

OPUS solution : 018772_14_246_A1.14O OP1410207658832

opus <opus@ngs.noaa.gov>

Mon 9/8/2014 2:24 PM

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

FILE: 018772_14_246_A1.14O OP1410207658832

NGS OPUS SOLUTION REPORT

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All computed coordinate accuracies are listed as peak-to-peak values.

For additional information: <http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>USER: john.freetly@neciusa.com
RINEX FILE: 0187246x.14oDATE: September 08, 2014
TIME: 20:23:45 UTCSOFTWARE: page5 1209.04 master52.pl 022814 START: 2014/09/03 23:54:00
EPHEMERIS: igr18083.eph [rapid] STOP: 2014/09/04 01:58:00
NAV FILE: brdc2460.14n OBS USED: 4643 / 4822 : 96%
ANT NAME: CHCX90D-OPUS NONE # FIXED AMB: 28 / 28 : 100%
ARP HEIGHT: 1.800 OVERALL RMS: 0.012(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.6741)

X: -1362027.322(m) 0.010(m) -1362028.181(m) 0.010(m)
Y: -4293315.076(m) 0.029(m) -4293313.822(m) 0.029(m)
Z: 4502392.391(m) 0.011(m) 4502392.349(m) 0.011(m)LAT: 45 10 51.56629 0.015(m) 45 10 51.58683 0.015(m)
E LON: 252 23 55.30510 0.003(m) 252 23 55.25024 0.003(m)
W LON: 107 36 4.69490 0.003(m) 107 36 4.74976 0.003(m)
EL HGT: 1189.324(m) 0.029(m) 1188.635(m) 0.029(m)
ORTHO HGT: 1202.455(m) 0.050(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters] 5006348.563 105285.964
Easting (X) [meters] 295624.288 749203.986
Convergence [degrees] -1.84583744 1.38890400
Point Scale 1.00011361 0.99989618
Combined Factor 0.99992716 0.99970977

US NATIONAL GRID DESIGNATOR: 13TBL9562406348(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	100274.2
DL7728	P051 BILLINGSAPMT2005 CORS ARP	N454823.741	W1083246.070	101449.9
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	62963.7

NEAREST NGS PUBLISHED CONTROL POINT

QV0342	AIRWAY BCN 34 10 MI NW WYOLA	N451149.514	W1073456.179	2332.4
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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.