3.343842	0.062886	0.087203
22	P1	-5.174343	0.165656	0.270449
26	P1	-5.945693	0.632637	1.100833
30	P1	-5.305842	0.365193	0.686259
3	P1	-11.500196	0.440554	0.220364
7	P1	-11.403814	20.501368	5.295551
11	P1	-12.437077	40.220051	9.274066
15	P1	-12.568849	34.815804	7.209261
19	P1	-15.326225	0.220228	-0.411992
22	P1	-21.599695	5.377923	5.637756

26	P1	-17.285469	5.232336	0.065075
30	P1	-19.429653	1.888059	2.482606

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.632704	0.060475	-0.391273
7	P2	-22.852102	0.273809	-1.031444
11	P2	-11.297599	0.885940	-2.333634
15	P2	-4.932281	0.046537	0.222663
19	P2	-6.791901	0.112929	-0.385547
22	P2	-7.815948	0.234746	-1.321629
26	P2	-23.879459	0.043003	0.132812
30	P2	-22.076551	0.059138	0.031341

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.019164	0.002924	-0.038686
7	P3	-8.019197	0.002925	-0.039016
11	P3	-8.018992	0.002930	-0.039291
15	P3	-8.019073	0.002930	-0.039216
19	P3	-8.019291	0.002929	-0.038926
22	P3	-8.019035	0.002931	-0.039164
26	P3	-8.019333	0.002926	-0.039247
30	P3	-8.019098	0.002940	-0.038825

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	0.000534366
	stdev	1.83377e-07
MEAN Q	mean	0.000525422
	stdev	2.18529e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135504
	stdev	0.00110688
STDEV Q	mean	0.135826
	stdev	0.00112257



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005100[890]

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_GM1_1PNPDK20051008_135751_000010812041_00268_18859_7798.N1	0	31
ASA_GM1_1PNPDK20051009_182016_000001572041_00285_18876_7929.N1	0	17
ASA_WSM_1PNPDE20051008_170158_000002382041_00270_18861_2998.N1	0	15
ASA_WSM_1PNPDE20051009_163154_000001282041_00284_18875_3126.N1	0	2
ASA_WSM_1PNPDE20051009_181539_000001152041_00285_18876_3162.N1	0	33

ASA_WSM_1PNPDE20051009_231318_000002392041_00288_18879_3204.N1	0	2
ASA_WSM_1PNPDK20051008_134137_000000912041_00268_18859_6455.N1	0	60
ASA_WSM_1PNPDK20051008_134139_000000852041_00268_18859_6504.N1	0	60



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

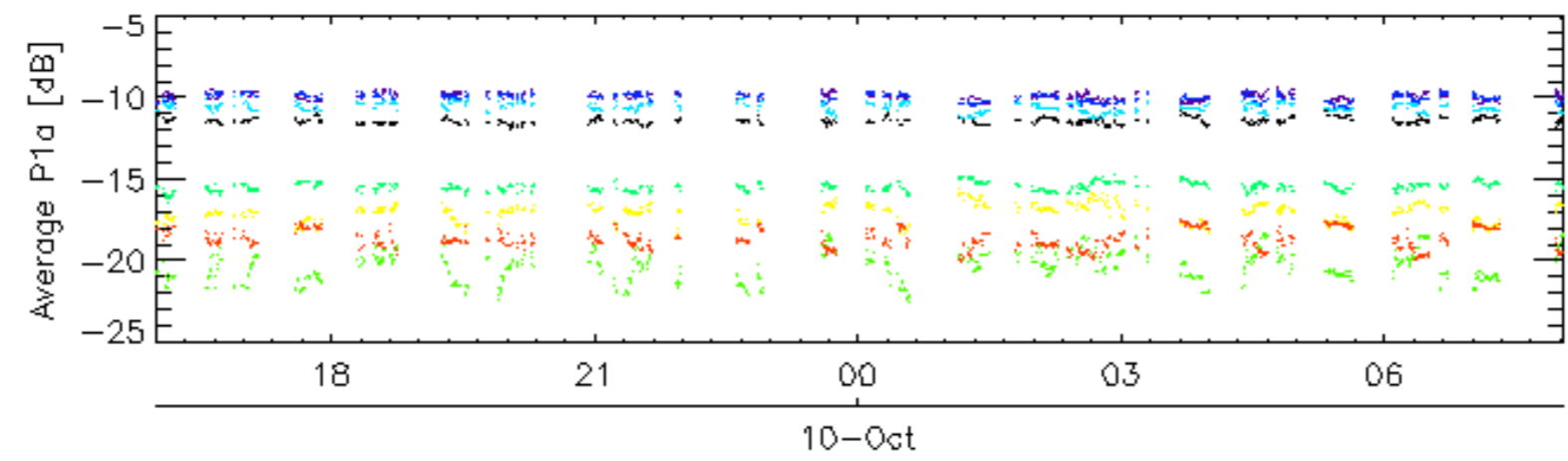
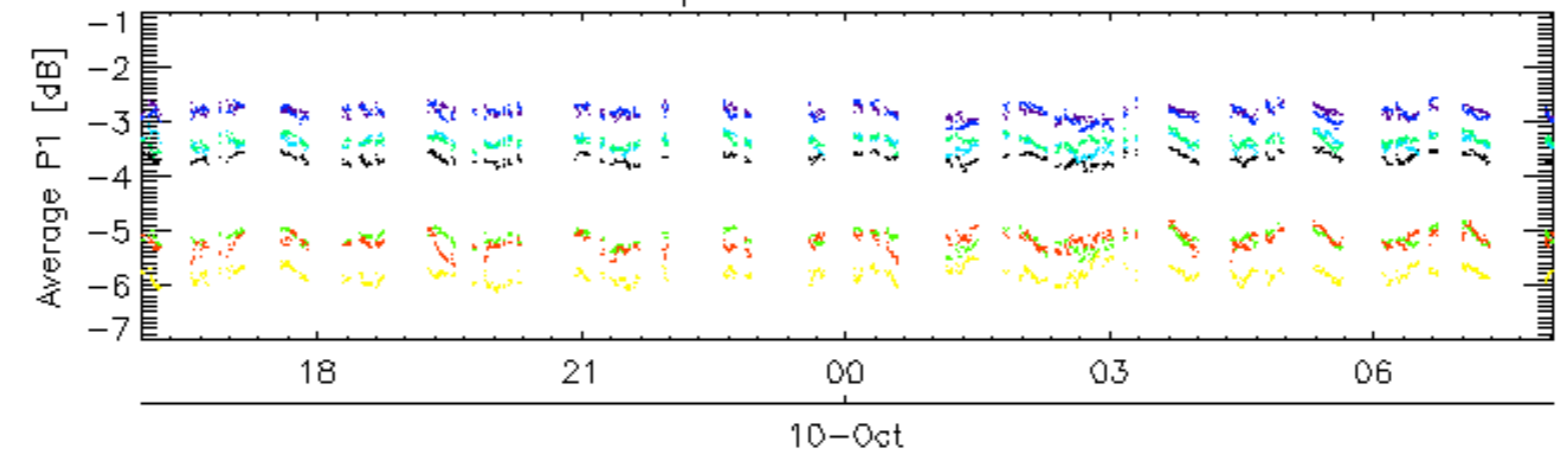
7.5 - Absolute Doppler for GM1

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

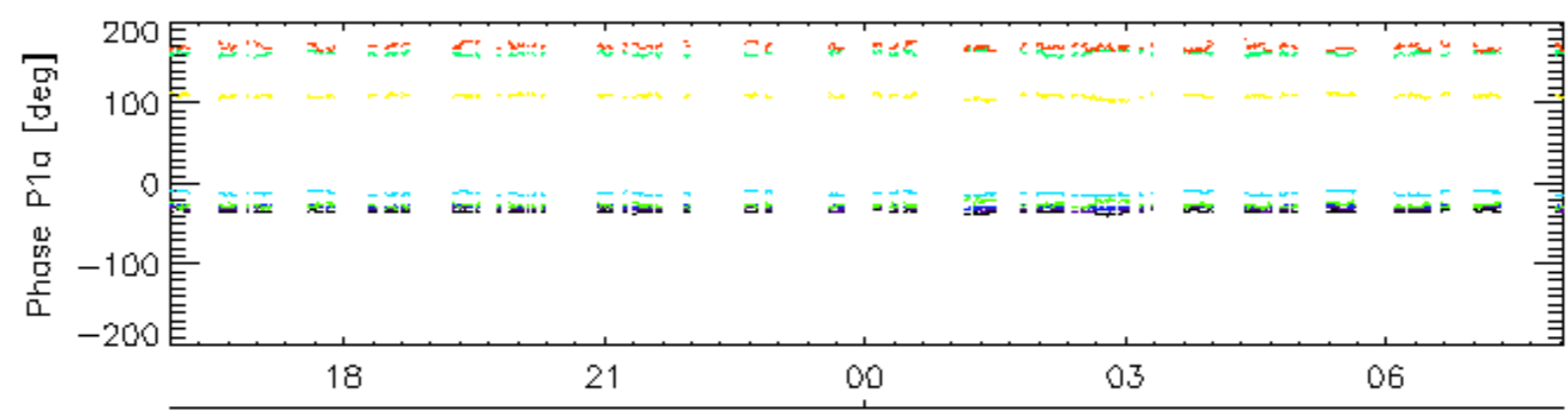
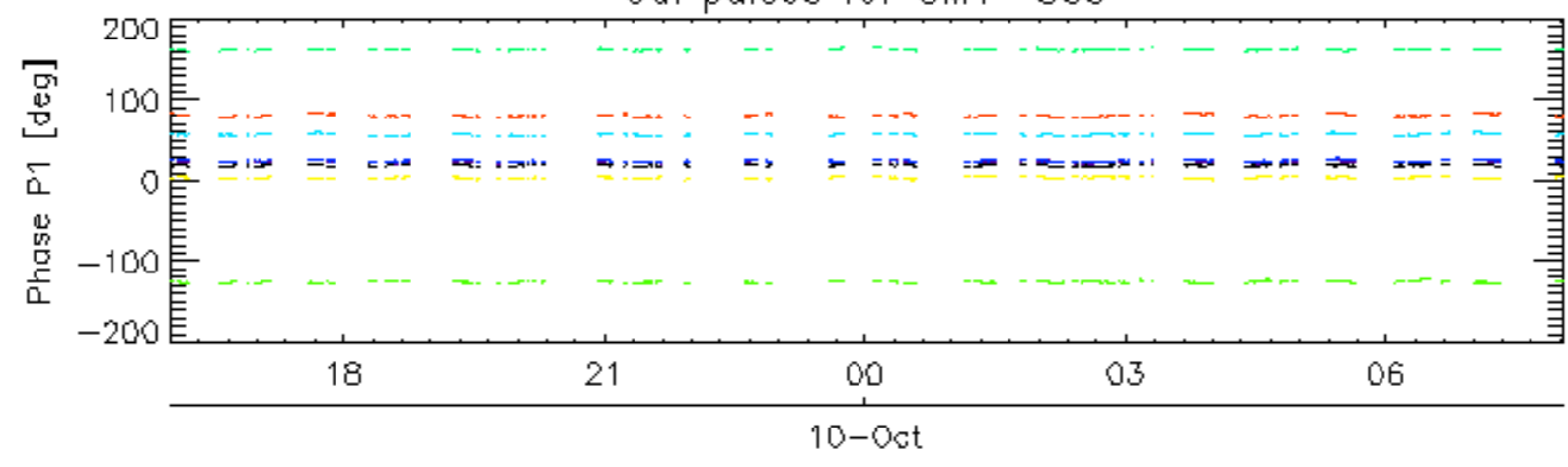
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

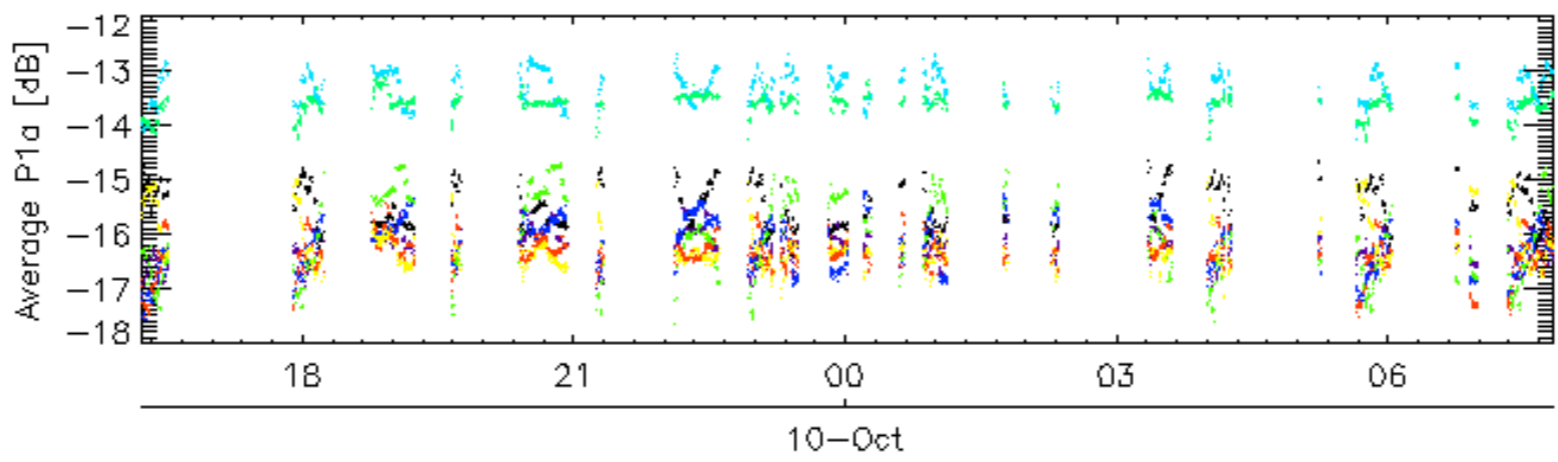
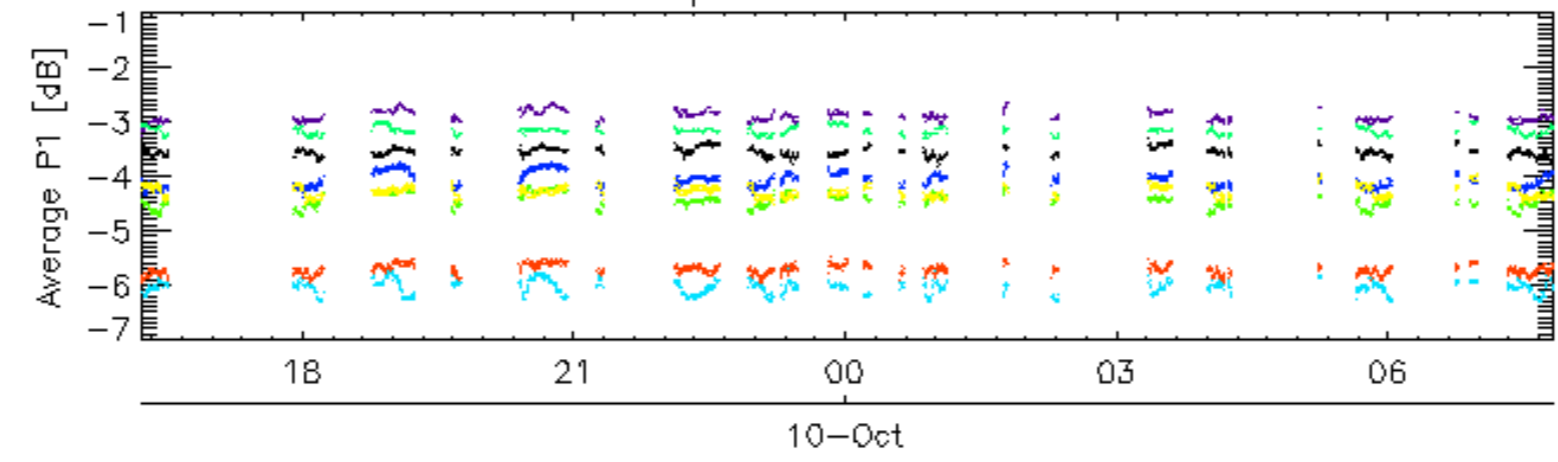


Cal pulses for GM1 SS3

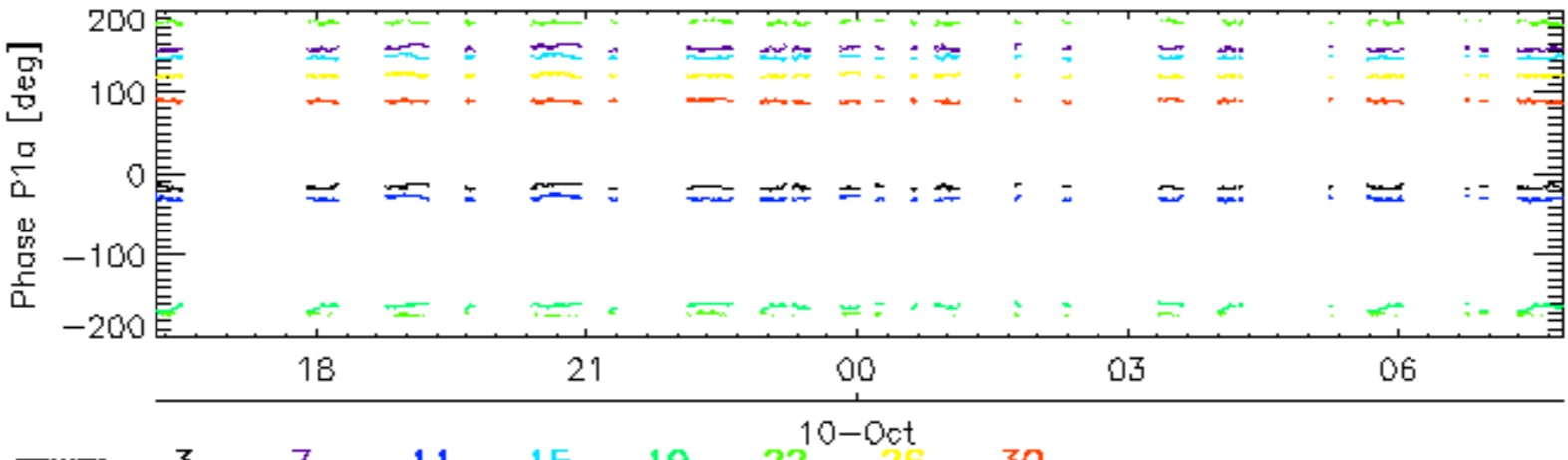
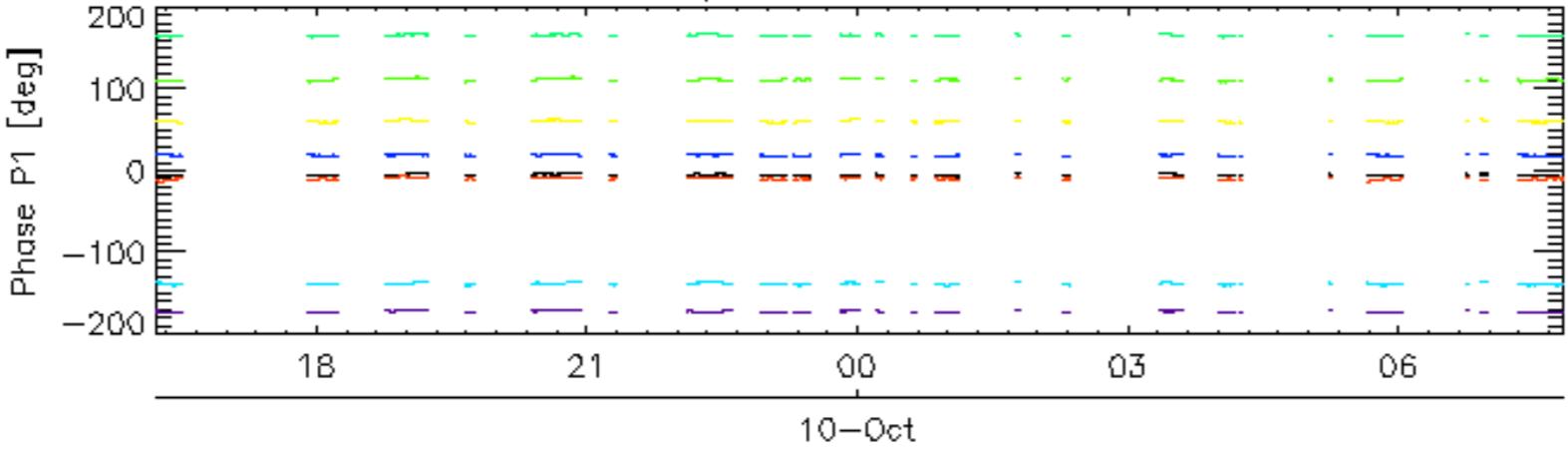


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

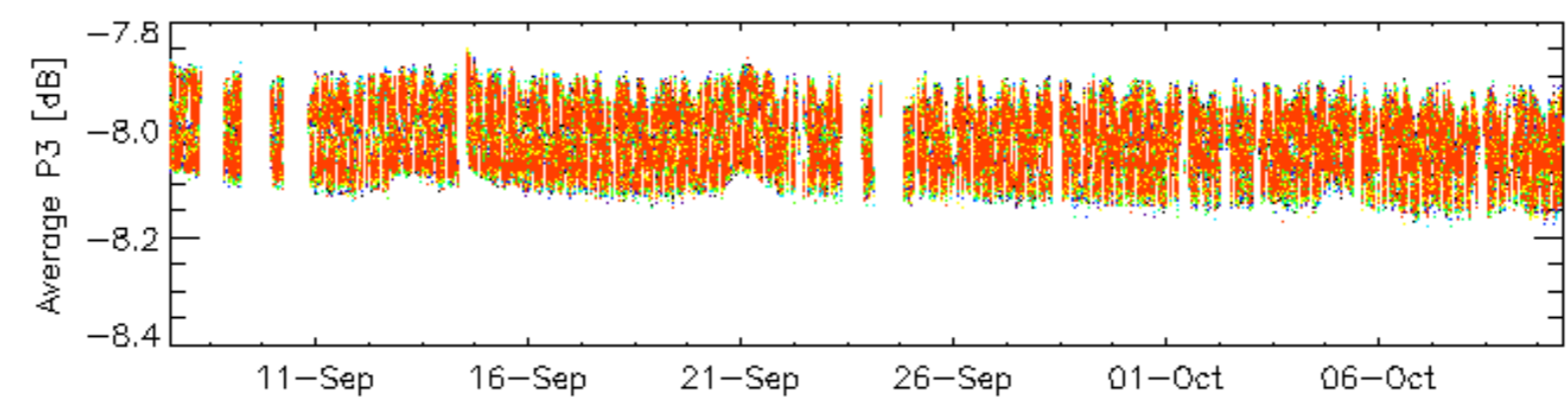
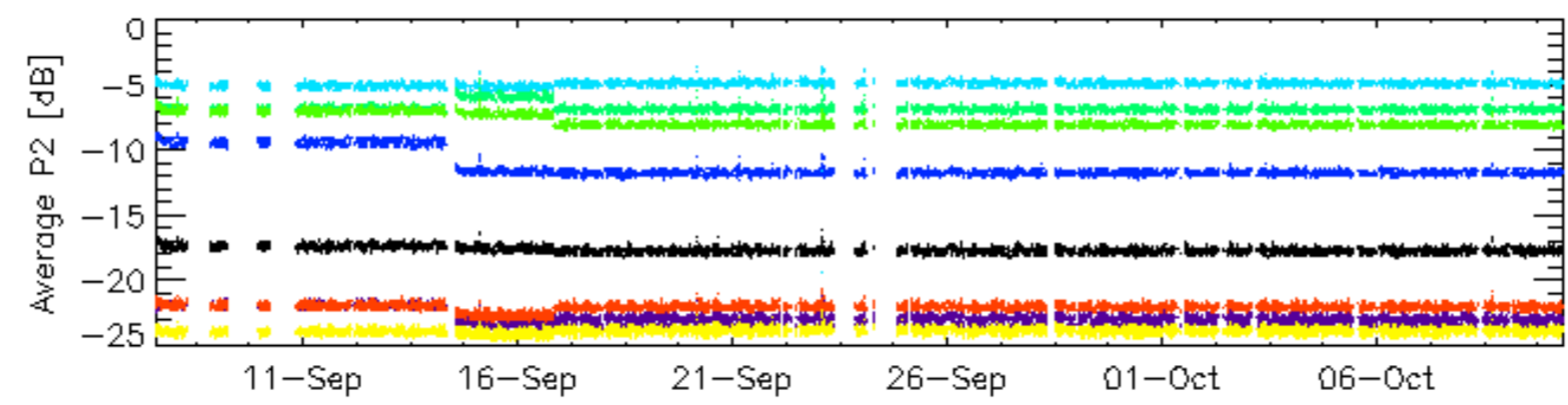
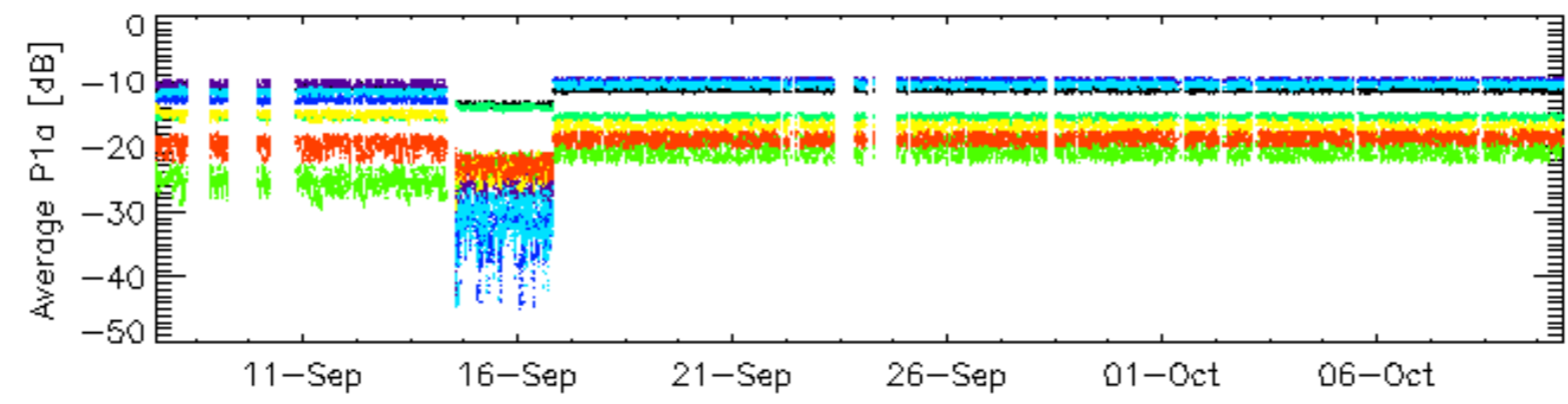
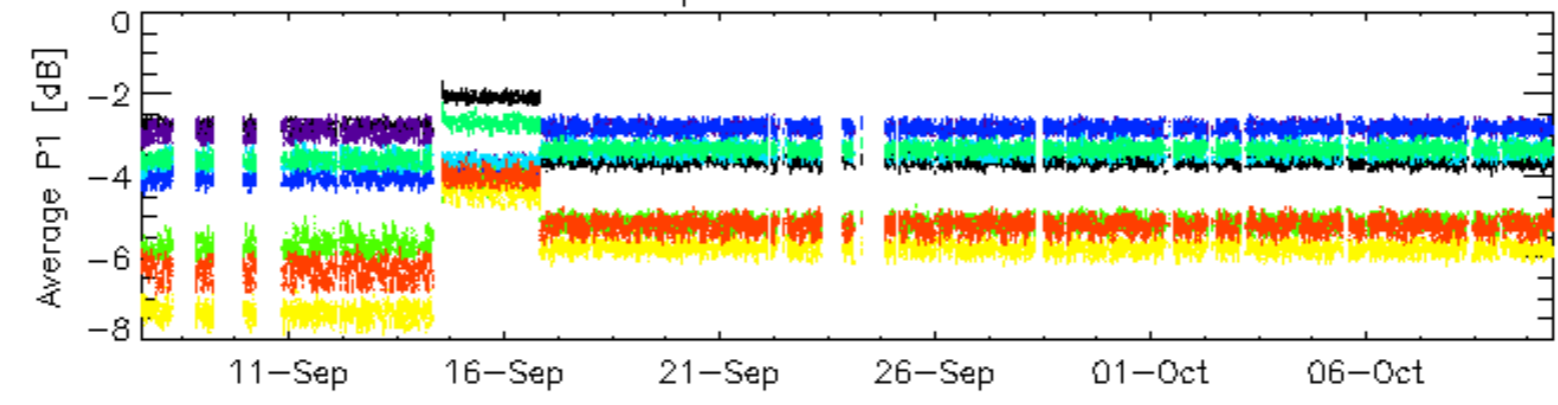


Cal pulses for WVS IS2



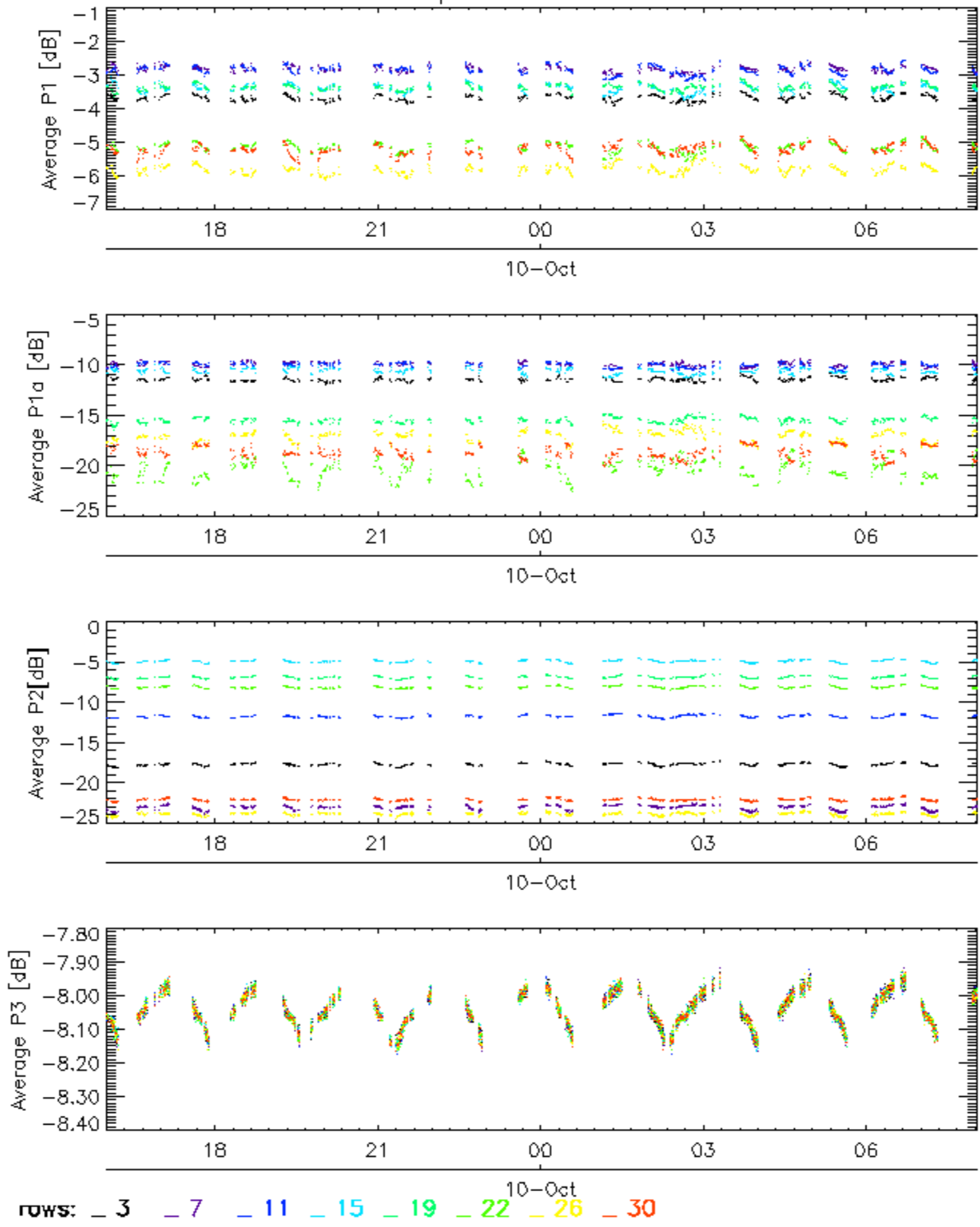
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

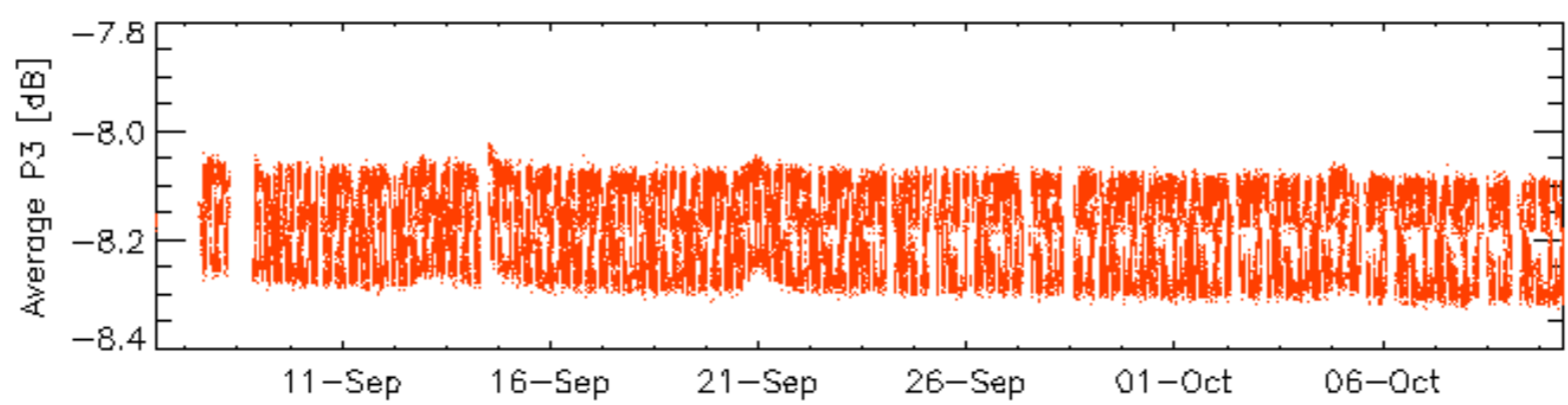
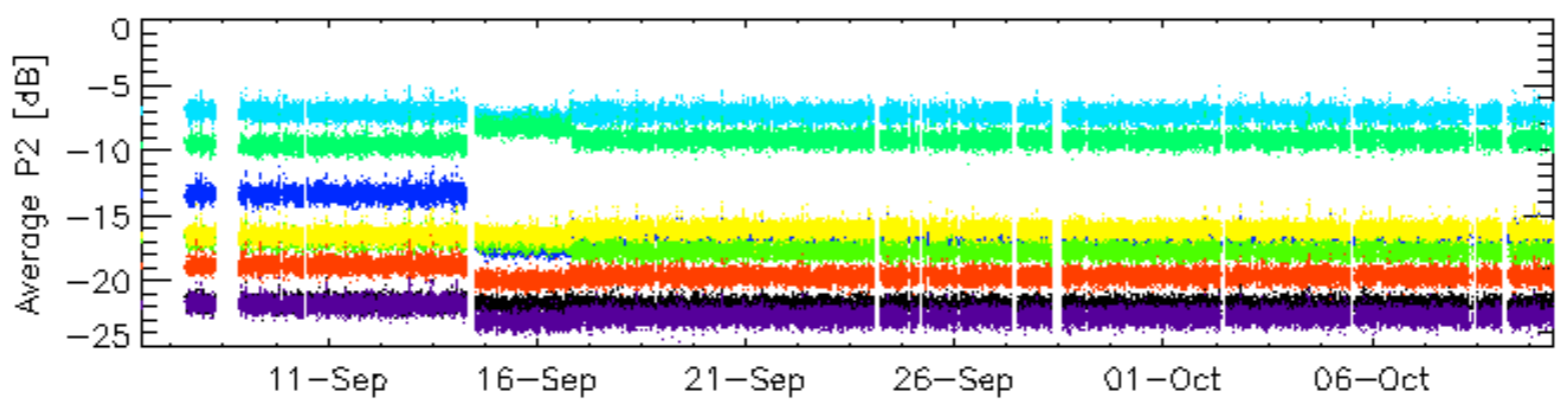
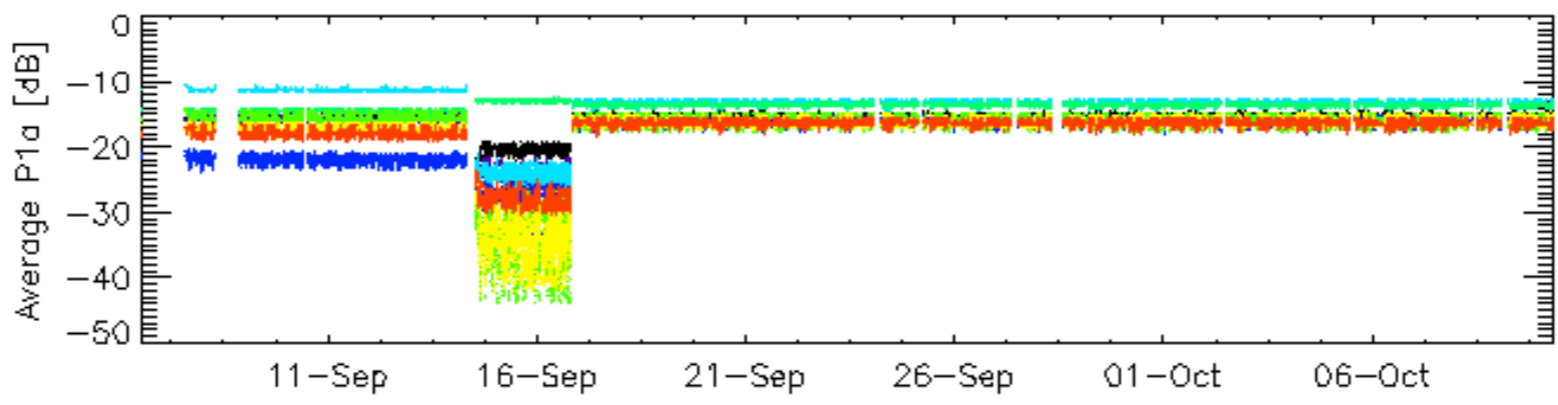
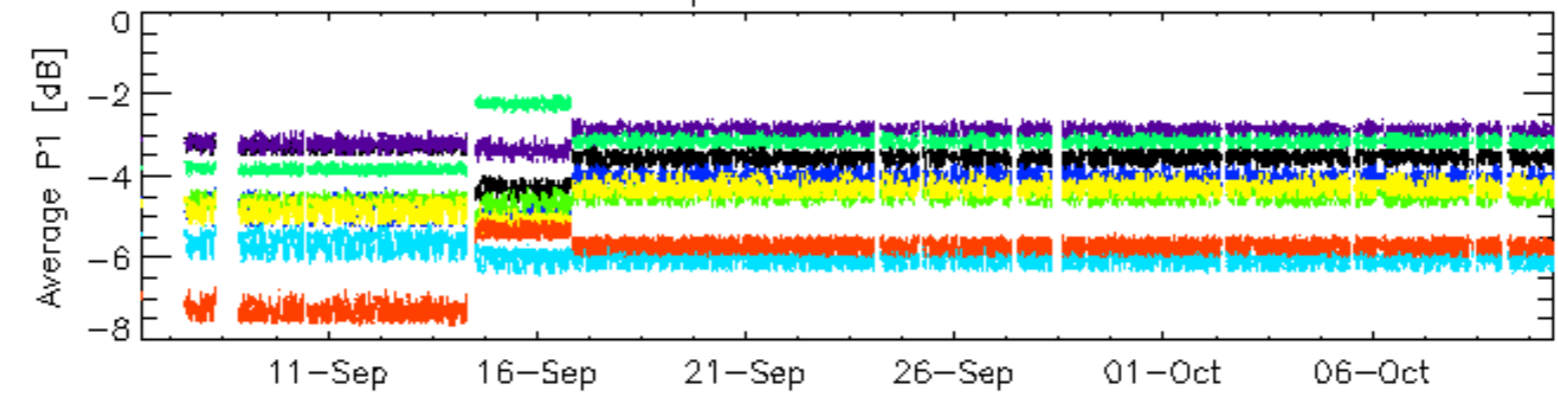


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

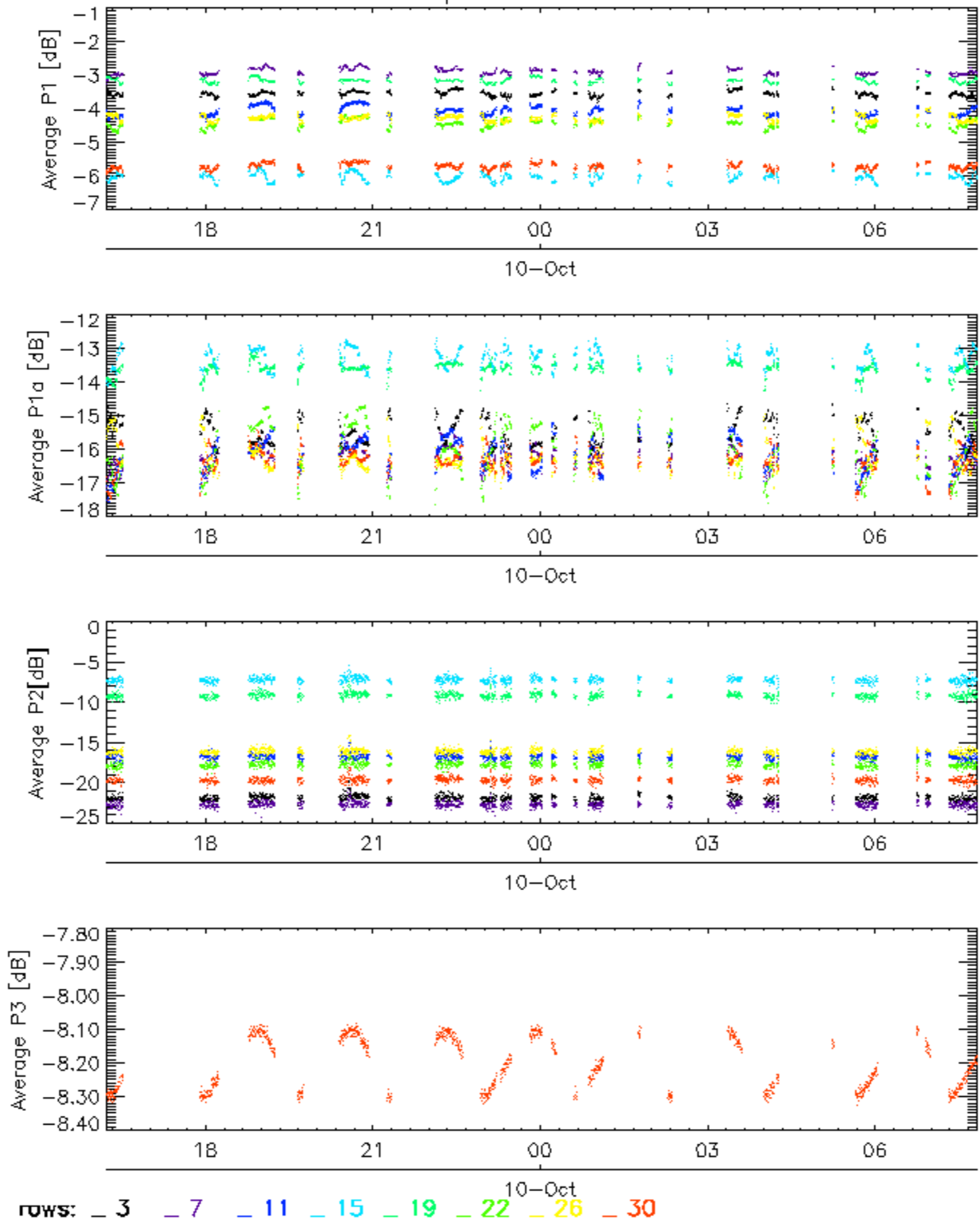


Cal pulses for WVS IS2



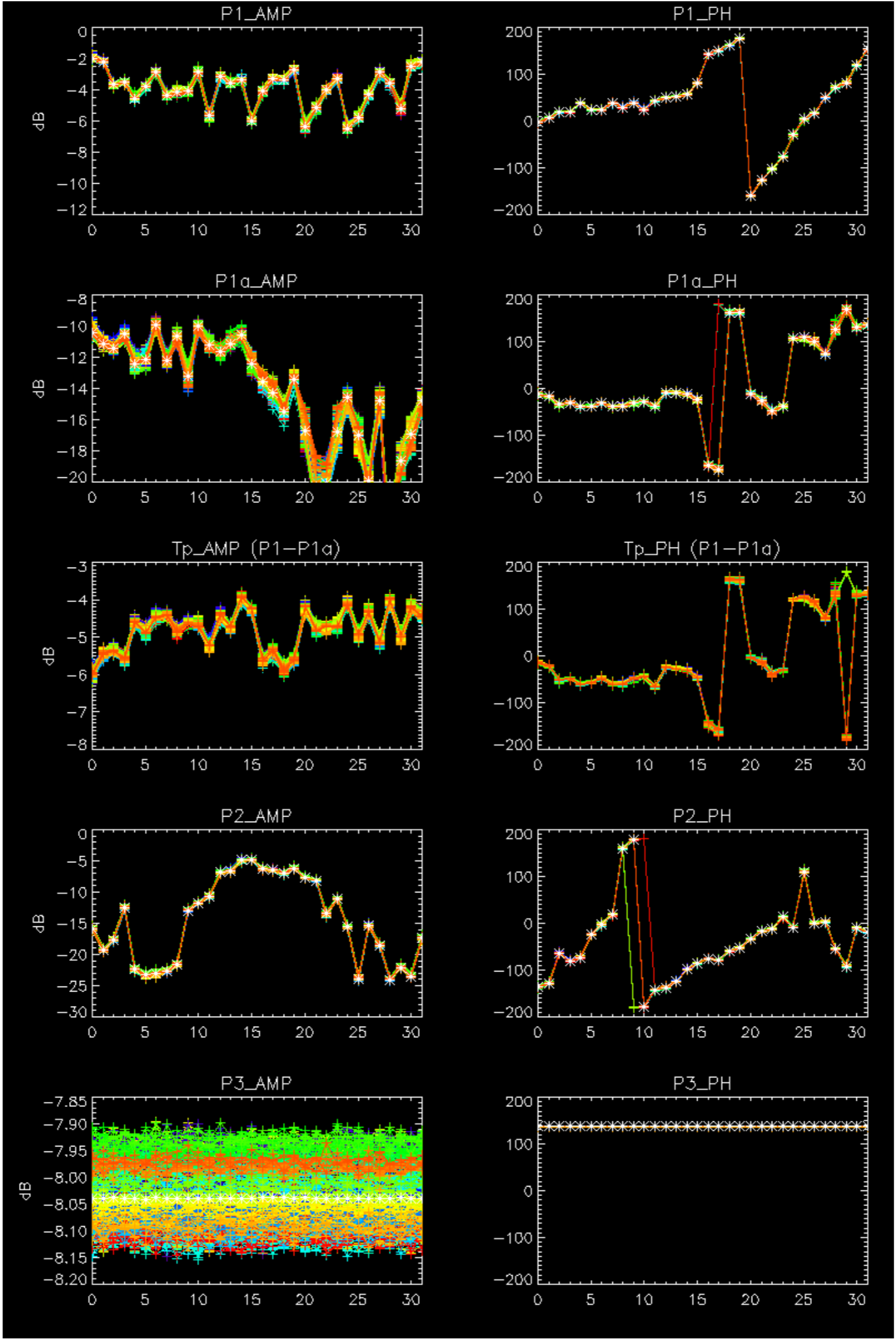
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

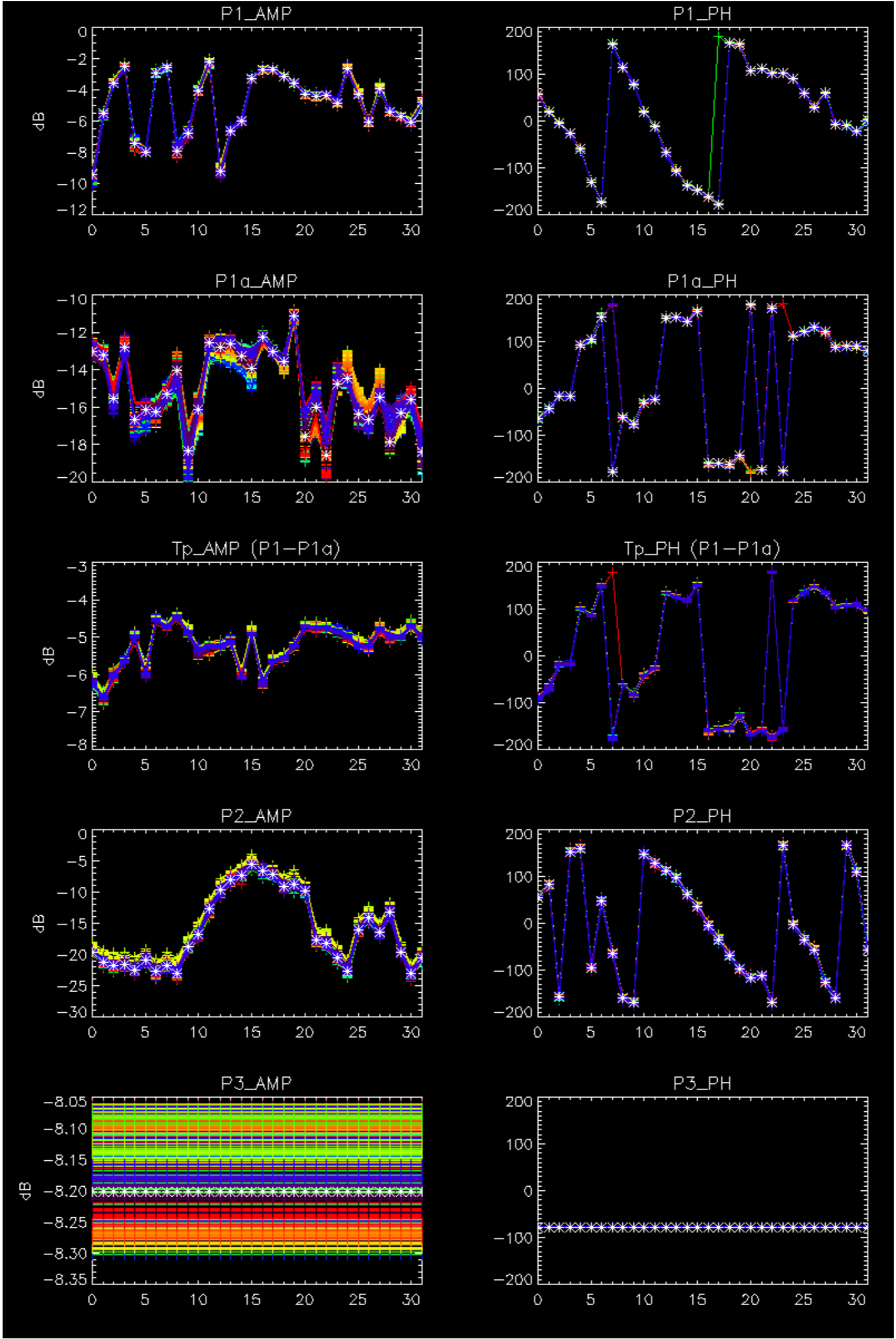
Cal pulses for WVS IS2



No anomalies observed on available browse products

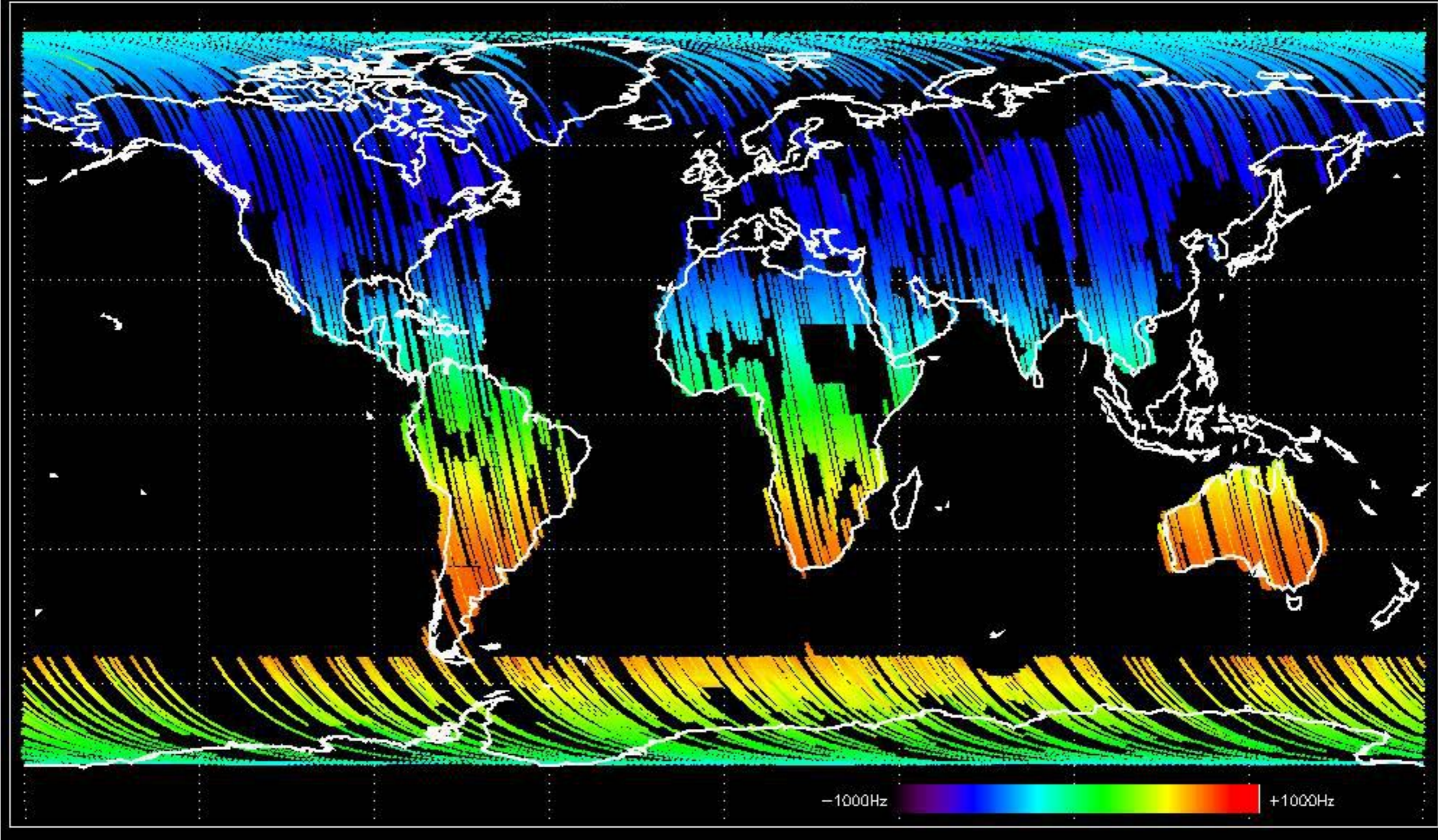
No anomalies observed.



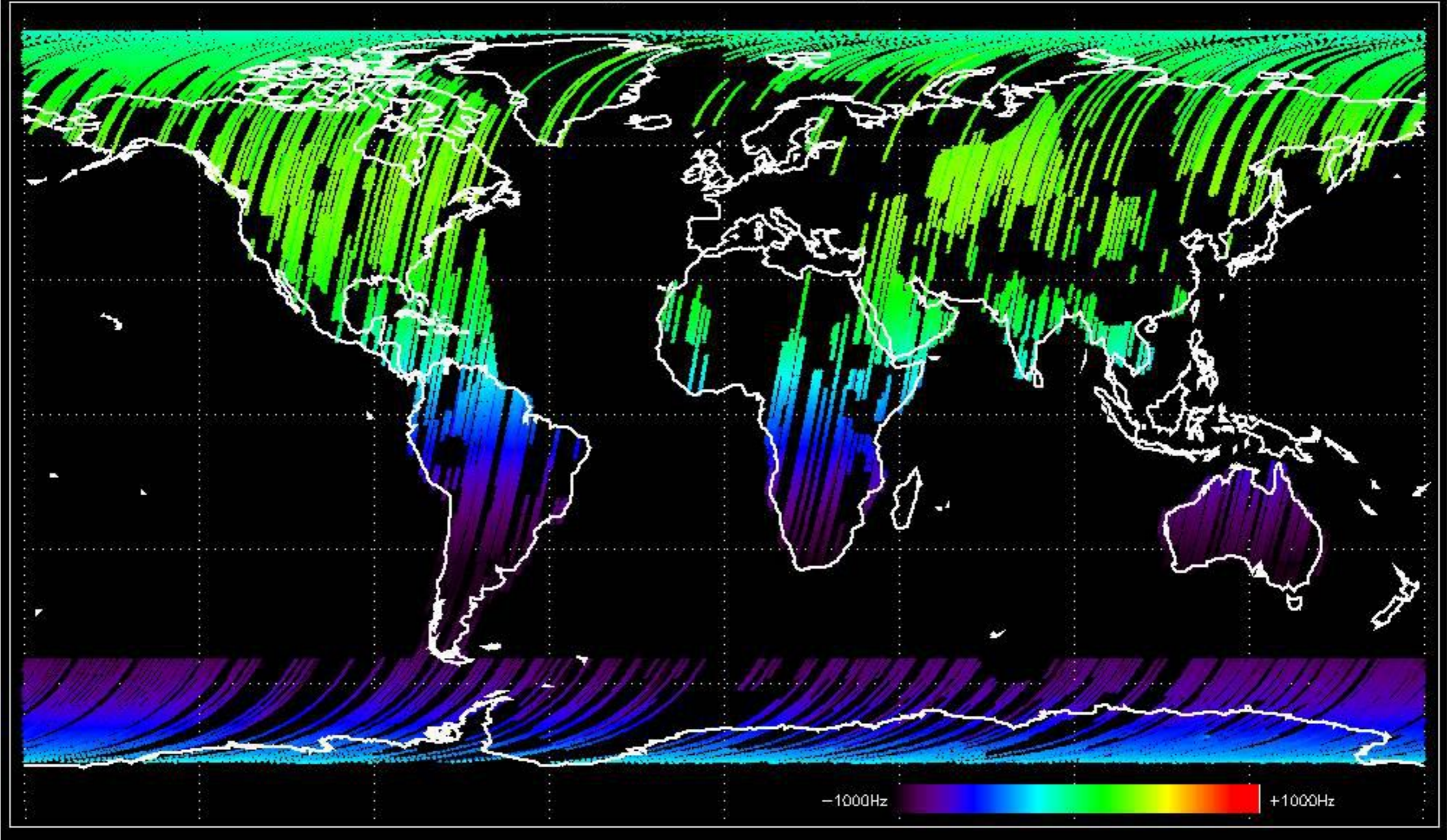


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

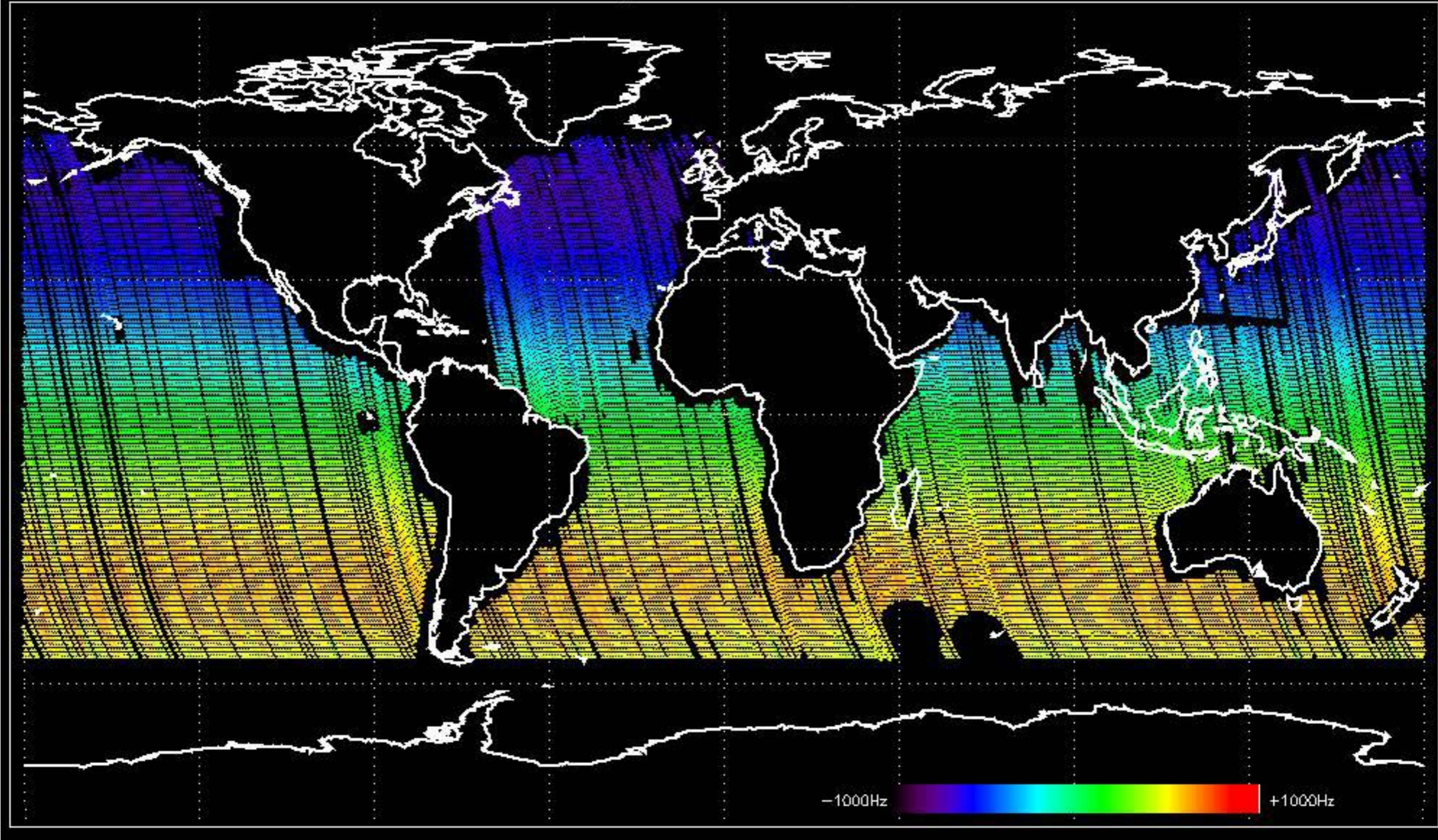
Doppler 'GM1' 'SS1' ascending



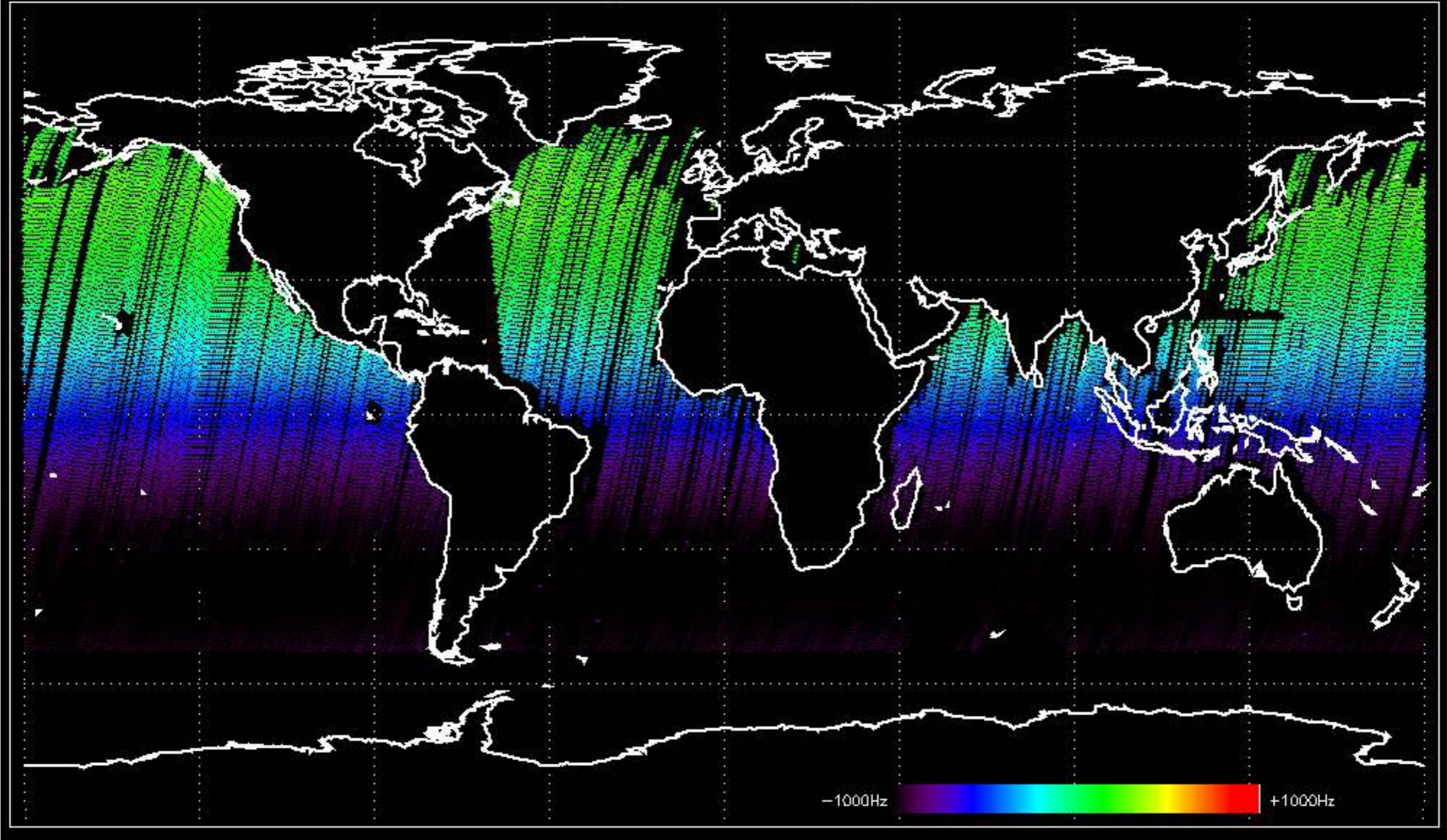
Doppler 'GM1' 'SS1' descending



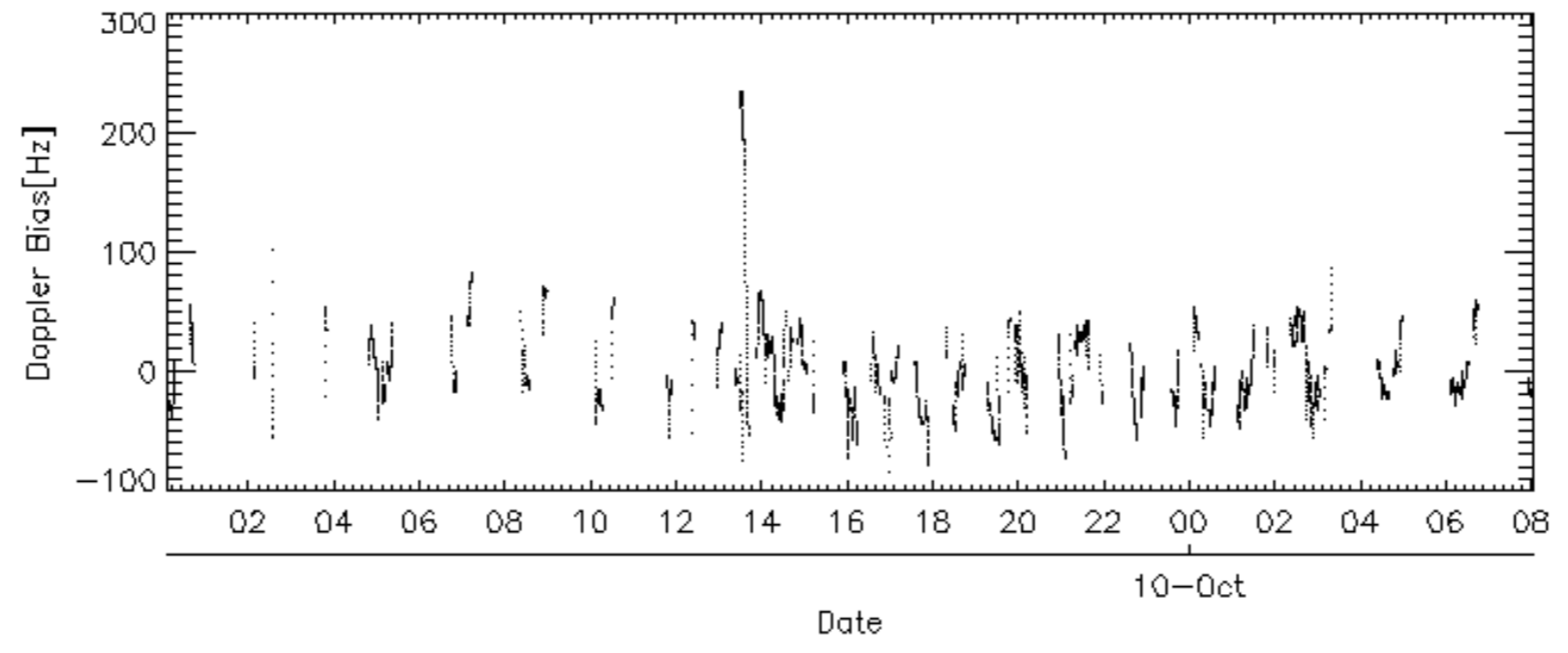
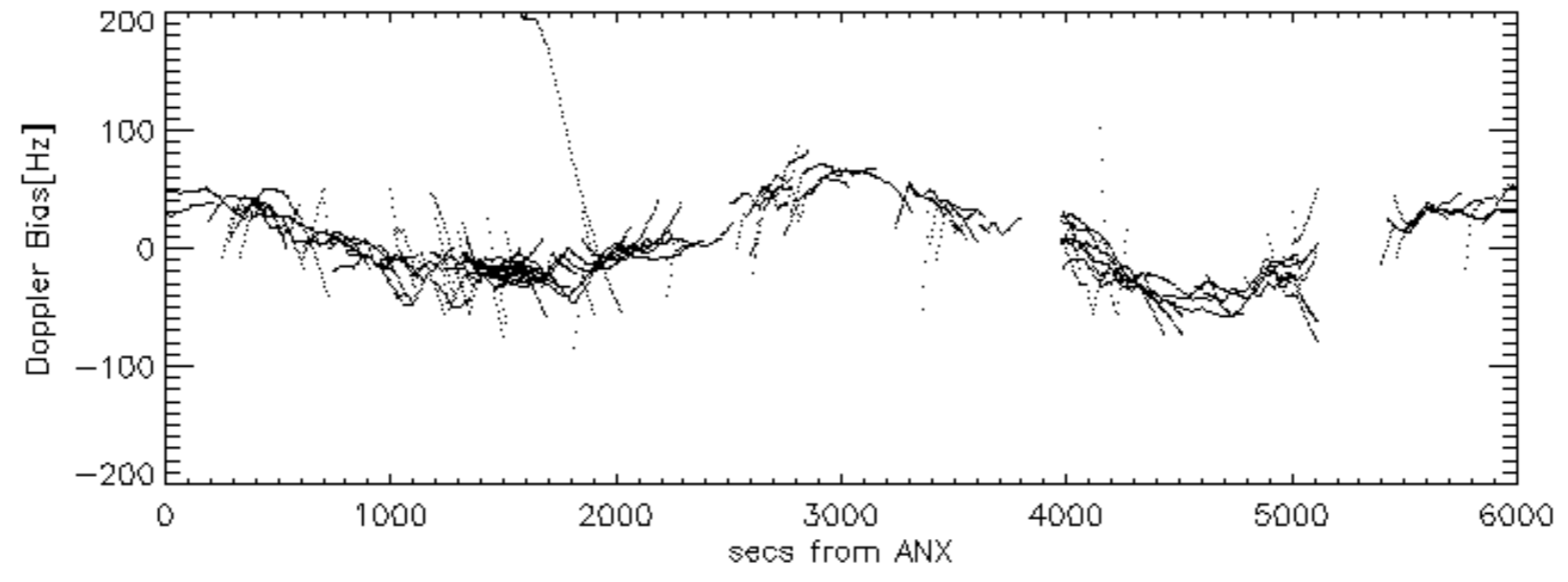
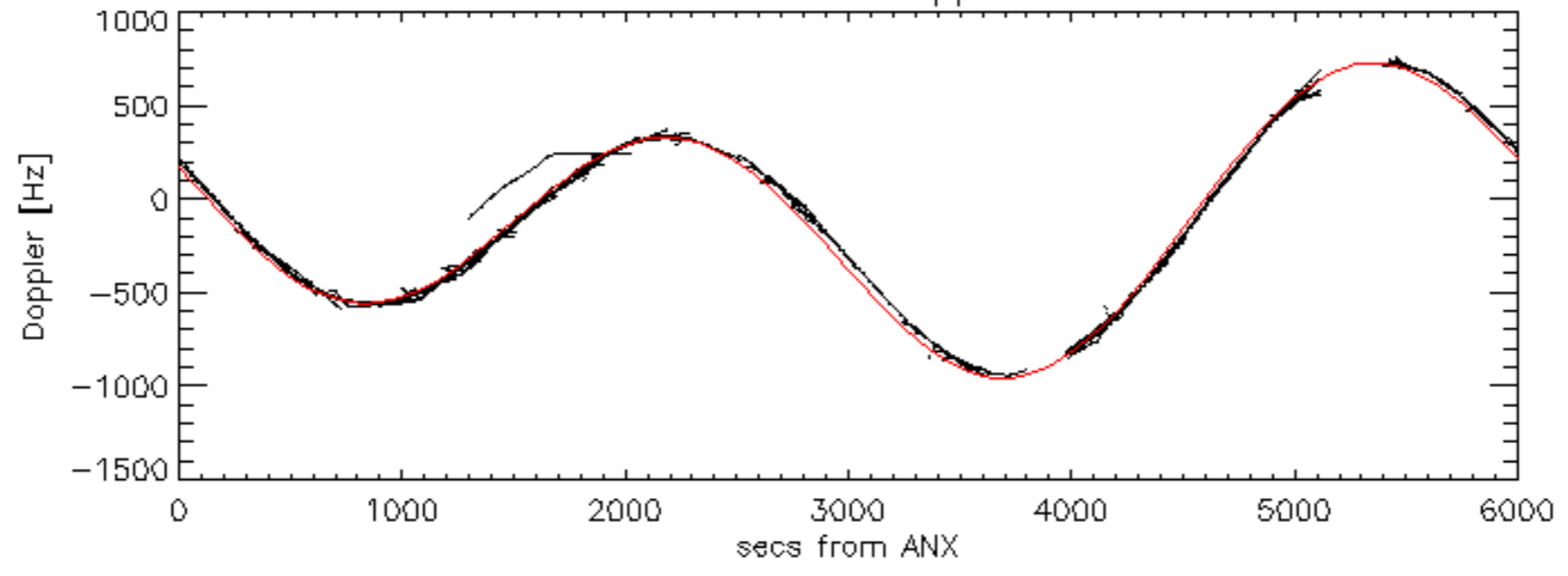
Doppler 'WVS' 'IS2' ascending

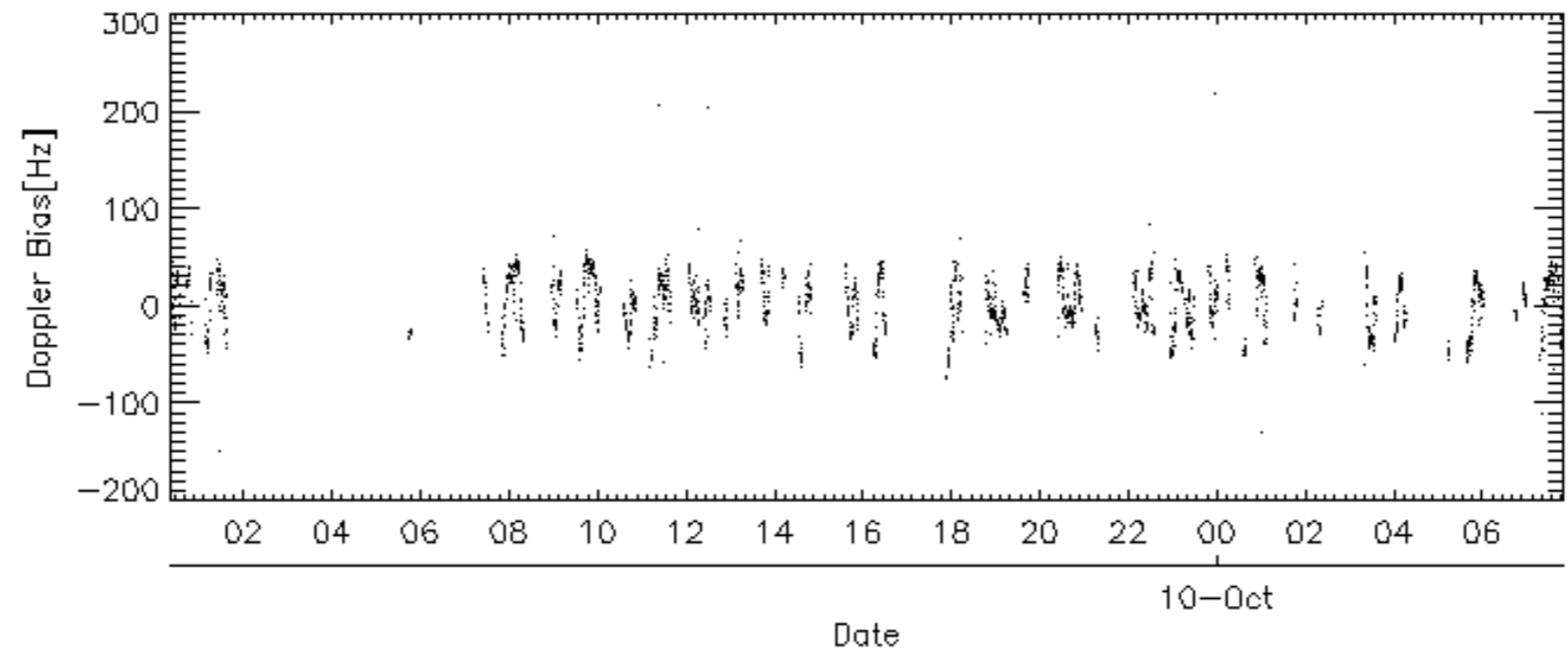
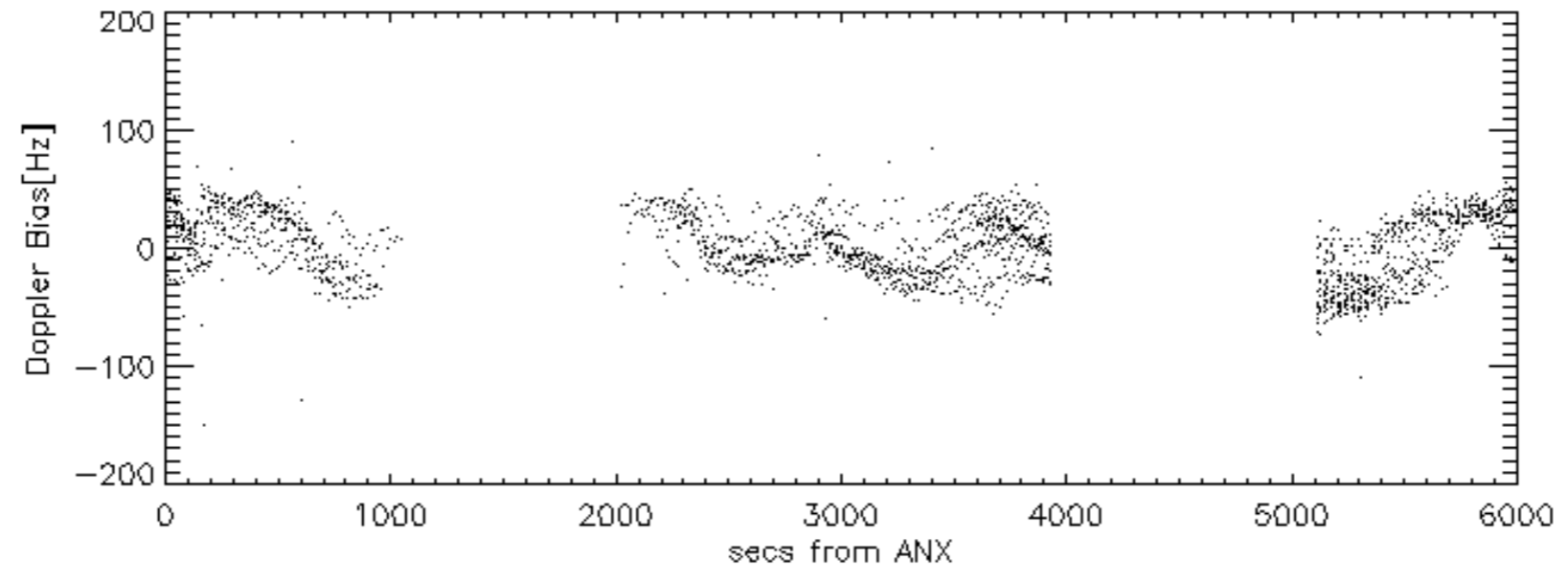
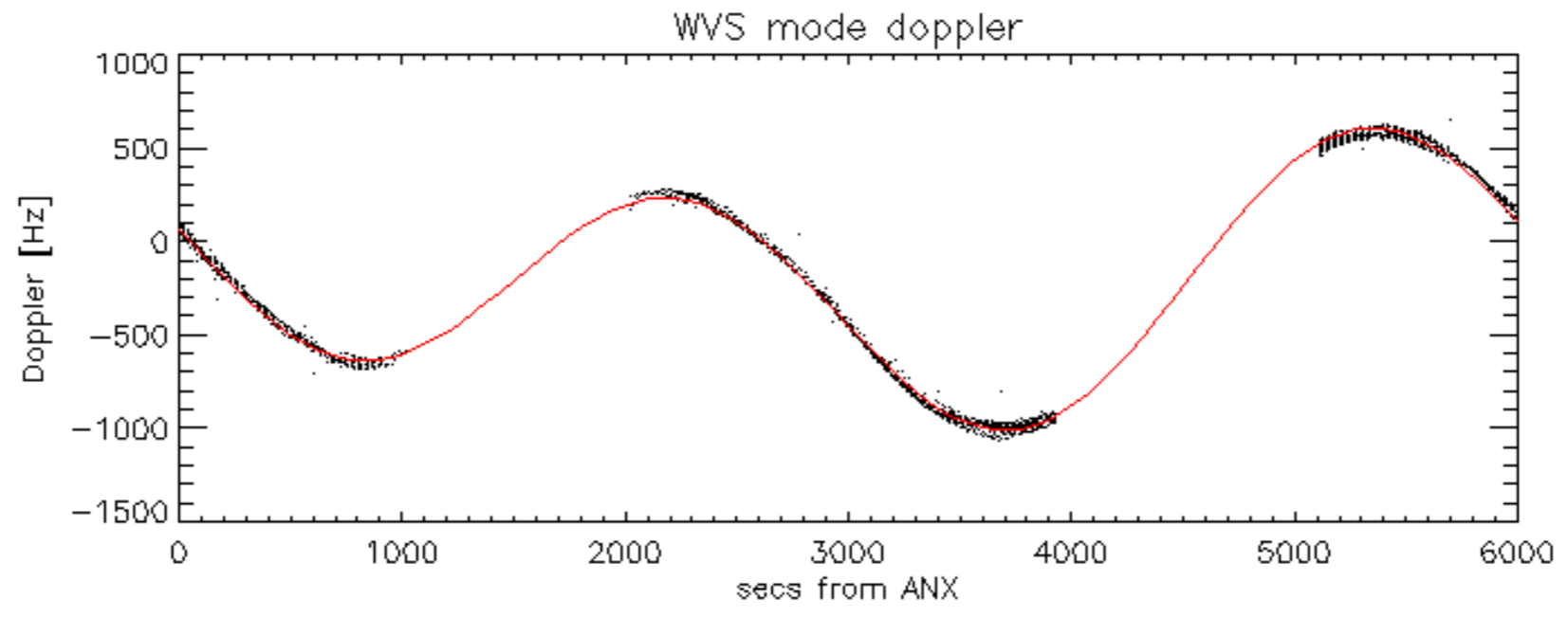


Doppler 'WVS' 'IS2' descending

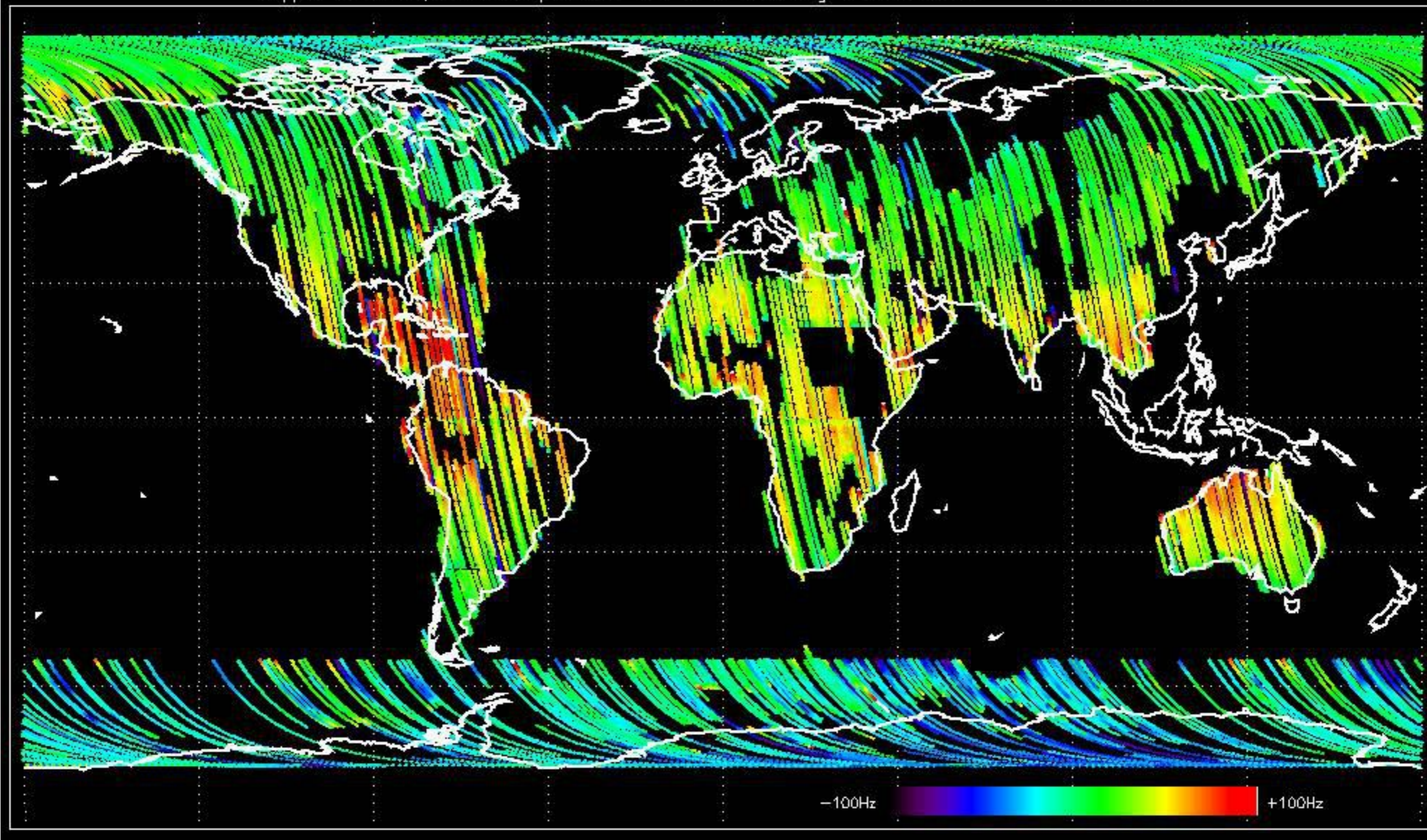


GM1 mode doppler

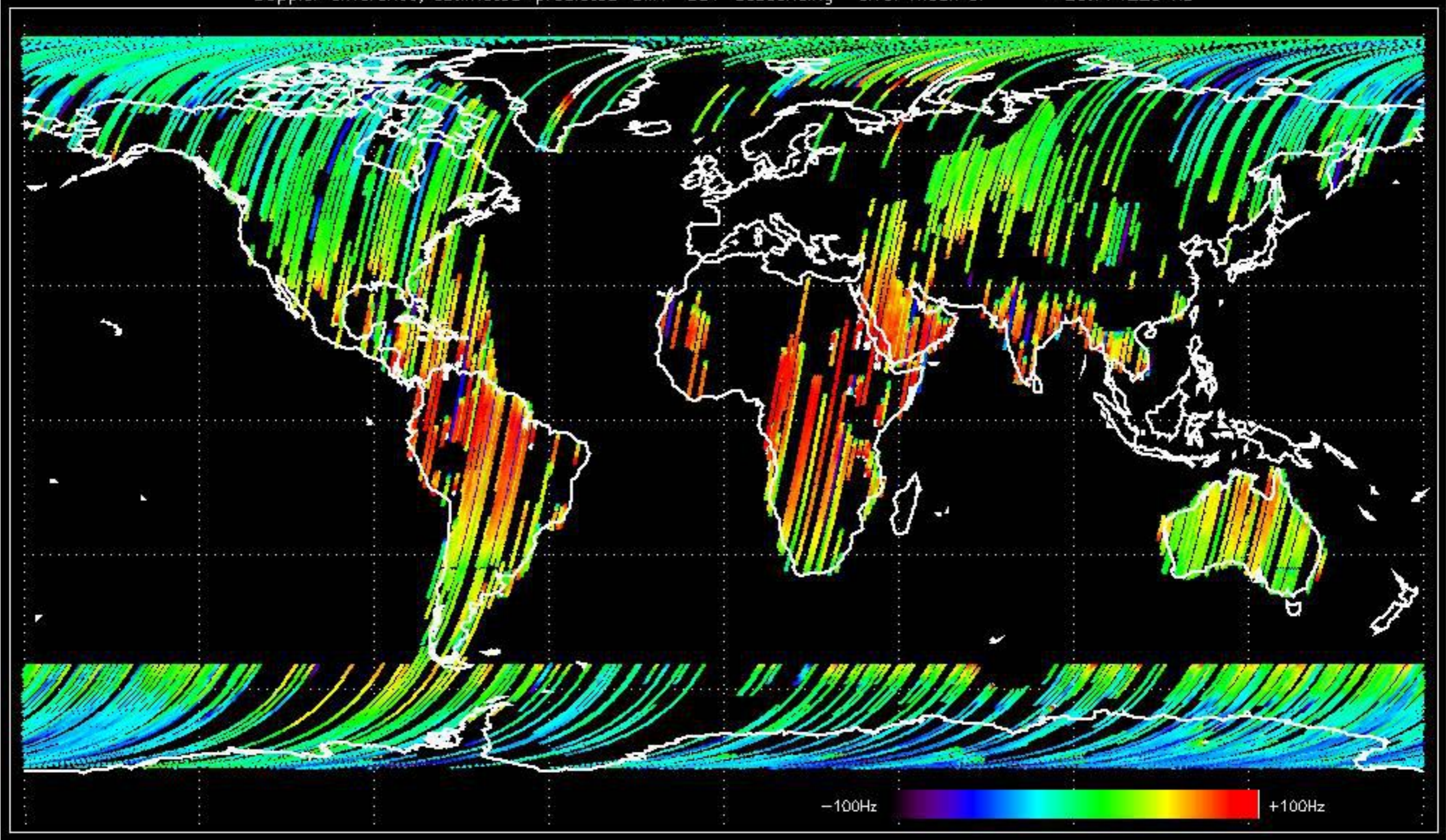




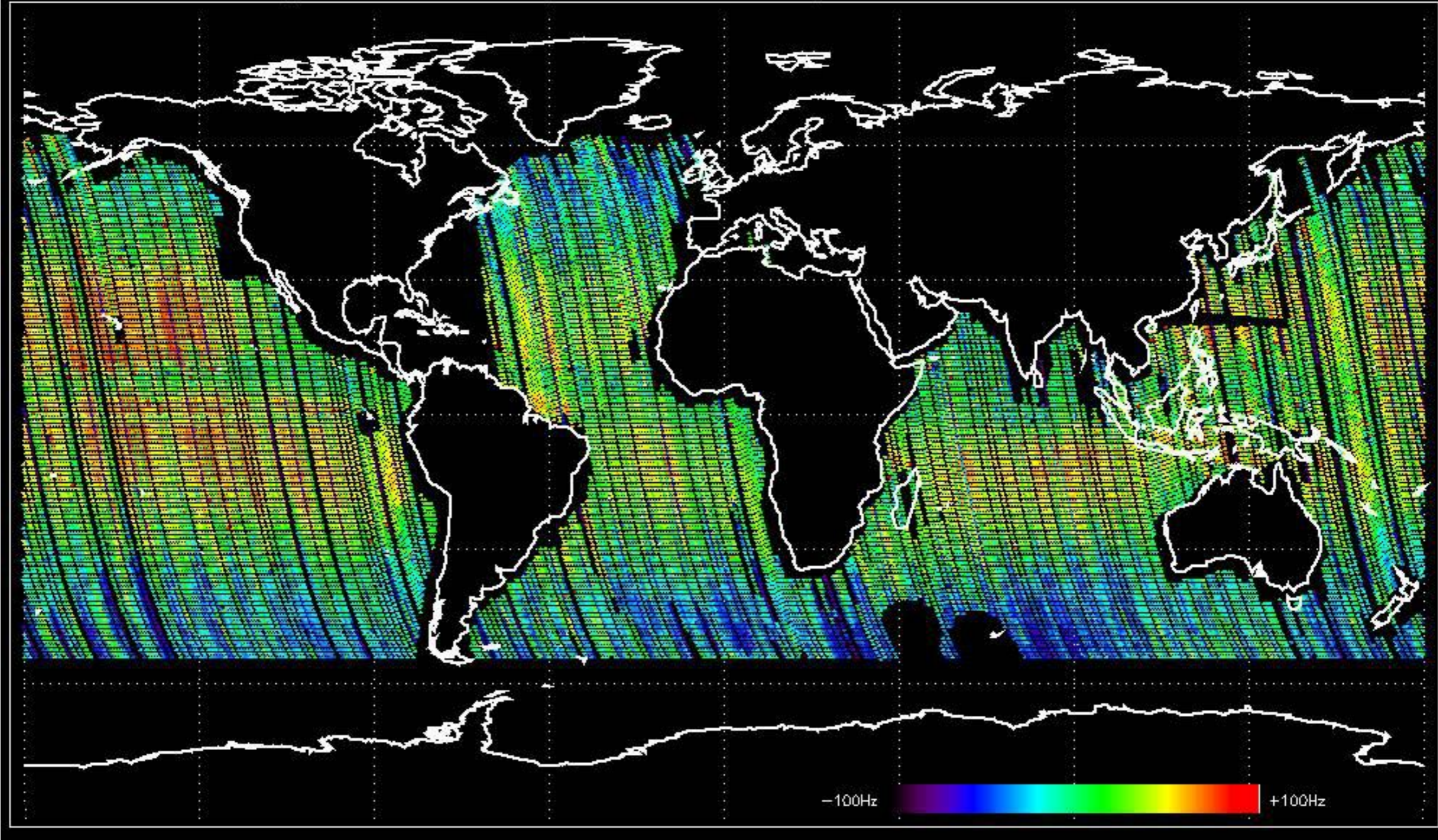
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -22.480901 Hz



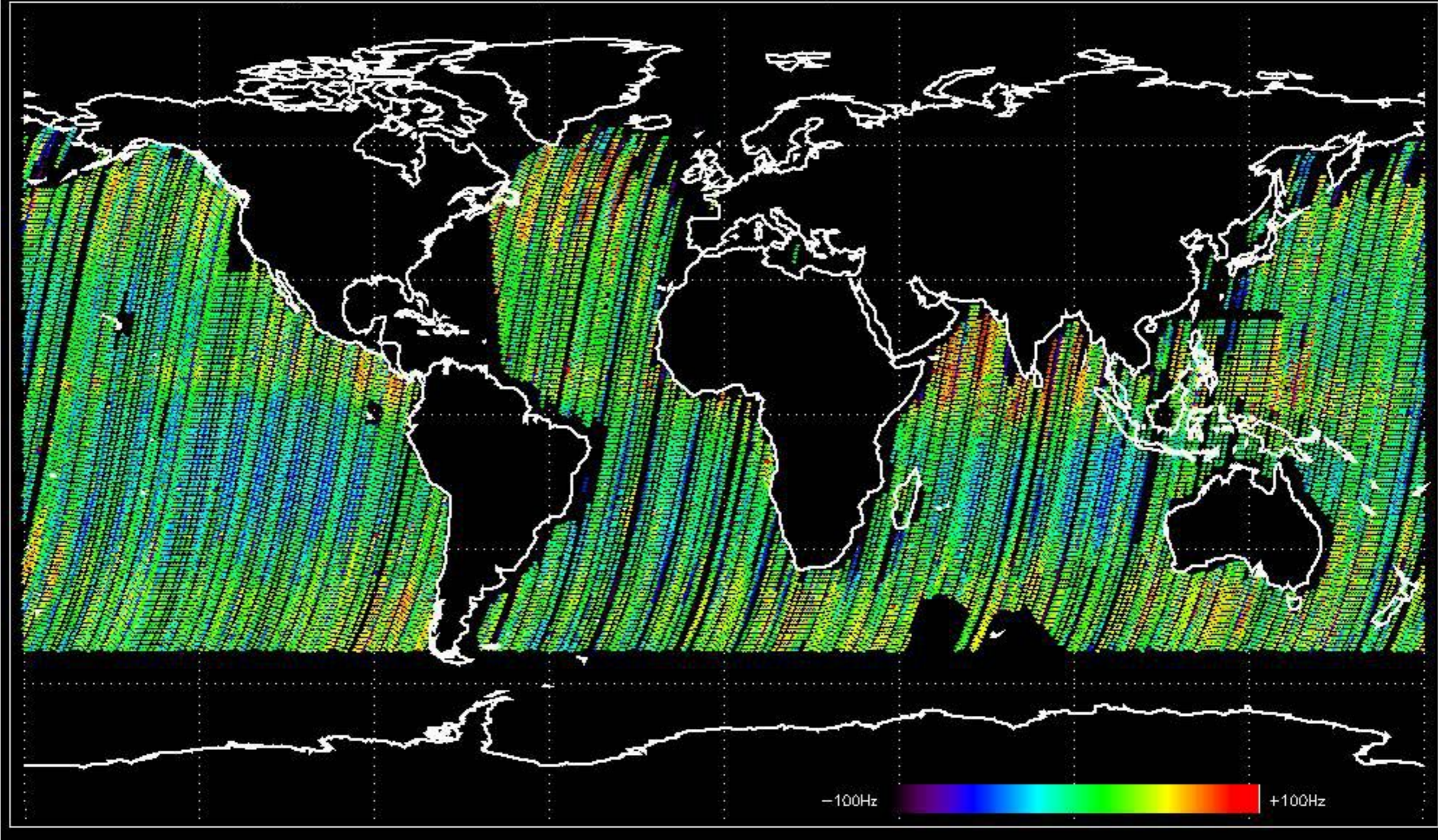
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -20.774229 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -17.939646 Hz

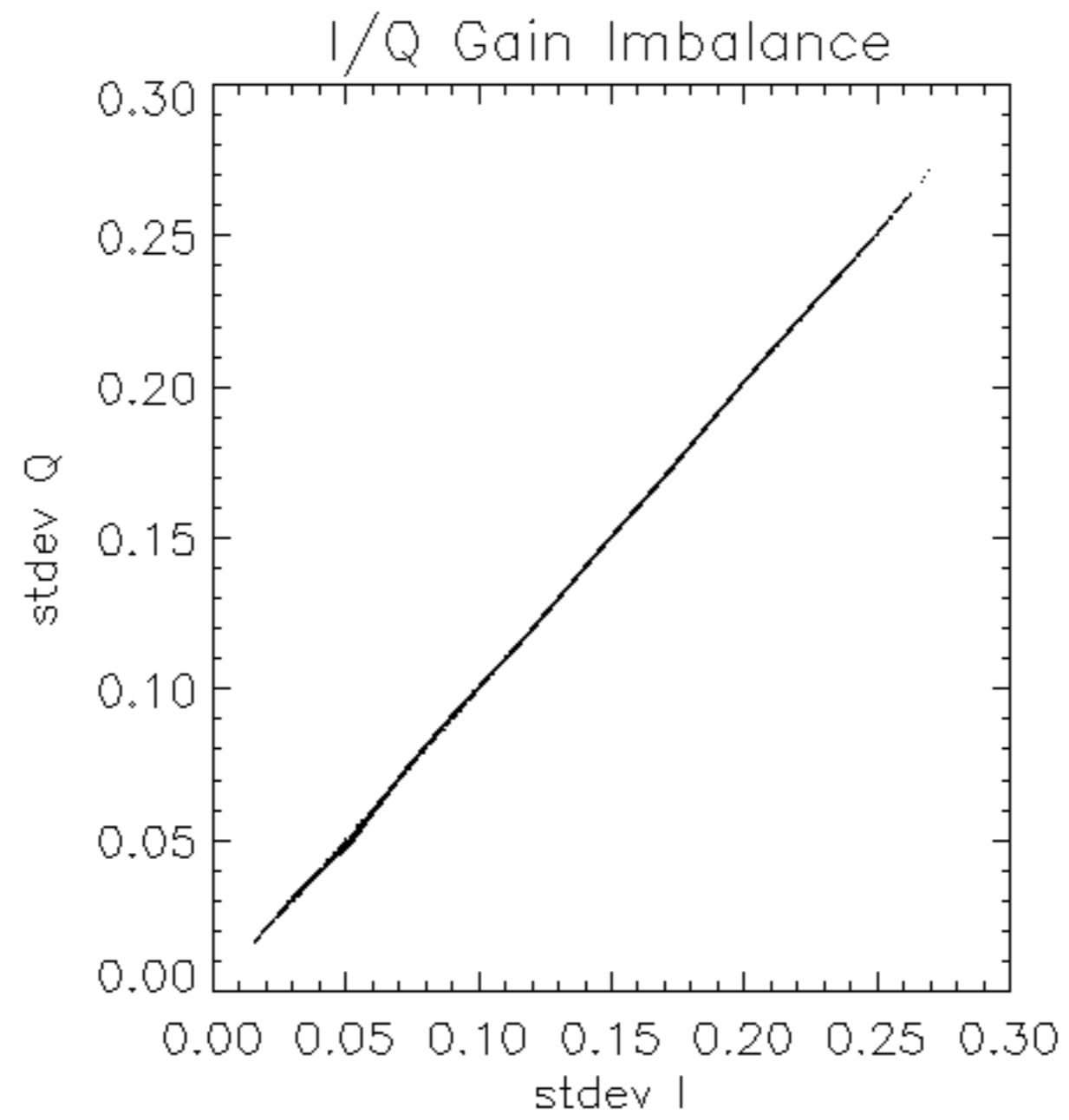


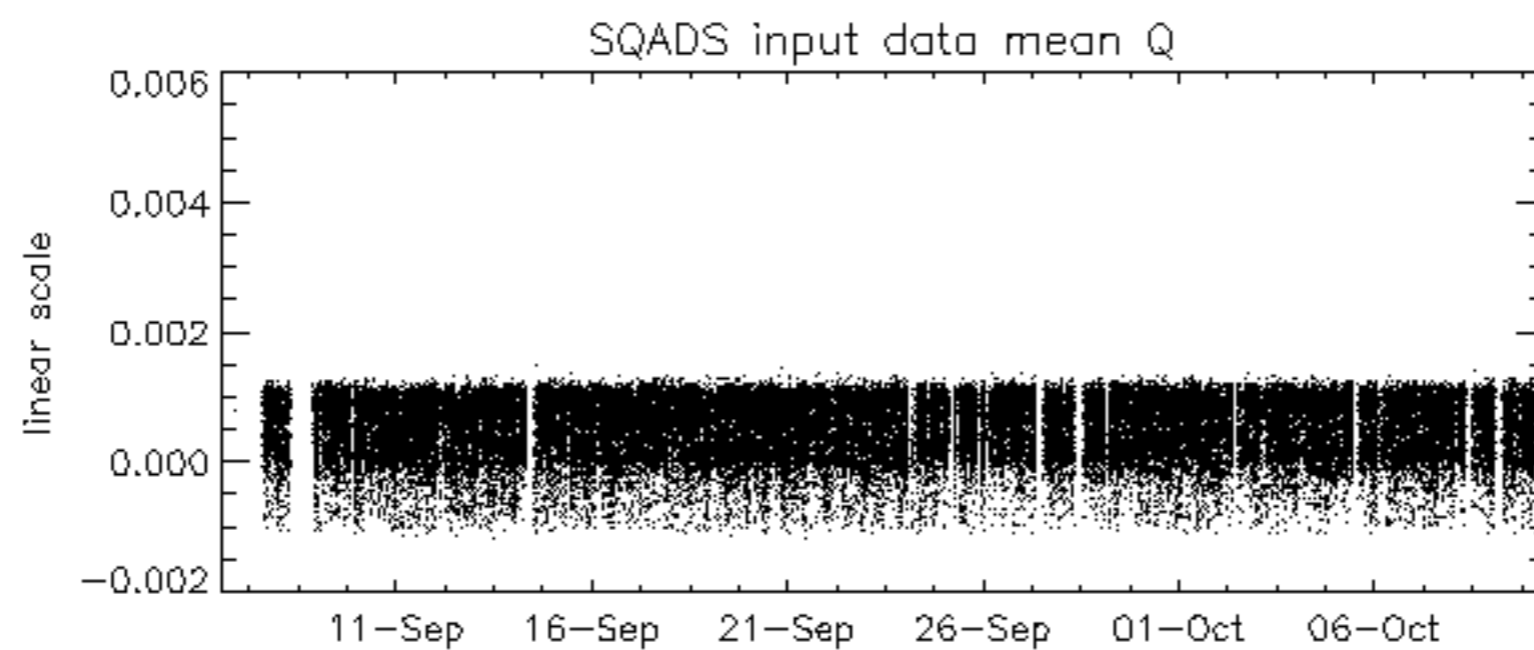
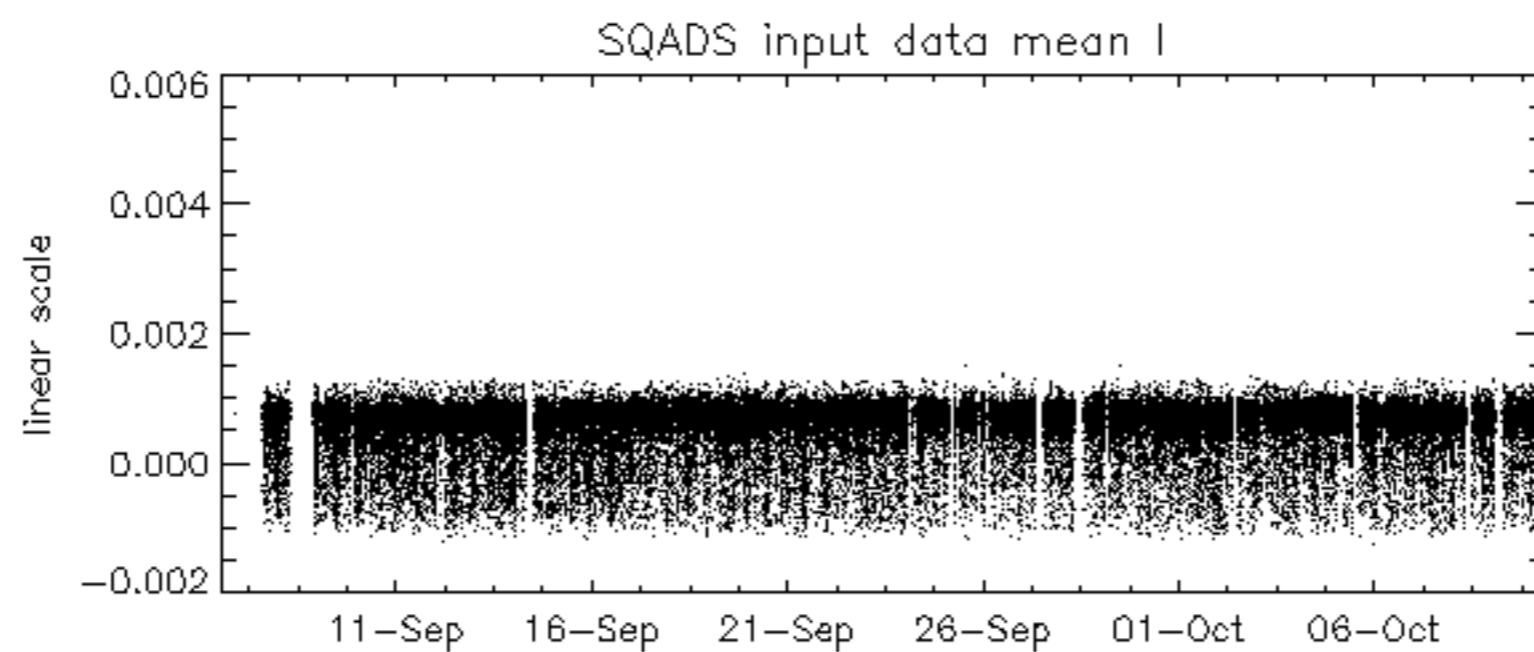
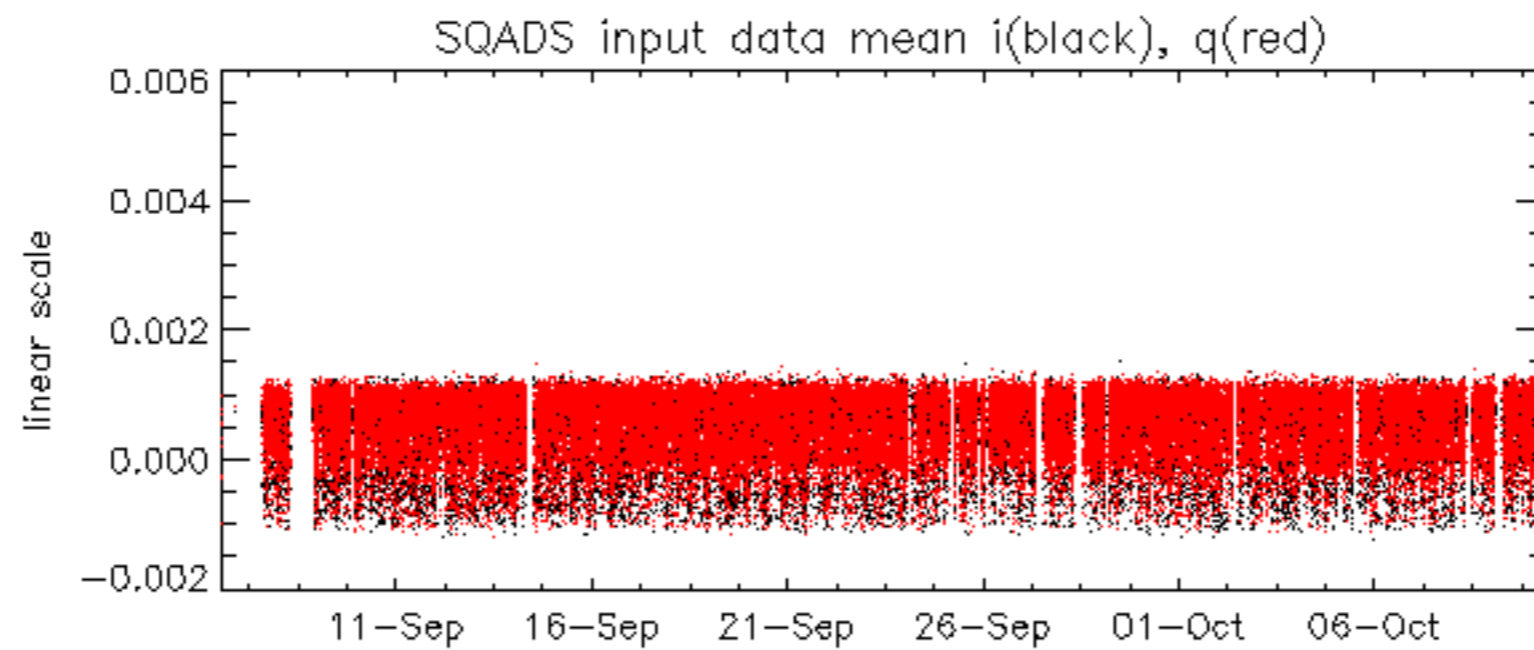
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -22.182905 Hz

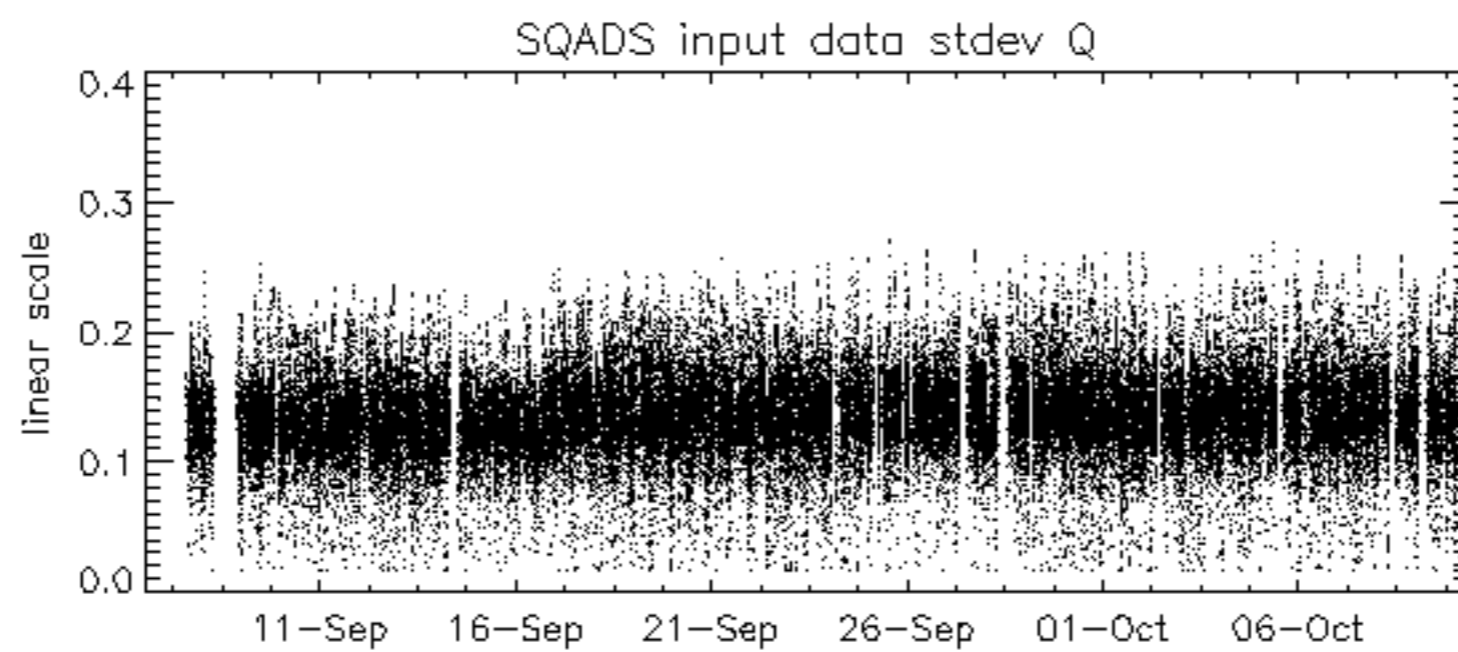
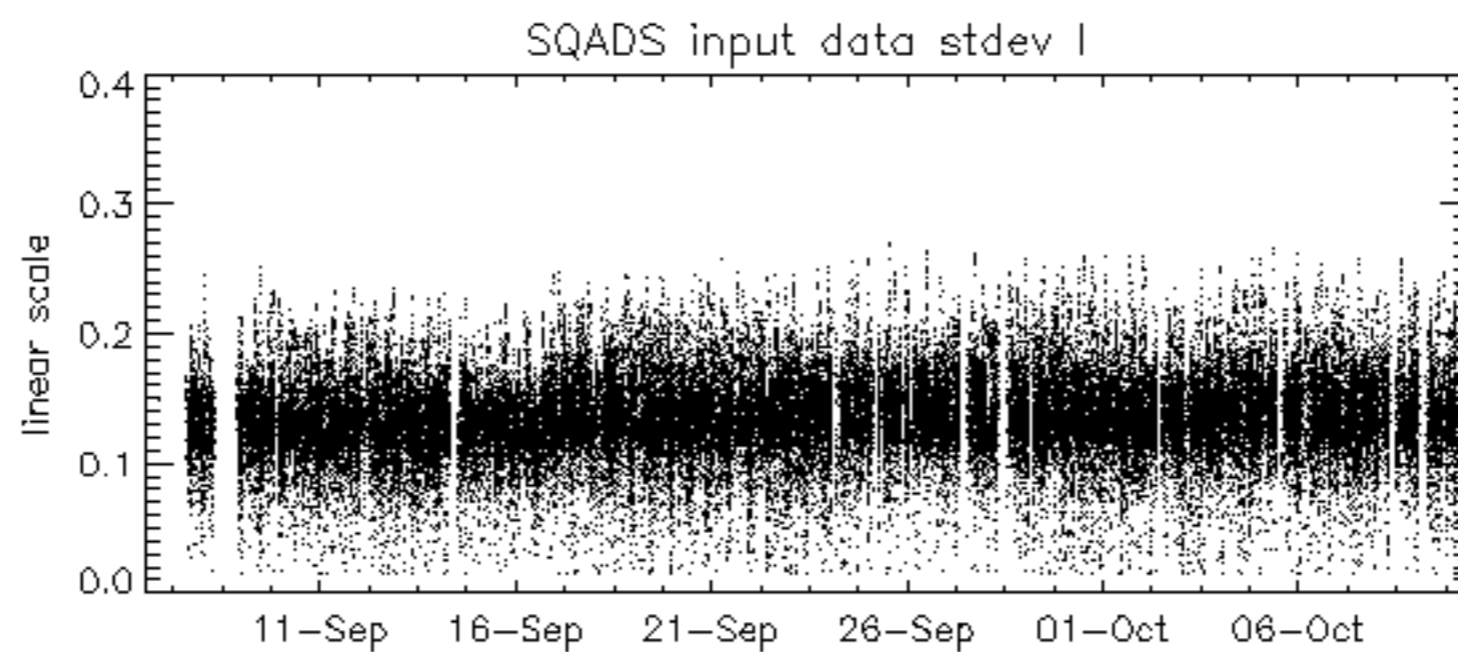
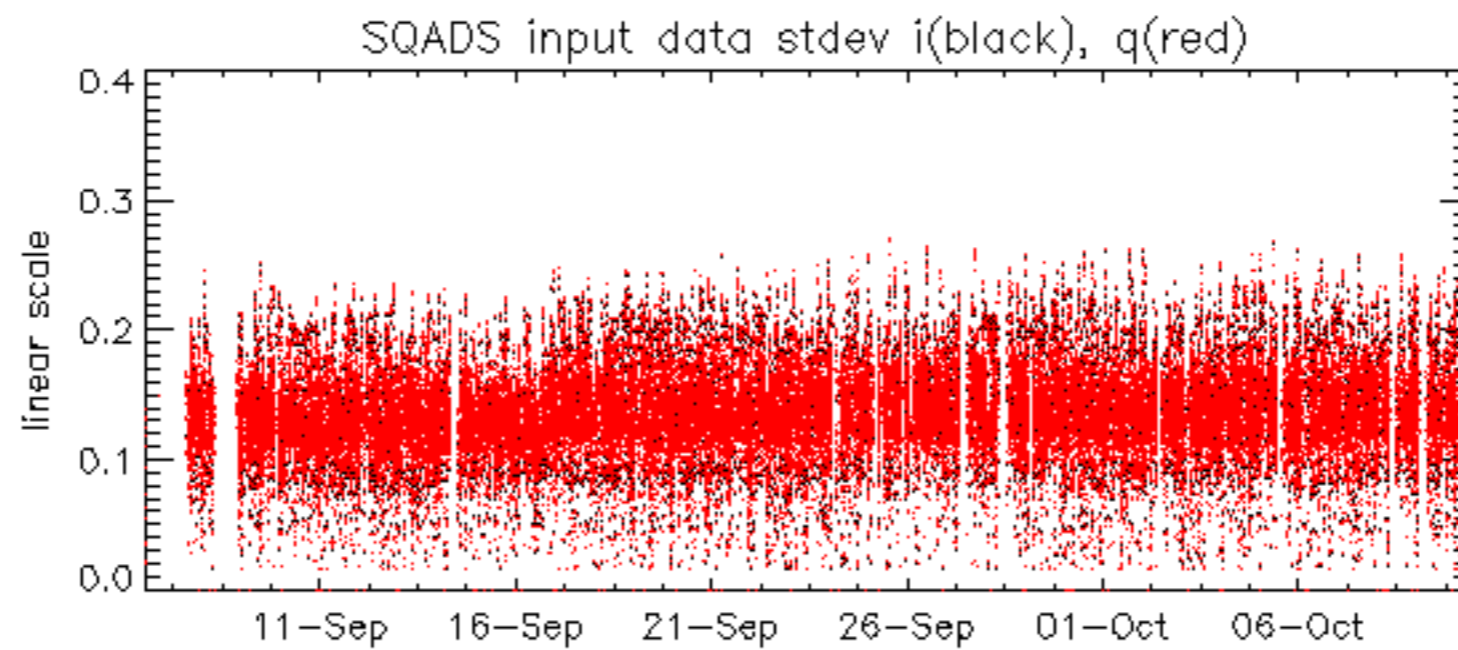


No anomalies observed on available MS products:

No anomalies observed.



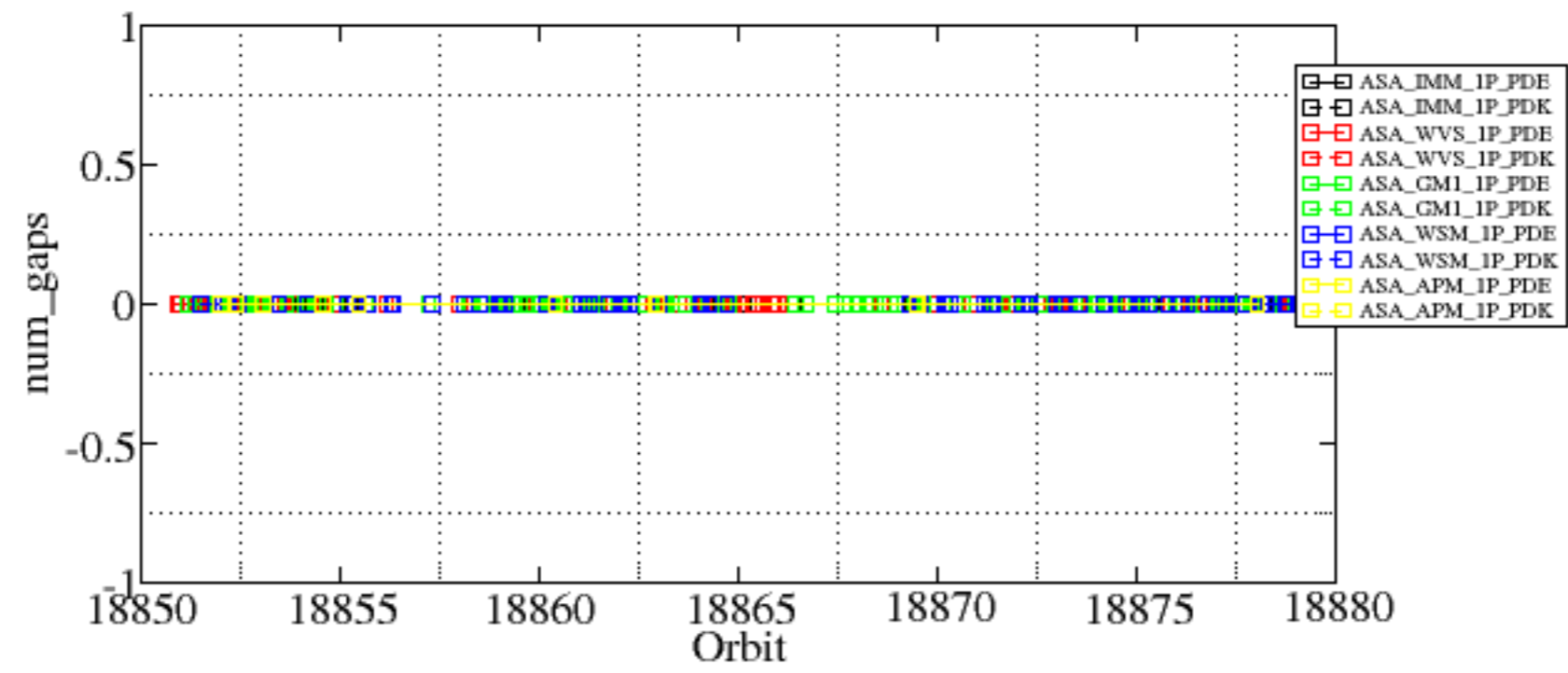


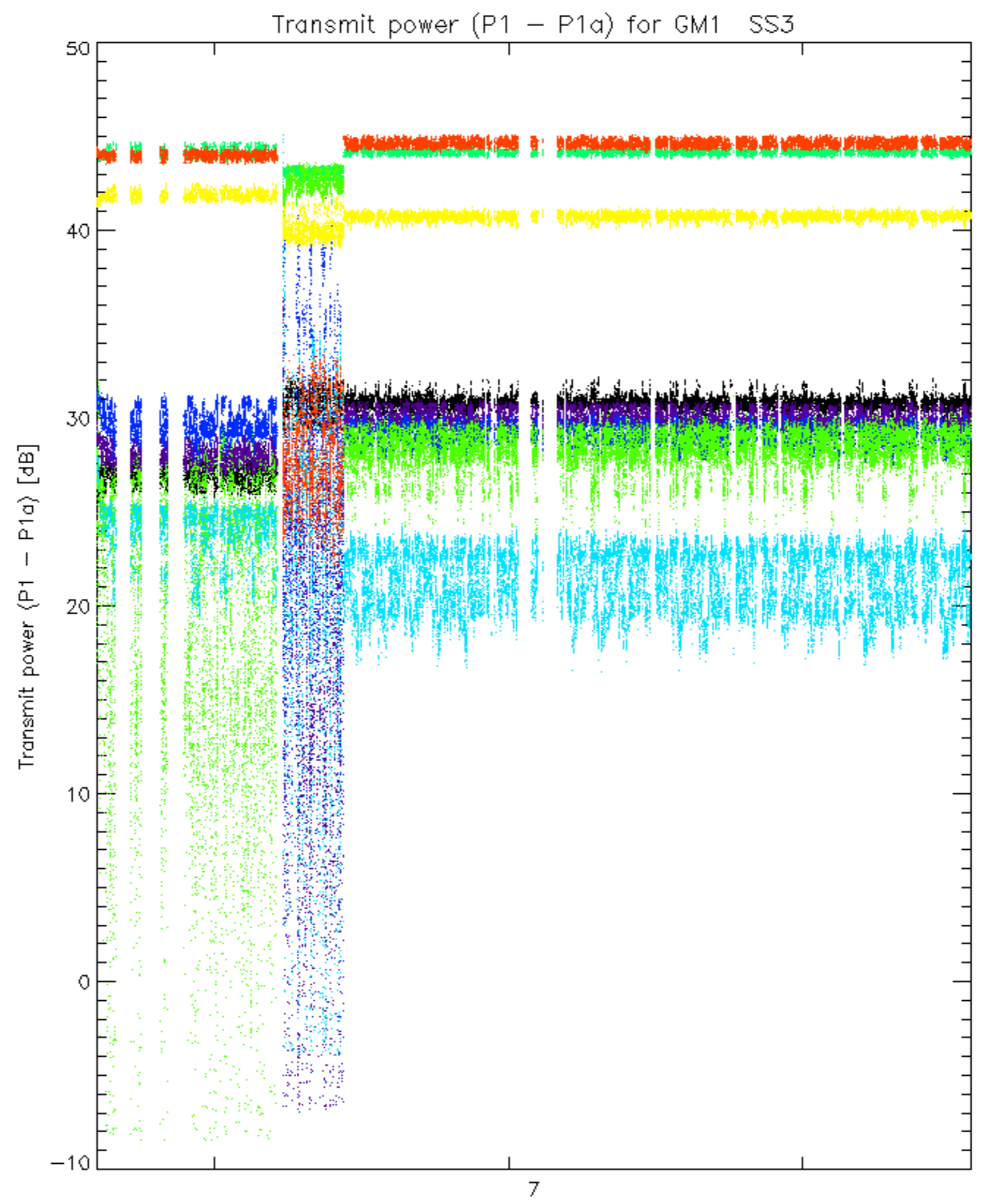


Summary of analysis for the last 3 days 2005100[890]

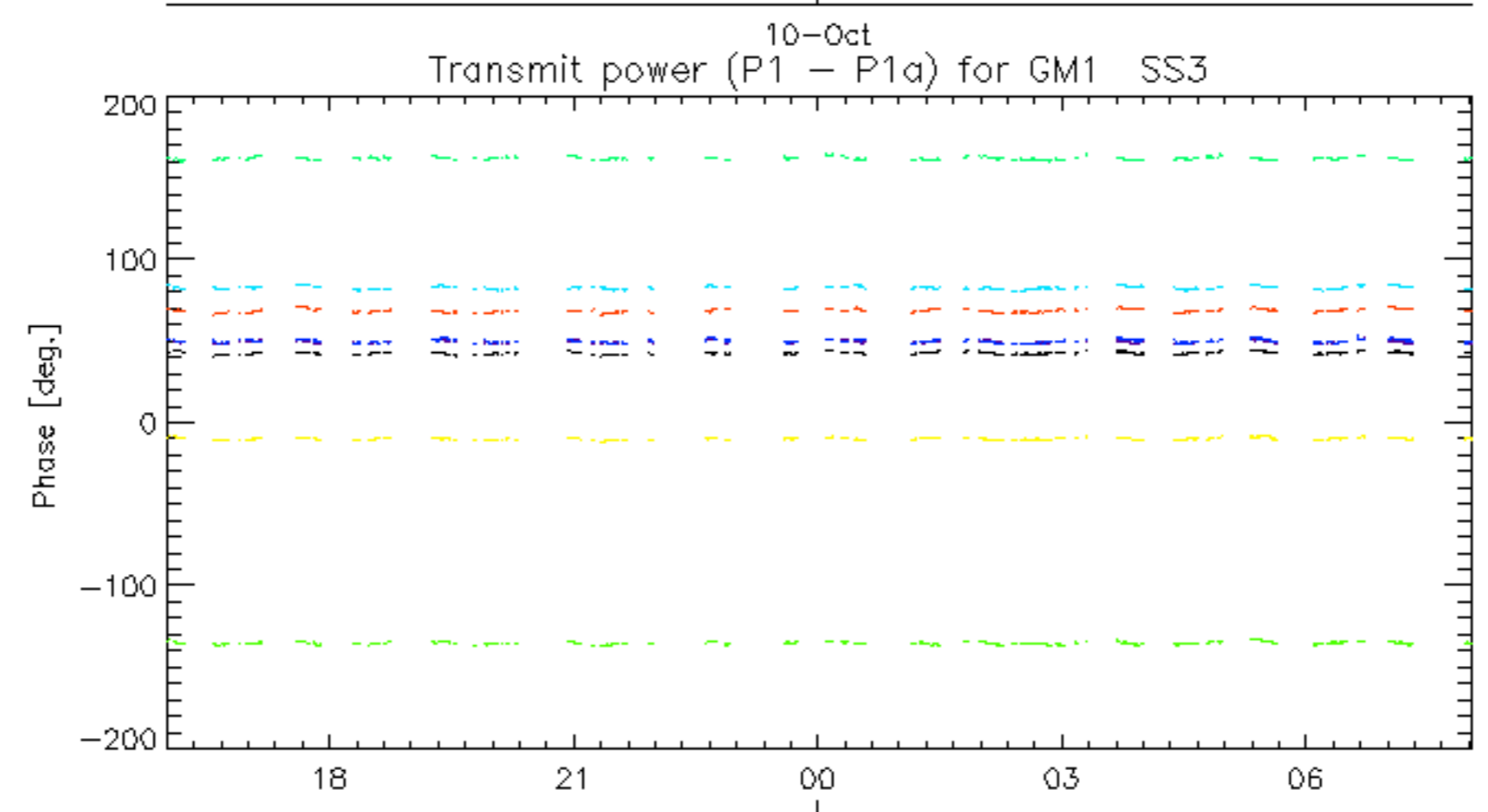
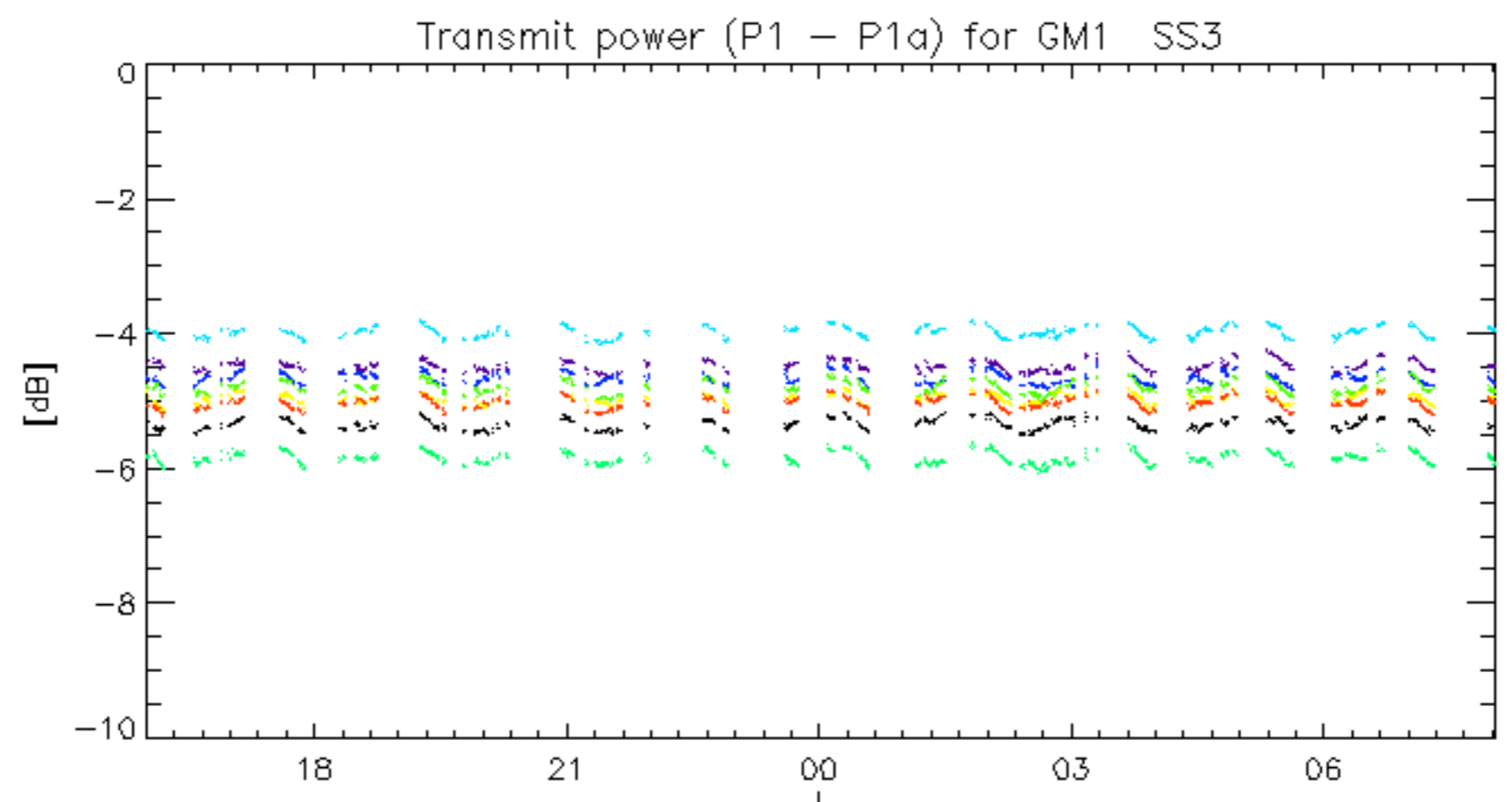
The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20051008_135751_000010812041_00268_18859_7798.N1	0	31
ASA_GM1_1PNPDK20051009_182016_000001572041_00285_18876_7929.N1	0	17
ASA_WSM_1PNPDE20051008_170158_000002382041_00270_18861_2998.N1	0	15
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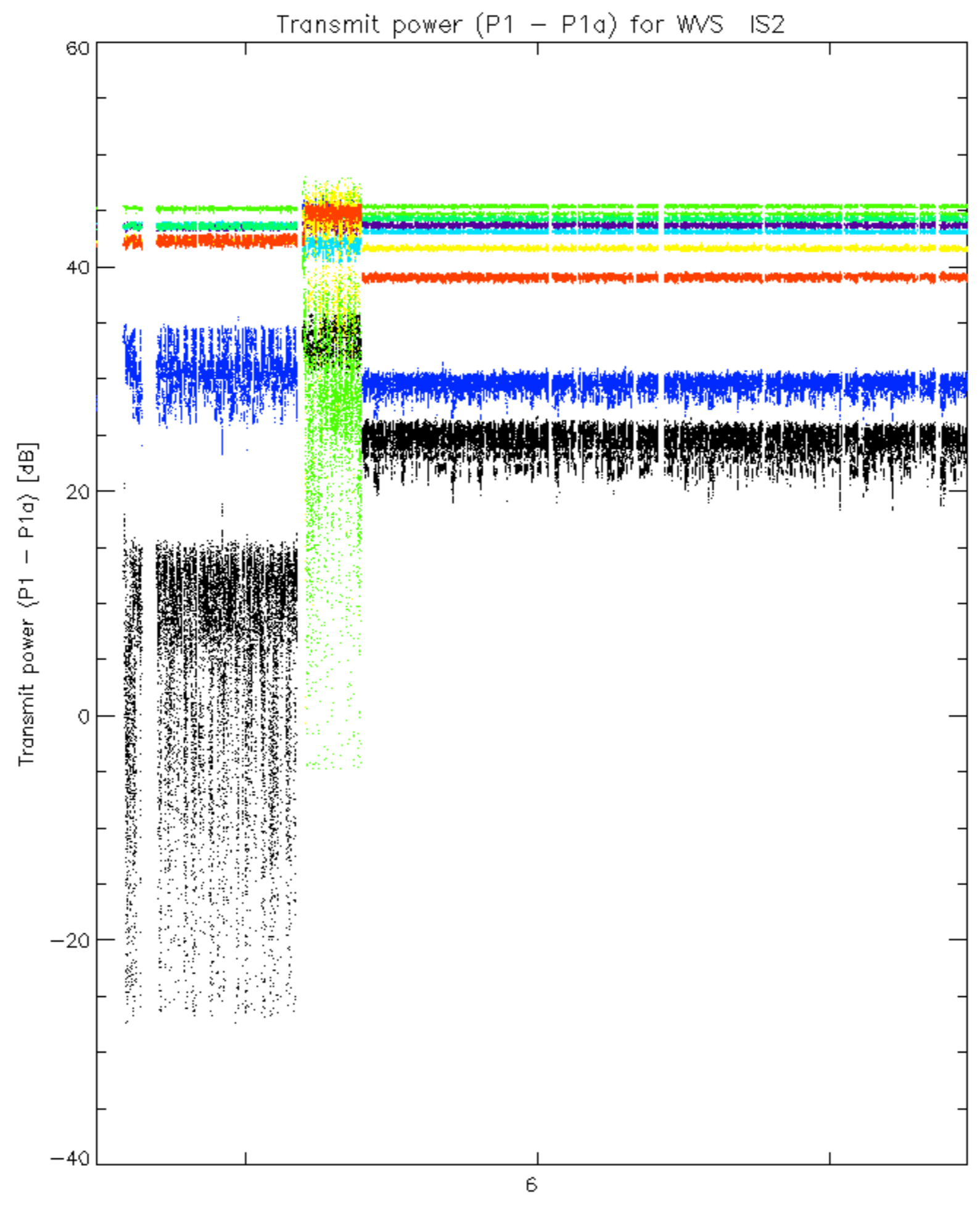


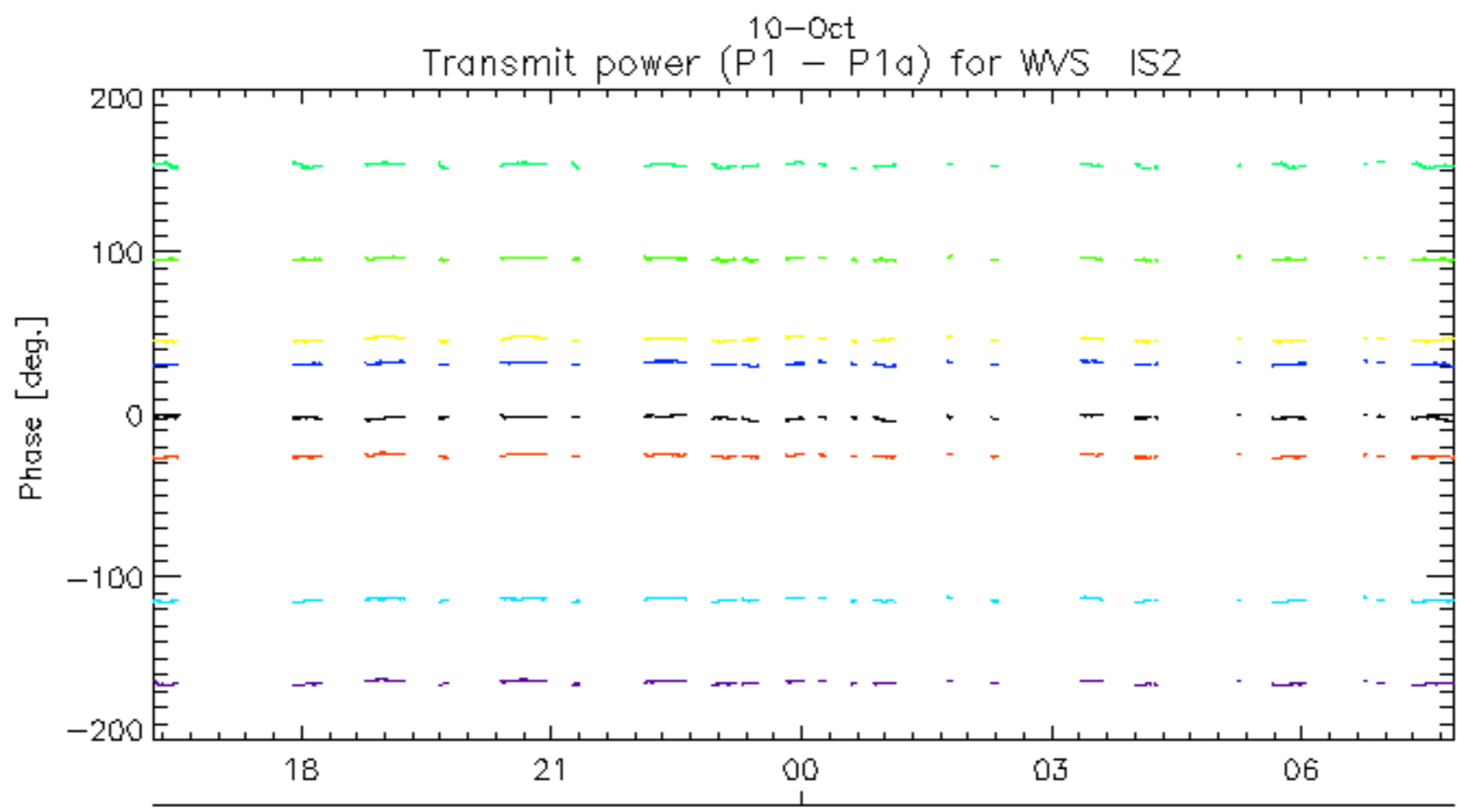
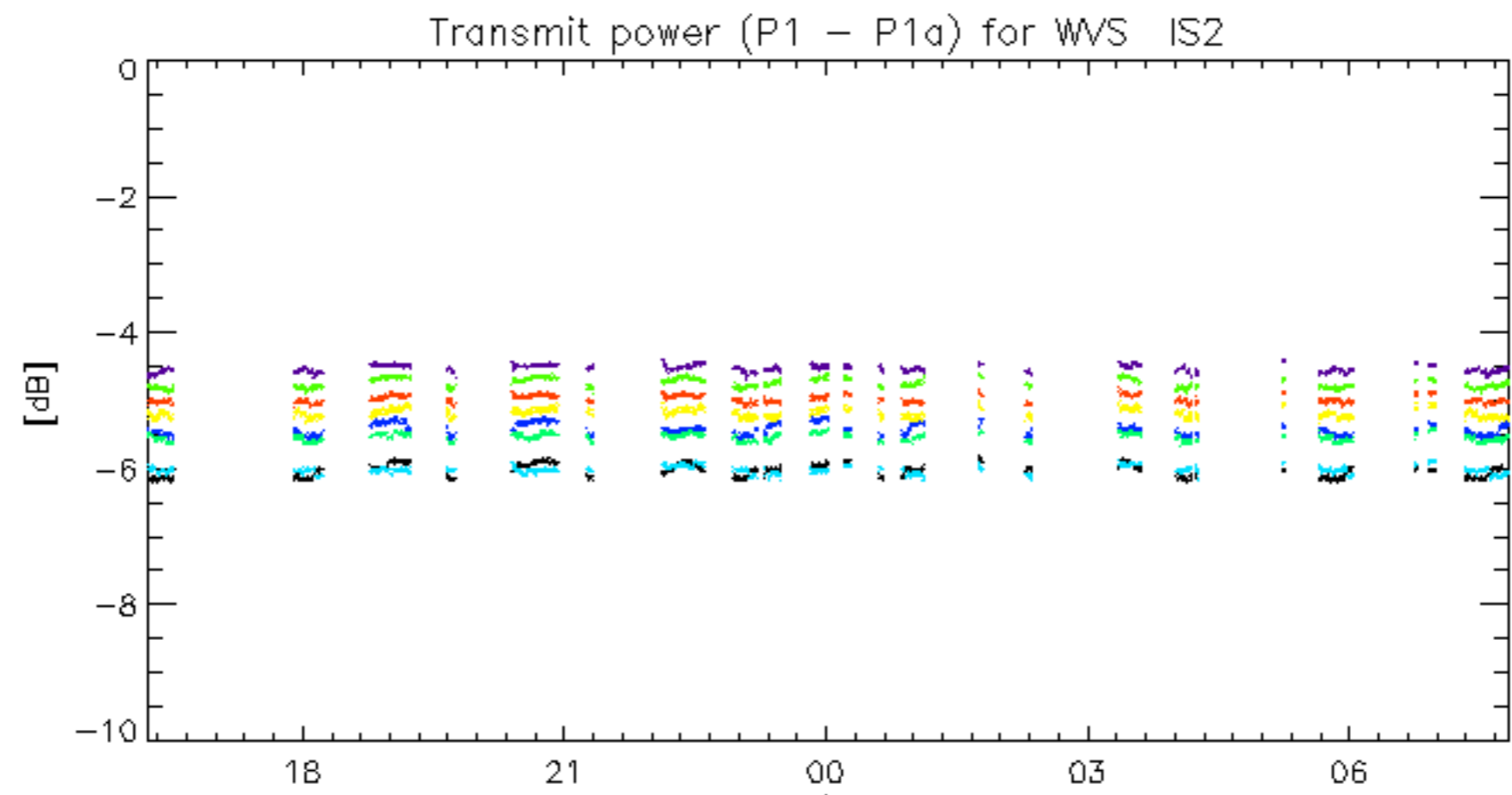


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rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





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No unavailabilities during the reported period.