

BMC NEWS

Official Journal of the
British Milers' Club

ISSUE NO. 33. Autumn 1981.



Editorial

It's been an incredible year for middle distance running. Coe and Ovett have grabbed headlines galore as they swapped the world mile record around with dizzy frequency, Seb becoming the first Briton to break it three times. His 3:47.33 is a tough mark that will survive many assaults, I predict. Steve is not far behind with 3:48.40 and Sydney Maree, a US citizen by way of Pretoria, South Africa has shown a glimpse of his potential with 3:48.83 in Reiti in September ahead of a tired Ovett. And there is going to be plenty of hot action leading up to Athens and Brisbane next year.

I view proposed rule changes on advertising as a progressive move. If meeting promoters and clothing manufacturers can cash in, it only seems fair that athletes should be (officially) allowed to do so too.

Perhaps we can sweep away much of the shabby pretence and sham amateurism that bedevil the international side of the sport as well. What a pity that the IAAF continue to dither in this regard, however; announcing rule changes and then rescinding them, amid confusion and resentment. As long as the IAAF continues to muddle along in this way, it will run an increasing risk of losing control of the sport.

On a positive note, it has been good to see the return of Henry Rono this year along with that of David Glassborow, ten years after he ran 3:48.7 at age 16. Paula Fudge, too, has shown renewed vigour with a world record of 15:14.51 for 5000m. A lot of man can't beat that.

This will be the last issue of BMC NEWS that I shall edit but I am sure it will continue to interest and invigorate members, especially with the pungent comments and views of Frank Horwill, who pens the most readable and racy column in the sport.

BMC news

No. 33 Autumn 1981.

President: Steve Ovett

Chairman: Harry Wilson

Hon. Secretary: Mike Tollit,
Haresfoot, Berkhamsted, Herts.

Telephone: 04427 4323

Membership Secretary: Paul
Williams, 80 Milford Close,
Abbeywood, London SE 2.

Equipment Secretary: Bill Bennett
7 White Acre Drive, Hawksdown,
Walmer, Deal, Kent. Telephone:
Deal 62366.

BMC News Editor: David Cocksedge
82 Florida Road, Thornton Heath,
Surrey CR4 8EW. Telephone: 01-
679 3977.

Deputy Editor: Frank Horwill
62 Kelson House, Stewart Street
London E 14.

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Front Cover

The 1977 AAA 1500m field stacks
up for the last 500m drive for home.
Nick Rose leads Glen Grant, Frank
Clement, Eamonn Coghlan, Walter
Wilkinson and John Robson.

Photo by Mike Street.

The AGM was held on 19th October 1980 at Copthall Stadium with 34 members in attendance.

Harry Wilson took the Chair and minutes of the 1979 AGM were read and approved.

Apologies were received from Charles Booth, Ron Holman, Frank Horwill, Dave Cocksedge, Steve Overt, Bob Sexton and Jim Arnold.

Reports were received from National Secretary, Membership Secretary, Race Secretary, Equipment Secretary.

The Hon. Treasurer gave a financial statement showing a positive balance in the sum of £561.88.

The following were elected to office:

President	Steve Overt
Chairman	Harry Wilson
Vice Chairman	Neville Taylor
National Secretary	Michael Tollit
Hon. Treasurer	Ray Williams
Membership Secretary	Paul Williams
Hon. Auditor	Neville Taylor
Area Secs. South	Frank Horwill
NW	Peter Shaw
SW	Gordon Seward and Geoff Plant
Wales	Ann Hill
East	Bob Sexton
Midlands	Tony Saunders, George Gandy
NE	Gordon Surtees

Ordinary members of National Committee: Greg Moon, Dave Cocksedge, Malcolm Coomber, Kathryn Binns, Mike Dunphy

Additional Vice Presidents: Christine Benning was elected with all existing VPs re-elected.

Any Other Business

1. Change in Constitution was approved.
Rule 4(b) shall now read: The Committee shall be elected at the AGM and shall consist of Chairman, Vice-Chairman, National Secretary, Treasurer, Membership Secretary, Regional Secretaries and five other members.
Rule 5 shall now read:
2. Presidents and Vice Presidents
These positions shall be elected at the AGM. They may attend meetings and shall be entitled to vote on motions put forward at these meetings.
Membership is free, but Presidents and Vice-presidents may make donations to the Club if they wish.
3. A vote of thanks was proposed and seconded and unanimously agreed to be extended to Mike Dunphy and Charles Booth for their efforts.

Meeting terminated at 2.30 p.m. with vote of thanks to the Chairman.

National Secretary, Michael Tollit.

A.G.M. for 1981: Harlow Sports Centre, Sunday, 18th October, at 4 p.m. for members only.

FRANK HORWILL

THE MAN THEY CAN'T GAG
SPEAKS OUT AS USUAL!

4

Harry Wilson has, quite rightly, shed some doubt about the efficacy of oxygen uptake tests conducted in physical performance labs. He quotes the recent testing of JULIAN GOATER and STEVE OVETT who both recorded the same uptake figure after a nine minute test on a treadmill.

With due respect to Julian, Harry says that the chances of him running a 3:48 mile are remote. So, there is something lacking in these findings.

After considerable thought I have come to the conclusion that the aspect missing is a measure of determining ANAEROBIC power; and if the above athletes had received this test it would have quickly shown that one is better suited to aerobic events and vice versa.

Now, how can one test anaerobic power and on what basis is the test devised? It all resolves around the ability to develop considerable power and the term Explosive Power has been associated with the anaerobic metabolism and tests to measure it.

The development of power is related to muscular strength and especially to the amount and rate of utilisation of the ADENOSINE TRIPHOSPHATE (ATP)-PHOSPHOCREATINE (PC) system. The former is stored in all muscle cells. Only from the energy released by the breakdown of this compound can the cell perform its specialised work.

Similarly, PC is stored in muscle cells and when in conjunction with ATP its phosphate group is removed, a large amount of energy is liberated.

The end product of this release are creatine and FREE phosphate. This energy is immediately available and is used directly to resynthesize ATP.

NO OXYGEN IS REQUIRED AND ITS POWER IS LIMITED TO SECONDS AS AGAINST MINUTES OR HOURS OF THE OXYGEN UTILISATION SYSTEM.

Ten years ago I discovered that top class 800m runners had better leg strength than other middle distance athletes. These findings came after several hundred tests were performed on athletes using the Sargent jump; standing broad jump and the 25 metre hop as the standard.

Now, the Worlds' greatest physiologists have caught up with me and have discovered that LEG POWER IS RELATED TO ANAEROBIC POWER! They have devised a test which will measure your ATP-PC system.

Here it is: The Lewis Nomogram Test for determining Anaerobic Power from the Sargent Jump score and body weight.

If you have a body weight of 140 pounds (63.503 Kg) and a jump distance of 24 inches (0.610m) vertical jump - lay a straight edge across the Nomogram connecting 140 pounds (right column) and 24 inches (left column). Read from the centre column, foot-pounds per second (ft-lb/sec) as the power output.

Note that the measurements may be either in English or in metric units and the power output in the example given would be 110 kilogram-metres/second.

Two things will become apparent from this test: an athlete who weighs 160 lbs and jumps 24 in. will have GREATER anaerobic power than a man jumping the same height but weighing 20 lbs less.

The second factor is that R. Margaria, a much under-estimated physiologist who has made a special study of oxygen utilisation in all aspects of competition believes that top class athletes should have readings between 176 - 210 and women 152 - 182.

To convert Kg.m/sec to HP multiply by 0.013. However, an even more accurate anaerobic test is the Margaria-Kalamen power test. This

THE LEWIS NOMOGRAM FOR DETERMINING ANAEROBIC POWER FROM JUMP-REACH SCORE AND BODY WEIGHT

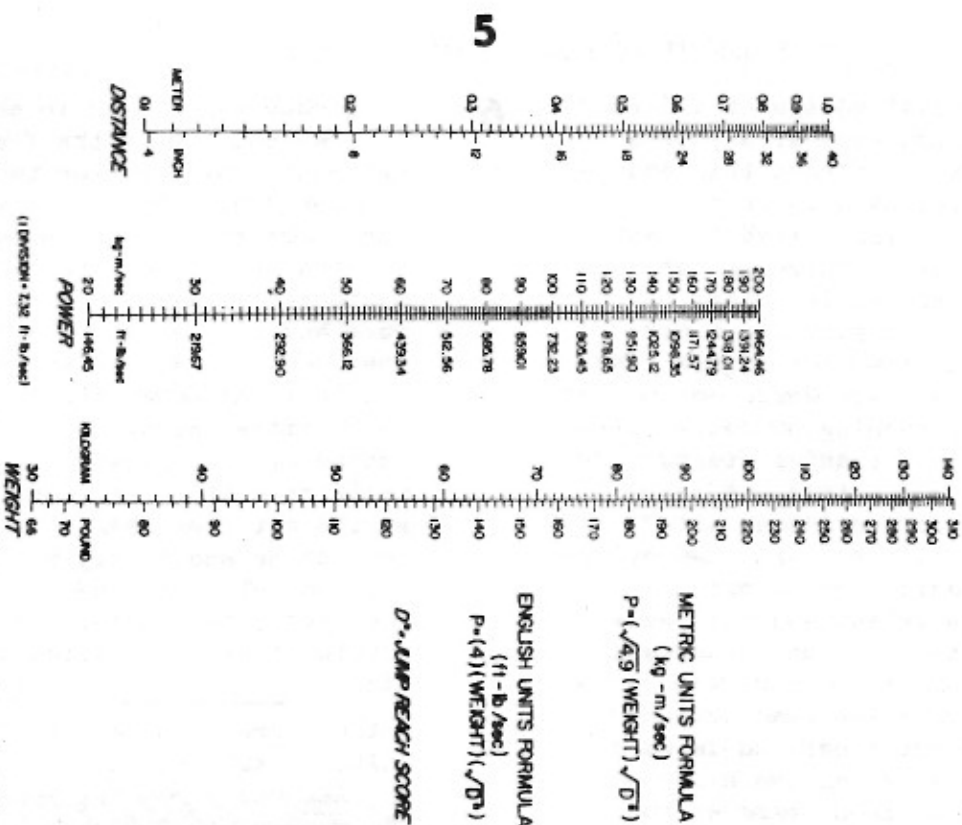
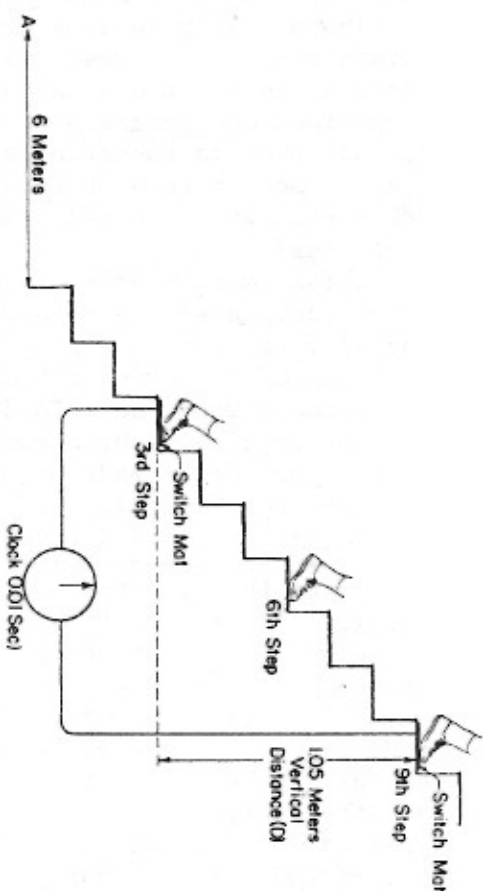


Figure 1. The Lewis Nomogram. A person's power output can be determined by knowing the score on the jump reach and the body weight.
(Courtesy, Office of Naval Research.)



times, recording the best score. Power output is computed using the formula:

$$P = \frac{W \times D}{t}$$

in which P = Power

W = Weight of person

D = Vertical height between first and last test stairs

t = Time from first to last test stairs

The test is scored as follows:

$$W = 75 \text{ kg.}$$

$$D = 1.05 \text{ meters}$$

$$t = 0.49 \text{ second}$$

$$P = \frac{75 \times 1.05}{0.49} = 161 \text{ kg-meters per sec.}$$

$$P = 161 \text{ kg-meters per sec.}$$

Kalamen,¹¹ using 23 nonathlete males in service classes at the Ohio State University, obtained a mean power output of 168.5 kg-meters per second, with a standard deviation of 31.

requires special equipment and the BAAB should now request approved testing centres to have this equipment installed as a major step forward in finding suitable WOMEN middle distance runners in both aerobic and anaerobic tests.

Kalamen also discovered a high relationship between the jump test used with the Lewis Nomogram and the time for running 50 metres with a 15 metre running start. Just how he works this out is not made clear and anyone with a more mathematical mind than my own who is able to work out a suitable equivalent scale is welcome to write to me with the key.

What happens if you take the test and have a low reading? Well, the mountaineer who is born able to scale Everest as his first conquest is so rare as to be non-existent. In other words, you have to work to increase the power of your legs. You won't achieve this with running alone. A person really anxious to improve his/her anaerobic power must do precise weight training on highly organised and progressive lines in addition to incurring a high lactic acid rate with work at 800m pace with limited rest and full rest.

The main muscle groups that the middle distance runner must develop are set out in my pamphlet PERSON TO PERSON STRENGTH TRAINING AND COPING WITH STRESS. If you require a photocopy send a p.o. or cheque made out to the BMC for 50p together with a stamped, addressed envelope.

I find that the media are tending to give STEVE CRAM bionic powers. True he's good but he is not Hercules himself....The race that exposed his limitations was the 1000m at the Talbot Games where after the first lap he was left floundering at the rear. I fancy myself as a bit of a forecaster on race results (I picked outsider Barry Smith to win the Golden 5Km and I also forecast that Cram would not win the Europa Cup 1500m in Za greb).

The race was a classic one where the fastest man in the field (Cram) was beaten by superior tactics. One would have thought that after his 1000m experience he might realise that his speed over 400m is mediocre. He allowed a .62 first lap pace and then tried to outkick the man (Olaf Beyer) who beat Coe and Ovett at 800m at Prague in 1978. Either Steve is a little conceited or he believes what the media says about him. Cram must strike not less than 600m from home or he should try running everyone else off their feet from the front, as a 3:49.95 miler it shouldn't be too difficult for him.

It was great to see BMC Junior PHILIP DIXON from Rossendale win the AAA Under-20 Championship at 1500m. Born 30.1.62, Phil joined the BMC in May 1981 with times of 1:55, 3:48 and 8:11. Unlike some of his more favoured rivals he did not receive any perks before the Championships; like fast races abroad. Let's hope that now he has a National title the BAAB will see that he gets more attention.

Athletes must learn to take defeat like MEN and not kiddies who have had their ice-lolly taken from them. In a recent Championship an athlete who failed to finish in the first 3 places threw a disgraceful tantrum; screaming with rage, crying and banging the track with his fists. After all, it is a sport to be enjoyed. You do your best and if that is not enough to win you simply grit your teeth, go away, analyse your performance and start building again.

One athlete who has done this many times is SEBASTIAN COE. One season he ran ALL his races from the front to get the feel of it and to see if it suited him. At times he succeeded but when he failed he put it down to a valuable lesson learned. Now he has become the first Briton to break the World mile record THREE times.

Congratulations to GERRY BARNES and STAN MARKLEY in taking over the organisation of races in the NW and NE respectively for 1982. Also to JOHN WHEATON and MARION HEPWORTH who are the nucleus of a Midlands BMC Committee. John ran in many BMC races in his day and in 1969 took the European 1500m title (3:39.2) in Athens. In Scotland, BRIAN McCausland and JOHN TONNER are the pioneers of a Scottish BMC Committee. Come along you Midland and Scottish Coaches/interested parties, join up with them and make the BMC even stronger in your areas!

Have you read my article 'The Decline of British Women's Middle Distance Running', published in the July issue of ATHLETICS MONTHLY? Send an s.a.e. and I'll send you a copy.



FRANK TALKS TACTICS WITH STAR PUPIL TIM HUTCHINGS. Cocksedge photo.

NB: Referring to my intro feature on testing, please note that Goater's workload was different from Ovett's. When athletes are tested in this way, coaches should find out the individual workload given in each case.
F.J.H.

It is good to see that the new Secretary of the UK Coaching Committee is CONRAD MILTON, a BMC Coach who joined us in 1966 and lectured at BMC residential courses and training days; did his bit of tub-thumping when he thought the hierarchy of the BAAB were talking horse manure and consistently produced athletes of international level over the past decade. He succeeds the much disliked Squadron Leader, NORMAN COBB, who has been noted for his imperious attitude to National Coaches and his thinly veiled contempt of specialist clubs, such as the BMC. He also fought the formation of the UK Athletic Coaches Association. It did not matter to him that swimming coaches have such an organisation which is completely independent of the Governing Body in their sport. Gradually, the BAAB is being cleansed of its malignancies and our sport is all the better for it.

Frank Horwill.

CRYSTAL PALACE RACES

Owing to large numbers, and pressure from the SCAAA, we have had to limit the number of BMC Invitation races at the SCAAA Open meetings at Crystal Palace. In future, only ONE race will be held at each meeting, and this will be a top grade race only. The grading will be fixed for each race and is likely to be a compromise between the senior membership qualifying time and the Junior membership qualifying time.

VITAMIN C - AGAIN!

Although much of the early nutritional literature attributed little advantage to vitamin C supplementation, some recent studies suggest that it may improve physical performance. Increase in ascorbic acid in the blood may result in a shift in the blood oxygen carrying capacity which could make greater amounts of oxygen available to the muscles.

WORLD RECORD EVOLUTION - 1500 metres

4:06.2	Charles Bennett (UK)	15.7.1900
4:05.4	James Lightbody (US)	3.9.1904
3:59.8	Harold Wilson (UK)	29.5.1908
3:59.2	Abel Kiviat (US)	2.5.1912
3:55.8	Kiviat	8.6.1912
3:54.7	John Zandar (Sweden)	5.8.1917
3:53.0*	Paavo Nurmi (Finland)	23.8.1923
3:52.6	Nurmi	19.6.1924
3:51.0	Otto Peltzer (Ger)	11.9.1926
3:49.2	Jules Ladoumègue (Fr)	5.10.1930
3:49.2	Luigi Beccali (Italy)	9.9.1933
3:49.0	Beccali	17.9.1933
3:48.8	Bill Bonthron (US)	30.5.1934
3:47.8	Jack Lovelock (NZ)	6.8.1936
3:47.6	Gunder Haegg (Swe)	10.8.1941
3:45.8*	Haegg	17.7.1942
3:45.0*	Arne Andersson (Swe)	17.8.1943
3:43.0	Haegg	7.7.1944
3:43.0	Lennart Strand (Swe)	15.7.1947
3:43.0	Werner Lueg (Ger)	29.6.1952
3:43.0*	Roger Bannister (UK)	6.5.1954
3:42.8	Wes Santee (US)	4.6.1954
3:41.8*	John Landy (Australia)	21.6.1954
3:40.8	Sandor Iharos (Hun)	28.7.1955
3:40.8	Laszlo Tabori (Hun)	6.9.1955
3:40.5	Istvan Rozsavolgyi (Hun)	3.8.1956
3:40.2	Olavi Salsola (Fin)	11.7.1957
3:40.2	Olavi Salonen (Fin)	11.7.1957
3:38.1	Stanislav Jungwirth (Czech)	12.7.1957
3:36.0	Herb Elliott (Aus)	28.8.1958
3:35.6	Elliott	6.9.1960
3:33.1	James Ryun (US)	8.7.1967
3:32.16	Filbert Bayi (Tan)	2.2.1974
3:32.03	Sebastian Coe (UK)	15.8.1979
3:31.36	Steven Ovett (UK)	27.8.1980

* During mile race

It is fairly rare to see a progressive list on the 1500 metres World record, whilst mile lists are fairly common. To rectify this, here is the comprehensive list, recognised by the IAAF since 1913 of world record holders in the metric mile. Note that Bannister equalled the 1500 record enroute to his historic 3:59.4 in 1954 and that John Landy (3:41.8/3:57.9) is the last man to cop both the 1500m and mile records in one.

i : indoor mark.

800 metres

1:41.72	Sebastian Coe
1:45.30	Omer Khalifa (Sudan)
1:45.42	Garry Cook
1:46.29	Steve Cram
1:46.40	Steve Ovett
1:46.83	David Warren
1:47.02	Chris McGeorge
1:47.20	Robert Harrison
1:47.35	Peter Elliott
1:47.8	Julian Spooner
1:48.0	Paul Forbes
1:48.66	Ulrich Karck (GFR)
1:48.89	John Goodacre
1:48.90	Ken Glass
1:48.91	John Robson
1:49.04	Geoff Cooper
1:49.5	Philip Norgate
1:49.5	Alan Mottershead
1:49.5	Jim Moseley
1:49.5	Robert Benn
1:49.51	David Moorcroft
1:49.51i	Mike Whittingham
1:49.53	Andrew Morrell

1500 metres

3:31.57	Steve Ovett
3:31.95	Sebastian Coe
3:34.81	Steve Cram
3:34.96	Omer Khalifa (Sudan)
3:36.18	John Robson
3:38.65	Ian Stewart
3:38.99	James Espir
3:39.90	Sean Cahill
3:40.38	Tim Hutchings
3:40.72	Gary Taylor
3:40.79	David Glassborow
3:40.97	Alan Salter
3:41.74	Jack Buckner
3:41.75	Nat Muir
3:41.92	Frank Clement
3:42.3	William Dee
3:42.58	Colin Reitz
3:42.6	Geoff Smith
3:43.0	Graham Jackson
3:43.41i	Ken Newton

One mile

3:47.33	Sebastian Coe
3:48.40	Steve Ovett
3:49.95	Steve Cram
3:52.44	John Robson
3:54.37	David Moorcroft

3:55.8 Geoff Smith
 3:56.7 James Espir
 3:57.10 Ian Stewart
 3:58.0 Sean Cahill
 3:58.20 Tim Hutchings
 3:58.2 Omer Khalifa (Sudan)
 3:58.62 Barry Smith
 4:00.24 Richard Callan
 4:00.30 Chris Sly
 4:00.3 Adrian Royle
 4:00.38 Frank Clement
 4:00.83 David Crowe

WOMEN

800 metres

2:00.02 Christina Boxer
 2:00.30 Cherry Hanson
 2:01.6 Ann Clarkson
 2:02.75 Gillian Dainty
 2:02.82 Janet Marlow
 2:02.86 Jo White
 2:02.88i Kirsty McDermott
 2:03.6 Lorraine Baker
 2:03.79 Wendy Smith
 2:04.25 Liz Laban
 2:04.78 Pam Whitter
 2:05.3 Carol Lightfoot
 2:05.6 Teena Colebrook
 2:05.73 Shireen Hassan
 2:05.8 Julie Asgill
 2:05.98 Suzanne Morley
 2:06.59 Monica Joyce
 2:06.7 Katie Fairbrass
 2:07.1 Julie Laughton

9 1500 metres

4:09.57 Christine Benning
 4:10.10 Cherry Hanson
 4:10.42 Wendy Smith
 4:10.67 Jo White
 4:10.72 Christina Boxer
 4:11.23 Paula Fudge
 4:12.26 Gillian Dainty
 4:12.7 Regina Joyce
 4:12.71 Ruth Smeeth
 4:13.7 Monica Joyce
 4:14.34 Janet Marlow
 4:15.35 Alison Wright
 4:16.44 Jane Furniss
 4:17.9 Hilary Hollick
 4:18.2 Julie Asgill
 4:18.5 Kim Lock
 4:19.44 Julie-Ann Laughton
 4:20.0 Katie Fairbrass
 4:20.0 Kay Pilling
 4:20.1 Val Rowe

1981 rankings compiled by
 members of the NUTS.

PICKED FOR A PRESTIGE RACE?
 Why not wear your BMC vest?



B Britain's best milers
M Men and women devoted to the
 pursuit of running excellence
C Complete middle-distance runners

How They Train

10

Lessons From The Great

ROGER MOENS, Brussels, Belgium. Best marks:- mile - 3:58.9; 1500m - 3:44; 1,000m - 2:19.6; 800m-1:45.7(world record); 400m - 47.3

Height - 5ft.11ins./ 1.81m

Weight - 156lbs./70.8 Kg

Stillman Table ht/wt ratio, 10% below average non athlete weight.

PRE-RACE WARMUP: jog 30 min. 5 x 100m fast striding. Walk briefly after each. 250-300 sprint.

PRE-TRAINING WARMUP: jog 30 mins. 5 x 100m fast striding. Walks.

WINTER TRAINING:-

Monday and Friday: 10 x 400 in 57.

Jog 400m in 2½ min. after each.

Tuesday and Saturday: 10 x 200m in 24.5 avg. Jog 400m in 3 min. after.

Wednesday: 10 x 300, in 39. Jog 400m in 3 min. after.

Thursday: 3 x 600m in 1:24. Jog 800m in 6 min. after each.

Sunday: Rest.

SUMMER TRAINING; (With a race on Sunday, train 4 days during the week. Rest either one or two days prior to each race.)

Day 1. 6 x 200m in 23. Jog 4 min. after

Day 2. 8 x 300m in 38. Jog 4 min. after

Day 3. 6 x 400m in 54. Jog 5 min. after

Day 4. 10 x 100m in approx. 11.4. Jog 2 min. after.

All workouts followed by 10min. jogging. Duration of workouts: 1½-2 hours, started at 5p.m. Never trained twice a day.

Did not believe in weight training. Each year he ran three cross-country races and twenty-five track races.

Moens achieved his world record 800m on the 8th March 1955 in Oslo..

Sometimes Moens raced five times in one week and confined his racing period to three months. Was a police officer.

Did you know that Henry Rono's new world 5000m record (13:06.20 at Knarvik on September 13th) averages out at 62.896 per lap for 12.5 laps?

CAFFEINE IN ENDURANCE

by Jim Ferstle

Brazilian coffee growers are probably dancing in their fields after hearing of the results of recent experiments with caffeine. Studies conducted at Ball State University's Human Performance Laboratory have shown that caffeine can be an ergogenic aid that enhances endurance performance.

David Costill, director of the laboratory and an avid distance runner, tested endurance cyclists and found that caffeine significantly increased the work capacity of the group that ingested 330mg of caffeine (the equivalent of 2.5 cups of coffee). Dr. Costill theorizes that the increase in work output is the result of an increased mobilization of fat and the psychological and/or neurological facilitation provided by caffeine.

However, Dr. Costill cautions runners or other endurance athletes not to expect universally positive results from caffeine. He has tested the substance on himself and reports varying success. Individuals have different tolerance levels for caffeine, Dr. Costill tells, and the beneficial effects can sometimes be offset by the substance's action as a diuretic, especially during hot, humid weather.

He suggests experimenting with caffeine in training before using it during competition. Dr. Costill recommends coffee or tea, not any of the numerous soft drinks, which have only small amounts of caffeine. It would take about six bottles of one of these drinks to get the caffeine available in coffee, and the sugar in the drinks would counteract any positive effects that the caffeine provided.

Physician and Sportsmedicine (U.S.A.)
(Vol. 6, No. 12, 1978)

LOOKING FOR NEW APPROACHES

by V. Gorshchikov and A. Yakimov

The authors experimented with integrated training methods in middle and long distance running and found that a complex approach, particularly during pre-season and competitive season, brought good results. Not only did performances improve, but the integrated microcycles prevented monotony and appeared to have excellent influence on the organism.

The following is a typical microcycle employed during the competitive season in June:

Mon-AM: easy run, 6km in 27 to 28 minutes, gymnastics, 10 x 100m accelerations. PM (track): easy run over 3 to 4km, 10 minutes gymnastics, 5 x 80m accelerations. Running: 5 x 400m (58 to 60 sec), 400m jogging, 3000m (9:00 to 9:10), 2 x 1000m (2:33 to 2:35 and 3:05 to 3:10) and finally 400m in 55 to 56 seconds.

Tues-AM: as on Monday. PM: cross country run over 20 to 25km (1:20 to 1:45).

Wed-AM: easy run, 6km in 26 to 27 minutes,

gymnastics. PM (track): easy run over 3 to 4km, gymnastics, 5 x 80m accelerations. Running: 400m in 54 to 55 seconds, 5000m in 15:10 to 15:40, 400m in 56 seconds, 1000m in 3:10, 5 x 200m in 30 seconds.

Thurs-AM: easy run, 10km in 42 to 44 minutes. PM: rest.

Fri-AM: as on Monday. PM (track): easy run over 3 to 4km, gymnastics, 3 x 100m accelerations. Running: 10 x 200m in 32 seconds, 5000m in 15:30 to 16:00, 800m in 2:00.

Sat-AM: cross country run over 20km in 1 hr. 20 min. PM: 2000m race (best 5:10.05).

Sun-AM: cross country run over 15km in 1 hr. 5 min. PM: 800m race.

Legkaya Atletika (USSR)



TACTICS IN MIDDLE DISTANCE RUNNING

by Paul Wagner

European championships in Prague demonstrated once again the importance of tactics in middle distance races. Although a relatively simple process, tactics in middle distance running needs more attention to achieve optimal performances.

The development of tactical efficiency, besides

improving the athlete's self-confidence and decision making, should be based on a thorough analysis of motor capacities. All weaknesses, such as lack of basic speed, should be taken into consideration in the choice of training methods employed in long term planning.

Two factors, the athlete's own capabilities and current form, as well as the expected tactics by the opponents, are taken into consideration in short term planning. The following is to be analyzed:

- * Who from the rivals prefer a short (80 to 150m), who a long (200 to 500m) finishing sprint?
- * Who from the rivals lack speed and sets a fast pace early in the race?
- * Who are the rivals who never like to lead and attempt to take in the second or third place in the field?
- * Who are the rivals who win from the lead position but fail when other runners take over the lead?

Already as beginners, athletes should be aware of such basic tactical rules as trying to avoid passing on the curve, keeping contact with the leading group and running close to the pole line without getting blocked in. The development of tactics should be based on learning, not trial and error principles.

Finally, physiological factors, such as aerobic and anaerobic energy production, are to be considered. In starting the race too fast, there will be an enormous build-up of lactic acid, which in an 800m race, for example, will lead to difficulties at the 500 to 600m mark. The athlete will be forced to slow down considerably or even pull out of the race. Consequently, the value of an even pace should not be overlooked in planning of tactics.

Leichtathletik (West Germany)

800 METERS TACTICS

by R. Cooban

To find a solution for the best tactics in 800 meter races an analysis of 42 best Polish and 21 world-class athletes gave the following statistics:

1. Analyses of 68 Performances:

Section	Min.	Max.	Average
1st. 200m	24.0	28.2	25.9
2nd. 200m	26.0	29.3	27.4
3rd. 200m	25.9	28.8	27.3
4th. 200m	25.5	29.9	27.6

2. Analyses of Best 10 Performances:

1st. 200m	24.2	26.3	25.3
2nd. 200m	26.0	27.4	26.8
3rd. 200m	25.9	27.6	26.8
4th. 200m	25.5	28.5	26.8

3. Analyses of Slowest 10 Performances:

1st. 200m	24.8	27.2	26.2
2nd. 200m	27.1	28.7	27.8
3rd. 200m	26.6	28.0	27.3
4th. 200m	27.8	29.4	28.5

The tables indicate three obvious points:

1. The first 200 meters are the fastest and the difference, compared with the second 200 meters, remains 1.5 seconds in the averages for the top as well as weakest athletes.

2. In tactically well raced competitions the second, third and fourth 200 meters are covered at

approximately the same speed. It is obvious in tables 1 and 2 (best performances), and indicates that this is a characteristic of good races.

3. The difference in speed between the first and second half of the race is also similar. For all runners it is 1.6 seconds for the best 1.5 seconds and the slowest 1.8 seconds. This applies not only to races with a fast first half but also those with a fast second 400 meters.

Lekka Atletika (Poland)

Treasurer's reminder

Subs (£2.00) for 1981 should have been paid by now. If not, you now owe the club £3.00 for this year. The additional £1.00 is a penalty for slow payment - that is the rule! If you wish to pay by bankers order you may of course do so, but please inform the treasurer.

Barclays Bank Ltd
Lavender Hill,
835 Wandsworth Road, London SW8 3JN.
British Milers' Club account number:
40200859.

BLOOD DOPING REVISITED

Advocates of blood doping may be interested in the following: Some 10 years ago, the BMC took part in a pilot study of physiological testing at St. Mary's College, Twickenham. At one visit, among others, three female athletes attended and were tested. They were of comparable age, weight, height etc., and therefore it is possible to predict of similar total blood volume.

However, their respective haemoglobins were found to vary considerably: Athlete A had a level of 13.6 gms/100 ml; athlete B had 14.3 gms/100 ml and athlete C, surprisingly because she was a good performer, had a level of only 11.4 gms/100 mls.

Even more surprising was the fact that the girls' maximum oxygen uptake was measured and A had a value of 44 mls/kg/min; B's was 41 and so was C's.

Blood doping (or packing) procedures usually involve the removal of 1 pint of blood. In order to bring C's

haemoglobin up to the same level as B would actually require a THREE PINT blood transfusion. The initial removal of 3 pints from this girl would have caused serious illness with a haemoglobin level of approximately 8.4 gms/100 mls (almost always accepted as requiring hospitalisation).

Despite this low level, the female athlete concerned still possessed an oxygen uptake equal to another athlete with an additional 2.9 gms of haemoglobin each 100 mls of blood. That is, in oxygen carrying terms, each 100 mls of blood was able to carry an extra 3.9 mls of oxygen compared with athlete C; or assuming a blood volume of 4 litres almost a total of an extra 160 mls. But they possessed the SAME oxygen uptake.

By now you should be convinced that oxygen uptake is dependant on many

factors such as cardiac output, pH, partial pressure of oxygen, oxygen saturation, 2,3 dpg levels and shunting, distribution, and perfusion factors. Blood doping may or may not work; but it should not be thought of in simplistic terms.

RON HOLMAN

LECTURE PAMPHLETS ON MD/DIET!

Lecture pamphlets, produced by Greg Moon and Dawn Lucy, are now available, price 30p each, plus 15p postage. The topics are: 'Modern trends in diet related to distance running', by Frank Horwill and 'Diet and the middle distance runner' by Ron Holman.

These pamphlets are invaluable aids to anyone genuinely interested in the latest dietary trends and ideas related to distance runners. Send money and postage to 290 West Barnes Lane, New Malden, Surrey.

GEAR!

Available from about December 1981, acrylic sweaters in red, with BMC runner and the words BRITISH MILERS CLUB under the motif.

Price is £10.50 plus 15 x 12 in. envelope with 50p stamp affixed and self addressed.

BMC vests all sizes are £3.50p each plus 20p stamped addressed envelope, A4 size please.

BMC Badges 25p each.

New ties will be obtained at the earliest opportunity, and the price announced.

All the above obtainable from Bill Bennett, 7 White Acre Drive, Hawksdown, Walmer, Deal, Kent.

(All cheques or po's should be made payable to W.F. Bennett, not the BMC).

**Official Journal of the
British Milers' Club**

This course, the first of its kind, organised by the Southern BMC Committee, will take place On November 6/8th 1981 at Deal, Kent, cost is £12 for full board. Maximum number is 28 athletes, male and female, with three coaches. Sixteen applications have been received and accepted together with monies. Final details will be sent applicants one month before the course starts. Apply to Frank Morwill, 62 Kelson House, Stewart Street, E.14, together with a s.a.e. and £12 payable to the BMC.

oOo



Paula Fudge and Ann Ford, the Yeoman twins of yore, are the World's leading pair of female twins, scoring 2159 points on the 1975 IAAF Scoring Tables with times of 8:52.79 (Ann) and 8:48.74 (Paula) for 3000m. Mike Street photo.

Athletes are reminded that the temperature in Brisbane will be ten degrees higher than for the normal average summer's day in England. This means that an athlete should know about heat acclimatisation, fending off dehydration and guarding against potassium lost in the sweat which affects heart efficiency. Frank Morwill recommends the following one month before flying out:-

- a) Either train for one hour a day in track-suit or do an exercise routine for the same period in a room where the temp. is not less than 80 degrees F. In the 1956 Olympic Games the marathon was run in a humid 85F. Which caused Zatopek to exclaim as they lined up, "To-day we die."
- b) Do not allow thirst to dictate your water needs; drink plentifully when NOT thirsty.
- c) Drink copious amounts of fresh orange juice to keep the potassium intake high.
- d) DO NOT TAKE SALT TABLETS UNLESS PRESCRIBED BY THE TEAM PHYSICIAN. This leads to more salt being sweated out and in turn removes valuable potassium with it. An extra shake of the salt cellar should suffice at meal times.
- e) Danger signs to look for are:- cramp, sub normal temperature, giddiness, very high temperature. First aid measures are drink a pint of water with a teaspoonful of salt added, take a cold bath.

oOo

INJURY PRONE?

Why not try the latest thing - sorbothane in your shoes which reduces shock by half. Write to:- J. Hewitt, I.E.M. Orthopaedics, Aden Road, Enfield, Middlesex EN3 7SU, for research findings and testimonials. They are good for achilles trouble, ankle injuries, shin soreness, hamstrings and low back pain.

14 Moon's Decline

Frank Horwill's excellent article "The Decline of British Women's Middle Distance Running" in the July issue of Athletics Monthly highlighted many of the problems facing this area of our sport. However, I personally feel that there are other aspects which need discussing.

At a recent small Mid week meeting a mother got very excited watching an 11 year old girl breaking 2:40 for 800. "She's going to be a really good runner!" she exclaimed. "How good do you mean?" I asked. "One of the best in the country" came the equally ecstatic reply. "Oh you mean fair". I was dismissed as an idiot.

Half an hour later an athlete of mine won a 400 by 70-80 metres in 59.6. The same person rushed up. "Wasn't that tremendous!" "No" I said, "I expected far better than that". Same reaction. I asked the girl what she felt about her time. "Hopeless, next year I've got to go through the first lap that fast". To me this put things in perspective and highlighted one of the biggest problems we face - so few people can even relate to what's required Internationally.

The National Press don't help matters. Some of them appear out of the woodwork at a big meeting like the Commonwealth Games. "Wow, 1st, 2nd, 3rd, these girls must be really good". The public starts believing this - until the European Championships a few weeks later, when the same athletes don't make it through their heats.

Quite simply our women are in the same position as our men were in the 60's and 70's being pulled round to British records and rarely winning anything of significance. Frank points out that we haven't learnt the lesson of Ann Packer. I would say that nobody has yet run intrinsically faster. 1:59.1 on a first class synthetic track being pulled round to 5th can't be compared to 2:01.1 on a cinder surface, in less than ideal conditions - a win by an athlete who competed in less 800 races in her life than many do in the first half of a season.

Occasional flashes of brilliance are seen - such as Ann Packer, the late Lillian Board and Christine Benning. All three - and many others - owed much of their success to the recently retired Denis Watts, former Principal National Coach. He has been the most consistently successful women's coach in this country and often worked with girls who possessed no great natural talent. The standard basic textbook, bar none, he co-wrote with Harry Wilson and Frank Horwill - The Complete Middle Distance Runner. Priced under £2 - it costs less than the average glossy American "Jogging" magazine and yet it amazes me how many people, far from not having read the book - have not even heard of it!

And this, in my personal opinion, is the root of the problem - club level coaching. A young girl joins and is given the least experienced coach there. Rarely does a club have a Ron Stonehouse or Conrad Milton who takes an athlete right from grass roots to National level. Girls, in their formative years, need good coaching. Lack of technique work particularly shows up far more with their weaker upper bodys. Attention to detail is the only way an athlete will make any impact at the top and so many good female runners have fallen by the wayside because their coach has only worked on the strong points - which to a great extent covers up their weaknesses. If an athlete runs for several years with a bad technique then there are two answers - either cover it up or try and correct the situation. The former is easier, the latter could well mean a step backward to take two forward - trying to get rid of ingrained actions. But it's very necessary if nothing has been done initially. How many club coaches in middle distance will say to their counterpart in sprints "Look; some of my girls can't sprint at all, their technique is bad, can you help?"

FURTHER TO THE DECLINE - GREG MOON.

And how many coaches will withstand opposition from parents and club to race their athletes at every available meeting, screwing as much out of them as they can in a few short years, rather than planning for a more complete athletic career over a longer period?

I certainly feel that the lower coaches awards should be stiffened, or some form of continuous assessment carried out. The new passport style logbooks seem ideal to carry a record of a minimum number of lectures attended over a set number of years. This would at least ensure a coach is keeping abreast of new trends - and revising old ones. Far too many people hide behind an easy coaching award, or claim vast improvements with their squad of young athletes - often due to natural growth. One "coach" said "I don't need an examination for what I'm doing, coaching youngsters". I would very emphatically say he does. Clubs are only too grateful to have people prepared to help their young kids - but we won't have many people at the top unless they are taught to run correctly in formative years.

A few years ago one of my athletes was being run down by one of the junior girls coaches at her County Championships. "You won't do very well in the final, you couldn't even win your heat". Actually she had done exactly what she was told and sauntered around in the middle of the field. In the final a few hours later she picked up a medal, beating a number of people she had never done before. Again right from an early age the athlete should be taught to run sensibly - it's the final that should be won, not the heats.

The image of the "weaker sex" really should be done away with. At a recent Southern Counties training day the girls revealed almost without exception, that their longest runs were 4 miles - one actually went as far as 6. It's no surprise to me we suffer by comparison. Sessions are so often... "Men 10 x 200, women 6 x 200" - even the warm-up is less!

The only area of major differentiation is menstruation - and here I think Frank missed 2 important points. I fully agree that it seems a sheer waste of effort coaching someone, perhaps for years, just to see it all dissolve because the big day falls at the wrong time of the month. Statistics have been published of Olympic medals being gained at all stages of a period but, no question, some girls do suffer very badly and their only answer has been hormone therapy - i.e. the Pill. The point overlooked here is that it destroys vitamin B6, very essential to a middle distance athlete. In my experience females taking the pill have reported less unpleasant side effects by taking 10mg a day B6. In addition, mention should be made of the effects of training on the menstrual cycle. If an athlete is training consistently and hard then more often than not period pains are greatly reduced - or the actual period itself is later, less frequent, or missed altogether. I have heard of one Western European athlete who has not menstruated for several years. Medical opinion feels that there will be no harmful effects on the individual because of this.

Last year Harry Wilson, at a BMC lecture, wrote down Olympic 800 Champion Olizarenko's annual progression over the last 10 years. Surprisingly it produced little response. Even up to her early 20's she was "only" as good as the best in this country. Perhaps it was because at 27 she was so much better in world terms it was difficult to comprehend. So let's look back to 1964 and another 27 years old, Maryvonne Dupureur. At 22 her best times were 59.4 and 2:15.5 - about the level of a good club athlete today. 5 years and a baby later they were 55.0 and 2:01.9, 2nd behind Ann Packer. That I think we can relate to. So if we now have a 22 year old who can manage 2:01.9 can't we look ahead 5 years with her? After all, that's what 2 good coaches did with Olizarenko.

Greg Moon.

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