

OPUS-RS solution : 018772_14_246_A0.14O OP1410207004611

opus <opus@ngs.noaa.gov>

Mon 9/8/2014 2:13 PM

To:John Freetly <John.Freetly@neciusa.com>;

FILE: 018772_14_246_A0.14O OP1410207004611

NGS OPUS-RS SOLUTION REPORT

=====

All computed coordinate accuracies are listed as 1-sigma RMS values.

For additional information: <http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>USER: john.freetly@neciusa.com
RINEX FILE: 0187246s.14oDATE: September 08, 2014
TIME: 20:13:26 UTCSOFTWARE: rsgps 1.37 RS52.prl 1.99.2 START: 2014/09/03 18:07:30
EPHEMERIS: igr18083.eph [rapid] STOP: 2014/09/03 19:17:55
NAV FILE: brdc2460.14n OBS USED: 2996 / 3340 : 90%
ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 26.03/ 45.01
ARP HEIGHT: 1.500 NORMALIZED RMS: 0.359

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.67337)

X: -1362893.284(m) 0.009(m) -1362894.143(m) 0.009(m)
Y: -4296143.499(m) 0.011(m) -4296142.245(m) 0.011(m)
Z: 4499577.280(m) 0.011(m) 4499577.237(m) 0.011(m)LAT: 45 8 39.35113 0.007(m) 45 8 39.37162 0.007(m)
E LON: 252 23 56.67209 0.009(m) 252 23 56.61726 0.009(m)
W LON: 107 36 3.32791 0.009(m) 107 36 3.38274 0.009(m)
EL HGT: 1278.681(m) 0.014(m) 1277.990(m) 0.014(m)
ORTHO HGT: 1291.509(m) 0.017(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters] 5002267.662 101206.678
Easting (X) [meters] 295522.698 749332.762
Convergence [degrees] -1.84439270 1.38918177
Point Scale 1.00011413 0.99991647
Combined Factor 0.99991367 0.99971605

US NATIONAL GRID DESIGNATOR: 13TBL9552202267(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	60286.2
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	96971.5
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	102924.6
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	158410.7

NEAREST NGS PUBLISHED CONTROL POINT

Information on nearest mark is not available due to database connectivity issues or has restrictions on when or how it can be published.

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.