

PRELIMINARY REPORT OF 060121

last update on Sat Jan 21 16:43:56 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 2006-01-20 00:00:00 to 2006-01-21 16:43:56

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	46	0	1	0	28
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	46	0	1	0	28
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	46	0	1	0	28
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	46	0	1	0	28

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	49	36	15	53
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	49	36	15	53
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	49	36	15	53
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	49	36	15	53

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	20060118 043726
H	20060119 040549

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	-4.044882	0.007402	0.052110
7	P1	-2.997420	0.014239	-0.000529
11	P1	-4.102956	0.022694	0.002058
15	P1	-6.064792	0.017151	0.012085
19	P1	-3.243778	0.005682	-0.030221
22	P1	-4.487150	0.020167	0.007095
26	P1	-4.218015	0.012257	0.024847
30	P1	-5.772796	0.009945	-0.008492
3	P1	-16.973265	0.250845	0.153576
7	P1	-16.587376	0.126743	-0.090813
11	P1	-16.602556	0.320585	-0.004726
15	P1	-13.253980	0.124694	0.139337
19	P1	-13.876595	0.075013	-0.023027
22	P1	-15.940161	0.568758	0.195985
26	P1	-15.774953	0.260825	-0.003130
30	P1	-16.609644	0.348597	0.085504

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.640030	0.097132	0.144849
7	P2	-22.492899	0.097898	0.086062
11	P2	-16.326351	0.103655	0.093372
15	P2	-7.226312	0.103765	0.044144
19	P2	-9.185537	0.098885	0.052868
22	P2	-17.940825	0.096390	0.008524
26	P2	-16.226484	0.100767	0.029473
30	P2	-19.660885	0.084313	0.039815

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.218093	0.007593	0.019493
7	P3	-8.218093	0.007593	0.019493
11	P3	-8.218093	0.007593	0.019493
15	P3	-8.218093	0.007593	0.019493
19	P3	-8.218093	0.007593	0.019493
22	P3	-8.218093	0.007593	0.019493
26	P3	-8.218093	0.007593	0.019493
30	P3	-8.218093	0.007593	0.019493

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	-3.721215	0.008607	-0.009115
7	P1	-2.757915	0.007557	0.037158
11	P1	-2.867128	0.010785	0.018889
15	P1	-3.451347	0.018301	-0.050285
19	P1	-3.380805	0.013850	0.036957
22	P1	-5.121229	0.021746	0.012615
26	P1	-5.854416	0.015607	0.006170
30	P1	-5.255671	0.030642	0.058156
3	P1	-11.516299	0.033811	-0.045082
7	P1	-9.931087	0.050749	0.073134
11	P1	-10.065774	0.050744	-0.033293
15	P1	-10.611161	0.081197	-0.076200
19	P1	-15.481504	0.064130	0.093206
22	P1	-20.707008	1.134439	0.413555
26	P1	-16.906605	0.327566	0.439665
30	P1	-18.147326	0.305872	0.006848

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.467773	0.031994	0.250589
7	P2	-22.912003	0.057966	0.257158
11	P2	-11.464757	0.020242	0.176735
15	P2	-4.938678	0.023395	0.108605
19	P2	-6.934947	0.022440	0.099467
22	P2	-8.198079	0.023133	0.046216
26	P2	-23.990927	0.025407	0.117667
30	P2	-22.107935	0.017148	0.067574

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.062213	0.002448	0.039483
7	P3	-8.062187	0.002449	0.040191
11	P3	-8.062317	0.002455	0.040176
15	P3	-8.062168	0.002451	0.039758
19	P3	-8.062307	0.002454	0.039882
22	P3	-8.062141	0.002443	0.039037
26	P3	-8.062043	0.002442	0.039396
30	P3	-8.062238	0.002453	0.039316

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	0.000550520
	stdev	1.77095e-07
MEAN Q	mean	0.000513783
	stdev	2.19227e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138316
	stdev	0.00122253
STDEV Q	mean	0.138670
	stdev	0.00124172



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006012[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_1PNPDE20060120_004243_000001222044_00245_20339_0521.N1	1	0
ASA_IMM_1PNPDE20060120_155104_000001122044_00254_20348_0574.N1	1	0



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

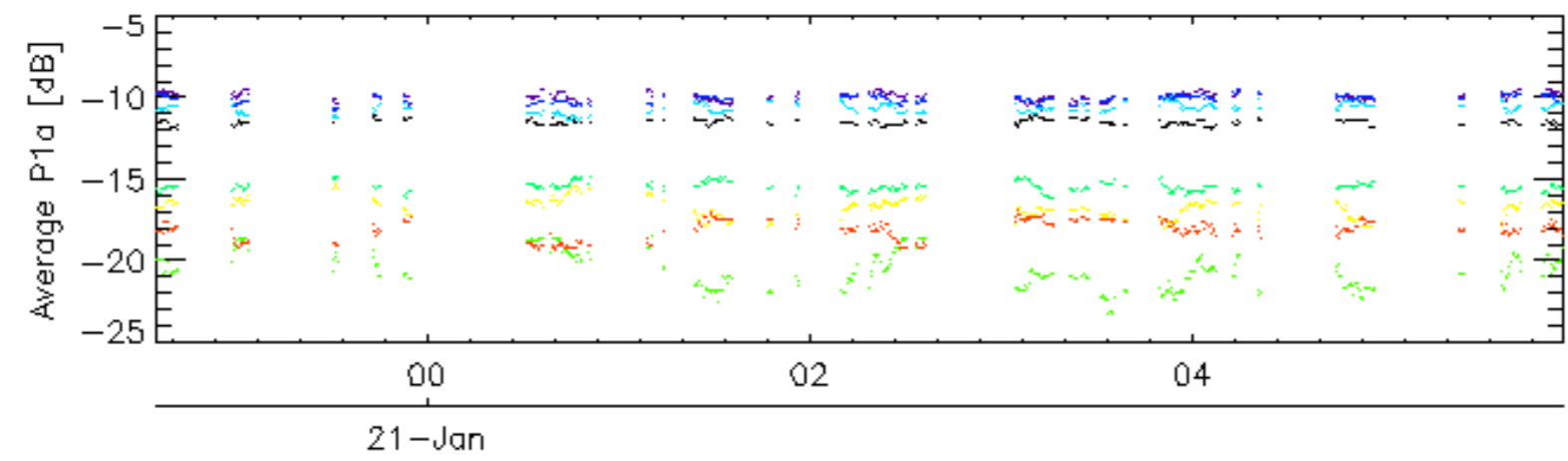
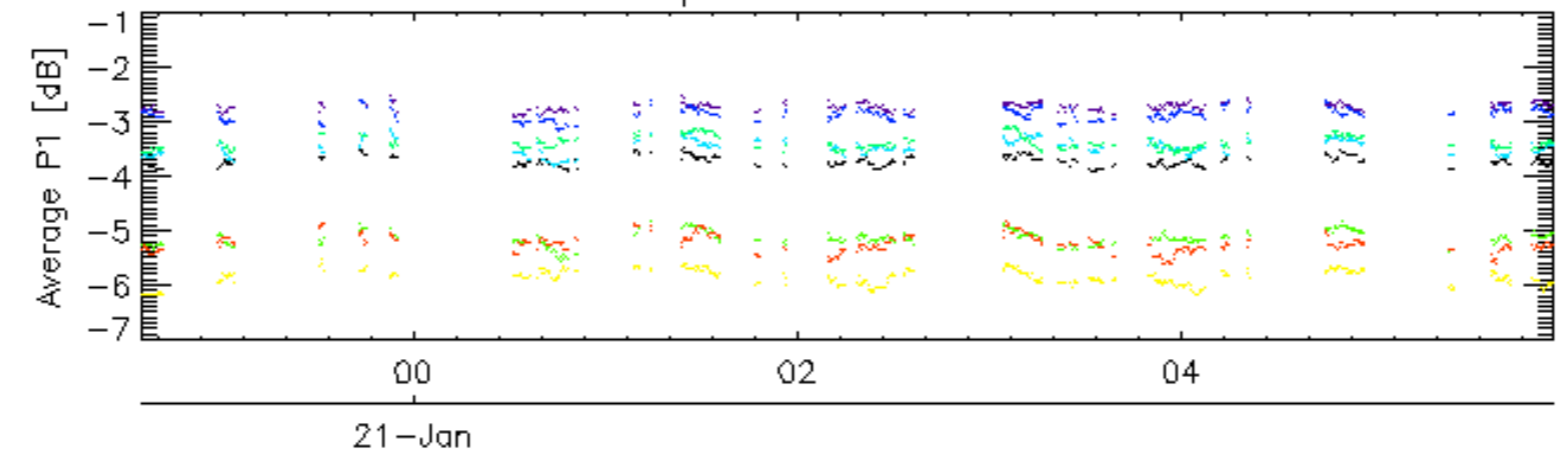
Ascending

Descending

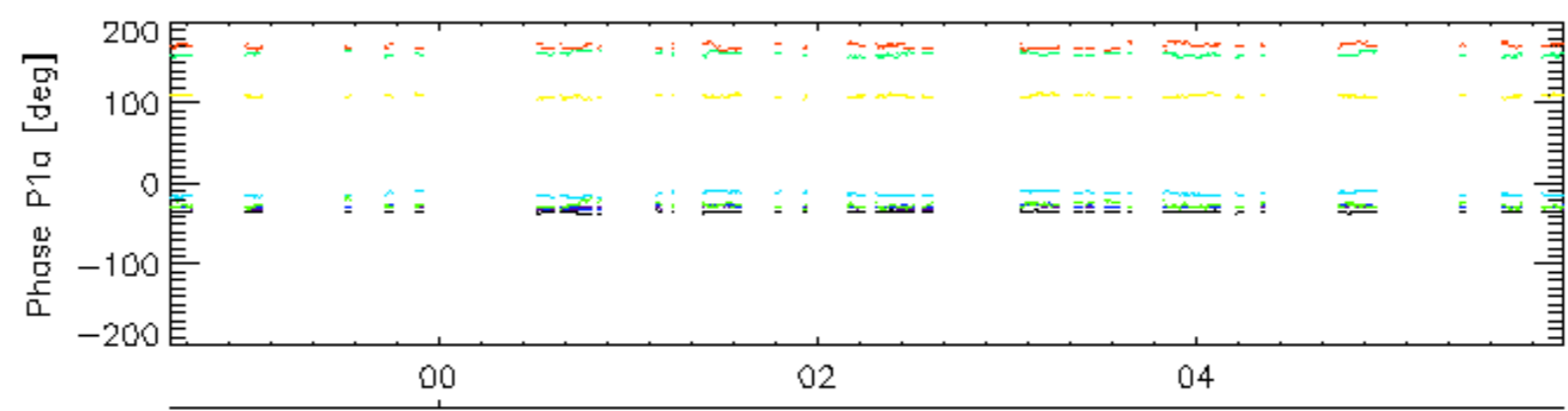
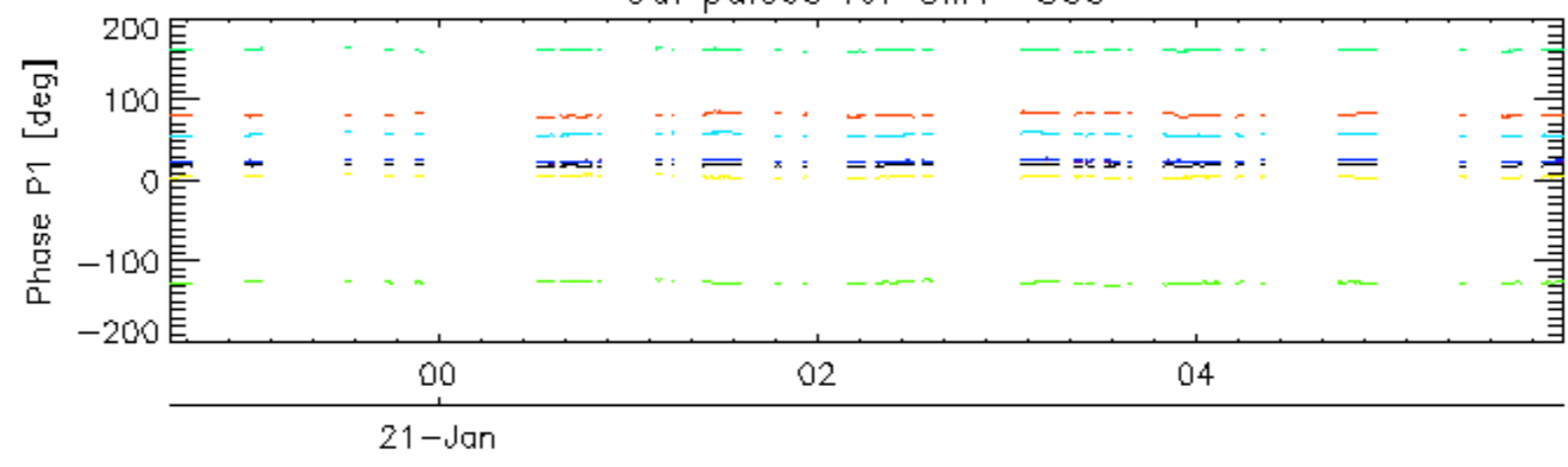
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

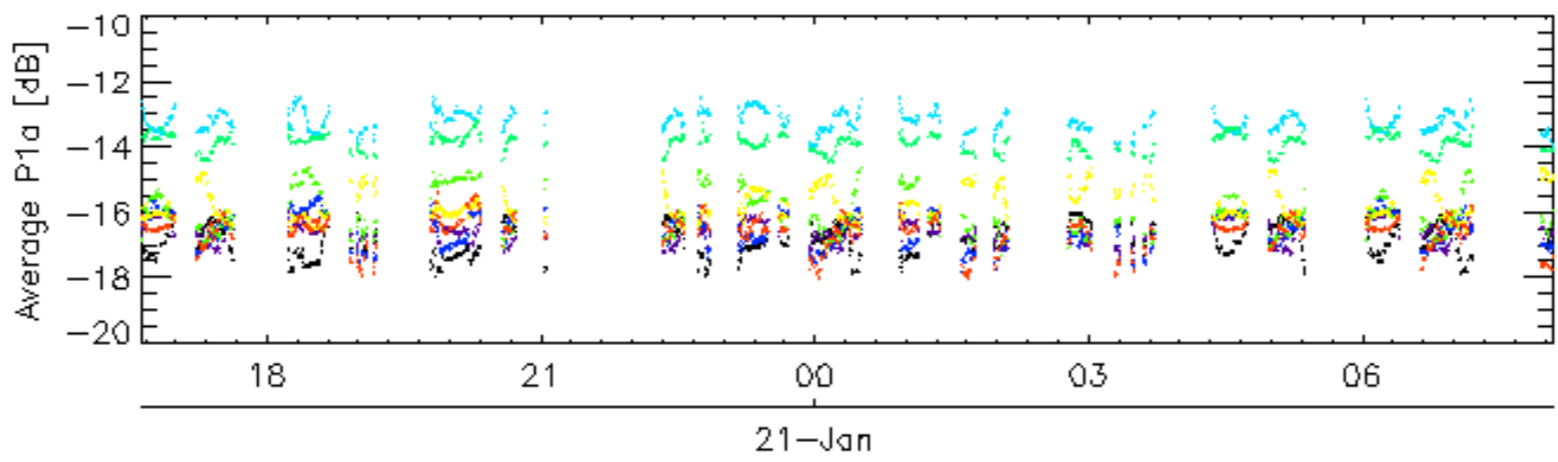
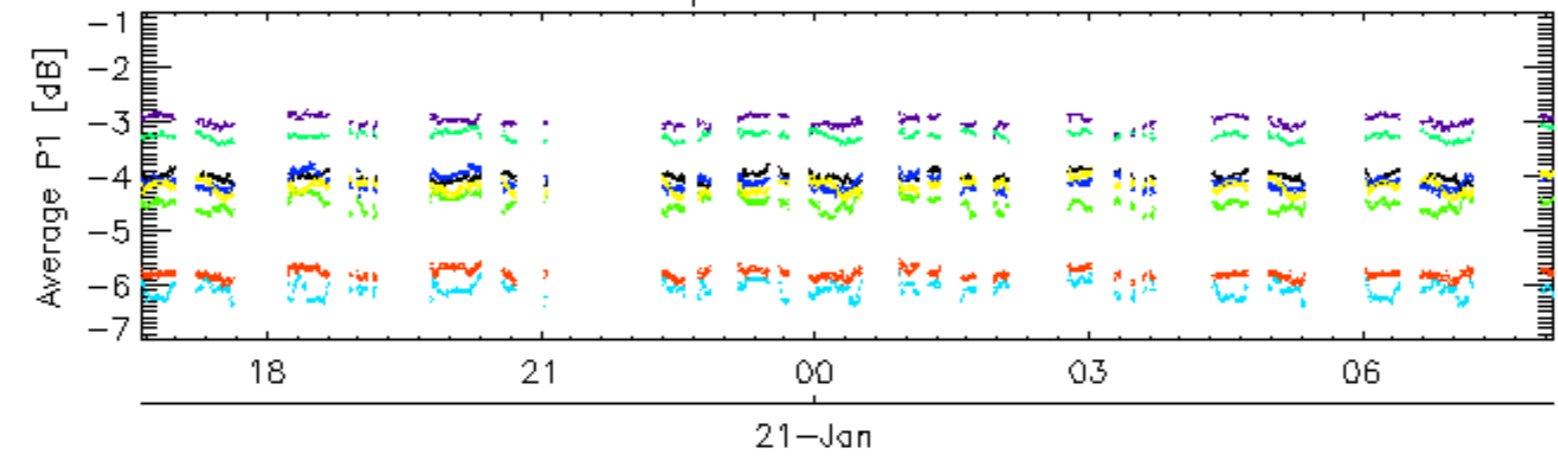


Cal pulses for GM1 SS3

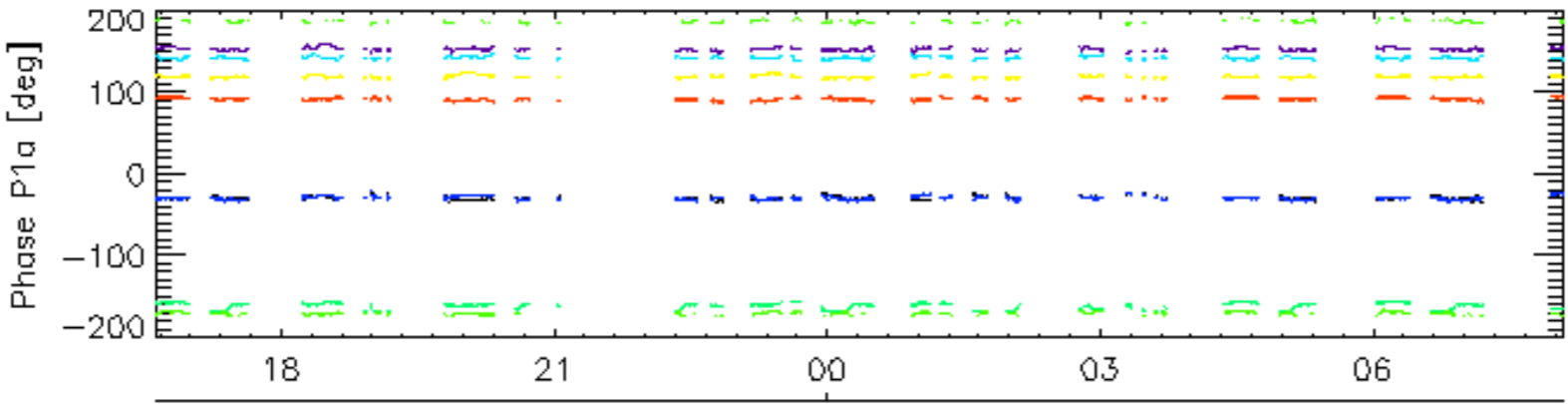
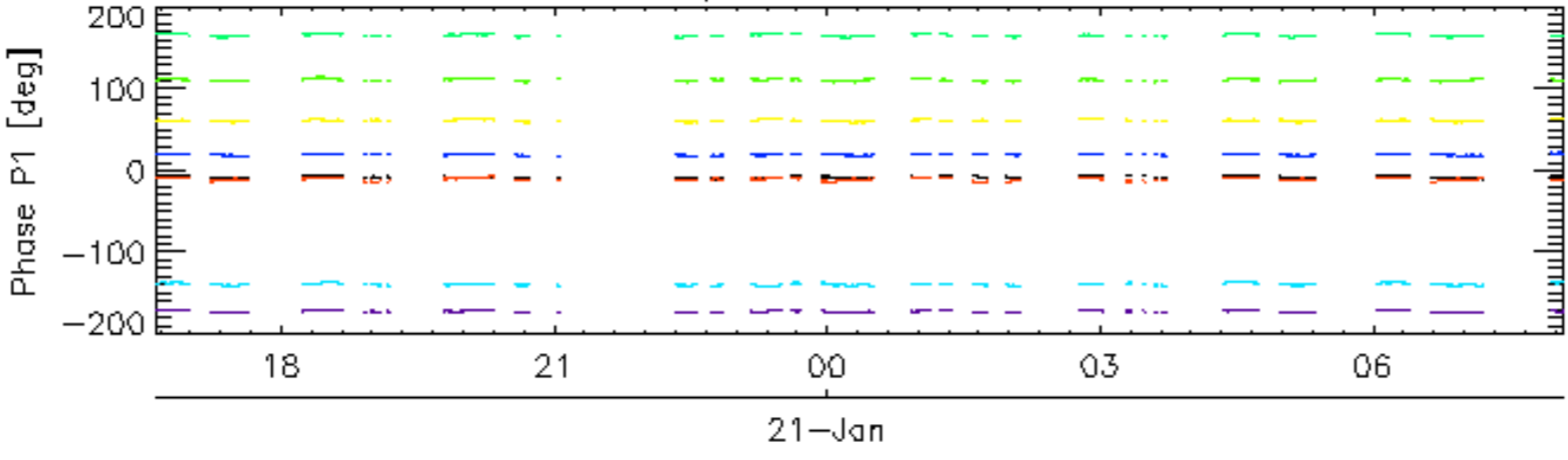


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

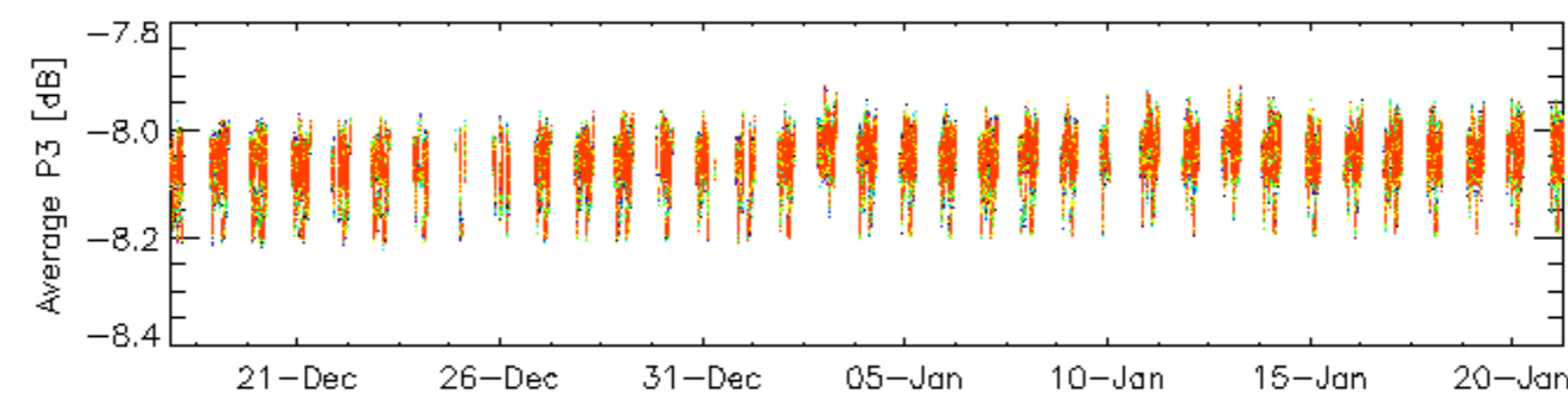
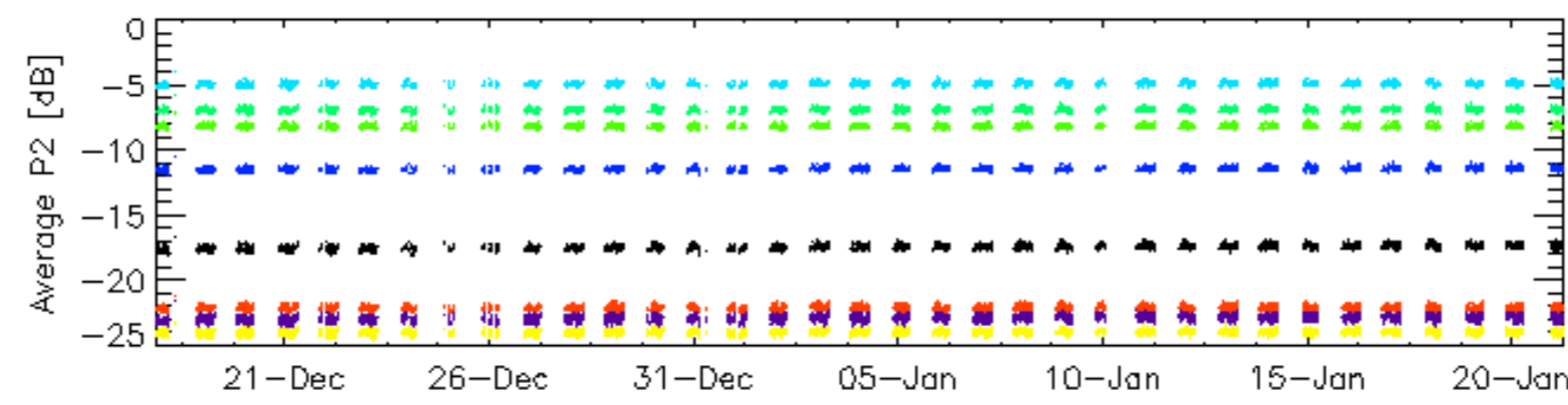
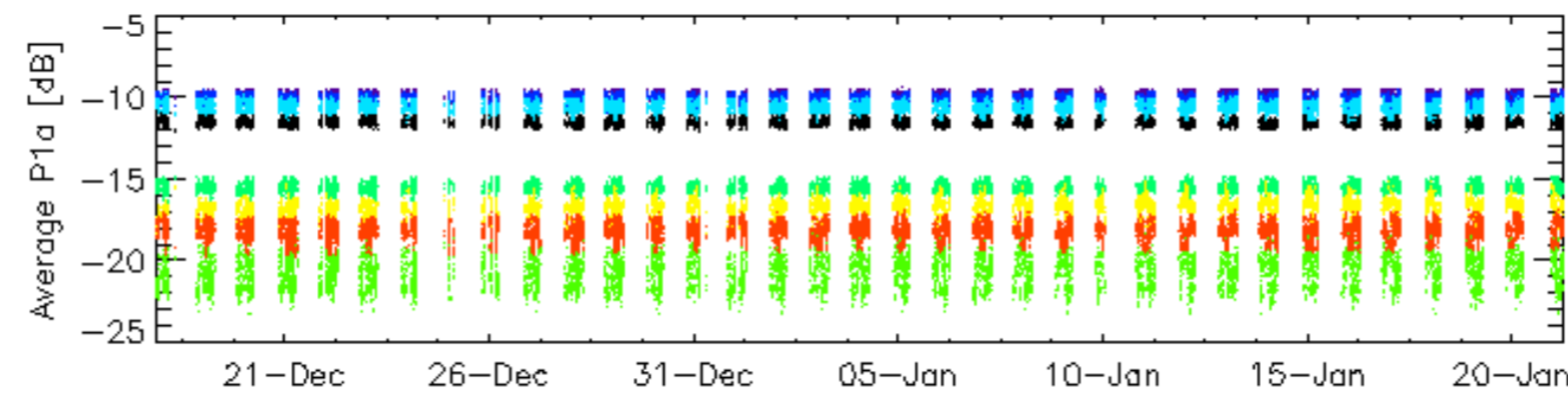
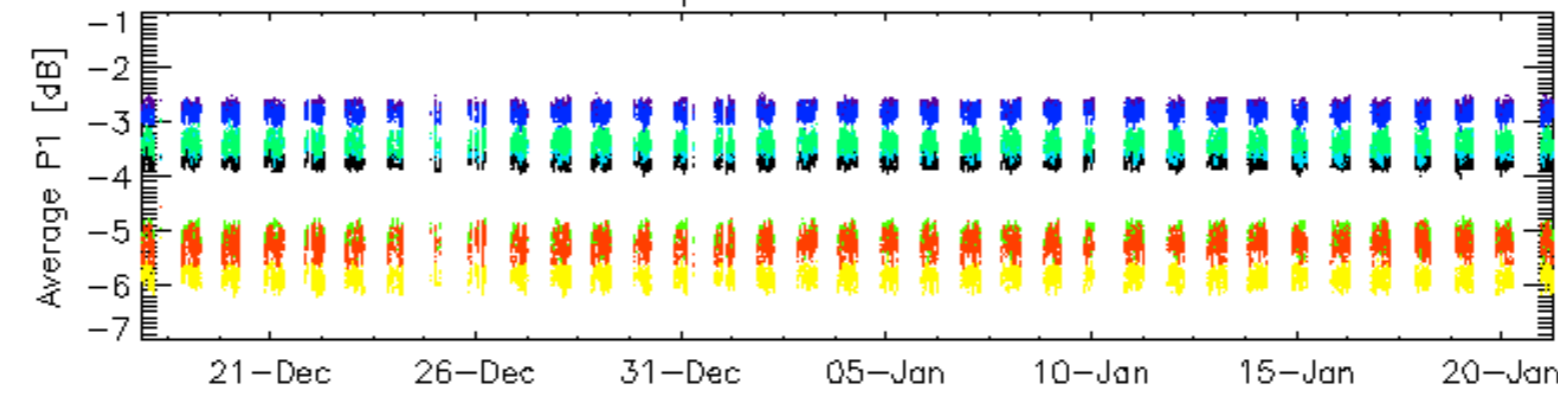


Cal pulses for WVS IS2



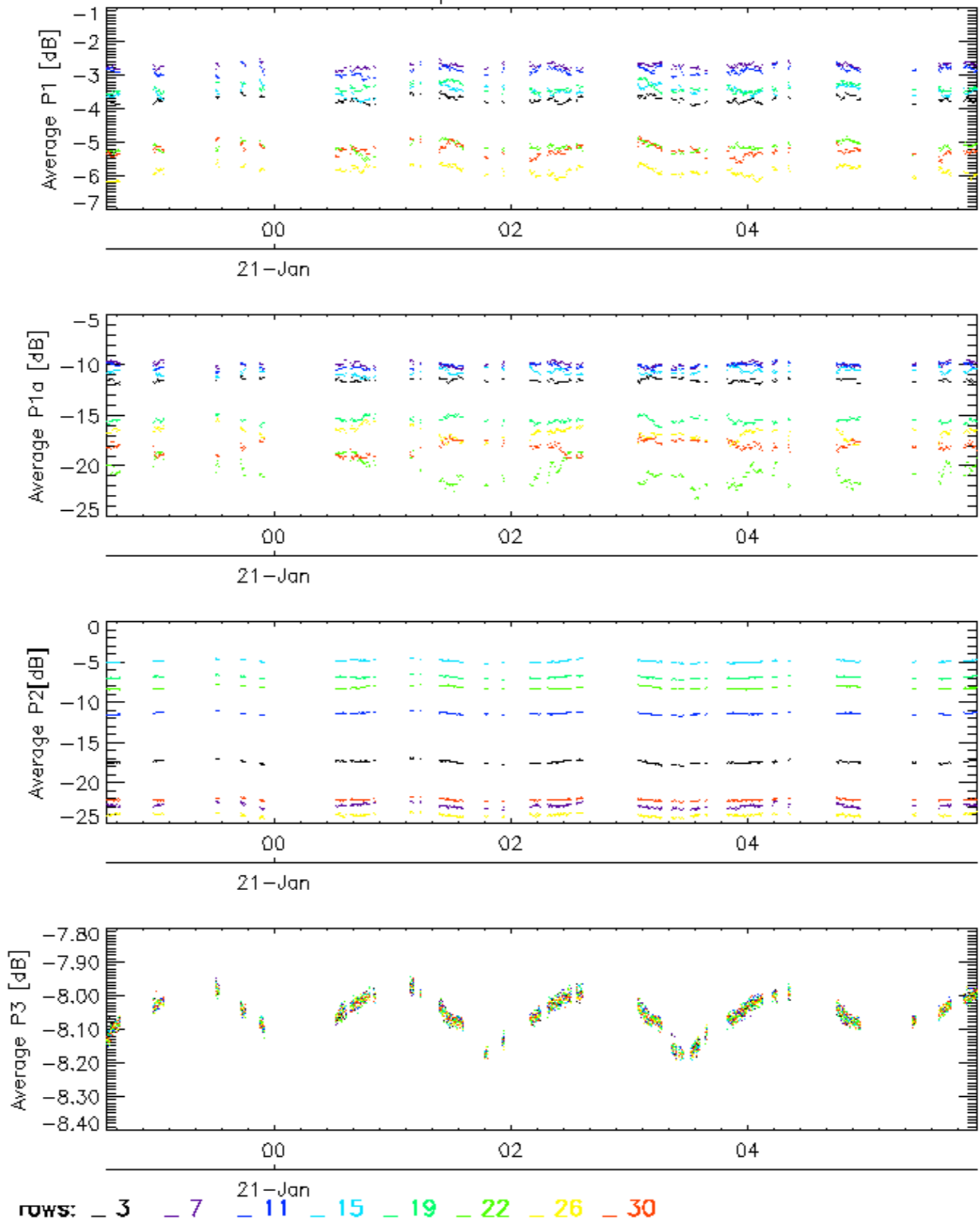
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

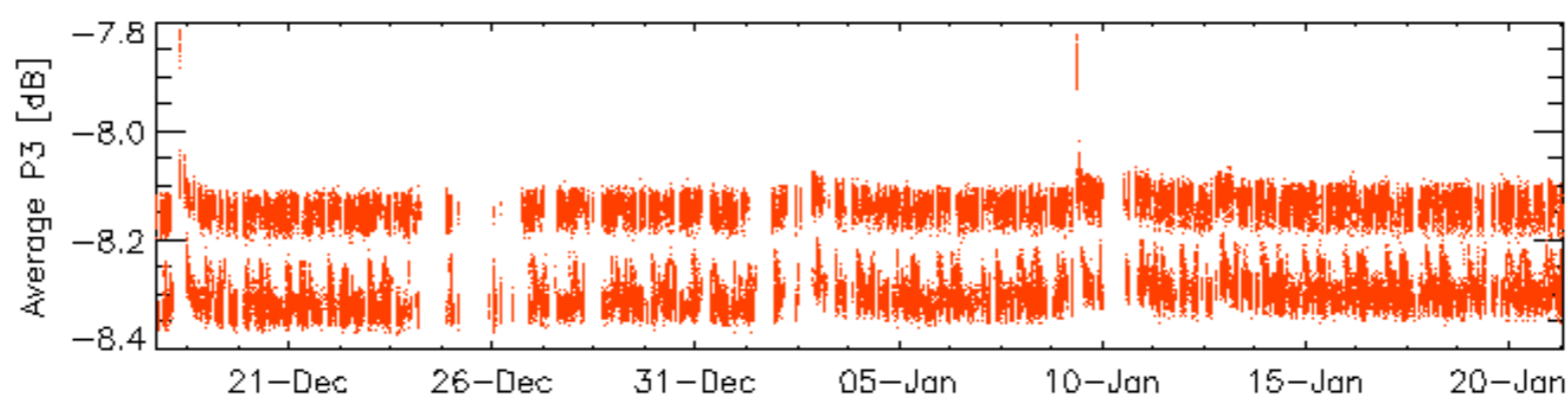
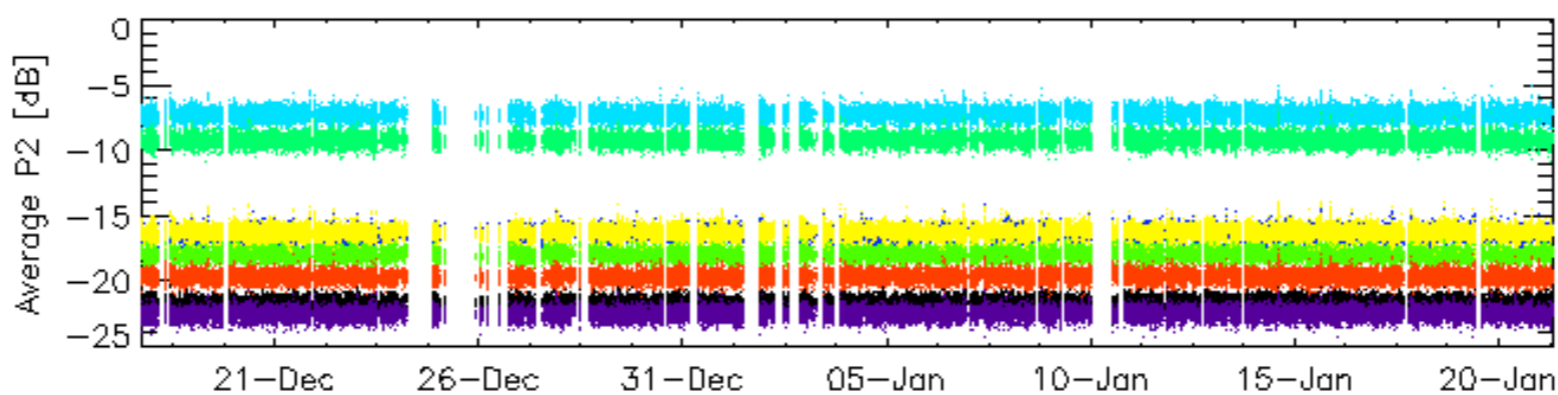
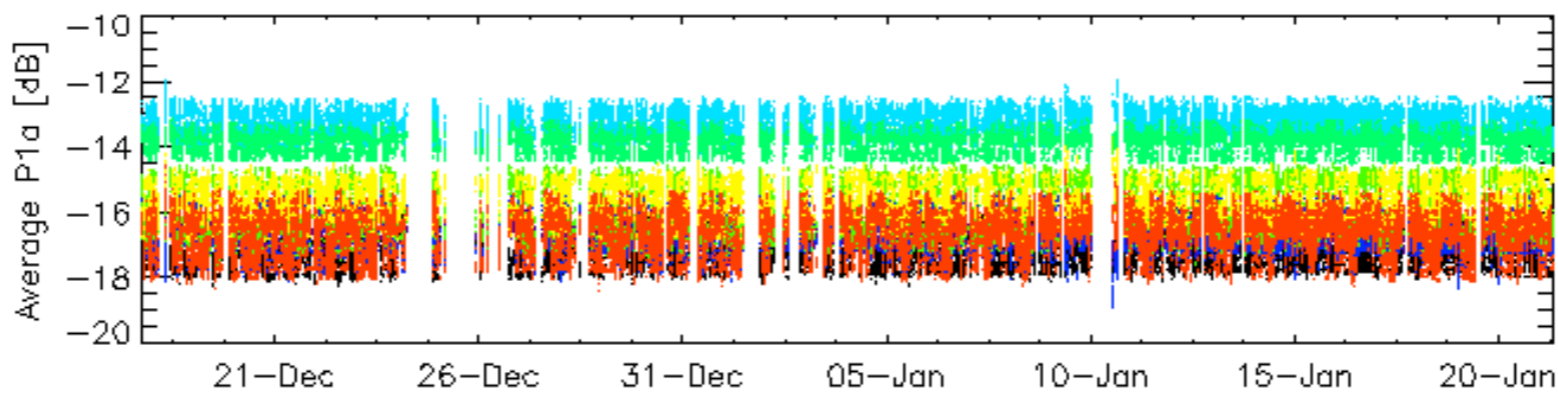
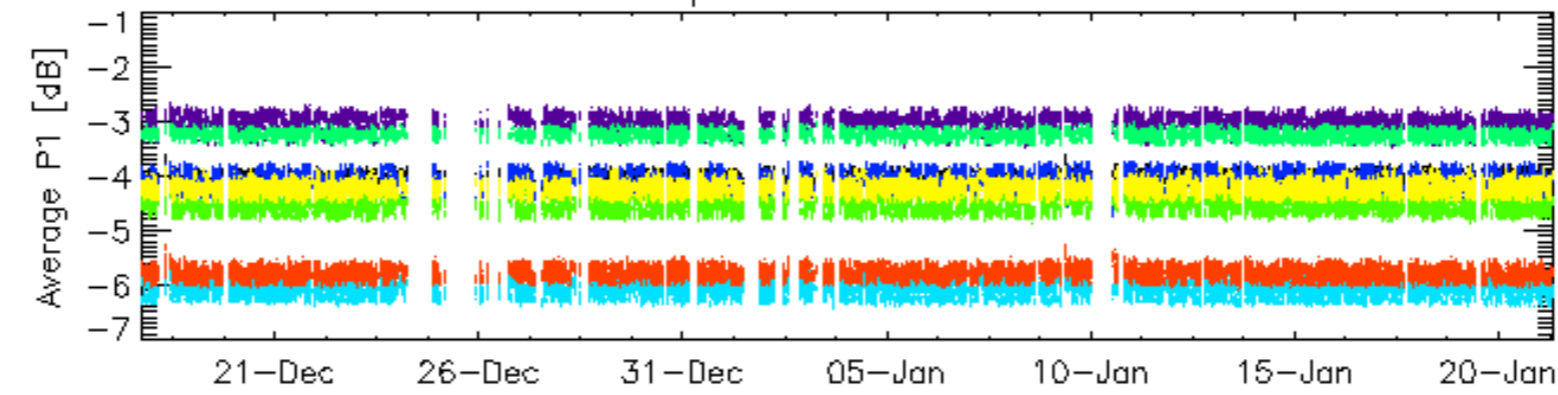


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

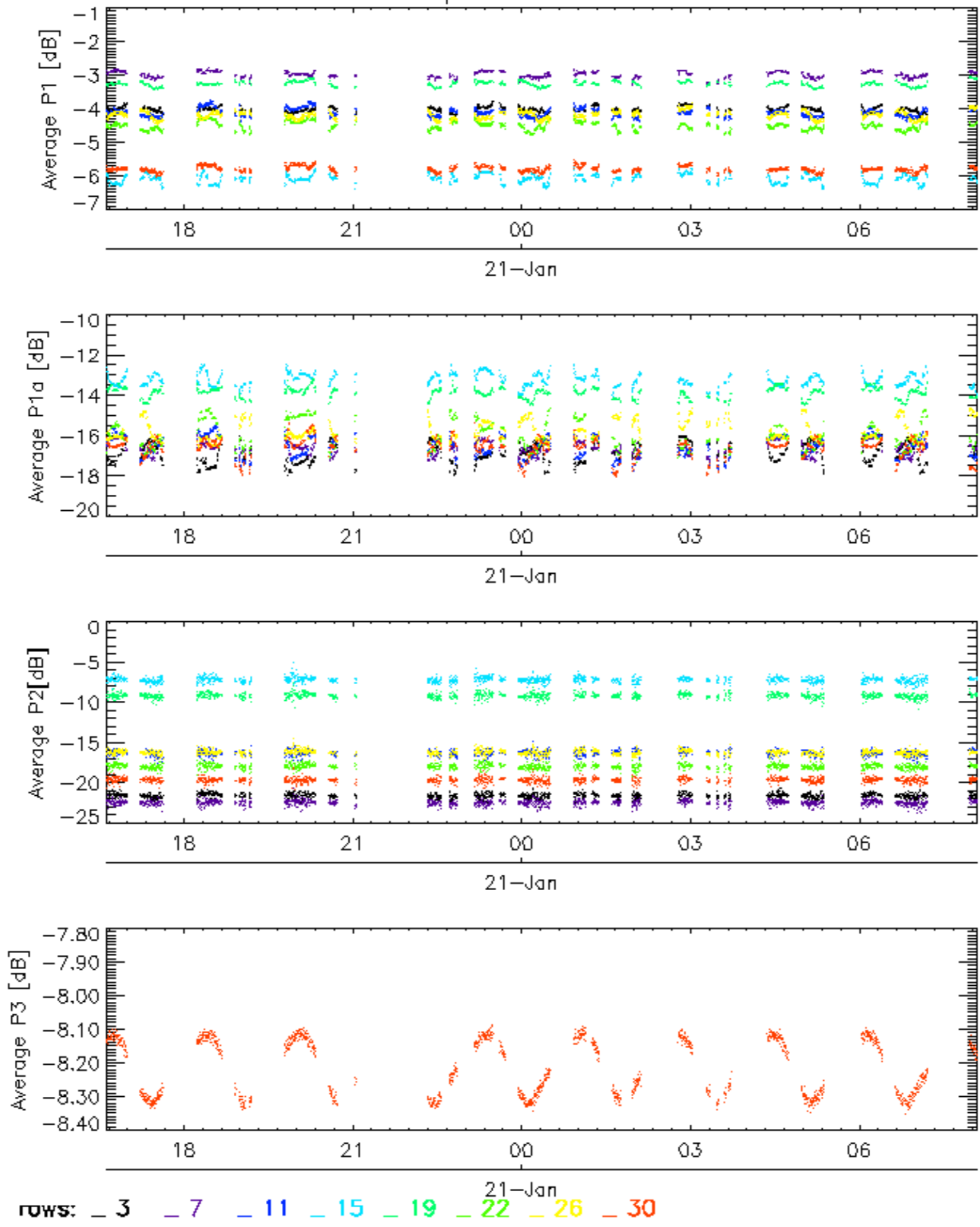


Cal pulses for WVS IS2

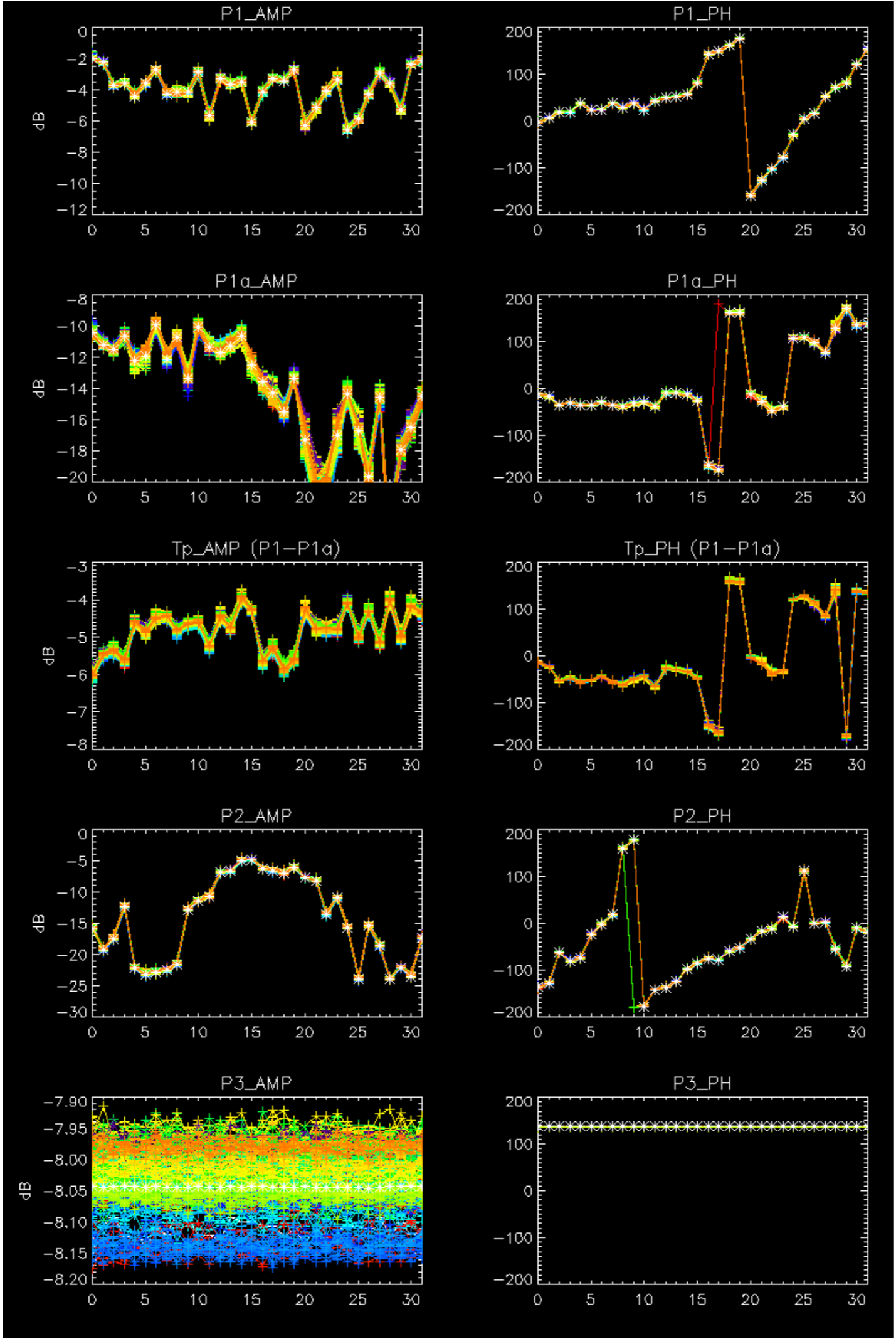


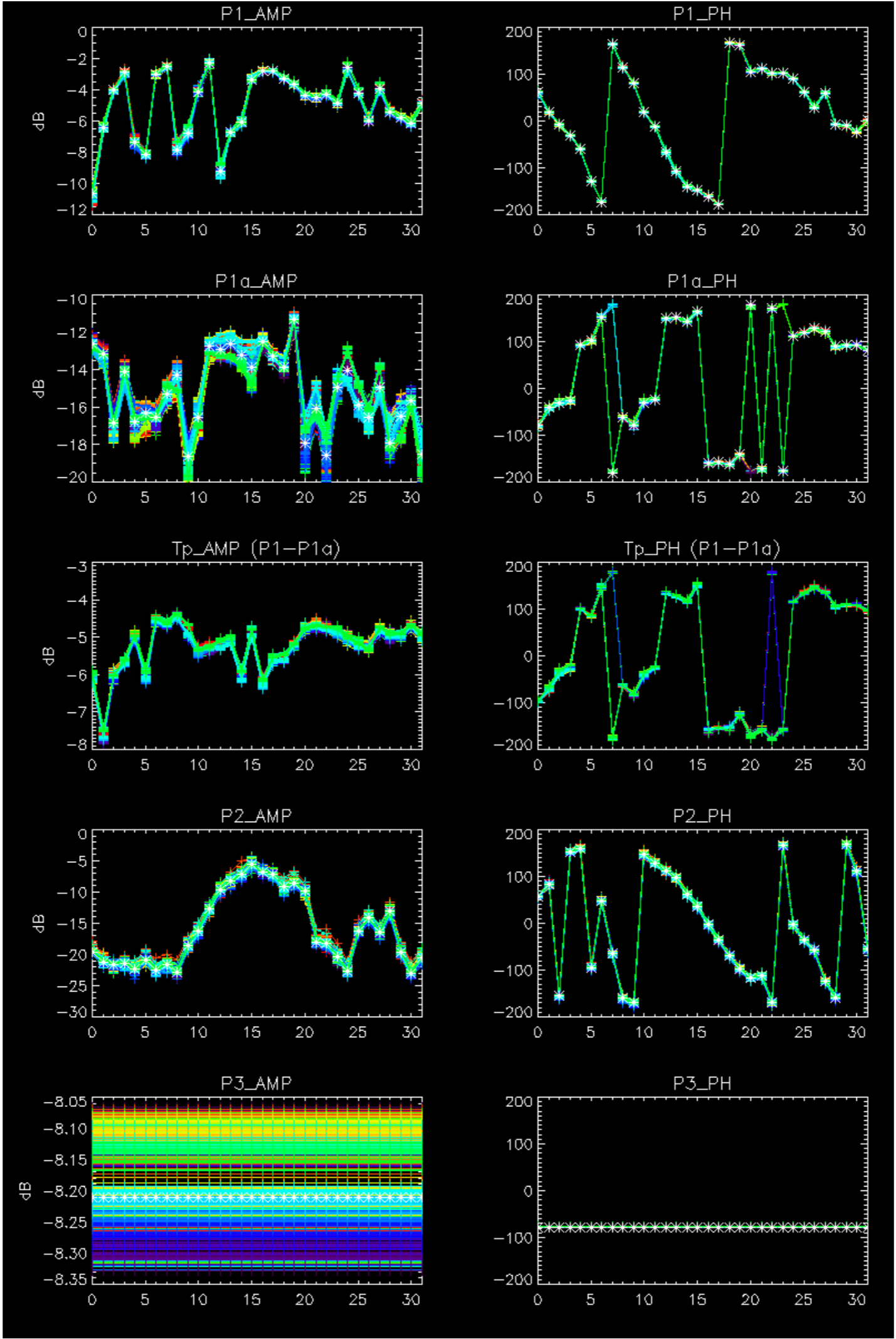
rows: [3](#) [7](#) [11](#) [15](#) [19](#) [22](#) [26](#) [30](#)

Cal pulses for WVS IS2



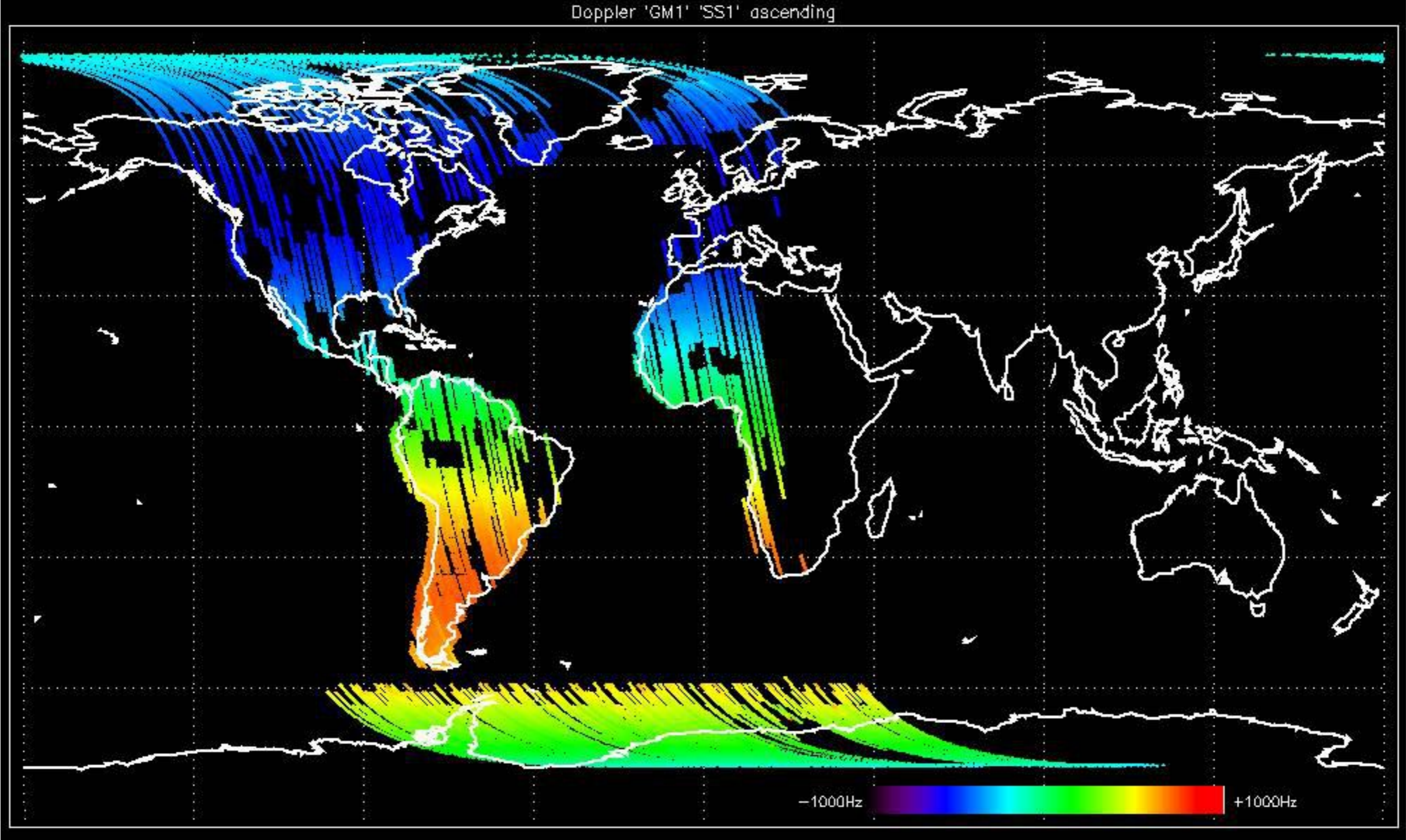
No anomalies observed.



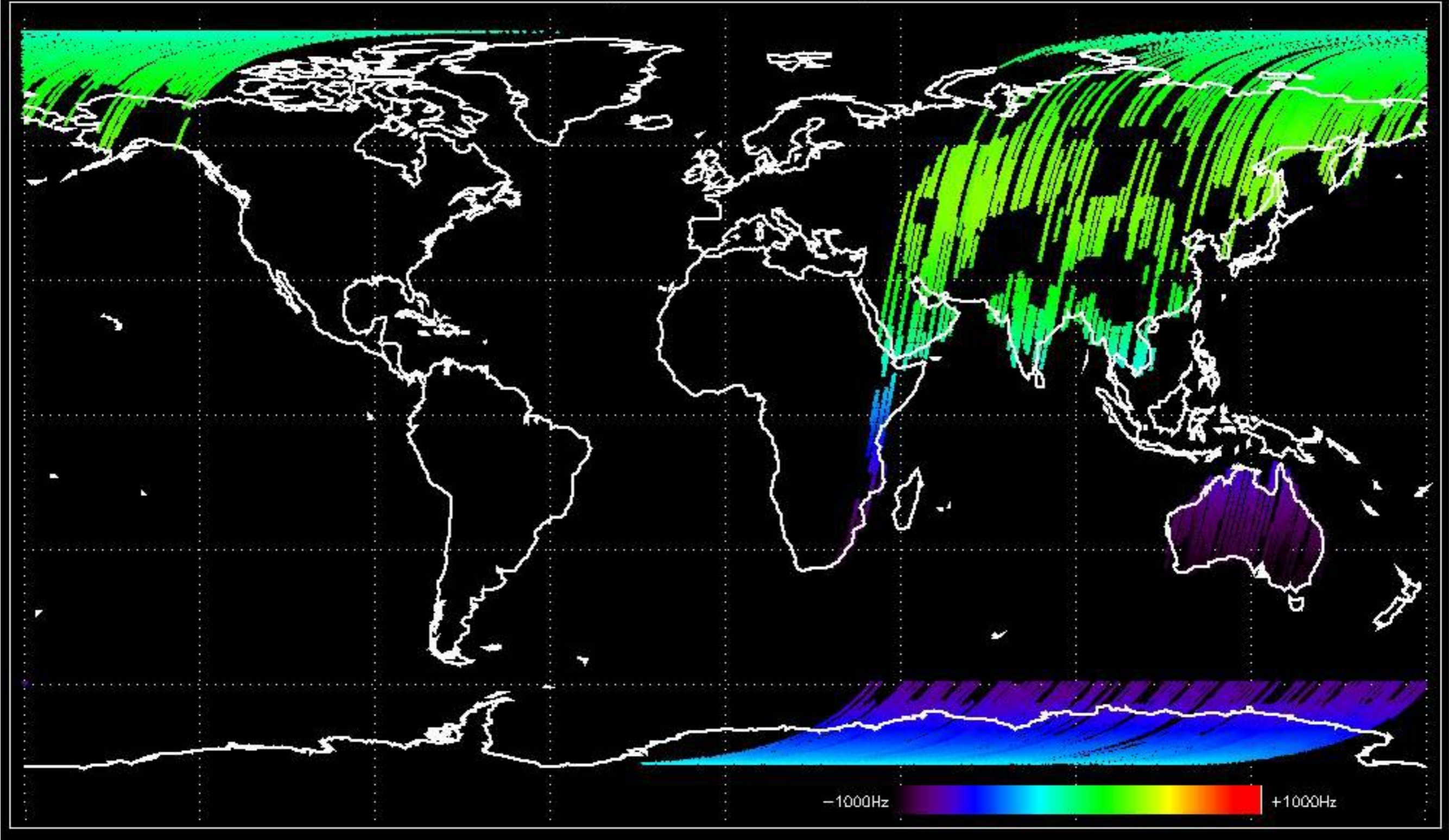


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

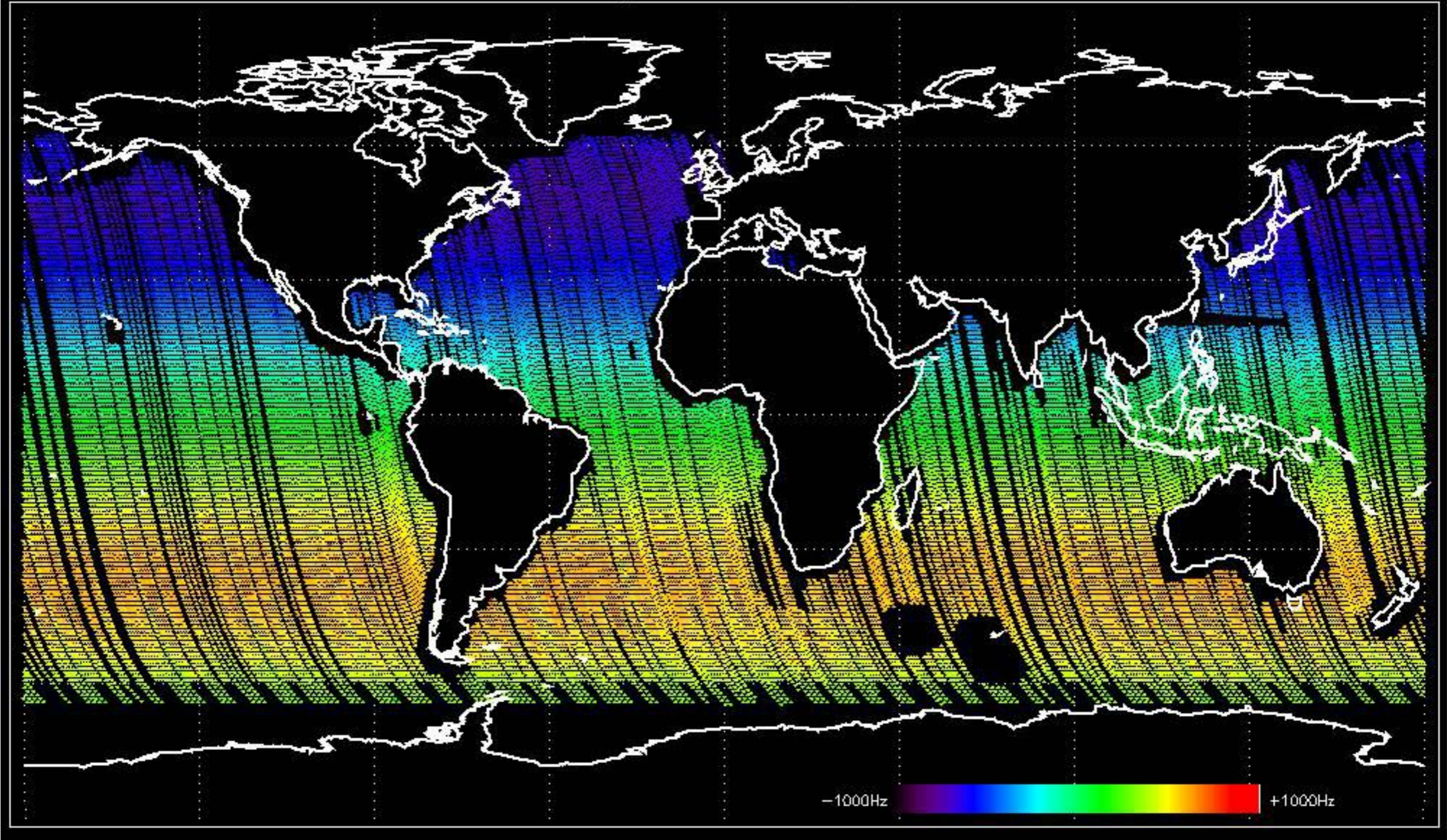
Doppler 'GM1' 'SS1' ascending



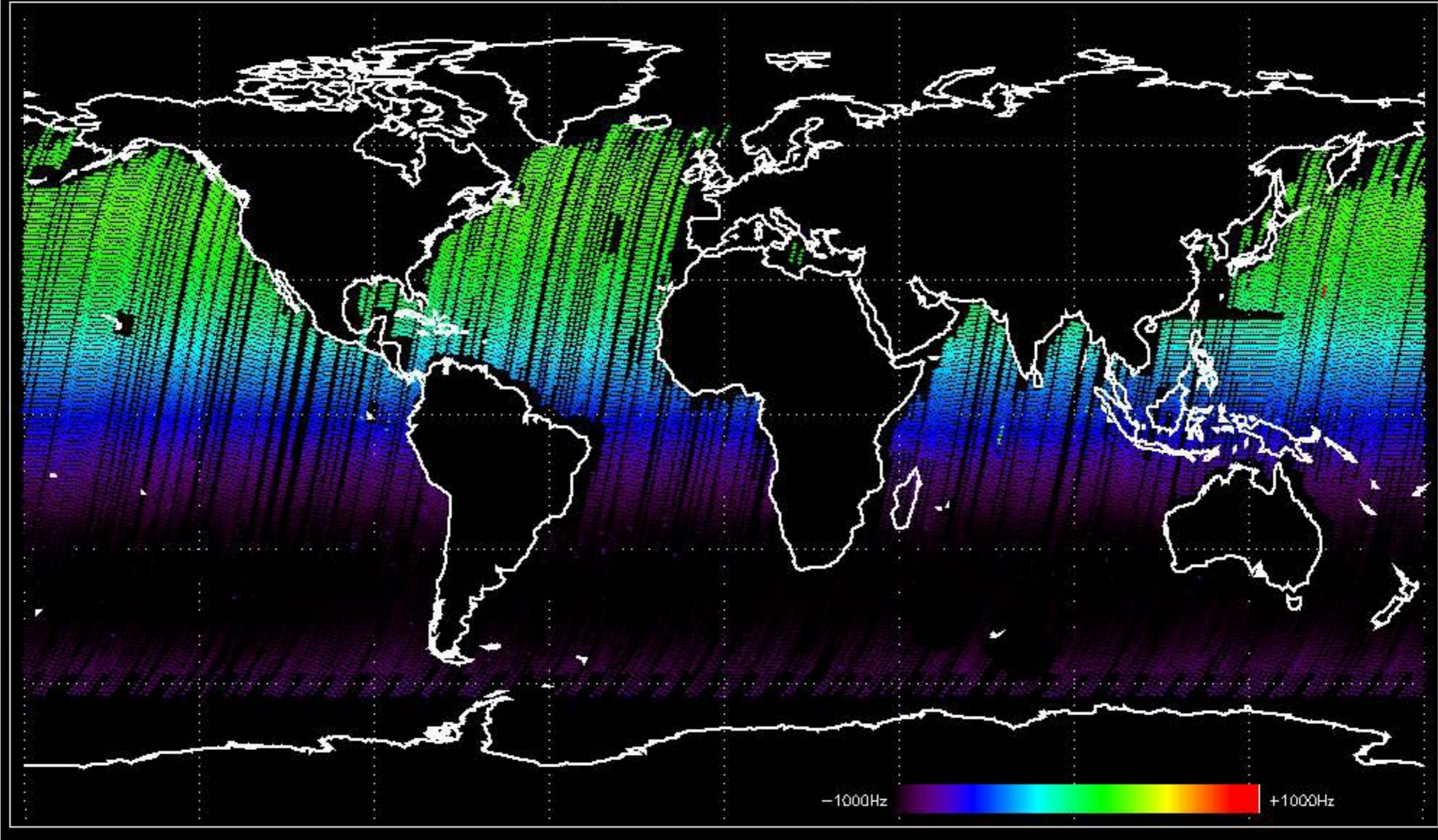
Doppler 'GM1' 'SS1' descending

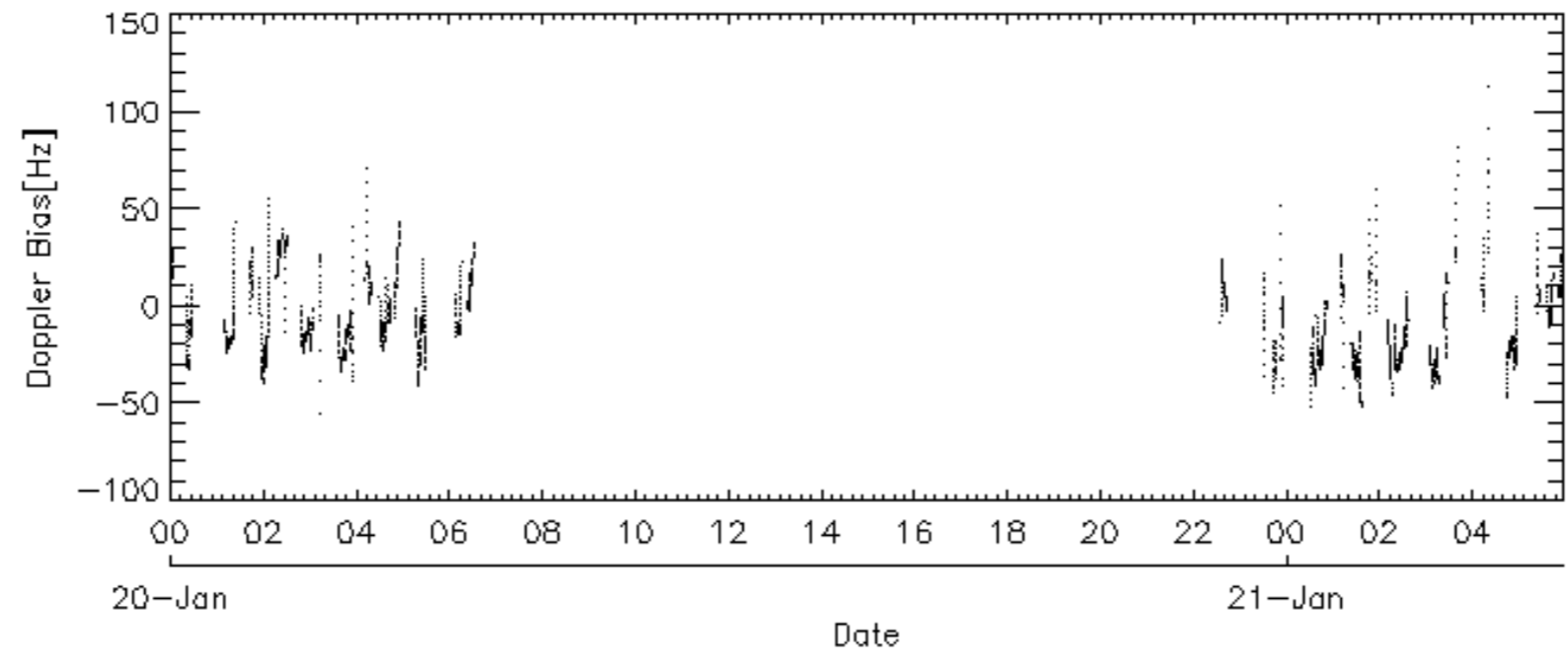
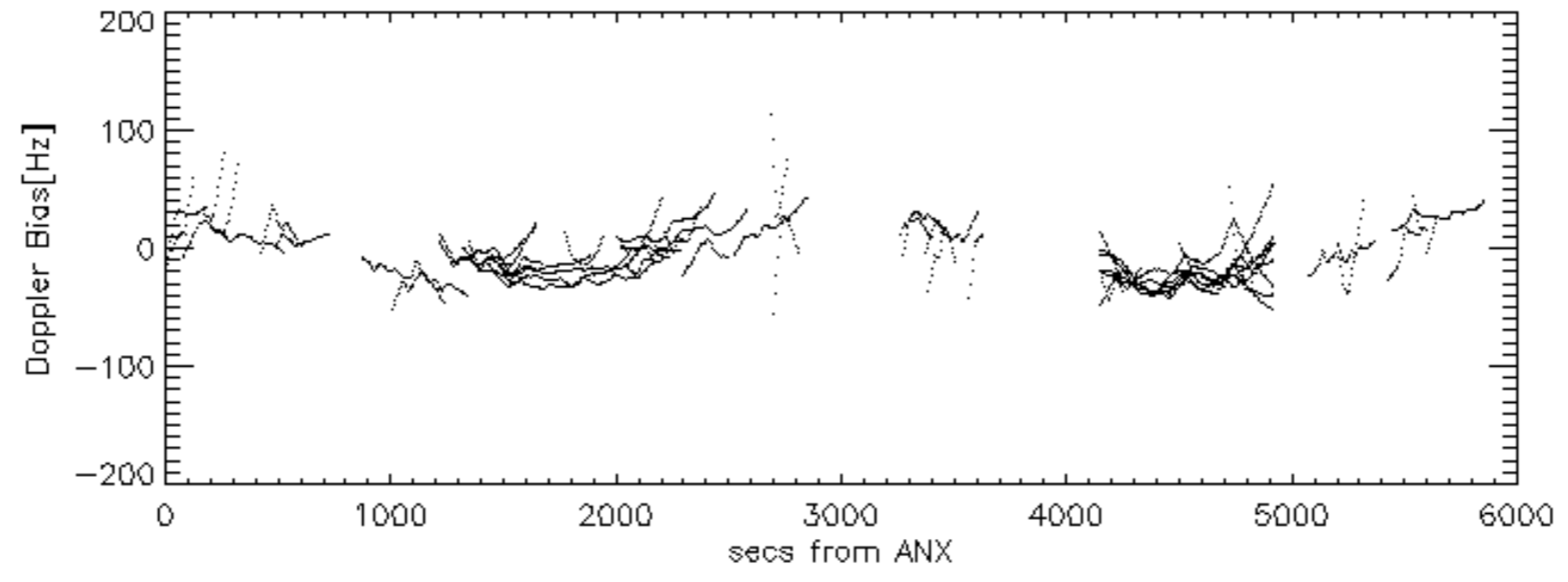
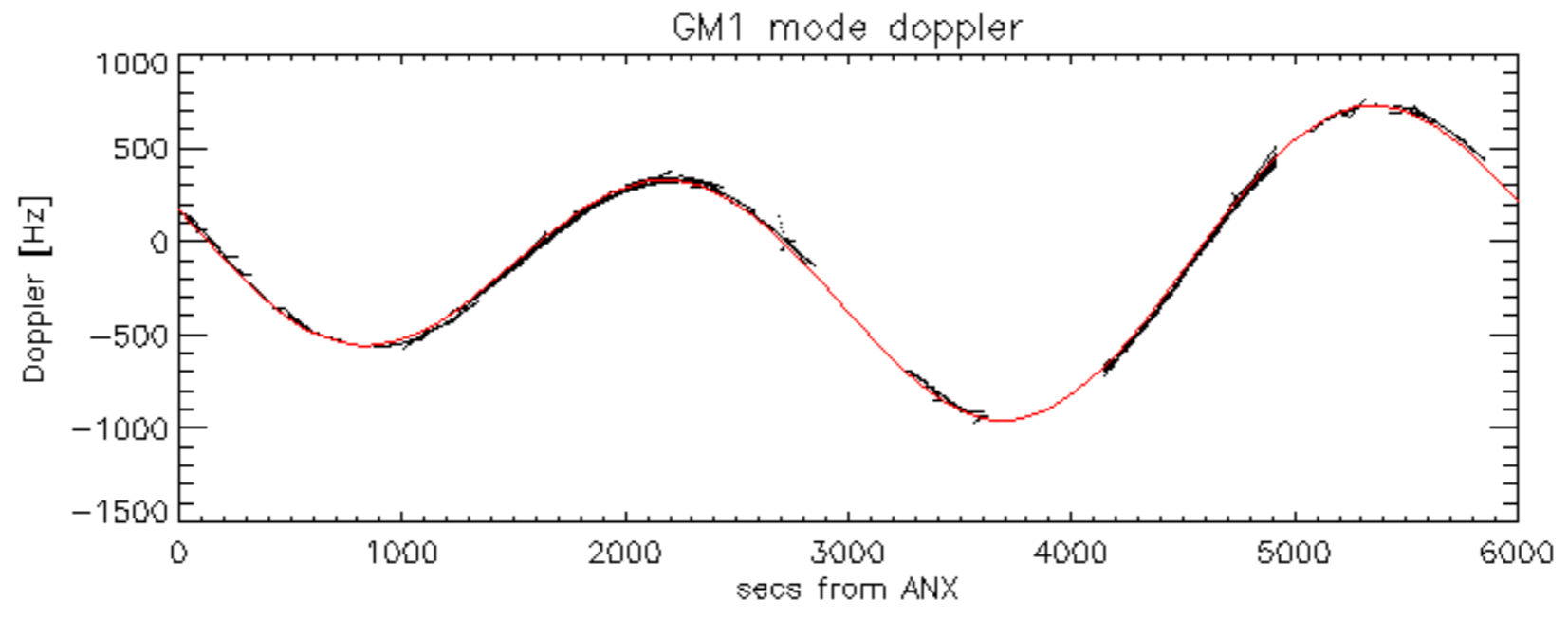


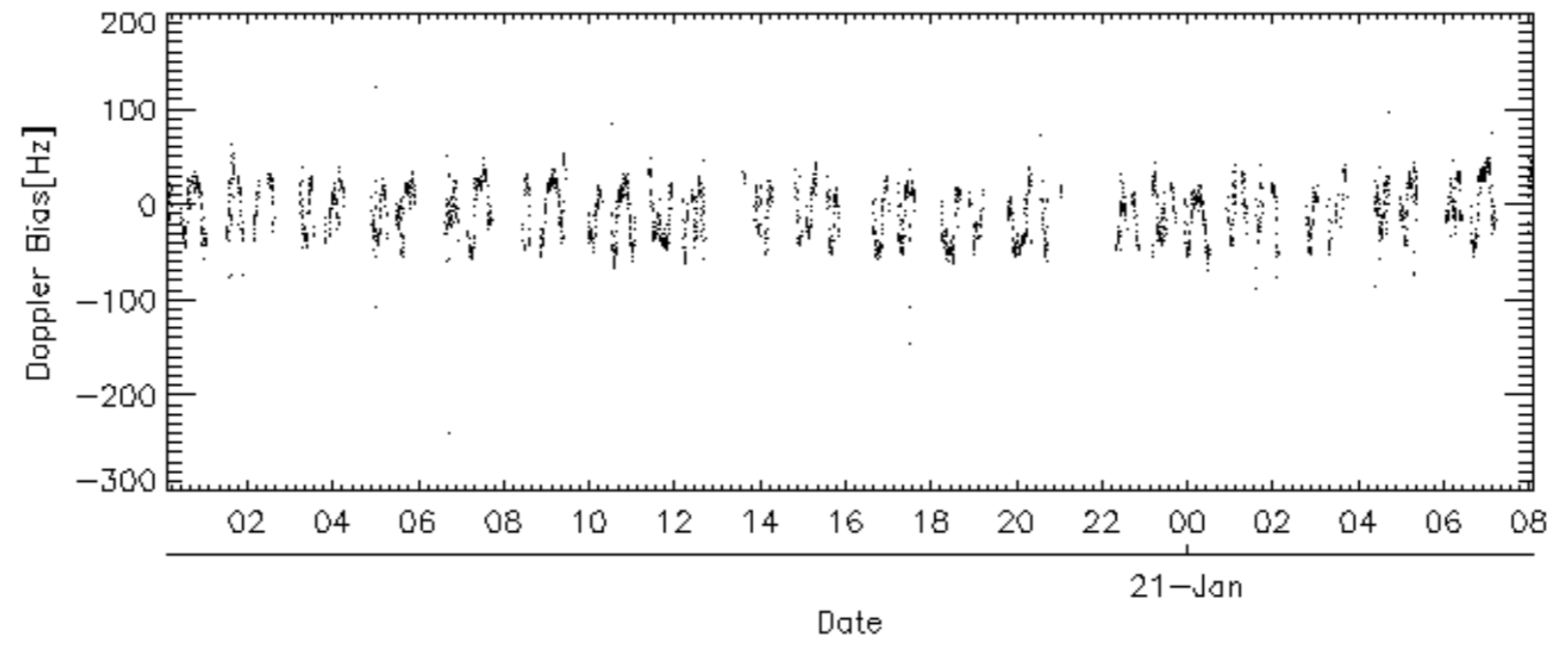
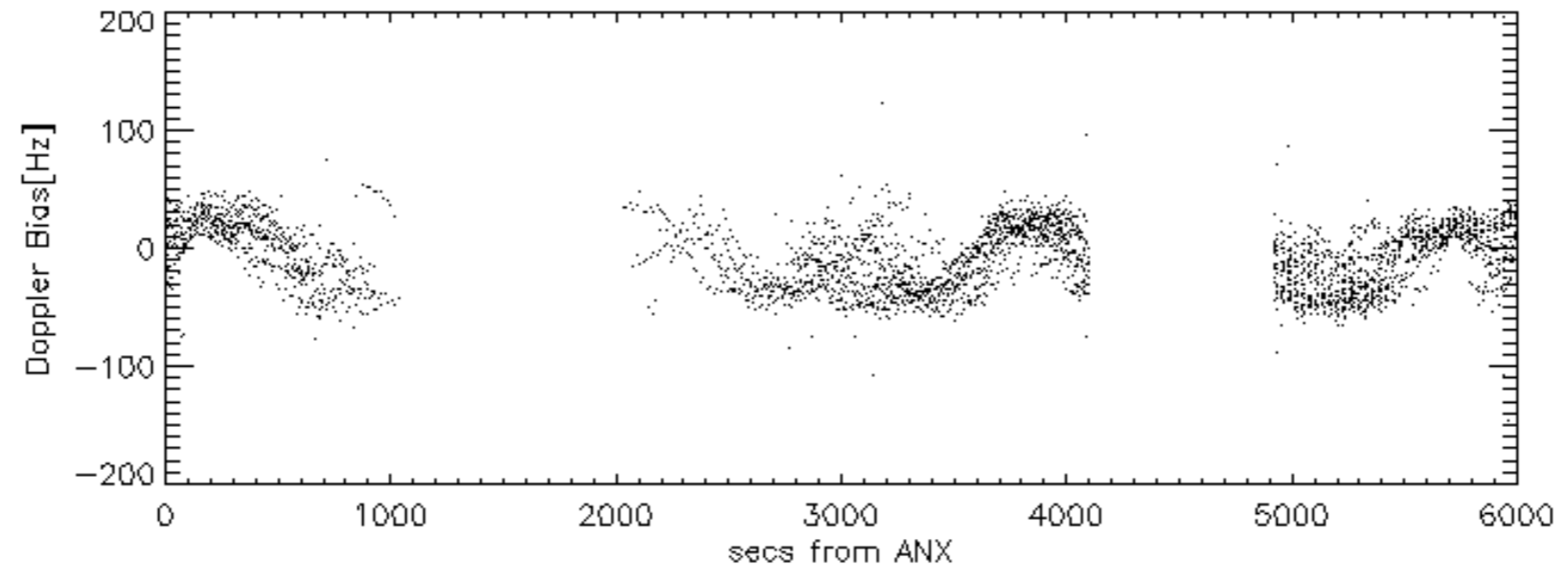
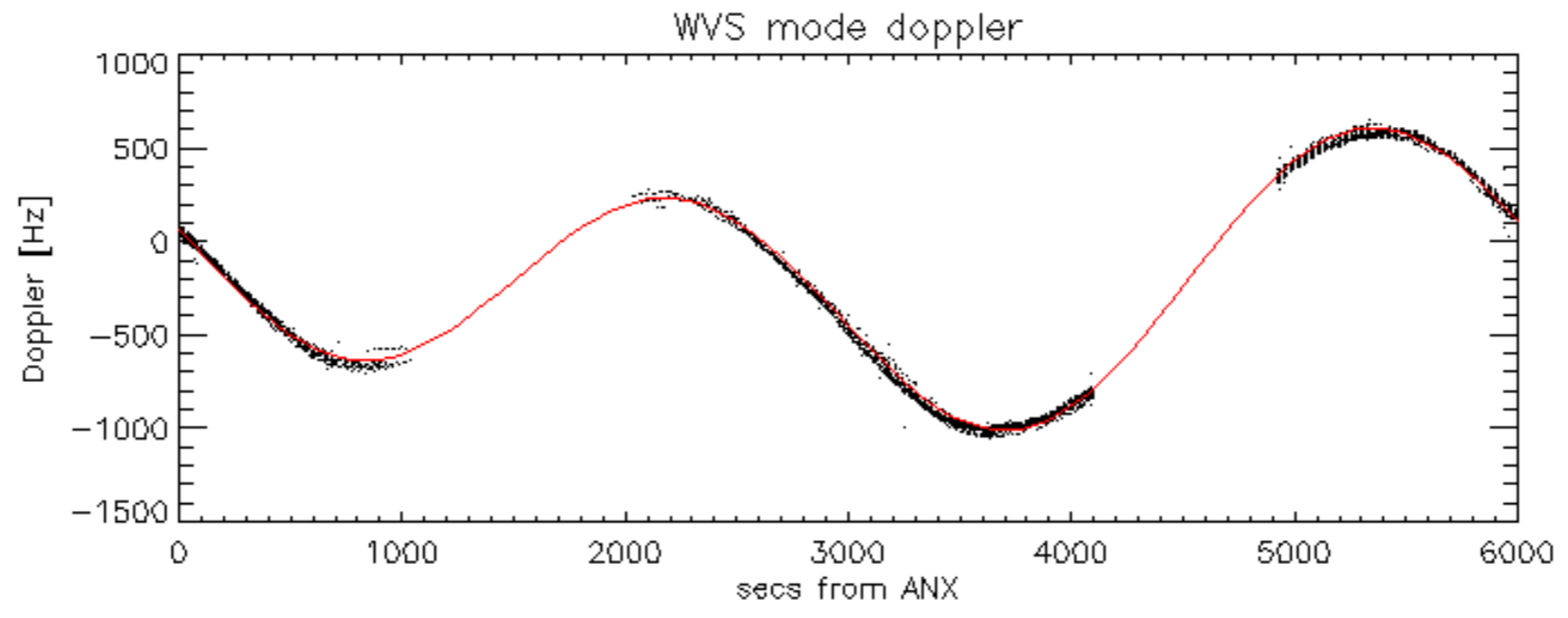
Doppler 'WVS' 'IS2' ascending



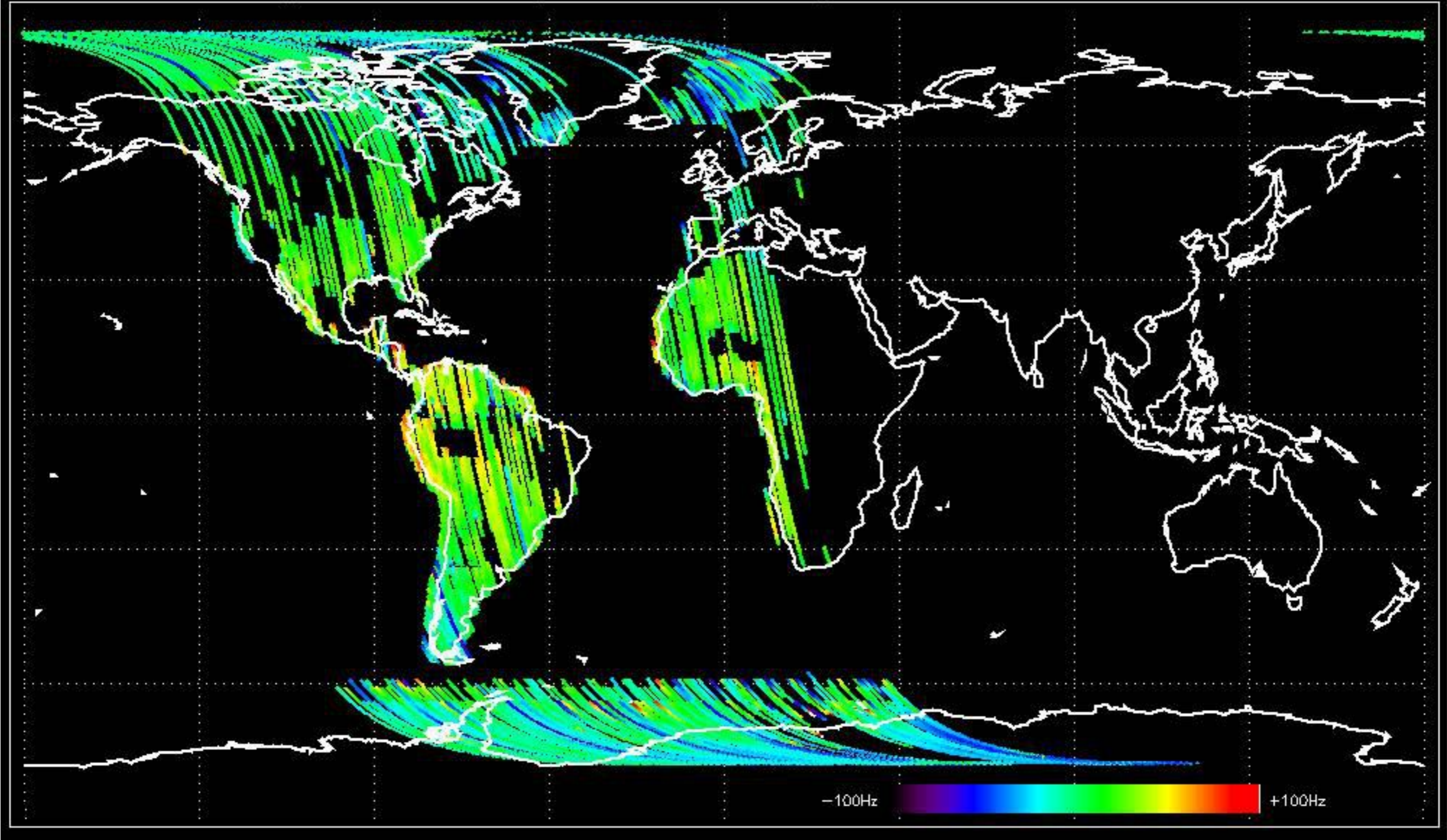
Doppler 'WVS' 'IS2' descending



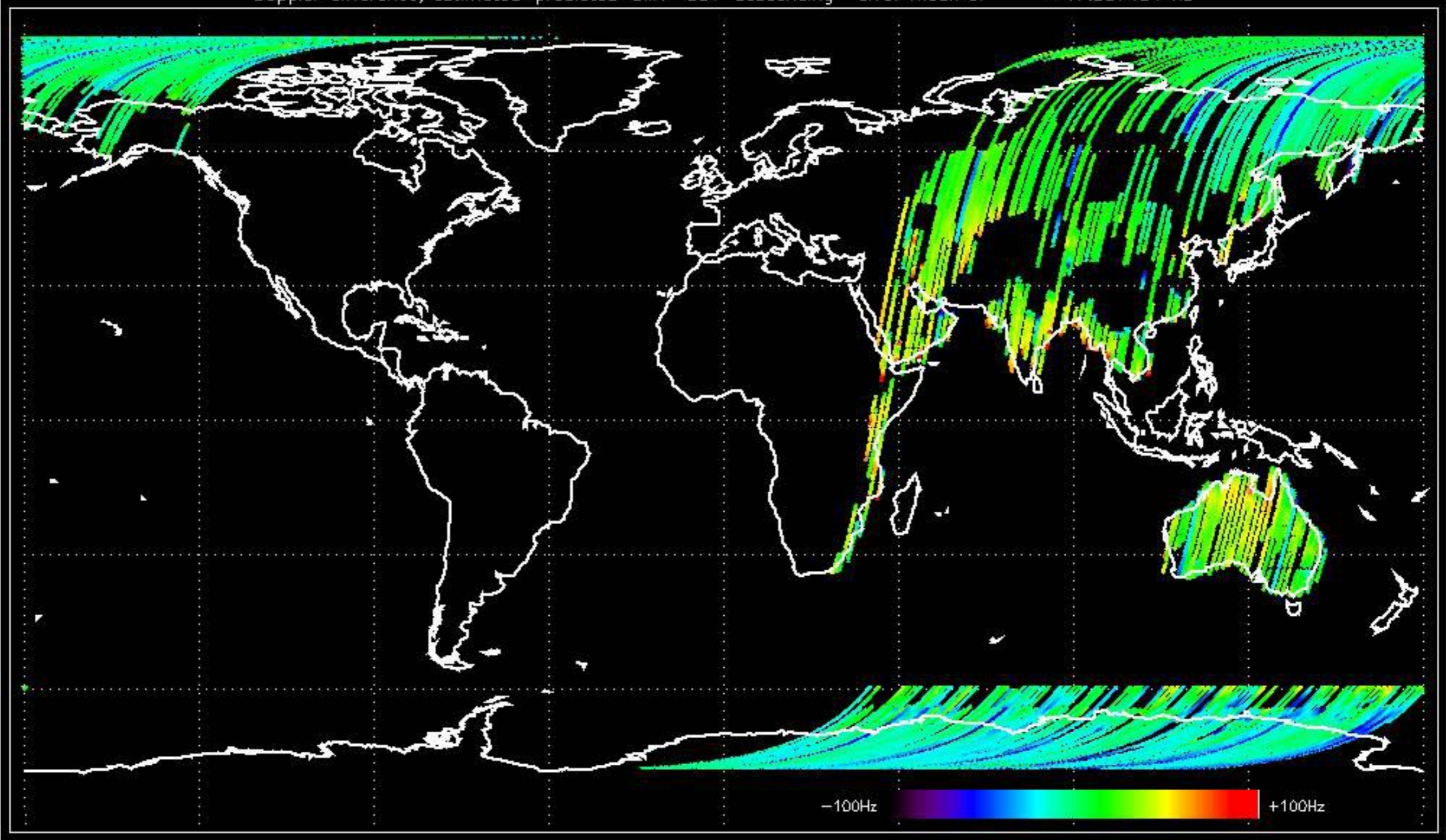




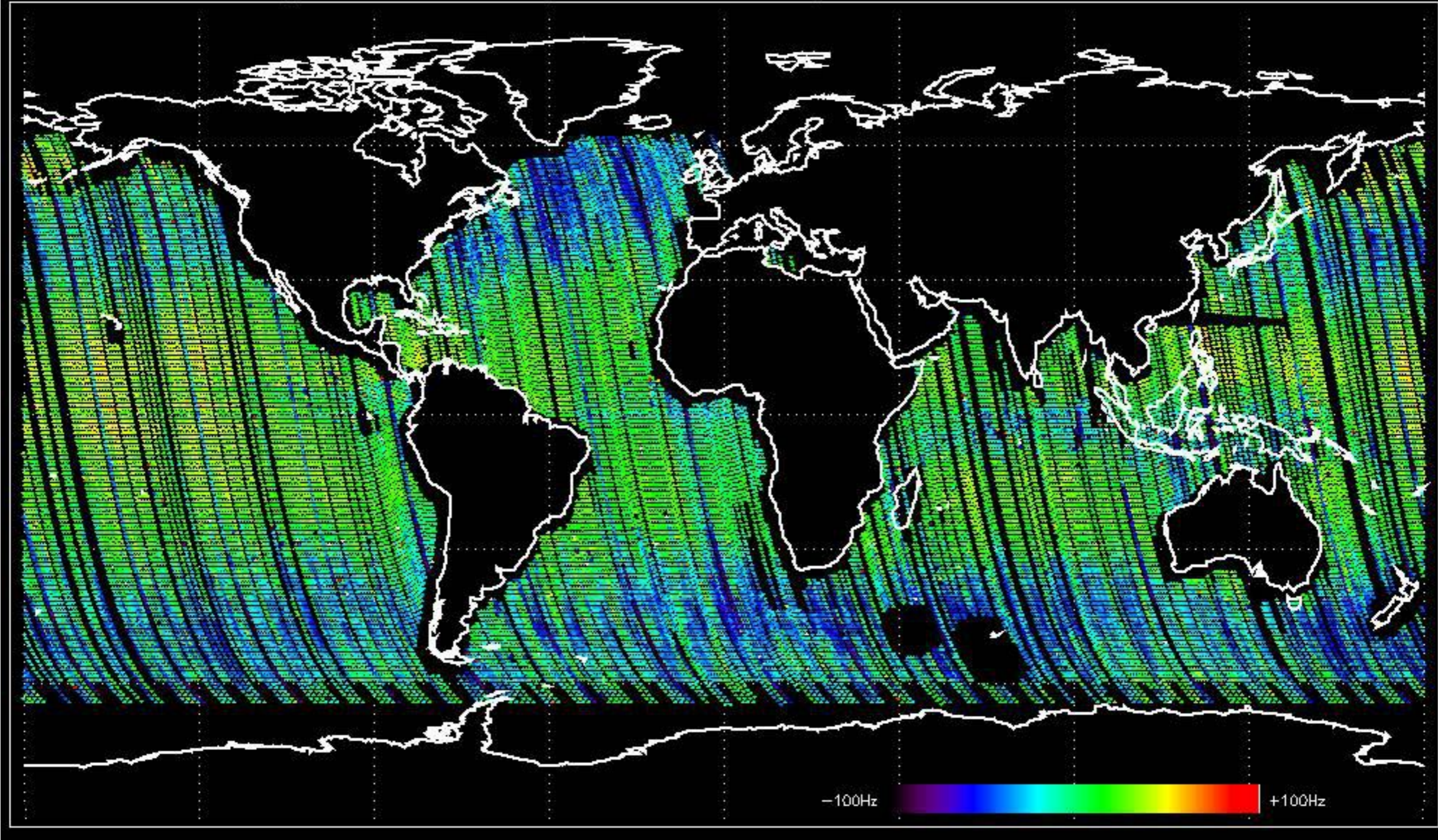
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -12.217535 Hz



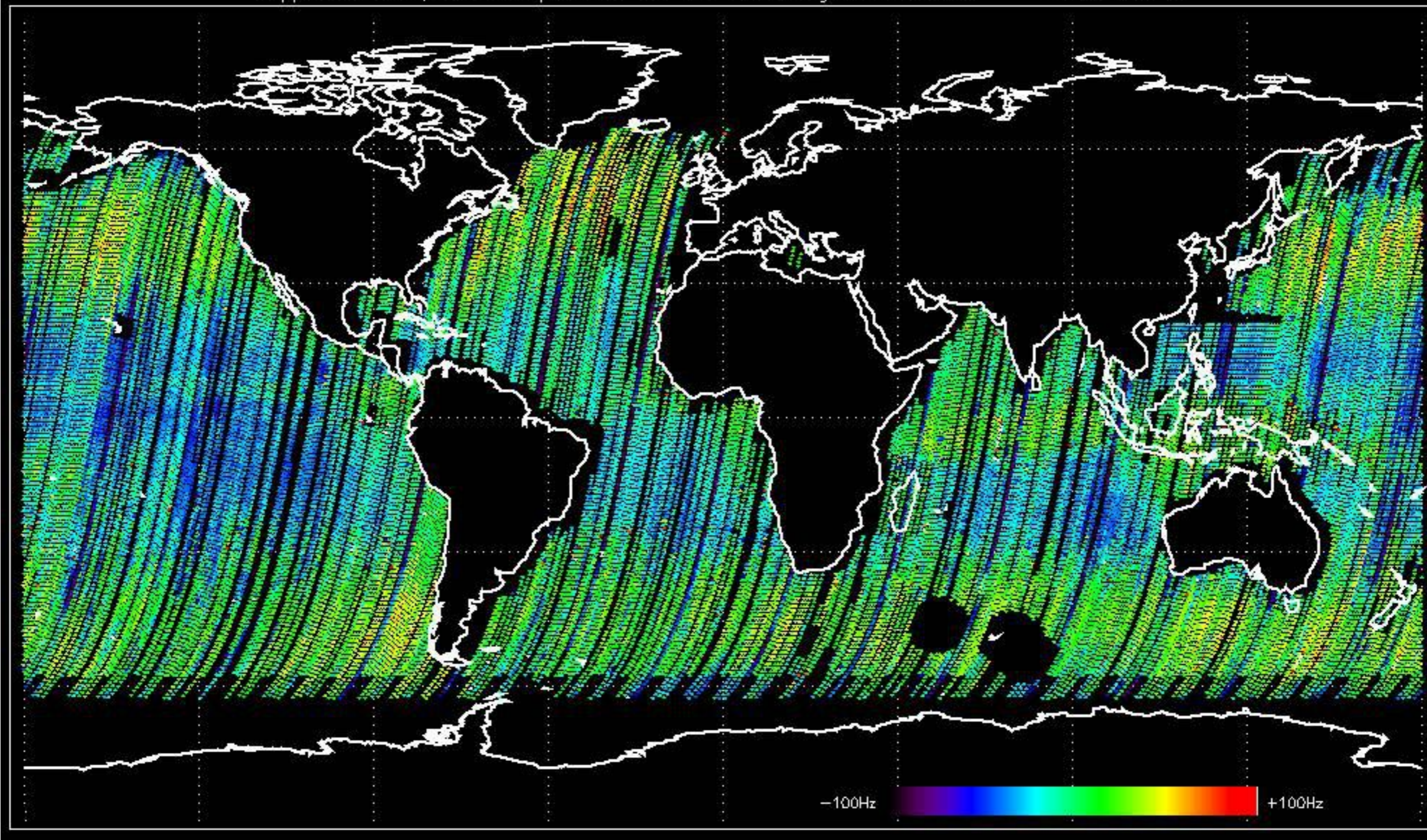
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -17.937454 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -8.1607305 Hz

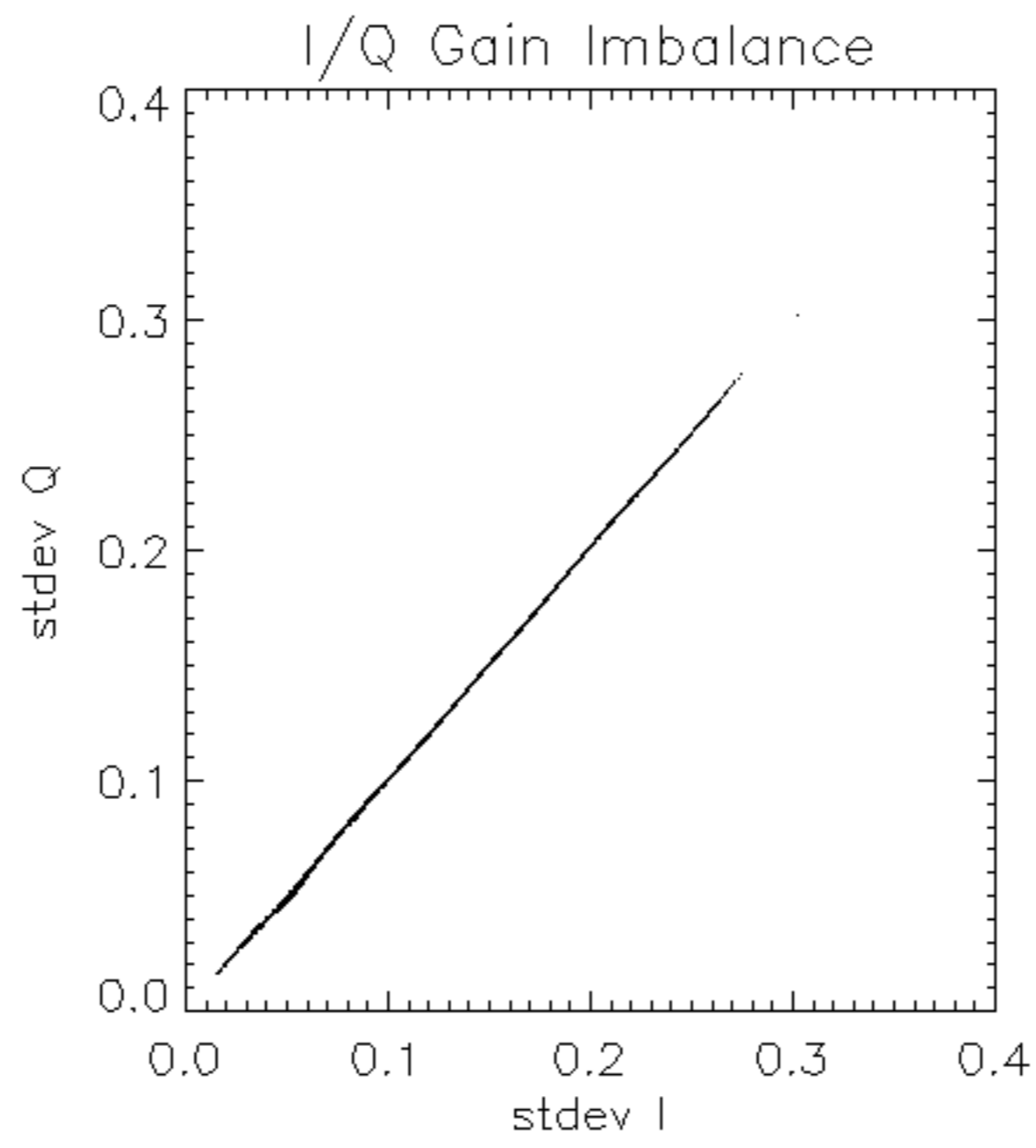


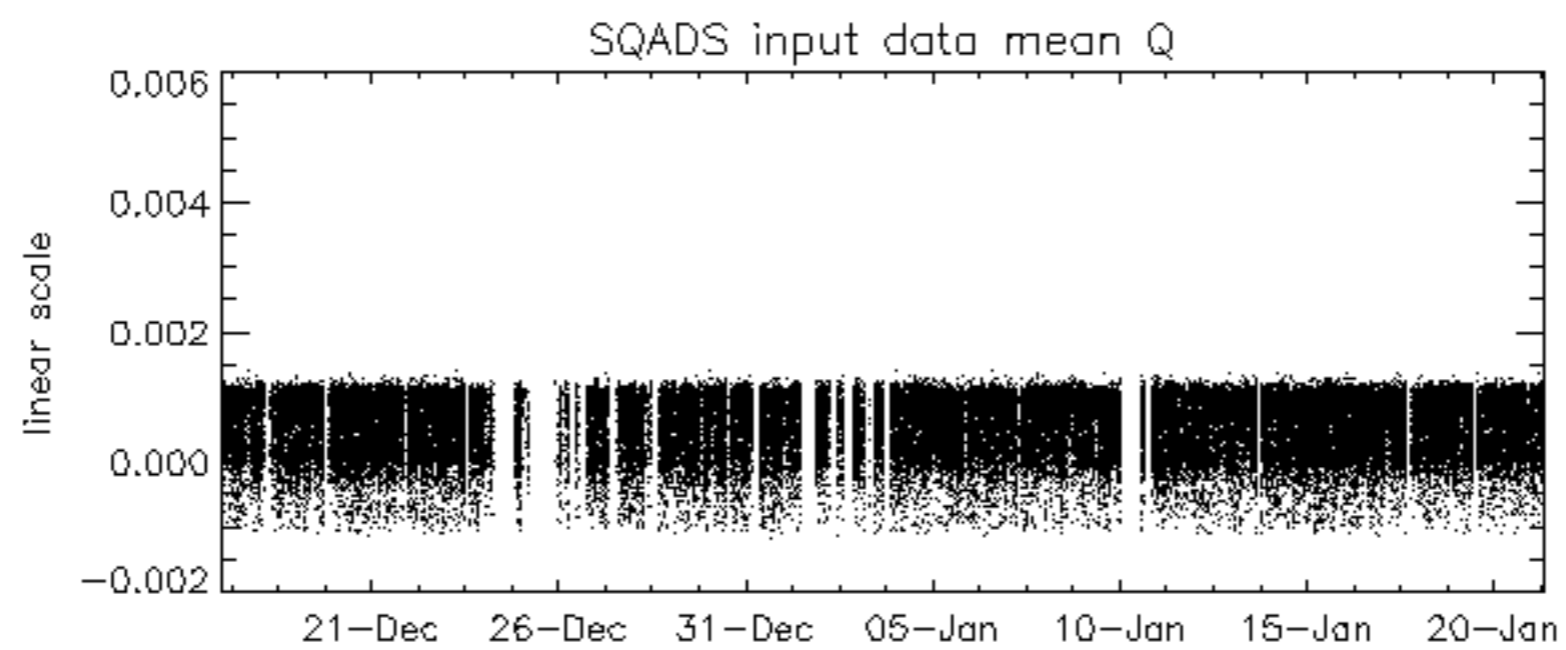
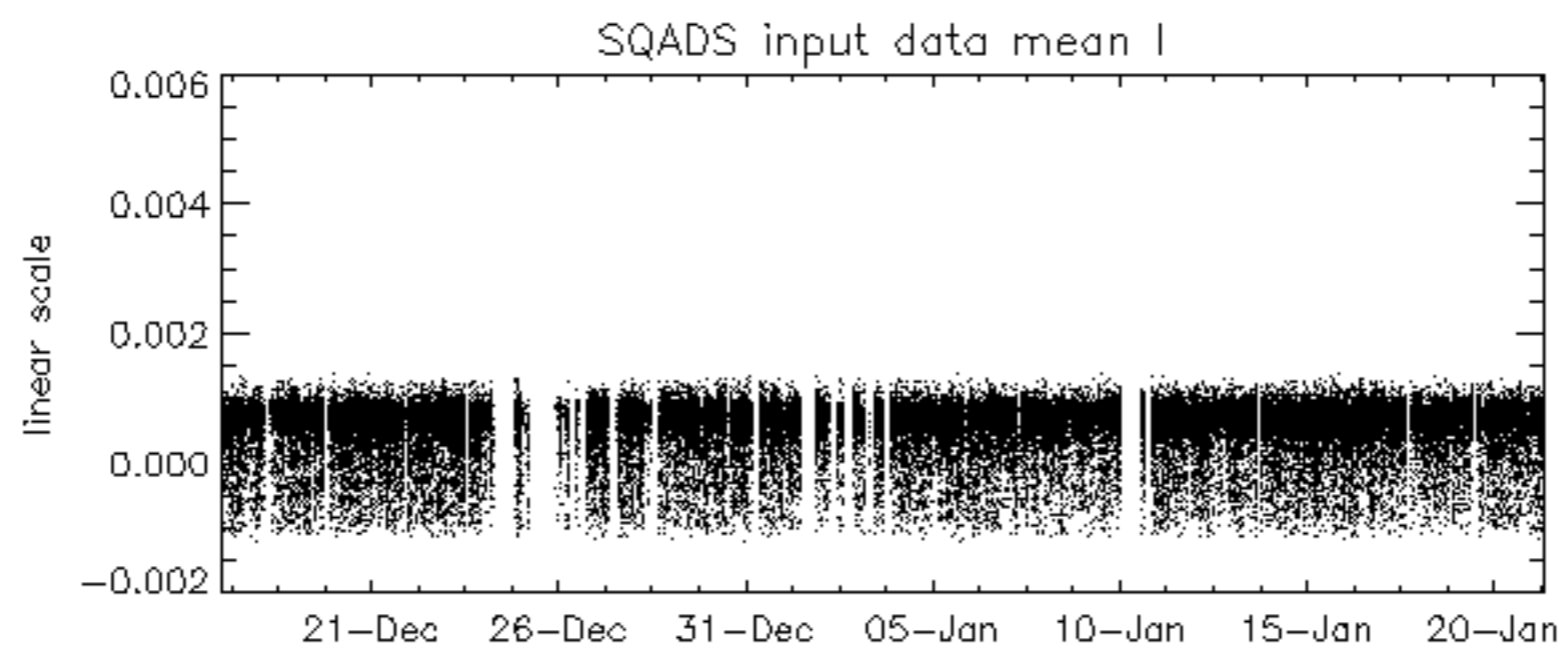
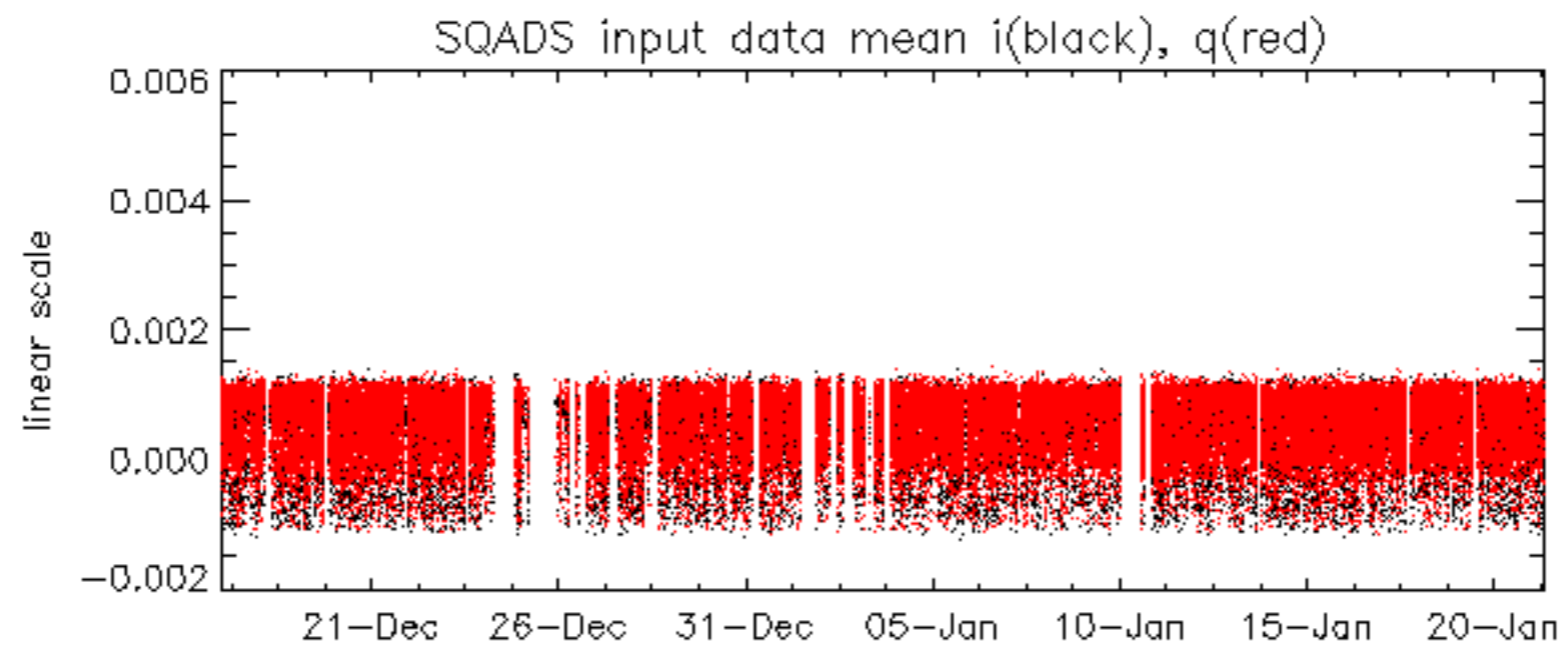
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.6622614 Hz

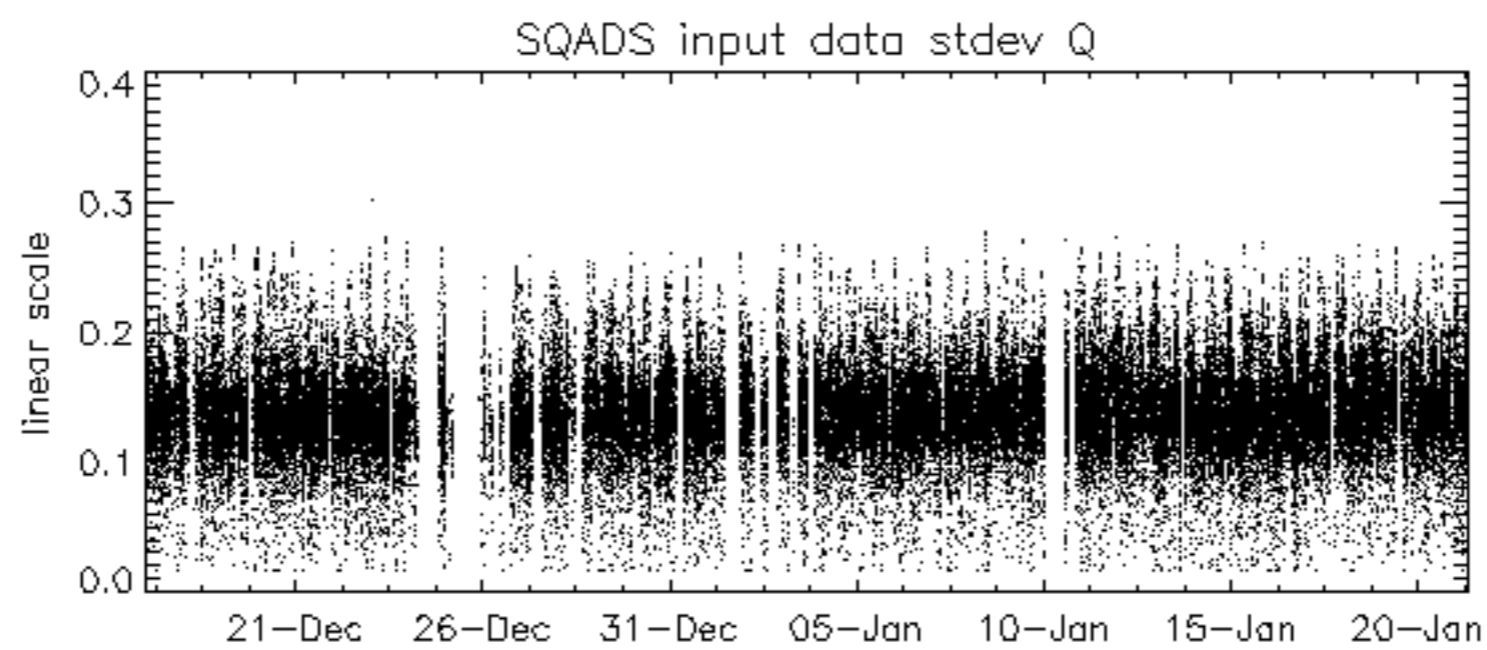
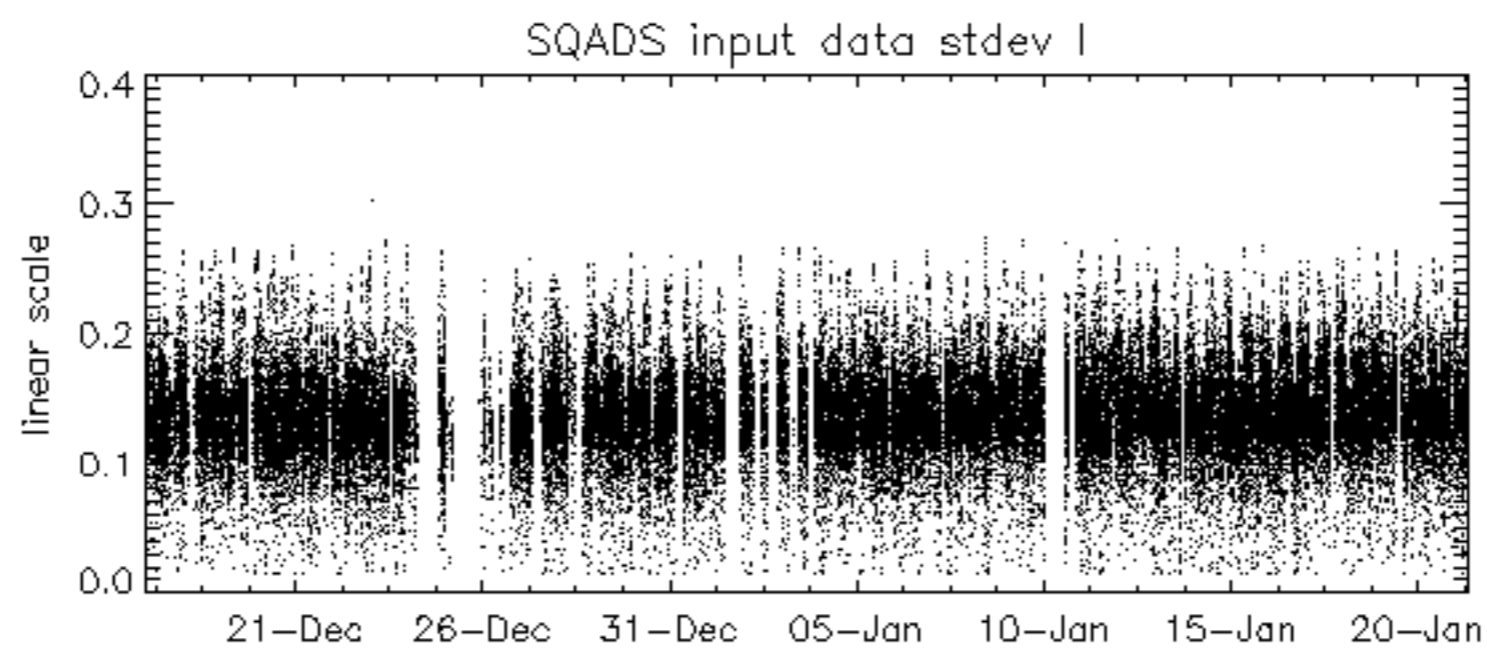
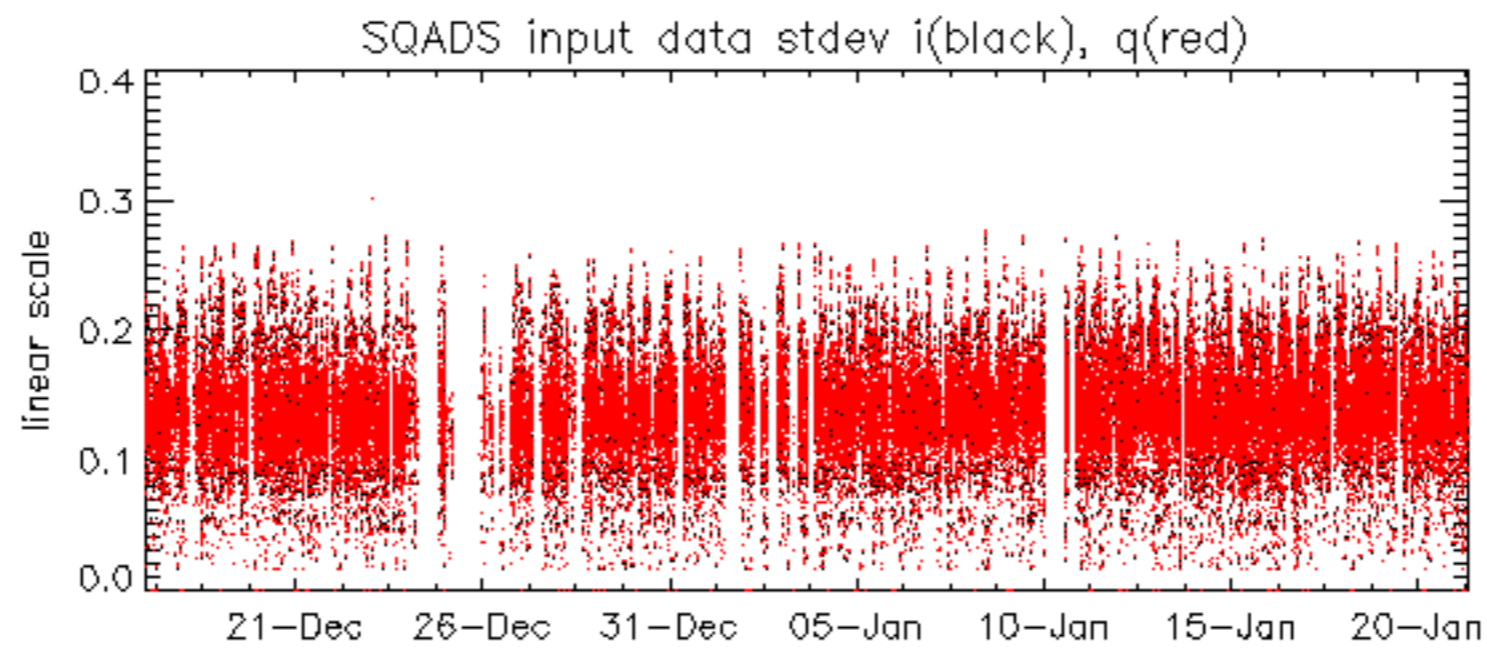


No anomalies observed on available MS products:

No anomalies observed.



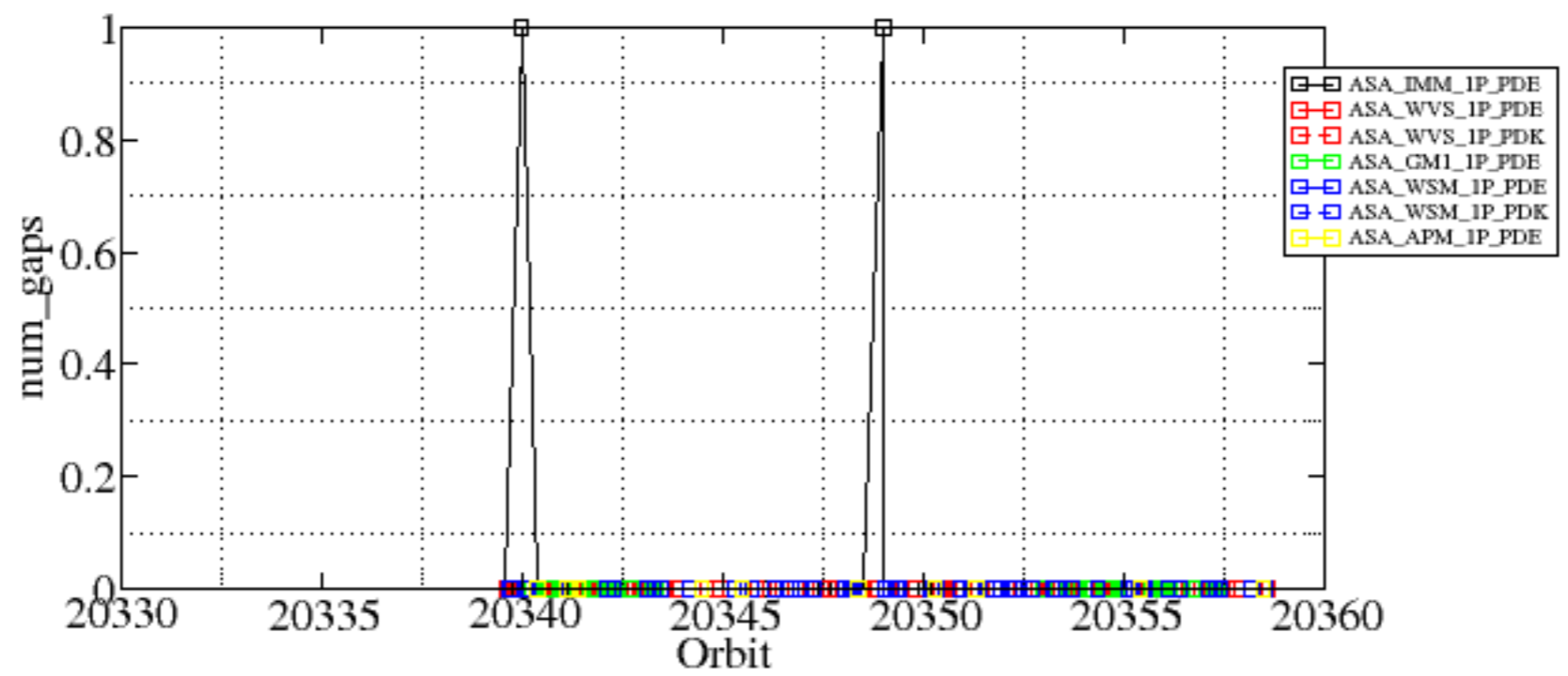


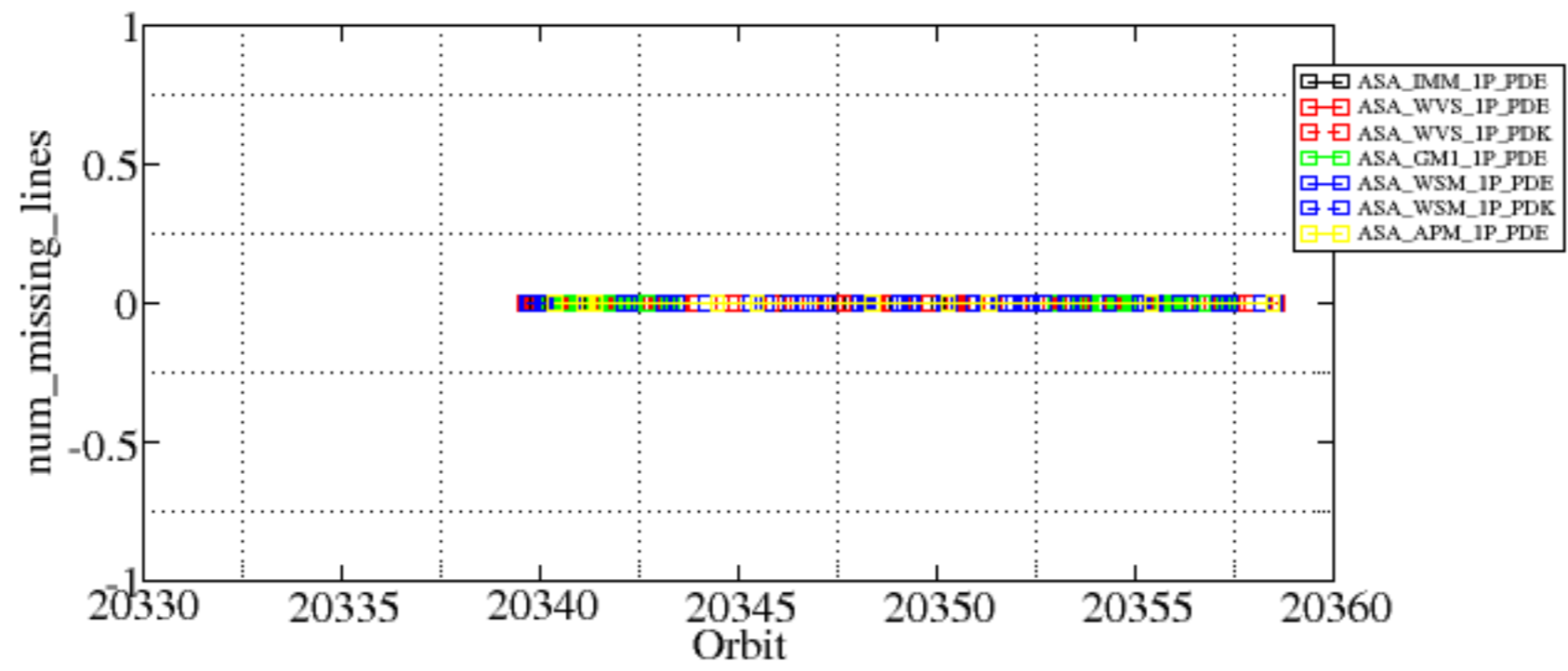


Summary of analysis for the last 3 days 2006012[901]

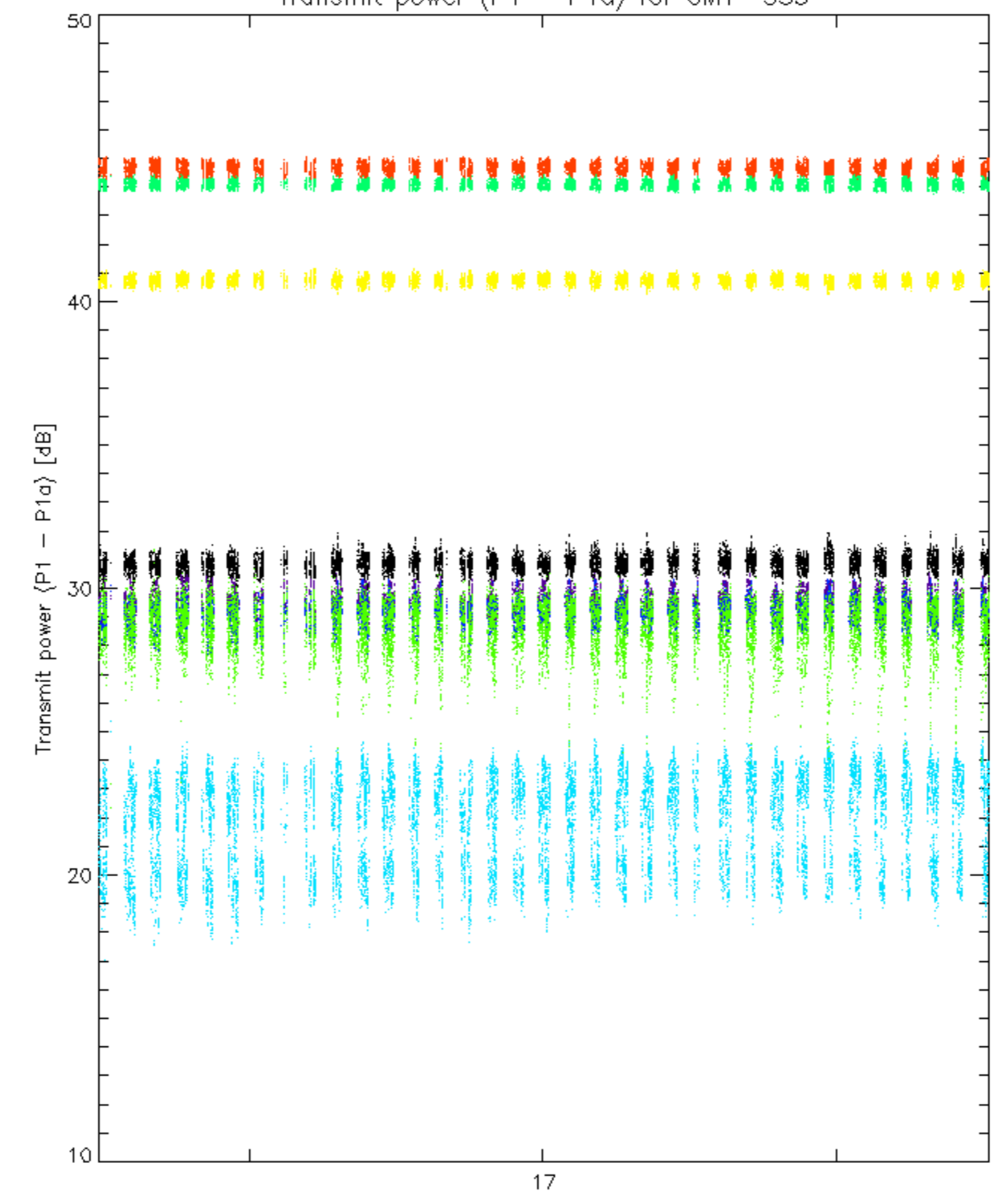
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060120_004243_000001222044_00245_20339_0521.N1	1	0
ASA_IMM_1PNPDE20060120_155104_000001122044_00254_20348_0574.N1	1	0

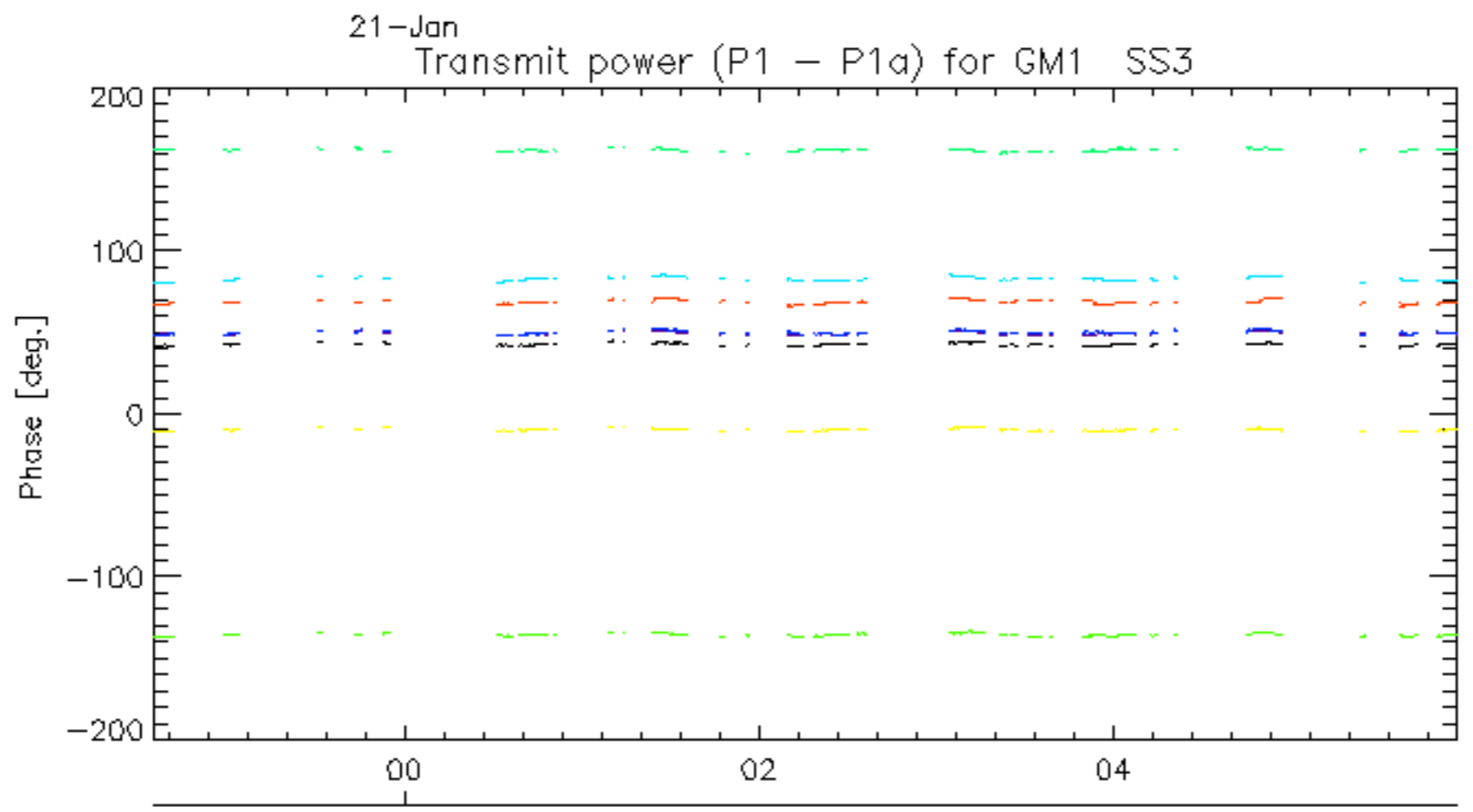
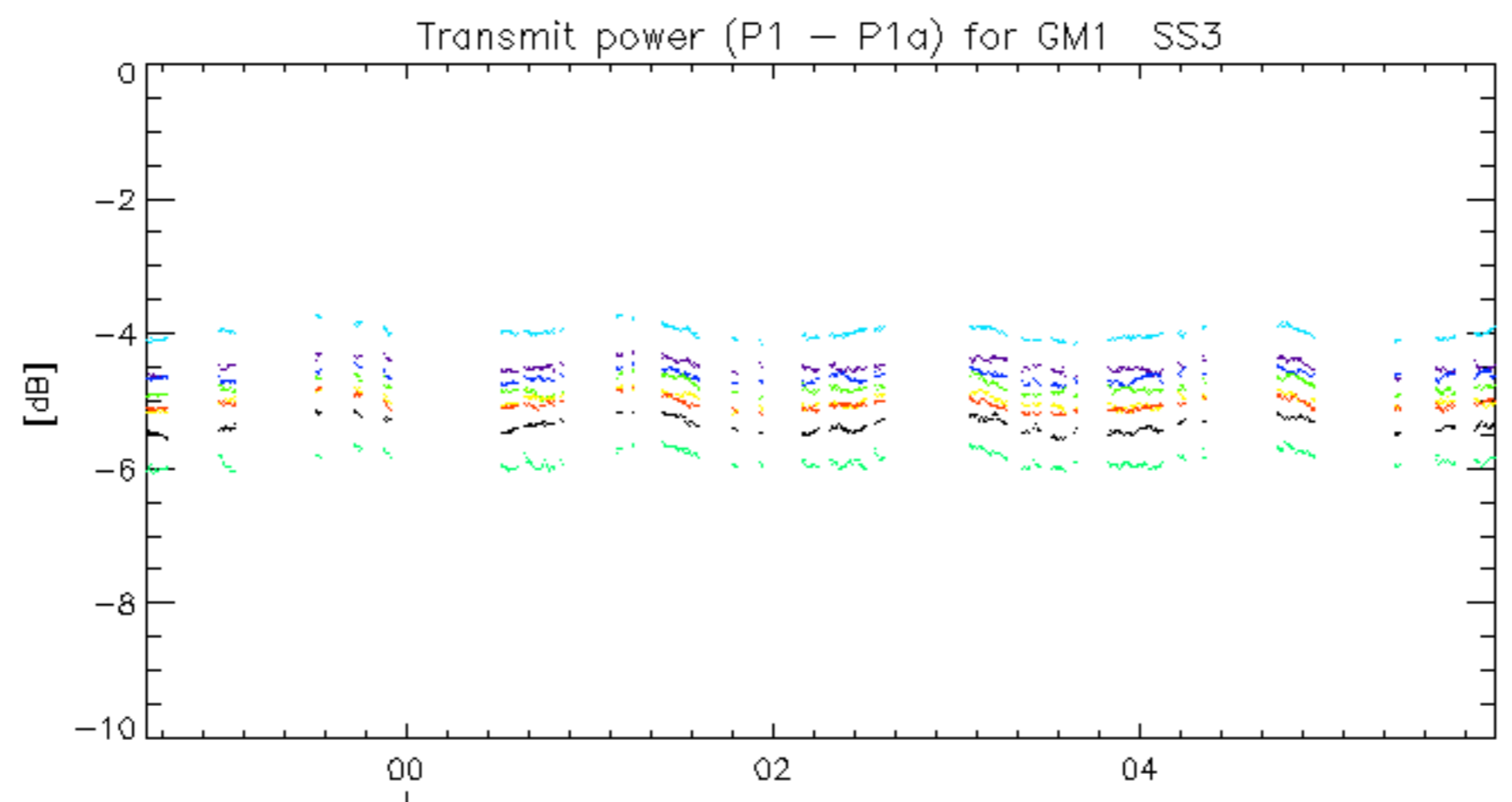




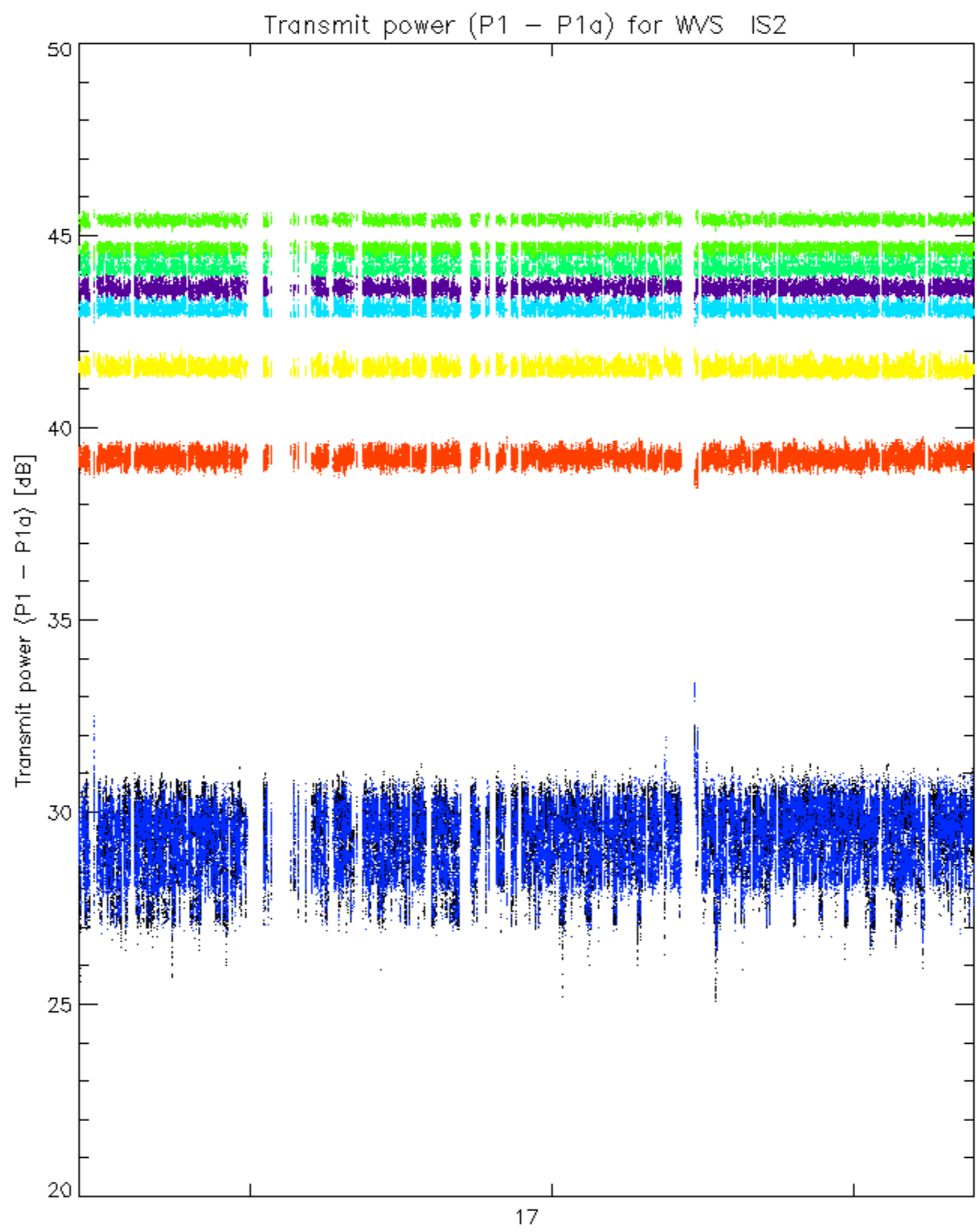
Transmit power (P1 - P1a) for GM1 SS3



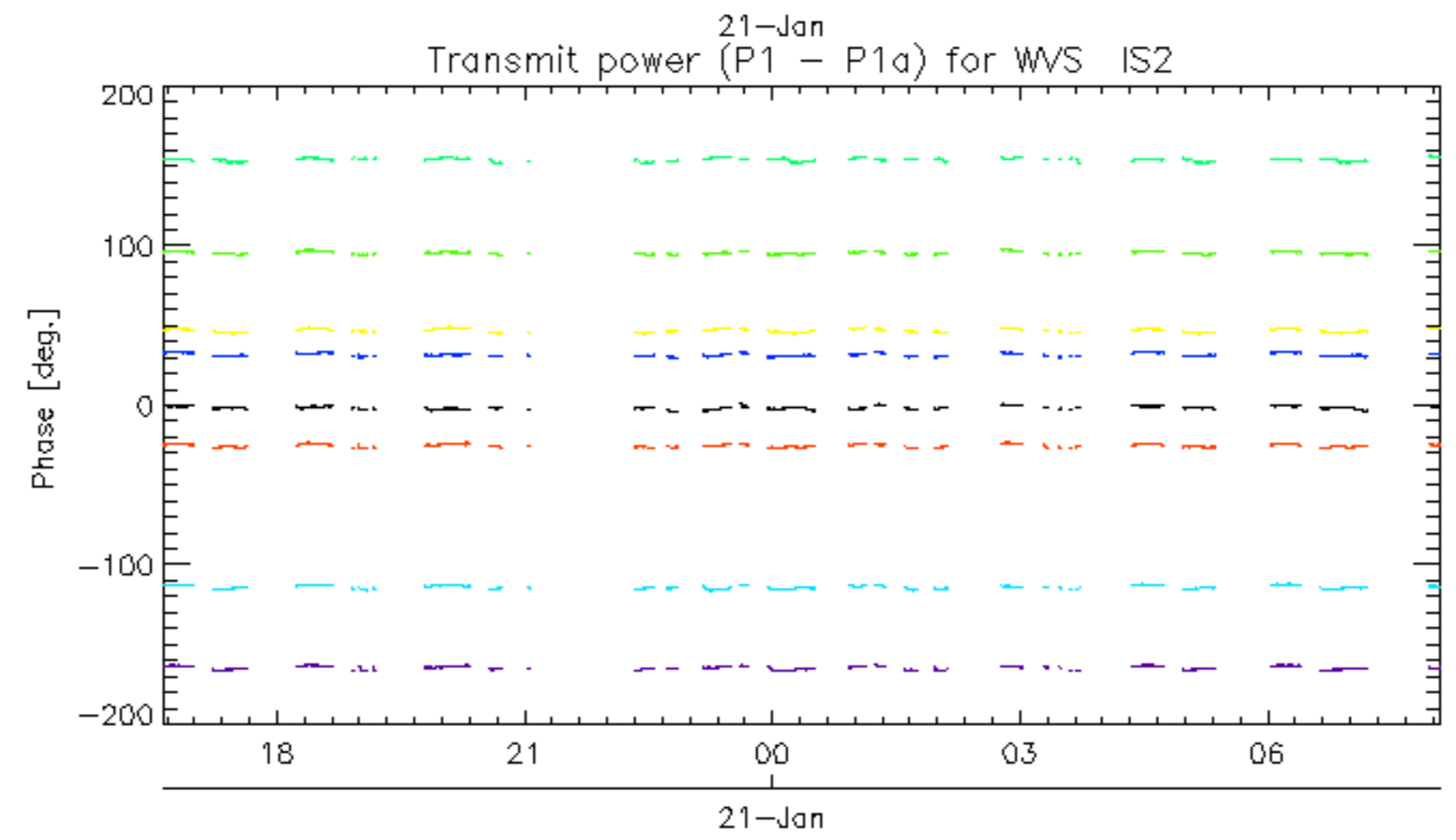
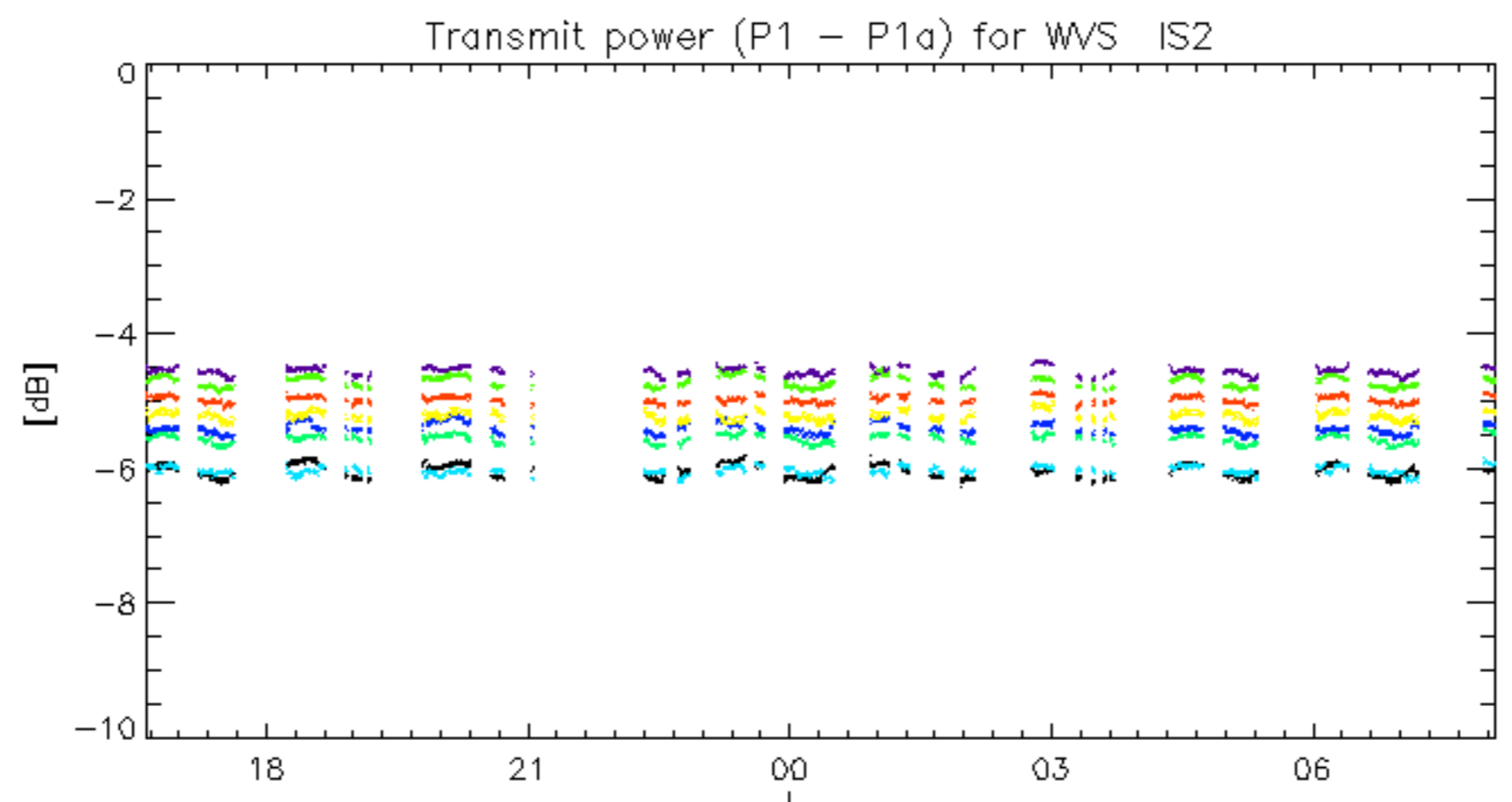
rows: 3 7 11 15 19 22 26 30



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



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



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

No unavailabilities during the reported period.