

PRELIMINARY REPORT OF 041025

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

last update on Mon Oct 25 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	20041022 033427
H	20041023 030250

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	-3.472970	0.006885	-0.032935
7	P1	-3.346872	0.011960	-0.051285
11	P1	-4.620746	0.019872	0.066093
15	P1	-5.704723	0.034396	0.098861
19	P1	-3.538710	0.006391	-0.120554
22	P1	-4.561005	0.013393	-0.083171
24	P1	-4.968960	0.009917	0.035736
30	P1	-7.045953	0.017251	-0.037695

3	P1	-16.102907	0.088231	0.146497
7	P1	-14.039446	0.063749	-0.016652
11	P1	-20.426163	0.218226	-0.398799
15	P1	-11.718860	0.035823	0.091796
19	P1	-14.003545	0.026631	-0.076577
22	P1	-16.145599	0.401082	-0.470904
24	P1	-14.565327	0.265169	-0.286363
30	P1	-18.033342	0.334428	0.011817

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.338791	0.089710	-0.109045
7	P2	-22.598959	0.124464	-0.081247
11	P2	-15.125042	0.120862	0.052547
15	P2	-7.095907	0.105658	-0.127827
19	P2	-9.633832	0.129093	-0.200198
22	P2	-17.277239	0.108372	0.020720
24	P2	-20.788977	0.091130	-0.061161
30	P2	-19.091770	0.083129	0.098117

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.175636	0.005806	-0.060695
7	P3	-8.175636	0.005806	-0.060696
11	P3	-8.175638	0.005806	-0.060688
15	P3	-8.175638	0.005806	-0.060671
19	P3	-8.175640	0.005806	-0.060664
22	P3	-8.175640	0.005806	-0.060661
24	P3	-8.175644	0.005806	-0.060630
30	P3	-8.175679	0.005806	-0.060535

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	-2.819310	0.014109	0.031082
7	P1	-2.983747	0.051987	0.078204
11	P1	-3.888126	0.021062	-0.020157
15	P1	-3.492805	0.022197	0.016844
19	P1	-3.543414	0.013607	-0.119198
22	P1	-5.662067	0.058605	0.095729
24	P1	-3.969729	0.022494	-0.010050
30	P1	-6.212440	0.049782	-0.096595
3	P1	-10.774526	0.095193	0.434654
7	P1	-10.086770	0.172573	0.053720
11	P1	-12.250875	0.123764	-0.180525
15	P1	-11.683828	0.076032	0.028263
19	P1	-15.593203	0.060722	-0.058870
22	P1	-23.639448	1.442211	-0.464934
24	P1	-18.136786	0.233706	-0.053175
30	P1	-20.369261	1.105768	0.259892

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.014334	0.049088	-0.118443
7	P2	-22.694839	0.065515	0.007777
11	P2	-10.866786	0.050333	-0.046618
15	P2	-4.997872	0.030584	-0.103858
19	P2	-6.842285	0.045340	-0.242780
22	P2	-7.389094	0.041372	-0.003598
24	P2	-11.112969	0.055028	-0.140123
30	P2	-22.104649	0.038414	0.024000

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-8.020048	0.003900	-0.047260
7	P3	-8.019979	0.003901	-0.047095
11	P3	-8.020182	0.003885	-0.047001
15	P3	-8.020059	0.003889	-0.046998
19	P3	-8.020049	0.003889	-0.046936
22	P3	-8.020048	0.003887	-0.046800
24	P3	-8.020168	0.003917	-0.047330
30	P3	-8.020121	0.003900	-0.046906

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	0.000476493
	stdev	2.15860e-07
MEAN Q	mean	0.000551376
	stdev	2.32566e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127287
	stdev	0.000917591

STDEV Q	mean	0.127502
	stdev	0.000926450





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

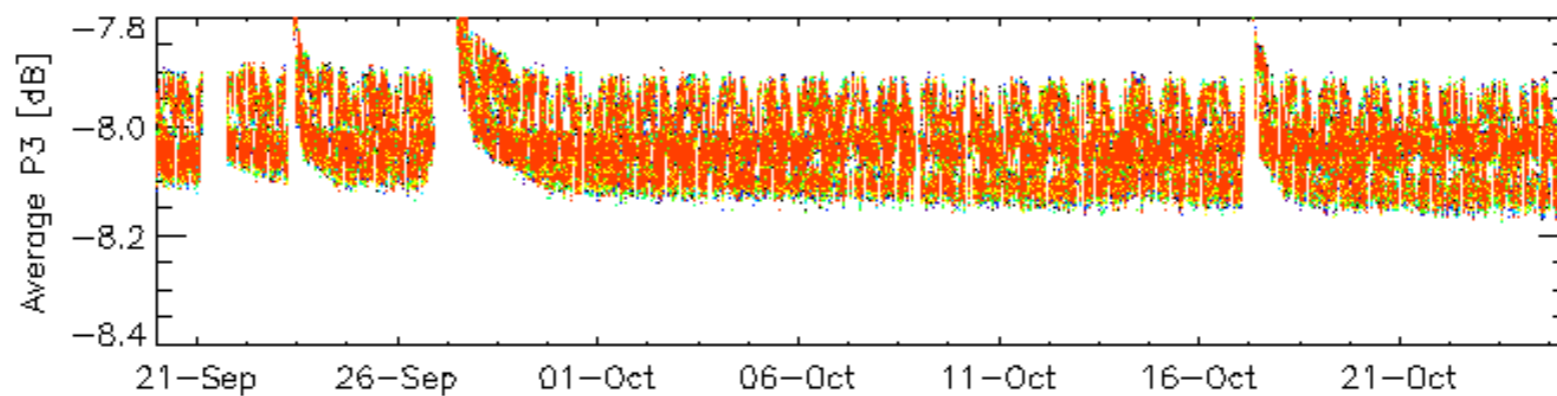
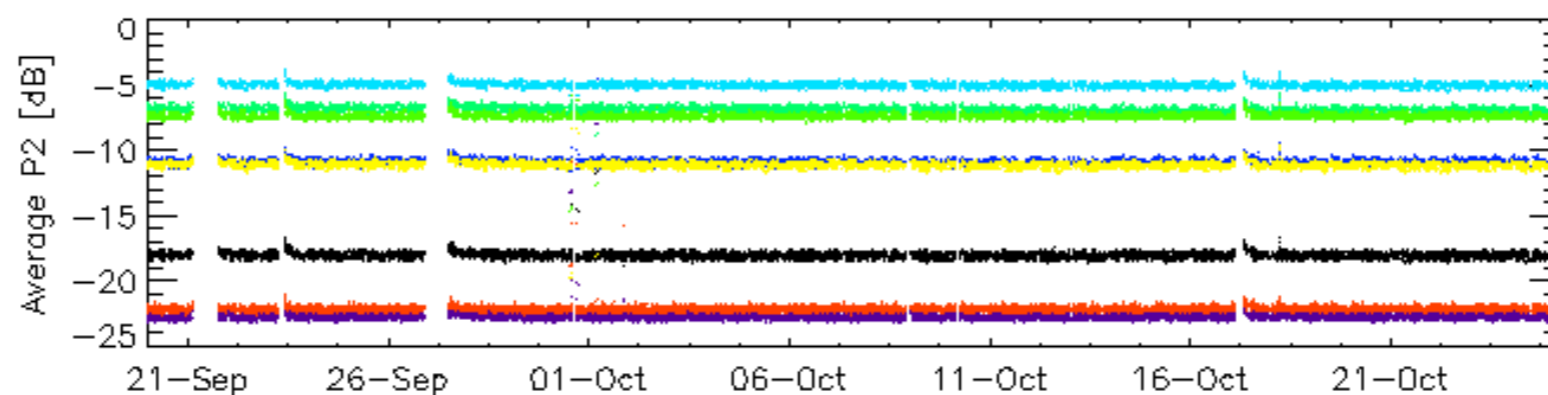
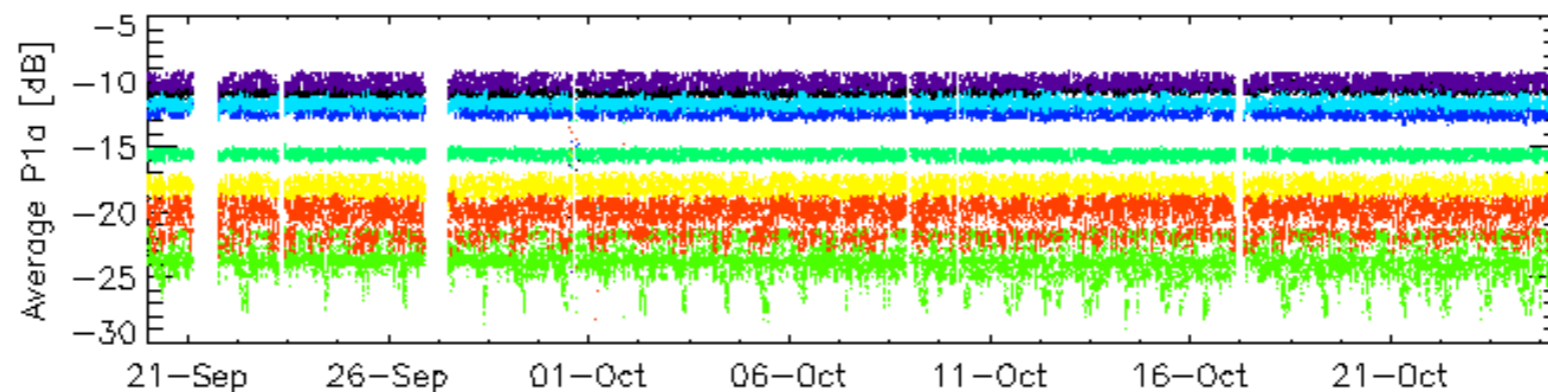
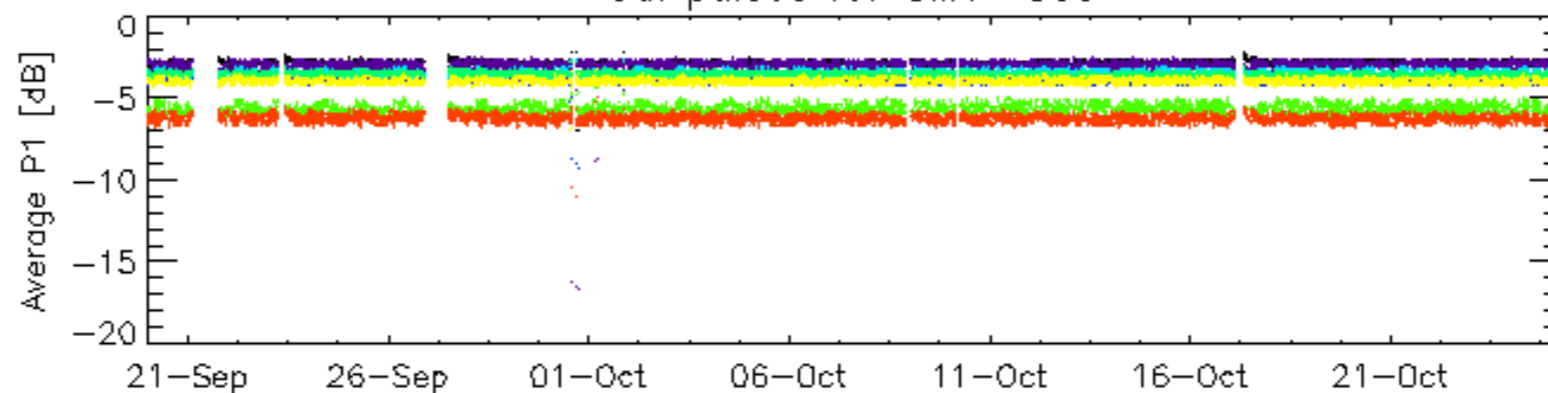
6.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler	
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	Ascending
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	Descending

6.6 - Doppler evolution versus ANX for GM1

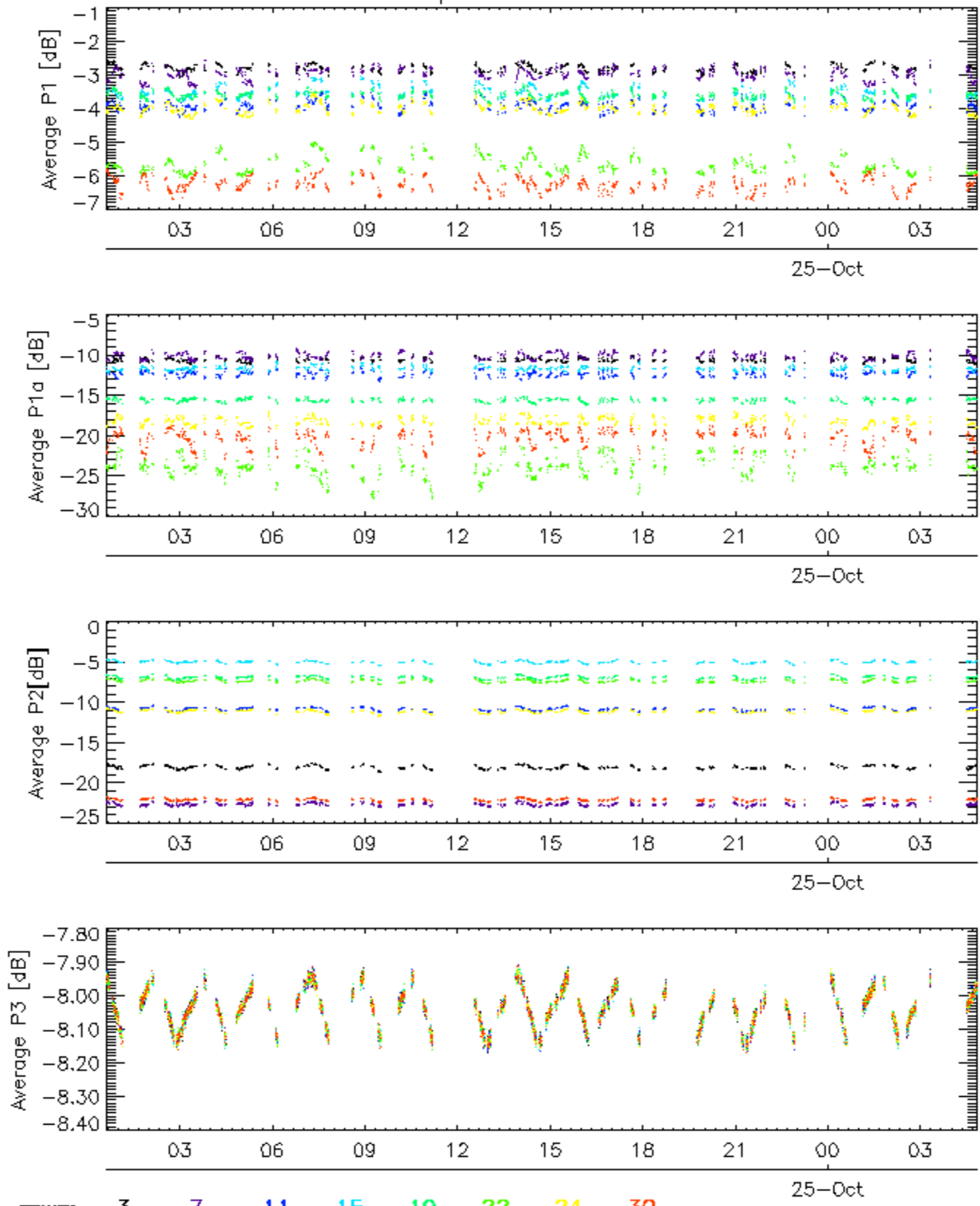
Evolution Doppler error versus ANX	
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Cal pulses for GM1 SS3

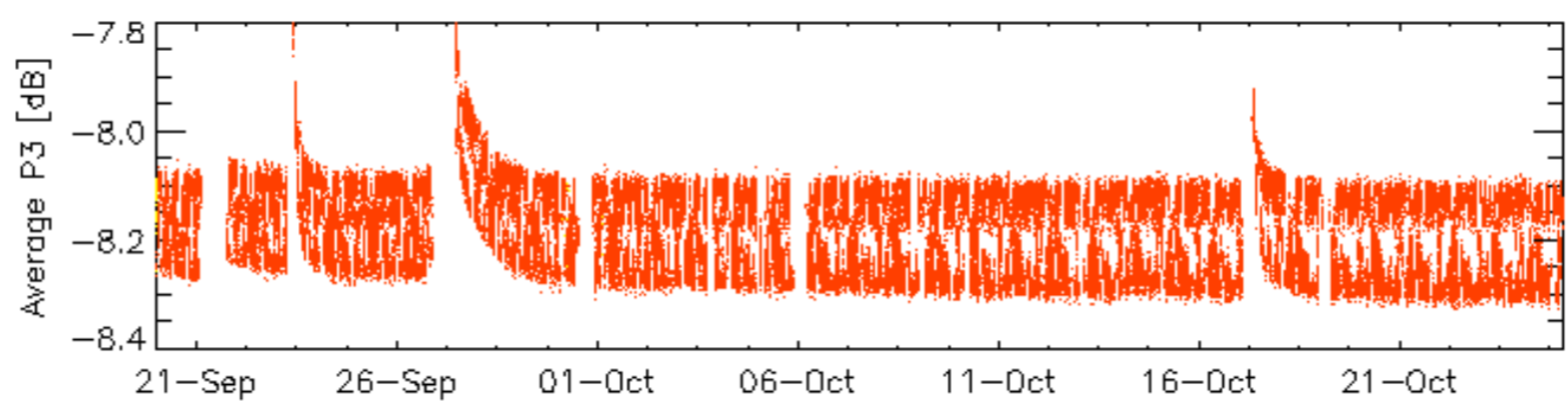
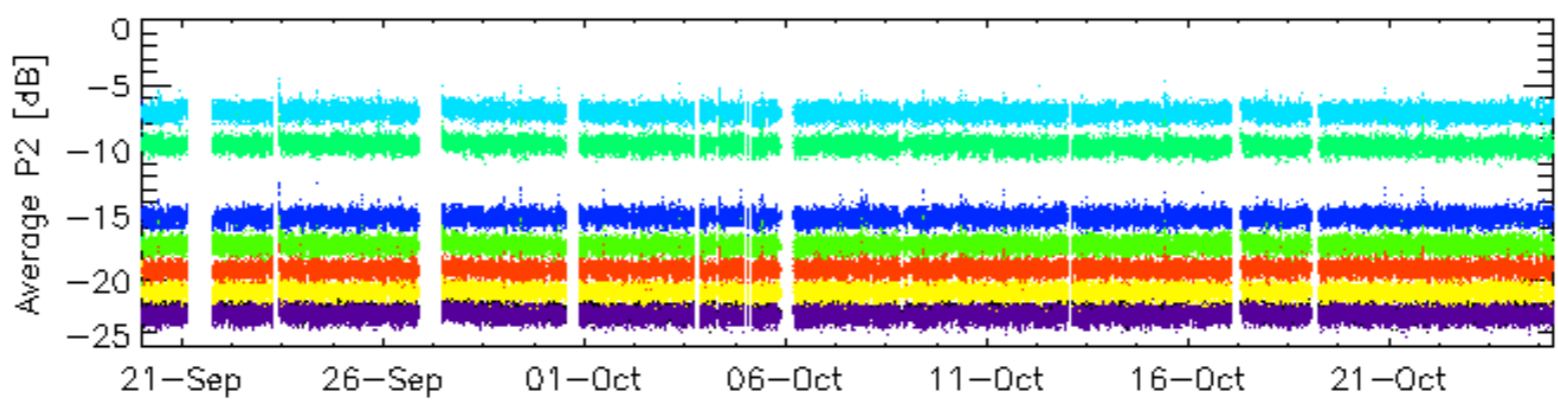
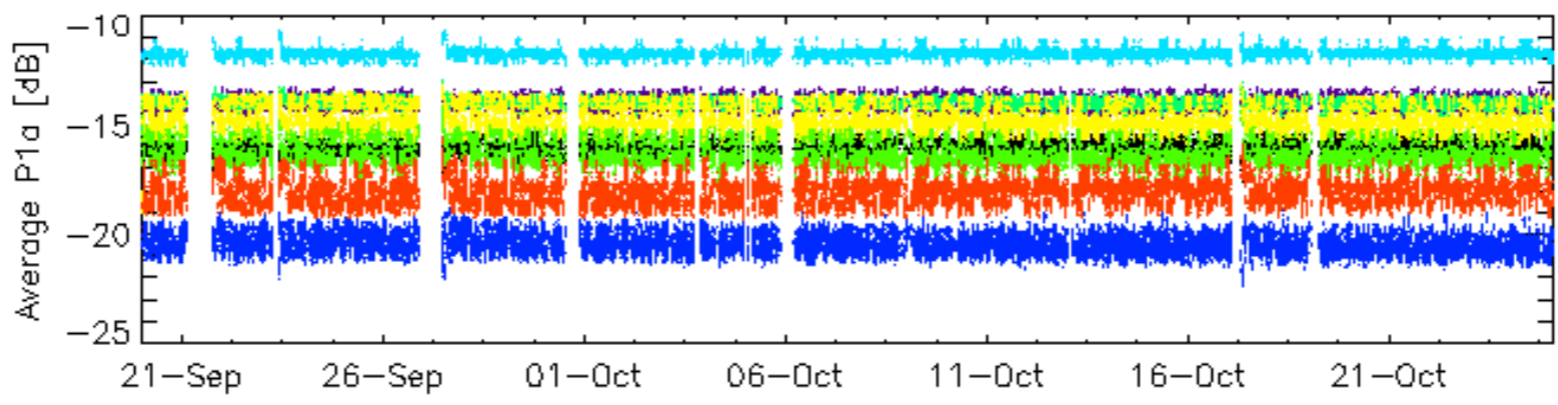
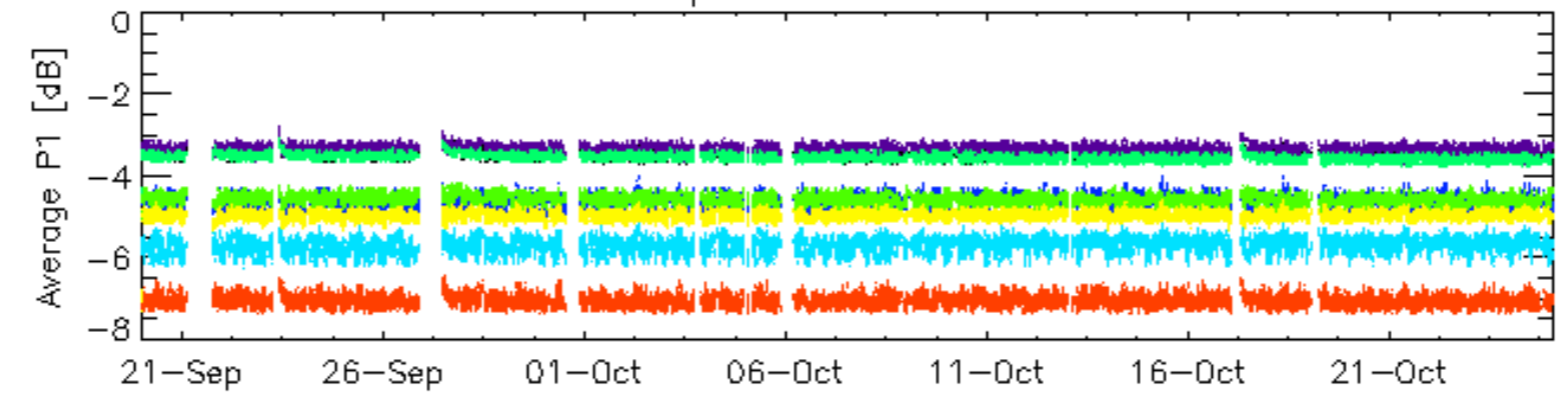


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30

Cal pulses for GM1 SS3

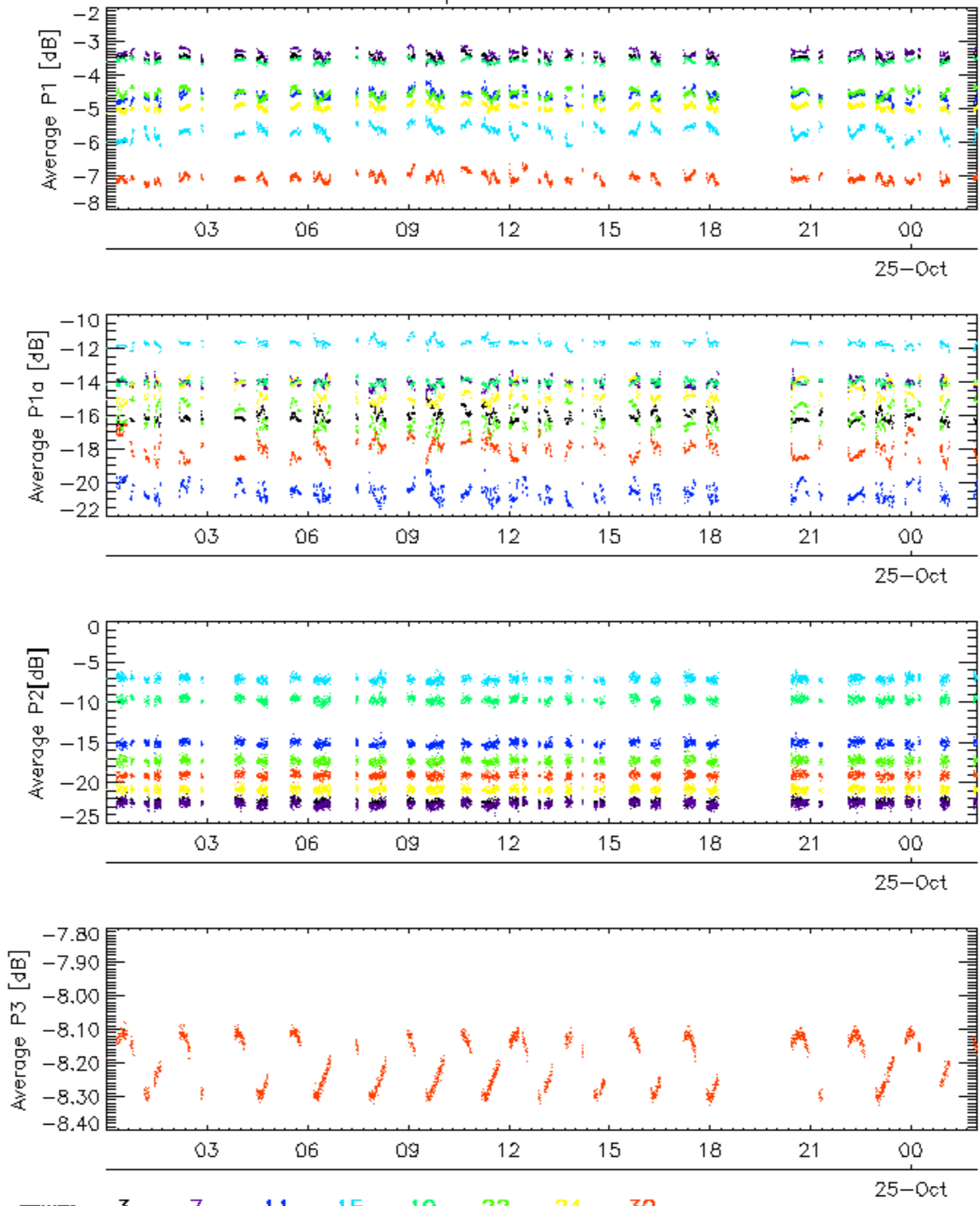


Cal pulses for WVS IS2



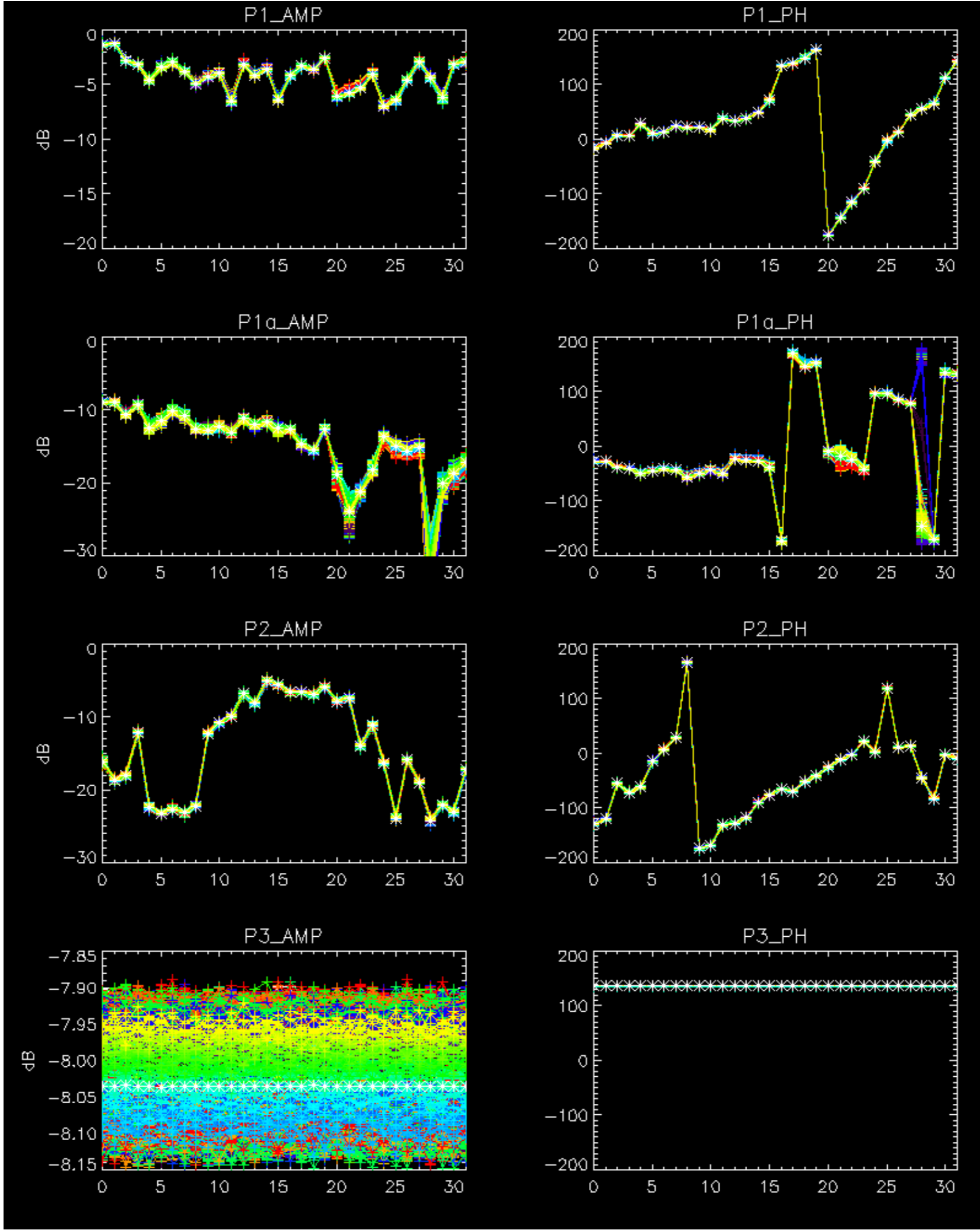
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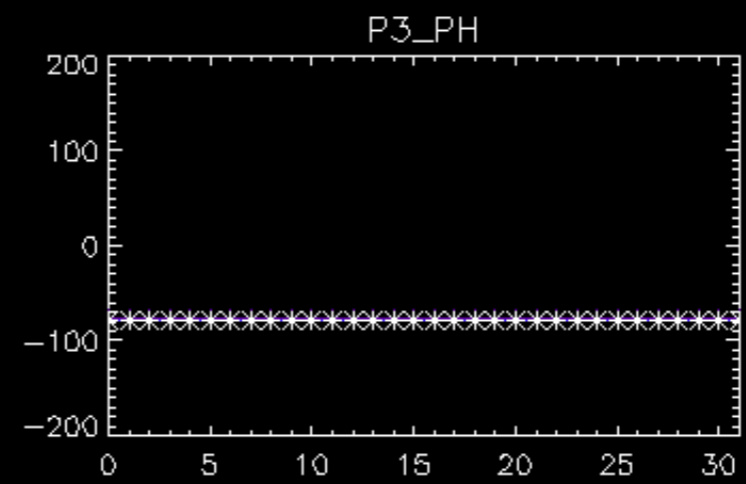
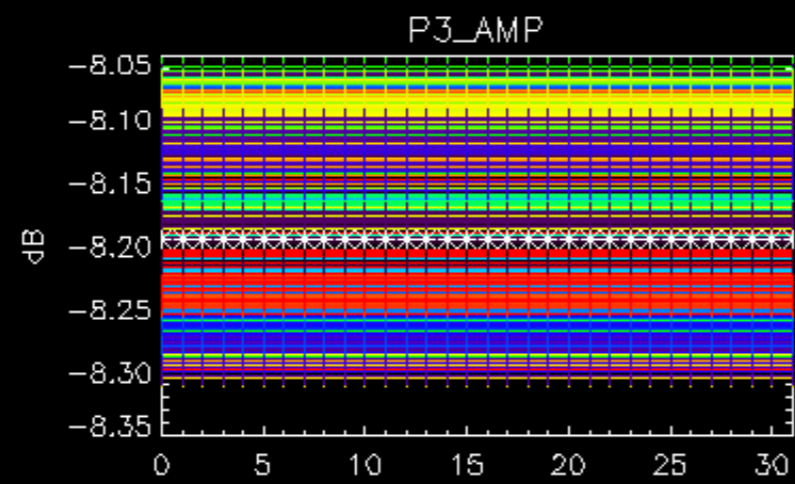
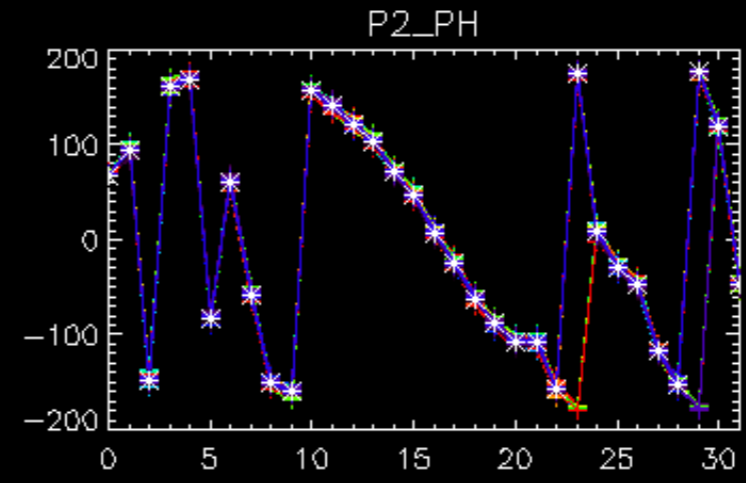
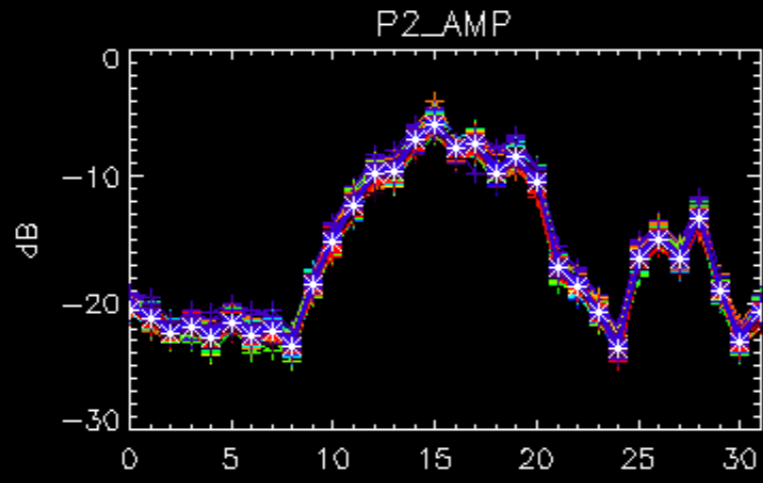
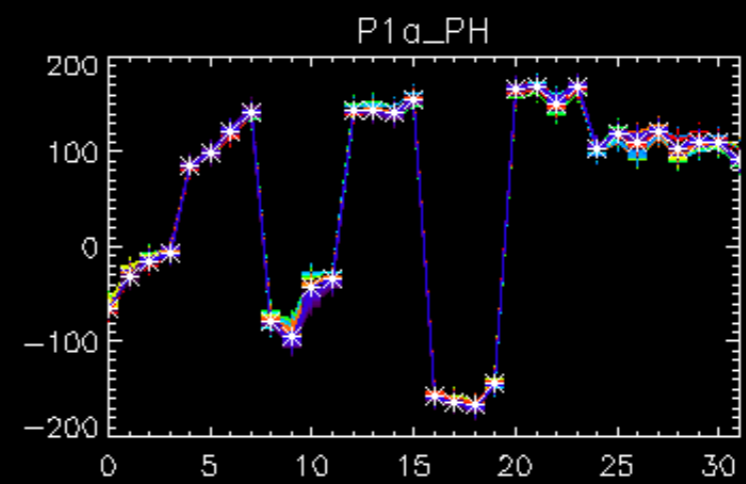
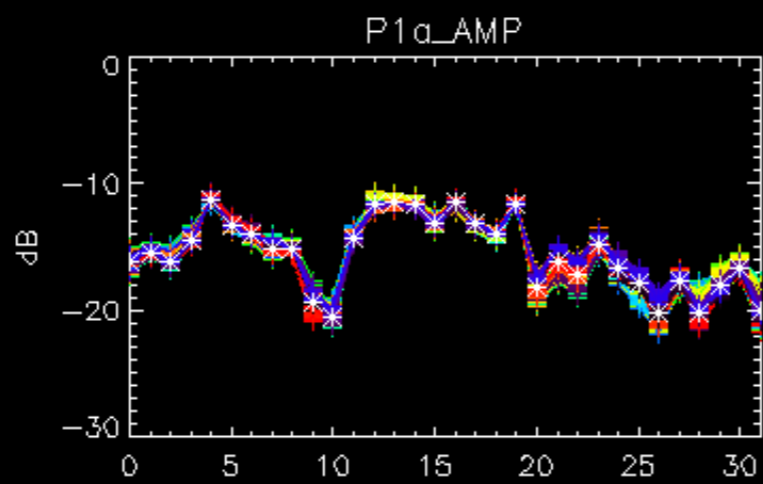
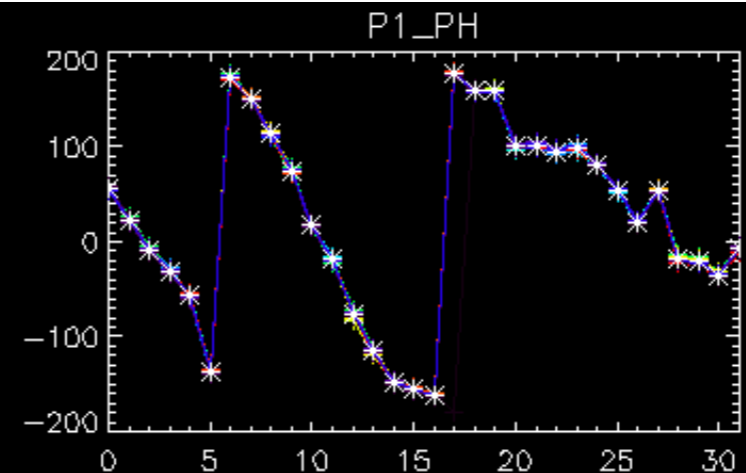
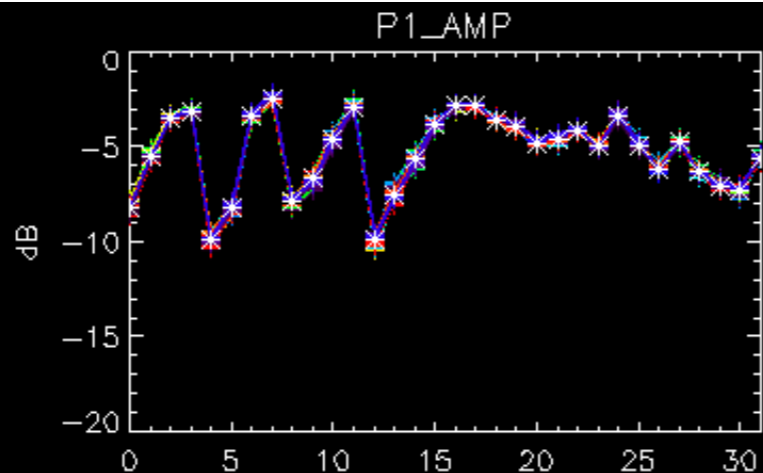
Cal pulses for WVS IS2



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

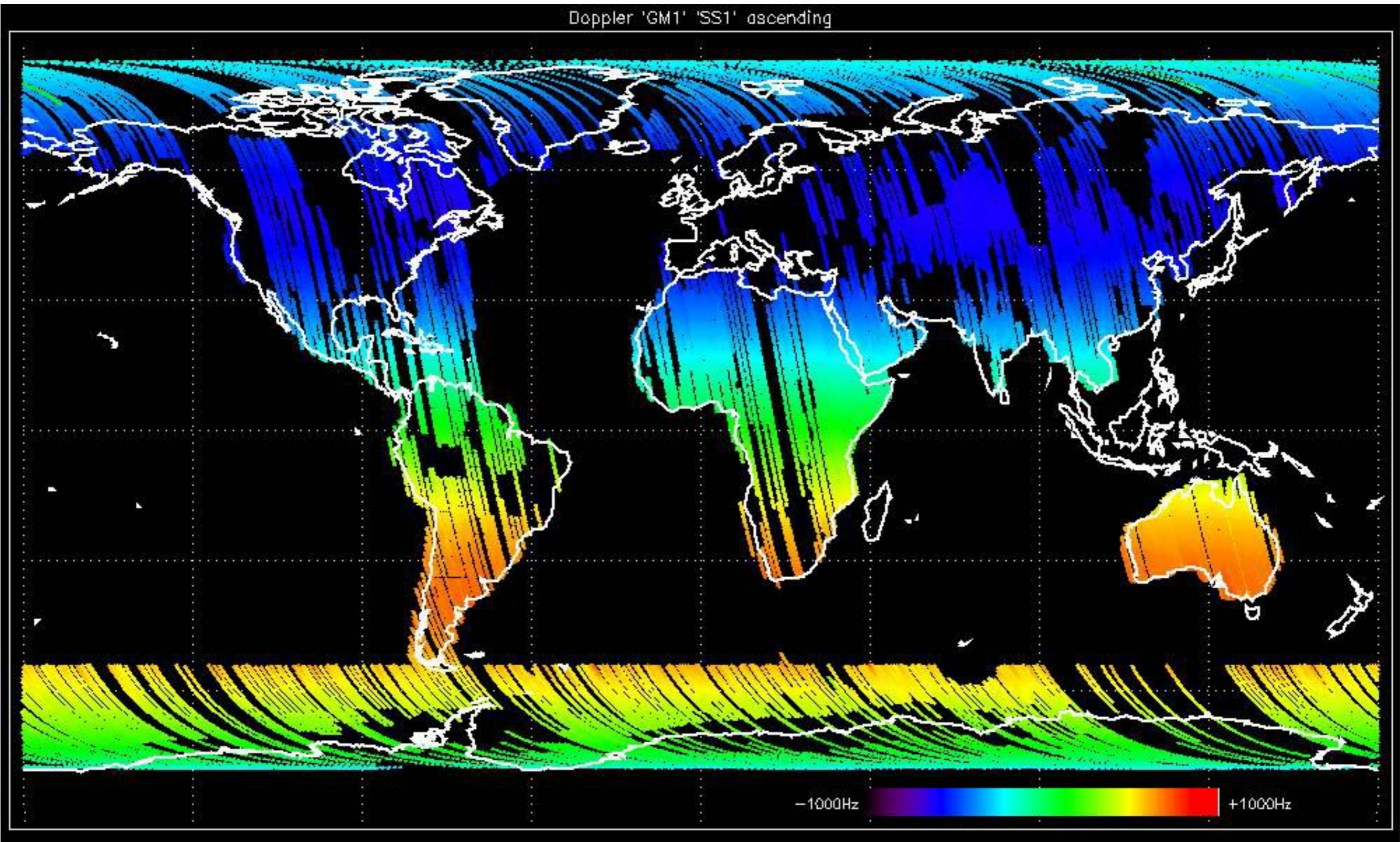
No anomalies observed.



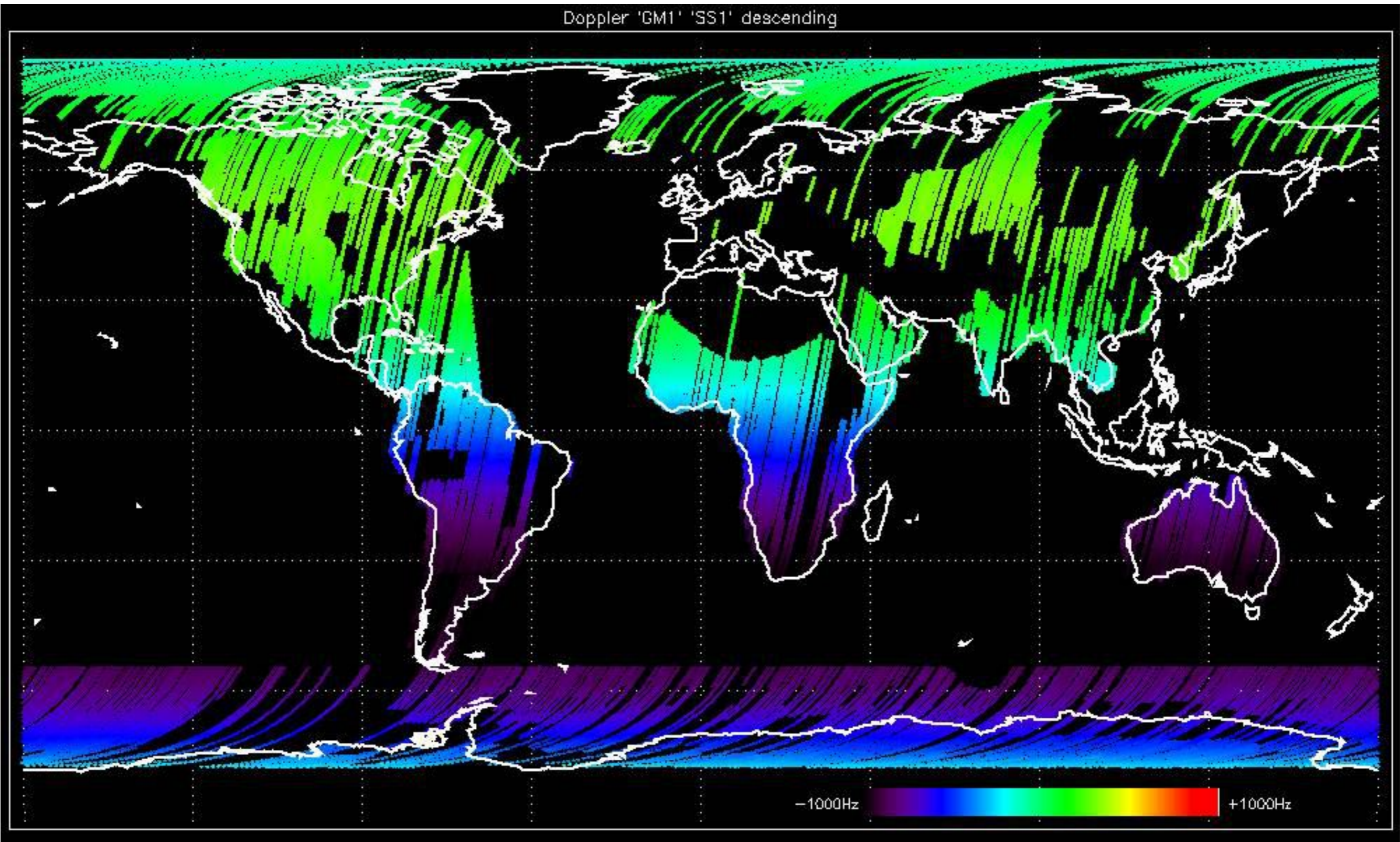


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

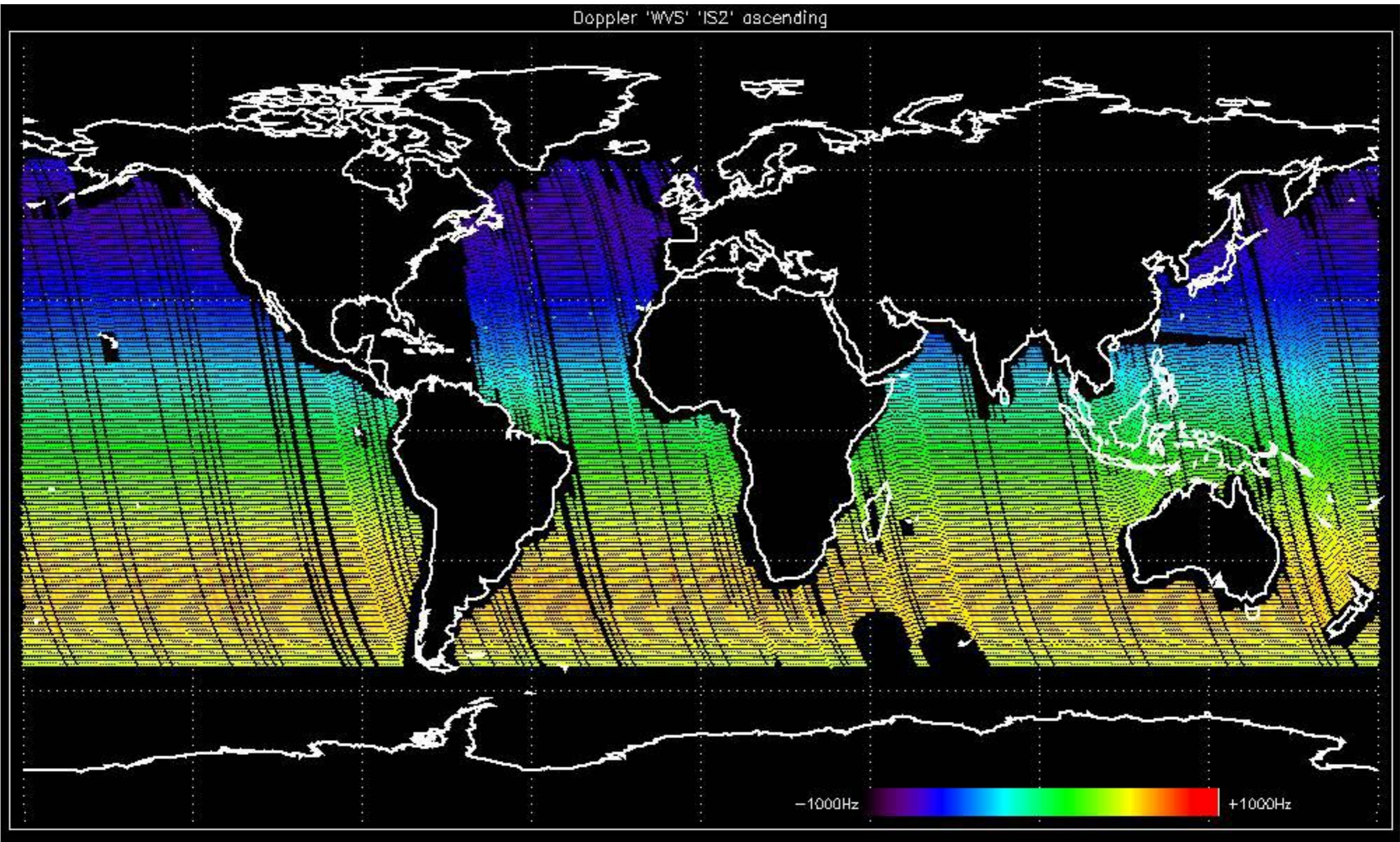
Doppler 'GM1' 'SS1' ascending



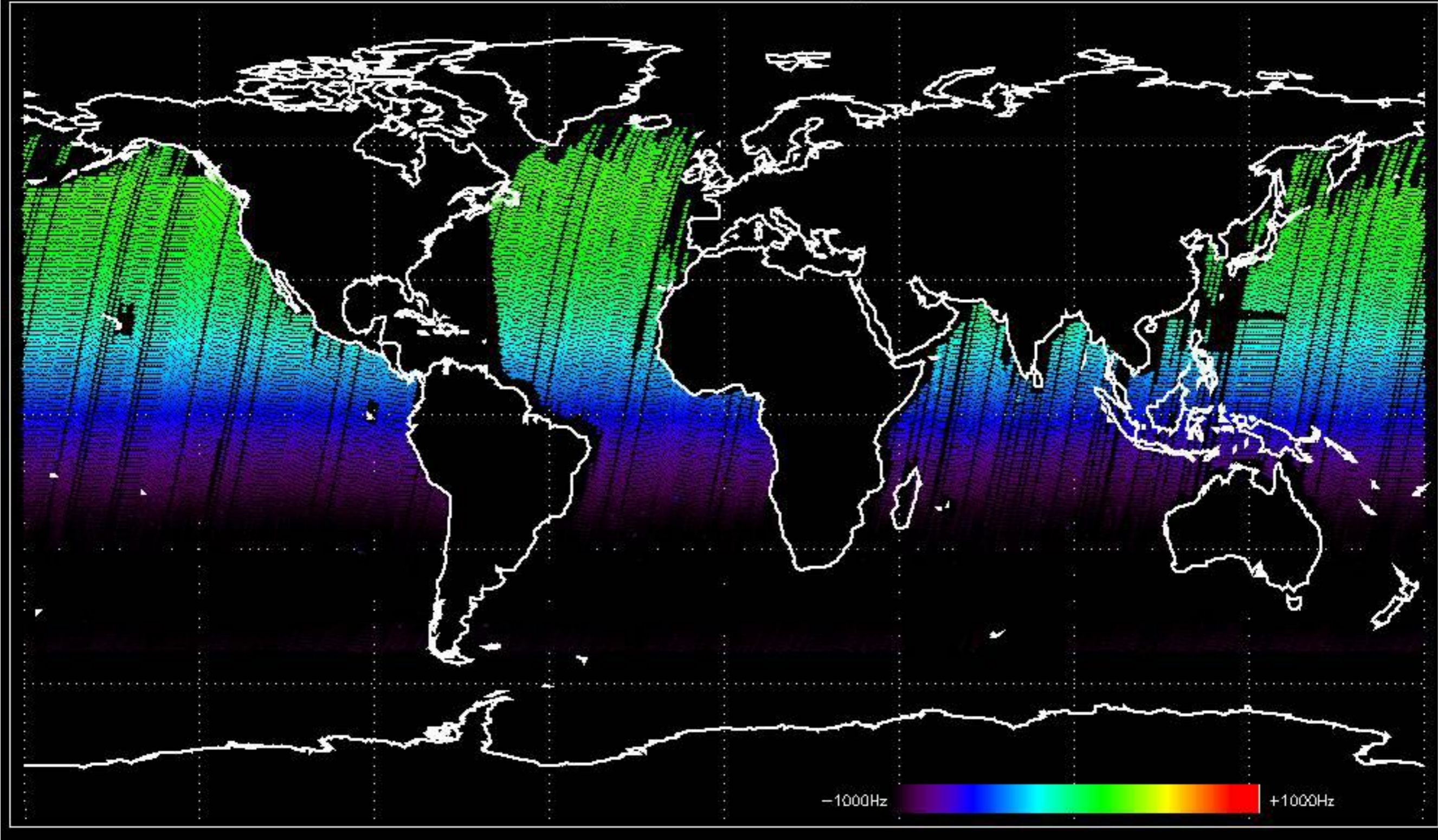
Doppler 'GM1' 'SS1' descending



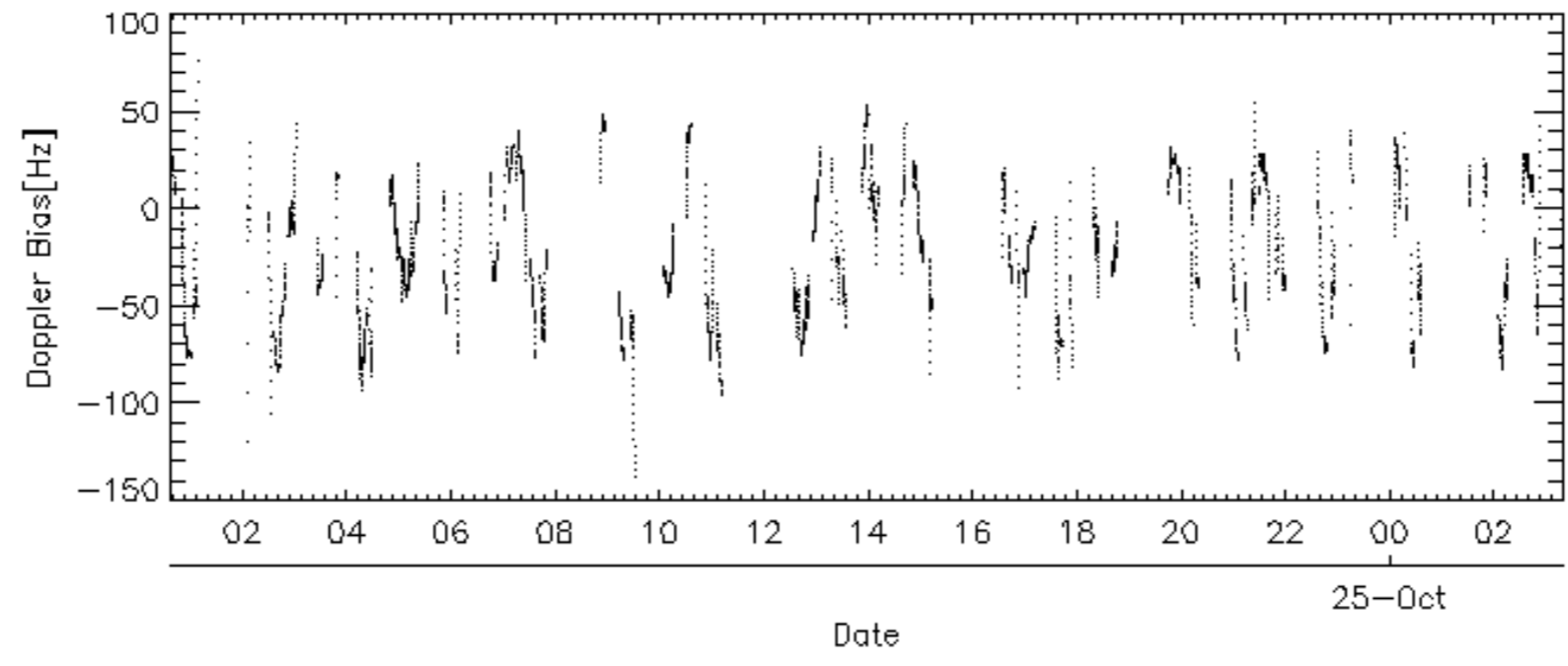
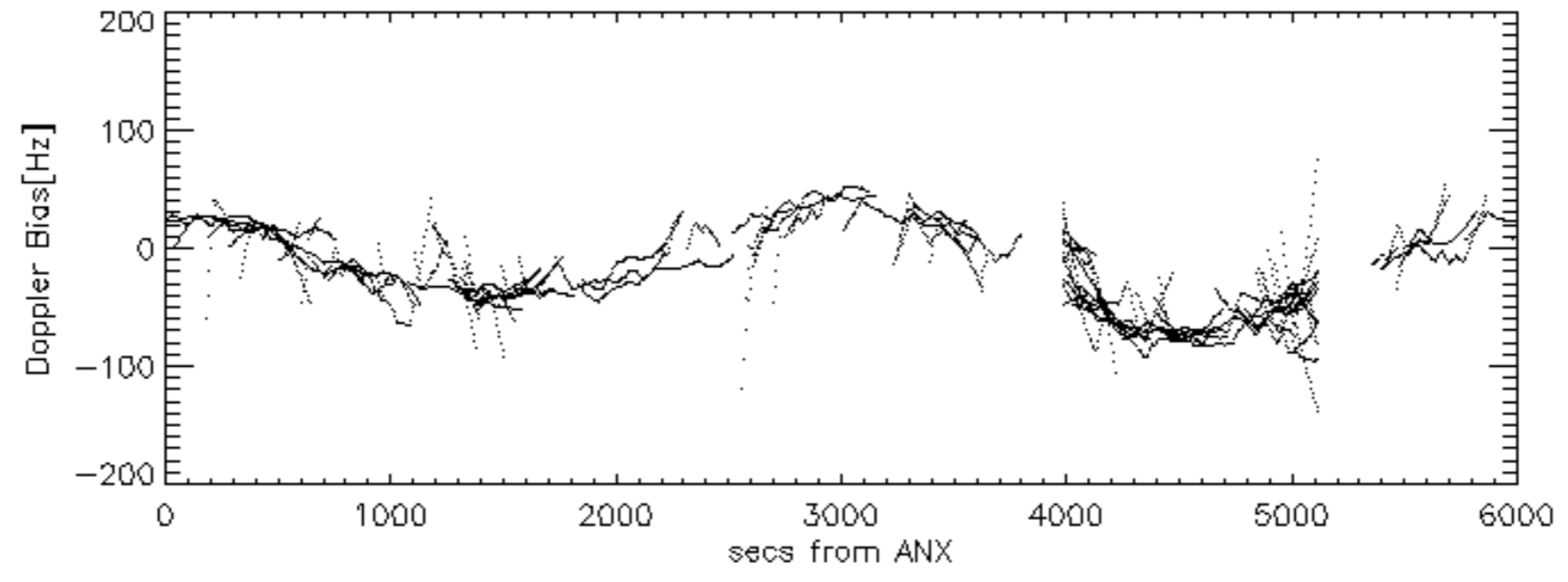
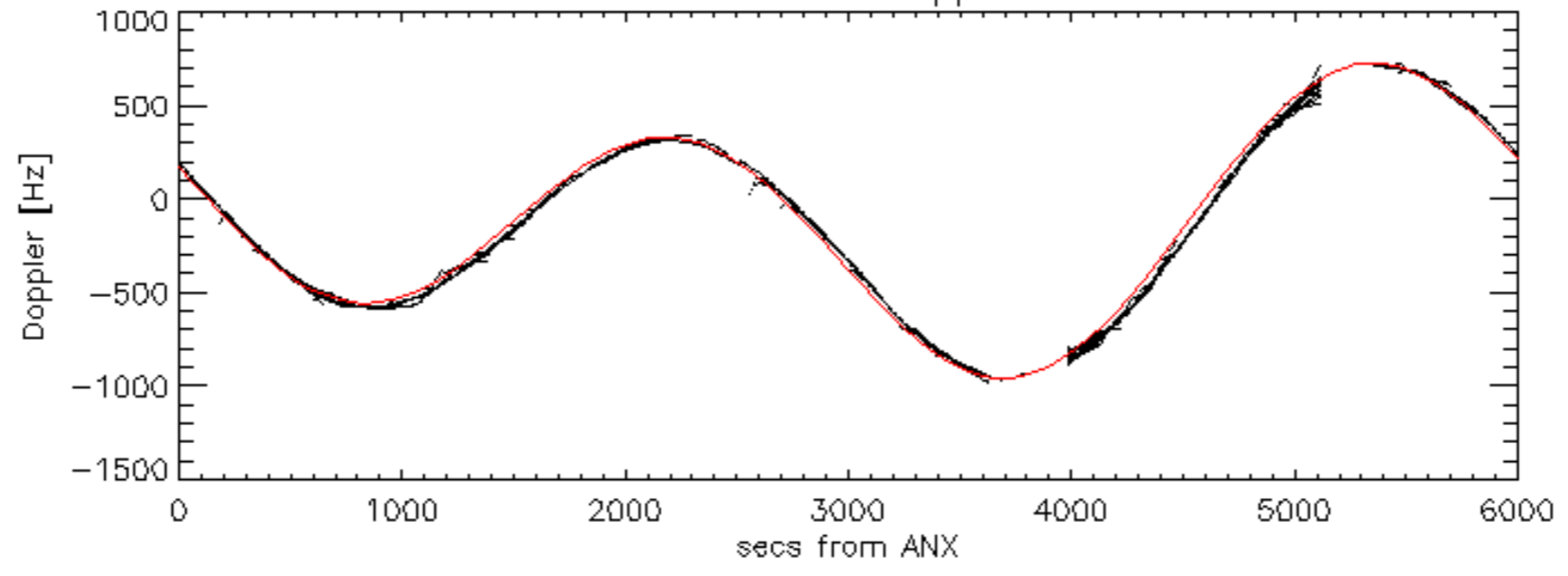
Doppler 'WVS' 'IS2' ascending

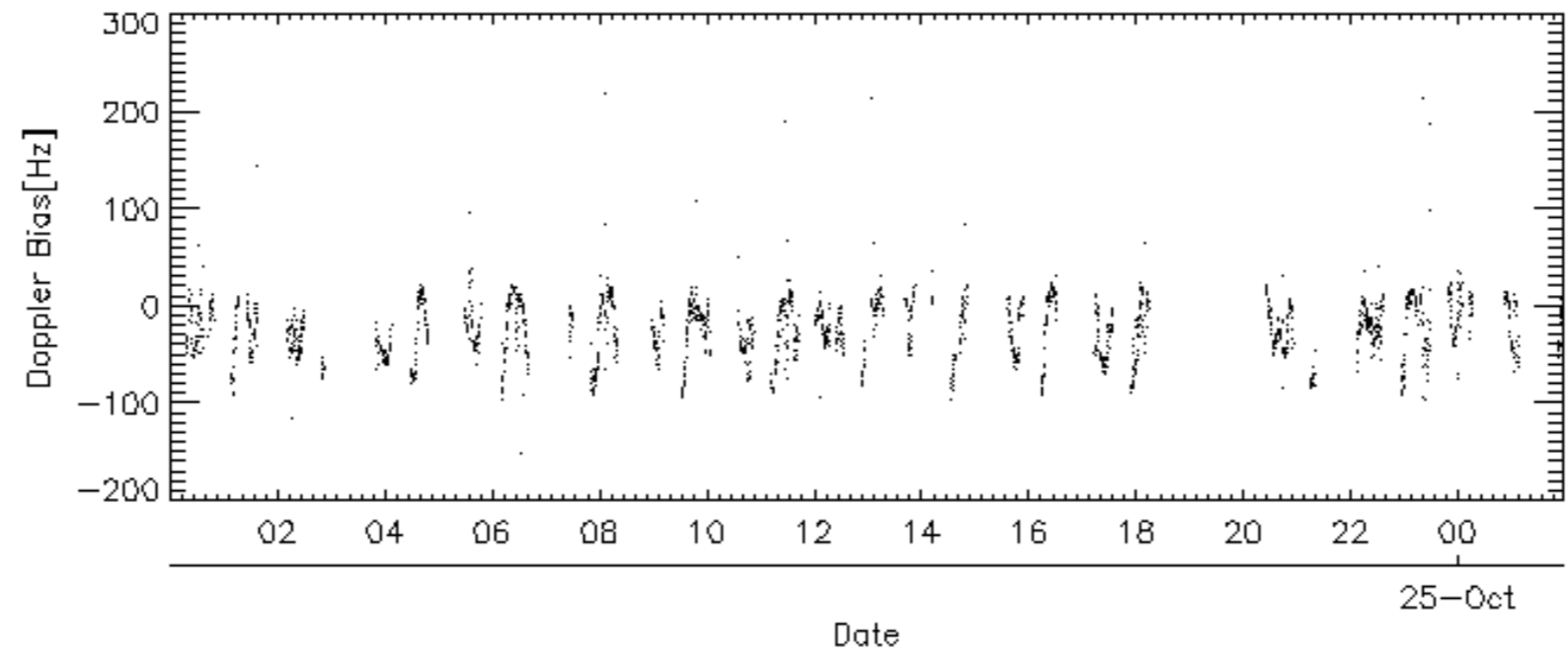
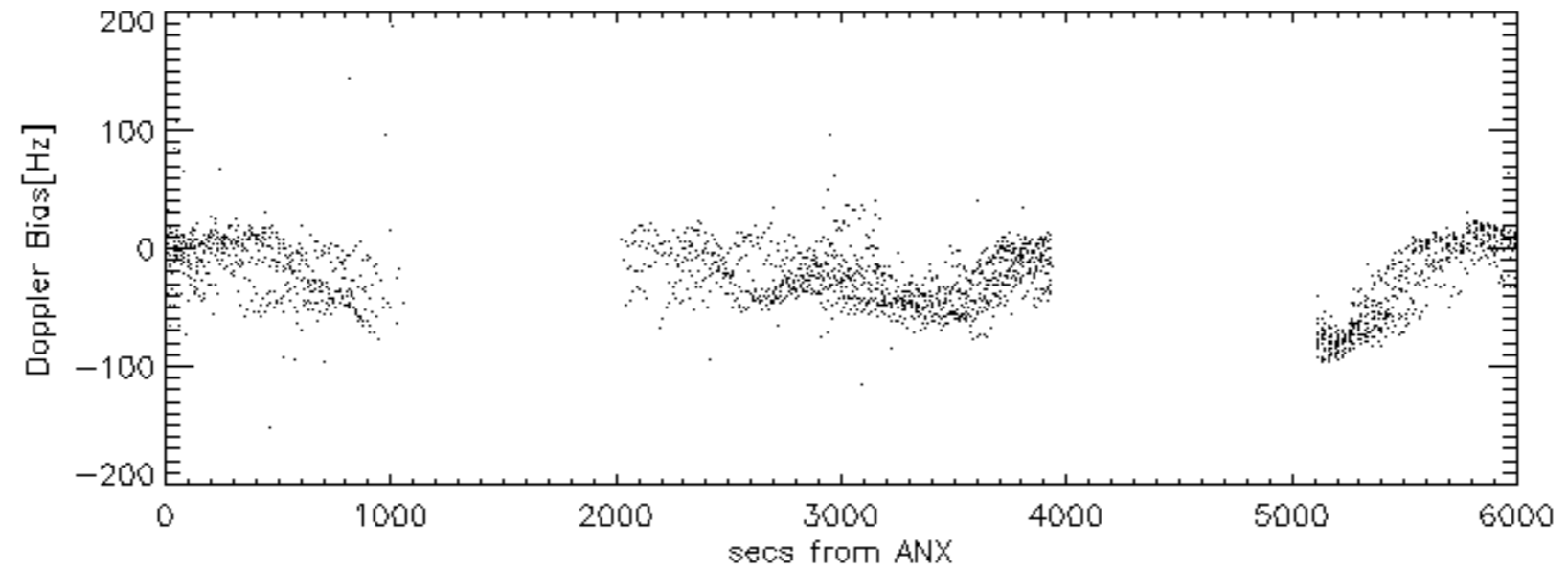
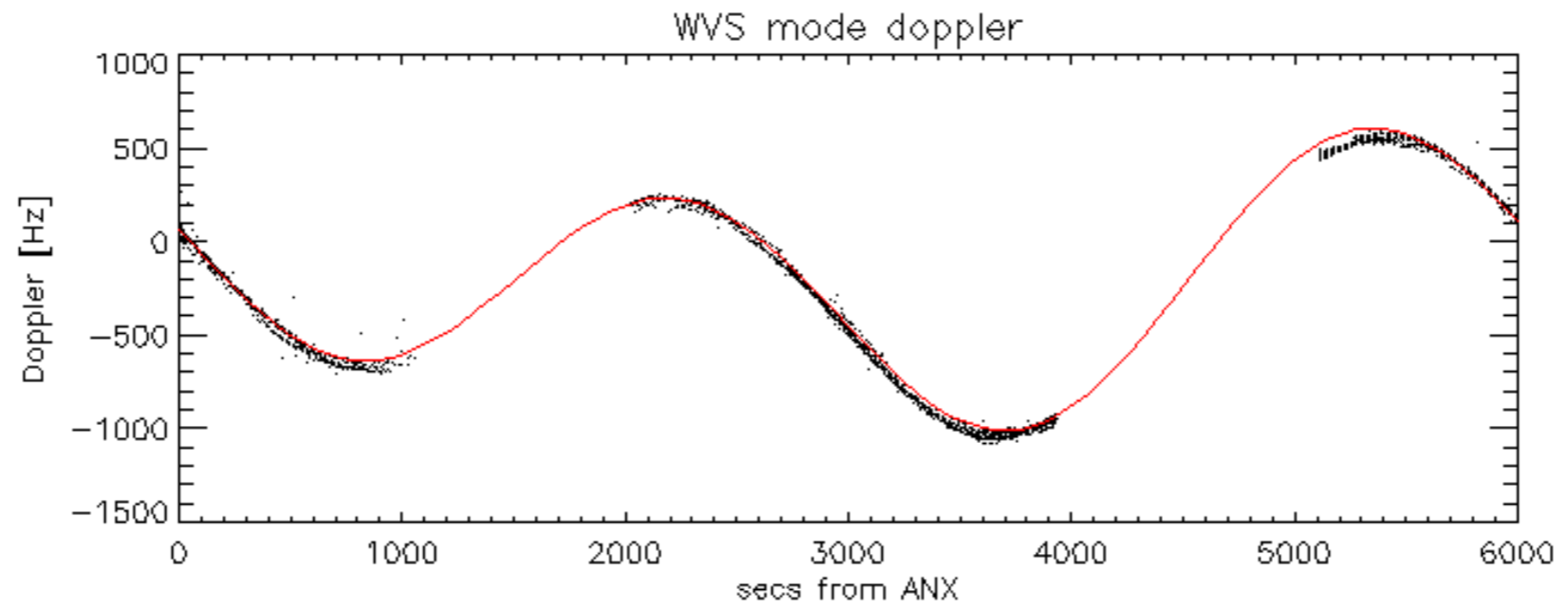


Doppler 'WVS' 'IS2' descending

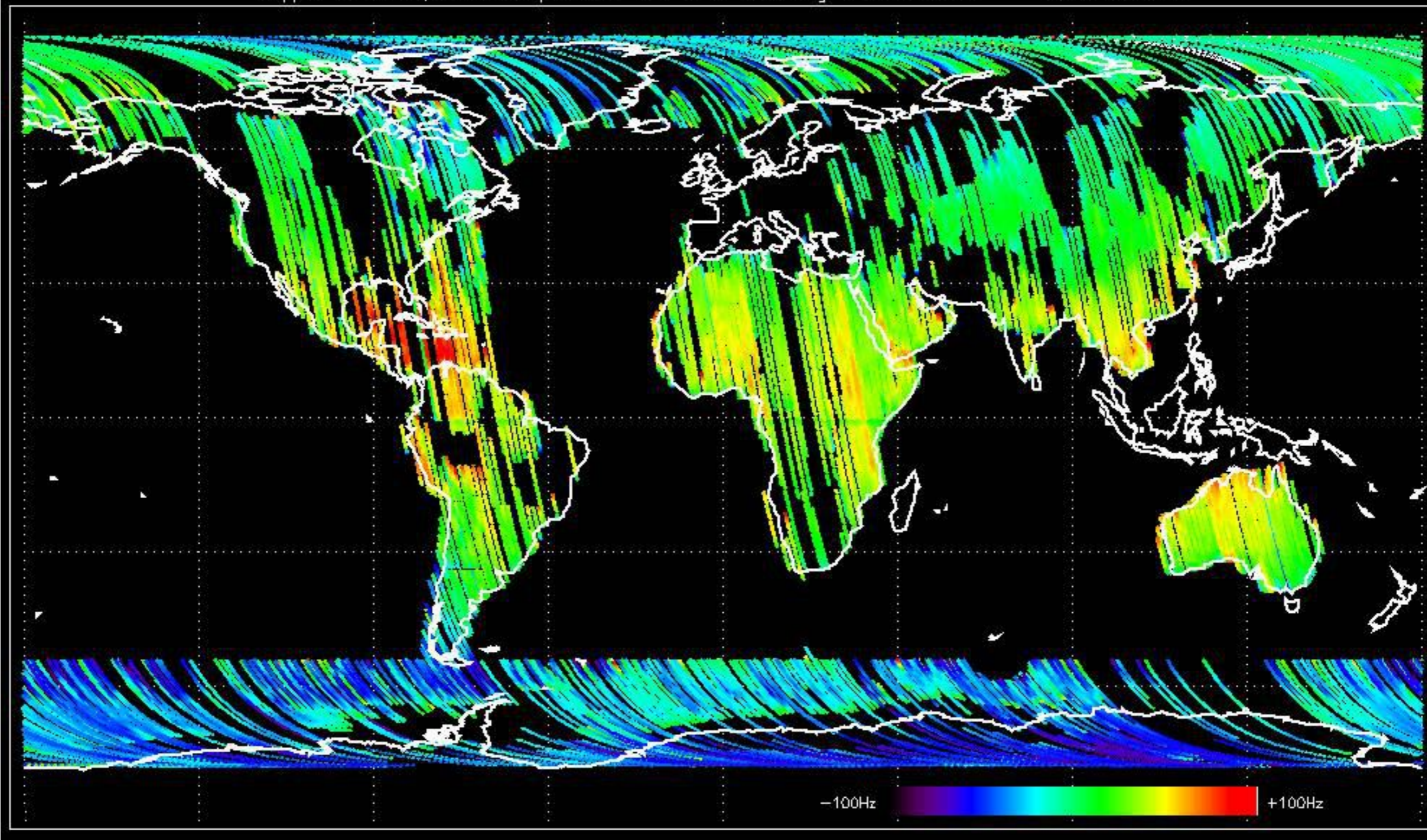


GM1 mode doppler

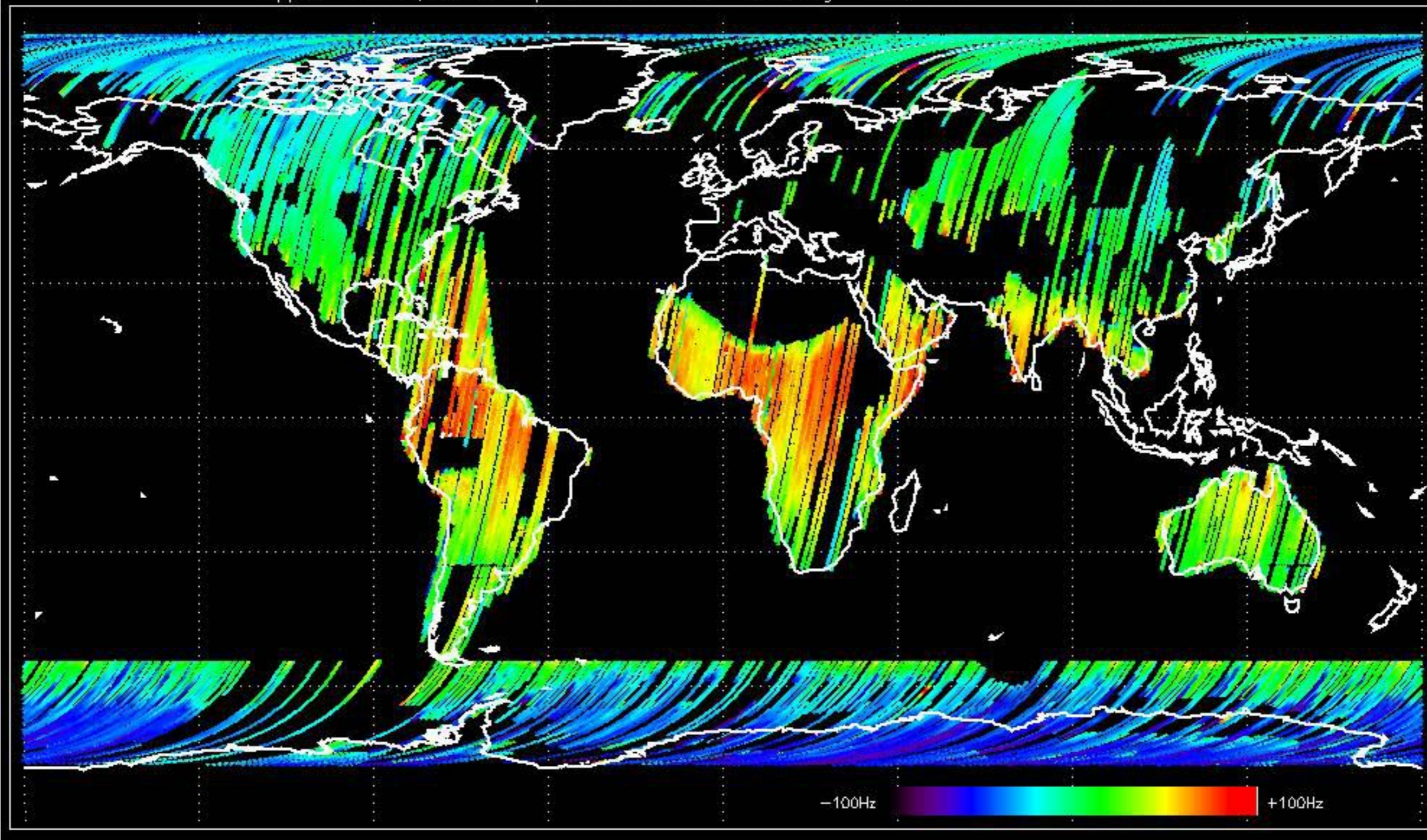




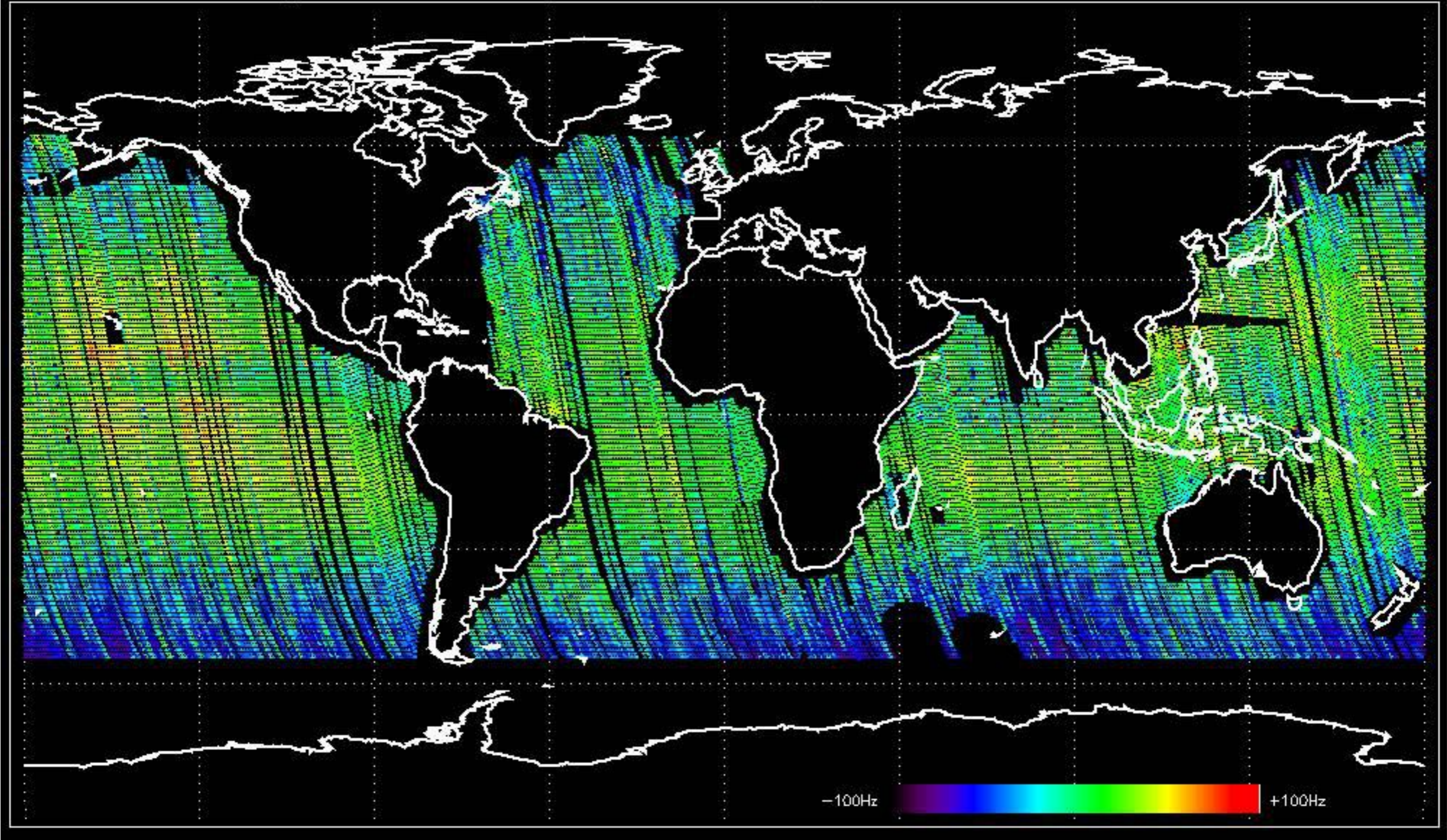
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -31.481269 Hz



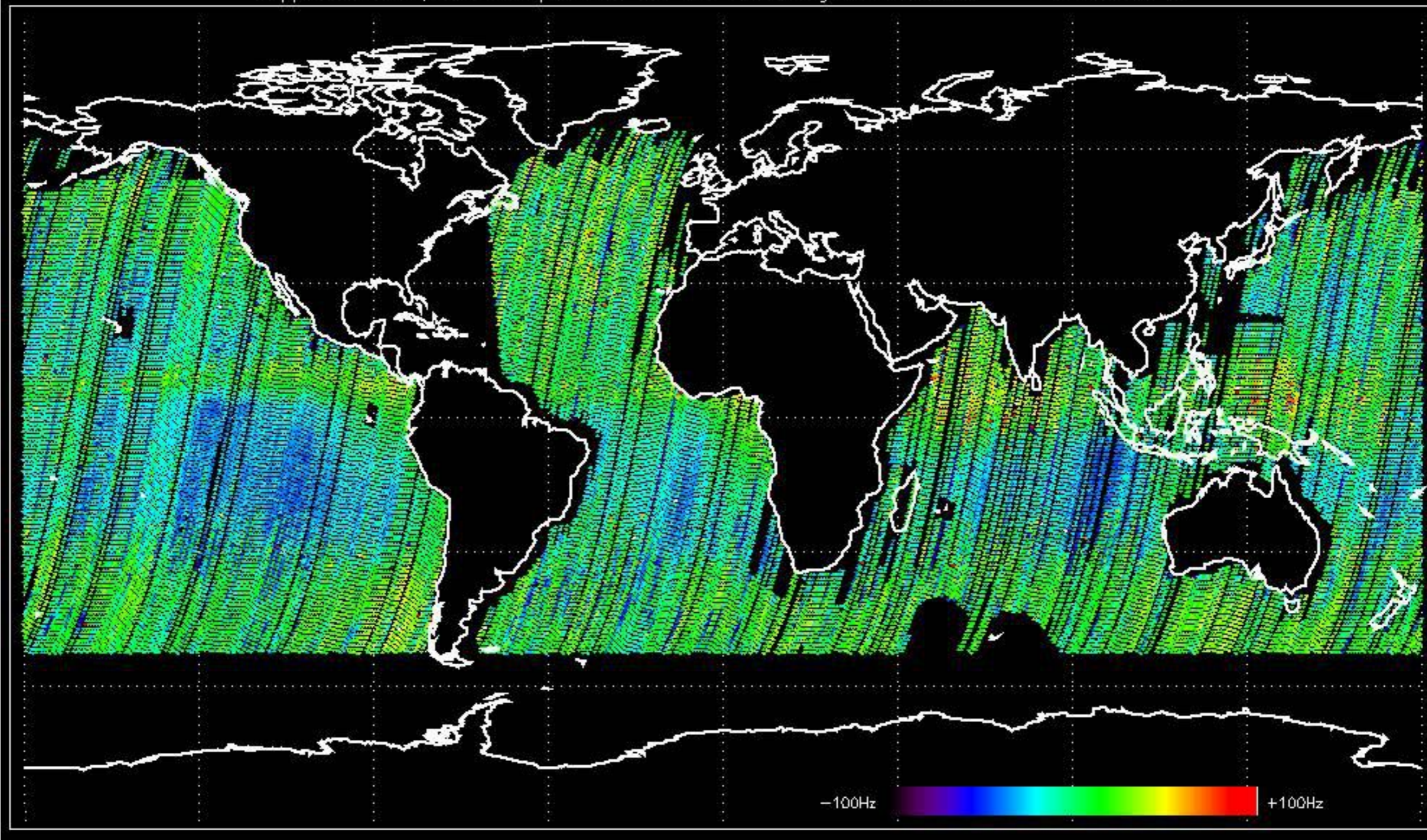
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -24.779369 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -29.610429 Hz

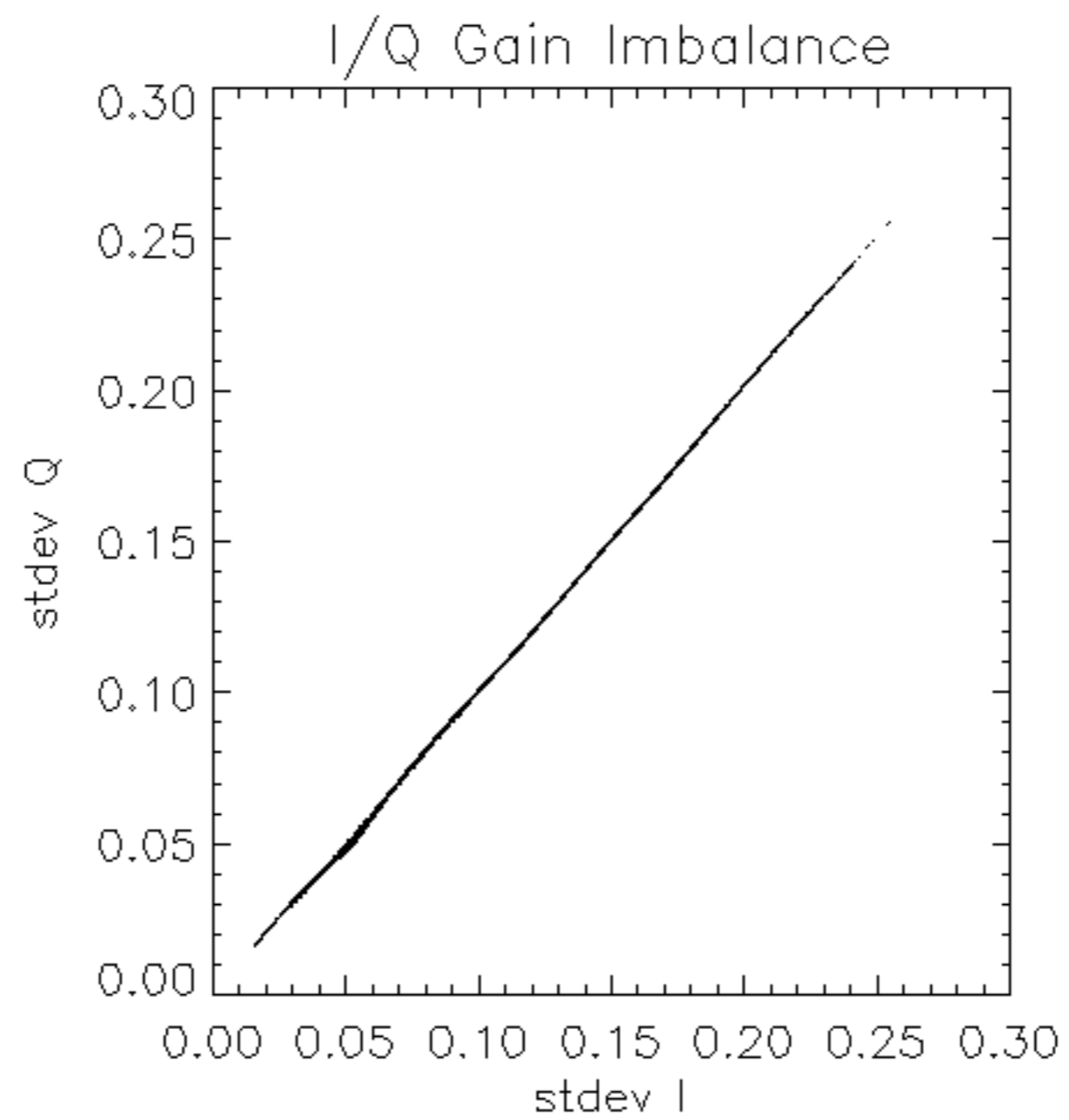


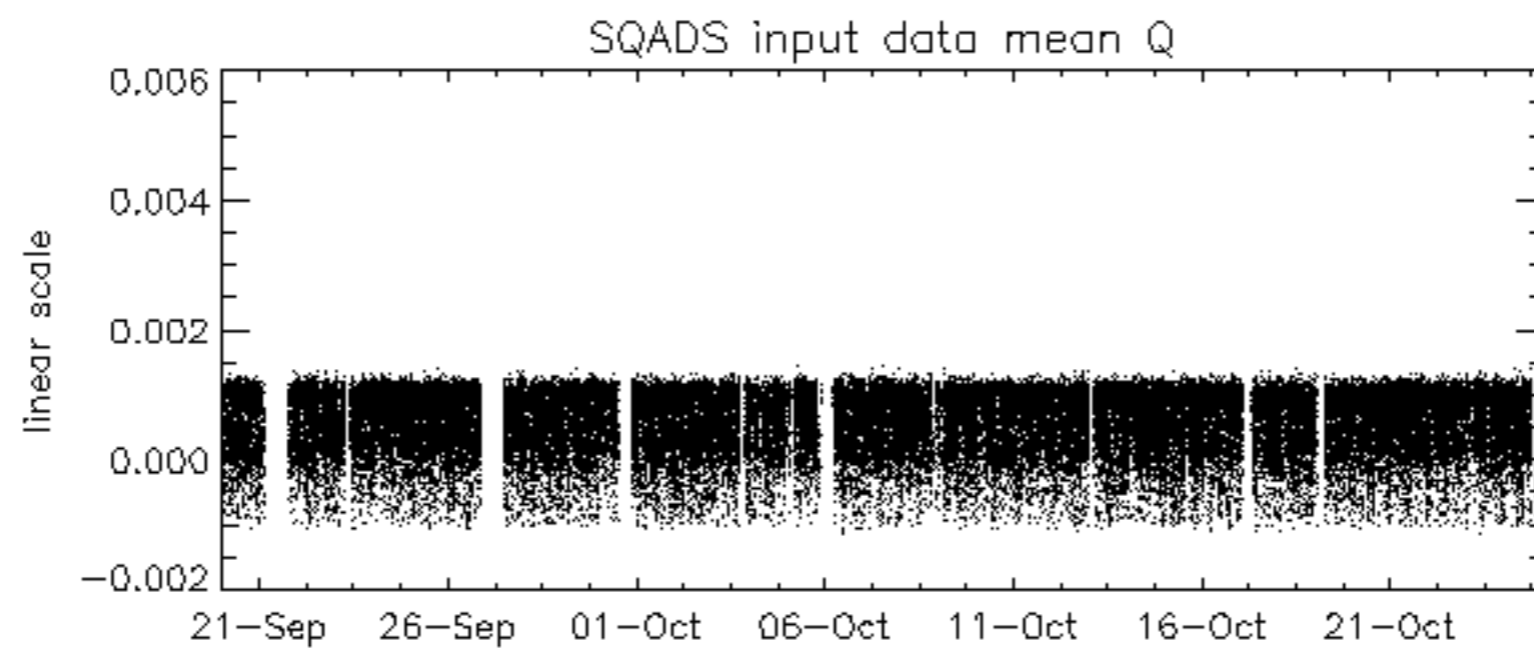
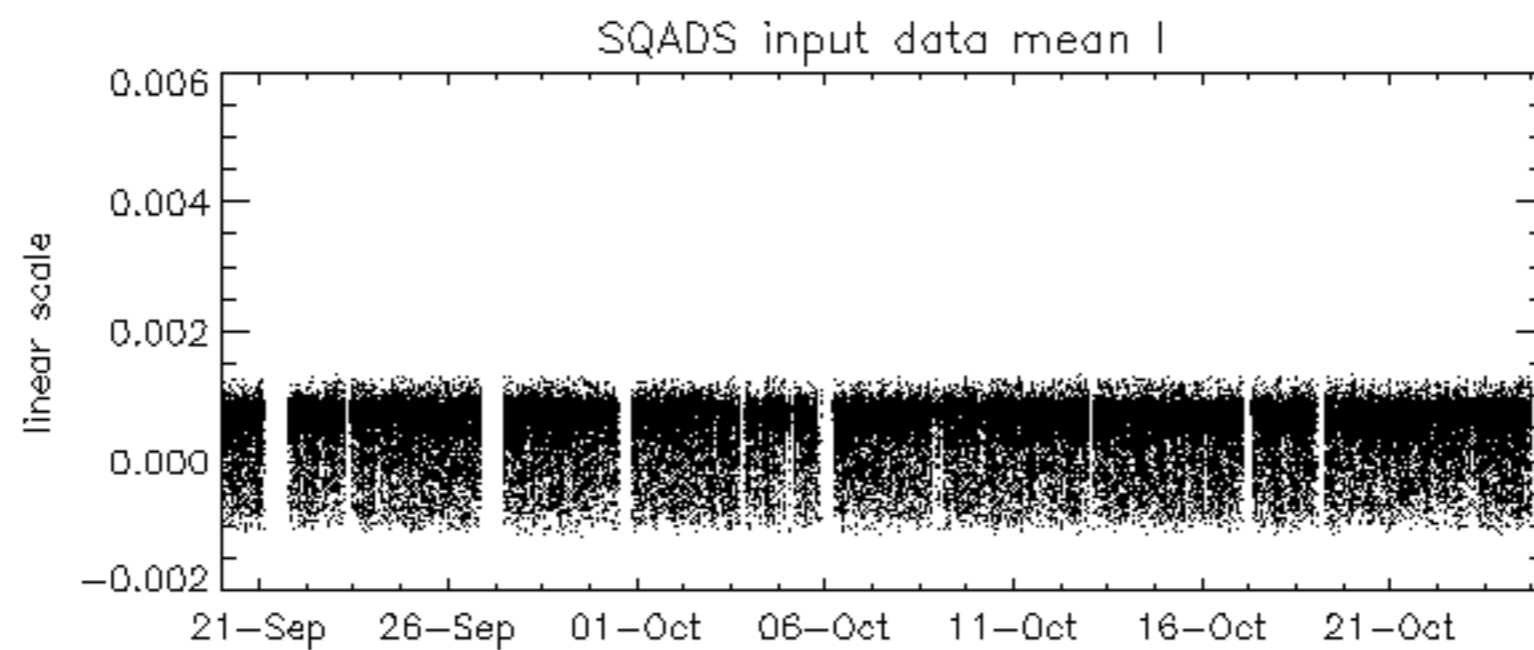
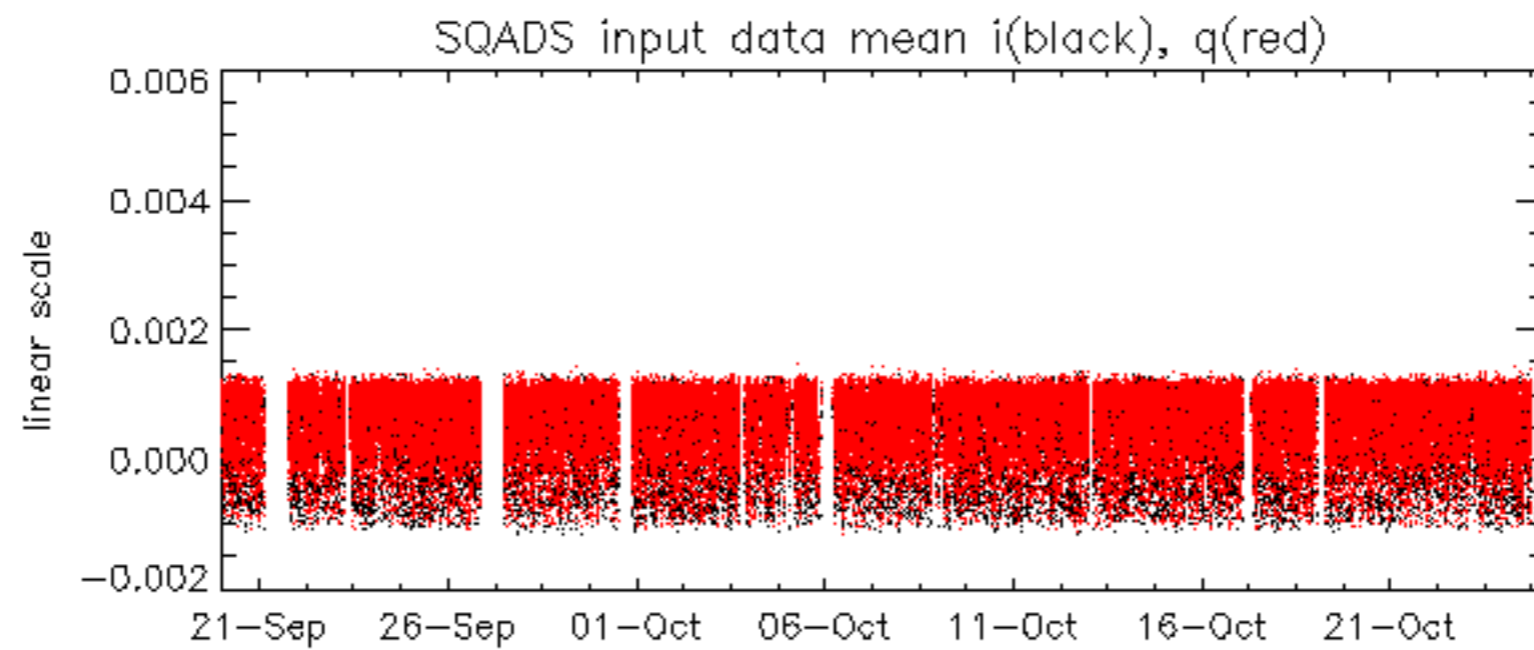
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -33.437094 Hz

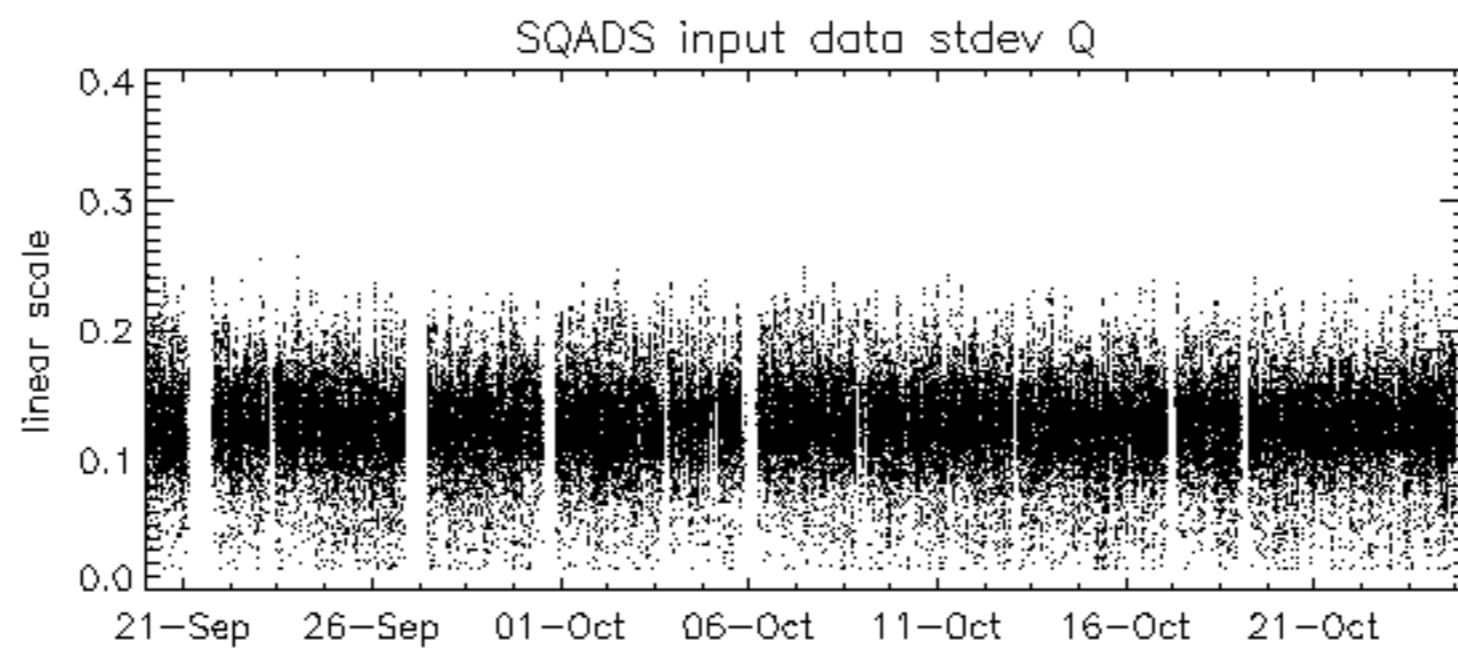
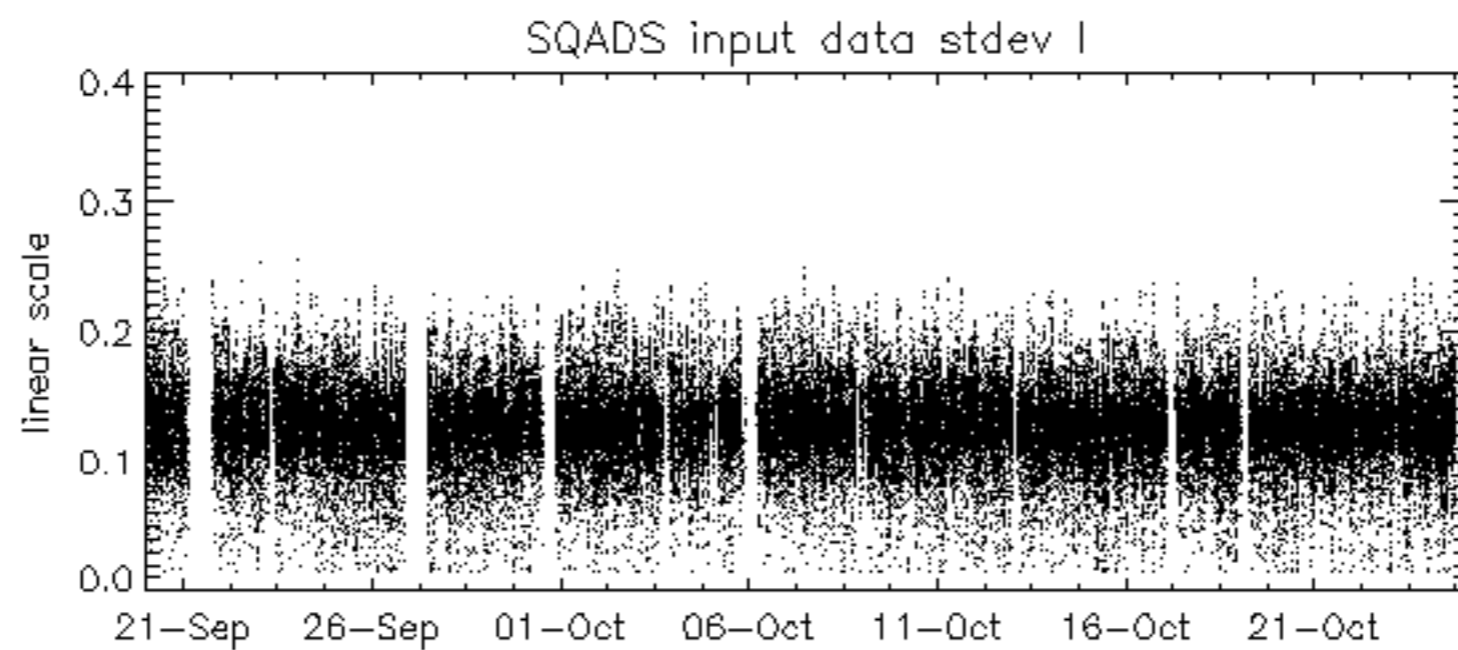
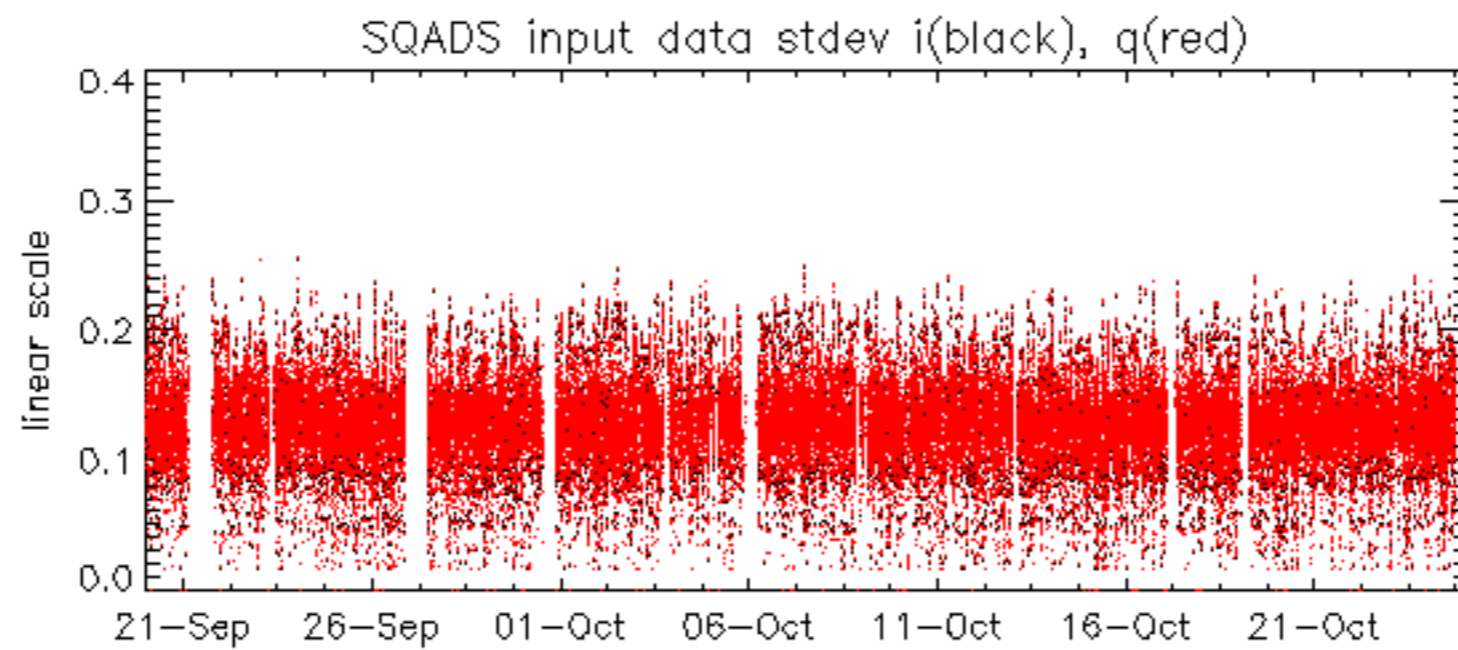


The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctioning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

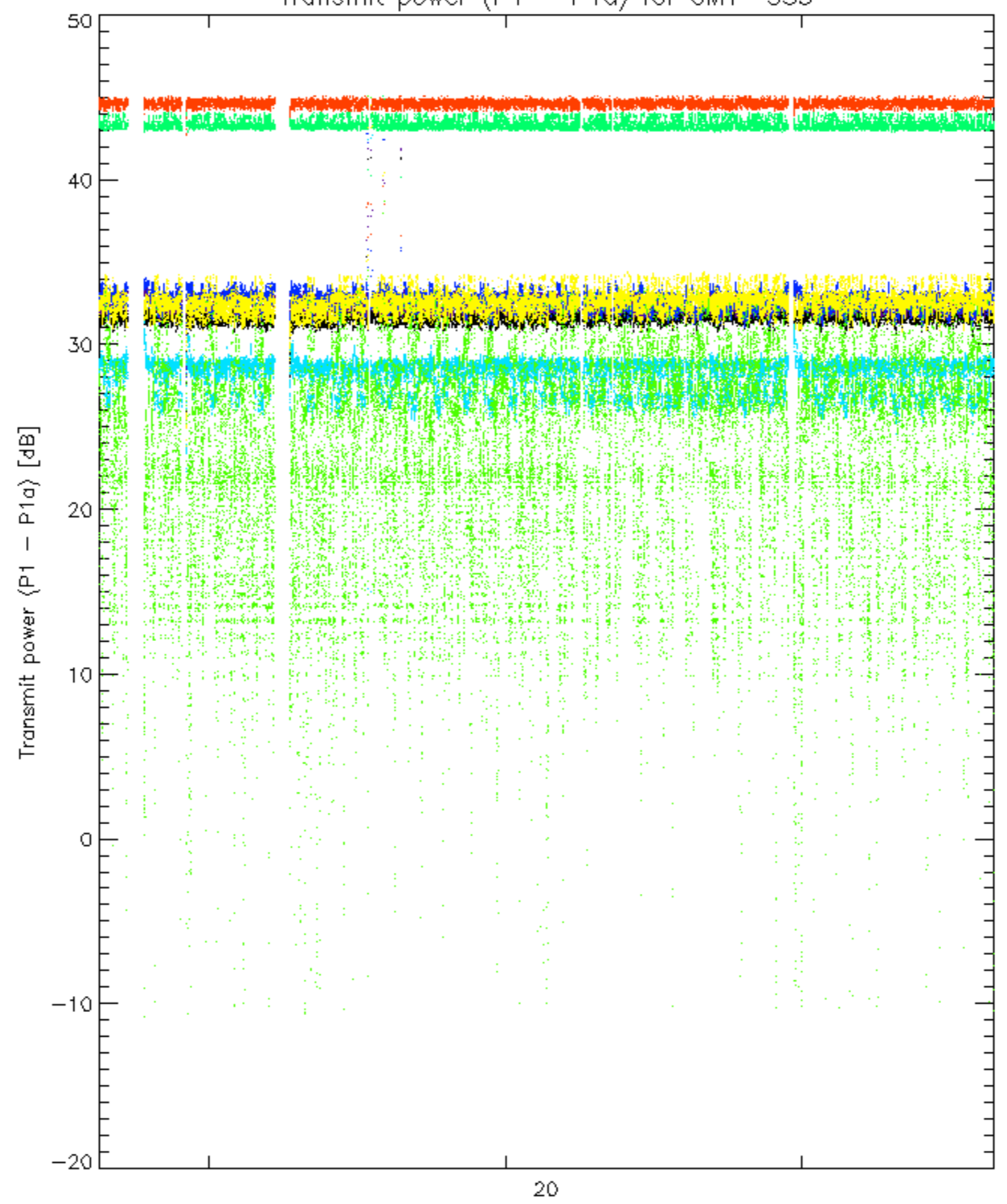
No anomalies observed.



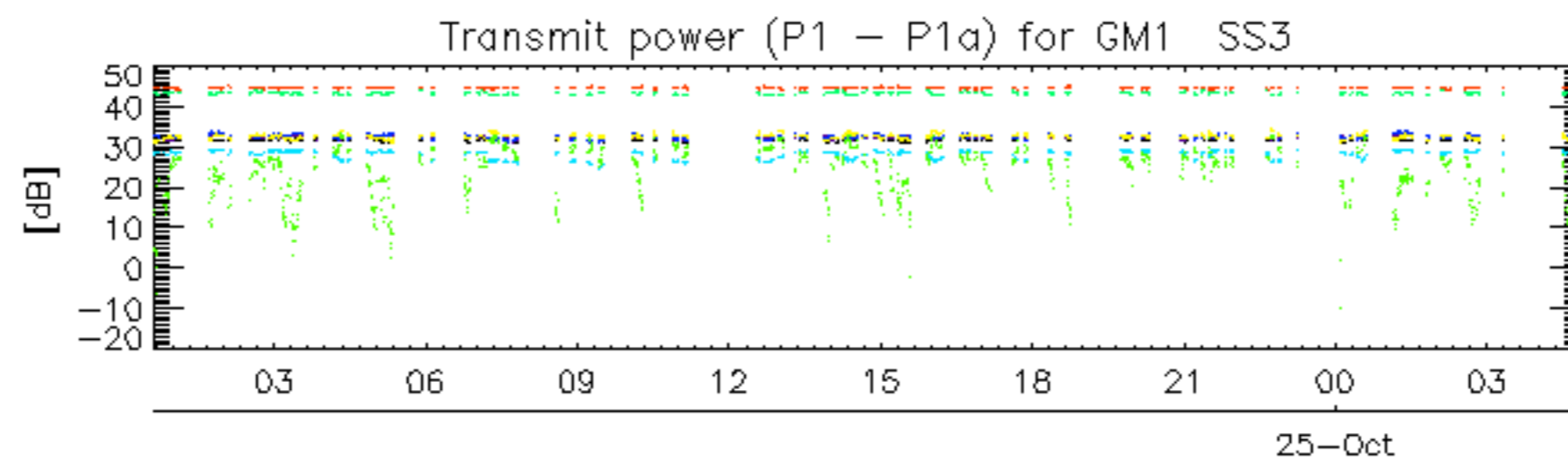




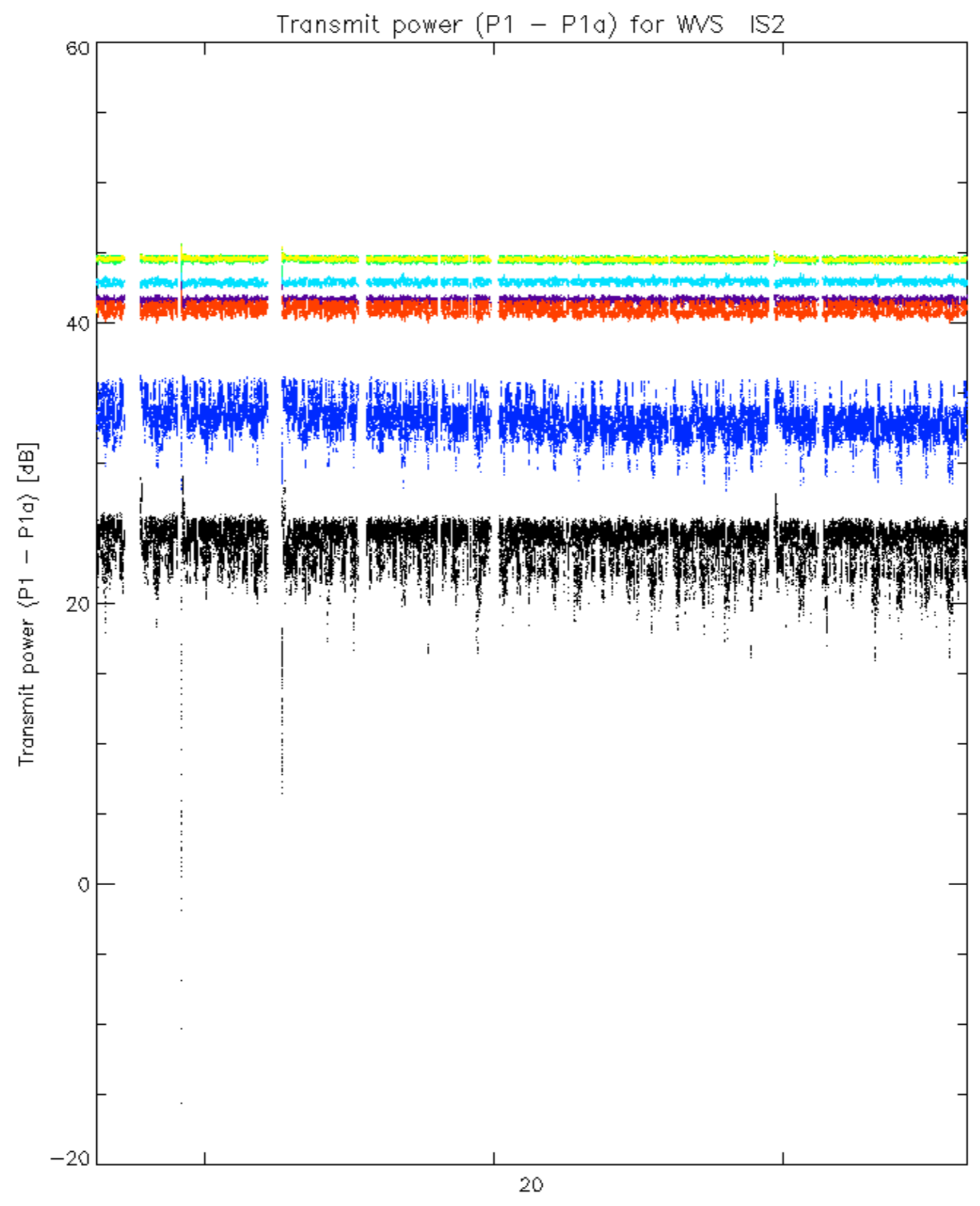
Transmit power (P1 - P1a) for GM1 SS3



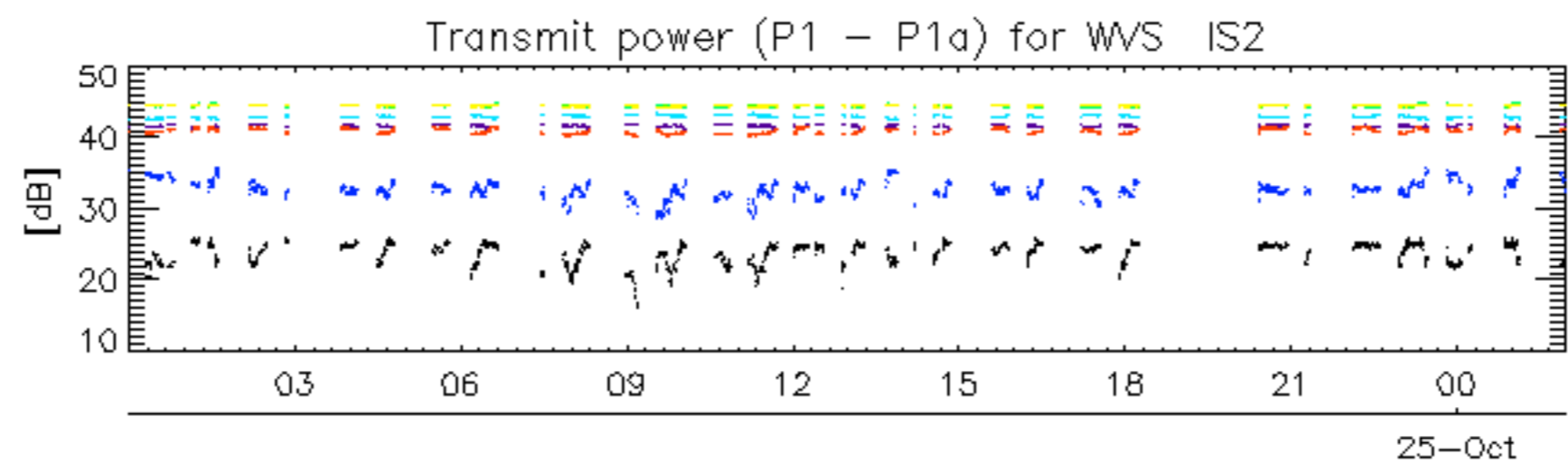
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 24 _ 30



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.