

OPUS-RS solution : 018772_14_252_A0.14O OP1410792797809

opus <opus@ngs.noaa.gov>

Mon 9/15/2014 8:56 AM

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

FILE: 018772_14_252_A0.14O OP1410792797809

6011 Warning - OPUS-RS was able to find a set of reference stations
 6011 with data suitable for use with your dataset. However, your
 6011 position does not fall within the polygon enclosing these reference
 6011 stations. This means that the geographic interpolation algorithms
 6011 performed within OPUS-RS must instead perform extrapolation.
 6011 Extrapolation, especially if your position is far from the
 6011 reference stations, is prone to error. Use this solution with
 6011 caution.

bi5
 mtei
 p033
 p051

Your station is 14.6 KM outside the polygon enclosing the reference stations

NGS OPUS-RS SOLUTION REPORT

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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: 0187252t.14o

DATE: September 15, 2014
 TIME: 14:56:21 UTC

SOFTWARE: rsgps 1.37 RS50.prl 1.99.2 START: 2014/09/09 19:41:15
 EPHEMERIS: igr18092.eph [rapid] STOP: 2014/09/09 20:40:30
 NAV FILE: brdc2520.14n OBS USED: 2332 / 2688 : 87%
 ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 5.15/ 62.03
 ARP HEIGHT: 1.8000 NORMALIZED RMS: 0.272

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.68998)

X: -1359817.284(m) 0.002(m) -1359818.142(m) 0.002(m)
 Y: -4308033.643(m) 0.014(m) -4308032.387(m) 0.014(m)
 Z: 4489467.641(m) 0.017(m) 4489467.597(m) 0.017(m)

LAT: 45 0 49.47078 0.007(m) 45 0 49.49130 0.007(m)
 E LON: 252 28 54.70403 0.005(m) 252 28 54.64941 0.005(m)
 W LON: 107 31 5.29597 0.005(m) 107 31 5.35059 0.005(m)
 EL HGT: 1469.716(m) 0.020(m) 1469.021(m) 0.020(m)
 ORTHO HGT: 1481.713(m) 0.022(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

	UTM (Zone 13)	SPC (2500 MT)
Northing (Y) [meters]	4987561.864	86867.891
Easting (X) [meters]	301579.614	756208.254
Convergence [degrees]	-1.78159831	1.44974055
Point Scale	1.00008413	0.99999178
Combined Factor	0.99985373	0.99976140

US NATIONAL GRID DESIGNATOR: 13TCK0157987561(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	112809.0
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	117549.2
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	118365.0
DL7728	P051 BILLINGSAPMT2005 CORS ARP	N454823.741	W1083246.070	119355.0

NEAREST NGS PUBLISHED CONTROL POINT

PW0551	PASS	N445744.926	W1073140.265	5757.5
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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.