

PRELIMINARY REPORT OF 060224

last update on Fri Feb 24 16:58:34 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 2006-02-23 00:00:00 to 2006-02-24 16:58:34

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	73	8	0	14
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	45	73	8	0	14
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	45	73	8	0	14
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	45	73	8	0	14

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	47	47	14	54
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	41	47	47	14	54
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	47	47	14	54
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	47	47	14	54

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	20060222 043729
H	20060223 040552

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	-4.004215	0.009111	0.016143
7	P1	-3.001943	0.011427	0.024749
11	P1	-4.083778	0.022206	0.036052
15	P1	-6.062634	0.020217	0.003124
19	P1	-3.267414	0.006682	-0.030877
22	P1	-4.464620	0.016573	0.040254
26	P1	-4.216134	0.102510	-0.145917
30	P1	-5.771549	0.010321	0.002558
3	P1	-16.930803	0.260895	-0.183168
7	P1	-16.670794	0.114772	-0.028995
11	P1	-16.570164	0.329718	0.126870
15	P1	-13.119029	0.109600	0.247158
19	P1	-13.900167	0.063300	-0.001629
22	P1	-15.689752	0.521946	0.427142
26	P1	-15.735159	0.320462	0.083902
30	P1	-16.539379	0.279387	0.223267

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.489954	0.090678	0.204793
7	P2	-22.413134	0.094787	0.047358
11	P2	-16.250179	0.099911	0.036650
15	P2	-7.178784	0.101015	0.054104
19	P2	-9.146737	0.094893	0.054538
22	P2	-17.935570	0.091989	0.048322
26	P2	-16.208782	0.098323	0.031895
30	P2	-19.637268	0.084630	0.018562

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.196609	0.006983	0.019632
7	P3	-8.196609	0.006983	0.019632
11	P3	-8.196609	0.006983	0.019632
15	P3	-8.196609	0.006983	0.019632
19	P3	-8.196609	0.006983	0.019632
22	P3	-8.196609	0.006983	0.019632
26	P3	-8.196609	0.006983	0.019632
30	P3	-8.196609	0.006983	0.019632

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	-3.869159	4.546239	-0.531670
7	P1	-2.879939	4.765657	-0.564463
11	P1	-3.046172	4.798699	-0.636709
15	P1	-3.682620	4.760214	-0.720381
19	P1	-3.504015	4.612704	-0.480125
22	P1	-5.281843	4.233405	-0.529407
26	P1	-6.038123	4.479981	-0.767154
30	P1	-5.329885	4.193308	-0.411343
3	P1	-11.662247	2.980363	-0.479012
7	P1	-10.052417	3.291848	-0.497047
11	P1	-10.299294	3.286440	-0.605862
15	P1	-10.843263	3.273311	-0.661910
19	P1	-15.506285	2.398340	-0.174322
22	P1	-20.394691	2.934281	-0.002356

26	P1	-16.463154	3.029706	0.434274
30	P1	-18.324110	2.147487	-0.369193

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.224653	3.137691	0.333203
7	P2	-22.613001	3.655590	0.529595
11	P2	-11.362967	3.396967	-0.016595
15	P2	-4.973546	4.418447	-0.381640
19	P2	-6.980285	3.976231	-0.347083
22	P2	-8.255526	3.732258	-0.286616
26	P2	-23.863697	3.749977	0.384347
30	P2	-22.019659	3.545216	0.279669

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.030515	0.002917	0.019275
7	P3	-8.030486	0.002923	0.019242
11	P3	-8.030422	0.002916	0.019192
15	P3	-8.030504	0.002918	0.019244
19	P3	-8.030524	0.002924	0.019619
22	P3	-8.030502	0.002921	0.019369
26	P3	-8.030657	0.002925	0.019621
30	P3	-8.030413	0.002926	0.019239

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	0.000555151
	stdev	1.72295e-07
MEAN Q	mean	0.000522346
	stdev	2.15233e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.138285
	stdev	0.00114877
STDEV Q	mean	0.138634
	stdev	0.00116690



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006022[234]

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_1PNPDE20060224_004230_000001742045_00245_20840_4155.N1	1	0
ASA_GM1_1PNPDK20060222_084957_000006702045_00222_20817_2189.N1	0	15
ASA_WSM_1PNPDE20060223_020555_000001282045_00232_20827_6045.N1	0	49
ASA_WSM_1PNPDE20060223_033632_000001462045_00233_20828_6056.N1	0	1
ASA_WSM_1PNPDE20060223_162635_000001042045_00241_20836_6105.N1	0	39



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

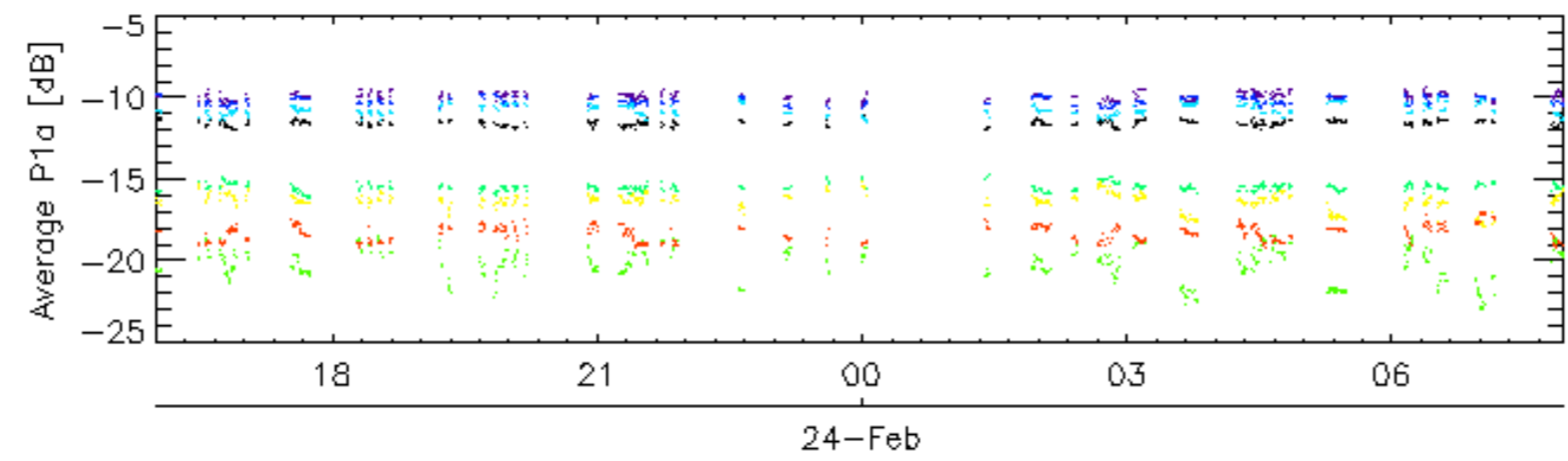
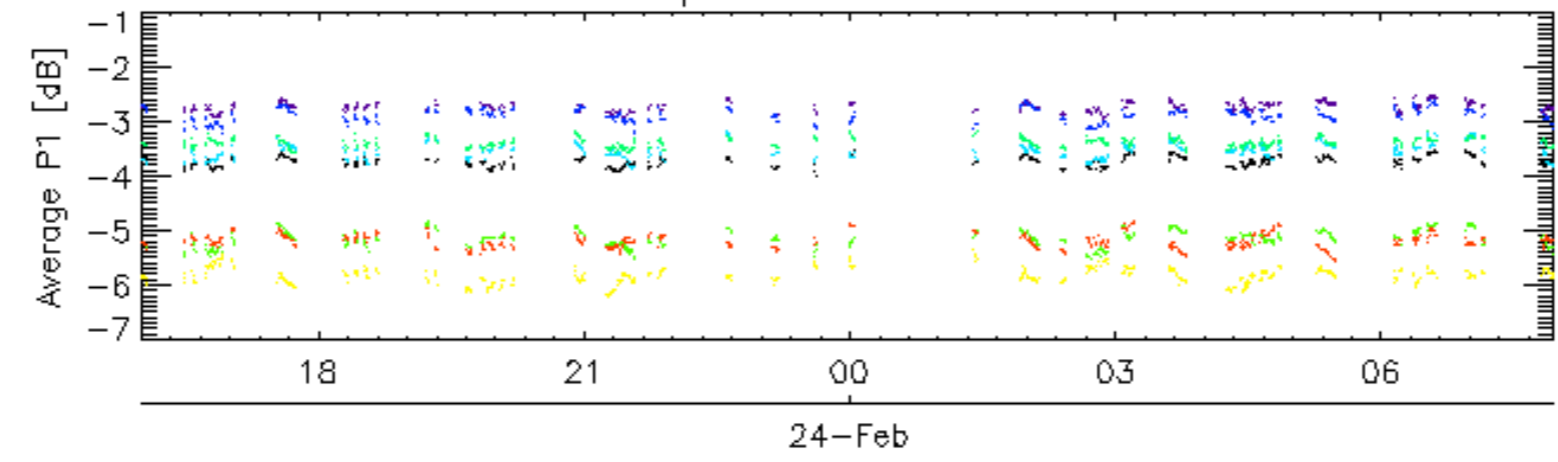
Ascending

Descending

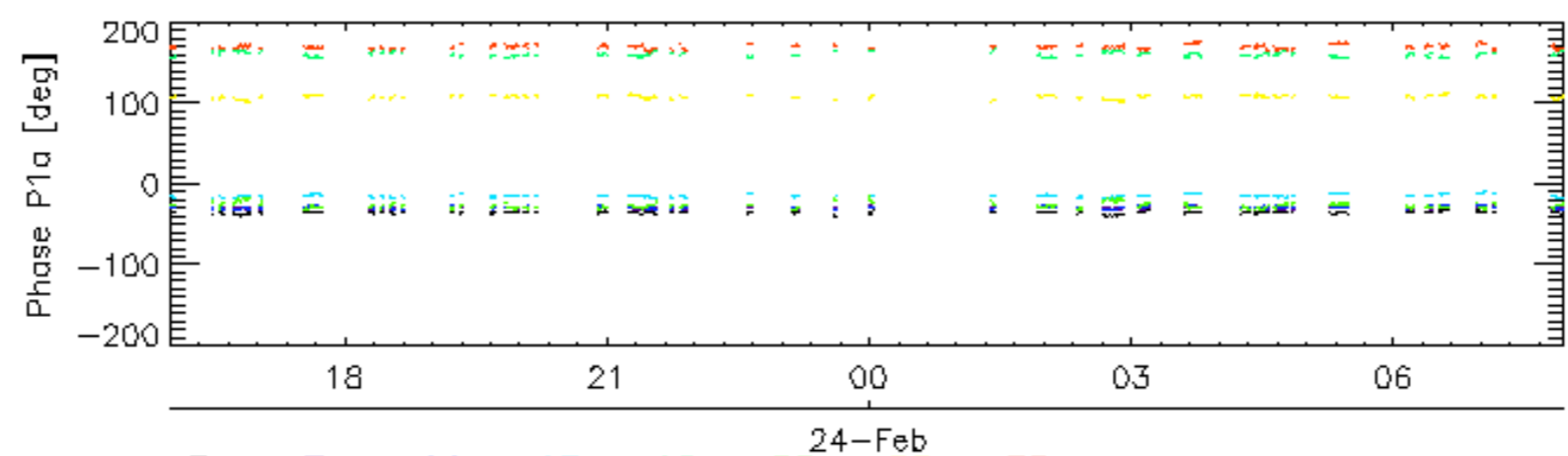
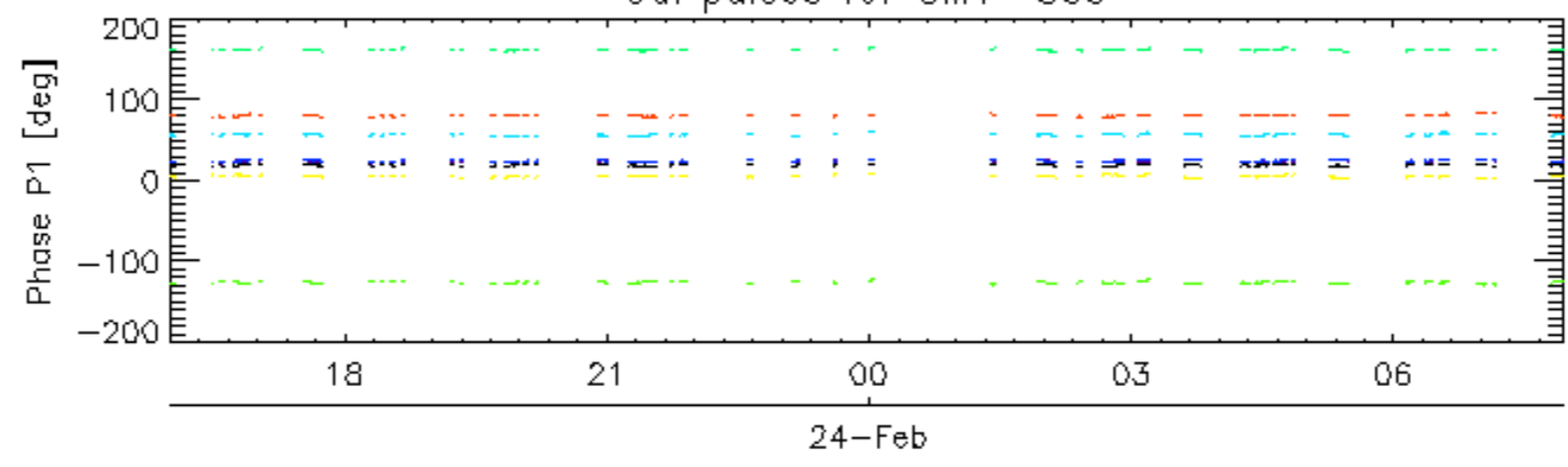
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

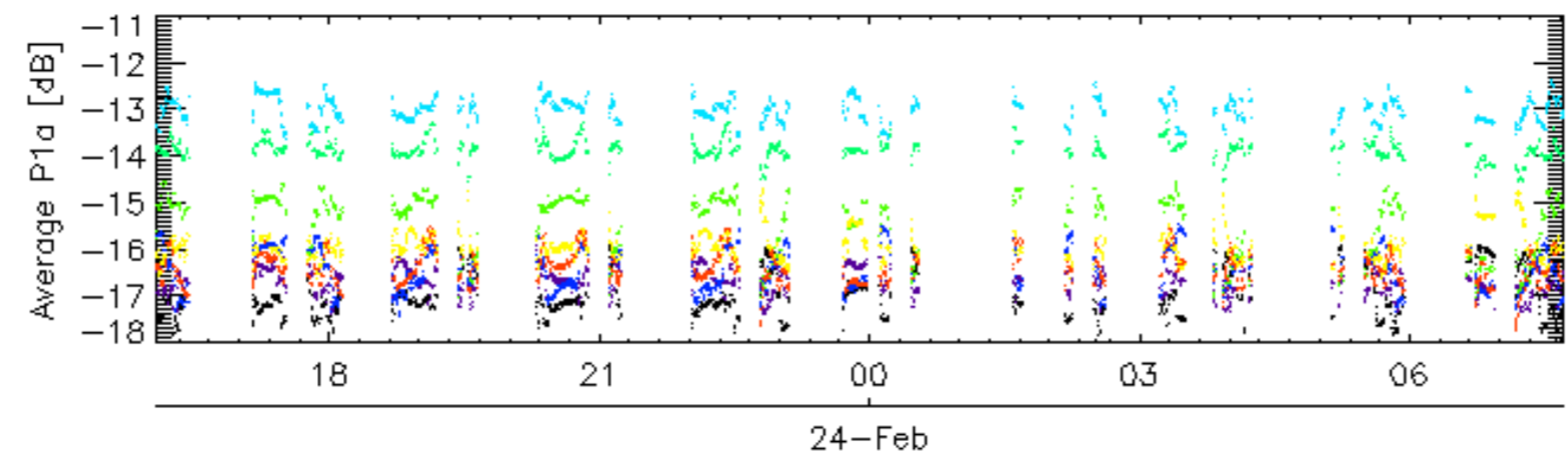
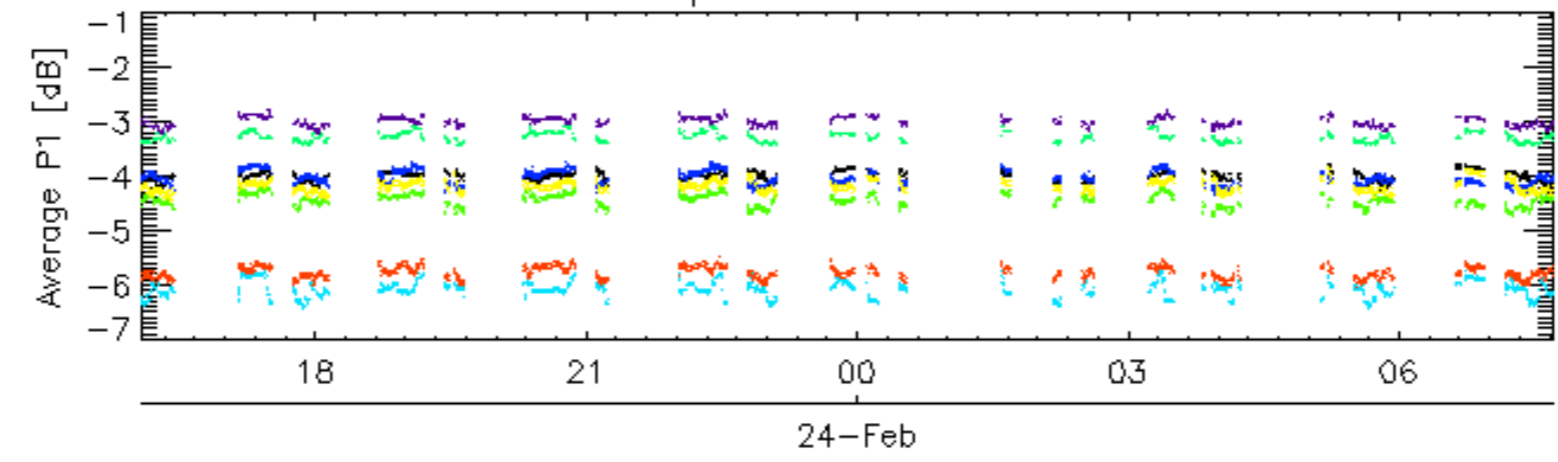


Cal pulses for GM1 SS3

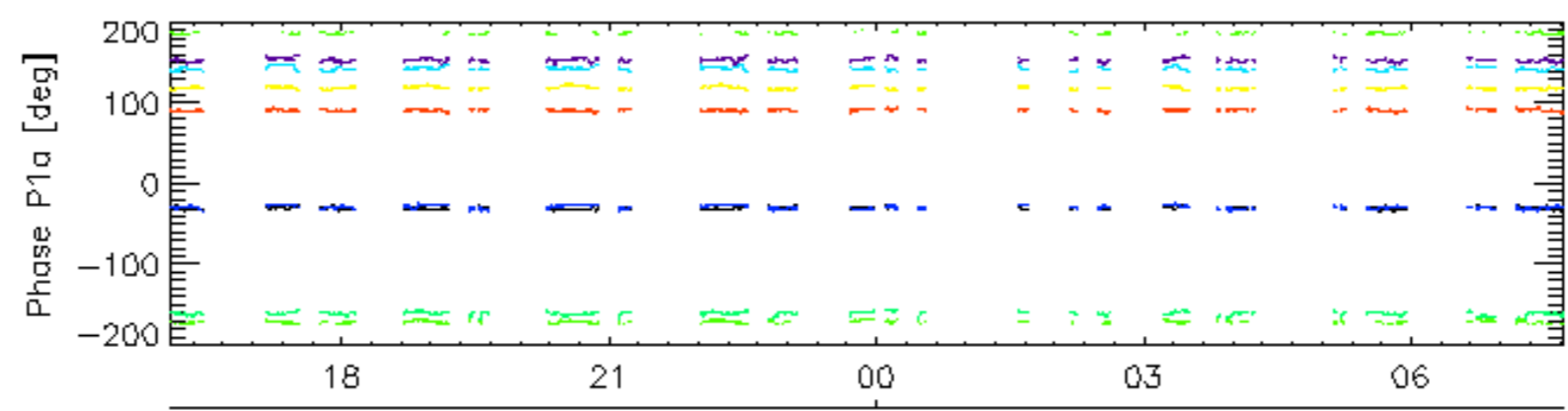
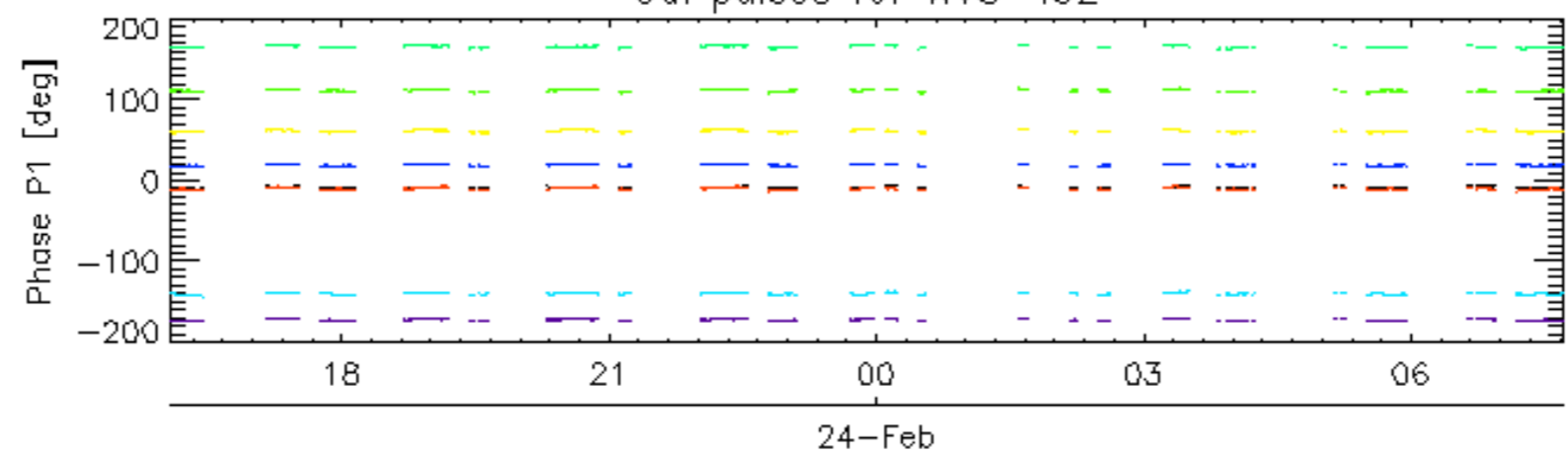


rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for WVS IS2

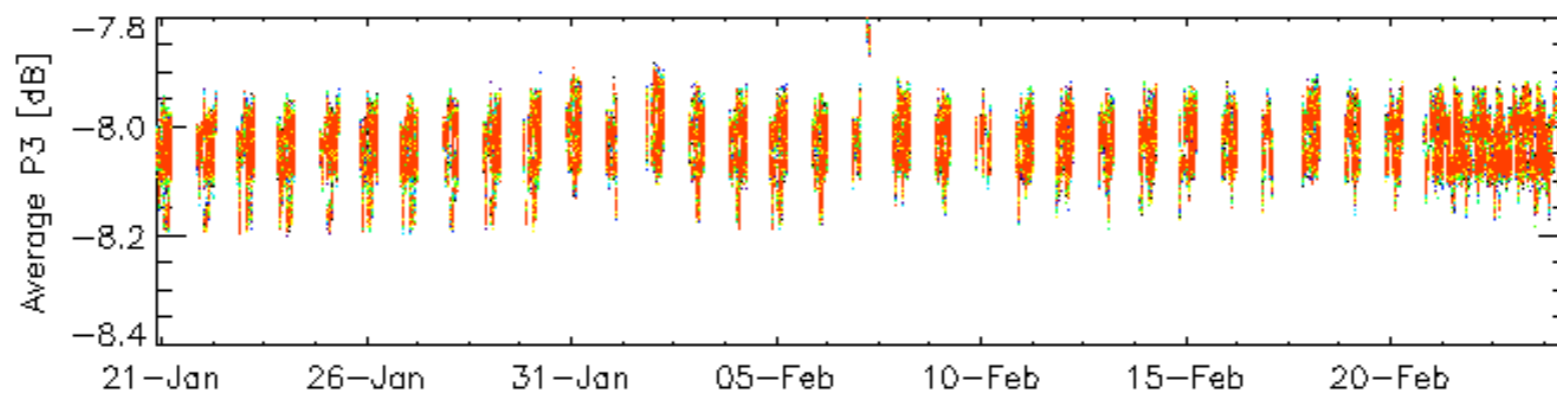
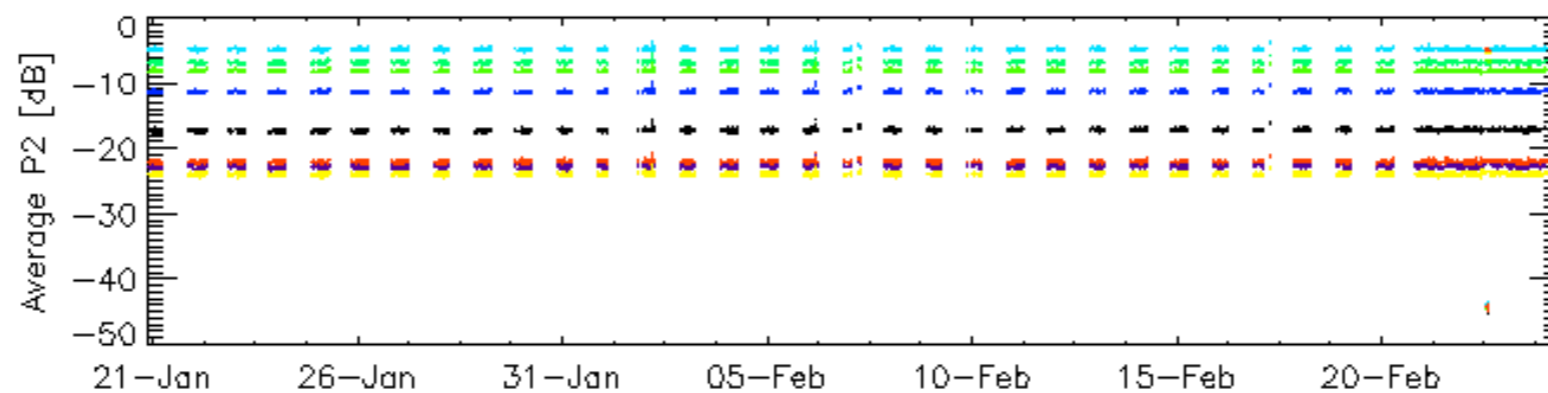
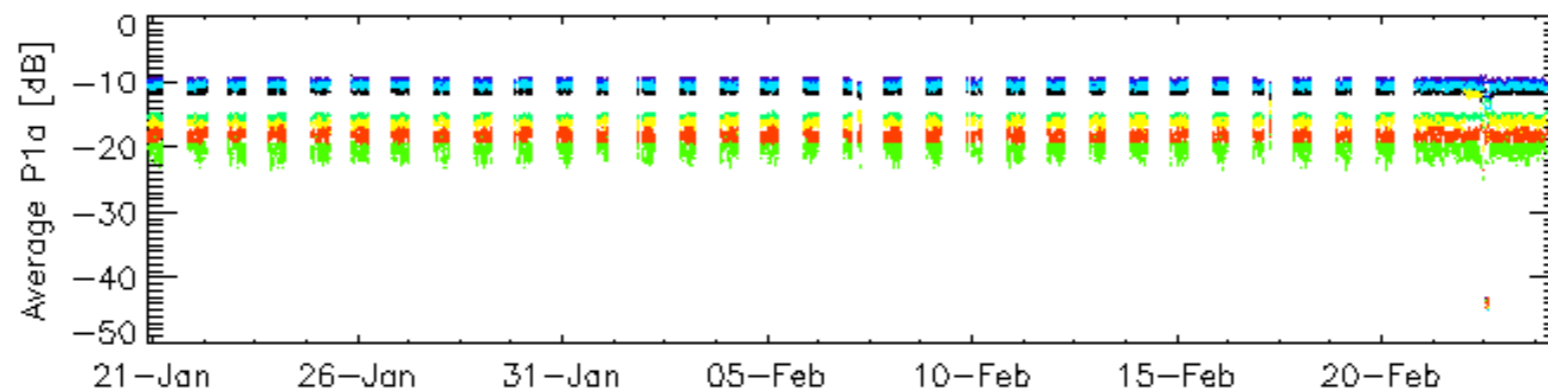
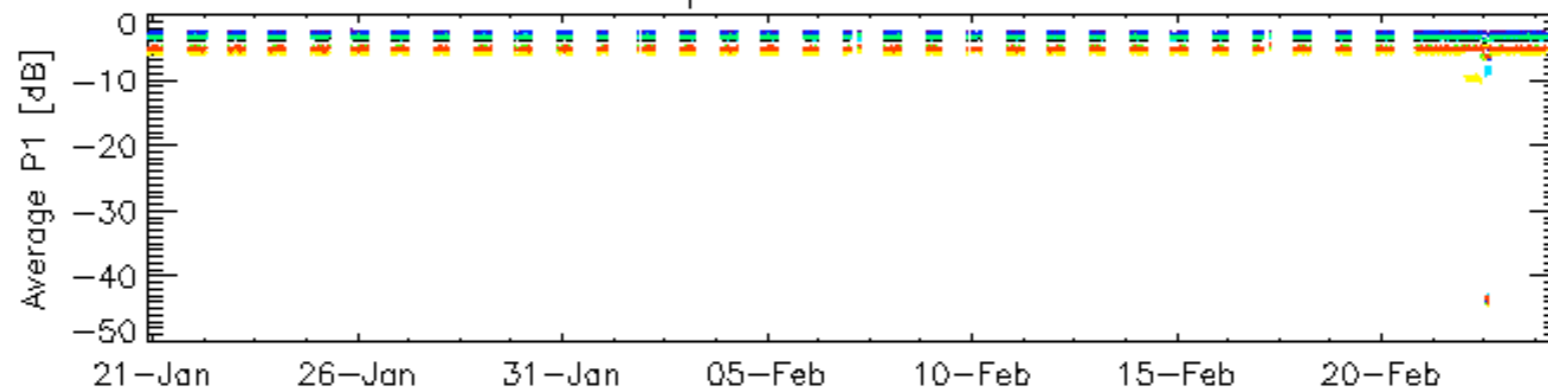


Cal pulses for WVS IS2



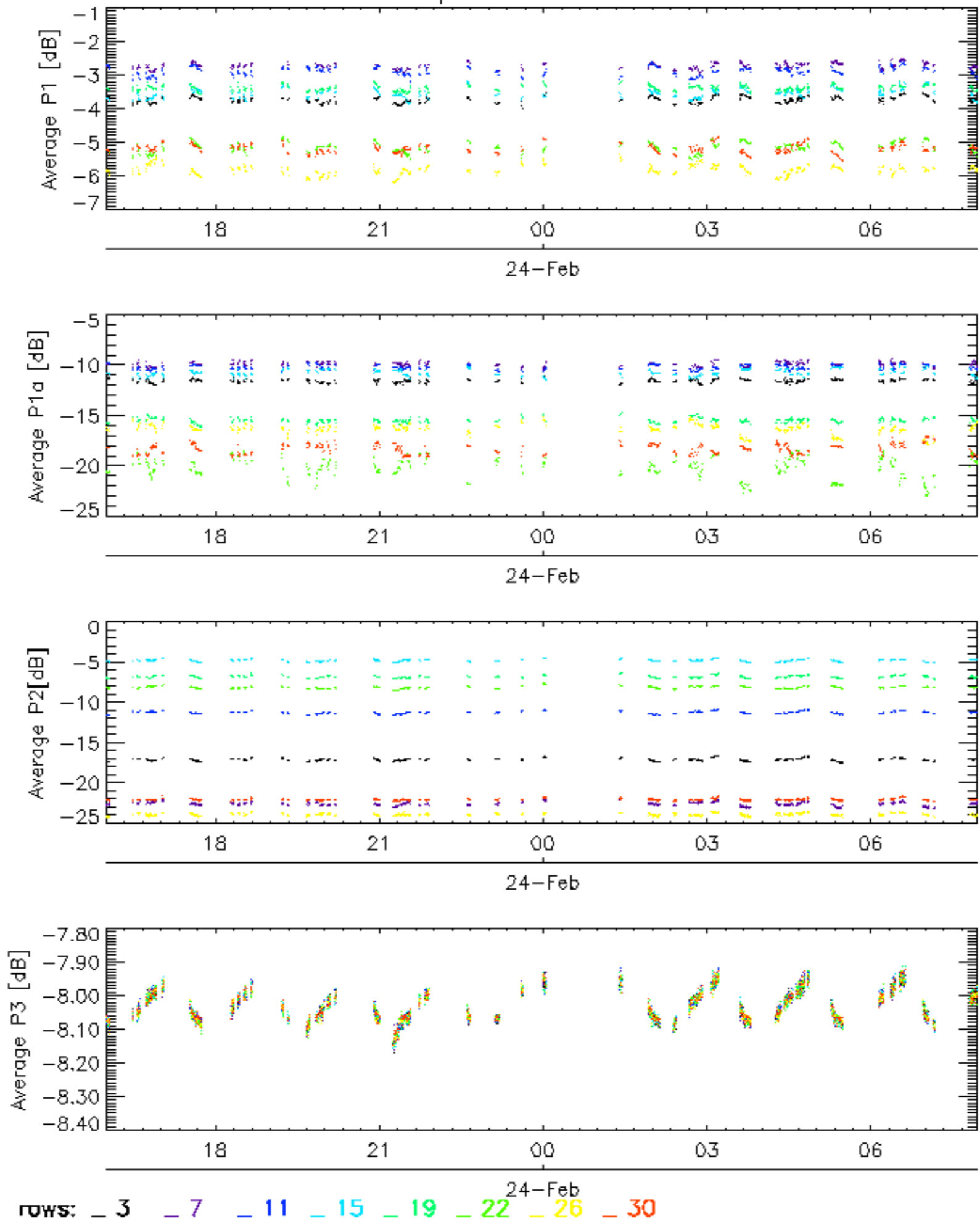
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30 24-Feb

Cal pulses for GM1 SS3

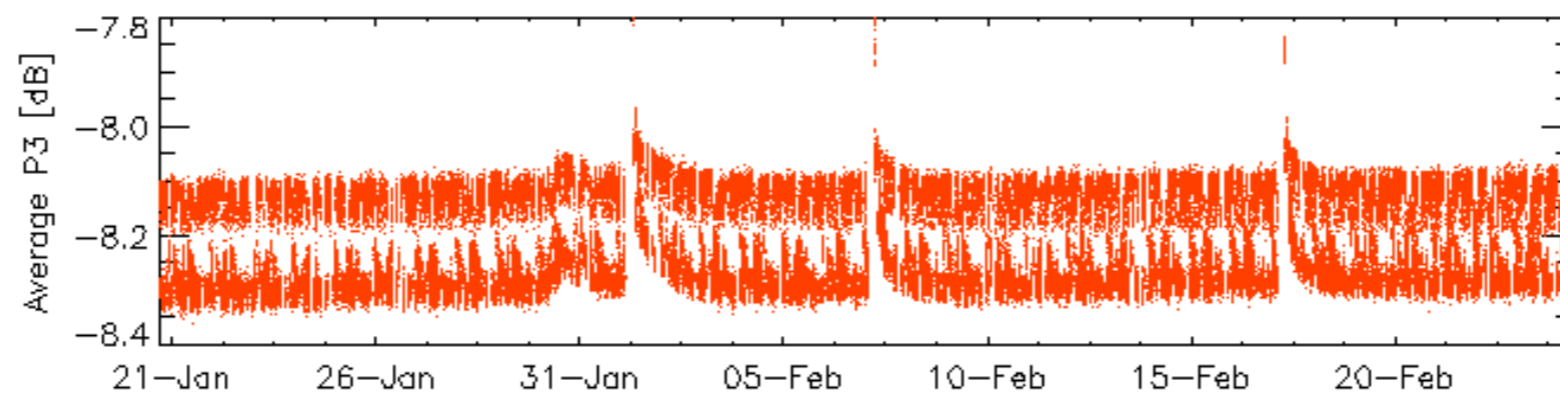
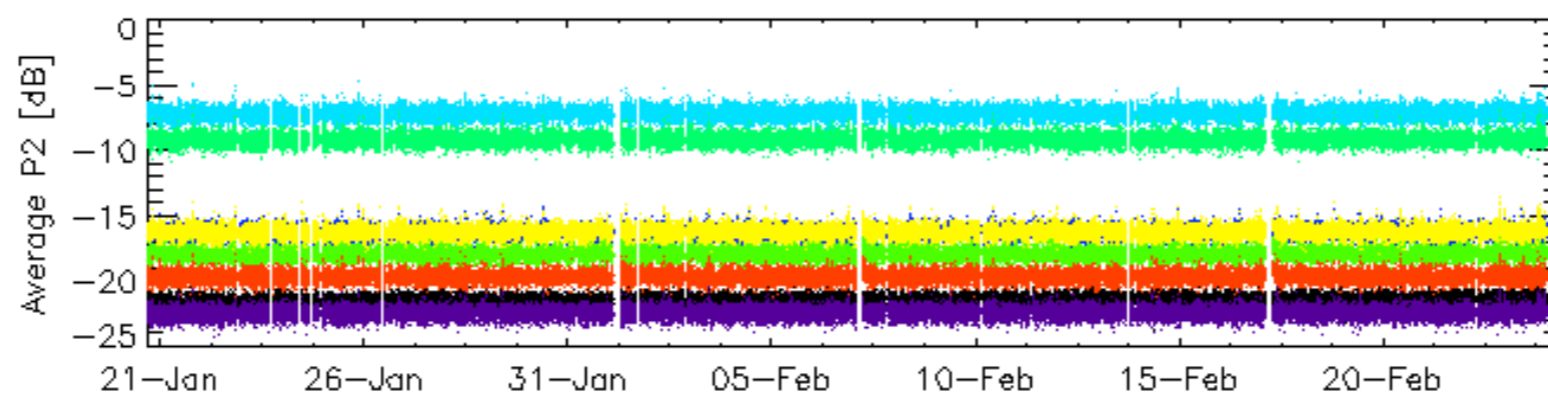
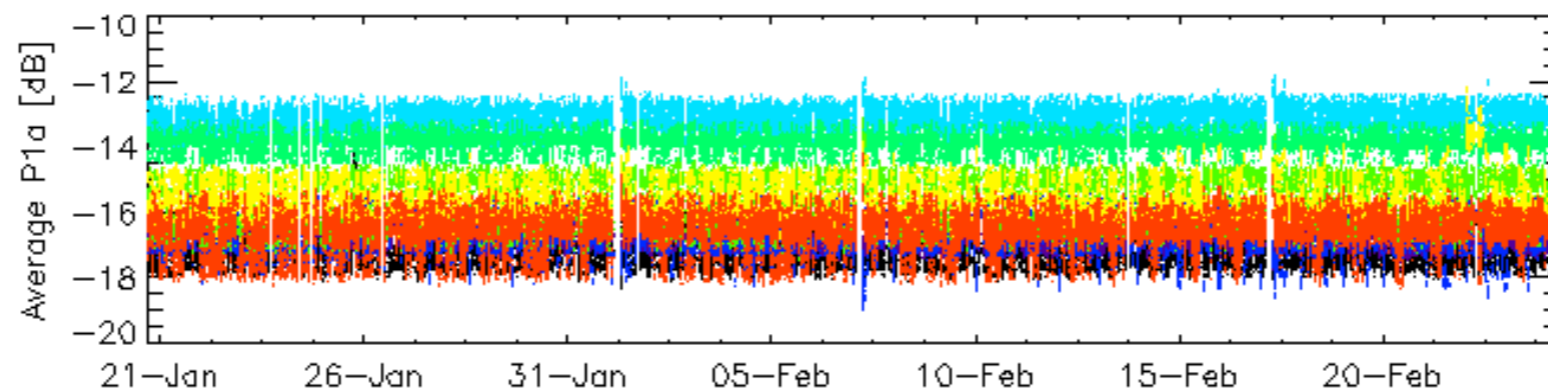
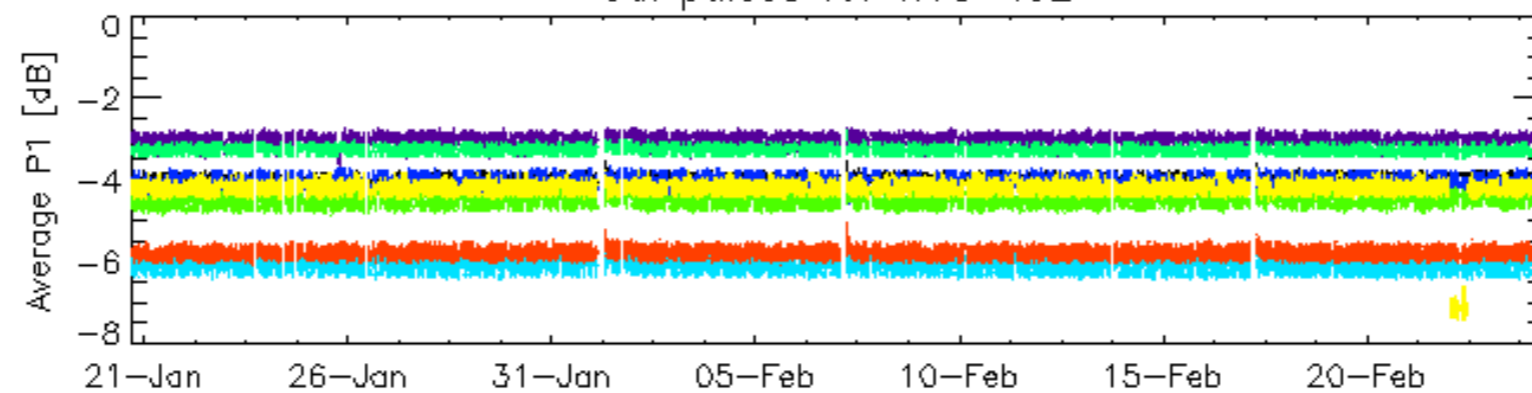


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

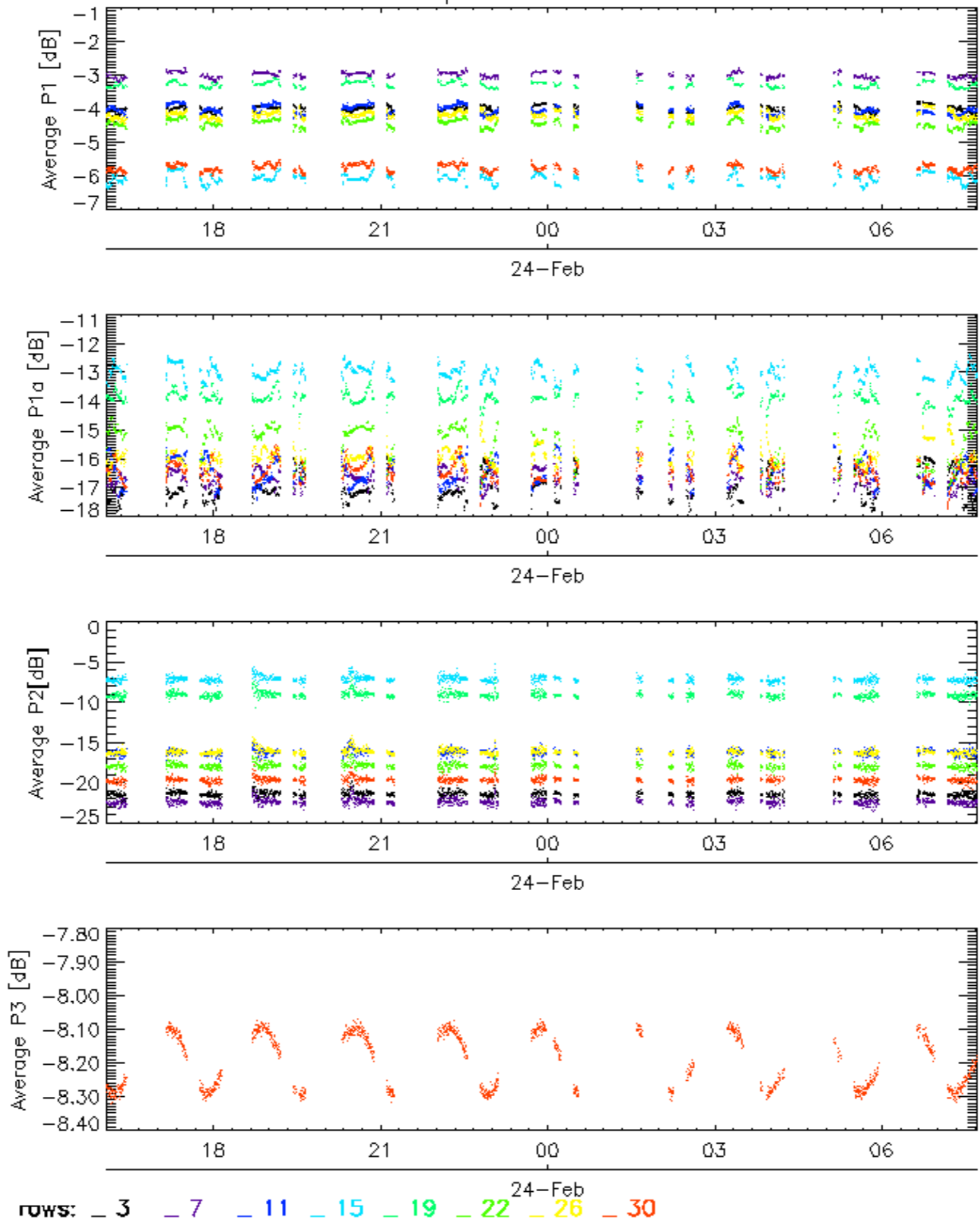


Cal pulses for WVS IS2



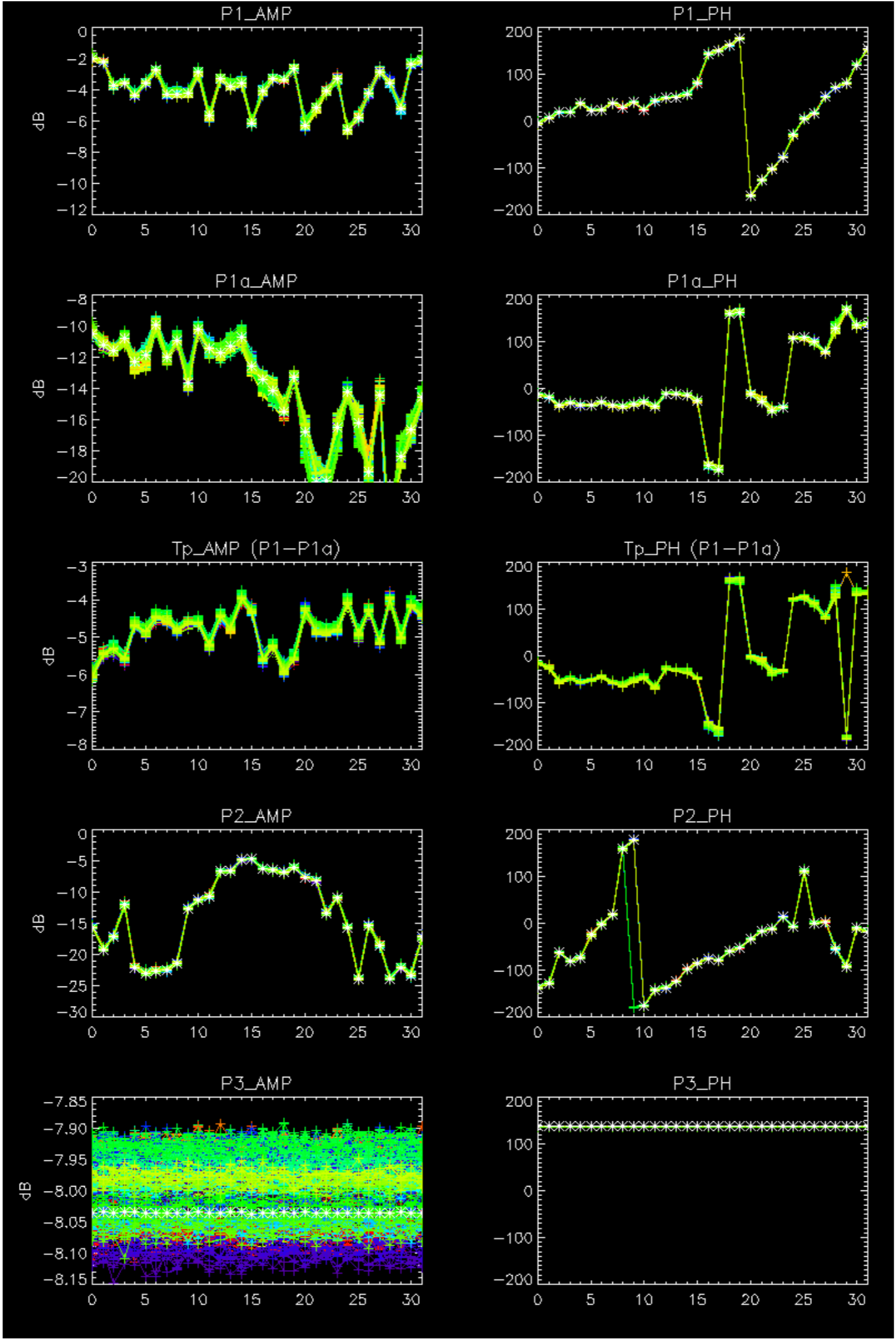
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

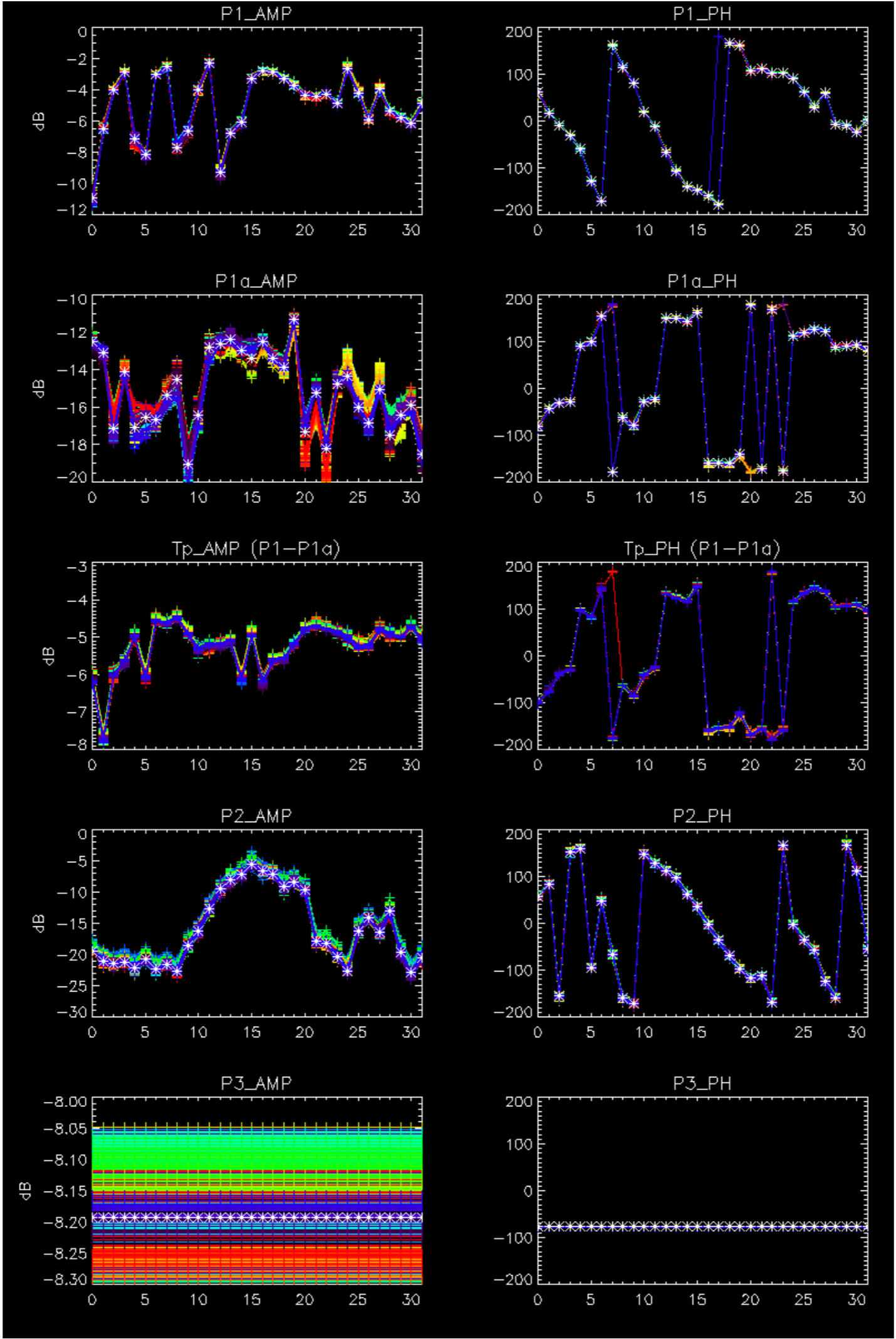
Cal pulses for WVS IS2



No anomalies observed on available browse products

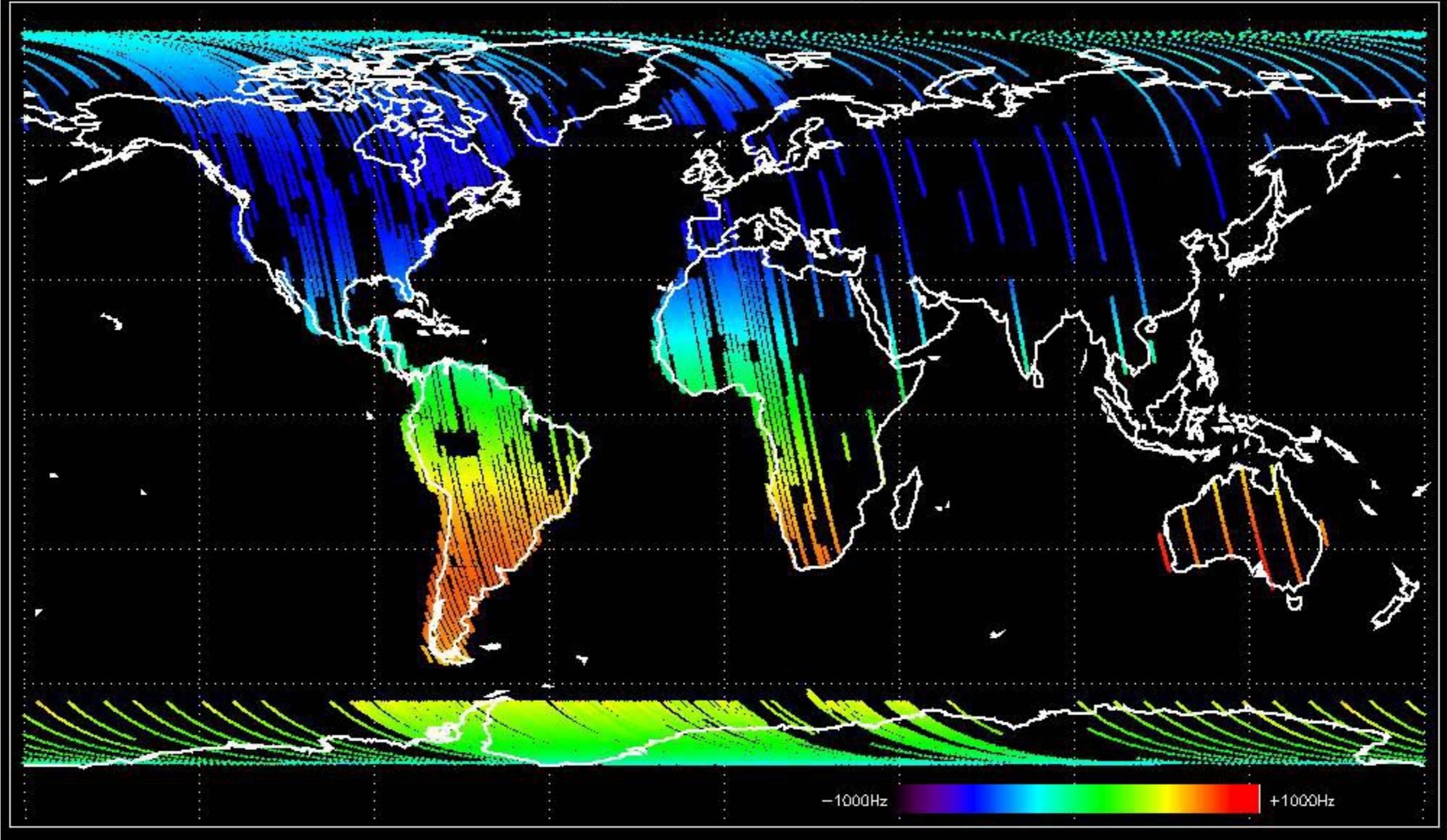
No anomalies observed.



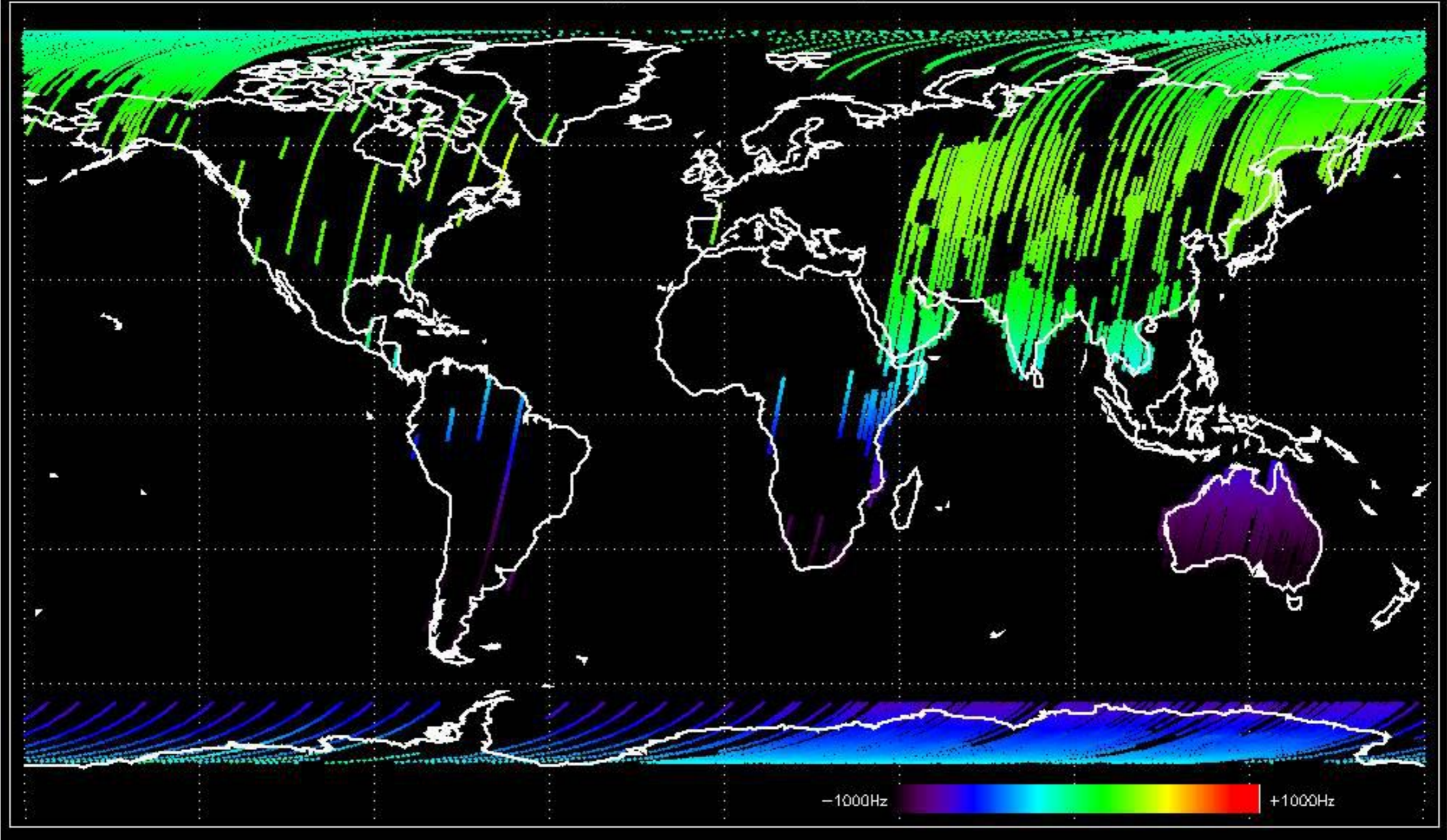


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

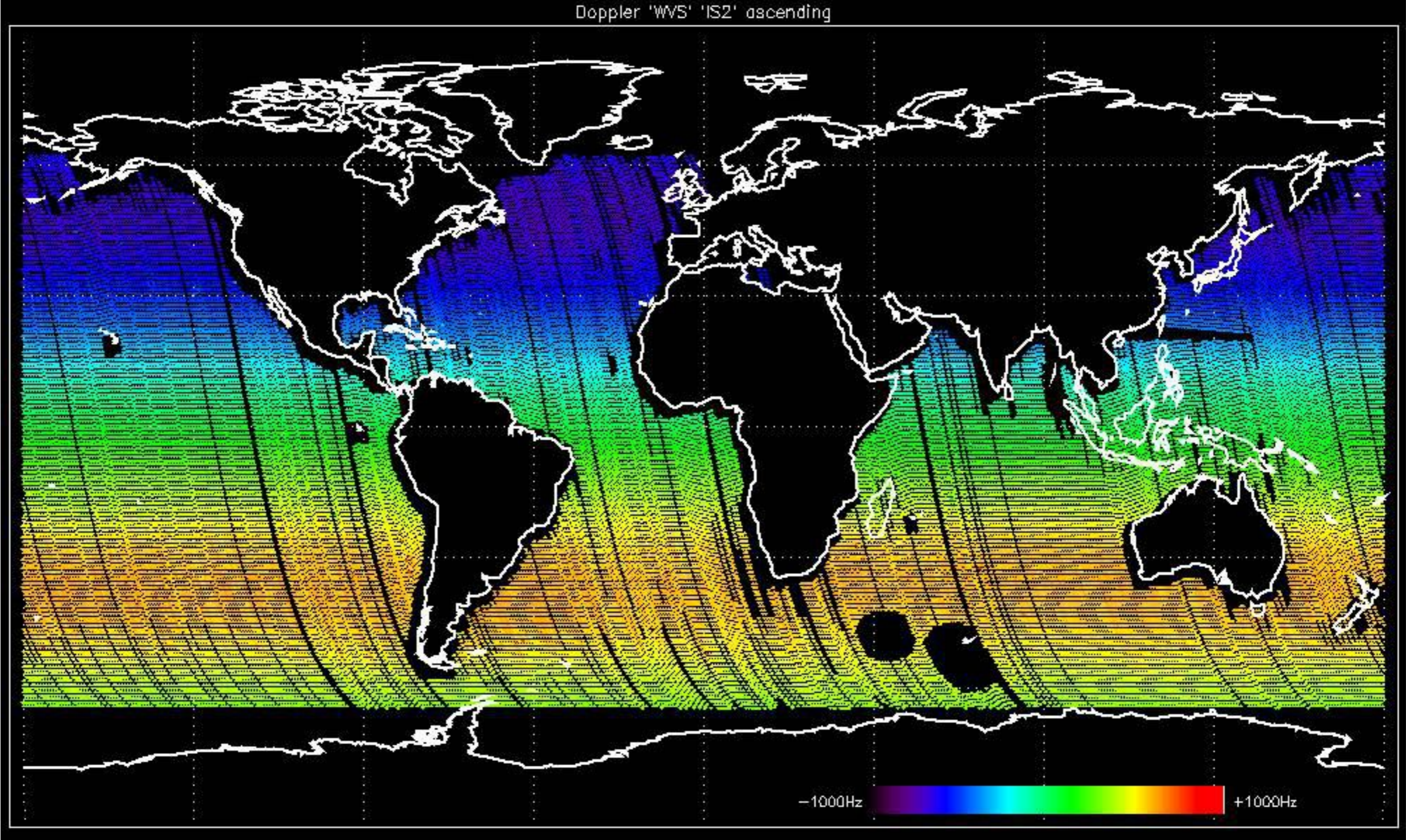
Doppler 'GM1' 'SS1' ascending



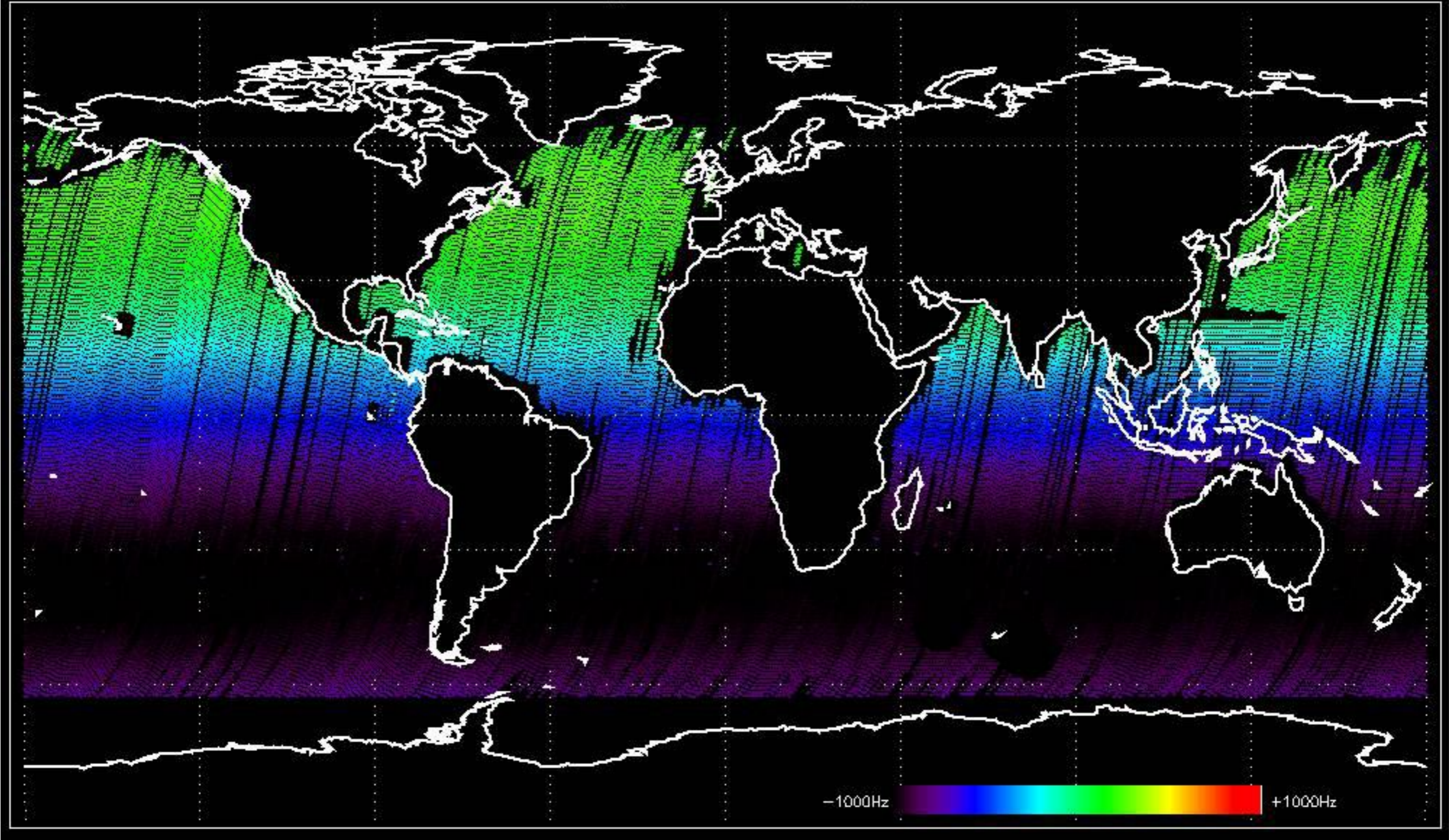
Doppler 'GM1' 'SS1' descending



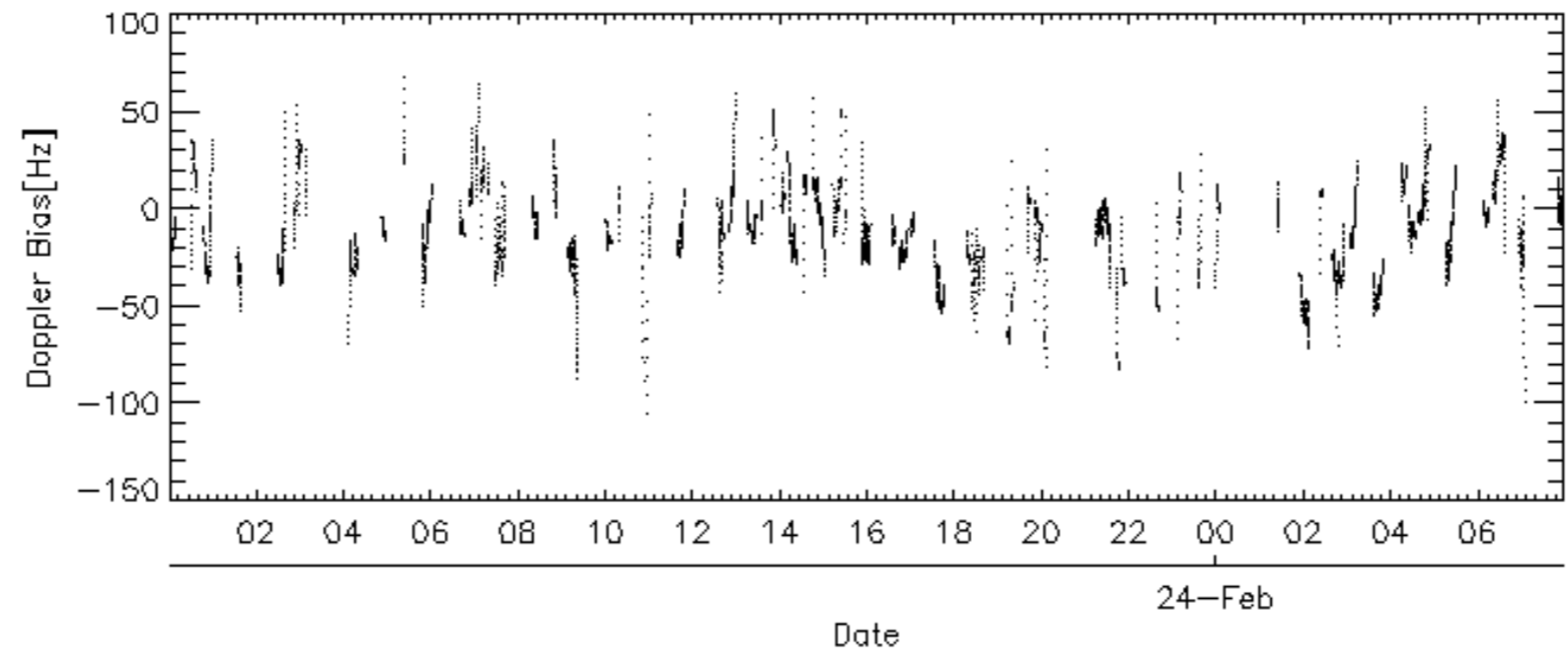
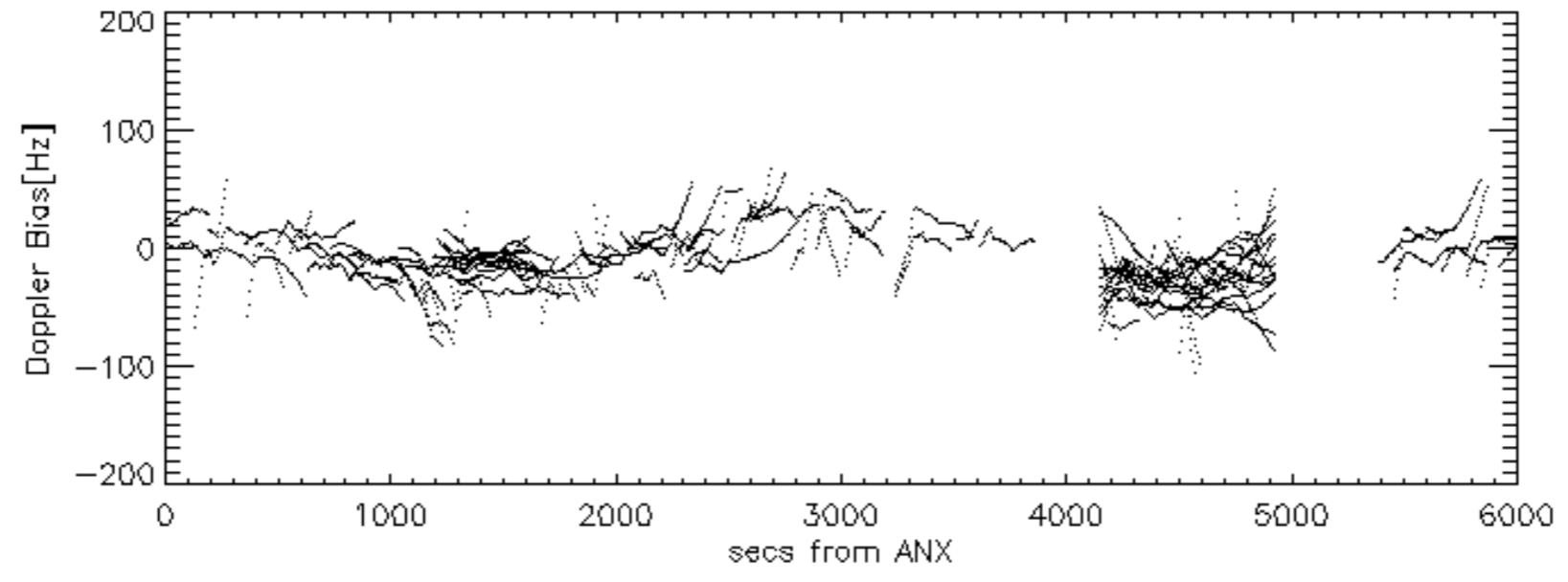
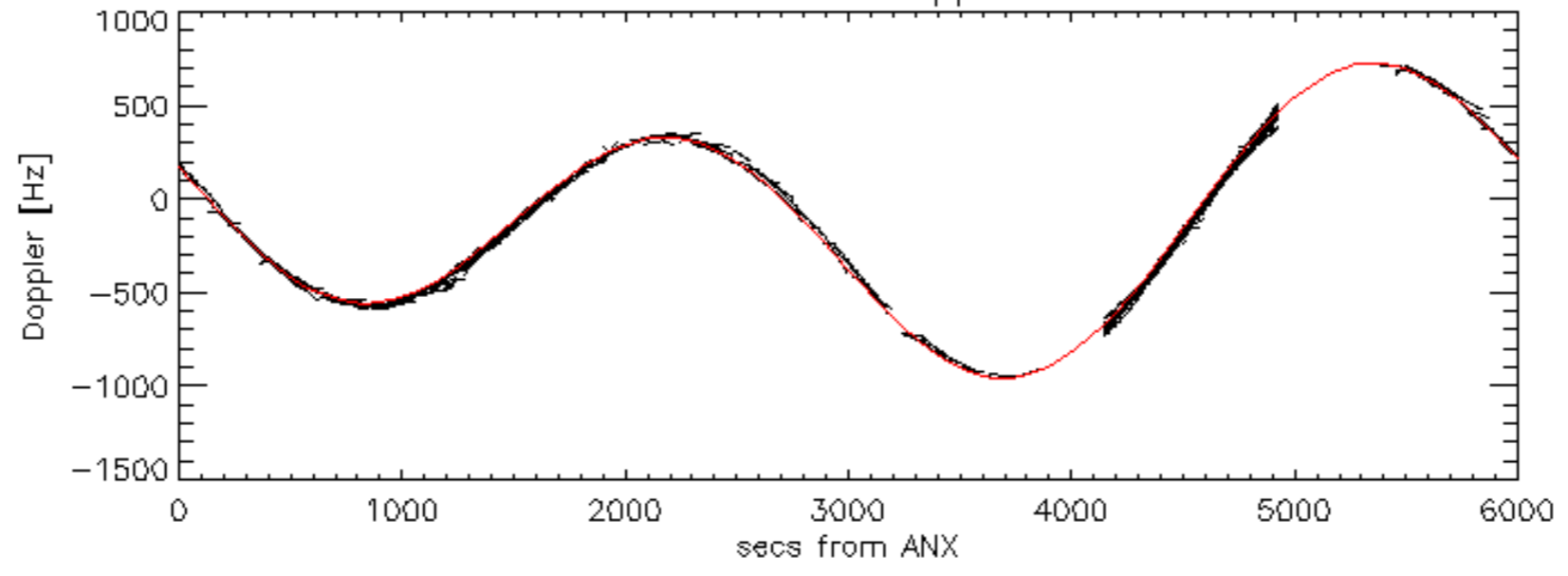
Doppler 'WVS' 'IS2' ascending

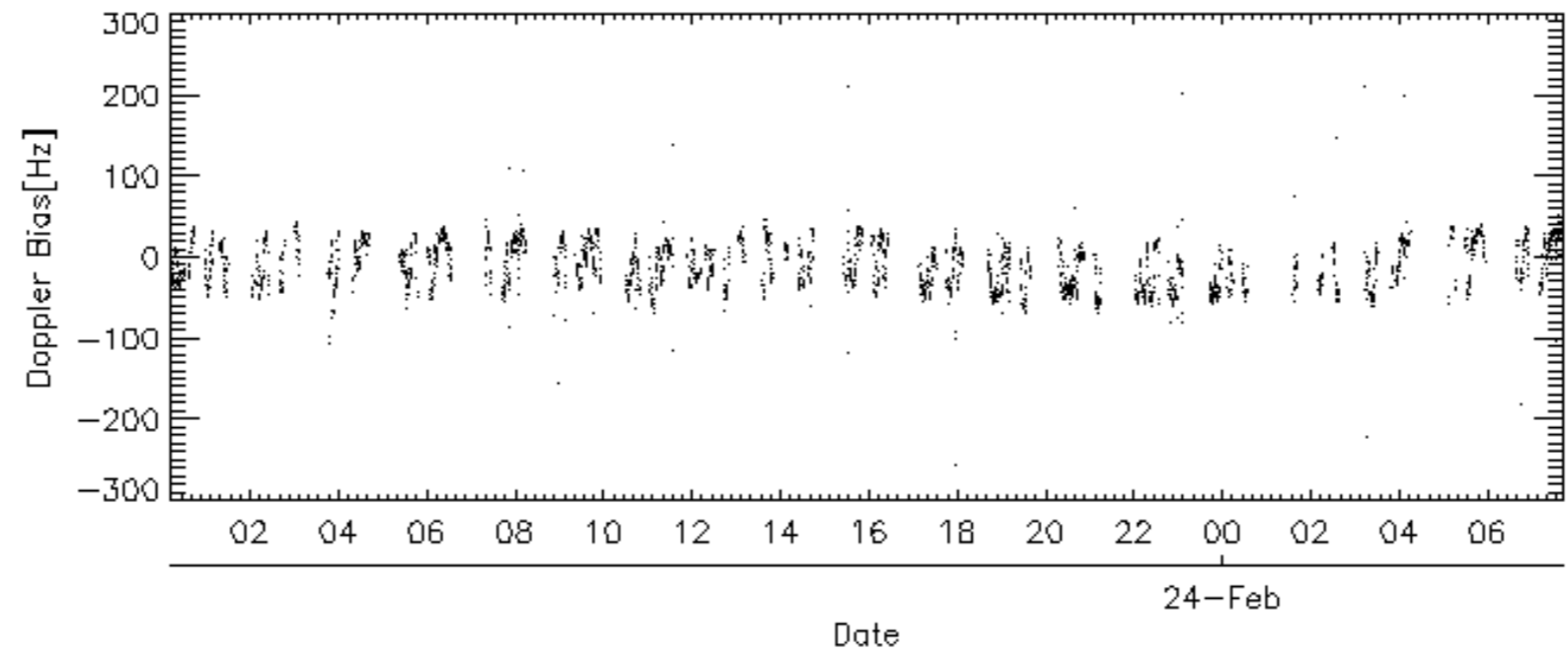
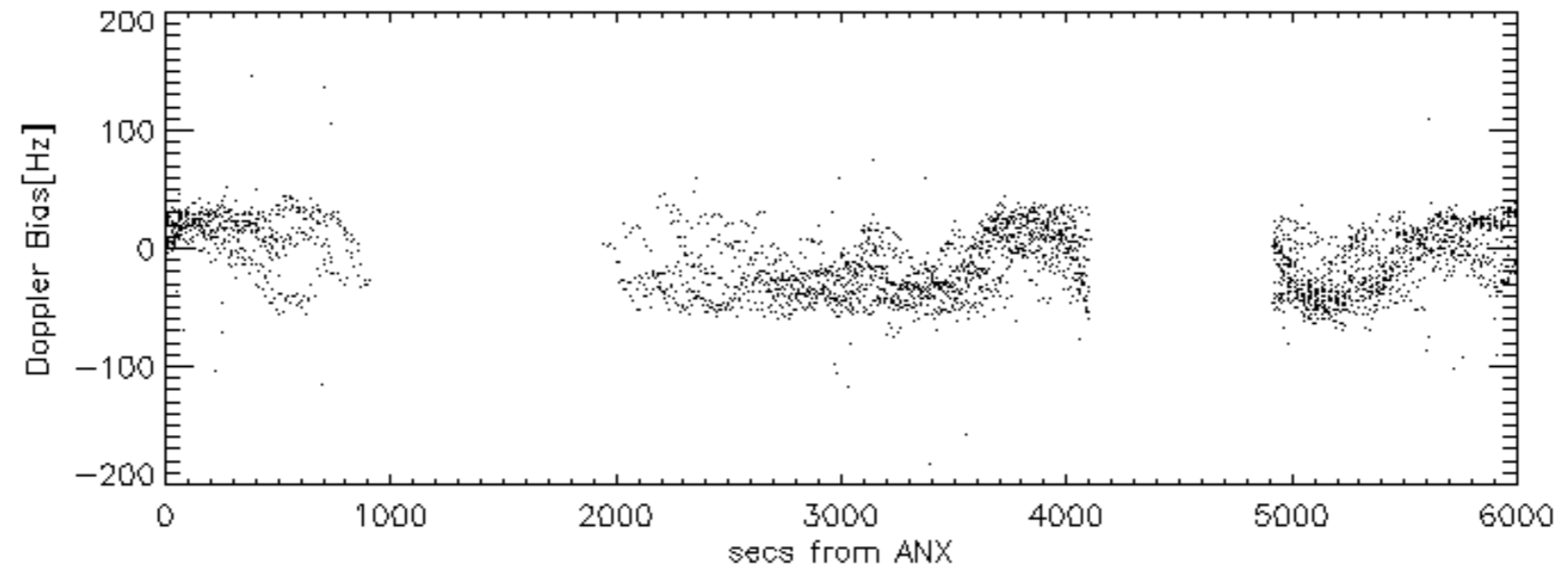
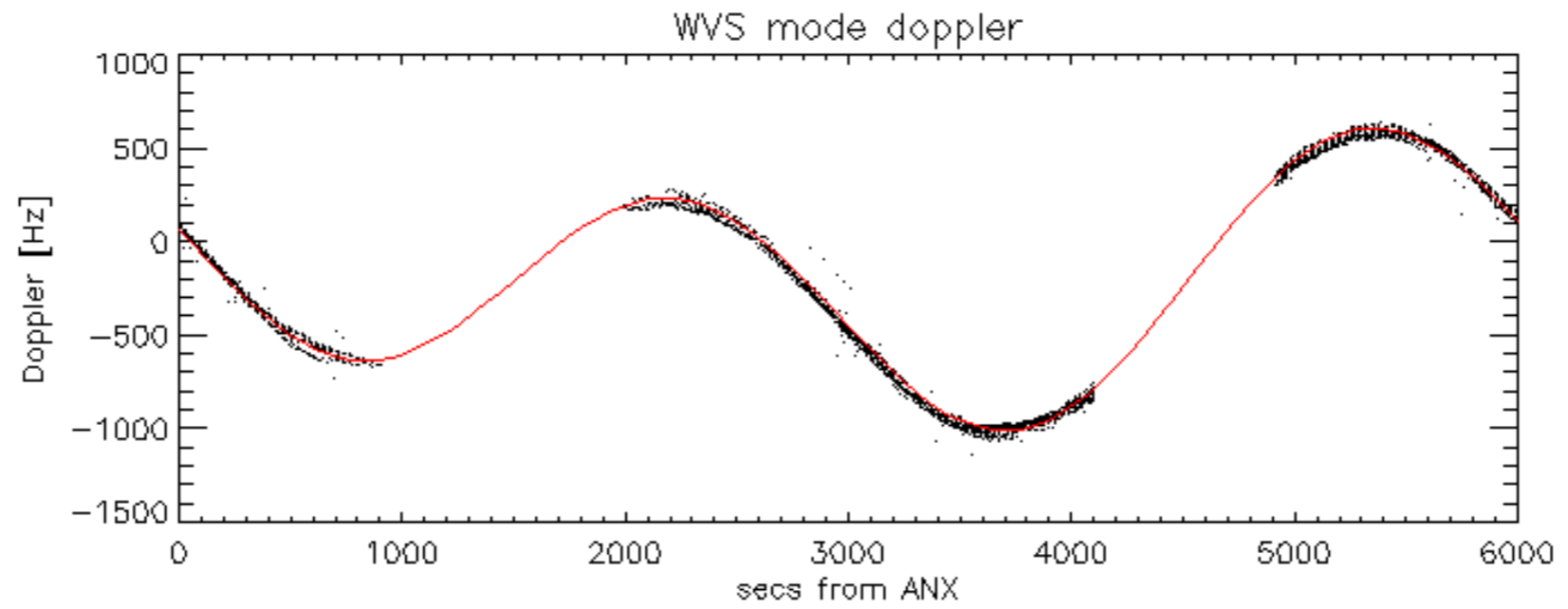


Doppler 'WVS' 'IS2' descending

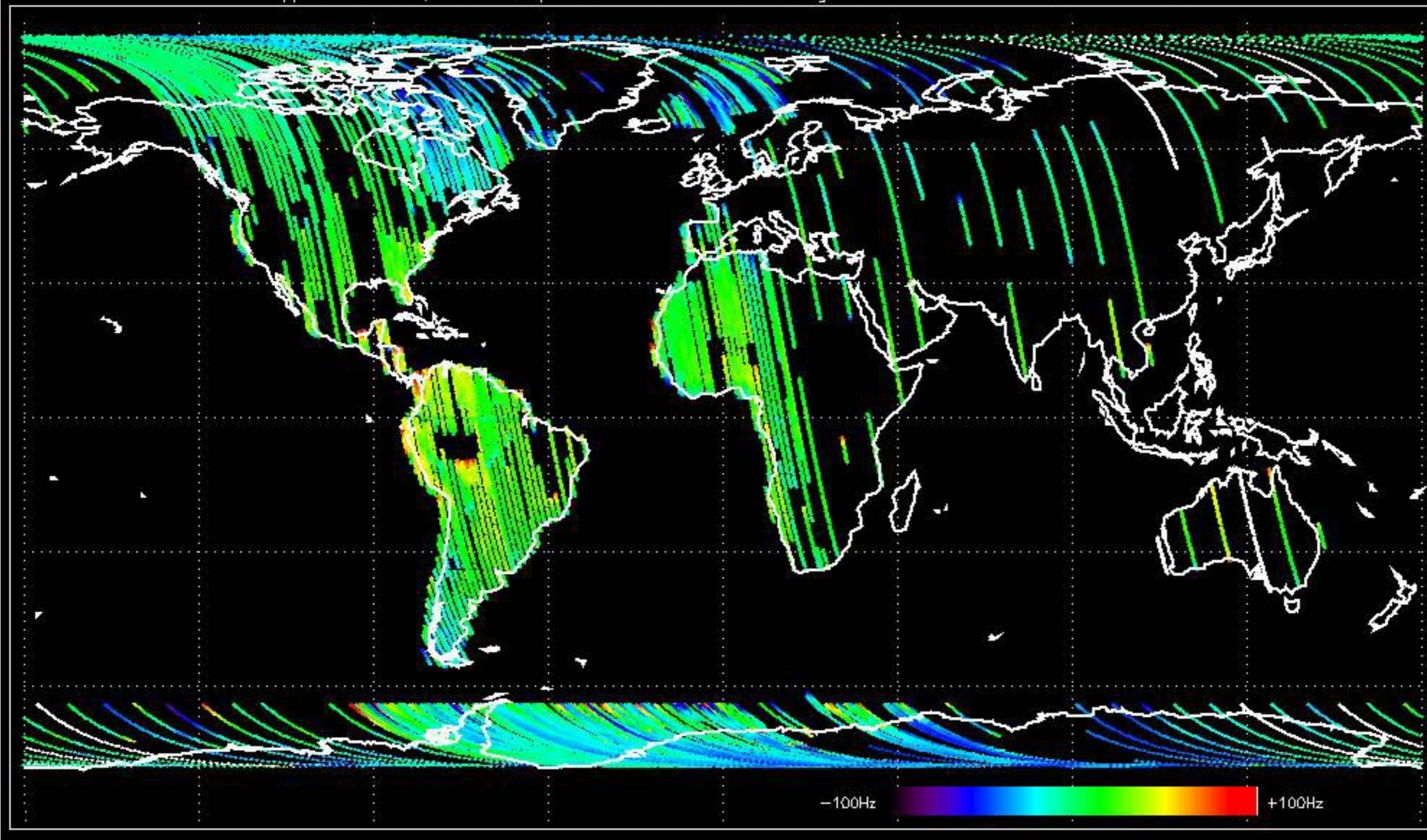


GM1 mode doppler

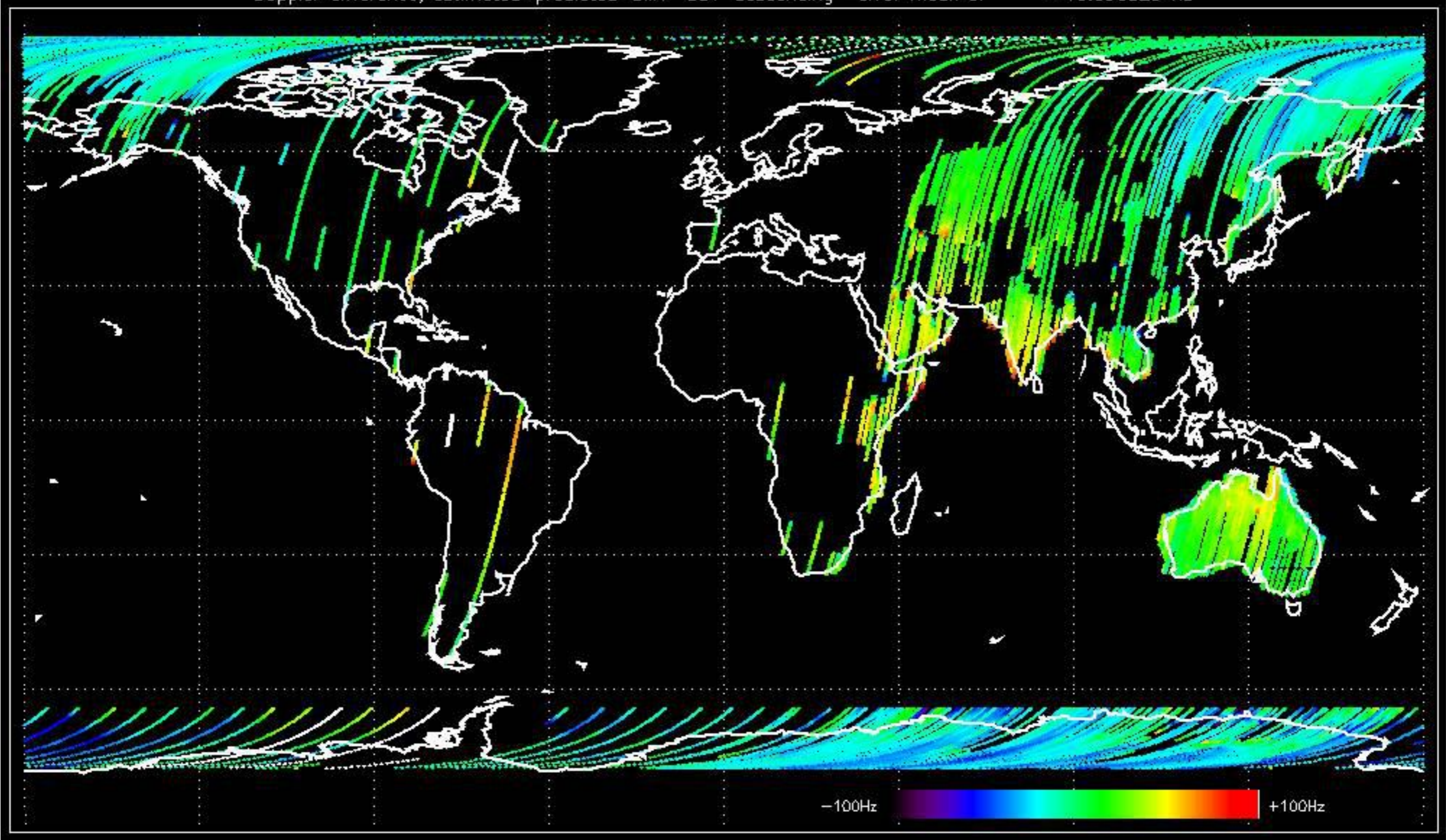




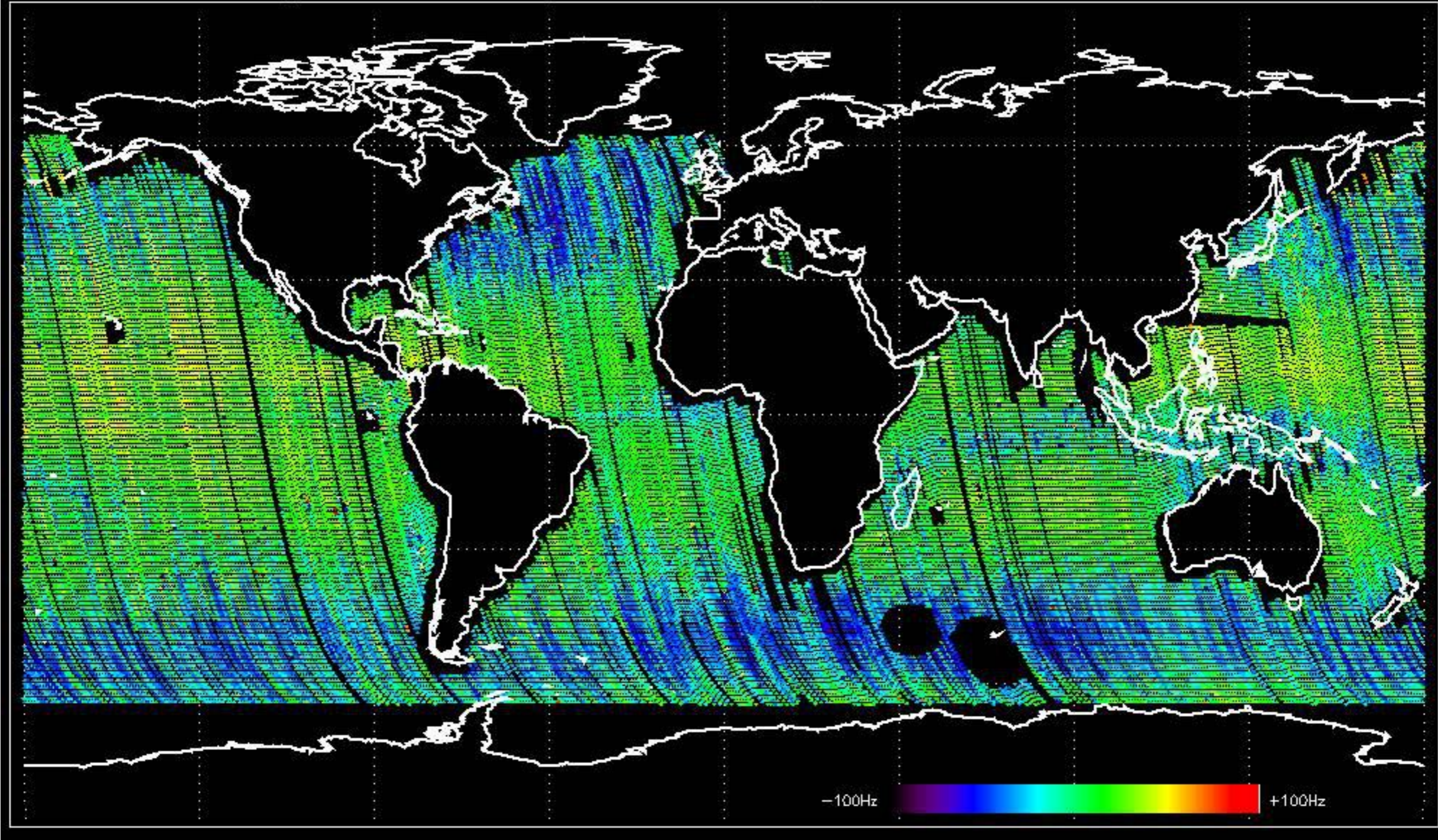
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -8.4754103 Hz



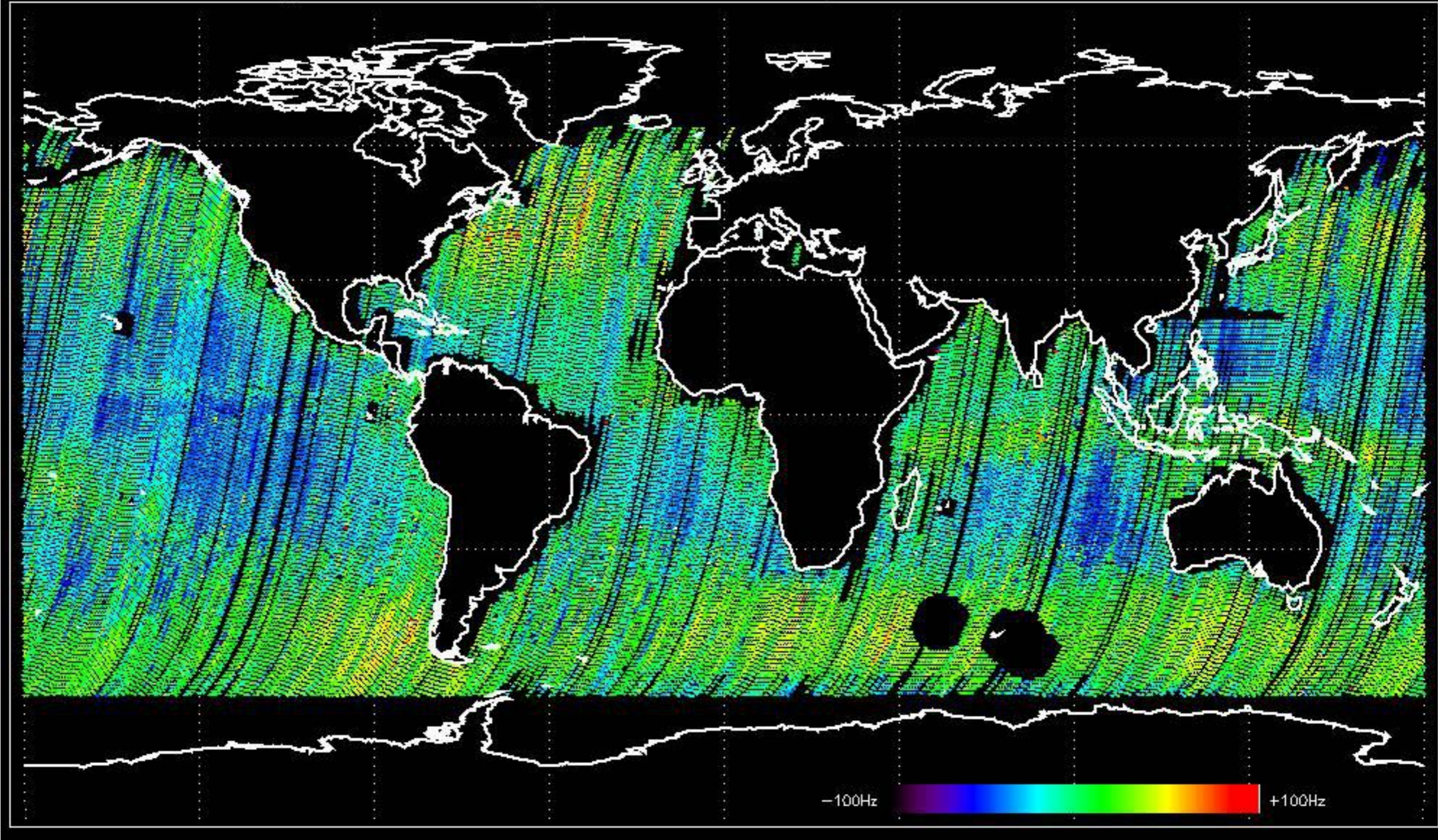
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -10.690325 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.3568104 Hz

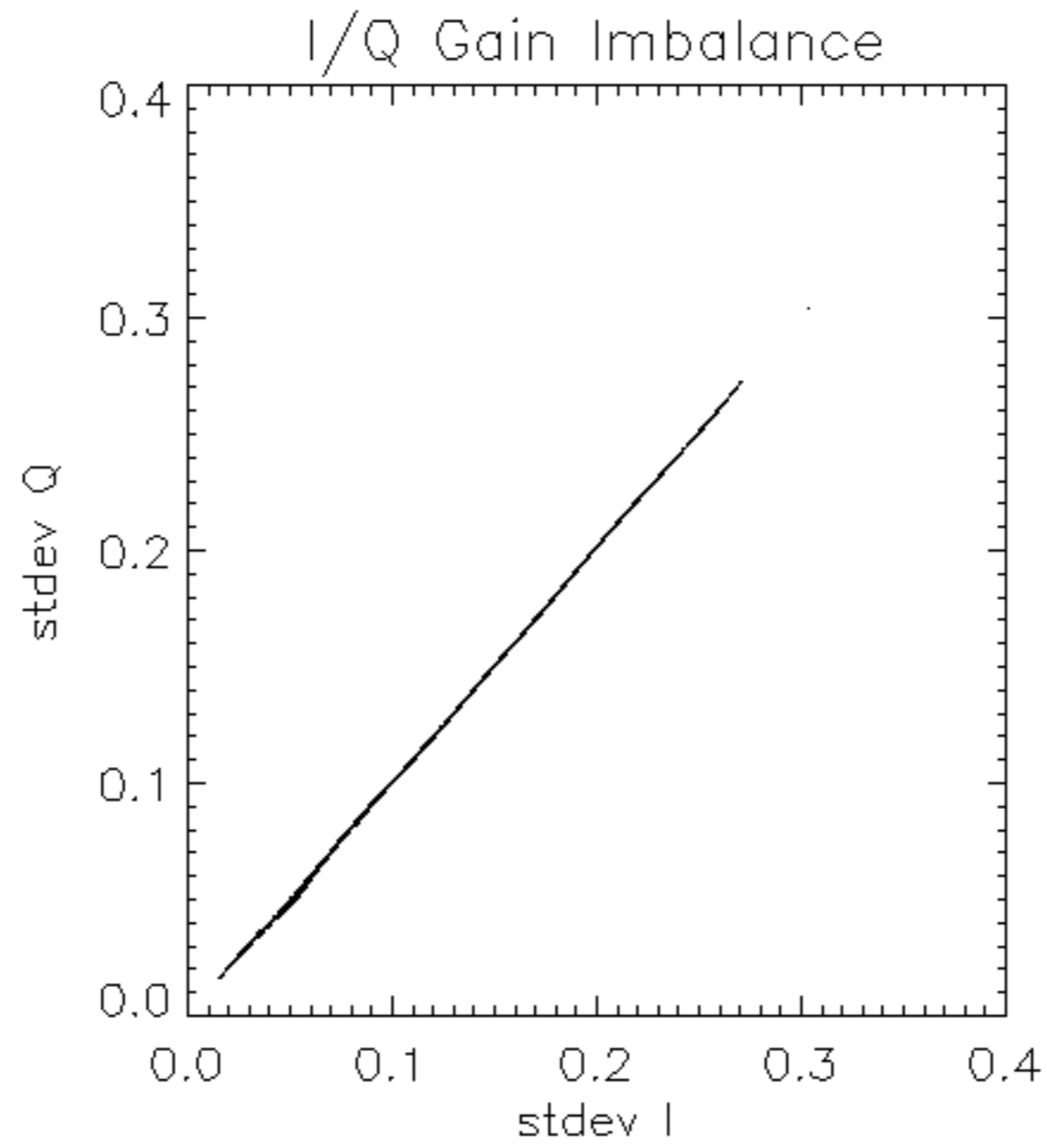


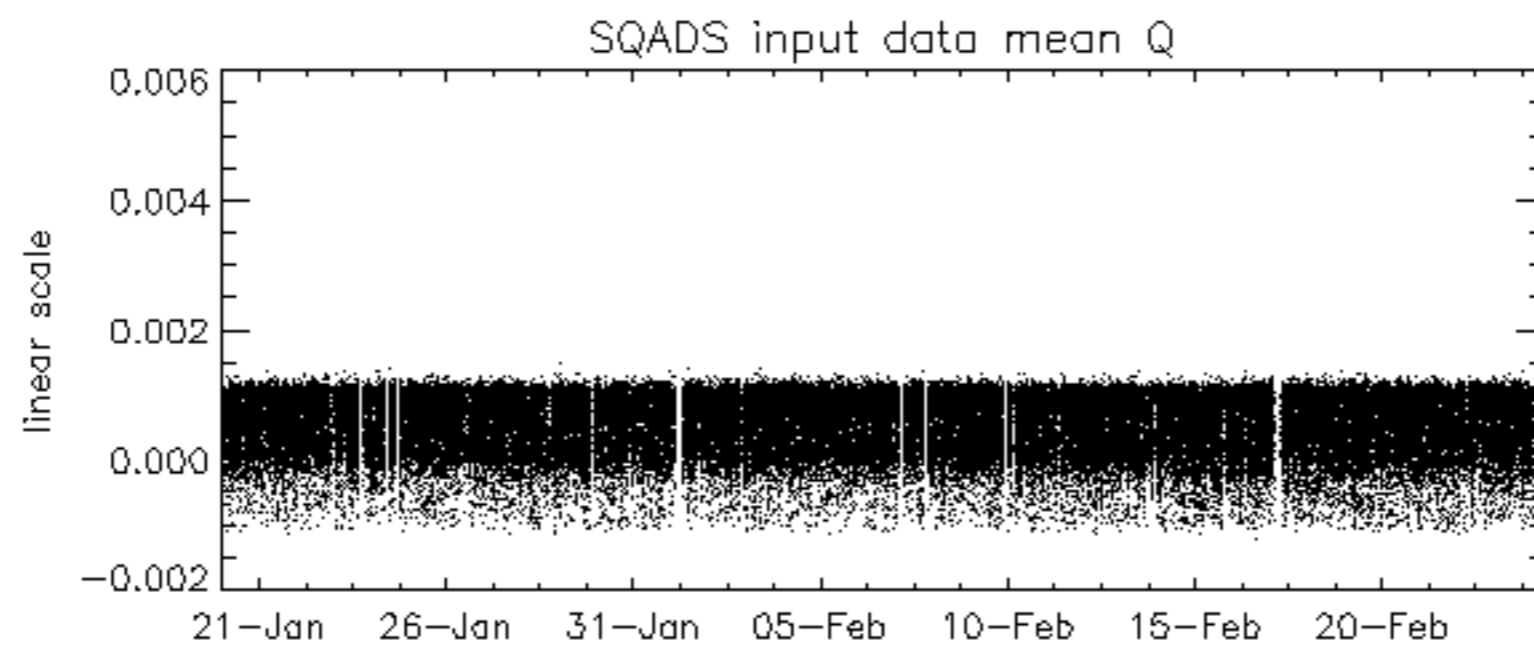
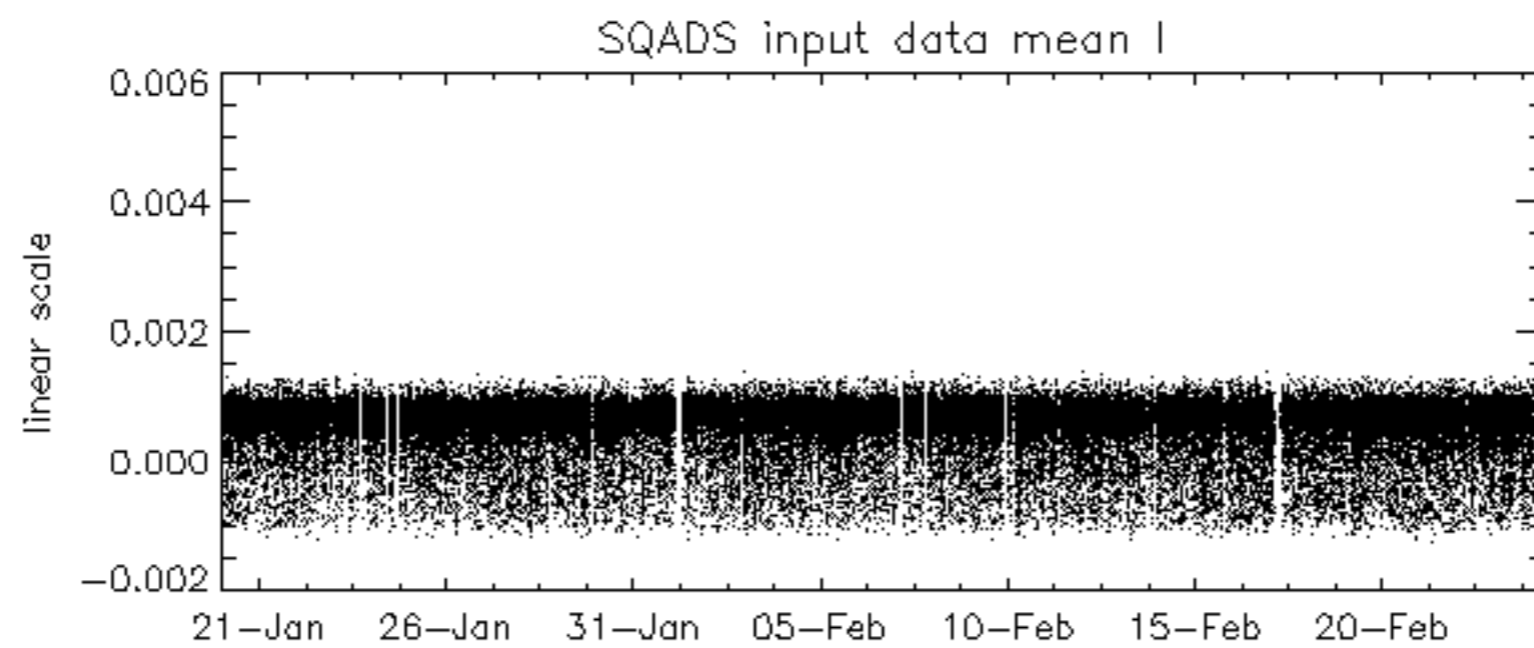
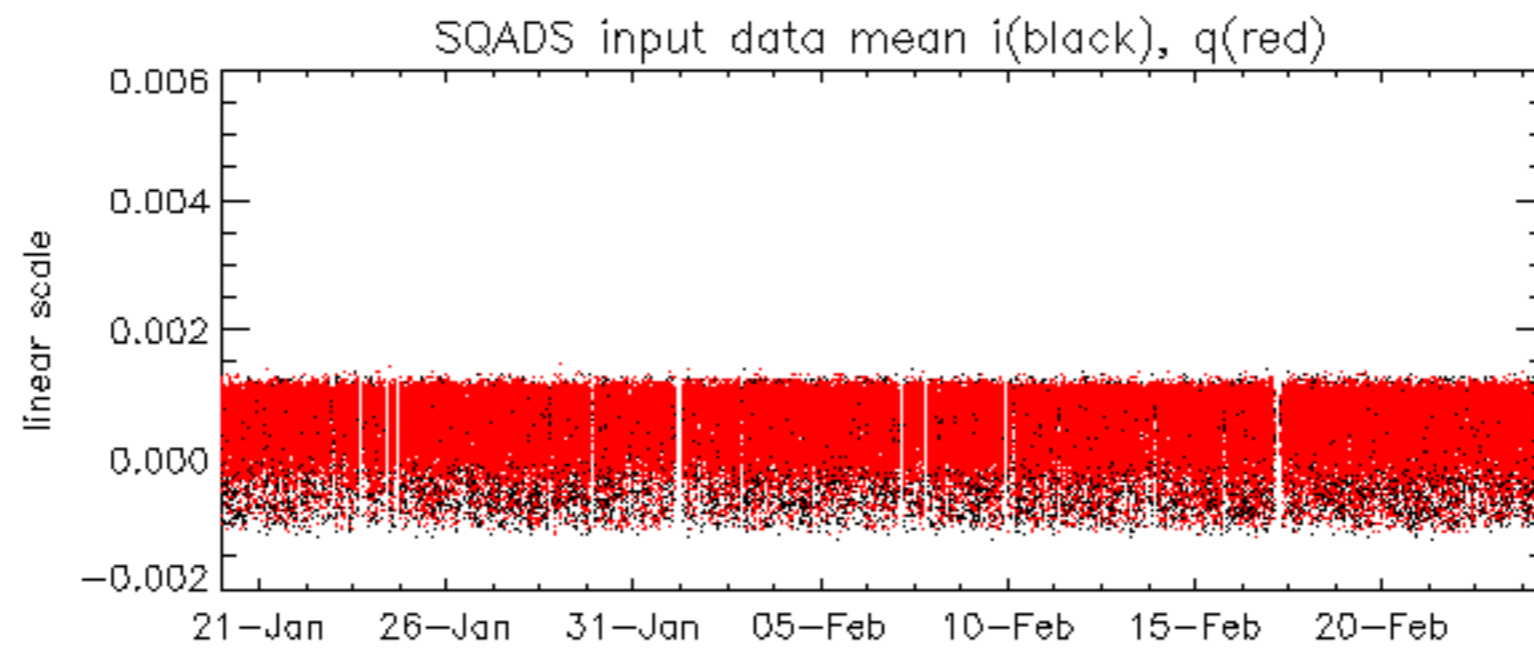
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -7.9198473 Hz

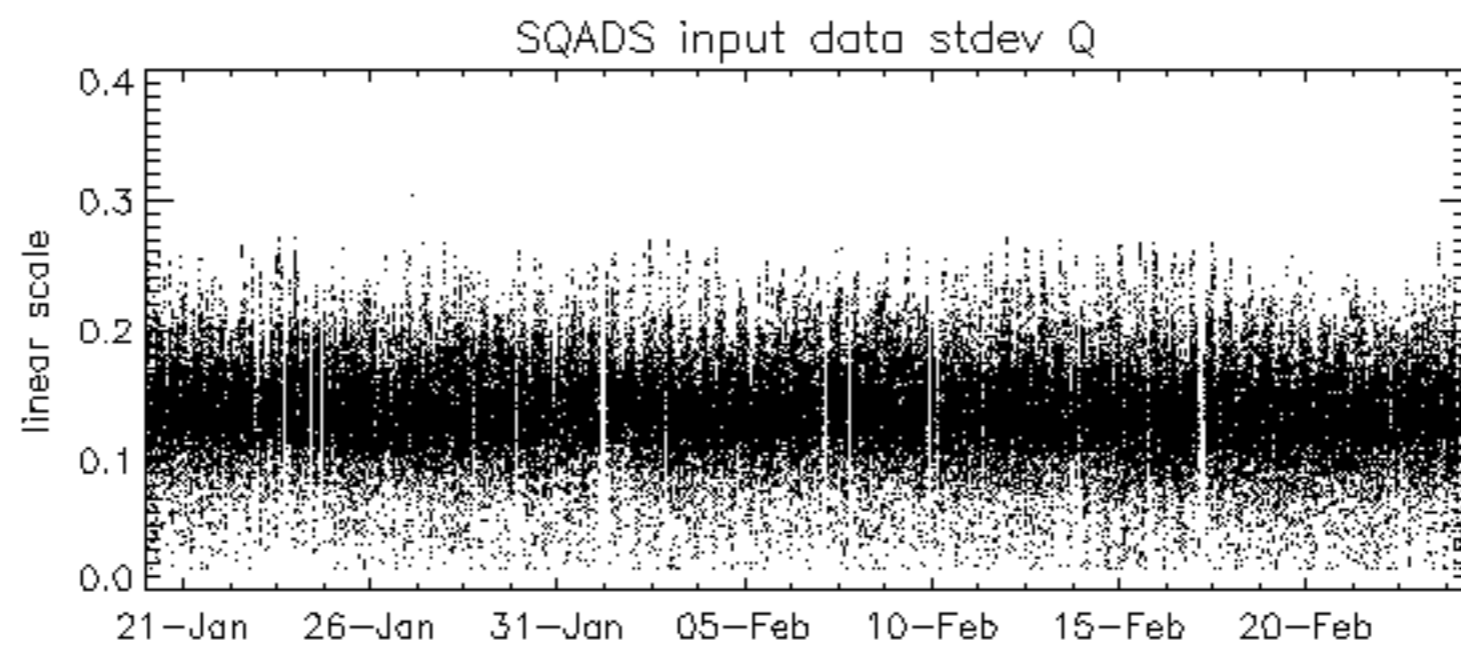
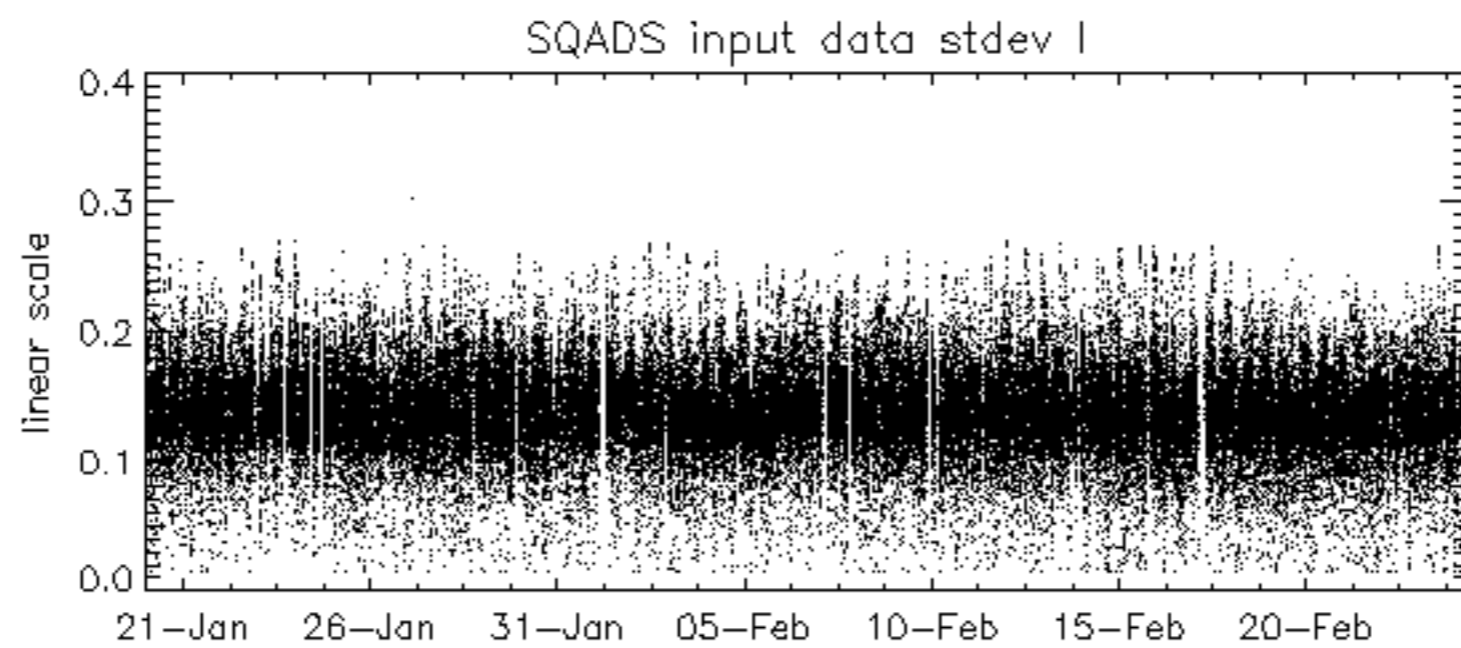
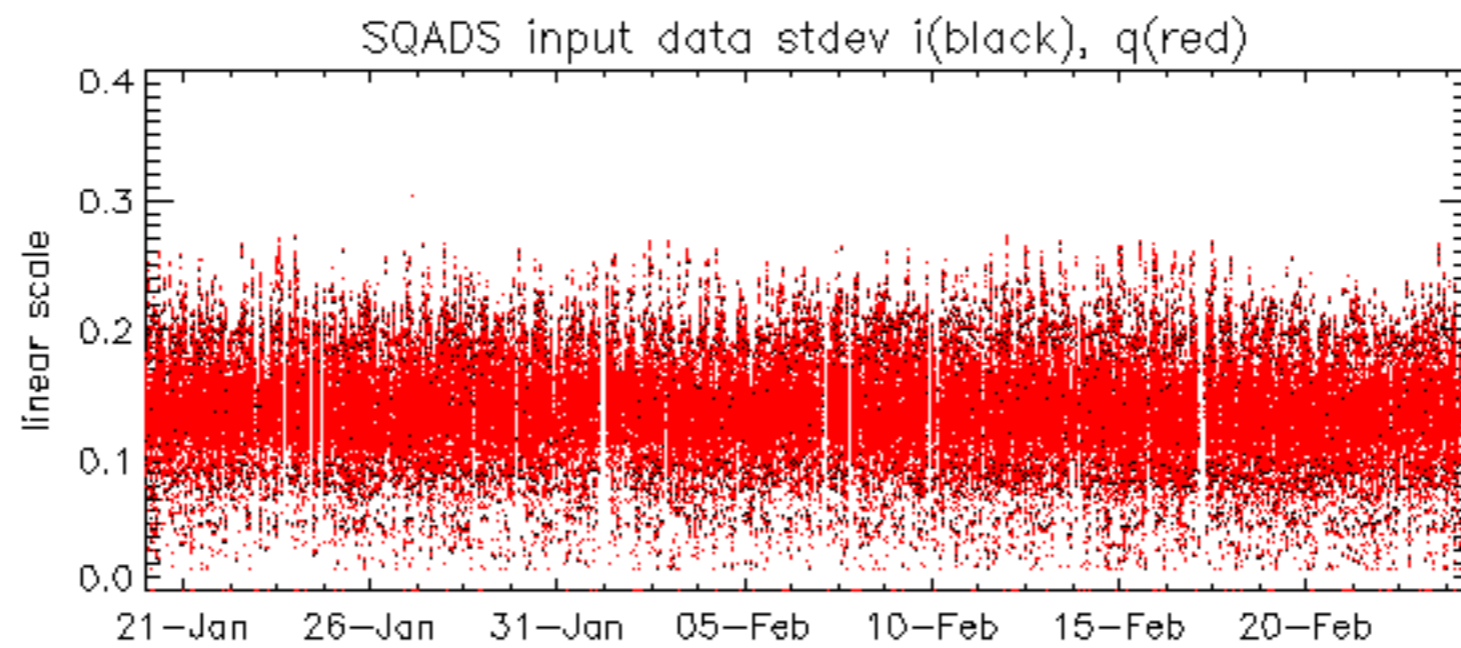


No anomalies observed on available MS products:

No anomalies observed.



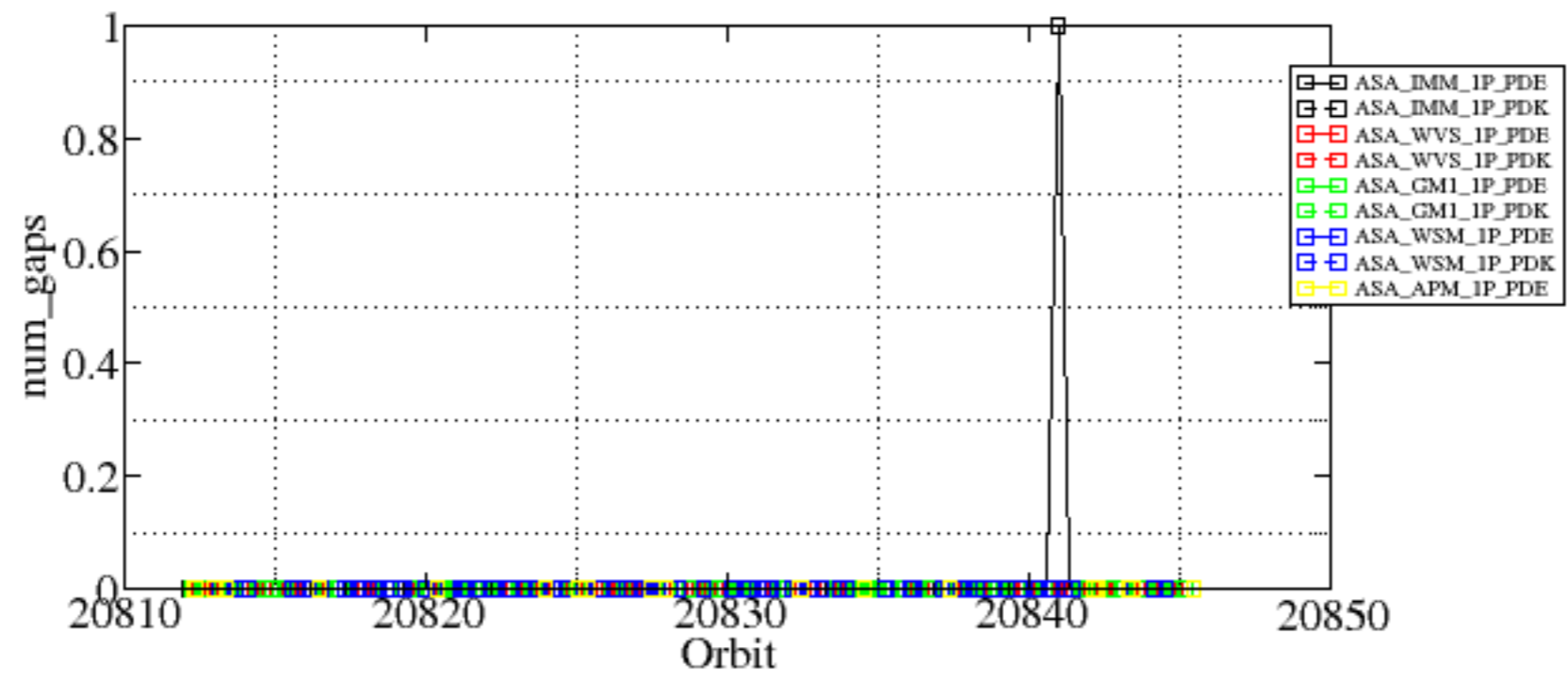


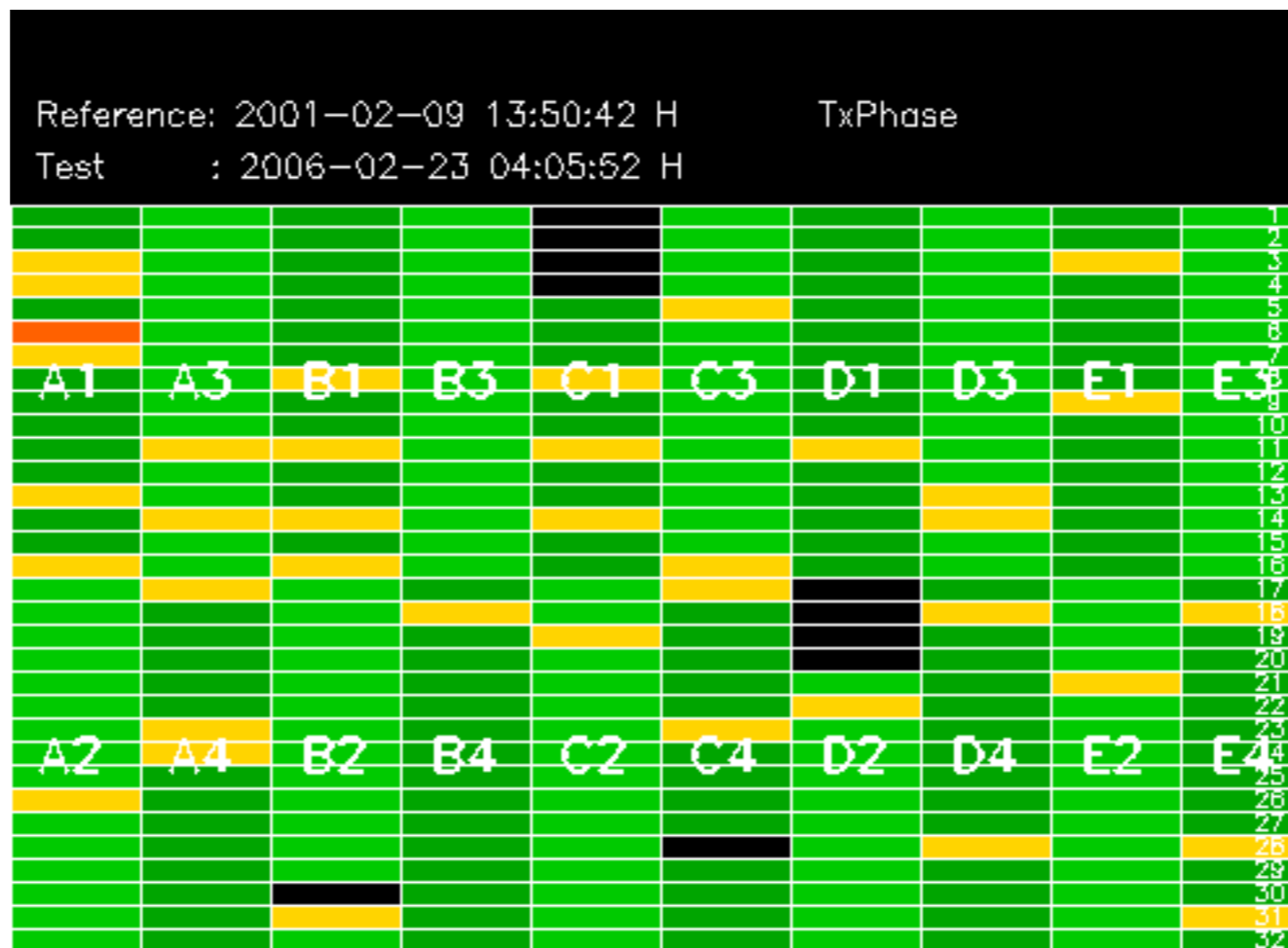


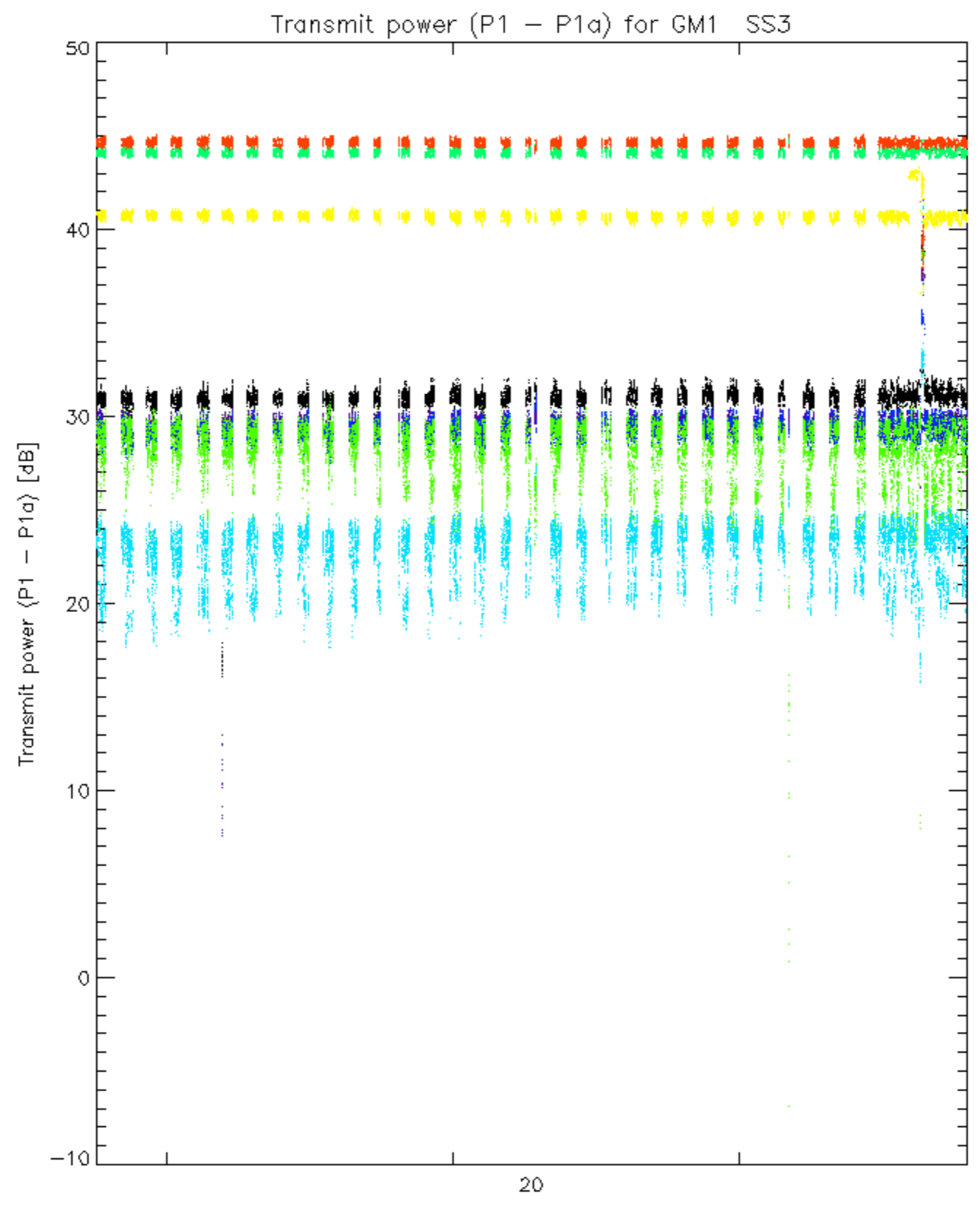
Summary of analysis for the last 3 days 2006022[234]

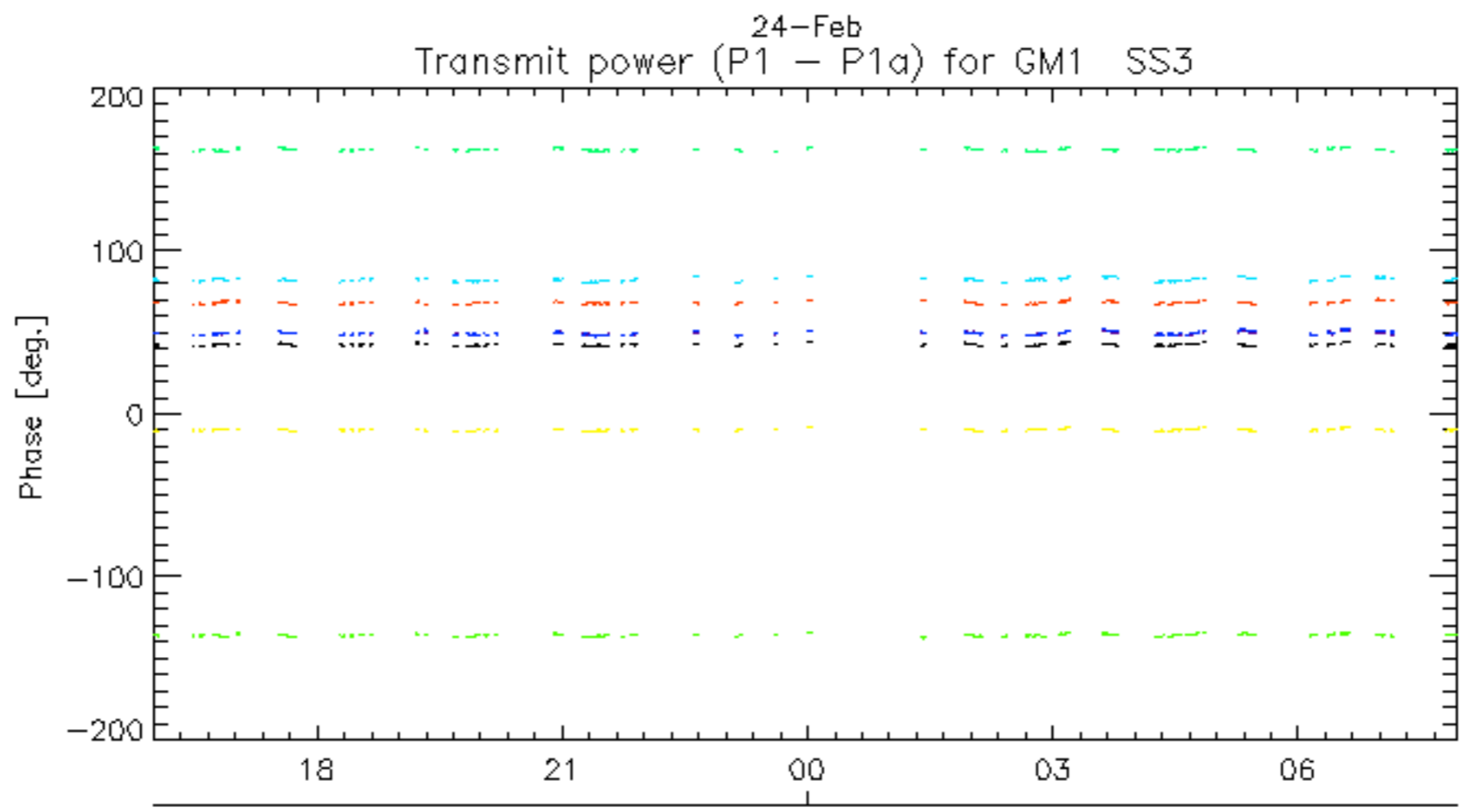
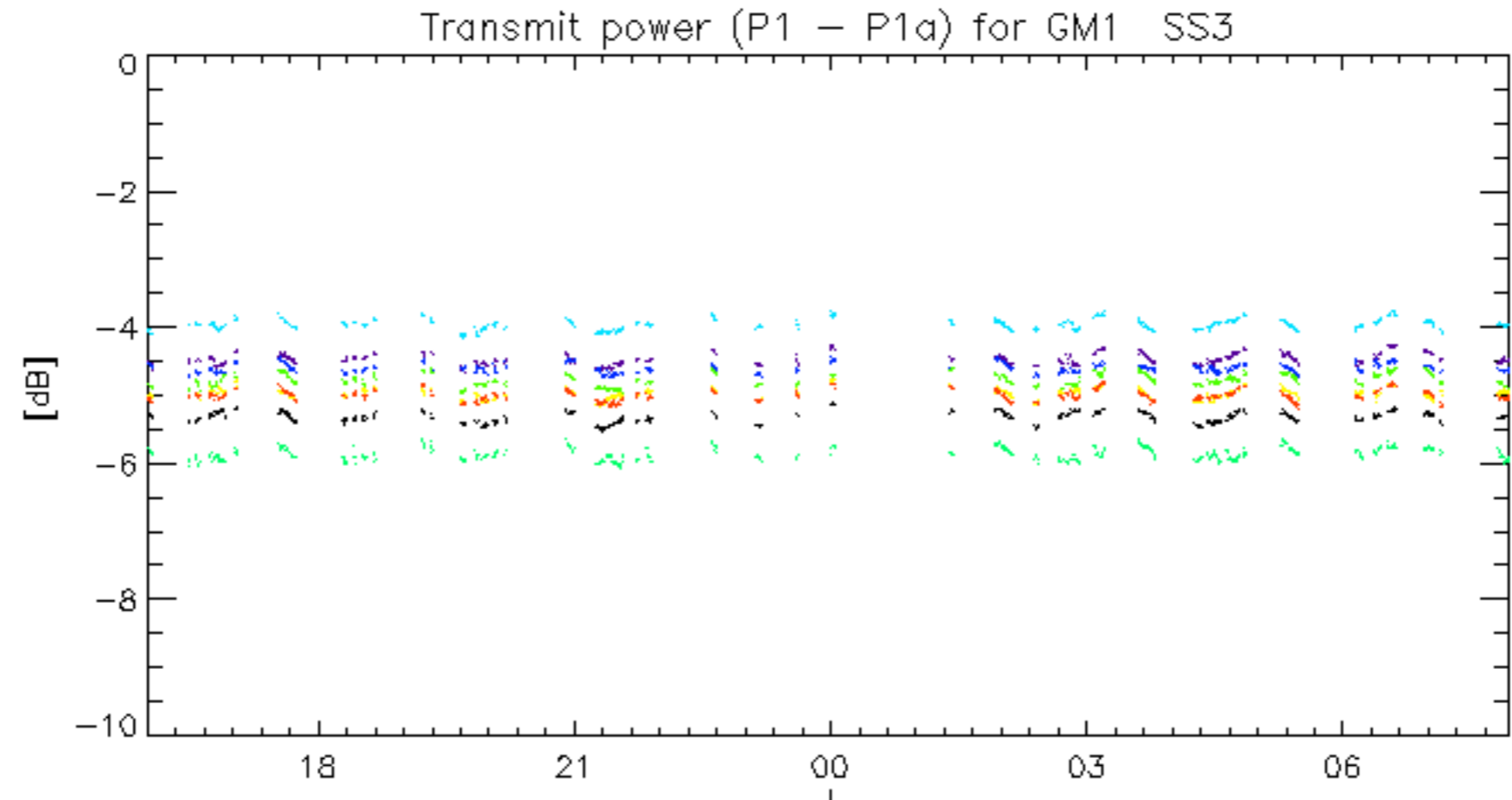
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060224_004230_000001742045_00245_20840_4155.N1	1	0
ASA_GM1_1PNPDK20060222_084957_000006702045_00222_20817_2189.N1	0	15
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ASA_WSM_1PNPDE20060223_033632_000001462045_00233_20828_6056.N1	0	1
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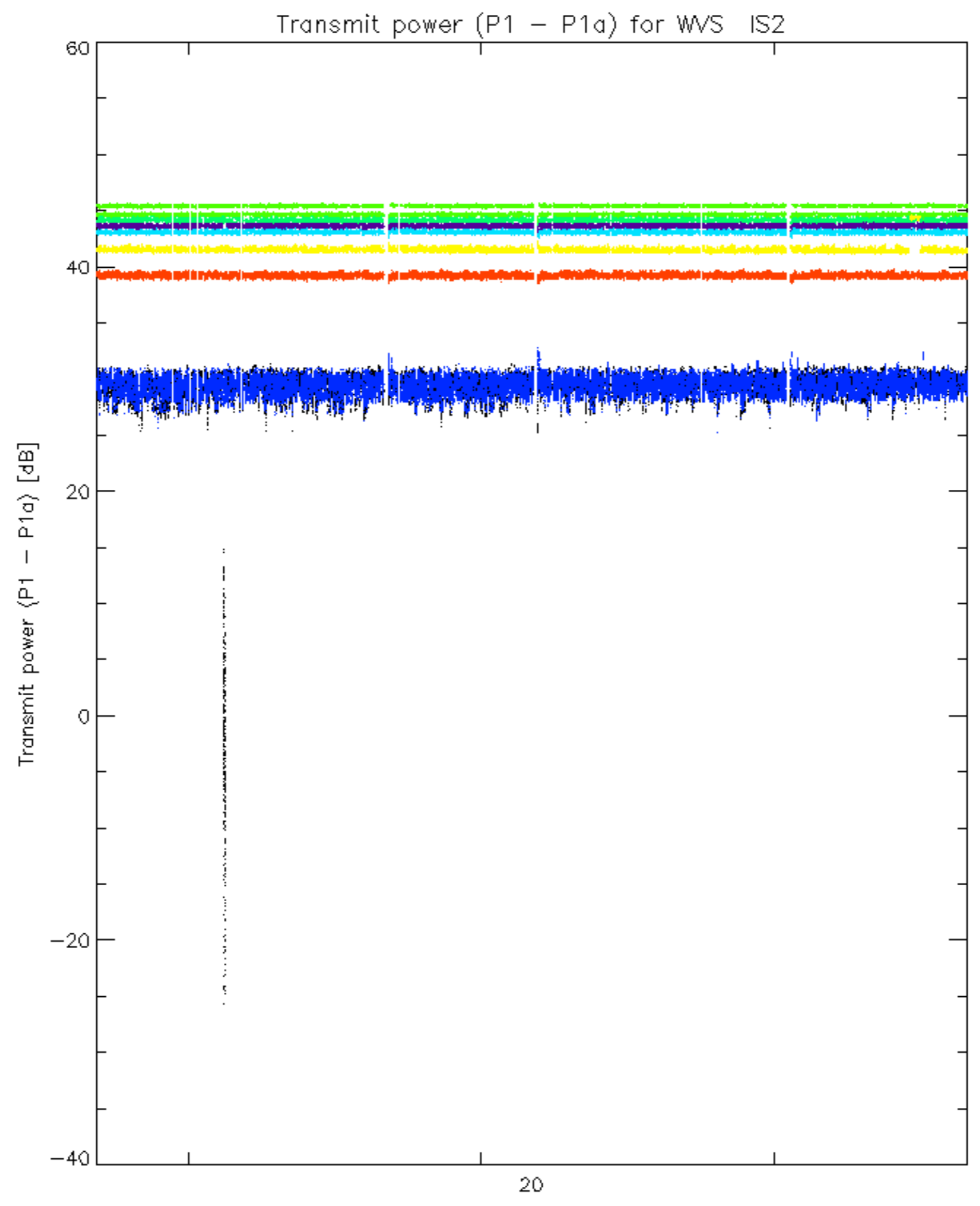


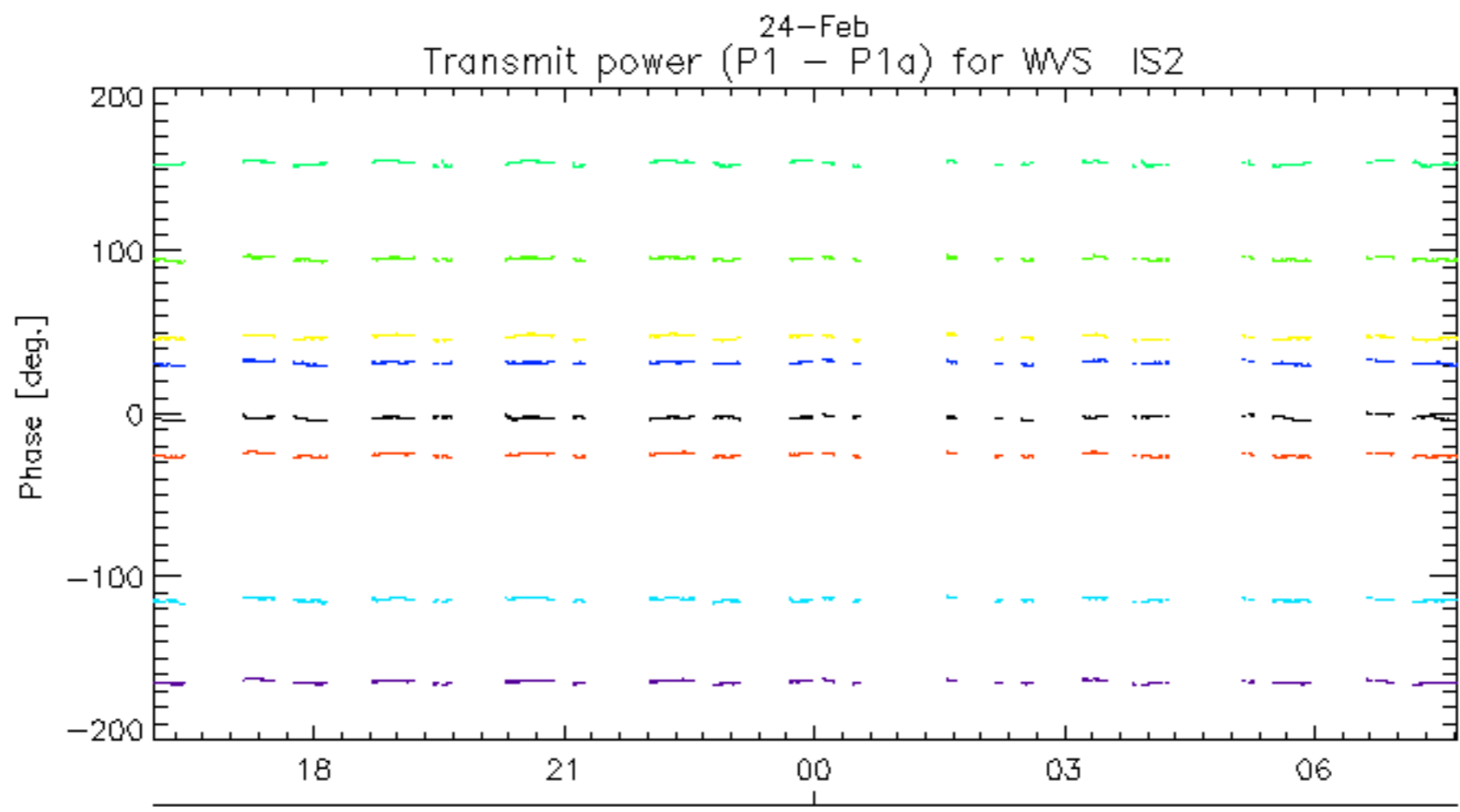
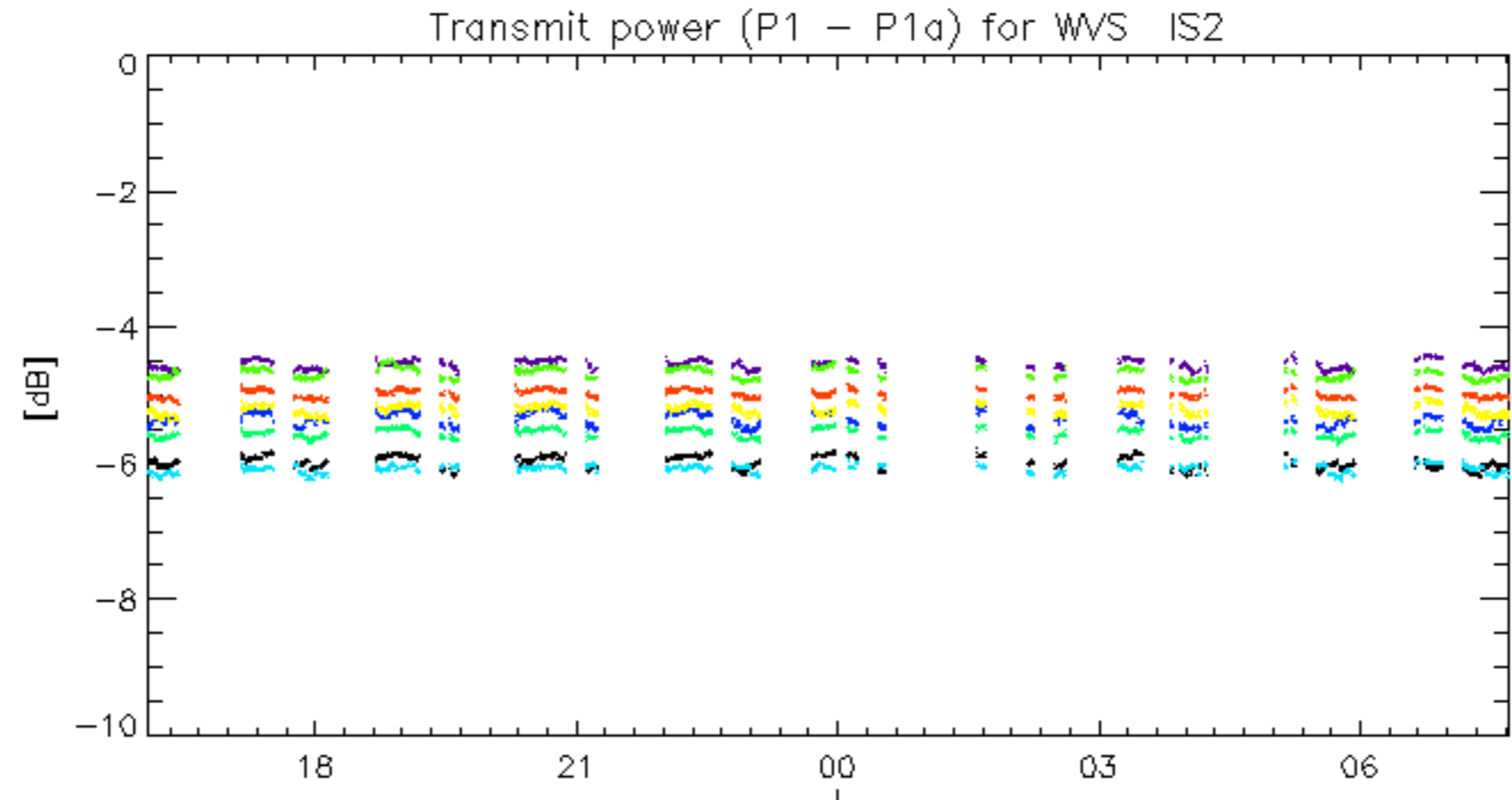






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No unavailabilities during the reported period.