

PRELIMINARY REPORT OF 070121

last update on Sun Jan 21 16:30:21 GMT 2007

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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 2007-01-20 00:00:00 to 2007-01-21 16:30:21

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	30	46	7	1	9
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	30	46	7	1	9
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	30	46	7	1	9
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	30	46	7	1	9

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	50	43	50	10	31
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	50	43	50	10	31
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	50	43	50	10	31
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	50	43	50	10	31

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	20070120 204859
H	20070119 143812

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

<input type="checkbox"/>

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1a	-16.522007	0.252086	0.115466
7	P1a	-17.256083	0.179251	0.000761
11	P1a	-17.270489	0.437634	-0.065319
15	P1a	-13.035617	0.122596	0.012618
19	P1a	-15.097993	0.111501	-0.100459
22	P1a	-15.792843	0.543293	0.025441
26	P1a	-15.027411	0.181977	0.002255
30	P1a	-17.530340	0.497770	-0.046378

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.964939	0.007088	0.022878
7	P1	-3.129516	0.043978	0.042242
11	P1	-4.116332	0.025256	0.005312
15	P1	-6.338815	0.016492	-0.012910
19	P1	-3.690325	0.006020	-0.032973
22	P1	-4.682138	0.016541	-0.013245
26	P1	-3.951673	0.009726	0.031871
30	P1	-5.918934	0.008388	0.003077
3	P1a	-16.522007	0.252086	0.115466
7	P1a	-17.256083	0.179251	0.000761
11	P1a	-17.270489	0.437634	-0.065319
15	P1a	-13.035617	0.122596	0.012618
19	P1a	-15.097993	0.111501	-0.100459
22	P1a	-15.792843	0.543293	0.025441
26	P1a	-15.027411	0.181977	0.002255
30	P1a	-17.530340	0.497770	-0.046378

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.779783	0.089482	0.068640
7	P2	-21.663084	0.088417	0.050623
11	P2	-15.531232	0.099318	0.063090
15	P2	-7.091864	0.102393	0.038714

19	P2	-9.170996	0.096280	0.044856
22	P2	-18.220673	0.087912	0.025519
26	P2	-16.593021	0.101303	0.035531
30	P2	-19.432627	0.083106	0.062226

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.238225	0.008072	0.011045
7	P3	-8.238225	0.008072	0.011045
11	P3	-8.238225	0.008072	0.011045
15	P3	-8.238225	0.008072	0.011045
19	P3	-8.238225	0.008072	0.011045
22	P3	-8.238225	0.008072	0.011045
26	P3	-8.238246	0.008072	0.011175
30	P3	-8.238246	0.008072	0.011175

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1a	-11.726127	0.073507	-0.016855
7	P1a	-10.034030	0.085166	0.051874
11	P1a	-10.365980	0.088038	-0.066457
15	P1a	-10.746144	0.159829	-0.070167
19	P1a	-15.751792	0.101345	-0.051240
22	P1a	-21.503914	1.491401	0.375178
26	P1a	-15.950847	0.311358	0.321898
30	P1a	-17.954340	0.381802	-0.276460

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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3	P1	-3.921303	0.012905	-0.011850
7	P1	-2.468498	0.061810	0.052595
11	P1	-2.828624	0.014973	0.002873
15	P1	-3.718630	0.032146	-0.086028
19	P1	-3.553906	0.018555	-0.032415
22	P1	-5.004748	0.022084	-0.017448
26	P1	-6.043909	0.023802	-0.012655
30	P1	-5.349753	0.035805	0.007522
3	P1a	-11.726127	0.073507	-0.016855
7	P1a	-10.034030	0.085166	0.051874
11	P1a	-10.365980	0.088038	-0.066457
15	P1a	-10.746144	0.159829	-0.070167
19	P1a	-15.751792	0.101345	-0.051240
22	P1a	-21.503914	1.491401	0.375178
26	P1a	-15.950847	0.311358	0.321898
30	P1a	-17.954340	0.381802	-0.276460

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.415579	0.091150	0.140957
7	P2	-22.180984	0.214666	0.080624
11	P2	-10.825523	0.083807	0.107318
15	P2	-4.953318	0.198997	0.079307
19	P2	-6.941996	0.208849	0.066804
22	P2	-8.231402	0.117016	0.030011
26	P2	-24.344997	0.145881	0.024518
30	P2	-21.896477	0.129316	0.093834

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.087173	0.002774	0.027171
7	P3	-8.086912	0.002760	0.026834
11	P3	-8.087070	0.002776	0.027473
15	P3	-8.086937	0.002763	0.026783
19	P3	-8.087035	0.002773	0.027350
22	P3	-8.086949	0.002767	0.026407
26	P3	-8.087267	0.002770	0.027080
30	P3	-8.087016	0.002763	0.027089

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	0.000572777
	stdev	1.62148e-07
MEAN Q	mean	0.000511108
	stdev	2.11032e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.140453
	stdev	0.00115814
STDEV Q	mean	0.140852
	stdev	0.00117777



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007012[901]

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_1PNPDE20070120_015157_000000532054_00461_25565_3990.N1	1	0
ASA_GM1_1PNPDK20070120_131030_000008632054_00468_25572_5436.N1	0	17



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

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

<input type="checkbox"/>	Ascending
<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

<input type="checkbox"/>

Acsending

<input type="checkbox"/>

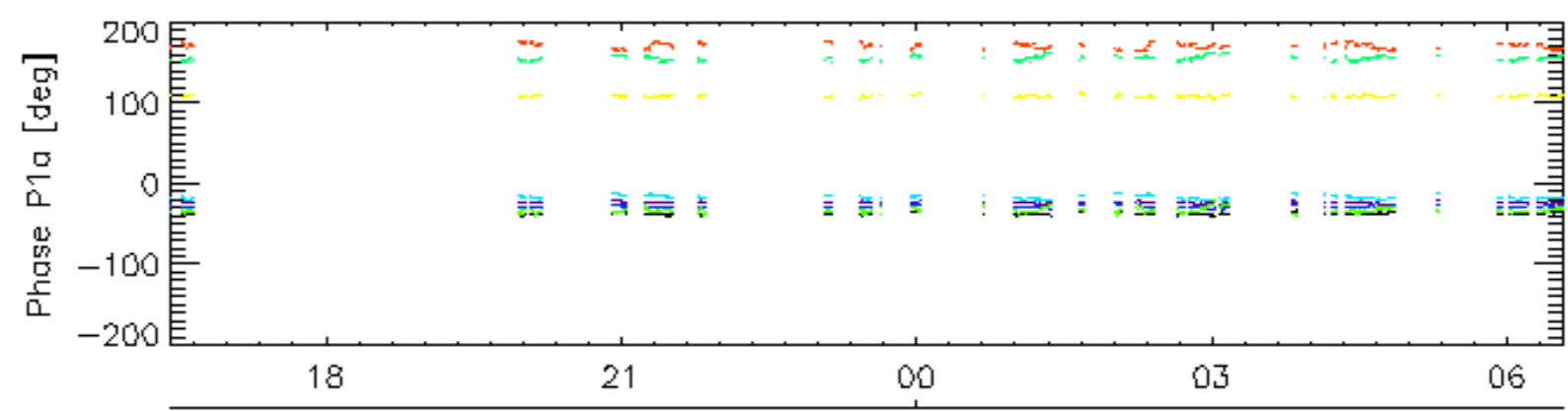
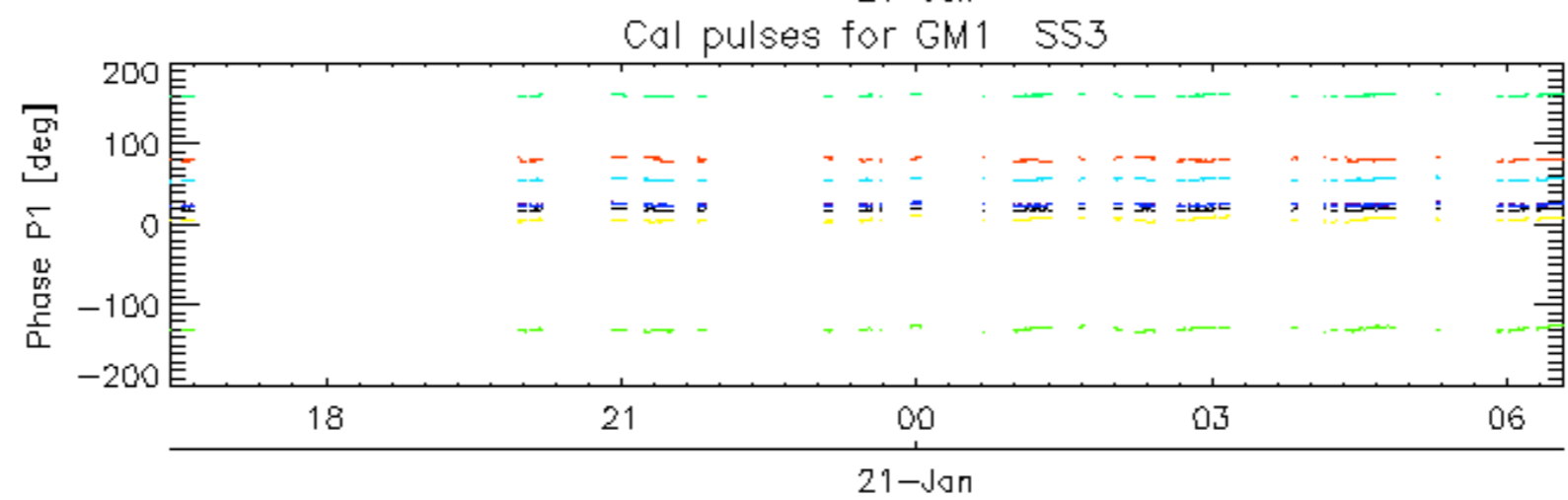
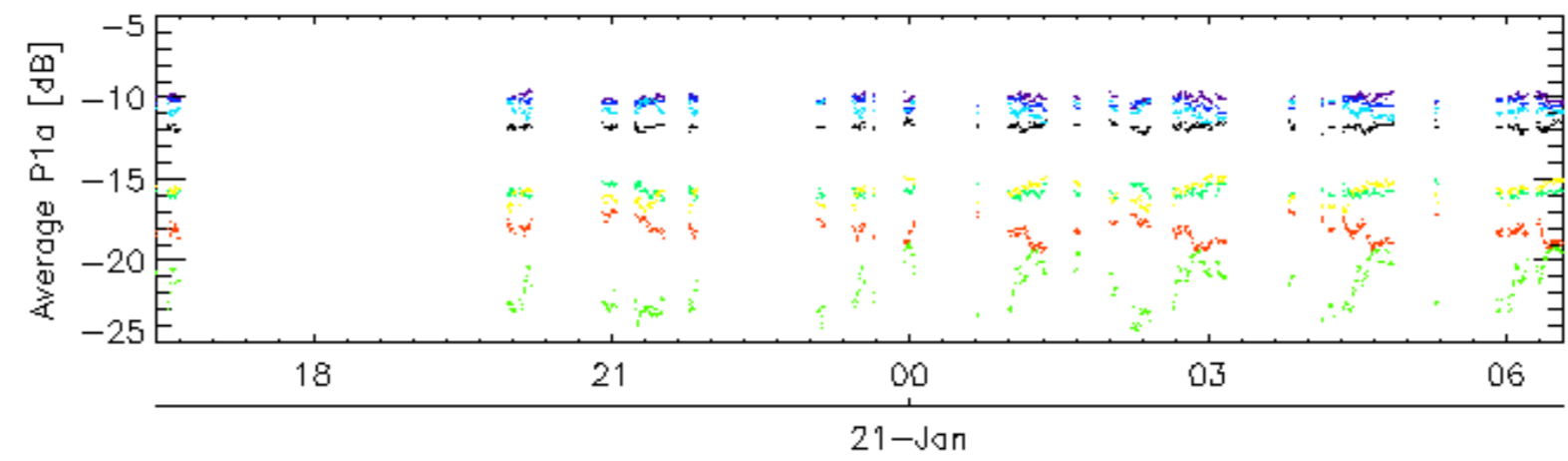
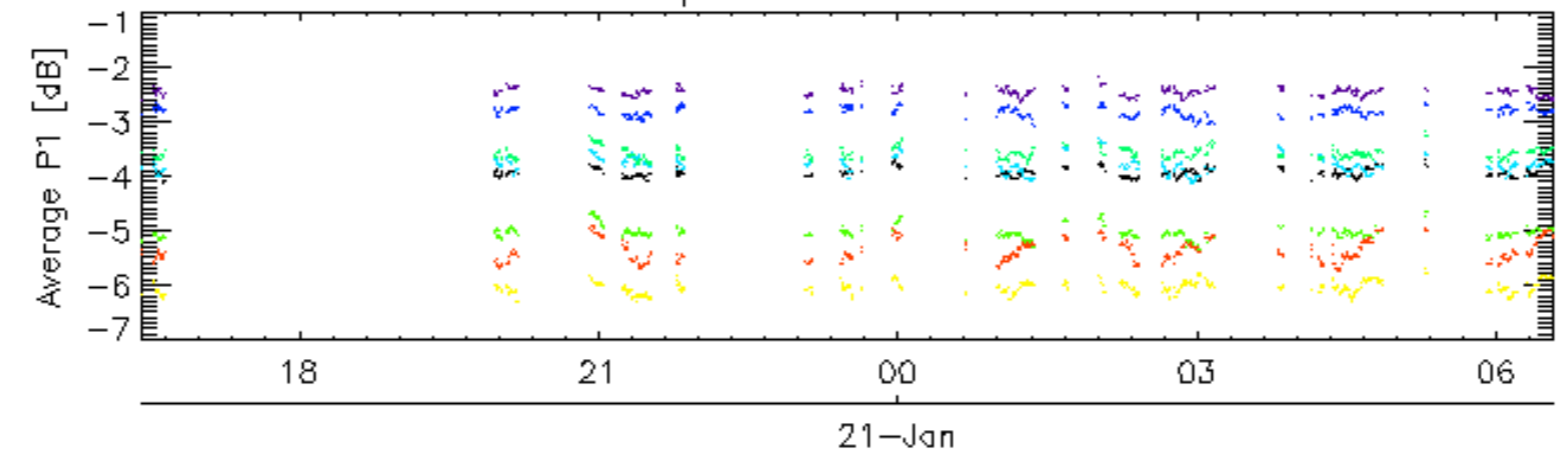
Descending

7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

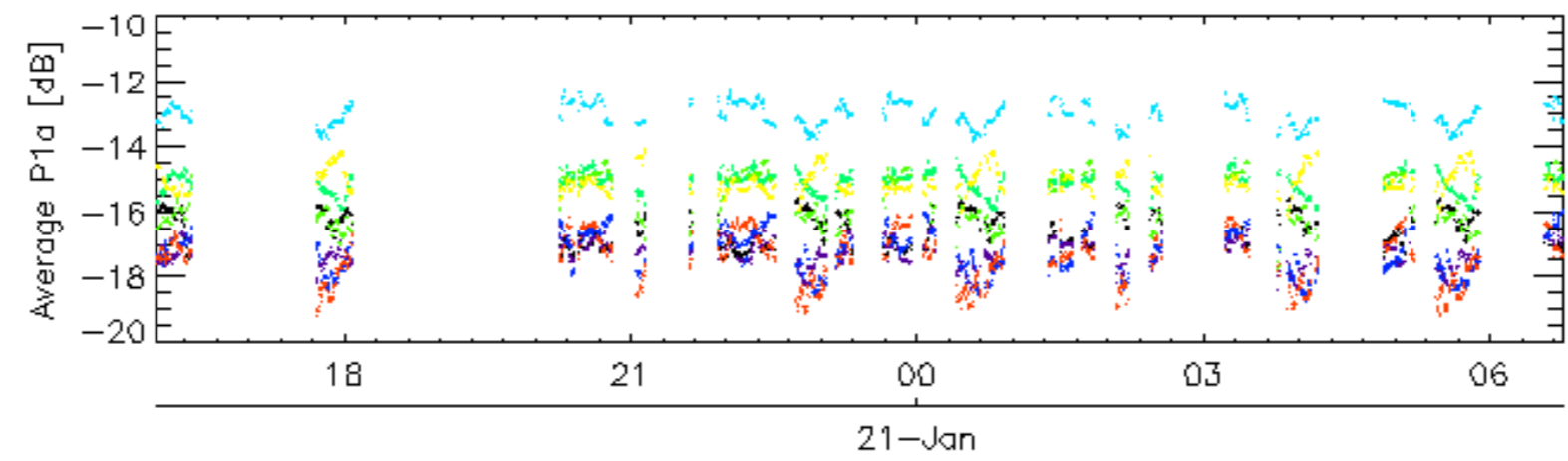
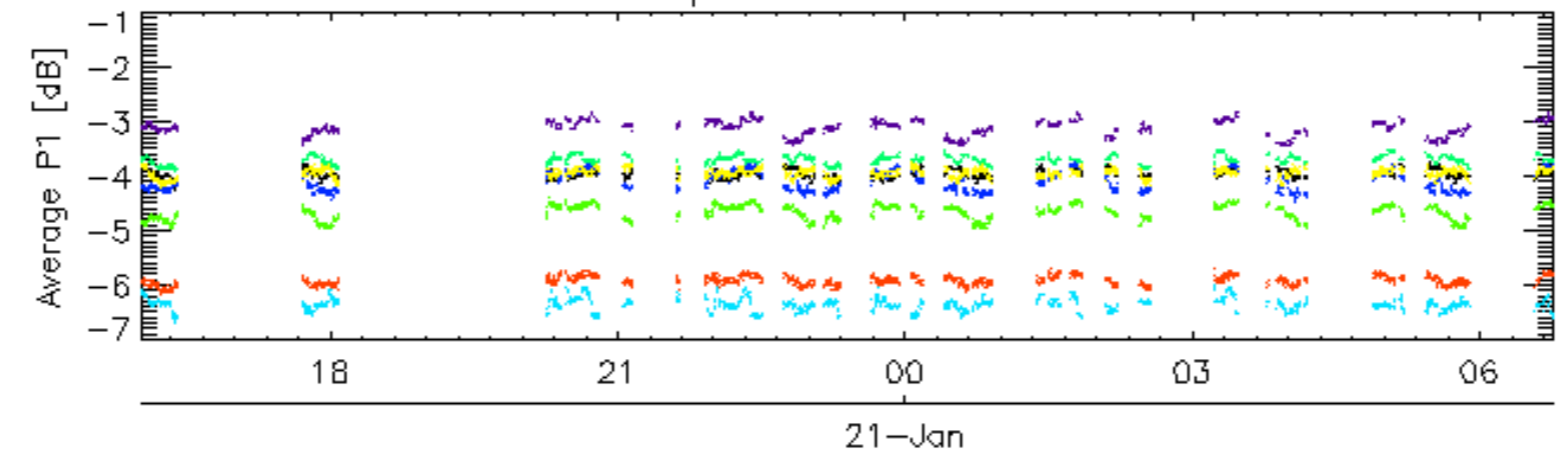
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Cal pulses for GM1 SS3

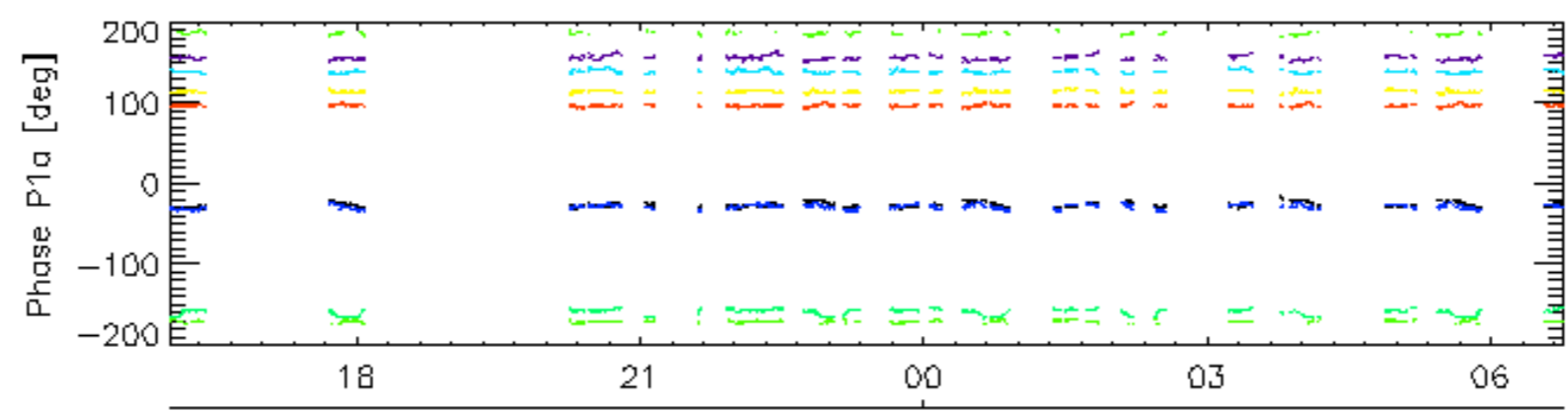
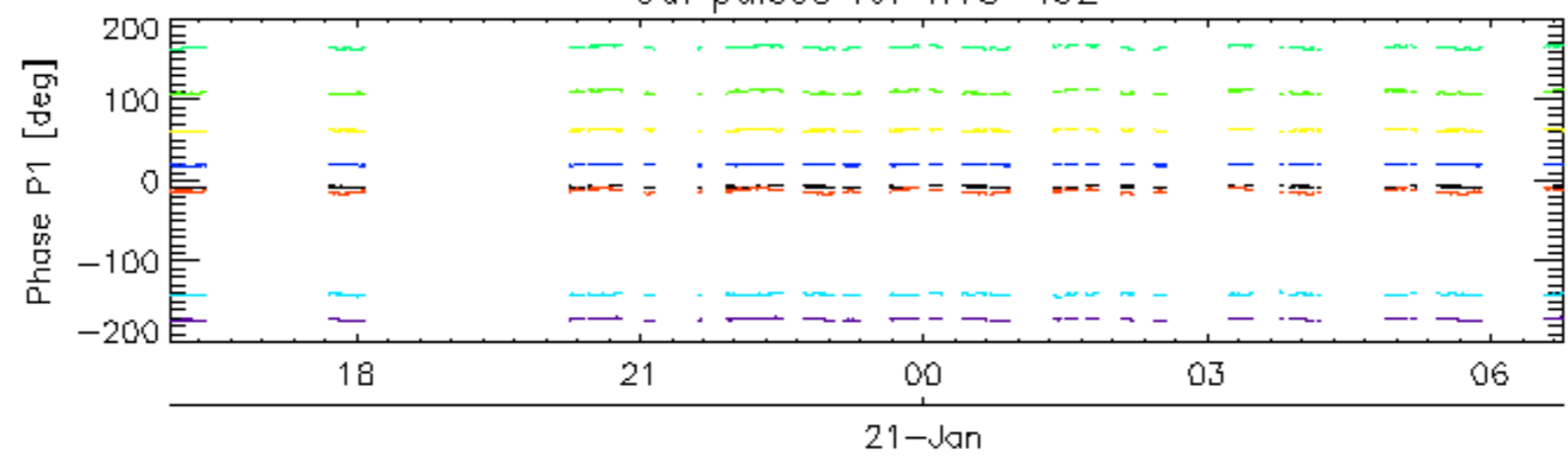


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

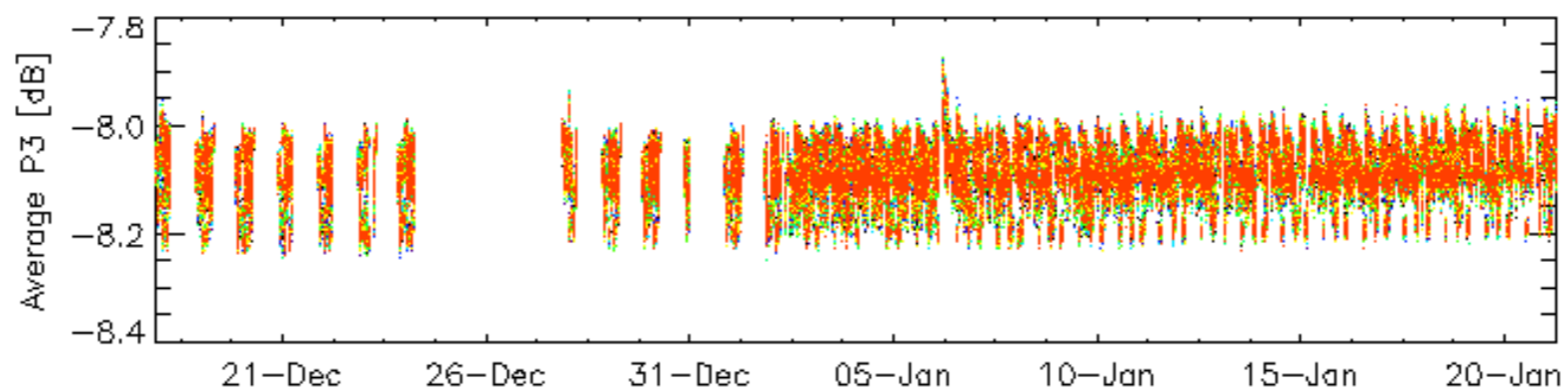
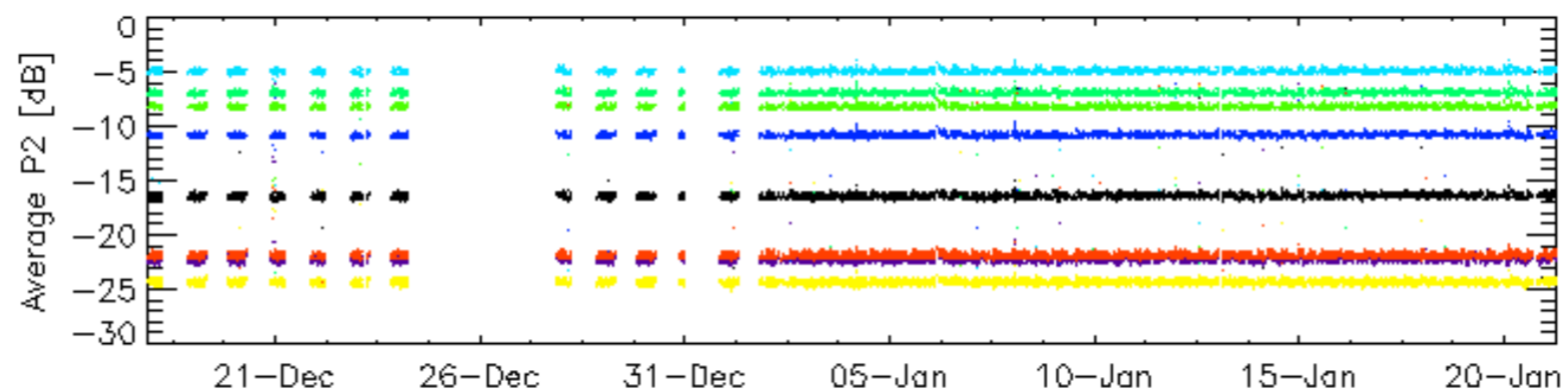
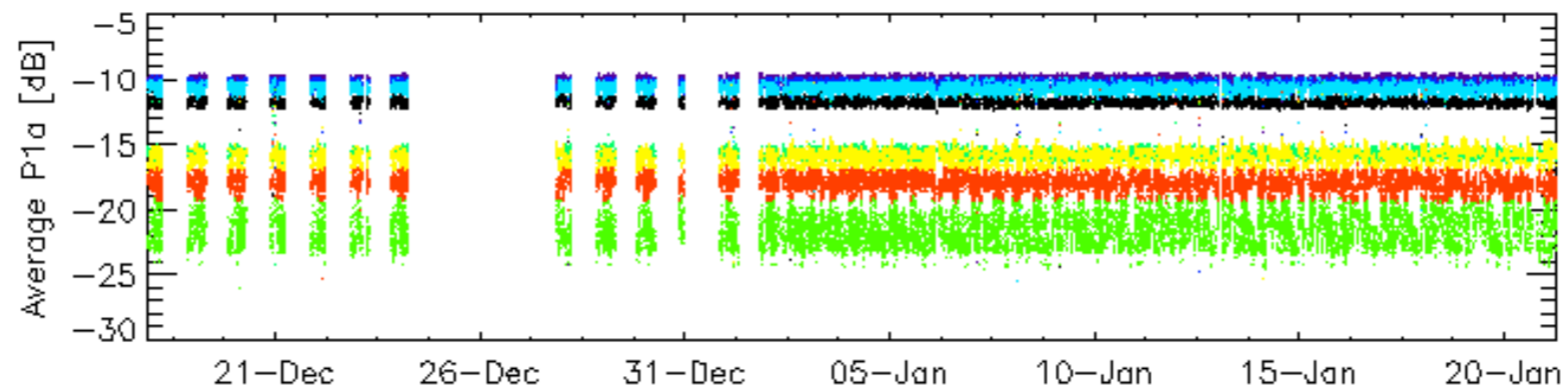
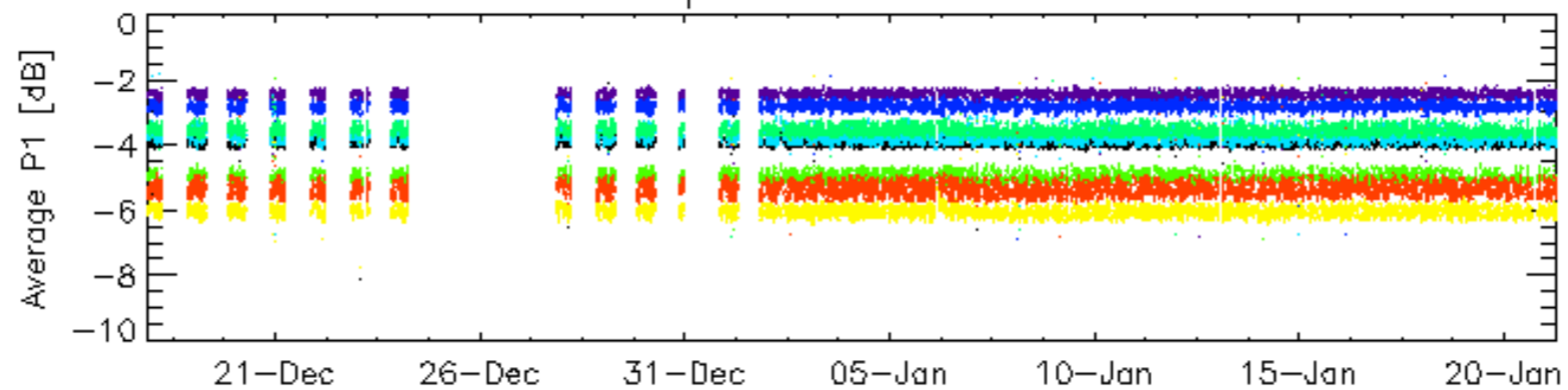


Cal pulses for WVS IS2



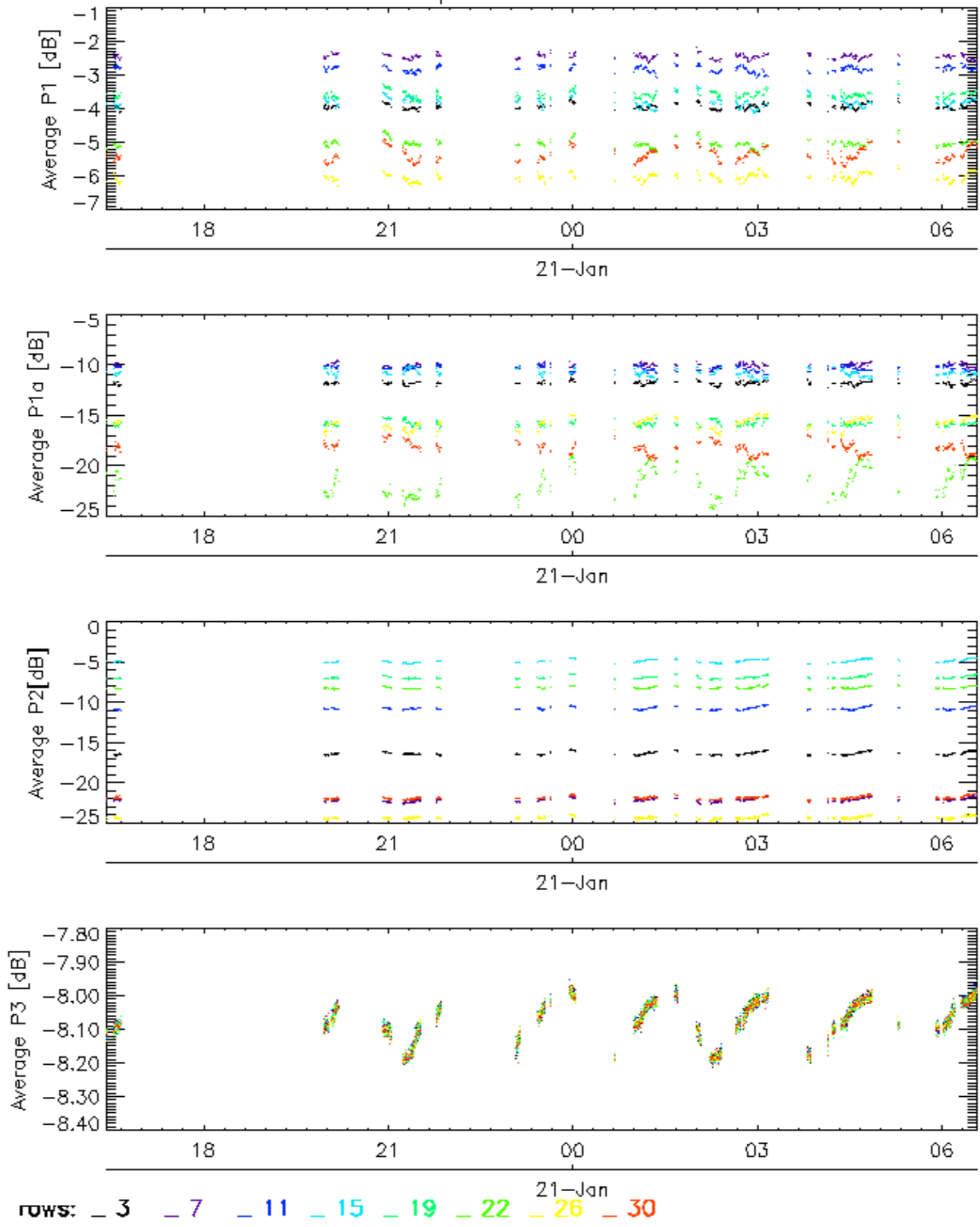
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

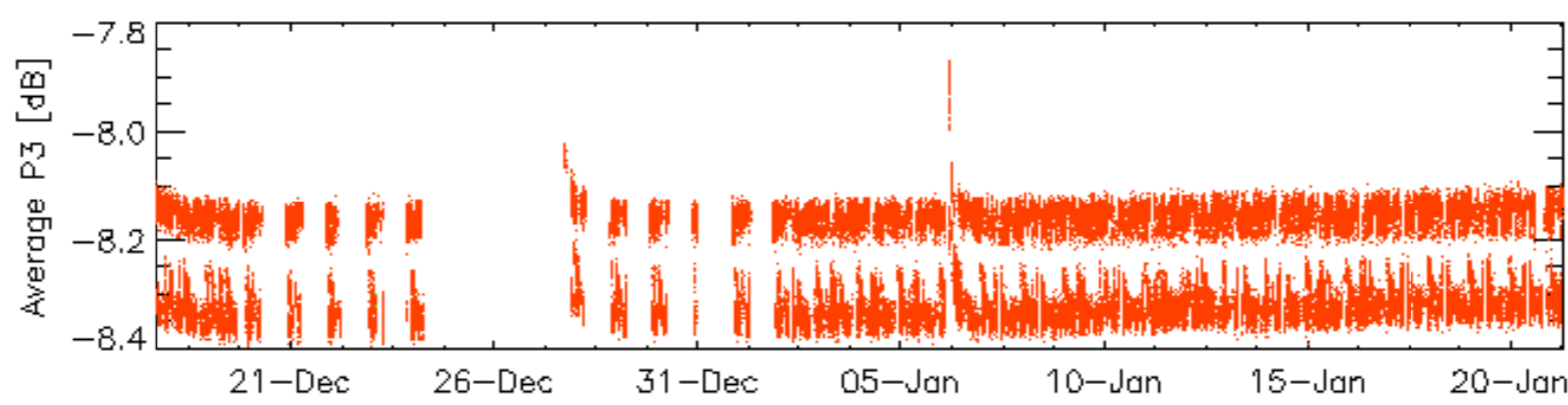
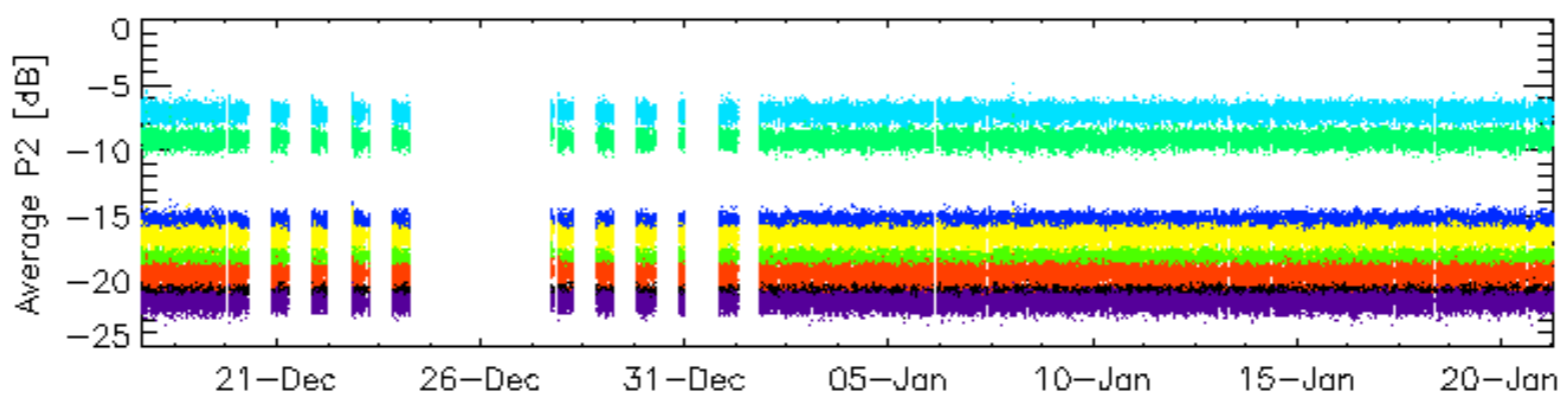
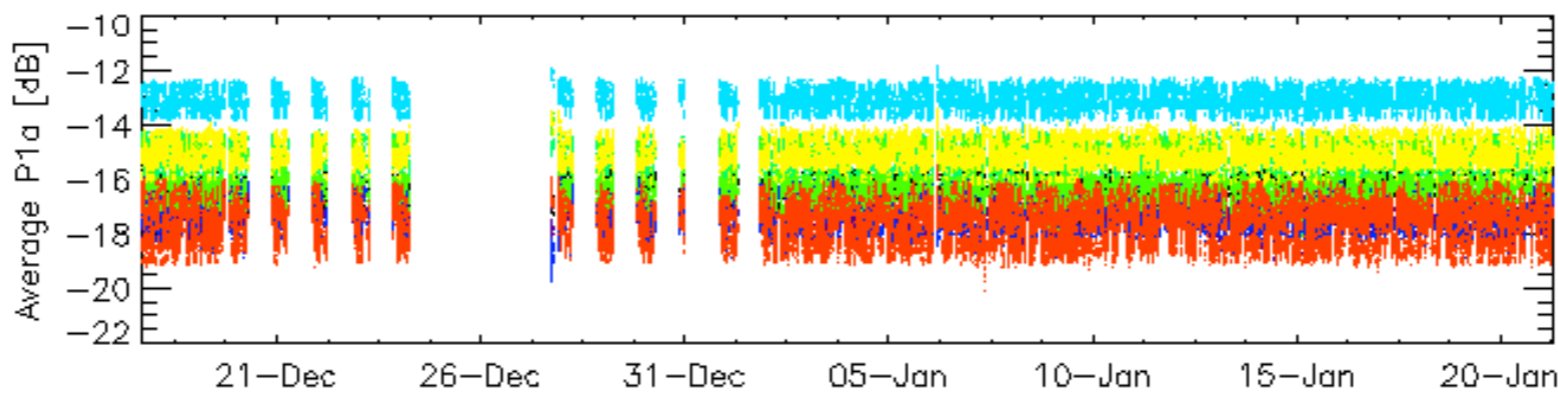
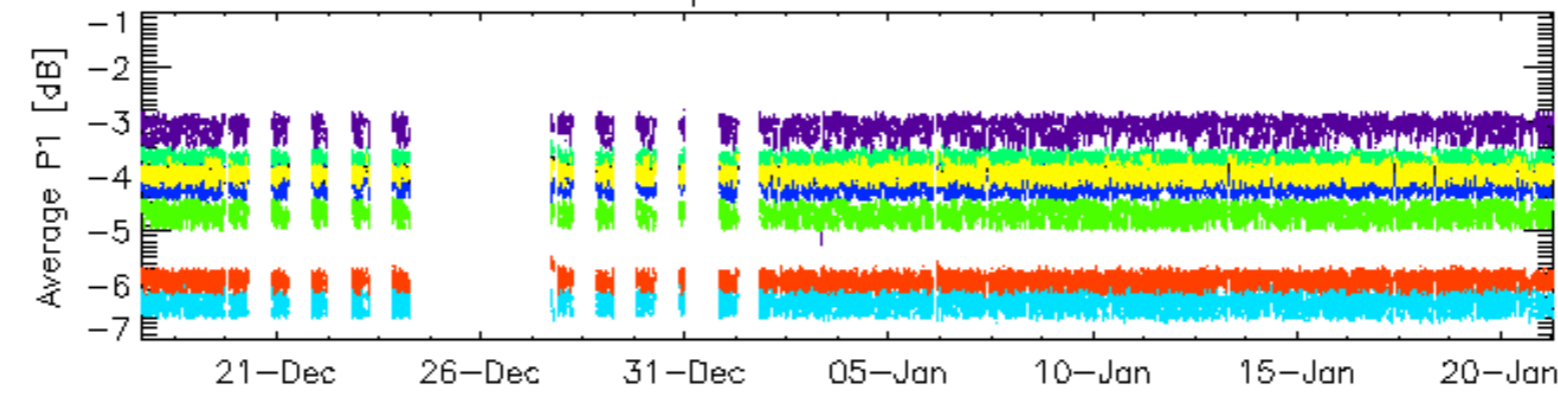


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

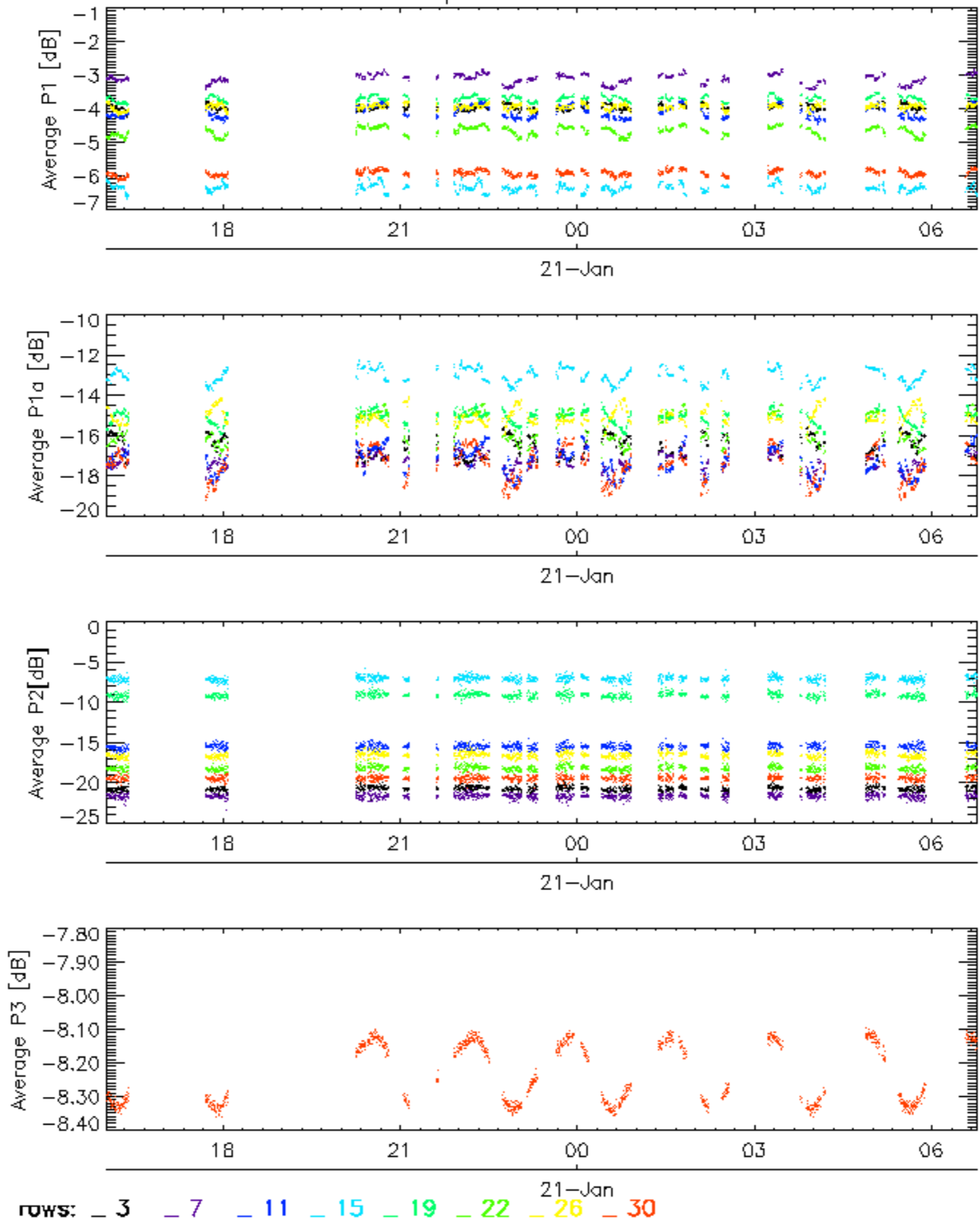


Cal pulses for WVS IS2

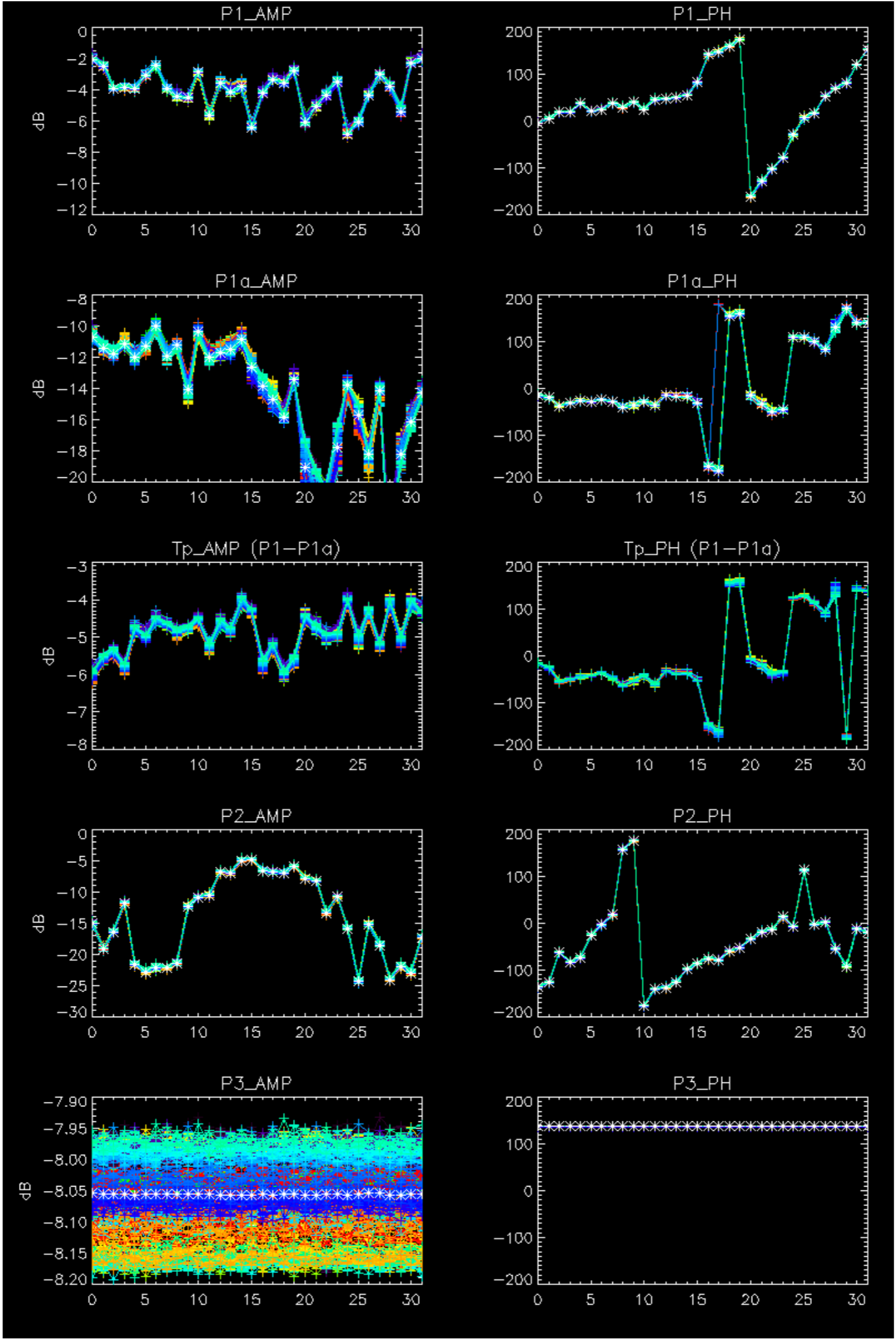


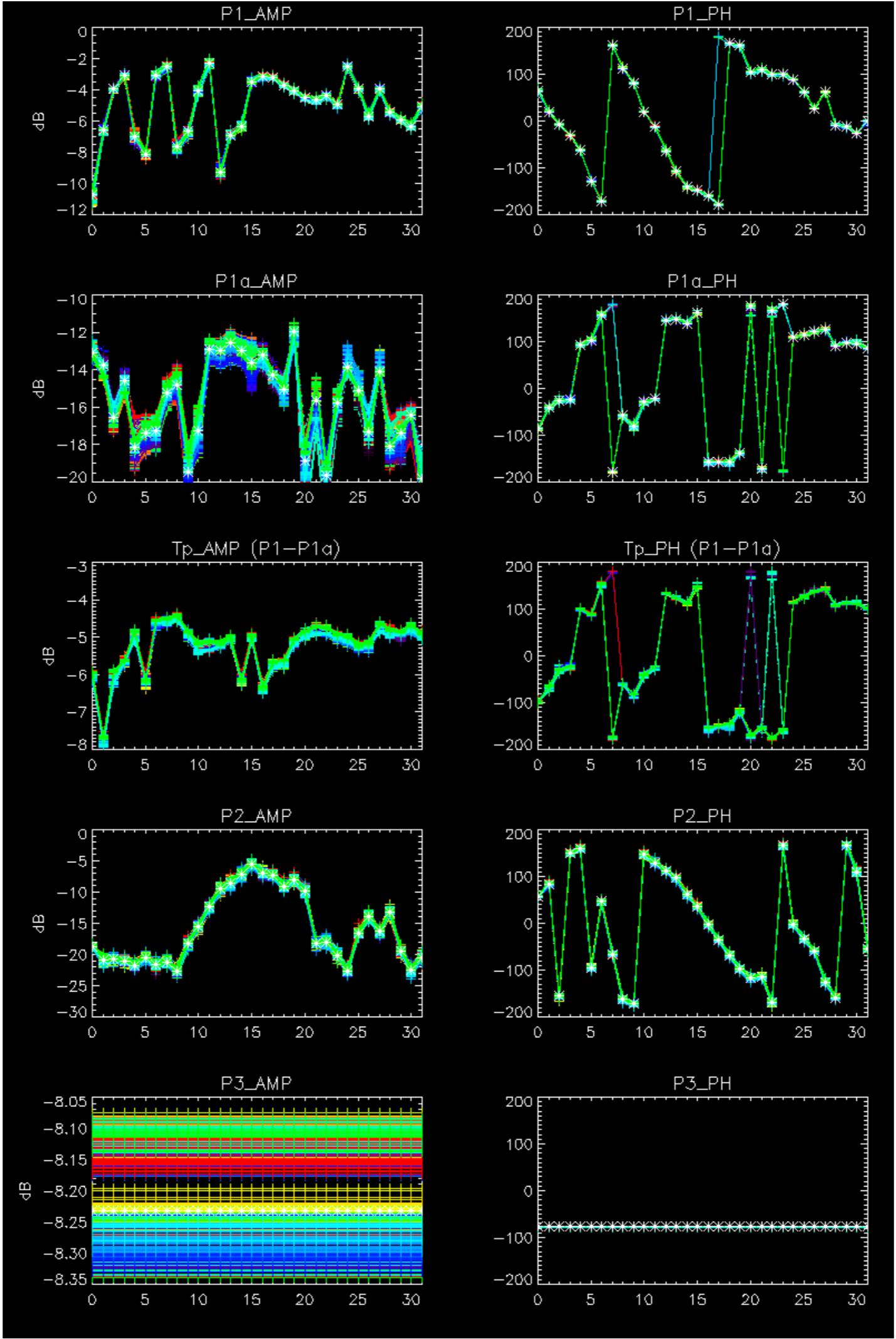
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



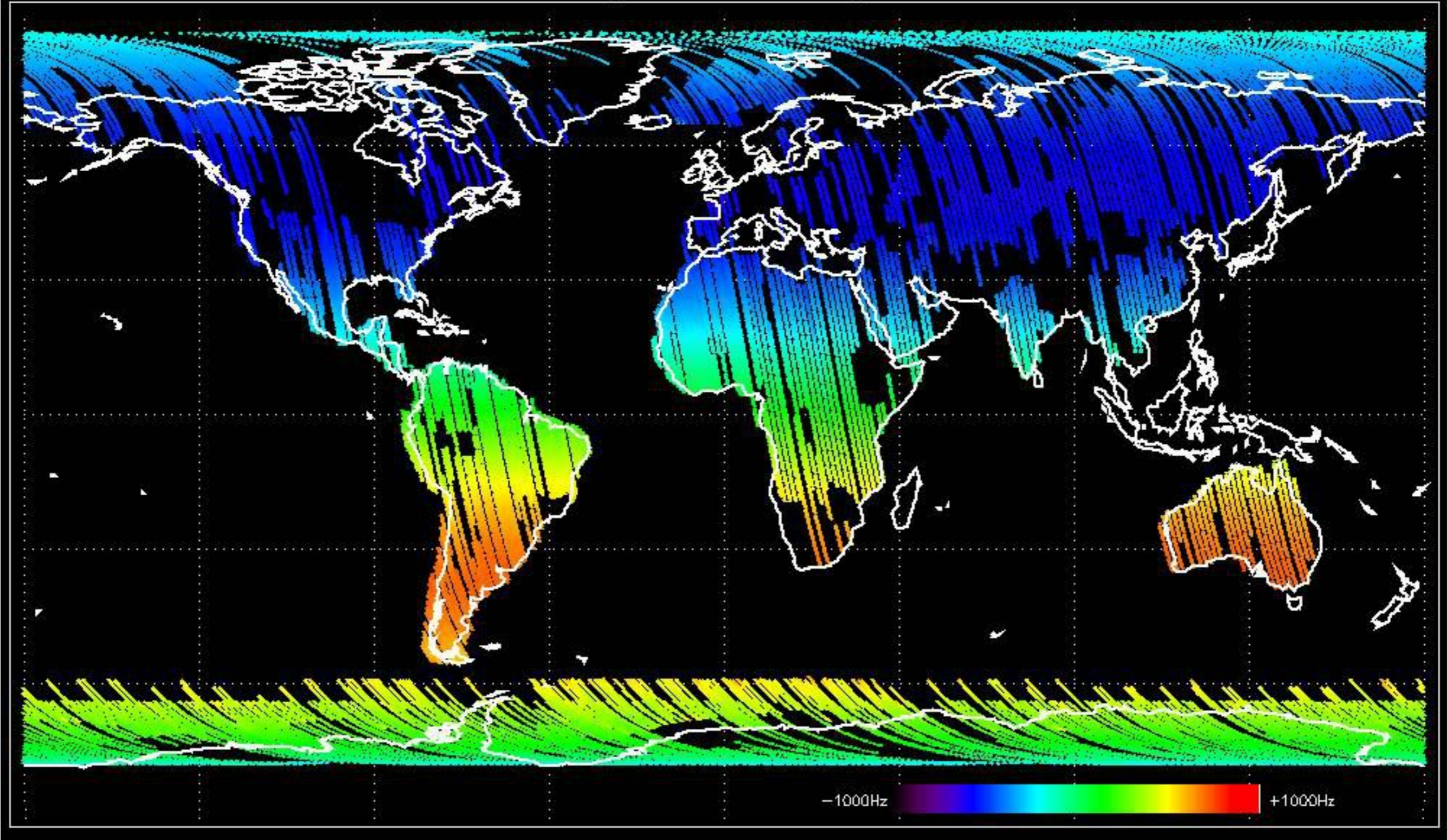
No anomalies observed.



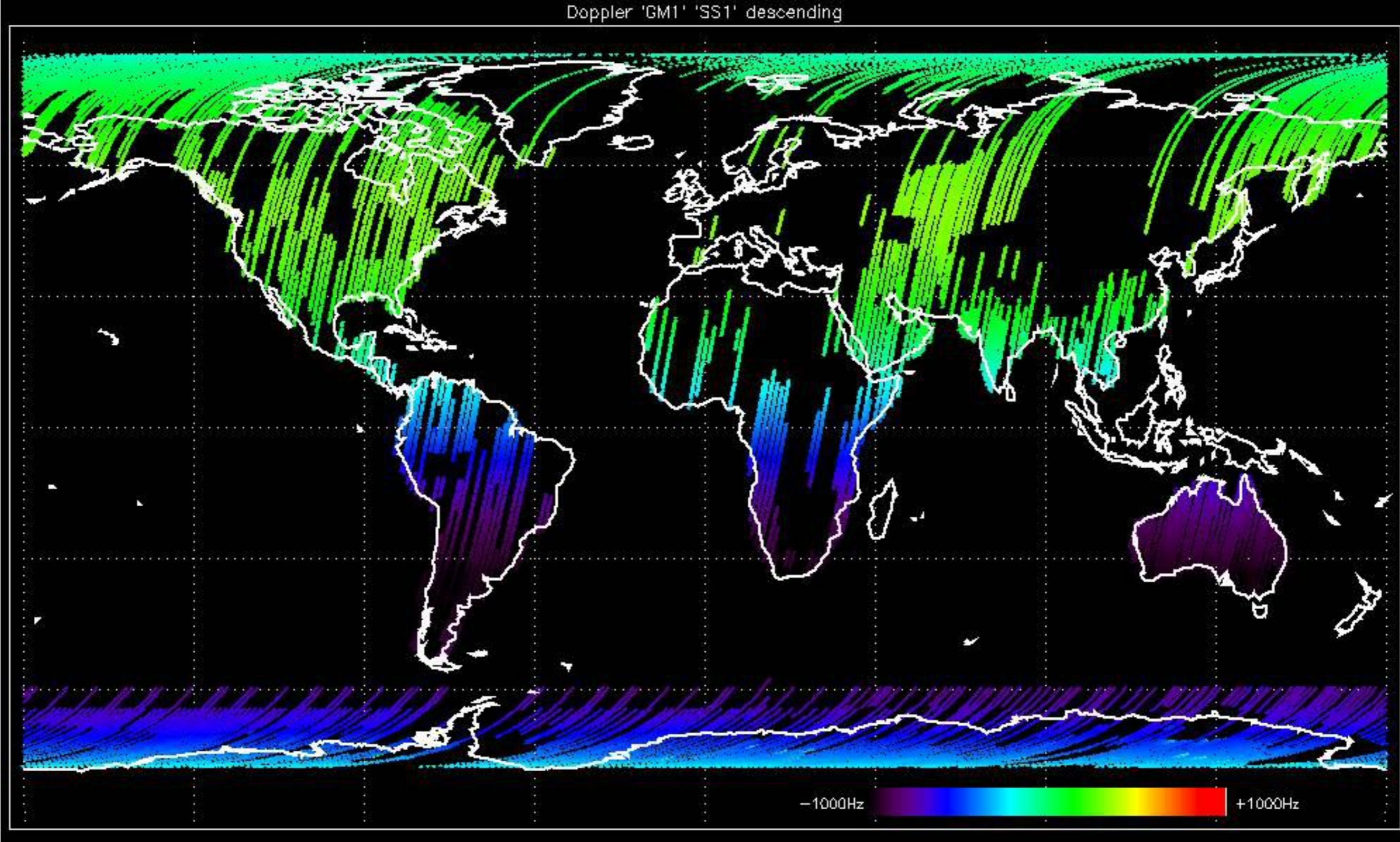


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

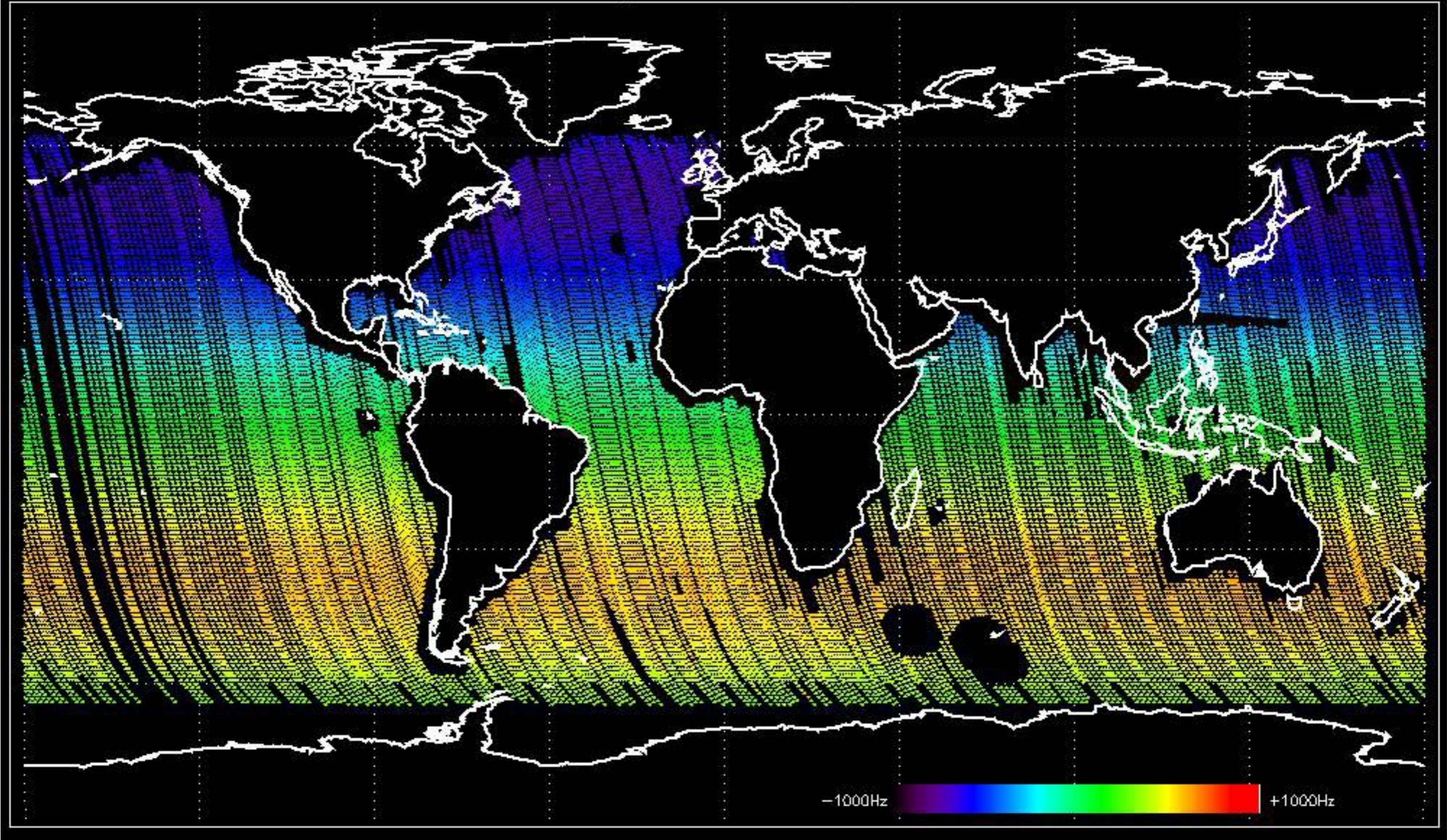
Doppler 'GM1' 'SS1' ascending



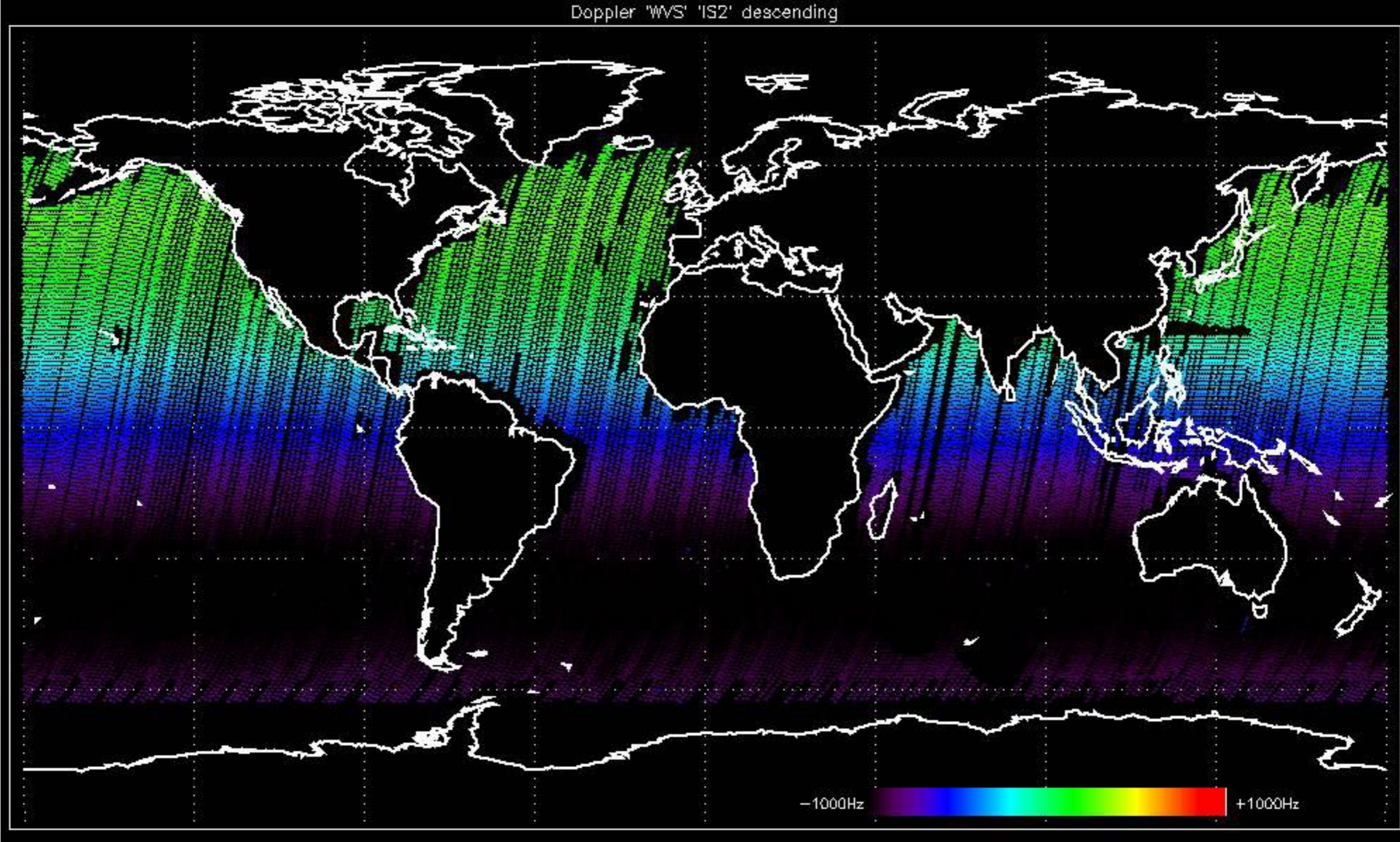
Doppler 'GM1' 'SS1' descending



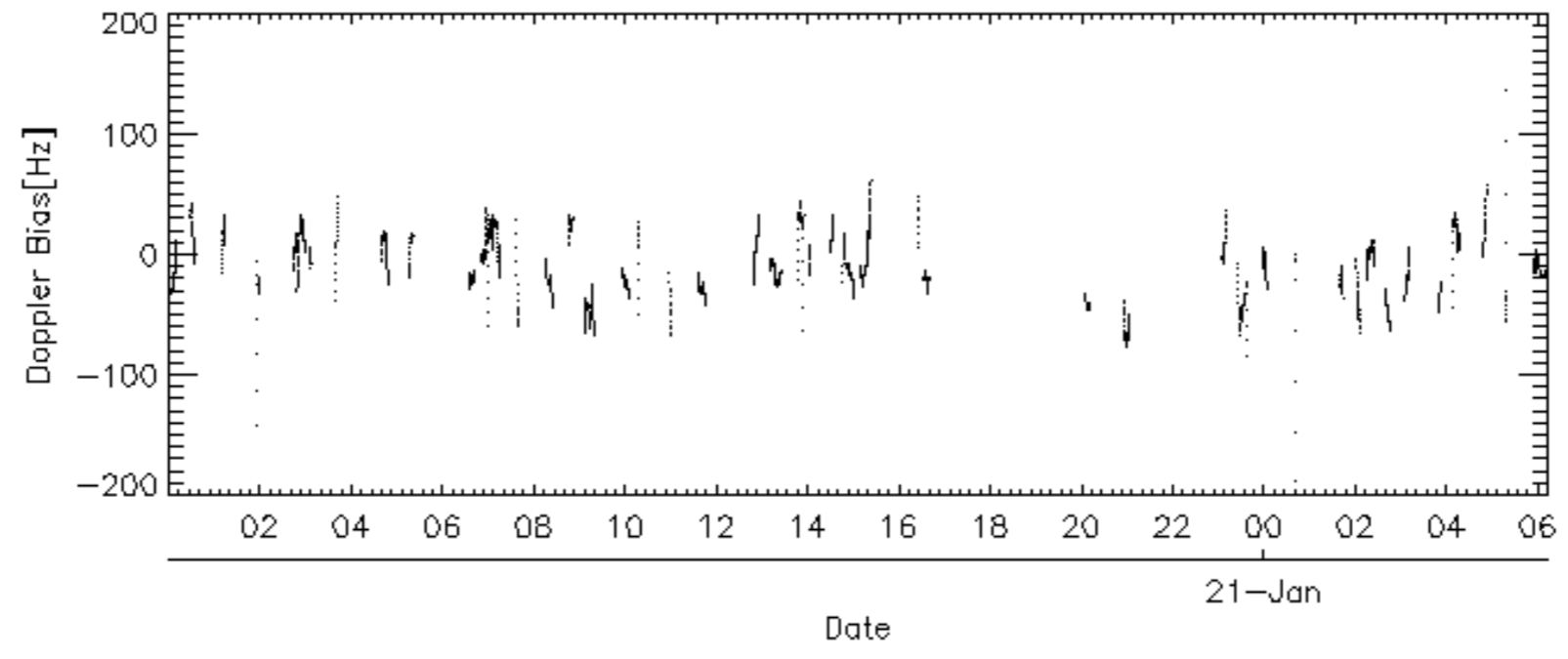
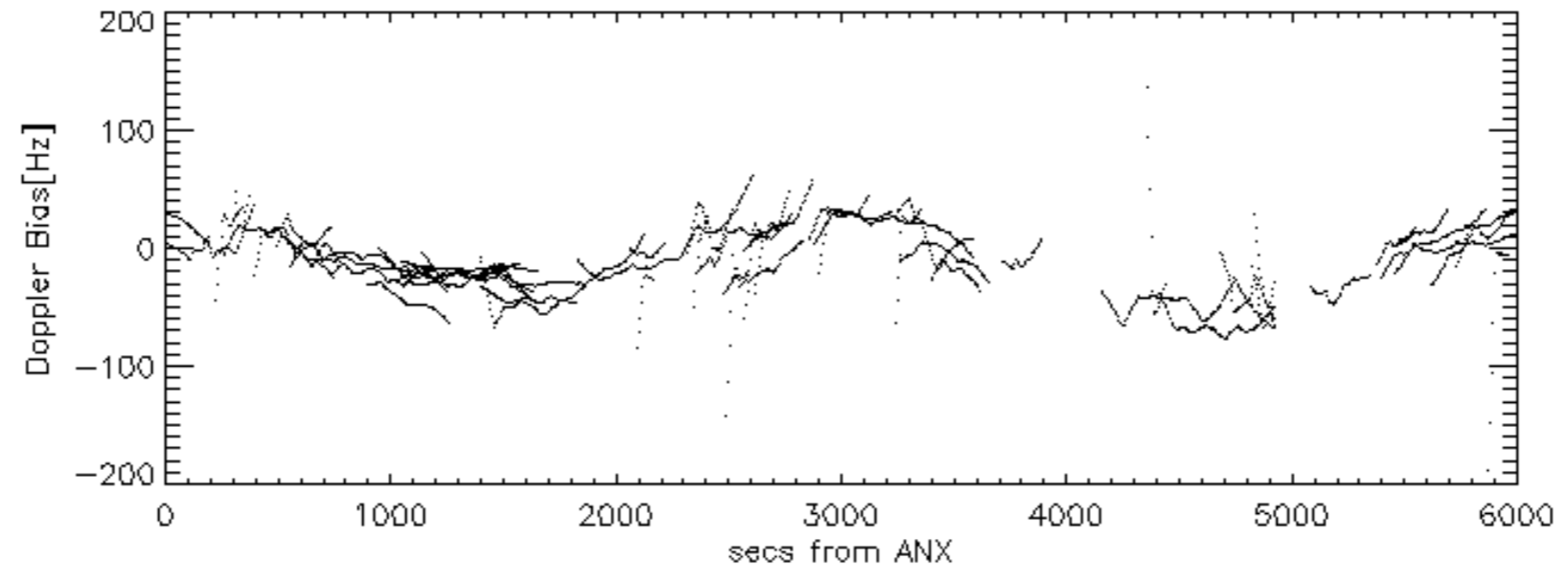
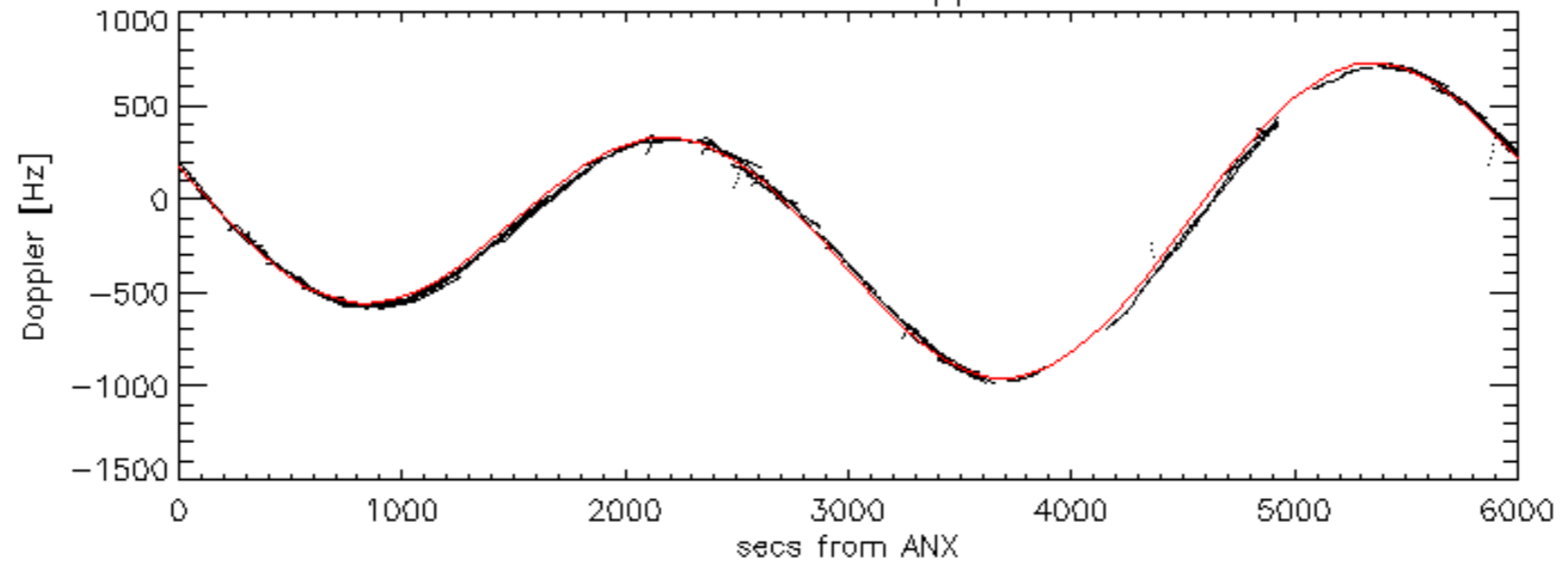
Doppler 'WVS' 'IS2' ascending

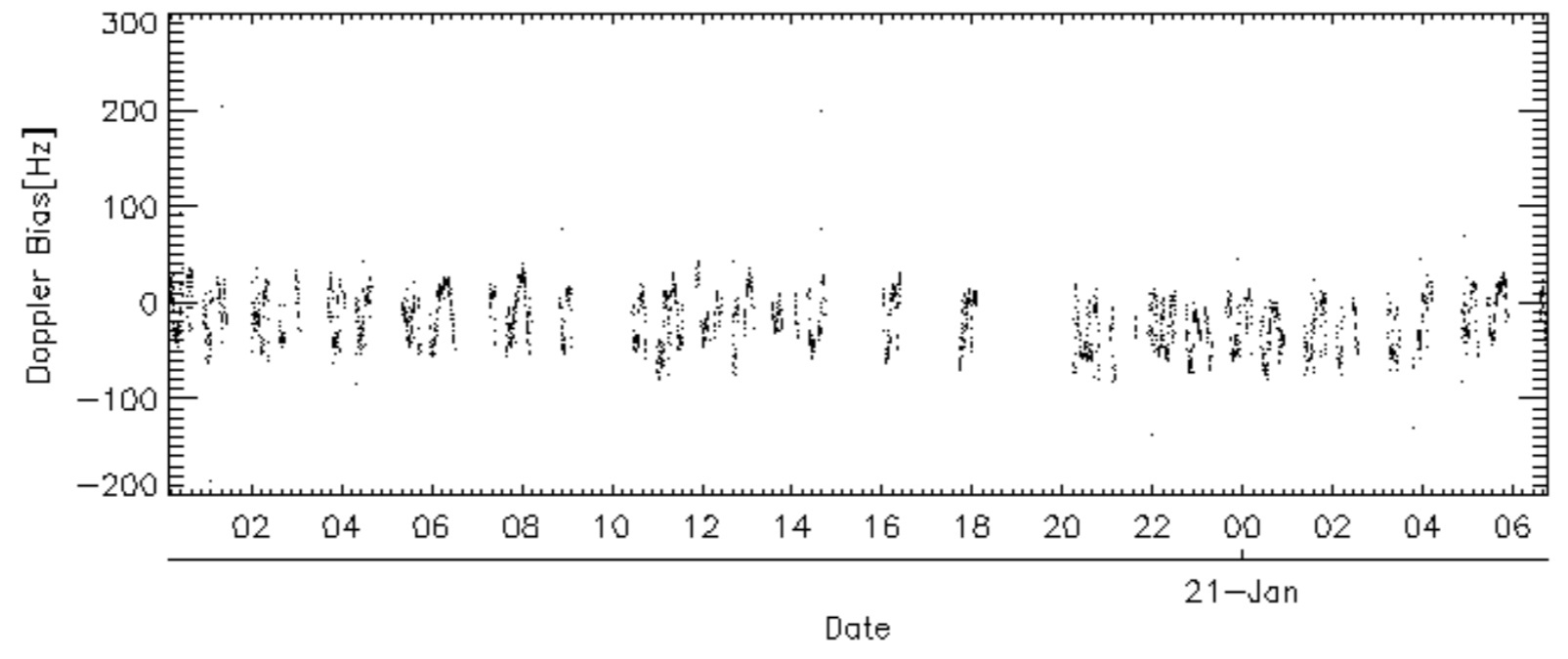
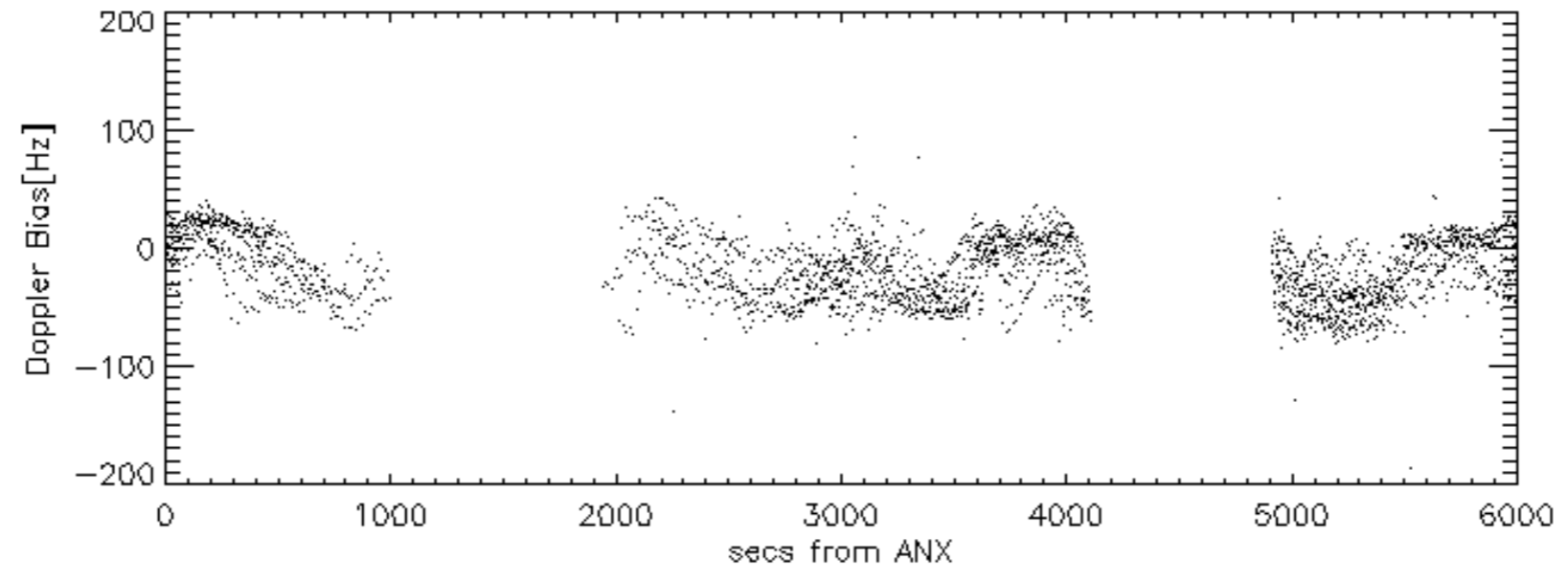
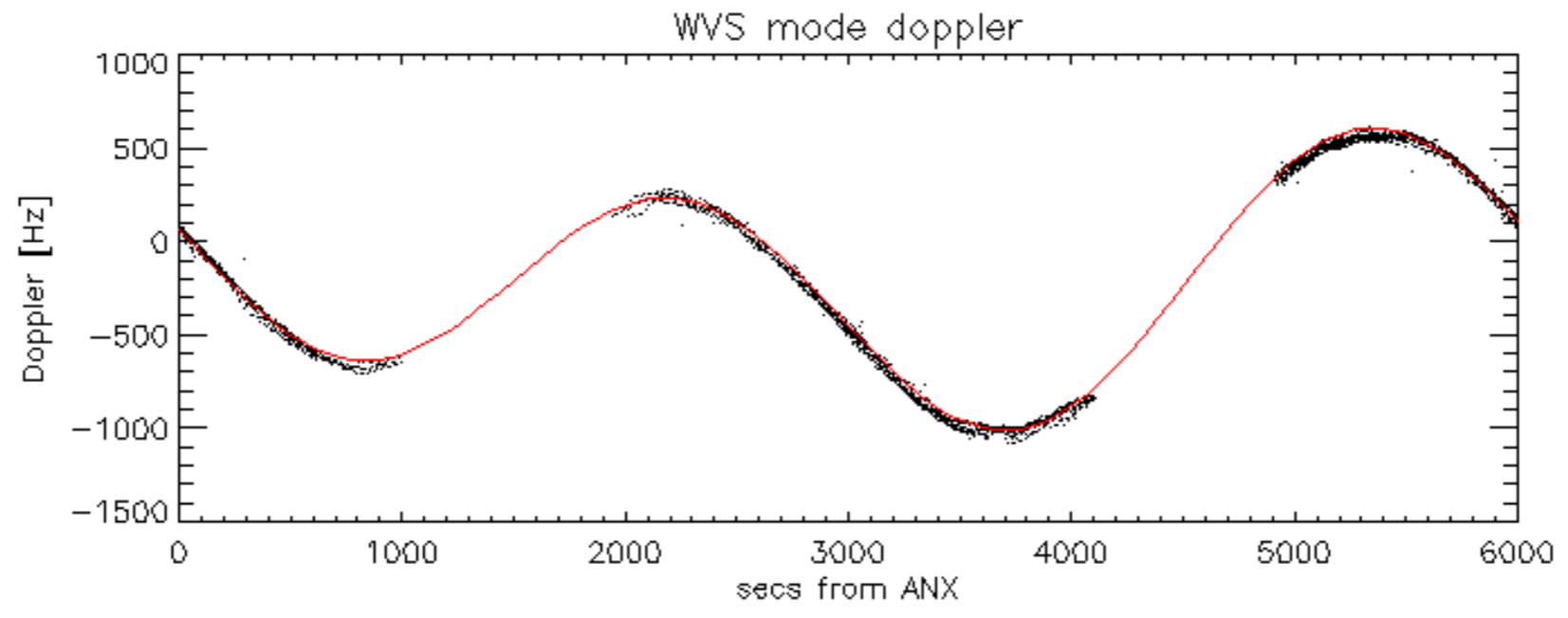


Doppler 'WVS' 'IS2' descending

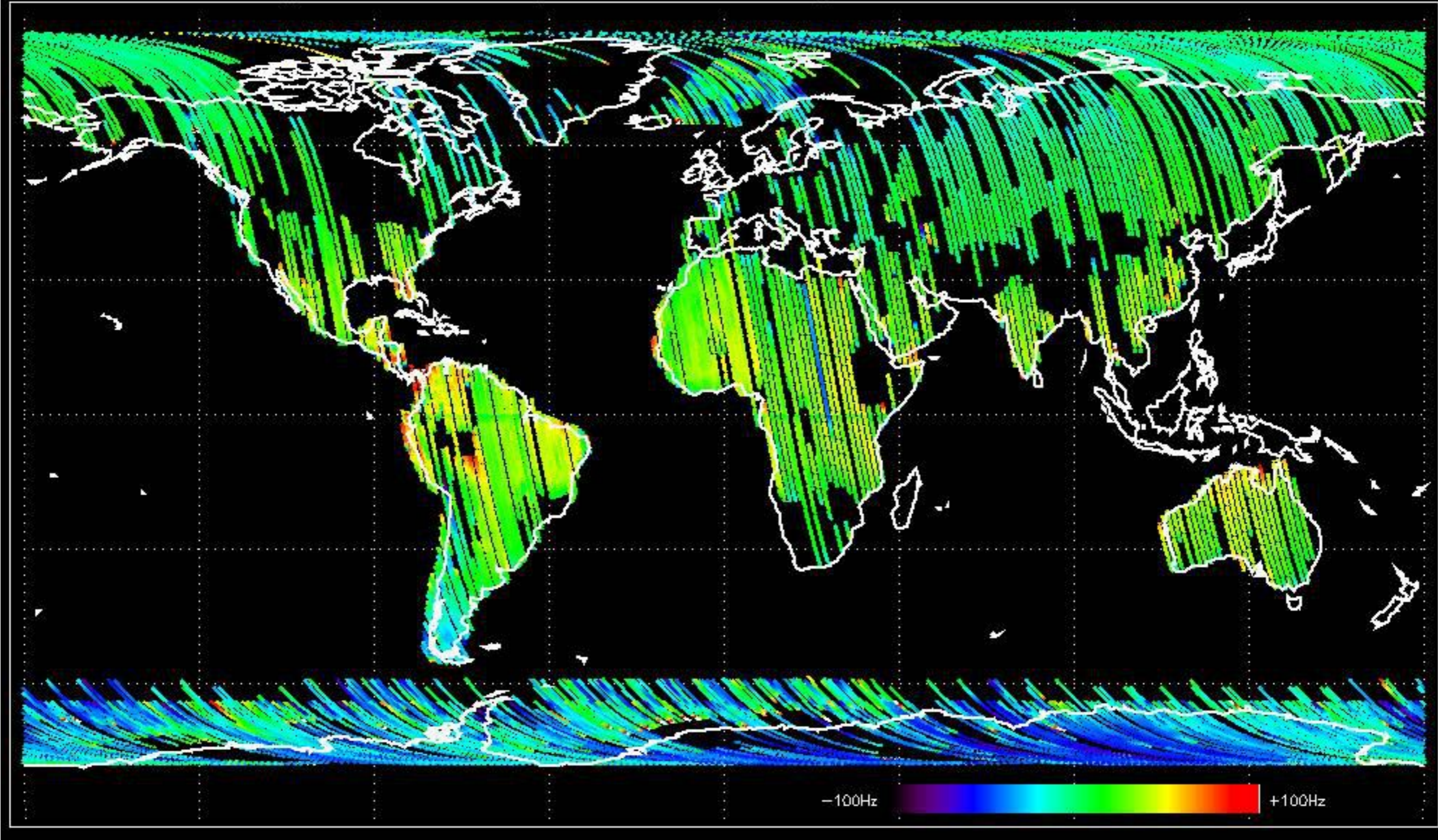


GM1 mode doppler

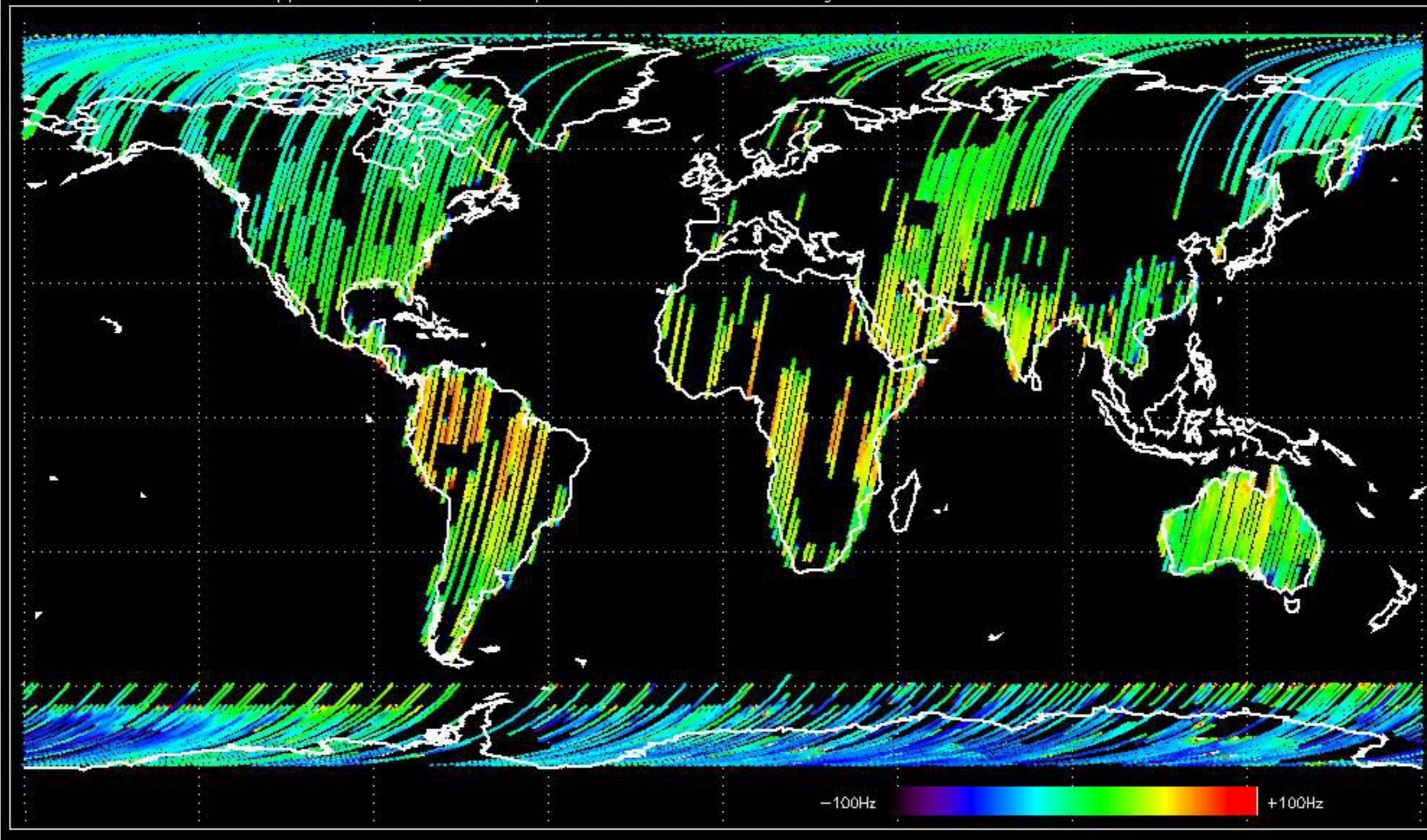




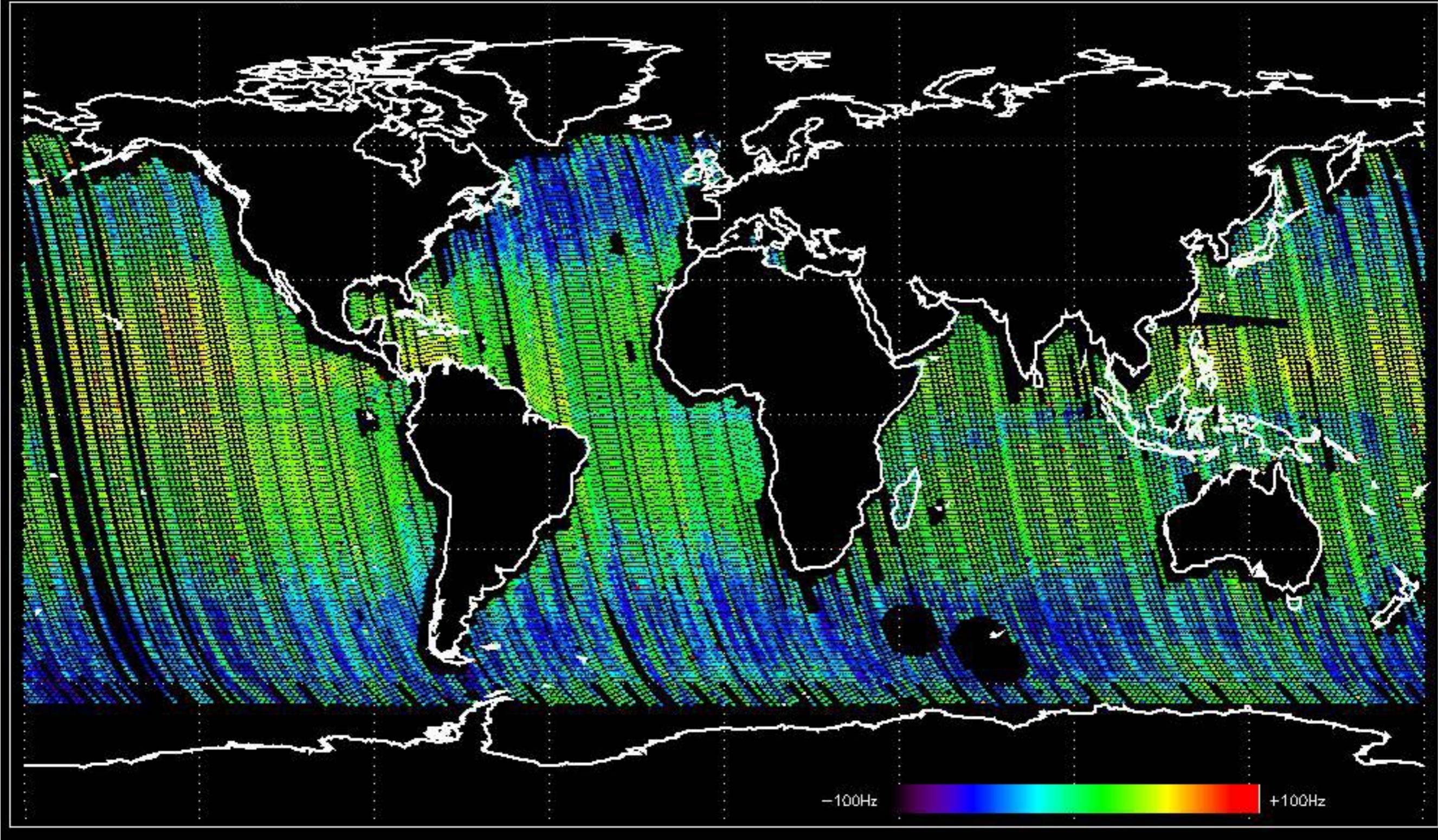
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -19.040644 Hz



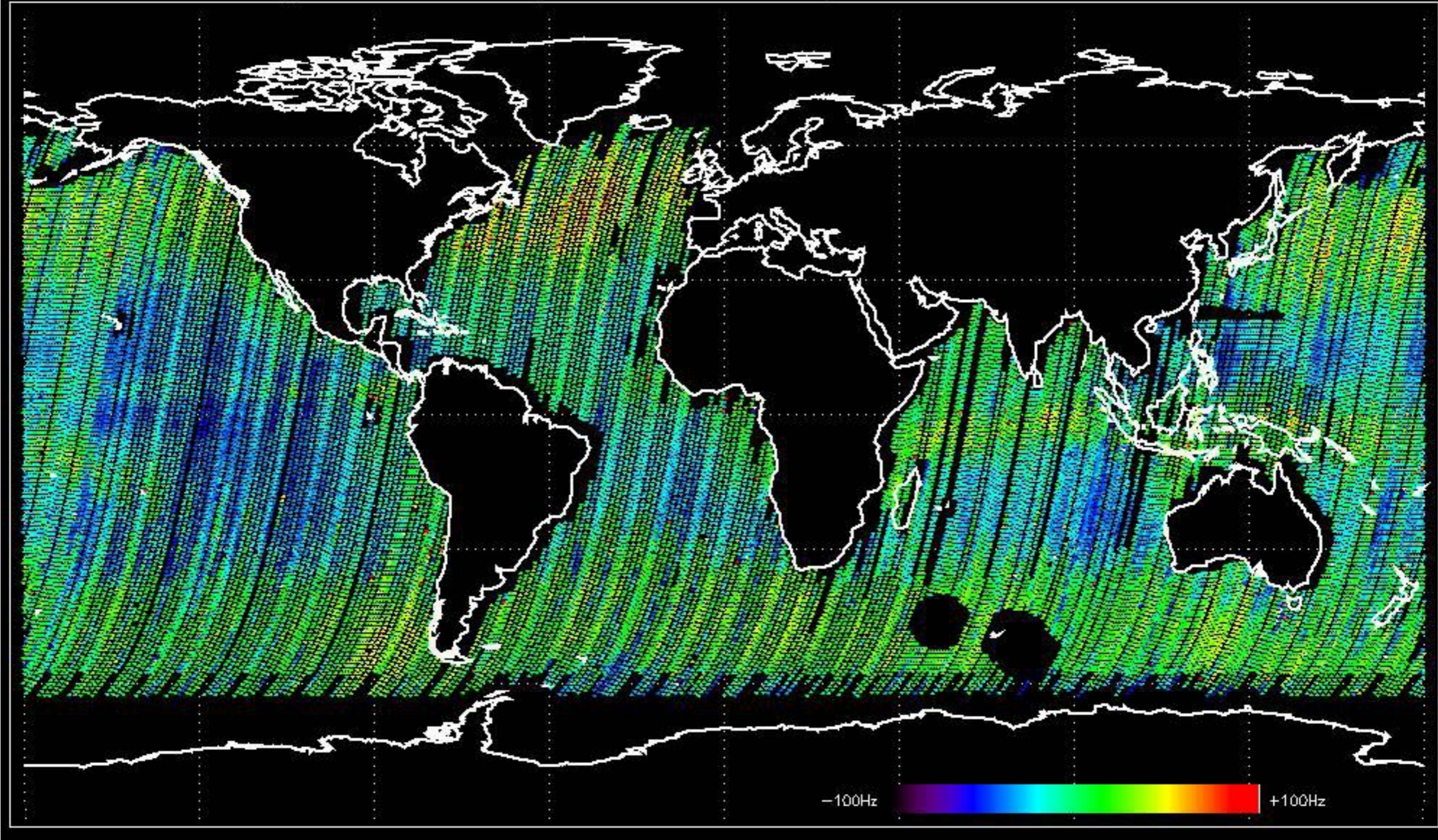
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.455450 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -11.887031 Hz

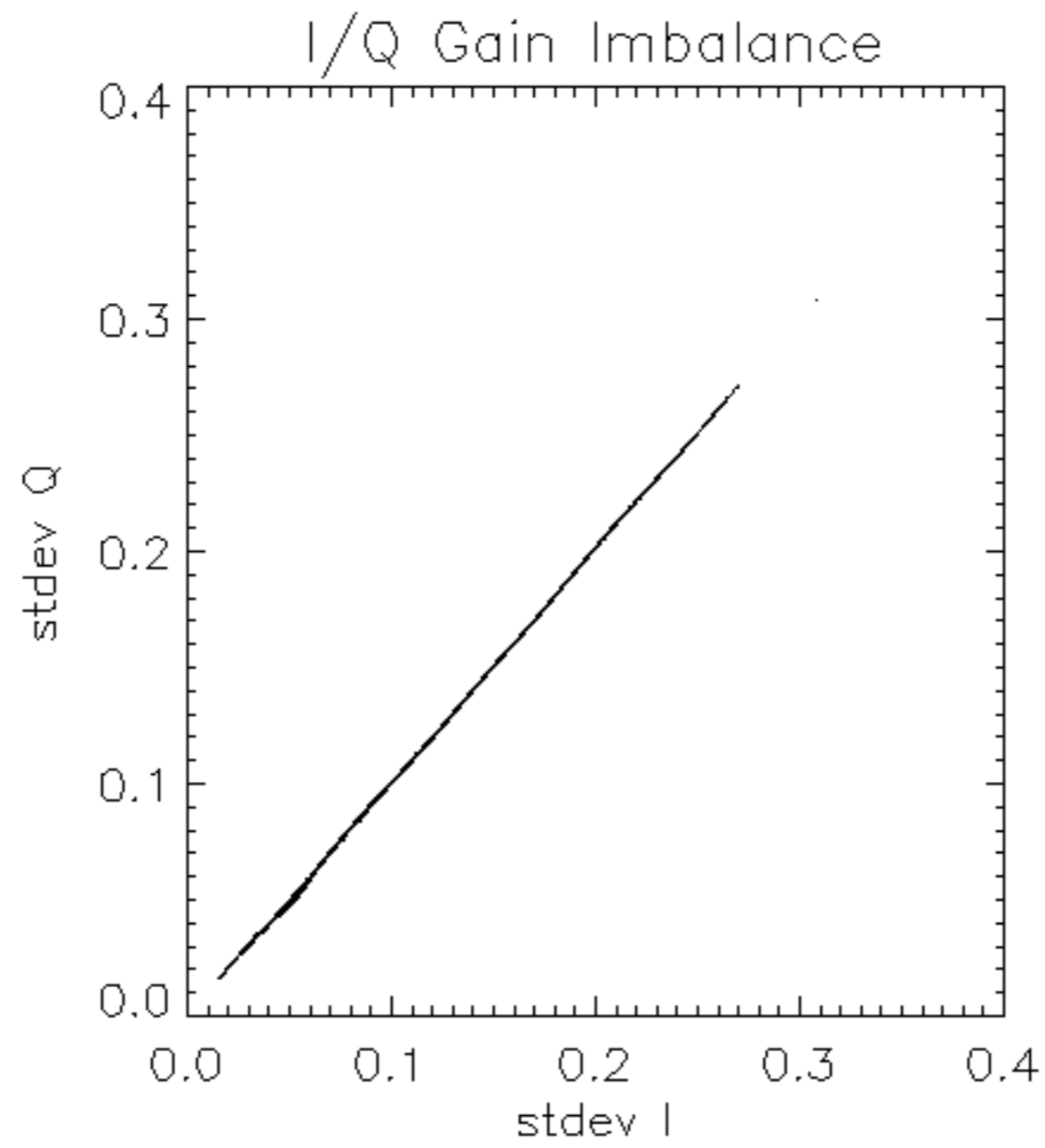


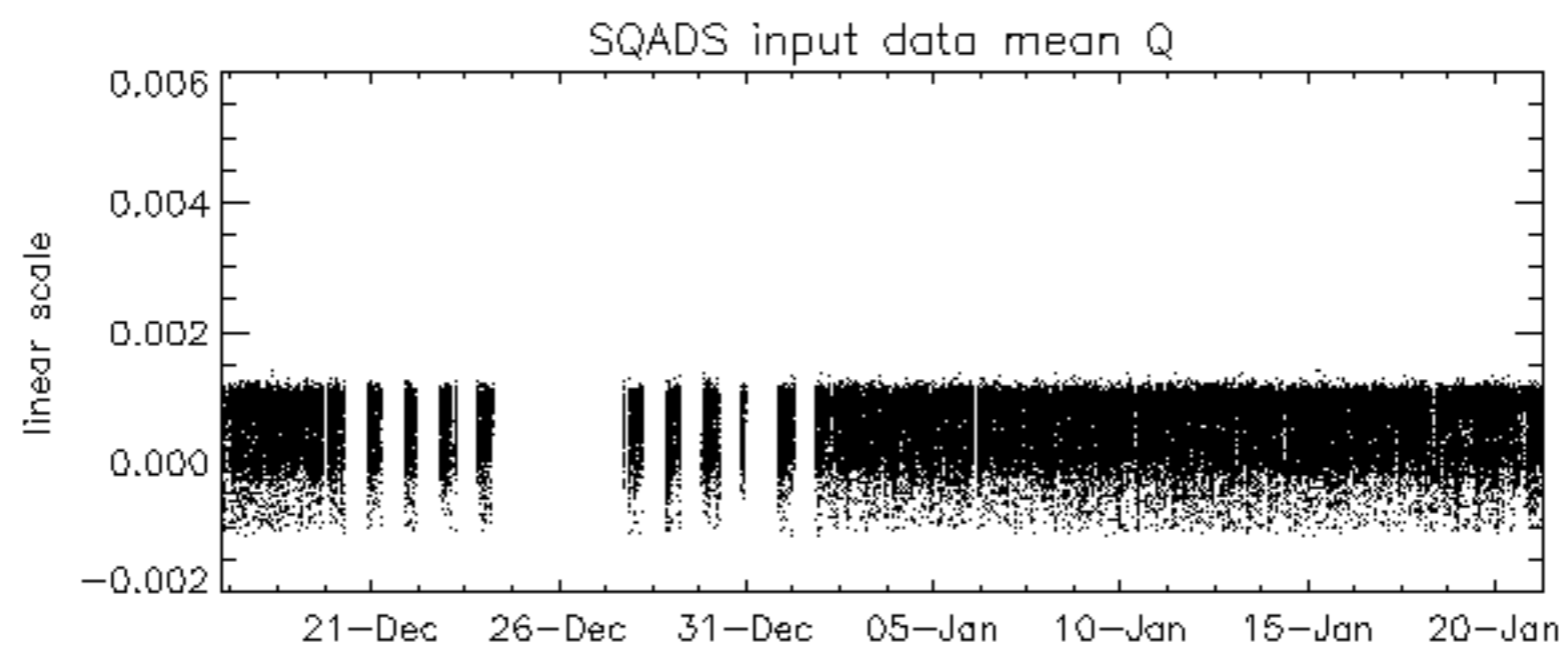
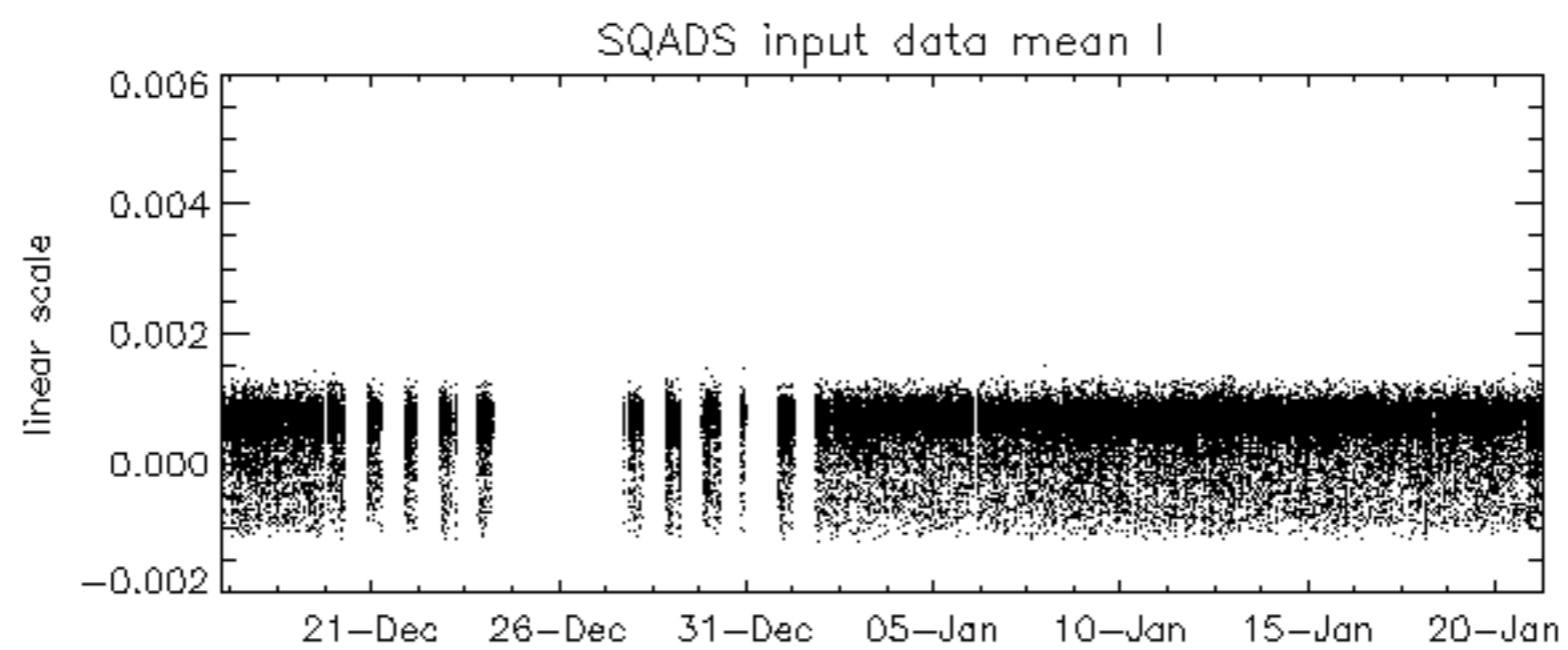
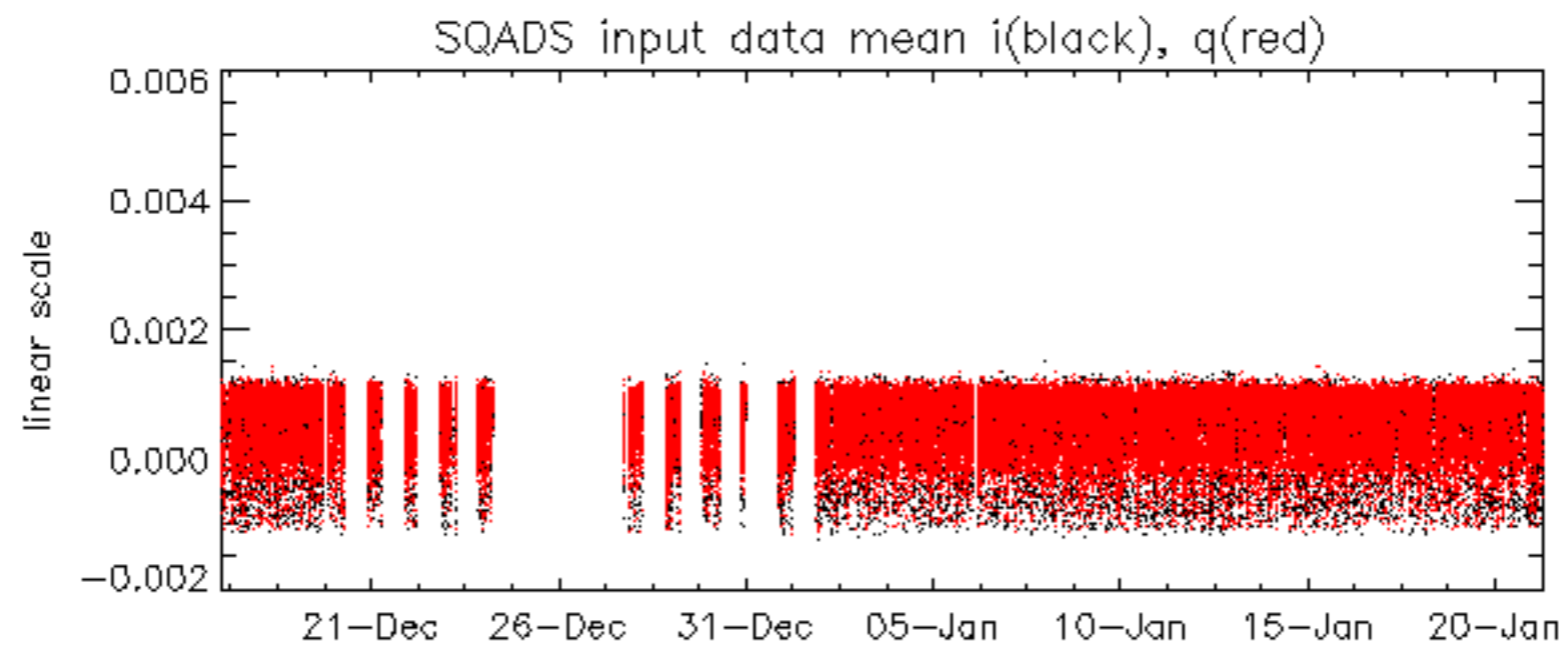
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.247517 Hz

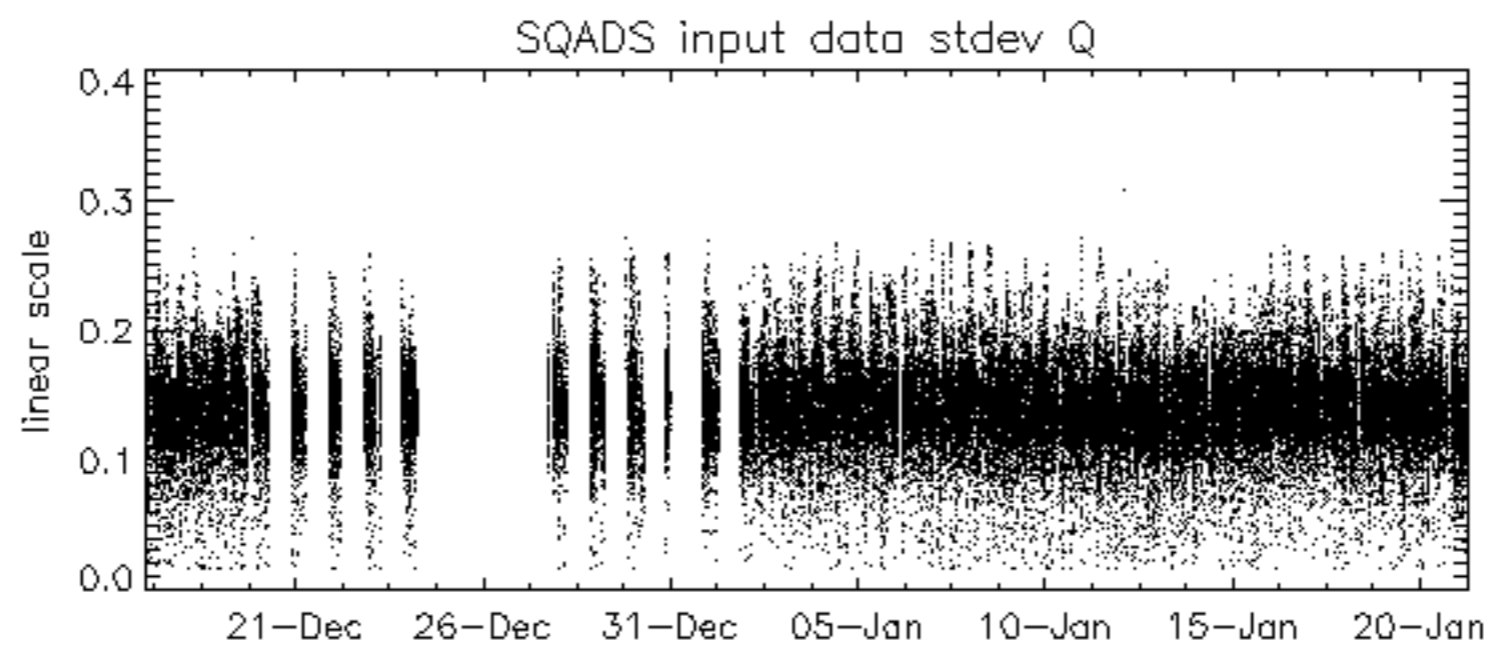
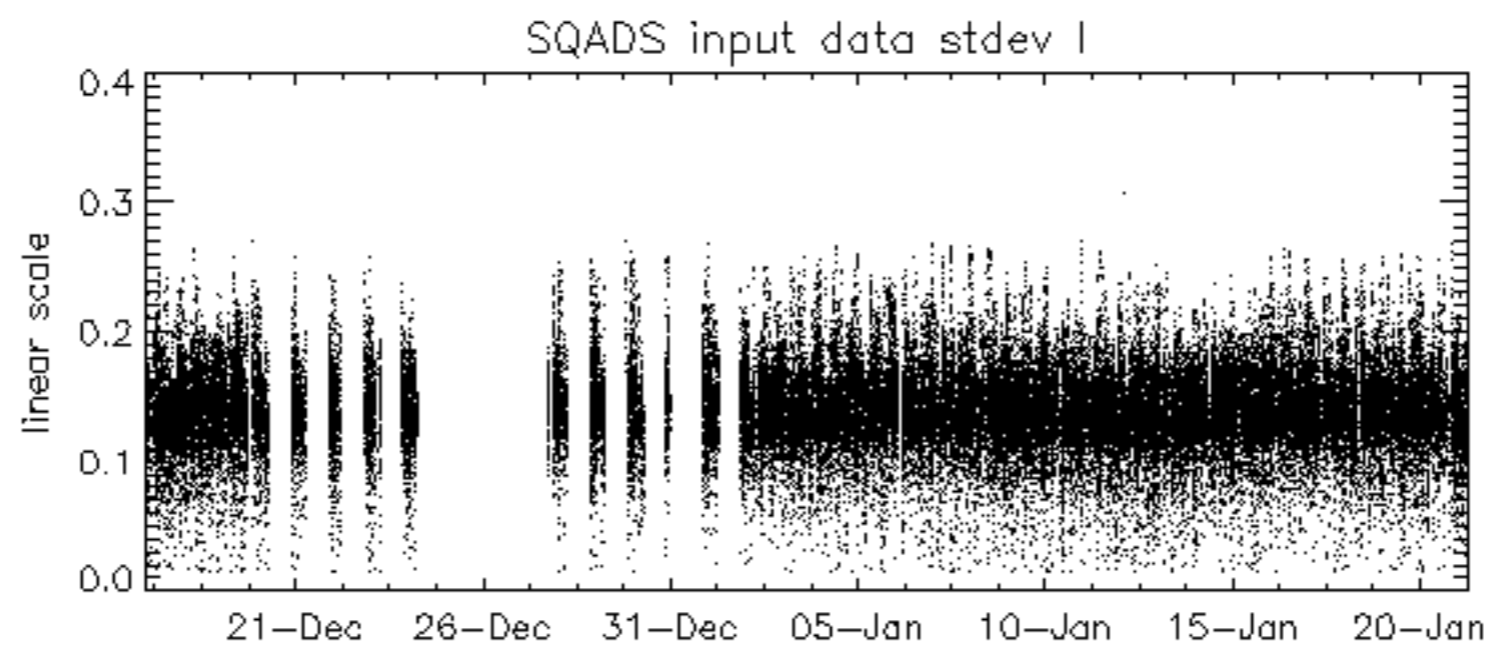
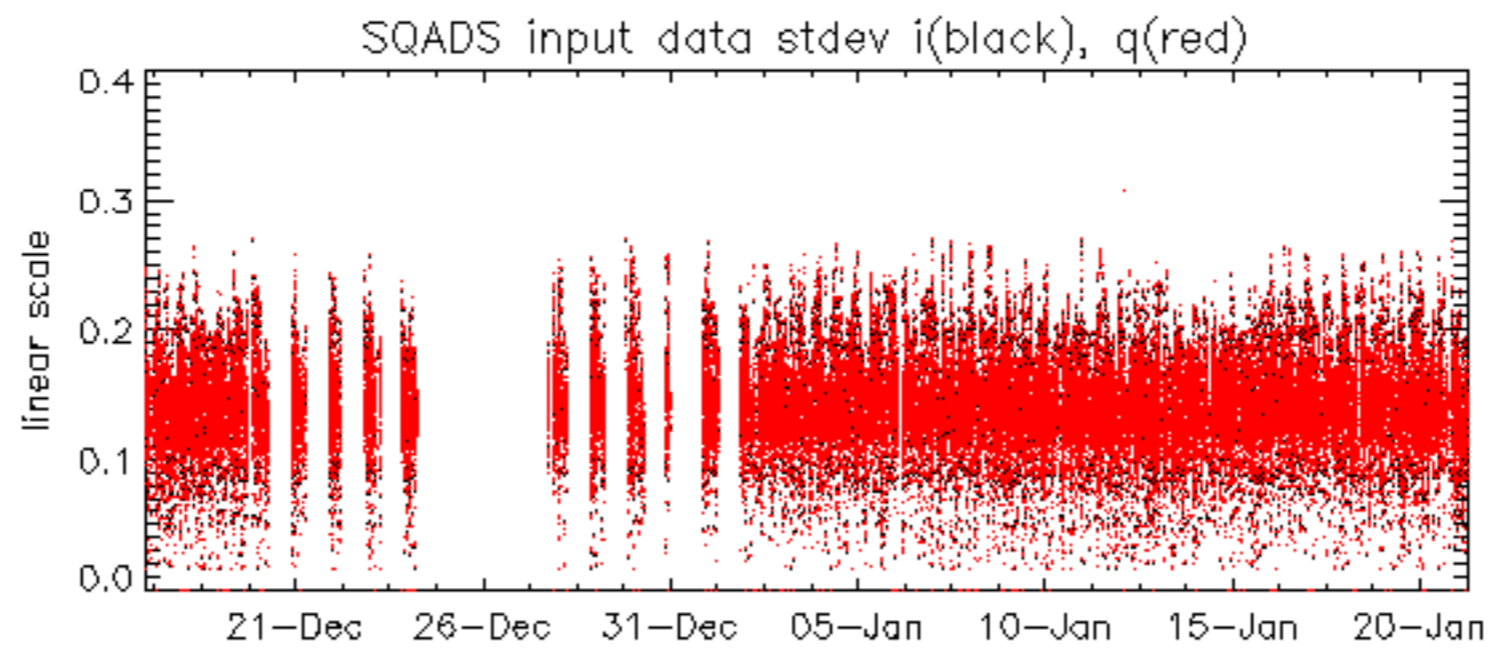


No anomalies observed on available MS products:

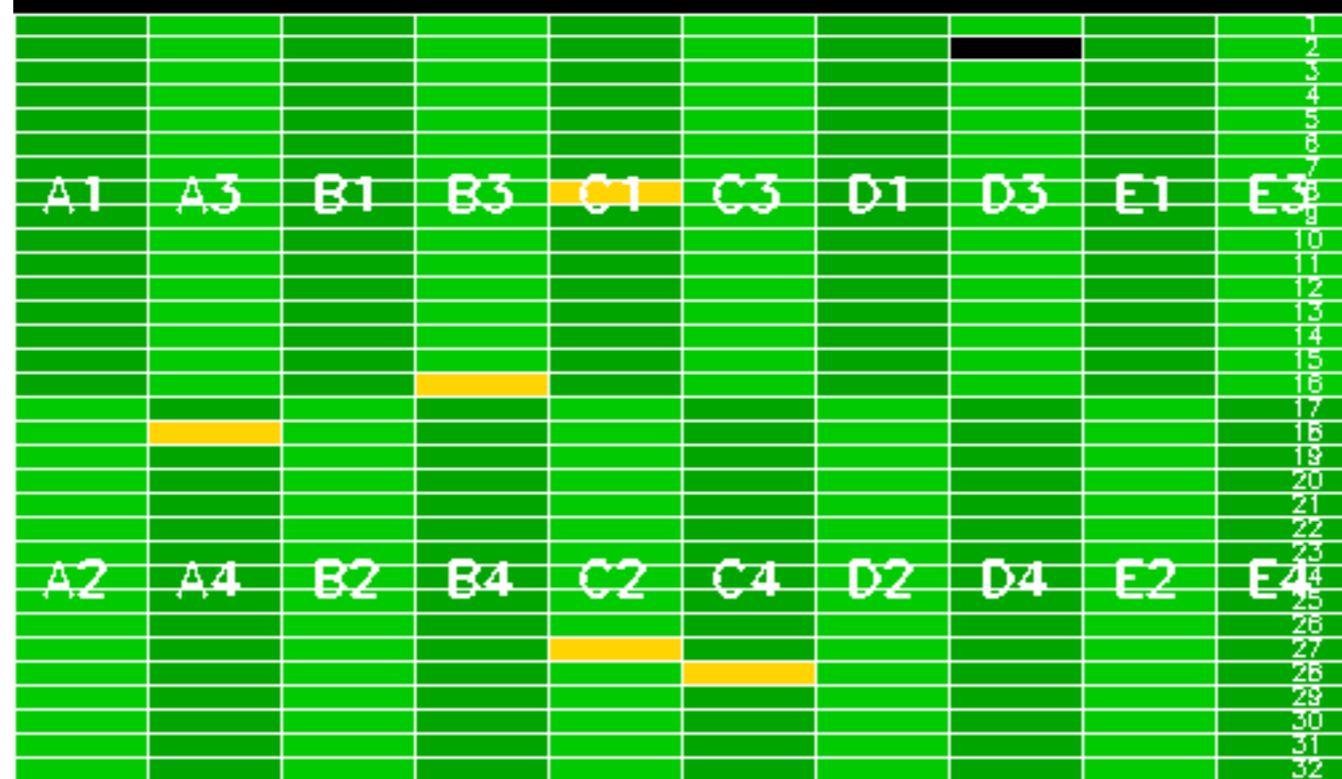
No anomalies observed.







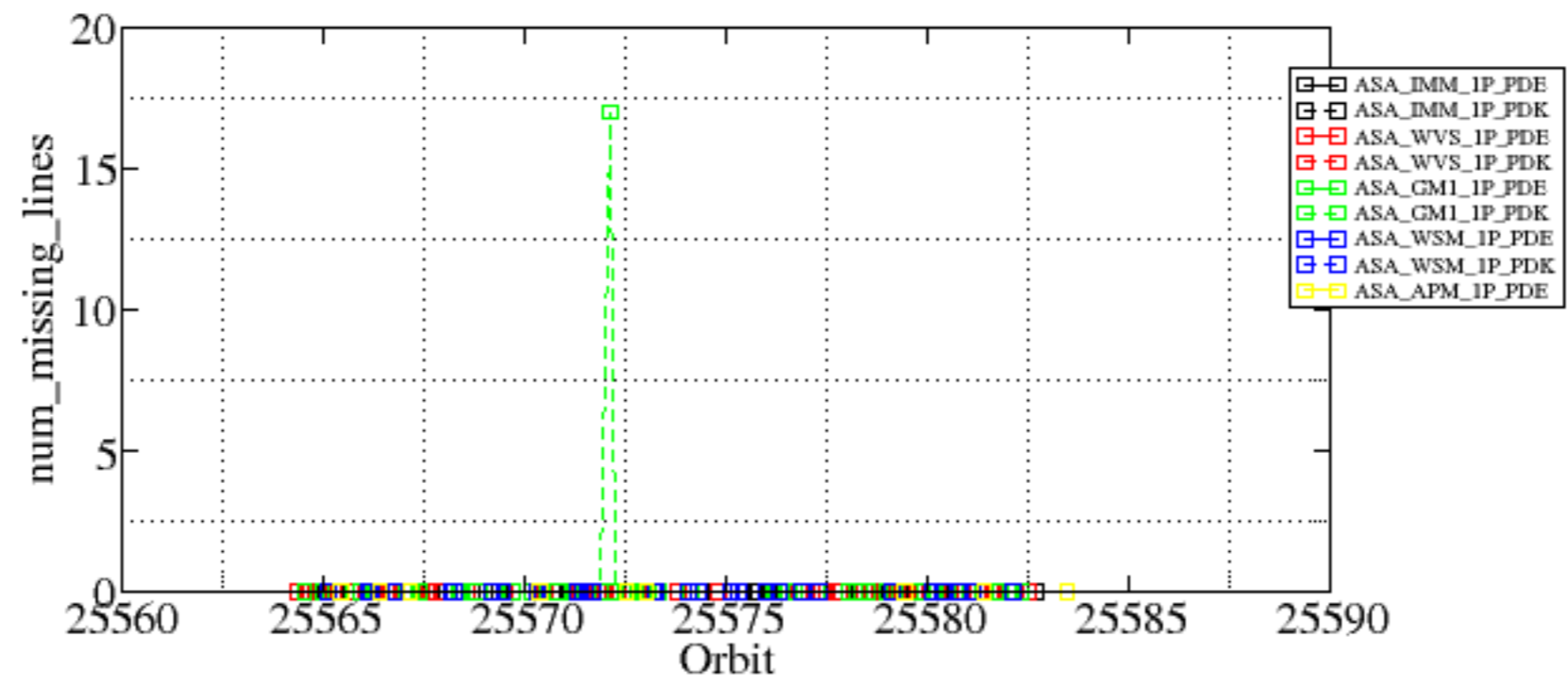
Reference: 2005-09-23 05:55:14 V TxGain
 Test : 2007-01-20 20:48:59 V



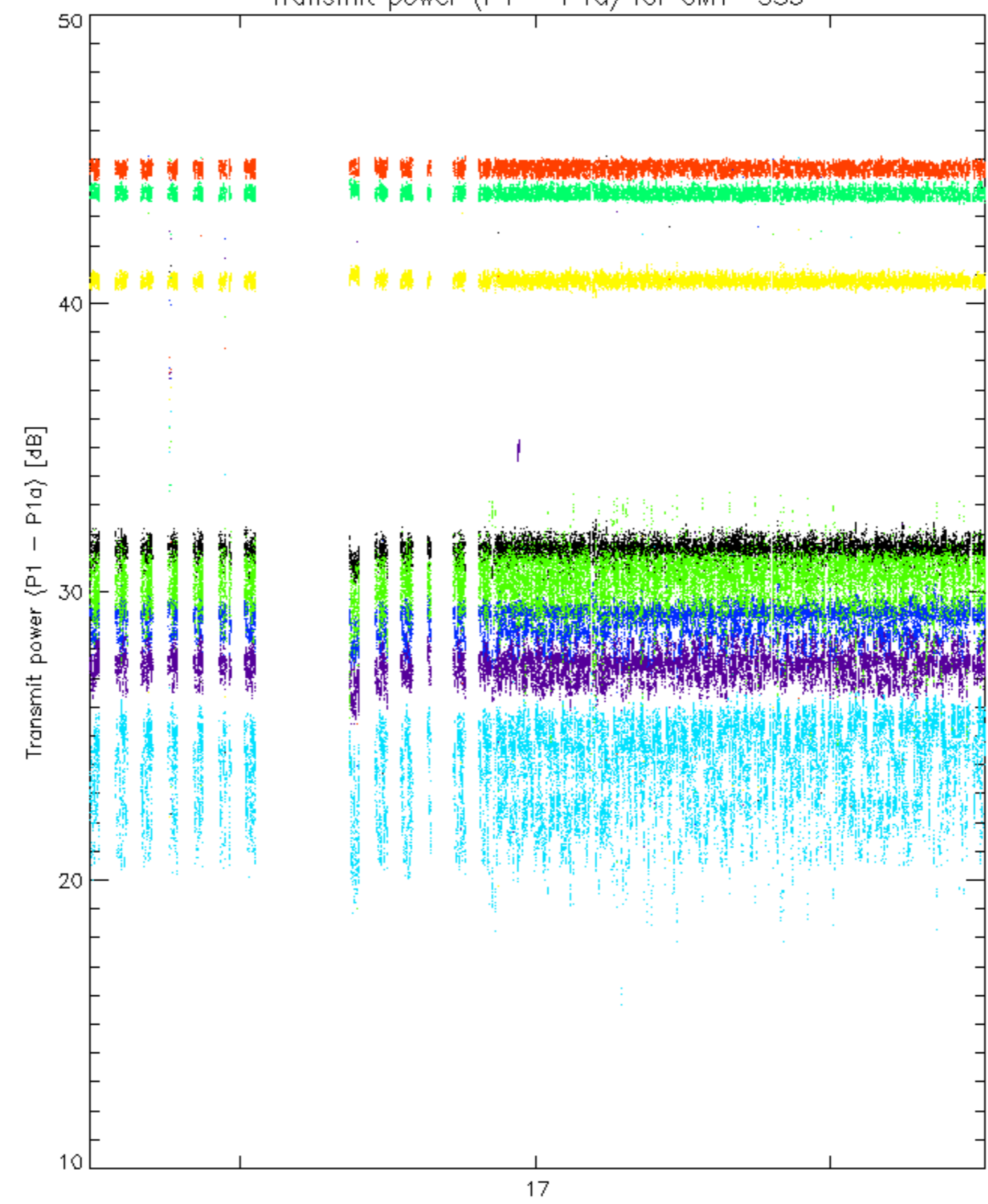
Summary of analysis for the last 3 days 2007012[901]

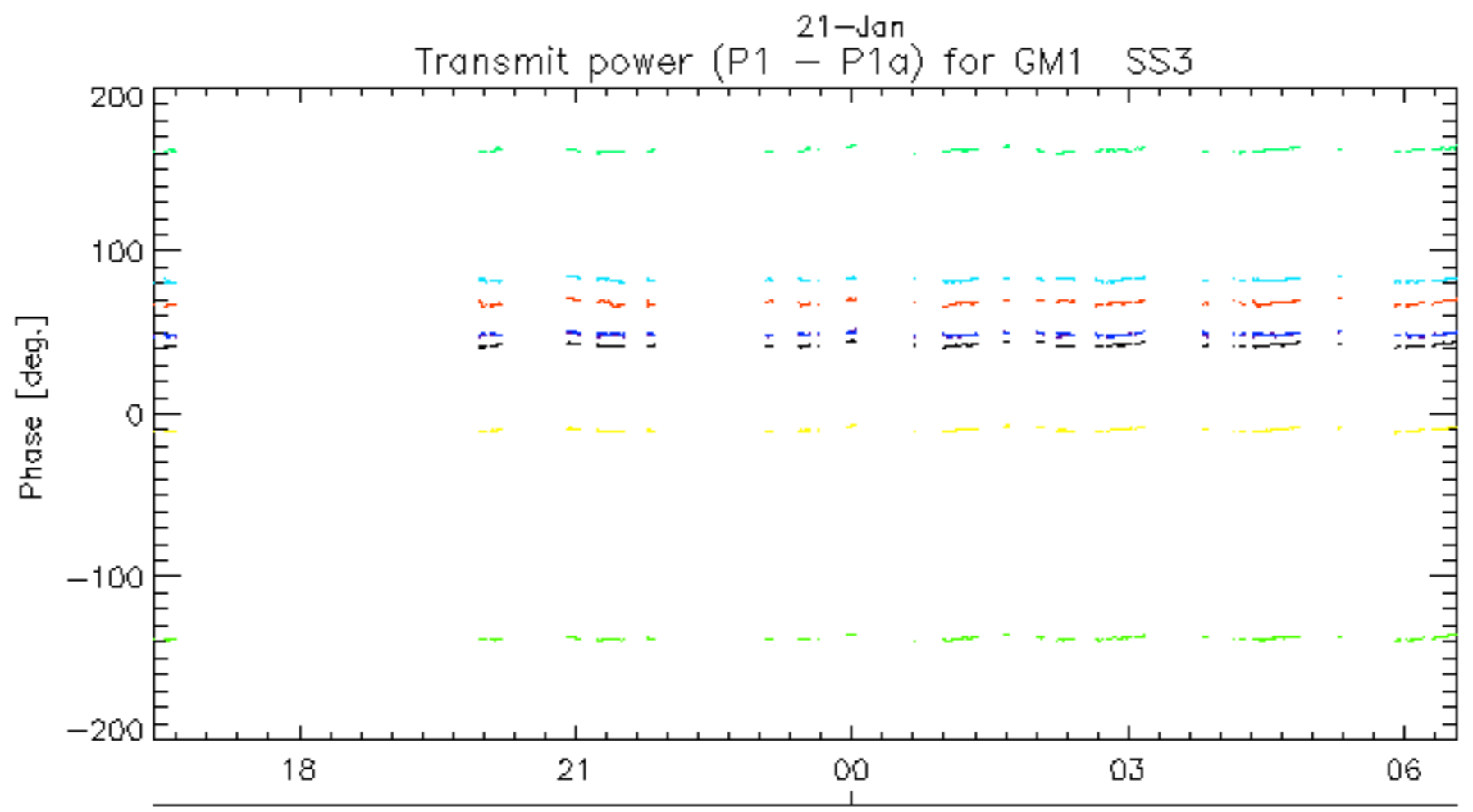
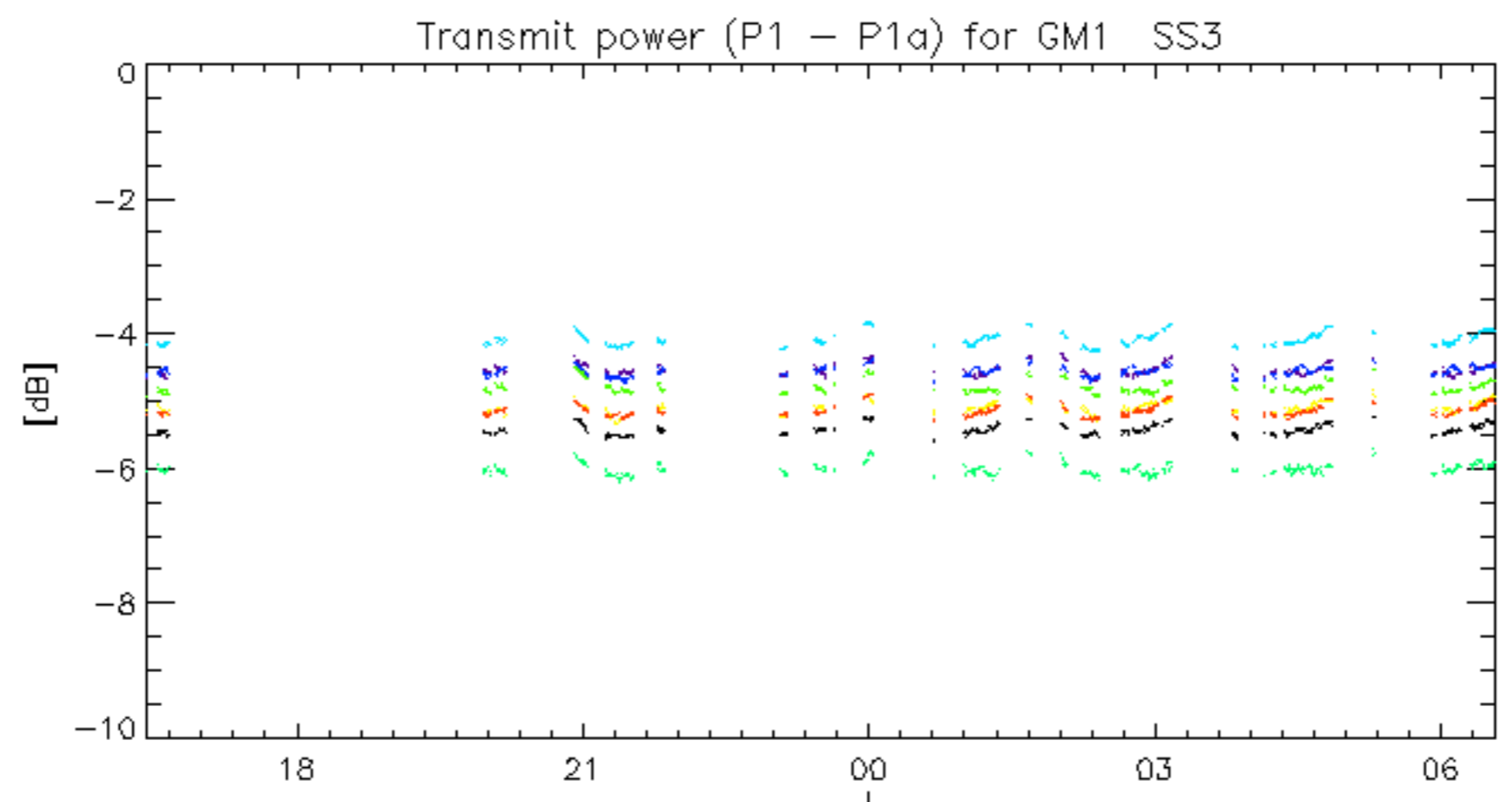
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20070120_015157_00000532054_00461_25565_3990.N1	1	0
ASA_GM1_1PNPDK20070120_131030_000008632054_00468_25572_5436.N1	0	17

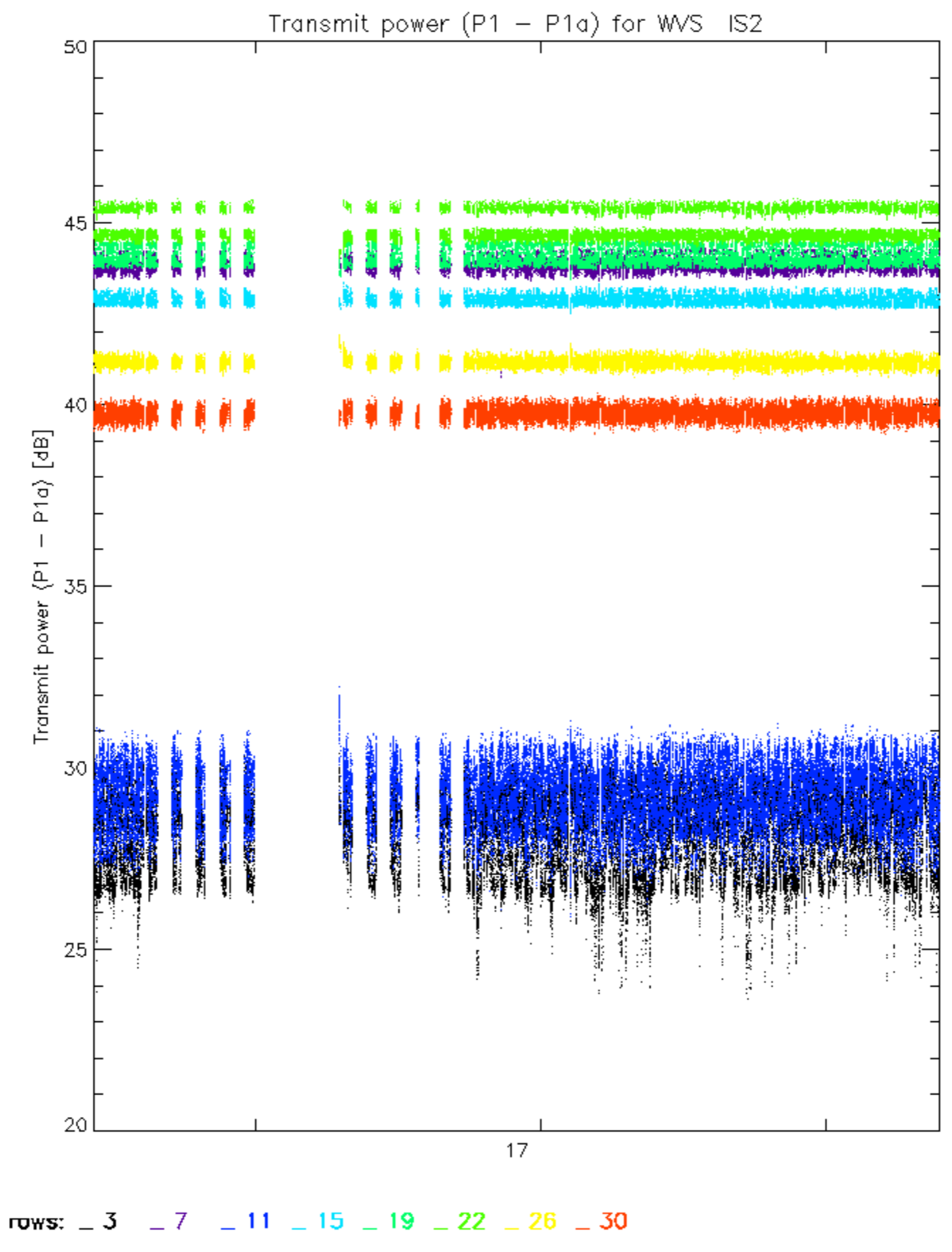


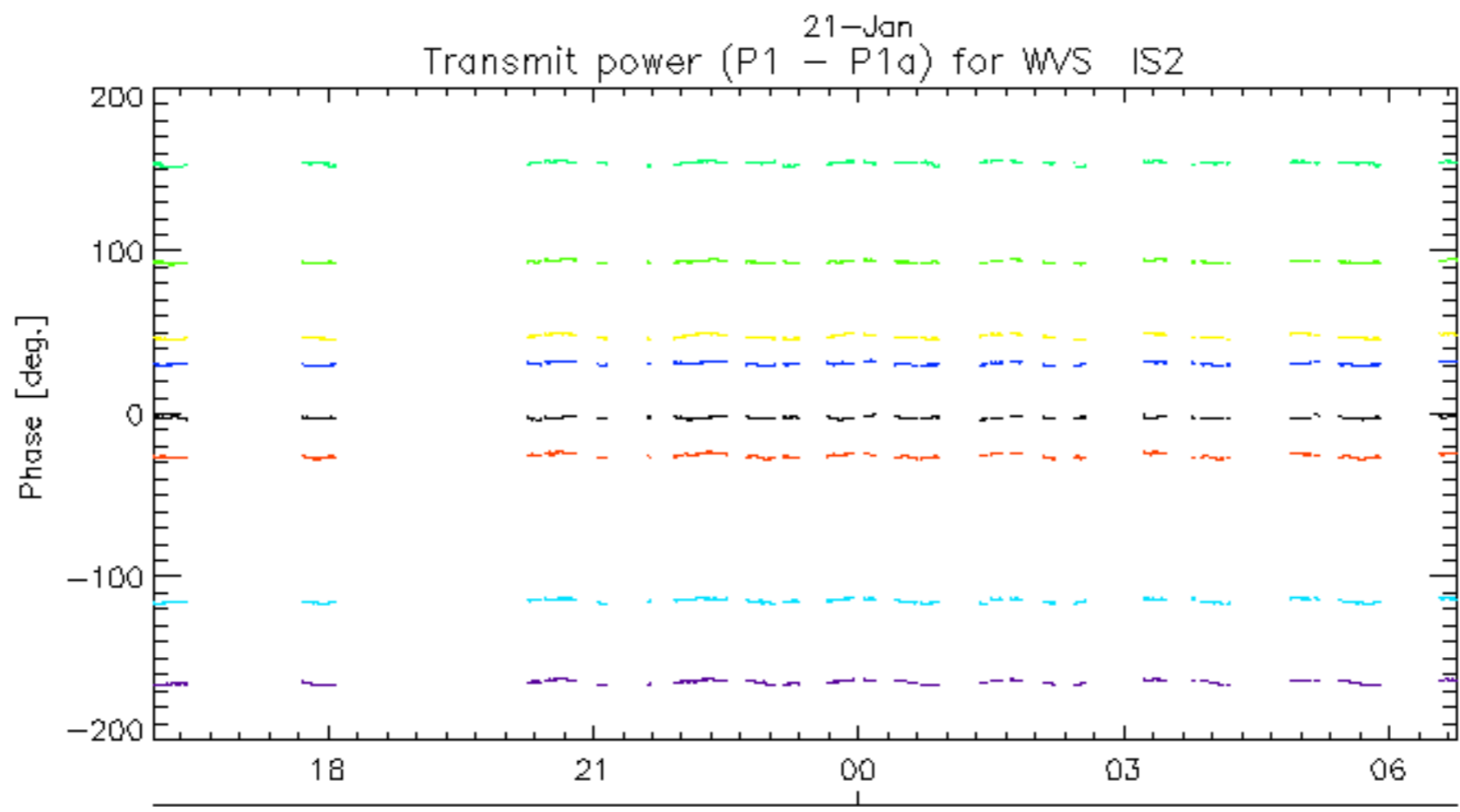
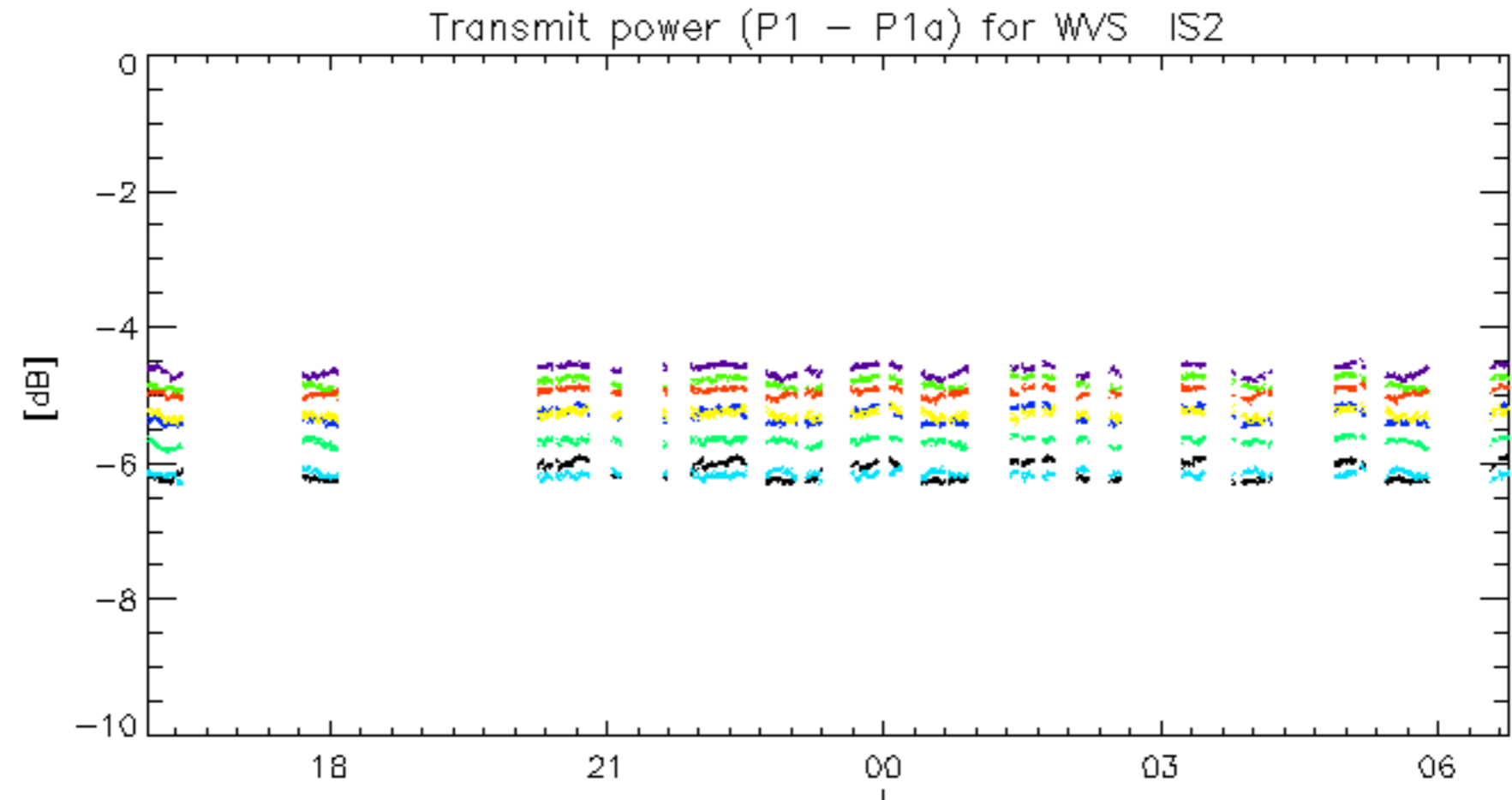
Transmit power (P1 - P1a) for GM1 SS3





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





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

No unavailabilities during the reported period.