

PRELIMINARY REPORT OF 061210

last update on Sun Dec 10 16:41:20 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 2006-12-09 00:00:00 to 2006-12-10 16:41:20

PDHS-K

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	44	50	64	13	27
ASA_XCA_AXVIEC20060717_154125_20050916_195733_20061231_000000	44	50	64	13	27
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	44	50	64	13	27
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	44	50	64	13	27

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	20061210 053213
H	20061207 070704

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"/>

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4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS

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4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1

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4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.962330	0.008188	-0.005402
7	P1	-3.155193	0.024462	0.006000
11	P1	-4.130856	0.025360	0.012383
15	P1	-6.310583	0.014997	-0.046523
19	P1	-3.628042	0.006308	-0.069482
22	P1	-4.652500	0.013157	-0.014230
26	P1	-3.951874	0.010306	-0.022317
30	P1	-5.878970	0.009406	-0.048780
3	P1	-16.521935	0.241979	-0.040466
7	P1	-17.297897	0.183983	-0.033526
11	P1	-17.199080	0.457339	-0.011157
15	P1	-13.071323	0.135034	0.001071
19	P1	-14.948768	0.092437	-0.128771
22	P1	-15.855195	0.530613	0.050687
26	P1	-15.057625	0.193460	-0.083630
30	P1	-17.512184	0.475370	-0.074839

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.829304	0.094098	0.057154
7	P2	-21.733480	0.095964	-0.007376
11	P2	-15.626694	0.104415	0.116132
15	P2	-7.123545	0.108529	0.002430
19	P2	-9.193842	0.107007	-0.003224
22	P2	-18.239899	0.099206	-0.007601
26	P2	-16.570190	0.114302	-0.062046
30	P2	-19.469925	0.089675	0.025027

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.246120	0.008654	-0.009664
7	P3	-8.246120	0.008654	-0.009664
11	P3	-8.246120	0.008654	-0.009664

15	P3	-8.246120	0.008654	-0.009664
19	P3	-8.246120	0.008654	-0.009664
22	P3	-8.246120	0.008654	-0.009664
26	P3	-8.246089	0.008665	-0.010100
30	P3	-8.246089	0.008665	-0.010100

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	-3.913669	0.025829	-0.017409
7	P1	-2.496954	0.126396	0.071512
11	P1	-2.854948	0.028767	0.009157
15	P1	-3.684623	0.040875	0.008035
19	P1	-3.532769	0.017377	-0.047835
22	P1	-5.032821	0.022716	0.020487
26	P1	-6.013867	0.027911	-0.066158
30	P1	-5.332342	0.039350	-0.069417
3	P1	-11.732656	0.095766	-0.050275
7	P1	-10.060845	0.205244	0.013092
11	P1	-10.330023	0.135939	-0.012011
15	P1	-10.726953	0.138817	0.095248
19	P1	-15.709736	0.109339	-0.089711
22	P1	-21.525463	1.420277	-0.323775
26	P1	-16.063471	0.323117	-0.094421
30	P1	-17.892780	0.375494	0.054694

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.467983	0.111267	-0.038391
7	P2	-22.232664	0.255683	-0.050907
11	P2	-10.926592	0.128600	0.072446
15	P2	-4.979388	0.220870	-0.068511
19	P2	-6.958551	0.214749	-0.048991
22	P2	-8.255454	0.140888	-0.020949
26	P2	-24.326309	0.200304	0.004402
30	P2	-21.953442	0.160308	-0.016779

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.091255	0.003897	-0.017101
7	P3	-8.091262	0.003899	-0.017117
11	P3	-8.091328	0.003902	-0.016869
15	P3	-8.091173	0.003897	-0.016954
19	P3	-8.091308	0.003900	-0.016919
22	P3	-8.091255	0.003893	-0.017158
26	P3	-8.091292	0.003905	-0.016823
30	P3	-8.091160	0.003910	-0.016747

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	0.000548691
	stdev	1.76034e-07
MEAN Q	mean	0.000512303
	stdev	2.18794e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.137640
	stdev	0.00117547
STDEV Q	mean	0.138017
	stdev	0.00119471



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006120[890]

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_1PNPDE20061208_012029_000000352053_00346_24949_3814.N1	1	0
ASA_IMM_1PNPDE20061209_182650_000000352053_00371_24974_6150.N1	0	18



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

7.2 - Absolute Doppler for WVS

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

7.3 - Doppler evolution versus ANX for WVS

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

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

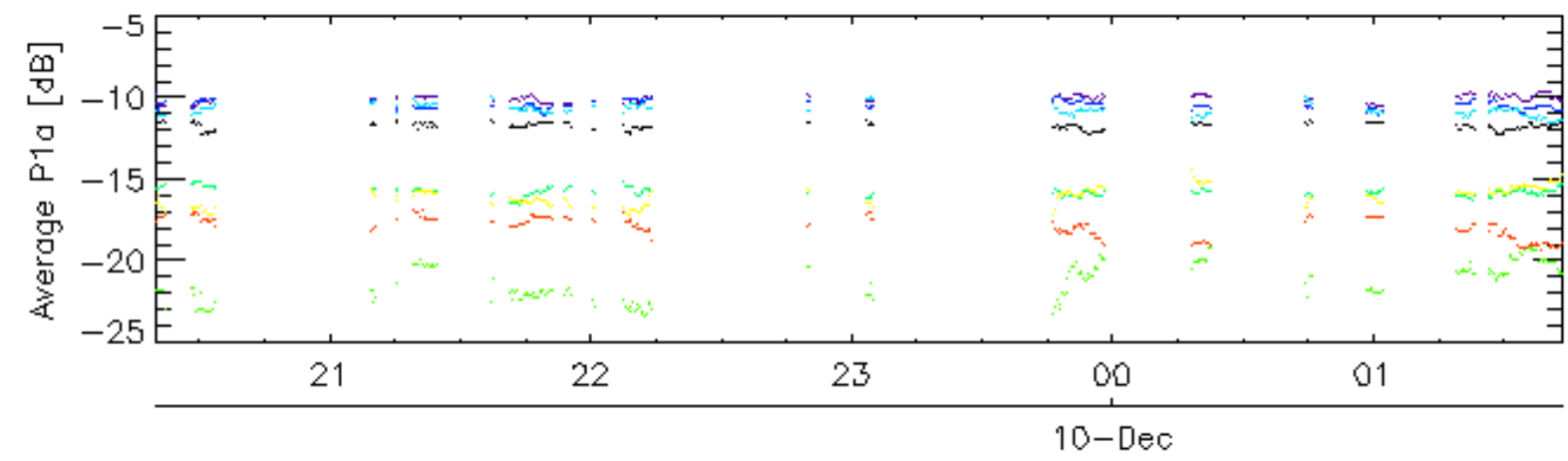
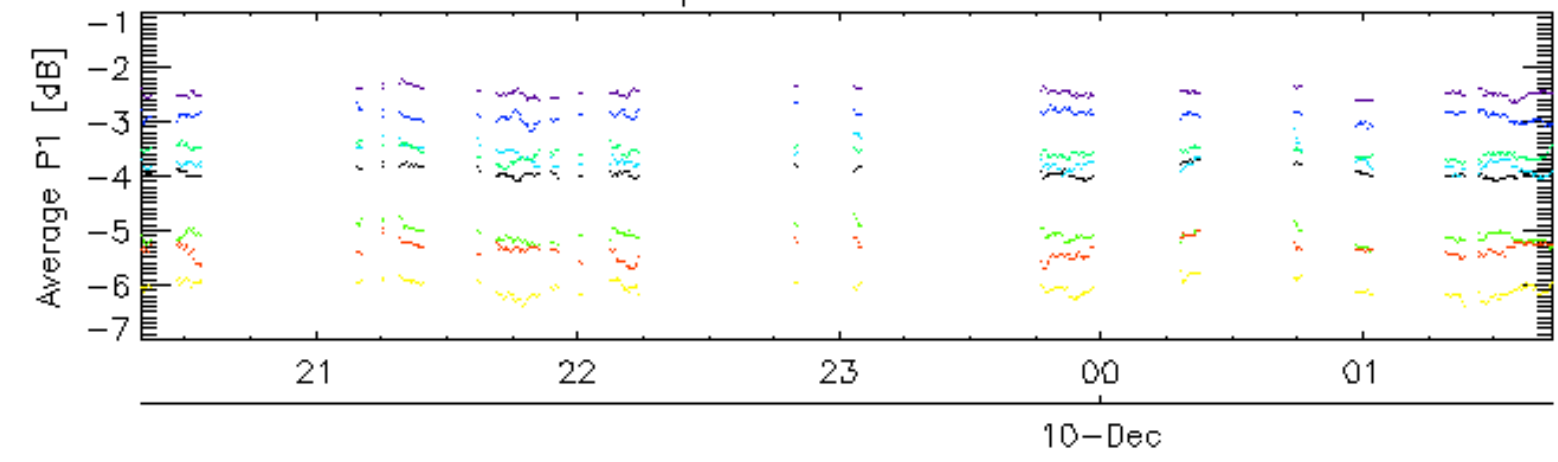
Ascending

Descending

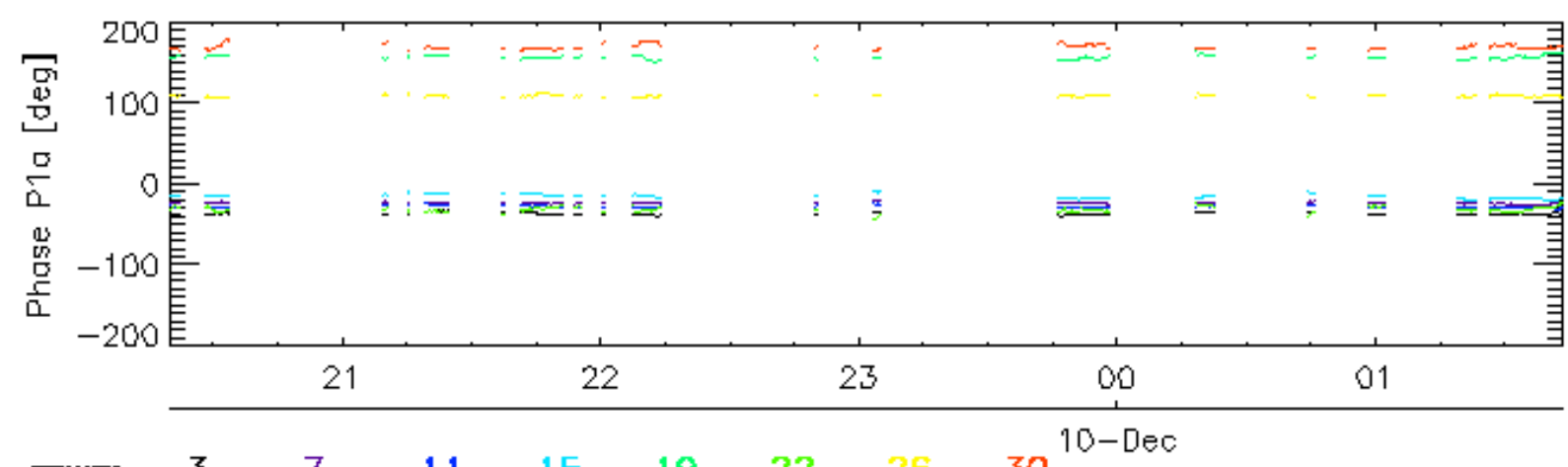
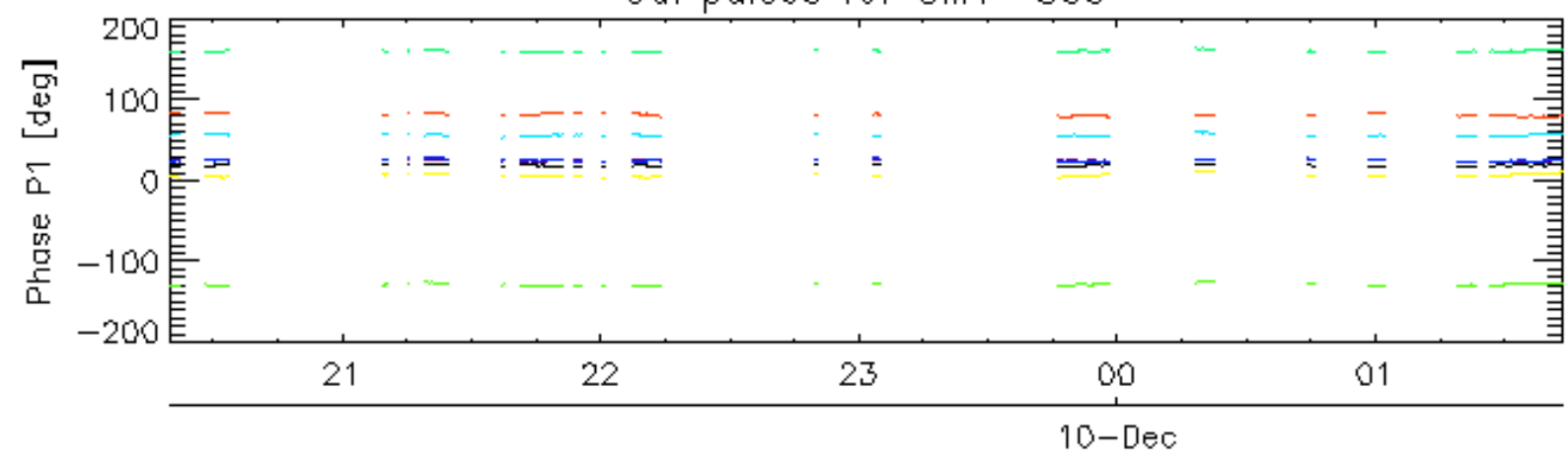
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

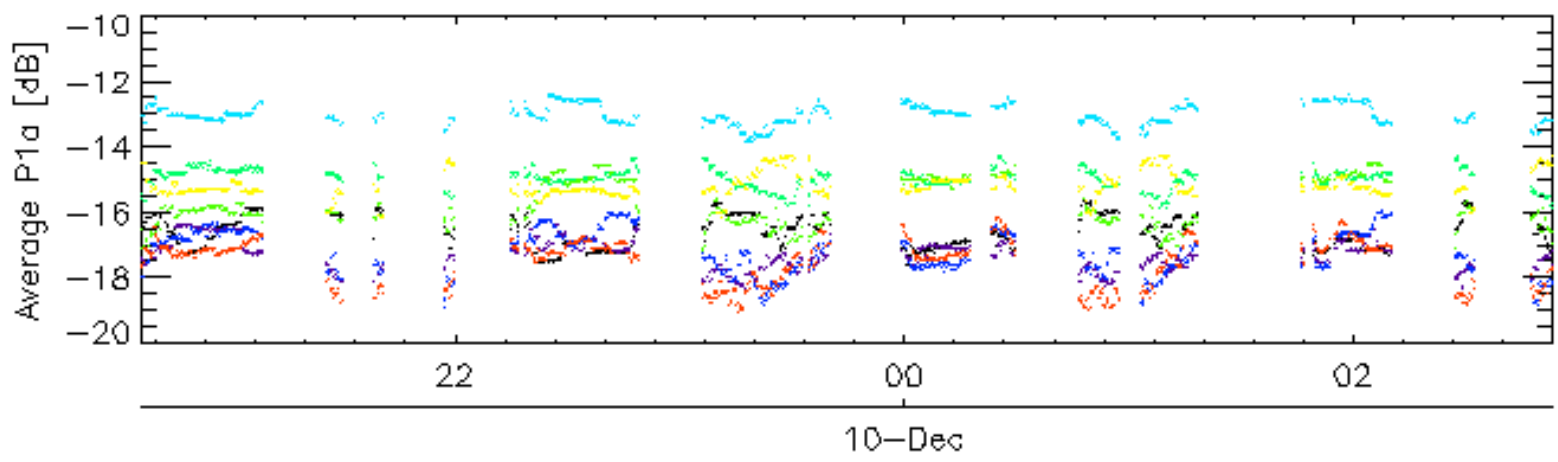
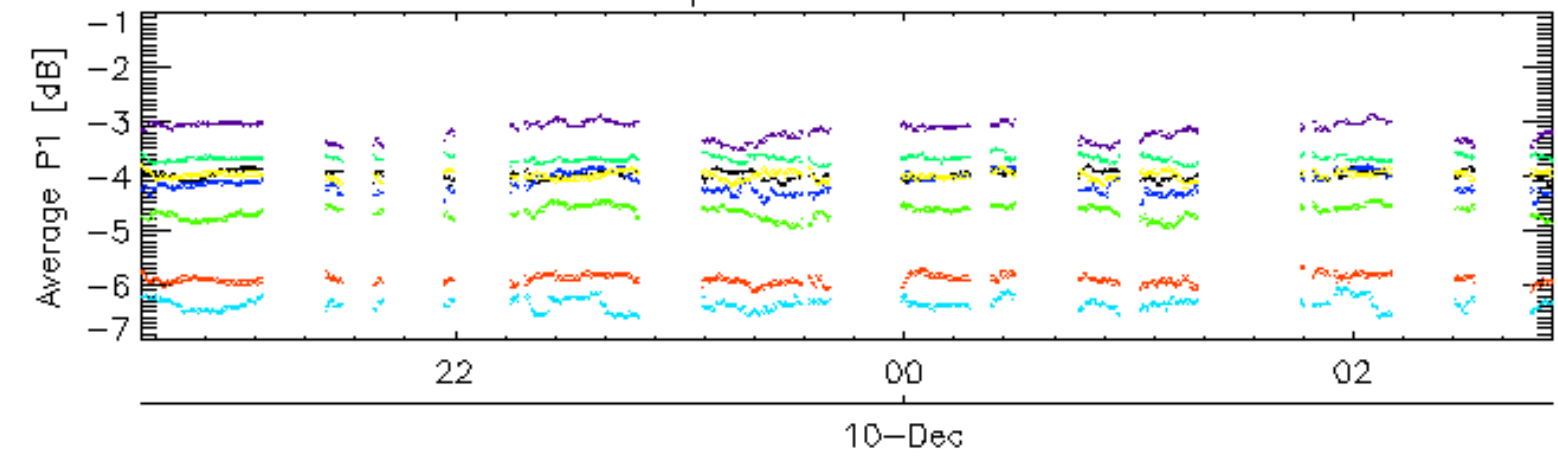


Cal pulses for GM1 SS3

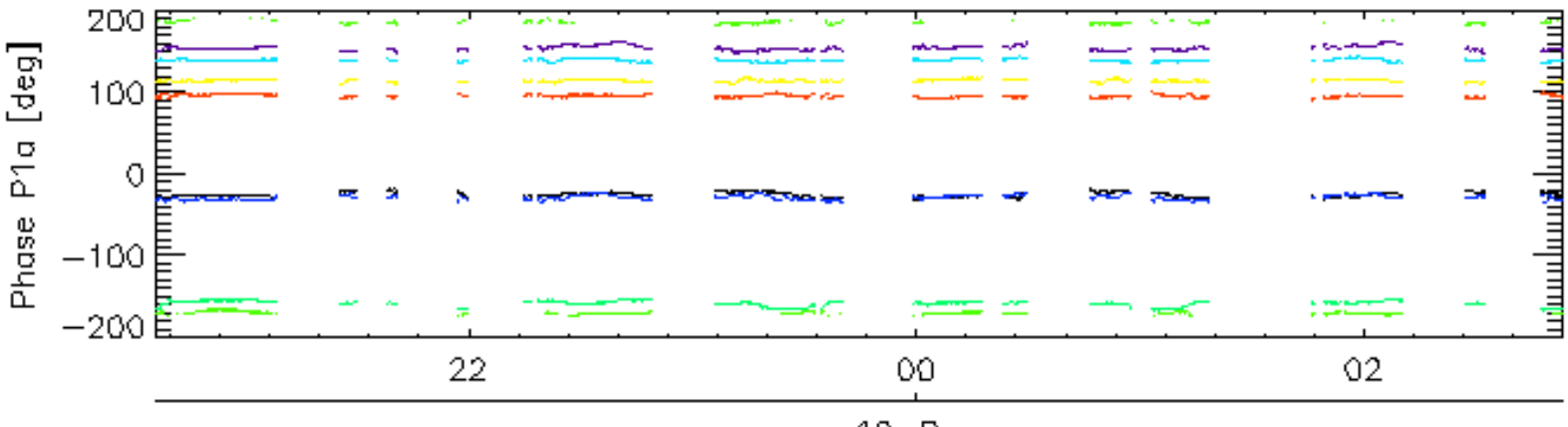
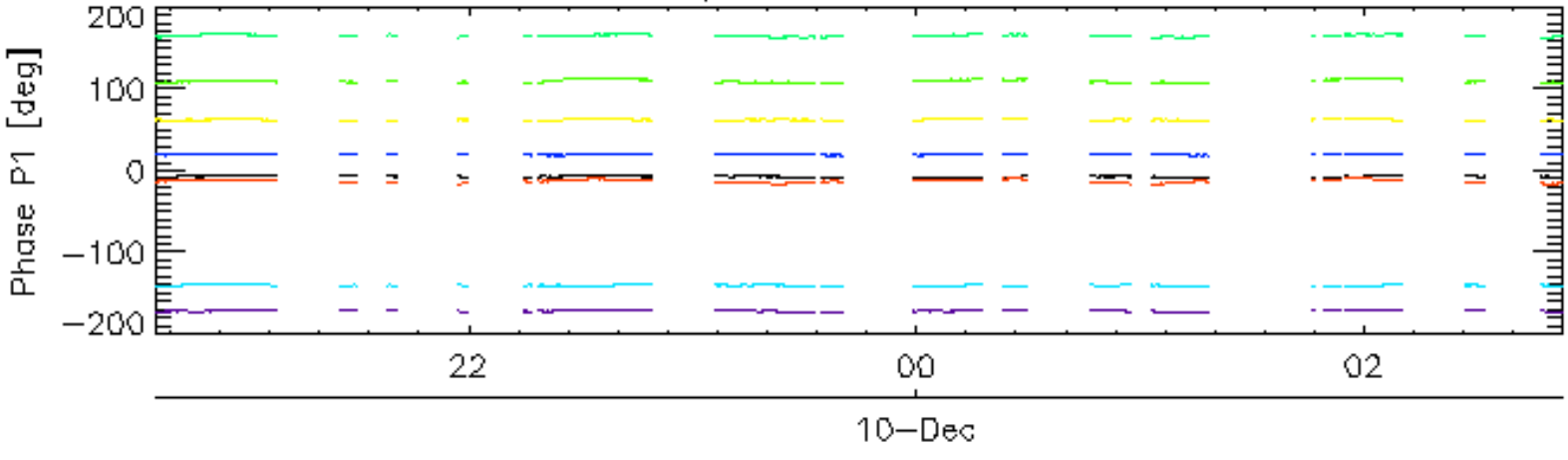


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 10-Dec

Cal pulses for WVS IS2

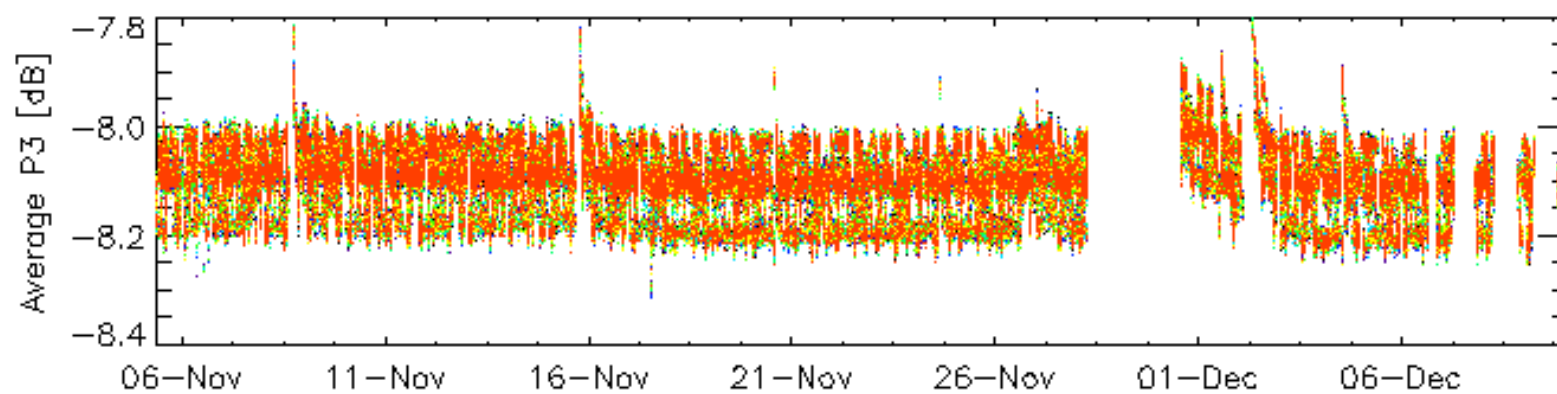
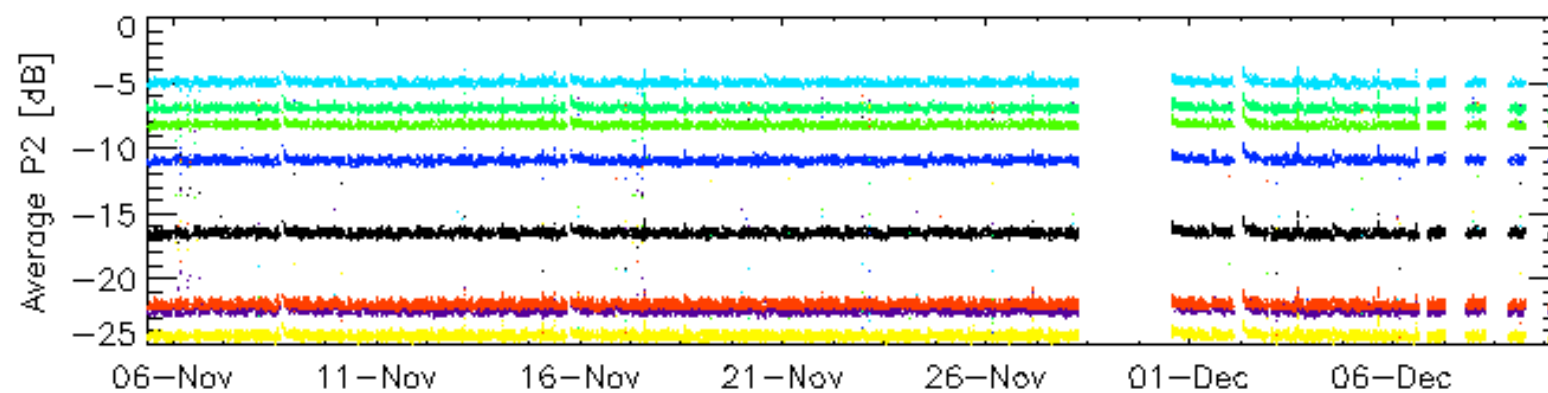
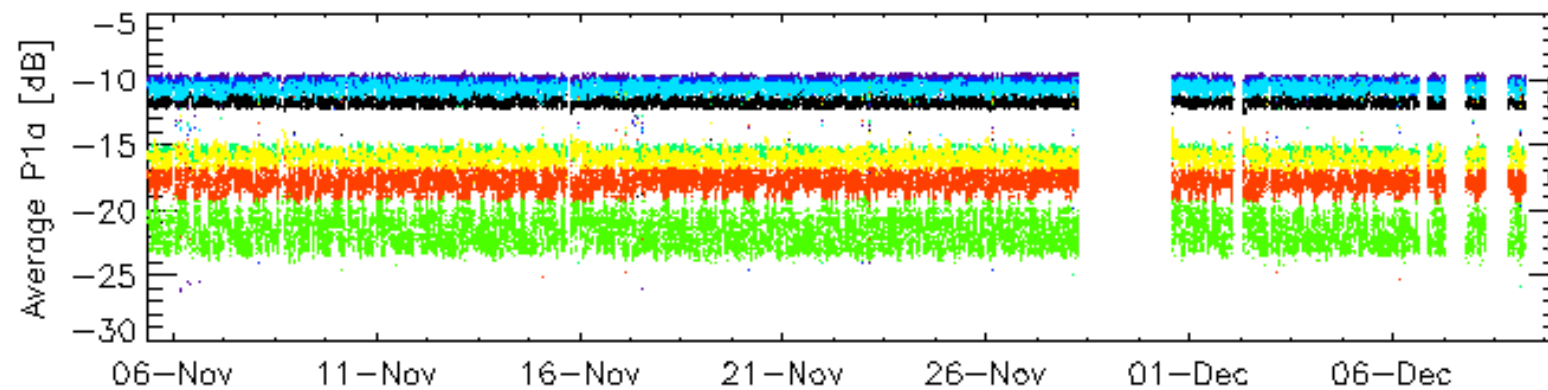
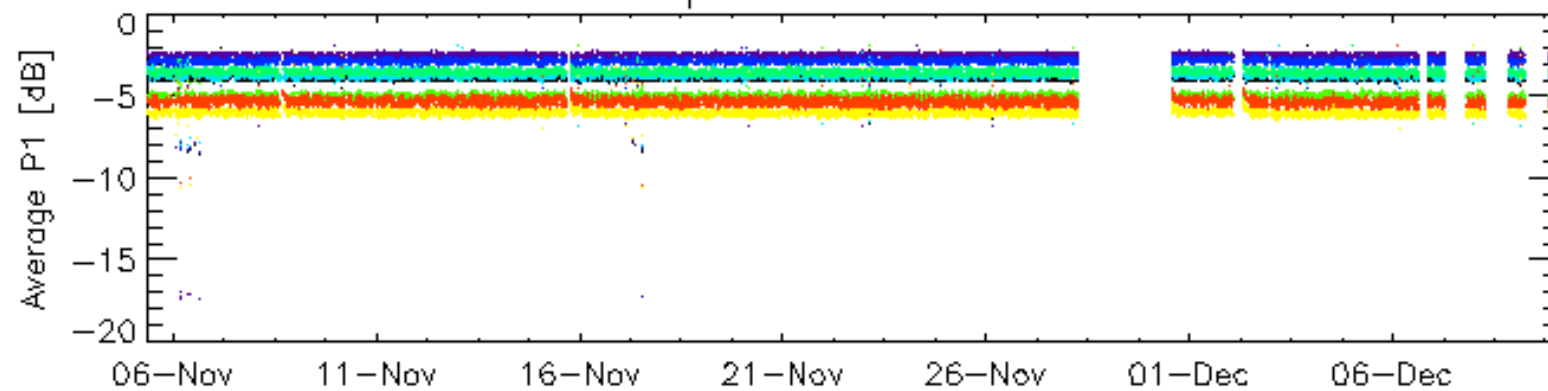


Cal pulses for WVS IS2



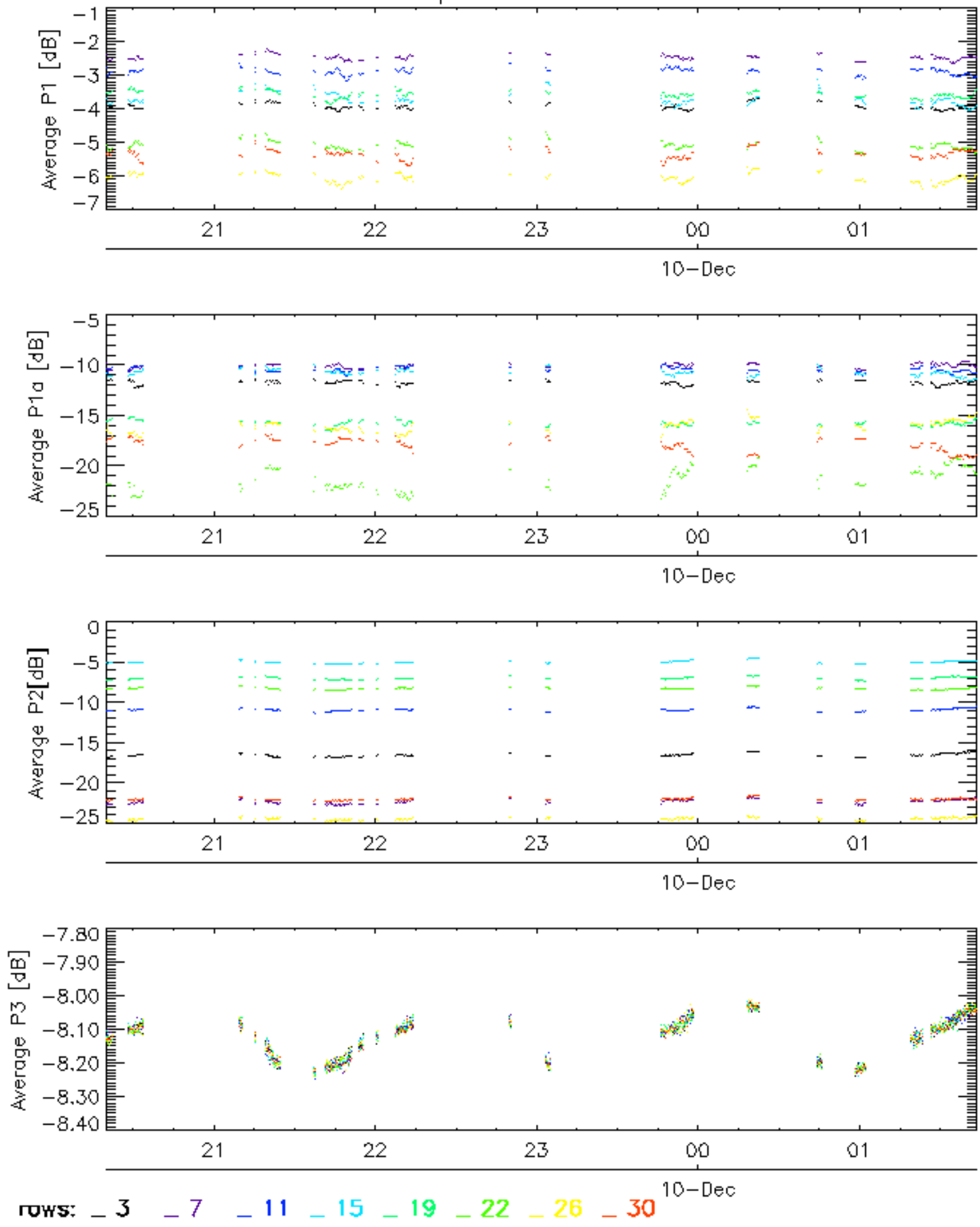
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

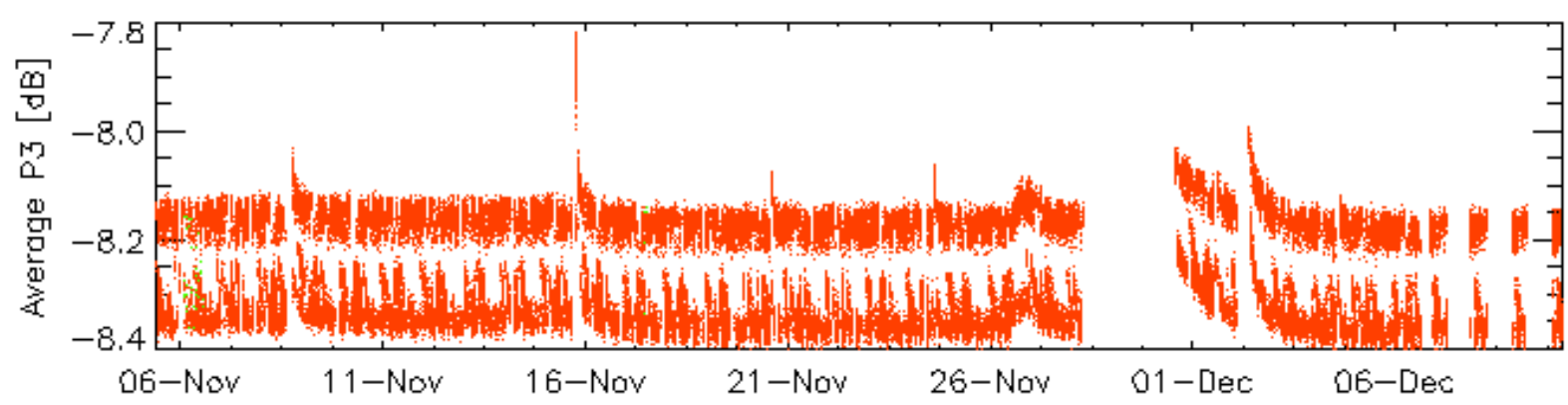
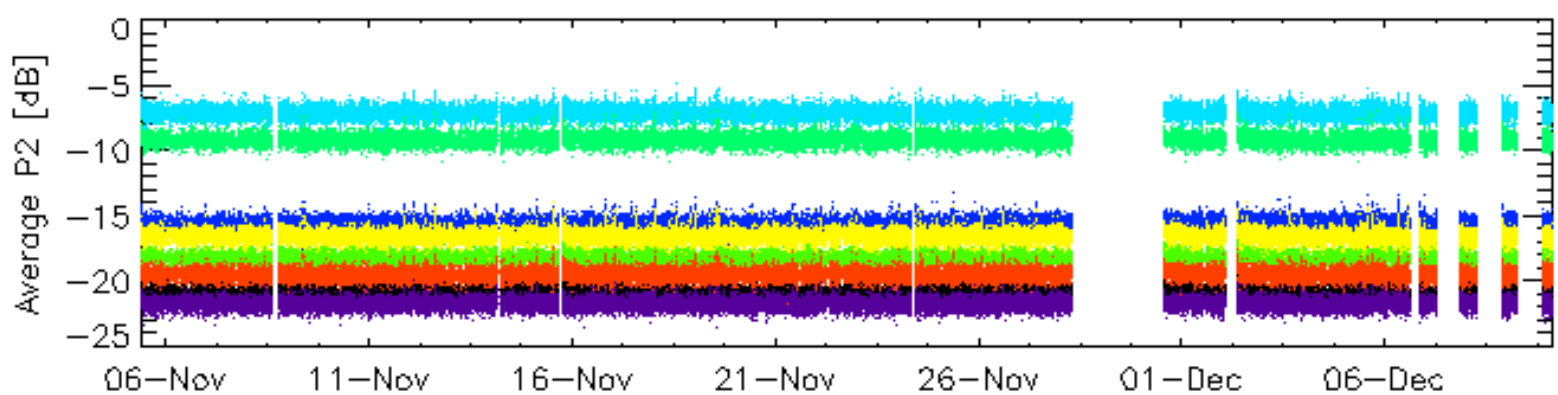
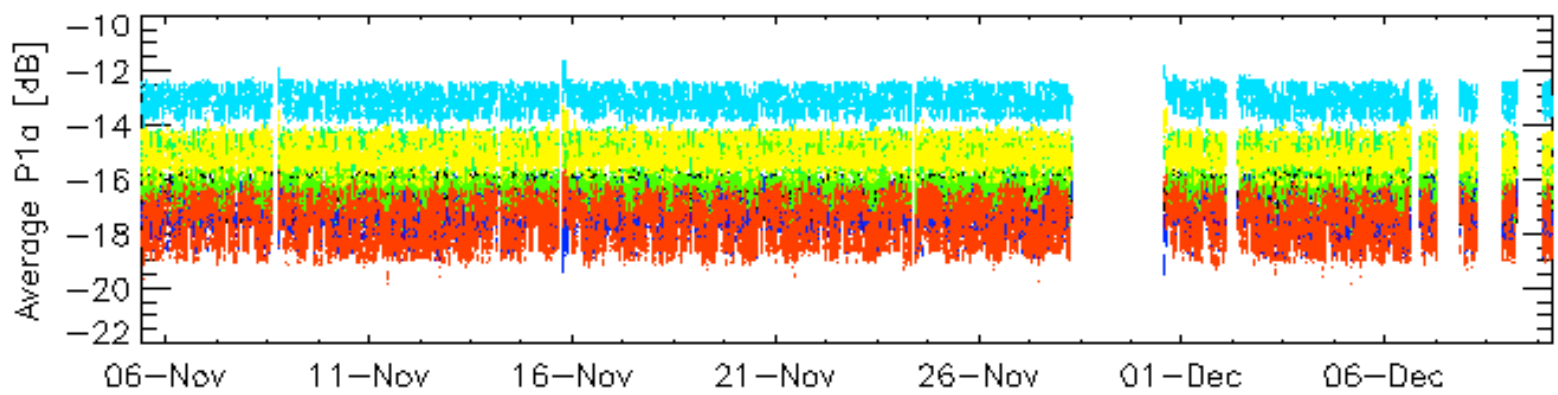
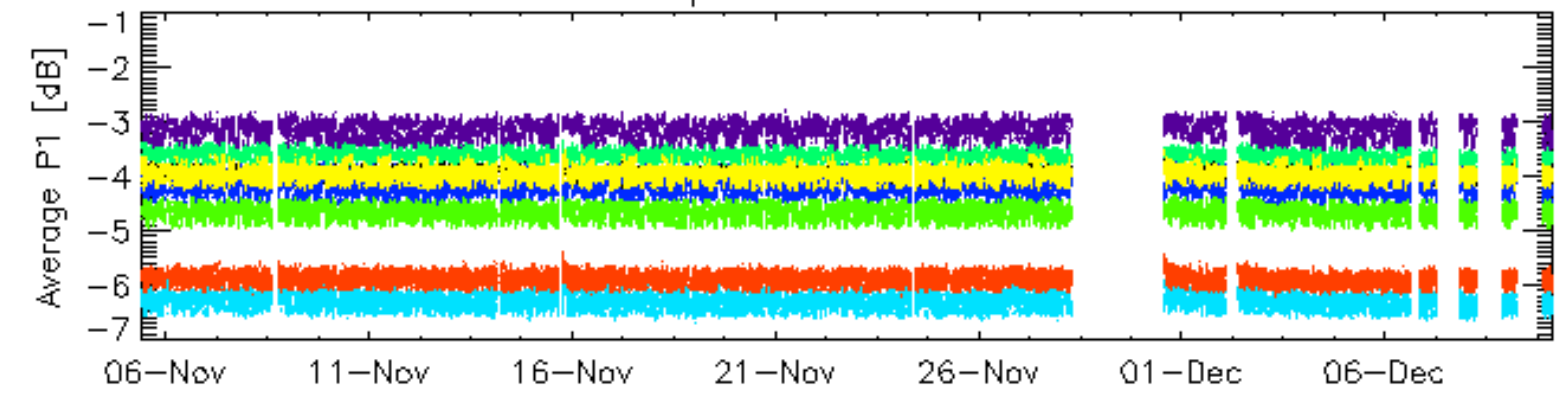


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

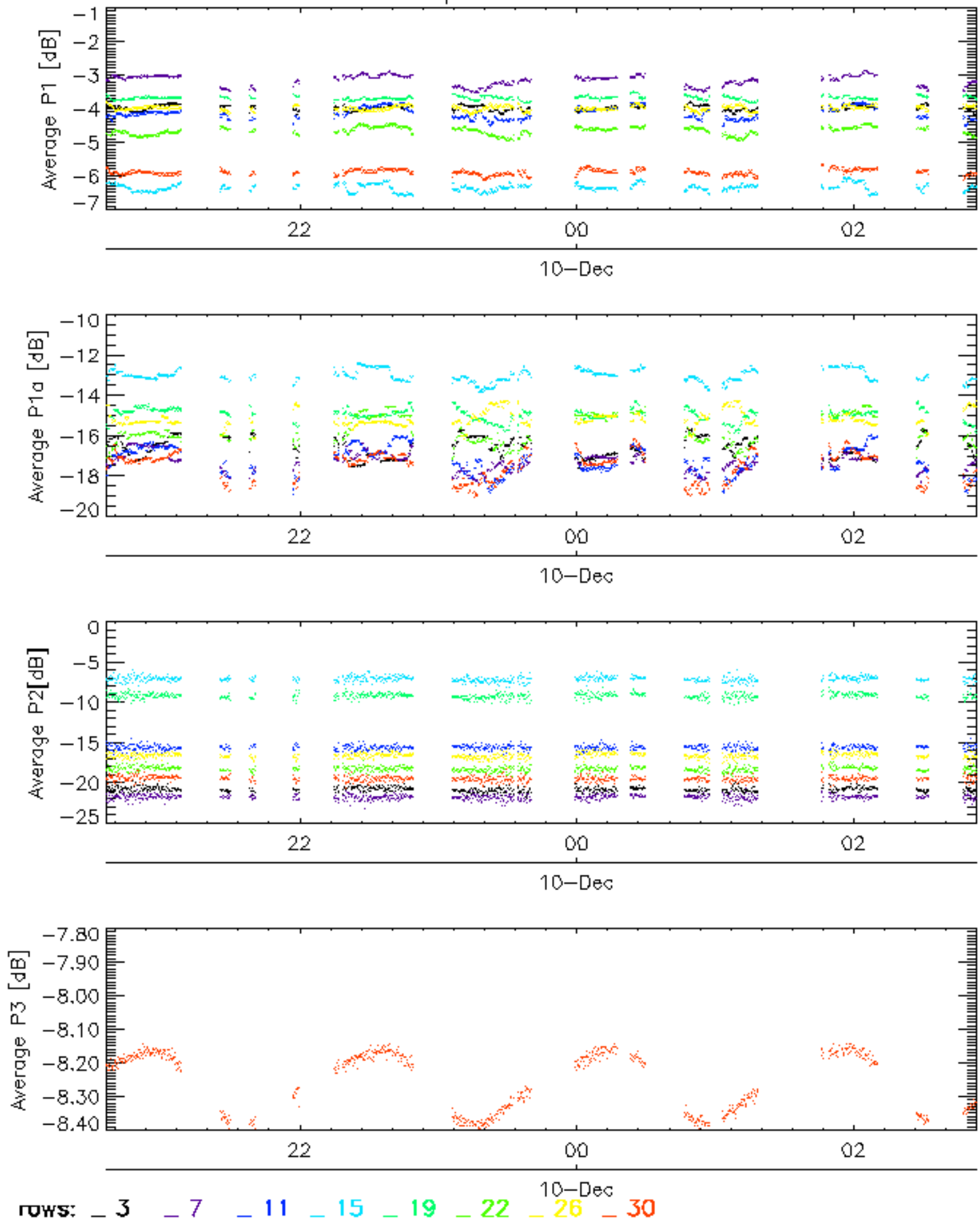


Cal pulses for WVS IS2

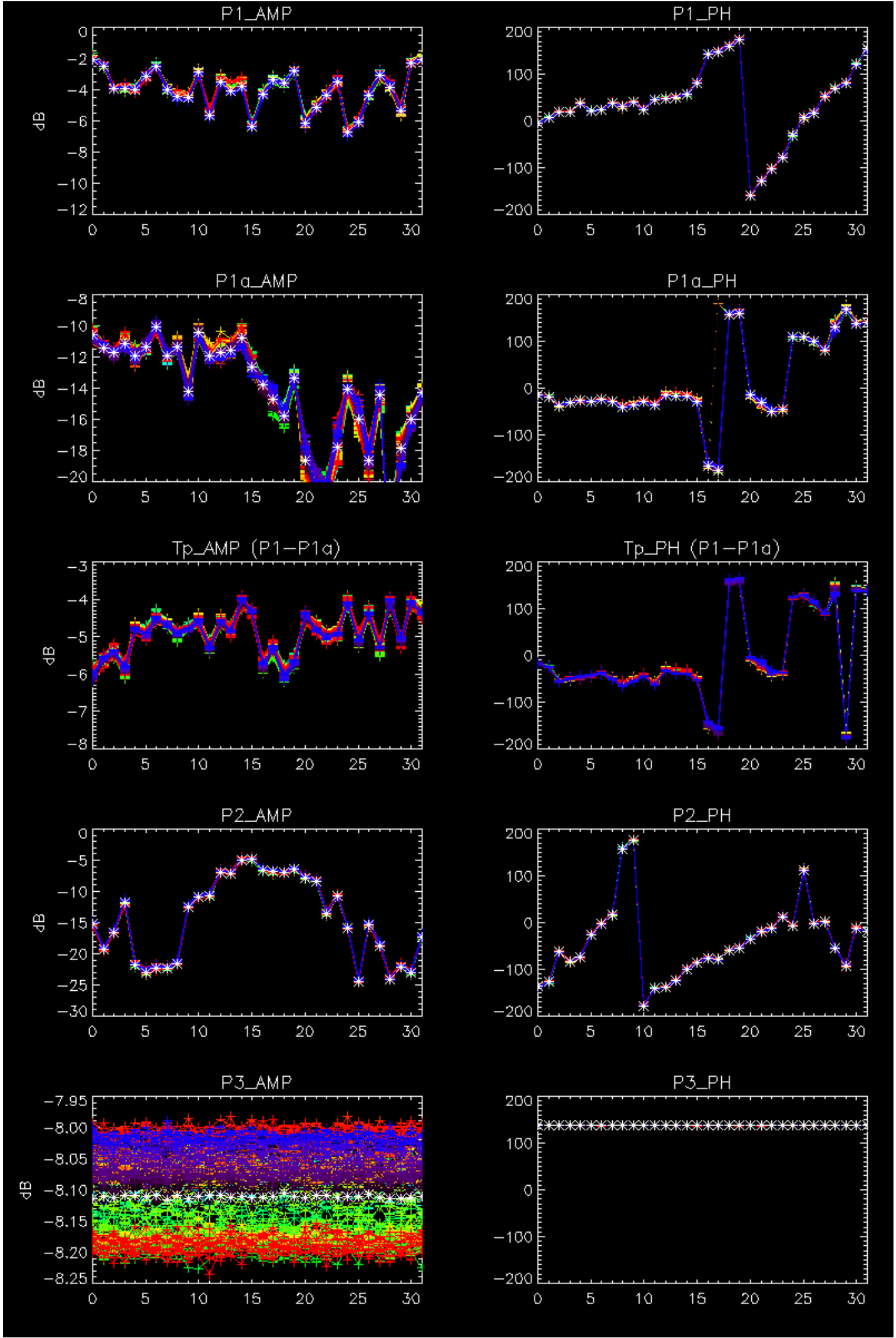


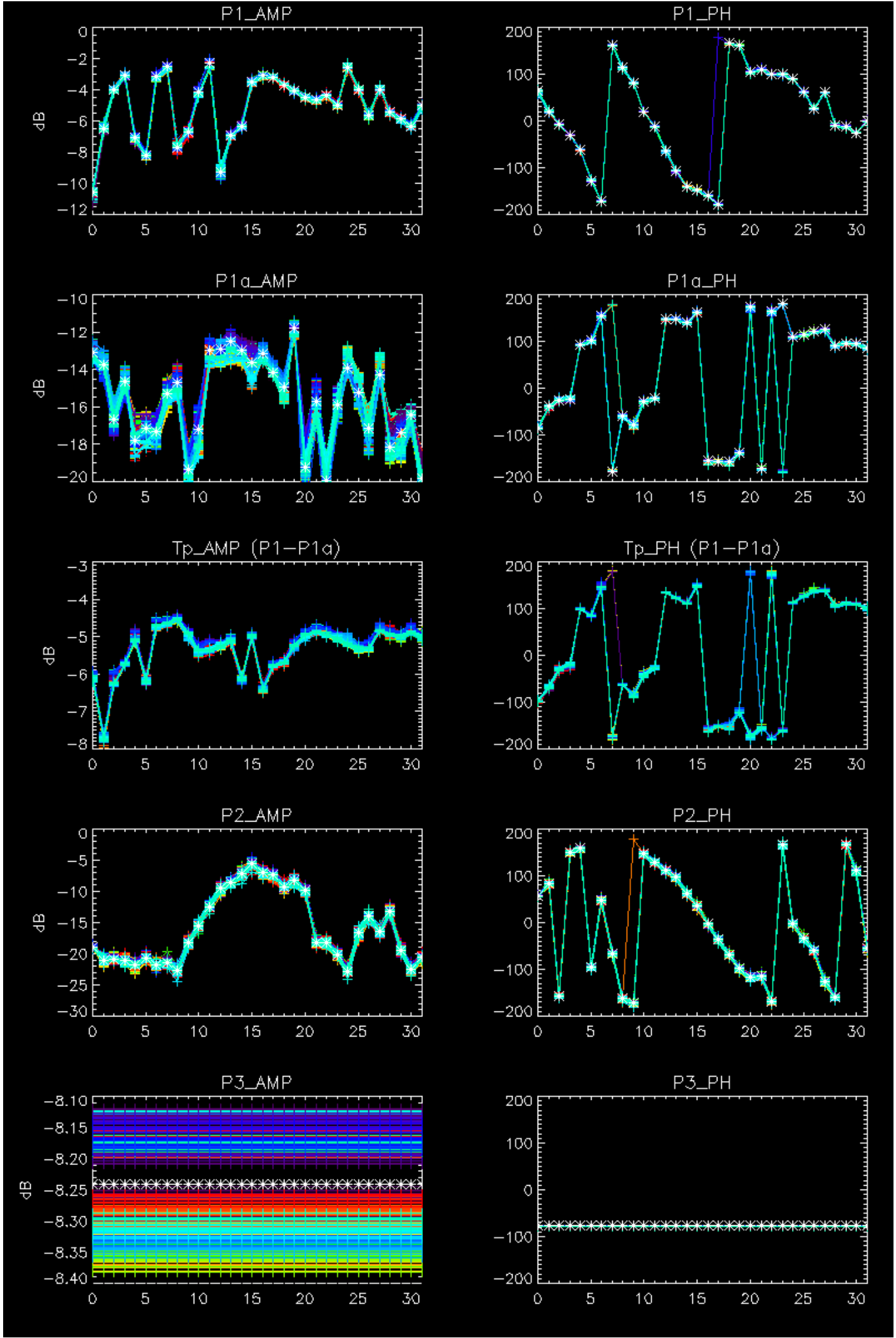
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



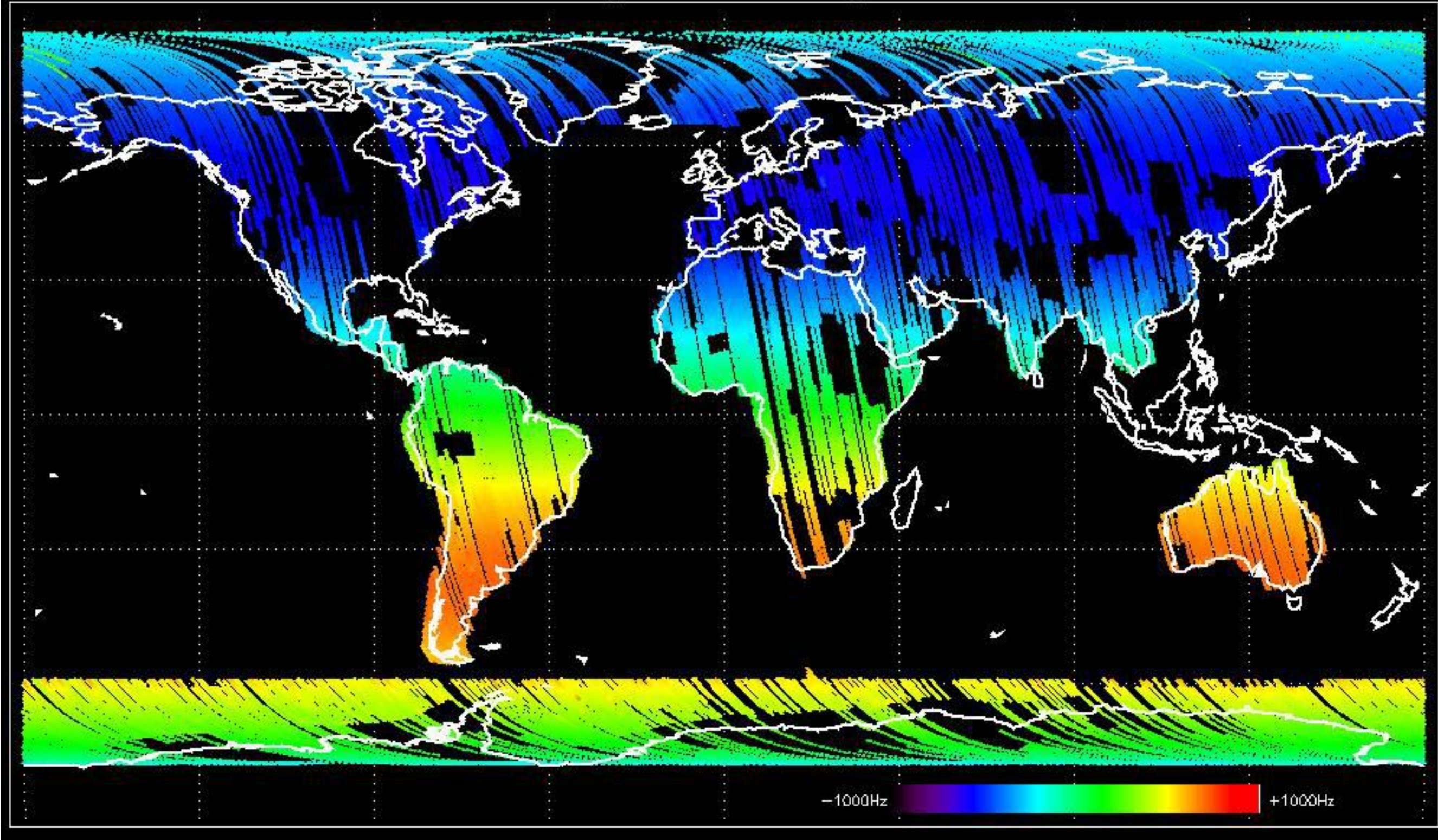
No anomalies observed.



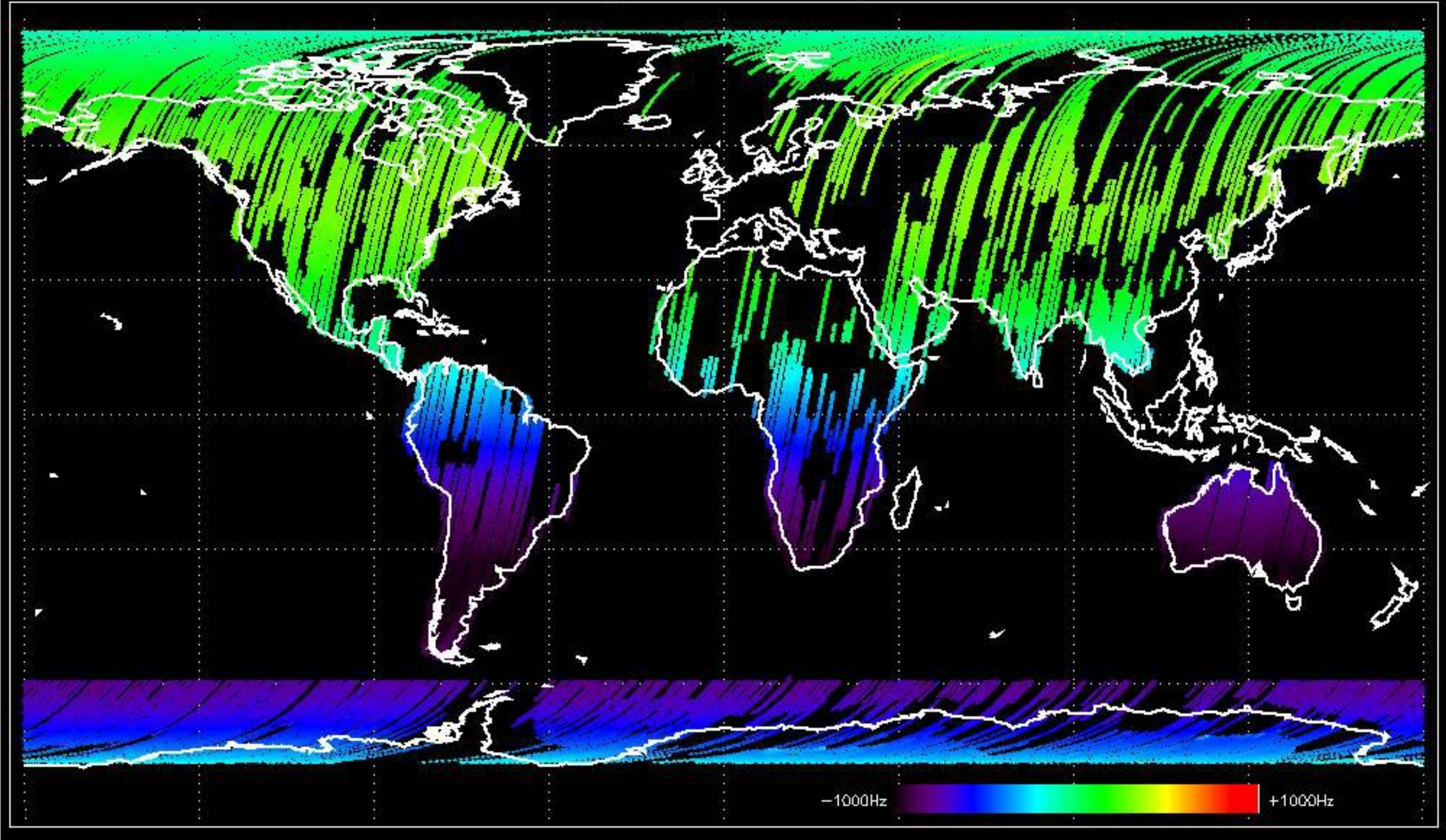


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

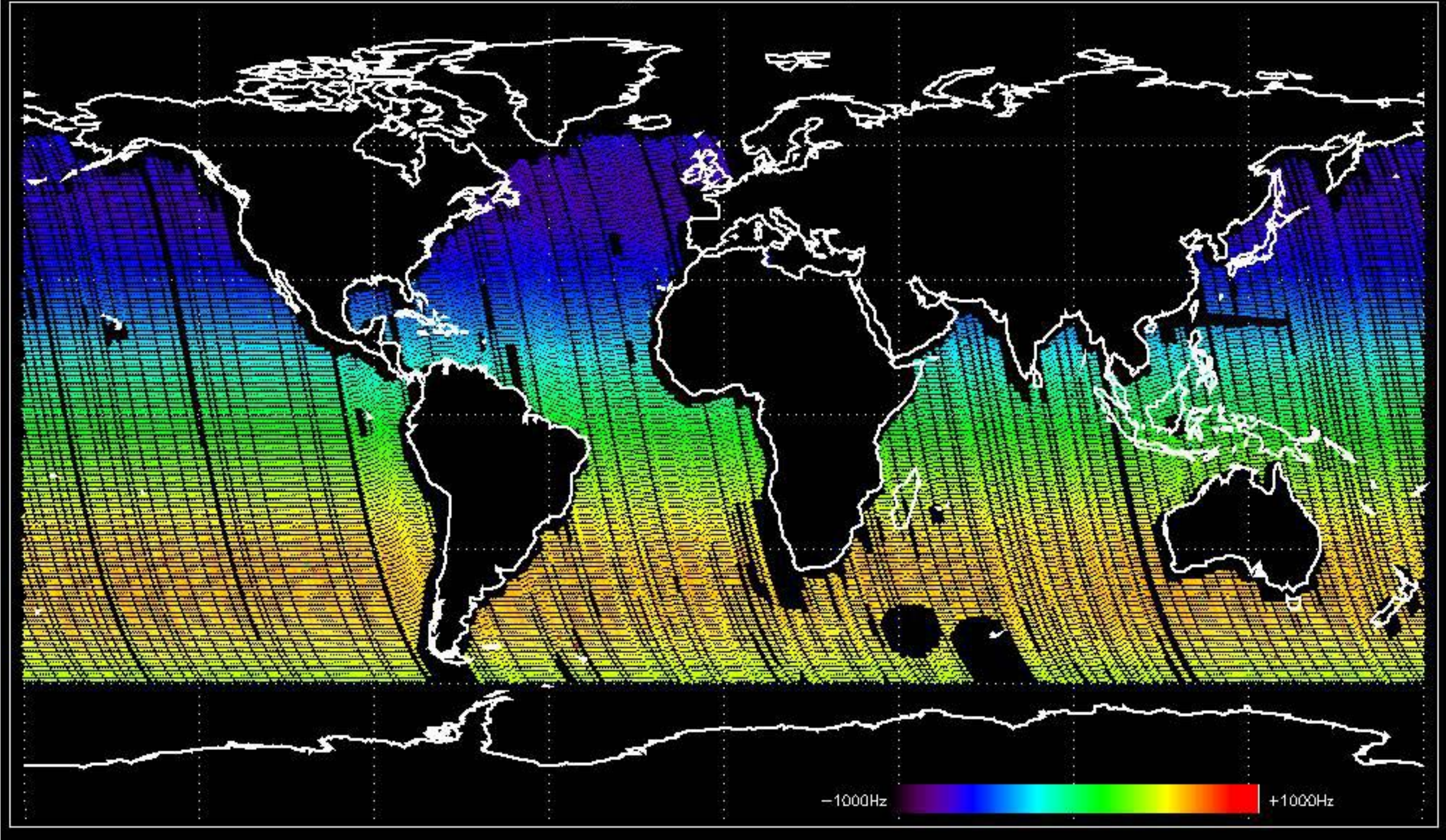
Doppler 'GM1' 'SS1' ascending



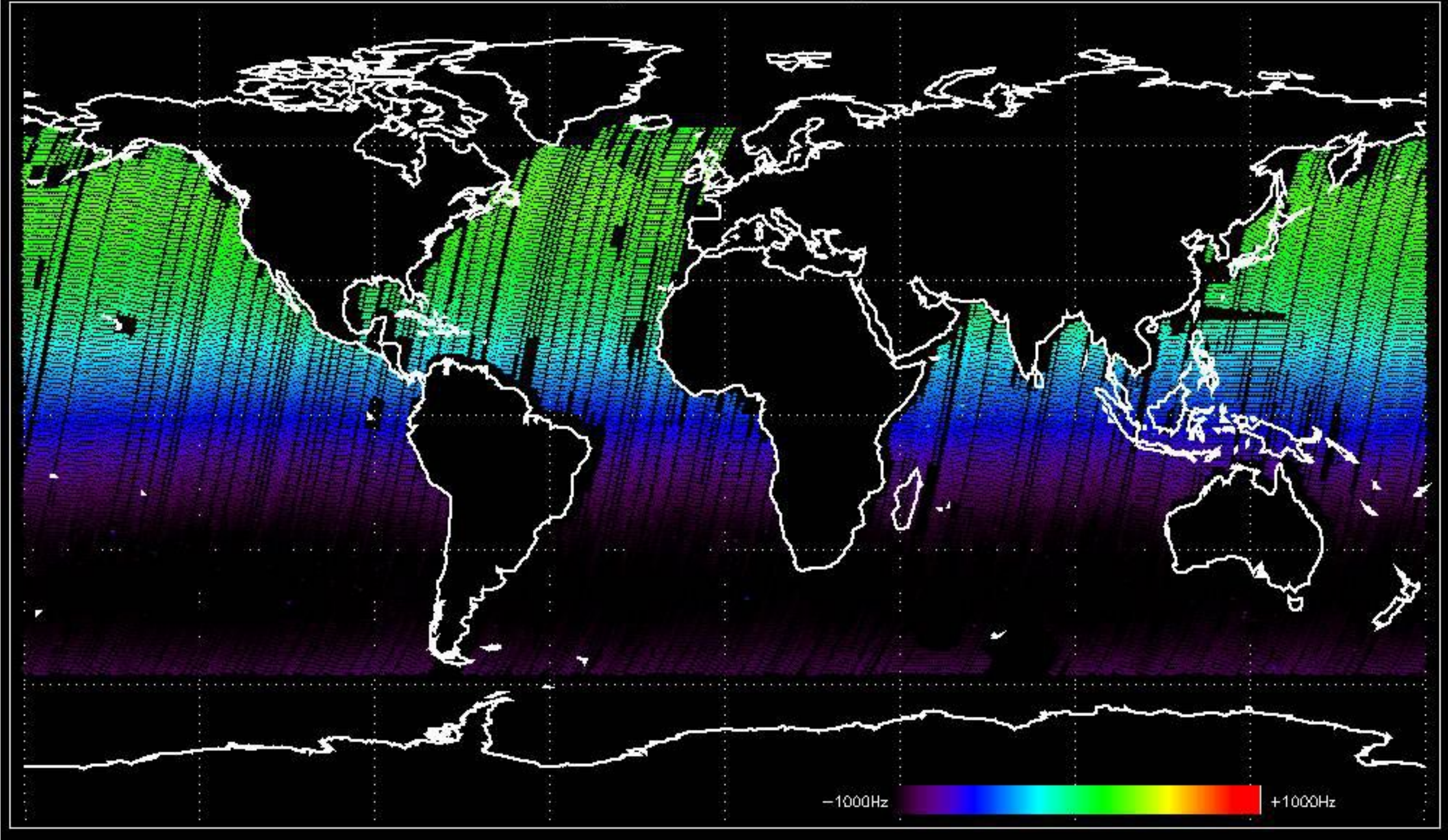
Doppler 'GM1' 'SS1' descending

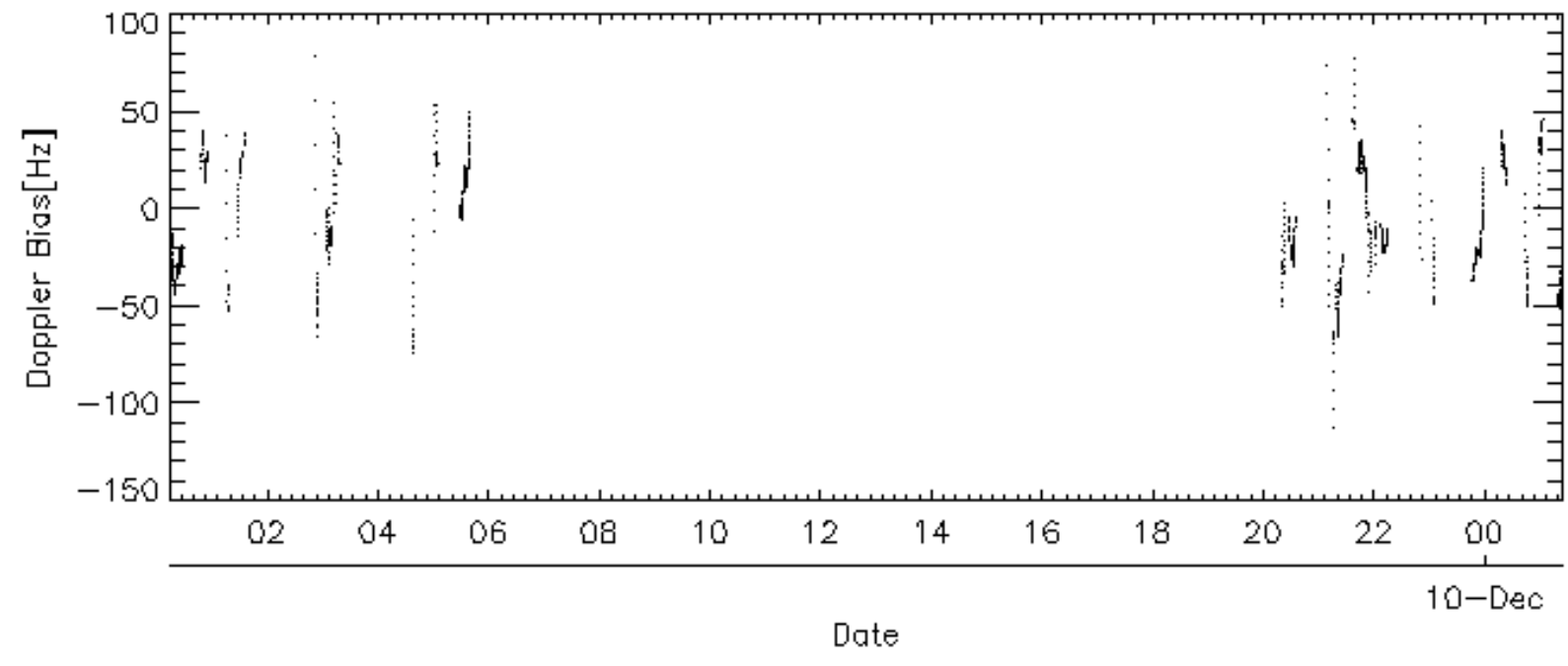
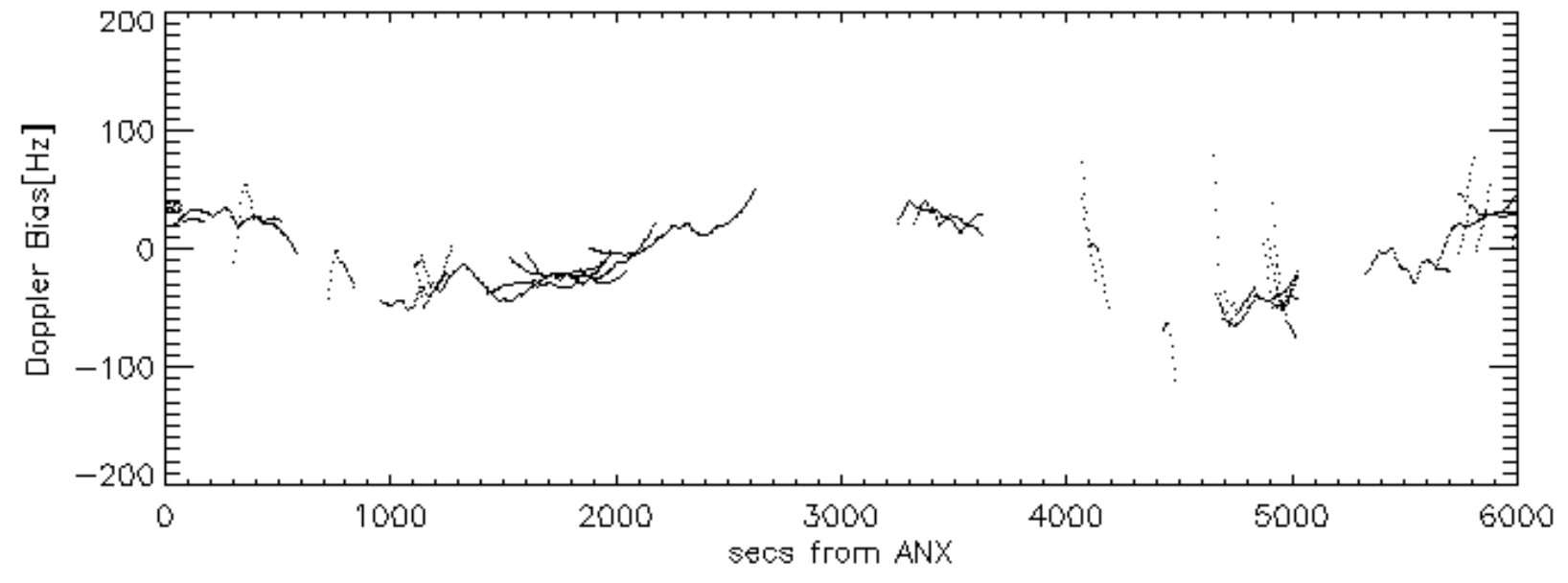
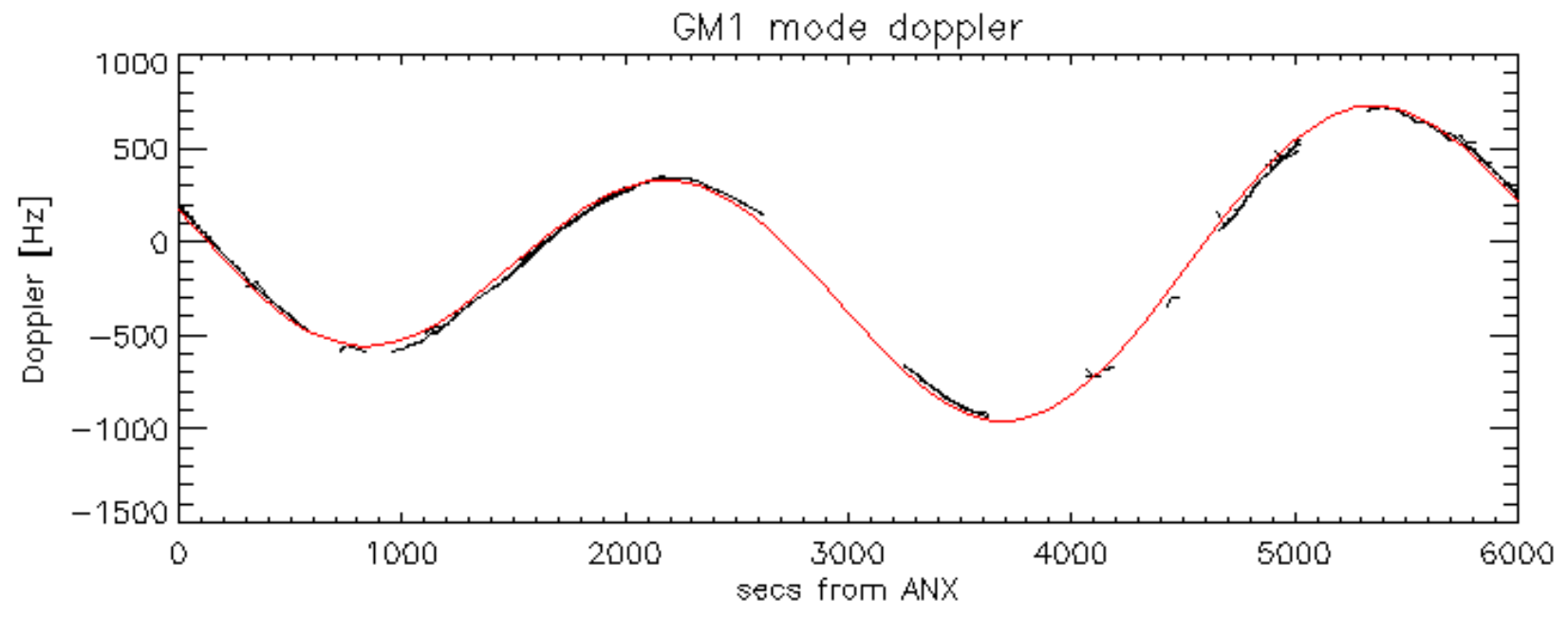


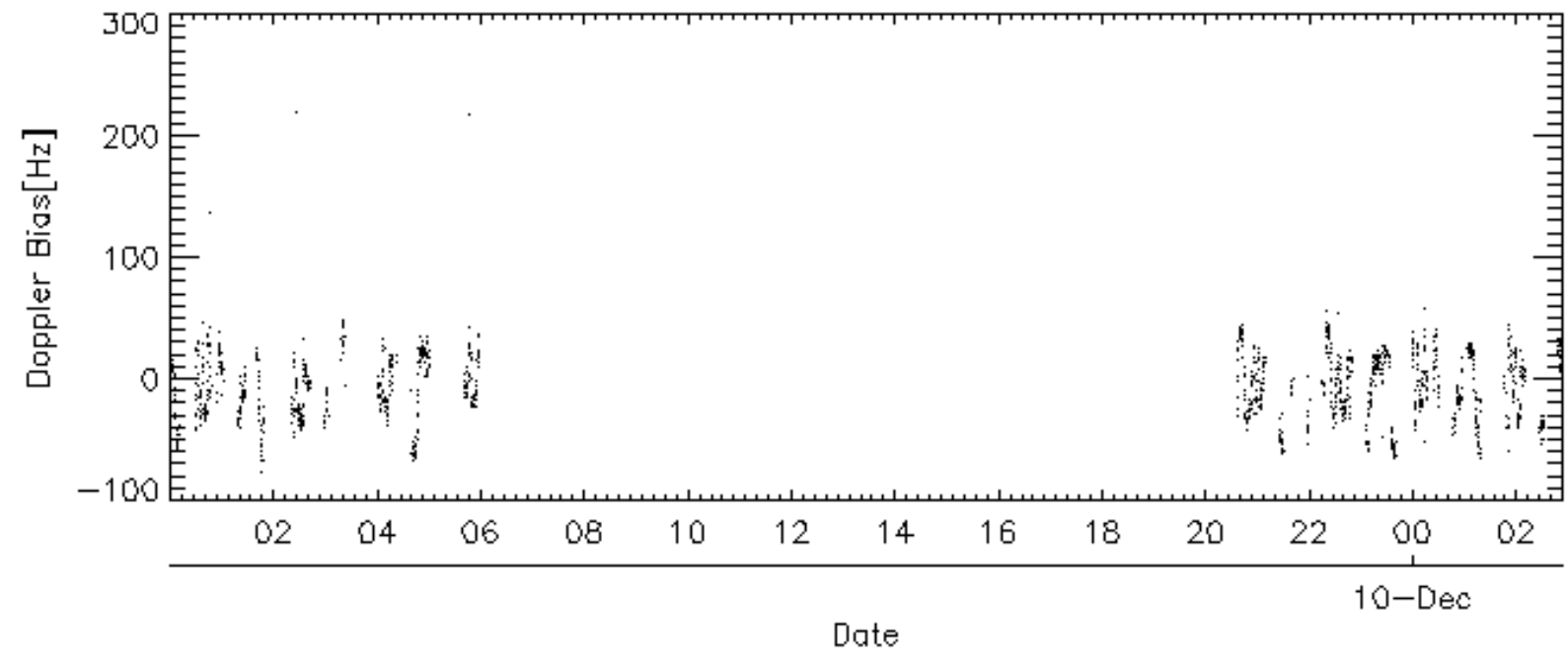
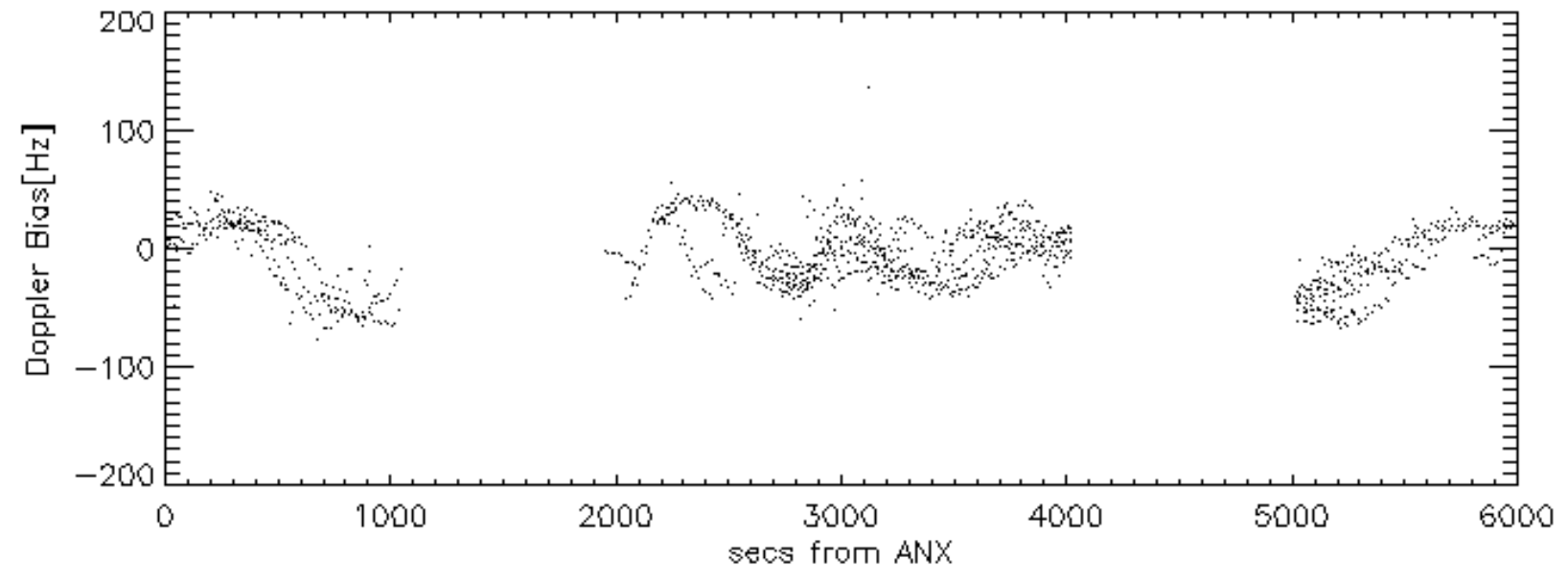
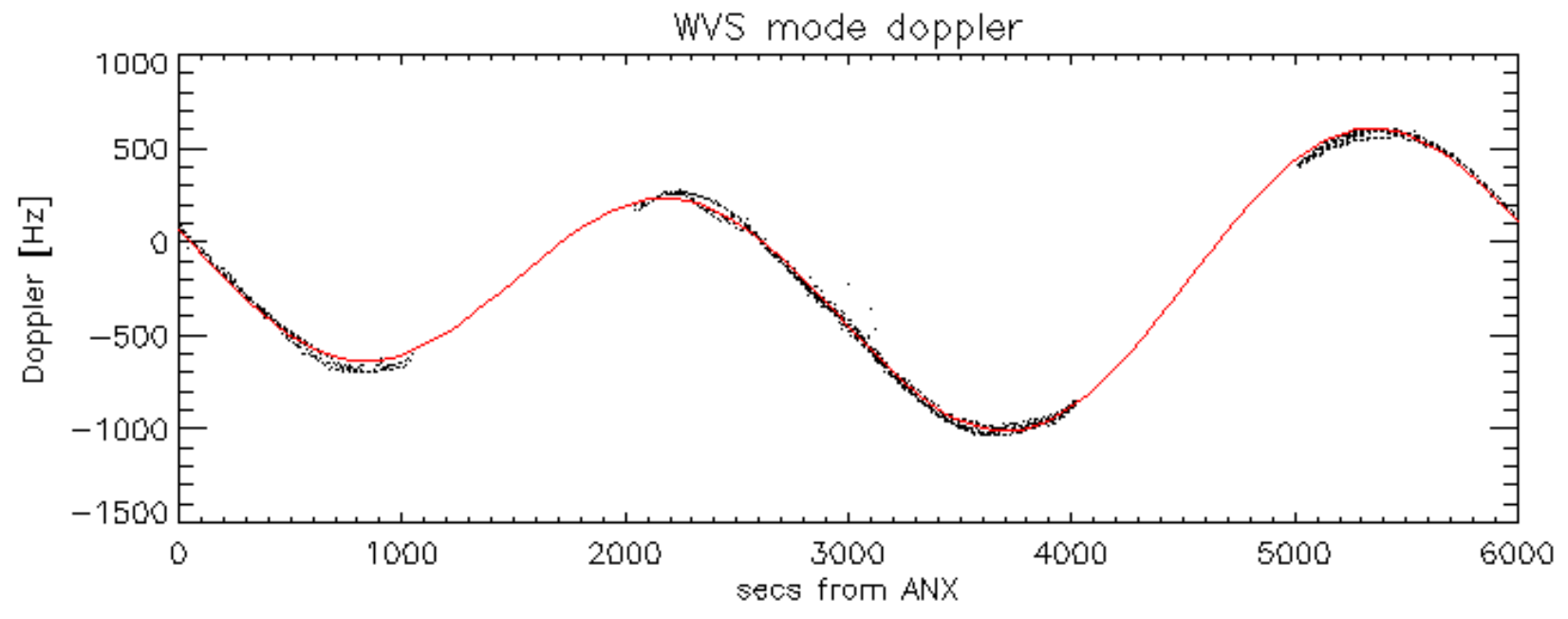
Doppler 'WVS' 'IS2' ascending



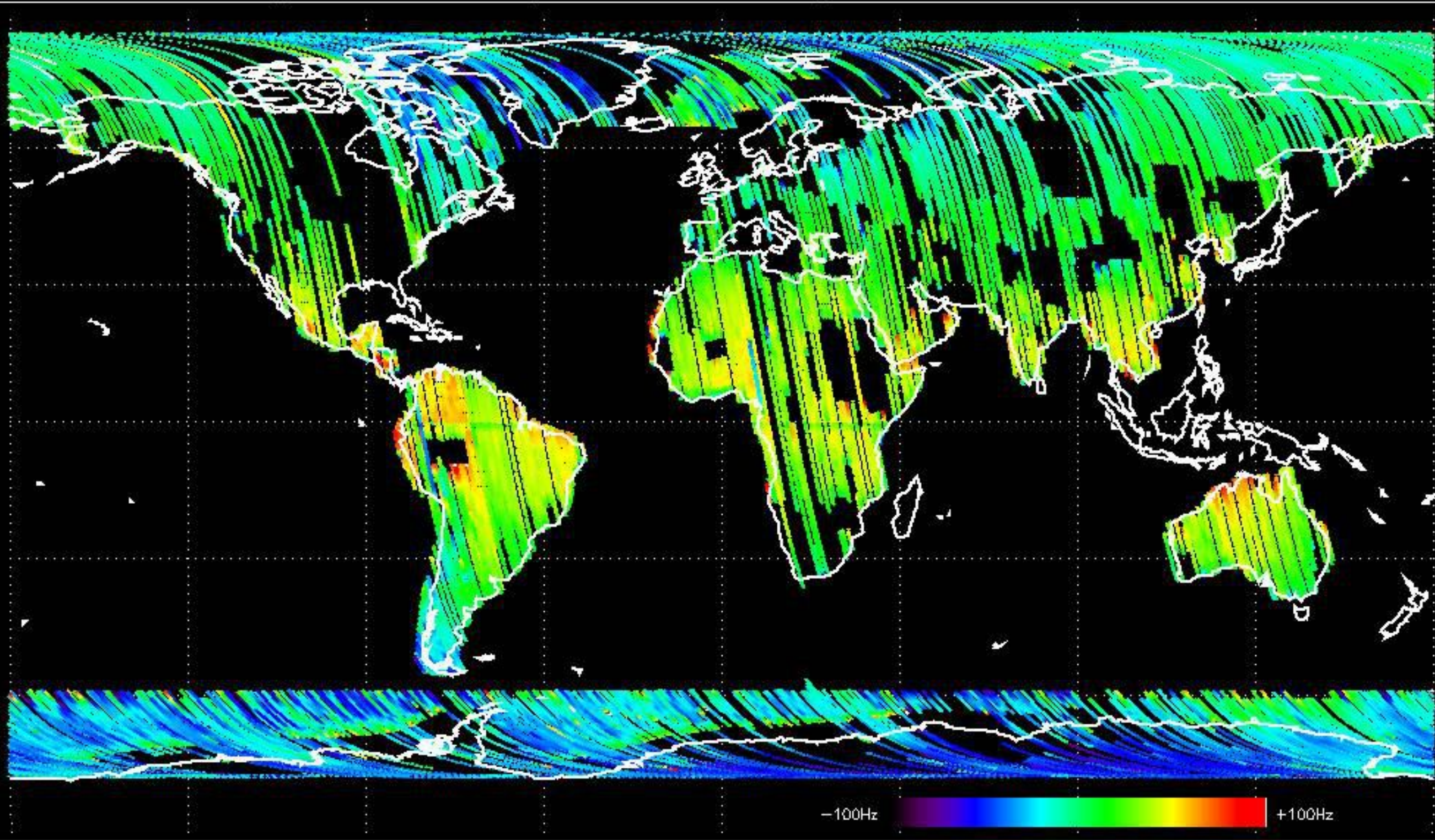
Doppler 'WVS' 'IS2' descending



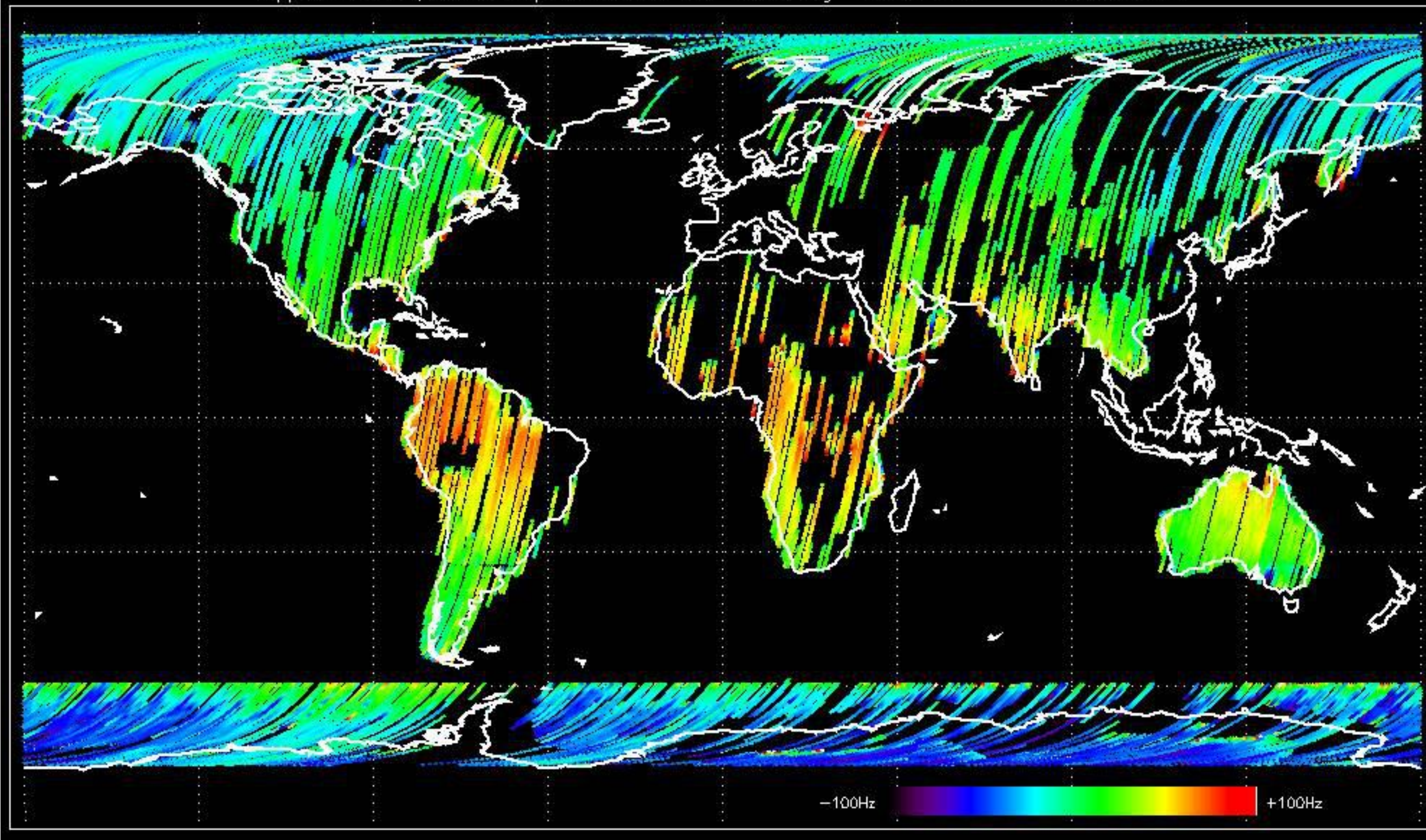




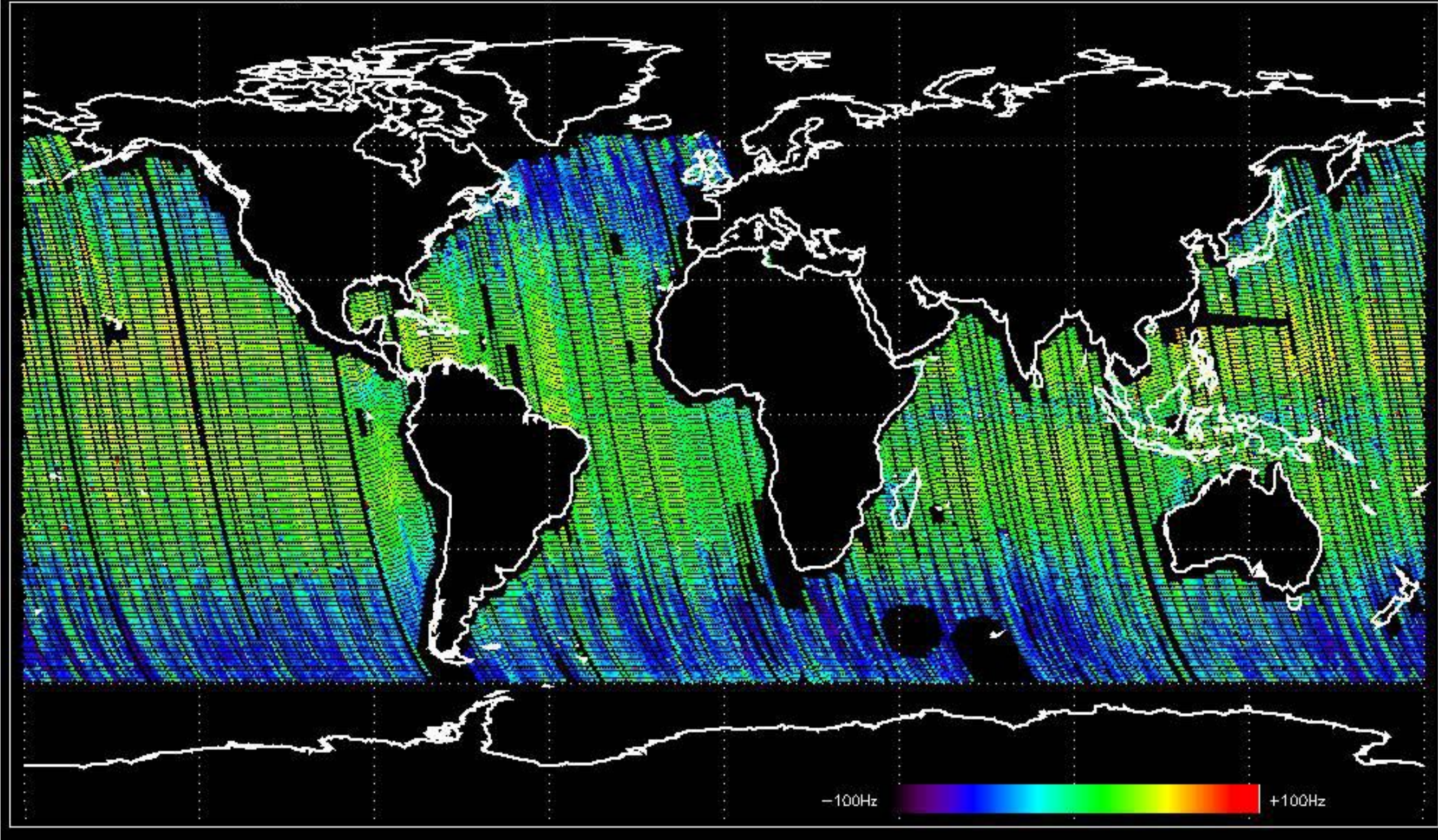
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.055707 Hz



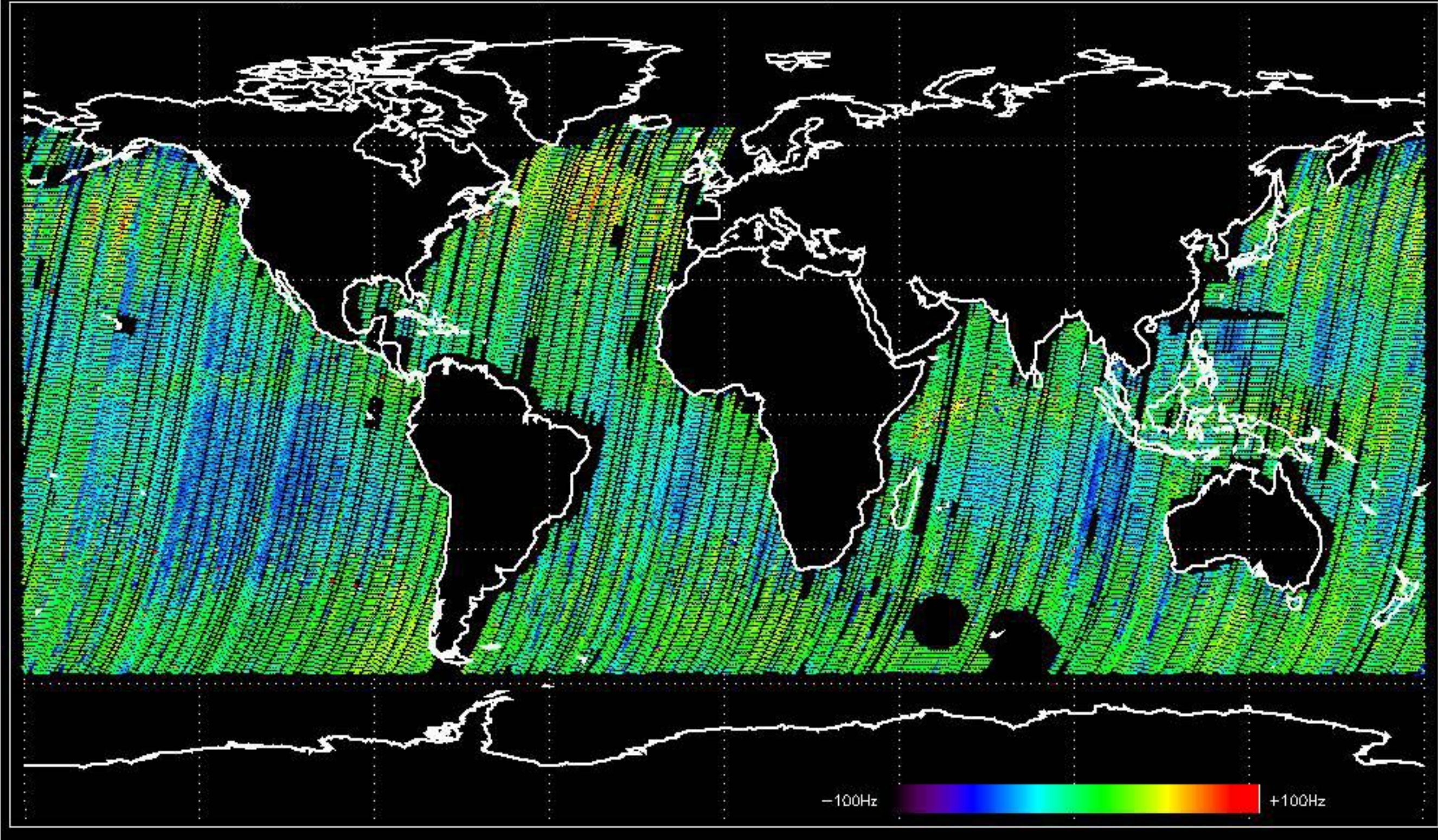
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -12.919323 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.4361788 Hz

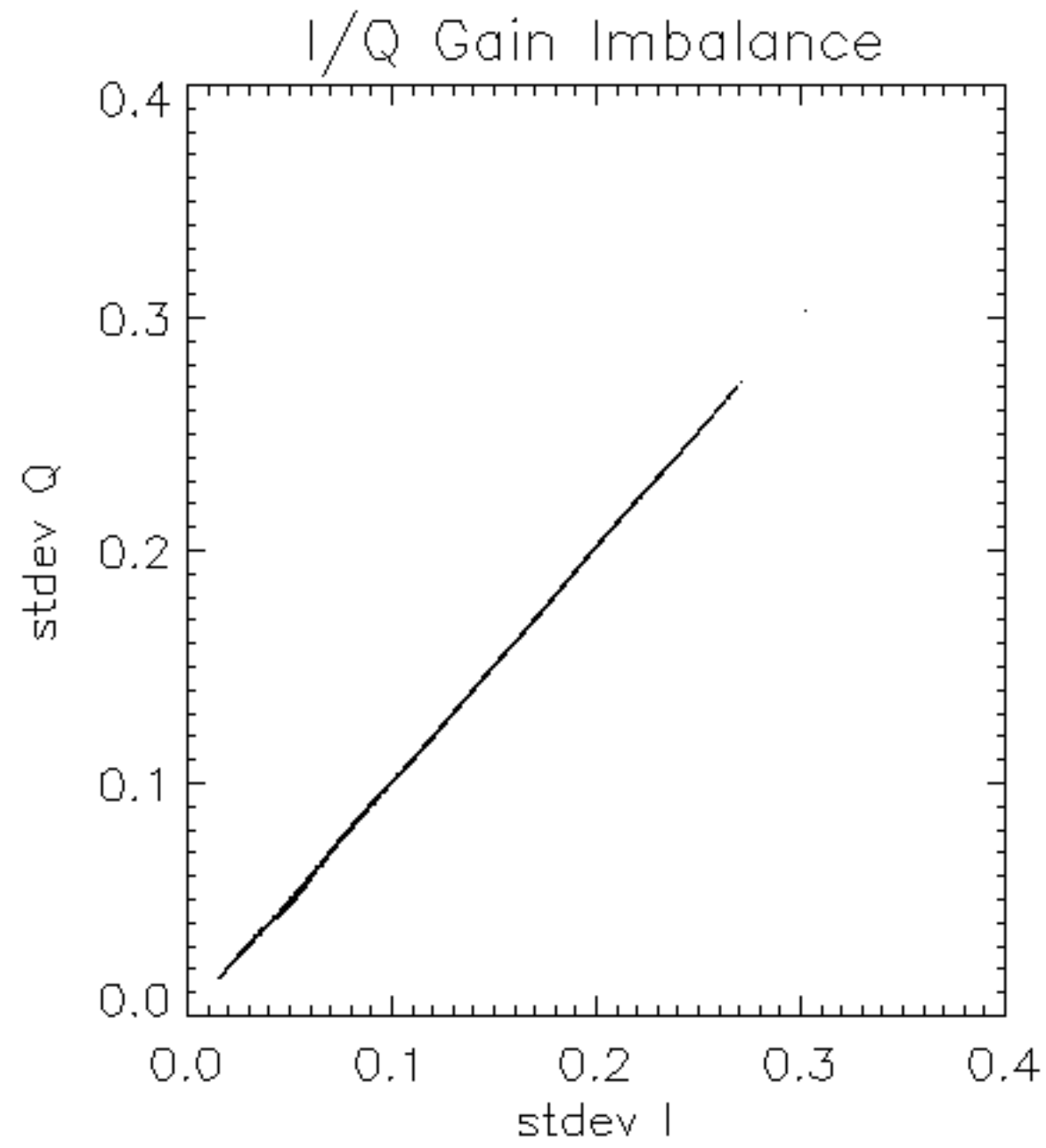


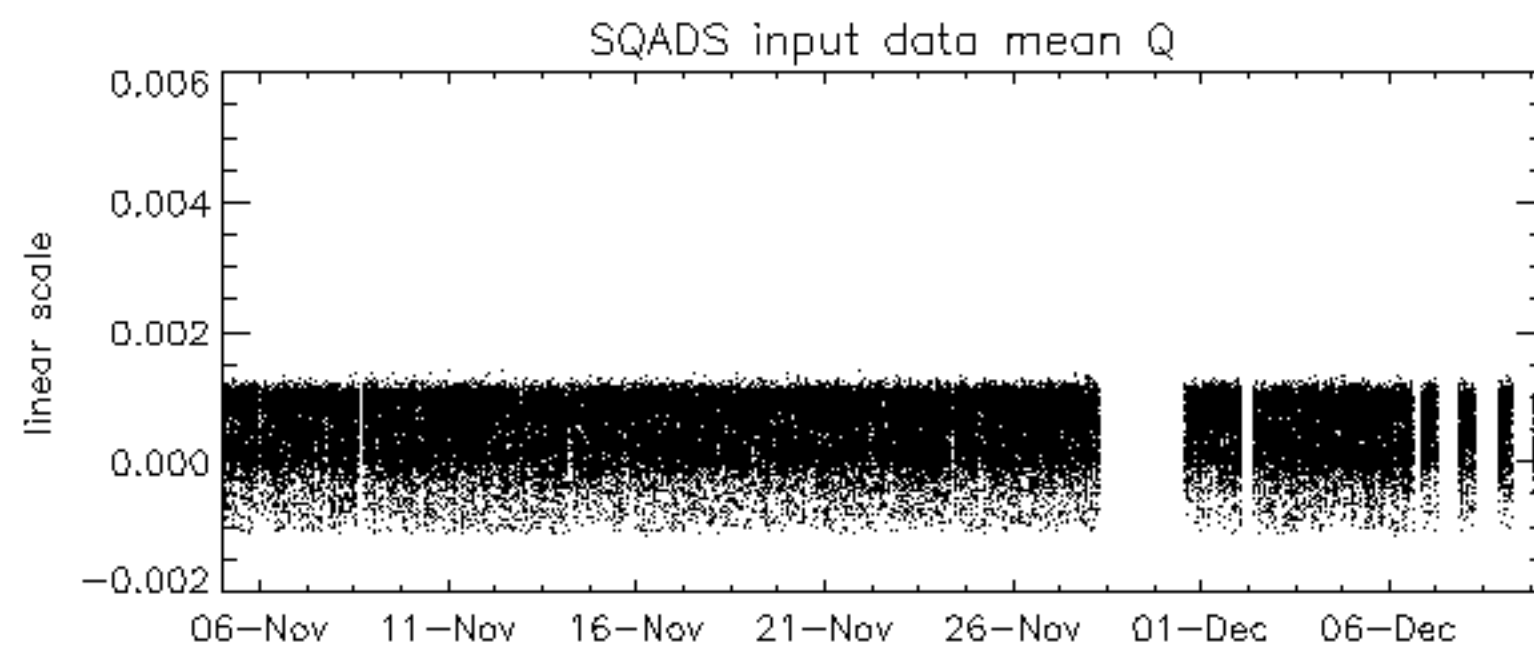
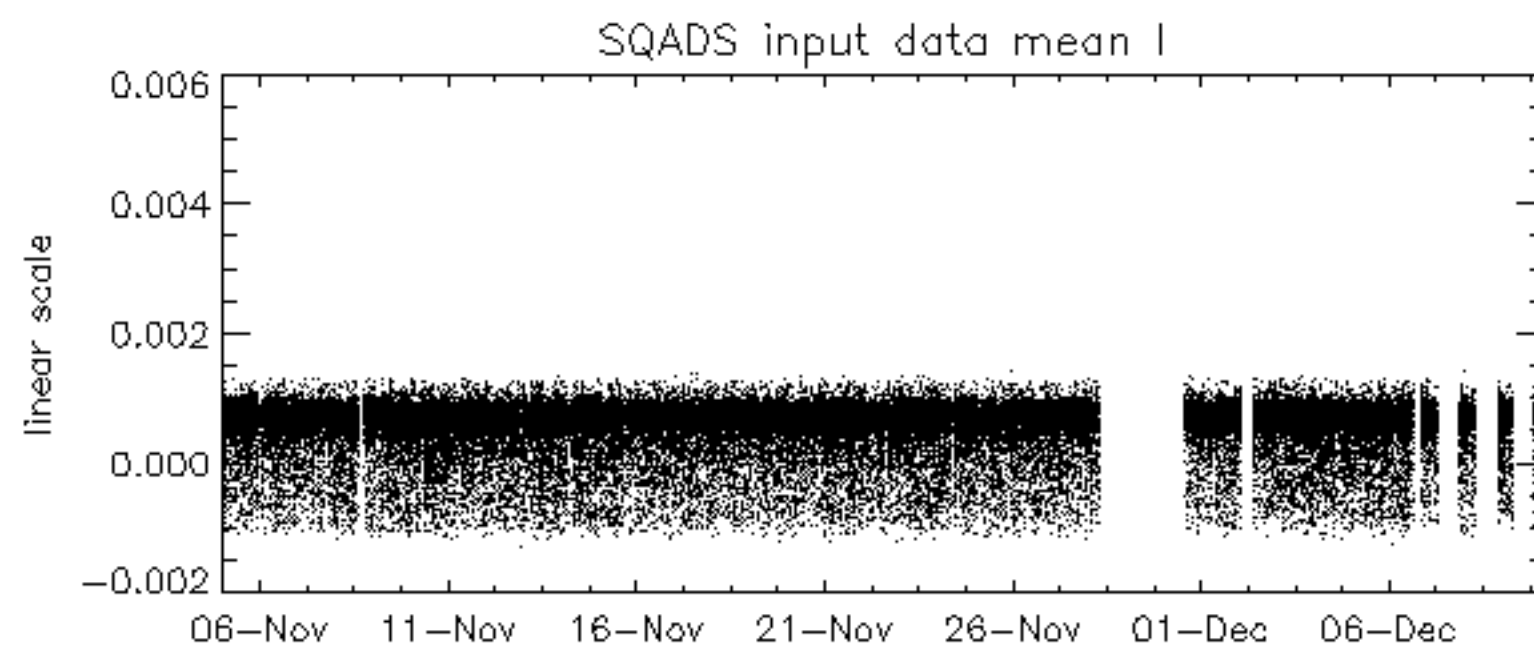
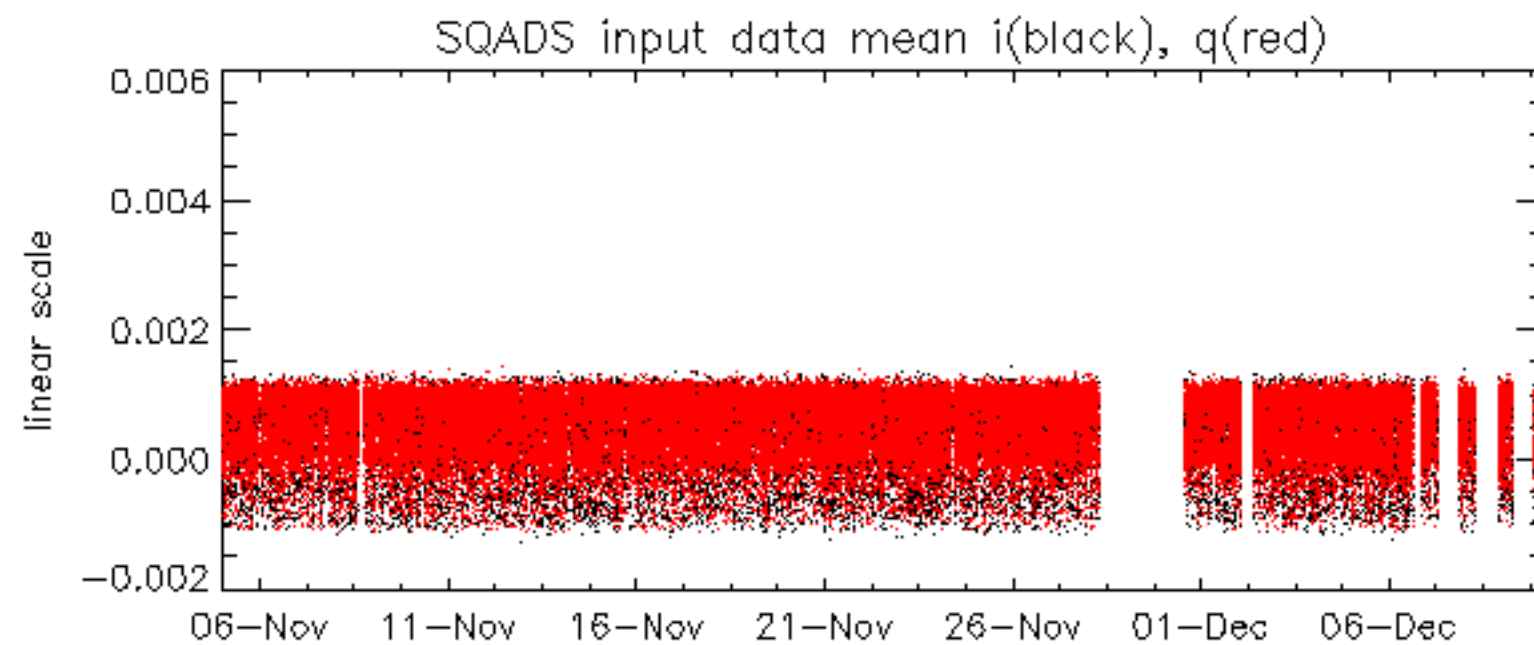
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.4672092 Hz

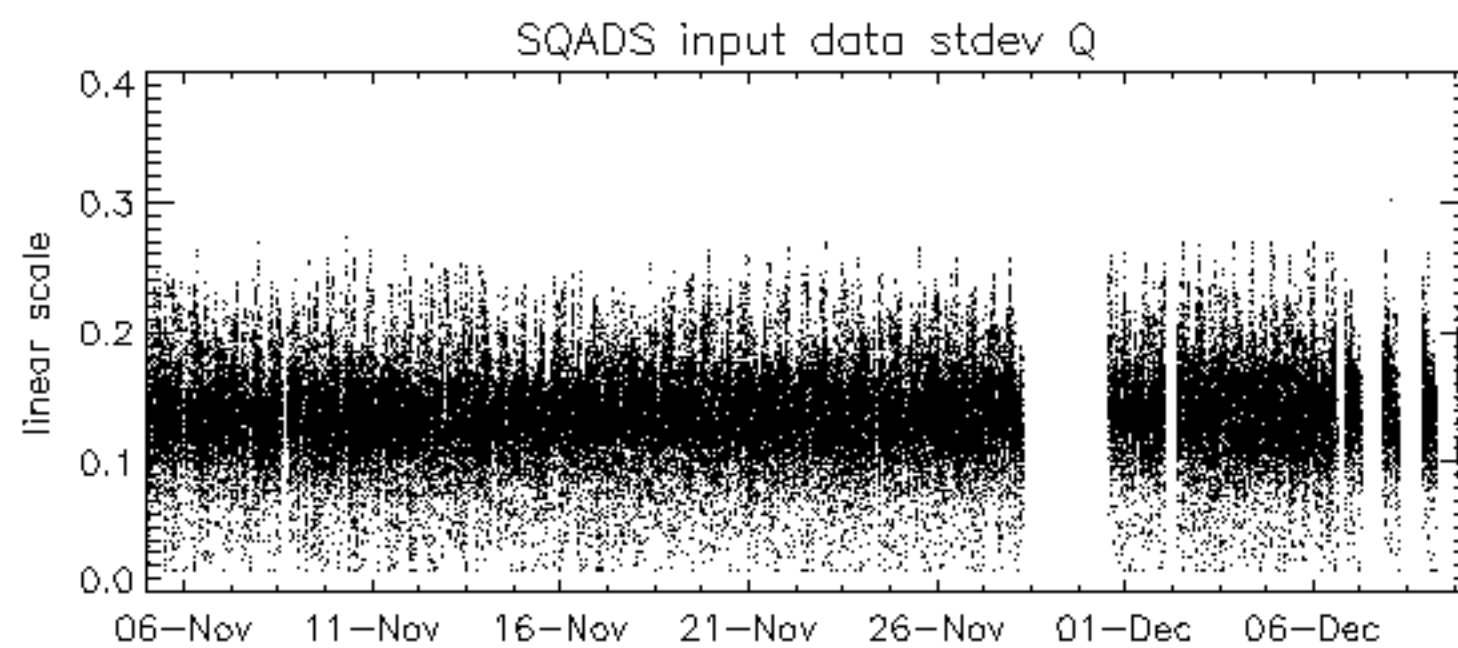
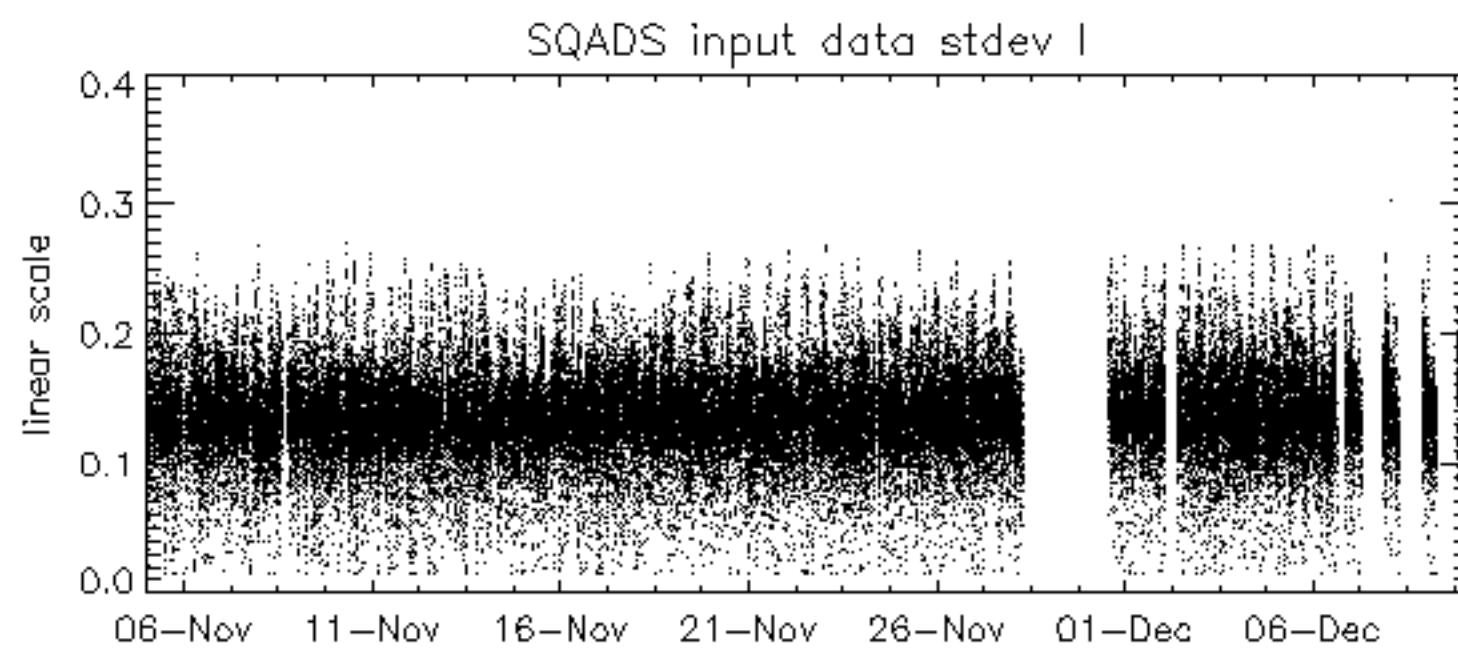
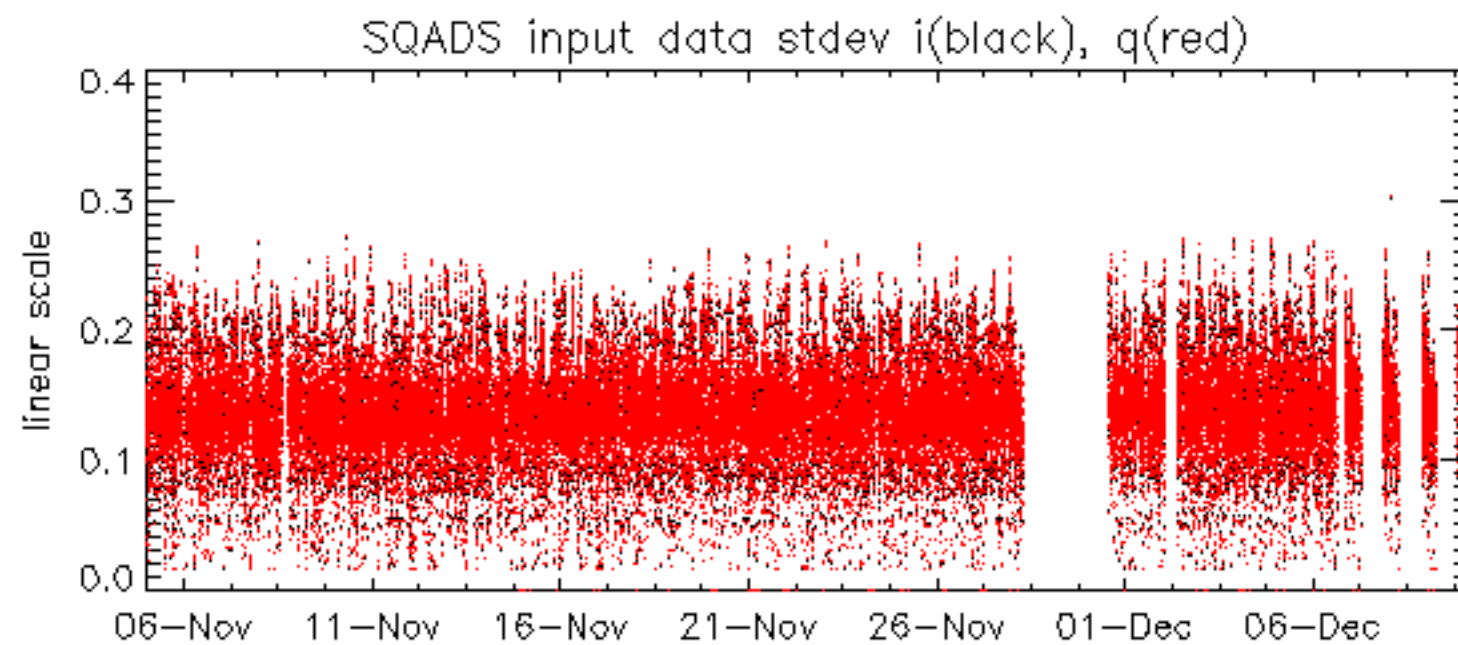


No anomalies observed on available MS products:

No anomalies observed.



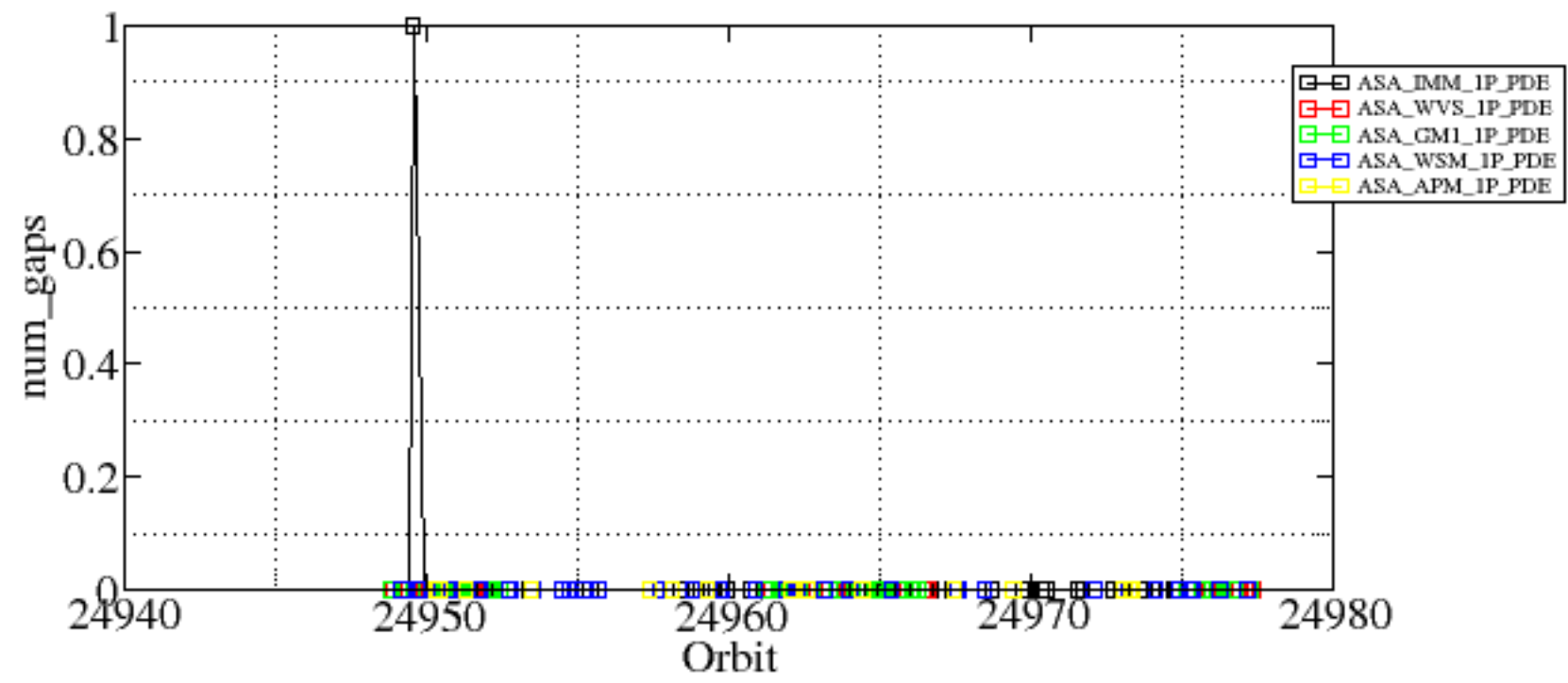


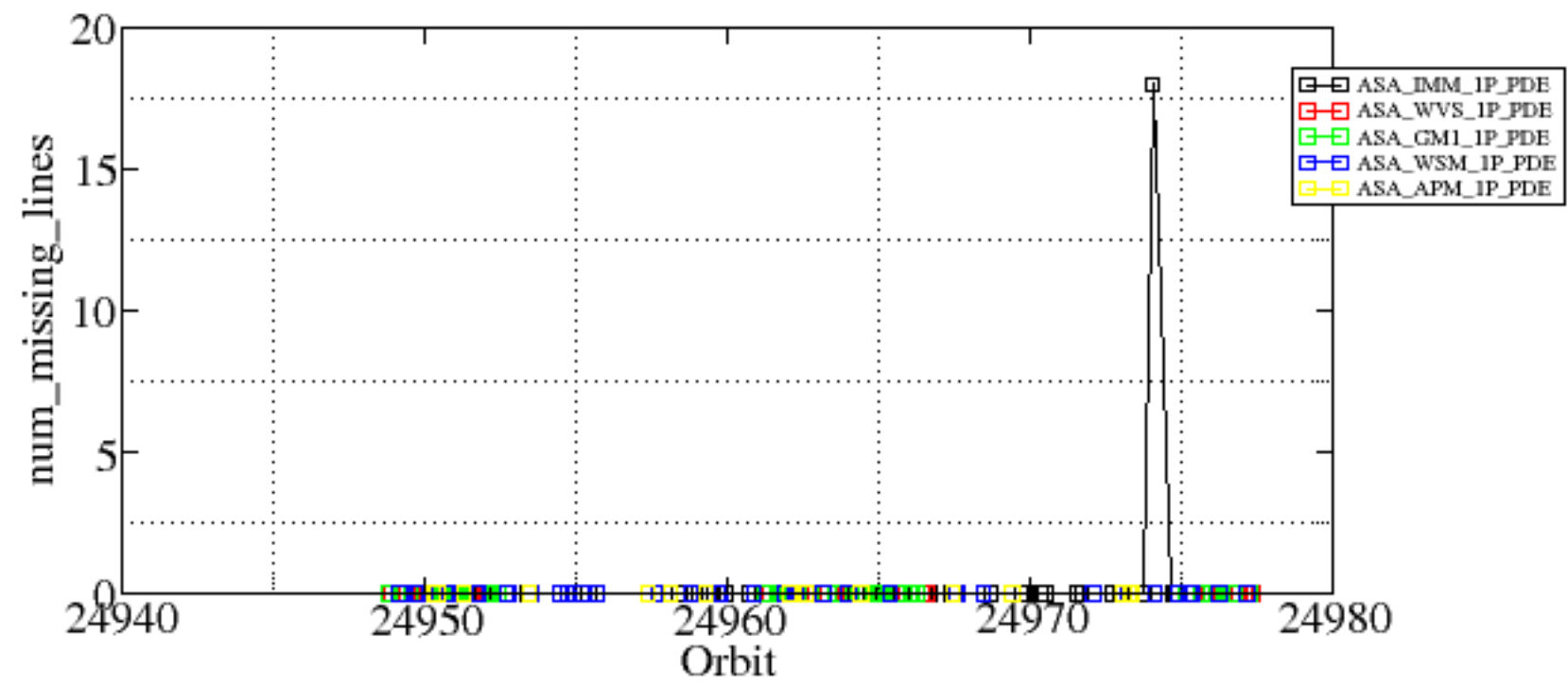


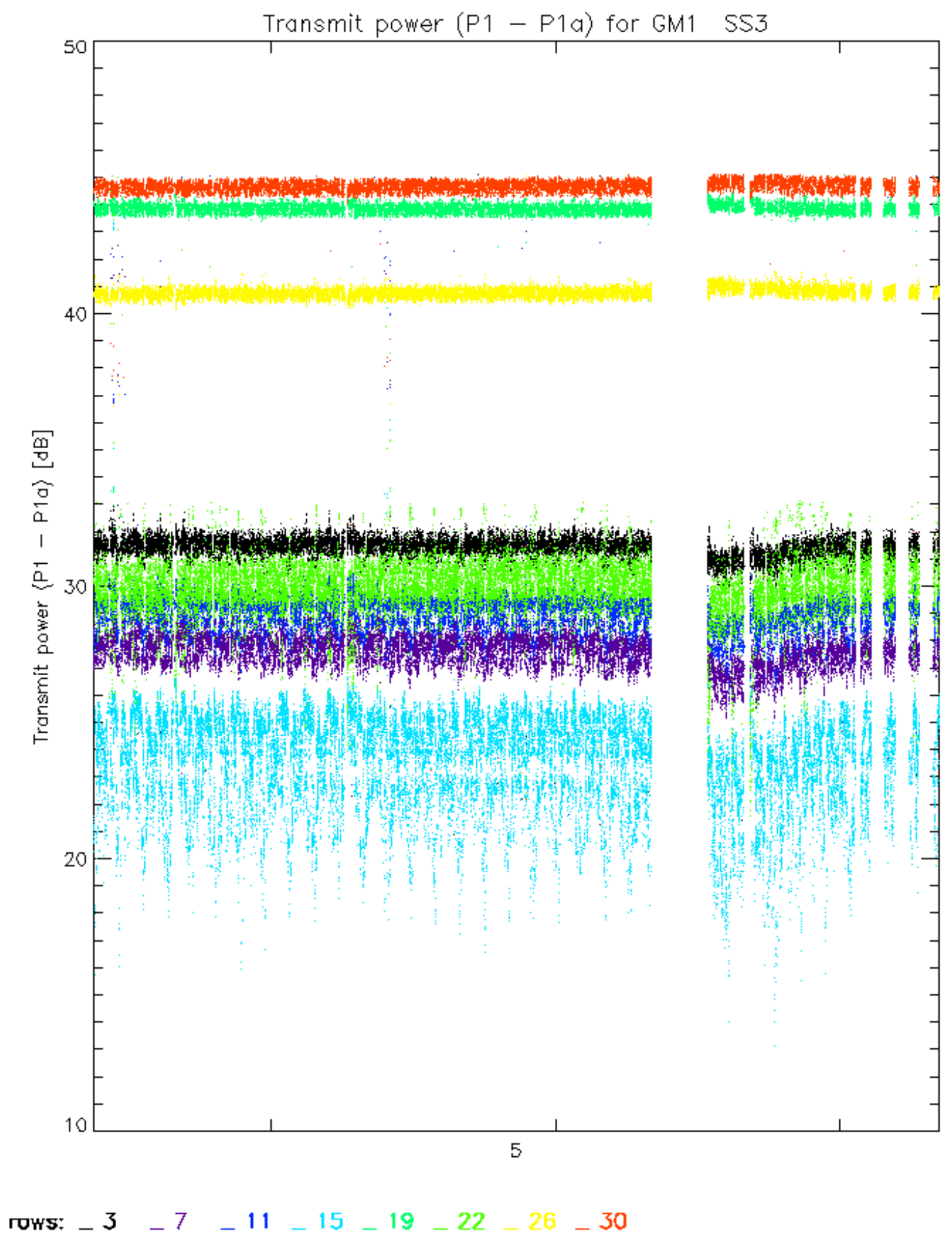
Summary of analysis for the last 3 days 2006120[890]

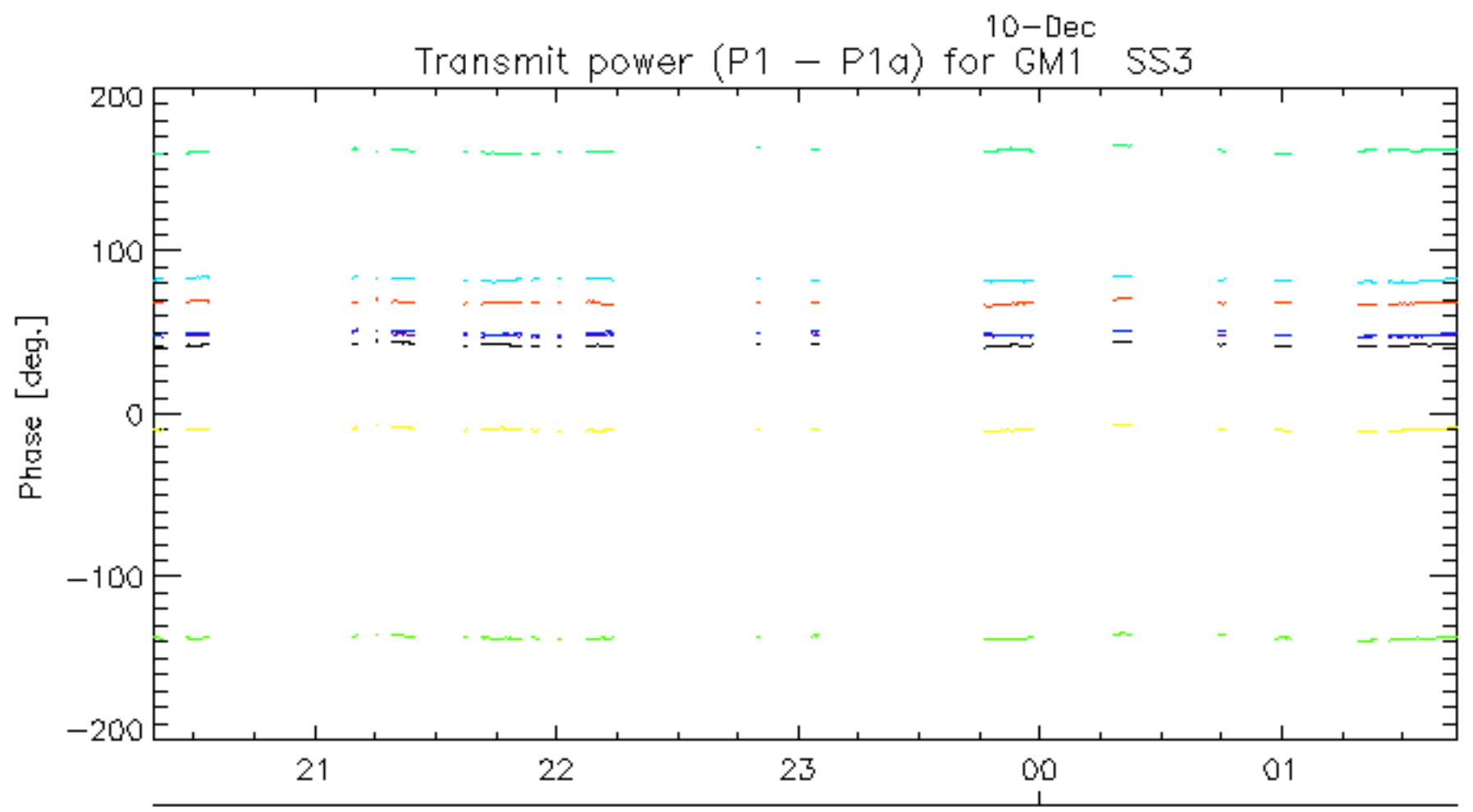
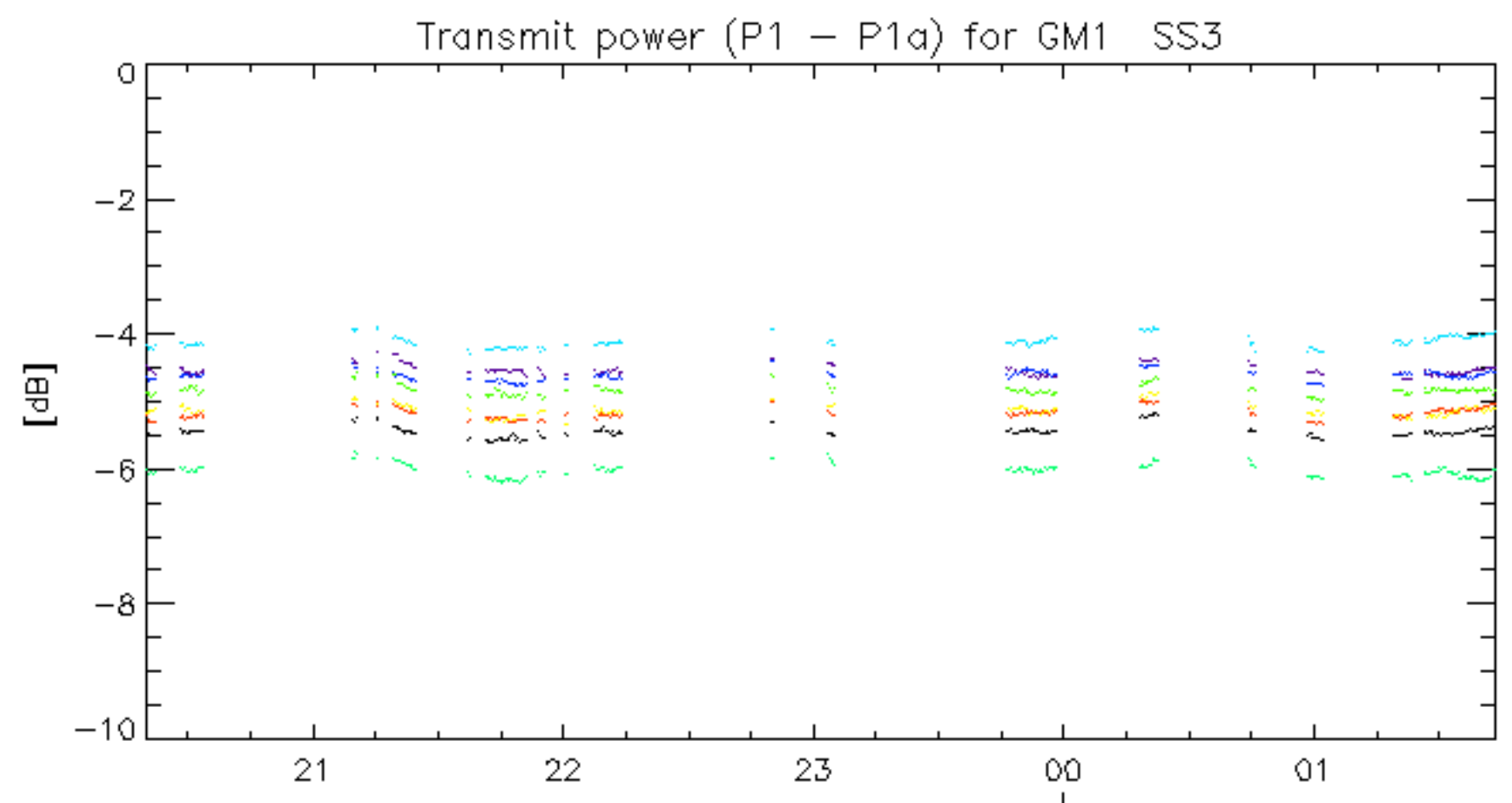
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20061208_012029_000000352053_00346_24949_3814.N1	1	0
ASA_IMM_1PNPDE20061209_182650_000000352053_00371_24974_6150.N1	0	18



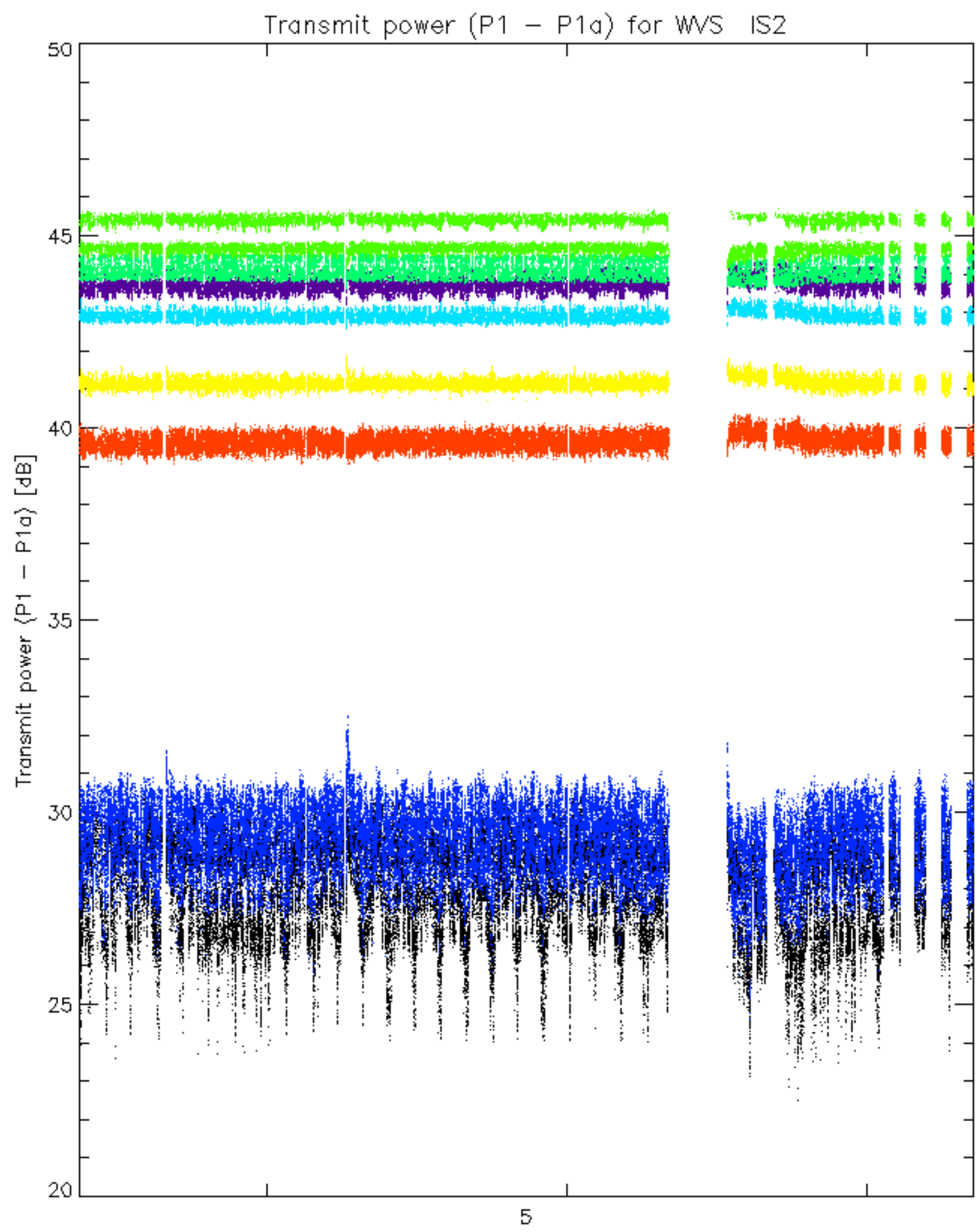




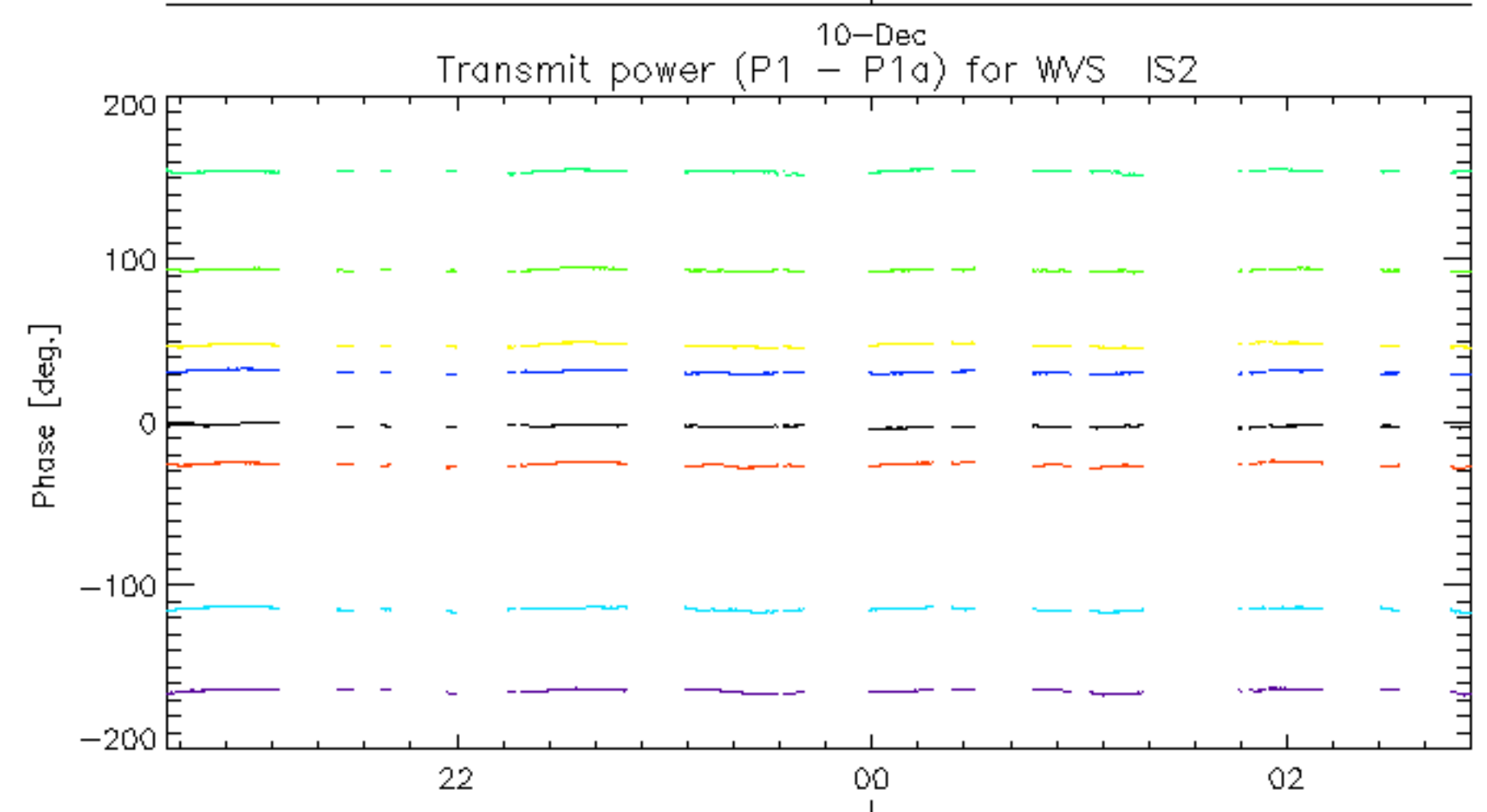
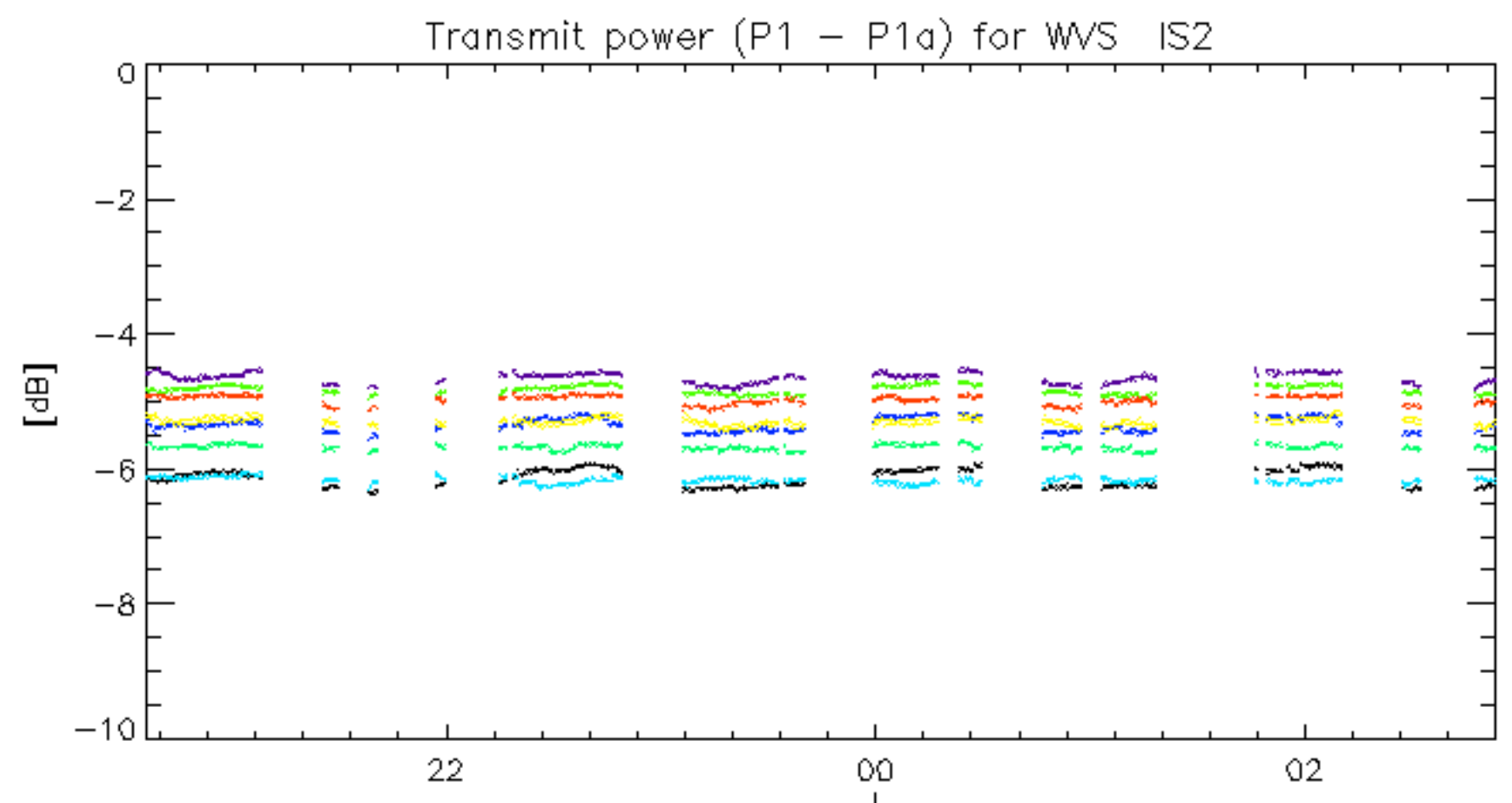


rows: **3** **7** **11** **15** **19** **22** **26** **30**

10-Dec



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



rows: 3 7 11 15 19 22 26 30

No unavailabilities during the reported period.