

PRELIMINARY REPORT OF 061108

last update on Wed Nov 8 16:37:41 GMT 2006

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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 2006-11-07 00:00:00 to 2006-11-08 16:37:41

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	29	53	9	4	26
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	16	29	10	1	11
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	45	82	19	5	37
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	82	19	5	37
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	82	19	5	37

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	9	9	2	2	8
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	26	43	19	6	30
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	35	52	21	8	38
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	35	52	21	8	38
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	35	52	21	8	38

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	20061107 042859
H	20061108 071834

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
<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	-3.954508	0.009206	0.002001
7	P1	-3.113161	0.018835	-0.108414
11	P1	-4.111523	0.024579	-0.069211
15	P1	-6.249384	0.015417	-0.107506
19	P1	-3.598206	0.065294	-0.062187
22	P1	-4.649208	0.130222	-0.088249
26	P1	-3.998275	0.125115	0.097120
30	P1	-5.889844	0.237767	0.031768
3	P1	-16.562052	0.223921	0.292709
7	P1	-17.177362	0.182061	-0.281870
11	P1	-17.075960	0.427612	-0.188682
15	P1	-12.958639	0.117300	-0.346678
19	P1	-14.818467	0.369757	-0.311095
22	P1	-15.716030	0.500815	-0.597350
26	P1	-15.088158	0.231201	0.026198
30	P1	-17.168875	0.714028	-0.821862

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.838017	0.087951	-0.045960
7	P2	-21.745457	0.094189	0.055343
11	P2	-15.690064	0.106216	0.106234
15	P2	-7.094285	0.107420	-0.096955
19	P2	-9.157466	0.101049	-0.113296
22	P2	-18.184122	0.095389	-0.143046
26	P2	-16.481127	0.106952	-0.187212
30	P2	-19.470985	0.090076	-0.014454

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.217047	0.007552	-0.048557
7	P3	-8.217047	0.007552	-0.048557
11	P3	-8.217047	0.007552	-0.048557
15	P3	-8.217047	0.007552	-0.048557
19	P3	-8.217047	0.007552	-0.048557
22	P3	-8.217047	0.007552	-0.048557
26	P3	-8.216947	0.007568	-0.048371
30	P3	-8.216947	0.007568	-0.048371

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	-3.924438	0.180910	0.078091
7	P1	-2.616308	1.166343	0.384761
11	P1	-2.901310	0.144545	0.150065
15	P1	-3.700308	0.131820	0.102278
19	P1	-3.523254	0.142049	-0.073459
22	P1	-5.068114	0.105940	0.007902
26	P1	-5.999287	0.269317	-0.095601
30	P1	-5.301154	0.179259	-0.118818
3	P1	-11.752697	0.440466	0.204818
7	P1	-10.155373	1.479502	0.438032
11	P1	-10.415936	0.399446	0.392579
15	P1	-10.882479	0.537440	0.513694
19	P1	-15.749701	2.511021	-0.199434
22	P1	-21.156269	1.657906	-0.755980

26	P1	-15.946658	0.450719	-0.478538
30	P1	-17.980022	0.539644	0.330282

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.387413	0.273102	-0.294485
7	P2	-22.051960	1.515057	-0.733185
11	P2	-10.879072	0.241429	-0.262632
15	P2	-4.922180	0.073909	-0.160830
19	P2	-6.906554	0.148959	-0.178592
22	P2	-8.267092	0.494655	0.049715
26	P2	-24.175564	1.153732	-0.601831
30	P2	-21.881607	0.588251	-0.307761

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.069912	0.003221	-0.051911
7	P3	-8.069847	0.003196	-0.051944
11	P3	-8.069829	0.003203	-0.052468
15	P3	-8.069748	0.003200	-0.051640
19	P3	-8.069824	0.003204	-0.052016
22	P3	-8.069693	0.003206	-0.052206
26	P3	-8.069634	0.003194	-0.053167
30	P3	-8.069711	0.003200	-0.053343

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	0.000553455
	stdev	1.72530e-07
MEAN Q	mean	0.000519598
	stdev	2.18763e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137252
	stdev	0.00112127
STDEV Q	mean	0.137619
	stdev	0.00113868



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006110[678]

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_1PNPDK20061107_102250_000002232052_00409_24511_8176.N1	0	8
ASA_WSM_1PNPDE20061106_154250_000001702052_00398_24500_0001.N1	0	24





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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

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

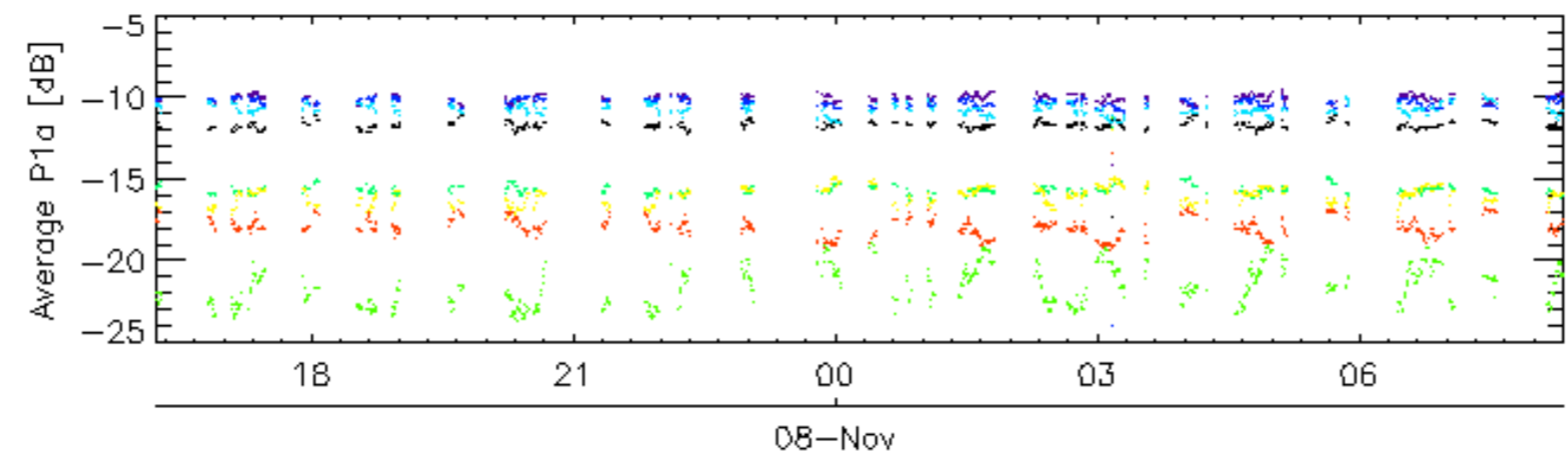
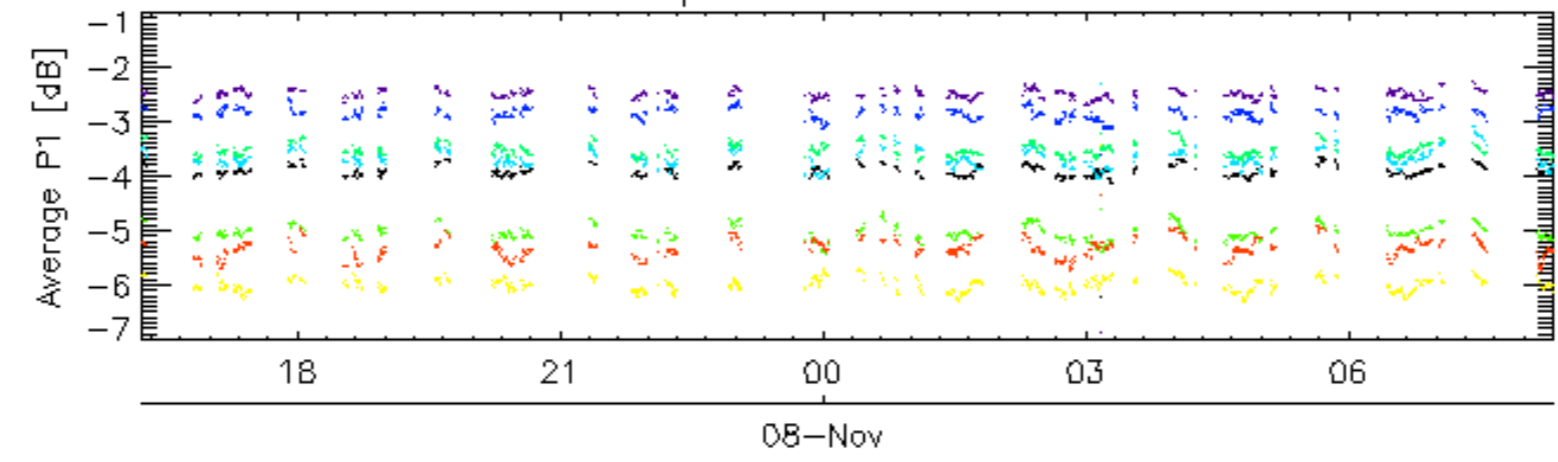
7.5 - Absolute Doppler for GM1

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

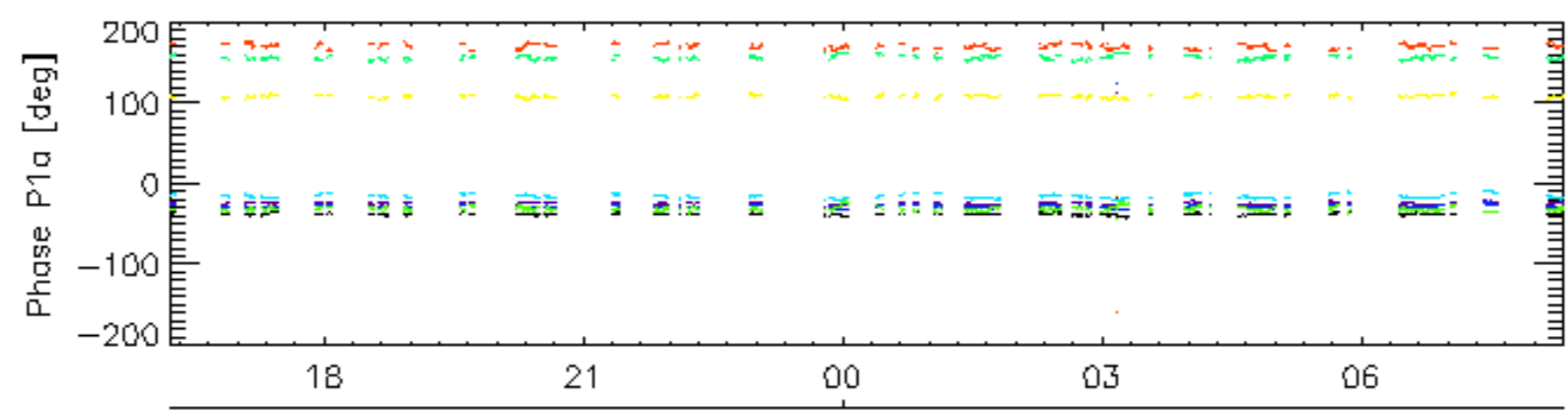
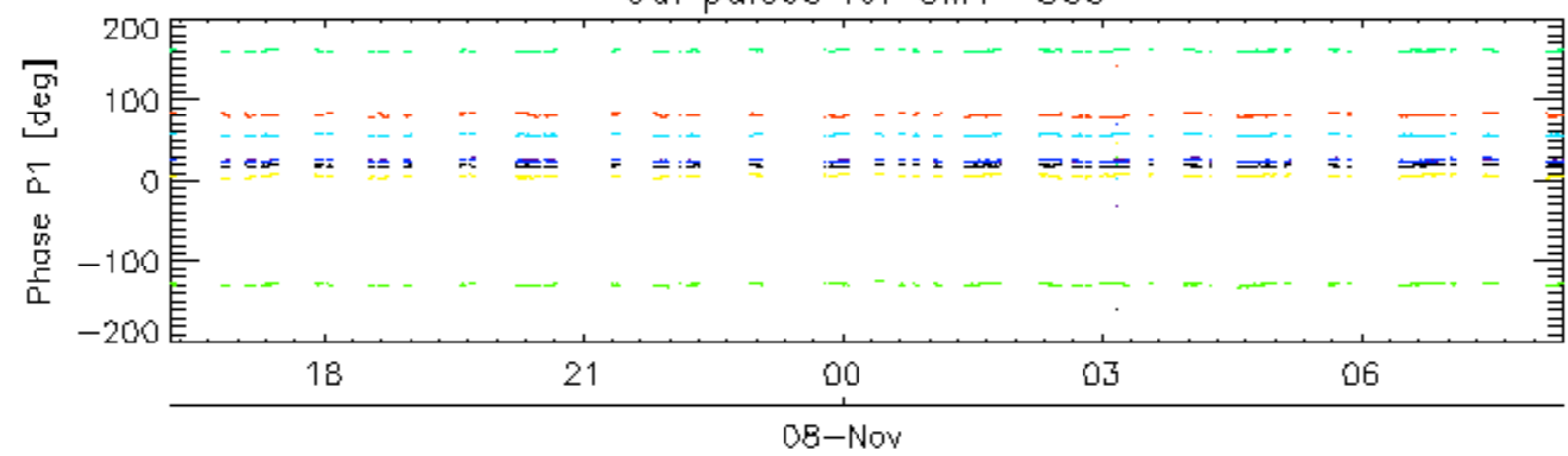
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
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Cal pulses for GM1 SS3

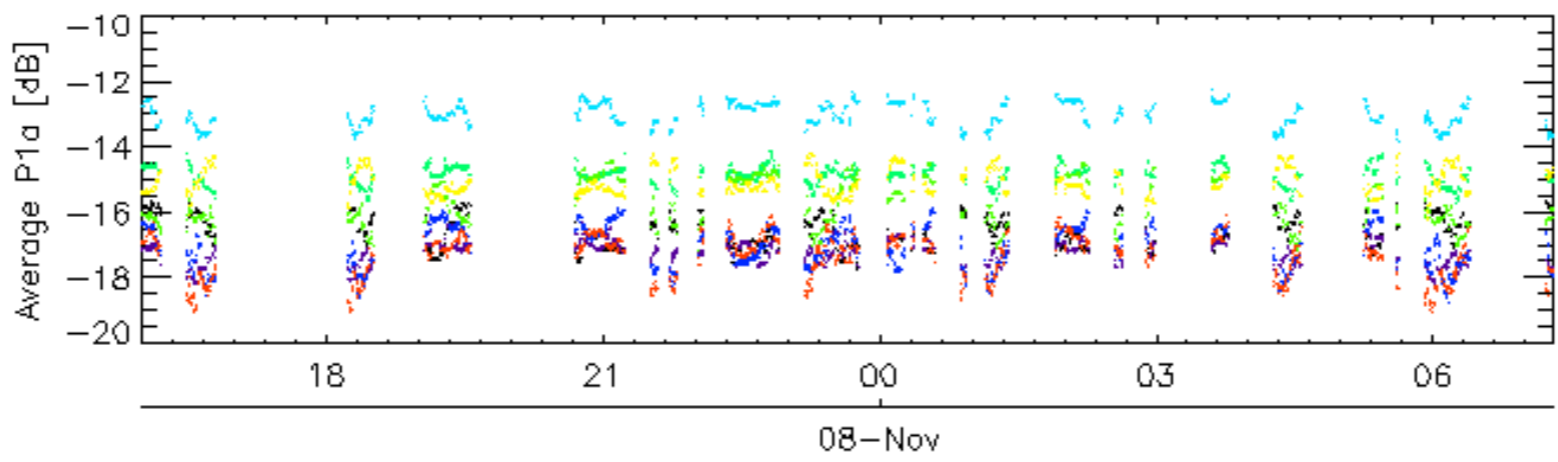
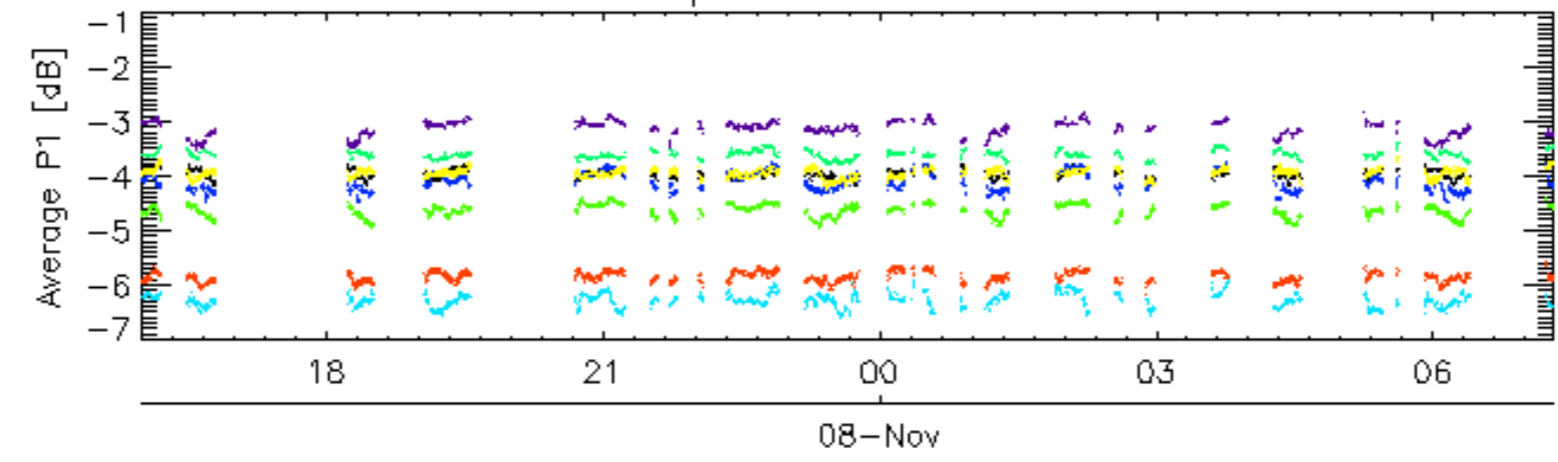


Cal pulses for GM1 SS3

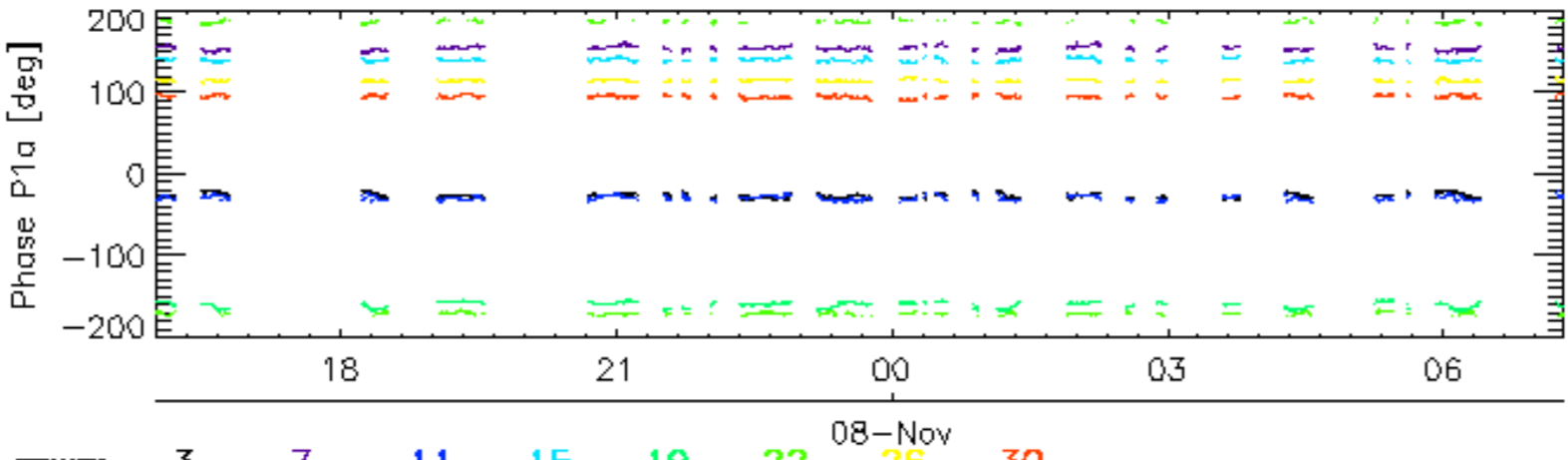
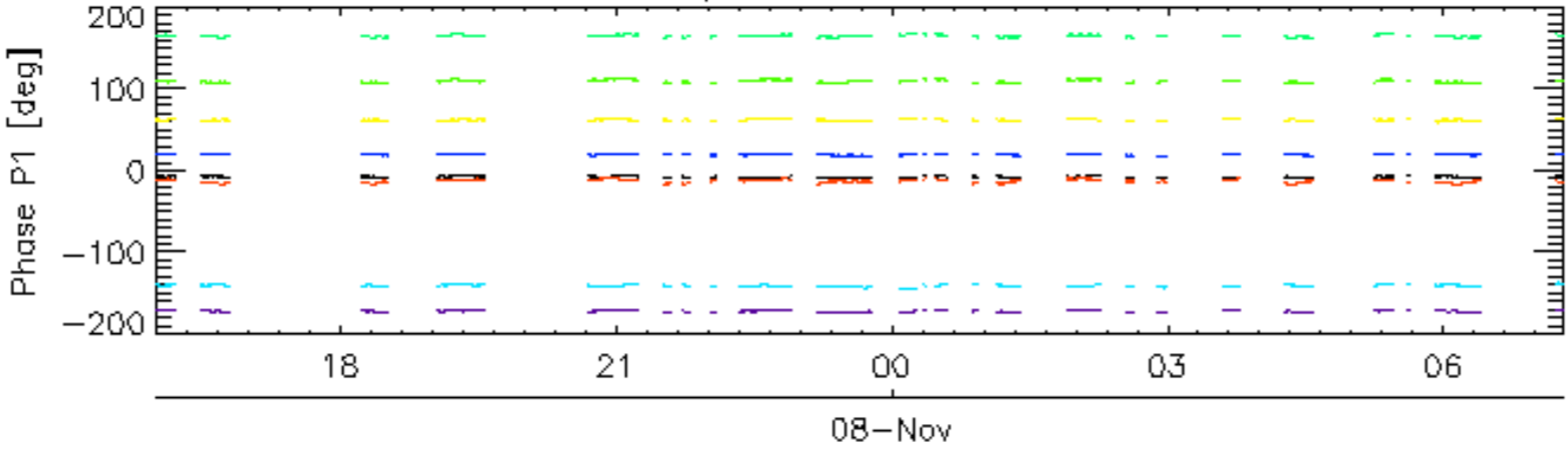


rows: 3 7 11 15 19 22 26 30

Cal pulses for WVS IS2

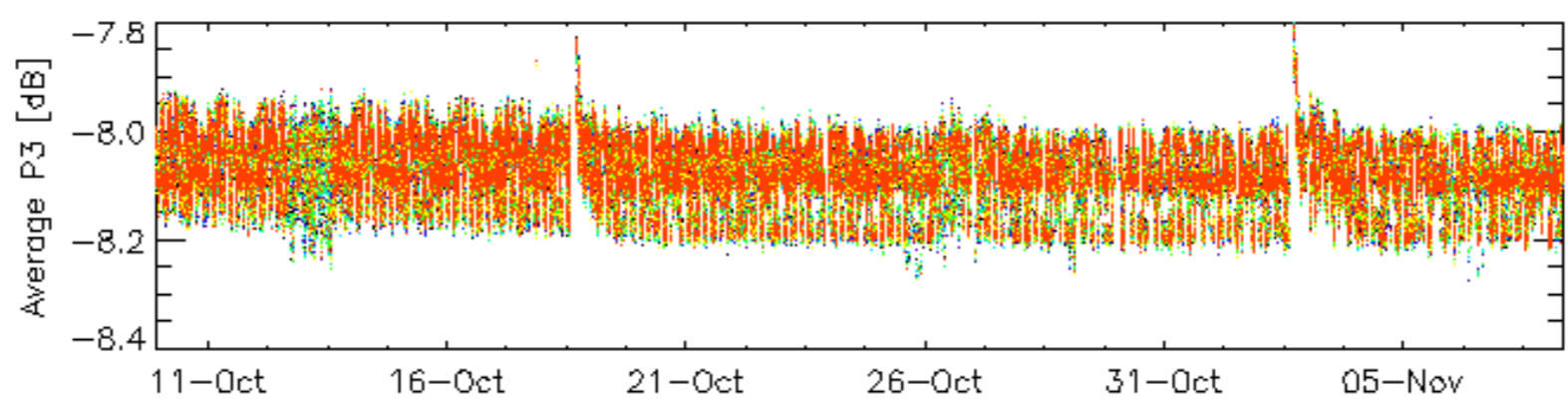
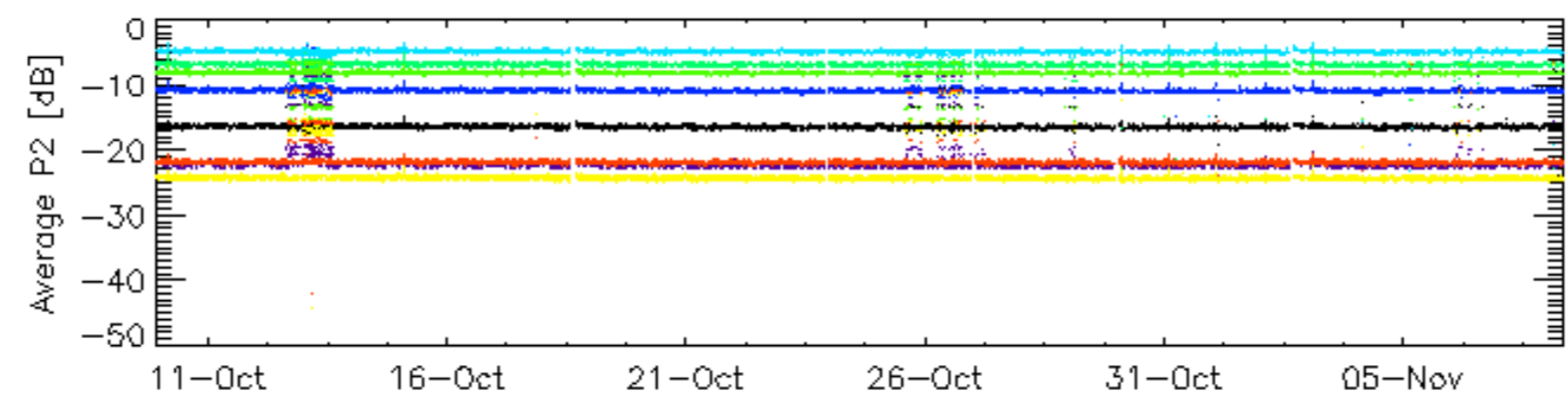
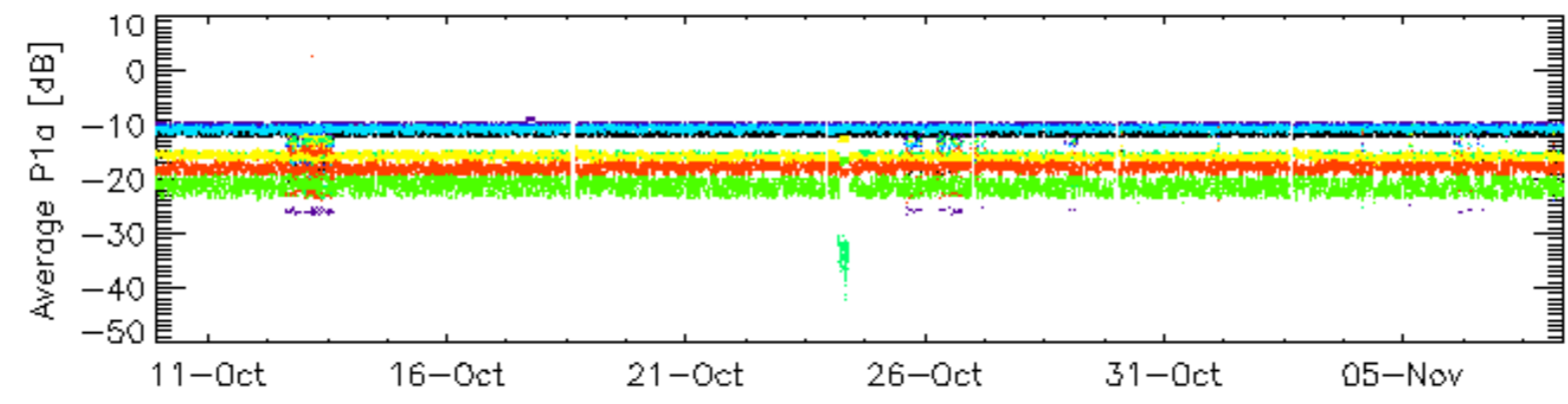
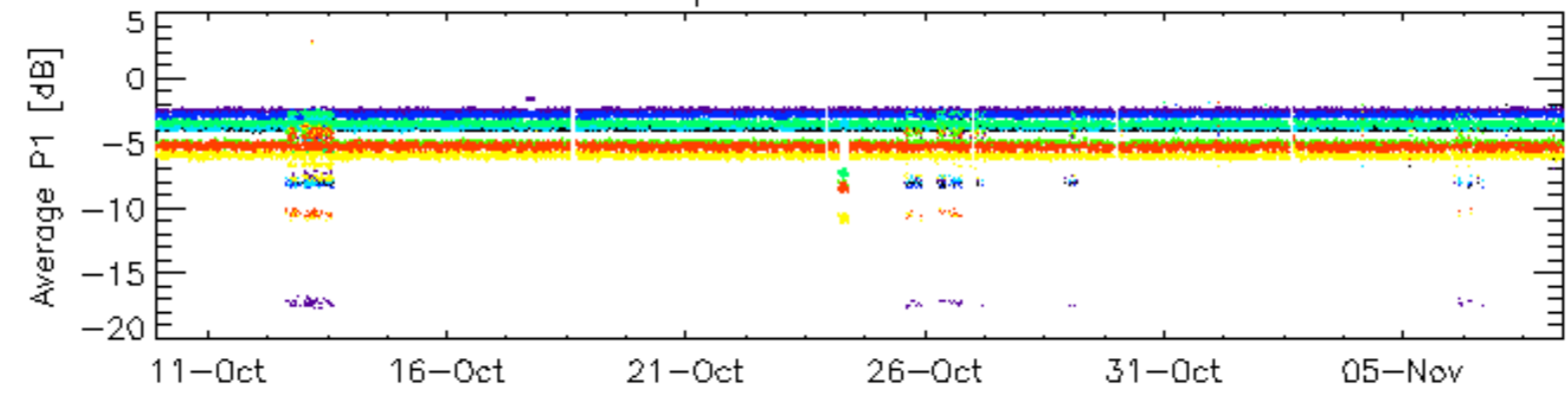


Cal pulses for WVS IS2



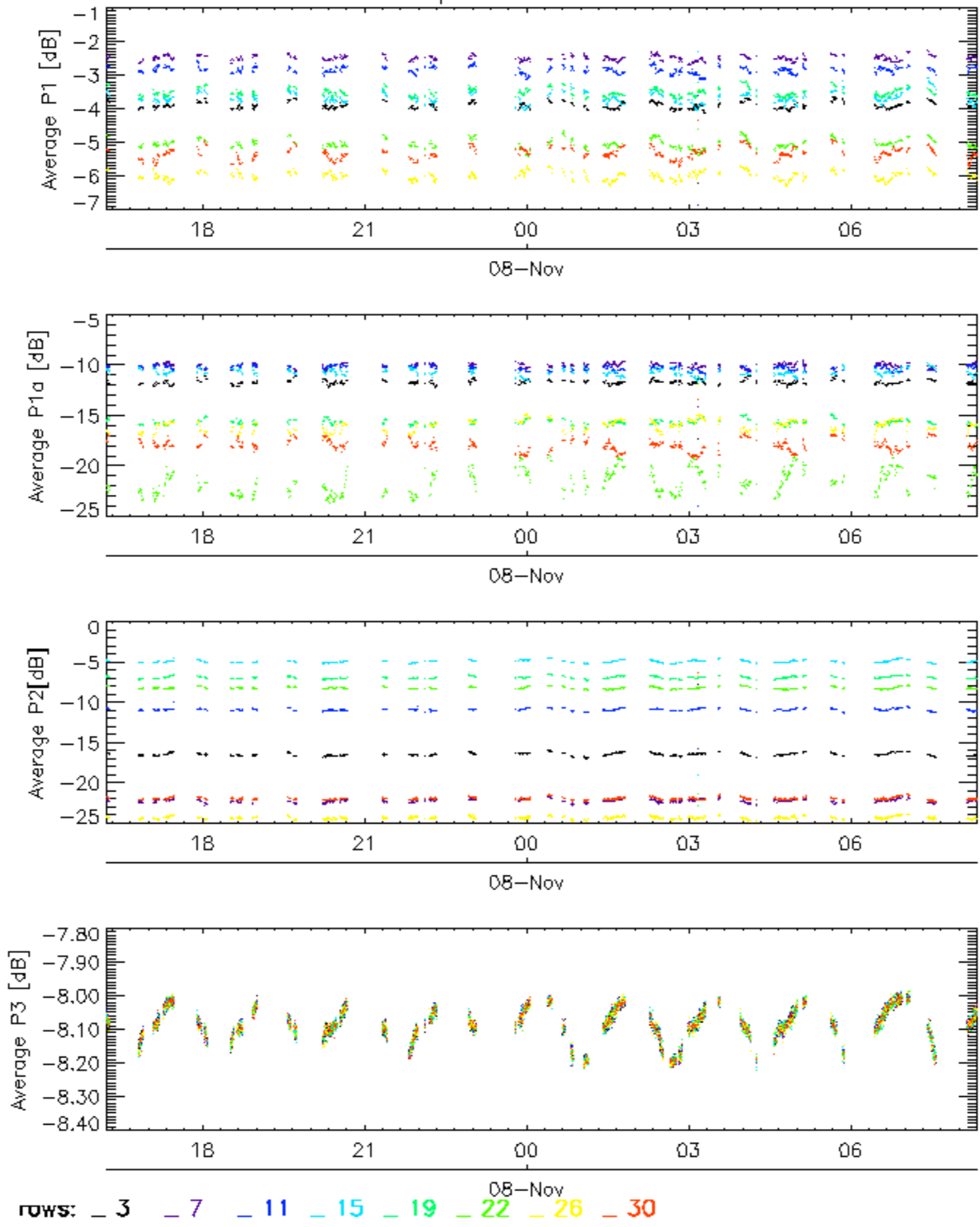
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

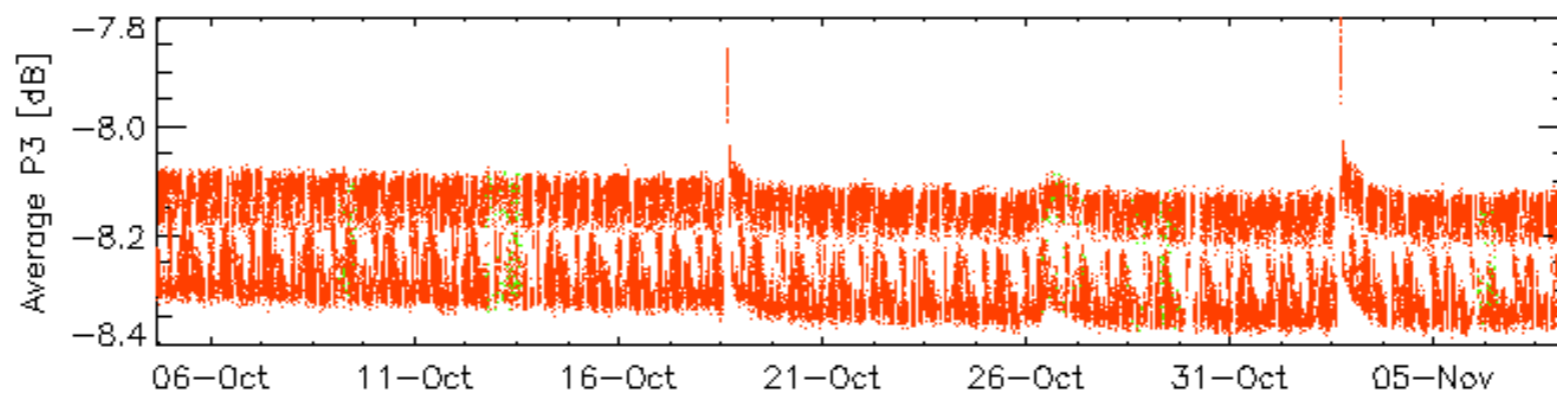
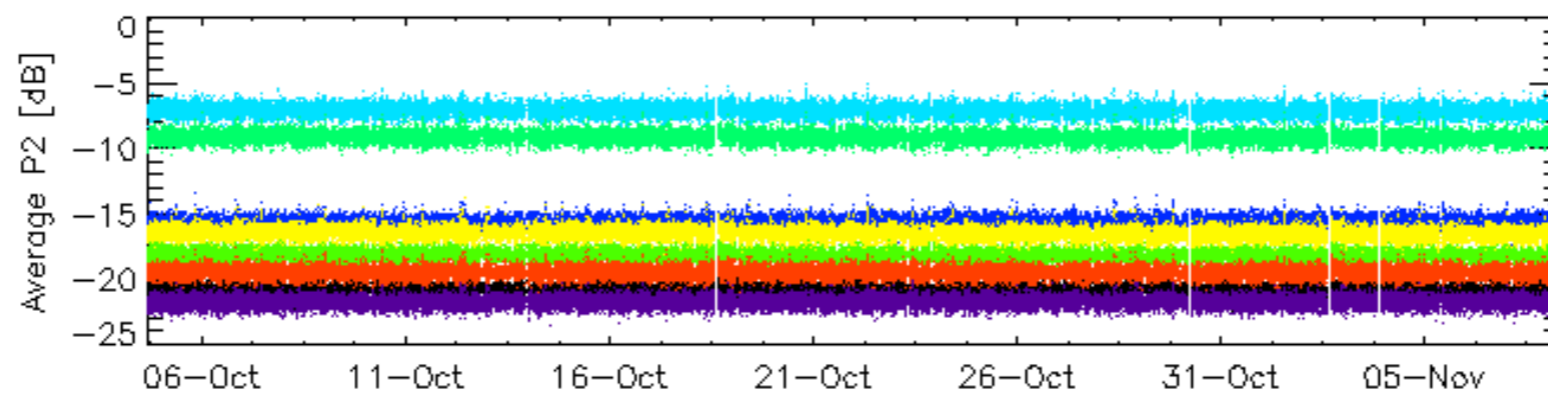
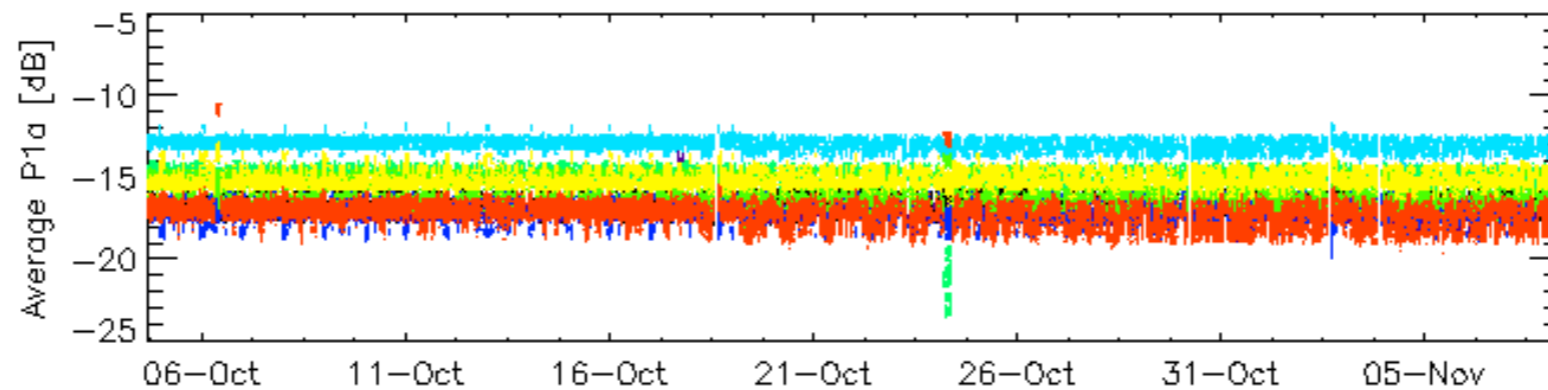
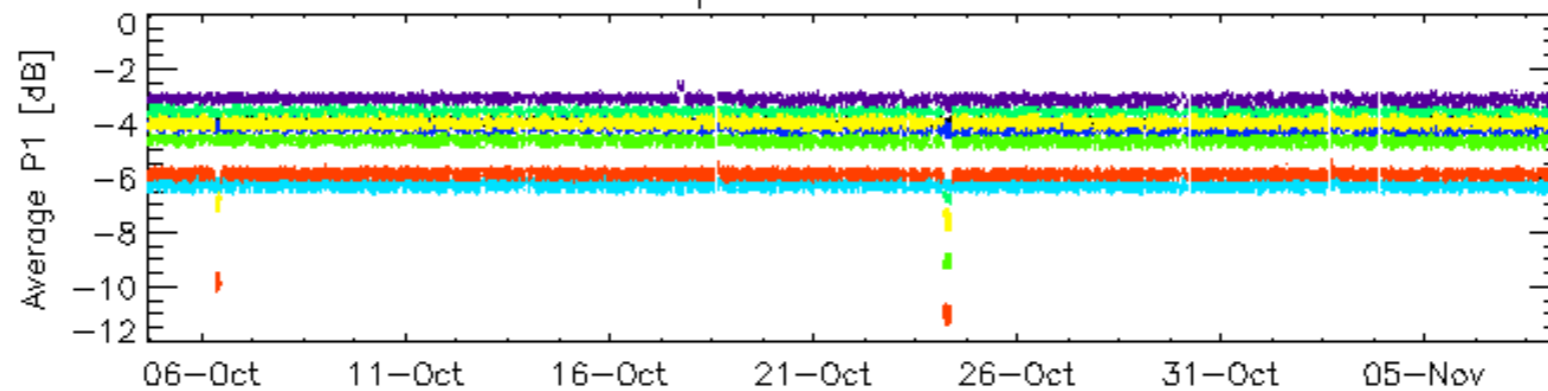


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

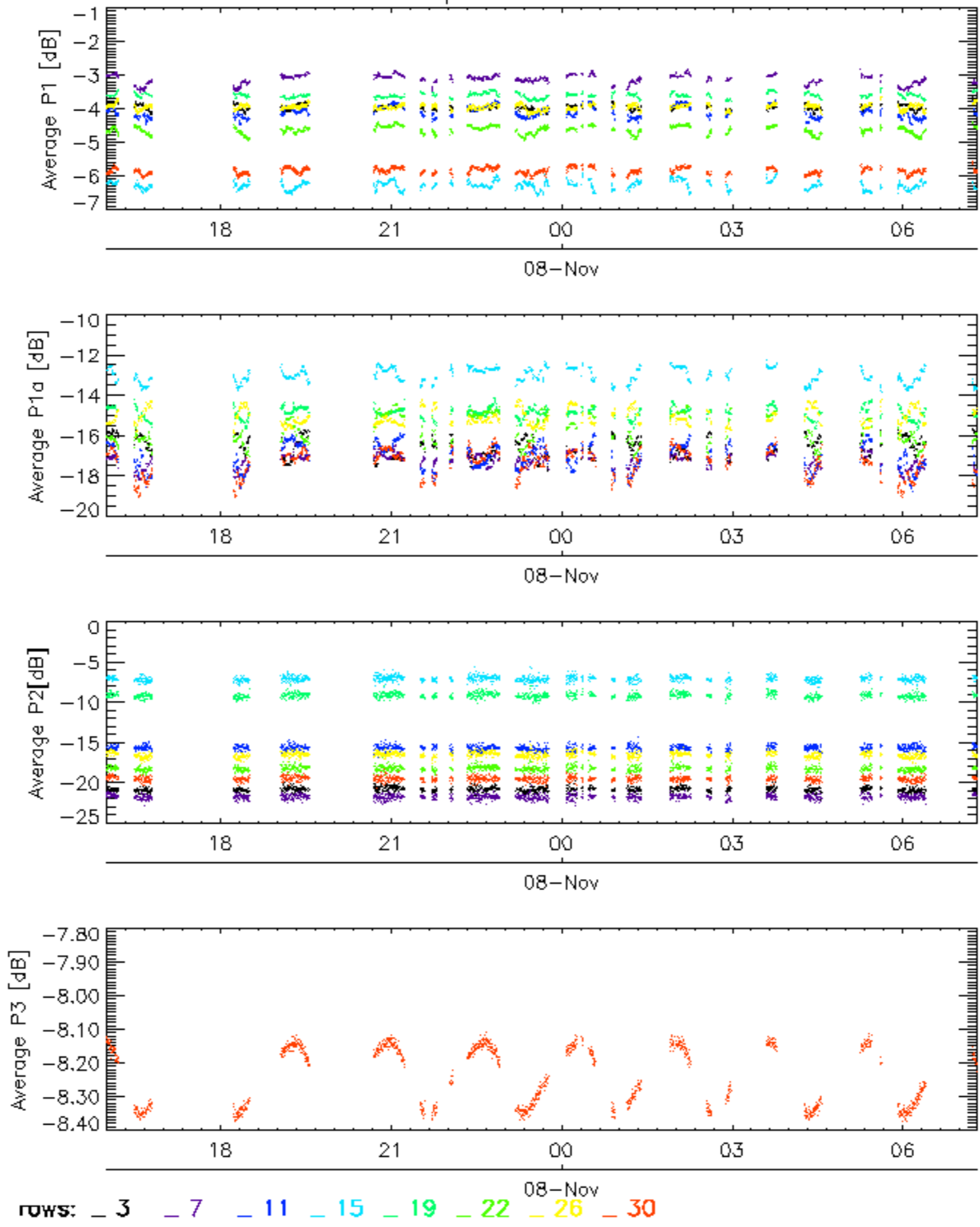


Cal pulses for WVS IS2



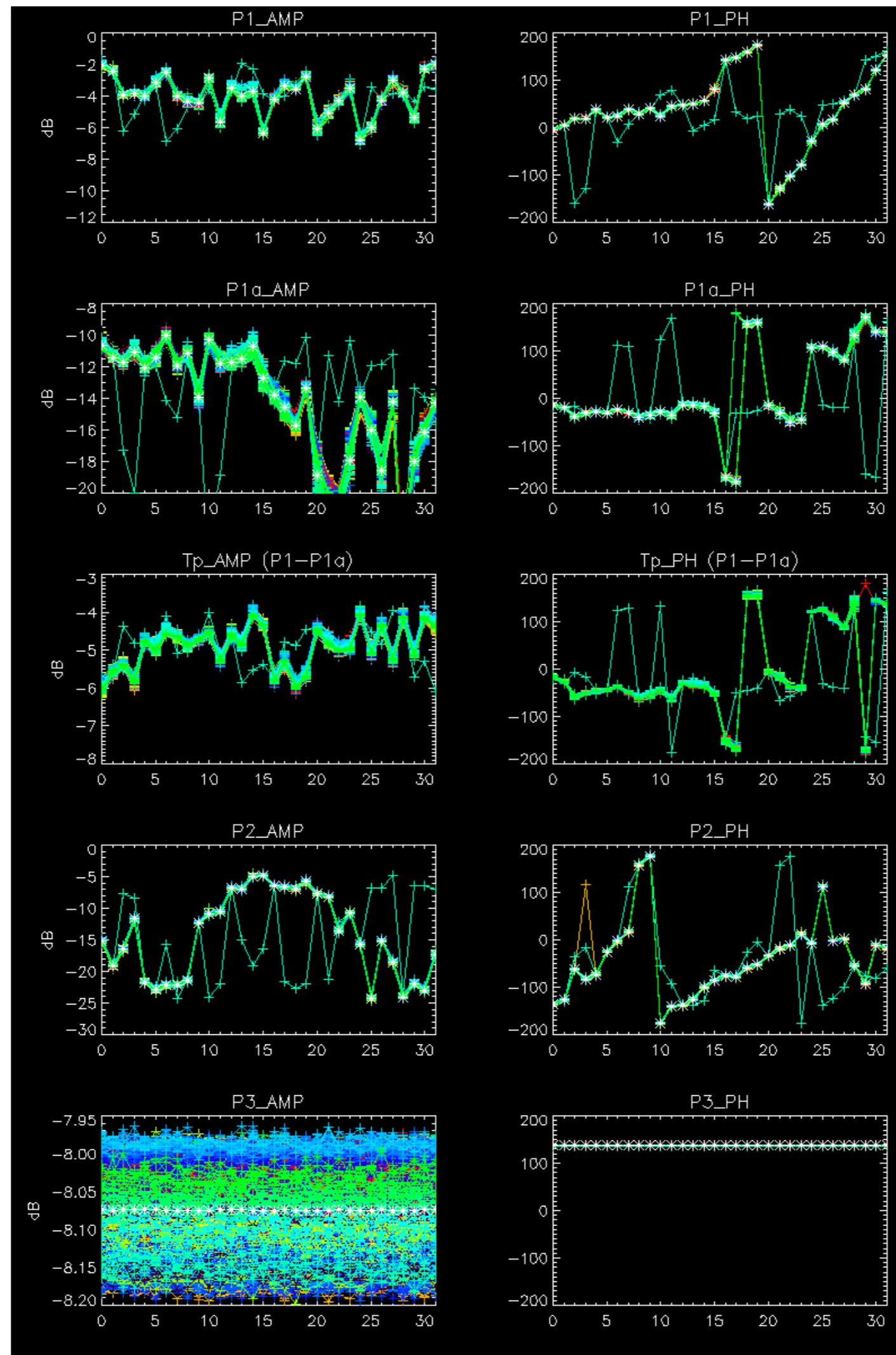
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

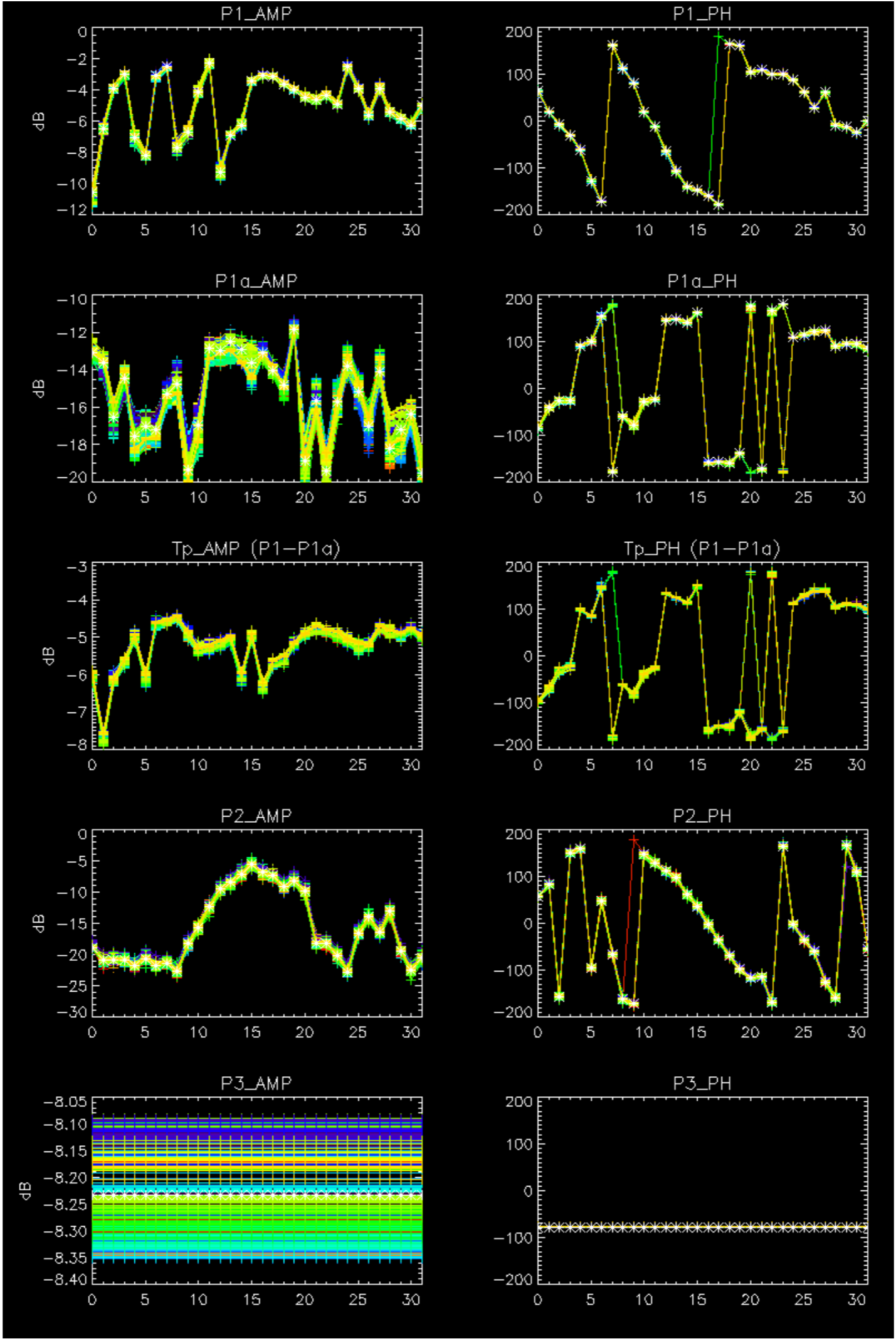
Cal pulses for WVS IS2



No anomalies observed on available browse products

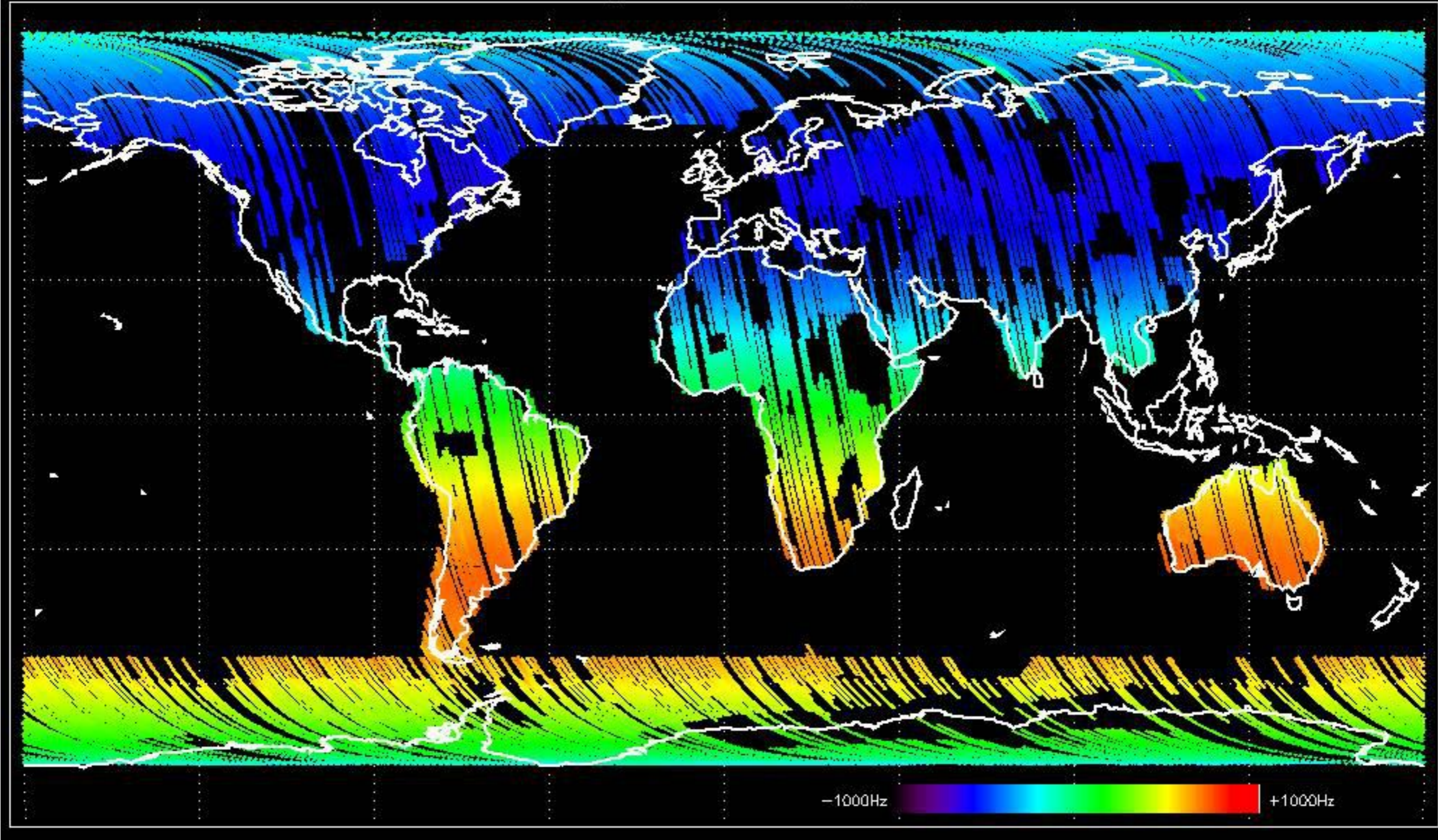
No anomalies observed.



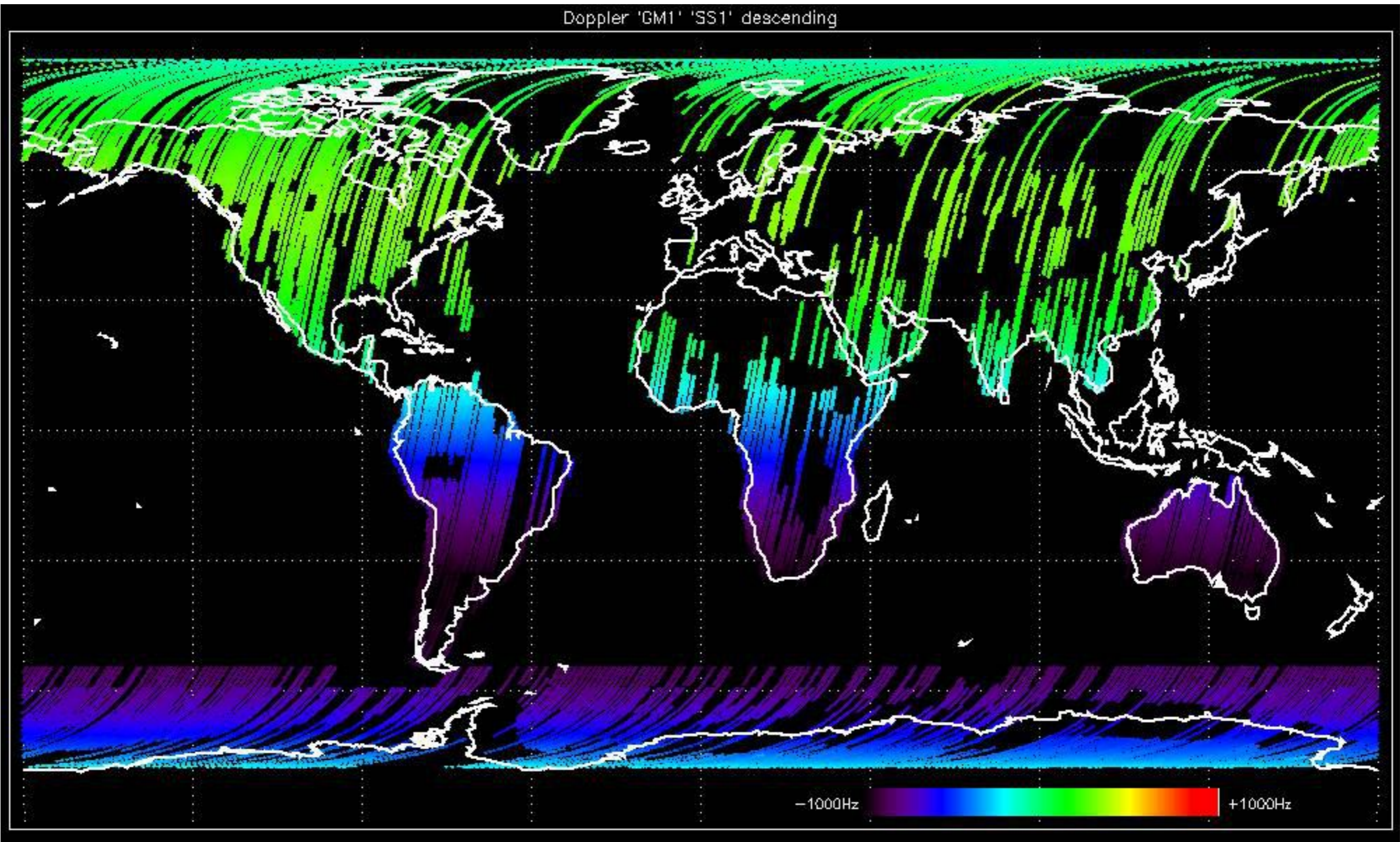


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

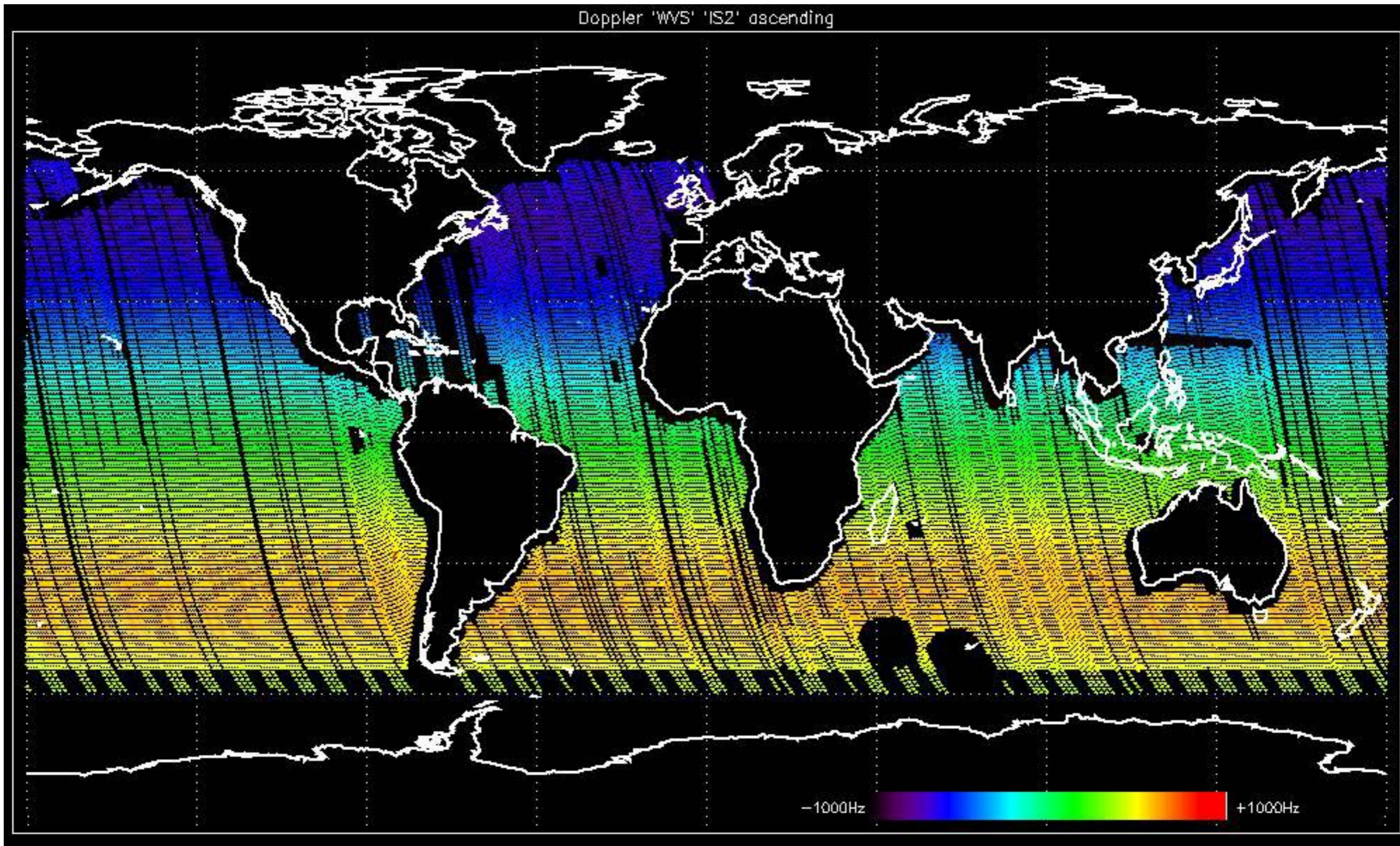
Doppler 'GM1' 'SS1' ascending



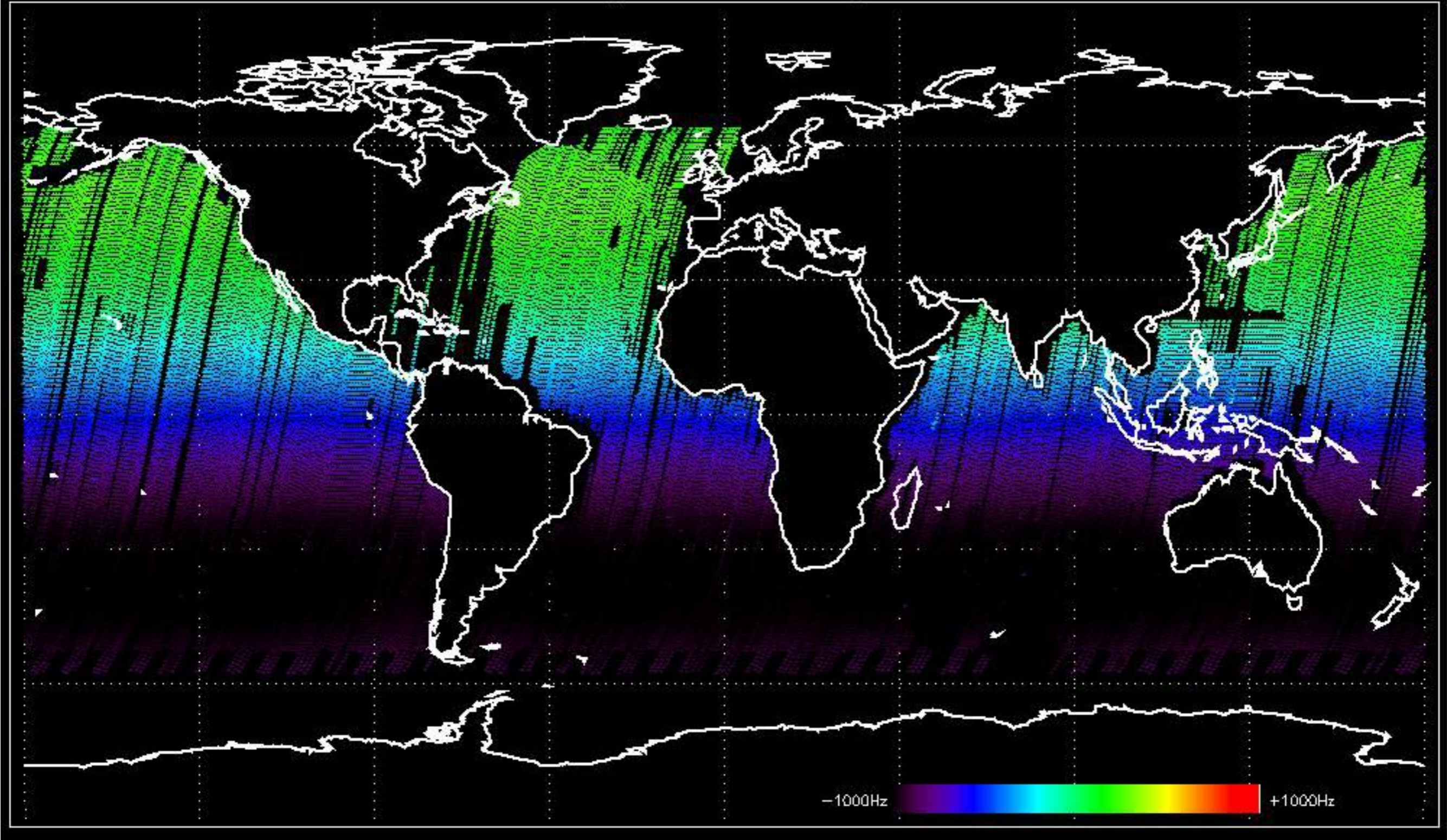
Doppler 'GM1' 'SS1' descending



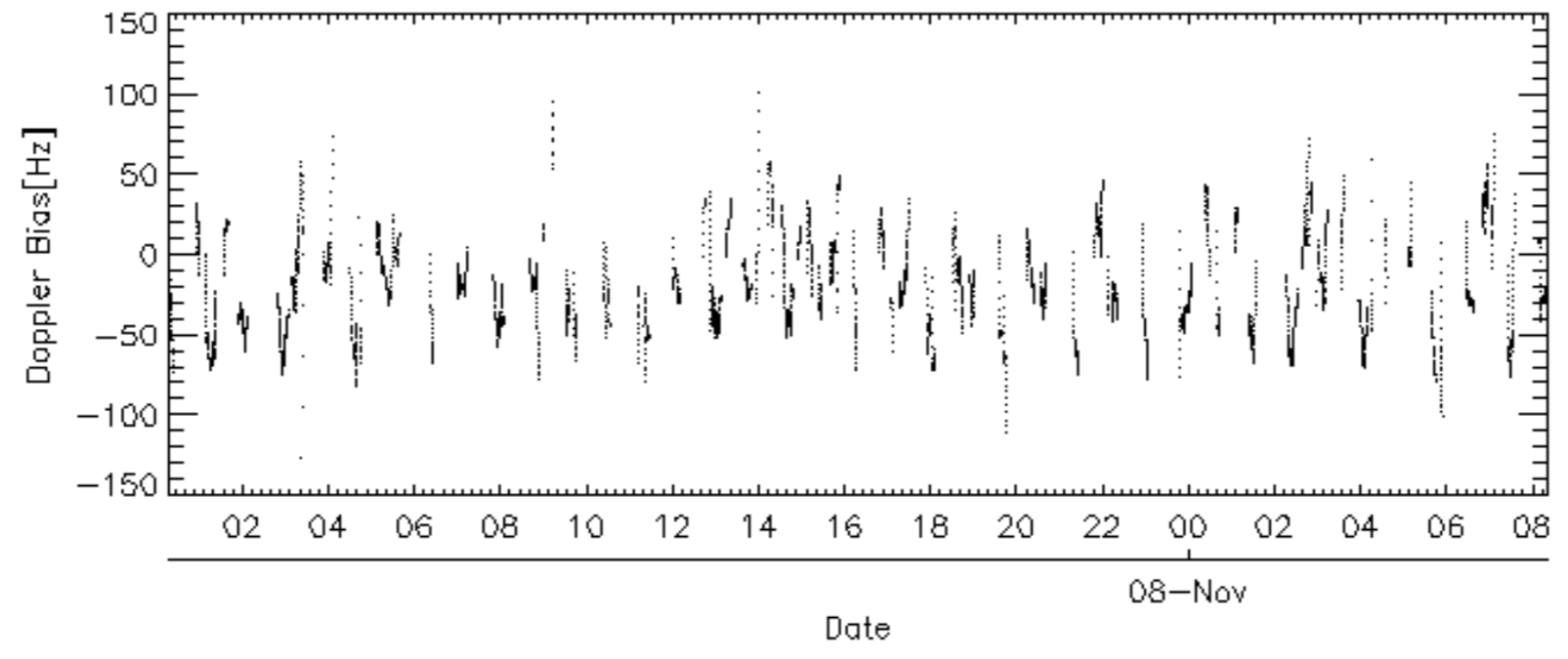
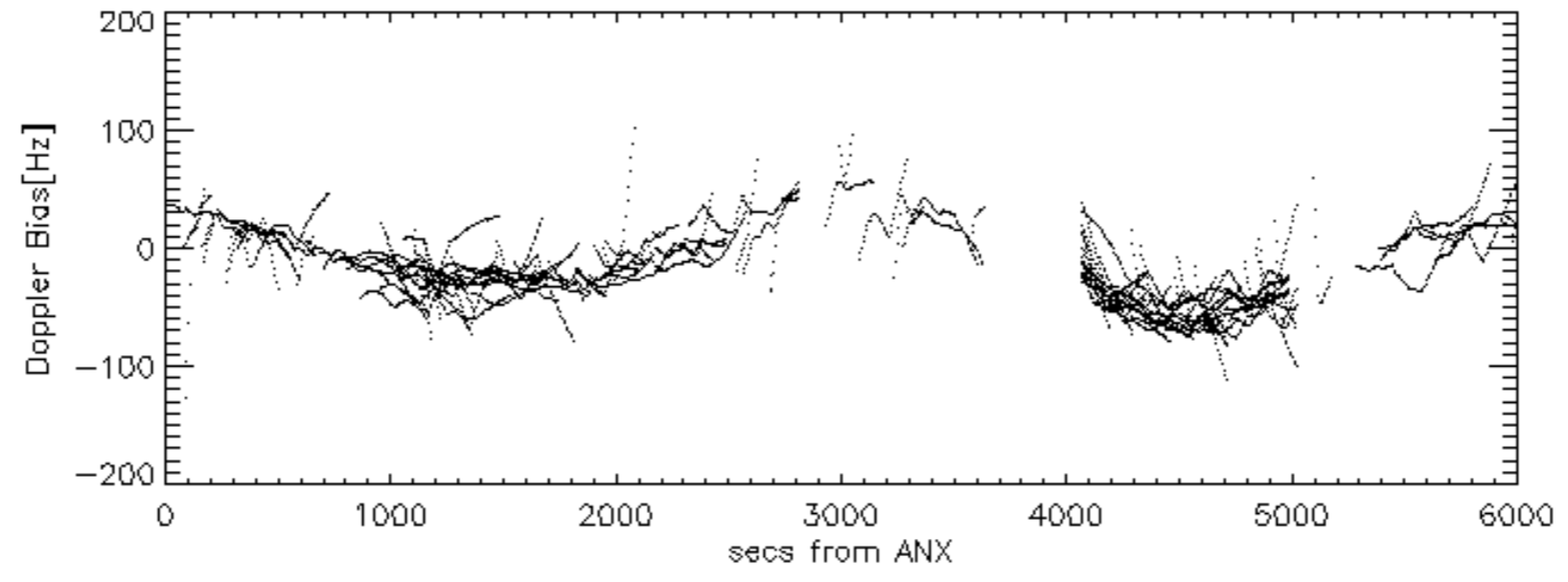
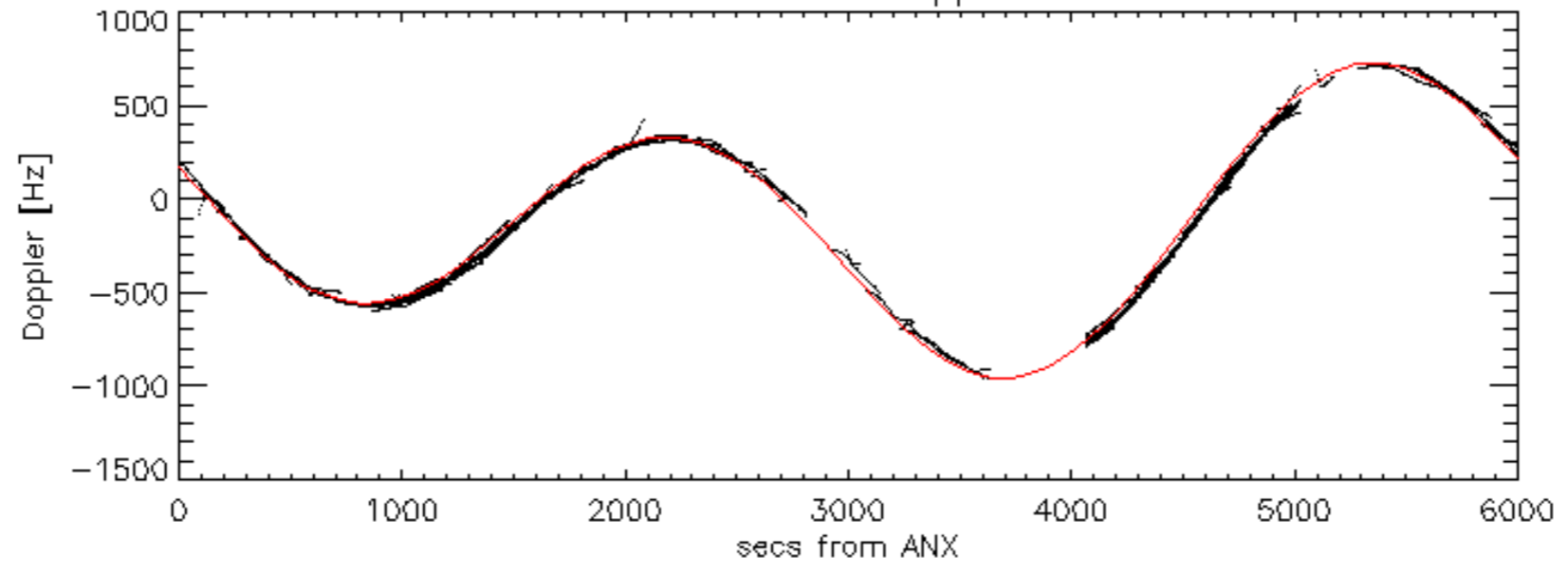
Doppler 'WVS' 'IS2' ascending

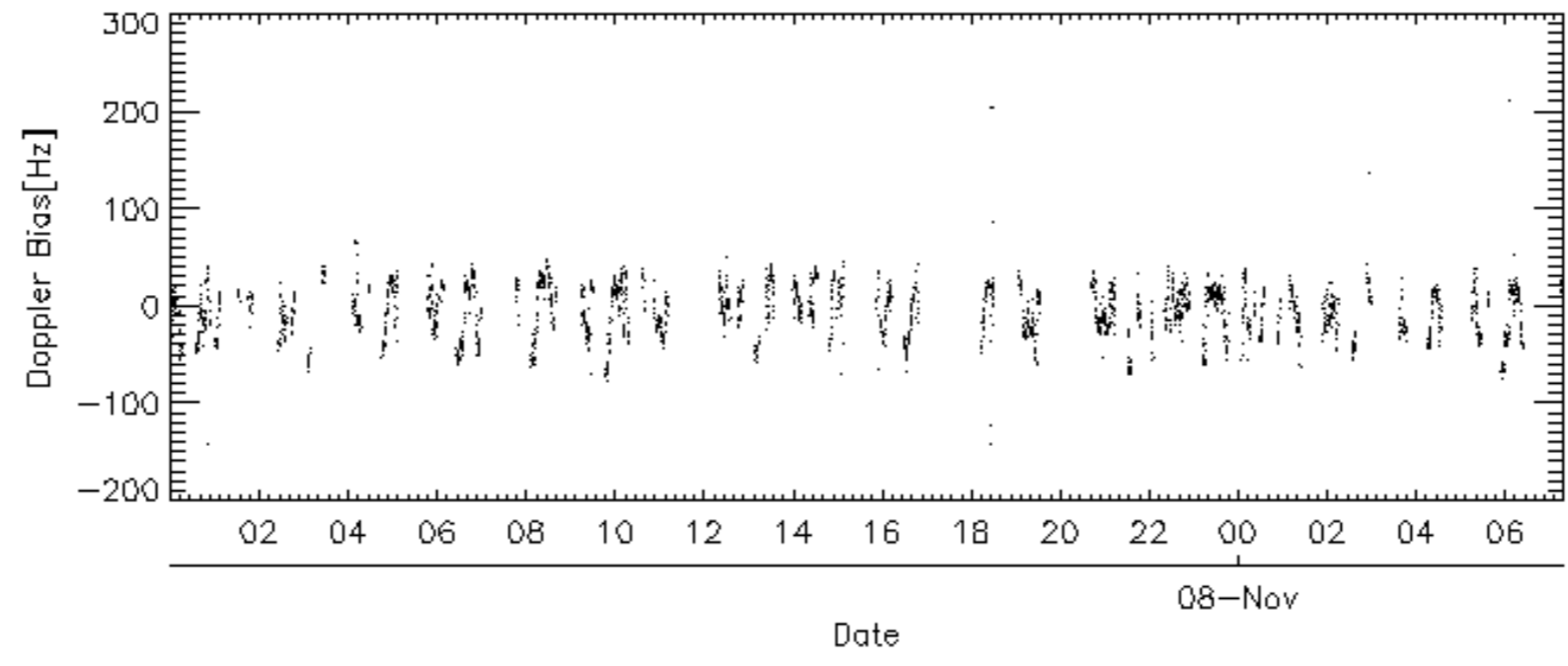
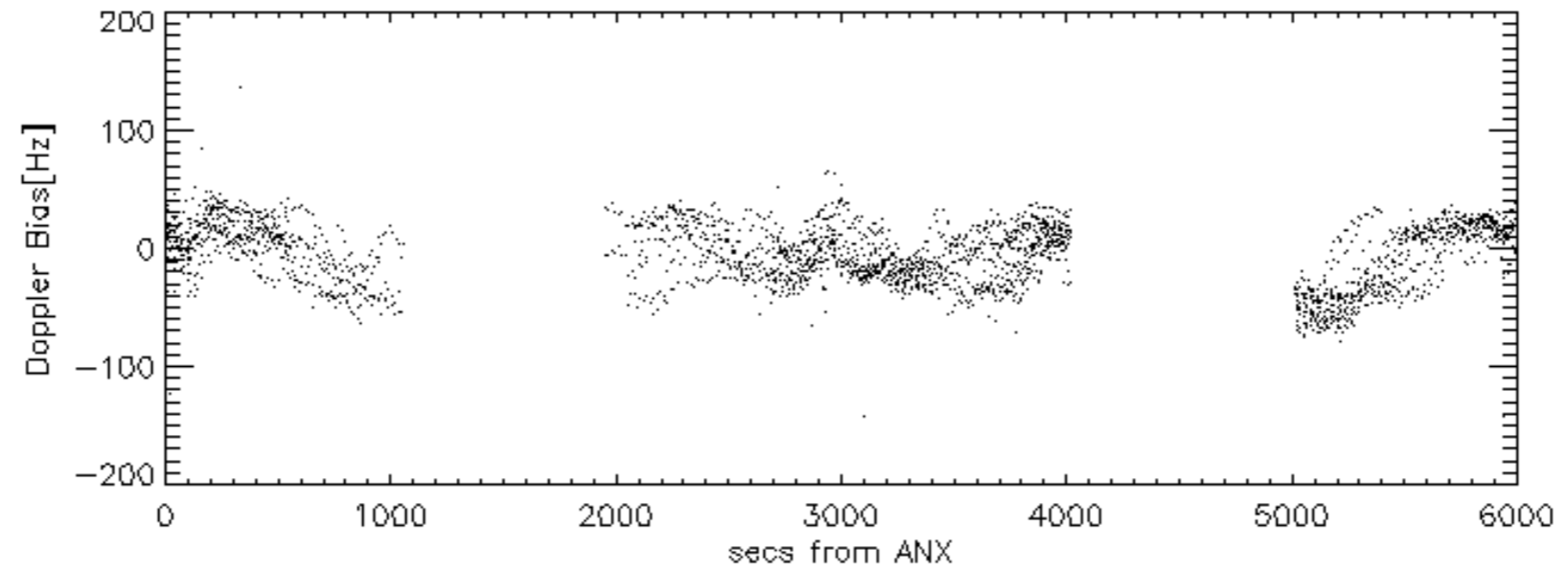
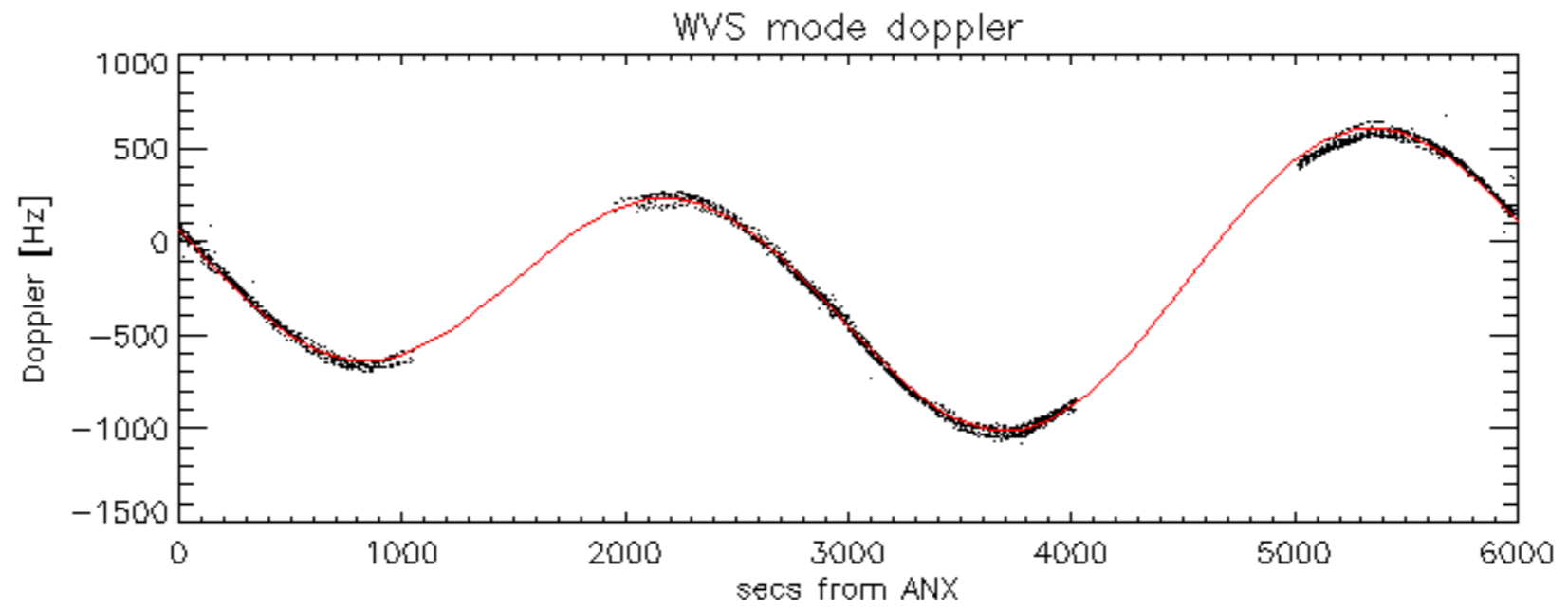


Doppler 'WVS' 'IS2' descending

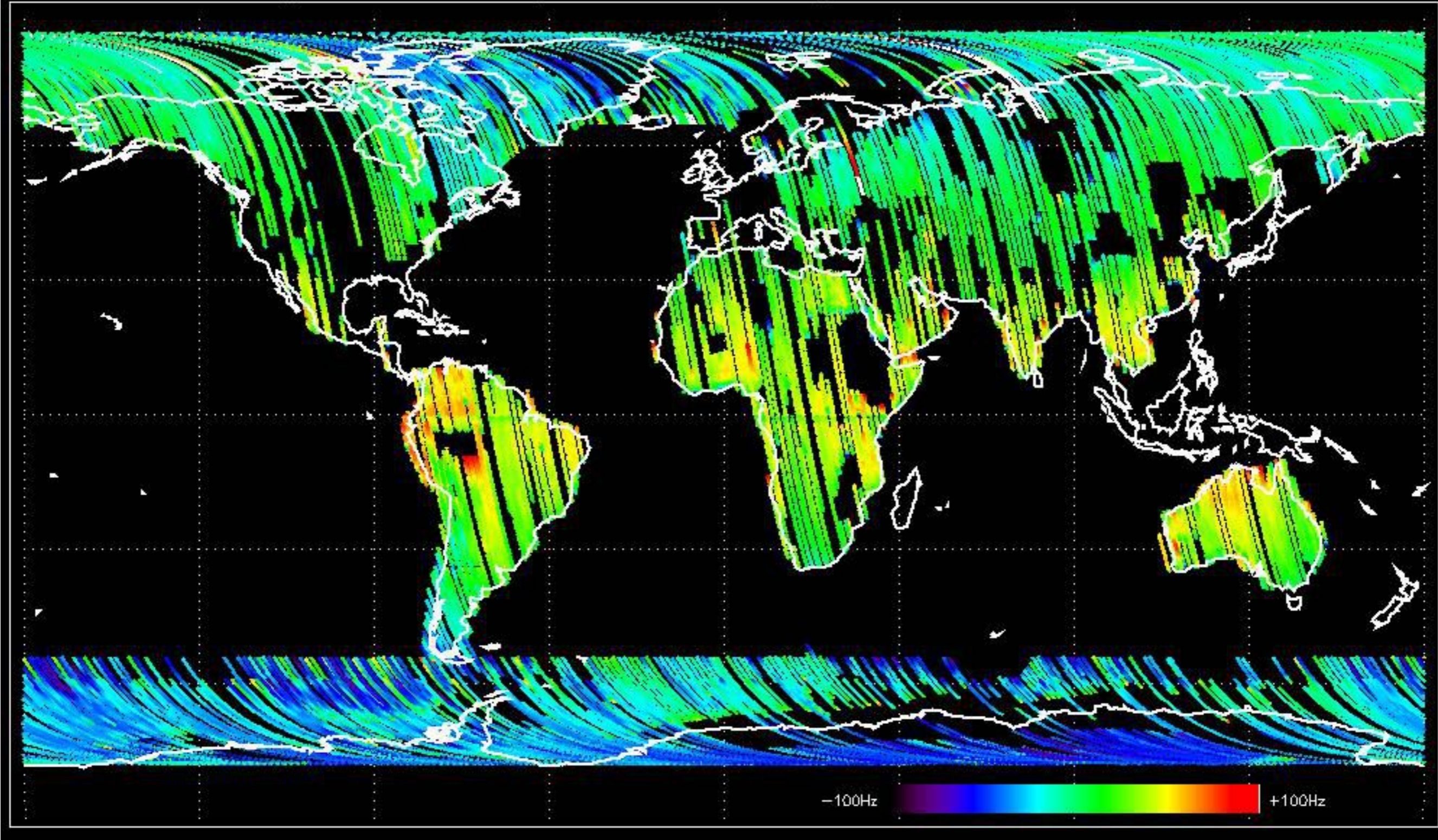


GM1 mode doppler

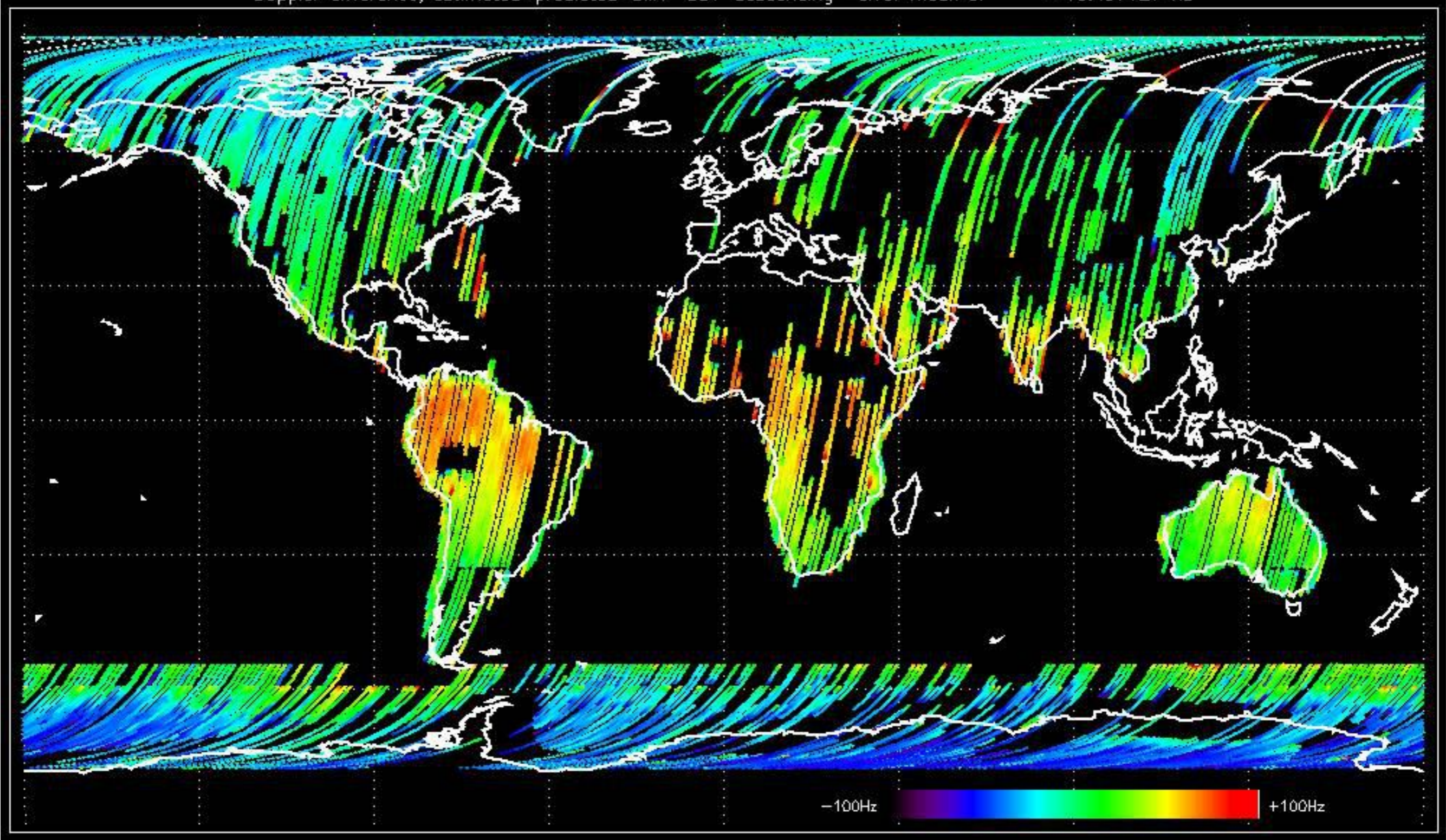




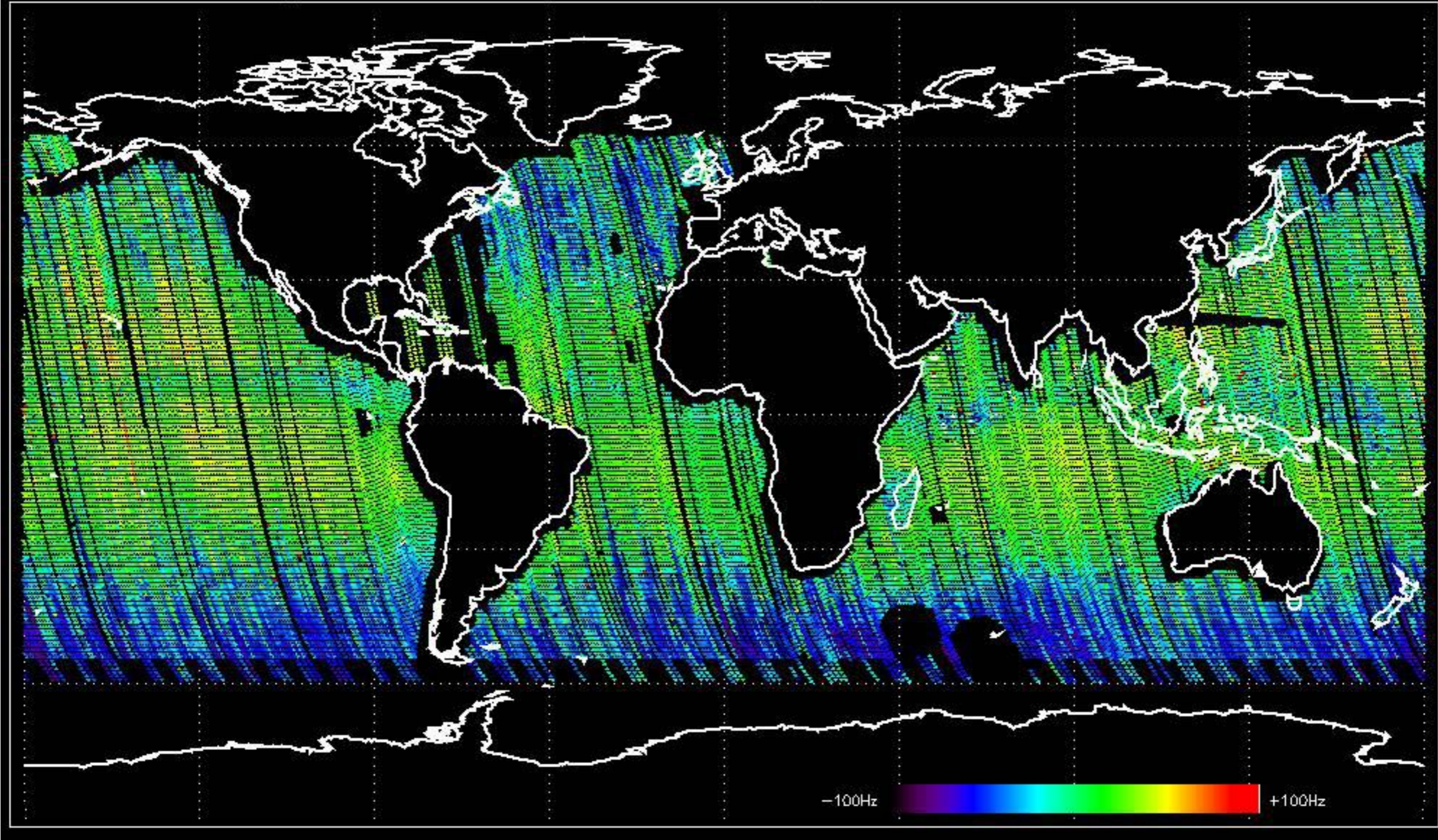
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.054141 Hz



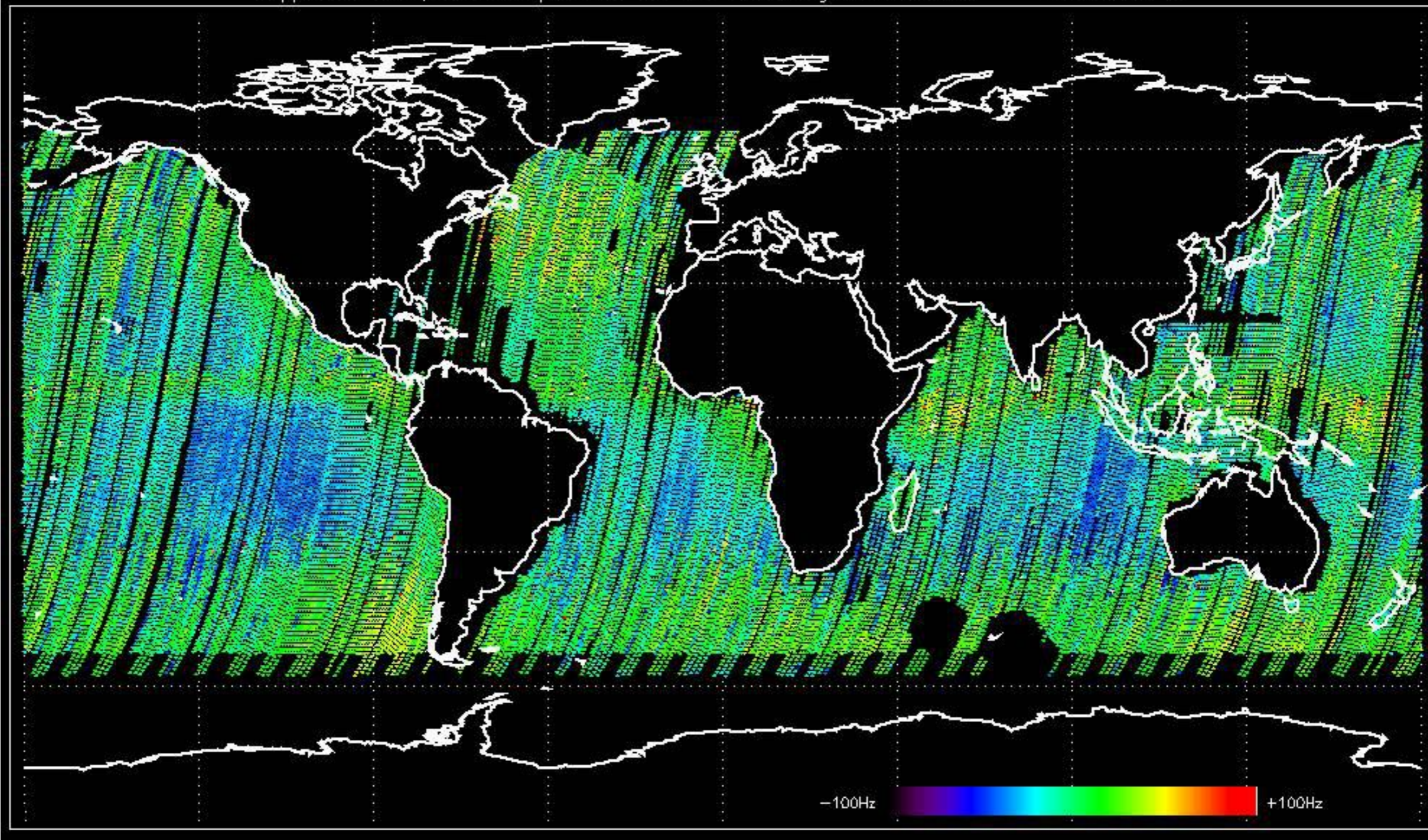
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -13.497127 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -5.7949158 Hz

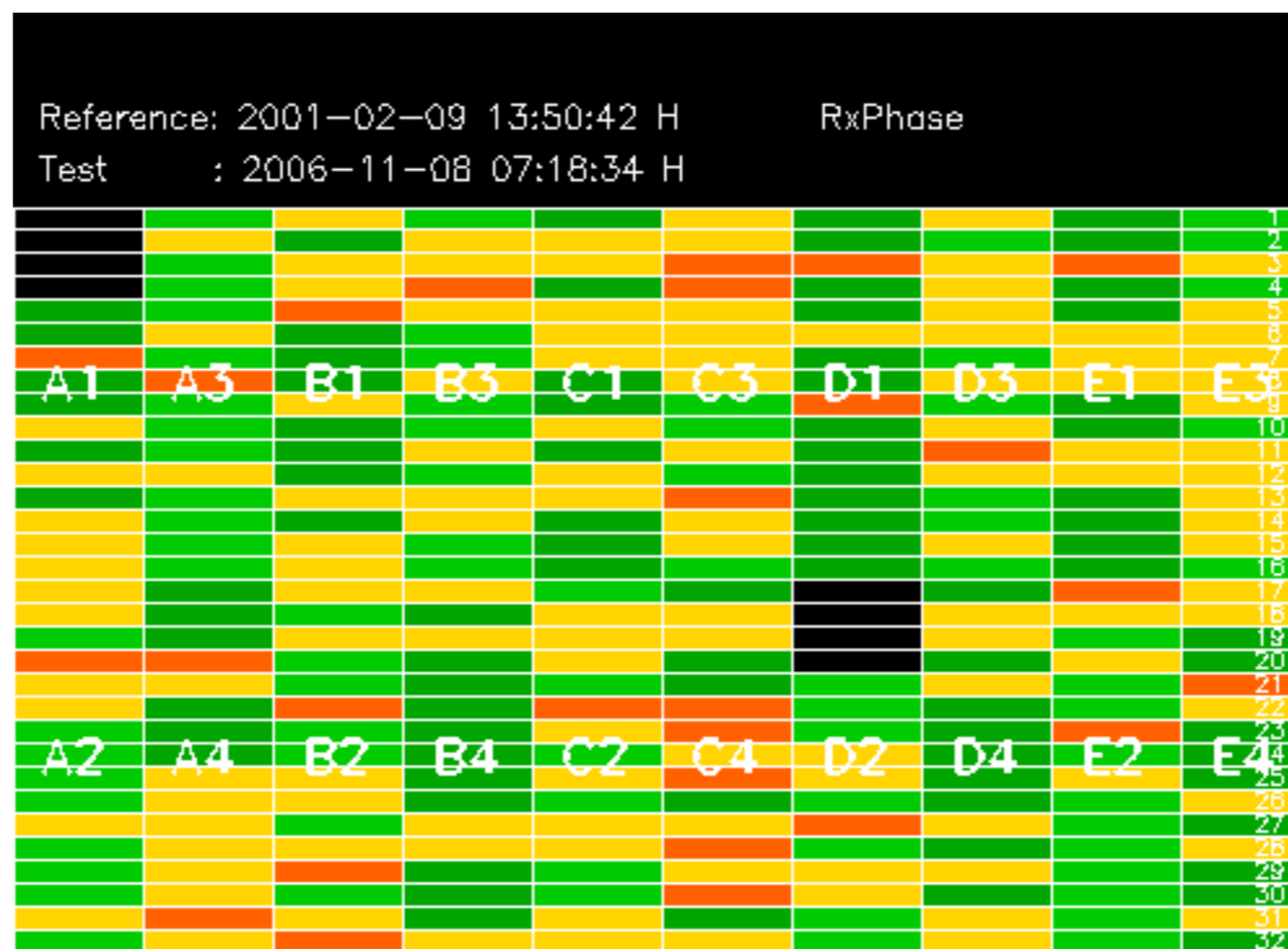


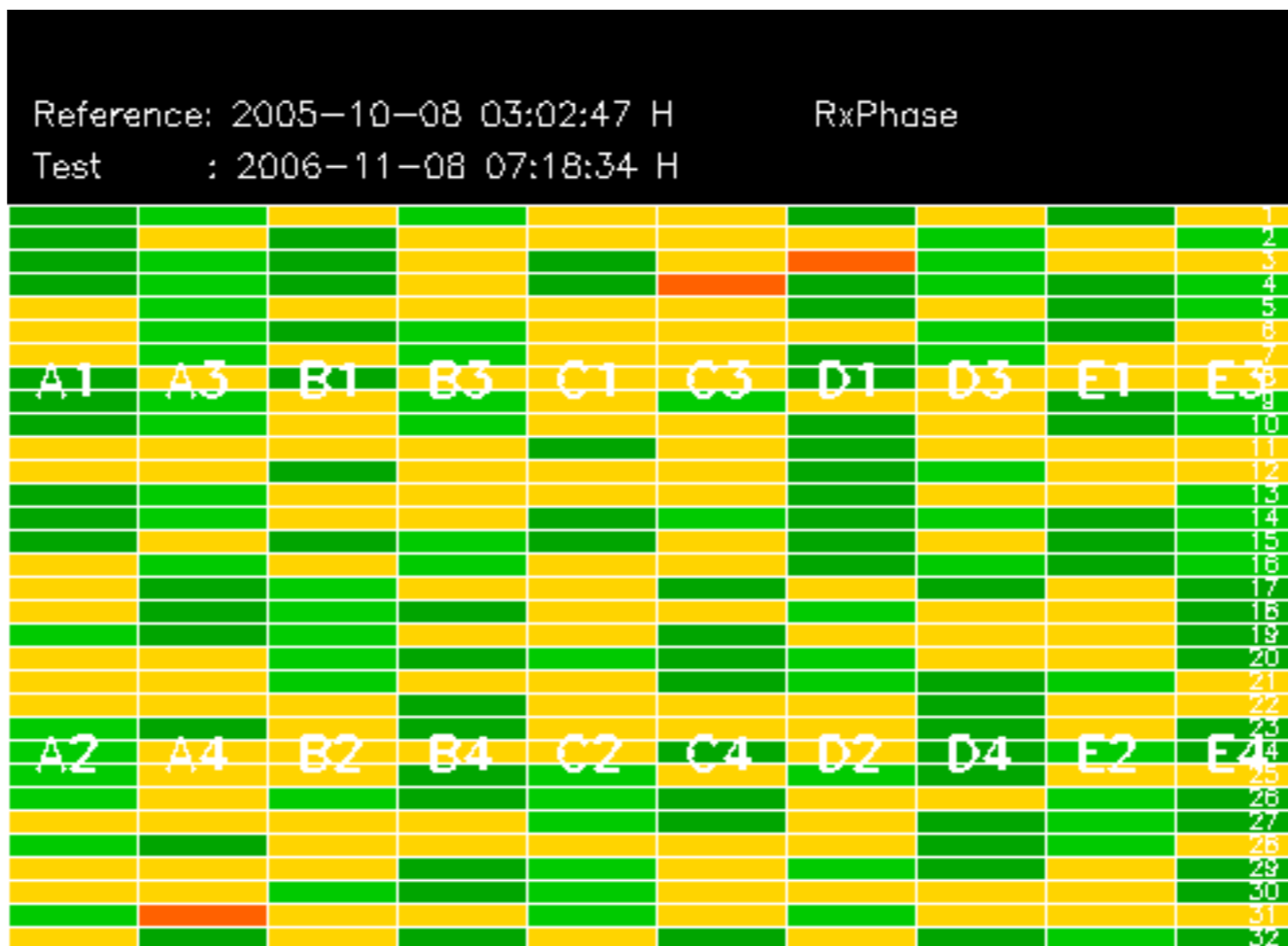
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.9095649 Hz

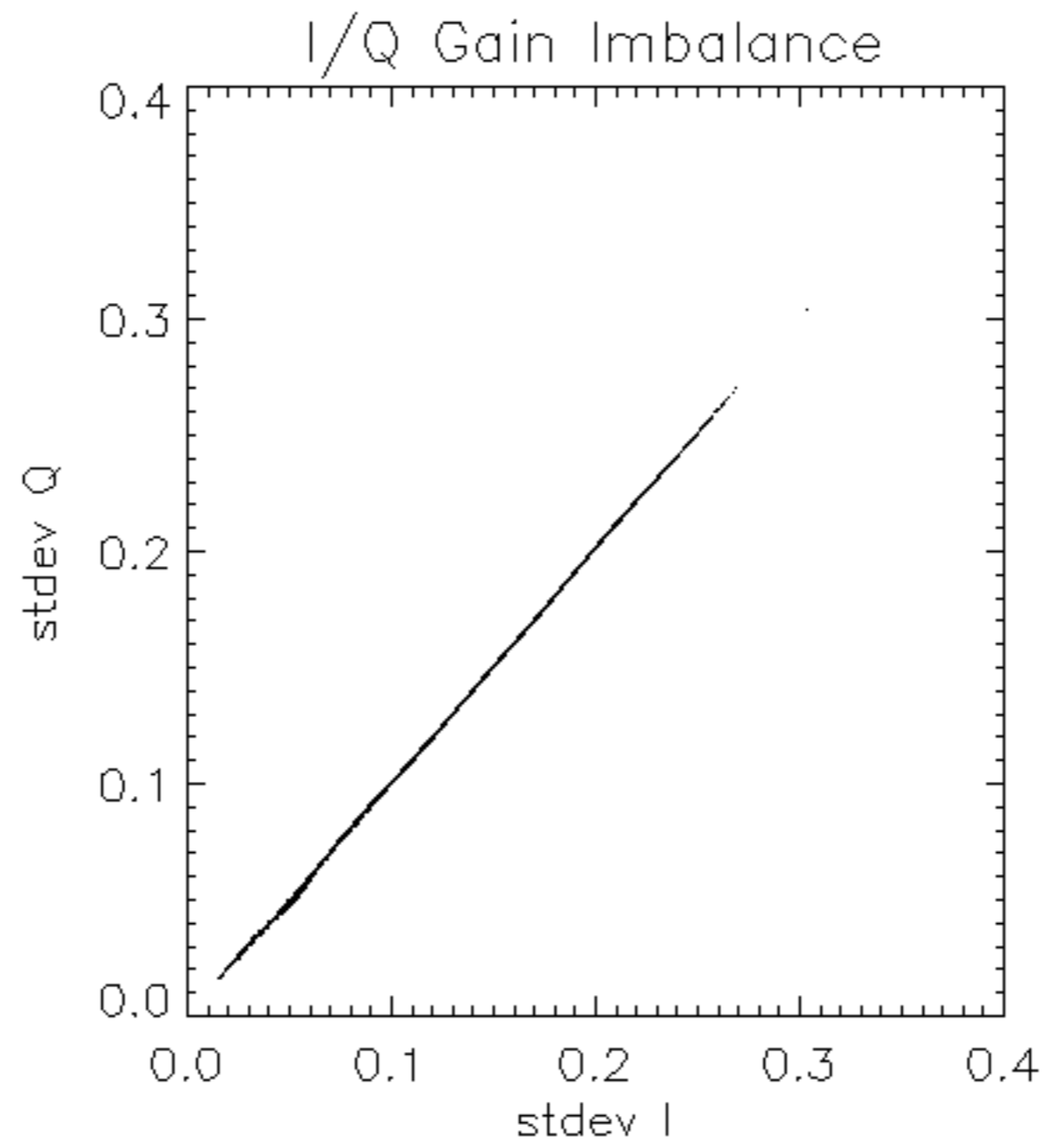


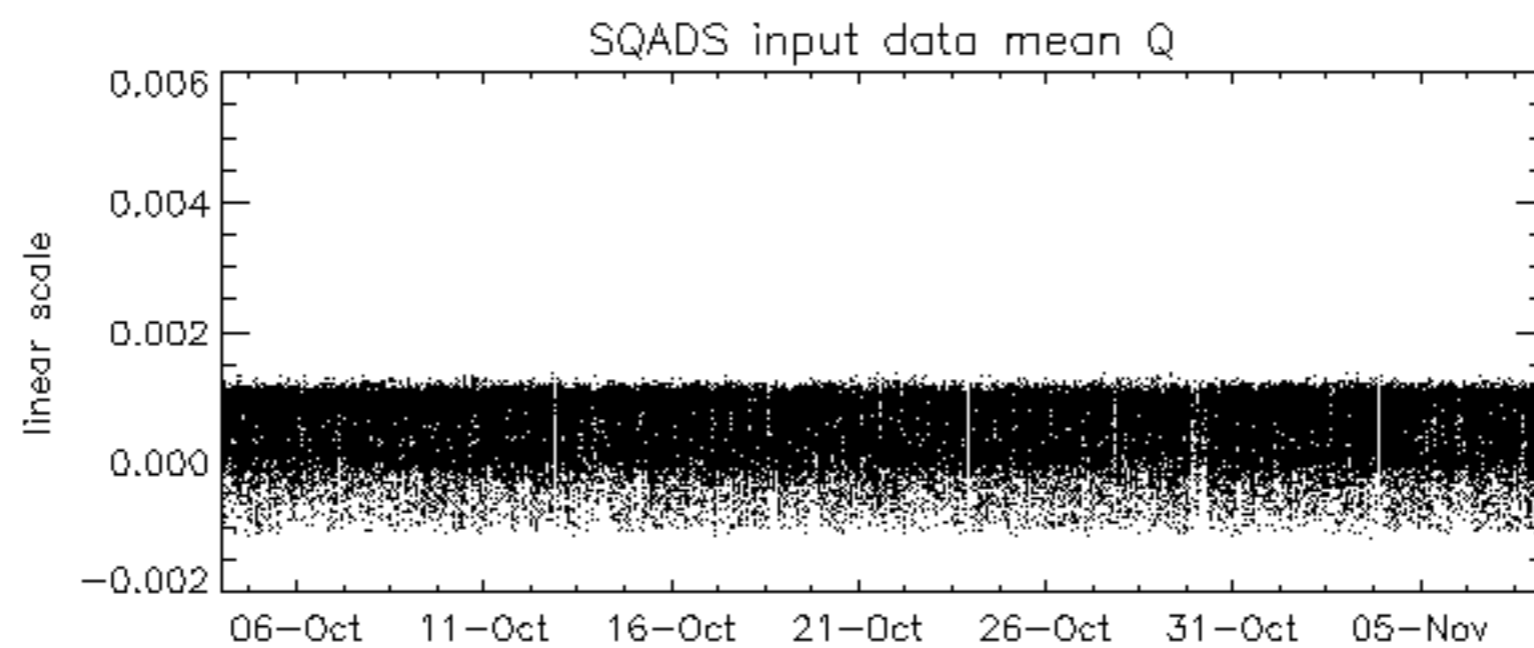
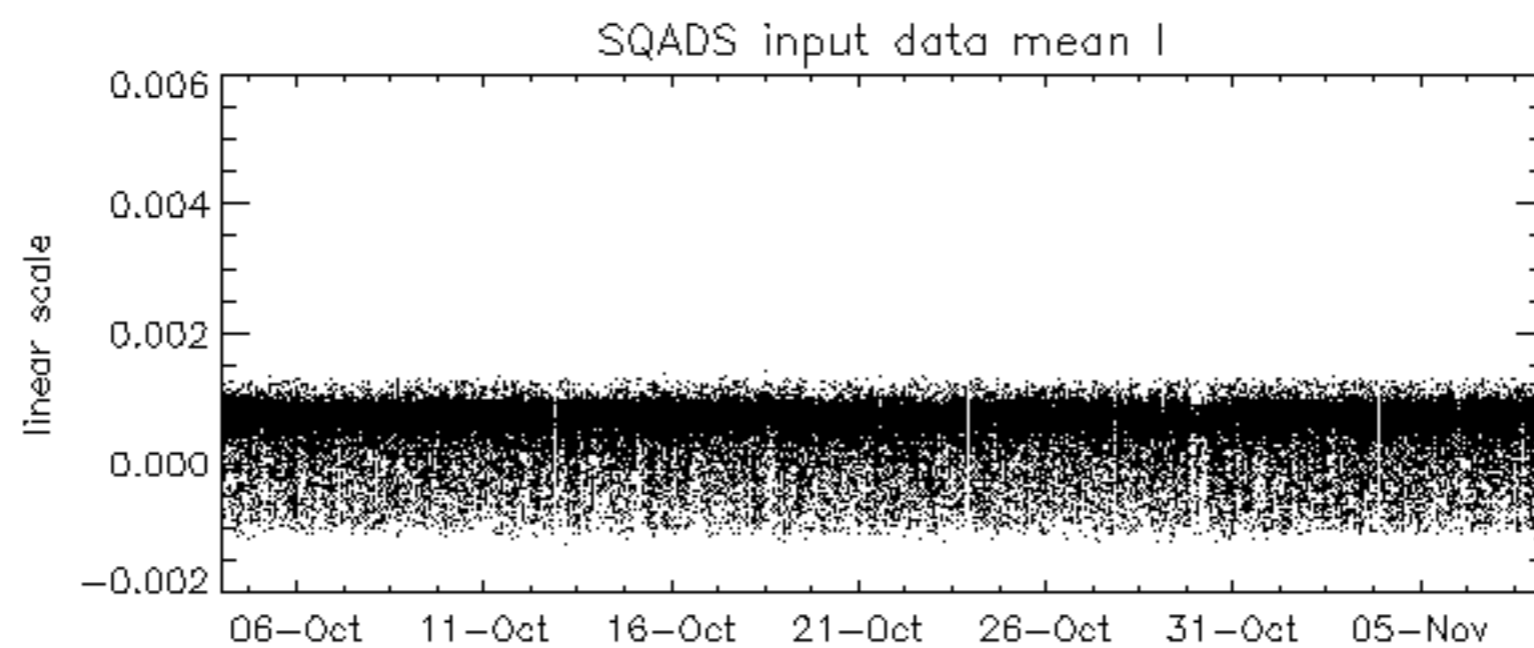
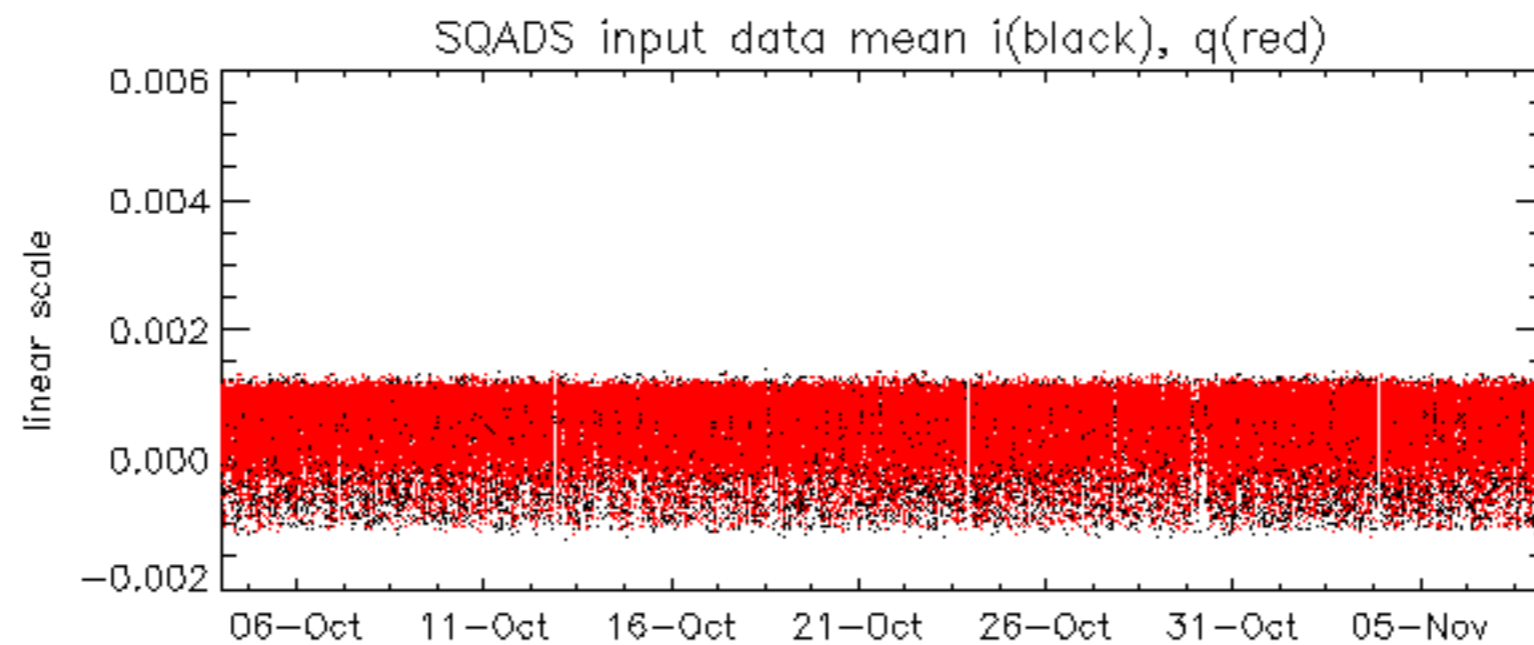
No anomalies observed on available MS products:

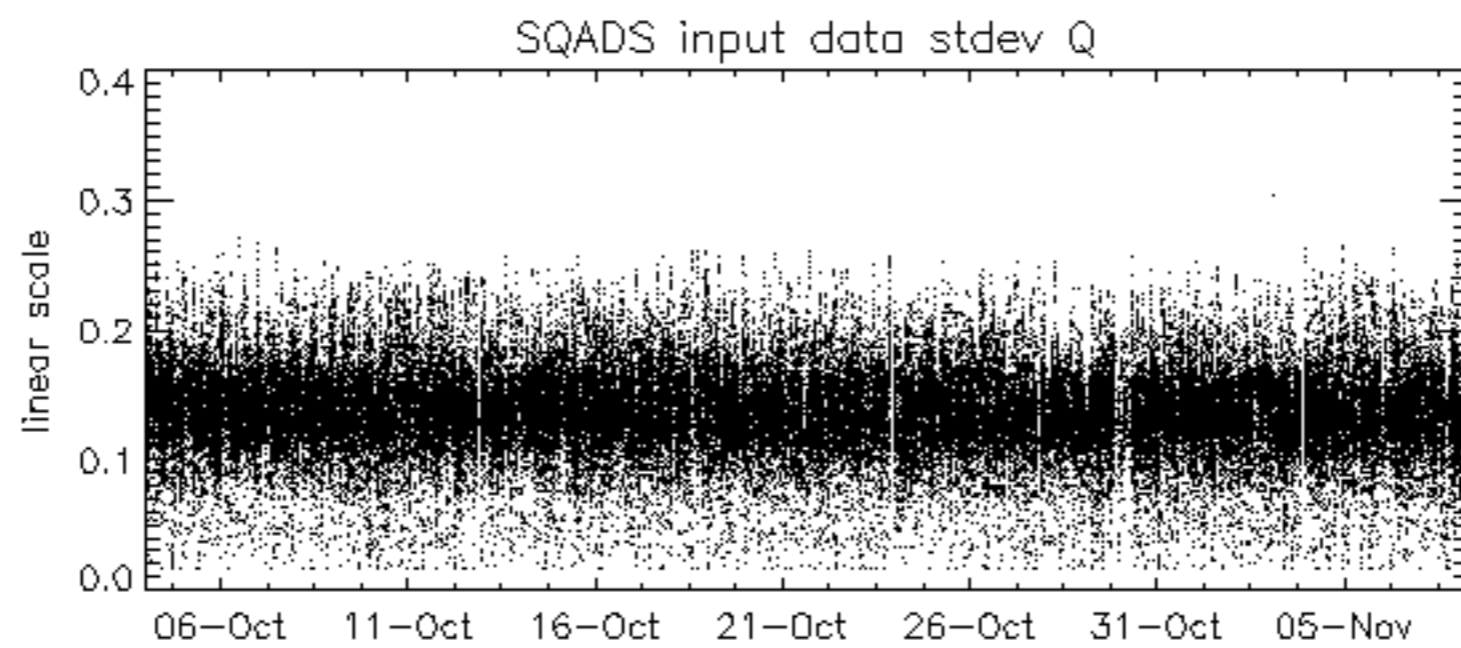
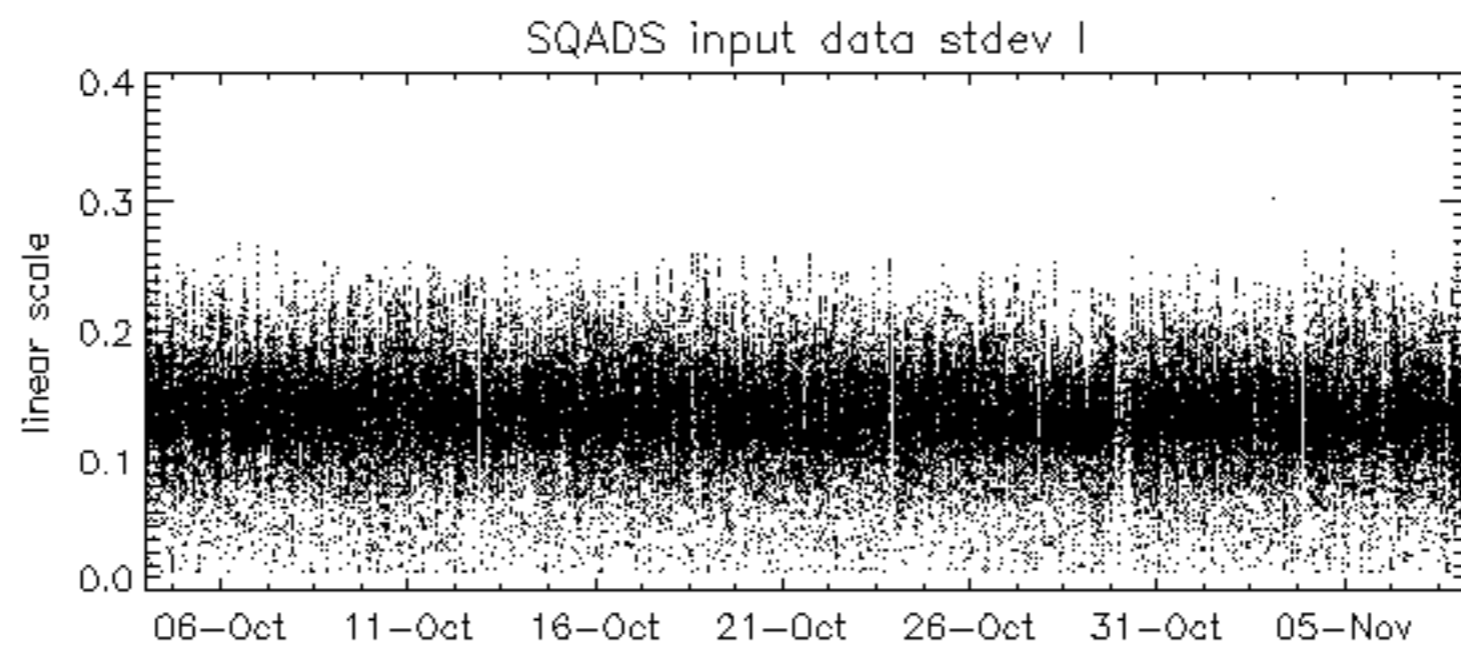
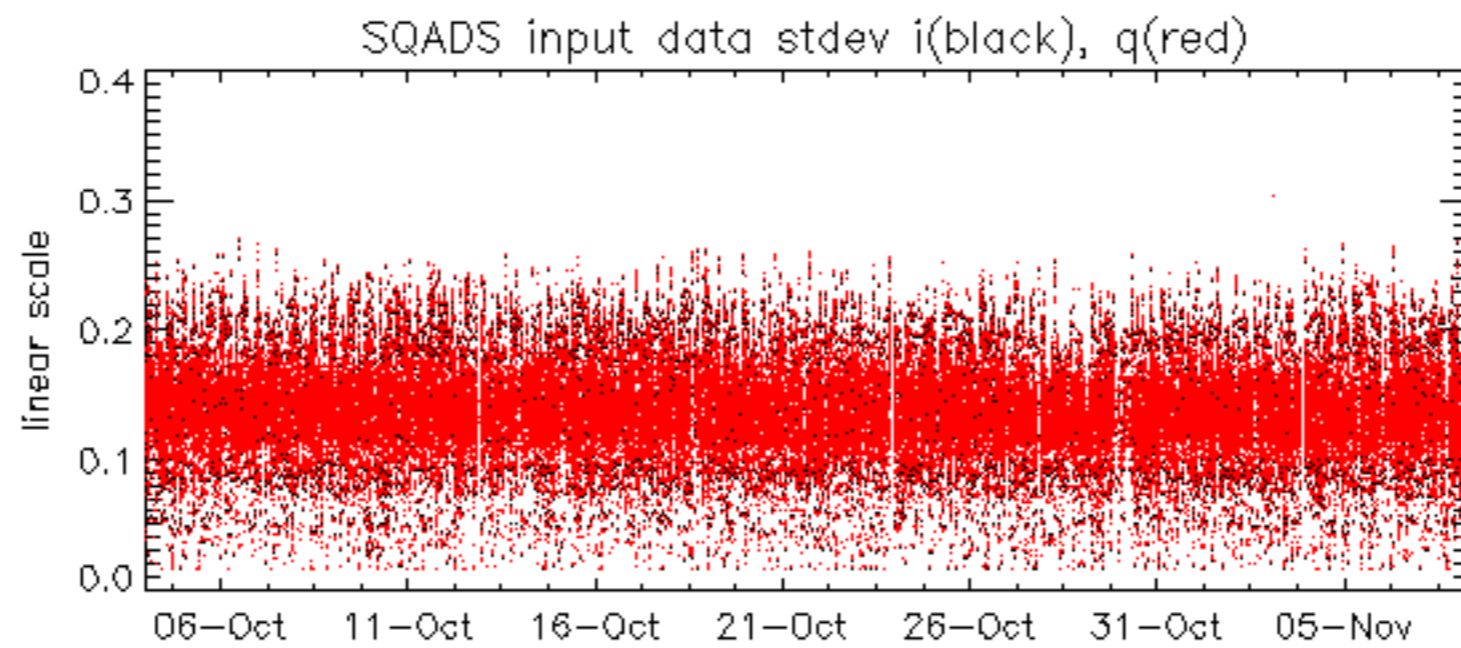
No anomalies observed.







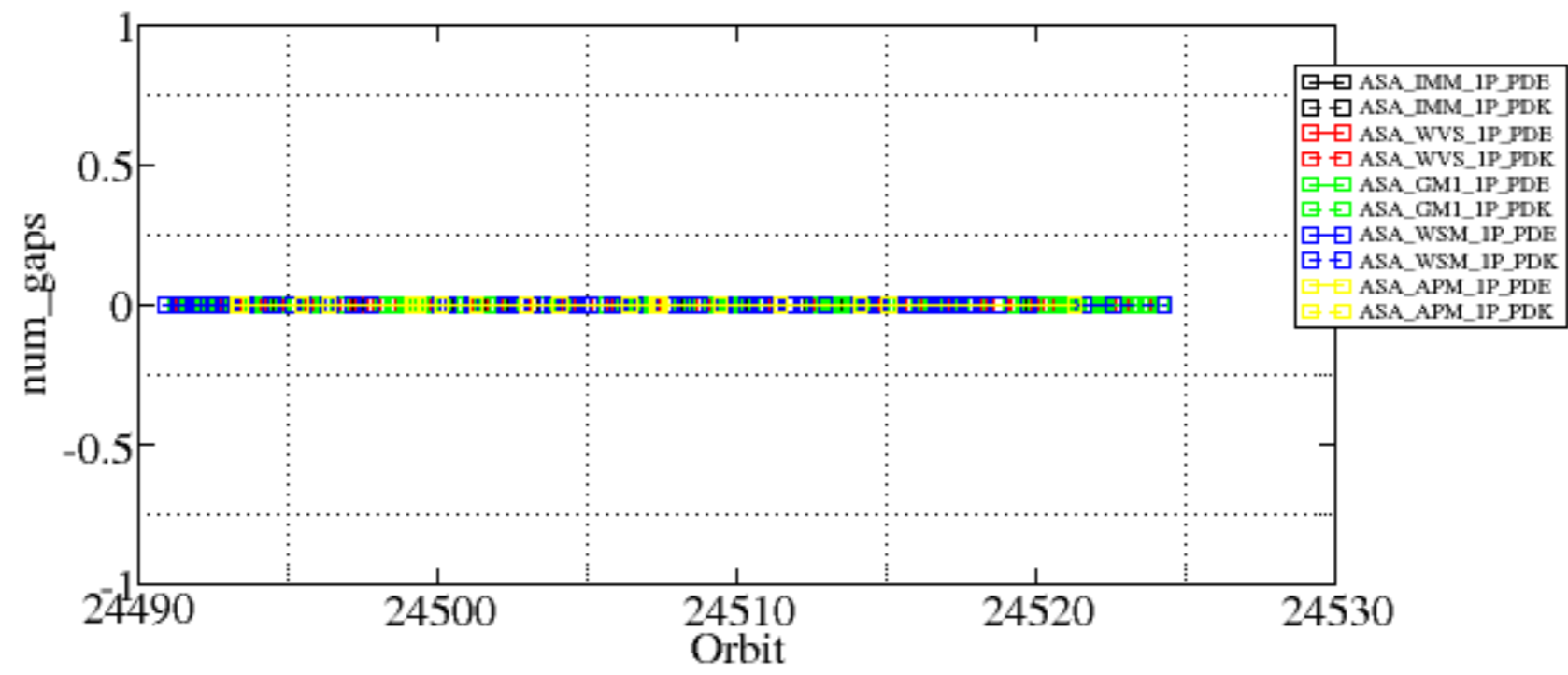




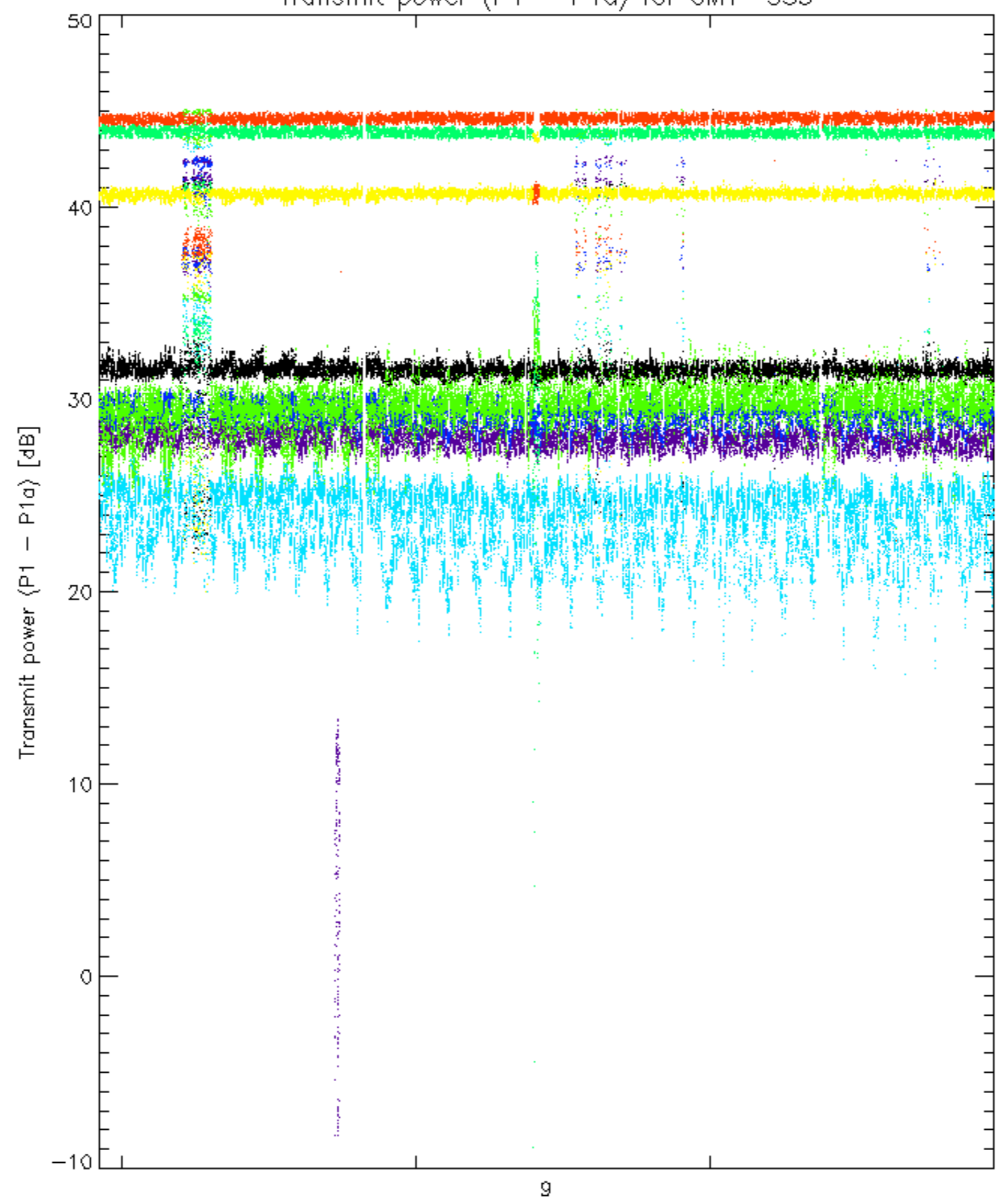
Summary of analysis for the last 3 days 2006110[678]

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

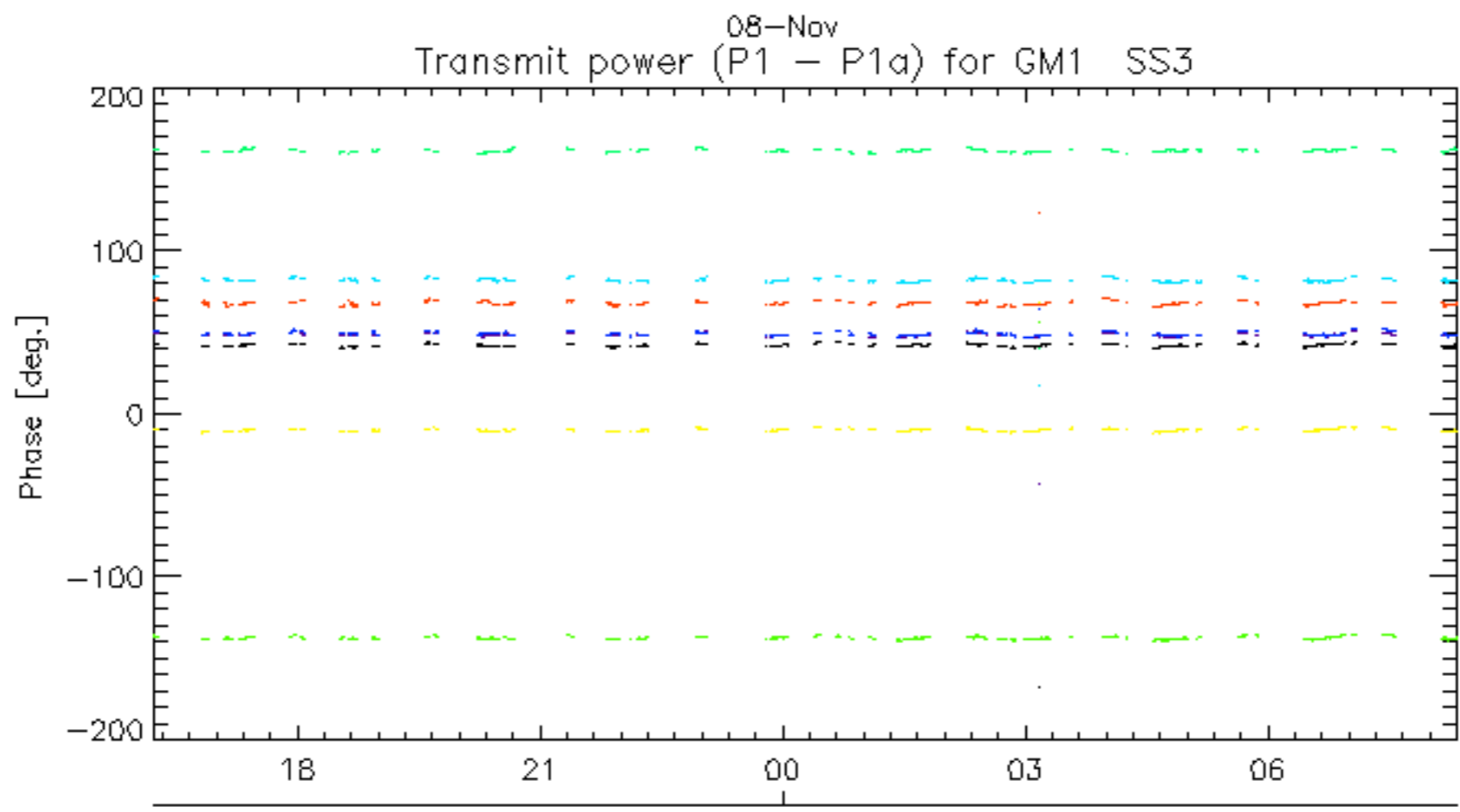
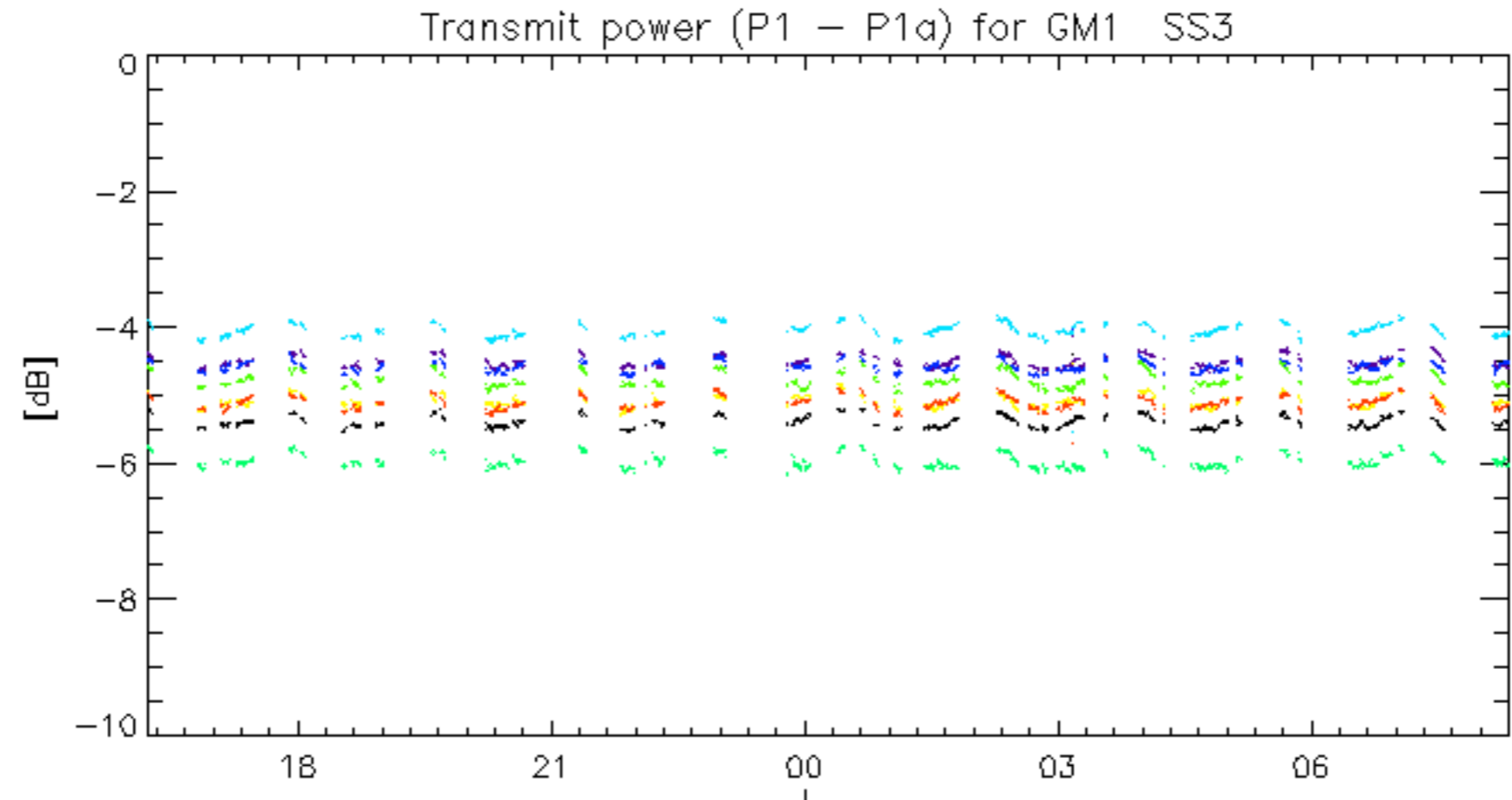
Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20061107_102250_000002232052_00409_24511_8176.N1	0	8
ASA_WSM_1PNPDE20061106_154250_000001702052_00398_24500_0001.N1	0	24



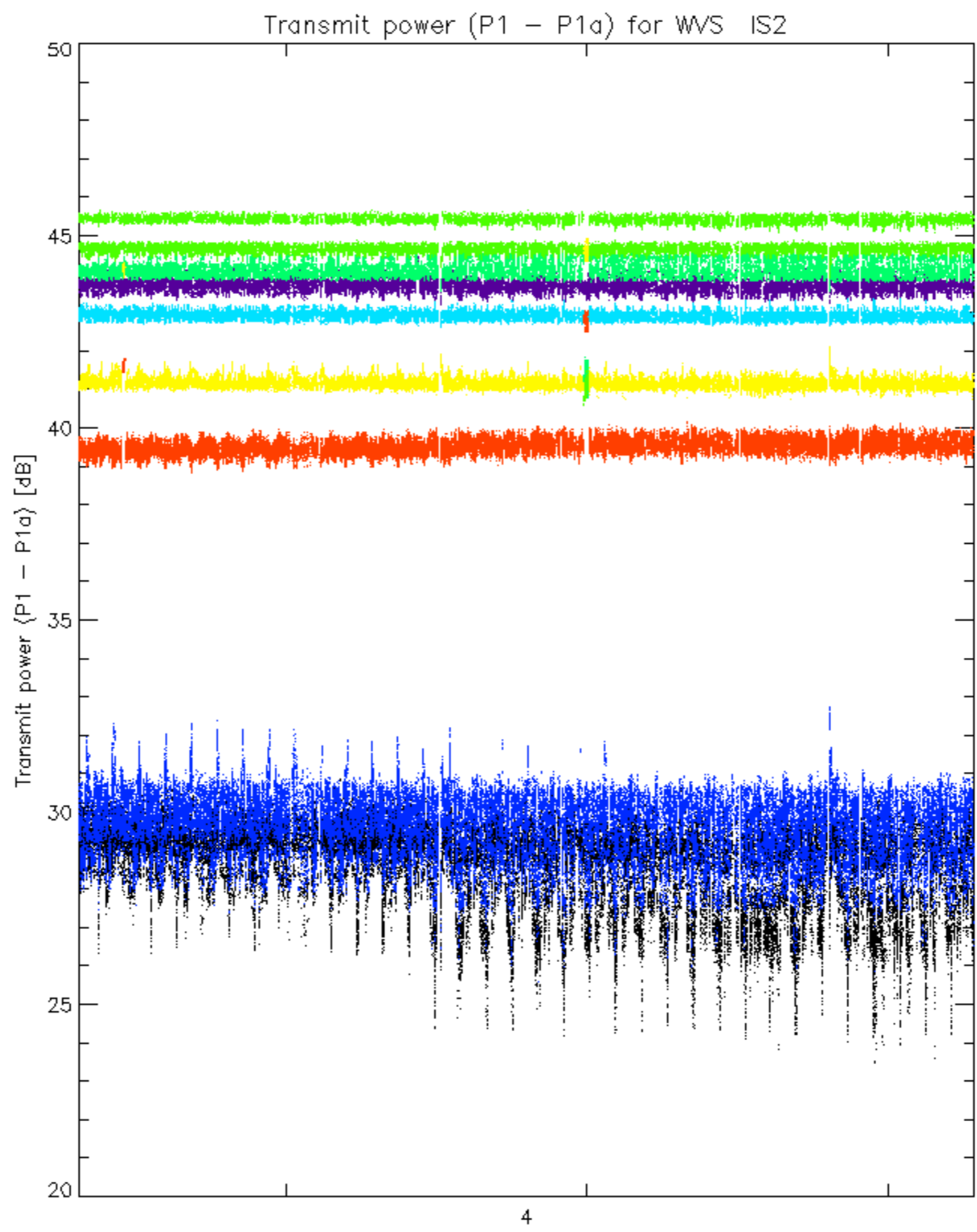
Transmit power (P1 - P1a) for GM1 SS3



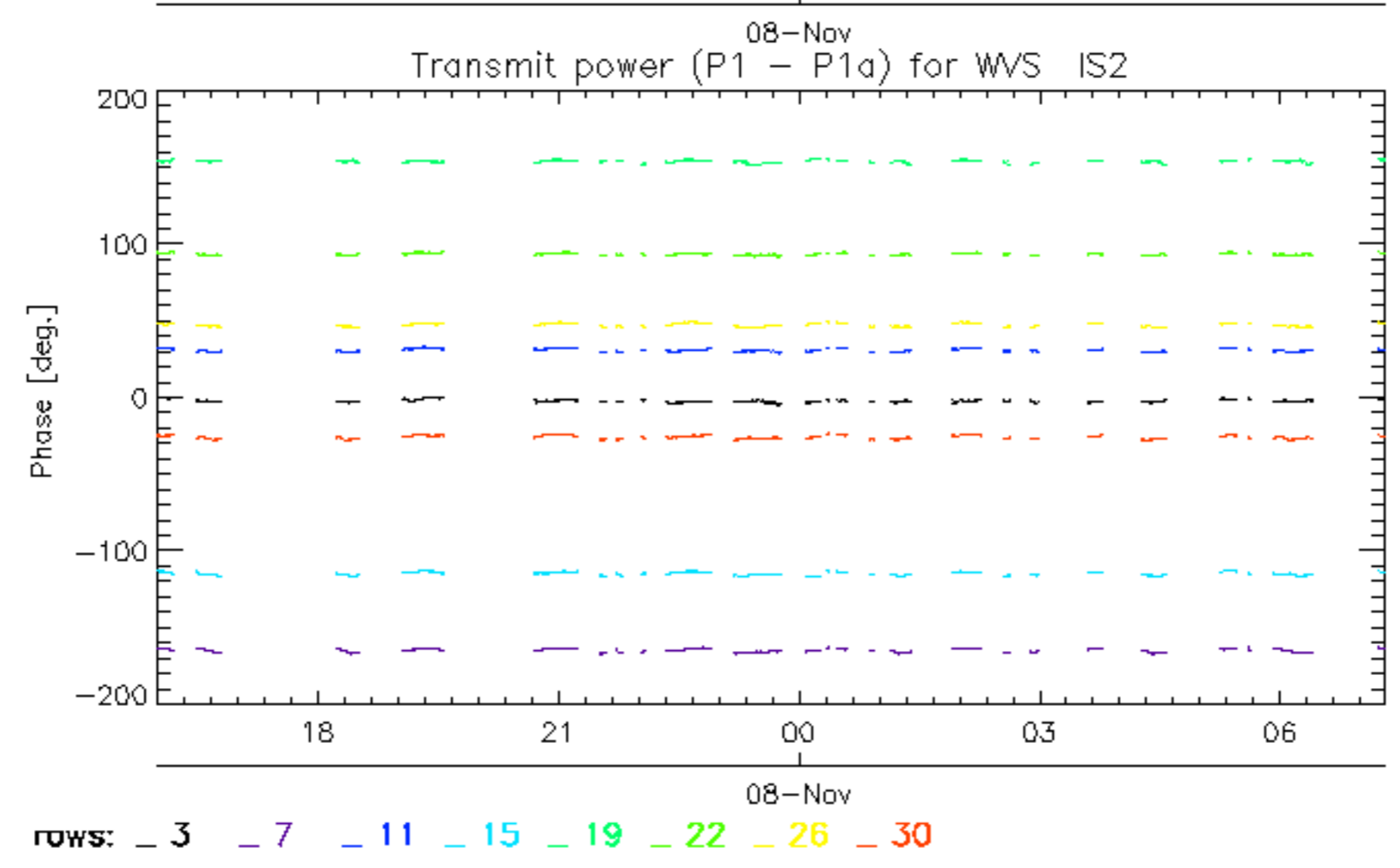
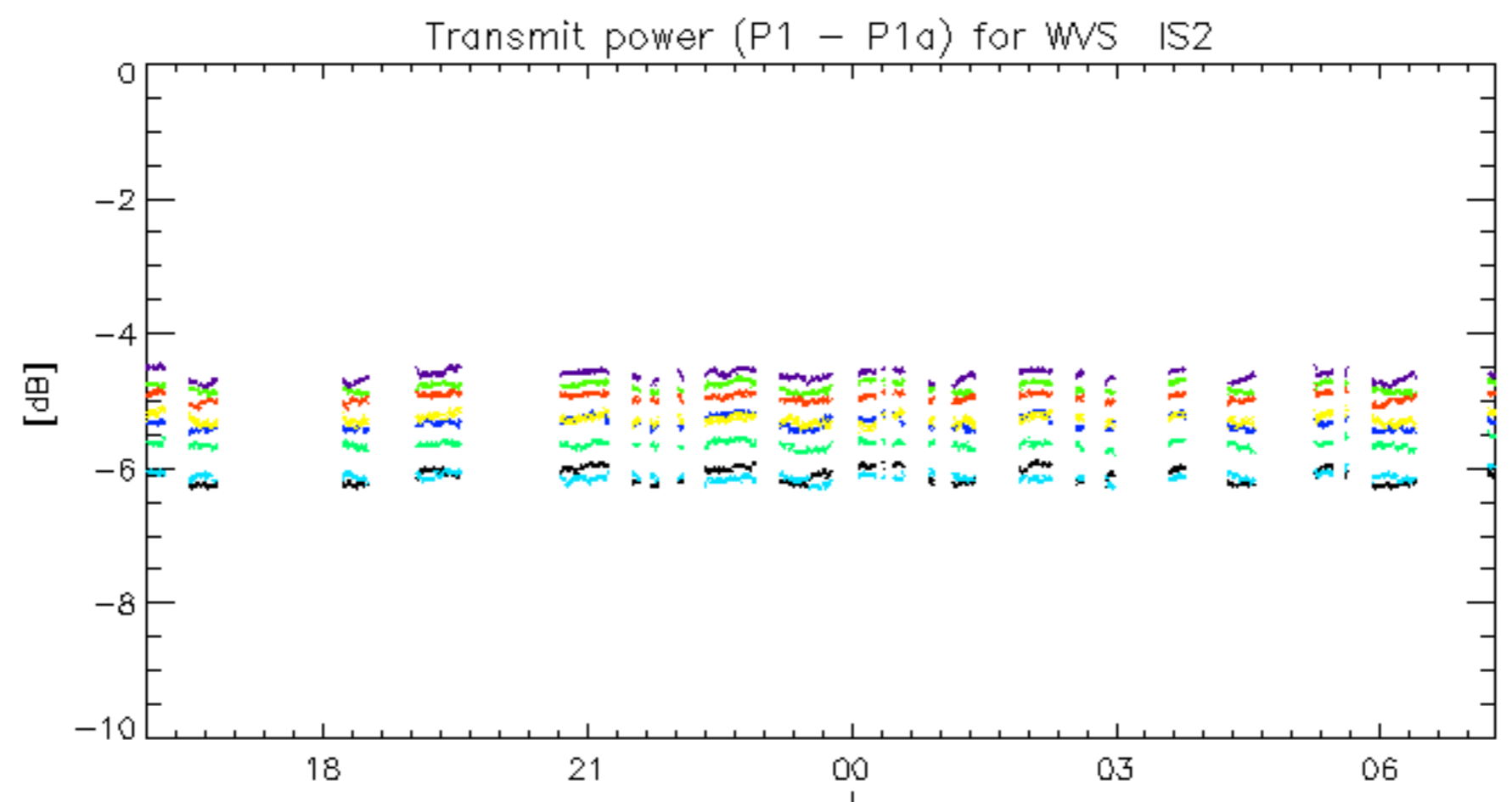
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



No unavailabilities during the reported period.