PRELIMINARY REPORT OF 041126

ATTENTION: This report is automatically generated no comments are provided on data analysis

last update on Fri Nov 26 10:57:50 GMT 2004

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 - Browse Visual Inspection

No anomalies observed on available browse products

2.3 - Data Analysis

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

3 - Module Stepping Mode

The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctionning modules and to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

Polarisation	Start Time
V	20041124 043738
H	20041125 040601

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

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)

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.470599	0.006542	0.033885
7	P1	-3.310753	0.024917	0.266754
11	P1	-4.604786	0.016722	-0.003966
15	P1	-5.661436	0.029090	0.029358
19	P1	-3.604868	0.005439	-0.050070
22	P1	-4.582276	0.015488	-0.001188
26	P1	-4.870684	0.065432	-0.068804
30	P1	-7.076337	0.014483	-0.028576

3	P1	-16.015217	0.107190	0.103166
7	P1	-14.315324	0.394259	-1.403552
11	P1	-20.663942	0.208832	-0.184773
15	P1	-11.669226	0.036371	0.079720
19	P1	-14.069667	0.029354	-0.079169
22	P1	-16.201820	0.411473	0.119705
26	P1	-17.689991	0.756685	-0.095271
30	P1	-17.967657	0.277127	0.096241

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-22.375872	0.088640	0.002083
7	P2	-22.614147	0.139704	-0.023483
11	P2	-15.056981	0.131670	0.085772
15	P2	-7.152910	0.110198	-0.030547
19	P2	-9.714501	0.136032	0.006418
22	P2	-17.240623	0.103854	0.060537
26	P2	-16.510227	0.113168	-0.002464
30	P2	-19.048883	0.084367	0.033564

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.204129	0.006454	-0.012213
7	P3	-8.204131	0.006454	-0.012204
11	P3	-8.204137	0.006454	-0.012175
15	P3	-8.204146	0.006454	-0.012118
19	P3	-8.204147	0.006454	-0.012120
22	P3	-8.204146	0.006454	-0.012121
26	P3	-8.204149	0.006454	-0.012119
30	P3	-8.204147	0.006452	-0.012631

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1


P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)

P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-2.805100	0.011003	-0.001689
7	P1	-2.951771	0.021986	-0.020297
11	P1	-3.902601	0.022856	-0.013687
15	P1	-3.489141	0.027647	0.010907
19	P1	-3.590106	0.012103	-0.000628
22	P1	-5.612303	0.067340	0.049614
26	P1	-6.421839	0.087913	-0.132710
30	P1	-6.267228	0.040451	-0.029972
3	P1	-10.599654	0.051919	0.013866
7	P1	-10.079639	0.133560	-0.094263
11	P1	-12.373186	0.115522	-0.055207
15	P1	-11.716989	0.063380	-0.072456
19	P1	-15.619477	0.052690	-0.009908
22	P1	-23.962461	2.035414	-0.272742
26	P1	-15.112044	0.471322	-0.096530
30	P1	-20.254404	0.997294	0.081927

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-18.061106	0.040410	0.011728
7	P2	-22.675913	0.031045	-0.006692
11	P2	-10.849405	0.035547	0.072970
15	P2	-5.051035	0.028091	-0.040930
19	P2	-6.958443	0.035041	-0.051368
22	P2	-7.359416	0.029314	0.058073
26	P2	-23.943012	0.022352	-0.052418
30	P2	-22.090727	0.018828	0.008902

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)

3	P3	-8.044436	0.003236	-0.009551
7	P3	-8.044381	0.003244	-0.009935
11	P3	-8.044442	0.003248	-0.010001
15	P3	-8.044309	0.003248	-0.009863
19	P3	-8.044464	0.003240	-0.010168
22	P3	-8.044497	0.003239	-0.009820
26	P3	-8.044424	0.003231	-0.010057
30	P3	-8.044379	0.003246	-0.009433

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	0.000457495
	stdev	2.27768e-07
MEAN Q	mean	0.000524959
	stdev	2.43757e-07

5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.125899
	stdev	0.000974398
STDEV Q	mean	0.126123

stdev	0.000982921

5.3 - Gain imbalance I/Q

6 - Doppler Analysis

Preliminary report.The data is not yet controled

6.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)

Acsending

Descending

6.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler

Acsending

Descending

6.3 - Doppler evolution versus ANX for WVS

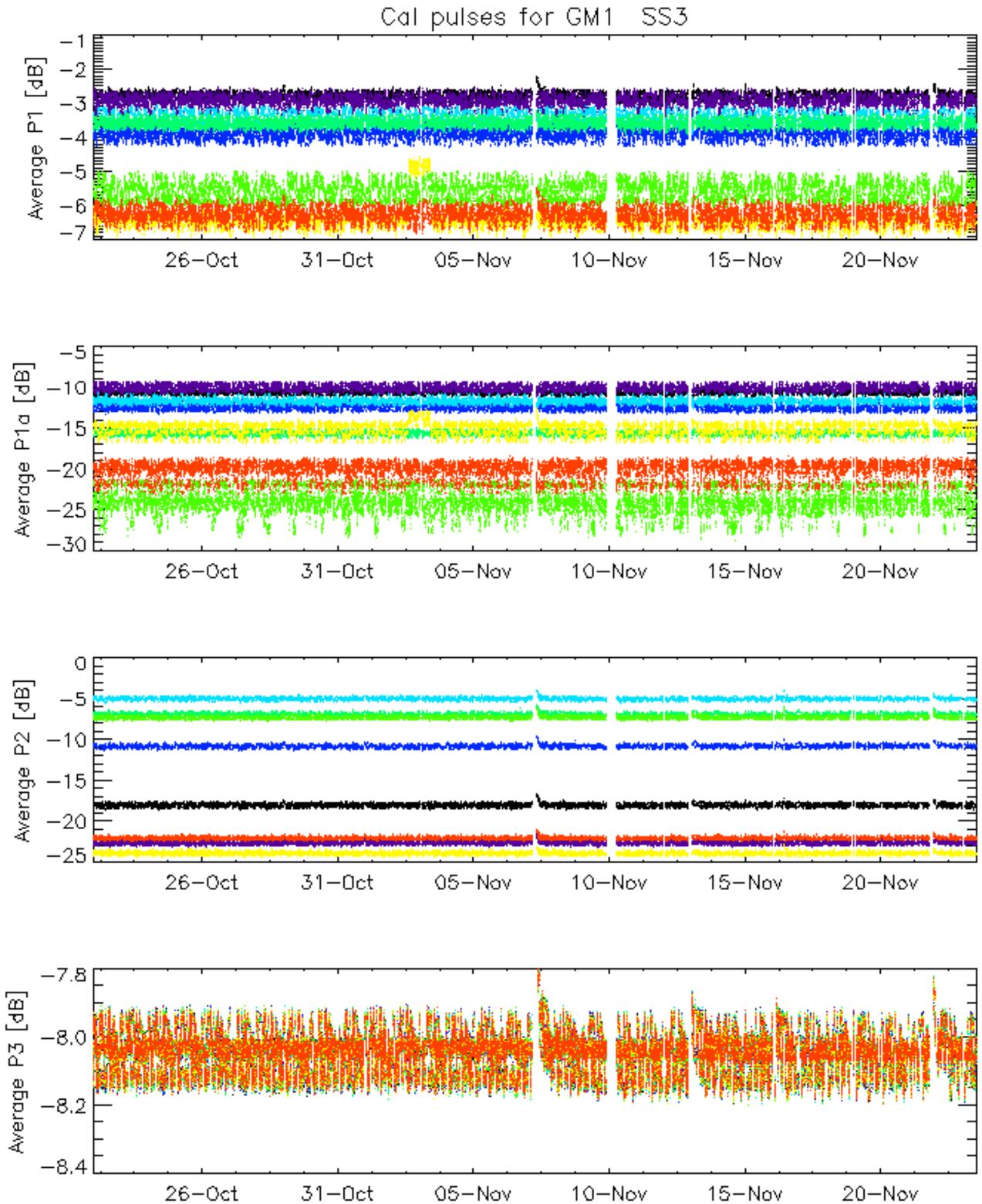
6.4 - Unbiased Doppler Error for GM1

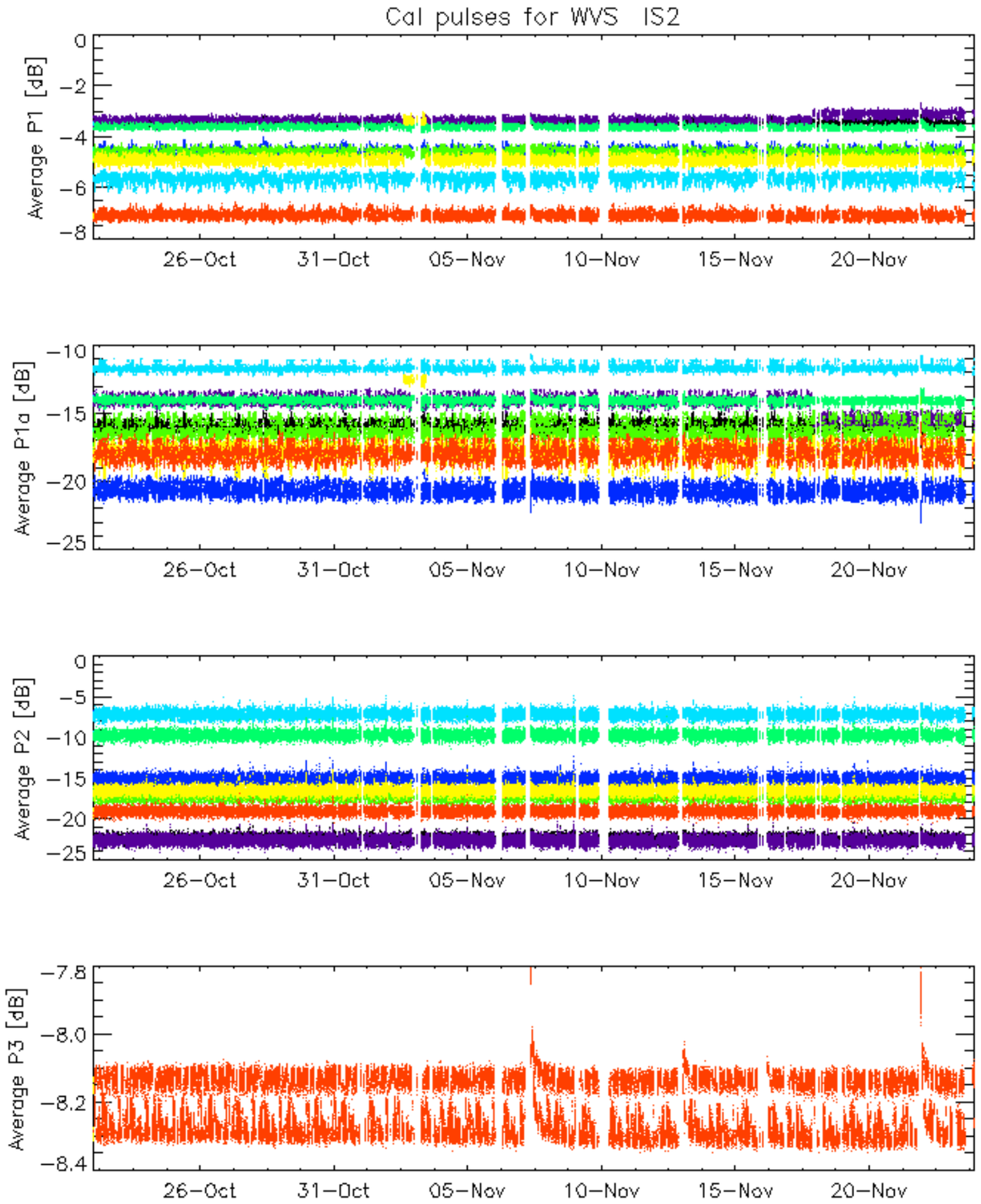
Evolution of unbiased Doppler error (Real - Expected)
☒
Acsending
☒
Descending

6.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
☒
Acsending
☒
Descending

6.6 - Doppler evolution versus ANX for GM1


Cal pulses for GM1 SS3
Average P1 [dB]
−1
−2
−3
−4
−5
−6
−7
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov
Average P1a [dB]
−5
−10
−15
−20
−25
−30
Average P2 [dB]
0
−5
−10
−15
−20
−25
Average P3 [dB]
−7.8
−8.0
−8.2
−8.4
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

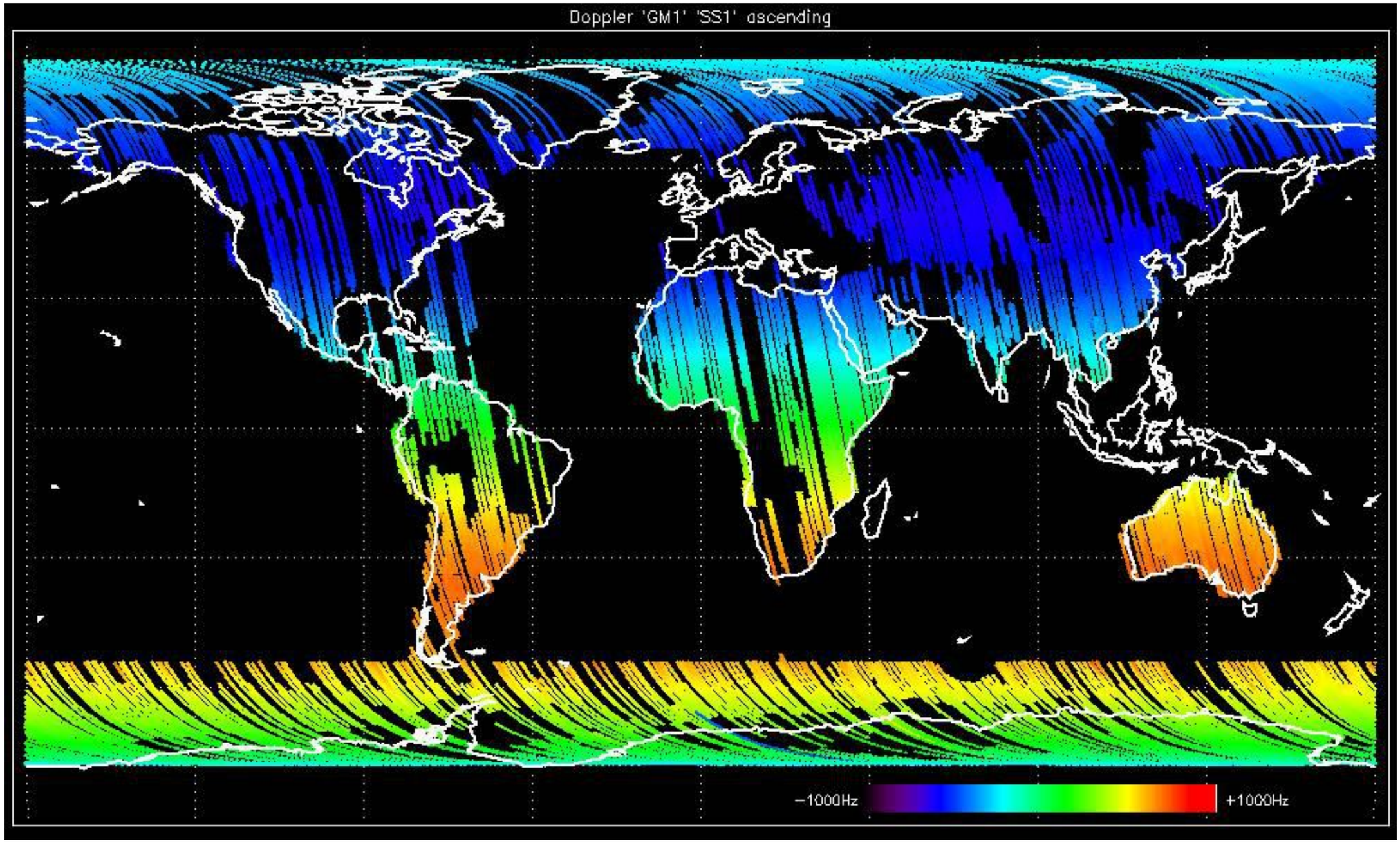

Cal pulses for WVS IS2
Average P1 [dB]
0
−2
−4
−6
−8
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov
Average P1a [dB]
−10
−15
−20
−25
Average P2 [dB]
−5
Average P3 [dB]
−7.8
−8.0
−8.2
−8.4
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

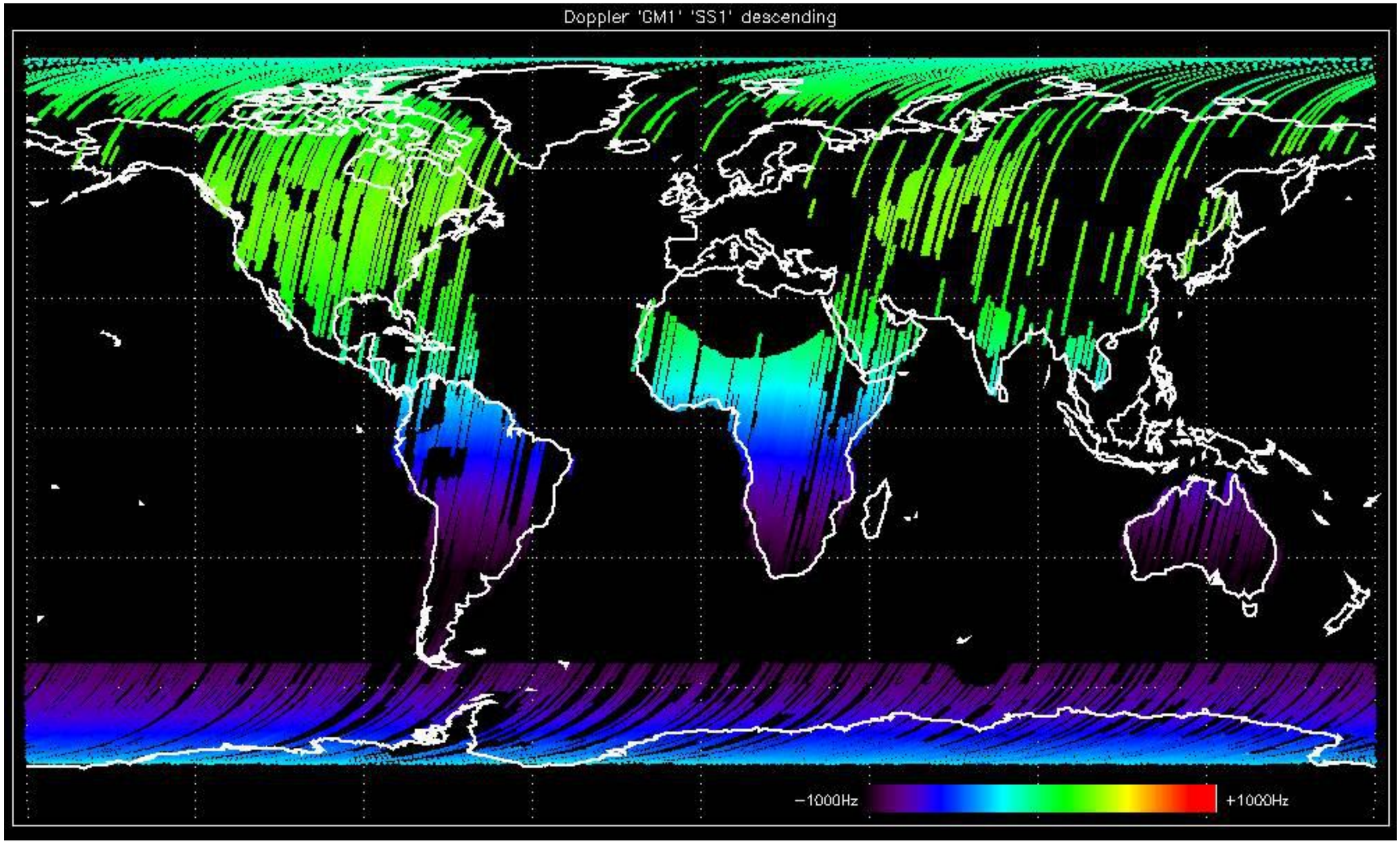
No anomalies observed on available browse products

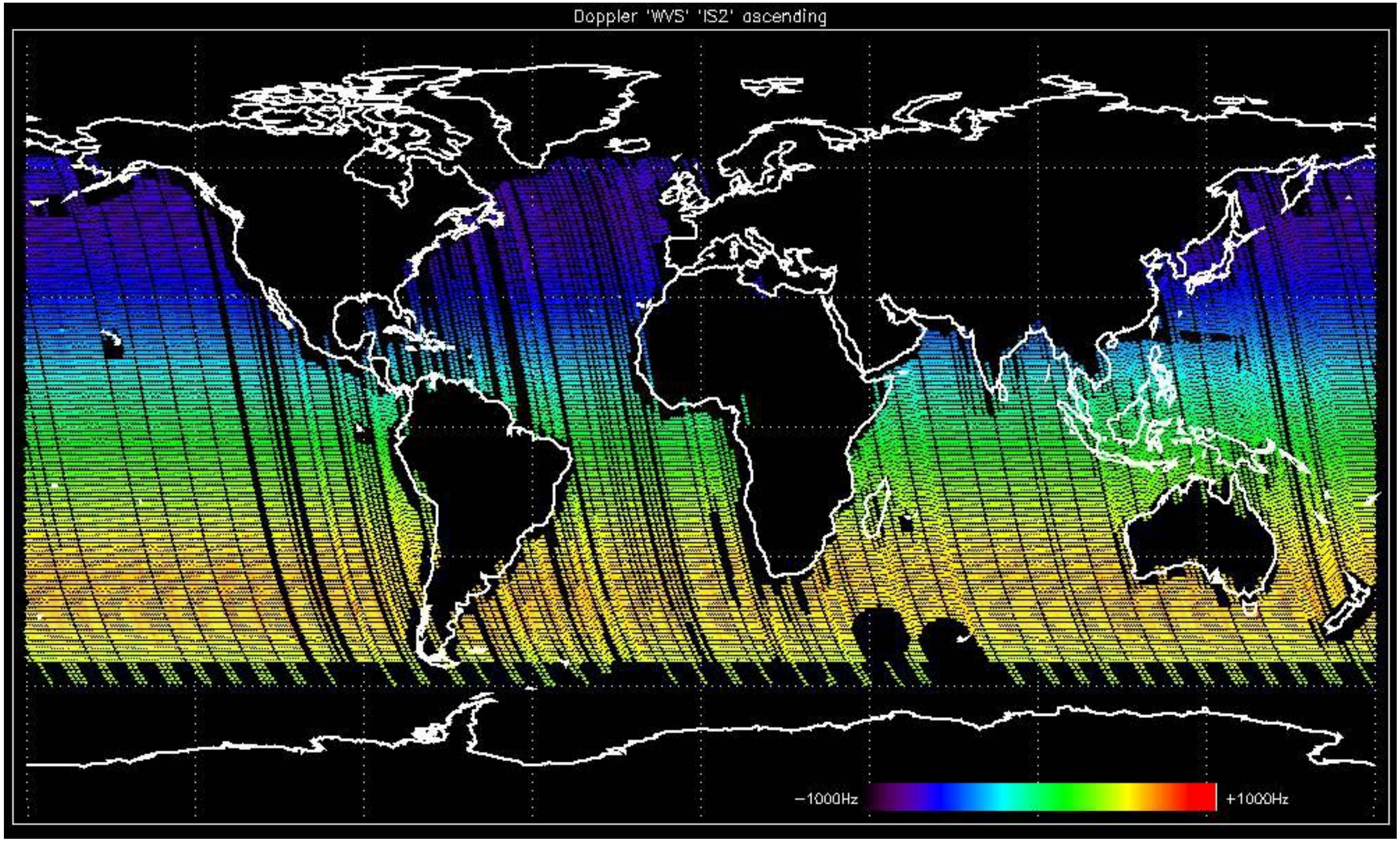
No anomalies observed.

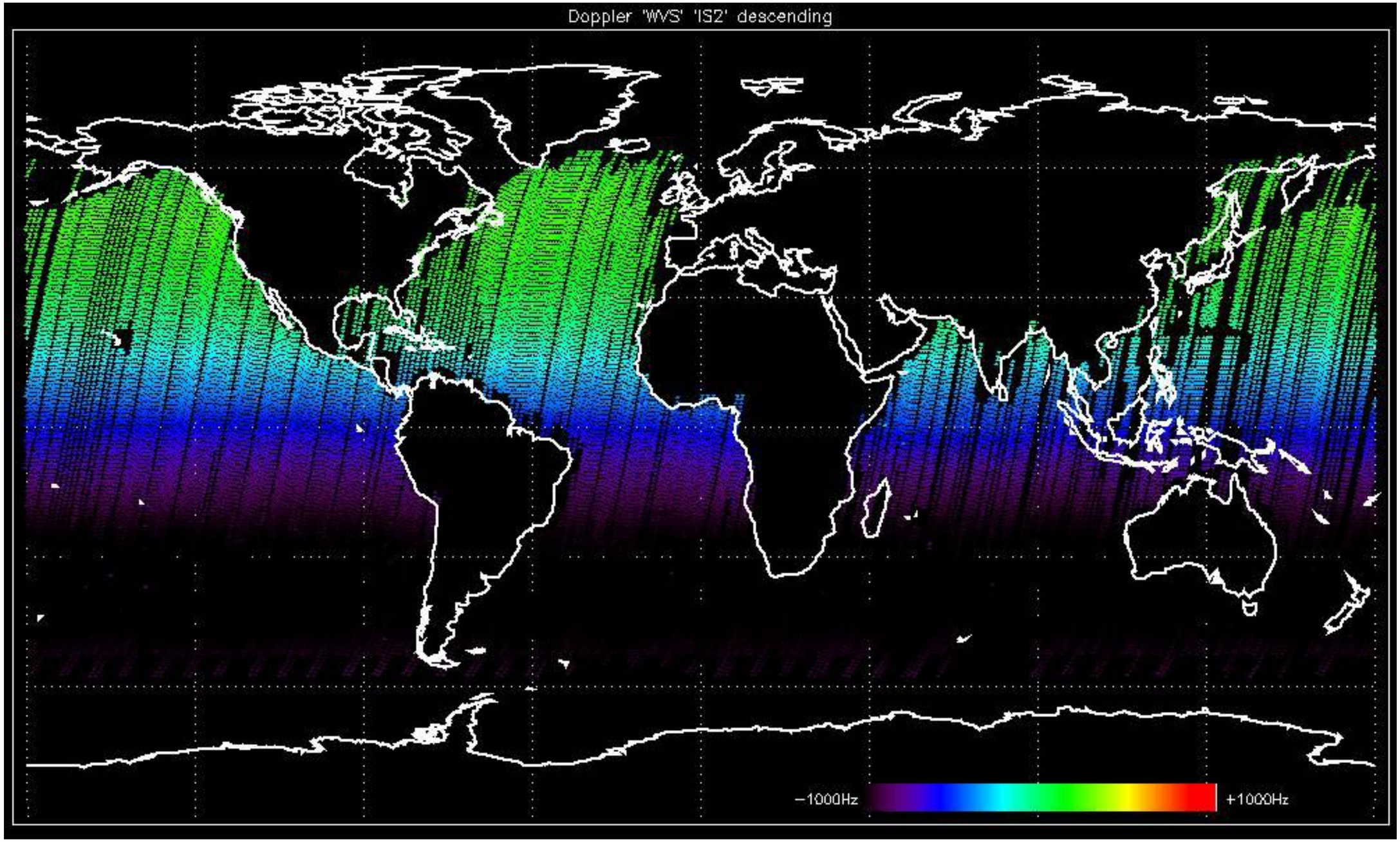
-Stable wave internal calibration pulses gain and phase.
-Stable raw data statistics.
-Nominal Doppler behavior.

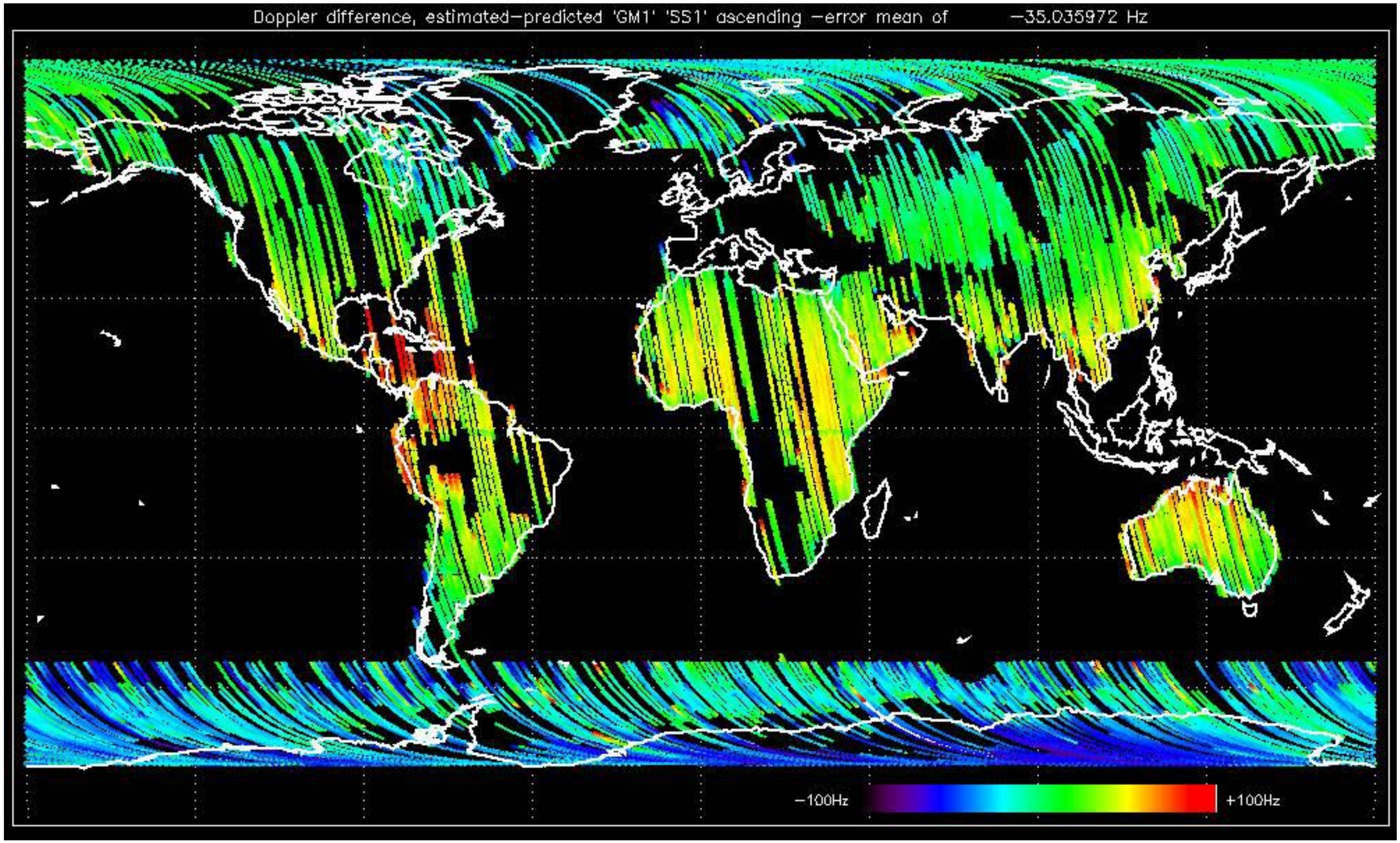
Preliminary report.The data is not yet controled

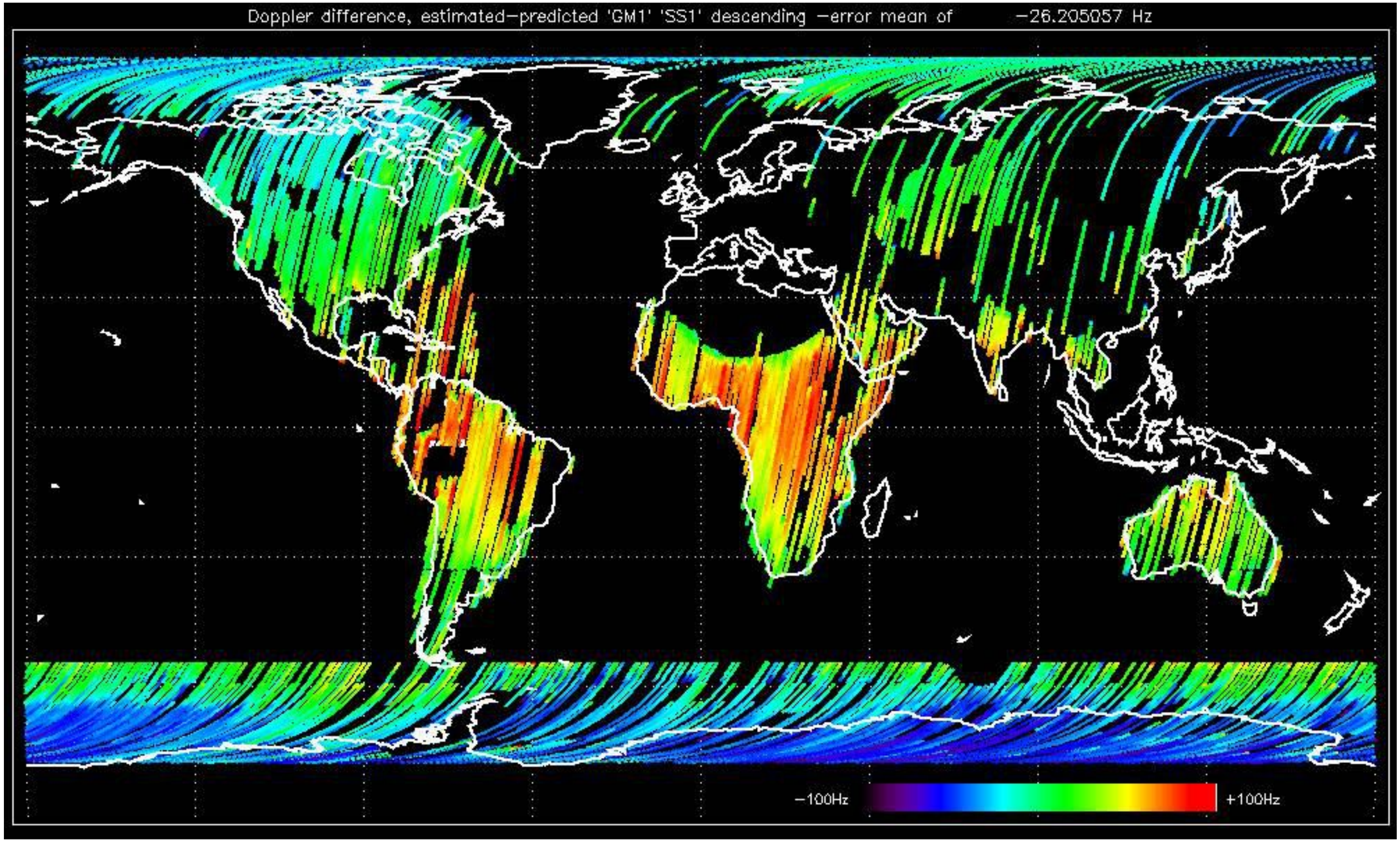

Doppler 'GM1' 'SS1' ascending
−1000Hz
+1000Hz

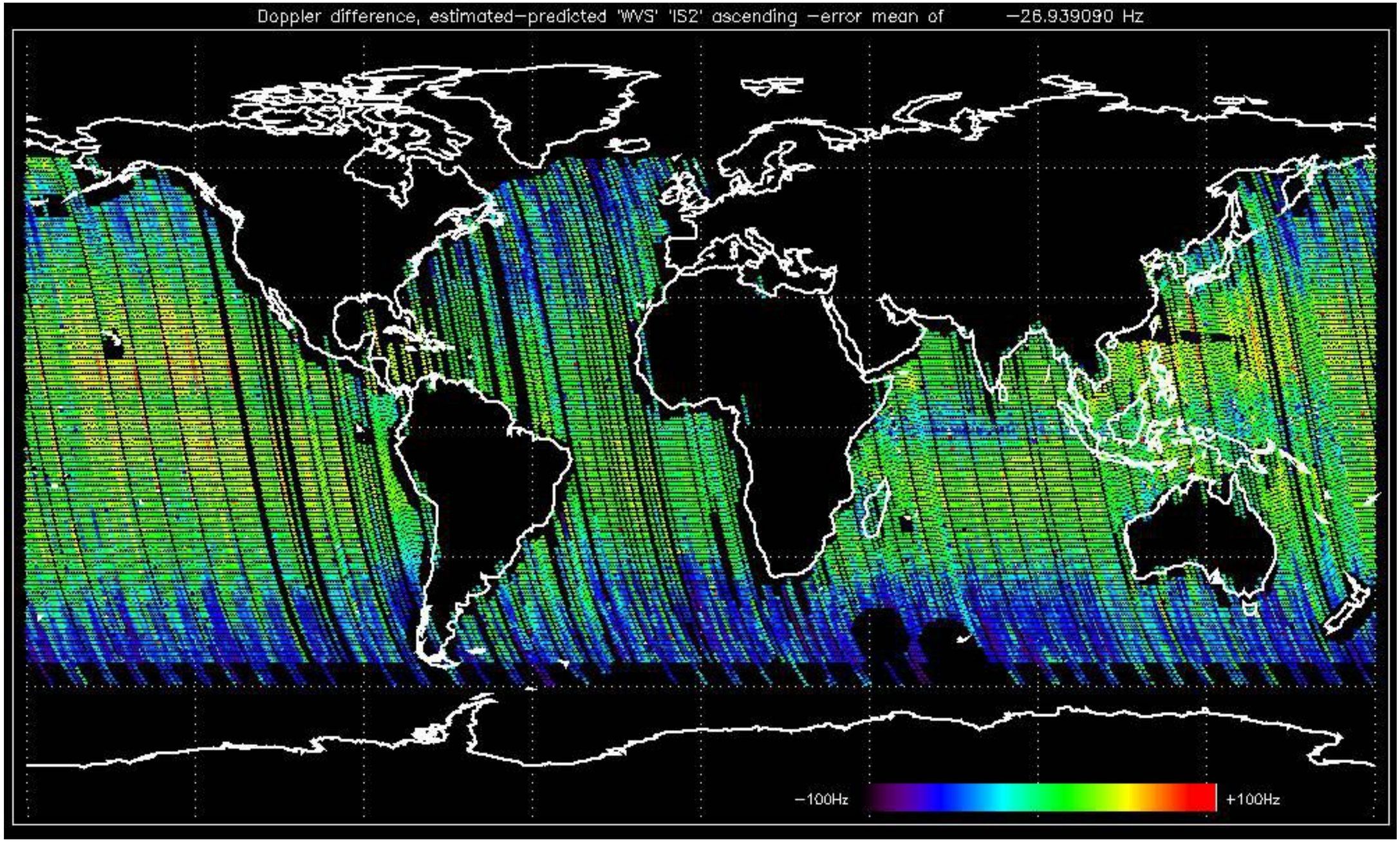

Doppler 'GM1' 'SS1' descending
−1000Hz
+1000Hz

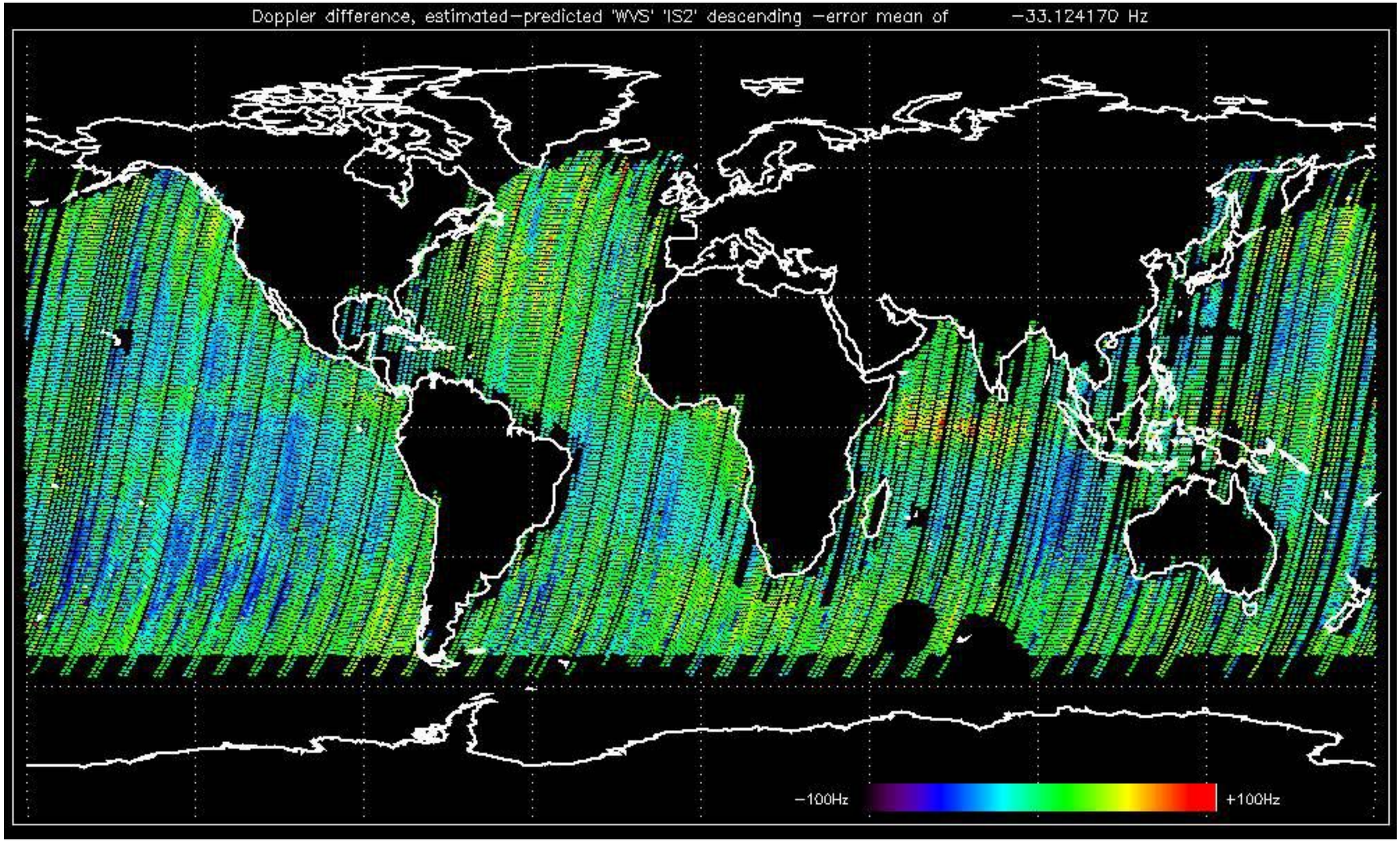

Doppler 'WVS' 'IS2' ascending
−1000Hz
+1000Hz


Doppler 'WVS' 'IS2' descending
−1000Hz
+1000Hz


Doppler difference, estimated−predicted 'GM1' 'SS1' ascending −error mean of −35.035972 Hz
−100Hz
+100Hz

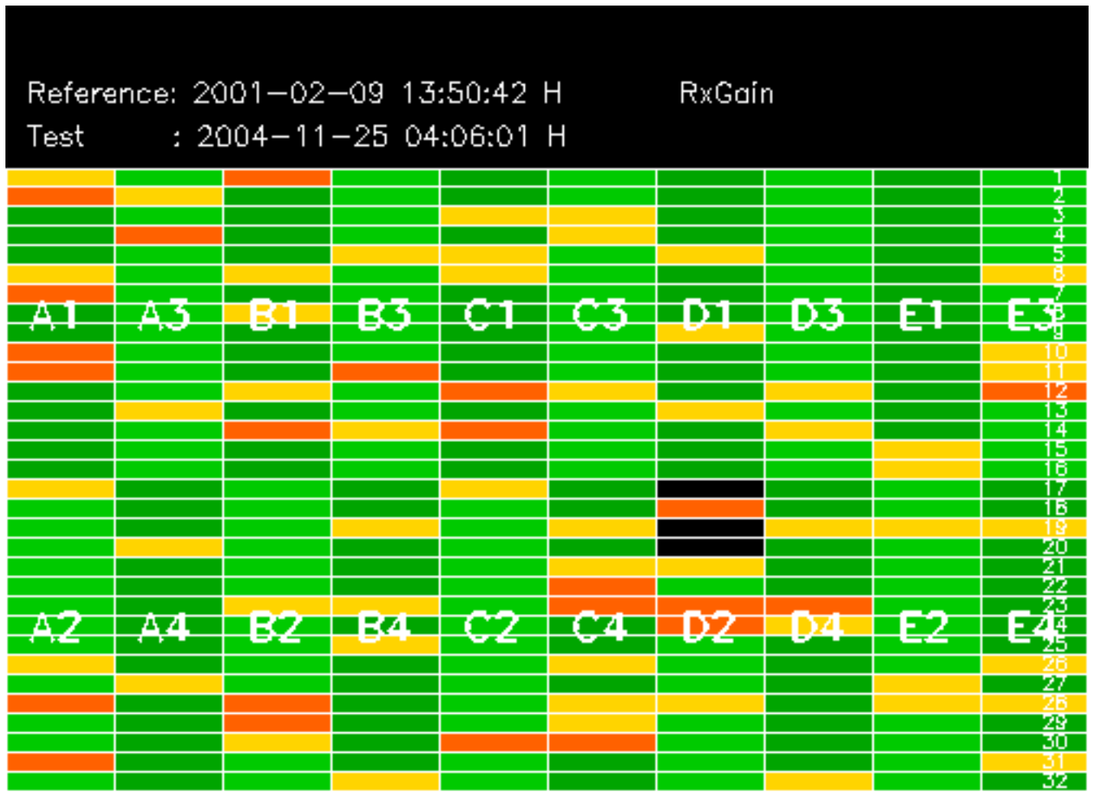

Doppler difference, estimated−predicted 'GM1' 'SS1' descending −error mean of −26.205057 Hz
−100Hz
+100Hz

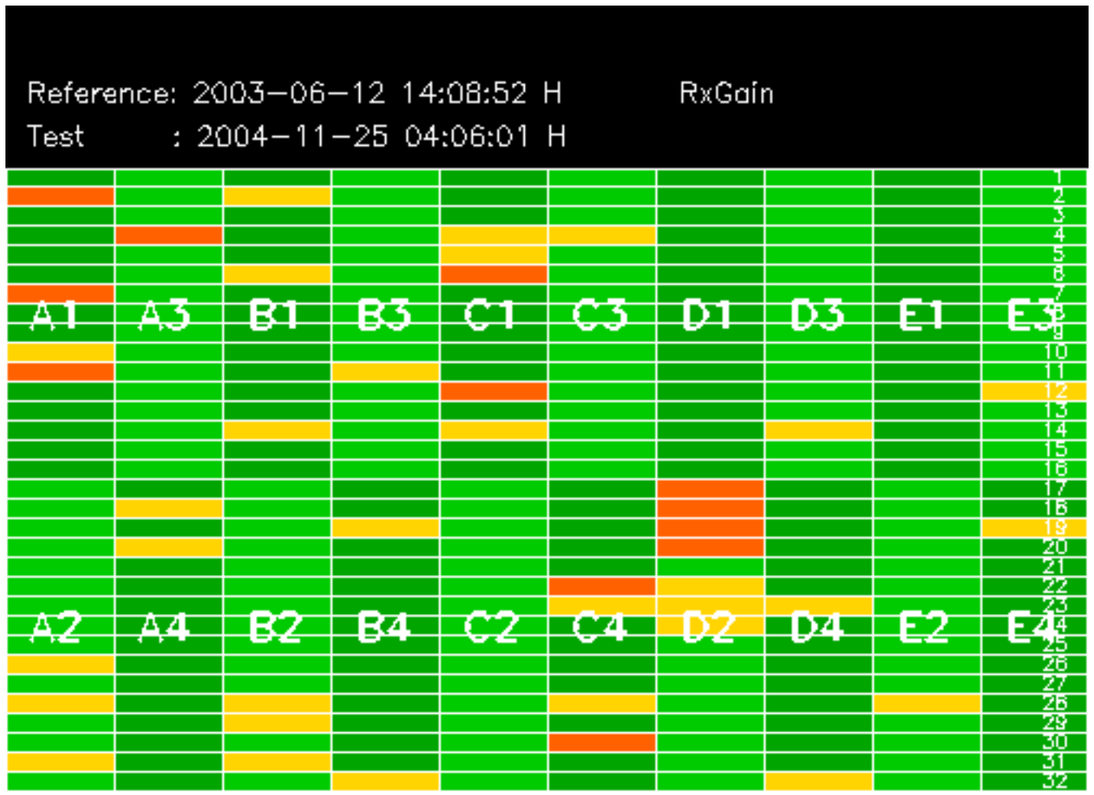

Doppler difference, estimated−predicted 'WVS' 'IS2' ascending −error mean of −26.939090 Hz
−100Hz
+100Hz

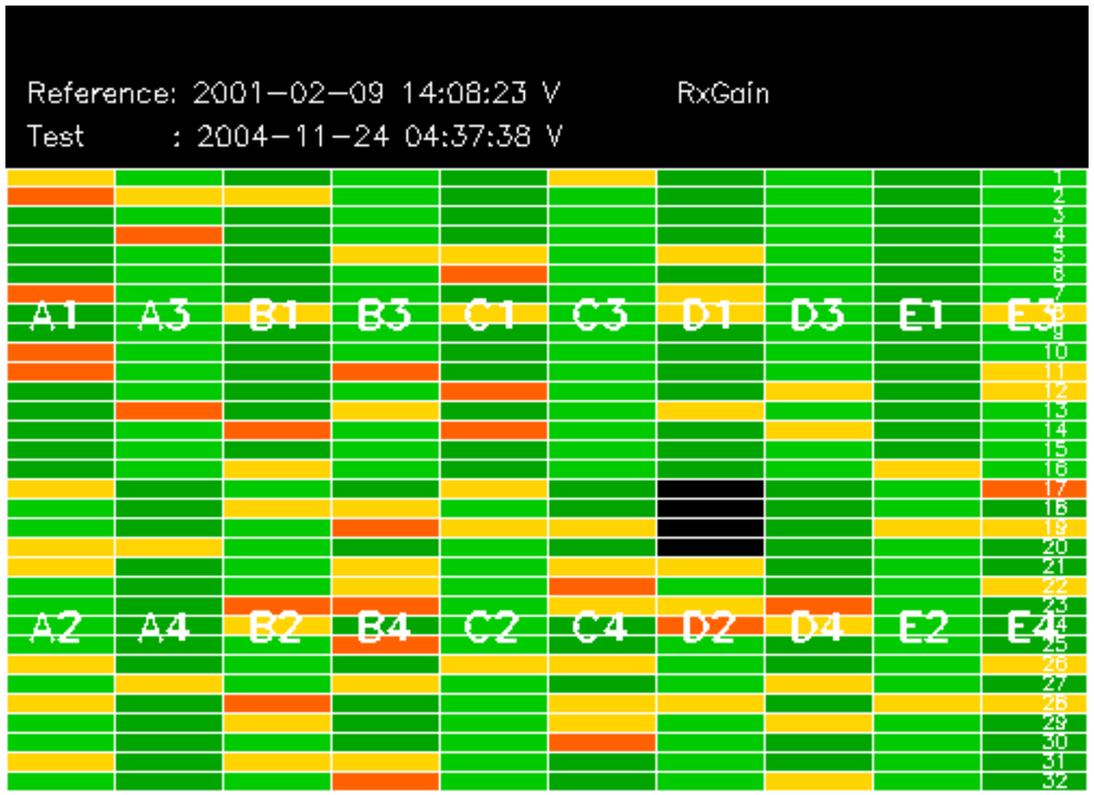

Doppler difference, estimated−predicted 'WVS' 'IS2' descending −error mean of −33.124170 Hz
−100Hz
+100Hz

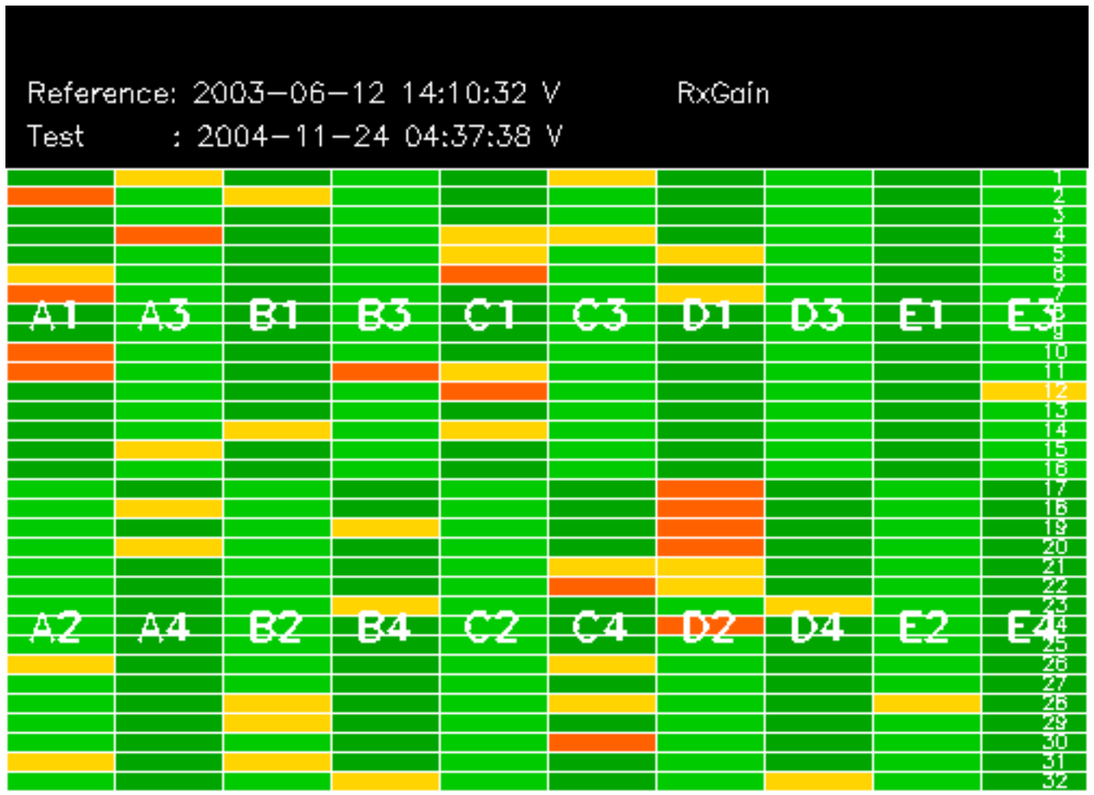
The MS mode provides an internal health check on an individual module basis.
The purpose of this mode is to identify to identify any malfunctionning modules and
to identify modules for which calibration offsets are to be applied.
No anomalies observed on available MS products:

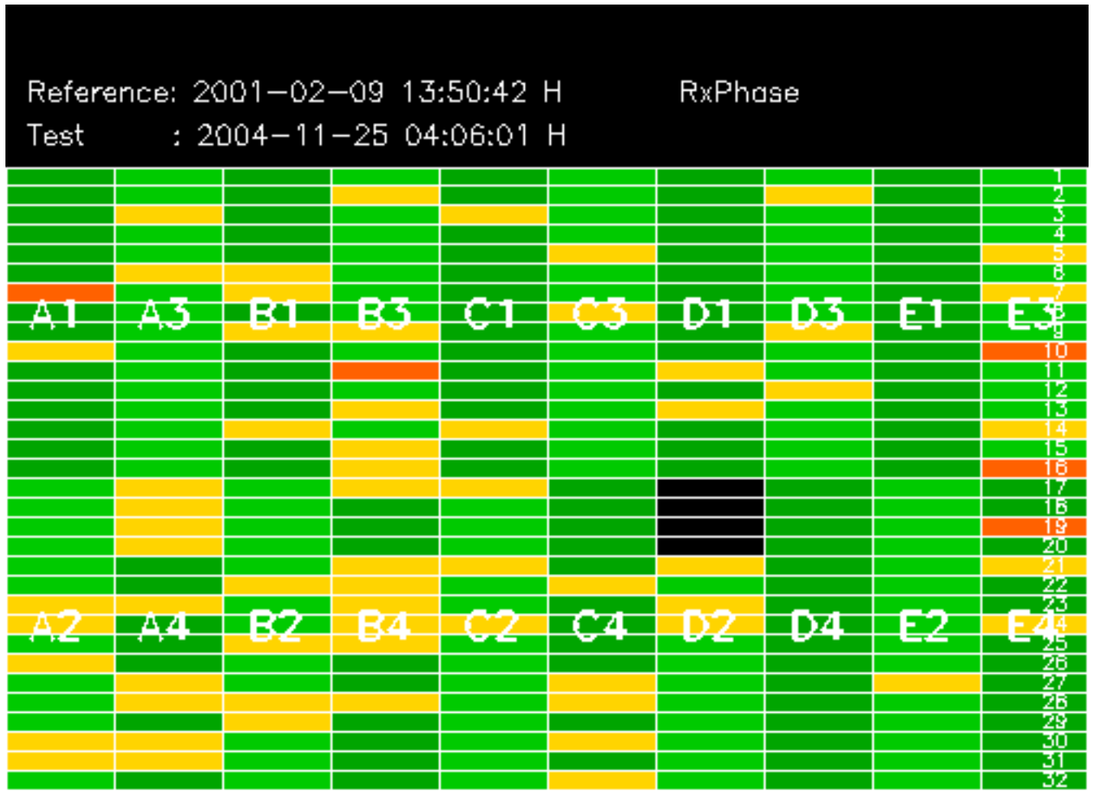
No anomalies observed.

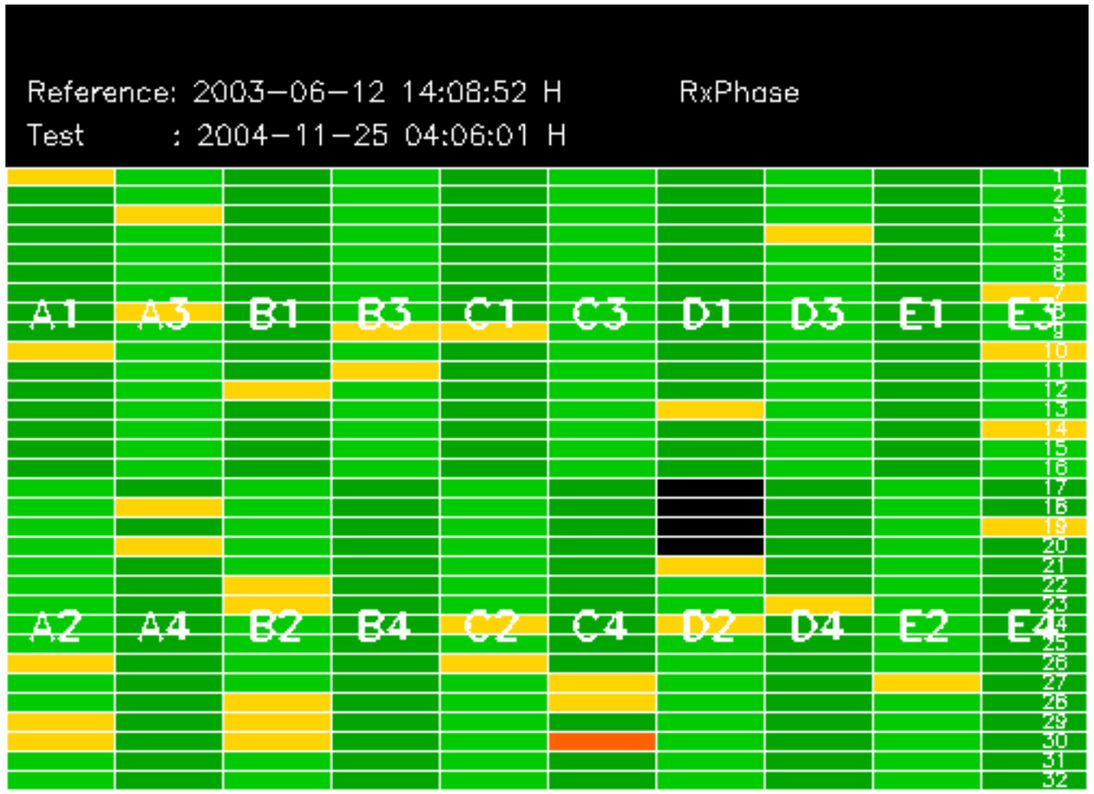

Reference: 2001-02-09 13:50:42 H
RxGain
Test : 2004-11-25 04:06:01 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

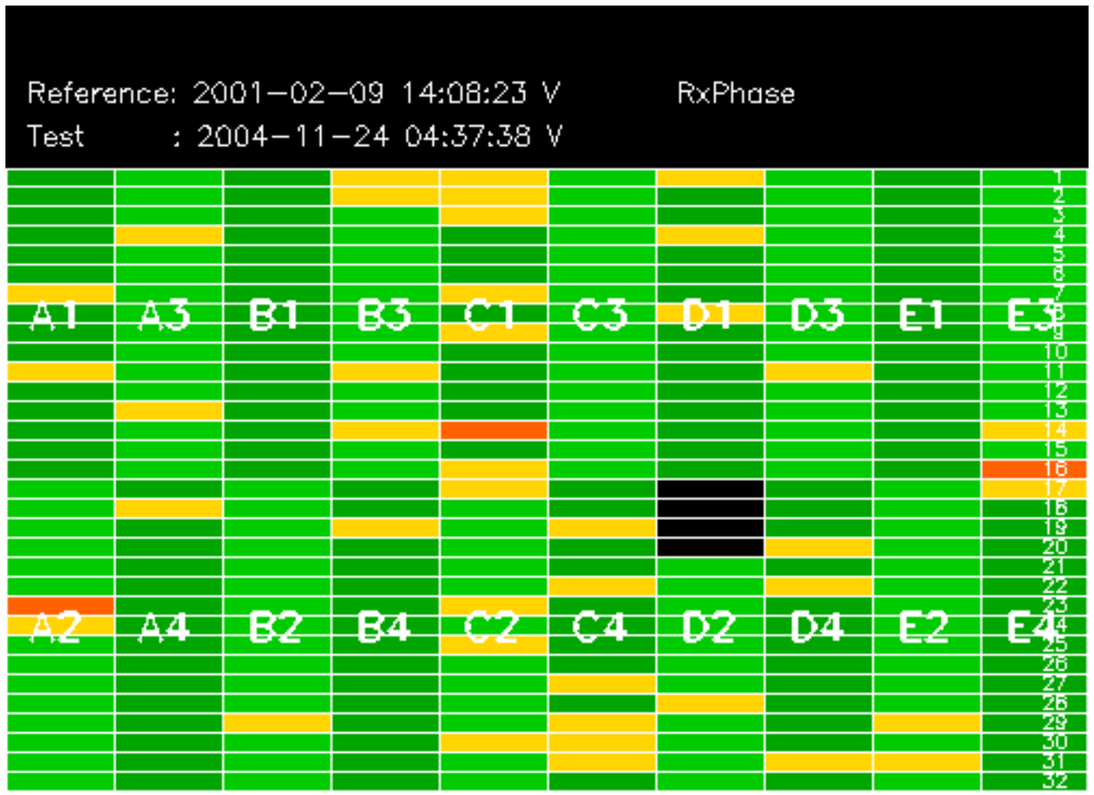

Reference: 2003-06-12 14:08:52 H
Test : 2004-11-25 04:06:01 H
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4

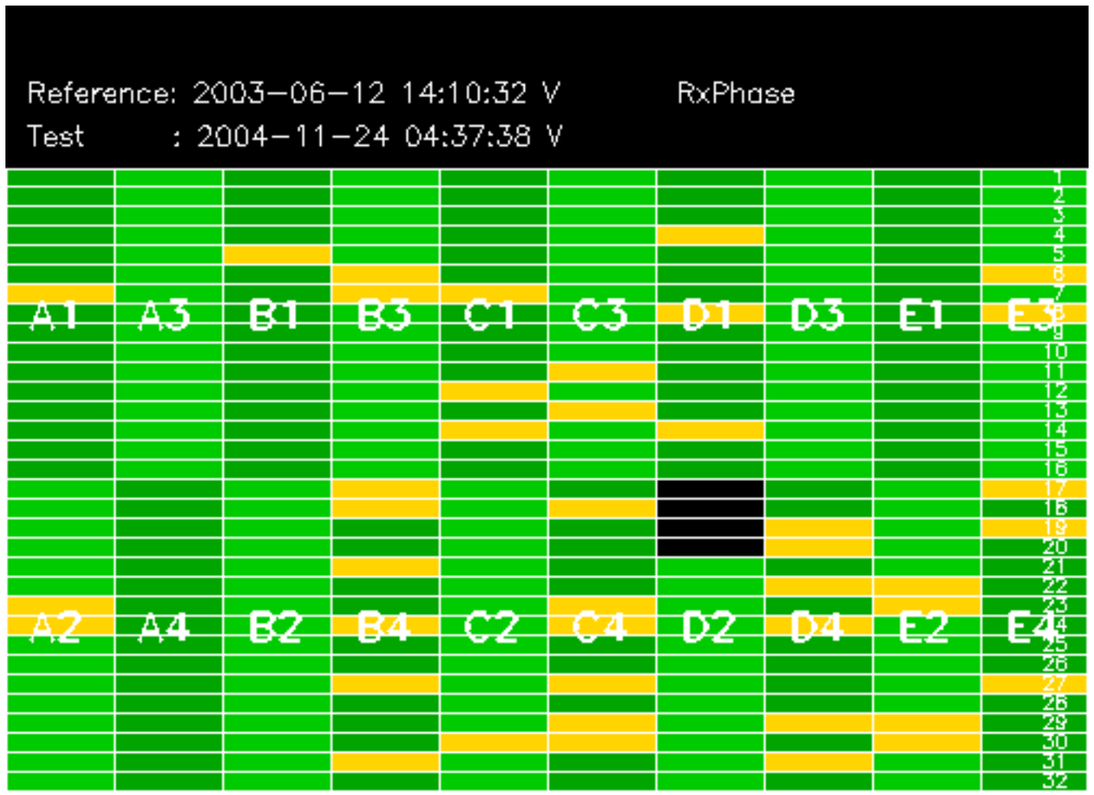

Reference: 2001-02-09 14:08:23 V
Test : 2004-11-24 04:37:38 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

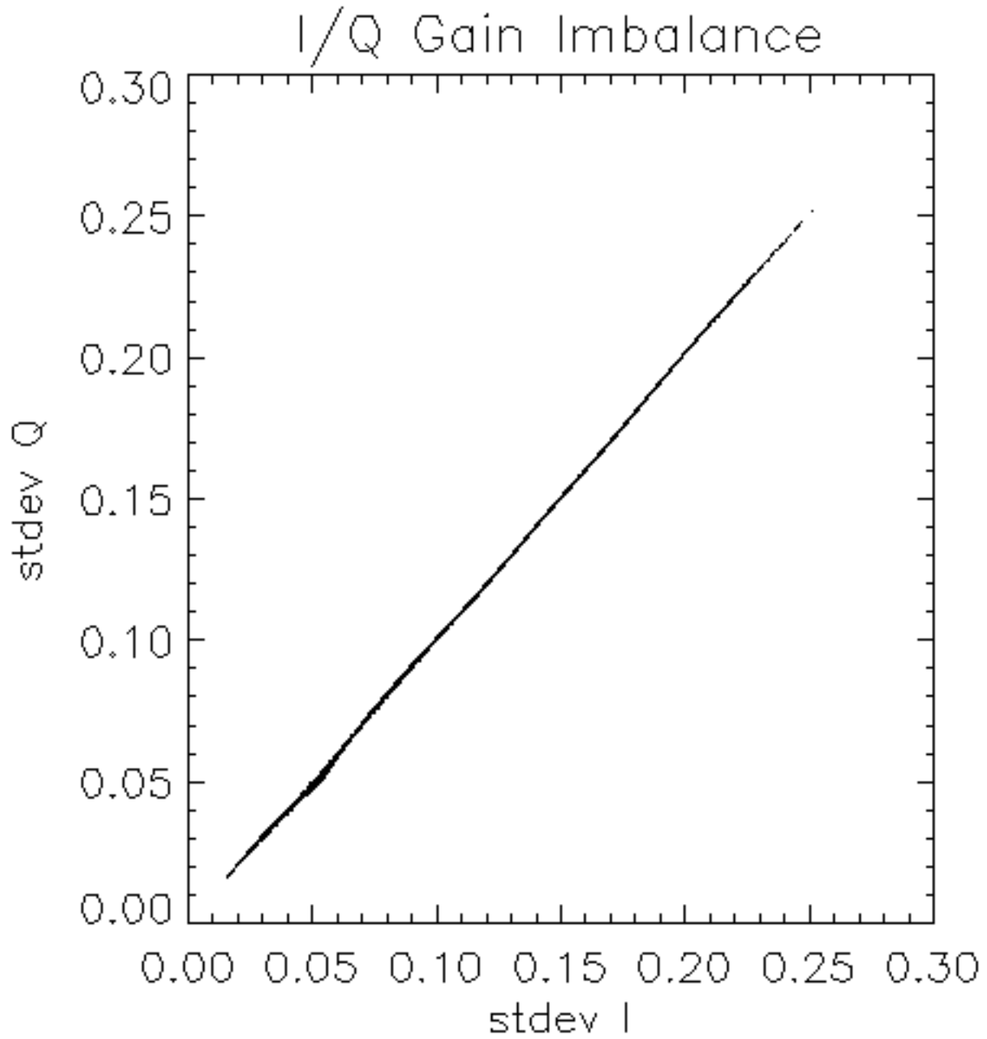

Reference: 2003-06-12 14:10:32 V
Test : 2004-11-24 04:37:38 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

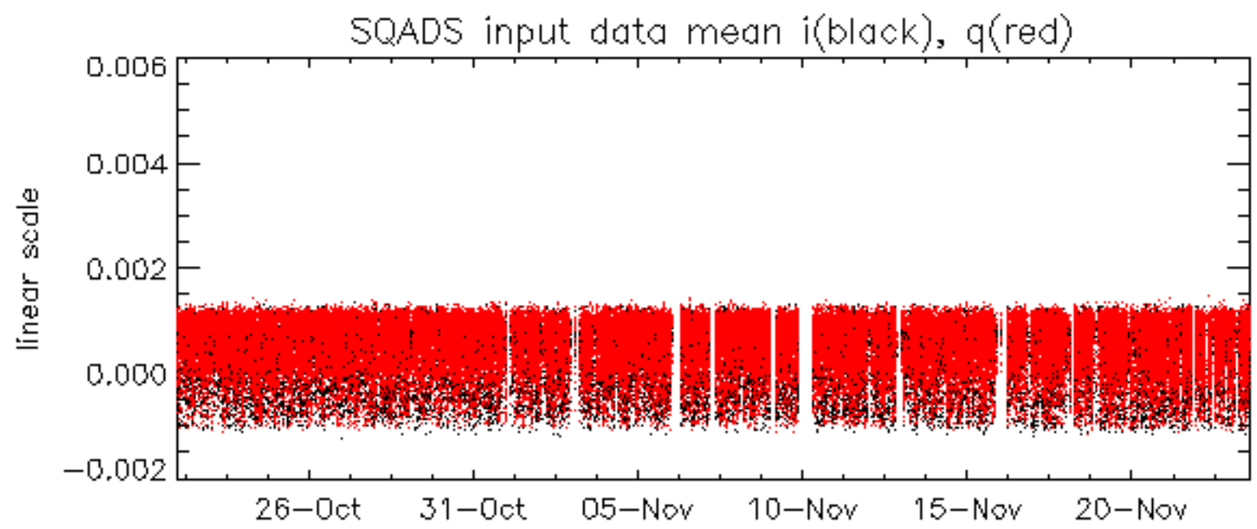

Reference: 2001-02-09 13:50:42 H
RxPhase
Test : 2004-11-25 04:06:01 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4

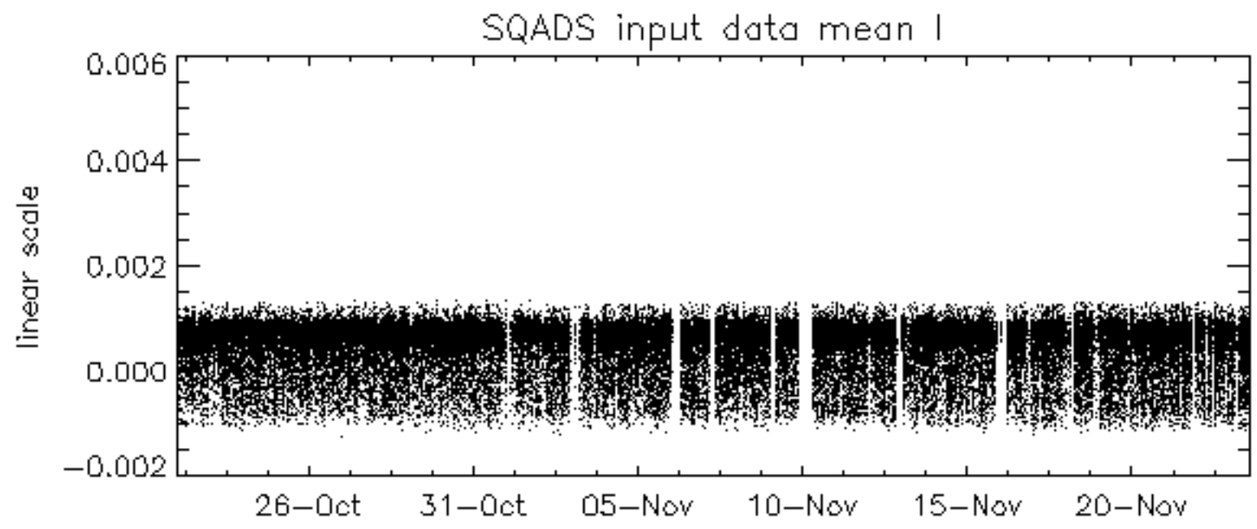

Reference: 2003-06-12 14:08:52 H
Test : 2004-11-25 04:06:01 H
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4

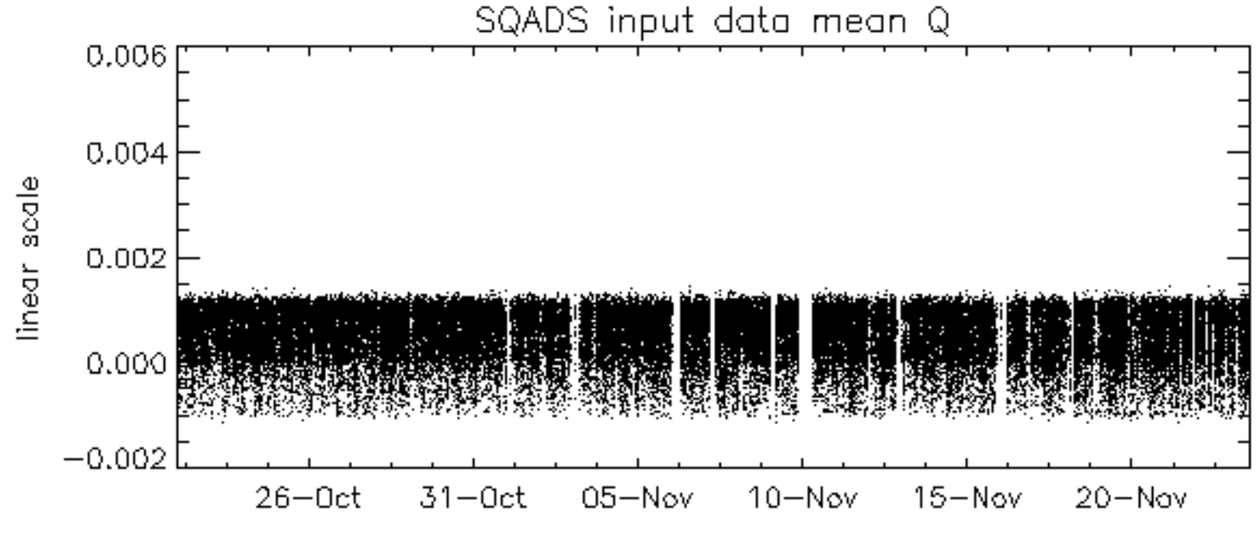

Reference: 2001-02-09 14:08:23 V
Test : 2004-11-24 04:37:38 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

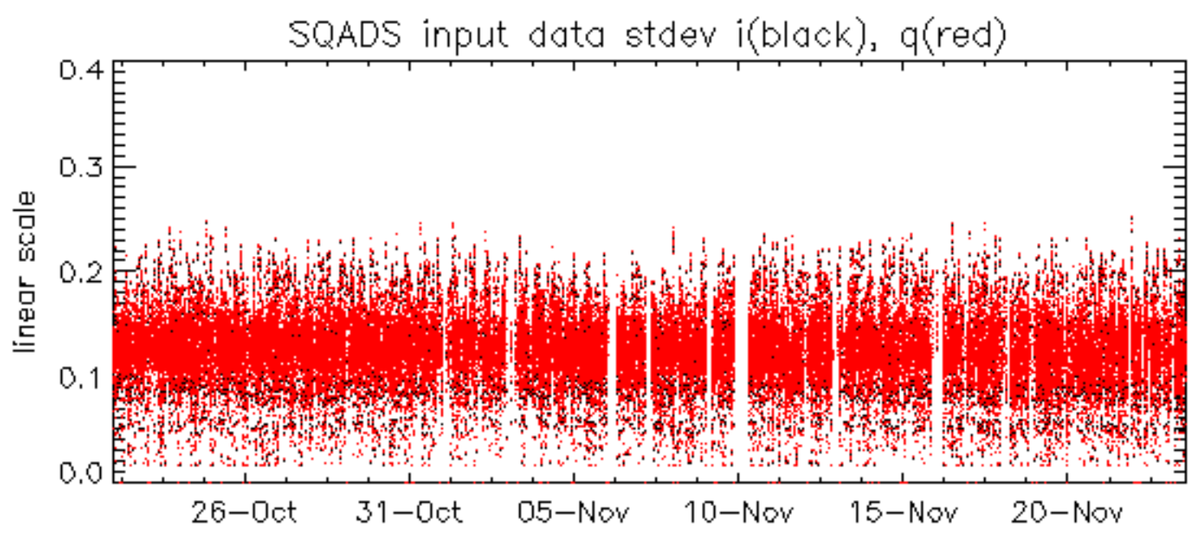

Reference: 2003-06-12 14:10:32 V
Test : 2004-11-24 04:37:38 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4

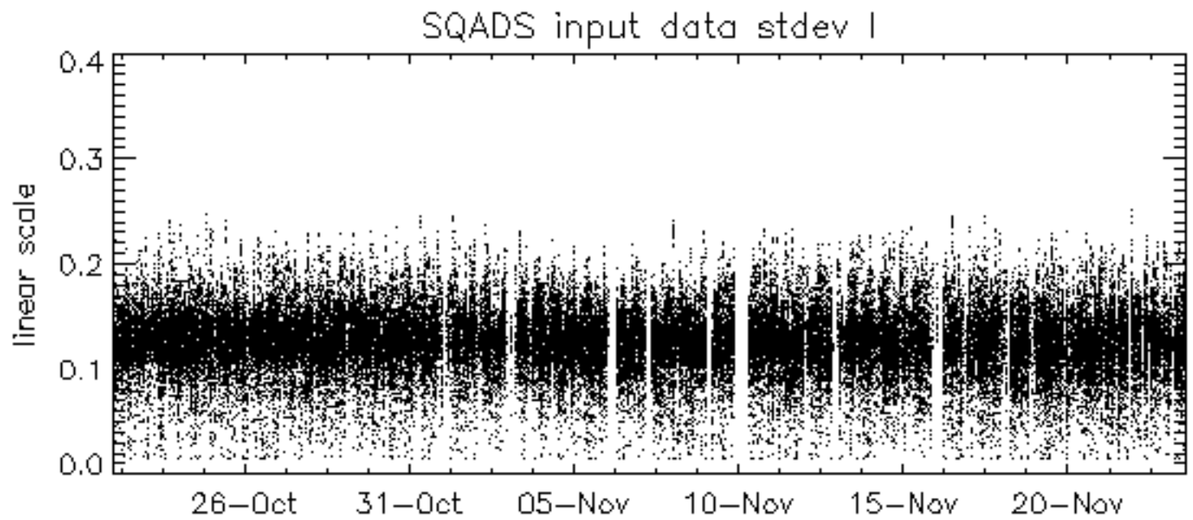

I/Q Gain Imbalance
0.30
0.25
0.20
0.15
0.10
0.05
0.00
stdev Q
0.00 0.05 0.10 0.15 0.20 0.25 0.30
stdev I

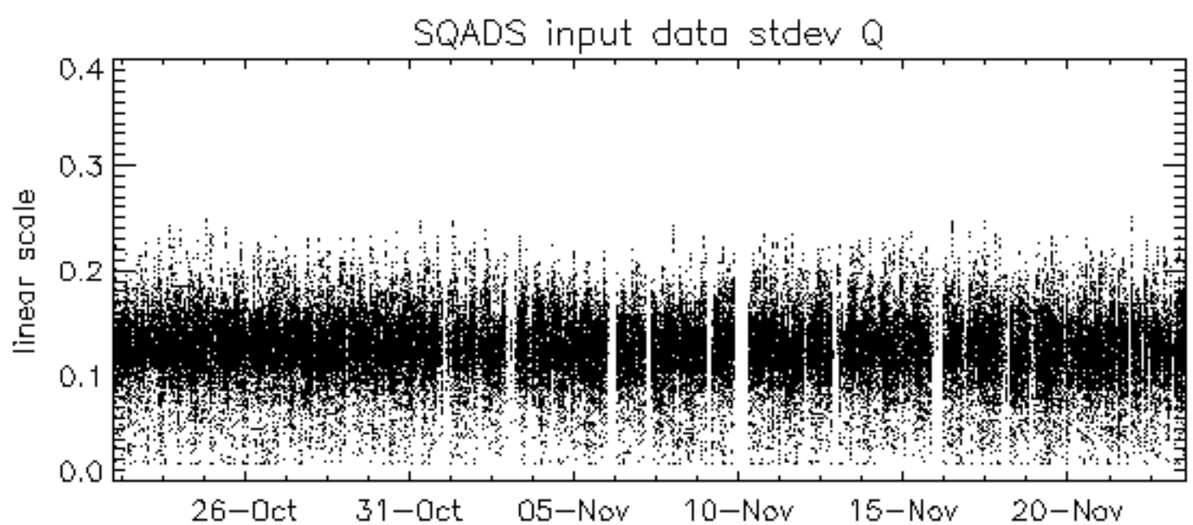

SQADS input data mean i(black), q(red)
linear scale
0.006
0.004
0.002
0.000
−0.002
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

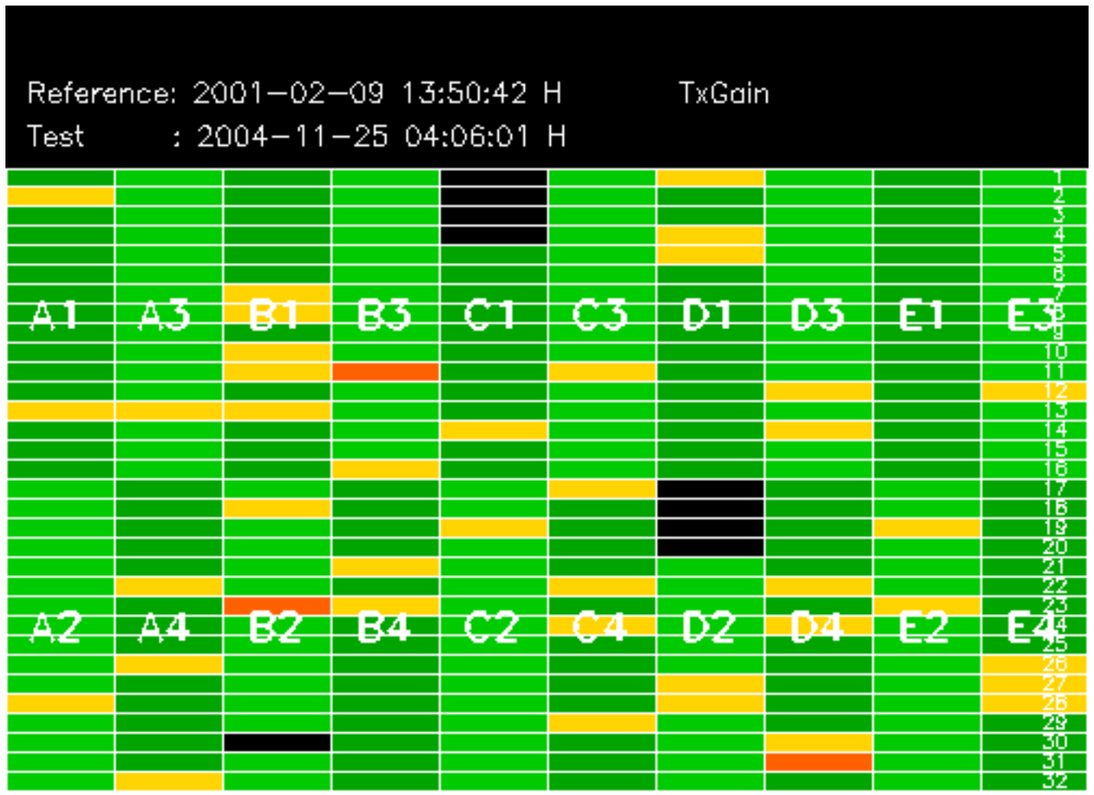

SQADS input data mean I
linear scale
0.006
0.004
0.002
0.000
−0.002
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

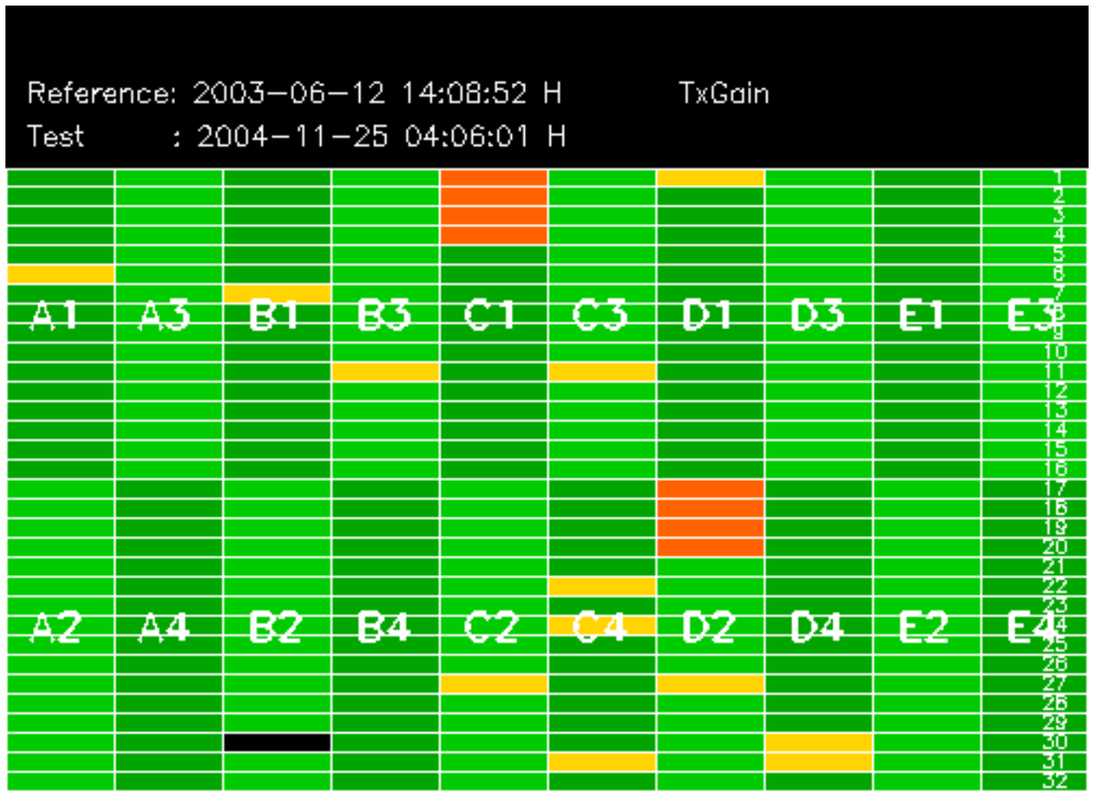

SQADS input data mean Q
linear scale
0.006
0.004
0.002
0.000
−0.002
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

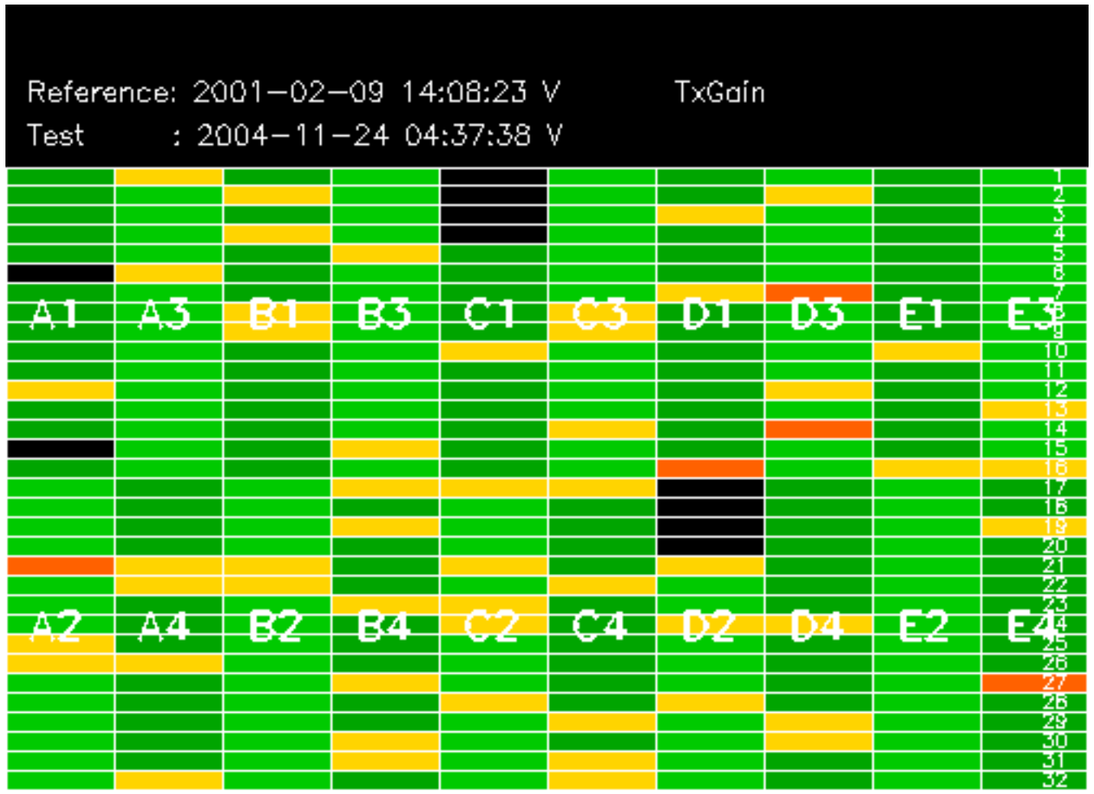

SQADS input data stdev i(black), q(red)
linear scale
0.4
0.3
0.2
0.1
0.0
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

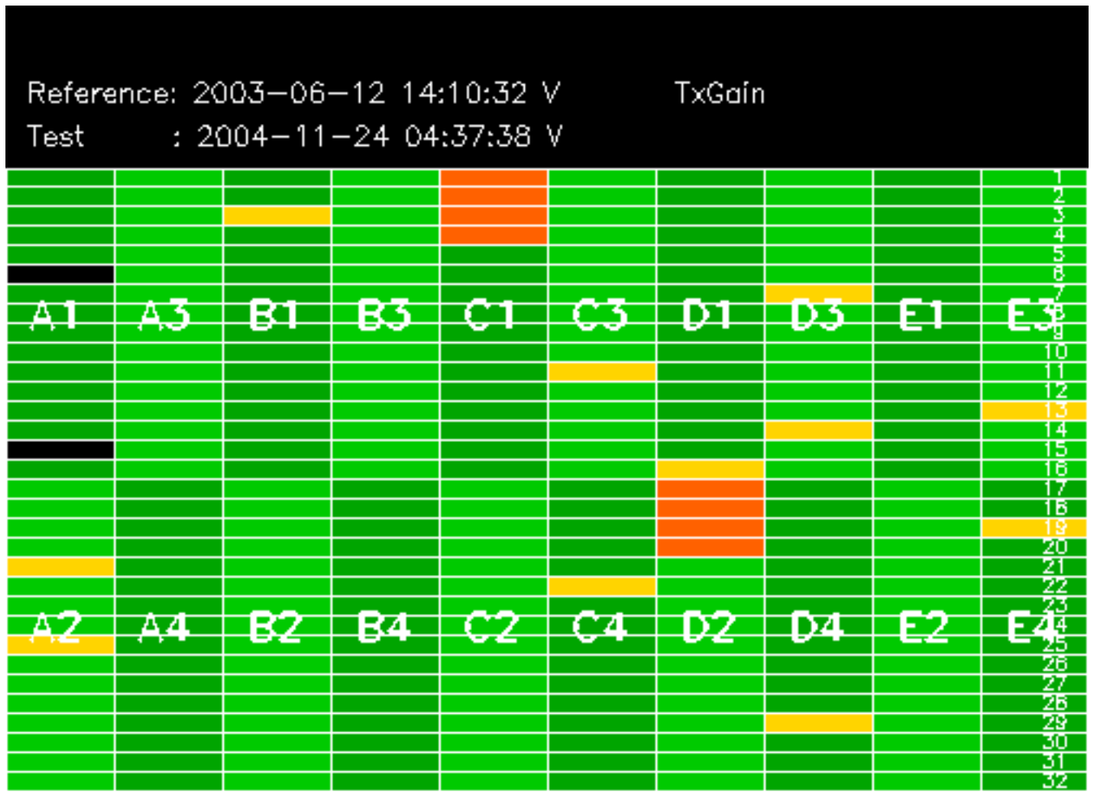

SQADS input data stdev I
linear scale
0.4
0.3
0.2
0.1
0.0
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

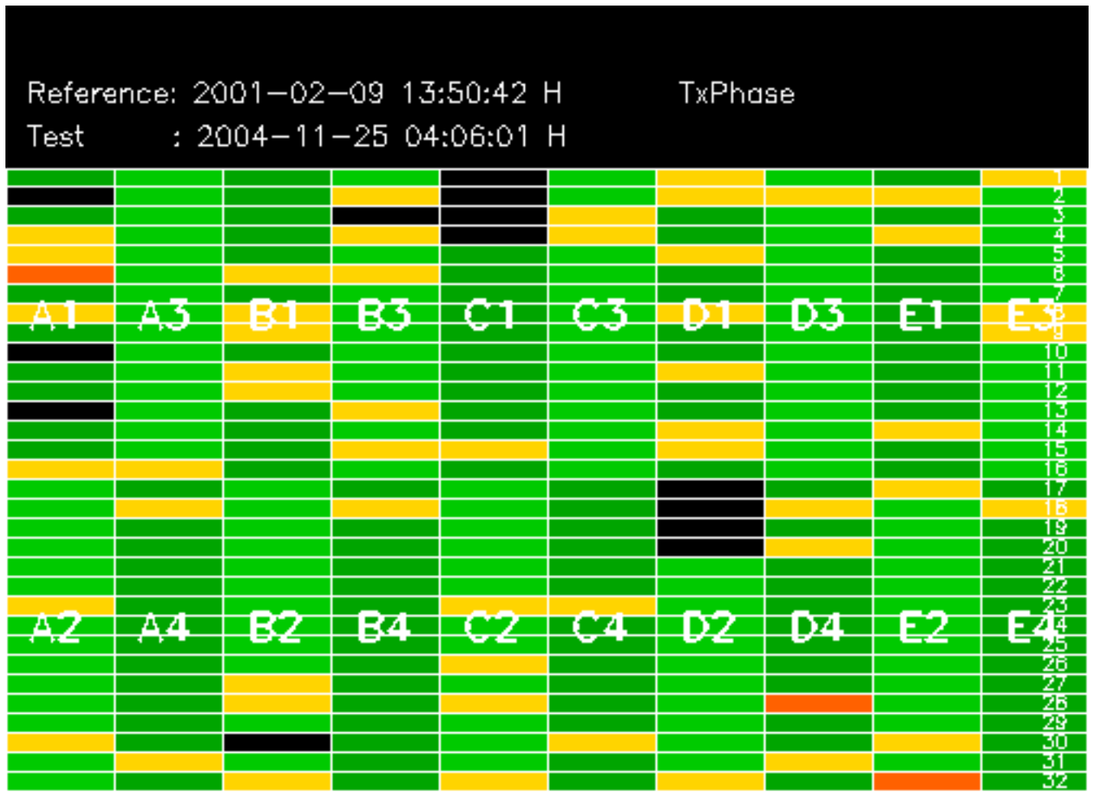

SQADS input data stdev Q
linear scale
0.4
0.3
0.2
0.1
0.0
26−Oct
31−Oct
05−Nov
10−Nov
15−Nov
20−Nov

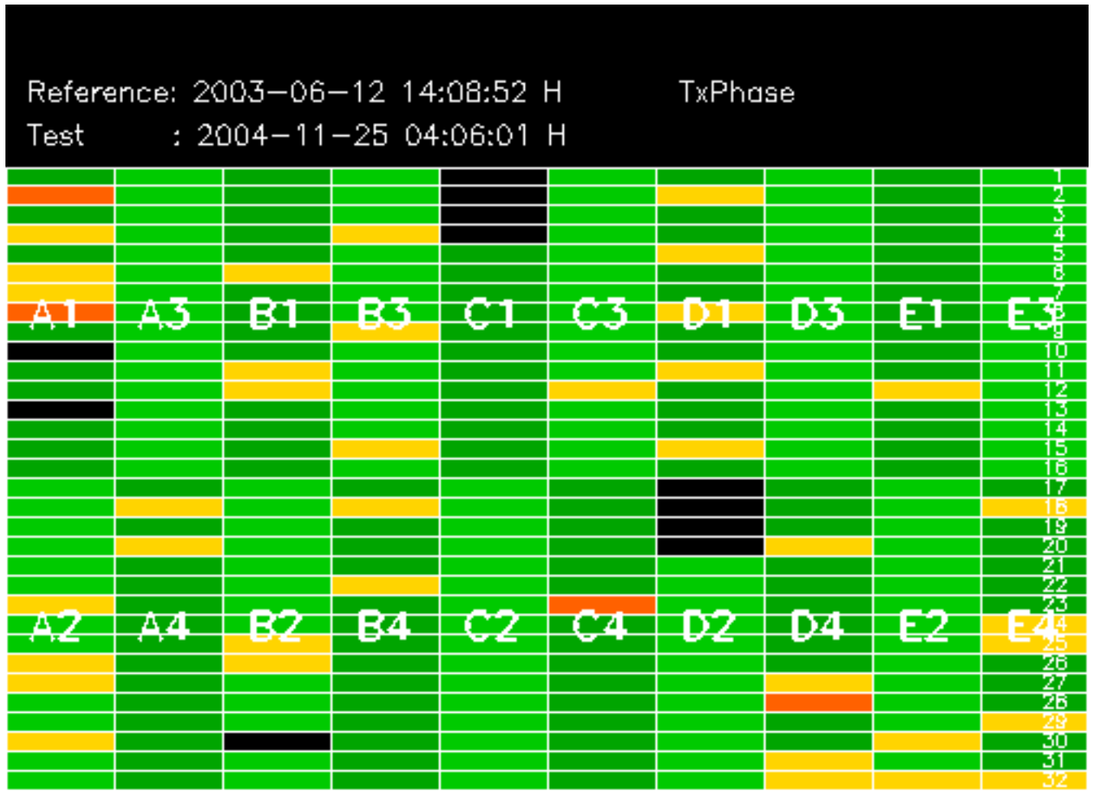

Reference: 2001-02-09 13:50:42 H
Test : 2004-11-25 04:06:01 H
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4

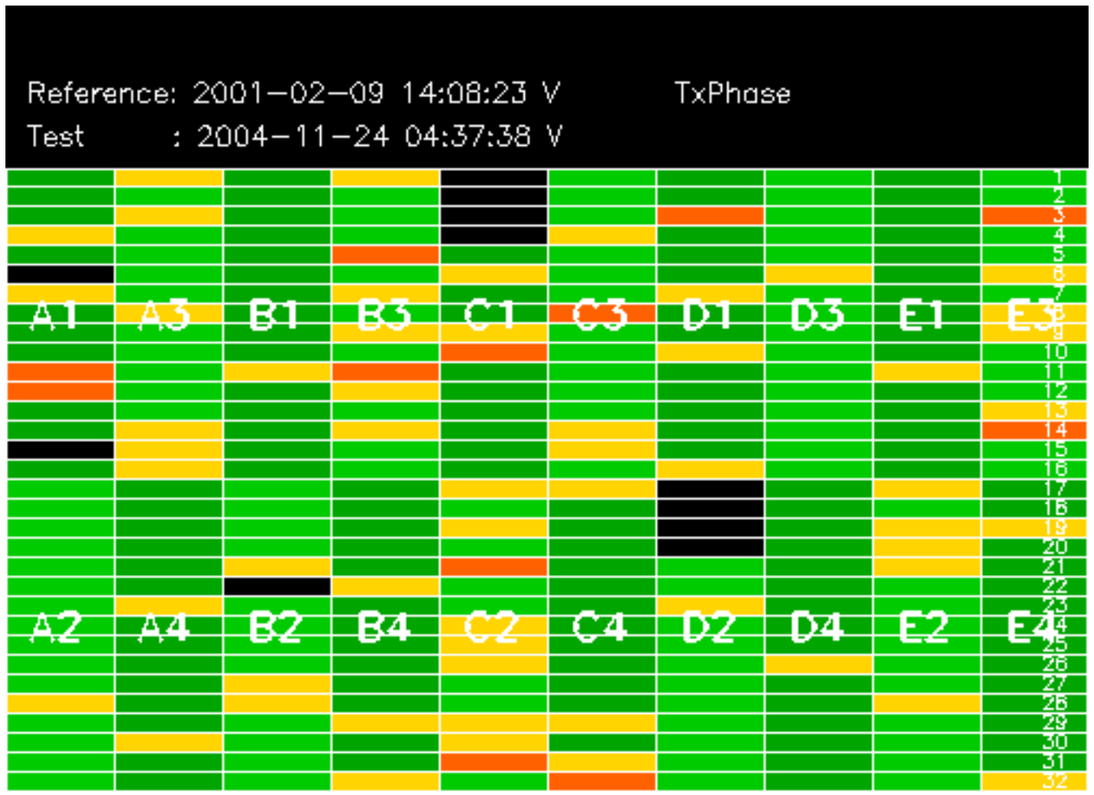

Reference: 2003-06-12 14:08:52 H
Test : 2004-11-25 04:06:01 H
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

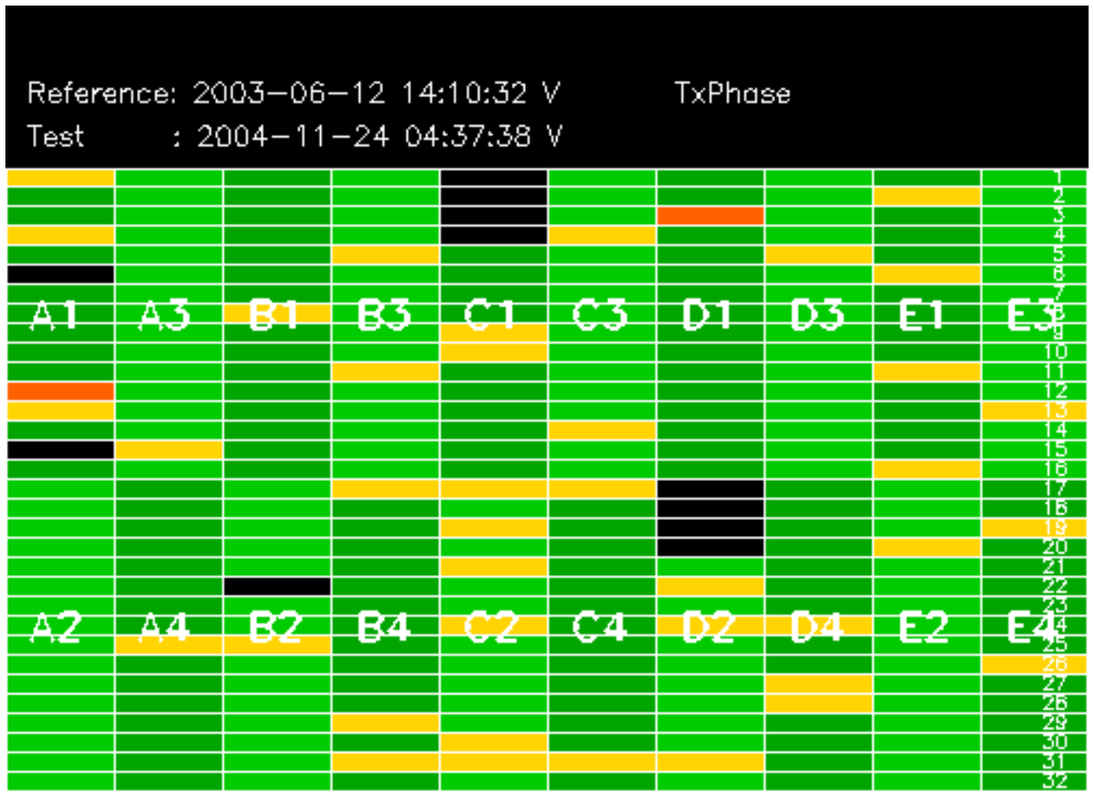

Reference: 2001-02-09 14:08:23 V
Test : 2004-11-24 04:37:38 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4

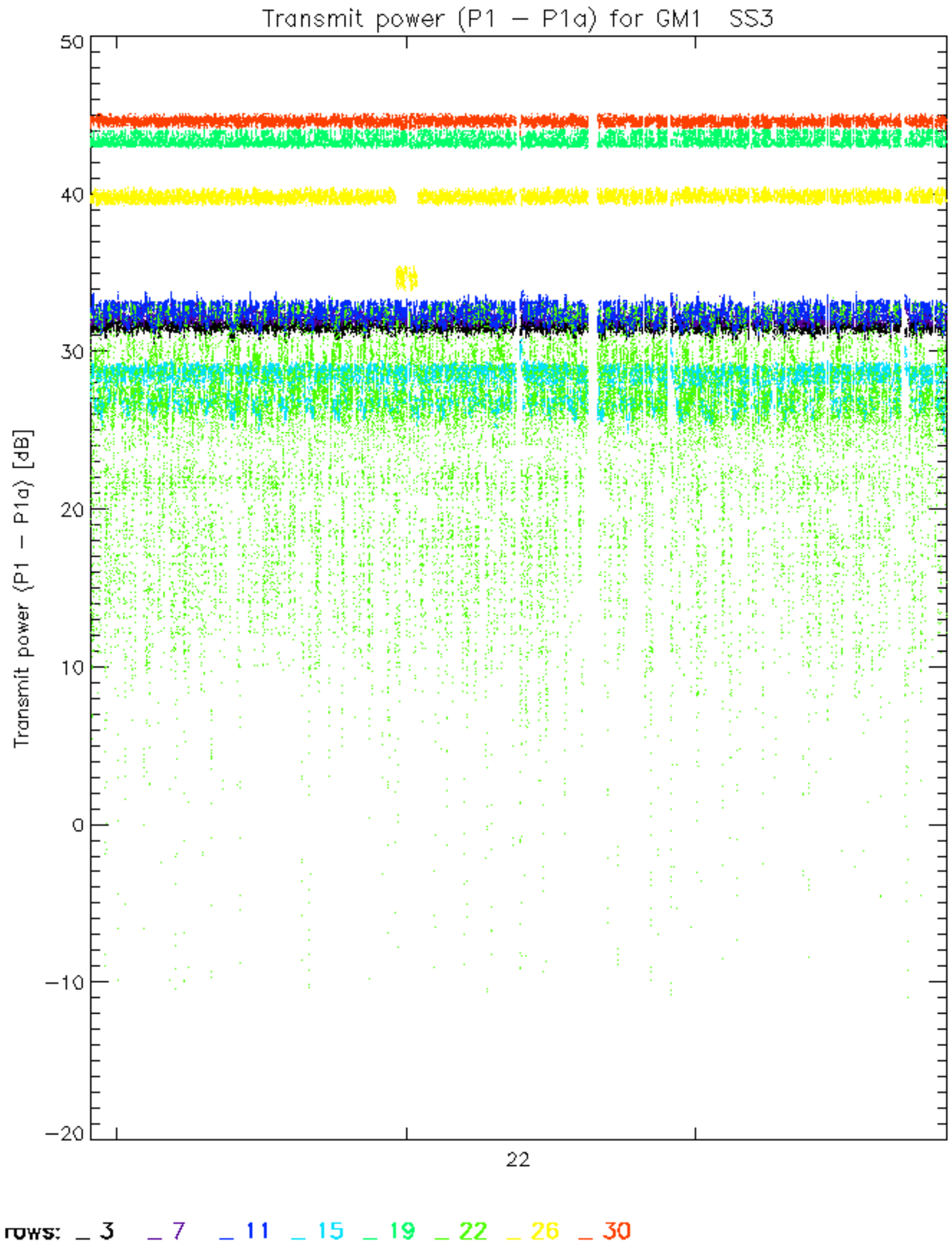

Reference: 2003-06-12 14:10:32 V
Test : 2004-11-24 04:37:38 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

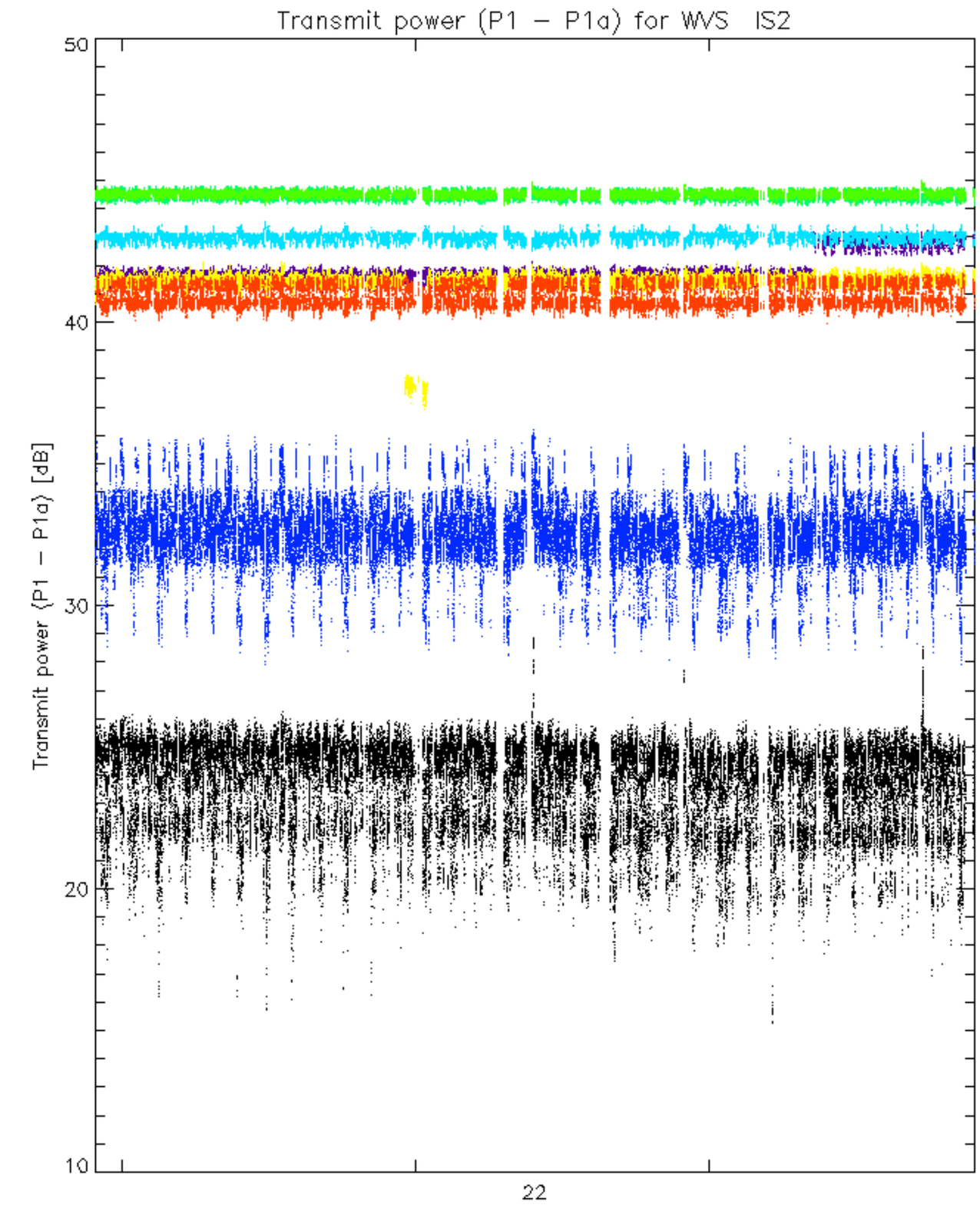

Reference: 2001-02-09 13:50:42 H
Test : 2004-11-25 04:06:01 H
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32


Reference: 2003-06-12 14:08:52 H
Test : 2004-11-25 04:06:01 H
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2001-02-09 14:08:23 V
Test : 2004-11-24 04:37:38 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2004-11-24 04:37:38 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32


Transmit power (P1 – P1a) for GM1 SS3
Transmit power (P1 – P1a) [dB]
50
40
30
20
10
0
−10
−20
22
rows: 3 7 11 15 19 22 26 30


Transmit power (P1 – P1a) for WVS IS2
Transmit power (P1 – P1a) [dB]
50
40
30
20
10
22
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

No unavailabilities during the reported period.