

Lee Drennan

From: opus <opus@ngs.noaa.gov>
Sent: Tuesday, May 02, 2017 8:12 AM
To: Lee Drennan
Subject: OPUS solution : 04111154.17o OP1493730651749

FILE: 04111154.17o OP1493730651749

NGS OPUS SOLUTION REPORT =====

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: ldrennan@mphinc.com DATE: May 02, 2017
RINEX FILE: 0411115s.17o TIME: 13:11:25 UTC

SOFTWARE: page5 1209.04 master57.pl 160321 START: 2017/04/25 18:21:00
EPHEMERIS: igr19462.eph [rapid] STOP: 2017/04/25 20:57:00
NAV FILE: brdc1150.17n OBS USED: 5187 / 6377 : 81%
ANT NAME: TRMR10 NONE # FIXED AMB: 47 / 59 : 80%
ARP HEIGHT: 2.050 OVERALL RMS: 0.020(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2017.3146)

X:	32525.988(m)	0.006(m)	32525.175(m)	0.006(m)
Y:	-5463668.264(m)	0.041(m)	-5463666.778(m)	0.041(m)
Z:	3279593.338(m)	0.021(m)	3279593.167(m)	0.021(m)

LAT:	31 8 38.86616	0.015(m)	31 8 38.88644	0.015(m)
E LON:	270 20 27.90899	0.006(m)	270 20 27.87863	0.006(m)
W LON:	89 39 32.09101	0.006(m)	89 39 32.12137	0.006(m)
EL HGT:	24.901(m)	0.041(m)	23.537(m)	0.041(m)
ORTHO HGT:	52.137(m)	0.072(m)	[NAVD88 (Computed using GEOID12B)]	

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 16)	SPC (2302 MS W)
Northing (Y) [meters]	3448618.753	182451.431
Easting (X) [meters]	246503.895	764310.306
Convergence [degrees]	-1.37590518	0.34881663
Point Scale	1.00039271	1.00000100
Combined Factor	1.00038880	0.99999709

US NATIONAL GRID DESIGNATOR: 16RBV4650348618(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DN7498	MSEV ELLISVILLE CORS ARP	N313542.081	W0891213.274	66142.6
DN8737	MSIN INFINITY CENTER CORS ARP	N301842.205	W0893615.507	92431.8
DG6568	COVG COVINGTON CORS ARP	N302833.269	W0900543.922	85052.2

NEAREST NGS PUBLISHED CONTROL POINT

BV0915	C 111 RESET 1952	N310701.	W0893922.	3025.9
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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.