

OPUS-RS solution : 018772_14_247_A0.14O OP1410208877620

opus <opus@ngs.noaa.gov>

Mon 9/8/2014 2:46 PM

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

FILE: 018772_14_247_A0.14O OP1410208877620

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: 20:45:26 UTCSOFTWARE: rsgps 1.37 RS93.prl 1.99.2 START: 2014/09/04 15:32:50
EPHEMERIS: igr18084.eph [rapid] STOP: 2014/09/04 16:46:20
NAV FILE: brdc2470.14n OBS USED: 4555 / 4885 : 93%
ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 40.61/ 73.04
ARP HEIGHT: 1.800 NORMALIZED RMS: 0.241

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.67582)

X: -1359486.350(m) 0.005(m) -1359487.209(m) 0.005(m)
Y: -4295998.874(m) 0.014(m) -4295997.620(m) 0.014(m)
Z: 4500710.919(m) 0.010(m) 4500710.876(m) 0.010(m)LAT: 45 9 32.03771 0.008(m) 45 9 32.05823 0.008(m)
E LON: 252 26 23.32457 0.007(m) 252 26 23.26976 0.007(m)
W LON: 107 33 36.67543 0.007(m) 107 33 36.73024 0.007(m)
EL HGT: 1259.450(m) 0.014(m) 1258.759(m) 0.014(m)
ORTHO HGT: 1272.559(m) 0.017(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters] 5003791.159 102911.012
Easting (X) [meters] 298776.841 752495.156
Convergence [degrees] -1.81594658 1.41898091
Point Scale 1.00009789 0.99990834
Combined Factor 0.99990045 0.99971094

US NATIONAL GRID DESIGNATOR: 13TBL9877603791(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	58919.4
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	96505.7
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	104332.2
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	134740.7
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	161167.0

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.