

PRELIMINARY REPORT OF 051220

last update on Tue Dec 20 16:43:54 GMT 2005

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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 2005-12-19 00:00:00 to 2005-12-20 16:43:55

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	16	0	7	0	11
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	16	0	7	0	11
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	17	0	1	0	8
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	33	0	8	0	19
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	17	0	1	0	8
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	17	0	1	0	8
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	16	0	7	0	11

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	36	44	31	7	47
ASA_XCA_AXVIEC20051013_152531_20050916_195733_20061231_000000	36	44	31	7	47
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	9	16	4	2	11
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	45	60	35	9	58
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	9	16	4	2	11
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	9	16	4	2	11
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	36	44	31	7	47

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	20051219 084151
H	20051220 081013

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	-3.657824	0.241036	-0.080226
7	P1	-2.754259	0.127137	0.156981
11	P1	-4.147161	0.032235	-0.013820
15	P1	-5.112379	1.719199	0.679199
19	P1	-3.040159	0.063670	0.095397
22	P1	-4.438066	0.022201	0.036510
26	P1	-4.396526	0.060471	-0.100185
30	P1	-5.655482	0.034279	0.071410
3	P1	-15.592965	2.618173	-0.161096
7	P1	-15.317051	2.659417	0.747422
11	P1	-16.321259	0.476858	0.197360
15	P1	-12.774147	0.988190	0.668554
19	P1	-13.427748	0.355307	0.215777
22	P1	-16.008139	0.632117	0.335602
26	P1	-15.112328	1.098285	0.605562
30	P1	-15.588556	2.467359	0.782671

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.842712	0.110655	0.130877
7	P2	-22.550293	0.104901	0.027388
11	P2	-16.555052	0.125704	0.136306
15	P2	-7.278772	0.104088	-0.009392

19	P2	-9.218575	0.102029	0.010936
22	P2	-17.870798	0.111401	-0.008320
26	P2	-16.367626	0.132286	-0.141742
30	P2	-19.788649	0.118350	-0.076583

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.235535	0.007525	-0.004605
7	P3	-8.235535	0.007525	-0.004605
11	P3	-8.235535	0.007525	-0.004605
15	P3	-8.235535	0.007525	-0.004605
19	P3	-8.235535	0.007525	-0.004605
22	P3	-8.235535	0.007525	-0.004605
26	P3	-8.235535	0.007525	-0.004605
30	P3	-8.235535	0.007525	-0.004605

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	-3.701236	0.008106	-0.019406
7	P1	-2.775320	0.011782	0.021136
11	P1	-2.876077	0.014745	-0.000919
15	P1	-3.408604	0.021600	-0.020119
19	P1	-3.388143	0.013678	-0.022951
22	P1	-5.123883	0.019152	-0.004032
26	P1	-5.838733	0.016180	-0.033697
30	P1	-5.279370	0.033306	-0.034417

3	P1	-11.477586	0.041265	-0.029427
7	P1	-9.967928	0.046228	-0.014173
11	P1	-10.049923	0.060417	0.021432
15	P1	-10.571107	0.079727	0.089539
19	P1	-15.513439	0.072932	-0.059595
22	P1	-20.956915	0.966488	-0.150927
26	P1	-17.181610	0.303525	0.009280
30	P1	-18.284916	0.307578	0.262234

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.621250	0.030050	0.045729
7	P2	-23.050489	0.058205	-0.039643
11	P2	-11.628716	0.021231	0.110605
15	P2	-4.986038	0.021468	-0.046861
19	P2	-6.965728	0.022629	-0.056766
22	P2	-8.195301	0.022957	-0.059761
26	P2	-24.049709	0.031445	-0.028954
30	P2	-22.124254	0.018812	-0.055026

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.076621	0.002455	-0.009989
7	P3	-8.076690	0.002452	-0.009974
11	P3	-8.076599	0.002442	-0.010479
15	P3	-8.076622	0.002455	-0.010831
19	P3	-8.076667	0.002456	-0.010356
22	P3	-8.076683	0.002456	-0.010148
26	P3	-8.076561	0.002429	-0.010744
30	P3	-8.076296	0.002453	-0.010418

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	0.000463371
	stdev	2.16873e-07
MEAN Q	mean	0.000479818
	stdev	2.36530e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.129096
	stdev	0.00108682
STDEV Q	mean	0.129381
	stdev	0.00109909



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005121[890]

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
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ASA_IMM_1PNPDE20051218_003640_000001812043_00274_19867_4206.N1	1	0
ASA_IMM_1PNPDE20051219_004807_000002122043_00288_19881_4281.N1	1	0
ASA_IMM_1PNPDK20051219_124842_000001212043_00296_19889_9459.N1	1	0
ASA_WSM_1PNPDE20051210_012121_000004282043_00160_19753_3544.N1	0	65
ASA_WSM_1PNPDE20051210_161814_000001462043_00169_19762_3611.N1	0	1
ASA_WSM_1PNPDE20051218_163148_000001292043_00284_19877_4793.N1	0	70
ASA_WSM_1PNPDE20051218_181506_000001292043_00285_19878_4809.N1	0	8
ASA_WSM_1PNPDE20051218_231423_000001102043_00288_19881_4861.N1	0	12
ASA_WSM_1PNPDE20051219_041808_000001462043_00291_19884_4882.N1	0	29





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)


Ascending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Ascending

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"/>

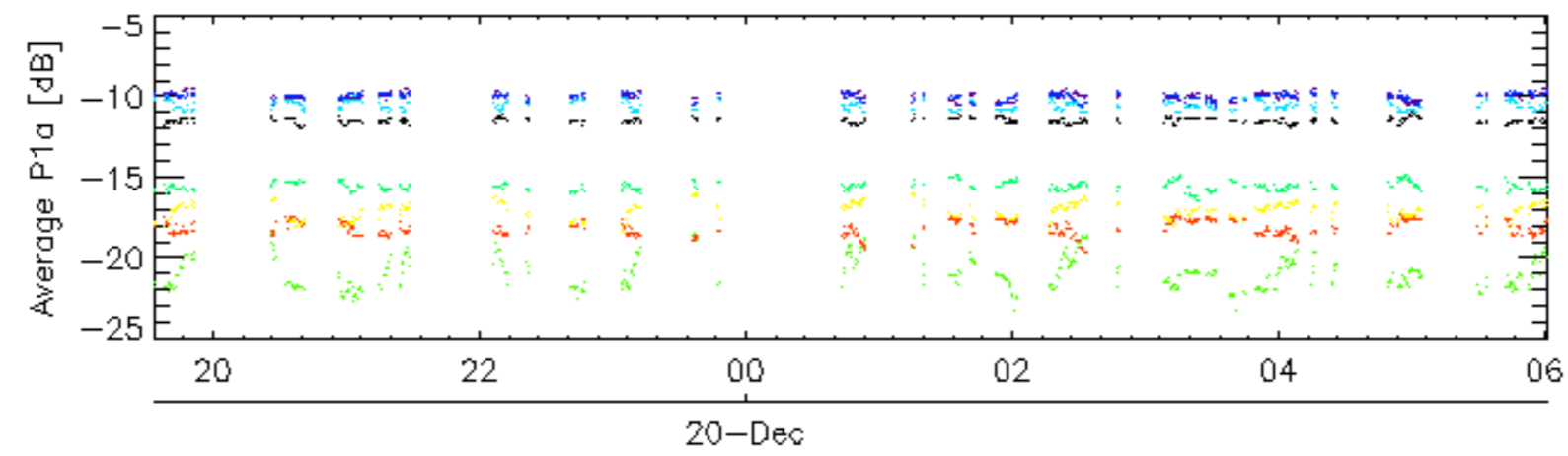
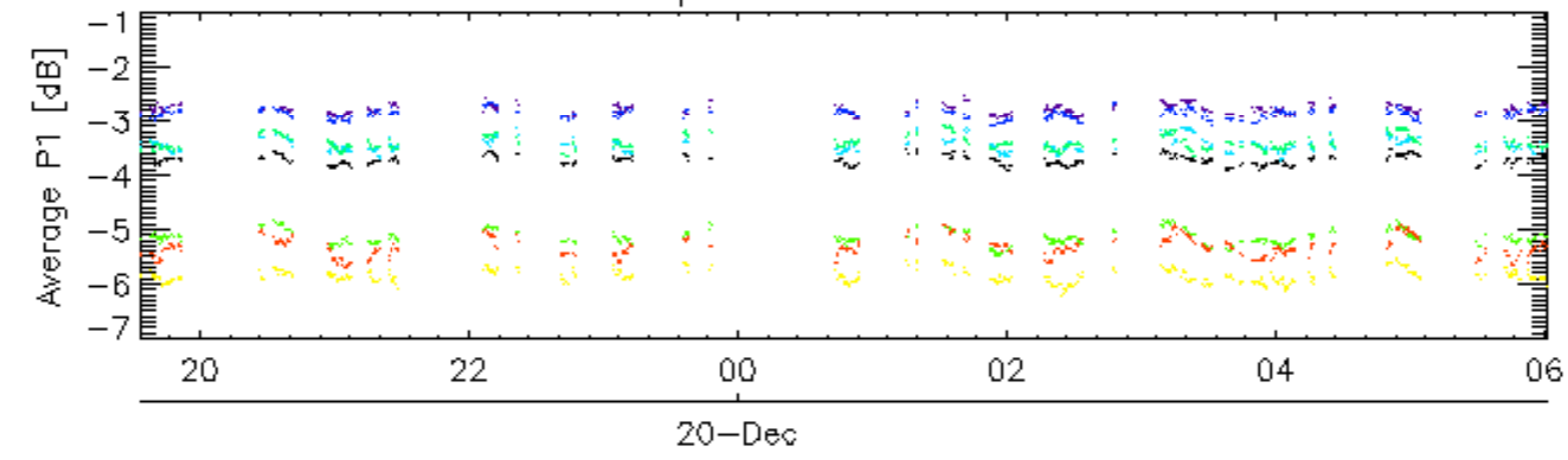
Descending

7.6 - Doppler evolution versus ANX for GM1

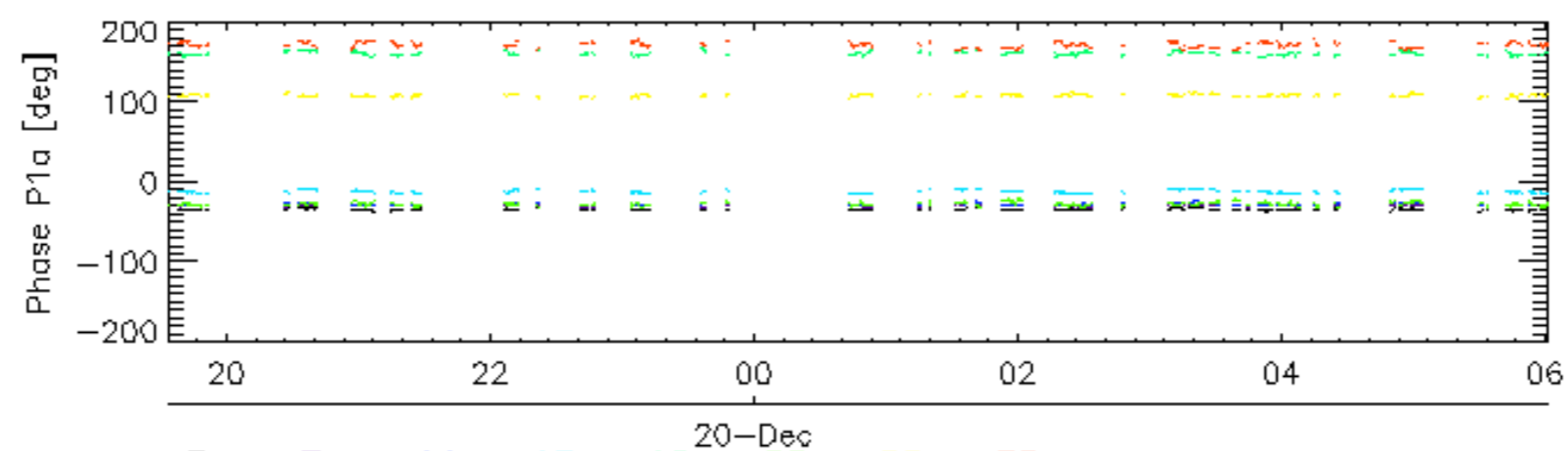
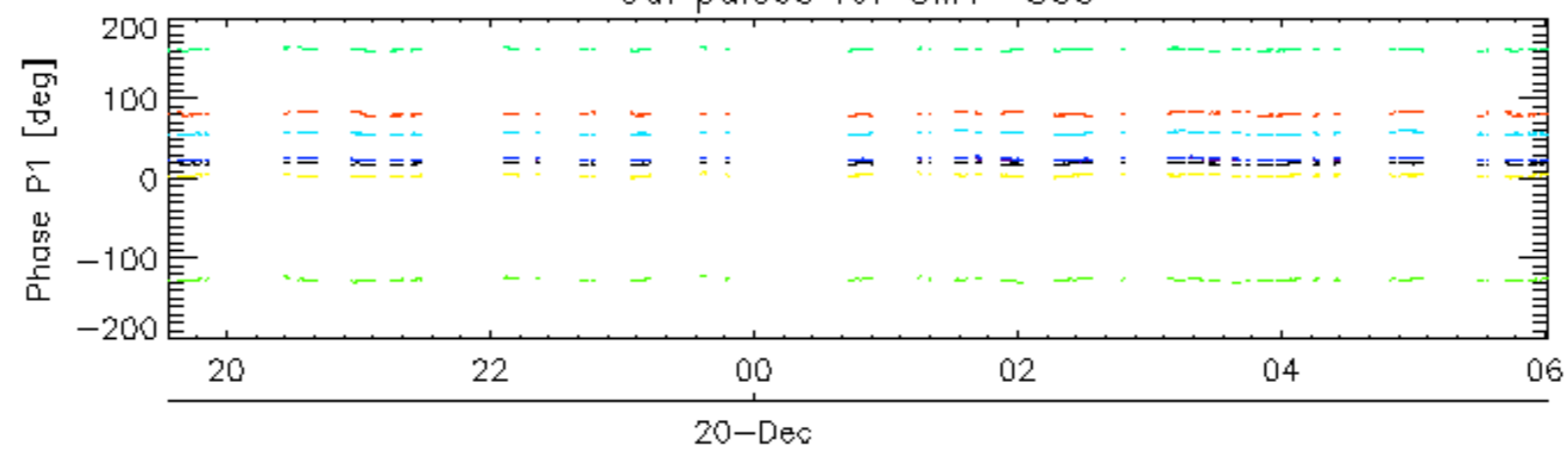
Evolution Doppler error versus ANX

<input type="checkbox"/>

Cal pulses for GM1 SS3

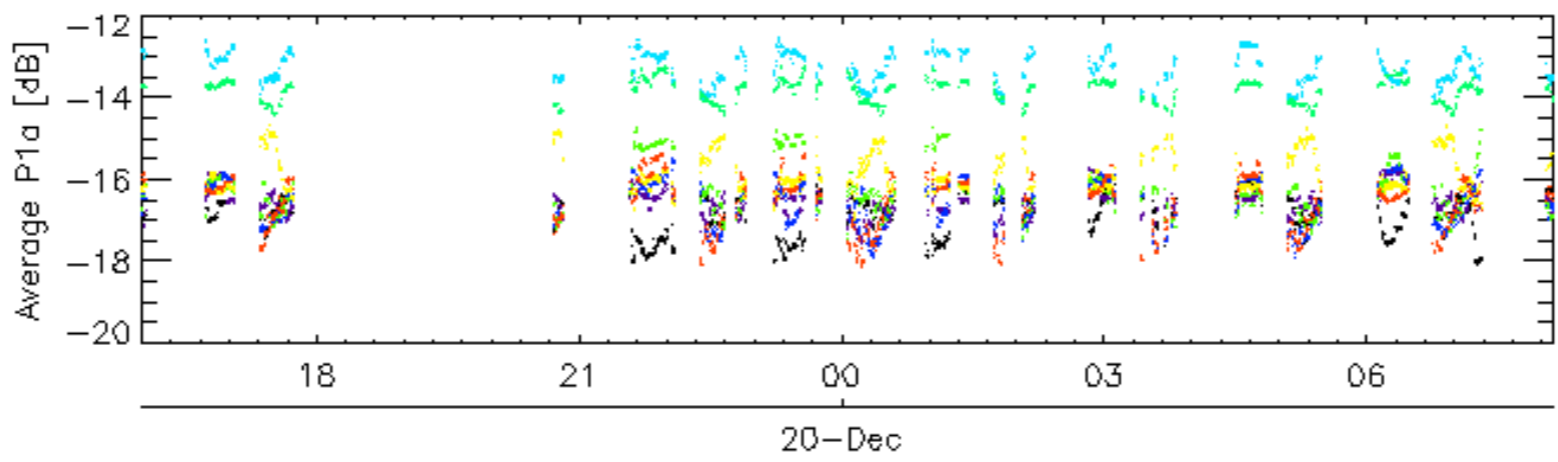
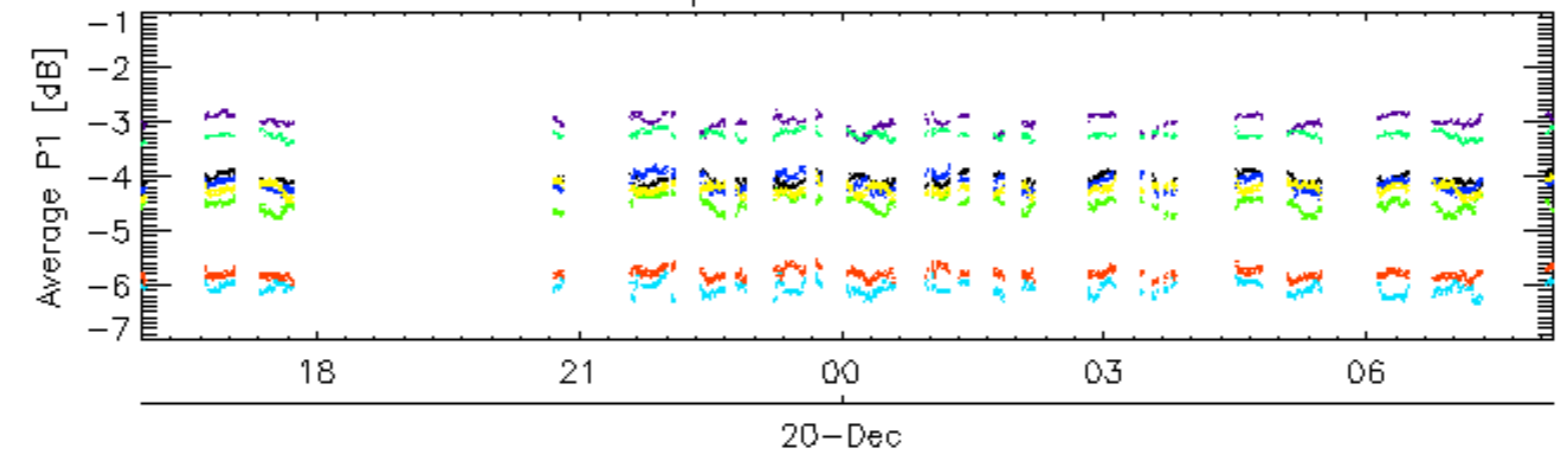


Cal pulses for GM1 SS3

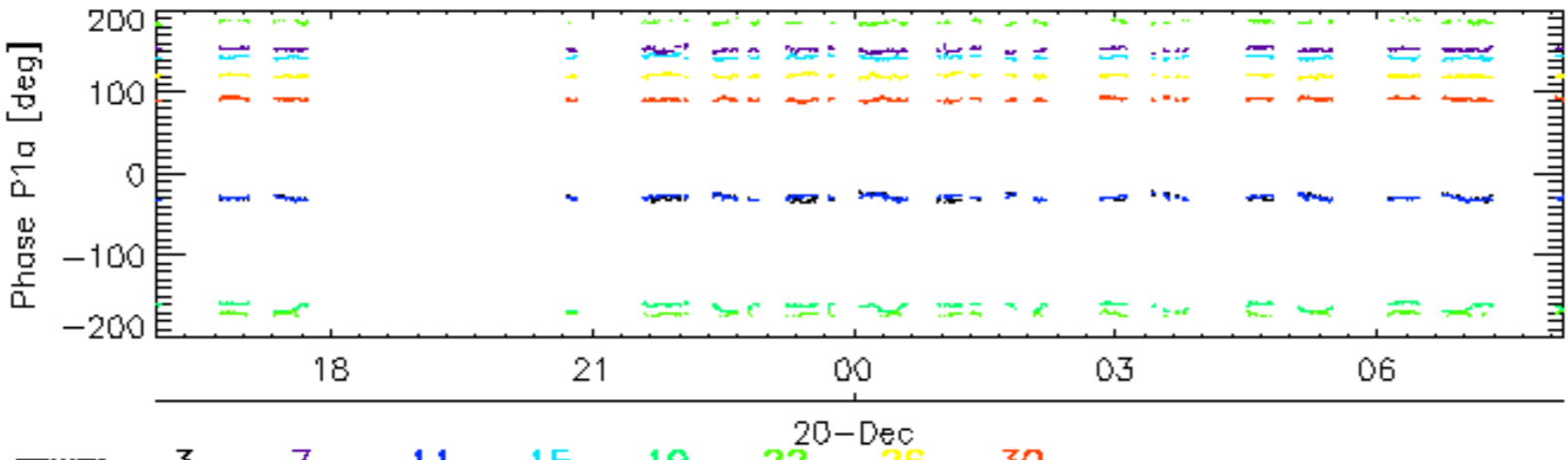
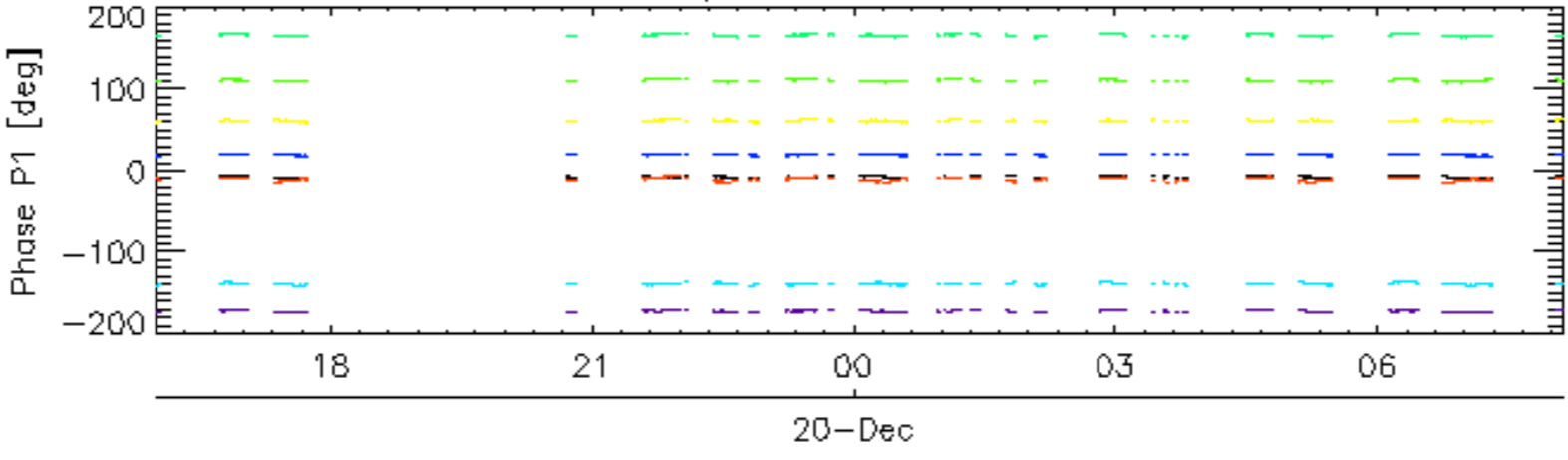


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2

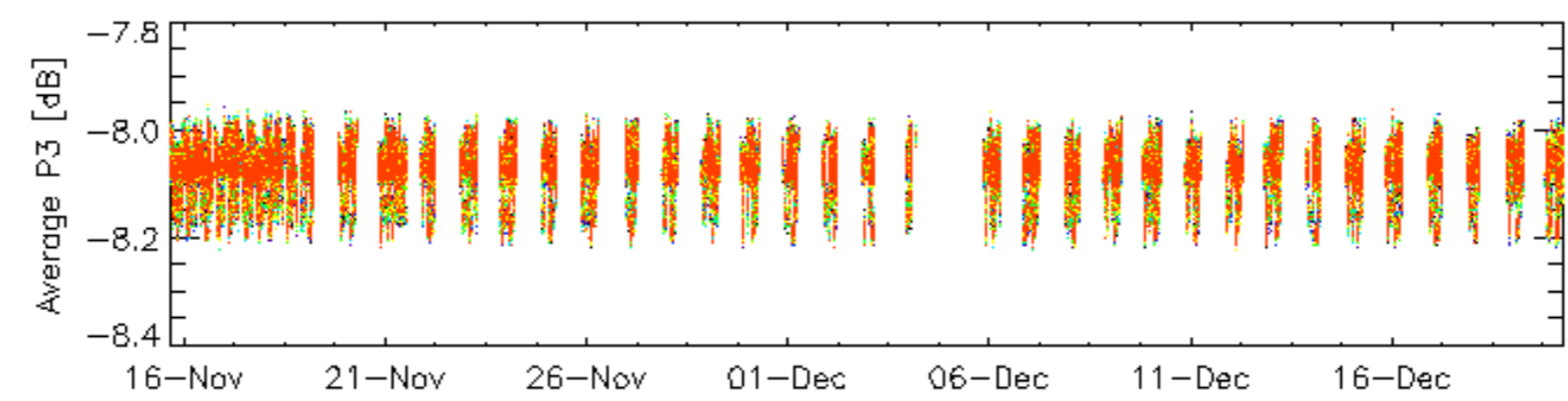
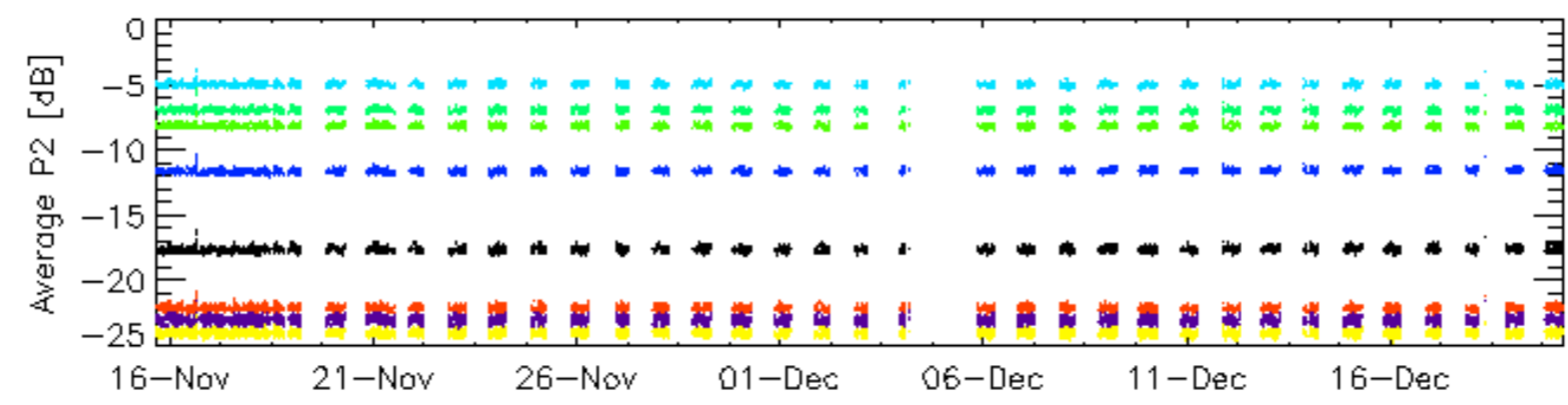
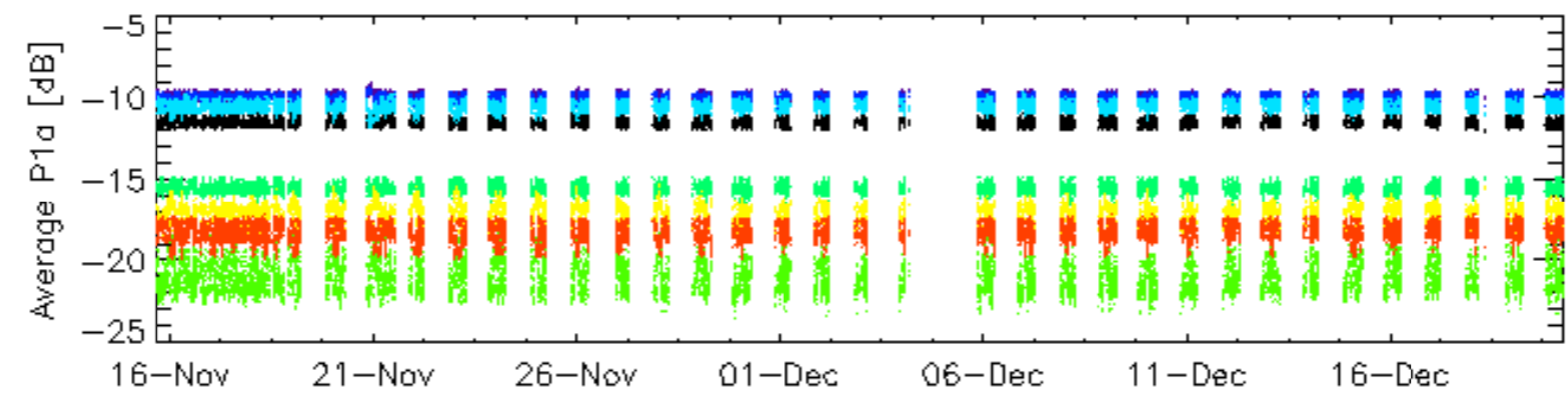
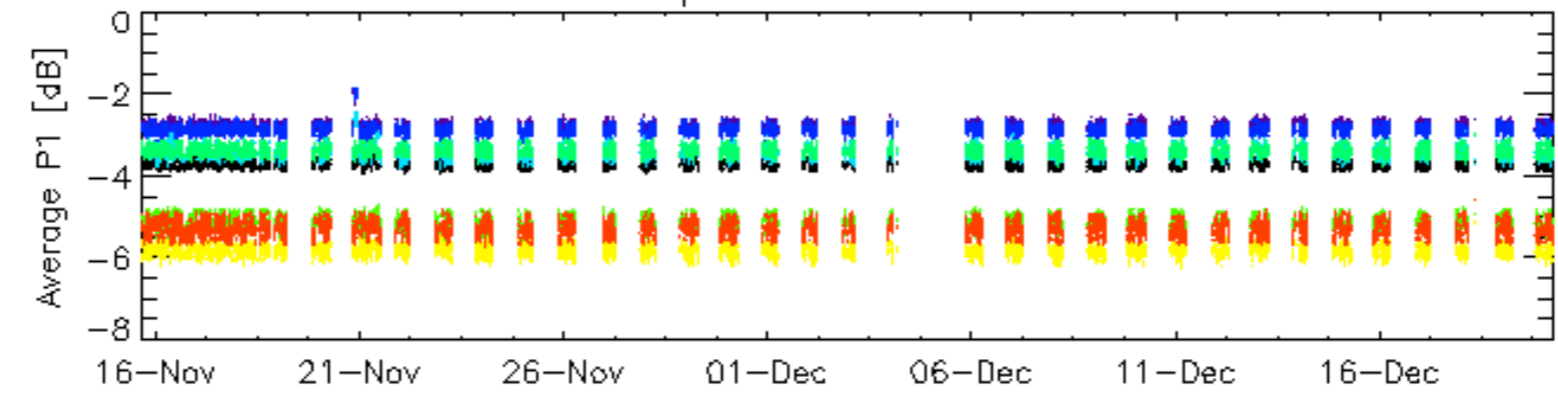


Cal pulses for WVS IS2



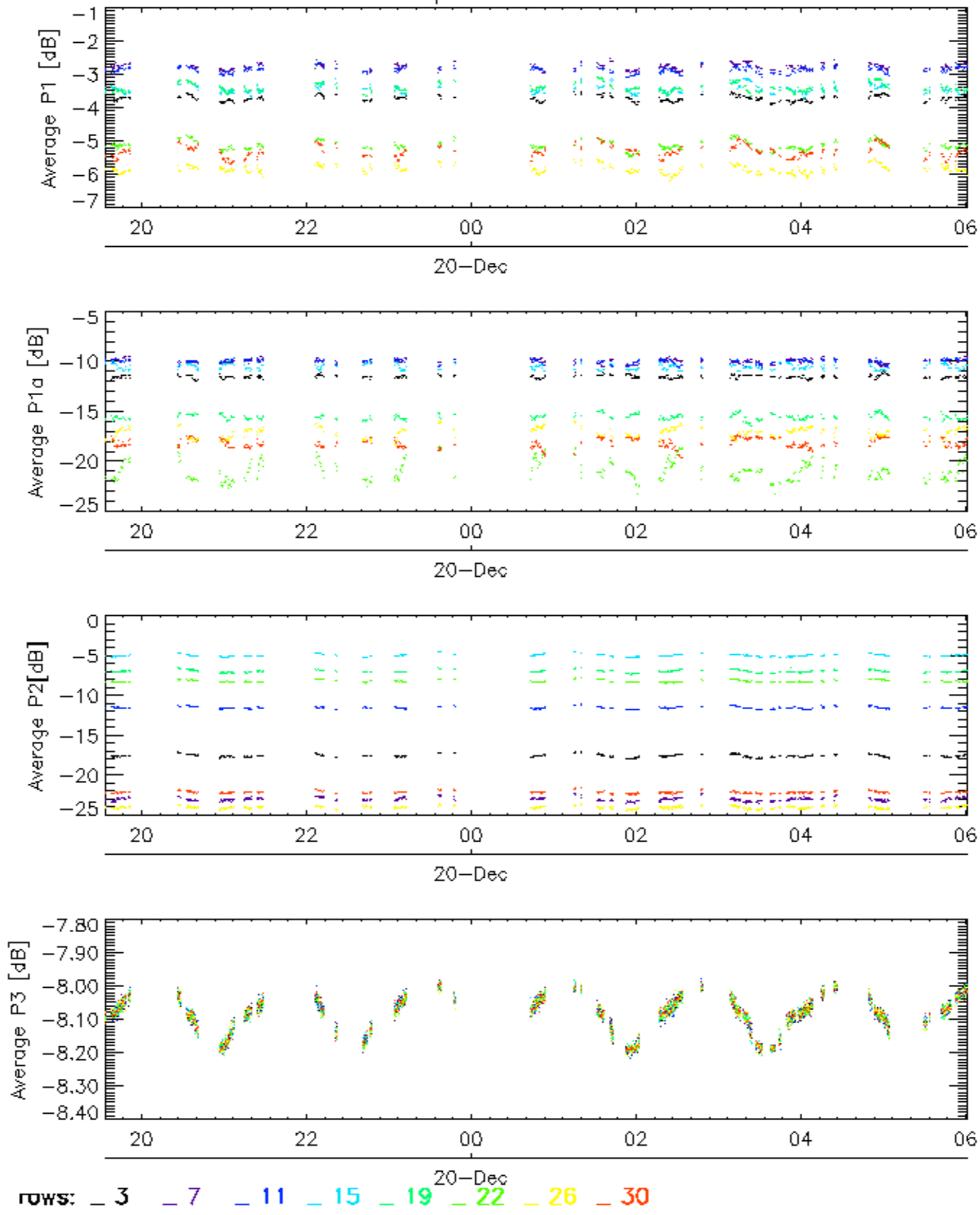
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

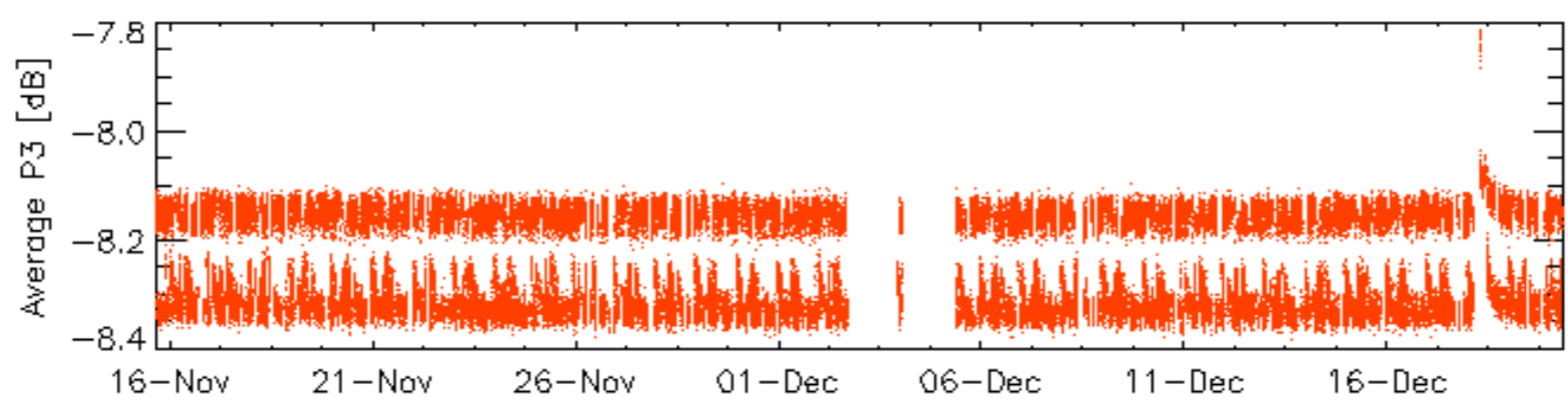
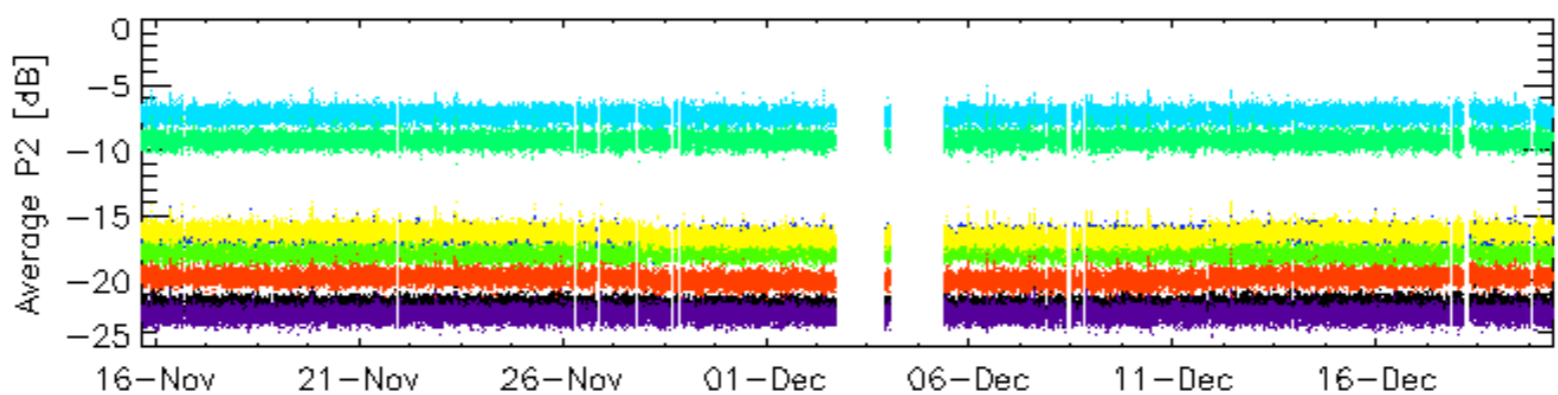
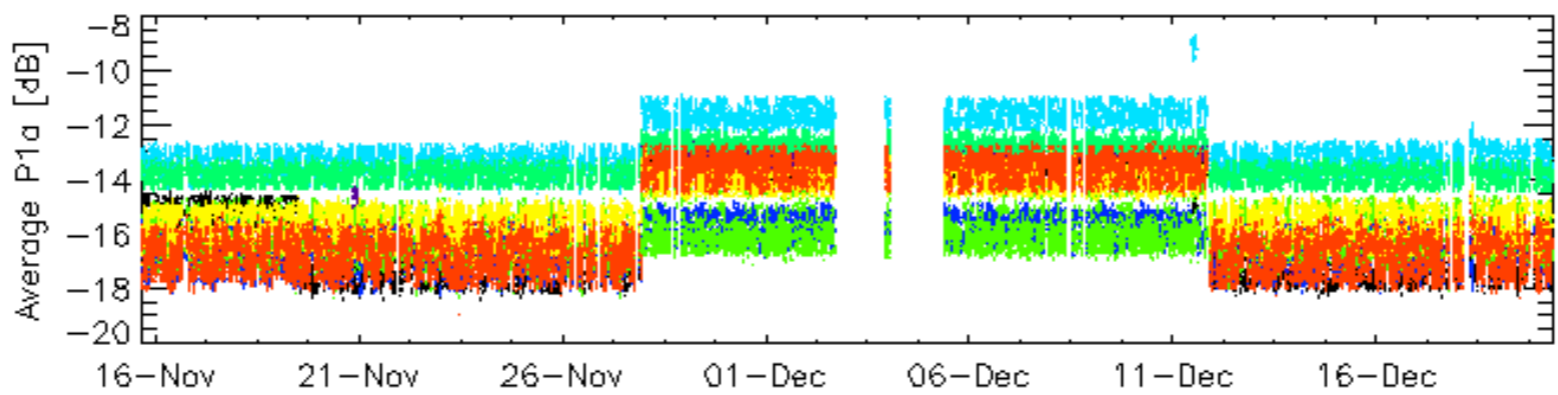
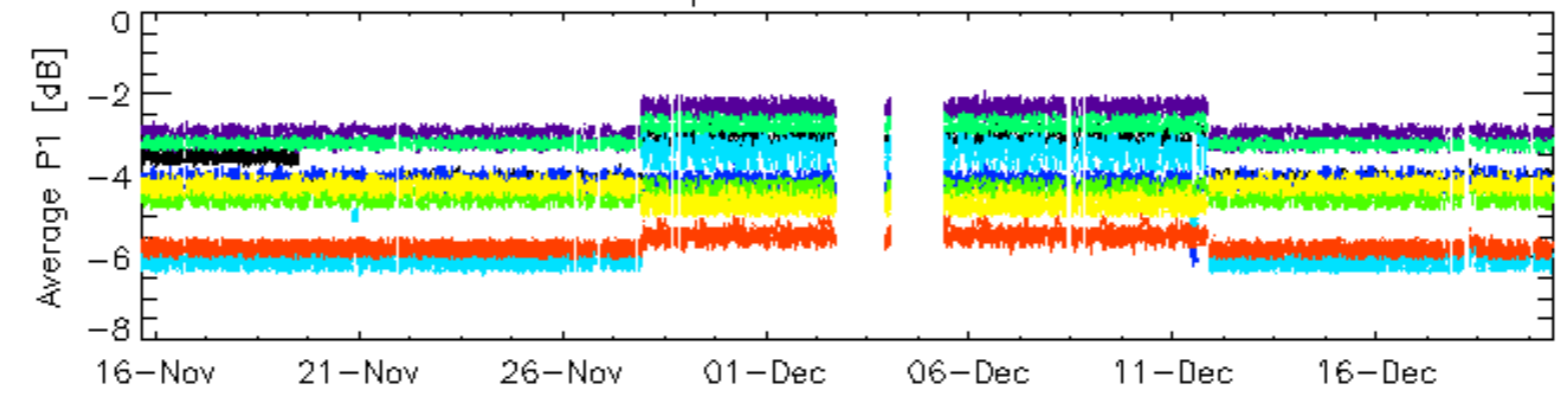


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

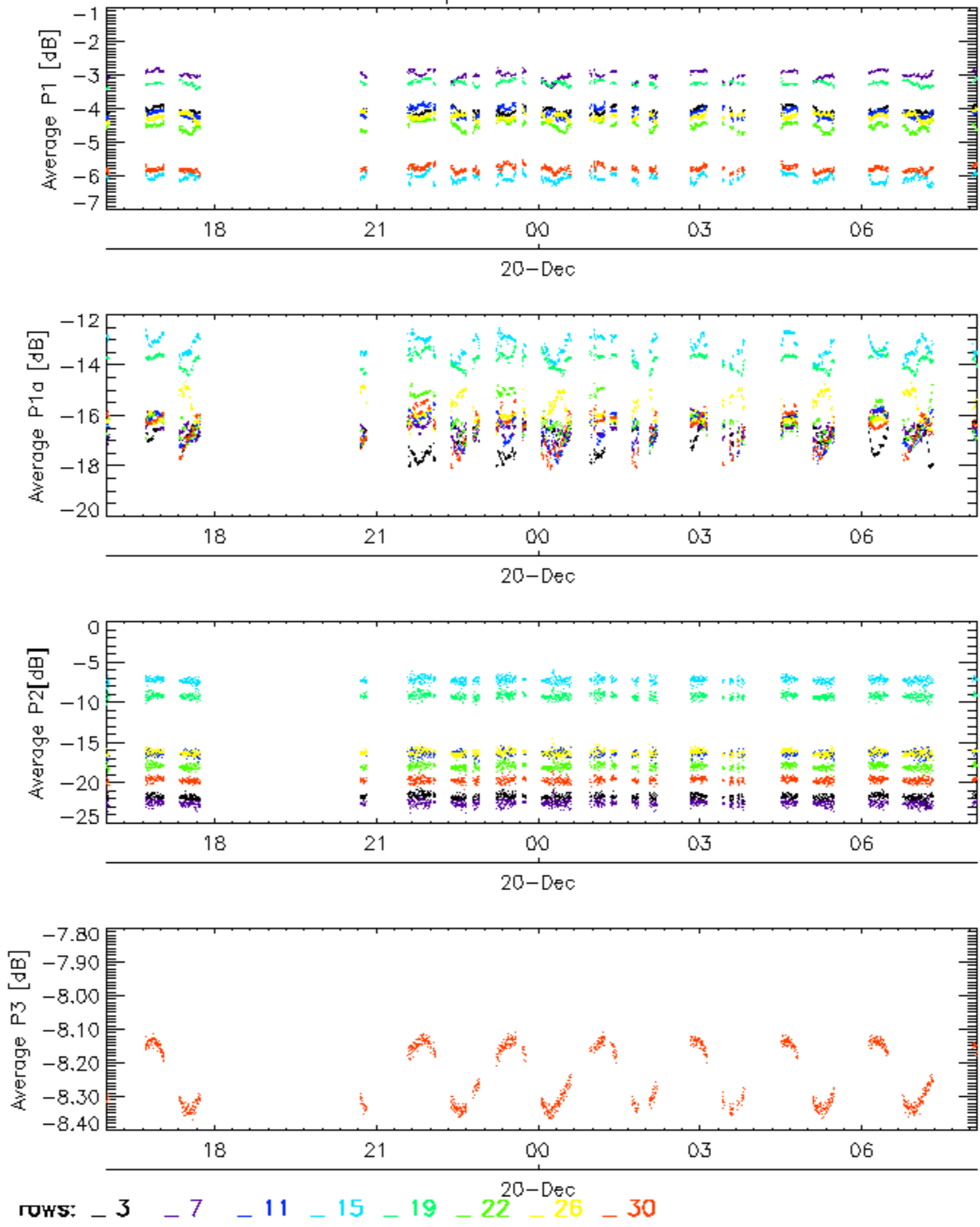


Cal pulses for WVS IS2



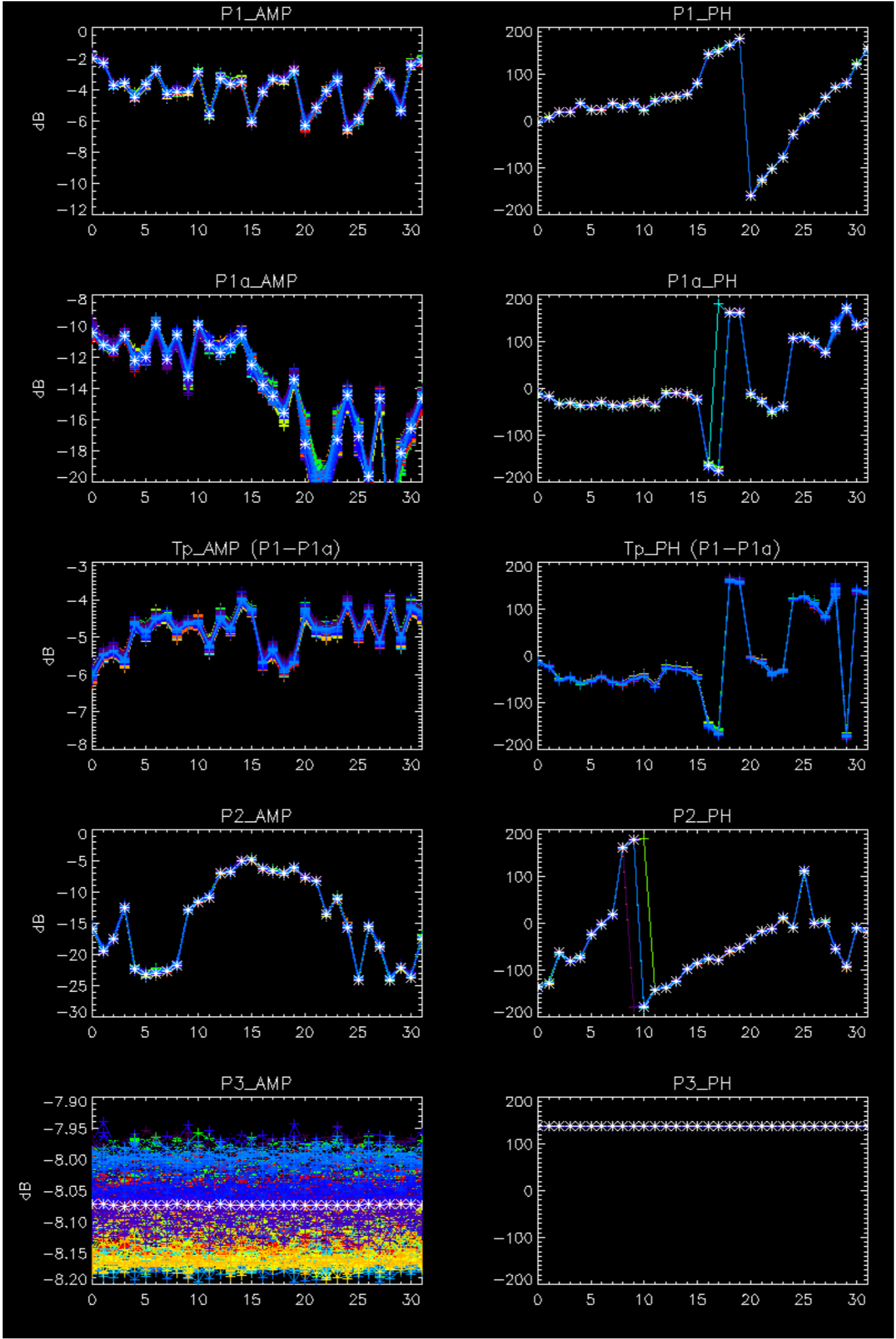
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

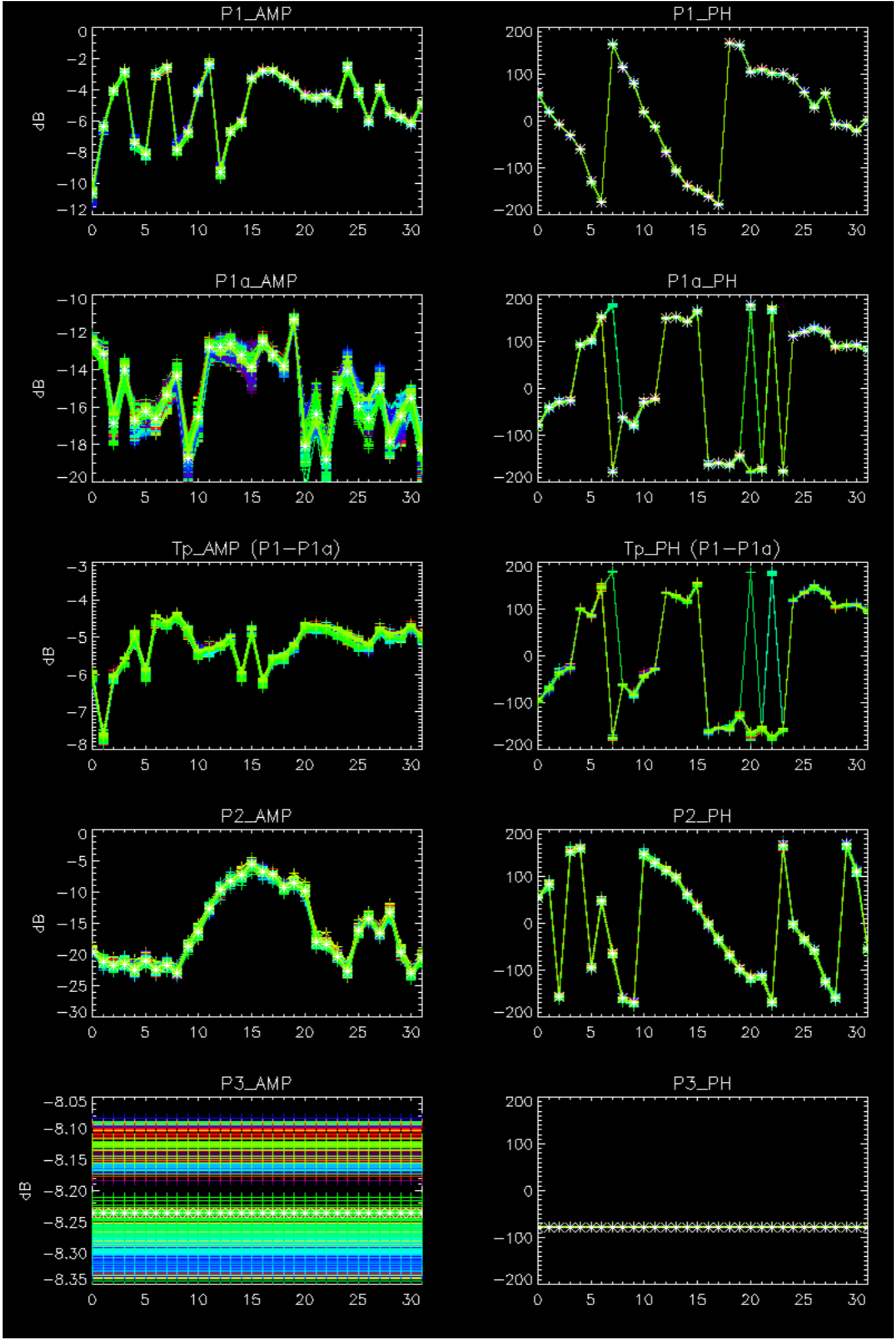
Cal pulses for WVS IS2



No anomalies observed on available browse products

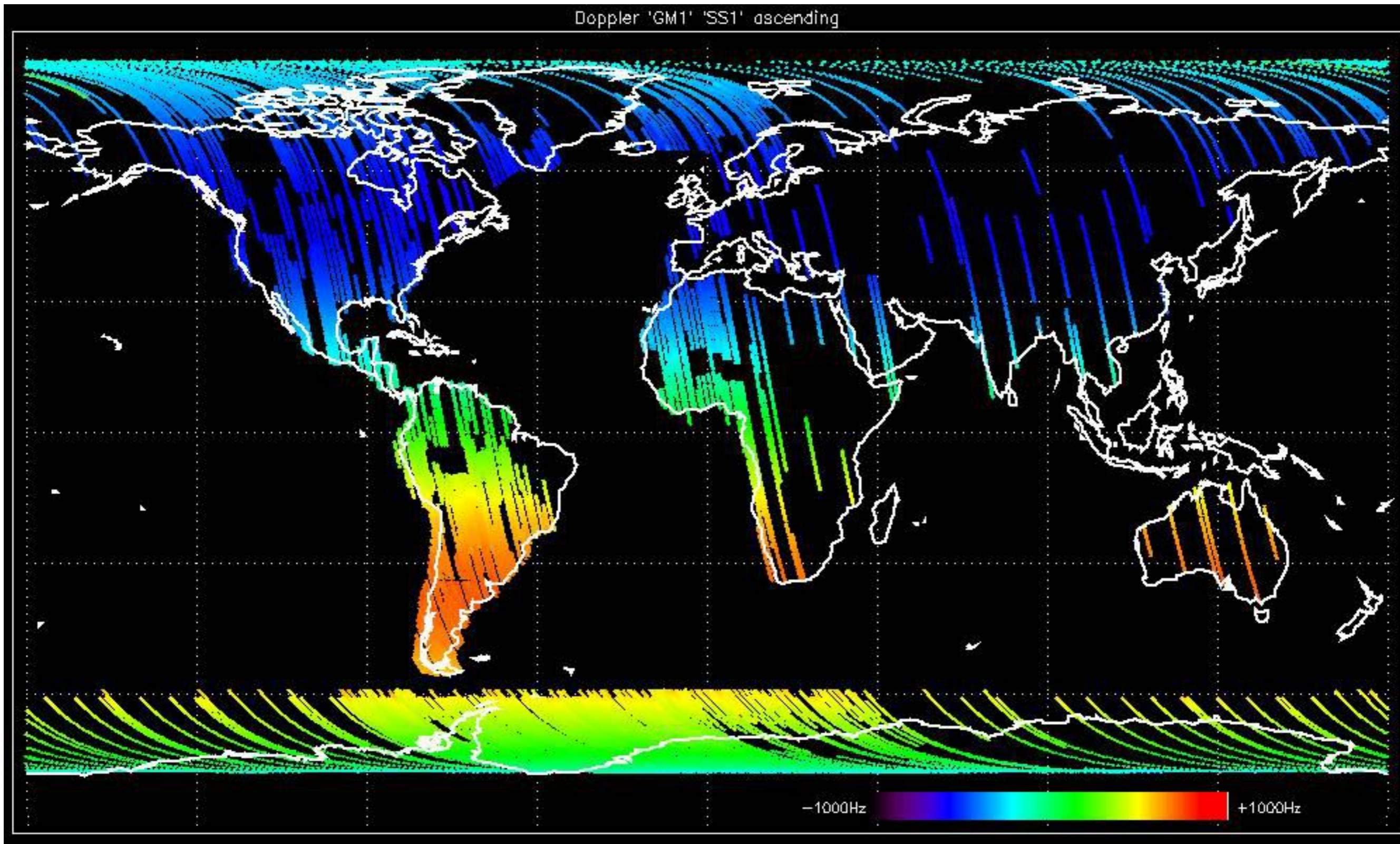
No anomalies observed.



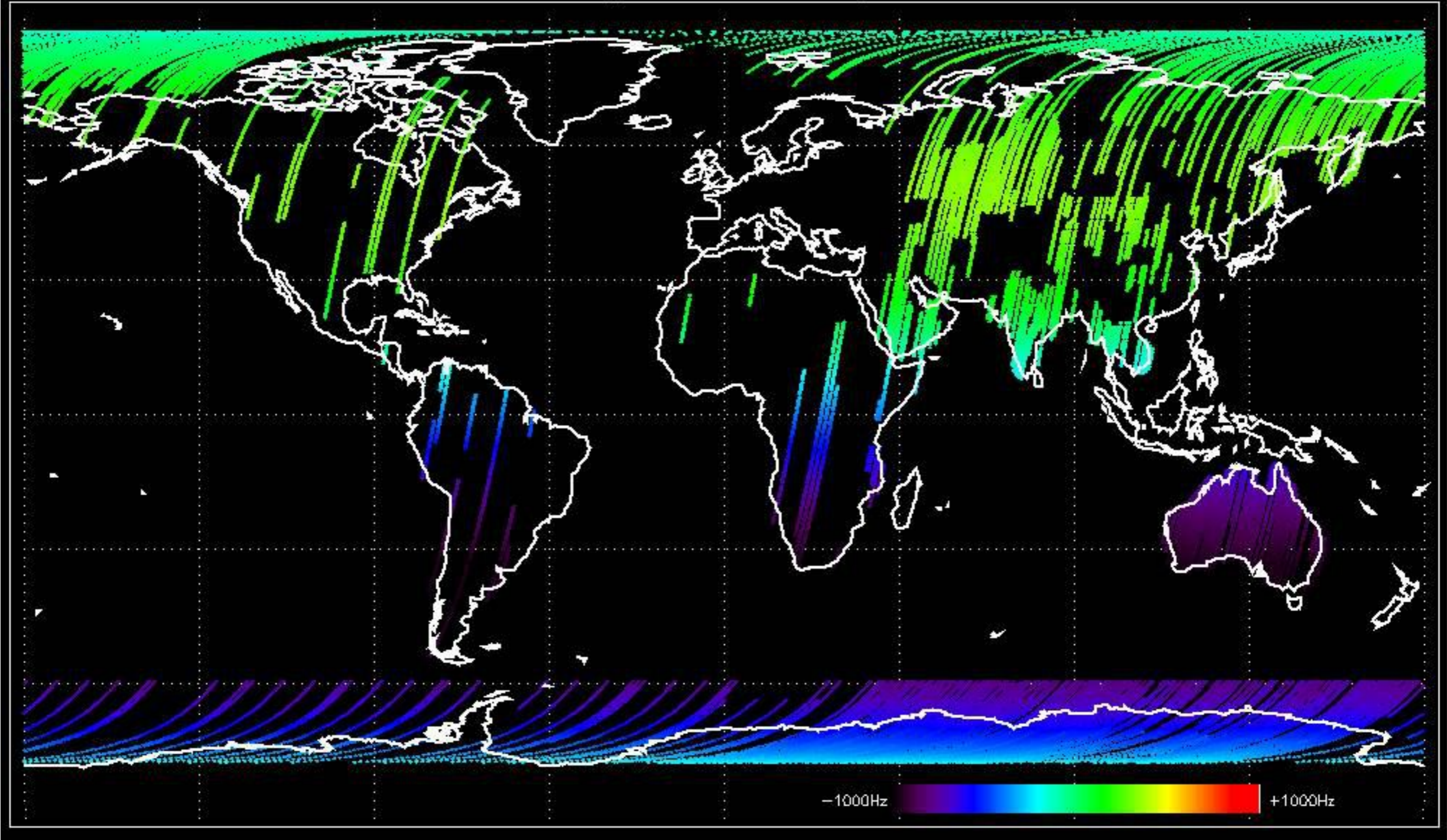


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

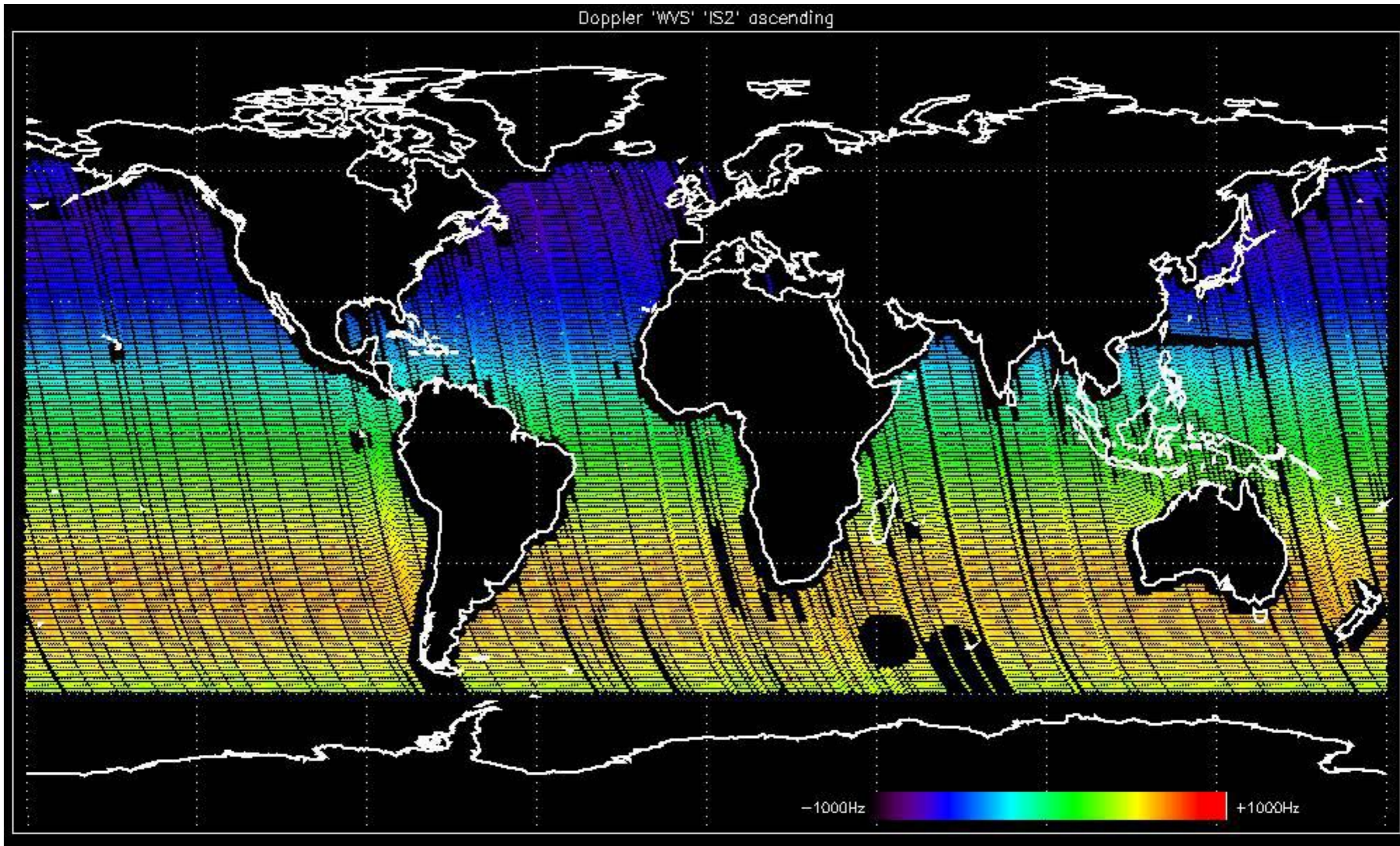
Doppler 'GM1' 'SS1' ascending



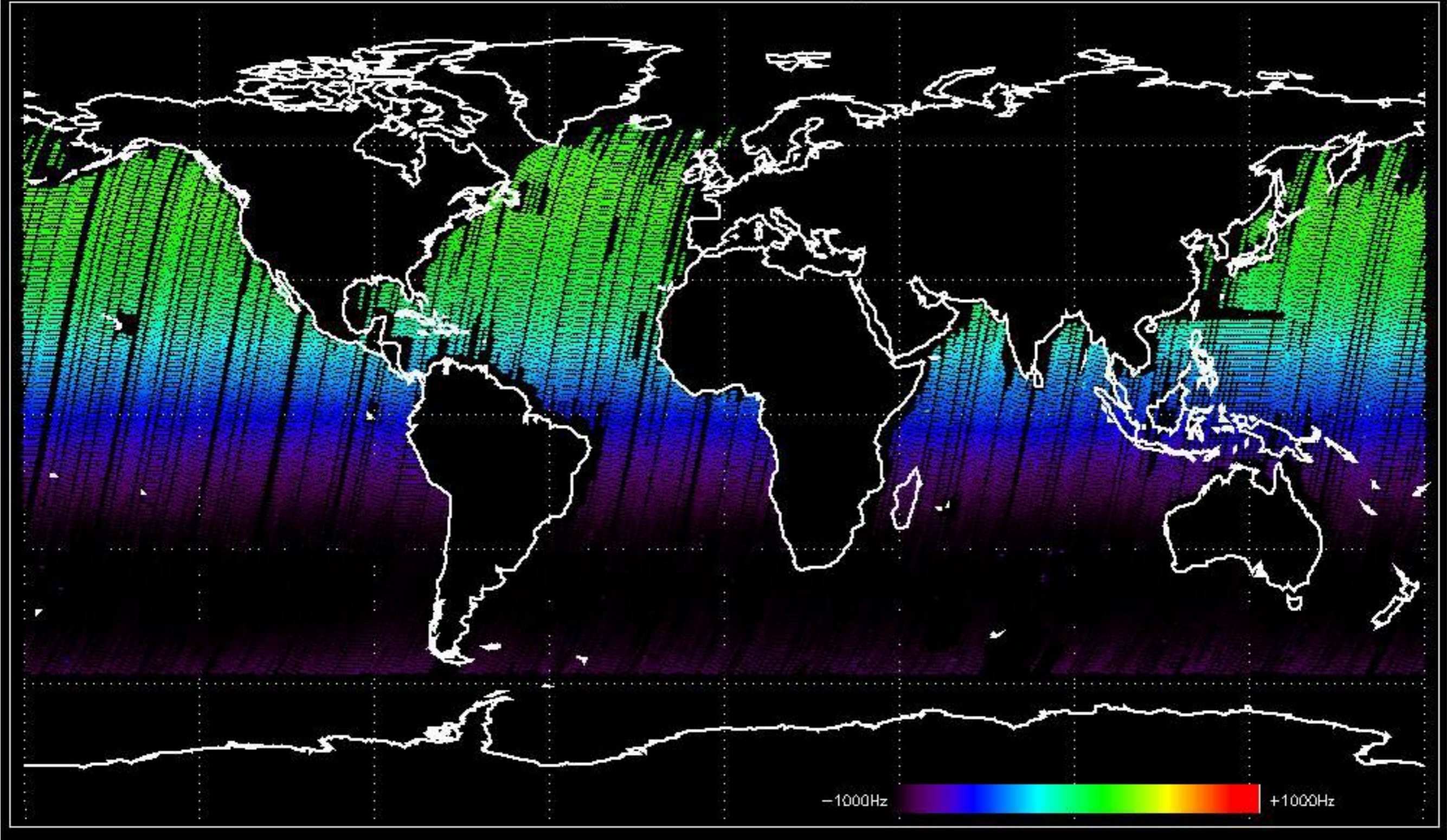
Doppler 'GM1' 'SS1' descending



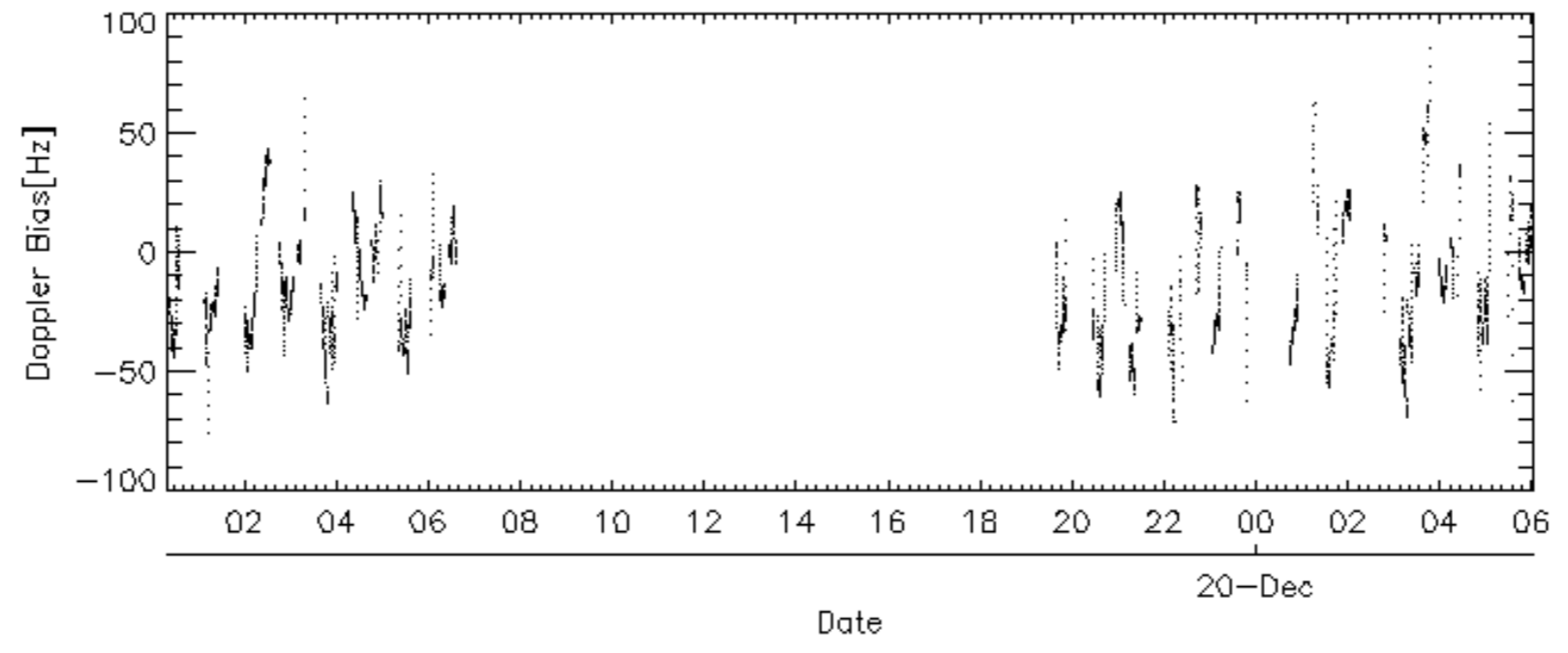
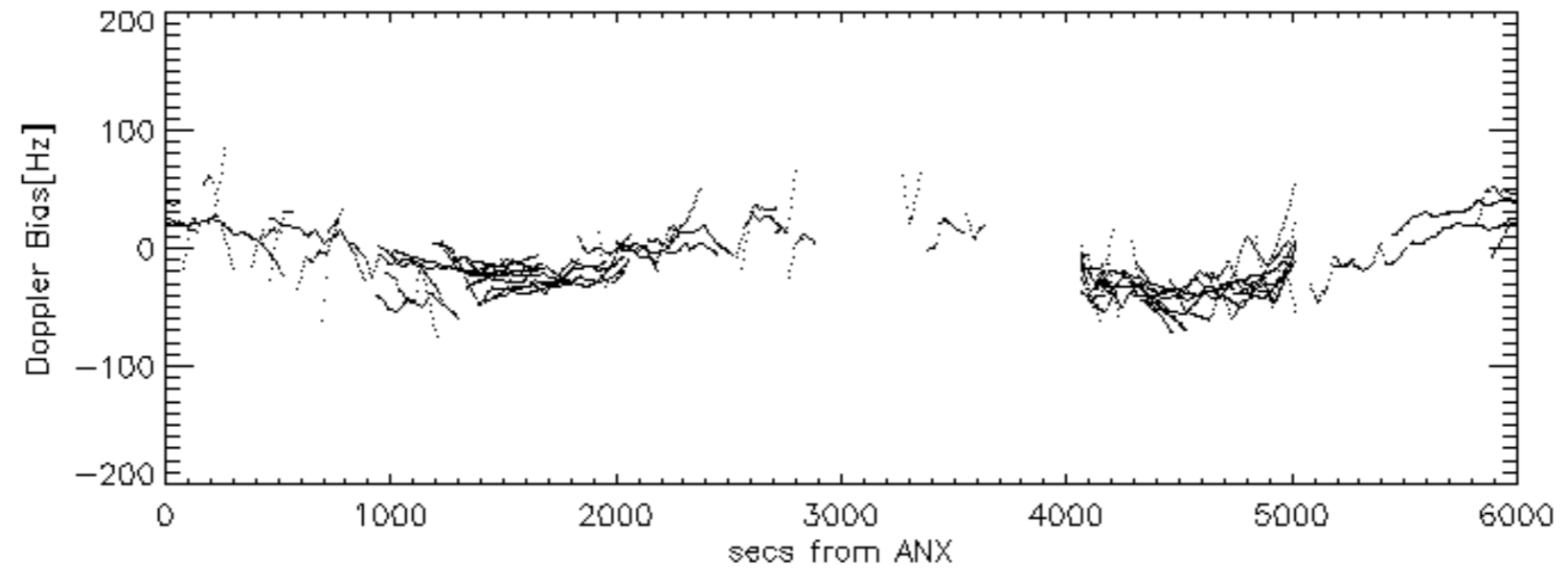
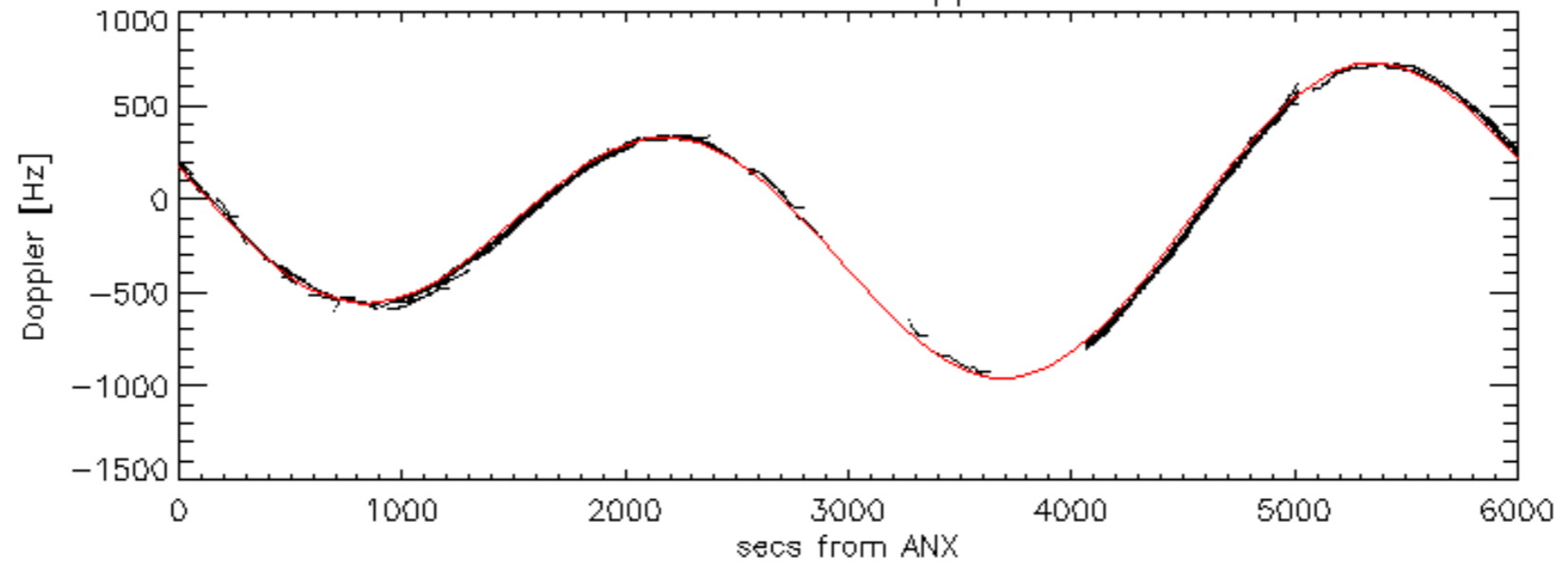
Doppler 'WVS' 'IS2' ascending

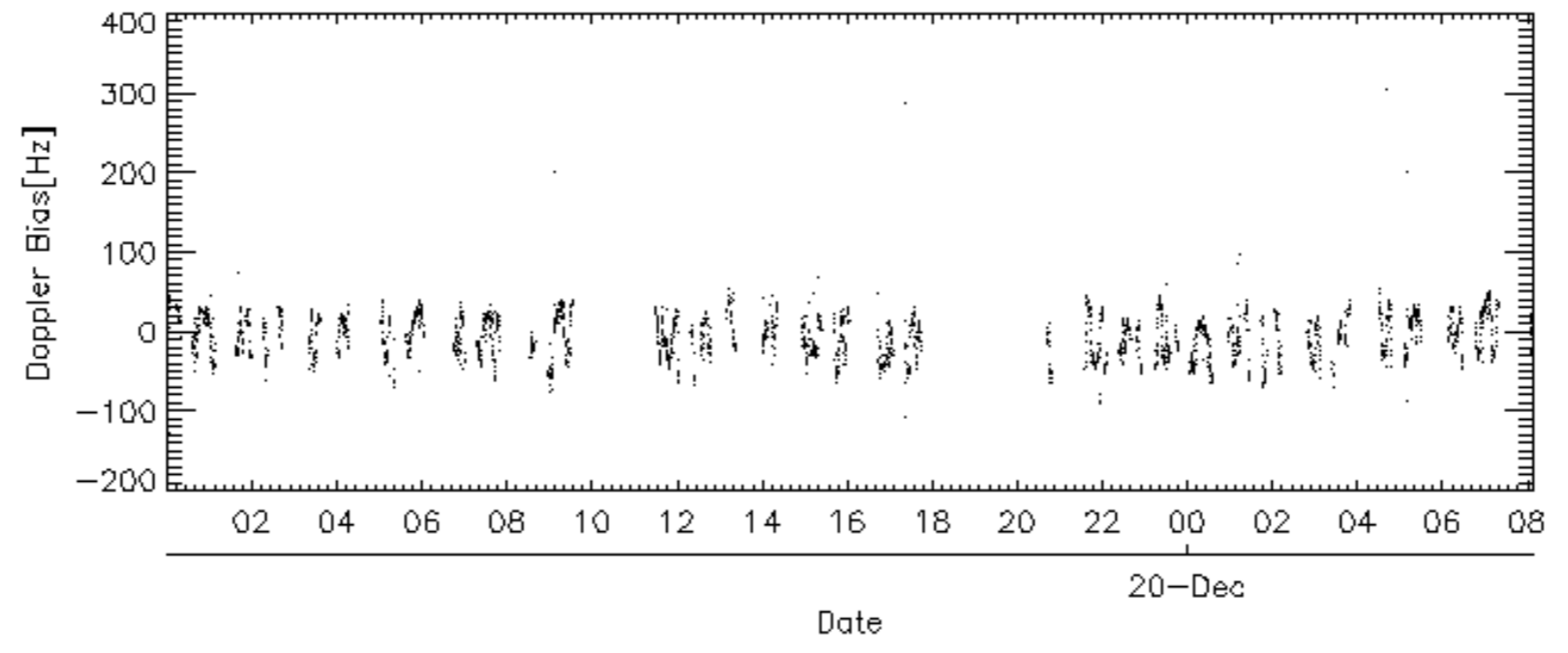
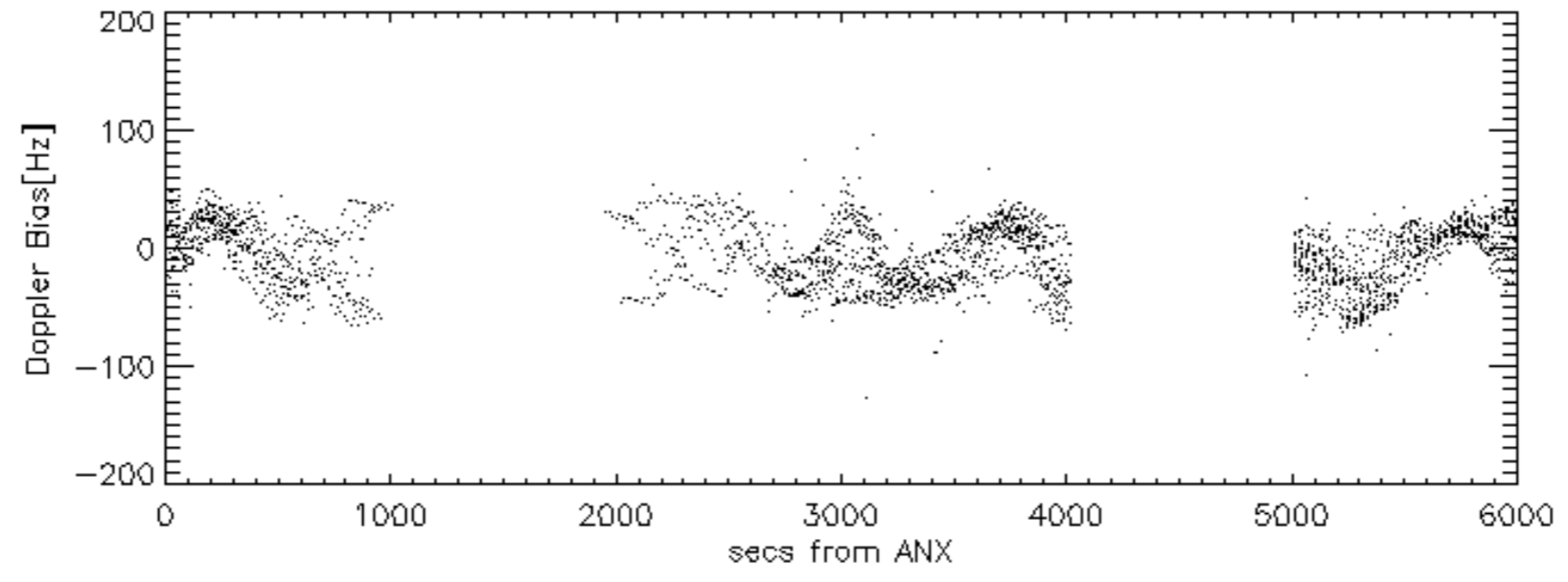
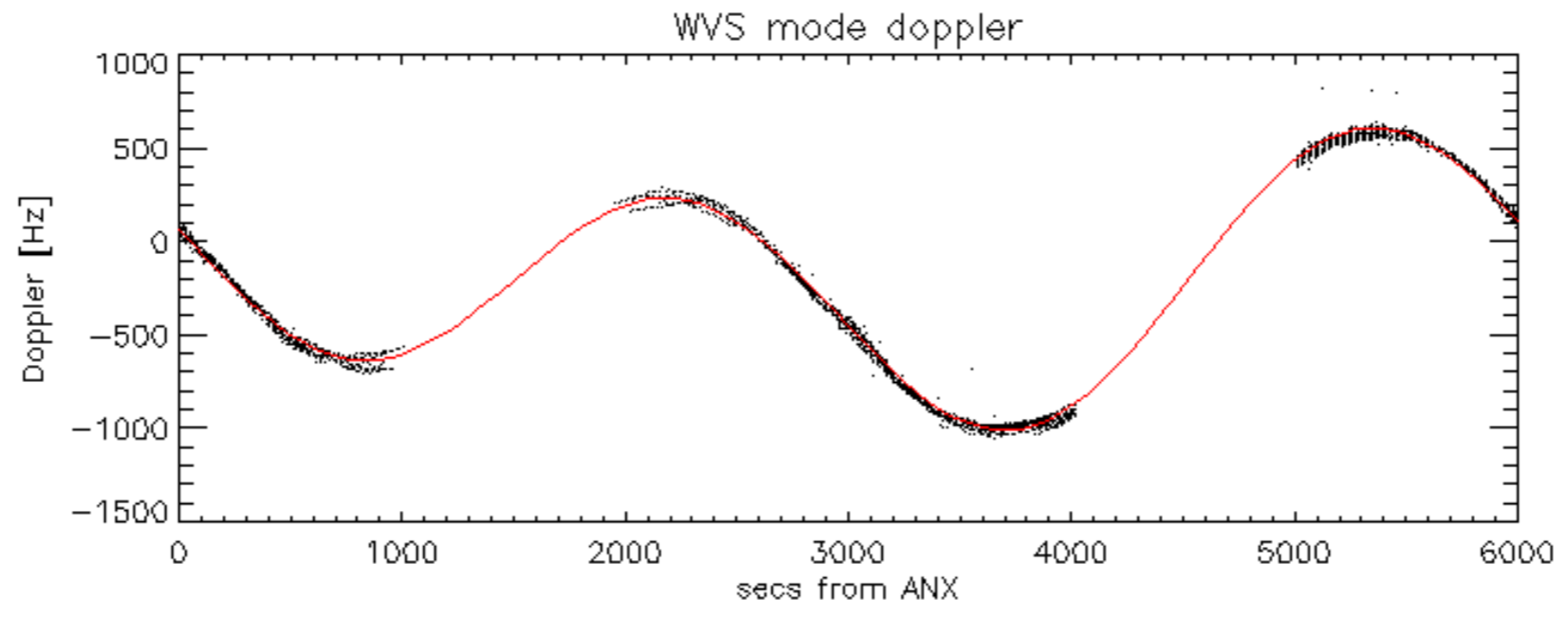


Doppler 'WVS' 'IS2' descending

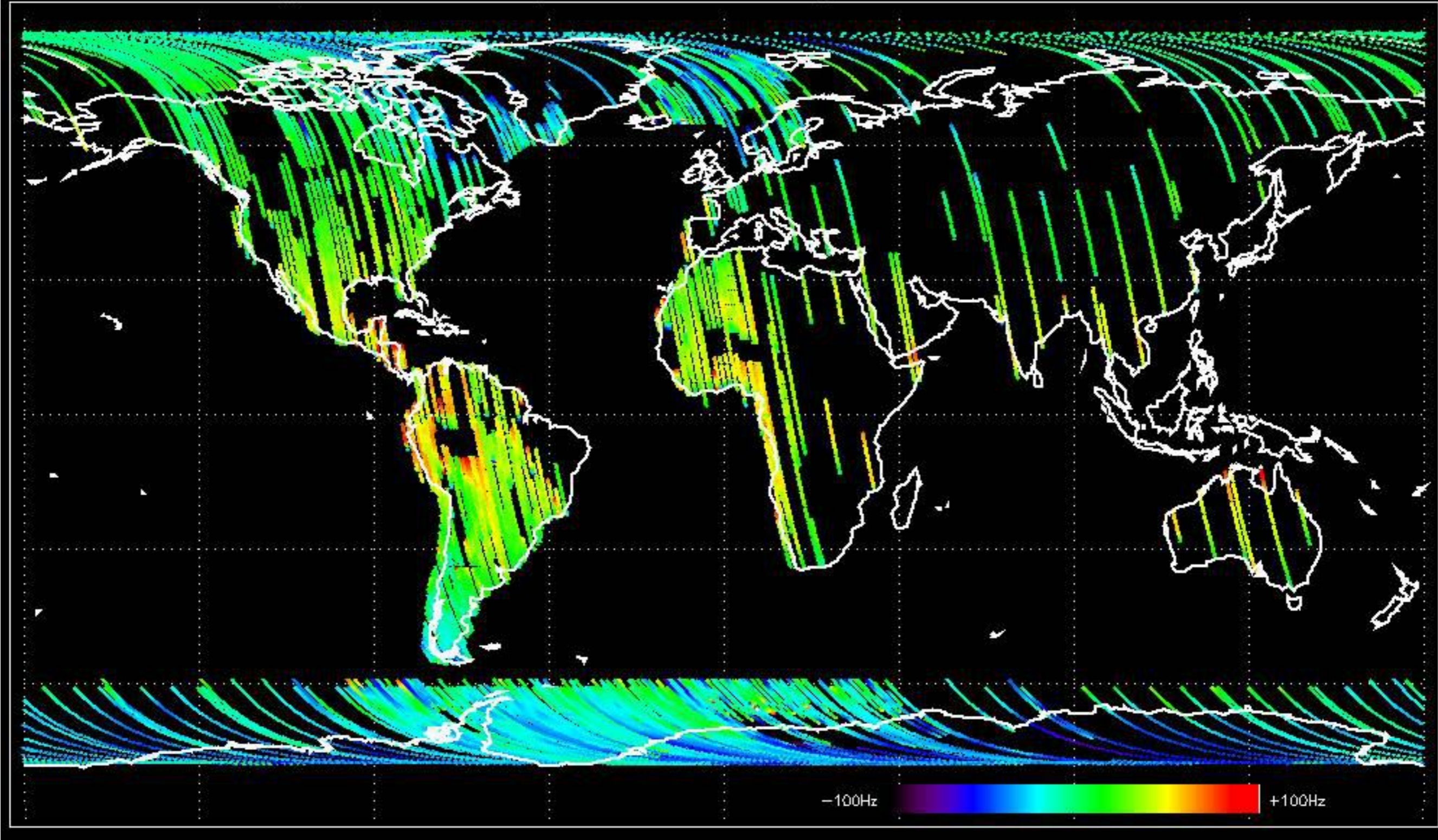


GM1 mode doppler

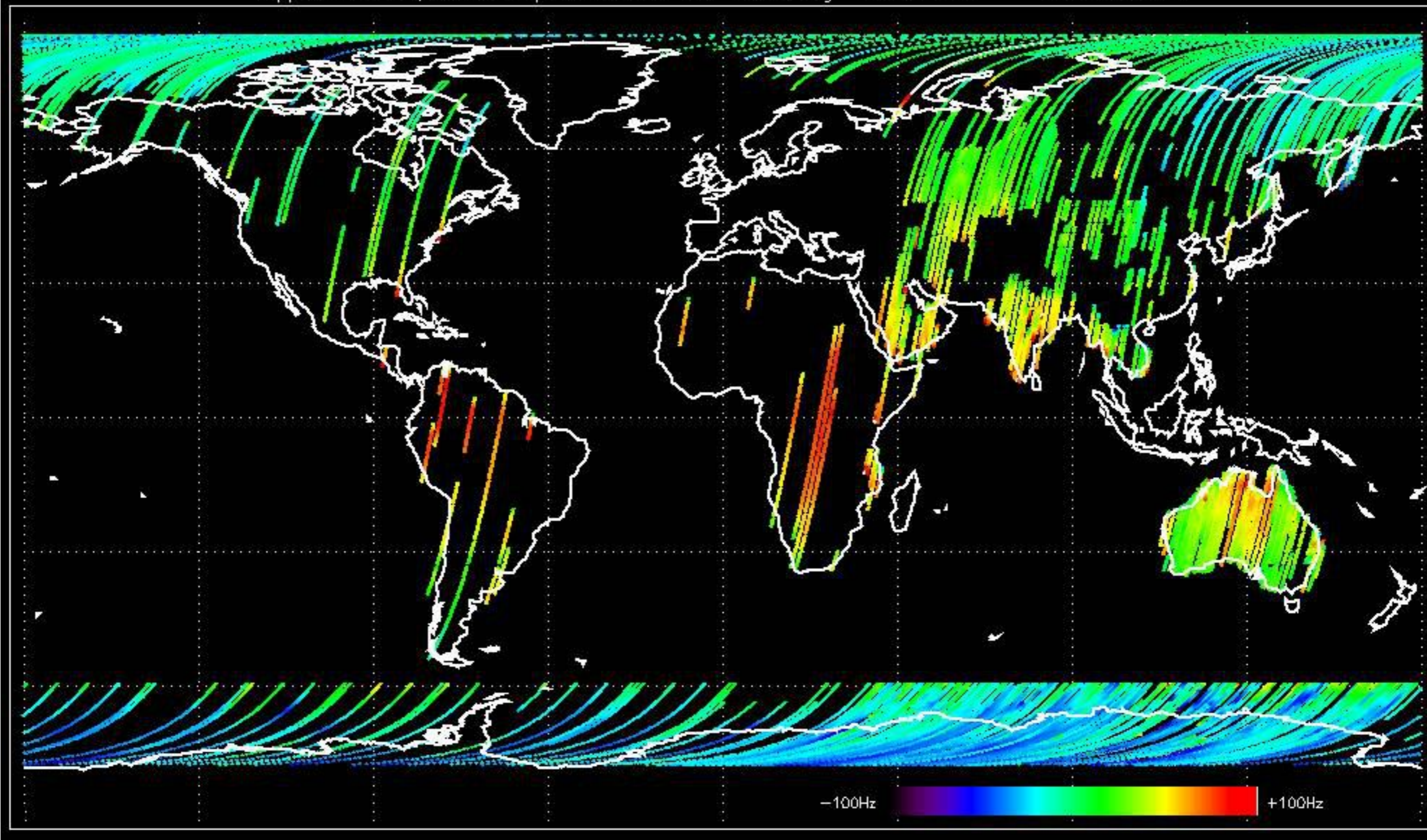




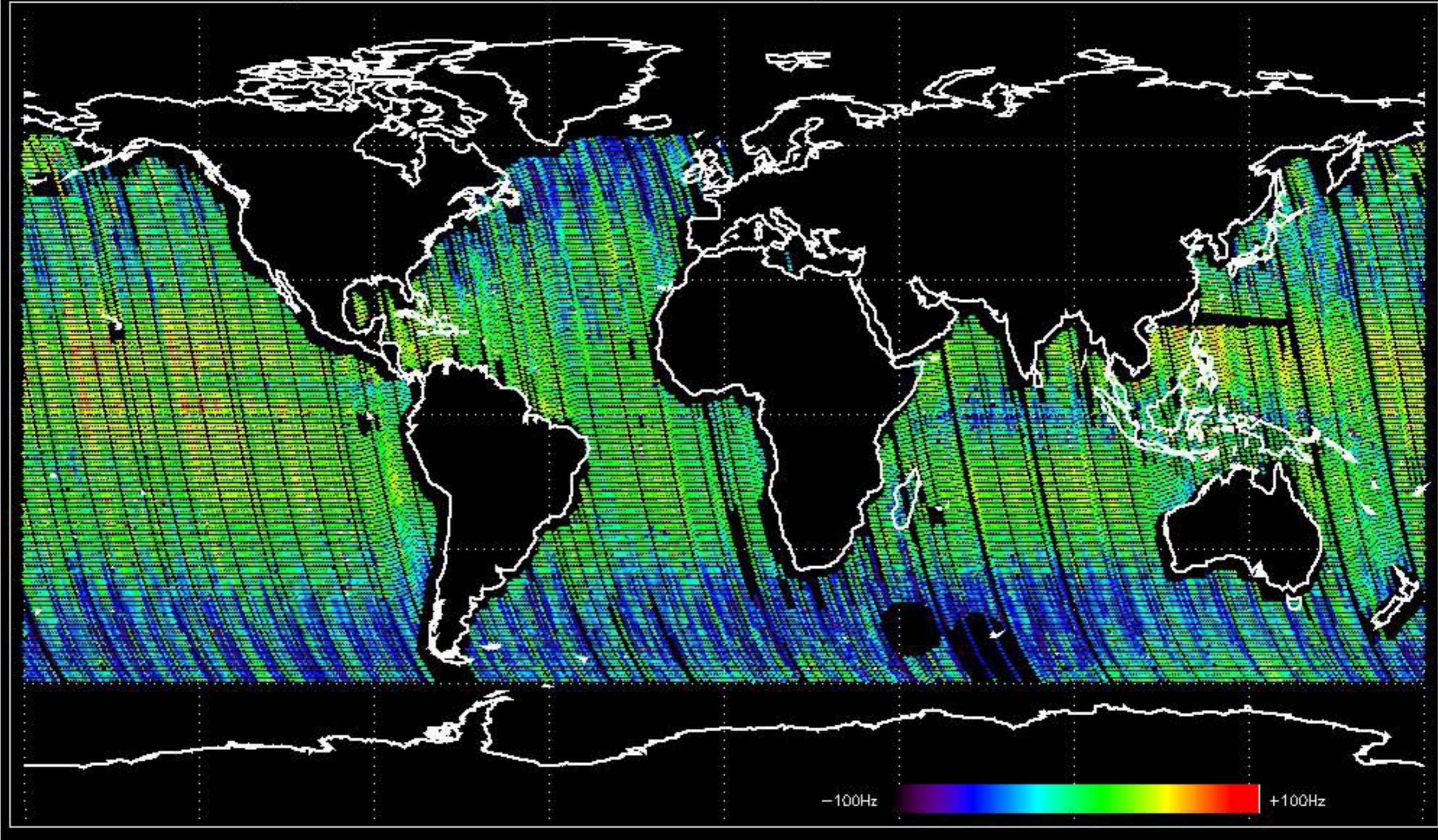
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -15.558064 Hz



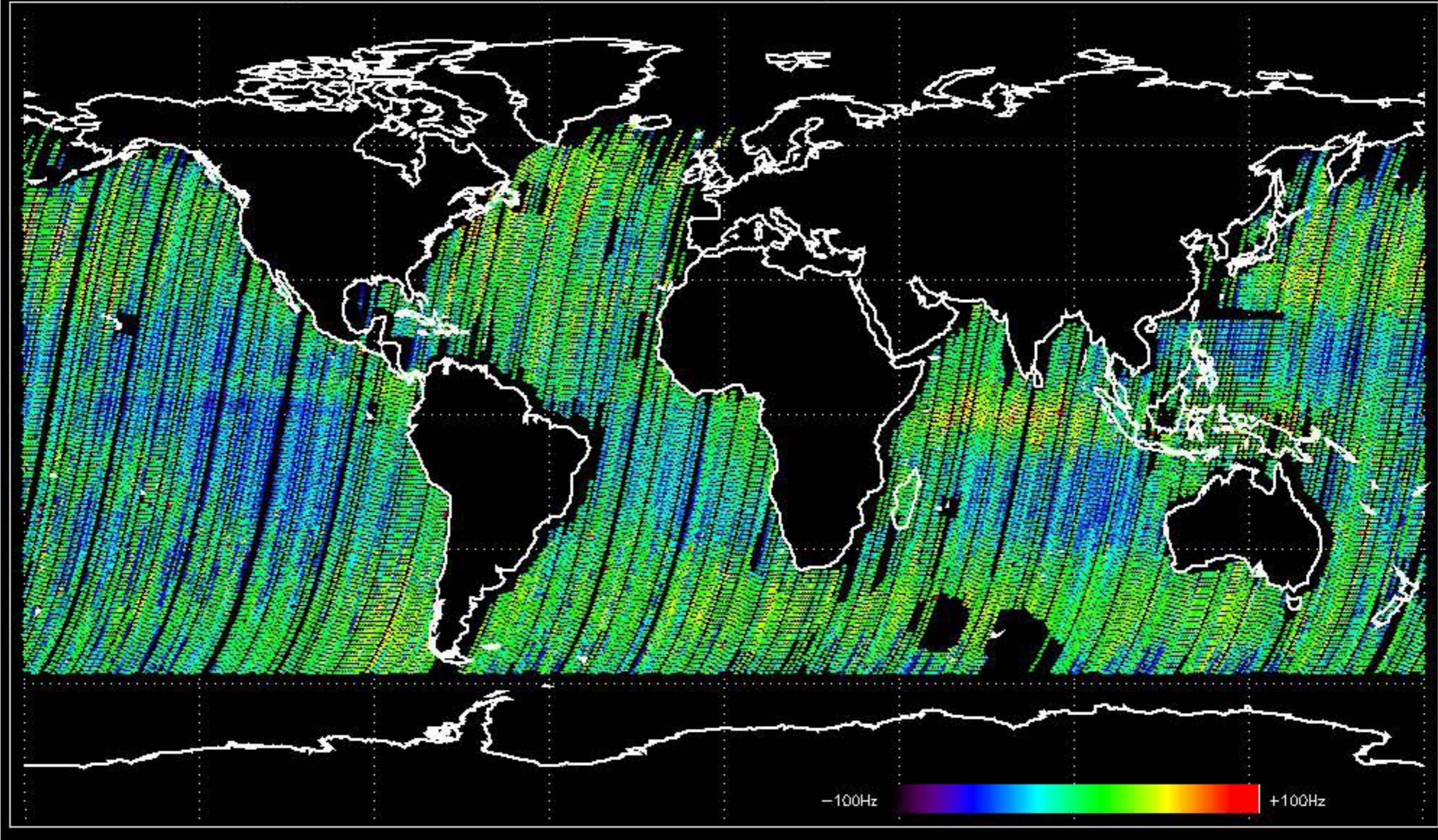
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -16.643263 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -9.7437037 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -13.491881 Hz

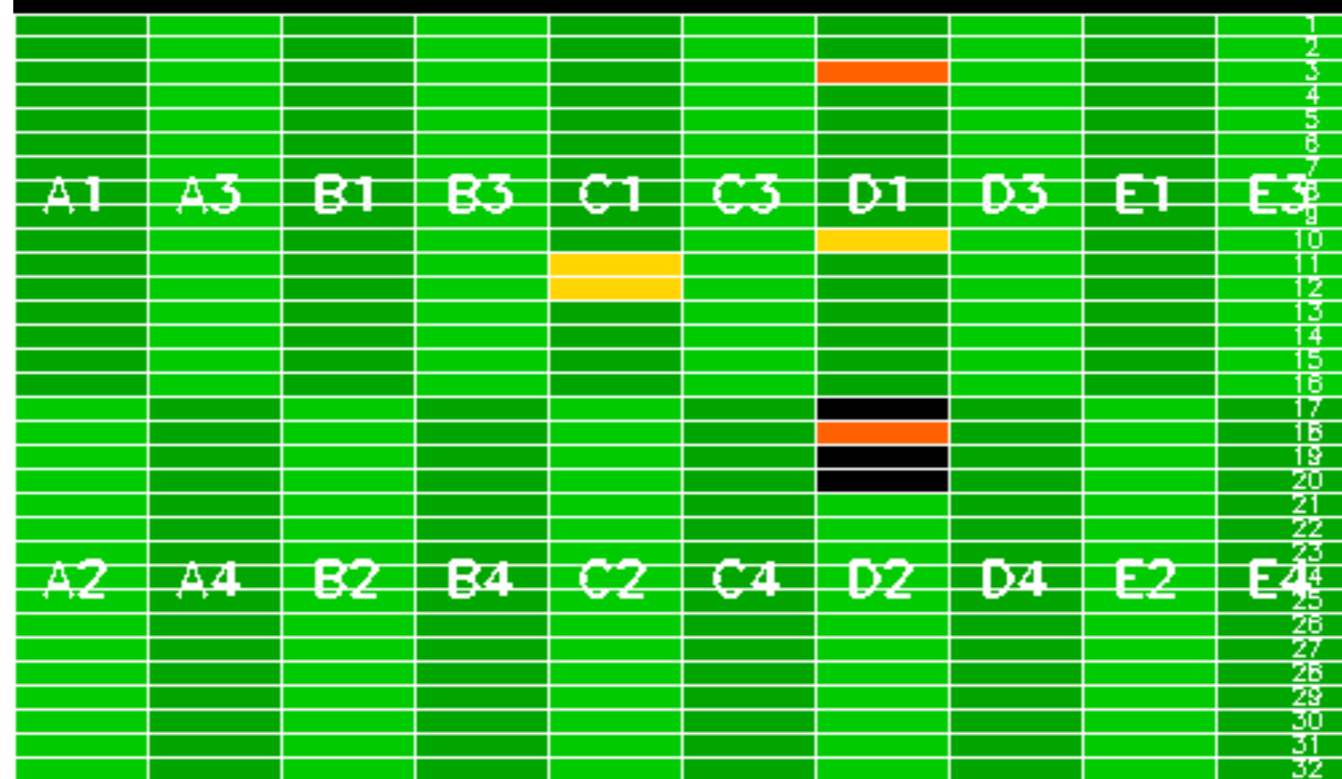


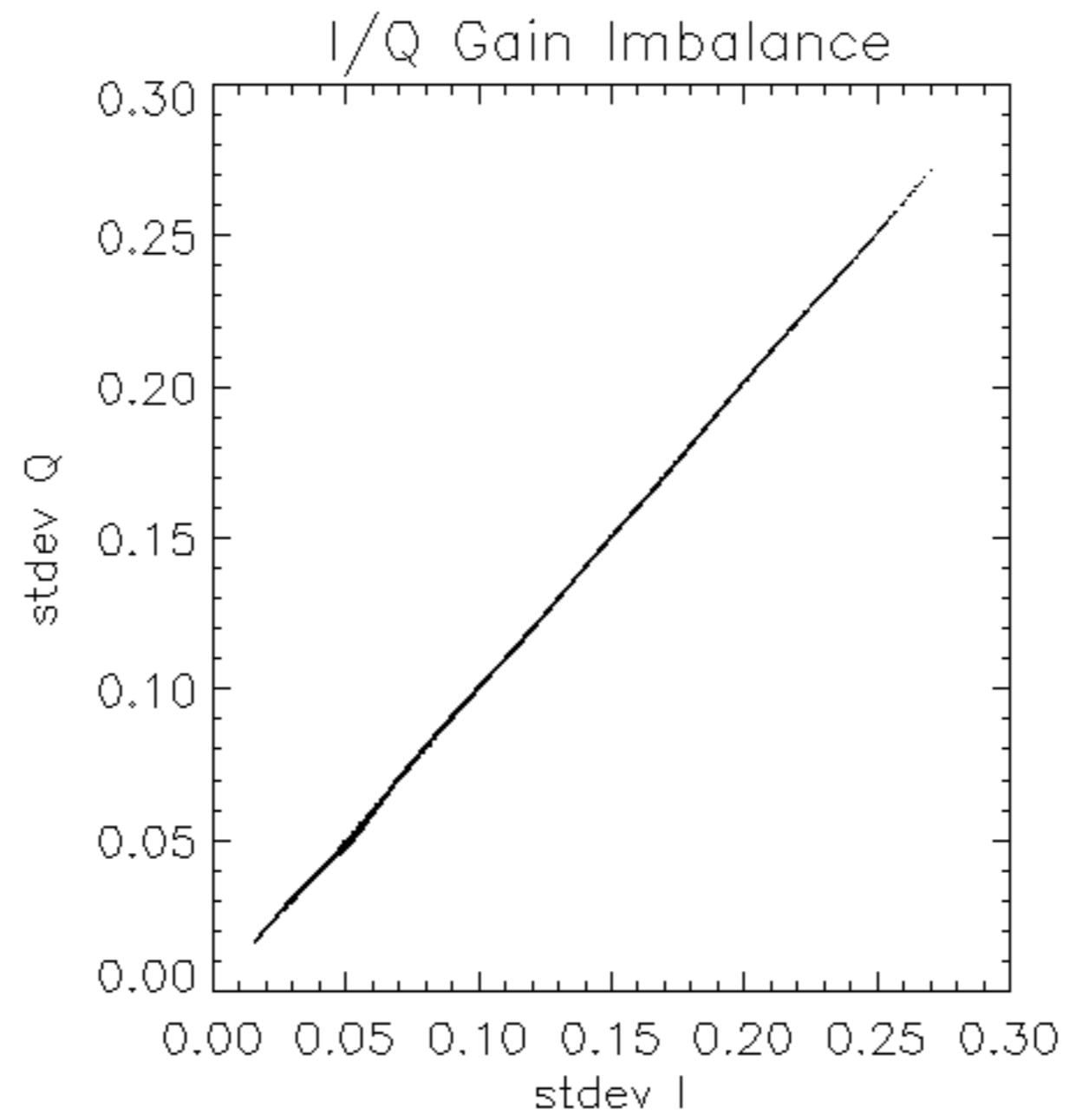
No anomalies observed on available MS products:

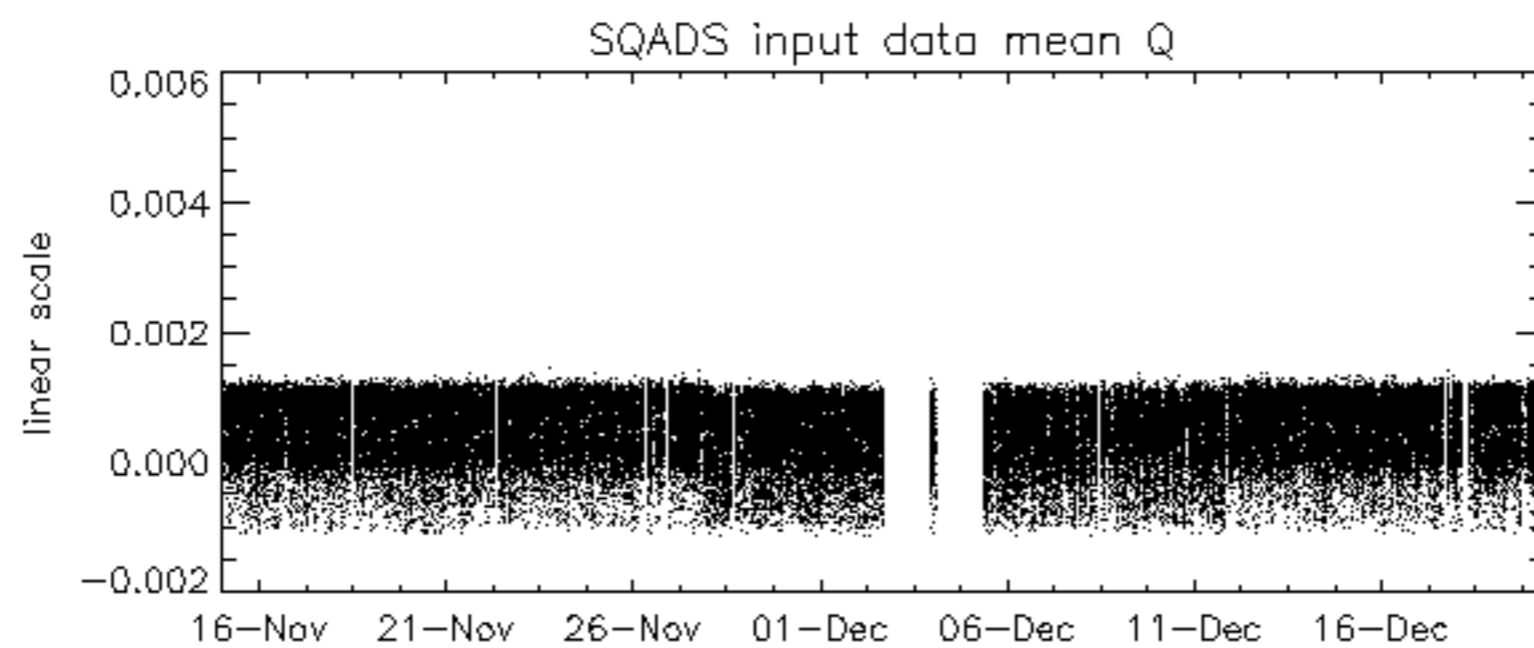
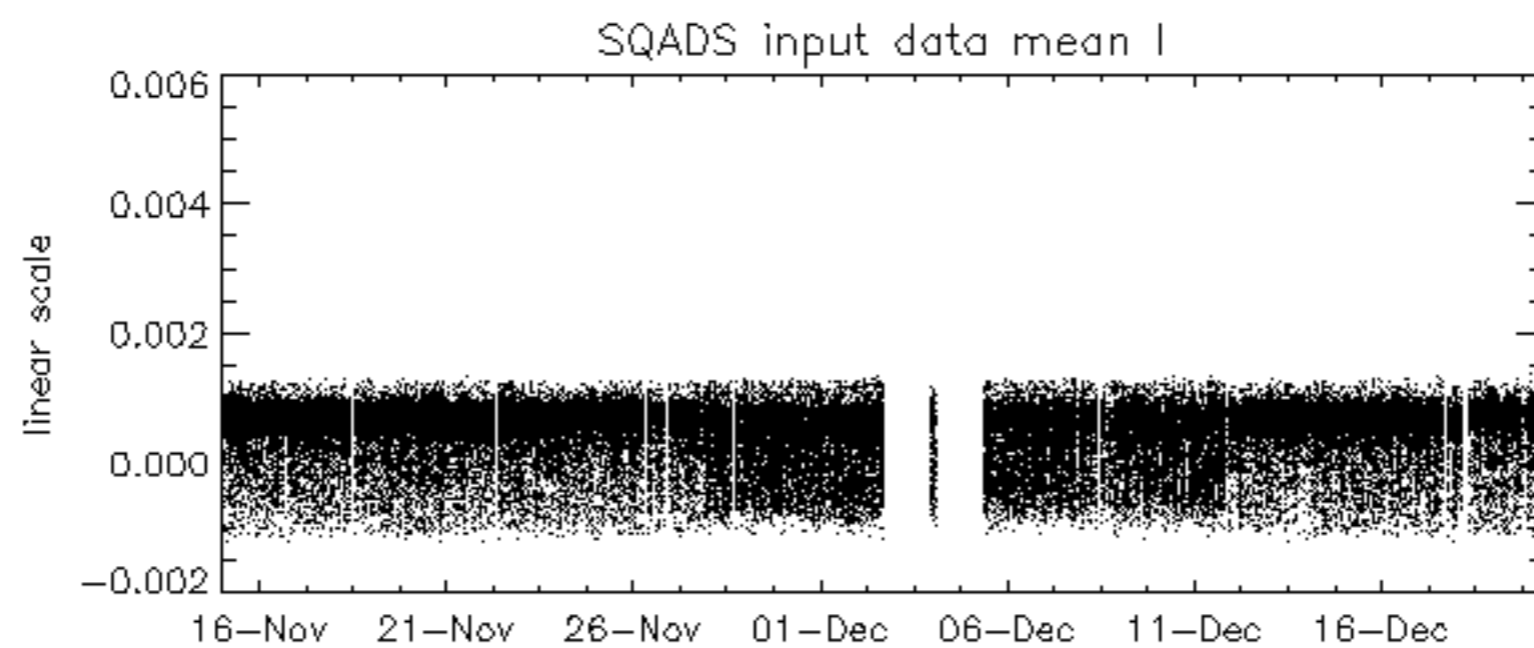
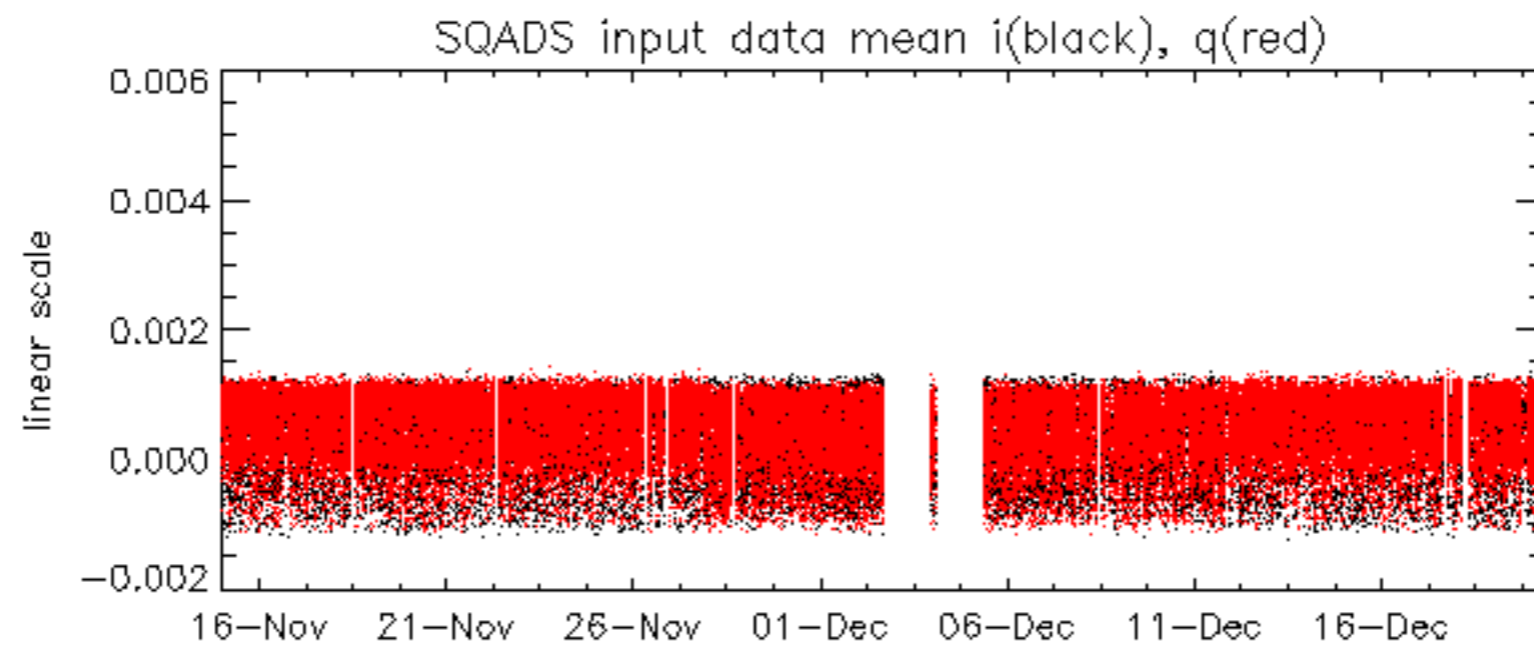
No anomalies observed.

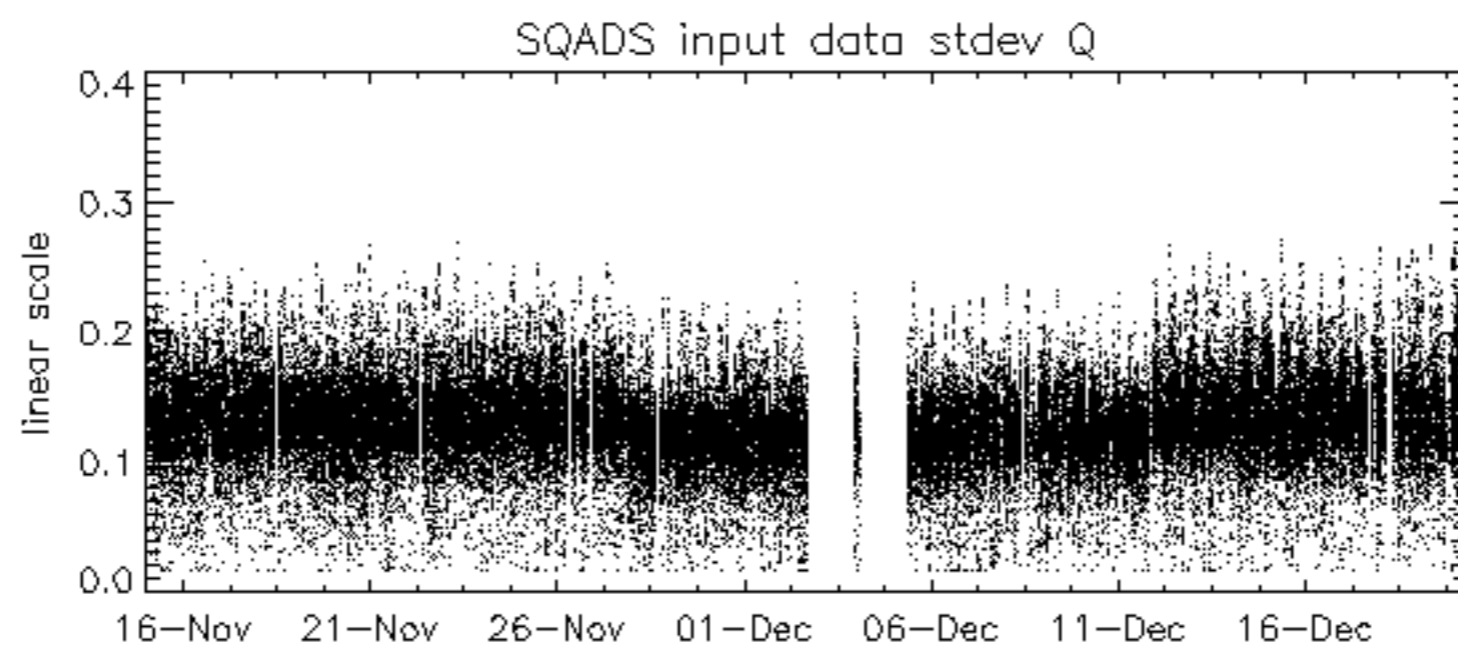
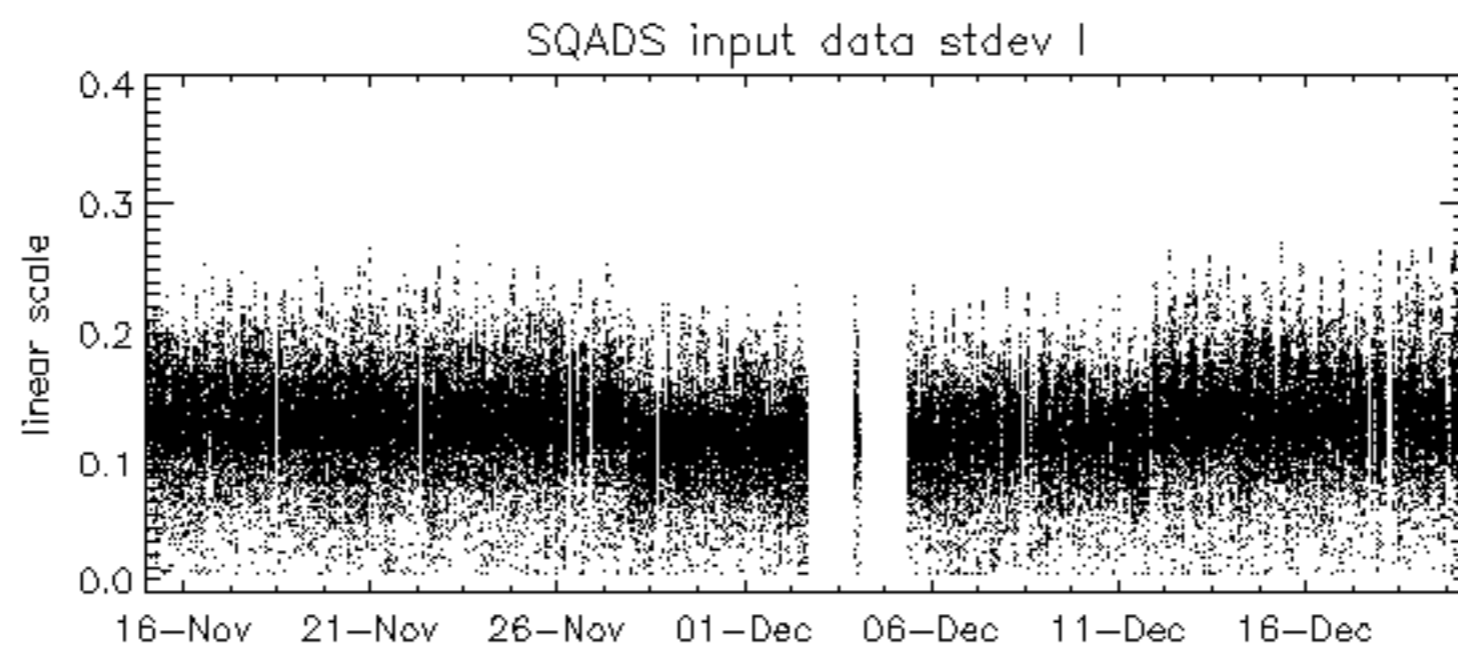
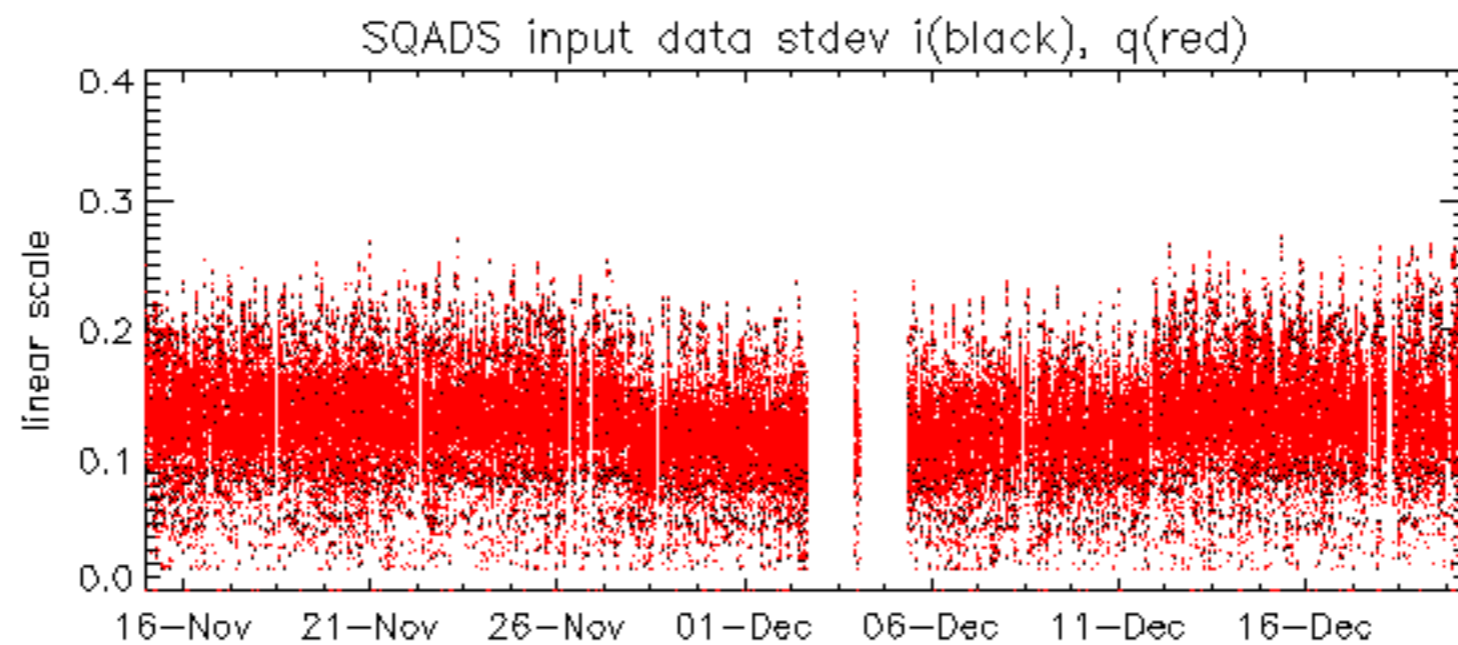
Reference: 2001-02-09 13:50:42 H RxGain

Test : 2005-12-20 08:10:13 H





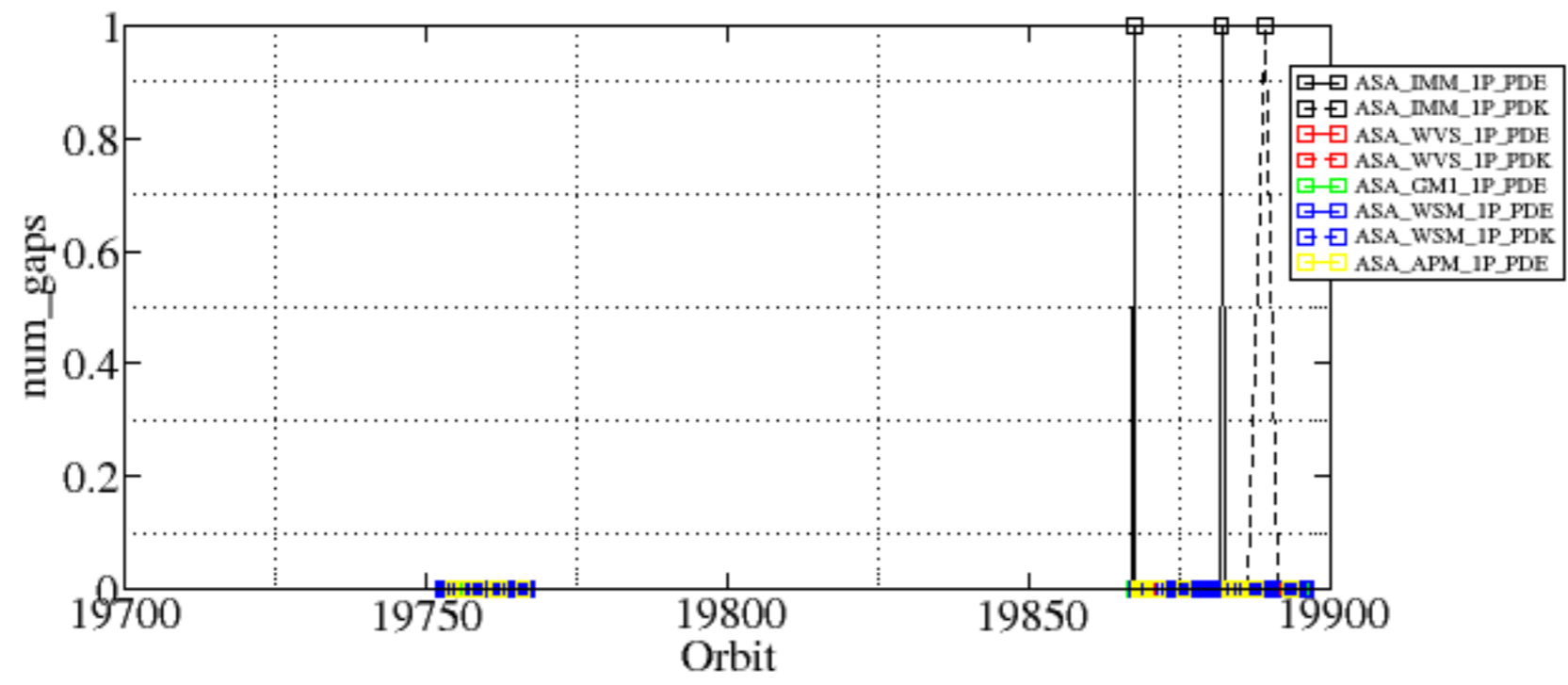


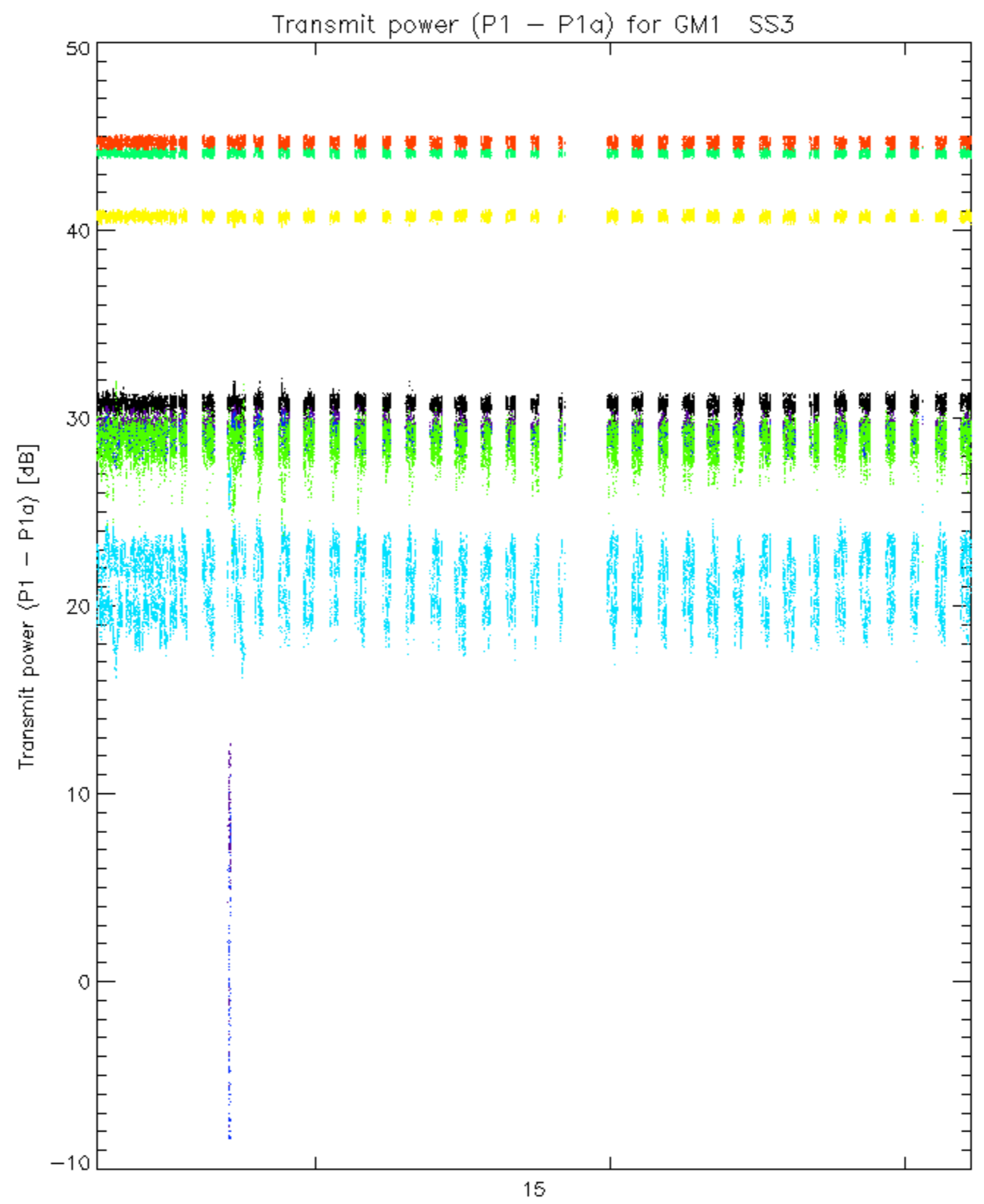


Summary of analysis for the last 3 days 2005121[890]

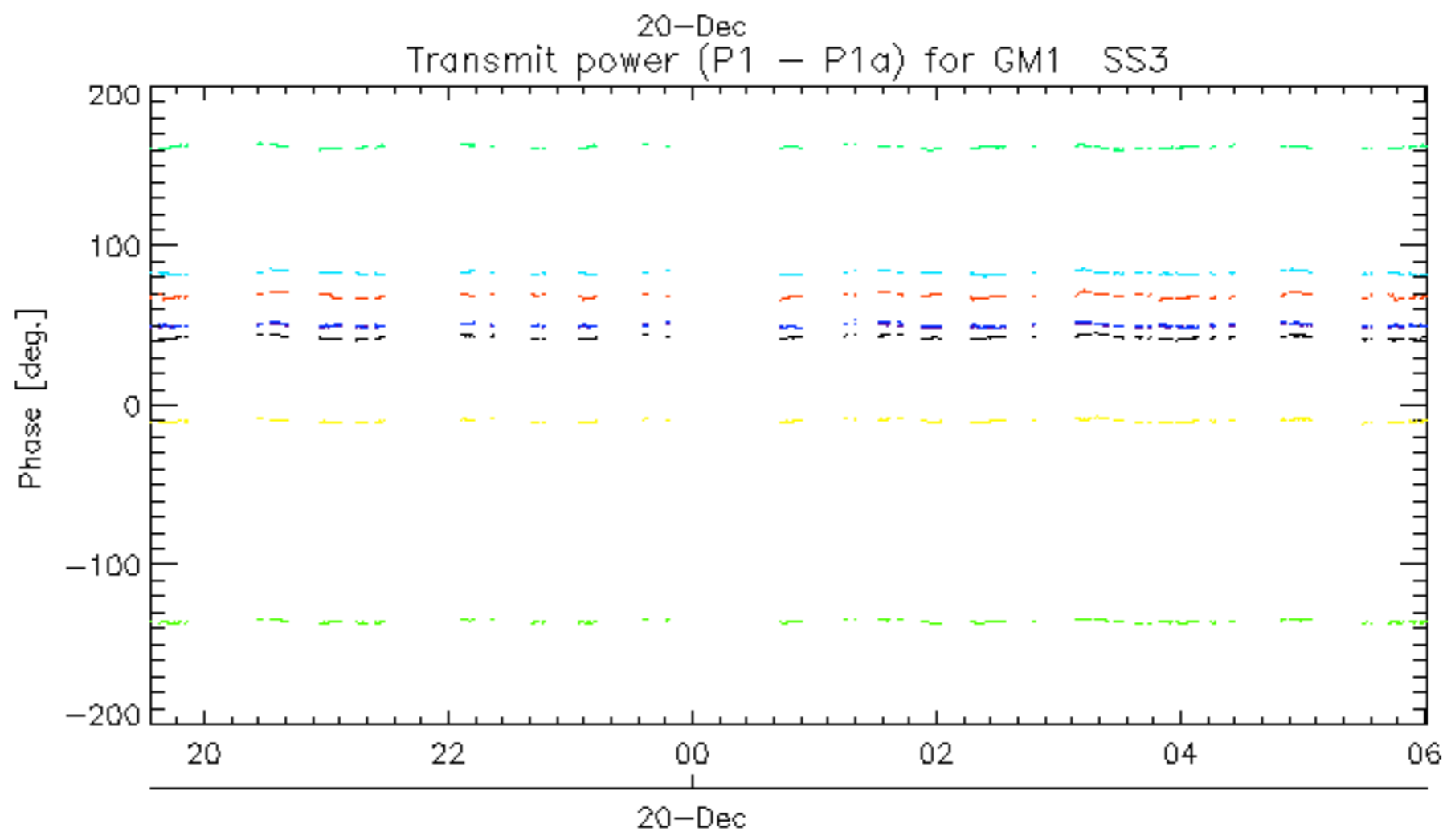
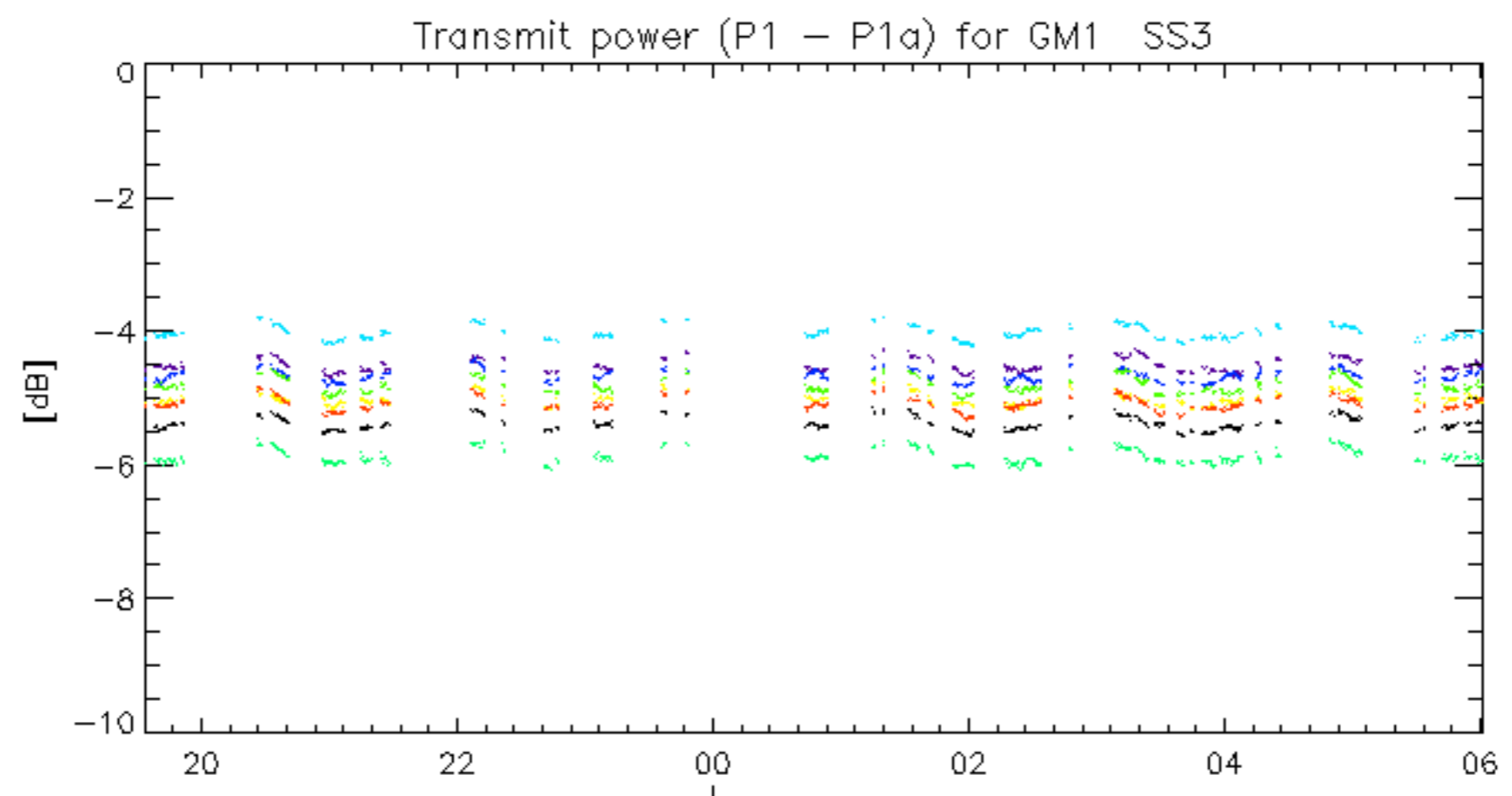
The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20051218_003640_000001812043_00274_19867_4206.N1	1	0
ASA_IMM_1PNPDE20051219_004807_000002122043_00288_19881_4281.N1	1	0
ASA_IMM_1PNPDK20051219_124842_000001212043_00296_19889_9459.N1	1	0
ASA_WSM_1PNPDE20051210_012121_000004282043_00160_19753_3544.N1	0	65
ASA_WSM_1PNPDE20051210_161814_000001462043_00169_19762_3611.N1	0	1
ASA_WSM_1PNPDE20051218_163148_000001292043_00284_19877_4793.N1	0	70
ASA_WSM_1PNPDE20051218_181506_000001292043_00285_19878_4809.N1	0	8
ASA_WSM_1PNPDE20051218_231423_000001102043_00288_19881_4861.N1	0	12
ASA_WSM_1PNPDE20051219_041808_000001462043_00291_19884_4882.N1	0	29

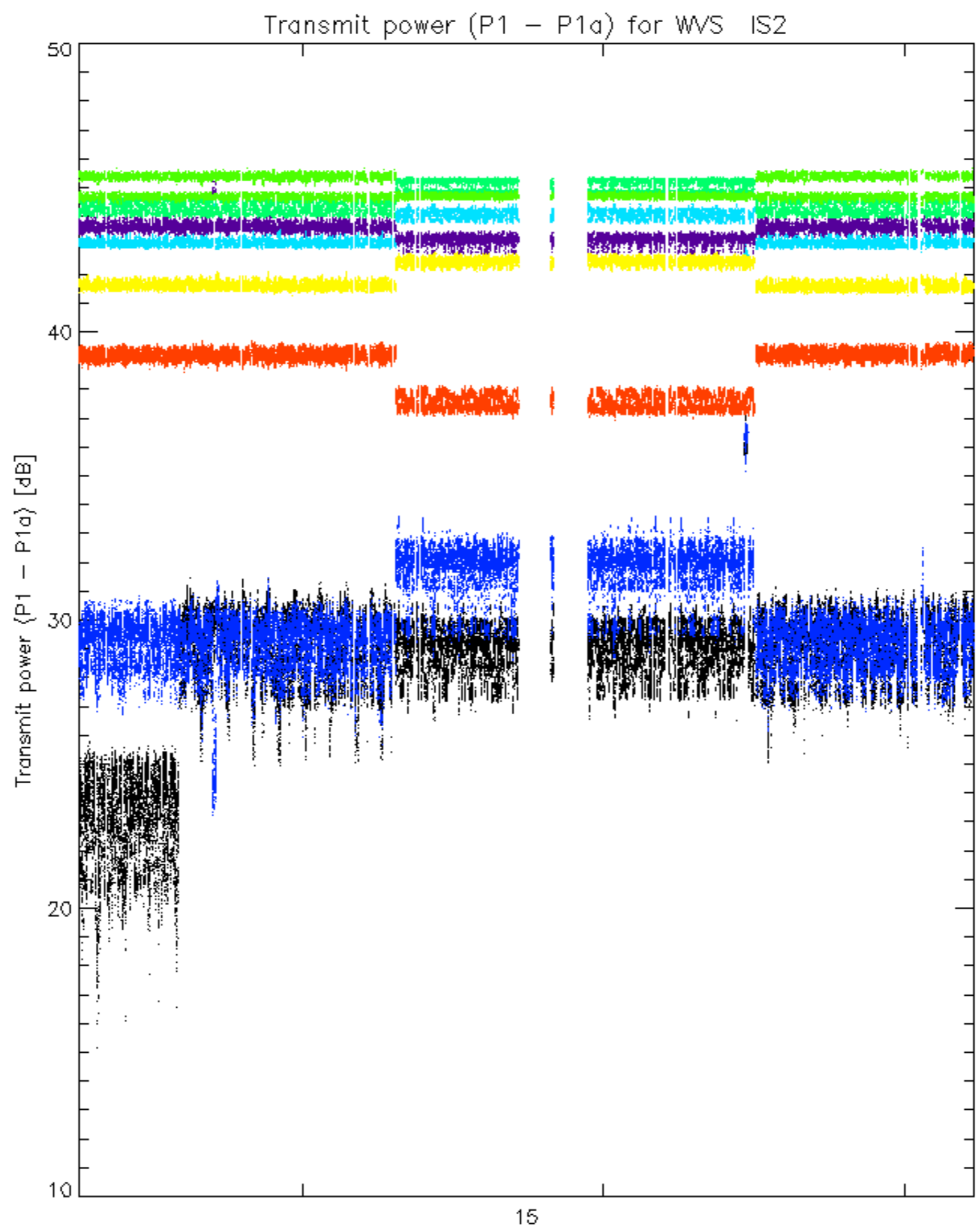




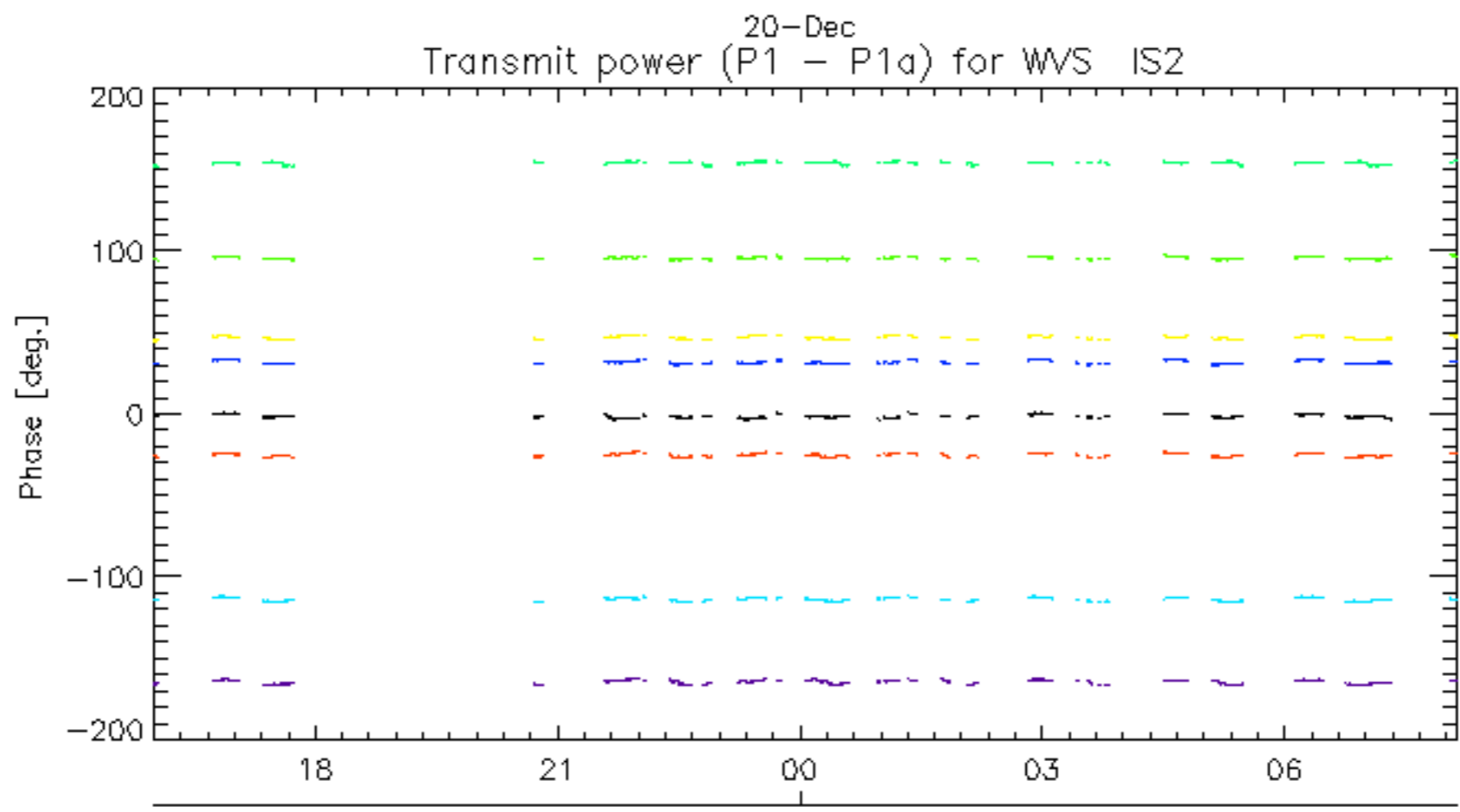
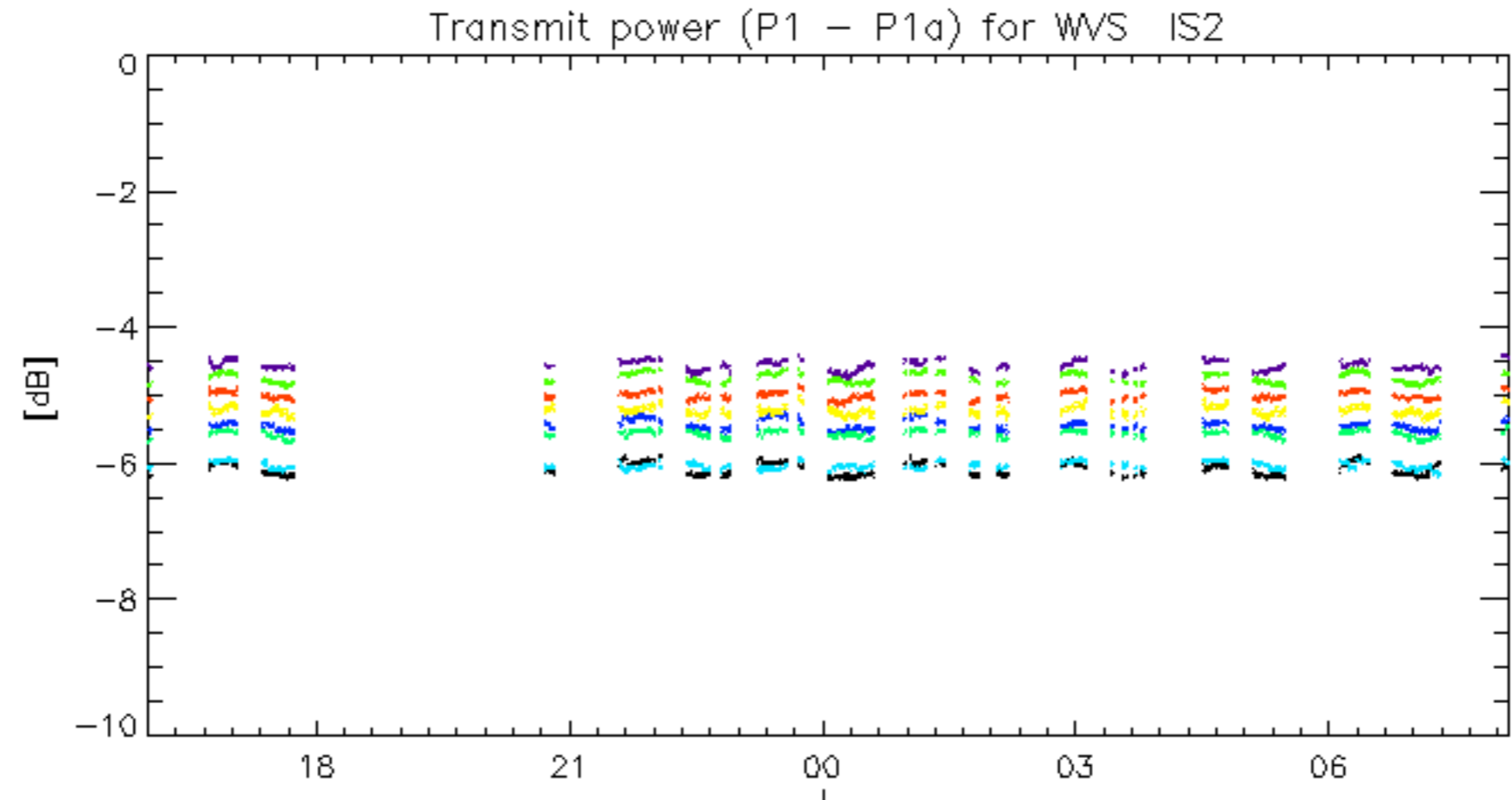
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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.