

Holliday, Robert

From: opus <opus@ngs.noaa.gov>
Sent: Friday, September 15, 2017 1:46 PM
To: George Bornemann
Subject: OPUS-RS solution : 541 TR1013603249289

FILE: 541 TR1013603249289

NGS OPUS-RS SOLUTION REPORT

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All computed coordinate accuracies are listed as 1-sigma RMS values.
For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: georgeb@ctagroup.com DATE: September 15, 2017
RINEX FILE: 541_256t.17o TIME: 19:45:51 UTC

SOFTWARE: rsgps 1.38 RS57.prl 1.99.3 START: 2017/09/13 19:29:25
EPHEMERIS: igr19663.eph [rapid] STOP: 2017/09/13 20:03:35
NAV FILE: brdc2560.17n OBS USED: 3447 / 4086 : 84%
ANT NAME: TRMR8S NONE QUALITY IND. 17.41/ 4.35
ARP HEIGHT: 1.0363 NORMALIZED RMS: 0.373

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2017.70089)

X: -1604273.200(m) 0.023(m) -1604274.106(m) 0.023(m)
Y: -4197531.620(m) 0.044(m) -4197530.383(m) 0.044(m)
Z: 4513838.553(m) 0.060(m) 4513838.502(m) 0.060(m)

LAT: 45 19 14.61212 0.043(m) 45 19 14.63012 0.043(m)
E LON: 249 5 0.32053 0.033(m) 249 5 0.26142 0.033(m)
W LON: 110 54 59.67947 0.033(m) 110 54 59.73858 0.033(m)
EL HGT: 1908.208(m) 0.056(m) 1907.587(m) 0.056(m)
ORTHO HGT: 1917.470(m) 0.057(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters]	5018583.337	120009.102
Easting (X) [meters]	506538.174	488957.974
Convergence [degrees]	0.05931782	-1.03623249
Point Scale	0.99960053	0.99982262
Combined Factor	0.99930157	0.99952359

US NATIONAL GRID DESIGNATOR: 12TWR0653818583(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	106487.3
DG8532	TSWY TSWY_EBRY_WY2001 CORS ARP	N434026.703	W1103550.864	184782.6
DP3858	P707 REDROCKLAKMT2008 CORS ARP	N444307.553	W1115013.738	98722.9
DL7705	NOMT NOMT_EBRY_MT1999 CORS ARP	N453548.889	W1113747.304	63690.4
DI2257	P049 ARMINGTON_MT2006 CORS ARP	N472059.850	W1105422.382	225610.8
DL7755	P706 MATADORRCHMT2006 CORS ARP	N450236.472	W1123126.669	130080.3
DL7725	P045 BIRCHCREEKMT2006 CORS ARP	N452258.325	W1123701.828	133474.7
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	223801.9
DP4103	IDDU DUBOIS CORS ARP	N441027.079	W1121409.084	164805.0

NEAREST NGS PUBLISHED CONTROL POINT

QX0712	BIG	N451703.866	W1105603.624	4270.0
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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.