BMC NEWS

Official Journal of the
British Milers' Club

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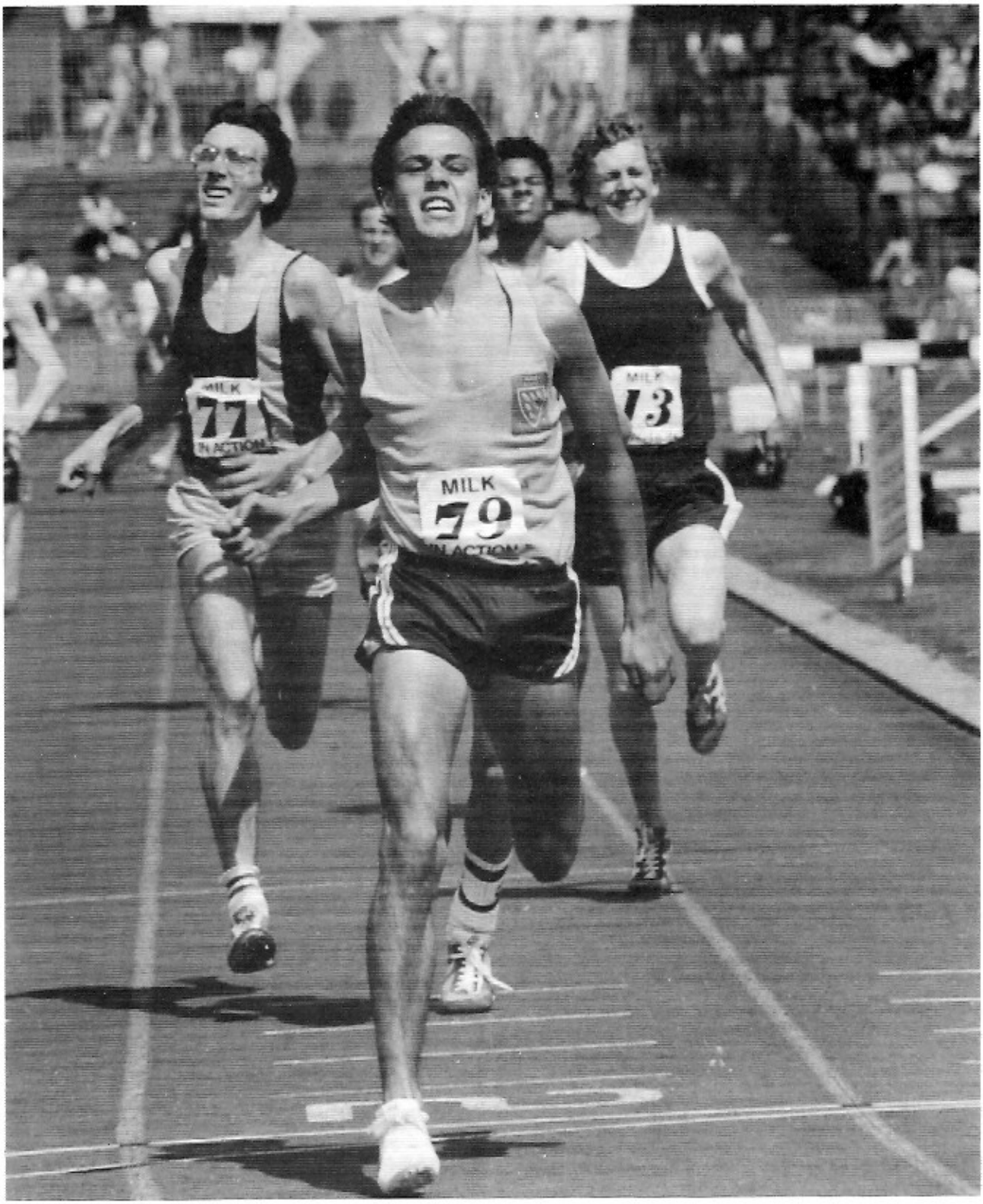

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No. 35 AUTUMN 1982

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Front Cover: John Bigg (Sussex) wins English Schools Inter. 800m in 1:55.2. Photo: Dave Cocksedge.

Editorial

It is a mistake to assume that money under the table for athletes is a modern trend. Right from the start of our sport's origins in the mid 19th century, foot racers were paid for their efforts and the whole setup was openly professional. It was English Victorian gentlemen who introduced the Amateur concept in the 1870's which has bedevilled Track & Field at the top level for many years.

I feel that all fair-minded people will agree with the premise that we should end the double standard and award honest athletic effort with open, honest cash awards. But Governing bodies must act soon to stay in control to outlaw cheating and excessive appearance money demands.

There are some athletes, however who are literally pricing themselves right out of the market. They must feel that profits from the sport are without limit, that promoters will always willingly pay big fees to have them grace their meetings here and abroad, especially the latter.

These unthinking, selfish men risk killing off their own legendary golden goose. Money in athletics is limited - gate receipts are rarely profitable for anyone, and only a few meetings attract sponsorship and tv money. And when the sport goes Open, the same amount of money will have to go around more athletes.

I say to these athletes: Support the sport at home. Turn out for domestic fixtures more often, even if you may lose out in the short term. If you do not support meetings in the UK, sponsorships will dry up very quickly, and UK athletics will suffer badly. The British public and hard core fans like me love to see you race here, also. Why should the continentals get all the pleasure of watching you compete?

David Cocksedge, Editor.

Walk Out!

1981 AGM REPORT

Harlow Sports Centre, Oct.18th 1981

Never before in the BMC history has there been an AGM such as this one. Having agreed at the National Committee Meeting in September to stand for office again, the following on the day resigned without any prior warning:- HARRY WILSON, Chairman, NEVILLE TAYLOR, Vice Chairman; MIKE TOLLIT, National Secretary; PAUL WILLIAMS, Membership secretary. This appeared to be a hastily pre-arranged plan by the above gentlemen, whose motives we can only guess at. The Treasurer, Ray Williams, gave notice of not wishing to stand for re-election 3 months beforehand.

At this point the AGM almost floundered to a grinding halt, but Founder member FRANK HORWILL stood up and asked someone to propose him as Chairman so the meeting could continue. TIM HUTCHINGS proposed Frank as Chairman, seconded by DAVID COCKSEDGE.

The following offered their services so that the club could continue
C.JEROME, Vice Chairman.
T.HUTCHINGS, Treasurer.
P.LLEWELLYN, Membership Sec.,
G.MOON, Southern Sec.
G.HALL, Committee
W.BENNETT, Equipment Sec.
Ms. H.BAXTER, Committee
Ms. K.LOCK, Committee.
D.COCKSEDGE was elected Nat. Sec, at the Committee Meeting in London on October 30th. Prop: F.Horwill, Seconded: G.Moon.

Regional reps:-
Scotland - B.McCausland
Wales - Ms. Ann Hill
Midlands - J.Whetton
North West - G.Barnes
North East - Stan Markley
East - R.Sexton.

The rule convening the meeting was invoked - Rule 6 (a). Minutes of the 1980 AGM appeared in abbreviated form in Issue 33 of the BMC NEWS.

There were no Matters Arising.
There were no Apologies for Absence.
Reports were received from: Membership Sec - 74 new members in 1980/81.
Treasurer - See item.
Nat. Sec - Spoke of the 20th Anniversary in 1983 and suggested ideas for the future of the BMC. World records by Coe and Ovett were mentioned. (The secretary had no copies of his report and the only one available was lost).
Southern Sec - Race per month plan underway. Three inv. races with expenses were organised. Membership increased by 37. A regional sub-committee was formed, after opposition from the Nat. Committee. A coaching course for Novice coaches and a County Schools Champions' course for Nov. had been organised.
Eastern Sec - Poor support for races. Same for training days. Regional Committee shows interesting possibilities.
President: SEBASTIAN COE.
Vice Presidents: All previous VP's elected.
Change of Rules: See item. Proposed by David Cocksedge and seconded by Ray Williams.

BMC ACCOUNTS

Jan. 1st, 1981 to October 15th, 1981

Income

AGM 1980			
(649.00)	1	Subs	776.00
(58.10)	2	Donations	96.05
(120.66)	3	Race Fees	58.66
(103.00)	4	Equipment S	146.25
(34.39)	5	Coaching News	
		Sundries	345.57
		Total	£1422.53
			(965.15)

Balance: £ -180.07 (99.03)

Bank balance from 1.1.81 £513.32
(462.85)

Total balance £333.25 (561.88)
Deposit Account £200.00
Interest 10.93
Grand total £544.18

Expenditure

1. Printing, duplication Stationery	350.83
2. Postage, phone	125.62
3. Race expenses	38.50
4. Sundries	345.60
5. Adverts	64.00
6. Equipment	356.90
7. BMC NEWS	321.15
Total	£1602.60

AGM 1980
1. 137.84
2. 181.46
3. 30.50
4. 68.72
5. 159.00
6. 248.60
7. 40.00

Total: £866.12.

RULE CHANGES

New clauses in the BMC constitution, passed on 18/10/81.

2(a) The qualifying standards for classes A,B,C,D & E shall be decided by the General Committee and approved by the members at the Annual General Meeting.

2(b) Free Life Membership shall be, or may be awarded for, outstanding performances or services to the club. Members to be elected to free Life Membership shall be nominated by the General Committee and approved by the Members at the Annual General Meeting. 3(b)
Members not paying their subscriptions by March 31st each year shall be liable to a 100% levy.

President and Vice Presidents

The President and Vice Presidents shall be nominated by the General Committee and elected by the members at the AGM.

4(i) shall read in addition as follows:-

"Area representatives are recommended to form regional sub-committees to assist them in their work. These committees will be regarded as sub-committees of the National Committee (to whom they will be responsible) and will be expected to follow the policies of the National Committee.

These sub-committees will inform the National Committee well in advance of any activities that require financial aid and will request the National Committee to make the appropriate financial allocation. If any finance is required urgently the Regional Representatives should consult with at least two of the Club's Officers.

Owing to the differences that exist from Region to Region it is not practicable to have a constitution covering the composition of these committees but it is expected that each Regional Rep. will ensure that his sub-committee reflects the geographical coverage of his area and that all members of his committee are members of the BMC.

Regional sub-committees will confine themselves to activities within their region and will make sure that their activities do not clash with National activities of the Club. The Regional Representative is expected to make a report of his activities at each meeting of the National Committee."

Factfinder: Bob Ouko (Kenya) once ran the first lap of his 800m stint in 48.6 in a 4x800m relay event in London in 1970. He clocked 1:46.5 for the full leg.

Is your club looking for a top class field at your locally sponsored meeting? Why not let the experts take it over? Contact the BMC Race secretaries Greg Moon (Women) or Frank Horwill (Men). At the Fleet & Crookham meeting at Aldershot in July we organised a mile won in 3:56.6 by Tim Hutchings and a Ladies' 800m won in 2:02.0 by Shireen Hassan. GO BMC!

Quick way to assess your 800m potential. Add 5.5 to your best 400m time (6.5 for women); then double it up. Example: 51.0 + 5.5 = 56.5 x 2 = 1:53.0.

CARBOHYDRATE LOADING

by Ron Willis

Various techniques of dieting, known as carbohydrate (or glycogen) loading have been devised to increase the level of glycogen in the muscles, which is depleted in distance running. There are three main variants of carbohydrate loading:

1. The simplest way to increase your glycogen reserves is to increase the amount of foods in the diet containing high levels of carbohydrate and to reduce the amount of fat and protein consumed. Foods which are good sources of carbohydrates are breakfast cereals and porridge, bread and cakes, rice, fruit and vegetables, especially potato, dried fruits, sweet corn, bananas, fruit juices and sweet drinks generally.

The protein and fat foods that should be minimized in the diet are meat, poultry and fish products, eggs, salad dressings, cheese and dairy products in general, chocolate and nuts. You can maintain a permanently elevated glycogen level at about 50% above normal by following this diet continuously, or you can achieve a temporary loading by switching to the diet about three days before the endurance event.

2. Even greater increases in glycogen levels can be achieved by an initial depletion of muscle glycogen followed by carbohydrate loading. Glycogen is depleted by a long run (14-19 miles) and the diet for the next three days is high in carbohydrates. This regime can give double the normal glycogen level in muscle.

3. The maximum carbohydrate loading effect is obtained by an exhaustion-deprivation-loading regime. Muscle glycogen is exhausted, as stated above, seven days before an important event. The diet for the next three days contains mainly protein and fats and very little carbohydrate. This keeps muscle glycogen low. Normal training should continue for this period.

For the following three days large quantities of carbohydrates are added to the diet and very little exercise is carried out. Increases of about 150% in muscle glycogen can be achieved by this method.

There are a number of drawbacks to the last regime. It can be unpleasant during the deprivation period. The brain can only function properly on blood glucose which is low during this period due to the low level of carbohydrate in the diet, and consequently some people feel disoriented, irritable and lack concentration. The removal of carbohydrate from the diet severely restricts the variety of foods that can be eaten and your level of irritation can be heightened by ingestion of unappealing meals.

These distractions are occurring at a time when the athlete should be psychologically peaking for a big event. Because of these stresses it is generally recommended that loading shouldn't be used more than twice in a season and certainly not more than once a month. For runners who are competing regularly, the first two systems discussed are more feasible as they could be used on a weekly basis.

The actual benefits of carbohydrate loading (in terms of how many minutes in a marathon) are extremely difficult to determine. Problems of personal motivation, actual race conditions and interaction with other competitors in different races means that races are individual affairs and because a competitor bettered his time from three months ago in a similar race could be due to other factors, besides diet, that have changed.

As a general guide, a study in Sweden where 10 runners ran a 30km course twice—once on a normal diet and once on a loaded diet—all ran their best time when carbohydrate loaded and the improvement in time ranged from 1 minute to 15 minutes.

In summary, the use of carbohydrate loading may reduce your time by a few minutes in events greater than 15km but don't expect miracles. Carbohydrate loading is no substitute for more training.

Distance Running News (Australia)

DEVELOPMENT OF YOUNG RUNNERS

by A. Lagosha

Many specialists have correctly observed that talent towards one or another sporting activity is discovered best by participation in that particular activity. This is, of course, applicable to distance running, where it has been recommended by the author to develop young athletes in three preparation phases:

Phase I	-	2 years	(Age 13-15)
Phase II	-	1 year	(Age 15-16)
Phase III	-	1 year	(Age 16-17)

The four-year long preparation is aimed towards the development of functional capacities, so that young distance runners can at the age of 17 already employ training loads close to those used by adult athletes. During the first few years, besides participation in several track and field events and other sports, emphasis is on the development of endurance. This will create a base for the following aerobic training, conducted with low and medium intensity.

Emphasis in the beginning is placed on the morning runs, combined with exercises. It starts with slow five-minute efforts and is gradually increased to reach 5 to 8km at the age of 15 to 16 years.

The second phase has for its main aim the development of running technique, while general endurance is improved further. It leads to more specialized distance running training during the third phase at the age of 16, which includes the development of specific endurance and brings the yearly work volume higher. Generally, the total volume during the four years is 9500 to 10,000km, covered at various intensities.

F. Suslov recommends the use of the table below to adjust the intensity according to the average speed per kilometer. Based on his thorough research the speeds are as follows:

Age	Average Performance	Low (50%)	Medium (70%)	High (95%)
13	3:45.0	7:40.0	5:45.0	3:56.0
14	3:20.0	6:45.0	4:50.0	3:35.0
15	3:05.0	6:10.0	4:25.0	3:15.0
16	2:50.0	5:45.0	4:05.0	3:00.0
17	2:40.0	5:20.0	4:00.0	2:48.0

Legkaya Atletika (USSR) #

UK ALL-TIME 800m LIST

As at 10.8.1982

1:41.73	Seb Coe	10.6.81
1:44.09	Steve Ovett	31.8.78
1:44.45	Steve Cram	17.7.82
1:44.71	Garry Cook	7.7.82
1:45.12	Andy Carter	14.7.73
1:45.61	Peter Elliott	25.7.82
1:45.76	Frank Clement	10.7.76
1:45.90	Paul Forbes	7.7.82
1:46.1	Colin Campbell	26.7.72
1:46.20	David Warren	29.6.80
1:46.21	Peter Browne	14.7.73
1:46.30	Chris McGeorge	25.7.82
1:46.31	Rob Harrison	25.7.82
1:46.3	Chris Carter	4.9.66
1:46.3	Martin Winbolt-Lewis	27.1.74
1:46.46	John Gladwin	7.7.82
1:46.5	John Boulter	18.6.66
1:46.63	Peter Hoffmann	11.6.78
1:46.64	David Moorcroft	25.7.82
1:46.6	Derek Johnson	9.8.57
1:46.65	Steve Caldwell	31.5.82
1:46.70	John Davies	3.6.68
1:46.8	Bob Adams	9.8.69
1:46.8	David Cropper	1.7.73
1:46.8	David McMeekin	6.7.74
1:46.92	Colin Szwed	7.8.82
1:47.0	Brian Hewson	13.9.58
1:47.0	Mike Rawson	13.9.58

British standards at 2 lap racing have gone through the roof this year: at time of writing, we can boast 11 men inside 1:47.00 - without the big twosome having got into top gear, either! It has also been encouraging to see the boys unafraid to blister out from the gun and post bell times inside 52 sec..... on that road lies the way to fame. Here is the UK all-time list, down to 1:47.0, compiled by David Cocksedge. Brian Hewson and Mike Rawson, still listed here, won European titles in Stockholm way back in 1958, and Derek Johnson (1:46.6 in 1957) gained an Olympic silver in Melbourne in 1956.

TWO LAP DRAMA

WAYS TO IMPROVE BRITISH MIDDLE DISTANCE RUNNING

1) Setting up area 'age' and 'sex' elite squads.
2) Regular area top class competition.
3) An objective look at coaching and results, particularly womens' racing & training.
4) Better practical coaching; NOT technical lecturing which is virtually impossible to understand and intrepret and is rarely of benefit to the athlete.
JOHN COOPER (Coach).

1) Regular quality fields at central locations with assistance with expenses aimed at producing fast times.
2) Re-education of coaches with regards to tougher training schedules for women and also to re-educate women into generally accepting and being able to cope with tougher training... JENNY MULLETT

By having standards at every meeting and by giving special awards to runners getting under stated times on certain tracks... ANDREW CHARMAN.

"All out for 20x400m!" Chairman Frank strides out at the beginning of a Sunday Session. Prizes are on offer for a suitable caption.

Photos by David Cocksedge.

John Walker (NZ) walks off after collecting his 3rd straight second placing in the AAA Championships. But he has over 100 sub 4's to his credit, including conversions!

Suffering from back ache?

Lie on your back on the floor. Slowly raise your arms up from the side until they are behind your head. AT THE SAME TIME as you do this, breathe in very deeply. Bring the arms forward again, breathing out. Repeat 10 times. This will relax ALL the back muscles in the thoracic and lumbar vertebrae area. Long term treatment of athlete's back is to strengthen the abdominal muscles and do hamstring drill...i.e. face down and alternate leg raising.

Christmas present for your coach? A small gift is always appreciated. The BMC Lecture transcripts have sold Worldwide - and made it possible for many people who could not afford the time or money to attend our Training Days to catch up with three of the UK's leading Coaches.

We are offering all three lectures by Wilson, Holman and Horwill for £1.50, including postage, and we will throw in a BMC sticker free as well.

From: 290 West Barnes Lane, New Malden, Surrey (Quote Autumn offer).

TOURING ACOTEIAS
THIRD HALF MARATHON
NOVEMBER 28th, 1982.
Aldeia Das Acoteias
Albufeira, Portugal.

Fancy a half marathon winter race in Sunny Spain this November?? Details from Ann Hill at 8 Turberville Road, Cwmbran, Gwent, S.Wales.

Ron Pickeringism

"...and Gill Dainty's time was 4:13 - which she's capable of..."

BBC RADIO LONDON:

..."And David Moorcroft's world record time for the 5000 metres was an outstanding 13.42 seconds."

HEIGHTS AND WEIGHTS - HOW THEY AVERAGE OUT.

800 metres

Seb Coe (UK) 29.9.56 1.75m/58 Kg.
James Robinson (US) 27.4.54. 1.80m /67 Kg.
Mike Boit (Ken) 1.1.49. 1.80m/68 Kg.
Harald Schmid (GFR) 29.9.57. 1.86m/ 82 Kg.
Detlef Wagenknecht (GDR) 3.1.59. 1.93m/74 Kg.
Garry Cook (UK) 10.1.58. 1.85m/72 Kg.
Willi Wulbeck (GFR) 18.12.54. 1.87m/ 59 Kg.
Joel Ngetich (Ken) 6.5.55. 1.85m/74 Kg.
Randy Wilson (US) 7.5.55. 1.88m/73 Kg.
Olaf Beyer (GDR) 4.8.57. 1.86m/69 Kg.

Average Ht/Wt: 1.84m/ 69.6 Kg.

1500 metres

Seb Coe
Steve Ovett (UK) 9.10.55. 1.83m/70 Kg.
Boit
Steve Scott (US) 5.5.56. 1.86m/73 Kg.
Sydney Maree (US) 1.80m/66 Kg.
John Walker (NZ) 12.1.52. 1.83m/74 Kg.
Beyer
Jose Luis Gonzalez (Sp) 8.12.57. 1.75m/ 62 Kg.
Steve Cram (UK) 14.10.60. 1.86m/70 Kg.
Thomas Wessinghage (GFR) 22.2.52. 1.83m/ 70 Kg.

Average Ht/Wt: 1.82m/ 68 Kg.

5000 metres

Eamon Coghlan (RoI) 24.11.52. 1.75m/63 Kg.
Henry Rono (Ken) 12.2,52 1.70m/ 63 Kg.
Hans Jorg Kunze (GDR) 28.12.59 1.78m/61 Kg.
Bill McChesney (USA) 8.1.59 1.68m/54 Kg.
David Moorcroft (UK) 10.4.53. 1.80m/68 Kg.
Valeriy Abramov (USSR) 22.8.56 1.73m/61 Kg.
Thomas Wessinghage (GFR) 22.2.52 1.83m/70 Kg.
Barry Smith (UK) 16.4.53 1.68m/ 60 Kg.
Julian Goater (UK) 12.1.53 1.83m/ 66 Kg.
Fernando Mamede (Port)1.11.51. 1.73m/58 Kg.

Average Ht/Wt: 1.75m / 62.4 Kg.

Picture below by D.Cocksedge: The Southern 800m finalists hit the 600m mark. Roland Weedon (79) strikes for home. 17 is Brian Dickens, 32 is Martin Wilson, 25 is John Gladwin, 8 is Pete Browne, John Walker is walled in here but he won in 1:48.25.

BMC AT THE ALGARVE

Hilary Baxter

Palm trees, orange groves, miles of deserted beach, all the running facilities one could desire, plus a fabulous social atmosphere....sounds too good to be true, but it isn't (and I wasn't forced to write this either!)

I'm going back next year, and anyone who can scrape the fare together (approx. £120 return) should go as well.

Typical day: Up around 9 am and get a run in, before it gets too hot - there are always plenty of people to run with, even if you emerge at 2 pm. I loathe morning runs in the UK (always thought it was my bio-rythms) but I actually enjoy them here; there was such variety - cliff runs, forest runs, beach courses and specially built cross country/jogging trails.

Breakfast was generally followed by all-day sunbathing - full bikinis for the conservative, bottoms only for the liberals, and nothing for most of the BMC athletes (no names mentioned, Sandra) For those more energetic than myself (not hard) there were numerous leisure activities - golf, archery, horse riding etc. and fascinating towns nearby for the avid tourist.

Evening training, usually on the track, a good all-weather one, was followed by the inevitable party/booze-up. The centre provides superb bar facilities and a free disco every night (till 4 am), not to mention a wide choice of international talent.....

Our villas had all mod. cons. plus French windows and patio. and were superb value at £3.50 per day. Usually people share, so be careful in your choice of room-mate.

I'll be honest: there were some disadvantages - there was no, but absolutely NO Cadbury's chocolate/McDonald's junk food, - if you have a fetish for this kind of thing, don't be driven to selling yout body for it (no names mentioned, Ann), STOCK UP BEFOREHAND.

Just because it is a running holiday, DON'T train twice as hard as usual - we had a lot of stress injuries. Also, a radio/tape unit might be handy - we were starved of music.

I'd like to thank Ann Hill and Kim Lock for their wonderful organisation and hard work, which made the whole trip such a success for everyone.

Frank views

Chairman Frank Horwill shooting straight from the lip.

TOBACCO SPONSORSHIP

Mention athletic sponsorship from tobacco firms and there is an immediate, indignant uproar of disapproval. Governing bodies have fallen victim to Government propaganda and it is totally out of proportion. On the other hand, sponsorship from breweries and distilleries is considered fair game. What are the facts?

The misery caused by the demon drink is colossal: 100 people a night are killed or injured by drivers under the influence. The NSPCC investigate 500 cases a week where great suffering is caused to children ill-treated by drunken parents. They have cases on record where the entire family allowance is spent on alcohol to the deprivation of children. The Home Office report 250 cases of assault on women every night as a result of drunkeness.

Ninety per cent of battered wife cases are caused by inebriated husbands/lovers.

Yet, athletes, clubs and governing bodies accept sponsorship from breweries without a hint of conscience. The same concern about people dying of lung cancer or heart disease caused by smoking should also be extended to the one person in 1000 dying of acute alcoholism and 3 in 1000 with liver degeneration. Alcoholics Anonymous have a growing annual membership of which one third are teenagers.

The plain truth is that everything which gives pleasure will take a toll if indulged to excess; be it smoking, drinking, drugs or fast driving.

We don't say to a motor company sponsoring a meeting: "Thanks for your generous offer but we must decline it because cars kill and injure hundreds of people annually. "Yet, we are quite happy to say to the British American Tobacco Company, "Sorry, we can't take sponsorship off you. One quarter of the population smokes and one tenth of them will die of lung cancer or heart trouble if they smoke to excess." Where is the logic?

It has been proved that cigarette advertising does not encourage new smokers, but merely might influence committed smokers to change their brand. I say let's have an end to this hypocrisy. Let's see a few sponsored races like this:-

THE CONDOR MILE
The BENSON & HEDGES 3000m
THE FILTER TIP LADIES 800m
THE VIRGINIAN 5000m
THE ROTHMANS 1500m
PLAYERS KILOMETRE RACE

I have one proviso: the programme must have a Government warning of the ill-effects of tobacco clearly displayed.

Other countries have not been so illogically squeamish about accepting tobacco sponsorship for the sport. New Zealand owes much to Rothmans' for its generous support. What are your views??

FRIENDS IN HIGH PLACES

Back in June KEN NEWTON and TIM HUTCHINGS ran the fastest 3km in the UK at the time in the AAA v Loughborough match. Before this, Tim won the UK 5000m Championship at Cwmbran and a 3km international against USA and Australia in London. But who got invitations to compete abroad? Not Newton or Hutchings. The second placer in the UK 5000 was invited to race in Portugal where he ran 13:18.6 being towed around by Memede. Others went off to Oslo to record fast marks at 1500, 5000 and 10km. One athlete who finished well down in the Southern CAAA 1500 was invited to Oslo where he dropped out of his race! What about the

WINNER of that Championship, Naval Cadet Chris Robison? Not a whisper of an invitation!

How are these invitations decided? Coaches and athletes have a right to know the procedure. Several suggestions come to mind:-

1) Individual athletes are invited by Governing Bodies overseas.
2) The National Coaches make recommendations to the BAAB.
3) Individual members of the BAAB push athletes from their areas.
4) A small selection committee decides.
5) The UK Coaching Director advises the BAAB.
6) Names are pulled out of a hat.

All the above methods should be abolished and only two criteria should be taken into consideration:
1) The UK rankings of the previous year.
2) The current UK rankings.
The NUTS compile rankings each week and all the selection committee has to do is to consult it. By this means, NEWTON, HUTCHINGS and ROBISON would have received invitations long ago.

If the majority of the invites come as a result of the National Coaches (2 listed above), then these men should be replaced quickly for gross favouritism and incompetence.

The same also applies to special coaching courses at home and abroad. A girl from Scotland called us and complained that she had been omitted from a coaching group going to Norway when others on the party had inferior 1500m times. Our man told her to call the National MD coach and repeat her complaint. She did so and was invited. But why was she left out in the first place? What about that ranking list? Is this a further case of favouritism? National Coaches favouring their own athletes for 'jolly' trips abroad?

As I stated in my last column, the National Middle and Long Distance coaches have been in their positions too long and a change is called for: I say George Gandy should take over from Harry Wilson and John Anderson from Ron Holman. It is time the events had a new base and what could be better than coaches centrally placed in Warwickshire and Leicestershire rather than always just North and South of the Thames?

WOMENS' RACES

Following on our 12 point plan aimed at improving British Womens' middle-distance running (which the National Coaches did not support), the BMC has staged the highest number of sub 2:07 800m races and sub 4:20 1500m races in our history. The average winning times are 2:05.5 and 4:17. Men to thank for this are GERRY BARNES of Blackburn with his series of BMC races at Stretford and GREG MOON for his races at West London and Crystal Palace.

The Stretford, Thames Valley H and SCAAA officials are doing a wonderful job in allowing the BMC to stage these races in their meetings.

Sadly, BMC races organised by Stan Markley have had to be cancelled this year due to lack of support. If NE athletes want fast races they must contact Stan in the first instance and then he will stage them; if the demand is there. No demand - no races. We cannot upset the North Durham and South Yorkshire League by booking time in their meetings only to cancel races at the last minute.

MAREA WATCHES BMC RESULTS

When an excited Greg Moon called WAAA Secretary, MAREA HARTMAN with the result of the BMC Ladies 800m at Aldershot (July 19) she quickly interrupted him: "I know all about it. I've taken great interest in this race and as a result of it SHIREEN HASSAN has been invited to compete in the Yugoslavia v England match."

Shireen Hassan clocked 2:02.0 and 13-year-old RACHEL HUGHES was timed at 2:06.5 - just outside the World age best. Let's hope Rachel keeps racing and improving at this rate until she is 23 years old by which time she could be running 1:50.0 and 3:50.0 which is not so far fetched as you might think!

SPOTLIGHT ON THE 5KM

What intensity of training have the great 5km runners done over the years? The first man to break 13 minutes for 3 miles was Ron Clarke (12:52.4 at White City Stadium, 1965) and the time was roughly equal to 13:22 for 5000m. Clarke did repetition running three or four times a week and then gave up competitive running for three years due to business and marriage, after a World Junior mile record of 4:06.2. On his return he settled for 10 mile runs on the road and around a race course. His road runs were over very hilly terrain and his grass running was aimed at speed. Clarke thus broke 12 world records from 3 miles to 20km and also ran 12 miles 1,006 yards in One hour.

Alf Shrubb set a 3 mile record of 14:17.6 in 1903 and ran a mile in 4:21. He also held World records for 2, 6 and 10 miles and for the hour. He stood 1.69m and weighed 55Kg. Alf was a late starter, starting at 21 and finishing competitive athletics at age 42. He used to warm up for 2M wearing BOOTS! (He claimed this gave him more spring when he put his spikes on!)

Shrubb trained one way only: (7am) 10mins. exercises, and 2 miles WALKING. After breakfast he ran 5 miles on the track; twice a week he made it up to 8 miles. After lunch he ran 3 miles on the track for one week, increasing this to 10miles the second week and dropping down to 3 miles fast in the third week.

In 1908 Shrubb raced 10miles against a relay team of five good American athletes, each running 2miles and won what was described as one of the most remarkable races in track history. He seemed to be well off, not needing to work for a living. His method of altering his weekly mileage was well ahead of its time, for in THE COMPLETE RUNNER, physiologists' state that a basis of building up should be: (Week 1) 28 miles (Week 2) 35 miles; (Week 3) 42 miles; (Week 4) 28 miles easy; (Week 5) 49 miles etc.

Twenty years later Paavo Nurmi of Finland lowered the time for 3 miles to 14:11.2 and 14:28.2 for 5000m. His best 880y was 1:52.2 and Nurmi also set a World mile record of 4:10.4. Unlike Shrubb Paavo started at age 15, and was working full time at 13, delivering goods by push-cart. He found the hill leading up to Turku railway station, up which he had to push his cart several times a day laden with goods, developed his all-round strength. He did no training in the winter at all from age 15 to 20, just doing a daily 2 mile run in the woods in the summer months. He then started to train a little more specifically, doing a 6 mile walk before breakfast with some sprints, followed by exercises. Mid-day he would do 4 x100m sprints followed by a time-trial from 400 to 1000m. This led him to run 3000m at level pace and inject a fast last lap. In the evening he went out again and ran 5 miles, with the last 1500m at full effort. He followed this up with another 4x100m. In the 1924 Olympic Games Nurmi took the 5000m in Paris in World record time.

Eighteen years later the 14 minute barrier was broken by Gundar Haegg of Sweden, who clocked 13:58.2 in Gothenburg in 1942. This stood for 12

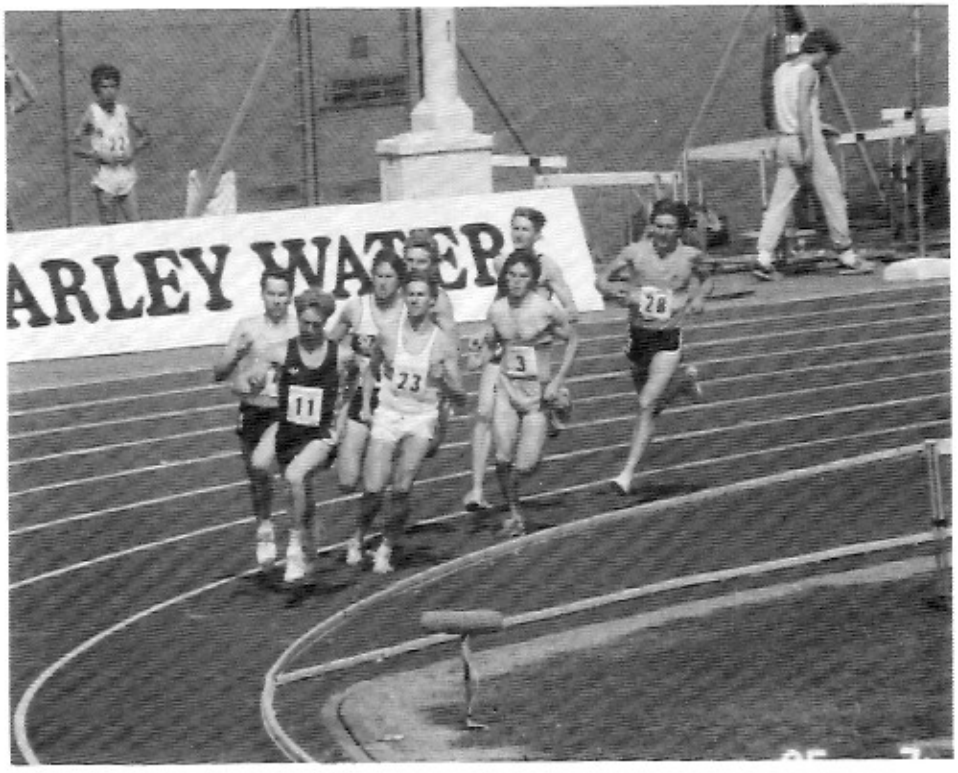
years. Haegg broke the world mile record 3 times also, ending up with 4:01.3 in great duels with countryman Arne Andersson. Gundar was 1.83m tall and weighed 68Kg. He began racing at 17 and was banned for professionalism at age 26.

Haegg did not warm up before races in the summer and only a mile before racing in the winter followed by a hot shower! His training consisted of daily runs over a 5km course through a forest. In winter this route was frequently littered with great snowdrifts and required great effort to complete the circuit. This type of training led to the introduction of a new word in the runner's vocabulary: FARTLEK, literally meaning Speed Play. There wasn't much play in Haegg's workouts, however, which were very severe.

Starting on the right of his rectangular 5km circuit, he went straight up a steep 1000m long hill, turned left and had an 800m downhill stretch which levelled out just before another 1000m long ascent. This turned left and downhill for 1500m home. Recent statistical info. shows that this type of training occupies about 10% of the total running done by top class performers.

Herb Elliott had a similar course mapped out by his coach, Percy Cerutty. This was called the Hall circuit and was some 2000m long. Reading between the lines, this type of training was the first hint of repetition running which was to sweep the world a decade later: fast running at varying pace and distances followed by suitable jog rests.

The great advantage of this is that fresh ground is being covered during the session and the athlete works hard up hills whether he jogs them or strides them. In 1942 Haegg established 10 world records in 7 different events within 82 days. When an athlete fails to improve halfway through the track season doing mainly repetition running, a change to fartlek often brings out good results.



Peter Elliott (11) leads 1982 AAA 800m. He won in 1:45.61. Photo by David Cocksedge.

BMC quiz 15

1) Three men broke the world 1500m record in 1980 in Koblenz, GFR. When was the last time this feat was duplicated?

2) What is the World Junior (U/20) Mile record and who holds it?

3) Name the Commonwealth Womens' 800m record holder.

4) Who won the 1974 European Womens' 800m title in Rome?

5) When was the last occasion the UK failed to get a finalist into the Olympic 1500m?

6) Who was the last Soviet Olympic 1500m finalist and when?

7) How man finishers beat 1:59.00 in the 1978 European Womens' 800?

8) What is the pace requirement per lap to equal the Womens' World 3000m record?

9) Who was the first man inside 5 minutes for 2000m?

10) What is the only World best to be set in the UK by Coe and/or Ovett?

Answers

1) Three Finns beat the listed record (3:40.5) on 11/7/1957, led by Olavi Salsola (3:40.2). Stanislav Jungwirth (Cz) ran 3:38.1 the next day!

2) 3:51.3 by Jim Ryun (USA), Berkeley, 17.7.1966.

3) Charlene Rendina (Australia) 1:59.0 in 1978.

4) Lilyana Tomova (Todorova) in 1:58.1.

5) Rome, 1960.

6) Vladimir Panteleï, 8th in Munich, 1972 (3:40.2).

7) All eight - last place was clocked at 1:58.8!

8) 67.616 sec per lap for 75 laps.

9) Harald Norpoth (GFR) with 4:57.8, Hagen, 10.9.1966.

10) Steve Ovett set a World (outdoor) best for 2 miles with 8:13.51 at Crystal Palace on 15.9.1978.

THE COE AND OVETT FILE

A compilation of race reports and interviews with Sebastian Coe and Steven Ovett over the last ten years, this booklet provides a valuable insight into the development, not only of their performances but their characters and approach to the sport. Though these reports might lack hindsight, they have the immediacy of a weekly track & field magazine and all quotes are as 'at the time'. The photo of Steve on page four is already a collector's item! A book available to BMC MEMBERS at £3.00 only, including postage (normally £3.50 from the publishers).
From: BMC c/o - 290 West Barnes Lane, New Malden, Surrey.

Rachel Hughes leads in ESAA 800m. She ran 2:06.5 on July 19th! Cocksedge photo.

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TWO LAP RUNNING

Frank Horwill *Senior BAAB Coach*

Rome Games (1960) and Tokyo Games (1964) saw two consecutive golds in the 800m for Peter Snell, 5 feet 10½ inches (1.791m) tall, weighing 12 stone 7 lbs (79.379 kg.). On the Dr. Stillman table he was a stone overweight for ideal middle-distance purposes which led to former world-record holder, Roger Moens, to exclaim after Snell defeated him in the 1960 Games, "He'll never get anywhere, he's too bulky for middle-distance running," words that are on a par with mine to Steve Ovett when he was misbehaving himself on a BMC course as a 15 year-old boy, "You do not have the right attitude to reach world class!"

Snell's best times were: 100 metres – 11.3; 400m – 47.7; 800 metres – 1:44.3; mile – 3:54.1; his training load during the build-up phase was 90 miles a week, larger than Courtney's monthly mileage.

Just before the Tokyo Games he was doing:
Day 1: 6 x 800 metres in 2:10.
Day 2: 6 x 440 yards in 58 secs.
Day 3: 1 mile ½ effort and 1 mile ¾ effort (See Lydiard's table in *Run To The Top* for explanation of these terms).
Day 4: 3 x 220 yards full speed.
Day 5: 880 yards full speed.
Day 6: 25 miles steady running.
Day 7: 1 mile with 15 x 45 metres interval sprints. 1 x 220 yds. full speed.

A month later for nine consecutive days he did:
Day 1: 800 metres in 1:47.1.
Day 2: 1 hour steady running.
Day 3: 880 yards interval sprinting.
Day 4: 1 hour steady running.
Day 5: 3 x 220 yds full speed.
Day 6: 1 hour steady running.
Day 7: 800 metres heat in 1:49.0
Day 8: 800 metres semi-final in 1:46.9.
Day 9: 800 metres final in 1:45.1.

Snell's yearly mileage was 3,730, this was completely unheard of before for an 800 metres specialist.

Mexico City Games (1968) saw Australian, Ralph Doubell, equal Snell's record in winning the gold medal. He weighed 10 stone 4 lbs (65.317kg.) and was 5ft 11ins tall (1.803m). On the Stillman table he was nearly 20% below average weight for his height and thus, according to Stillman, was ideal for middle-distance purposes.

His best times were: 10.9 for 100m; 21.6 for 200m; 46.4 for 400m; 1:44.3 for 800m; 4:00.6 for the mile.

For two months before the Games he jogged every morning for 15 minutes. His evening work consisted of:
Monday: 20 x 440 yards with 1 minute rest.
Tuesday: 30 x 220 yards in 26-27 seconds in three series with a minute's jog rest.
Wednesday: 10 x 880 yards.
Thursday: 50 x 110 yards.
Friday: Rest.
Saturday/Sunday: Time trial or competition.

Doubell was almost completely track trained, even out of season. His monthly load being 220 miles.

The Munich Olympics of 1972 saw an 800 victor, Dave Wottle, capture the imagination of the crowd and millions of TV viewers with his desperate last second dips for the tape and his golf cap which he never removed, even for his country's national anthem!

He was 6ft 1in (1.854m) tall and weighed 11stone 2lbs (70.760kg.). On the Stillman table he was the same percentage under average weight as Doubell. His best marks included: equalling the world record for 800 metres of 1:44.3; mile in 3:53.3; 11.7 at 100m; the latter time when he was 20 years old.

Out of season he covered 75 to 85 miles a week. During the competitive season this dropped to 55-65 miles a week. During this time it was largely repitition running at 220, 330, 440 and 660 yards, with 1 to 2 mile time trials. Wottle claimed that it was college squad training which brought the best out of him.

Montreal Games idol, Alberto Juantorena of Cuba, who achieved the rare feat of gaining gold medals in the 400 and 800 metres, is 6ft 3ins (1.905m) tall and weighs 13st 3 lbs (83.91kg). On the Stillman table he is 5% below average weight for his height, not as heavy pro rata as Snell and Courtney and not as light as Doubell and Wottle.

His best marks being: 10.4 for 100m; 20.8 for 200m; 400m in 44.6; 800m in 1:43.5. In 1975, as a novice runner recently wooed away from his favourite sport of basketball, he broke the Cuban record for 400 metres and ran sub 1:46 for 800m. Early in Olympic year his training consisted of:
Day 1: Fartlek in the morning followed by gymnastics, resistance exercises, then three series of 5 x 200 metres in an average of 23.6 with 200m jog recovery.
Day 2: 3 x 100 metres full-out sprints; 4 x 1,000 metres averaging 2:35.2
Day 3: 2,000 metres CC running; three series of 3 x 400m interval runs; 2,000m CC.
Day 4: Gymnastics, resistance exercises, series of 5 x 200m.
Day 5: 3 x 100 metres full-out; 1,000 + 500m + 1,000 + 500m, averaging 2:41 for the 1,000s and 1:04.2 for the 500m.

A month later, the Cuban introduced 5 x 350m; 6 x 200m and 5 x 200m, after his two kilometres of cross-country running, each set getting faster until the last 5 x 200 was full out. Also, after the 3 x 100m sprints on Day 2, be introduced 10 x 200m in sub 24 seconds; on Day 5 he included 5 x 600m in 85 seconds or 2 x 600m in sub 82 and 2 x 400 in 48.5 seconds.

Juantorena trained six days a week, the load was small and mainly repetition runs and had a lot of similarity to Courtney, both men being tall, heavier than usual, but very fast (sub 46 for 400m).

Just before the Montreal Games, Alberto was seen to do some bionic type sessions in the village. For example, 2 x 3 x 200 in sub 22 secs; 3 x 600 metres in 91.6, 81.6; 79.2. Another day he did 2 x 600 metres with 15 minutes rest between in 79.2 and 75.9 (1:40 pace for 800m!). His final training session before the heats was a 5,000 metres cross-country run. It is not clear what type of surfaces Alberto used in Cuba for training, but a BBC TV programme in August 1978 stated that he followed a cycle of cross-country one day, sand dune running the next day and trac'' on the third.

The Moscow Olympics saw one of the most fascinating 800 metre finals of all time, the two favourites being British, an occurrence unknown for ten previous Games. The victor, Steve Ovett, weighs 11 stone 1 lb (70.307kg), is 6 feet (1.83m) tall, on the Stillman table 12% below average weight. His best marks are: 200m – 22.3; 400m – 47.5; 800 – 1:44.09; 1,000m – 2:15.9; 1500m – 3.31.36; mile – 3:48.8; 2,000m – 4:57.82; 3,000m – 7:41.3; 5,000m – 13.25; Half marathon – 65 mins 38 secs.

Little has been published about his training but his coach, Harry Wilson admits to Steve reaching 140 miles in season and as little as 16 miles a week when his racing schedule is heavy. On BMC and SCAAA courses a few years ago he had fantastic weight training sessions, his leg strength being superior to many international jumpers. Steve no longer does weight training, claiming that he has achieved the maximum strength he requires.

In season he does long runs on Sundays and

also morning runs before breakfast. One interesting fact gleaned is that in the winter, Steve has weeks where his mileage is very high followed by an easier week, a method recommended by Costill and Cooper of America. Much of his sprint training is done *after* a heavy work-out on the track, his coach believing that this is what is required in a race, a good sprint after a sustained pace in the race. Another of Harry Wilson's tricks is to introduce a very fast repetition in the middle of a set of say 400s listed at 58 secs, e.g. the third repetition of 400m being 52 seconds followed by the same rest as for the other runs.

Steve Ovett has brought a new era to the 800 metres runner, showing that he can perform at world class up to the half marathon. No athlete in athletic history has such a wide range of ability but one can only speculate that this range has affected his world record ambitions at 800 metres where his main rival, Sebastian Coe, is now supreme timewise.

The writer's study of the world's best 800 metre runners over the last two decades leads him to believe that they can be divided into three groups:

1) Those who have very good 400 metres times but poor at 1500/mile. Nearly all of them able to run sub 11.0 for 100 metres, eg Courtney, Harbig, Juantorena.

2) Those capable of running good 400 metres and 1500 times, eg Doubell, Coe.

3) Those with outstanding endurance capacity, who often had 1500 metres/mile as their second event and not 400 metres, eg Snell, Wottle and Ovett.

Many people will be uncertain as to which category Coe and Ovett belong, but Coe's superior 400, 400 and 1,000 metre times place him marginally in category (2) and Ovett's superior 1500m and 5,000m times place him in category (3). Courtney, Kerr and Kiprugut were below the training average for their group, ie 142 miles per month, while Doubell exceeded his group average of 168 miles a month; likewise Snell, Wottle and Ovett, 258 miles a month. Juantorena's workload was very largely anaerobic and even during the winter five of his six sessions a week were pure quality training and his aerobic work total per week did not exceed 12 miles of steady running excluding the warm up period.

If the latter was included it raised the total aerobic work to 20 miles per week, in many ways similar to that of Roger Bannister except that *he* trained mainly at 3,000 metres and mile pace.

All the indications are that those in category (1) respond to fast work of a limited nature with recoveries, after repetitions, between complete and not quite complete. This would point to a pulse level of 120-130 beats as the point at which the next repetition would be tried. Athletes belonging to this group have a nervous system and muscular structure which tolerates anaerobic work better and because they have an uneconomical metabolism, *react negatively to large training loads.*

Athletes in the second group employ a larger number of repetitions with shorter recoveries and less intensity. Their metabolism is more economical and their energy reserves are superior to the first group. Thus, they do not succumb to fatigue very quickly.

Athletes in the third group employ a very large training load of low intensity. They possess a particularly economical metabolism, large energy reserves and their oxygen transport system is well suited to long duration training sessions. They recover faster from prolonged training loads of low intensity. It is interesting to note that former world half mile record holder, Peter Snell, told me in England that he thought that Lydiard's monthly mileage targets were too much for him and he would have been happier to be placed in category (1) or (2).

There now comes the question of when should an athlete specialise for the 800 metres event. Professor Floyd, a physiologist from Oxford University, believes that 800 metre runners should be selected at a young age and be prepared through years of specific training.

On this subject of early development, the Finnish track journal, *Juoksija,* published a thought-provoking article recently on the problems of talent development in distance running. There is a preponderance of 10 and 12 year olds in Finland who can run three minutes or under for 1,000 metres. But the long range picture is not so bright for it has been found that the premise that the best training for running is running, is not always correct, *particularly in the two lap event.*

Many 15 year-olds often cover marathon distances in training to the exclusion of other endurance developing activities, such as swimming, cross-country skiing, skating, ball games and participation in other track and field events. While youngsters may wish to emulate the successes of Lasse Viren, coaches are overlooking the fact that Viren and many other world class distance runners never specialised as youngsters. Viren, for instance, competed in cross-country skiing, played baseball and soccer and even at the age of 19 covered only 1293 miles a year in running training (25 miles a week).

A study of 400 leading middle distance runners in the world ten years ago showed that the starting age for specific endurance training had dropped greatly. On face value it appeared that future Olympic winners and world record holders should begin specific training at the age of 16 or earlier. However, practical experience has shown numerous exceptions.

Gold medallist 800m runner, Courtney, played football and basketball at school, his best 800 metres time at 18 years of age was only 1:59.9 and his specific training began at 19. Double gold medallist at 800 metres, Peter Snell, played at school rugby and tennis, and began systematic running training at 18, clocking 1:58.9 in schoolboys' competition. Two-lap gold medallist, Dave Wottle, only had a best of 1:59 at 18, his previous sport being football. Double gold medallist (400 and 800), Juantorena, was a basketball player up to 20 and dabbled with track, soon recording a 51 secs. 400 metres. Doubell, gold medallist 800m (1968), was involved with football up to 18, when he recorded 1:54.6. Van Damme, bronze medallist in the 1976 Olympics 800, who was tragically killed shortly afterwards, had a best time of 1:57.8 for 800 aged 18, only to improve eleven seconds to 1:48.6 within a year of specific work.

The exceptions to this developmental trend are Jim Ryun, Steve Ovett and Sebastian Coe, all starting running in their early teens. The most advanced for his age was Ryun, then Ovett with Sebastian Coe a long way behind on the age/progress scale. Coe joined the British Milers' Club in 1971 aged 15 with a 1500 metre time of 4:21.8. Ovett joined the British Milers' Club also in 1971, aged 16, with a time of 1:55.3 for 800m. Coe's equivalent 800 metres time calculated from his 1500 metres time, was then a very mediocre 2:09.

Ryun, of course, will be remembered as the first youth of 17 to break four minutes for the mile. It seems that Coe not only developed a very fast finish in races but also a fast conclusion to the decade.

The Soviet Estonian authority, O. Karikosk, believes that the present methods employed in the training of young distance runners are, on the whole not justified. Most successful athletes have not followed planned training during the years of youth. They have tended to develop the necessary endurance through a variety of activities, such as football, handball, rugby, skiing, orienteering and swimming, etc.

Some have been involved in unplanned running to school and back; for example, Henry Rono, world 10,000 and 5,000 metres record holder. However, the Estonian concedes the point that the development of champions should start at an early age, but must concentrate on an all-round approach suitable for the emotional needs of the young athletes, not haphazardly, but under the guidance of sports medicine specialists and coaches.

He warns against strictly regimented running training based on pre-set mileage for weeks, months and years ahead and believes that such one-sided and monotonous approach leads to early stress, and even at this early stage the individual's outstanding natural abilities should be recognised and that some are built for mileage of a low intensity while others are attuned to limited mileage of a high quality.

An example of skilful adolescent management was that by George Board who coached his daughter Lillian to break the UK 800 metres record and gain an Olympic silver medal at 400 metres. While all the middle distance "experts" entreated him to give her much more mileage, he quickly recognised that she belonged to group one, previously listed in this article, and concentrated on her natural abilities.

A discusion on two lap running would not be complete without a look at the tactics employed to obtain world records and/or Olympic titles. A review of fifty such times from 1912 to 1980 reveals that only four of them had a faster second lap. Further, the second lap was 2.5 seconds slower, on average, and in the majority of cases a front-runner or "hare" has set a fast pace. Notable second lap exceptions were:

880 yards: 1:44.9 (Ryun) 53.3 first 440, 51.6 second 440.

880 yards: 1:49.3 (Elliott) 58.8 first 440, 50.5 second 440.

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800 metres: 1:50.5 (Matuschewski) 57.1 first 400, 53.4 second 400.

Exceptionally slow second laps include:

Ted Meredith, USA: 52.5 first 400, 59.4 second 400 = 1:51.9 – 6.9 slower.

Mal Whitfield, USA: 50.5 first 400, 58.7 second 400 = 1:49.2 – 8.2 slower.

One of the most even paced Olympic winning 800 metres was in 1932 , Tom Hampson, UK, 54.8 first lap and 54.9 second lap = 1:49.7 (first man under 1:50). Non-discerning British sports journalists reported that Hampson put on a terrific sprint over the last 200 metres, when in fact he was running at the same speed but the other competitors were slowing down rapidly, a strong case for level pace running.

The question now is – what sort of time for the first lap should the athlete aim for? Many theories have been put forward by such noted authorities as Toni Nett (Germany), Ken Doherty (USA) and Tony Ward (UK). The writer's view is that the following formula of his own has stood the test in the last decade: Add 5.5 seconds to your best 400 time and multiply by two. This gives the potential 800 time, eg best 400 = 56 seconds + 5.5 = 61.5 x 2 = 2:03. For women add 6.5 seconds, eg best 400 = 60 seconds + 6.5 = 66.5 x 2 = 2:13.

The first lap should not be faster than half the conversion figure of 5.5 for men and 6.5 for women, eg best 400 = 56 seconds + 2.7 = 58.7 maximum speed for first 400. This leaves 64.2 for the second lap. The difference being six seconds.

Sebastian Coe learnt early on in his international career when competing in his first European 800 metres title, that he could not go under the 2.7 on the first lap and still come back and win in a sprint finish. In his next big international 800 he was four seconds off his best 400 time and ran much better and faster. The magical figure of four seconds off one's personal best 400 metres is now the accepted leeway for men and five seconds for women.

Tony Ward, writing in *Modern Distance Running* (Stanley Paul), some 15 years ago, forecast a 1:40 800 based on the assumption that a man should be able to run within four seconds of the then world 400 metres record. If we do a little forecasting into a dream 800 based on the 400 world record of 43.8 + 5.5, we get 49.3 x 2 which is a potential new world record of 1:38.6!

For women there is a distinct chance of the 1:50 barrier being broken by a sub 50 second 400 metre runner within the next decade. The writer believes that the greatest breakthrough in 800 metre running will occur when 800 metre runners systematically work in training on the third 200 metres.

One way of doing this is in the non-competitive season when the athlete should run a series of 500m reaching the 400 mark five seconds slower than one's best for 400 metres, eg best 400m 50 seconds, reach 400 in 55 seconds and then accelerate full out over the next hundred metres.

After a month of this once a week, the distance is extended 100 metres to 600 metres and the process goes on to the 700 metre mark. The primary target is to bring about a half second or a full second increase in speed per 100 metres compared to the first lap. If the first lap is 56 seconds (14 seconds per 100m) then the acceleration 100s should be 13.5 to 13 seconds each, eg 56 secs + 13; 56 + 26; 56 + 39; which would be excellent, taking about four months to achieve.

This might lead to a 56 secs. first lap in competition followed by a 52 second lap. In spite of all the statistics, the man who can turn on a faster second lap, is a difficult man to beat in major championships. With correct training it can be done even from a fastish first lap.

Success in racing depends on assessment methods used at regular intervals to evaluate progress and efficiency of the work-load. For best results the tests should be simple, practical and reliable. The most common test used by middle-distance coaches is the time trial at 400, 600 and 1,000m for 800 metres men.

One drawback of this type of trial is that they fail to reflect the actual performance level of the athlete before a race during the different stages of training. Professors R. Kosmin and W. Ovtschinnikov, of the Central Institute of Physical Education, Moscow, have created a most reliable test based on research done on 300 athletes.

The formula for a good standard 800 metres runner is: T800 = 217.4 – 0.119 x D. T800 is the predicted time for 800 metres. D the total distance covered in a 2 x 60 seconds test with three minutes rest after the first run of 60 seconds. According to this formula, an athlete who covered 950m in the test would be: T800 = 217.4 – 0.119 x 950 = 104.35 secs. Thus a race time of 1:44.35 would be expected soon.

An athlete with a test distance of 100 metres less, 850m, can be expected to do 1:59.8 in his next race. Care must be taken that athletes do not cheat and when the whistle signal is given after the 60 seconds has expired, careful note should be made of his position AT THE TIME OF THE SIGNAL. and not at the point where he stops running, which might be ten or twenty metres further on.

Good class runners should attack the first 400 metres at 13 seconds per 100 metres giving a time of 52 seconds at 400 metres, they should then endeavour to keep the pace going for the next eight seconds, covering some 56 more metres.

Here is a table of predicted times from 800 metre distances onwards:

800m = 2:02.2
850m = 1:56.2
900m = 1:50.3.

For less qualified athletes, ie: women or young athletes outside two minutes, the formula is T800=200.5 – 0.0517 x D.

No discussion on two lap running would be complete without the views of leading coaches and physiologists. Professor A.V. Hill has stated that it takes 27 litres of oxygen to run 800 metres full out. Of this, the athlete can only breathe in nine litres during the race, leaving him with a deficit of 18 litres (oxygen debt). Thus he finished utterly exhausted and must rest awhile until his oxygen starved body is repaid the debt.

Some British coaches have quibbled about the accuracy of Hill's findings, stating that they were performed on a man who only ran 2 minutes for 800 metres. Which means he only had an oxygen uptake figure of about 4 litres per minute, whereas world class runners may have a figure of 6 litres per minute.

The latter figure might affect the German Professor Nocker's view that Hill's findings tell us exactly how we should train for the 800 metres event, treating it as a specialist event of its own: two-thirds anaerobic running and one-third aerobic.

Anaerobic running means that the body cannot replace the oxygen expenditure involved during the activity, for example: 100, 200 and 400 metre sprints. Here are some examples of anaerobic training for a man aiming to achieve 1:52 for 800.

Full out sprinting: 6 x 60; 5 x 70; 4 x 80; 3 x 90; 2 x 100; 1 x 110; *comlete recovery* between each run, aiming at maximum speed and good technique.

Full out sprinting: 4 x 6 x 60 turnabouts. There is *no rest* at all after each 60m run, but there is *complete rest* after each set of six. This causes very high pulse rates, maximum lactic acid in the muscles and strengthens the legs as the athlete pushes off to gain maximum speed.

Race pace to be achieved: 4 x 400 in 56 seconds with two minutes rest. This accustoms the athlete to the pace to be achieved and the rest is just adequate for him to complete the schedule on time.

Race pace to be achieved: 8 x 200 in 28 seconds with 30 seconds rest. The rest is inadequate and after the fourth repetition he will begin to go into greater oxygen debt and experience the same fatigue felt in the race.

NB. The more advanced runner can attempt to do the 4 x 400 session above with **decreasing** rest as the session progresses, but it is unlikely that he will do all the 400s on time, eg: two minutes after the first, 1½ minutes after the second; 1 minute after the third.

Aerobic running – commonly thought to be a long slow run – has other interpretations. For instance, a man running in a 10,000 and 5,000 or 3,000 metres race, is running aerobically for the major part of the race but he is also running *much faster* than a man doing a marathon. This is why the 800 metre runner can afford to do much less mileage now than was at first thought, simply by running aerobically faster over shorter distances.

Here are some aerobic examples for a woman aiming to break two minutes for 800 metres:

Marathon pace: 10 miles from 70 to 60 minutes.

Short faster run: 5 miles from 30 to 27 minutes.

3,000 metres pace: 12 x 400 in 80 to 75 secs with 30 seconds rest.

1500 metres pace: 4 x 800 in 2:30 to 2:10 with one minute rest. This is a variation from 4:40 to 4:00 for 1500 metres, the athlete choosing the more realistic time for her own needs.

Writing in the AAA *Middle Distance Handbook of 1951,* National AAA Coach, Jim Alford, (himself a former Welsh international and Empire Games medallist) recommended in the winter and basic conditioning period, an acceleration run of six miles each week. On other days in the week he suggests working up to 10 x 200 metres about three seconds slower per 200m than the race pace with a 200m jog rest not exceeding two minutes. An alternative is a fartlek on similar lines.

A 45 minute fartlek would consist of 7 x 300m at race pace with a fast 200 metres jog (1¾ minutes). Another substitute could be a cross-country race and others either a 45 minute fartlek where all hills are worked hard, or building up to 10 x 400 at seven seconds slower than one's best 400 time in an 800 metre race.

In addition to this he advocates two weight training exercises twice a week or circuit training three times a week.

A criticism of this routine is that it does not involve *any* sprinting throughout the winter, a dangerous omission because the muscles are likely to be torn on a resumption six months later, nor does the schedule include any over-distance or equal distance work, for instance 2 x 1,000 metres or 3 x 800 metres, which Rudolph Harbig

ncluded throughout the winter.

Tony Ward, writing in the *AAA Middle Distance Handbook in 1967*, advocates a bigger aerobic load in the winter with frequent runs of 13-14 miles plus a 1-2 hour fartlek per week and a weekly track session at distances from 200 to 1,000m with two weight training sessions a week. He also adds an inquisitive touch by asking the athlete to question himself, "Why am I running this session?" But, once again, Tony Ward does not include sprint training during this period.

Harry Wilson expounds the virtues of improving oxygen uptake and oxygen debt tolerance in the BAAB booklet of 1977, *Middle and Long Distance, Marathon and Steeplechase.* He also advocates the use of time-trials, differential runs; "up the clock" sessions; race pace-short recovery runs; quantity, then quality; the aerobic/anaerobic balance; but leaves much of this mixture to the ingenuity of the coach and athlete to do when they feel it is necessary.

However, he appears to favour a big mileage build-up in the winter on gradual lines followed by ore intensive hill-running and interval work, the minimum period being four weeks and the maximum fourteen weeks. He becomes more specific with the 800 metre runner in March, suggesting he does 8 x 200 metres near race pace with 100 metres jog in 60 secs. In June the repetitions become *less,* the speed *more,* and the rest longer. Wilson is yet another coach who does not advocate sprint training in the winter.

Bill Marlow, in his AAA booklet *Sprinting and Relay Racing,* deals with the acquisition of suppleness, strength, speed, stamina and skill, over a long period which he intimates to be three months before the competitive season.

Since world class 800 metre runners must be looking at times of 1:40 minus for the future, and this, of necessity, must involve the ability to run 400 metres in sub 46 seconds, it seems logical that training advocated for 400 metres

runners in the winter *must* be included in the 800 metre runner's training during this period.

Marlow suggests plenty of mobility work each day which includes hurdling. For strength, he recommends hopping over a measured distance of 40 yards aiming to reduce the number of hops for the distance by the time the track season arrives. Running with a harness while a partner pulls back to provide resistance is mentioned. The writer has found that a long bath towel wrapped around the runner while the two ends are pulled back, meets this requirement.

Sprint starts up to a distance of not less than 60 metres on varying surfaces, uphill and down, is also suggested in the off season. It is interesting to note that Olympic gold medallists Courtney, Juantorena and Coe, did not abandon sprint training in the winter season.

The writer accepts that after a long and tiring track season the 800 metre athlete needs respite from track training and advocates a month of only one track session a week immediately after the track season ends. This is followed by two track sessions a month later and three a week after three months. For example: October – one track session a week; November – two sessions; December – three sessions.

This has been found to be ideal for the National Indoor Championships and other major indoor meets, the writer's athletes having broken three indoor UK records and acquired six national titles. Some uninformed "experts" have stated that this results in athletes reaching their peak too soon, but the answer to this is that the athlete should compete at his non-specialist event indoors, ie: the 800 metre specialist should try the 400 or 1500 metres and the miler try the 800 metres or 3,000m.

An interesting leg strength statistic for the two-lapper is that he should have a sarjent jump in excess of 24 inches; a standing broad jump equal to his own height plus 25% and be able to hop 25 metres on each leg in under ten hops. It is now known that leg strength correlates to anaerobic power running and can be measured on the Lewis Nomogram (see P.500 of *The Physiological Basis of Physical Education and Athletics,* published by W.B. Saunders Co. written by Messrs Mathews and Fox).

Of course, if the athlete hasn't got the relevant leg strength he should set about rectifying the situation by intelligent and progressive strength training which running alone cannot possibly achieve.

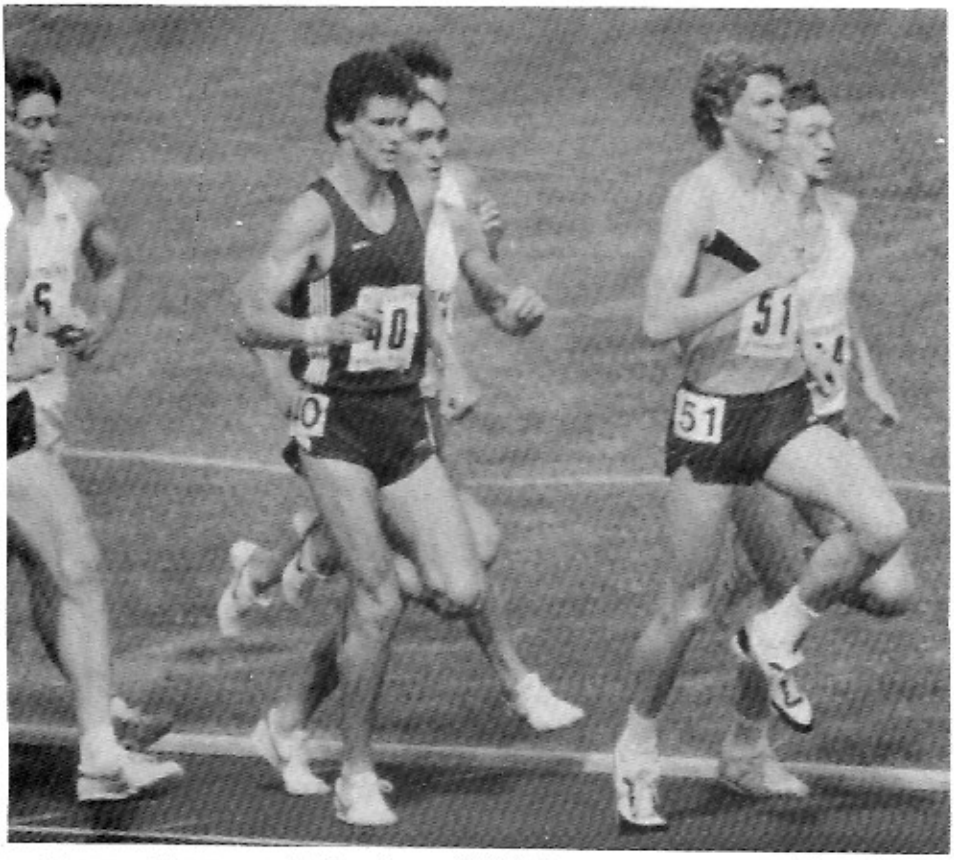
In a brilliant article by Brent McFarlane of Canada in *Middle Distances* edited by Jess Jarver, published by *Track and Field News,* he answers the questions most asked by the 800 metre runner.

"Should I start slowly and finish fast?".

"Shall I start fast and settle into level pace?".

Margaria has proved that whether the athlete covers the first 100 metres faster than level pace or slower, the oxygen debt incurred *is the same,* so he might as well start faster, this has the advantage of placing the runner in a position where he has fewer runners to pass, thus the total distance is *less.* Once the initial fast pace has been staked for the first 150 metres maximum, he should settle into even pace.

Knowledge of pace must be acquired by three or four track sessions a week where the athlete is subjected to running at 12 seconds per 100 metres one day, 13 secs. per 100 in another session and 14 secs. per 100 on a third outing. These times can be altered to the ability of the runner, a boy aiming to break two minutes for the first time would have sessions at 13, 14 and 15 seconds per 100 metres over distances from 200 metres to 600 metres and 16, 17 and 18 seconds per 100m over distances from 800 metres to a mile. ●



Steve Cram and Graham Williamson carve it up in AAA 1500m final. Cram won in 3:36.14 with a last 800 in 1:52.4. Cocksedge photo.

Shoe Ratings

TRAINING SHOES 5 STAR RATINGS.
Compiled by RUNNERS WORLD (Oct. 1981).

	Rearfoot Impact	Forefoot Impact	Flex-ibility	Sole wear	Shoe wgt	Sole trctn	L.term impacts	Midsole lngevty	Total
Brooks Vant.Sup	*		*	*	*				4
Brcoks Vant.	*			*	*				3
Puma Tracker	*		*				*		3
Brocks Hugger GT	*			*	*				3
Saucony Jazz	*	*	*	*					4
Saucony Free Trn.	*	*		*			*		4
Puma Power Cat	*	*		*			*		4
Puma Night Rider	*	*		*					3
Brooks Nighthawk		*			*		*		3
Brooks Super Villa			*	*	*				3
Pony Targa Flex			*			*	*	*	4
New Specs Inns				*			*	*	3
Van Doren Serio	*	*							2
Saucony Trn-80		*	*						2
Reebok Shadow 1			*		*				2
Autry Concorde		*					*		2
Saucony Hornet 84	*			*					2
Autry New Jet							*	*	2
Saucony Hi-Runner	*					*			2
Saucony TC 84			*			*			2

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COE GETS 1:41.8

It appears that the IAAF's record-accepting procedure developed a breakdown somewhere last season, as a manual (hand) time has been accepted as an automatically-timed World Record.

Specifically, Seb Coe's 1:41.73 for 800m should be a hand-timed 1:41.8. Roberto Quercetani, Italian track expert extraordinary, explains: "By the time the race got underway that night in Florence (June 10th), the auto timer, contrary to earlier reports, was not functioning properly. Coe's time was therefore taken on digital hand held watches to thousandths.

"These offered various verdicts, all very close and in the range of 1:41.720 to 1:41.728, so the time was finally adjusted to 1:41.72 and then 1:41.73. No one knows exactly why the correct 1:41.8 (round-up) rule procedure was not followed by the IAAF."

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Factfinder

Kenyan Billy Konchellah ran 1:46.76 for 800m in his DEBUT at the event in 1980! He was just 18 years old at the time.

Try this session: Tim Hutchings was observed putting himself through some self-torture on August 10th - 16 x 400m in an average of 61.2;30 seconds recovery. Every third 400m was clocked at between 58.6 and 60.9 sec!

World Round up

by Jess Jarver

CATASTROPHIC CORTISONE

by Dr. Evan Mladenoff

After attending a recent international track meet in my role as a chiropractor, a bitter taste remains. Although care was provided for a variety of problems and last minute tune ups, the following case remains unnerving. The athlete in question pulled up lame part way through the final. When I proceeded to question the athlete the following history was revealed.

The athlete has been suffering from hamstring tendinitis at the ischial origin for two weeks prior to the competition. With no improvement in the hamstring, the Thursday prior to the meet the athlete sought "therapy." The presiding physician indicated to the athlete that a cortisone shot would allow the athlete to compete on the weekend. The athlete indicated that the shot was administered directly into the tendinous origin of the hamstring. Normally, the muscle-tendon unit is in a state of constant tension. The tone of the muscle is such that it keeps the tendon taut and ready for function.

It has been stated that muscular strain will occur at the weakest link of the muscle-tendon unit at a given time. If an injection was the proper therapy at the time, it seems unreasonable that the needle should be inserted into the already weakened muscle-tension unit, as the physical instrument leaves behind microscopic disruption in the unit.

According to Cyriax, hydrocortisone injection needs a diagnosis accurate within a millimeter or two. Further, if we closely examine the anatomy of the hamstring ischial origin we find that the sciatic nerve sits directly under the origin of the biceps femoris portion. As chiropractic research has indicated that as little as 10mm of mercury pressure on a nerve is sufficient to produce 40 per cent loss of function at the end organ, it is not unreasonable to assume that the injection this athlete received may have caused irritation to the sciatic nerve.

In my experience, Cortisone shots (as they are commonly referred to), have not helped, regardless of the problem. On the contrary, the side effects may be more than the price of relief. I stand firmly when I advise anyone, especially athletes, that cortisone shots will be more detrimental than helpful in the long run, and should only be considered when all other conservative measures have been given a therapy trial.

Technical Bulletin (Canada)

Werner Schildhauer (GDR) has been timed at 1:55.6 for the last 800m in a 10,000m race he won in 28: 14.42. He won the World and Europa Cup 10km races in 1981.

TRAINING CYCLES

by Vitold Kreer

The search for more efficient training methods has developed a modern training structure made up of a variety of different cycles. Known as microcycles, these units of training in the total training process allow for a wide choice of training, competitive and recovery cycles. The cycles vary in load, intensity, volume and duration, and make use of different training methods. The basic microcycles can be defined as follows:

Training microcycles include standard and explosive training units. Standard cycles are made up of evenly-distributed training volume, intensity and methods, adjusted to the load required in a particular period of a year. The duration is two to three years.

Explosive microcycles concentrate on an intensive load and near-maximum training volume. Emphasis on training methods varies from day to day and the duration is only one week.

Competitive microcycles are made up of pre-season and in-season cycles. Pre-season microcycles emphasize the development of movement potential and technique, lasting one to two weeks. In-season microcycles serve to maintain an optimal form, both in the functioning of the nervous system as well as technique. The duration is up to three weeks.

Recovery microcycles have three major categories: relaxation, preparation and maintenance. Relaxation cycles usually follow explosive microcycles in training, employ general physical activity in the form of active rest, and last one week.

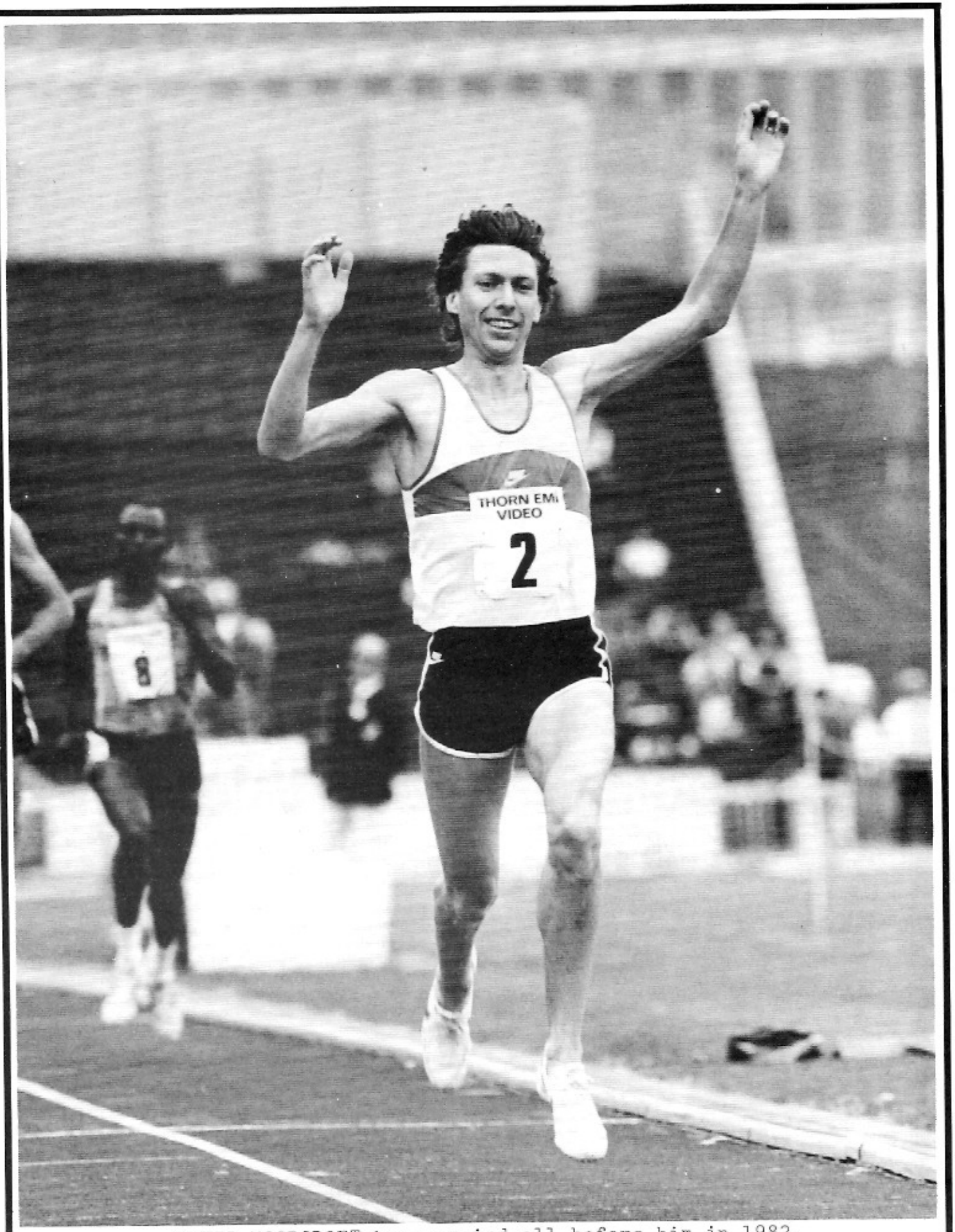
Preparation microcycles are introduced after a series of competitions to prepare for an exceptionally important competition. The nervous system is allowed to recover before a variety of contrasting training methods is employed. The duration is two to three weeks.

Maintenance cycles, characterized by a "softer" approach to training, have a part-recovery effect and are used between series of competitions. The duration is up to two weeks.

Mixed microcycles are introduced for variety and usually bridge the methods used from one cycle to the other. This allows the athlete to continue with some aspects emphasized in the previous phase, while new tasks are added. The duration of mixed microcycles is a week or a little longer.

Der Leichtathlet (East Germany)

BMC Sweaters are all the rage! Fire engine red, chosen by Harry Wilson. £11.00 (inc. p&p) from Bill Bennett.



DAVID MOORCROFT has carried all before him in 1982. 800m in 1:46.64, 1500m in 3:33.79, mile in 3:49.34, 2km in 5:02.89, 3km in 7:32.79 and 5km in 13:00.42 (World Record.). Photo: Eileen Langsley.