

British Milers' Club News

Issue No. 42, Spring 1988.



25th Anniversary Year- 1988.

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Editorial

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Back in 1963, US President John F. Kennedy was assassinated in Dallas, the MacMillan Government was shaken by the scandal of the Profumo Affair and the Stephen Ward Trial. Beatlemania was about to sweep Europe and the USA. British miling was also at a low ebb that year, and Frank Horwill determined to do something about it. Together with fellow founder members Alf Wilkins, Brian Buxton, John Thresher, Wilf Paish, Harry Hayes, Maureen Smith and Gordon Pirie, he formed the British Milers' Club.

Fastest miler in the UK that year was Bill Cornell (4:00.0) whilst John Boulter ran 1500 in 3:43.3. Peter Snell led the World rankings at 3:54.9y, and Michel Jazy set a new European 1500 record of 3:37.8. Anne Smith ran 880y in 2:07.0 and Phyllis Perkins led the female milers at 4:57.0. Sin Kim Dan ran a sensational 1:59.1 for 800m - a record never ratified by the IAAF.

Twenty five years on, and the UK 1500 record is 3:29.67, the mile mark 3:46.32, the 5000m is 13:00.41 and the 10km mark is 27:30.3. Our Women have improved to 1:57.42 (800), 3:59.96 (1500), 4:17.57 (mile), 8:28.83 (3000) and 14:48.07 (5000m).

BMC NEWS has a new look in this special 25 Anniversary Year issue with computerised layout and setting. We can now include more words on the same page size.

Good luck in your training and preparation for 1988.

DAVID COCKSEGE, BMC NEWS editor.

Front Cover: BMC President TOM McKEAN
 European & Commonwealth 800m silver
 medallist.

Photo: George Herringshaw.

Journal of the British Milers' Club.

BMC Yeovil Mile - The Facts. ³

The disqualification of the entire field of runners in a BMC Mile race at Yeovil on August 31st, 1987 has become infamous. The men were disqualified under AAA Rule 22 (3) for pacing by Track Referee Mr. Paul Gregory of Devon HAAA.

Quite a furor ensued, with angry letters exchanged between the BMC, Southern CAA, AAA and Mr Gregory. Perhaps the best summary of the whole incident came from South West Secretary Mike Down who had the following letter published in ATHLETICS WEEKLY on October 29th, 1987:

DISQUALIFICATION FACTS.

I have purposely avoided getting involved in the controversy concerning the disqualification of the 16 (not 12) athletes for 'illegal pacemaking' in the Denner Mile at Yeovil, which I organised on behalf of the BMC and the Yeovil Olympiads club.

But as the butt of the whole pathetic affair, it is perhaps time I broke my silence.

Unfortunately the only person who saw fit to contact me personally at the time of the event was John Goodbody of THE TIMES' sportsdesk.

Where ATHLETICS WEEKLY got hold of the notion that I jocularly announced anything after the race, I don't know. I had been asked by the Yeovil Club to introduce the runners and commentate on the race as I obviously knew all the contestants.

When the referee's result sheet came in with the statement that all the runners had been disqualified under AAA rule 22, section 3, my attitude, far from being jocular, was one of abject amazement!

But an announcement obviously had to be made, and after giving the result - I imagine even Mr. Gregory did

not object to the runners knowing their times after travelling so far to be disqualified - I apologised to the runners and spectators on behalf of the BMC in as diplomatic and restrained a way as I could.

I admit I said the matter was beyond our control and that it had never happened before in the history of the BMC, but I made sure not to criticise the officials directly as they were in no position to reply.

If Mr Gregory construed what I said as open criticism of his decision, I can only think he had a guilty conscience. The public were at least entitled to know why the decision had been made, and as many of them had obviously come as a result of the publicity given to the race as an attempt to produce the West country's first 4 minute mile, they were surely due an explanation as well.

I fear Mr Gregory's only concern is with the letter rather than the spirit of the law. I have always felt an official's prime function is to serve the interests of the athletes who provide them with a job - which does not mean I don't value the unpaid work they do - but if Mr Gregory had cared to ask the competitors if they wanted a pacemaker or not, I can assure him the answer would have been 'Yes'; i.e. it would have given an unfair advantage to all of them!

Quite why a rule was ever formulated against pacemaking has always puzzled me. At the end of the day it makes for a faster race, in which the best athlete is more likely to be the winner, rather than the crawl that often happens in major championships, with the quickest sprinter stealing the verdict.

But regardless of that, I would have thought any track

Mike Down writes:

referee worth his salt would have considered the full implication of the situation rather than adopting a bureaucratic attitude that was in no one's interest - athletes, spectators, organisers or sponsors - but his own, and certainly not, as he might think, the sport which he supposedly represents.

I would add that this was the first race the BMC had ever staged at Yeovil, that the track record was smashed by 7.2 seconds, and that eight of the 16 runners set personal bests.

What's more, despite the pacemaking - and let me assure Mr Gregory the pacemaker paid his own expenses to do the job - it was a thrilling race with Canadian Marc Olesen closing a 30 metre gap on Chris Buckley in the last 300m to win.

I travelled to the Butetown Street Mile in Cardiff the day before the Yeovil race to bring two of the runners -

Olesen and Mark Scruton - back to Bristol, where I arranged overnight accommodation for them at our expense, not the sponsors, who provided the prize money only.

The Yeovil race was the first of a four event South West Grand Prix - the first of its kind in the country - and like the other three at Swindon, Cheltenham and Bristol, had been 'sold' to the sponsors as one of a series of attempts to get the West Country's first four minute mile - hence the pacemakers.

It was undoubtedly the best field ever assembled for a mile race in Somerset or

anywhere else in the South West, so one would have thought that the track referee would have been a little more sympathetic to the efforts of the BMC before ruining the afternoon for everyone concerned.

He also managed a rare double by disqualifying the winner of the 'B' Mile for using his elbows at the start, and refused the request of the sprinters and hurdlers to run their races with the wind.

For all that, I do share Mr Gregory's concern that it is time the rule was made less ambiguous, though my interpretation of the rule is certainly not the same as his. Like the AAA, apparently, we do not read the clause on 'assistance' as referring to any runner who starts the race with an official number. Yet I do agree that the AAA would make life easier for all concerned if it removed all mention of 'pacing in races' from the statute books.

Perhaps if there had never been a four minute mile, the BMC would never have been formed, and Mr Gregory could have continued to make his snap judgements on runners' motives to his heart's content.

But just to think, if Mr Gregory had been around in 1954, even Roger Bamister would have been denied his special place in athletic history due to the 'illegal pacemaking' by his training partners Chris Brasher and Chris Chataway.

MIKE DOWN, Downs Fitness Centre, Bristol.

ODD FACTS FROM OG.

GREAT QUOTES

"Italian men and Russian women never shave before competing". Italian high hurdles great EDDY OTTOZ (13.46 in 1968) when asked by American journalists why he always raced with designer stubble on his chin.

"Well, it beats showing old ladies down the stairs for kicks". Birmingham's former European and Commonwealth 5km champion, IAN STEWART, when asked how he justified all the long hours of training.

"I think about sex. That last race was just one long orgasm". American 5000m man DICK BUERKLE (13:23.20 in 1980) when asked what he thought about whilst racing on the track.

"I respect journalists, but obviously I don't run for them. I have known journalists who write the truth, who have a conscience and who are honourable men. The majority, however, tend to write lies." Olympic and World 5000m Champion SAID AOUITA.

"I get my exercise by being a pallbearer for those of my friends who believe in regular running." Former British Premier WINSTON SPENCER CHURCHILL.

CHEMICALLY AIDED MILE.
Yorkshire's Alan Simpson was second to Kip Keino (3:55.5) with 3:57.1 in the Commonwealth Games mile final at Kingston, Jamaica on August 13th, 1966. Simpson later admitted in newspaper revelations to taking stimulant drugs (amphetamines) in order to get through the race. He revealed that he felt the effect of the stimulant suddenly wear off halfway through the last lap. Simpson, who ran 3:53.8 on

August 20th, 1966 at White City, and 3:58.8 the next day at Brighton, never raced again after that season. His UK record of 3:55.68 was set in 1965, and his feat of sub fours on successive days was a first among British athletes.

In 1982 David Moorcraft followed suit with 3:56.3 on October 16th and 3:59.76 the following day.

AGE Muddle.

I do hope Leslie Watson soon feels better. It seems the poor woman was so distressed whilst filling out her London Marathon entry form that she inadvertently lopped seven years off her correct age.

CHOPPED MURDER.

European 100m hurdles Champion Yordanka Donkova of Bulgaria has made light of a childhood accident. At the age of five, she was playing in her father's factory when an industrial splicer lopped off the four fingers of her right hand. Donkova overcomes this in the crouched start position by using knuckles and thumb on the start line to take her forward leaning body weight. She has scored 5,733 points in the Heptathlon in spite of being restricted in the shot and javelin by that severe injury. Over the hurdles, however, she has run 12.26 which is not bad for 100m on the flat...

A HALF IN UNDER SIXTY.
Don't believe the experts who tell you we are still awaiting the first half marathon (13.1 miles/21.097.5m) to be raced in under 60 minutes.

It happened at the Fontana Dags Half Marathon in California on April 19th, 1986. Sam Sitomak clocked 59:22 in winning from Ken

Moloney (59:26) and Terry Cotton (59:42).

The catch? The point-to-point course dropped some 2000 feet between start and finish... reminds me of that downhill mile in New Zealand, where the course record is 3:29...
EDITOR.

Cocksedge Photo.



Flashback. In July 1982 Fleet's RACHEL HUGHES (13) ran 800m in 2:06.5 in a BMC race at Aldershot. It is still an European age record.

BLOOD OXYGEN AND RUNNING PERFORMANCE

By DAVID MARTIN
Ph.D. Professor of Physiology
at Georgia State University,
Atlanta, USA.

Extracts from an article
published in "Athletics '87",
AIFS annual.

Unless you are a sports
scientist it may be difficult
to appreciate in precise
terms the marvellous
adaptations that the human
body makes as it absorbs the
effects of arduous training
in order to deliver excellent
performances.

In fact, even the sport
scientists are often amazed.
Resting physiological
variables in a competitive
distance runner, for example
- a heart rate of 40 beats
per minute, oxygen
consumption of 250
millilitres/min, ventilation
rate of 6 litres of air per
minute - are no more
indicative of this person's
performance potential than
is the observation of an
idling diesel locomotive in
exemplifying the enormous
loads it can pull once it
leaves the station.

By comparison, think of
Carlos Lopes running his
current world fastest of
2:07:12 in the marathon - with
a heart rate averaging 167
beats per minute, an oxygen
uptake of around 4,000
ml/min, and a ventilatory
rate of 110 litres/min.

He ran the equivalent of very
nearly 105.5 laps nonstop
around a 400 metres track
at an average pace of 72.3
sec per lap. Try matching
that performance if you are
in any doubt as to its
quality!

Sports science has gone far
in its delineation of
adaptive changes that occur
in the human body with
training, thereby identifying
for coaches various
strategies for optimising
performance.

Aerobic distance running,

for example, increases the
size of the heart's
ventricular chambers,
permitting an increased
output per beat - called
'stroke volume' - whereas
strength training thickens
the heart walls with no
change in chamber size.

Endurance training also
increases the circulating
blood volume, both the plasma
and red blood cell fractions,
the former more so than the
latter. This ensures better
perfusion - more blood to
working muscles for
provision of oxygen and
fuels, and more blood to the
skin for heat dissipation.
This transport also occurs
at minimum energy cost -
thinner blood is less viscous,
putting less strain on the
heart in pumping it.

Beyond a certain running
pace (which varies according
to distance and individual),
metabolic acids accumulate if
sufficient oxygen is
unavailable, and force the
runner to slow his/her pace
before fuel metabolism stops
completely. Thus, adequate
oxygen circulating in the
bloodstream, for diffusion
into the working muscles, is
crucial.

How do we increase oxygen
supplies? By increasing the
content of haemoglobin
circulating in the blood.
Haemoglobin molecules
transport 98.5% of the
blood's oxygen; the remainder
is dissolved in the plasma. In
the lungs at rest, red blood
cells are in contact with the
tiny air-containing alveoli
for only 0.75 seconds. Yet
this is more than enough time
to saturate the haemoglobin
molecules with oxygen. They
then travel back to the
heart and out to the working
tissues, returning to the
lungs with about 25% of their
oxygen content removed.
During exercise, this oxygen
extraction increases.

A considerably higher red

blood cell (haemoglobin)
content could be presented
to the lungs during vigorous
exercise and complete blood
oxygenation would still occur.
All you need are more blood
cells. And how to achieve this
has been on the minds of
athletes, coaches, and
sports scientists for
decades.

One method would be to go to
altitude and train. At higher
elevations, the lower
atmospheric oxygen results
in decreased blood oxygen
levels, which triggers the
kidney to initiate a
compensatory mechanism to
hopefully restore original
blood oxygen content.

Significant response begins
at around 1830 metres
altitude, and when after
several weeks of aerobic
training, the altitude
trained athlete returns to
sea level to compete, his/her
oxygen transport abilities
are improved.

A second method would be to
submit to the administration
of certain kinds of anabolic
steroids - the synthetic
substance Maudrolone is one
such example.

A third method would be to be
'Blood Boosted' or 'Blood
doped', terms essentially
synonymous with 'induced
erythrocythemia'. In short,
the circulating red blood cell
concentration (and thus,
haemoglobin) is elevated
significantly.

There are several techniques
for doing this. The safest
and most effective involves
removal of about 900 ml of
the athlete's own blood,
freezing that blood at - 80
deg. C, waiting for about 5
weeks to permit return of
blood cell and haemoglobin
concentrations to normal
levels, and then infusing the
thawed red blood cells, which
have been washed free of
plasma.

Since the average life of a
red blood cell is 120 days,

some of the infused cells will
be nonfunctional, and duly
metabolized by the body's
blood purification

mechanisms. Even so, for
about three weeks after
infusion, red blood cell and
haemoglobin levels will be 8
to 12 % higher than
previously. This should raise
the maximum oxygen carrying
capacity of the blood, in
turn improving aerobic
capabilities, and specifically
the runner's VO₂ (maximum
volume of oxygen). The events
most receptive to increased
max-VO₂ are distances from
3000 to 10,000m on the
track, being run at 92% and
97% of max-VO₂, as against
the 800 and 1500m events,
run at 135% and 112%
max-VO₂ respectively.

Induced erythrocythemia is
one method, in addition to
training, for raising one's
max-VO₂ quickly, and
without the injury risks
associated with additional
training stress.

Should blood infusion be
condoned as acceptable? My
view is that it is little
different from the use of
anabolic steroids. Both are
medical pharmacologic
regimens specifically
intended, in premeditated
fashion, to provide an
unnatural competitive
advantage.

The risks of successfully
collecting, storing and
infusing an individual's own
blood, even using
well-supervised medical
healthcare standards, with
no transfusion reactions,
are not small enough. Added
to this is the still
undetermined effect of
higher viscosity blood on
cardiac strain during the
prolonged near-maximum work
intensities associated with
competitive racing in highly
trained runners.

Editor's Notes

TEAM MANAGEMENT - DRACONIAN TO LAX?

How many of you recall the famous 'Anne Smith incident' of the 1966 European Championships in Budapest? Ms. Smith was barred from international competition by the BAAB for one year for leaving British team quarters, apparently on the advice of her coach, Gordon Pirie.

Her appeal against this penalty was rejected, and, as I recall it, there was little sympathy for her among officialdom because she left Hungary three days before the Championships began. Her claim was that she could not get enough sleep in the quarters provided, and BAAB officials were unhelpful as she had joined the team direct from holiday in Germany following the Commonwealth Games. At the time, Anne was one of the favourites for the European 800 metres title. Now contrast Anne Smith's treatment with that of the modern British 'Star' athlete. At the Rome World Championships last year, two

of our notable middle distance men chose not to share the team's living quarters, taking residence in expensive hotels during the Championships.

One of them worked for tv on the days he was not competing. These same two athletes also stayed outside the athletes' village during the 1986 European Championships in Stuttgart.

In retrospect, the treatment meted out to Anne Smith seems harsh and unjust. But now star athletes, such as Cran and Overt, are given the freedom to do exactly as they like. You get the impression that regarding team arrangements, they will always get their own way, no matter what.

UK team management appears to have gone to the other extreme since 1966, when athletes were expected to do exactly as they were told. Whether this is desirable or not makes an interesting discussion topic.

Incidentally, the athletes' quarters provided in Rome were the worst ever experienced by many seasoned internationals, whilst the Italian team was

noticeably not present there.

In any case, the pre-competition preparation by Cran and Overt did not pay off as they finished 8th and 10th respectively. I'm not suggesting that they'd have done better had they stayed with the team, of course.

But when leading athletes chose to opt out and not share team facilities, it surely causes resentment among those who do not have their political clout and cannot afford to do the same. I'm sure this cannot be good for team morale, which seemed at times to be low in Rome last year. Have we really progressed very far in 21 years?

WILSON - BUDD SPLIT.

After less than a year, the Harry Wilson - Zola Budd coach/athlete relationship split up officially last Autumn. To the cynics, it did appear that Harry was being used by Budd's entourage, adding some 'respectability' to her setup by giving her a world renowned British coach.

OVERHEARD: "Any likely changes in the new UK Coaching setup?"
"Not sure. They seem to want a one ulcer man for a two ulcer job!"

Heard about the Abortion Games? It seems the field events were measured in foetus and inches....

It seems that following a severe hip injury, Budd was unable to settle for long in the UK - the lure of South Africa was just too strong. She attended few sessions, and left her Guildford 'home' to seek out treatment back in her native land. Wilson was nevertheless keen to advise the South African waif. Some of his comments at the press conference to announce the partnership were perhaps unfortunate: he stated that it would be 'Great to coach a diamond like Zola, after all the granite we have to work with...' which could be misconstrued as a curious, back-handed insult to several fine athletes. The concern about her racing barefoot on synthetic tracks seemed justified, but apparently suitably repaired, Budd returned cautiously to competition in the UK last Autumn, racing under the name 'T.Davies' in two low key events. Perhaps someone should inform her new 'manager', Fanie Van Zyl (a 353 miler of the seventies), that competing under a false name is an infringement of WAAA Rule 8 (Entries). But I don't suppose it will register. After all, Zola Budd has consistently broken rules and records since bursting onto the British athletics scene in March 1984. She is credited with UK records at 1500 (3:53.96), 3000 (8:28.83) and 5000m (14:48.07) - all set in 1985.



Treasurer Pat Fitzgerald Says: "Subs were due on January 1st, 1988. If your £5.00 (£2.00 to Senior Coaches) is not paid by March 31st, subs double. Send to me at The Acacia, Station Road Cowley, Uxbridge, Middx."

CONVERTING 1500 - Mile

Here is a conversion factor that gives a reliable difference between 1500 and mile times. It offers a guide to what your best 1500m time is worth for four laps of a metric track plus the extra 8.6 metres that makes up a mile (1760 yards/1609 metres).

It is based on AVERAGE PACE in converting up from 1500 to mile. In converting back from mile to 1500m you may find this unrealistic, since it is based on average pace per 100m and is geared to metric (400 metre) tracks.

First, break your best 1500m time into seconds i.e. 3:45.0 becomes 225 seconds. Then divide that figure by 15 for the average time per 100 metres. Thus 225sec divided by 15 equals 15.

Now multiply your answer by 16 (15 x 16 = 240seconds). That gives you the average pace time for 1600 metres. Divide 240sec by 60 to get back into minutes and seconds: 240 divided by 60 equals 4 (minutes) exactly.

Now, to allow for the extra 9 metres between 1600m and one mile (1609m), add 1.5 seconds. Thus, 4:00.0 + 1.5sec = 4:01.5. So, an AVERAGE PACE, 3:45.0 for 1500 metres is worth a mile time of 4:01.5. Similarly, 4:10.0 for 1500m is worth 4:28.14 for a mile if you are a female. (4:10.0 = 250sec x 15 = 16.66 x 16 = 266.66 + 1.5 = 268.166 = 4:28.14).

In converting back from a mile time, remember that because the Imperial distance is longer, the 1500 metres result you arrive at will not be very flattering. You could try working out average pace per 110 yards, but perhaps a better method might be working out average pace per lap.

Thus, Steve Cram's world record of 3:46.32 for a mile works out to 56.58 per lap (226.32 sec divided by 4 = 56.58). That equates to 3:32.16 for 3.75 laps of a 440y track. (56.58 x 3.75 = 212.175). That isn't exactly 1500

metres, of course, but 1650 yards (1320 = 330 yards). There are 1641.2 yards in 1500 metres, by the way. So, I suggest taking off 1.5sec for those extra 8.8 yards. (This time we subtract, instead of adding, because the distance is longer). Result? 3:30.66 for 1500 metres.

This does not give you the time you should have clocked at 1500m en route, of course. It's an estimate of what you would have clocked at the 1500m point based on completely EVEN PACE throughout the four laps. Thus, 4:10.0 for the mile equates to 3:52.86 for 1500 metres, using this method (250sec divided by 4 = 62.5 x 3.75 = 234.375 - 1.5sec = 232.875).

This means, by my estimate, that Tatyana Kazankina's world record of 3:52.47 for 1500m would work out to 4:09.42 for a mile if she ran another 109 metres at a pace of 15.438 per 100m! (232.47 divided by 15 = 15.498 x 16 = 247.968 + 1.5 = 249.468 sec).

WORLD RECORD PACE

Womens' 800m WR - 1:53.28
Average pace per 100m - 14.16sec
/56.64sec per lap.
1500m: 3:52.47. Average pace - 15.498/61.992 lap.
2000m: 5:28.69. Average pace - 16.434sec/65.736 lap.
3000m: 8:22.82. Average pace - 16.760sec/67.04 lap.
5000m: 14:37.33. Average pace - 17.546sec/70.184 lap.
10,000m: 30:13.74. Average pace - 18.137sec/72.548 lap.

Mens' World 800m WR - 1:41.73. Average pace:

12.715sec
/50.86 per lap.
1500m: 3:29.46. Average pace - 13.964sec/55.856 lap.
2000m: 4:50.81. Average pace - 14.540sec/58.16 lap.
3000m: 7:32.1. Average pace - 15.07sec/60.28 lap.
5000m: 12:58.39. Average pace - 15.568sec/62.27 lap.
10,000m: 27:13.81. Average pace - 16.338sec/65.35 lap.

☐ Spiked. As the 800m finalists gathered in the tunnel for the 1972 Munich final on September 2nd, German officials checked apparel before allowing the runners to file out to begin their warm-ups. David Wottle was stopped and told he could not proceed because he was carrying an illegal seventh spike in each shoe. He asked for a spike spanner to remove the two offending spikes but the officials merely shrugged.

Englishman Andy Carter came to Wottle's rescue by fishing his Adidas spike spanner out of his bag and handing it to the now distraught American. Wottle gratefully unscrewed a spike from each of his shoes and was then allowed to proceed. Minutes later, he won the final with a frenzied finish, his late burst taking him past Soviet Yevgeniy Arzhanov. Andy Carter finished sixth. Wottle's shoes had not been checked during the qualifying rounds.

Munich's gate stewards were extremely zealous and unrelenting during the Games, 10km bronze medallist Mirus Yifter (Ethiopia) had reported to the wrong entry gate for his 5000m heat on September 7th, and was refused admission onto the arena. He sat and wept in the tunnel as the race started without him. In 1980, however, he won both 5 and 10km finals in Moscow.

Compiled by
DAVID
COCKSEGE

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Olympic 1500 metres.

The Olympic 1500 metres final has become the Blue Riband event since the modern Games first took place in Athens in 1896. With the Seoul Olympics beckoning this year, the 1500 final there will be the 21st in Olympic history. Here, then is a brief review of the twenty Olympic men's 1500 finals that preceded the race in Seoul, which promises to be a classic confrontation as usual between Bale, Coe, Cram, Gonzalez, Abascal and maybe even Houita.

1896: (April 7) Lermusiaux was the pacesetter for much of the race, but was outkicked over the last 120 metres by Flack and Blade. Result:
1, Edwin Flack (Aus) 4:33.2
2, Arthur Blake (USA) 4:34.0
3, Albin Lermusiaux (Fr) 4:36.0.

1900: (July 15) Bennett and Deloge drew away from the rest of the field after the second lap, with the Englishman outpacing his French rival over the closing 50 metres. Result:
1, Charles Bennett (UK) 4:06.2 (OR)
2, Henri Deloge (Fr) 4:06.6
3, John Bray (US) 4:07.2

1904: (Sept 3) Lightbody, Verner and Hearn, all members of the Chicago AA, always had the race under control. They opened up after 500 metres and gradually pulled away, with Lightbody finishing fastest to claim the World record. Result:
1, James Lightbody (USA) 4:05.4 (WR)
2, Frank Verner (USA) 4:06.8
3, Lacey Hearn (USA) ntt.

1908: (July 14) Hallows ran the fastest heat, 4:03.4 (OR) in just beating Emilio Lunghi of Italy (4:03.8) who failed to qualify, even though faster than any other heat winner! In the final, Ian Fairhair-Crawford set a

hot pace until Loney took over with 450m to go. The pace dropped considerably until Wilson, just 1.62m/5'4 tall, kicked hard 270m from home. He led into the straight with Hallows trailing him until Sheppard produced a wonderful finishing burst from far back to win narrowly. Result:
1, Mel Sheppard (USA) 4:03.4 (OR)
2, Harold Wilson (UK) 4:03.6
3, Norman Hallows (UK) 4:04.0.
Other British: 6, Joe Deakin; 11, E.Loney.

1912: (July 10) Fastest heat winner was Kiviat at 4:04.4. In the final, Arnaud led for 800m with the field closely bunched. Kiviat surged in front at the bell, with Taber and Jones close up and with 250m to go Jackson and Hide joined the leaders. Kiviat led into the straight from Taber, Jackson, Jones and Sheppard with wide dropping back. A frantic honestretch battle ensued, and just as Kiviat kicked away again from Taber and Jones, up came Jackson with giant strides to snatch the race in Olympic record time. Result:
1, Arnold Strode-Jackson (UK) 3:56.8 (OR)
2, Abel Kiviat (USA) 3:56.9
3, Norman Taber (USA) 3:56.9.
Other British: 6, Philip Baker 4:01.0.

1920: (Aug 19) Uohralik ran the fastest heat at 4:02.4. World record holder John Zander qualified for the final, but dropped out at 750m. Joie Ray (US) led until the bell when Albert Hill and Philip Baker took over. On the backstraight, Baker ran alongside Hill, fending off attacks, until Hill burst away on the last curve to win. Result:
1, Albert Hill (UK) 4:01.8
2, Philip Baker (UK) 4:02.4
3, Lawrence Shields (USA) 4:05.1

Other British: 5, D.McPhee ntt.

1924: (July 10) Nurmi, who was to race in the 5000m just 75 minutes later, cut out the pace from early on, passing 500m in 73.2 and 1000m in 2:32.0, stringing out the field. He continued to pull away, finally winning easily in OR time. Stallard and Scherrer had a torrid duel for the other medals, before the Swiss prevailed in the last 20 metres. Result:
1, Paavo Nurmi (Fin) 3:53.6 (OR)
2, Willy Scherrer (Switz) 3:55.0
3, Henry Stallard (UK) 3:55.6.
Other British: 4, Douglas Lowe 3:57.0.

1928: (Aug 2) Bocher ran the fastest heat at 3:59.6. In the final, Larva and Purje ran as a team, and kept the race under their control. Ladouegue was trapped on the pole during much of the early going, finally spurred up to take the lead on the final backstraight. But Larva chased him hard, and ran him down in the last 30 metres to nip Nurmi's OR in keeping the title with Finland. Result:
1, Harri Larva (Fin) 3:53.2 (OR)
2, Jules Ladouegue (Fr) 3:53.8
3, Eino Purje (Fin) 3:56.4
British: 5, Cyril Ellis 3:57.6.

1932: (Aug 4) Fastest heat winner was Cunningham with 3:53.8. Lovelock and Cunningham led early on in the final, with Beccali third. In the third lap, Edwards spurred and took Cunningham with him, and they drew 20m clear of Beccali at the bell. Into the last 300m Cornes

set out after the tiring leaders, with Beccali on his heels. The Italian kicked easily past Cornes with 200m left, charged past Cunningham coming off the last curve, and finally overtook Edwards with 60m to go. Behind him, Cornes had enough left to take second from Canadian Edwards and American Cunningham. Result: 1, Luigi Beccali (Italy) 3:51.2 (OR) 2, John Cornes (GB) 3:52.8 3, Phil Edwards (Can) 3:52.8.

1936: (Aug 6) Goix was fastest in the heats with 3:54.0. Cunningham led the final out in 61.5 from Ny, Beccali, Schauburg and Lovelock close up. Ny was in front in 2:05.0 at 800, but Cunningham soon spurred and tried to break Lovelock's finish. The New Zealander followed him through 1000m in 2:35.0, and hit the front at 1100m (2:51.0) before surging away on the wet track. He ran his last 300m in 42.8 and final 200 in 28.8 to win in World record time. Cunningham held off Beccali, who was spiked just before the bell lap. Result: 1, Jack Lovelock (NZ) 3:47.8 (WR) 2, Glenn Cunningham (USA) 3:48.4 3, Luigi Beccali (It) 3:49.2 British: 6, John Cornes 3:51.4.

1948: (Aug 6) The final was run in a downpour on a sodden Wembley Stadium track. Hansenne took then out in 58.3 and 2:02.6 only to drift back on the third lap. Eriksson, Strand and Bergkvist were close together at 1200 in 3:05.0 before Eriksson surprisingly sprinted away from his more highly regarded countryman to take the title. The talented Strand was nearly beaten for the silver by fast finishing Dutchman Sijhuis. Result: 1, Henry Eriksson (Swe) 3:49.8 2, Lennart Strand (Swe) 3:50.4 3, Willem Sijhuis (Neth) 3:50.4 British: 6, Bill Nankerville 3:52.6.

1952: (July 26) The two semis were won by Johansson (3:49.4) and Bartel (3:50.4). In the final, Lawers led past 400 in 57.8 and 800 in 2:01.4 from Lueg, Boysen, El Mabrouk and Bannister. Then Lueg took over to pass 1km in 2:32.8 and 1200 in 3:03.0, pulling away from all but a charging Bartel and McMillen, who spurred up from way back. Bartel swept past Lueg 50m from home, and won narrowly from McMillen, who closed faster than anyone with a last 300 in 40.6sec. Six of the 12 finalists set pb's. Result: 1, Josef Bartel (Lux) 3:45.1 2, Bob McMillen (USA) 3:45.2 3, Werner Lueg (Ger) 3:45.4 British: 4, Roger Bannister 3:46.0.

1956: (Dec 1) Heat winners were Richtzenhain (3:46.6), Lincoln (3:45.4) and Scott (3:48.0). Halberg took the final out in 58.4 before Lincoln led past 800 in 2:00.1. At the bell, Hewson and Lincoln were abreast in 2:46.6 from Landy with Delaney back in 10th place. Hewson surged to lead at 1200 in 3:01.3 but was powerless to stop Delaney, who blew past everyone with a last 300 in 30.8 and final lap in 53.8. Result: 1, Ron Delaney (Ire) 3:41.2 (OR) 2, Klaus Richtzenhain (Ger) 3:42.0 3, John Landy (Aus) 3:42.0 British: 5, Brian Hewson 3:42.6, 8, Ian Boyd 3:43.0, 9, Ken Wood 3:44.8.

1960: (Sep 6) Elliott won the first heat in 3:41.4 from Rozsavolgyi (3:42.0) and Burlison (3:42.2). Bernard took heat 2 in 3:42.2, eliminating Valentin, and Hearn nabbed the third heat in 3:43.8. In the final, Bernard led for 800, passing the posts in 58.2 and 1:57.8 with Haern and Vamos trailing. Elliott then surged up from fourth place, and broke away with a 100m stretch in 13.2sec. He rushed past 1000m in 2:25.4 and

1200m in 2:54.0, some 10 metres clear of Rozsavolgyi, Jazy and Vamos. As the Frenchman came up to take the silver, Elliott increased his lead to win in a great new WR. He had covered his last 800 in 1:52.8, 400 in 55.6, 300 in 41.6, and 200 in 28.0. Result: 1, Herb Elliott (Aus) 3:35.6 (WR) 2, Michel Jazy (Fr) 3:38.4 3, Istvan Rozsavolgyi (Hon) 3:39.2.

1964: (Oct 21) Simpson won the fastest heat in 3:42.8 and Snell took the first semi final in 3:38.8 from Baran (3:38.9) and Odlozil (3:39.3). Semi two went to Burlison in 3:41.5. Running his sixth race in six days, Snell followed Baran through the first lap of the final in 58.0. Davies led at 800 as the pace dropped to 2:00.5 and he was still just ahead at 1200 in 2:59.3. Snell then blasted up from third with an amazing burst to pull some 20m ahead of Odlozil and Simpson coming off the last curve. He won still going away in 3:38.1 with a last lap in 52.7. It was the first 800/1500 double since 1920. Simpson faded after holding second place until the last 20 metres, when Odlozil and Davies nipped in for silver and bronze. Result: 1, Peter Snell (NZ) 3:38.1 2, Josef Odlozil (Czech) 3:39.6 3, John Davies (NZ) 3:39.6 British: 4, Alan Simpson 3:39.7, 8, John Whetton 3:42.4.

1968: (Oct 20) At the altitude Games, Ryon was fastest heat winner with 3:45.7. Keino had a bold plan in the final to defuse Ryon's kick, and he was ably assisted by Ben Jipcho, who led through 400 in 56.0 with Ryon well back. Keino took over and flew past 800 in 1:55.3 some 10m clear of Tumber and Norpoth. Ryon tried to mount a counter attack on the third lap, but Keino was unstoppable as he won handily in 3:34.95 with a last lap of 56.6 and 300 in 41.5. Result: 1, Kip Keino (Kenya) 3:34.95 2, Jun Ryon (USA) 3:37.8 3, Bodo Tumber (GFR) 3:39.0.

British: 5, John Whetton
3:43.8.

1972 (Sep 16) Chief casualty in round 1 was WR holder Rynn who fell whilst trying to squeeze between two runners with 550m left. Keino won that heat in 3:40.0. Fastest semi was won by Dixon from Vasala, both clocking 3:37.9. European champ. Arese and 800m winner Hottle were eliminated.

Foster led at 61.4 in the final as Keino hung back prior to rushing past the entire field. He ran the next lap in 59.3 and then tried to kill everyone with a third lap of 55.1.

Only Vasala, Dixon and Bost were close as they charged into the last 300m. The bearded Finn gunned Keino down with 70m to go, completing his last 800 in 1:49.0 and final lap in 53.4. Dixon amazed again to take the bronze behind Keino.

Result:

1, Pekka Vasala (Fin) 3:36.3
2, Rip Keino (Ken) 3:36.8
3, Rod Dixon (NZ) 3:37.5.

British: 5, Brendan Foster
3:39.0 (3:38.2SF).

1976: (July 31) Walker, annoyed at getting eliminated in the 800 heats, burned the fastest heat time in Olympic history - 3:35.9. He went on to win his semi in 3:39.7 whilst Coghlan took the other one in 3:38.6 with a fast finish.

After 25 sub-3:40 performances in the qualifying rounds, the final began at a crawl, with splits of 62.5 and 2:03.2. Coghlan led at 1200 in 3:01.2 with Walker just behind. The Kiwi then burst into the lead, running the last three 100m sections in 12.5, 12.2 and 13.2 to win - but only just, as Van Danne came charging up with great pace in the last 150m. Walker ran his last 300 in 37.9 and Hellmann surprised by beating more fancied runners for the bronze medal. Result:

1, John Walker (NZ) 3:39.2
2, Ivo Van Danne (Bel) 3:39.3
3, Paul-Heinz Hellmann (GFR)

3:39.3.
British: 5, Frank Clement
3:39.7; 7, David Moorcroft
3:40.9.

1980: (Aug 1) 800m Champion Overt wasted energy by pushing to a heat win in 3:35.8 from Straub on a hot day. Whilst Coe won his semi in 3:39.4, Overt sprinted to a 3:43.1 waving to the crowd. The pace was a dawdle in the final - 61.6 and 2:04.9 before Straub took off and kicked in a 54.2 to string them out. Straub led by 2m from Coe going into the last curve, with Overt another metre back and Busse fading. Overt moved to Coe's shoulder just as the latter made his bid to get past Straub. Coming off the last bend, Coe suddenly accelerated, speeding down the red track in an amazing 12.1 for his last 100m, and won going away.

Overt hung even with Straub for a few seconds, then let go for his first 1500/mile defeat in 45 races. Coe ran the last 300 in 1:49.2, 400 in 52.2, 300 in 38.9, 200 in 25.4. Result:
1, Sebastian Coe (UK) 3:38.40
2, Jurgen Straub (GDR) 3:38.79
3, Steve Overt (UK) 3:38.99.
Other Briton: 8, Steve Cram
3:42.0.

1984: (Aug 11) Fastest heat winner was Abascal with 3:37.68 but the semis were furious: Cram winning in 3:36.30 whilst Abascal clocked 3:35.70 alongside Scott (3:35.71) with Coe (3:35.81) just behind. Cheshire and Khalifa led the final out in 58.9 before Scott took over and forced a test of strength, hauling them through the second lap in 57.8. He increased his pace moving towards 1000m, but Abascal jumped him with 500 to go, pursued quickly by Cram, Coe and Overt.

Abascal led at 1200 in 2:53.3 just after an ailing Overt dropped out with bronchial spasms. The Spaniard ran the backstretch 100m in 13.3 but Coe followed easily on his shoulder. Just when Cram moved up to take Coe, the latter glanced at him, and kicked away.

He led by a metre from Cram and Abascal off the curve, and then poured it on again, gaining as he won by about 6 metres. Coe thus became the first man in history to retain the Olympic 1500m. He had run the last 1200 in 2:49.2, 800 in 1:50.0, 400 in 53.3, 300 in 39.3 and 200 in 26.1. Result:

1, Sebastian Coe (UK) 3:32.53 (GR)
2, Steve Cram (UK) 3:33.40
3, Jose Abascal (Spain)
3:34.30.
Other Briton: Steve Overt
dnf.



Ungracious losers. One of the major shocks of the 1936 Berlin Olympics was the defeat of Poland's Stella Walsh by Helen Stephens (USA) in the 100 metres final; Stephens clocking 11.5 to win by three metres from the shocked Walsh (11.7). Outraged Polish team officials openly accused Stephens of being a man in disguise (no sex tests in those days) and after a great furore, Stephens agreed to a medical examination. She passed this with flying colours: Judges decided that she was indeed a woman. This story takes on an odd twist, because, in a moment of supreme irony, Stella Walsh was discovered to be an hermaphrodite at her autopsy examination in 1980. By then a US citizen, Walsh had got herself/himself caught in the cross-fire between Police and bandits during a drugstore holdup in Los Angeles, and sustained fatal gunshot wounds. The incredible Helen Stephens never lost a race in her short career, and in Berlin also anchored the American womens' sprint relay team to victory in 46.9 sec.

WOMENS' OLYMPIC 1500 METRES 1972 to 1984. From Bragina to Dorio.

The Womens' 1500 metres was first held in the 1972 Munich Olympics, and not unexpectedly, Europeans have dominated in the four finals so far held. Here's how they have gone:-

1972 (Sep 9) Bragina got womens' 1500 running off to a flying start by producing a WR in winning the first heat with 4:06.5. Amazingly, she produced another one in the semis, as she clocked 4:05.1, and then lowered it again with 4:01.4 (4:01.38) in the final!

For those early days of Womens' 1500, the standard was high, with all finalists inside 4:09 in the semis.

Keizer and Bowen led early on in the final, with Bowen passing 400 in 62.5. Bragina suddenly charged from well back at 700m to lead past 800 in 2:10.0. Surging hard, she led by 10m from Hoffmeister in 2:58.6 at the bell (1100m) and continued to bear down, covering her last 800 in 2:06.1, and 400 in 62.8.

The next four athletes broke the previous WR as Hoffmeister held off a fast-closing Cacchi-Pigni for the silver. Result:

- 1, Lyudmila Bragina (USSR) 4:01.38 GR
 - 2, Gunhild Hoffmeister (GDR) 4:02.8
 - 3, Paola Cacchi-Pigni (It) 4:02.3.
- British: S, Sheila Carey 4:04.9.

1976 (July 30) Kazankina was unstoppable after her 800 win in WR time, and her 1500 record of 3:58.0 a month earlier.

Bragina won the fastest heat in 4:07.1, and in the semis, Klapeznski clocked 4:02.1 as Kazankina took the second race in 4:07.4.

The final started off at a dawdle, as Hansen led through splits of 68.7 and 2:10.9. Dorio spurred ahead at 500m but then Bragina tried to break from the pack at the bell, with a surging drive. But Hoffmeister and Klapeznski were covering and swallowed her up with 250m left.

Kazankina stayed back in 6th until the last curve, when she swung wide and began to pass everyone, finally blowing past Hoffmeister 50m out. She had run 2:03.5 for the last two laps, and 58.3 for the final 400! Result:

- 1, Tatjana Kazankina (USSR) 4:05.5
- 2, Gunhild Hoffmeister (GDR) 4:06.0
- 3, Ulrike Klapeznski (GDR) 4:06.1.

1980 (Aug 1) The Western boycott did little to affect this race. Kazankina was once

again ready, having lowered her WR to 3:55.0 on July 4. After the Games, she ran 3:52.47 in Zurich - still the WR.

She broke Bragina's OR with 3:59.2 in the first of only two heats, whilst Smolka won the other race in 4:04.4.

800m Champion Olizaryenko led them out in 65.5 in the final, with Smolka just ahead at two laps in 2:13.7. Kazankina then shot ahead and left them all floundering with a cruel third lap of 58.4, leading from Smolka and Wartenberg at 1200 in 3:12.3.

Kazankina continued to press, building a 15m lead by the finish. Her last 800 in 1:59.1 was simply awesome. Wartenberg was a good second, whilst Olizaryenko finished fastest of all Gasi 300 in 44.0 for the bronze medal. Result:

- 1, Tatjana Kazankina (USSR) 3:58.86
- 2, Christiane Wartenberg (GDR) 3:57.71
- 3, Nadezhda Olizaryenko (USSR) 3:59.57.

1984 (Aug 11) This time, the Eastern European boycott virtually destroyed the event. Dorio, 6th in Montreal and 4th in Moscow, finally went to the head of the field, but the Soviets and East Germans were sorely missed.

Benning won first heat in 4:10.48 whilst Dorio nipped Puica with 4:04.51. Once again, the final started cautiously, with Boxer leading in 66.2 and 2:14.7. With 600 left, Dorio made her bid and broke clear, chased by Melinte, Boxer, Gerdes and Benning. Melinte, the 800 champion, surged at 1200 (3:17.3) passing Dorio midway down the backstraight with Gerdes 3m back and Puica out of it.

Dorio was not finished, however, and chased hard to regain the lead off the final bend. Melinte was a safe second, but Puica, winner of the controversial 3000m earlier, suddenly came from 10m down in 5th with a fierce drive to take the bronze, passing Benning and Gerdes. Closing 300's: Dorio - 46.3, Melinte - 46.5, Puica - 46.4. Result:

- 1, Gabriella Dorio (It) 4:03.25
 - 2, Doina Melinte (Rom) 4:03.76
 - 3, Karolina Puica (Rom) 4:04.15.
- British: 5, Christine Benning 4:04.70; 6, Christina Boxer 4:05.53.

THE TERMINOLOGY OF TRAINING THEORY

by Frank Dick, UK Coaching Director

A clear, concise explanation of the terminology of training theory. Very important article for the coach and athlete to understand the "why" of training. From Athletics Coach, Vol. 9, No. 1, March, 1975.

An athlete trains to be "fit" for his event, but for this training process to have any meaning, the coach must evaluate the various demands (stressors) of the event, in order to help the athlete adapt to them. Three rules must then be considered in the training process if progressive adaptation is to be achieved.

SPECIFICITY—Adaptation is specific to a stressor, and the effect of a stressor is specific to an individual athlete.

The meaning of this law should become apparent if we consider (a) two athletes; (b) a training unit; and (c) a simple question.

a) John—best 200m=22.0 secs.

Angus—best 200m=23.0 secs.

b) Unit=6 x 200m in 24.0 secs with 90 secs recovery.

c) Should this unit have the same effect on each athlete?

The answer is of course, "NO"—but how would you evaluate the effect anyway? The answer to this should, in part at least, be answered below.

OVERLOAD—It is necessary to provide a progressive heightening of the stressor, to oblige the body to seek a higher status of adaptation. "Progressive heightening," then, is the problem. Does the athlete become stronger by performing the same exercise more times, or by making the exercise harder and performing it the same number of times?

A "progressive heightening" may be in terms of **extent**—i.e., more kilometers, more repetitions, etc.; or in terms of **intensity**—i.e., more kilograms, faster run, or in terms of **density**—i.e., shorter intervals of rest between exercises, repetitions, sets, units (2-3 units per day) and so on. With so many variables, do you know what changes will make the most

significant contributions to the athlete's fitness for his event? Again, some ground should be covered below in answering this question.

REVERSIBILITY—When training intensity, extent or density is reduced, the status of adaptation brought about by the training loads, will be gradually lost. Strength losses are faster than mobility losses; status improvements brought about by special methods over a short term, are lost quicker than those brought about by "slower" methods over a long term.

Yet there are occasions when loads are reduced deliberately in special preparation for a major competition; do you know by how much you can afford to cut back?—and for how long?—and in which areas of training?

MAXIMUM STRENGTH

We have come to recognize that this characteristic in its absolute form is not what we particularly require in athletics, because it has involvement neither with speed nor endurance. Strength implies optimal tension and due to its location at the high tension/low velocity extreme of Hill's tension-velocity curve, it is related to maximal isometric or static contraction. This characteristic is accurately measured for any given position in a range of movement by using tensiometer devices.

It is best developed by using loading of 90%—95% maximum in specific weight training lift, with low reps and several sets; or by electrical stimulation as used by Dr. Zeizler. It can also be improved by staggered sets by functional isometrics, and by eccentric or yielding work with loads in excess of maximum isometric work at any point in the range.

Oh, those Gremlins!

In the Issue 41, we stated that the BMC has staged over 10,000 races in 24 years. Wrong. We haven't been quite that active. Make it over 1,200 races since Summer of 1963. We're getting there.

Finally, we know that several chemical preparations assist via nitrogen and consequently protein retention, but to unpredictable levels.

SPEED

Absolutes in speed of limb movement imply no strength or endurance involvement, but simply embrace concepts of learned employment of relevant motor units through facilitation of valid pathways and the inhibition of irrelevant pathways.

Confusion has arisen out of statements such as "the contractile speed of a single muscle fiber cannot be altered in one's lifetime." This statement is true, but has caused several authorities to ignore all possibilities of developing the speed of limb movement altogether; and most discussions on the topic eventually thump old drums such as, "But stride length can be improved." Zaciorskiy, in correcting our misconceptions in thinking that speed of reaction was synonymous with speed of movement, has given us a fresh look at the situation.

We know that exercise to develop speed of limb movements shortens reaction time, but that the converse is not true. Reaction exercises will however, shorten reaction time, and this must be of value to the sprinter.

Another Russian, Ozolin, pointed out that we could become habituated to set speeds of movement, and suggested increasing rhythm potential of the training situation. Running downhill, increased temperatures, being towed, running before a strong wind, always using fast surfaces and running handicaps or in fast company all contribute to the development of leg speed, while throwers employ lighter implement to experience a faster throwing movement.

In addition certain exercises can be used to encourage coordinating speed, e.g., emphasizing flexor contraction, elastic recoil and stretch reflexes. The Italians, Calvessi and Vittori, developed scores of drills for sprinters and hurdlers. Note the emphasis through out is speed and not energy expression; maximal contraction and endurance factors must be minimized. Thus, distances such as 20m and 40m are more appropriate than 60m, 90m and 120m; short sets must be used, and long intervals must afford a complete recovery between runs. In fact, certain authorities suggest no less than 4 minutes between successive flat-out runs over 20-40m (young sprinters) and 45-60m (mature sprinters).

AEROBIC ENDURANCE (HEART ENDURANCE)

This characteristic is one's capacity to efficiently utilize as great a proportion as possible of the inspired oxygen, in the maintenance of continuous and prolonged submaximal work. This type of endurance has also been referred to as "heart endurance," "oxygen transport efficiency," "oxygen uptake endurance" and "long endurance." The concept is of economy and extension of work output rather than intensity, and consequently there is a minimal involvement of speed and strength.

The most accurate measure we know of this characteristic is "maximal oxygen uptake, (VO_2 max.)." The training emphasis of this characteristic varies directly with the competitive distance to be run. Thus it has top priority for the marathon athlete, but has little importance for the short sprinter.

Heart rate appears to be our best guide in terms of the contribution of a particular training regimen to aerobic endurance. It would appear that at a heart rate of 130 beats/min., blood lactate is 25mg/%, and the oxygen uptake is 50% of VO_2 max.; at 150 beats/min., blood lactate is 30%, and the oxygen uptake is 60% of VO_2 max; at 165 beats/min., blood lactate is 70mg/%, and the oxygen uptake is 75% of VO_2 max. (Jschepik).

From figures produced in this and similar studies, we know that once the heart rate rises above 150 beats/min., the anaerobic involvement is considerable, and this must detract from the value of the session as a conditioner of aerobic processes, due to the complex chemistry brought into play to meet metabolic demands. Thus the long, slow distance (L.S.D.) men must try and contain their quality with 150/min. However, Gerschler amply demonstrated the value of run/rest heart rates of 180/120 beats/min. respectively. I shall refer to this as extensive interval work.

Having equated the value of L.S.D. and extensive interval running as aerobic conditioners, I must add that their specific contributions have been shown as quite dissimilar. Viro, Urogenstein, and Pisucke demonstrated that the long steady work makes a greater contribution to an increase in the number of erythrocytes, the % of hemoglobin and the heart volume; while the extensive interval runs contribute significantly to blood alkaline reserve, thus substantiating the implication of the heart rate/blood lactate oxygen uptake relationship mentioned above.

It has also been suggested that the

extensive interval work is best for rapid improvement and for the beginner. However, loss of aerobic status is also quicker than by L.S.D., so it may well be that the extensive interval work is for beginner endurance man—a stepping stone, as it were, towards L.S.D.

FAST STRENGTH (POWER)

This characteristic is best defined as the athlete's ability to express force at speed. However, it is also referred to as "elastic strength," implying the co-ordinated involvement of contractile and elastic components of muscle. A man could be the strongest in the world, but there is no guarantee that he can propel himself with any degree of quality in a contest to measure vertical jumping ability.

Consider the velocity at which the javelin thrower's arm strikes the javelin at delivery, or the blur of a sprinter's foot in contact with the track on each stride. Yet in these brief spans the total extreme of force must be efficiently expressed, and this, it must be emphasized is a delicate and learned process.

Any strength advance in training must be matched by speed, and this cannot be hoped for if we work athletes at only 90% maximum or above. To believe that heavy weight work is the gateway to fame in explosive events is to ignore physiological evidence and, if you think about it, common sense. *Der Leichtathlet*, the East German publication, advanced 75%–90% loading in 3-4 sets of 8-10 as a diet for fast strength.

Dr. Fidelius' analysis of strength measures in Polish sprinters give rise to a considerable reviewing of weight training there, and examples are legion from almost every European country. hopping and bounding exercises with and without apparatus, as the coaches seek to involve speed in resistance workouts. Athletes jump and run in weighted jackets; drag light resistance; throw weighted implements; perform resisted simulation exercises; lift weights against the clock; sprint up short steep hills; and so on.

In summary, then, more than any other types of strength, elastic strength is expressed in a most specific manner, i.e., in terms of timing. Therefore, specific techniques of jumping, throwing, etc., must be reflected in training to develop this characteristic—hence the evolution of "special exercises." Moreover, the amount of force that the athlete can express at a given speed is critical, so obviously maximum strength, elastic strength and technique must

develop together.

SPEED ENDURANCE

Both speed endurance and strength endurance are frequently considered under the heading "anaerobic endurance," yet whilst this is not an inaccurate classification, it is nevertheless erroneous to believe that they are the same characteristic. Speed endurance is the faculty for co-ordinating speed of contraction in the climate of endurance factors. The particular endurance factors to which I refer are the by-products of anaerobiosis. The characteristic is beyond dispute in 200m/400m and to a slightly lesser extent in 800m, and less again, 1500m. The Russians and East Germans have almost certainly provided the most knowledgeable work in this area and the characteristic is best developed by:

a) Flat out runs at "over distances" of 10%–20% more than the racing distance, with very lengthy intervals to avoid the accumulation of lactic anaerobiosis. According to Viro, Urgenstein and Pisucke this type of work makes the greatest contribution to the characteristic of speed endurance, and from a physiological point of view, the erythrocyte count, percentage of hemoglobin, heart volume and alkaline blood reserve are increased to a degree unmatched in total by any other single method of training.

It must be said however, that a combination of methods might achieve the same effect, or a single method might reap considerable rewards in one or two of these physiological measures. This type of training is very similar to the idea of using "competitive races" or time trials, as suggested by Suslov (U.S.S.R.) and Harre (G.D.R.). They independently consider 1-3 repetitions with full recovery as the most useful method of developing speed endurance "being closest to actual racing, in which the oxygen debt and lactic acid concentration reach a level much higher than it is possible to achieve in other forms of training."

b) Intensive interval runs at a speed of 85% of maximum over training distance (of 2/3 twice racing distance). For example, best 200m. time is 23.0 secs=8.7m/sec. 85=7.4m/sec.=27.0 sec for 200m. The number of runs in a set will range from 3-5 with intervals of varying duration. The number of sets will be dictated by the training level of the athlete. Duration of interval, and number of runs must not be allowed to interfere with the quality of the runs.

Distances of 200m-800m are used with intervals of 2½ mins.-5mins. between sets, and total training loads normally fall between 2km-6km. This form of training, while advanced as a stimulus to development of speed endurance, has not the total developmental capacity of the flat out runs mentioned in "a."

Although heart volume and alkaline blood reserve are increased, the degree of this increase is less than in the flat out runs, and, moreover, the erythrocyte count and hemoglobin count drop. However, this form of training is known to develop speed endurance and the fact that it has been associated with improvements in performance over 100m., and 1,000m., is significant.

Most literature, where a distinction is made in types of endurance, puts these methods in the order stated as contributors to speed endurance. Training of this nature must be included in the program of all sprinters, and hurdlers, and will have importance in inverse proportion to the distance run from 800m. upwards. As racing distances increase, specific endurance training methods will be introduced.

STRENGTH ENDURANCE

This characteristic is the athlete's capacity to maintain the quality of his muscle's contractile force, in the same climate of endurance factors mentioned in speed endurance. A pole vaulter with little strength endurance would be restricted in the number of vaults he could perform with the limited period of a training session. Age-old tests of "strength" such as maximum press-ups are tests of strength endurance, rather than strength.

Work to develop strength endurance is of inestimable value to 400m and 800m runners, and to a slightly lesser degree to 1500m and 200m runners. Training to develop strength endurance seems best developed through work such as:

a) Uphill runs on gradients of around 15°, over distances of 150m.-250m., with intervals of 2-3-5 minutes, running in sets of 3-5 repetitions.

b) Weight training with loadings of 50%-75% of maximum, in sets of 10-15, with 45 sec.-90 sec. between sets.

c) Various forms of circuit training.

3) Running in sand, surf, harness etc.

3) "Back to backs" and "turnabouts."

Work of this nature produces physiological changes in increases in heart volume and alkaline blood reserve, but there are frequent decreases in percentage hemoglobin. There can be no

doubt as to the value of this sort of stimulus in the 800m, in which the Russian school of sports physiologists has demonstrated greater benefits than by any other training stimulus.

MOBILITY

Mobility is the range of movement of a particular joint action. However, if we are going to think of this characteristic in athletics it is best to consider it as the range through which force can be efficiently applied; efficiently, that is, in terms of the technique. As with other characteristics, the three laws must be observed, and the following pattern should be pursued in a training unit:

1. Raise body temperature by jogging, striding and gentle warm-up exercises in 1-2 track suits, preferably inside a warm building.

2. Active and slow sustained work for each joint action.

3. Active and passive work with partners and apparatus.

4. Passive work involving ballistic exercises and combined power/mobility exercises.

5. Specific mobility work in the skill situation.

Training for mobility must never be accompanied by fatigue, and should not follow other types of training. This is especially the case with strength workouts, where serious injury can result from mobility work after strength work. On the other hand Janusz Szewinski suggests that this work may be included in warm-up before training.□



Paid your subs. yet?

They were due on January 1st
Send your £5.00 off to Pat Fitzgerald pronto!

COACHING ADVISORY SERVICE ANGERS ADMINISTRATORS!

By David Cocksedge

Mike Winch (39) has never been a stranger to controversy. In his active days as an international shot putter he was always forthright and outspoken, and he has not changed much since settling into the roles of coach, administrator and director of his new company, the International Coaches' and Advisory Services. It is the Athletics Coaches' Unit, a division of this organisation, which has sparked resentment within the UK Coaching Office since its' formation last summer: apparently some National Coaches see it as being in opposition to the UK Coaching system.

Winch views it purely as a body to advise coaches and act in parallel to the UK scheme by looking after aspects he feels the establishment does not cater for. He states in his ICAS pamphlet: "The National Coaching Strategy [is] mainly concerned with coaches' education and with providing coaches for athletes".

The main services of the unit are listed as being: (1) Providing advice on how to obtain competition abroad (within IAAF guidelines); (2) To provide the administration for setting up Personal Clinics; (3) To provide an information and admin. service on travel; (4) To provide specialist and general financial advice; (5) To provide legal advice; (6) To provide specific technical needs; (7) To act as an advice centre.

"I've been involved in coaching for some fourteen years now, pretty well as long as I have been competing internationally," says Winch, "and the reason I got into coaching was that there were precious few coaches involved in the events that early on were my main interest. It annoyed me to see young athletes with good potential floundering because they lacked help or were being badly advised, and I felt I could contribute. So I became involved on the basis of helping people who asked me. Since then I've covered quite a few jobs within the UK Coaching Scheme: a Southern Staff Coach, a National Event Coach and more recently, I've been involved with the IAAF setup, coaching and lecturing in Africa, New Zealand and Europe.

"I think our sport needs practical people more than coaching administrators. Coaching to me is about motivation, about excitement, enthusiasm and personal contact, so my approach has always been a practical one.

"Now over the last few years, I've been deliberately excluded from the National Coaching setup because of my obviously contrary views, and I felt that some of our other top coaches were being treated in the same way. It was therefore fairly obvious that there was a need for some kind of coaches' association to look after our needs and our interests.

"Frank Horwill tried to set up a professional coaches' association a little while back, and generated quite a lot of interest. But setting something like that up is a very time-consuming exercise, and Frank could not fit it in with his other commitments. Then Ron Murray and I tried to float a similar scheme, but basically the people that we approached were bought off with promises of an

'Official' Coaches' Association being set up by the BAAB/UK Coaching Office. Now this was discussed at many levels, and was given a lot of approval throughout the sport. But, presumably because of insufficient funding, it never actually came to be formed. It became fairly obvious to me that there was a stalling exercise on this from the administration. Many people could see the need for a federation or association of coaches but people within the BAAB did not want the formation of any such body in case their powerbase was challenged.

"Meantime, good people and coaches with sound ideas were still being excluded from the system because of petty jealousy or because they were outspoken. So, after much thought and planning, I decided to set up my own company to launch a Coaches' Advisory Service and invite all interested people to join. I set it up legally as a company and my fellow directors are a lawyer and a financial adviser."

Initially, Winch targeted only coaches looking after international athletes in his recruiting drive, but membership is open to anyone concerned with coaching.

"ICAS is a multi-sport company," continues Winch "and we have members coaching in American Football, Swimming, Weight Lifting and other sports besides Athletics. The Athletics Unit acts as a centre of communication for coaches, and we produce a magazine four times a year to try and get some sense of community among the athletics coaches. Many of them do feel isolated and excluded from the present official system.

"This is no criticism of the excellent magazine produced by the UK Coaching Committee, and edited by Julie Dennis, a tremendous worker and stalwart of the Coaching Scheme these days. But ATHLETICS COACH does not demand any communication: it just dispenses technical information to BAAB member coaches who subscribe. What we hope to achieve is a forum for discussion, and regular communication within the athletics coaching community. Our members write articles, initiating and inviting discussion. The magazine is there for the coaches to shape and use as they want. With the changes taking place in the sport I feel it's vital that coaches have a voice.

"The UK Coaching Scheme has bankrupted the BAAB, and of course those in administration are not going to look kindly on the continued spending of vast sums of money on coaching."

Winch was mystified by what he describes as "a totally hysterical reaction" to ICAS by the UK Coaching Committee. "If you consider that the UK Coaching Scheme has a budget of approximately four hundred thousand pounds, and my little company has a turn over perhaps twenty thousand per year, it becomes obvious that I'm not going to be any threat to them in any sense," he says.

"I was accused of being unethical at national level. People raised doubts about a conflict of interest, and stated that I shouldn't be involved in certain areas of the sport any longer as I was now director of a commercial company.

"In my view we need more, not less, professional

people in the sport who do have business acumen, and are organised and efficient. The mere fact that the BAAB went under financially demonstrates a lack of professionalism in the business of running our sport. Quite simply, athletics can no longer afford to be run in a purely amateur way, and I know a lot of people have come to agree with me on that.

"Obviously we have to have amateurs in clubs, county and area committees feeding information to the national association. That's vital to keep any sport alive and viable, but the major activities of athletics need to be run by professional people who are accountable because we pay them. Unfortunately, the UK Coaching Scheme has never really been accountable.

"I don't think this can continue any longer, particularly as all the other activities of the associations are becoming accountable.

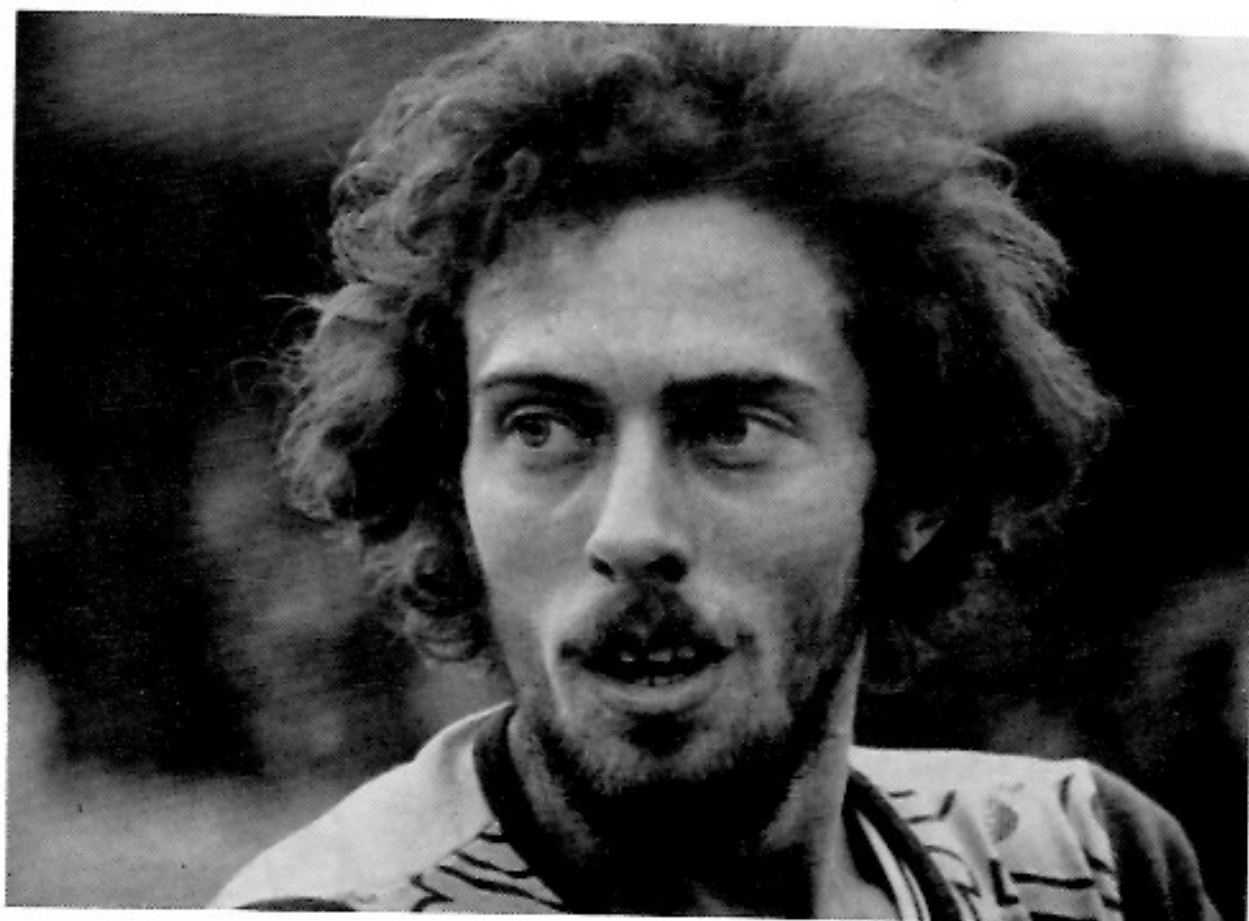
"In the South, for example, people have for years been voting for grants to the Southern Counties UK Coaching Committee without actually knowing just what the money is being spent on! Few realise that much of the funding for National schemes is actually

Southern Counties money - but the National body gets credit and praise for supplying services and equipment.

"Now the SCAA is no longer prepared to tolerate this, and the conflict in this area was a reflection of the SCAA saying 'We want to know what is happening to our money. Is it being spent wisely on the things that we require? If it is not, then let's have a look at what is needed, and discuss ways to achieve what we want.'

"I suspect Mike Smith's resignation had more to do with his desire to get away from paperwork and back to real coaching, than the formation of a special body to look after the coaching needs of Southern based internationals, as some publications speculated.

"Several other people also removed themselves from the system because as soon as they got involved as staff coaches, they were buried under mounds of paperwork. To me, the 'grass roots' of coaching is the coach-athlete relationship, and that is far more important than bits of paper. There will always be a place in any system for pragmatic, inspirational coaches like Mike Smith."



Back in 1976, A.W. was pocket-sized, things were simpler and STEVE OVETT was hairier.....
Peter Tempest photo.

BRITISH MILERS' CLUB M.D. QUIZ

Compiled by Frank Horwill.

MIDDLE DISTANCE QUIZ. From Frank Horwill.

Every coach and athlete should know the basics of nutrition. Here are a number of dietary questions which may affect performance.

- 1) What food provides the entire daily iron requirement (Vitamin A, riboflavin, 24mg Vitamin C, niacin, Vitamin B 12, folic acid, pantothenic acid and phosphorous)?
 - 2) Two substances are vital in the formation of red cells. What are they?
 - 3) Five parts of Vitamin C are required to absorb an important mineral involved in training. What is it?
 - 4) Carbohydrates are essential for providing energy. If 3 vitamins are lacking in the diet, full energy is not made available. What are the 3 vitamins?
- Physiologists, Matthews and Fox, have broken down running events into energy requirement systems which dictate the type of training that should be done. Here are some questions on those

systems.

- 5) What is the predominant energy system involved in the 100 and 200m?
- 6) What is the energy system involved in the 10,000m?
- 7) What is the energy system involved in the 800m?
- 8) What is the energy system involved in the 1500m/Mile?
- 9) What training distances are involved in question 5?
- 10) What is the main training distance involved in question 6?
- 11) Give examples of all the training distances involved in question 7.
- 12) Give examples of the training distances involved in question 8 together with the number of repetitions involved.
- 13) Who stated in 1835 that steady running was wasteful of effort and inefficient?
- 14) What coach introduced repetition running in sets, e.g. 3x 10 x 400m?

15) What coach believed that running over sand dunes and in the sea was more beneficial than track training?

16) Which coach stated that the formula of 10 weeks of 100 miles a week followed by six weeks of hill running was the basis of success in middle distance running?

17) Give the names of two great athletes coached by the man involved in question 13.

18) Give the names of two athletes who succeeded with the methods advocated in question 14.

19) Give the names of two athletes who trained as advocated in question 15.

20) How many gold medallists did the advocate in question 16 produce?

PAID YOUR
SUBS
YET?
£5.00 due
on Jan. 1st.

ANSWERS ON FOLLOWING PAGE.

BROTHERS IN ARMS.

In their heyday as international athletes, Birmingham's brothers Ian and Peter Stewart used to snipe at each other with air rifles to alleviate boredom between training sessions! Ian won European 5km in 1969 and Commonwealth 5km in 1974 plus Olympic bronze in 1972. Peter set a GB 1500m record in 1972.



Check your scores with FJH (No conferring).

1) Liver. This can be taken in tablet form eg. desiccated liver.

2) Vitamin B12 and folic acid. Both are found in liver. Handy amounts of B12 are found in eggs and a good supply of folic acid is also in liver and broccoli.

3) Iron is not well absorbed without Vitamin C.

4) Vitamins B1, B2 and Niacin (Thiamine, riboflavin and niacin), found in milk (riboflavin), yeast, peas, egg yolk and pork (thiamine) and liver, meat and fish (niacin).

5) 98% oxygen debt, 2% oxygen intake, sub divided into 98% ATP-PC and LA and 2% LA-O2.

6) 90% oxygen intake, 10% oxygen debt, sub divided into 80% O2, 15% LA-O2 and 5% ATP-PC and LA.

7) 66% oxygen debt, 34% oxygen-intake, sub divided 30% ATP-PC and LA, 65% LA-O2 and 5% O2.

8) 50% oxygen intake, 50% oxygen debt, sub divided into

20% ATP-PC and LA, 55% LA-O2 and 25% oxygen.

9) 98% 50 and 100m, 2% 200 and 400. Example: 5x10x50. Jog three times distance run, 4x4x200. Jog three times distance run.

10) 5% at 50 and 100m, 15% 600 and 800, 80% 1000 and 1200 and 30min to 1 hour runs. Example: 10x50; 5x600; 2x2x800; 3x1000 and 3x1200m.

11) 30% 50 and 100m, 65% 200,400 and 600m 5% 1000 and 1200m.

12) 20% 50 and 100m, 55% 600 and 800m 25% 1000 and 1200 and 30min to 1 hour runs.

13) Waldemar Gerschler. He believed that striding 100m 3 sec slower than your best time for the distance or striding 200m 6sec slower than your best time, followed by a pulse recovery of 120 bpm within 90 seconds (20 beats per 10 sec), was the quickest way of enlarging the heart and increasing the stroke volume. He based this on experiments with 3000 athletes.

Gerschler later introduced the distance of 600m to be run 18sec slower than the athlete's best for the distance, with the same recovery. All sessions stop when the pulse fails to drop to 120 bpm within 90 seconds.

14) Michel Igloi, a Hungarian coach who had a simple formula: jog half the distance run and double the distance run after sets, e.g. 4x10x400 with 200m jog after 400 and 400 jog after each set.

15) Percy Cerutti of Perth, Western Australia. Most of his runners visited him at weekends where they did morning runs on the beach, followed by repetition hill runs up the dunes and fall out running over a 2km circuit. About 40 miles was done in 48 hours, in six sessions.

16) Arthur Lydiard, a coach from New Zealand.

17) Rudolph Harbig, world record holder at 400 (1:46.0) and 800 (1:46.6) in 1939, Josef Bartel 1952 Olympic 1500m Champion, and Gordon Pirie

(SLH) who set World records at 3000 and 5000m and achieved 1956 Olympic 5000 silver medal.

18) Sandor Iharos, who set World records at 1500 (equal) 3000, 5000 and 10,000m in the 1950's. Also Istvan Kozssovits, 1500 WR in 1956, and Jim Beatty, World indoor mile best in 1962.

19) Herb Elliott, 1960 Olympic 1500 Champion, who twice broke World 1500m record and ran WR mile in 1958. John Landy, World mile record in 1954.

20) Two: Peter Snell, Olympic 800 Champion in 1960 and 1964 and Olympic 1500 winner in 1964. Set World records at 800m, 880y and Mile. Murray Halberg, Olympic 5000m Champion in 1966.

Compiled by Frank Herwill.

If you managed to get all 20 questions correct, go to the top of the class : You are qualified to become a EMC MASTER COACH!
 A score of 15 to 15 rates as Very Good.
 A score of between 10 to 15 rates as Good. If you scored below 10, you should perhaps sweat up a bit more on middle distance coaching history and physiology. We are all continually learning in this game.

Expect the best, and get it.

Positive thought brings results, Says Bill ('Andy') Anderson:

Many people, athletes and non-athletes, are 'hold outs'. That is to say, they are always keeping something in reserve.

They do not invest themselves 100 per cent in competition, and because of this fact, they never achieve their ultimate potential.

DON'T BE A HOLD OUT. GO ALL OUT. DO THIS, AND LIFE WILL NOT HOLD OUT ON YOU.

A coach was once instructing his athletes on how to train and race. Finally, he told them to get out on the track and demonstrate their abilities. They all set off together, but halfway around the circuit, one athlete stopped dead, then walked slowly back to the coach.

"I can't do it. I can't do it!" he gasped. The coach's answer was one of the wisest remarks ever heard, and one that I feel is of great importance.

He said: "Throw your heart into what you are doing, and the rest of your body will follow".

Copy that sentence. Write it on a card and put it in your pocket. Tack it on a wall at home. Better still, write it in your mind; those of you who REALLY want to do something in this life.

It is packed with POWER, that sentence: "Throw your heart into what you are doing, and the rest of your body will follow."

The heart is the symbol of creative activity. Line the heart up with where you want to go, and what you want to be. Get it fixed so deeply into your subconscious that you will never take 'No' for an answer.

Your entire personality will follow where your heart leads. "Throw your heart into what you are doing", means to throw faith over your difficulty; throw your

affirmation over every barrier; throw your visualisation over obstacles in your way. Expect the best, not the worst, and you will attain your heart's desire.

EMERSON said, "Beware of what you want, for you will get it." LEARN TO EXPECT, NOT TO DOUBT.

In doing so, you bring everything into the realm of possibility.

This does not mean that by believing, you are necessarily going to get everything you want, or think you want. Perhaps that would not be good for you. But it does definitely mean that when you learn to believe, that which has seemingly been impossible, moves into the area of the possible.

Every great thing at last, because of you, becomes a possibility. When you expect the best, you release a magnetic force in your mind, which by law of attraction tends to bring the best to you.

Expect the worst, however, and you release from your mind the power of repulsion, which tends to force the best from you.

I might add that a high percentage can be raised with practice. And, of course, practice in the art of expectations is as essential as practice on a musical instrument or with a Golf club.

Nobody ever mastered any skill except through intensive, persistent and intelligent practice.

Every day as you confront the problems of life, I suggest that you affirm as follows: "I believe and in so doing, it gives me power to attain what I really want."

Never mention the worst. Never think of it. GRIP it

out of your consciousness.

In doing so, your thoughts will turn toward the best and become conditioned to its realisation.

This practice will bring all your powers to focus upon the attainment of the best.

It will bring the best to you.

(Anderson).

References: Norman Vincent Peale.

BMC clothing & equipment from:
Bill Anderson, 75 Chichester Road,
North End, Portsmouth, Hants.

Typos/Corrections,

In Issue No. 41 (Autumn, 1987) a few howlers crept in:

On Page 14, FOLIC acid became Frolic acid. No frolics, please we're acid, as they say.

On Page 20, the 5000m mark of 14:17.4 by Jonathan Dennis was a new UK age SIXTEEN best, not a an age 17 mark. Dennis was born on 25.6.1970 and he set the new mark at the Surrey Championships in May at Tooting Bec.

BMC EQUIPMENT

Ties with BMC logo	£4.00
BMC vests	£4.99
Sweat shirts (XL size only)	£7.50
T shirts (small size only)	£5.00

Look out for new BMC blazer badge, due out this summer.

STATS.

4:10.10	Cherry Hanson	1981.
4:10.21	Katherine Carter	1982.
4:10.7	Joan Allison	1974.
4:10.76	Ruth Smeeth (Partridge)	1984.

UK WOMENS' ALL TIME LISTS.

800 METRES.

1:57.42	Kirsty McDermott (Wade)	1985.
1:58.98	Shireen Bailey	1987.
1:59.05	Christina Boxer (Cahill)	1979.
1:59.30	Diane Edwards	1987.
1:59.67	Lorraine Baker	1986.
2:00.15	Rosemary Stirling (Wright)	1972.
2:00.20	Anne Clarkson (Purvis)	1982.
2:00.30	Cherry Hanson	1981.
2:00.6	Jane Colebrook (Finch)	1977.
2:00.80	Yvonne Murray	1987.
2:01.1	Ann Packer (Brightwell)	1964.
2:01.11	Lynne MacDougall	1984.
2:01.2	Joan Allison	1973.
2:01.2	Christine McMeekin (Whittingham)	1978.
2:01.24	Christine Benning	1979.
2:01.35	Elizabeth Barnes (Laban)	1976.
2:01.36	Gillian Dainty	1983.
2:01.48	Lesley Kiernan (Foley)	1977.
2:01.50	Lillian Board	1969.
2:01.65	Teena Colebrook	1984.

1500 METRES.

3:59.96	Zola Budd	1985.
4:00.97	Christina Cahill	1984.
4:00.73	Kirsty Wade	1987.
4:01.20	Yvonne Murray	1987.
4:01.38	Elizabeth Lynch (McCoglan)	1987.
4:01.53	Christine Benning	1979.
4:04.14	Wendy Smith (Sly)	1983.
4:04.81	Sheila Carey	1972.
4:05.32	Shireen Bailey	1987.
4:05.96	Lynne MacDougall	1984.
4:06.0	Mary Stewart (Cotton)	1976.
4:06.24	Christine Whittingham	1980.
4:07.11	Janet Marlow	1982.
4:07.90	Gillian Dainty	1984.
4:09.37	Joyce Smith	1972.
4:09.5	Penny Yule (Forse)	1980.

Lists compiled by David Cocksedge.

1987 WEST COUNTRY RACES.

Organised by Mike Down.

Red Star Mile, Bristol, June 6th.

1.	Malcolm Edwards	4:04.0.
2.	Tom Buckner	4:06.3.
3.	Simon Muggleston	4:07.2.
4.	Mike Quinn	4:10.0.
5.	Darren Mead	4:10.5.
6.	Mark Benson	4:10.8.

3000 metres at Swindon, June 11th.

1.	George Neely	8:09.8.
2.	Clive Tulloh	8:10.4.
3.	George Crowther	8:11.6.
4.	Lee Wooldridge	8:12.8.
5.	Jonathan Dennis	8:13.8.
6.	Bill Buxton	8:14.9.

Denner Mile, Yeovil, August 31st.

1.	Mark Olesen (Can)	4:03.2.
2.	Chris Buckley	4:04.1.
3.	Mark Scruton	4:05.4.
4.	Nick Rose	4:07.8.
5.	S.Overton	4:08.9.
6.	David Lake	4:09.3.

(Field disqualified for 'pacing' by Track Referee Paul Gregory).

Evening Advertiser Mile, Swindon, Sept. 6th.

1.	Craig Mochrie	4:03.7.
2.	Mark Olesen	4:07.6.
3.	Neil Horsfield	4:11.4.

Invitation Mile, Bristol, Sept. 16th.

1.	Simon Muggleston	4:00.6.
2.	Alastair Currie	4:01.1.
3.	Mark Olesen	4:01.5.
4.	Deon McNeill	4:02.4.
5.	Geoff Wightman	4:04.0.
6.	Steve Martin	4:05.2.
7.	George Neely	4:05.3.
8.	J. Atkinson (USA)	4:05.6.

Womens' Mile:

1.	Melissa Watson	4:46.3.
2.	C. Forbes	5:00.0.
3.	S. Daniels	5:01.1.

Boys' Mile:

1.	Richard Hadley	4:29.4.
2.	D. Johnstone	4:31.5.
3.	P. Orchard	4:37.3.

FRANK VIEWS FROM HORWILL

BMC Founder Frank Horwill on 'The Right Path.....'

22

"WHAT WE ASK RUNNERS TO DO IS REALLY QUITE SIMPLE."

So said National Coach Harry Wilson to me when we were having a drink together some years ago. I have to agree with him. There is no complicated formula required in the pursuit of running excellence - just a relentless pursuit of the right path.

"What is the right path?" I hear you ask.

I can think of twelve basic MUSTS. These are:

1) TRAIN REGULARLY. That means fitting regular training in with your life. Some make the supreme sacrifice and make life fit in with their running. These dedicated few don't work. They live 'on the dole' so that they can train twice a day without any other ties. Such people are courageous to the extreme. If a group of such zealots can get together and share a flat, their lot is perhaps made easier.

If you can't make that choice, ask yourself whether your body can stand getting up at six in the morning for a 30 minute run before going to work and whether you can face an hour run again later in the day after eight hours of work.

Some thrive on it, others crumble. Decide what you can do and stick to it.

If it is once a day; so be it. If it is every other day - then stick to that. Plenty of fine athletes trained only every other day. One was Rudolph Harbig, who set futuristic World records at 400 and 800 metres in 1939 (46.0 and 1:46.6).

2) TRAIN PROGRESSIVELY. He who trains the same, remains the same. If a man or woman can run 10 miles every day with ease in 60 or 70 minutes; it is time to have a go at 55 and 65 minutes.

If an athlete can run 8 x 400 in 70sec with a minute rest, he can either reduce the rest in stages to 30 sec., or make the intervals 60sec each. When he gets to 30sec recovery, he can then go back to 8 x 400 in 60sec with a minute's rest and repeat the process.

The anaerobic training of today will become the aerobic training of tomorrow IF YOU PERSIST.

3) TRAIN CORRECTLY. Some athletes think too much. I conduct a correspondence course in training for £52 per year. Every pupil has to do a series of self-tests which enable me to assess their current strengths and weaknesses. It takes two days to get through the tests. One correspondent wrote to me to state that there would be a delay because his bio-rhythms showed that he was at a low ebb!

I ask you! Now we have it all - training by astrology! In fact, recent investigation of bio-rhythms reveal that it is a pseudo-science without any real validity.

Even if it does have some basis of fact, what do you do if the bio chart indicates that you are at a low phase when you have an important final to run - do you opt out, and ask for the race to be held on another day that suits your chart? What utter rubbish!

Get on with it, and stop making stupid excuses.

The last census on current training for middle distance produced these figures:

a) A third of all training is track repetitions.

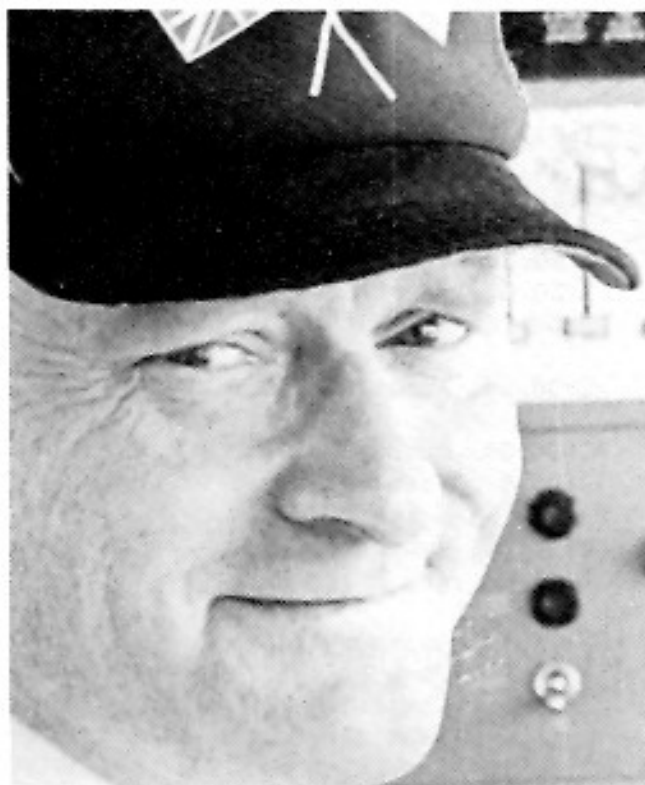
b) Ten per cent (10%) of all running is Fartlek.

c) Seven per cent (7%) is hill running.

Stick to those, and you won't go far wrong.

Remember that this is an average, obviously some athletes still do more or less steady running, track work, Fartlek and hill running. But the basis is there.

With regard to track work - train at race pace, faster than



Cocksedge Photo.

race pace and slower than race pace. The recovery times will alter with the pace.

To use the same rest for fast work as well as slow pace work is idiotic.

Where is the logic in doing 3 x 500m in 75 sec average with 1 minute recovery, and then doing 3 x 500 in 80sec with the same rest period? Some athletes do this and wonder why they don't improve.....

4) LEARN YOUR CRAFT. If a man wants to be an accountant he gets a text book on accountancy. If an athlete wants to understand his running, he can do no better than purchase the official handbook written for the BAAB on middle distance running.

I once gave a lecture to a Buckinghamshire club, and asked the audience of mainly runners how many had read the latest text book - one hand went up out of thirty....

The official BAAB handbooks on each event group should be in the holdalls of every athlete, male and female.

These books are not written by idiots. The authors are carefully chosen and they stick to the basic facts in giving advice.

Read a book written by an athlete who specialises in your event. Such athletes start the same as everyone else. They don't drop from the sky as ready-made Champions. They work hard over years to make themselves great. It is intriguing to read how they think, how they race, and to whom they ask advice.

One of my athletes borrowed THE JIM RYAN STORY from my personal library. He later asked me if he could keep it for an indefinite period because he found it the most inspiring book on running he had ever read. His name is Tim Hutchings.

You, too, may be inspired by such a book.

Part of the learning process is getting other material on running. One of the best is *TRACK TECHNIQUE ANNUAL* edited by Fred Milt in the USA, and published by *TRACK AND FIELD NEWS*, the authoritative American monthly magazine. Coaches from all over the World write in TIA, and again, they are carefully selected to give practical help.

You learn from a coach. Most coaches have themselves been runners for many years, and have been through it all. Often they made mistakes as athletes, and warn you not to repeat them. A good coach is invaluable - he or she shares your burden.

5) **RACE INTELLIGENTLY.** "Commonsense is not so common", said Voltaire.

Just imagine a Cambridge student studying for his Masters' Degree racing TWELVE 5000m races in a row without any other races in between! This young man wrote to me, stating that when he raced a mile he didn't do very well, and his 5000m times had gone to pot.

Race over and under your specialist distance for speed and endurance, as well as your specialist event.

You might be an 800m runner who dislikes the 1500 because you aren't very good at it. You certainly won't get better at it by avoiding it. Race the distance you don't like and you strengthen your WILL. As your will is improved, so is your athletic performance.

If you want to peak for a 5000m race in July, there is no point in rattling off six 5000m races beforehand. Three are enough: one to get rid of the 'cobwebs', one to get the feel of the race, and one to start aiming high.

6) **STRENGTHEN YOURSELF.** From muscular tests on athletes over the years we have come to realise that there is a basic minimum requirement for success. Running alone does not necessarily mean that an athlete has strong legs. One of the weakest athletes I ever knew in terms of leg strength sometimes ran 200 miles a week in his heyday. For a while he couldn't be beaten, then a pack of class athletes latched onto him in the European Championship 10,000m, and blew him away on the last lap. The winner covered that last 400m in 53.9sec, and some time later I saw that same man (Gastaine) in my flat give a display of one-legged squats that was unbelievable. The lesson is simple: No leg strength, no sprint.

It is a fallacy that hours have to be spent in a weight-training room to acquire strength. A single leg strength exercise performed every time you warm up for a track session will bring results.

One day hopping, next day bunny squats, next day two-legged jumps over hurdles. All these will add currency to your bank of strength.

7) **EAT PROPERLY.** Prokop has listed the vitamin requirements for the runner. He also stated that synthetic vitamins do not always provide the essential ingredients found in natural sources. For instance: Vitamin C tablets lack Vitamin P, whilst orange juice includes it. This vitamin provides valuable citric acid which is used in the utilisation of oxygen.

What in essence he was saying was that five cups of fruit and vegetables each day will provide most of the vitamins we need. Iron, which is found in the haemoglobin of blood, conveys oxygen around the body. No iron, no oxygen.

Iron is found mainly in meat such as liver and beef. Some green vegetables and salads contain iron in small amounts. Raisins contain some also.

Vegetarians beware: You have the highest incidence of anaemia in the running fraternity. Small frequent meals yield a higher energy output than large infrequent ones.

Breakfast is also an important meal. The athlete who often

skips this will pay for it later.

8) **SLEEP WELL.** An athlete who does not sleep well is a stressed athlete. Remove the stress and sleep will return. This might be a reduction in training or work or the removal of an emotional problem. It is said to be an old wives tale that 'an hour before midnight is worth two hours after.' Those who don't practice it know that it is no tale but a reality. Eight hours of sleep is fair recompense for being awake for sixteen hours.

9) **CONTROL YOUR EMOTIONS.** So you are injured, or you have had a bad race. So what? The life of a runner is anything from eight to sixteen years. What is a few weeks off running in that time span, and how many more races are left for you to do? Probably a couple of hundred.

A few weeks off can often be a blessing in disguise: in that time you might increase your upper body strength and abdominals. If you can swim your heart will be well exercised: a mile of swimming is worth 4 miles of running and 4 miles of cycling is worth a mile of running (Cooper and Costill).

Don't just paddle up and down: do a length flat out, then a length slow, and when you get bored start swimming underwater until your lungs give out. Take a length's rest and repeat.

So you ran like an idiot; your parents are disgusted and your coach is despondent. There isn't an athlete living who hasn't had a bad day: Coe, Overt, Cram, Moorcroft, Scott, Bile, Wade, Slaney and many others have all had to face the indignity of such occasions. But remember that their fate is witnessed by millions on television, whilst your catastrophe may be watched by a handful of people. And, perhaps more importantly, you won't have to relive the whole misery of it again as you read the scribbings of delinquent sports writers in the National Press.

10) **BE PATIENT.** As already stated, the life of a runner can span a decade or more. Progress from 14 to 18 is often meteoric. This is because some adolescents develop strength and height faster than others. Then things slow down. Some do not take kindly to this stagnation period, especially if they have broken age group records in earlier years. Once record setters, they are now suddenly ordinary runners in the pack. It's hard to take. Many give up.

One man studied the facts. He took over from the great Bill Bowerman at Oregon University, a middle distance 'mecca' in the USA. Batchelor painstakingly plotted graphs of all the runners in his care over the years. He found that, on average, athletes do not improve every year, but every TWO years. A man might run a fast 1500m one year and think that logically he will go faster the following year. No so. Some do, but the average does not substantiate this ideal.

I have coached several sub four men, and their progress followed Batchelor's findings almost to the year. One thing is curious: if someone improves his/her 1500 time by 3 seconds from 18 onwards and then suddenly stagnates; when he/she does improve he or she takes the lost year and often the improvement is 8 seconds all in one go.

So, take heart, you may be due for that big break. Be patient and stick it out; you have years of running left.

11) **STRENGTHEN YOUR WILL.** This has been touched on previously. We all possess will-power in degrees. Each time we get up in the morning for school or work, we exercise the will, but it is the will of compulsion. It is the voluntary exercise of will to do the things we don't like that makes us tougher athletes and better performers.

If a runner is puny and avoids the weights room because he/she feels ridiculously out of place, that athlete is exercising a lack of will. Similarly if you don't like doing reps more than half the distance of the race because they



Maxine Newman (4:33.3) wins
1987 English Schools Inter 1500
from Julie Adkin (4:33.4)



Kevin McKay (3:51.8) wins 1987
ESAA 1500m by inches from Jason
Lobo (3:51.8) at Birmingham.
Gokhsedge photos.

are hard, they won't get easier if they are avoided. A 5000m runner may not like racing 800's, especially if he is of some standing at the former distance: he might look cumbersome in the shorter race; but to race it, to eat humble pie and risk getting beaten by quicker sprinters, is the hallmark of a Champion. He or she knows that it is not appearances that matter but the doing and conquering. Select an activity you don't like, and do it once a week for a month. After that, move it up to twice a week for a month, and so on. One athlete I know was no good at Press Ups; but he started one morning before breakfast and did one. The next morning, he managed two, and the next day three. By day 133, he was able to perform the same number of Press Ups. Exercise your WILL as you would exercise a muscle - you won't be disappointed.

12) THINK POSITIVELY. Bruce Tulloh recounted how, after winning the 1962 European 5000m title, he had warned up repeating a litany to himself: "Who is going to win? Bruce is going to win!" This is the power of positive thinking. Of course Tulloh had many miles of training behind him to give

him this confidence. But, whilst many athletes are fit to race PHYSICALLY, they fill their minds with doubt as race time approaches. Some athletes will never lead in a race, even though the pace may be well below the time schedule they have set.

If you aim to run 64sec a lap in a 5000m race (13:20.0 pace), and suddenly find that you are leading, what's the difference if you lead at that pace, or others lead? To shun the lead because you may feel vulnerable is negative thinking.

I once heard a young woman exclaim as she was stripping for a race, "Oh God!..... is racing! I won't win today! She's really good!" It didn't occur to this athlete that her rival may have had a sleepless night or missed training recently. The neurotic athlete was beaten before the start.

Positive thinking starts with the complete eradication of the words "I can't", and the substitution of the phrase "I will try my utmost in every race", in their place.

It really is quite simple what we ask runners to do, don't you think?

JUSTICE TO BILE.

Miling maestro Steve Cran left the World Championships in Rome with a bad taste of Bile in his mouth.

Many Britons were as stunned and dazed as he looked on September 8th as he trailed home 8th in the 1500m final, giving up completely on the last curve when Abdi Bile and Jose Gonzalez rushed past. The British Press corps was no exception. Post Mortems followed aplenty. Most of the tabloid coverage was along the lines of 'How Steve Lost' rather than anything about this amazing Somali runner.

One monthly athletics magazine didn't even mention anyone else in the race, let alone the medallists! The consensus was that Cran had to be ill to lose so badly. That's not my view. I think Steve Cran was blown apart mentally by Bile. True, Cran's poor 800m form indicated that all was not well with him this year; but he ran 3:31.43 in Zurich in August, blasting Gonzalez off the track. The Spaniard had beaten Cran with a 43.9sec last lap to win the Europa Cup in June, don't forget.

Before the Rome final, Cran was relaxed, confident and calm, saying he was prepared to run the last 800m in 1:48 to win if necessary. Well, Abdi Bile was even more ready. And I think Cran underestimated him. The Somali is a super talent; destined to be one of the World's Greats in my view.

Here are the splits I took for him in Rome: After virtually jogging the first 500m in 79.4 and 700m in 1:50.6, he followed the pace of Joseph Chesire and Cran before bursting in front with just under 200 left, covering his last kilometre in 2:17.4, 800m in 1:48.2, 600m in 1:19.7, 400m in 51.6 and final 200 in 25.2! That's phenomenal. No one has ever run the last 2 1/2 laps of a 1500m that fast before. Many Britons, fed on 1500m triumphs now for ten years, were reluctant to accept that the glory days are over. Believe it. Bile is here to stay.

The entry sheets in Rome gave him a birthdate sometime in 1965, but American sources say he is probably nearer 24 years old. Like most Africans, he answers to no calendar. Bile has been studying at George Mason College in Fairfax, Virginia since 1985, is the NCAA 1500m Champion and has run 800metres in 1:44.47 this year. His best 1500 is currently 3:31.71. He keeps a marvellously relaxed stride going, and never seems to tie up, even when obviously under stress from a hard pace, as he showed in Zurich and Brussels before and after the Championships. Cran's extraordinary breakdown has, I suspect, more to do with his somewhat neurotic "winning is everything" approach to racing than any physical mishap - though he has had

kidney recurring trouble. A post Rome medical check-up revealed nothing. Steve Cran now prepares for Seoul with his confidence seriously dented. He was aware previously of Bile's talent, refusing to allow him into the 1500m field in Zurich on August 19th (Bile had to race Gladwin in the mile, winning narrowly in 3:50.75).

Cran must ponder on his best tactic to beat this amazing African. I don't think he's going to make it. A healthy, fully fit Abdi Bile will not be beaten in the 1500m in Seoul. Well, you surely didn't expect British successes at 1500m to go on forever, did you? We've had a great run. Let's be grateful for it. And let's salute the new King. **ABDI BILE**, the man from little Somalia who ended Britain's ten year reign.

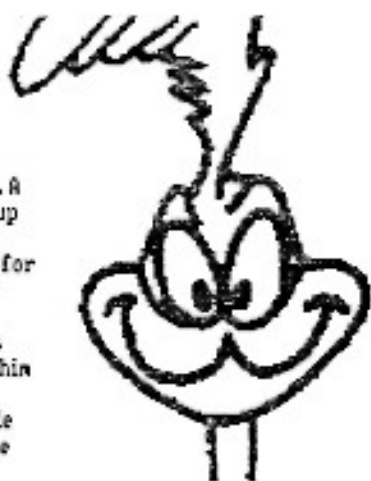
THE GASSER CASE.

Switzerland's Sandra Gasser was stripped of her World Champs. bronze medal when she dope tested positive in Rome. Gasser protested and may have a case: seems her first sample revealed methyltestosterone whilst a confirmation test isolated a different substance. The Swiss Federation then served an injunction on the IAAF. Can you imagine the BAAB doing the same for a British athlete in similar circumstances?

Another remarkable aspect of the drug testing in Rome is that the entire World Championships (161 nations) came up with just ONE positive test! Dr. Robert Voy of the USOC has stated: "To my mind, one positive test for the whole Championships is unbelievable. It's impossible to perceive that would be the case."

CARL LEWIS stated in Rome: "I could run 9.8 or faster in the 100 if I could jump into drugs right away."

To which discus man JOHN POWELL observed: "If I wanted something tested, I'd go to Carl. Sherlock Lewis, isn't that what they call him? I'm sure Carl has been down in the laboratory testing samples....."



**ROME
1987.**



"No need to test Stanley.
He IS a Dope....."

HOW SOVIET WOMEN ATHLETES TRAIN

By Frank Horwill.

26

The following information on the training of Soviet female middle and long distance runners has been obtained from papers presented by Russian coaches attending international coaching conferences and direct translations of articles by coaches in the USSR.

Twelve generalisations can be made:

1) Whereas top British women runners train just as hard as the top Soviet women, ALL Soviet female runners train on average twice as hard as their British counterparts. This means that the Russians have great strength in depth.

In the top 20 world rankings for 1986, Soviet women had 8 athletes in the 800 and 1500, 6 in the 3000, 3 in the top 10 for 5000 and 7 in the 10,000. No Soviet women were ranked in the Marathon, (the best being rated 26th), but in the World Championships in Rome they finished second, fifth and sixth in that event!

British women in 1986 were ranked as follows: 800 - None, 1500 - 1, 3000 - 3, 5000 - None, 10,000 - 2, Marathon - 4.

2) Great emphasis is put on general all round muscular strength and special attention is given to the importance of leg strength.

When the BMC published findings ten years ago that there was a relationship between leg strength and fast 800/1500 times, an official of the UK Coaching Committee dismissed our conclusions as being "too sweeping!"

Once again, however, the BMC has proved itself in the forefront on training theory and ideas. We repeat: ANY female with ambitions to run sub 1:56 and sub 3:58 MUST be able to achieve the following leg strength requirements: Hop 25m in 10 hops or less on EACH leg. Do a standing broad jump equal to one's height plus a quarter (25%). Do a sargent jump in excess of 20 inches.

If you cannot do the above, then join the ranks of the 159/405 brigade who are now littering the events, unless you attempt to rectify the situation as Soviet women do.

One hundred jumps a week are done in September, building up to 250 a week in November. A 'jump' is described as power hops up to 30m, endurance hops up to 100m, single and double leg hops over hurdles, depth jumping on and off boxes 2ft (60cm) high, building up to 3ft (92cm) high.

Those who find that jumping affects their knees are put onto isometric exercises where a maximum effort is held for 10 seconds. For example: lie face down, attempt to curl your legs into your buttocks while your partner applies pressure in the opposite direction. Lie back with one leg raised to 45deg straight. The lifted leg pushes DOWN while the static leg lifts UP. Pressure is applied by a partner to prevent movement.

In the same starting position; knee bent, partner holds foot, then knee is then pulled up towards the chest while partner pulls down. If a maximum effort is held for 10 seconds once a day, there are enormous gains in leg strength.

3) All Class 1 women runners go to altitude three times a year for a maximum of three weeks and a maximum of one month in September, January and

April.

Altitude training increases the haemoglobin level by 2g per 100 millilitres of blood, and also the blood volume by 2 million red cells per cc. The first visit is to prepare for a tough winter's training, the second to get the athlete to peak condition for the European Indoor Championships, and the third (April) to coincide with the start of the track season. This latter period is delayed if there is a major international meeting at the end of the summer. Soviet athletes come down from altitude (2000m) FIFTEEN days before competition.

4) Indoor competition is deemed more important than cross country in the USSR, no doubt due to the heavy snows from November onwards over much of the Soviet land mass.

5) Great importance is placed on hill training and resistance running, which is scheduled every other day in that order through November and December. This would be: Day 1 - hill training; Day 3 - resistance running, either in sand or with 5lb weighted belt.

Hill running is achieved in two ways: non stop running up and down a 1 in 15 hill, and 150m strides fast uphill with jog back x 10, building up progressively to x 20.

6) Changing pace. During November repetitions, a signal is given to the athlete who must immediately increase speed for 80 metres. This is done at the beginning of the set of reps and then again towards the end, when the athlete is tiring.

7) During January, athletes begin to get accustomed to race pace for indoor competition. This is done first at 200m. For example, a woman with a best 1500 of 4:00.0 would run 200m in 31sec each, and when this was achieved easily her next sessions would be at 300m. This is increased weekly, STILL AT RACE PACE.

8) Six days before all major events, training is greatly reduced. Before all major competition, the athletes race two or three times in minor meetings for the purpose of experimenting with tactics. Here they work on fast starts, mid race surges and fast finishes.

9) After indoor competition, there is a big build up of mileage, which has to be run faster than in November and December.

10) All Class 1 Soviet athletes are comprehensively medically examined before and after the summer track season. They are also given monthly fitness tests which include aerobic ability, speed testing, flexibility test, muscle endurance tests, height/weight ratio, power/weight ratio. Any weakness or lowering of all round condition is attended to.

The BMC introduced fitness tests in October and April three years ago, which resulted in one former international 10,000 runner criticising our methods. He stated that the only way to assess a predicted oxygen uptake test was on a bicycle in a laboratory.

Bruno Balke has other ideas, as does Dr. Sheenan (of RUNNER'S WORLD). They found a correlation between the 15 minute run advocated by Balke and the treadmill lab. test.

Basically, if you can run 5000m in 15 minutes you have a predicted oxygen uptake of 67mls/per kg/per

Soviet womens' track record 27 - 35 medals, 1 Boycott!!

Key: EC - European Champs; OG - Olympic Games; WC - World Champs.

1972 Munich (OG) 800: 2, Sabaito 1:58.7. 1500: 1, Bragina 4:01.38 (WR); 7, Pangelova 4:06.5.

1974 Rome (EC) 800: 5, Gerasimova 2:00.1; 6, Morgunova 2:00.6. 1500: 4, Kazankina 4:05.9; 5, Pangelova 4:08.9. 3000: 2, Bragina 8:56.2; 8, Pangelova 9:10.6.

1976 Montreal (OG) 800: 1, Kazankina 1:54.94 (WR). 1500: 1, Kazankina 4:05.5; 5, Bragina 4:07.2.

1978 Prague (EC) 800: 1, Providochina 1:55.8; 2, Musta 1:55.8; 3, Rigel 1:56.6. 1500: 1, Romanova 3:59.0; 4, Illiginch 4:00.2; 10, Kalanichkaya 4:06.6. 3000: 1, Ulmasova 8:33.2; 5, Romanova 8:45.7; 7, Belousova 8:48.7.

1980 Moscow (OG) 800: 1, Olizarenko 1:53.42 (WR), 2, Mineyeva 1:54.9; 3, Providochina 1:55.5. 1500: 1, Kazankina 3:56.56; 3, Olizarenko 3:59.6; 6, Smolka 4:01.3.

1982 Athens (EC) 800: 1, Mineyeva 1:55.41; 2, Veselkova 1:55.96. 1500: 1, Dvirna 3:57.80; 2, Zaitseva 3:58.82; 6, Sorokina 4:01.22. 3000: 1, Ulmasova 8:30.28; 3, Sipatova 8:34.06; 4, Pozdnyakova 8:38.98.

1983 Helsinki (WC) 800: 2, Gurina 1:56.11; 3, Podkopayeva 1:57.58. 1500: 2, Zaitseva 4:01.19; 3, Podkopayeva 4:02.25; 4, Agletdinova 4:02.67. 3000: 3, Kazankina 8:35.13; 4, Ulmasova 8:35.55; 8, Artynova 8:47.98.

1984 Los Angeles (OG) **BOYCOTT.**

1986 Stuttgart (EC) 800: 1, Olizarenko 1:57.15; 3, Gurina 1:57.73; 7, Kiryukhina 1:59.67. 1500: 1, Agletdinova 4:01.19; 2, Samolenko 4:02.36; 6, Kitova 4:04.74. 3000: 1, Bondarenko 8:33.95; 5, Samolenko 8:40.35; 6, Zhupigeva 8:40.74. 10,000: 2, Bondarenko 30:57.21; 5, Guskova 31:42.43; 6, Zhupigeva 31:42.99.

1987 Rome (WC) 800: 3, Gurina 1:55.56; 7, Olizarenko 2:00.28. 1500: 1, Samolenko 3:58.56; 10, Kitova 4:04.66; 14, Yachmeneva 4:10.51. 3000: 1, Samolenko 8:38.73; 5, Romanova 8:41.33. 10,000: 2, Zhupigeva 31:09.40; 4, Bondarenko 31:18.38.

Soviet womens' training methods, continued:

minute. This is top world class for women, and good club standard for men. If you can run only 4000m in the 15 minutes, however, you have a physiology reading of 54mls/kg/min, which is POOR.

11) The Soviet National Coach for Women, Suslov, has stated that all women MUST train through all stages of the menstrual cycle. The only concession granted is a reduction in the quantity if menstruation pains are severe.

12) The mileage pattern for women follows a set cycle, and there are no exceptions to this pattern. The only variations are the type of track sessions specific to each event (800, 1500, 3000, 10,000).

September - 25 miles per week; October - 50 mpw; November - 60 mpw; December - 80 mpw; January - 90 mpw; February - 55 mpw; March - 70 mpw; April - 90 mpw; May - 60 mpw; June - 65 mpw; July - 40 mpw; August - 60 mpw.

Quote from MAX JONES, National Throws Coach, at the 1987 BMC Weekend: "Our Junior women middle distance runners looked very fragile standing alongside the Russian Junior Women" (at European Junior Championships).

WOMENS UK AND SOVIET RECORDS COMPARED.

Event	USSR	UK
100	10.98	11.10
200	22.19	22.10
400	48.27	49.43
800	1:53.43	1:57.42
1500	3:52.47	3:59.96
3000	8:22.82	8:28.83
5km	14:54.08	14:48.07
10km	30:57.21	31:19.82
100H	12.39	12.87
400H	52.94	56.04

Only the UK records at 200, 5000 and Javelin are superior to those of the USSR in the Womens events.

MINOLTA COACHING AWARDS.

Remember the Minolta sponsored Coaching Awards?

The BMC applied for one of these generous grants three years ago. In September 1985, we sent off a detailed document to the UK Coaching Office, outlining our programme of Young Athletes Courses, educational seminars and dissemination of coaching literature. After several months of complete silence whilst Minolta Awards were freely dispensed, we made a polite enquiry to the UK Coaching Office. They stated that they had not received our application.

Another document was duly compiled and dispatched. Again nothing. No acknowledgement or reply. Meantime many other clubs were awarded generous cash grants for coaching.

Then Minolta reluctantly withdrew its sponsorship in 1987 and the scheme was folded by the UK Coaching Office.

Kind of gives you the impression that they really didn't want to know about us, doesn't it?

YOUNGEST DAD?

Back in 1962, Mitcham AC's STEVE BADGERY set a UK age 14 mile best of 428.4. Steve had another claim to fame: he won the Surrey Boys CC title that year, and we think he was the only father ever to run in the Under-15 age group in the UK....

Badgery, who reached Veteran status last May and now competes for Hercules Highbledon AC, also became a grandfather at the tender age of 36 in 1983....

SUSTAINED SPEED.

When he set a World 1500m record of 3:33.1 in Los Angeles on July 8th, 1967, JIM RYUN (USA) covered the last 1200m (3 laps) in 2:45.7! Now THAT is a long kick for home....

MOST COMPLETE RUNNER?

Frank Horwill says that title now belongs to SAID ADUITA. Check his personal bests - 46.9 (400), 1:44.38 (800), 3:29.46 (1500), 3:46.76 (mile), 4:50.81 (2000) 7:32.23 (3000), 12:58.39 (5000), 27:26.11 (10,000), 8:21.92 (3000SC). Quite a range, what?

Omitted from UK Womens' All Time 800m list (page 21):
2:01.40 Janet Bell (Prictoe) 1987.



Cocksedge photo.

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