



Lodermeier, Blaise <bloderme@blm.gov>

OPUS solution : log20150706\_064950.tps OP1436231949341

1 message

opus <opus@ngs.noaa.gov>
Reply-To: ngs.opus@noaa.gov
To: bloderme@blm.gov

Mon, Jul 6, 2015 at 7:20 PM

FILE: log20150706\_064950.tps OP1436231949341

2005 NOTE: The IGS precise and IGS rapid orbits were not available
2005 at processing time. The IGS ultra-rapid orbit was/will be used to
2005 process the data.
2005

NGS OPUS SOLUTION REPORT
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All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy

USER: bloderme@blm.gov DATE: July 07, 2015
RINEX FILE: log21870.15o TIME: 01:20:39 UTC

SOFTWARE: page5 1209.04 master52.pl 022814 START: 2015/07/06 14:01:00
EPHEMERIS: igu18521.eph [ultra-rapid] STOP: 2015/07/06 18:37:00
NAV FILE: brdc1870.15n OBS USED: 12081 / 12141 : 100%
ANT NAME: TPSGR5 NONE # FIXED AMB: 48 / 48 : 100%
ARP HEIGHT: 0.786384 OVERALL RMS: 0.012(m)

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2015.5115)

X: -1097540.061(m) 0.016(m) -1097540.928(m) 0.016(m)
Y: -4383182.455(m) 0.005(m) -4383181.185(m) 0.005(m)
Z: 4487887.908(m) 0.011(m) 4487887.856(m) 0.011(m)

LAT: 44 59 51.43250 0.010(m) 44 59 51.45470 0.010(m)
E LON: 255 56 32.26901 0.017(m) 255 56 32.21654 0.017(m)
W LON: 104 3 27.73099 0.017(m) 104 3 27.78346 0.017(m)
EL HGT: 1027.494(m) 0.005(m) 1026.734(m) 0.005(m)
ORTHO HGT: 1042.918(m) 0.012(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES
UTM (Zone 13) SPC (2500 MT )
Northing (Y) [meters] 4983117.883 98002.323
Easting (X) [meters] 574270.493 1028781.058
Convergence [degrees] 0.66630723 3.98106310
Point Scale 0.99966783 1.00000143
Combined Factor 0.99950681 0.99984036

US NATIONAL GRID DESIGNATOR: 13TEK7427083117(NAD 83)

BASE STATIONS USED
PID DESIGNATION LATITUDE LONGITUDE DISTANCE(m)

DP1963	SDRC RAPID CITY CORS ARP	N440457.973	W1031332.337	121291.1
DK4097	MDR5 MEDORA 5 CORS ARP	N465418.562	W1031628.795	220561.6
DI2263	P055 GLENDIVEWTMT2006 CORS ARP	N470700.144	W1044106.394	240509.0

## NEAREST NGS PUBLISHED CONTROL POINT

AA2139	NE CORNER WYOMING	N445951.433	W1040327.731	0.0
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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.