1. Editorial

As we approach the end of the 8th week of lockdown, I find it difficult to keep up with the days of the week which are normally kept in sync by the Tuesday evening time trial. The club has thus decided to implement a temporary replacement for that weekly incentive to run, which also served as an opportunity to stay in contact with running friends. The replacement is a Virtual Time Trial, which had its 'trial' run last Saturday morning - fourteen runners participated.

There is much opportunity for playing statistics with the results of the Virtual Time Trial (VTT), but let me explain how it is intended to work. (BTW – I have a few contributions to this newsletter which will have to wait until one of the next newsletters before being published.)

Your comments. suggestions and contributions are most welcome. Email me at *nevyoung@starwaders.com*.

2. The CSIR Running Club *Virtual Time Trial*

Even though we are not permitted to gather together in the same physical place, knowing that friends are running at the same time and competing against each other is the next best. Instead of the Tuesday evening time trial, the suggested starting time of the VTT is 7am on Saturday mornings. HOWEVER, not all participants may be able to run at that time, so a trial can be run at any time during the week. Results for the week can be submitted at any time but no later than 15h00 on Sunday afternoon.

The idea is that participants run a distance and submit the run details via GoogleForms – an extremely quick and easy procedure. See http://www.csirrunner.co.za/csir-virtual-time-trial .

The idea is that we cannot compete against each other if we are running different distances, so the competition will be based on PACE. Neither can we compete fairly if one person's route includes serious hills while another person enjoys flat terrain. And another obstacle to fair competition is age difference.

I have had great fun with formulas in the VTT spreadsheet which has already started to accumulate results – those of the first VTT run last Saturday. The formulas will adjust the pace of submitted entries to compensate for the distance run, for the elevation climbed on the route and for the age of the participant. This will allow us to announce an overall winner of each VTT.

WARNING: The explanations that follow are not compulsory reading! Skip them and go to the overall results if that will make your day less stressful.

It is much easier to work in units of speed than of pace. Even though these examples are given in speed (km/hr), the calculated results will be published using the corresponding pace in min/km.

The further the distance you run, the slower your average speed will be. For every kilometer above 5km that is run, it is assumed (believe me) that the speed will drop off by 0.08km/hr, i.e. 80meters per hour. At a distance of 10km, the speed would be 5 x 0.08 = 0.4km/hr slower.

If you run 5km at a speed of 10km/hr, you would thus be expected to run 10km at 9.6km/hr. Over 21km the average speed would have been (21-5) x 0.08 = 1.3km/hr slower than the 5km speed, which equates to 8.7km/hr. So how do we compare the performance of one person running 5km with the performance of some other person running 21km? We simply add the 1.3km/hr to the 21k runner's recorded speed which brings it up to 10km/hr which makes that performance based on speed equal to the 10km/hr of the 5k runner.

What about 'hillyness' of the terrain? From my own experience, I have guessed that I might for instance run 10km over a flat track in 60 minutes, but over 300 meters of hills, I would slow down to 70 minutes.

This drops the speed by 1.4km/hr. (This newsletter hasn't got enough pages to include all the calculations, so – again – believe me.) This is a reduction in speed of 5meters per hour for every extra meter of 'hillyness'. So we follow the same principle as with distance and simply add to or 'credit' the runner who goes over 300m of hills with 1.4km/hr more speed. For instance, one runner over a flat route might run at 10km/hr while the guy going over 300m of hills can only manage at 8.6km/hr. To make this a fair competition we simply add 1.4 to 8.6 and based on speed, they both performed at 10km/hr.

Just a note here. My tracker gives climbs and downhills as separate ascent and descent numbers. Strava gives one number which it calls elevation. It appears to me that the ascent or the descent number is approximately the same thing as Strava's elevation number. (The ascent and descent value never actually records the same altitude change even though it should when starting and stopping at the same place, so we can use the average of the two numbers as the elevation if there is no access to a Strava elevation figure.)

So now we come to age. The AGN uses a table which allows a runner to earn up to 7 points for their club by completing the race within a certain time. Of course, the older guys would never be able to earn any points, so there are different sets of qualifying times for each of the age categories. It has roughly been determined that for each year that you age, your pace will drop by 4 seconds. In other words, if in 2019 you ran 10km at 6:06min/km, you will run it at 6:10min/km in 2020. At 65 years old, you are expected to run 120 seconds slower than when 35 years old. If in 1990 I could run 10km at 4:30min/km, that is why in 2020 the best I can do is 6:30min/km.

The qualifying times used by AGN (and I assume internationally) increase from when you were a Senior runner to when you become a Veteran by 3%, by when you are a Master your have 12% more time than the Senior in which to earn points. In this fashion, Grand Masters have 22% more time, Great Grand Masters are afforded an extra 35% time and the Octogenarian Grand Masters are granted 60% more time.

I have used these ratios to adjust the speed of our VTT competitors in their different age groups. For instance, a Master's recorded speed is increased by 12% and so on for all the other categories. This is how our Grand Master Petro Vermaak's VTT speed was upgraded from 5.2min/km to 4.2min/km.

Corrections to the recorded pace for distance, then for terrain and finally for age are calculated one after the other and the final figure that is arrived at can roughly be considered to compensate for all of the effects of those factors on the person's performance.

This brings us to gender. I haven't worked that out yet, but now that I am writing this explanation of the grading system for you, (I am actually writing it for myself so that I can remember how I did it a week from today) I realise that I will have to correct for that factor as well! I will also base that correction on the AGN point scoring qualifying times for the ladies.

So what about the results of the very first VTT? Well, despite not having taken gender into consideration, the overall winner was the aforementioned Petro Vermaak! Well done Petro. Even though she only ran 5km on flattish terrain, her pace was fast enough that her age category could adjust her overall adjusted pace to faster than that of any other competitor. Here follow the results which show how the calculated pace changed accumualtively for distance, then for eleveation and then for age group.

Overall Graded Performance

Name	Surname	Age Cat	Distance	Time	Elevation	Recorded Pace	Distance Adj Pace	Distance and Elevation Adj Pace	Distance and Elevation And Age Adj Pace
						min/km	min/km	min/km	min/km
PETRO	VERMAAK	Grand Master (60-69)	5.04	00:26:29	32	5.3	5.3	5.2	4.2
Willie	Fourie	Master (50 to 59)	10.2	00:53:39	70	5.3	5.1	4.9	4.4
HERMAN	VERMAAK	Grand Master (60-69)	6.01	00:33:04	31	5.5	5.5	5.4	4.4
Ken	Halland	Master (50 to 59)	20.6	02:20:28	321	6.8	6.0	5.2	4.6
Walter	Smuts	Master (50 to 59)	20.59	02:20:47	303	6.8	6.0	5.2	4.7
Neville	Young	Grand Master (60-69)	10.3	01:06:41	162	6.5	6.2	5.7	4.7
Elaine	Wentzel	Veteran (40 to 49)	10	00:58:07	141	5.8	5.6	5.3	5.1
Chris	Burger	Master (50 to 59)	10.3	01:06:41	162	6.5	6.2	5.7	5.1
james	da silva	Grand Master (60-69)	10	01:13:45	164	7.4	7.0	6.4	5.3
Brian	Yalisi	Senior (18 to 39)	10.2	01:04:49	169	6.4	6.1	5.6	5.6
Ken	Swettenham	Master (50 to 59)	5	00:34:27	47	6.9	6.9	6.7	6.0
Elize	Fourie	Master (50 to 59)	5.1	00:35:28	27	7.0	6.9	6.8	6.1
Johan	Botha	Veteran (40 to 49)	5.55	00:36:21	28	6.5	6.5	6.4	6.2
Gerrit	ROUX	Grand Master (60-69)	7.76	01:12:15	81	9.3	9.0	8.5	7.0

In due course and when we have more participants, I will be able to break these results down into individual age and gender categories, but with only these 14 participants, it is easy enough to glance through the results. For instance it is easy to see that Brian Yalisi won the Male Senior category or that Elaine Wentzel won the Ladies (and in fact the overall) Veteran category.

This VTT competition is not to be taken too seriously – no big prize money is involved. It will however give the club a way to perhaps make time trial awards at the end of the year, such as for most kilometers, most VTT's, best pace and so on. It will also allow club members to gauge their performance over their fellow members as well as over time. Of course, comments and suggestions are welcome. I can't guarantee that this all makes good sense, but it has provided me with some lockdown fun and hopefully will provide you with some Saturday morning incentive to run.

Results of the weekly VTT will be reported in the usual club newsletter.

It is up to participants to adhere to Lockdown regulations.

3. Race the Comrades Legends

Willie Fourie submitted this email that he received to me.

It is with profound sadness and regret that the CMA Board, in conjunction with ASA and KZNA, had to make the decision to cancel the 2020 Comrades Marathon. We do so with the knowledge that it

will come as a great disappointment to thousands of Comrades runners, who together with us at CMA, have been holding out hope that the race would somehow proceed.

The last time this great event had to be cancelled was in the years of World War II and in those days, there was no substitute to help the runner through those difficult years. We live in different time today where with innovation and technology we can look to innovative solution to contribute in a small way to fill the gap that the cancelation of the race will create.

The CMA is also very much aware that these are difficult times for all and have therefore, together with our technology supplier, developed a unique and innovative concept in support of the running community, "Race the Comrades Legends". This initiative will take the form of a virtual event on the 14th June, which would have been the date of the 2020 Comrades Marathon, where runners, supporters and anybody around the world can compete in a Comrades Marathon experience, with the goal of the Greatest Ultra Marathon hosting the World's Greatest Virtual event.

The concept will allow entrants to compete in iconic past Comrades Marathons such as the first race in 1921 or the year that the legendry Bruce Fordyce ran his fastest time or when the legend Wally Hayward first broke the time of 6hrs. Participants will receive a unique set of results with interesting statistics comparing their performances to legends of the Comrades Marathon.

Past Comrades runners, supporters and Comrades runners of the future can be inspired to earn a special "Race the Legends" Comrades medal to mark their participation in this unique time in the history of the race. To accommodate all as part of this experience and create the world's largest virtual event, entrants who finish any predetermined distances will earn the real special medal and have the option of purchasing a T-shirt, in addition to this you will also receive a:

- *Digital race number*
- *Virtual certificate*
- *Virtual Medal*
- *Electronic personalised results comparison*

As a 2020 Comrades Marathon South African entrant you receive a free entry into the 2020 Comrades - Race the Legends event.

In support and stimulation of the entire running industry and organisations, we urge you to get all your family, friends and supporters to compete with you on 14 June 2020 to be a part of the world's biggest virtual event and Race the Comrades Legends.

In addition to supporting the running industry the entrants will be able to donate to the official CMA charities via the Race for Charity platform(R4C). The proceeds raised by R4C platform will be used to systematically repress the spread of COVID-19 in local communities. The CMA will work with its official charities to identify projects to assist in the fight against COVID-19 and other worthy needs in society. For immediate relief, the official charities will also use donations for food parcels, sanitisation kits and PPE's in disadvantaged communities.

Visit www.comrades.com for details.