

## OPUS-RS solution : 018506\_14\_239\_A0.14O OP1409767339596

opus &lt;opus@ngs.noaa.gov&gt;

Wed 9/3/2014 12:06 PM

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## 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: 0185239a.14oDATE: September 03, 2014  
TIME: 18:06:13 UTCSOFTWARE: rsgps 1.37 RS91.prl 1.99.2      START: 2014/08/27 00:01:15  
EPHEMERIS: igr18072.eph [rapid]      STOP: 2014/08/27 01:12:00  
NAV FILE: brdc2380.14n      OBS USED: 4470 / 4638 : 96%  
ANT NAME: CHCX90D-OPUS      NONE      QUALITY IND. 9.38/ 42.06  
ARP HEIGHT: 1.8000      NORMALIZED RMS: 0.241

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)      IGS08 (EPOCH:2014.65212)

X: -1338567.003(m) 0.005(m)      -1338567.863(m) 0.005(m)  
Y: -4279595.822(m) 0.007(m)      -4279594.569(m) 0.007(m)  
Z: 4522048.698(m) 0.008(m)      4522048.658(m) 0.008(m)LAT: 45 26 2.84748 0.006(m)      45 26 2.86824 0.006(m)  
E LON: 252 37 53.11818 0.005(m)      252 37 53.06322 0.005(m)  
W LON: 107 22 6.88182 0.005(m)      107 22 6.93678 0.005(m)  
EL HGT: 1002.450(m) 0.010(m)      1001.763(m) 0.010(m)  
ORTHO HGT: 1016.937(m) 0.013(m) [NAVD88 (Computed using GEOID12A)]

## UTM COORDINATES      STATE PLANE COORDINATES

UTM (Zone 13)      SPC (2500 MT )

Northing (Y) [meters]      5033906.934      133873.971  
Easting (X) [meters]      314735.616      766722.535  
Convergence [degrees]      -1.68795780      1.55914395  
Point Scale      1.00002202      0.99976716  
Combined Factor      0.99986488      0.99961006

US NATIONAL GRID DESIGNATOR: 13TCL1473533906(NAD 83)

## BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	75875.6
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	77173.2
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	102195.8
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	172344.4
DI3425	P052 LRRNCHJRDNMT2006 CORS ARP	N472229.026	W1070107.185	217408.4
DI2260	P054 TEREKALAKAMT2006 CORS ARP	N455046.833	W1042629.062	232777.9

## 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.