

OPUS-RS solution : 018773_14_270_A1.14O OP1411944030004

opus <opus@ngs.noaa.gov>

Sun 9/28/2014 4:49 PM

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

FILE: 018773_14_270_A1.14O OP1411944030004

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: 0187270u.14o TIME: 22:49:17 UTC

SOFTWARE: rsgps 1.37 RS93.prl 1.99.2 START: 2014/09/27 20:16:30
 EPHEMERIS: igr18116.eph [rapid] STOP: 2014/09/27 21:15:30
 NAV FILE: brdc2700.14n OBS USED: 3640 / 4130 : 88%
 ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 21.69/ 44.12
 ARP HEIGHT: 1.8000 NORMALIZED RMS: 0.293

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.73936)

X: -1403900.830(m) 0.007(m) -1403901.692(m) 0.007(m)
 Y: -4266463.024(m) 0.018(m) -4266461.774(m) 0.018(m)
 Z: 4515388.417(m) 0.011(m) 4515388.377(m) 0.011(m)

LAT: 45 20 39.41658 0.007(m) 45 20 39.43682 0.007(m)
 E LON: 251 47 9.43062 0.004(m) 251 47 9.37508 0.004(m)
 W LON: 108 12 50.56938 0.004(m) 108 12 50.62492 0.004(m)
 EL HGT: 1498.895(m) 0.020(m) 1498.222(m) 0.020(m)
 ORTHO HGT: 1511.090(m) 0.022(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5024973.012 122449.683
 Easting (X) [meters] 718255.833 700760.673
 Convergence [degrees] 1.98254727 0.94067999
 Point Scale 1.00018573 0.99981079
 Combined Factor 0.99995074 0.99957589

US NATIONAL GRID DESIGNATOR: 12TYR1825524973(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	53927.8
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	71719.7
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	112463.6
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	167975.4
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	198976.2
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	212435.2
DK7547	MTSU BOZEMAN CORS ARP	N453940.376	W1110242.008	224066.2

NEAREST NGS PUBLISHED CONTROL POINT

QW0678	22 DHW	N452420.	W1081934.	11104.9
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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.