



A product by



## ODTS REPORT

Username: johnsmith  
Scenario: Example  
Start Date: 2009/05/21-00:00:00 (09141)  
End Date: 2009/05/22-24:00:00 (09142)  
Run Time: 2009/05/26-19:23:02 UTC

All times are GPS Time unless otherwise stated

QUALITY DATA, ALGORITHMS AND PRODUCTS  
FOR THE GNSS USER COMMUNITY

magicgnss.gmv.com  
www.gmv.com

# Table of Contents

|                                                                |    |
|----------------------------------------------------------------|----|
| 1. CONFIGURATION SUMMARY .....                                 | 3  |
| 1.1. LIST OF STATIONS .....                                    | 3  |
| 1.2. LIST OF SATELLITES .....                                  | 3  |
| 1.3. SETTINGS .....                                            | 3  |
| 2. PROCESSING SUMMARY .....                                    | 3  |
| 2.1. PARAMETER ESTIMATION .....                                | 3  |
| 2.2. CONVERGENCE .....                                         | 3  |
| 2.3. REJECTED STATIONS AND SATELLITES .....                    | 4  |
| 2.4. USED STATIONS AND COVERAGE MAP .....                      | 4  |
| 2.5. NUMBER OF USED AND REJECTED MEASUREMENTS .....            | 4  |
| 2.6. MEASUREMENT RESIDUALS .....                               | 5  |
| 2.7. SATELLITES IN ECLIPSE .....                               | 5  |
| 3. PRODUCTS SUMMARY .....                                      | 6  |
| 3.1. SOLAR RADIATION PRESSURE COEFFICIENTS .....               | 6  |
| 3.2. ZENITH TROPOSPHERIC DELAY .....                           | 6  |
| 3.3. SATELLITE CLOCKS .....                                    | 8  |
| 3.4. STATION CLOCKS .....                                      | 12 |
| 3.5. DIFFERENCE BETWEEN REFINED AND A PRIORI COORDINATES ..... | 17 |

## 1. CONFIGURATION SUMMARY

### 1.1. LIST OF STATIONS

Number of Stations: 31

abpo, algo, amc2, areq, bogt, brus, cas1, dgar, faa1, gold, guam, hrao, ieng, karr, kiru, kokb, kour, mas1, maw1, mkea, pert, pimo, pol2, sant, sutm, tidb, tow2, ulab, usn3, usud, yell

### 1.2. LIST OF SATELLITES

Number of Satellites: 30

G02, G03, G04, G06, G07, G08, G09, G10, G11, G12, G13, G14, G15, G16, G17, G18, G19, G20, G21, G22, G23, G24, G25, G26, G27, G28, G29, G30, G31, G32

### 1.3. SETTINGS

|                                        |          |
|----------------------------------------|----------|
| Reference Clock                        | usn3     |
| Data Sampling Rate                     | 5 min    |
| Minimum Elevation Angle                | 15 deg   |
| Number of Iterations                   | 4        |
| Refine Station Coordinates             | Yes      |
| Estimate ERPs                          | No       |
| Duration of Orbit and Clock Prediction | 24 hours |

**Table 1. Settings**

## 2. PROCESSING SUMMARY

### 2.1. PARAMETER ESTIMATION

| Total Measurements | Clock Parameters | Non Clock Parameters | Ambiguities |
|--------------------|------------------|----------------------|-------------|
| 259620             | 35197            | 4068                 | 2781        |

**Table 2. Parameter Estimation**

### 2.2. CONVERGENCE

A priori weight of code measurements: 0.220 m

A priori weight of phase measurements: 0.006 m

| Iteration Number | RMS of Weighted Residuals | Delta RMS of Weighted Residuals | RMS of Code Residuals (m) | RMS of Phase Residuals (m) |
|------------------|---------------------------|---------------------------------|---------------------------|----------------------------|
| 0                | 1110.213                  | -                               | 110986.607                | 111056.065                 |
| 1                | 5.507                     | 1104.706                        | 0.282                     | 0.046                      |
| 2                | 1.181                     | 4.326                           | 0.271                     | 0.007                      |
| 3                | 1.138                     | 0.043                           | 0.270                     | 0.006                      |
| 4                | 1.132                     | 0.006                           | 0.270                     | 0.006                      |

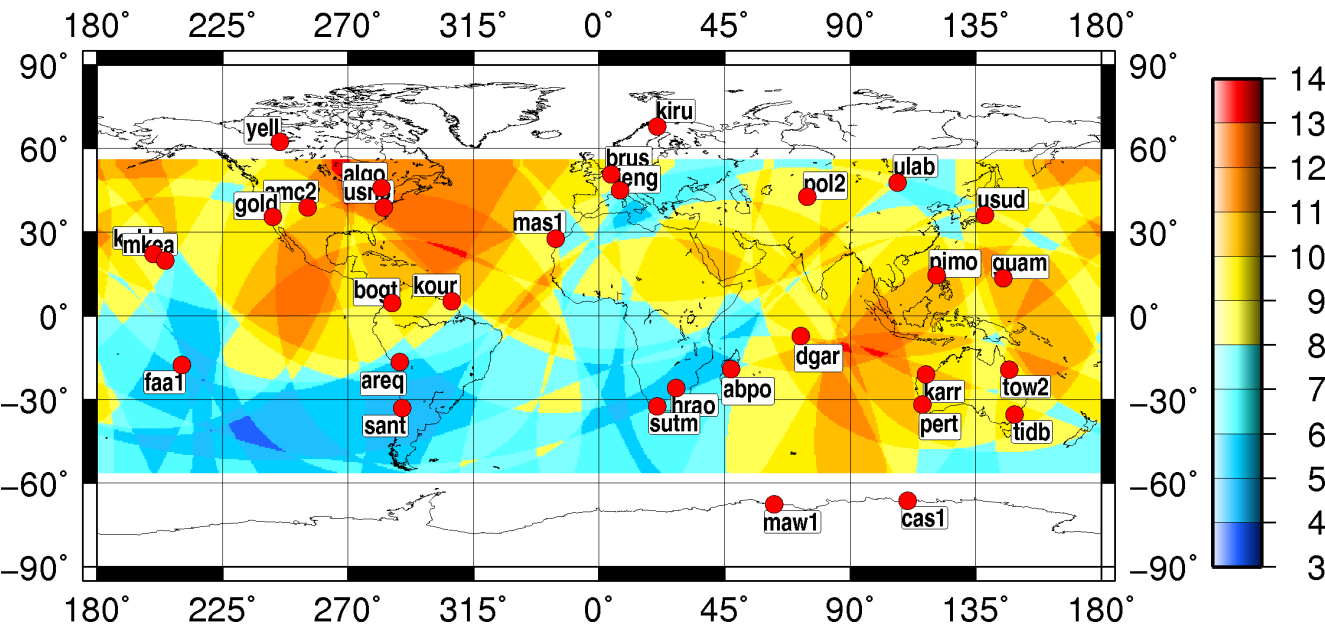
**Table 3. Convergence**

2.3. REJECTED STATIONS AND SATELLITES

Rejected Stations: None

Rejected Satellites: None

2.4. USED STATIONS AND COVERAGE MAP



2.5. NUMBER OF USED AND REJECTED MEASUREMENTS

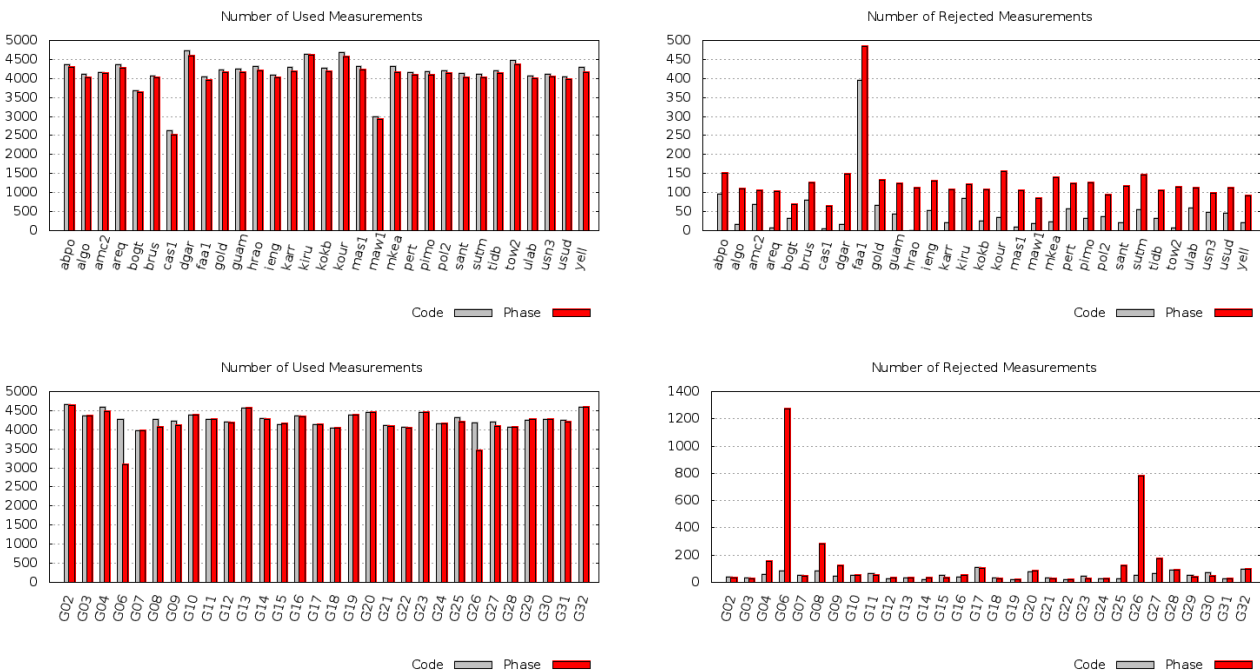


Table 4. Number of Used and Rejected Measurements

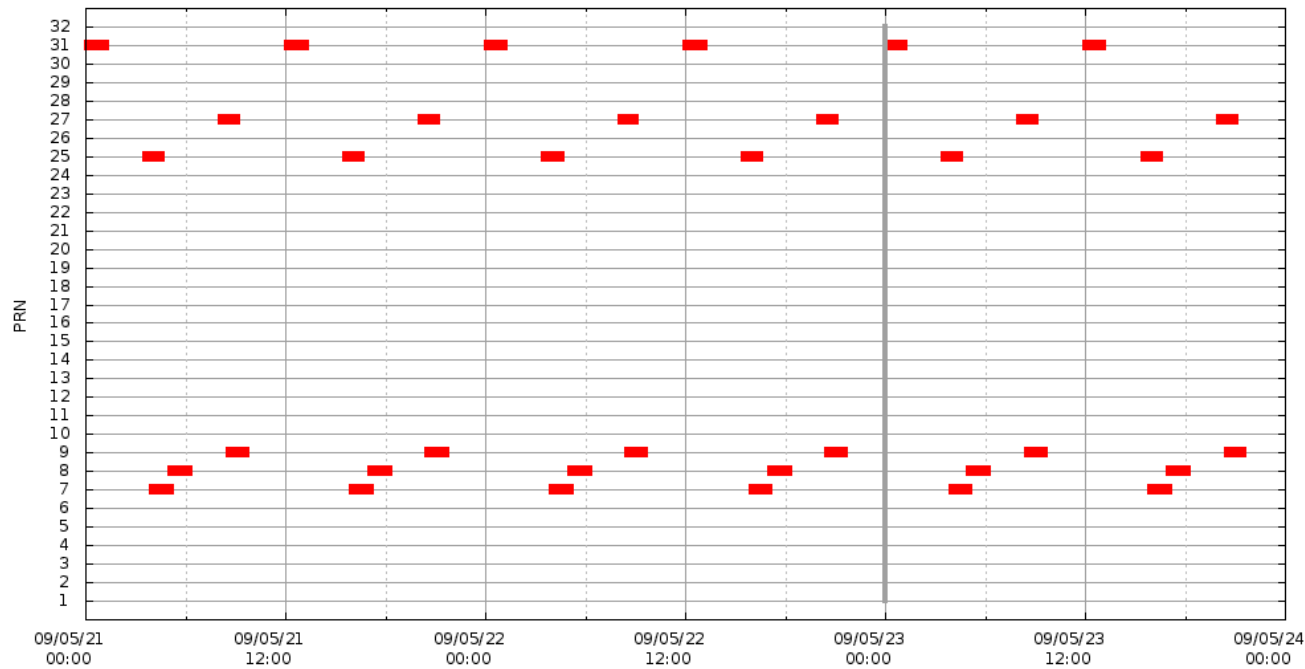
2.6. MEASUREMENT RESIDUALS



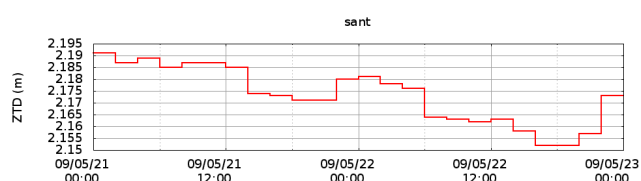
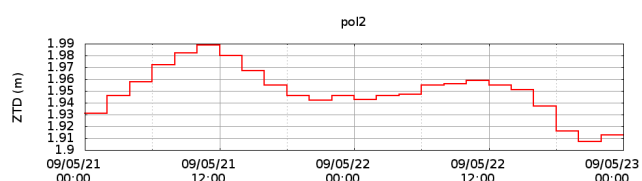
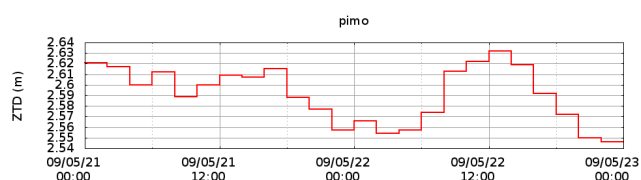
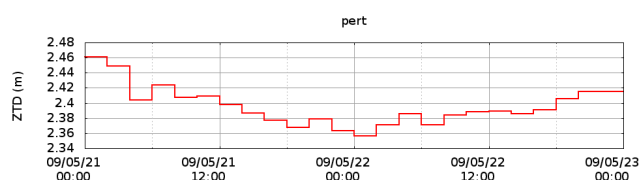
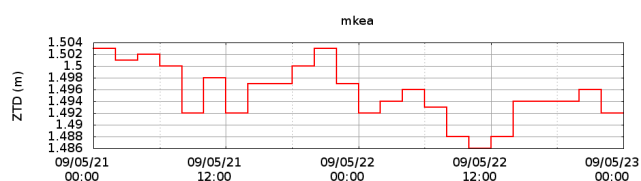
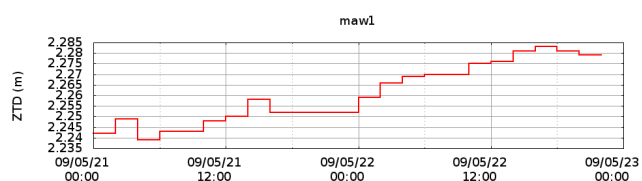
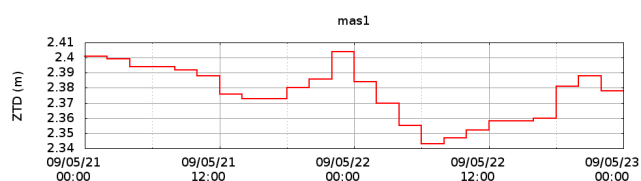
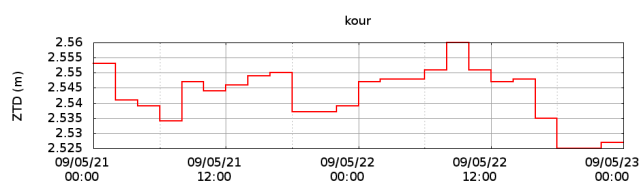
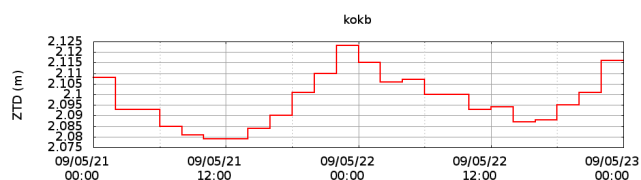
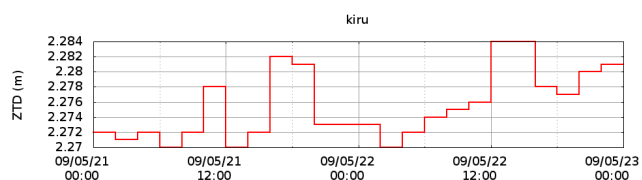
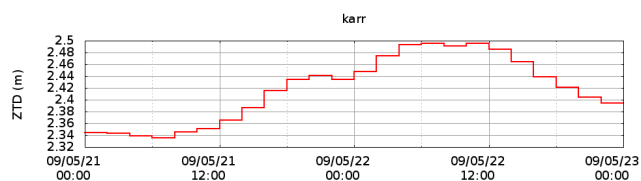
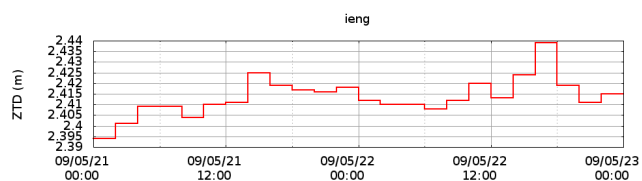
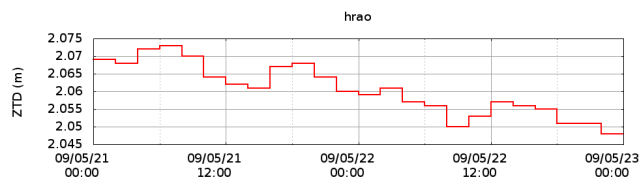
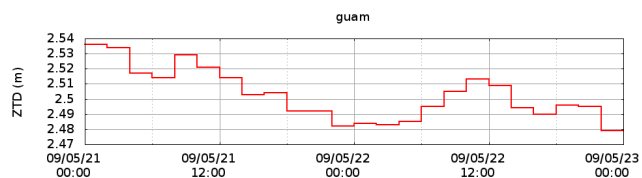
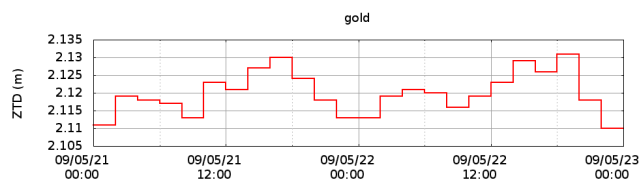
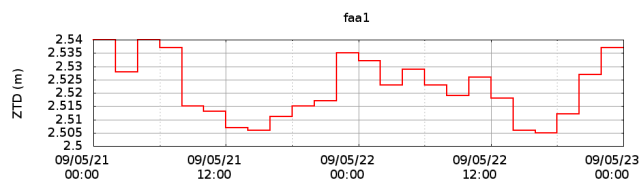
Table 5. RMS of Residuals

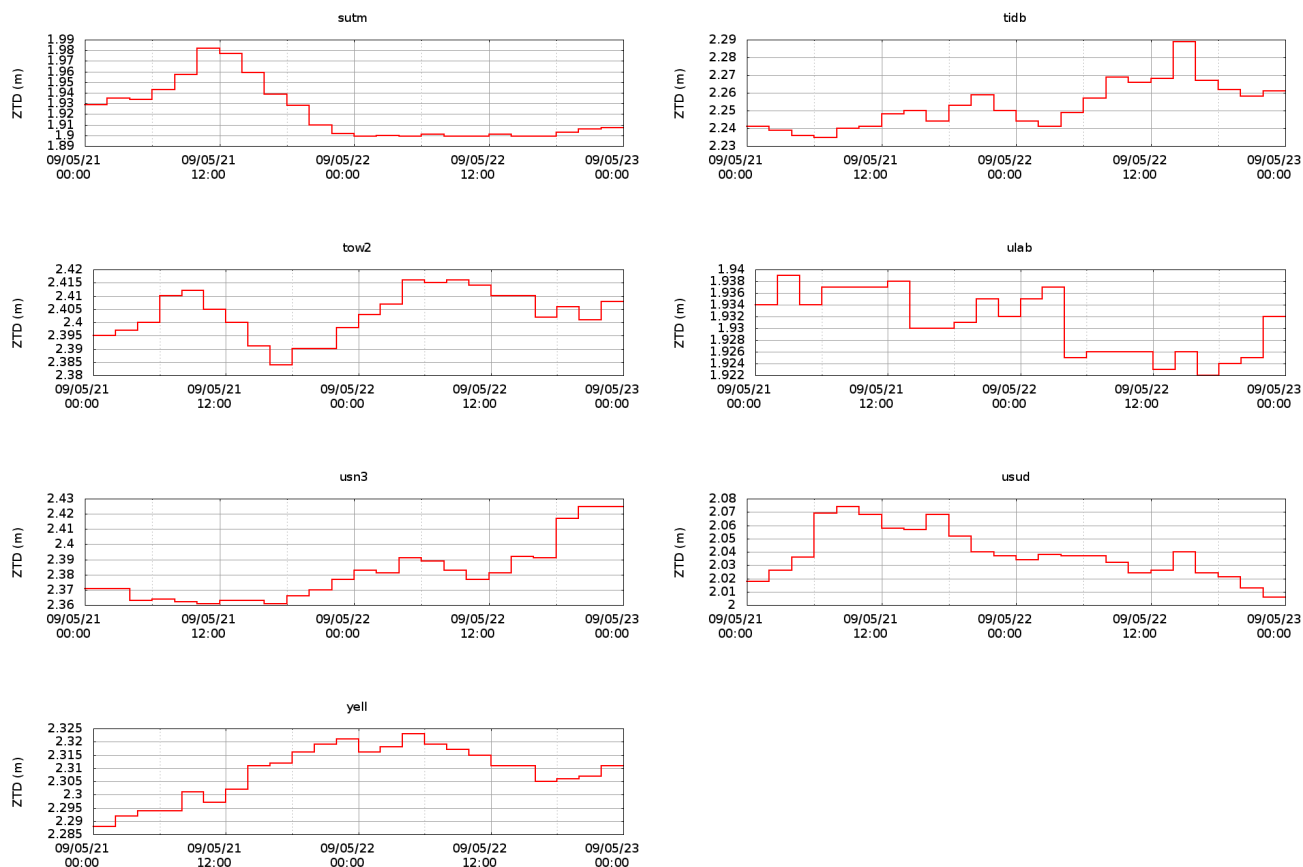
2.7. SATELLITES IN ECLIPSE

Red lines indicate the periods (estimation on the left of grey line and prediction on the right) in which the satellites are in eclipse.



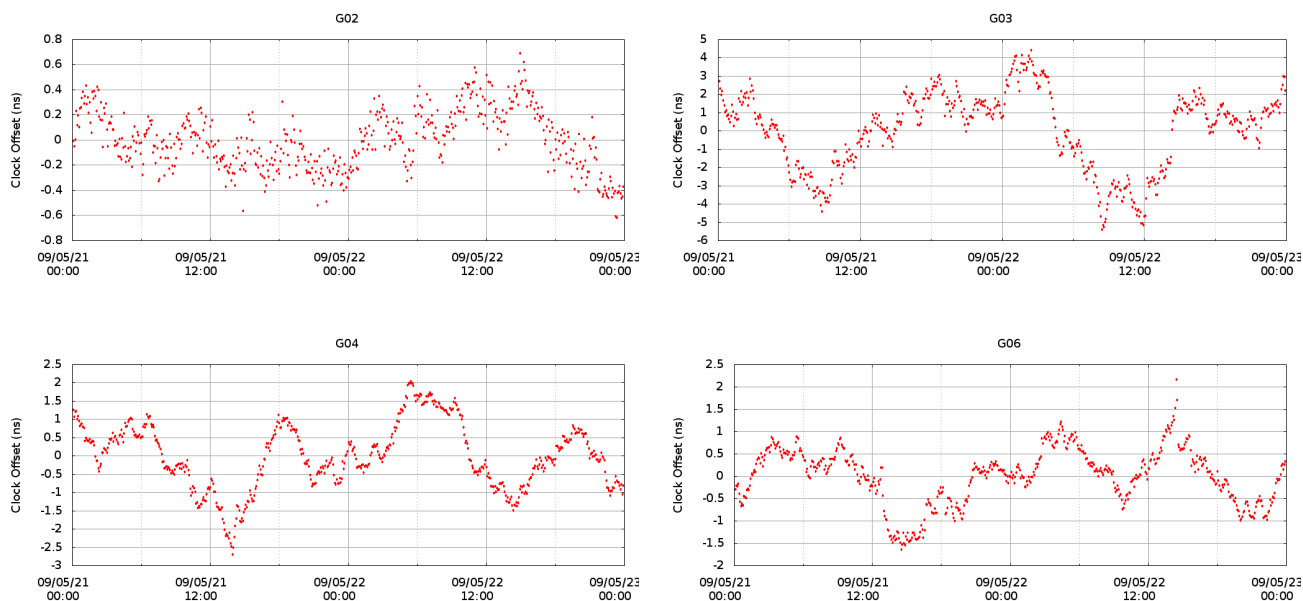




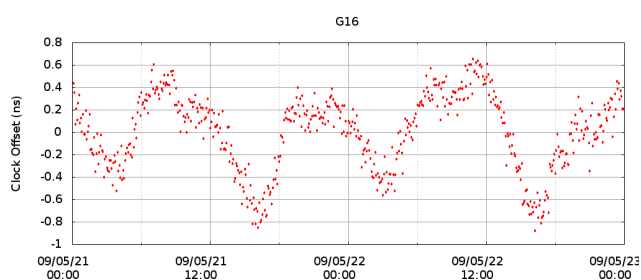
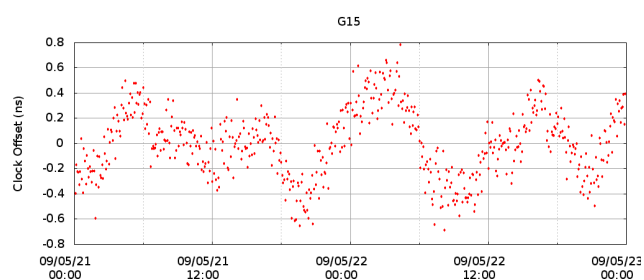
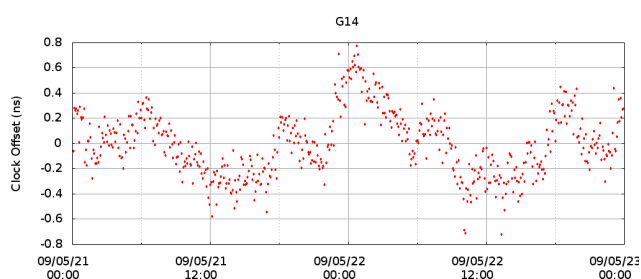
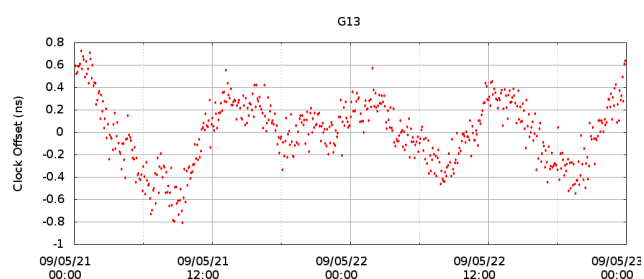
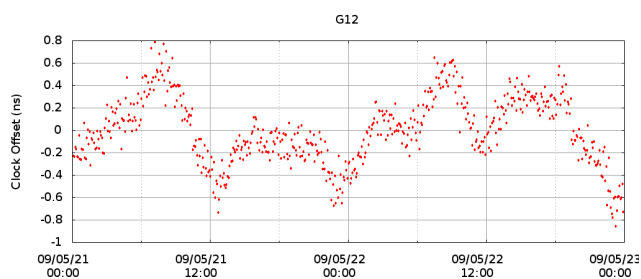
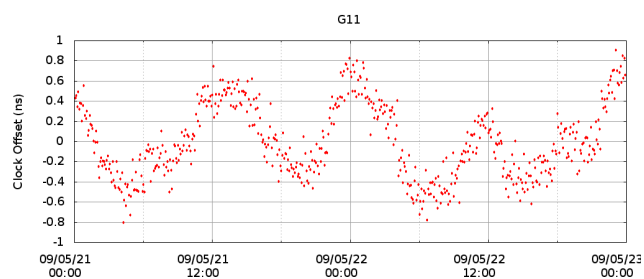
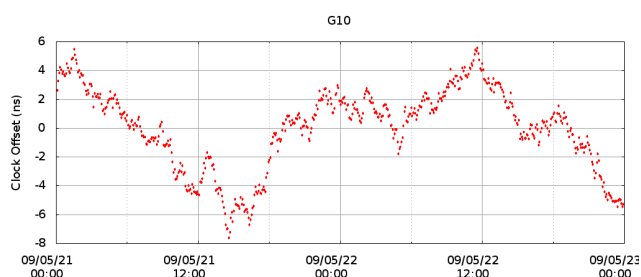
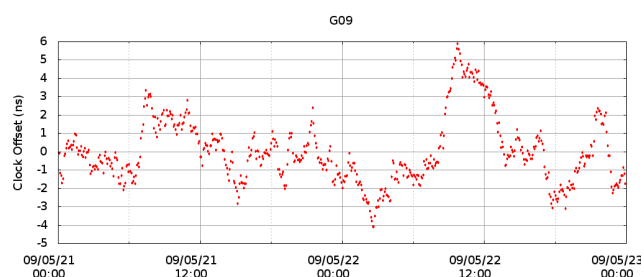
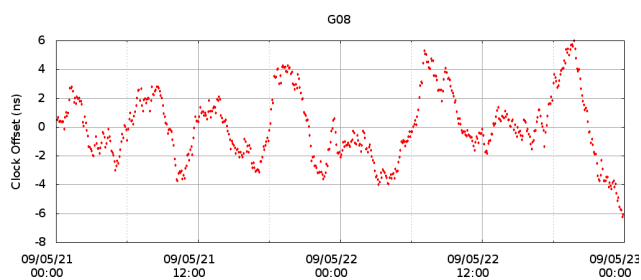
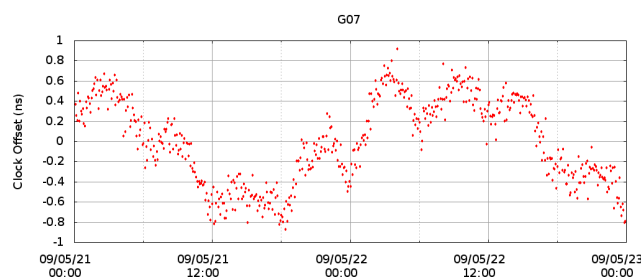
**Table 6. Zenith Tropospheric Delay**

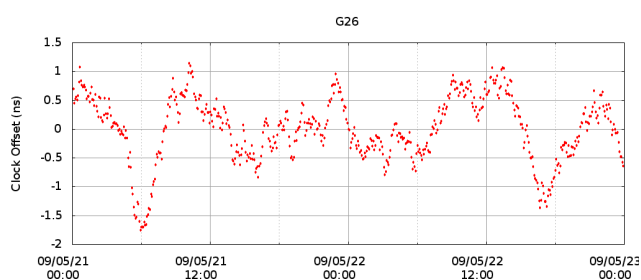
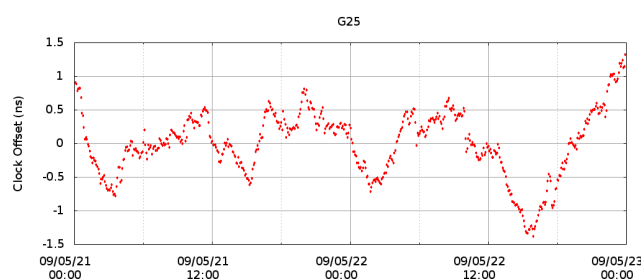
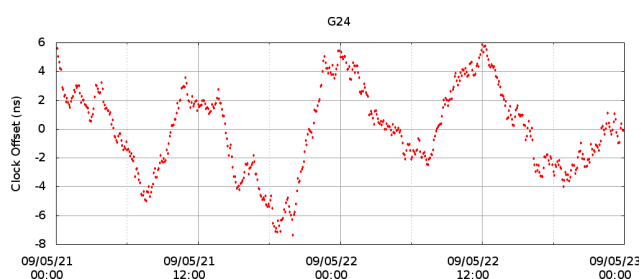
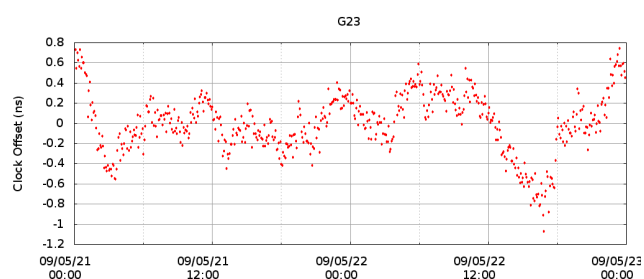
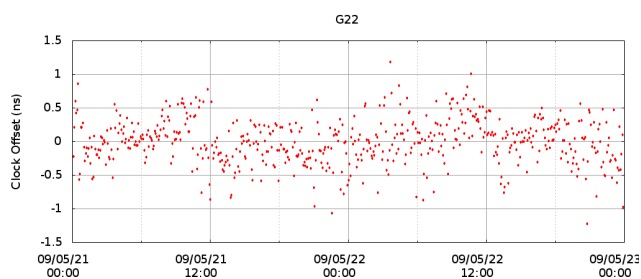
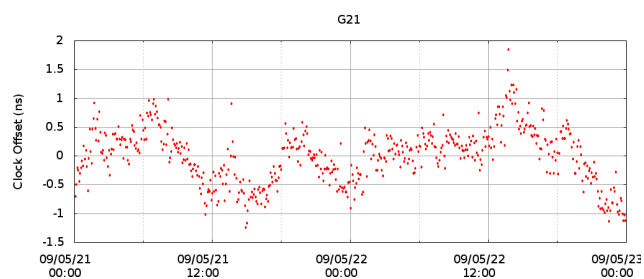
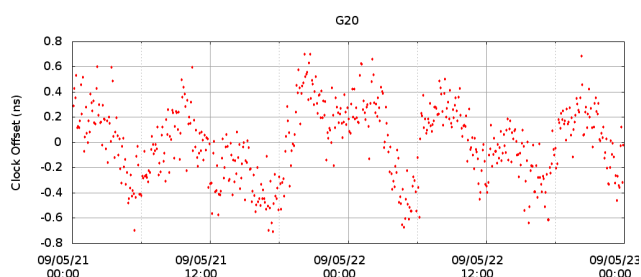
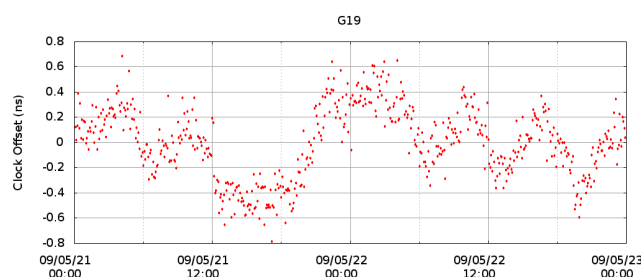
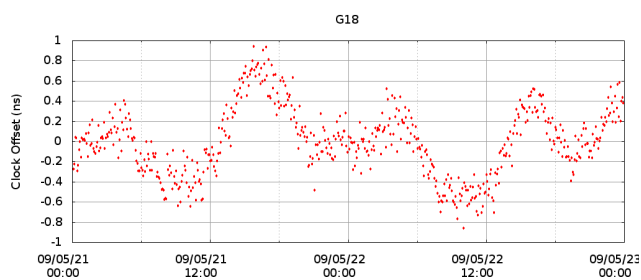
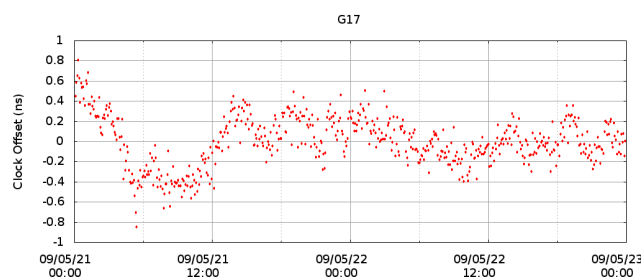
### 3.3. SATELLITE CLOCKS

The figures represent clock offset with respect to the reference clock, after the removal of a parabola.









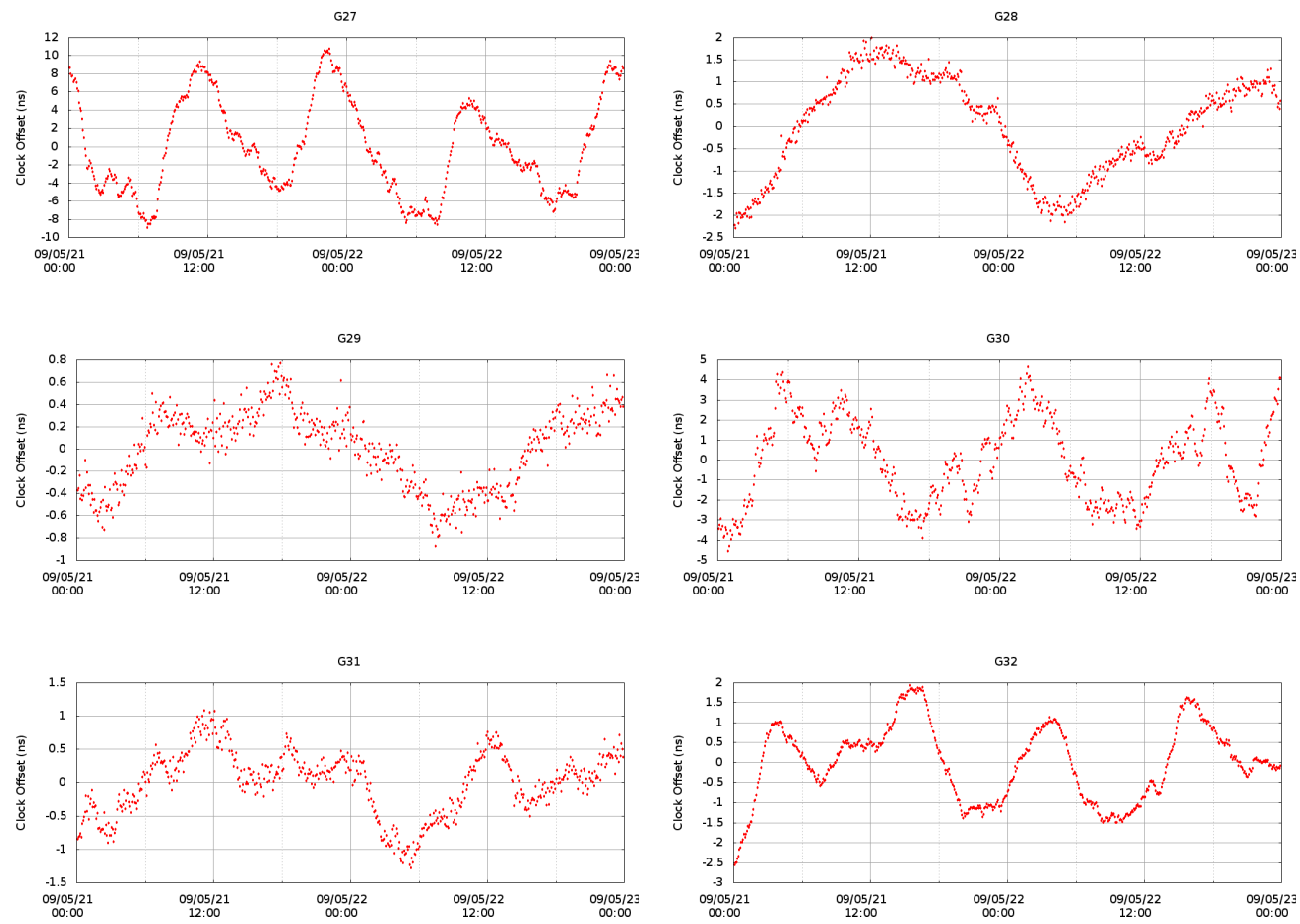
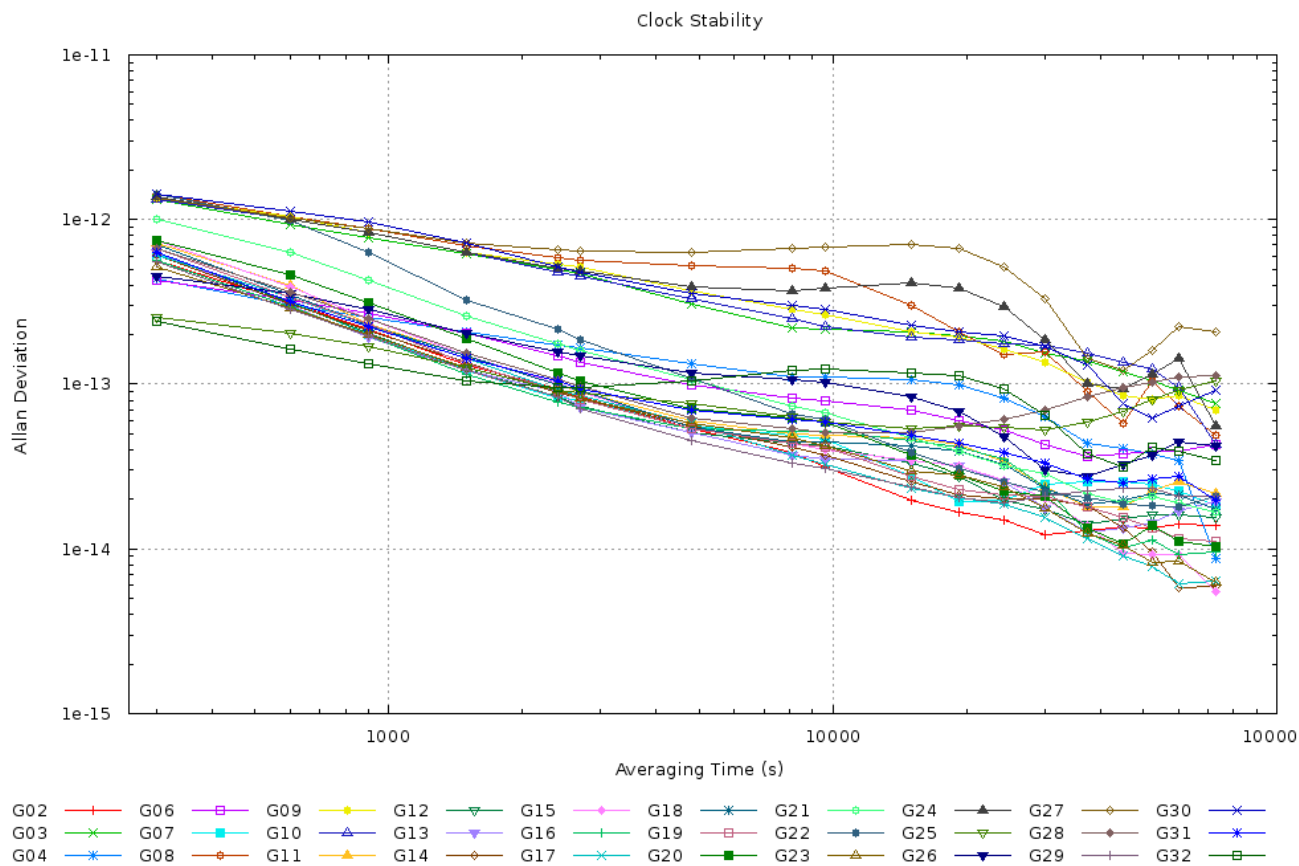
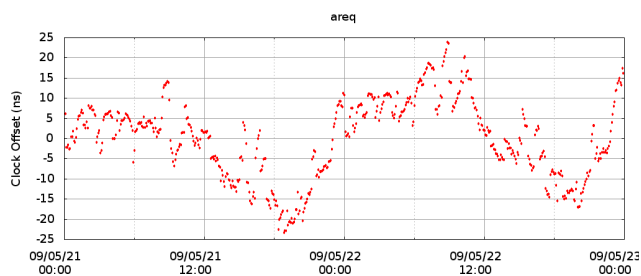
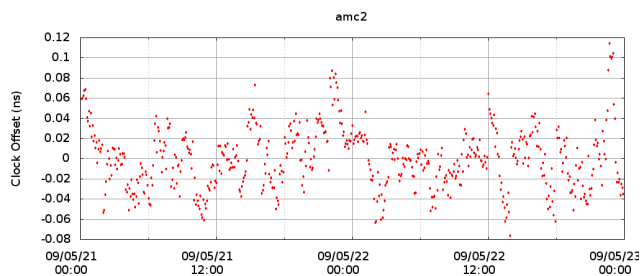
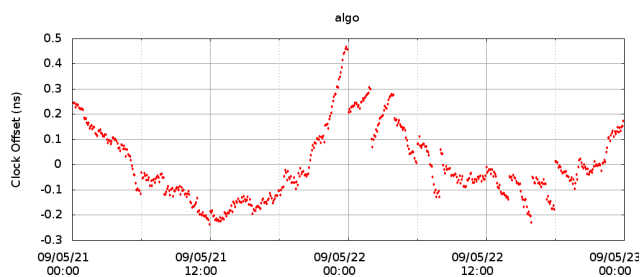
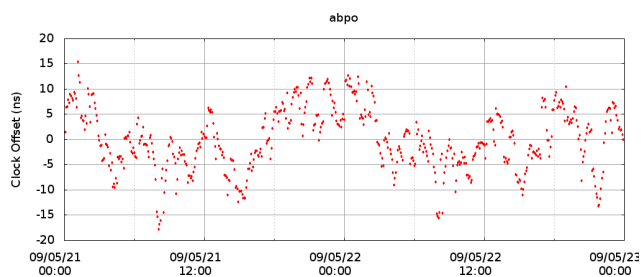


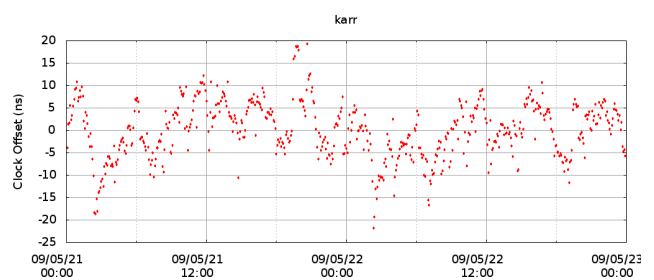
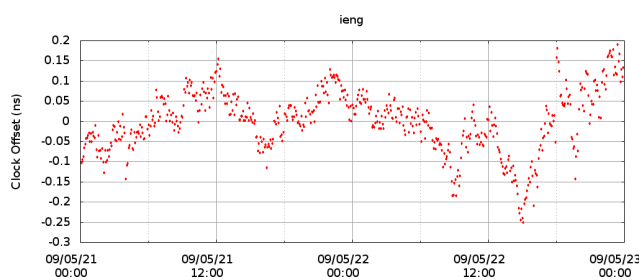
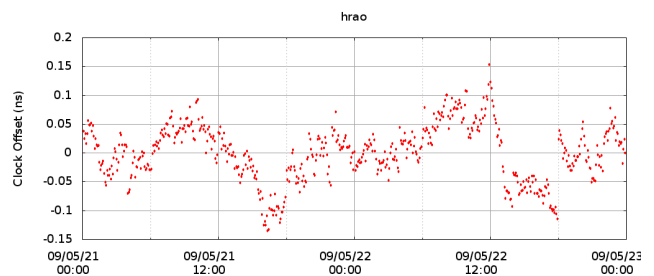
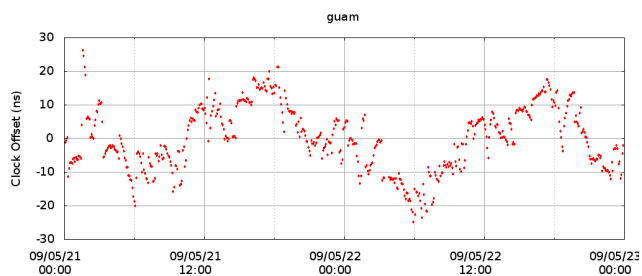
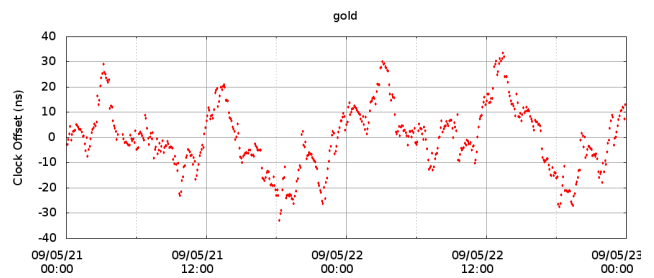
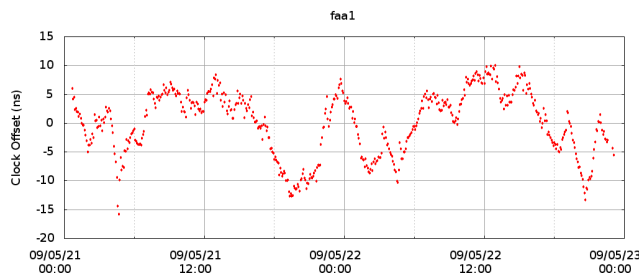
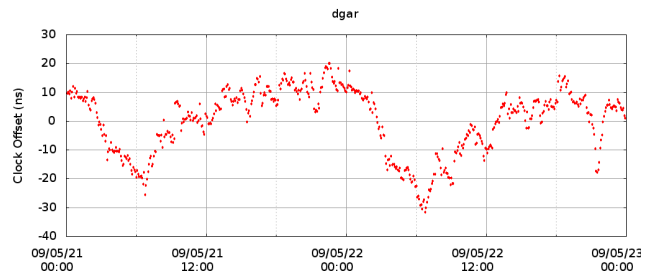
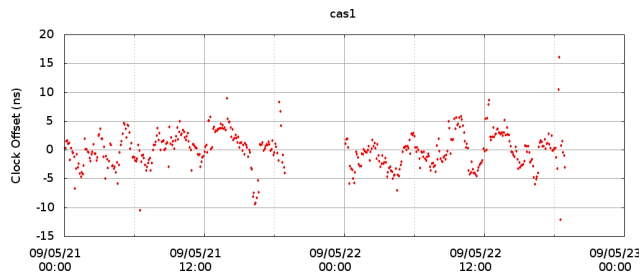
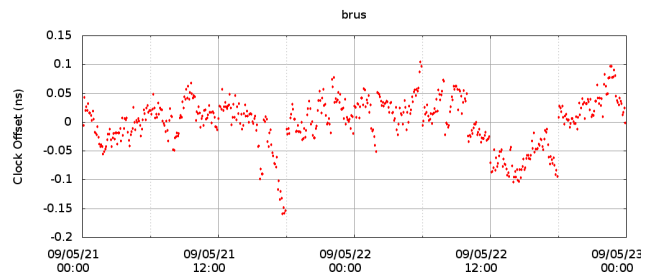
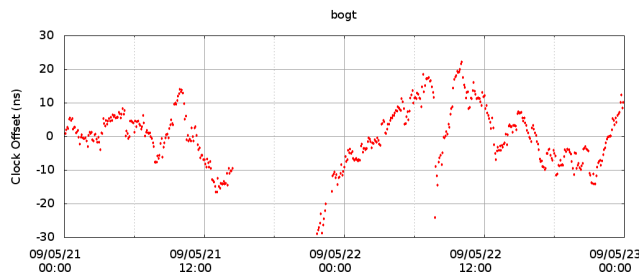
Table 7. Satellite Clocks

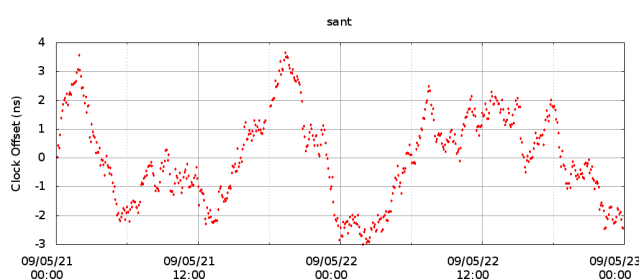
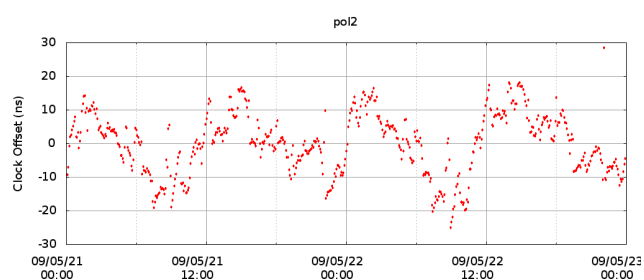
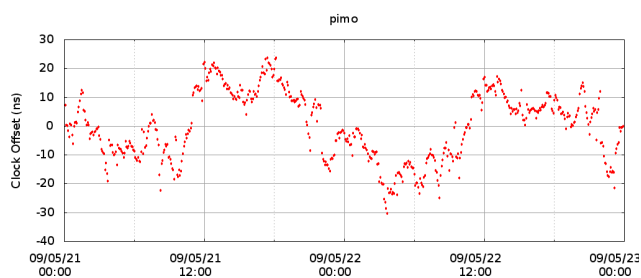
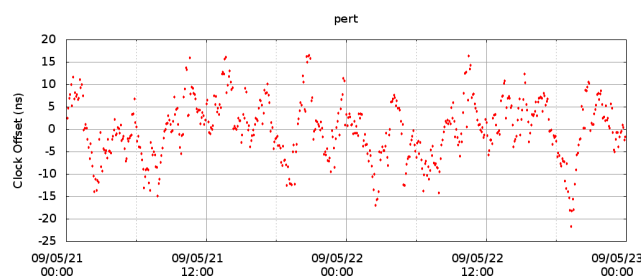
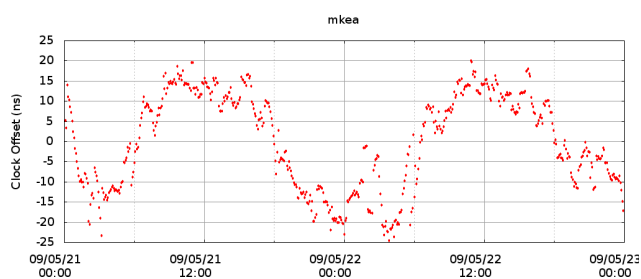
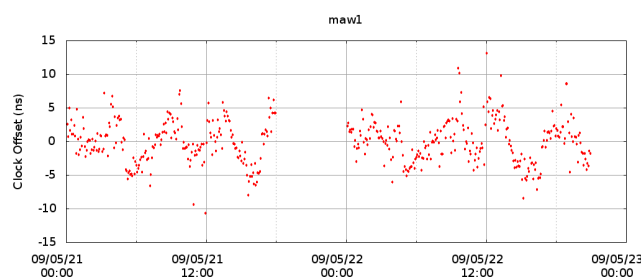
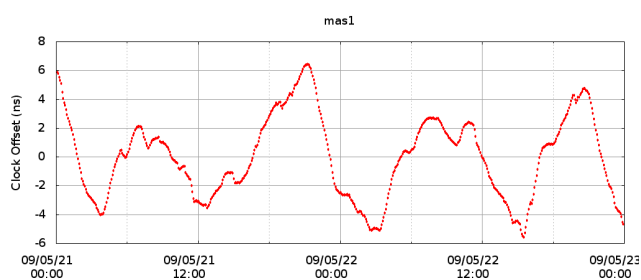
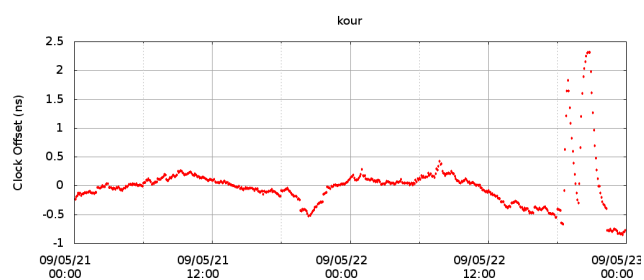
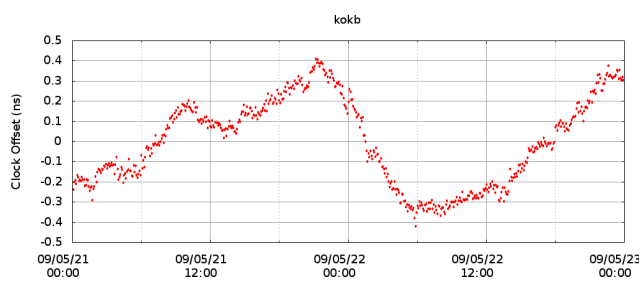
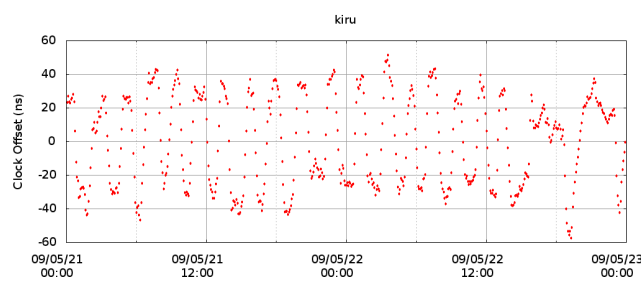


### 3.4. STATION CLOCKS

The figures represent clock offset with respect to the reference clock, after the removal of a parabola.







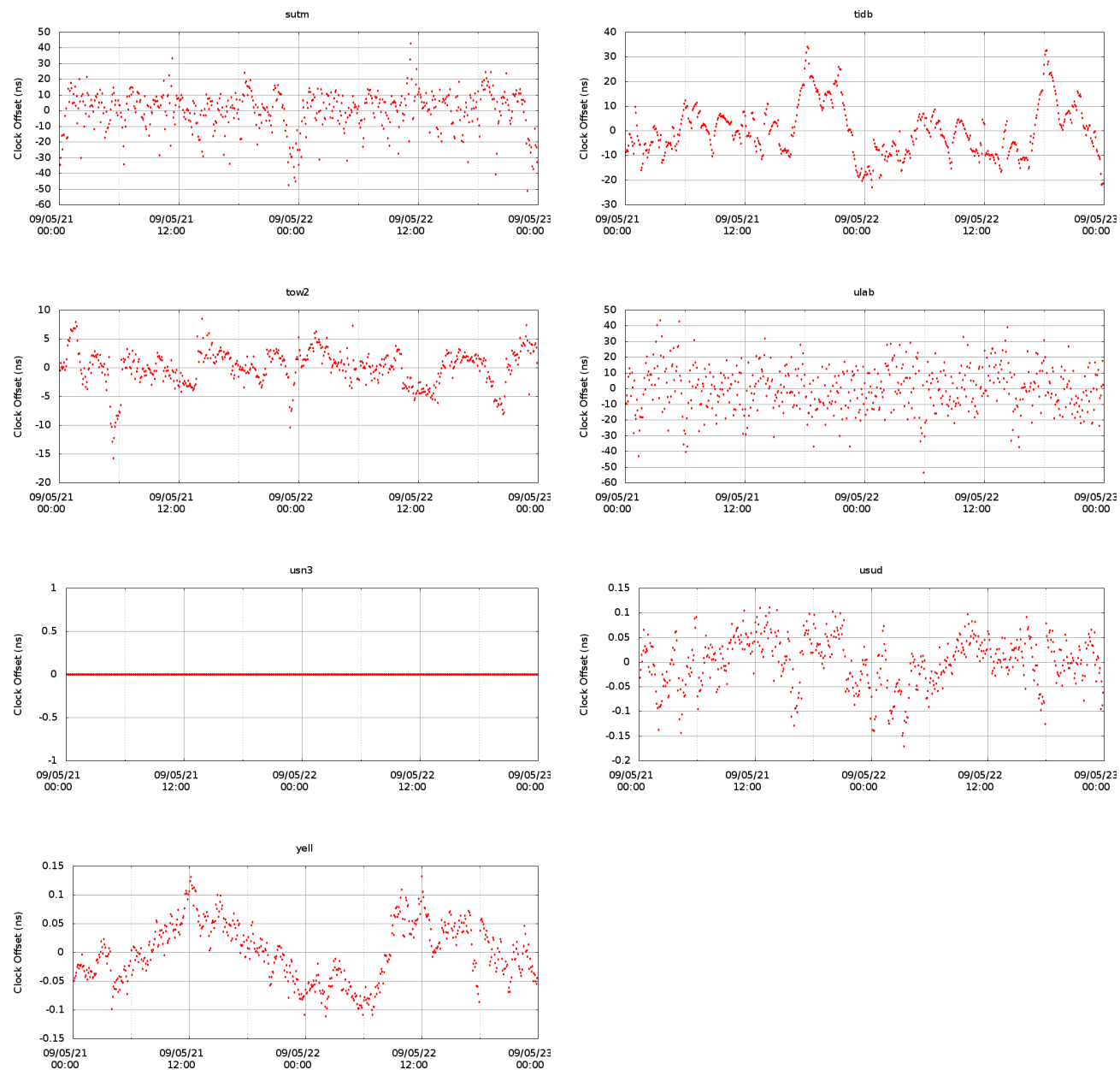
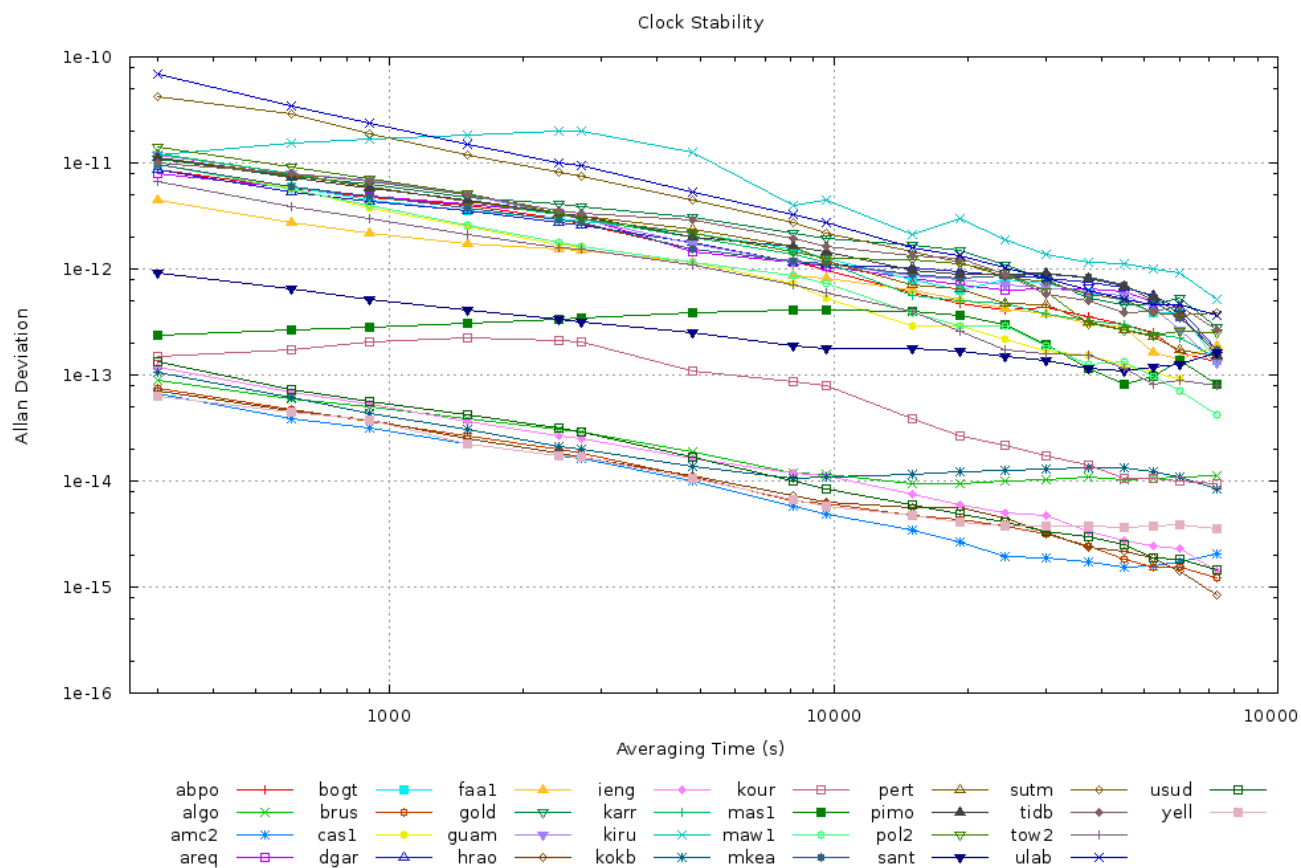
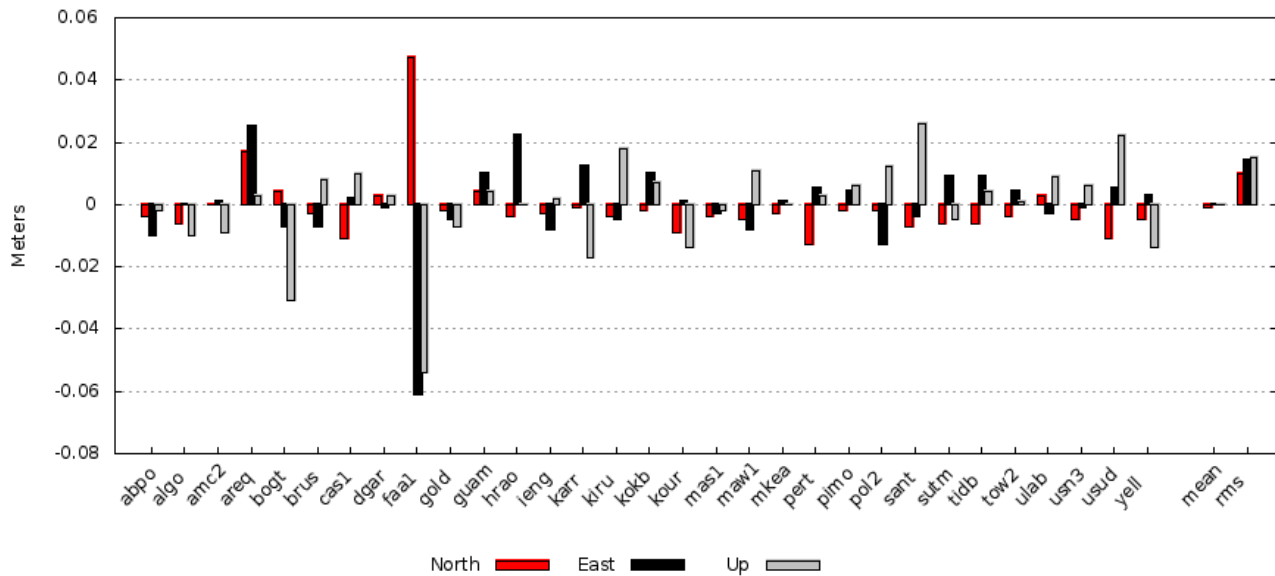


Table 8. Station Clocks





### 3.5. DIFFERENCE BETWEEN REFINED AND A PRIORI COORDINATES



### DISCLAIMER

magicGNSS is an online service provided by GMV for registered users. You can apply for a free account at [magicgnss.gmv.com](http://magicgnss.gmv.com). Using magicGNSS implies that you accept these Terms of Use. You may not disclose your account's username and password information to third parties. GMV does not provide any guarantee, express or implied, or assume any legal liability or responsibility for the accuracy, completeness or usefulness of the products generated by magicGNSS. Use of these products is the sole responsibility of the user. Results obtained using the products generated by magicGNSS can be freely included in any publication provided you also include an explicit and clear reference to GMV and to the magicGNSS web site ([magicgnss.gmv.com](http://magicgnss.gmv.com)). magicGNSS uses data and products from the International GNSS Service (IGS) under the terms outlined at <http://igscb.jpl.nasa.gov/faqs.html#id2839737>. Please also include in any resulting publication a citation as requested by IGS on their website. For any question or doubt contact us at [magicgnss@gmv.com](mailto:magicgnss@gmv.com).

GMV AEROSPACE AND DEFENCE S.A.

Isaac Newton 11 P.T.M. Tres Cantos - 28760 Madrid - Spain

Tel.: +34 91 807 21 00 Fax: +34 91 807 21 99

[www.gmv.com](http://www.gmv.com)