

OPUS solution : 018697_14_251_A0.14O OP1410736465989

opus <opus@ngs.noaa.gov>

Sun 9/14/2014 5:17 PM

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

FILE: 018697_14_251_A0.14O OP1410736465989

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 DATE: September 14, 2014
 RINEX FILE: 0186251r.14o TIME: 23:17:09 UTC

SOFTWARE: page5 1209.04 master90.pl 022814 START: 2014/09/08 17:46:00
 EPHEMERIS: igr18091.eph [rapid] STOP: 2014/09/08 19:52:00
 NAV FILE: brdc2510.14n OBS USED: 4672 / 5086 : 92%
 ANT NAME: CHCX90D-OPUS NONE # FIXED AMB: 37 / 39 : 95%
 ARP HEIGHT: 1.8000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.6871)

X: -1364720.157(m) 0.003(m) -1364721.015(m) 0.003(m)
 Y: -4307534.542(m) 0.019(m) -4307533.286(m) 0.019(m)
 Z: 4488443.400(m) 0.021(m) 4488443.356(m) 0.021(m)

LAT: 45 0 3.05873 0.022(m) 45 0 3.07921 0.022(m)
 E LON: 252 25 14.41749 0.004(m) 252 25 14.36283 0.004(m)
 W LON: 107 34 45.58251 0.004(m) 107 34 45.63717 0.004(m)
 EL HGT: 1454.108(m) 0.018(m) 1453.413(m) 0.018(m)
 ORTHO HGT: 1465.691(m) 0.035(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (4902 WYEC)

Northing (Y) [meters] 4986281.497 599988.241
 Easting (X) [meters] 296712.374 380605.560
 Convergence [degrees] -1.82451010 -0.17394795
 Point Scale 1.00010818 0.99994212
 Combined Factor 0.99988022 0.99971420

US NATIONAL GRID DESIGNATOR: 13TBK9671286281(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	50194.2
DL7728	P051 BILLINGSAPMT2005 CORS ARP	N454823.741	W1083246.070	117274.5
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	115174.1

NEAREST NGS PUBLISHED CONTROL POINT

PW0551	PASS	N445744.926	W1073140.265	5888.4
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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.