

PRELIMINARY REPORT OF 041127

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

last update on Sat Nov 27 10:55:01 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	20041126 033424
H	20041125 040601

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	-3.466948	0.006614	0.039235
7	P1	-3.284618	0.028532	0.324536
11	P1	-4.605783	0.017259	-0.004514
15	P1	-5.661486	0.029387	0.024343
19	P1	-3.607202	0.005385	-0.047483
22	P1	-4.579247	0.015837	0.011637
26	P1	-4.875227	0.061460	-0.083513

30	P1	-7.078129	0.014592	-0.029197
3	P1	-16.006615	0.109179	0.113695
7	P1	-14.453733	0.512154	-1.742392
11	P1	-20.671274	0.209534	-0.152570
15	P1	-11.665905	0.037514	0.079561
19	P1	-14.076459	0.029266	-0.088750
22	P1	-16.188860	0.419382	0.125152
26	P1	-17.698927	0.724117	-0.171924
30	P1	-17.958933	0.280496	0.106486

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.372608	0.088502	0.016028
7	P2	-22.611408	0.138124	-0.013863
11	P2	-15.047403	0.129701	0.102572
15	P2	-7.152580	0.110393	-0.025072
19	P2	-9.711986	0.133542	0.014174
22	P2	-17.234383	0.103358	0.069248
26	P2	-16.509157	0.112172	-0.001610
30	P2	-19.043577	0.084518	0.046547

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.202614	0.006512	-0.001576
7	P3	-8.202615	0.006512	-0.001570
11	P3	-8.202612	0.006512	-0.001573
15	P3	-8.202613	0.006512	-0.001575
19	P3	-8.202611	0.006512	-0.001576
22	P3	-8.202611	0.006512	-0.001580
26	P3	-8.202610	0.006512	-0.001584
30	P3	-8.202624	0.006515	-0.002409

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	-2.804602	0.010995	0.000429
7	P1	-2.951875	0.021939	-0.012516
11	P1	-3.904018	0.022657	-0.024972
15	P1	-3.489033	0.027321	0.002464
19	P1	-3.590096	0.012299	-0.001953
22	P1	-5.611107	0.066865	0.028774
26	P1	-6.428010	0.084462	-0.146403
30	P1	-6.270627	0.040818	-0.033063
3	P1	-10.599337	0.051487	0.003137
7	P1	-10.082188	0.132925	-0.065097
11	P1	-12.379160	0.115411	-0.085137
15	P1	-11.719375	0.063824	-0.061859
19	P1	-15.618785	0.052718	-0.001331
22	P1	-23.973469	2.036024	-0.203332
26	P1	-15.108709	0.464965	-0.031462
30	P1	-20.236996	0.994428	0.165465

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.058725	0.040108	0.019675
7	P2	-22.672579	0.030589	0.012326
11	P2	-10.840411	0.035818	0.112512
15	P2	-5.051150	0.027768	-0.026318
19	P2	-6.958806	0.035163	-0.025617
22	P2	-7.354717	0.028862	0.057534
26	P2	-23.943026	0.022148	-0.025429
30	P2	-22.087559	0.018895	0.024895

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-8.042921	0.003249	0.003204
7	P3	-8.042892	0.003261	0.002926
11	P3	-8.042963	0.003260	0.002803
15	P3	-8.042796	0.003260	0.003298
19	P3	-8.042990	0.003259	0.002806
22	P3	-8.043037	0.003257	0.003175
26	P3	-8.042961	0.003248	0.002761
30	P3	-8.042917	0.003256	0.003378

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	0.000452431
	stdev	2.30887e-07
MEAN Q	mean	0.000517120
	stdev	2.47365e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125632
	stdev	0.000979258

STDEV Q	mean	0.125858
	stdev	0.000987633



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

6.2 - Absolute Doppler for WVS

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

6.3 - Doppler evolution versus ANX for WVS

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

6.4 - Unbiased Doppler Error for GM1

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

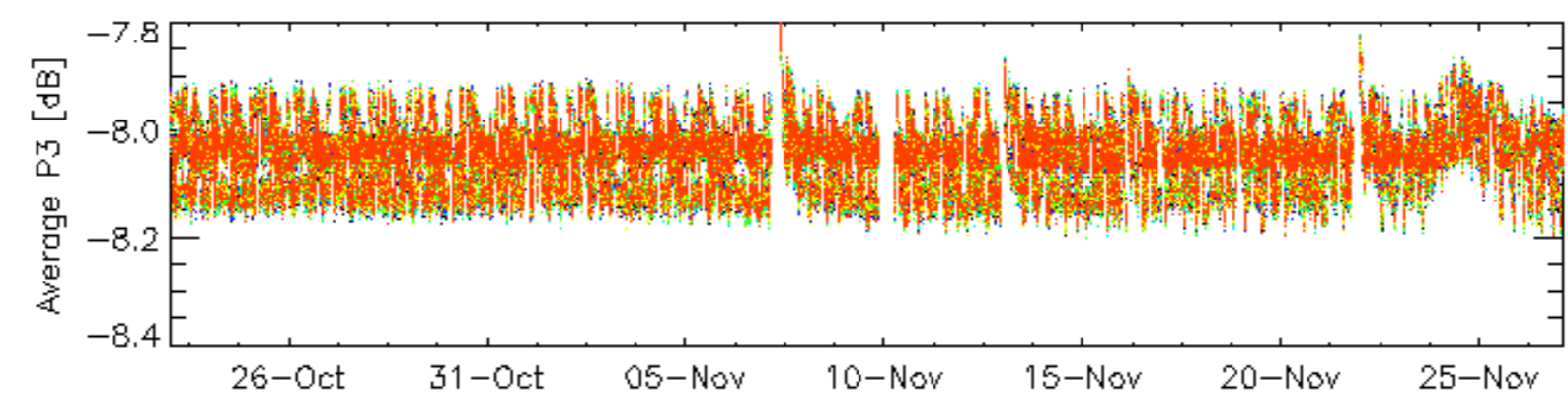
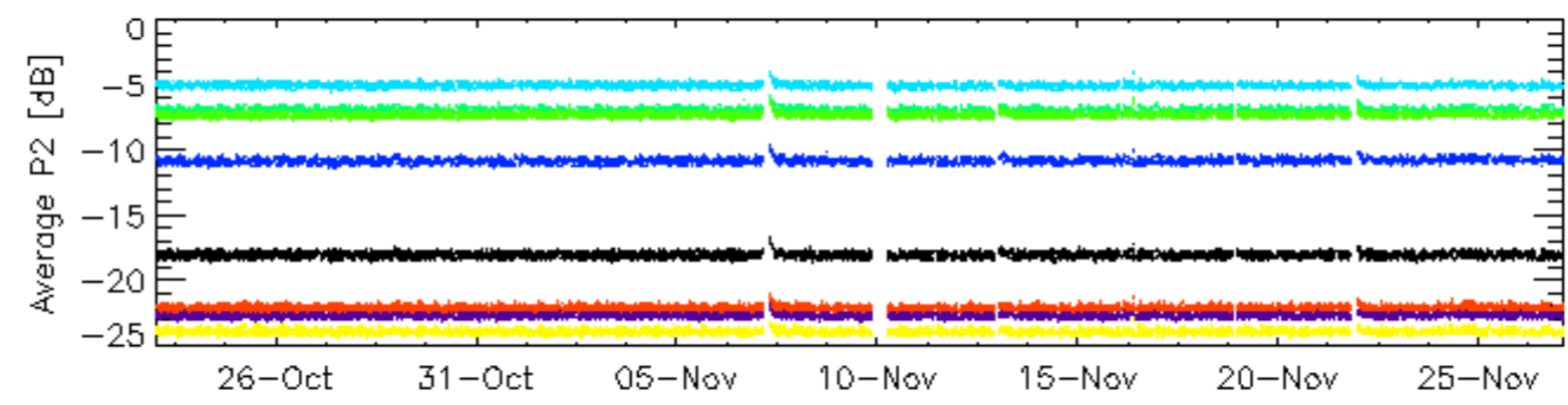
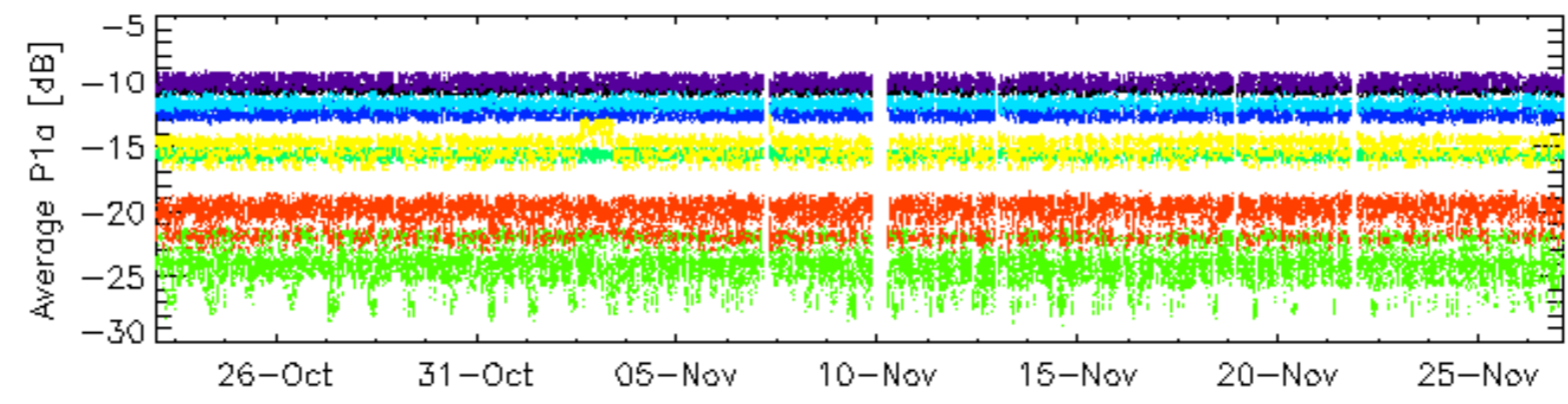
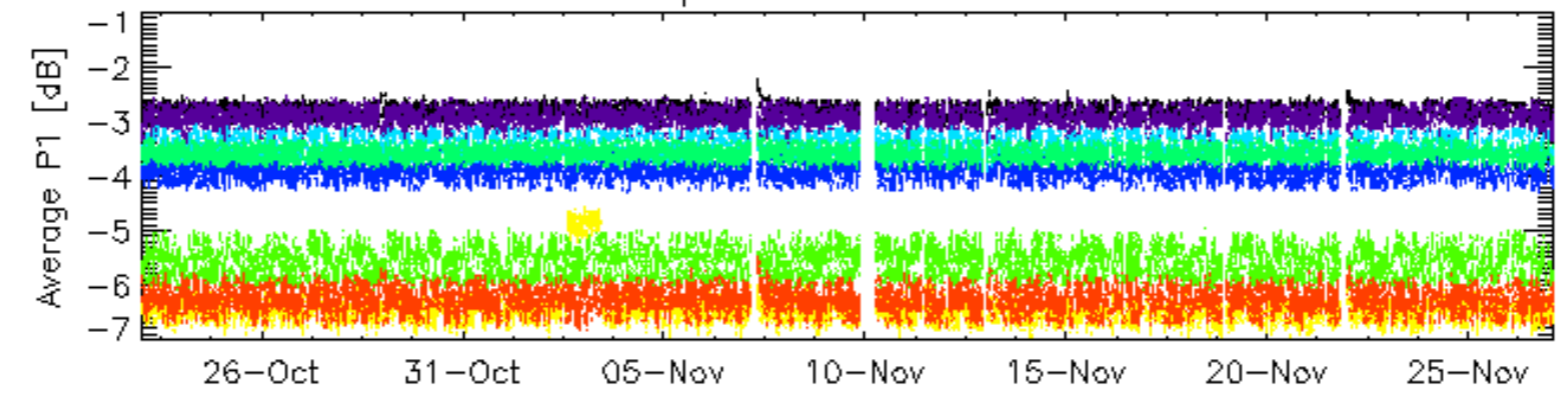
6.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler	
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	Ascending
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	Descending

6.6 - Doppler evolution versus ANX for GM1

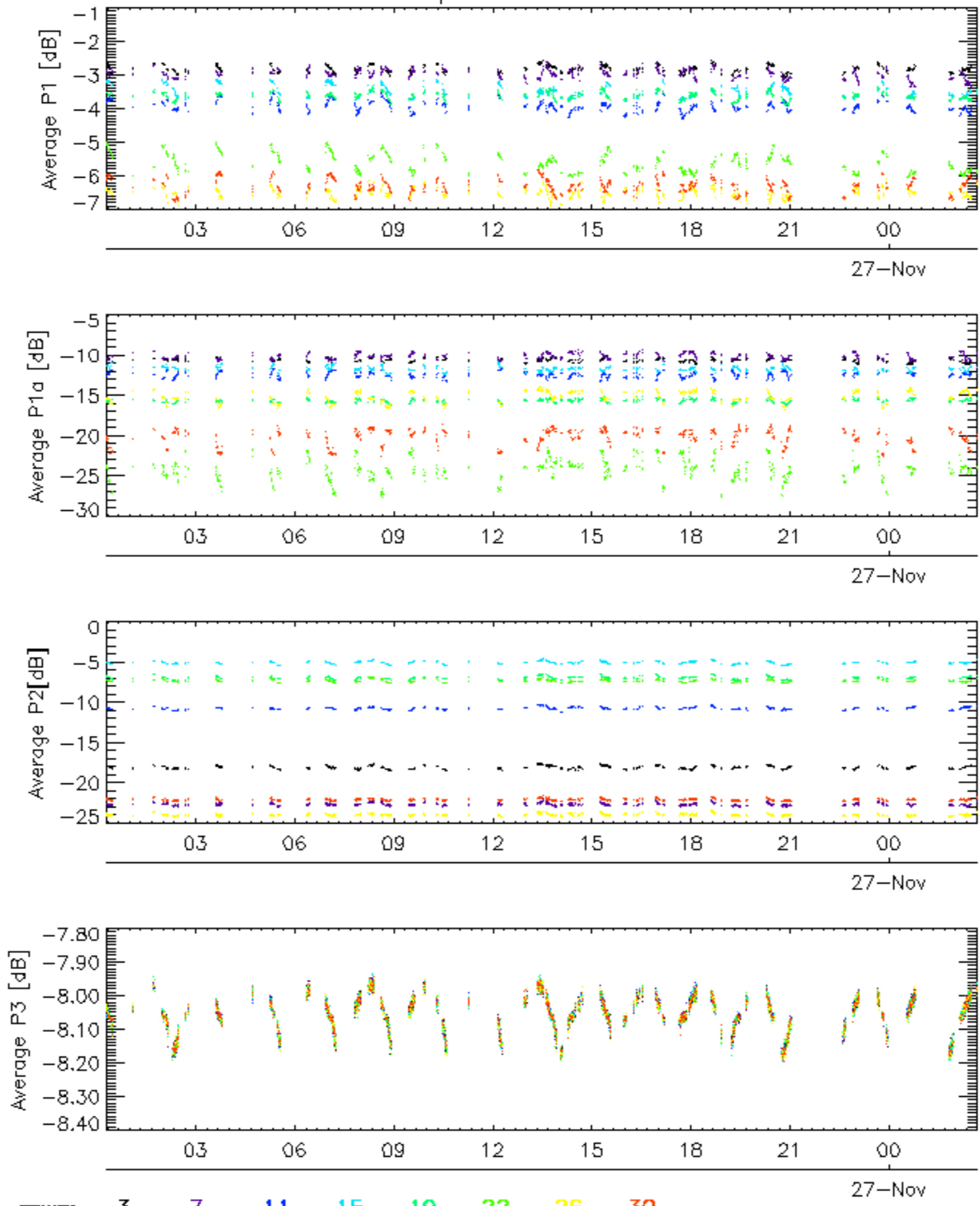
Evolution Doppler error versus ANX	
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Cal pulses for GM1 SS3

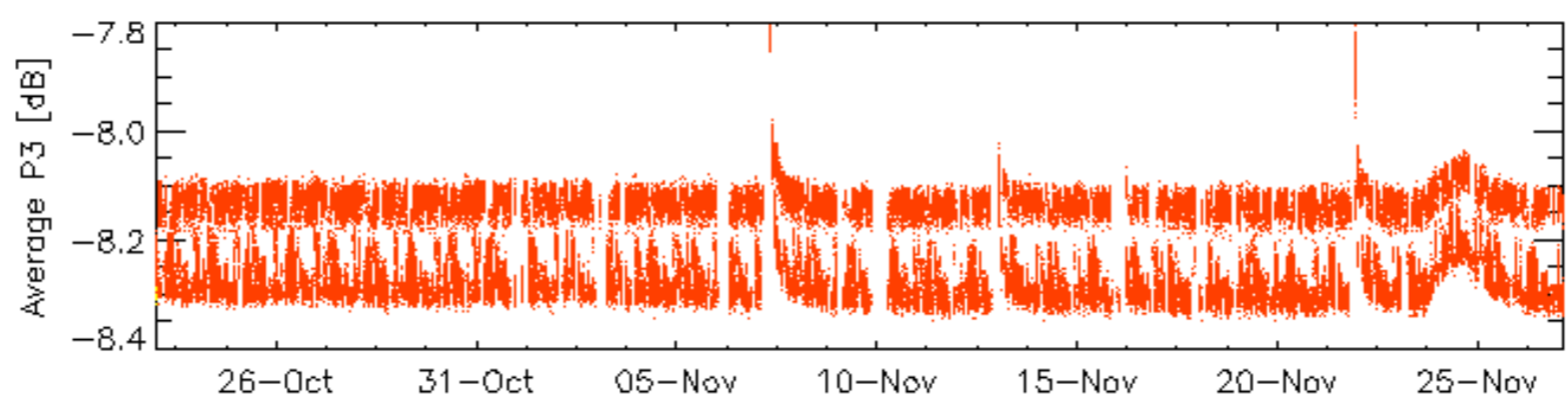
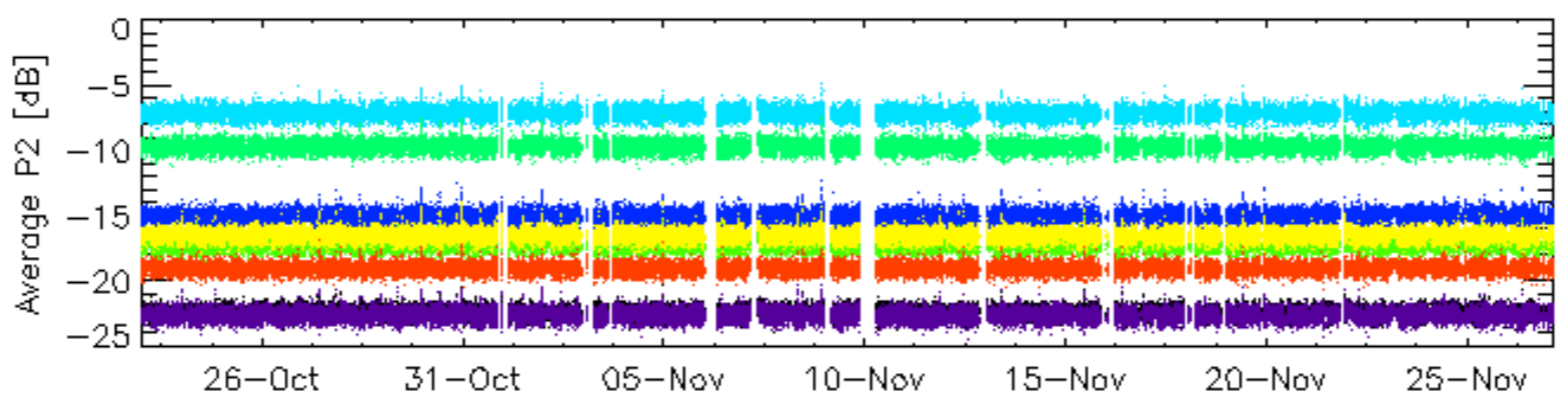
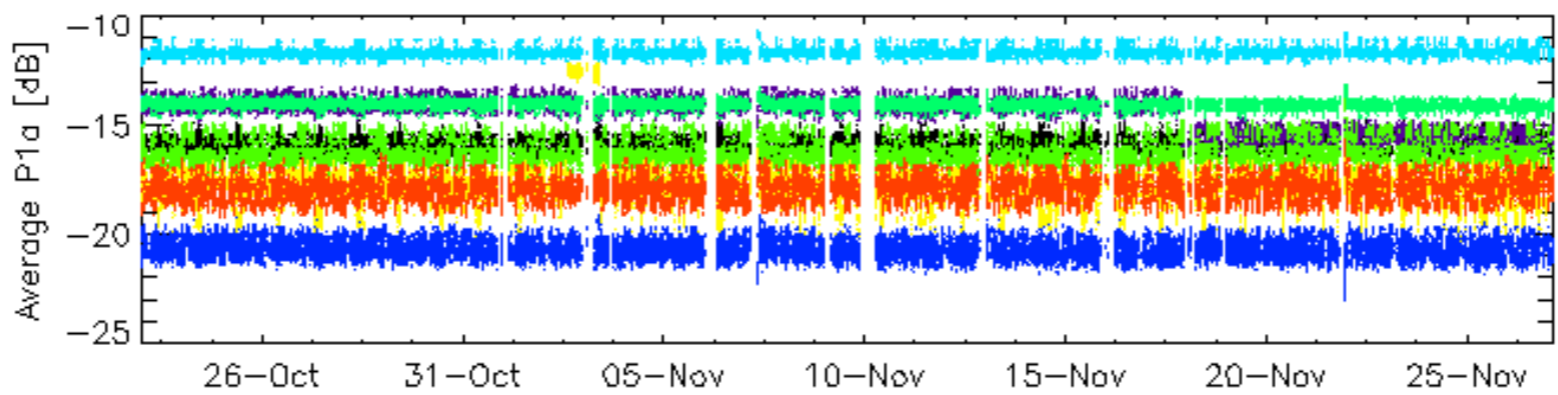
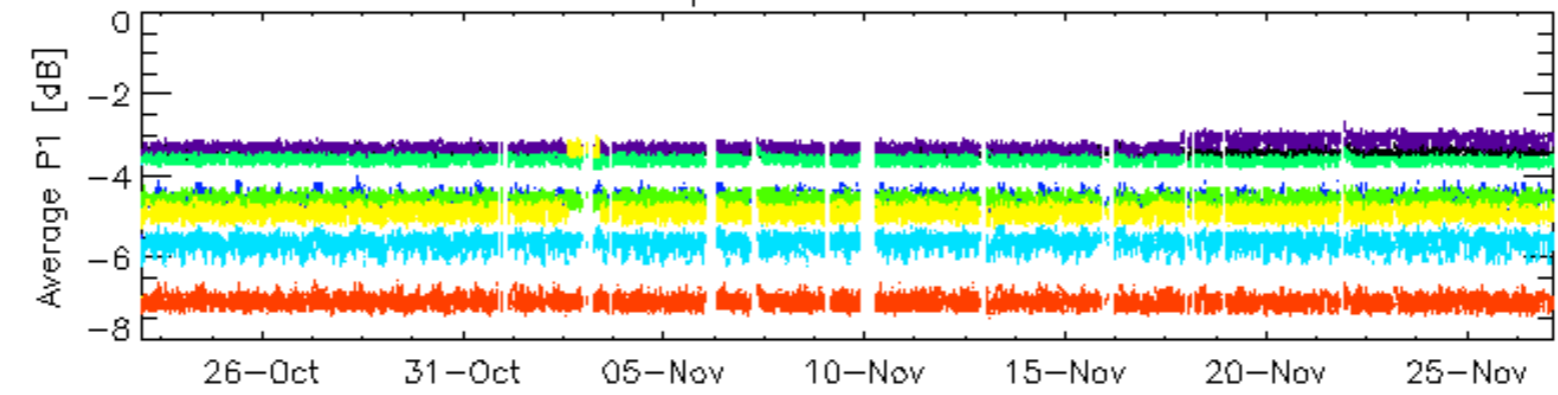


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

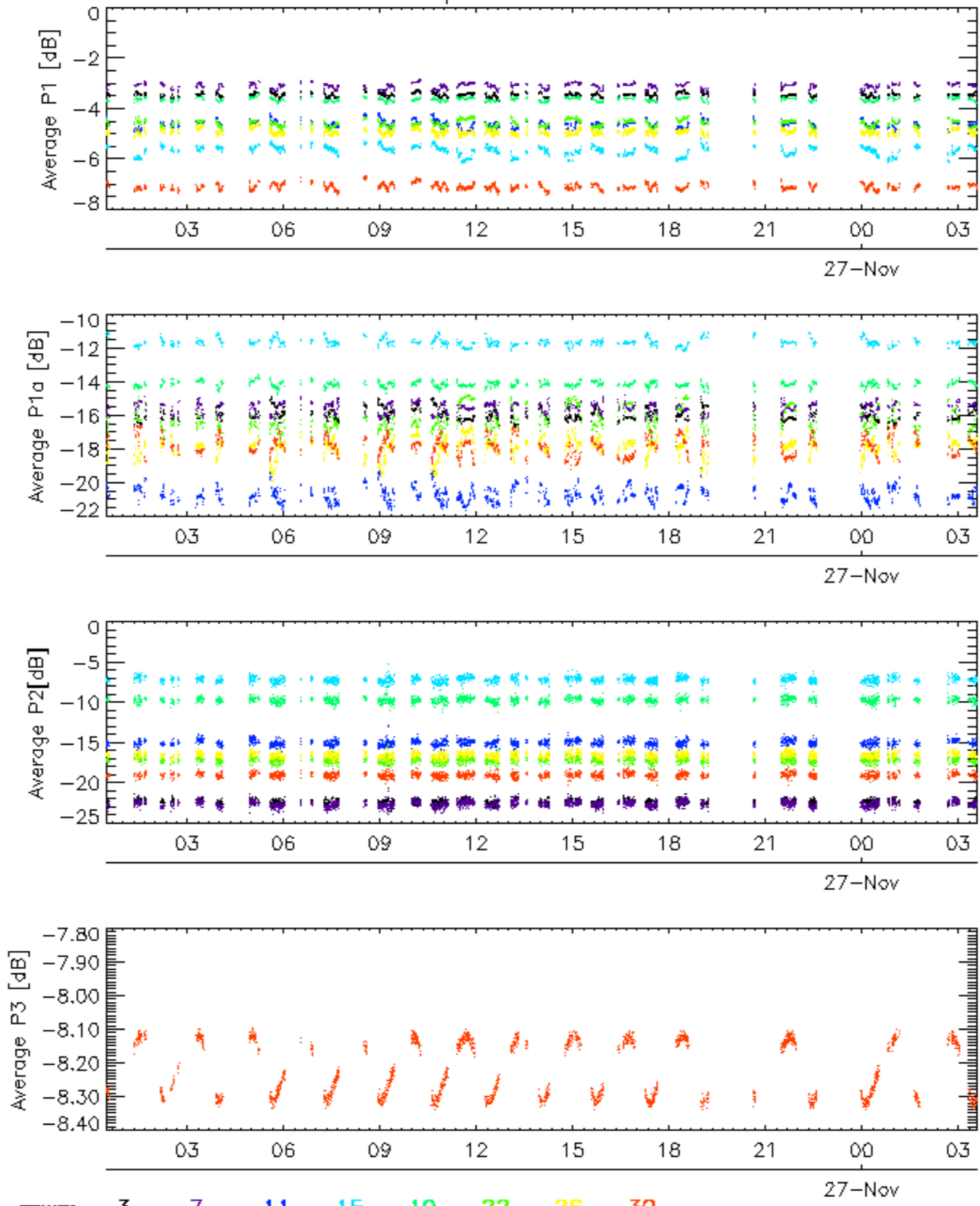


Cal pulses for WVS IS2



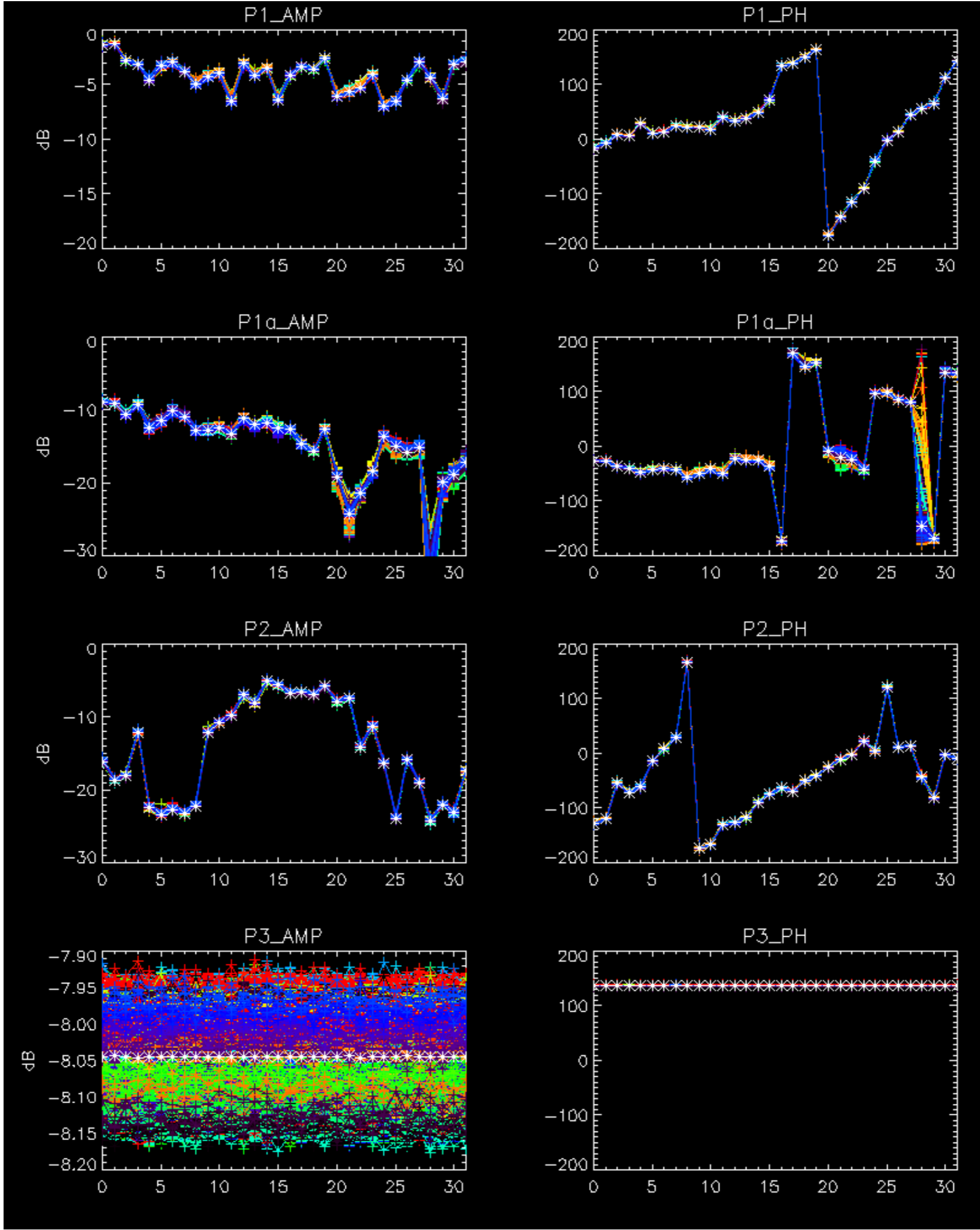
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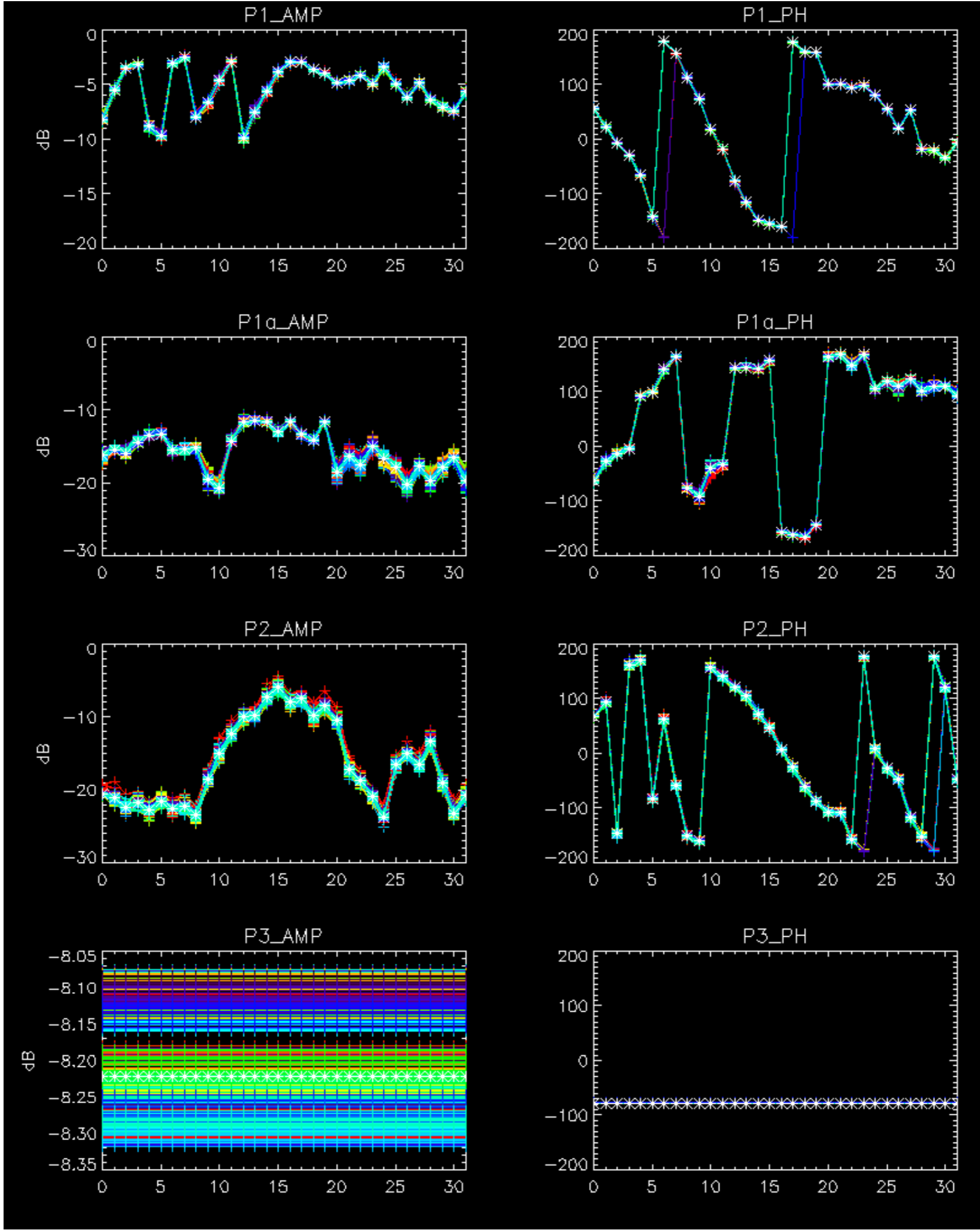
Cal pulses for WVS IS2



rows: 3 7 11 15 19 22 26 30

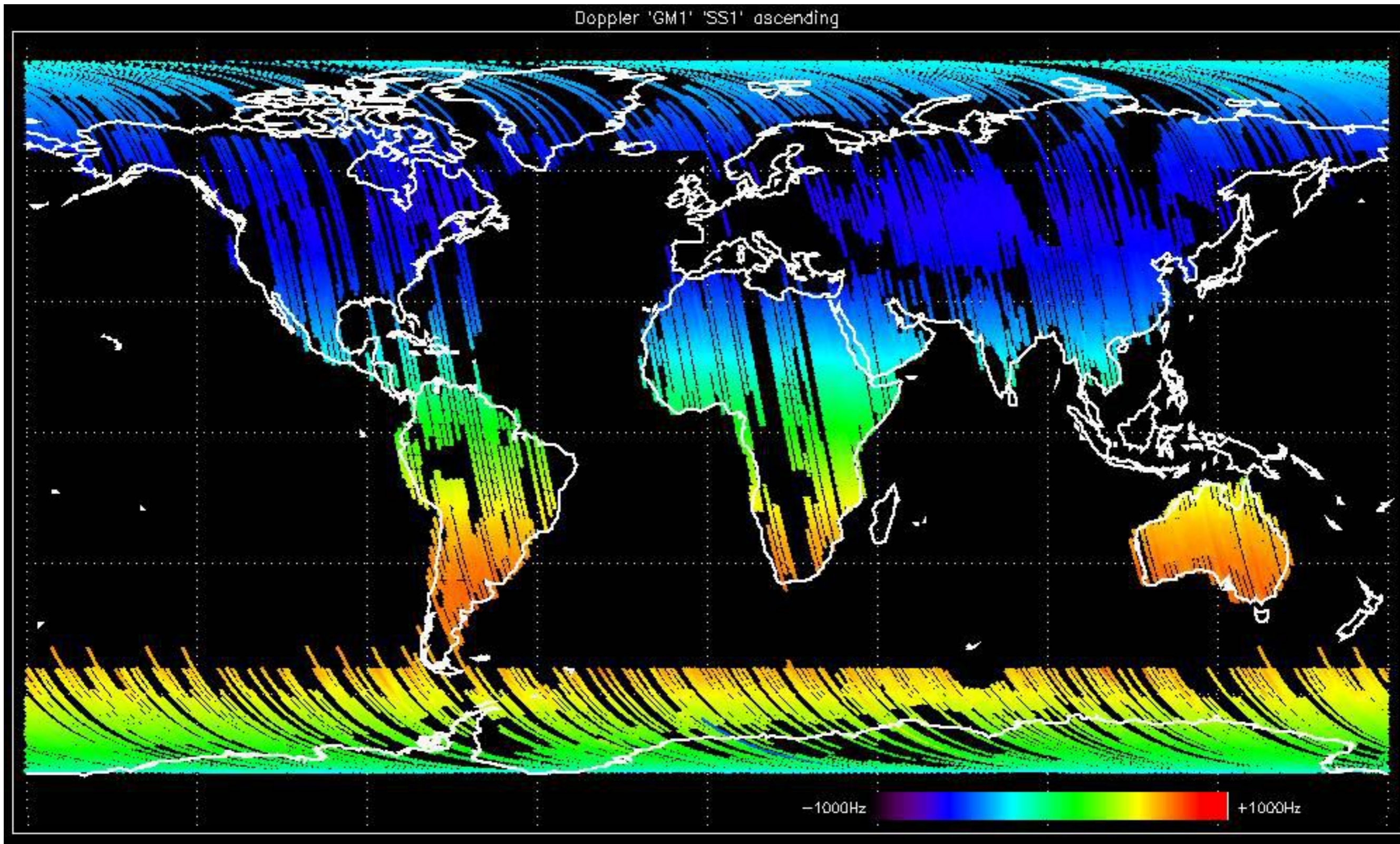
No anomalies observed.



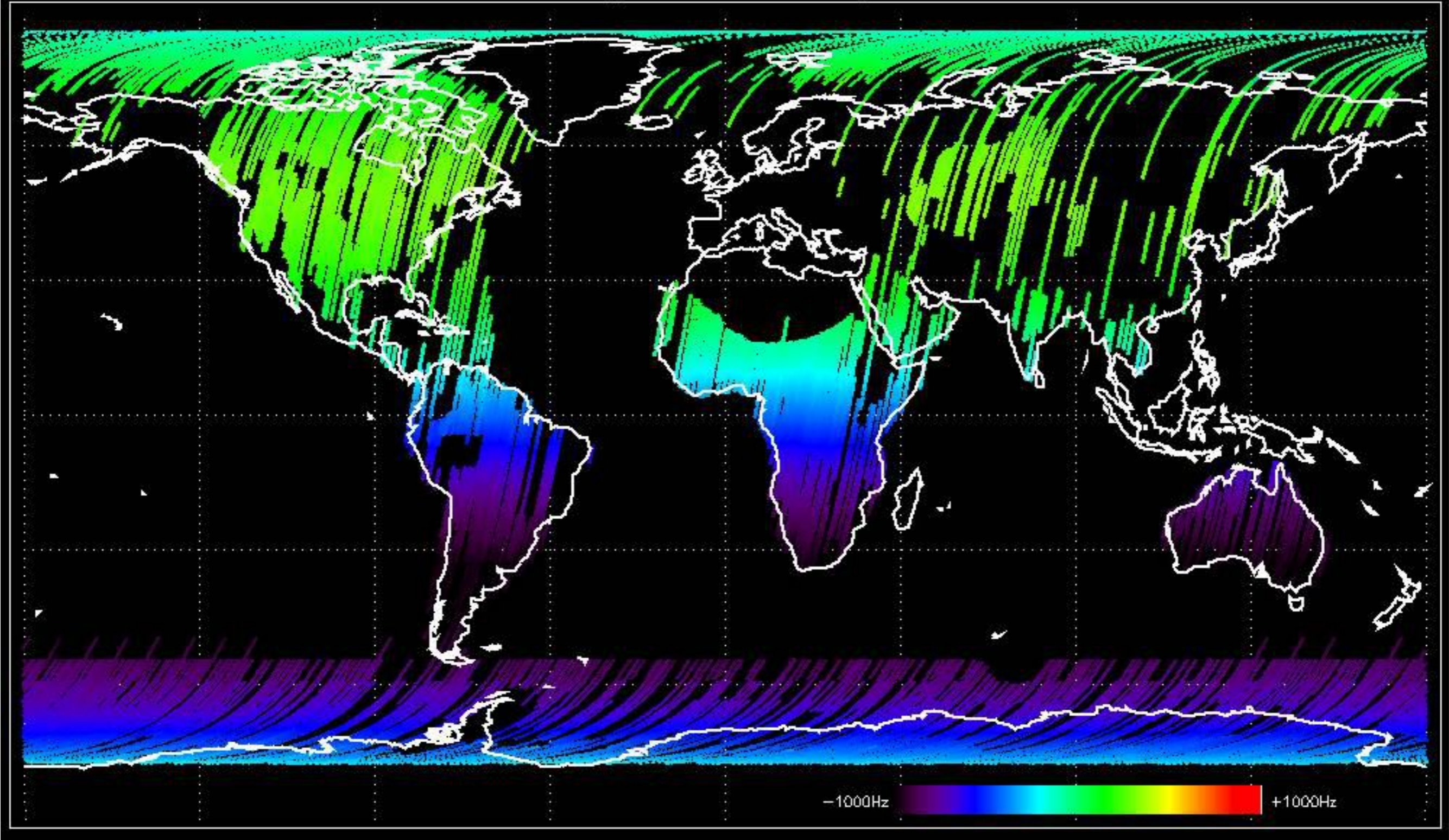


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

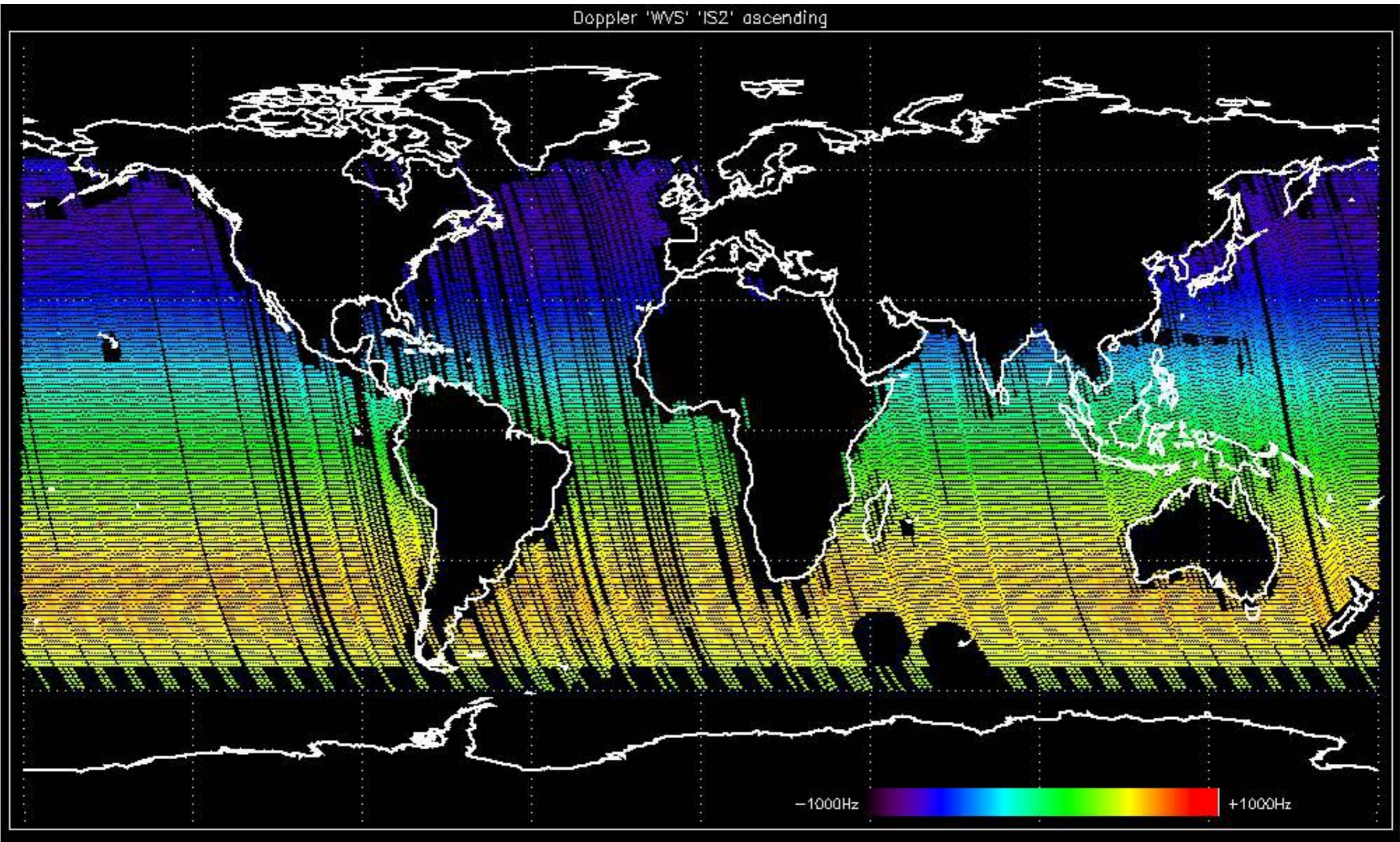
Doppler 'GM1' 'SS1' ascending



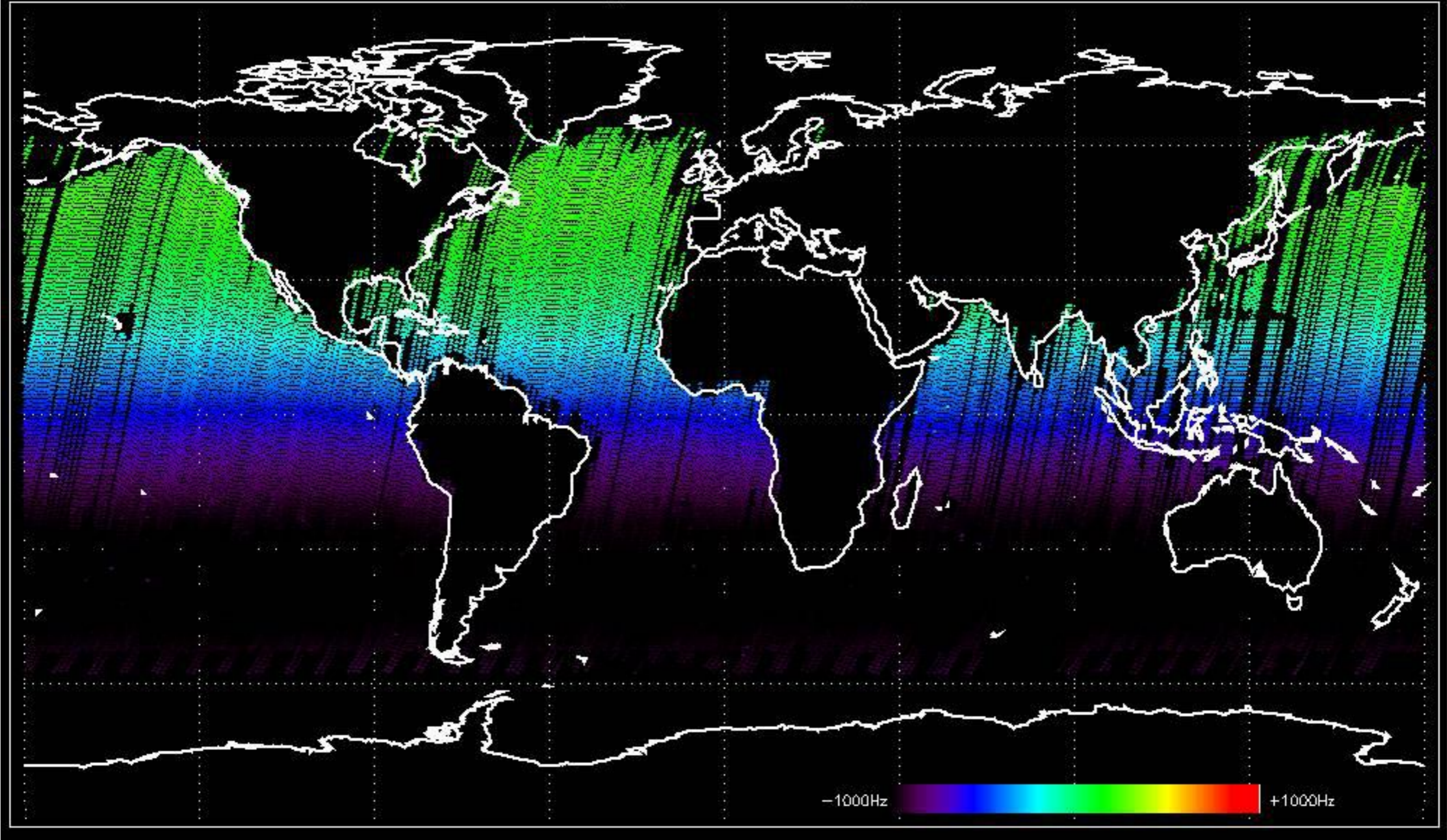
Doppler 'GM1' 'SS1' descending



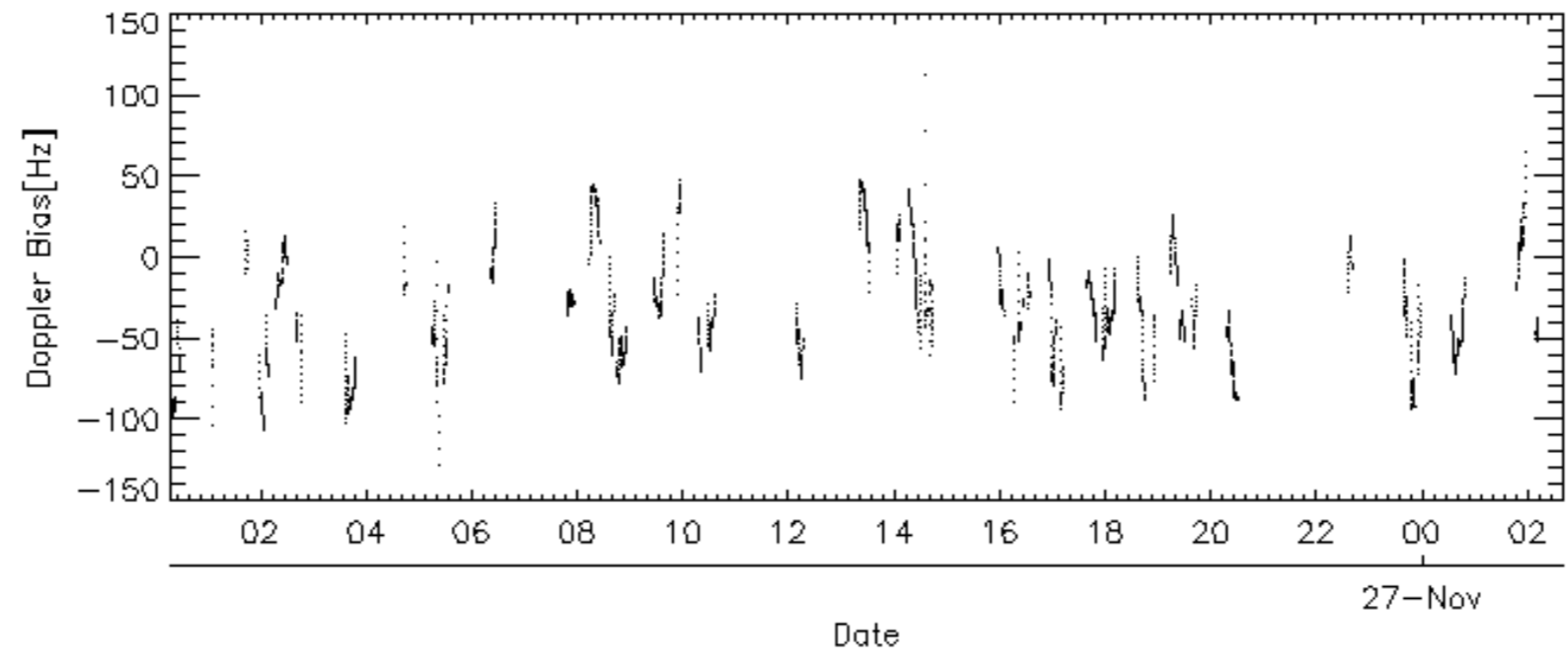
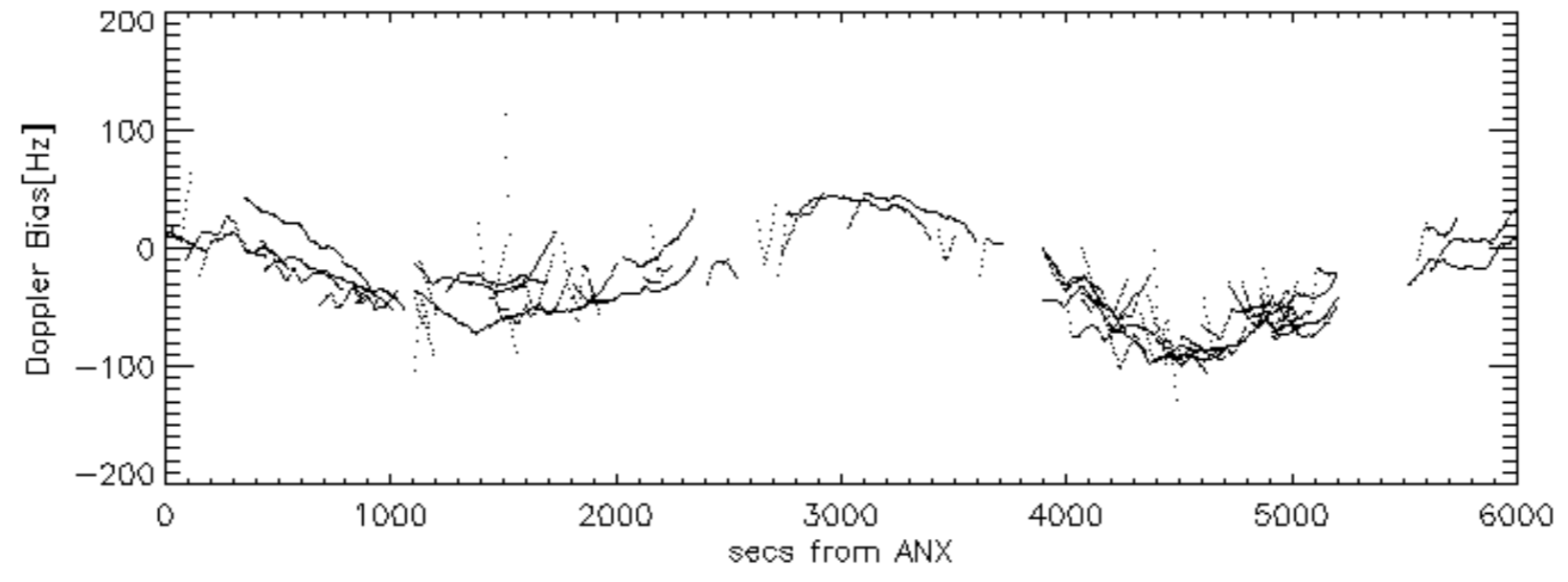
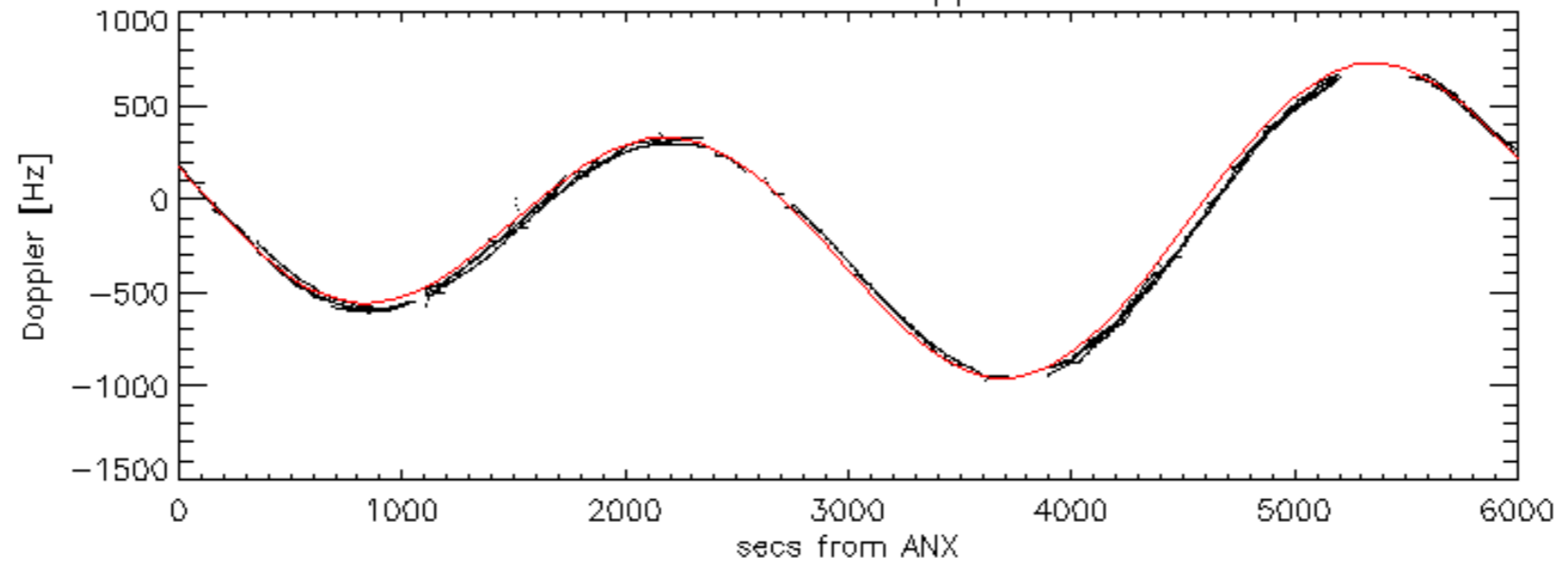
Doppler 'WVS' 'IS2' ascending

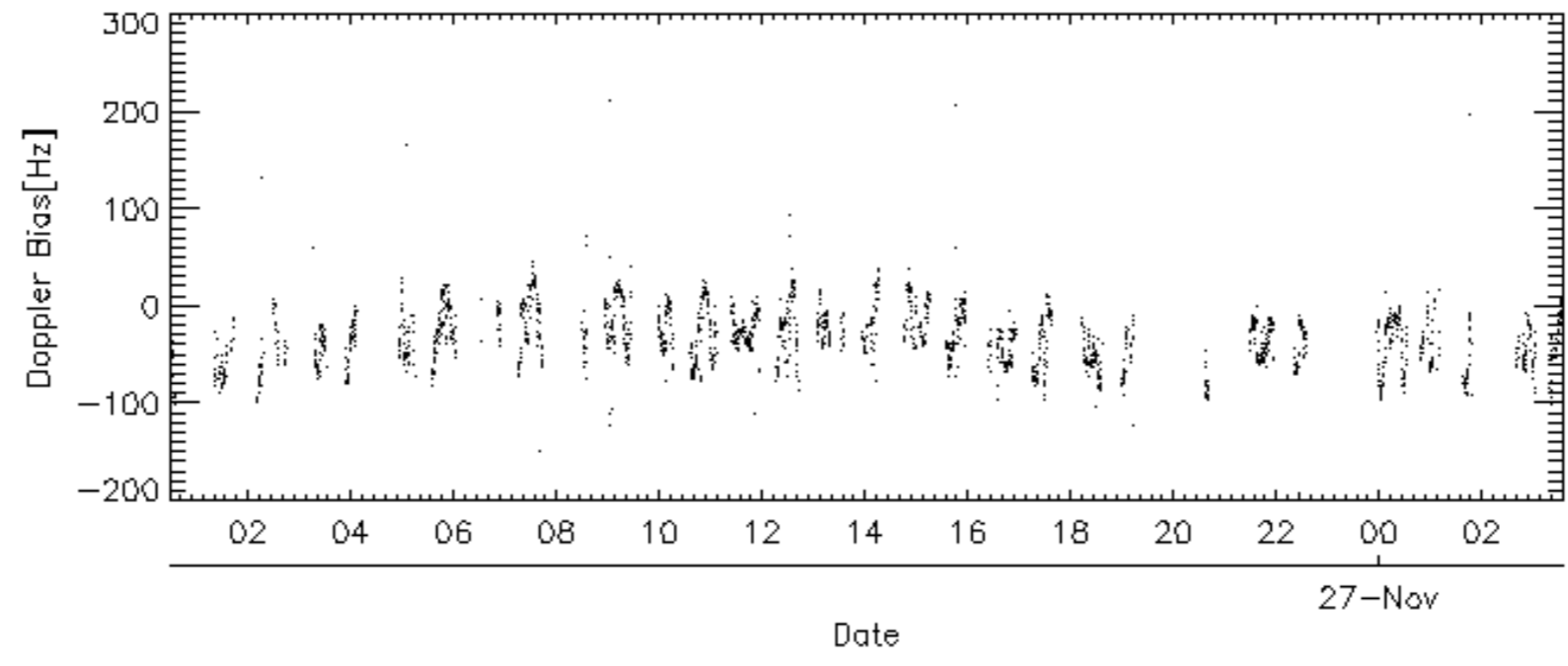
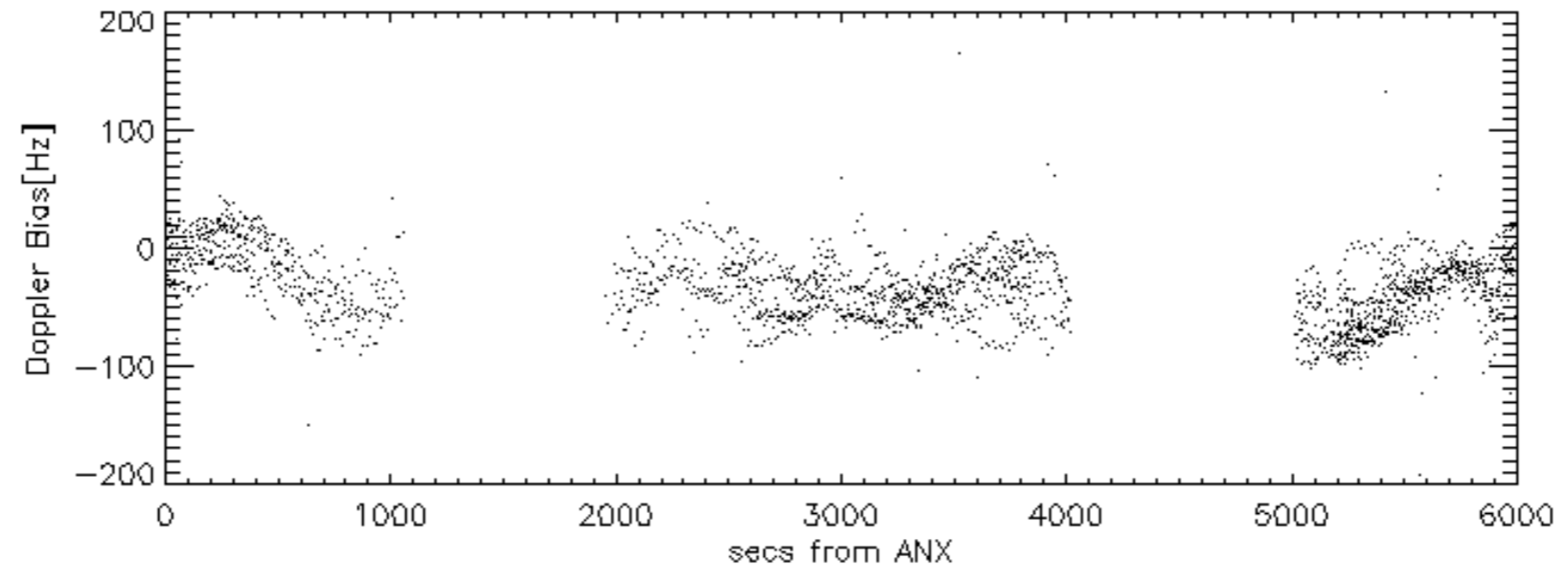
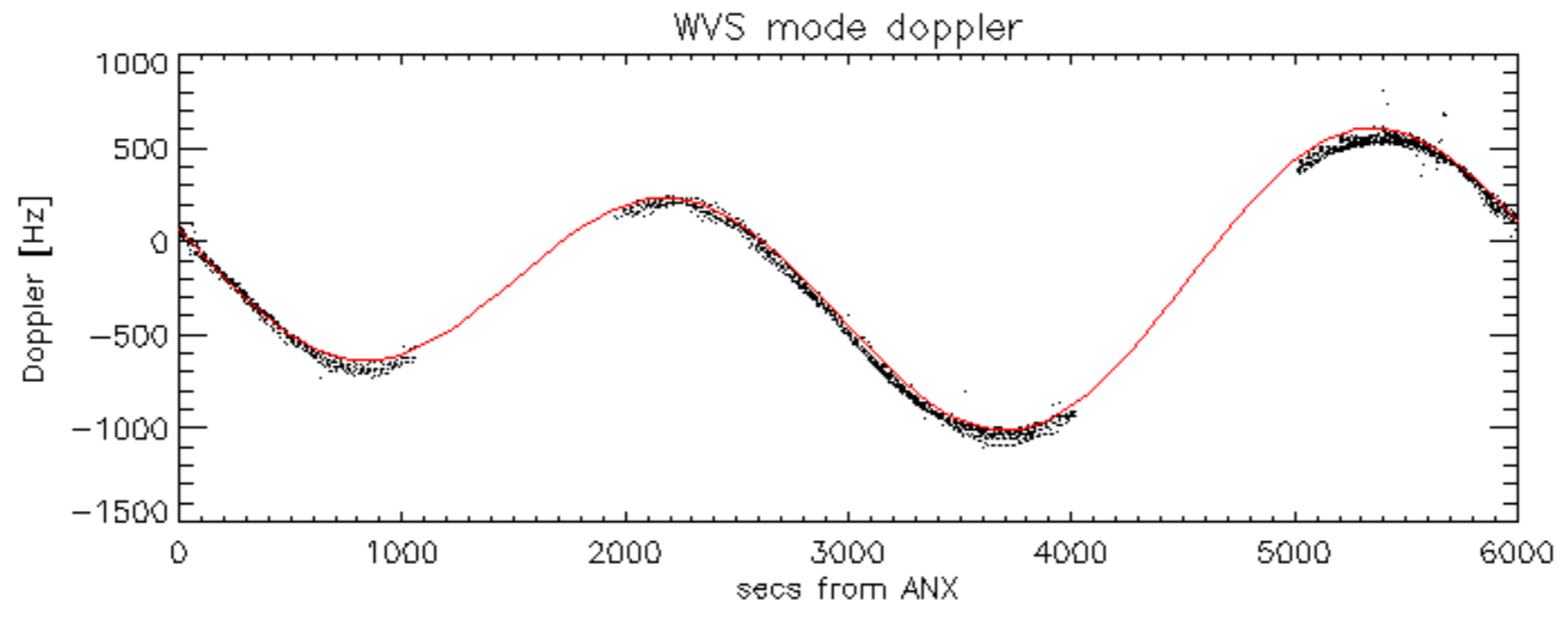


Doppler 'WVS' 'IS2' descending

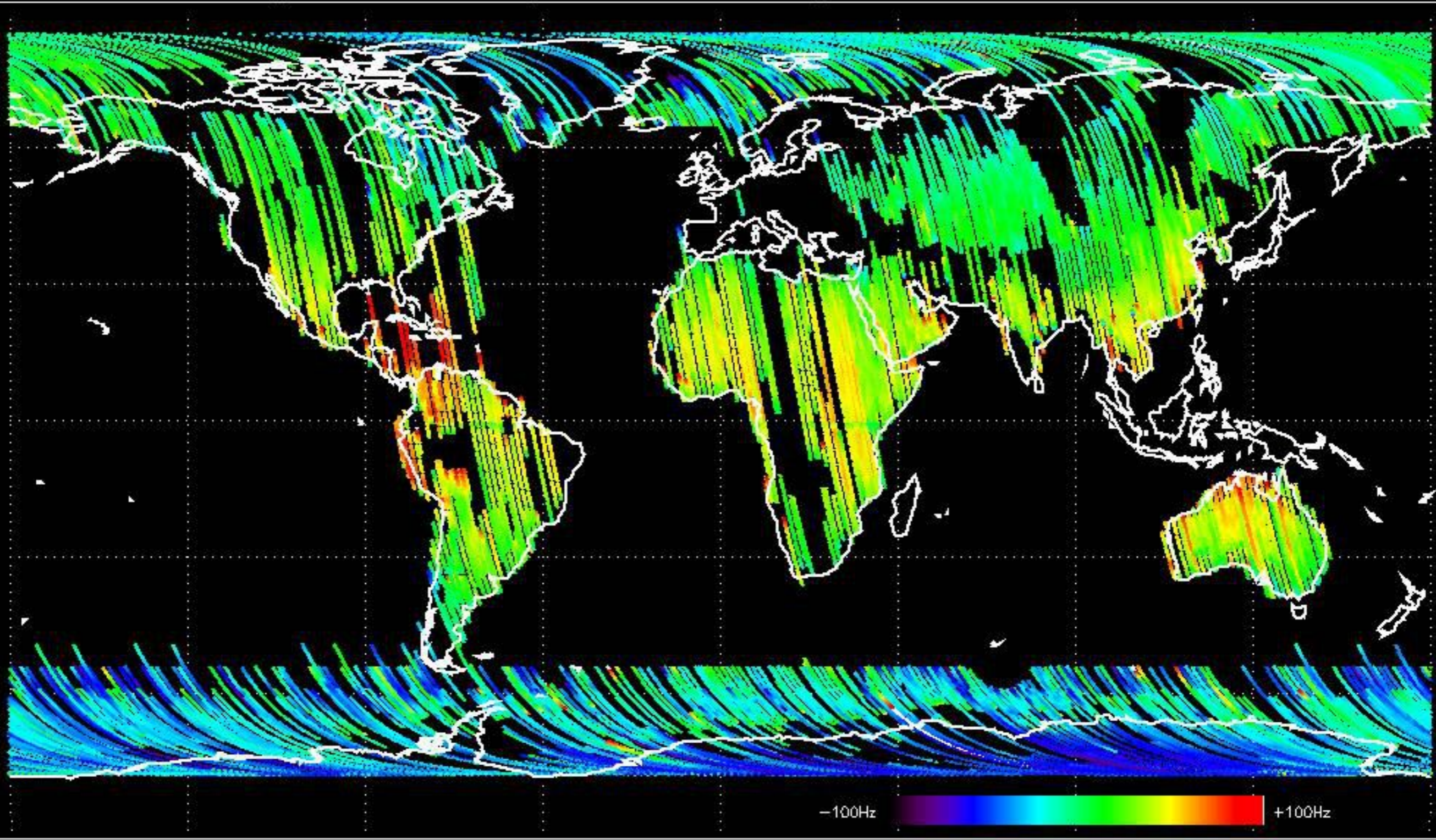


GM1 mode doppler

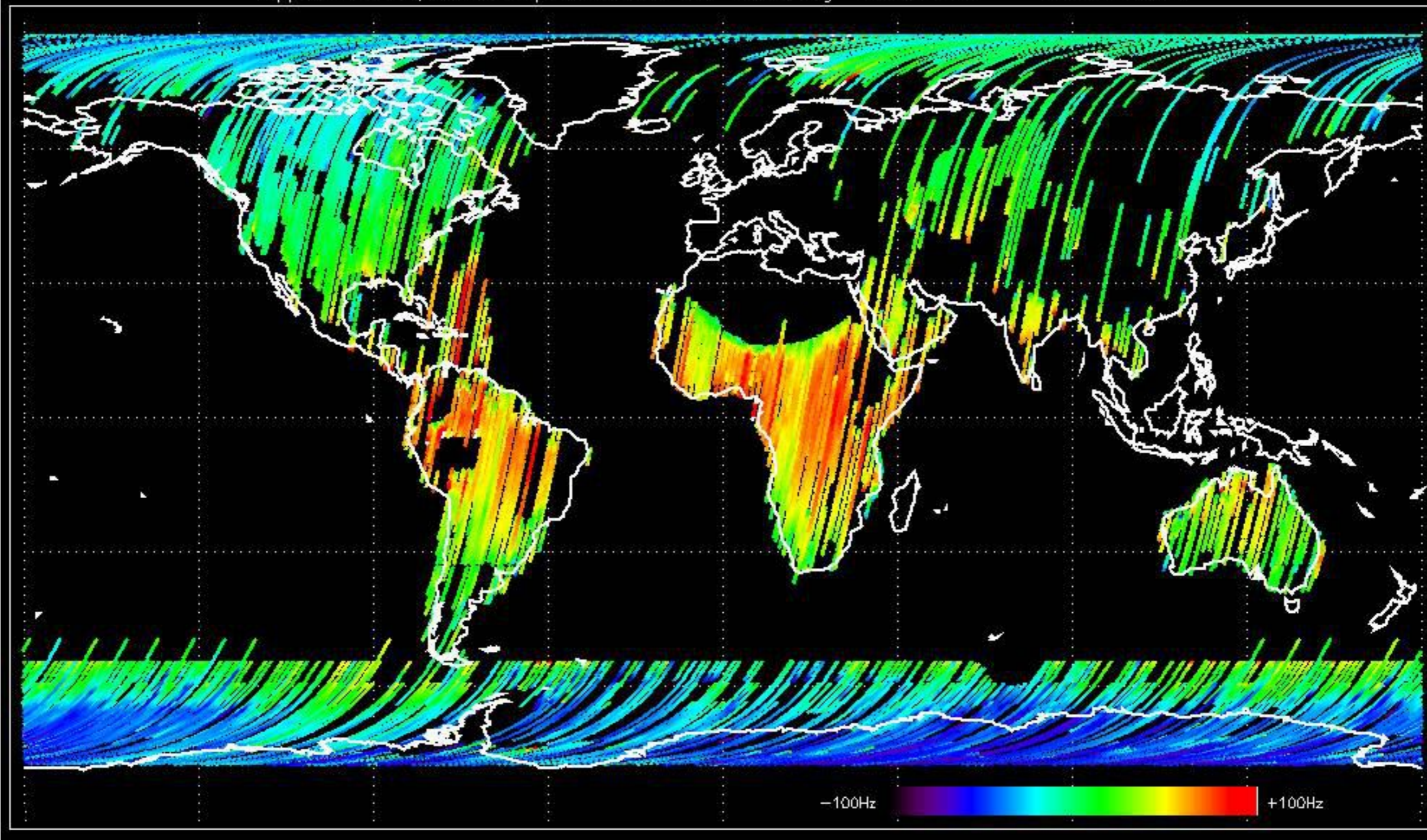




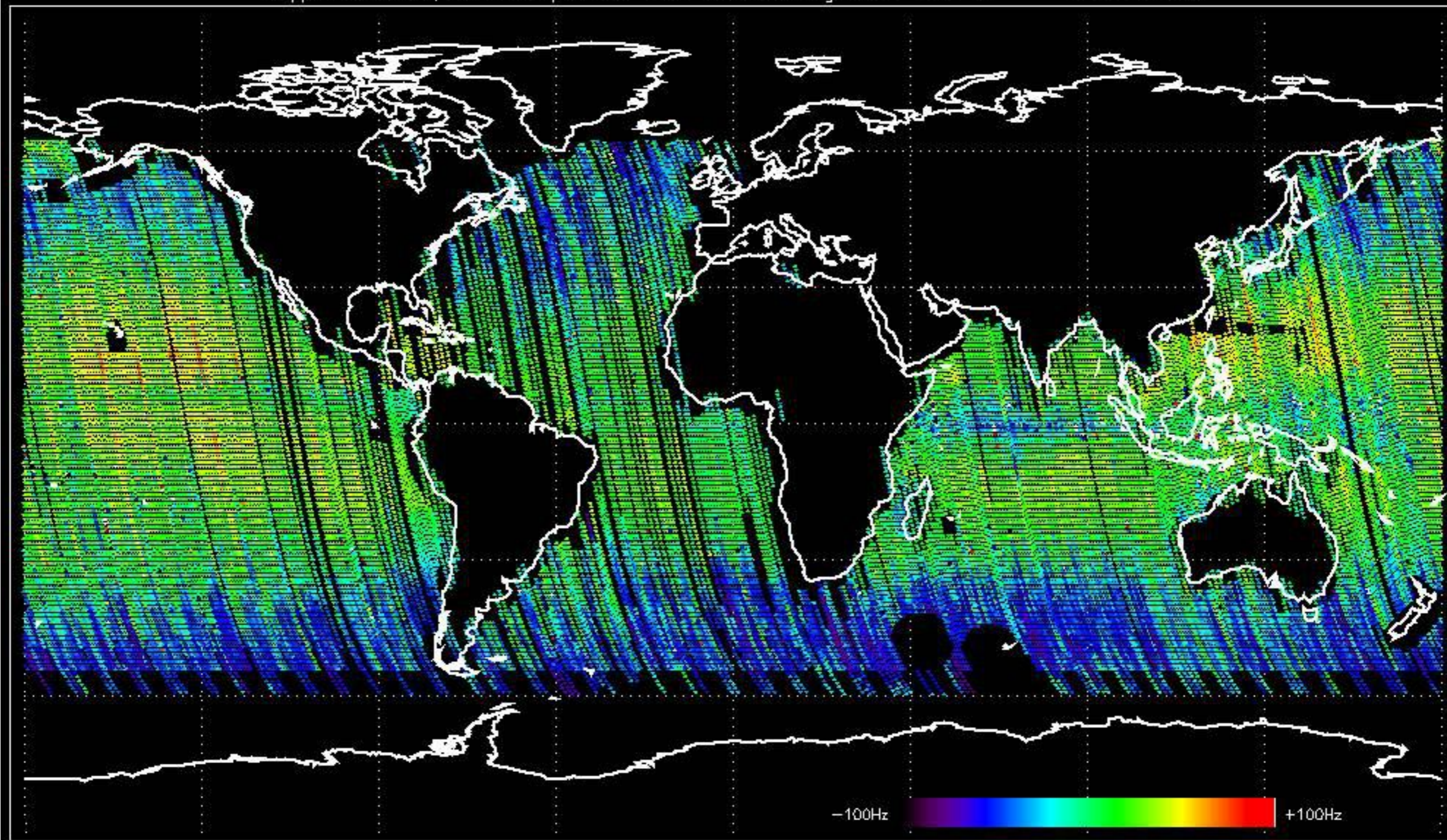
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -34.981416 Hz



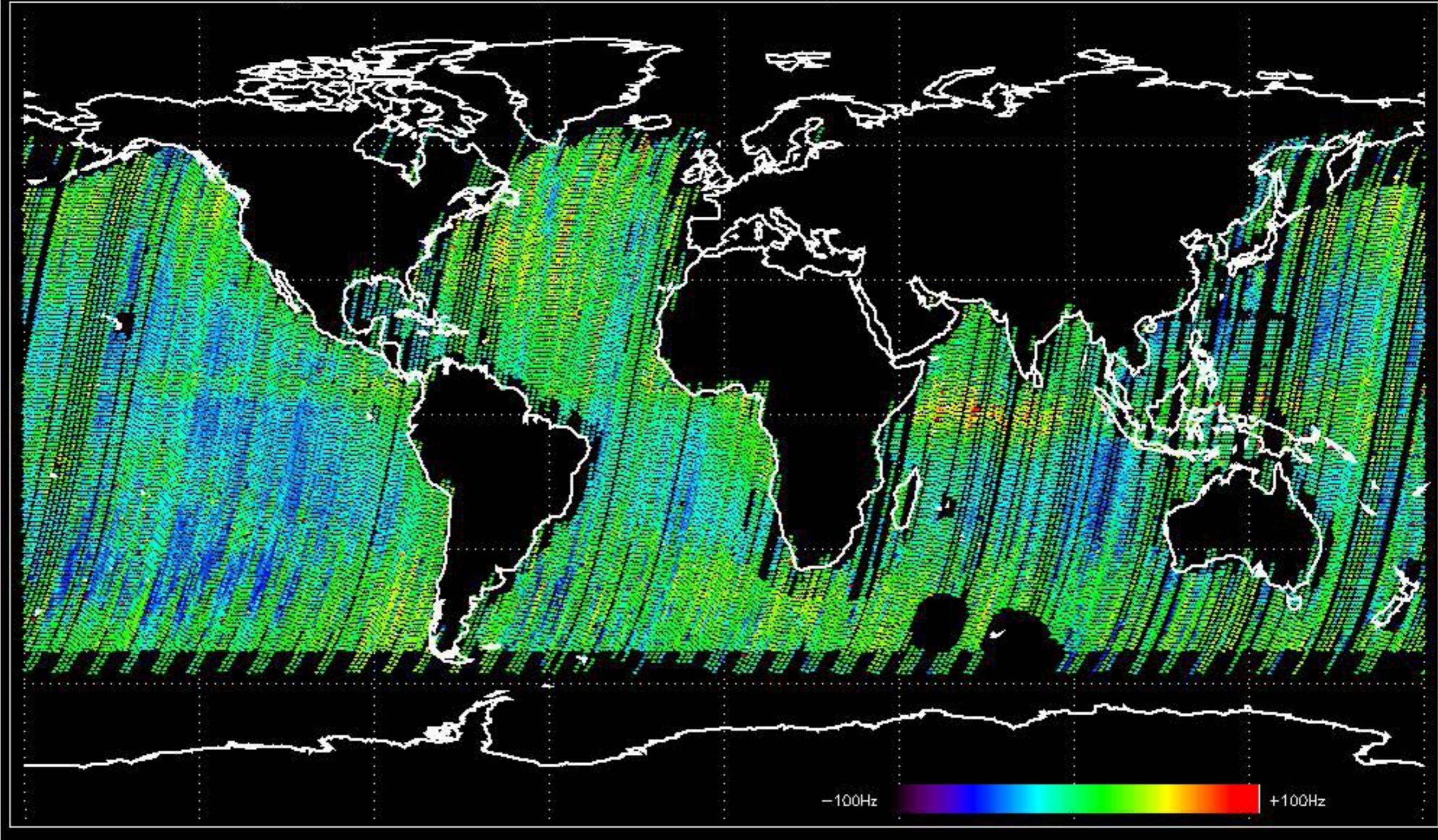
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -27.095609 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -27.527734 Hz

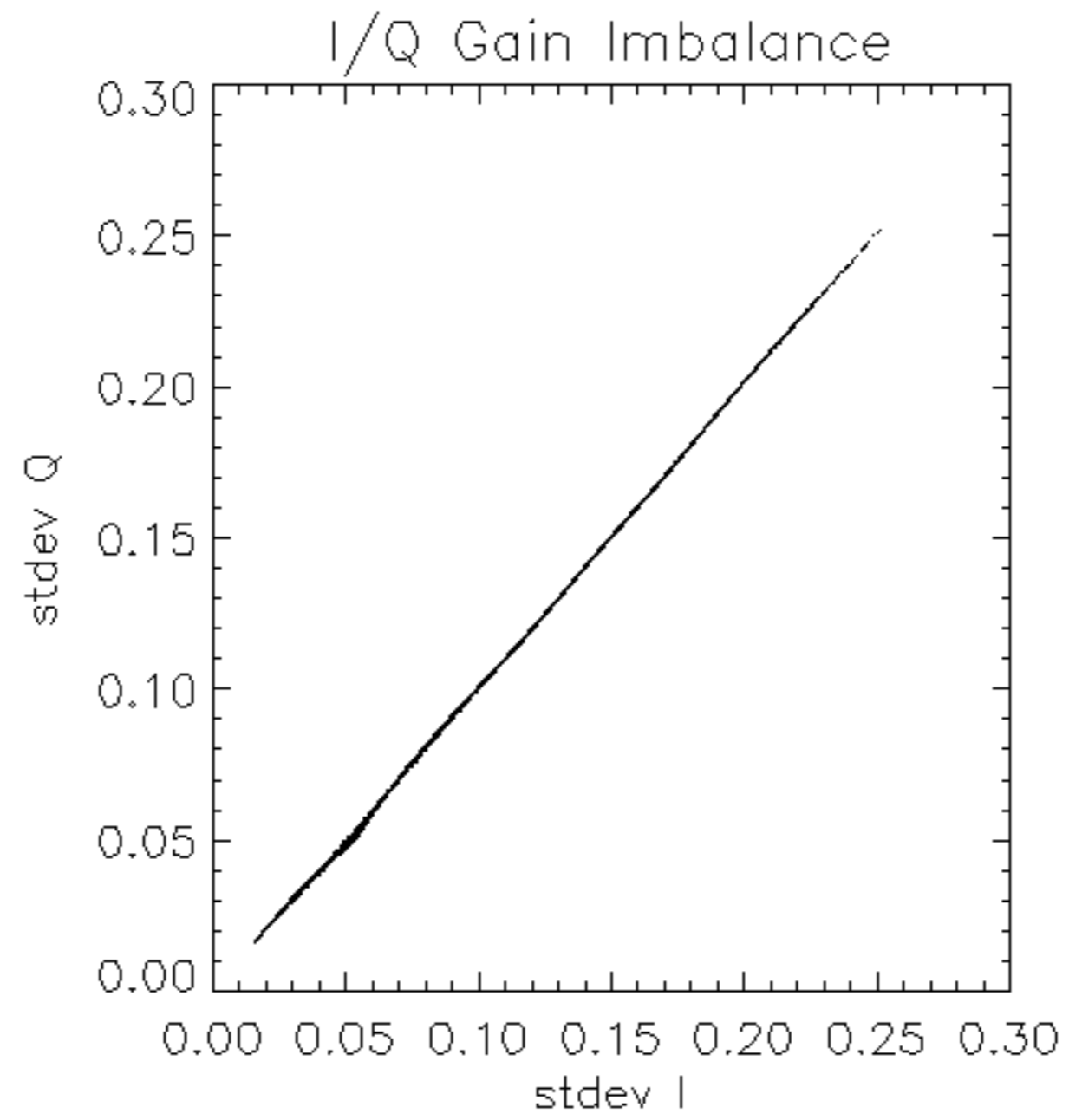


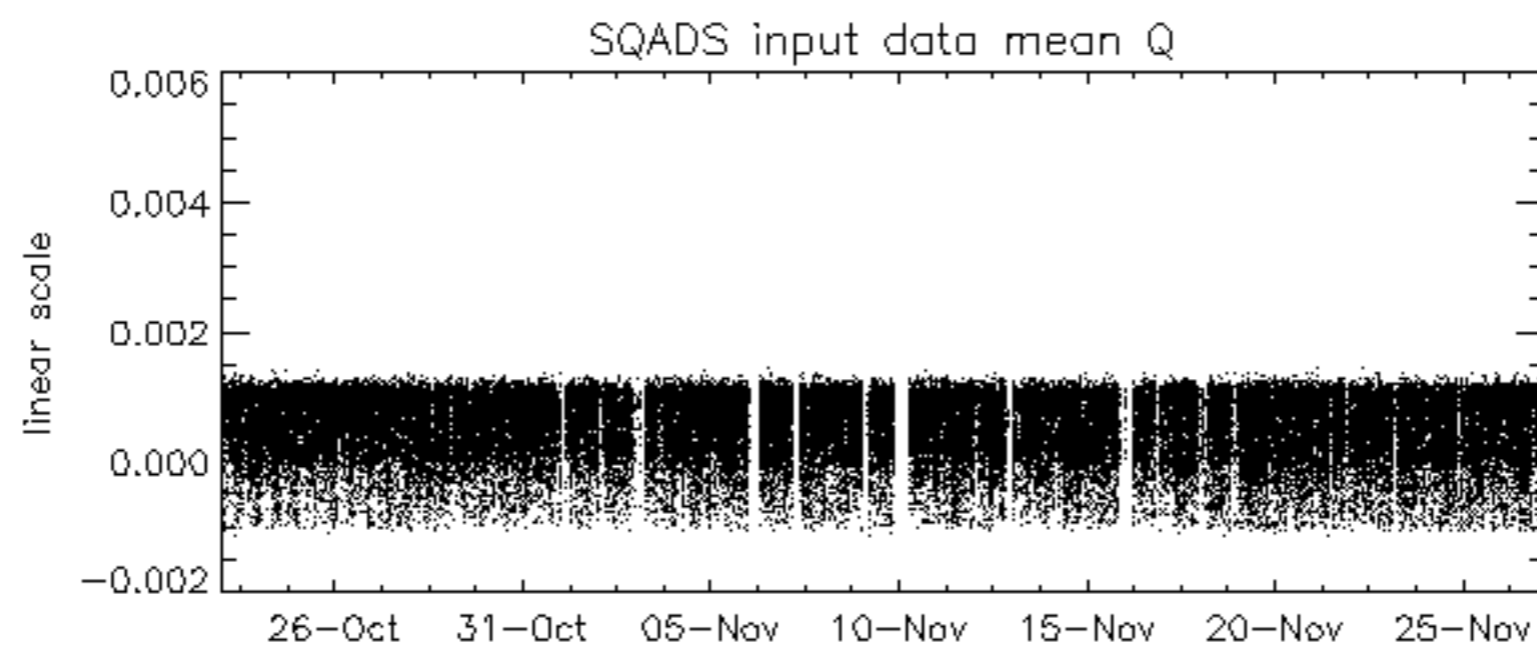
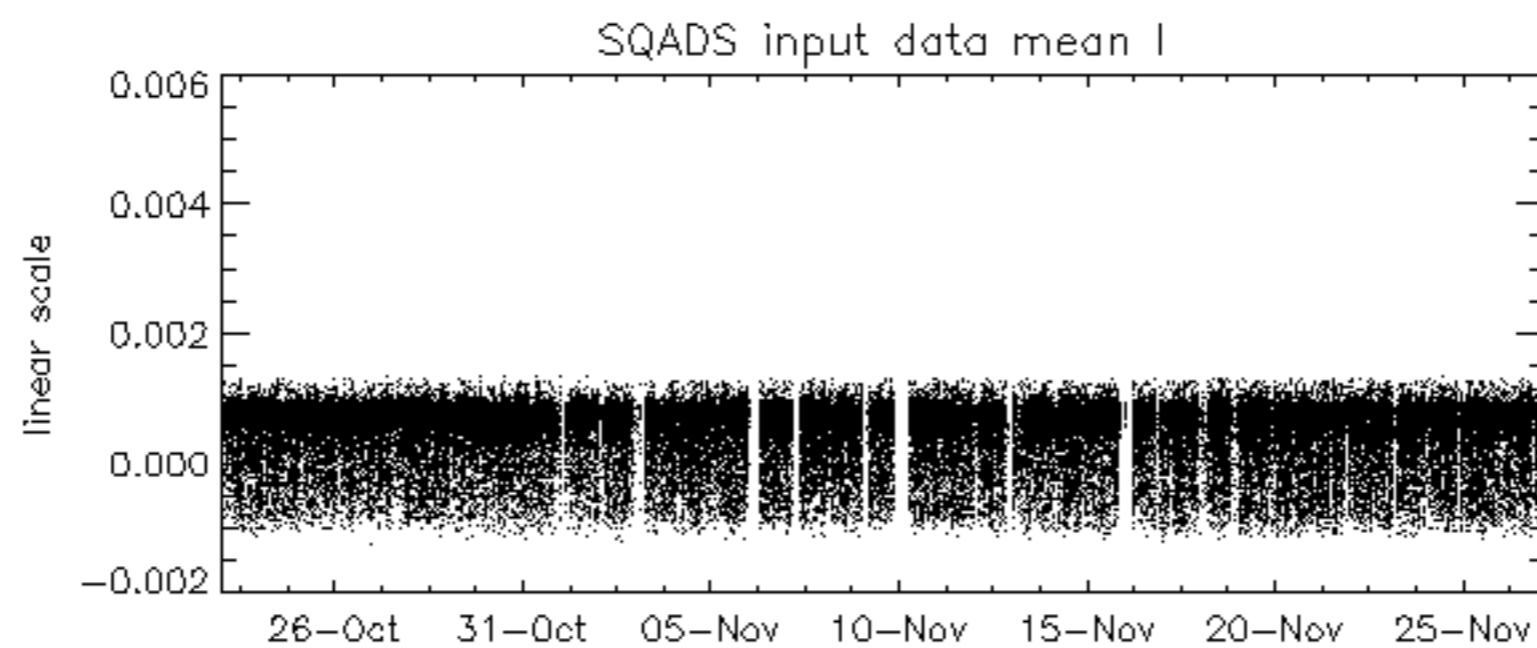
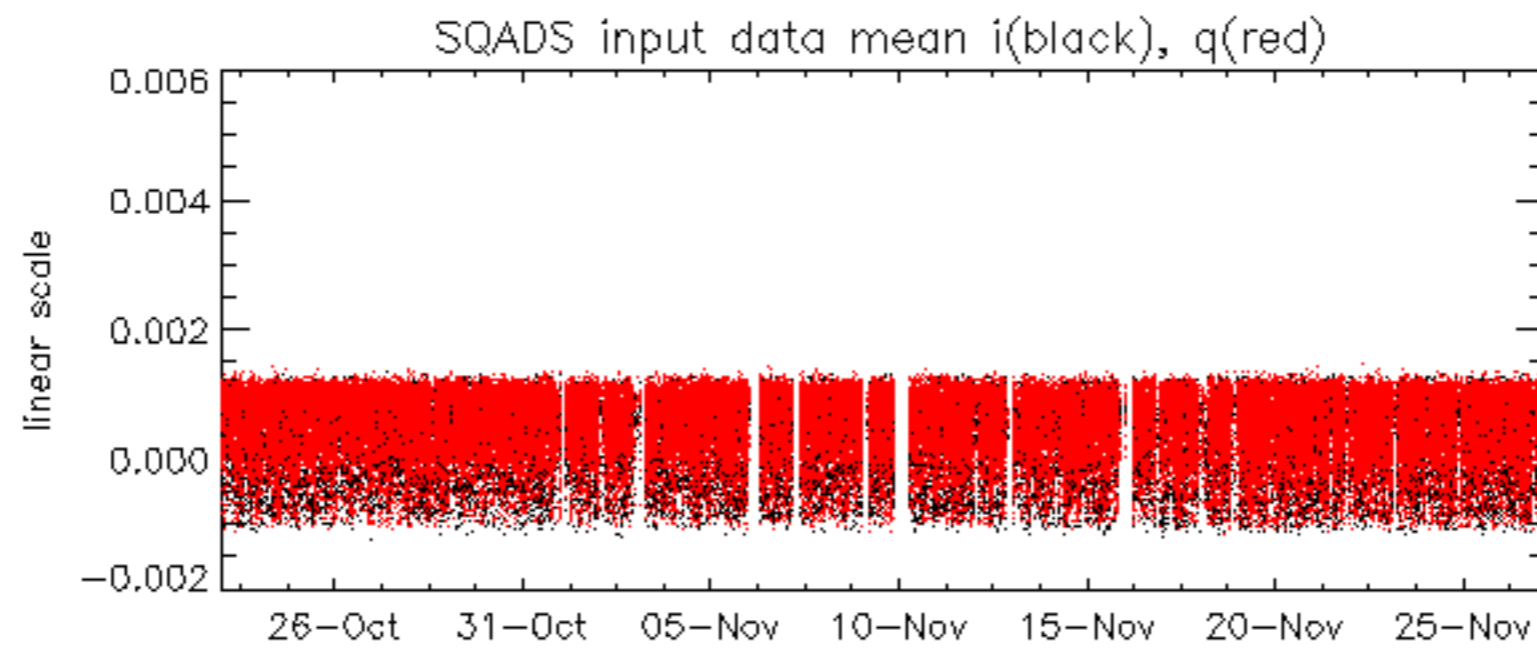
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -33.484891 Hz

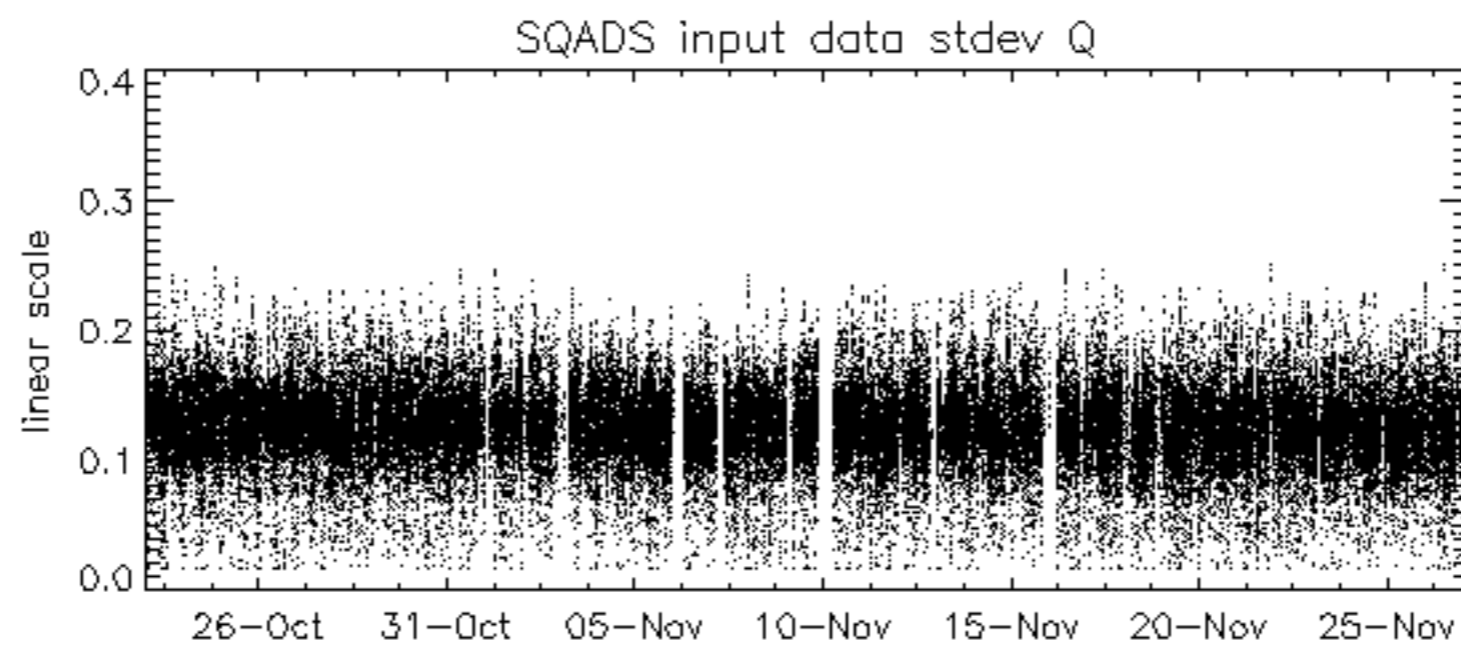
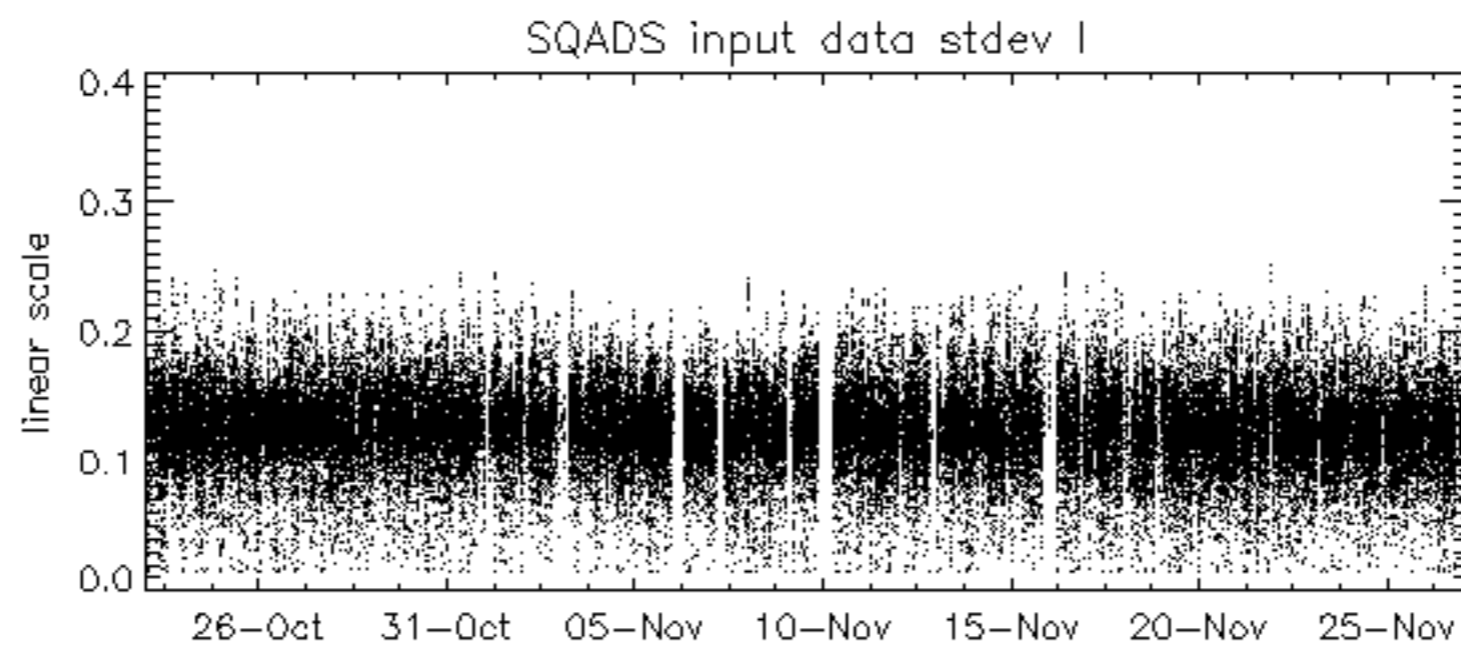
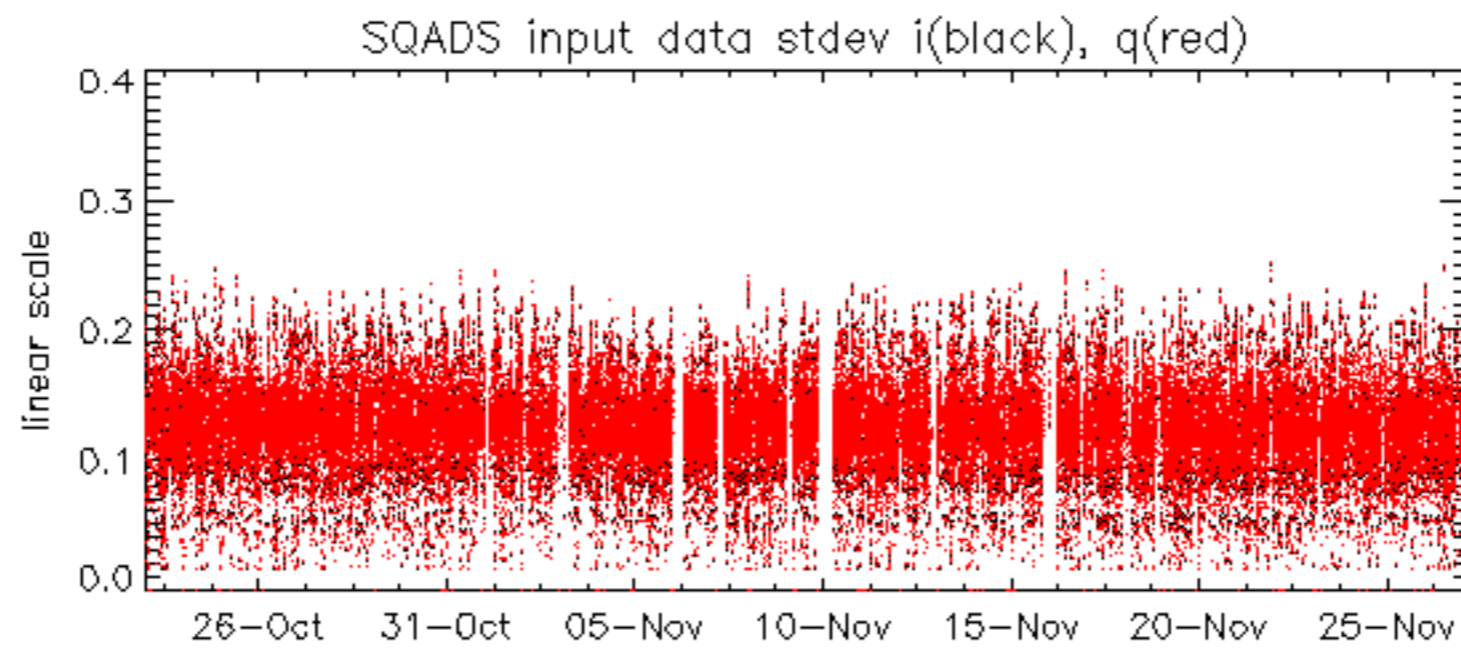


The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

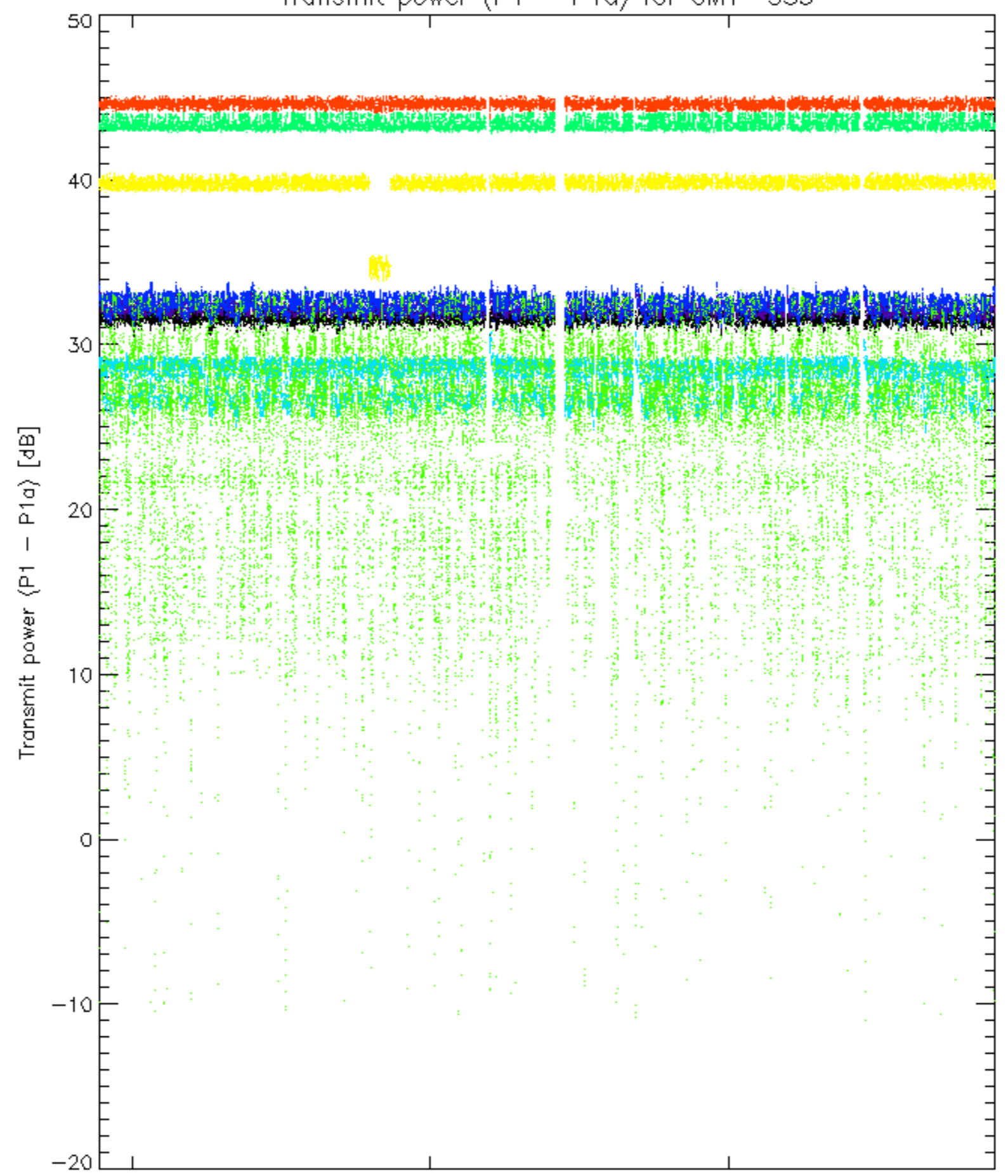
No anomalies observed.



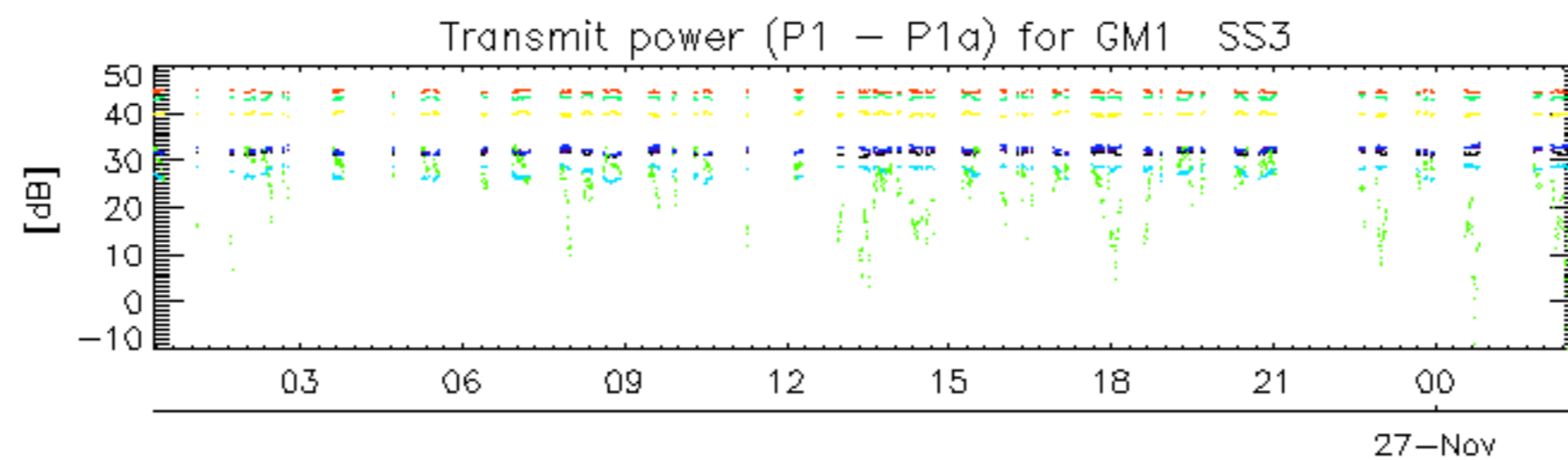




Transmit power (P1 - P1a) for GM1 SS3

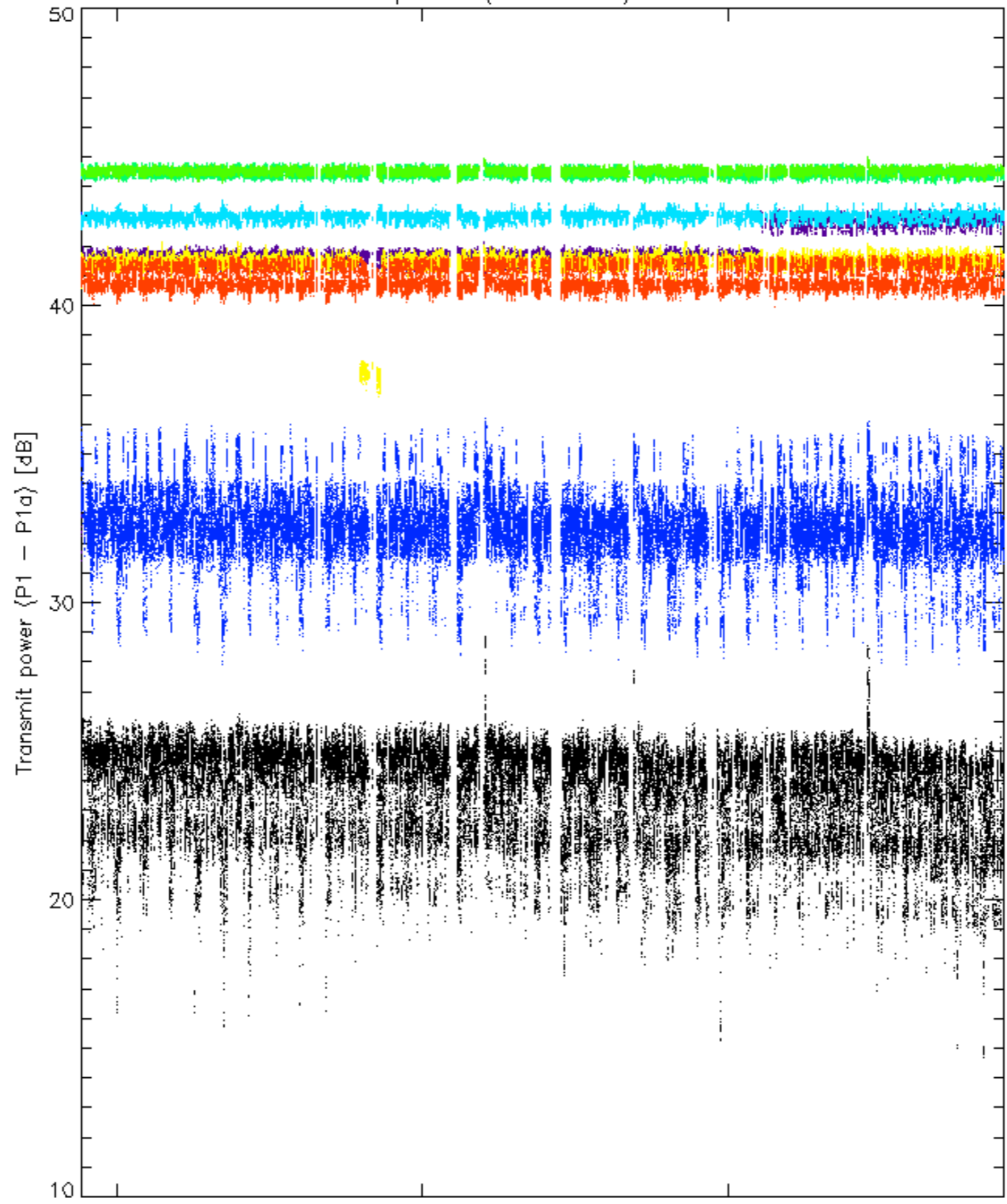


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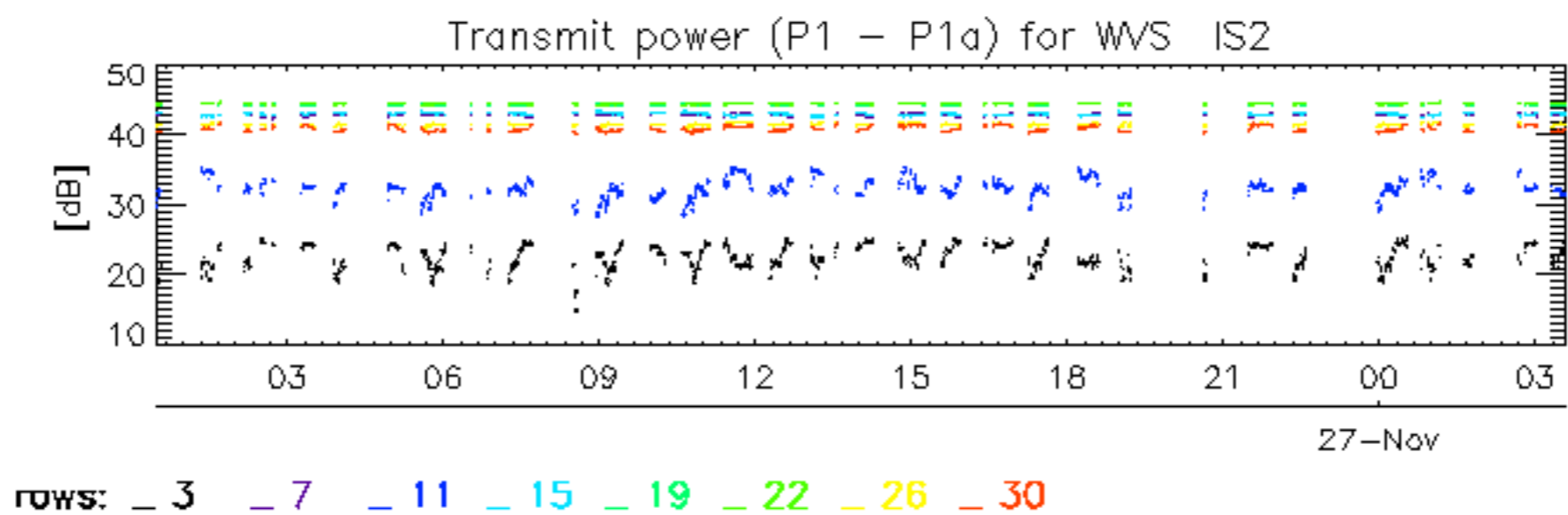


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



No unavailabilities during the reported period.