

#### ▪ ROUTE DESCRIPTION:

- Start in Front of pavilion on the athletic track JJ Ellis Sport grounds. (Photo attached)
- Proceed along the athletic track in an anti- clockwise direction.
- Exit the Sport grounds at the South gate side onto the R323/Van Riebeeck Street.
- Proceed along Van Riebeeck Street in a Westerly direction for approx. 150m.
- Link up and follow Station Road past the Laingsburg Railway Station.
- Turn “R” into Voortrekker Street and at 1km mark opposite One Stop Engen.
- Do a 180° turn at last traffic island to proceed along Voortrekker Street facing on-coming traffic.
- At approx. 2km turn “R” on Moordenaars Karoo Road in Northerly direction for approx. 500m.
- Turn “L” into Soutkloof Street which links into Arbeid Street.
- Turn “L” into Hospital Street that links up to Voortrekker Street again at approx. 4km mark.
- Turn “R” into Voortrekker Street and follow this road until it meets Arbeid Street again.
- Slight “L” and “R” onto N1 for 400m before crossing N1 at 90° into Bergsig township.
- Follow Baviaans Street through Bergsig in a Westerly direction.
- At 5.5km the tar becomes a gravel road. Continue straight for approx. 10km.
- At Baviaans railway siding (approx. 15km) turn “R” in a Northerly direction.
- Climb up to cross the N1 at approx. 17.5km.
- Turn “R” in easterly direction on N1 for 400m.
- Turn “L” onto Sutherland Gravel Road in a Northerly direction for approx. 6km.
- Turn “L” onto Soutkloof Trek pad (farm road) for approx. 11km.
- Onto R354 Sutherland tar road in Southerly direction of Matjiesfontein for approx 1km.
- Do a 180° turn at approx. 35.5km (Photo attached) moving along R354 in a Northerly direction for approx. 8km.

- Turn “R” onto Laingsburg Gravel Road (Dwars in die Weg intersection) at approx.43.5km in South-Westerly direction for 14km.
- Turn left onto Soutkloof Trek pad (farm road) in a Westerly direction at approx. 57km.
- Proceed on this road for approx. 16km till the Moordenaars Karoo Road intersection.
- Turn “R” onto Moordenaars Karoo Road for approx. 6km and cross N1.
- Turn “L” on N1/Voortrekker Street for approx. 500m.
- Turn “R” onto Meiring Street and Finish on the JJ Ellis Sport grounds.

**THIS IS THE FULL 80KM DESCRIPTION.**



**180° turnpoint on R354 approx 35.5km**



# ROUTE AND PROFILE 80KM

START: 642m

HIGHEST POINT: 922m

LOWEST POINT: 642m



# ROUTE IN TOWN



▪ **CALCULATIONS:**

This calibration and measurement was done with a 6 digit Jones Counter.

**CALIBRATIONS – DAY 1**

START CALIBRATION			END CALIBRATION		
Reading 1	Reading 2	Difference	Reading 1	Reading 2	Difference
110583	114165	3582	399909	403491	3582
114165	117747	3582	403491	407073	3582
117747	121328	3581	407073	410655	3582
121328	124909	3581	410655	414237	3582
		<u>14326</u>			<u>14328</u>
	Average	3581.50		Average	3582
	Per km	11938.34		Per km	11940.00
Should read @ 1.001km		11950.28	Should read @ 1.001km		11951.94
Constant for day 11951.11					

My readings on 80km measurement will be:-

80	124976	68	268379.36
79	136926.28	67	280329.64
78	148876.56	66	292279.92
77	160826.84	65	304230.20
76	172777.12	64	316180.48
75	184727.40	63	328130.76
74	196677.68	62	340081.04
Southkloof gate	204620.00	61	352031.32
73	208627.96	60	363981.60
72	220578.24	59	375931.88
71	232528.52	58	387882.16
70	244478.80	Sutherland Gate	393927.00
69	256429.08	57	399832.44

**CALIBRATIONS – DAY 2**

START CALIBRATION			END CALIBRATION		
Reading 1	Reading 2	Difference	Reading 1	Reading 2	Difference
414416	417994	3578	846215	849794	3579
417994	421575	3581	849794	853372	3578
421575	425155	3580	853372	856950	3578
425155	428736	3581	856950	860527	3577
		<u>14320</u>			<u>14312</u>
	Average	3580		Average	3578
	Per km	11933.33		Per km	11926.67
Should read @ 1.001km		11945.27	Should read @ 1.001km		11938.59
Constant for day 11941.93					

My readings on this measurement will be:

1	440690.27	19	655705.13
2	452635.54	20	667650.40
3	464580.81	21	679595.67
4	476526.08	22	691540.94
5	488471.35	23	703486.21
6	500416.62	24	715431.48
7	512361.89	25	727376.75
8	524307.16	26	739322.02
9	536252.43	27	751267.29
10	548197.70	28	763212.56
11	560142.97	29	775157.83
12	572088.24	30	787103.10
13	584033.51	31	799048.37
14	595978.78	32	810993.64
15	607924.05	33	822938.91
16	619869.32	34	834884.18
17	631814.59	35	846829.45
18	643759.86		

**CALIBRATIONS – DAY 3**

START CALIBRATION			END CALIBRATION		
Reading 1	Reading 2	Difference	Reading 1	Reading 2	Difference
860530	864111	3581	316270	319845	3575
864111	867692	3581	319845	323422	3577
867692	871273	3581	323422	326997	3575
871273	874853	3580	326997	330574	3577
		<u>14323</u>			<u>14304</u>
	Average	3580.75		Average	3576
	Per km	11935.83		Per km	11920
Should read @ 1.001km		11947.77	Should read @ 1.001km		11931.92
Constant for day 11939.84					

My readings on this measurement will be:

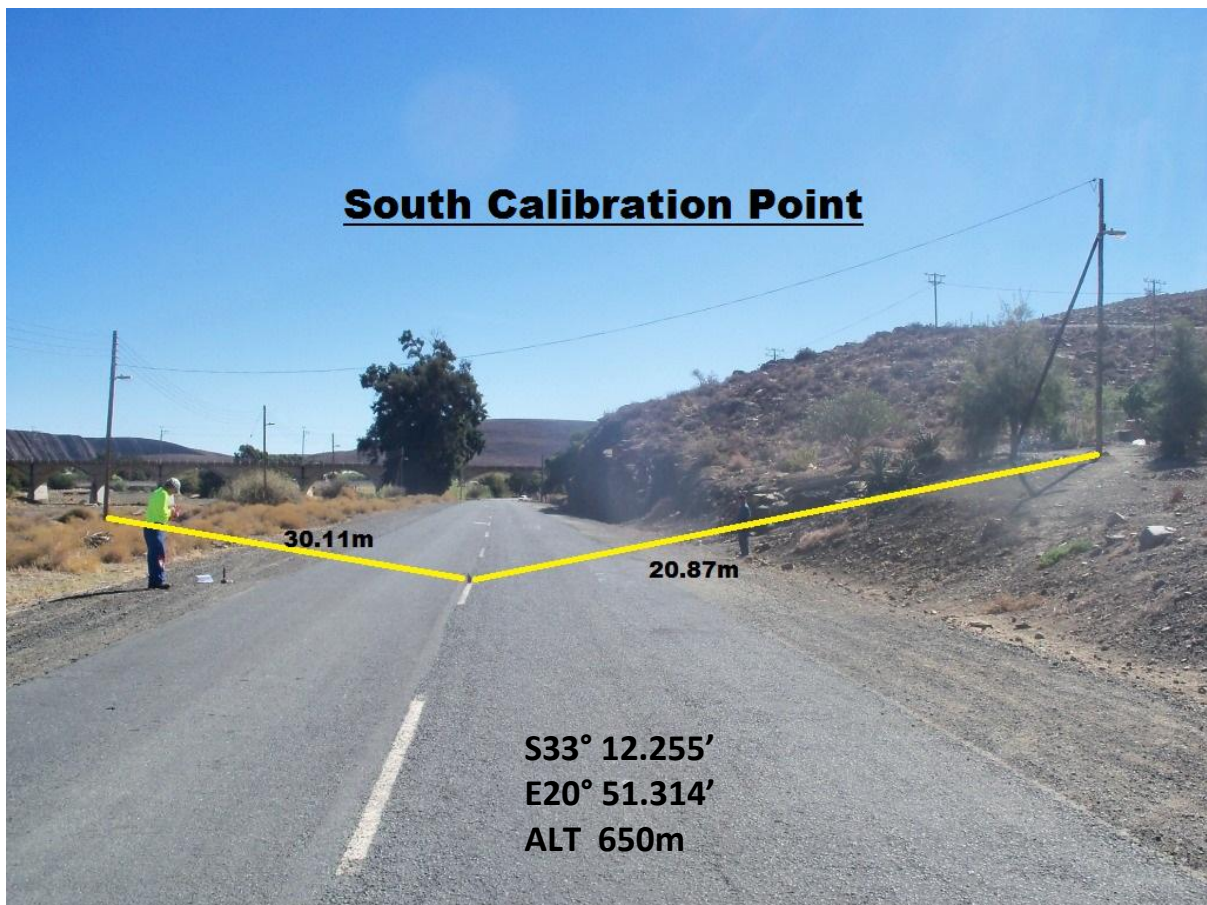
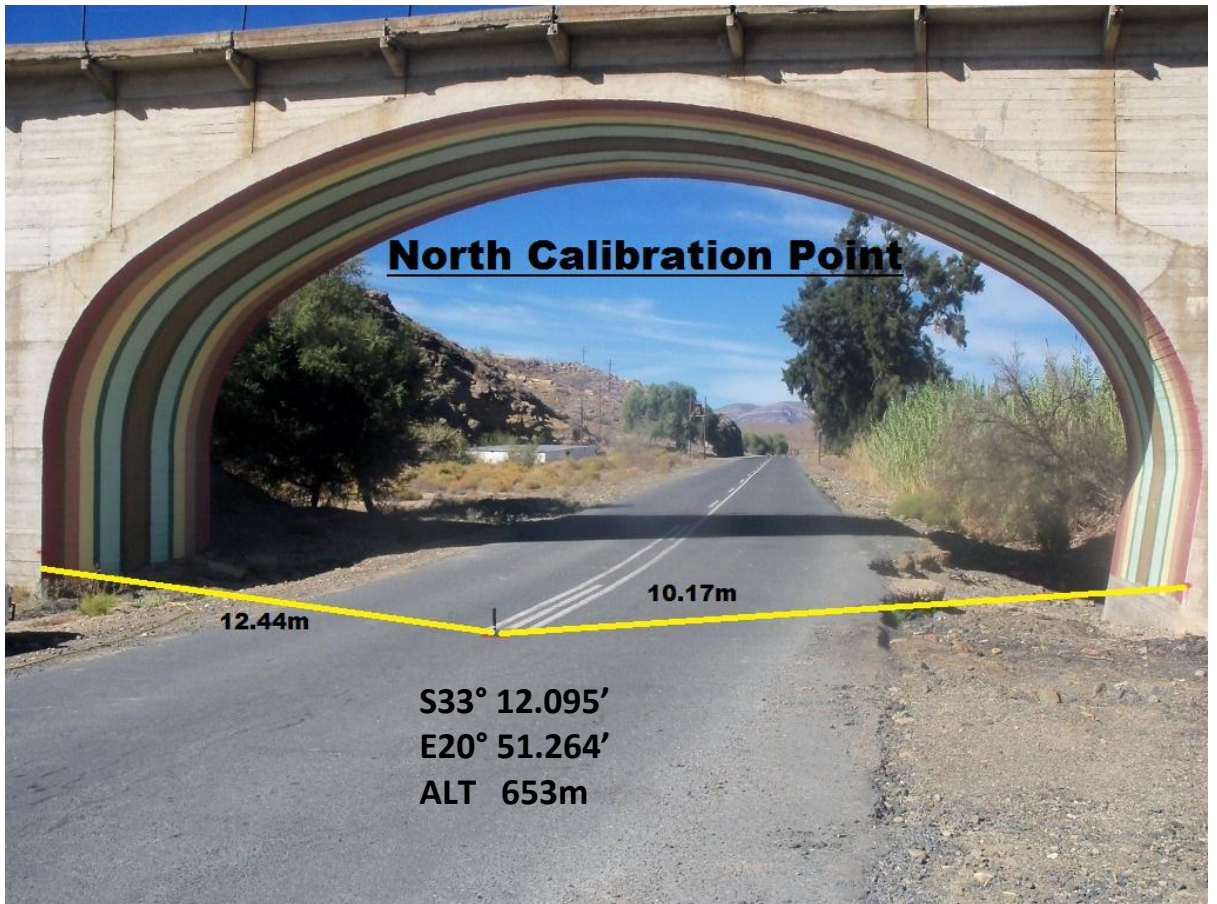
56	886787.77	45	18213.24
55	898735.54	44	30161.01
54	910683.31	43	42108.78
53	922631.08	42	54056.55
52	934578.85	41	66004.32
51	946526.62	40	77952.09
50	958474.39	39	89899.86
49	970422.16	38	101847.63
48	982369.93	37	113795.40
47	994317.70	36	125743.17
46	6265.47	Control Point	126105.94

Turn Point  $(11947 - 362 \div 2) = 5792.5$

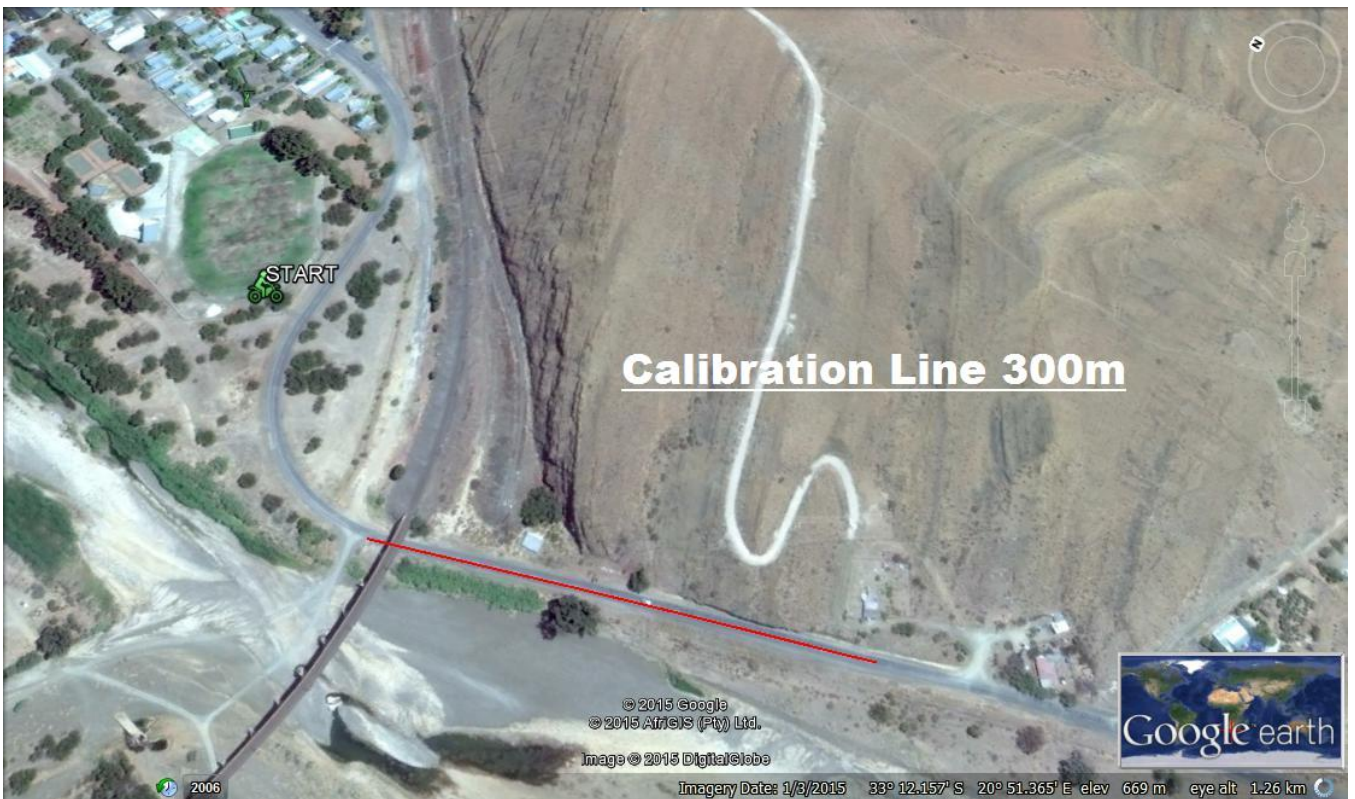
131897.5

35 137690.94

## Calibration Photographs







Overall calibration distance is 300 meters. Both ends are nailed with washers.

This is the measurement report for the Karoo Ultra 80km in Laingsburg road race as measured on 17 to 20 August 2017 by:

Des Harris

Measurer (ASWD)

P.O. Box 122,

Heiderand

6511

Mobile: +27 83 309 8732

e-mail: desharris2@yahoo.com

An addendum is attached to this report depicting the GPS co-ordinates of the km markers painted to the tarred surfaces and plates attached to boundary fences on secondary roads and farm tracks.

**CAVEAT** - 50% of the route (6 -17km, 23 – 35km and 57 – 73km) is on farm track. During measurement this was severely corrugated and could affect measurement accuracy. These sections will be graded before the event. However, participants may not like the fact that only 15km is on tarred road and 26km on good quality gravel road. The remaining 39km on farm track, while in lovely Karoo surroundings and quiet roads, may result in some negative comment.