What is Gun Time vs Net Time?

Runners can be confused between net times and gun times and their purpose. A runner's gun time records the time taken from when the starting gun is fired to when the runner crosses the finish line.

Net times are those times taken from when the runner crosses the timing mat at the start of the race to when that runner crosses the timing mat at the finish. Most chip timing systems provide both gun and net times. The timing device records the chip ID and the time when the chip worn by the runner crosses a timing mat.

While net times are great for personal reference for the time it takes a participant to complete the race distance they do not represent head-to-head competition. For example, a very good runner arrived a bit late at the start because he was in the toilet and started three minutes after the gun went off. He ran the race distance three seconds faster than anyone else according to net times. However the runners who crossed the finish line first, never even saw him or knew that he was in the race. Suppose that the first runner to cross the finish is well ahead of second and ran easily to win. Then, some runner who he didn't even see, and could certainly have beaten in head-to-head competition, is declared the winner, based on net times.

This is the crux of the problem. A race involves head-to-head competition and the only way you get that is for the clock to start running at the same instant for everyone in the race.

Ranking by net times reduces the race to a series of individual time trials. A race is not about time but about besting other runners.

The International Association of Athletics Federations (IAAF) is the world governing body for athletics and their rules state that the official time is the Gun Time and placings should be based on this time which reflects the position you cross the finish line in.

Net times are great for individuals to gauge their performance and can use these for bragging about their personal best times.

In summing up, using gun times for placings is the standard across the world.

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Gun Time vs Net Time

Race results and awards should be based on official time or GUN TIME (the time from the start gun to the crossing of the finish line), according to IAAF rules. They should not be based on net times found by subtracting the time of crossing the start mat from the time of crossing the finish mat, if chip timing is used with a start mat. Chip times can be displayed on the official results as well as the gun times, but should not be used to sort the finishers. Net chip times are for personal interest only. Make sure your timing company understands that you need the results and awards based on gun time, and communicate to the participants that this will be the case.

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Nettotider, once again... (okänd författare efter Göteborgs Sylvesterlopp)

Nettotider som styr placeringarna är ett missfoster. Både för elit och motionärer. 10-12000 klockor som alla startar vid olika tidpunkter efter det startskott, som signalerat att loppet faktiskt började för en stund sedan!

Nettotider är bonus. Så var det också till en början, om man ville kunde man få reda på sin nettotid genom att hyra ett chip. Var man bara intresserad av den faktiska löptiden (startskott-målgång), så var det bara att kolla resultatlistan. Nettotiden var för personligt intresse.

Men hux flux började en del lopp köra med enbart nettotiderna i resultatlistorna, i strid med gällande friidrottsregler. Förmodligen dels av lathet, enkelt att bara spruta ut nettotiderna från chipen till en resultatlista. Vad betyder väl rättvisande resultat då, mot den arbetsvinsten? Kanske var skälet också att erbjuda lopp med "bättre" tider. Ett riktigt dåligt skäl, när tiderna är uppnådda på detta sätt. Att erbjuda bättre tider borde begränsa sig till att erbjuda snabba banor.

Fast oavsett vad man har för åsikt i ämnet, förutom att nettotiderna inte är enligt reglerna (det skälet borde räcka), så ställer tilltaget att inte servera bruttotiderna ju till med en hel del problem som nog ivrarna struntar i. Hur ska man placera in rekord, vare sig det är svenska, distrikts- eller klubbrekord, när man bara har nettotiderna att jämföra mot de tidigare (korrekta) bruttotiderna? Som att jämföra äpplen med päron!

Starta en ny nettolista vid sidan om? Någon föreslog en "övergångsperiod", "tills nettotiderna hade varit allenarådande i rekordtabellerna" Då får vi nog vänta, eftersom många äldre tider nog kommer att stå där vääldigt länge. Så det blir nog äpplen mot päron i evinnerliga tider...

Apropå gnäll, en klubbmedlem kom till mig och gnällde efter att ha klarat sub 3.30 i Berlinmaran, och undrade varför jag inte skrivit in hans nettotid bland klubbrekorden? Bruttotiden var förresten MYCKET svårhittad, fann den först när jag gick till "skriv ut diplom"!! Mitt argument att ALLA tidigare klubbrekord på distansen var bruttotider, möttes med gnället "jamen, jag VILL ha in min nettotid där, den är ju bättre!"

Man tog sig för pannan...

Apropå "gnället" i Göteborg: Håller helt med schwarzy som var inblandad, spurtstrider som avgjorts redan vid starten... Eventuellt kryssande för den upphinnande är oväsentligt i sammanhanget. Då skulle man kunna vända på steken och kanske hävda att den upphinnande hade en massa ryggar att följa fram till schwarzy, medan kanske schwarzy fick sololöpa utan "harar"? Endast bruttotider eliminerar allt sådant här snack. Startskott till målgång.

Veteranavd. i Sv. Friidrottsförbundet har börjat placera in nettotider bland rekorden, märkta med "(n)" efter tiden, trots att det inte är beslutat i Internationella Veteranförbundet än. Kommer nog förr eller senare att bli ett delikat problem när det blir sekundtätt bland toppnoteringarna och man i efterhand förstås inte vet hur mycket "slack" som hyvlats av från nettotidsnoteringarna. I vilken ordning ska man sätta rekordtiderna, när det är blandat med brutto- & nettotider? Har inte fått klart för mig om man bara för in nettotider från lopp som inte har bruttotider, eller kör nettotider rakt av numera. Galet i vilket fall som helst.

Och att Sverige godkänner nettoveteranrekord, gör att jag undrar om ett veteranrekord på halvmaran satt av en svensk i t.ex. Göteborgsvarvet, skulle kunna vara presenterat x antal sekunder BÄTTRE som svenskt rekord i åldersklassen, än ett några sekunder sämre noterat (bruttotids-)världsrekord i samma åldersklass?!? *ryser* (Anm. Eftersom internationellt borde ju då inte den svenska nettotiden gälla som världsrekord. Hur skulle man förresten placera in tiden internationellt, om man inte ens har någon bruttotid att tillgå?)

Heders åt Boston Marathon, New York City Marathon och Toronto Waterfront Marathon, m.fl., som fortfarande låter bruttotiderna styra placeringarna!

Så här står det förresten på Torontomarans webbsida om brutto/nettotider, vilket gäller även här hemma:

Gun Time is the official time. All awards are based on GUN TIME – the time from the start of the race (gun) to when you cross the finish line as per IAAF, Athletics Canada, USATF, AIMS and International Awards standards.

Excerpt from the IAAF Road Race Handbook - Pg 196 RULE 240: Note: For road races and road walking events, the official time will be the time elapsed between the start gun and the athlete reaching the finish line. However, if an athlete crosses the start line after the start gun, his time elapsed between the start and finish line can be made known to the athlete but will not be considered as official time. The order in which athletes reach the finish line will be considered as the official finish position. The Chip timing is provided for personal interest."

Nettotider är leksakstider för motionärerna. INGEN springer t.ex. EXAKT 42.195 m, inte ens de seedade i startled 1. Det blir alltid lite längre. Mer eller mindre. Så jakten på att få reda på den "exakta" tiden, är att jaga en hägring.

För att återgå till ordet "gnäll": Det kanske låter hårt, men om man inte klarar av att springa så pass bra, att man inte kan seeda upp sig och få en bättre startposition nästa år, varför då hävda att man blev hindrad av alla löparna och fick en för dålig tid? Uppenbart har man hamnat i rätt startled. Och i masslopp ingår det att tävla med en mängd andra löpare. Jagar man ett absolut rekord på den "exakta" distansen, är nog andra mindre lopp att föredra, där man kan springa i "idealspår" utan större störningar. Att kräva nettotider är det ultimata gnället! Träna mera och spring fortare, vetja!

Själv började jag i varje fall tävla för att mäta mig mot andra och mot distanserna. Och när jag blev bättre, så blev det andra löpare man mätte sig mot. Och så vidare. Men ALDRIG skulle jag vilja ha haft några nettotidsfördelar gentemot bättre seedade löpare. Varken då eller nu. Vid varje tillfälle stod jag där jag förtjänade. Ville jag stå bättre till var det bara att springa fortare. Ett erbjudande om nettotider tror jag skulle ha blivit utskrattat för 20 år sedan!

Men LöparSverige är kanske inte lika benäget att tävla på lika villkor längre? I alla seniorsammanhang på elitnivå är bruttotider så självklart, att det inte ens finns ett alternativ två! Så vad är det som säger att bara för att de tekniska möjligheterna finns och för att vissa motionärer VILL ha det så, så ska det vara så?

Glöm inte bort att friidrottsreglerna (som gäller för både elit och motionärer) är framfilade under väldigt lång tid för att uppnå största möjliga rättvisa i tävlingar. Om de som vurmar för nettotider vill kämpa för att det ska vara regelmässigt tillåtet, får de väl gå med i föreningar och därifrån motionera i distriktsförbund, o.s.v., så att man ska genomföra det?

"Köksvägen" borde i alla fall inte vara en väg för denna alternativa tidsmätningsmetod att få generera tider, som finner sin väg in i svenska rekordtabeller. Då skulle man faktiskt på samma sätt att resonera angående införande av nettotider trots att det är emot reglerna, kunna hävda att t.ex. andra icke tillåtna metoder att nå bättre resultat också får användas. Jag tror inte någon vill ha det så...

Race Timing

The basic reason most people enter a race is to record a definite time to cover a definite distance. An official, correct, time is recognition of a runner's performance. If you give the runner an incorrect time, it gives a very bad impression.

Timing a small race of less than 100 people poses entirely different problems to one in which tens of thousands participate. The budgetary constraints and the equipment and personnel available will also be quite different. You need to design your own timing system with the equipment and personnel you have available. There is no "best" system, merely systems that are most appropriate to requirements.

The main types of timing systems available are:

1) Those assigning transponders ("active" or "passive) to runners so that finishing times are registered electronically onto a computer system as runners cross the finish line. This is definitely the most efficient method of timing races, and any race with more than 1500 runners will most likely find some version of a transponder system within the constraints of their budget. Results (after appropriate checking by human agency) can be directly outputted for press, TV and to the race website.

2) Manual printer-timers, where a timekeeper depresses the key on a hand-held printer-timer each time a runner crosses the finish line. Runners then have to queue up in their finishing order so that their running number can be checked against their finishing position. There are various ways in which this can be done to render the processing and eventual output of results easier. An independent check must be made from time to time, where a runner is selected whose number is noted directly alongside the finishing time (usually on the printout) so that the two lists remain synchronised.

3) Hand-held stopwatches, where timekeepers call out a time as each runner crosses the finish line and this time is written down by someone else on a pre-prepared sheet. Runner numbers must also be matched with their finishing positions as in (2) above, and the same occasional cross checks need to be made. This method can only cope with relatively small size races, with no more than a few hundred runners. It is nearly always used as an additional method to time the first few finishers in a race (see below)

In all cases a back-up system will be required in case of the breakdown of the primary system. In most cases such backup can be achieved simply by continuously filming the finish line with a video camera as runners pass through, and keeping the race clock in view. Even if the race clock breaks down the clock operating within the camera can be checked against the time elapsed in the race.

Additionally, it is strongly advised that the traditional hand-held stopwatch method [(3) above] be used for the top finishers in any race. Apart from acting as an independent backup system, this is the only practical method of timing for road races which yields results eligible for record ratification.

Transponder timing

IAAF rule 165.24 permits the use of transponder timing systems in road races.

Transponder systems can deliver accurate results almost instantaneously. They have the capacity to handle runners finishing in far greater numbers than traditional systems could cope with. For races of more than 1500 runners, the use of a transponder system should be economically feasible.

They are also secure. The only back up required would be manual timing for the race winners (in case of records being set) and a video camera trained on runners finishing with the finish clock also visible. This is a failsafe against the overall breakdown of the system, although the chances of this are very small. Chip timing systems are always operated with a back-up line at the finish and data is buffered on several levels. Video camera evidence will resolve any questions, if they arise, of who was wearing which chip. The most widely used transponder system is that operated by the MyLaps company, based in Nijmegen, Netherlands. They introduced their system in 1994 and since then it has become used by around 50% of all AIMS member races

The system times each individual runner as they pass any specified point along the course and can be activated either by the starting gun (for "gun" times) or when the individual runner passes over antenna mats laid at the start line (for "net" times). A runner's net time is the time taken between crossing the start line and the finish line. A gun time is the time taken from the starting signal until the runner crosses the finish line. Official results must be based upon gun times.

The "chip" itself is a miniature transponder in a plastic casing. This device contains a chip in combination with an energising coil. These elements are encased in a waterproof glass capsule so that the chip can be used in all conditions: hot or cold, wet or dry.

This sort of chip contains no batteries. The transponder is "passive". Only when moved into a magnetic field generated by a send antenna will the energising coil produce an electric current to power the chip. The transponder then transmits its unique identification number to a receive antenna. Both send and receive antennae are cast within thin tartan mats laid over the road surface. The send-receive process takes about 60 milliseconds and is repeated continuously as long as the chip continues to move within the magnetic field generated.

The mats are connected to small boxes placed at either side of the road, which contain electronics and batteries. As each athlete crosses the mats and the chip ID is transmitted, this number and the corresponding time is stored to a timing computer for further processing.

There are other systems on the market. The main technical difference between them is whether they rely upon "passive" or "active" transponders. Active transponders are those that incorporate a battery within the casing, which powers the chip without the need for the mats laid over the roadway to generate a magnetic field for the chip ID to be registered.

The main practical differences between active and passive transponder systems are:

i) Active transponders are much more expensive (active chips cost about five times as much as passive transponders).

ii) Active transponders can transmit information as runners pass over a wire loop. Such a loop could be merely taped to the road surface. No heavy matting is required and costs for transport of equipment and time for set up are much reduced.

In either case the transponders are relatively valuable items that race organisers must retrieve from their race entrants, unless they charge them a deposit for "rental" which will cover the cost incurred by possible loss of the chip. "Chip retrieval" is a specific function that must be considered and carefully planned out in any finish line set-up where transponder timing is used.

Passive transponders are most usually distributed at the race registration and collected at the finish line. The timing company charges a rental for providing the chips and race organisers should also be prepared to pay for the cost of lost chips. If the chip retrieval process is efficient, then this is a very cost-effective system.

Disposable transponders have been developed for use very recently. This is a slightly more expensive option, but it has several advantages. The shape has room for branding, and leaves the athlete with a very nice souvenir. Disposable chips are easy to use in parallel with runner-owned chips, and there is no need to retrieve the chips after the race.

All transponder systems offer significant advantages:

- fast and accurate results for each individual participant
- "net" times and split times can be made available to participants
- split times can be fed to press, TV and Internet
- there is no back-up of runners at the finishing line
- less build-up and break-down of material at the finish line
- automated checkpoints along the course to safeguard against cheating

The chip is usually worn on the shoe in order to be close to the magnetic field generated by the mats, or so that the active transponder does not need to transmit very far to register a signal. That the timing point is the foot (and only one of them at that) rather than the torso is one reason why IAAF do not accept transponder timings for world record purposes.

WARNING:

When problems occur with these systems it is usually because operators do not understand all set up and software issues. Either employ a dedicated timing company or, if you are renting or purchasing the equipment yourself, make sure that your entire team are thoroughly briefed by the distributor before you use the system in a real race.

MyLaps has a world-wide network of more than 170 professional MyLaps timing companies in 52 countries.

Note the difference between 'gun times' (brutto) and 'chip times' (netto) and the consequences of using either or both. IAAF recognises only 'gun times', the time elapsed from when the timing system is activated by a starting signal to when the finish system picks up a signal from runner's transponder. All official results should be reported with gun times, and rounded up to the nearest whole second.

IAAF Rule 165.24 includes the following technical specifications:

a) none of the equipment used at the start, along the course or at the finish line constitutes a significant obstacle or barrier to the progress of the runner

b) the weight of the transponder and its housing carried on the runners' uniform, race number or shoe is not significant.

c) the system is started by the Starter's gun or approved starting apparatus. The official time is that elapsed between the start signal and the runner reaching the finish line. The time elapsed between a runner crossing the start and the finish line can be made known to the runner, although it will not be considered the official time.

d) the system requires no action by the runner during the competition, at the finish line or at any stage in the results processing

e) the resolution is 0.1 seconds (i.e. it can separate runners finishing 0.1 seconds apart)