

Holliday, Robert

From: opus <opus@ngs.noaa.gov>
Sent: Saturday, September 30, 2017 2:17 PM
To: George Bornemann
Subject: OPUS-RS solution : 554 TR3992875883490

FILE: 554 TR3992875883490

6030 ***** WARNING *****
6030 One or both of the standard deviations associated with
6030 horizontal coordinates is greater than 5 cm, and/or the
6030 standard deviation associated with the vertical coordinate
6030 is greater than 10 cm. This means that the vectors used to
6030 determine your position did not agree as well as expected.
6030 Often this is the result of problems with the adopted coordinates
6030 at one or more of the reference stations selected by OPUS-RS.
6030 If a problem reference station can be identified, it can
6030 be excluded with the Exclude feature on the OPUS Options
6030 page.
6030

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 30, 2017
RINEX FILE: 554_272r.17o TIME: 20:16:30 UTC

SOFTWARE: rsgps 1.38 RS90.prl 1.99.3 START: 2017/09/29 17:33:20
EPHEMERIS: igr19685.eph [rapid] STOP: 2017/09/29 17:54:20
NAV FILE: brdc2720.17n OBS USED: 1176 / 1372 : 86%
ANT NAME: TRMR8S NONE QUALITY IND. 19.35/ 6.01
ARP HEIGHT: 1.0363 NORMALIZED RMS: 0.439

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2017.74449)

X: -1605599.609(m) 0.101(m) -1605600.516(m) 0.101(m)
Y: -4201005.091(m) 0.191(m) -4201003.854(m) 0.191(m)
Z: 4510737.125(m) 0.155(m) 4510737.073(m) 0.155(m)

LAT: 45 16 38.39221 0.043(m) 45 16 38.41018 0.043(m)
E LON: 249 5 0.36902 0.026(m) 249 5 0.30991 0.026(m)
W LON: 110 54 59.63098 0.026(m) 110 54 59.69009 0.026(m)
EL HGT: 2319.097(m) 0.261(m) 2318.475(m) 0.261(m)
ORTHO HGT: 2328.143(m) 0.261(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters]	5013762.515	115187.921
Easting (X) [meters]	506544.220	488871.827
Convergence [degrees]	0.05928295	-1.03622264
Point Scale	0.99960053	0.99984485
Combined Factor	0.99923722	0.99948145

US NATIONAL GRID DESIGNATOR: 12TWR0654413762(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DL7758	P722 YNPBASSRCHMT2005	CORS ARP	N452725.985 W1093415.586	107325.4
DP3858	P707 REDROCKLAKMT2008	CORS ARP	N444307.553 W1115013.738	95542.7
DI2257	P049 ARMINGTON_MT2006	CORS ARP	N472059.850 W1105422.382	230443.0
DL7755	P706 MATADORRCHMT2006	CORS ARP	N450236.472 W1123126.669	129075.7
DL7725	P045 BIRCHCREEKMT2006	CORS ARP	N452258.325 W1123701.828	133868.6
DM7133	MTLW LEWISTOWN	CORS ARP	N470314.929 W1092633.764	227998.6
DP4103	IDDU DUBOIS	CORS ARP	N441027.079 W1121409.084	161137.0

NEAREST NGS PUBLISHED CONTROL POINT

QX0712	BIG	N451703.866 W1105603.624	1601.1
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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.