

PRELIMINARY REPORT OF 060115

last update on Sun Jan 15 16:47:06 GMT 2006

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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 - Auxiliary files

Summary of the auxiliary files used from 2006-01-14 00:00:00 to 2006-01-15 16:47:06

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	0	6	0	32
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	0	6	0	32
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	0	6	0	32
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	0	6	0	32

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	42	48	24	12	74
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	42	48	24	12	74
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	42	48	24	12	74
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	42	48	24	12	74

2.3 - Browse Visual Inspection

2.4 - Data Analysis

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

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20060114 064354
H	20060115 061217

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
<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
<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>

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	-4.047780	0.014869	0.014679
7	P1	-2.995013	0.020159	0.003735
11	P1	-4.106367	0.022795	0.039542
15	P1	-6.052966	0.068206	-0.052775
19	P1	-3.234932	0.007423	-0.040113
22	P1	-4.487827	0.020310	0.018581
26	P1	-4.224258	0.013088	0.031711
30	P1	-5.767835	0.010467	-0.001020
3	P1	-16.973633	0.326546	-0.057227
7	P1	-16.553516	0.209332	-0.170156
11	P1	-16.596762	0.343604	0.044058
15	P1	-13.281153	0.157193	0.165037
19	P1	-13.865654	0.083457	-0.043675
22	P1	-15.990673	0.572326	0.348495
26	P1	-15.762553	0.292064	-0.095079
30	P1	-16.613810	0.417400	0.099310

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.669271	0.099336	0.166582
7	P2	-22.508532	0.098821	0.088320
11	P2	-16.354048	0.104627	0.136075
15	P2	-7.235819	0.102360	0.062744
19	P2	-9.195396	0.099351	0.087749
22	P2	-17.939589	0.098244	0.026500
26	P2	-16.234226	0.101412	0.070480
30	P2	-19.669502	0.085398	0.061078

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.222742	0.007785	0.035295
7	P3	-8.222742	0.007785	0.035295
11	P3	-8.222742	0.007785	0.035295
15	P3	-8.222742	0.007785	0.035295
19	P3	-8.222742	0.007785	0.035295
22	P3	-8.222742	0.007785	0.035295
26	P3	-8.222742	0.007785	0.035295
30	P3	-8.222742	0.007785	0.035295

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	-3.717354	0.008525	-0.013851
7	P1	-2.762526	0.007777	0.018693
11	P1	-2.868280	0.010254	0.020138
15	P1	-3.441058	0.017832	-0.063220
19	P1	-3.384790	0.014010	0.043982
22	P1	-5.121953	0.020805	0.004011
26	P1	-5.851615	0.015499	0.012223
30	P1	-5.266941	0.031900	0.066856
3	P1	-11.505437	0.034206	-0.058249
7	P1	-9.942127	0.048767	0.070181
11	P1	-10.059232	0.051648	-0.025041
15	P1	-10.589465	0.078975	-0.114873
19	P1	-15.499946	0.066942	0.114340
22	P1	-20.768444	1.072014	0.466059
26	P1	-16.975557	0.321496	0.498202
30	P1	-18.159510	0.288081	-0.027496

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.507408	0.032689	0.251504
7	P2	-22.951784	0.059654	0.308329
11	P2	-11.496911	0.021028	0.205609
15	P2	-4.951878	0.023746	0.130244
19	P2	-6.948828	0.022766	0.102186
22	P2	-8.201265	0.022693	0.058036
26	P2	-24.006582	0.027869	0.138795
30	P2	-22.116867	0.017530	0.084195

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.067082	0.002553	0.041519
7	P3	-8.067048	0.002554	0.042388
11	P3	-8.067202	0.002555	0.041969
15	P3	-8.067122	0.002549	0.042327
19	P3	-8.067166	0.002552	0.041920
22	P3	-8.066977	0.002550	0.042135
26	P3	-8.066966	0.002540	0.042354
30	P3	-8.067018	0.002552	0.041306

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	0.000536644
	stdev	1.84347e-07
MEAN Q	mean	0.000510813
	stdev	2.22766e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.136767
	stdev	0.00120626
STDEV Q	mean	0.137107
	stdev	0.00122444



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006011[345]

The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems



Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060113_042639_00000522044_00147_20241_0106.N1	1	0
ASA_IMM_1PNPDE20060114_003120_000001252044_00159_20253_0148.N1	1	0
ASA_IMM_1PNPDE20060115_004048_00000622044_00174_20268_0186.N1	1	0
ASA_WSM_1PNPDE20060114_112252_000001292044_00166_20260_0554.N1	0	46
ASA_WSM_1PNPDE20060114_112252_000001652044_00166_20260_0558.N1	0	46
ASA_WSM_1PNPDE20060114_172239_000001842044_00170_20264_0582.N1	0	3
ASA_WSM_1PNPDE20060115_013949_000002192044_00174_20268_0663.N1	0	1





7 - Doppler Analysis

Preliminary report. The data is not yet controlled


7.1 - Unbiased Doppler Error for WVS

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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Ascending
	
	Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX	
	

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

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

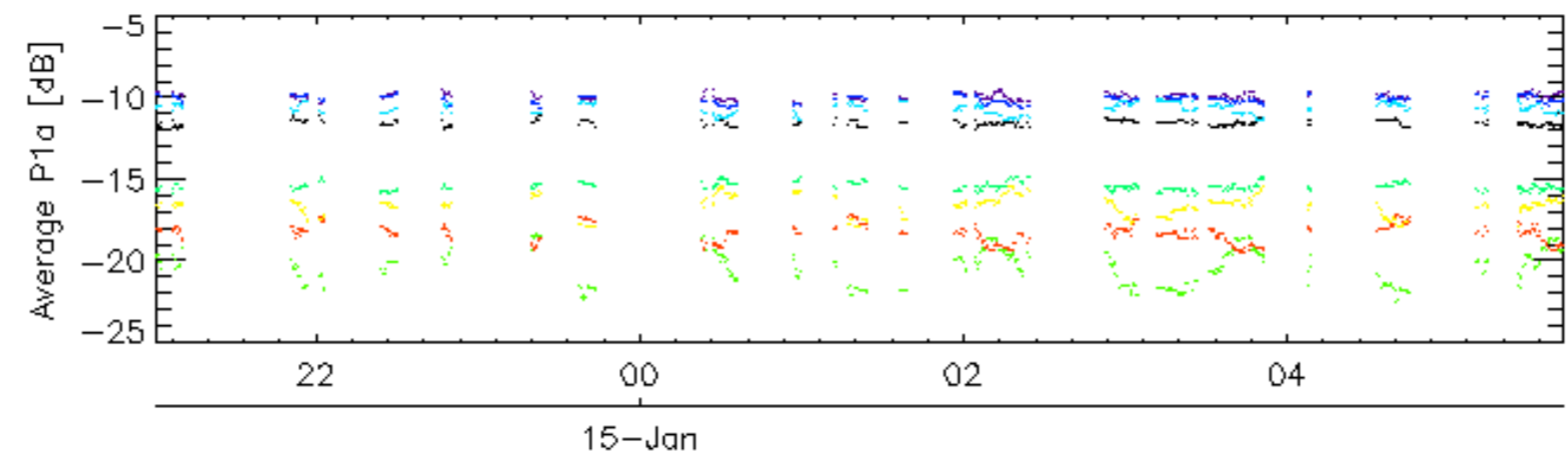
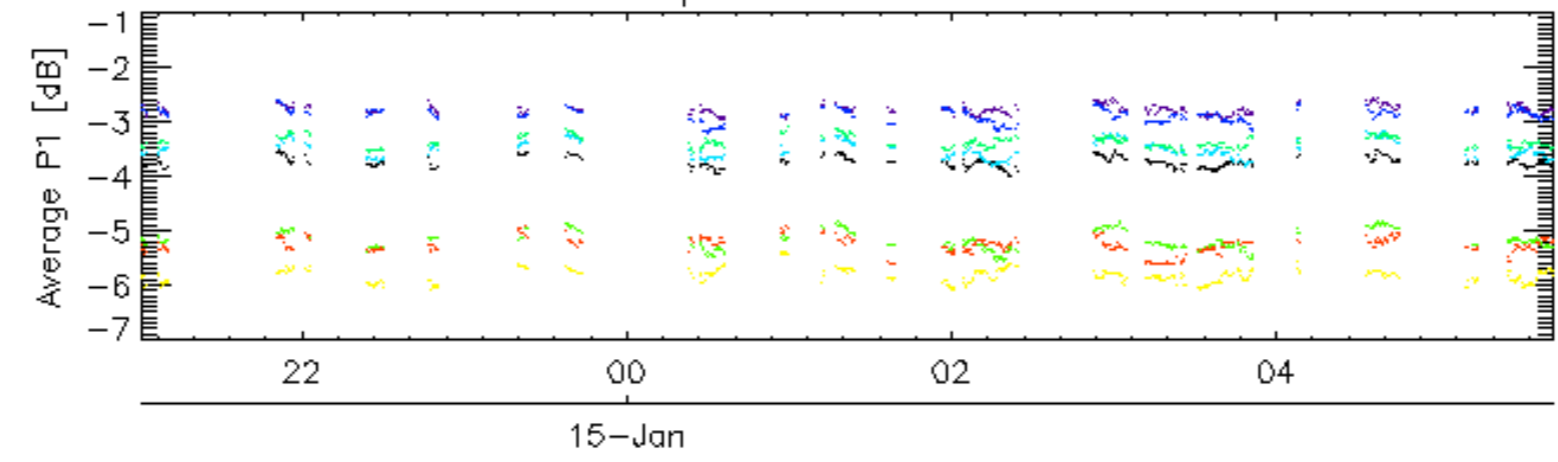
7.5 - Absolute Doppler for GM1**Evolution of Absolute Doppler**

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

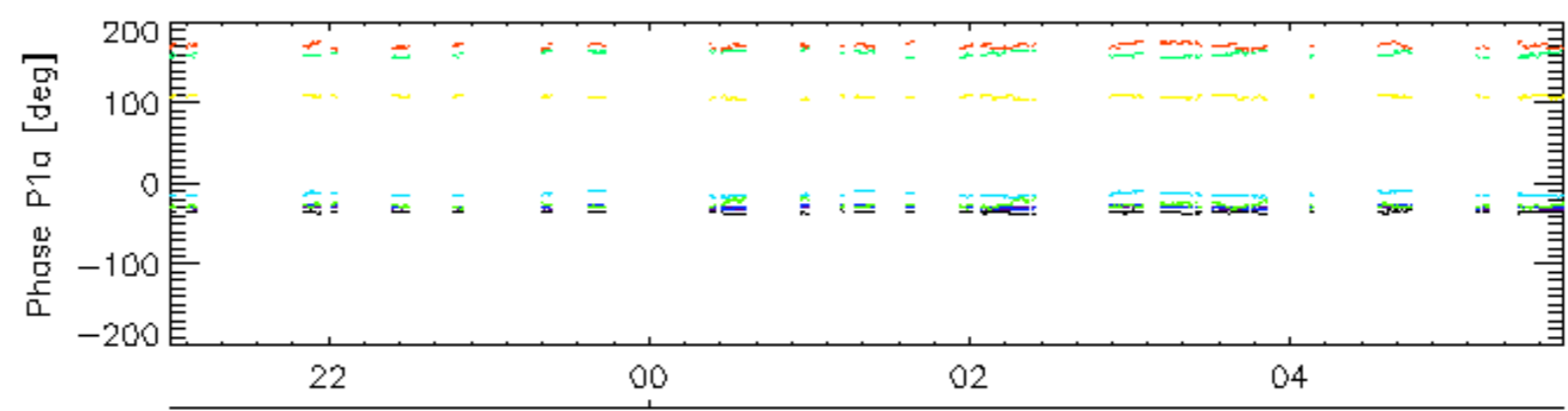
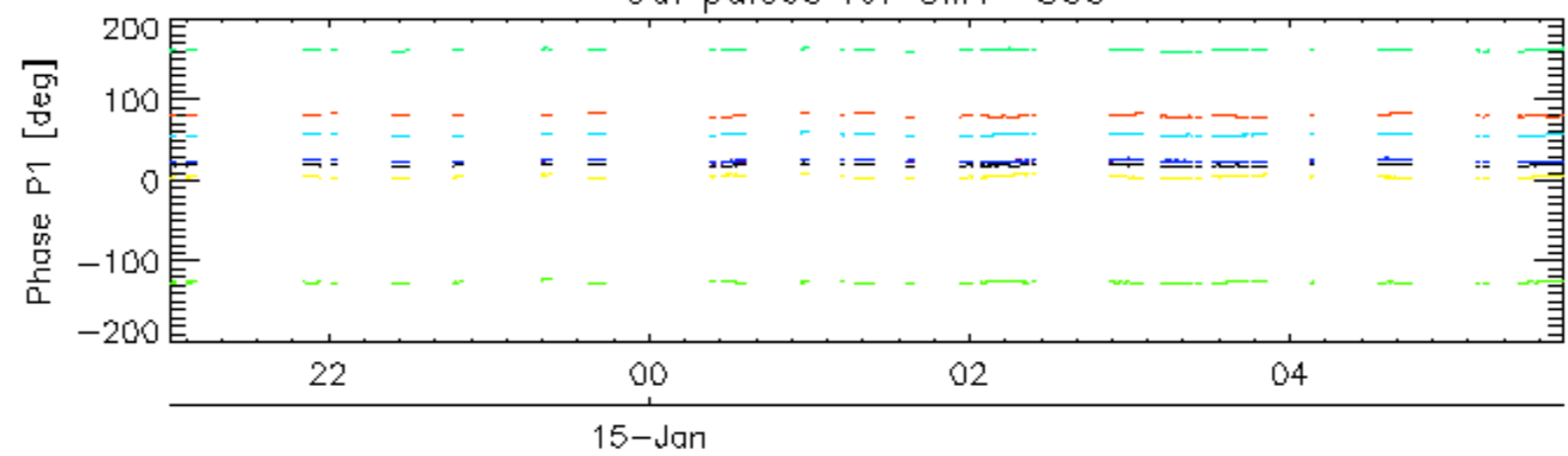
7.6 - Doppler evolution versus ANX for GM1**Evolution Doppler error versus ANX**

<input type="checkbox"/>

Cal pulses for GM1 SS3

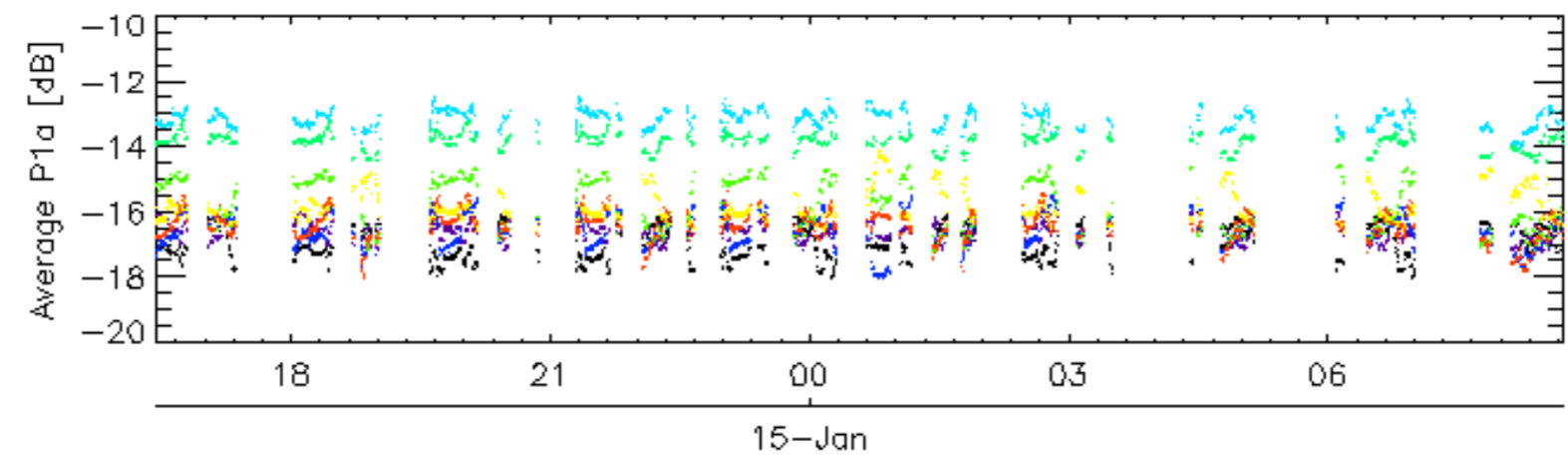
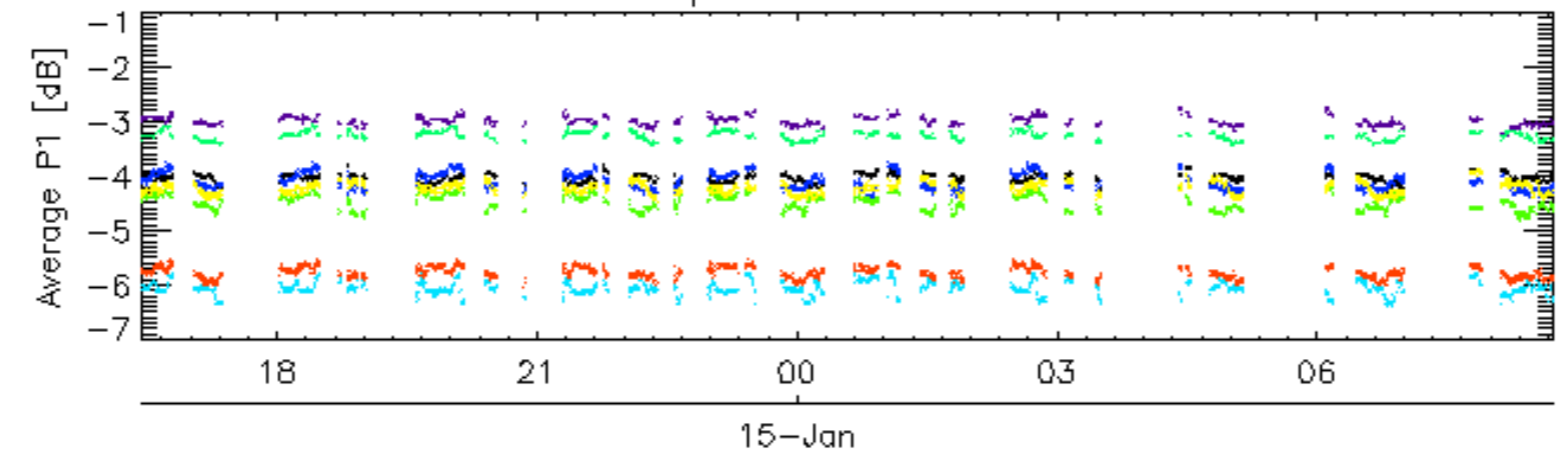


Cal pulses for GM1 SS3

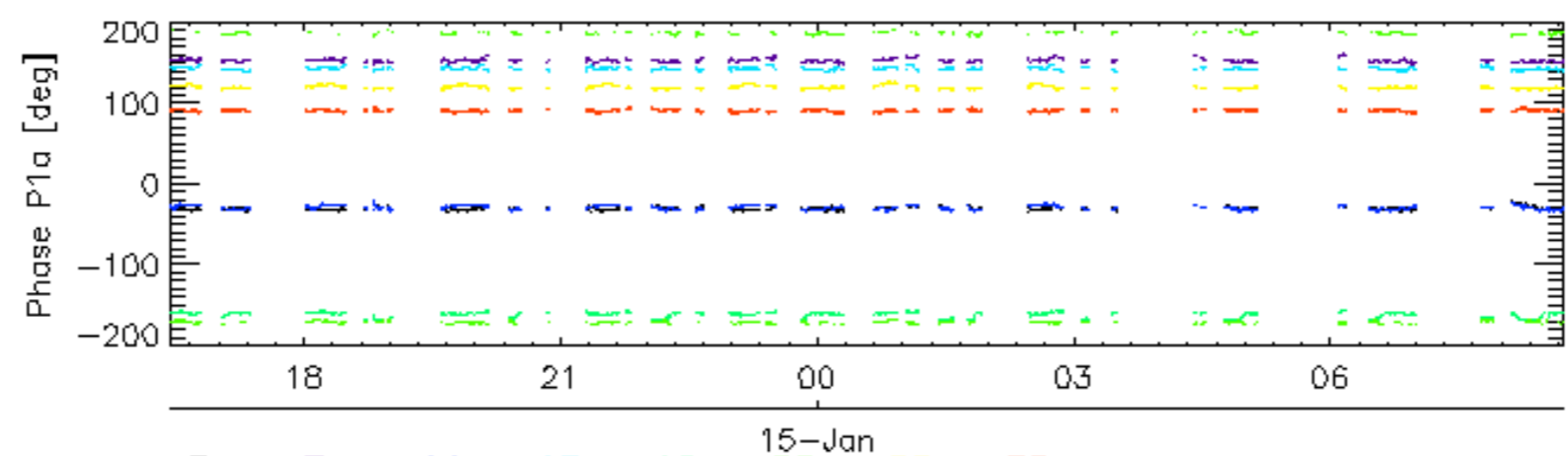
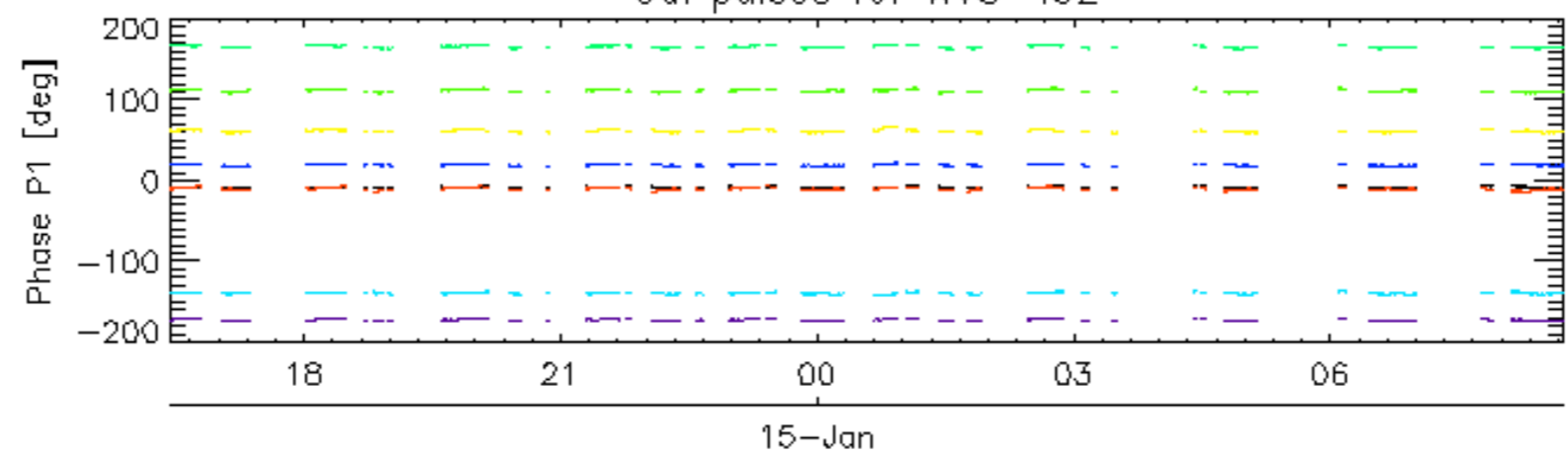


rows: _ 3 _ 7 _ 11 _ 15 ^{15-Jan} _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

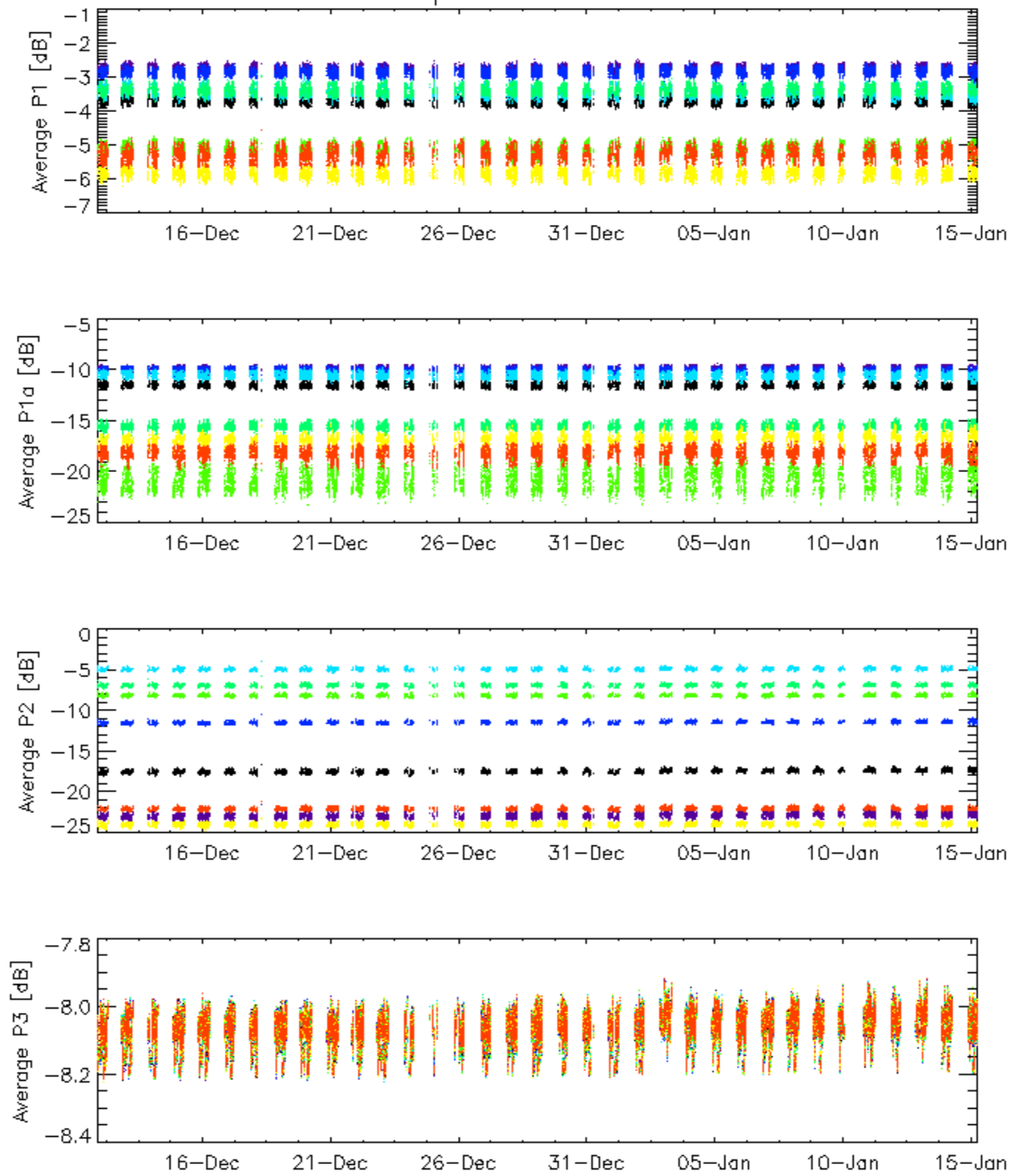


Cal pulses for WVS IS2



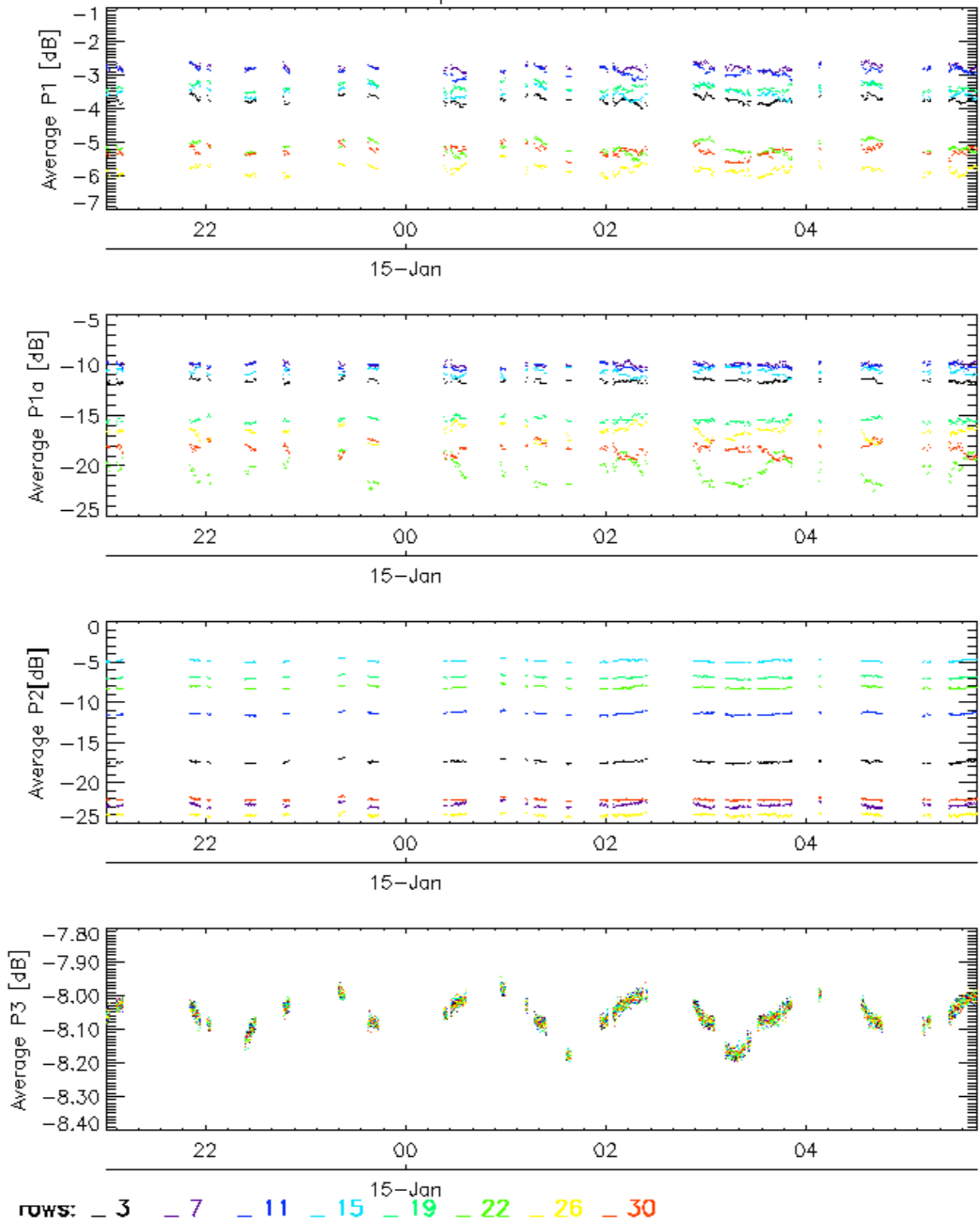
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for GM1 SS3

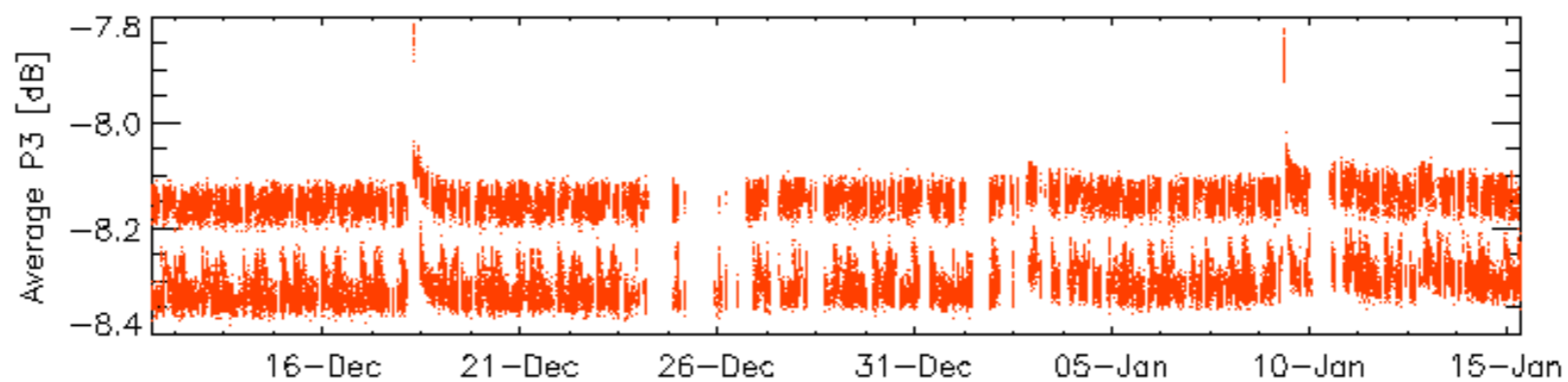
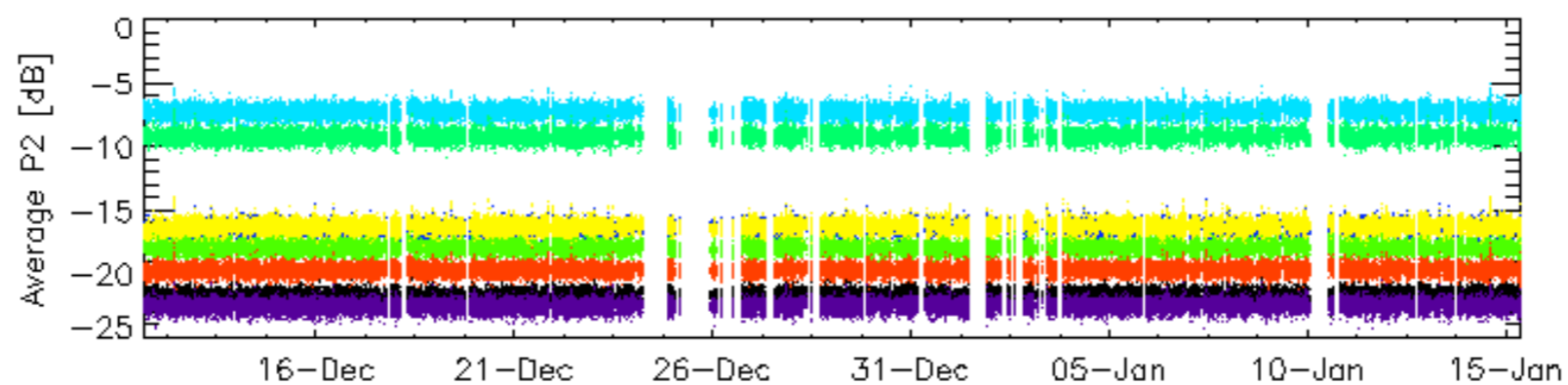
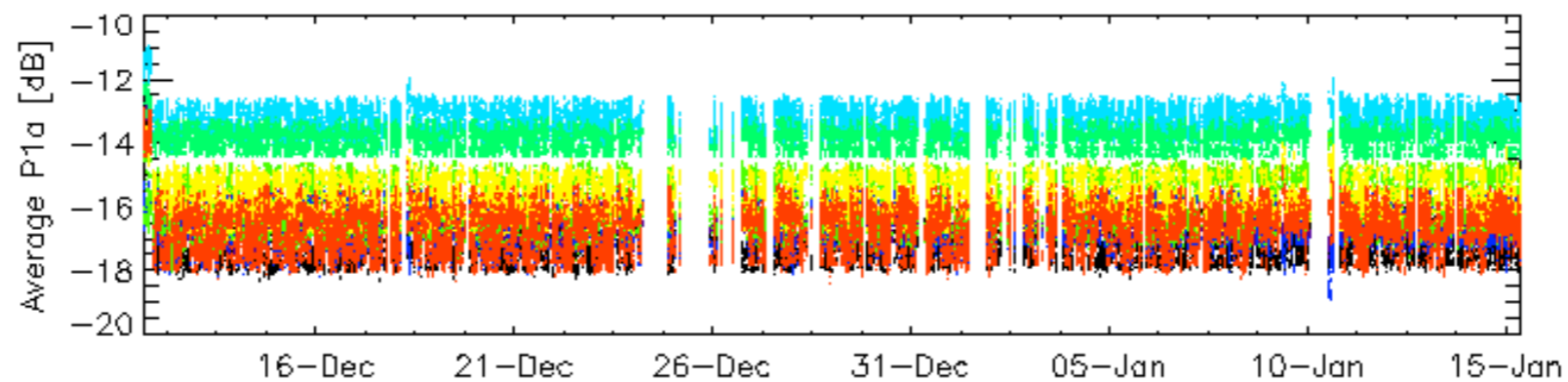
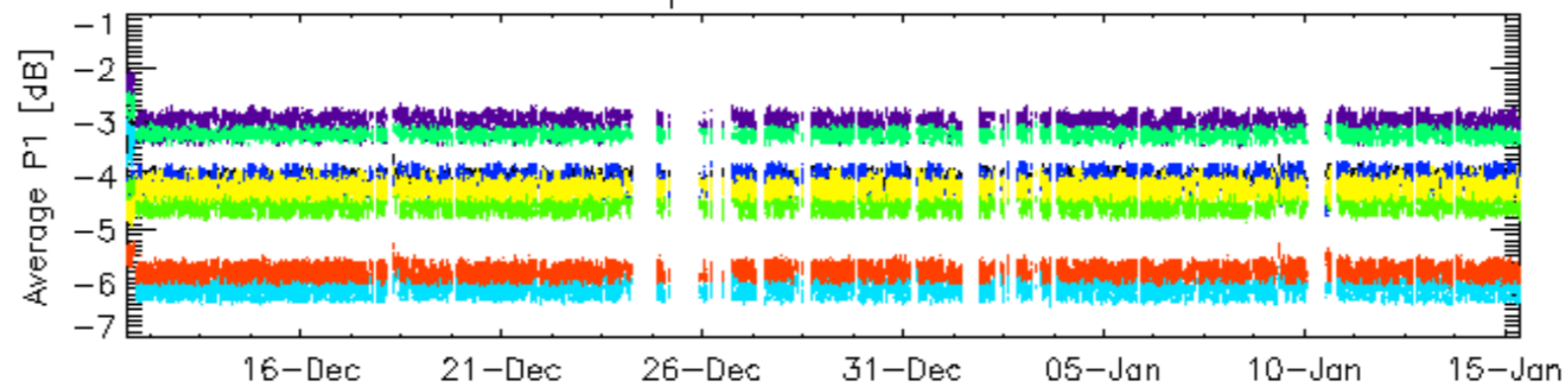


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

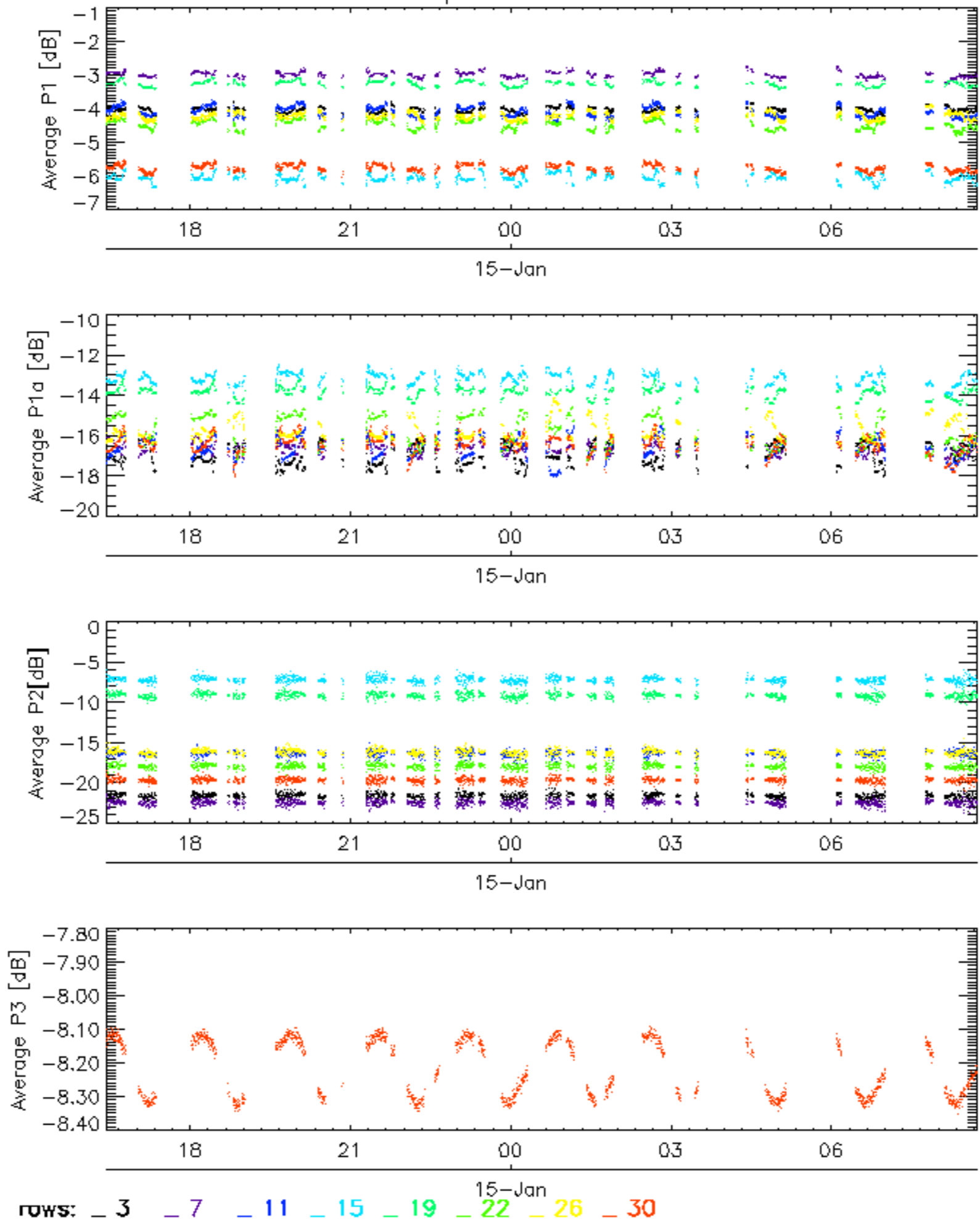


Cal pulses for WVS IS2

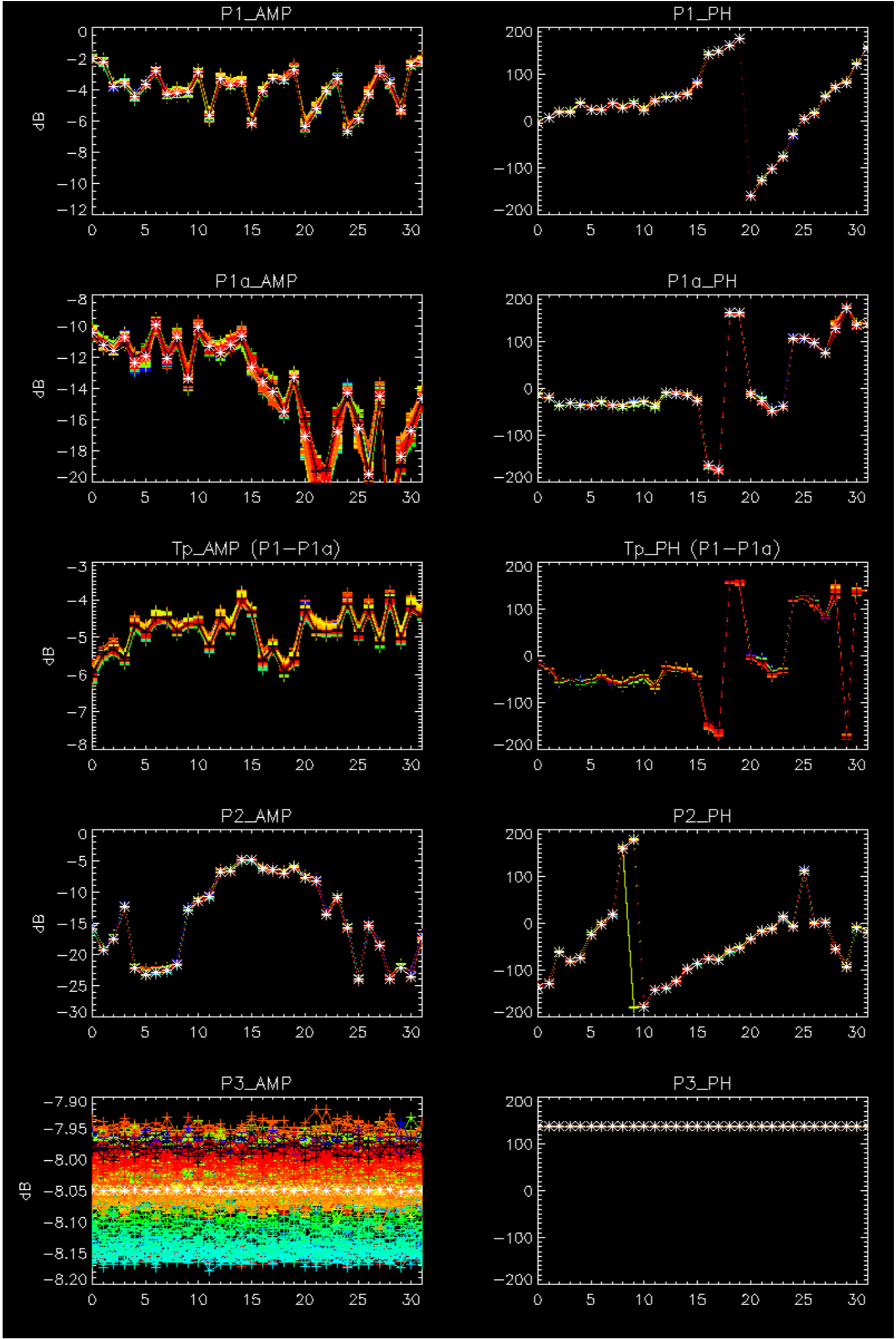


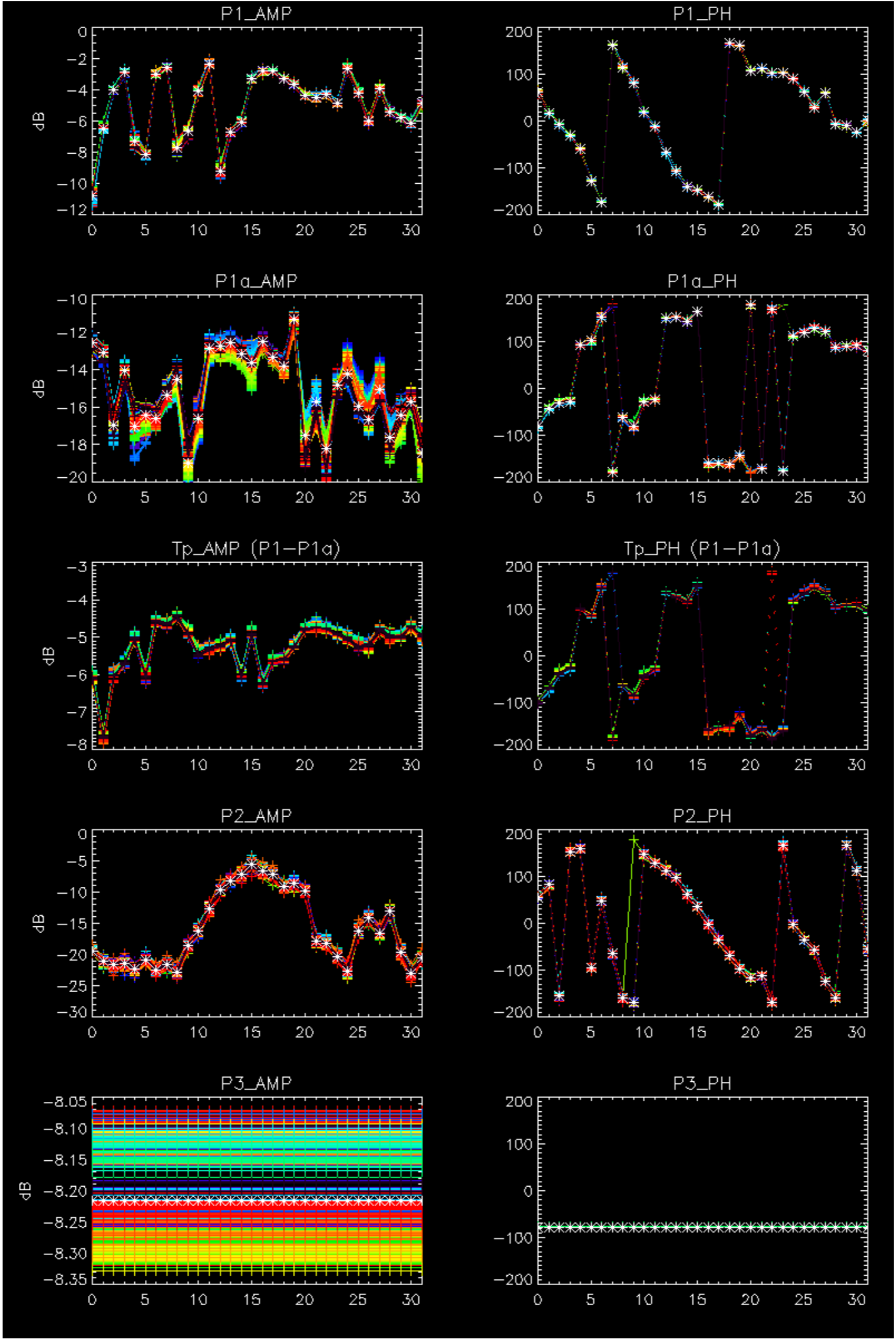
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



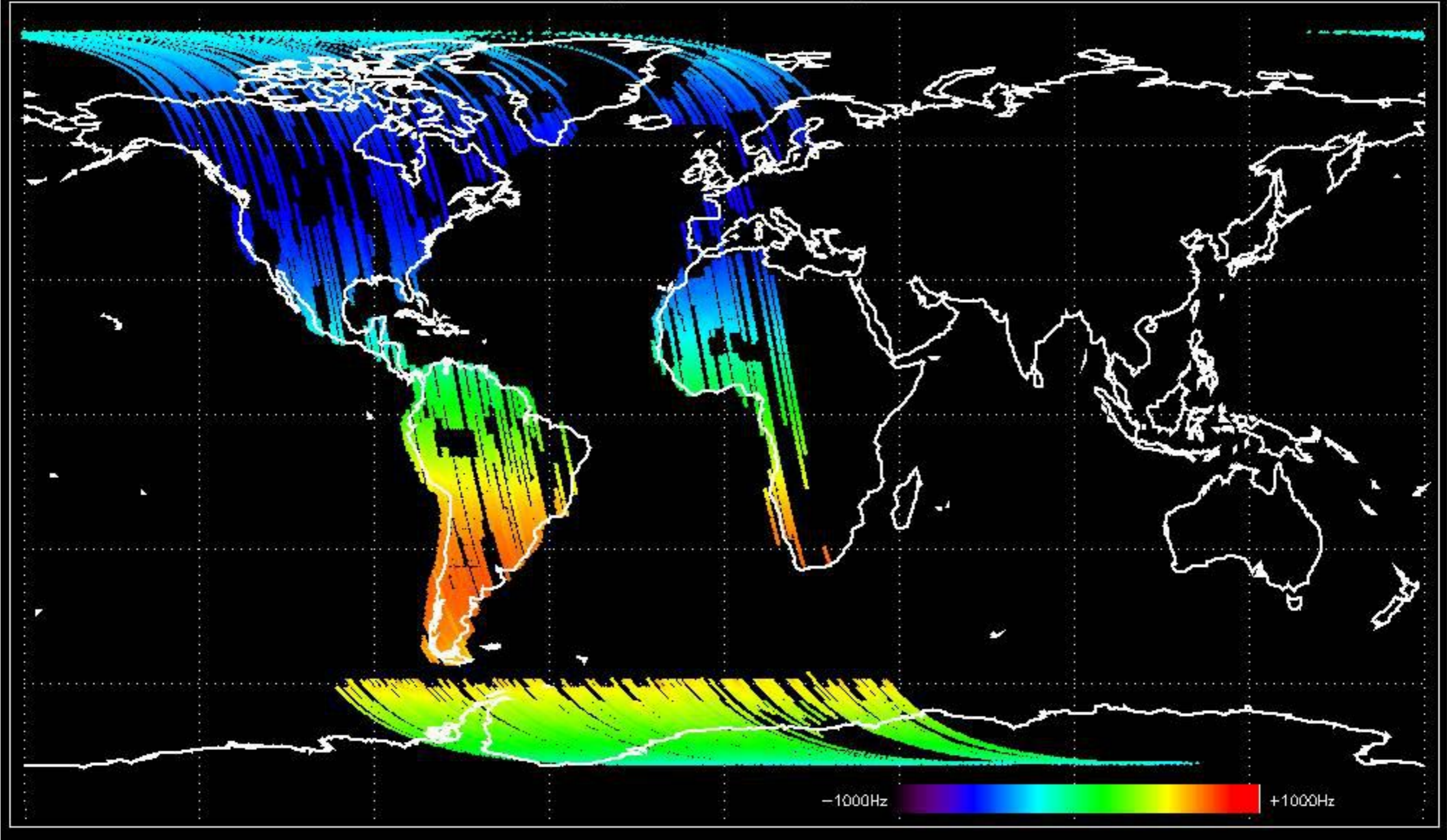
No anomalies observed.



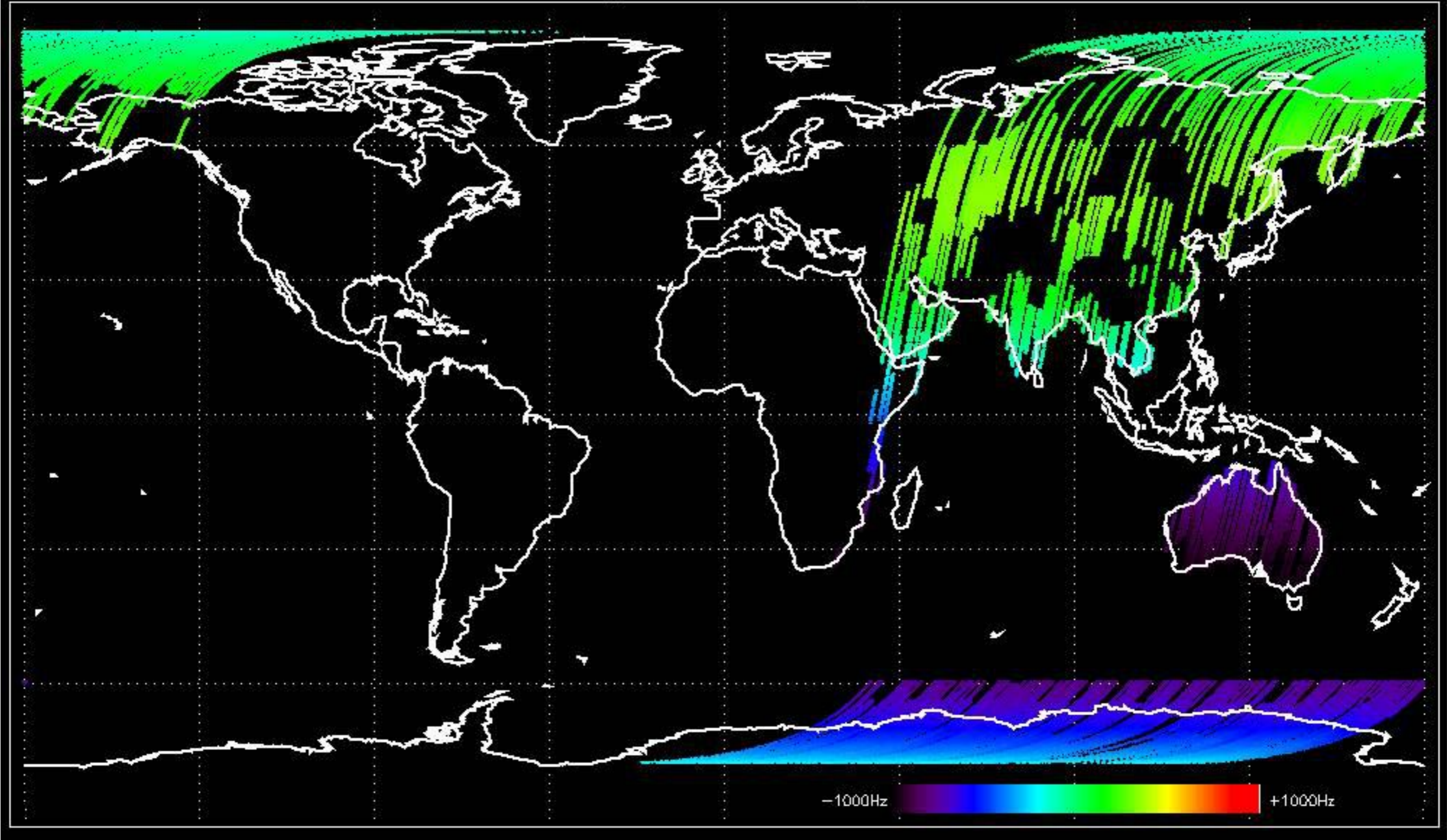


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

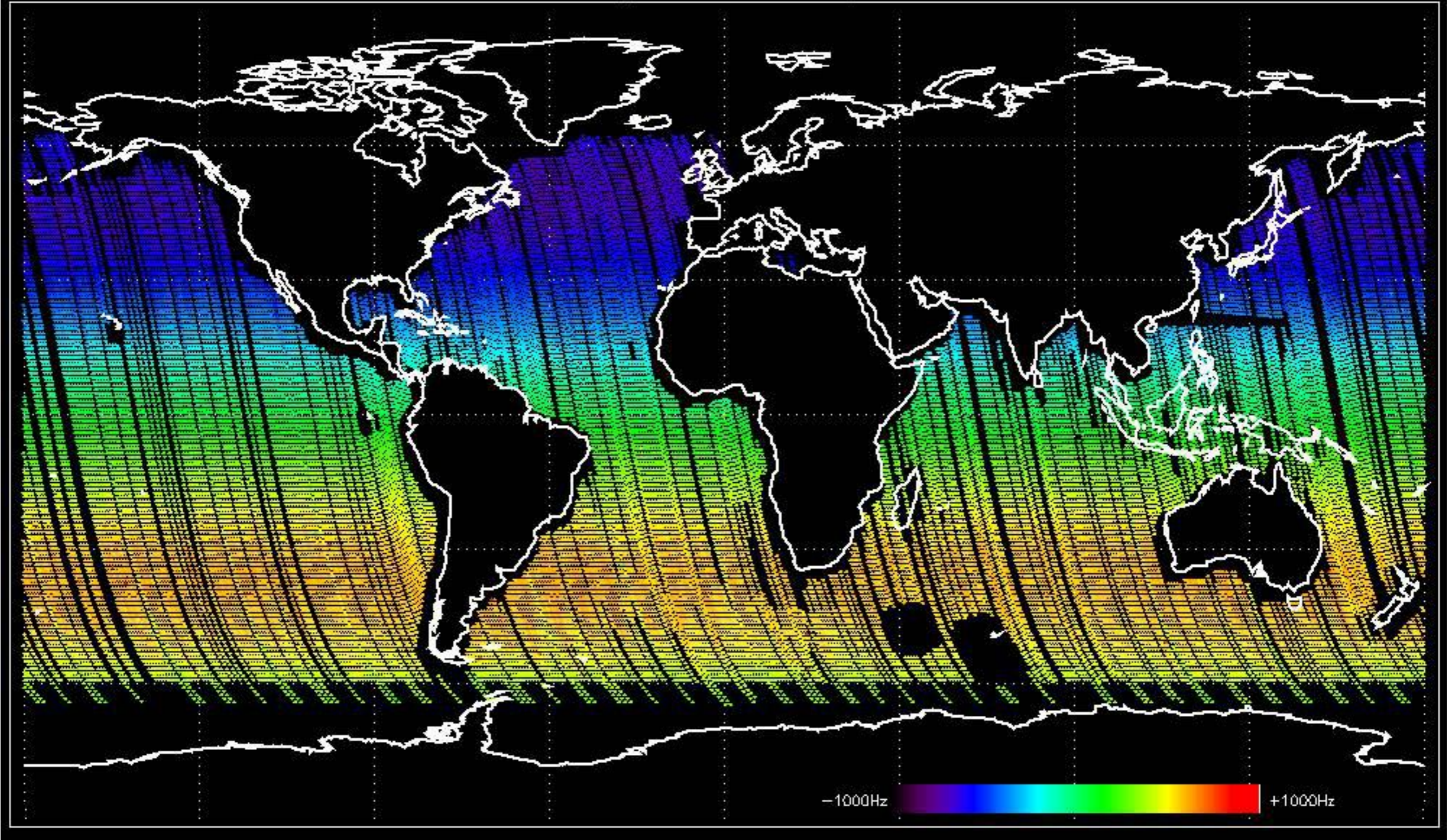
Doppler 'GM1' 'SS1' ascending



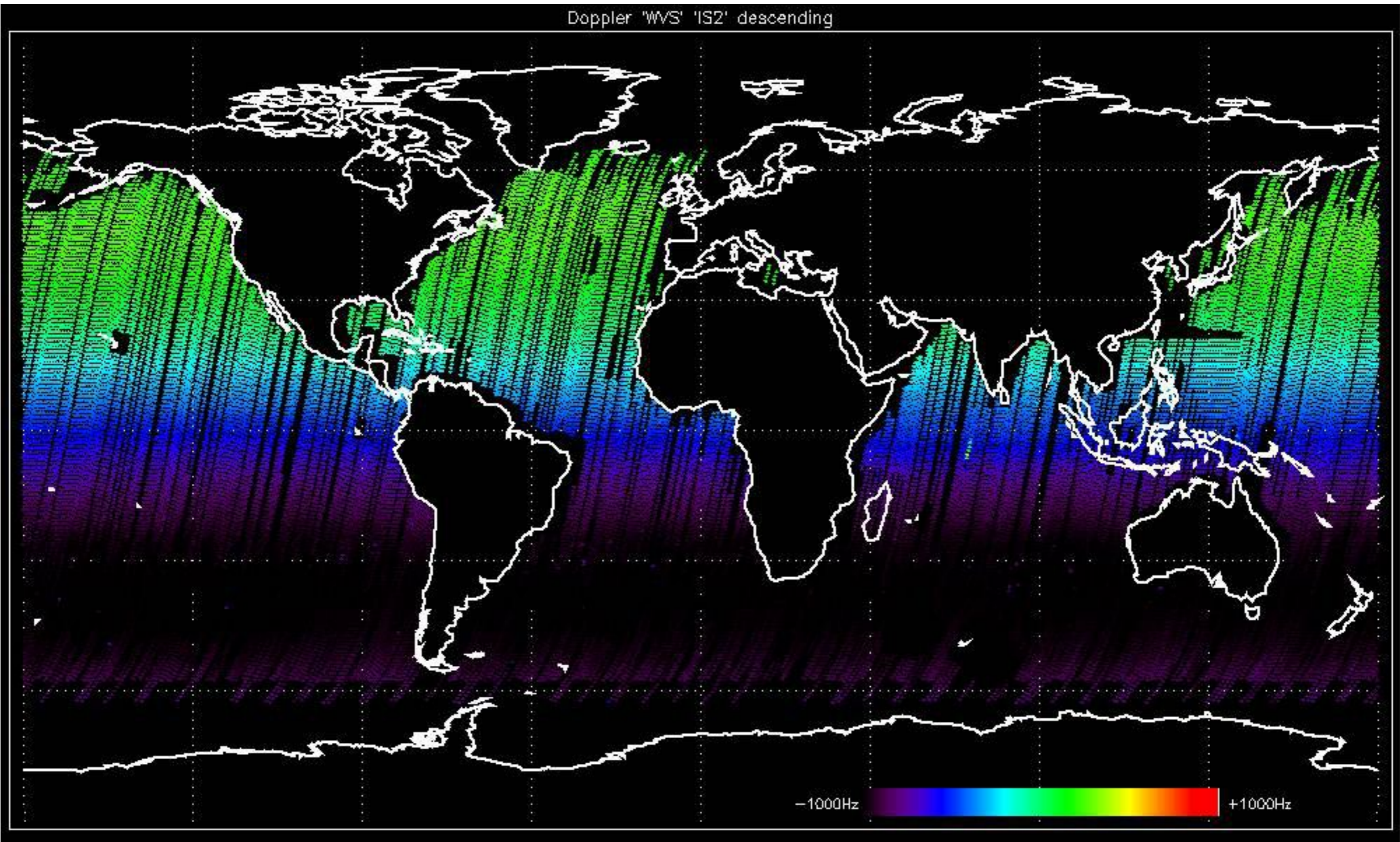
Doppler 'GM1' 'SS1' descending

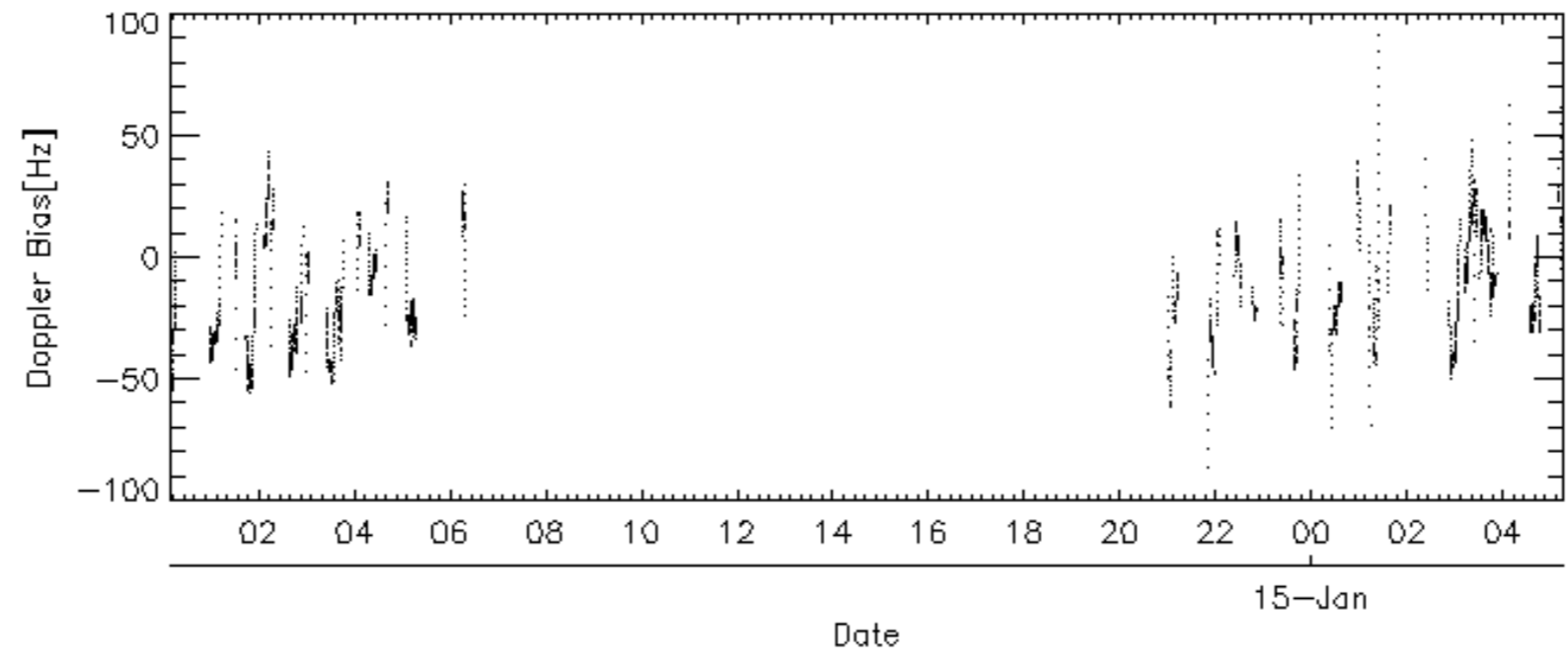
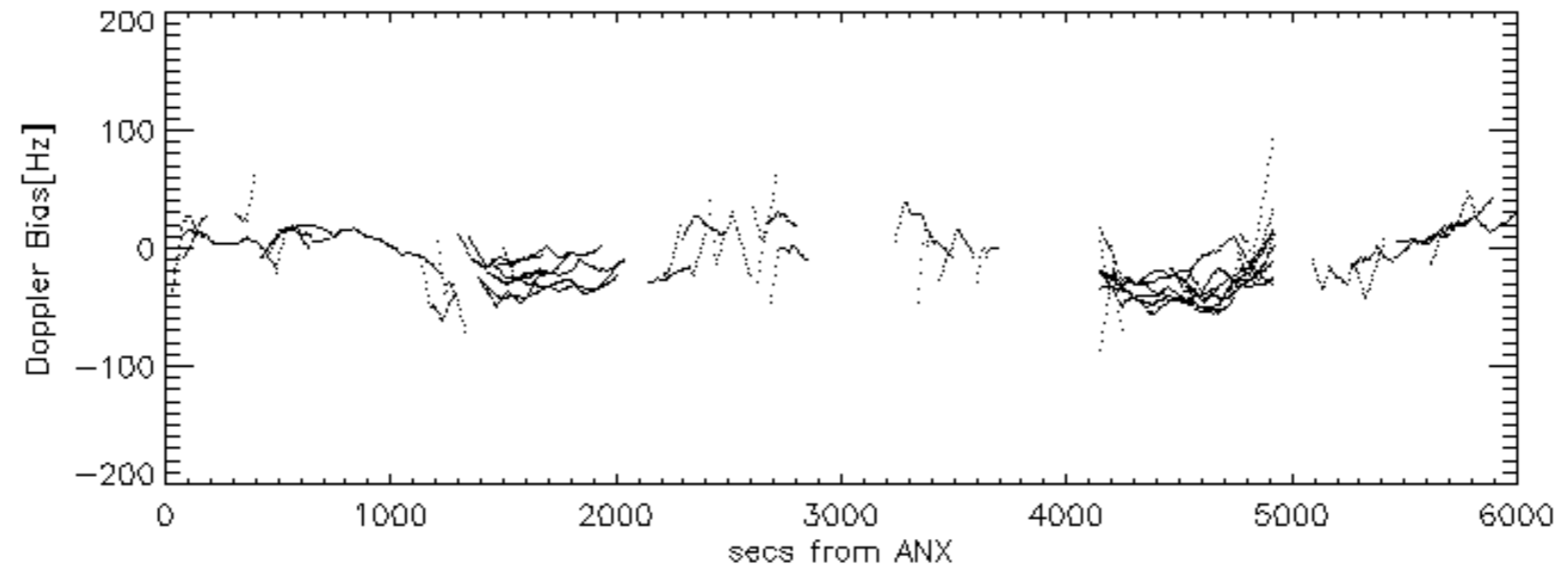
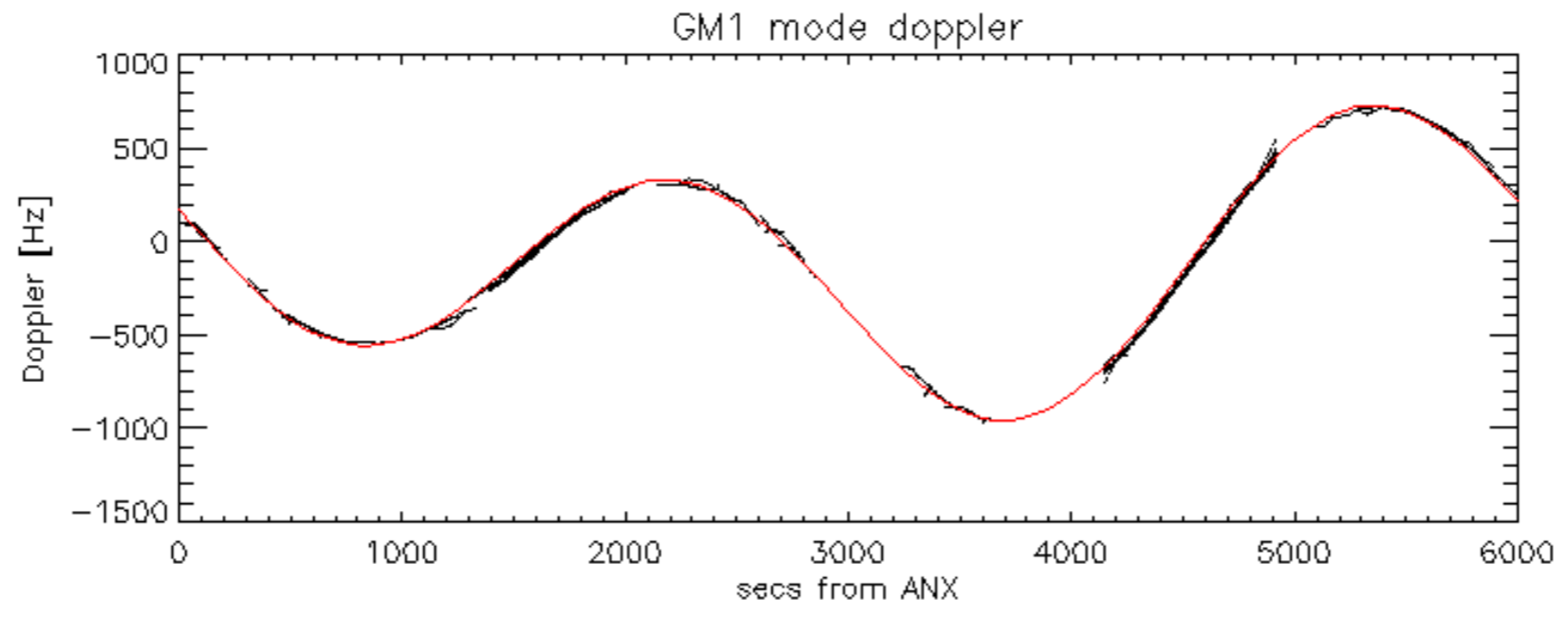


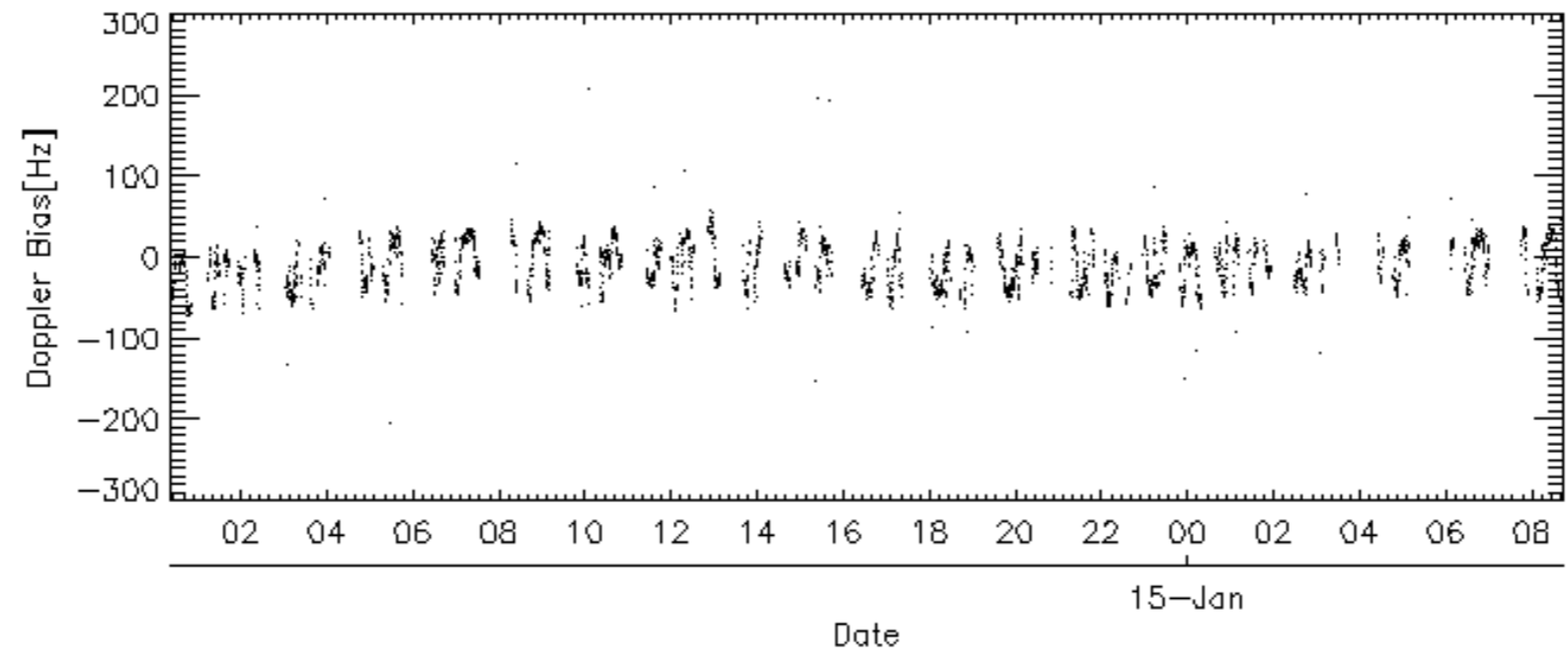
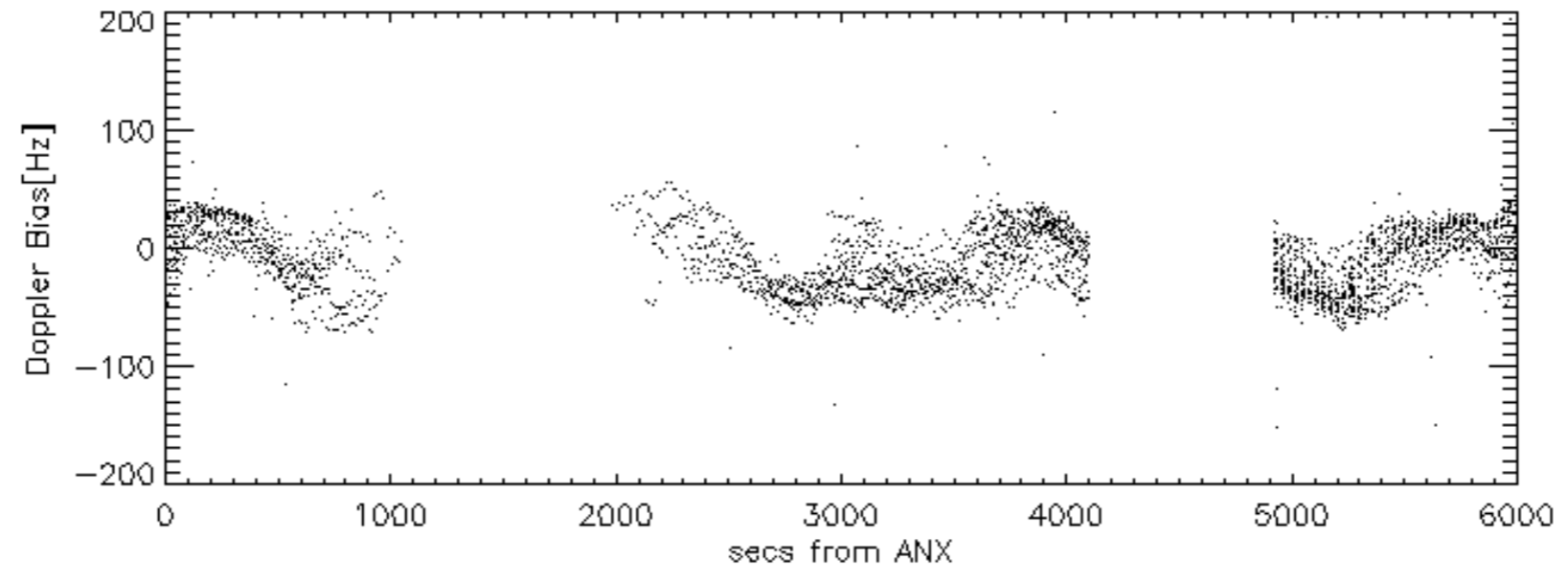
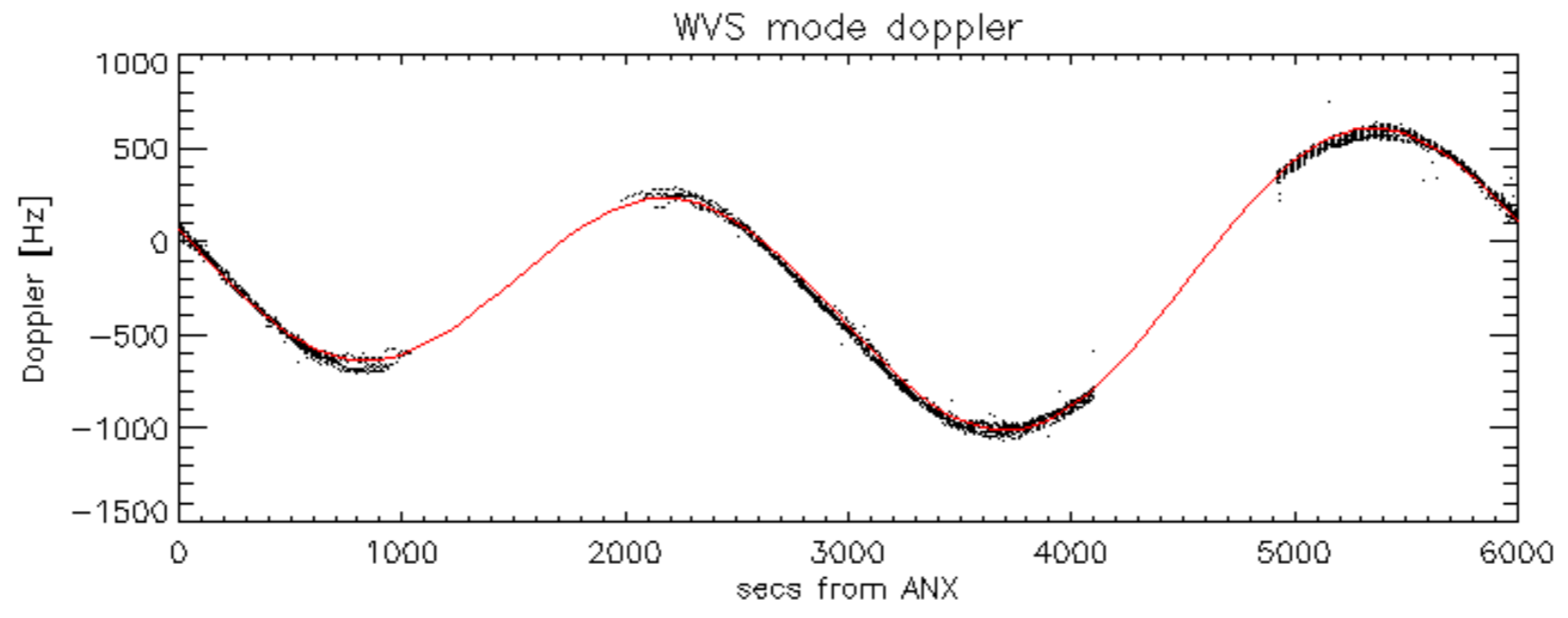
Doppler 'WVS' 'IS2' ascending



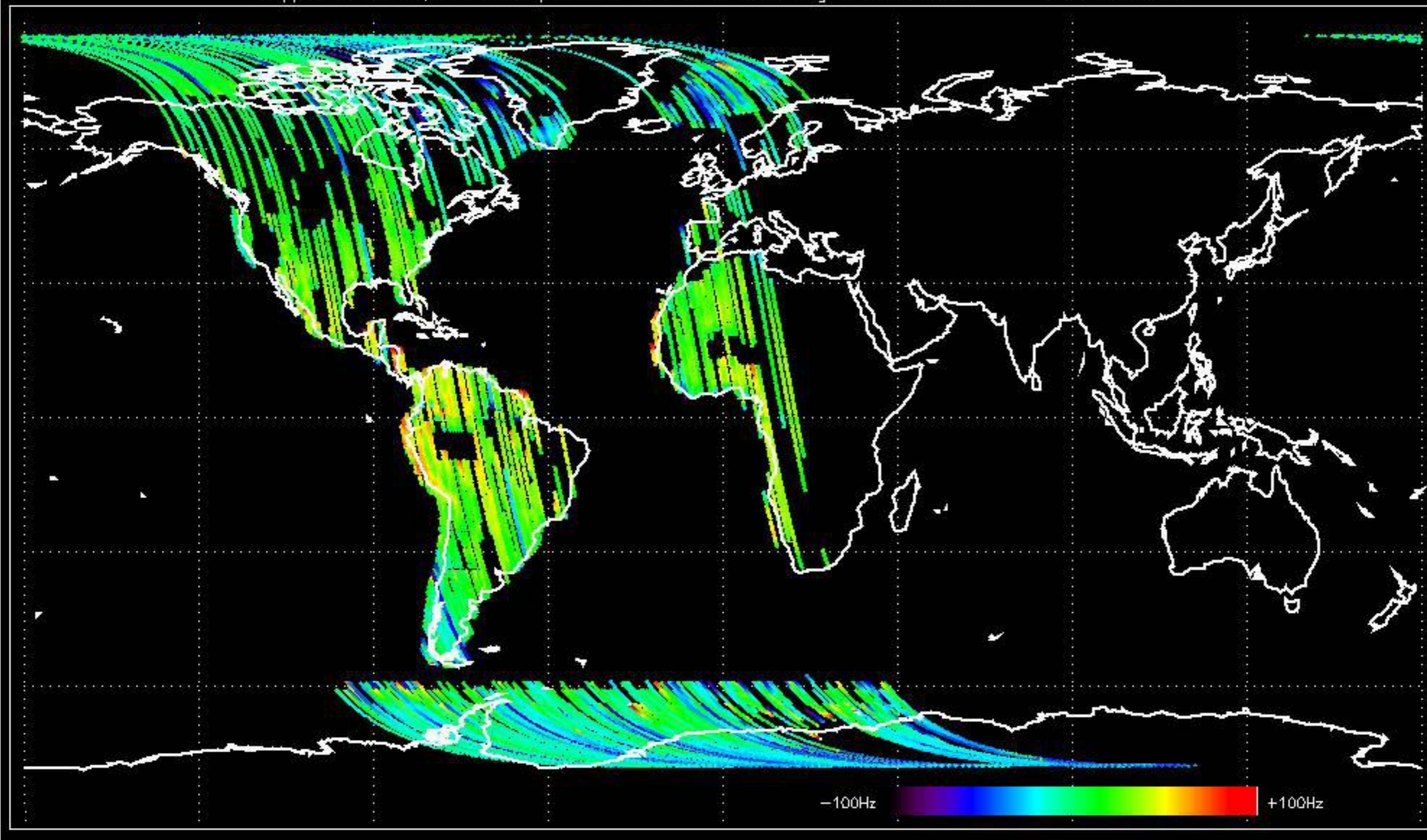
Doppler 'WVS' 'IS2' descending



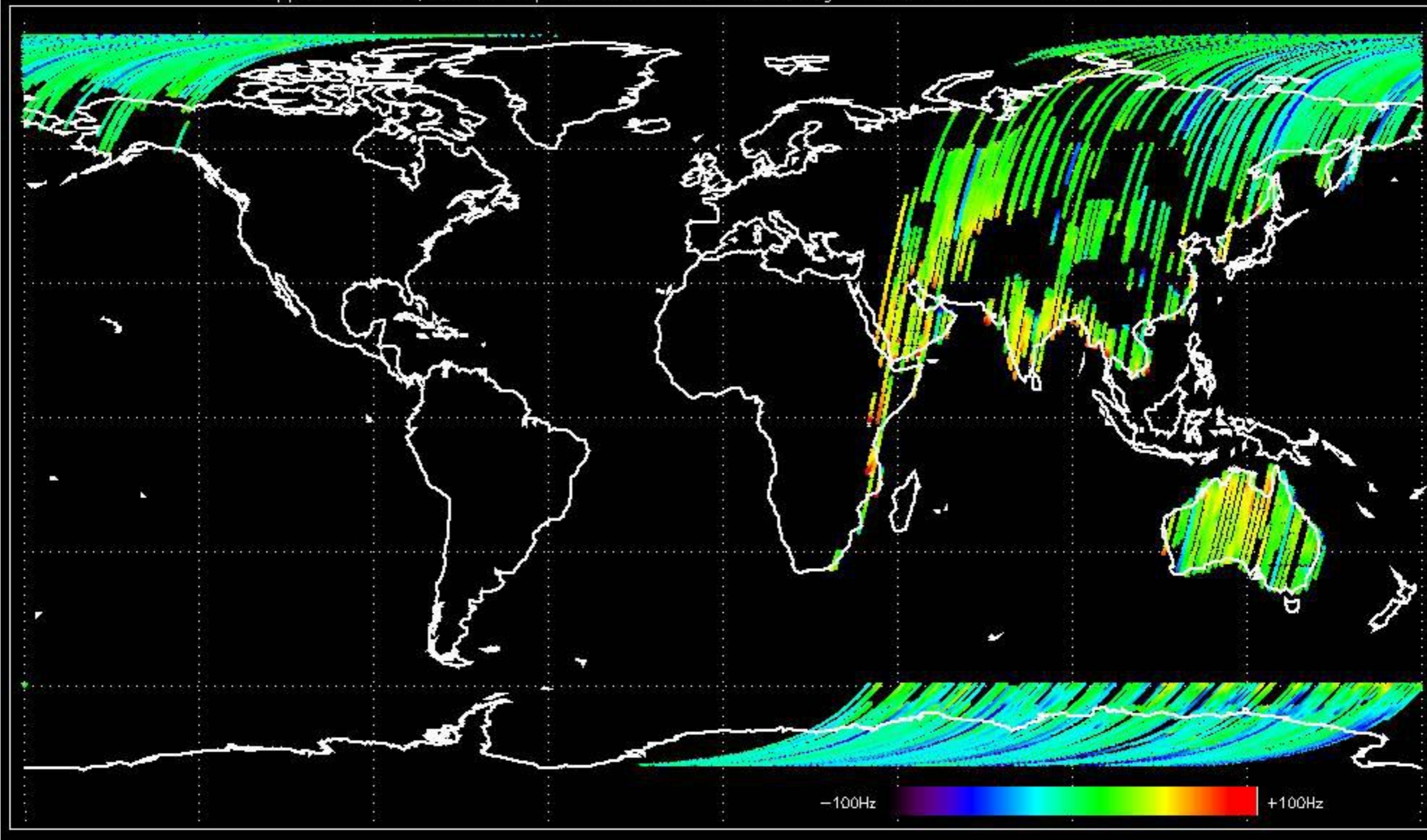




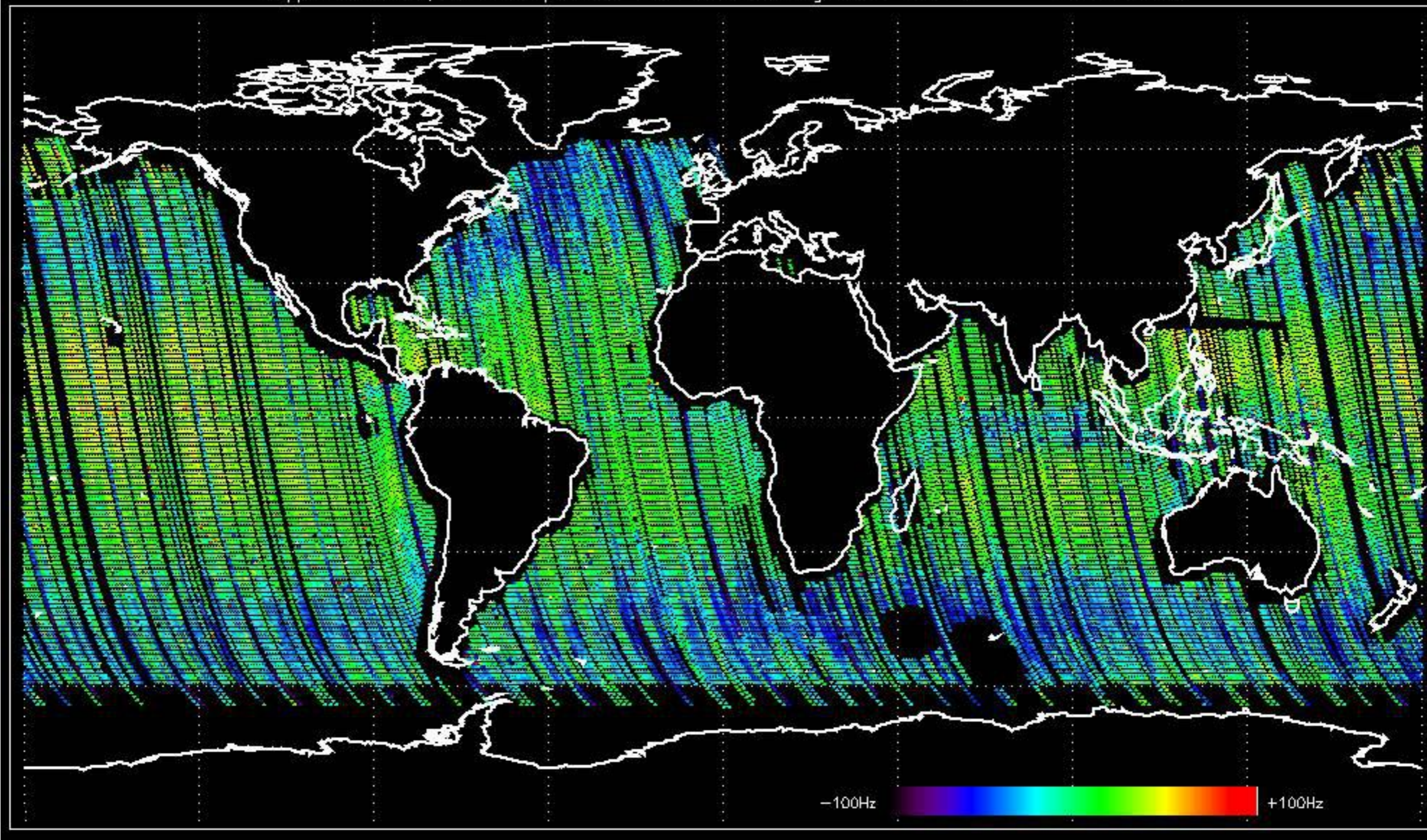
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -13.224779 Hz



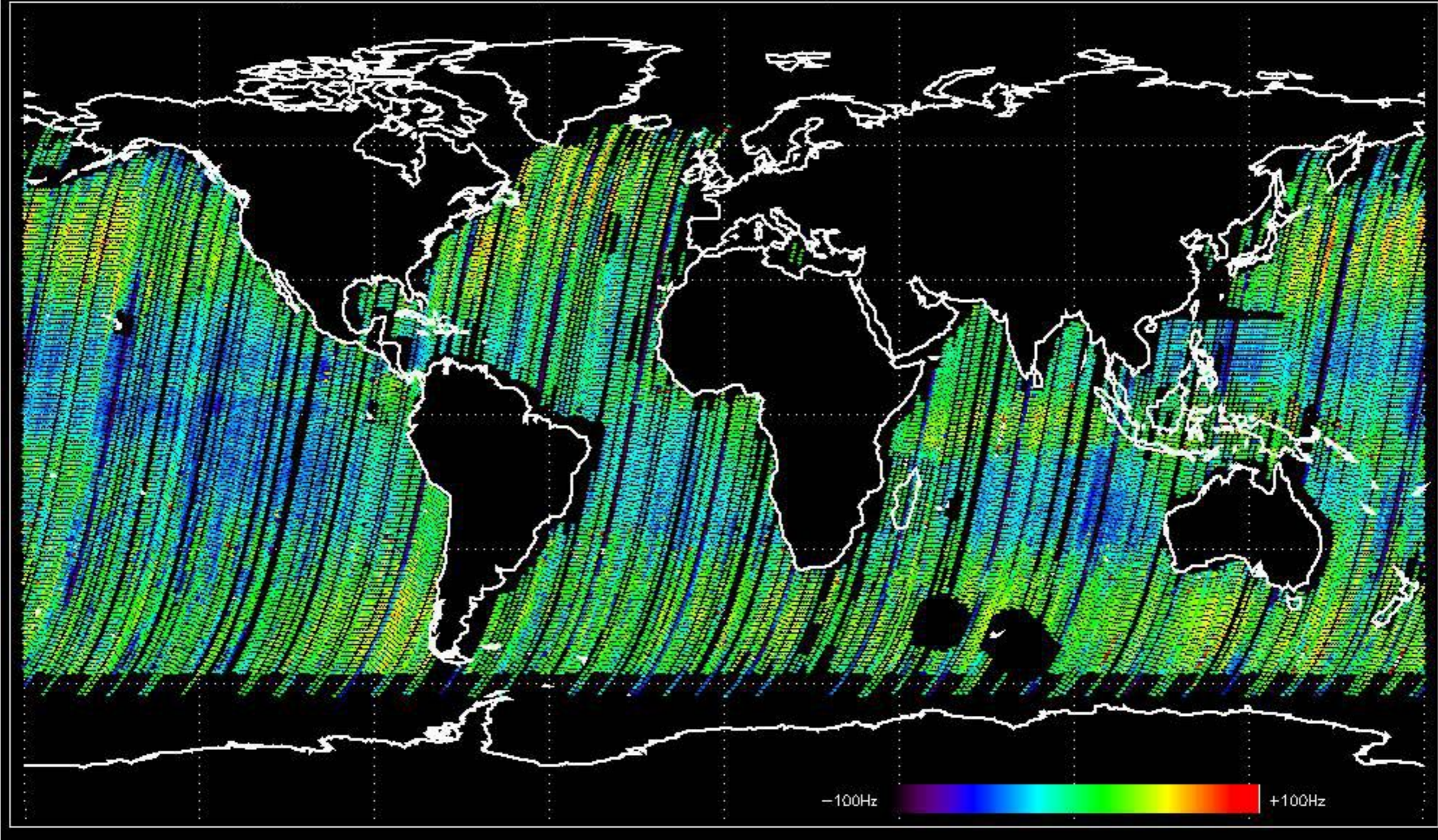
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.723676 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -7.9267209 Hz

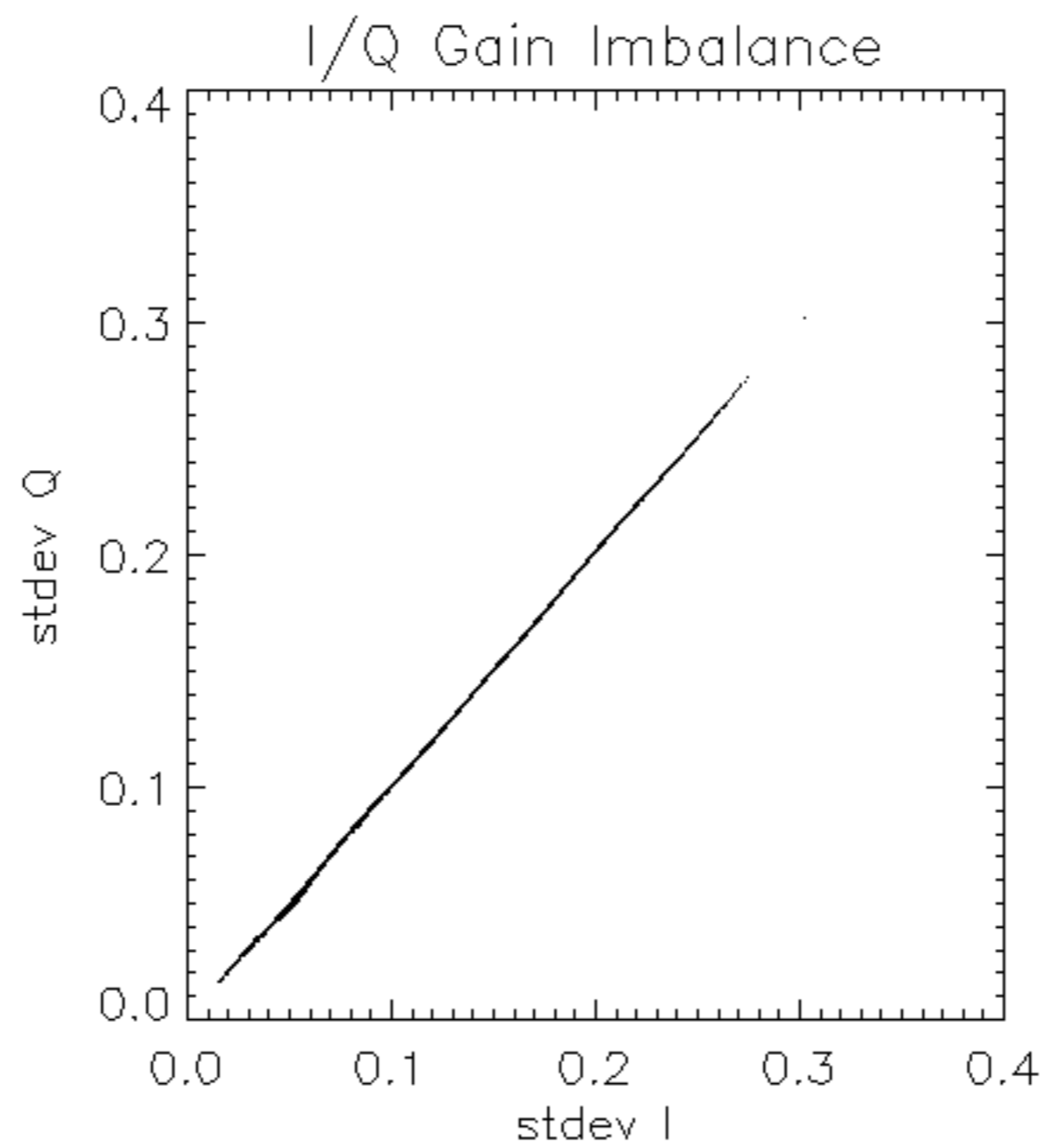


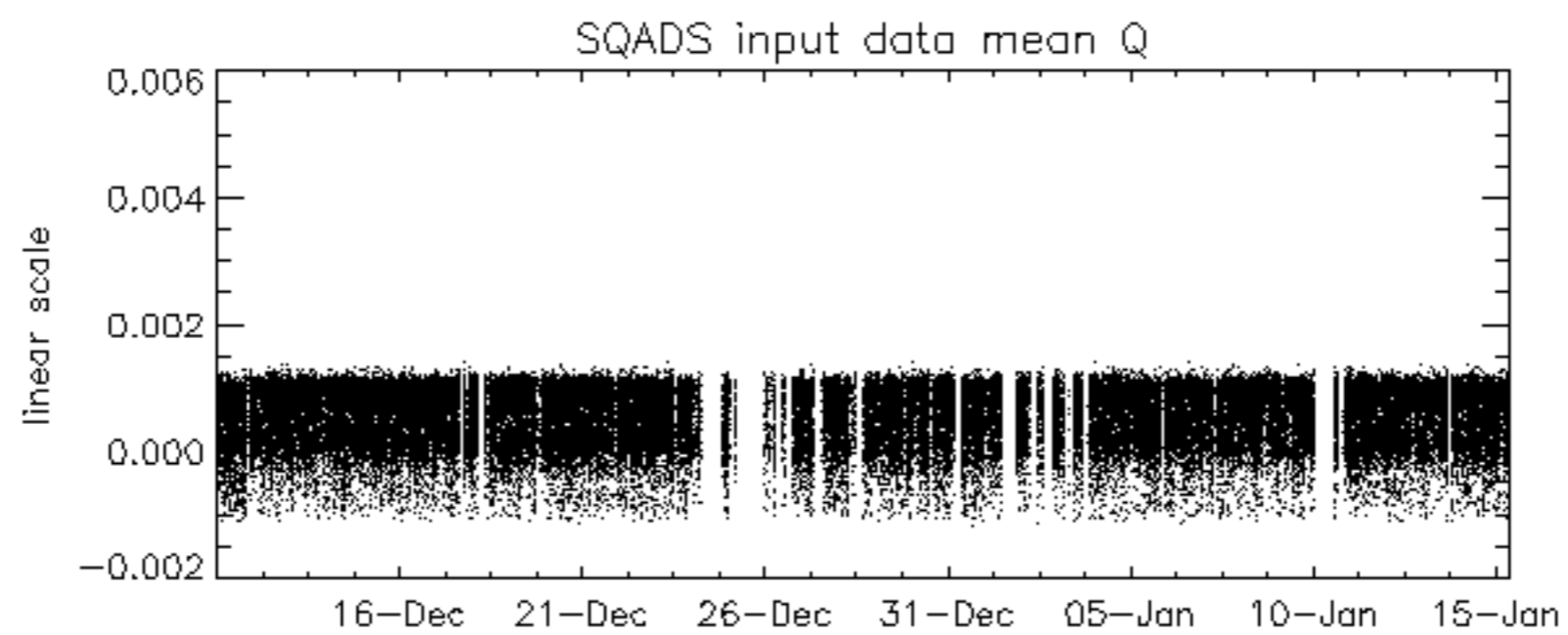
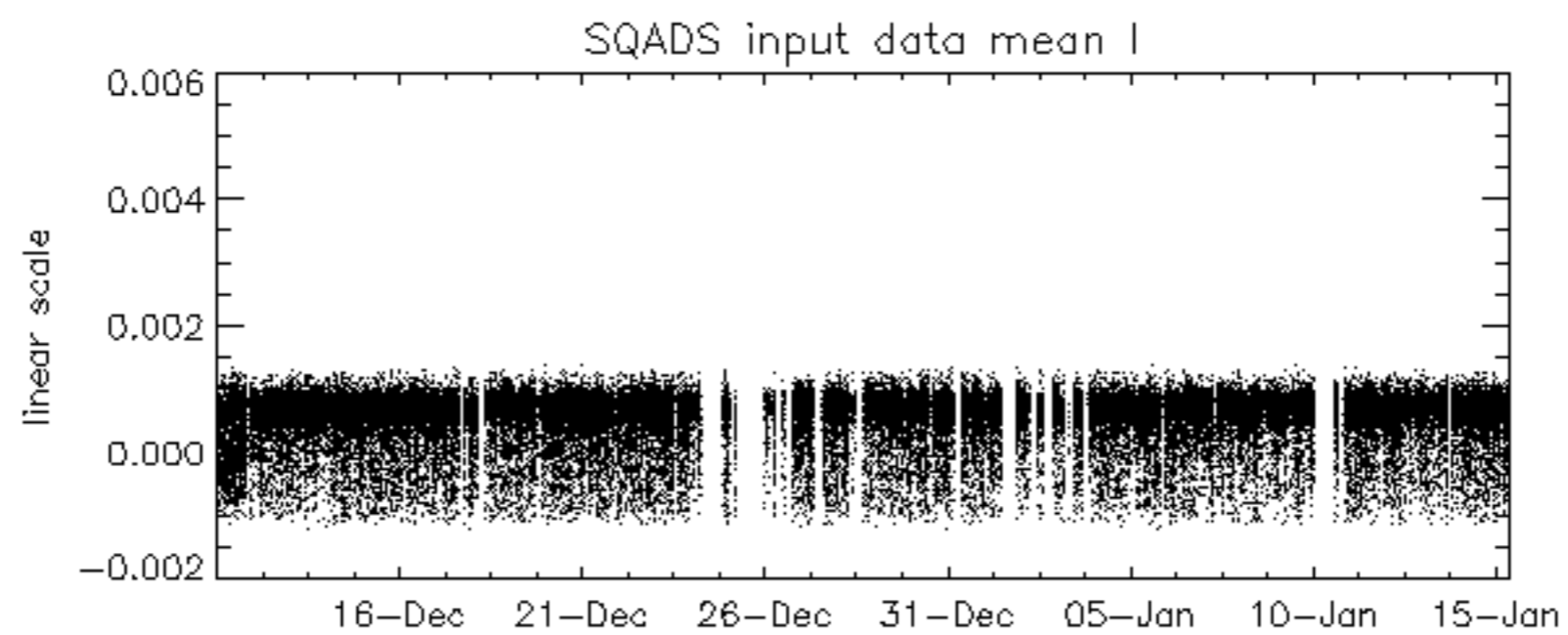
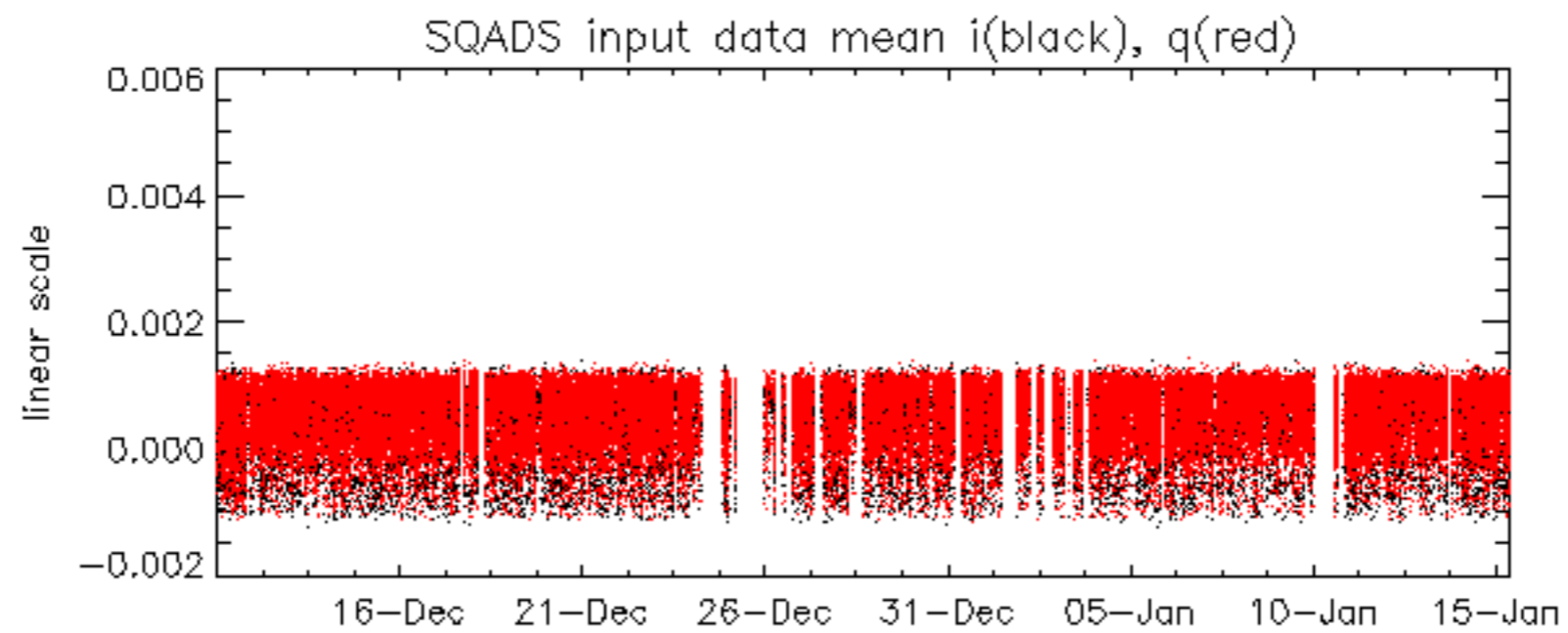
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.7719551 Hz

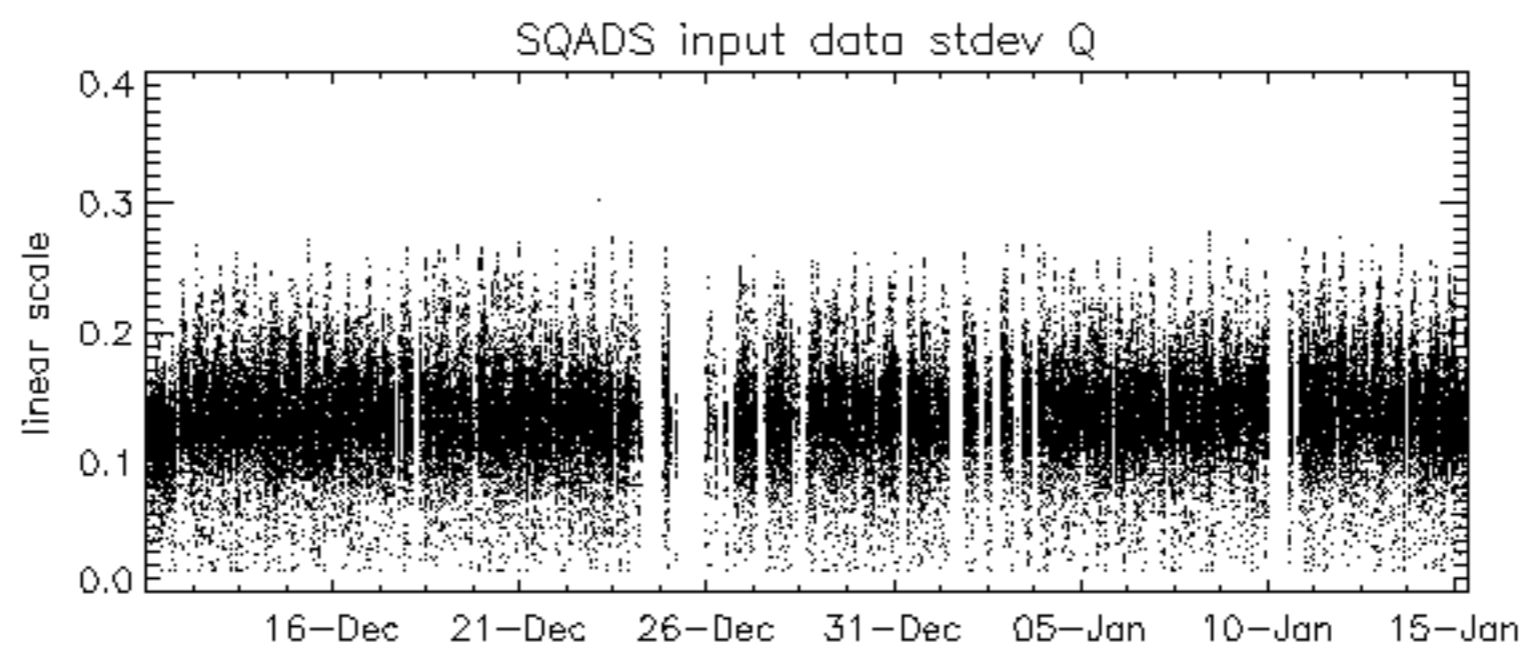
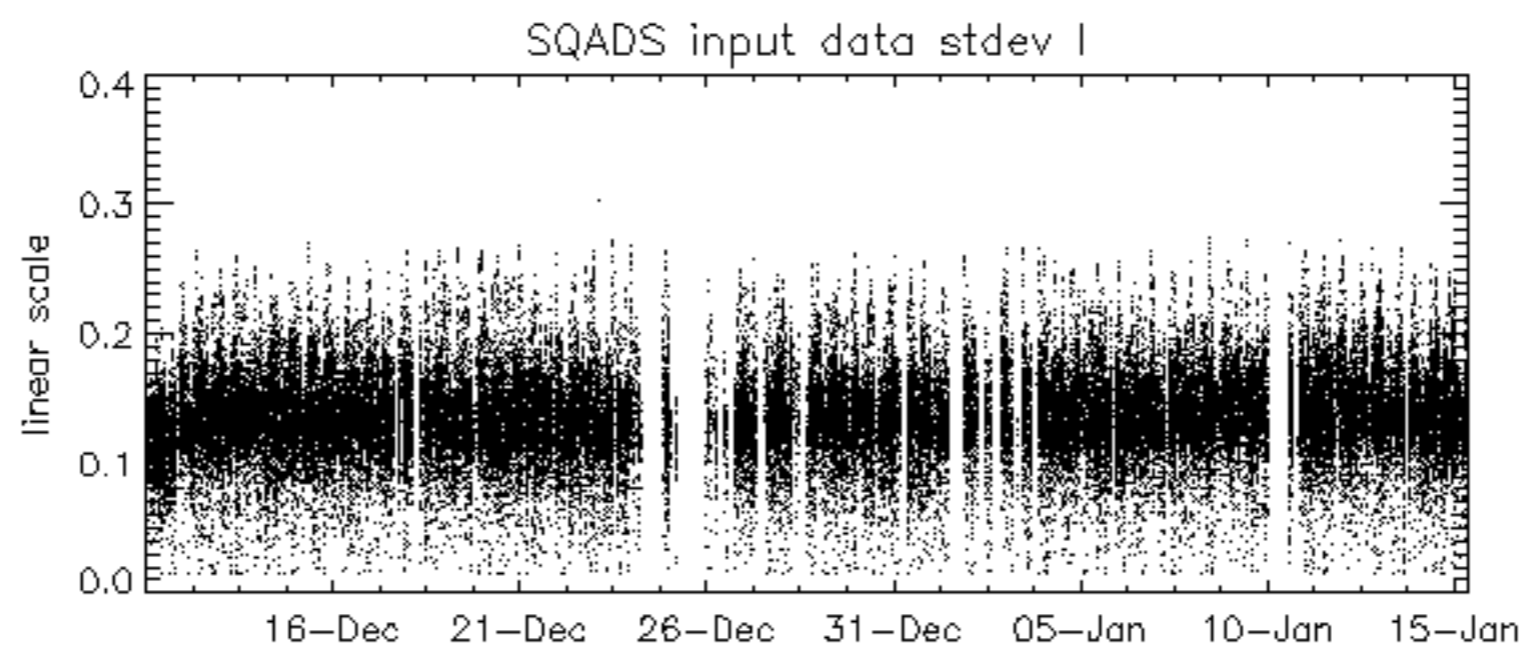
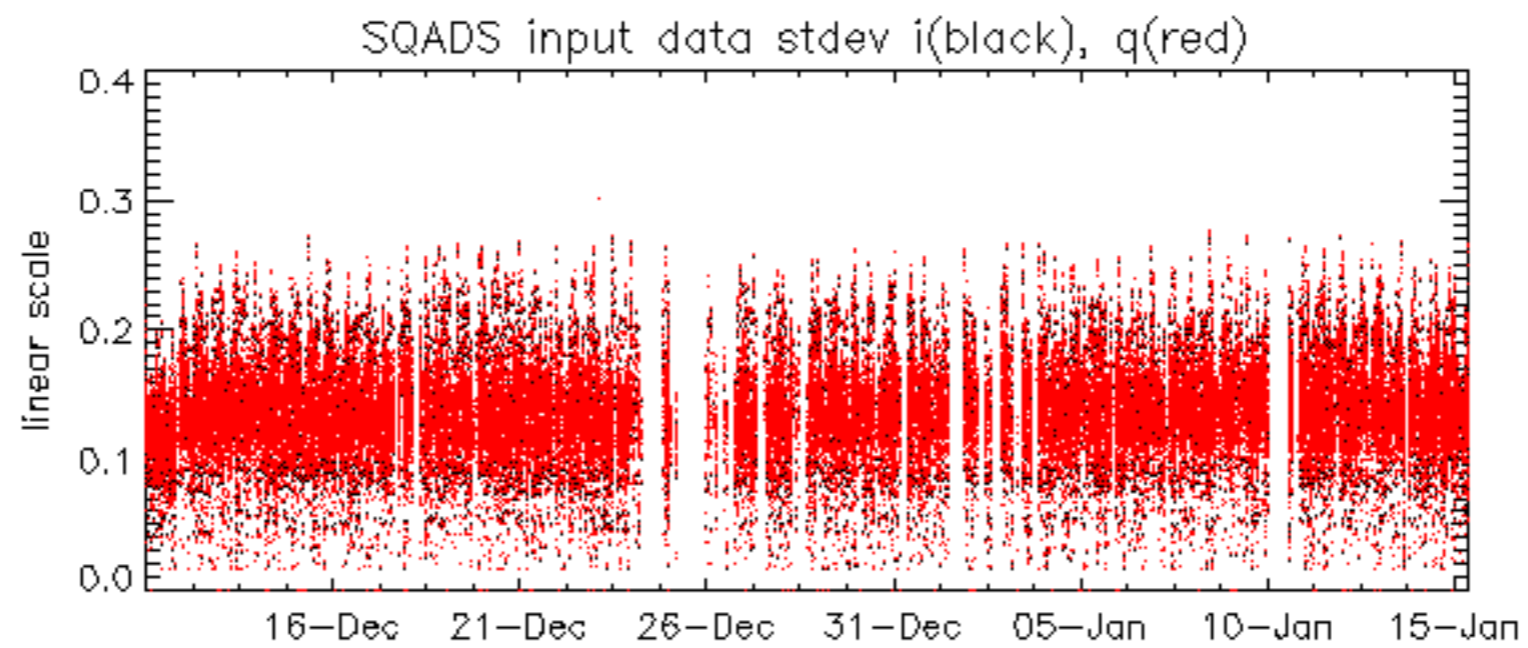


No anomalies observed on available MS products:

No anomalies observed.



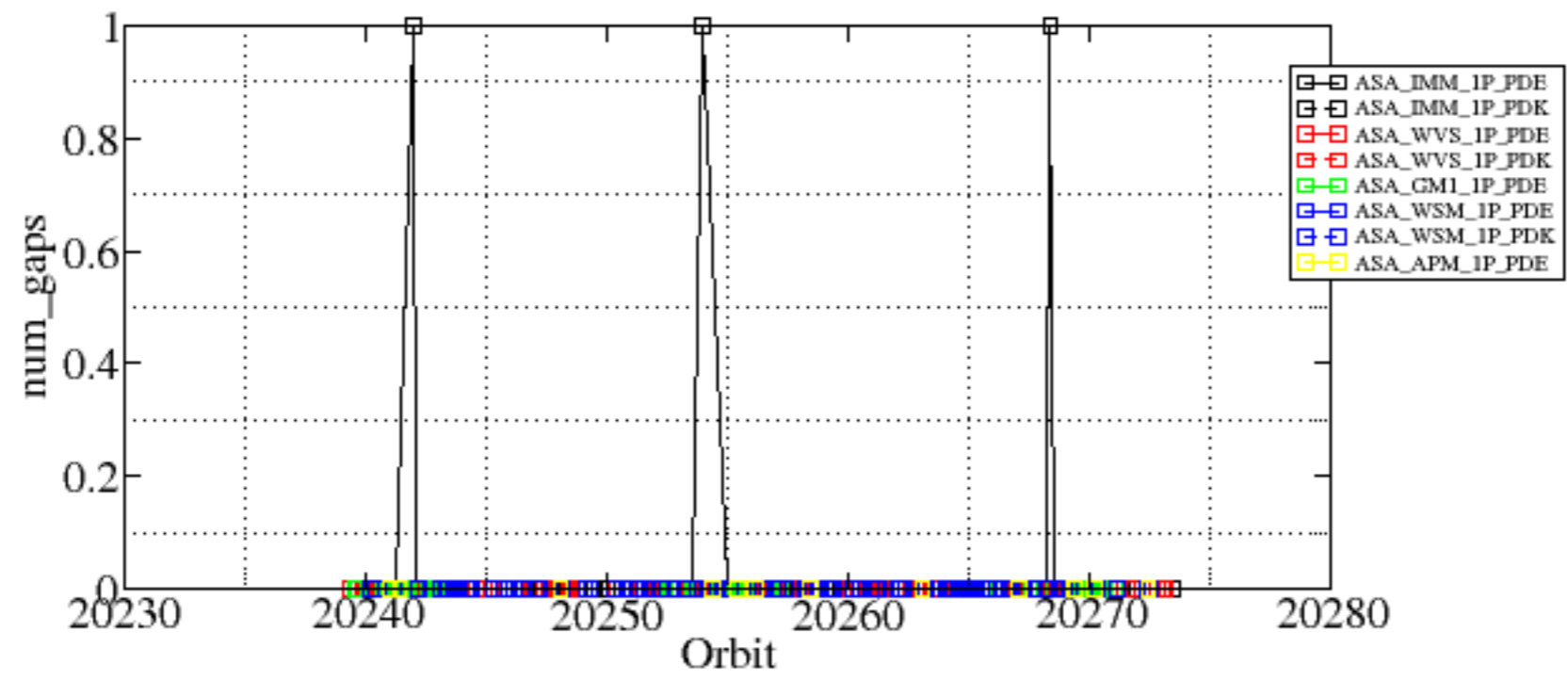




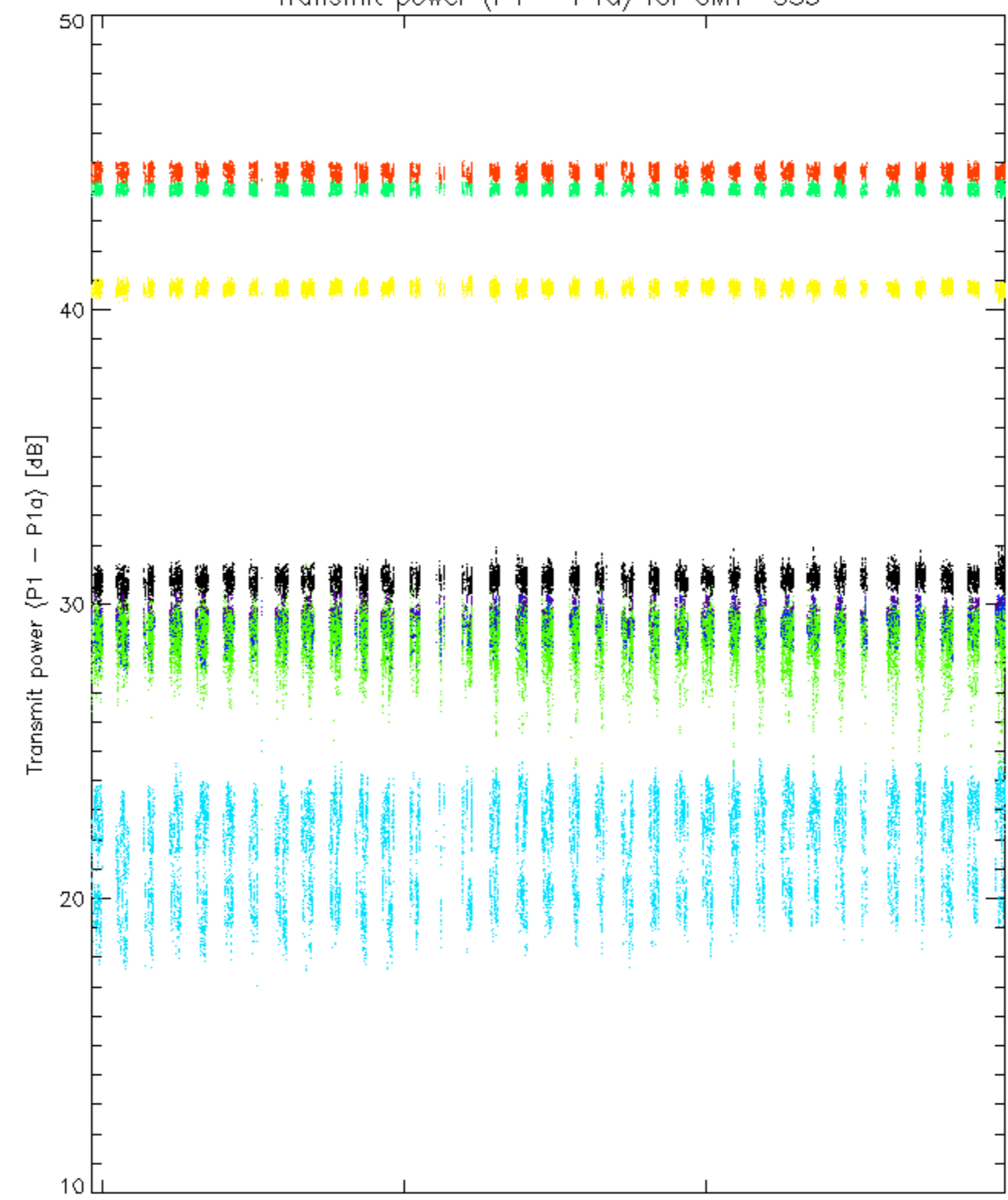
Summary of analysis for the last 3 days 2006011[345]

The assumption is taken that the SQUADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

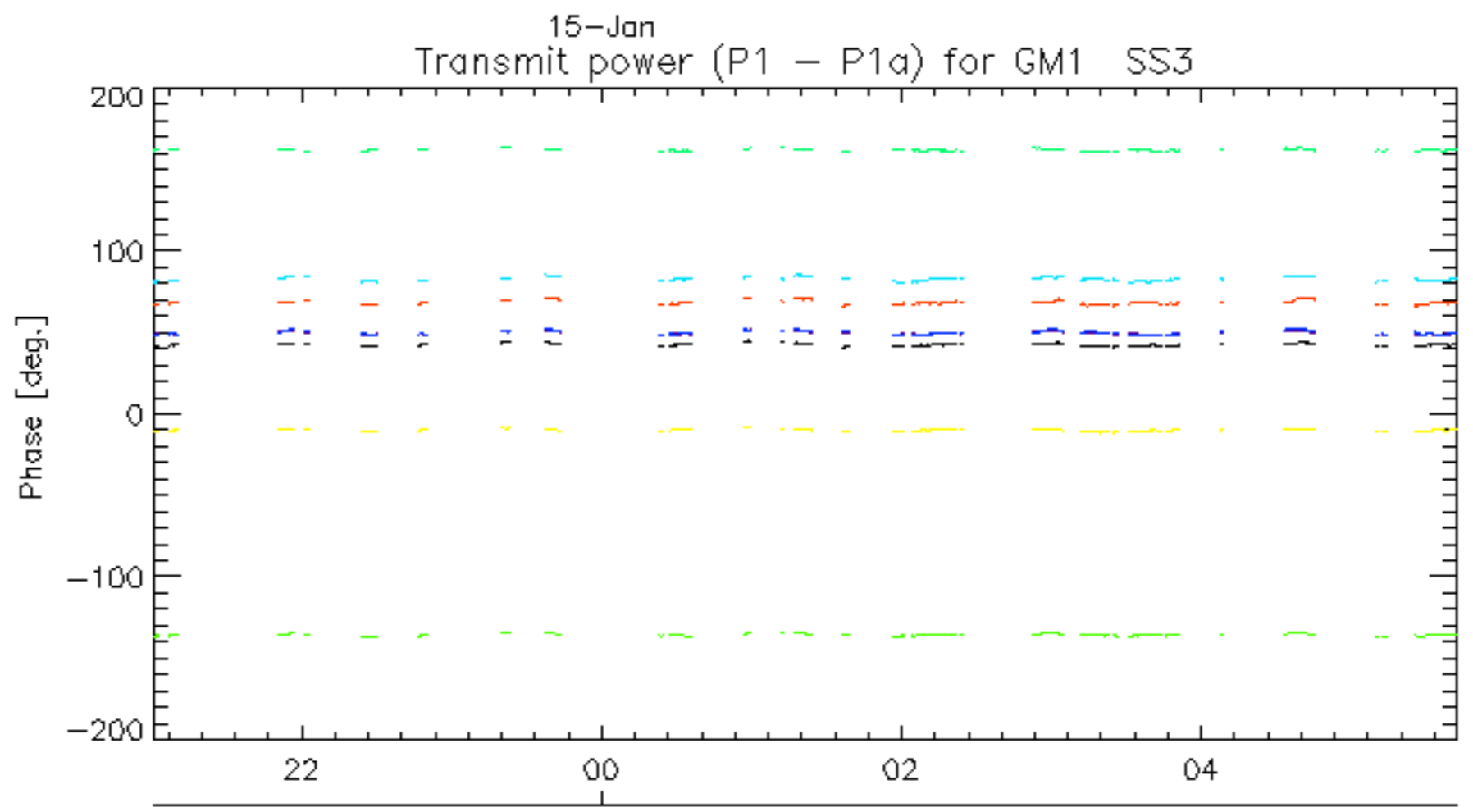
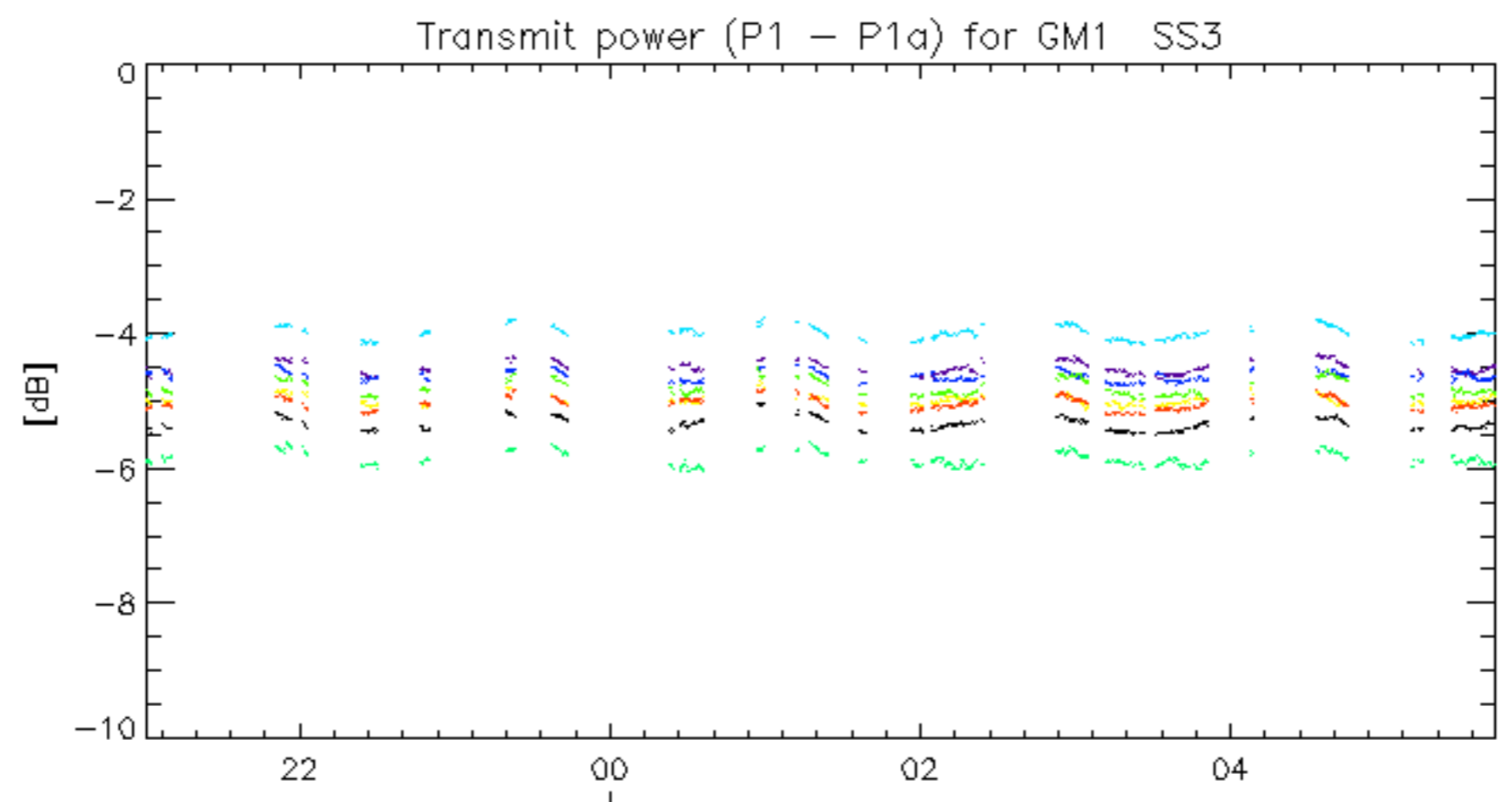
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060113_042639_00000522044_00147_20241_0106.N1	1	0
ASA_IMM_1PNPDE20060114_003120_000001252044_00159_20253_0148.N1	1	0
ASA_IMM_1PNPDE20060115_004048_00000622044_00174_20268_0186.N1	1	0
ASA_WSM_1PNPDE20060114_112252_000001292044_00166_20260_0554.N1	0	46
ASA_WSM_1PNPDE20060114_112252_000001652044_00166_20260_0558.N1	0	46
ASA_WSM_1PNPDE20060114_172239_000001842044_00170_20264_0582.N1	0	3
ASA_WSM_1PNPDE20060115_013949_000002192044_00174_20268_0663.N1	0	1



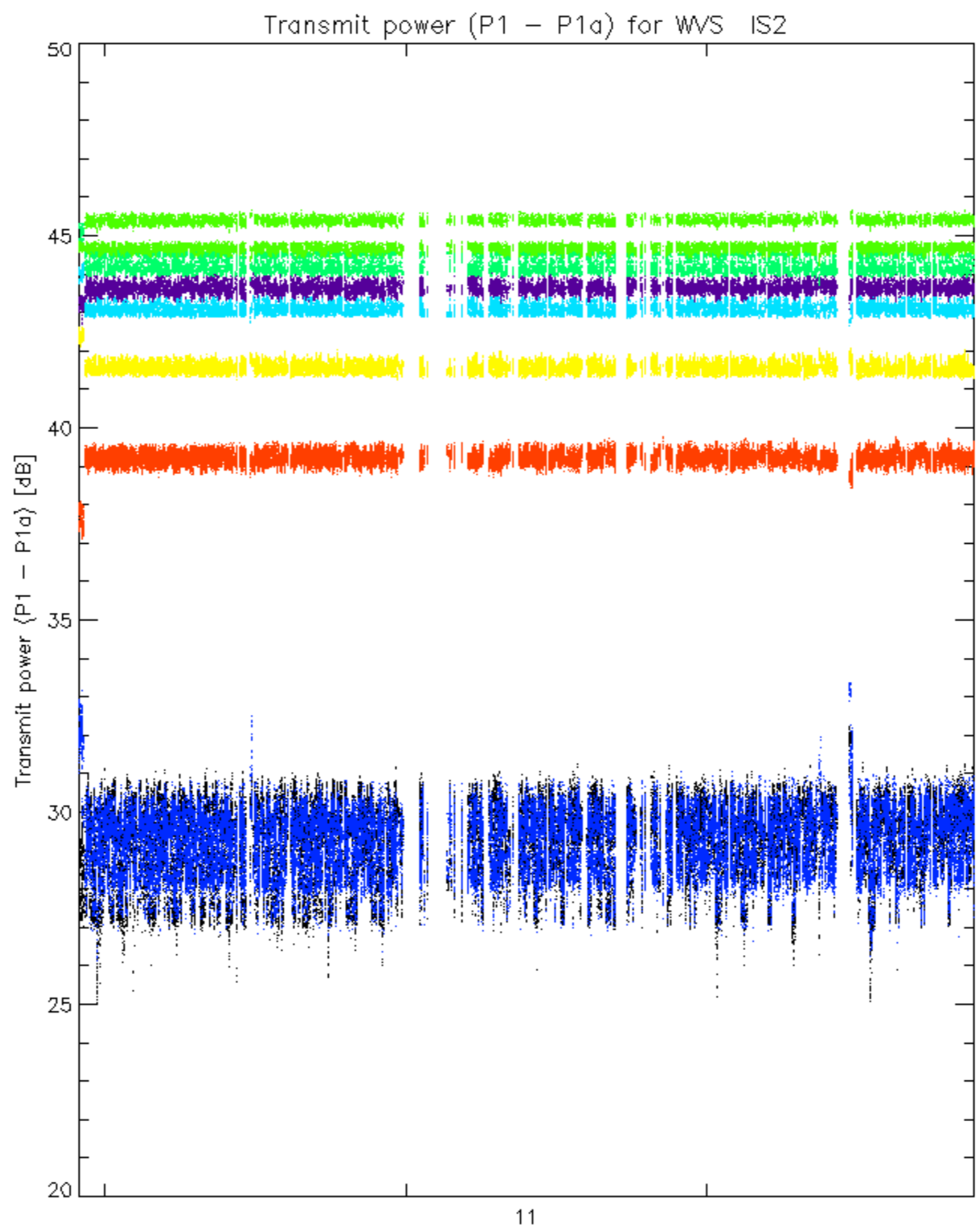
Transmit power (P1 - P1a) for GM1 SS3



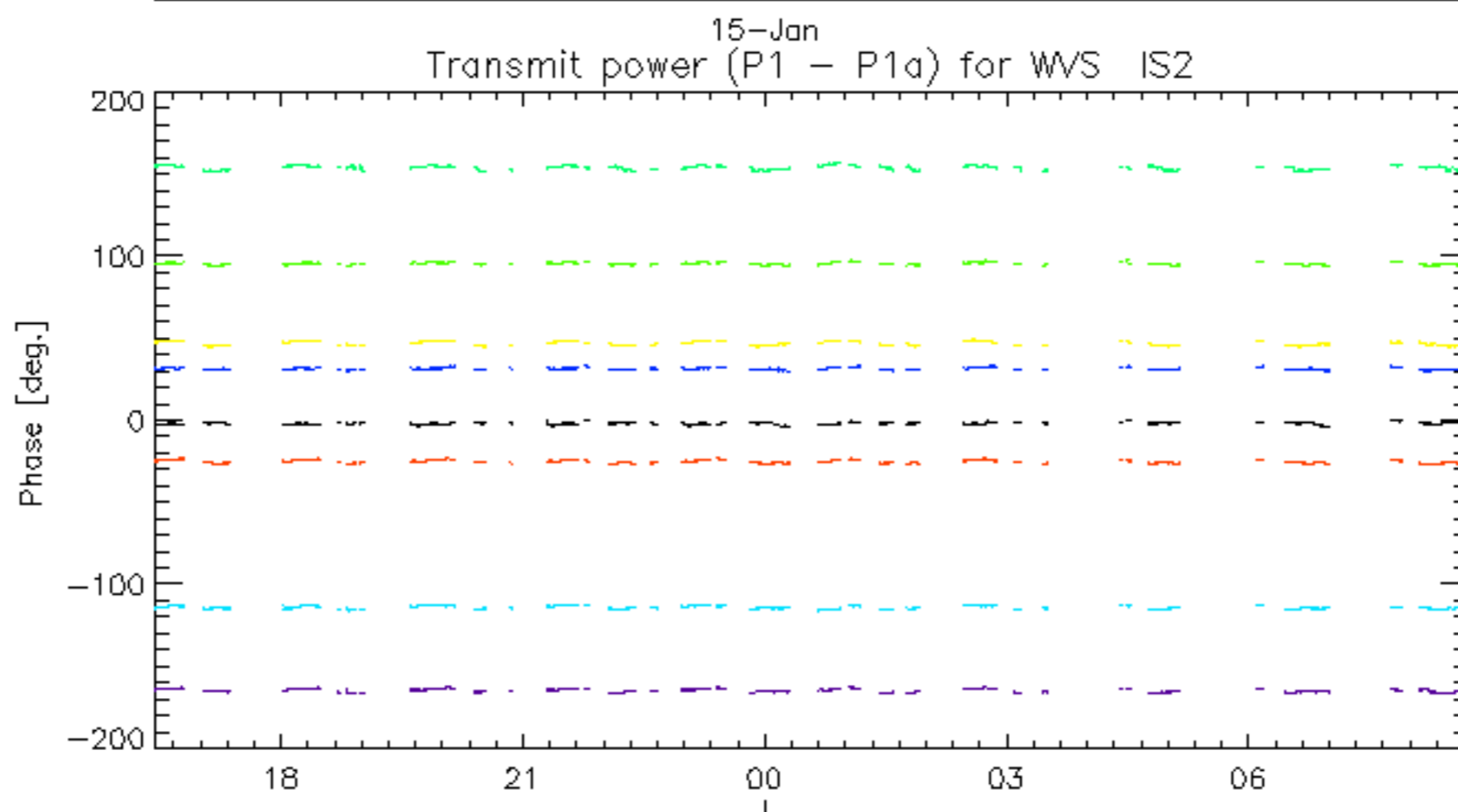
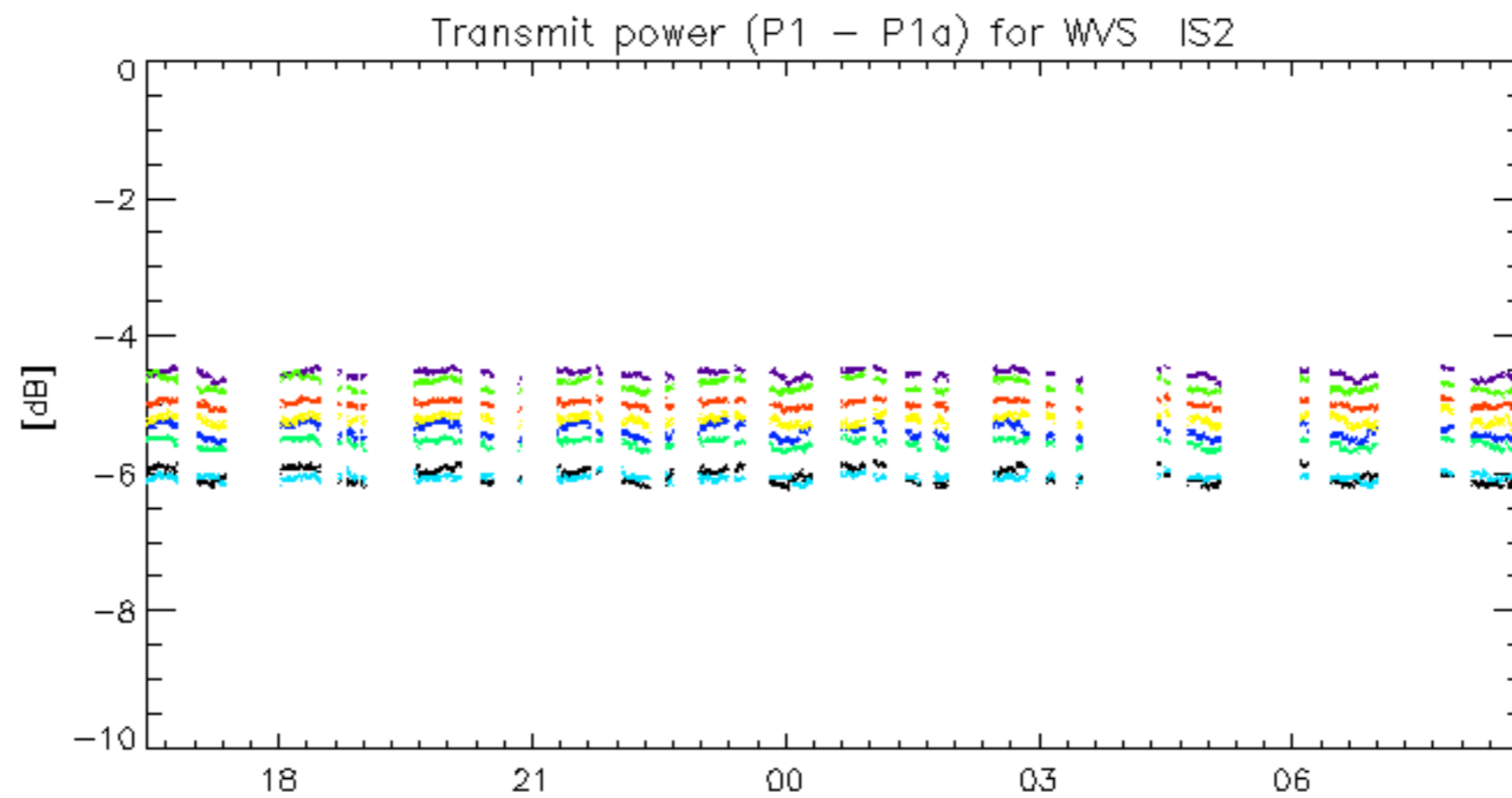
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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



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

No unavailabilities during the reported period.