

OPUS-RS solution : 018697_14_253_A1.14O OP1410795961240

opus <opus@ngs.noaa.gov>

Mon 9/15/2014 9:49 AM

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

FILE: 018697_14_253_A1.14O OP1410795961240

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

Your station is 17.6 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 DATE: September 15, 2014
 RINEX FILE: 0186253r.14o TIME: 15:49:15 UTC

SOFTWARE: rsgps 1.37 RS92.prl 1.99.2 START: 2014/09/10 17:19:45
 EPHEMERIS: igr18093.eph [rapid] STOP: 2014/09/10 19:10:15
 NAV FILE: brdc2530.14n OBS USED: 3291 / 3861 : 85%
 ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 44.46/102.25
 ARP HEIGHT: 1.8000 NORMALIZED RMS: 0.320

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.69249)

X: -1356778.313(m) 0.004(m) -1356779.172(m) 0.004(m)
 Y: -4304021.842(m) 0.017(m) -4304020.587(m) 0.017(m)
 Z: 4493805.259(m) 0.015(m) 4493805.215(m) 0.015(m)

LAT: 45 4 17.36860 0.006(m) 45 4 17.38911 0.006(m)
 E LON: 252 30 11.96841 0.006(m) 252 30 11.91372 0.006(m)
 W LON: 107 29 48.03159 0.006(m) 107 29 48.08628 0.006(m)
 EL HGT: 1189.838(m) 0.022(m) 1189.144(m) 0.022(m)
 ORTHO HGT: 1202.516(m) 0.024(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters]	4993924.757	93326.505
Easting (X) [meters]	303468.713	757735.399
Convergence [degrees]	-1.76818131	1.46544034
Point Scale	1.00007495	0.99995784
Combined Factor	0.99988842	0.99977133

US NATIONAL GRID DESIGNATOR: 13TCK0346893924(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	107362.8
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	114424.7
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	124626.9

NEAREST NGS PUBLISHED CONTROL POINT

QV0323	POWER	N450320.820	W1072550.446	5475.8
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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.