

PRELIMINARY REPORT OF 061225

last update on Mon Dec 25 16:23:17 GMT 2006

1. [Introduction](#)
2. [Summary](#)
 - [Instrument Unavailability](#)
 - [Auxiliary files used](#)
 - [Browse Visual Inspection](#)
 - [Module Stepping Results](#)
 - [Data Analysis](#)
3. [Module Stepping](#)
4. [Internal Calibration pulses](#)
 - [Daily statistics](#)
 - [Cyclic statistics](#)
 - [cal pulses monitoring \(all rows\)](#)
5. [Raw Data Statistics](#)
 - [raw data mean I and Q](#)
 - [raw data stdev I and Q](#)
 - [raw gain imbalance](#)
6. [TLM analysis](#)
7. [Wave Doppler analysis](#)
 - [Unbiased Doppler Error for WVS](#)
 - [Absolute Doppler for WVS](#)
 - [Doppler evolution versus ANX for WVS](#)
 - [Unbiased Doppler Error for GM1](#)
 - [Absolute Doppler for GM1](#)
 - [Doppler evolution versus ANX for GM1](#)

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 2006-12-24 00:00:00 to 2006-12-25 16:23:17

PDHS-K

AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
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PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20061107_090002_20050916_195733_20071231_000000	18	22	38	5	38
ASA_XCA_AXVIEC20061221_143253_20050916_195733_20071231_000000	18	22	38	5	38
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	18	22	38	5	38
ASA_INS_AXVIEC20061220_105425_20030211_000000_20071231_000000	18	22	38	5	38

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	20061220 170201
H	20061221 062648

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"/>

⊗	
⊗	
⊗	
⊗	

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

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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	-3.965459	0.007947	-0.005817
7	P1	-3.144805	0.024622	0.029723
11	P1	-4.119247	0.026805	0.024007
15	P1	-6.324559	0.016071	-0.051773
19	P1	-3.649238	0.005945	-0.060748
22	P1	-4.655450	0.014138	-0.013008
26	P1	-3.957806	0.009396	-0.025643
30	P1	-5.891712	0.009419	-0.036729
3	P1	-16.553381	0.252778	-0.093112
7	P1	-17.291897	0.189571	0.041760
11	P1	-17.193033	0.474760	0.108073
15	P1	-13.057959	0.138561	0.041186
19	P1	-14.988837	0.094554	-0.061120
22	P1	-15.806314	0.558520	0.051654
26	P1	-15.074894	0.184091	-0.062146
30	P1	-17.504725	0.479060	-0.000352

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-20.808142	0.094558	0.052928
7	P2	-21.727118	0.094381	0.058961
11	P2	-15.592123	0.104236	0.108395
15	P2	-7.116193	0.109508	0.033247
19	P2	-9.191252	0.105626	-0.005470
22	P2	-18.234409	0.098868	0.031914
26	P2	-16.585733	0.113353	-0.056049
30	P2	-19.463299	0.089414	0.019545

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.243407	0.009007	0.018945
7	P3	-8.243407	0.009007	0.018945
11	P3	-8.243407	0.009007	0.018945
15	P3	-8.243407	0.009007	0.018945
19	P3	-8.243407	0.009007	0.018945

22	P3	-8.243407	0.009007	0.018945
26	P3	-8.243441	0.009007	0.018771
30	P3	-8.243441	0.009007	0.018771

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	-3.919477	0.014329	-0.024025
7	P1	-2.478048	0.016585	0.011974
11	P1	-2.851223	0.017937	-0.017302
15	P1	-3.689287	0.031905	-0.040089
19	P1	-3.545230	0.018224	-0.021060
22	P1	-5.026280	0.023866	-0.016689
26	P1	-6.028725	0.028089	-0.023569
30	P1	-5.347268	0.038833	-0.005936
3	P1	-11.745422	0.081760	-0.015565
7	P1	-10.059945	0.090900	-0.064628
11	P1	-10.335161	0.131432	-0.088622
15	P1	-10.710407	0.119753	-0.072499
19	P1	-15.732817	0.123505	0.005529
22	P1	-21.597155	1.432081	0.107129
26	P1	-16.069796	0.336110	0.081151
30	P1	-17.880991	0.364941	-0.070063

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.469254	0.128877	0.004095

7	P2	-22.229494	0.274645	0.065544
11	P2	-10.892452	0.139666	0.118576
15	P2	-4.988394	0.249163	0.018871
19	P2	-6.967552	0.278291	-0.021184
22	P2	-8.255314	0.139594	0.001887
26	P2	-24.322651	0.190836	0.007099
30	P2	-21.947762	0.161860	-0.010134

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.092438	0.004858	0.014174
7	P3	-8.092418	0.004836	0.014147
11	P3	-8.092447	0.004854	0.013991
15	P3	-8.092296	0.004847	0.014773
19	P3	-8.092381	0.004856	0.014324
22	P3	-8.092334	0.004847	0.014773
26	P3	-8.092489	0.004854	0.014265
30	P3	-8.092321	0.004834	0.013854

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	0.000559016
	stdev	1.68908e-07

MEAN Q	mean	0.000509425
	stdev	2.15418e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.139086
	stdev	0.00119261
STDEV Q	mean	0.139476
	stdev	0.00121236



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006122[345]

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_WSM_1PNPDE20061223_035151_000004282054_00061_25165_0858.N1	0	2
ASA_WSM_1PNPDE20061223_132747_000000862054_00067_25171_1854.N1	0	39
ASA_WSM_1PNPDE20061224_143551_000000862054_00082_25186_4312.N1	0	14
ASA_WSM_1PNPDE20061225_022028_000001402054_00089_25193_5683.N1	0	40



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

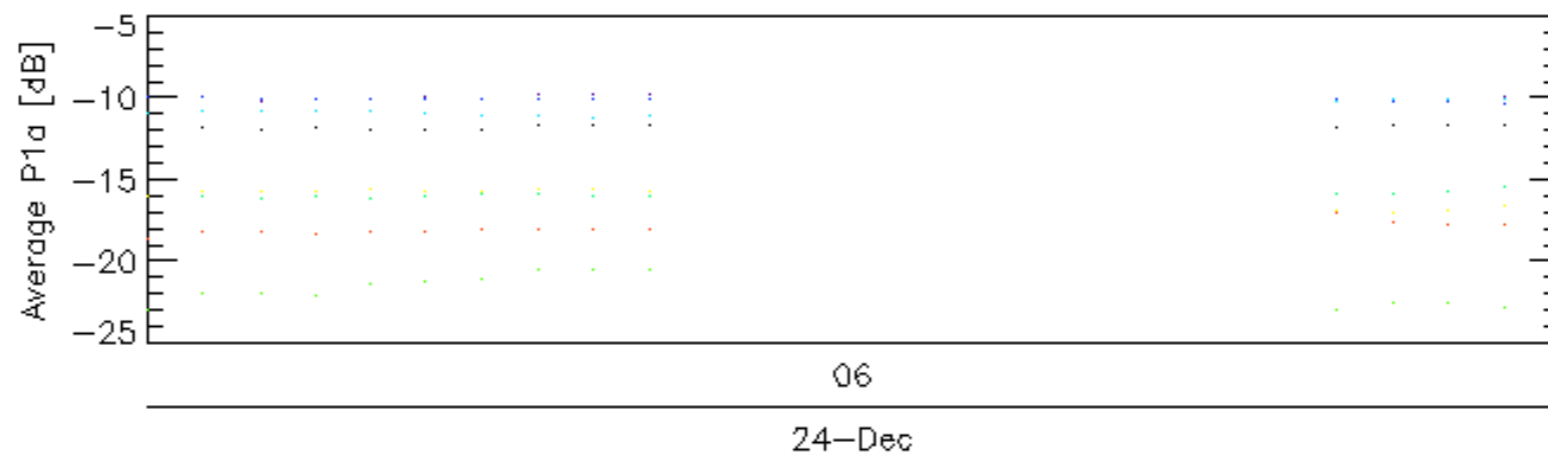
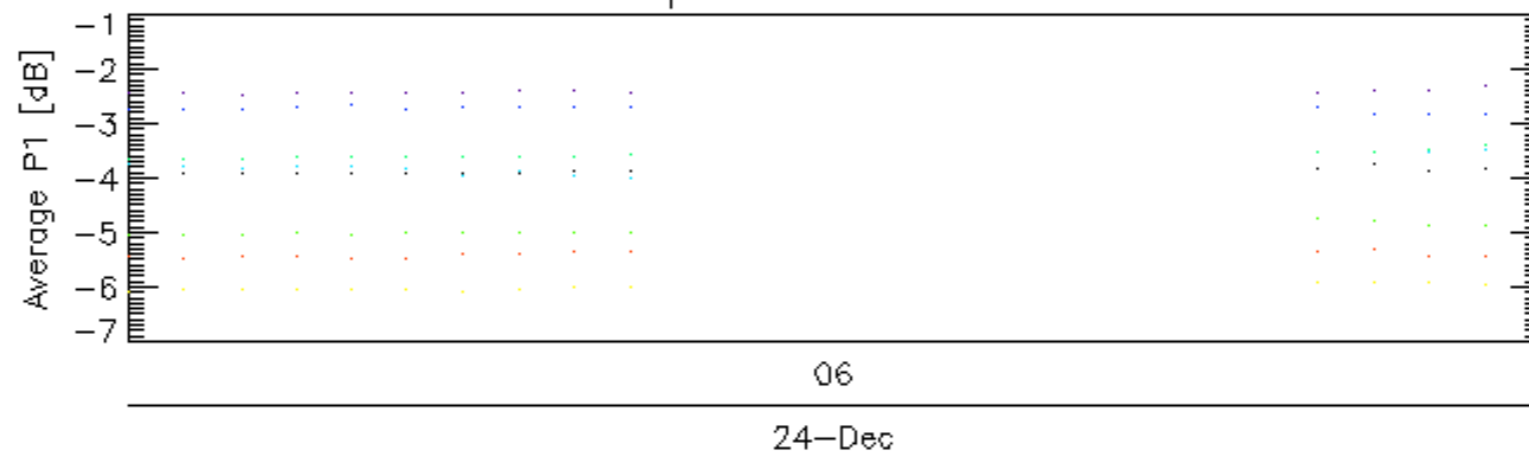
Ascending

Descending

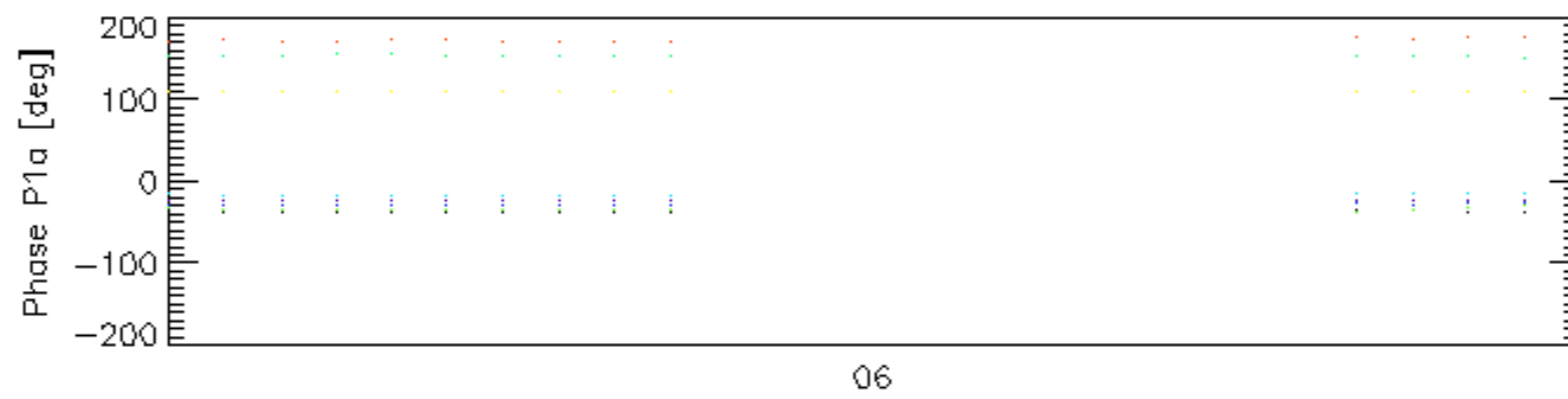
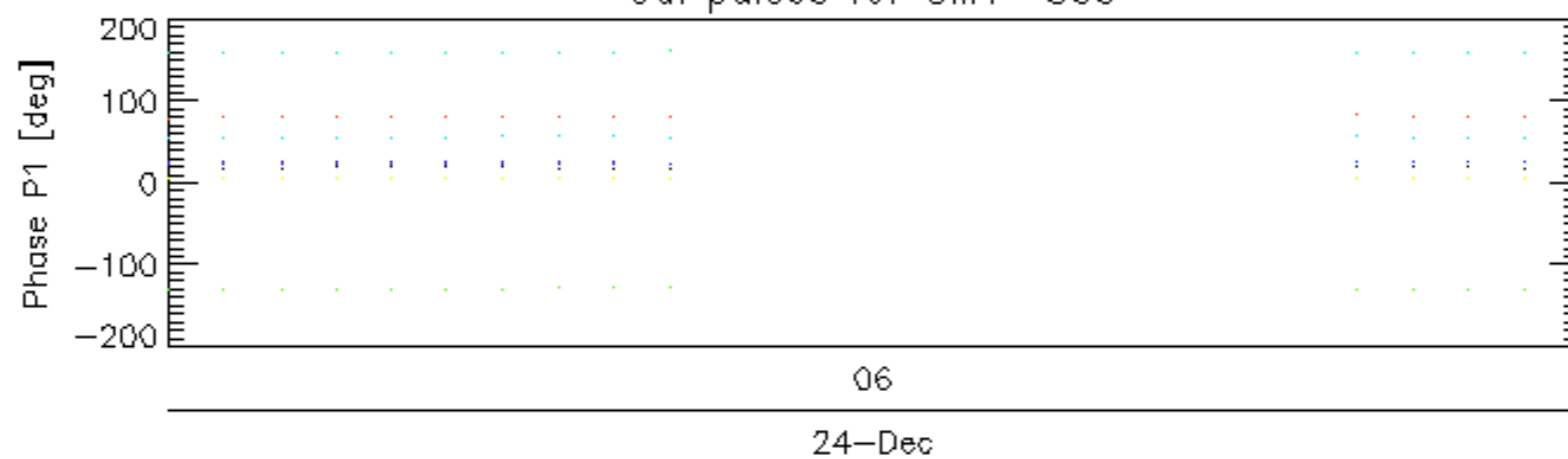
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX

Cal pulses for GM1 SS3

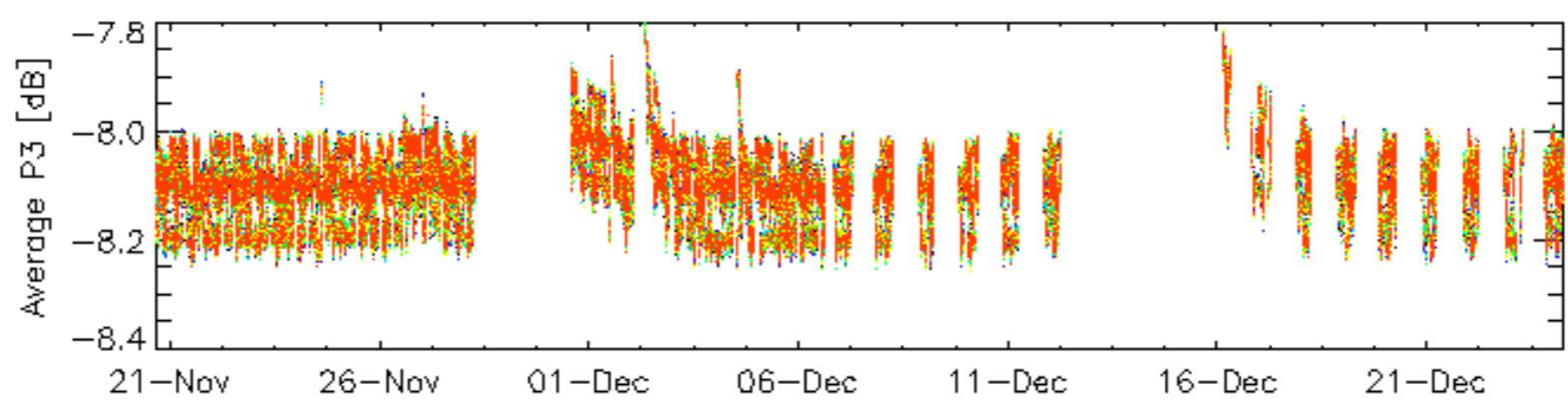
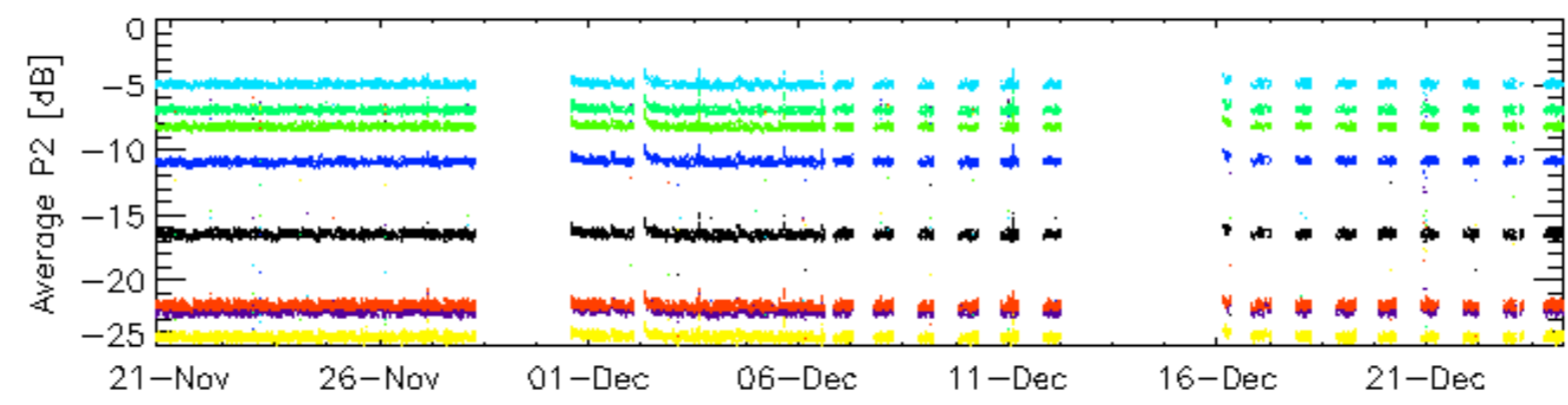
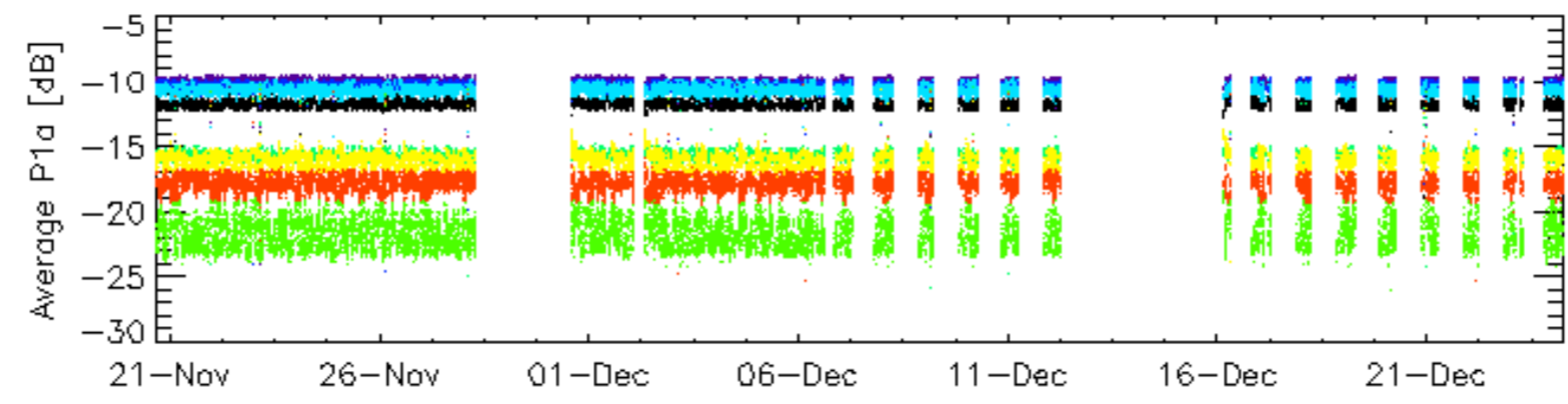
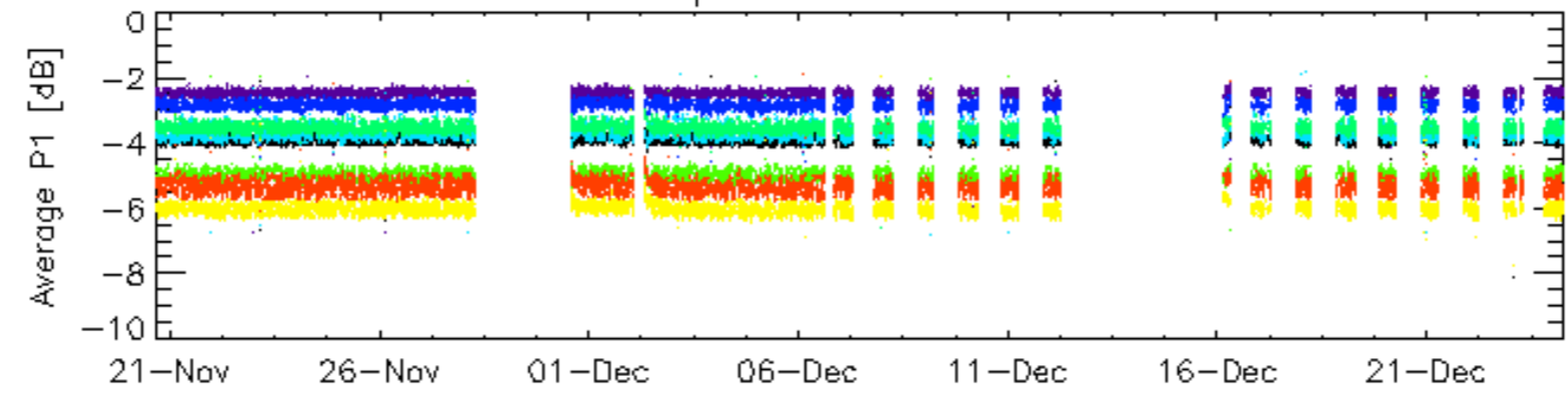


Cal pulses for GM1 SS3



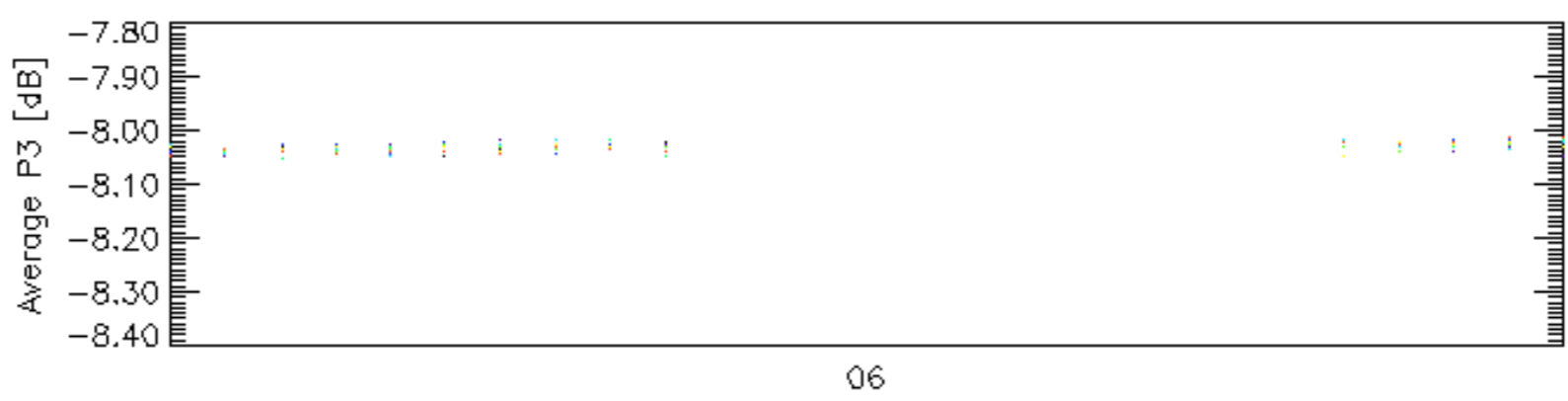
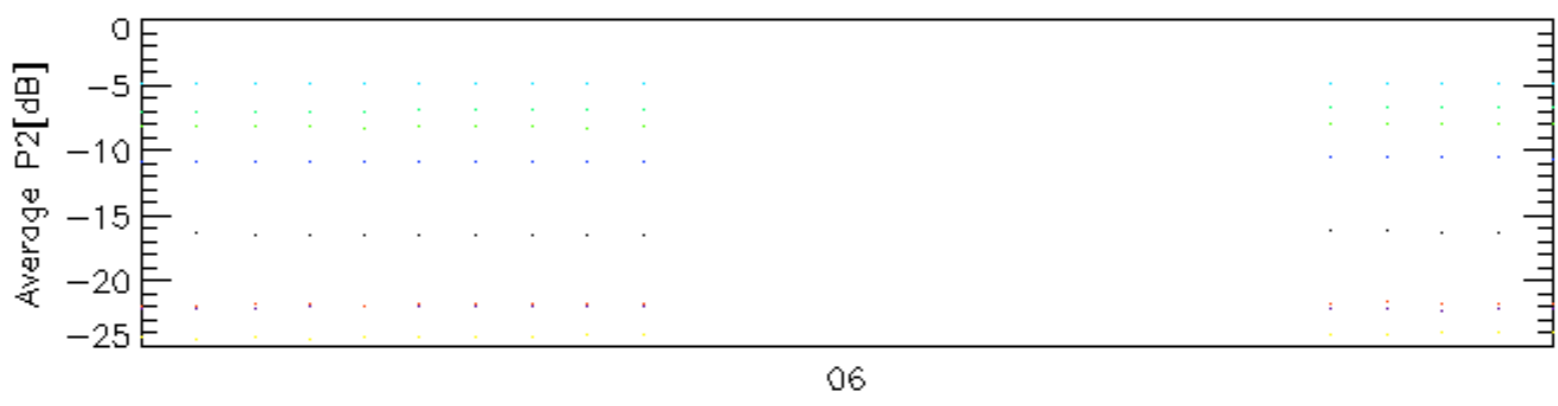
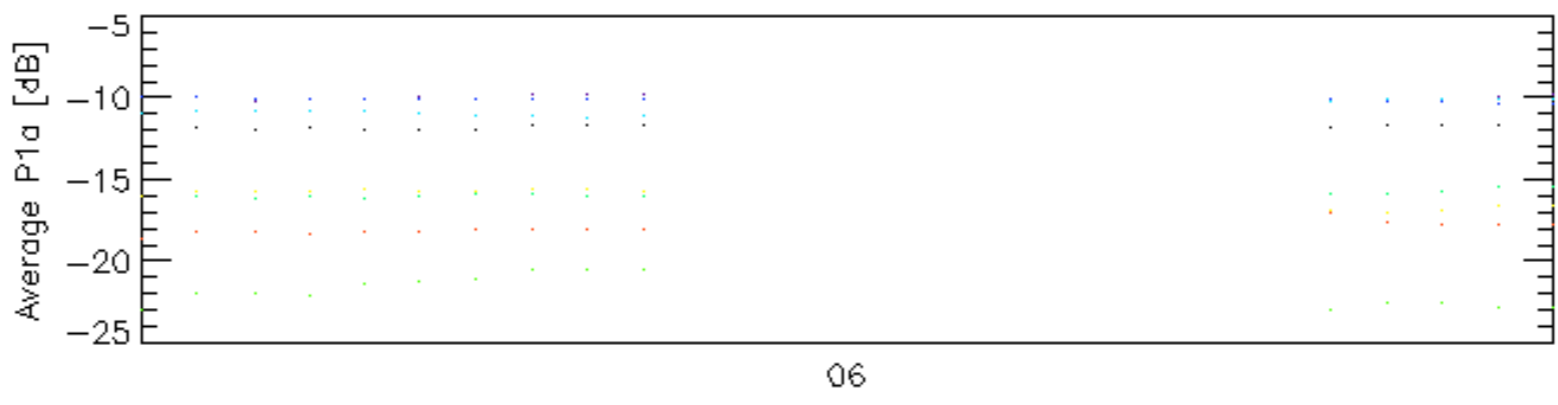
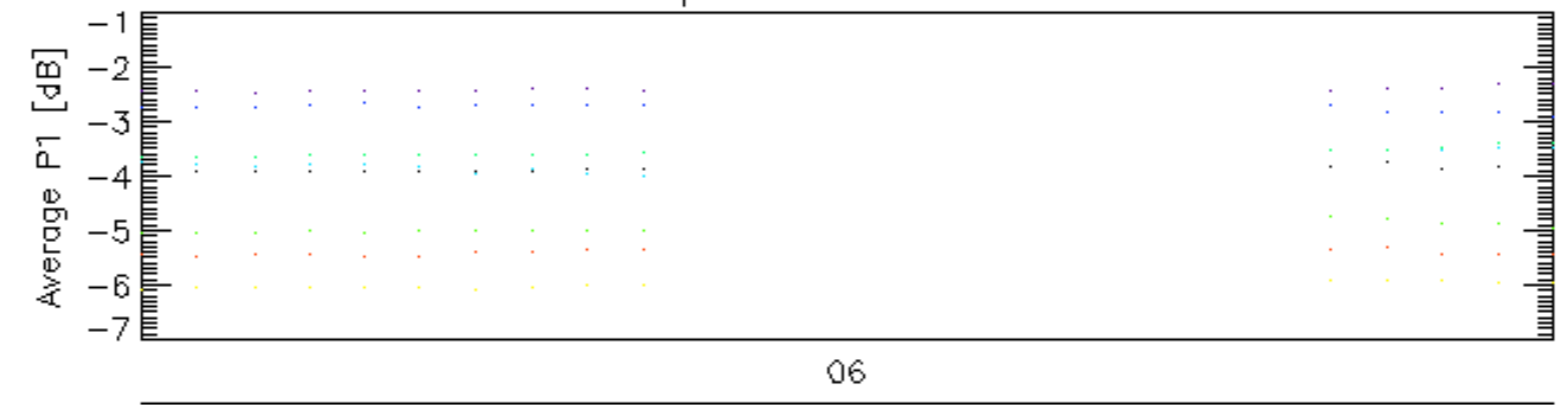
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 ^{24-Dec} _ 26 _ 30

Cal pulses for GM1 SS3



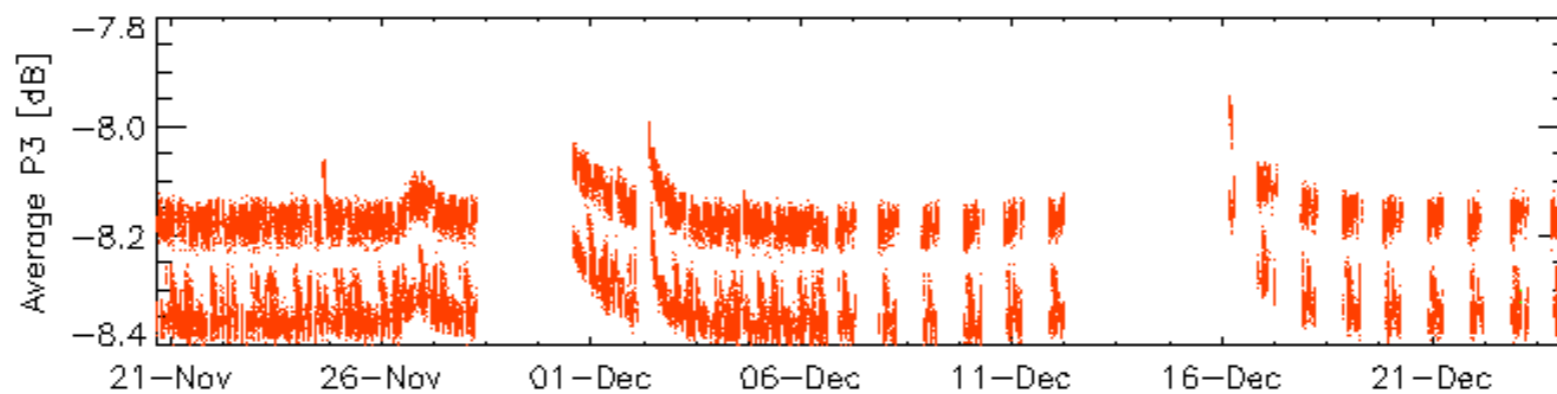
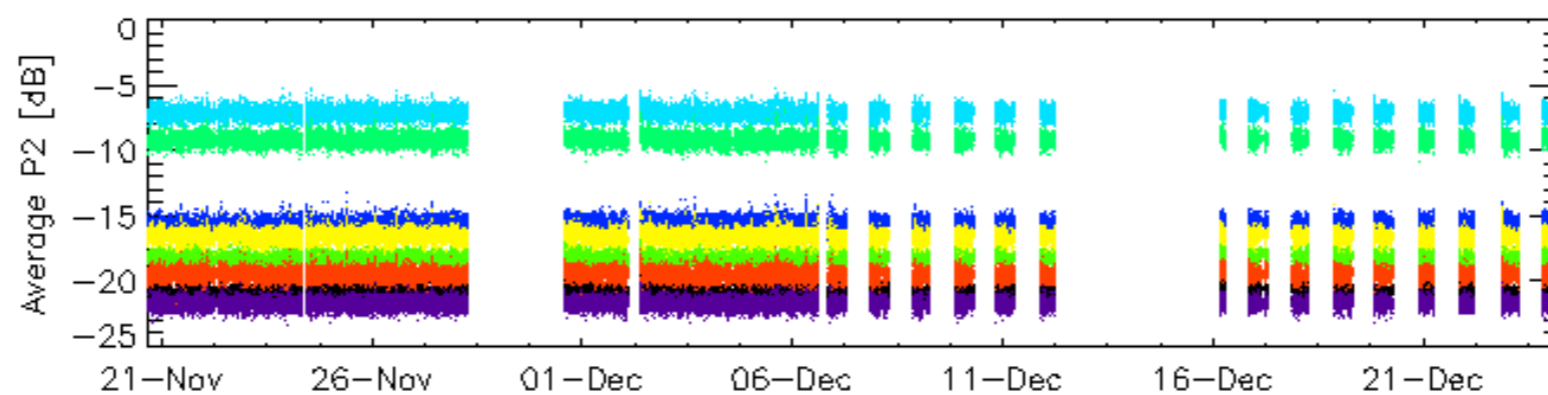
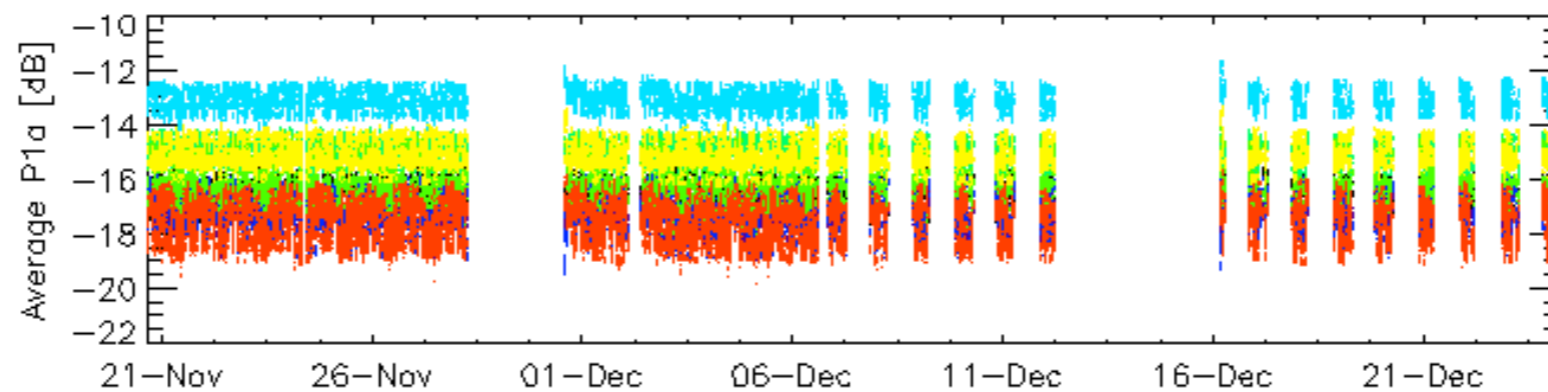
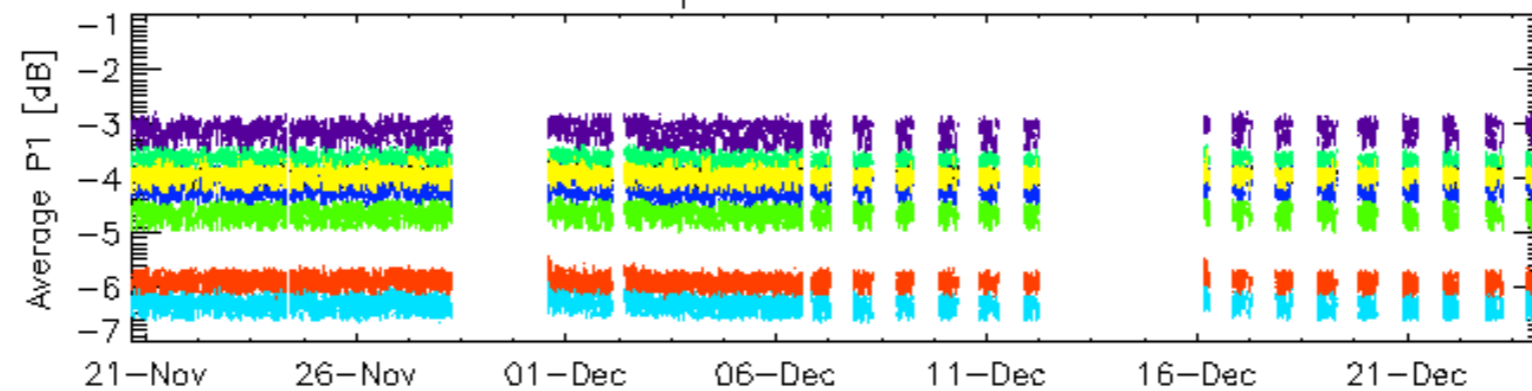
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3



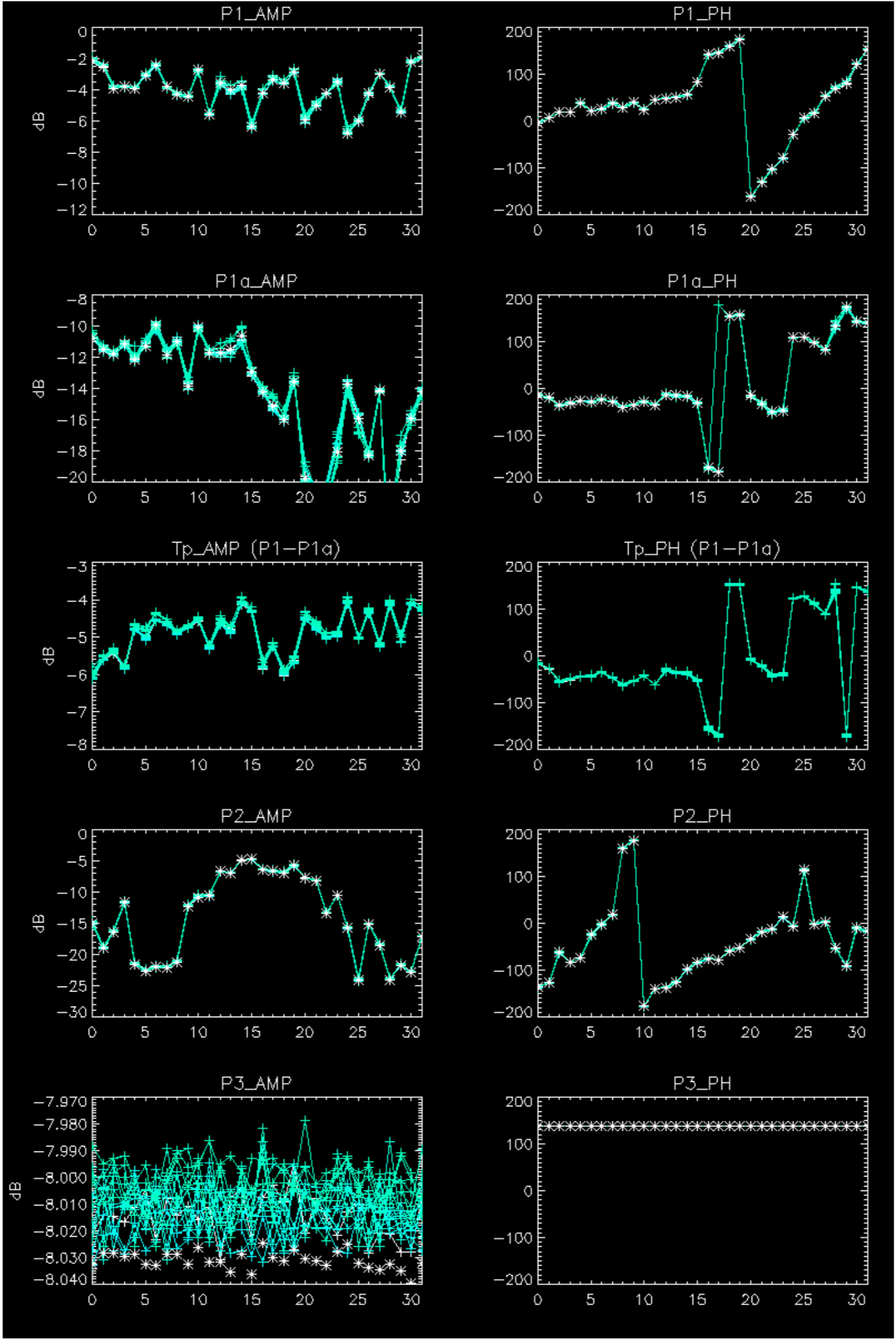
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



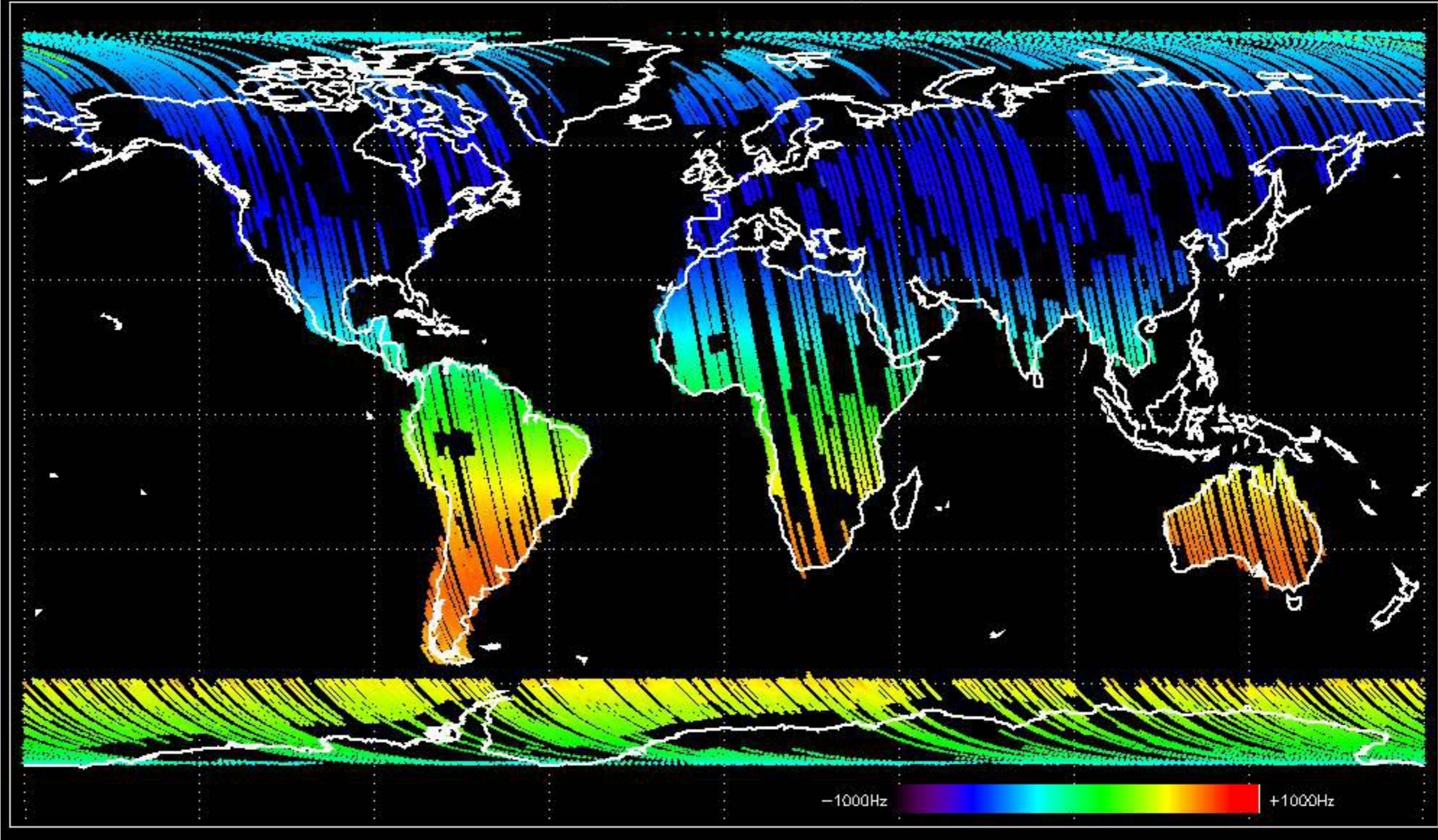
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No anomalies observed.

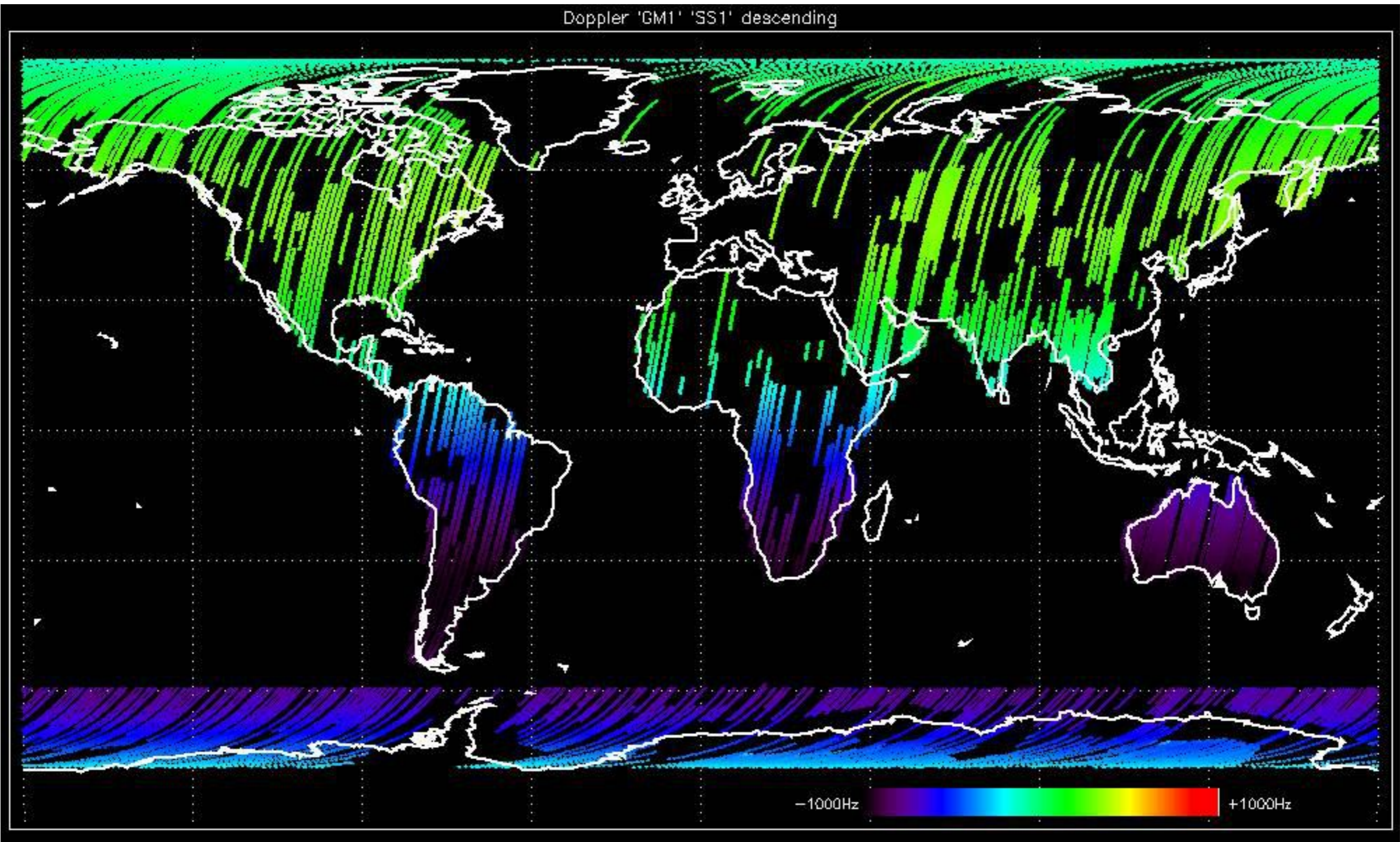


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

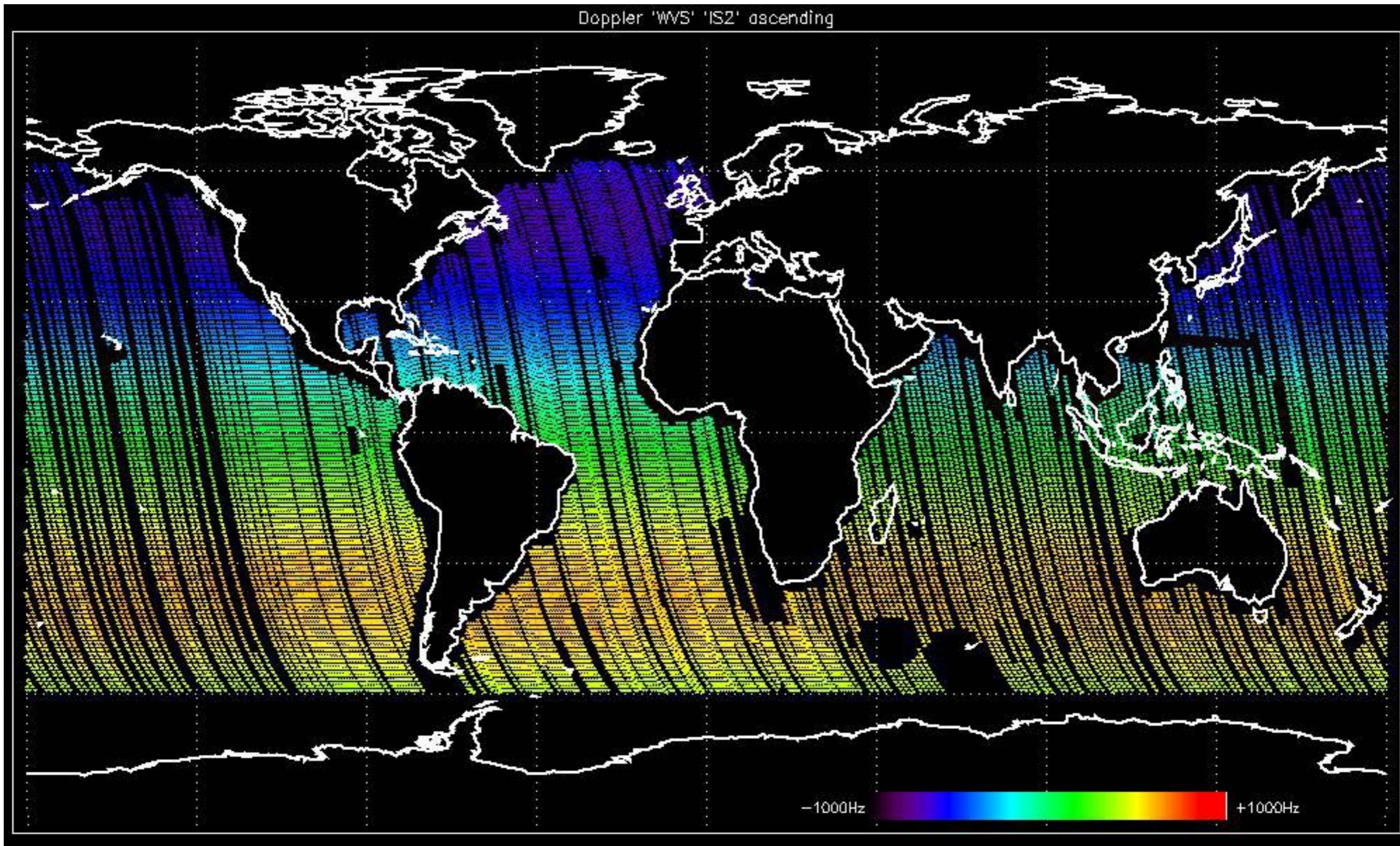
Doppler 'GM1' 'SS1' ascending



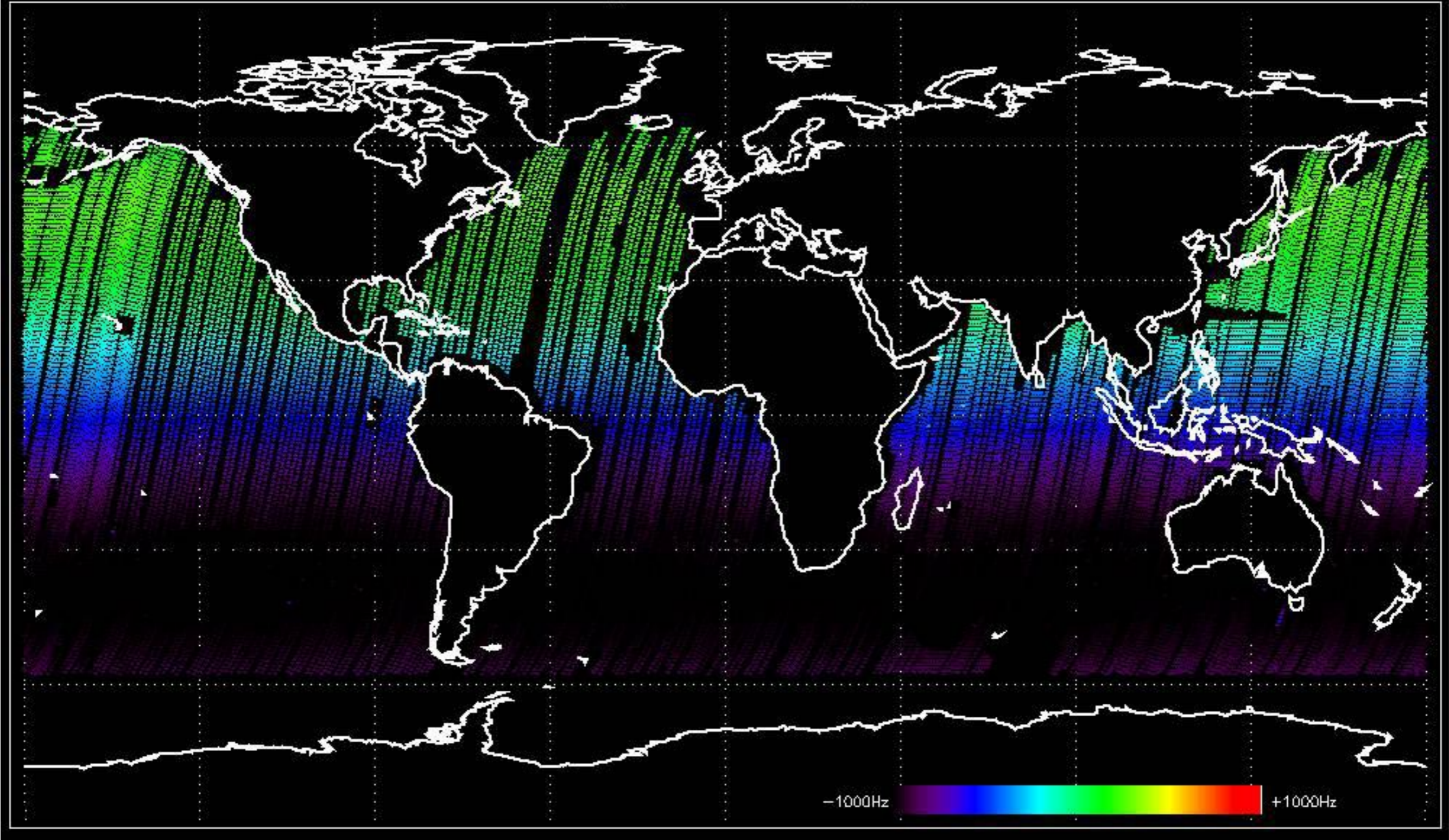
Doppler 'GM1' 'SS1' descending

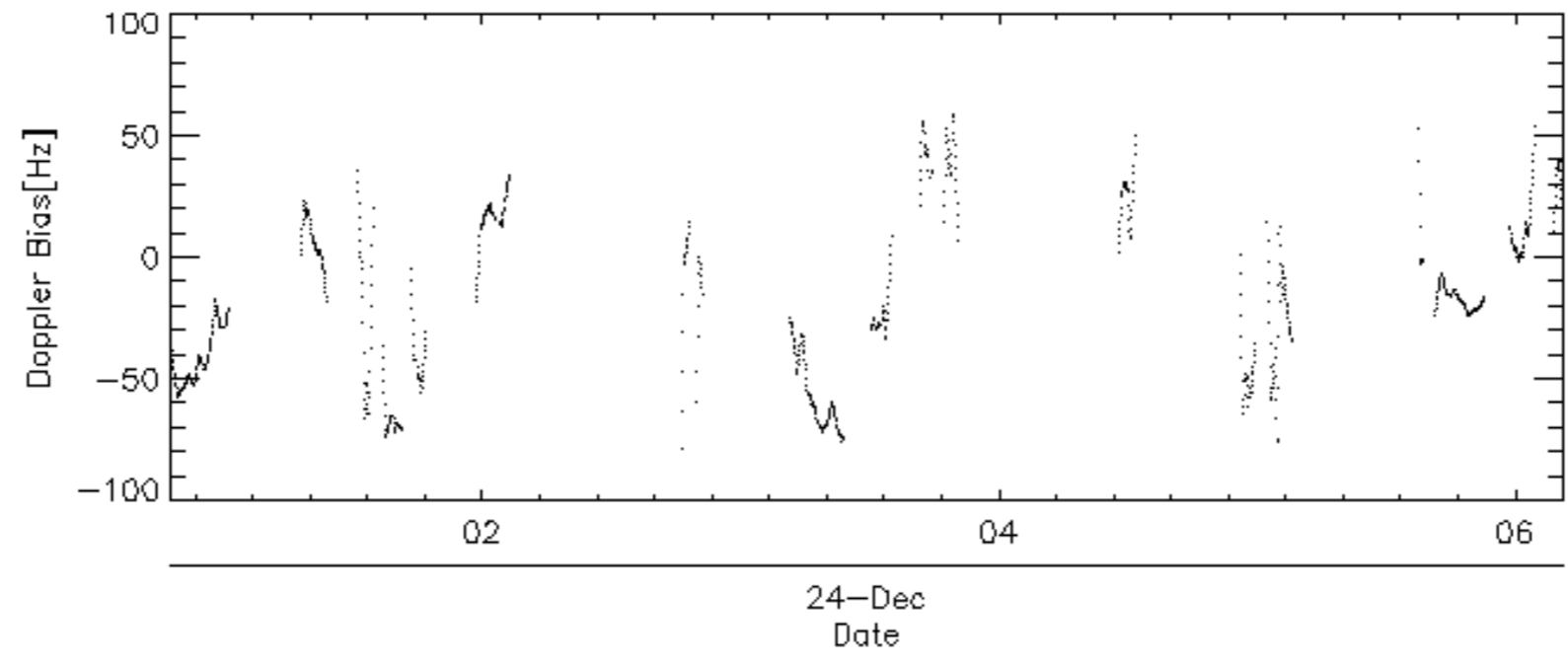
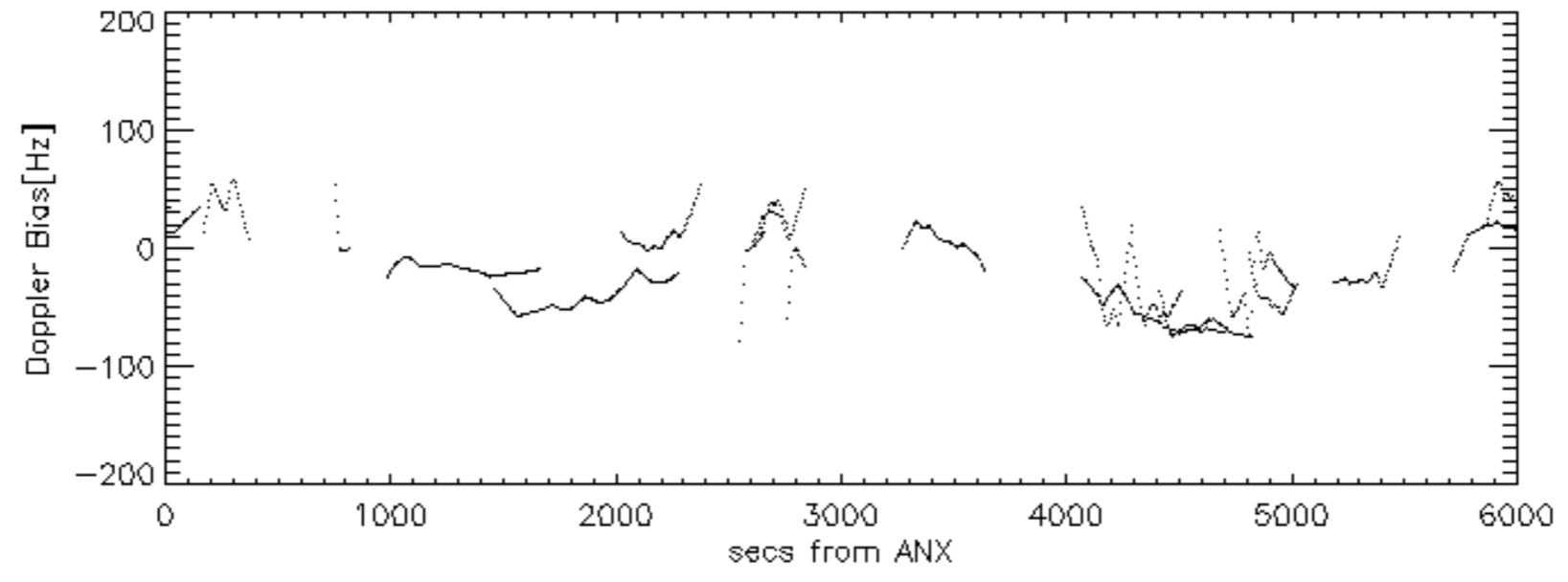
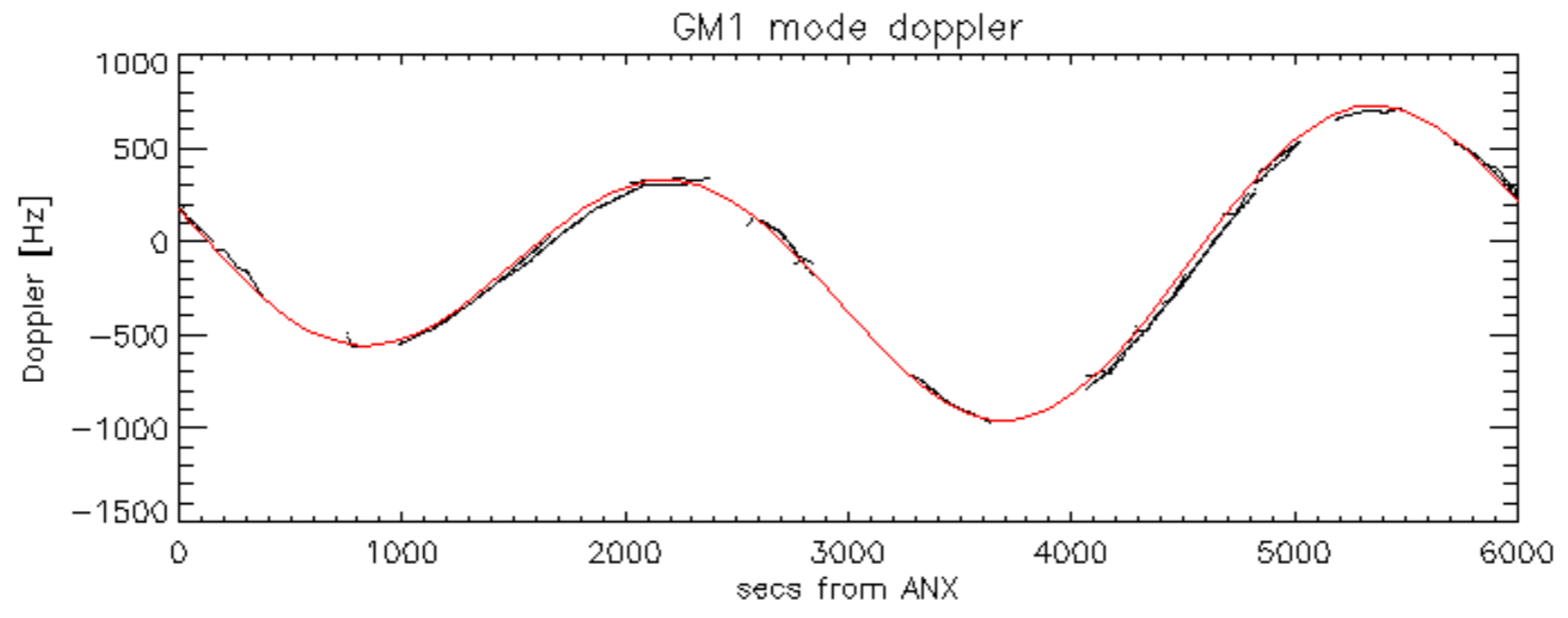


Doppler 'WVS' 'IS2' ascending

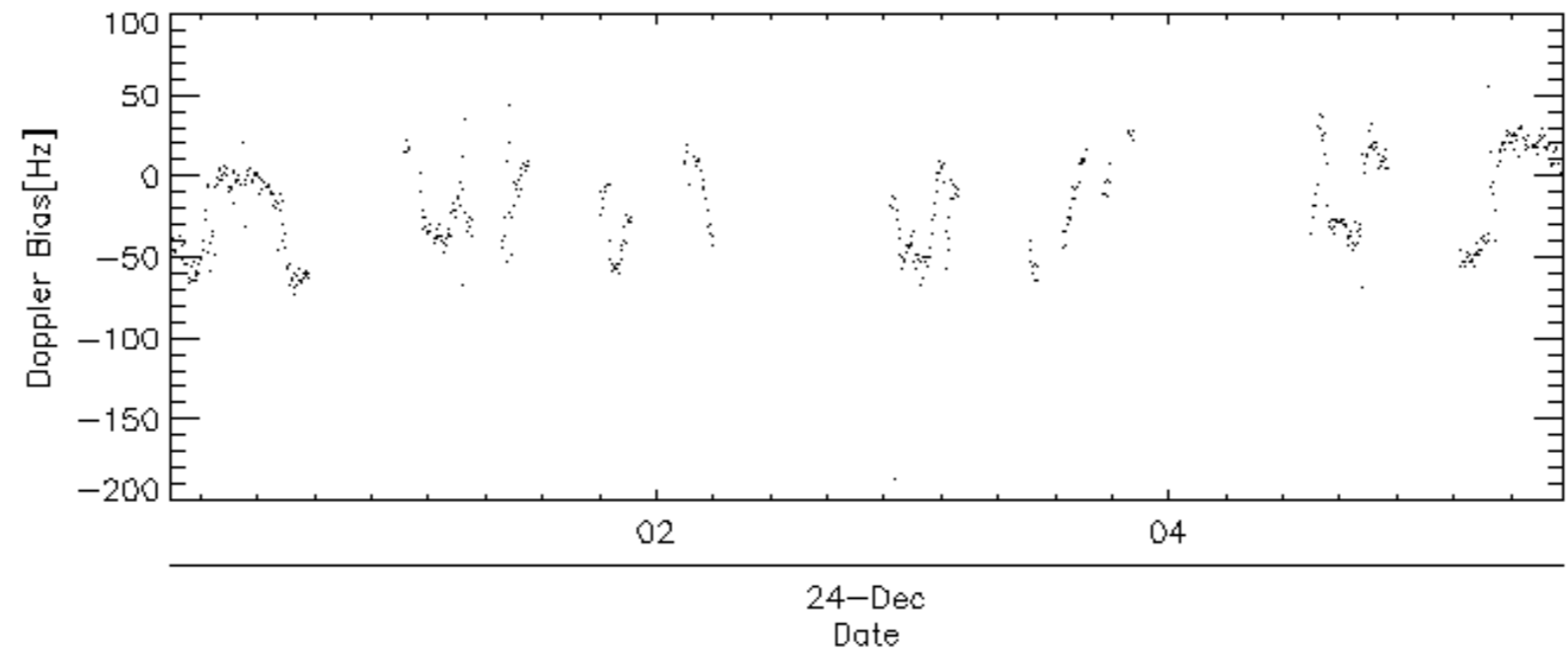
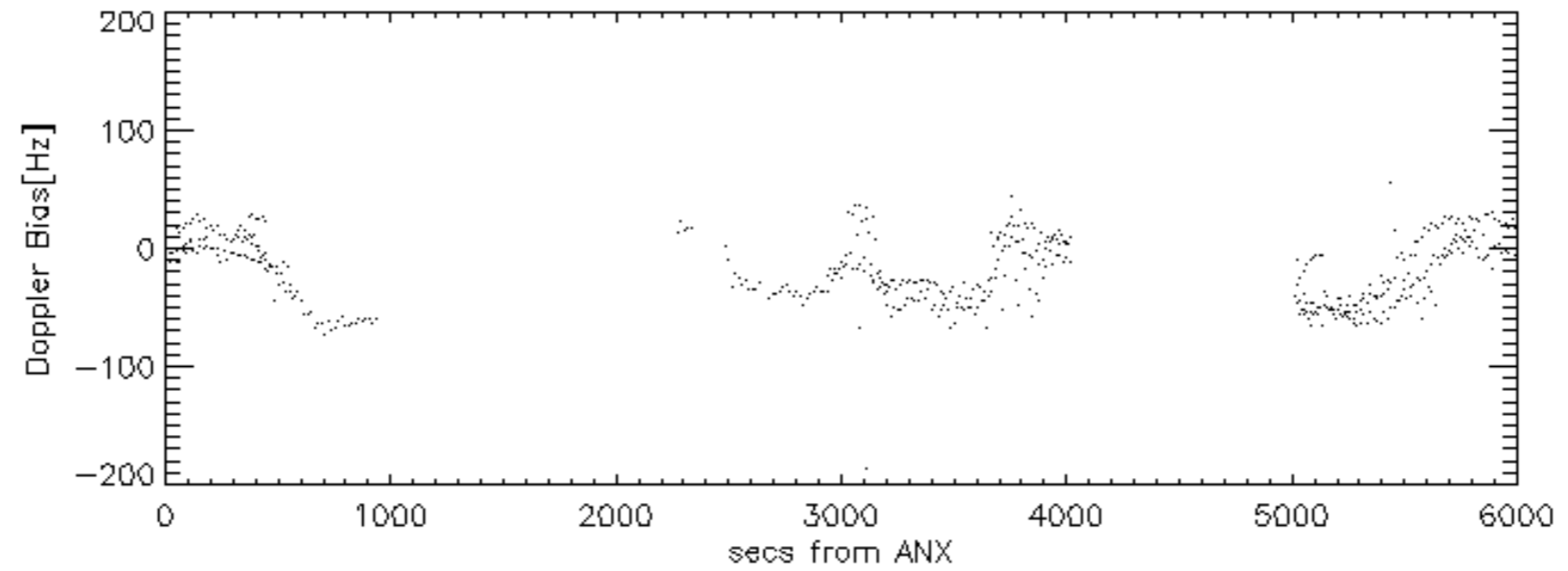
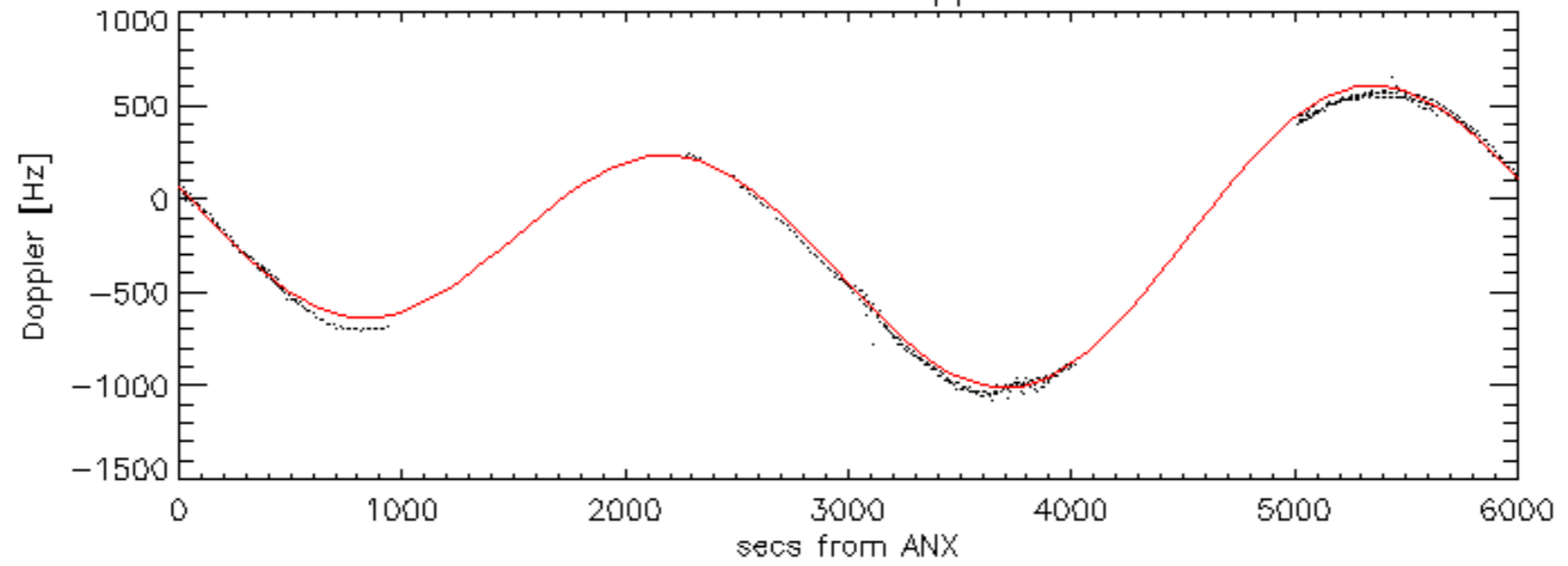


Doppler 'WVS' 'IS2' descending

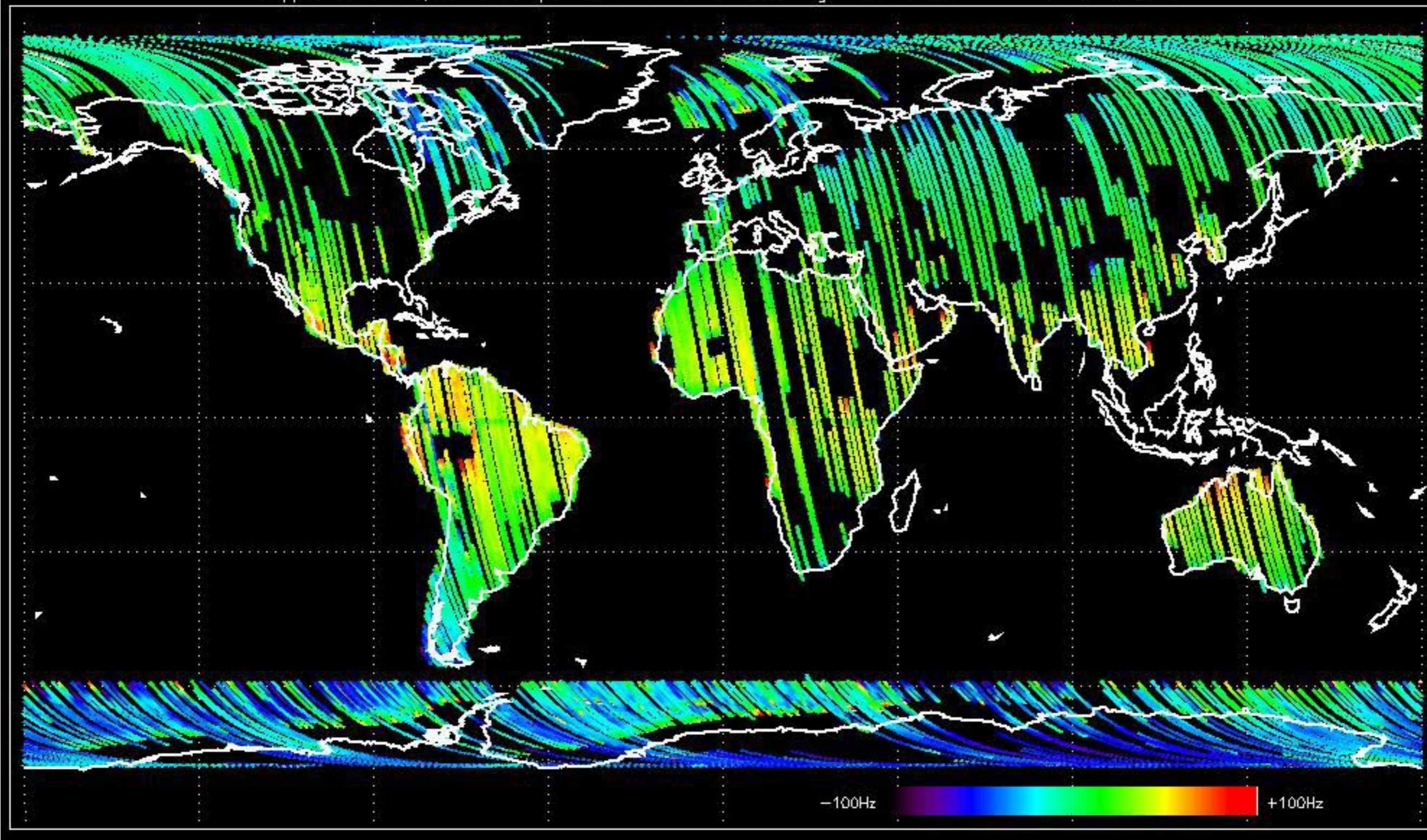




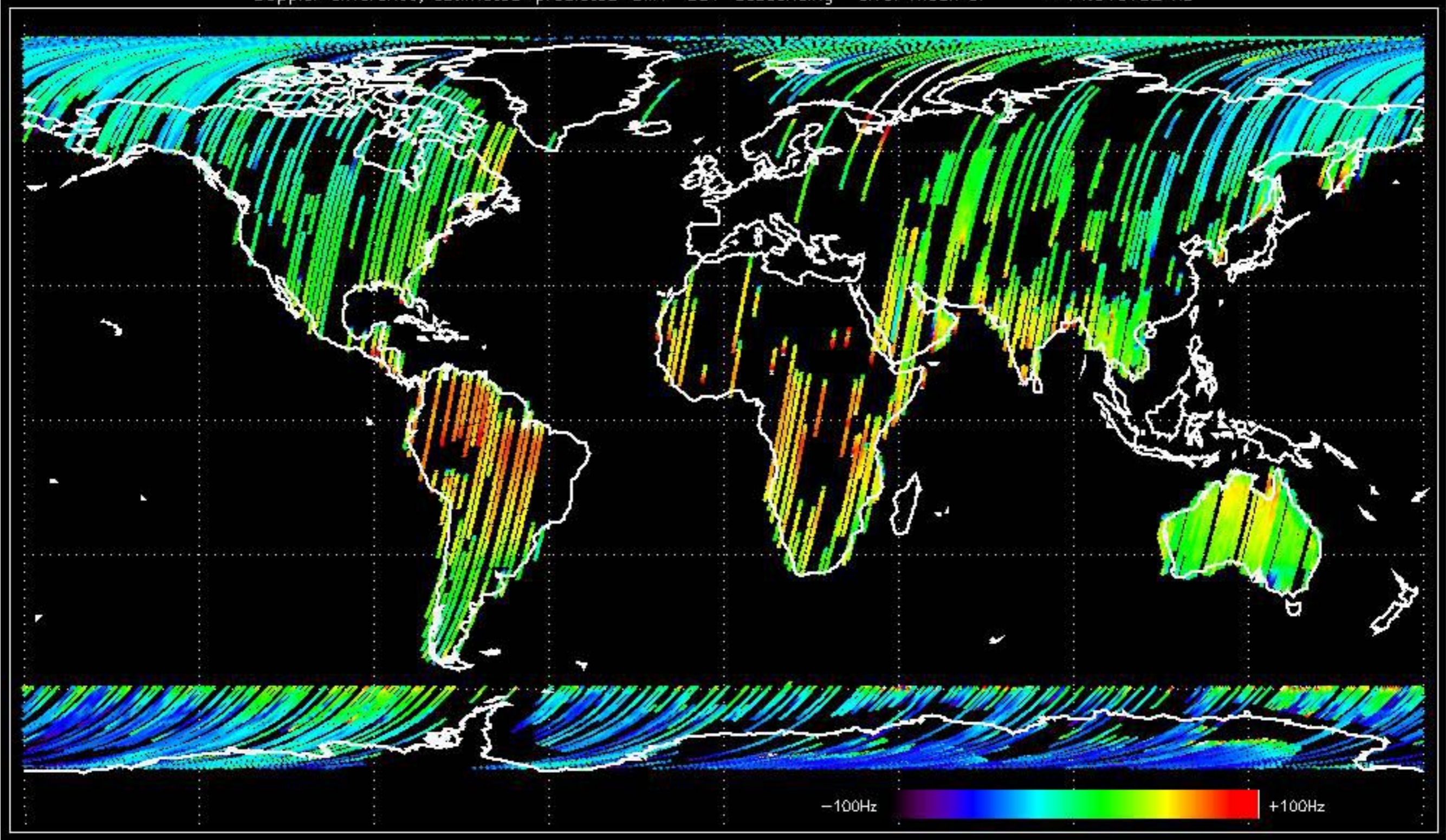
WVS mode doppler



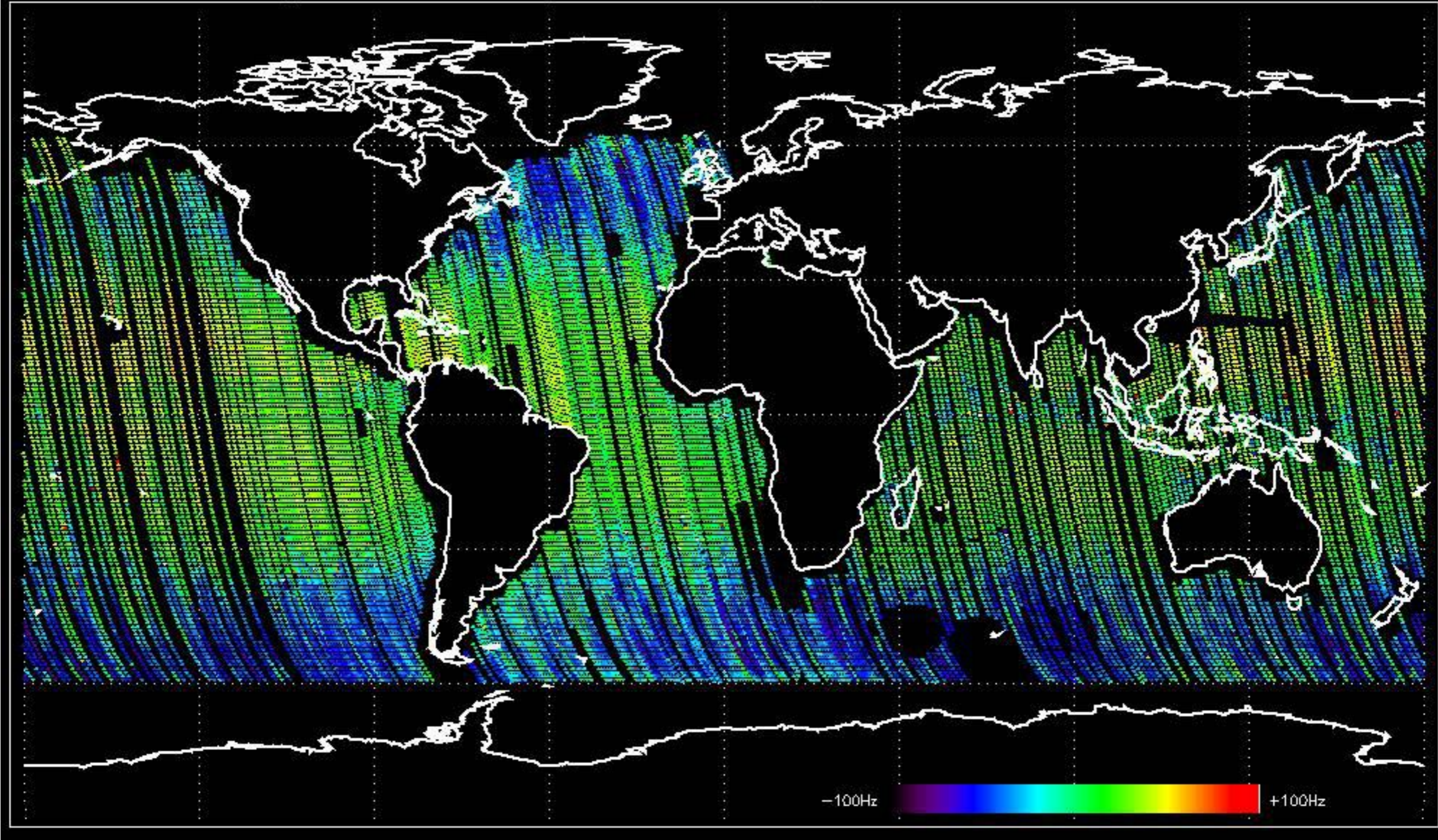
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -16.871552 Hz



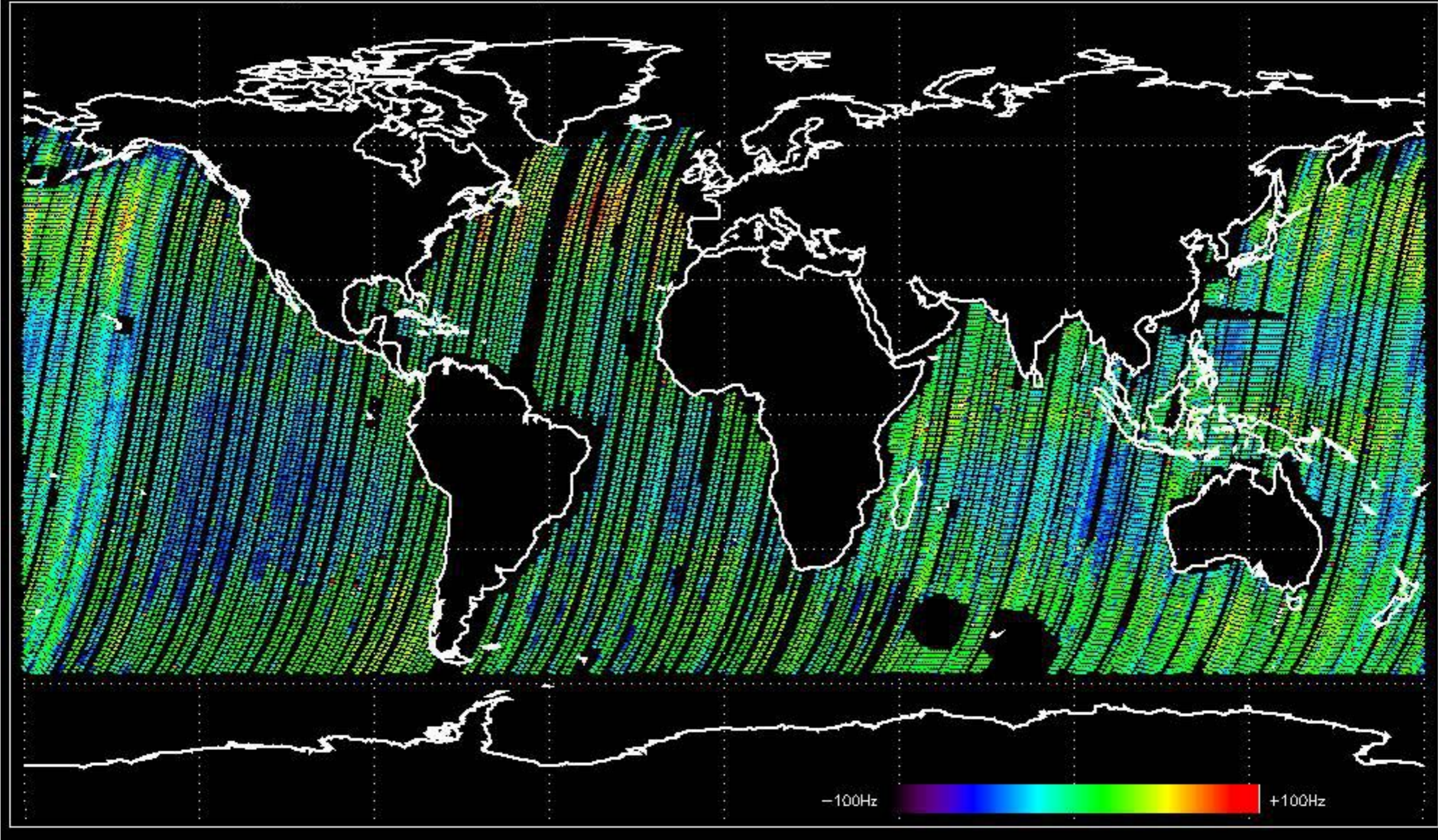
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -14.010132 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -11.373426 Hz

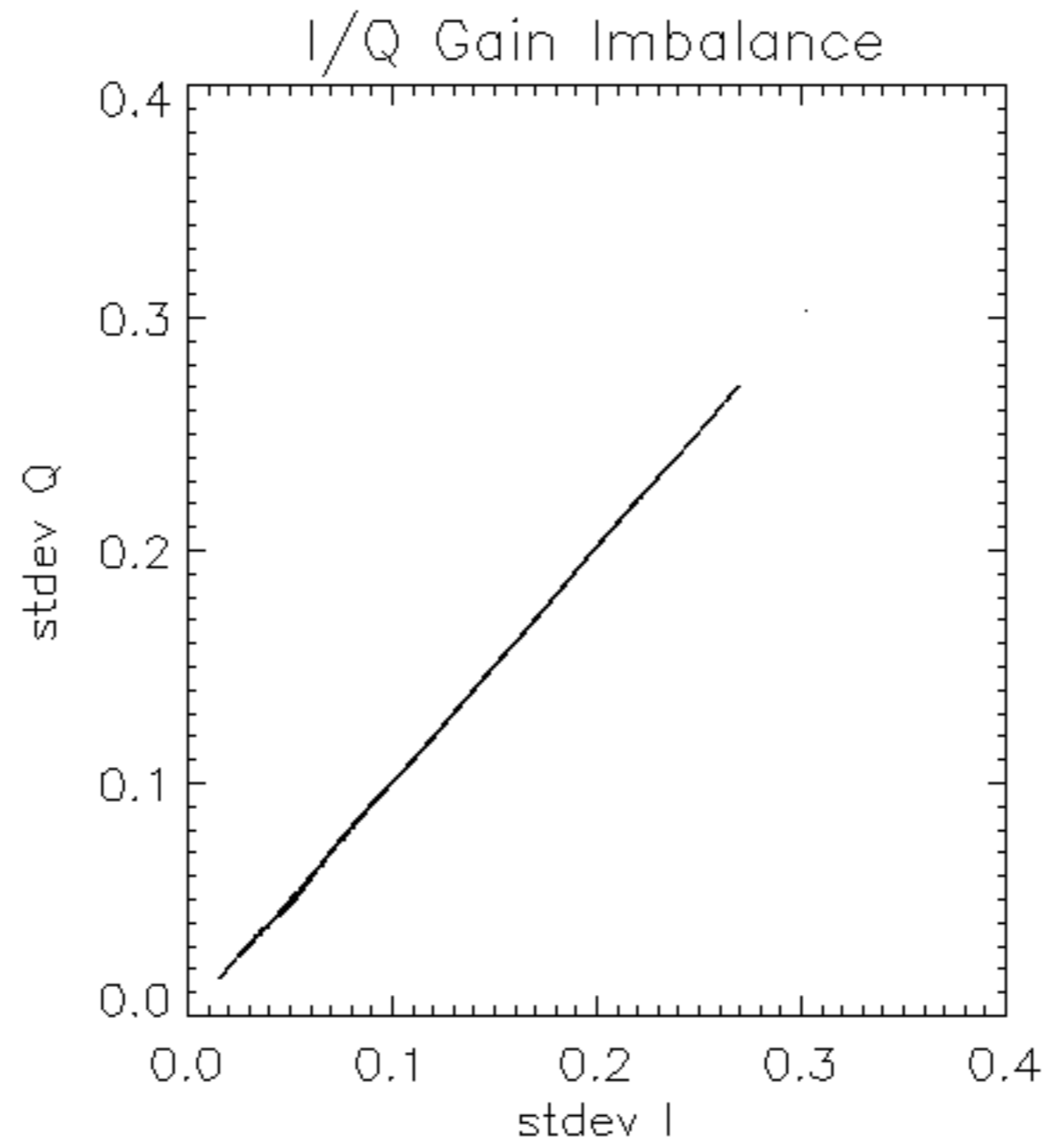


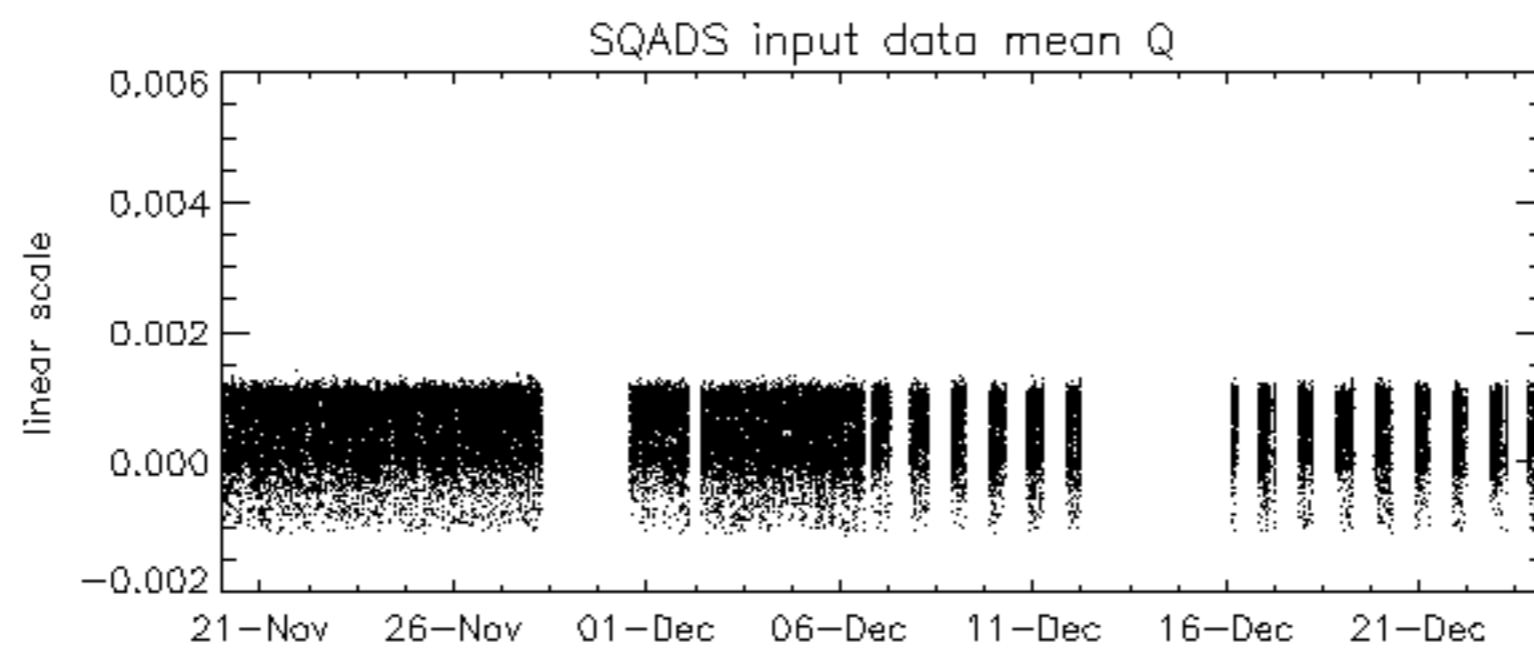
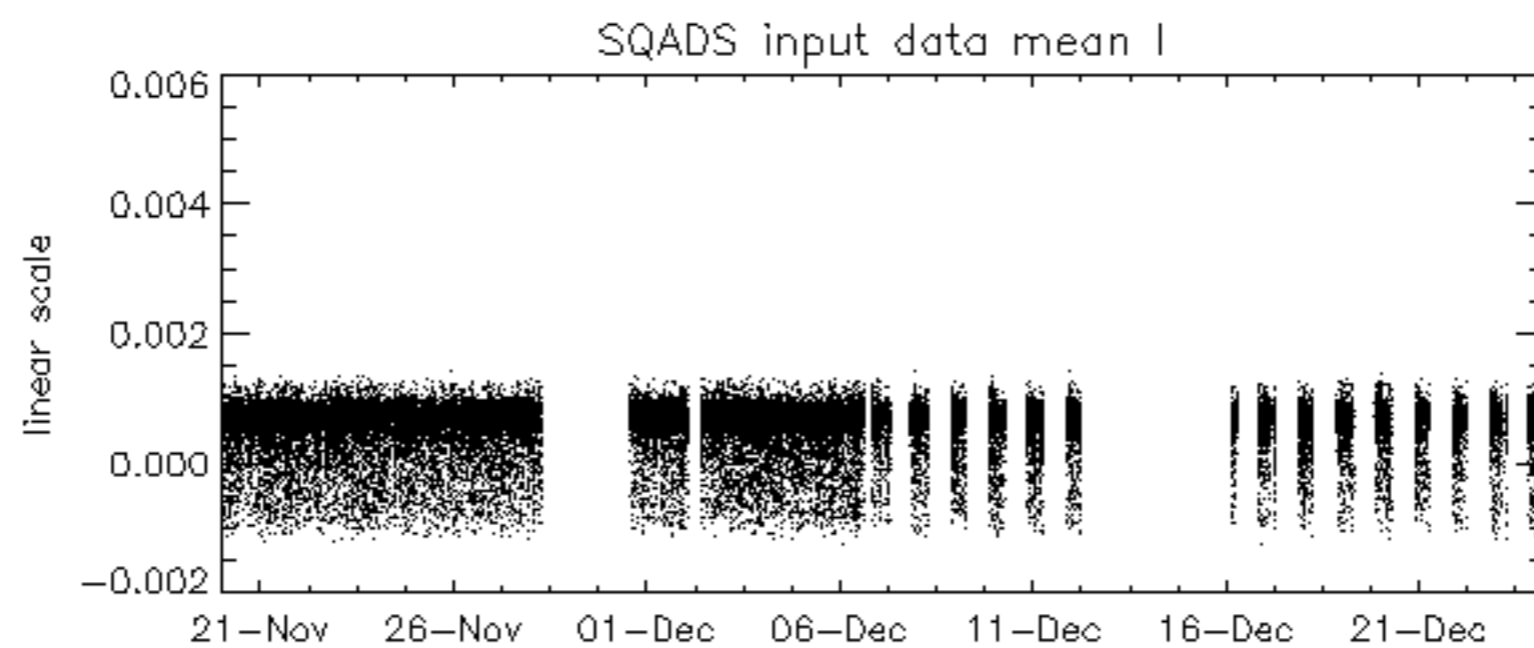
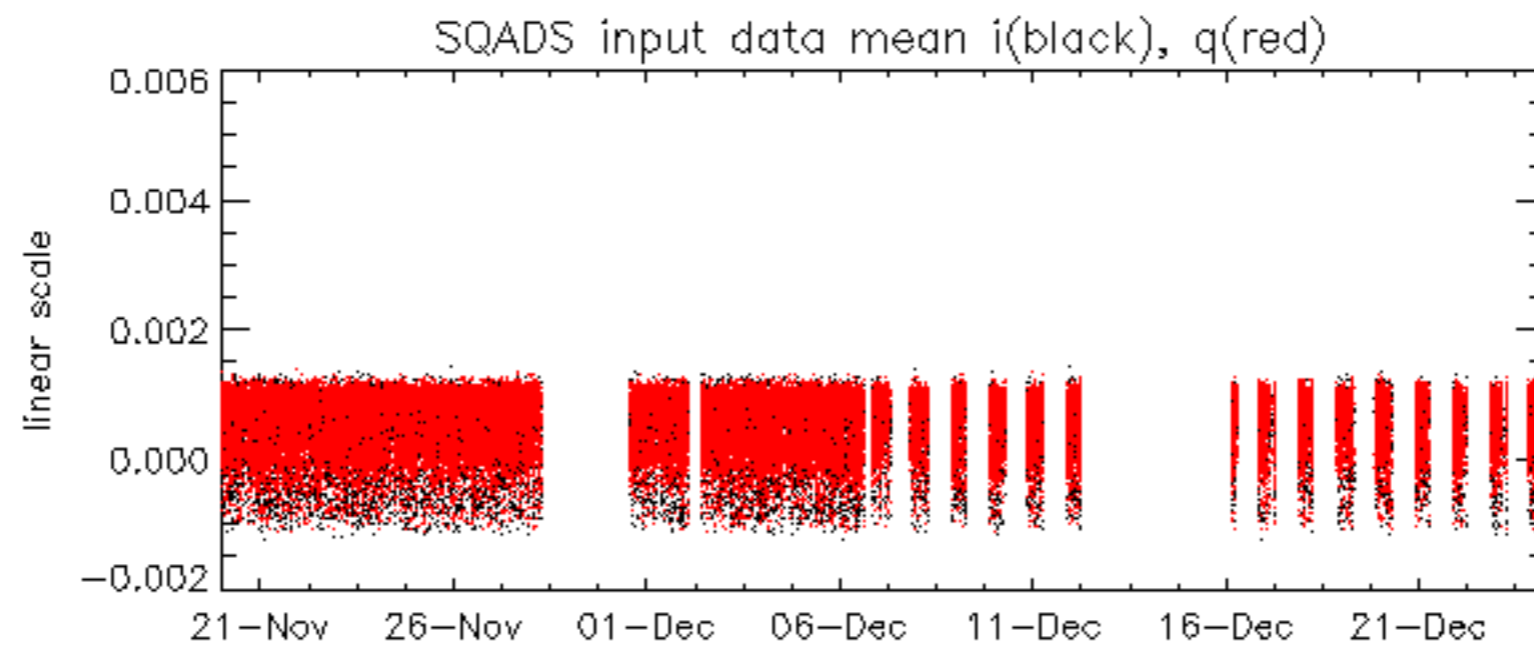
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -8.0588302 Hz

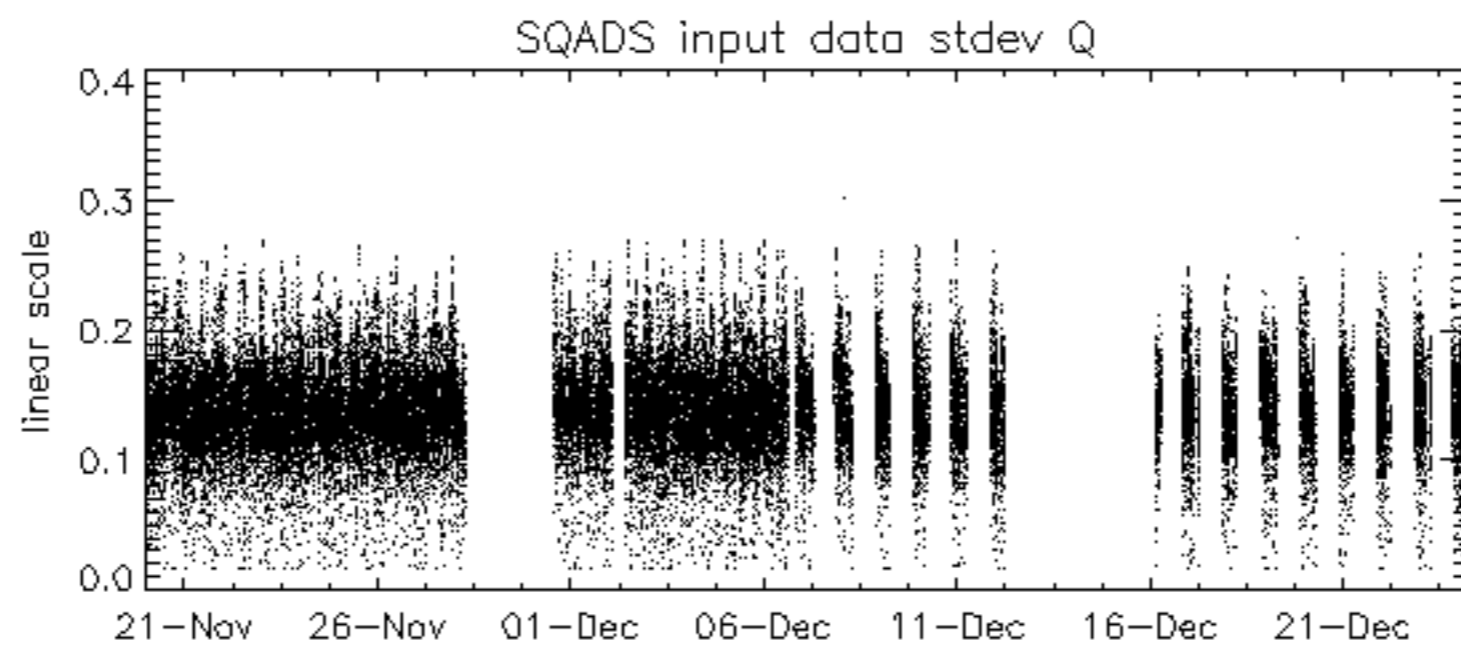
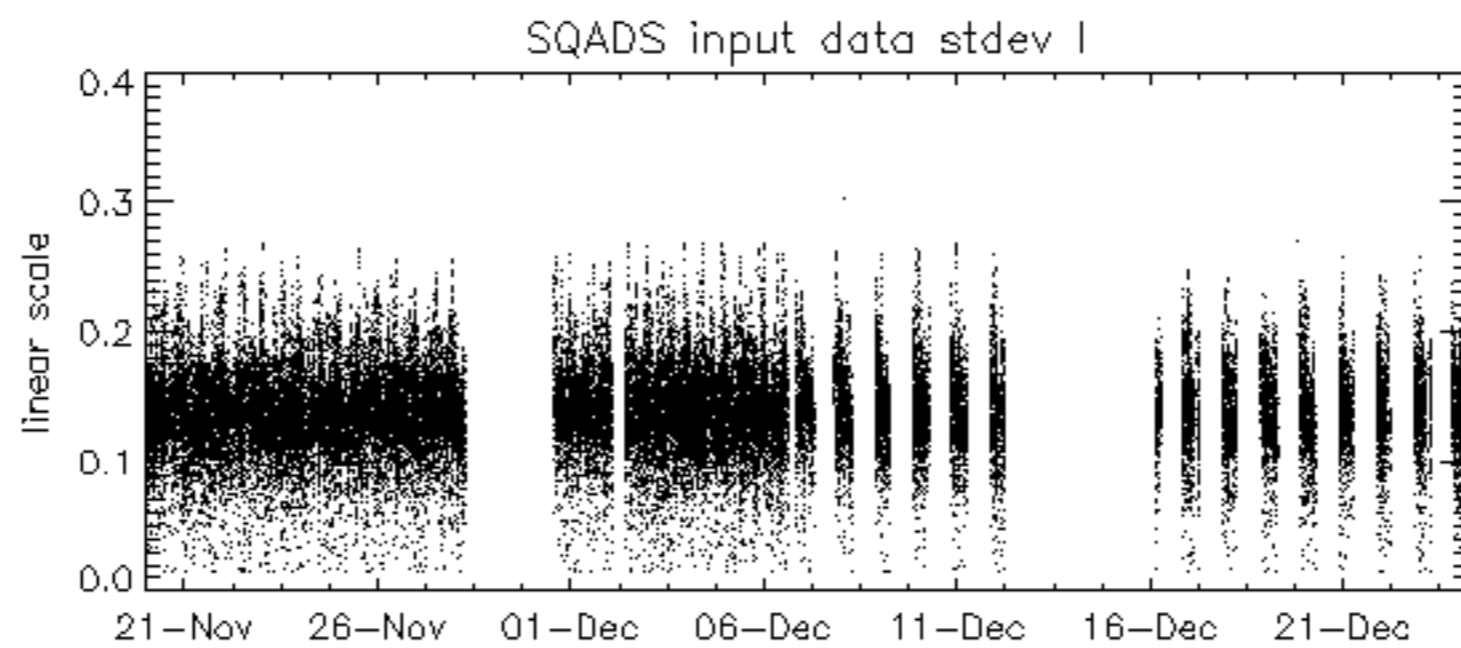
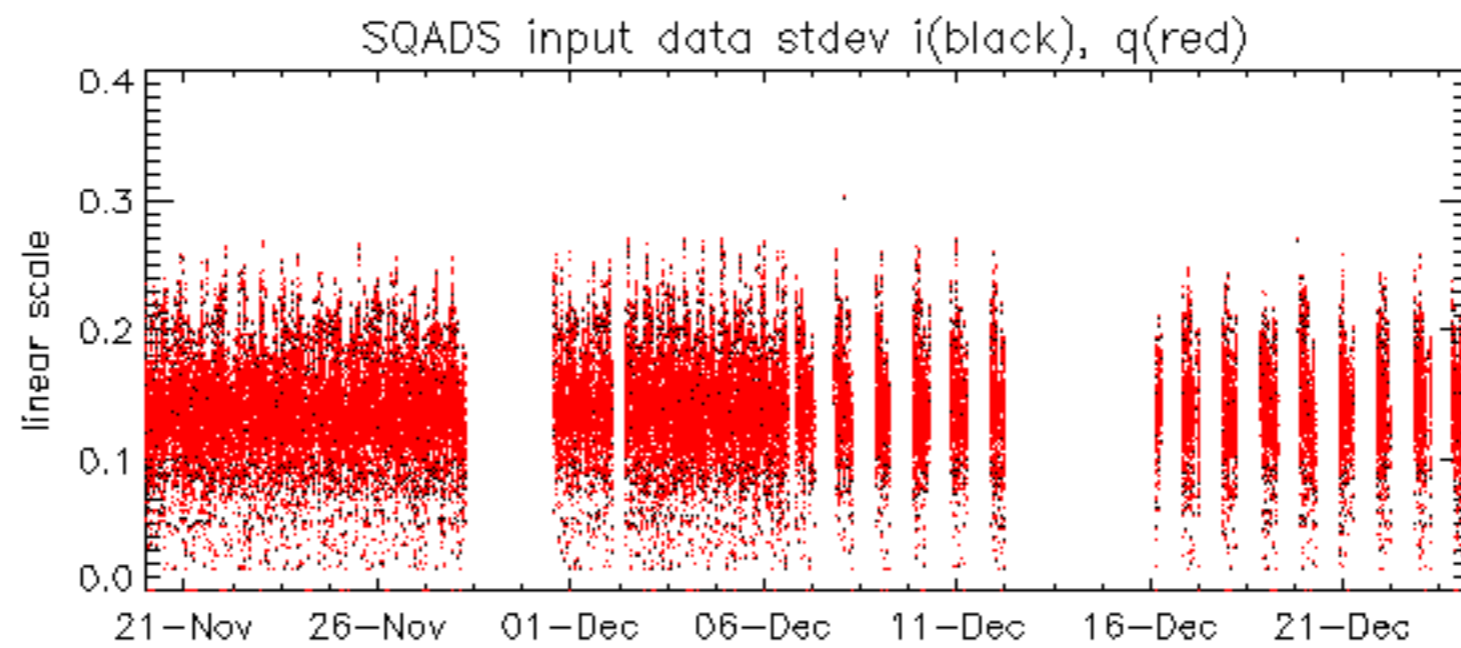


No anomalies observed on available MS products:

No anomalies observed.



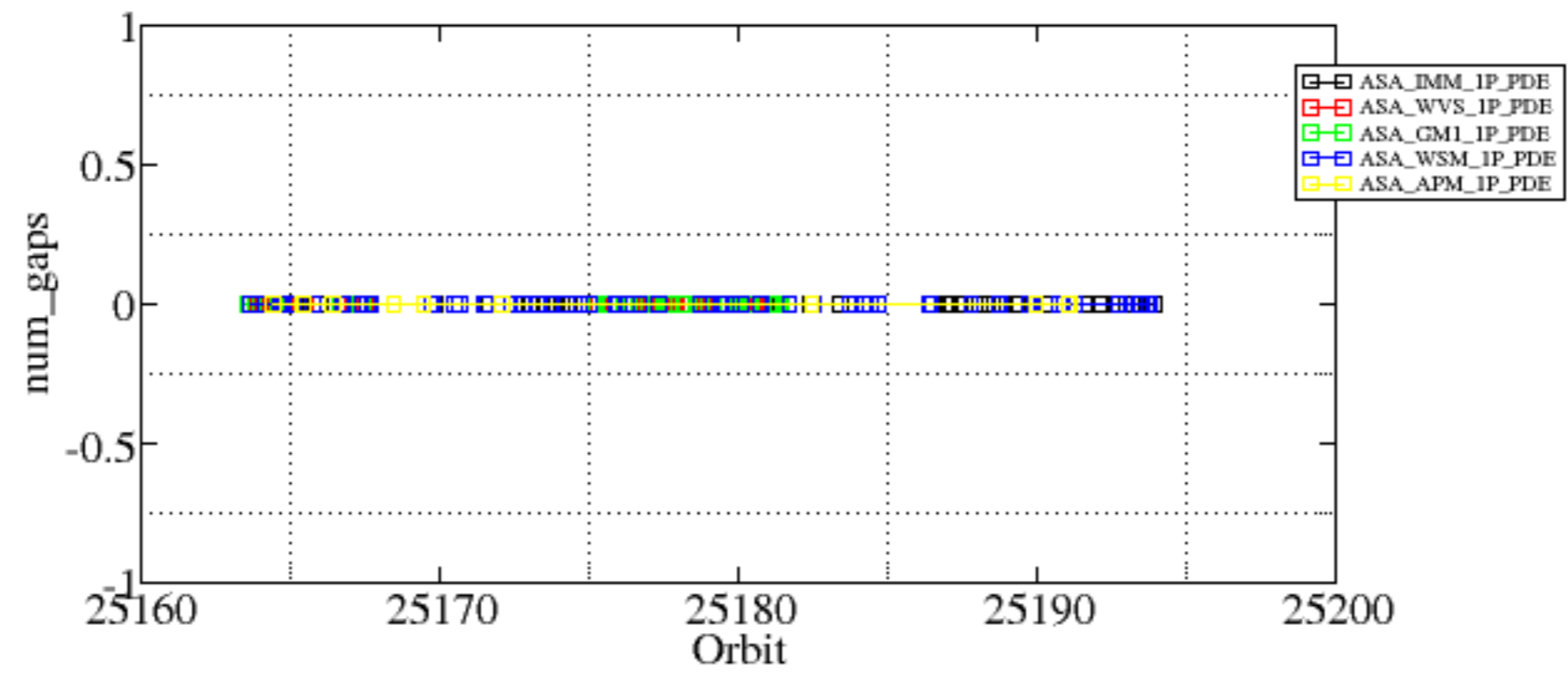


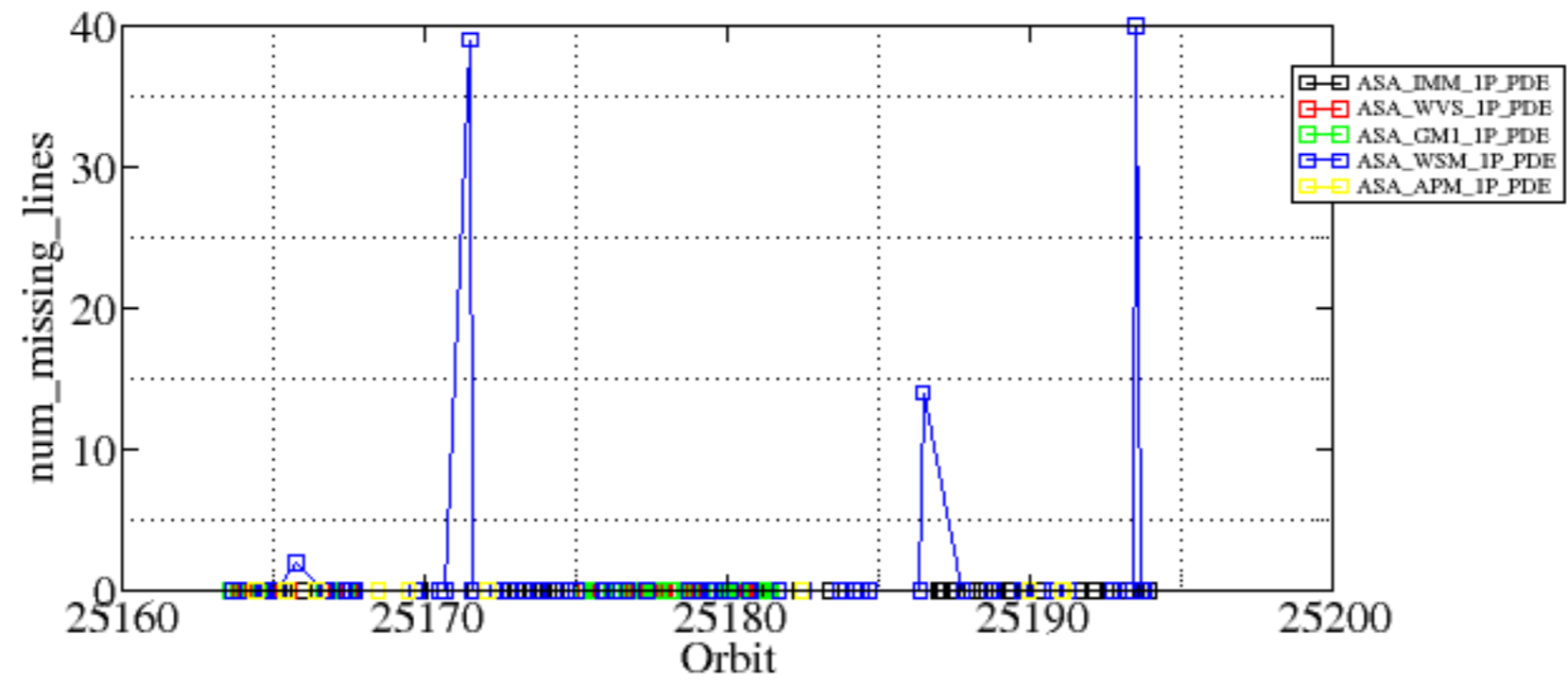


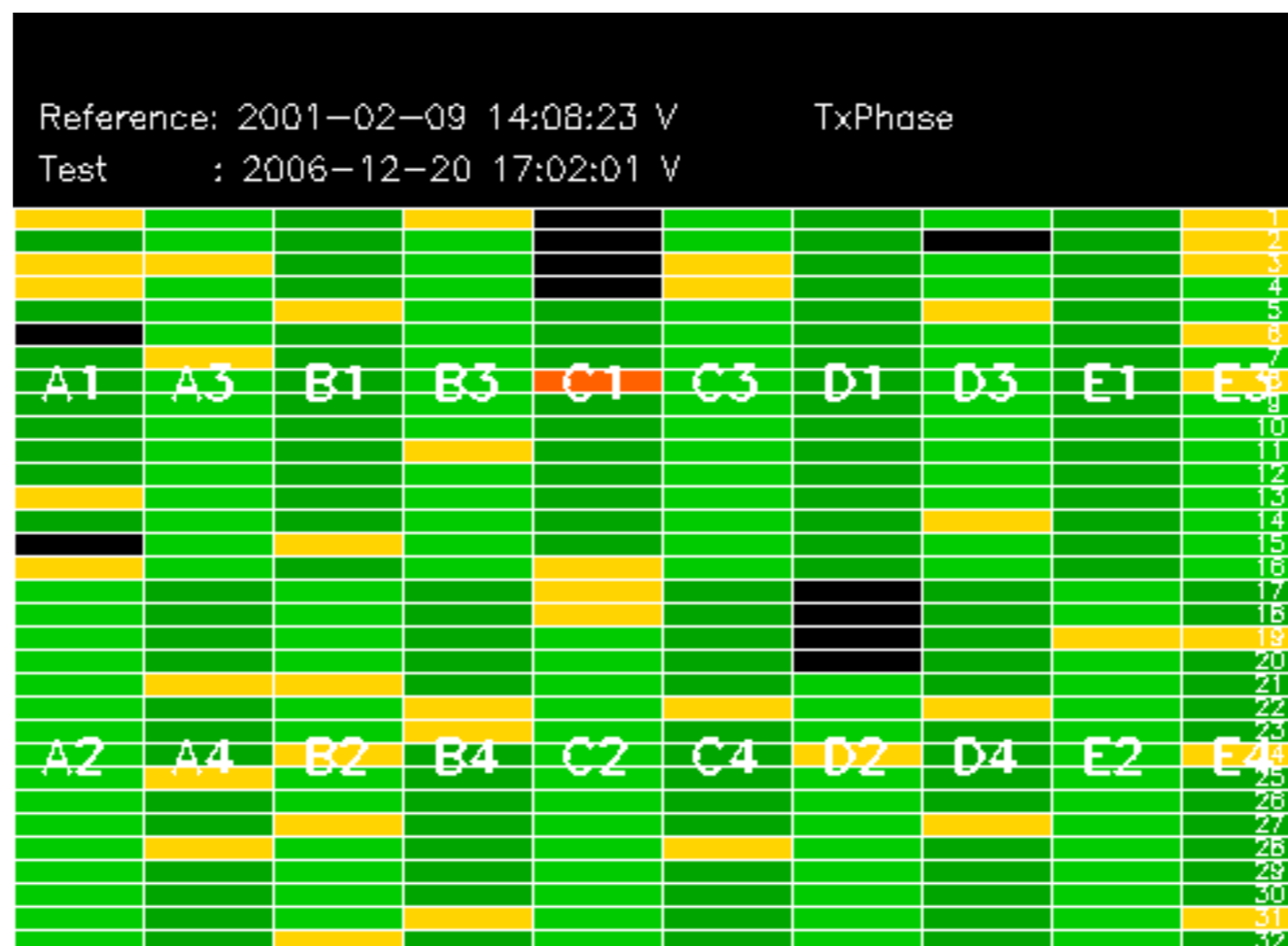
Summary of analysis for the last 3 days 2006122[345]

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

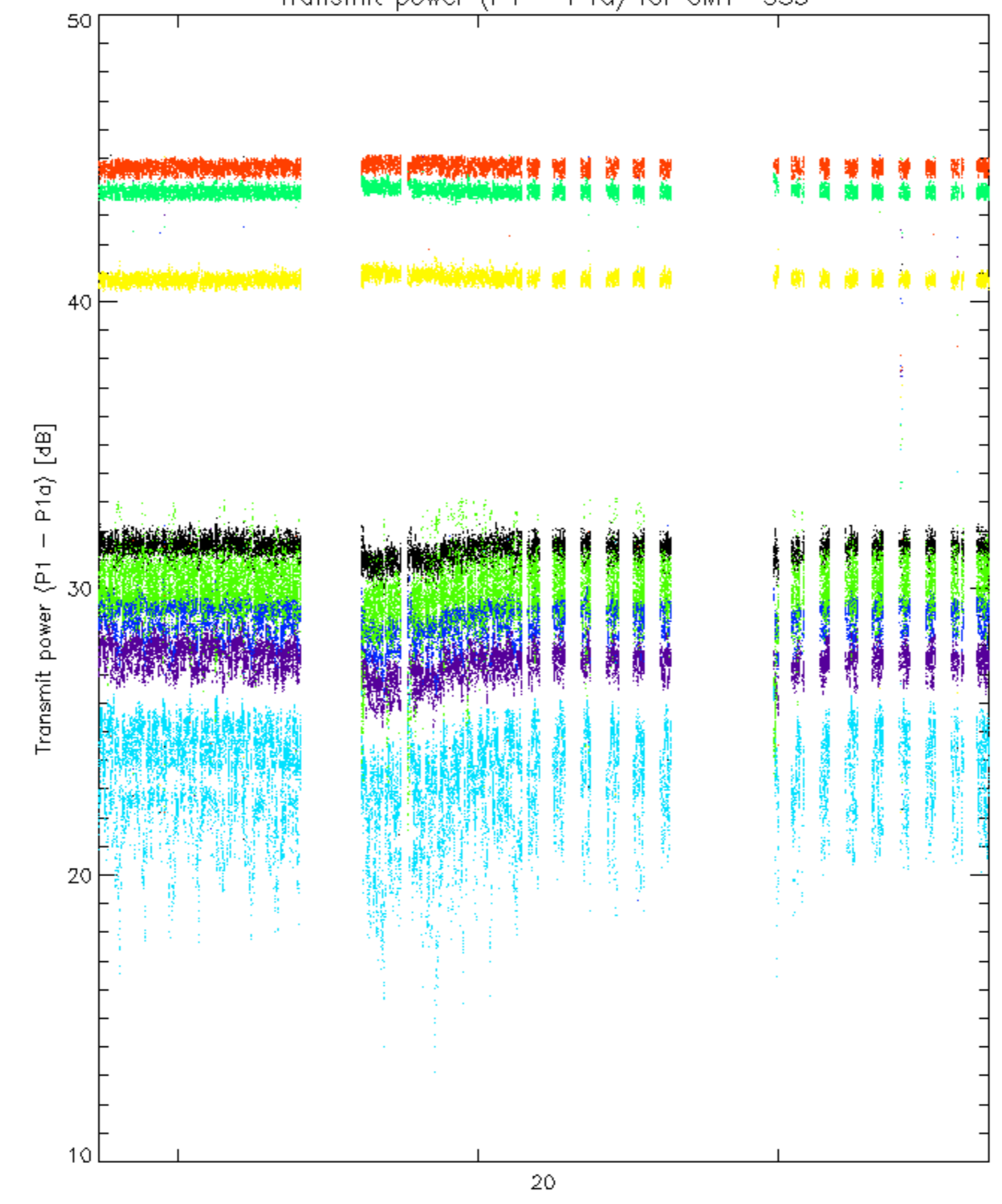
Filename	num_gaps	num_missing_lines
ASA_WSM_1PNPDE20061223_035151_000004282054_00061_25165_0858.N1	0	2
ASA_WSM_1PNPDE20061223_132747_000000862054_00067_25171_1854.N1	0	39
ASA_WSM_1PNPDE20061224_143551_000000862054_00082_25186_4312.N1	0	14
ASA_WSM_1PNPDE20061225_022028_000001402054_00089_25193_5683.N1	0	40



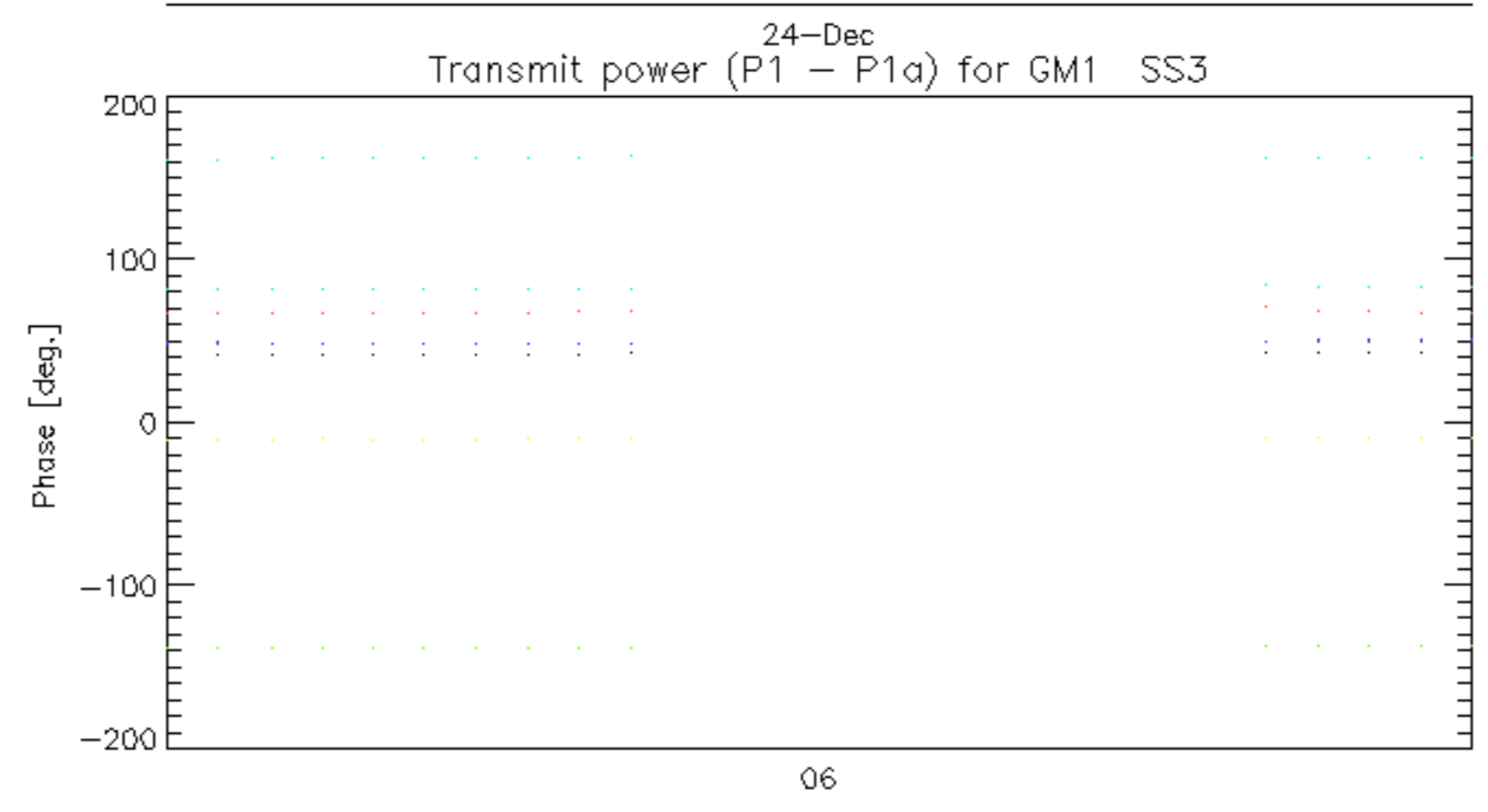
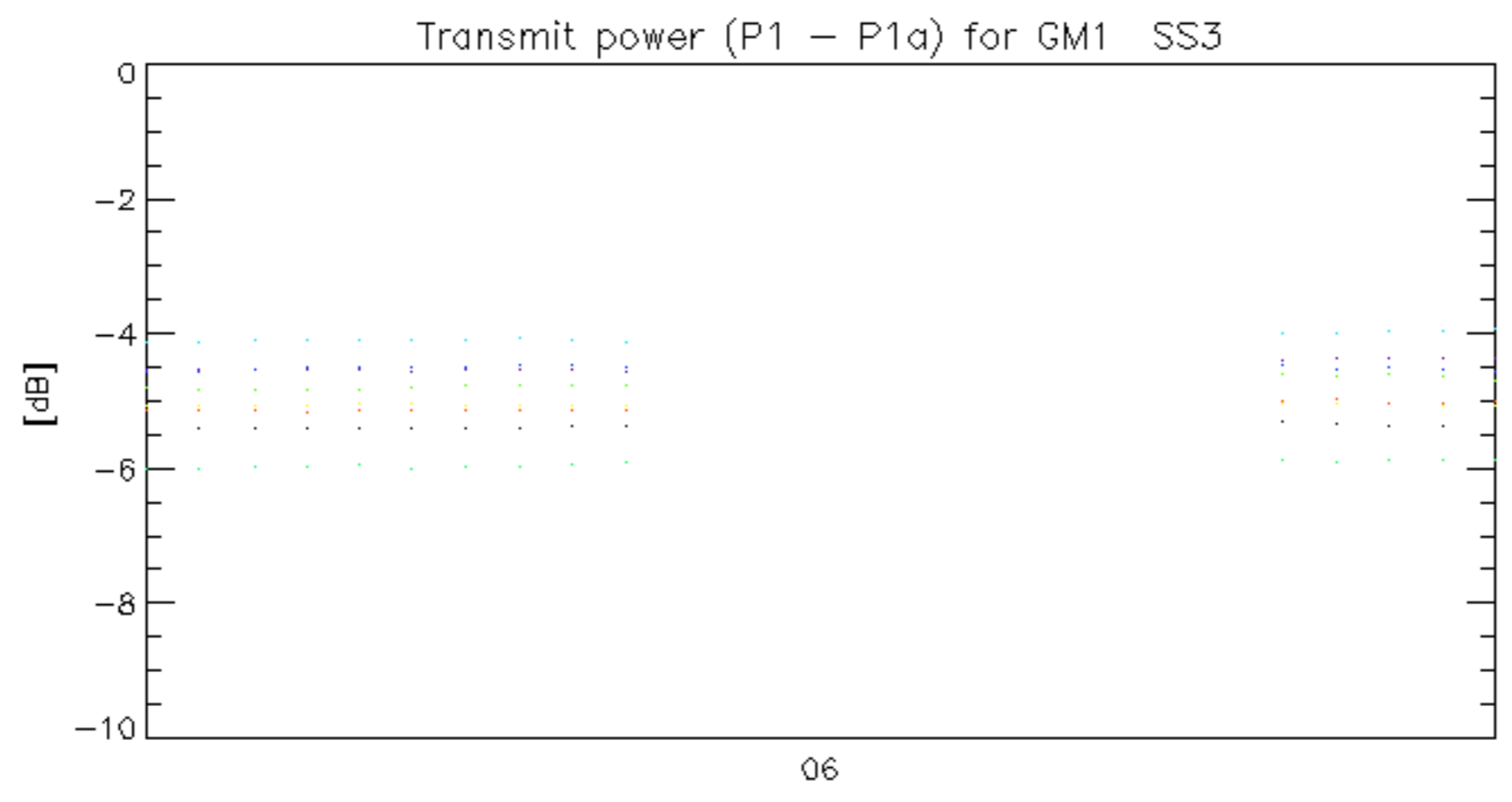




Transmit power (P1 - P1a) for GM1 SS3

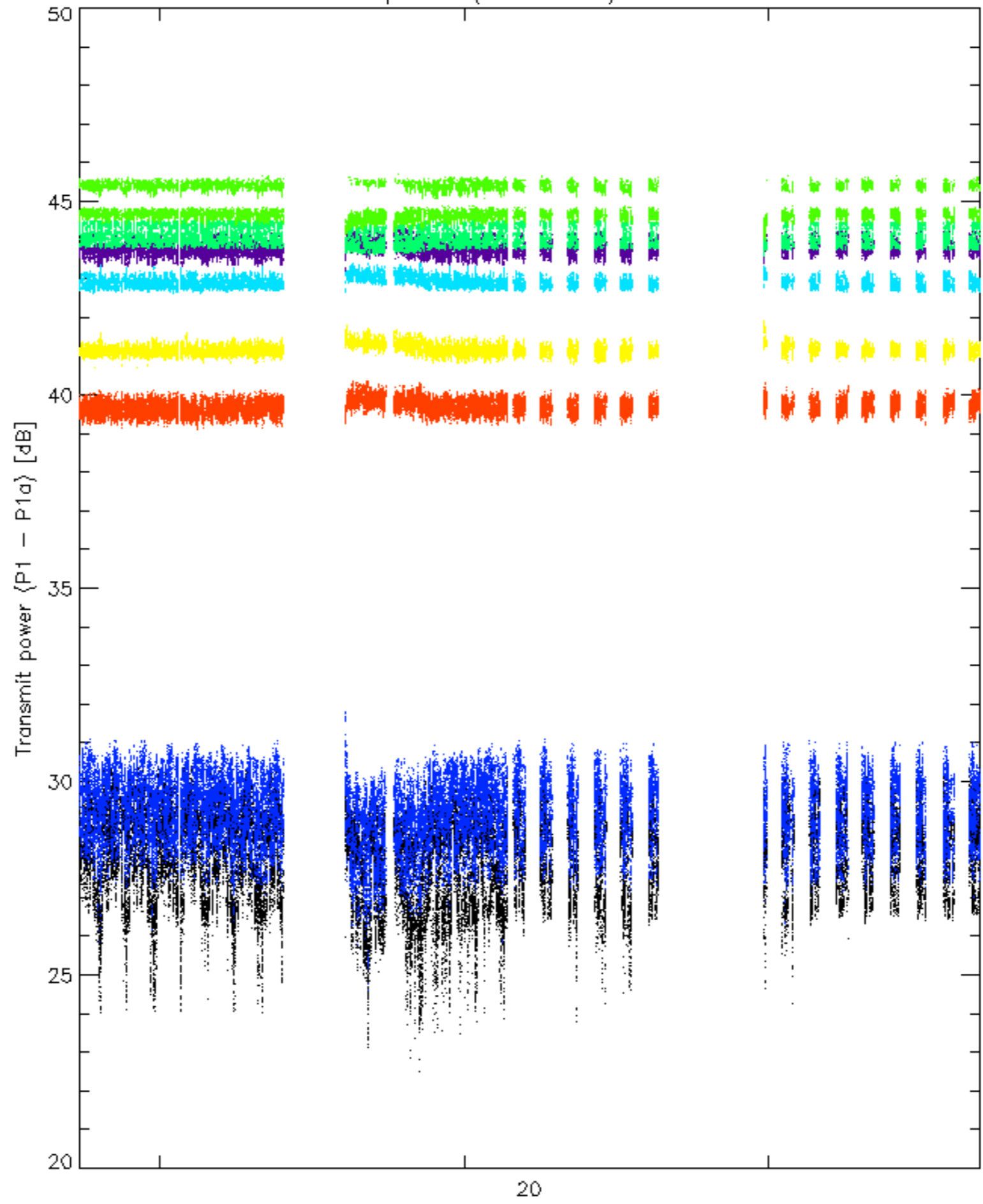


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



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

Transmit power (P1 - P1a) for WWS IS2



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

No unavailabilities during the reported period.