SUMMARY

1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P) products, which are the available few hours after the acquisition, on the high rate browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No intrument unavailabilies between 04-JUL-2003 00:00:00 and 07-JUL-2003 12:00:00 UTC.

Sub-system	Start	Stop	Planned
ASAR	YYYY-MM-DD hh:mm:ss	YYYY-MM-DD hh:mm:ss	---

2.2 - Browse Visual Inspection

Only browse products of the 04-JUL-2003 are available.
No anomalies detected on available browse.

2.3 - Data Analysis

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

3 - Module Stepping Mode

One MS received on 04-JUL-2003: ASA_MS__0PNPDE20030704_032002_000000152017_00447_07014_0024.N1
No MS products received on 05-JUL-2003 and on 06-JUL-2003.
The following results are based on the last available MS products.

No anomalies to be reported.
The drift in phase for TR module 3 on Tile B3 has decreased to a stable configuration as shown in the figure below.

Polarisation	Start Time
V	20030704 032002
H	20030703 002847

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

Analysis based on data available since 06-JUL-2003 till 07-JUL-2003 08:58:02 UTC
Nominal behavior of P1, P2 and P3 calibration pulses.

No anomalies observed.

4.1 - Daily statistics

row	stat	AveP1	AveP2	AveP3
8	mean	-2.44855	-22.4861	-8.09899
	stdev	0.0124128	0.0657130	0.00246192
24	mean	-5.16476	-21.2204	-8.09899
	stdev	0.0154832	0.0575364	0.00246192

4.2 - Cyclic statistics

row	stat	AveP1	AveP2	AveP3
8	mean	-2.44588	-22.5425	-8.10722
	stdev	0.0127043	0.0686633	0.00309738
24	mean	-5.15715	-21.1962	-8.10722
	stdev	0.0129387	0.0565546	0.00309738

4.3 - cal pulses monitoring (all row)

5 - RAW data statistics

Analysis based on data available since 06-JUL-2003 till 07-JUL-2003 08:58:02 UTC
Nominal level of I and Q level 0 statistics.
No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000455608

	stdev	3.06114e-07
MEAN Q	mean	0.000292019
	stdev	3.13885e-07

5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.112571
	stdev	0.00158370
STDEV Q	mean	0.112682
	stdev	0.00161248

5.3 - Gain imbalance I/Q

6 - Wave Doppler Analysis

No anomalies observed Doppler evolution.
Doppler analysis performed over the last 60 days

6.1 - Unbiased Doppler Error

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

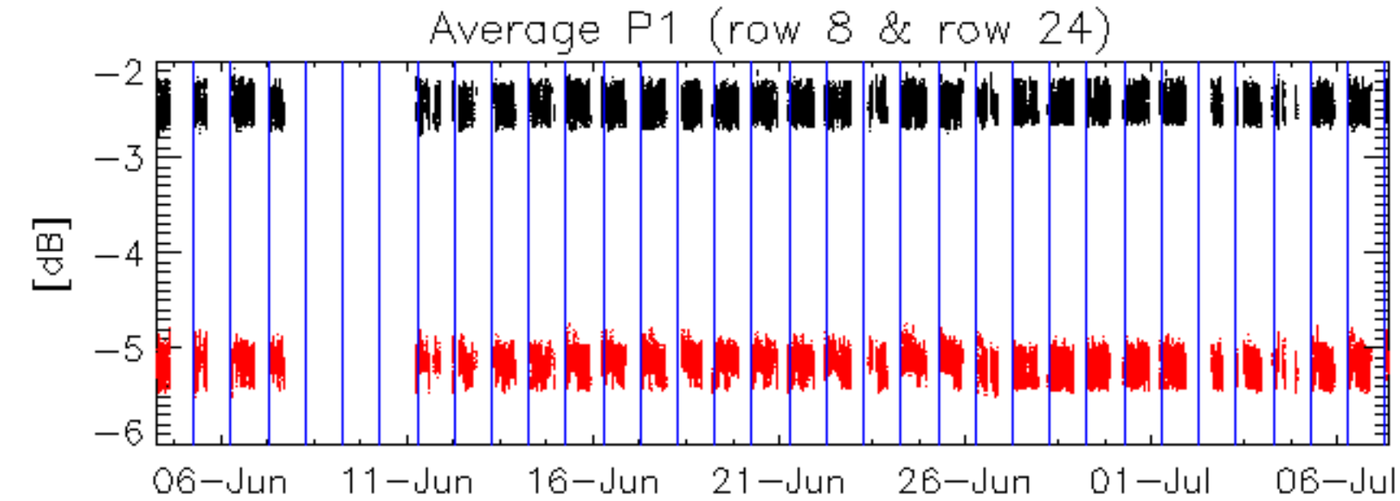
6.2 - Absolute Doppler

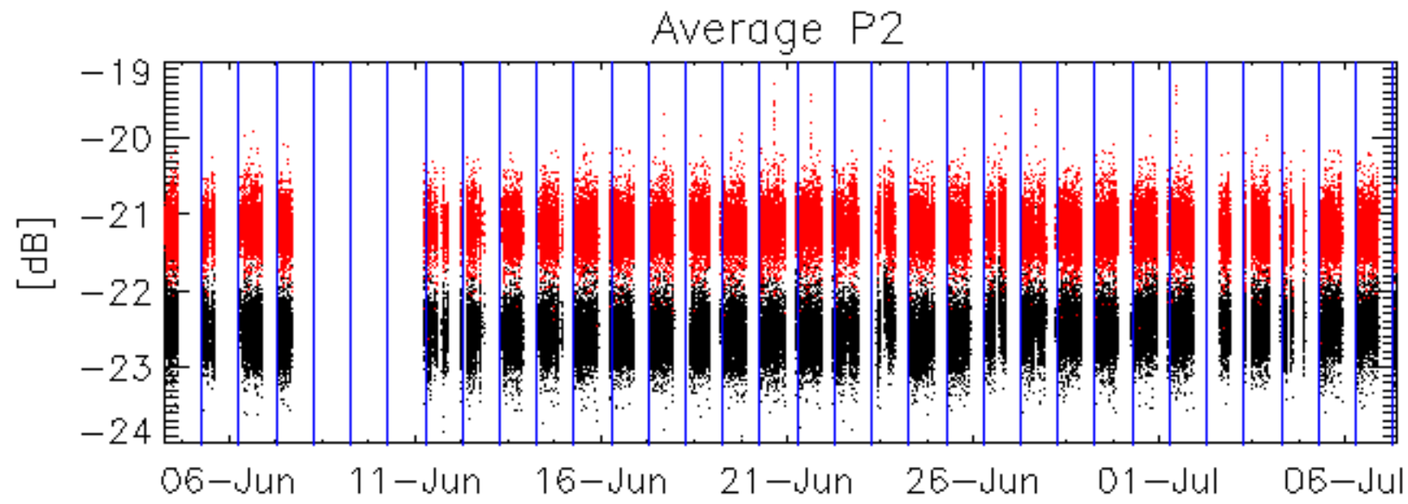
Evolution of Absolute Doppler
Acsending

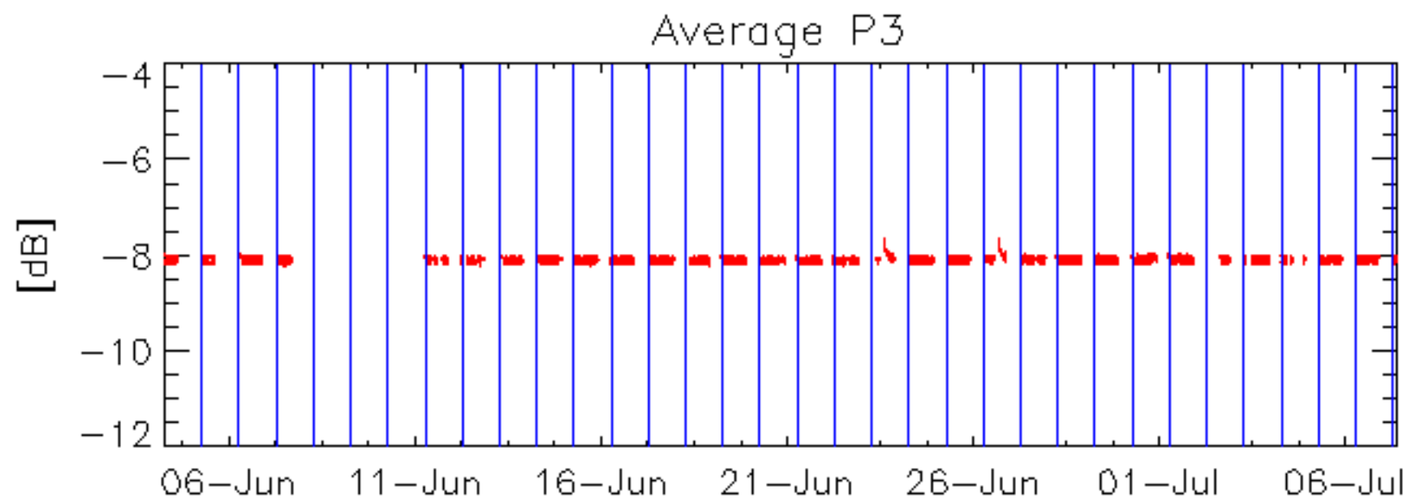
Descending

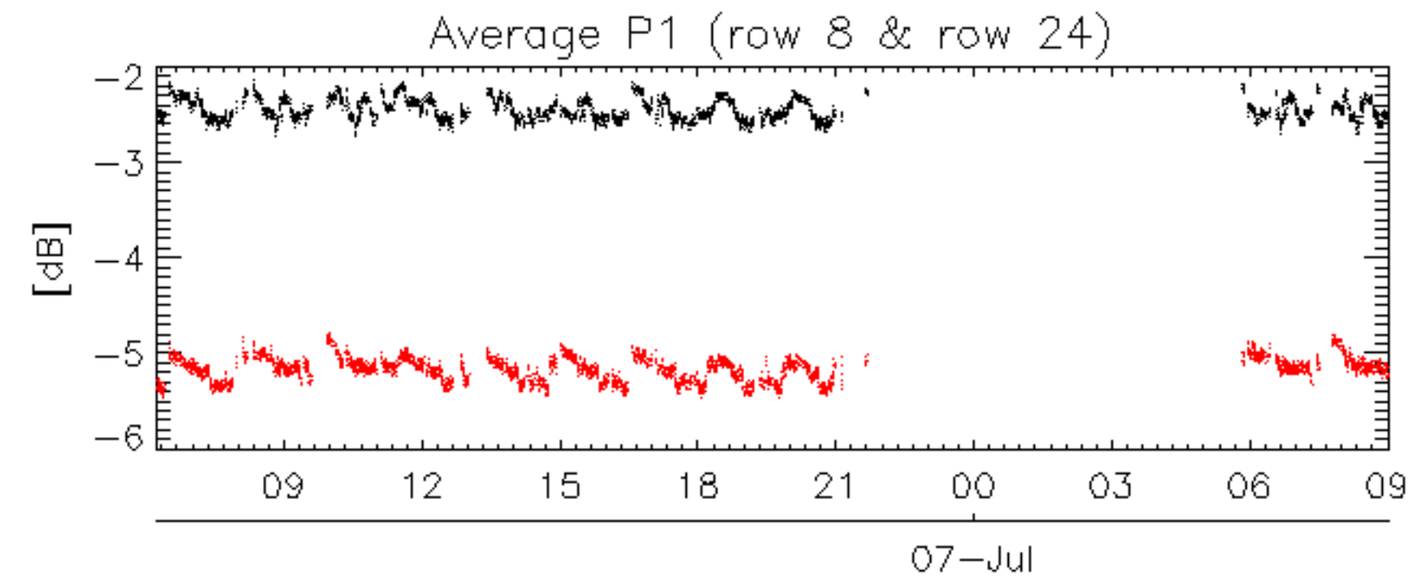
6.3 - Doppler evolution versus ANX

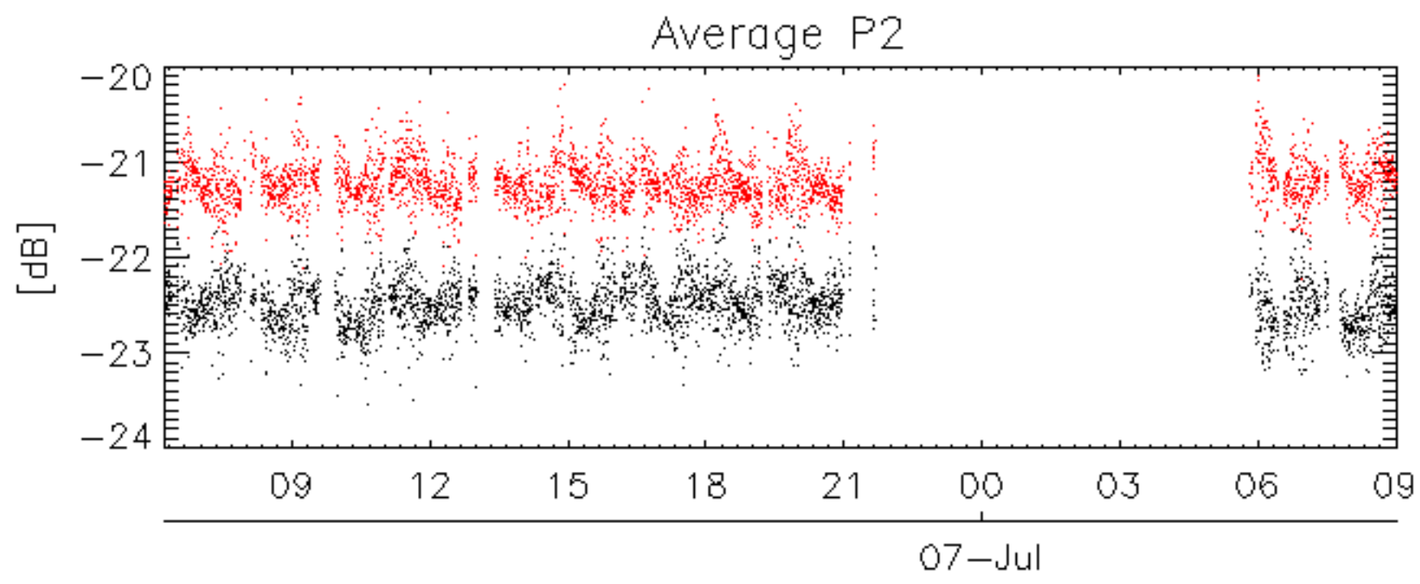
Evolution Doppler error versus ANX

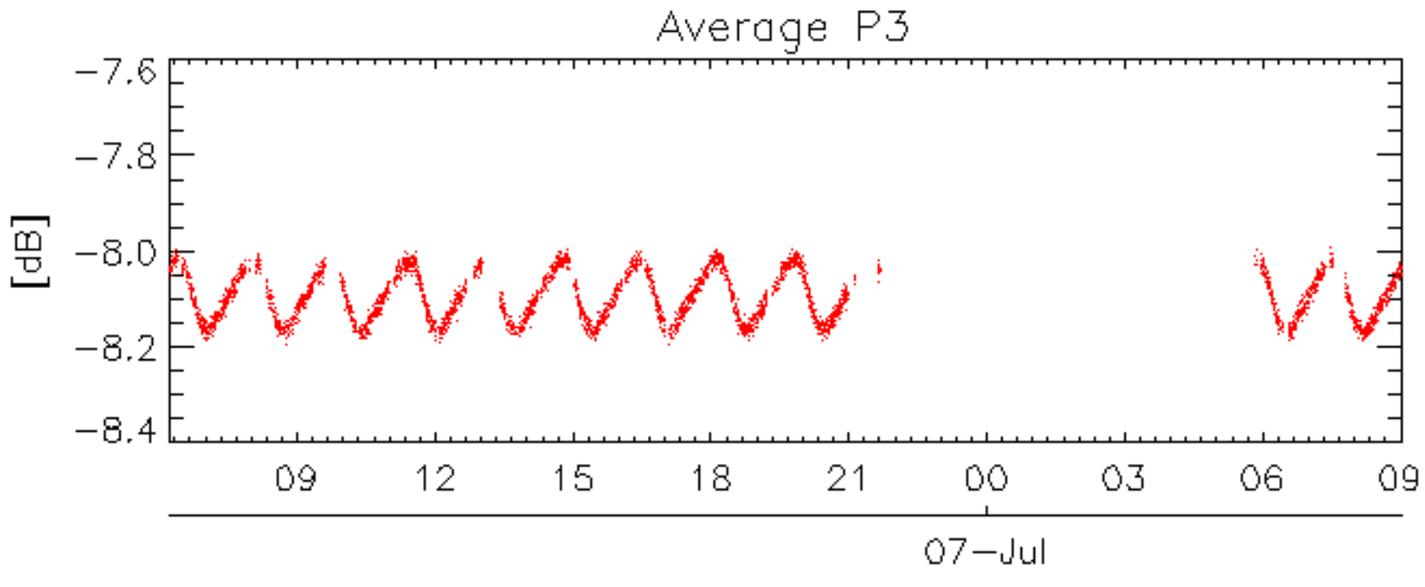

Average P1 (row 8 & row 24)
[dB]
−2
−3
−4
−5
−6
06−Jun
11−Jun
16−Jun
21−Jun
26−Jun
01−Jul
06−Jul


Average P2
[dB]
−19
−20
−21
−22
−23
−24
06−Jun
11−Jun
16−Jun
21−Jun
26−Jun
01−Jul
06−Jul


Average P3
[dB]
−4
−6
−8
−10
−12
06−Jun
11−Jun
16−Jun
21−Jun
26−Jun
01−Jul
06−Jul


Average P1 (row 8 & row 24)
[dB]
−2
−3
−4
−5
−6
09
12
15
18
21
00
03
06
09
07−Jul

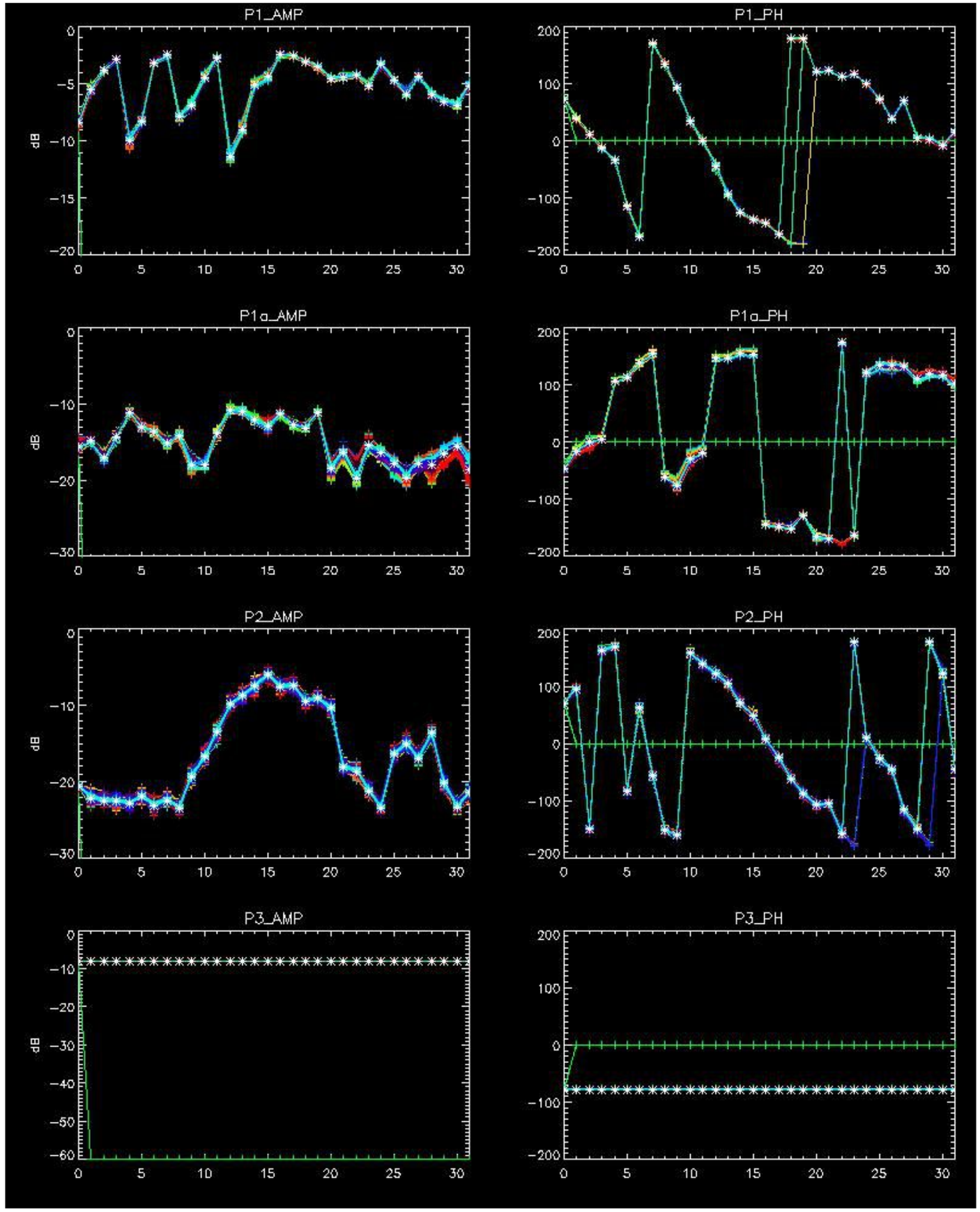

Average P2
[dB]
−20
−21
−22
−23
−24
09
12
15
18
21
00
03
06
09
07−Jul


Average P3
[dB]
−7.6
−7.8
−8.0
−8.2
−8.4
09
12
15
18
21
00
03
06
09
07−Jul

Only browse products of the 04-JUL-2003 are available.
No anomalies detected on available browse.

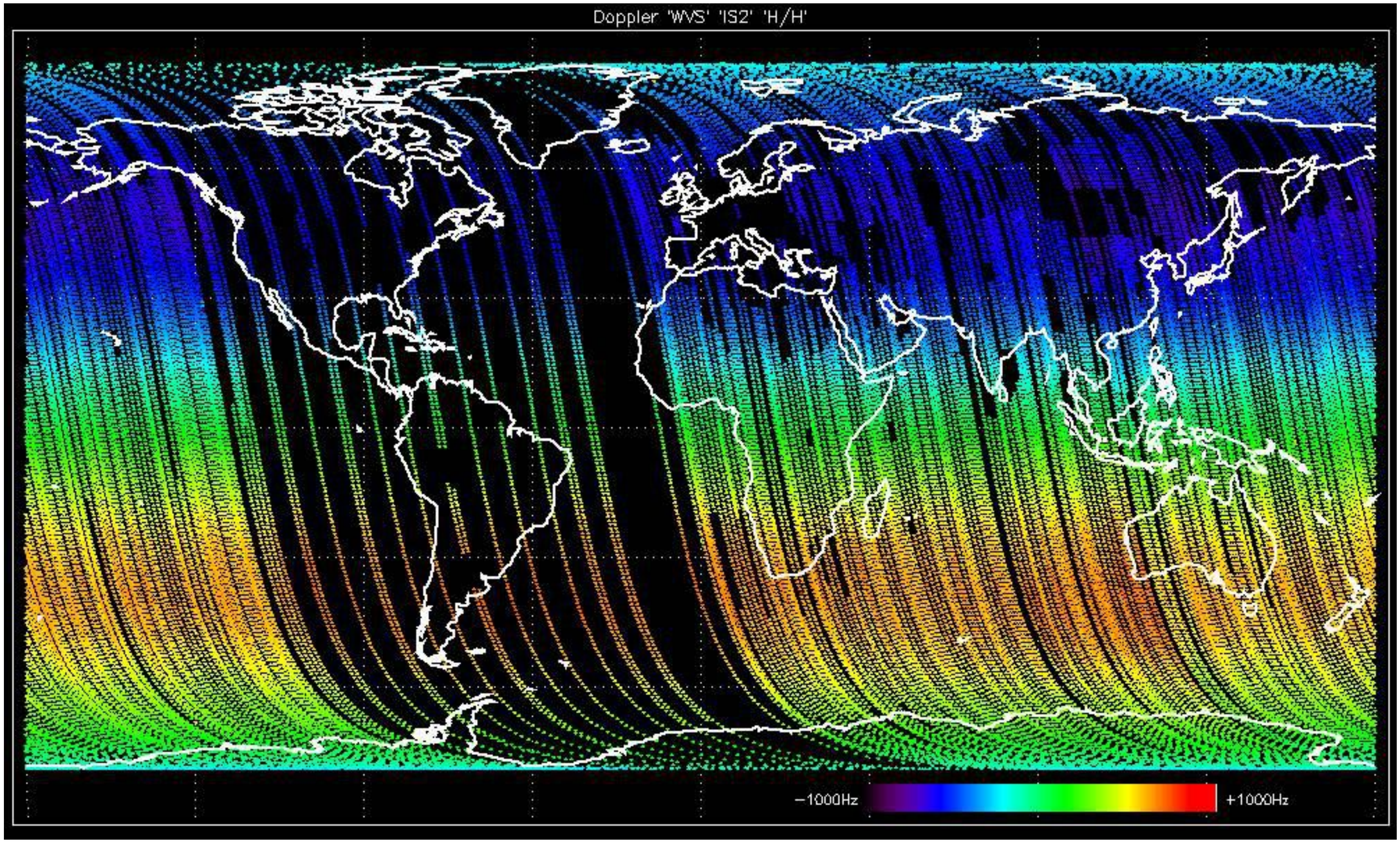
Analysis based on data available since 06-JUL-2003 till 07-JUL-2003 08:58:02 UTC
Nominal behavior of P1, P2 and P3 calibration pulses.

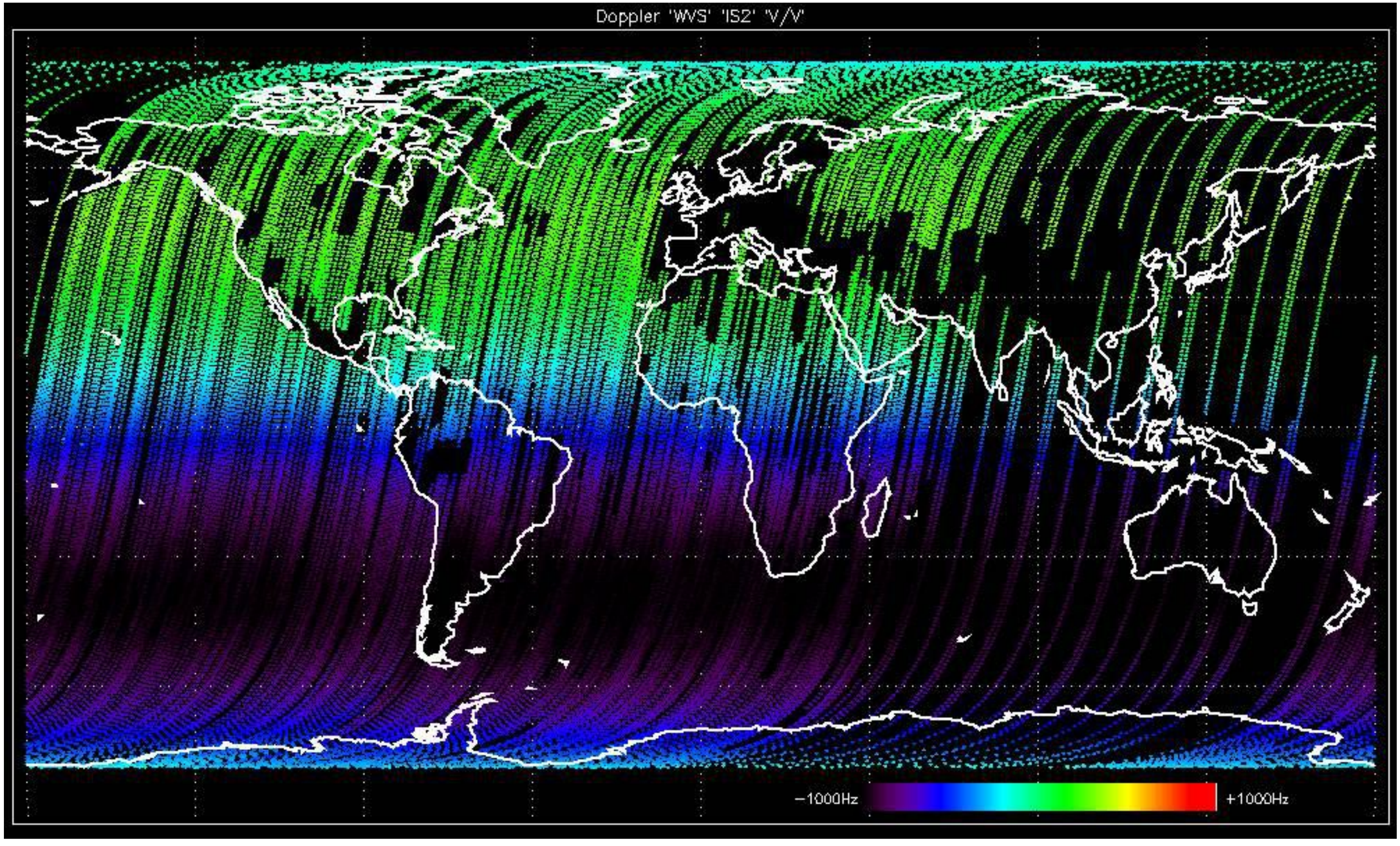
No anomalies observed.

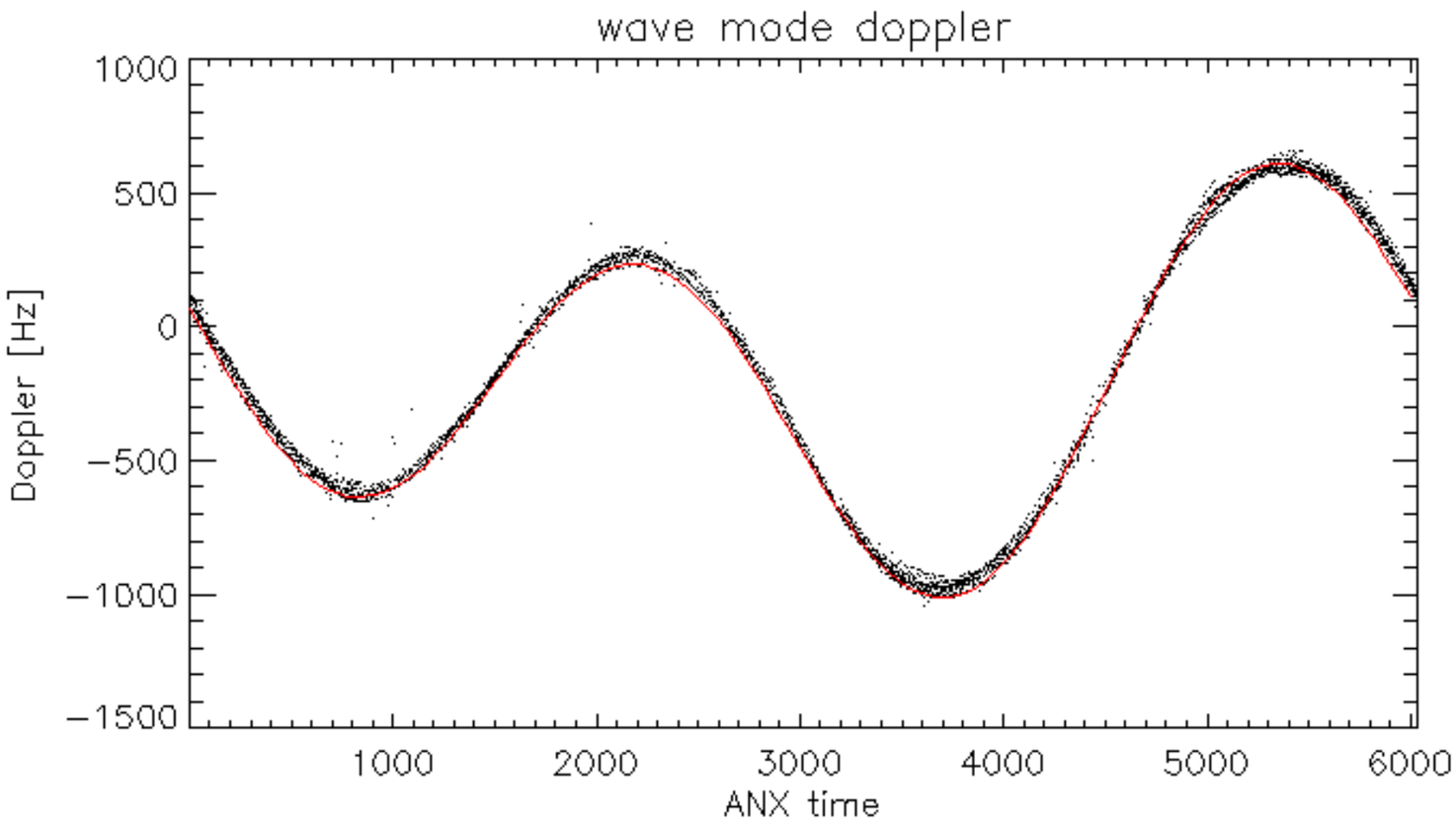

P1_AMP
P1_PH
P1a_AMP
P1a_PH
P2_AMP
P2_PH
P3_AMP
P3_PH
dB

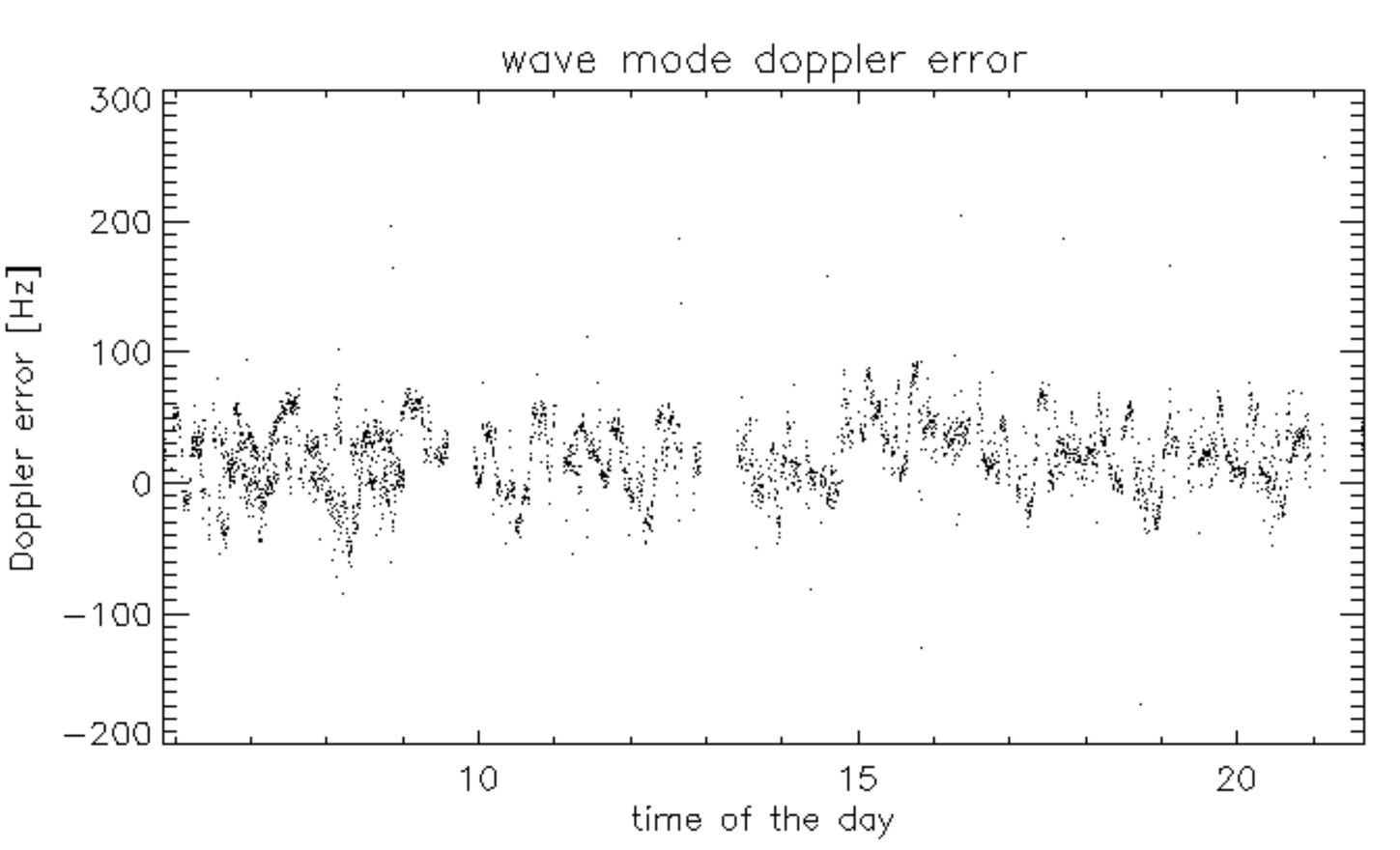
-Stable wave internal calibration pulses gain and phase.
-Stable raw data statistics.
-Nominal Doppler behavior.

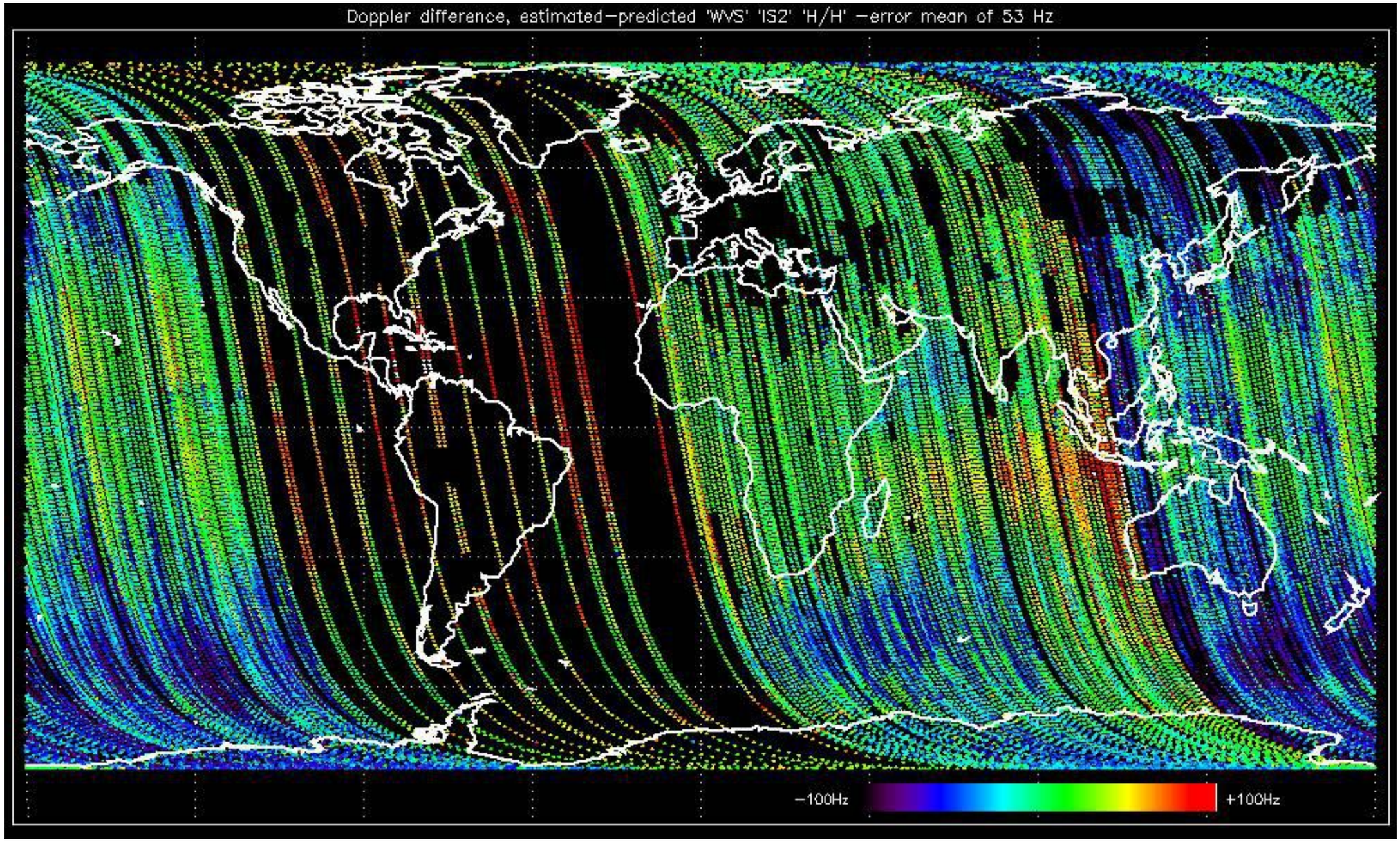
No anomalies observed Doppler evolution.
Doppler analysis performed over the last 60 days

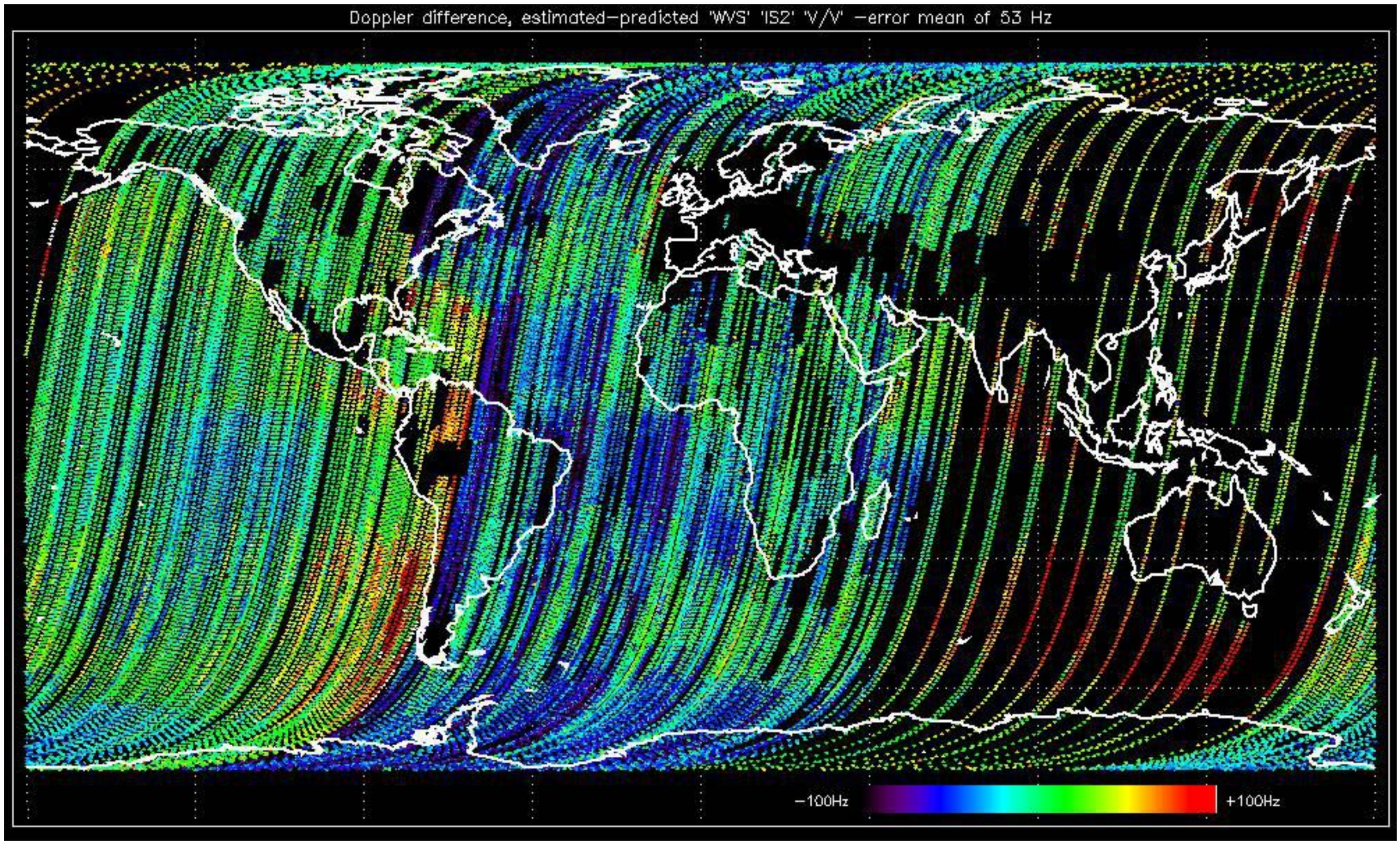

Doppler 'WVS' 'IS2' 'H/H'
−1000Hz
+1000Hz


Doppler 'WVS' 'IS2' 'V/V'
−1000Hz
+1000Hz


wave mode doppler
Doppler [Hz]
1000
500
0
−500
−1000
−1500
1000
2000
3000
4000
5000
6000
ANX time


wave mode doppler error
Doppler error [Hz]
300
200
100
0
−100
−200
10
15
20
time of the day

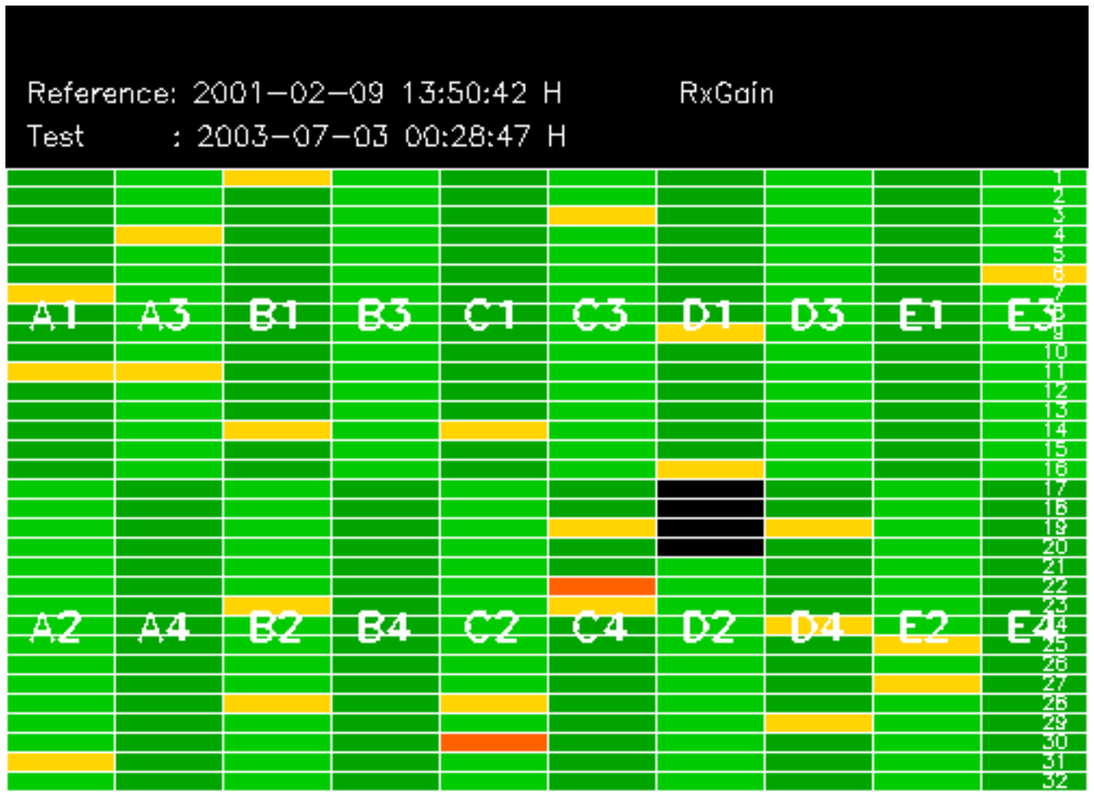

Doppler difference, estimated−predicted 'WVS' 'IS2' 'H/H' −error mean of 53 Hz
−100Hz
+100Hz

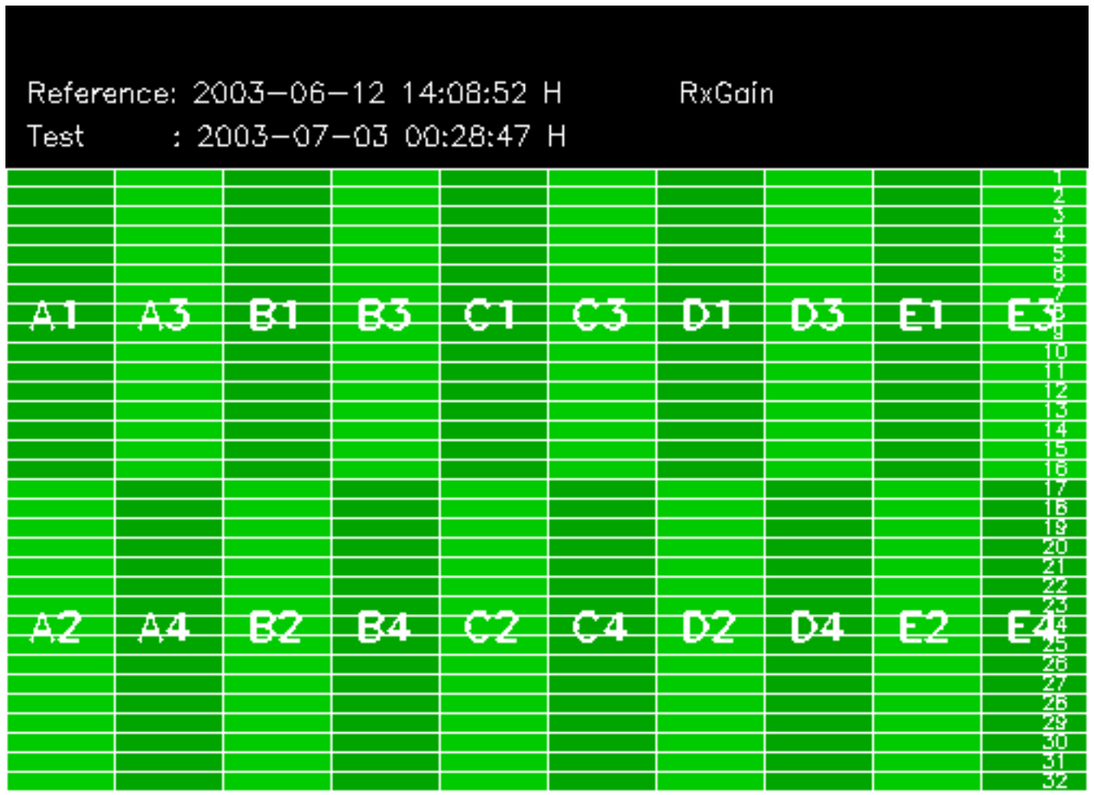

Doppler difference, estimated−predicted 'WVS' 'IS2' 'V/V' −error mean of 53 Hz
−100Hz
+100Hz

One MS received on 04-JUL-2003: ASA_MS__0PNPDE20030704_032002_000000152017_00447_07014_0024.N1
No MS products received on 05-JUL-2003 and on 06-JUL-2003.
The following results are based on the last available MS products.

No anomalies to be reported.
The drift in phase for TR module 3 on Tile B3 has decreased to a stable configuration as shown in the figure below.

Analysis based on data available since 06-JUL-2003 till 07-JUL-2003 08:58:02 UTC
Nominal level of I and Q level 0 statistics.
No anomalies observed.


Reference: 2001-02-09 13:50:42 H
Test : 2003-07-03 00:28:47 H
RxGain
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 : 2003-07-03 00:28:47 H
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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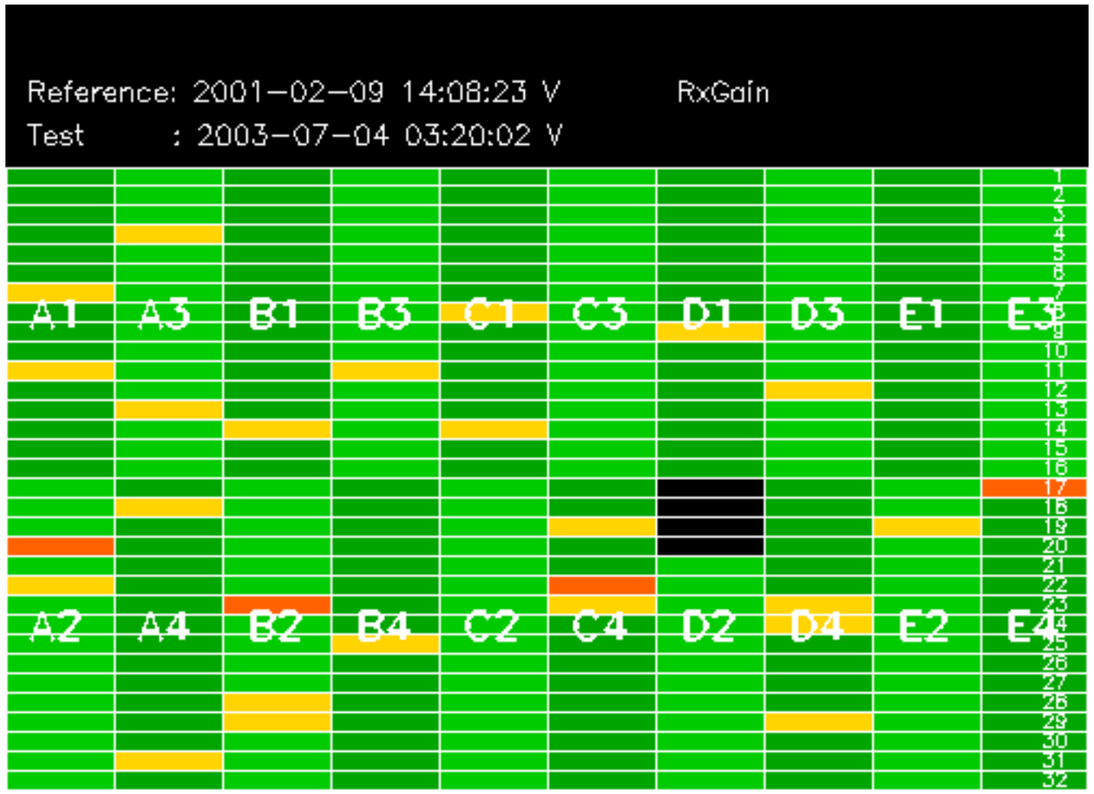
Reference: 2001-02-09 14:08:23 V
Test : 2003-07-04 03:20:02 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
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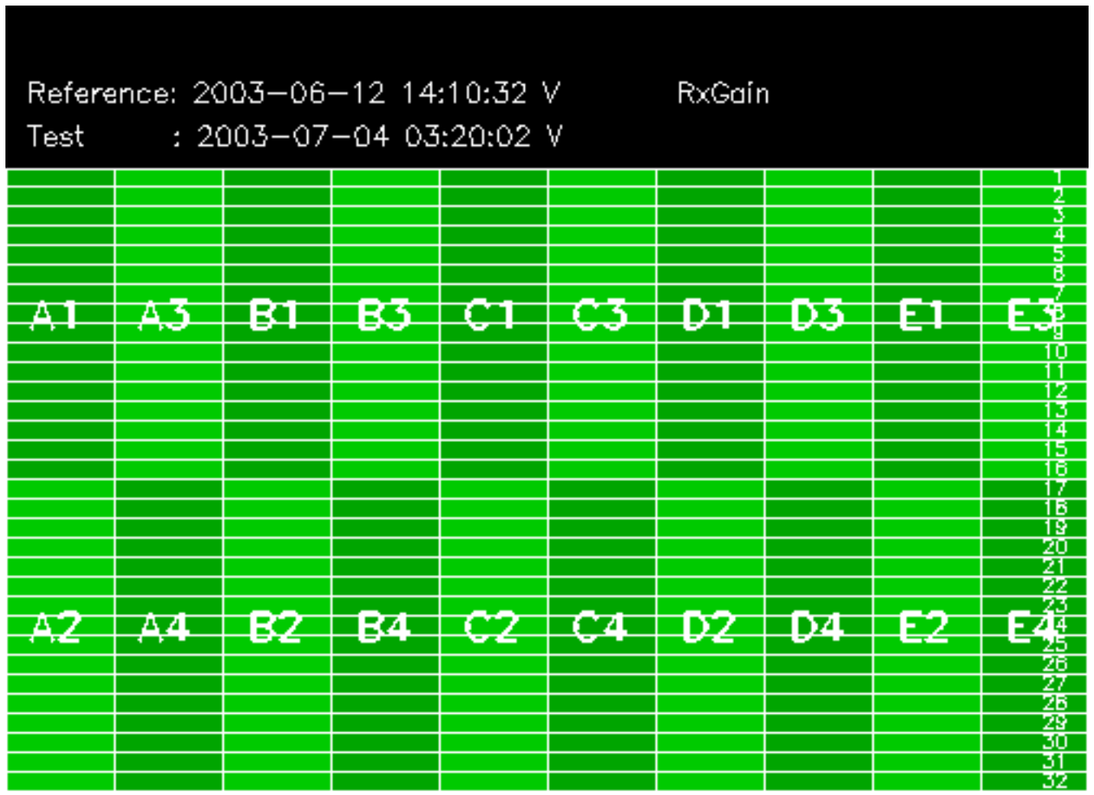
Reference: 2003-06-12 14:10:32 V
Test : 2003-07-04 03:20:02 V
RxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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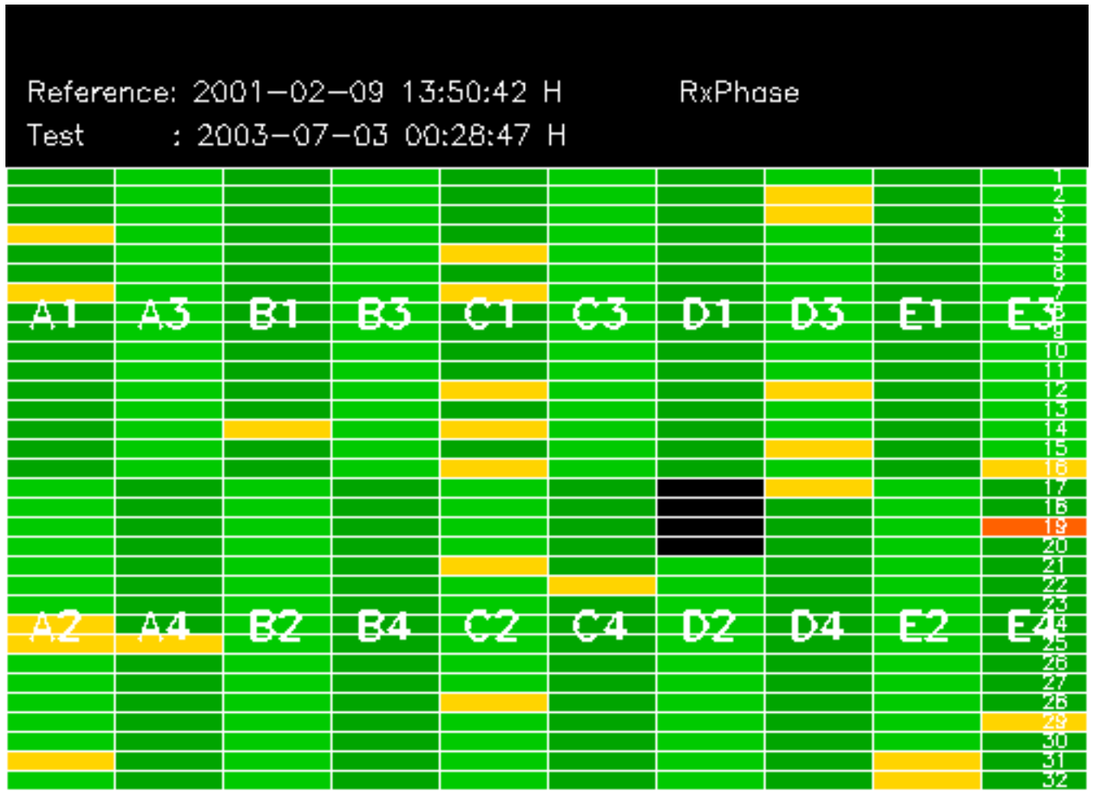
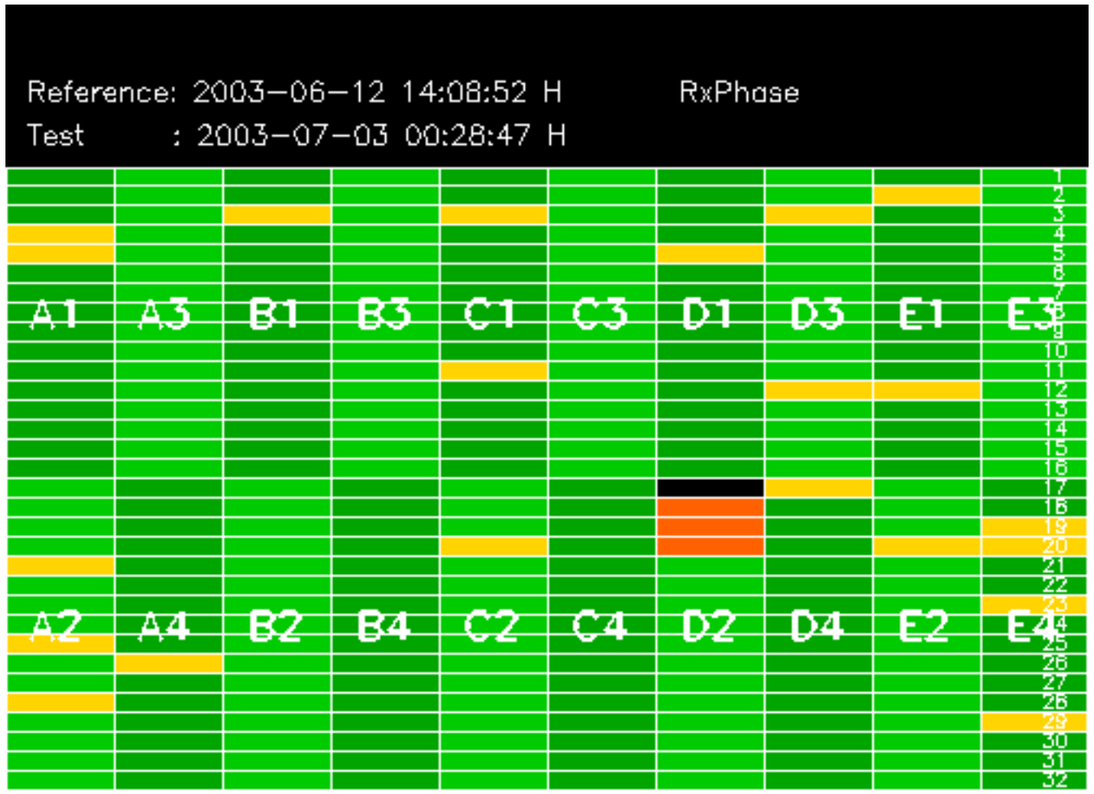
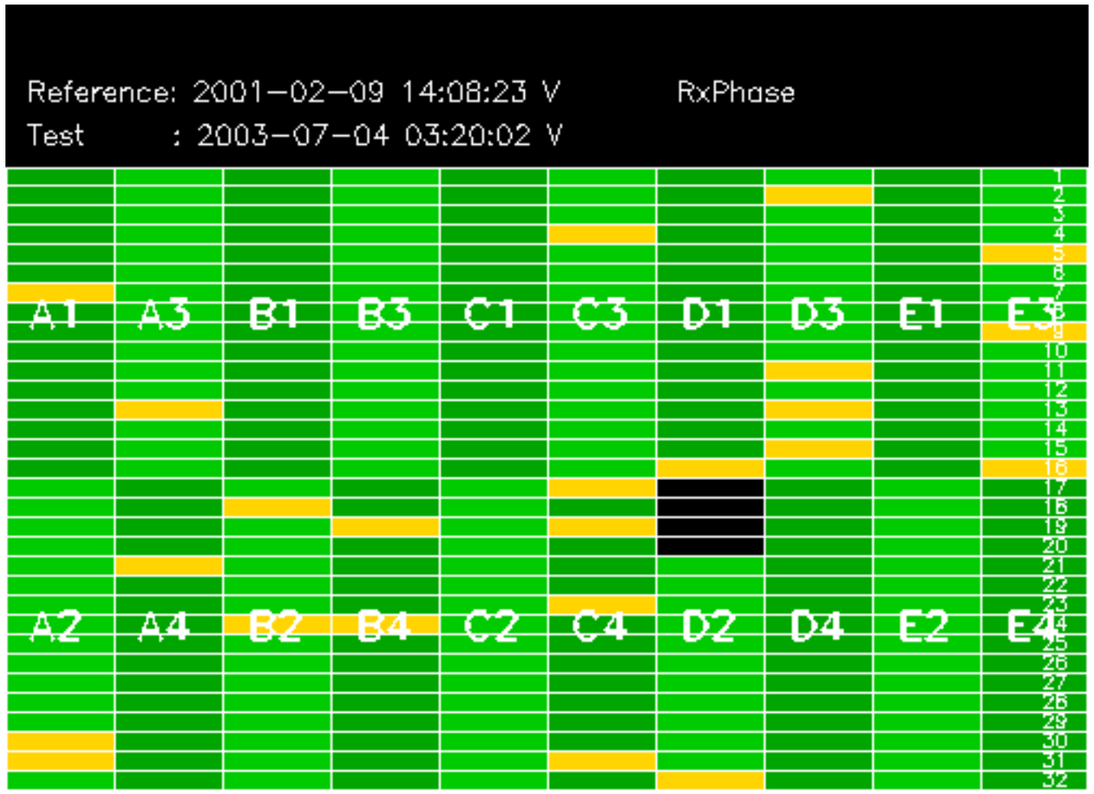
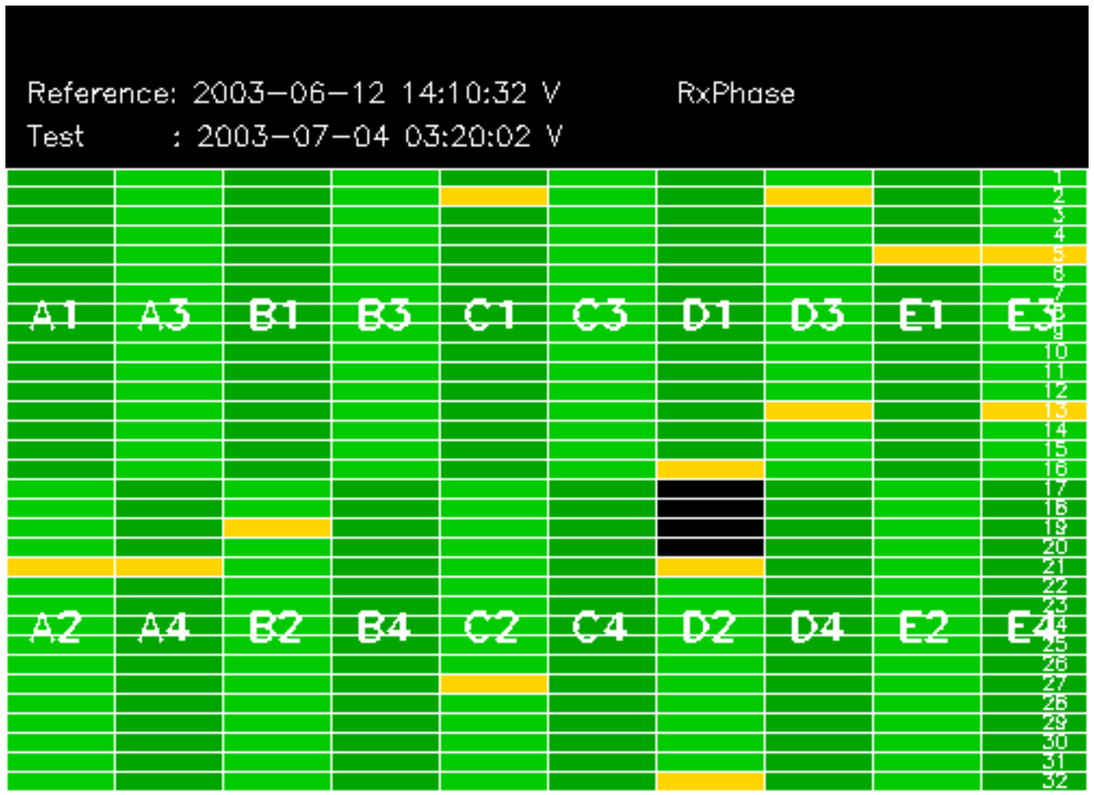

Reference: 2001-02-09 13:50:42 H
Test : 2003-07-03 00:28:47 H
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2003-07-03 00:28:47 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 : 2003-07-04 03:20:02 V
RxPhase
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 : 2003-07-04 03:20:02 V
RxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
1
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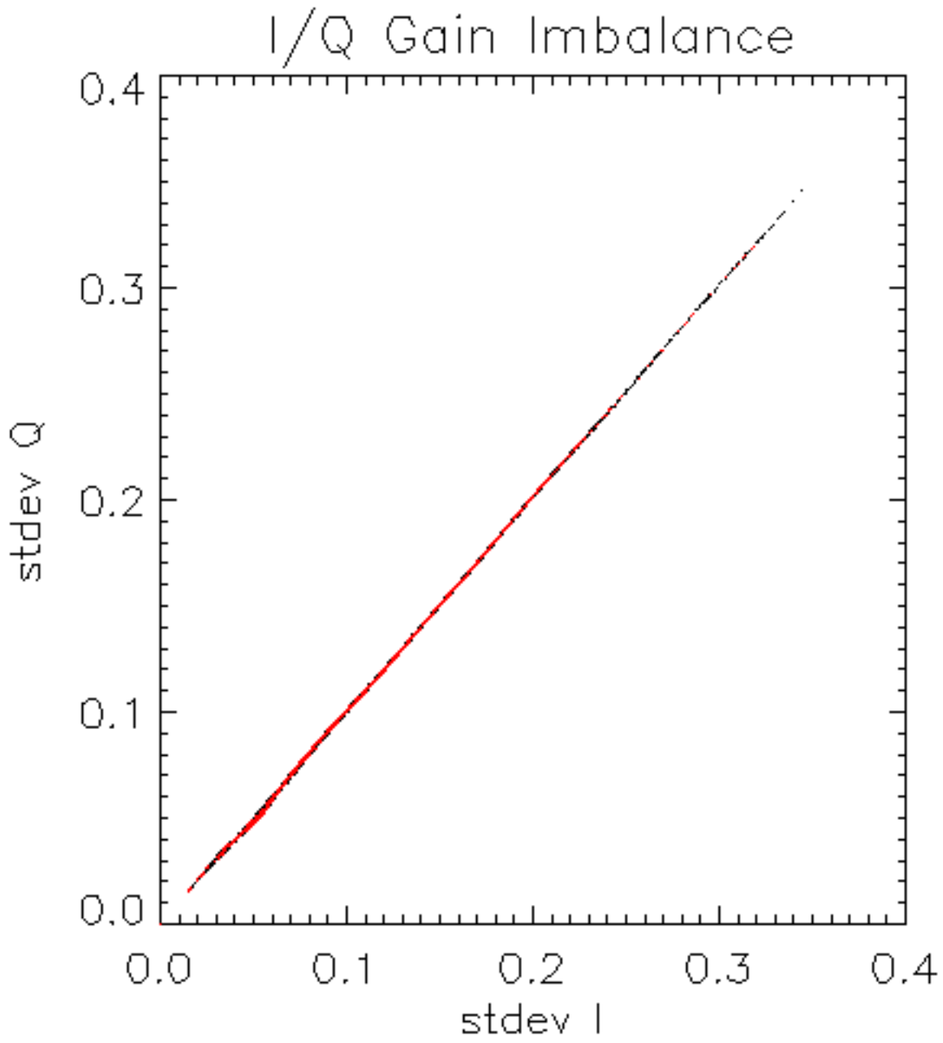
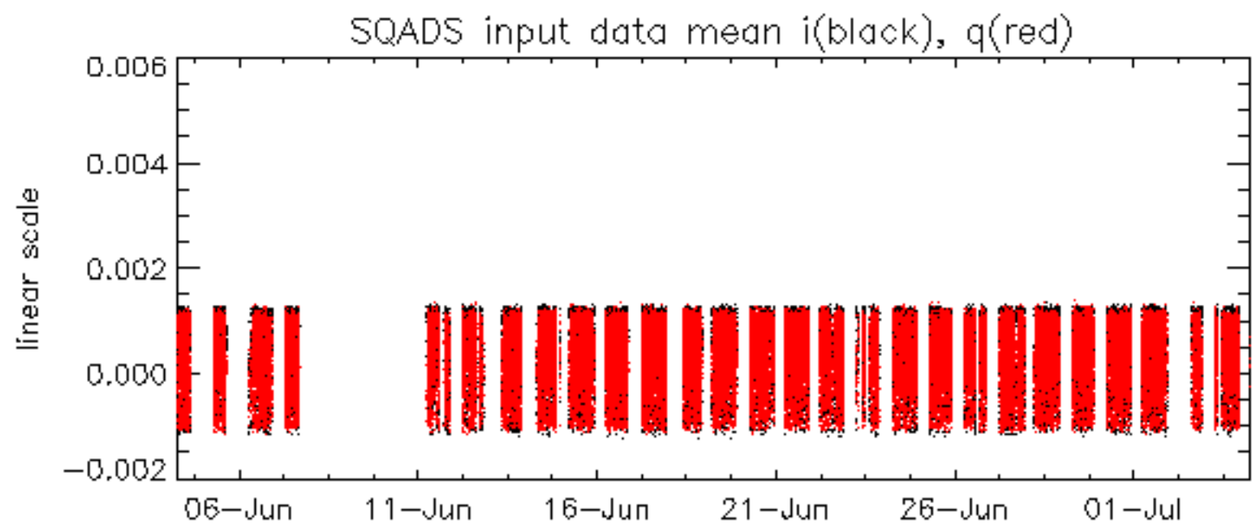
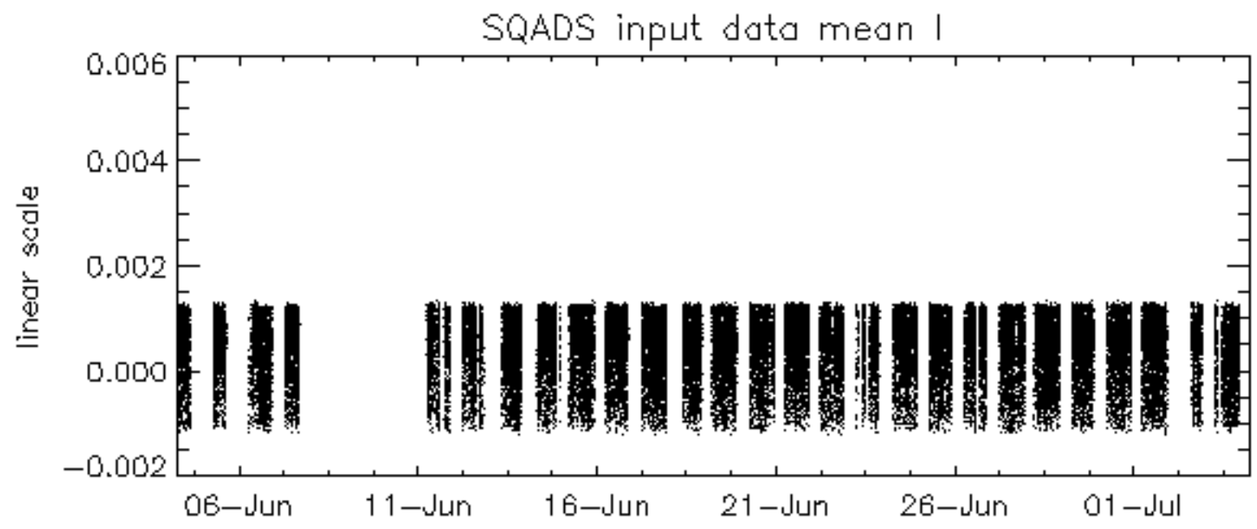
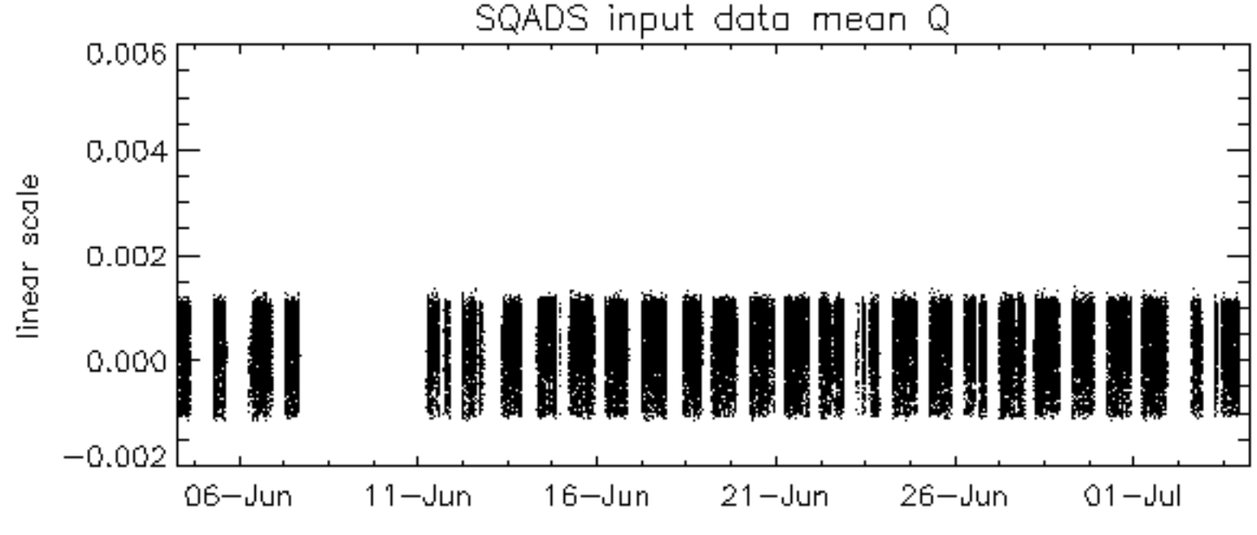
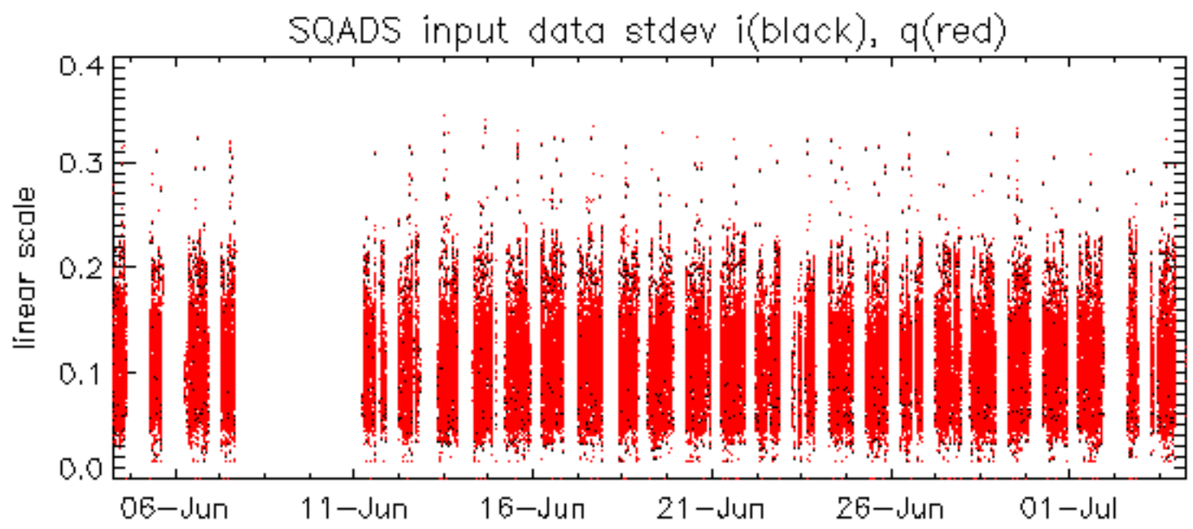
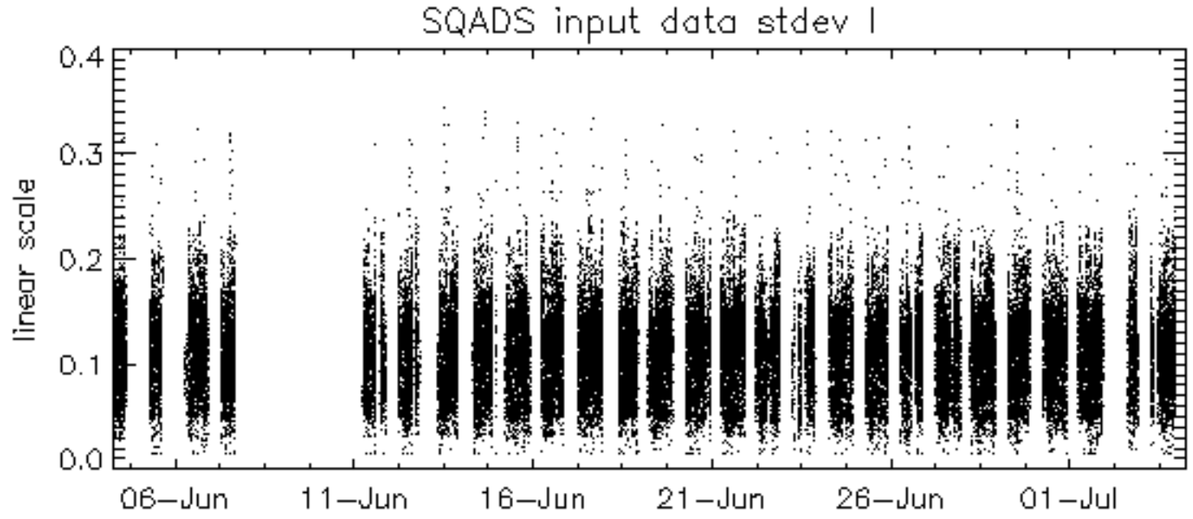

I/Q Gain Imbalance
stdev Q
stdev I
0.0
0.1
0.2
0.3
0.4

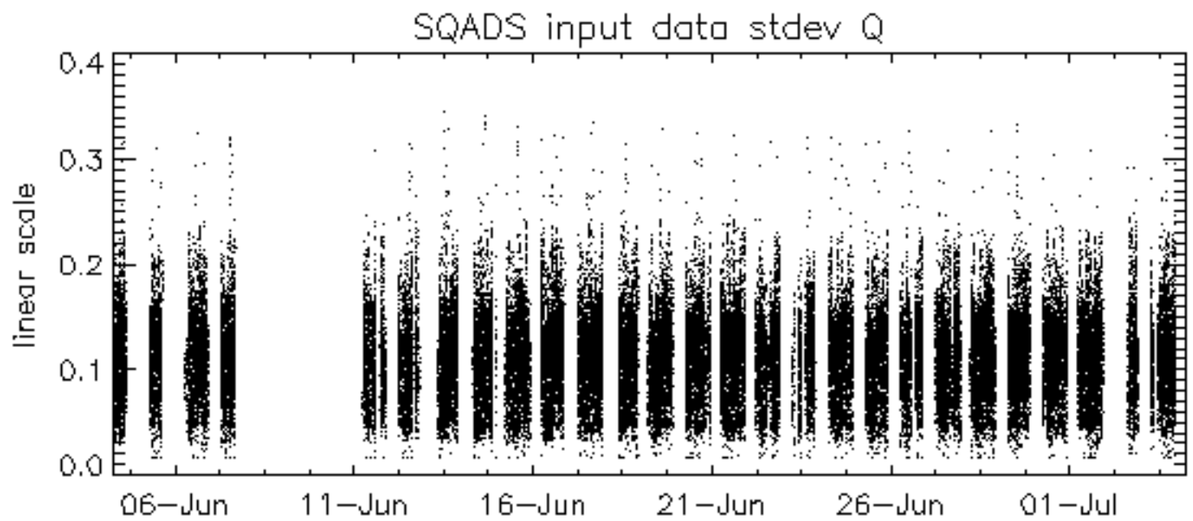

SQADS input data mean i(black), q(red)
linear scale
0.006
0.004
0.002
0.000
−0.002
06−Jun
11−Jun
16−Jun
21−Jun
26−Jun
01−Jul

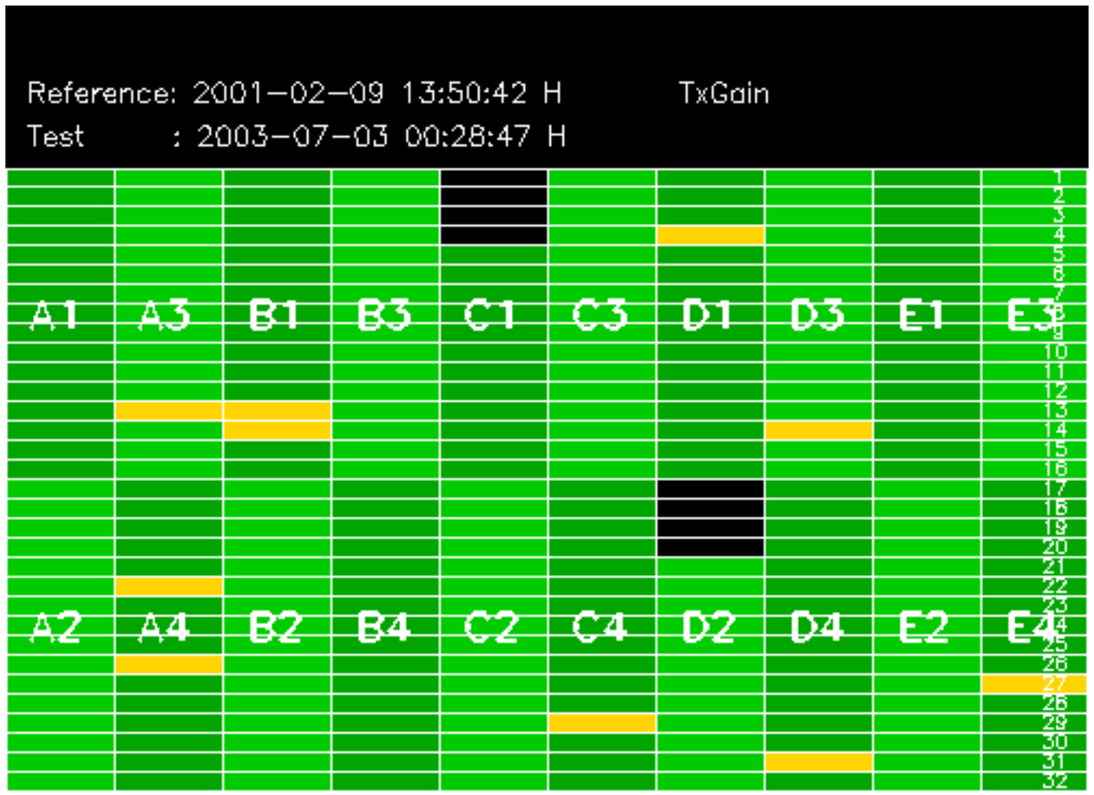

SQADS input data mean I
linear scale
0.006
0.004
0.002
0.000
−0.002
06−Jun
11−Jun
16−Jun
21−Jun
26−Jun
01−Jul

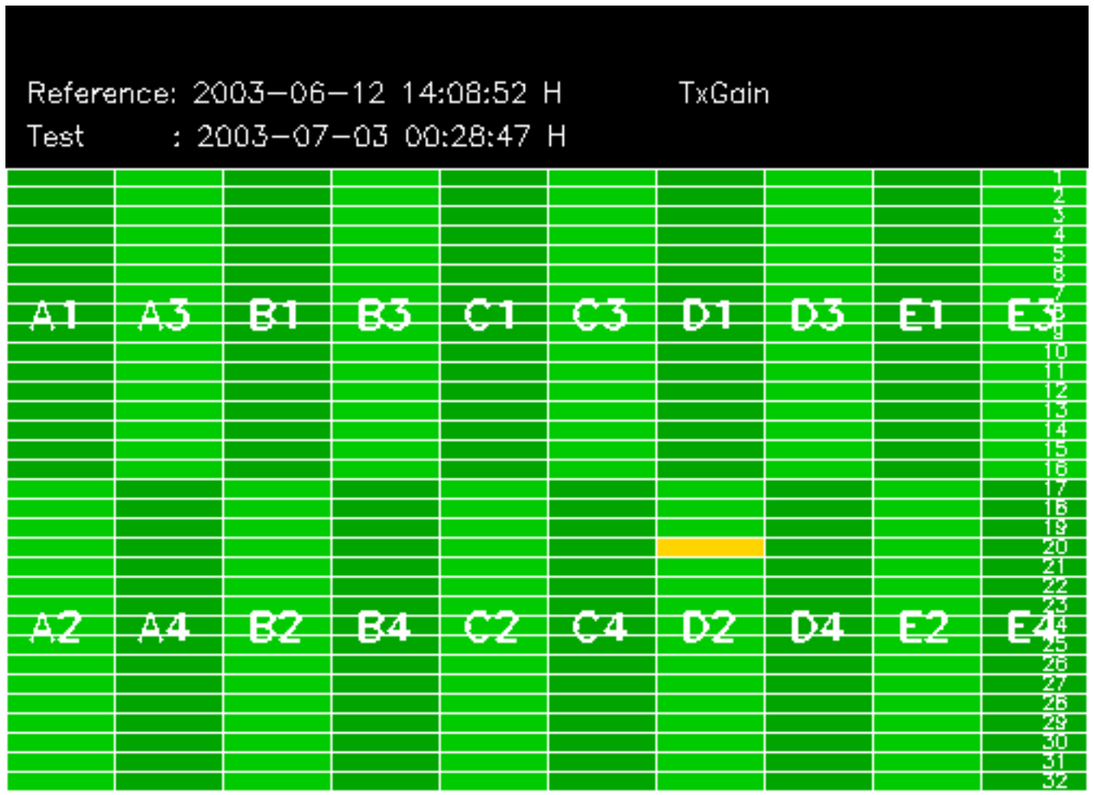

SQADS input data mean Q
linear scale
0.006
0.004
0.002
0.000
−0.002
06−Jun
11−Jun
16−Jun
21−Jun
26−Jun
01−Jul


SQADS input data stdev i(black), q(red)
linear scale
0.4
0.3
0.2
0.1
0.0
06–Jun
11–Jun
16–Jun
21–Jun
26–Jun
01–Jul


SQADS input data stdev I
linear scale
0.4
0.3
0.2
0.1
0.0
06–Jun
11–Jun
16–Jun
21–Jun
26–Jun
01–Jul


SQADS input data stdev Q
linear scale
0.4
0.3
0.2
0.1
0.0
06–Jun
11–Jun
16–Jun
21–Jun
26–Jun
01–Jul


Reference: 2001-02-09 13:50:42 H
Test : 2003-07-03 00:28:47 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 : 2003-07-03 00:28:47 H
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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10
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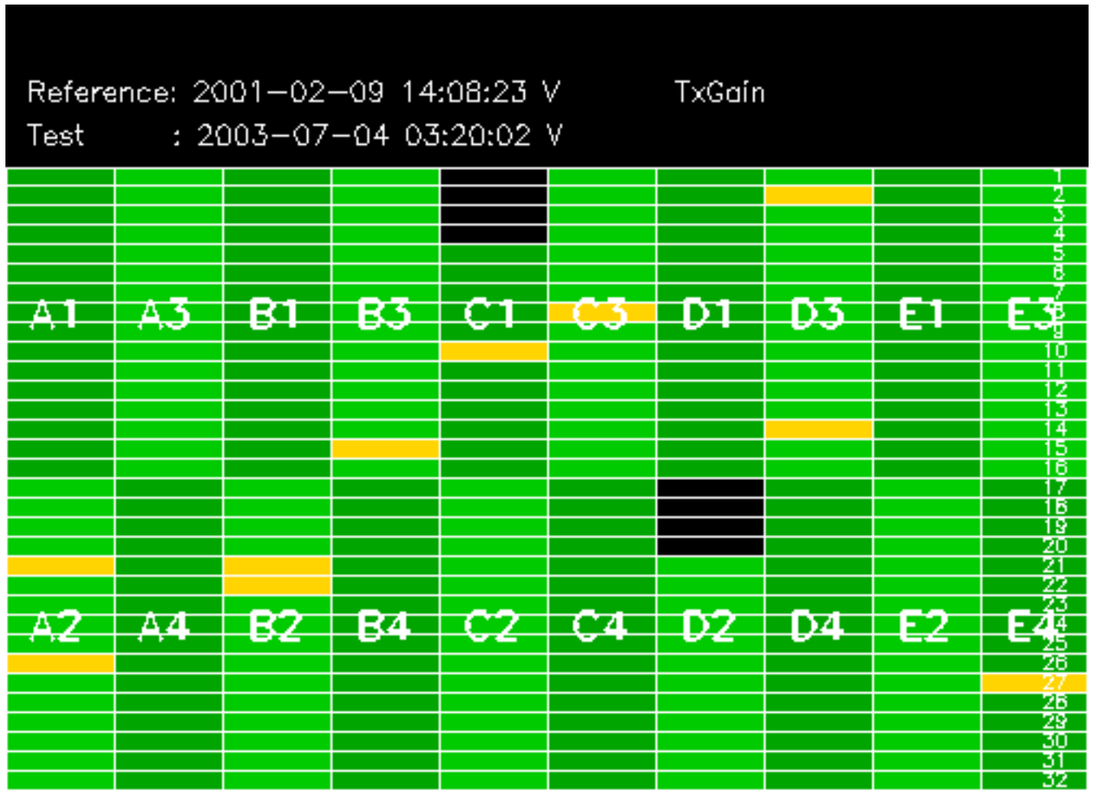
Reference: 2001-02-09 14:08:23 V
Test : 2003-07-04 03:20:02 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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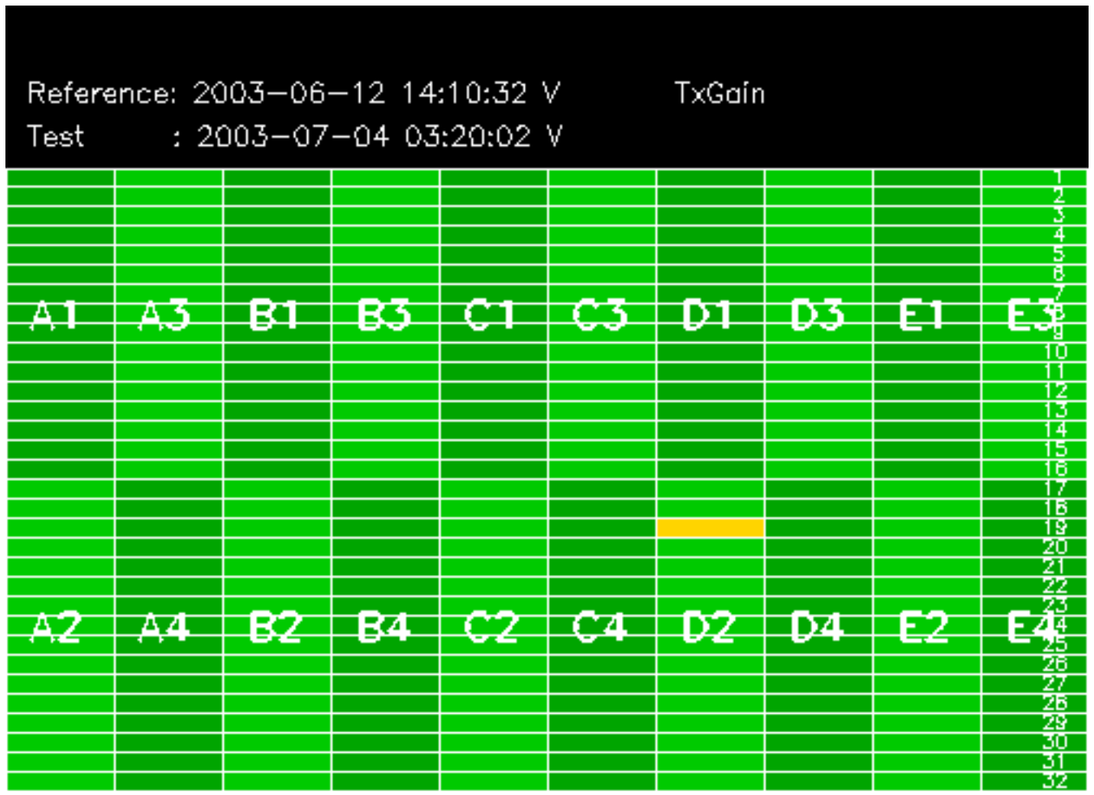
Reference: 2003-06-12 14:10:32 V
Test : 2003-07-04 03:20:02 V
TxGain
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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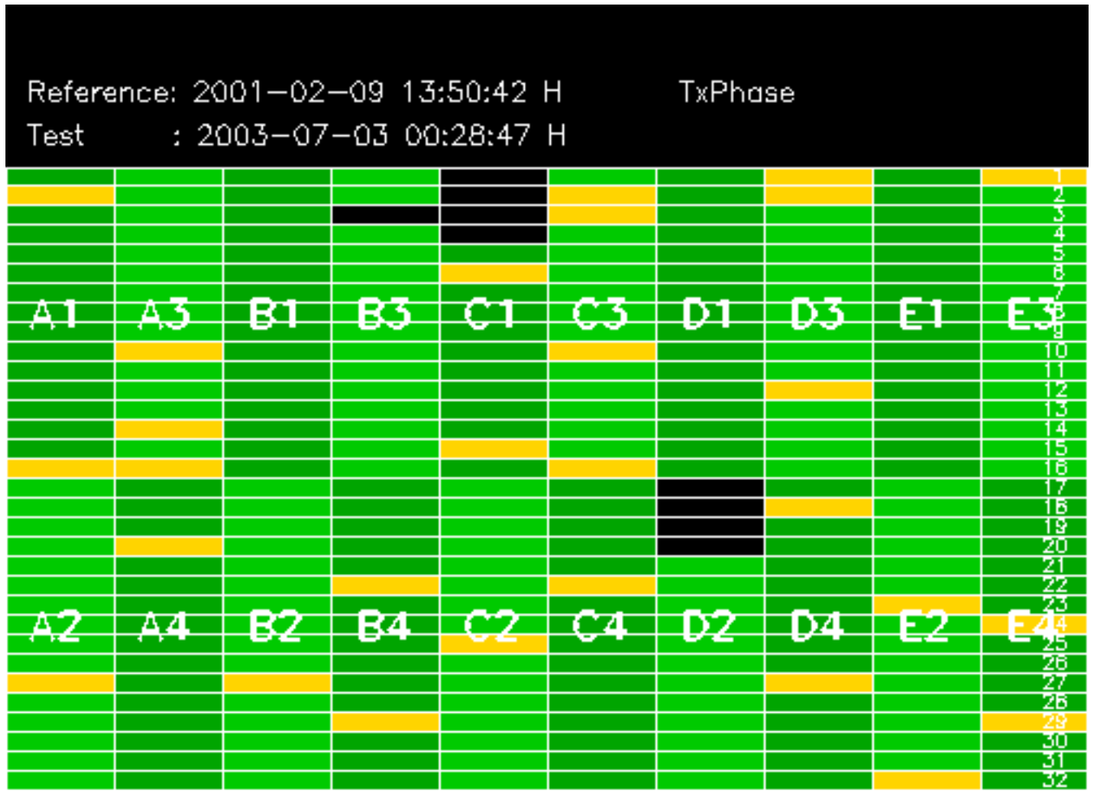
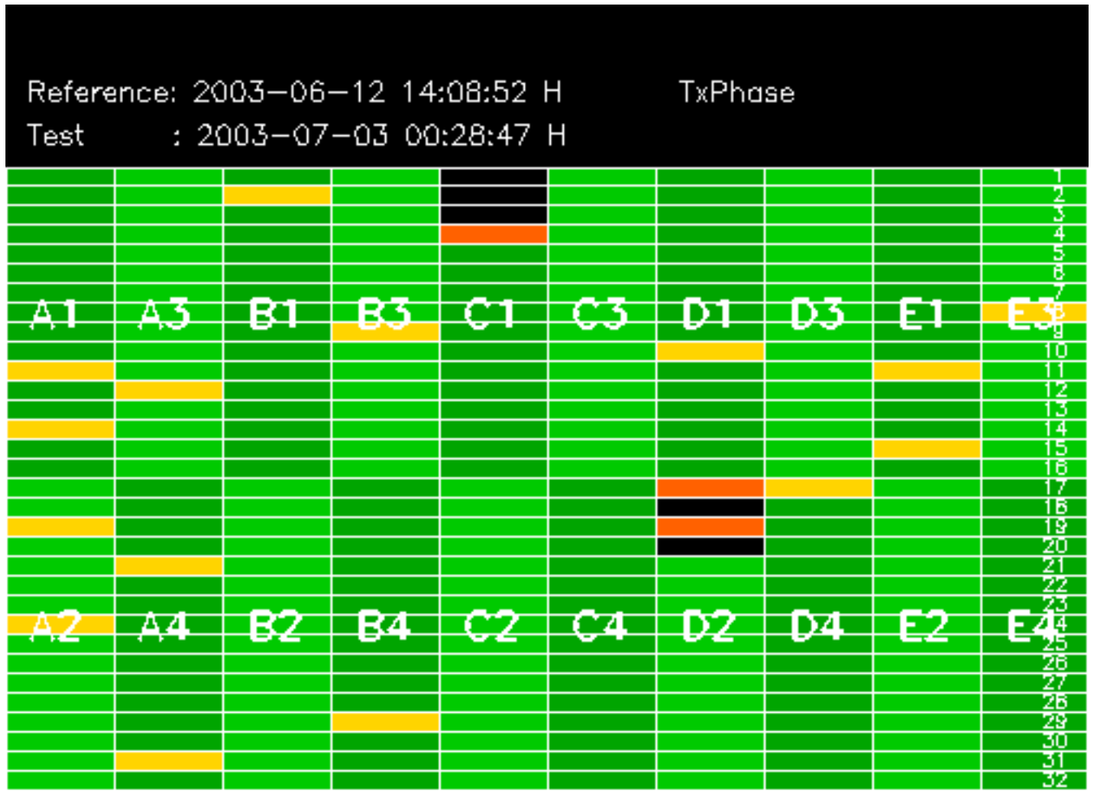

Reference: 2001-02-09 13:50:42 H
TxPhase
Test : 2003-07-03 00:28:47 H
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:08:52 H
Test : 2003-07-03 00:28:47 H
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4
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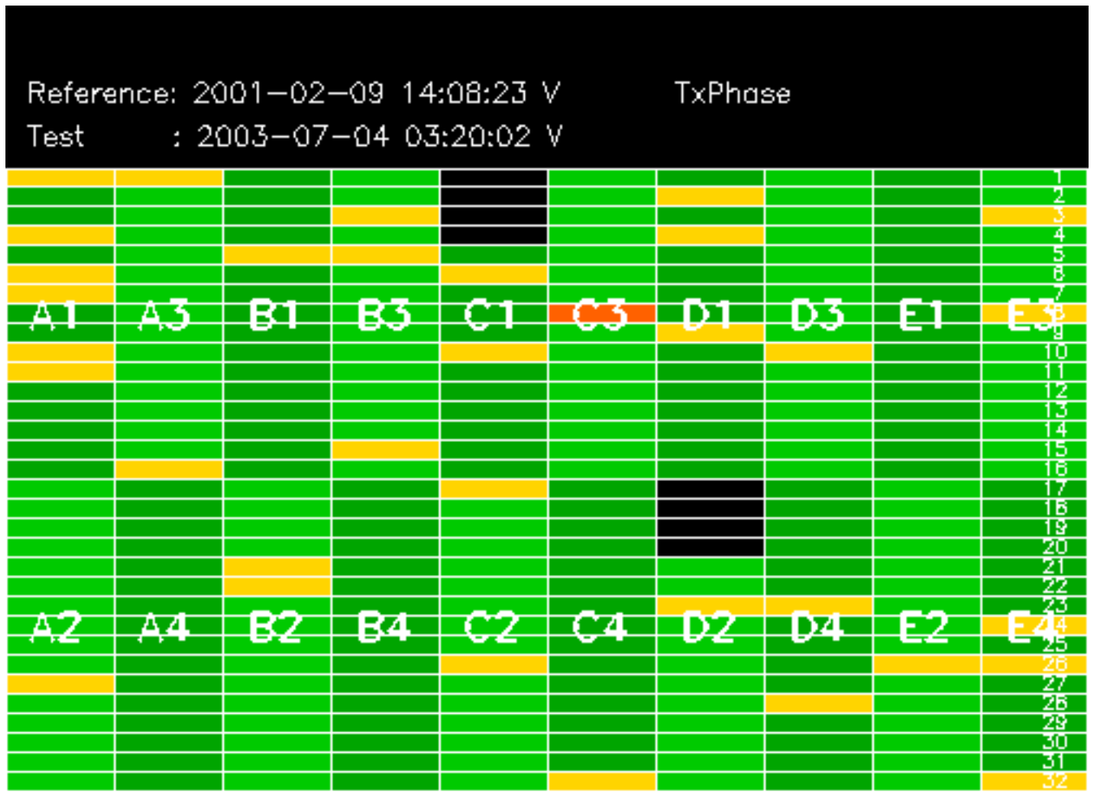
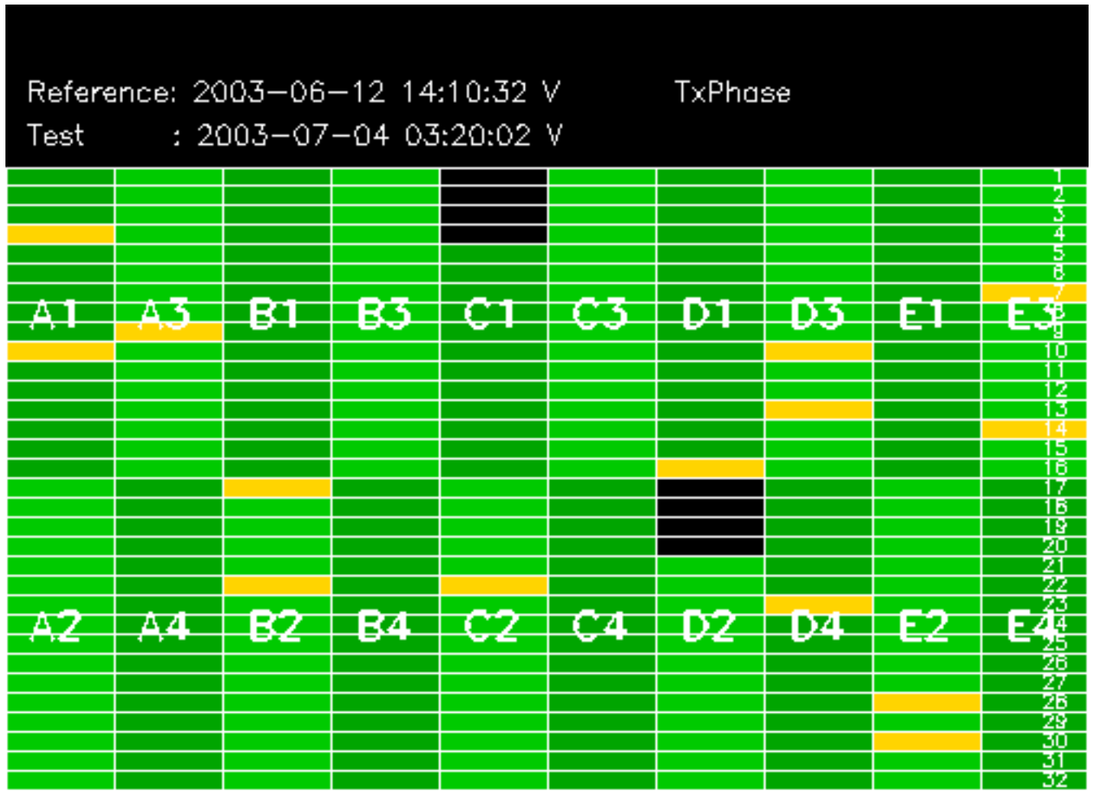

Reference: 2001-02-09 14:08:23 V
Test : 2003-07-04 03:20:02 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
D2
D4
E2
E4


Reference: 2003-06-12 14:10:32 V
Test : 2003-07-04 03:20:02 V
TxPhase
A1
A3
B1
B3
C1
C3
D1
D3
E1
E3
A2
A4
B2
B4
C2
C4
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D4
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No intrument unavailabilies during the reported period between 04-JUL-2003 00:00:00 and 07-JUL-2003 12:00:00 UTC.