

OPUS solution : 018697_14_260_A0.14O OP1411487124856

opus <opus@ngs.noaa.gov>

Tue 9/23/2014 9:48 AM

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

FILE: 018697_14_260_A0.14O OP1411487124856

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: 0186260r.14oDATE: September 23, 2014
TIME: 15:48:28 UTCSOFTWARE: page5 1209.04 master50.pl 022814 START: 2014/09/17 17:43:00
EPHEMERIS: igr18103.eph [rapid] STOP: 2014/09/17 19:56:00
NAV FILE: brdc2600.14n OBS USED: 4832 / 5119 : 94%
ANT NAME: CHCX90D-OPUS NONE # FIXED AMB: 37 / 39 : 95%
ARP HEIGHT: 1.8000 OVERALL RMS: 0.013(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.7117)

X: -1373227.205(m) 0.004(m) -1373228.064(m) 0.004(m)
Y: -4296745.235(m) 0.010(m) -4296743.981(m) 0.010(m)
Z: 4496465.604(m) 0.019(m) 4496465.561(m) 0.019(m)LAT: 45 6 3.13328 0.013(m) 45 6 3.15370 0.013(m)
E LON: 252 16 34.58052 0.002(m) 252 16 34.52565 0.002(m)
W LON: 107 43 25.41948 0.002(m) 107 43 25.47435 0.002(m)
EL HGT: 1690.560(m) 0.019(m) 1689.871(m) 0.019(m)
ORTHO HGT: 1702.390(m) 0.034(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters] 4997765.309 96159.161
Easting (X) [meters] 285705.775 739787.260
Convergence [degrees] -1.93008559 1.29935070
Point Scale 1.00016469 0.99994095
Combined Factor 0.99989966 0.99967598

US NATIONAL GRID DESIGNATOR: 13TBK8570597765(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	99281.6
DL7728	P051 BILLINGSAPMT2005 CORS ARP	N454823.741	W1083246.070	101463.0
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	65493.8

NEAREST NGS PUBLISHED CONTROL POINT

QV0349	SPRING	N450430.189	W1074418.593	3099.6
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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.