

PRELIMINARY REPORT OF 041015

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

last update on Fri Oct 15 10:50:00 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	20041014 074722
H	20041013 081859

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	-3.476325	0.024030	0.000568
7	P1	-3.345063	0.023218	-0.012340
11	P1	-4.640589	0.036030	0.079999
15	P1	-5.740013	0.080162	0.136650
19	P1	-3.538170	0.078675	0.036492
22	P1	-4.571382	0.109068	0.071560
24	P1	-5.001223	0.120850	0.177269
30	P1	-7.066633	0.144665	0.129358

3	P1	-16.166132	0.405363	0.290235
7	P1	-14.032324	0.066299	-0.044030
11	P1	-20.346222	0.241437	-0.311261
15	P1	-11.741437	0.041890	0.074929
19	P1	-14.070916	1.090209	0.379689
22	P1	-16.062048	0.406688	-0.426838
24	P1	-14.501796	0.283805	-0.265401
30	P1	-18.008381	0.555656	-0.205651

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.324486	0.088942	-0.076140
7	P2	-22.597136	0.122671	-0.043041
11	P2	-15.148393	0.128201	0.074040
15	P2	-7.078394	0.102966	-0.074719
19	P2	-9.595225	0.135547	-0.105732
22	P2	-17.288944	0.108531	0.042890
24	P2	-20.777702	0.091314	-0.052326
30	P2	-19.118155	0.083224	0.097296

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.166863	0.004910	-0.042406
7	P3	-8.166861	0.004910	-0.042406
11	P3	-8.166855	0.004910	-0.042409
15	P3	-8.166852	0.004910	-0.042415
19	P3	-8.166849	0.004910	-0.042410
22	P3	-8.166847	0.004910	-0.042410
24	P3	-8.166849	0.004910	-0.042400
30	P3	-8.166892	0.004906	-0.041732

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	-2.841191	0.048929	0.033294
7	P1	-3.014191	0.101679	0.126908
11	P1	-3.896198	0.065507	0.034200
15	P1	-3.517808	0.081499	0.103969
19	P1	-3.545105	0.096771	0.058792
22	P1	-5.707351	0.135152	0.217538
24	P1	-3.980734	0.058364	0.074091
30	P1	-6.217647	0.092558	0.029212
3	P1	-10.872125	0.181620	0.208638
7	P1	-10.101109	0.174635	0.081347
11	P1	-12.209939	0.128909	-0.153099
15	P1	-11.692114	0.082645	0.054026
19	P1	-15.719400	2.074083	0.656628
22	P1	-23.467508	1.729926	-0.703705
24	P1	-18.065950	0.364050	-0.251453
30	P1	-20.385157	1.235626	-0.009742

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.997673	0.048152	-0.102287
7	P2	-22.709146	0.065835	0.020611
11	P2	-10.875985	0.053698	-0.009441
15	P2	-4.981217	0.029212	-0.095537
19	P2	-6.801434	0.043866	-0.151399
22	P2	-7.397937	0.041359	-0.010200
24	P2	-11.088356	0.054559	-0.120016
30	P2	-22.115175	0.039329	0.015304

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-8.014017	0.003568	-0.033292
7	P3	-8.013991	0.003560	-0.032953
11	P3	-8.014071	0.003549	-0.033200
15	P3	-8.014041	0.003554	-0.033012
19	P3	-8.014051	0.003558	-0.033171
22	P3	-8.014009	0.003562	-0.033085
24	P3	-8.014125	0.003582	-0.033350
30	P3	-8.013993	0.003569	-0.033326

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	0.000482697
	stdev	2.13797e-07
MEAN Q	mean	0.000550176
	stdev	2.32562e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127995
	stdev	0.000941042

STDEV Q	mean	0.128218
	stdev	0.000950716



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

	
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6.4 - Unbiased Doppler Error for GM1

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

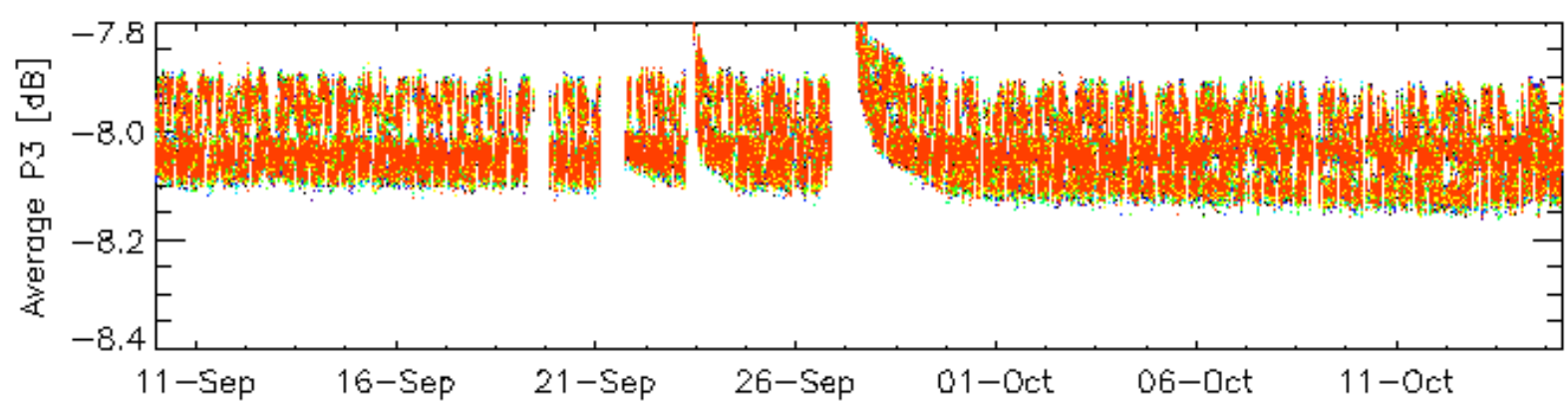
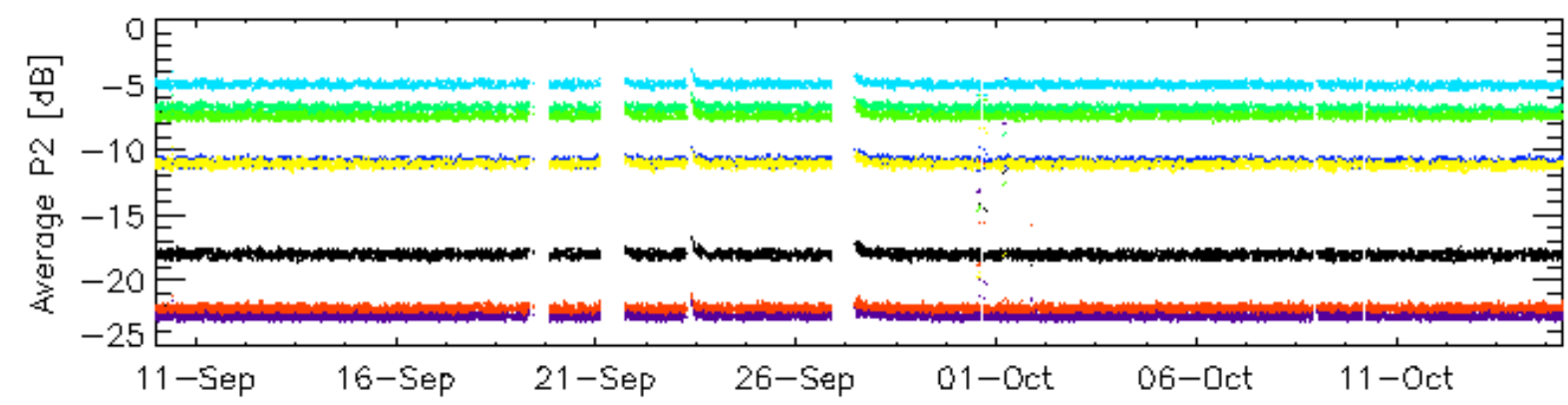
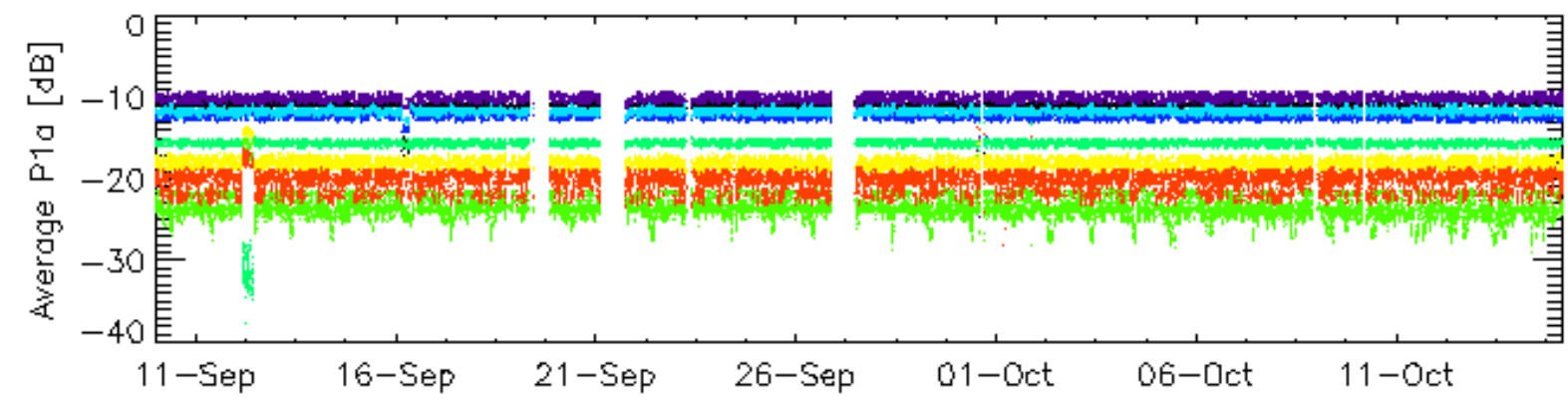
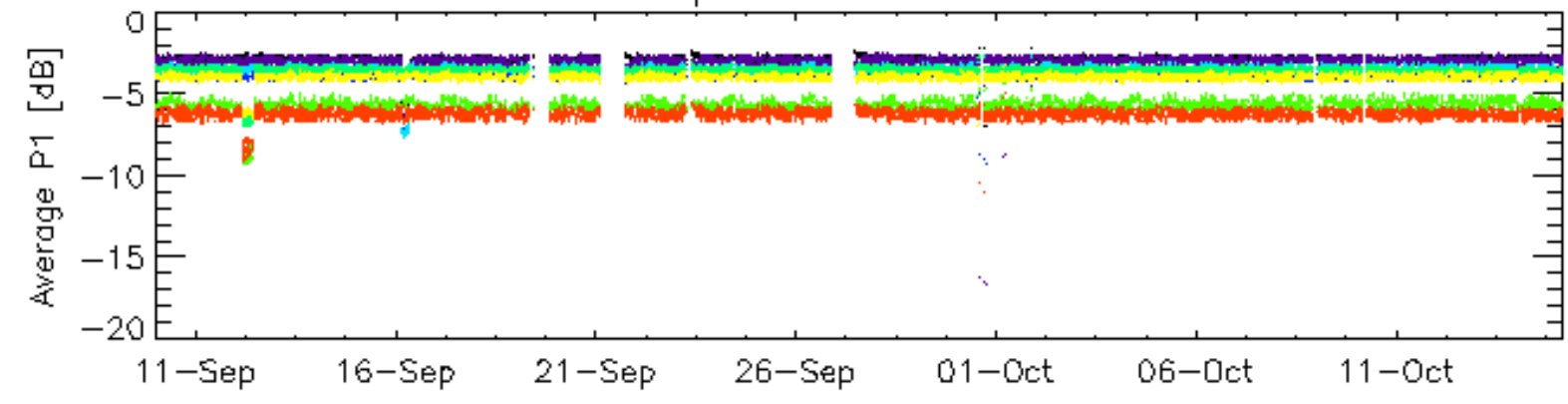
6.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler	
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	Acsending
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	Descending

6.6 - Doppler evolution versus ANX for GM1

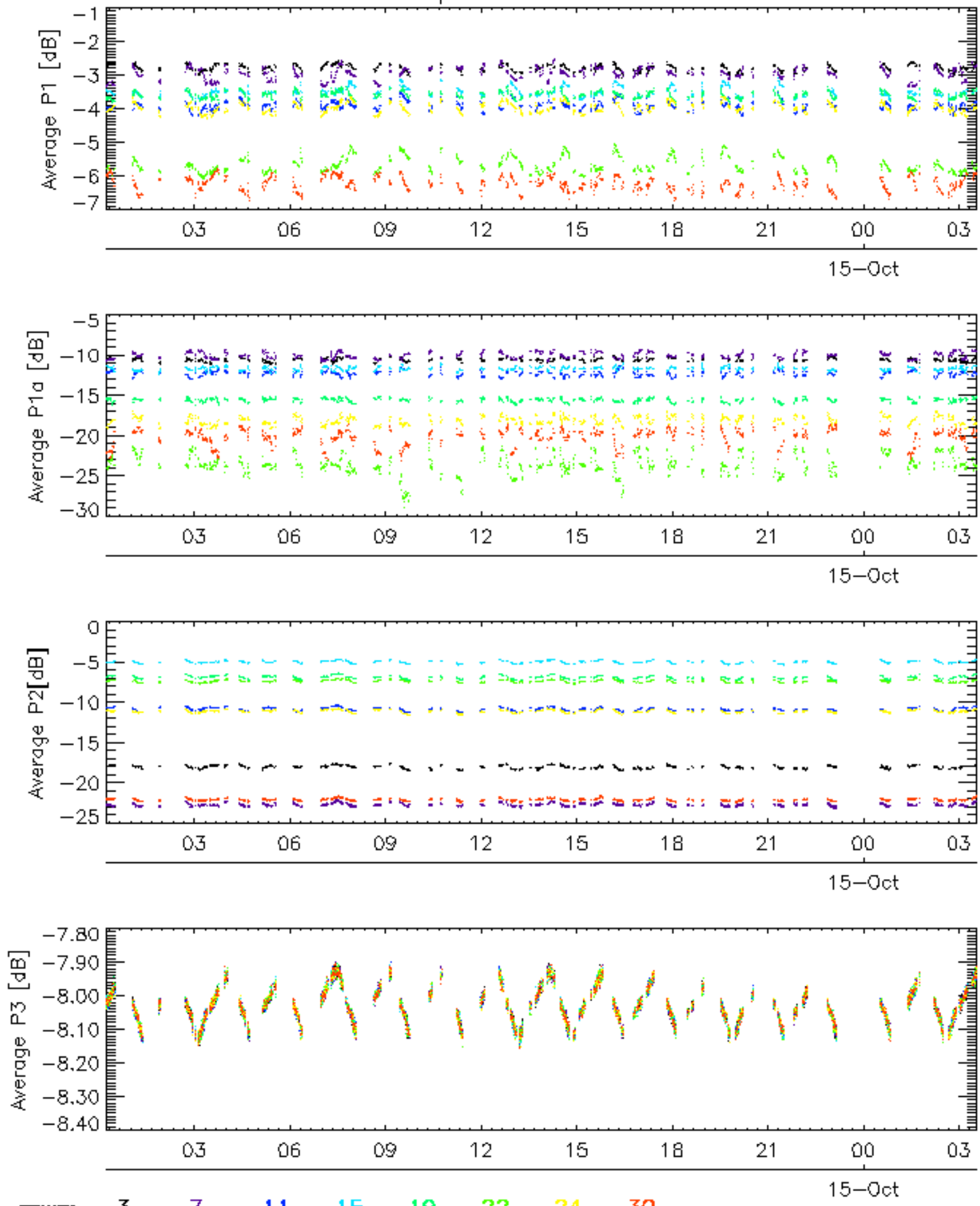
Evolution Doppler error versus ANX	
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Cal pulses for GM1 SS3

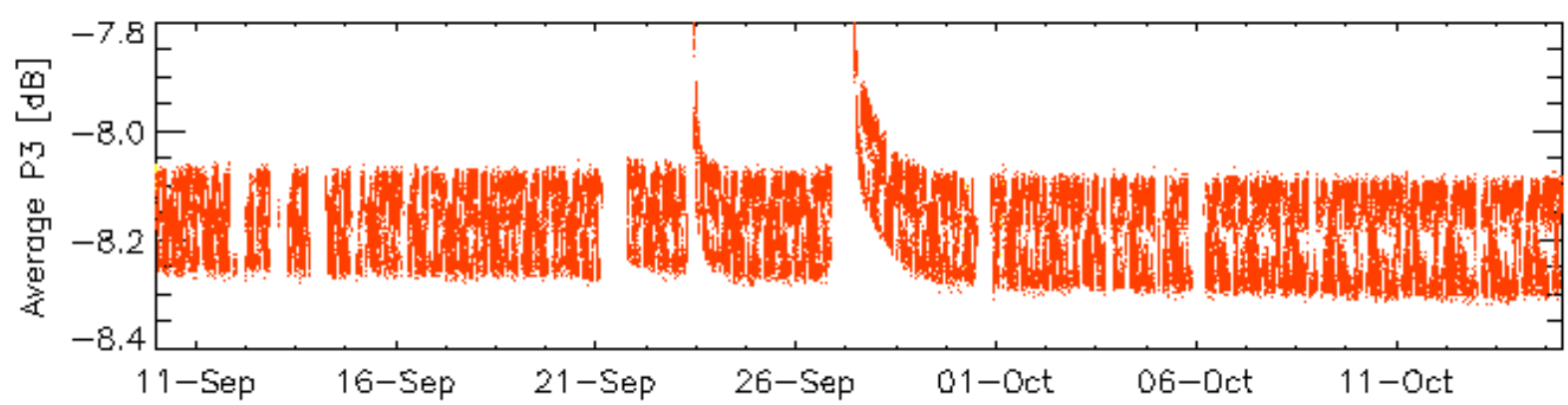
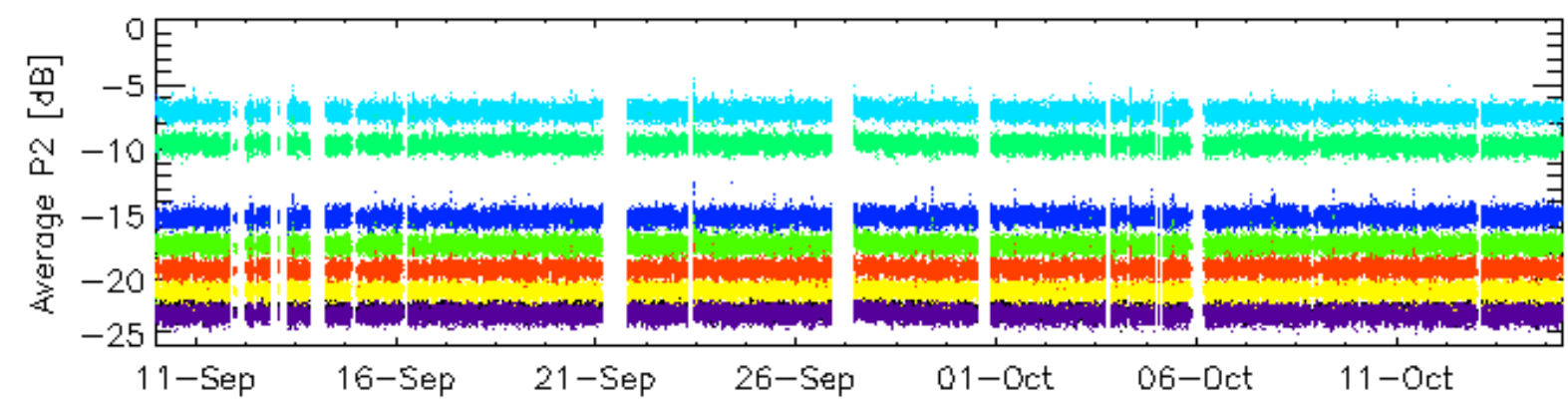
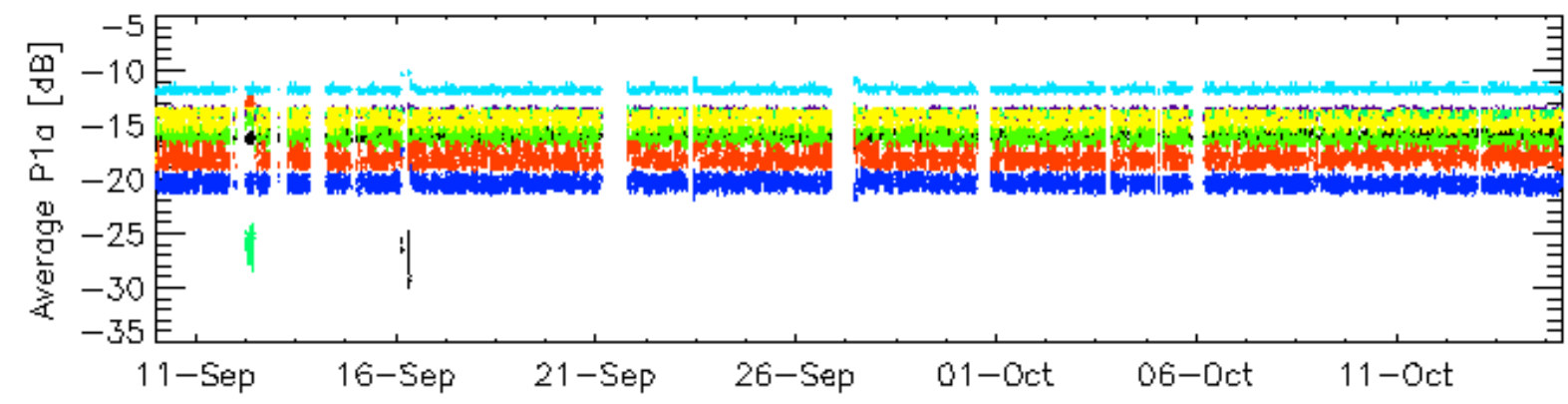
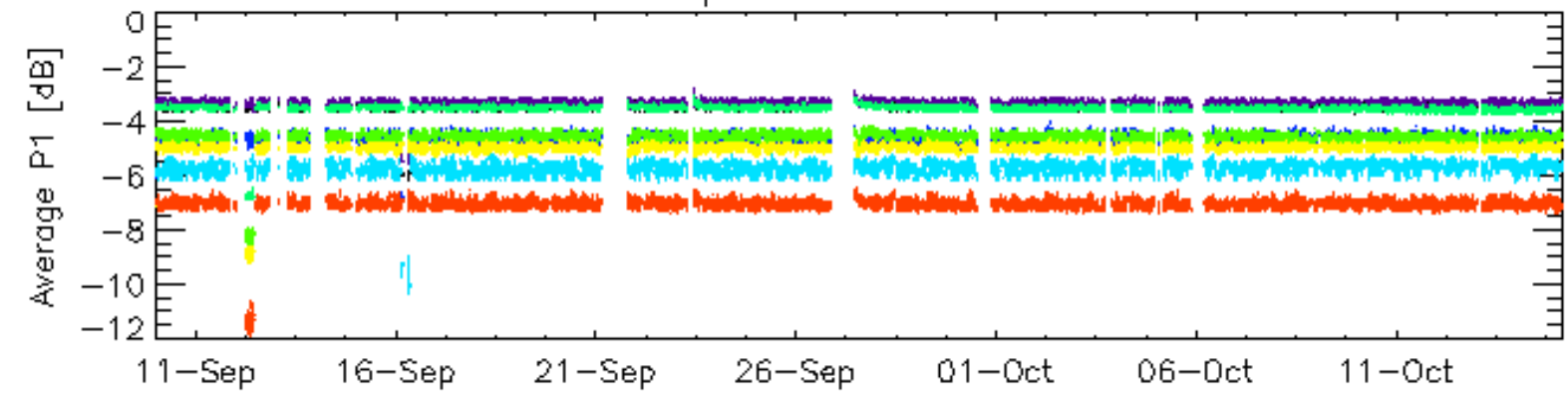


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

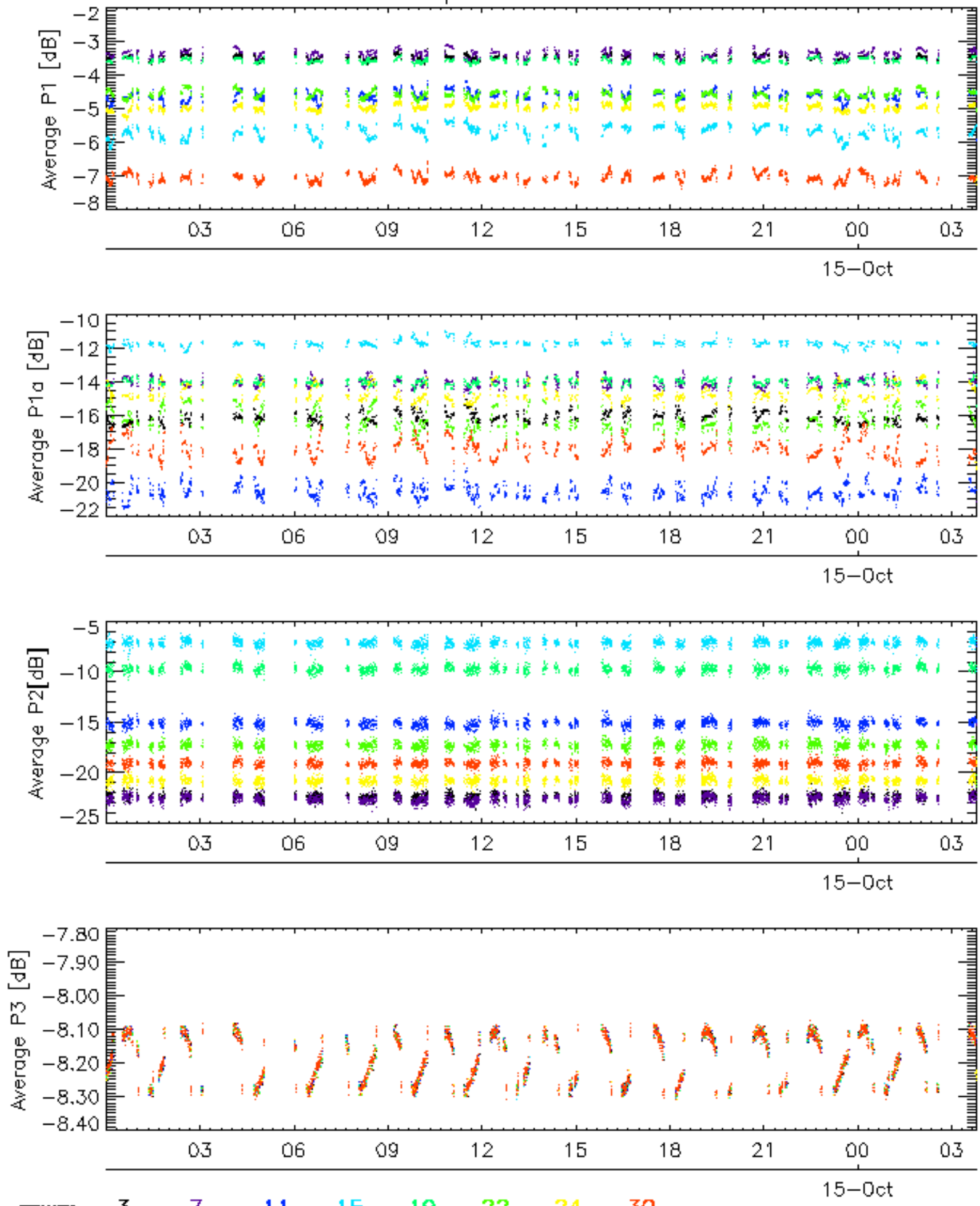


Cal pulses for WVS IS2

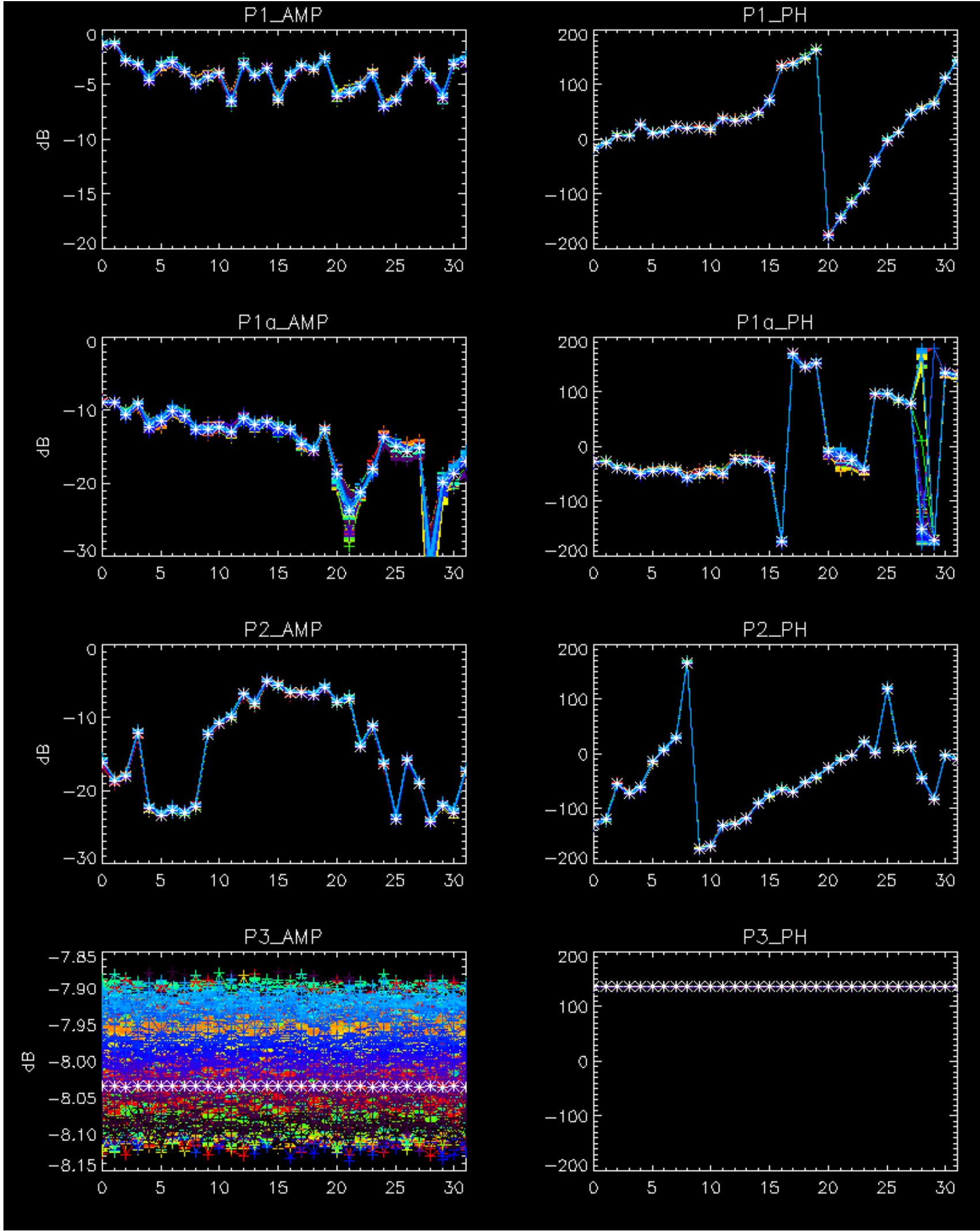


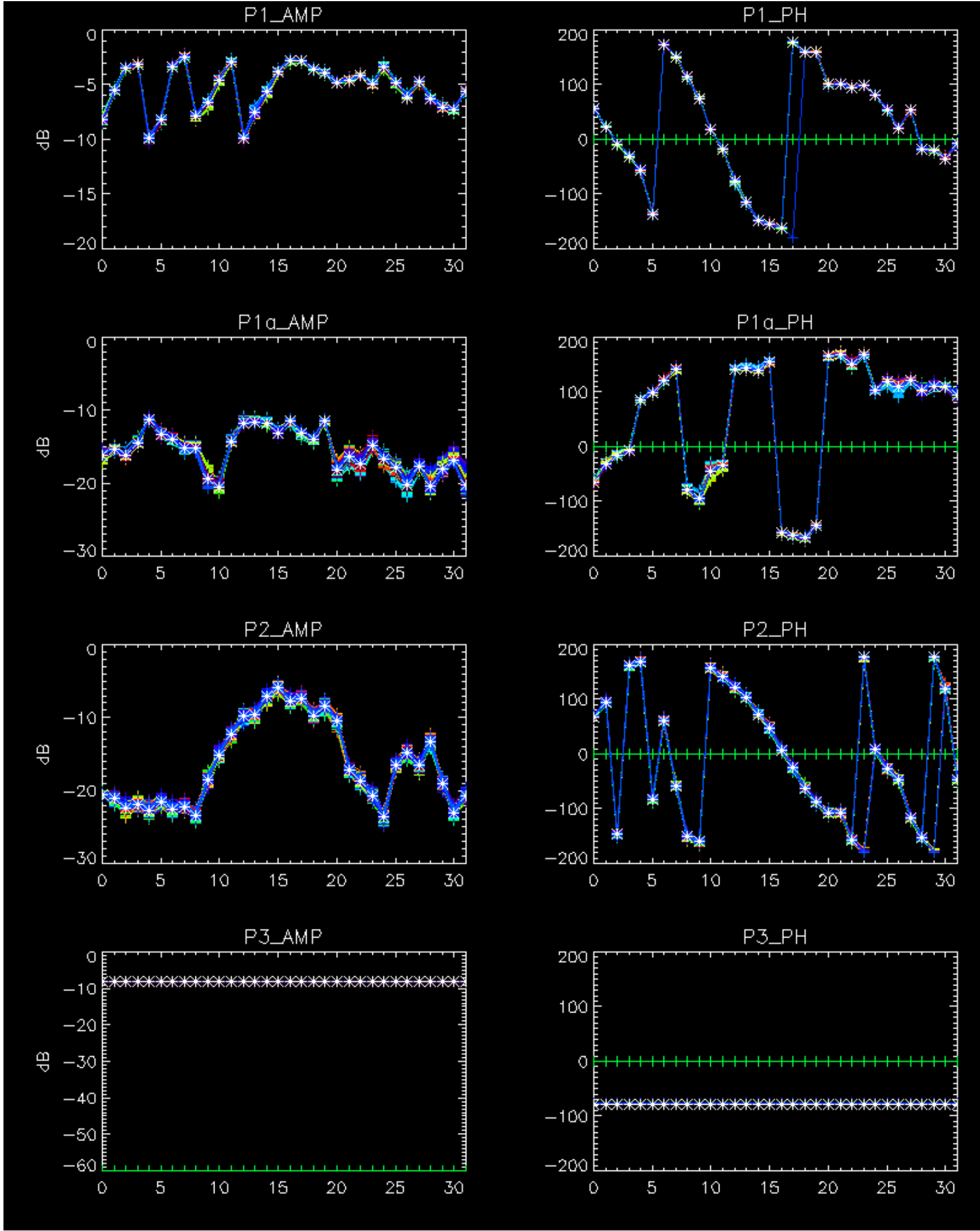
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Cal pulses for WVS IS2



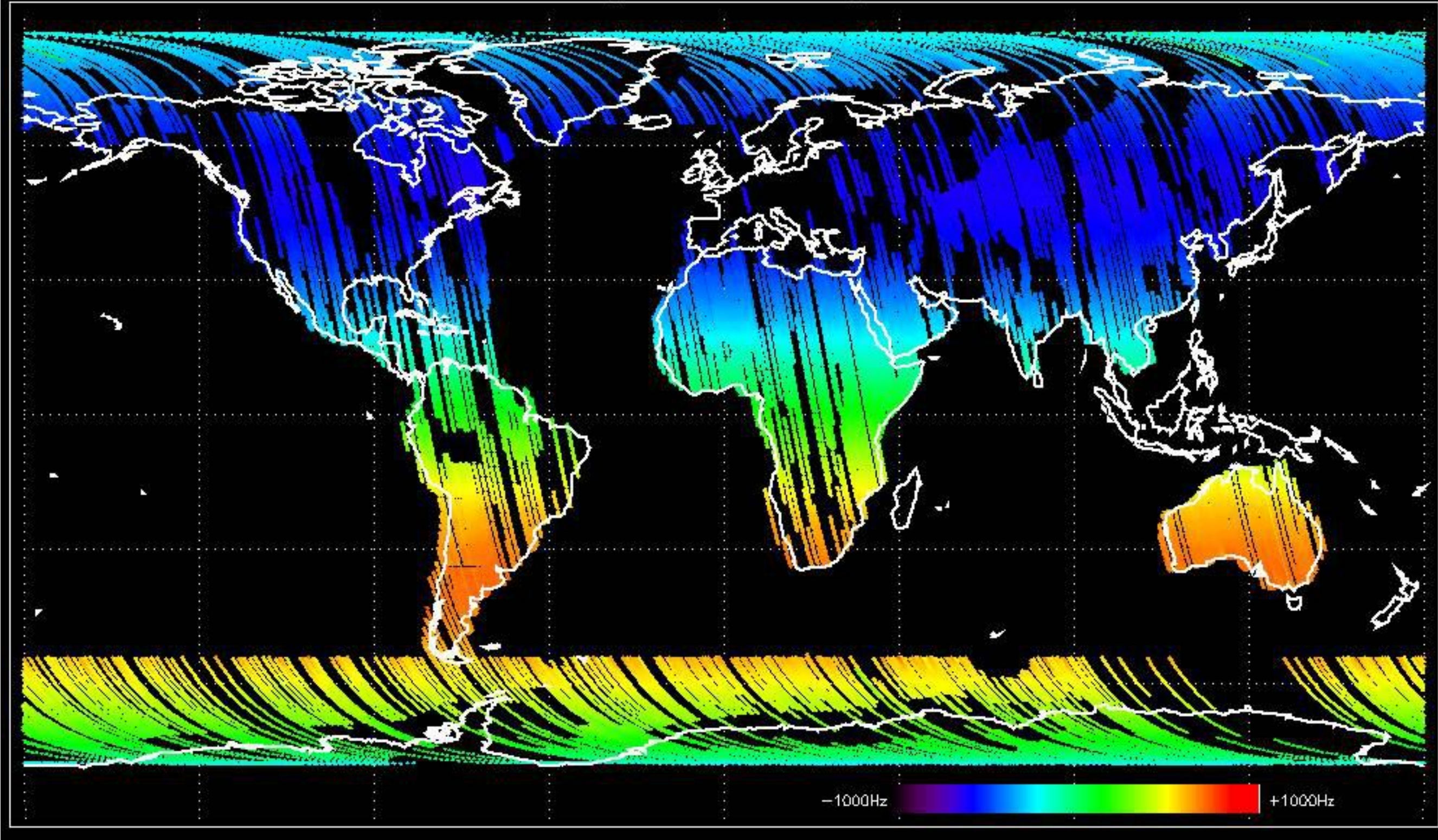
No anomalies observed.



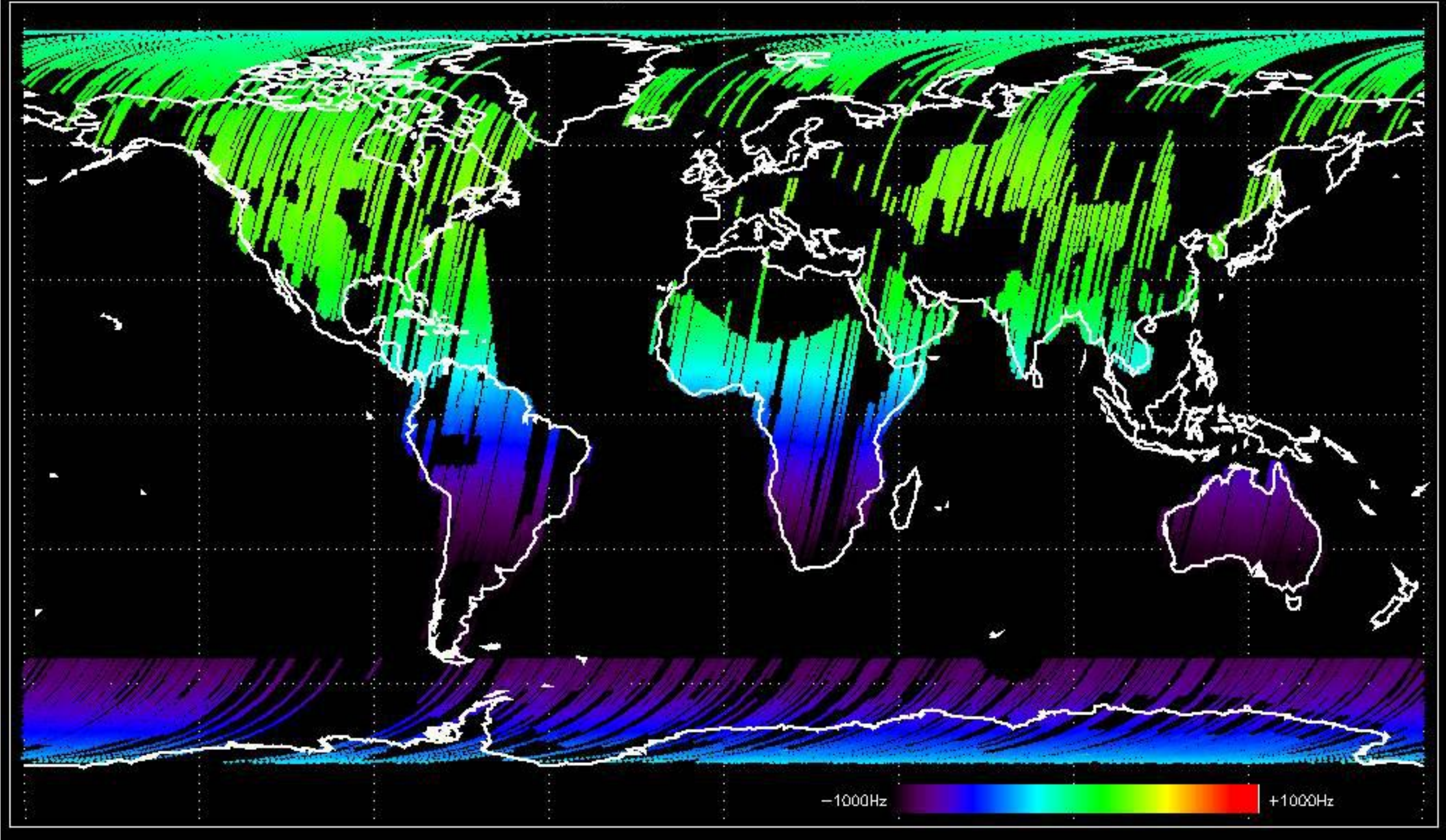


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

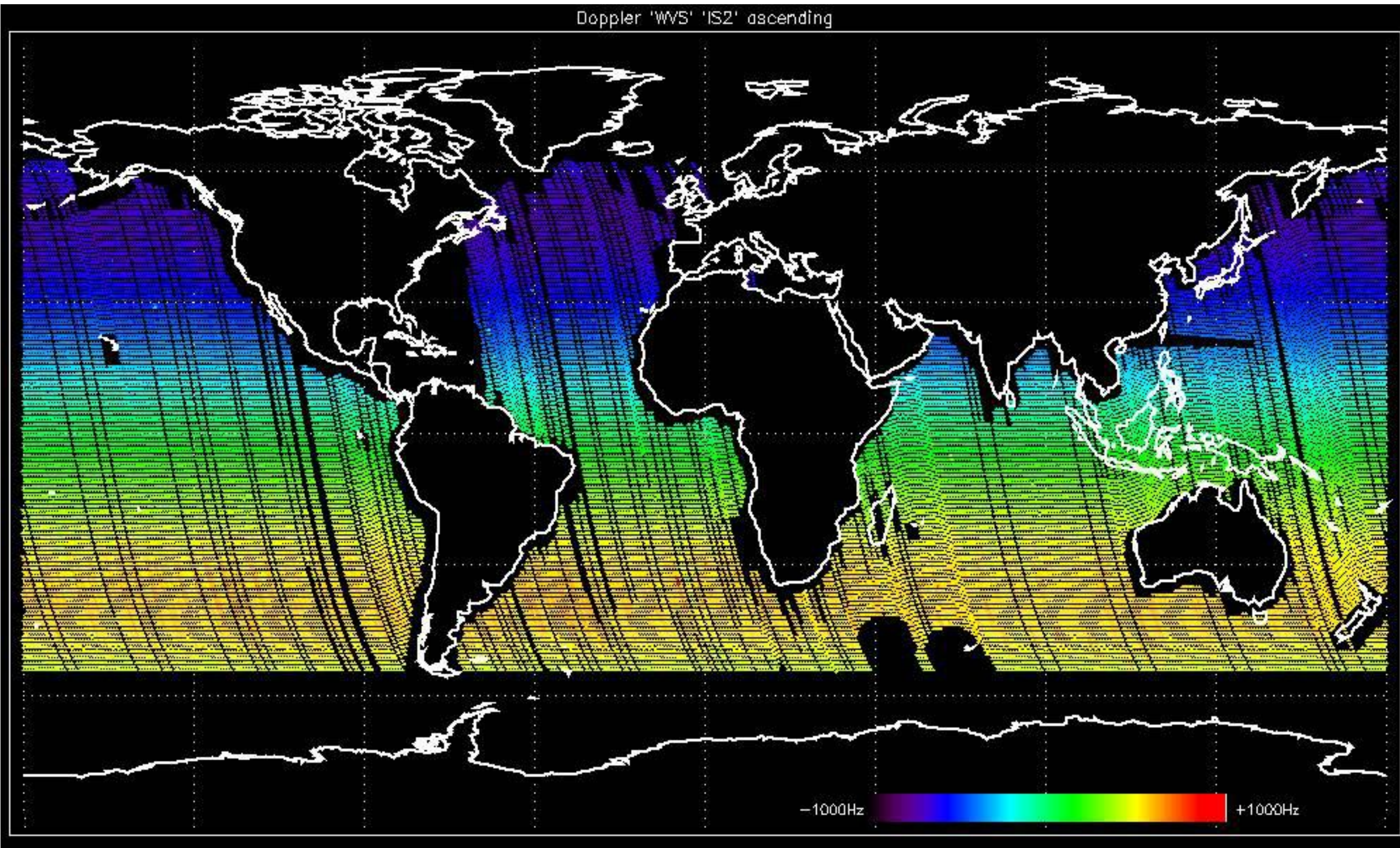
Doppler 'GM1' 'SS1' ascending



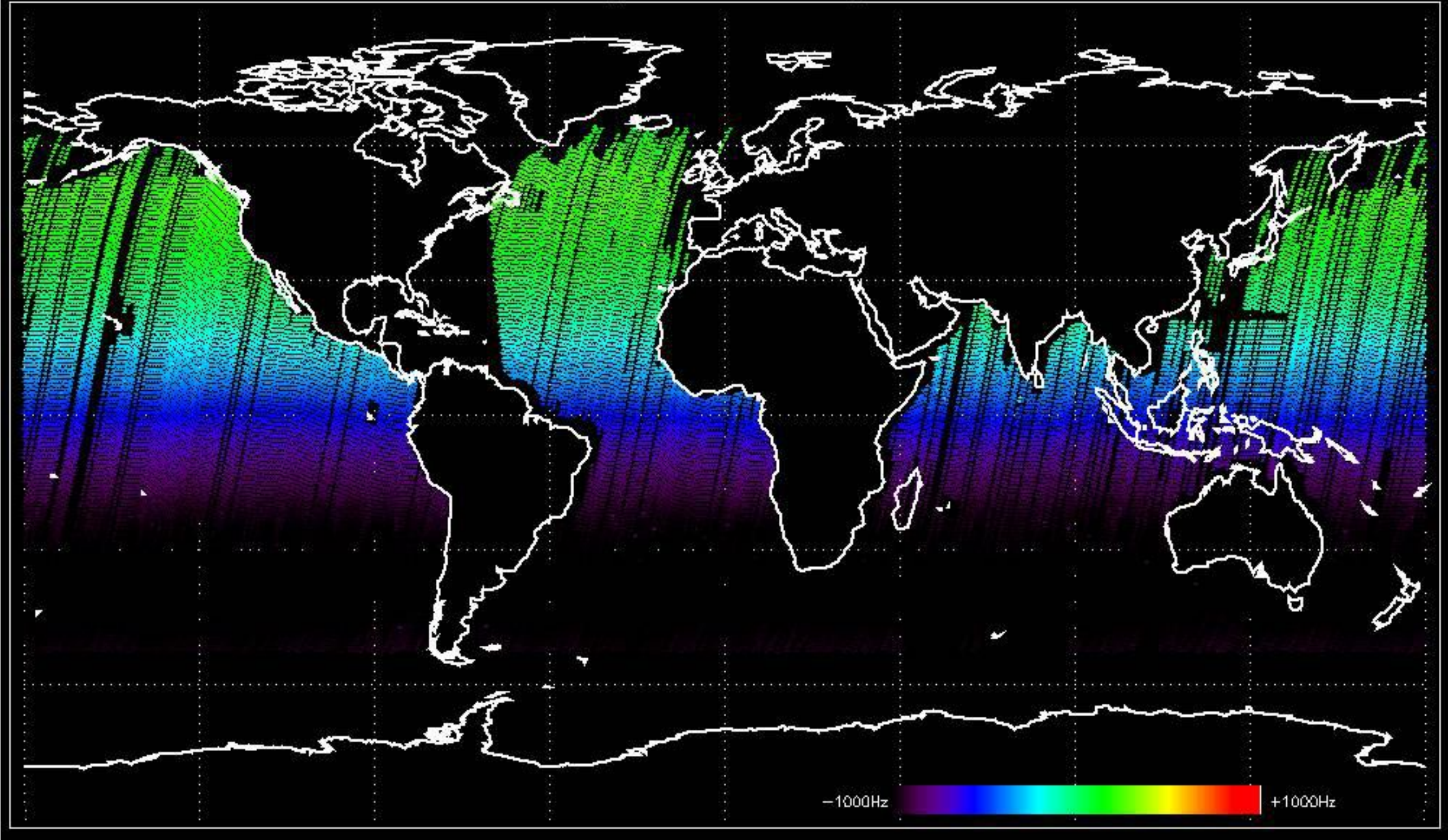
Doppler 'GM1' 'SS1' descending



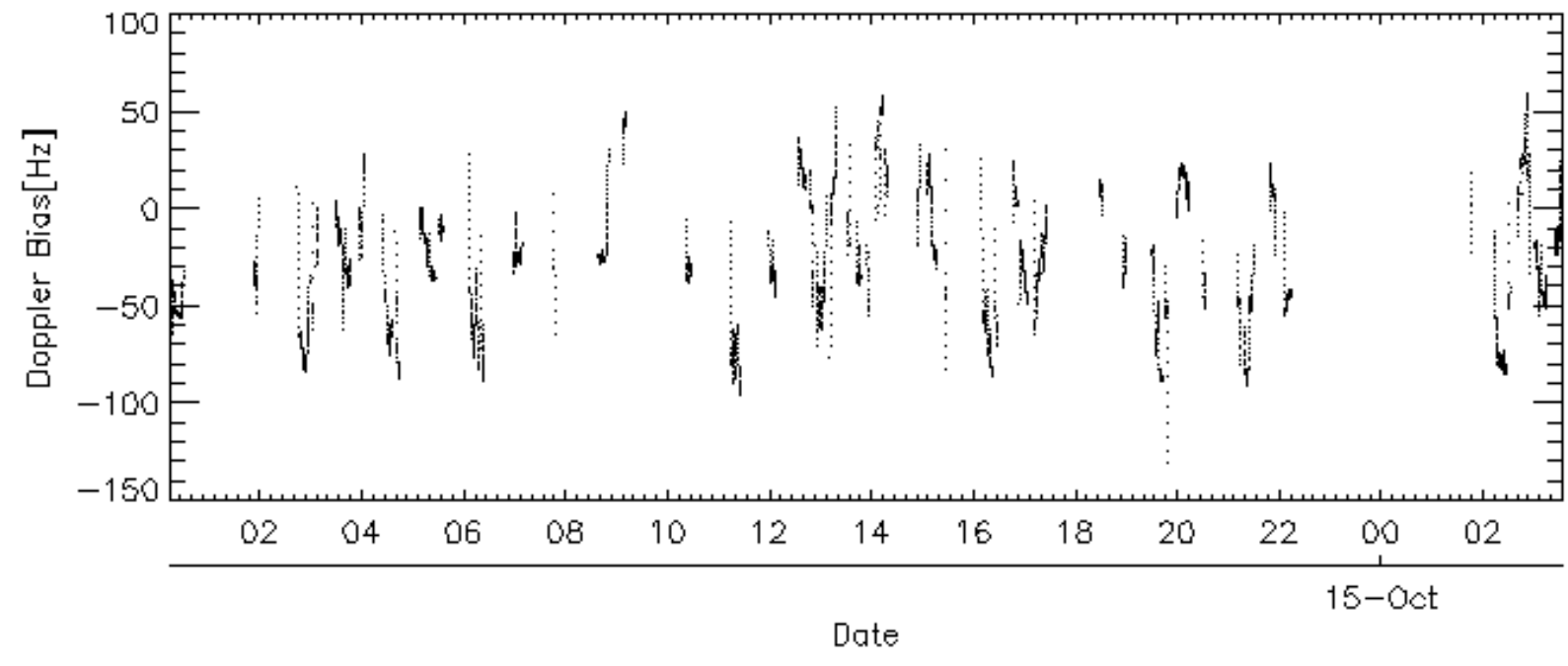
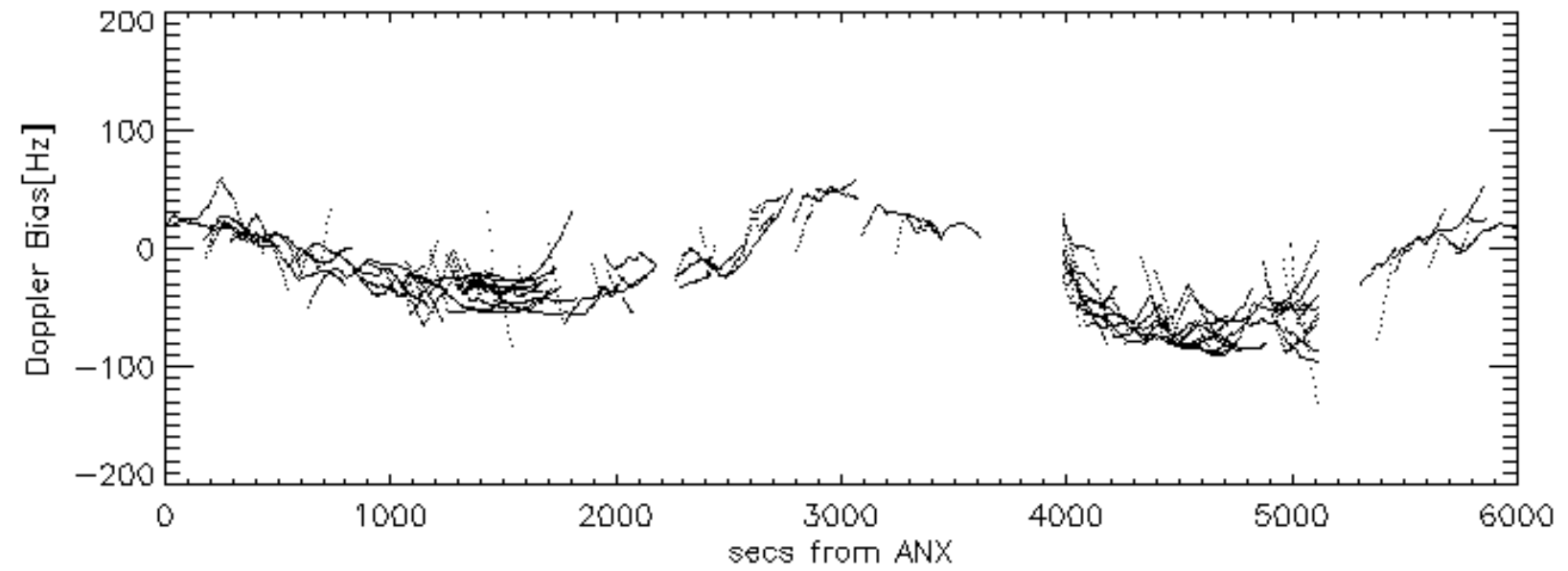
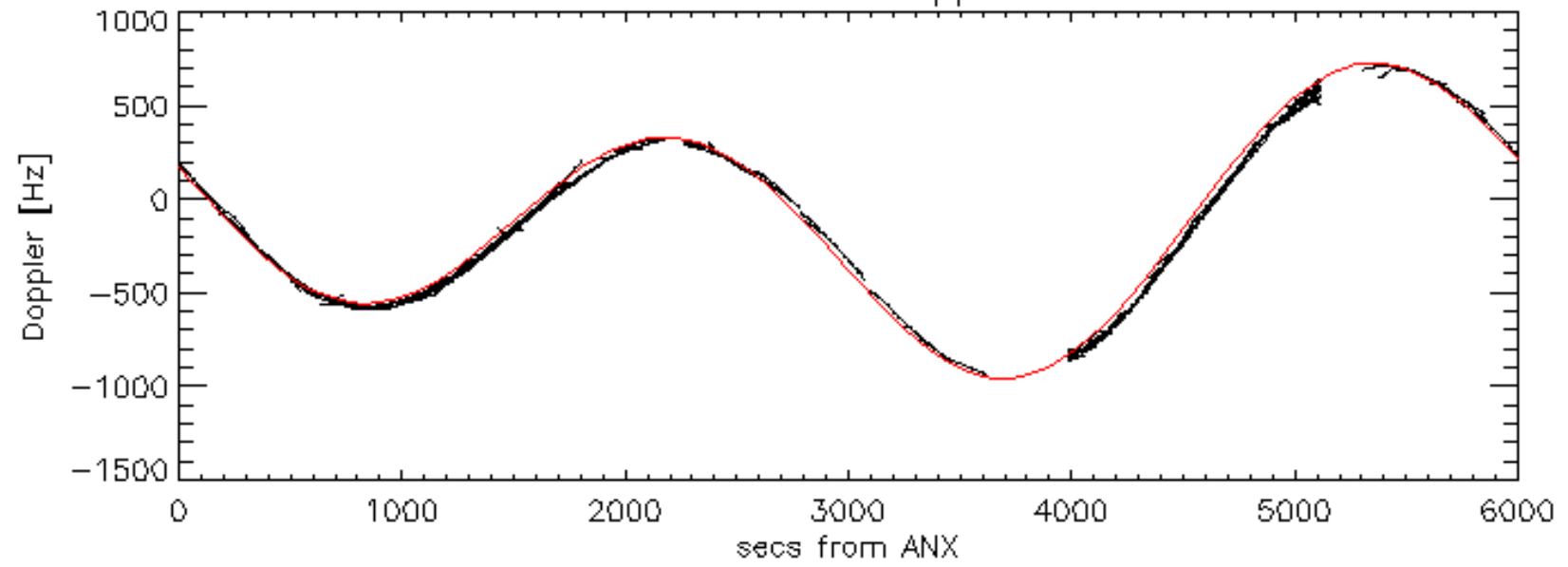
Doppler 'WVS' 'IS2' ascending

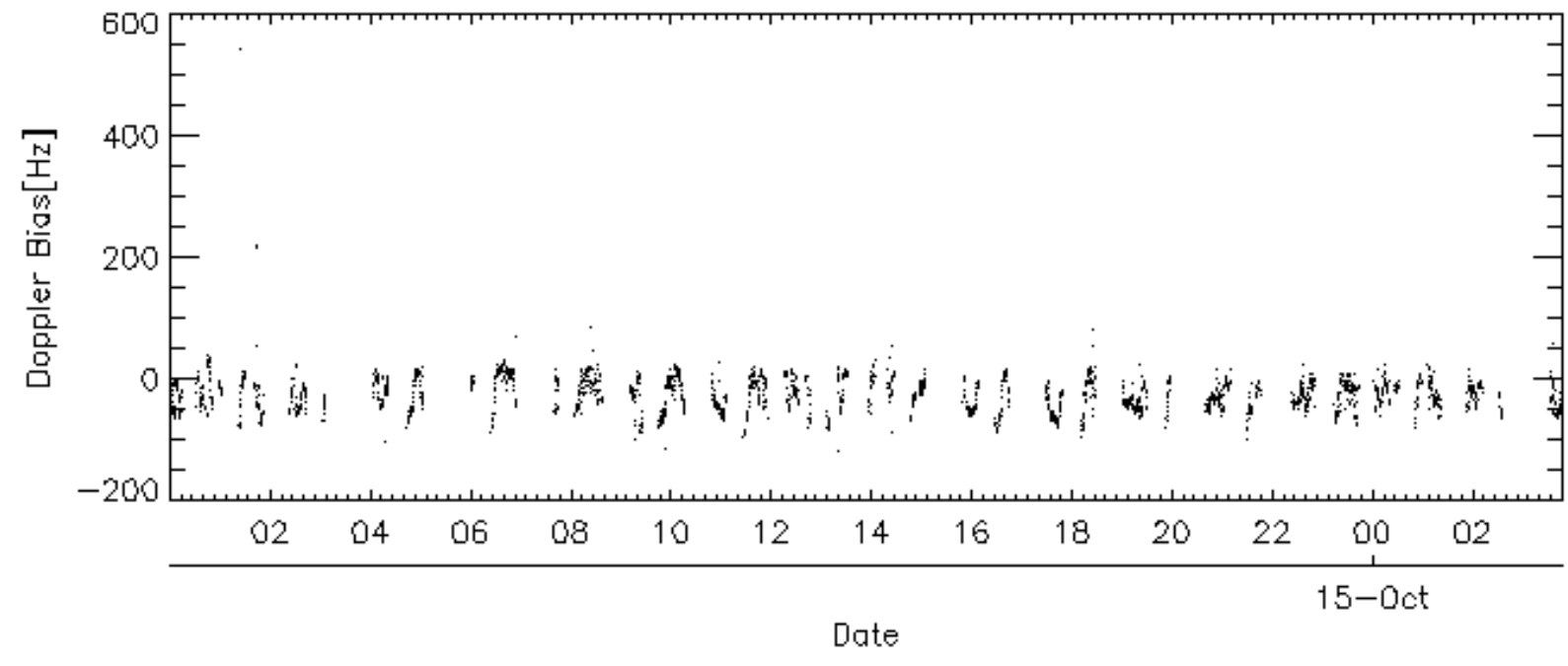
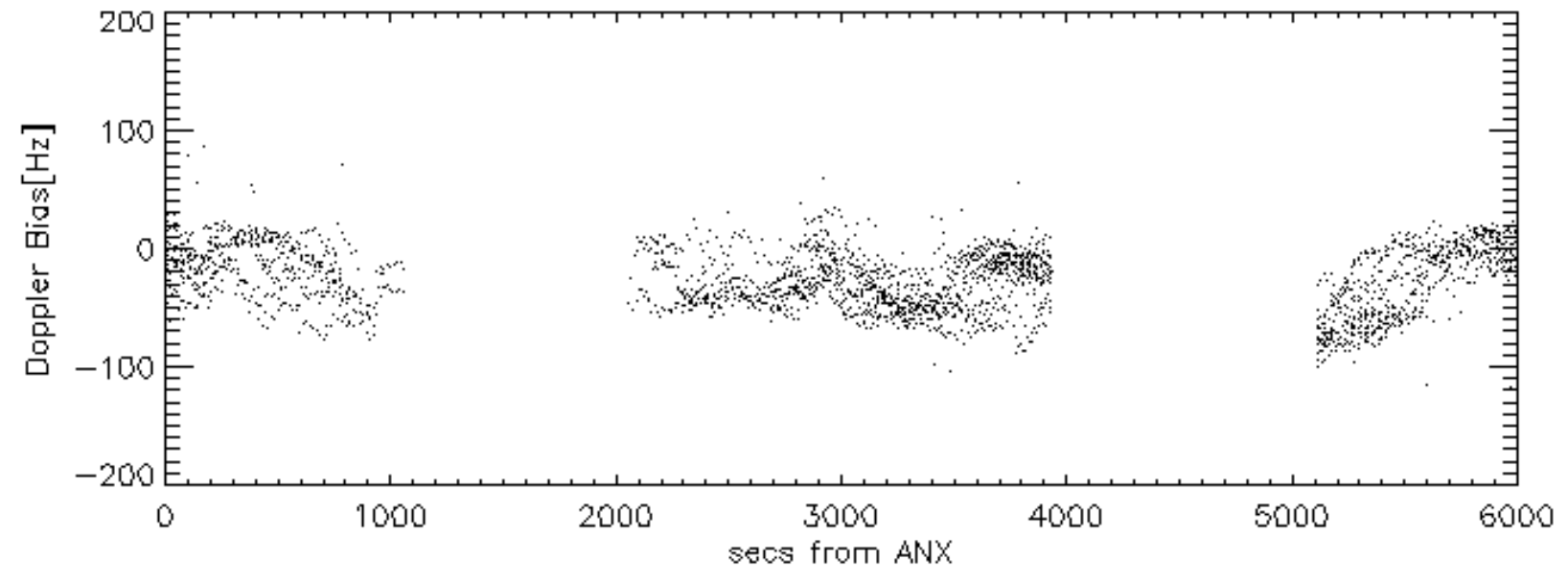
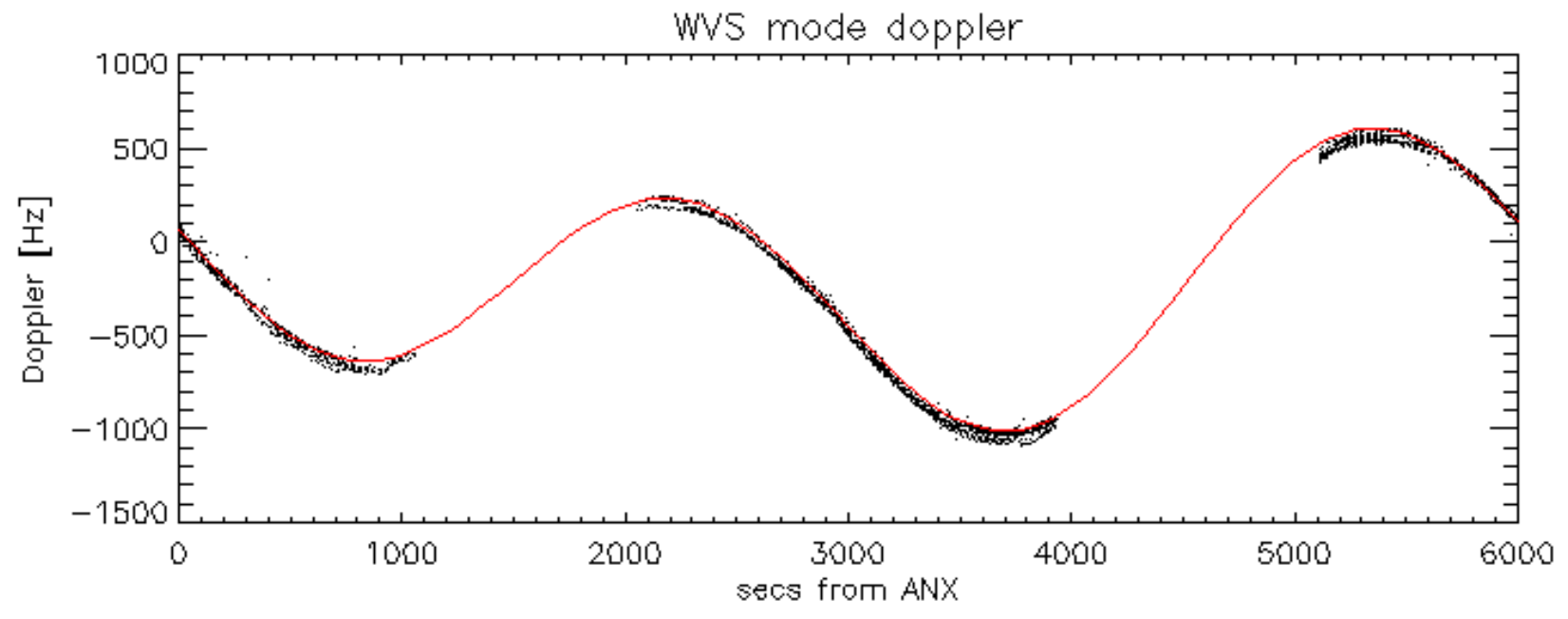


Doppler 'WVS' 'IS2' descending

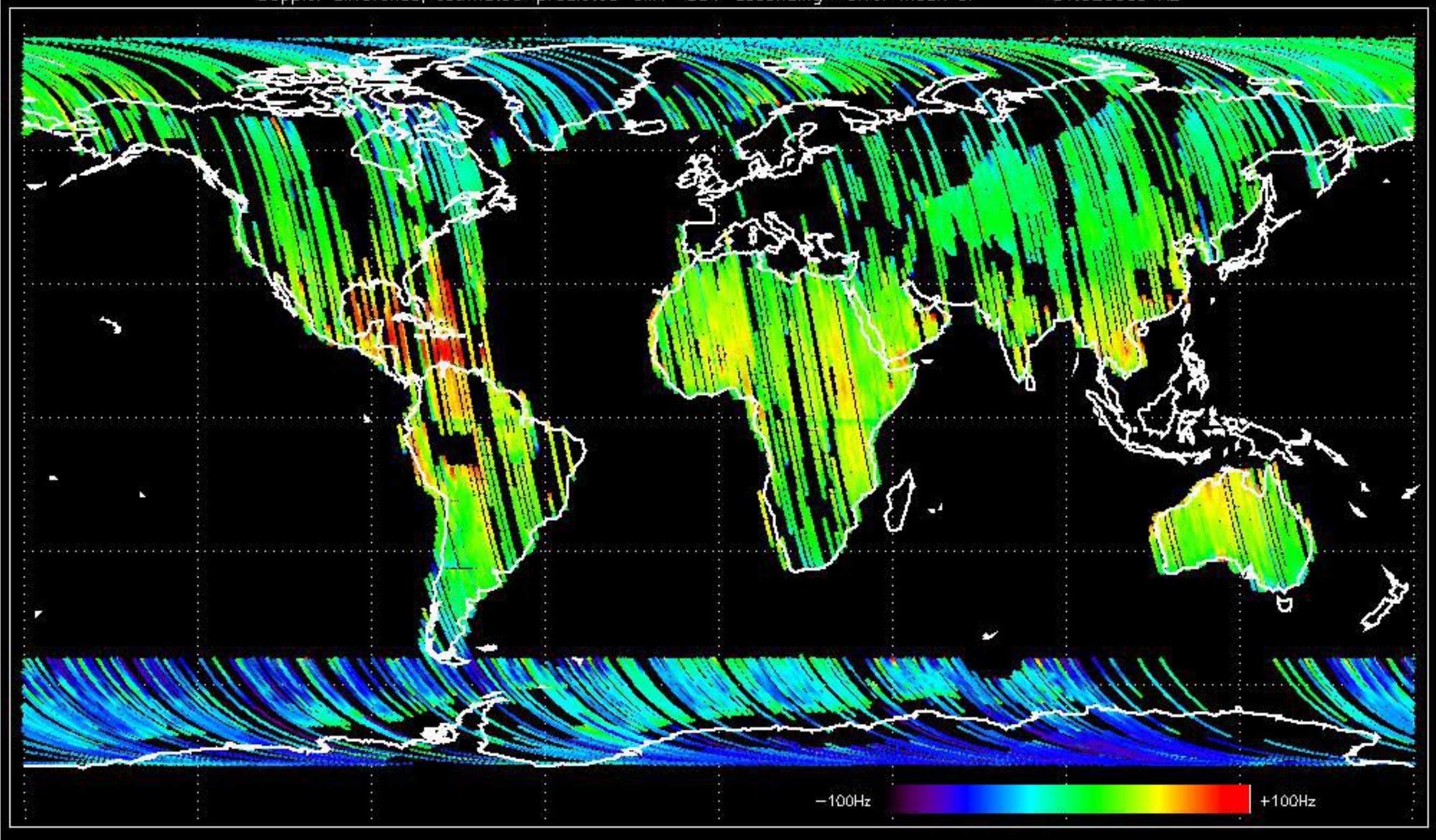


GM1 mode doppler

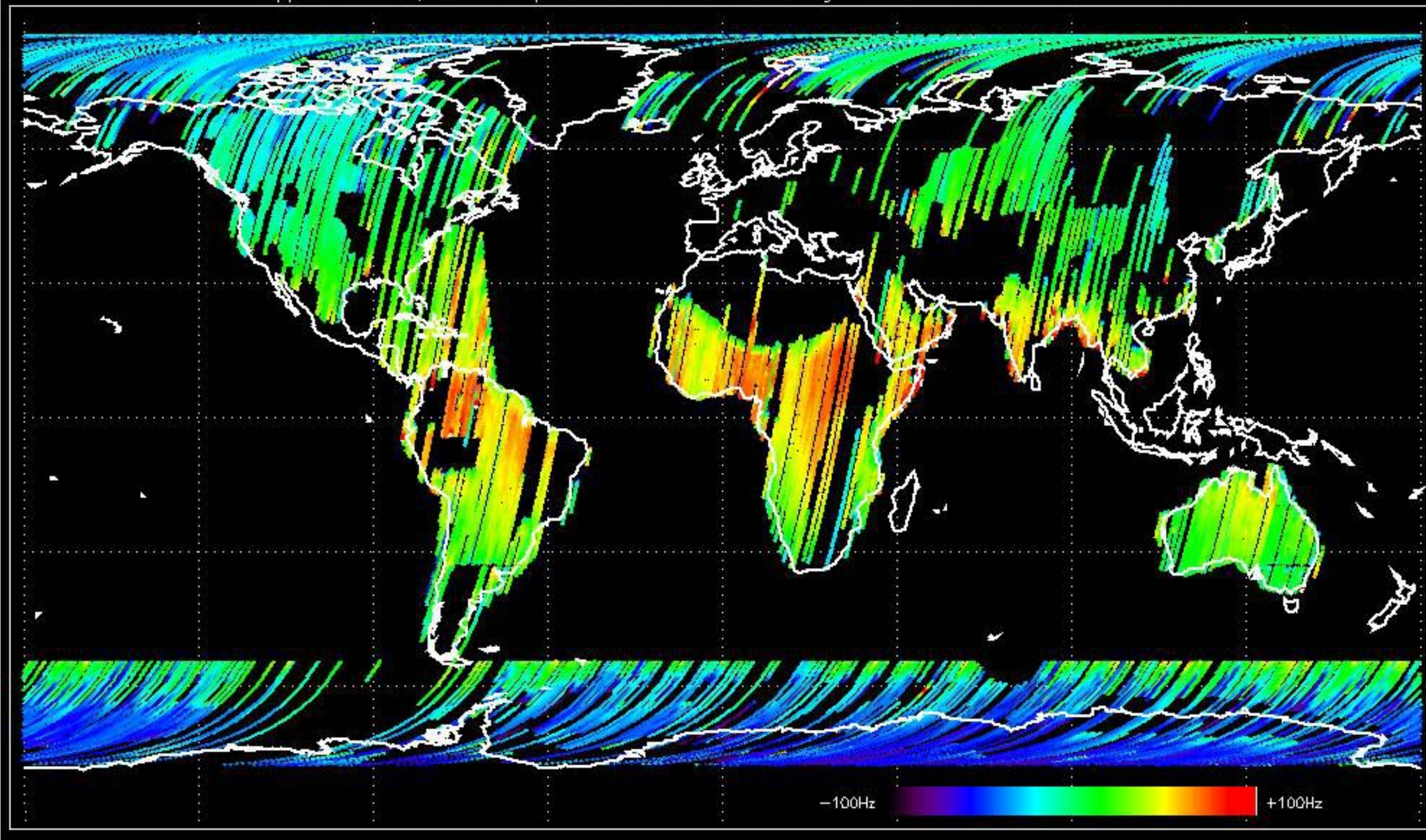




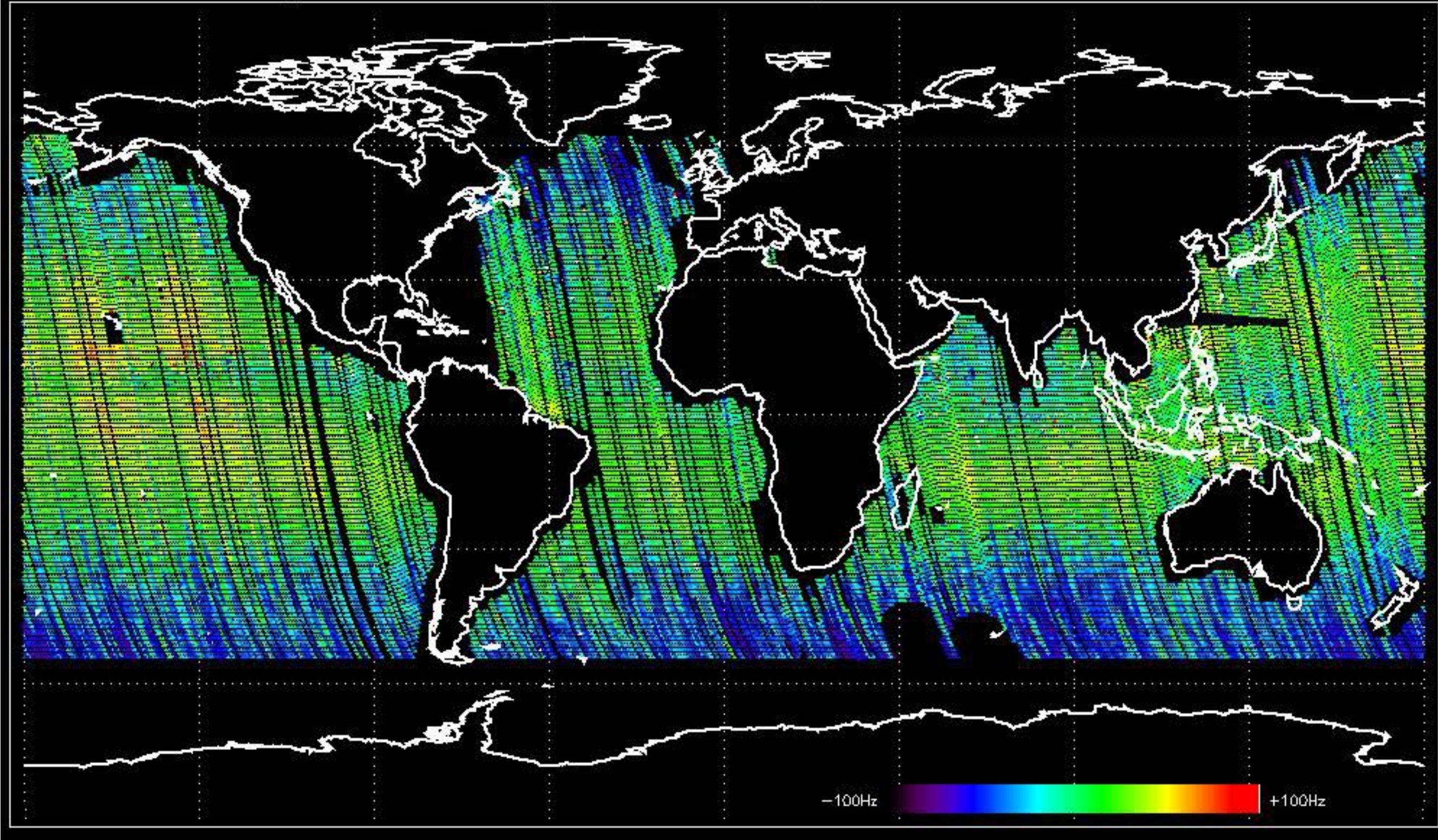
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -31.020669 Hz



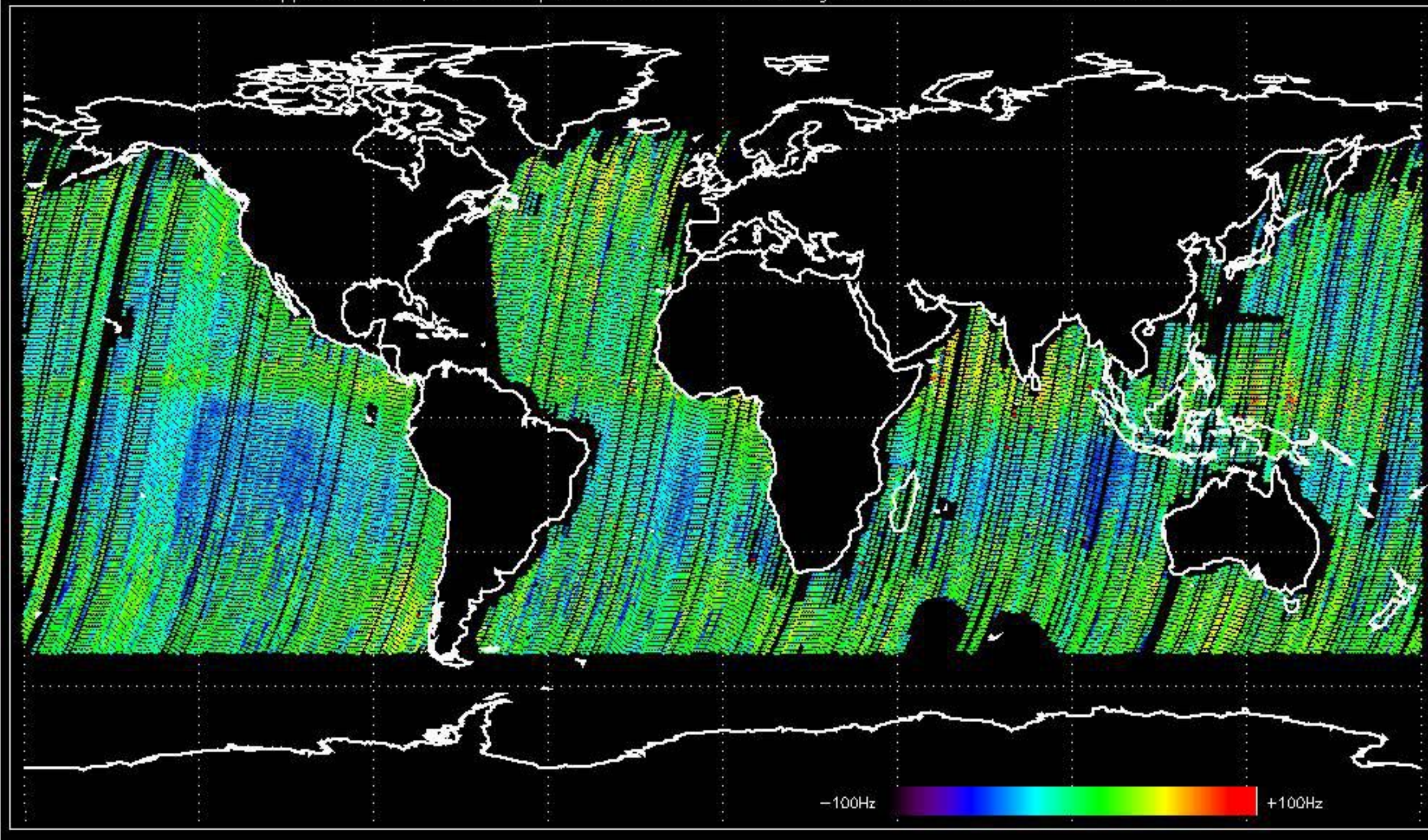
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -23.330986 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -30.121073 Hz

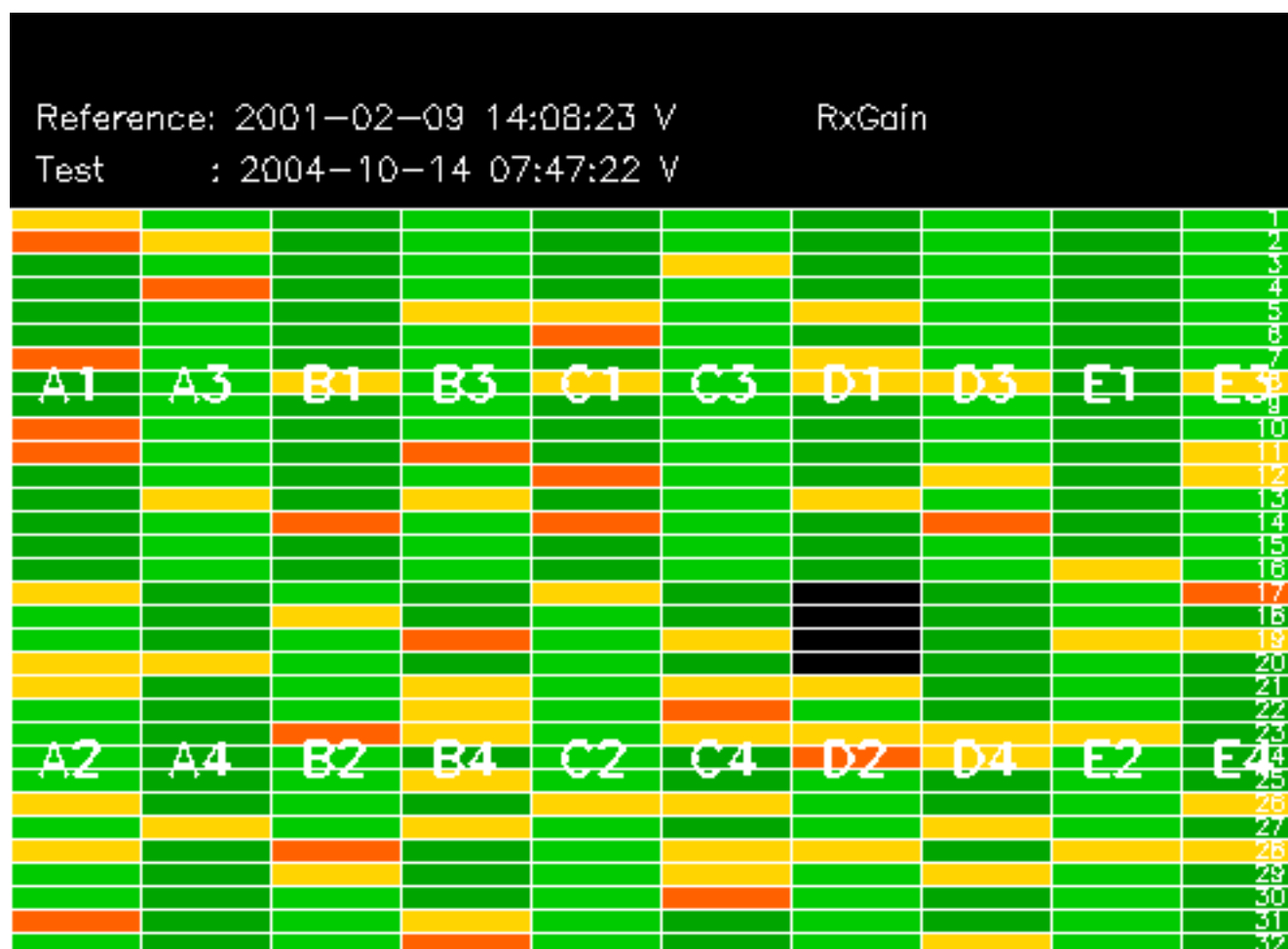


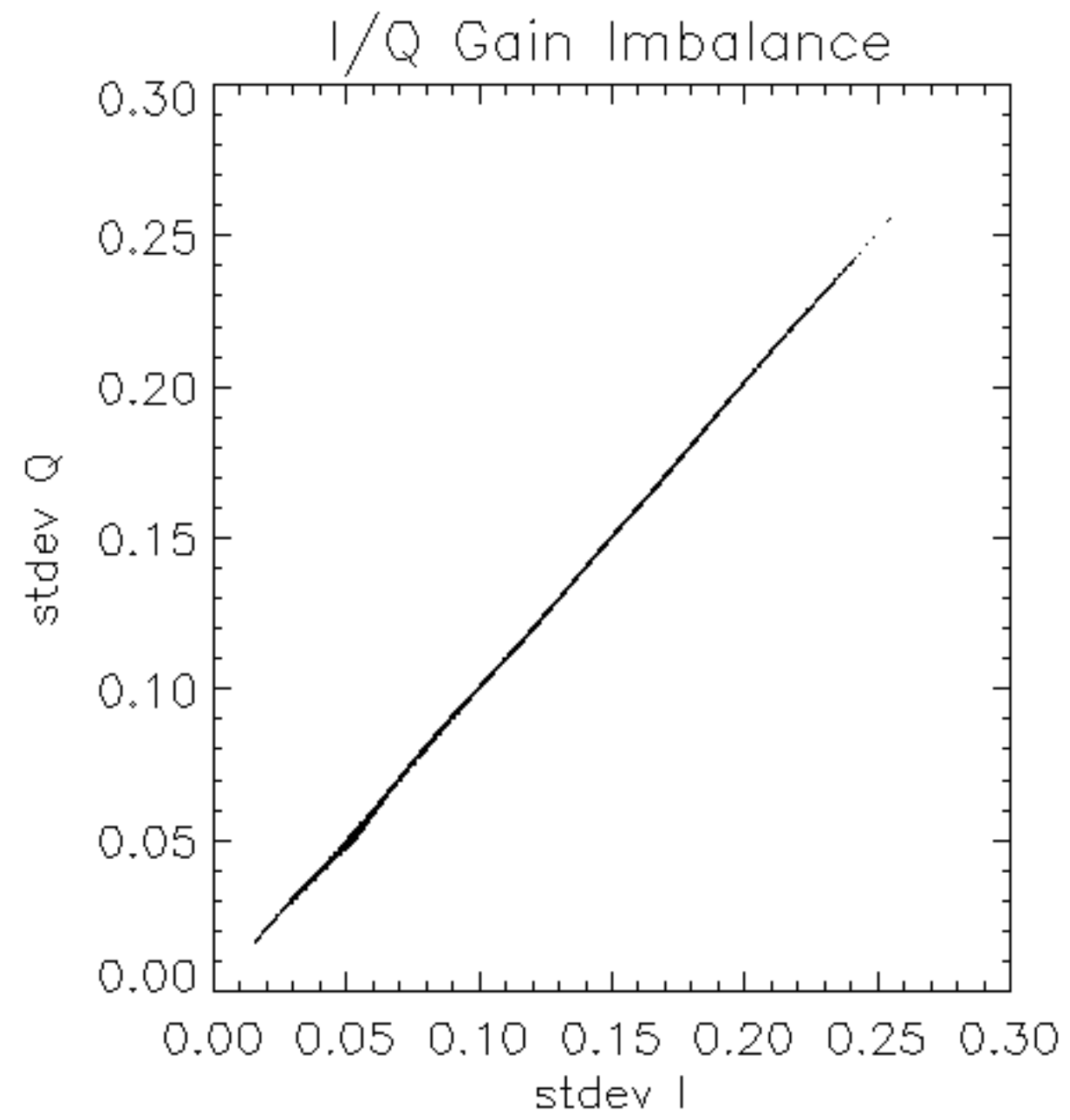
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -33.442543 Hz

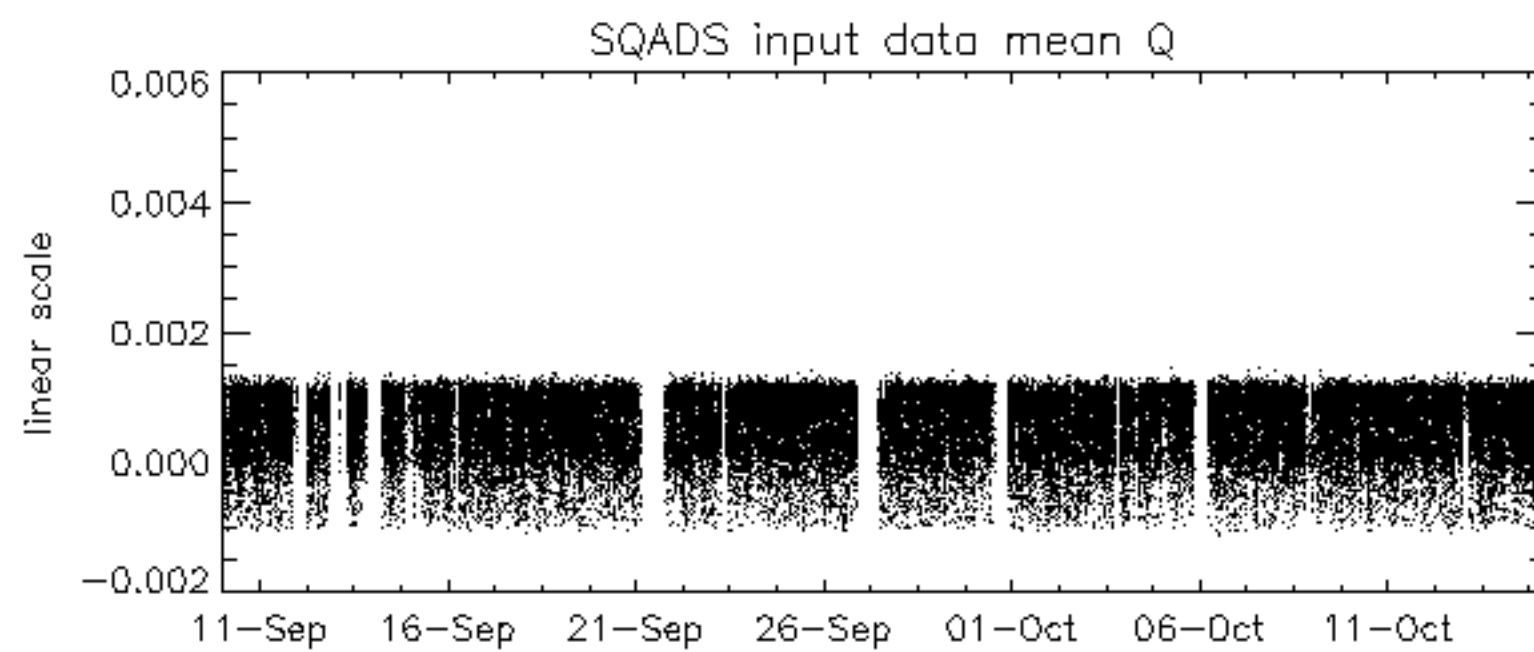
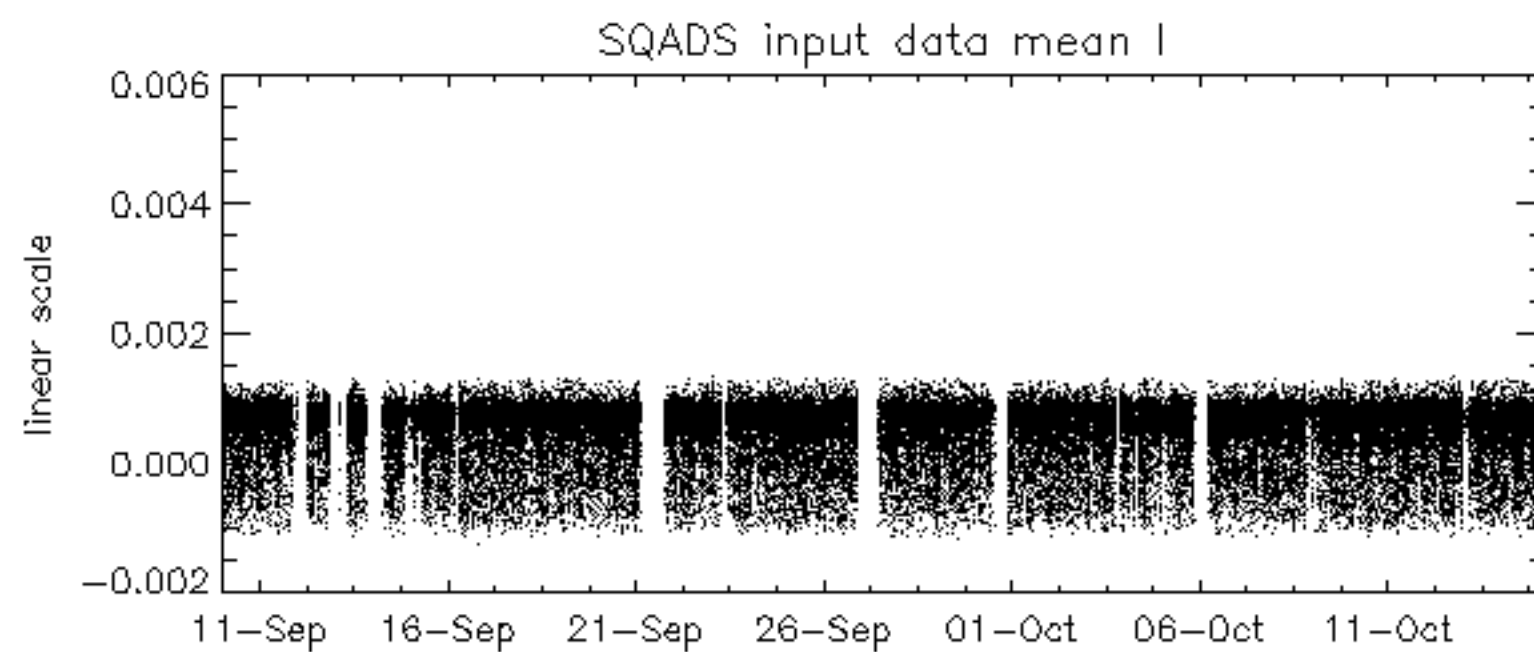
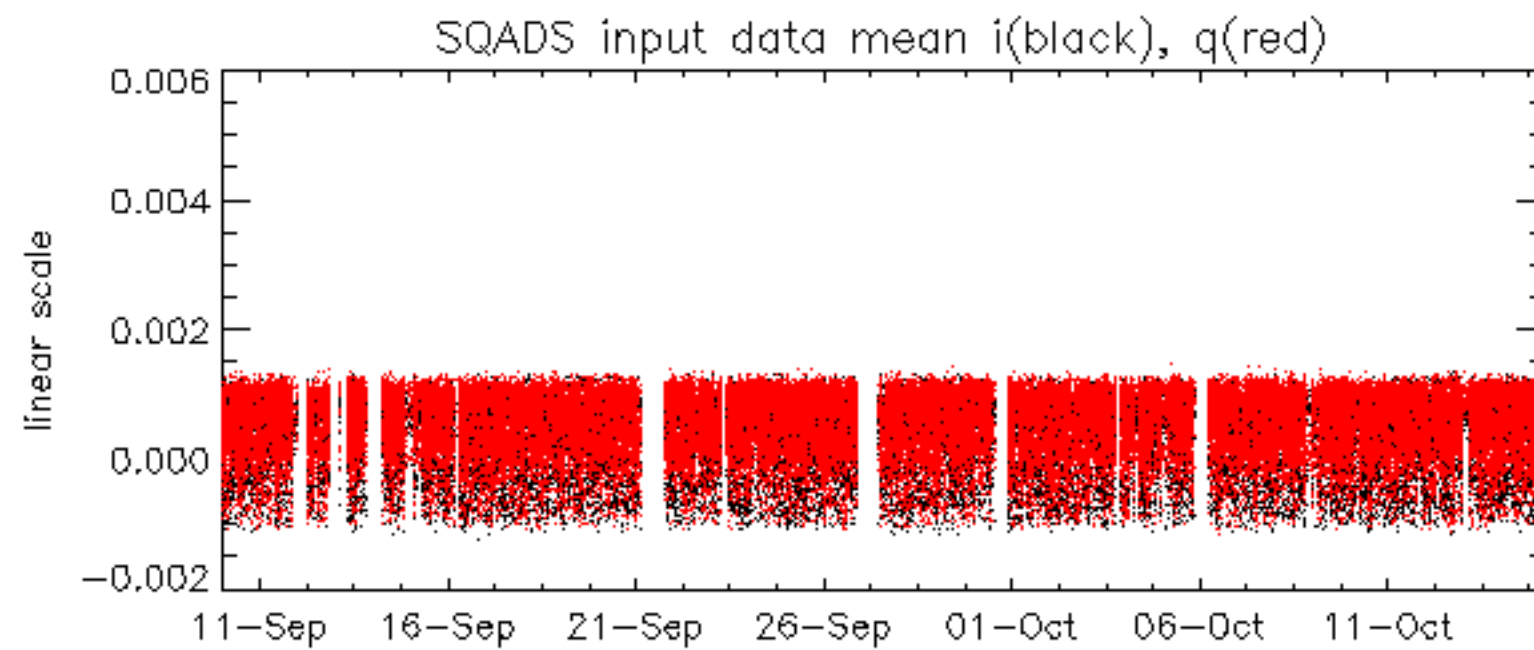


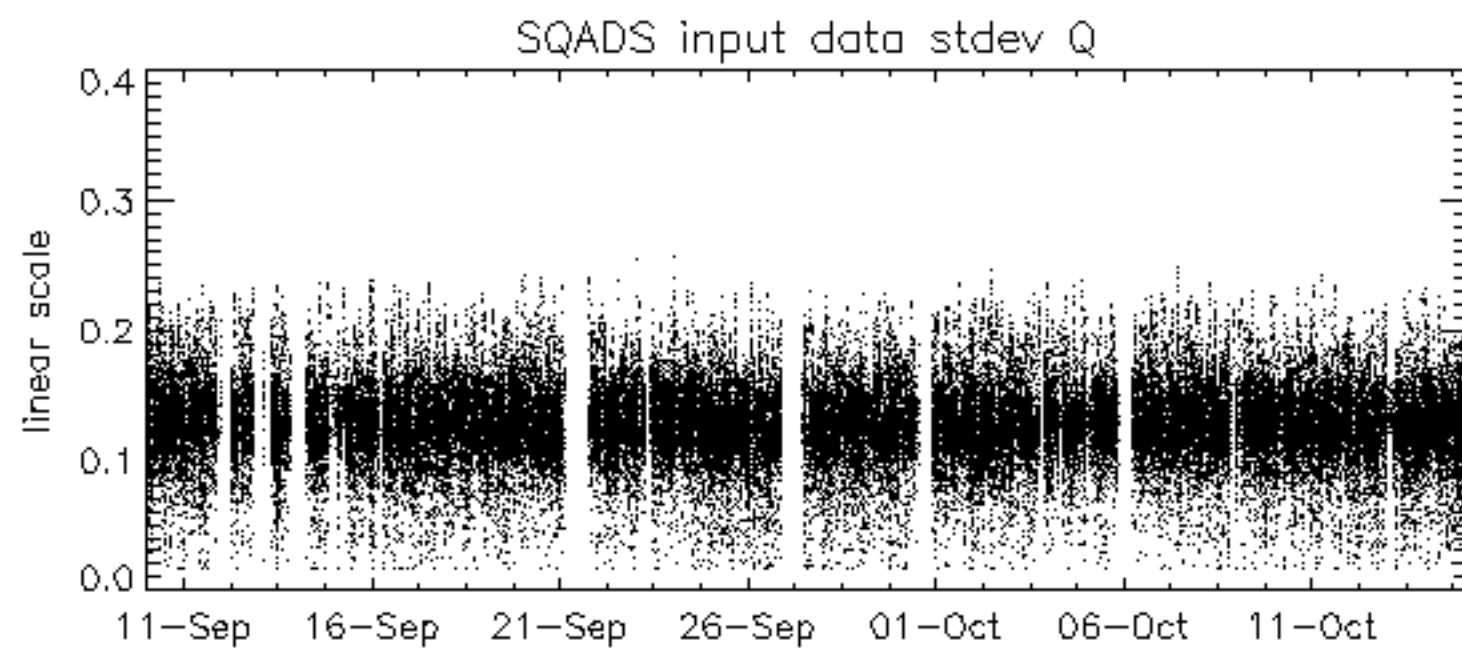
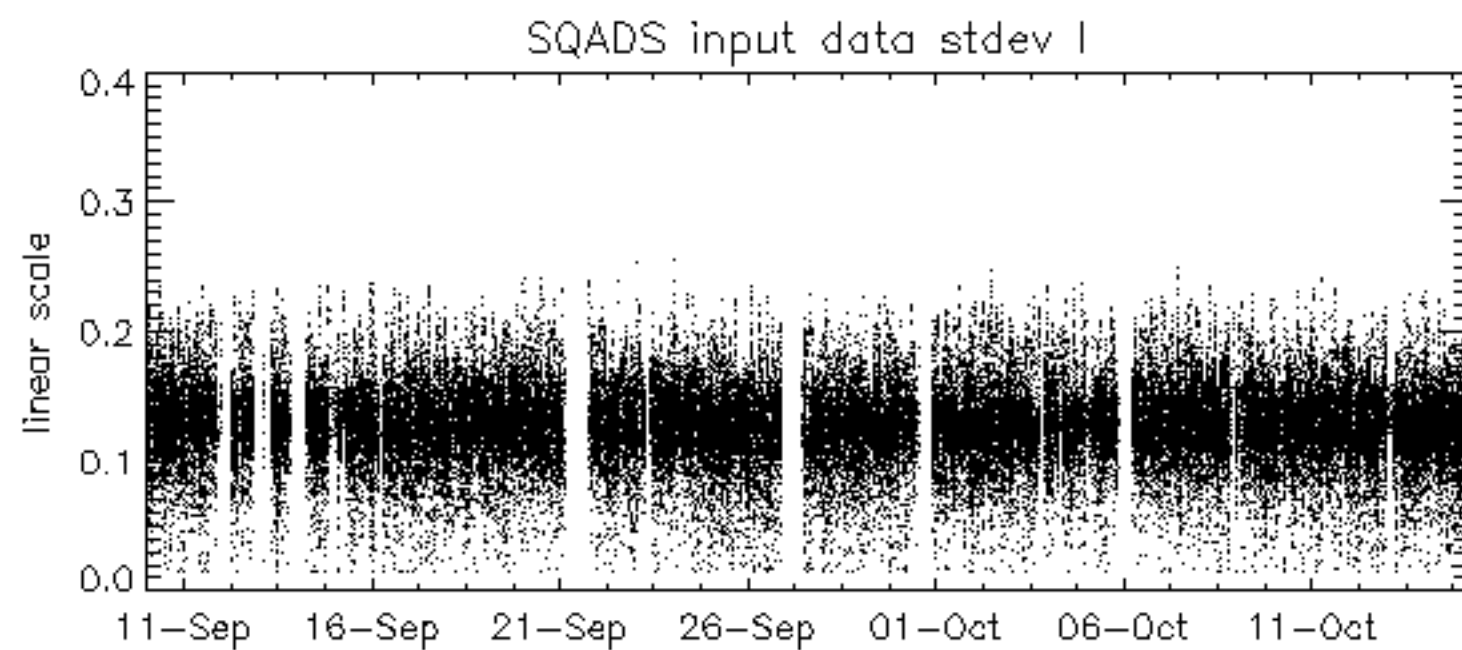
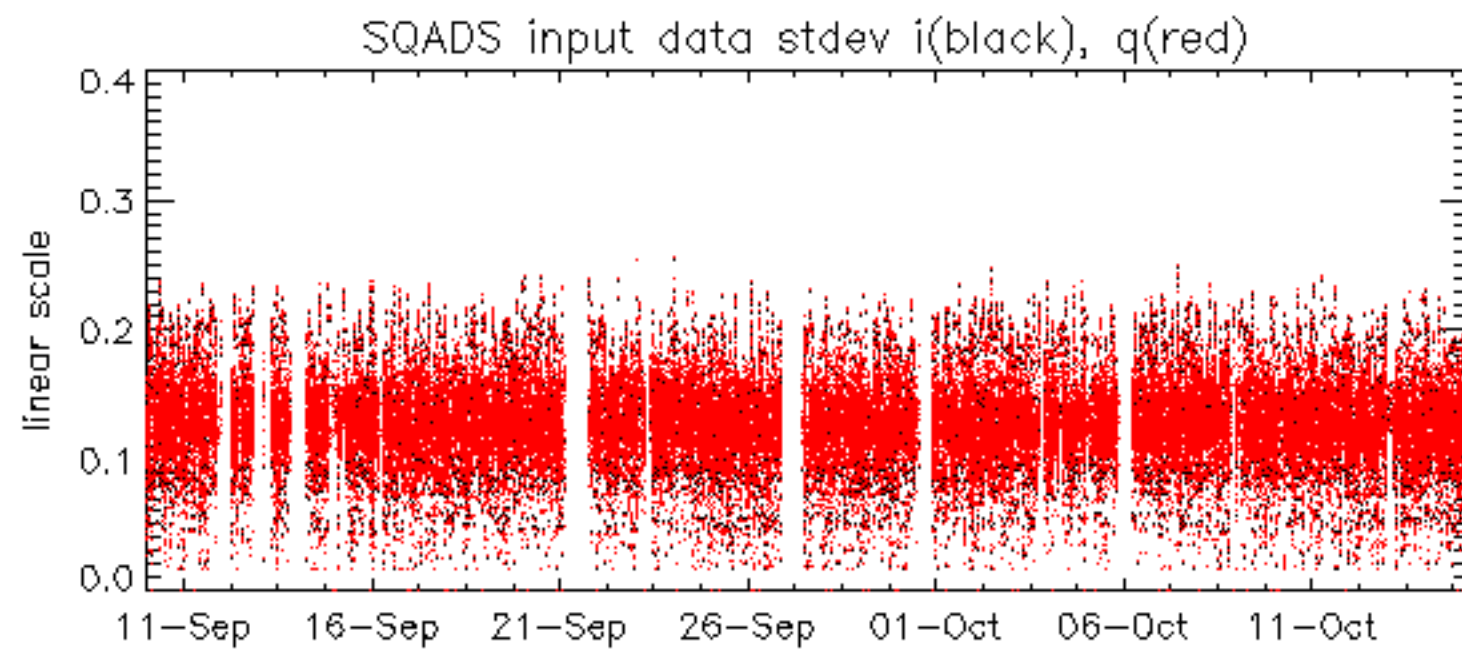
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to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

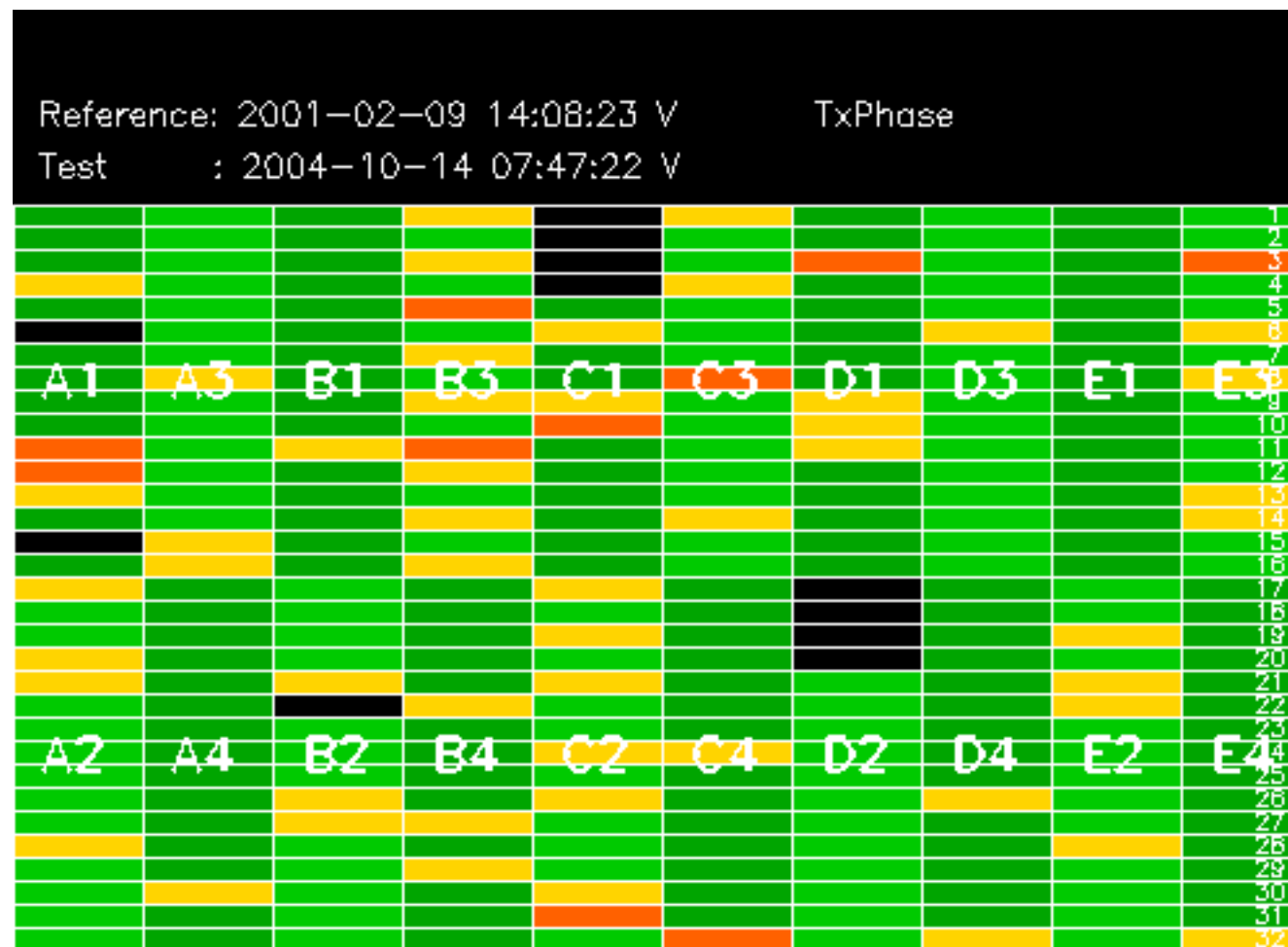
No anomalies observed.

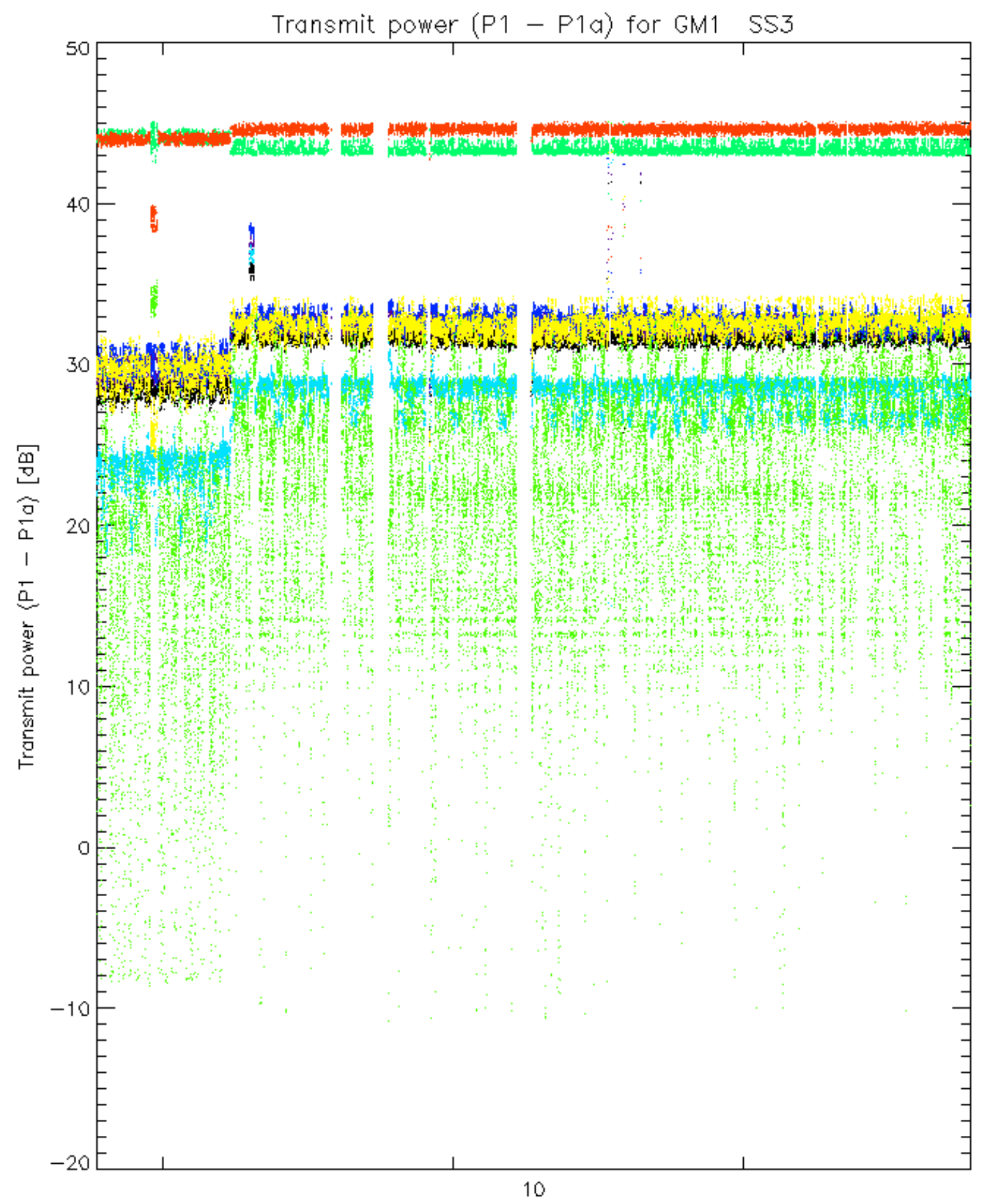




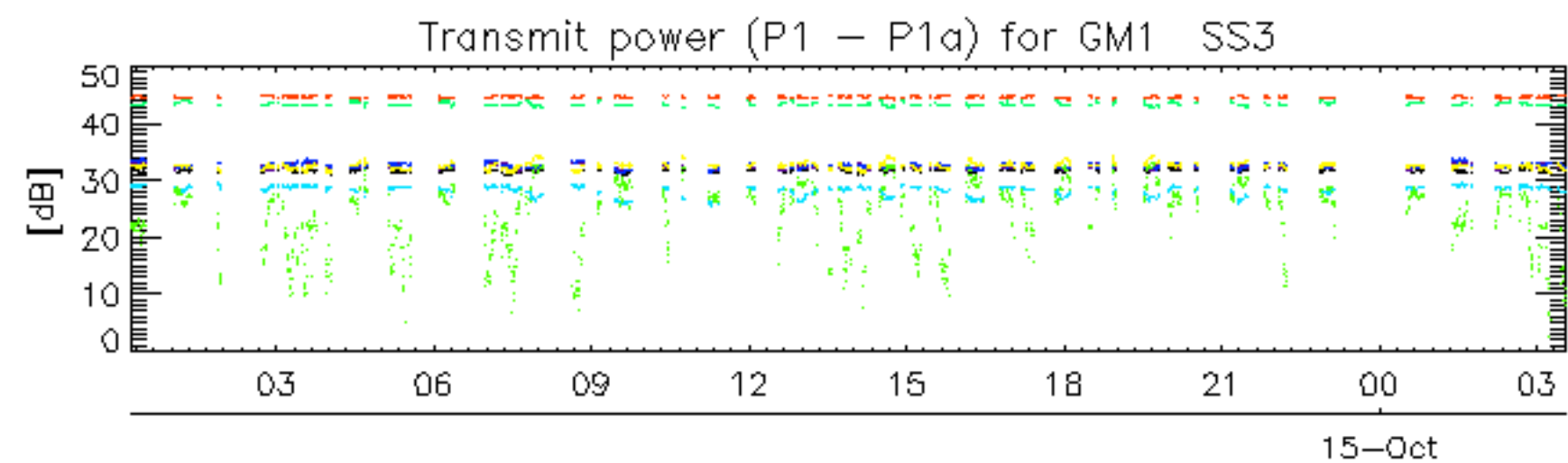




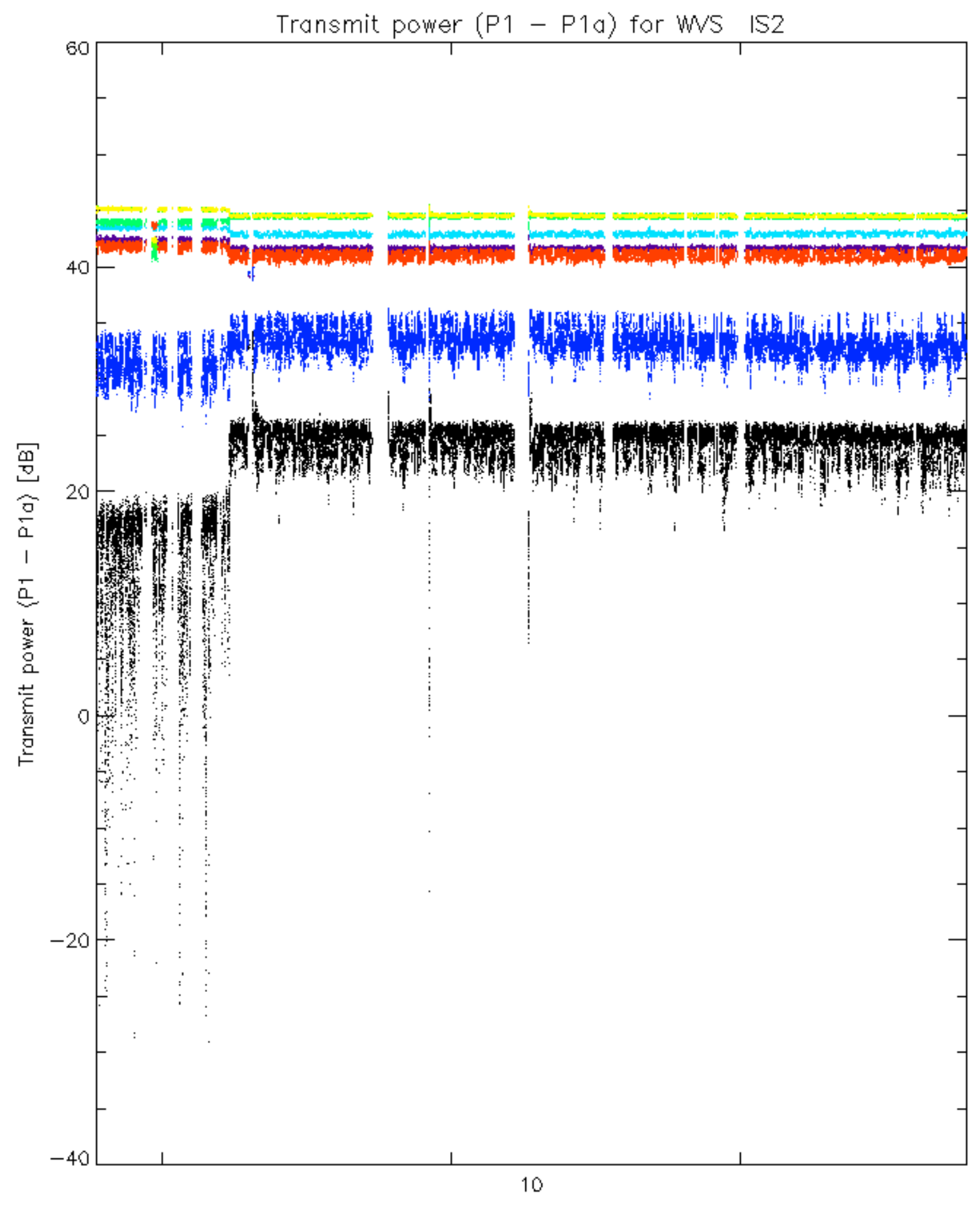




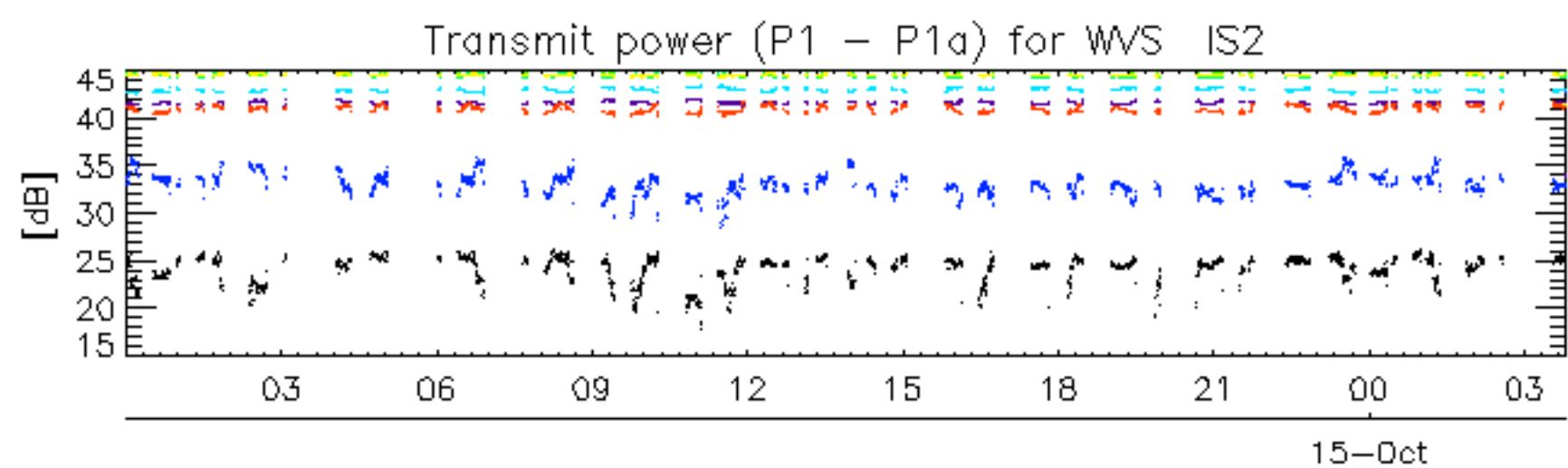
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30



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



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



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

No unavailabilities during the reported period.