

OPUS solution : 018697_14_268_A2.14O OP1411934918036

opus <opus@ngs.noaa.gov>

Sun 9/28/2014 2:12 PM

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

FILE: 018697_14_268_A2.14O OP1411934918036

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: john.freetly@neciusa.com
RINEX FILE: 0186268v.14oDATE: September 28, 2014
TIME: 20:11:52 UTCSOFTWARE: page5 1209.04 master52.pl 022814 START: 2014/09/25 21:00:00
EPHEMERIS: igr18114.eph [rapid] STOP: 2014/09/26 00:33:00
NAV FILE: brdc2680.14n OBS USED: 7624 / 8193 : 93%
ANT NAME: CHCX90D-OPUS NONE # FIXED AMB: 47 / 52 : 90%
ARP HEIGHT: 1.8000 OVERALL RMS: 0.014(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.7341)

X: -1390931.756(m) 0.005(m) -1390932.618(m) 0.005(m)
Y: -4263175.053(m) 0.007(m) -4263173.803(m) 0.007(m)
Z: 4521892.703(m) 0.012(m) 4521892.664(m) 0.012(m)LAT: 45 25 52.48291 0.009(m) 45 25 52.50328 0.009(m)
E LON: 251 55 48.80453 0.006(m) 251 55 48.74900 0.006(m)
W LON: 108 4 11.19547 0.006(m) 108 4 11.25100 0.006(m)
EL HGT: 1098.720(m) 0.011(m) 1098.046(m) 0.011(m)
ORTHO HGT: 1111.535(m) 0.020(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters] 5035442.923 132307.038
Easting (X) [meters] 259878.050 711887.343
Convergence [degrees] -2.18797706 1.04621449
Point Scale 1.00030897 0.99976852
Combined Factor 1.00013669 0.99959633

US NATIONAL GRID DESIGNATOR: 13TBL5987835442(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	108961.4
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	60289.4
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	117504.3

NEAREST NGS PUBLISHED CONTROL POINT

QW0528	POINT	N452502.157	W1080636.918	3524.7
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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.