

OPUS-RS solution : 018773_14_247_A1.14O OP1410215968809

opus <opus@ngs.noaa.gov>

Mon 9/8/2014 4:44 PM

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

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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: 0187247p.14oDATE: September 08, 2014
TIME: 22:43:45 UTCSOFTWARE: rsgps 1.37 RS91.prl 1.99.2 START: 2014/09/04 15:05:25
EPHEMERIS: igr18084.eph [rapid] STOP: 2014/09/04 16:04:40
NAV FILE: brdc2470.14n OBS USED: 5050 / 5060 : 100%
ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 30.29/ 7.09
ARP HEIGHT: 1.800 NORMALIZED RMS: 0.381

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.67575)

X: -1359843.057(m) 0.005(m) -1359843.916(m) 0.005(m)
Y: -4297112.453(m) 0.014(m) -4297111.199(m) 0.014(m)
Z: 4499583.965(m) 0.007(m) 4499583.922(m) 0.007(m)LAT: 45 8 39.44906 0.009(m) 45 8 39.46957 0.009(m)
E LON: 252 26 23.13650 0.007(m) 252 26 23.08170 0.007(m)
W LON: 107 33 36.86350 0.007(m) 107 33 36.91830 0.007(m)
EL HGT: 1285.102(m) 0.012(m) 1284.411(m) 0.012(m)
ORTHO HGT: 1298.091(m) 0.015(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters] 5002168.493 101288.098
Easting (X) [meters] 298721.290 752531.247
Convergence [degrees] -1.81552348 1.41894270
Point Scale 1.00009817 0.99991646
Combined Factor 0.99989671 0.99971503

US NATIONAL GRID DESIGNATOR: 13TBL9872102168(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	57841.3
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	98026.9
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	105361.3
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	133126.4
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	161524.9

NEAREST NGS PUBLISHED CONTROL POINT

Information on nearest mark is not available due to database connectivity issues or has restrictions on when or how it can be published.

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.