



Network Adjustment Report

Basic Information

Name	Value
Username	ACER-JFV
Project Datum	Custom
Project Name	MARGIA181124
Distance Units	Meter
Height Units	Meter

1 Adjustment Settings

Basic Parameters

Name	Value
Ellipsoid Name	WGS84
Major Axis(m)	6378137.0000
Flattening Reciprocal(1/f)	298.257223563

Projection Parameters

Name	Value
Projection Method	UTM Projection
Projection Height	0.0000
Central Meridian(L0)	057°00'00.00000"W

2 Adjustment Statistics

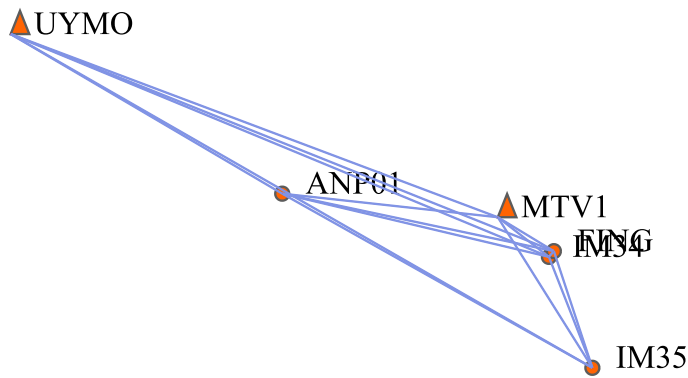
Statistical Summary

Name	Value
Network Reference Factor	10.773108089029
Chi Square Test	Pass
Chi Square Value	34.97865
Range of Chi Square Test	18.84924 ~ 51.10807
Ratio of Unit Weight Standard Error	1.02954
Precision Confidence Level	2 sigma
Horizontal Accuracymm	3.0
Vertical Accuracymm	2.7
Check Result	Conformity

3 Control Point

Number Of Points 06
 Control Point Sum 02

Control Points



4 Local 3D Constraint Adjustment

4.1 Translation Parameters

dx(m)	dy(m)	dz(m)	rx(sec)	ry(sec)	rz(sec)	Ratio(PPM)
0.86734	-2.61454	0.24730	0	0	0	0

4.2 Baselines Input in WGS84

Observation ID	Baseline ID	DX(m)	Std.DX (mm)	DY(m)	Std.DY (mm)	DZ(m)	Std.DZ (mm)
B01	MTV1->UYMO	-5404.01900	0.7	-5661.01944	0.6	2232.27359	0.9
B02	MTV1->ANP01	-2703.99223	0.4	-2026.06055	0.5	291.66634	0.4
B03	UYMO->ANP01	2700.01991	0.3	3634.94784	0.5	-1940.60978	0.7
B04	MTV1->IM34	470.68511	0.4	742.53233	0.5	-498.91506	0.4
B05	UYMO->IM35	5874.70733	0.5	6403.54910	0.7	-2731.19093	0.5

B06	ANP01->IM34	3174.68855	0.3	2768.60177	0.5	-790.58256	0.7
B07	MTV1->IM35	490.09901	0.5	1959.41599	0.5	-1909.66942	0.8
B08	UYMO->IM35	5894.10876	0.8	7620.43794	0.7	-4141.93846	1.0
B09	ANP01->IM35	3194.09202	0.4	3985.47758	0.5	-2201.33174	0.4
B10	IM34->IM35	19.41322	0.3	1216.89442	0.4	-1410.75657	0.3
B11	MTV1->FINING	579.32219	0.5	717.64548	0.6	-446.44267	0.6
B12	UYMO->FINING	5983.34318	0.6	6378.66440	1.0	-2678.72013	0.6
B13	ANP01->FINING	3283.31161	0.5	2743.71414	0.6	-738.10176	0.4
B14	IM34->FINING	108.63018	0.3	-24.87302	0.3	52.47832	0.3
B15	IM35->FINING	89.21858	0.5	-1241.76436	0.5	1463.22968	0.7

4.3 Adjusted Baselines in WGS84

Style One:

Observation ID	Baseline ID		Observation	Residual	Horizontal Precision (Ratio)	3D Precision (Ratio)
B01	MTV1->UYMO	Azimuth	290°7'46.35907"	0°4'17.04179"	1:999999	1:999999
		ΔEllipsoid Height	117.3602	0.0066		
		Ellipsoid Dist.	8138.3969	-0.0064		
B02	MTV1->ANP01	Azimuth	275°46'18.25927"	0°9'6.83780"	1:1198058	1:788138
		ΔEllipsoid Height	-20.0542	0.0063		
		Ellipsoid Dist.	3391.3981	0.0024		
B03	UYMO->ANP01	Azimuth	120°0'37.29621"	0°8'37.27792"	1:1739791	1:1144851
		ΔEllipsoid Height	-137.4144	-0.0062		
		Ellipsoid Dist.	4926.3524	0.0028		
B04	MTV1->IM34	Azimuth	127°16'33.95453"	0°15'15.32539"	1:380222	1:241097
		ΔEllipsoid Height	-5.3529	0.0087		
		Ellipsoid Dist.	1010.8494	0.0008		
B05	UYMO->IM34	Azimuth	112°3'8.45715"	0°3'44.62551"	1:3426217	1:2172629
		ΔEllipsoid Height	-122.7131	-0.0025		
		Ellipsoid Dist.	9109.1666	-0.0064		
B06	ANP01->IM34	Azimuth	102°52'20.96637"	0°5'42.64609"	1:1417826	1:935625

		ΔEllipsoid Height	14.7013	0.0027		
		Ellipsoid Dist.	4285.8757	-0.0109		
B07	MTV1->IM35	Azimuth	147°23'34.56305"	0°4'21.58920"	1:950373	1:596974
		ΔEllipsoid Height	-17.5186	0.0031		
		Ellipsoid Dist.	2779.6345	0.0041		
B08	UYMO->IM35	Azimuth	119°24'48.75772"	0°4'52.08723"	1:3584639	1:2252163
		ΔEllipsoid Height	-134.8787	0.0050		
		Ellipsoid Dist.	10486.5294	0.0024		
B09	ANP01->IM35	Azimuth	118°51'30.31308"	0°2'25.58900"	1:1752682	1:1130344
		ΔEllipsoid Height	2.5357	-0.0005		
		Ellipsoid Dist.	5561.6707	0.0057		
B10	IM34->IM35	Azimuth	158°8'32.43252"	0°14'11.25773"	1:685115	1:429040
		ΔEllipsoid Height	-12.1656	0.0008		
		Ellipsoid Dist.	1863.1760	-0.0049		
B11	MTV1->FINING	Azimuth	120°41'25.65244"	0°17'16.68947"	1:347145	1:219380
		ΔEllipsoid Height	31.1461	-0.0037		
		Ellipsoid Dist.	1024.6704	0.0045		
B12	UYMO->FINING	Azimuth	111°21'12.13741"	0°2'54.90033"	1:3100215	1:1958305
		ΔEllipsoid Height	-86.2140	-0.0138		
		Ellipsoid Dist.	9146.7601	-0.0042		
B13	ANP01->FINING	Azimuth	101°29'49.15178"	0°4'57.29542"	1:1341144	1:865077
		ΔEllipsoid Height	51.2004	0.0010		
		Ellipsoid Dist.	4341.9964	0.0042		
B14	IM34->FINING	Azimuth	40°29'14.44931"	0°0'30.48489"	1:44287	1:28844
		ΔEllipsoid Height	36.4991	0.0036		
		Ellipsoid Dist.	123.1802	0.0008		
B15	IM35->FINING	Azimuth	341°14'53.95524"	0°6'23.20071"	1:618034	1:386327
		ΔEllipsoid Height	48.6647	0.0011		

		Ellipsoid Dist.	1921.1934	0.0011		
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Style Two:

O b s e r v a t i o n I D	B a s e l i n e I D	DX (m)	V. D X (m m)	St d. D X (m m)	DY (m)	V. D Y (m m)	St d. D Y (m m)	DZ (m)	V. D Z (m m)	St d. D Z (m m)	d V D X (m m)	d V D Y (m m)	d V D Z (m m)
B 0 1	M T V 1- > U Y M O	-54 04. 013 27	5. 7	0. 0	-56 61. 018 81	0. 6	0. 0	223 2.2 657 9	-7. 8	0. 0	4. 0	1. 4	1 0. 7
B 0 2	M T V 1- > A N P 0 1	-27 03. 992 34	-0. 1	2. 0	-20 26. 065 25	-4. 7	2. 8	29 1.6 609 3	-5. 4	2. 6	1. 7	0. 5	3. 5
B 0 3	U Y M O - > A N P 0 1	270 0.0 209 3	1. 0	2. 0	363 4.9 535 6	5. 7	2. 8	-19 40. 604 86	4. 9	2. 6	2. 3	1. 0	7. 2
B 0 4	M T V 1- > I M 3 4	47 0.6 904 1	5. 3	2. 1	74 2.5 269 4	-5. 4	2. 7	-49 8.9 196 3	-4. 6	2. 4	1. 7	0. 5	4. 3
B 0 5	U Y M O - > I M 3 4	587 4.7 036 8	-3. 6	2. 1	640 3.5 457 5	-3. 4	2. 7	-27 31. 185 42	5. 5	2. 4	2. 3	0. 9	6. 4
B 0 6	A N P 0 1- > I M	317 4.6 827 5	-5. 8	2. 2	276 8.5 921 9	-9. 6	2. 9	-79 0.5 805 6	2. 0	2. 8	0. 1	0. 1	0. 8

	3 4												
B 0 7	M T V I- > I M 3 5	49 0.1 020 3	3. 0	2. 5	195 9.4 169 2	0. 9	2. 7	-19 09. 673 61	-4. 2	2. 9	1. 6	0. 6	4. 0
B 0 8	U Y M O - > I M 3 5	589 4.1 153 0	6. 5	2. 5	762 0.4 357 3	-2. 2	2. 7	-41 41. 939 40	-0. 9	2. 9	2. 4	0. 9	6. 6
B 0 9	A N P 0 I- > I M 3 5	319 4.0 943 7	2. 3	2. 5	398 5.4 821 7	4. 6	3. 1	-22 01. 334 53	-2. 8	2. 9	0. 0	0. 1	0. 6
B 1 0	I M 3 4- > I M 3 5	19. 411 62	-1. 6	2. 3	121 6.8 899 8	-4. 4	2. 7	-14 10. 753 97	2. 6	2. 5	0. 1	0. 1	0. 3
B 1 1	M T V I- > F I N G	57 9.3 220 5	-0. 1	2. 4	71 7.6 514 9	6. 0	3. 0	-44 6.4 435 0	-0. 8	2. 6	2. 0	0. 4	4. 7
B 1 2	U Y M O - > F I N G	598 3.3 353 2	-7. 9	2. 4	637 8.6 703 0	5. 9	3. 0	-26 78. 709 29	1 0. 8	2. 6	2. 0	1. 0	6. 0
B 1 3	A N P 0 I- > F I N G	328 3.3 143 8	2. 8	2. 5	274 3.7 167 4	2. 6	3. 2	-73 8.1 044 3	-2. 7	2. 9	0. 3	0. 0	1. 2

B 1 4	I M 3 4 > F I N G	10 8.6 316 4	1. 5	2. 3	-2 4.8 754 5	-2. 4	2. 8	52. 476 13	-2. 2	2. 3	0. 2	0. 1	0. 4
B 1 5	I M 3 5 > F I N G	89. 220 02	1. 4	2. 7	-12 41. 765 43	-1. 1	3. 0	146 3.2 301 1	0. 4	3. 0	0. 3	0. 1	0. 6

4.4 Adjusted Geodetic Coordinates in WGS84

Point ID	Latitude	Latitude Error(s)	Longitude	Longitude Error(s)	Ellipsoid Height(m)	H. Err. (m)
MTV1	34°54'48.918 06"S	0.000000	056°10'34.6857 9"W	0.000000	40.7367	0.0000
UYMO	34°53'17.939 22"S	0.000000	056°15'35.5796 4"W	0.000000	158.0968	0.0000
ANP01	34°54'37.830 70"S	0.000070	056°12'47.6019 4"W	0.000072	20.6825	0.0024
IM34	34°55'08.783 46"S	0.000067	056°10'02.9972 1"W	0.000066	35.3837	0.0025
IM35	34°56'04.895 17"S	0.000073	056°09'35.6645 9"W	0.000073	23.2181	0.0026
FING	34°55'05.879 90"S	0.000073	056°09'59.9878 7"W	0.000075	71.8828	0.0027

4.5 Adjusted ECEF Coordinates in WGS84

Point ID	X(m)	X Err. (m)	Y(m)	Y Err. (m)	Z(m)	Z Err. (m)	3D Err. (m)
MTV1	2914537.03 216	0.00000	-4349790.42 248	0.00000	-3630033.28 865	0.00000	0.00000
UYMO	2909133.01 889	0.00000	-4355451.44 129	0.00000	-3627801.02 286	0.00000	0.00000
ANP01	2911833.03 982	0.00201	-4351816.48 773	0.00276	-3629741.62 772	0.00262	0.00430
IM34	2915007.72 257	0.00213	-4349047.89 554	0.00270	-3630532.20 828	0.00239	0.00419
IM35	2915027.13 419	0.00246	-4347831.00 556	0.00268	-3631942.96 226	0.00290	0.00466
FING	2915116.35 421	0.00244	-4349072.77 099	0.00298	-3630479.73 215	0.00264	0.00467

4.6 Adjusted Grid Coordinates and Height in Local System

Point ID	East(m)	East Err.(m)	North(m)	North Err.(m)	Elev.(m)	Elev. Err.(m)
MTV1	575243.67548	0.00000	6136230.02134	0.00000	40.7367	0.0000
UYMO	567629.17167	0.00000	6139092.25455	0.00000	158.0968	0.0000
ANP01	571873.58951	0.00182	6136598.69967	0.00217	20.6825	0.0024
IM34	576042.69028	0.00168	6135611.41176	0.00206	35.3837	0.0025
IM35	576721.70426	0.00187	6133877.07978	0.00225	23.2181	0.0026
FING	576119.79272	0.00190	6135700.22091	0.00226	71.8828	0.0027

4.7 Lat-Lon-Height(Local)

Point ID	Latitude	Latitude Error(s)	Longitude	Longitude Error(s)	Ellipsoid Height(m)	H. Err. (m)
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MTV1	34°54'48.918 06"S	0.000000	056°10'34.6857 9"W	0.000000	40.7367	0.0000
UYMO	34°53'17.939 22"S	0.000000	056°15'35.5796 4"W	0.000000	158.0968	0.0000
ANP01	34°54'37.830 70"S	0.000070	056°12'47.6019 4"W	0.000072	20.6825	0.0024
IM34	34°55'08.783 46"S	0.000067	056°10'02.9972 1"W	0.000066	35.3837	0.0025
IM35	34°56'04.895 17"S	0.000073	056°09'35.6645 9"W	0.000073	23.2181	0.0026
FING	34°55'05.879 90"S	0.000073	056°09'59.9878 7"W	0.000075	71.8828	0.0027

4.8 Coordinate Change

Point ID(m)	ΔEast(m)	ΔNorth(m)	ΔEllipsoid Height(m)
MTV1	0.00000	0.00000	0.0000
UYMO	0.00000	0.00000	0.0000
ANP01	-0.49478	-0.34894	-0.1894
IM34	-0.13665	7.18517	6.6894
IM35	-1.09549	-0.81936	0.7247
FING	-2.59001	4.33324	5.0098




4.9 Worst baseline and station statistics

Worst baseline	Baseline ID	DX (m)	Std. DX (m)	DY (m)	Std. DY (m)	DZ (m)	Std. DZ (m)	Distance (m)	Mean Error (m)	Relative error
B14(IM34->FING)	IM34->FING	108.63164	2.3	-24.87545	2.8	52.47613	2.3	123.18021	0.00427	1/28844.00000

Worst local station	East(m)	East Error(m)	North(m)	North Error(m)	Elev. (m)	Elev. Error(m)	Standard Deviation
FING	576119.79272	0.00190	6135700.22091	0.00226	71.8828	0.0027	0.00403

4.10 Error Ellipse

Point ID	Major Axis(m)	Short Axis(m)	Azimuth
MTV1	0.0000	0.0000	0°0'0.00000"
UYMO	0.0000	0.0000	0°0'0.00000"
ANP01	0.0022	0.0018	160°31'46.31929"
IM34	0.0021	0.0017	170°8'38.50966"
IM35	0.0023	0.0019	5°21'1.65996"
FING	0.0023	0.0019	2°48'53.55685"

MTV1		UYMO	
ANP01		IM34	
IM35		FING	