

OGD1

CORS station at Kapp in Ogden Utah



Connection notes:

DIP / TCP	Address: apis1.us	Port: 2105	RTCM32 MSM7
DIP/ TCP	Address: apis1.us	Port: 2104	RT27
NTRIP	Address: apis1.us, Port 2101, User igage, Password 2337 Mountpoint: OGD1_RTCM3		
Broadcasts:	Satel 3AS, 9600 baud, FEC OFF, RTCM33 MSM7		

Receiver



Receiver Type:	BD990
System Name:	Trimble
Serial Number:	6025C00778
MAC Address(Ethernet):	04:91:62:BF:D4:BE
Ethernet IPv4 Address:	192.168.18.242
DNS IPv4 Address:	192.168.18.1
Secondary DNS IPv4 Address:	0.0.0.0
DNS Resolved Name:	BD990.lan.
Zeroconf/mDNS address:	GNSS6025C00778.local
Firmware Version:	5.50
Core Engine Version:	5.50
Firmware Date:	2021-03-29
RTK Version:	ALGO_2020.04_T13 C161645
HP/XP Firmware Version:	HP 7.27
VBS Firmware Version:	VBS 2.21c
Monitor Version:	5.53
Antenna Database Version:	8.67
Hardware Version:	3.7
T0x Library Version:	8.130
Fabric Version:	3

Antenna



Antenna Configuration?

Antenna Type: Unknown External

RINEX Name: Unknown External

Antenna Serial Number: 3199515

Radome Serial Number: ARF-AS1-3D-FS

Antenna Measurement Method: Antenna Phase Center

Antenna Height [m]: 0.0000

Apply Antenna Correction to:
RTCM V3 ☐

ARFAS13DFS	ARFS			TYPE / SERIAL NO
ROBOT	Geo++ GmbH	5	05-DEC-18	METH / BY / # / DATE
5.0				DAZI
0.0	90.0	5.0		ZEN1 / ZEN2 / DZEN
4				# OF FREQUENCIES
IGS20_2233				SINEX CODE
# Number of Calibrated Antennas GPS:	005			COMMENT

# Number of Individual Calibrations GPS: 012	COMMENT
# Number of Calibrated Antennas GLO: 005	COMMENT
# Number of Individual Calibrations GLO: 012	COMMENT
# GLONASS PCV (metric)	COMMENT
# derived from Delta PCV per 25.0 MHz	COMMENT
# for frequency channel number k=0	COMMENT
G01	START OF FREQUENCY
+0.47 -0.17 +114.13	NORTH / EAST / UP

TURN Position

Using TURN with Null Antenna and no offsets:



41 12 16.23455 N 112 01 07.01412 W; 1319.699 M Ellipsoid Height

Initial OPUS Project Result

Files are in this folder: ./position/20250613

OPUS	EL HGT:	1319.589 m 0.017 m 1319.703
SessionA	EL HGT:	1319.592 m 0.004 m
SessionB	EL HGT:	1319.588 m 0.005 m

Use this one:

Mark's Final 3D	EL HGT:	1319.599 m 0.003 m 1319.599 + 0.114 = 1319.713
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The difference between TURN and the final 3D adjustment is 0.014 cm (0.046 feet). When the receiver was running as a TURN rover, the elevation was bouncing around more than a tenth of a foot, so TURN may match an OPUS Project solution.

Broadcast Position: June 16, 2025

From 24-hour OPUS solution:

SOFTWARE: page5 2008.25 master297.pl 160321	START: 2025/06/14 00:00:00
EPHEMERIS: igu23706.eph [ultra-rapid]	STOP: 2025/06/14 23:59:30
NAV FILE: brdc1650.25n	OBS USED: 59763 / 61278 : 98%
ANT NAME: ARFAS13DFS ARFS	# FIXED AMB: 239 / 258 : 93%
ARP HEIGHT: 0.00000	OVERALL RMS: 0.013(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000)	ITRF2020 (EPOCH:2025.4507)
X: -1802051.704(m) 0.001(m)	-1802052.731(m) 0.001(m)
Y: -4456065.675(m) 0.001(m)	-4456064.391(m) 0.001(m)

Z:	4180406.796(m)	0.001(m)	4180406.654(m)	0.001(m)
LAT:	41 12 16.23434	0.001(m)	41 12 16.24806	0.001(m)
E LON:	247 58 52.98539	0.001(m)	247 58 52.92386	0.001(m)
W LON:	112 1 7.01461	0.001(m)	112 1 7.07614	0.001(m)
EL HGT:	1319.577(m)	0.001(m)	1318.878(m)	0.001(m)
ORTHO HGT:	1336.467(m)	0.040(m)	[NAVD88 (Computed using GEOID18)]	

$$1319.577 + 0.114 = \mathbf{1319.691}$$