

PRELIMINARY REPORT OF 041128

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

last update on Sun Nov 28 10:58:04 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	20041127 030247

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
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.466203	0.006595	0.036869
7	P1	-3.276442	0.029484	0.343557
11	P1	-4.605714	0.017494	-0.008914
15	P1	-5.661656	0.029229	0.016545
19	P1	-3.608626	0.005228	-0.048216
22	P1	-4.578518	0.015969	0.011538
26	P1	-4.876526	0.060866	-0.096375

30	P1	-7.078735	0.014571	-0.032884
3	P1	-16.004841	0.109609	0.099264
7	P1	-14.496779	0.535961	-1.844558
11	P1	-20.674461	0.206402	-0.151510
15	P1	-11.664409	0.037513	0.073891
19	P1	-14.079800	0.028527	-0.091759
22	P1	-16.181232	0.423486	0.121678
26	P1	-17.695734	0.727582	-0.217159
30	P1	-17.959278	0.282810	0.096388

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.372641	0.088341	0.016884
7	P2	-22.611177	0.136283	-0.011210
11	P2	-15.044254	0.128360	0.110052
15	P2	-7.153173	0.109850	-0.027860
19	P2	-9.711273	0.129146	0.008482
22	P2	-17.232382	0.103281	0.063602
26	P2	-16.509264	0.111422	-0.002196
30	P2	-19.042545	0.084479	0.051283

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.202601	0.006539	-0.002002
7	P3	-8.202600	0.006539	-0.002005
11	P3	-8.202599	0.006540	-0.002012
15	P3	-8.202600	0.006540	-0.002010
19	P3	-8.202601	0.006540	-0.002013
22	P3	-8.202601	0.006540	-0.002016
26	P3	-8.202603	0.006540	-0.002017
30	P3	-8.202602	0.006539	-0.001456

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	-2.804830	0.011030	-0.001340
7	P1	-2.952008	0.021892	-0.014774
11	P1	-3.904967	0.022730	-0.028994
15	P1	-3.488636	0.027381	-0.001255
19	P1	-3.590662	0.012345	-0.001227
22	P1	-5.610162	0.067030	0.025716
26	P1	-6.429240	0.084915	-0.158948
30	P1	-6.271271	0.040809	-0.034108
3	P1	-10.600275	0.051648	-0.006578
7	P1	-10.083334	0.133197	-0.068236
11	P1	-12.381993	0.115751	-0.092384
15	P1	-11.720585	0.063846	-0.060022
19	P1	-15.619801	0.052527	-0.000130
22	P1	-23.983456	2.047770	-0.144034
26	P1	-15.108093	0.464361	-0.020020
30	P1	-20.236593	0.994453	0.175878

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.058542	0.040113	0.015803
7	P2	-22.672131	0.030580	0.013462
11	P2	-10.837655	0.035644	0.113009
15	P2	-5.052251	0.027611	-0.024805
19	P2	-6.959431	0.035003	-0.026505
22	P2	-7.353552	0.028872	0.056263
26	P2	-23.943966	0.021886	-0.025943
30	P2	-22.086910	0.018842	0.026972

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P3	-8.043134	0.003238	0.002864
7	P3	-8.043134	0.003248	0.002627
11	P3	-8.043182	0.003248	0.002394
15	P3	-8.043004	0.003247	0.003008
19	P3	-8.043182	0.003247	0.002635
22	P3	-8.043226	0.003244	0.002933
26	P3	-8.043170	0.003236	0.002458
30	P3	-8.043130	0.003248	0.002936

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	0.000451163
	stdev	2.32136e-07
MEAN Q	mean	0.000515185
	stdev	2.48480e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125582
	stdev	0.000979524

STDEV Q	mean	0.125809
	stdev	0.000987843





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

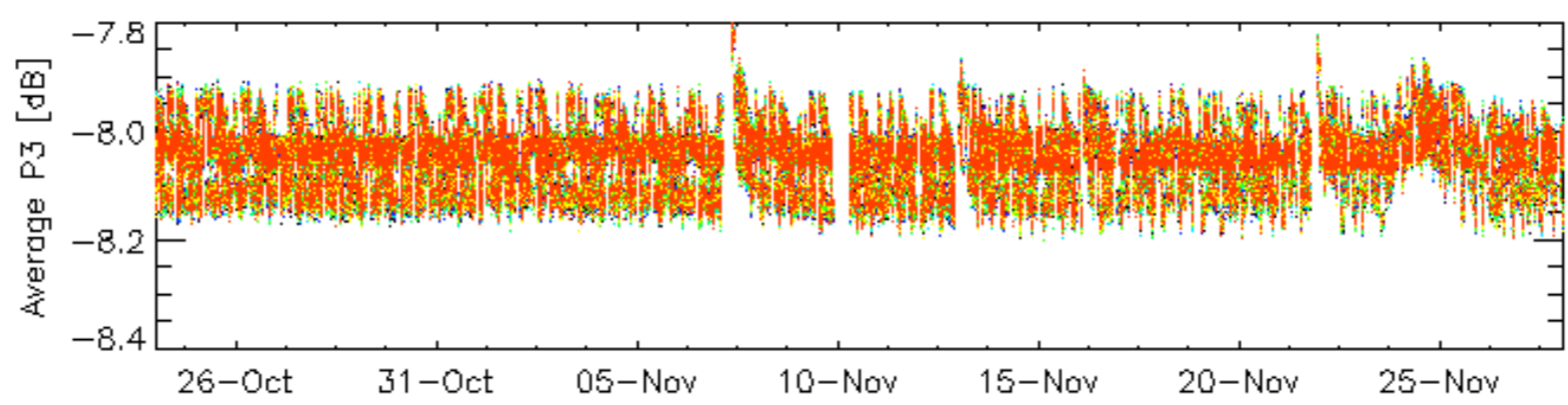
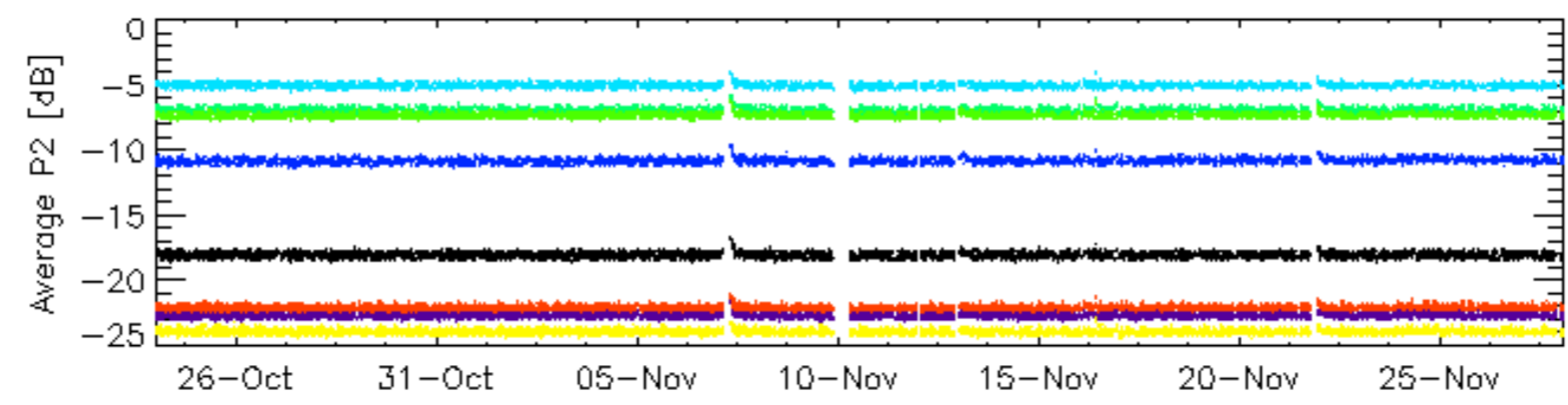
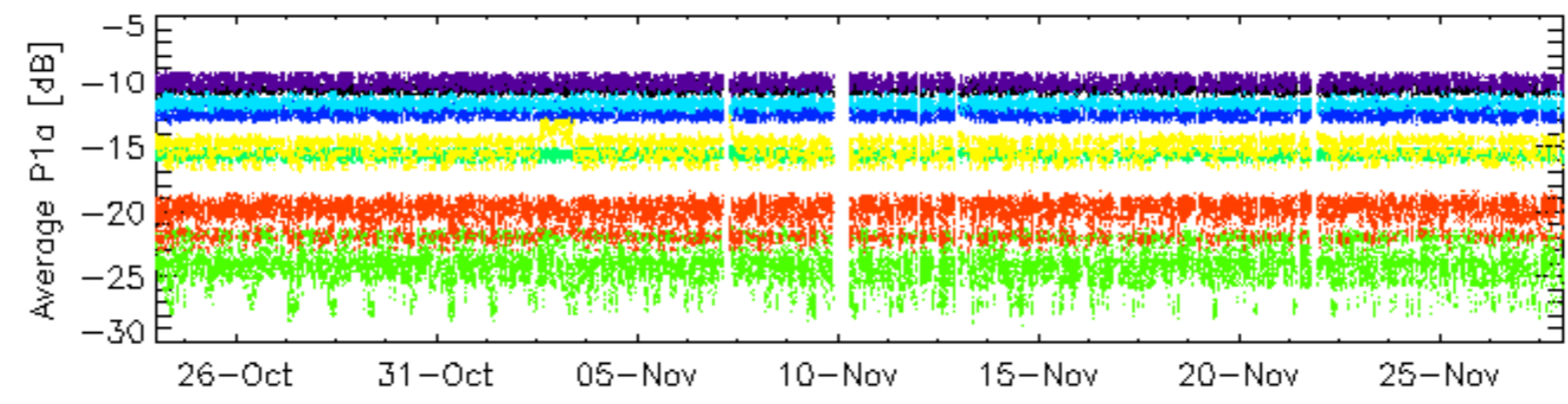
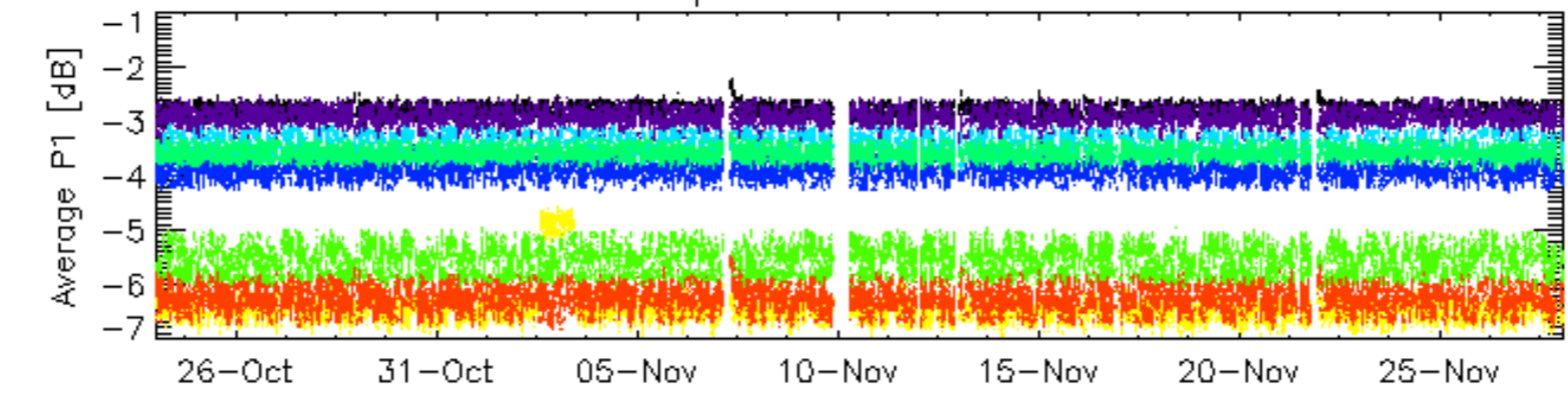
6.5 - Absolute Doppler for GM1

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

6.6 - Doppler evolution versus ANX for GM1

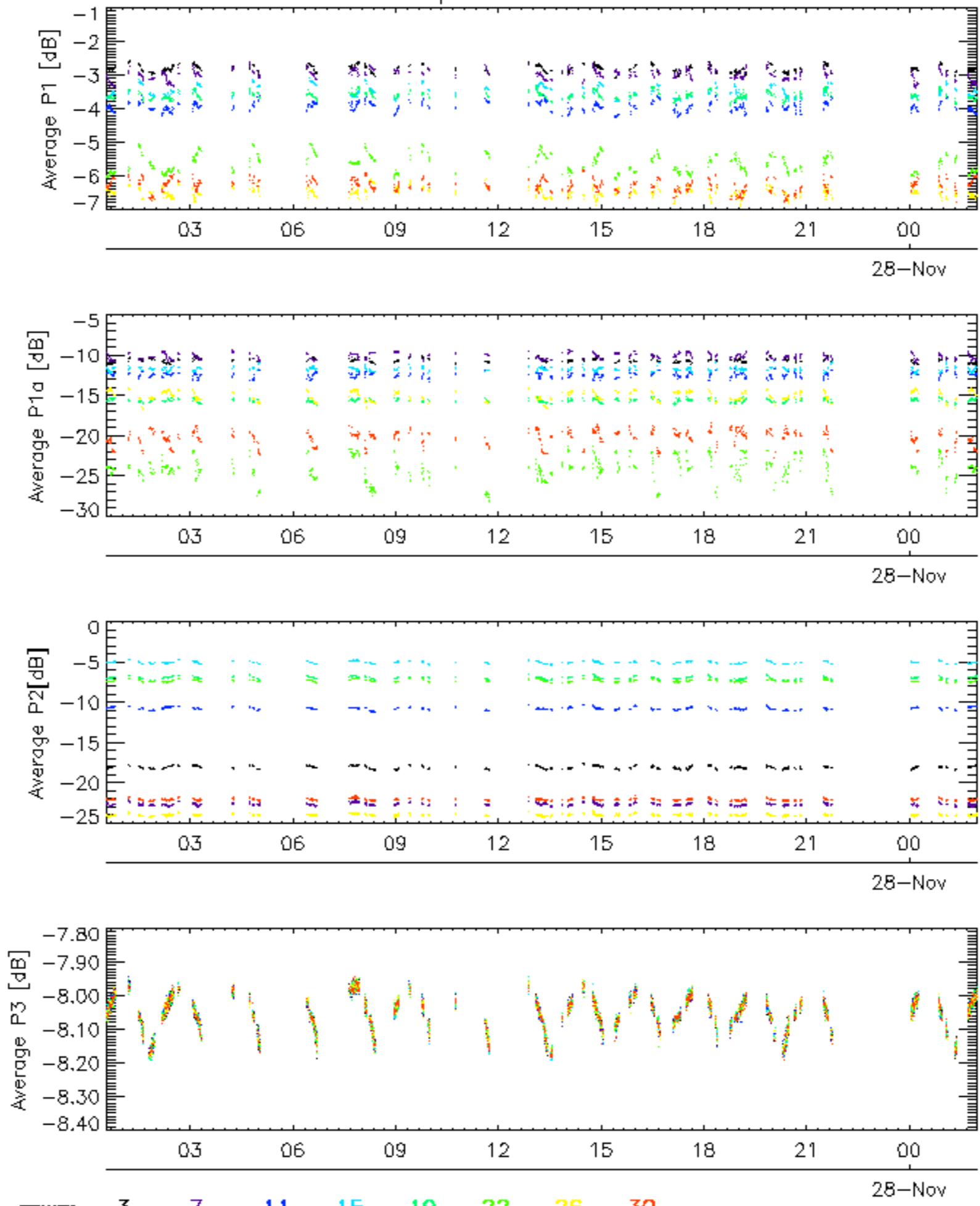
Evolution Doppler error versus ANX	
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Cal pulses for GM1 SS3

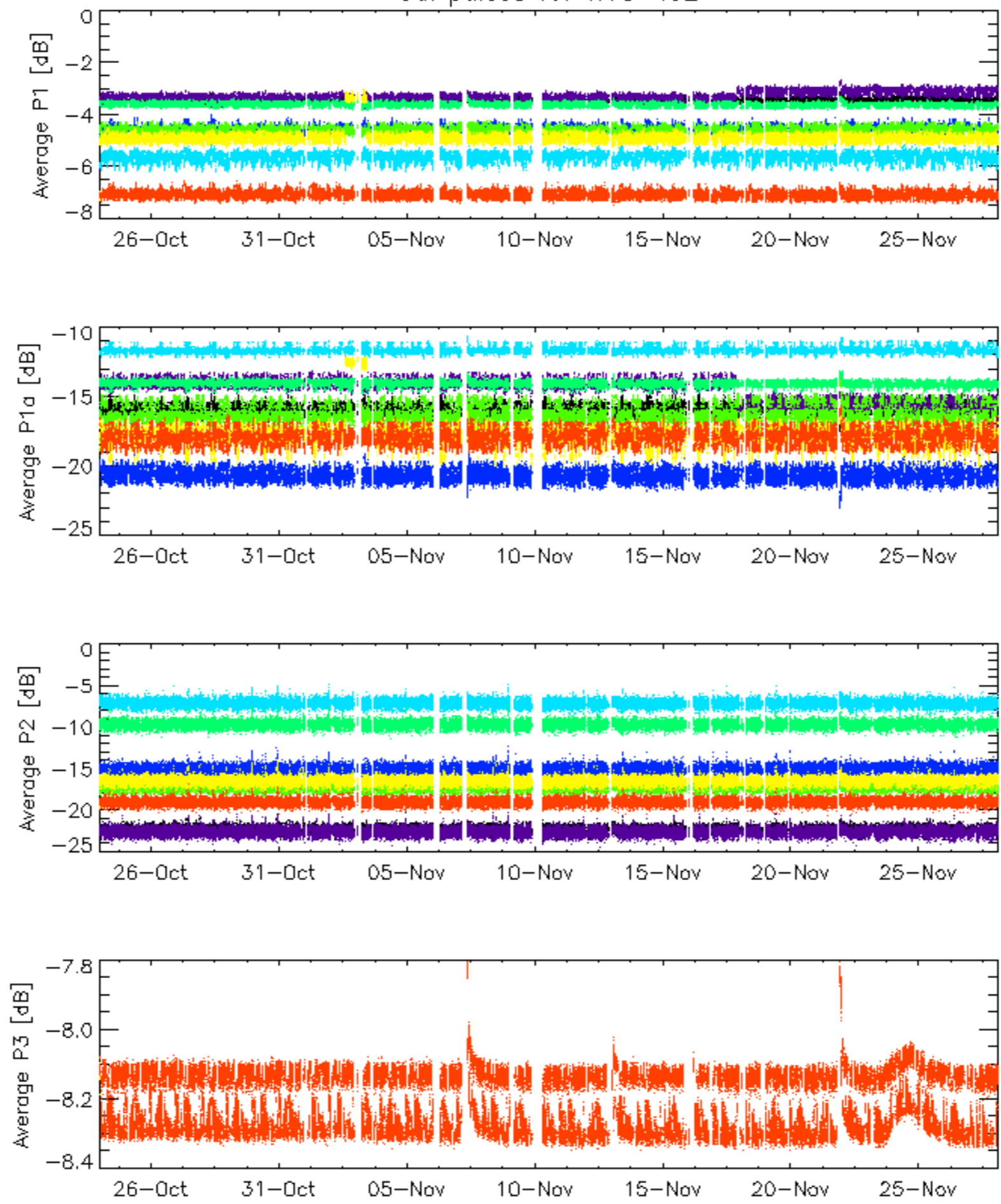


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

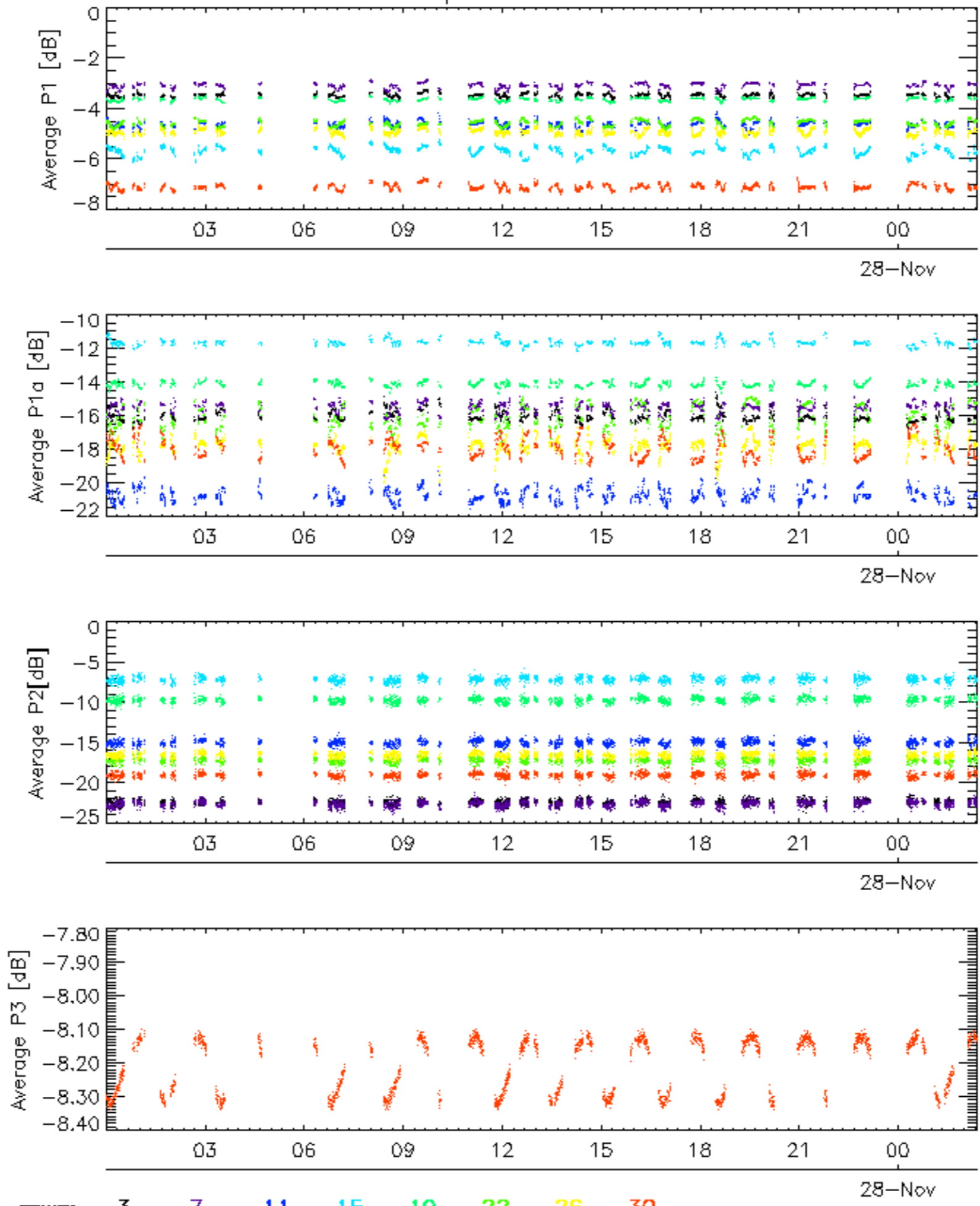


Cal pulses for WVS IS2



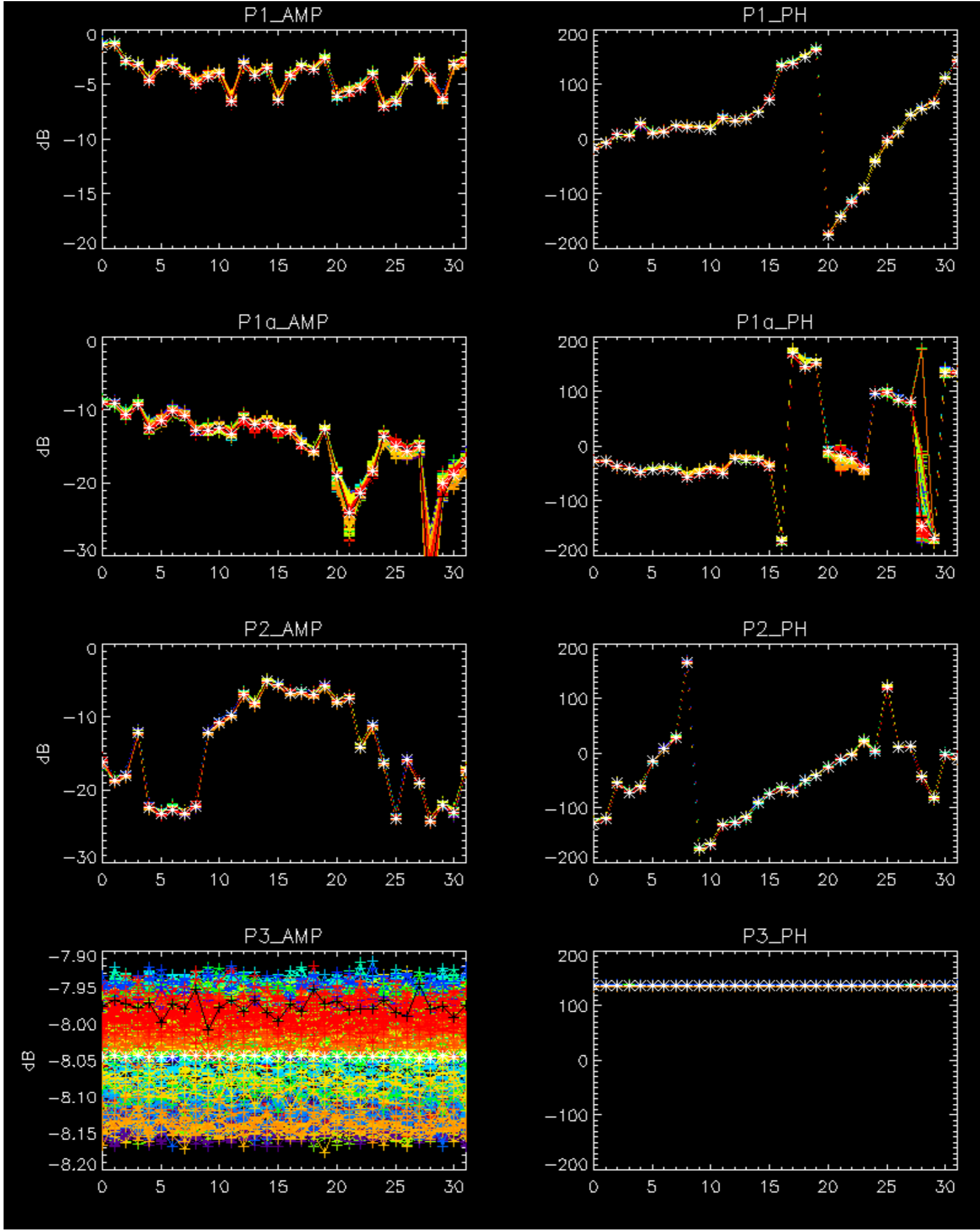
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

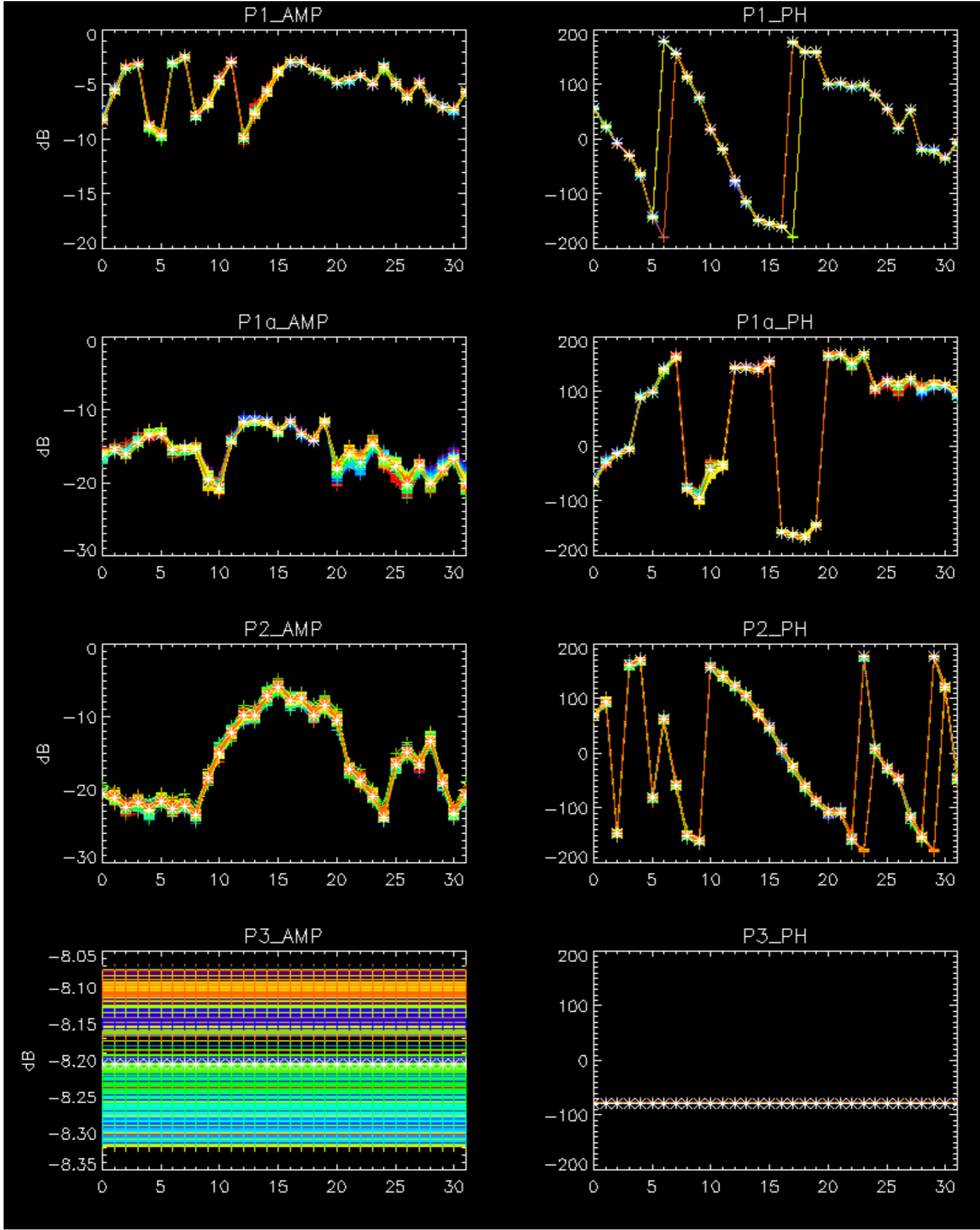
Cal pulses for WVS IS2



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

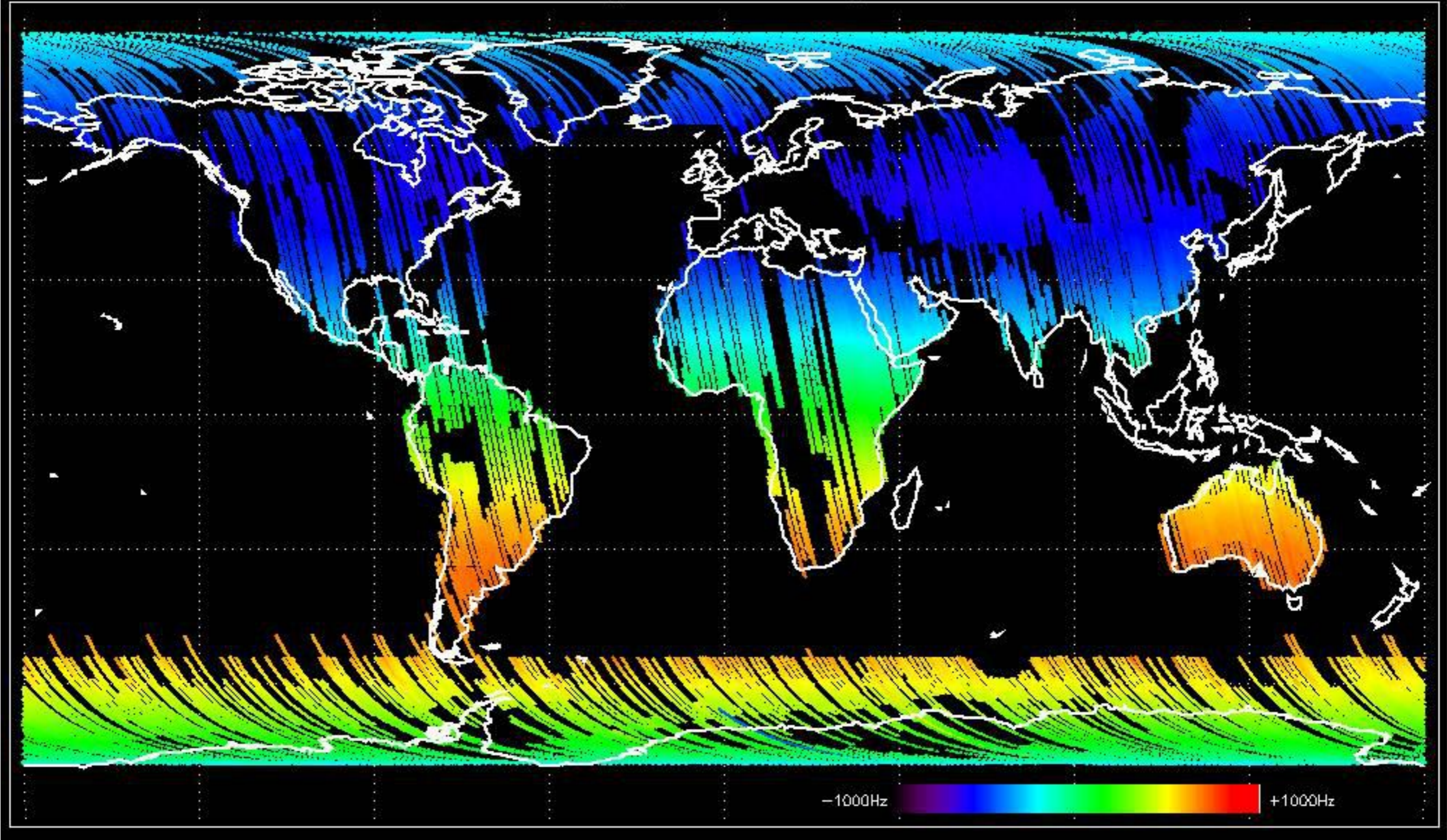
No anomalies observed.



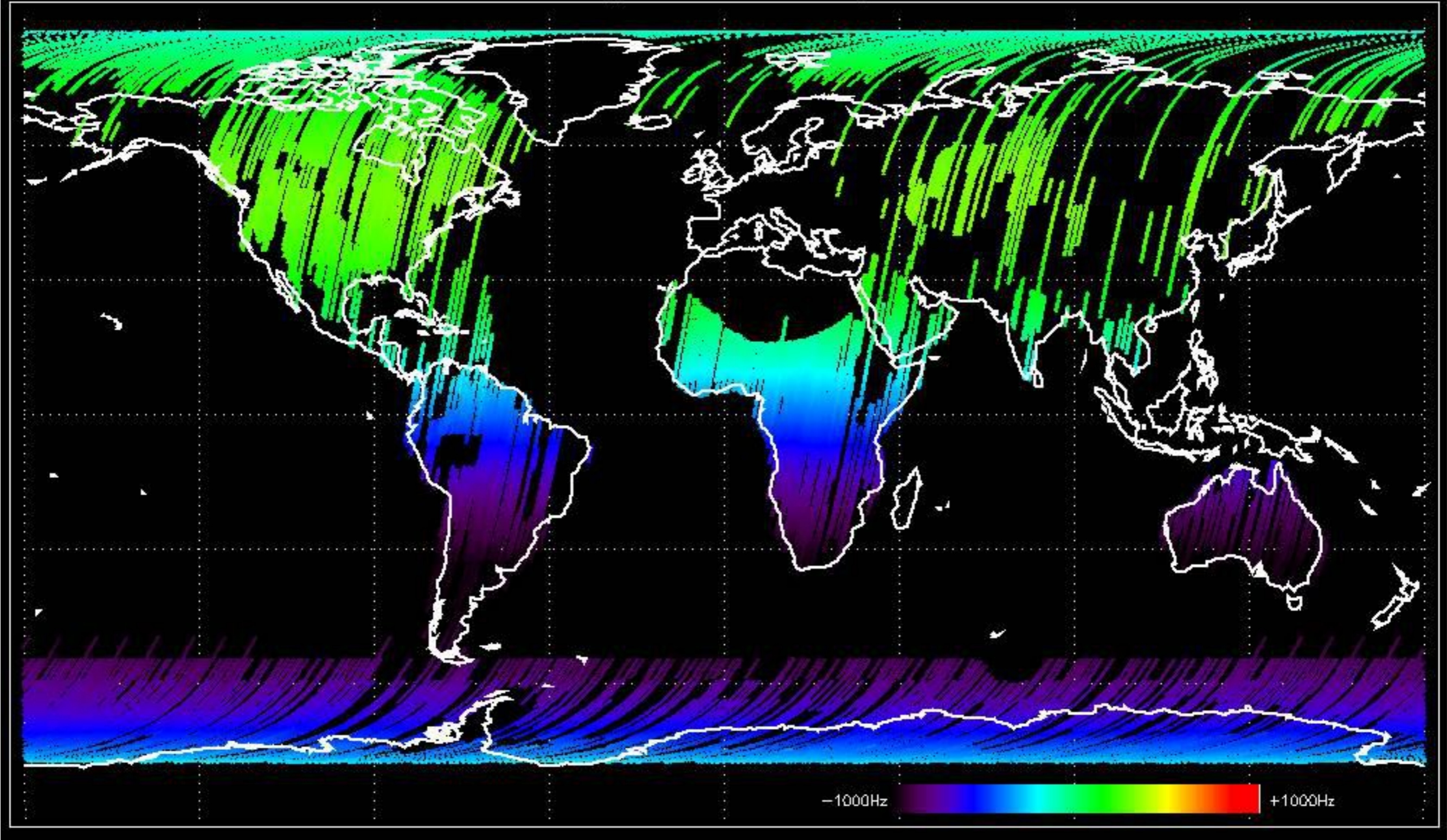


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

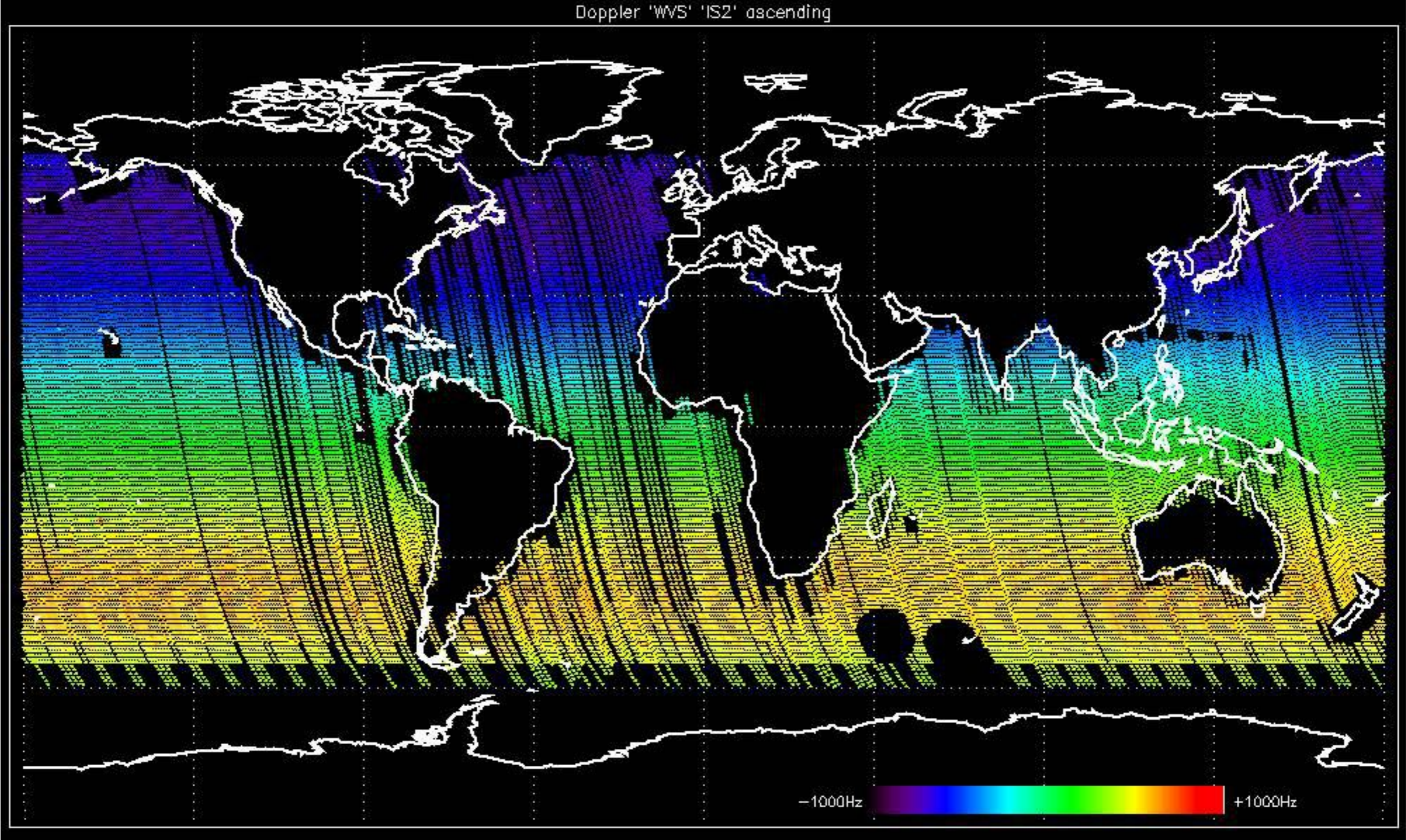
Doppler 'GM1' 'SS1' ascending



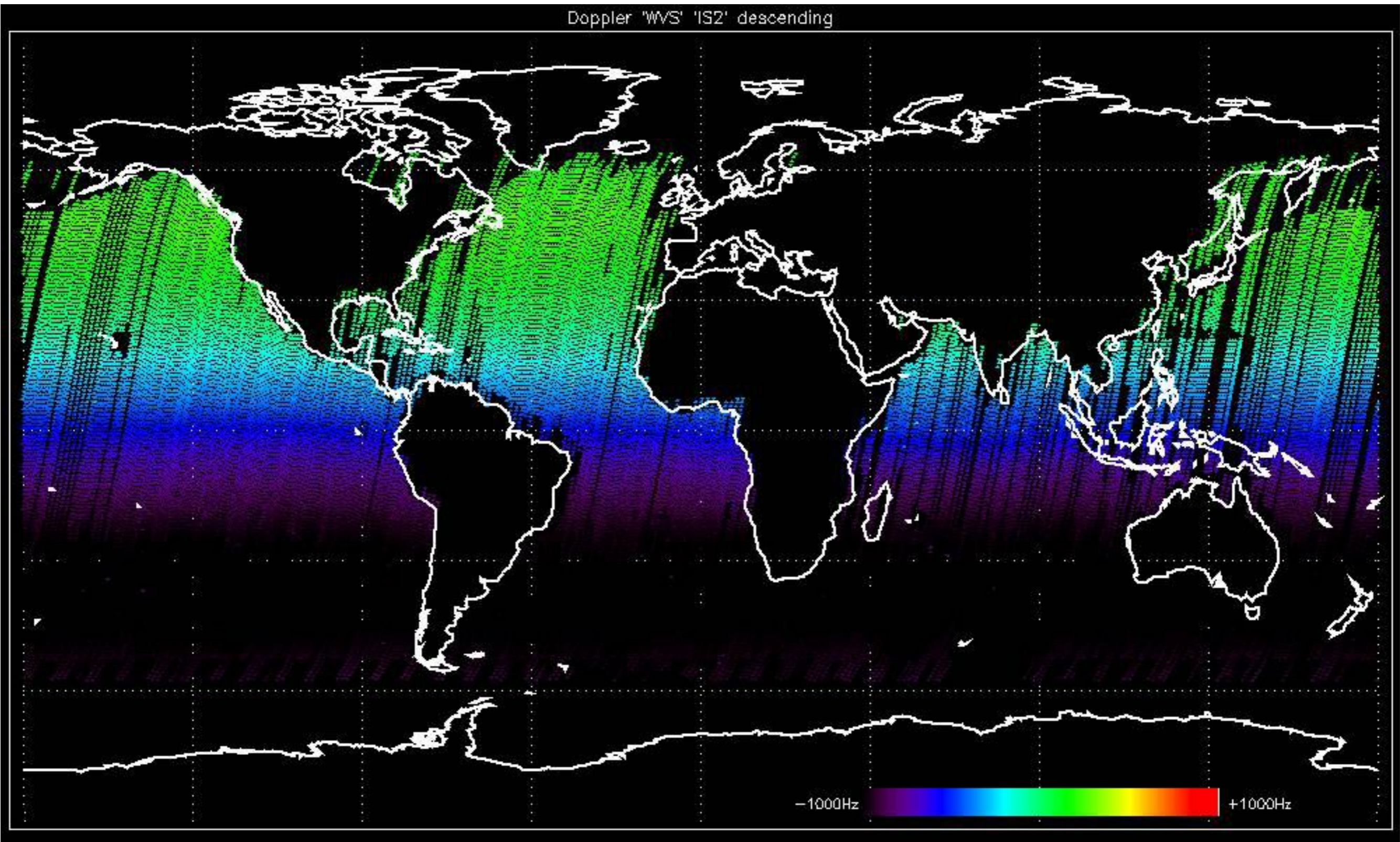
Doppler 'GM1' 'SS1' descending



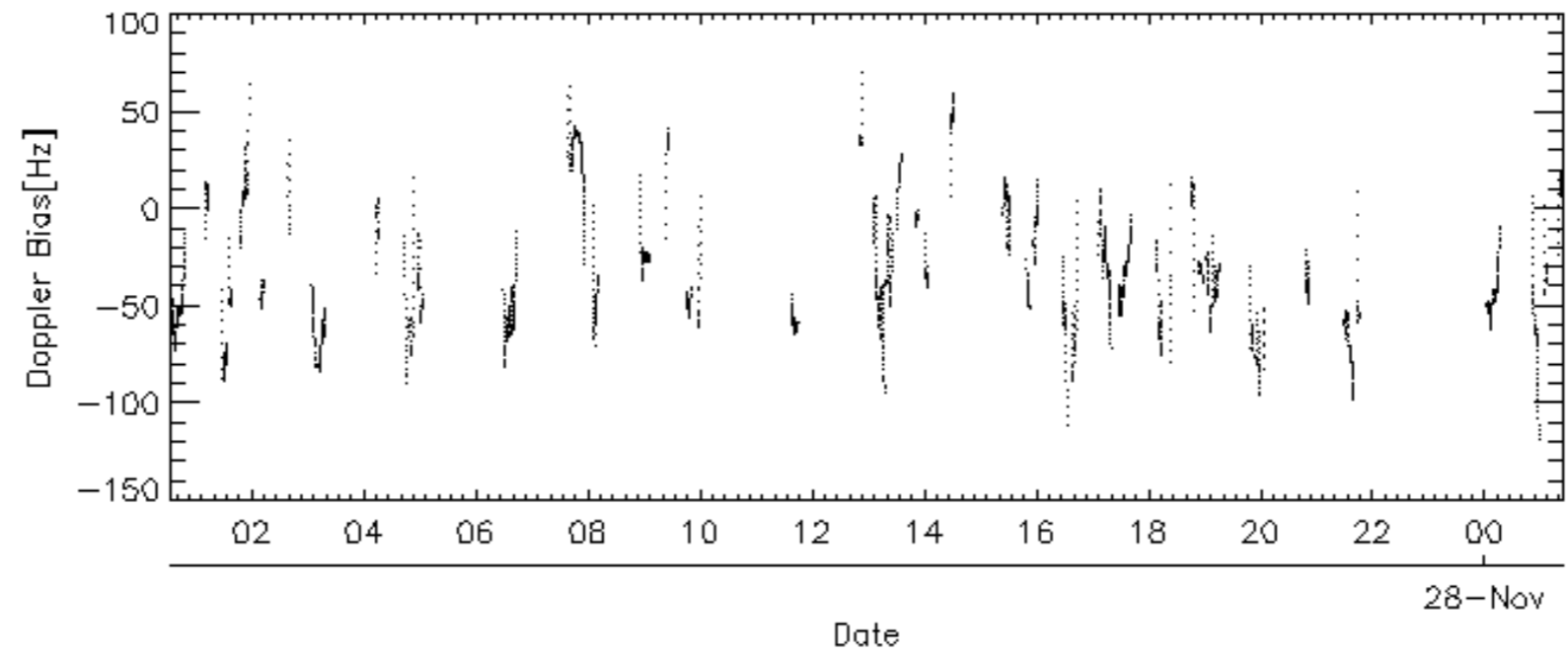
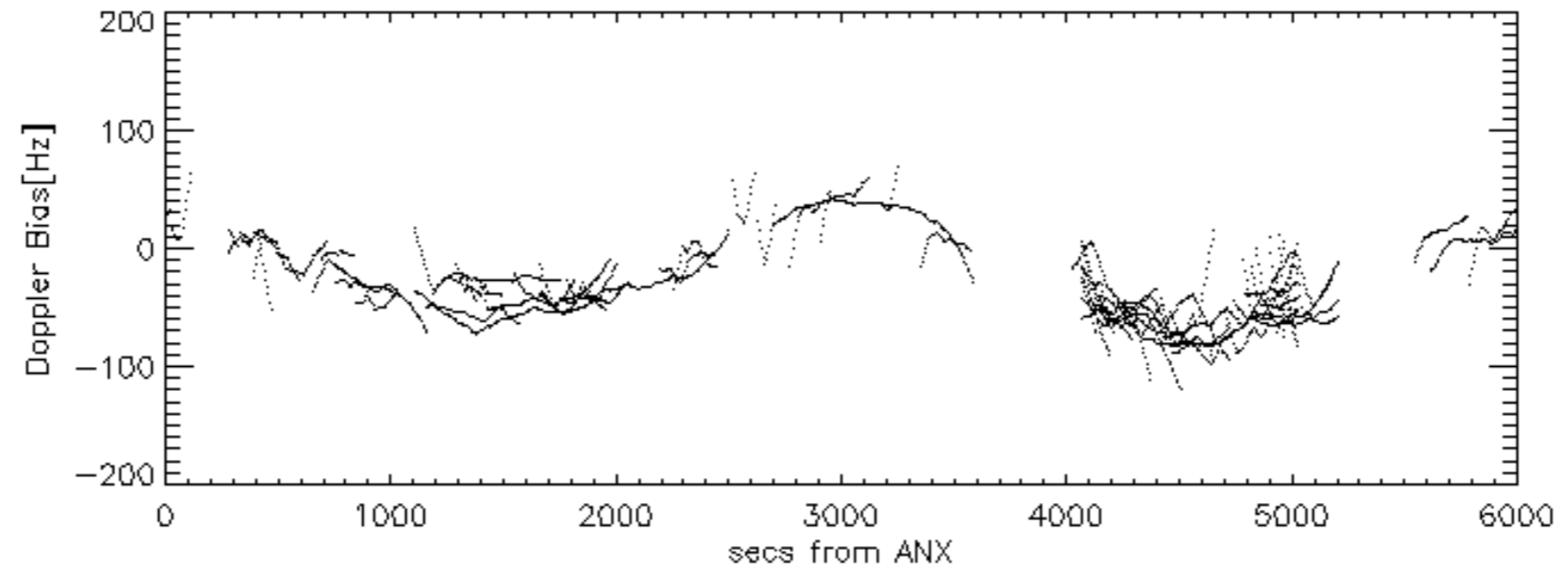
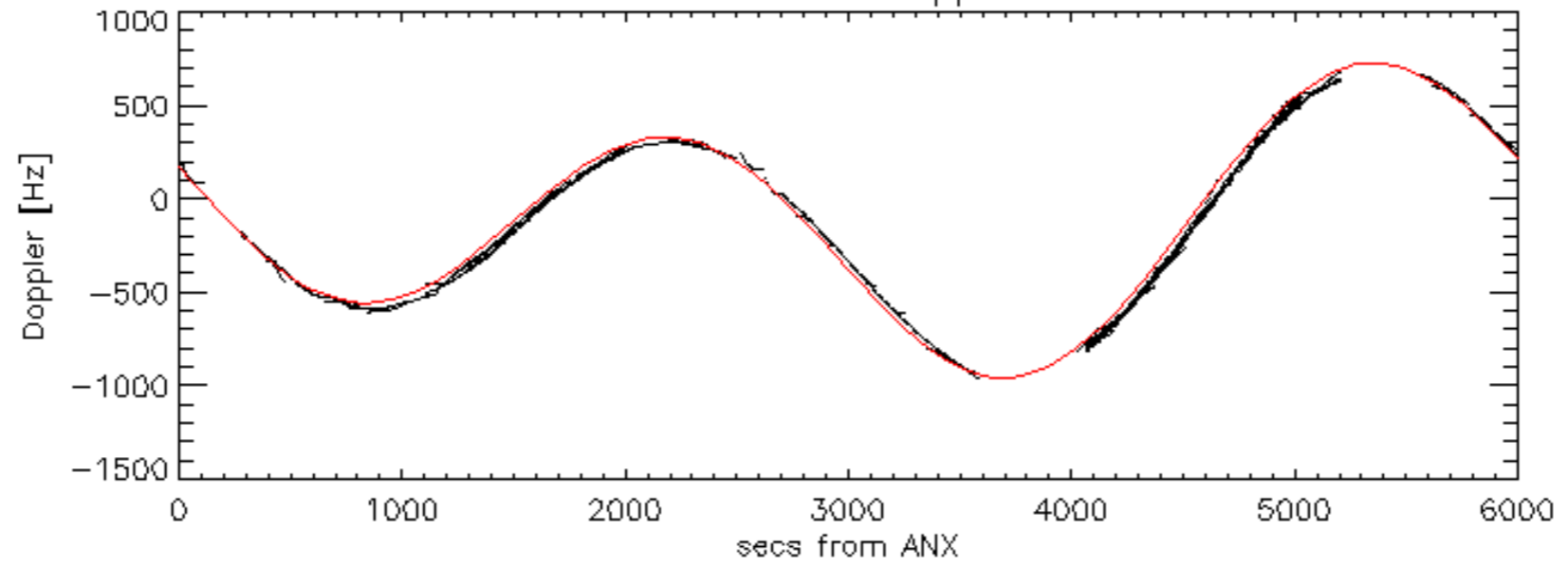
Doppler 'WVS' 'IS2' ascending

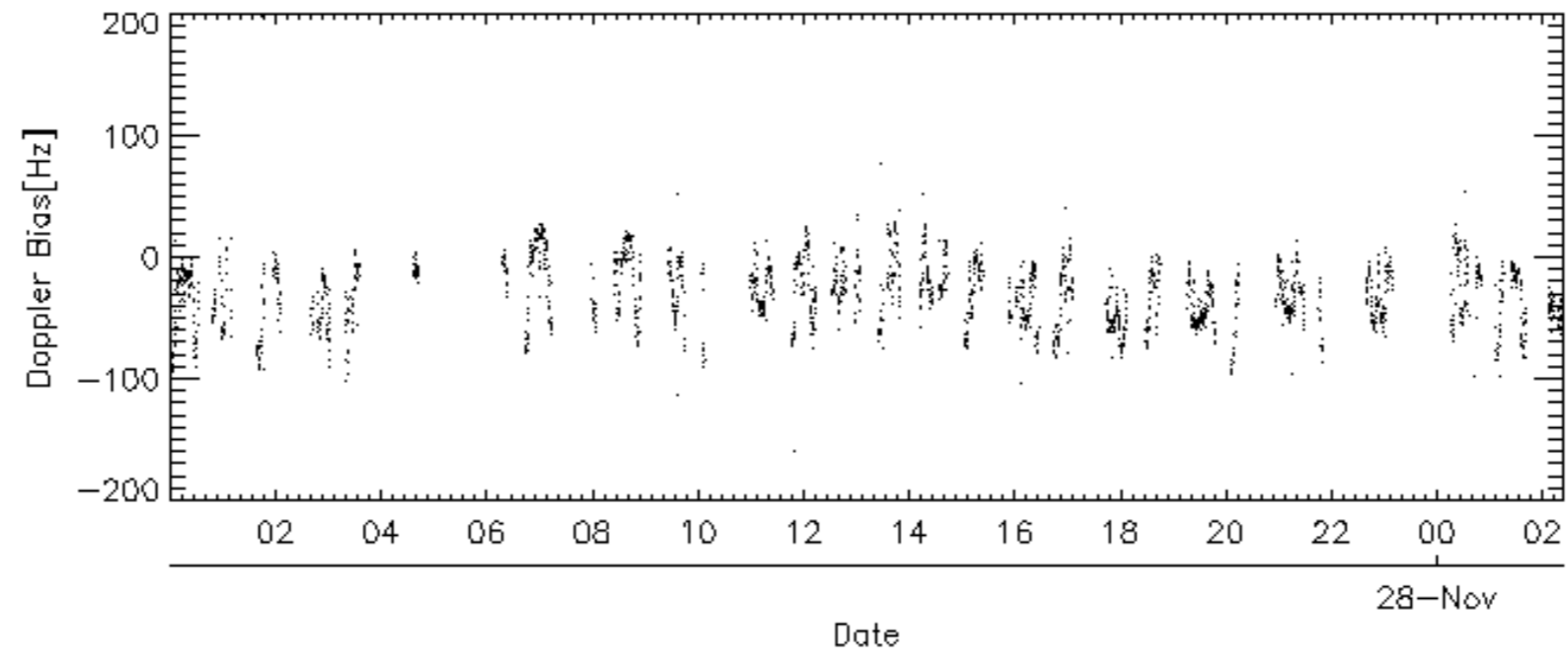
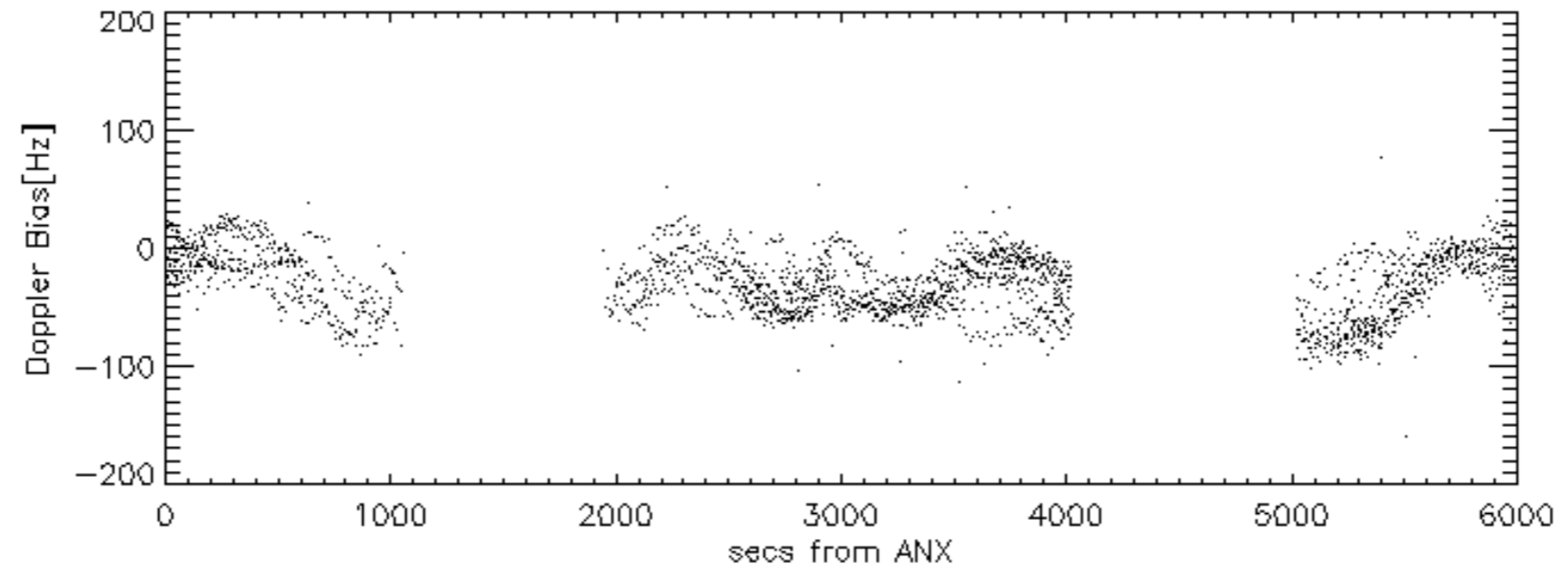
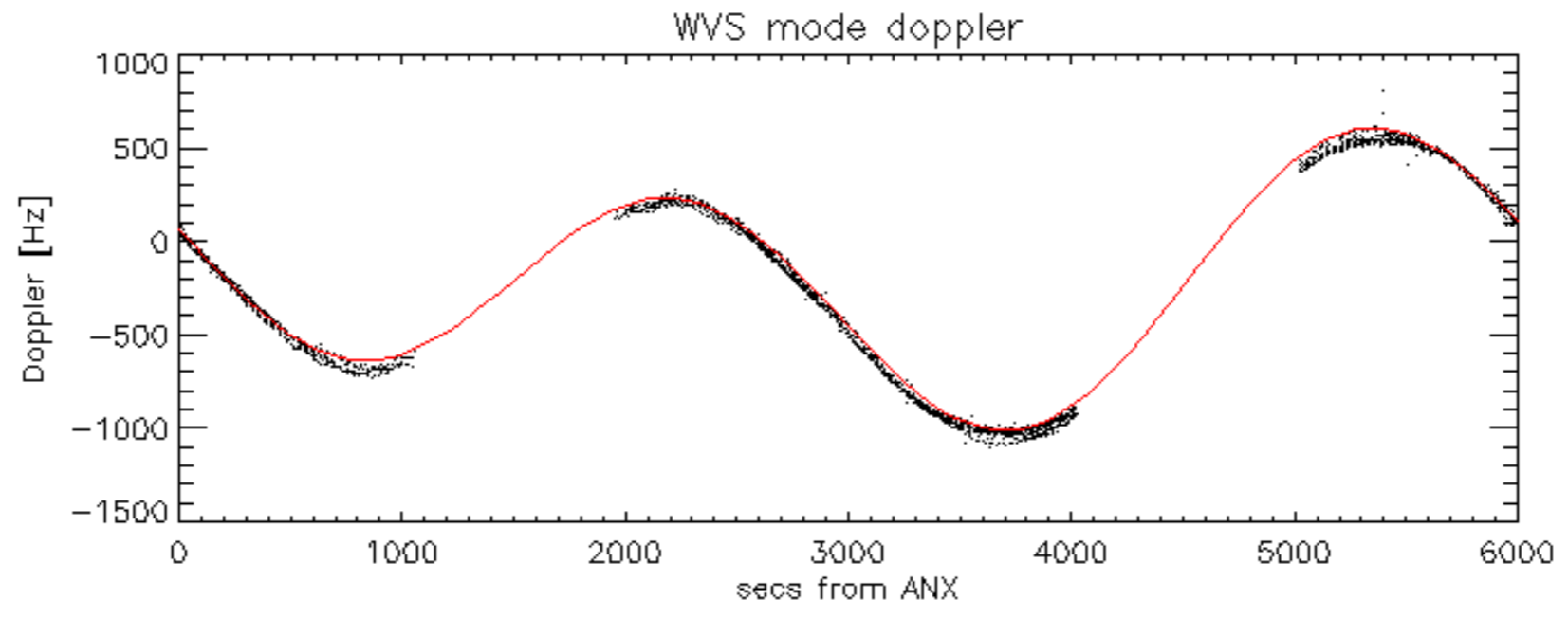


Doppler 'WVS' 'IS2' descending

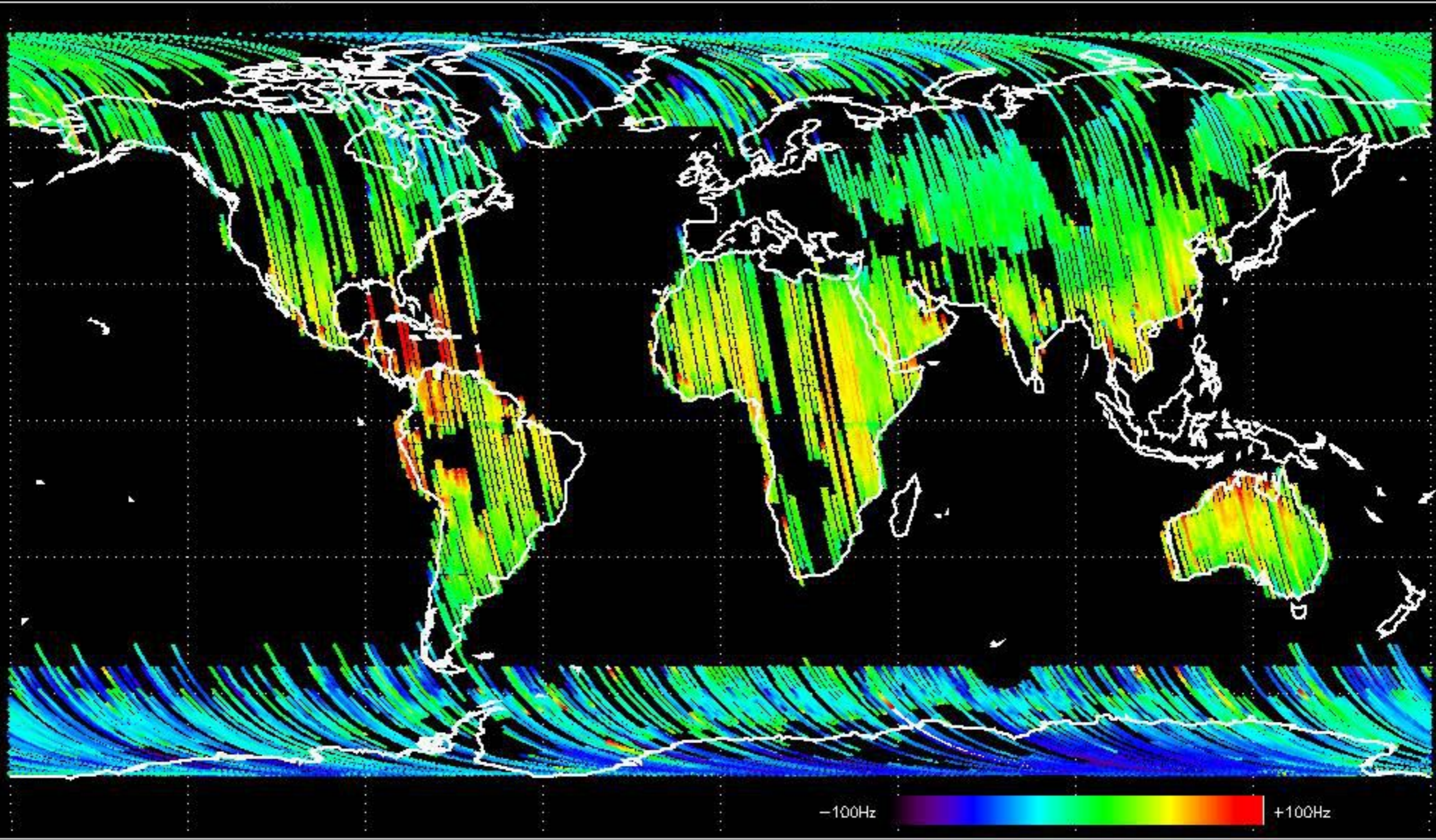


GM1 mode doppler

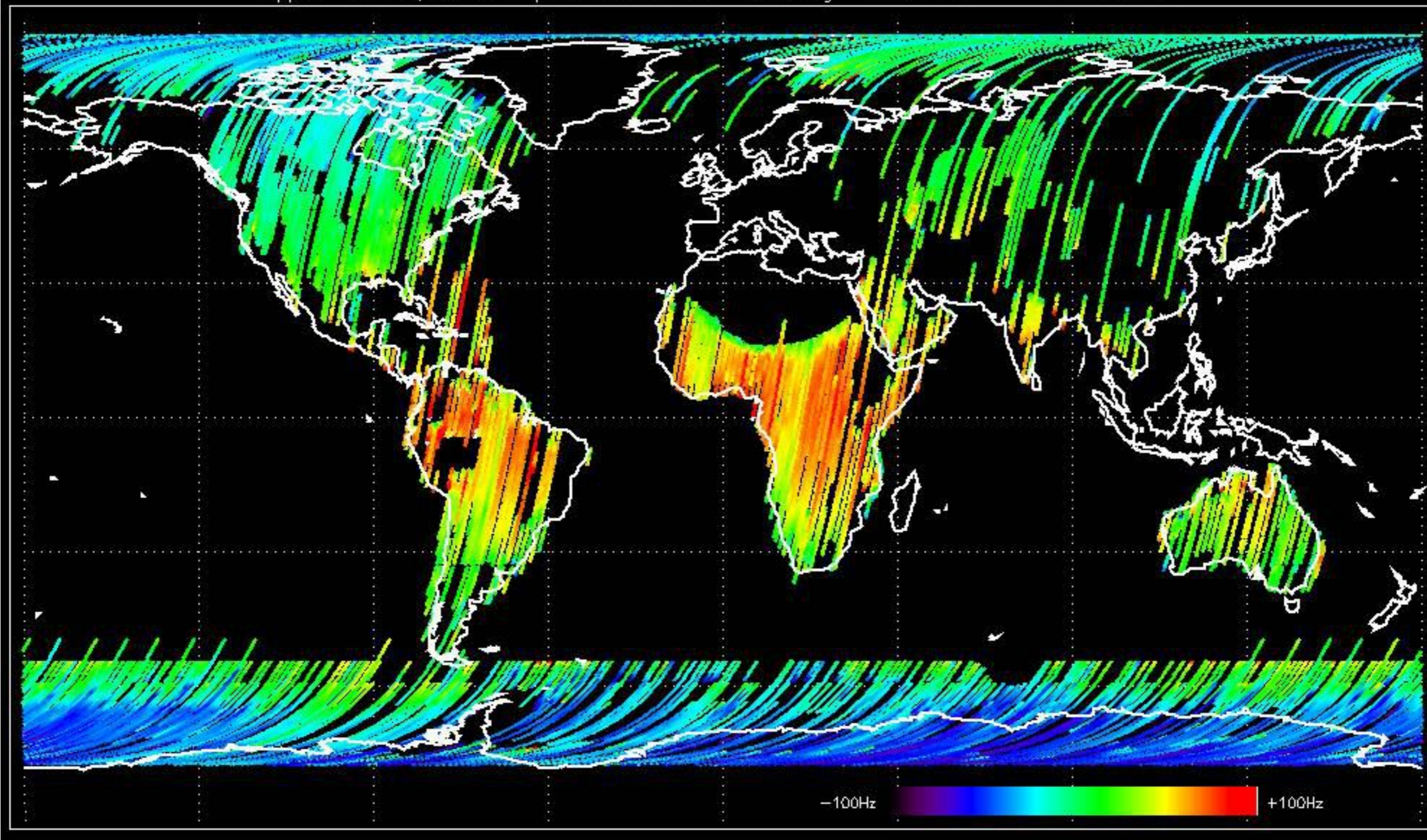




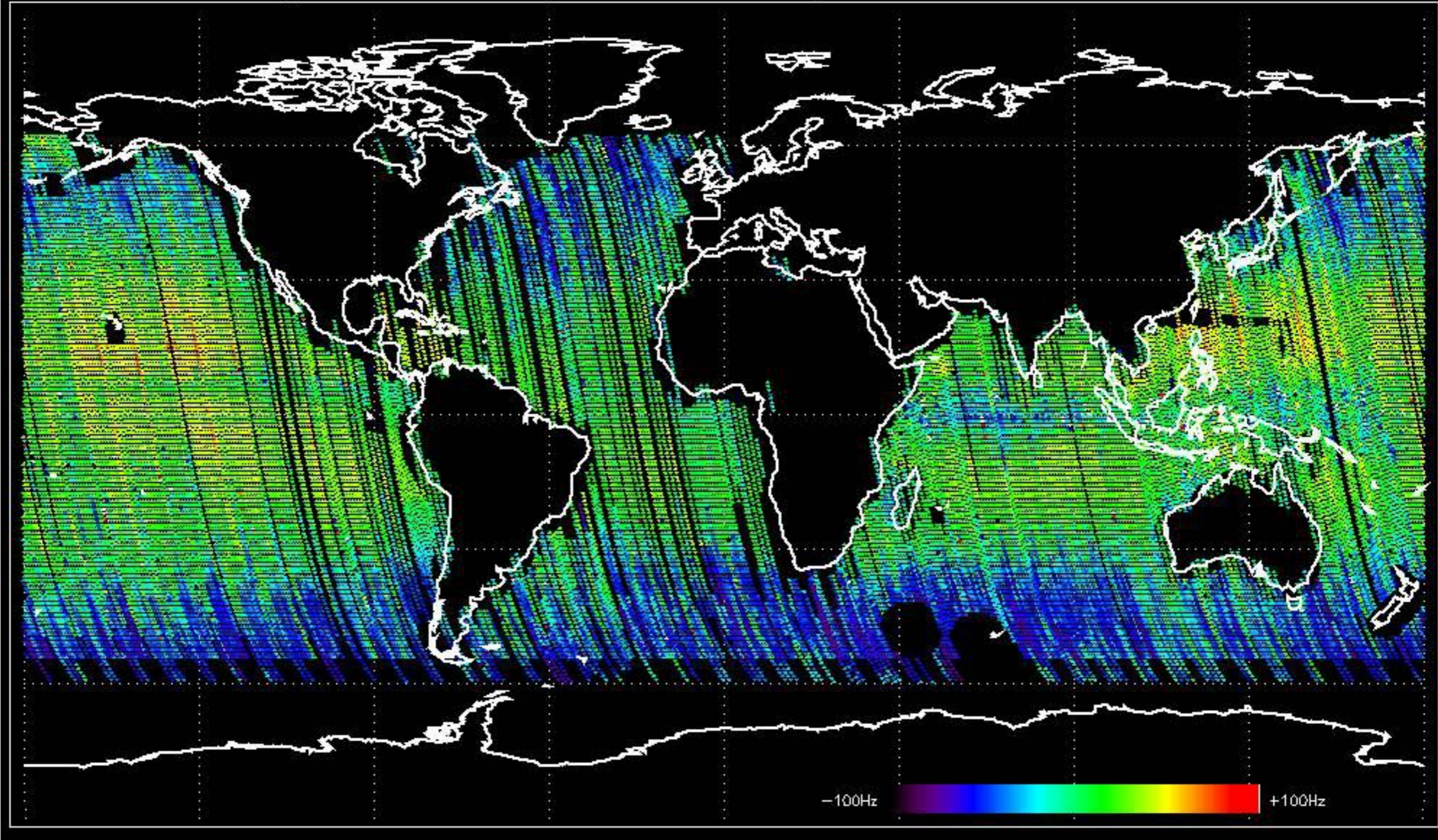
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -35.296467 Hz



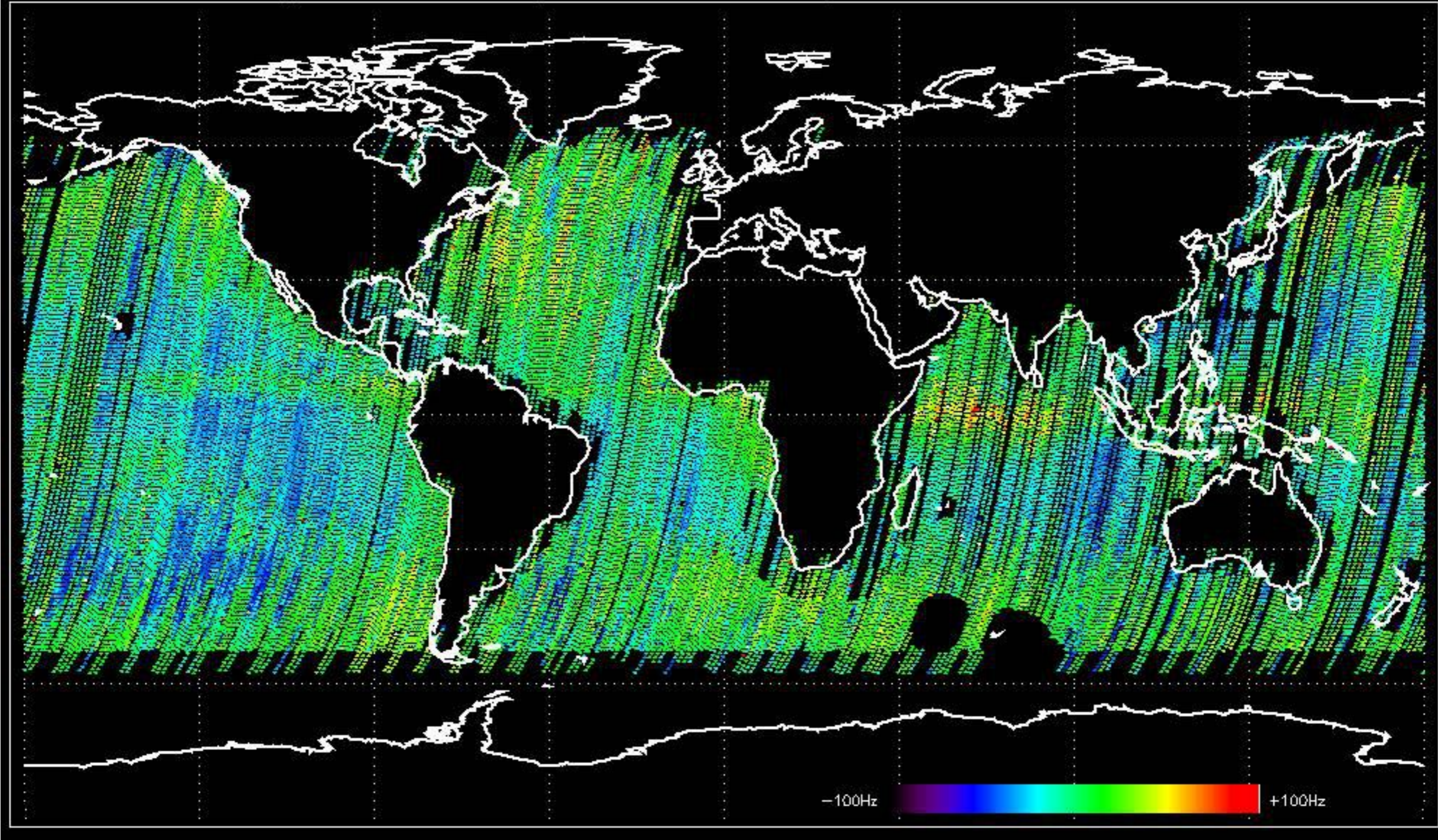
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -27.397558 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -27.553641 Hz

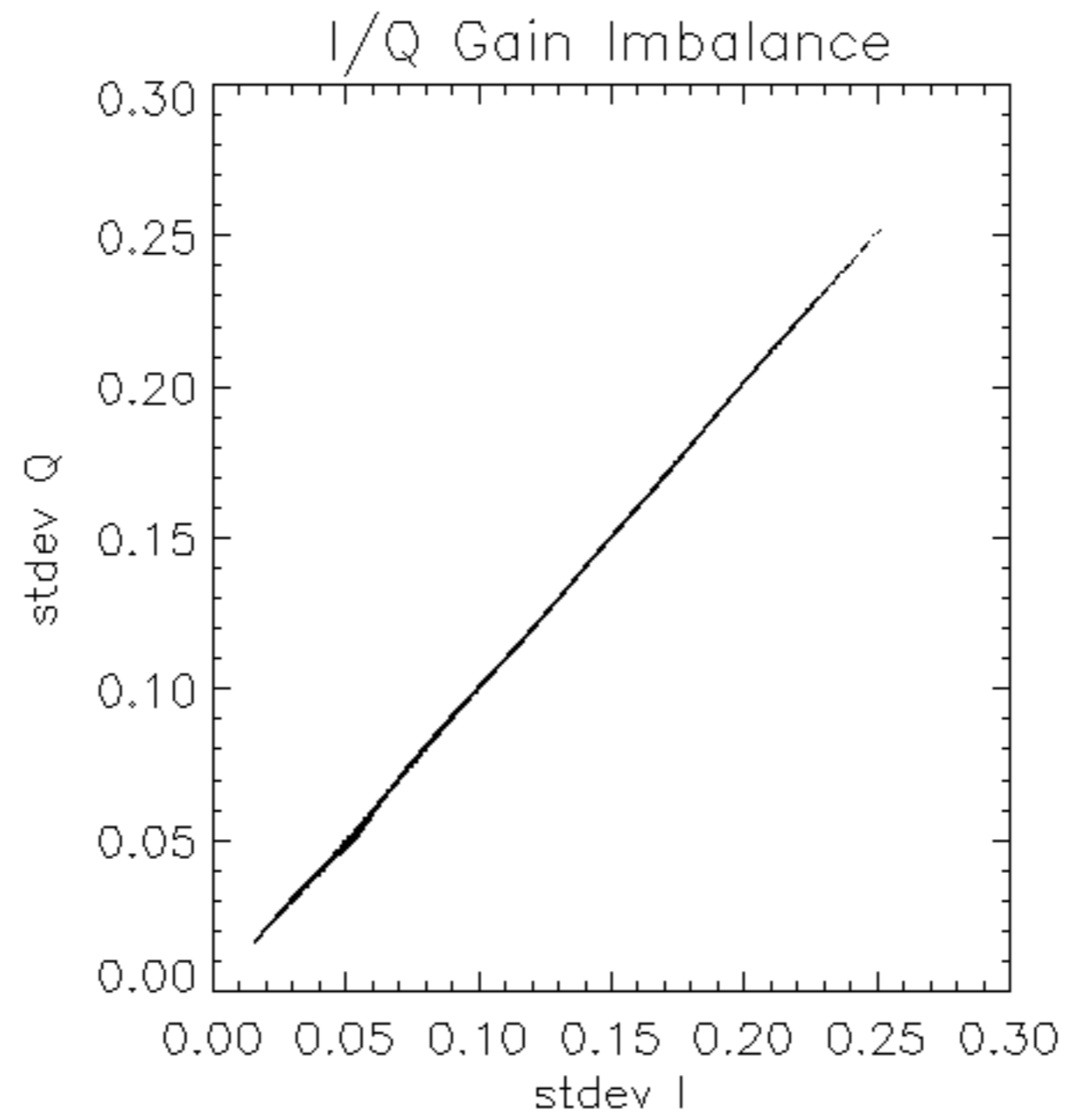


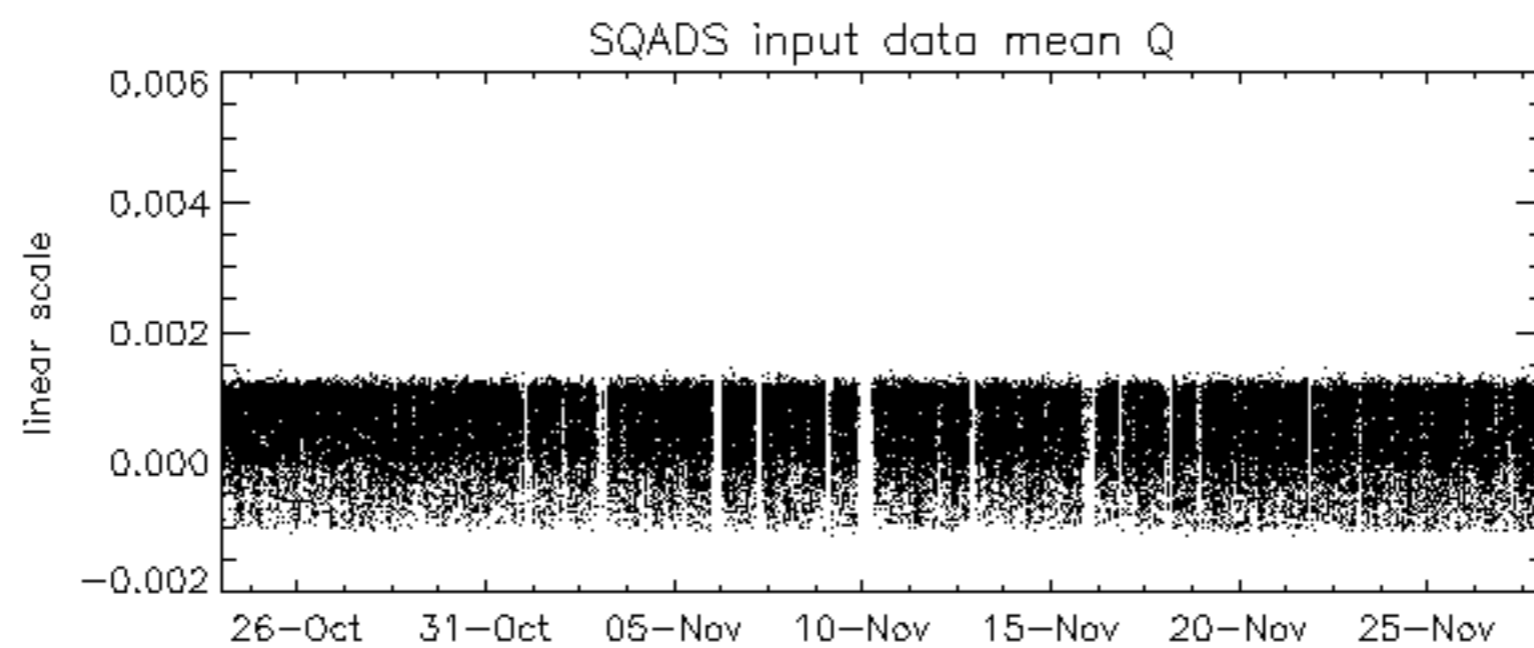
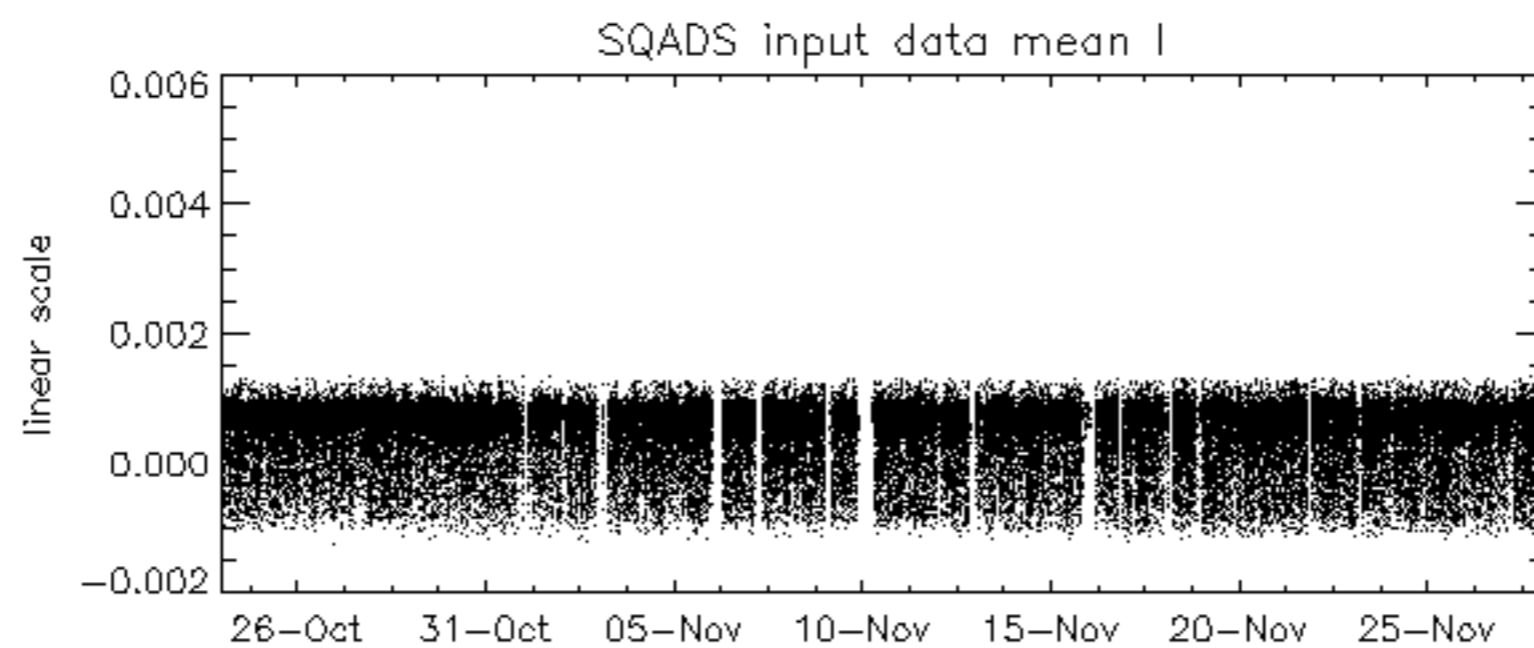
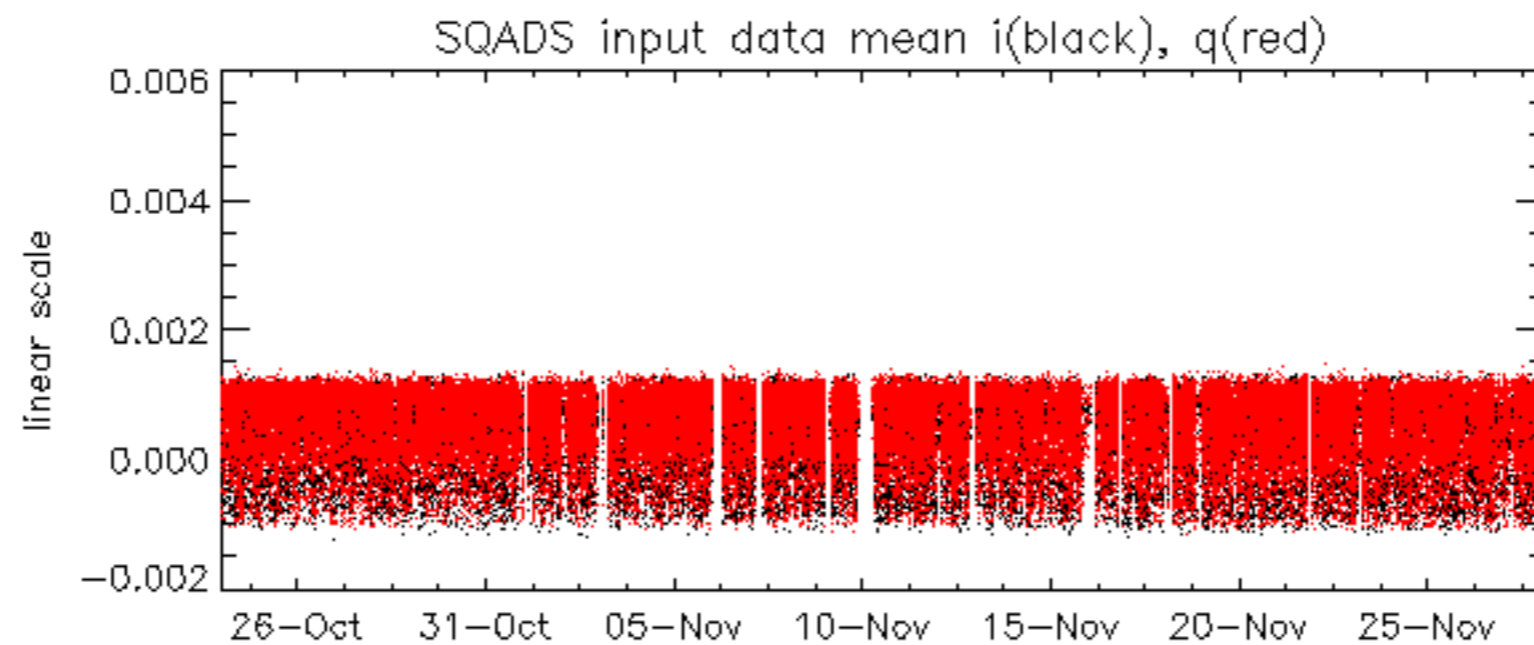
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -33.492035 Hz

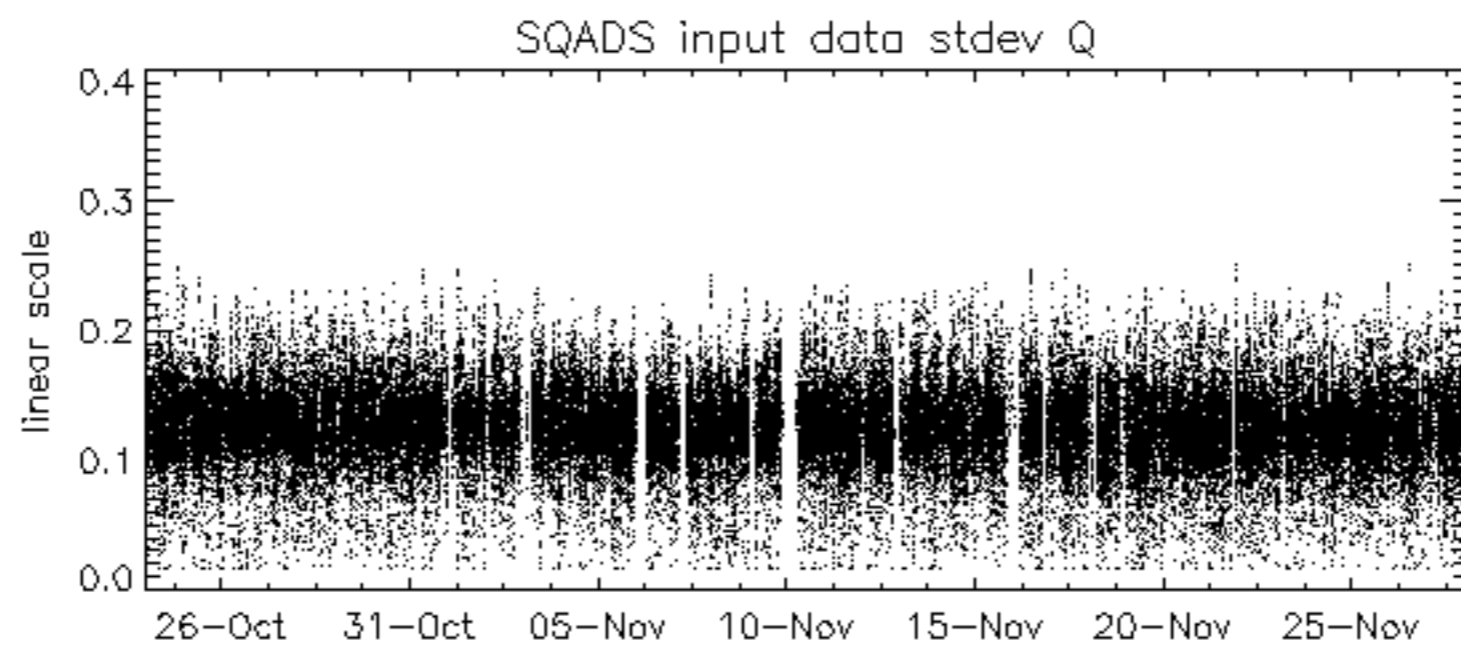
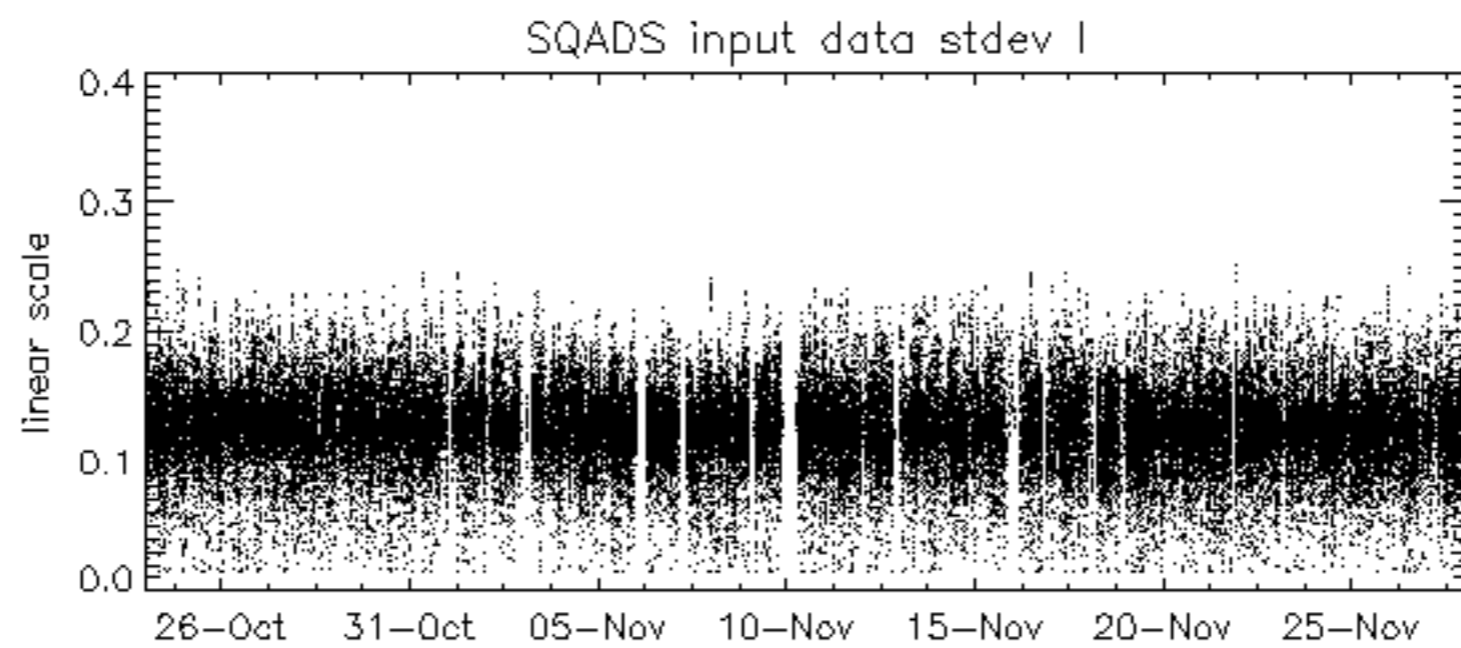
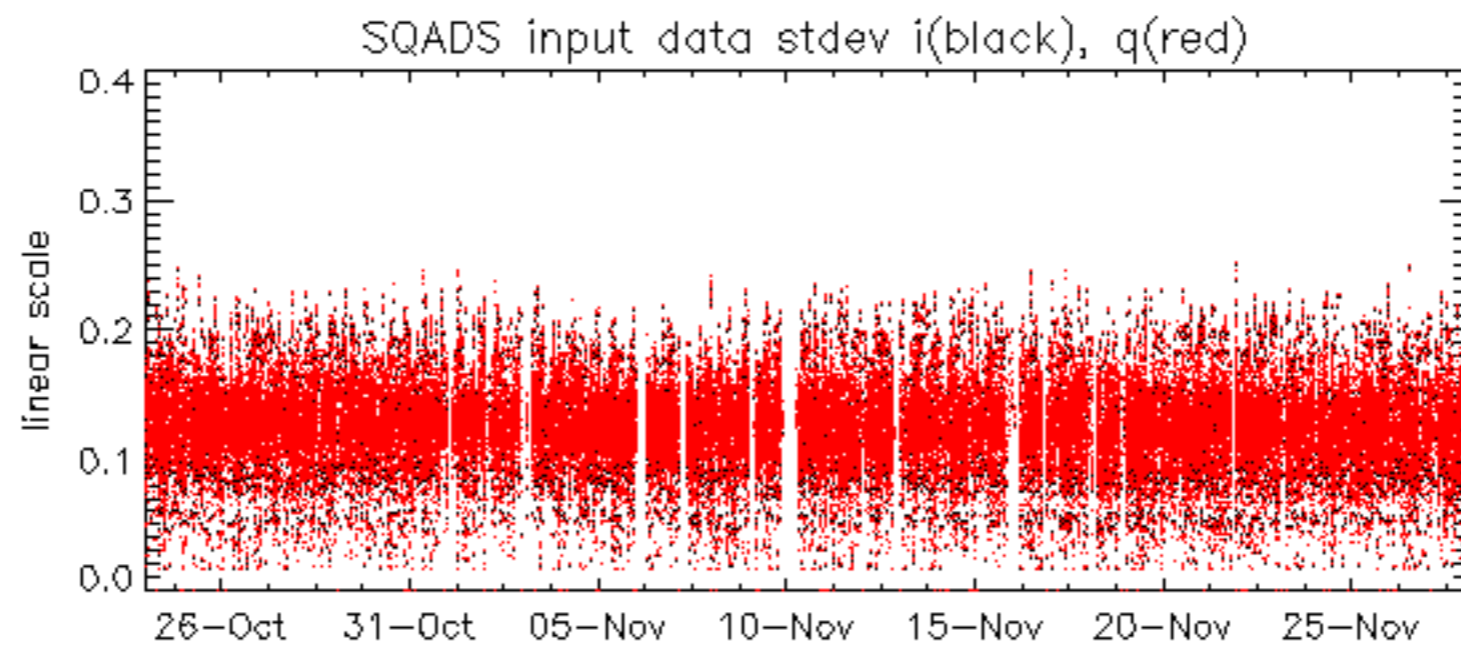


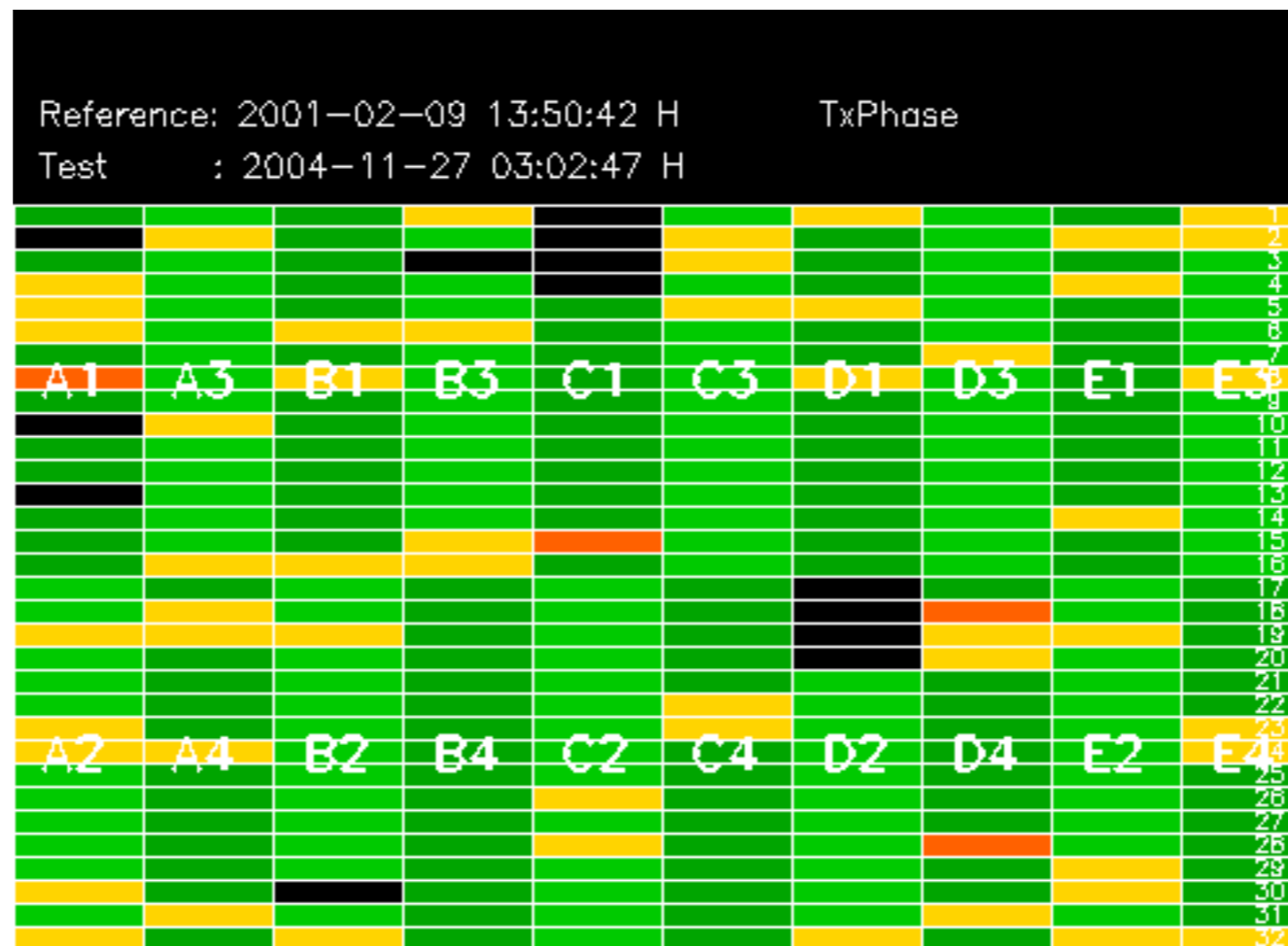
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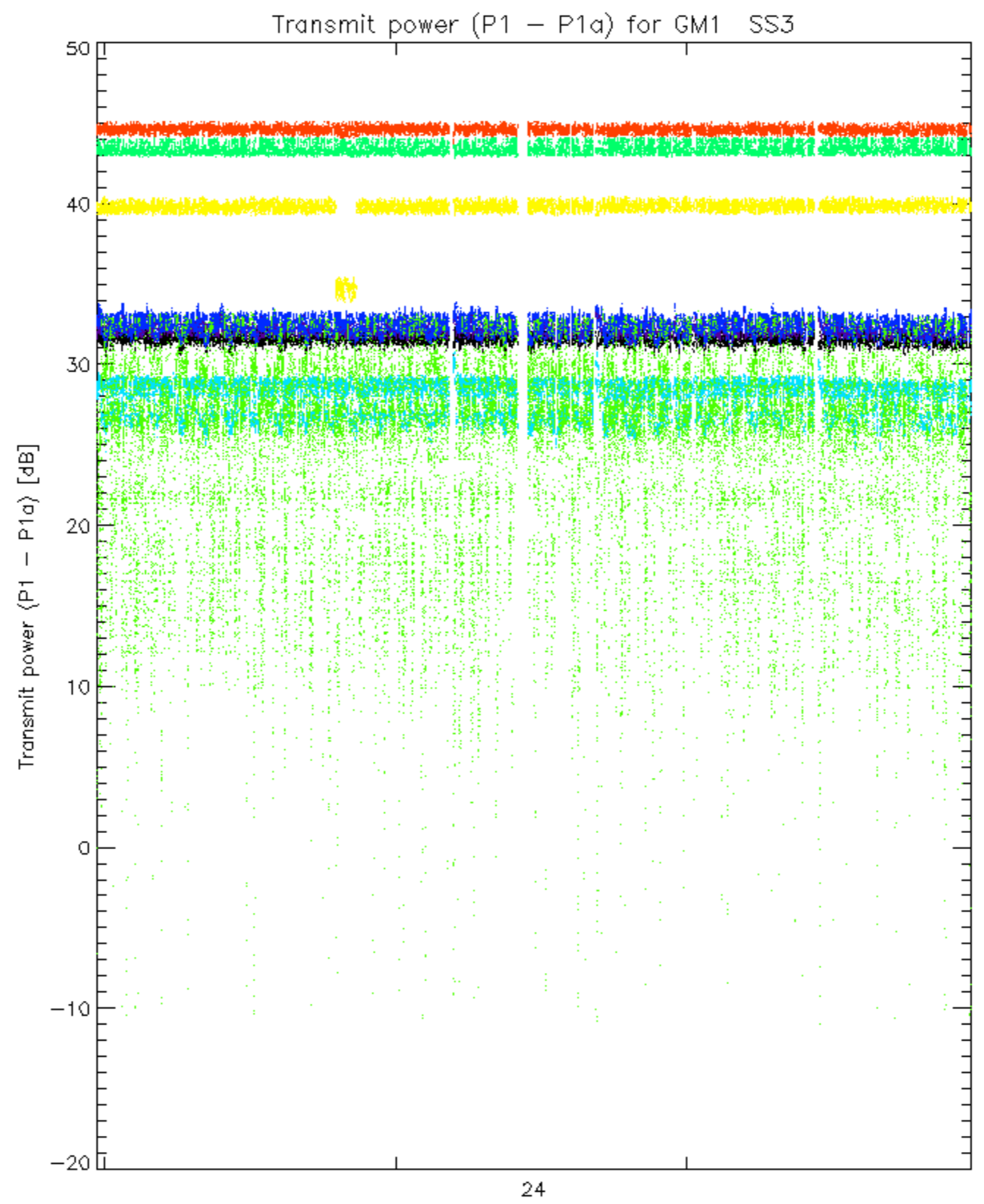
No anomalies observed.



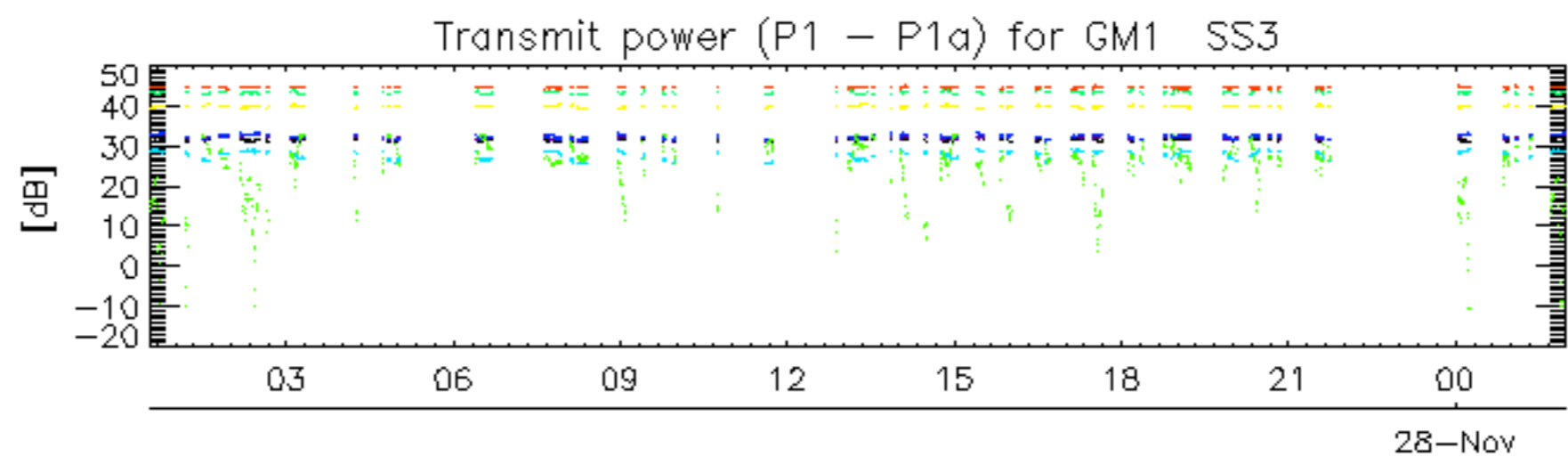






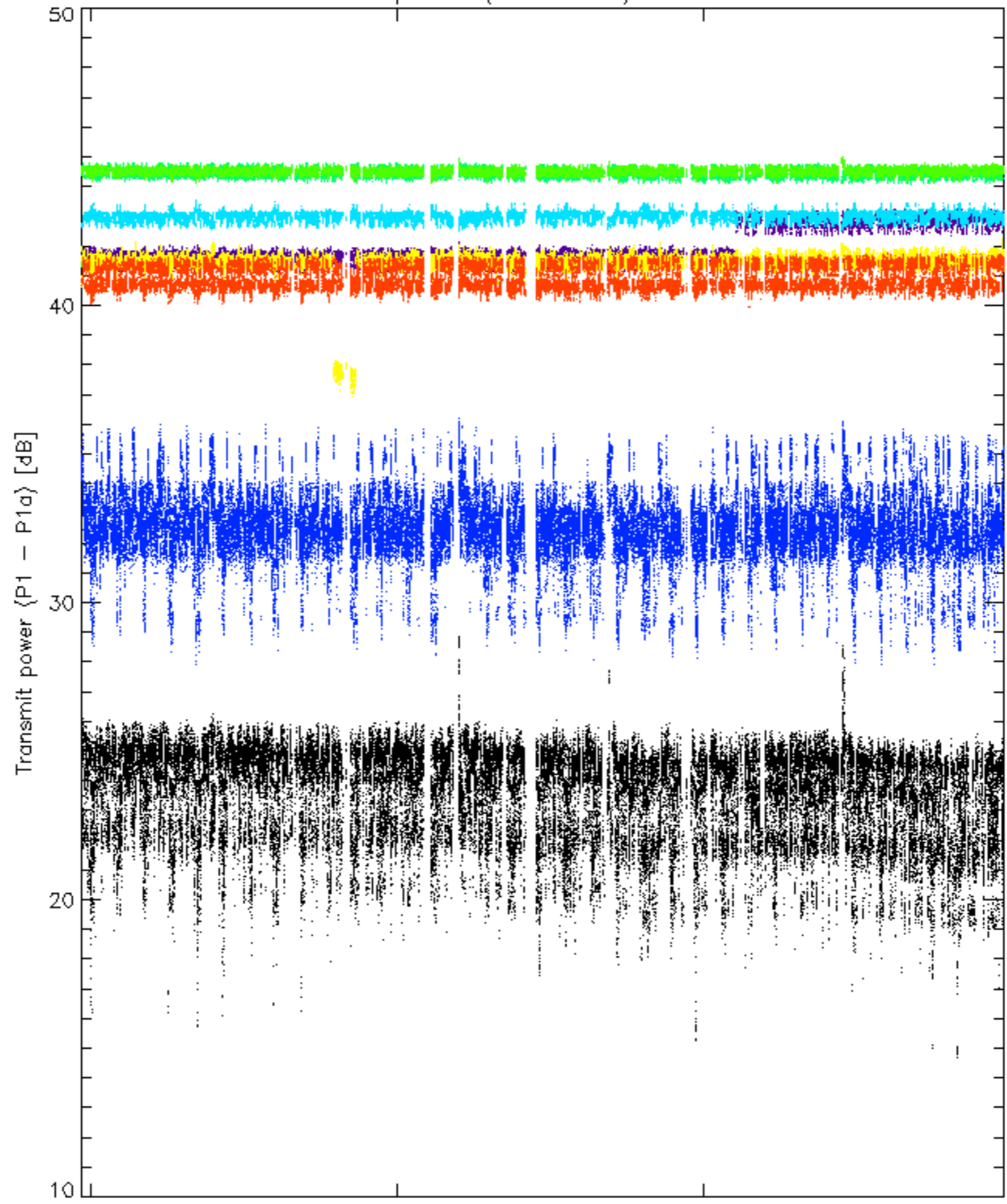


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

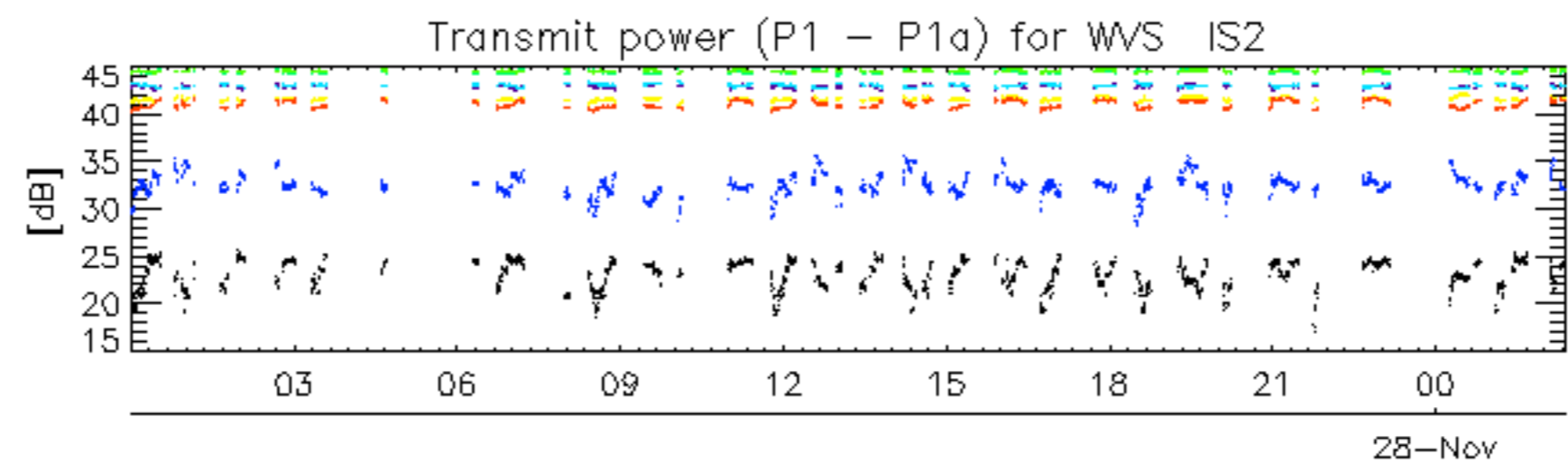


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.