

OPUS-RS solution : 018773_14_270_A0.14O OP1411943986391

opus <opus@ngs.noaa.gov>

Sun 9/28/2014 4:47 PM

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

FILE: 018773_14_270_A0.14O OP1411943986391

6030 ***** WARNING *****
 6030 One or both of the standard deviations associated with
 6030 horizontal coordinates is greater than 5 cm, and/or the
 6030 standard deviation associated with the vertical coordinate
 6030 is greater than 10 cm. This means that the vectors used to
 6030 determine your position did not agree as well as expected.
 6030 Often this is the result of problems with the adopted coordinates
 6030 at one or more of the reference stations selected by OPUS-RS.
 6030 If a problem reference station can be identified, it can
 6030 be excluded with the Exclude feature on the OPUS Options
 6030 page.
 6030

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 28, 2014

RINEX FILE: 0187270q.14o

TIME: 22:46:46 UTC

SOFTWARE: rsgps 1.37 RS51.prl 1.99.2 START: 2014/09/27 16:30:30
 EPHEMERIS: igr18116.eph [rapid] STOP: 2014/09/27 17:29:45
 NAV FILE: brdc2700.14n OBS USED: 2196 / 2560 : 86%
 ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 8.23/ 16.78
 ARP HEIGHT: 1.8000 NORMALIZED RMS: 0.540

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

IGS08 (EPOCH:2014.73893)

X: -1352101.488(m) 0.036(m) -1352102.350(m) 0.036(m)
 Y: -4268296.901(m) 0.177(m) -4268295.650(m) 0.177(m)
 Z: 4528694.120(m) 0.198(m) 4528694.081(m) 0.198(m)

LAT: 45 31 8.78227 0.014(m) 45 31 8.80293 0.014(m)
 E LON: 252 25 22.64473 0.036(m) 252 25 22.58947 0.036(m)
 W LON: 107 34 37.35527 0.036(m) 107 34 37.41053 0.036(m)

EL HGT: 1032.665(m) 0.265(m) 1031.983(m) 0.265(m)
 ORTHO HGT: 1047.104(m) 0.265(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters]	5043849.664	142891.682
Easting (X) [meters]	298733.113	750187.803
Convergence [degrees]	-1.83929428	1.40665103
Point Scale	1.00009807	0.99972808
Combined Factor	0.99993618	0.99956625

US NATIONAL GRID DESIGNATOR: 13TBL9873343849(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	83696.1
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	156050.9
DI3425	P052 LRRNCHJRDNMT2006 CORS ARP	N472229.026	W1070107.185	210706.1
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	223140.7

NEAREST NGS PUBLISHED CONTROL POINT

QV0369	CROW	N453520.578	W1073444.105	7787.4
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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.