Page 1 –

RINEX file name
Station name

Static mode processing

Used Products: ephemerides and clock corrections (FINAL, RAPID or ULTRA-RAPID)

Single or dual-frequency observables processed

The Antenna Phase Centre (APC) to the Antenna Reference Point (ARP) offset used by CSRS-PPP. Based on antenna model listed on the RINEX header record

The estimated coordinates (in the selected reference system and epoch)

Uncertainties :
SIG_PPP: Standard deviation (95%) of the PPP estimated coordinates
SIG_TOT: Total standard deviation (95%) ; incorporates both PPP and epoch transformation uncertainties

A priori Position (Approx) (from RINEX header or from code solution)

Orthometric Height (only if the position is within the Geoid model bounds)

ARP to the Survey Marker distance is provided by the user on the "ANTENNA: DELTA H/E/N" RINEX header record. The ARP is usually the bottom of the antenna mount

CSRS-PPP 2.26.1 (2019-05-31)

SampleStat.17o
STNS CACS-GSD 943020 Ottawa ON Canada

Data Start	Data End	Duration of Observations
2017-04-10 00:00:00.00	2017-04-10 02:59:30.00	2:59:30

Processing Time	Product Type
17:56:52 UTC 2019/09/13	IGS Final

Observations	Frequency	Mode
Phase and Code	Double	Static

Elevation Cut-Off	Rejected Epochs	Estimation Steps
7.5 degrees	0.00 %	30.00 sec

Antenna Model	APC to ARP	ARP to Marker
AOAD/M_T NONE	L1 = 0.092 m L2 = 0.120 m	H:1.000m / E:0.000m / N:0.000m

(APC = antenna phase center; ARP = antenna reference point)

Estimated Position for SampleStat.17o

	Latitude (+n)	Longitude (+e)	Ell. Height
NAD83(CSRS) (1997.0)†	45° 27' 14.95161"	-75° 37' 25.76639"	82.558 m
SIG_PPP(95%)‡	0.013 m	0.013 m	0.030 m
SIG_TOT(95%)‡	0.020 m	0.018 m	0.031 m
A priori*	45° 27' 14.95083"	-75° 37' 25.76542"	83.600 m
Estimated – A priori	0.024 m	-0.021 m	-1.042 m

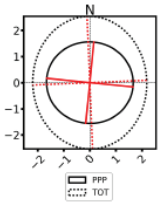
Orthometric Height CGVD28 (HTv2.0)†

115.302 m

(click for height reference information)

95% PPP Error Ellipse (cm)
semi-major: 1.7 cm
semi-minor: 1.6 cm
semi-major azimuth: -84° 44' 13.19"

95% TOT Error Ellipse (cm)
semi-major: 2.5 cm
semi-minor: 2.2 cm
semi-major azimuth: -2° 34' 57.43"



UTM (North) Zone 18

5033592.330 m (N)
451223.102 m (E)

Scale Factors
0.999629 (point)
0.999616 (combined)

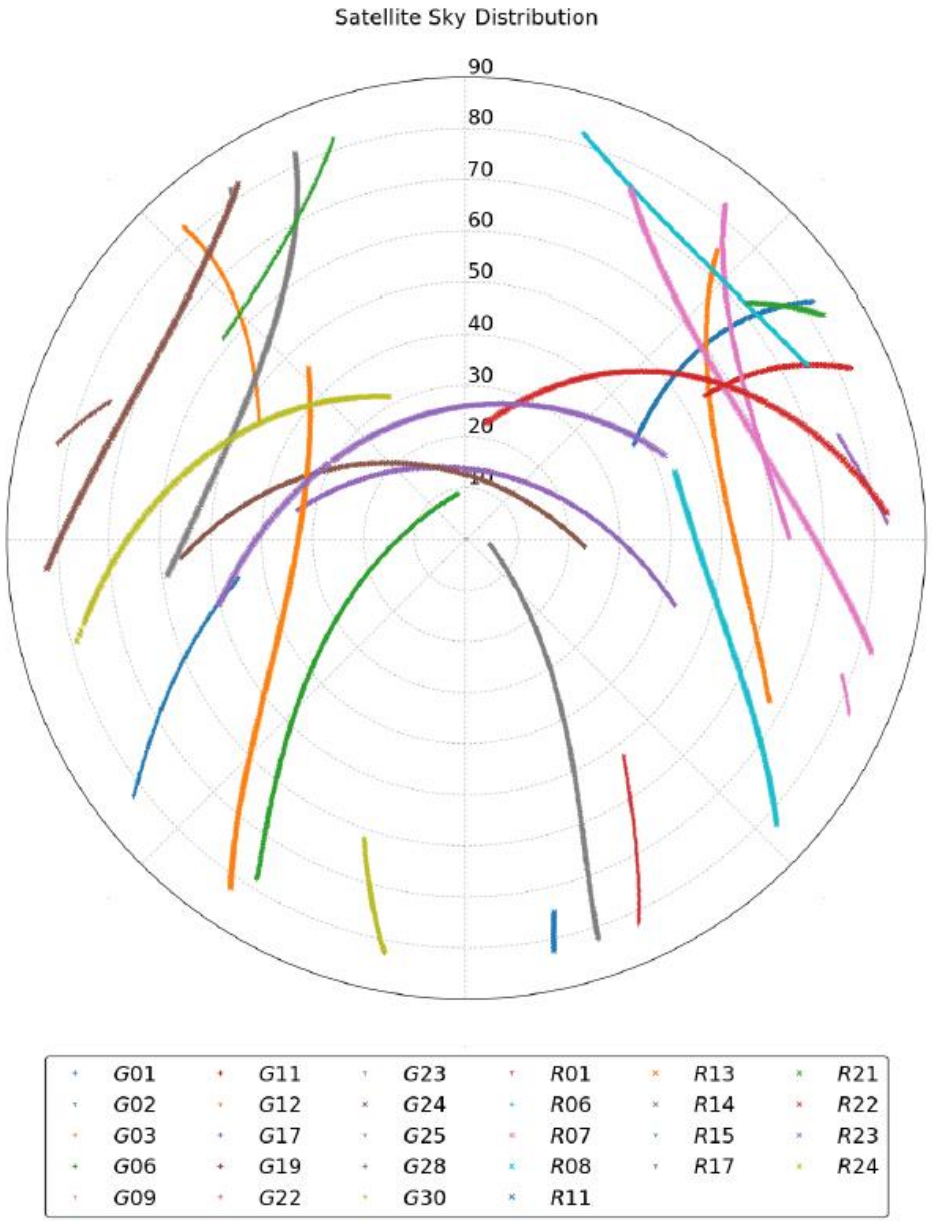
*(Coordinates from RINEX header used as a priori position)

†(Epoch transformation using velocity grid NAD83v70VG (click for documentation))

‡SIG_PPP indicates PPP-derived uncertainties, SIG_TOT incorporates uncertainties from epoch transformation

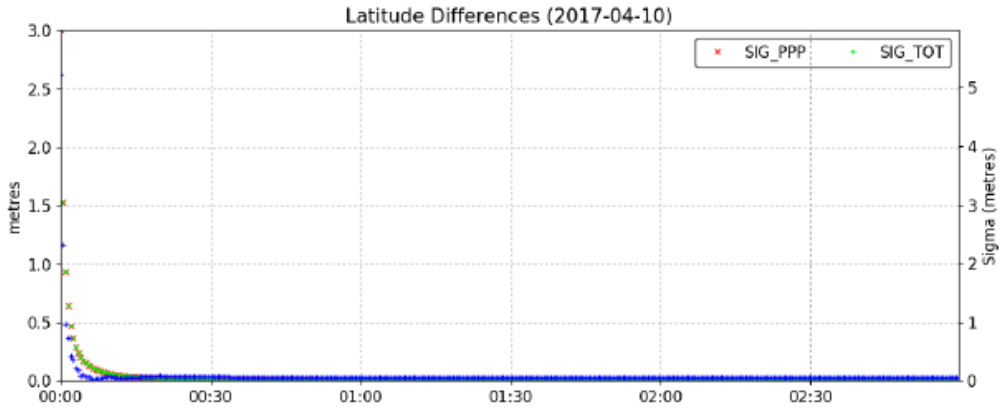
Page 2 – Satellite Sky Distribution

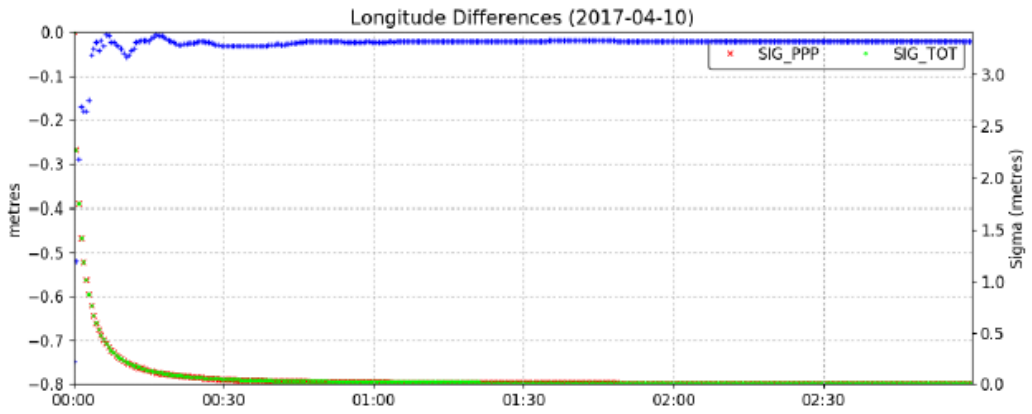
The plot shows the track off each satellite in the sky relative to the antenna. The center of this polar projection plot would be directly overhead while the outer ring of this plot would be the horizon. The plot is oriented so that North is in the “up” direction on the page.

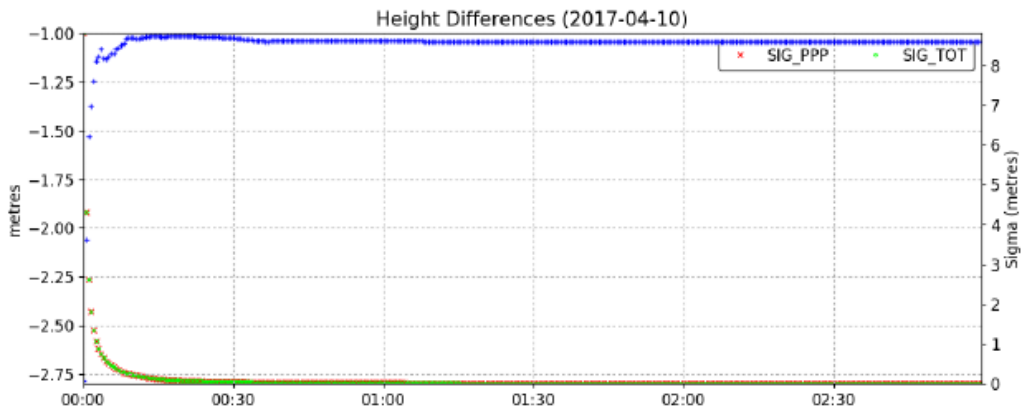


Page 3 – Latitude / Longitude / Height Differences

The plots show the time-series of the difference between the estimated and a priori positions for each epoch where the a priori positions are taken from RINEX header or from code solution. The red and green lines respectively show the standard deviation (95%) of PPP estimated positions and the total standard deviations including the uncertainties due to the epoch transformation if any.







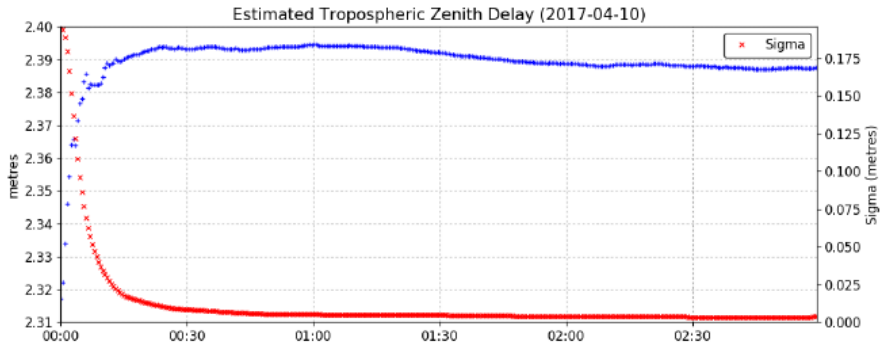
Page 4 – Estimated Tropospheric Zenith Delay / Station Clock Offset / Tracked Satellites and Reset Ambiguities

1- The “Estimated Tropospheric Zenith Delay” plot shows the total estimated troposphere delay in the zenith direction for each epoch in the solution.

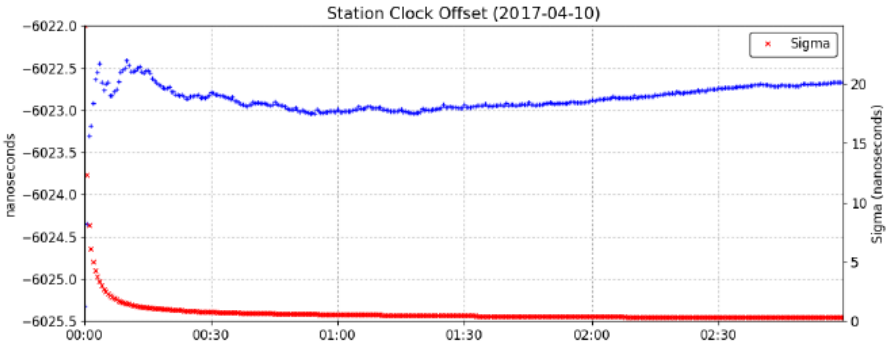
2- The “Station Clock Offset” plot shows the estimated offset between the receiver clock and GPS time for each epoch in the solution.

3- The “Tracked Satellites and Reset Ambiguities” plot shows the number of satellites tracked in blue and the % of ambiguities reset in red.

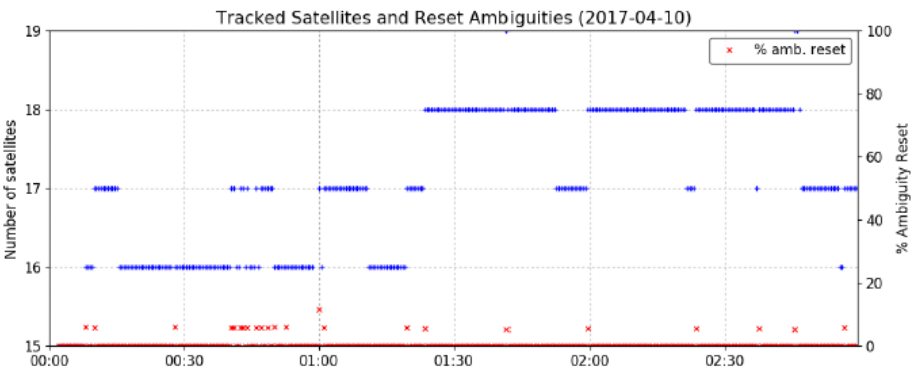
1.



2.



3.



Page 5 – Carrier-Phase / Pseudo-Range Residuals

The “Residuals” plots show the estimated Carrier Phase and Pseudo-Range (code) residuals for each processed satellite at each epoch.