

PRELIMINARY REPORT OF 060214

last update on Tue Feb 14 16:42:51 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 2006-02-13 00:00:00 to 2006-02-14 16:42:51

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	43	0	10	0	24
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	43	0	10	0	24
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	43	0	10	0	24
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	43	0	10	0	24

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	48	44	17	43
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	41	48	44	17	43
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	48	44	17	43
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	48	44	17	43

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	20060214 085025
H	20060213 092202

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	-4.012681	0.008358	0.034688
7	P1	-3.002603	0.012570	0.009609
11	P1	-4.092007	0.021616	0.025241
15	P1	-6.061567	0.018249	0.001598
19	P1	-3.259962	0.006607	-0.023052
22	P1	-4.474569	0.018269	0.027673
26	P1	-4.194356	0.013163	0.036001
30	P1	-5.773662	0.010220	0.008835
3	P1	-16.905283	0.265596	-0.038816
7	P1	-16.651360	0.123755	-0.071371
11	P1	-16.586292	0.298363	0.095107
15	P1	-13.171809	0.109752	0.178568
19	P1	-13.894283	0.070095	-0.014329
22	P1	-15.794046	0.555720	0.305482
26	P1	-15.768657	0.246326	-0.000580
30	P1	-16.579908	0.303336	0.116942

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.542648	0.092063	0.171688
7	P2	-22.432049	0.095763	0.083199
11	P2	-16.267305	0.102138	0.071145
15	P2	-7.195008	0.102735	0.053584
19	P2	-9.160282	0.096450	0.038336
22	P2	-17.943785	0.093035	0.008331
26	P2	-16.216295	0.100074	0.025155
30	P2	-19.642624	0.084370	0.014346

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.203515	0.007235	0.026780
7	P3	-8.203515	0.007235	0.026780
11	P3	-8.203515	0.007235	0.026780
15	P3	-8.203515	0.007235	0.026780
19	P3	-8.203515	0.007235	0.026780
22	P3	-8.203515	0.007235	0.026780
26	P3	-8.203515	0.007235	0.026780
30	P3	-8.203515	0.007235	0.026780

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	-3.735743	0.011299	-0.033502
7	P1	-2.743543	0.007624	-0.011743
11	P1	-2.884510	0.013543	-0.070858
15	P1	-3.498136	0.020912	-0.099540
19	P1	-3.380130	0.011834	-0.003002
22	P1	-5.143206	0.022017	-0.063631
26	P1	-5.845568	0.018082	0.046696
30	P1	-5.230241	0.027327	0.048252
3	P1	-11.544356	0.041855	-0.033164
7	P1	-9.924178	0.048131	-0.048905
11	P1	-10.134234	0.056523	-0.174929
15	P1	-10.673797	0.100147	-0.165705
19	P1	-15.452542	0.063007	0.061788
22	P1	-20.435045	1.230593	0.450436

26	P1	-16.618288	0.358106	0.480230
30	P1	-18.221312	0.327308	-0.208970

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.316660	0.038924	0.251510
7	P2	-22.756786	0.071435	0.253911
11	P2	-11.366254	0.026407	0.162812
15	P2	-4.883860	0.027929	0.086819
19	P2	-6.893455	0.025039	0.060225
22	P2	-8.181338	0.025880	0.038021
26	P2	-23.954735	0.025781	0.027898
30	P2	-22.087147	0.018708	0.016446

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.038223	0.002628	0.033004
7	P3	-8.038135	0.002635	0.032703
11	P3	-8.038103	0.002633	0.032695
15	P3	-8.038162	0.002638	0.032320
19	P3	-8.038332	0.002638	0.032636
22	P3	-8.038260	0.002638	0.032943
26	P3	-8.038354	0.002635	0.032532
30	P3	-8.038194	0.002650	0.032925

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	0.000564072
	stdev	1.65716e-07
MEAN Q	mean	0.000523790
	stdev	2.10539e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139939
	stdev	0.00115842
STDEV Q	mean	0.140302
	stdev	0.00117809



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006021[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_1PNPDE20060214_061558_000002202045_00106_20701_3109.N1	1	0
ASA_WSM_1PNPDE20060212_171026_000001282045_00084_20679_4709.N1	0	8





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)


Acsending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Acsending

Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)

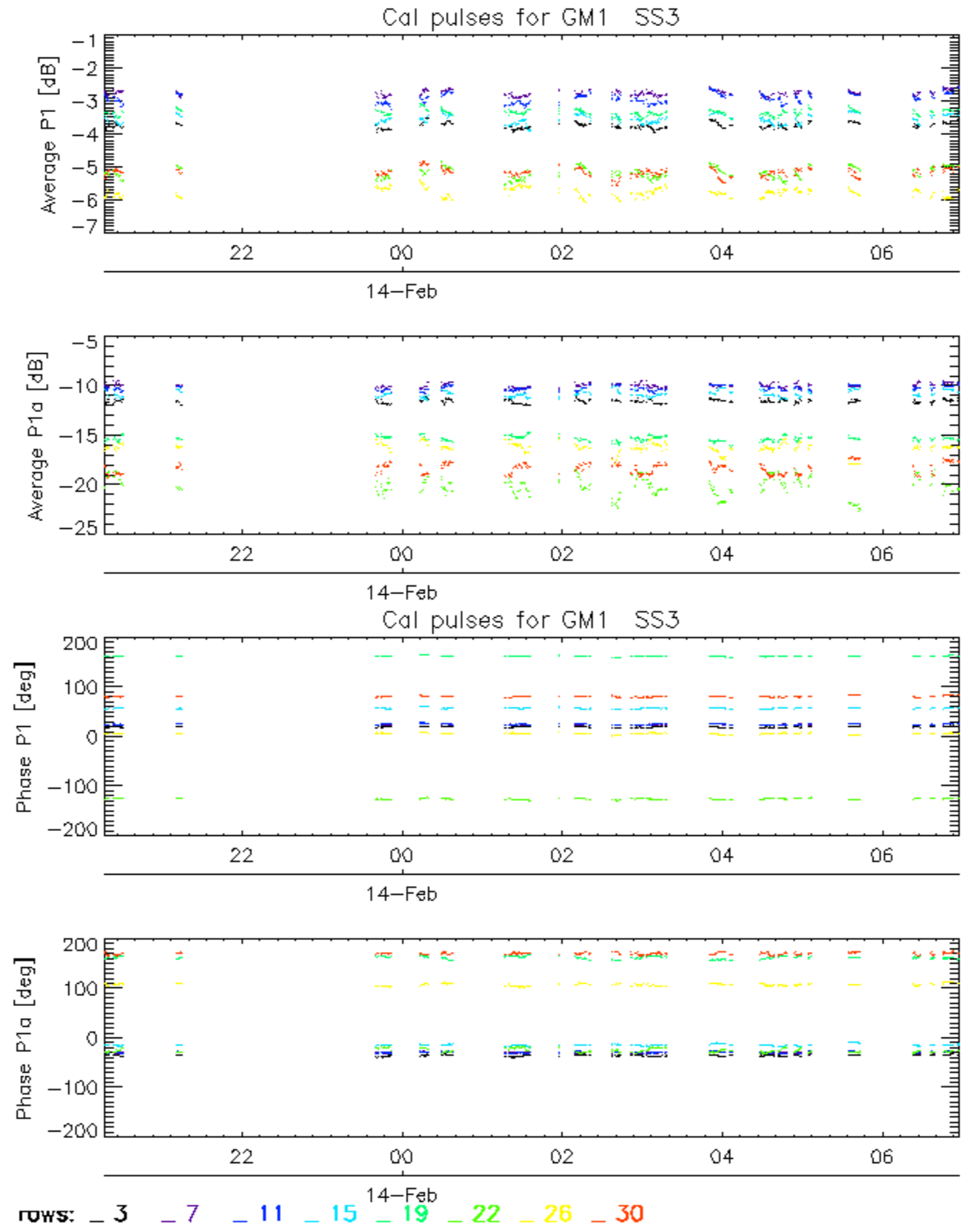
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.5 - Absolute Doppler for GM1

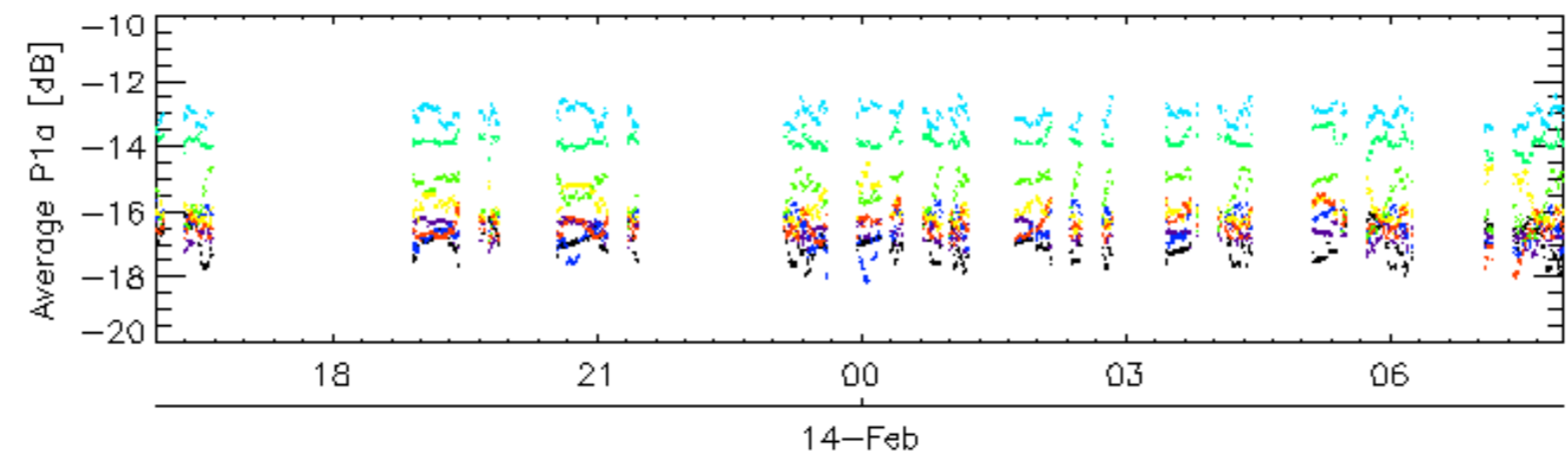
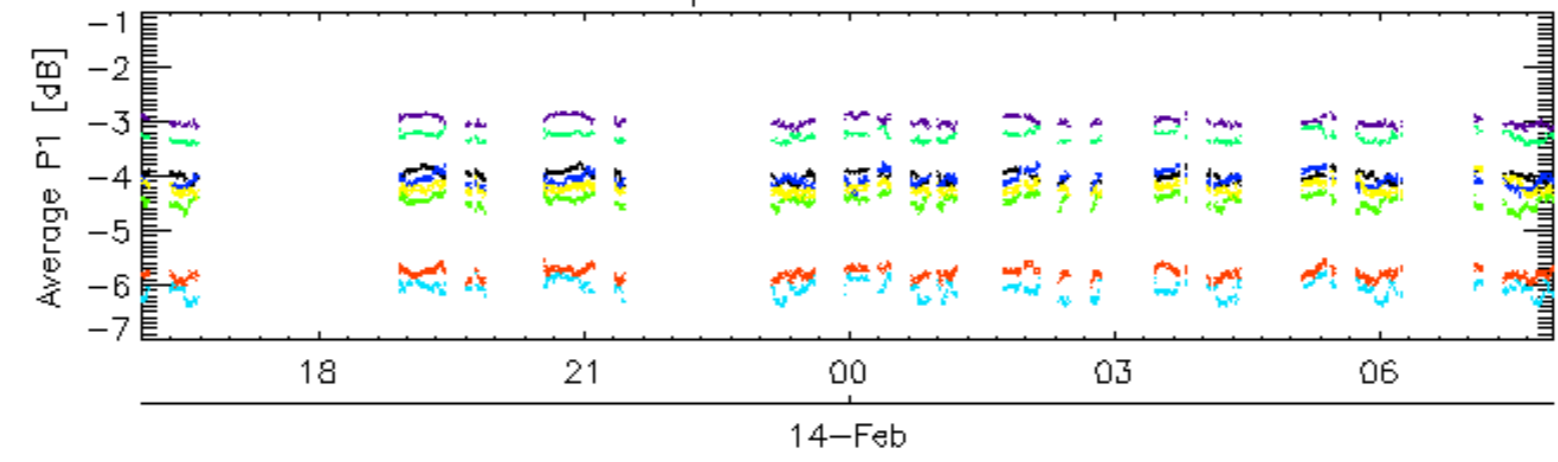
Evolution of Absolute Doppler
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

7.6 - Doppler evolution versus ANX for GM1

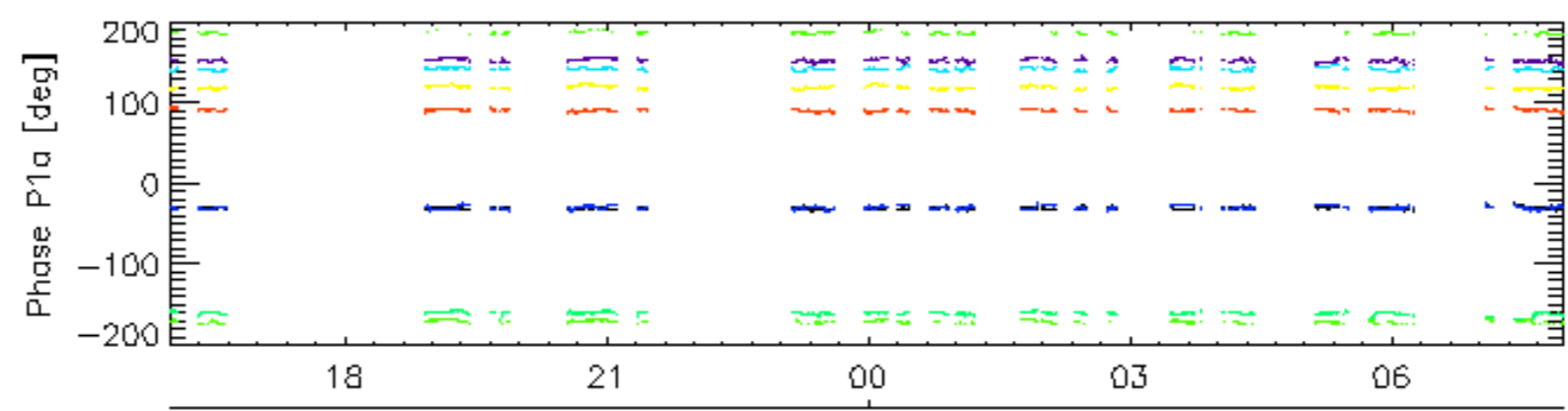
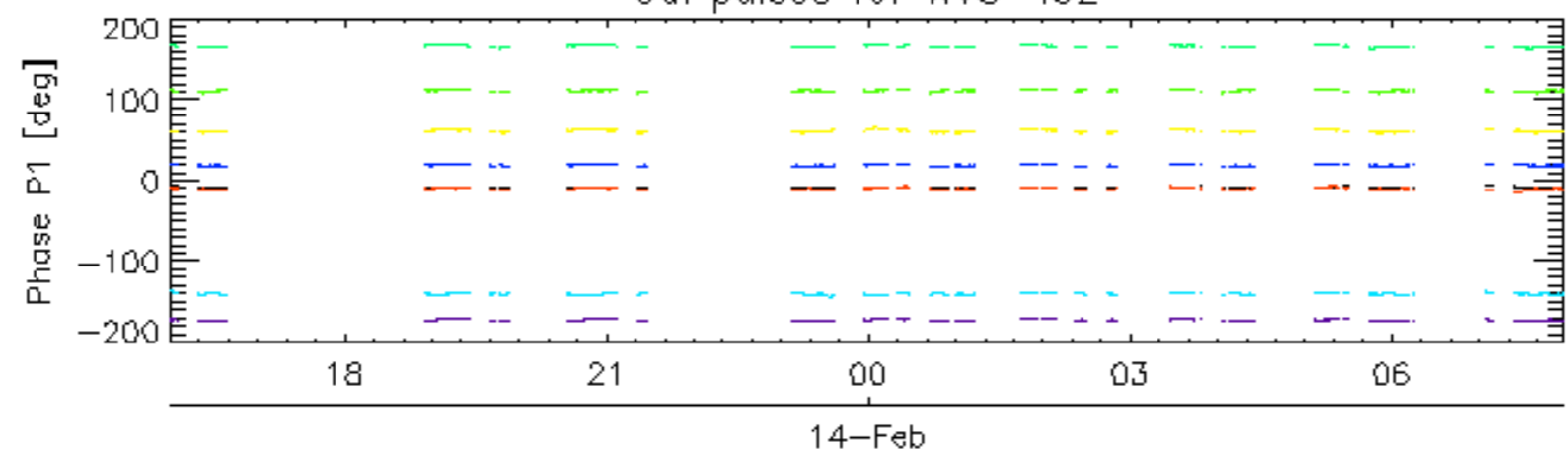
Evolution Doppler error versus ANX
<input type="checkbox"/>



Cal pulses for WVS IS2

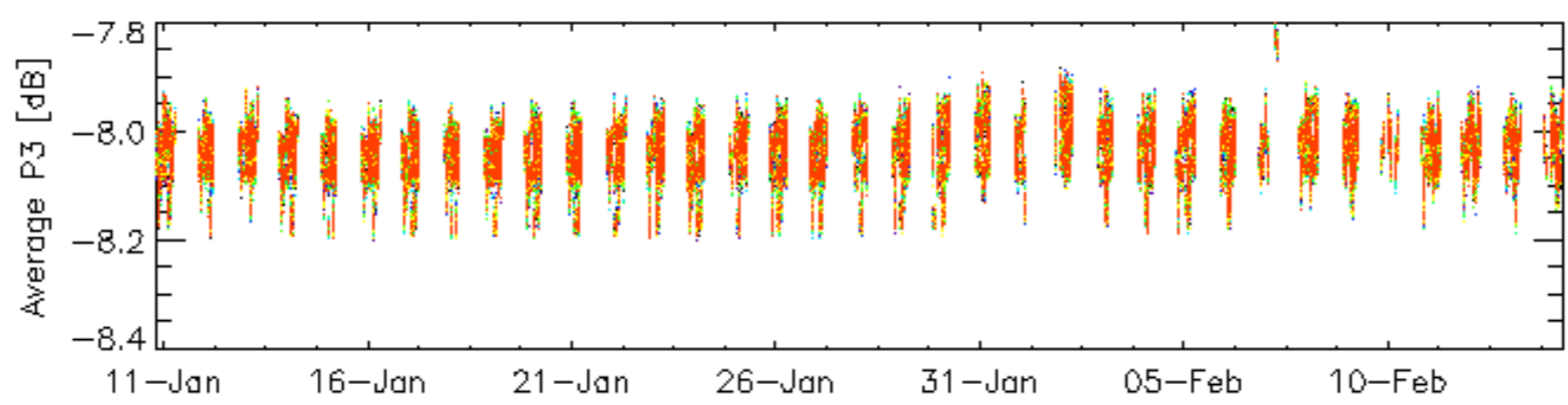
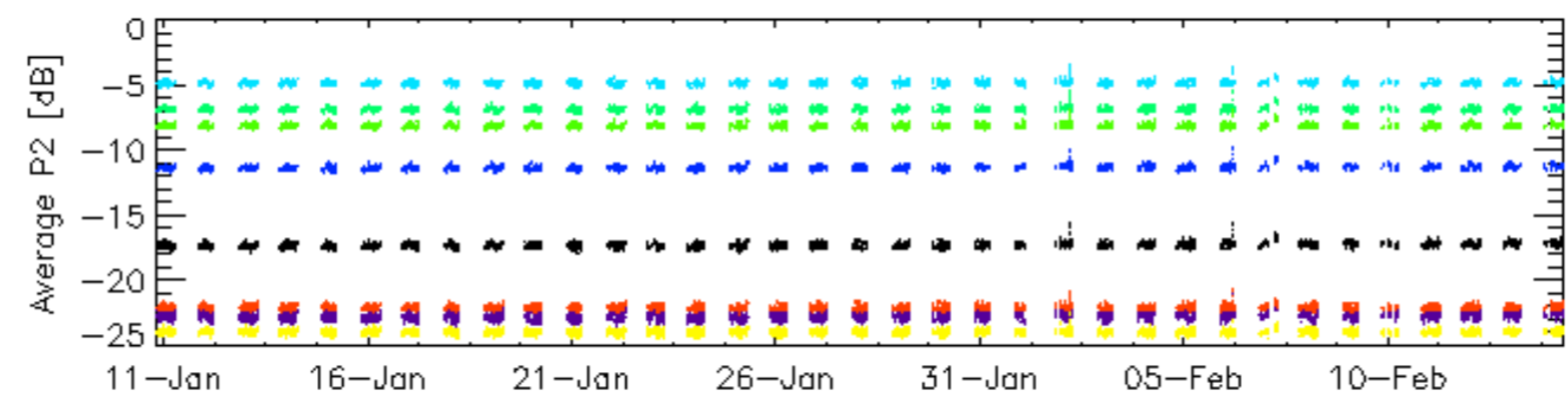
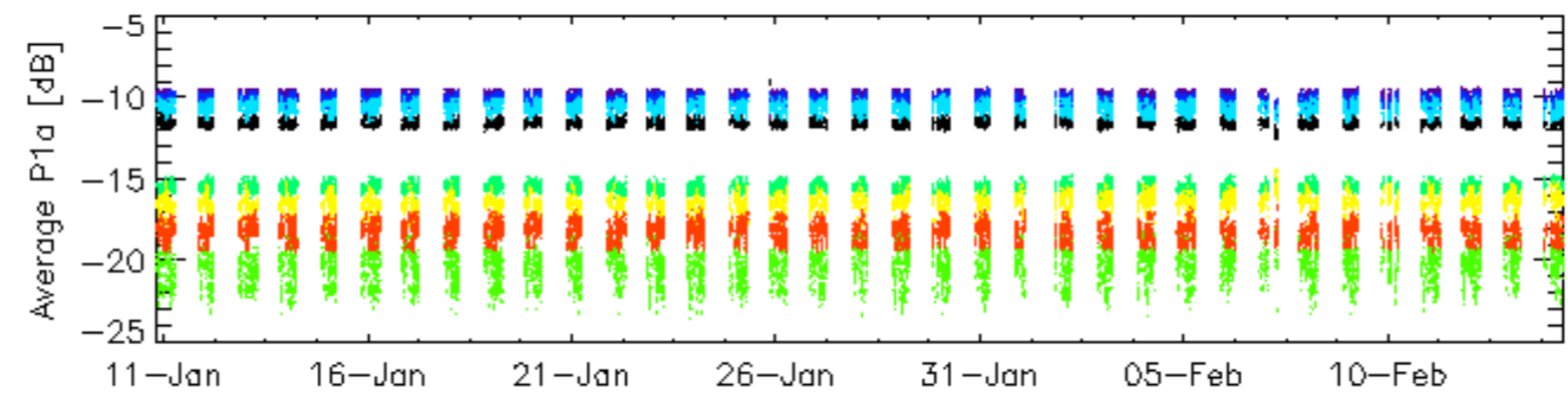
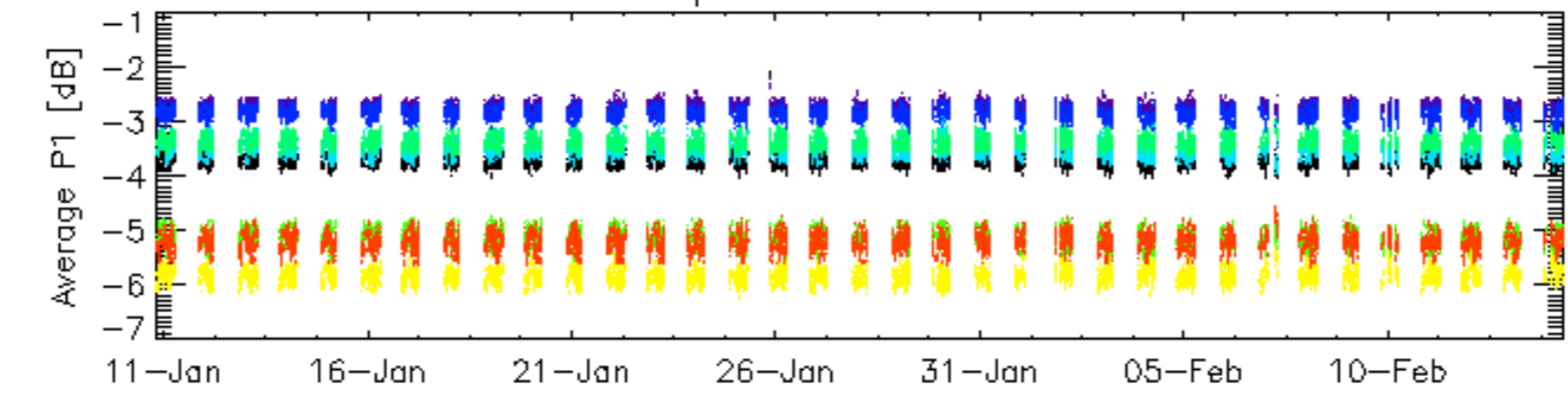


Cal pulses for WVS IS2



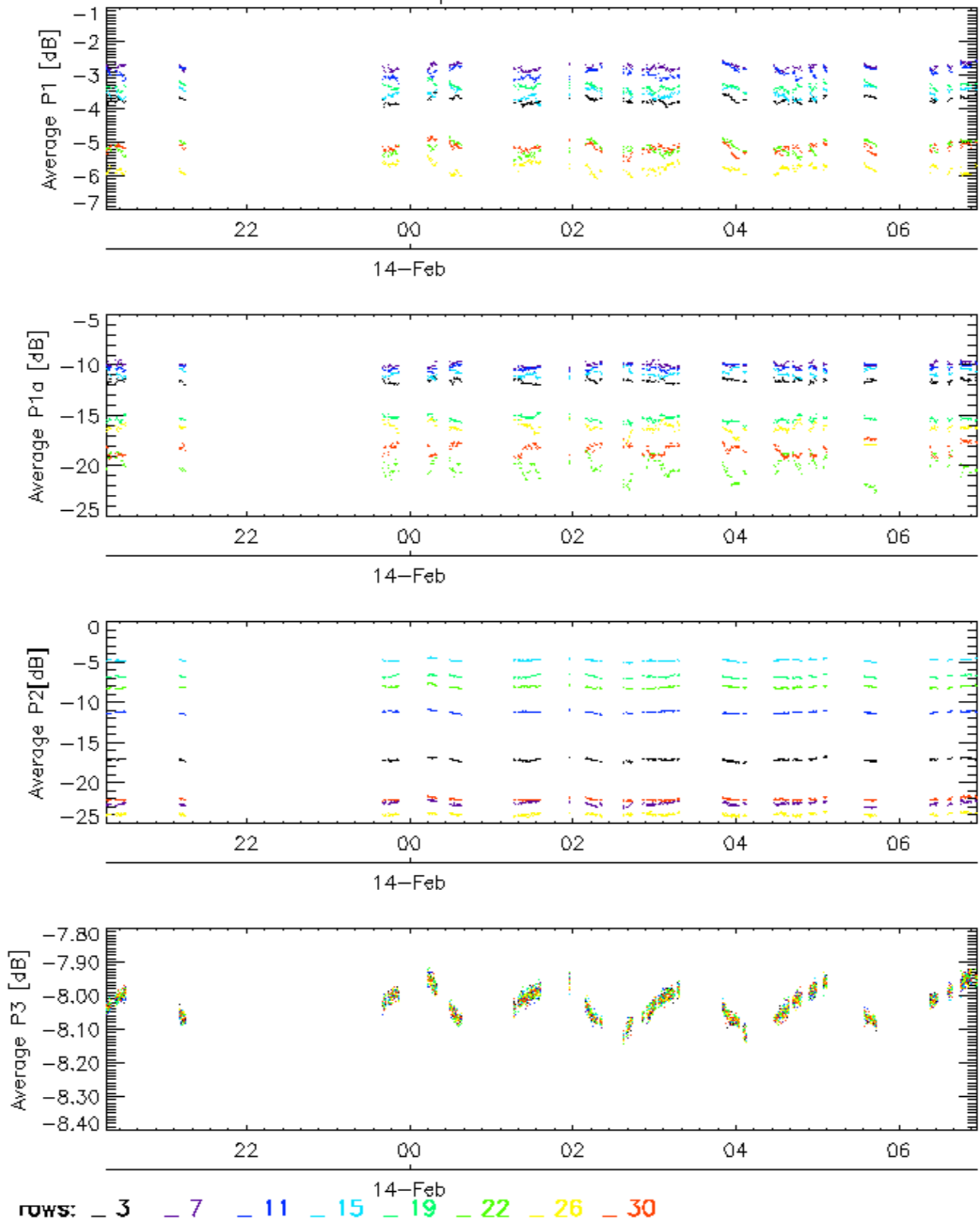
rows: **3** **7** **11** **15** **19** **22** **26** **30**

Cal pulses for GM1 SS3

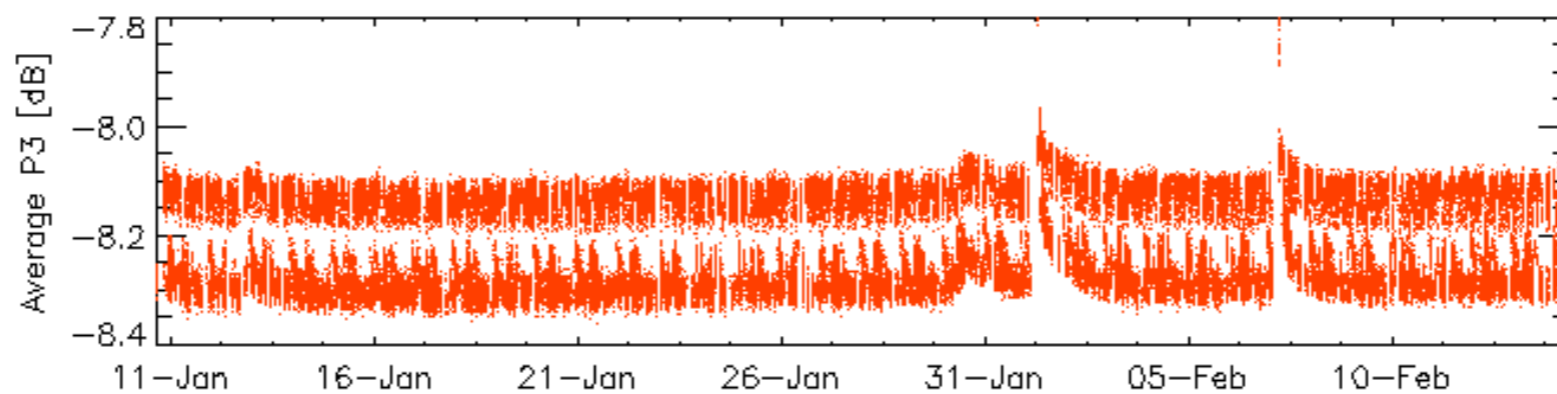
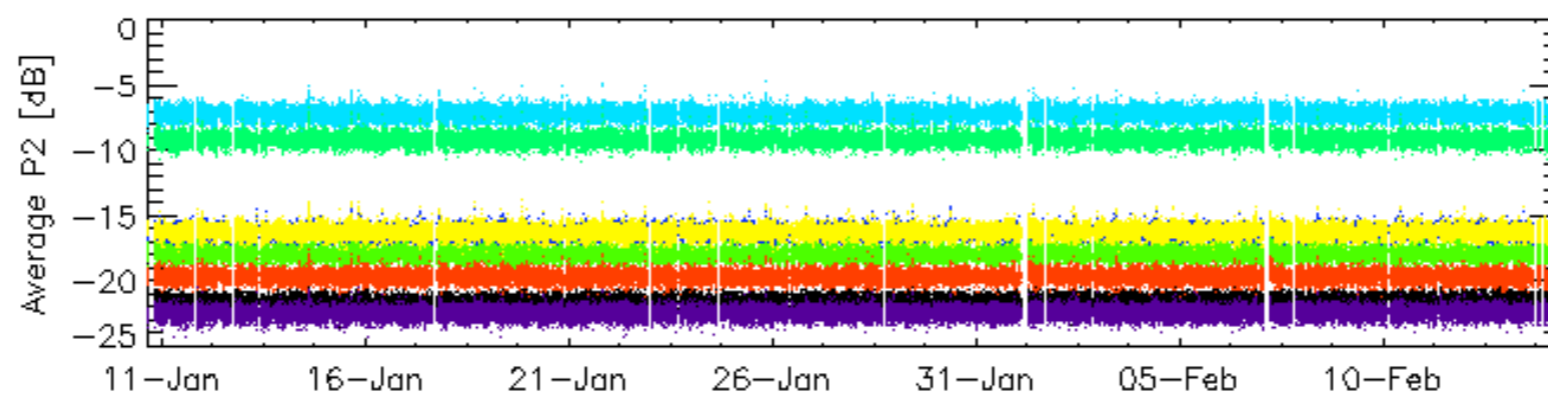
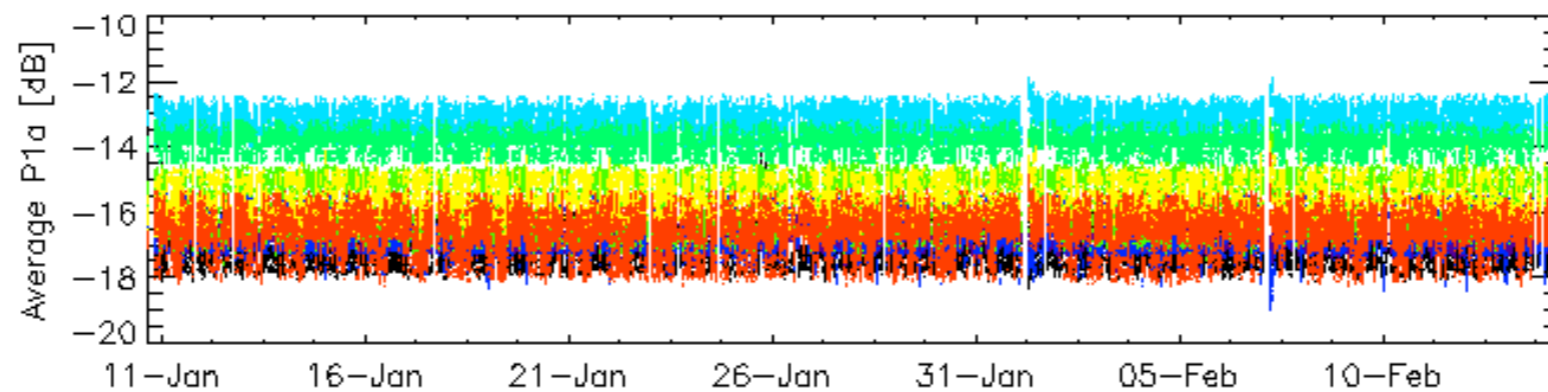
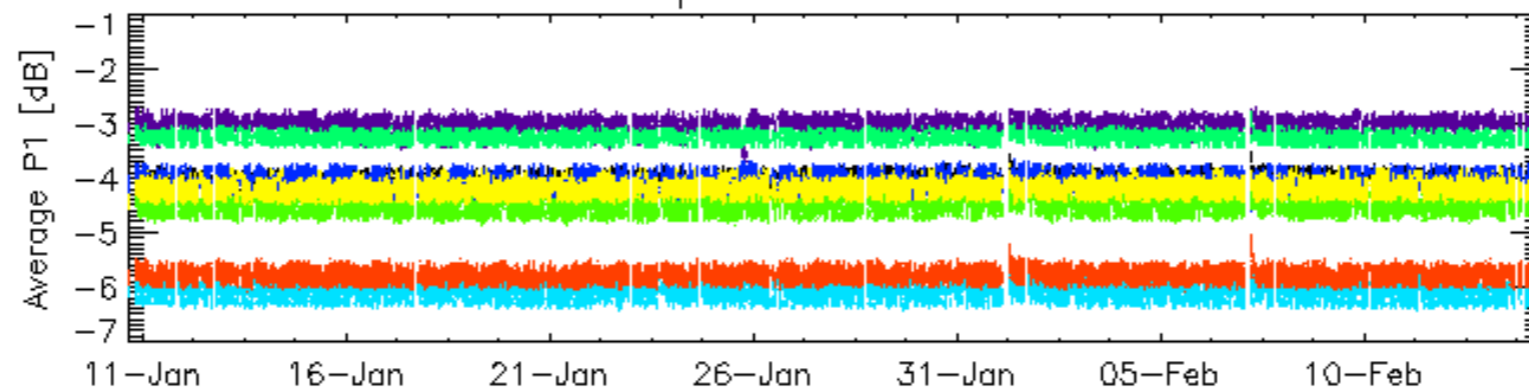


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

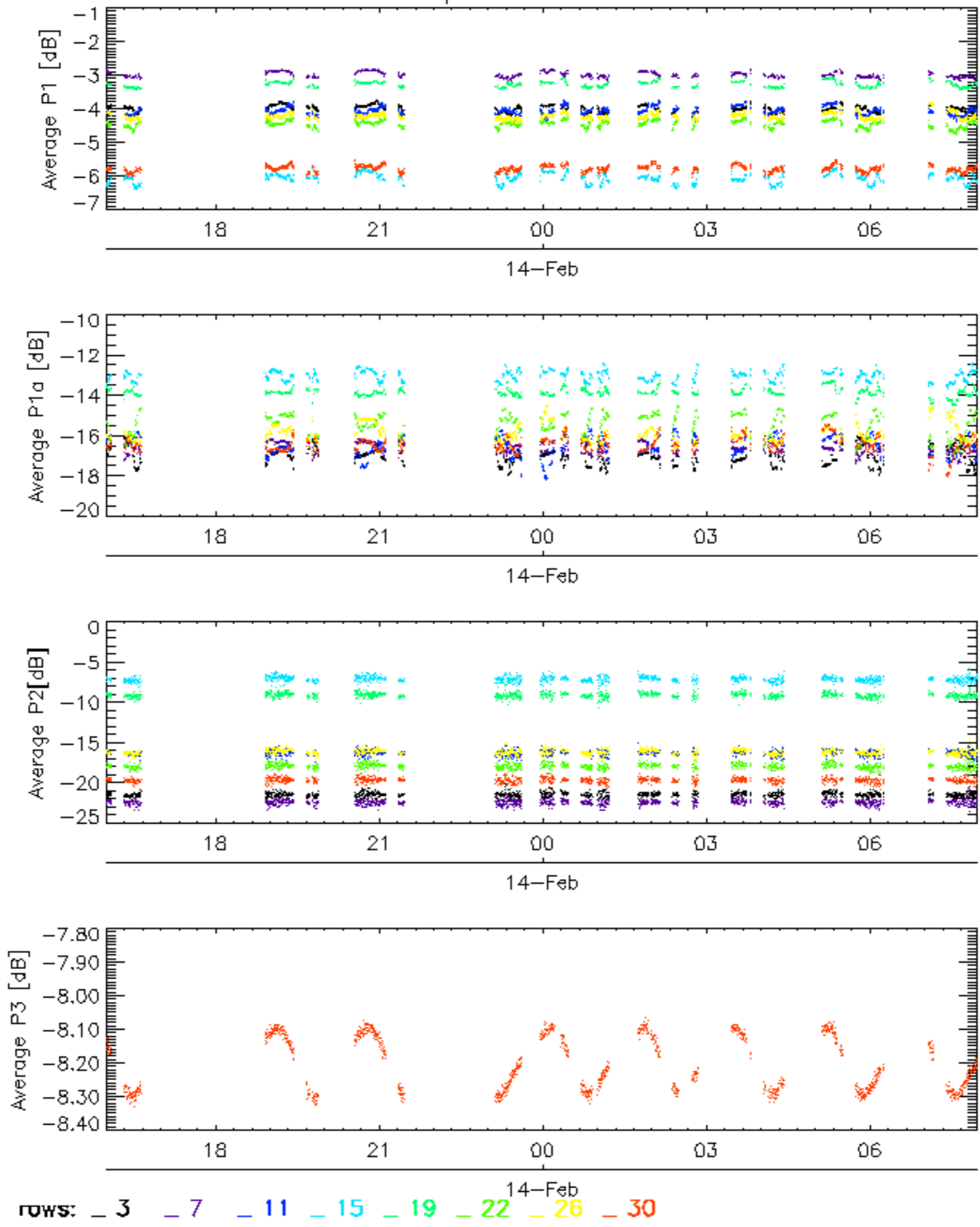


Cal pulses for WVS IS2



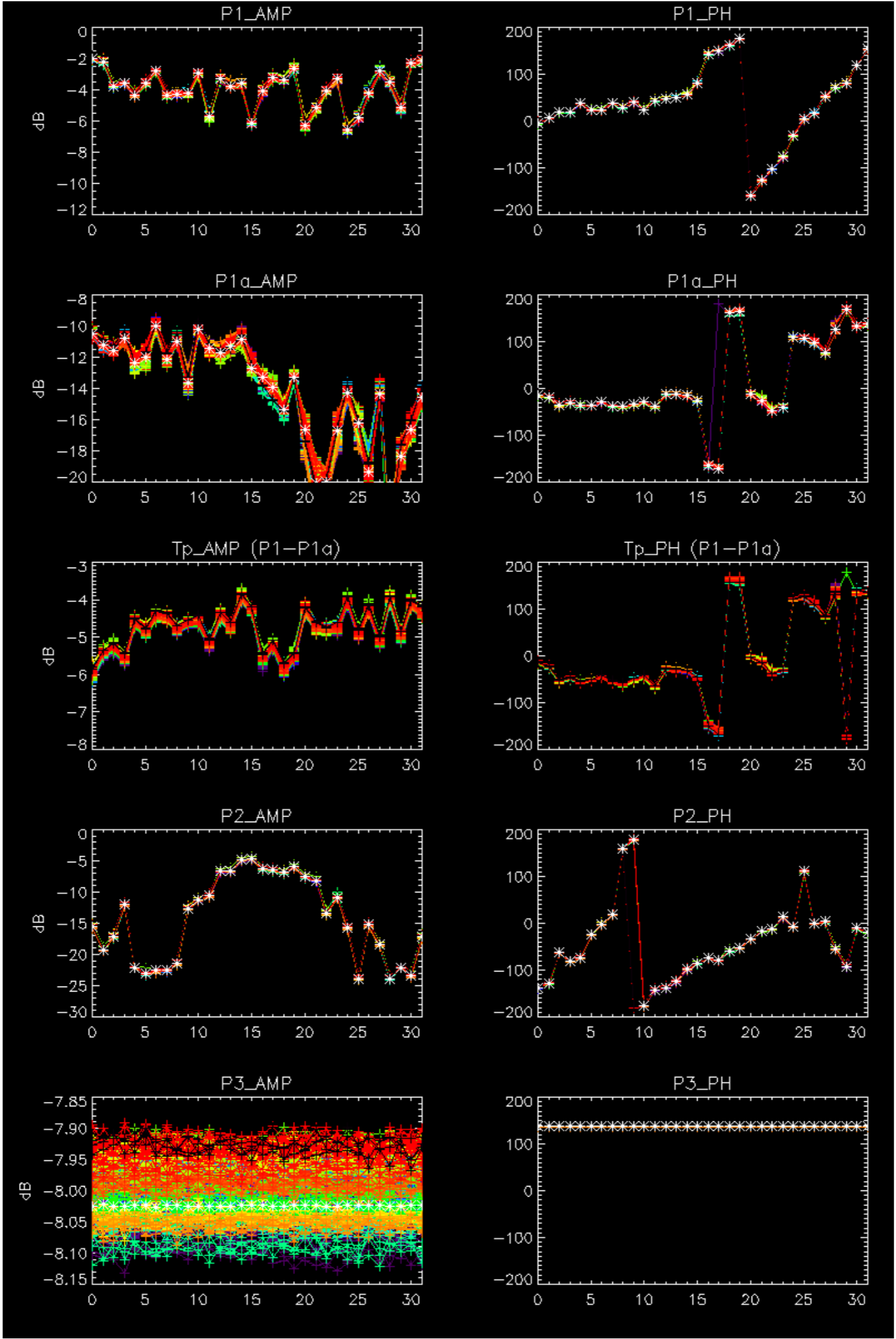
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

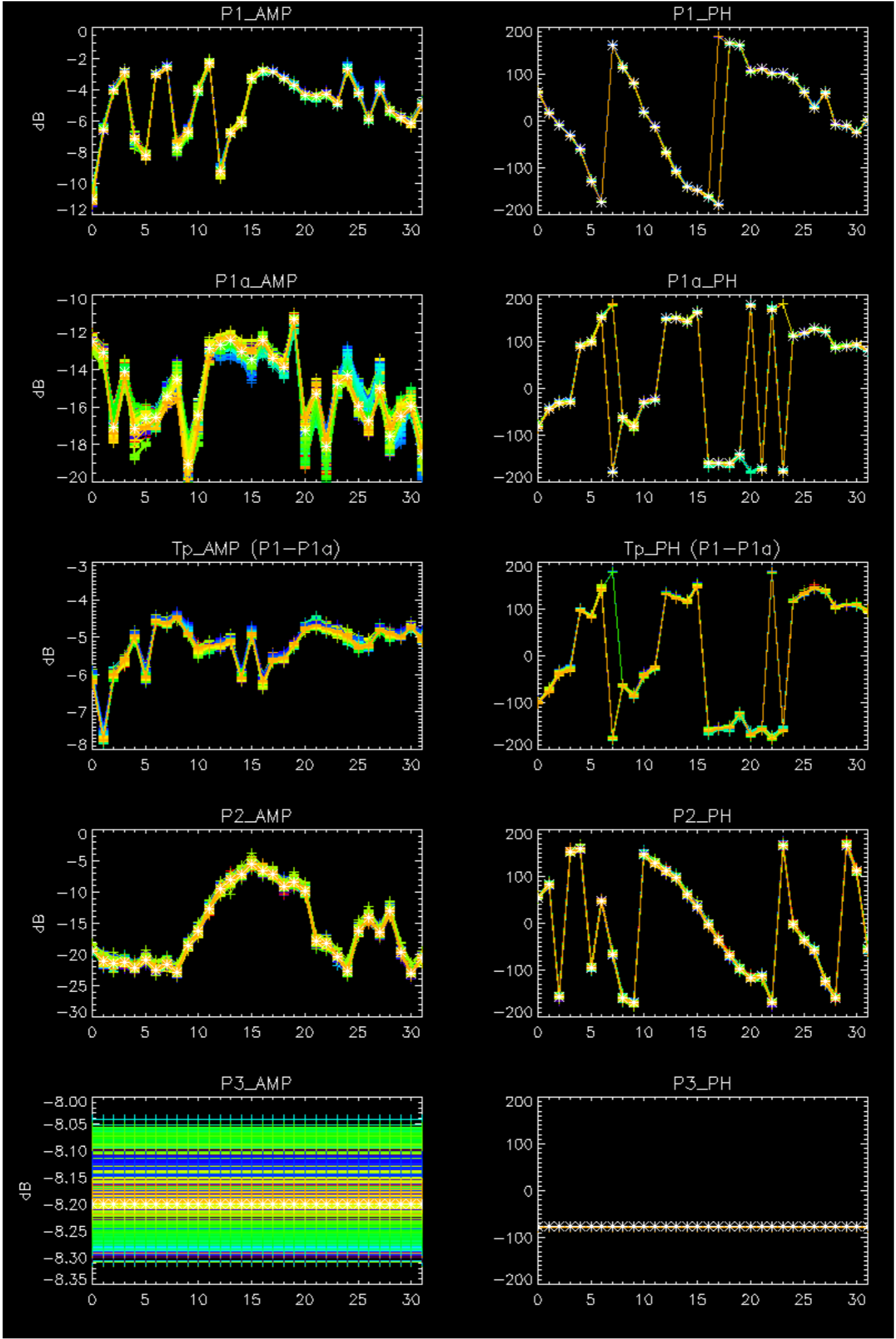
Cal pulses for WVS IS2



No anomalies observed on available browse products

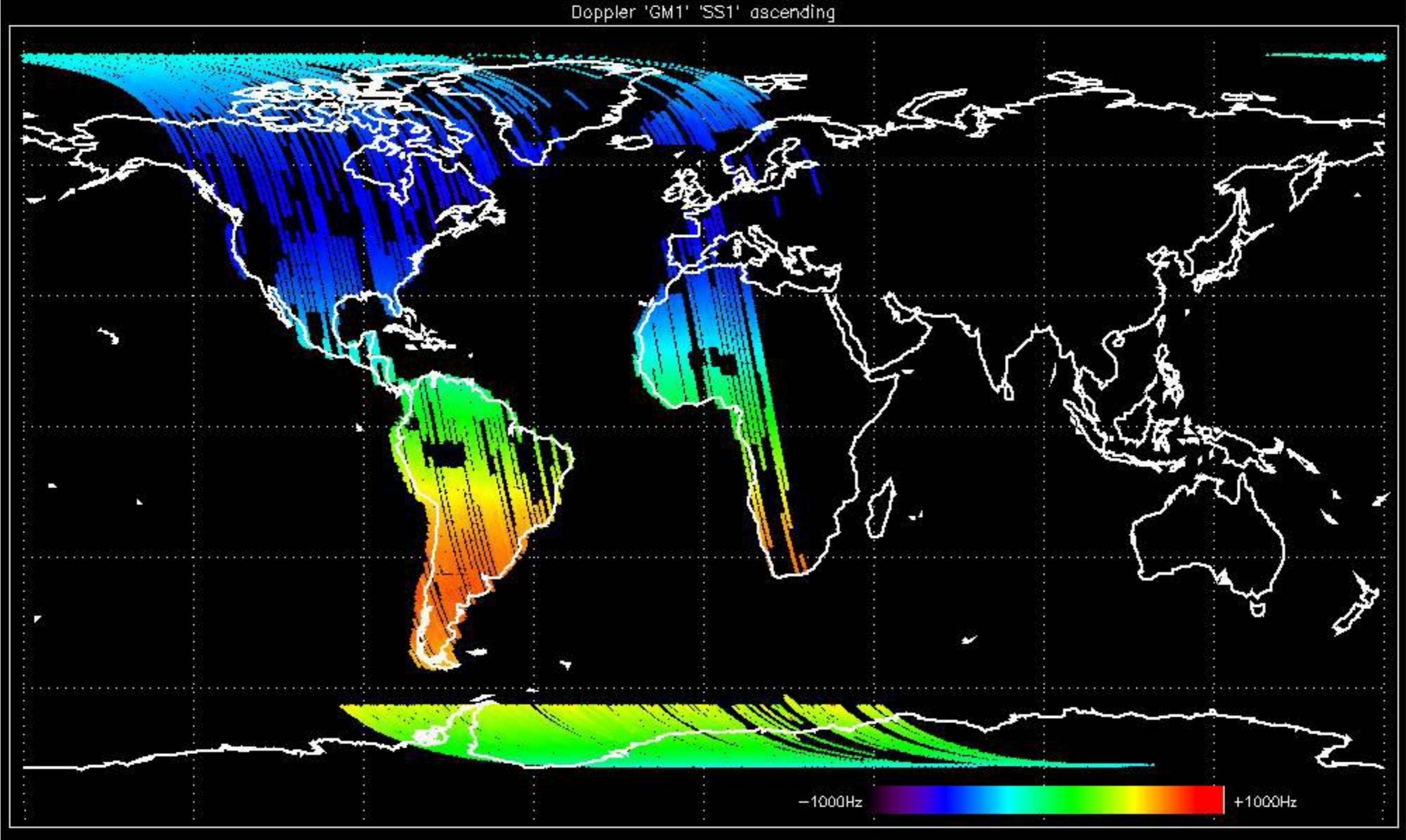
No anomalies observed.



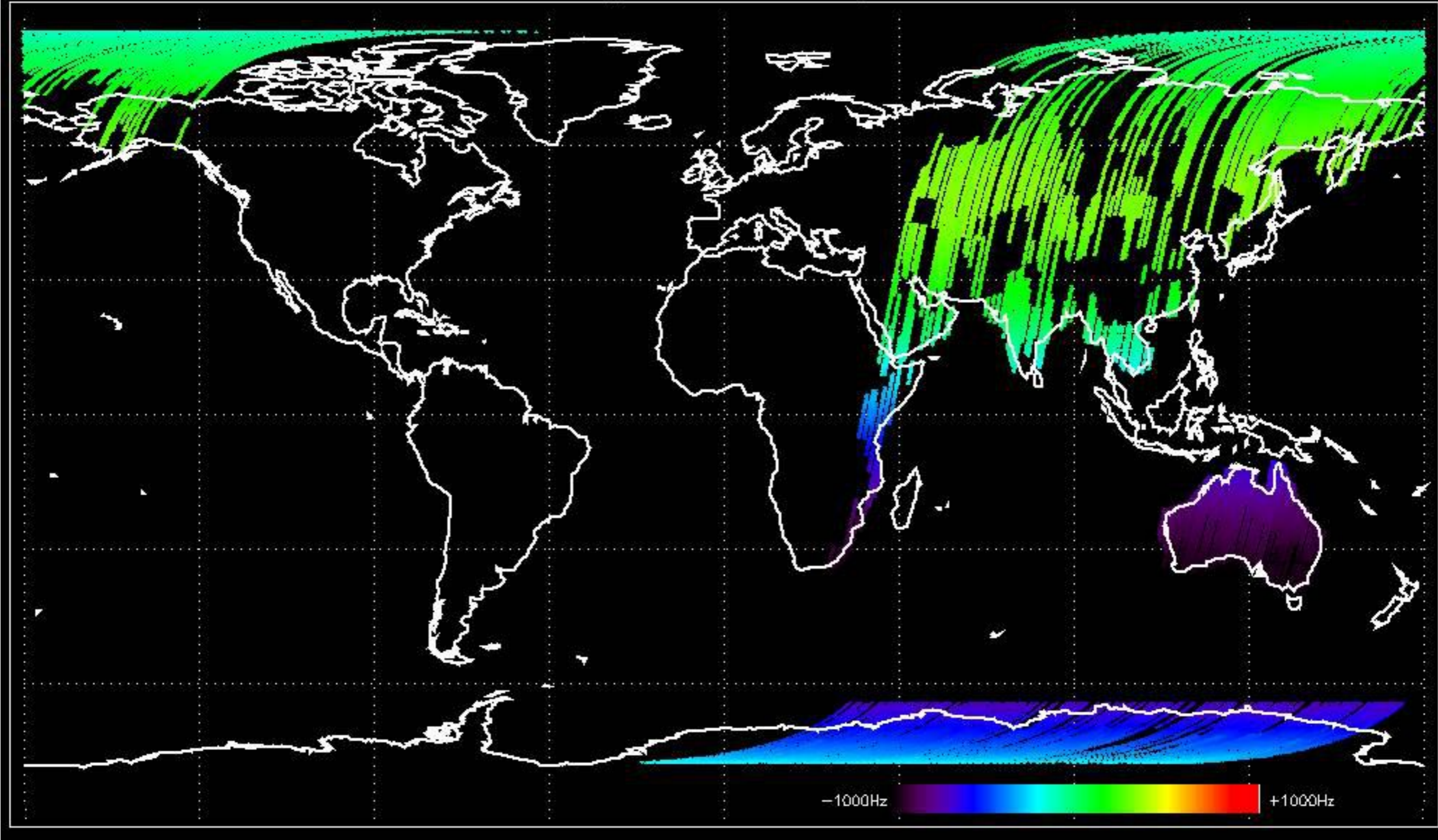


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

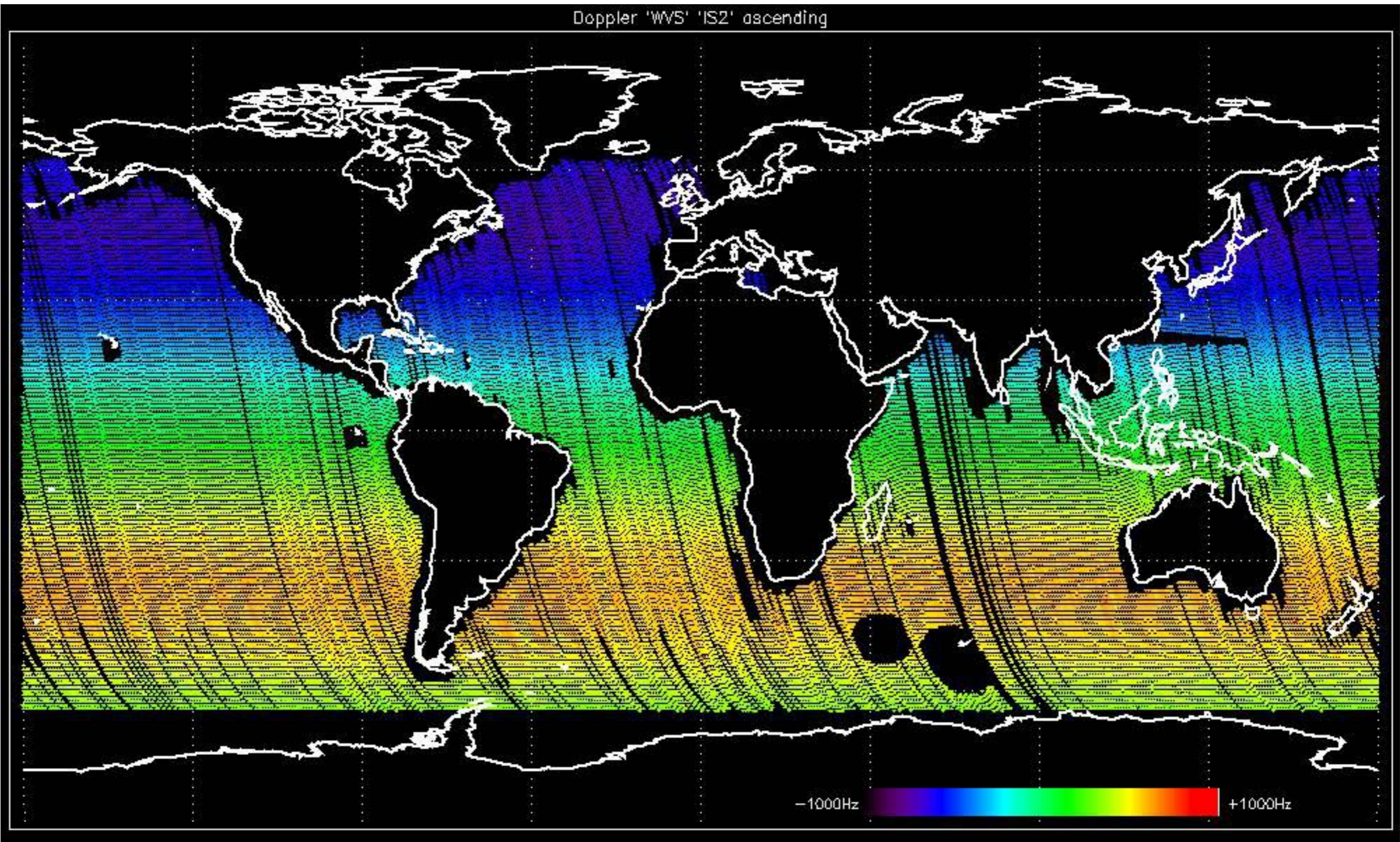
Doppler 'GM1' 'SS1' ascending



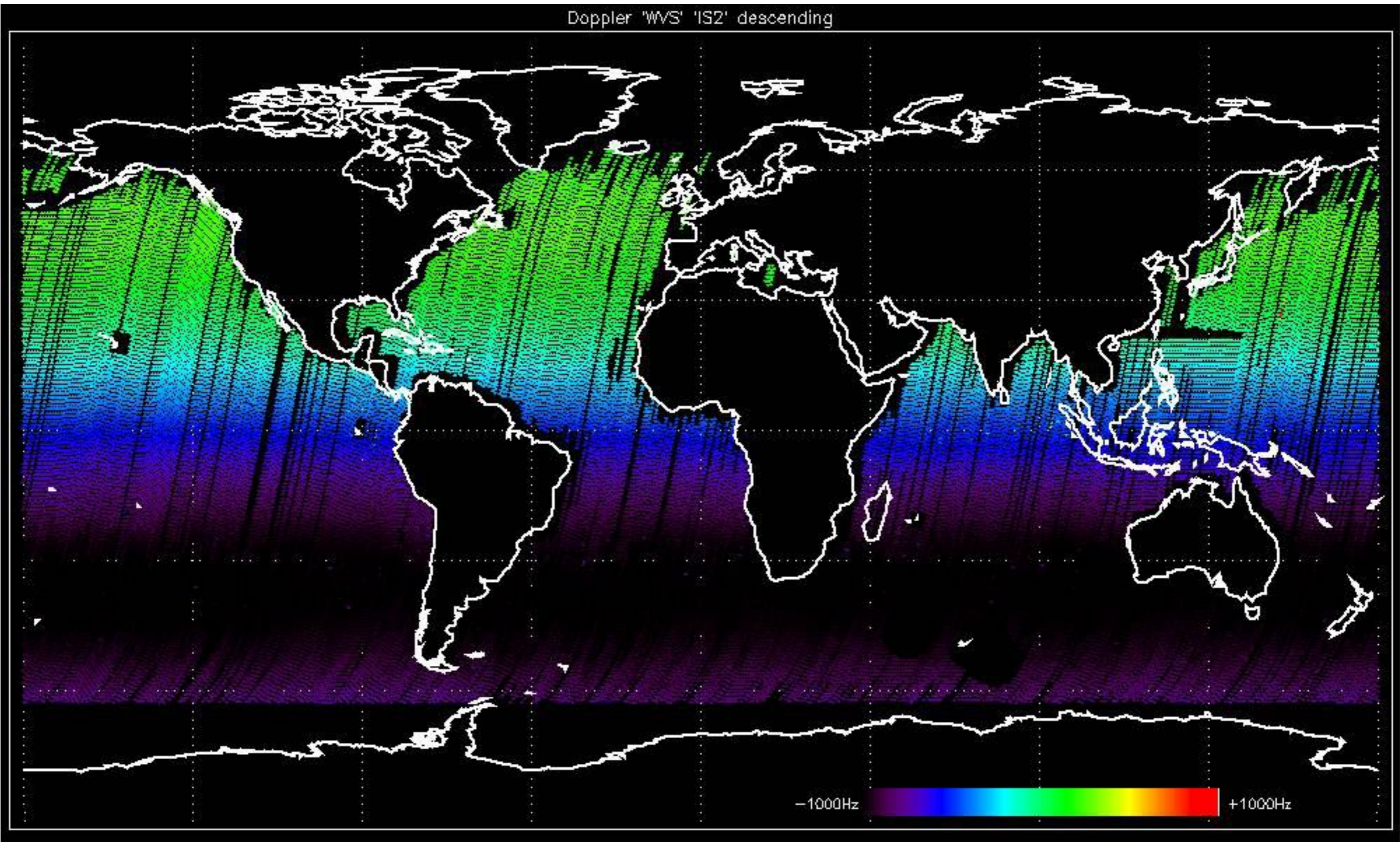
Doppler 'GM1' 'SS1' descending



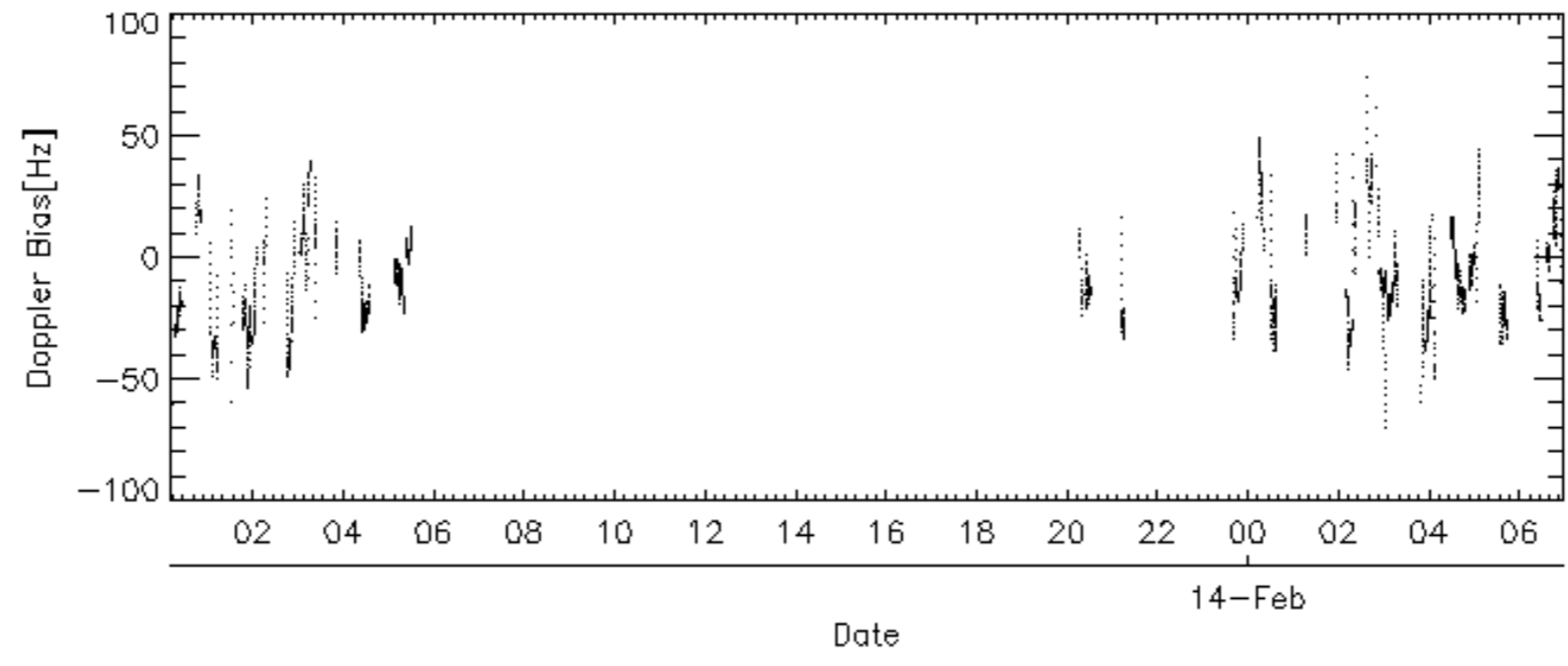
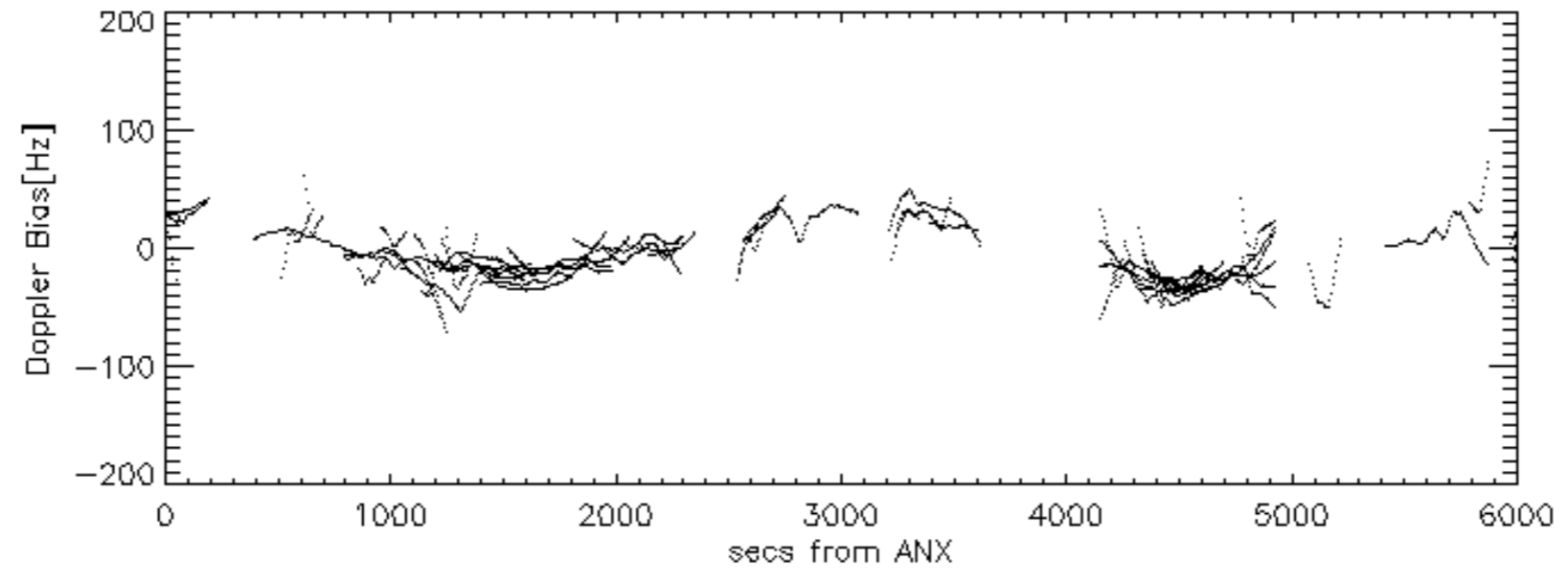
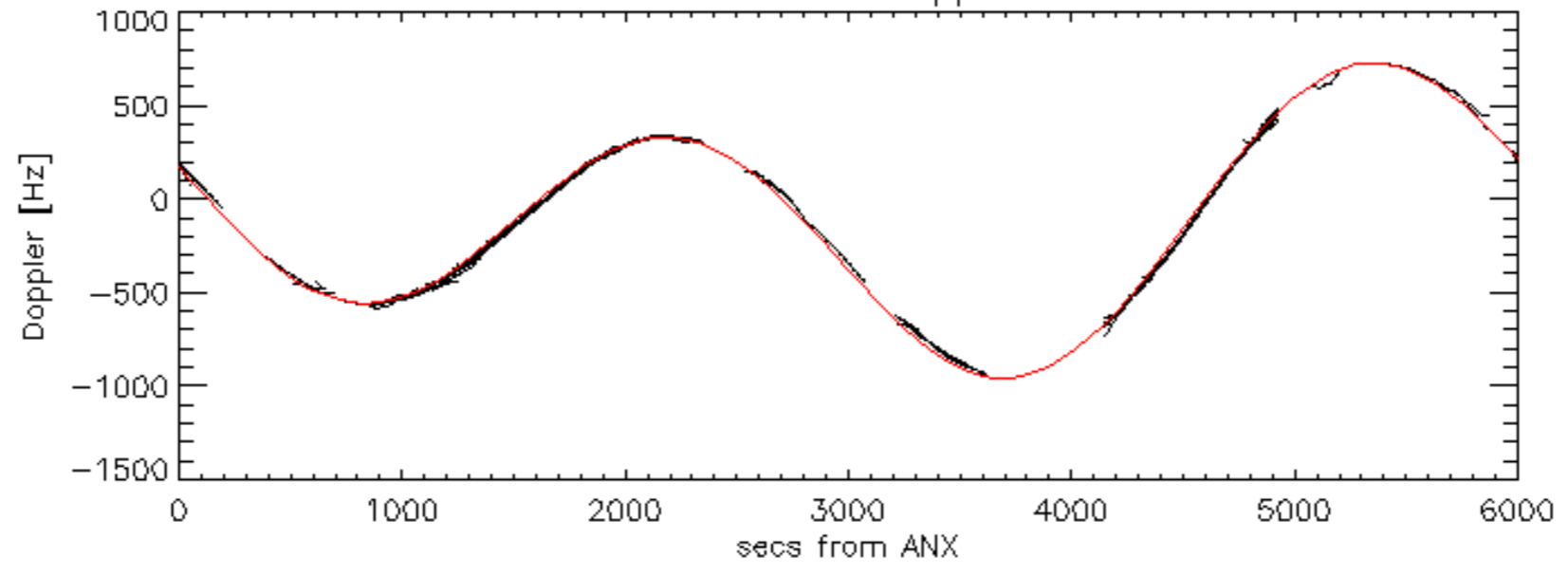
Doppler 'WVS' 'IS2' ascending

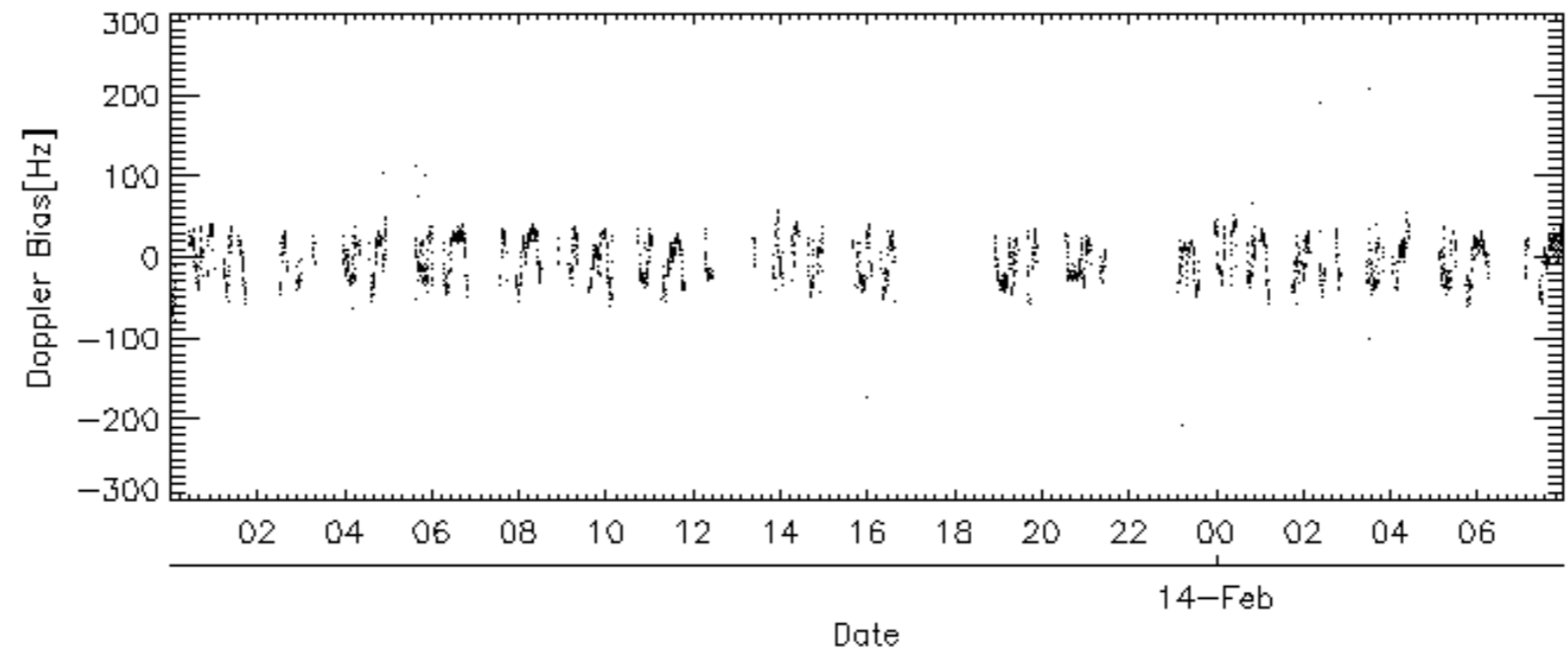
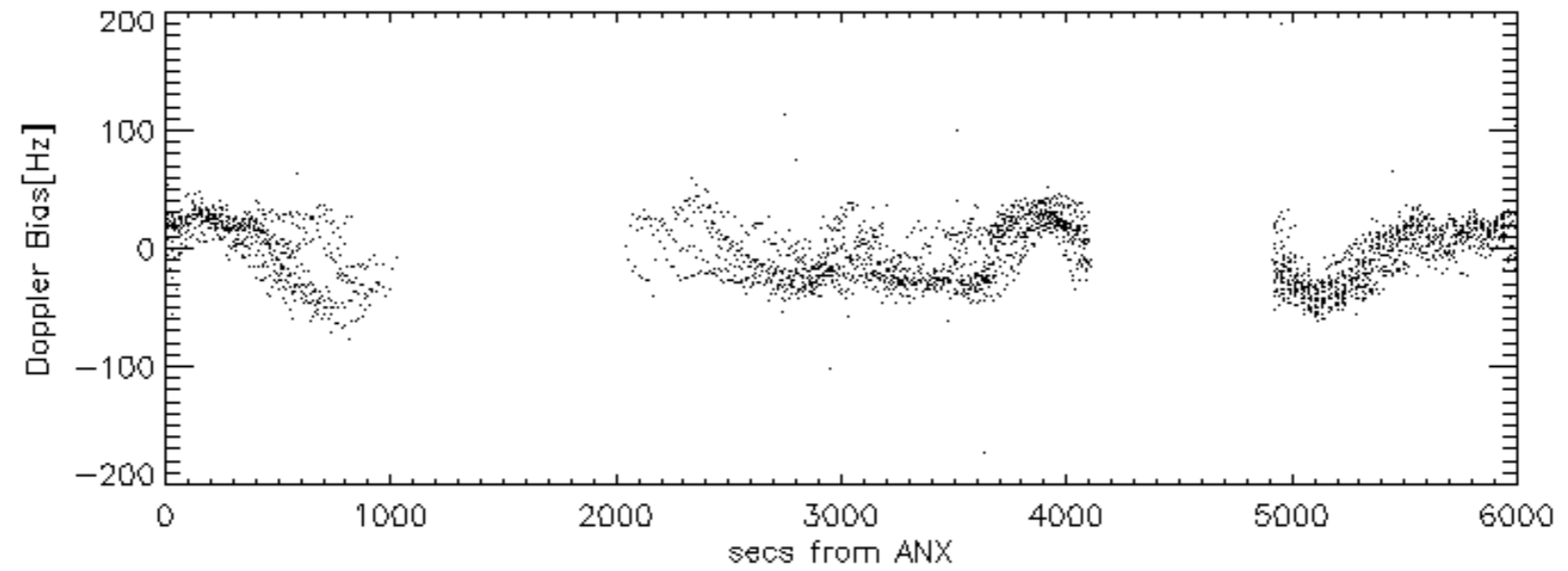
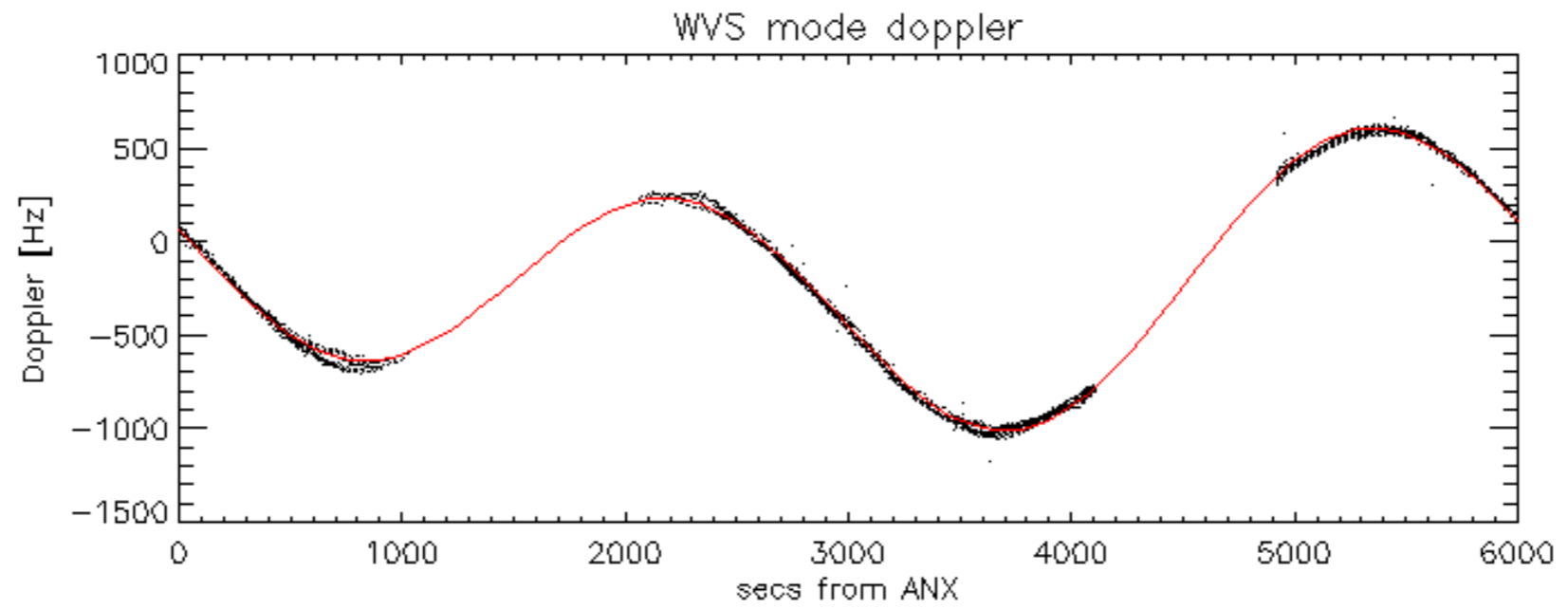


Doppler 'WVS' 'IS2' descending

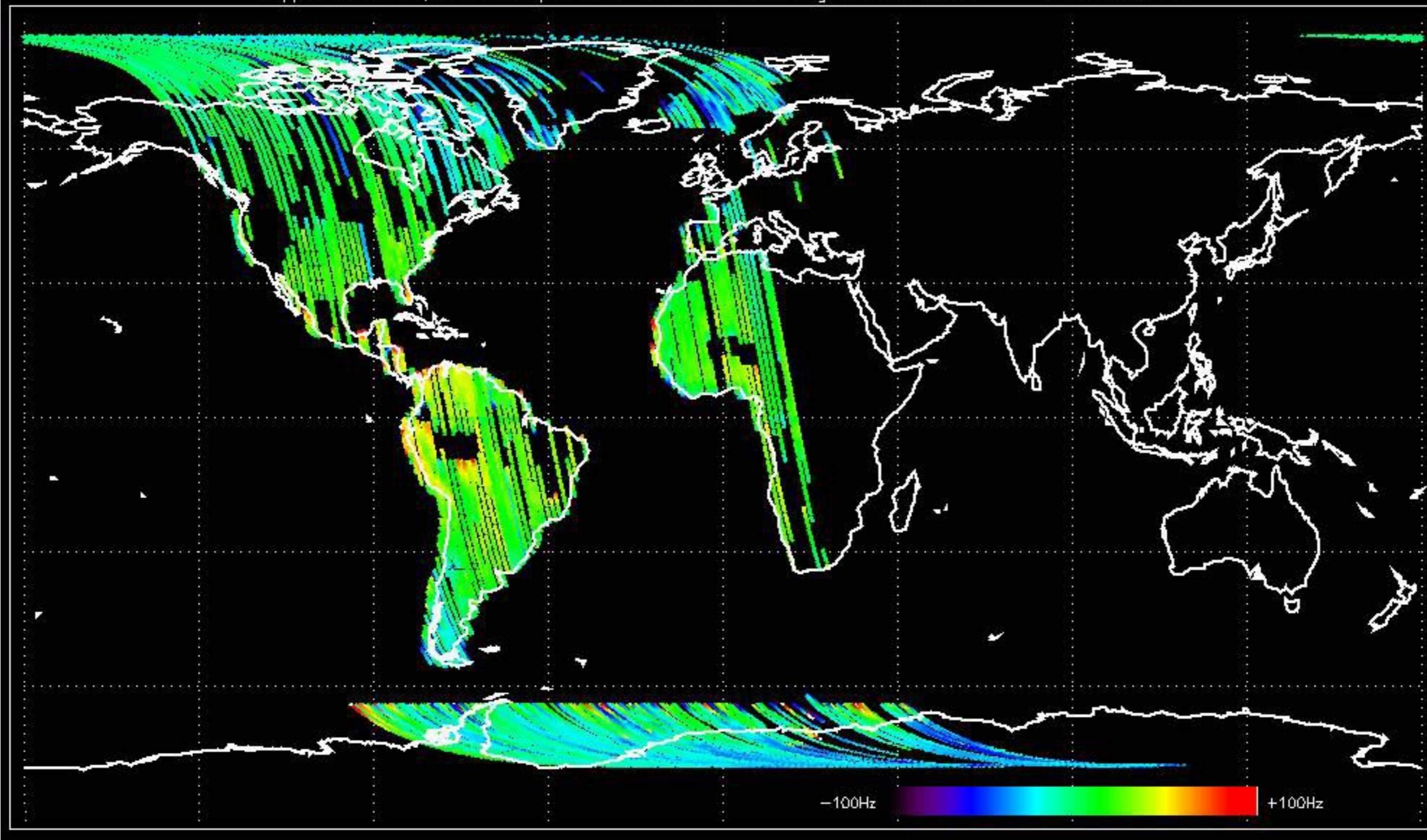


GM1 mode doppler

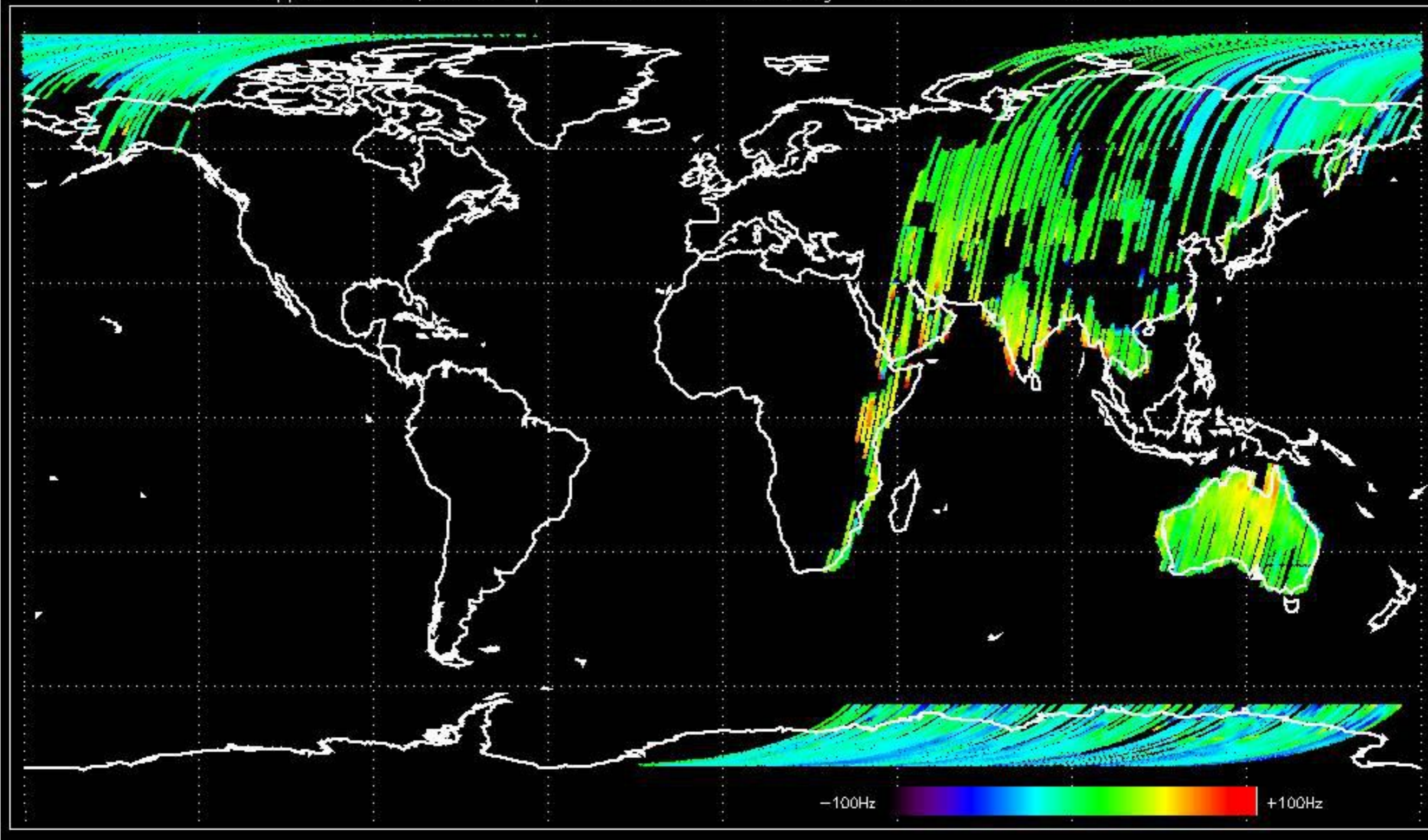




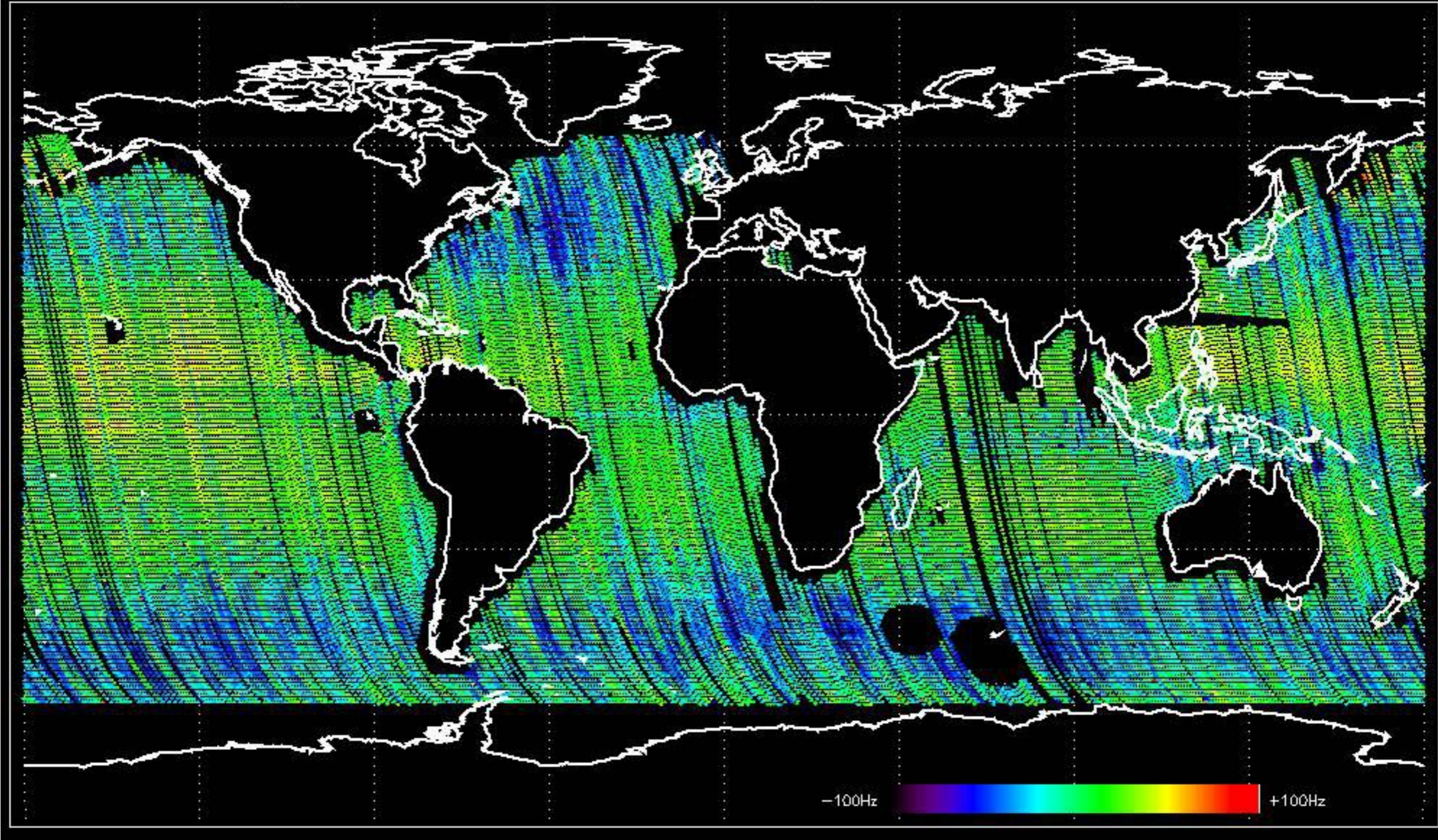
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -11.483296 Hz



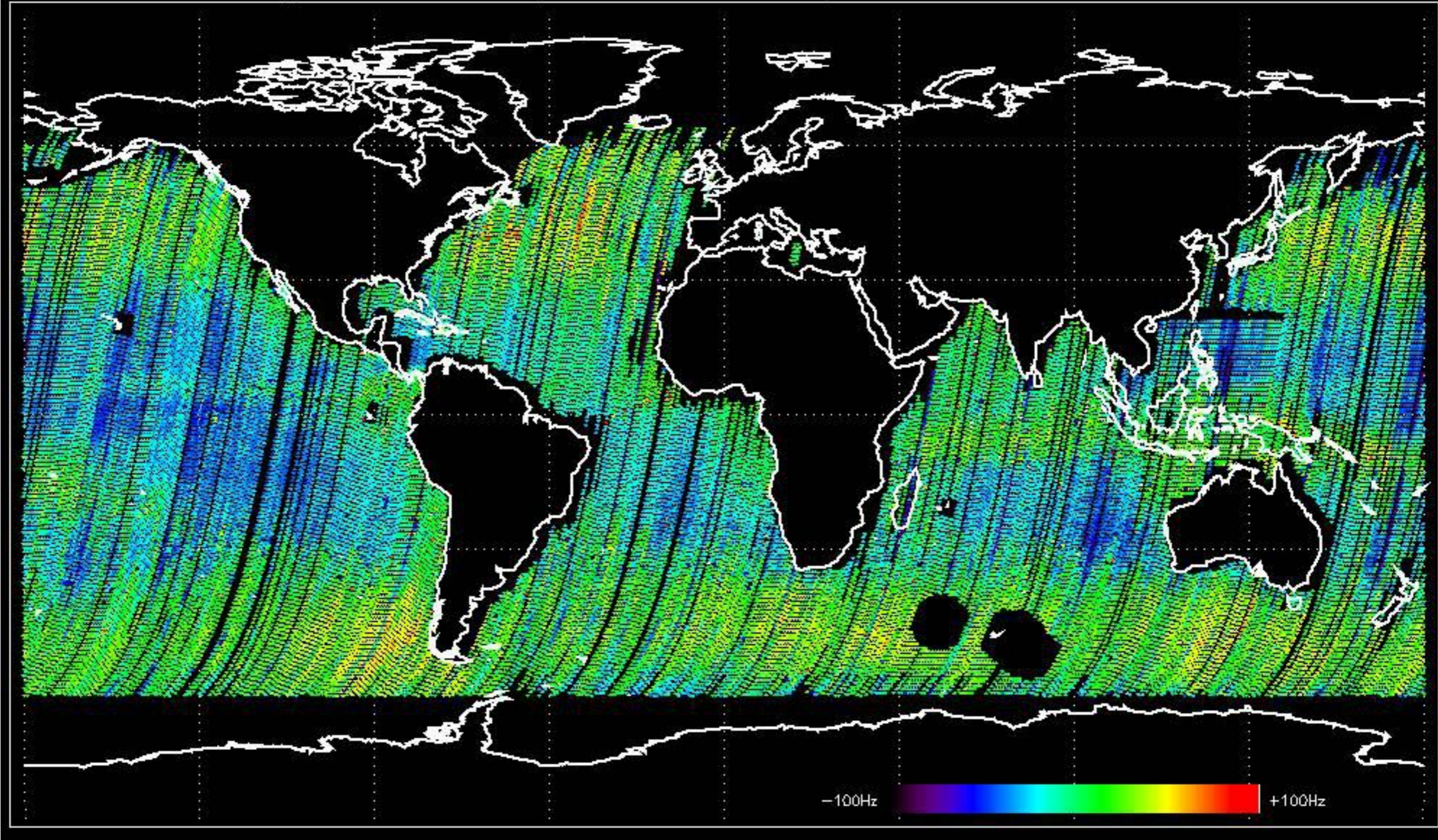
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.534417 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.3221868 Hz

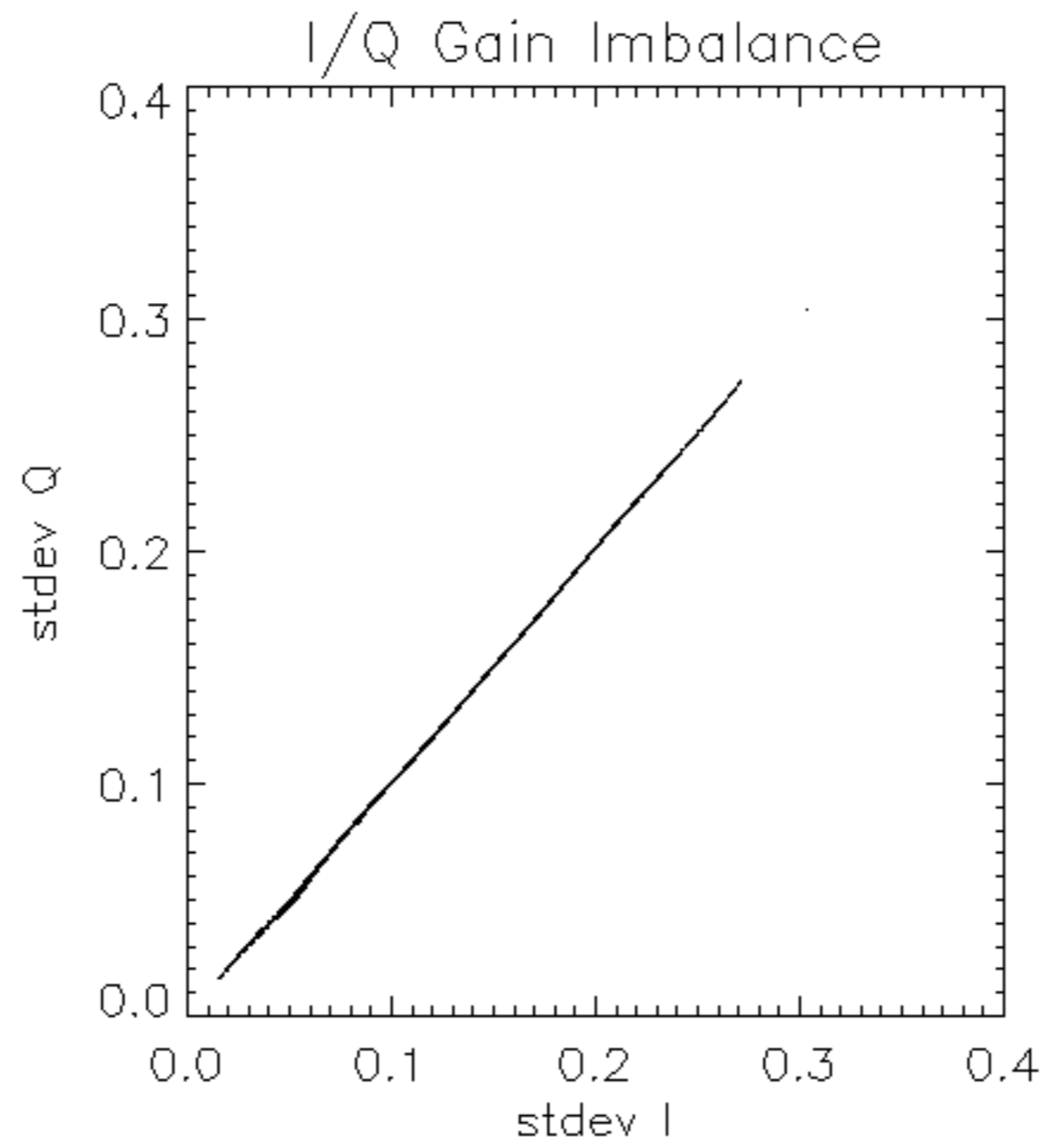


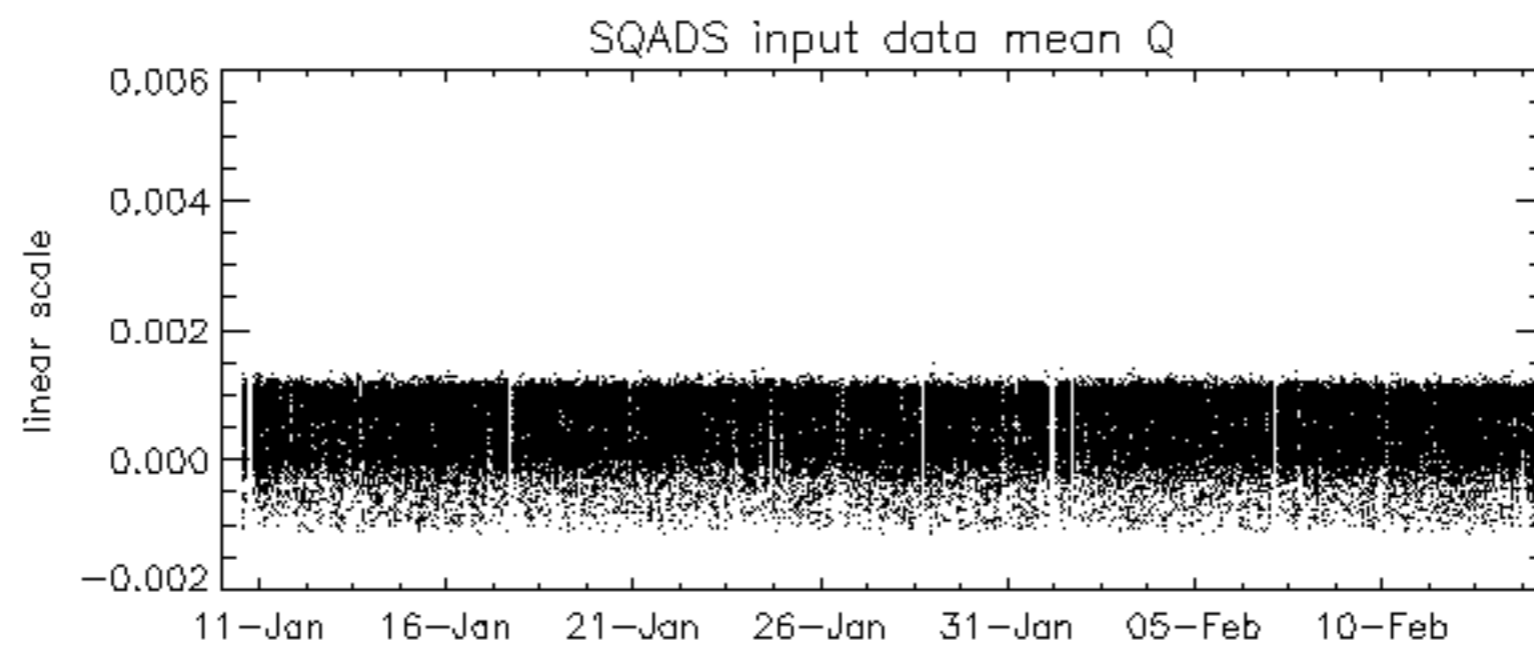
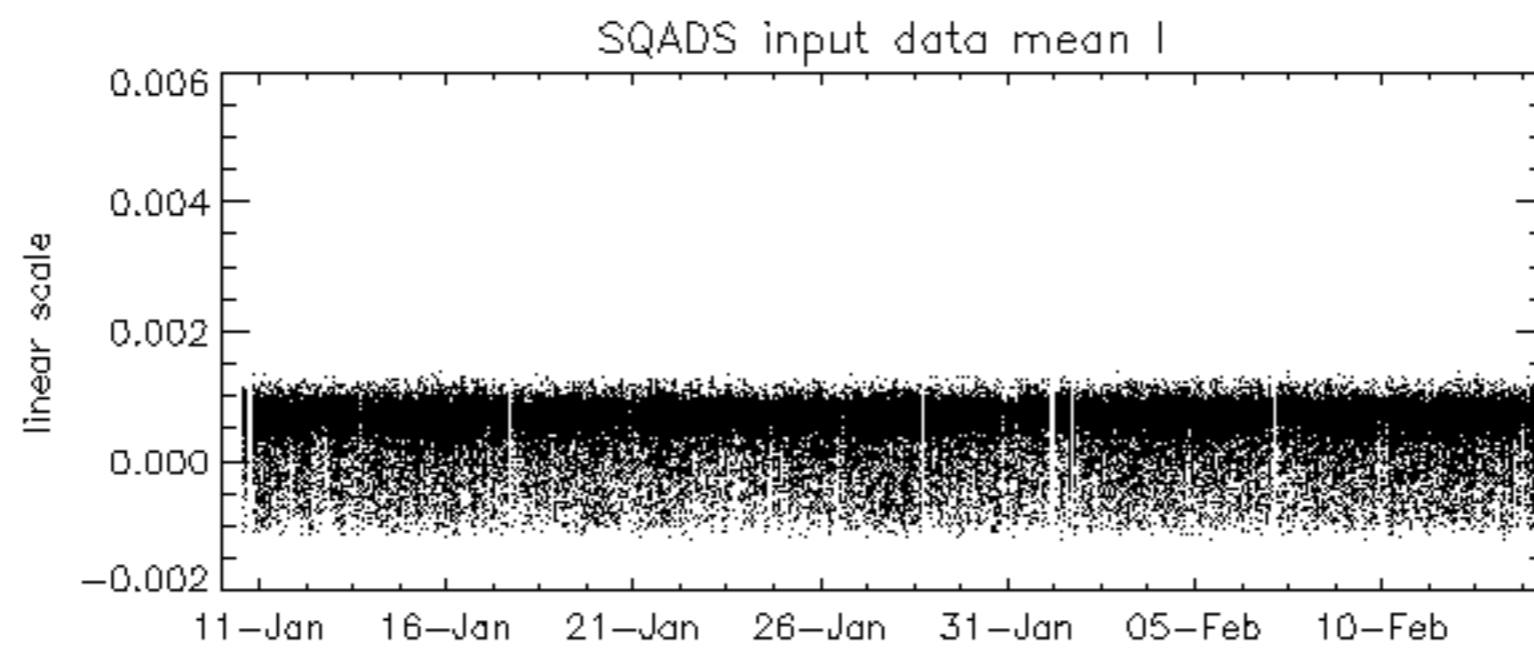
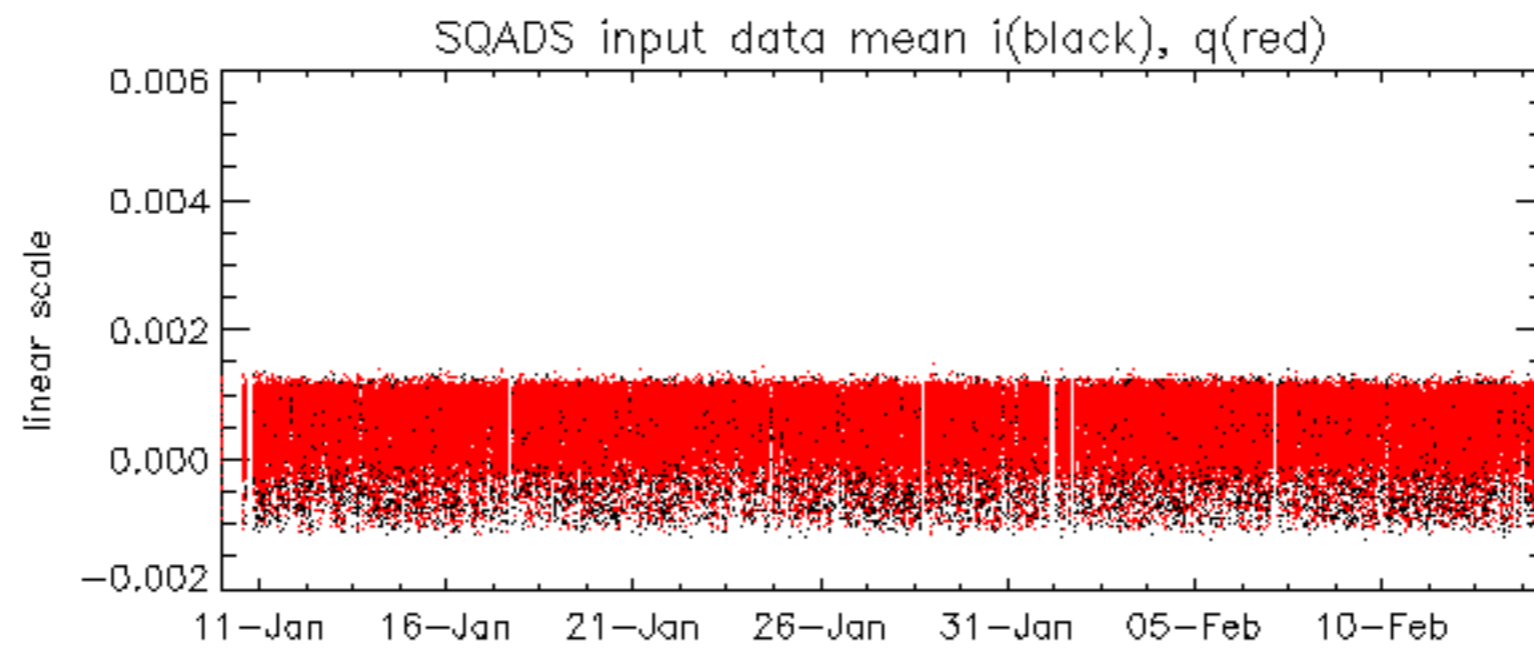
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -9.9411872 Hz

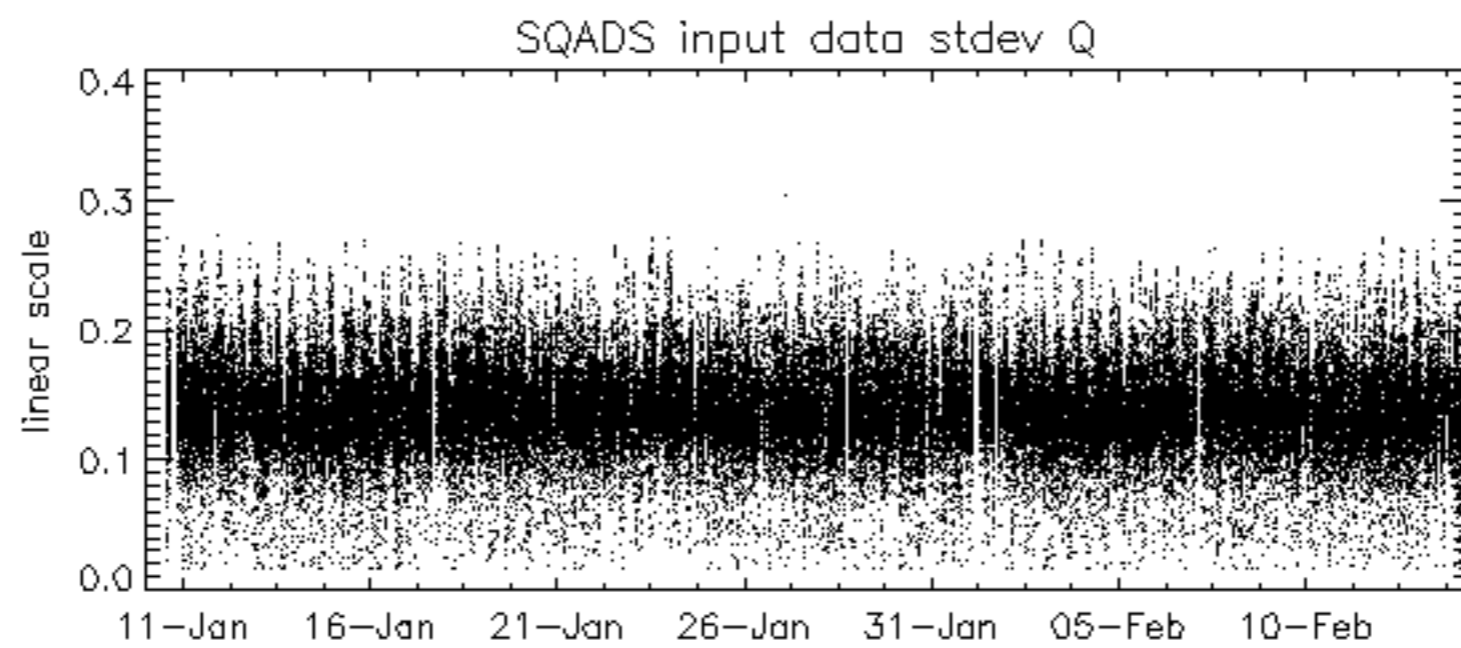
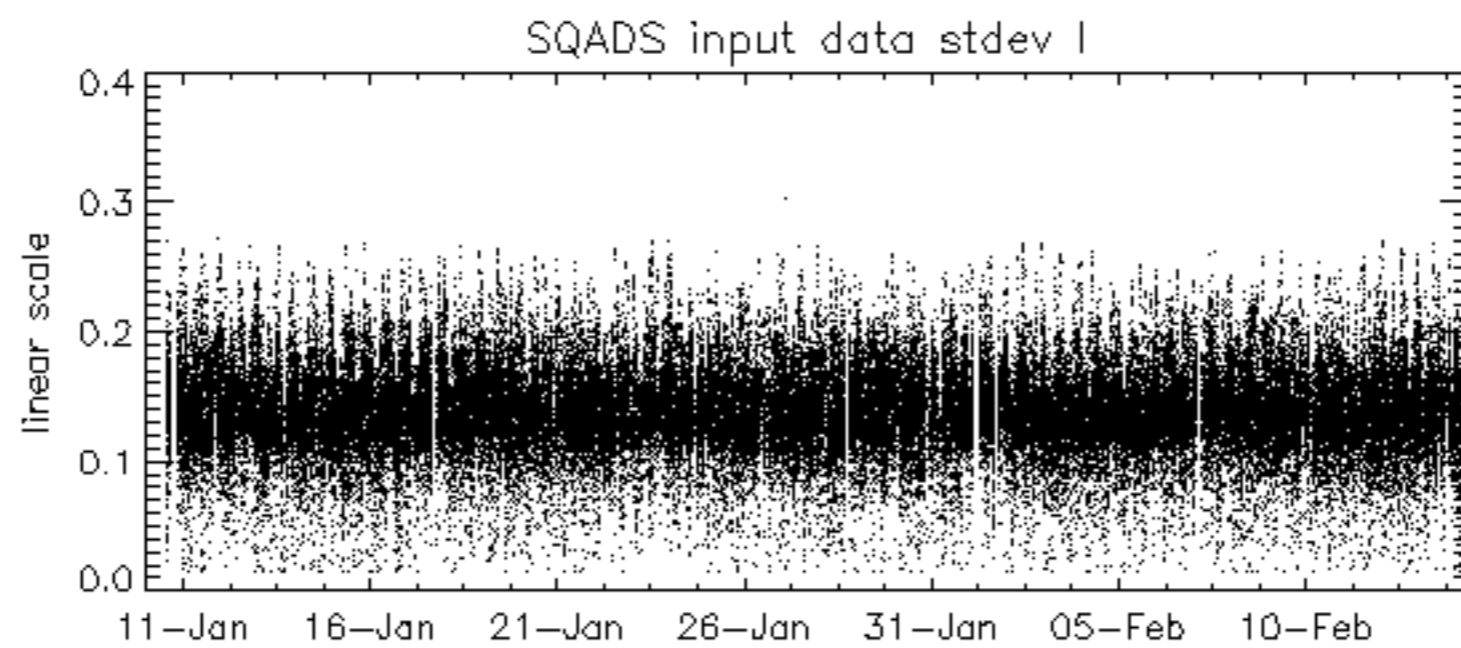
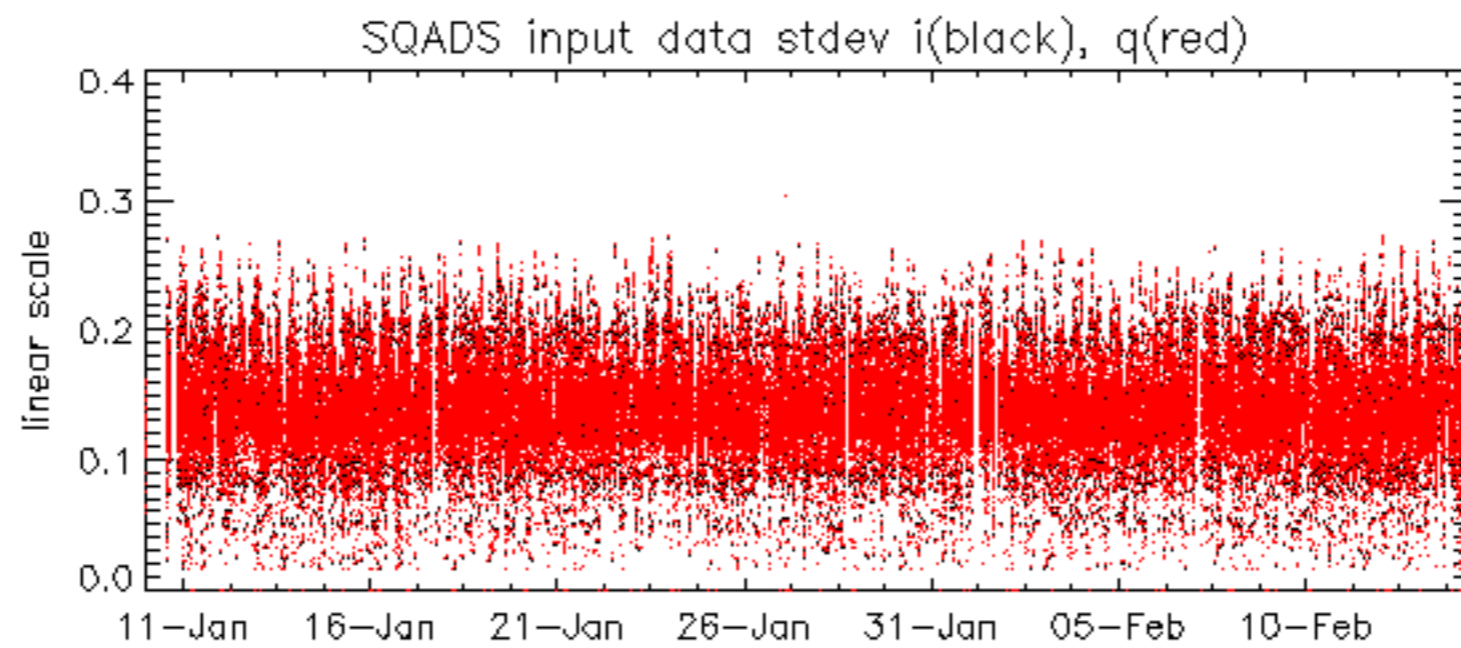


No anomalies observed on available MS products:

No anomalies observed.



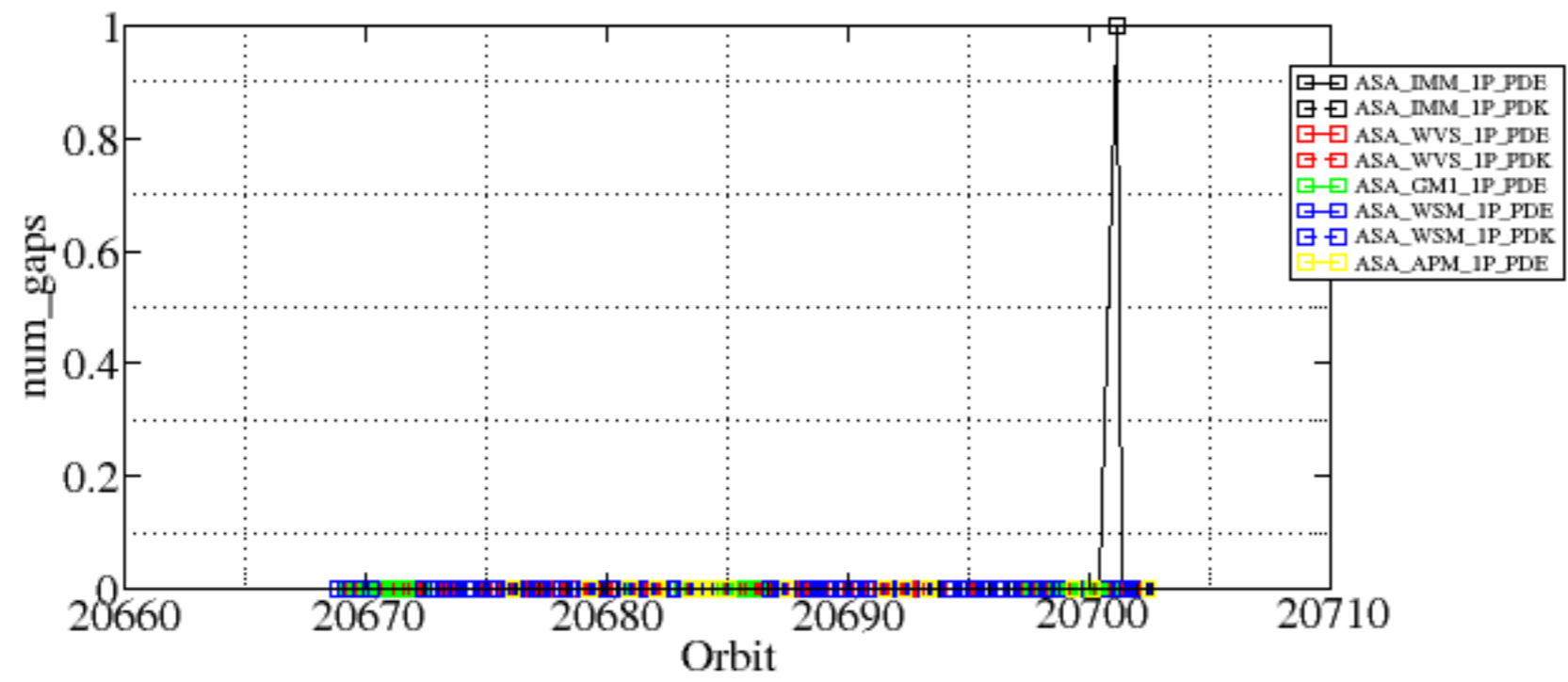


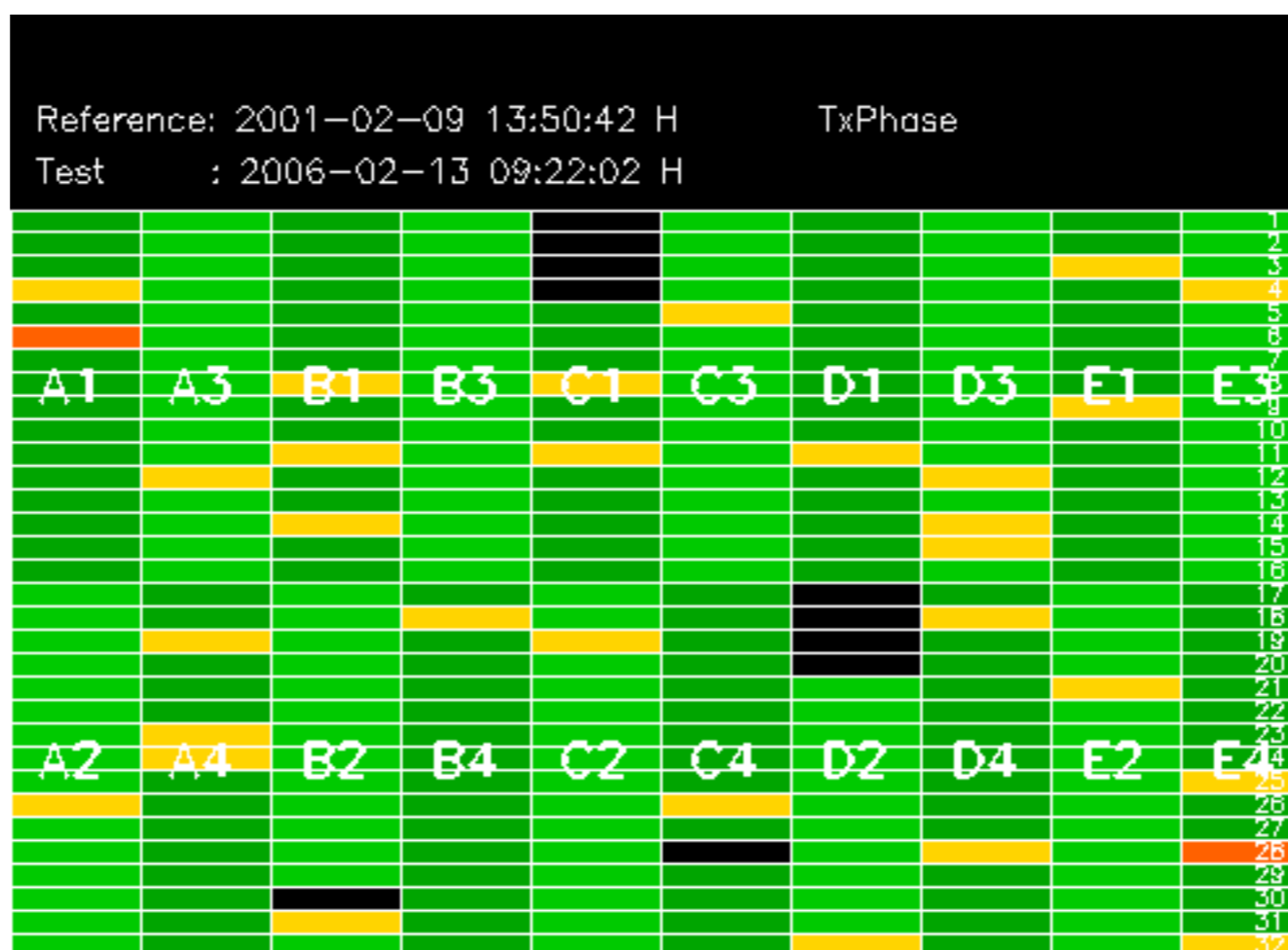


Summary of analysis for the last 3 days 2006021[234]

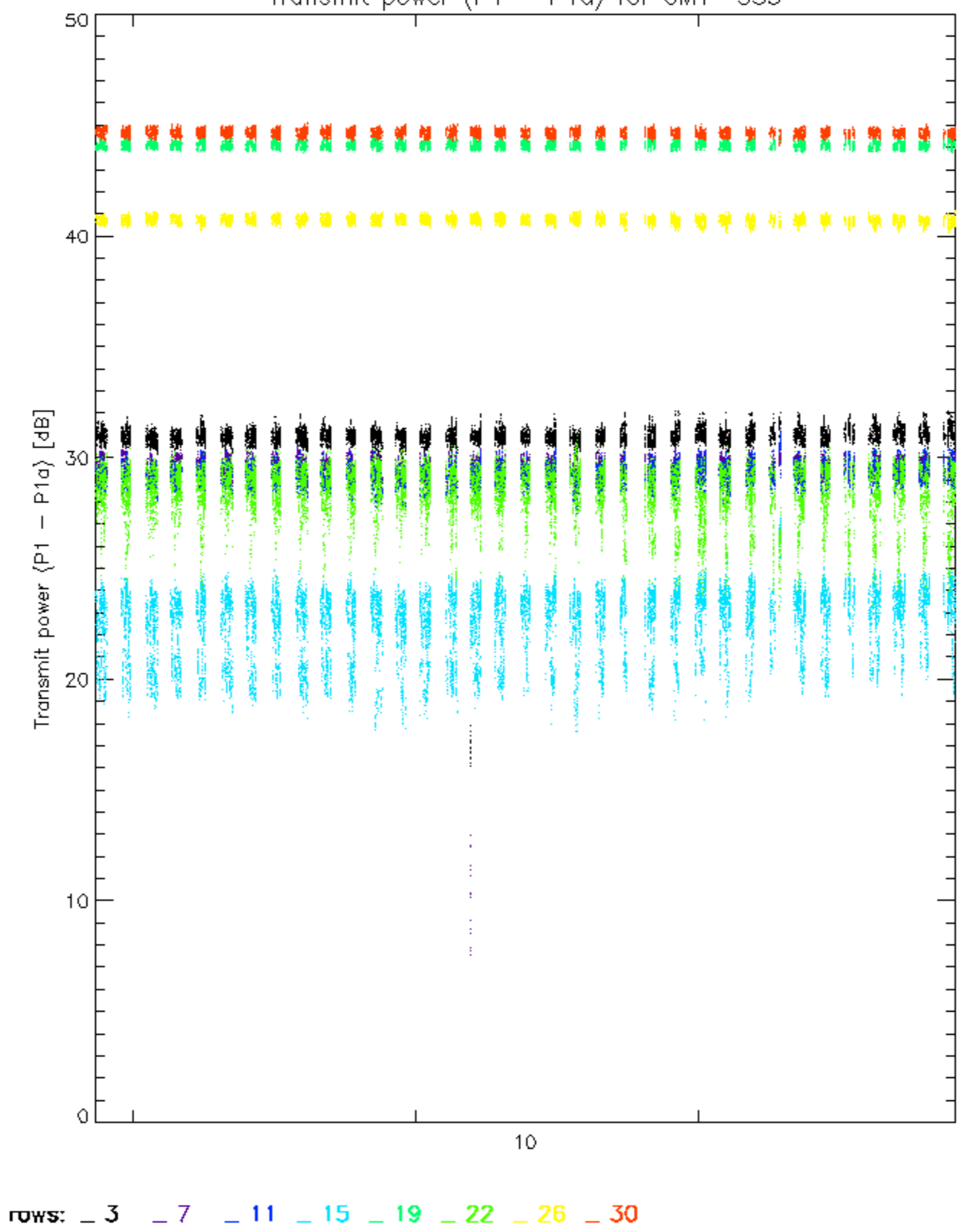
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

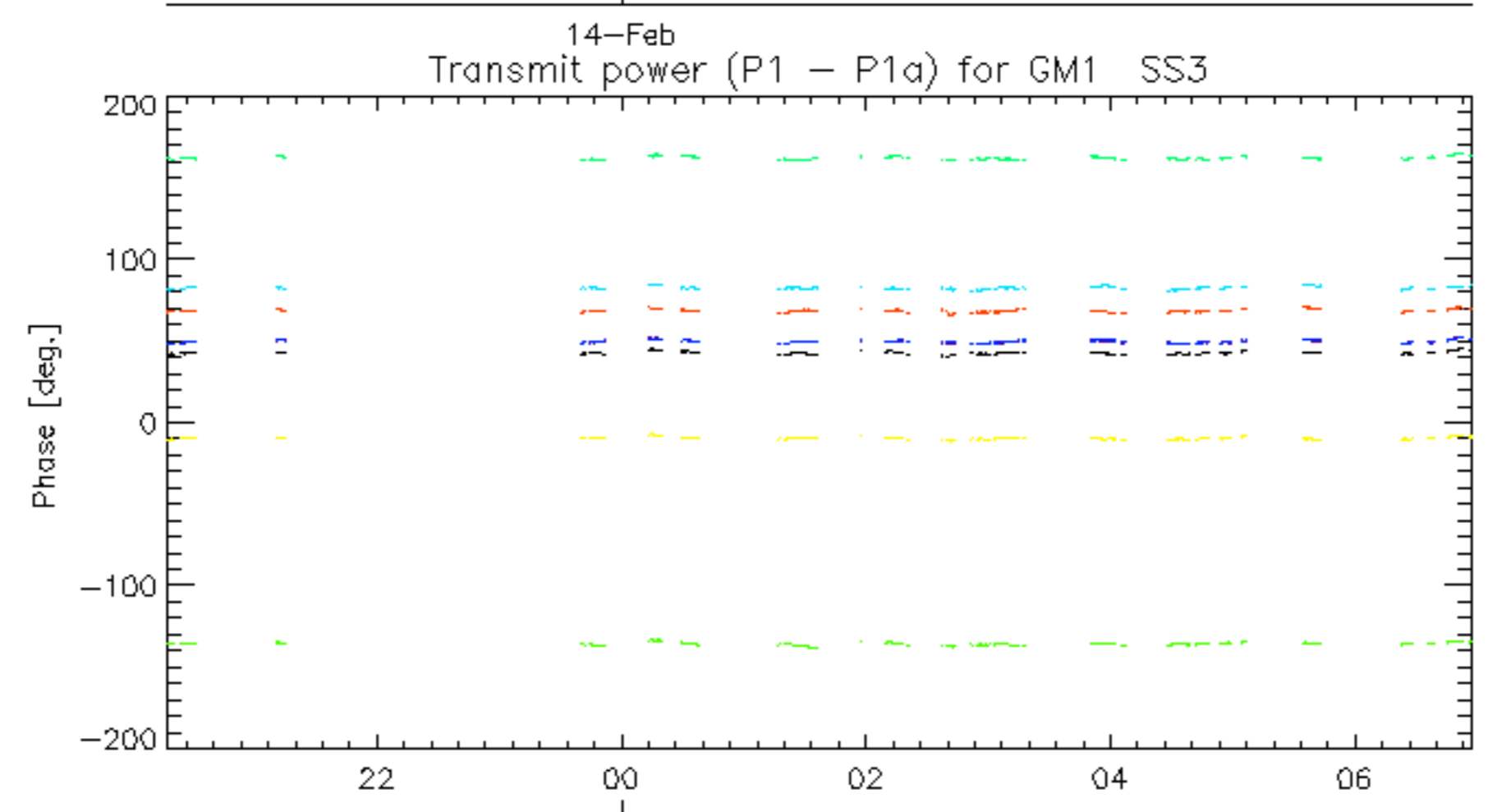
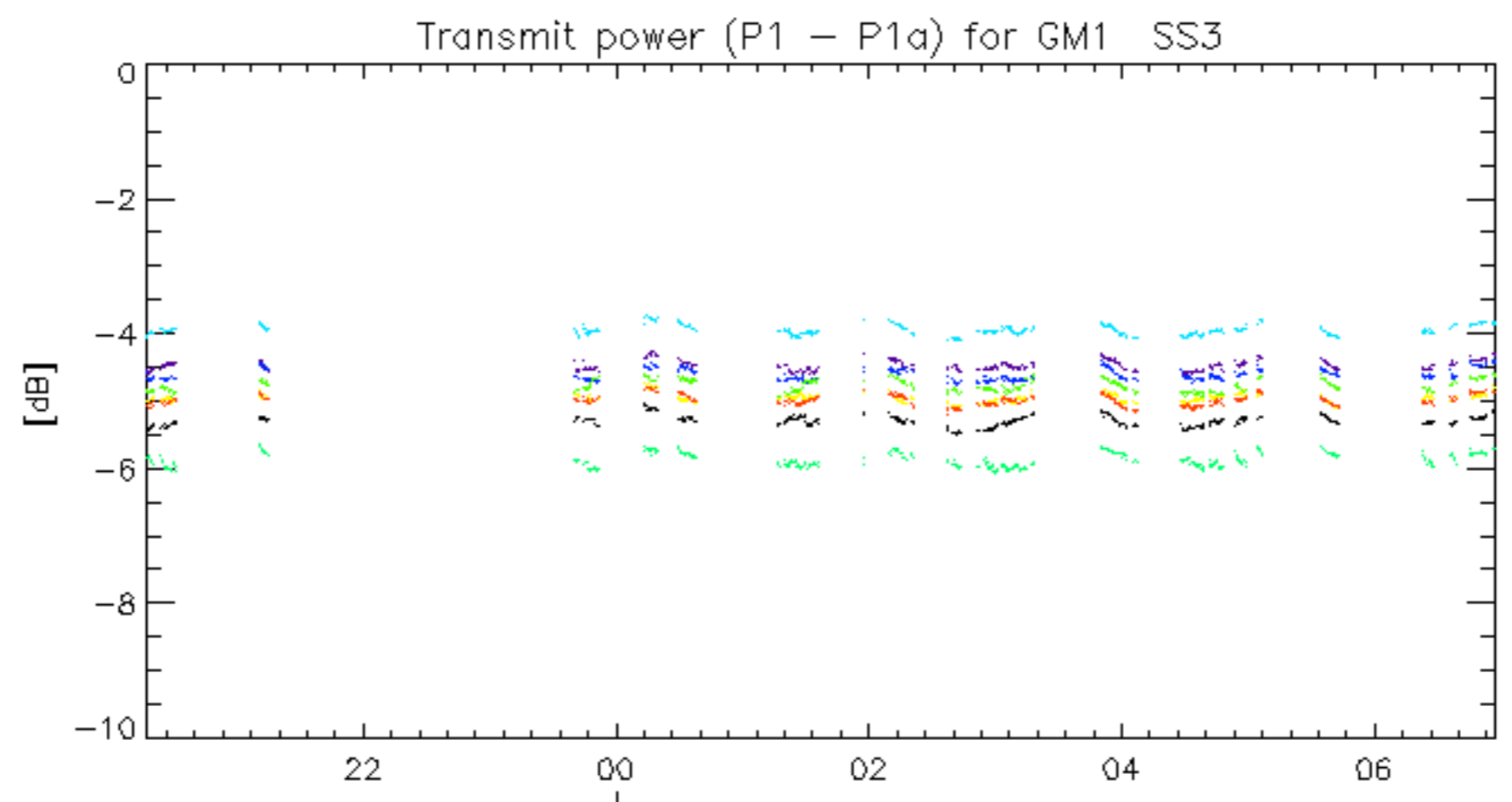
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060214_061558_000002202045_00106_20701_3109.N1	1	0
ASA_WSM_1PNPDE20060212_171026_000001282045_00084_20679_4709.N1	0	8



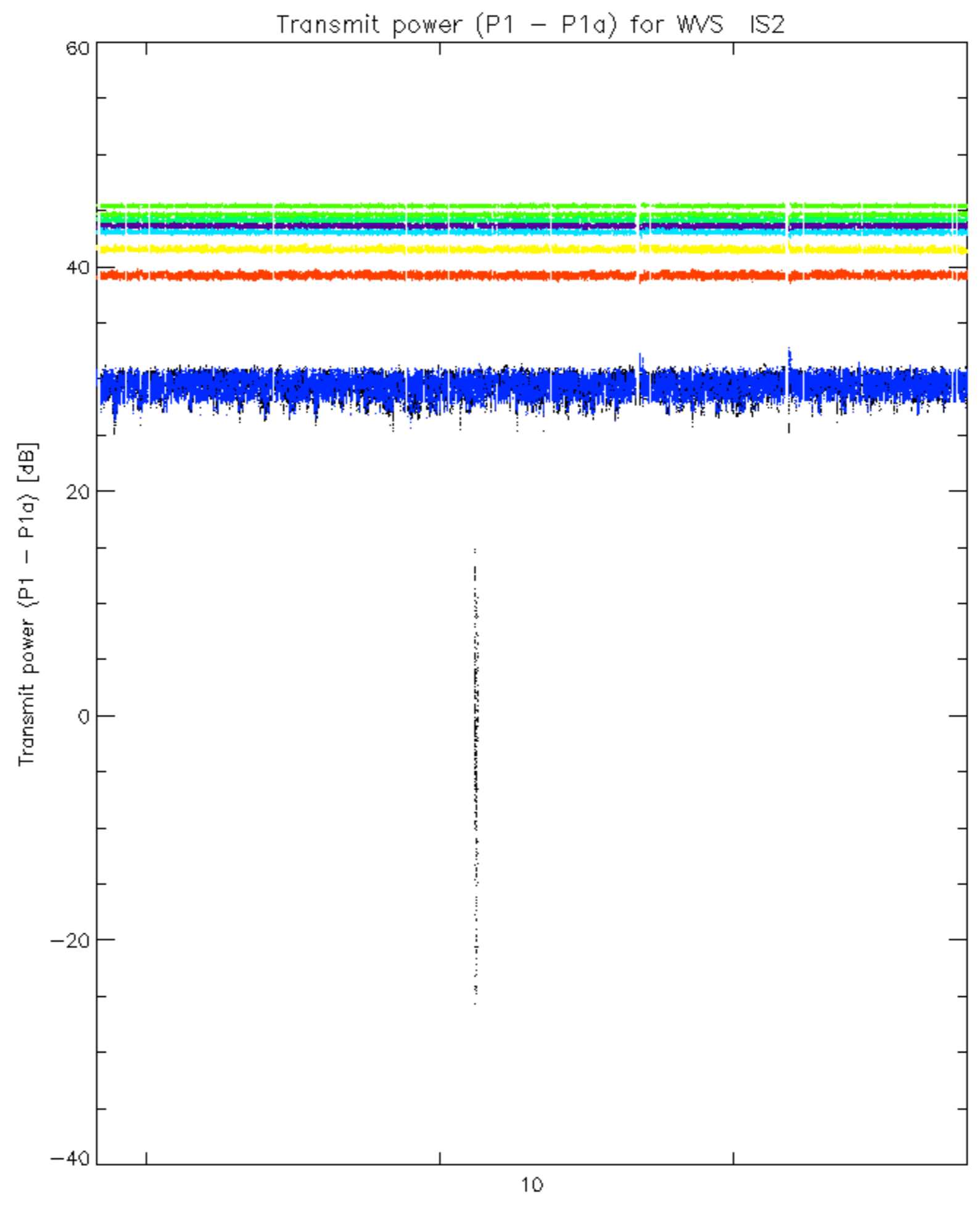


Transmit power (P1 - P1a) for GM1 SS3

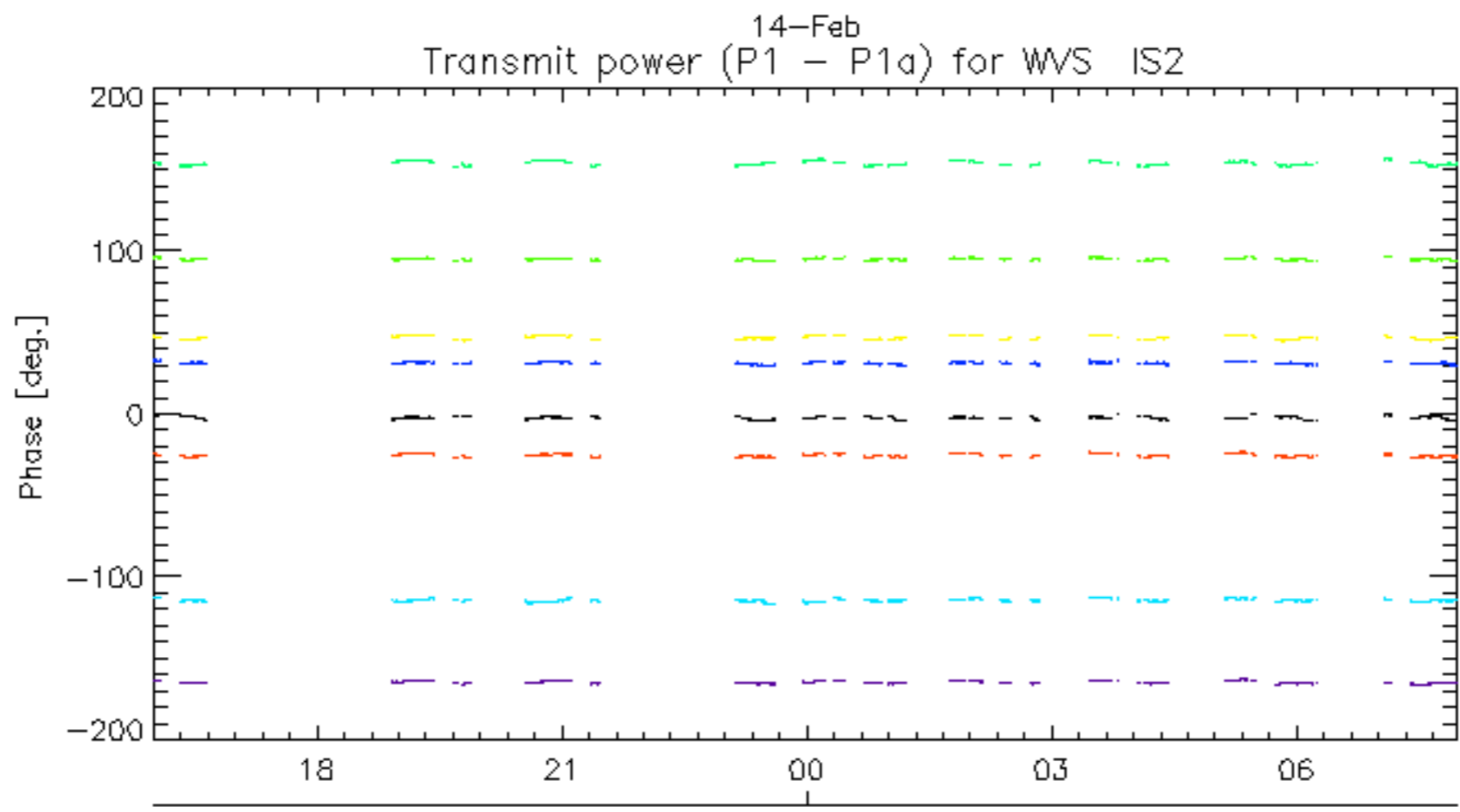
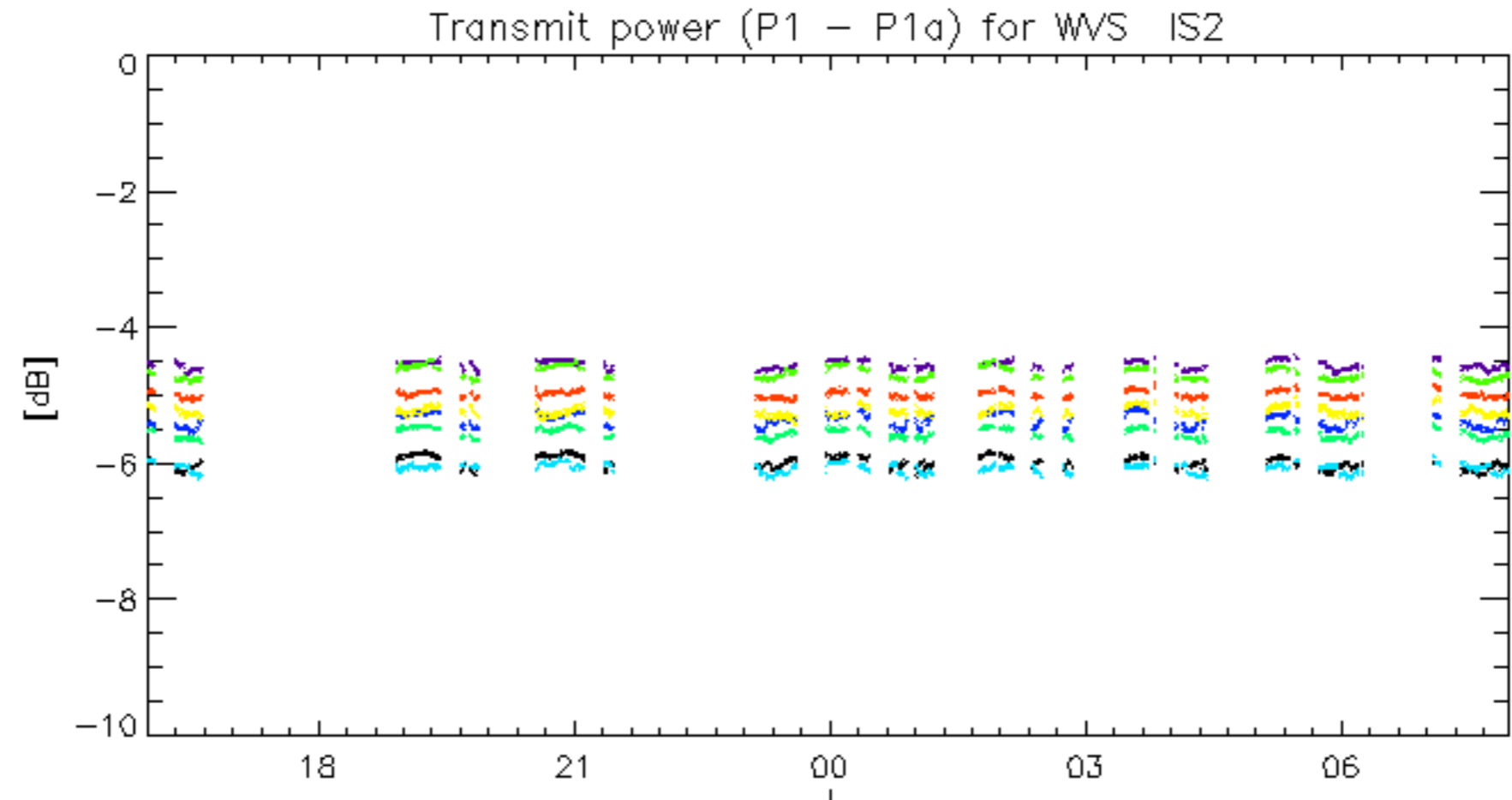




rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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



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

No unavailabilities during the reported period.