

PRELIMINARY REPORT OF 070112

last update on Fri Jan 12 16:29:50 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 2007-01-11 00:00:00 to 2007-01-12 16:29:50

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	38	63	16	0	1
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	38	63	16	0	1
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	38	63	16	0	1
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	38	63	16	0	1

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	53	60	33	7	80
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	53	60	33	7	80
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	53	60	33	7	80
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	53	60	33	7	80

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	20070112 063522
H	20070111 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
☒	☒
☒	☒
☒	☒
☒	☒

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	-3.964441	0.007604	-0.008628
7	P1	-3.146479	0.049809	0.031719
11	P1	-4.122090	0.025148	0.009614
15	P1	-6.334641	0.016005	0.001862
19	P1	-3.679954	0.005891	-0.038972
22	P1	-4.676672	0.015703	-0.038369
26	P1	-3.956424	0.009990	0.013666
30	P1	-5.916230	0.008676	-0.024819
3	P1	-16.519058	0.258218	0.000228
7	P1	-17.285820	0.192263	0.127971
11	P1	-17.268608	0.459596	-0.080090
15	P1	-13.050164	0.128989	0.060003
19	P1	-15.071304	0.110108	-0.116103
22	P1	-15.837408	0.552567	0.124598
26	P1	-15.030942	0.188605	0.049184
30	P1	-17.555424	0.497757	0.059209

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.799200	0.090781	0.030567
7	P2	-21.681911	0.089700	0.066239
11	P2	-15.542601	0.100577	0.029116
15	P2	-7.102441	0.105154	0.039516
19	P2	-9.184931	0.099189	0.053027
22	P2	-18.234058	0.092133	0.029745
26	P2	-16.602865	0.103906	0.030233
30	P2	-19.443663	0.086184	0.040395

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.240893	0.008594	0.001986
7	P3	-8.240893	0.008594	0.001986
11	P3	-8.240893	0.008594	0.001986
15	P3	-8.240893	0.008594	0.001986
19	P3	-8.240893	0.008594	0.001986
22	P3	-8.240893	0.008594	0.001986
26	P3	-8.240916	0.008594	0.002024
30	P3	-8.240916	0.008594	0.002024

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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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	-3.921178	0.013966	0.016210
7	P1	-2.478176	0.076654	0.013996
11	P1	-2.832717	0.016973	0.065764
15	P1	-3.705471	0.032559	0.002349
19	P1	-3.550366	0.019165	0.009565
22	P1	-5.006493	0.023483	0.068232
26	P1	-6.042075	0.026012	-0.010096
30	P1	-5.351099	0.037194	-0.014521
3	P1	-11.725333	0.085899	0.053996
7	P1	-10.044854	0.096234	0.090443
11	P1	-10.358162	0.089786	0.035024
15	P1	-10.732984	0.155504	0.027755
19	P1	-15.742600	0.116554	-0.032647
22	P1	-21.569664	1.425591	0.051530

26	P1	-16.001097	0.315679	0.109190
30	P1	-17.904106	0.364428	-0.038891

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.439568	0.103567	0.072890
7	P2	-22.196165	0.251713	0.040101
11	P2	-10.843387	0.104300	0.051215
15	P2	-4.968543	0.217519	0.053641
19	P2	-6.951765	0.226230	0.075939
22	P2	-8.237104	0.111832	0.057914
26	P2	-24.346403	0.165113	-0.013622
30	P2	-21.914240	0.134359	0.091506

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.089705	0.003437	0.001084
7	P3	-8.089472	0.003425	0.001698
11	P3	-8.089630	0.003443	0.001441
15	P3	-8.089484	0.003434	0.000612
19	P3	-8.089541	0.003443	0.001300
22	P3	-8.089349	0.003450	0.001116
26	P3	-8.089705	0.003441	0.001394
30	P3	-8.089548	0.003426	0.001837

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	0.000568360
	stdev	1.64148e-07
MEAN Q	mean	0.000504829
	stdev	2.12896e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.140529
	stdev	0.00120376
STDEV Q	mean	0.140934
	stdev	0.00122434



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2007011[012]

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_GM1_1PNPDK20070110_150643_000007062054_00326_25430_2010.N1	0	17
ASA_GM1_1PNPDK20070111_093819_000005432054_00337_25441_2629.N1	0	6
ASA_GM1_1PNPDK20070112_072909_000005072054_00350_25454_3551.N1	0	24
ASA_WSM_1PNPDE20070110_163701_000001582054_00327_25431_1812.N1	0	14
ASA_WSM_1PNPDE20070111_042351_000000672054_00334_25438_2884.N1	0	45

ASA_WSM_1PNPDE20070111_042351_000001842054_00334_25438_3099.N1	0	45
ASA_WSM_1PNPDE20070111_133030_000000852054_00339_25443_3444.N1	0	76



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

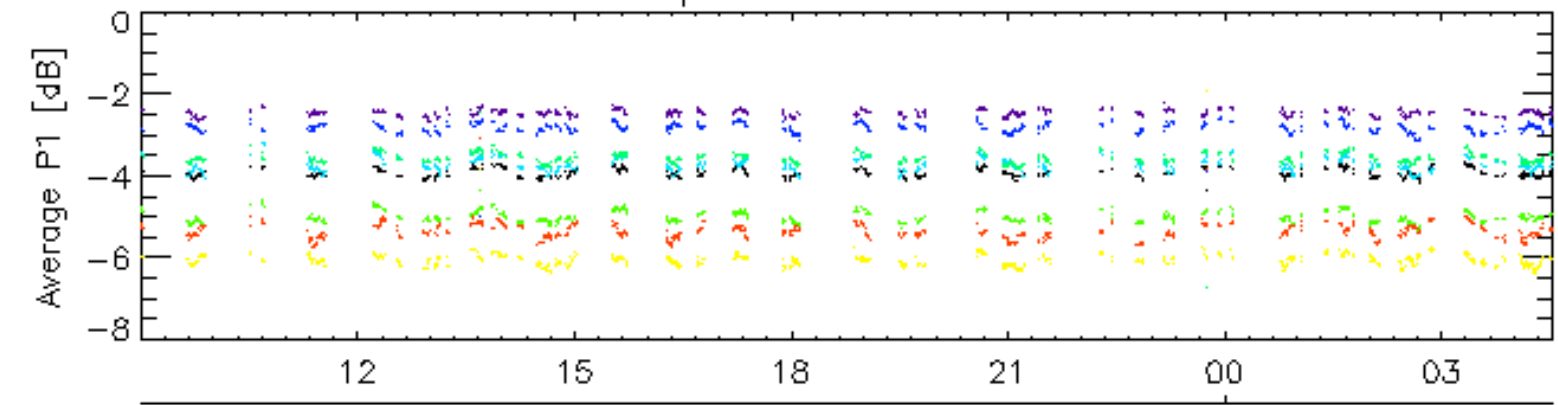
7.5 - Absolute Doppler for GM1

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

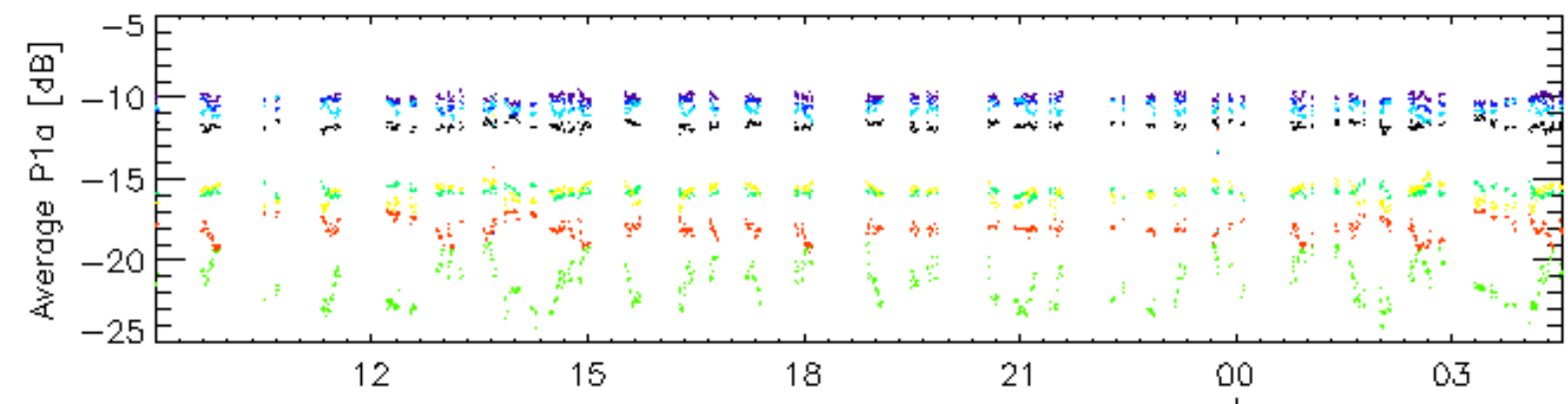
7.6 - Doppler evolution versus ANX for GM1

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

Cal pulses for GM1 SS3

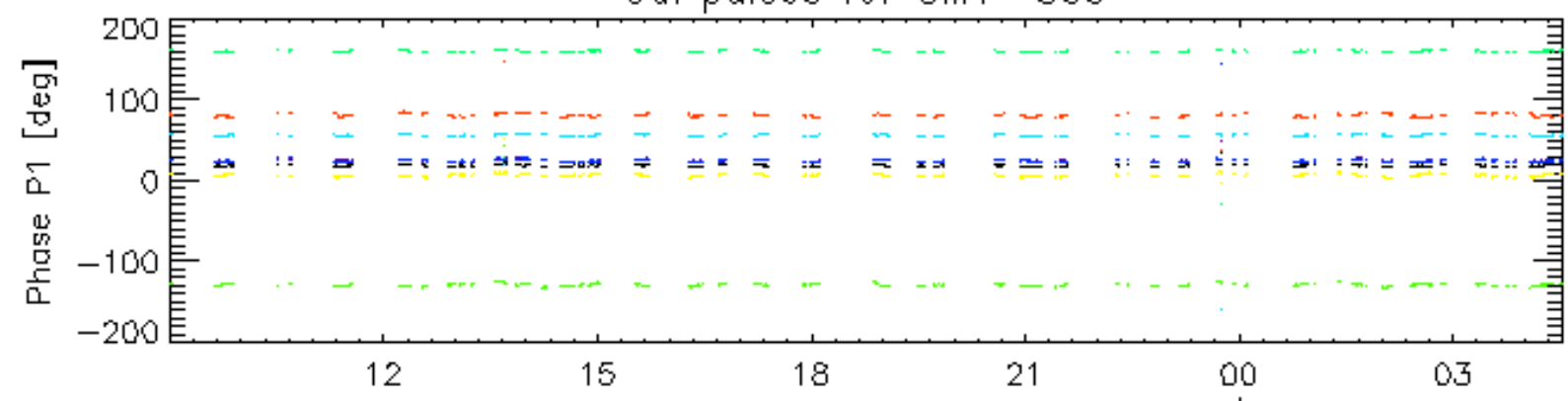


12-Jan

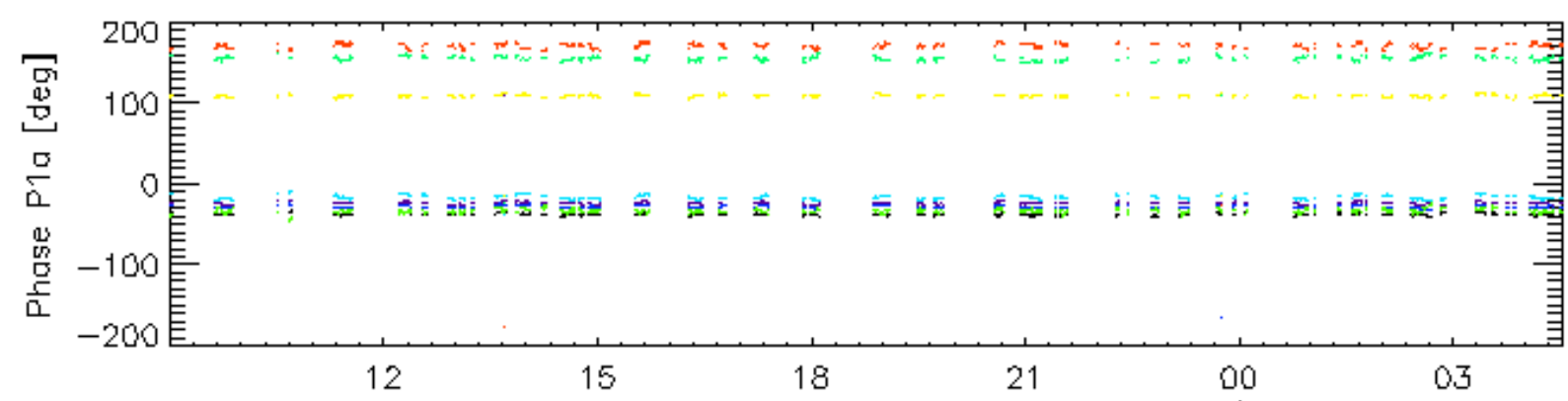


12-Jan

Cal pulses for GM1 SS3



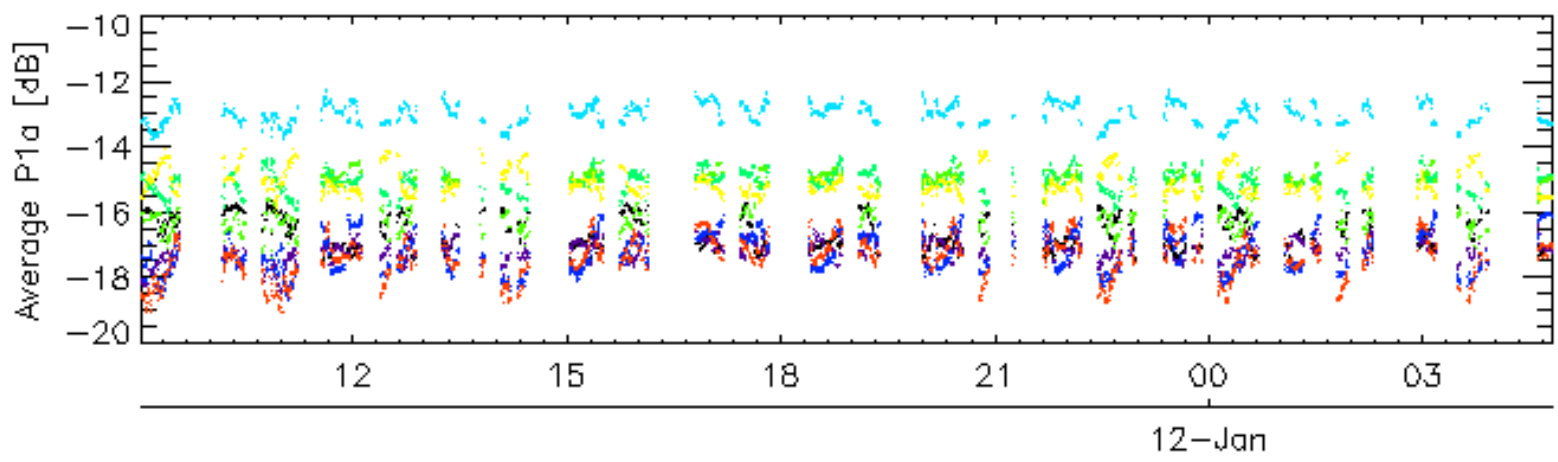
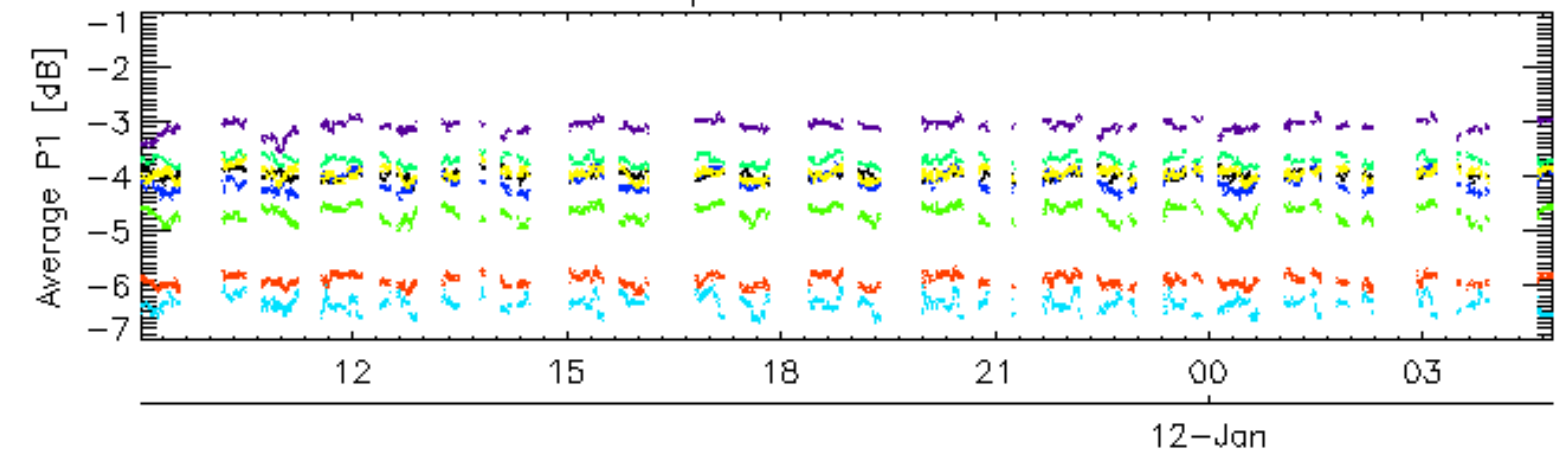
12-Jan



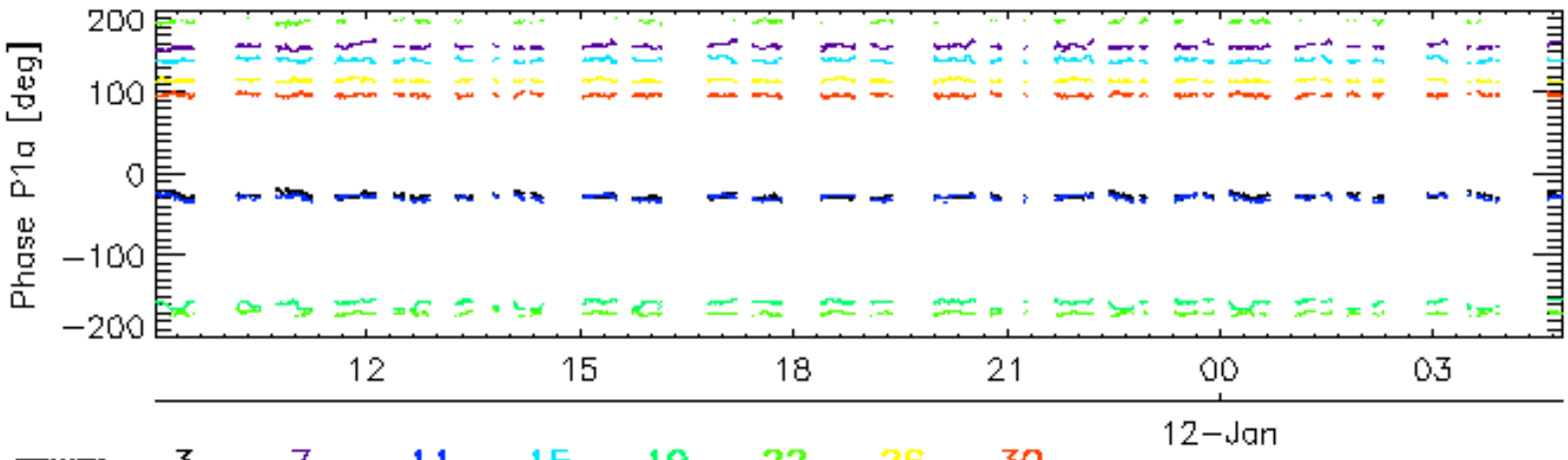
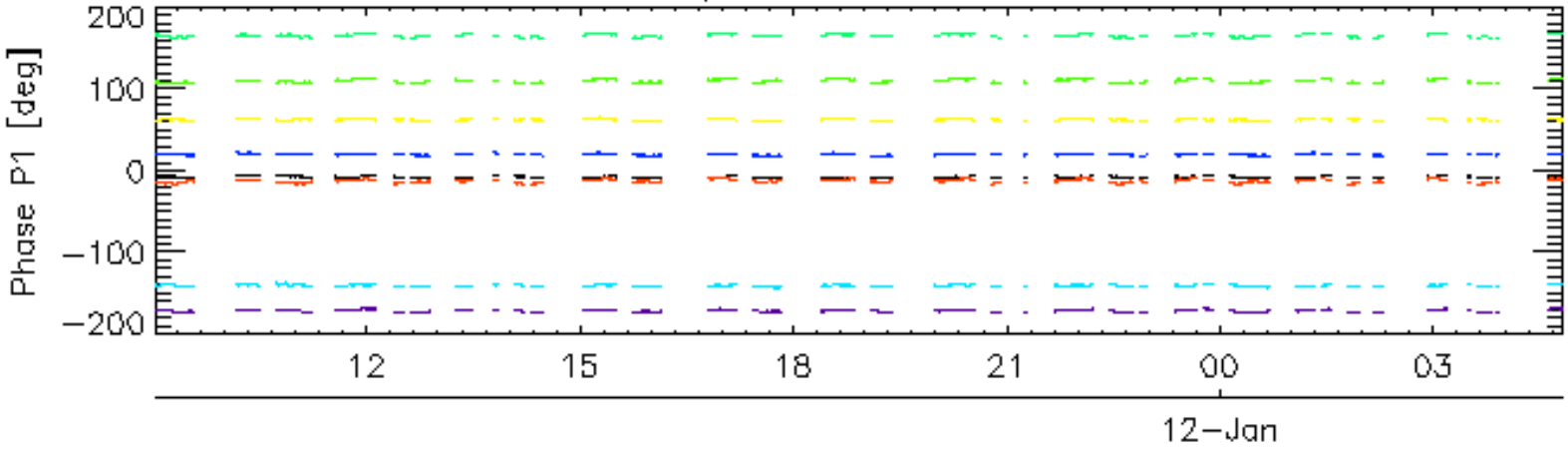
12-Jan

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

Cal pulses for WVS IS2

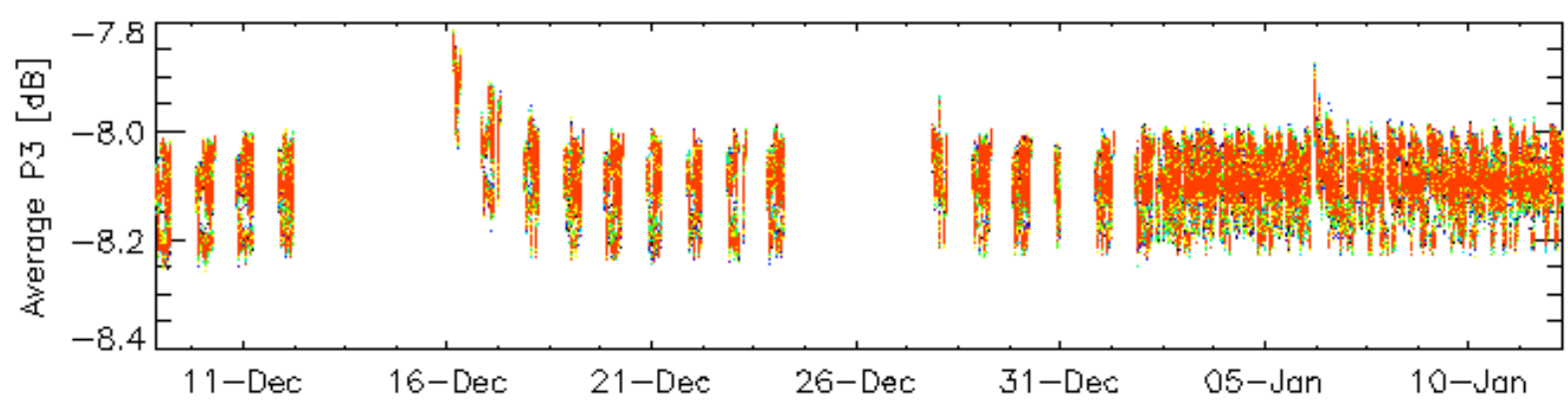
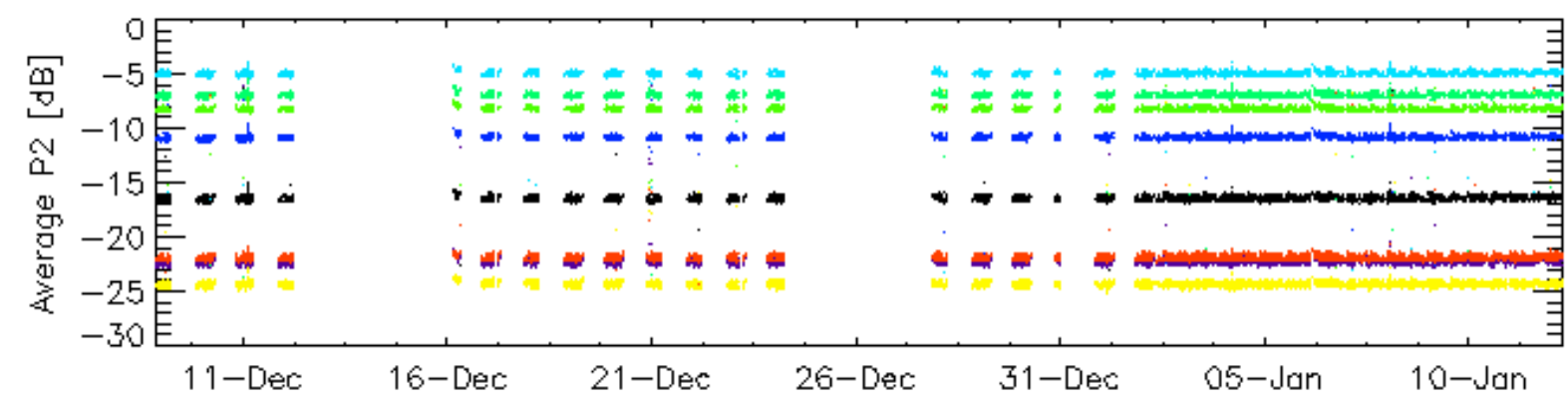
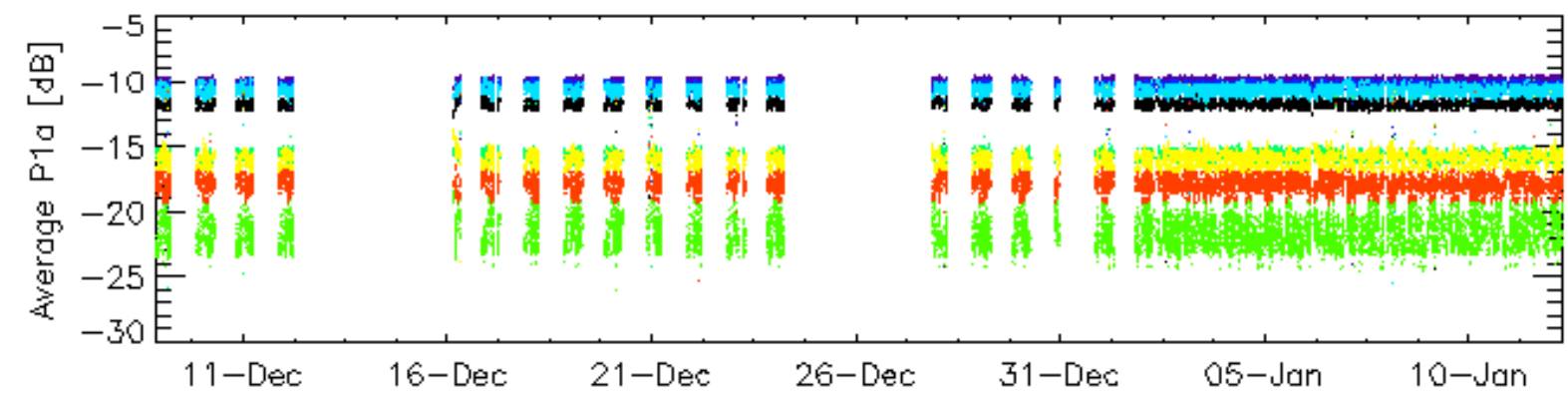
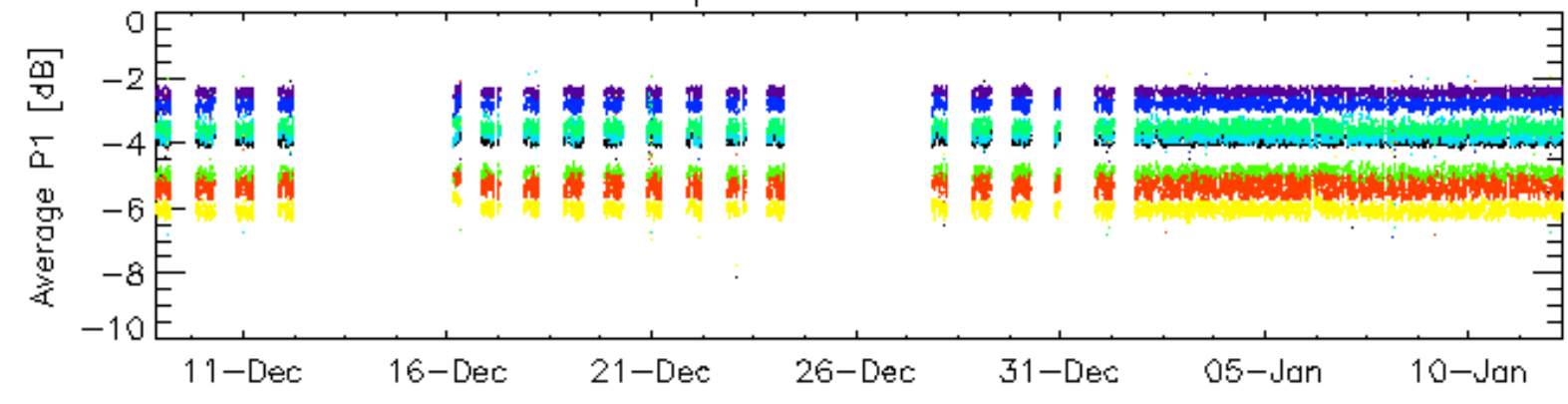


Cal pulses for WVS IS2



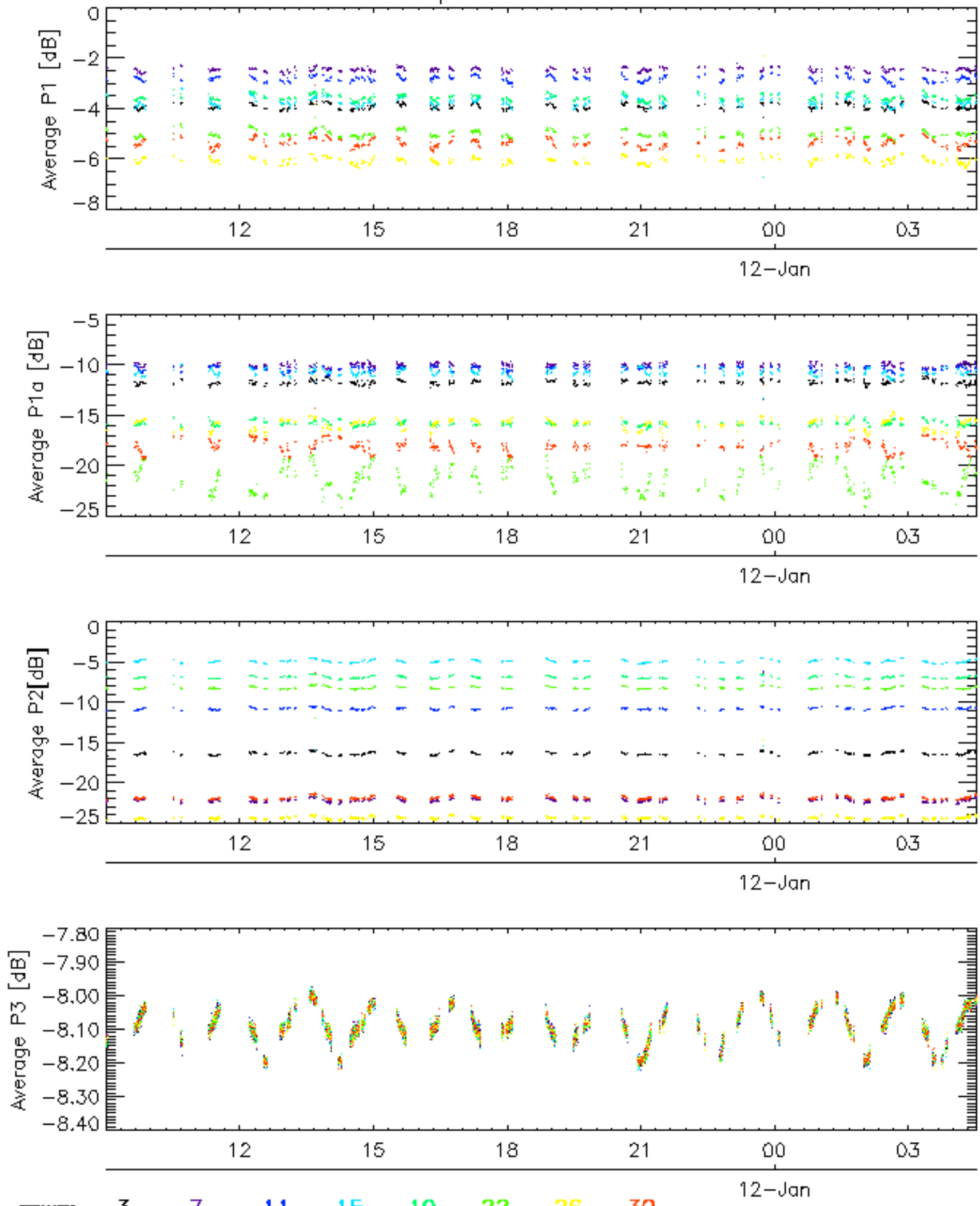
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

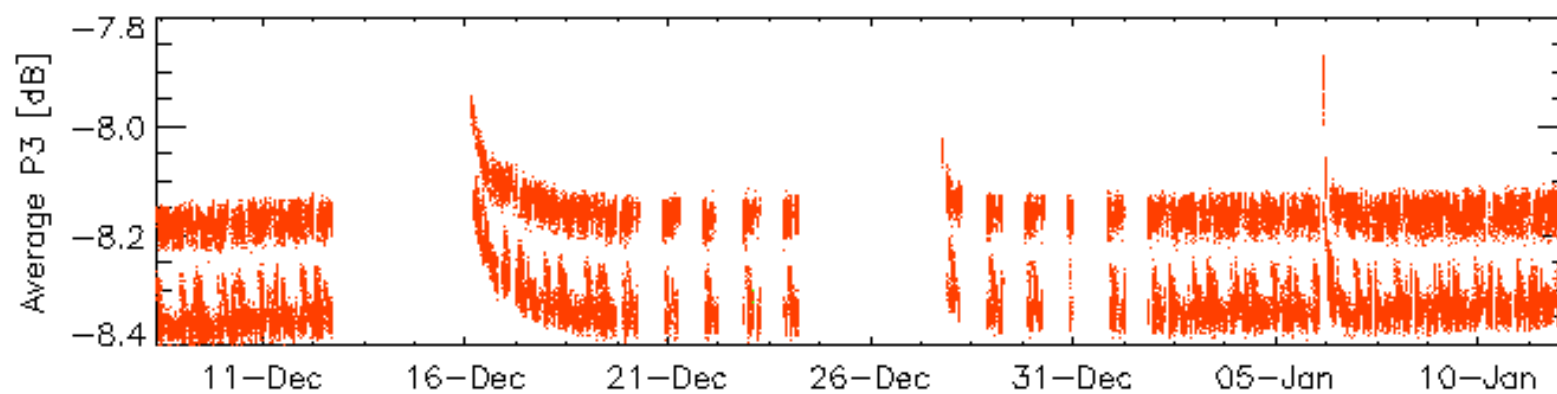
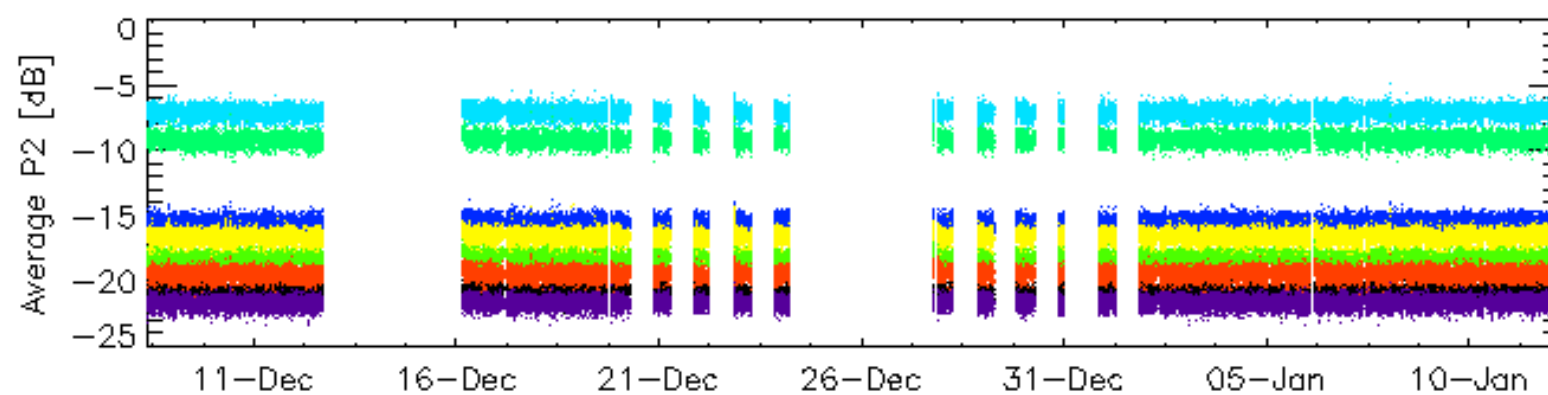
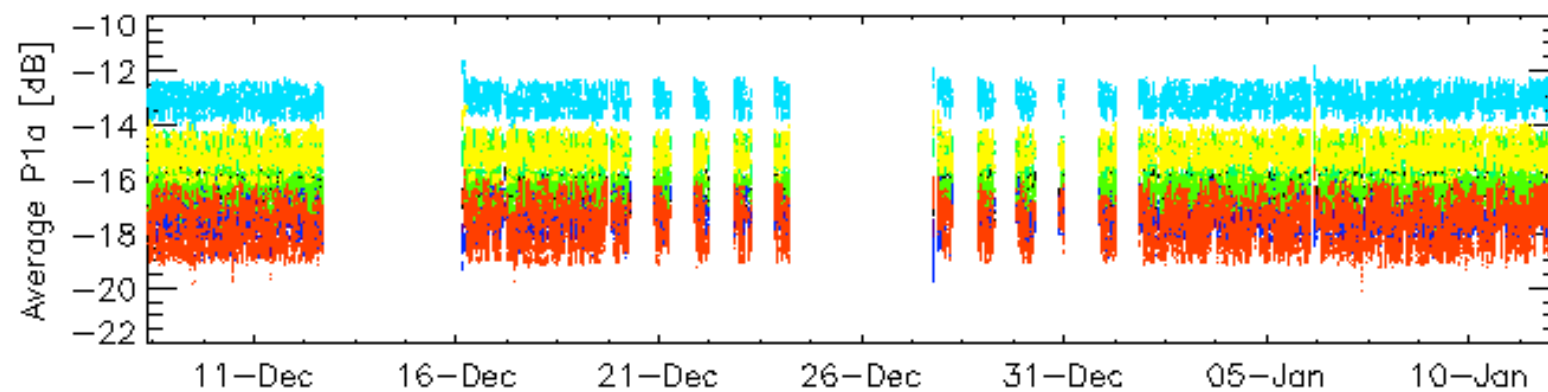
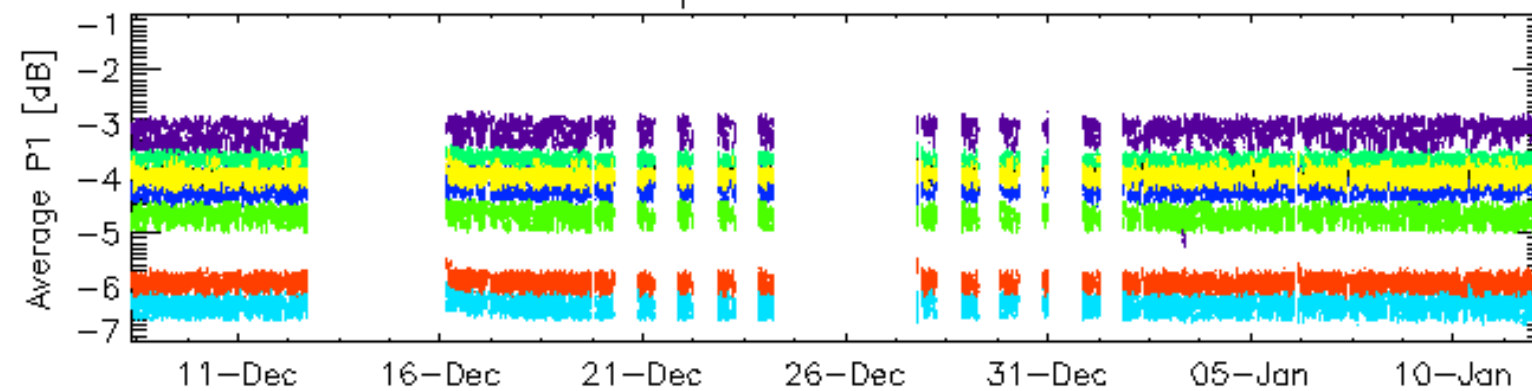


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

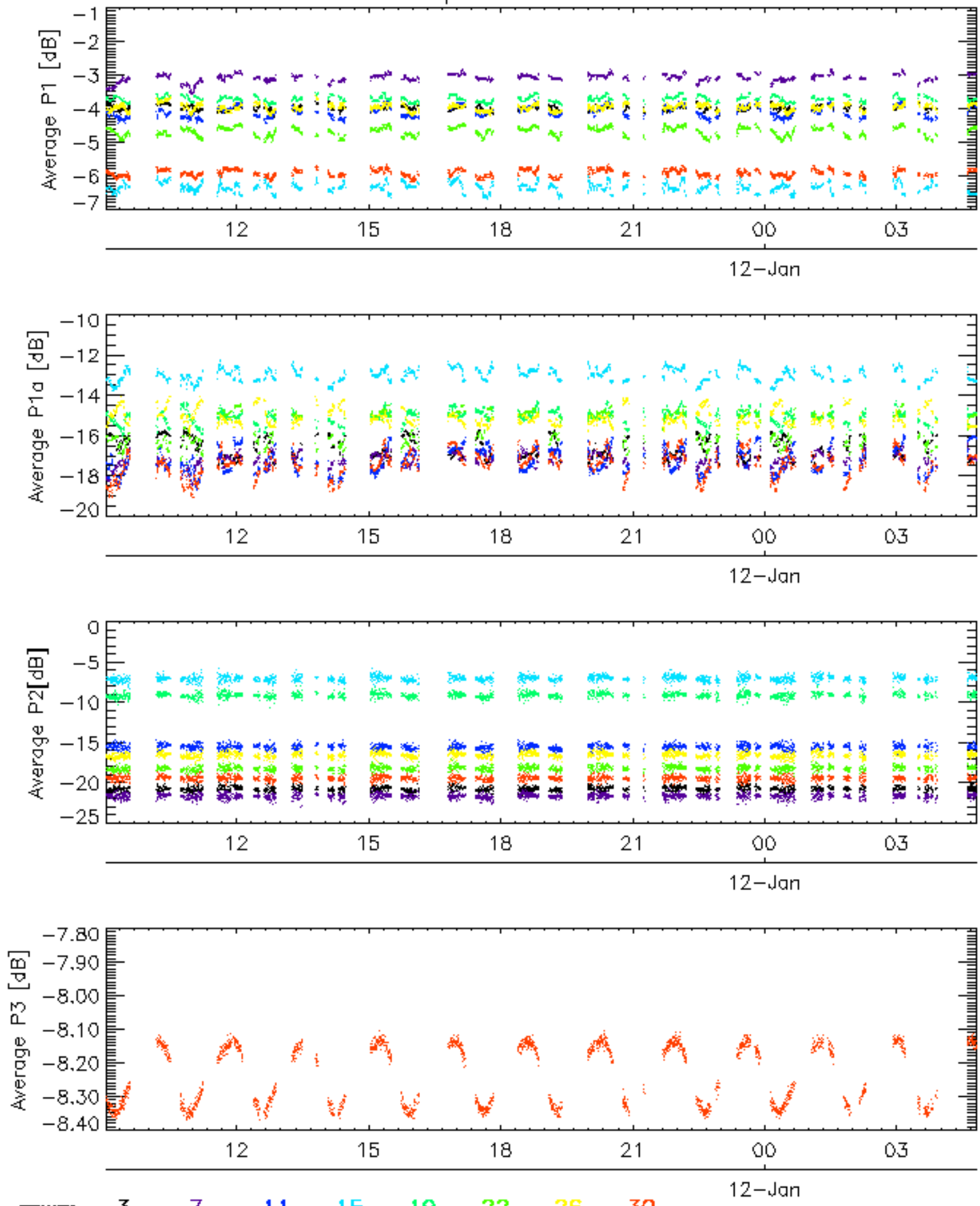


Cal pulses for WVS IS2



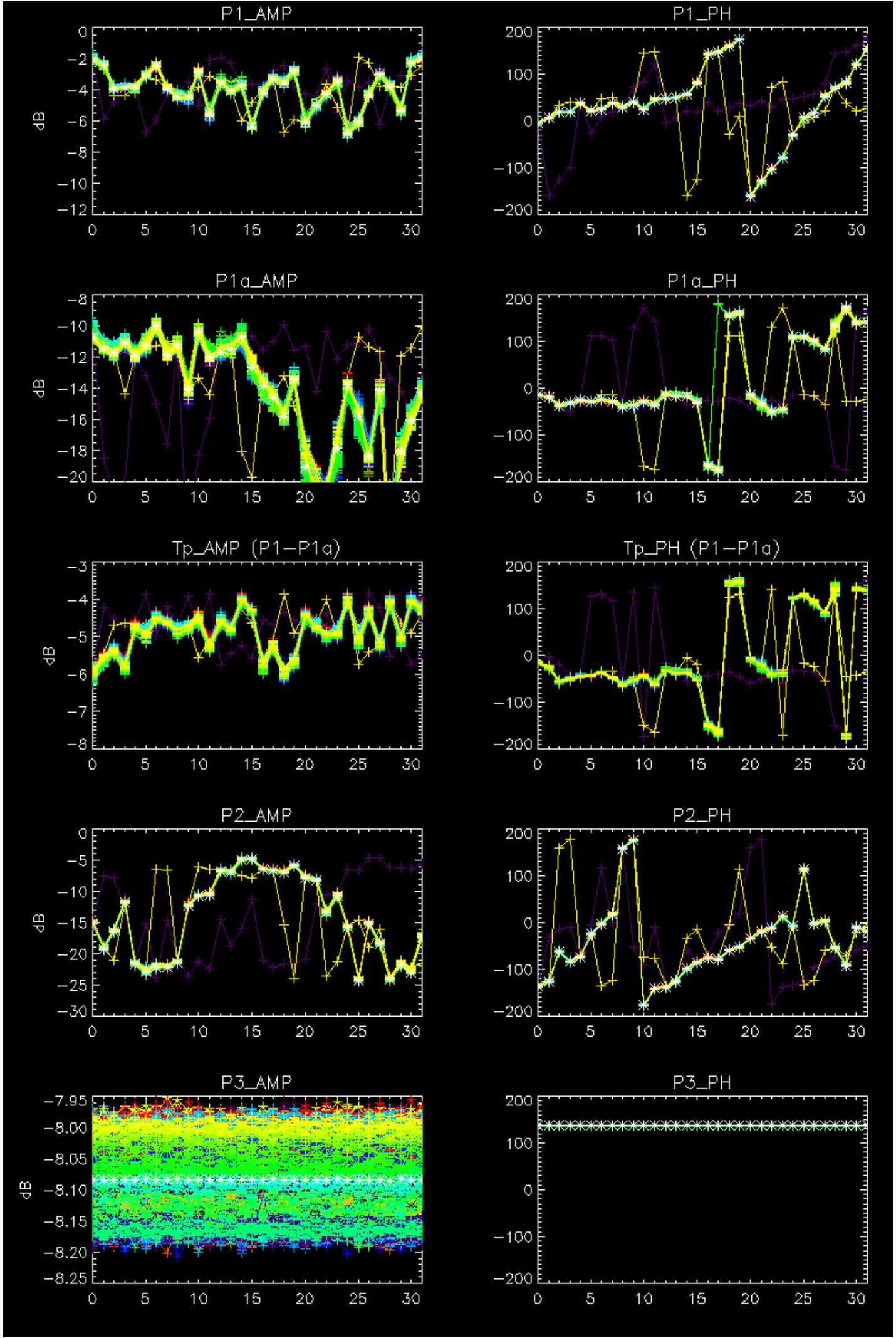
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

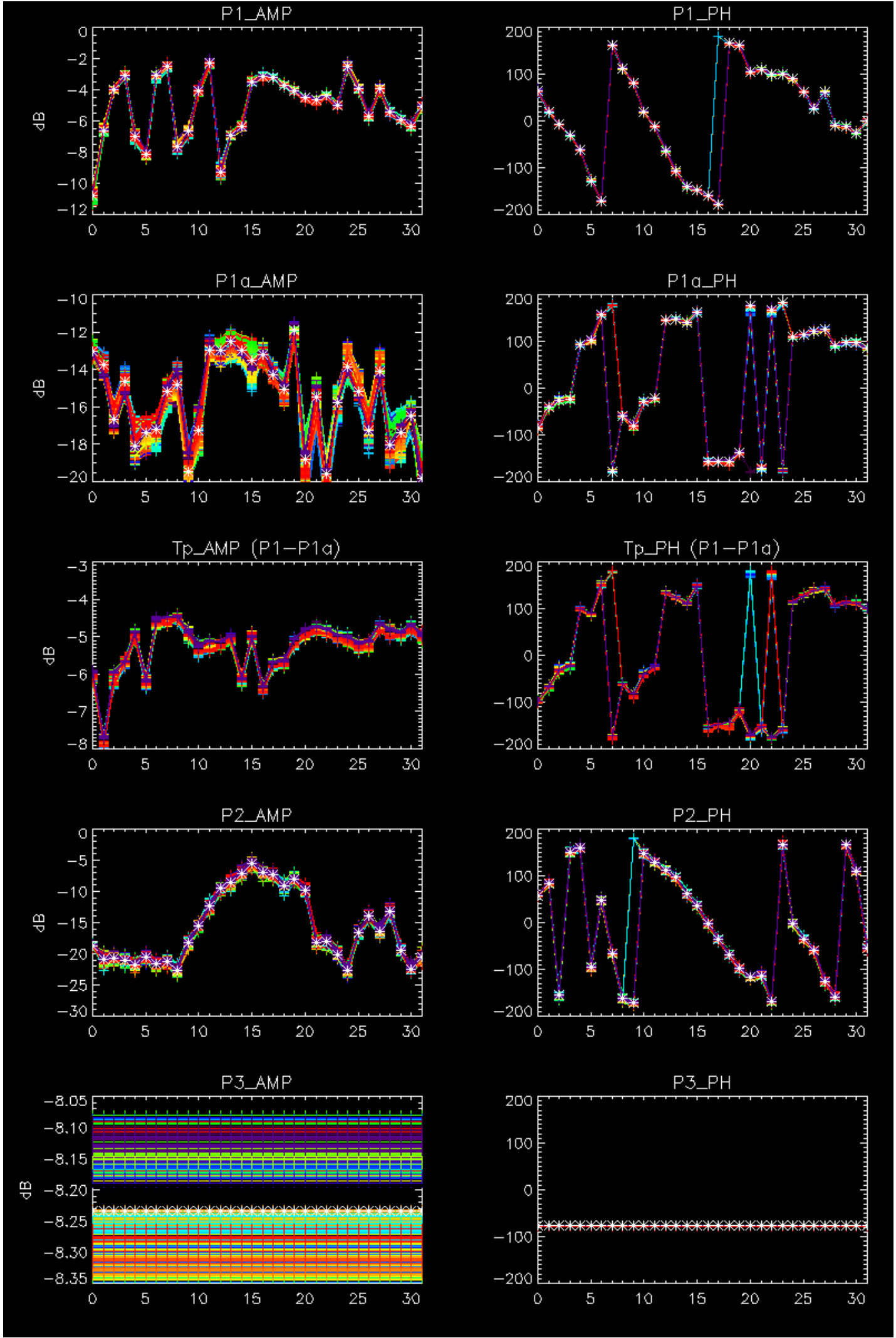
Cal pulses for WVS IS2



No anomalies observed on available browse products

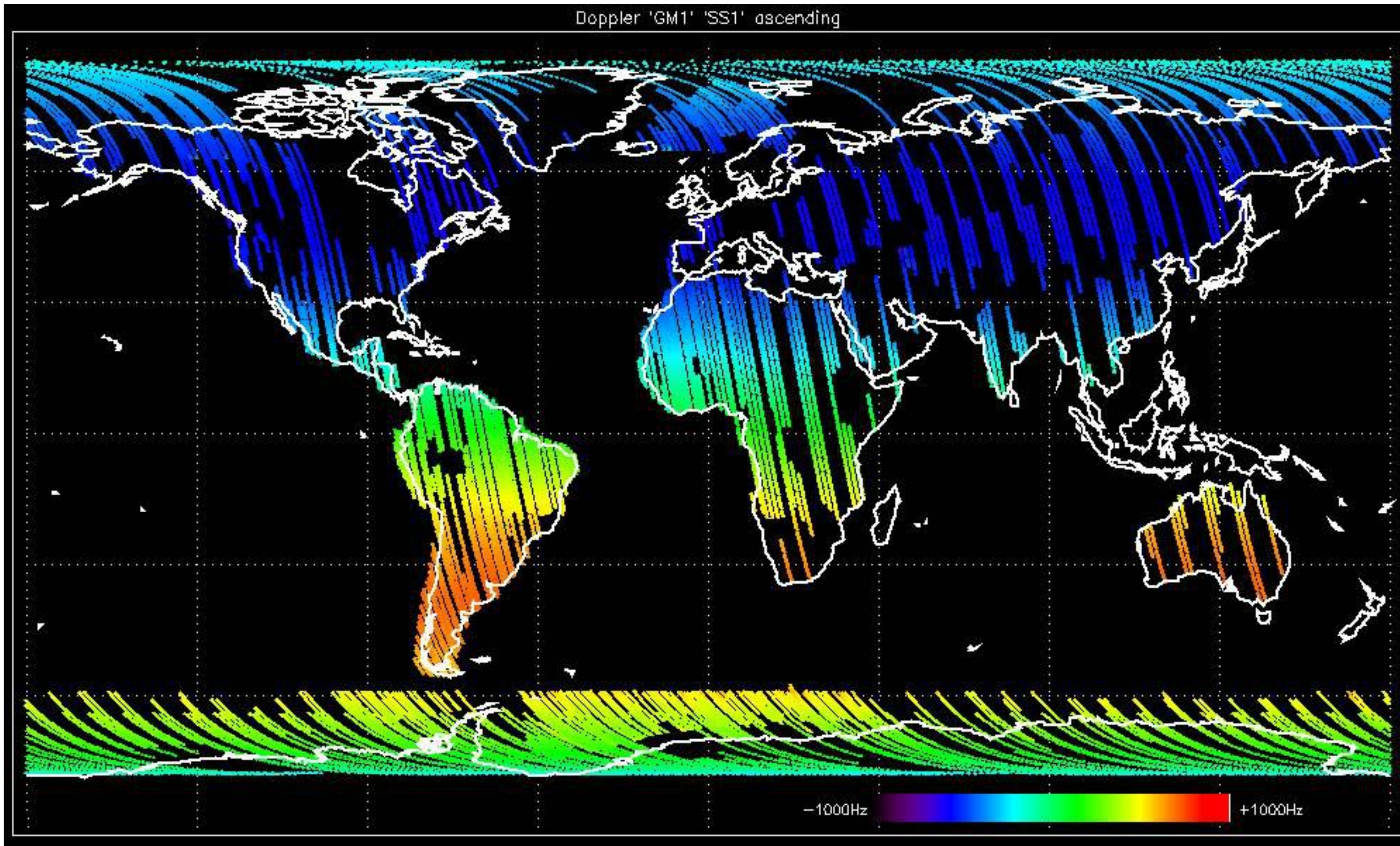
No anomalies observed.



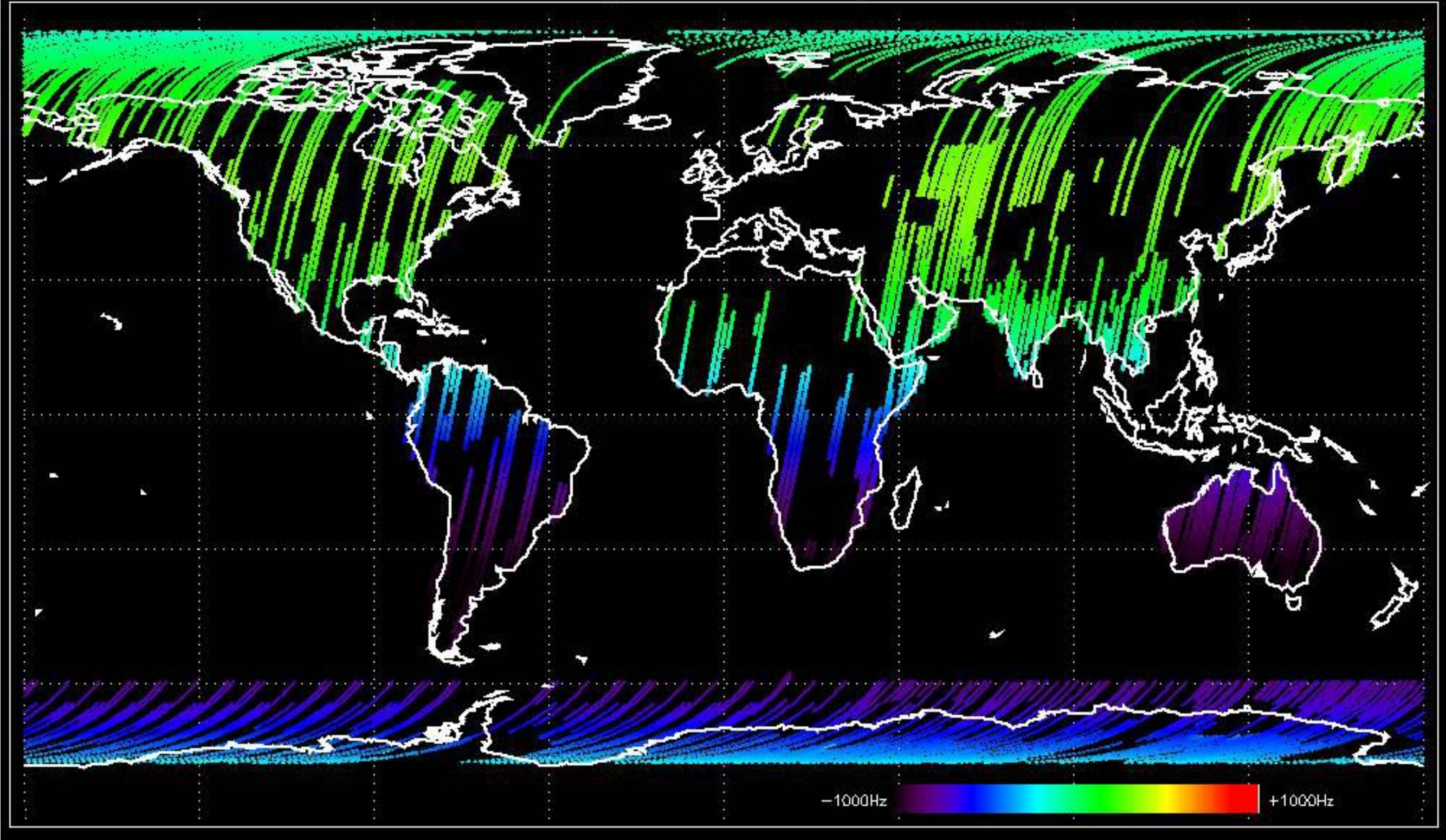


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

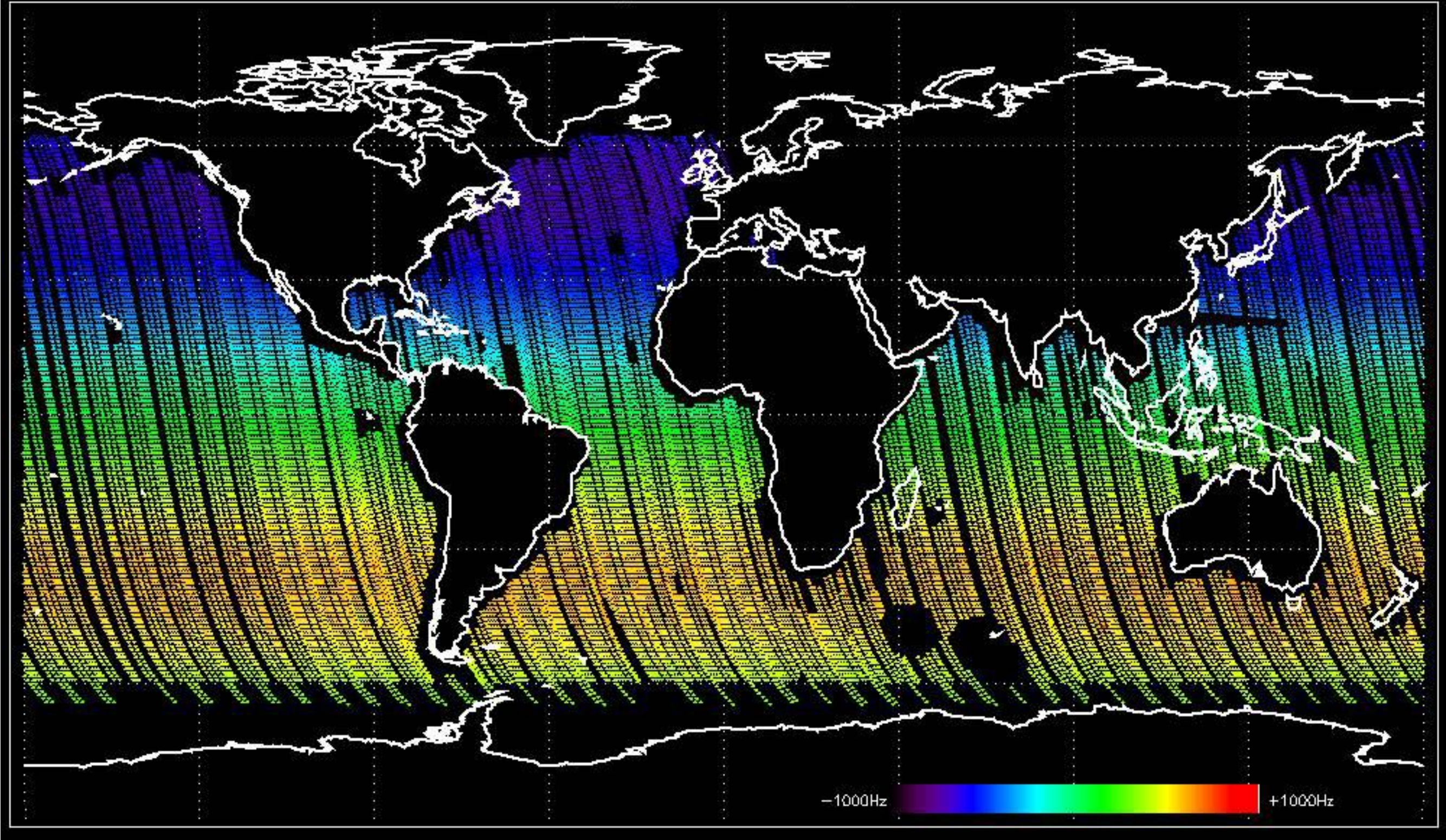
Doppler 'GM1' 'SS1' ascending



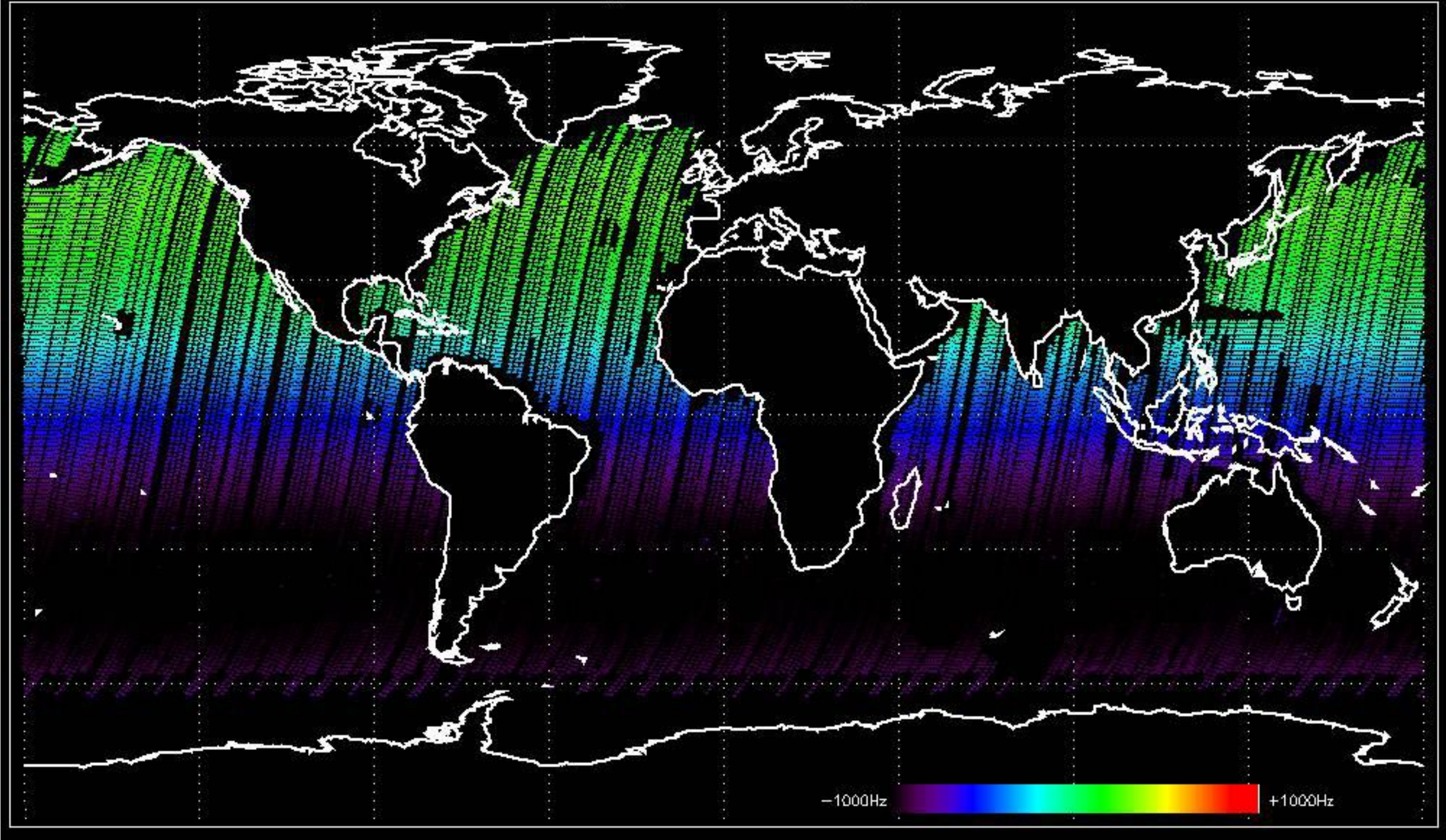
Doppler 'GM1' 'SS1' descending

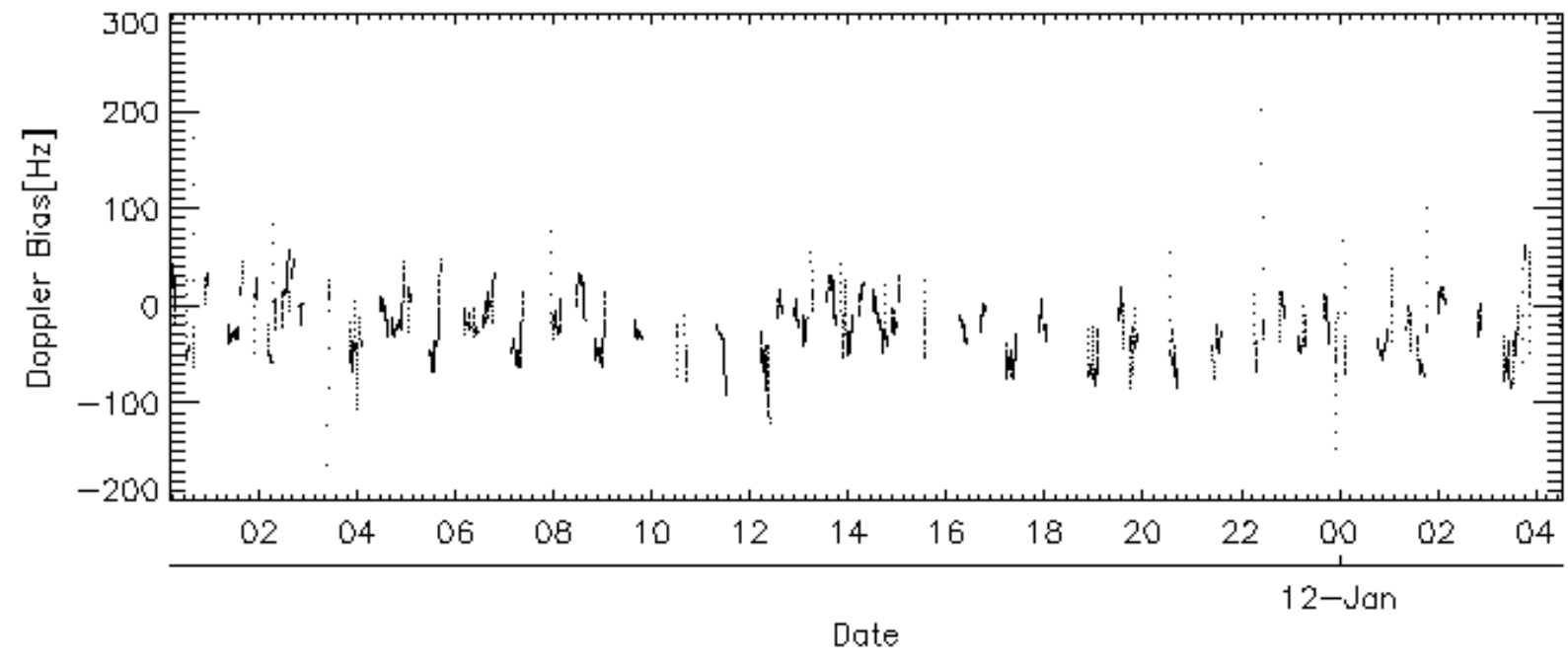
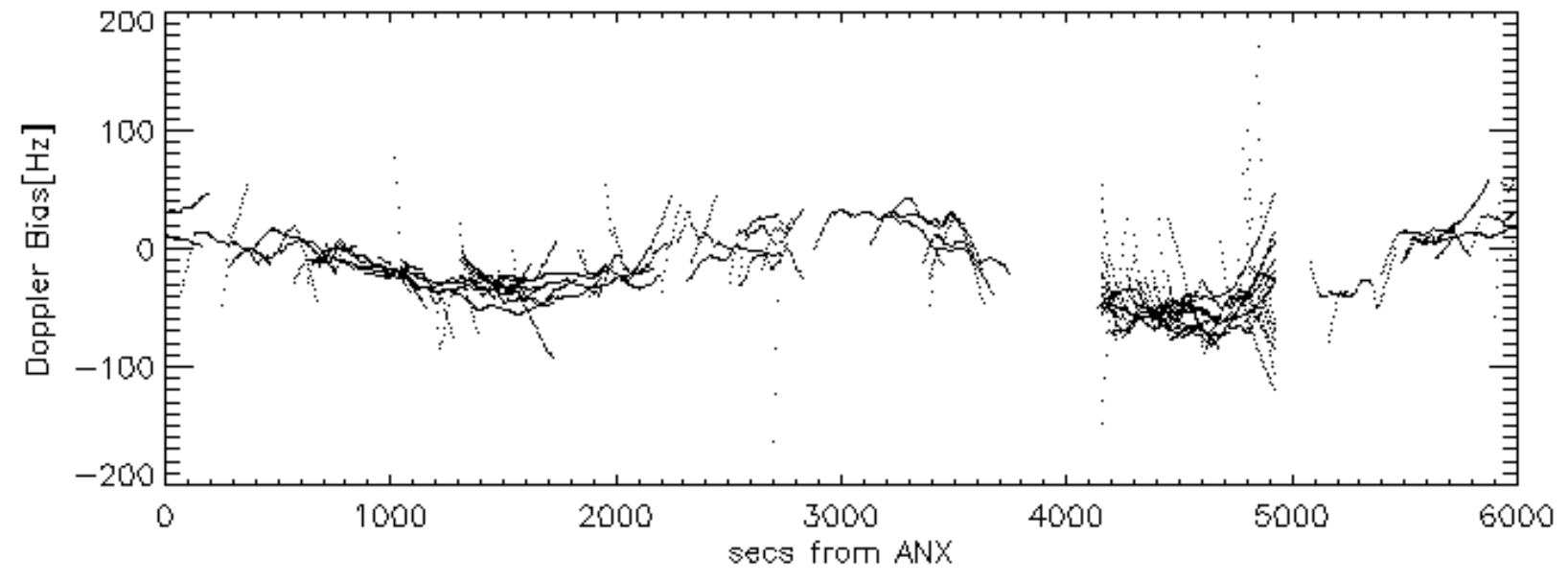
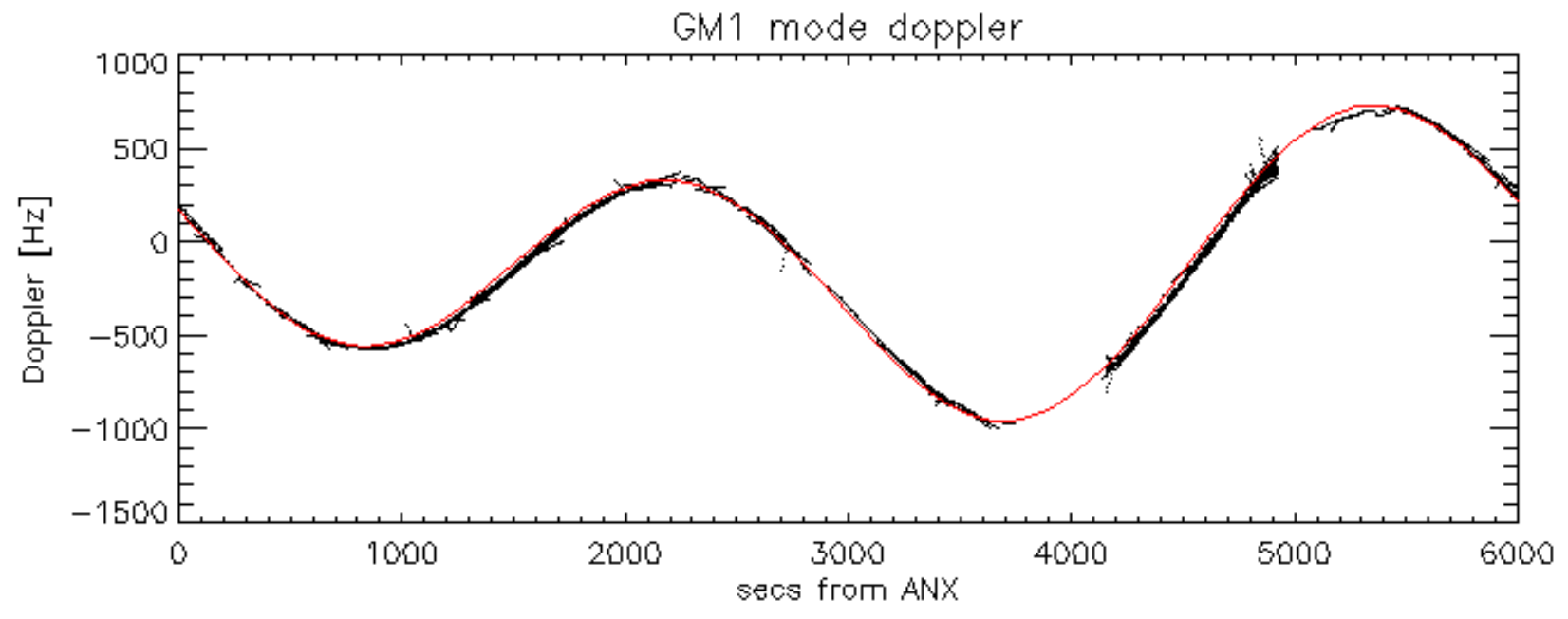


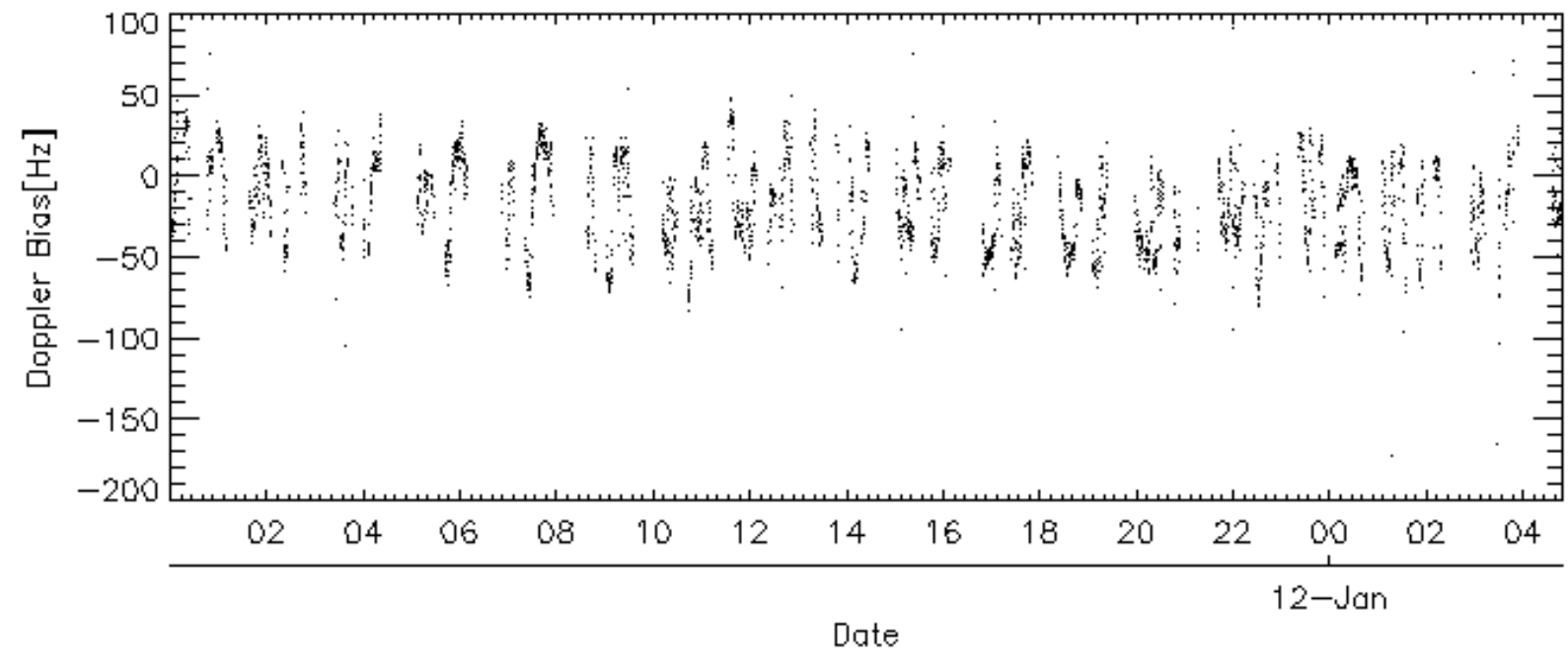
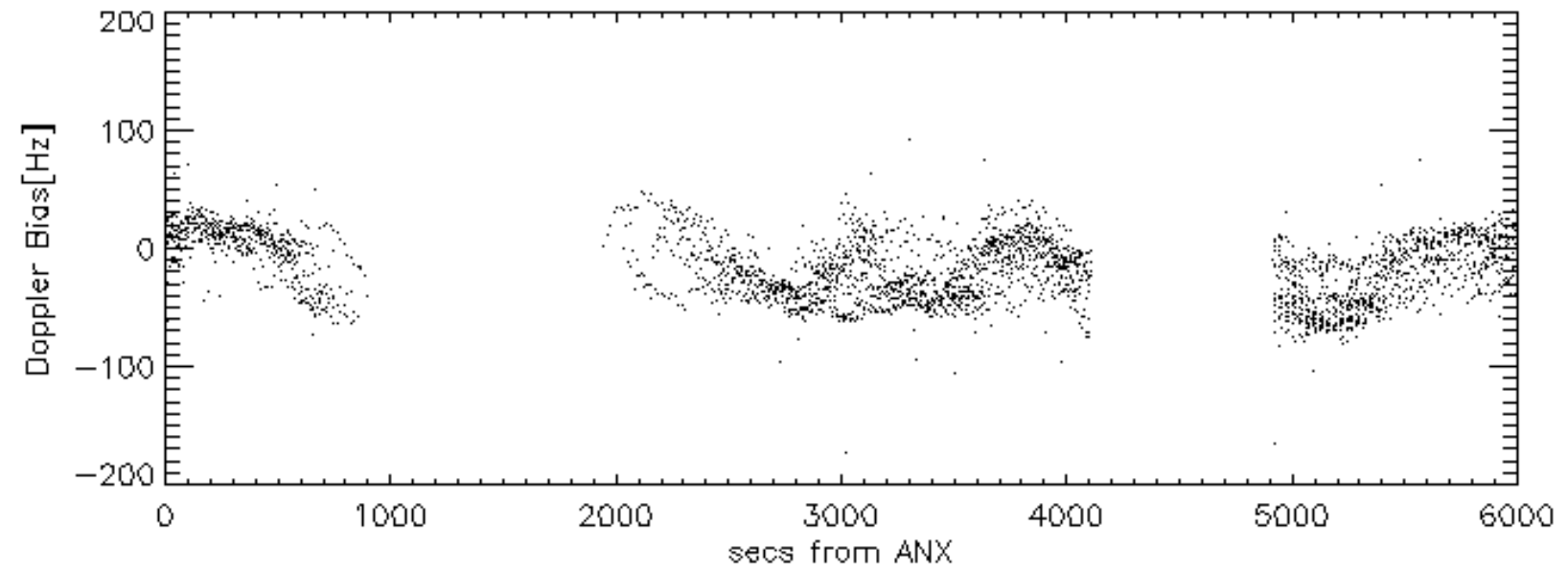
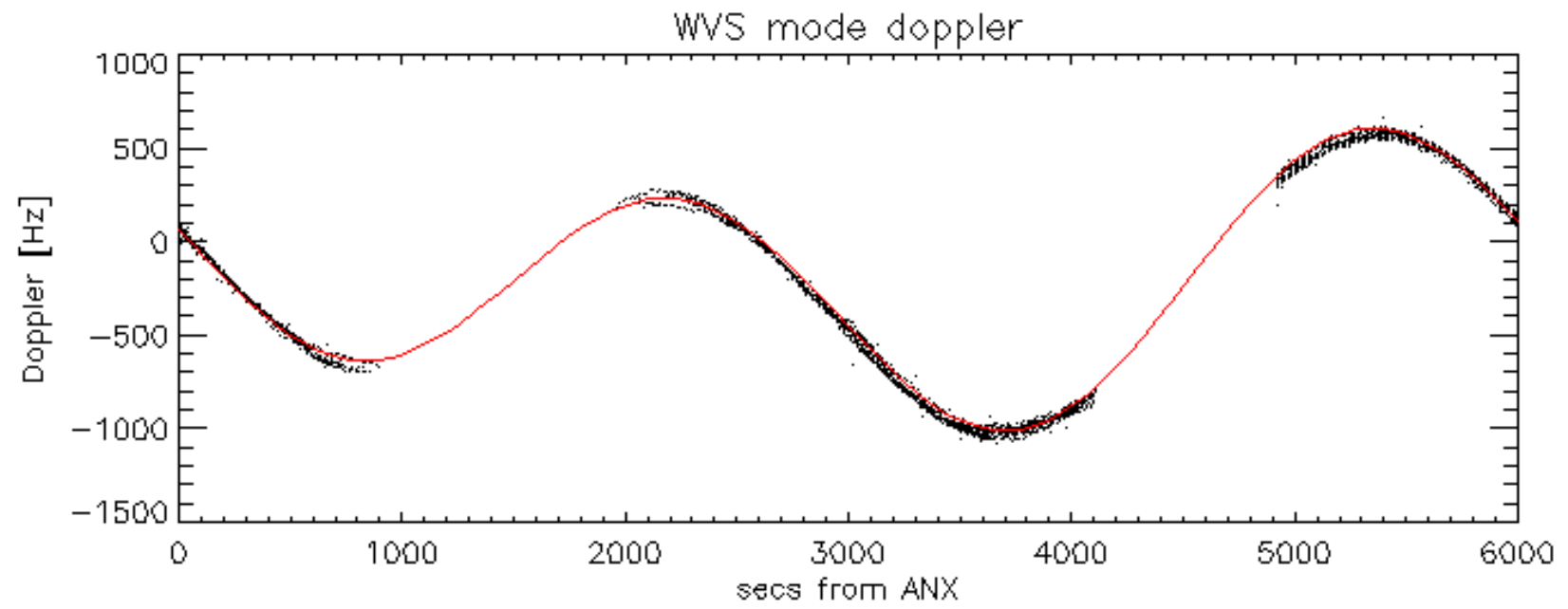
Doppler 'WVS' 'IS2' ascending



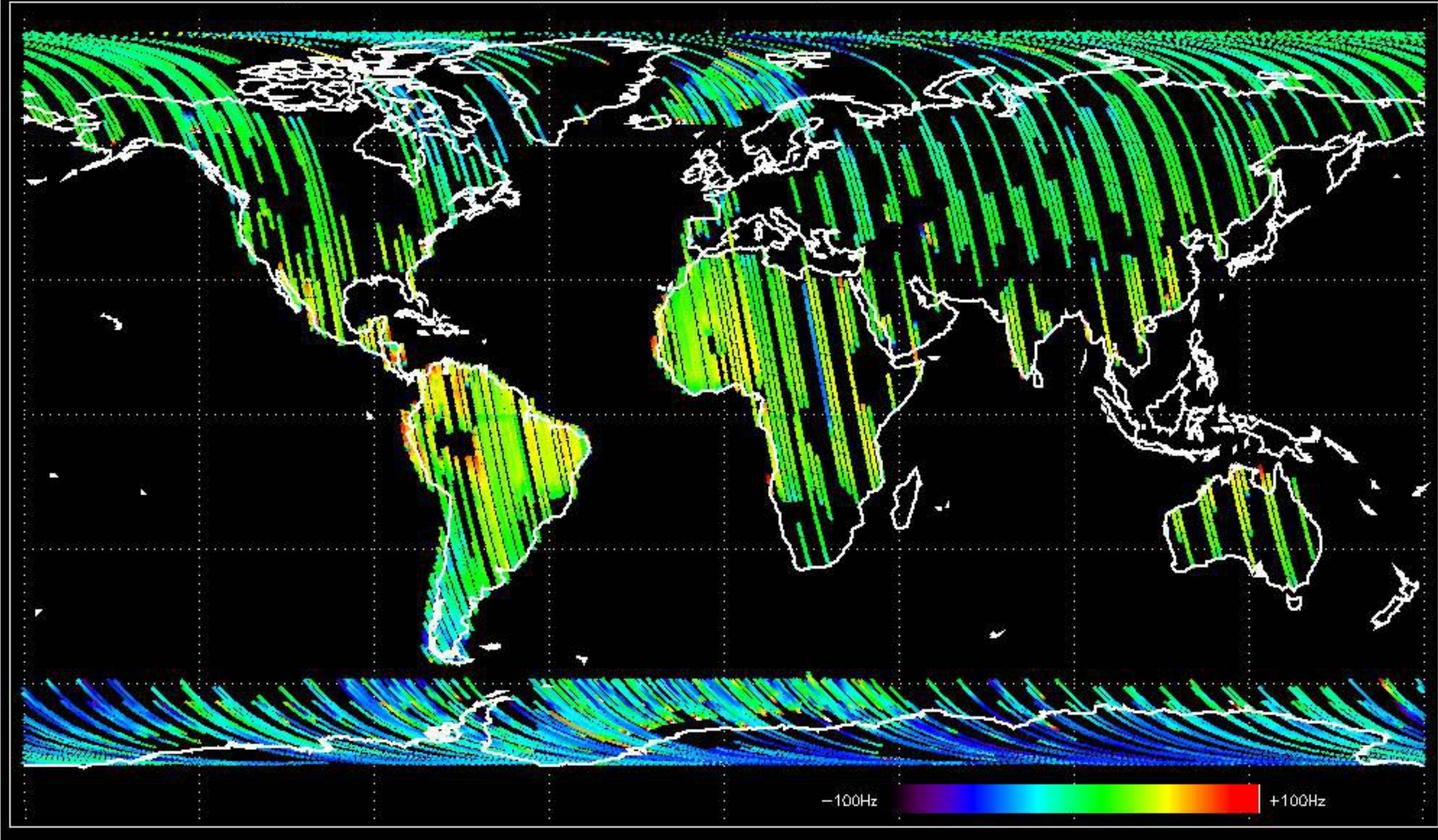
Doppler 'WVS' 'IS2' descending



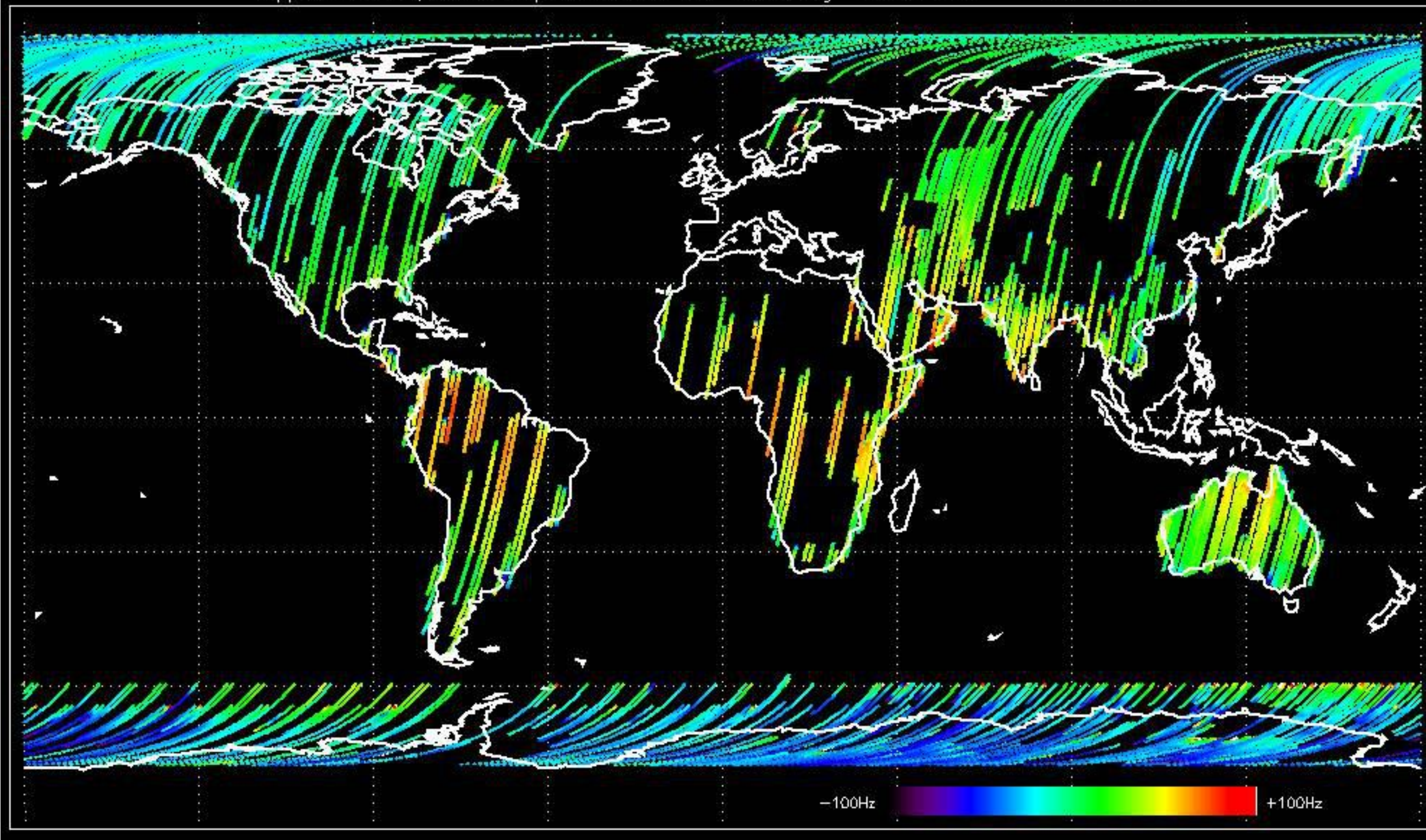




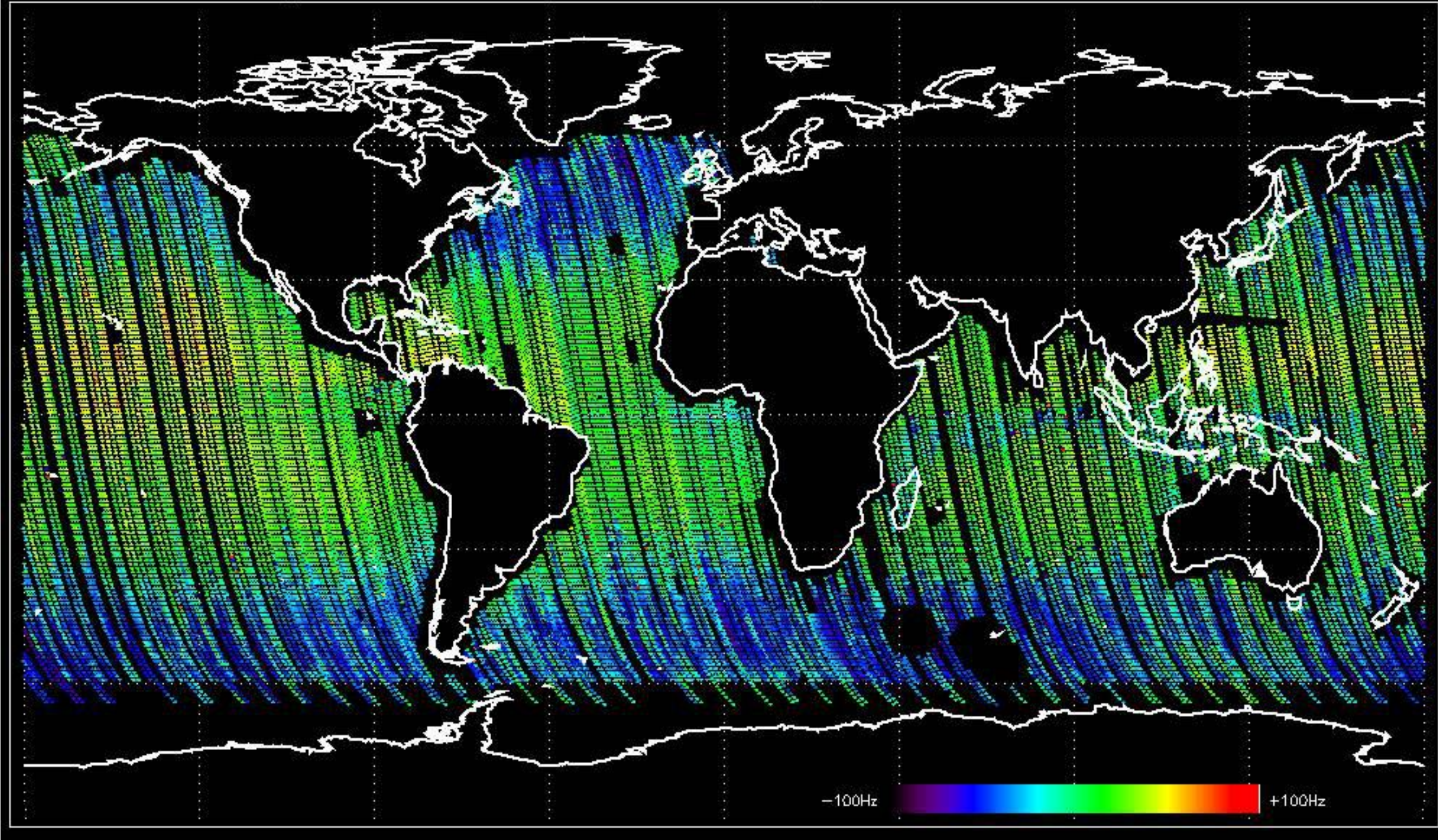
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -20.059430 Hz



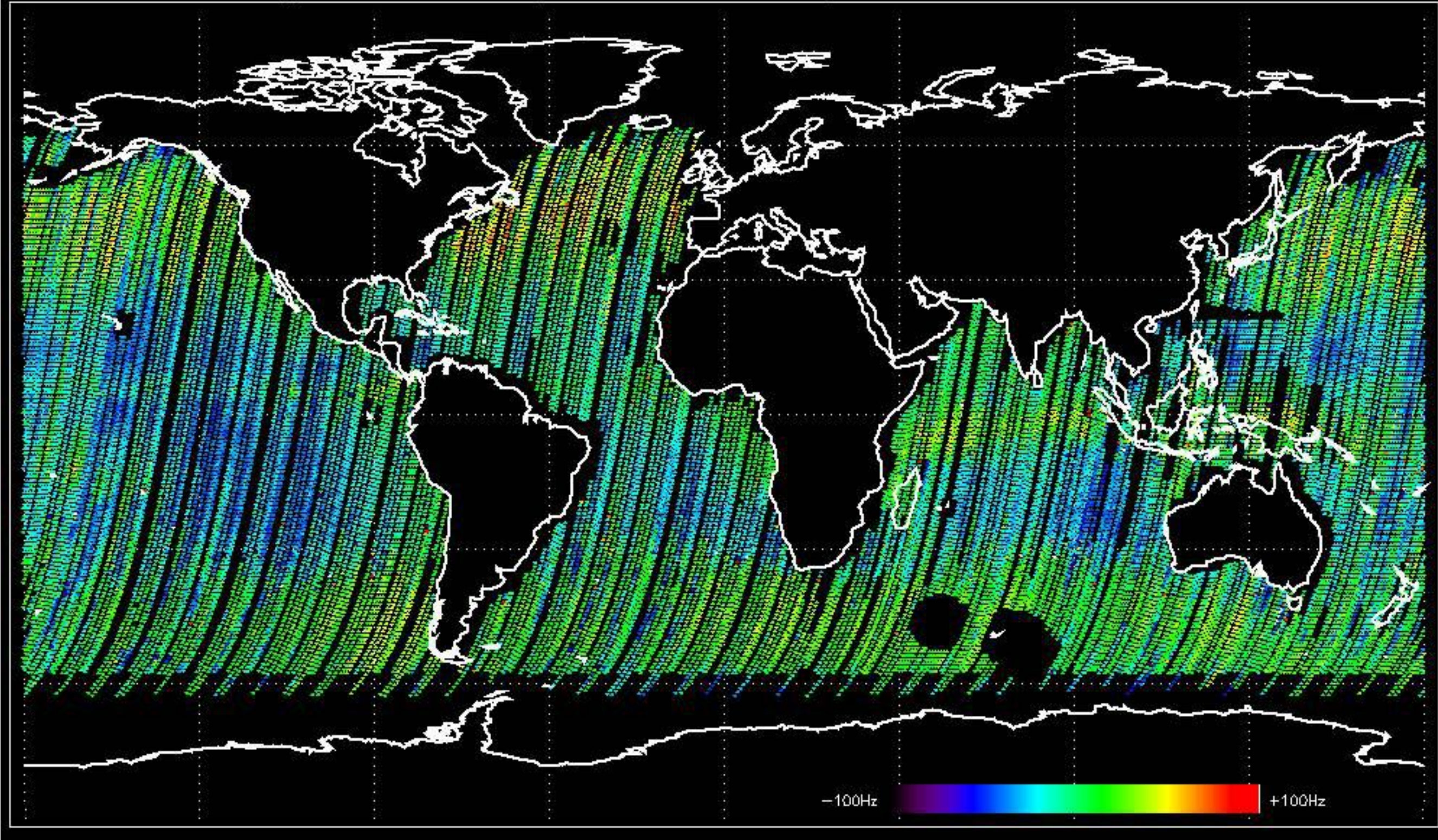
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -18.298360 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -11.482718 Hz

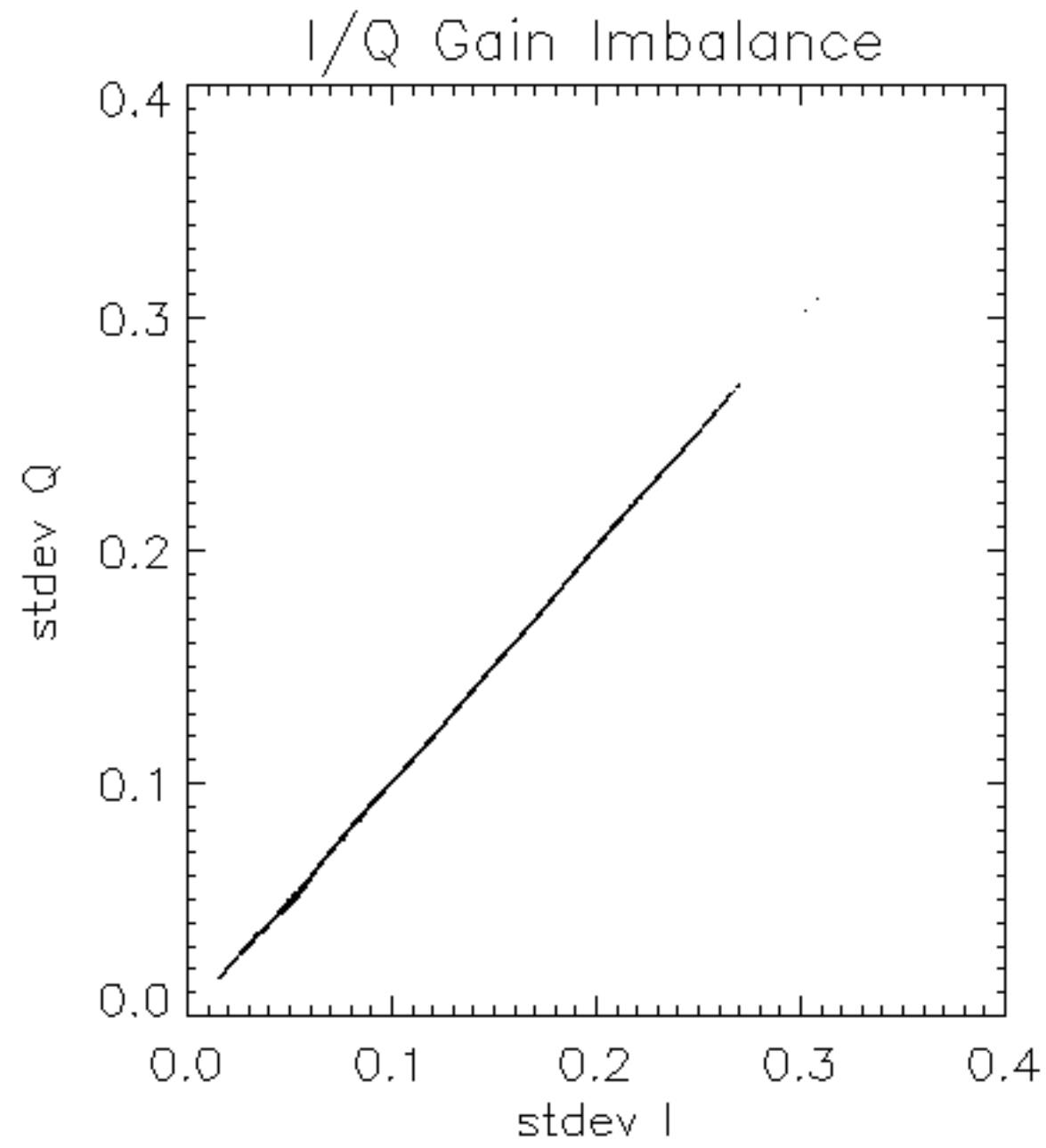


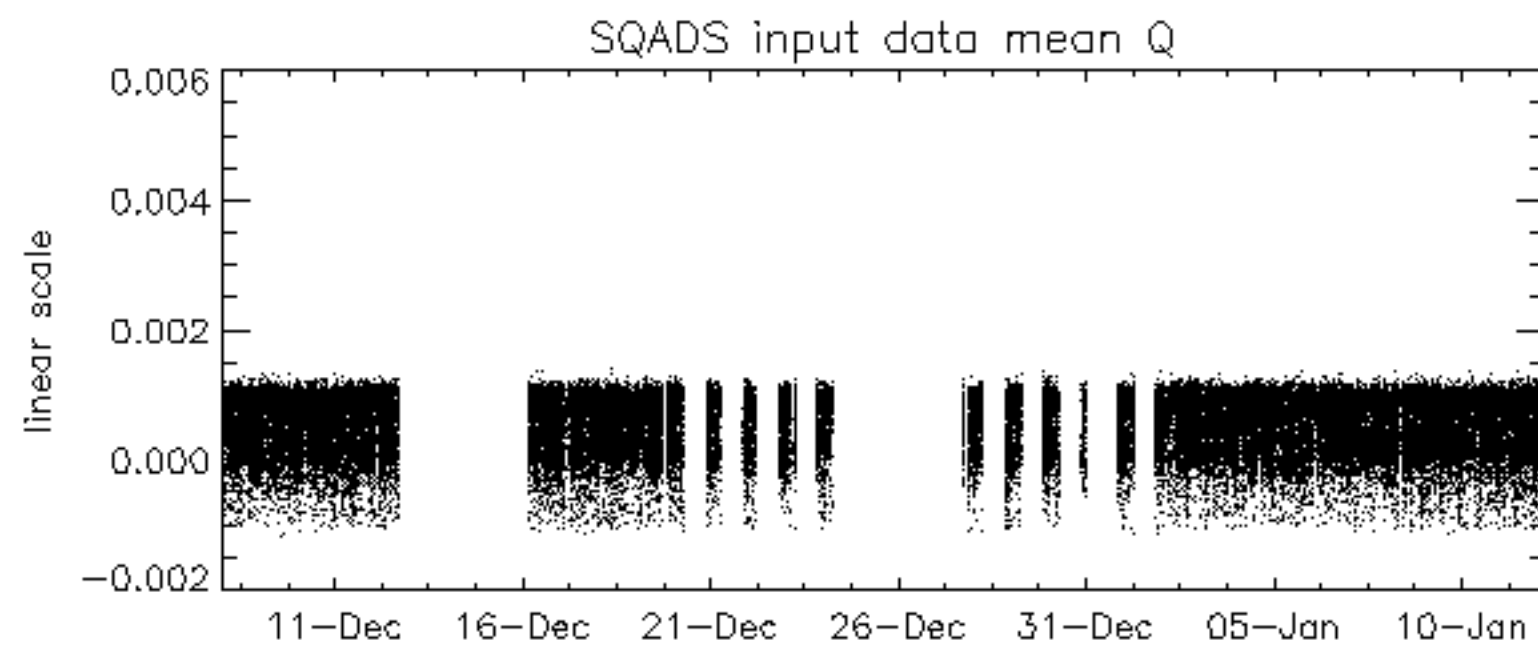
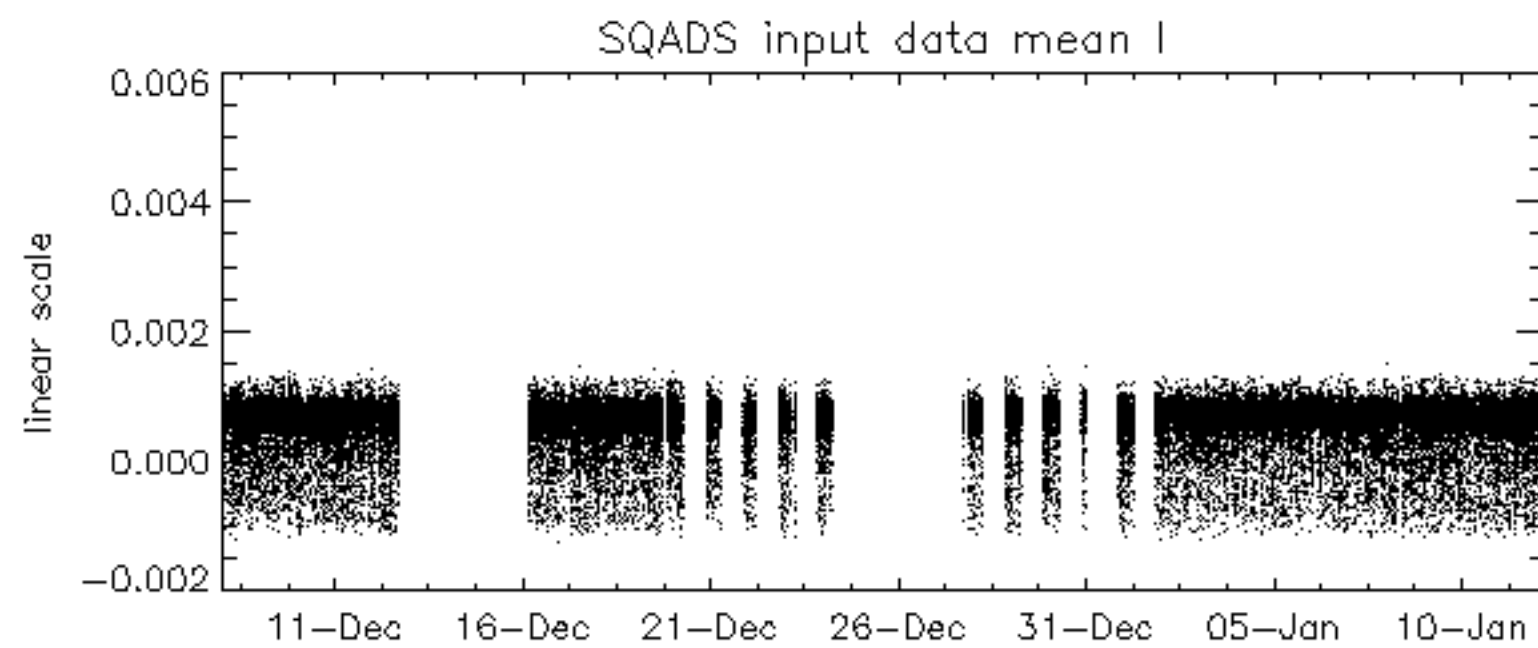
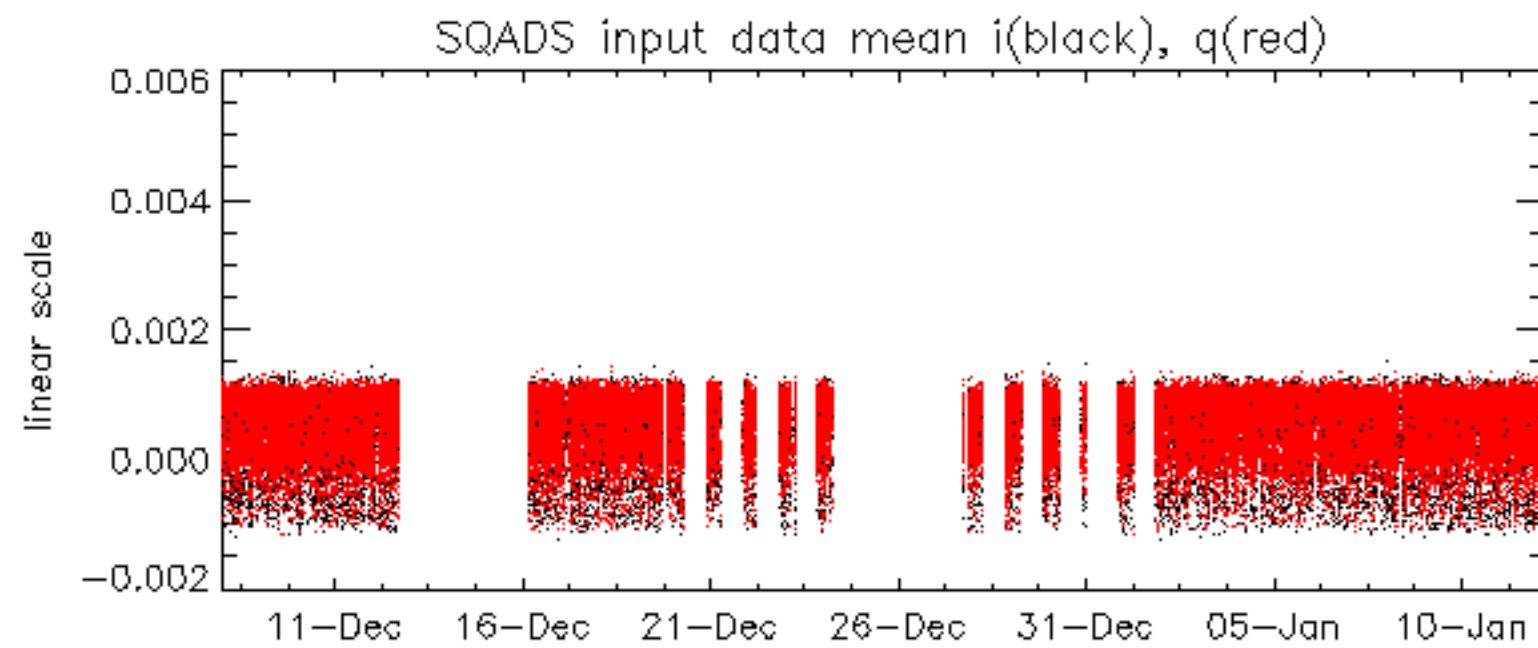
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -11.459971 Hz

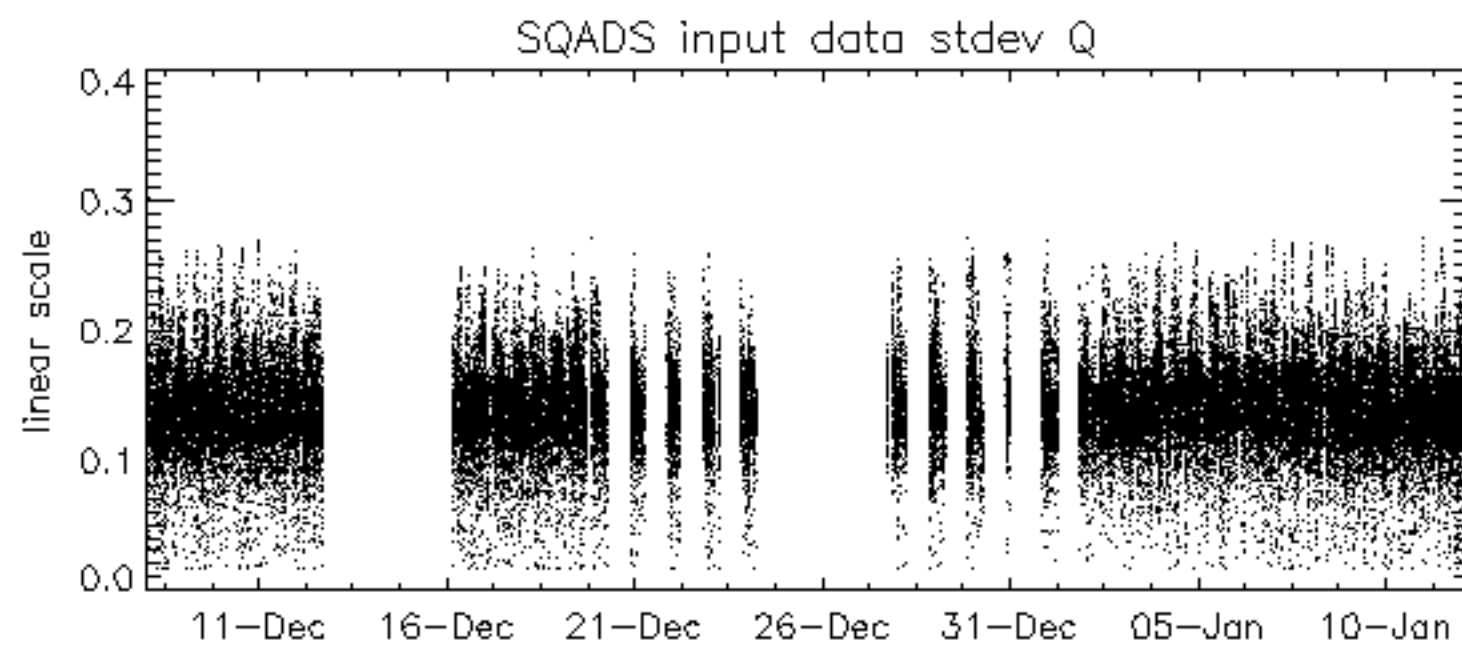
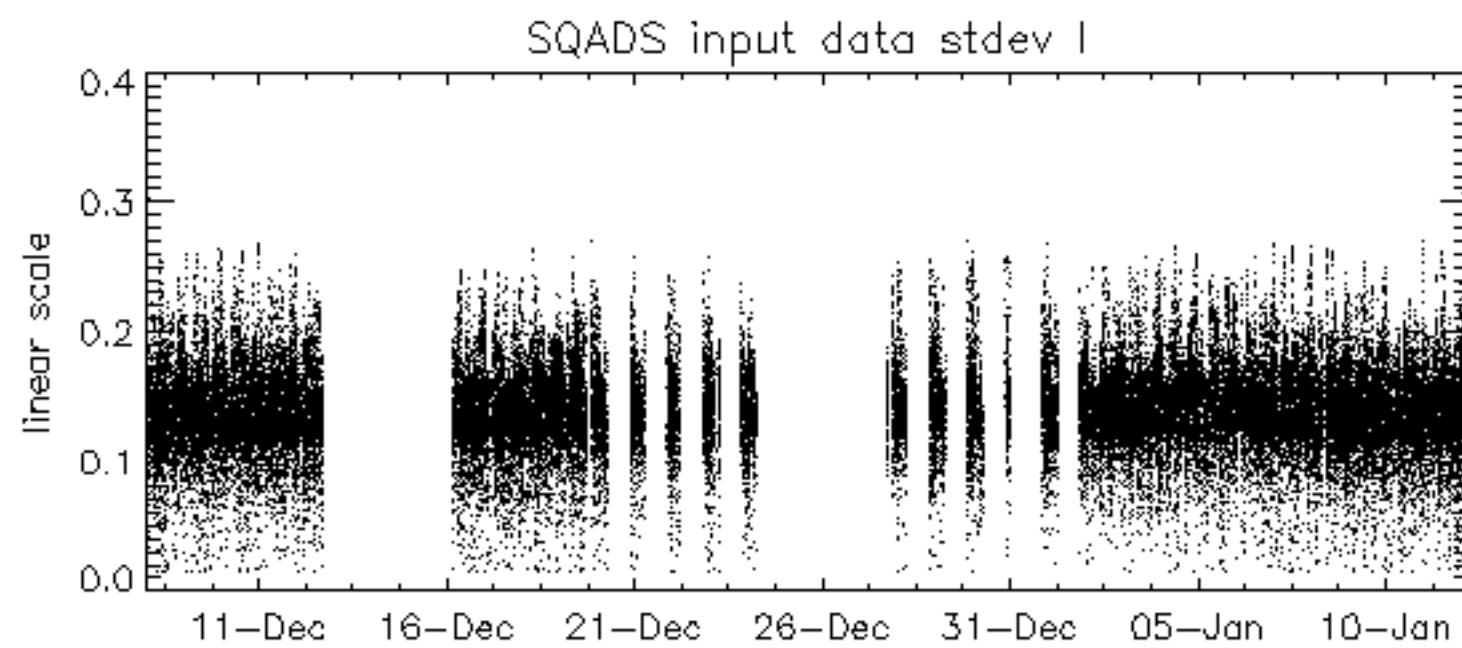
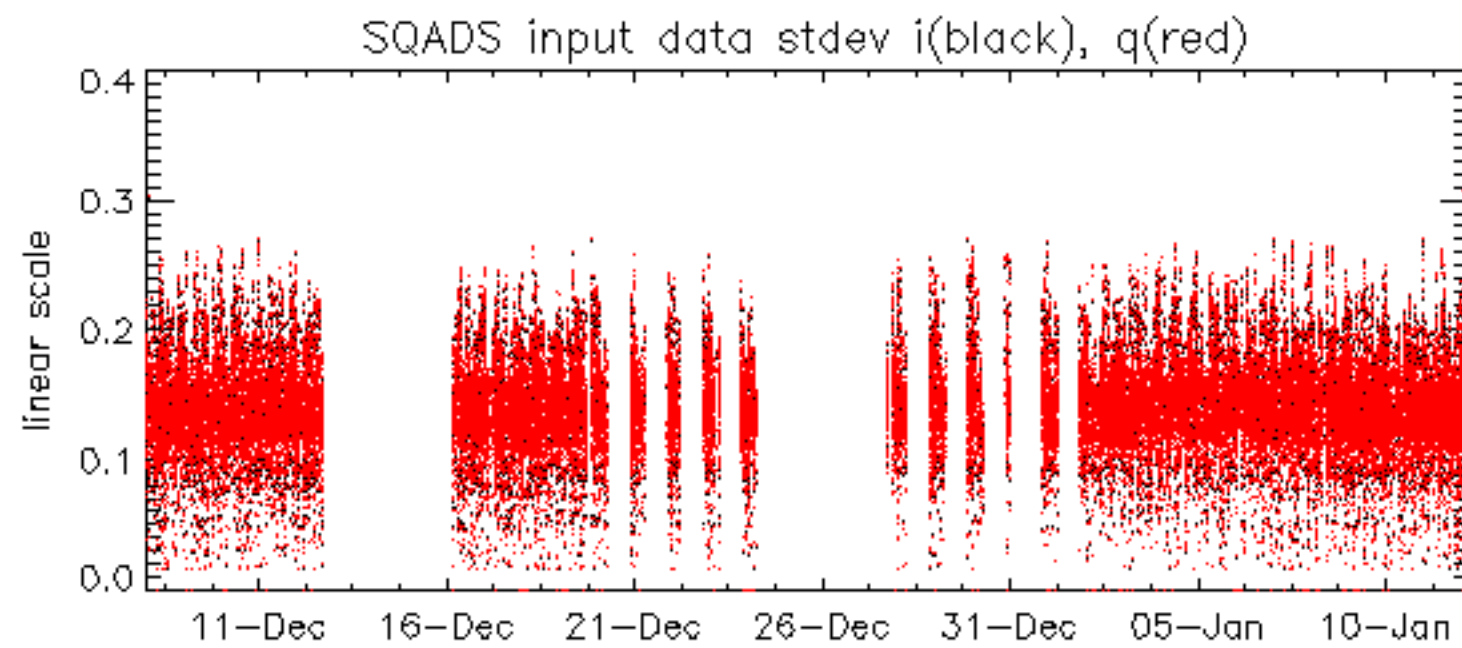


No anomalies observed on available MS products:

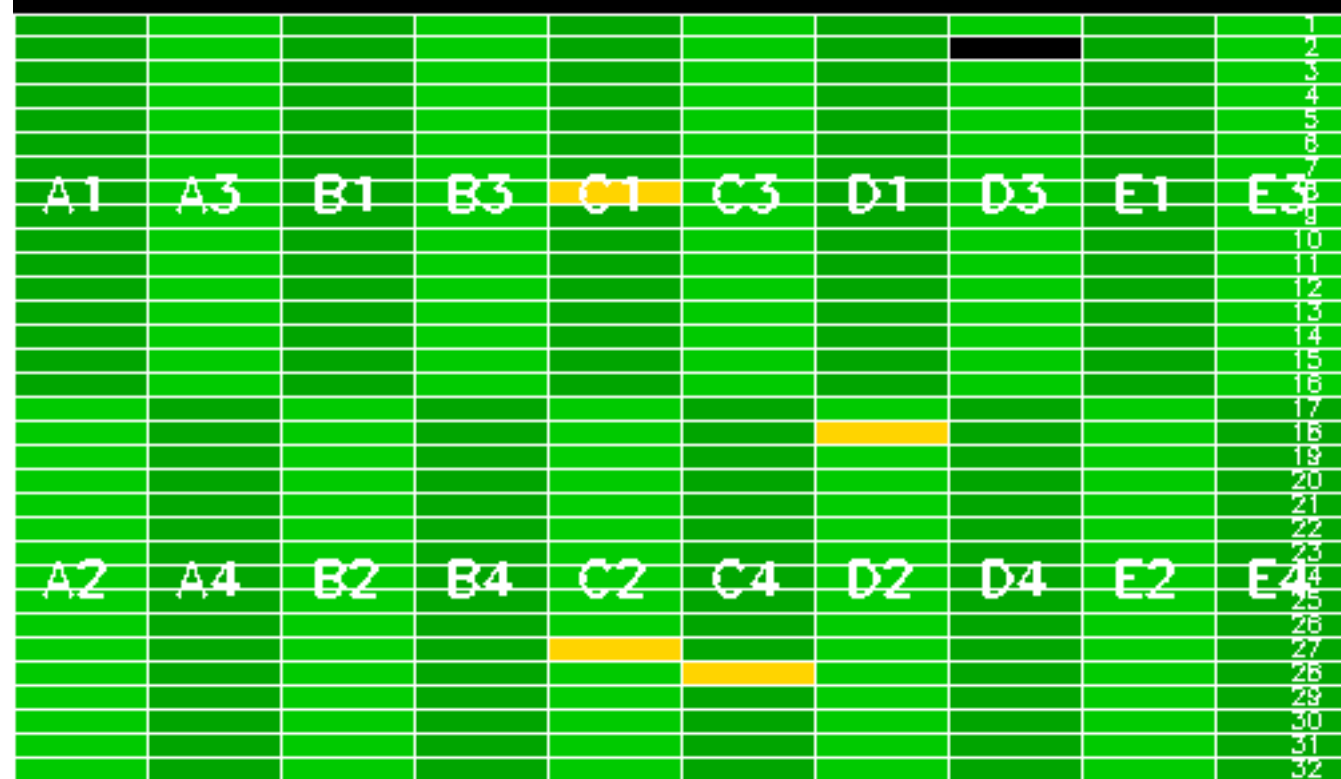
No anomalies observed.







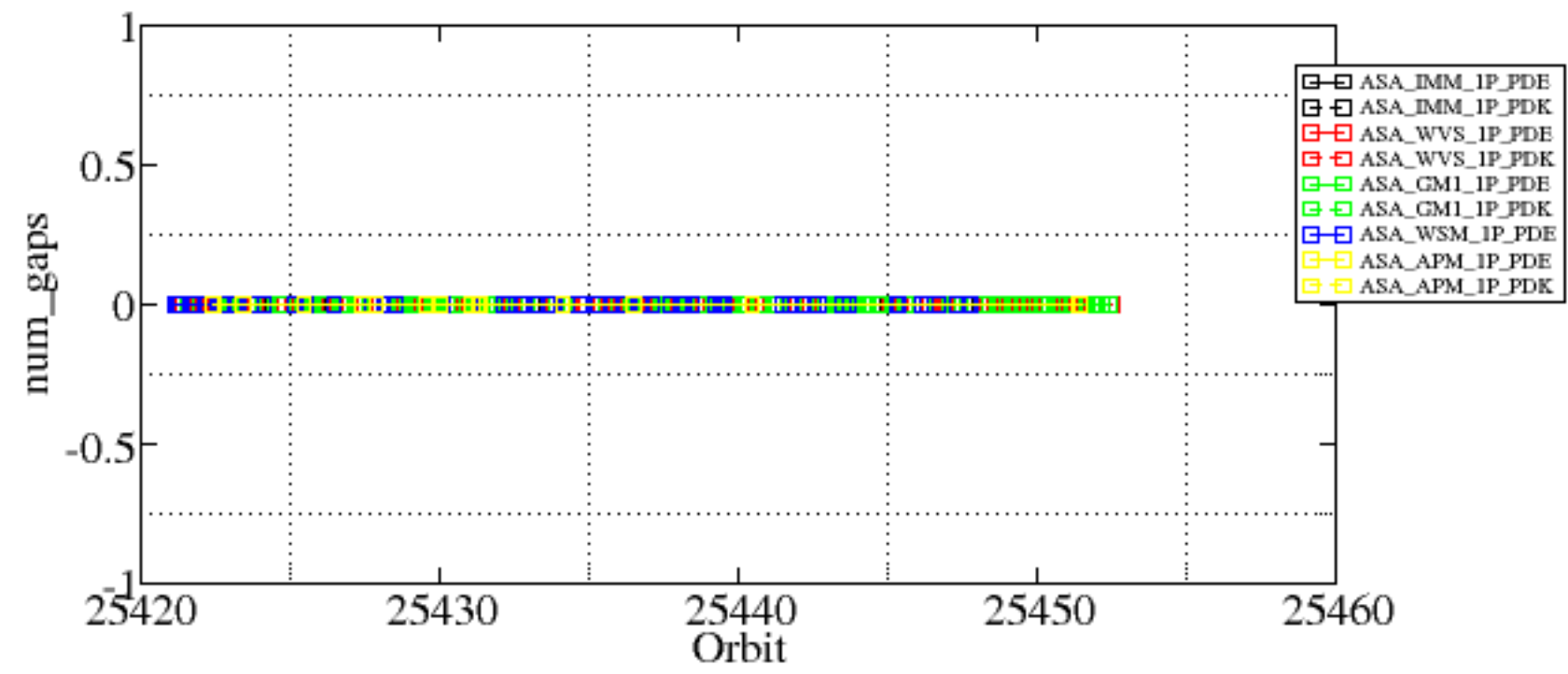
Reference: 2005-09-23 05:55:14 V TxGain
 Test : 2007-01-12 06:35:22 V



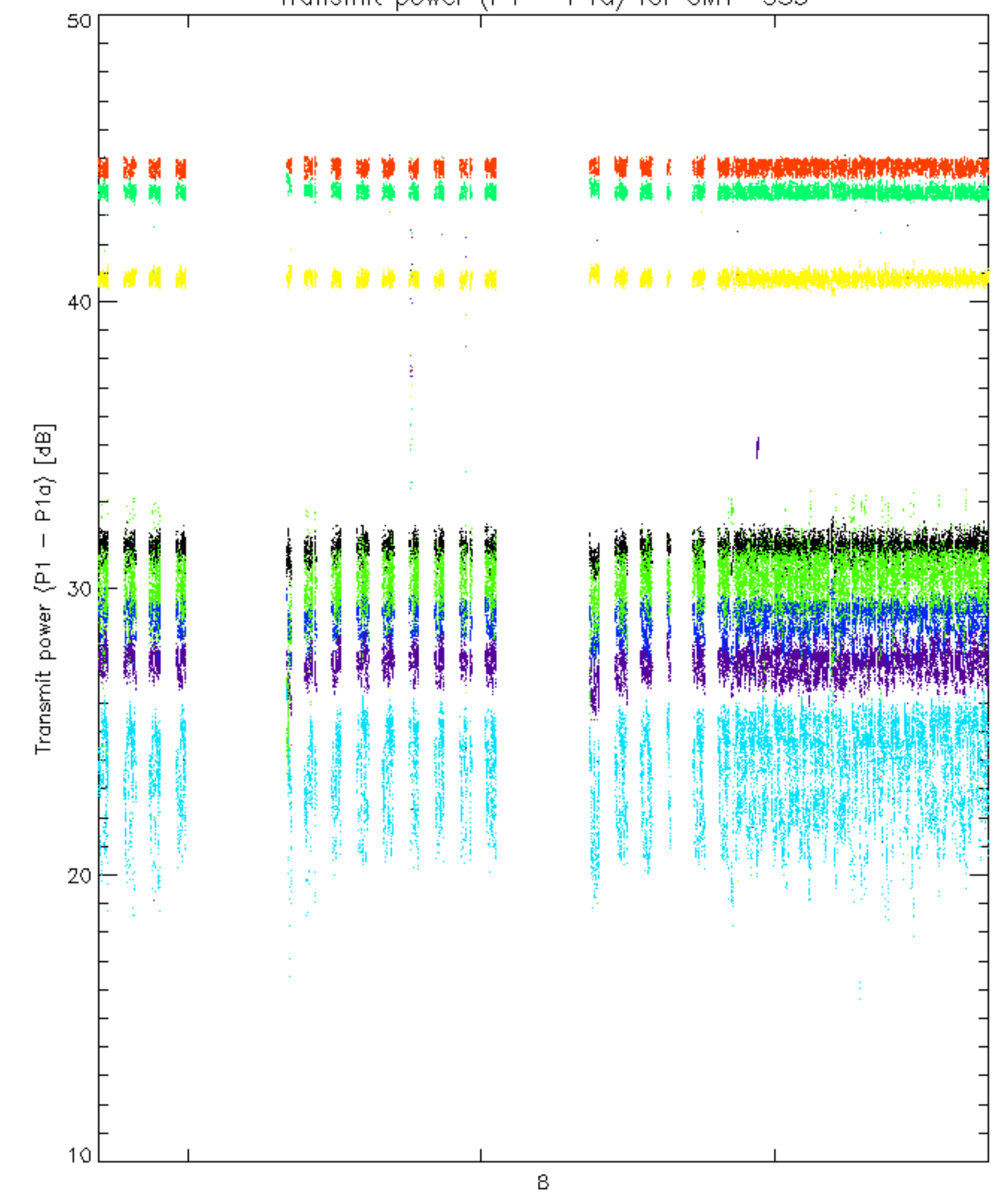
Summary of analysis for the last 3 days 2007011[012]

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

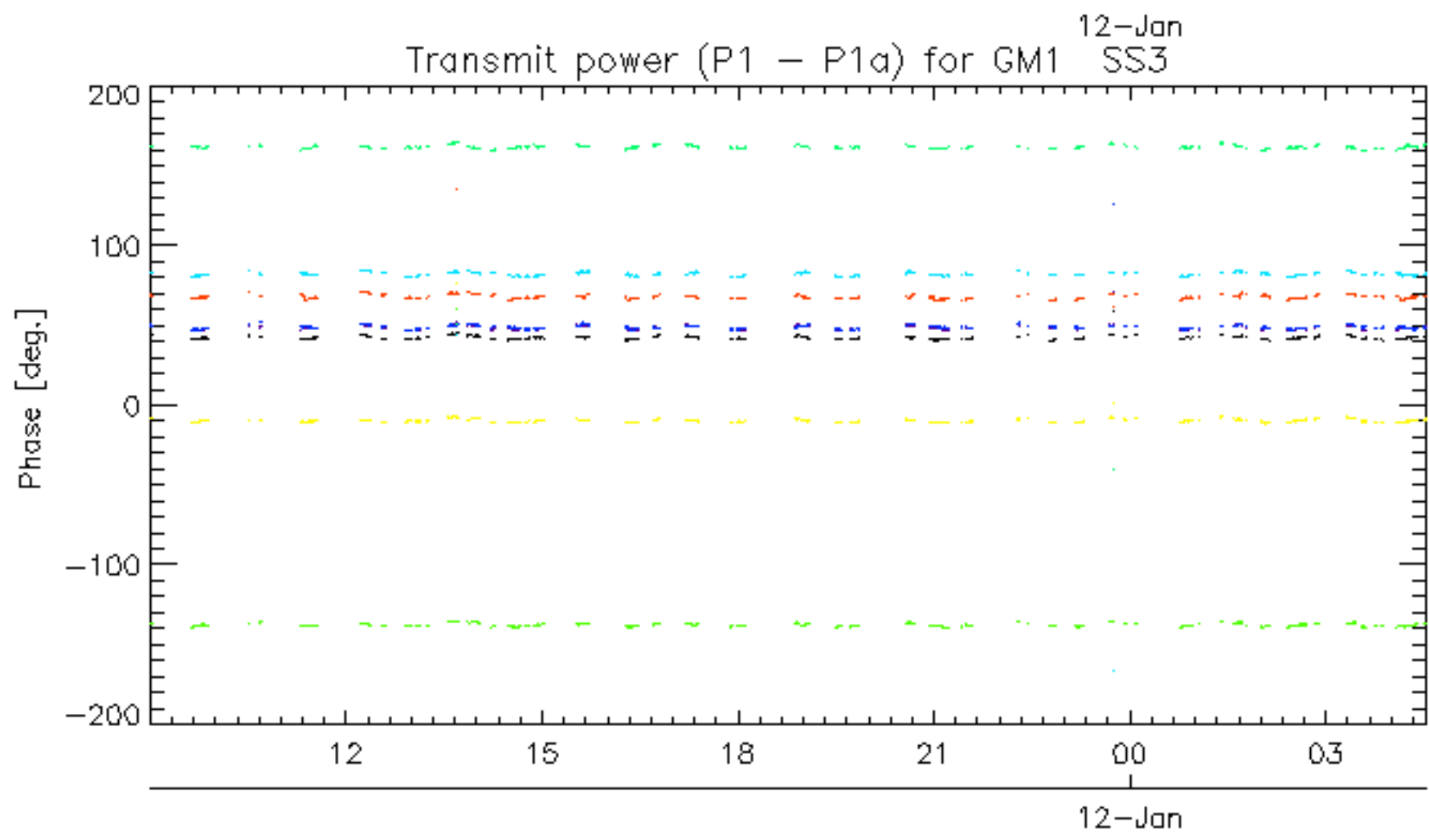
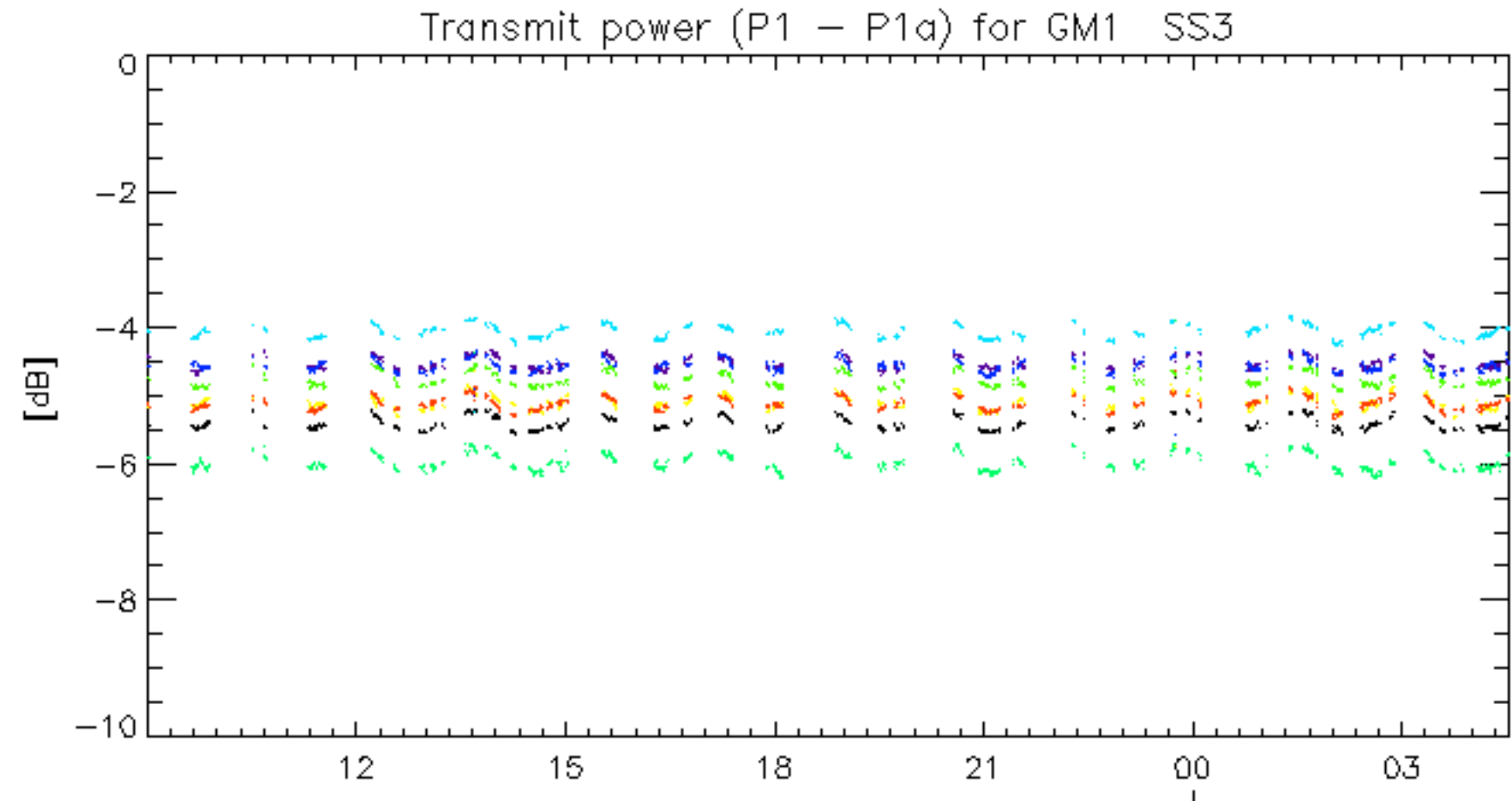
Filename	num_gaps	num_missing_lines
ASA_GM1_1PNPDK20070110_150643_000007062054_00326_25430_2010.N1	0	17
ASA_GM1_1PNPDK20070111_093819_000005432054_00337_25441_2629.N1	0	6
ASA_GM1_1PNPDK20070112_072909_000005072054_00350_25454_3551.N1	0	24
ASA_WSM_1PNPDE20070110_163701_000001582054_00327_25431_1812.N1	0	14
ASA_WSM_1PNPDE20070111_042351_000000672054_00334_25438_2884.N1	0	45
ASA_WSM_1PNPDE20070111_042351_000001842054_00334_25438_3099.N1	0	45
ASA_WSM_1PNPDE20070111_133030_000000852054_00339_25443_3444.N1	0	76



Transmit power (P1 - P1a) for GM1 SS3

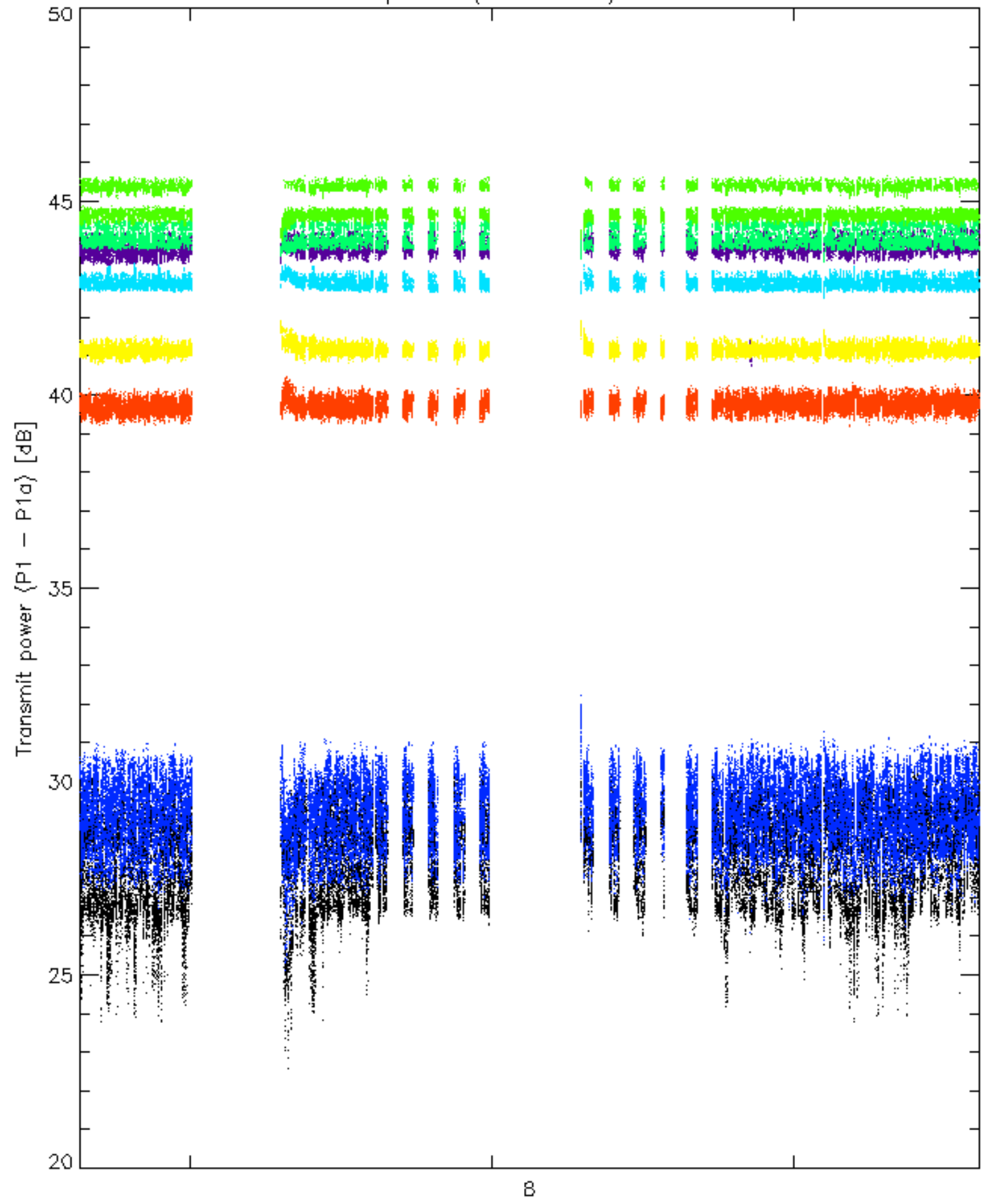


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

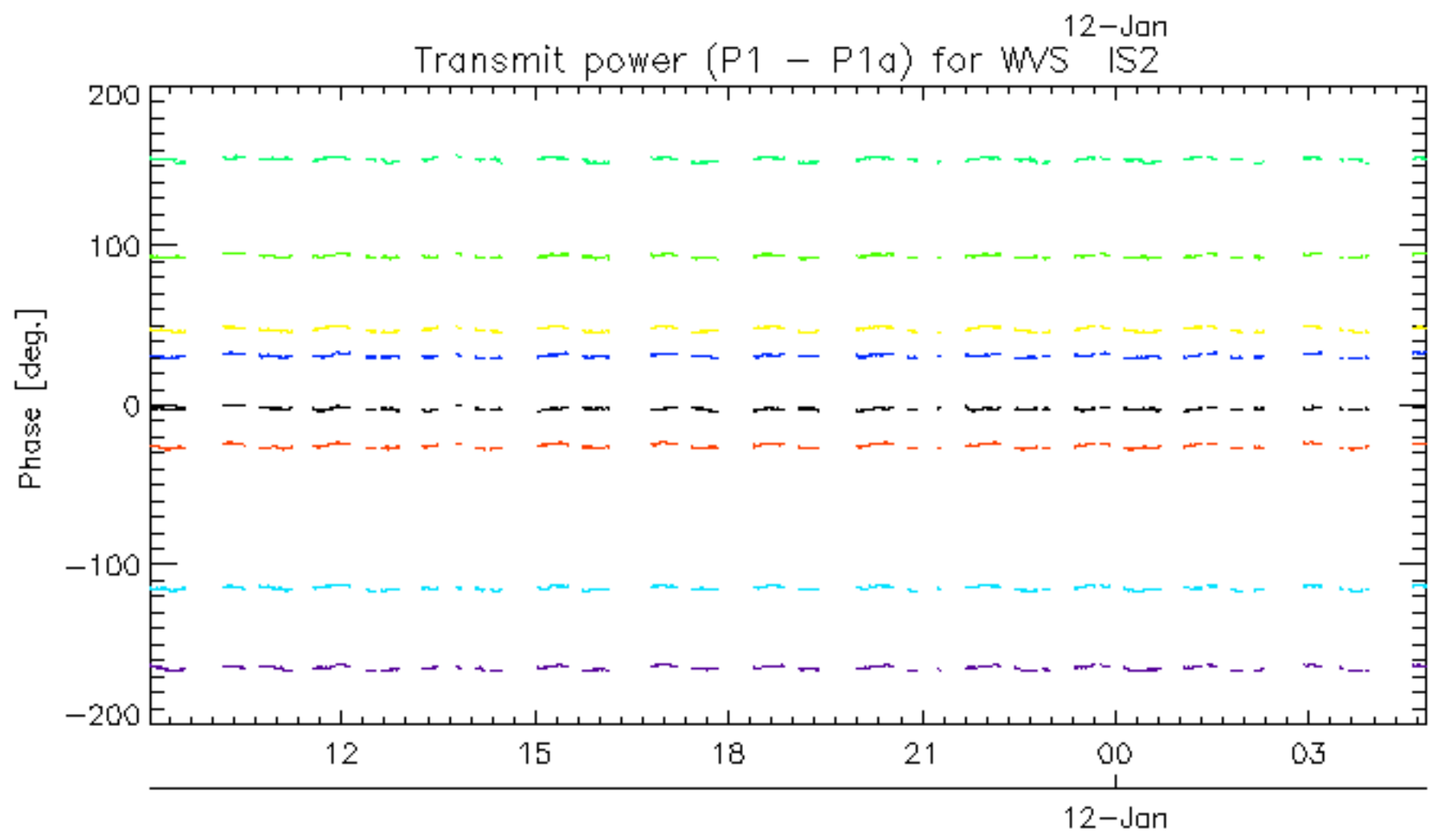
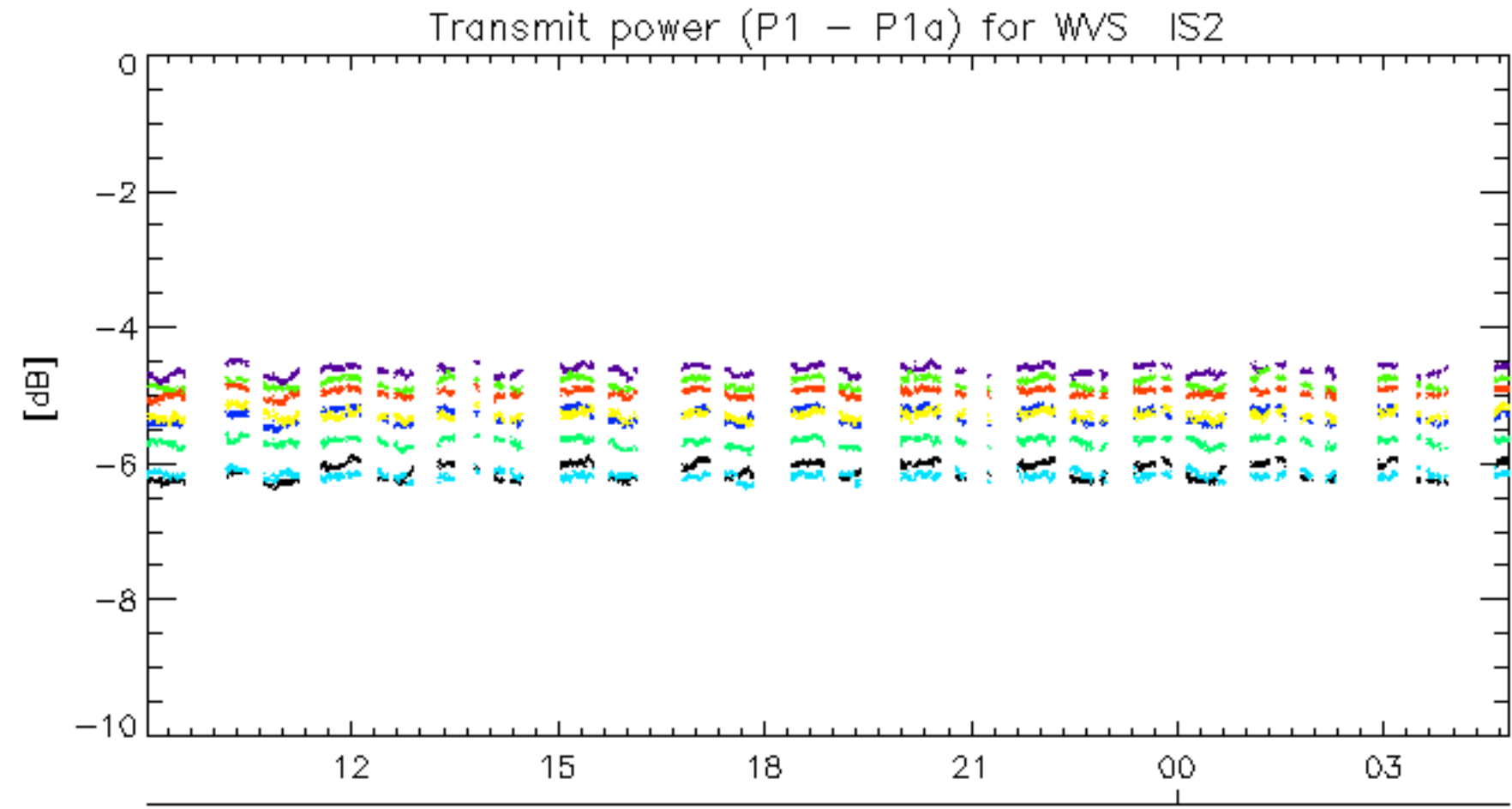


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Transmit power (P1 - P1a) for WVS IS2



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



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

No unavailabilities during the reported period.