

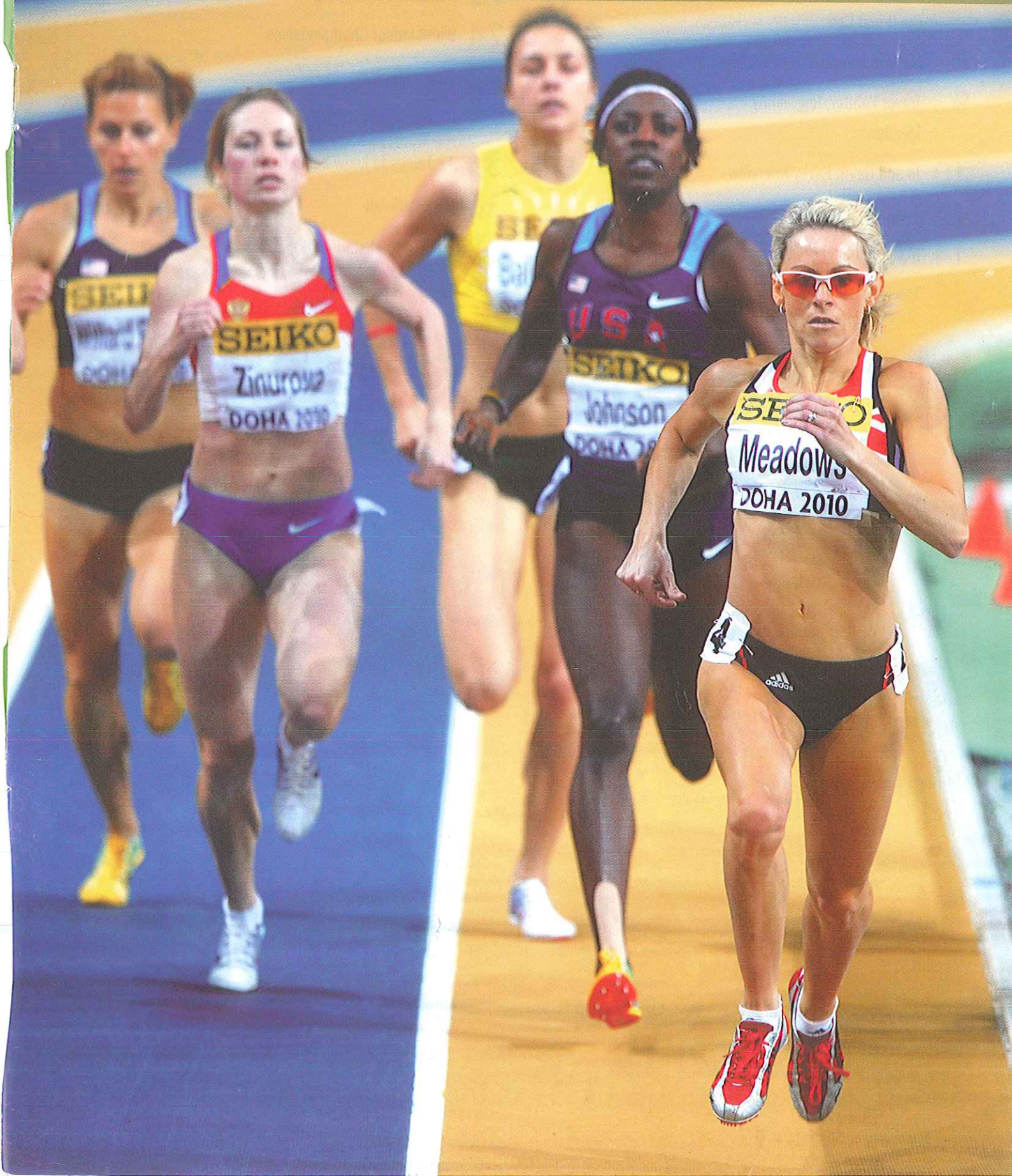


BMC News

OFFICIAL JOURNAL OF THE BRITISH MILERS' CLUB

VOLUME 7 ISSUE 1 - SPRING 2010

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British Milers' Club

Founded 1963



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All official correspondence to the BMC should be addressed to the National Secretary at the above address. All matters so received will be addressed by the national committee at their next meeting. All other requests should be sent to the BMC Administrator Pat Fitzgerald and will be dealt with as soon as possible. Matters concerning specific areas of the club should be sent to the relevant person from the above list.

The BMC are always looking to expand its network of people and locations that host BMC races. If you feel that you can help or want to get involved then please contact the BMC Administrator Pat Fitzgerald.

Chairman's Report

Tim Brennan

Welcome to the spring 2010 edition of the BMC News. Many of you have praised the last few editions and people who have been BMC members from the early days have said the magazine is better now than it has ever been. Of course this sets us a challenge to keep the improvement going.

Coaching Conference

In March we staged the BMC National Endurance Coaching conference and seminar at Warwick University. The format was a new one for us combining two one day events into a single weekend with the BMC dinner and awards presentation on the Saturday evening. Both England Athletics and UKA provided backing for the event. We have had very positive feedback from many of the coaches who attended and constructive ideas on how we can enhance it further. We know that committing a full weekend, plus the extra cost involved in an overnight stay is something that may have put some people off. I would welcome hearing from any coach members on how we can best support you with these events.

I thought all the speakers at the conference were excellent. It was fascinating to hear from Steve Cram on how his great success had been achieved whilst staying with Jimmy Hedley, the coach who spotted him in a schools race and convinced him he would make a better runner than footballer! Steve described that the relationship lasted because it matured and because Jimmy recognised that as a club coach they needed to seek advice and help from someone who understood

international competition; hence Brendan Foster became part of the team. That would seem to me to be a valuable lesson for coaches in recognising where they have a gap in their experience and then not being afraid to involve someone else with 'their' athlete.

The BMC Dinner gave everyone a chance to mix and chat in an informal setting and this was one of the main benefits of the weekend format. Our after dinner speaker George Gandy showed that if he ever gets bored of Loughborough then he has a future career as a stand up comic!

The one shame of the evening was that club founder Frank Horwill was unable to join the fun because of illness. I am sure you would all join me in wishing Frank a speedy recovery.

BMC AGM

At the clubs AGM the officers of the club were re-elected. The club has enjoyed stability over the last few years but new blood would also be welcome. Many would I suspect be surprised by how much is done by so few. One person who did not seek re-election to the committee this year and who has done a huge amount for the club is Mike Harris. Mike and the team at Trafford have a long history of staging BMC meetings and making it one of our most popular venues. Fortunately the team and the Gold Standard meetings will continue. Mike was given a vote of thanks by the AGM and will continue to support the BMC whilst being extremely busy with Trafford AC and his other roles in Athletics.

2010 Grand Prix Meetings

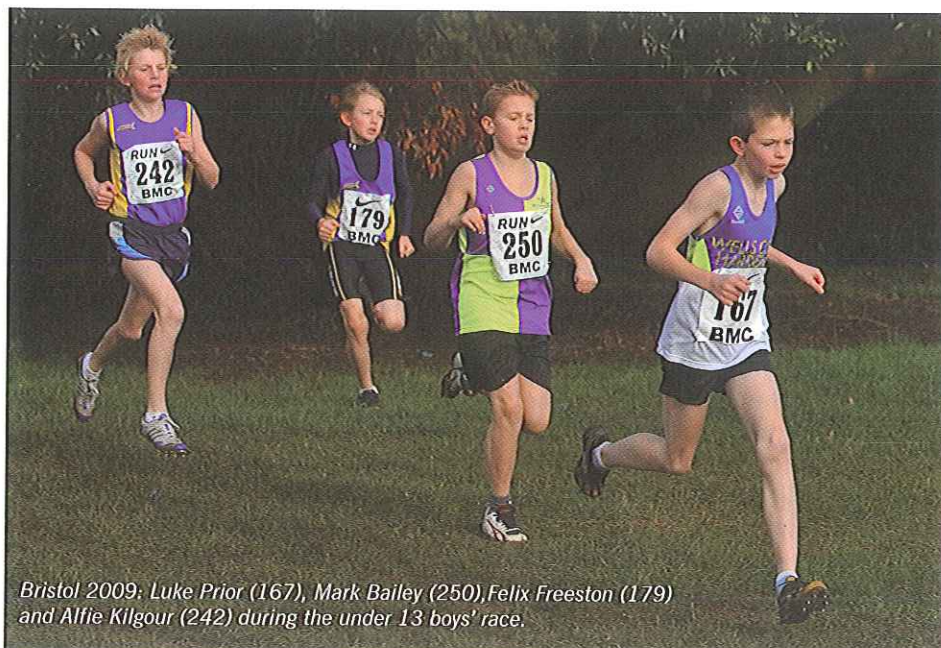
We are pleased to confirm that the BMC Grand Prix will again be part of the UKA McCain Challenge Series. This gives us valuable sponsorship which together with the continued backing of Nike enables us to continue to develop and strengthen the Grand Prix series.

The first two fixtures at Sport City on the 29th May and Watford on the 12th June are before the UK trials for the European Championships and we will be aiming for high quality events with strong international participation. Liam Cain is in contact with various agents, athletes and federations to make this happen. The remaining three fixtures are after the European trials but qualification will still be a main aim with the Commonwealth Games taking place later in the year.

We have staged Grand Prix meetings in England, Scotland and Wales, and on the 24th July we will stage our first ever Grand Prix meeting in Northern Ireland. We are putting on this meeting with backing from Northern Ireland Athletics and in partnership with our friends in the Irish Milers Club who expect to bring a large contingent. The venue will be the Mary Peters track which is a sheltered track good for fast times. We are putting together a package for people travelling from the mainland with the aim of making it a value for money weekend. Details of this will be announced in due course.

Last year the BMC staged the fastest men's 10000m in Britain and we have given this year's equivalent race Grand Prix status with prize money to be offered. It will be held at Tipton on the 14th August.

Best wishes to you all for the coming season.



Bristol 2009: Luke Prior (167), Mark Bailey (250), Felix Freeston (179) and Alfie Kilgour (242) during the under 13 boys' race.

Cover Photograph

Jenny Meadows, Doha 2010.
By Mark Shearman

Printed by:

Wyndeham Grange Ltd,
Butts Road, Southwick,
West Sussex BN42 4EJ.

Photography:

Photographs on pages 16,17,18,22,23
David Lowes. All other photography by
Mark Shearman
Email: athleticsimages@aol.com

Use of a heart rate:

Ground contact index to monitor and predict endurance running performance

The reason I applied for the Frank Horwill research scholarship was a combination of my enthusiasm to undertake research that could have real-world applications and the need for financial support that allows this type of research to happen. A further positive was the prestige of being associated with a project funded by the BMC, bringing with it a recognised brand name that made it easier to recruit high level athletes. This is often a problem with so called "applied performance research" often being conducted on inappropriate populations. If I wanted to research factors related to endurance running performance then I knew I needed to get access to athletes of a good standard for the findings to have any real meaning.

The background to the project was to investigate how reliably we can monitor variables thought to be associated with endurance running, and importantly how well these variables might enable us to predict performance. Measures of cardiovascular fitness are often the focus when monitoring the fitness of endurance runners, which is understandable. However, other factors are also important. When a runner runs they have to generate force against the ground to propel themselves forward. It is only during ground contact that a runner is able to generate this force, so the ability of the muscle and tendon system to efficiently generate force during ground contact is important. Think about having to run at increasingly faster speeds, the runner has to generate more force against the ground in a shorter period of time to run faster. There is also some cross-over to endurance running. If running at a set pace it is thought that it is preferable to run with shorter ground contact times, so the runner spends less time on the ground and more time in the air. This position is supported by research which shows that more successful endurance runners spend less time on the ground when running at a set pace when compared to less successful runners (Paavolainen et al., 1999a). Similarly, getting endurance runners to perform plyometric training, which aims to improve how they interact with the ground, has been shown to improve both explosive abilities and endurance running performance (Paavolainen et al., 1999b). It is speculated that the reason for this is that by spending less time on the ground (i.e. having a shorter ground contact time) the

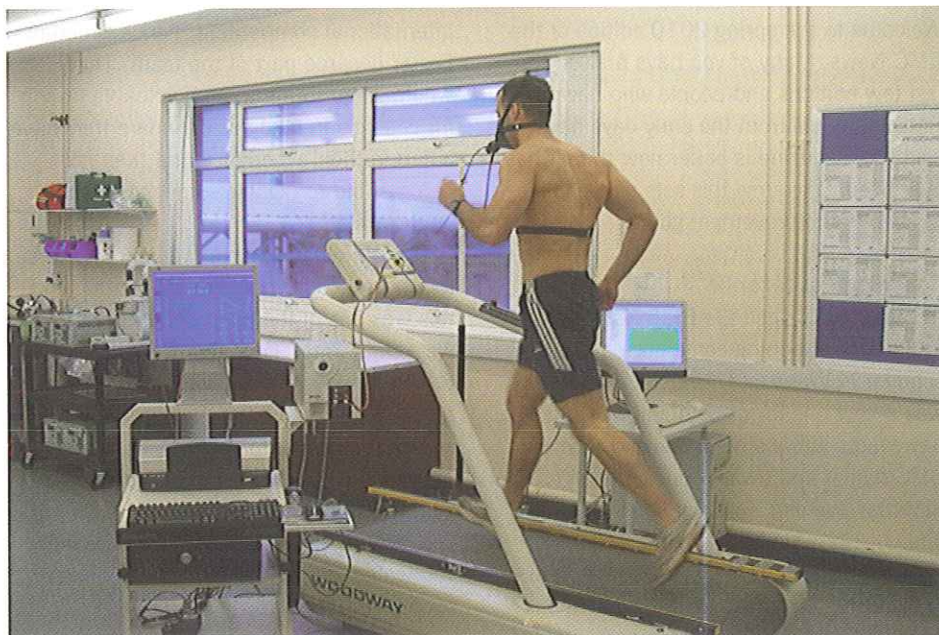


Figure 1. Experimental set-up of the test protocol

runner is making better use of elastic energy that is stored in the tendon structures of the muscles. If an athlete runs with longer ground contact times, energy that is initially passed to the tendon is dissipated as heat rather than being returned as mechanical energy, consequently the runner has to do more physiological work to maintain a given constant running speed. Biomechanically a runner with longer ground contact times is likely to have more vertical motion so would be running less efficiently.

In the field the heart rate response is a simple measure that is used to monitor the cardiovascular response of an athlete, this is because of the known linear relationship between oxygen uptake and heart rate. Heart rate (HR) and ground contact times (GCT) would be expected to follow a similar pattern during running, with increased speed HR would increase and GCT would decrease. Similarly, if running at a set pace a lower HR would be preferable (reflecting less stress on the cardiovascular system) and a shorter GCT would be preferable (reflecting a better developed neuromuscular system). Therefore, it was speculated that measuring these two variables (HR and GCT) could give a global measure of physiological factors related to endurance running, and that the ratio between the two measures would remain unchanged with increases in running speed as the two variables would change in parallel. The study aimed to examine whether HR, GCT and other associated measures (such as step length and frequency) could be reliably

used to track performance. The primary variable investigated was the ratio of HR to GCT, which was expressed as $HR:1/GCT$ (the inverse of GCT is taken, so as speed increases the GCT decreases but its inverse value increases, at the same time HR is expected to increase). It was hypothesised that this ratio could be reliably measured, that the ratio would remain unaltered with changes in running speed and that the ratio would be able to predict performance.

To investigate the above thirteen participants were recruited for the project, 11 males and 2 females. Participants had to be competing at distances between 800 – 5000 m to be considered as middle distance runners, although the majority were 800 (best PB 1:48.5) and 1500 m (best PB 3:49.0) runners. To investigate the reliability of physiological responses and stride characteristics the runners were asked to attend the laboratory on three occasions. During these visits they completed one continuous bout of exercise, running for 5.5 mins at 11 km/h, then 13 km/h and then 15 km/h. Data was collected in the final minute of each stage when the participant had reached a physiological steady-state (i.e. their HR and oxygen consumption had levelled off). A figure of the experimental set-up is shown below:

During each run data was collected on oxygen uptake, heart rate and ground contact time and flight time, from which step length and frequency were calculated. The collection of oxygen uptake was not central to the investigation but was included

	11 km/h	13 km/h	15 km/h
VO ₂ (L/min)	2.54 ± 0.26	2.93 ± 0.26	3.31 ± 0.30
VO ₂ (mL/kg/min)	38.1 ± 2.1	44.1 ± 1.8	50.1 ± 1.3
HR (b/min)	142 ± 14	158 ± 14	171 ± 14
Contact time (s)	0.268 ± 0.018	0.242 ± 0.011	0.219 ± 0.007
Flight time (s)	0.110 ± 0.031	0.127 ± 0.025	0.138 ± 0.024
Step frequency (Hz)	2.66 ± 0.15	2.72 ± 0.16	2.81 ± 0.16
Step length (cm)	116 ± 7	133 ± 8	149 ± 8
HR:1/GCT	38.0 ± 5.2	37.8 ± 4.3	37.4 ± 4.1

Table 1. Descriptive results from the reliability study (mean ± standard deviation)

for comparison of laboratory to field-based measures. All other measures could be monitored easily in a field environment. To determine whether the test could be used to predict performance the test variables collected in trial 1 were compared to the athletes' personal best times. As athletes did not all compete over the same distance a Mercier Score was used to convert PB's to a standardised points systems that allowed comparison of all athletes.

The descriptive results from the reliability study are shown in table 1. This table shows the mean data from all three trials across all of the participants. The data has been shown as a mean across all three trials as statistical analyses showed that there were no changes in results from trial 1, to trial 2, to trial 3. This means that with this protocol and with this type of population there is no need for any familiarisation to the test. The results in table 1 are really provided to given a description of how the runners performed. There are a few things to note. The VO₂ (mL/kg/min) is a laboratory measure that is used to measure running economy, the lower this value the better as it shows that a runner is more economical. As running speed increased to 15 km/h all of the runners had very similar economy (reflected in a low standard deviation), however, the amount of stress experienced to maintain this economy varied quite a lot as can be seen from the HR scores (which have quite a large standard deviation). A key finding was that with increasing running speed all of the variables showed a linear change, either increase or decrease, except for the HR:1/GCT index which remained constant at all speeds. This finding is useful as it means the HR:1/GCT index could be measured at any self-selected constant running speed, whether on a treadmill or in the field.

All of the variables were found to be

reliable. There was no significant change in performance across the three trials, intraclass correlations coefficients were mostly greater than 0.9 (with a score of 1 being perfect), and the coefficient of variation scores were all less than 3%. Reliability tended to improve with faster running speeds. At 15 km/h the coefficient of variation was only 1.1% for GCT, 0.6% for step length and 1.7% for the HR:1/GCT index. This coefficient tells us how much "noise" or natural variation there is in a measure, so the lower the score the better. The values reported here reflect excellent levels of reliability. This means the variables examined could all be used to accurately monitor changes in performance, such as changes in stride characteristics, or could be used to compare the results recorded by different individuals.

When predicting performance it was found that the HR:1/GCT index was a good predictor of performance at all running speeds, with correlations of $r \geq 0.8$, which would be considered strong relationships (with $r = 1$, being a perfect relationship). The strongest relationship was found at the fastest running speed, which is shown in the figure below.

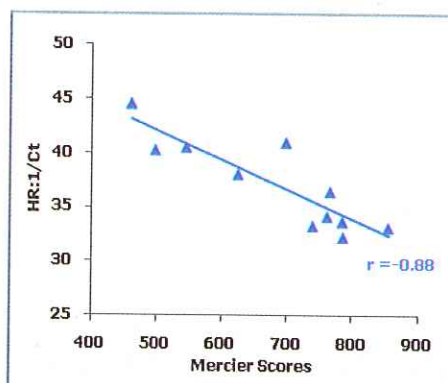


Figure 2. Relationship between the HR:1/GCT index when running at 15 km/h and personal best times, expressed as Mercier Scores

As would be hypothesised, those athletes who were of a better competitive standard recorded a low index, suggested that this tool is a useful measure in predicting performance. Consequently, any improvement in the index, for example via training, would be expected to result in an improvement in competitive performance. It was pertinent to examine what underpinned this relationship between performance and HR:1/GCT index. Both HR and GCT were analysed individually. It was found that even when just considering the HR response this alone was a strong predictor of competitive performance, with correlations of $r = -0.81$ to -0.87 . Therefore, simply measuring the HR response at a given sub-maximal pace would be a useful indication of competitive performance. This reflects the cardiovascular demands experienced by a runner at a given pace, those runners with a lower HR at a given pace are experiencing less stress and have more in reserve to be able to run at faster speeds required in competition. The relationship between ground contact times and performance was weak at the two slower running speeds, whereas a moderate strength relationship was found at the faster running speed ($r = -0.60$) indicating that those runners with the shorter ground contact times tended to have better competitive performances. I would speculate that the ground contact times only start to become more decisive with faster running speeds where more demands are placed on the neuromuscular system, it may be that the relationship is more important at competition running speeds but more research is needed to confirm this. A final step was to use all variables simultaneously to predict performance, this analysis showed that the HR:1/GCT at 15 km/h was the best single predictor variable, explaining 77% of the variance in competitive performance and adding running economy at 11 km/h increased this prediction to explain 92% of the variance in competitive performance. The inclusion of measures of HR, GCT and running economy in this final analysis demonstrate the multifaceted nature of middle-distance running and confirm that performance is dependent on the integration of many physiological and neuromuscular factors.

To try and put the results in context I will provide an example below. It is hoped the HR:1/GCT index could be used to help inform training, by helping coaches and

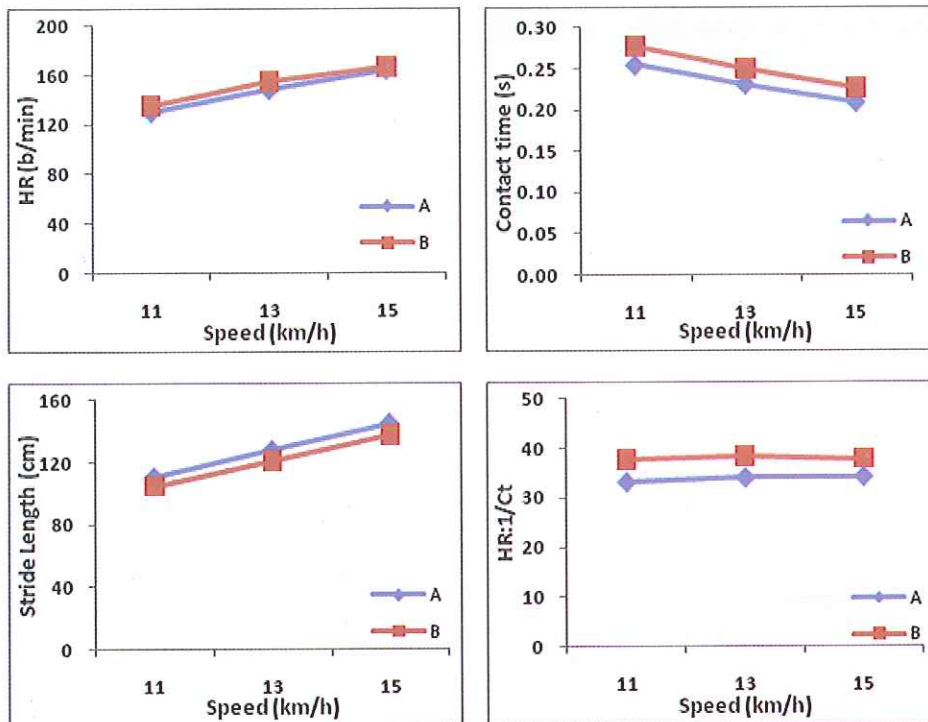


Figure 3. Comparison of runner A (blue) and runner B (red) for A) Heart rate, B) Ground contact time, C) Stride Length and D) HR:1/GCT index

athletes identify where to focus training. This might be to try and improve the cardiovascular response as represented by the HR or the neuromuscular response as represented by the GCT, or both. Two 800m runners who took part in the study have quite different performance times; runner A had a PB of 1:52 and runner B a PB of 2:01. They both had very similar economy, their HR and stride characteristics are shown in Figure 3.

In the example the HR of the two runners were very similar, particularly at the fastest speed. However, runner A had a ground contact time that was consistently shorter than that of runner B, by approximately 0.02 s per step. As a result of spending less time on the ground runner A spent more time in the air and had a longer step length than runner B. The HR:1/GCT index shows runner A as being consistently below

that of runner B, which supports the fact that they have a better PB. Examination of the individual variables shows the main reason for this difference in the index (in this example) is the GCT. If we now consider a 800 m race, I could predict from the earlier data (in Table 1) that the runners would have a step length of approximately 2.25 m at race pace, meaning they would have to take 356 steps to cover the 800 m distance. All else being equal, if runner A spends 0.02 s less time on the ground during each step this will make them 7.1 s quicker over the 800 m distance (356×0.02 s). In reality runner A is actually 9 s quicker over the 800 m distance, this is probably because his shorter ground contact times also allow him a longer stride length and he takes less steps than runner B to complete the race. From this it could be concluded that whilst runner B has a well

developed cardiovascular system they need to improve their neuromuscular abilities, therefore, future training might incorporate some plyometric work to address this.

Hopefully the above has demonstrated the usefulness of the research and allow practitioners to implement whichever elements they feel are useful or available to them. Some of the key take home messages from the research are below:

- As predicted the HR:1/GCT index did not alter with increased running speed. Therefore, this measure could be monitored at any self-selected sub-maximal pace (when the runner is working purely aerobically).
- All variables showed excellent levels of reliability, with most reliable data tending to be recorded at the faster speed of 15 km/h. This means any of the variables could be used when monitoring performance over a period of time or when comparing different runners.
- The HR:1/GCT at 15 km/h was the strongest predictor of competitive performance (measured as a Mercier Score from a PB) and may provide a useful tool for predicting performance.
- The HR response on its own was a strong predictor of competitive performance and would be a simple and effective tool on its own where it is not feasible to collect GCT's.
- The HR:1/GCT may provide a more useful measure than the HR alone, providing information on where training should be focussed.



On the British Milers' Club and racing against Ovett and Coe

PETER BROWNE first came to prominence as a junior 400m runner with a best of 48.00 (47.10n a relay). He was AAA's 800 Champion in 1971 with a time of 1:47.5 and fifth in the European that year in Helsinki in 1:47.00.

His fastest time for 800 was 1:46.2 in 1973. He held World Age Bests' for M40 outdoors 800 in 1:51.25 in 1990 and World Best Indoors for an M45 of 1:57.32. He was World Masters 800 Champion in 1989 and, in 1990 still as an M40 won the European Veterans 400/800/1500 Finals in Budapest. Peter Browne won the Middlesex County 800m twelve times and he was British League Manager for Thames Valley Harriers. He also was a Southern, England and British Team Manager in his time.

Saying all that I felt he would be well equipped to give his opinion on the British Milers Club:- "The BMC has provided an enormous range of opportunities for middle distance runners for many years. It is not the only thing about middle distance running but one element in running fast times. Till you run those times and feel you are approaching the sort of times you need to run in a predictable way, you can't really move on to racing them so, it does provide an enormous boost to individual athletes. You have only got to look round the country currently regarding the events the BMC put on and how well they are supported. People are flocking to races because they are providing what people need, providing the opportunity to run fast times in a predictable way in predictable races."

"When I was younger, competing internationally and Nationally, those opportunities weren't available with the BMC, though they were in their early days. They tended not to be producing super fast times. I was able to get a sufficient number of competitions and I did not need to take those opportunities BUT BMC races now regularly are run at 1.46 - 1.47. They would have been perfect for me to actually have the opportunities which were not around at the time.

I often regret I did not join or be a member of the BMC. The BMC is synonymous with middle distance running in the UK"

Steve Ovett & Seb Coe

Pete Browne with his long career of running, loving it since he was 10 years of age and

still competing at the age of 60 years of age, remembers racing the 'Greats' like Seb Coe and Steve Ovett.

He did beat Steve Ovett a few times when Steve was a late teenager and, had a close race with him when he came second in the AAA's Championship 800 in 1975, in his second fastest time ever of 1:46.4 to Steve Ovett's 1:46.1.

"Steve was always a competitor. An athletes' athlete as it were. I always got on very well with him. Some people found him awkward or difficult to deal with. To people he was competing against he was always fair and honest.

"In that particular race in 1975. I was leading at 600metres. Steve started kicking just to pass me before the bend. I accelerated which caught him by surprise - He cut in on me and forced me to break stride. We finished and we were a yard or so apart. The first thing he said to me afterwards was 'Have you complained to the referee' I said 'No I haven't done' and he then said 'I think you ought to because' he said 'I cut you up and it was unfair!'"

"I ran against Coe several times. I ran against him in the Middlesex for example (1984) when he was starting to knock out World class times on a regular basis. He ran 1:45.2 and I was 3rd in 1:51.00"

"Coe was a different kind of runner. Coe was much more technical and clinical in his approach but again he was a personable guy. I always got on very well with him and hold him in the highest regards. He is not the sort of person who would blank you at a current social function. He would wander up and say 'How are You', which with people in his

position of power it is not always the case."

Had Peter Browne any idea that Steve Ovett would become as great as he was when he ran against him?

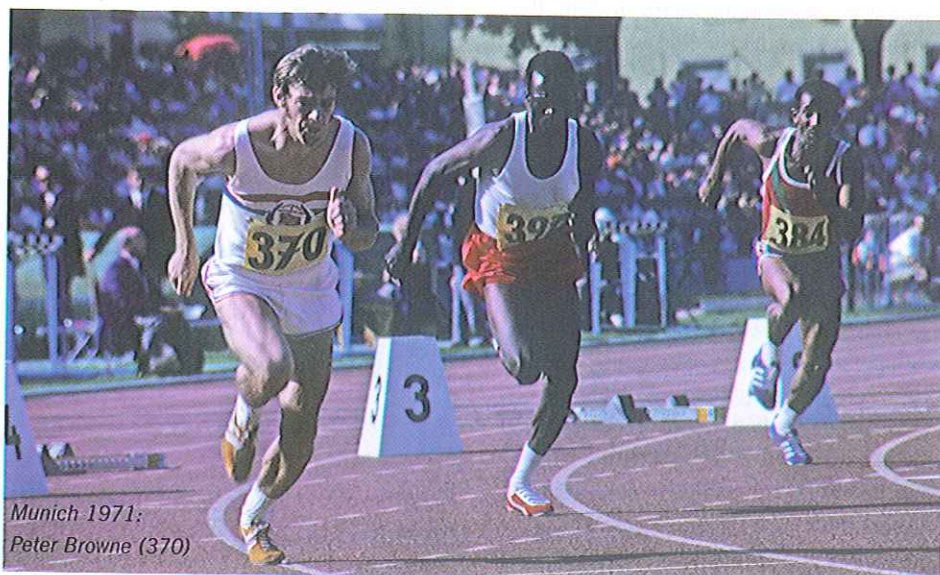
"Steve Ovett was always destined for greatness and with due respect to Harry Wilson, anybody could have coached Steve Ovett I think. He did not actually and still doesn't realise how good he was!"

Pete Browne looking Back

"The only thing I would not do again is venture into the high range of high mileage. It really did not suit me. I did run 90-95 miles in a week but typically doing 60-70. I would not venture further because when I did 80 to 90 it did not work out for me over an extended period. I just did not recover as, I was holding down a full time job and had a family.

The legendary Charlie Elliott was his coach

"I think he was persuaded to coach me as I had not got any great heritage at the time. No superlative times to indicate I was going to develop into an international athlete. I had been running with Queens Park Harriers for a year and a half and he started coaching me in January. In six months I competed internationally in the first ever junior international against France at Portsmouth and was ranked that year in the top three juniors in my age group. It is 40 years ago now but I consider Charlie Elliott, if not revolutionary was evolutionary and developed the ideas of others and refined training techniques. He was ahead of his time."



Munich 1971:
Peter Browne (370)

Fortune favours the brave <<< Frank Horwill

Other perspectives

MANY years ago, John Anderson, the coach to David Moorcroft, startled the audience at a training weekend when he said:

- Stretching before training or competition is detrimental to performance.
- I do not believe in hill training.
- The benefits of altitude training are questionable.
- I do not encourage long runs for middle-distance athletes – 15 miles should be the maximum.

Anderson's credibility is not in doubt. He guided Moorcroft to the world 5000m record, which along with his 3000m time, still stands as a national best after 27 years. So perhaps his statements, although somewhat controversial, were visionary and ahead of their time?

Experts maintain that stretching increases flexibility of a muscle while in a static state. However, running is not a static activity and is therefore contraindicated. Stretching after exercise finds much more support and there is much evidence in favour of stretching after running.

When Seb Coe did some of his road hill sessions, his father and coach, Peter Coe, would meet him at the top in his car and drive him back down to begin the next ascent. The reason behind this was to minimise the braking effect on his legs, which might cause injury.

After the 1972 Olympics, altitude training was discredited when the GB team went to Switzerland for three weeks before the Games. While the UK 1500m record for women was broken twice and a bronze medal was gained in the men's 5000m, the performances overall were disappointing. Shortly after the Games, Roger Bannister chaired a symposium on altitude training conducted by the Royal College of Physicians and the conclusion was that the benefits of altitude training were inconclusive. Unfortunately, they did not know of the evidence as to the right time to return to sea level before competition. The British athletes had returned 10 days before their heats when in fact 20 days is required for the VO₂max to exceed pre-altitude levels.

Some coaches find it hard to comprehend why athletes need to run 100 miles a week in order to run one mile as fast as possible. Indeed, if the same logic were applied to the marathon, the weekly volume

would be 26 x 100 miles or 370 miles a day! This suggests that for the 800m and 1500m high mileage is questionable. While Bannister succeeded on 28 miles per week, his then world record is 15 seconds behind today's times and his volume of work would be totally inadequate to challenge the best athletes.

Dr Woldemar Gerschler described long runs as "inefficient and wasteful of time". He wasn't right in his initial thinking as it has been shown that someone who starts with five minutes a day for a week and increases it by five minutes every week for 12 weeks will boost the VO₂max by 20 per cent. He did claim, though, that interval training over 100m, 200m and 600m with a pulse recovery of 120bpm within 90 seconds could achieve the same result in half the time.

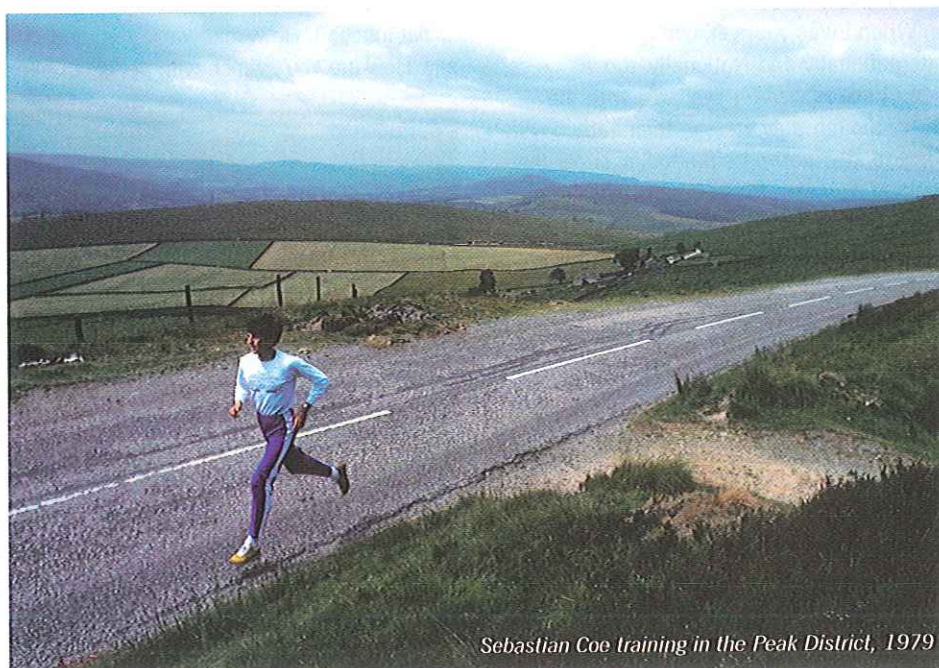
When Emil Zatopek asked to run the marathon in the 1952 Olympics after winning the 5000m and 10000m, he was told the idea was absurd as he had never run a marathon and that all of his running was on a track. Zatopek pointed to the fact that he ran the marathon distance daily in his track sessions. Of course he went on to win and no one has ever matched his feat. A reliable prediction formula for the marathon is 5 x 10km time minus 10 minutes, so some track sessions of 25 x 400m with 30 seconds recovery or 6x1 mile with 100m recovery or 10x1km with 100m jog will bring the desired benefits.

Herb Elliott, the 1960 Olympic 1500m gold medallist and world record-holder, only ever stepped on to a track to race. He

ran 10 miles a day around parks and also did 50 miles on some weekends running up sand dunes and along the beach. Kelly Holmes, in a much forgotten interview stated: "People are surprised at the volume that I do. I run three distances weekly, 60 minutes, 45 minutes and 30 minutes." She was also a prolific hill runner and used three hills different in length and gradient. One of her long repetition sessions was 3x2500 metres over a cross-country course.

I remember Harry Wilson at a training weekend interrupting a coach who was advocating that athletes should have a weekly rest day. "Just a minute" he said, "but that's 52 lost training days a year and that could equate to 520 miles of additional training. Athlete's cannot afford that these days!" Some coaches go even further, suggesting that after a race the athlete takes two days off training. If the athlete were a weekly racer, that's 104 missed days and if a rest day is also taken then that reaches 156 days. Wilson did not believe in regular rest days, but he did favour a cycle of one week at severe intensity followed the next week by light intensity and the third week at moderate intensity before the cycle began again. It is accepted that no strenuous training should be done within 48 hours of a race as this can deplete the carbohydrate reserve.

Although everyone on the start line of a competition may have done much the same training, perhaps the one who has defied common logic with other tried-and-tested routines of their own, may be the one who has the edge over the field.

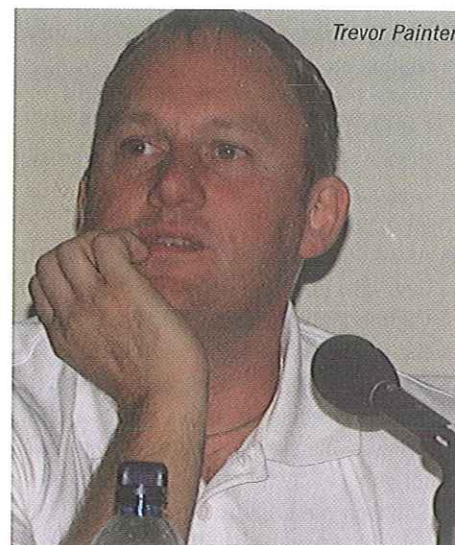


Sebastian Coe training in the Peak District, 1979

- Jenny started with Alan Prescott at St. Helens for 18 months – doing lots of lactate work which she didn't like!
- U15 only training 2 nights a week.
- Won English Schools in 2.14.88 in 1995, but injury in 1999/2000 – problems with her back so tried 400m
- Trevor thinks coaching is not just about the technical side – he does lots of research and has found BMC conferences really good.
- Jenny went to Chris Butler at Wigan for 400m/800m based training. The focus was speed (above or at race pace) on the track and distance off the track.
- Miles per week were only 20 miles – later she broke 2 minutes on only 30 miles a week.
- Key challenges: looked at English Schools and running even paced races.
- Used major games as a learning curve. Went to the World Juniors – 2000 – Chile and got the gold in the 4 x 400m. Wanted something more – so came back to 800m.
- 2007 packed in job. When doing 400m training did 9 sessions a week.
- Now – 14 sessions a week for 800m training including 2 lifting sessions and one steady run – longest = 1 hr. Every day she does a rehab stretching session – ultraband work.
- Likes double periodised year – doesn't like to be too far away from a fast race. Targets indoors now and doesn't like big training block in the winter – becomes mentally fatigued.
- Winter – does 5-6 weeks aerobic work

and then on track 400m base speed work every 3 weeks e.g. 3 x 350m or 60m /80m or 30m/30m30m

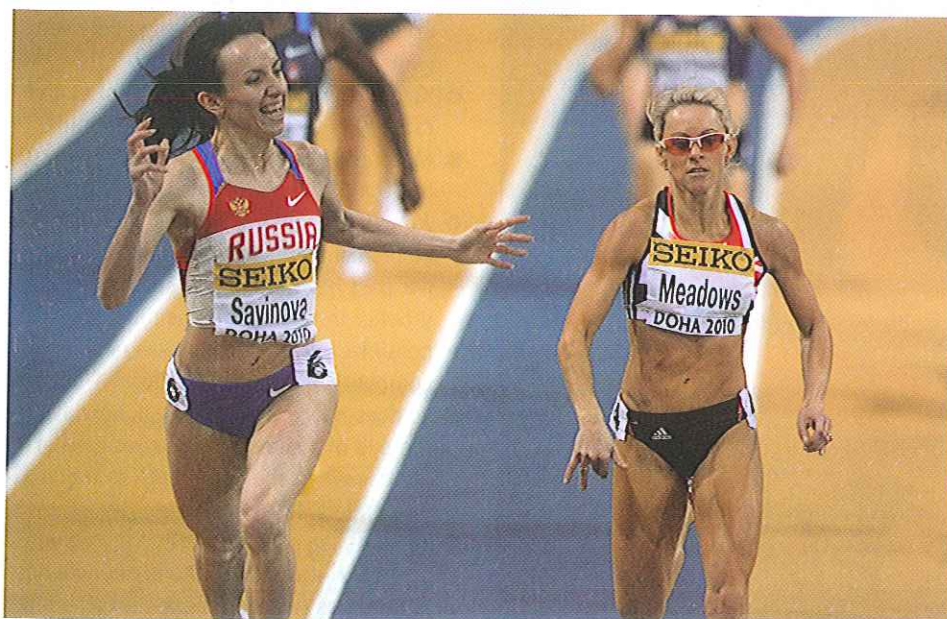
- Circuits all year – on a Tuesday does them first and then an aerobic run. Now getting towards 50 miles a week and managing ok.
- Eyeball Session – Clyde Hart = 44 secs twice + 350m flat out (hit lactate at 41 secs)
- 3 x 350m in 49 (does twice before major competitions and in the summer)
- 10 x 400m once a month – mid 60's off 90 secs.
- After indoors – Will go down from 10 x 400m to 6 or 8 reps. Will do split 400m's 2 x 400m with 30 sec rest.
- Testing – Jenny doesn't like treadmill testing – apparently she has one of the worst VO2 max results, but can produce one of the fastest 800m times.
- Support – fringe of funding EIS – 2004 had injury and EIS wanted to inject, but Jenny went to the Wigan physio Rob Harris to sort out problem (funded by sponsorship). Now following Berlin a funded athlete.
- Diet – Jenny eats quite lavish cuisine – cake and chocolate!
- Body weight – race weight – somewhere between 48Kg – 46 Kg.
- Learning tactics – "Do what you need to do for yourself to get the most out of your yourself"
- Coach – coach needs to be calm around athletes.
- Taper – changed over the years – used to drop down, but for Berlin Jenny was



Trevor Painter

running high 30's mileage the week before and still doing 12 sessions. Last hard session would be 2 weeks before major competition.

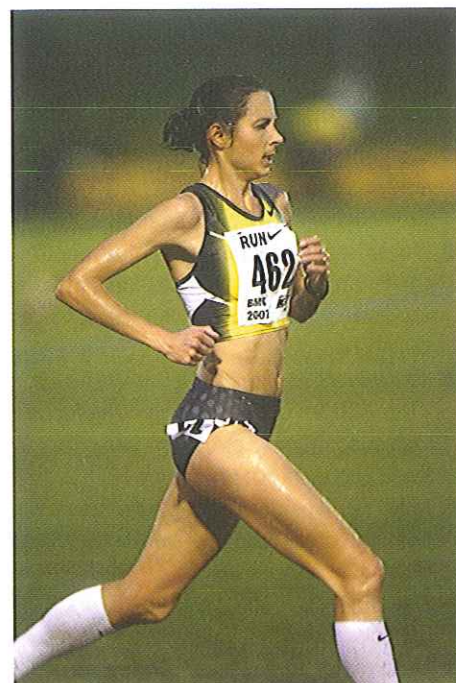
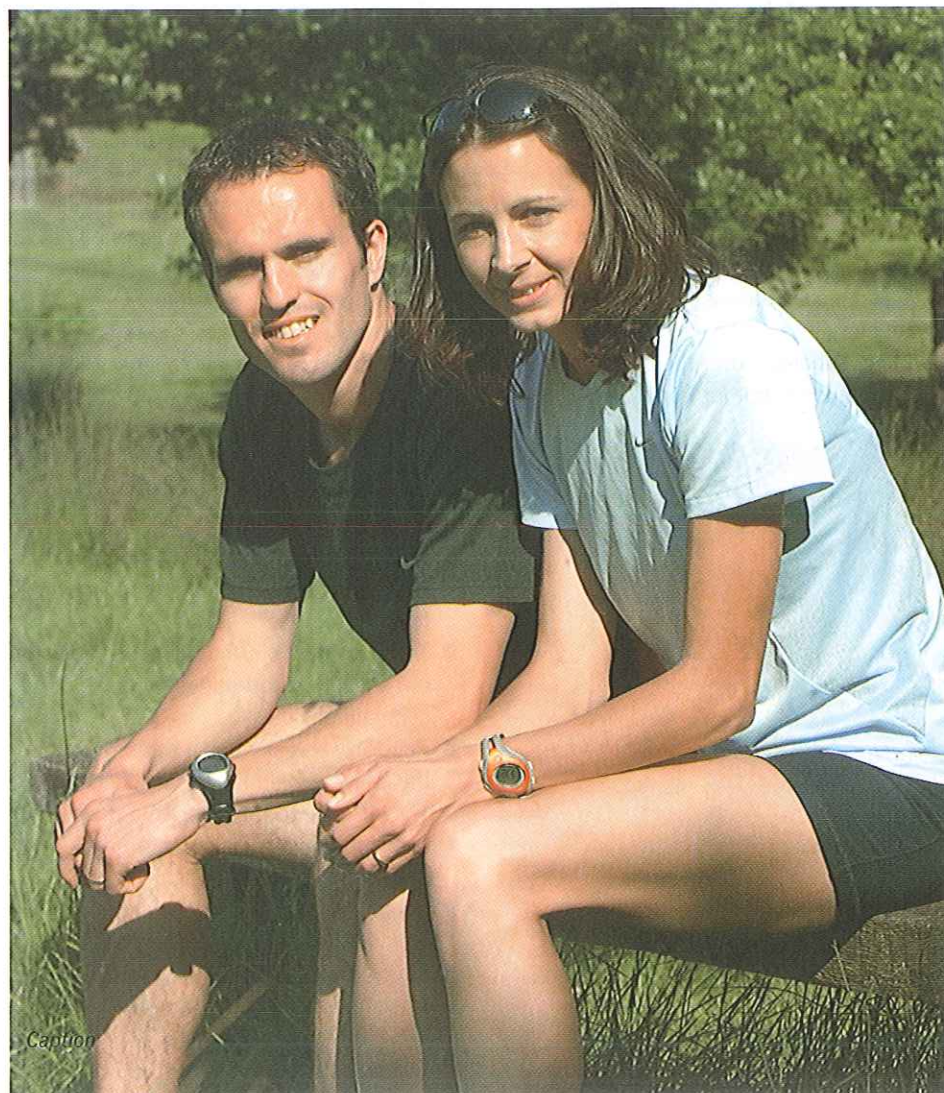
- Nerves "success breeds confidence and confidence breeds success"
- Full time athlete – since going full time the financial worries have eased – Trevor's parents used to pay for warm weather training.
- Portugal – there for most of April and starts to race May.
- Other sessions Jenny used to hate 3 x 500m.
- They use 4 key circuit sessions on a Tues/Thurs and 2 at the weekend with ever varying exercises – in fact they never do the same session twice in close proximity either with regard to times/ aerobic/different exercises. Trevor likes to give his athletes variety.
- Hill sessions – They have 3 hill sessions they do – sand dunes; gradual 300m incline and steep hill with a 4th week session of plyometrics – all 4 rotated.
- Weights – Jenny has been injured with weights and so they tend to back away from them.
- Trevor pointed out that he felt there were not enough opportunities to run 600m in competitions.
- Race Day – Jenny has a set pattern for the day – using a list she ticks off.
- They like to work back from a major competition like Doha with 4 week blocks of planning at a time.
- Berlin – Jenny was very calm in Berlin – unlike Trevor who took splits every 200m! but in the final to get 1.58 efficiently they knew she needed to split in 57.50 – her split was 57.49!
- Will be aiming for 1.56 by 2012.



Doha 2010: Mariya Sayinova (Russia) wins the women's 800metres from Jenny Meadows (GBR)

Jo and Gavin Pavey Interview

- As a teenager interested in football, roller skating etc.
- When she reached secondary school her teachers thought she was good at 800m - joined Exeter Harriers under Paul Gregory and Tony White for distance - a lot of which was run on roads.
- At 14 Jo was training daily, often twice a day, with 20 min runs - both focusing on volume and intensity and she achieved the U15 1500m record of 4.27.9. Although feeling very nervous at the English Schools i.e. physically sick, she believed the experience prepared her well for going away for other major games. She won the English Schools as an U15.
- 14 was a turning point as she was really growing and for 2 years she couldn't achieve a new p.b. for 1500m
- She suffered a series of injuries between the ages of 16 and 23 with very little high level of competition over those years, and it would have been very easy to have walked away from the sport, but she kept persevering.
- Jo studied physiotherapy at the same university as Gavin who was studying to be a Quantity Surveyor.
- Age 23 - both went backpacking around the world, but Jo didn't think she was good enough to go to any training camps and thought she was not capable of a 4.10.0 qualifying time - but still trained whilst away.
- Mike Dam trained her after her return from backpacking and she went to the '97 World Champs in the 1500 metres - but injured again in 1998/99.
- Chris Boxer helped coach her in 2000 - after knee op advised "Do what you can do, not what you should do" i.e. the important elements, but not the volume. Then Chris had to move away, which was when they decided Gavin who was a pole-vaulter would coach Jo. They knew who and where they could turn to for advice, and as Jo was having fewer injuries it was working well.
- At the time 5Km training included 2000m tempo runs and no long run



(only up to 35 minutes). All threshold running was on grass and it was very rare to be on the track. Probably running 25 minutes in morning and 35 minutes later but at a quicker pace. Now mileage is important.

- Before Sydney 2000 (5k) Jo was running 40 miles a week.
- For the last decade she put more training in as she was working towards 5000m, and she found she could run 1500m quicker in 2003 with the extra endurance training.
- By 2007 Jo was up to 100/110 miles a week and in November 125/130 miles a week. In South Africa she ran mileage of 125 then 110, then 90 and back up again. Mileage is kept high between winter and summer.
- Key 5Km sessions = 10 x 800m (1 min rec) or 2 x (5 x 800) (1 min & 5 min)
- Measured sessions 10 x 2 mins (1 min) or 10 x 3 mins (1 min)
- Jo now goes on track probably 3 weeks before competing and since 2001 with her past history of injury she has found it better to train in flats as much as possible, only wearing spikes nearer to a competition.
- Jo does not take a long break now at the end of a season, as this resulted in injuries when she came back to training. She prefers active rest.
- Jo starts leg speed work in early winter e.g. 16 x 400 in 68/69 and she will do 800m reps (but not in say 2.26.0 - she wants to achieve 2.18.0)



- Jo does 13 training sessions a week – 6 double days and one long run – but it is not a 7 day cycle as she takes a rest day every 14 days (although she listens to her body and takes a rest day if she thinks she needs it). More rest in the summer.
- Advised importance of knowing the facilities/conditions etc., for holding camps as for example the surfaces could be too hard, too hilly, slippery gravel or roads, which an athlete may not be used to. It is easier to look into the facilities provided at training camps.
- Competitions – Jo likes to plan the day of a race. She likes to eat 3 ½ hours before competing. She used to eat something like bread and jam, but she has a condition where her blood sugar goes too high and so now she will eat more protein i.e. a tuna roll with ketchup! She also eats a protein bar ½ an hour before competing.
- Treadmill testing – Gavin doesn't like treadmill testing and so he uses a lactate probe keeping training loads so that levels are 4:5 (highest she has recorded is 14:15)
- Strength & Conditioning – Jo will workout twice a week with body weight lunges/core stability – they feel she would get more injuries if she did more and Gavin will give Jo physio every day (as she

trained him up), working up from the bottoms of her feet for anywhere between 30min – 1 hr and he can do this late in the evening.

- Grateful for the help from UKA – Andy Jones and Charlie Peddler at St. Mary's. Also to Jenny Pearce for her advice on nutrition and eating more protein.
- In 2005 Jo had a virus in Helsinki, which resulted in her being unwell for 3 months. She didn't run between August – November, but achieved an excellent silver medal in Melbourne.
- 5000m p.b. 14.39.96
- 5000m – 10,000m. Jo's long run is now 90 mins – 2 hours and the emphasis has changed so doing 7 min efforts instead of 2 min efforts.
- Only run 4 or 5 10,000m – Euro Cup, Osaka, Beijing (had food poisoning) and BMC.
- Osaka – ran 31.12.0 and would hope could do 30.30.0. Her 5000m training helped produce a 60 sec last lap. Andy Jones has said Jo's physiology makes her possibly more suited to longer distances and so she is taking on this new challenge at this stage of her career (she would still like to improve her 1500m time!)
- Jo never envisaged progressing from a

1500m runner to a marathon runner.

- Motivation – her life is complete now with baby Jacob.
- Future plans – Wants to go for the 10,000m at the Europeans and so may make her maiden marathon debut in January.
- For marathon practice running on roads she is using sessions such as 10 x 3 minutes or 6 minutes and 20 minute tempo runs on the road.
- Jo's advice – Keep at it! She found aqua-jogging very beneficial when she was injured with sessions like 10 x 2 min (30 secs rec). Keep going every day. Niggles will sort themselves out if you change from track to grass for a while and don't always have to use spikes on track. You need endurance and speed and listen to your body. Patience.
- Hills – use muscles in an exaggerated way, but they can be an injury risk - goes to Richmond Park for her Hill sessions.
- Advice for athletes for 2012 – Know what you are going to do on the day you are competing (make a list) – make sure you have all your kit ready in advance – keeping stress to a minimum. Allow longer for your warm up in case of queues for loos etc., create a sense of calm and focus on being ready.

Progress since 1980

Progress in Endurance performance since 1980

The BMC has as its aim the raising of the standard of middle distance running. We should certainly have to hand reliable measures that tell us where we are. A meaningful statistical picture can cut through a lot of rhetoric.

This analysis looks at the top 3 ranked performers in the country, men and women over 800m and 1500m. The aim is to see the long term trend in the event at the standard which should be aiming at selection for major championships.

The average for all the performances in

the top three across all years are:-

800m	1:45.31
1500m	3:34.54
5000m	13.22.51
10000m	28.09.66
W800m	1:59.94
W1500m	4:04.80
W5000m	15:24.23
W10000m	32.52.95

By looking at the variation from the average times we can see which years were above average, which were below, and which years were the best and worst.

As individual seasons fluctuate considerably and may be influenced by the absence due to illness or injury of an individual, it is easier to see long term trends by comparing rolling 3 year averages. This gives the following graphs:-

Men

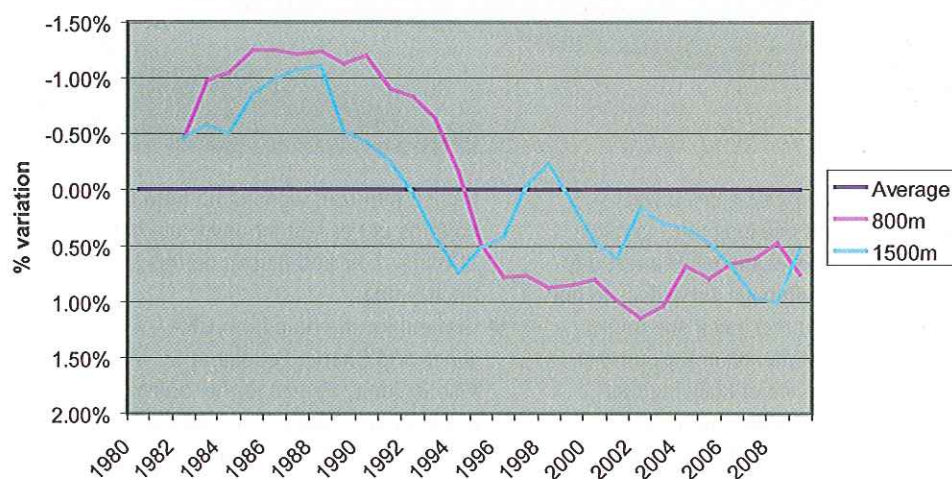
The men's 800m and 1500m events follow similar paths. All the above average 800m marks are pre 1995 and all the 1500m marks bar one are pre 1992. The exception in the 1500m comes in a short period in the late 1990s when Mayock and Whiteman raised the standard.

There is a good sign of recovery in the 800m where 2002 was a low point, and standards have gradually risen since. However 2009 was a weak year with standards dipping. We will have to see if this was a one-off dip or a reversal of the upward trend. Both Rimmer and Thomas had disrupted seasons; it may depend on their fitness for the standard to rise.

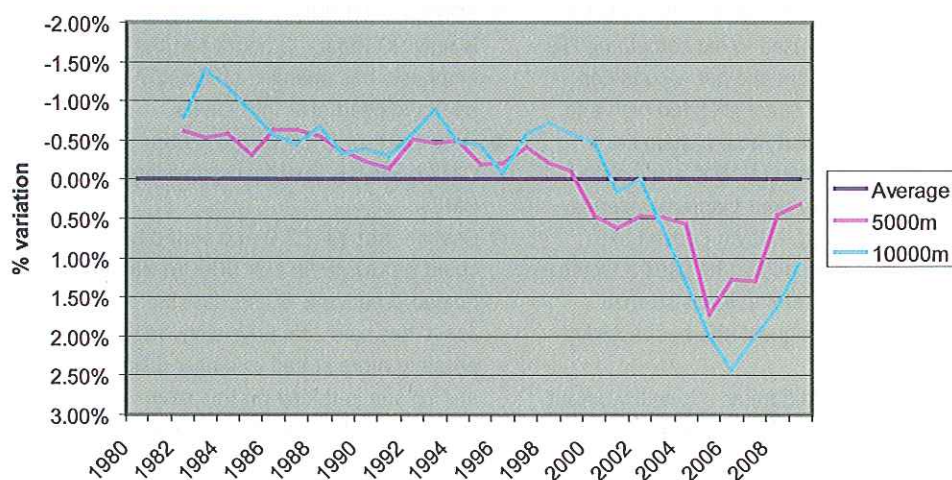
The 1500m reached its lowest point in 2006/07 and since then we have had a couple of strong years with Baddeley, Lancashire, East and Farah. It seems reasonable to expect the trend to continue.

In the distance events standards from 1980 to 2005 were in decline. The trend has reversed in the last few years thanks in the main part to Mo Farah in the 5000m and to Mo and Andy Lemocello at the 10000m. The 10000m standard though is still 16 seconds below even reaching average

Progress Men 800m/1500m



Progress Men 5000m/10000m



Women

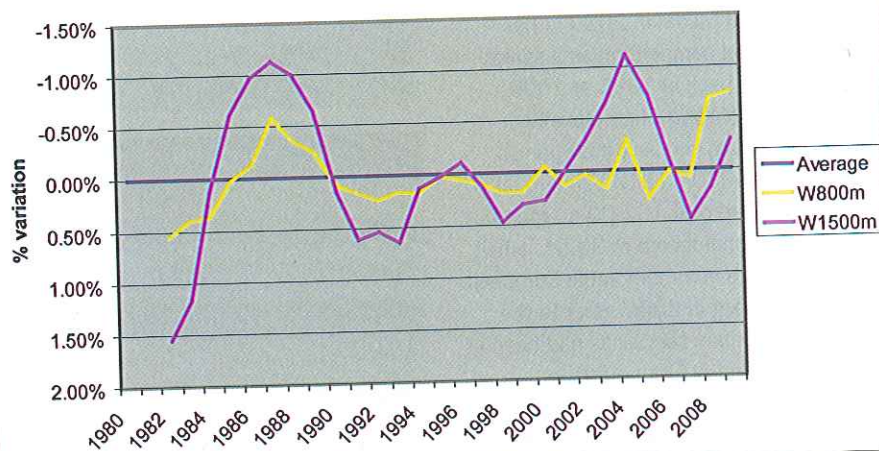
In the women's events we can see that 2009 is the best year ever for 800m and a strong year for 1500m.

The 800m is the most consistent event, with the best period before this year being in 1987-88 with Wade, Bailey, Edwards and Boxer all running fast, and in 2004 due to Holmes running exceptionally fast. The current trio of Meadows, Okoro and Simpson backed up others seem highly likely to keep standards rising.

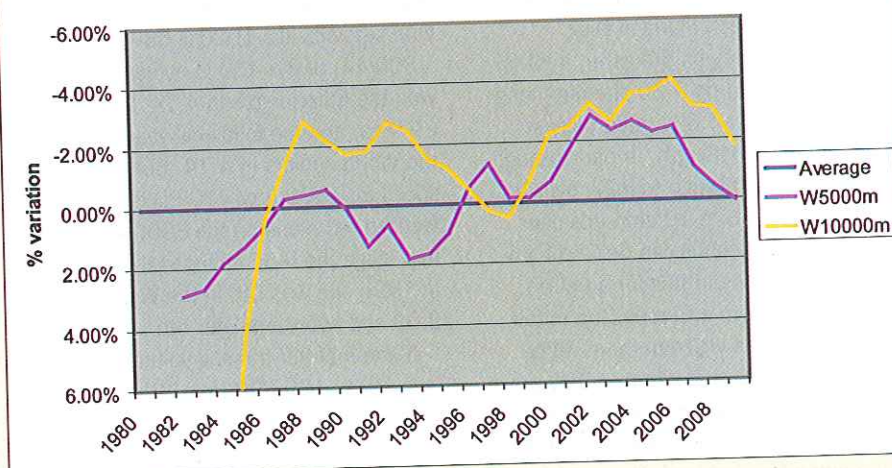
The 1500m has fluctuated more than the 800m, but the peaks have come at similar times and due to the same athletes. Wade, Bailey and Boxer in 1988 and Holmes in 2004. With this years rankings topped by Dobriskey, Twell, and England and some strength in depth, we can also expect this event to improve further.

The women's 5000m and 10000m have both been events in development following their inclusion as championship distances. A peak was reached 2000-2002 when Paula Radcliffe was running both 5000m and 10000m. Jo Pavey, Kathy Buttler and Hayley Yelling have all been a significant part of the rankings. A decline has set in during the last few years and 2009 was the first year since 1995 that none of the above has featured.

Progress Women 800m/1500m



Progress Women 5000m/10000m



Early Foundations

Born November 1975 in Palencia, about 2 hours drive North of Madrid.

Marta Dominguez won the World Steeplechase Gold Medal in 2009 in her 15th year of global competition as a senior, having competed back in 1995 at 1500 in the Gothenberg World Championships. Perhaps surprisingly, she isn't the Spanish record holder at 5000m (Julia Vaquero is) but her one venture over 10,000 on the track resulted in a national record of 30.51, albeit a distant 7th place in a memorable European Championship event in 2006. Prior to the steeplechase her main successes had been at 3000m indoors and 5000m outdoors

She has also done a 70.54 half marathon and this may be a clue as to what event she will focus on in London 2012 which she says is a major motivation.

The content below was presented to the Spanish Federation in 1998 when she was aged 22 by her coach Mariano Diez.

He said :- she weighs 54kgs +, a lot for her height. She can do 2.20 standing long jump; 30 meters in 4.6 without spikes and she has great strength, in part through nature and partly through training over the years. She can do 8 to 10 chin ups over a bar and in 20 seconds can do 25 or 26 full press ups – she did this for a bet on the return flight from a Europa Cup meet! Like all my athletes we train them to be physically sound so that whether they are a better or worse athlete they are 'well made'. They do gym work, jumps, throws, hurdles and running when younger. At age 12 Marta was schools champ at 80m hurdles and 300m flat. She came 9th in the Spanish 2k champs U13 in 6.57, over 100m off the lead but I saw then that she could be a decent runner as she had done no specific training. Her first individual training started in 1991 (aged 15) and with this she did 3000m in 9.47 with the last 1 km in 3.02. She – like most distance runners – started specific training relatively late- in the U17 group. All the runners from our region are from rural areas and way of life gives them great physical training. [This has changed in the last 20 years – DC]. Plus they have mental toughness – we have endurance in our soil, we have dancing competitions at fiestas to see who is the last one standing. I call it 'organic endurance'.

At this stage she did a mixture of gym work; aerobic and anaerobic circuits; medicine ball, steady runs but only 2 or 3 x 30-40 minute runs per week. Sundays a

Age	Winter Peak – KMs – held late Nov to end Jan	Summer Peak – KMs – held mid May to end June	Minimum volume KMs
19	110	105	80
20	120	120	90
21	130	130	100
22	145	140	100

	PB as at 1998	Career Best and Year
800m	2.06.1	2.06.1 (1995)
1500m	4.08.5	4.04.8 (2009)
3000m	8.44.1	8.28.8 (2000)
5000m	14.59.4	14.48.3 (2003)
10.000m		30.51 (2006)
3000m s/c		9.07.3 (2009)

hilly fartlek and km reps in about 3 minutes. When she did the European Juniors (age 17) she did 800 in 2.08.4 and the event specific training was for just 15 days prior. The following year we increased the specific work with sessions like 1000/2.58 – 600/1.43 – 300/44; or 3 x 400 in average 63. She won the Euro juniors in 4.14, last 200 in 29 secs, and the following year was 2nd in the World Juniors in 4.14. But as she lacked speed for 1500 (her 400 PB is 58.0) we focused our plans on the 3000 although at that stage the IAAF changed this to 5000. In 1995 she was 6th in the World Indoors in 9.02 and two years later 5th

A graph of her training volumes from 1994 (age 19) to 1997/98 (age 22) shows the following trends:-

TRAINING IN 1998

Before a steady run she does 35-40 minutes warm up with drills and gymwork, and afterwards she does some fast strides and further drills so she doesn't lose the muscular qualities that the pure volume would weaken. In winter she does standard reps of 1k and 2k like everyone does. Logically, as further time passes, the athlete can increase the intensity and in time Marta will do 2k reps in just over 6 minutes – in 1998 a typical pace was 6.48 per 2k rep. In a 5k runner aerobic endurance is key, at an intensity of about 80%, though you may debate this figure. We use HRM and lactate tests to know if she is running at the right intensity, regardless of the actual times that she is doing. We are careful not to overload so that she is unable to train properly the next day. By this I mean, if she does anaerobic work (which is less important in 5k) we lose two days of aerobic endurance work so it's not a good trade off. We

do anaerobic work only when the key competitions approach. But she does have the advantage of finding peak form quickly – a couple of tough races gets her there.

She starts indoor season training in September, building from 125kmw. She used to do 3 weeks hard/1 easy but this brought tendonitis so we now do 2 hard/1 easy. Recently (October 1998) she did 2k reps in an average of 6.46 – a minute after the last rep her pulse was 107; 30 seconds later it was 90. Last year her anaerobic threshold was 163 bpm. We are lucky that we have a physician who is a friend; a pharmacist [legit, I'm sure! – DC] who is an old college friend and a lab tester who is my daughter so we can get test results within 3 hours of taking samples.

To develop anaerobic ability we do reps of 200 and 400 by the Gershler system – start the rep at 120 bpm, end it at 180 bpm. I think it's a good system and brings Marta good results. Books state that you recover from anaerobic work in 48 hours but I have my doubts – Marta doesn't fully recover in this time.

She does easy running to recover – simple. Also hydrotherapy and massage. She has slightly twisted legs so the transmission of force is not great – only about 80 to 90%. We are working to correct this and it is improving.

A longer keynote presentation was made to the same Federation seminar in 2009 to focus on what led to the World Steeplechase Gold medal. Transcript available later in 2010.

Aside from the physical statistics, Dominguez is widely respected even in the macho world of Spanish sport as possibly the nation's greatest ever athlete in terms of competitive spirit.

The Need for Speed

←←← *Brendon Byrne*

Without a doubt if you want to be a good middle distance runner you need to be fast. To be world class male 800m runner you will need to be capable of 47.5 secs for 400m. To be a capable of running a four minute mile (3mins 42 secs for 1500m) you will need to be able run 400m in 49.5 secs. You cannot be a slow middle distance runner and be successful!

There are some that believe that speed is inherited and there are those who believe that speed can be utilised by the development by a large aerobic base. Then there is the view here that there is a big correlation between strength, power and speed development. But what sort of speed does a middle distance runner need?

Firstly he or she needs to be able to maintain a speed for the duration of the race. Fairly clearly this is speed endurance; it might be 80 secs a lap for a novice who is aiming for a 5minute 1500m. For world speed for 800m it would mean running two successive laps at 51 secs each.

The second type of speed is where an athlete needs to react to changes in pace during a race. To be realistic how many races are likely to be run at even pace? The third type of speed is being able to sprint at the end of a race and this is of course when the athlete is tired. Examples of this are the ability to accelerate past opponents as Kelly Holmes did in the Olympic finals at Athens in 2004. At the end of a major

10,000m championship Kenenisa Bekele is capable of a 53sec last 400m. All of this is quite different from the immediate reaction to a stroke in tennis or the first foot strike a footballer might need to make in a match to evade an opponent for example.

The coach and athlete have to have an honest analysis of strengths and weaknesses. Is your personal best at 800m limited by your 400m speed? You do race 400m don't you? Are you constantly being outkicked at the end of races? It is no good hiding, even marathon races are won or lost by finishing speed.

Analyse your performances over a number of power tests before a years training plan. Include tests such as vertical jump, sergeant jump, 40 yard sprint (36.6m), pb 200m, bench press, press ups. There are a large number of test that are available. These are just a few. Being strong does not necessarily mean fast, it has to be related to technique and fast running too.

Why strength train? How will it make you a better runner? There are a number of reasons:

1. To correct muscular imbalances. The classic case is where an athlete has quad muscles that are much stronger than the hamstrings. Most people have imbalances in strength and flexibility. These need to be assessed.
2. To become more economical. The more efficient the running action the better. Waving arms, rolling shoulders and flat feet are all examples of wasted effort.
3. To reduce injury. How many running careers have been halted or even ruined by injuries caused by poor strength?

You cannot sprint properly with poor arm strength. As Tom McNab said a while ago "You can't fire a cannon out of a canoe".

A key word in fitness training is 'functional' - quite simple this means that what you do must have a relevance to the activity you are trying to improve.

There are plenty of objections to strength training. Some of these are:

1. "I don't want to put on too much muscle/weight".
Most MD runners have a light frame anyway; with a considerable amount of running it is unlikely they will develop huge muscles. Not like Dwain Chambers on steroids a few years ago.
2. "I don't have the facilities"

A great deal can be achieved by exercises involving just body weight.

3. "I don't have the time"
Make some time – you do want to improve don't you?
4. "Won't weight training actually make me slow?"
It can, but with carefully worked drills and sprinting you will get faster.
5. "Won't it interfere with my running?"
Not if planned and integrated into a training plan properly.

The experts say that strength training should be introduced cautiously and progressively. Programmes should be time efficient and fit into or around the weekly running programme.

Females in particular have a negative perception of strength training and this is an area that coaches need to look at carefully.

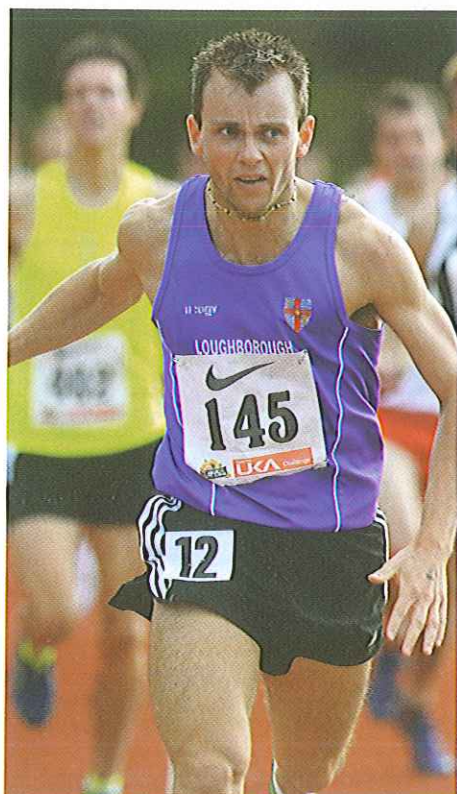
What types of training can be used to develop more speed?

1. Circuits involving body weight and apparatus.
2. Weight training – free weights are better than using machines in the gym.
Exercises could include squats, bench press, flies, single leg squat
3. Improve flexibility
Poor range of movement can impair good movement patterns
4. Plyometrics – including bounding
5. Drills – high knees, ankle bounces
6. Hill runs – short, long, downhill.

The list is huge. How do you know if the extra training has been effective? Re test using the methods mentioned earlier. There is a correlation between improved vertical jump, improved standing long jump and speed for example. The true test of course is if your racing performances improve. Faster race times and improved sprinting are what you are really looking for.

Writing in the now defunct Athletics Coach a number of years ago the late, great Wilf Paish considered if being a coach meant having a big scientific knowledge or was the coach an artist. Clearly it needs a bit of both to bring a successful programme together on the lines of the points outlined above.

- *Running Anatomy* by Puleo and Milroy
- *Core Stability* by M Lawrence
- *Sports Speed (3rd edition)* by Dintiman and Ward



No secrets for success

The British Milers' Club held their Endurance Conference recently with a fascinating array of talent on show writes DAVID LOWES

The National Endurance Coaches Conference and Awards Dinner at the University of Warwick, Coventry on 6/7 March was not only an insight into the training and coaching methods of the exalted guests, but a sharing of ideas and a celebration of the work and performances of all those involved in the sport.

The volunteer coaches in attendance came from all parts of the country including Scotland down to Cornwall with two coaches coming all the way from Iceland! The guest list was impressive with illuminaries such as Steve Cram, Honore Hoedt from the Netherlands, Trevor Painter, Jo and Gavin Pavey, Dr Jon Oliver - a beneficiary of the Horwill Research Scholarship along with the renowned and hard-working BMC team.

The first day started with a welcome speech by Dr Norman Poole, BMC President who said that the BMC was lucky in that it was forging partnerships with England Athletics and UK Athletics in particular. He reiterated that although most people look at the BMC as race organisers, there is much more to the organisation than most people realise. He was enlightened that although coaching seems to in decline as far as the media was concerned, the 'Year of the Coach' scheme run by UKA should see the status of coaching elevated once again and he would like to see it run every year. He emphasised that although the sport relies heavily on unpaid volunteers, coaching at international or world-class level can be costly. He went on to say that knowledge is one of the most important aspects of coaching and that a basic apprenticeship lasts around 15-20 years and for those with aspirations of getting to the top not to aim for the moon, but to go for the stars! Winding his speech to a close he said that talking to other coaches and networking is one of the best ways to learn and perhaps one of the hardest aspects for coaches is keeping an athlete in one piece and with 2012 just around the corner this is more important than ever.

Dr Jon Oliver was the first speaker on stage and he was one of the first recipients of the BMC Horwill Research Scholarship and he presented his findings to the audience. His subject was 'Field based measure, utilising heart rate and

ground contact time to accurately monitor and predict endurance performance'. Jon lectures at UWIC and has also done work with Chelsea FC and is currently looking at ways of helping England Athletics and UK Athletics.

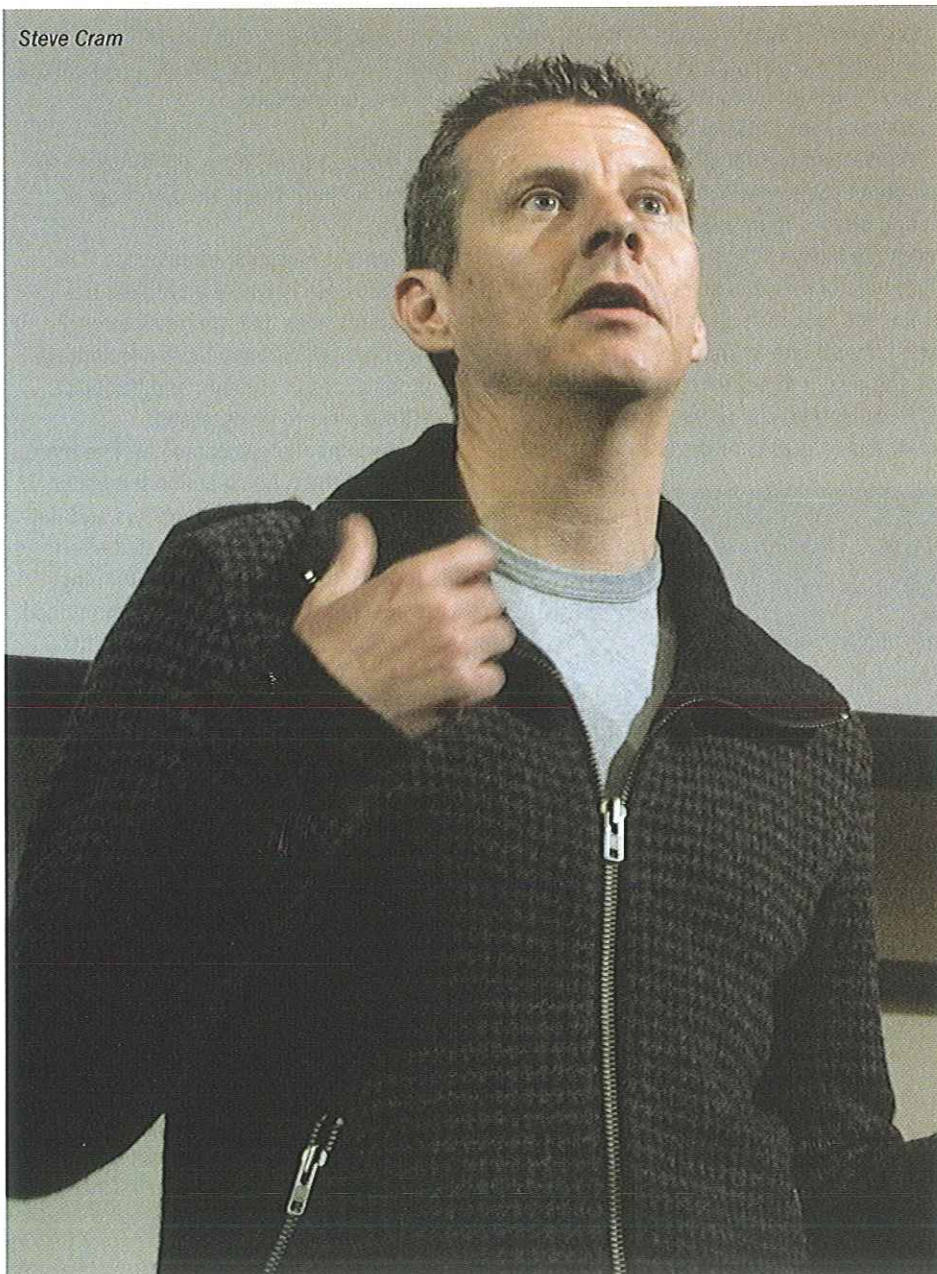
The presentation was an in-depth and realistic look at his findings and some of the points that came across were that the only time a runner can generate force was when they were in contact with the ground and that this influences stride length and speed. This was determined by neuromuscular characteristics: size and strength of muscles and tendons, structural properties and also optimising neural input.

He had used a three bound jump in association with a predicted 10km time and it was obvious that the best runners were

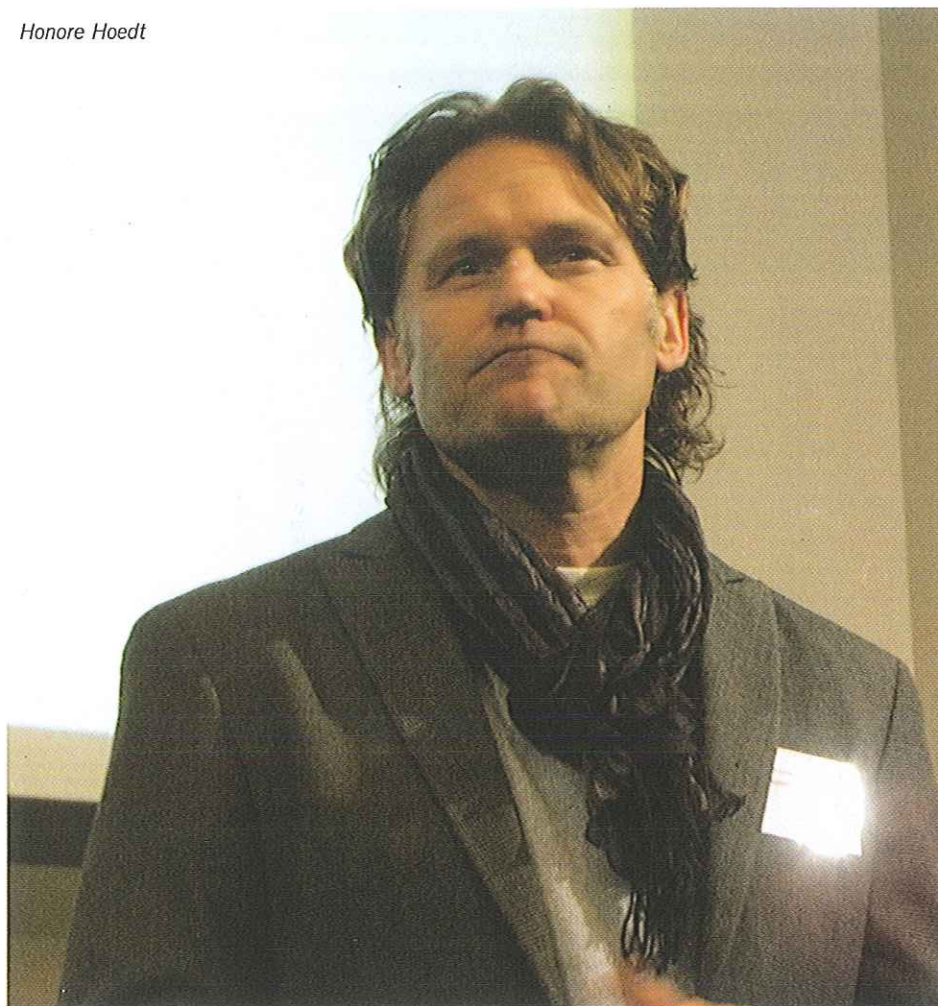
those with shorter ground contact times at a given speed and that ground contact times were related to the economy of endurance runners. Plyometric training improved sprint, jump and economy performances as well as 5km times.

He had tested 13 middle distance runners across four testing sessions aged between 18-24 years of mixed gender and repeated the individual test three times to make the results reliable and valid. It involved running for 5½ minutes at 11, 13 and 15km per hour and the data collected included heart rate, VO_2 max, ground contact and flight times as well as stride length and frequency. The use of the Mercier scoring tables had been used to compare athletes pb's at their preferred distance in relation to what they should be capable of at other distances.

Steve Cram



Honore Hoedt



He showed many complex graphs with a mathematical slant to back-up his evidence with a comparison of 800m athletes 1:52 v 2:00 and this clearly showed that the faster athlete had a lower HR, shorter contact time and a longer stride length. The tests used were fairly reliable and tended to improve as the speed increased and it appeared there were no variables that were strongly related to running economy. Heart rate and the contact time index were a strong predictor of Mercier scores however. Summing up, he said that heart rate, stride characteristics and other calculated variables can all be measured accurately.

The other recipient of the Scholarship, James Keenan, was still putting the final touches to his work, 'Concurrent Endurance Training and Olympic Weightlifting resistance training will improve running economy and endurance performance in highly trained endurance athletes' and this will hopefully be presented at a future conference and in these pages.

Steve Cram was the next speaker and he gave a keynote address to all the coaches present about his career from a youngster

to being the best in the world. He talked repeatedly about the influence his coach, Jimmy Hedley, had made on him not just as a coach, but as a friend and a motivator. He started off his address by going back to how he became involved in the sport and how he got hooked on athletics. After finishing fourth at his first English Schools Championships in Durham at the age of 13, Hedley planned a regime for him which was hand-written over a period of a year and that became the basis for future elite success, a kind of a series building blocks which would be the principles for his entire career.

He went on to explain that ability aside, a strong endurance base was the main reason for his success and that he never kept a training log, although Hedley did. He grew up on a diet of racing frequently, almost every week and in his younger days he would do a long Sunday run, but invariably took some bus fare with him so he could skive parts of the run, that is until Hedley caught him out! He had a menu of tempo type runs in the winter which became sharper and longer as the season wore on

and together with the Sunday run, it would be topped up with harder and faster runs through the week. He never went on the track in the winter but throughout his career he had a staple diet of 10-12 x 400m and variations of that in the guise of 200m, 300m and 600m sessions, the difference being that he got faster as he grew older. He worked on the principle of 30 seconds recovery for every 200m worth of running and that in his 400m session the average times for the series would dictate what shape he was in for a mile or 1500m with a preference to run every rep at the same speed with the last one usually quite quick. He never did strength and conditioning work as we know it, but from time to time used dumbbells, press-ups, sit-ups, stretching and 500 calf raises on each leg from age 17 onwards.

After he was 16 years old and started to mix with other athletes and coaches on his travels over the world he picked up some new ideas and he would present these to Hedley who was quite relaxed about it and encouraged him to try out new methods to see if they would work. Fartlek was a big part of his progression and this would be done at the local park with a good group of athletes including David Sharpe. In the summer he would be on the track twice a week and he always tried to improve on what he had done before, which was important to him. When he was selected to run in the Commonwealth Games at the age of 17 Hedley couldn't afford to go, but the local council stepped in and provided him with the funding to go to Vancouver and when he arrived there Turks & Caicos didn't have a head coach, so he was given the job! Hedley openly said to Cram to look for advice from other sources as he thought he didn't have sufficient knowledge and some of that came from Brendan Foster initially. Importantly though, that didn't break the relationship with Hedley and indeed it grew stronger as he felt he needed him around for his enthusiasm alone and though the bond did change it became more of a partnership which Cram maintained until Hedley passed away. What Cram did emphasise was that Hedley had the ability to tease the best out of everyone. In his conclusion, he said that running at the club was always a joy and never a chore and this has to be instilled into youngsters today.

The next guest speaker was Honoré Hoedt, Netherlands head endurance coach with athletes such as Bram Som

No secrets for success

and Arnoud Okken benefitting from his experience. His talk was about 'Converting from 400m to 800m'. He started his presentation with an amusing story of when training in Albufeira, Portugal in 1983 Steve Overt was doing some fast reps on the cross country track and one of his athletes, John Jansen, who was partially sighted with both running in opposite directions and on a collision course, with Overt having to swerve right at the last moment while Jansen was totally unaware of any mishap and kept on running!

He used an analogy of how dogs just love to run and that they don't think about times and that perhaps athletes have to have a similar philosophy that running is a natural activity and should be loved. In the Netherlands from 1996-2000 every elite athlete received €12000 to spend, with no restrictions, they could go to the Bahamas if they wished! However, from 2001-present there is no money available but the athletes are given the facilities they need for their programmes and all the medical support at their disposal.

At the Olympic Sports Centre at Papendal all the athletes train and live together with a team of coaches, physiotherapists, doctors et al. The 400m track there has electronic 'rabbit' lights every 10m which can be set to any speed required and on the outside of the track is a 500m artificial grass track. This is all encapsulated in a forest setting and there are special hills for sessions such as a 130m (1.5%), road hill 60m (8%) and a forest hill of varying lengths (5%). There is an indoor hall with a 130m straight and two 'power' halls where all weights and strength and conditioning is conducted.

He thought a coach should also be a 'life coach' and look after all aspects of an athletes life to get the best out of them. He stressed that 52 weeks makes a perfect season and that the two hours spent training leaves 22 hours where the athlete doesn't train and this is where the athlete needs monitoring for those 24 hours so that training is balanced with sleeping, resting, eating, studying and socialising. Because of this he has an organisational spreadsheet which leaves a space for the athlete to enter what they will be doing every 30 minutes in a day and once this is done it gives the athlete a plan and a structure that they can benefit from with little or no distractions.

He gave the coaches an insight into Bram Som's development to his current 1:43.45 status along with his other pb's of 21.54,

Dr Jon Oliver



46.49 and 3:48. He did multi-events until 15 years old and was national champion at 800m and 100m hurdles along with a 16 minute best of 5km. His focus was on the basics and speed and aerobic running. At 16-17 he was national cross country champion and at age 17 he ran 1:49 for 800m. He said that there was no school system in his country. Som went on to win the European Junior title over 800m at 17 and when 18 he finished fifth in the World Junior Championships. By the age of 20 he was ranked seventh in the world with a clocking of 1:44.01 and a year later ran 1:43.98 and it wasn't until he was 26 that he finally won the European Championships in Gothenburg where Sam Ellis clinched the

bronze medal.

His other athlete Arnoud Okken was a different type of athlete who only trained one or two times a week at age 15 although he had a best of 1:57. At age 18 he was fifth in the World Juniors and a year later finished second at the European Juniors with 1:45.67 and at the age of 25 won the European Indoors at Birmingham. Okken though was a 400m runner and was developed in a very short space of time with low mileage to be capable of running a very competitive 800m.

The training vision included: aerobic approach, hill running, speed, economy, power and core stability, some jumping and reactivity, only a few high lactate sessions

(none for younger athletes). Hoedt said that core training is important but not to emphasise it as running always takes precedence. Power training was included with cleans, squats and step-ups and some fast movement work combined with small box jumps. They integrated altitude training in Kenya for four weeks with basic work such as 10x1km with a one to two minute recovery and included some speed work and jumping but avoided anaerobic work and concentrated on mileage.

He went on to say that some mistakes had been made and he had learned to stop power training four to six weeks before an important race and to avoid too much anaerobic training along with running the first rep too fast in a session and the importance of not giving an athlete speed training when they are not fit enough.

The onus of the day then moved on to the four workshops with Trevor Painter, Neville Taylor, Andy Hobdell, George Gandy, all coaches to Olympic Games athletes, overseeing a question and answer classroom where the coaches could probe them with various subjects that could improve or satisfy their knowledge.

The second morning began with an interview by Dave Sunderland with Jo and Gavin Pavey, along with new addition to the family, Jacob, who slept through the whole 90 minutes! It began with an overview of the highlights of her career from a junior to present day and a look at her range of pb's and events. She began running at secondary school after being no good at sprints and joined Exeter Harriers and had instant success. However, between the ages of 16-23 she had a lot of injuries and didn't compete at a high level and after leaving school concentrated on becoming qualified as a physiotherapist. Along with Gavin they went backpacking around the world and came back when she was aged 23 and started to get back into running again. Because of the history of injuries in the lead up to the Sydney Olympics she did tempo runs and her longest run was only 35 minutes and soon found that better endurance lead to better speed. With Gavin pacing her sessions she was running high quality and the period around the Sydney Games where she was targetting 5000m, she was only running 40 miles per week. However, by careful planning and strength gains by 2005 she was up to weeks of 100 miles and a key session was 2(5x800m) with a one minute recovery. Her recipe

to stay injury free included avoidance of any sudden changes in training and in the summer months the mileage was kept high. Before the Athens Olympics where she placed in fifth place she only went on to the track three weeks before and did most of her fast work on a cricket pitch doing measured work. She also avoided group sessions, preferring to run only with Gavin and didn't wear spikes. In the winter a key session would be 16x400m in around 68-69 seconds with a 30 second recovery. By now she was up to 13 sessions a week and did take a rest day when she felt it was needed.

They have always preferred field based physiological testing as opposed to treadmill testing which could lead to injury and they have a lactate probe which measures threshold runs (around 4.5mmol) and more intense sessions (12-14mmol). Certain tests have indicated that she has the ability to run a good marathon and this is now being considered especially after her half marathon success.

Since her pregnancy where she had a caesarian section she has been doing a lot of unmeasured work to regain fitness after it held things back slightly. They are lucky that her son, Jacob, sleeps throughout the night and has done so since 12 weeks old and although life is more hectic, her life is not consumed with athletics all of the time. She thinks she is capable of 30:30 for 10000m as she thinks she hasn't done justice to the event yet and if she does so then improvements will happen at other distances too. They have thought about doing Chicago marathon after the European Championships 10000m but it is more likely to be a Japanese event or even Dubai later on.

Her motivation is still the same as it has always been and that's enjoyment and the will to improve. Over the years aqua jogging has been a big benefit and sessions such as 10x2 minutes with 30 seconds recovery have been helpful and suggests others to try it, especially when injured to maintain cardiovascular capacity.

The final interview of the conference was again conducted by Dave Sunderland and this time Trevor Painter, husband and coach to Jenny Meadows was the recipient. He started coaching Jenny when she fell out with her coach and basically just started setting the sessions in 2000 when she was just starting to come through the ranks. She had won the English Schools Junior

Girls 800m in 1995 and started running 400m due to a back injury, although she has always wanted to be an 800m runner. Painter said that he had read every piece of literature available and attended many BMC Conferences and networked with more coaches than he can remember.

The focus is on speed and they never go over distance on the track, but instead do that on the trails and when she first ran sub-two minutes it was done off 30 miles a week. She now does 14 sessions a week and became a full-time athlete in 2007 as opposed to nine sessions a week when she was running 400m. Of those sessions two are strength and conditioning and one is a rehab session daily. They always target the indoors and their winter starts with five to six weeks of aerobic conditioning and circuits. They use 350m efforts for some of the longer efforts and 60m for speed and a typical session around this time may be 10x400m in 65 seconds with a 90 second recovery. She now runs up to 50 miles a week and the longest run is around one hour with a session in the early Spring months being 6-8x400m but with much better quality. They also never like to be too far away from running 2:00 for 800m. The plan is improve around 0.5 second every year with a target of 1:56.5 in 2012 to give her a chance of a place on the podium and think that her 400m speed is adequate for the 800m but feel the need to run 4:10 for 1500m (current best is 4:19) to make her stronger over the final stages of the two lap event.

The coach/athlete relationship has always worked well and although they have differences of opinion from time to time these are easily sorted out in the Meadows household! Painter thinks that the BMC could put on more 600m races and this would give the 400m runners a chance to move up to the 800m more easily.

Please see further coverage of the two interviews else where in the magazine.

Dr Norman Poole conducted a synopsis of the weekend which was the first BMC all-weekend event and he said that although there had been similar events held recently, the general consensus was that more is better with the networking alone being crucial to sharing of ideas. Poole stressed that being surrounded by positive and approachable people who were willing to travel long distances to further their knowledge and the sport, help to make such events so unique and valuable.

BMC GRAND PRIX SERIES 2010

See www.britishmilersclub.com for Entries, Timetables, Seedings, Information and Results

DATE	VENUE	EVENTS	CONTACT	TELEPHONE
SAT 29 MAY	Sports City	800m, 1500m Men	Mike Deegan	01457 765416
		800m, 1500m Women	John Davies	01925 710699
		5000m, Men & Women, 3000m s/c, Men,	Jon Wild	07947 157785
SAT 12 JUNE	Watford	800m, 1500m, 5000m, 3000s/c Men & Women	Andrew Osment	07879 678917
		International Invitations	Liam Cain	07796 958808
SAT 10 JULY	Solihull	800m, 1500m, 5000m, Men & Women 3000 s/c Men	Steve Mosley	029 2030 6733
SAT 24 JULY	Mary Peters Track, N. Ire	800m, 1500m, 3000m, Men & Women	John Glover (NI Athletics Office)	02890 602707
SAT 14 AUG	Tipton	10000m Men & Women	Dave Norman	07868 783818
SAT 28 AUG	Cardiff	800m, 1500m, 5000m, 3000ms/c, Men & Women. All events include UK Challenge Final	Steve Mosley	029 2030 6733

GRAND PRIX

The 2009 season produced figures to be proud of including:-

3 World Championship B standards

12 European U23 Championship standards

16 European U20 Championship standards

BMC U20 800m record for Stacey Ward with 2:03.63 (removing the previous mark of Lisa Dobriskey)

BMC U20 5000m record for Charlotte Purdue with 15:49.25 (removing the previous mark of Linnet Masai)

127 races produced 1,438 finishers with 604 personal bests

Entry to Grand Prix races will be guaranteed for paid up BMC members entering at least 14 days in advance of the meeting provided they have achieved the following qualifying times.

	800m	1500m	3000m	5000m	3K Chase
Men:	1:55.0	3:55.0	8:30	14:50	9:15
Women:	2:15.0	4:40.0	10:00	16:45	10:45

INTERNATIONAL RACES

Invitation only international races will be staged within fixtures one and two to supplement the existing A races. These races will be paced to achieve Championship qualification standards and will include overseas athletes who have run faster than the qualification standards. Invitations will be sent by the BMC international race coordinator Liam Cain (liamcain@britishmilersclub.com). A minimum of 4 places per event will be guaranteed for British competitors with an opportunity to achieve an automatic invite through performances in earlier BMC meetings

PRIZES

For 2010 the top prize of £1,000 remains at each of the Grand Prix fixtures over 800m, 1500m, 3000m, 5000m, and 3000m Steeplechase. The prize money is determined by finishing position and time. This means a potential total prize fund of £50,000. See website for full information.

BMC NIKE GRAND PRIX FINAL

Men and Women 800m - Winners of the top race in the first 4 Grand Prix are guaranteed an "A"-race.

Men and Women 1500m - Winners and runners up guaranteed an "A"-race.

PACEMAKERS

The BMC is looking for pacemakers for it's 2010 race series. The BMC is able to pay fees for pacemakers.

Those interested should contact Andrew Osment on 07879 678917 or via the BMC website.

OVERSEAS ATHLETES

The BMC welcomes overseas entries in it's Grand Prix races particularly those of an international standard.

Contact Tim Brennan on 01628 415748 or enter via the website.



PB CLASSICS, GOLD STANDARD, ACADEMY AND REGIONAL FIXTURES 2010

All entries should be made on our website www.britishmilersclub.com

BMC ACADEMY YOUNG ATHLETES PB CLASSICS (Age Groups U13, U15, U17 & U20)				
Entry Fee for BMC Members £3, Non Members £5.				
Mon. 3 May	Millfield	M800, 1500, 3000 mixed	Mike Down	0117 9733 407
Mon. 3 May	Millfield	W800, 1500, 3000 mixed	Steve Mosley	029 2030 6733
Sat.22 May	Milton Keynes	M & W 800, 1500, 3000 & U17M & W 1500s/c	Jim Bennett	07779 253447
Sat.14 Aug	Tipton	M & W 800, 1500, 3000,	Paul Hayes	02476 464010

Fastest of U15 & U17 PB Classic 800m and 1500m in May to be invited to Frank Horwill & Peter Coe Mile races in Solihull Grand Prix.
BMC Junior Virtual League. £100 for top club. See website for full details.
ACADEMY RACES FOR YOUNG ATHLETES ARE INCLUDED IN REGIONAL RACES

OTHER BMC RACES							
	DATE	VENUE	EVENTS	TIME	CONTACT	TELEPHONE	STANDARD
APRIL	Wed 21	Birmingham Univ	600/1200	7.20	Paul Hayes	02476 464010	Regional
	Sat 24	Copthall	800/1500	5.00	Pat Fitzgerald	01895 811822	Regional
	Tues 27	Exeter	1500	8.15	John Knowles	01872 263541	Regional
MAY	Mon 3	Birmingham Univ	800/1500	1.00	Paul Hayes	02476 464010	Regional
	Tues 4	Trafford	800/1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Mon 17	Jarrow	1,500	8.00	David Lowes	07930 318651	Regional
	Tues 18	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Wed 19	Watford	800/ 1500	7.45	Rupert Waters	07790 767433	Gold Standard
	Wed 19	Crawley	800/1500	7.45	Neville Taylor	01403 790800	Regional
	Tues 25	Exeter	800/1500	8.15	John Knowles	01872 263541	Regional
	Wed 26	Eltham	800/1500	8.00	David Reader	07929 860389	Regional
JUNE	Tues 1	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Wed 2	Birmingham Univ	800/1500	7.45	Paul Hayes	02476 464010	Regional
	Mon 7	Jarrow	1500	8.00	David Lowes	07930 318651	Regional
	Wed 9	St Ives	800/1500	7.45	Noel Moss	01223 833470	Regional
	Mon 14	Jarrow	1500	8.00	David Lowes	07930 318651	Regional
	Tues 15	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Sat 19	Woodford	800/1500	5.00	Pat Fitzgerald	01895 811822	Regional
	Wed 23	Birmingham Univ	800/1500	8.00	Paul Hayes	02476 464010	Regional
	Wed 23	Eltham	800/1500	8.00	David Reader	07929 860389	Regional
	Tues 29	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Tues 29	Exeter	1500	8.15	John Knowles	01872 263541	Regional
	Wed 30	Watford	800/ 1500	7.45	Rupert Waters	07790 767433	Gold Standard
JULY	Tues 13	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Wed 14	Birmingham Univ	800/1 Mile	7.50	Paul Hayes	02476 464010	Regional
	Sat 17	Lea Valley	800/1500	5.00	Pat Fitzgerald	01895 811822	Regional
	Mon 19	Jarrow	1500	8.00	David Lowes	07930 318651	Regional
	Wed 21	Eltham	800/1500	8.00	David Reader	07929 860389	Regional
	Tues 27	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Tues 27	Exeter	800/3000 inc South West champs	8.15	John Knowles	01872 263541	Regional
	Wed 28	Watford	800/ 1500	7.45	Rupert Waters	07790 767433	Gold Standard
AUGUST	Mon 2	Jarrow	1500	8.00	David Lowes	07930 318651	Regional
	Thur 5	Nottingham	Tim Wealhall Mile (Prizes)	7.00	Trevor Muxlow	0115 9284127	Special
	Tues 10	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Wed 11	Watford	800/ 1500	7.45	Rupert Waters	07790 767433	Gold Standard
	Sat 14	Tipton	10000	8.00	Dave Norman	07868 783818	Gold Standard
	Sat 14	Parliament Hill	800/1500	5.00	Pat Fitzgerald	01895 811822	Regional
	Wed 18	Eltham	800/1500 including Sydney Wooderson 800s	8.00	David Reader	07929 860389	Regional
	Tues 24	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Tues 31	Exeter	1500	8.15	John Knowles	01872 263541	Regional
SEPT	Tues 7	Trafford	800/ 1500	8.00	Neil Canham	0161 225 5156	Gold Standard
	Wed 8	Watford	800/ 1500	7.45	Rupert Waters	07790 767433	Gold Standard

Additional races may be arranged at other venues. Check website for more details or contact the Race Organisers
Please enter at the latest Five days before meeting to avoid disappointment.



BMC Awards Evening

HELD in conjunction with the Coaching Conference the Awards Dinner was a celebration of the feats of BMC athletes and coaches over the last year.

ATHLETE OF THE YEAR - LISA DOBRISKEY

Tim Brennan, BMC Chairman presenting the award to George Gandy, UKA National Event Coach, Endurance on behalf of Lisa Dobriskey.

BMC ACADEMY CLUB OF THE YEAR - YATE & DISTRICT AC

David Lowes, BMC Academy Chairman presented the award to Tom Watson on behalf of Yate & District AC.

Photographs for Awards Dinner and Conference by David Lowes.



FRANK HORWILL OUTSTANDING SERVICE AWARD - DAVID READER
Pat Fitzgerald, BMC Administrator presents the award to BMC secretary, David Reader.



JUNIOR ATHLETE OF THE YEAR - NIALL BROOKS

Steve Cram presenting Niall Brooks with the junior award.



HORWILL SCHOLARSHIP AWARD - DR JON OLIVER

John Graves, Chair of England Athletics presenting the award to Dr Jon Oliver for his research work.



LIFETIME AWARD TO COACHING - NEVILLE TAYLOR

David Izzat presents the award to Neville Taylor.



COACH OF THE YEAR - TREVOR PAINTER

Dr Norman Poole, BMC President presenting the award to Trevor Painter.

World Record

MEN - Senior

4 x 1500m

14:36.23 Kenya KEN, Brussels, BEL, 4 Sep 09

(William Biwott Tanui, Gideon Gathimba, Geoffrey Rono, Augustine Kiprono Choge)

Previous: 14:38.8 Federal Republic of Germany

FRG, Cologne, FRG, 17 Aug 77

(Thomas Wessinghage, Harald Hudak, Michael Lederer, Karl Fleschen)

Average of 3:39.06 secs per athlete per leg.

Les Crouch

Middle Distance Relays

The British Records for these events, with the exception of the men's 4x800 are, I believe, within reach. If for no other reason than, I presume, a new mark accords \$5000 between the team they are a desirable target to aim at.

- **4x1500:** 14.54.57
Average 4:43.6 set in Brussels 2009
- **4x1mile:** 16.17.44
17 years old, requires 4:03 approx

For the girls

- **4x800:** 8.19.9
18 years old, 2:04.5 each gets it.
- **4x1500:** 17.41.0
13 years old 4.24.0???
- **4x1mile:** 19.17.3
17 years old 4.49.0 ???

Husband and wife 800 team

We now have new entrants into husband and wife 800 team.

Mr and Mrs Soos=2253 points.

Average height

Average height of top World 800 metre runners in 2008:

Men 1.78m

Women 1.71m

World Indoor Championships

The UK took a team of ten endurance athlete's to these Championships, which was a mixture of youth and experience and were rewarded with one medal, one other finalist and two personal bests.

Women's Events

800m

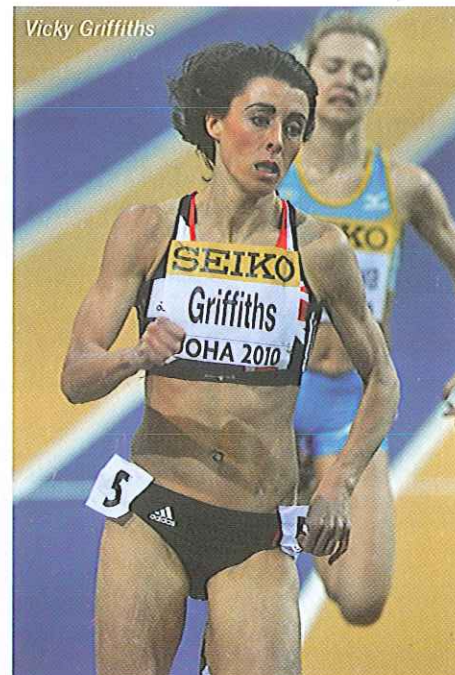
Unlike the men's race there was a small number of entries (15), constituting only two heats and no semi-finals, and allowing a days rest. All of which was advantageous to the in form Jenny Meadows. In the first heat the bell was reached 61.64s and was won by Anna Pierce (USA) in 2:03.05 which was a slight negative split. Vicky Griffiths came home 7th in 2:04.90s well outside the six qualifiers. In the second semi-final a confident looking Jenny Meadows led through out (400m in 59.75s) to win 2:00.39s from Mariya Savinova (Russia) and Alvsia Johnson (USA) who were to be the three medalists.

In the final like many of the other endurance races the athletes who set the pace tended to be in the medals by the finish. This was obviously good tactics and

reflection of their fitness and confidence. Johnson took up the pace with the field in close order passing the 200m in 28.01s and 400m in 56.16s (30.15s). At this point Meadows took over looking very smooth through 600m in 88.73s (30.57s) and looking the potential winner. However, Savinova who was at the back of the chasers stormed through in the last 100m to come home a deserved winner in 1:58.26s (World lead) with 29.53s for the last 200m. She must have been closer to 29.2s. Second was a valiant Meadows 1:58.43s who was deservedly rewarded with another national record. Third was early leader Johnson in 1:59.60s (PB). The summer looks bright for Jenny and her Barcelona rematch with Savinova is eagerly awaited.

1500m

Helen Clitheroe running her first major 1500m for a number of years qualified for the Final in 4th place in her heat clocking a 4:13.97. In the final Jelegat (Kenya) led through 400m in 66.57s, Gelete Burka (Ethiopia) then took over followed closely by her protagonist from Berlin Natalia Rodriguez (Spain) passing



800m in 2:15.30 (68.73s) and 1200m in 3:21.30 secs (66.00s). The race began to really explode in the final 150m with Kazkin Gezahegne (Ethiopia) 4:08.14 secs, proving too strong for Rodriguez 4:08.30s and Burka 4:9.39s., the last 300m of the race taking 46.84s. Gezahegne became the youngest ever indoor World Champin (18 years 310 days), and made the final by winning her heat despite falling earlier in the race! Clitheroe who finished 8th in 4:10.38s had lost contact when the race picked up but hopefully this will be addressed as she returns to her former event. Charlotte Best finished 8th out of nine competitors 4:16.40s in the second heat, not show the development she promised a few years ago.

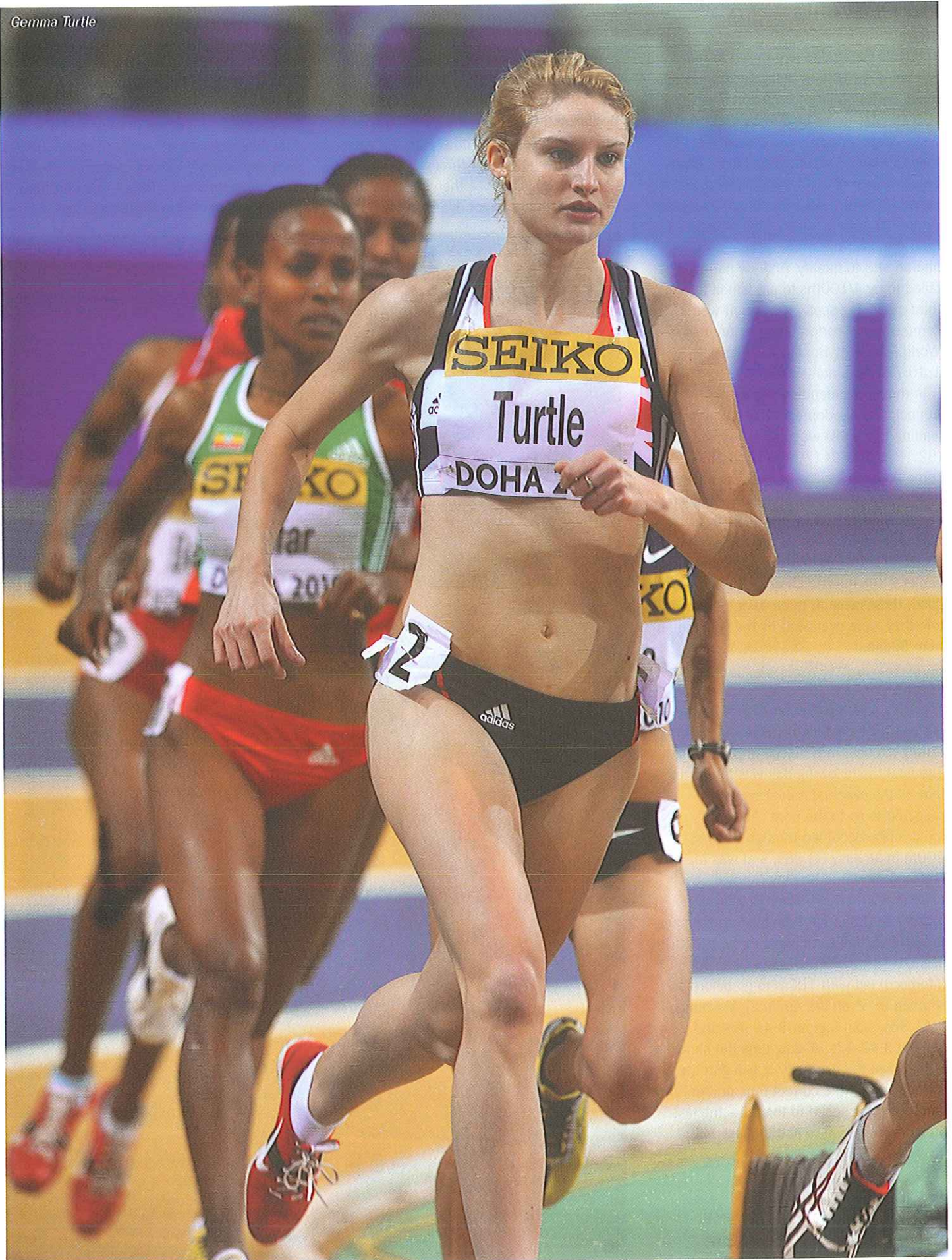
3k

Both UK's participants failed to make the twelve strong final. With USA based Barbara Parker 5th in her heat in 9:01.52s and Gemma Turtle 11th in her heat 9:17.55s both hopefully gaining valuable experiences from the championships. Kalmer (SA) led the final through the first kilometer in a pedestrian 3:11.83s, Augusto (Portugal) then took up the pace increasing it significantly, but not to severely, passing through two kilometers in 6:03.73s (2:51.90s). The last few laps increased the pace yet again with Meseret Defar (Ethiopia) prevailing in 8:51.17s (last kilometer 2:47.44s) from Vivian Cheruiyot (Kenya) 8:51.85 s, Sentayehu Eligu (Ethiopia) 8:52.08s.

Jenny Meadows



Gemma Turtle



Men's Events

800m

The UK's young duo had mixed fortunes but will come away from these championships much better athletes, Ed Aston finished 4th of 5 athletes in his heat in 1:50.32 and never came to terms with the pace set by Kaki (Sudan). Andrew Osagie set a great personal best of 1:47.40s following home Ismail (Sudan) 1:46.69s. to qualify for the semi-finals where 12 athletes progressed from 5 heats. In a more tactical semi-final, first 3 to qualify, Andrew narrowly failed to by 4/100ths to pip Ismail for the third qualifying spot. However, it was a commendable performance by Andrew. World lead Yuriy Borzakorski Russia) 1:45.77 was a non-starter.

In the Final defending champion Abubaker Kaki adopted his usual tactics of leading the whole way in 24.96s, 27.22s (52.18s), 27.68s (79.86s) and 26.37s to come home in 1:46.23s. He was allowed to dictate the race throughout and was being closed down quickly at the close by Boaz Lalang (Kenya) 1:46.39s and Adam Kszczot (Poland) 1:46.69s. Why did they not attack earlier is the question. Perhaps Kaki was too good, three races in three days took their toll, they were overawed by the young man from Sudan.

1500m

The UK's sole representative Tim Bayley did not quite produce his USA indoor form exiting his heat in 5th place in 3:42.57s. The final the following day was interesting that all the eventual medalists were prepared to go to the front. Abdalaati Iquider (Morocco) led through the first 400m in an easy 63.98s, and was then replaced by Haron Keitany (Kenya) through 800m 2:04.95s (60.97s). Derese Mekonnen (Ethiopia) then took up the pace to lead injecting some pace through 1200m in 3:01.18 (56.23). However, Laalou (Morocco) led with 100m to go before be shunted to 5th on the run in by Mekonnen 3:41.86s, from Iquider 3:41.96s and Keitany 3:42.32s. A slow time but showing at this level the necessity of being in the correct pace at the correct time and utilizing one's finishing speed to the full – the last 300m taking 36.91s and the last 100m 13.54s.

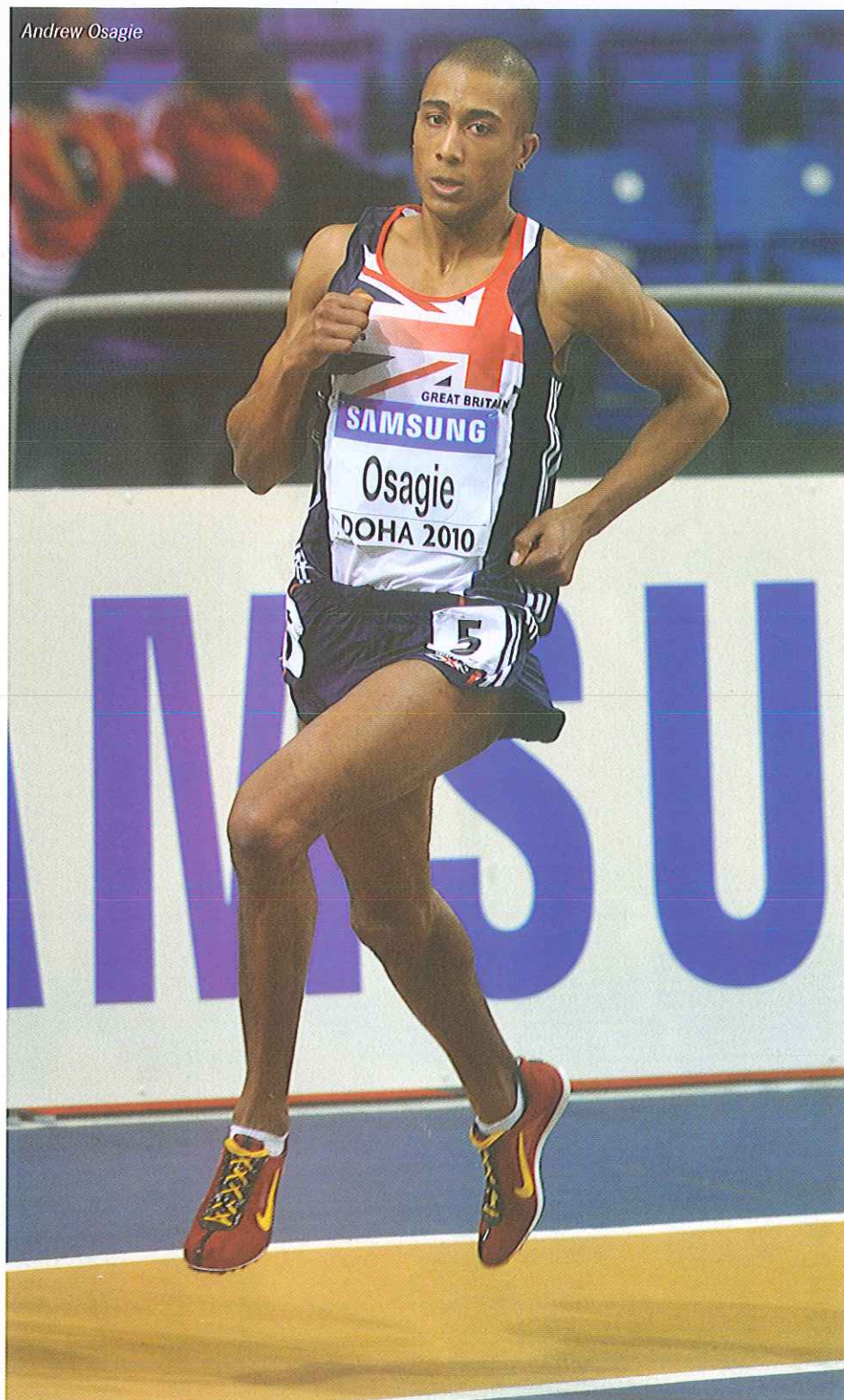
3k

UK's sole representative Scott Overall despite trying to force the pace was

found lacking for speed finishing 8th in the second of two heats in 8:08.02s. The main absentee being Paul Koech (Kenya) world leader with 7:32.80. The final was taken out at a solid pace 2:36.19s by Choge (Kenya) and it was maintained through the second kilometer by T. Bekele (Ethiopia) who passed through in 5:12.3ss (2:356.13s). The race then began to unfold. Bernard Lagat (USA) moved onto

his shoulder and the pace began to see gaps appear behind them. . . Lagat took off with over 400m to run pulling well clear to become the oldest champion ever at 35 years of age, finishing in 7:39.37s (2:25.66s). The minor positions went to the fast finishing Sergio Sanchez (Spain) 7:39.55s and Sammy Mutahi (Kenya) 7:39.90s. Defending champion Bekele suffered from his battle with Lagat finishing fourth.

Andrew Osagie



Coach Mentors

England National Coach Mentors for Endurance

England Athletics, supporters of the BMC, bold new initiative now has a system in place to help every endurance coach in the country, who is qualified at Level 2 or above. The aim is to help make all coaches who want to be involved the best possible coaches they can possibly be. The National Coach Mentor Endurance team includes some of the best coach developers in the country with the highest pedigrees. They will be working to develop their mentee's skills to the highest standards possible. This will be through:-

- Access to top level support services, technical conferences, workshops and master classes
- Regular contact with their National Coach Mentor (NCM)
- An individual development plan to tailor the coaches' individual needs and goals.

To be part of the national coach mentor scheme coaches must be of a level 3 standard or above. The four national Coach mentors are:-

Dave Sunderland - Middle Distance (800m -5k, and Steeplechase)

Dave is one of the country's most respected coaches and has been a National Coach for over 15 years. He has coached 16 medalists at major games, including a world record holder and over 40 other internationals. He lectures extensively for the IAAF and for UKA at Levels 3 and 4. He is the author of "High Performance" – Middle Distance Running." He was the co-founder of Cannock Chase Athletic Club and is the County Schools Team Manager/Secretary.
dsunderland@englandathletics.org

Jenny Harris - Youth Development Middle-Distance/Endurance

Jenny's role is to develop coaches who specialize in coaching the younger age groups (12-18). Jenny was one of the original coaches for Eden Runners and is one of the country's best emerging female coaches having had great success in guiding athlete's from her club to national prominence. Jenny who herself has a thirst for scientific knowledge in this area is also heavily involved in the development of a national strategy for this age group.
jharris@englandathletics.org

Bud Baldero - Endurance 10k+

Bud is one of the most well known and enthusiastic coaches in the country. He has worked with athletes across all the endurance disciplines and at different levels. A former teacher he is best known for his work at Birmingham University and Tipton Athletic Club. He has coached a commonwealth and world student games medalist plus winners of the two of the big major city marathons London and New York, as well as numerous internationals.
bbaldero@englandathletics.org

Martin Rush Endurance and Walks

A former Olympic Walker, Martin was previously a Talent Development Manager for UK Athletics. As well as his coaching success with international walkers Martin also coaches marathon, cross-country and track runners at national level. He has also been Team Manager for World and European junior and youth teams. Martin also manages the Area Coach Mentors.
mrush@englandathletics.org

The coaches on the national coach development programme – approximately 55 in number - will in return be asked to pass on their expertise by mentoring two other individuals from their Local Coach Development Programme (LCDP). These coaches will be selected from local Level 2 coaches in consultation with their local Club and Coach Support Officers (CCSO's). In this way best practice will be cascaded down through all levels of the sport.

In addition there are eleven Area Coach Mentors (ACM's) who cover the country and are responsible for hundred further endurance mentees.

In addition to mentoring these coaches the ACM's also run regional training days in conjunction with the CCSO's. The Area Coach Mentors are all highly qualified and experienced coaches. They are :-

David Turnbull (North West), **Lindsay Dunn** (North East), **Brian Scobie** (Yorkshire/Humberside), **Geoff James** (Midlands – West), **Paul Blissett** (Midlands – East), **Steve Benson** (East), **Jim Bennett** (Oxfordshire, Buckinghamshire, Hertfordshire and Bedfordshire) **David Chalfen** (North London), **Stella Bandu** (South London), **Neville Taylor** (South East) and **Tom Watson** (South West).

With the system fully operational there are now well over three hundred endurance coaches benefiting from the mentoring programme.

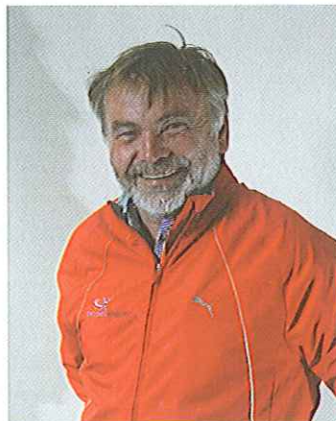
If any coach wishes to be part of this exciting development please contact your local CCSO or ACM. (All of the ACM coaches have their own England email addresses the same as the NCM's).



Dave Sunderland – Middle Distance (800m -5k, and Steeplechase)



Jenny Harris – Youth Development Middle-Distance/Endurance



Bud Baldero – Endurance 10k+



Martin Rush Endurance and Walks

Cross Country - Bristol

Senior Men

1	427	11.59	Tom Russell	Bristol & West	SM	1
2	473	12.03	Ben Tickner	Wells	SM	2

Junior Men

3	443	12.09	Richard Peters	Bristol & West	U20	1
10	425	12.29	Charlie MacLean	Taunton	U20	2
11	373	12.29	Tom Curr	Stroud	U20	3

Under 17 Boys

1	373	9.03	Tom Curr	Stroud	U17
2	374	9.44	Tom Purnell		U17
3	371	9.50	Aaron Phelps		U17

Under 15 Boys

1	248	9.57	Hobie Martin	Newquay & Par	U15
2	335	1.00	Luke Jacobs	Bristol & West	U
3	176	10.03	Zak Tobias	Bristol & West	QEH U15





Tom Doe (421), Richard Peters (443), Rob Bugden (478) and leuan Thomas (448)

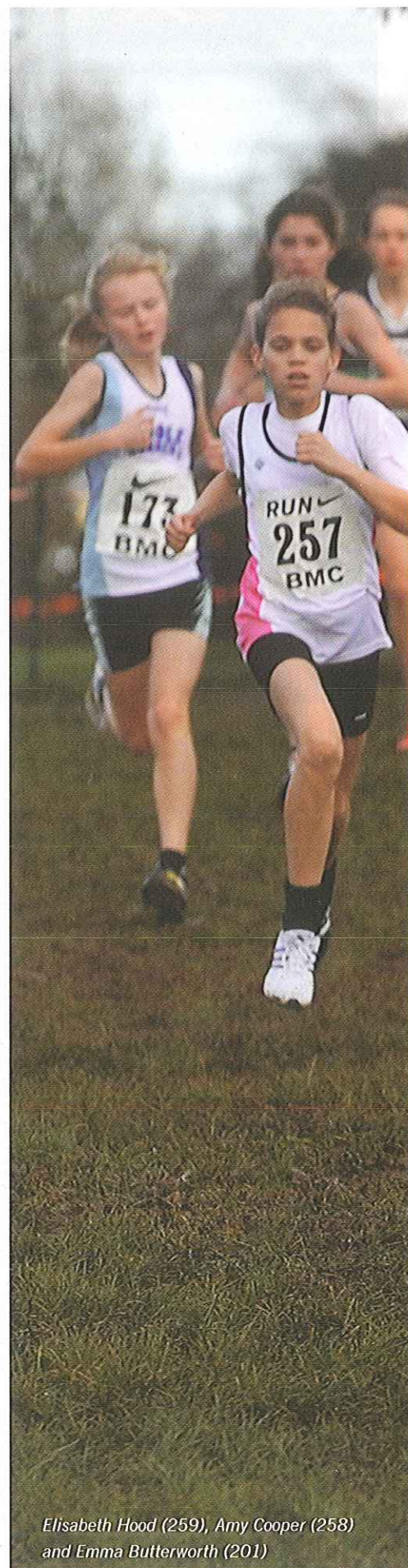


Kevin Heywood (465), Ben Tickner (473) and Tom Russel (427).

Cross Country - Bristol



Tom Curr



Elisabeth Hood (259), Amy Cooper (258)
and Emma Butterworth (201)



Cross Country - Bristol

Senior Women

1	424	10.14	Susie Hignett	Bournemouth	Bath	SW	1
2	418	10.20	Kate Goodhead			SW	2
3	417	10.26	Claire Hallissey	Bristol & West	Bristol	SW	3

Junior Women

1	10.28	Eleanor Wilmshurst	Bristol & West		U20	1
2	10.36	Katie Knowles	Bristol & West	Birmingham	U20	2
3	11:01	Rebecca Gough	Birmingham		U20	3

Under 17 Girls

1	10.46	Melissa Courtney	Poole AC		U17	1
2	10.56	Amber Watson	Stroud		U17	2
3	11.02	Imogen Wolsey	Team Bath		U17	3

Under 15 Girls U17 4

1	11.22	Loren Bleaken	Team Bath		U15	1
2	11.28	Miranda Sadler	Bristol & West		U15	2
3	11.43	Imogen Briscoe			U15	5



Eleanor Wilmhurst
(471) and Imogen
Ainsworth (422)



Start of the senior/under 20 women's race



Melissa Courtney

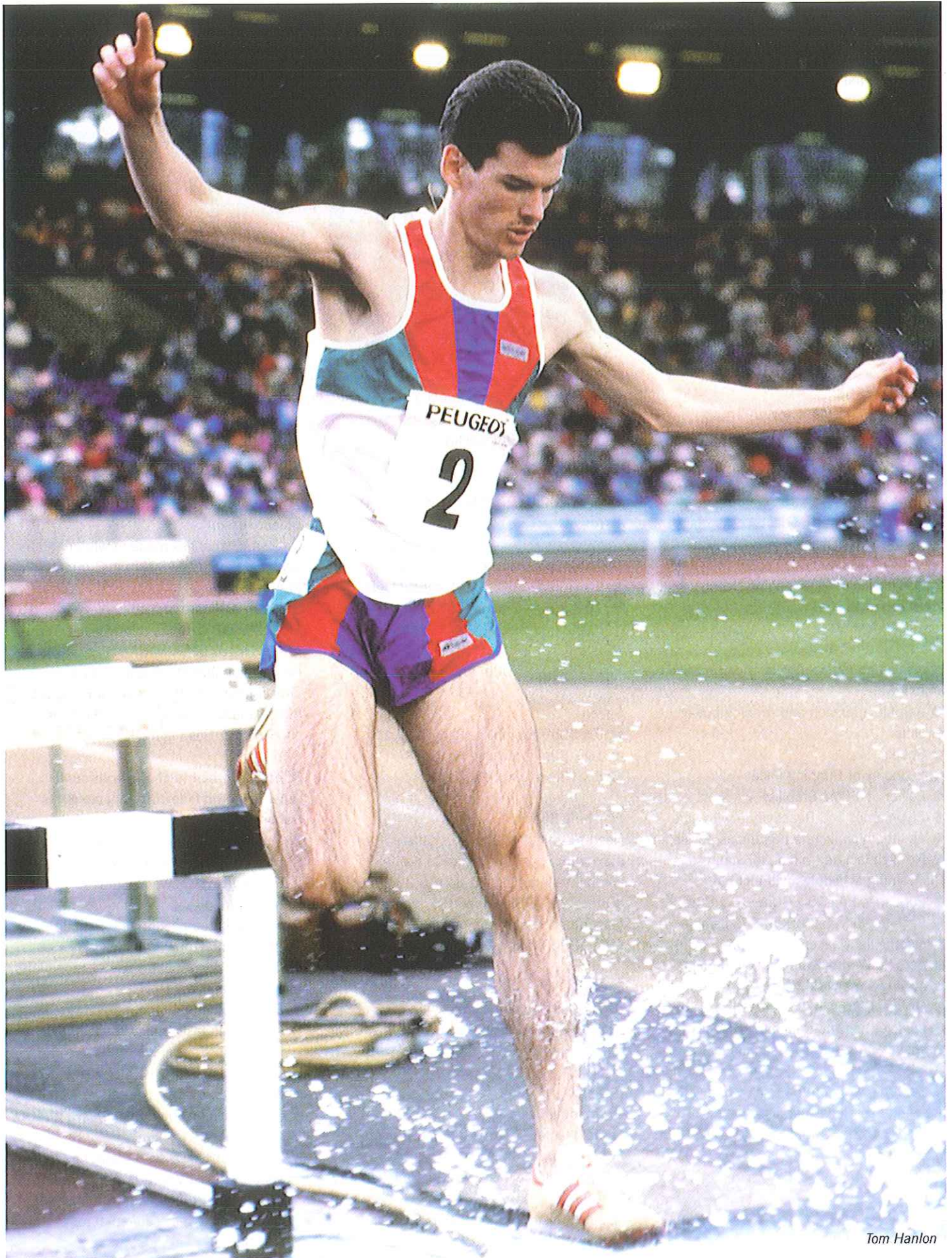
12 Things to know about: the Steeplechase

1. The standard distance is the Olympic distance for men and women: 3,000 metres (1 mile 1,520yds 2ft 8in) involving 28 barriers and 7 water jumps. But the Steeplechase may be run over other distances particularly to meet age group requirements for younger athletes and Masters' competitions:
 - 2,000 metres (1 mile 427yds 0ft 9in) involving 17 barriers and 4 water jumps
 - 1,500 metres (1,640yds 1ft 4in) involving 13 barriers and 3 water jumps
 - 1,000 metres (1,093yds 1ft 10in) involving 8 barriers and 2 water jumps.All the obstacles for senior men are 3 feet high (91.4cms) and for senior women 2 feet 6 ins high (75.2cms).
2. In 1971 Dave Bedford broke the UK record at Crystal Palace, London with 8:28.6 and in doing so stepped on all the barriers. At that time he had run 7:46.4 for 3,000m and 13:17 for 5,000m, also a sub 28mins 10,000m. This suggested that hurdling technique was not so important as good speed over 3k flat and 5k.
3. Kip Keino of Kenya won an Olympic gold medal with a time of 8:23.6 and also stepped on most of the barriers. His flat time for 3,000m was 7:39.6 and for the 1500 metres, 3:34.9. This also suggested that good hurdle clearance needed to be backed up with world class times on the flat.
4. Kerry O'Brien of Australia, who once held the world record for the event, never did any hurdling practise in training and stepped on all the barriers.
5. The ideal steeplechaser is one who hurdles all the barriers without 'stuttering' before take off. Compare M. Karst of West Germany who had a best flat time of 7:58.8 and a steeplechase time of 8:19, to Keino's flat 3,000m time and his steeplechase time. Karst shows a differential of 19.6secs and Keino, 44 seconds!
6. There are conflicting views on the approach to a barrier. Denis Watts, former national coach for the event, recommended a slight increase in speed. Gordon Surtees, another former national coach for the event, stated that increasing speed was not level-pace running and could lead to premature fatigue. The athlete should study the form of the 400 metre hurdler and adjust the technique to suit the speed of the race.

This will involve clearing the barrier a little higher than the 400 metre hurdles exponent. Lead with the knee and bring the leg up fast and at right angles to the hurdle. Frequently, one sees the leading leg off this trajectory. The arm opposite to the leading leg must go forward and down as the athlete rises and this with body-dip will keep the shoulders square to the front. The trailing leg should be pulled through late and fast and snapped down in order to maintain the running action.
7. Clearing the water jump without placing a foot on the barrier is a definite advantage and was first used by the Kenyans over 20 years ago. To practise this place a barrier in front of a long jump pit and note the sand indentations where you land. This requires a definite increase in speed on approach.
8. To negotiate the water jump by stepping on the barrier, first efforts should involve placing coloured tape some 15-16 normal walking strides before the barrier. Run up and hit the marker with the foot to be placed on the barrier. This is a 7-stride approach with the 8th stride landing on the barrier. Rehearse this many times. The body should be lowered once on the barrier and the leg on the barrier should push off vigorously for as long as possible, while the trailing leg is brought through high and should land in about 6ins of water. The arm opposite the landing leg should be well forward. Landing with both feet together is a common fault with the novice caused by lack of push off from the barrier.
9. Spasmodic hurdling can be done during normal middle-distance workouts. For instance, in a session of 4 x 800m with 3mins rest a collapsible hurdle can be placed in the second or third lane of each straight which will require the athlete to veer off to negotiate it and still keep up with the non-hurdling group
10. The availability of booking a sports hall in the winter is invaluable. A beam is set at hurdle height with a mat for landing on. Use a check mark 7 strides from the 'hurdle' and make a mark 12ft from the barrier on the mat. Place another hurdle opposite the beam in the straight on the other side. This provides water jump and hurdle practice in one go.
11. A group of steeplechasers should book a track on a Sunday afternoon at least once a month. The water jump should be filled and barriers placed usually where black marks appear on the track edge. The first hurdle will be placed 243yds from the start in the 3,000m. The barriers will be 87yds apart. Where the water jump is on the inside of the track 400 metres run in 73secs is level pace for 9mins 15secs.
12. Training for the steeplechase should involve excursions over the water jump and at least two hurdles once a week in the winter and once a month run 800 metres with five barriers at good pace with no water jump. Jog 400m then do a 400m over five barriers - no water jump. Jog 400m and repeat three times. Also, on another occasion do 5 x 1,000m over all the barriers with 200m jog recovery.

During the track season the weekly schedule should include work at 5,000m, 3,000m and 1500m speed. In the winter, cross-country racing is advocated together with circuit training and steady runs totalling at least 60 miles a week should be executed.

A specialist club for steeplechasers existed in the 1950s called the 'Barrier Club'. Perhaps it is time for such a club to be started again?



Tom Hanlon

Honore Hoedt

Head Endurance Coach Netherland 800m - Marathon

Honore explained that the emphasis has changed in the Netherlands from putting money into athletes to now putting money into facilities for all in one centre with medical support where they can train together.

Honore's athletes have included:-
1996-2007

Brad Som: current European Champion
800m 1:43.45 46.50

Amoud Okken: European Indoor Champion
2007 800m 1:45.64 47.9

Gert Liefers: 8th Athens 1500m 3:32.89

Marko Koers: 3:33.0/1:44.01

2007 >

Robert Lathouwers: 1:44.75/46.52 – just moved to 800m

Yvonne Hak: 1:59.97/54.0

Youssef el Rhalfioui: 1:48.0 46.43

Honore believe's 52 perfect weeks make a perfect season. This is achieved because of how they manage the 20 hours they don't train. This includes managing sleep, travel, life style, social life, work/study, physio/massage, rest etc.

His vision about training is encompassed as follows:-

- Aerobic approach and running power
- Hills
- Speed
- Economy at Running Pace
- Power and Core Stability
- Plyometrics and Reactivity – with care
- As little high lactate training as possible
- No high lactate training for youngsters

His training schedules will include:-

- Pure speed (Eg; 5 x 30m; 10 x 80m),
- Lactate work (5 x 300m 37s using electric light pacer; 6 x 200m in 23s)
- Aerobic Work – Running, swimming, cycling – many hours
- Oxygen/Glycogen work – Utilisation in the muscles specific training and VO2 max speed and race speed economically.

The aerobic work on the track will involve in the winter sessions such as:-

- 2k-1600-2k-1000m
- 5 x 1k
- 10 x 400m

Hills

- 10 x 60-150m



Dimitrijs Milkevics (Latvia, 619) leads from Bam Som (Netherlands, 678) and Michael Rimmer (GBR, 42). The final of the men's 800m, Gothenburg 2005

- 10 x 200-350m weekly

Race Speed Work

- 10 x 200m 26>24s twice weekly Dec-August

Cruising Speed Work

- 5 x 80m/5 x 20/20/20/20/ Uphill
- 10 x 200m with out any lactic acid; then medium lactate - 2 x 5 x 200m;
- then high lactate 3 x 200m/2 x 200m/3 x 300m/2 x 200m or 3 x (3 x 200m)

Speed

- 5 x 60m Complete Recovery
- 10 x 80m Complete Recovery
- 8 x 150m Complete Recovery

Finishing Speed

Need to train the brain it is different to maximum speed therefore do it after aerobic training should do 4-5 x 60-80m at 400/800m speed. Or do it after Maximum lactate training should do 4 x 60m at 800m speed.

Power

Uses hills, plyometrics, box work and cleans, squats and step ups with weights all very fast movements_

Testing

- Treadmill tests
- Field lactate tests of training sessions
- VO2 Max. tests
- Vertical Jump Test and Muscle laboratory tests
- Speed test – Standing start 30m and Flying 30m test

Altitude

4 weeks in Kenya in winter – Basis training plus speed and plyometrics

Indoor season

Only small changes made in winter aerobic work eg: From 6 x 1000m in 3 minutes to 4 x 1000m same pace + 5 x 200m 26s>24seconds

He believes there are two types of 800m runners listed below with their profiles.

He has just started what he calls a new project moving Lathouwers from 400m to 800m and the aerobic problems he has encountered. See Figure 1.

Honore also had to changed through experience the following aspects of his training:-

- Power Training he felt he had done too much in the past too slow and too long. He now stops power training 4-6 weeks before important competitions.
- He had in the past done too much maximum aerobic training.
- A race is one repetition not 4 repetitions with 7 minutes recovery.
- Don't do the first repetition in a training session too fast. But start easier and finish fast.
- Don't do speed training too fast when the athlete is not fit.
- Speed training should be relaxed at 400 metre pace.
- His 400 metre > 800 metre has no aerobic capacity so it is being developed by repetition running, swimming and cycling to get the required aerobic volume.

400/800m Type	800/1500m Type
Very fast over 100/200m	Fast but not as quick as 400/800m
Explosive – Good vertical Jump (70cm)	Not as explosive (Vertical Jump 60cm)
More muscular particularly in the leg	Less muscular in upper body
Moderate VO2 (65ml/kg)	Higher VO2 (72 ml/kg)
No intense power training needed	More intense power training possible
Relaxed economic race speed	Relaxed economic overdistance race speed
Make much lactate in long slow intervals	Make more lactate at shorter high speed intervals
Training for both types of 800m runners.	
400m>800m	800m/1500m
Slow aerobic continuous runs 30 minutes	High aerobic running up to 90 minutes
Aerobic intervals 5 x 1000m 3:30s>3:10s	Aerobic intervals 8 x 100m 3:15s>3:00s
Aerobic running best done in blocks of 5-10 minutes	Hill Training 100-300m hills
Aerobic shorter intervals 500m/300m/150m	Aerobic shorter intervals 500m/300m/150m
Winter Weekly Volume 60/80k Winter	Volume weekly winter 120-160k and in
And 40-50k Summer	Summer 80-100k
Power Training through Circuit Training	Power Training 2 per week
No maximal speed work because of injury	Maximum speed work under control
High volume work at 800m race speed	High volume work at 800m race speed.
Risk	
Train race speed work at end of training	Train race speed at end of training up hill

Figure 1

The following are weekly schedules for Som (800/1500m) and Lathouwers (400m/800m) looking at the two different approaches for two different types of runner. Note Som had a multi-discipline approach until he was 15 years old!

Winter: General Phase

	Som am	pm	Lathouwers am	pm
Monday	30mt run	2 x 150/200/300/200/150 Hills	6 x 1000metres 3:30>3:10s with 2mts recovery	
Tuesday	30mt run	10mts/7mts/5mts/3m recovery 2/3mts	Core stability/Bike 30min/5 x 80 mts. 2 minutes recv.	5 x 400m 75s; 5 x 300/100m 55s 5 x 200/200m 35s
Wednesday	50m run	Power Training 4 sets x 10/15/20	Bike 45 minutes Or 5 x 4 minutes	Power and Core Stability
Thursday	30mt run	5 x 80m + 2k/1600/1200/100m at 78>74s per 400m	5 x 20/20/20 + 4 x 600m (76s) + 6 x 400m 72s>68s	
Friday	50mt run	Power training 3sets x 10/15/20	Bike 45minutes or 5 x 4 minutes	Power and Core Stability
Saturday		Woods 8 x 850m with 2mts recovery	Speed Hill Circuit 5 x 70m flat/hills/stairs	+ 5 x 800m 2mts + 5 x 200/200 35s
Sunday		60 minutes	60 minutes Bike	

May: Pre-Competiton Phase

	Som am	pm	Lathouwers am	pm
Monday	30mt run	5 x 30m. 10 x 100m flying start 1.0sec.	10 x 200m 2 minutes Recovery	
Tuesday	Run 1-2:45	Core Stability	Core Stability	5 x 200m 26s 2mts recovery + 5 x 200m 26s with 1 minute recovery
Wednesday		5 x 60m + 10 x 200 26s>24s 5 x 300m	5 x 4 minutes	Core Stability
Thursday	Run 1-2 hrs	Core stability	5 x 20/20/20 + 2 x 5 x 400m 68>64 set 1; 64-60 set 2 2m/5m recv.	
Friday		Hills 3sets x (300/250/200)	Rest	Core Stability
Saturday	Saturday;	Woods 6 x 850m with 2mts recovery	500-400-300 65s/50s/36s 7-10mts recovery 5 x 60m 2mts recovery	
Sunday	Sunday:	60 minutes	Rest or 60 minute Bike or Swim	

Race Week: Competition Phase

	Som	am	pm	Lathouwers am
Monday	30mt run	6 x 3 minutes wood or 6 x 800m in 2:16s		6 x 1000 metres 3:20-3:00minutes off 2 minutes recovery
Tuesday		45 minute run		5 x 30/30/30 at 400/800/400 pace + 1 x 3 x 200m 26s 20 minutes rec + 1 x 400m in 47.8 secs.
Wednesday		5 x 60m + 6 x 200m 26>25secs.		5 x 4 minutes + Core Stability
Thursday		Rest		3 x 80 metres + 2 x 300m 39 seconds with 5 minutes recovery
Friday		15 minute jog jumps + 5 coordination runs		Rest + Core Stability pm
Saturday		Race		Rest + Core Stability pm
Sunday		45 minutes run + 10 x30 active recovery		Hengelo Race – 1:45.80s

Honore found his athletes achieved the following lactate levels in training using the stated training sessions:-

Lactate Levels	400m>800m 1:46s		
Session	Recovery	Pace	Lactate levels
5 x 1000m	2 minutes	3m 30s > 3m 20s	11.2 m/m
5 x 400m	75 seconds	75s > 72secs.	8.2 m/m
5 x 300/100m	55 seconds	54 > 52secs.	6.5 m/m
5 x (200/200)	35 seconds	34 > 32secs.	5.7 m/m
	1500m 3:48 secs		
5 x 1000m	2 minutes	3m 30s > 3m 20secs	3.2 m/m

World 2009 lists (E&OE)

Les Crouch

Men

800

47	Rimmer
54	St Clair
60	Thomas
101	Gowell
118	Osagie
123	Lancashire
125	Moss
130	Bradshaw

1500

21	Farah
24	Lancashire
36	Baddeley
62	Brewer
65	Emanuel
73	McCourt
237	Mays

5k

34	Farah
67	Baddeley
98	Thompson
106	McCormick
148	Lemoncello
157	Overall
159	Lancashire

10k

50	Lemoncello
122	Vernon

Kenya: 16 in 138 at 800, 26 in 140 at 1500, 60 in 165 at 5k and 40 in 126 at 10k

Women

800

6	Meadows
23	Okoro
30	England
63	Gibson
84	Thomas
98	Griffiths
106	Best
123	Leonard
128	Brown
130	Bird
133	Finucane
148	Sanders

1500

5	Dobriskey
---	-----------

22	Twell
27	England
33	Thomas
59	Wootton
65	Clitheroe
82	Pallant
113	MacClarty
126	Kenney
138	Simpson
151	Parker
154	Pidgeon

5k

43	Twell
73	Murray
88	Kenney

no other inside 127th place

10k

118	Hallisey
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Russia: 27 in 1583 at 800 and 28 inside 189 at 1500

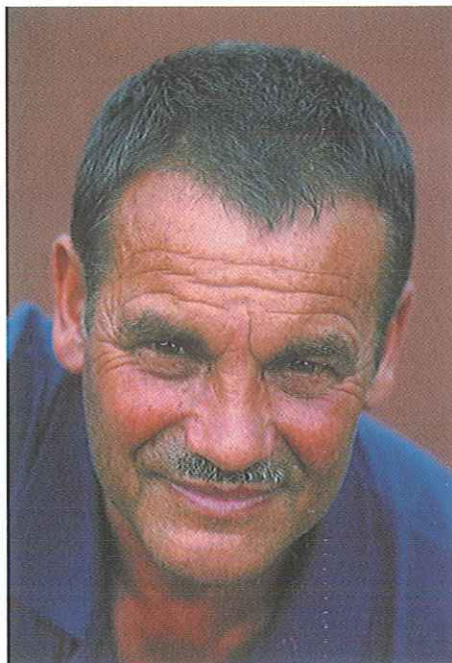
Wilf Paish

1933 - 2010

Wilf Paish who passed away aged 77 in January was one of the BMC's original coach members. A deep thinker and innovator, if at times somewhat controversial Wilf had a successful coaching career that spanned five decades. He helped, particularly in the early days get the BMC accepted and helped in it's development. He coached across all disciplines but had great success as a middle-distance coach.

Wilf, who was born in Stow-on-the-Wold, Gloucestershire, trained as a PE teacher at Borough Road College, in west London, taking a further qualification at Carnegie College, in Leeds. The important career change for Paish came in 1964 when he was appointed northern area coach for the Amateur Athletic Association and returned to Leeds. For the next 45 years, the Carnegie Sports College would be his base, initially as the area coach, latterly as a lecturer at the college.

At the elite level, Paish's finest hour came at the Los Angeles Olympics, in 1984. When Tessa Sanderson won the



Javelin gold medal.

Four years later, in Seoul, Peter Elliott almost made it two gold medals in two Games, the Rotherham carpenter beaten

only by two strides in the 1500m by the little-known Kenyan Peter Rono. However, "He coached all the events in athletics and everyone who came to the track had the same treatment as the medalists and it made them feel special,"

Though he worked for many years as a national coach, Paish was always something of an anti-establishment figure. He recognised, before many others in the sport, how complex the problem with drugs was and played devil's advocate, arguing that if British Athletics started random testing before any other country, it would simply put British athletes at a disadvantage.

"Though he was often the smallest person in the room [Paish was just 5ft 3in] he was the biggest character. He had absolute confidence in his own ability and a huge breadth of knowledge. He was the total package." Wilf also worked for a number of years in South Africa.

Paish is survived by Margaret, their two daughters, Alison and Joanne, and two grandchildren, Samantha and Kayleigh.



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the shoe that thinks for your foot.

Let's be honest. Your feet aren't the smartest body part. After all, they're further away from the brain than any other body part. That's OK. The **NIKE LUNARELITE+** will think for them.

Its Dynamic Support can actually tell when a foot needs extra stability and adjust accordingly. And, as always, it's Nike+ ready* so that you know how fast and how far you've gone.

Don't think, run.

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*Nike+ sensor sold separately.