

OPUS-RS solution : 018772_14_230_A0.14O OP1408468939357

opus <opus@ngs.noaa.gov>

Tue 8/19/2014 11:25 AM

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

FILE: 018772_14_230_A0.14O OP1408468939357

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-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: August 19, 2014
 RINEX FILE: 0187230t.14o TIME: 17:25:09 UTC

SOFTWARE: rsgps 1.37 RS50.prl 1.99.2 START: 2014/08/18 19:03:05
 EPHEMERIS: igu18061.eph [ultra-rapid] STOP: 2014/08/18 20:18:15
 NAV FILE: brdc2300.14n OBS USED: 3660 / 4610 : 79%
 ANT NAME: CHCX91R NONE QUALITY IND. 32.77/ 56.83
 ARP HEIGHT: 1.8000 NORMALIZED RMS: 0.339

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.62964)

X: -1373813.464(m) 0.009(m) -1373814.341(m) 0.009(m)
 Y: -4015141.455(m) 0.021(m) -4015140.234(m) 0.021(m)
 Z: 4746647.181(m) 0.021(m) 4746647.175(m) 0.021(m)

LAT: 48 23 35.86967 0.003(m) 48 23 35.89063 0.003(m)
 E LON: 251 6 40.31566 0.002(m) 251 6 40.25611 0.002(m)
 W LON: 108 53 19.68434 0.002(m) 108 53 19.74389 0.002(m)
 EL HGT: 829.159(m) 0.031(m) 828.576(m) 0.031(m)
 ORTHO HGT: 845.087(m) 0.032(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5362168.422 460587.693
 Easting (X) [meters] 656281.066 645248.433
 Convergence [degrees] 1.57890428 0.44709449

Point Scale	0.99990009	0.99968453
Combined Factor	0.99977017	0.99955464

US NATIONAL GRID DESIGNATOR: 12UXU5628162168(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9749	MTMS MONTANA STATE UNI CORS ARP	N483227.426	W1094111.858	61247.8
DL7731	P053 WHITEWATERMT2007 CORS ARP	N484333.865	W1074331.456	93519.3
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	154604.3
DI3425	P052 LRRNCHJRDNMT2006 CORS ARP	N472229.026	W1070107.185	179981.8
DI3422	P050 WICKUMRNCHMT2006 CORS ARP	N484834.096	W1111454.296	180094.8

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.