

REPORT OF 030917

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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 unavailabilities during the reported period.

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

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

No anomalies observed on available MS products:

- ASA_MS__0PNPDK20030916_193835_000000152020_00013_08083_0069
- ASA_MS__0PNPDK20030916_194015_000000152020_00013_08083_0070

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 | 20030916 194015 |
| H | 20030916 193835 |

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

| row | stat | AveP1 | AveP2 | AveP3 |
|-----|-------|------------|-----------|------------|
| 3 | mean | -3.79709 | -22.5098 | -8.11377 |
| | stdev | 0.00571524 | 0.0674418 | 0.00252960 |
| 10 | mean | -6.90567 | -19.2805 | -8.11377 |
| | stdev | 0.0317798 | 0.0668634 | 0.00252960 |



4.2 - Cyclic statistics

| row | stat | AveP1 | AveP2 | AveP3 |
|-----|-------|------------|-----------|------------|
| 3 | mean | -3.80103 | -22.5271 | -8.10982 |
| | stdev | 0.00584428 | 0.0615365 | 0.00252686 |
| 10 | mean | -6.89497 | -19.3219 | -8.10982 |
| | stdev | 0.0270842 | 0.0605700 | 0.00252686 |



4.3 - cal pulses monitoring (all rows)



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

| channel | stat | DSS-B |
|---------|-------|-------------|
| MEAN I | mean | 0.000395207 |
| | stdev | 3.38448e-07 |
| MEAN Q | mean | 0.000304591 |

stdev 3.19700e-07



5.2 - Input stdev I/Q

| channel | stat | DSS-B |
|---------|-------|------------|
| STDEV I | mean | 0.115376 |
| | stdev | 0.00144176 |
| STDEV Q | mean | 0.115583 |
| | stdev | 0.00146083 |



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) |
|---|
| Ascending |
| Descending |

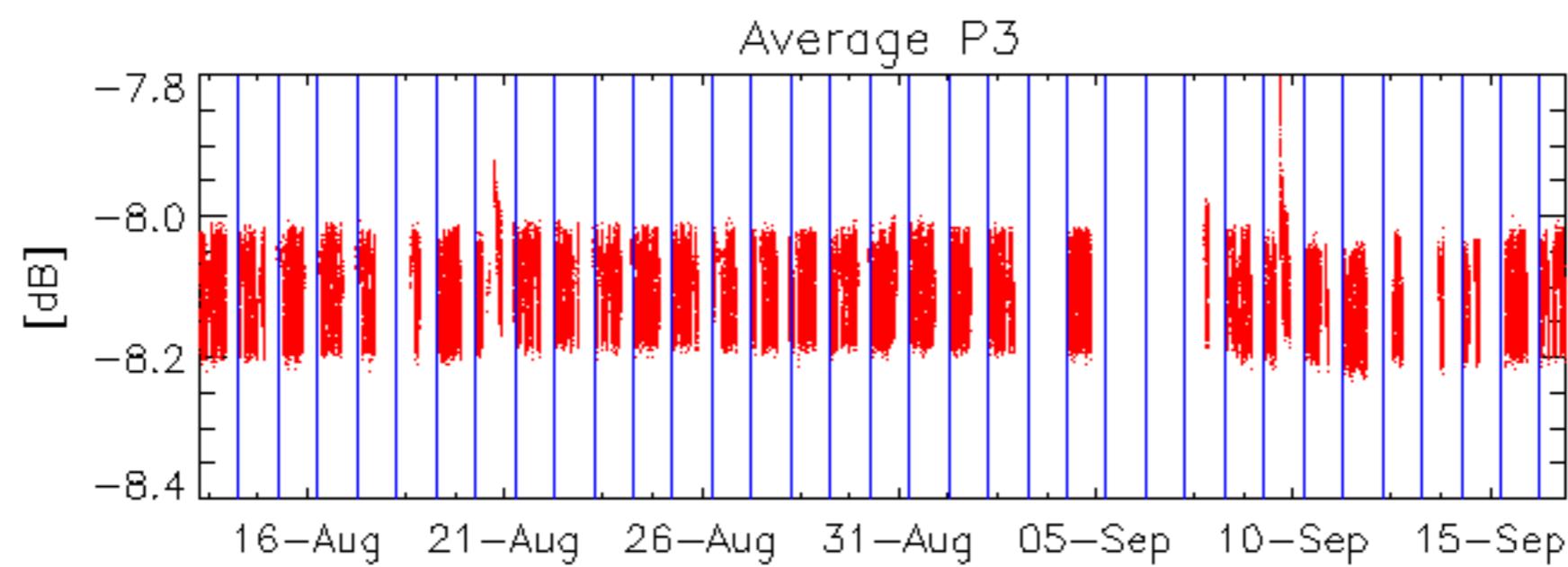
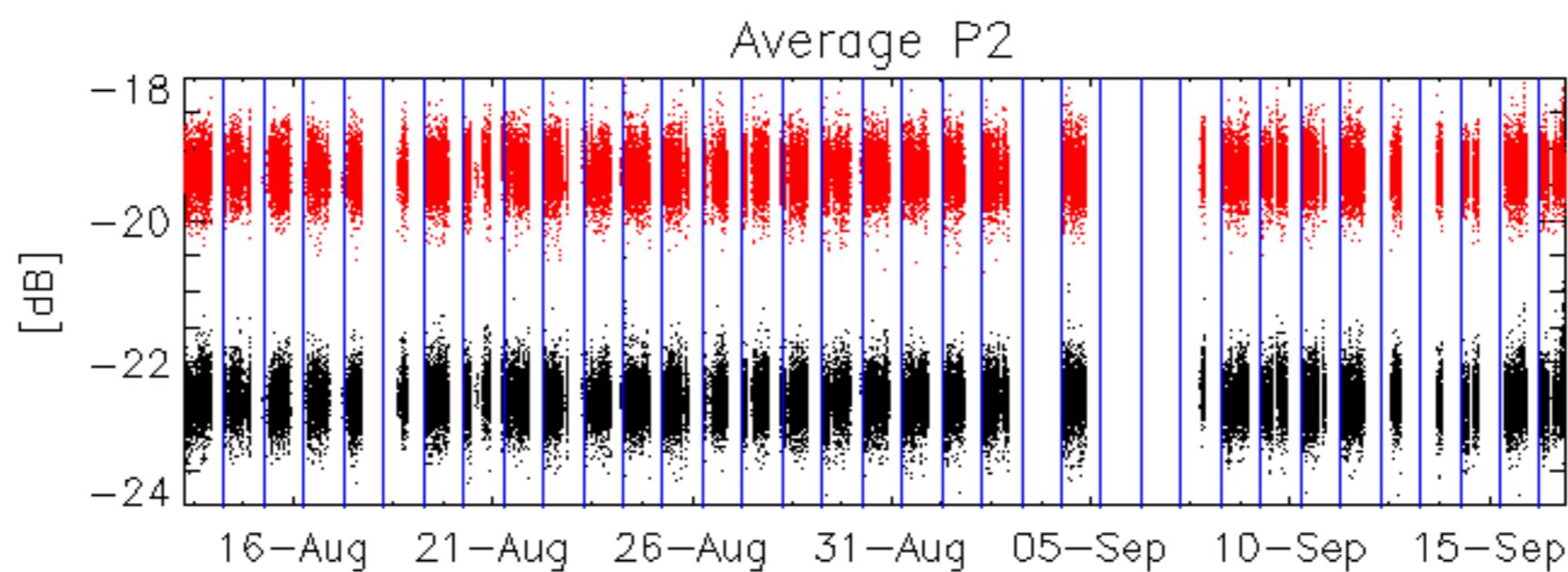
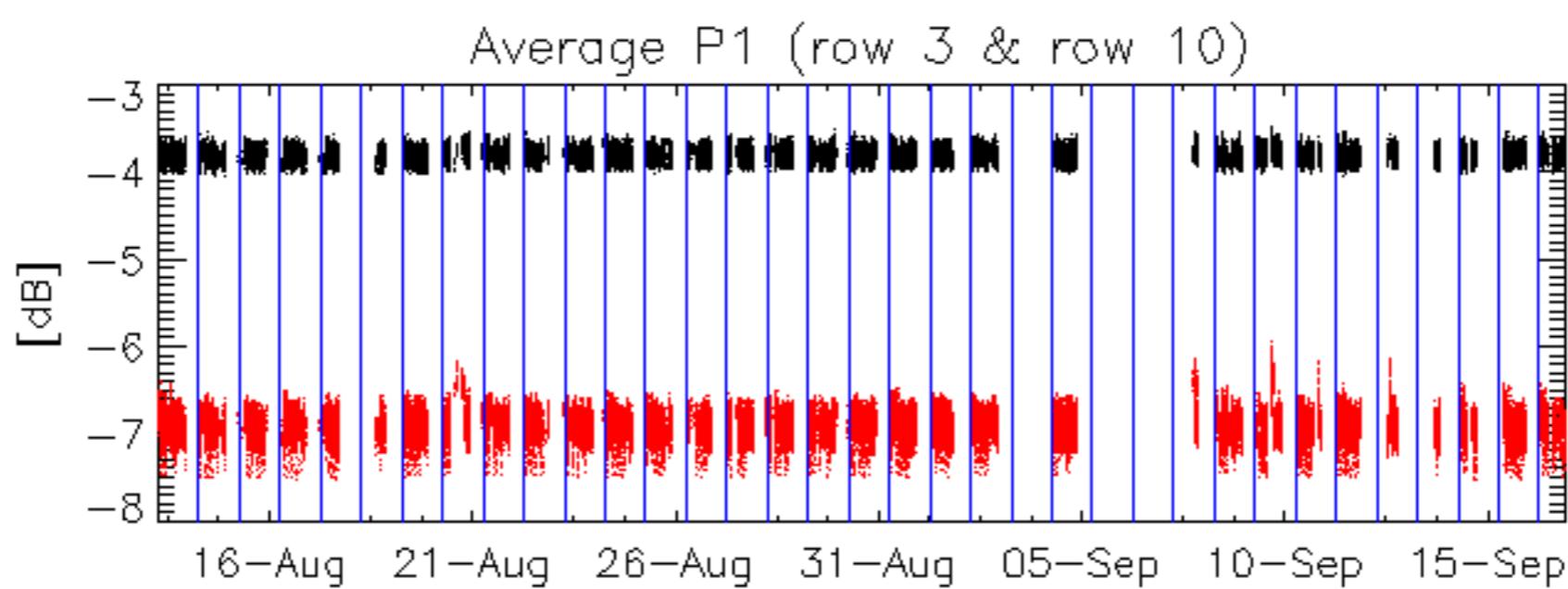
6.2 - Absolute Doppler

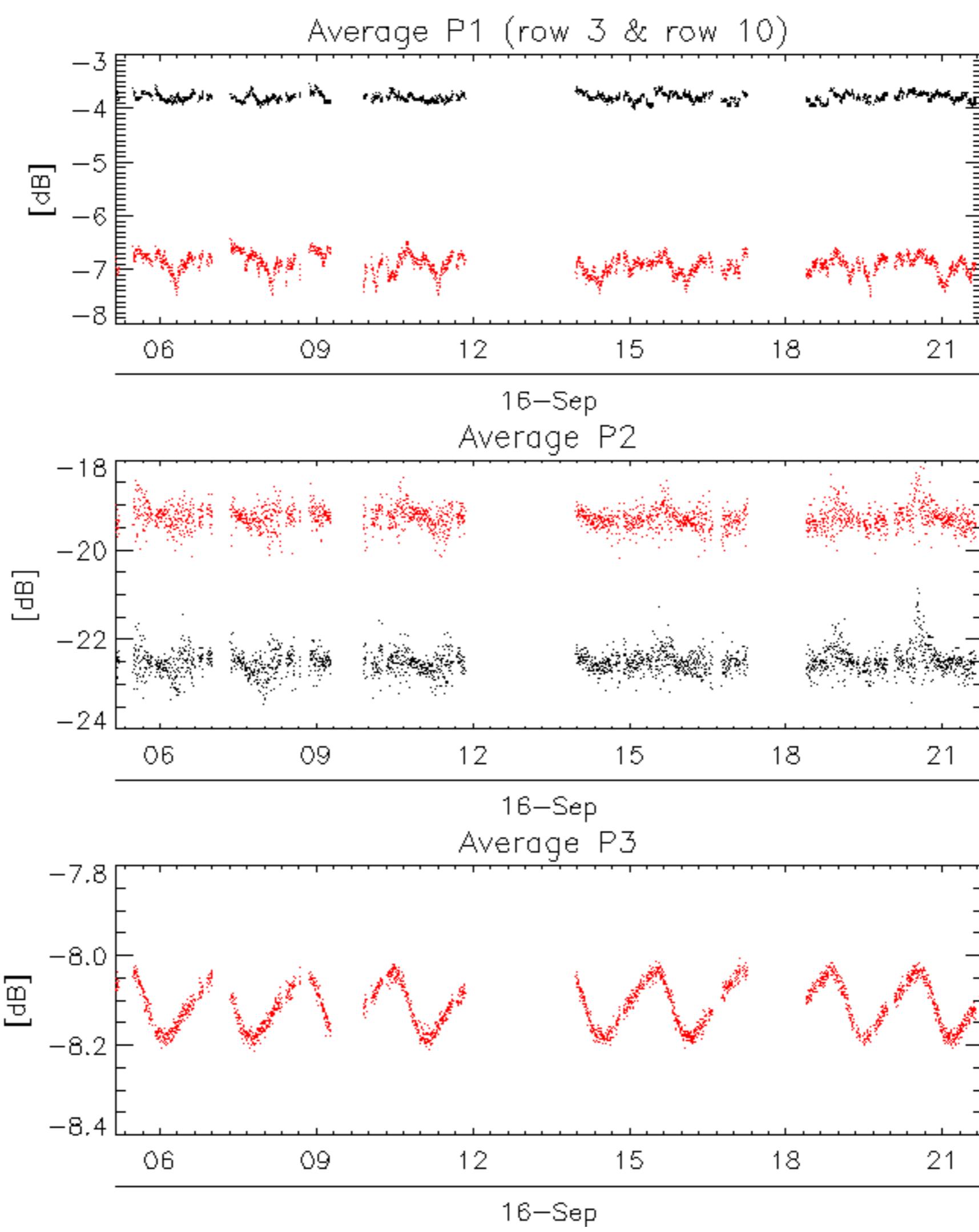
| Evolution of Absolute Doppler |
|-------------------------------|
| Ascending |
| Descending |

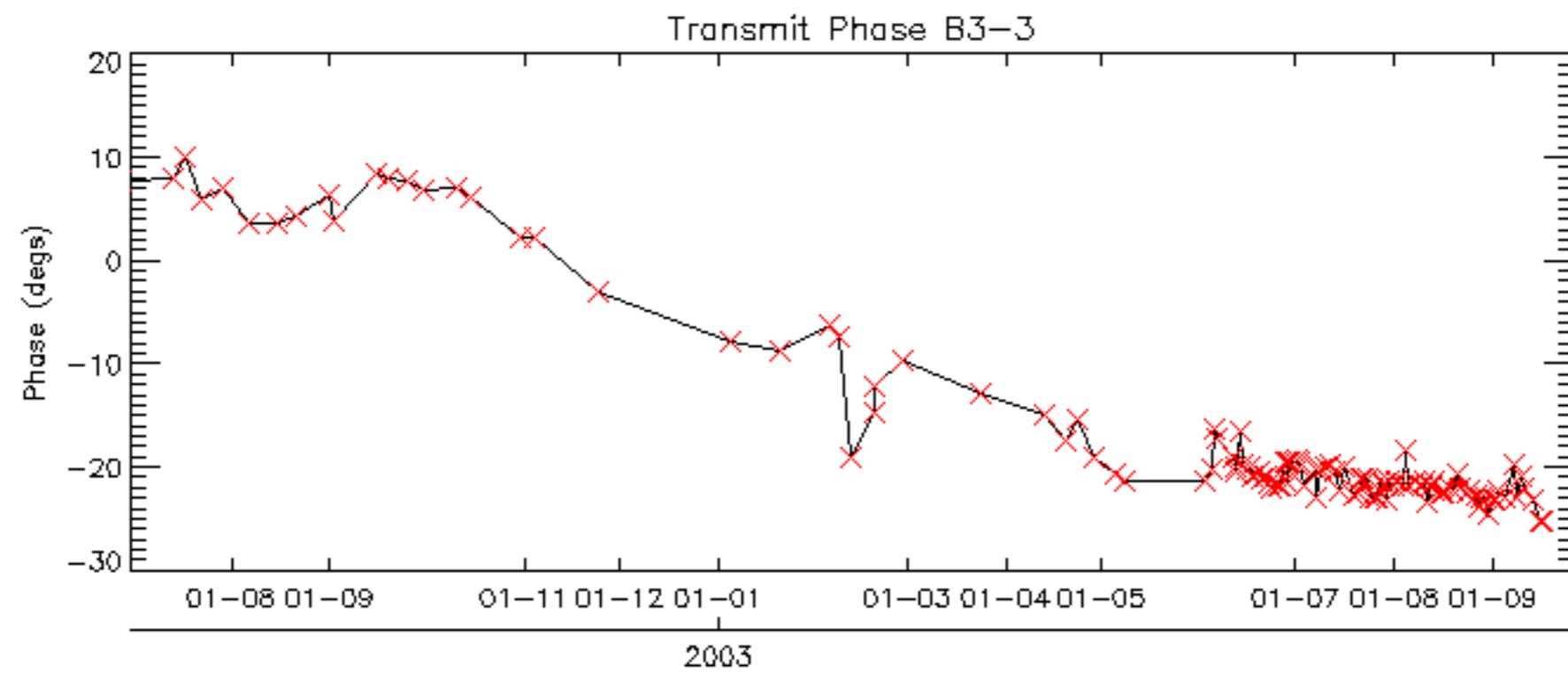
6.3 - Doppler evolution versus ANX

Evolution Doppler error versus ANX







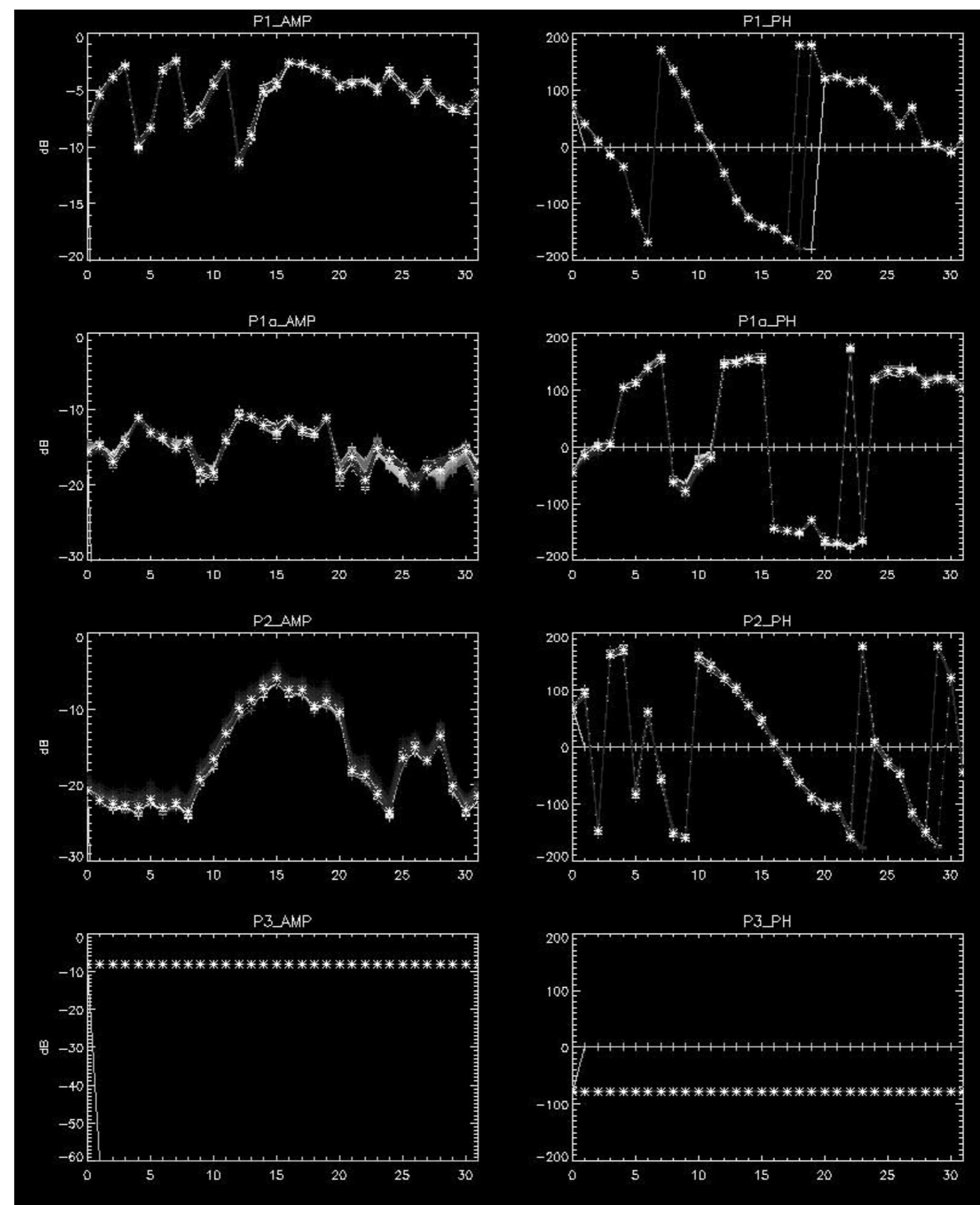


No anomalies observed on available browse products



No anomalies observed.



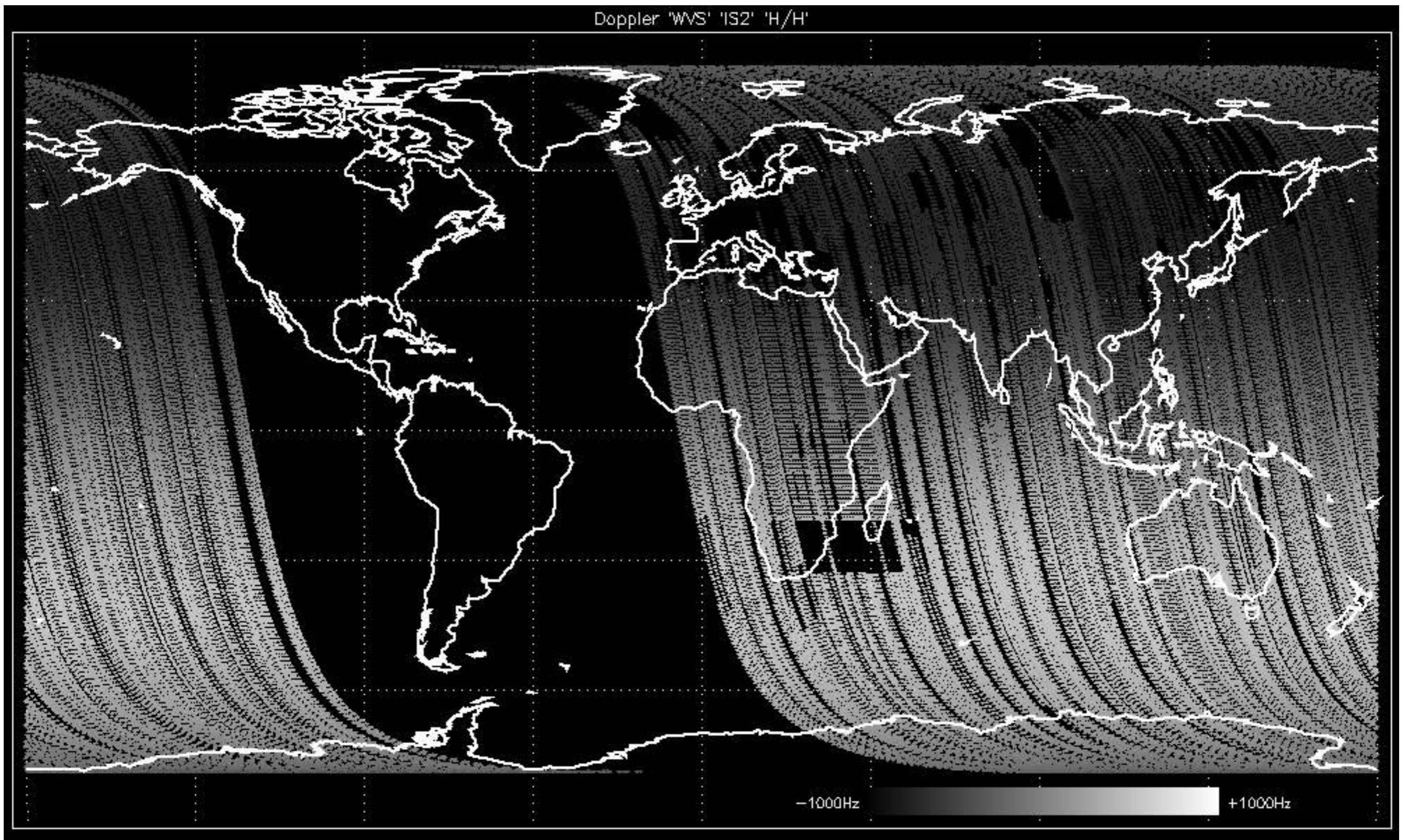


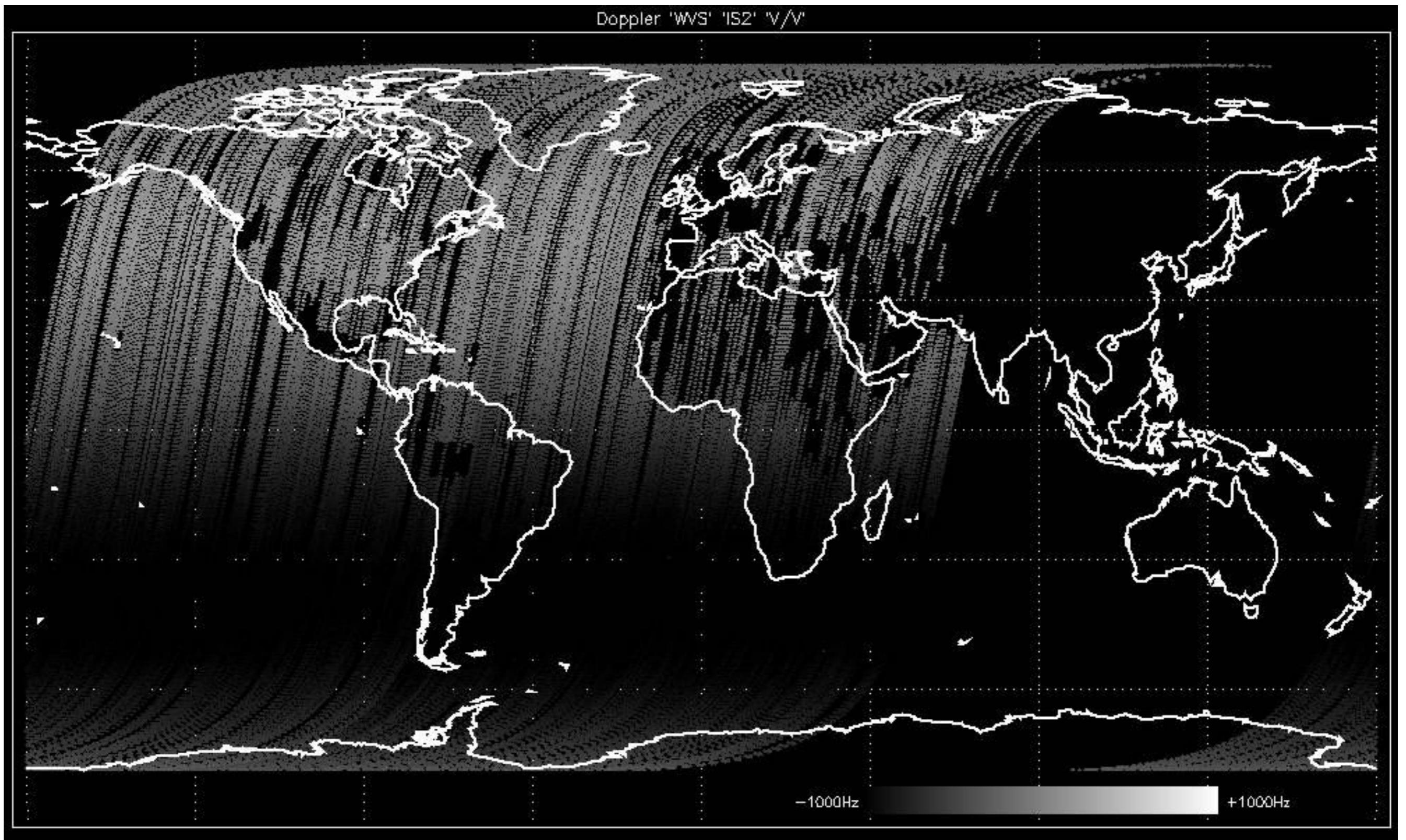
- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

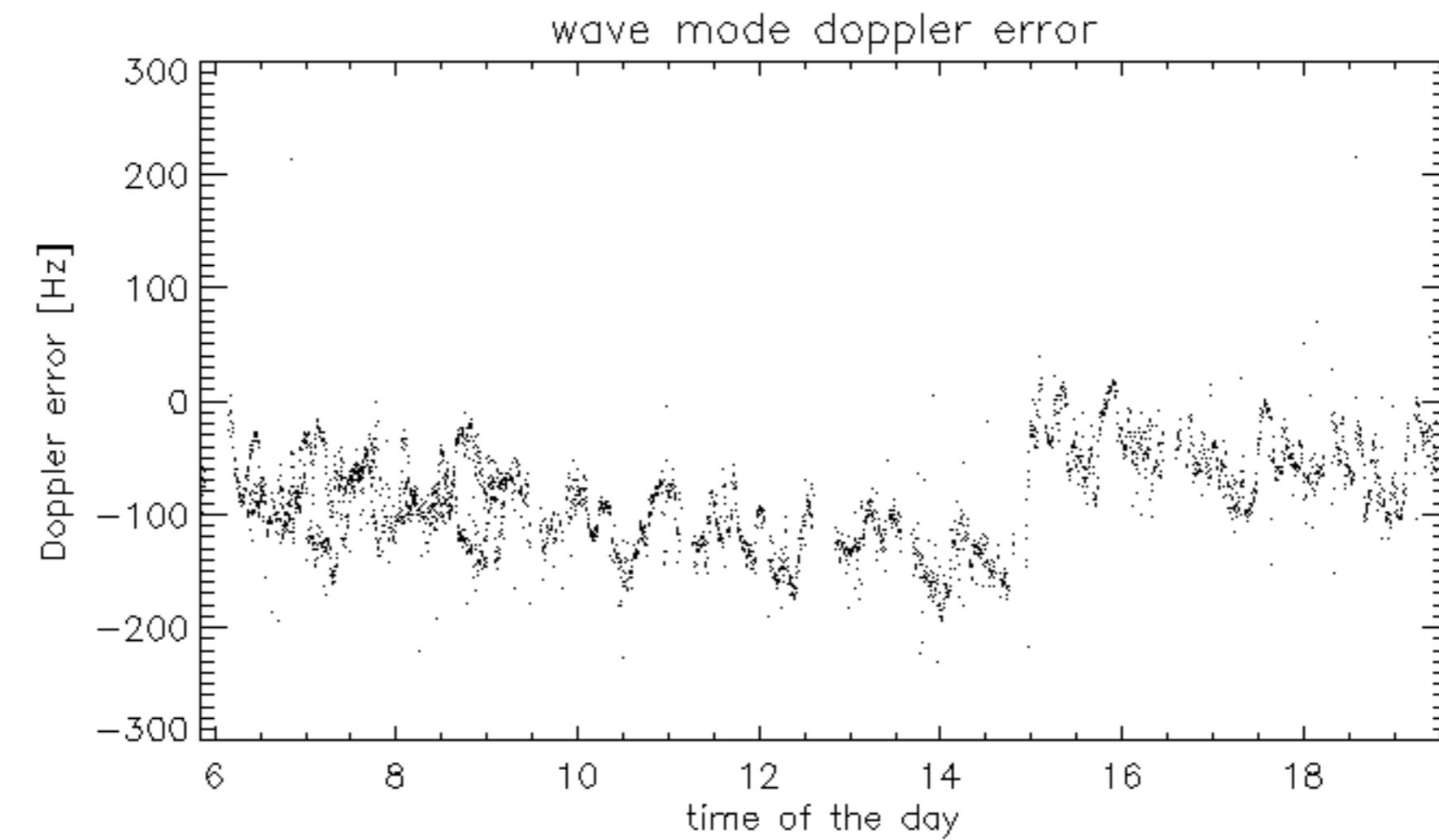
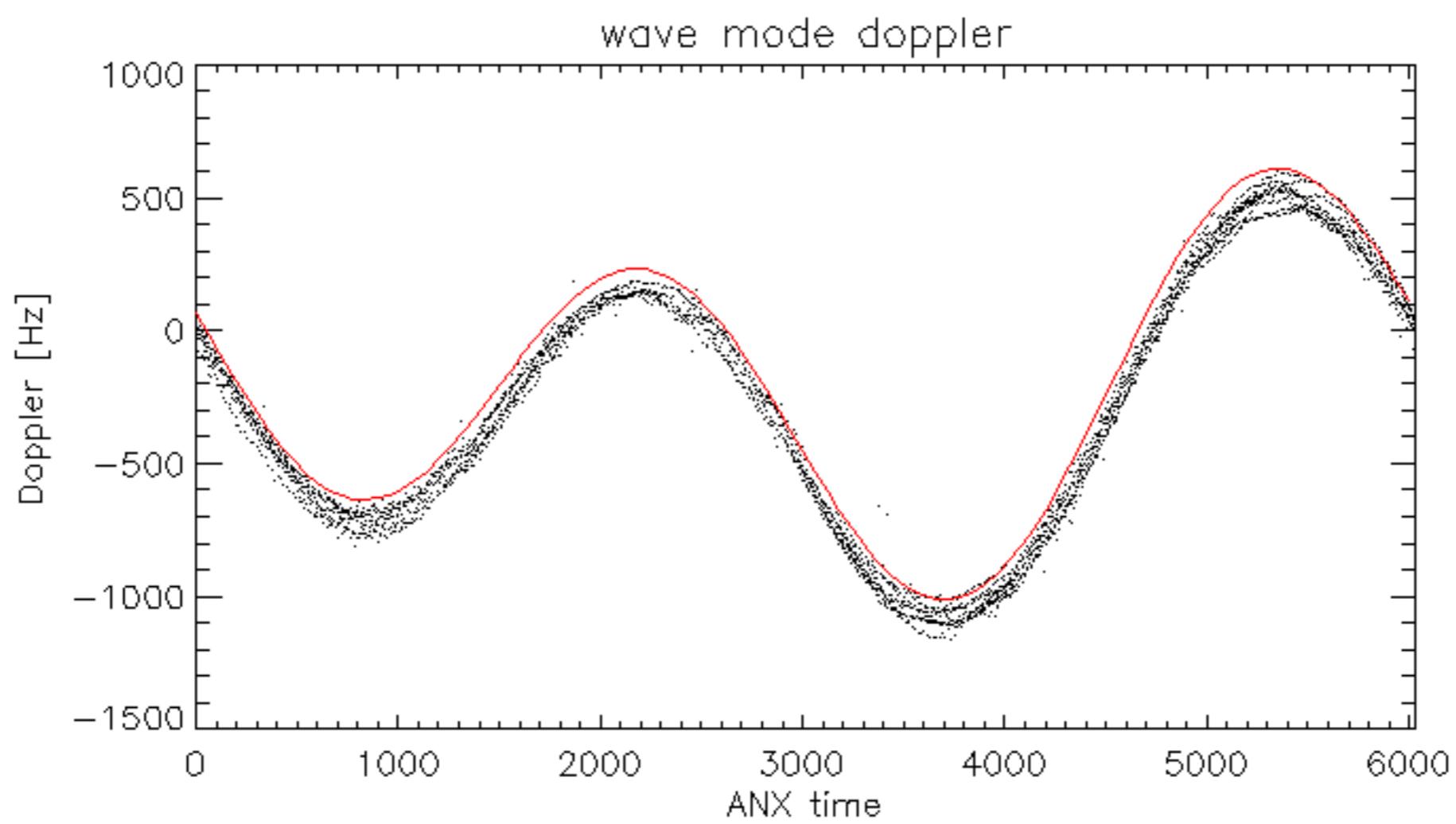


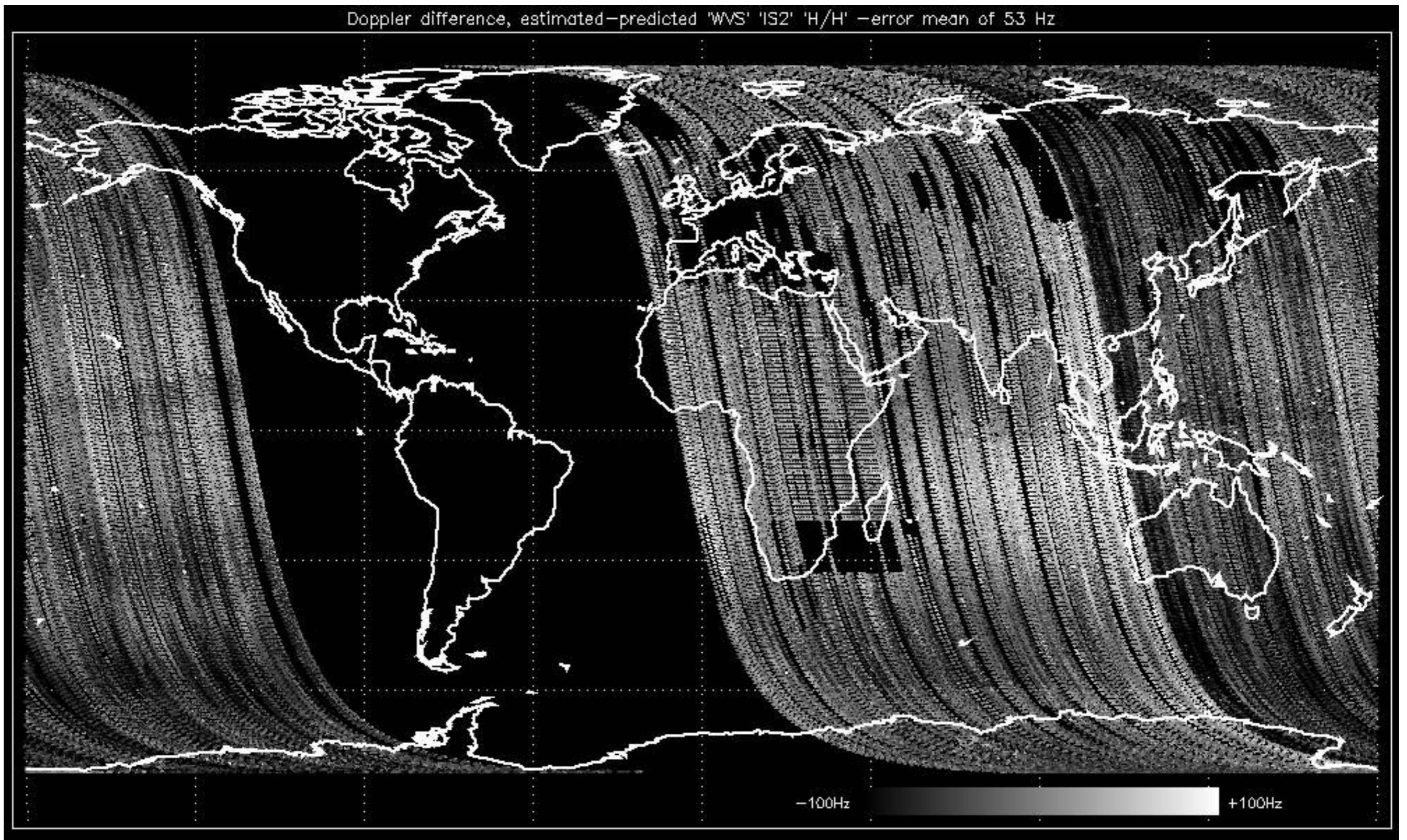
No anomalies observed Doppler evolution.
Doppler analysis performed over the last 60 days

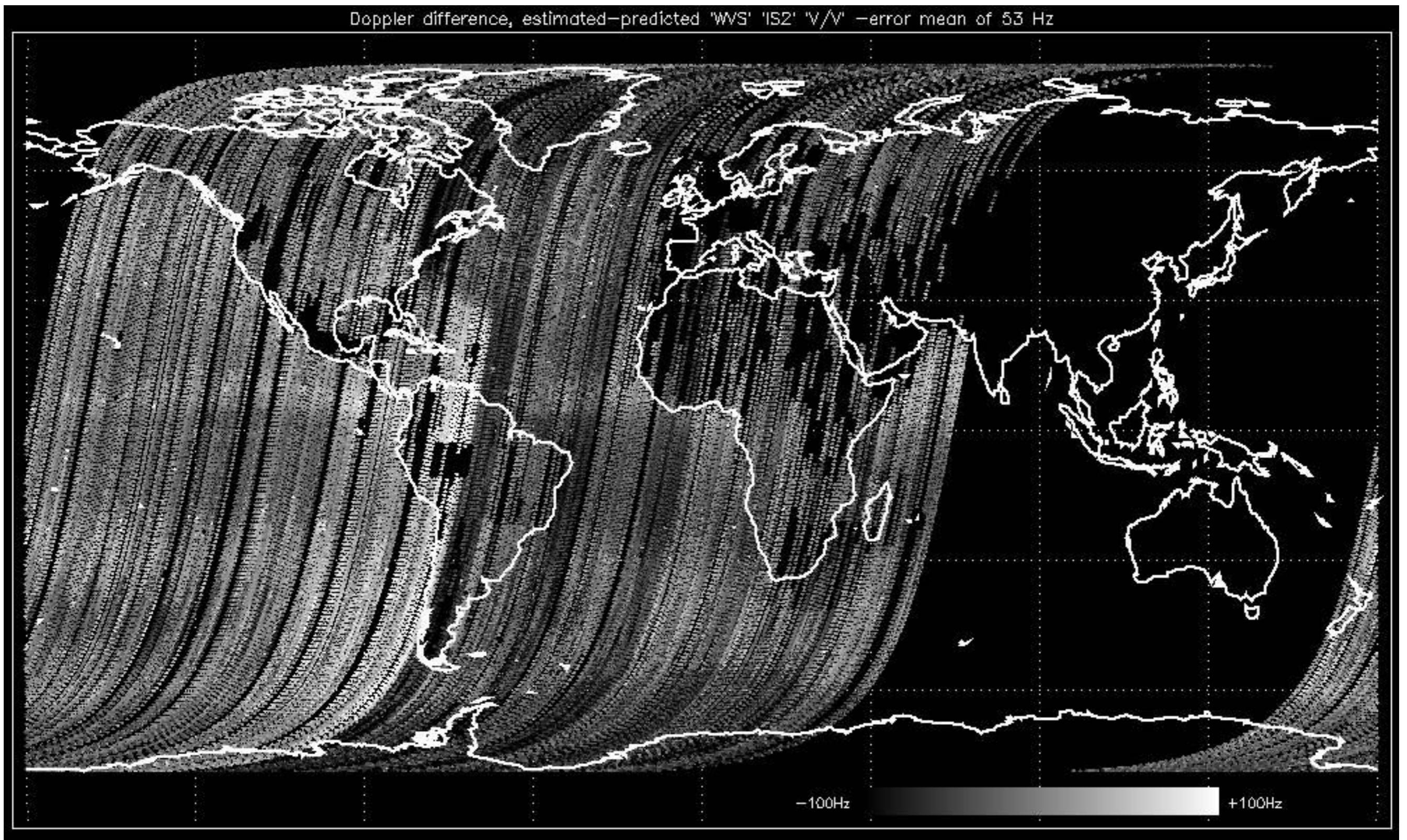












No anomalies observed on available MS products:

-ASA_MS__0PNPDK20030916_193835_00000152020_00013_08083_0069

-ASA_MS__0PNPDK20030916_194015_00000152020_00013_08083_0070

The drift in phase for TR module 3 on Tile B3 has decreased to a stable configuration as shown in the figure below

No anomalies observed.



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

Test : 2003-09-16 19:38:35 H

Reference: 2003-06-12 14:08:52 H RxGain

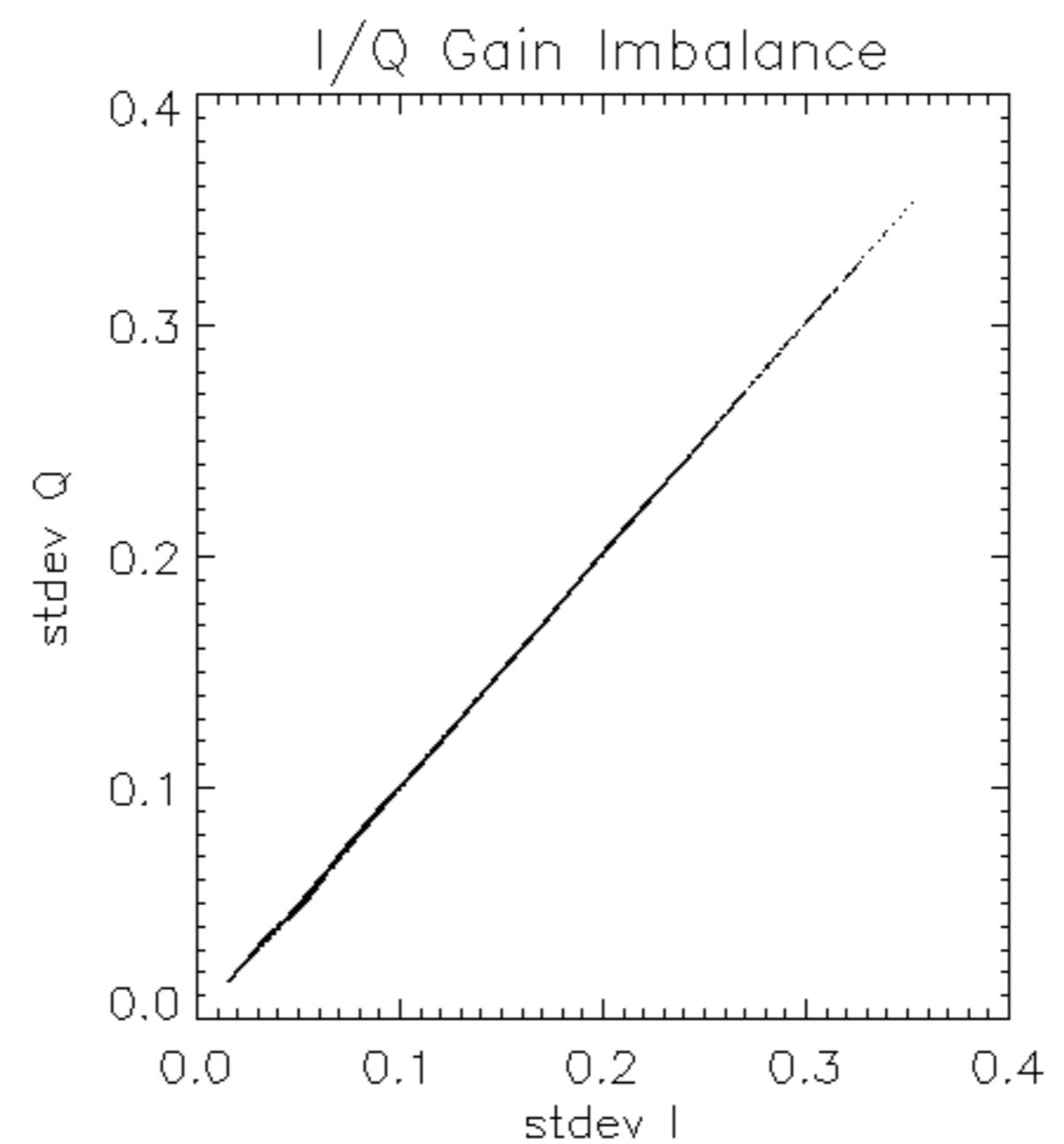
Test : 2003-09-16 19:38:35 H

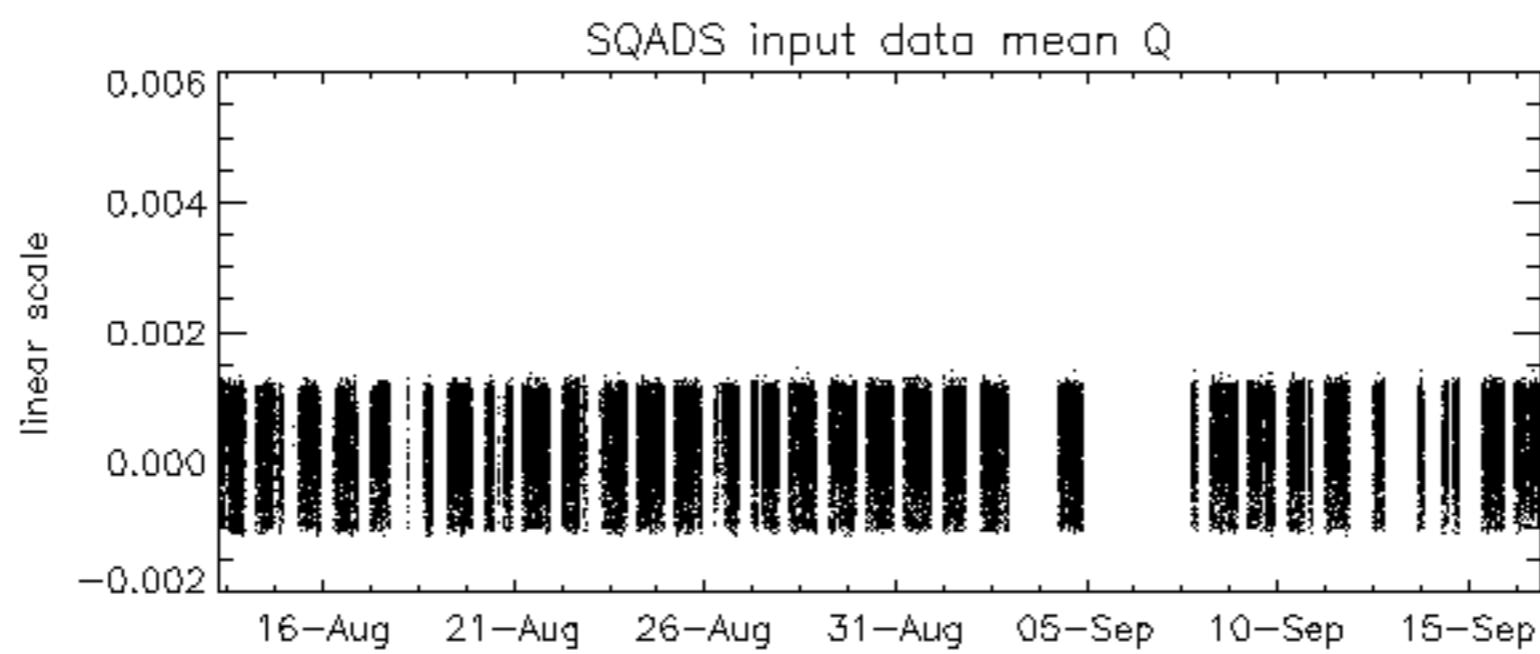
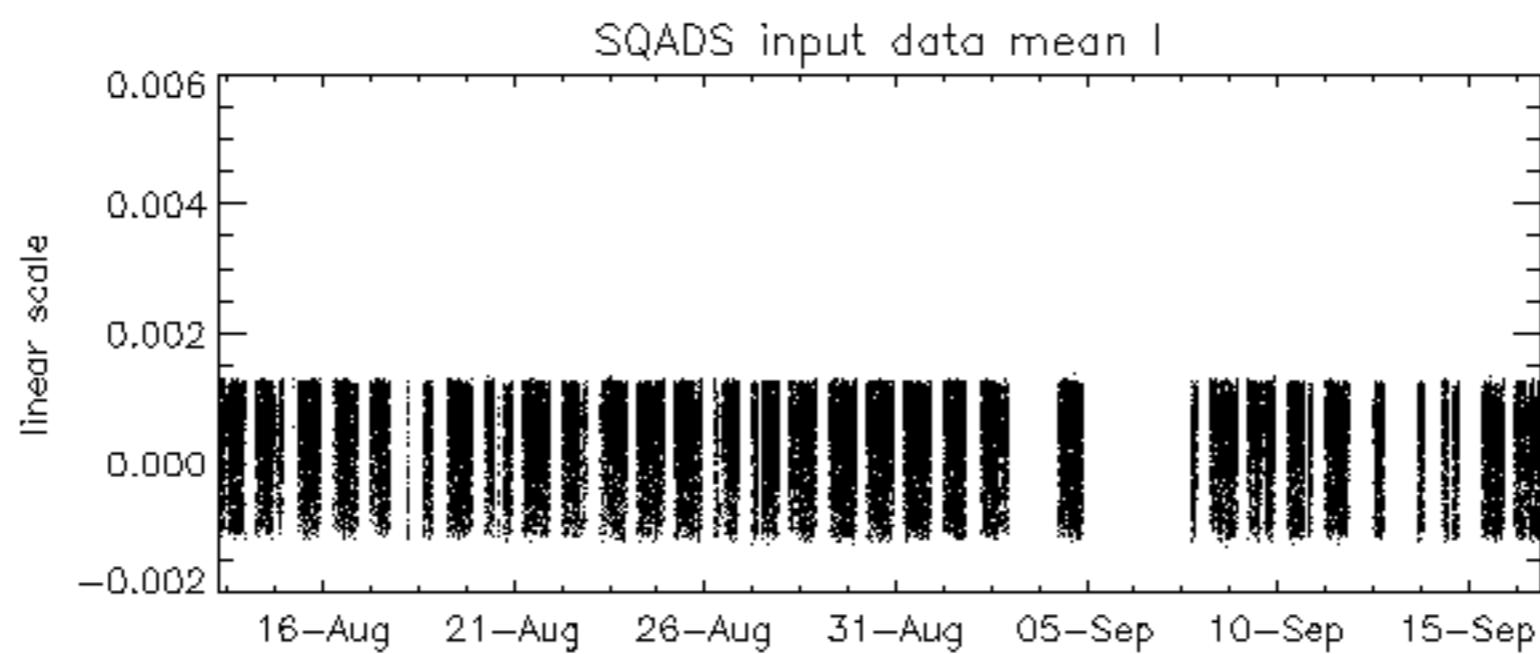
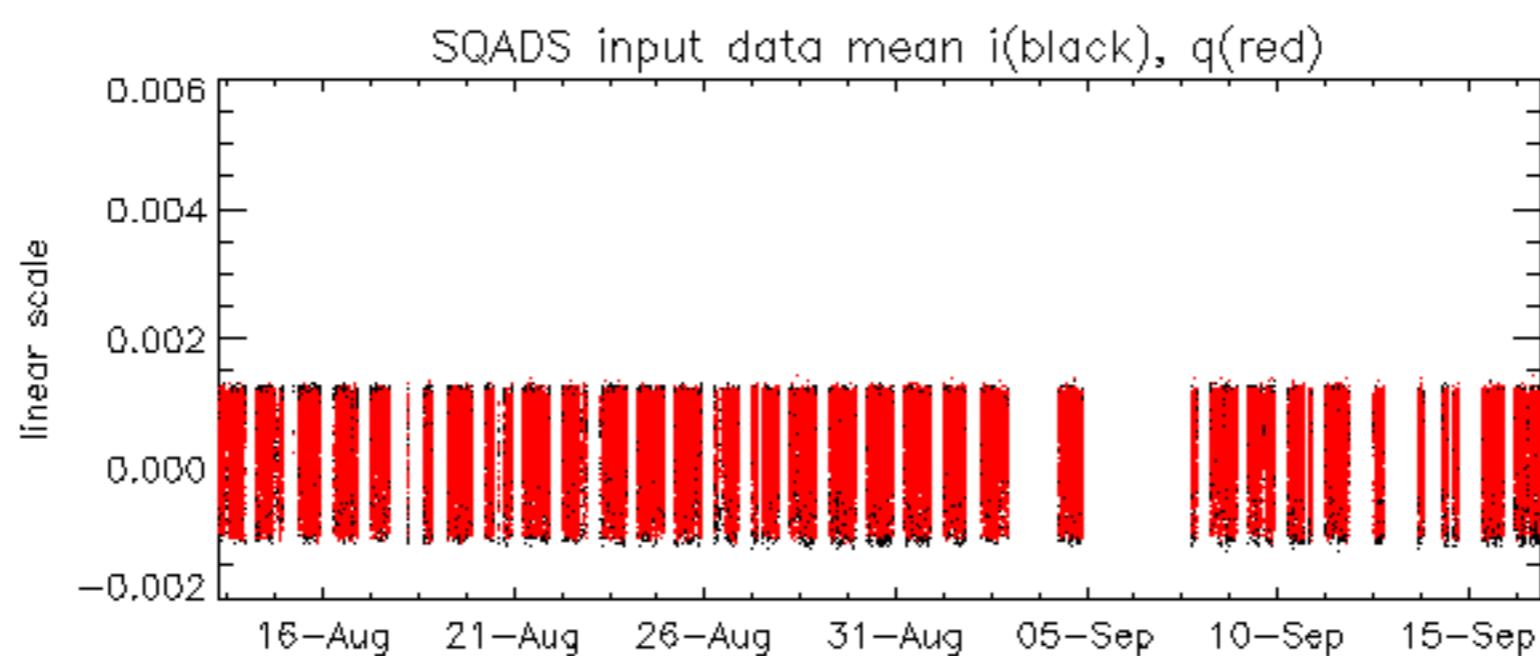
Reference: 2003-06-12 14:10:32 V

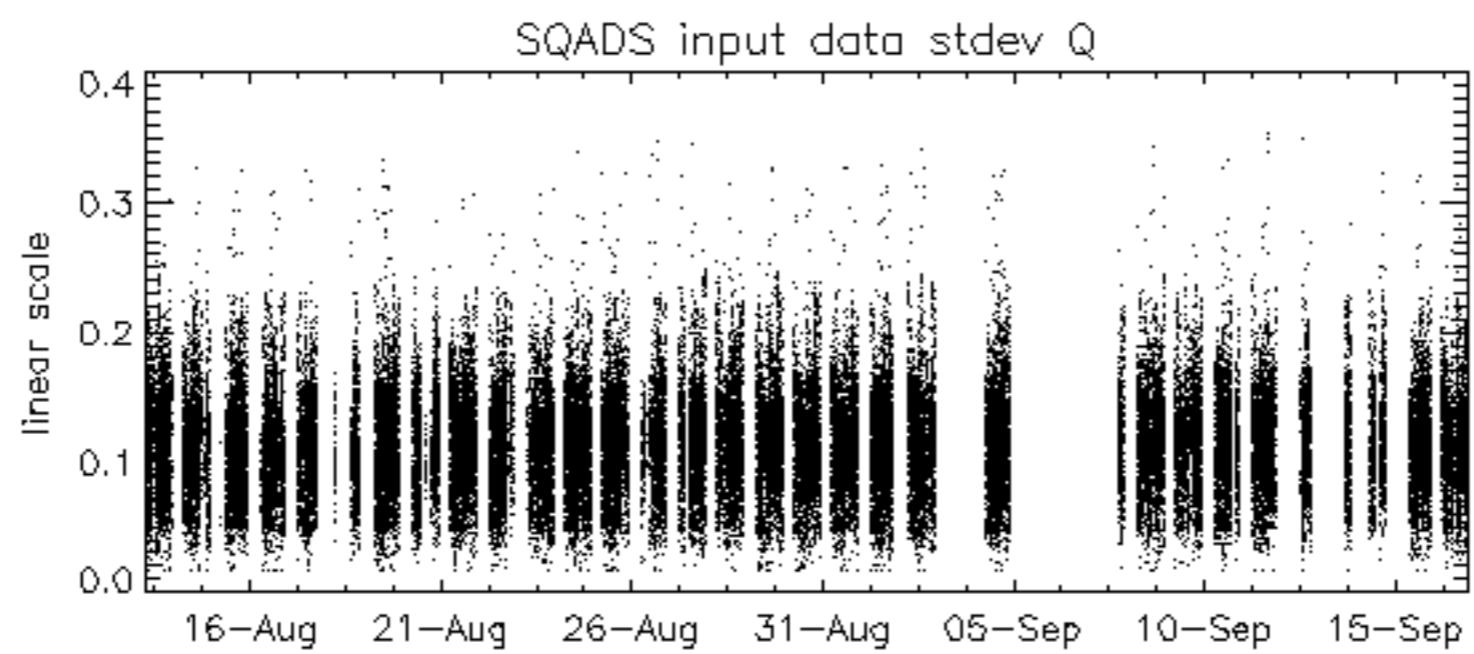
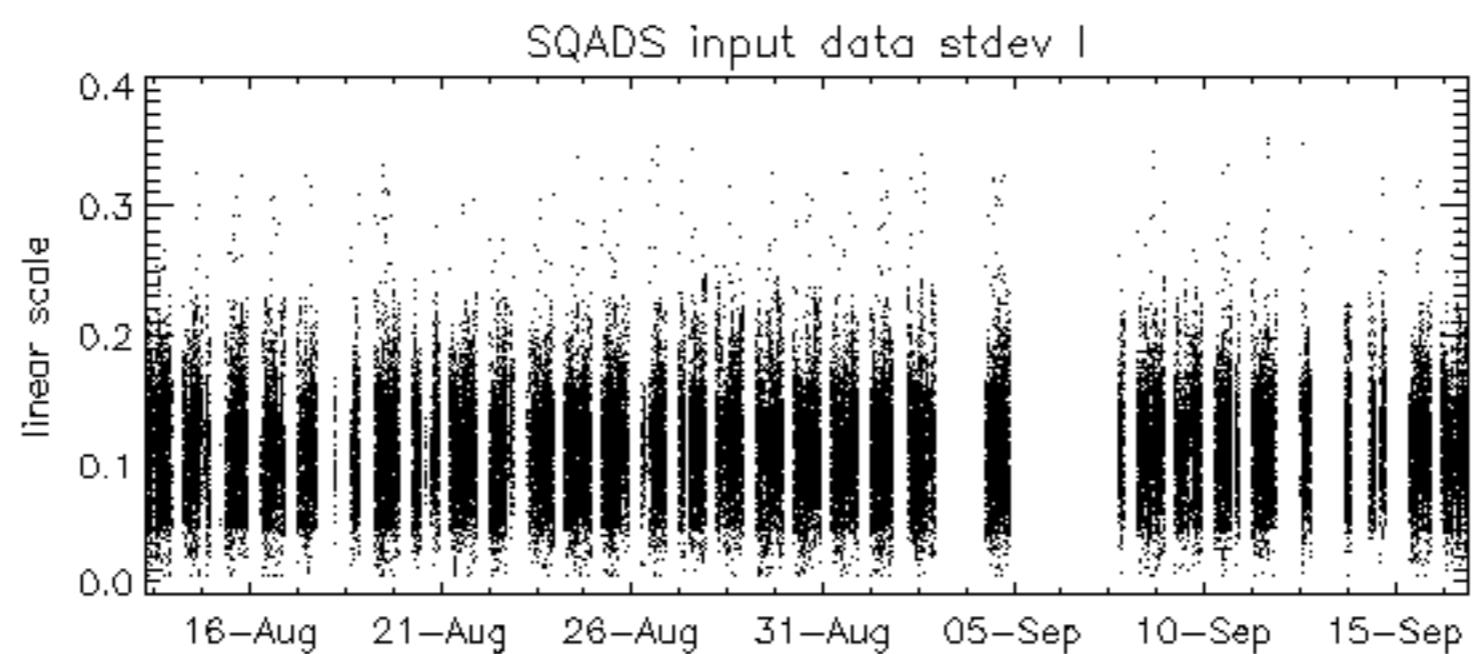
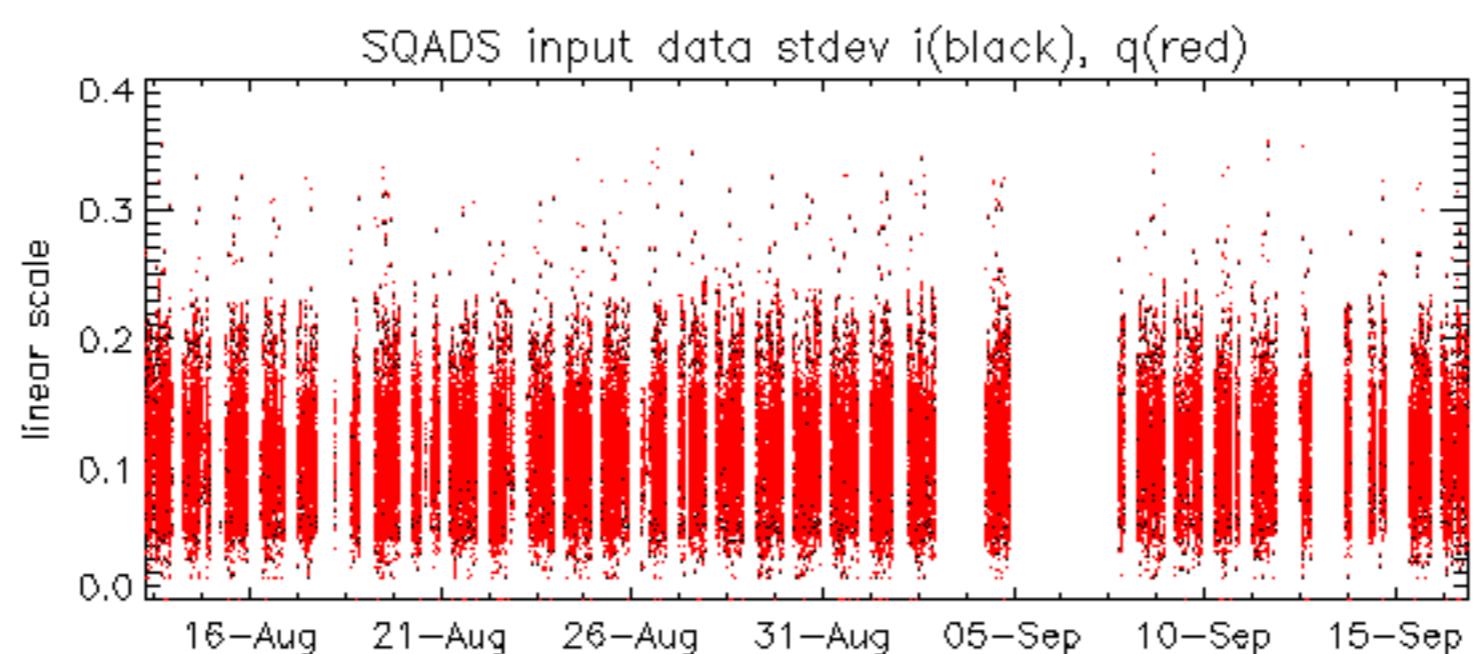
Test : 2003-09-16 19:40:15 V

Reference: 2003-06-12 14:10:32 V RxPhase

Test : 2003-09-16 19:40:15 V







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

Test : 2003-09-16 19:38:35 H

<img alt="A grid-based visualization showing signal strength across various reference and test points. The grid has 10 columns labeled A1 through E3 and 32 rows labeled 1 through 32. Yellow bars indicate signal presence or strength at specific intersections. For example, there are yellow bars at (A1, 1), (A3, 1), (B1, 1), (B3, 1), (C1, 1), (C3, 1), (D1, 1), (D3, 1), (E1, 1), (E3, 1), (A1, 2), (A3, 2), (B1, 2), (B3, 2), (C1, 2), (C3, 2), (D1, 2), (D3, 2), (E1, 2), (E3, 2), (A1, 3), (A3, 3), (B1, 3), (B3, 3), (C1, 3), (C3, 3), (D1, 3), (D3, 3), (E1, 3), (E3, 3), (A1, 4), (A3, 4), (B1, 4), (B3, 4), (C1, 4), (C3, 4), (D1, 4), (D3, 4), (E1, 4), (E3, 4), (A1, 5), (A3, 5), (B1, 5), (B3, 5), (C1, 5), (C3, 5), (D1, 5), (D3, 5), (E1, 5), (E3, 5), (A1, 6), (A3, 6), (B1, 6), (B3, 6), (C1, 6), (C3, 6), (D1, 6), (D3, 6), (E1, 6), (E3, 6), (A1, 7), (A3, 7), (B1, 7), (B3, 7), (C1, 7), (C3, 7), (D1, 7), (D3, 7), (E1, 7), (E3, 7), (A1, 8), (A3, 8), (B1, 8), (B3, 8), (C1, 8), (C3, 8), (D1, 8), (D3, 8), (E1, 8), (E3, 8), (A1, 9), (A3, 9), (B1, 9), (B3, 9), (C1, 9), (C3, 9), (D1, 9), (D3, 9), (E1, 9), (E3, 9), (A1, 10), (A3, 10), (B1, 10), (B3, 10), (C1, 10), (C3, 10), (D1, 10), (D3, 10), (E1, 10), (E3, 10), (A1, 11), (A3, 11), (B1, 11), (B3, 11), (C1, 11), (C3, 11), (D1, 11), (D3, 11), (E1, 11), (E3, 11), (A1, 12), (A3, 12), (B1, 12), (B3, 12), (C1, 12), (C3, 12), (D1, 12), (D3, 12), (E1, 12), (E3, 12), (A1, 13), (A3, 13), (B1, 13), (B3, 13), (C1, 13), (C3, 13), (D1, 13), (D3, 13), (E1, 13), (E3, 13), (A1, 14), (A3, 14), (B1, 14), (B3, 14), (C1, 14), (C3, 14), (D1, 14), (D3, 14), (E1, 14), (E3, 14), (A1, 15), (A3, 15), (B1, 15), (B3, 15), (C1, 15), (C3, 15), (D1, 15), (D3, 15), (E1, 15), (E3, 15), (A1, 16), (A3, 16), (B1, 16), (B3, 16), (C1, 16), (C3, 16), (D1, 16), (D3, 16), (E1, 16), (E3, 16), (A1, 17), (A3, 17), (B1, 17), (B3, 17), (C1, 17), (C3, 17), (D1, 17), (D3, 17), (E1, 17), (E3, 17), (A1, 18), (A3, 18), (B1, 18), (B3, 18), (C1, 18), (C3, 18), (D1, 18), (D3, 18), (E1, 18), (E3, 18), (A1, 19), (A3, 19), (B1, 19), (B3, 19), (C1, 19), (C3, 19), (D1, 19), (D3, 19), (E1, 19), (E3, 19), (A1, 20), (A3, 20), (B1, 20), (B3, 20), (C1, 20), (C3, 20), (D1, 20), (D3, 20), (E1, 20), (E3, 20), (A1, 21), (A3, 21), (B1, 21), (B3, 21), (C1, 21), (C3, 21), (D1, 21), (D3, 21), (E1, 21), (E3, 21), (A1, 22), (A3, 22), (B1, 22), (B3, 22), (C1, 22), (C3, 22), (D1, 22), (D3, 22), (E1, 22), (E3, 22), (A1, 23), (A3, 23), (B1, 23), (B3, 23), (C1, 23), (C3, 23), (D1, 23), (D3, 23), (E1, 23), (E3, 23), (A1, 24), (A3, 24), (B1, 24), (B3, 24), (C1, 24), (C3, 24), (D1, 24), (D3, 24), (E1, 24), (E3, 24), (A1, 25), (A3, 25), (B1, 25), (B3, 25), (C1, 25), (C3, 25), (D1, 25), (D3, 25), (E1, 25), (E3, 25), (A1, 26), (A3, 26), (B1, 26), (B3, 26), (C1, 26), (C3, 26), (D1, 26), (D3, 26), (E1, 26), (E3, 26), (A1, 27), (A3, 27), (B1, 27), (B3, 27), (C1, 27), (C3, 27), (D1, 27), (D3, 27), (E1, 27), (E3, 27), (A1, 28), (A3, 28), (B1, 28), (B3, 28), (C1, 28), (C3, 28), (D1, 28), (D3, 28), (E1, 28), (E3, 28), (A1, 29), (A3, 29), (B1, 29), (B3, 29), (C1, 29), (C3, 29), (D1, 29), (D3, 29), (E1, 29), (E3, 29), (A1, 30), (A3, 30), (B1, 30), (B3, 30), (C1, 30), (C3, 30), (D1, 30), (D3, 30), (E1, 30), (E3, 30), (A1, 31), (A3, 31), (B1, 31), (B3, 31), (C1, 31), (C3, 31), (D1, 31), (D3, 31), (E1, 31), (E3, 31), (A1, 32), (A3, 32), (B1, 32), (B3, 32), (C1, 32), (C3, 32), (D1, 32), (D3, 32), (E1, 32), (E3, 32)</p>

| | | |
|------------|-------------------------|--------|
| Reference: | 2003-06-12 14:08:52 H | TxGain |
| Test | : 2003-09-16 19:38:35 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 14:10:32 V

Test : 2003-09-16 19:40:15 V

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

Test : 2003-09-16 19:38:35 H

No unavailabilities during the reported period.

