

PRELIMINARY REPORT OF 051012

last update on Wed Oct 12 16:40:32 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 2005-10-11 00:00:00 to 2005-10-12 16:40:32

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	44	71	8	3	32
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	44	71	8	3	32
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	44	71	8	3	32
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	44	71	8	3	32

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	41	62	33	14	45
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	41	62	33	14	45
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	41	62	33	14	45
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	41	62	33	14	45

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	20051012 073844
H	20051011 081021

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	-3.544106	0.063509	-0.054404
7	P1	-2.974823	0.035128	0.376881
11	P1	-4.251336	0.134551	0.855010
15	P1	-5.944717	0.040489	-0.368057
19	P1	-3.214134	0.154123	0.421892
22	P1	-4.491770	0.022781	0.225443
26	P1	-4.447225	0.101754	0.744376
30	P1	-5.976374	0.432872	1.402389
3	P1	-15.804918	1.787261	1.286670
7	P1	-16.686440	4.557429	1.204614
11	P1	-18.080986	12.600873	7.991953
15	P1	-13.691906	8.826358	0.558123
19	P1	-13.728672	0.226024	0.706582
22	P1	-17.200117	22.314369	3.439197
26	P1	-17.642059	21.033617	5.159076
30	P1	-17.480555	8.803855	4.112639

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.831854	0.102777	-0.166091
7	P2	-22.567310	0.242350	-0.721860
11	P2	-16.159958	2.029097	-3.046034
15	P2	-7.206409	0.117208	-0.080222
19	P2	-9.175756	0.186370	0.156582
22	P2	-17.479231	0.237020	-1.041180
26	P2	-16.188087	0.131120	0.479170
30	P2	-19.485979	0.206376	-0.693529

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.177342	0.004947	-0.034652
7	P3	-8.177342	0.004947	-0.034652
11	P3	-8.177342	0.004947	-0.034652
15	P3	-8.177342	0.004947	-0.034652
19	P3	-8.177342	0.004947	-0.034652
22	P3	-8.177342	0.004947	-0.034652
26	P3	-8.177342	0.004947	-0.034652
30	P3	-8.177342	0.004947	-0.034652

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	-3.379884	0.260618	-1.206530
7	P1	-2.930252	0.065306	0.353370
11	P1	-3.143930	0.269314	1.338608
15	P1	-3.455075	0.031093	0.299741
19	P1	-3.343269	0.059681	0.064384
22	P1	-5.170443	0.156104	0.224081
26	P1	-5.931825	0.593630	0.956057
30	P1	-5.297174	0.344364	0.596410
3	P1	-11.495379	0.418074	0.221521
7	P1	-11.318414	19.481356	5.007725
11	P1	-12.292684	38.305878	8.678625
15	P1	-12.453164	33.097580	6.795590
19	P1	-15.333398	0.212503	-0.396782
22	P1	-21.513113	5.175233	5.119191

26	P1	-17.285002	4.929387	0.193546
30	P1	-19.388561	1.828736	2.338878

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.638855	0.057304	-0.335613
7	P2	-22.866365	0.261176	-0.912265
11	P2	-11.332851	0.829711	-2.079521
15	P2	-4.930953	0.045438	0.203816
19	P2	-6.799308	0.108296	-0.356739
22	P2	-7.838514	0.221775	-1.193033
26	P2	-23.879471	0.042602	0.116288
30	P2	-22.077242	0.056612	0.039095

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.020514	0.002906	-0.038608
7	P3	-8.020600	0.002910	-0.039155
11	P3	-8.020386	0.002913	-0.039317
15	P3	-8.020465	0.002911	-0.039145
19	P3	-8.020660	0.002912	-0.038834
22	P3	-8.020451	0.002915	-0.039273
26	P3	-8.020722	0.002909	-0.039195
30	P3	-8.020485	0.002918	-0.038812

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	0.000535608
	stdev	1.82902e-07
MEAN Q	mean	0.000526979
	stdev	2.18543e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135594
	stdev	0.00110233
STDEV Q	mean	0.135916
	stdev	0.00111790



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005101[012]

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_1PNPDE20051010_155732_000002332041_00298_18889_8044.N1	1	0
ASA_IMM_1PNPDK20051010_124847_000000882041_00296_18887_5483.N1	1	0
ASA_WSM_1PNPDE20051010_041813_000001592041_00291_18882_3248.N1	0	37
ASA_WSM_1PNPDE20051011_010913_000003062041_00303_18894_3388.N1	0	19
ASA_WSM_1PNPDE20051011_170741_000002392041_00313_18904_3469.N1	0	25

ASA_WSM_1PNPDE20051011_191644_000000672041_00314_18905_3478.N1	0	101
ASA_WSM_1PNPDE20051011_191644_000000672041_00314_18905_3489.N1	0	101
ASA_WSM_1PNPDK20051011_134721_000000922041_00311_18902_6753.N1	0	73



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

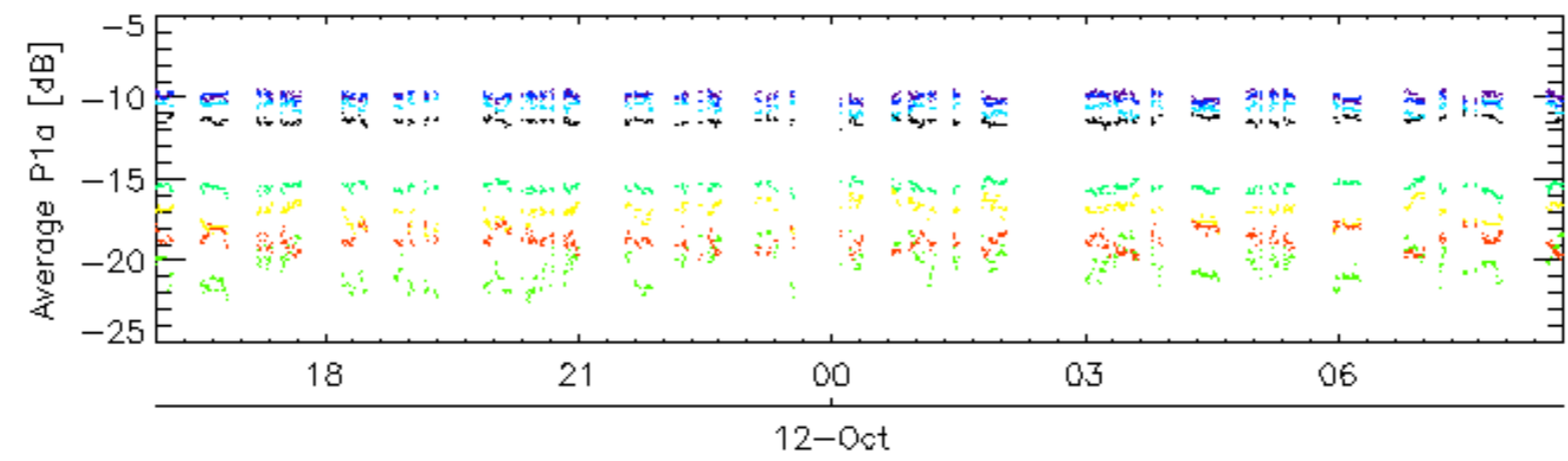
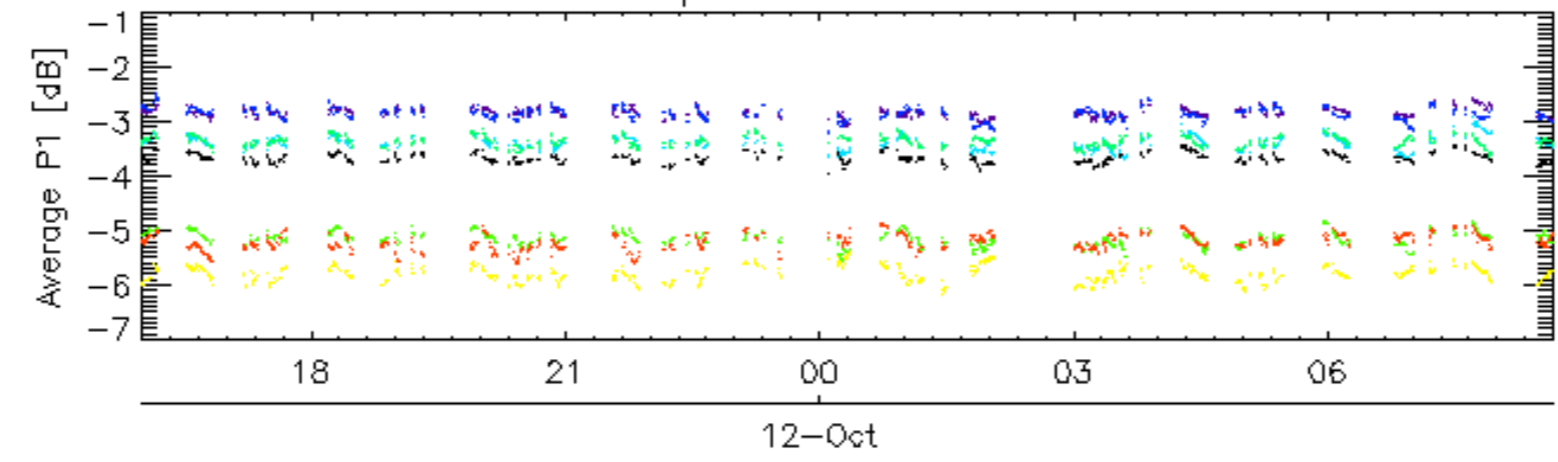
7.5 - Absolute Doppler for GM1

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

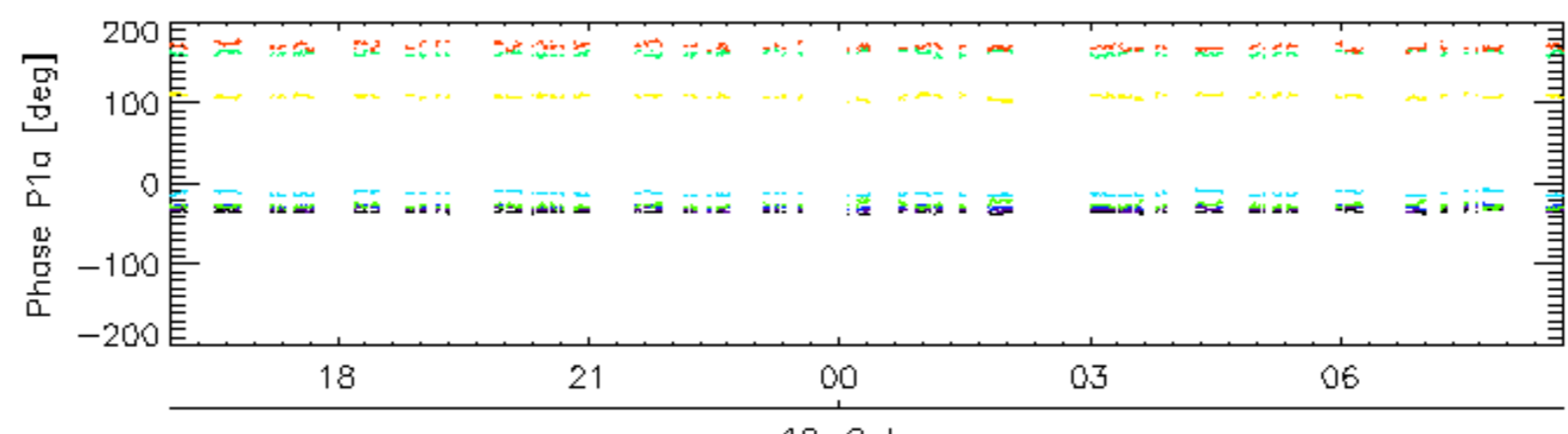
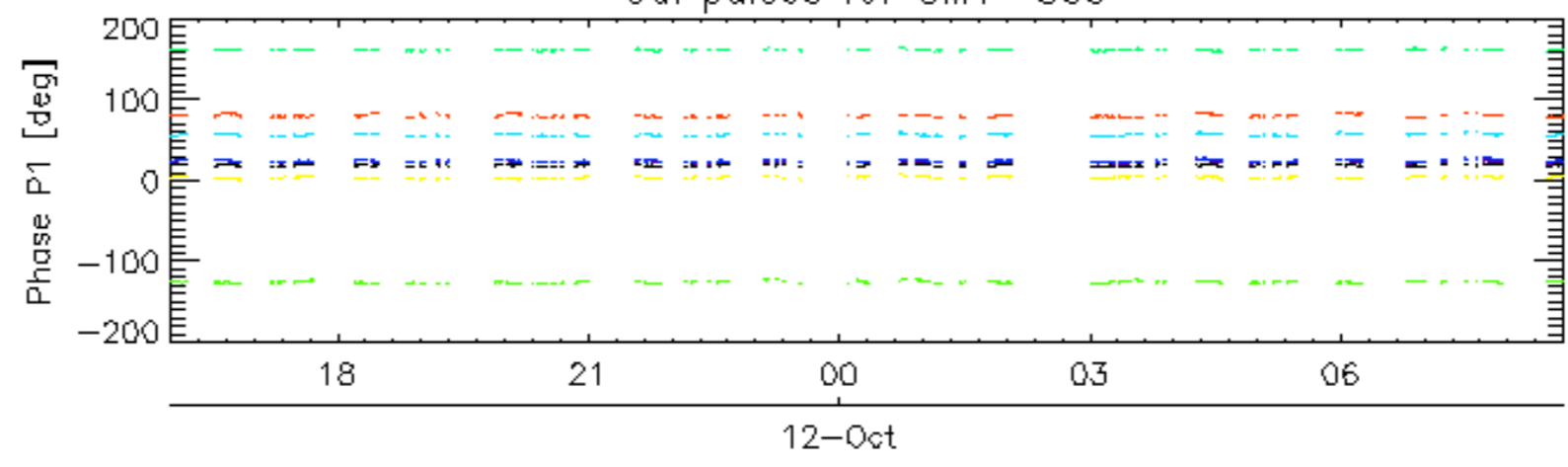
7.6 - Doppler evolution versus ANX for GM1

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

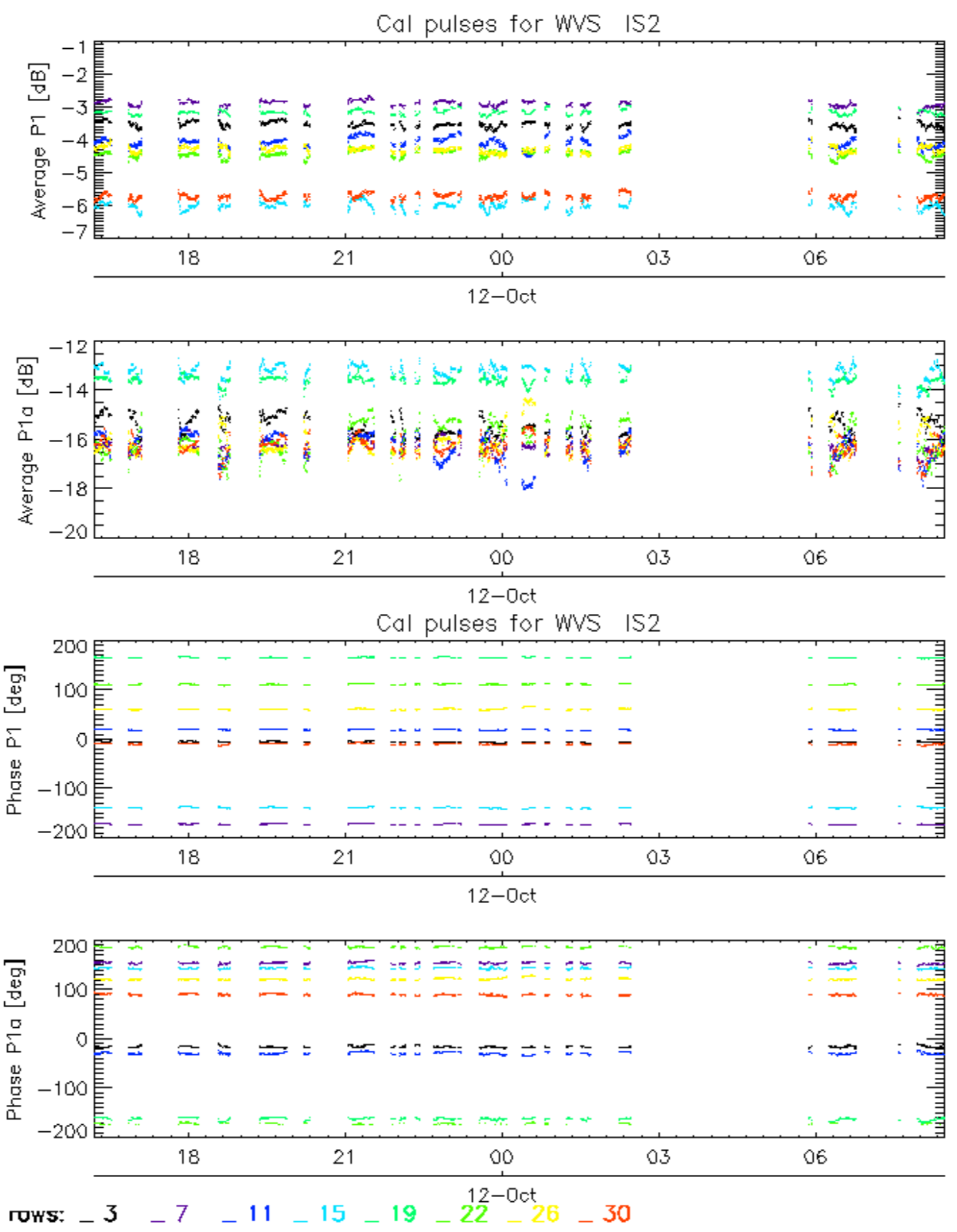
Cal pulses for GM1 SS3



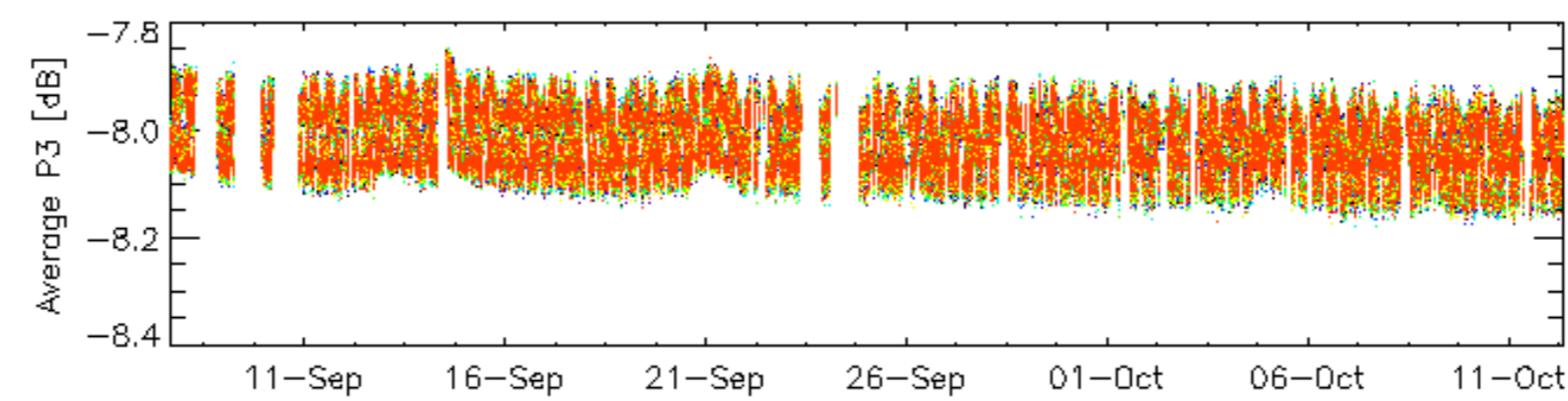
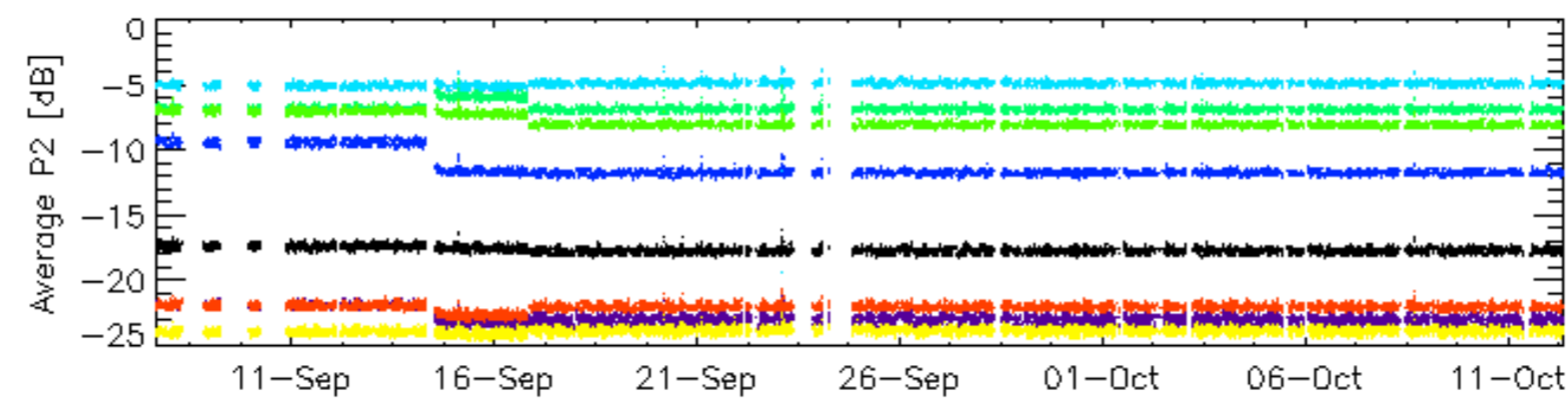
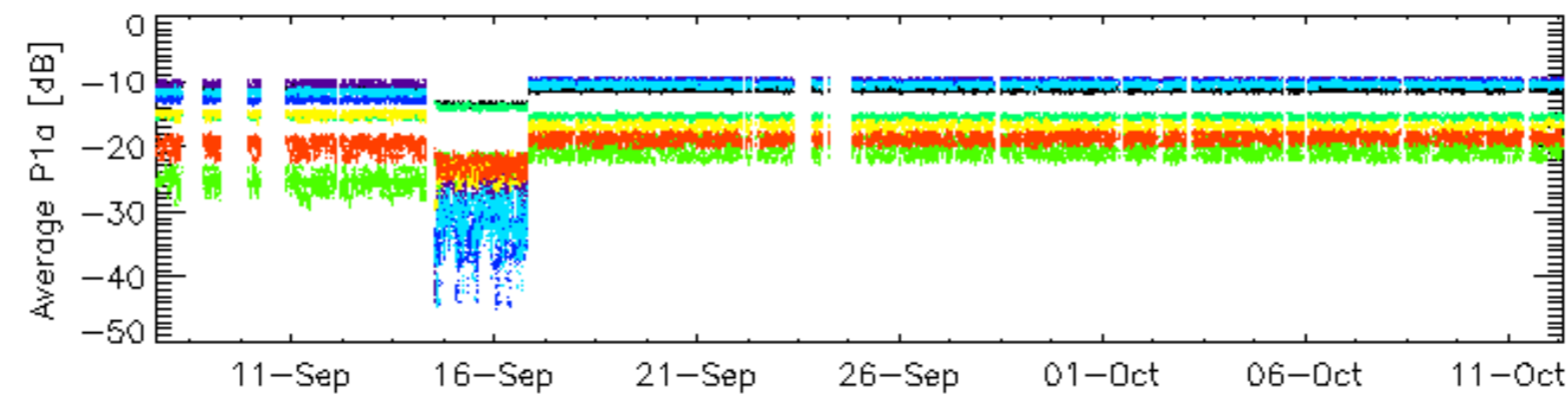
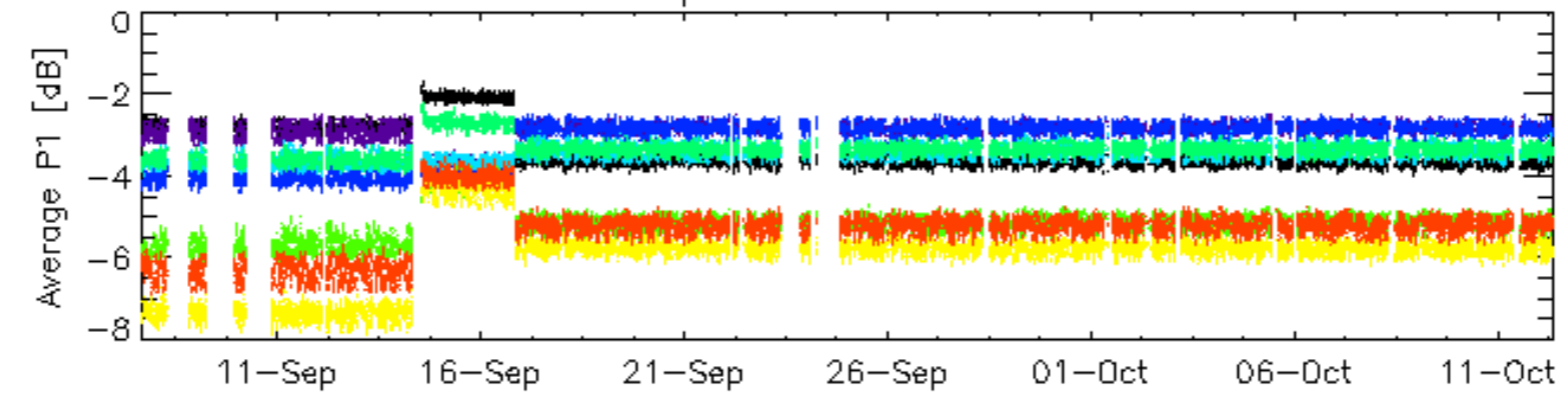
Cal pulses for GM1 SS3



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

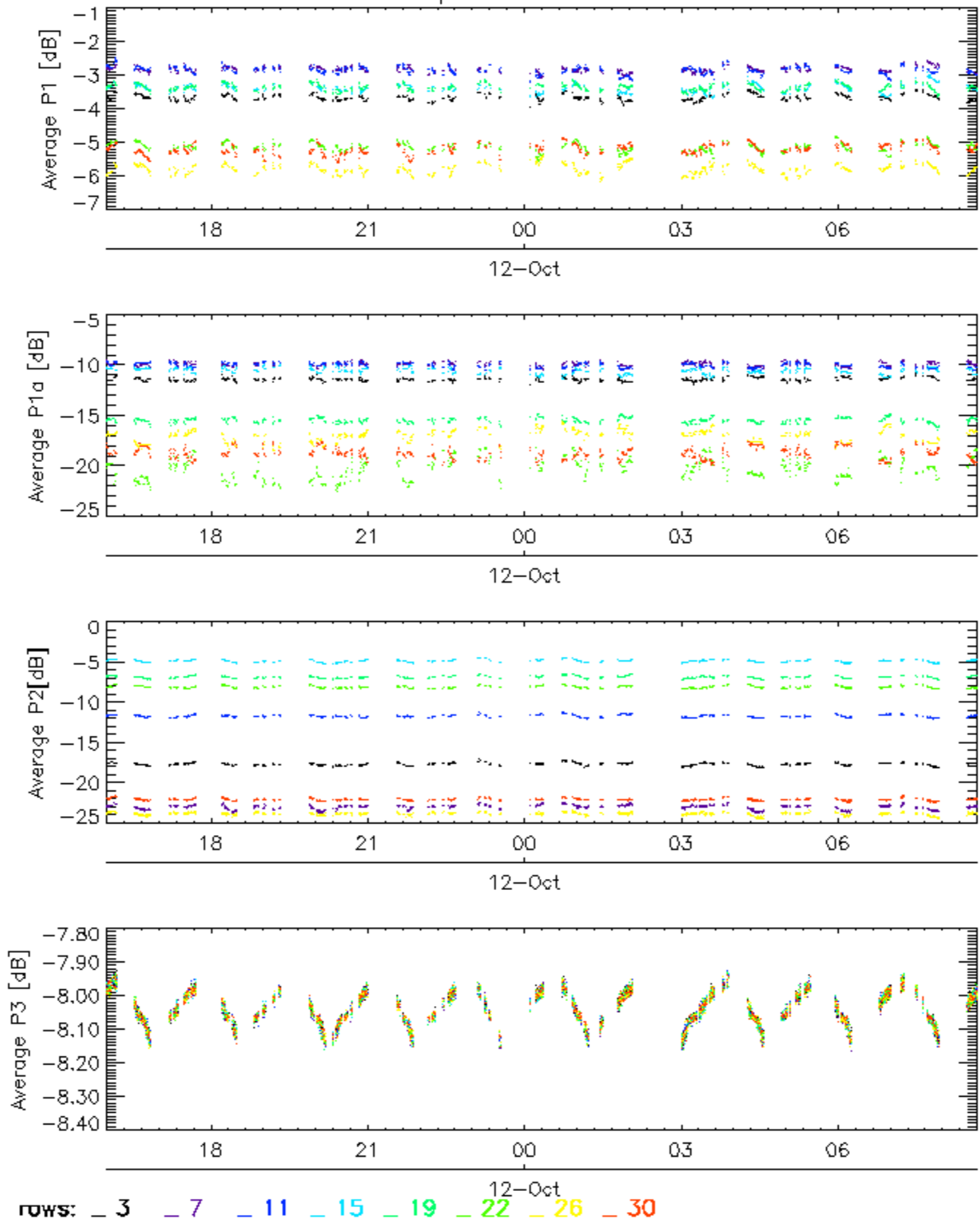


Cal pulses for GM1 SS3

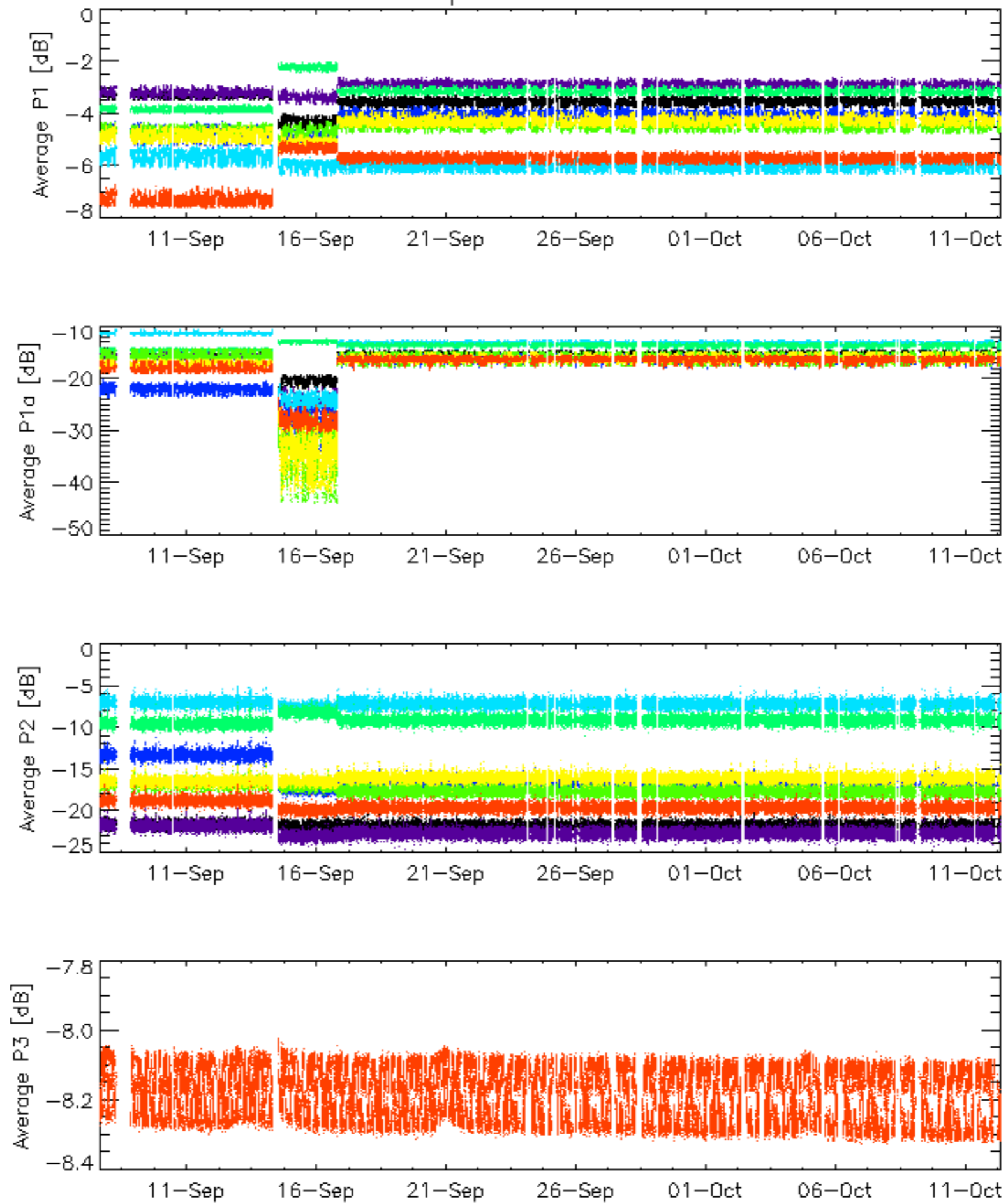


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

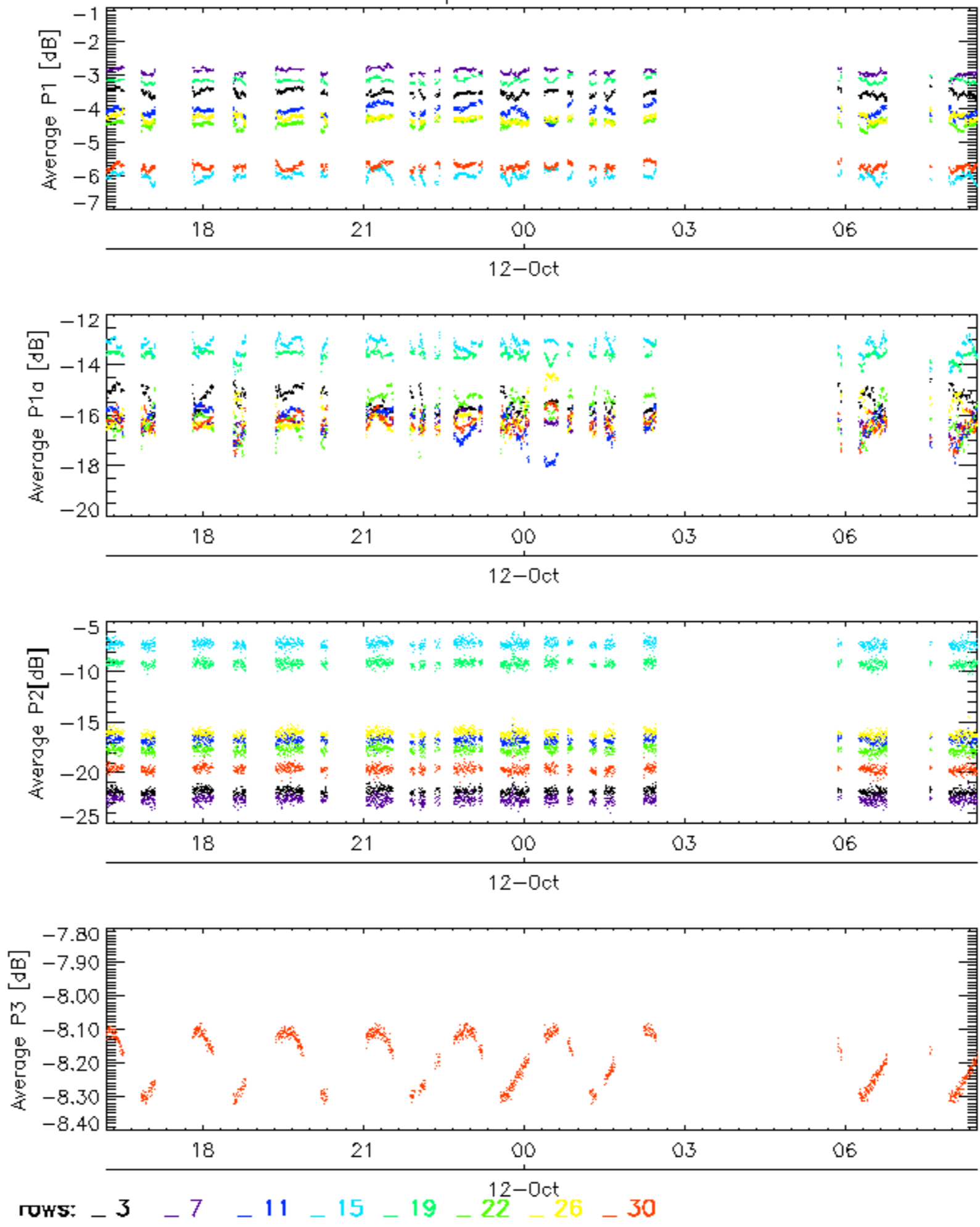


Cal pulses for WVS IS2



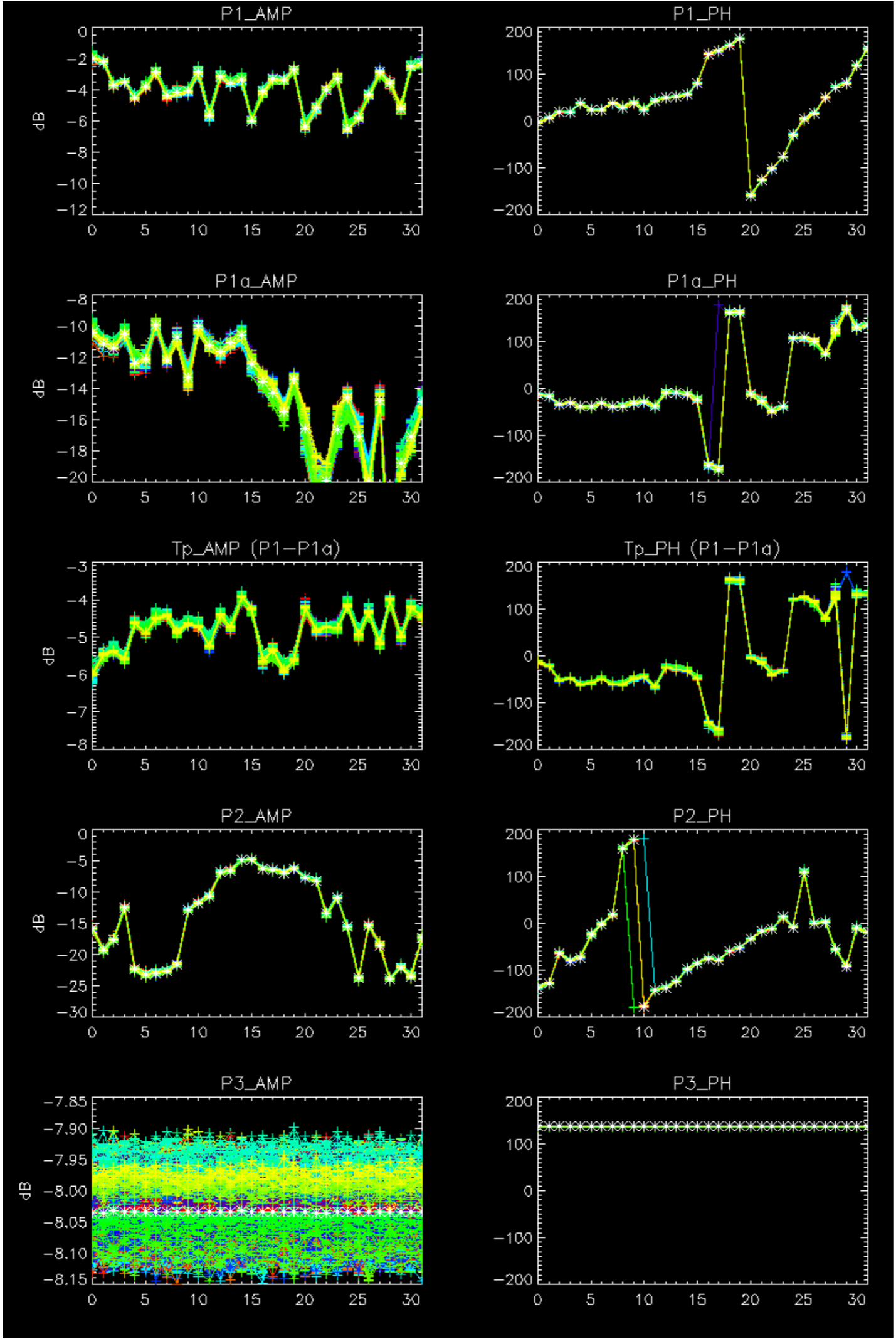
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

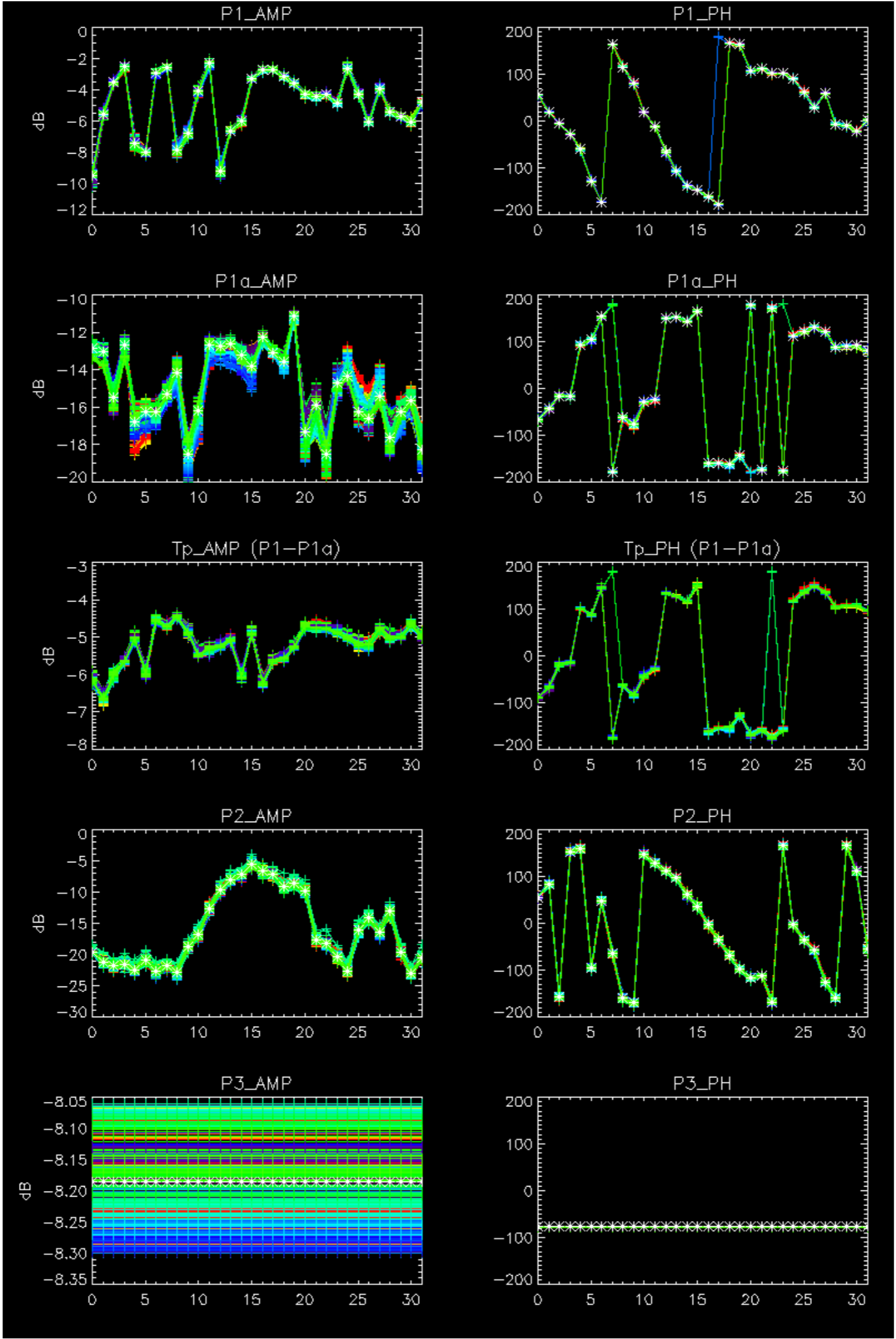
Cal pulses for WVS IS2



No anomalies observed on available browse products

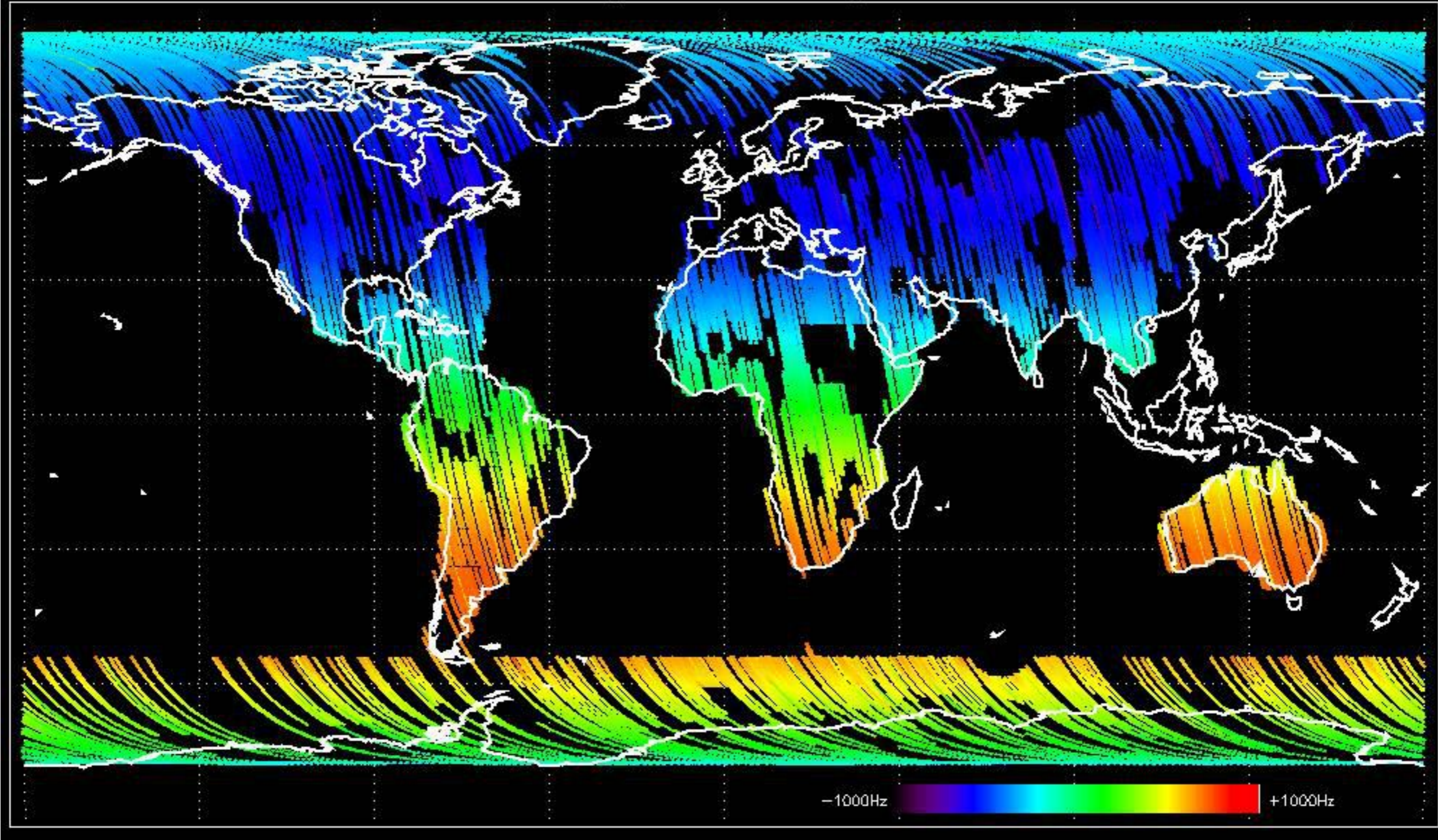
No anomalies observed.



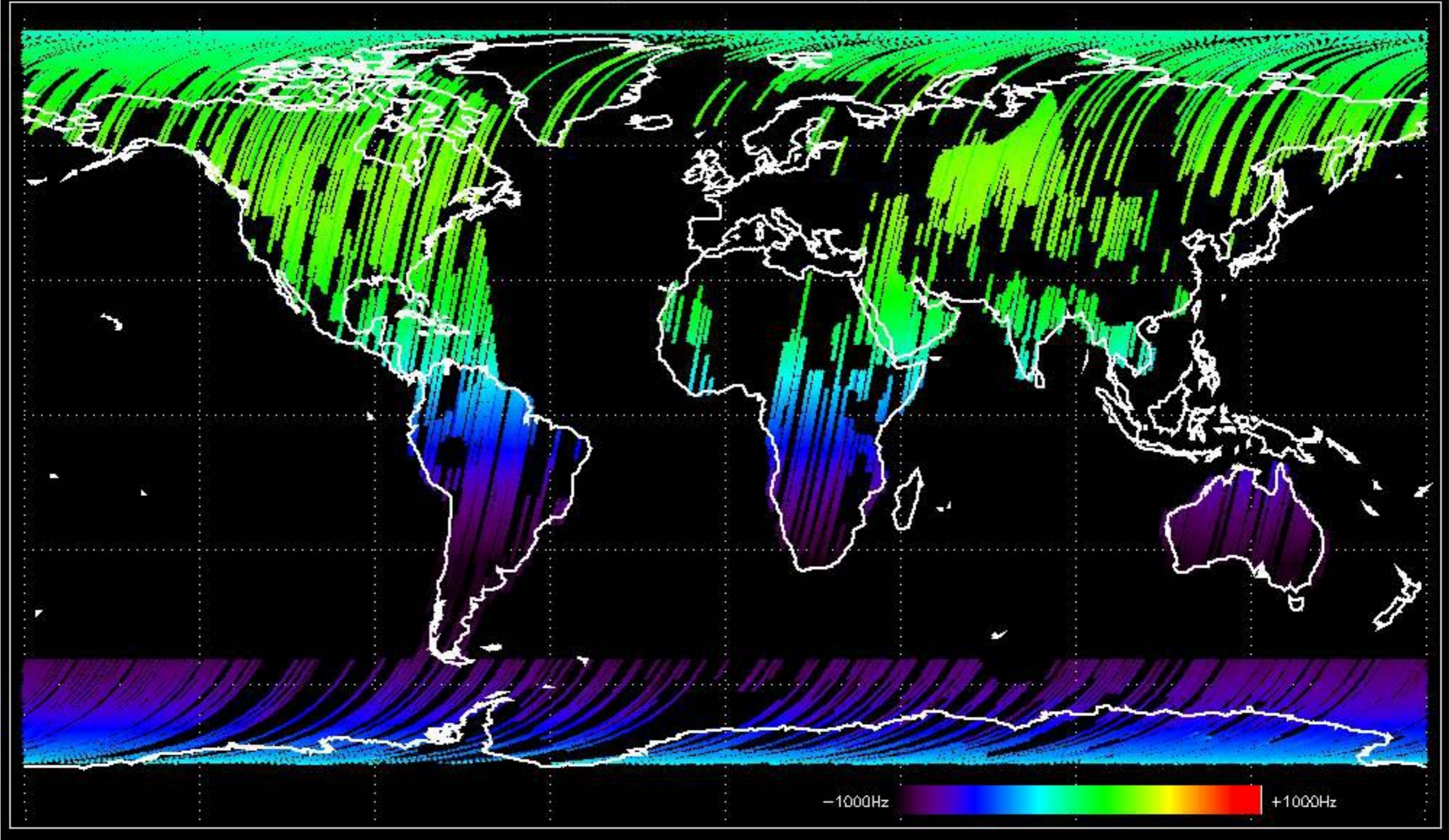


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

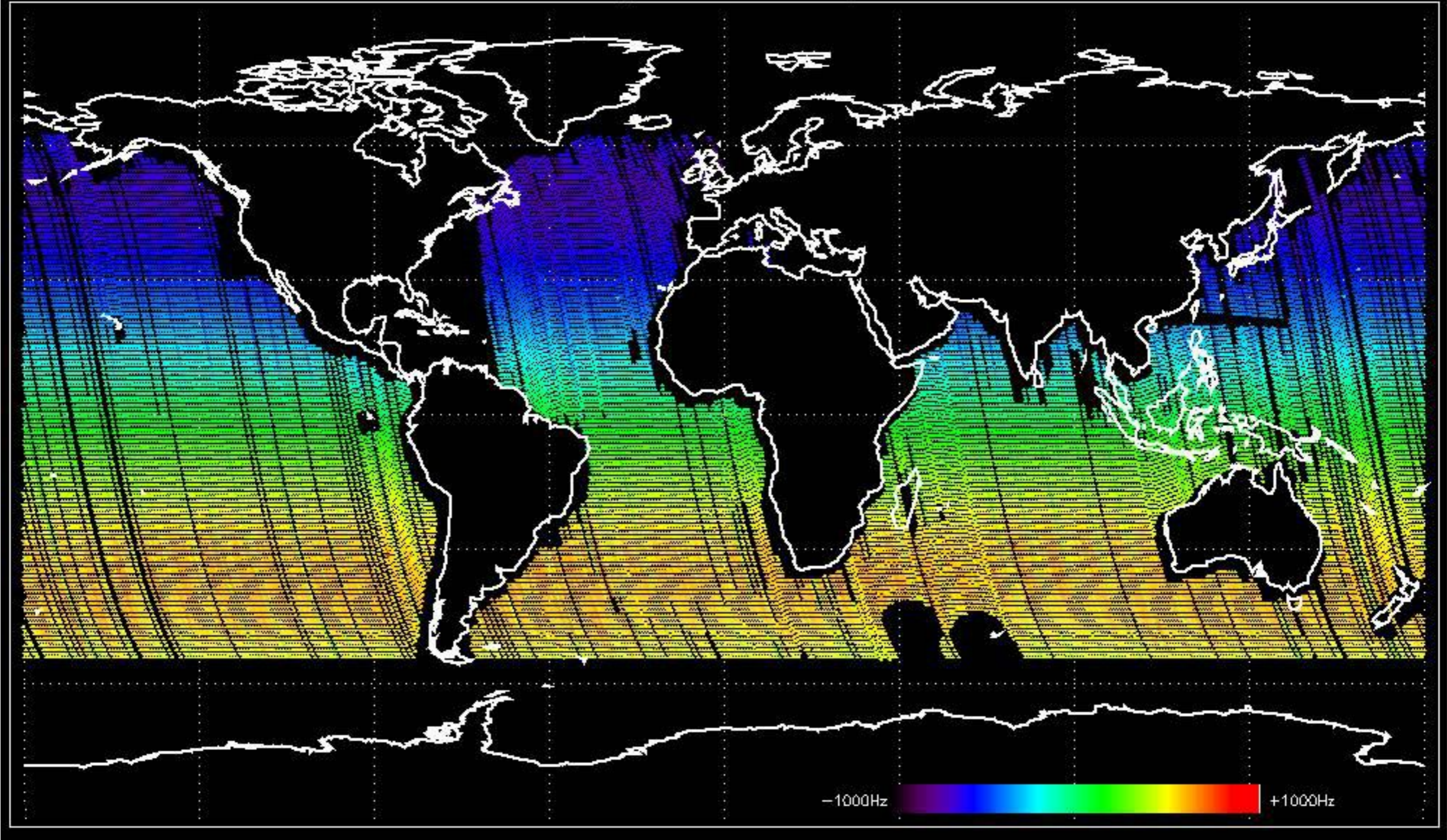
Doppler 'GM1' 'SS1' ascending



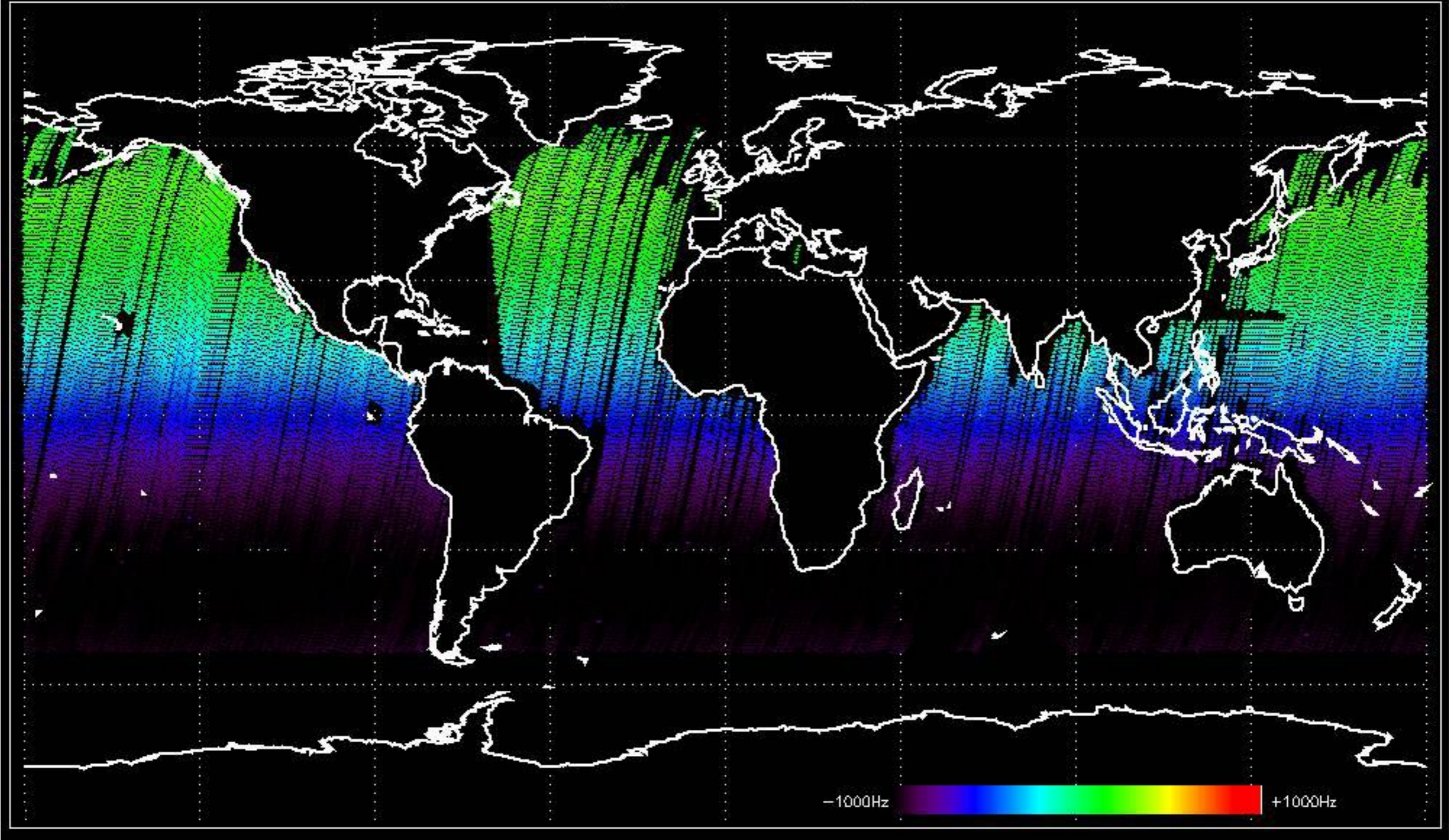
Doppler 'GM1' 'SS1' descending



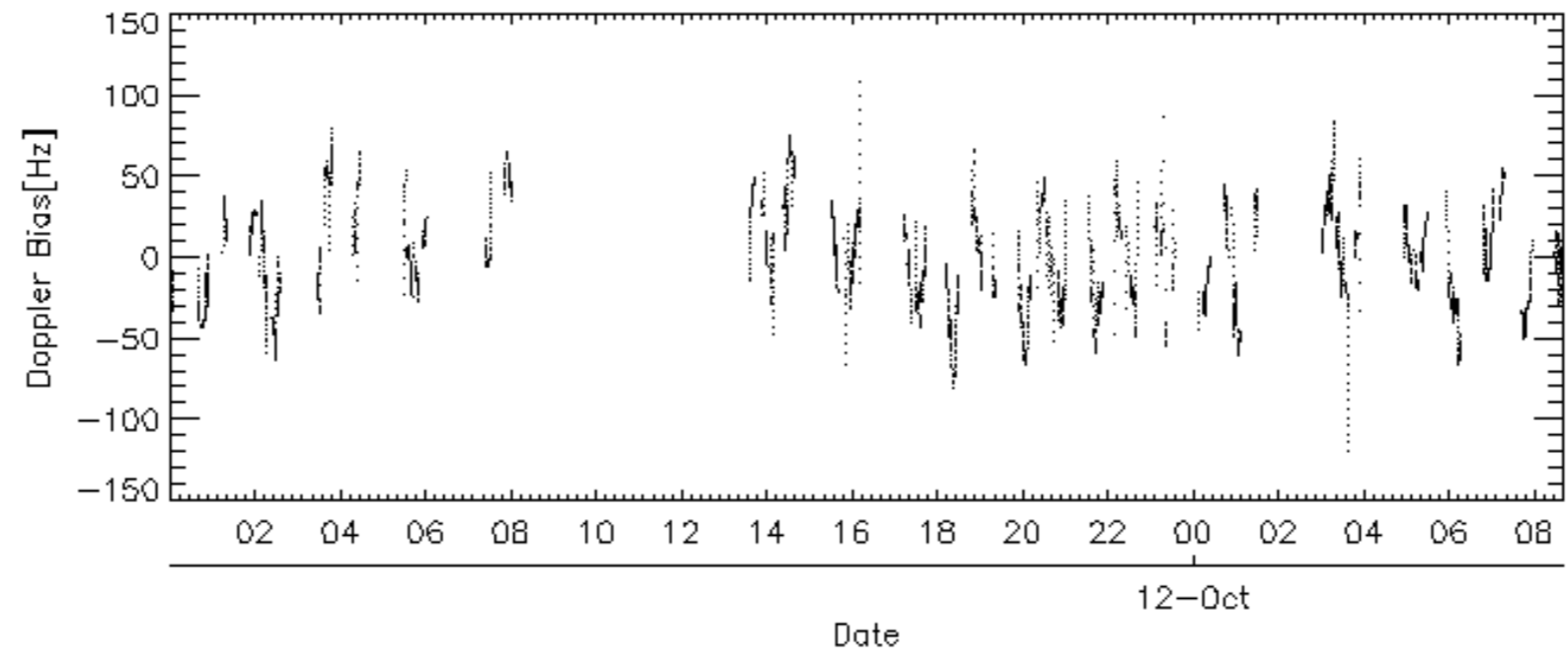
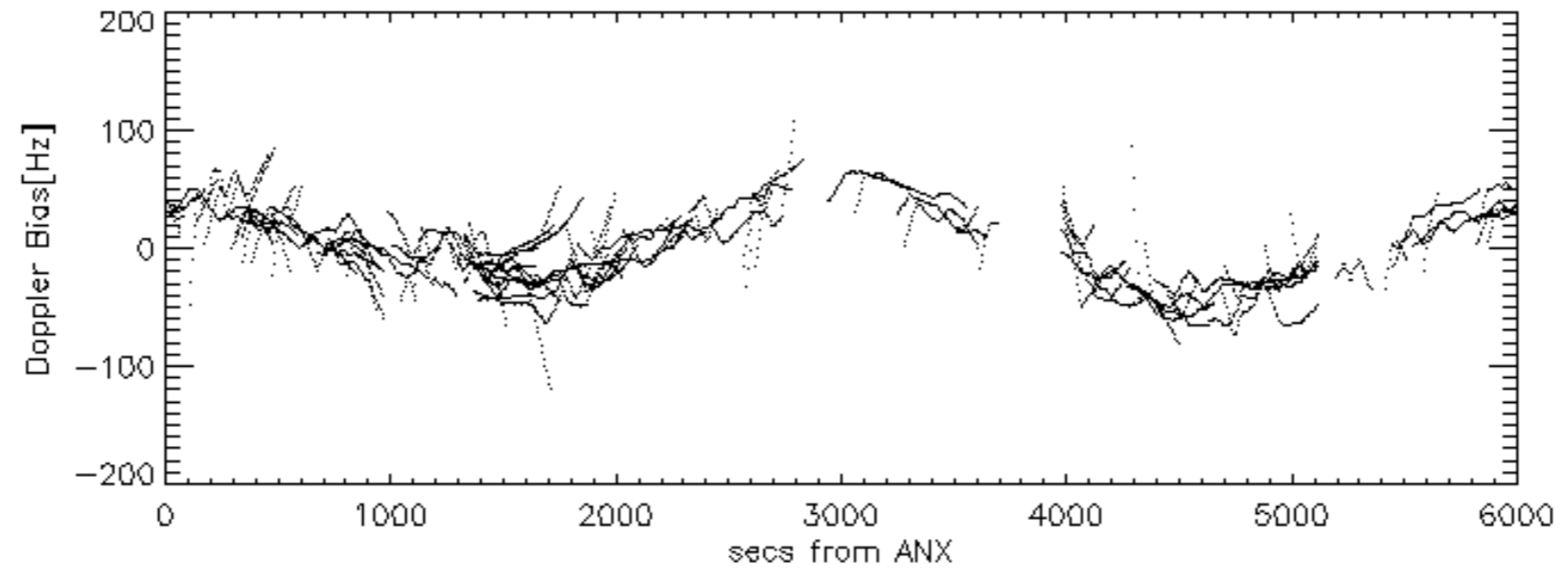
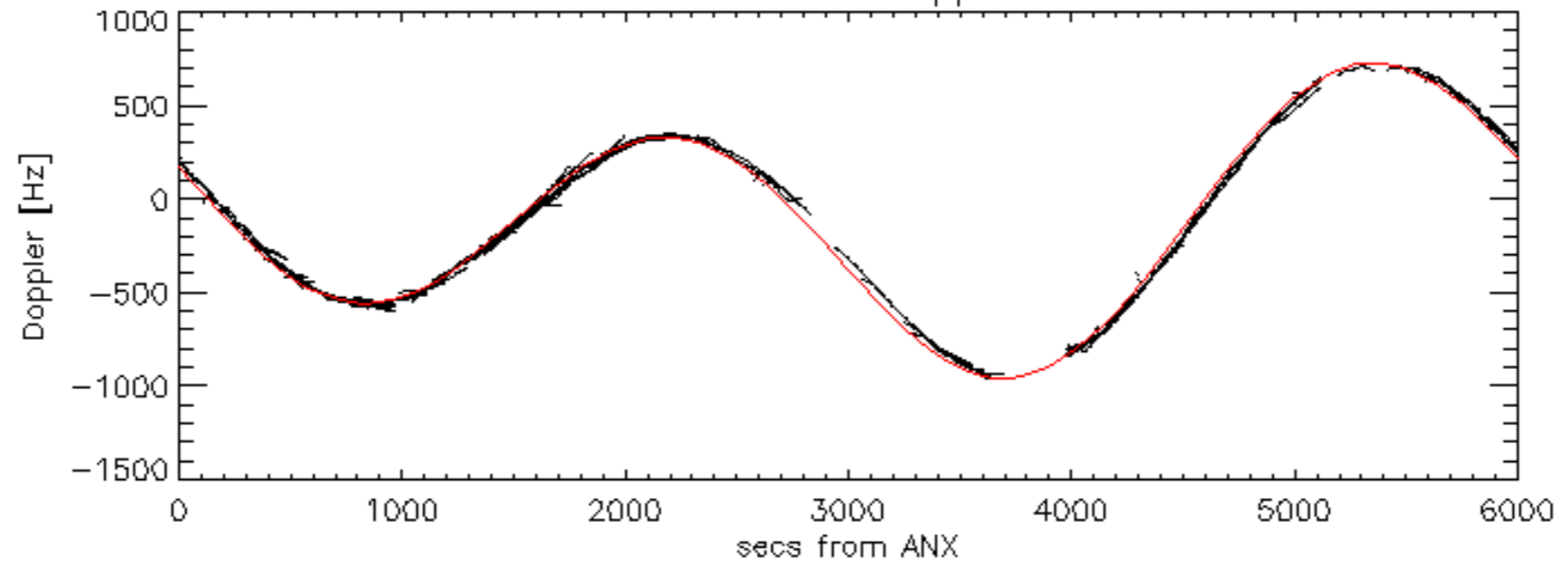
Doppler 'WVS' 'IS2' ascending

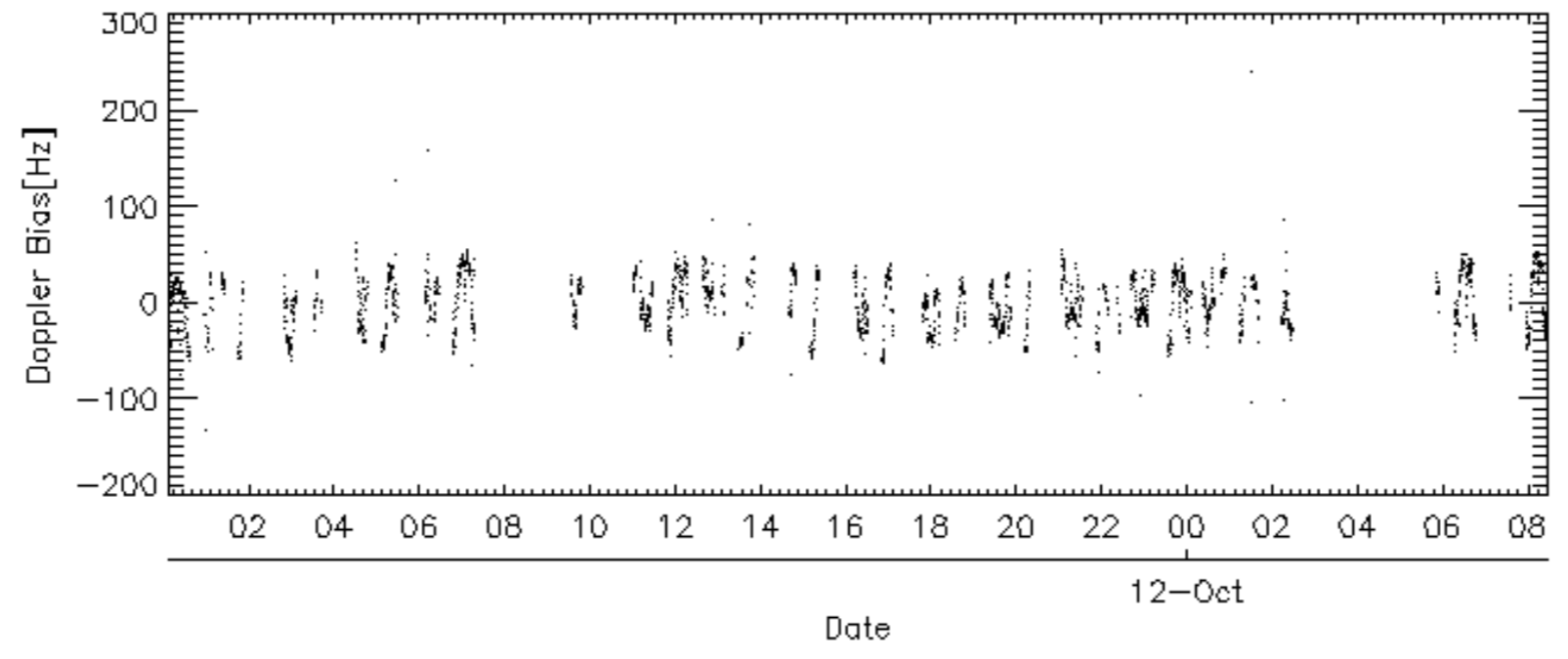
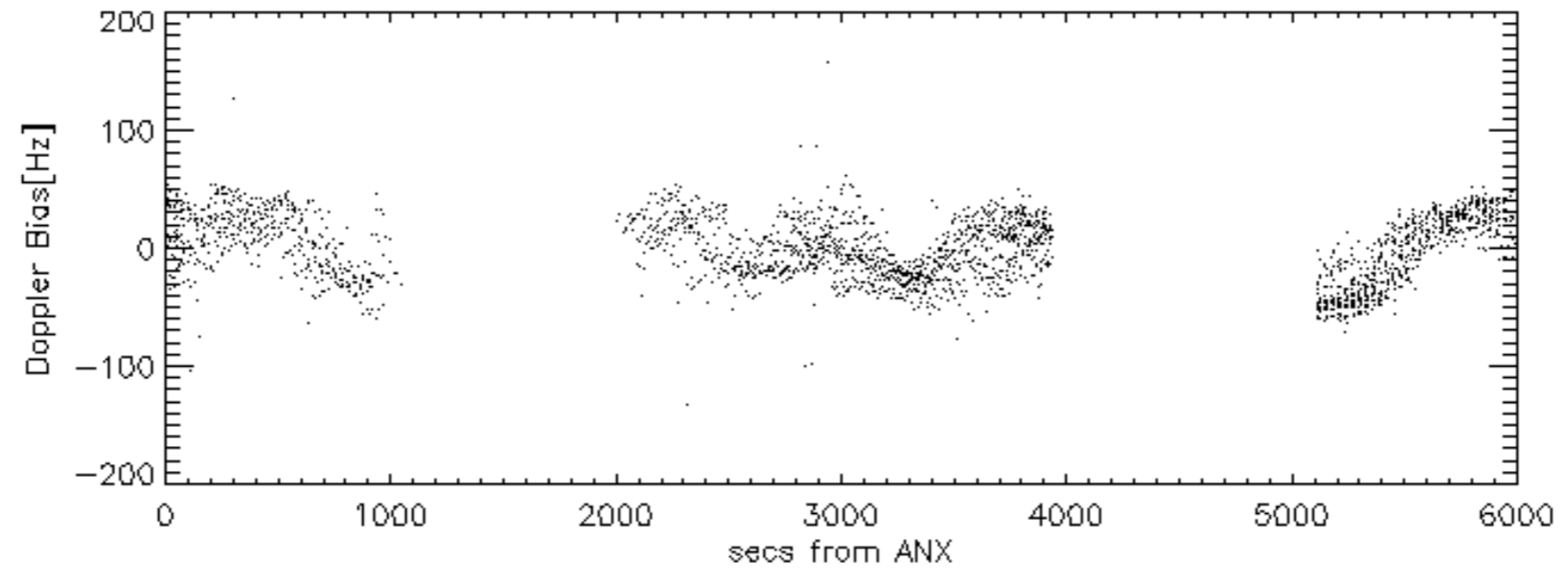
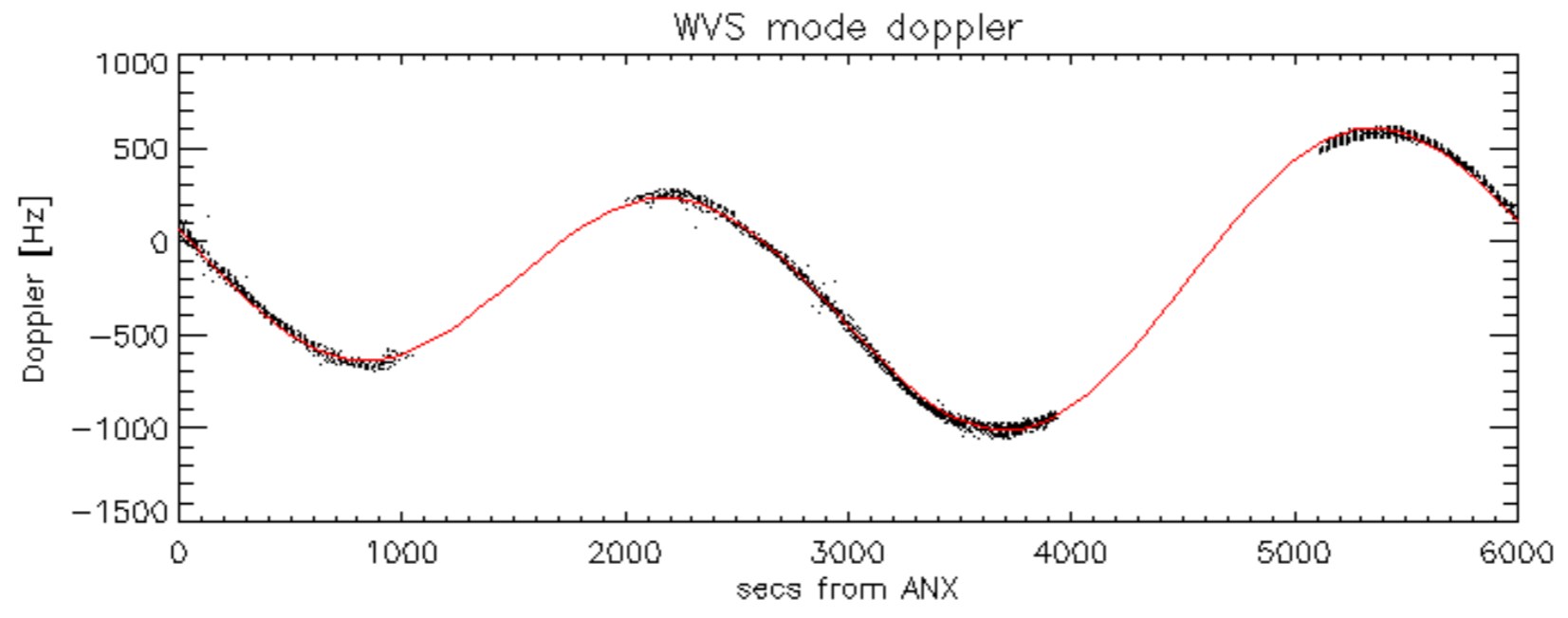


Doppler 'WVS' 'IS2' descending

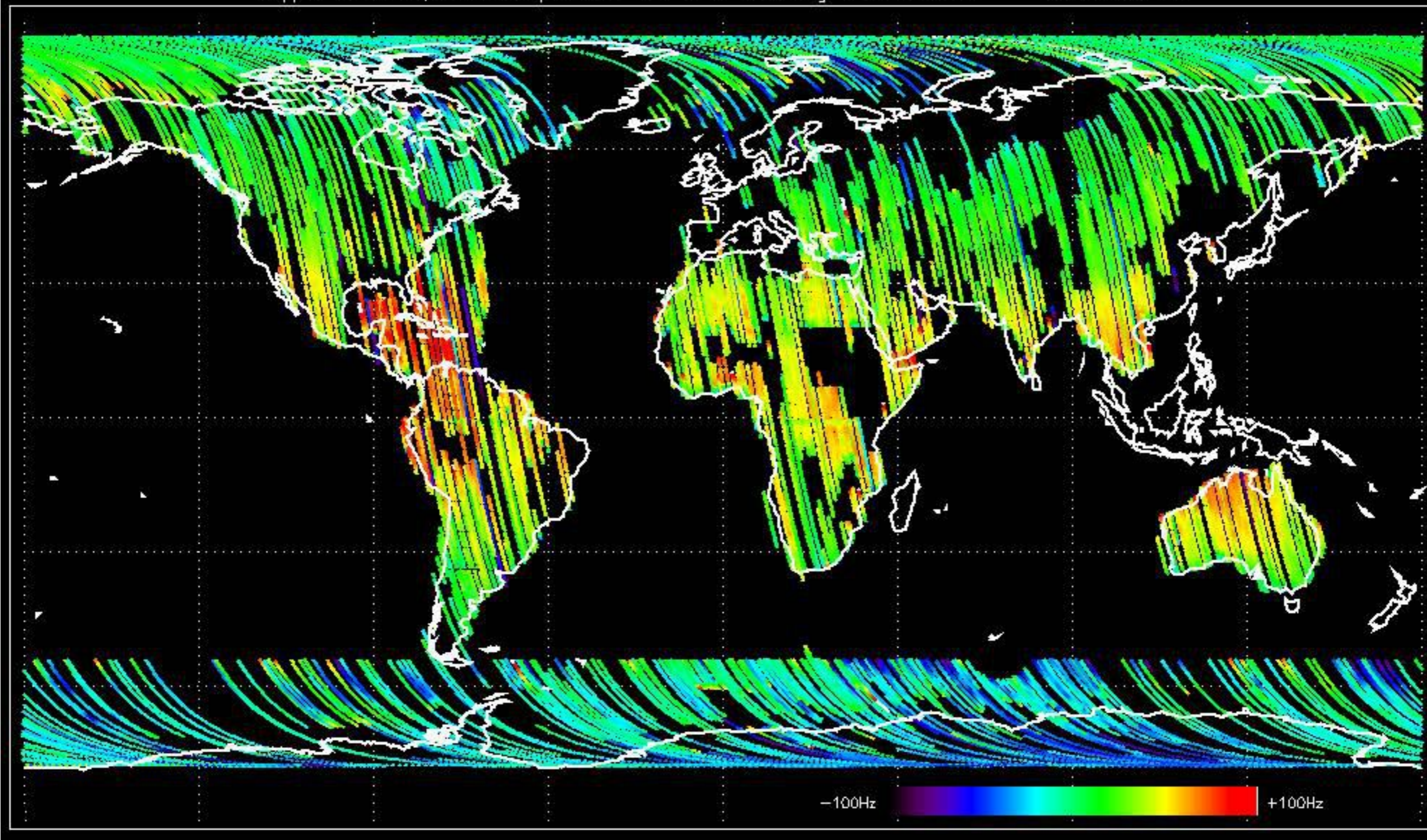


GM1 mode doppler

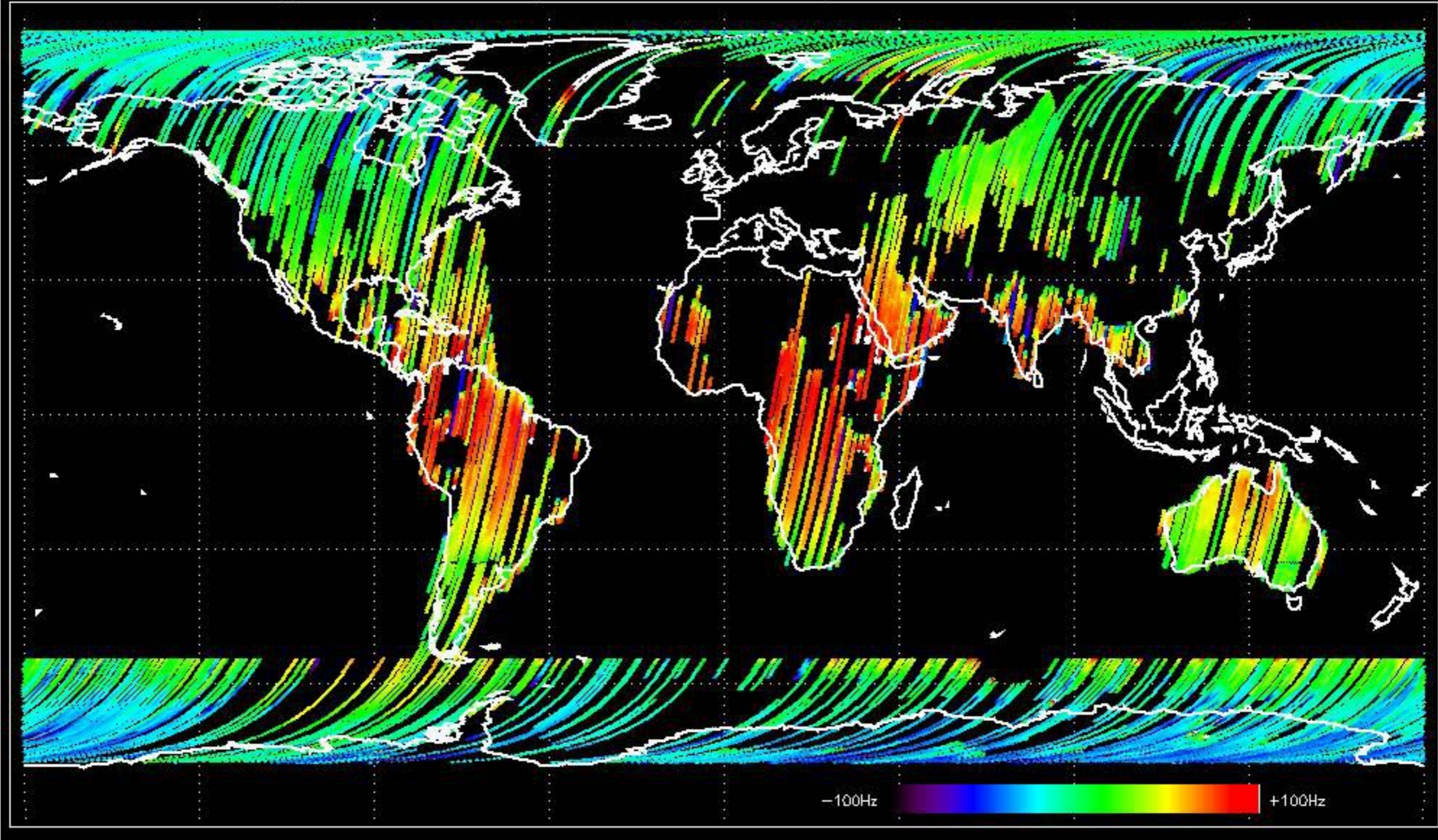




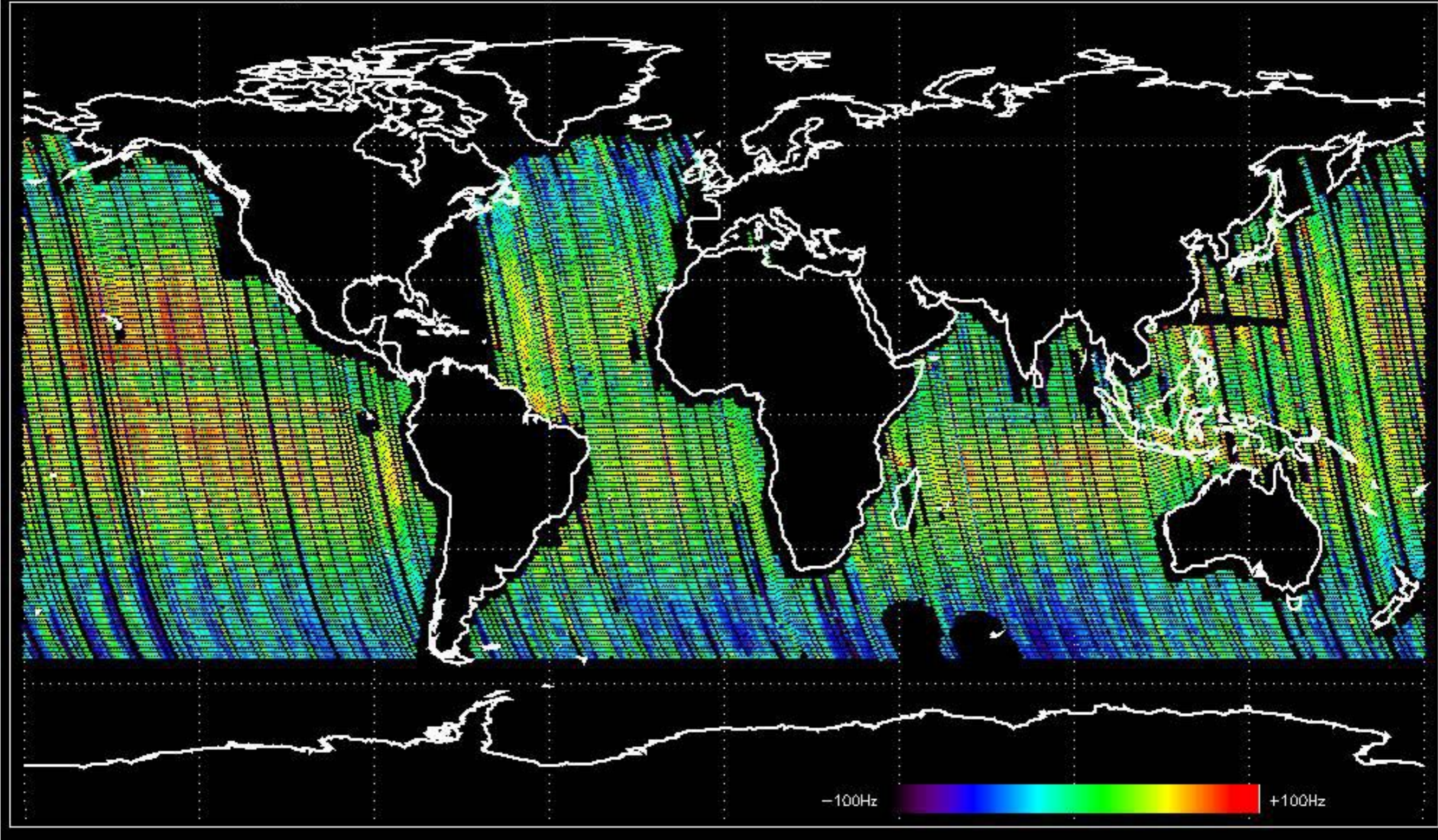
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -21.559198 Hz



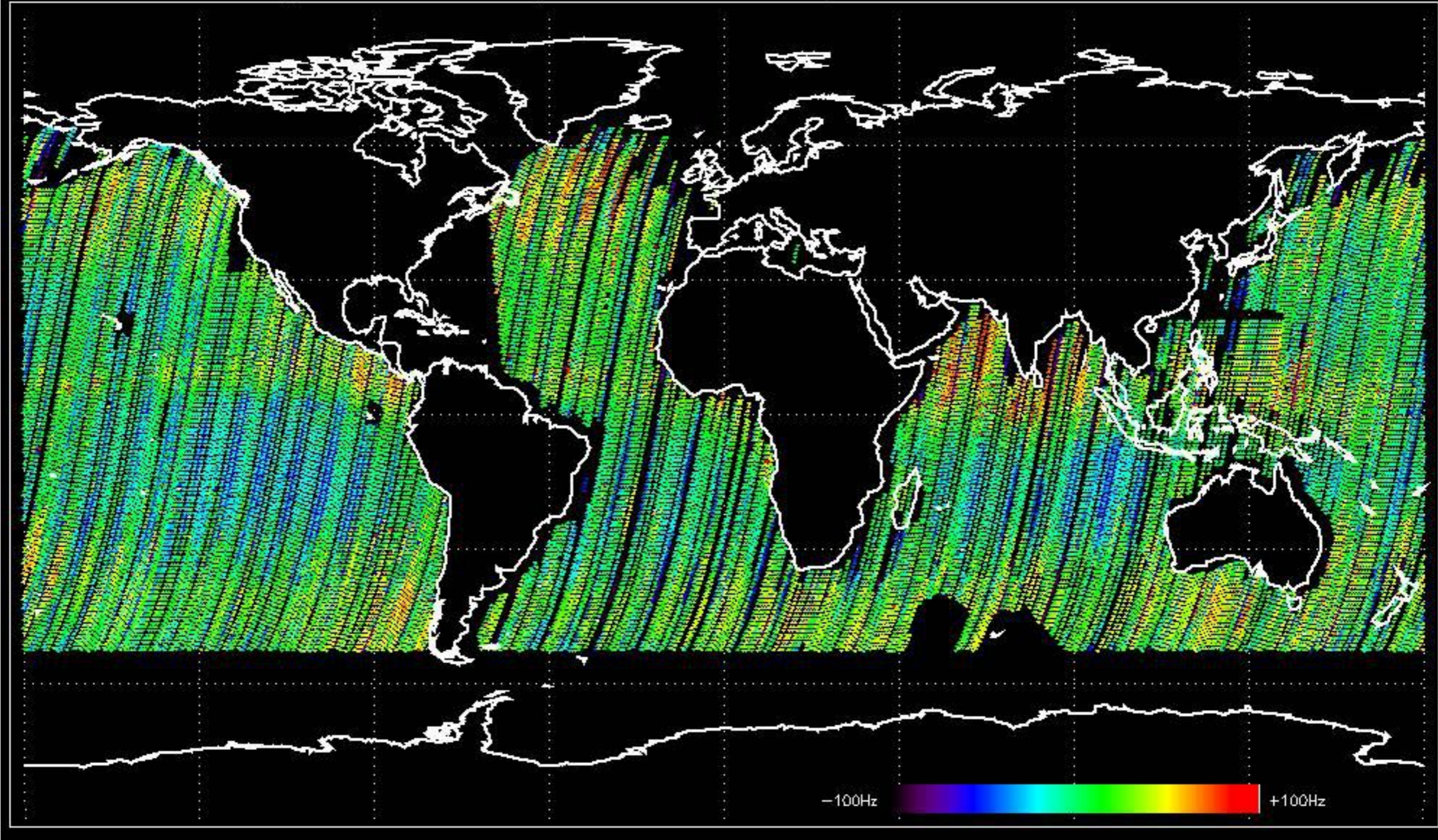
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -19.941145 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -17.038370 Hz

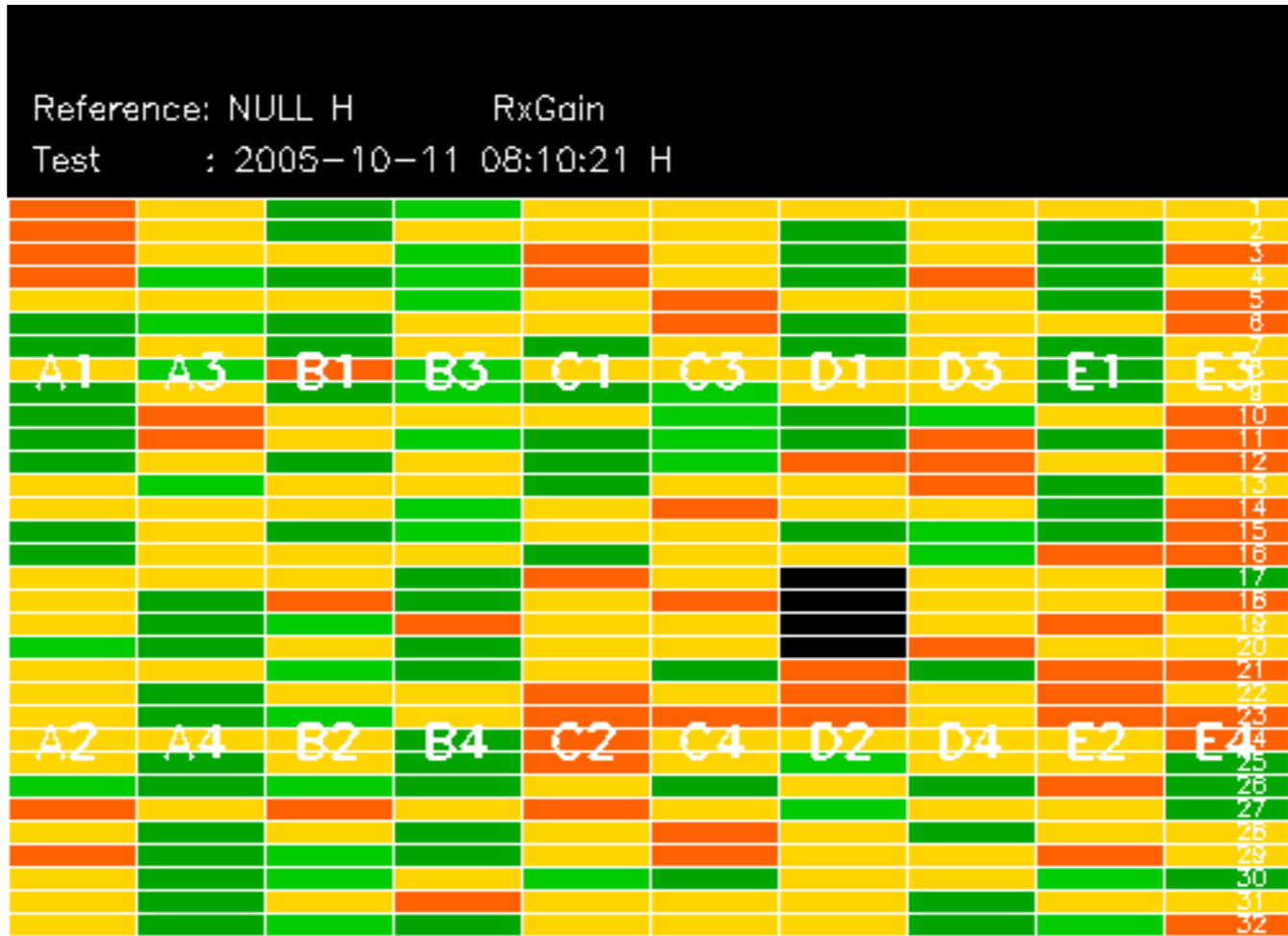


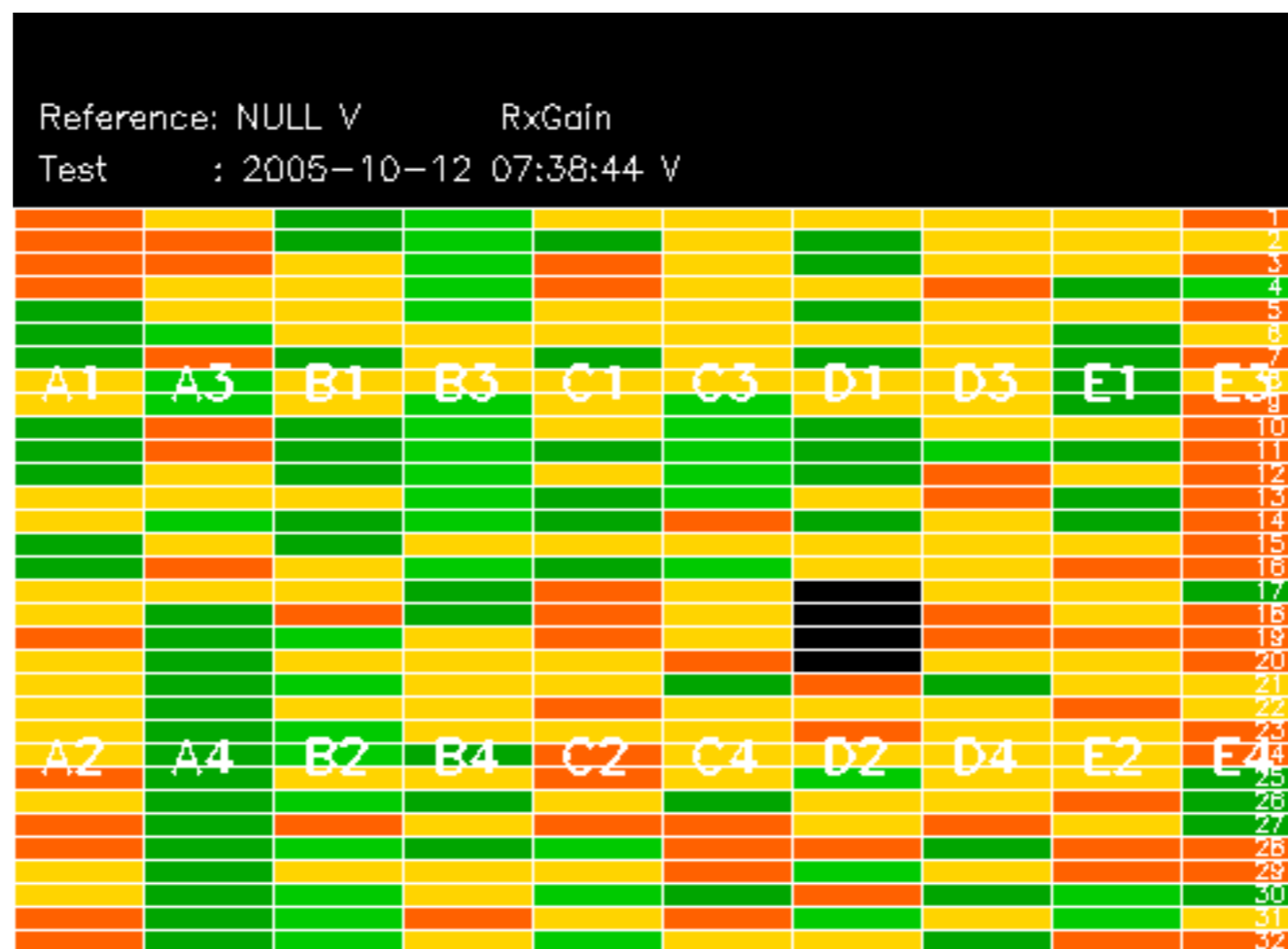
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -21.089001 Hz

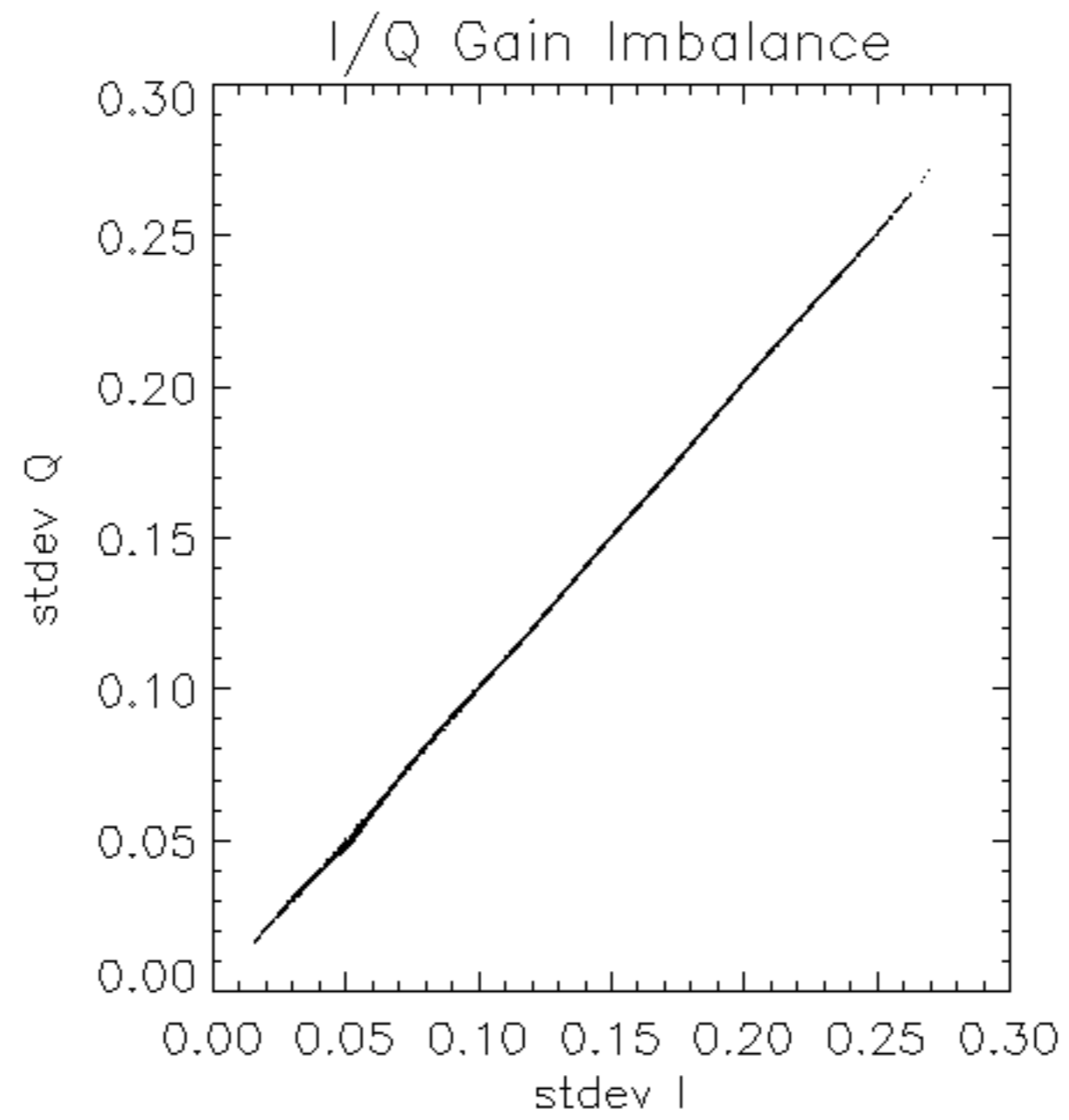


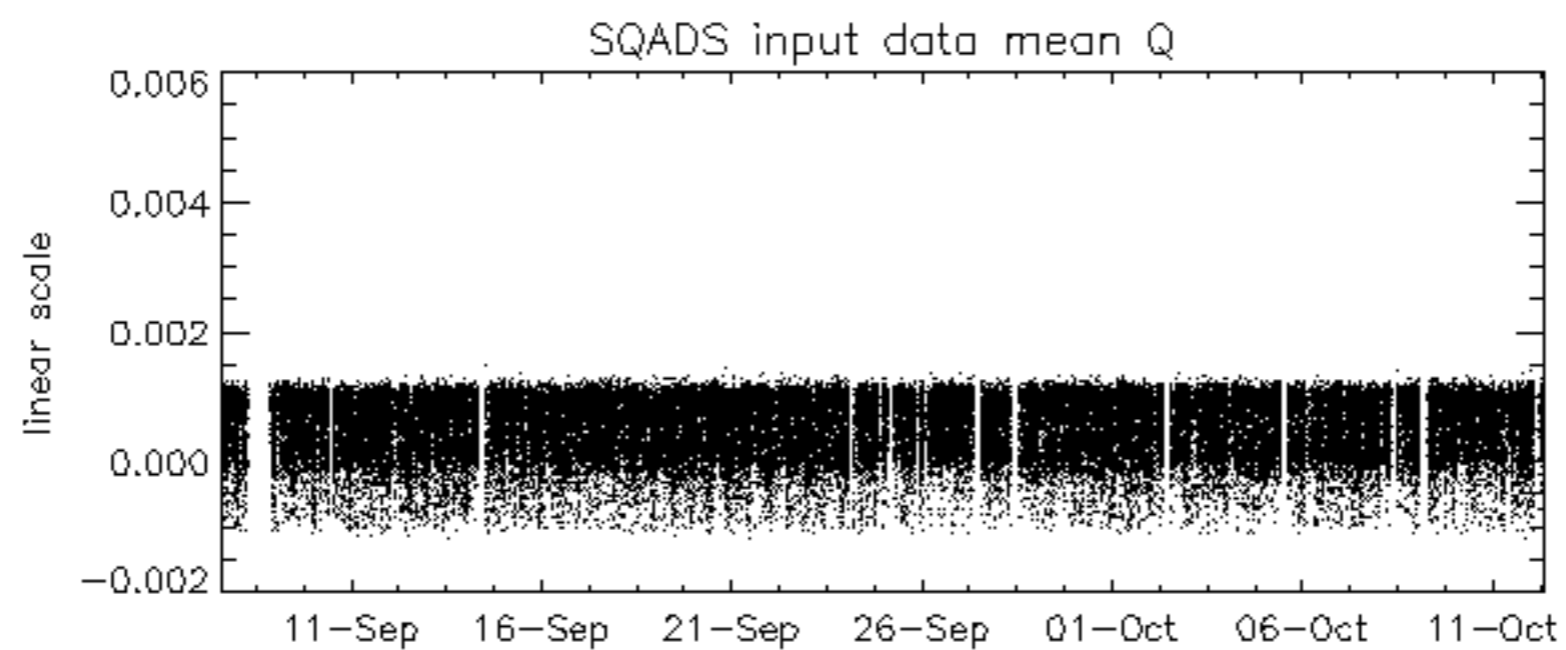
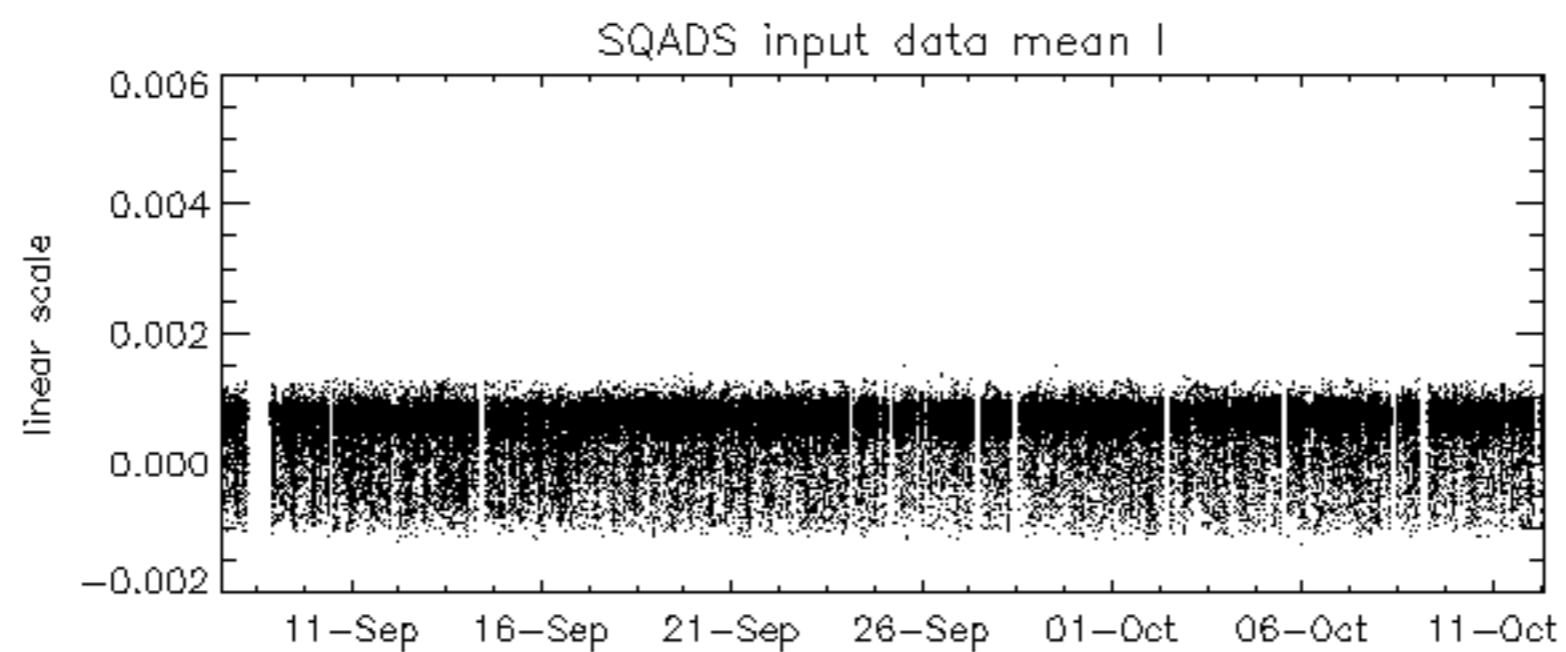
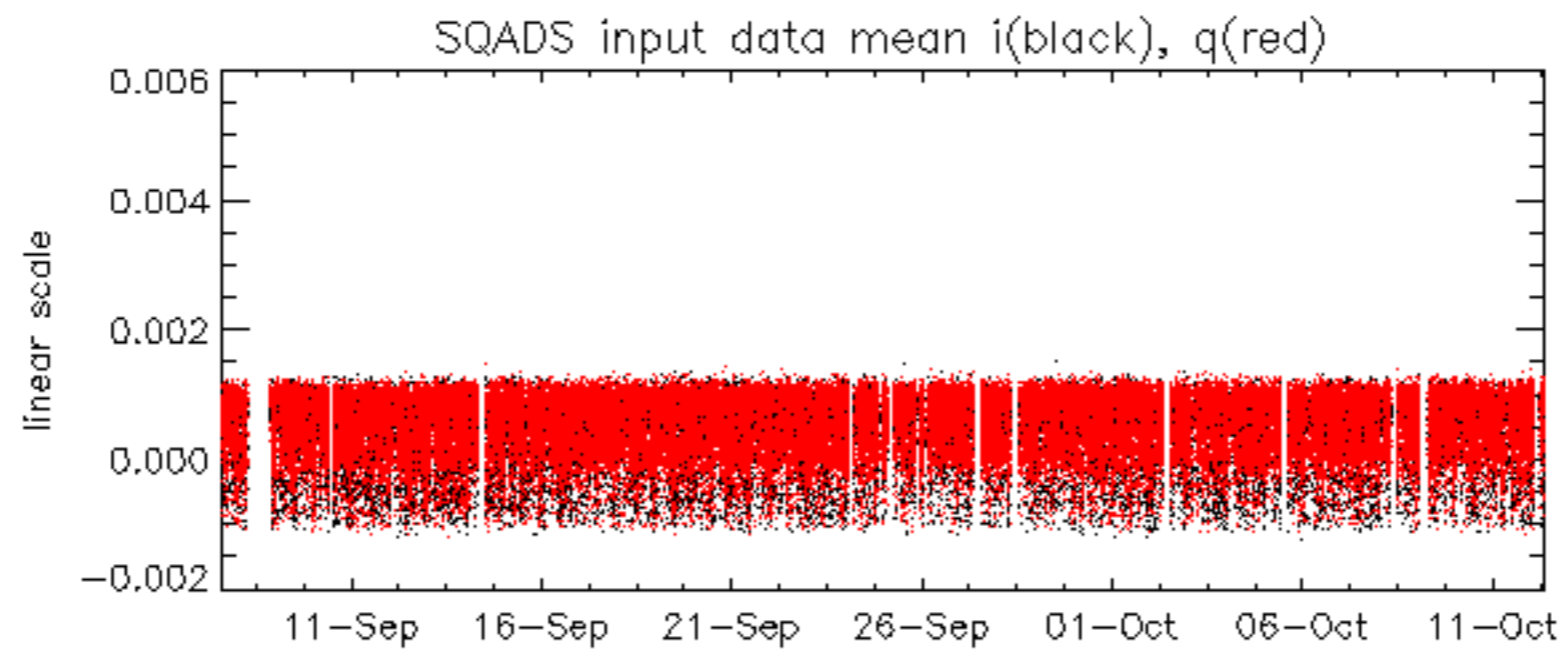
No anomalies observed on available MS products:

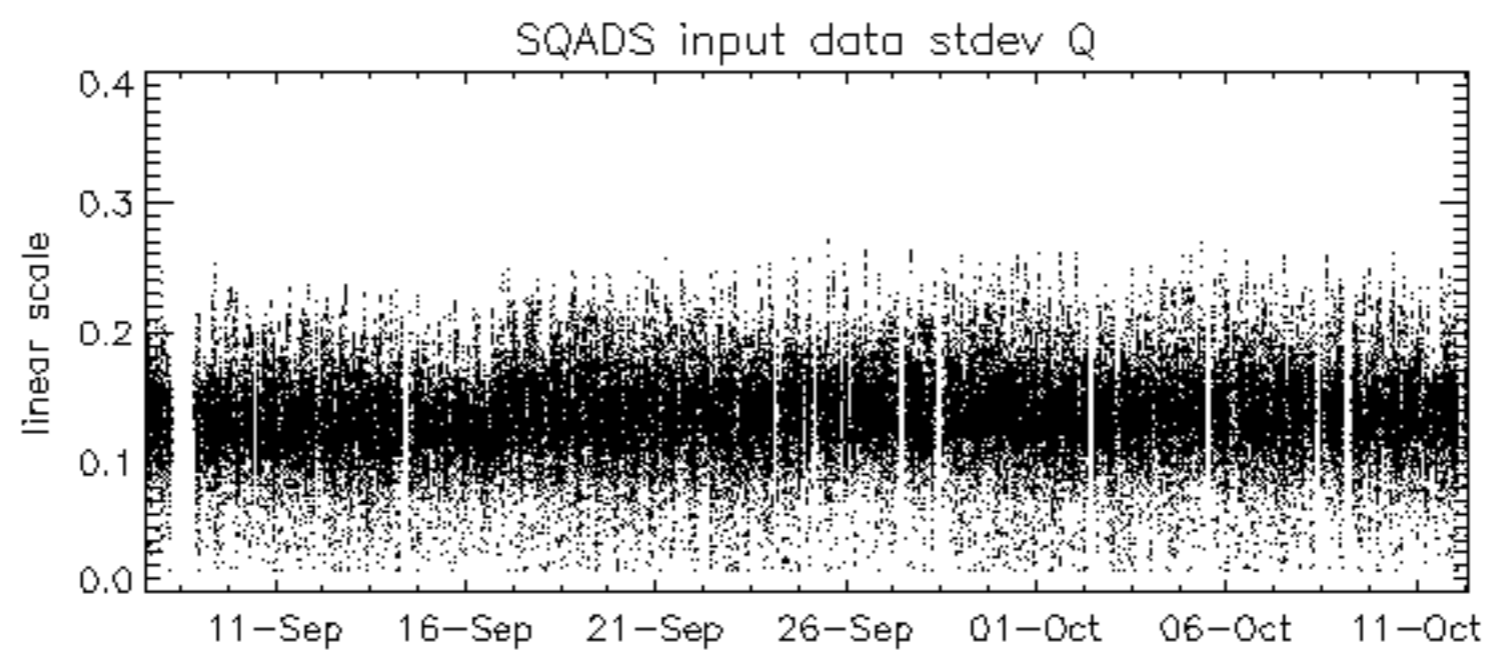
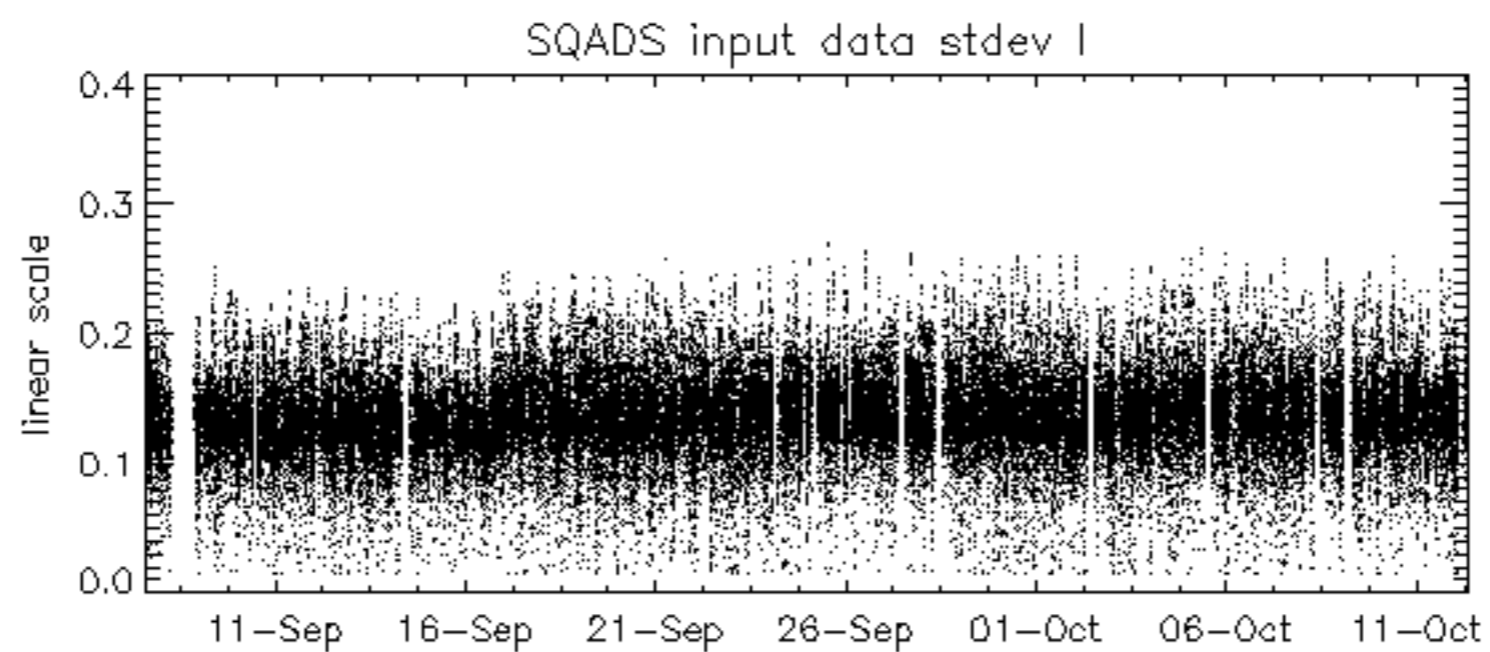
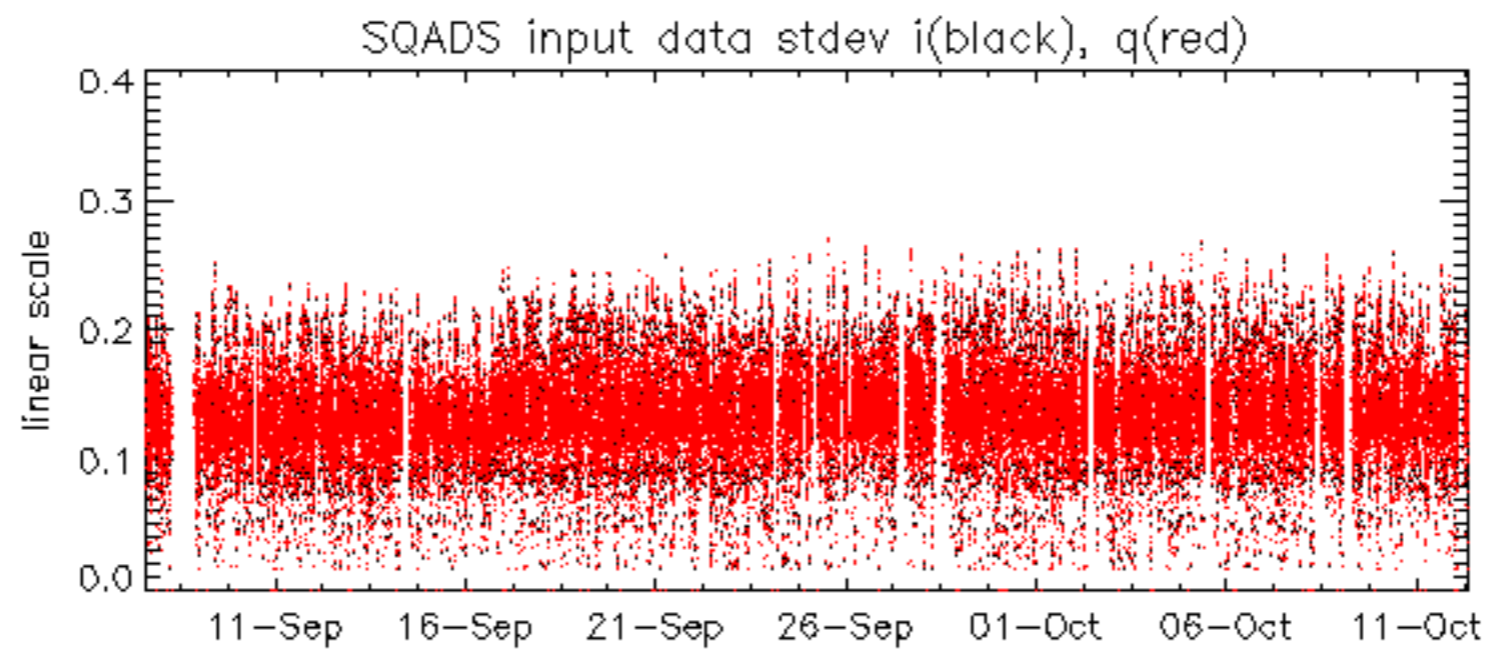
No anomalies observed.







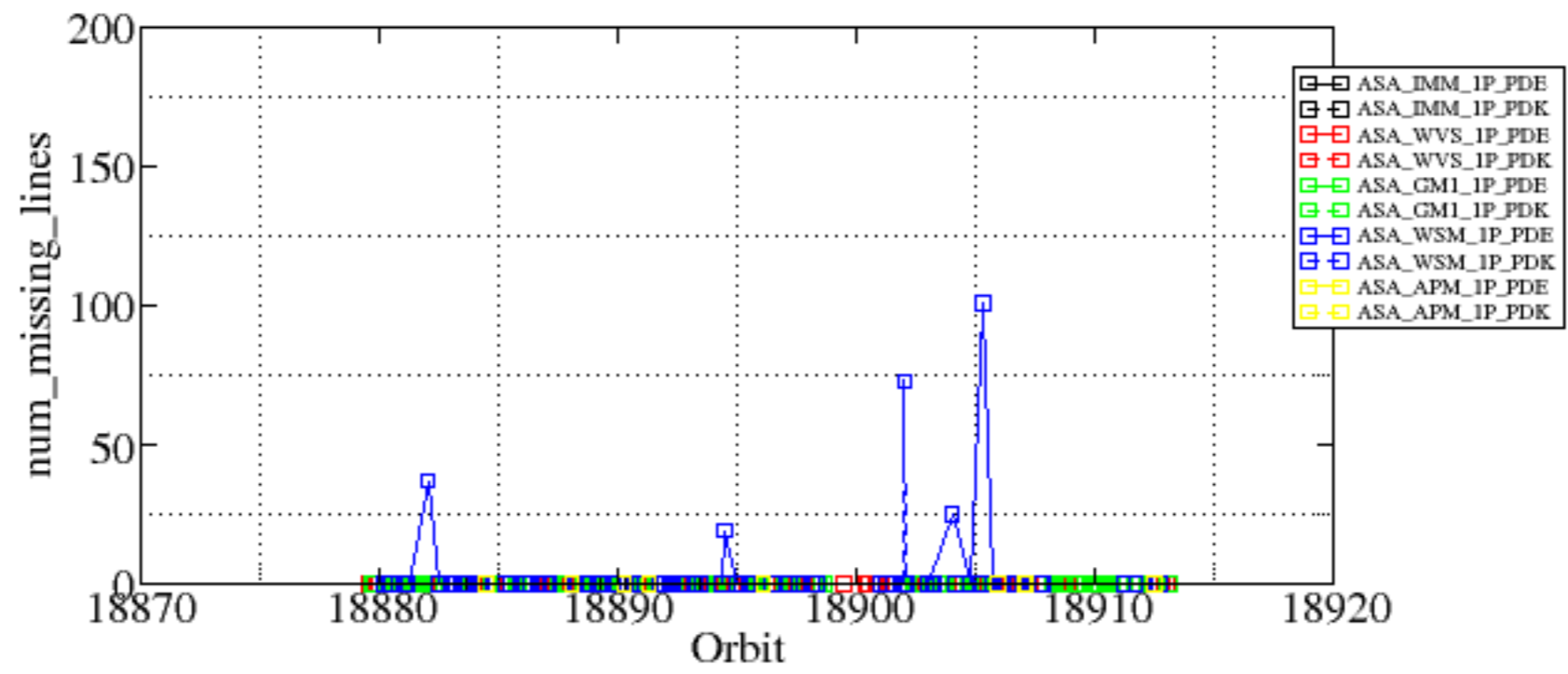


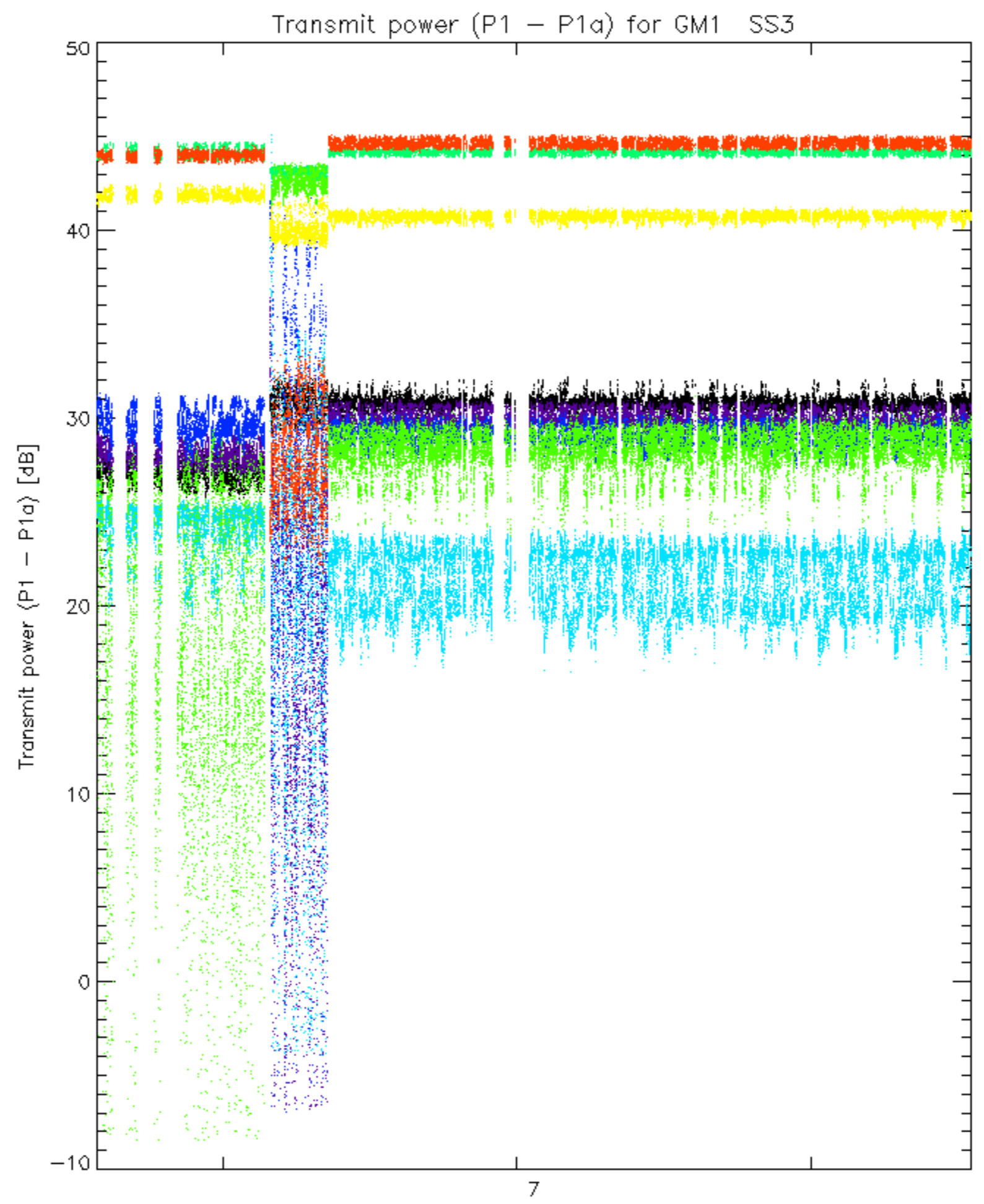


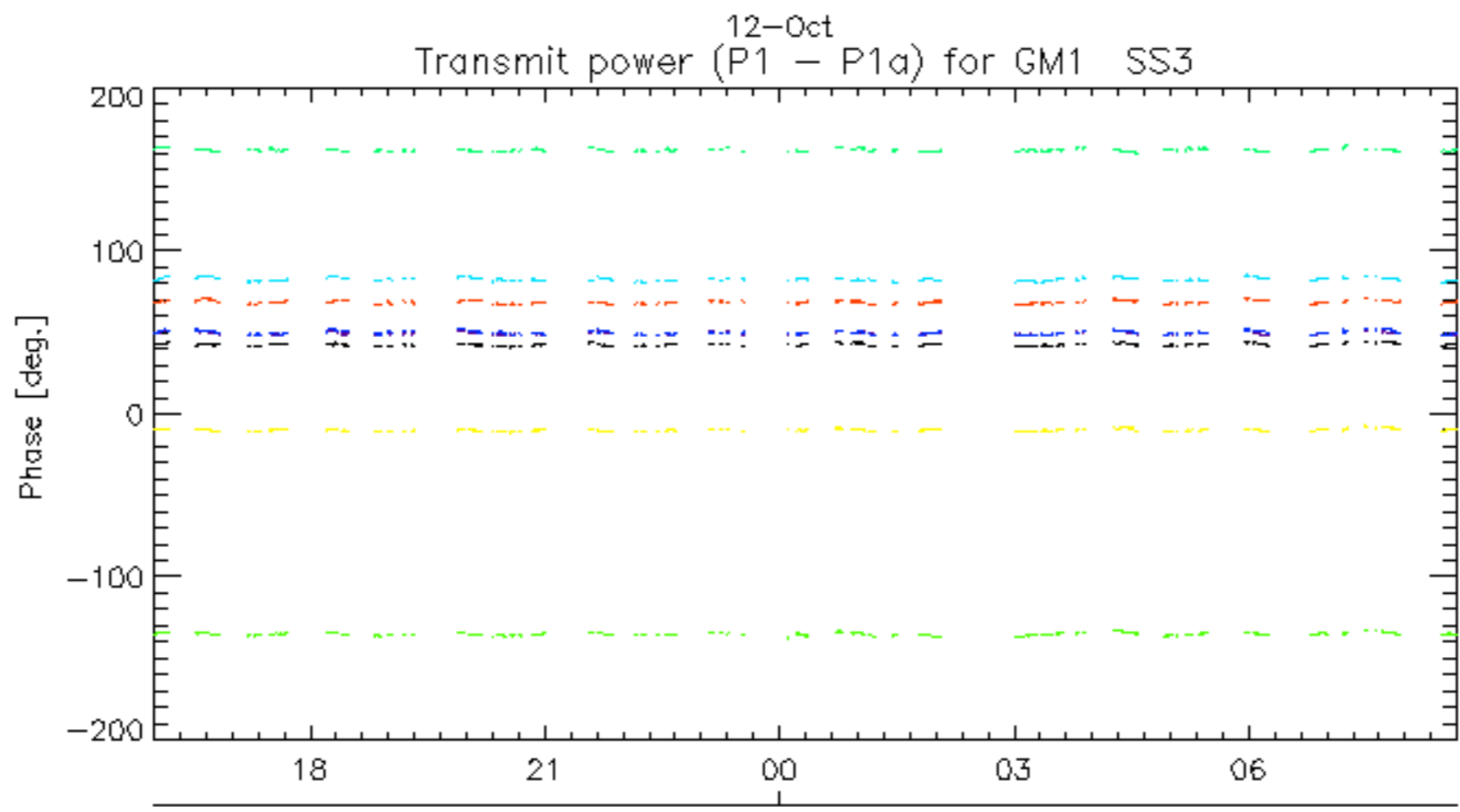
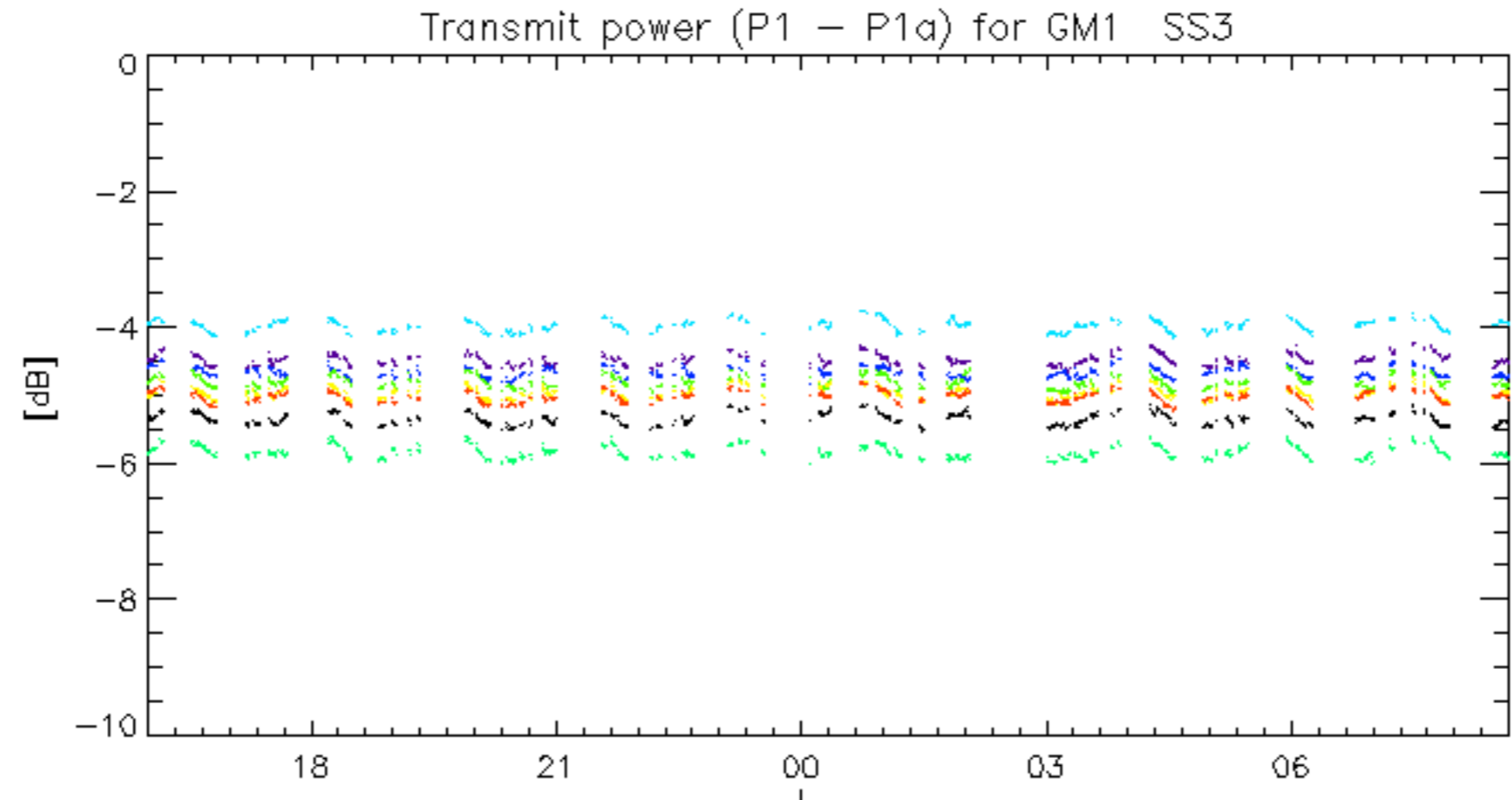
Summary of analysis for the last 3 days 2005101[012]

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

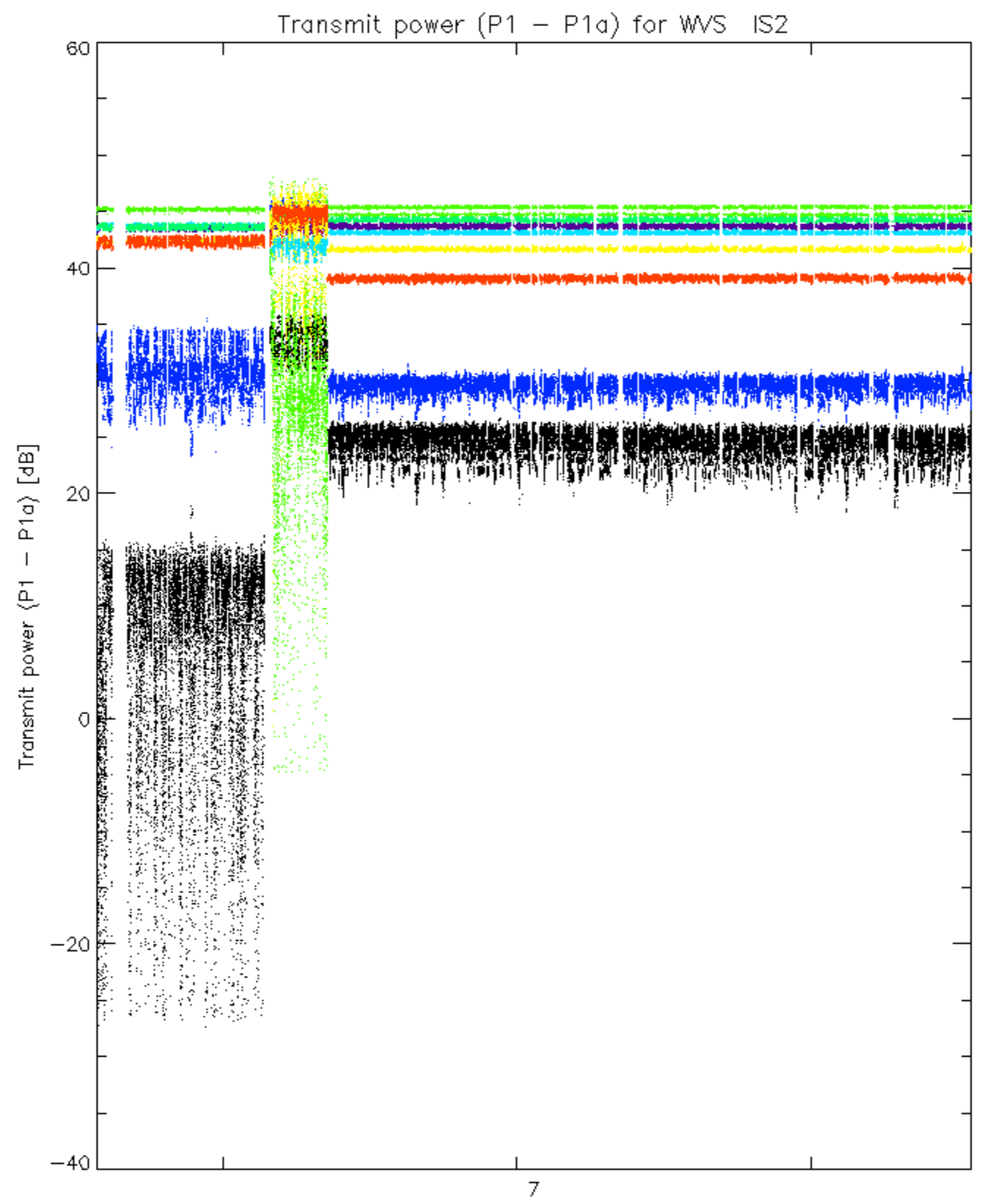
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051010_155732_000002332041_00298_18889_8044.N1	1	0
ASA_IMM_1PNPDK20051010_124847_000000882041_00296_18887_5483.N1	1	0
ASA_WSM_1PNPDE20051010_041813_000001592041_00291_18882_3248.N1	0	37
ASA_WSM_1PNPDE20051011_010913_000003062041_00303_18894_3388.N1	0	19
ASA_WSM_1PNPDE20051011_170741_000002392041_00313_18904_3469.N1	0	25
ASA_WSM_1PNPDE20051011_191644_000000672041_00314_18905_3478.N1	0	101
ASA_WSM_1PNPDE20051011_191644_000000672041_00314_18905_3489.N1	0	101
ASA_WSM_1PNPDK20051011_134721_000000922041_00311_18902_6753.N1	0	73

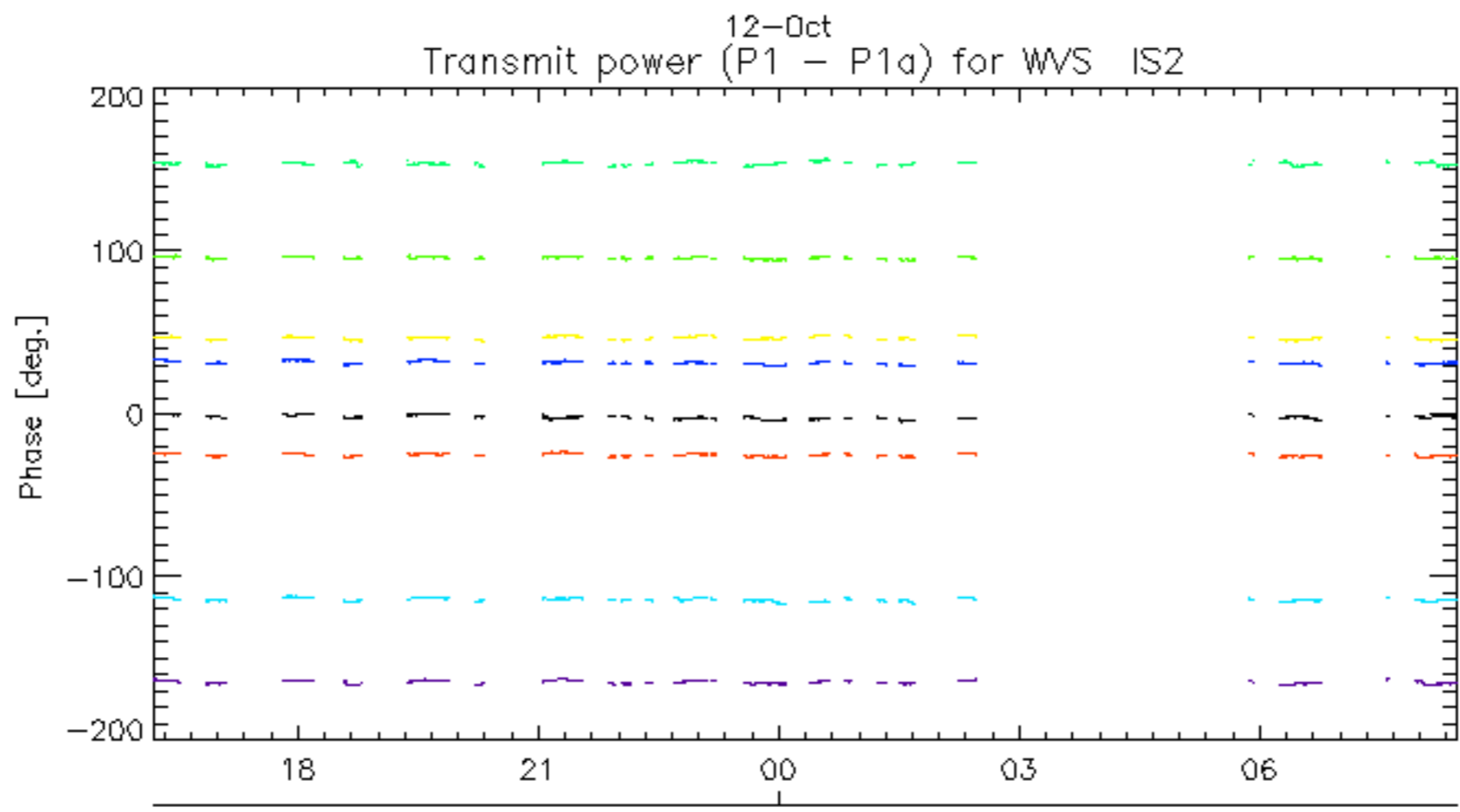
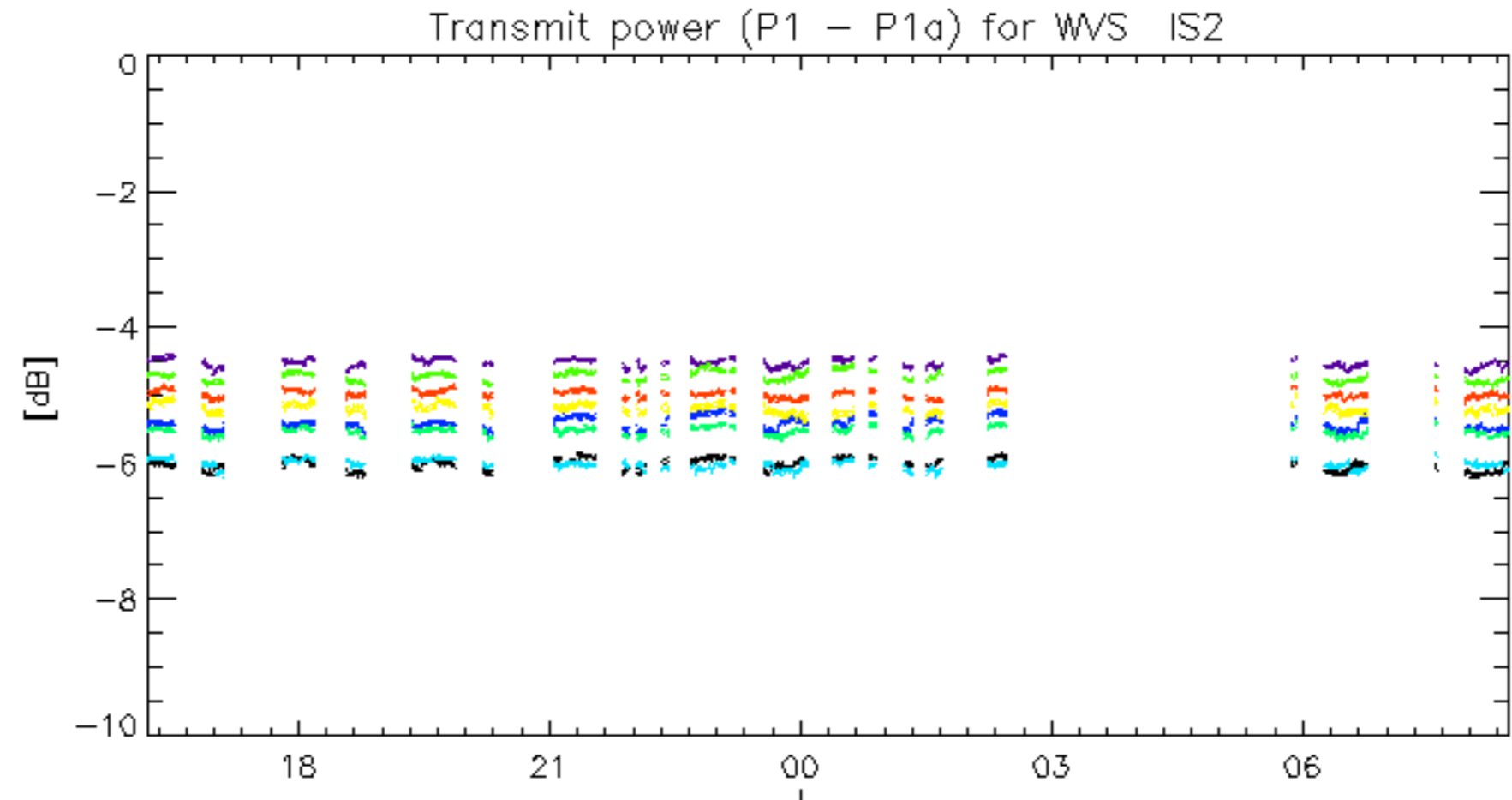






12-Oct
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





12-Oct
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.