

PRELIMINARY REPORT OF 041017

ATTENTION: This report is automatically generated no comments are provided on data analysis

last update on Sun Oct 17 10:50:01 GMT 2004

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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 - Browse Visual Inspection

2.3 - Data Analysis

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

3 - Module Stepping Mode

The MS mode provides an internal health check on an individual module basis. The purpose of this mode is to identify any malfunctioning modules and to identify modules for which calibration offsets are to be applied. No anomalies observed on available MS products:

Polarisation	Start Time
V	20041016 064408
H	20041015 071545

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

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	-3.477489	0.024169	0.005050
7	P1	-3.347786	0.023164	-0.013895
11	P1	-4.637519	0.035661	0.092751
15	P1	-5.734870	0.078261	0.164531
19	P1	-3.544597	0.085066	0.045469
22	P1	-4.577011	0.113224	0.087139
24	P1	-5.001236	0.137560	0.212900
30	P1	-7.064529	0.131533	0.142264

3	P1	-16.153467	0.408759	0.320217
7	P1	-14.035396	0.064450	-0.040572
11	P1	-20.361404	0.242332	-0.354025
15	P1	-11.741410	0.120621	0.104475
19	P1	-14.070539	1.032000	0.428653
22	P1	-16.086260	0.413703	-0.521103
24	P1	-14.519790	0.269867	-0.335020
30	P1	-18.002918	0.525638	-0.198362

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.328394	0.088927	-0.088851
7	P2	-22.597490	0.121984	-0.063544
11	P2	-15.143957	0.124209	0.062287
15	P2	-7.082947	0.103401	-0.093733
19	P2	-9.605253	0.132848	-0.145938
22	P2	-17.285803	0.108006	0.038457
24	P2	-20.780037	0.090971	-0.055122
30	P2	-19.113798	0.082977	0.097959

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.169206	0.005088	-0.050015
7	P3	-8.169207	0.005088	-0.050009
11	P3	-8.169209	0.005088	-0.049991
15	P3	-8.169218	0.005089	-0.049950
19	P3	-8.169218	0.005089	-0.049955
22	P3	-8.169216	0.005088	-0.049962
24	P3	-8.169218	0.005088	-0.049966
30	P3	-8.169201	0.005088	-0.050372

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1	
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☒	

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	-2.839323	0.048841	0.054955
7	P1	-3.010994	0.100863	0.145699
11	P1	-3.897246	0.065670	0.054434
15	P1	-3.514802	0.081922	0.125366
19	P1	-3.552083	0.096326	0.067197
22	P1	-5.701055	0.137608	0.264550
24	P1	-3.981014	0.058380	0.098743
30	P1	-6.220802	0.090923	0.039516
3	P1	-10.855398	0.186979	0.326208
7	P1	-10.098731	0.173716	0.068830
11	P1	-12.217252	0.130729	-0.149970
15	P1	-11.690959	0.081906	0.073351
19	P1	-15.722093	2.067986	0.732114
22	P1	-23.496199	1.789252	-0.869985
24	P1	-18.070641	0.361876	-0.258586
30	P1	-20.372663	1.217625	-0.020115

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.002403	0.048262	-0.108456
7	P2	-22.708939	0.065264	0.013479
11	P2	-10.875444	0.052763	-0.024151
15	P2	-4.986729	0.029329	-0.102897
19	P2	-6.811692	0.044230	-0.184651
22	P2	-7.397145	0.040954	-0.009407
24	P2	-11.096022	0.054260	-0.130641
30	P2	-22.114155	0.038897	0.016484

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-8.015843	0.003582	-0.036496
7	P3	-8.015861	0.003576	-0.036132
11	P3	-8.015960	0.003563	-0.036373
15	P3	-8.015867	0.003565	-0.036193
19	P3	-8.015916	0.003568	-0.036319
22	P3	-8.015849	0.003572	-0.036157
24	P3	-8.015949	0.003596	-0.036537
30	P3	-8.015870	0.003581	-0.036386

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	0.000480608
	stdev	2.15279e-07
MEAN Q	mean	0.000550273
	stdev	2.33426e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127664
	stdev	0.000936691

STDEV Q	mean	0.127885
	stdev	0.000946054





5.3 - Gain imbalance I/Q





6 - Doppler Analysis

Preliminary report. The data is not yet controlled

6.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)	
	
	Acsending
	
	Descending

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Acsending
	
	Descending

6.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX	
	

6.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)	
<input type="checkbox"/>	
	Ascending
<input type="checkbox"/>	
	Descending

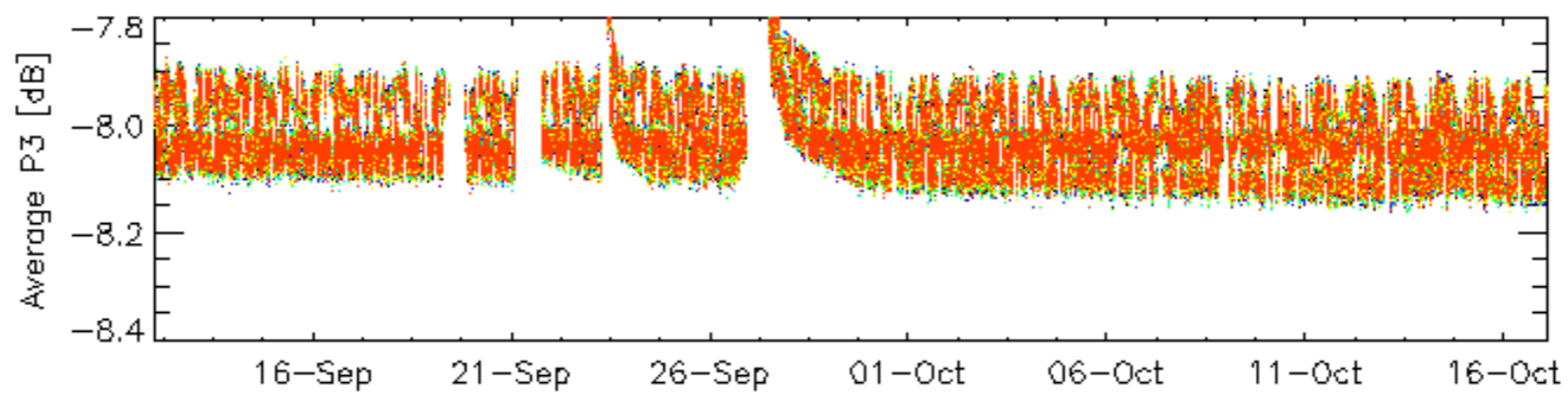
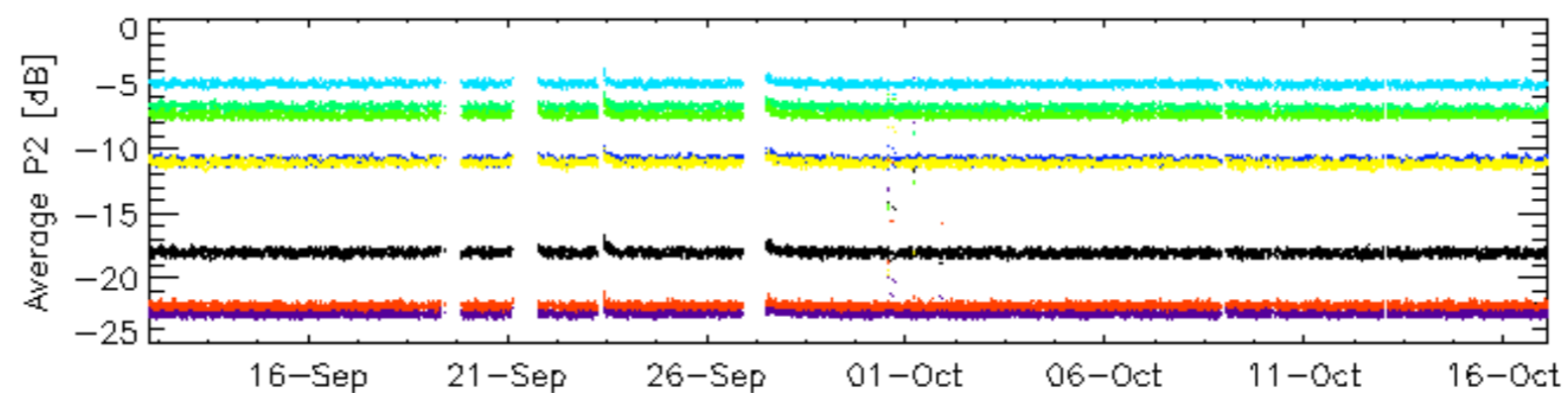
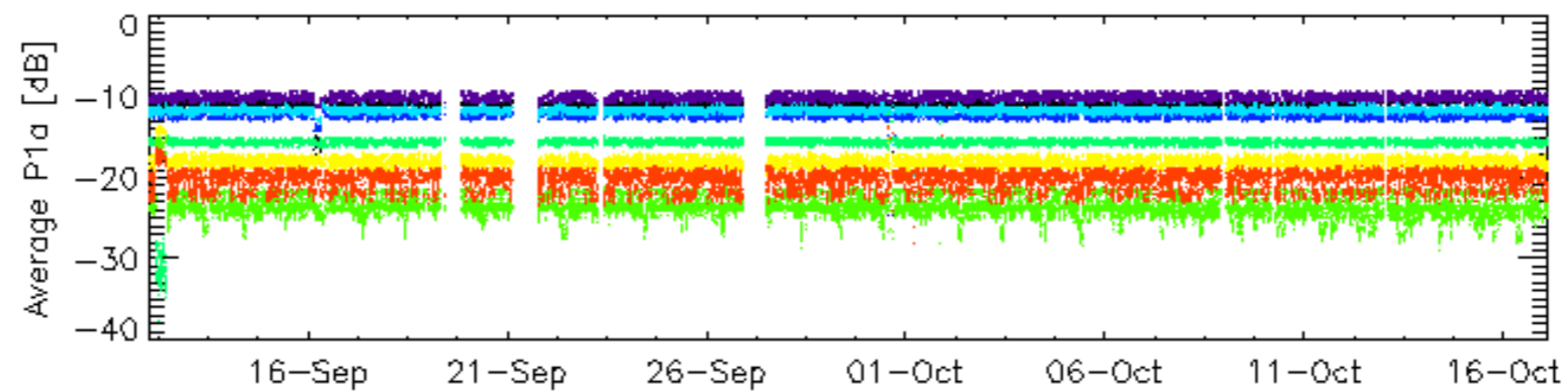
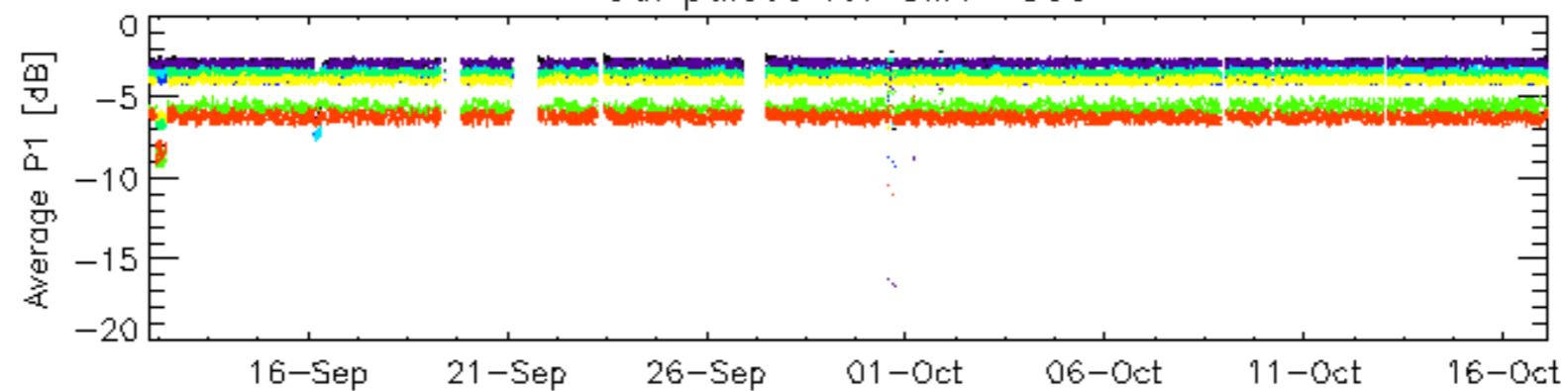
6.5 - Absolute Doppler for GM1

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

6.6 - Doppler evolution versus ANX for GM1

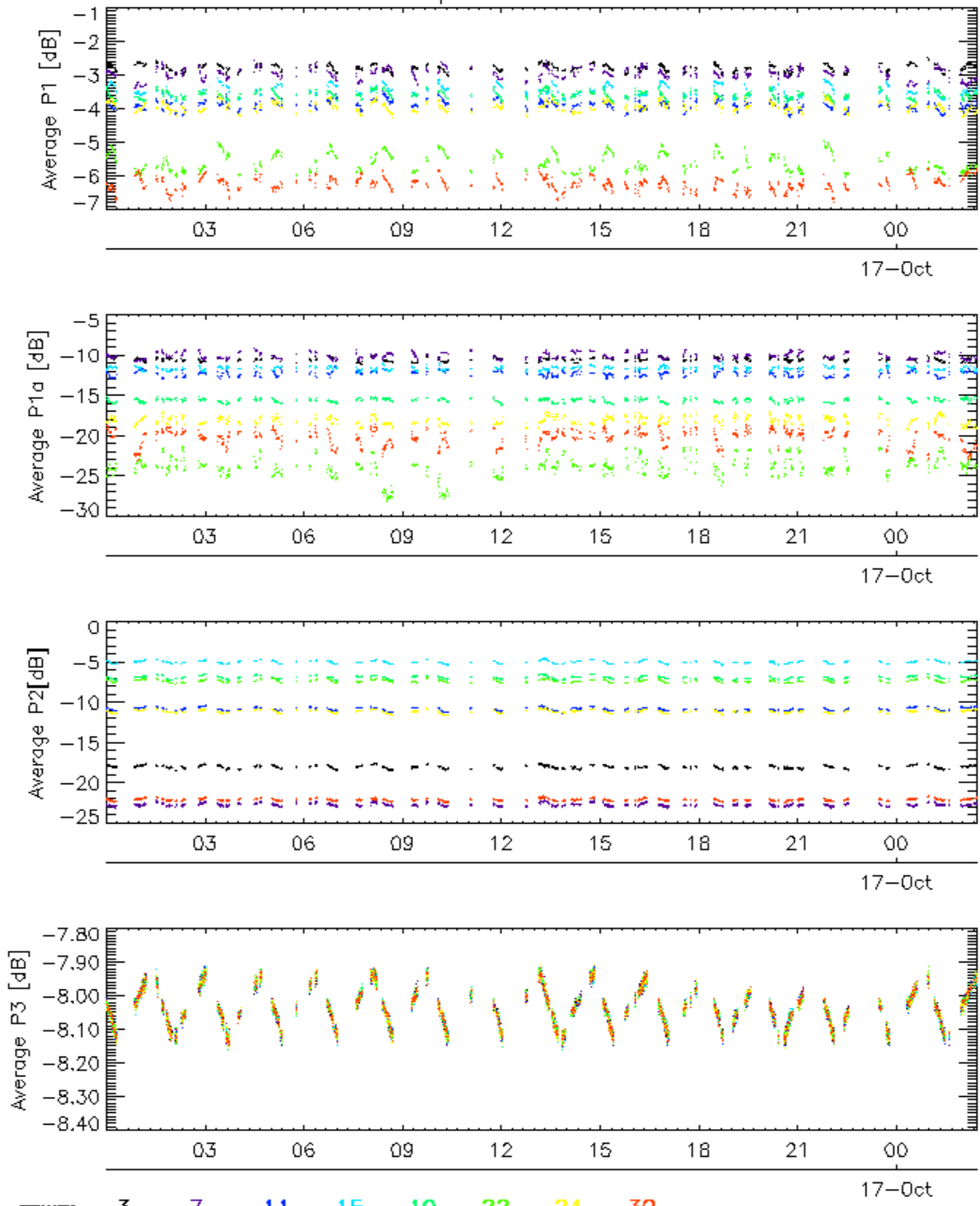
Evolution Doppler error versus ANX	
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Cal pulses for GM1 SS3

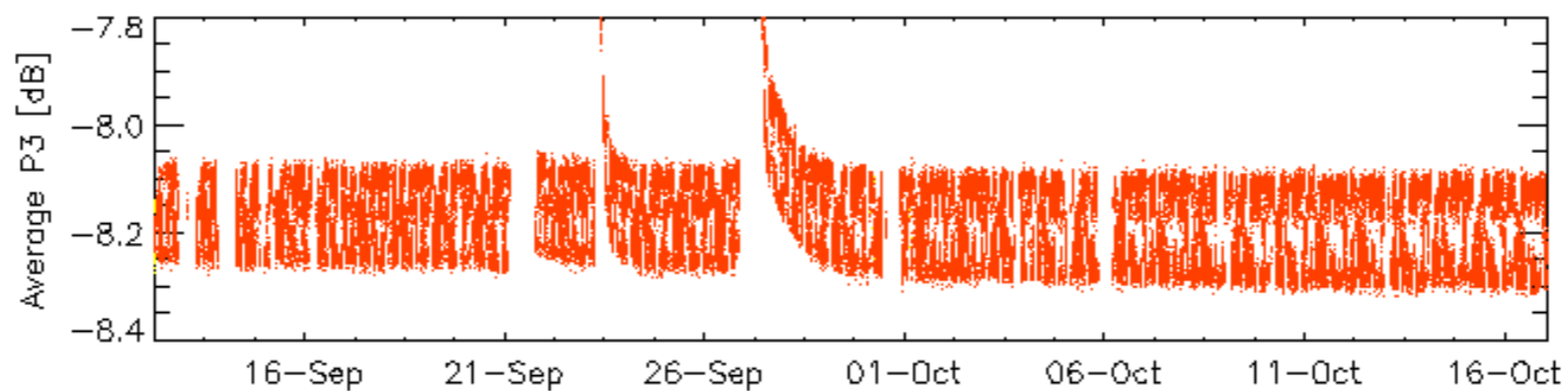
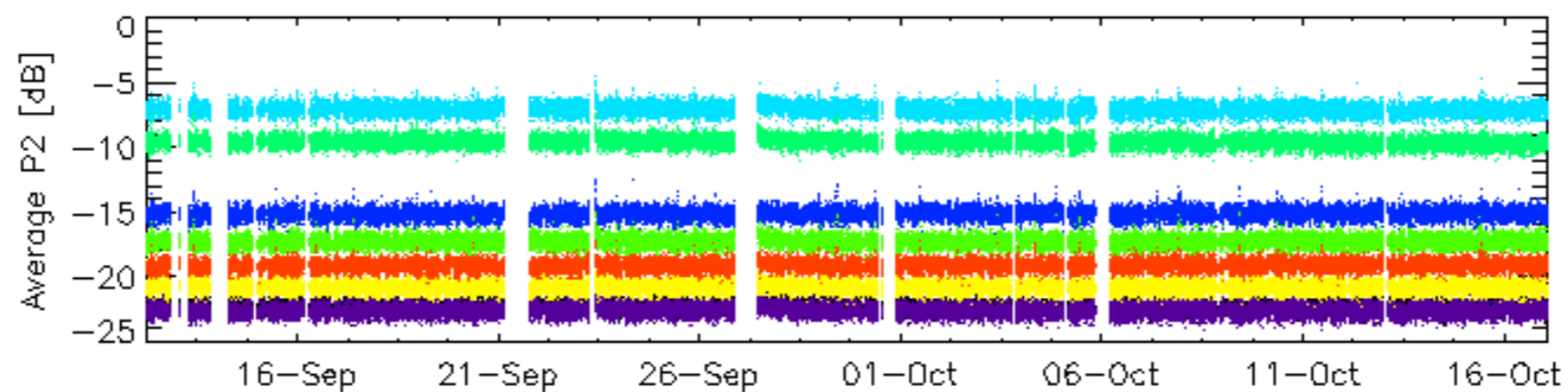
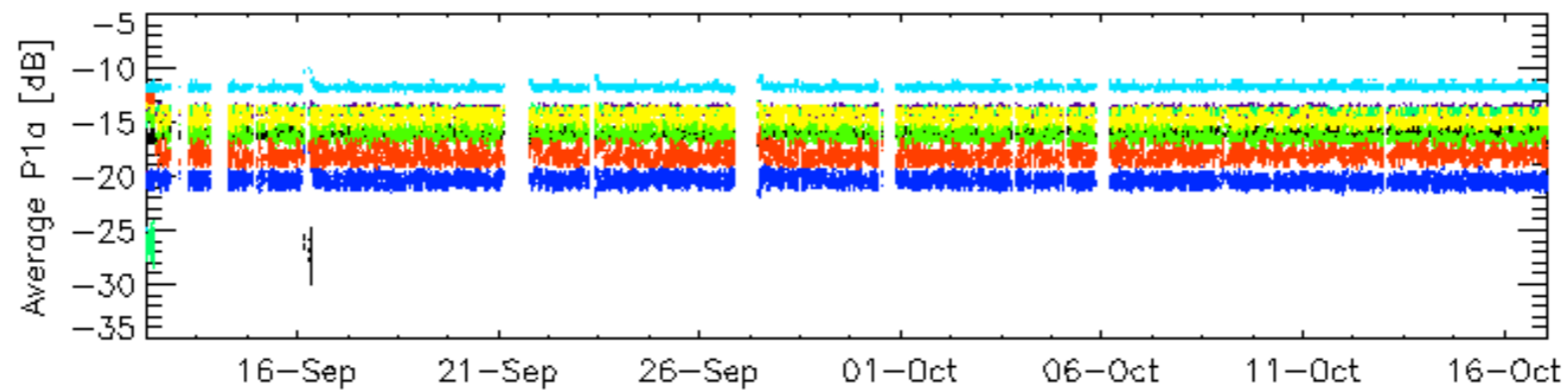
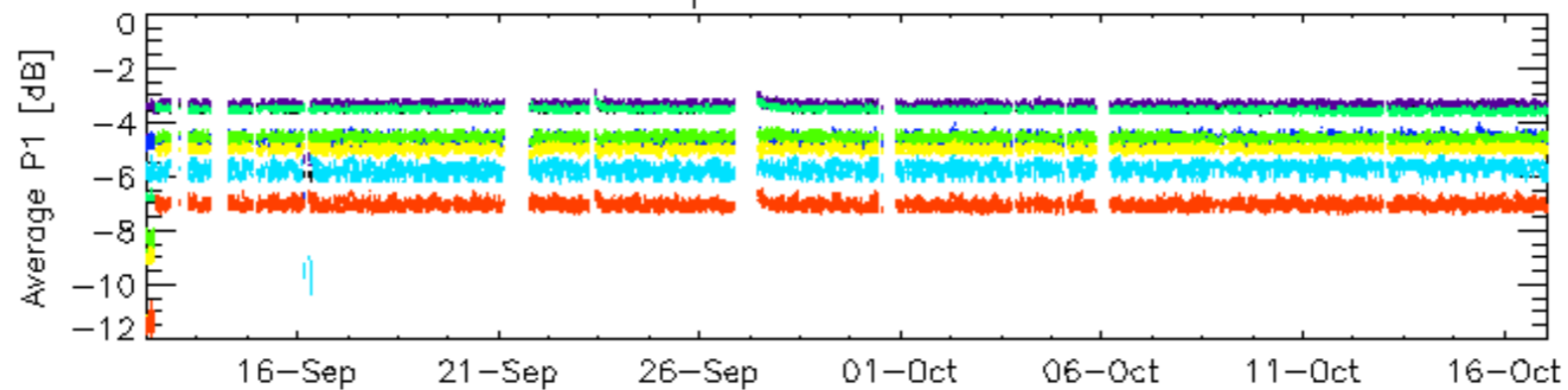


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

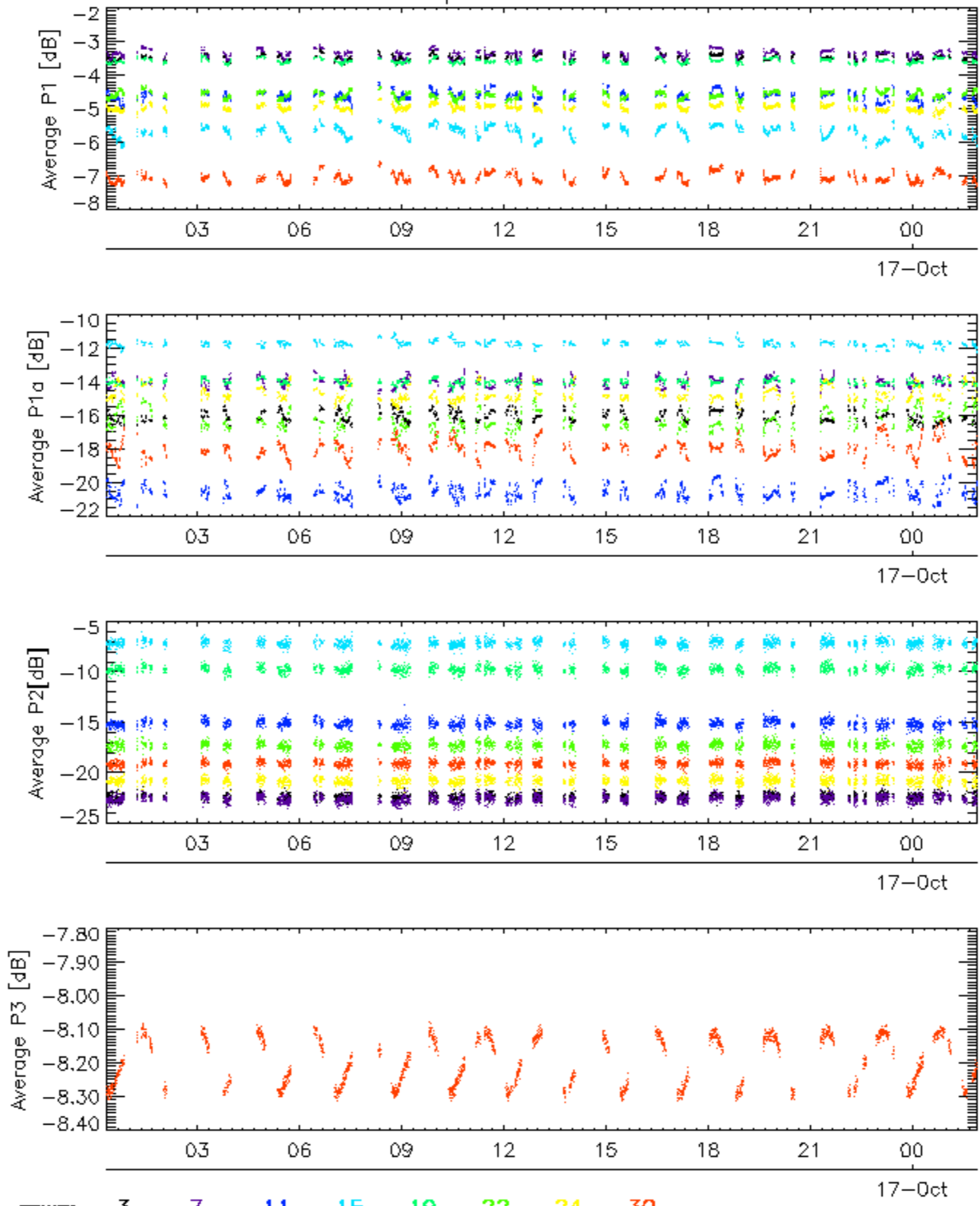


Cal pulses for WVS IS2

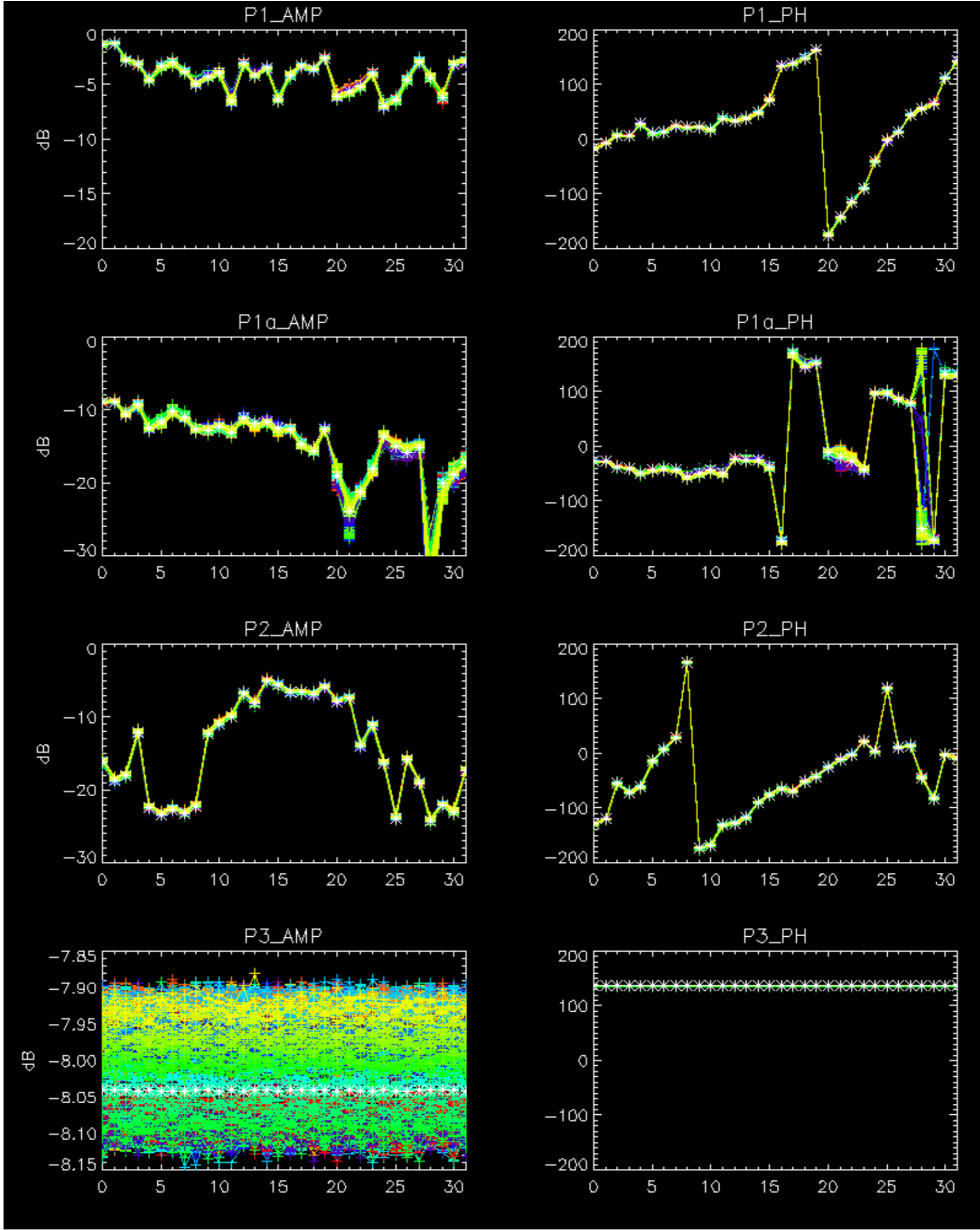


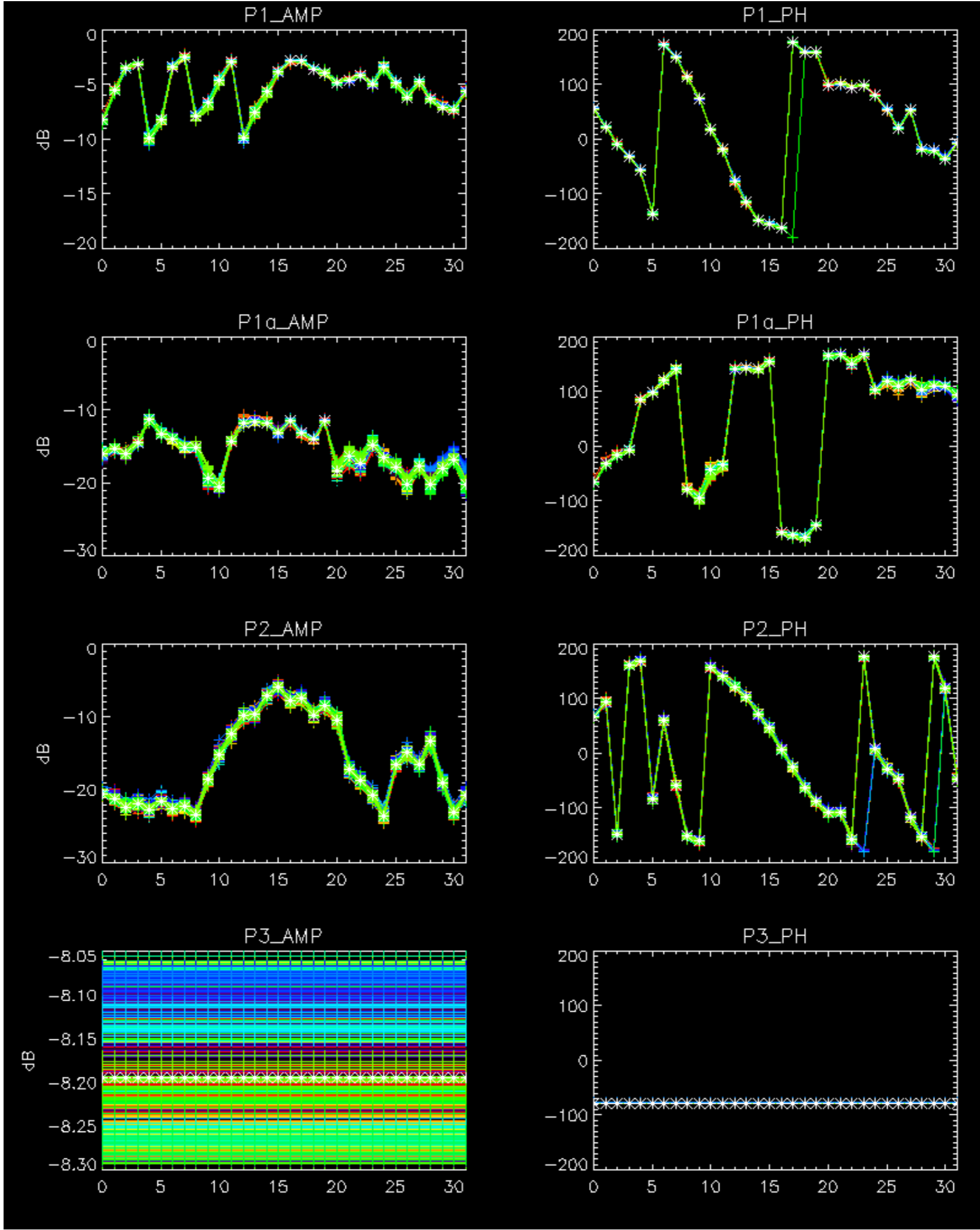
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for WVS IS2



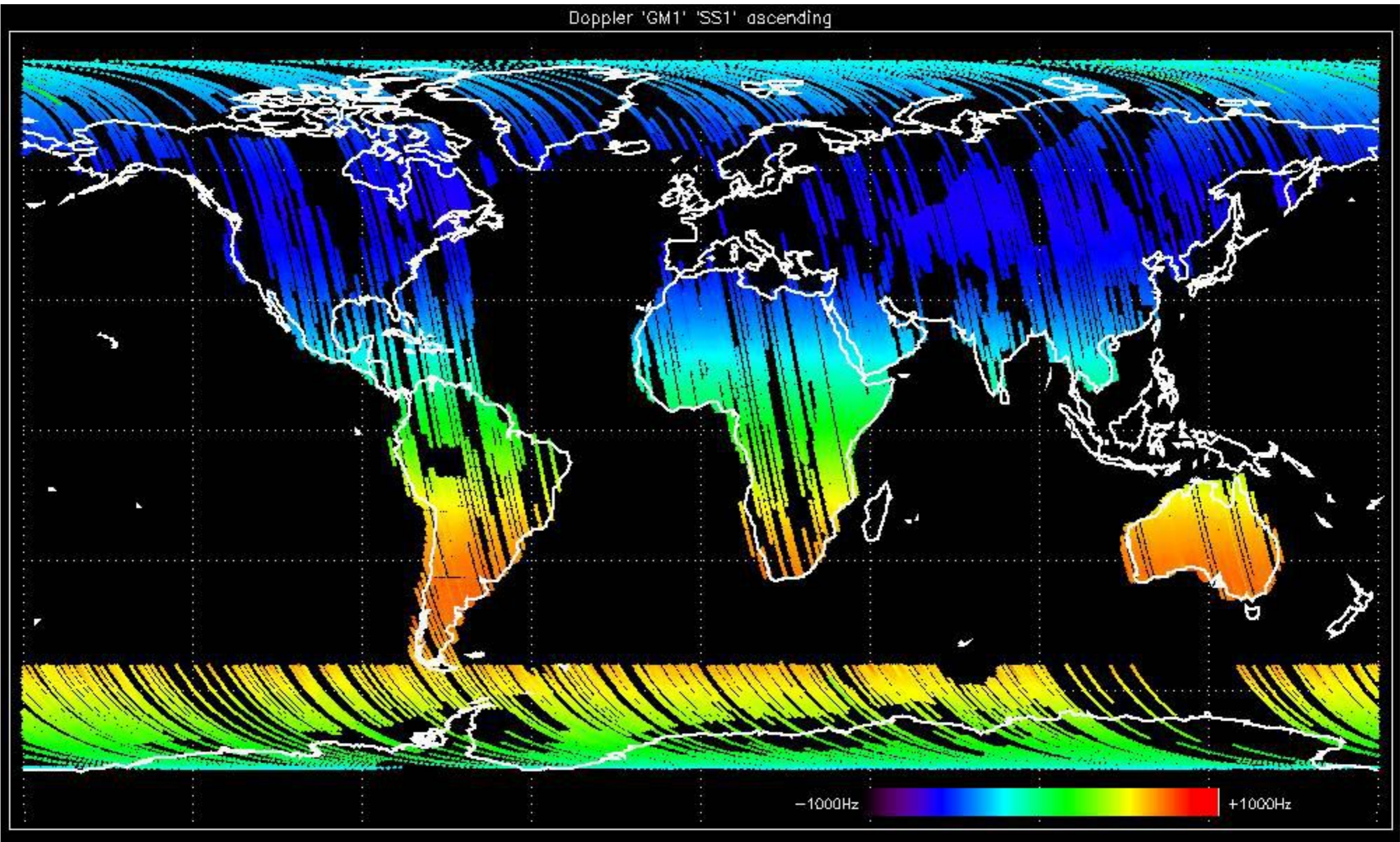
No anomalies observed.



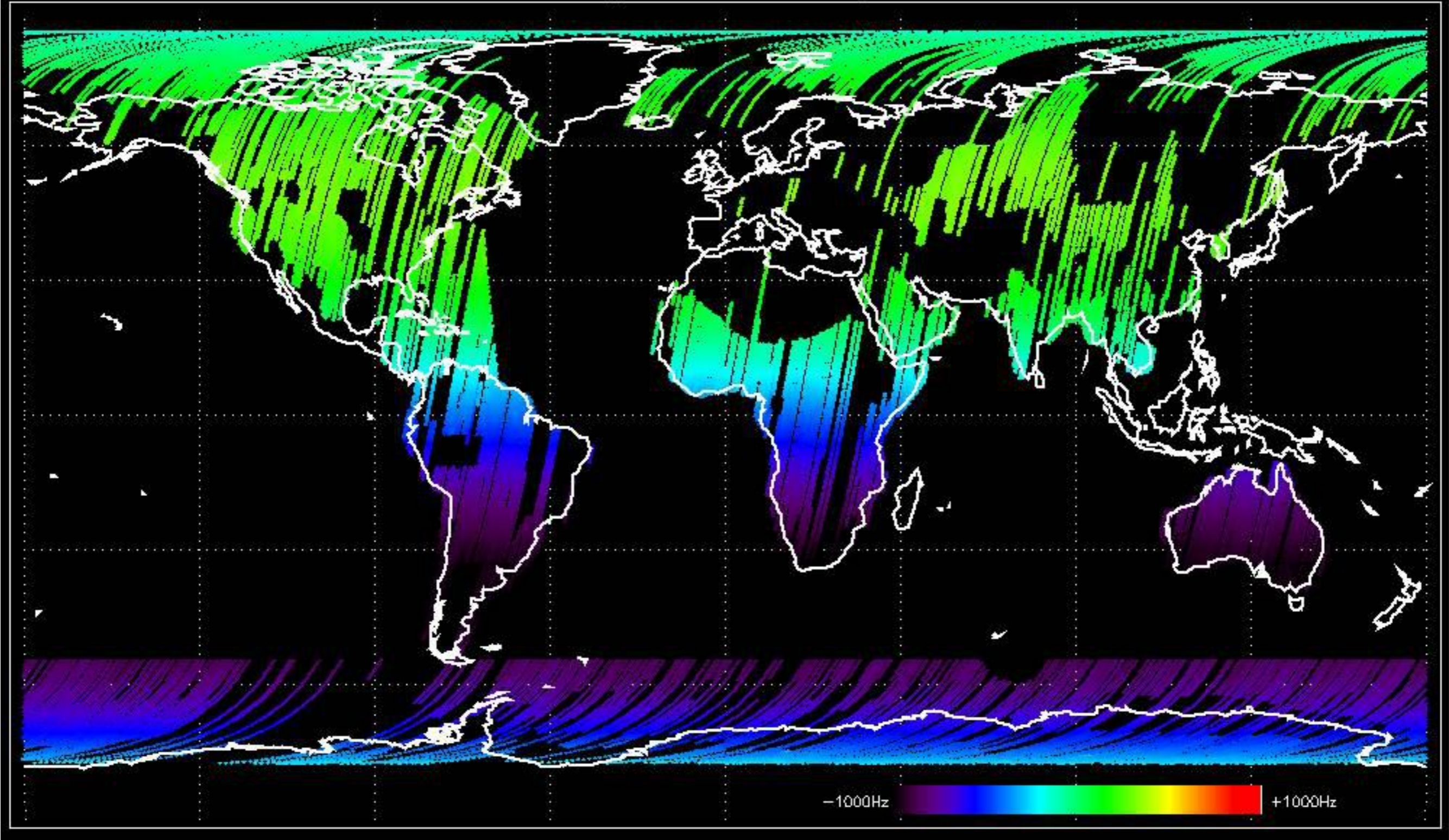


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

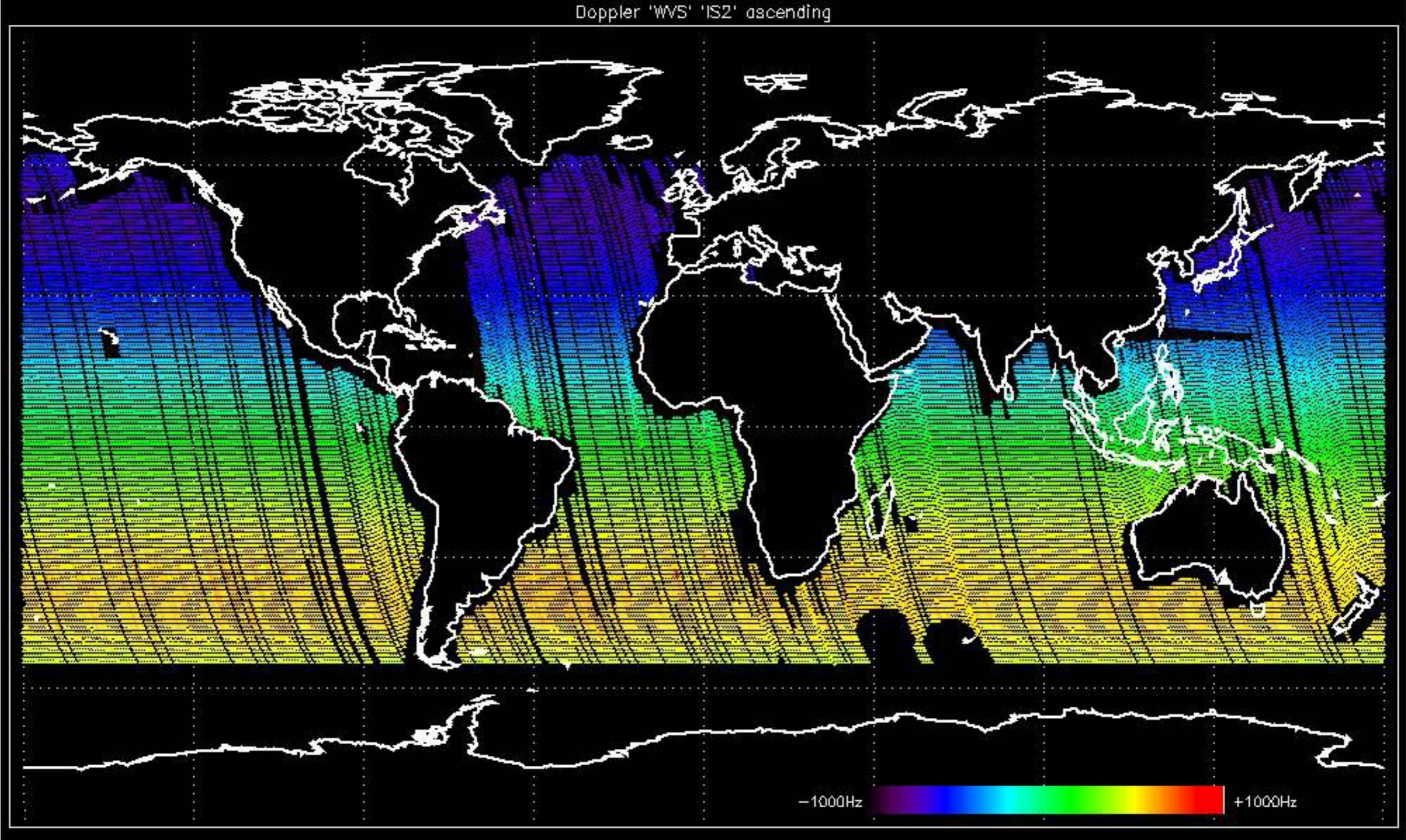
Doppler 'GM1' 'SS1' ascending



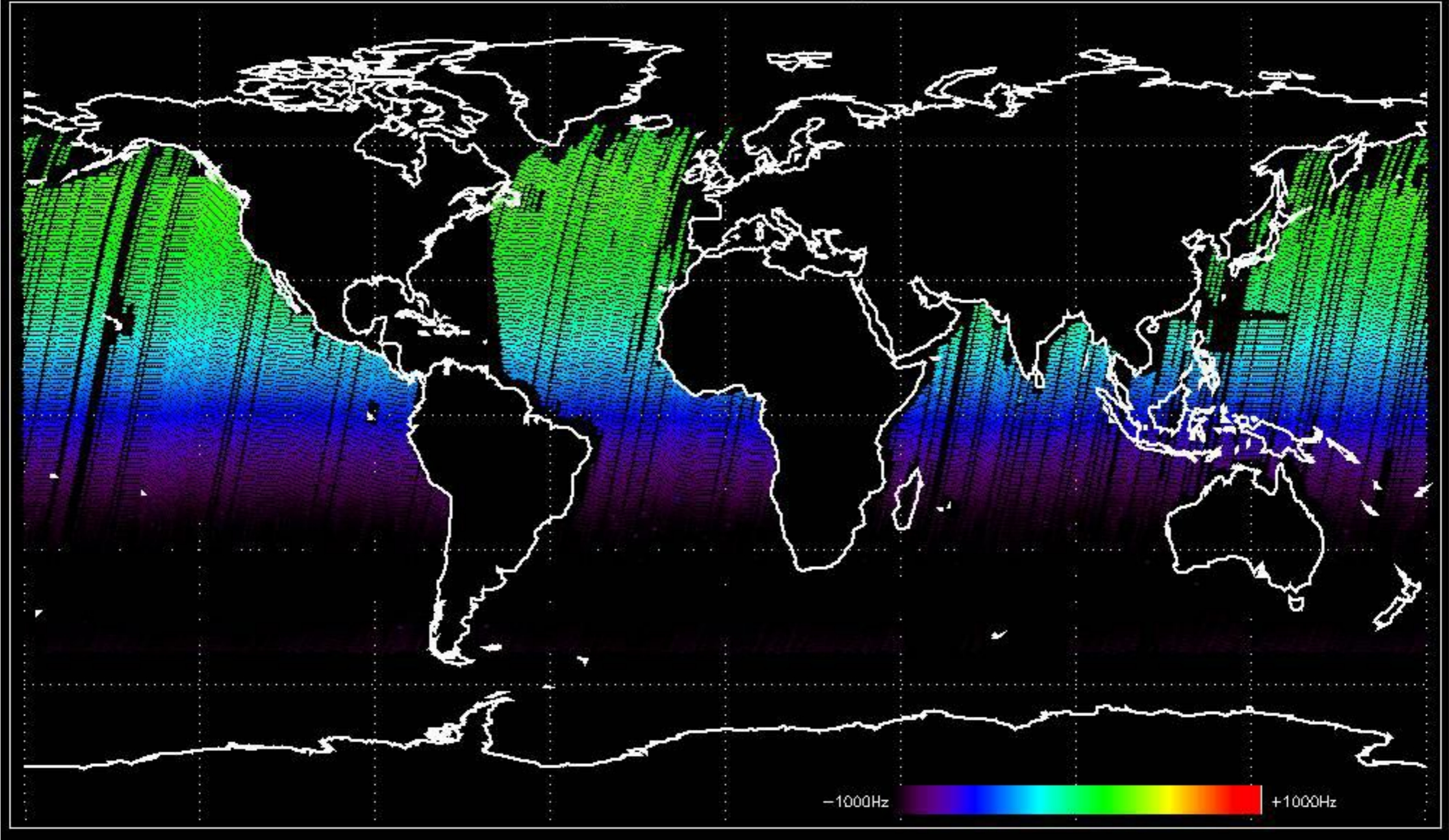
Doppler 'GM1' 'SS1' descending



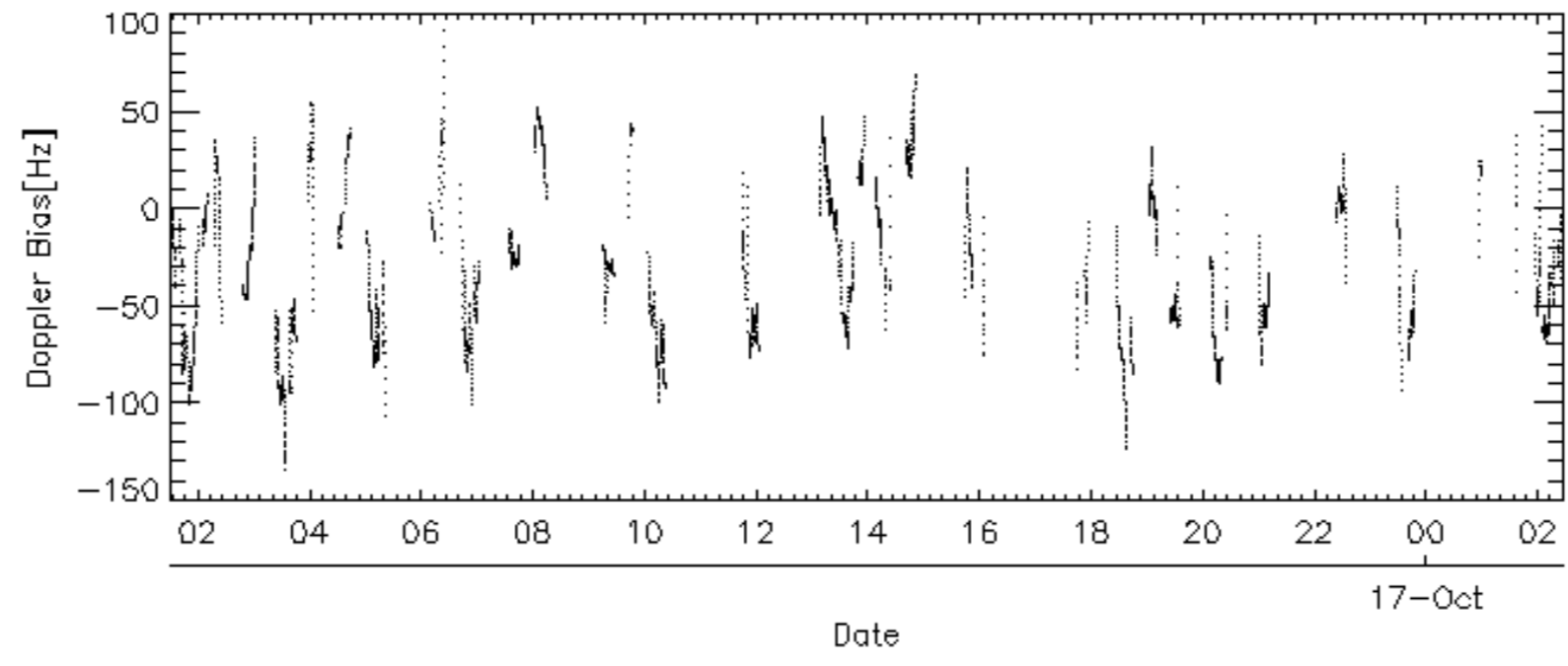
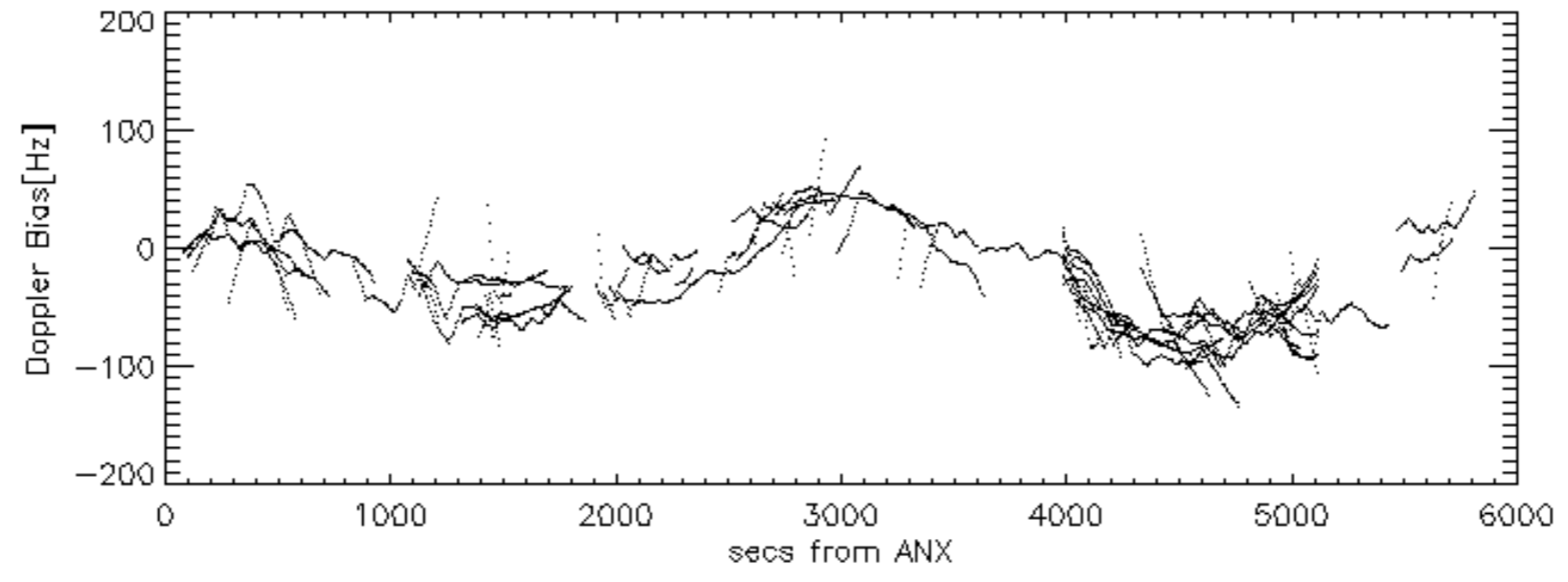
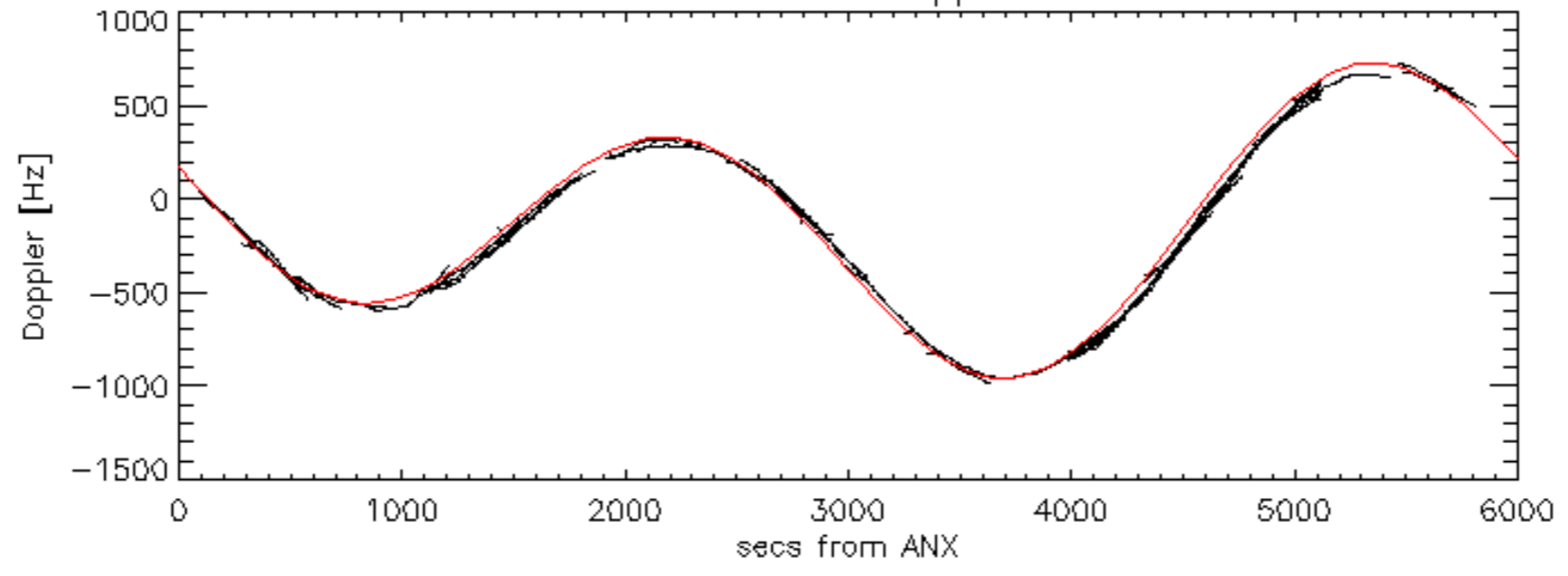
Doppler 'WVS' 'IS2' ascending

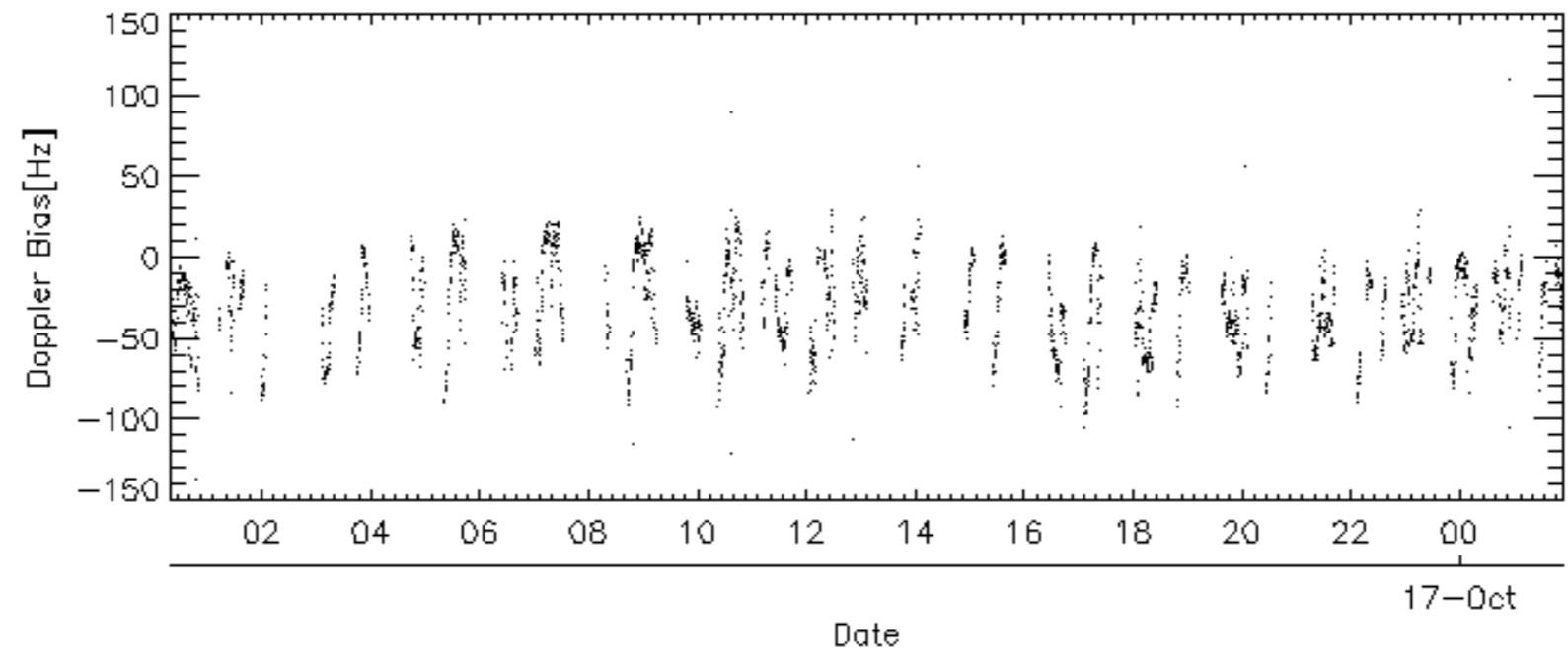
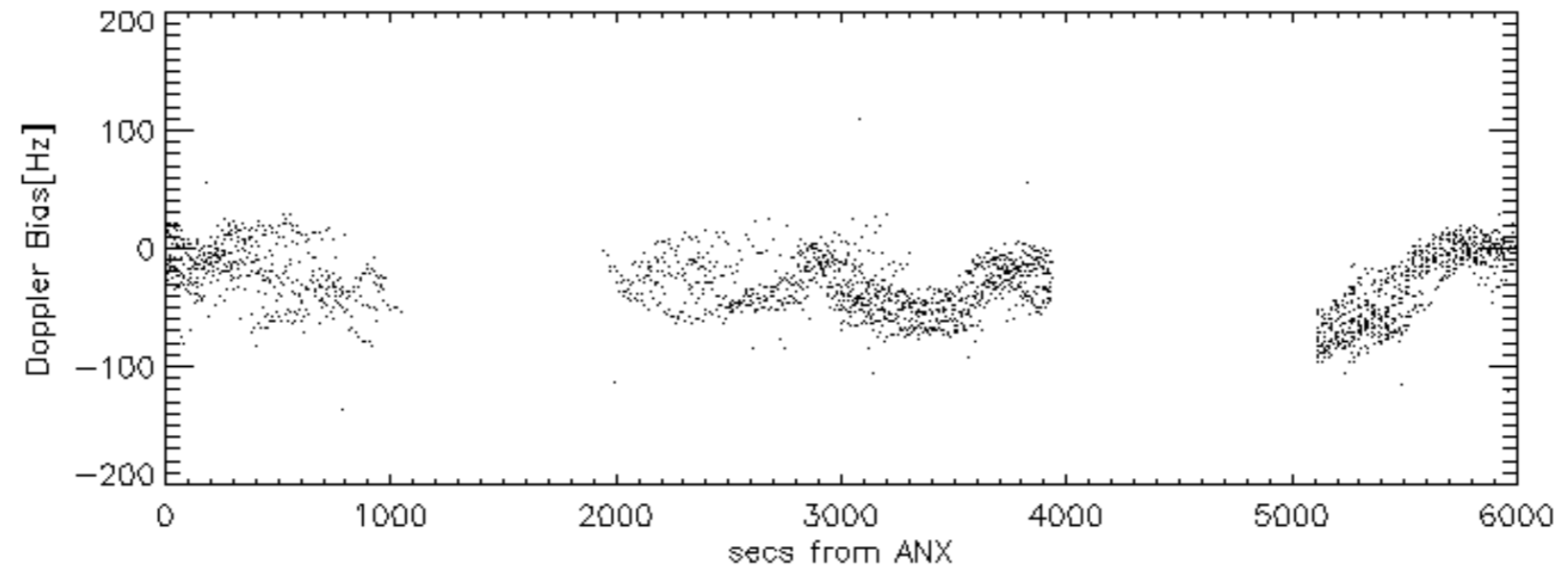
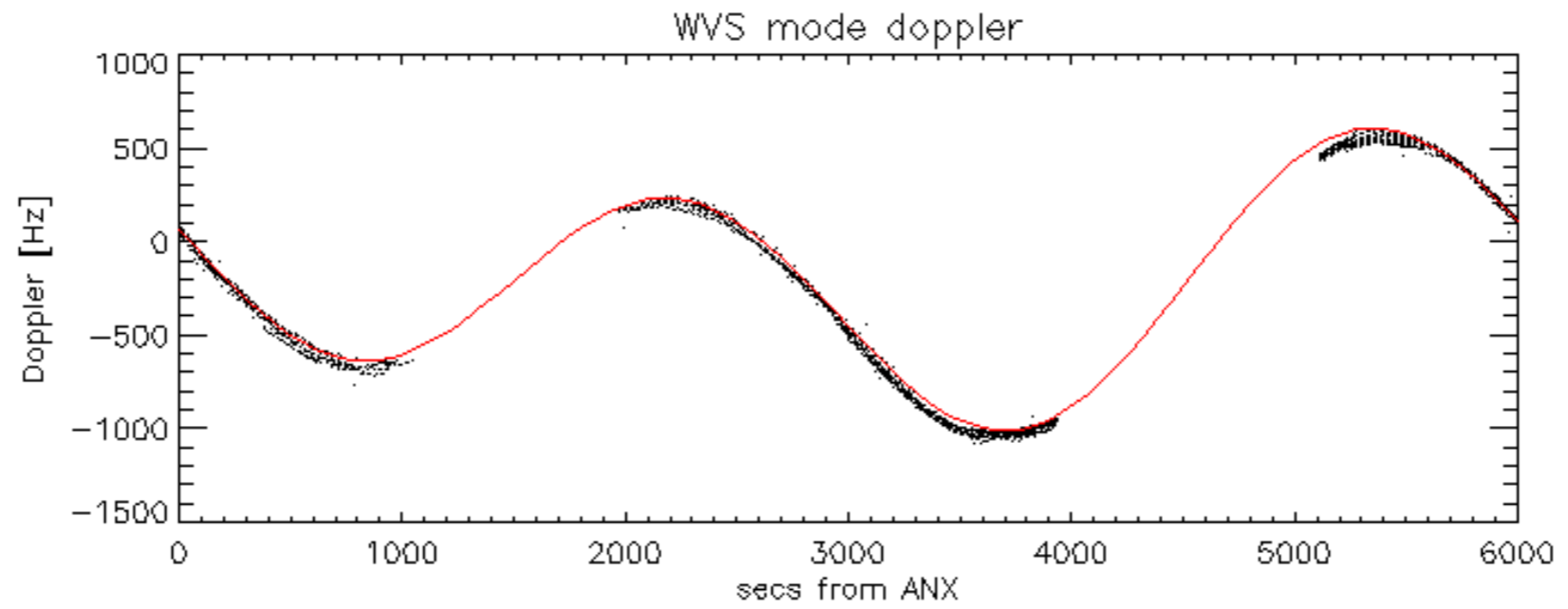


Doppler 'WVS' 'IS2' descending

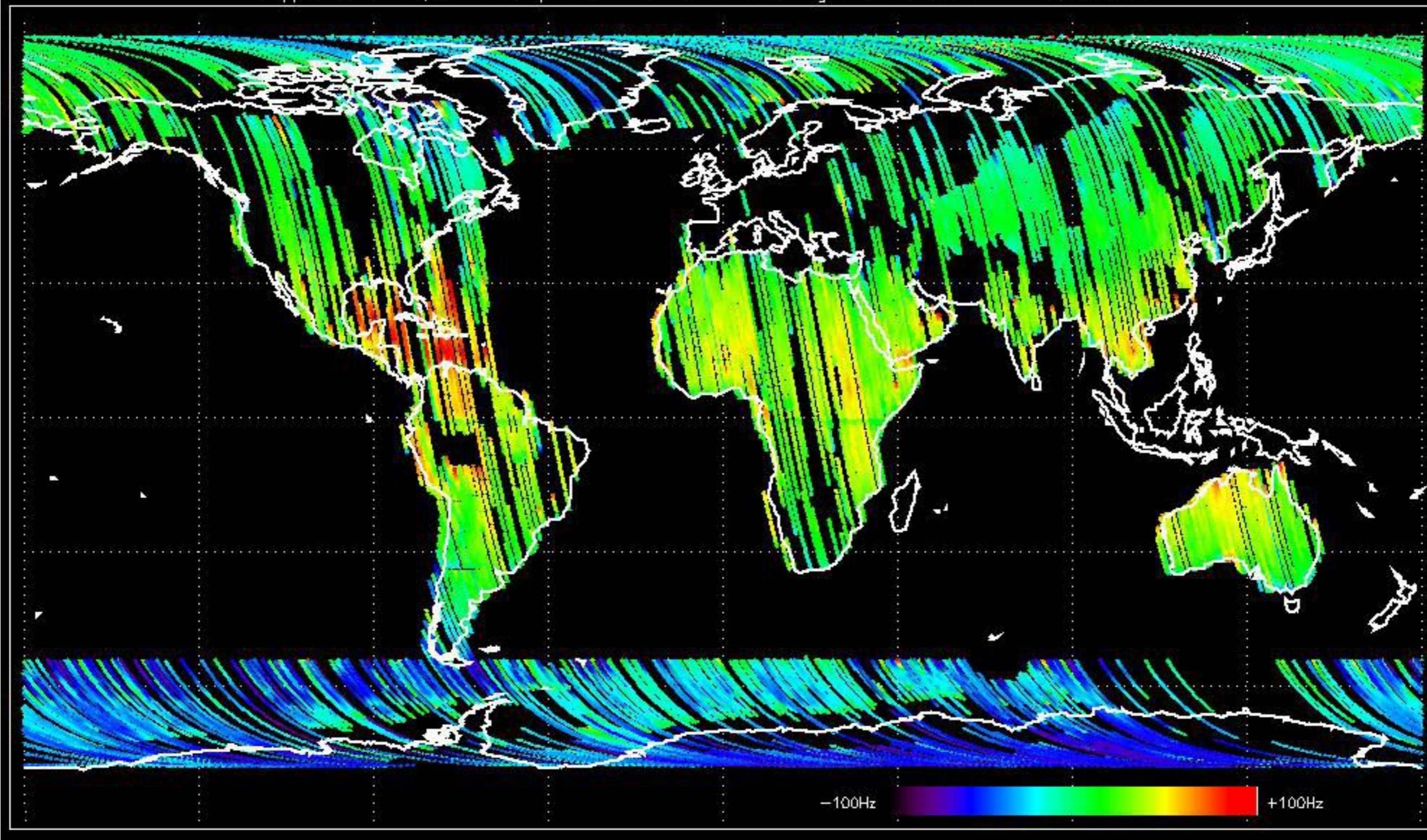


GM1 mode doppler

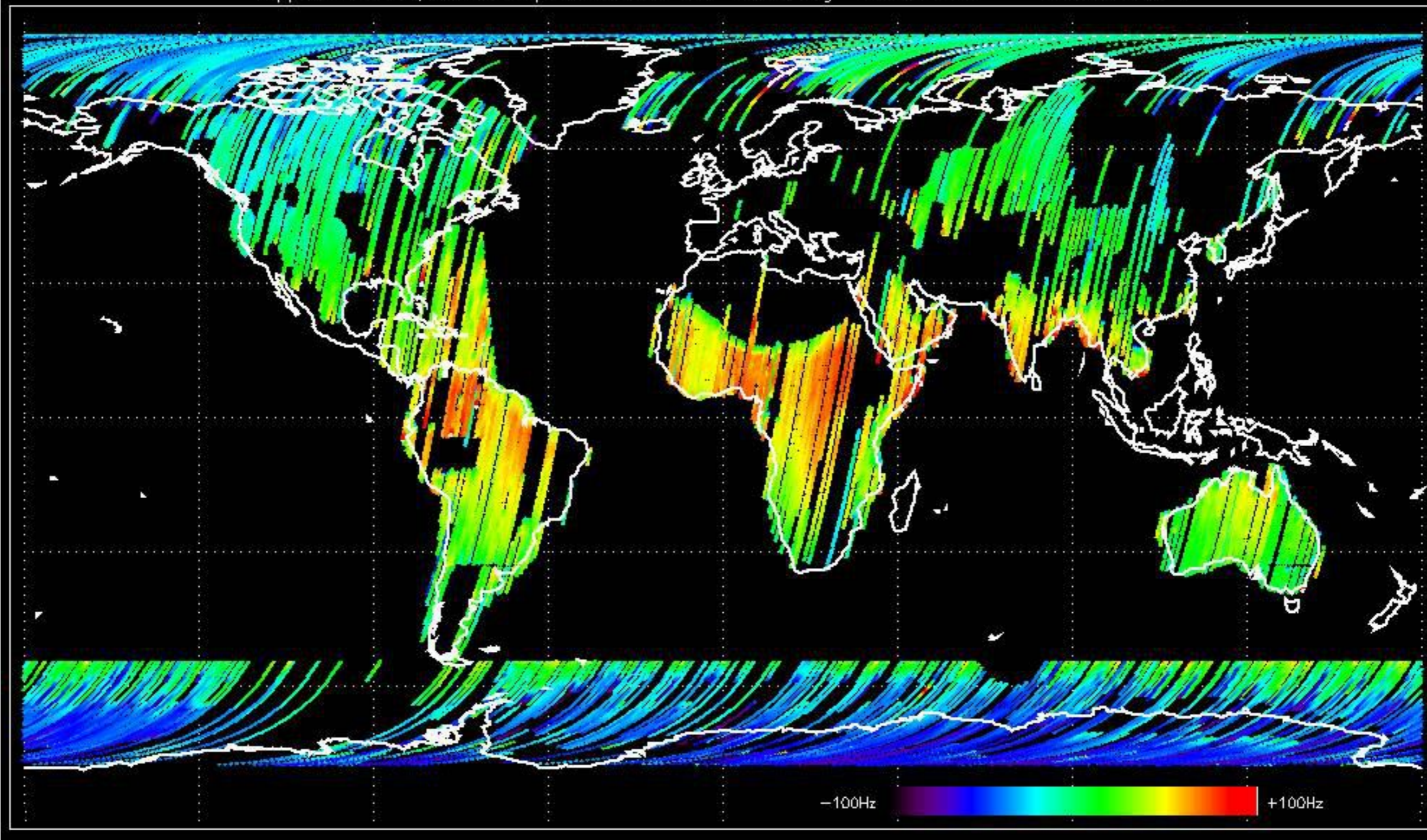




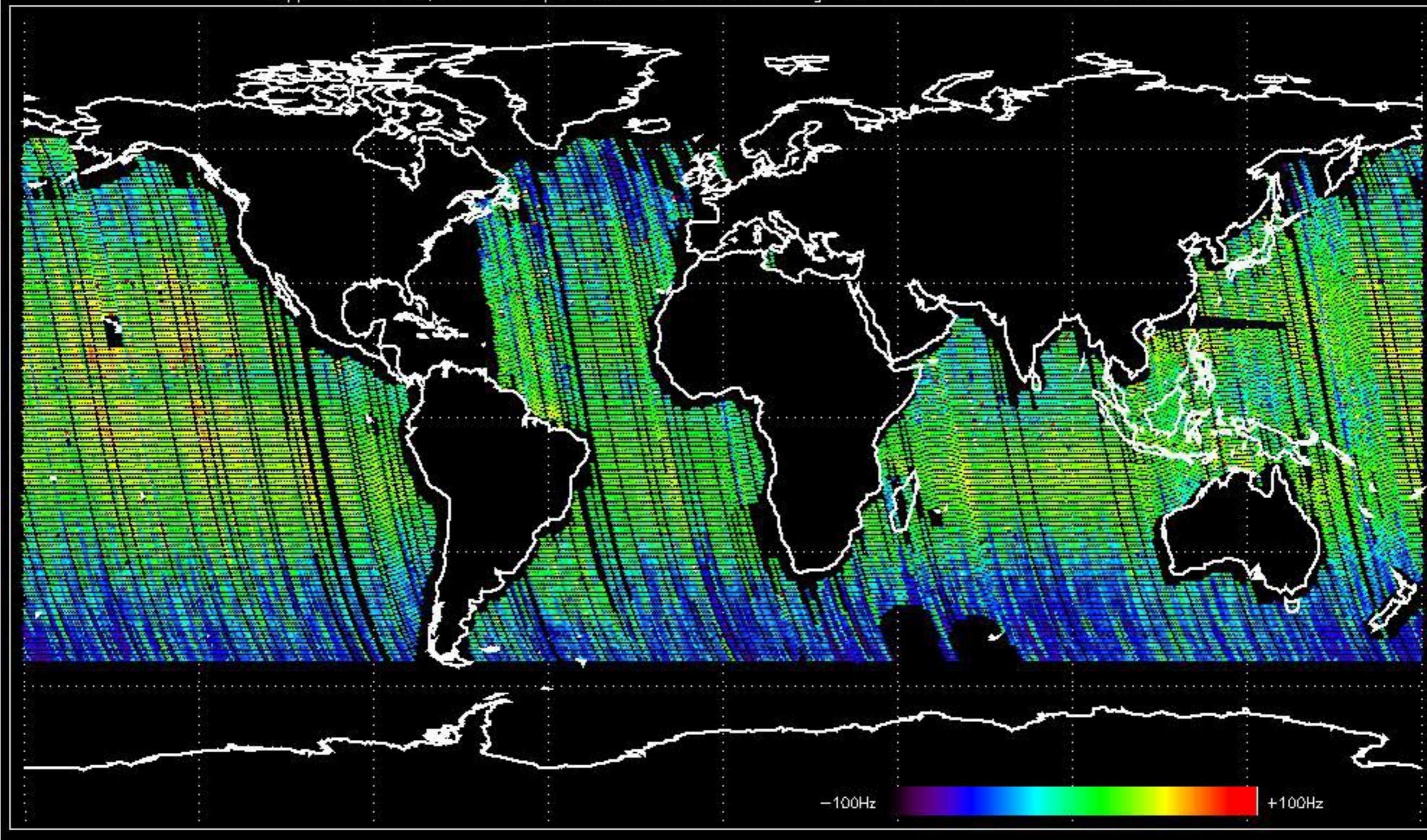
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -30.703366 Hz



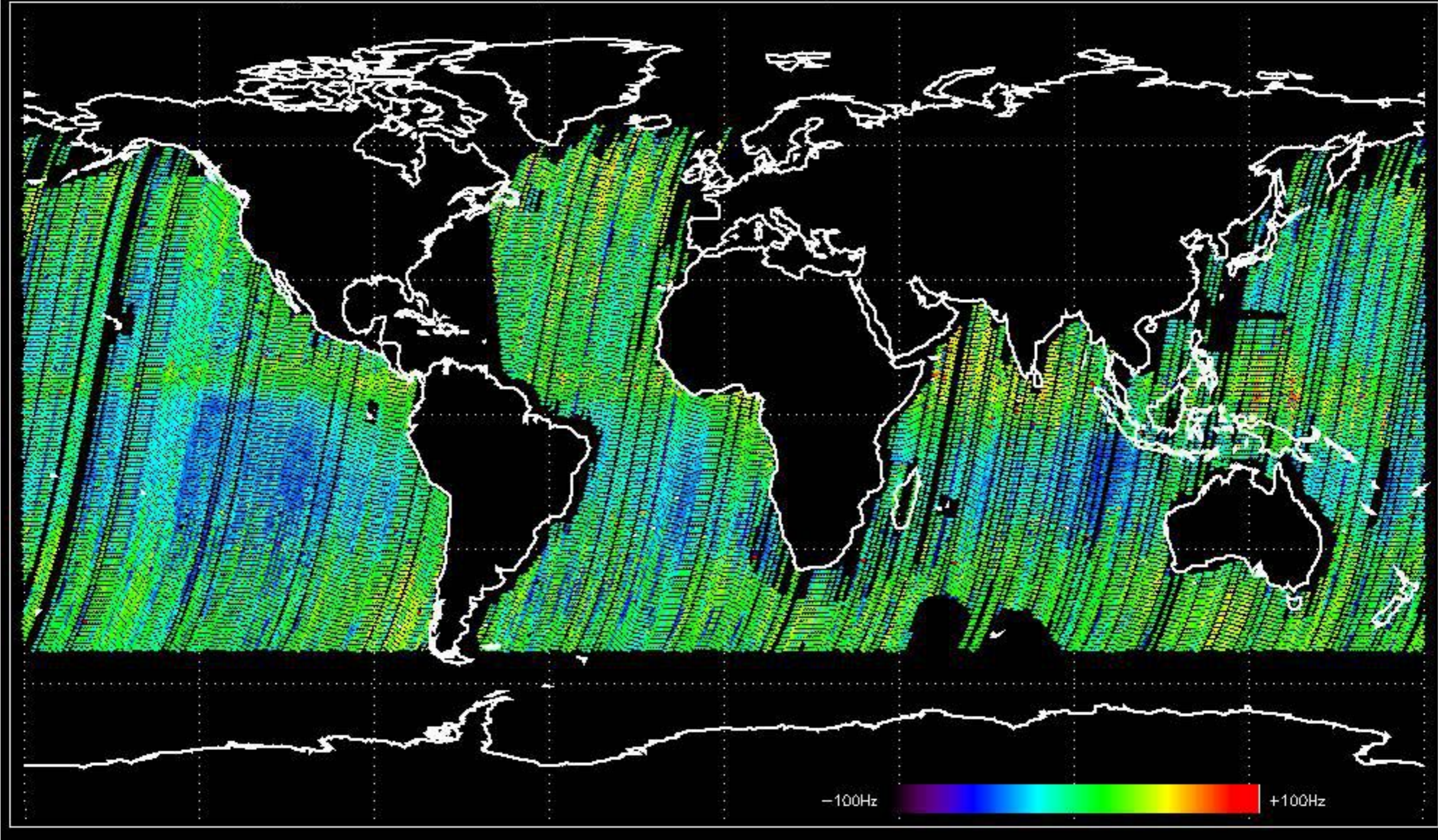
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -23.517918 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -29.998271 Hz

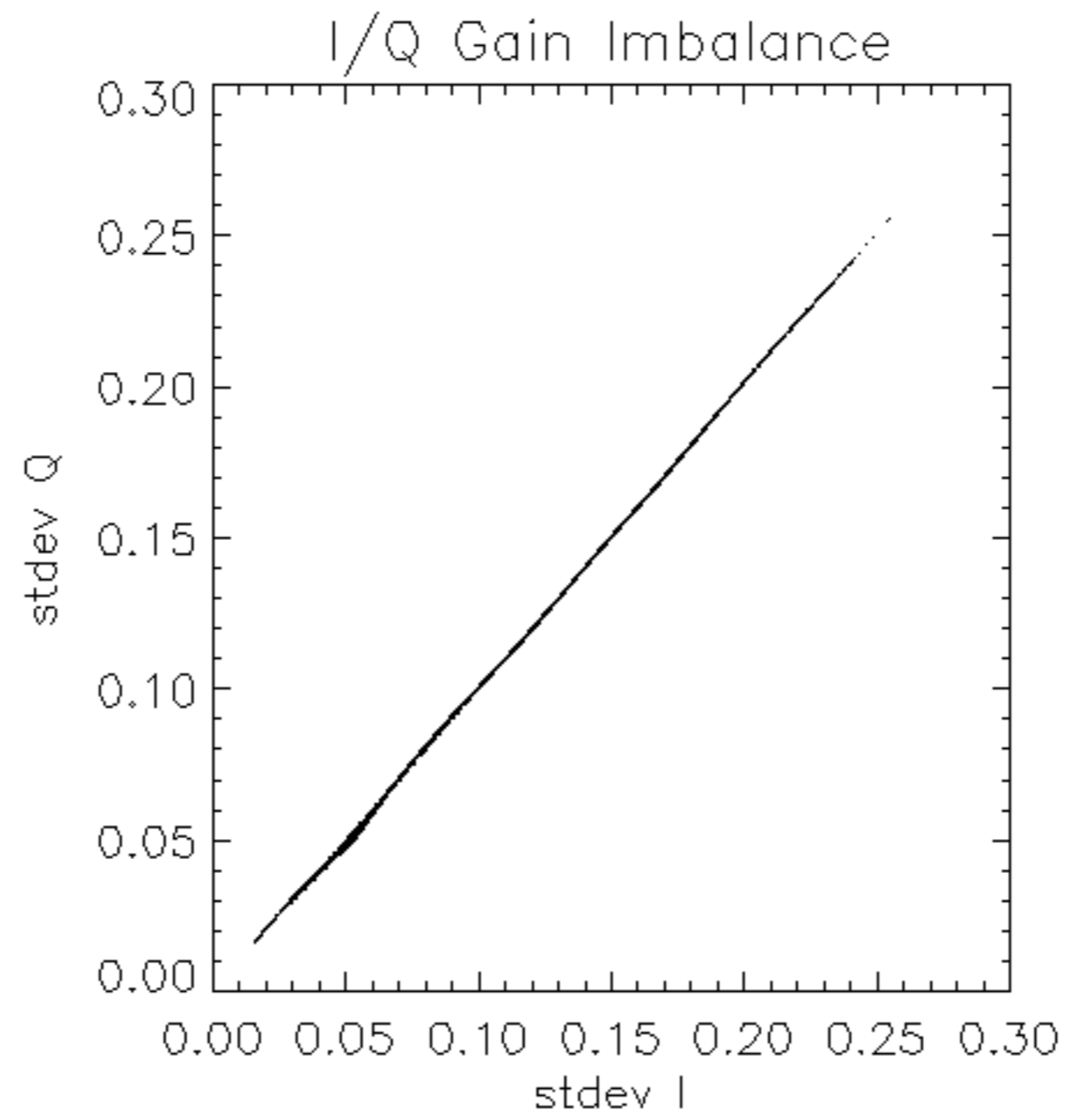


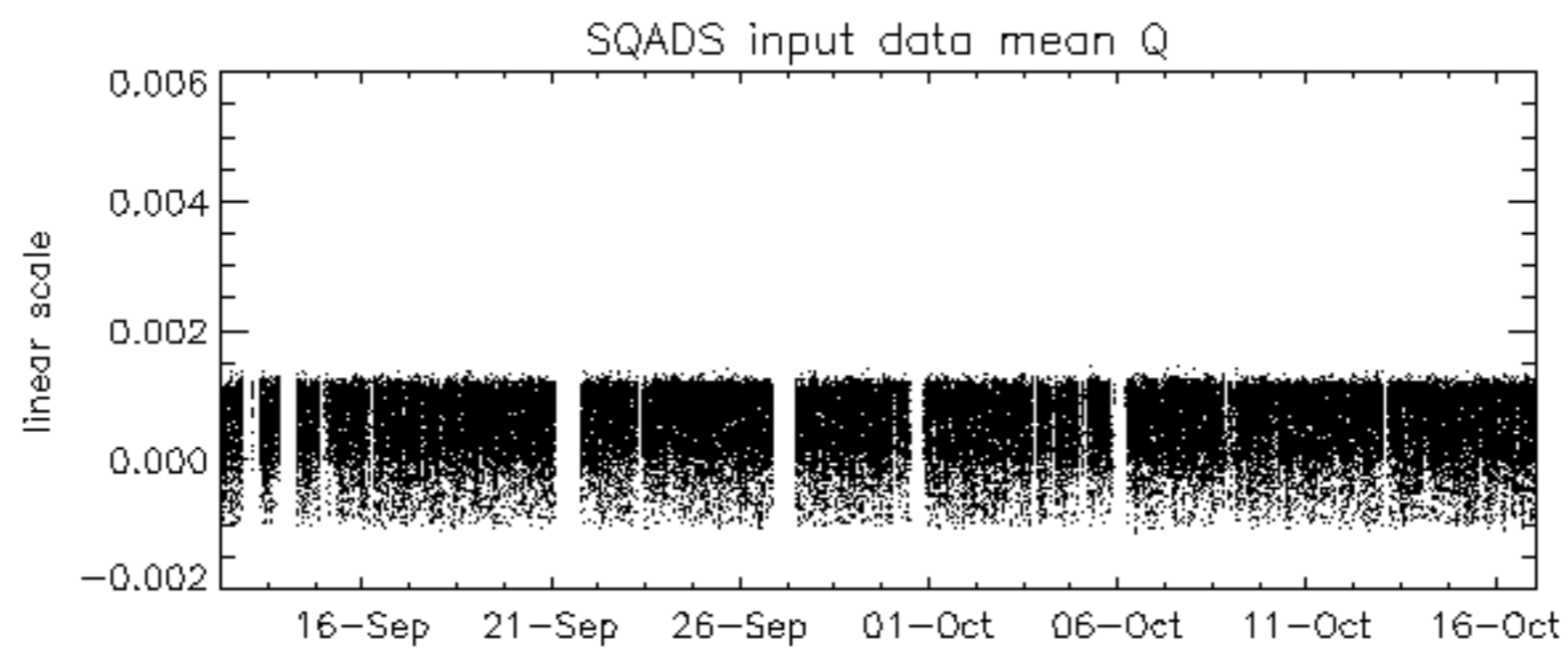
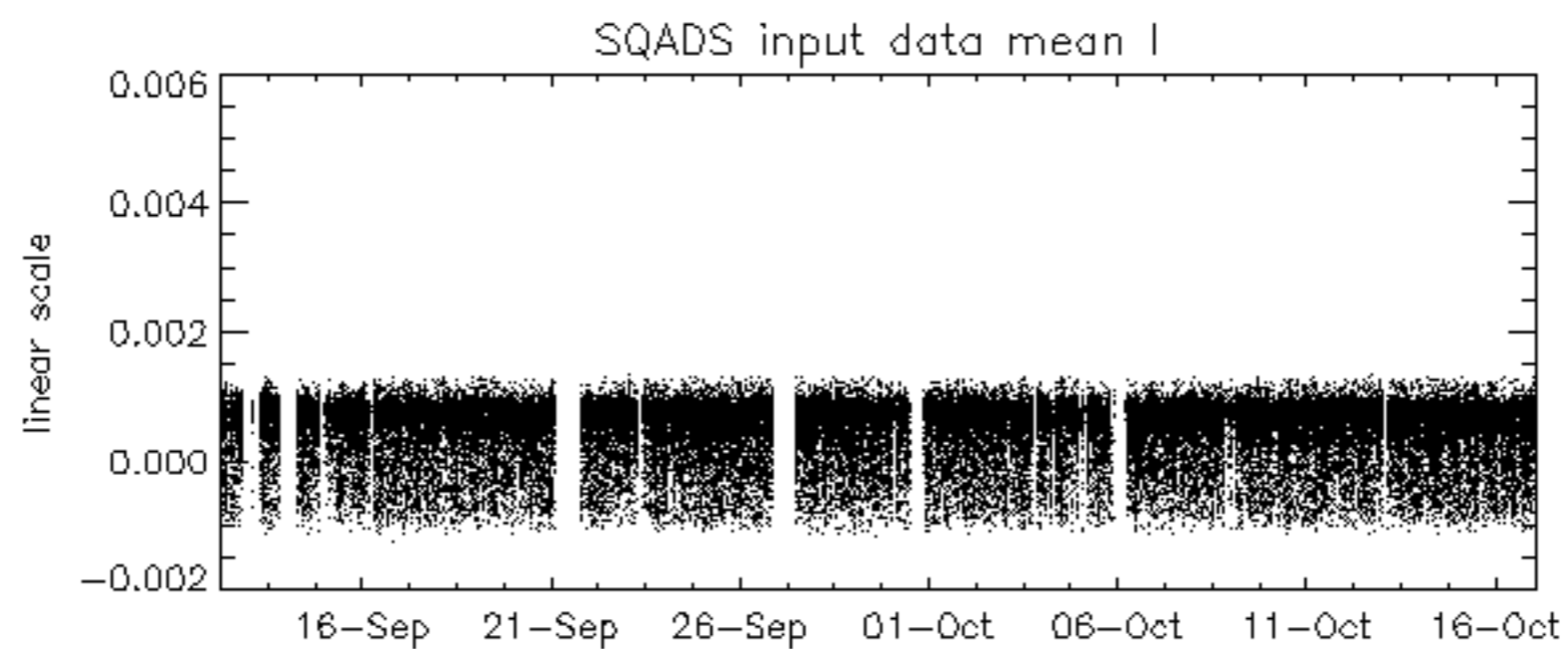
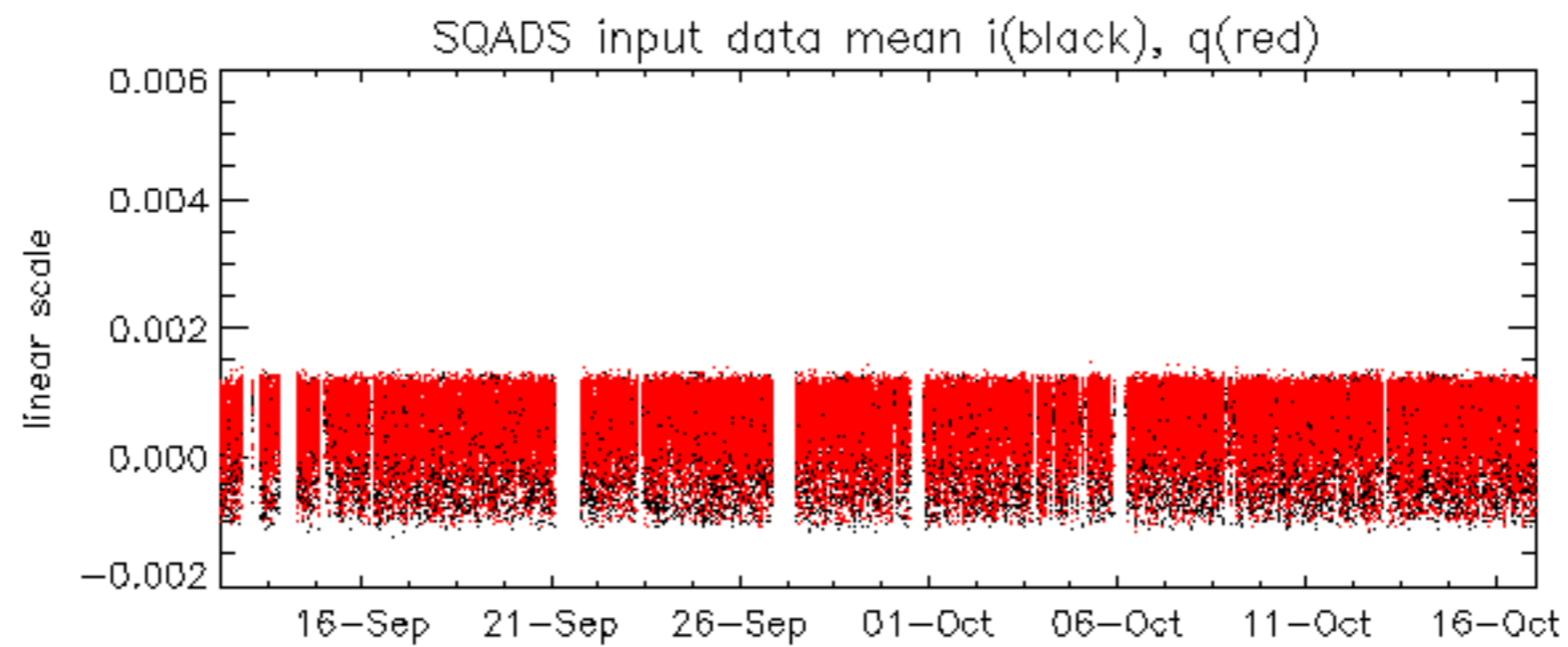
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -33.404981 Hz

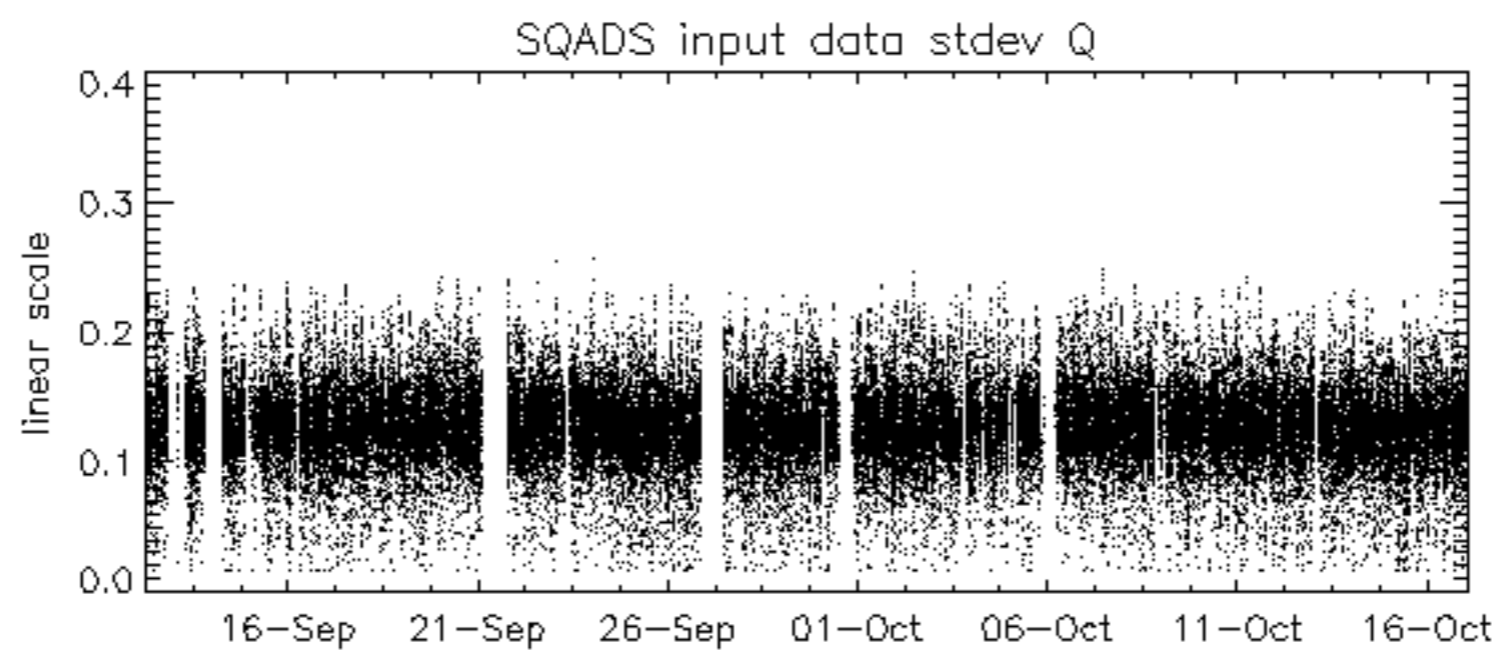
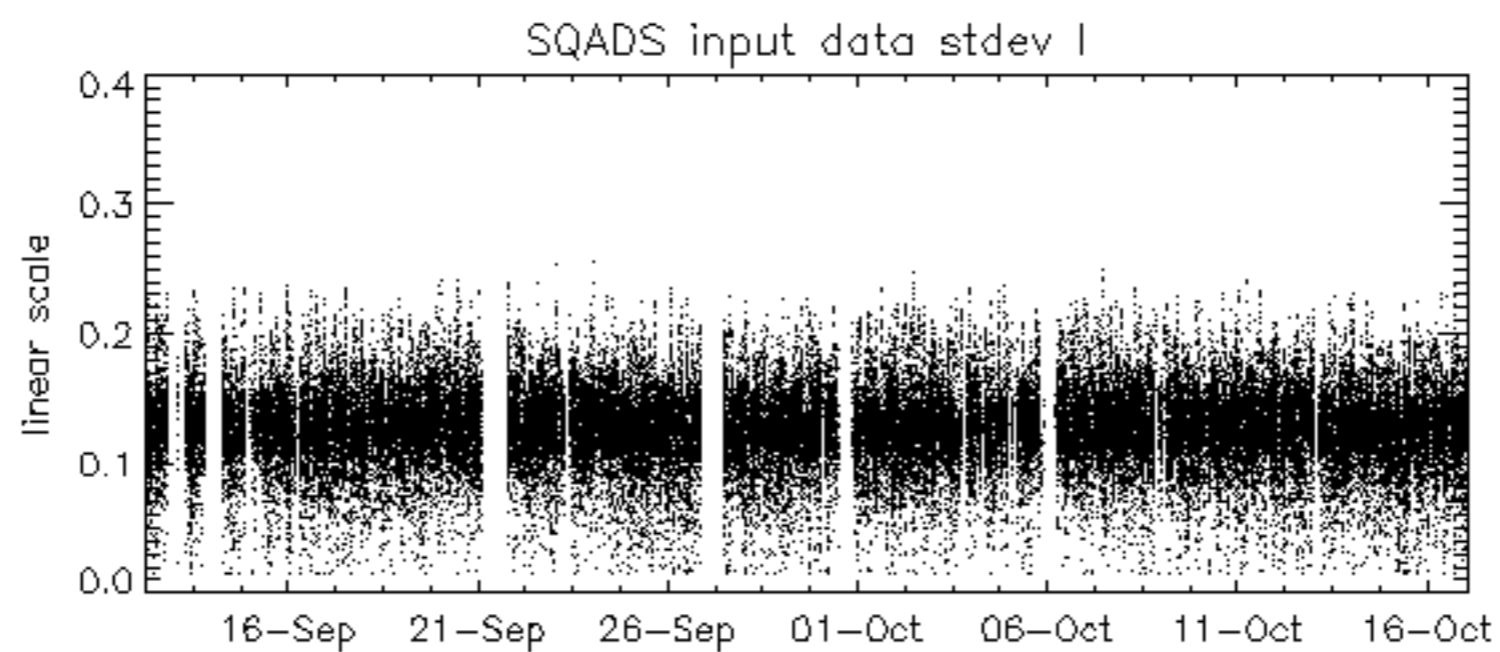
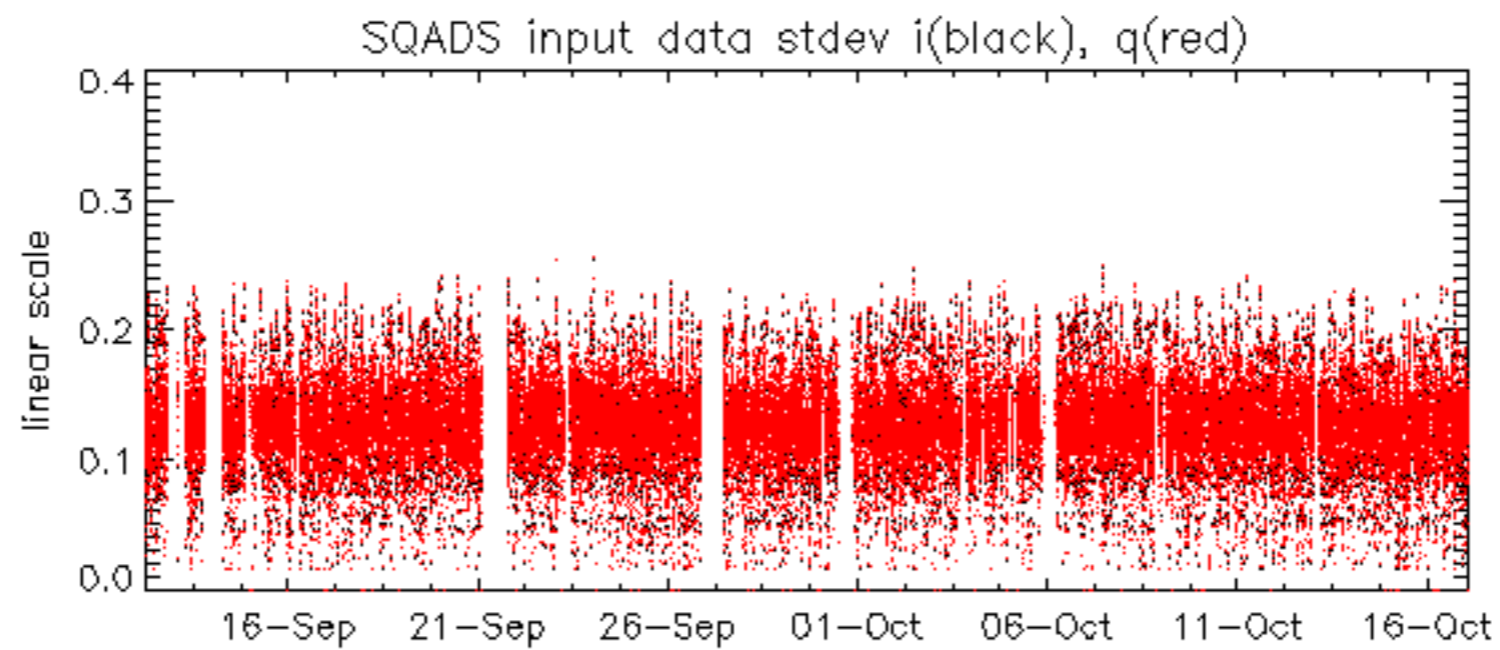


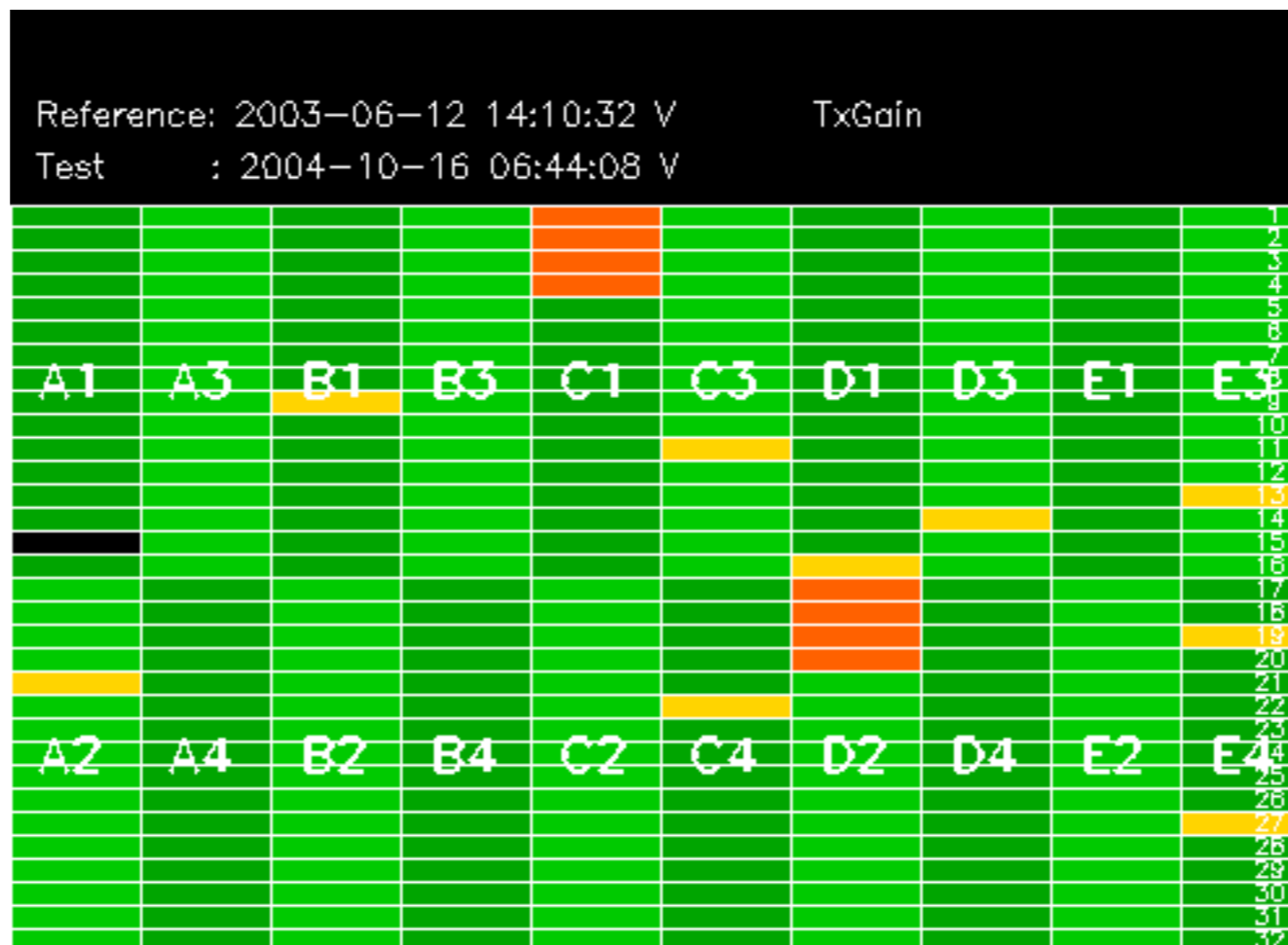
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to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

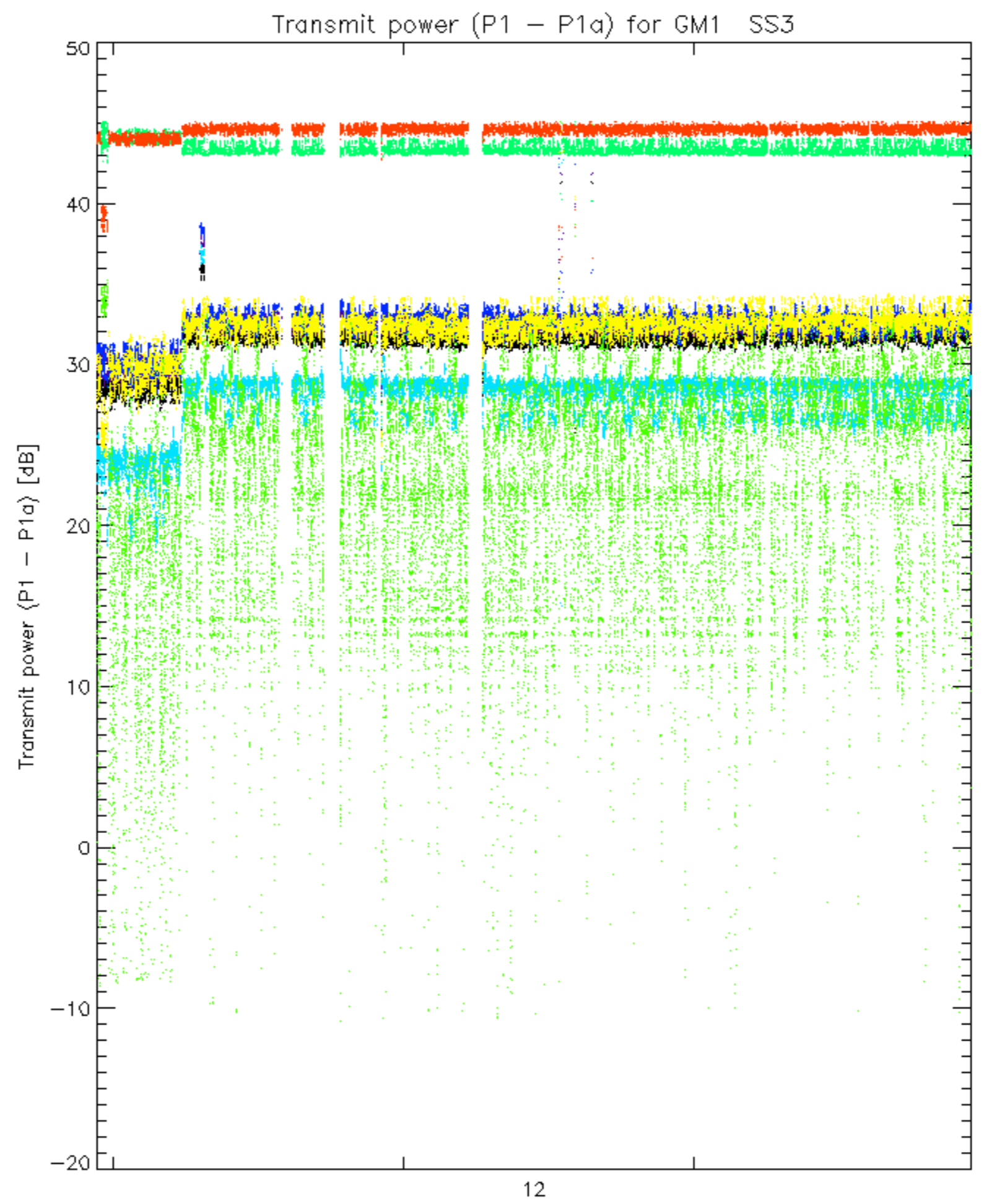
No anomalies observed.

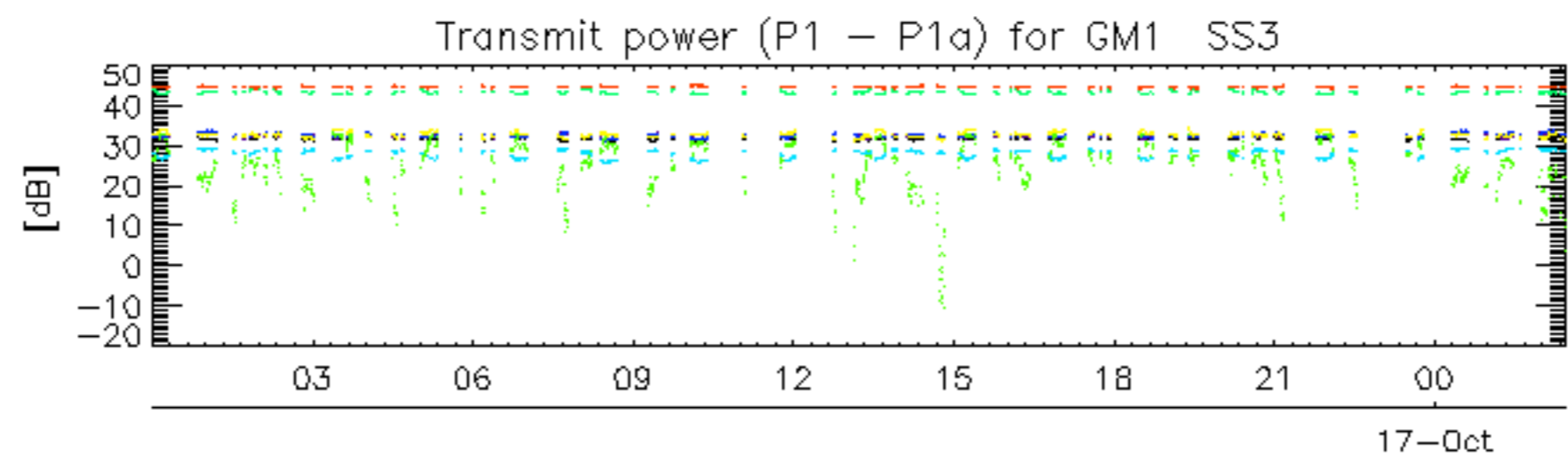




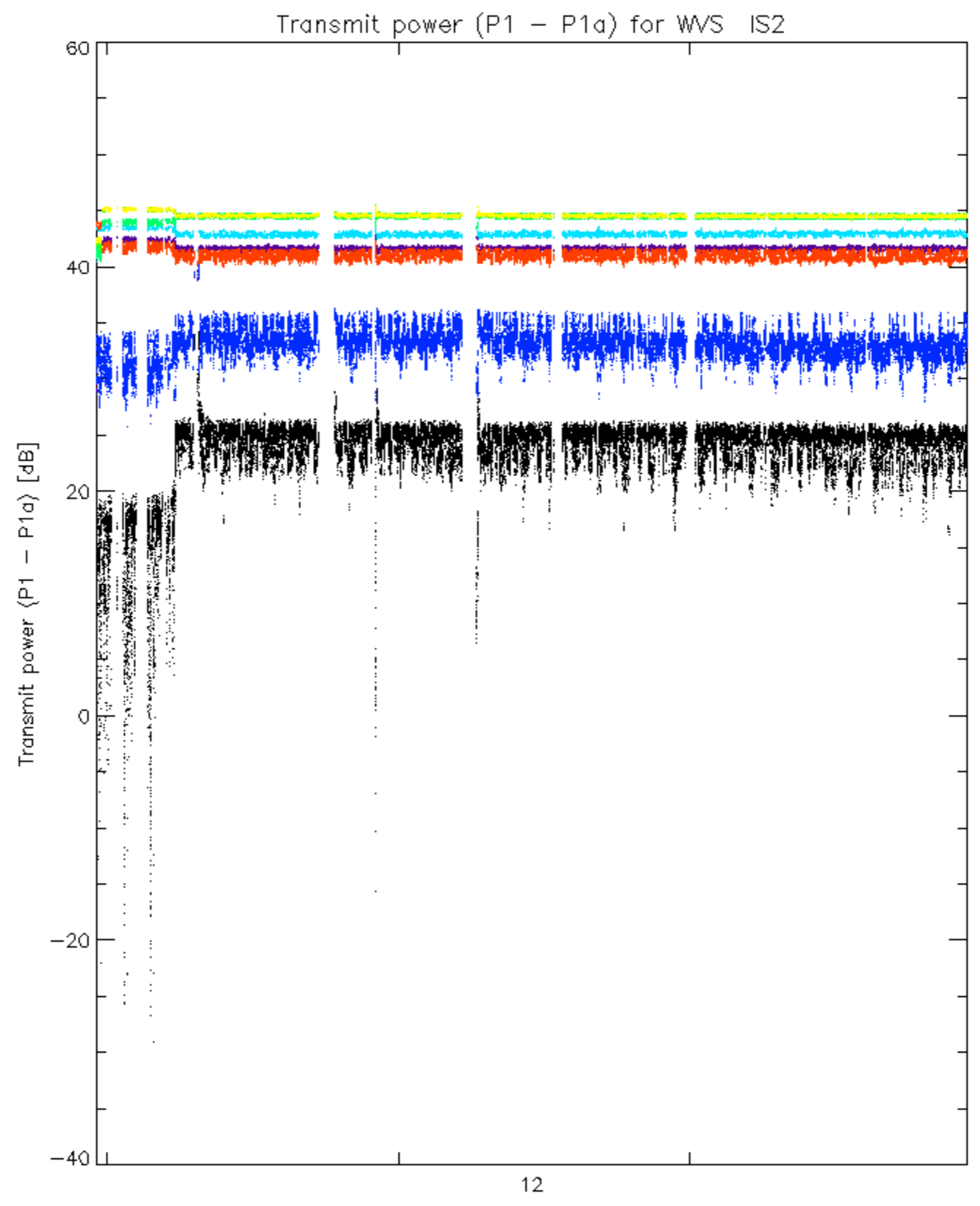


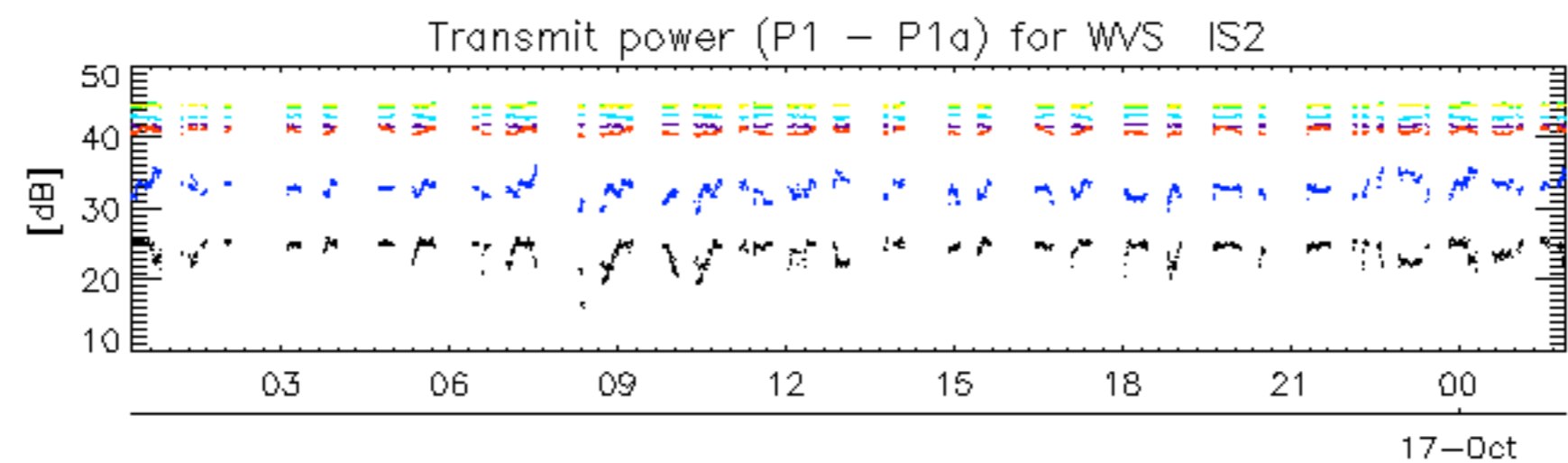






rows: **3** **7** **11** **15** **19** **22** **24** **30**





rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

No unavailabilities during the reported period.