

WGS84 Datum Adjustment Report

Point Name	Value
Number of GPS Baselines:	6
Number of Adjusted Points:	4
Confidence level:	19.0000σ
Significance Level for Tau Test:	0.1000%
Ratio of Standard Error of Unit Weight:	2.6291
X2 Test Value:	31.5496
X2 Test Range:	1.9344-34.8213
X2 Test Result:	True

1. Input Baselines in WGS84

Baselines	Tau	DX(m)	Std.Dev(mm)	DY(m)	Std.Dev(mm)	DZ(m)	Std.Dev(mm)
_mJ23260-MJ1R3260	Yes	1.1556	0.3	0.5267	0.5	88.3129	0.2
neva3260_R-MJ1R3260	Yes	37460.0003	2.1	16346.9595	4.1	101543.9427	1.2
uibe3260_R-MJ1R3260	Yes	-63537.5386	1.5	-12665.8476	4.1	68213.7145	1.2
uibe3260_R-neva3260_R	Yes	-100997.5272	0.3	-29012.7395	0.7	-33330.2790	0.1
neva3260_R-_mJ23260	Yes	37459.0015	2.8	16346.5010	11.3	101455.6442	2.9
uibe3260_R-_mJ23260	Yes	-63538.7324	3.8	-12666.6252	22.2	68125.4782	1.8

2. Control Points Info.

Station Name	X/Lat	Std.Dev_X(mm)	Y/Lon	Std.Dev_Y(mm)	Z/H	Std.Dev_Z(mm)
NEVA	1617259.9521	0.0	-6161575.0795	0.0	324674.9189	0.0
UIBE	1718257.4805	0.0	-6132562.3129	0.0	358005.2004	0.0

3. Adjusted Baselines in WGS84

Baselines	Tau	DX(m)	Std.Dev(mm)	DY(m)	Std.Dev(mm)	DZ(m)	Std.Dev(mm)	Length(m)	Proportional Error
_mJ23260-MJ1R3260	Yes	1.1570	8.1	0.5266	14.5	88.3137	4.7	88.3229	1:5105
neva3260_R-MJ1R3260	Yes	37459.9925	33.4	16346.9920	79.9	101543.8998	21.8	109460.6723	1:1225987
uibe3260_R-MJ1R3260	Yes	-63537.5570	33.4	-12665.8558	79.9	68213.7250	21.8	94077.4007	1:1053690
uibe3260_R-neva3260_R	Yes	-100997.5261	0.0	-29012.7124	0.0	-33330.2765	0.0	110241.3040	1:-2147483648
neva3260_R-_mJ23260	Yes	37459.1492	33.9	16346.6017	81.0	101455.6149	22.0	109378.4304	1:1208358
uibe3260_R-_mJ23260	Yes	-63538.7903	33.9	-12666.8841	81.0	68125.5645	22.0	94014.4689	1:1038625

4. Baseline Residuals

Baselines	VDX(m)	Std.Dev_VDX(mm)	VDY(m)	Std.Dev_VDY(mm)	VDZ(m)	Std.Dev_VDZ(mm)	dVDX(mm)	dVDY(mm)	dVDZ(mm)
_mJ23260-MJ1R3260	0.0013	0.9	-0.0001	0.8	0.0008	0.5	-0.0132	-0.0585	-0.0212
neva3260_R-MJ1R3260	-0.0079	56.8	0.0324	97.1	-0.0429	29.0	-0.3704	-14.9428	-2.8595
uibe3260_R-MJ1R3260	-0.0184	33.4	-0.0081	99.6	0.0104	30.7	-0.0182	12.2852	0.2735
uibe3260_R-neva3260_R	0.0011	8.3	0.0271	21.8	0.0025	4.4	0.3522	27.2280	3.1330
neva3260_R-_mJ23260	0.1476	80.8	0.1007	339.5	-0.0293	87.4	-0.3572	-14.8844	-2.8382
uibe3260_R-_mJ23260	-0.0579	112.5	-0.2589	680.4	0.0863	51.7	-0.0050	12.3437	0.2947

5. Adjusted Points in WGS84(XYZ)

Station Name	X(m)	Std.Dev_X(mm)	Y(m)	Std.Dev_Y(mm)	Z(m)	Std.Dev_Z(mm)
MJ1R	1654719.9603	33.4	-6145228.1524	79.9	426218.9045	21.8
NEVA	1617259.9521	0.0	-6161575.0795	0.0	324674.9189	0.0
UIBE	1718257.4805	0.0	-6132562.3129	0.0	358005.2004	0.0
mJ2	1654718.8060	33.9	-6145228.6792	81.0	426130.5924	22.0

6. Before and after adjustment(BLH)

Station Name	Initial_Lat.	Final_Lat.	Initial_Lon.	Final_Lon.	Initial_H.	Final_H.
MJ1R	03:51:26.08887N	03:51:26.09573N	74:55:46.07589W	74:55:46.07369W	328.3904	327.8621
NEVA	02:56:14.28206N	02:56:14.28885N	75:17:34.91468W	75:17:34.91350W	473.1786	472.6760
UIBE	03:14:20.44496N	03:14:20.45196N	74:20:52.35956W	74:20:52.35784W	716.1428	715.6165
mJ2	03:51:23.21998N	03:51:23.22686N	74:55:46.11650W	74:55:46.11426W	322.6578	322.1300

7. Adjusted Points in WGS84(BLH)

Station Name	Lat.	Std.Dev_Lat(mm)	Lon.	Std.Dev_Lon(mm)	H(m)	Std.Dev_H(mm)
MJ1R	03:51:26.09573N	20.0	74:55:46.07369W	28.6	327.8621	82.2
NEVA	02:56:14.28885N	0.0	75:17:34.91350W	0.0	472.6760	0.0
UIBE	03:14:20.45196N	0.0	74:20:52.35784W	0.0	715.6165	0.0
mJ2	03:51:23.22686N	20.2	74:55:46.11426W	29.4	322.1300	83.2

8. Adjusted Points in Target System(NEZ)

Station Name	N(m)	Std.Dev_N(mm)	E(m)	Std.Dev_E(mm)	U(m)	Std.Dev_U(mm)
MJ1R	1984469.9361	20.0	4785827.3035	28.6	327.8621	82.2
NEVA	1882844.0128	0.0	4745209.8327	0.0	472.6760	0.0
UIBE	1916018.0156	0.0	4850299.1245	0.0	715.6165	0.0
mJ2	1984381.8380	20.2	4785825.8526	29.4	322.1300	83.2

9. Weakest Baseline and Point

Baseline Name	Std.Dev_DX(mm)	Std.Dev_DY(mm)	Std.Dev_DZ(mm)	Std.Dev(mm)	Proportional Error
_mJ23260-MJ1R3260	8.1	14.5	4.7	17.3	1:5105
Station Name	Std.Dev_N(mm)	Std.Dev_E(mm)	Std.Dev_U(mm)	Std.Dev(mm)	
mJ2	20.2	29.4	83.2	90.5	