

Holliday, Robert

From: opus <opus@ngs.noaa.gov>
Sent: Monday, September 18, 2017 8:06 AM
To: George Bornemann
Subject: OPUS-RS solution : 544 TR3402259516251

FILE: 544 TR3402259516251

2005 NOTE: The IGS precise and IGS rapid orbits were not available
2005 at processing time. The IGS ultra-rapid orbit was/will be used to
2005 process the data.

2005

1008 NOTE: You provided a zero or negative antenna height.

1008 If ARP HGT = 0.0, OPUS solves for the position of your selected antenna's reference point (ARP).

1008 If ARP HGT < 0.0, OPUS solves for a location inside or above the antenna

1008

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

=====

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 18, 2017
RINEX FILE: 544_260s.17o TIME: 14:05:32 UTC

SOFTWARE: rsgps 1.38 RS55.prl 1.99.3 START: 2017/09/17 18:05:15
EPHEMERIS: igu19670.eph [ultra-rapid] STOP: 2017/09/17 18:26:35
NAV FILE: brdc2600.17n OBS USED: 1016 / 1024 : 99%
ANT NAME: TRMR8S NONE QUALITY IND. 47.21/ 11.62
ARP HEIGHT: 0 NORMALIZED RMS: 0.271

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2017.71167)

X: -1605447.485(m) 0.051(m) -1605448.391(m) 0.051(m)
Y: -4196104.577(m) 0.089(m) -4196103.340(m) 0.089(m)

Z: 4515195.091(m) 0.083(m) 4515195.040(m) 0.083(m)

LAT: 45 20 6.53050 0.017(m) 45 20 6.54850 0.017(m)

E LON: 249 3 46.57118 0.018(m) 249 3 46.51204 0.018(m)

W LON: 110 56 13.42882 0.018(m) 110 56 13.48796 0.018(m)

EL HGT: 2230.675(m) 0.129(m) 2230.054(m) 0.129(m)

ORTHO HGT: 2239.918(m) 0.130(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5020184.047 121640.604

Easting (X) [meters] 504931.351 487381.712

Convergence [degrees] 0.04476235 -1.05121804

Point Scale 0.99960030 0.99981536

Combined Factor 0.99925084 0.99946582

US NATIONAL GRID DESIGNATOR: 12TWR0493120184(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DL7758	P722 YNPBASSRCHMT2005	CORS ARP	N452725.985 W1093415.586	107853.4
DP3858	P707 REDROCKLAKMT2008	CORS ARP	N444307.553 W1115013.738	98643.7
DL7705	NOMT NOMT_EBRY_MT1999	CORS ARP	N453548.889 W1113747.304	61514.6
DI2257	P049 ARMINGTON_MT2006	CORS ARP	N472059.850 W1105422.382	224025.9
DL7755	P706 MATADORRCHMT2006	CORS ARP	N450236.472 W1123126.669	128898.8
DL7725	P045 BIRCHCREEKMT2006	CORS ARP	N452258.325 W1123701.828	131784.7
DM7133	MTLW LEWISTOWN	CORS ARP	N470314.929 W1092633.764	223235.4
DP4103	IDDU DUBOIS	CORS ARP	N441027.079 W1121409.084	165028.7

NEAREST NGS PUBLISHED CONTROL POINT

QX0712 BIG N451703.866 W1105603.624 5643.2

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.