

OPUS-RS solution : 018773_14_268_A0.14O OP1411937370885

opus <opus@ngs.noaa.gov>

Sun 9/28/2014 2:55 PM

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

FILE: 018773_14_268_A0.14O OP1411937370885

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: 0187268x.14oDATE: September 28, 2014
TIME: 20:54:49 UTCSOFTWARE: rsgps 1.37 RS93.prl 1.99.2 START: 2014/09/25 23:16:00
EPHEMERIS: igr18114.eph [rapid] STOP: 2014/09/26 00:14:45
NAV FILE: brdc2680.14n OBS USED: 4270 / 4935 : 87%
ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 7.82/ 54.33
ARP HEIGHT: 1.8000 NORMALIZED RMS: 0.289

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.73422)

X: -1394749.166(m) 0.015(m) -1394750.027(m) 0.015(m)
Y: -4269350.687(m) 0.036(m) -4269349.436(m) 0.036(m)
Z: 4515270.935(m) 0.047(m) 4515270.895(m) 0.047(m)LAT: 45 20 39.21406 0.010(m) 45 20 39.23438 0.010(m)
E LON: 251 54 30.10822 0.006(m) 251 54 30.05280 0.006(m)
W LON: 108 5 29.89178 0.006(m) 108 5 29.94720 0.006(m)
EL HGT: 1339.919(m) 0.061(m) 1339.243(m) 0.061(m)
ORTHO HGT: 1352.361(m) 0.061(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5025306.023 122608.399
Easting (X) [meters] 727845.791 710351.250
Convergence [degrees] 2.06972840 1.03022374
Point Scale 1.00023834 0.99981082
Combined Factor 1.00002826 0.99960083

US NATIONAL GRID DESIGNATOR: 12TYR2784525306(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	59805.9
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	70086.9
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	104457.1
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	116527.9
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	208398.5
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	216820.1
DK7547	MTSU BOZEMAN CORS ARP	N453940.376	W1110242.008	233516.3

NEAREST NGS PUBLISHED CONTROL POINT

QW0529	GRAPE	N451729.830	W1080346.244	6274.8
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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.