

PRELIMINARY REPORT OF 051223

last update on Fri Dec 23 16:43:14 GMT 2005

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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 2005-12-22 00:00:00 to 2005-12-23 16:43:14

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	0	12	0	0
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	33	0	12	0	0
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	33	0	12	0	0
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	33	0	12	0	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	43	29	8	50
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	43	29	8	50
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	43	29	8	50
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	43	29	8	50

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

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	20051223 063522
H	20051222 070659

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
<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

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	-3.710189	0.251688	-0.188275
7	P1	-2.756835	0.128695	-0.091879
11	P1	-4.145373	0.032571	0.011027
15	P1	-5.111992	1.719381	-0.337316
19	P1	-3.044192	0.065070	-0.090412
22	P1	-4.438010	0.022469	-0.027747
26	P1	-4.395397	0.060721	0.069914
30	P1	-5.657372	0.034760	-0.044675
3	P1	-15.759207	2.770873	-0.619349
7	P1	-15.326012	2.684816	-0.497654
11	P1	-16.324480	0.478321	-0.083998
15	P1	-12.762346	0.974564	0.006111
19	P1	-13.435024	0.362140	-0.215099
22	P1	-15.987968	0.632620	0.132754
26	P1	-15.107251	1.088036	-0.123670
30	P1	-15.592438	2.480542	-0.368680

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.830778	0.111590	0.184962
7	P2	-22.547136	0.105268	0.030790
11	P2	-16.538713	0.128073	0.228285
15	P2	-7.278279	0.104107	0.014408
19	P2	-9.218804	0.102360	0.006523
22	P2	-17.877182	0.112153	-0.066532
26	P2	-16.372150	0.131836	0.005540
30	P2	-19.788855	0.118217	0.036637

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.235798	0.007564	-0.000348
7	P3	-8.235798	0.007564	-0.000348
11	P3	-8.235798	0.007564	-0.000348
15	P3	-8.235798	0.007564	-0.000348
19	P3	-8.235798	0.007564	-0.000348
22	P3	-8.235798	0.007564	-0.000348
26	P3	-8.235798	0.007564	-0.000348
30	P3	-8.235798	0.007564	-0.000348

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	-3.706177	0.008290	-0.017192
7	P1	-2.773471	0.012236	0.011260
11	P1	-2.876612	0.015440	-0.001938
15	P1	-3.414270	0.022001	-0.019225
19	P1	-3.393089	0.013744	-0.019169
22	P1	-5.128712	0.018740	0.013250
26	P1	-5.846149	0.016389	-0.035834
30	P1	-5.284017	0.033165	-0.022312
3	P1	-11.484320	0.041105	-0.018160
7	P1	-9.965365	0.047443	-0.017345
11	P1	-10.052351	0.060146	0.012516
15	P1	-10.573077	0.079627	0.099263
19	P1	-15.519052	0.073941	-0.059097
22	P1	-20.948149	0.979224	-0.068004

26	P1	-17.159151	0.302319	0.006795
30	P1	-18.274265	0.306278	0.324234

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.612080	0.029904	0.052590
7	P2	-23.046343	0.056553	-0.037944
11	P2	-11.612643	0.020609	0.120609
15	P2	-4.990097	0.021112	-0.033300
19	P2	-6.971734	0.021853	-0.045778
22	P2	-8.205275	0.022534	-0.051062
26	P2	-24.052969	0.030719	-0.021333
30	P2	-22.130098	0.017858	-0.048925

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.077856	0.002467	-0.008674
7	P3	-8.078013	0.002468	-0.008543
11	P3	-8.077930	0.002450	-0.009077
15	P3	-8.077880	0.002456	-0.009133
19	P3	-8.077929	0.002464	-0.008877
22	P3	-8.077979	0.002467	-0.008693
26	P3	-8.077954	0.002435	-0.008633
30	P3	-8.077666	0.002460	-0.008924

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	0.000460795
	stdev	2.18317e-07
MEAN Q	mean	0.000476018
	stdev	2.36552e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129027
	stdev	0.00109747
STDEV Q	mean	0.129311
	stdev	0.00110977



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005122[123]

The assumptions 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_1PNPDE20051222_200902_000000502043_00343_19936_4599.N1	0	11
ASA_IMM_1PNPDK20051222_125406_000001212043_00339_19932_9583.N1	1	0
ASA_WSM_1PNPDE20051221_021712_000001042043_00318_19911_5158.N1	0	54
ASA_WSM_1PNPDE20051221_031549_000001472043_00319_19912_5167.N1	0	49
ASA_WSM_1PNPDE20051222_160845_000002082043_00341_19934_5342.N1	0	44



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)

Ascending

Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

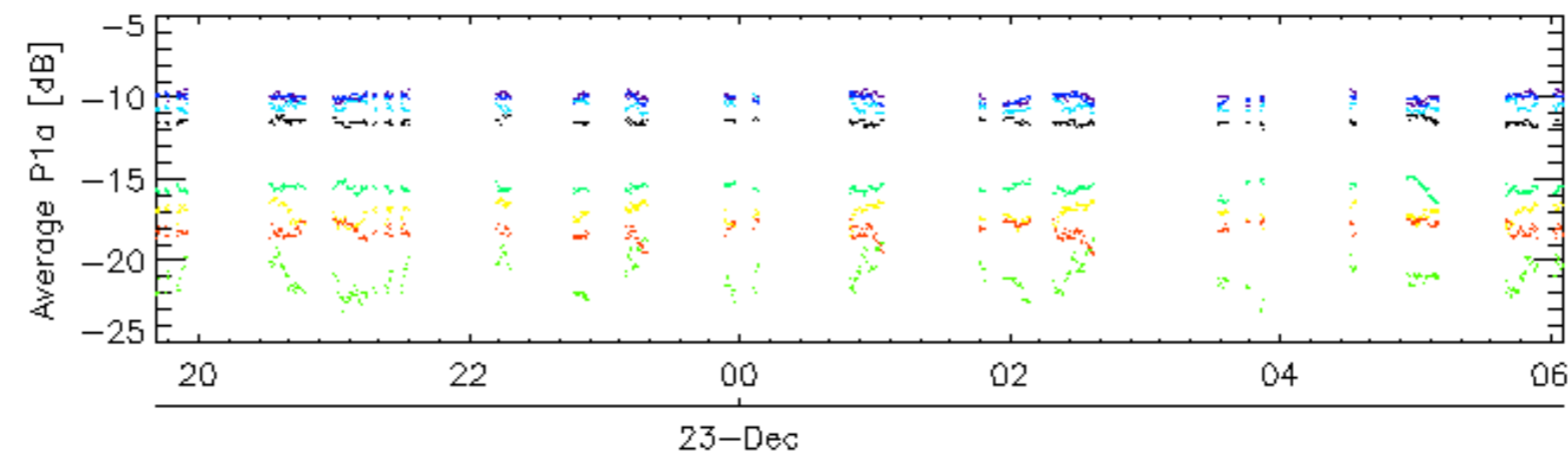
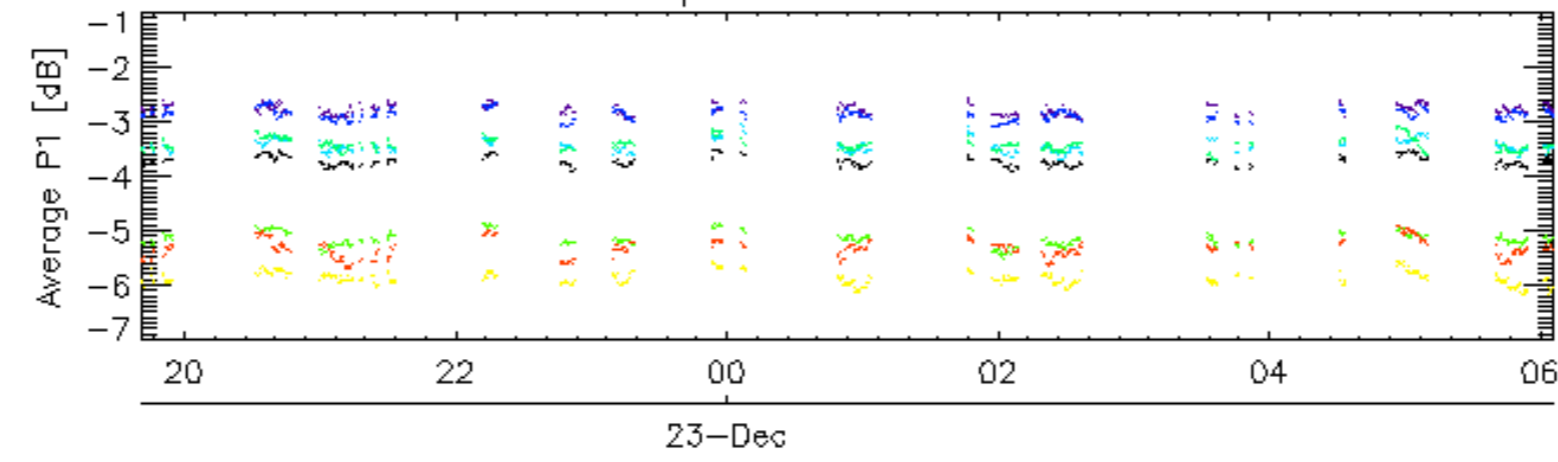
Ascending

Descending

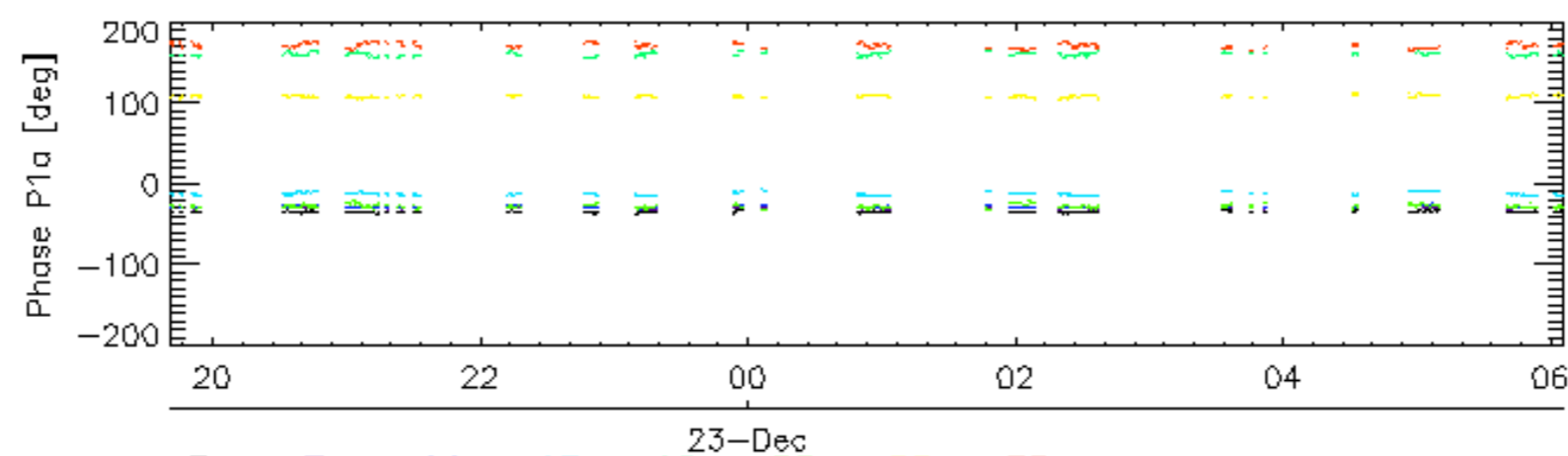
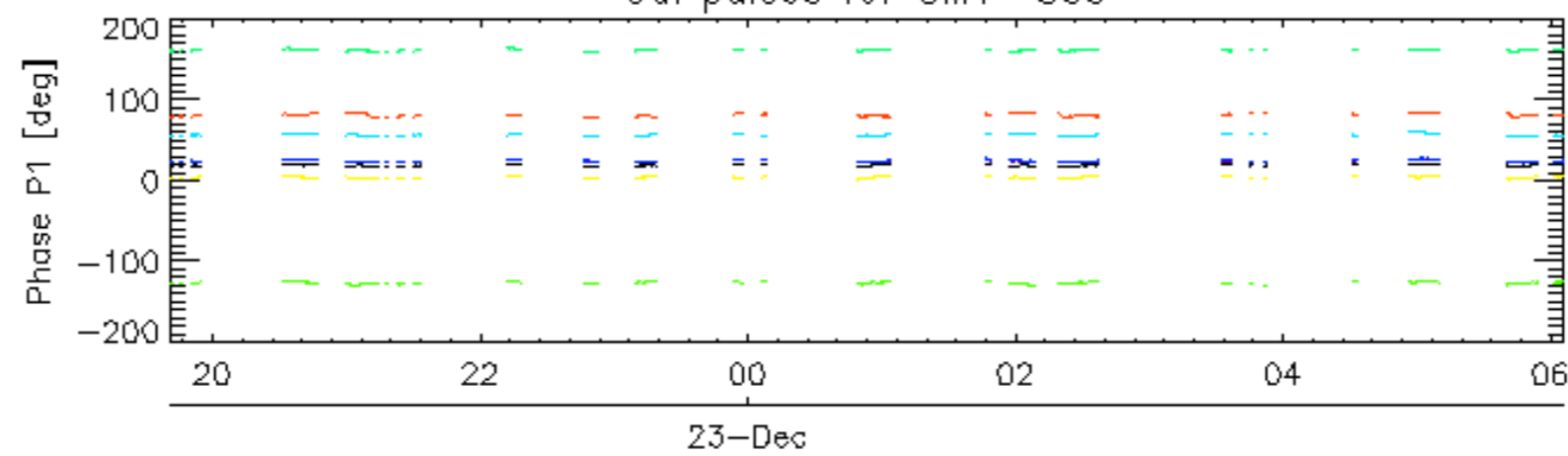
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

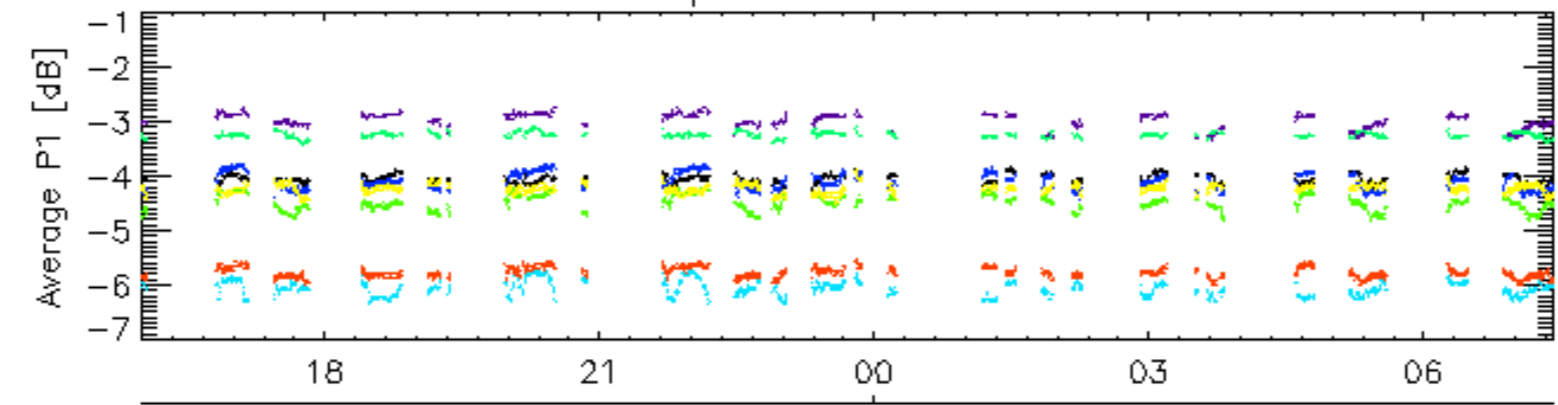


Cal pulses for GM1 SS3

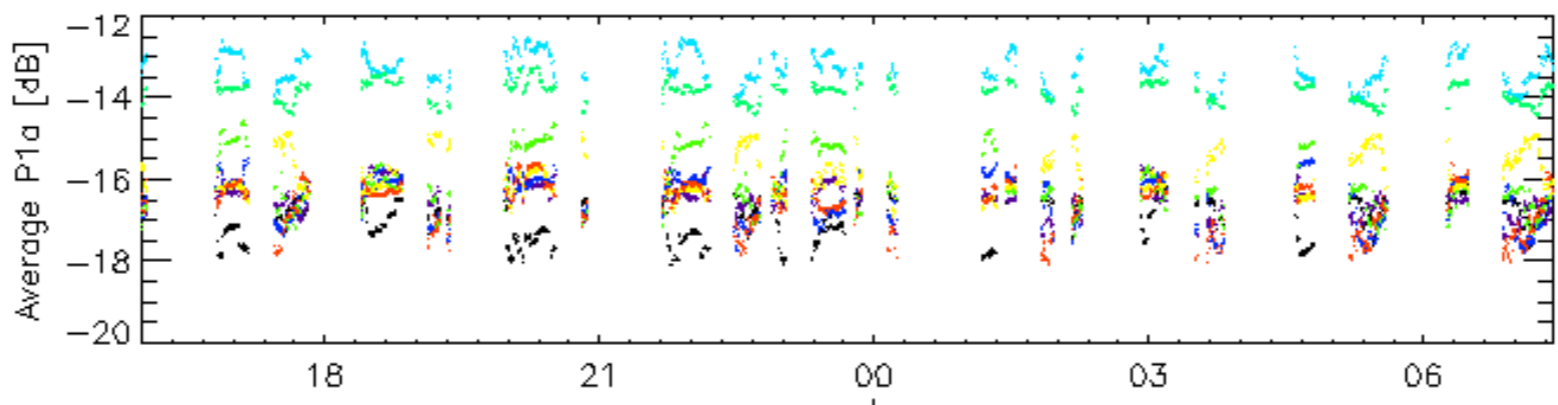


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

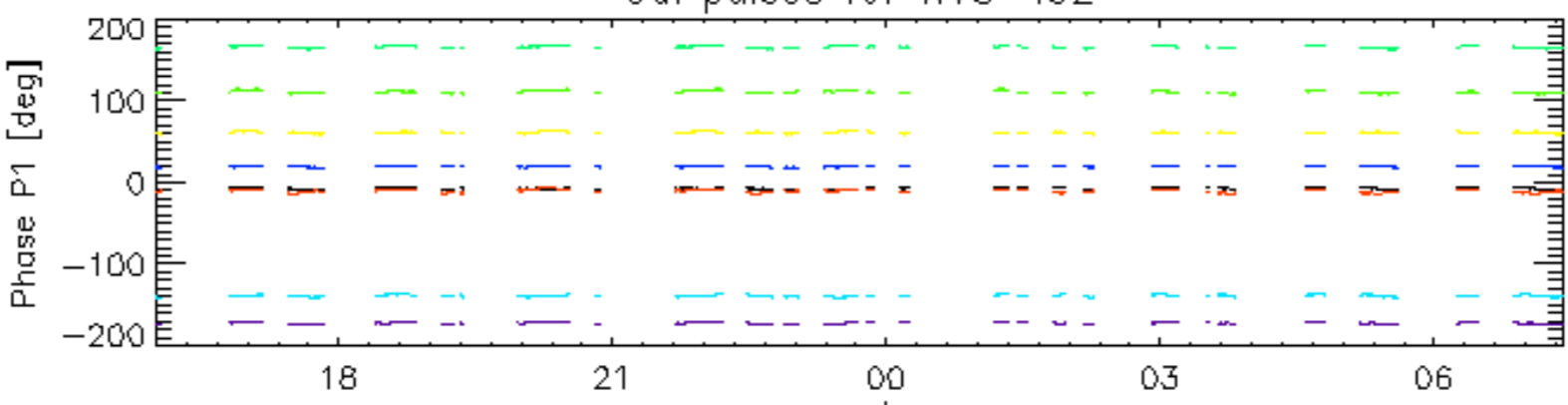


23-Dec

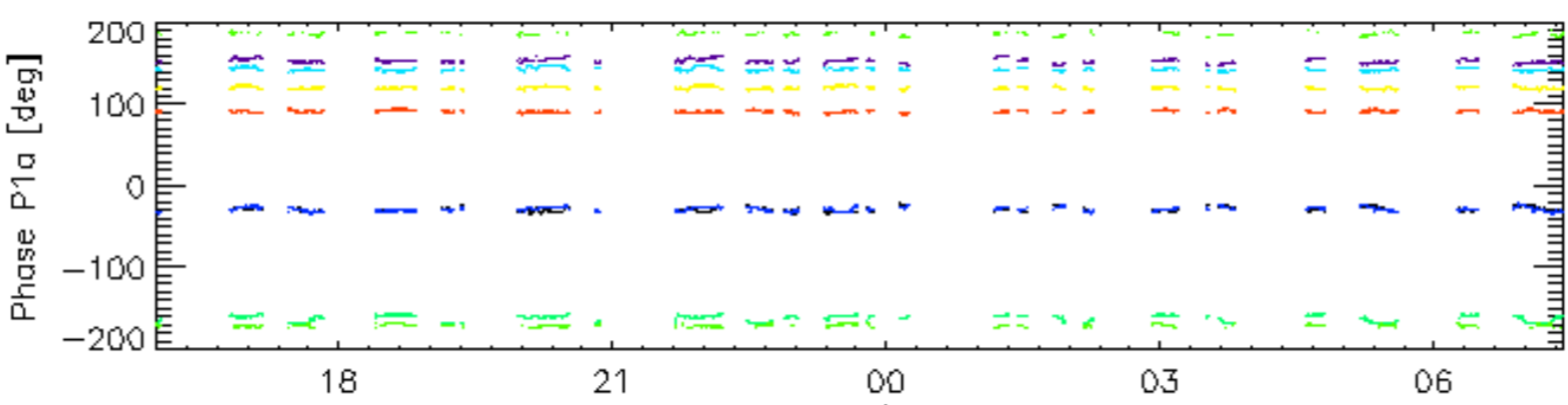


23-Dec

Cal pulses for WVS IS2

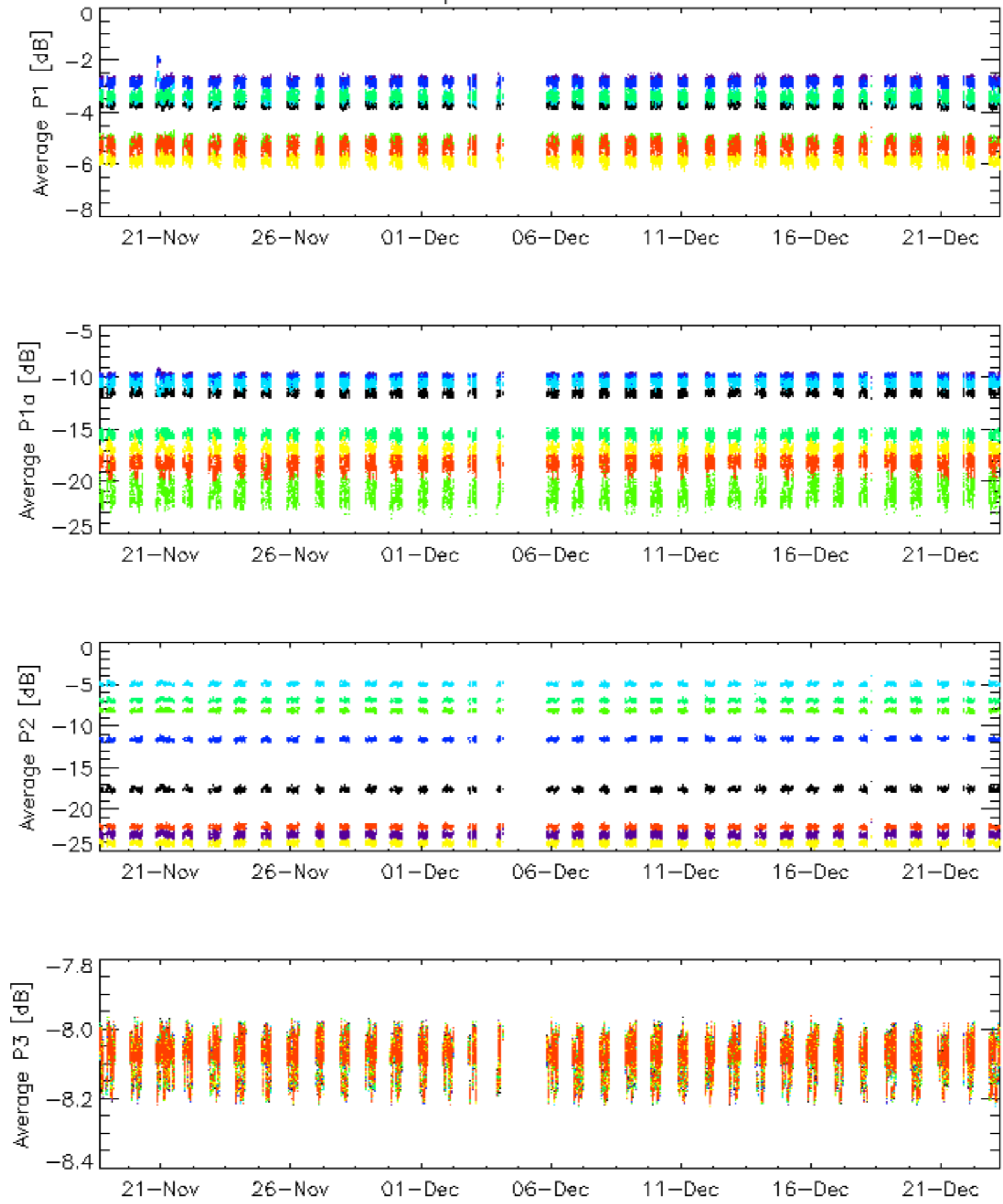


23-Dec



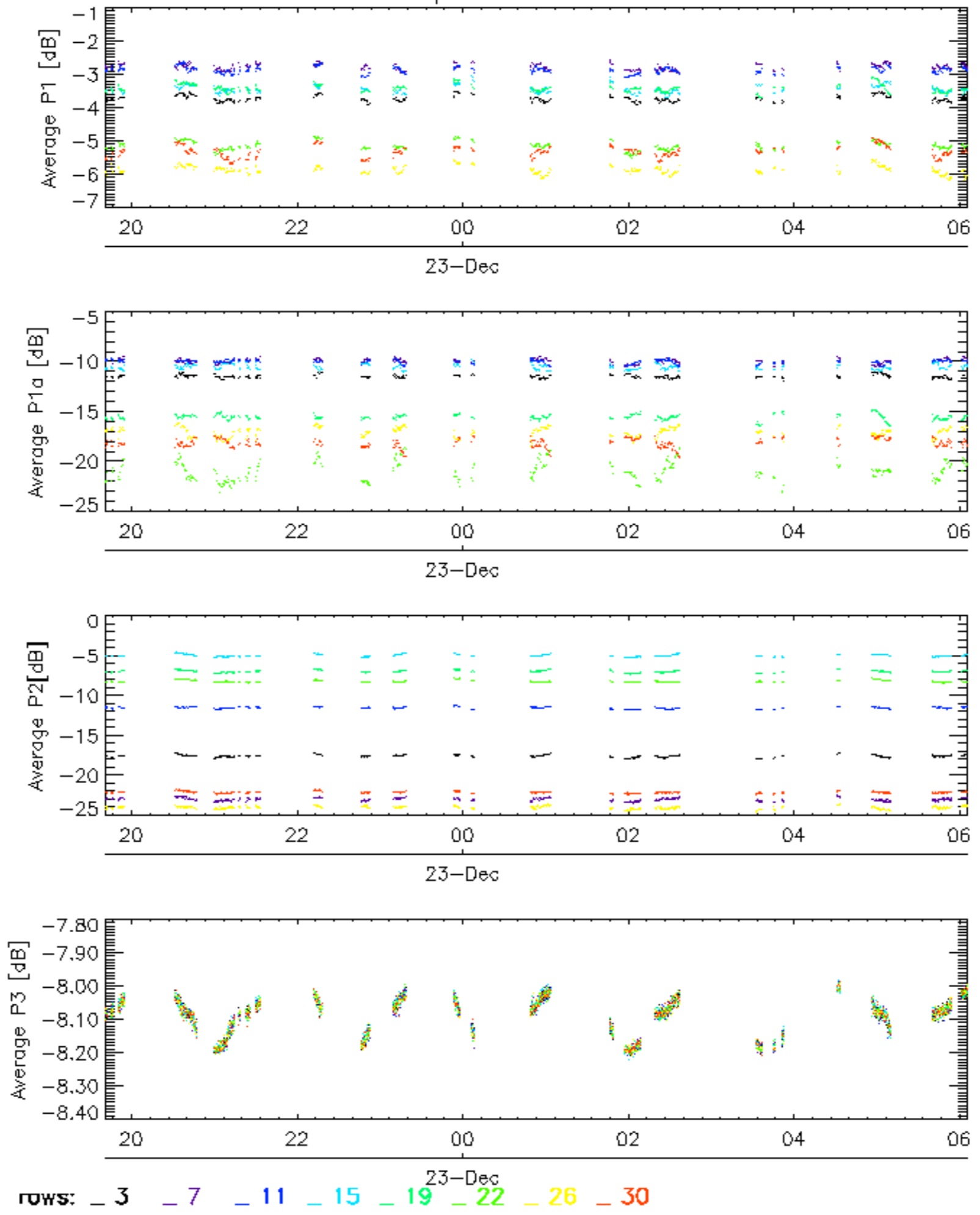
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 23-Dec

Cal pulses for GM1 SS3

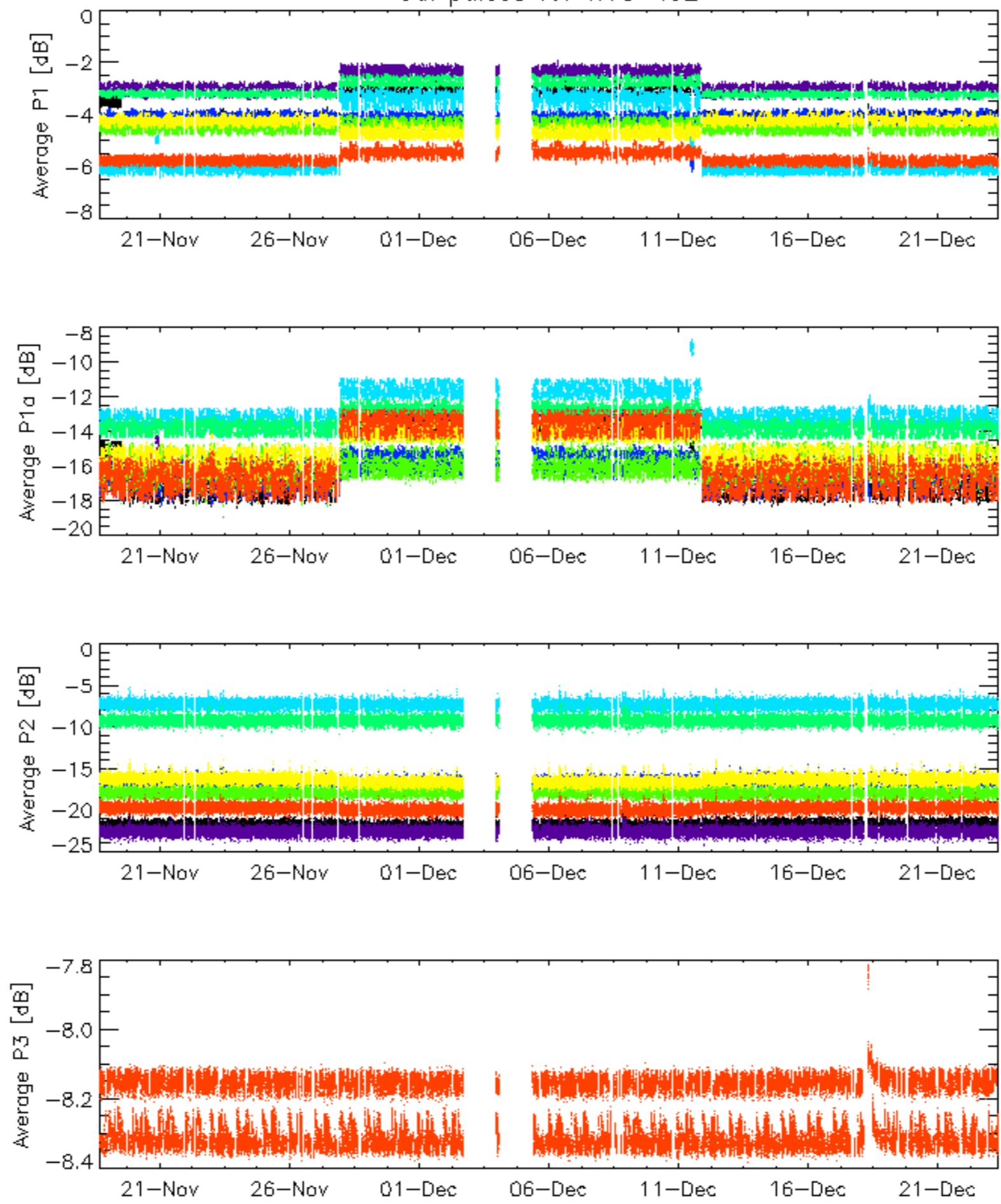


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

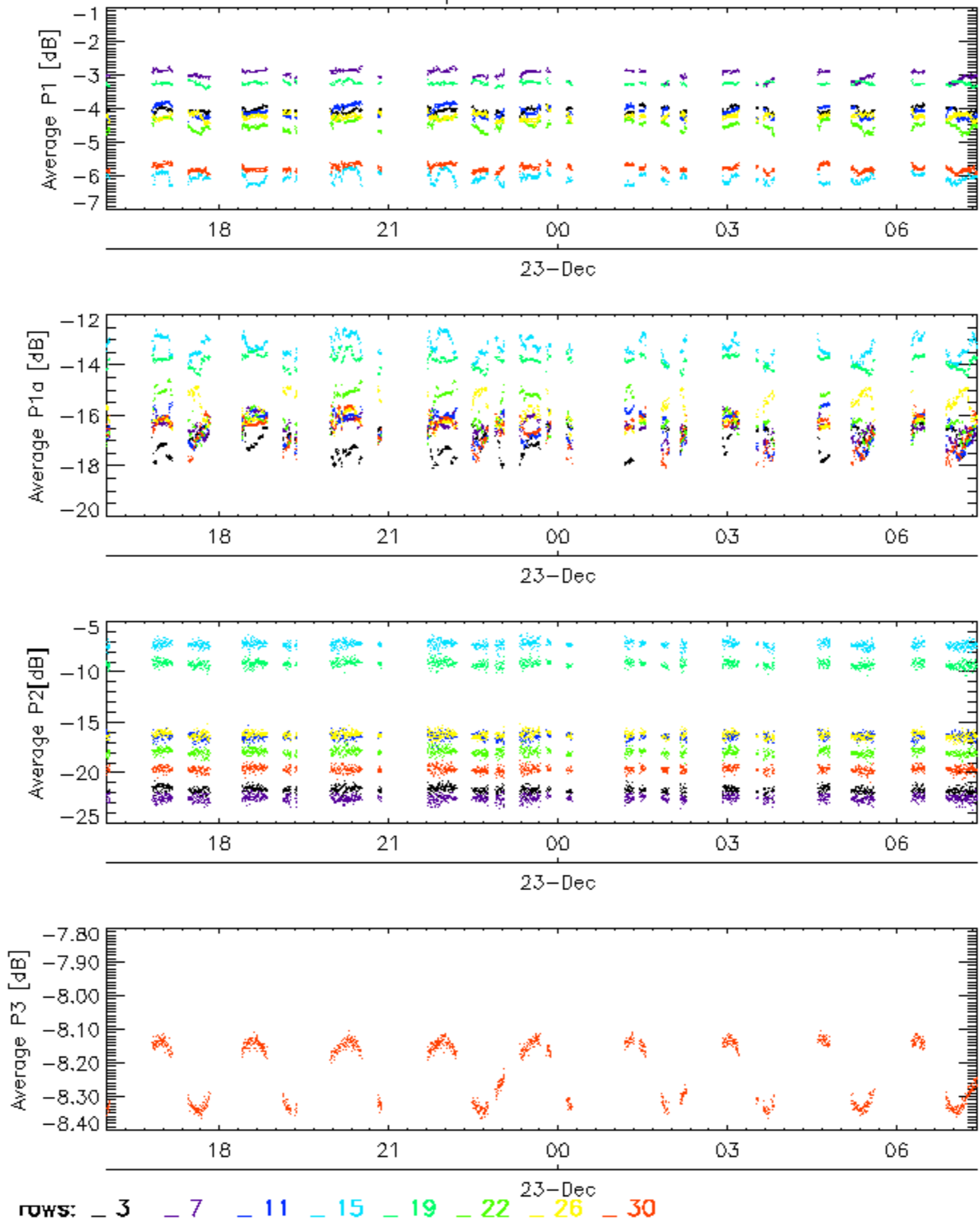


Cal pulses for WVS IS2



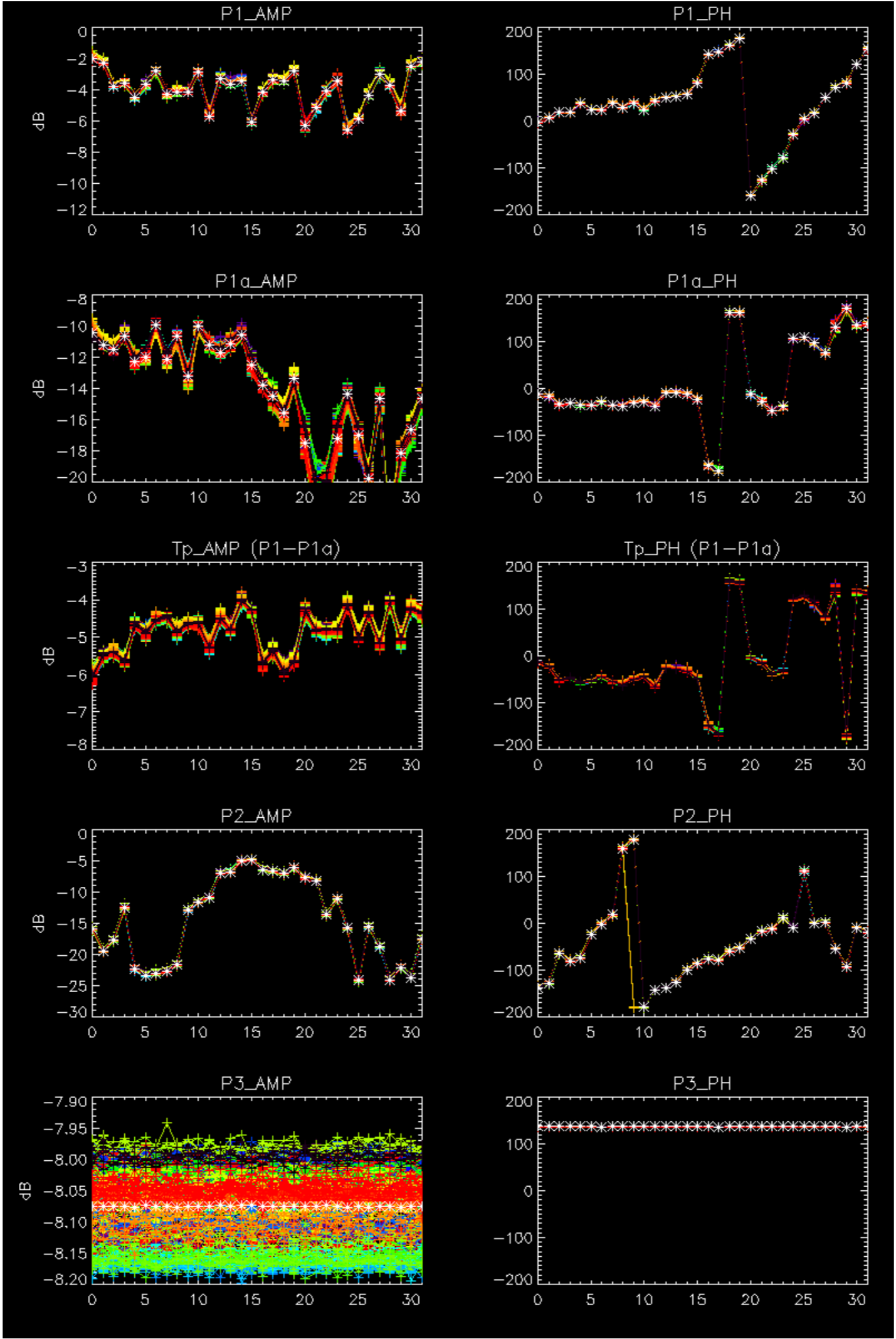
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

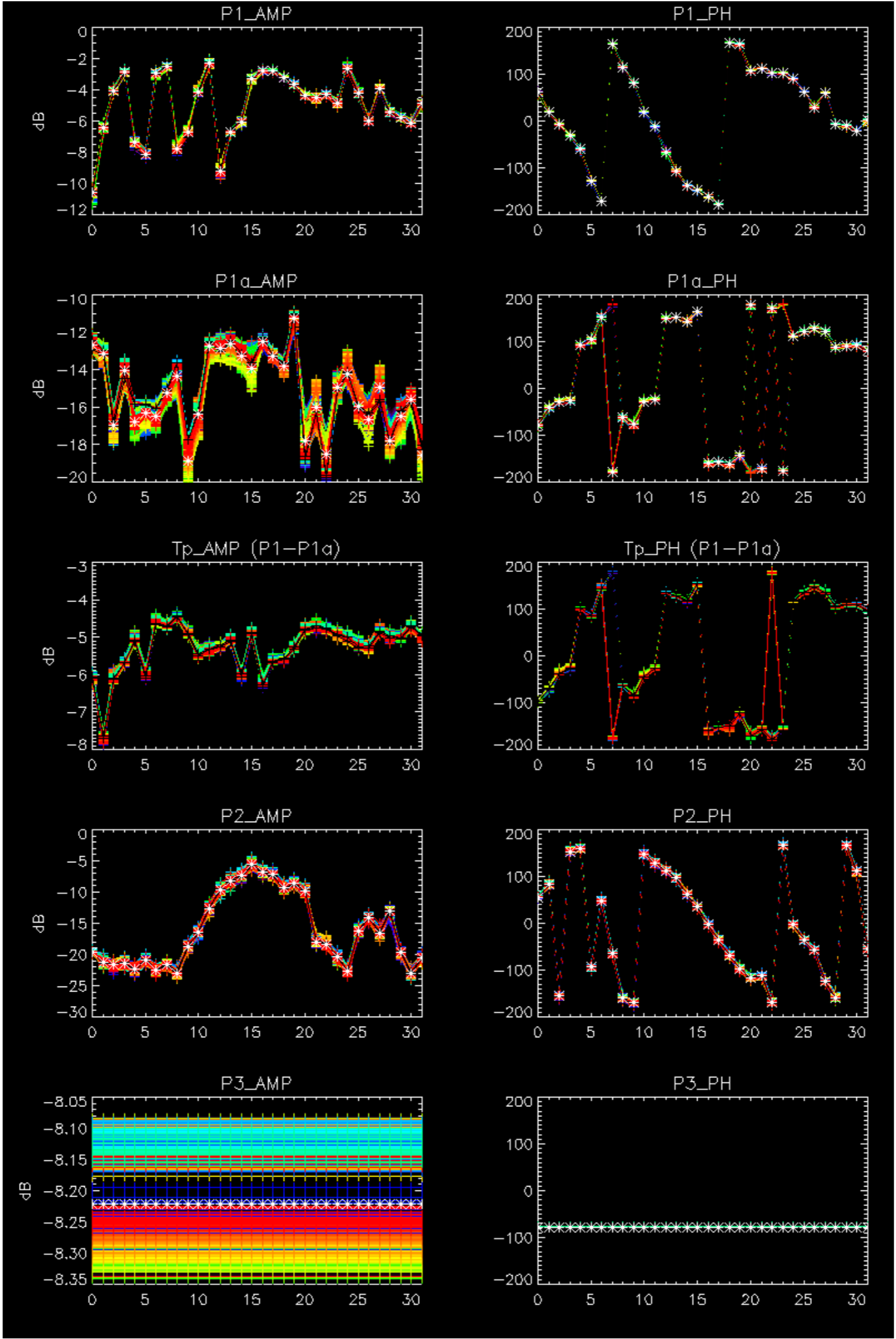
Cal pulses for WVS IS2



No anomalies observed on available browse products

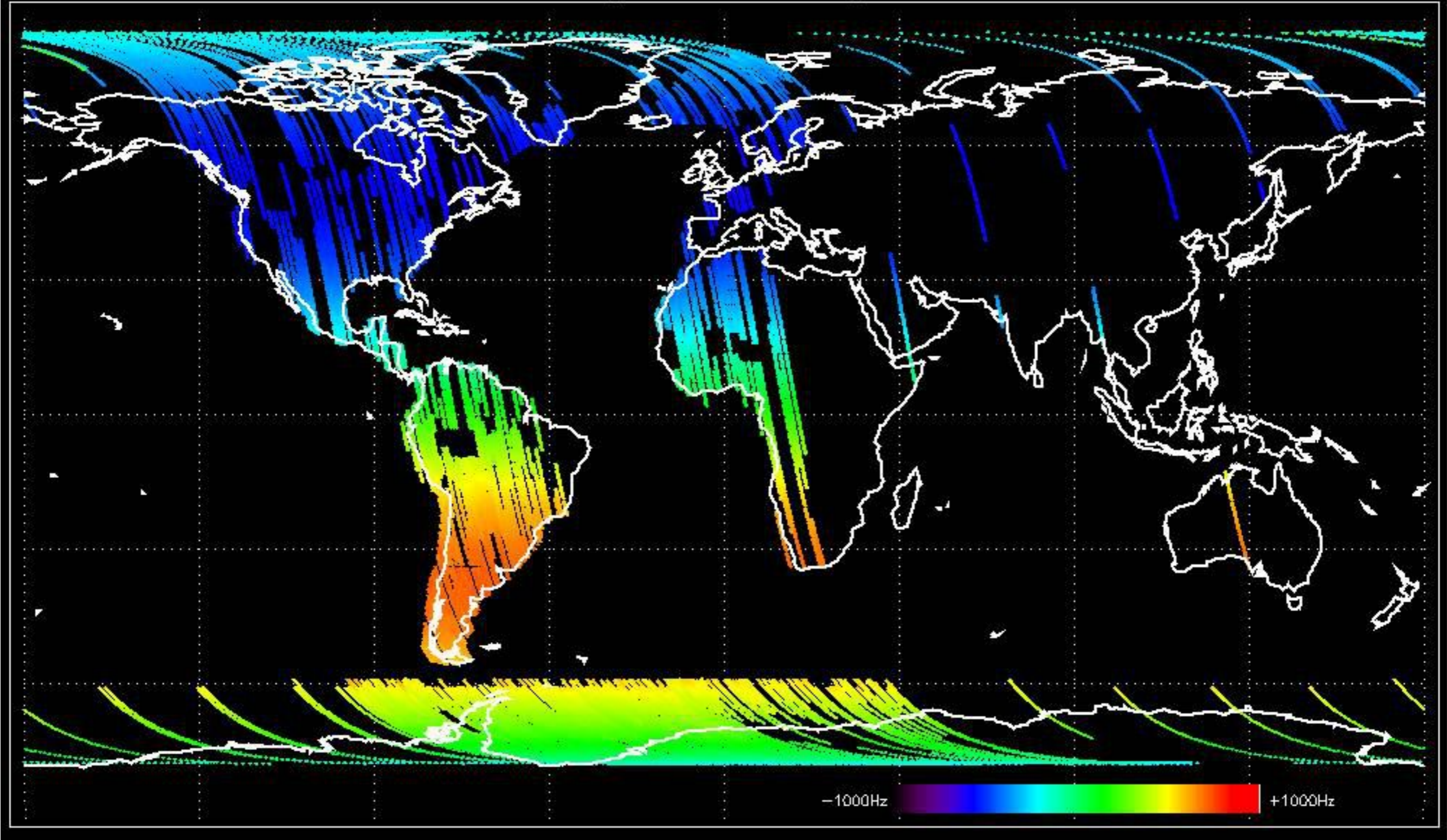
No anomalies observed.



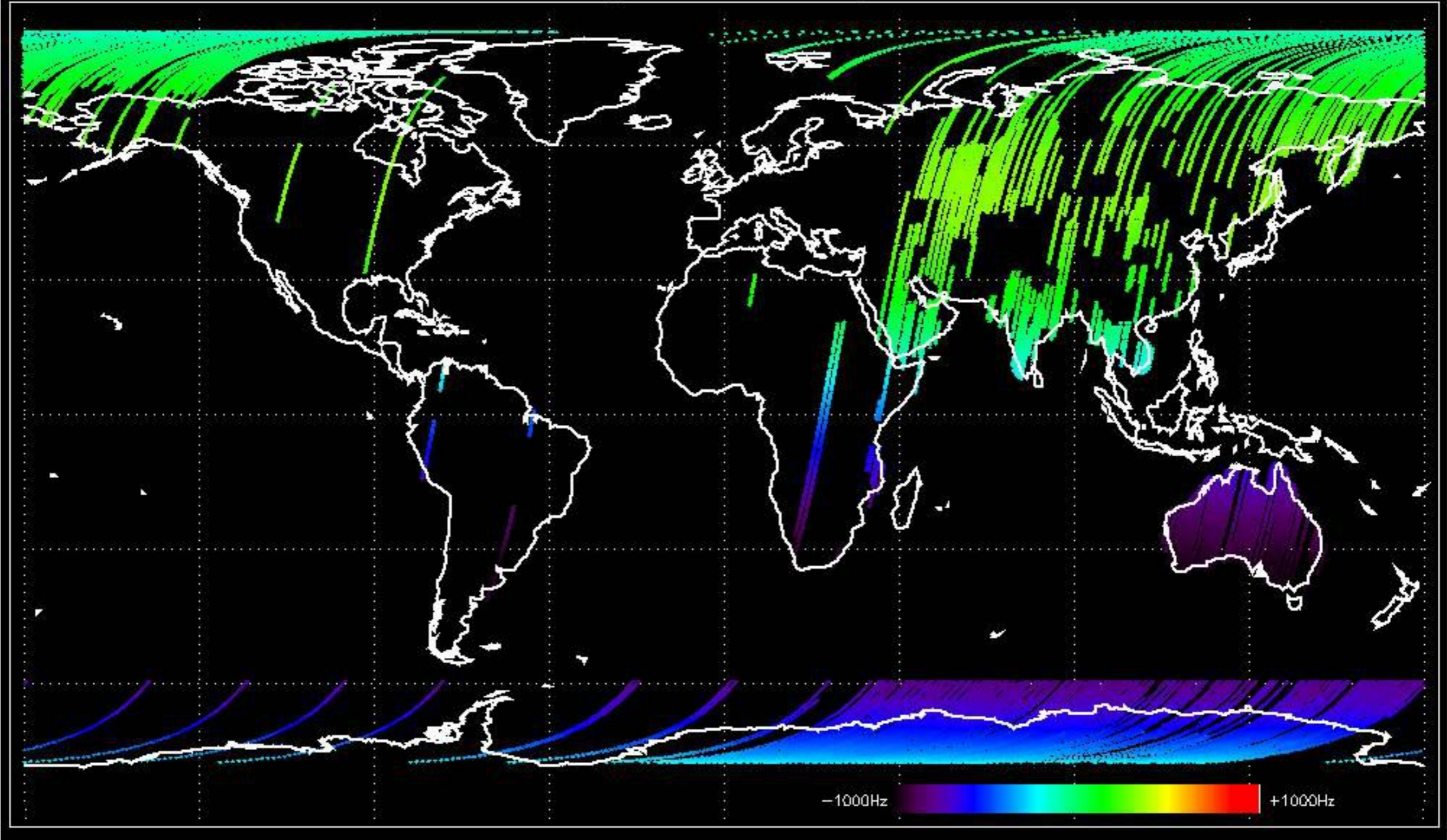


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

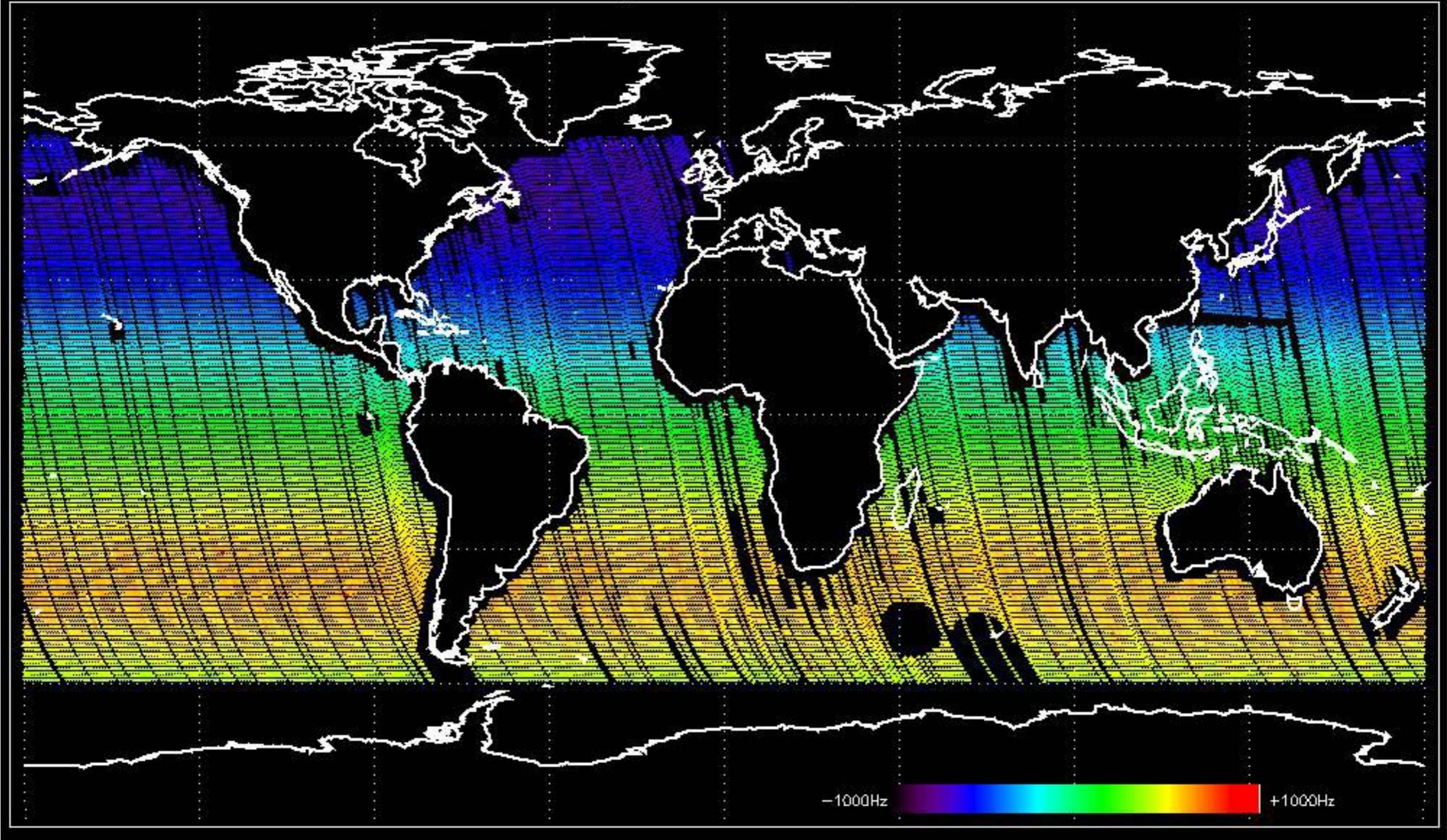
Doppler 'GM1' 'SS1' ascending



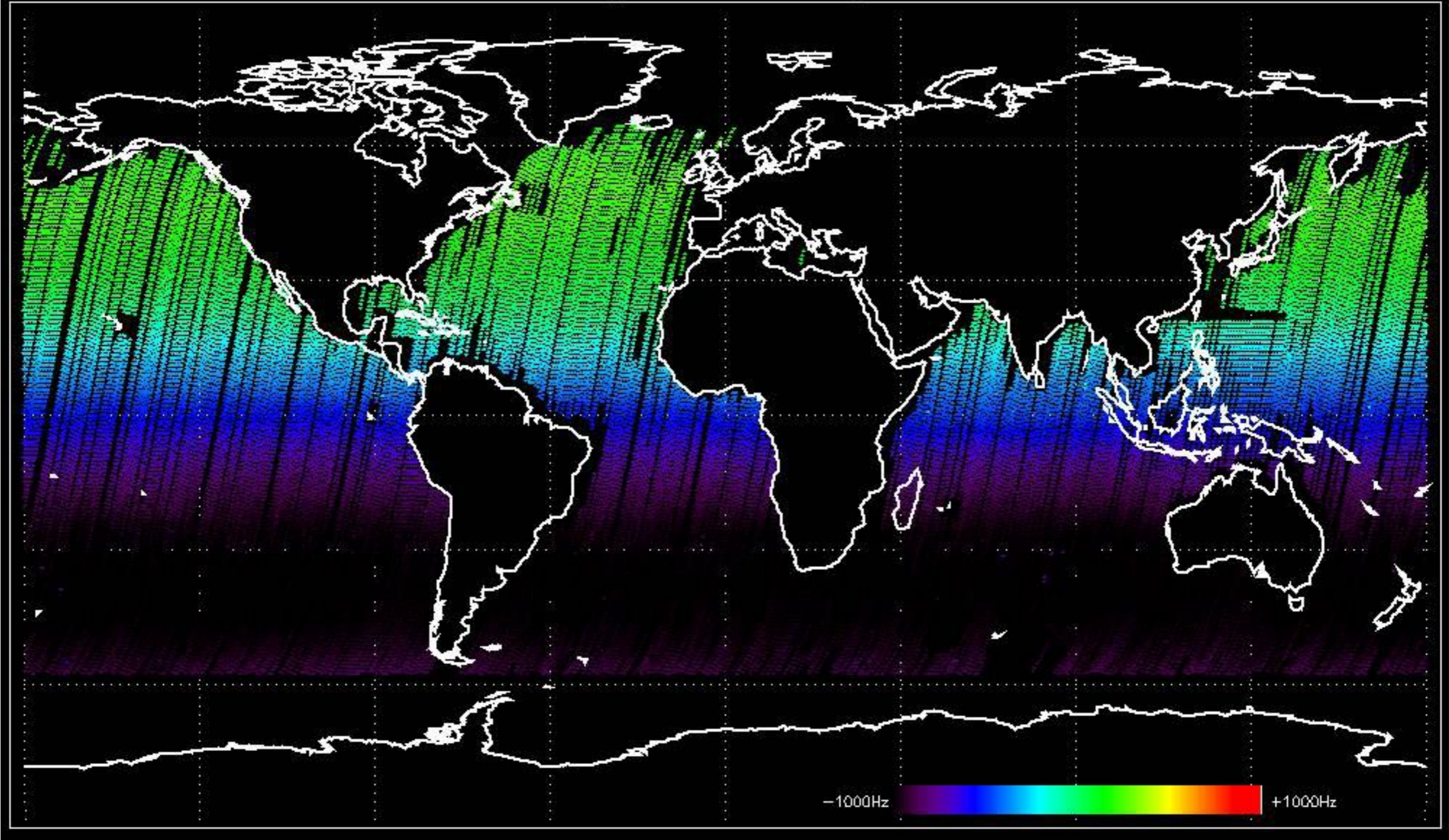
Doppler 'GM1' 'SS1' descending

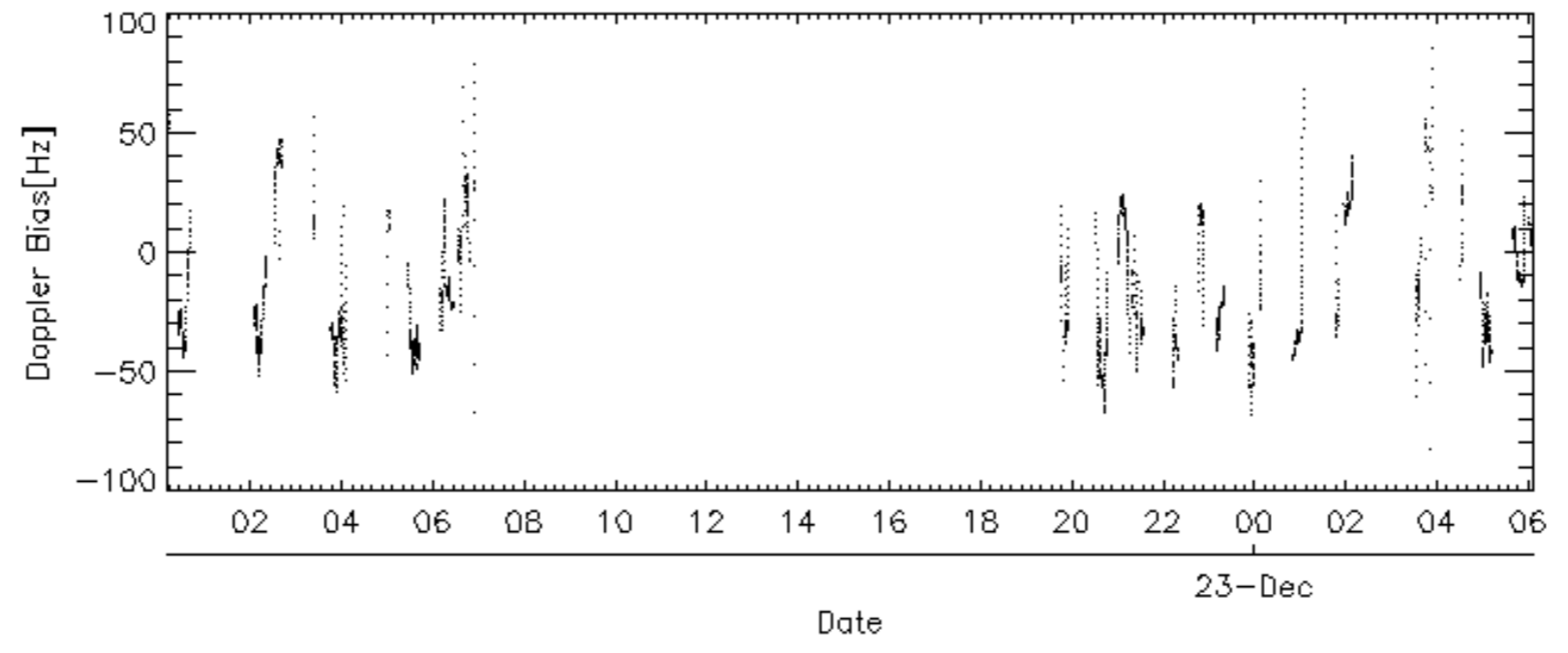
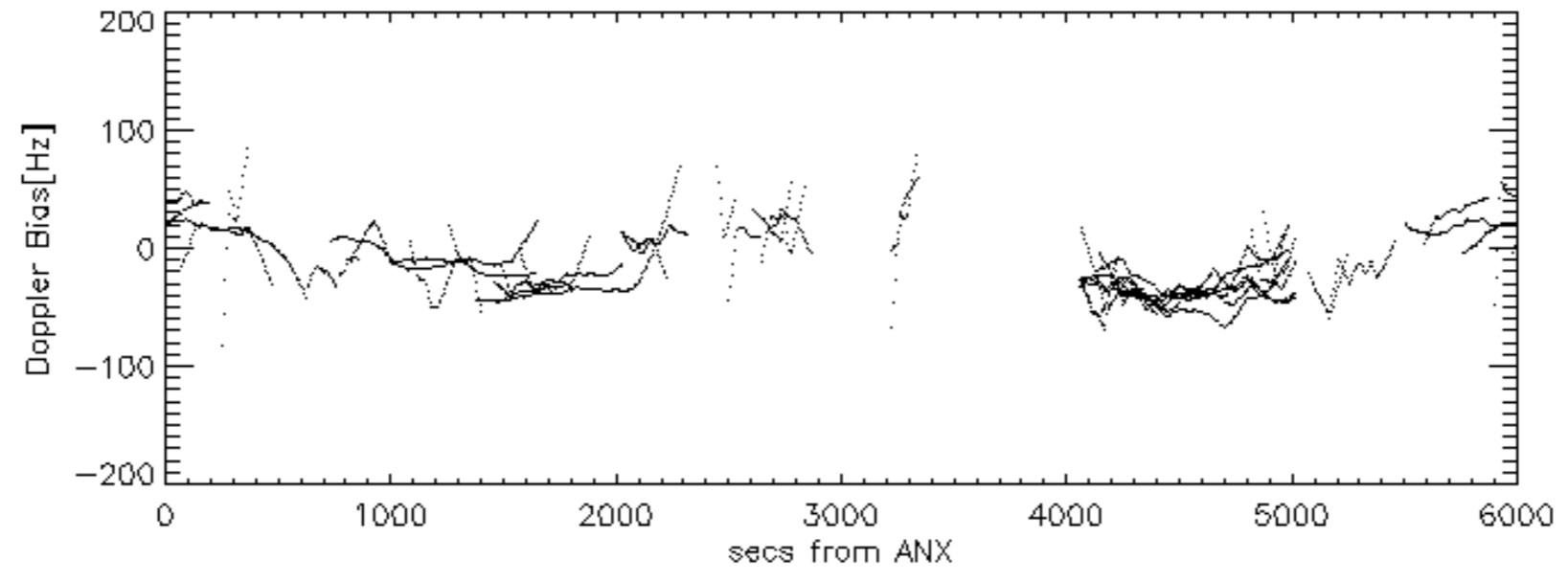
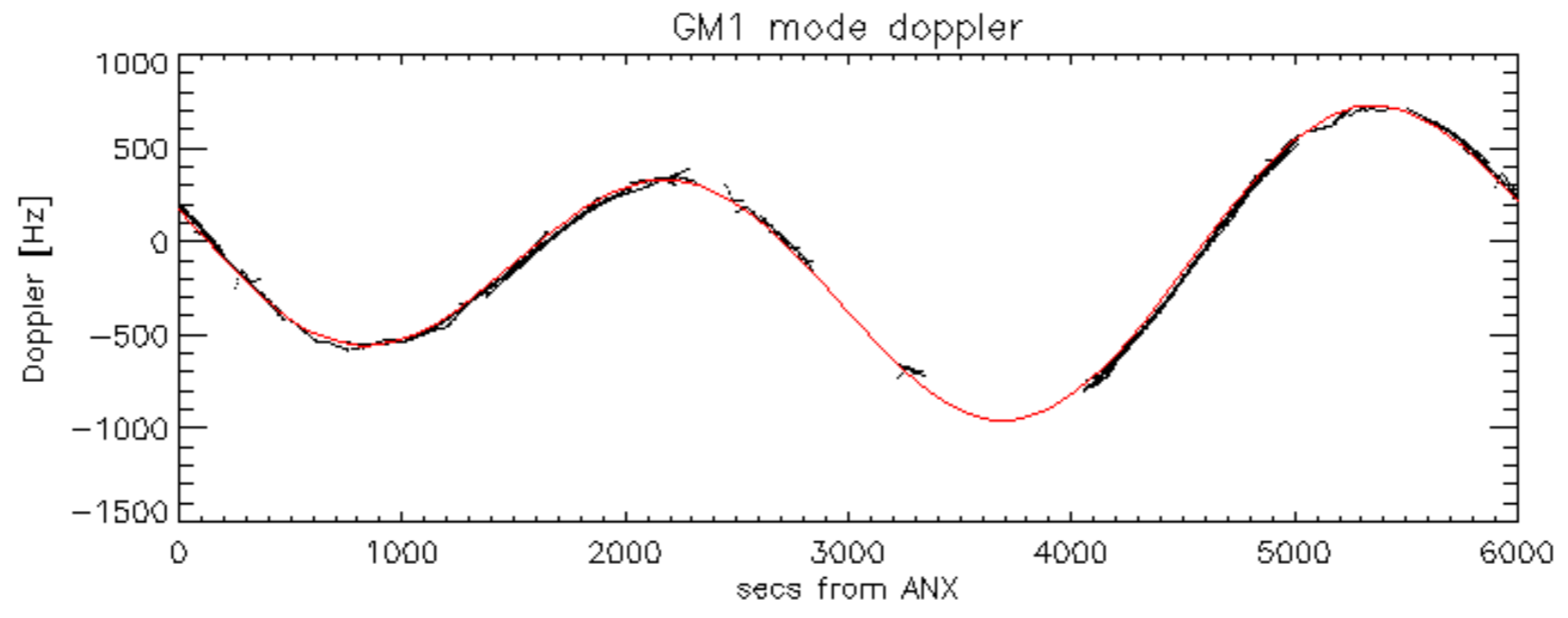


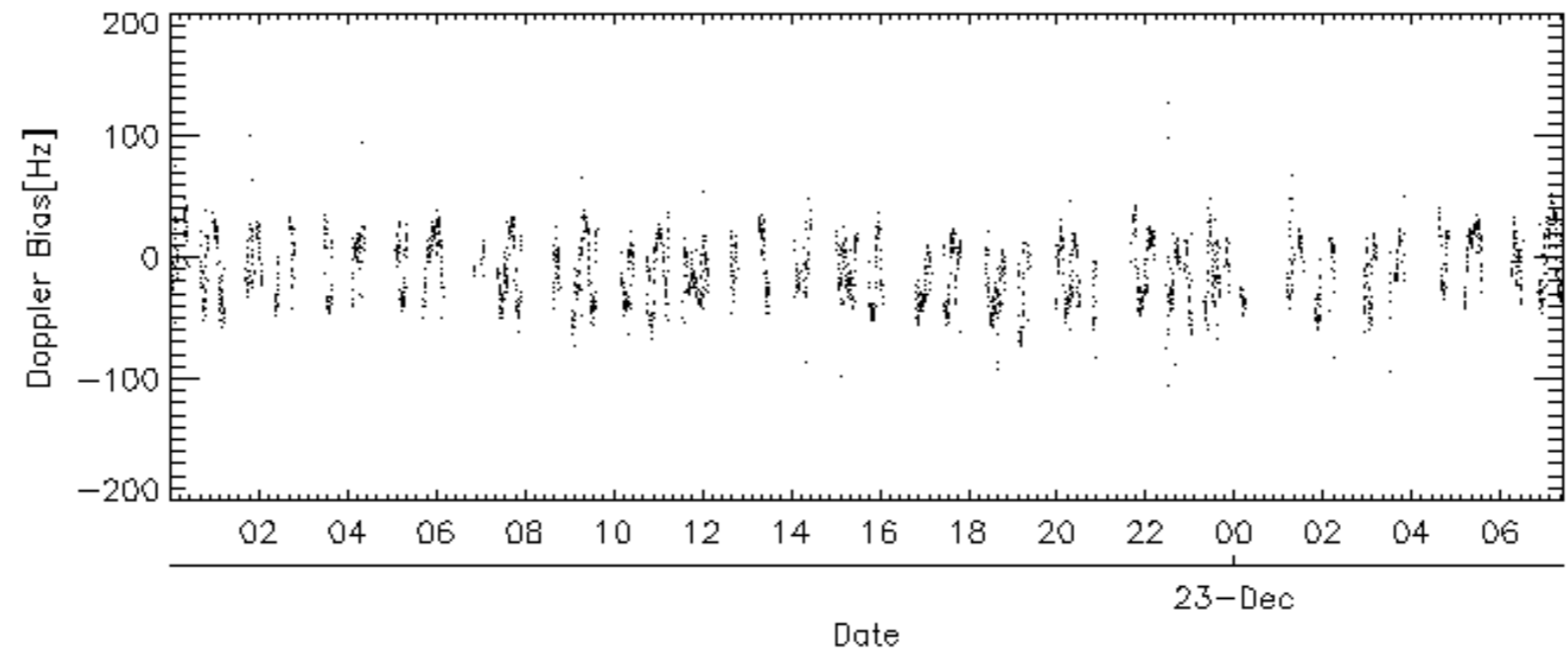
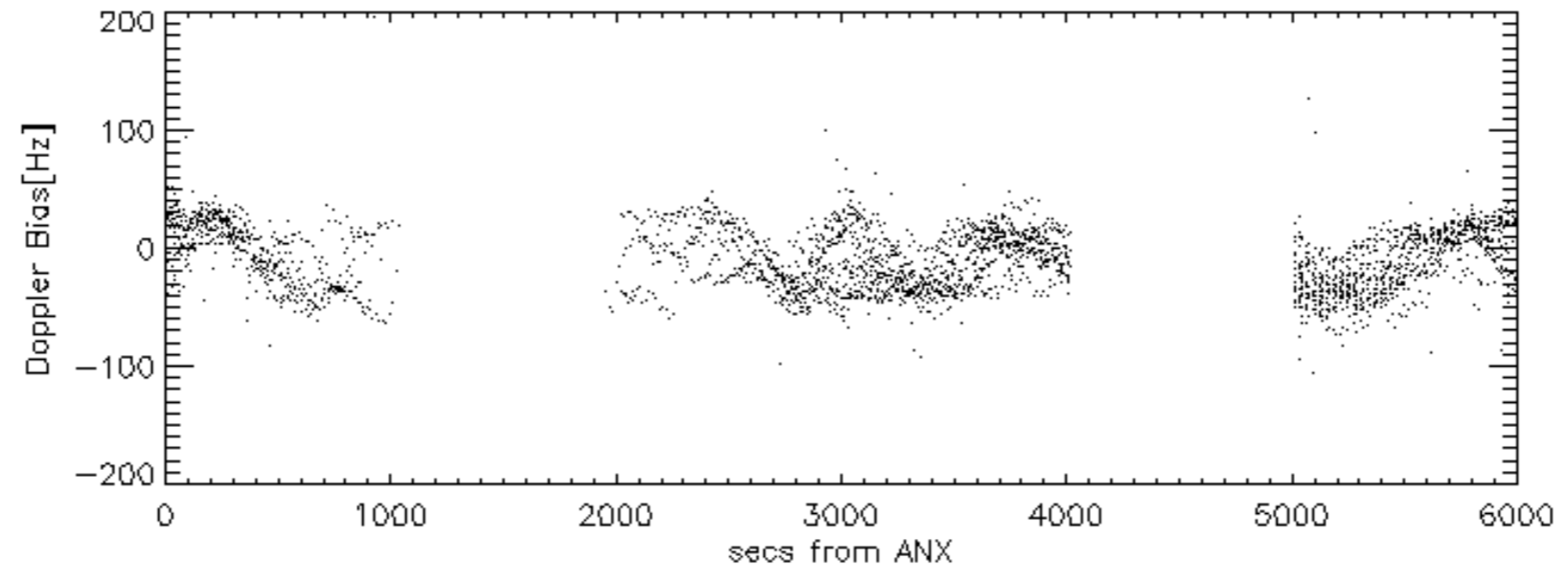
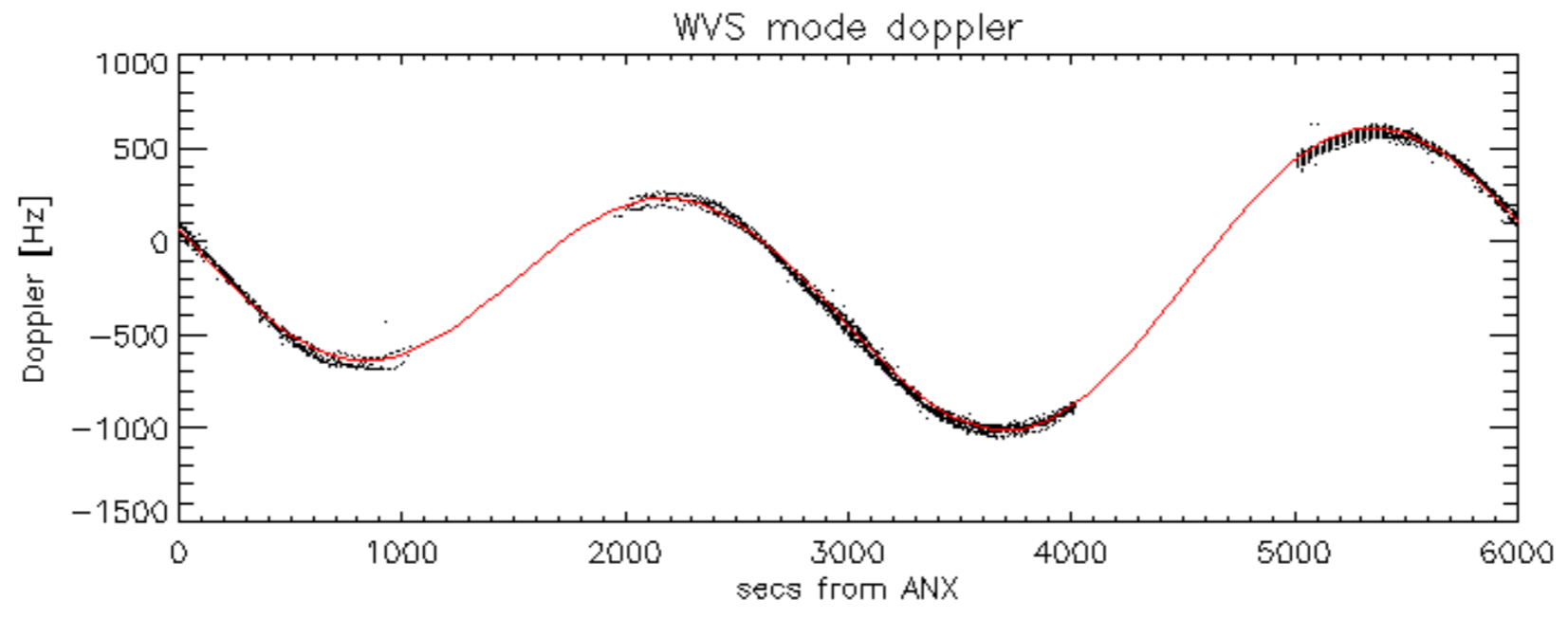
Doppler 'WVS' 'IS2' ascending



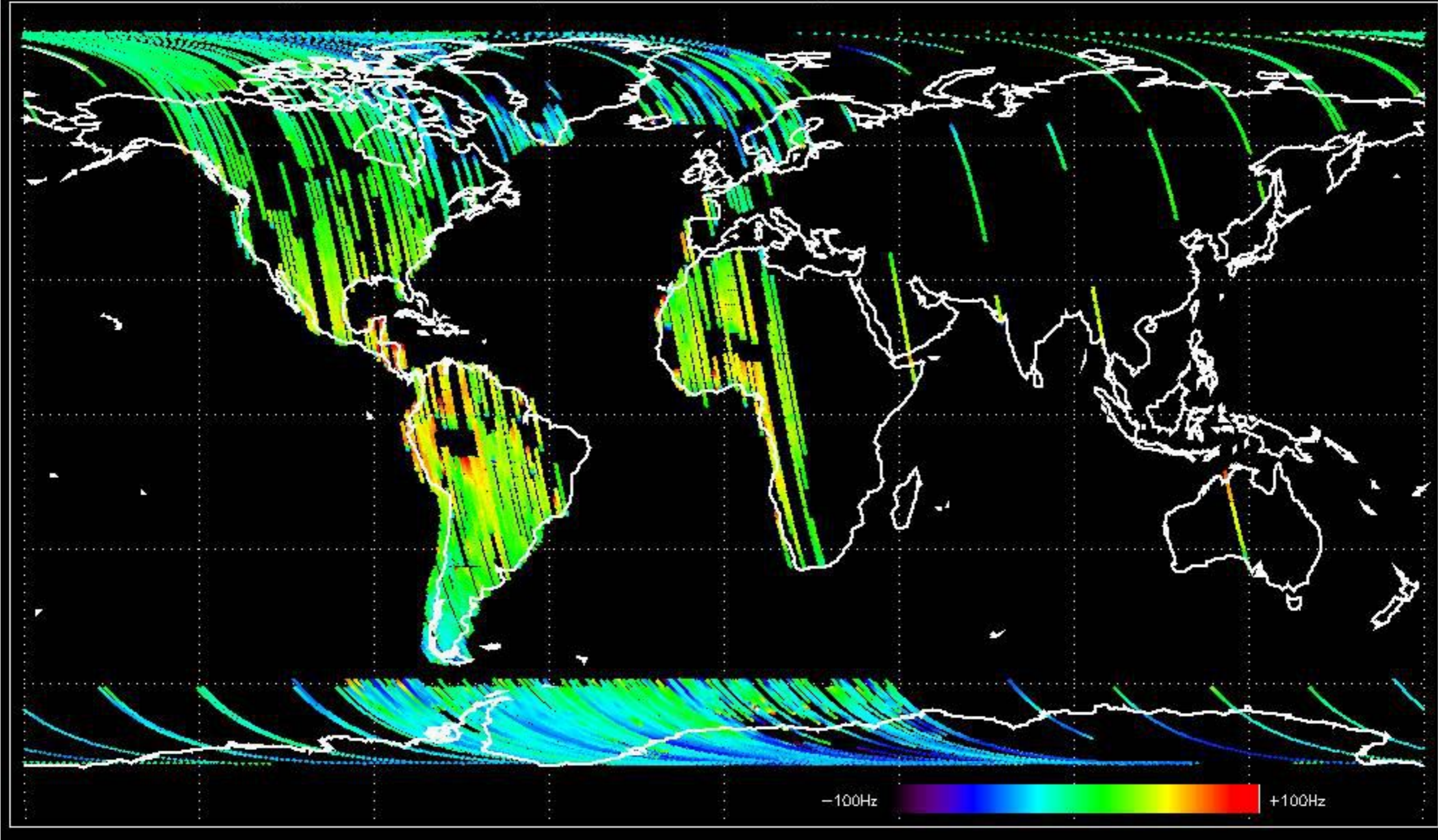
Doppler 'WVS' 'IS2' descending



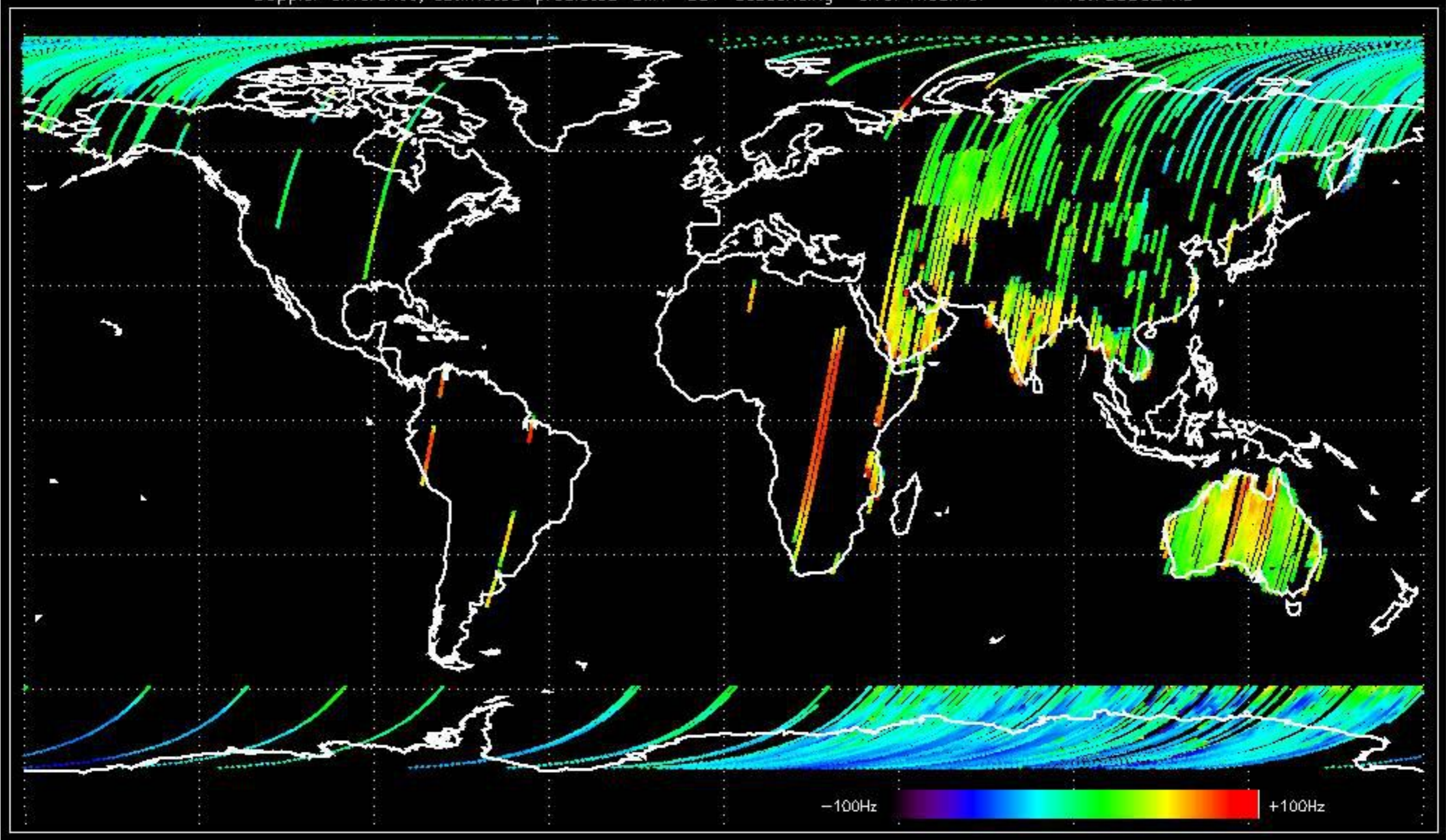




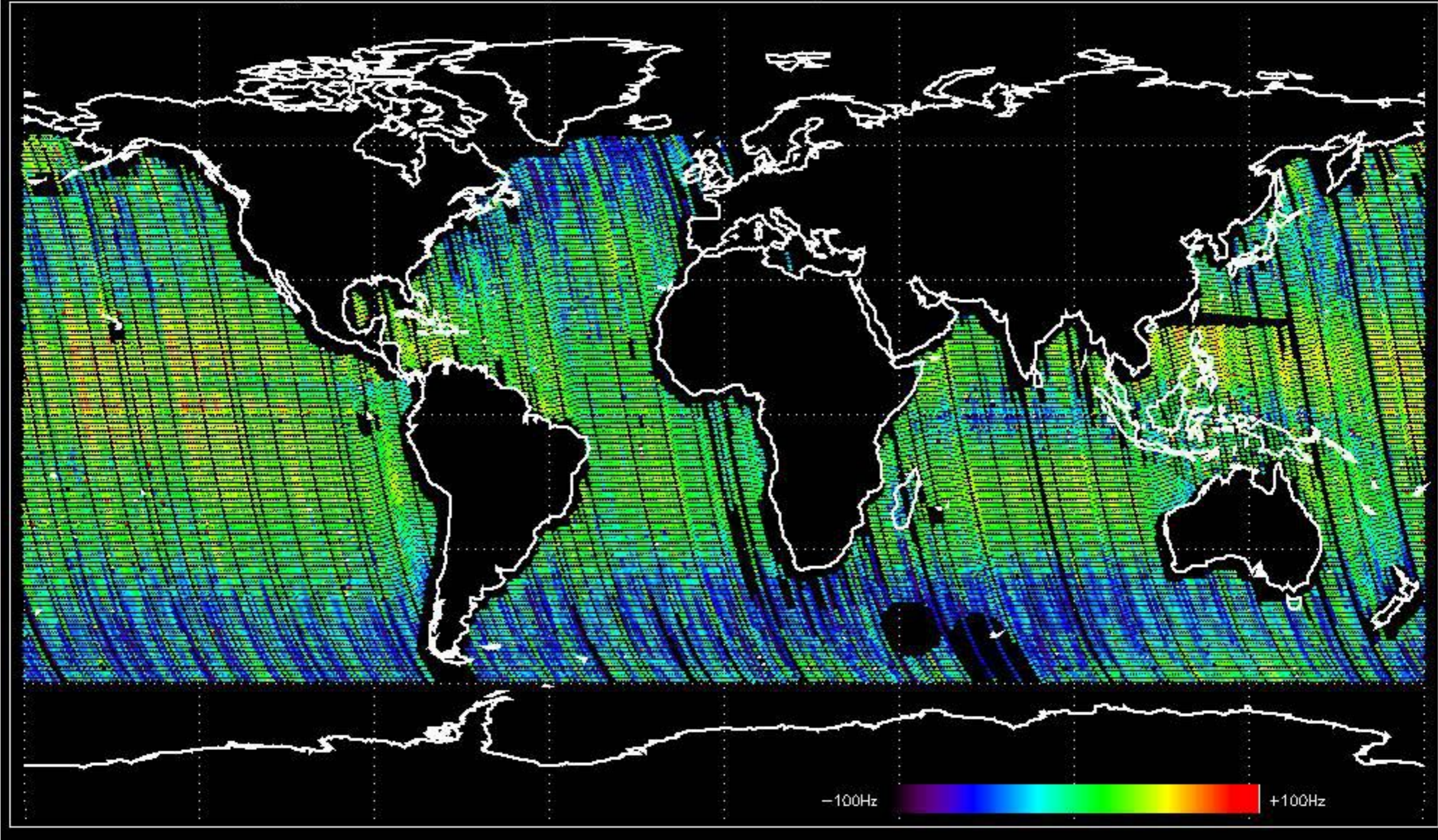
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -14.842909 Hz



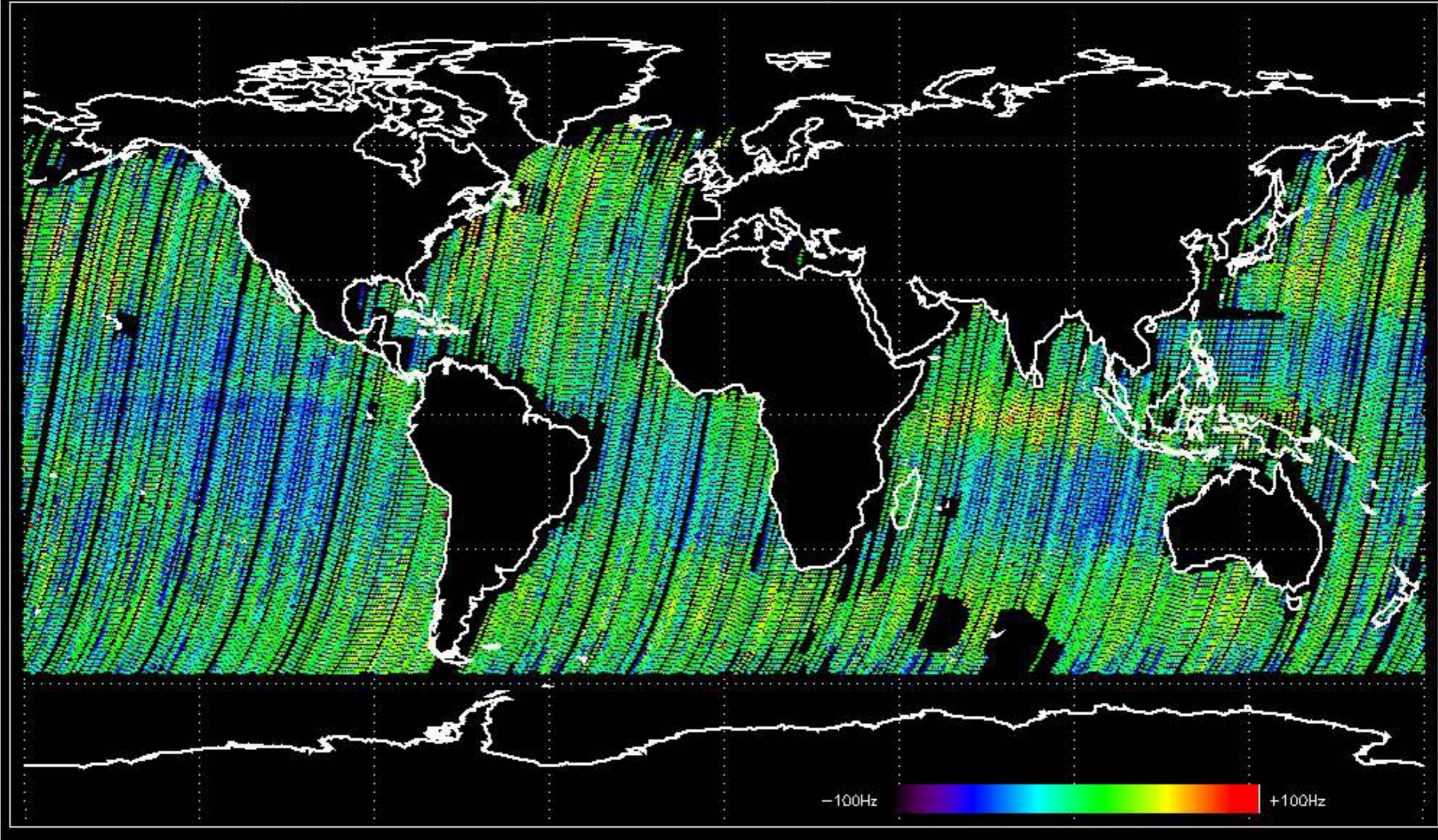
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -16.788562 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.8443237 Hz

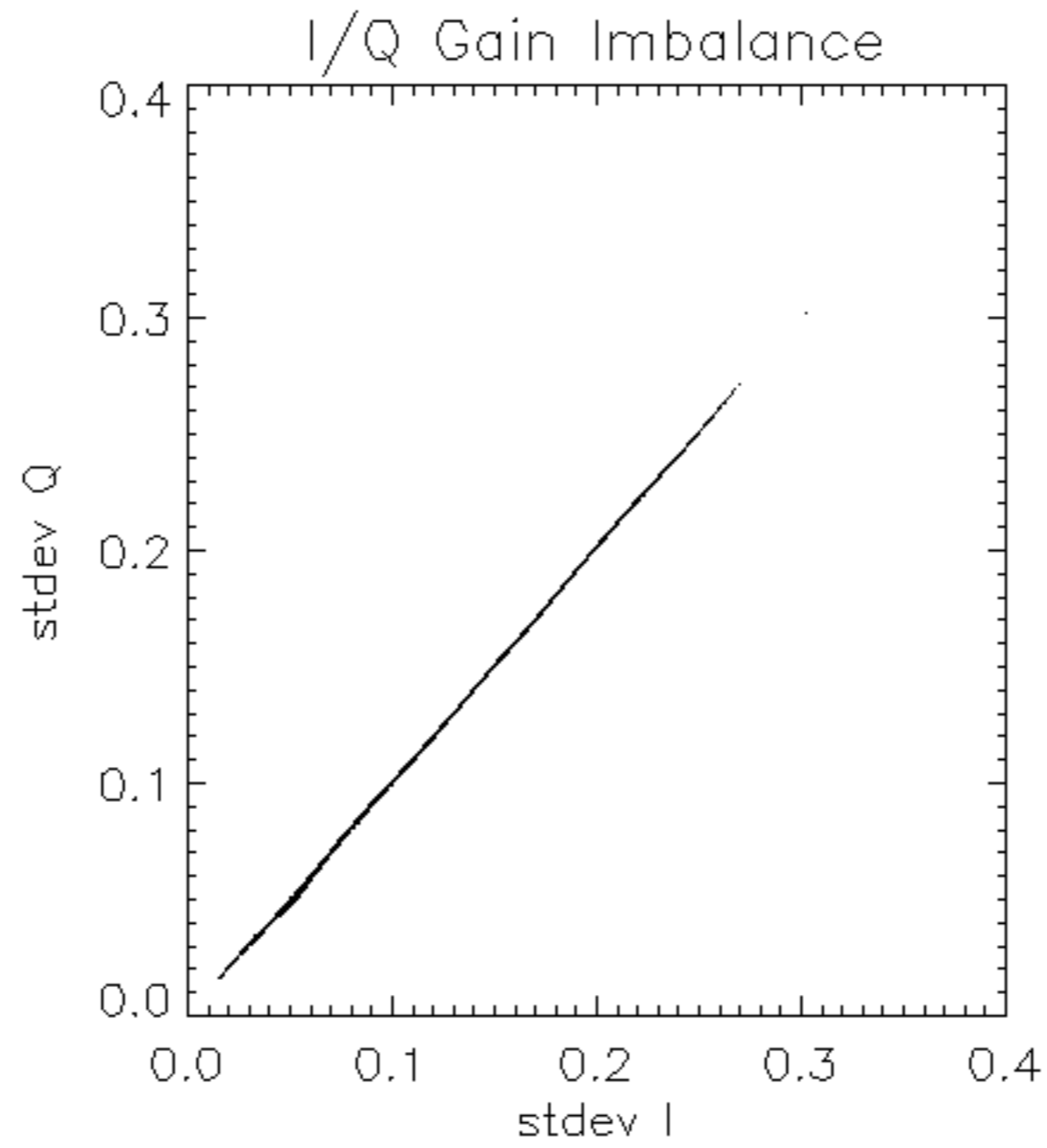


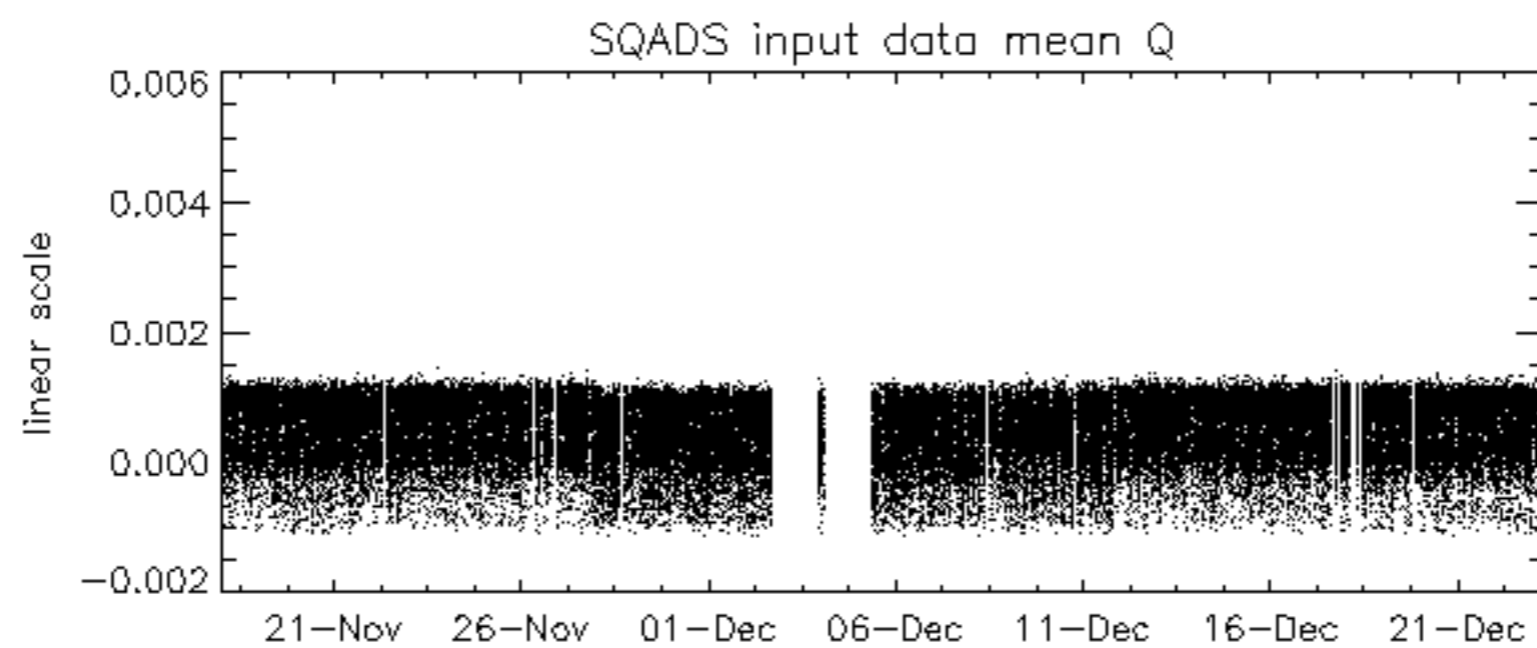
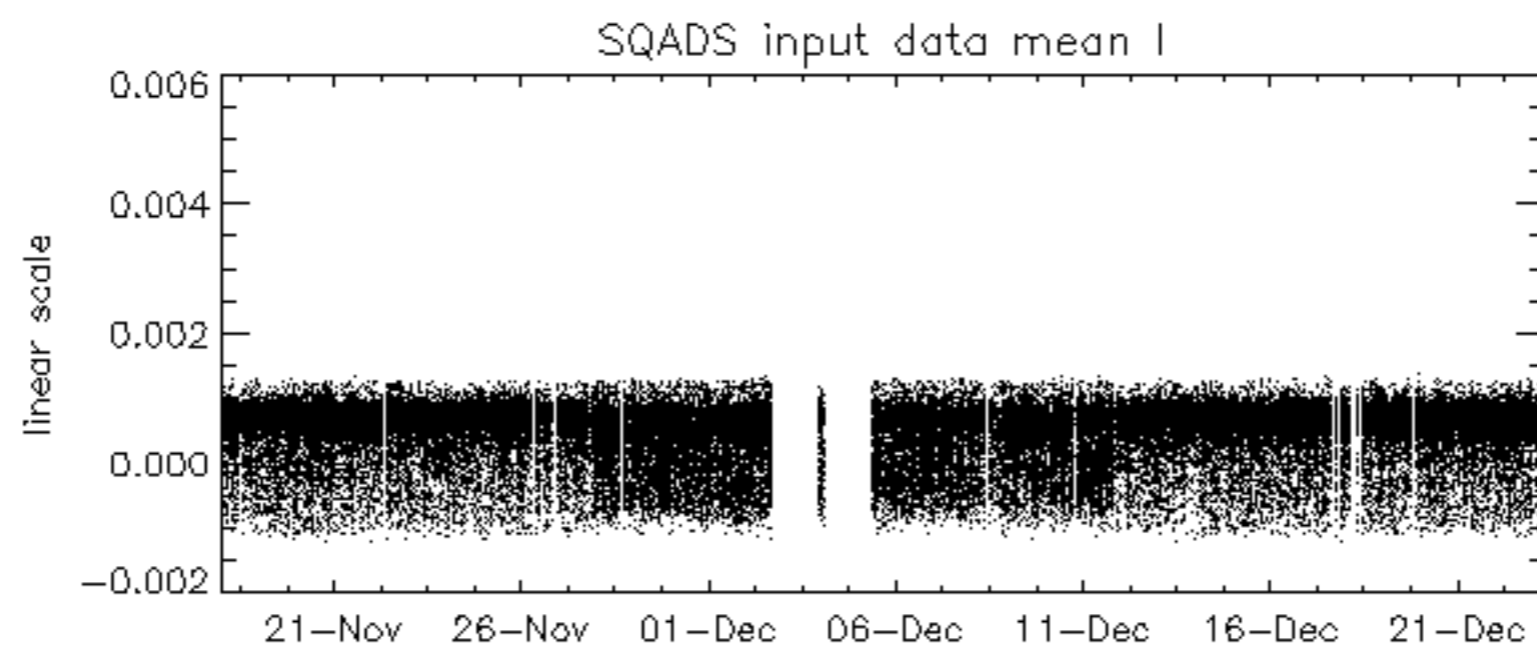
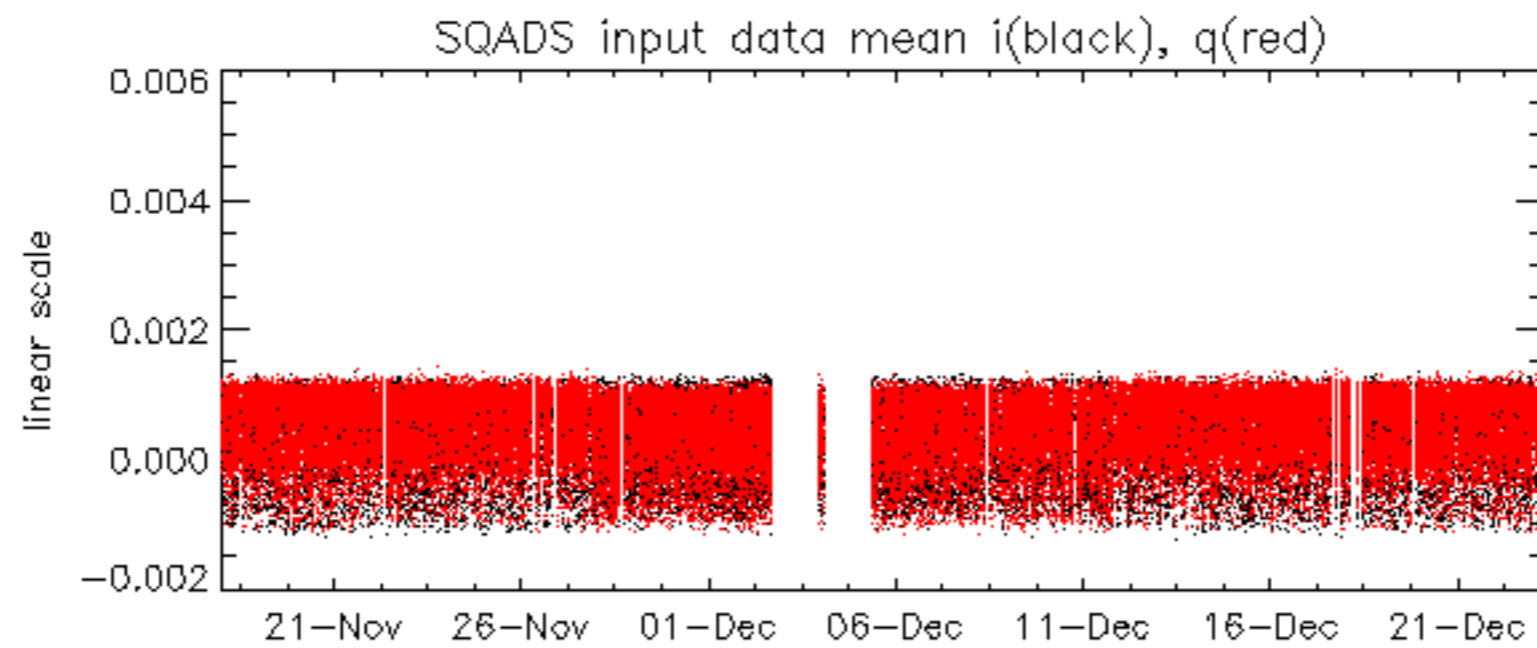
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.766447 Hz

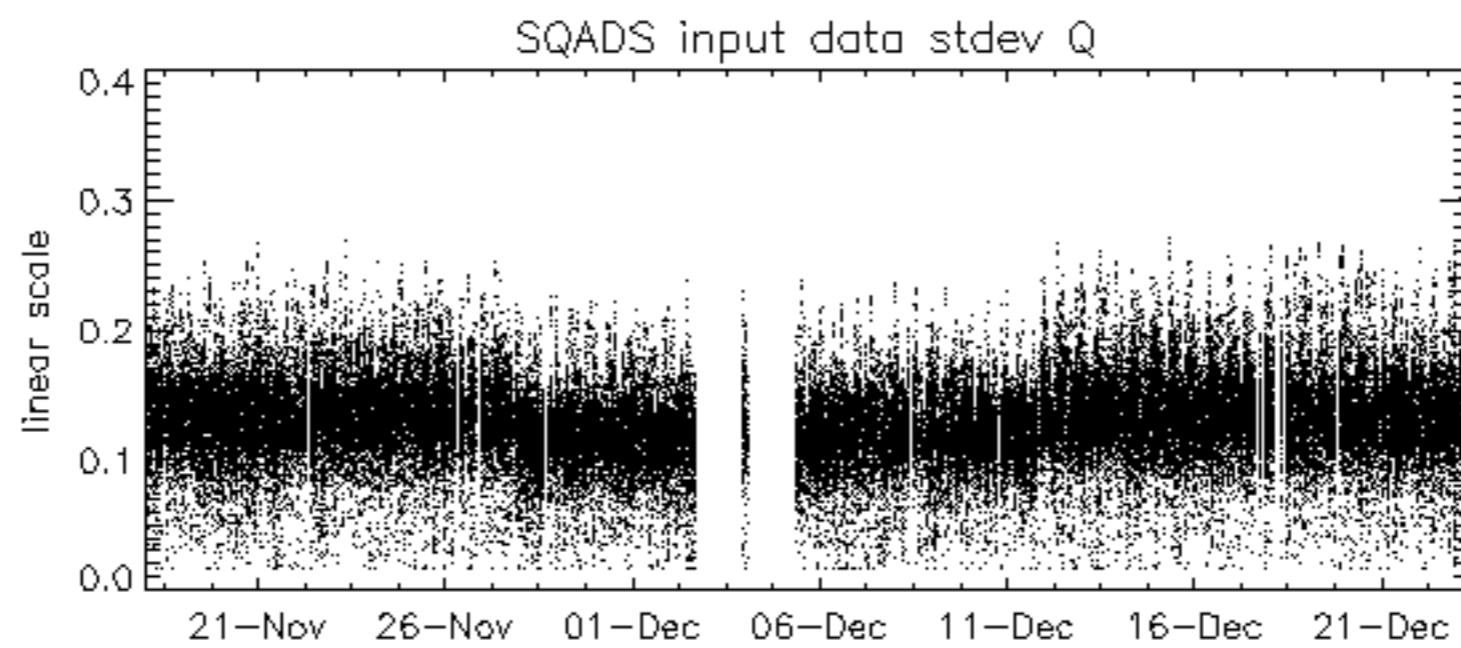
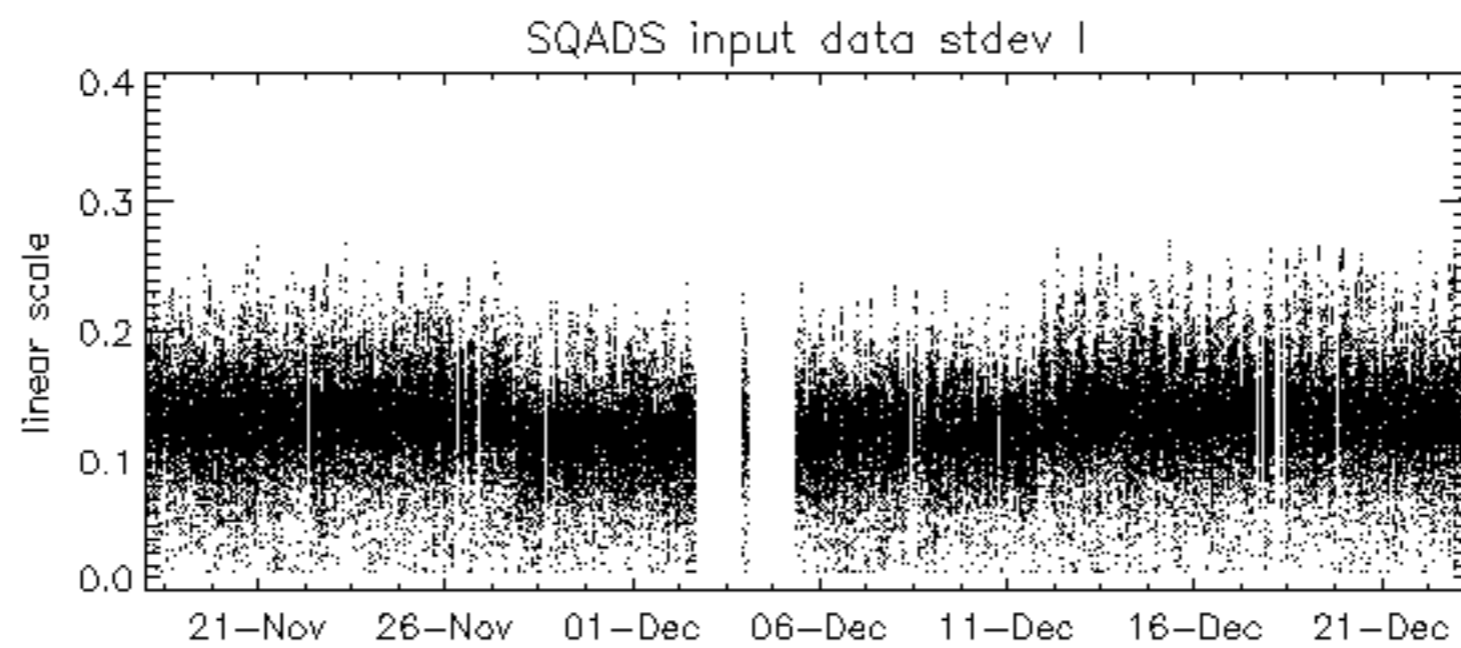
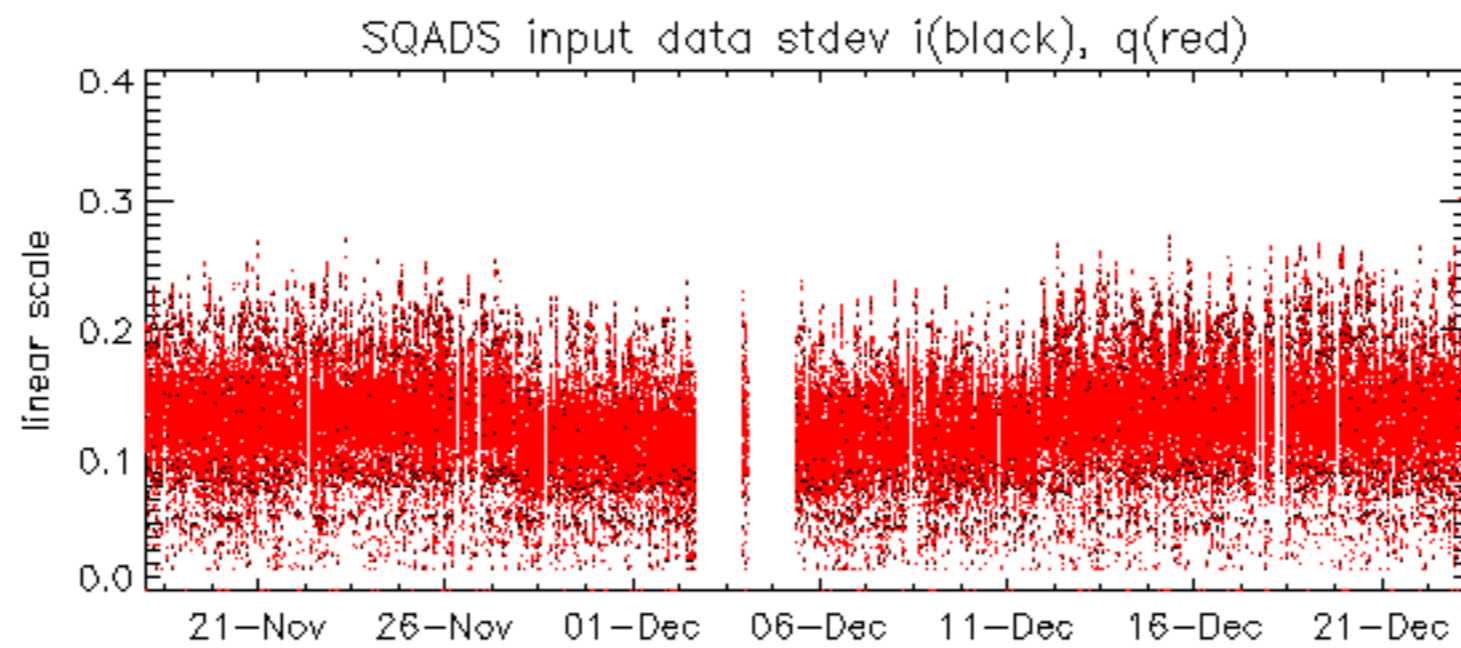


No anomalies observed on available MS products:

No anomalies observed.



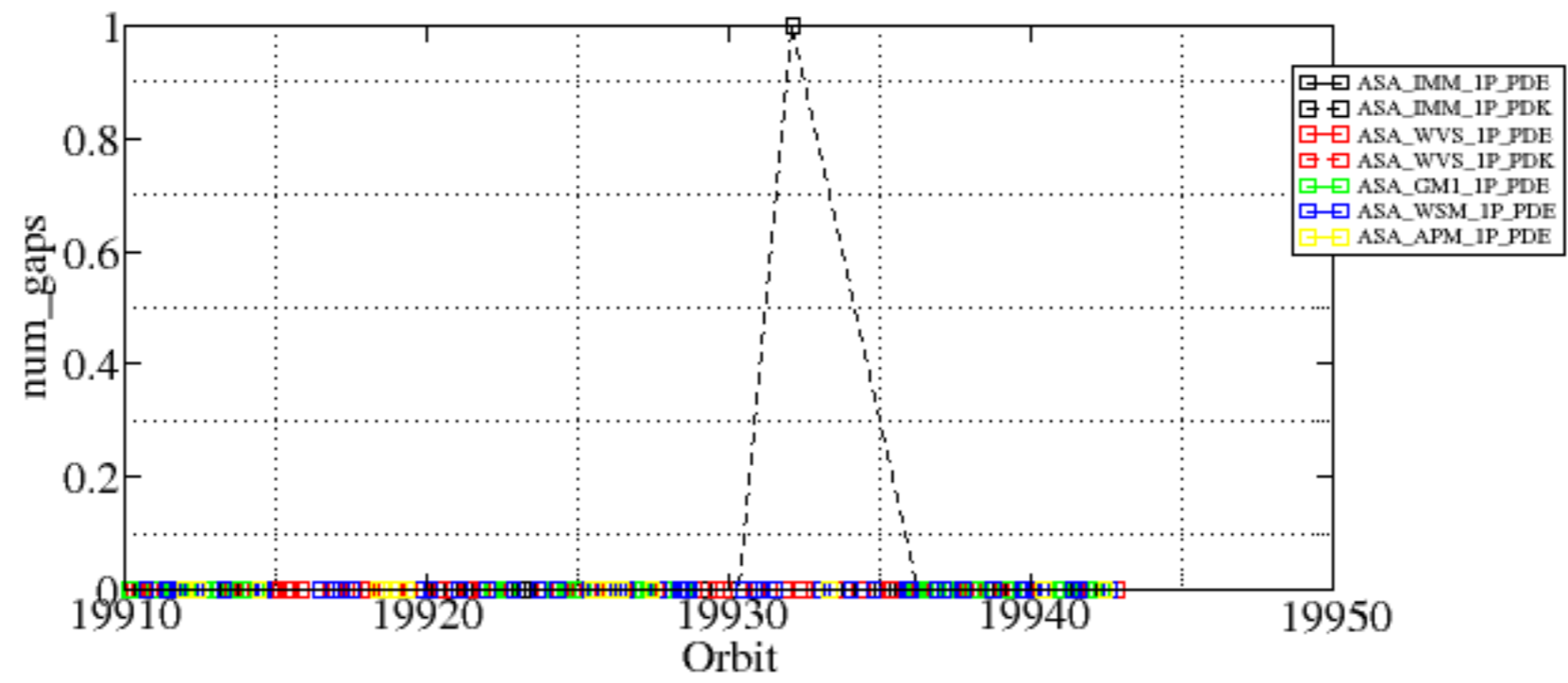


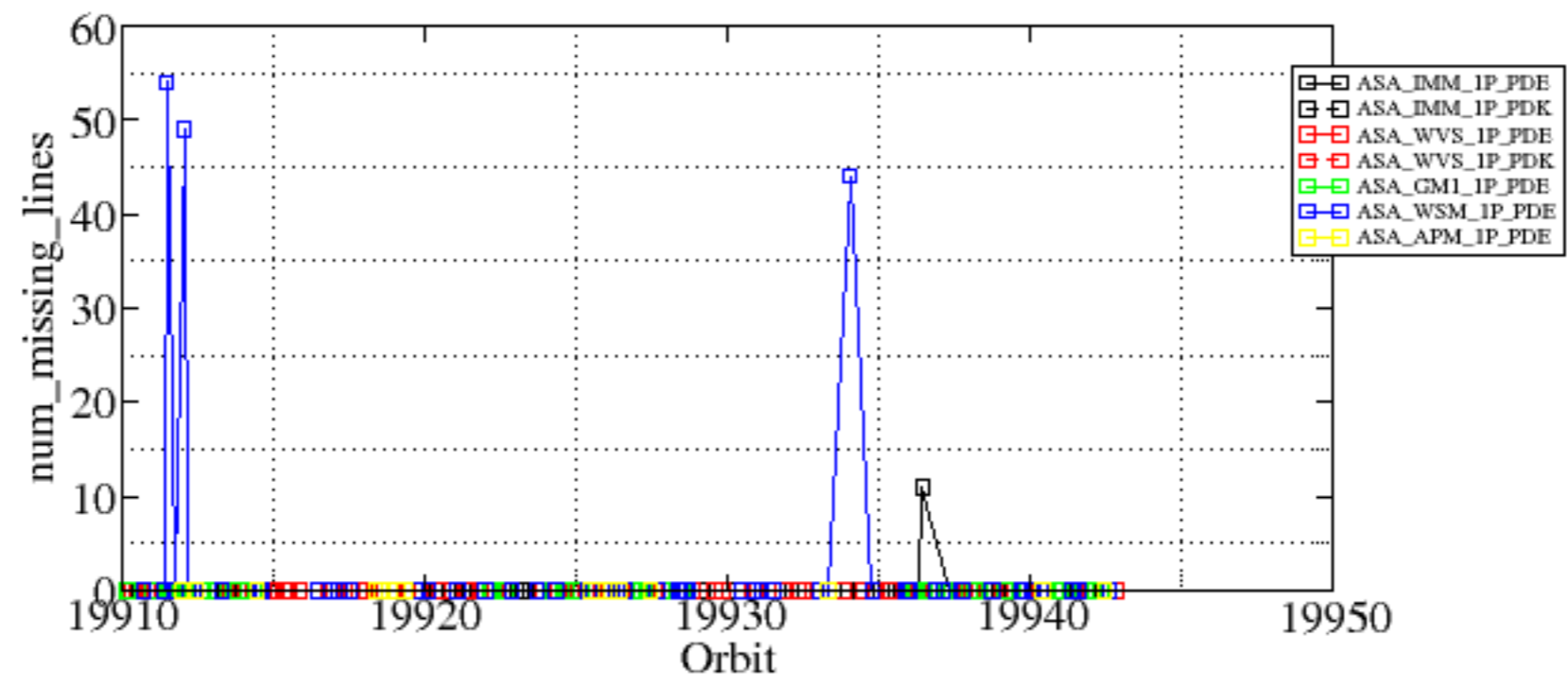


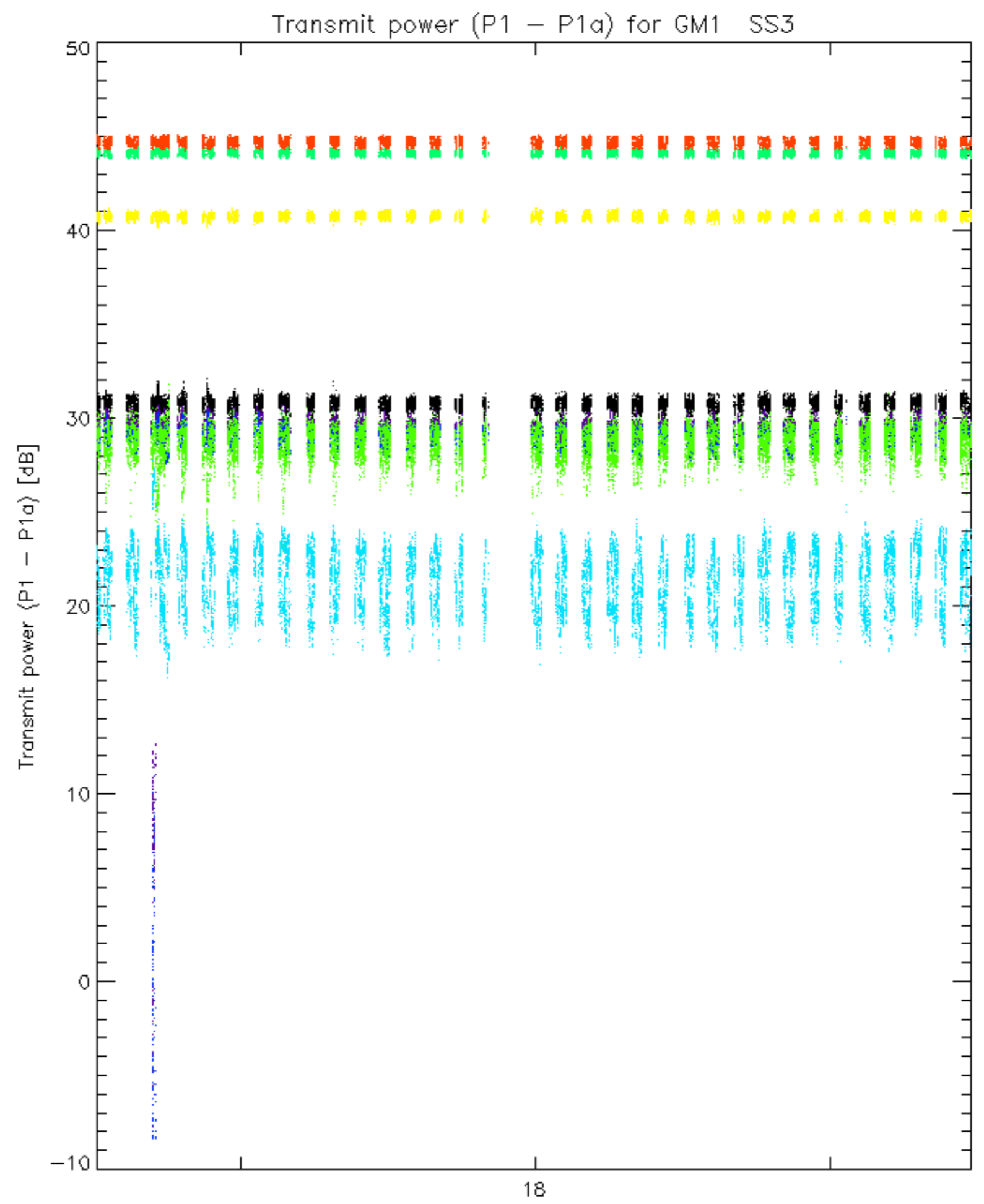
Summary of analysis for the last 3 days 2005122[123]

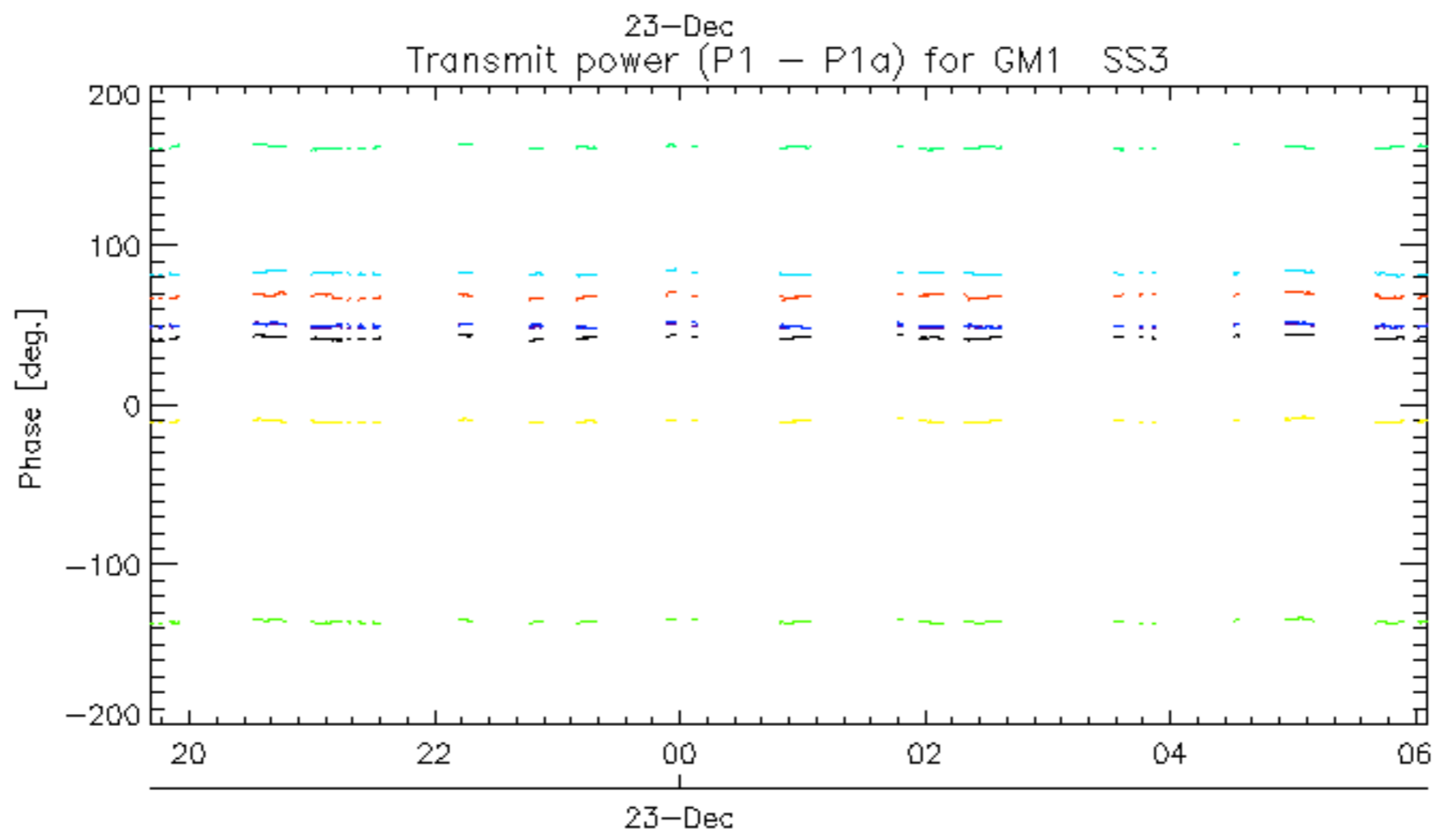
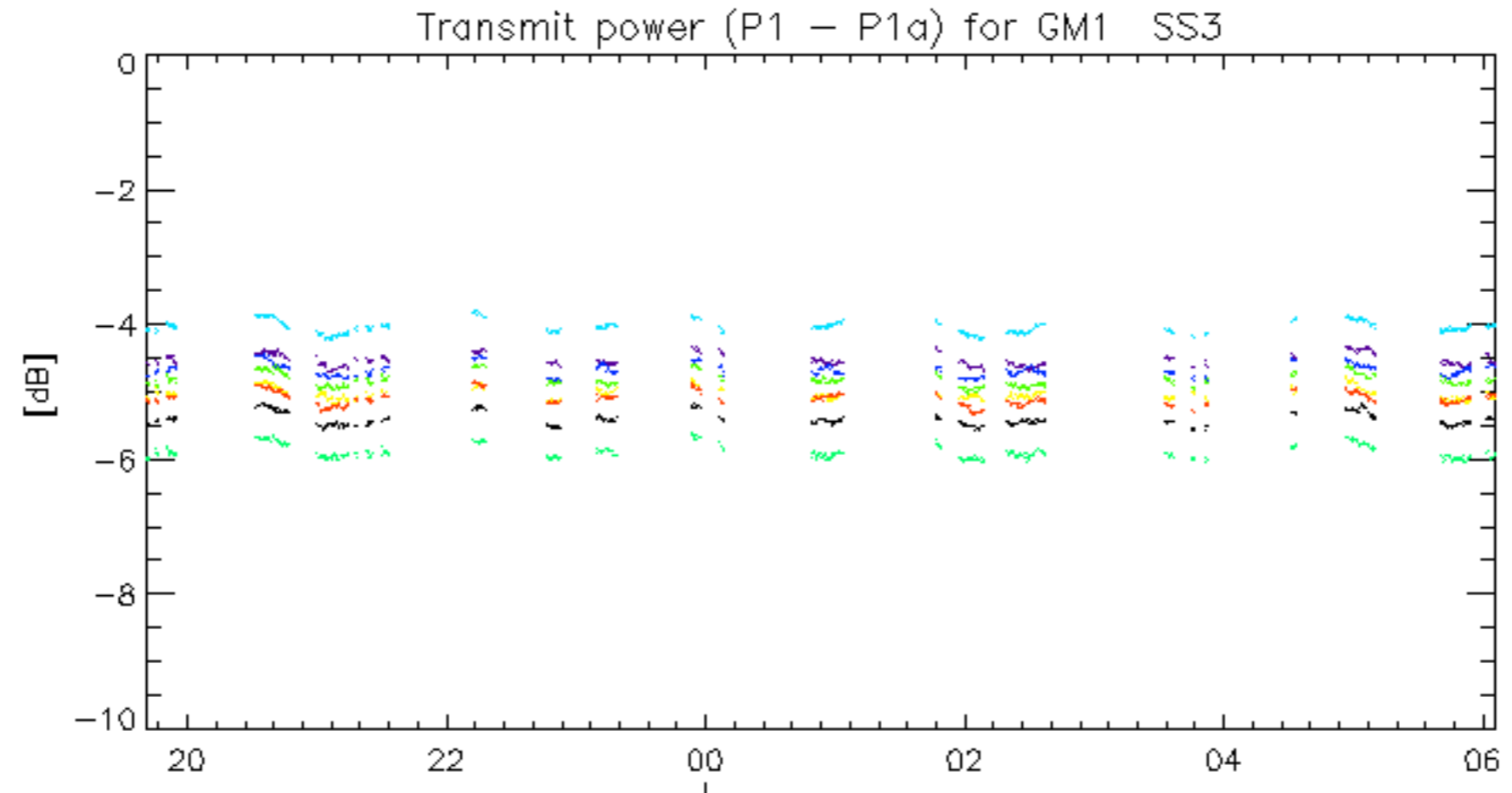
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051222_200902_00000502043_00343_19936_4599.N1	0	11
ASA_IMM_1PNPDK20051222_125406_000001212043_00339_19932_9583.N1	1	0
ASA_WSM_1PNPDE20051221_021712_000001042043_00318_19911_5158.N1	0	54
ASA_WSM_1PNPDE20051221_031549_000001472043_00319_19912_5167.N1	0	49
ASA_WSM_1PNPDE20051222_160845_000002082043_00341_19934_5342.N1	0	44

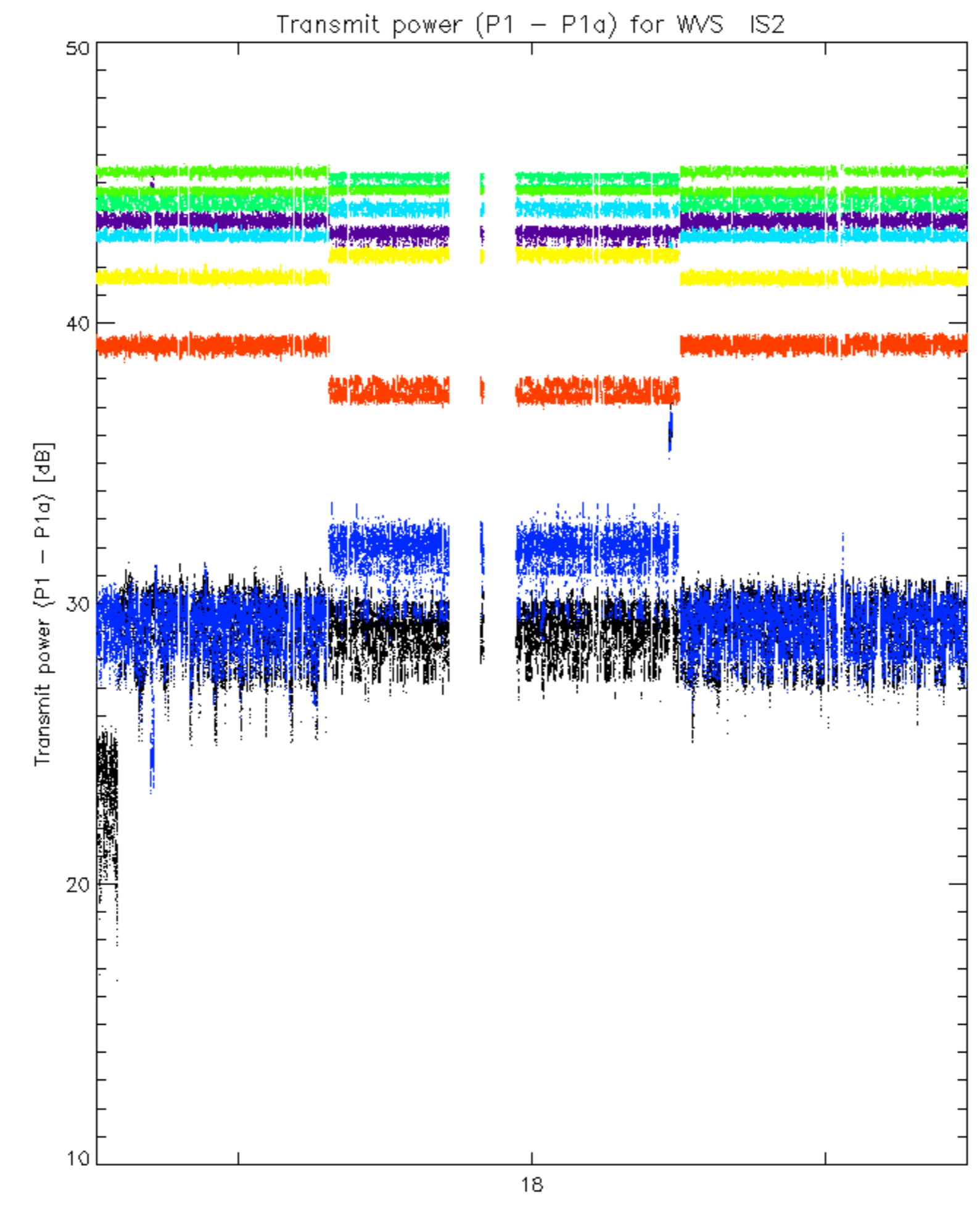




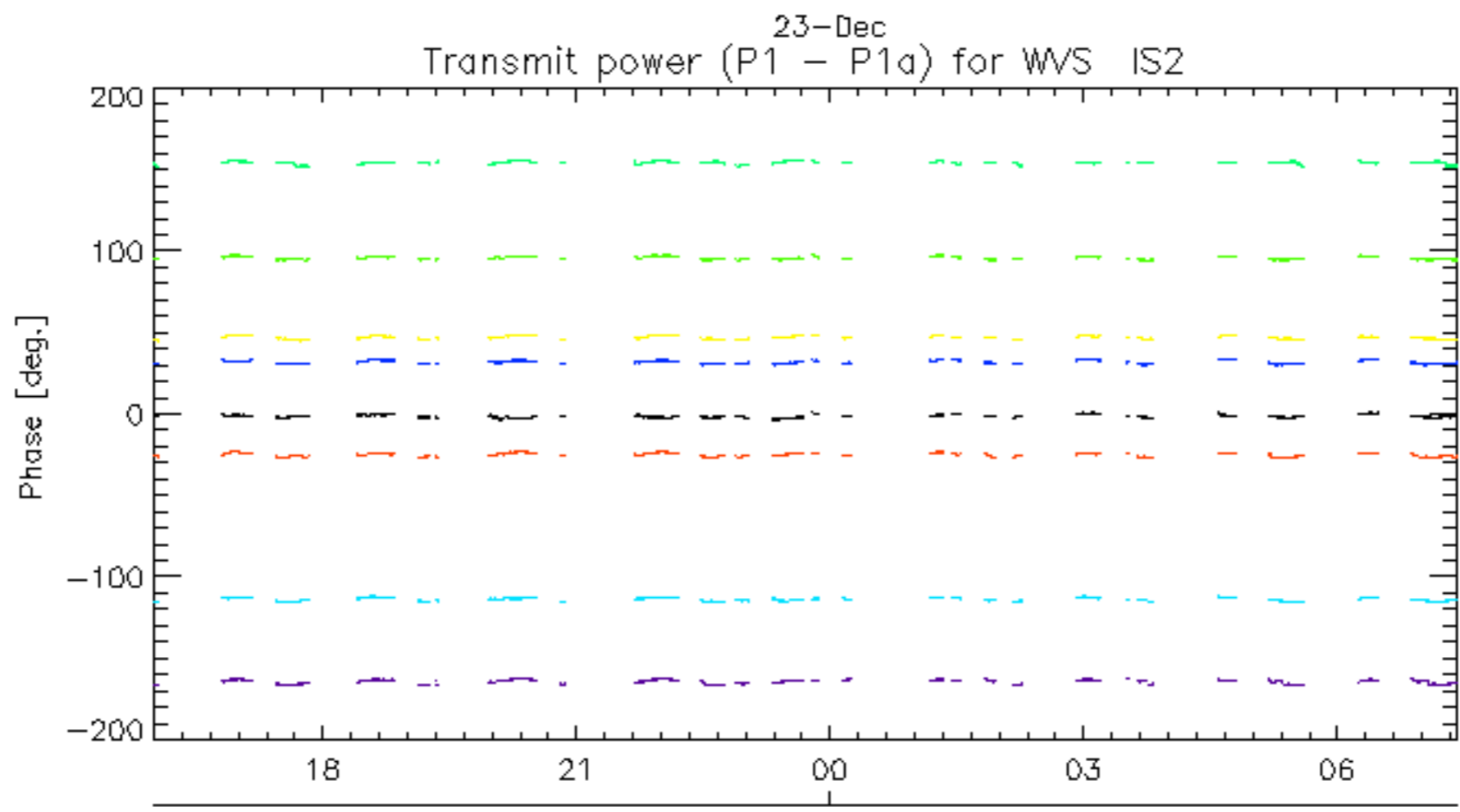
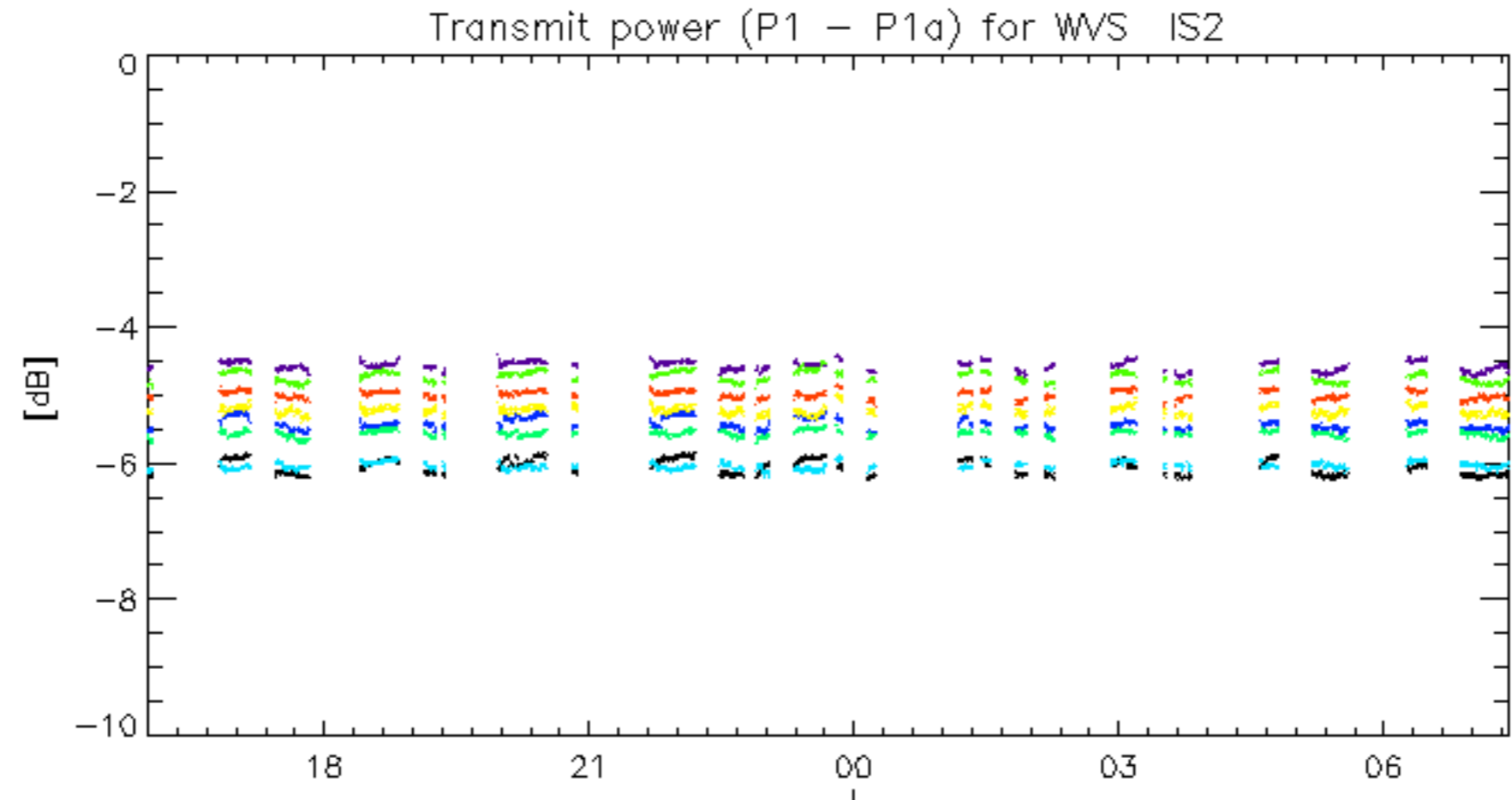




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.