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Emmaus, Pa. 18049

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RUNNER'S WORLD

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Volume Nine—May, 1974—Number Five



COVER:
Rich Kimball (right) is the first US male ever to win an International cross-country title. He beat Italian Venanzio Ortis to the wire in the junior race. (Mark Shearman photo)

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FROM THE PUBLISHER

In the past, we found that getting advertisers was hard. Many felt that we were not reaching the right people. "I don't want to advertise in *RW*. I want to reach the coaches," some said. Others felt that distance runners (biggest share of our subscribers) just didn't buy anything, or had other ways of finding out about races.

Then things started changing. Race directors found the results of advertising were meaningful. Companies discovered that sales increased because of their advertising. And one major company said, "We can't afford *not* to advertise with you."

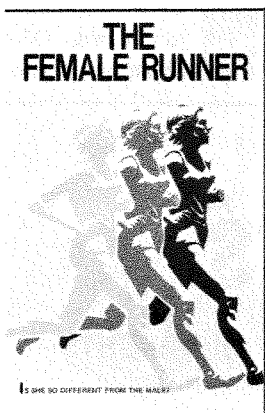
The result is that we have more advertising in this issue than ever before. In all, we have 51 advertisers (counting the two-page classified section), and I think this is just the beginning. But what does this mean to the reader?

First of all, advertising is not just wasted space. The ad is there for a purpose. It informs you of an upcoming race or about a new product, or reminds you of an old one.

Secondly, in the long run it will give you more articles and pictures than you are getting now. We have kept our page length at 48 for a long time. During this period, several issues didn't have very many ads. And now we must make up the difference. Ideally, we want to give you 65% articles and pictures and the rest ads. So if we move on up to 35 pages of ads, we'll have 65 pages of copy.

Thirdly, the name of the game in business is to make a profit. But at the same time a company needs to continue to upgrade its product to sell more, which means better articles and more photos.

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Social influences, more than physical ones, shape women's role in running. The hardest thing for a girl or woman to do, says one of the booklet's contributors, is even to **think** of herself as a runner. The mythology lingers that this isn't the proper activity for her. Men don't face this. This is the biggest difference between runners of the two sexes.

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MOVE OVER CANTON, COOPERSTOWN

Mention the idea of a National Track and Field Hall of Fame to any American track enthusiast and the reaction will almost certainly be positive—as well it should be. There's a hall of fame for just about every other sport. Why not track and field?

Indeed, it could be argued that track and field above all other sports in the US deserves a hall of fame. The sport, after all, goes clear back to the ancient Olympic Games and, in this century, it has been the very heart and soul of the modern Olympics, mankind's greatest sports festival.

If it's great heroes and heroines you're after, track and field has more than its share. Are there any athletes whose names and deeds are more worthy of enshrinement in a hall of fame than, for example, Jesse Owens, Al Oerter, Rafer Johnson, Jim Ryun, Wilma Rudolph, Glenn Cunningham, Bob Hayes, Glenn Davis, Cornelius Warmerdam and Wyomia Tyus?

Considering all of this, it's surprising perhaps that a National Track and Field Hall of Fame didn't become a reality in the US long before this. Of course it hasn't, an oversight which has been a long time passing. Now the wait seems to be over.

A National Track and Field Hall of Fame seems to be on the verge of becoming a reality in Charleston, W. Va., where 42-year-old optometrist and road race organizer Don Cohen has rallied wide support for the project. What Charleston has in mind is a hall of fame that, in Dr. Cohen's words, "will be second to none." Also in the plans for the Hall of Fame complex is an outdoor track, an indoor track (West Virginia currently does not have an indoor track) and a picnic area. In dollars and cents, these plans translate into \$2 million.

The scope of Charleston's plans, including an artist's drawing of the proposed building (see right), were unveiled in late March at a banquet in Charleston, West Virginia's capital, attended by more than 300 people. Present at the banquet were the prominent US Senator from West Virginia Robert C. Byrd (introduced as "probably the third most powerful political figure in the United States"), West Virginia governor Arch Moore Jr., Charleston

mayor John G. Hutchinson, track immortals Jesse Owens and Wilma Rudolph and representatives from the seven most prominent organizations in US amateur track and field: the AAU, the NCAA, the NAIA, the National Junior College Athletic Association (NJCAA), the US Olympic Committee, the US Track Coaches Association and the USTFF.

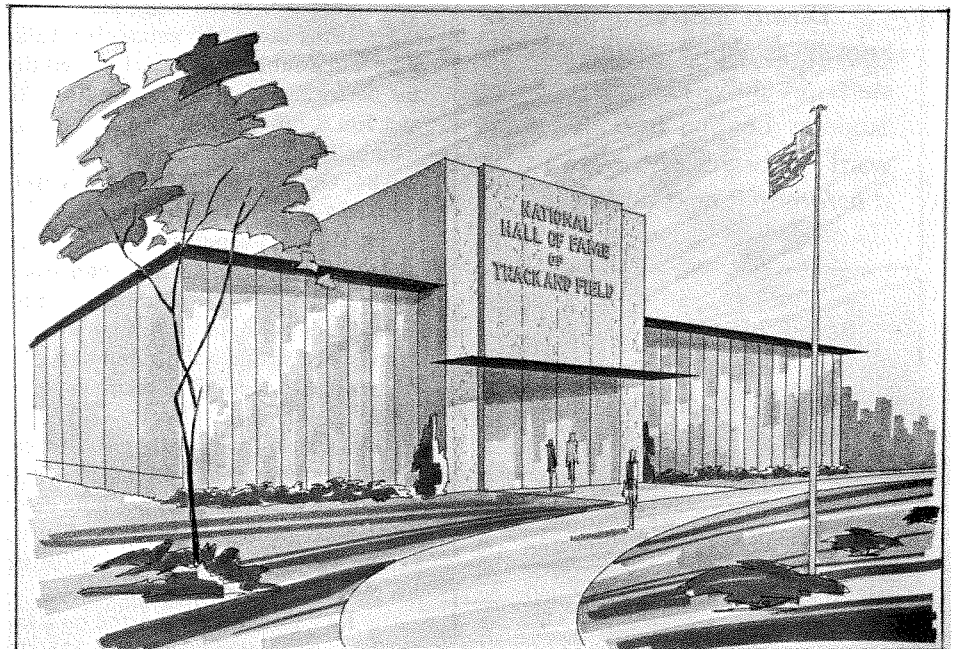
From the banquet, it was clear that West Virginians—including its political leaders—are tremendously enthusiastic about the Hall of Fame project. Senator Byrd, Governor Moore and Mayor Hutchinson all voiced strong support. Their statements, coupled with an inspiring speech by Jesse Owens and a slide presentation outlining the plans left the gathering so enthused, chances are it would have rushed out and started building the hall right then if someone had left shovels, mortar and bricks handy.

Charleston, West Virginia's plans for a National Track and Field Hall of Fame include this impressive building (right).

It was equally clear that the track and field representatives, to a man, were impressed almost to the point of amazement at both the scale and imagination of Charleston's plan and the enthusiasm behind it. These reactions were of particular relevance since the men had been invited to Charleston in the first place as a step to getting the endorsement from the organizations they represented. As Dr. Cohen described it, Charleston had the endorsement of close to 600 colleges and universities, it was anxious to raise the money and build the hall, but before it could move ahead, it needed the official endorsement of all seven track and field organizations.

The endorsement that Charleston needs should be a certainty. Most of the track representatives said as much. And even if they hadn't, what other response could there possibly be to the offer and promise of a \$2 million shrine to the sport?

When that endorsement comes, Charleston will be able to proceed with the project which could legitimately be titled: Move over, Canton, Ohio (home of football's hall of fame) and Cooperstown, New York (home of the baseball hall); Charleston is coming to join you.



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NEWS AND VIEWS

Double-Timing

Running lends itself well to a quantitative description since performance can be measured in terms of distance and time. There are two distinct factors which determine a runner's performance: endurance and speed.

If a runner plans to go longer, he has to slow down the pace. There seems to be a simple mathematical description of this phenomenon. In particular, the logarithm of the distance is proportional to the pace. A useful property of this logarithmic behavior is that for a given ratio of two distances, the corresponding difference in pace is affixed. Hence, a useful description of performance would be the number of seconds per mile by which the pace is slowed when the distance is doubled.

A runner can measure his endurance in terms of this "doubling time." He can likewise measure his speed by his time for a given distance. Since this logarithmic behavior does not seem to fit times for distances less than about 880 yards, a convenient distance to use as a measure of speed is the mile.

Using these two parameters (mile time and doubling time), let us describe the performances of Ron Hill, Ron Clarke, and Jim Ryun (subjects of a study by Rumball and Coleman, *Nature*, Vol. 228, p. 184, Oct. 10, 1970). Hill has a mile time of 4:08 and a doubling time of about 10 seconds per mile. Clarke shows more speed with a mile time of 4:00, but less endurance with a doubling time of 13 seconds per mile. Ryun has even more speed with a 3:51 mile but a decreased endurance of 21 seconds per mile.

A casual five-minute miler/three-hour marathoner has both less speed and endurance (23.5 seconds per mile doubling time). However, these two figures can be useful to John Doe in analyzing his own strength and weaknesses.

Ken Young has reported on a method of age-grading (*RW*, Nov. 72). The data from these tables show a logarithmic behavior also. So John Doe can compare his performances to those for his

age group. If Doe happens to be 30 years old, his speed at one mile is a 600-point performance. However, his doubling time indicates he does not have the corresponding endurance for 600 performances (doubling time 17.4 seconds per mile) at longer distances. Thus, he would do relatively better at the shorter distances.

Another interpretation would possibly be that John needs to emphasize endurance training more than speed work in his training program. Meanwhile, another 30-year-old runner who does the mile in 5:00 might have a doubling time of 15 seconds per mile. He probably needs to emphasize speed work in his training.

An individual might find that the logarithmic plot of distance vs. pace for his own performances may not follow a straight line. For a sample of 13 runners, I found each individual plot showed good linearity up to a certain distance, beyond which the data points would begin to shift in the direction corresponding to larger doubling times or increasing fatigue factor.

The distance at which the data diverged away from linearity corresponded to the level of training of the individual. The runner who is training at 30 miles a week shows a break from linearity at a much shorter distance than the runner who is training at 100 miles a week. This is probably related to the "collapse point" discussed by Ken Young in the *Runner's Training Guide, 1974 Marathon Handbook* and September 1973 *Runner's World*.

From P. A. Lightsey

Unofficial Racers

This article from the British Road Runners Club Newsletter (Jan. 74) supports Bob Anderson's "From the Publisher" in the March issue. In that, Anderson spoke out against "unofficial" runners tagging along in races and often interfering with the smooth conduct of the event.

Runners who accompany races without having been duly entered and accepted can cause a great deal of difficulty by confusing time-keeping, lap checking, judging and the working out of results. It is an offense under (British) AAA Rule of Competition 107 (g), which is as follows:

"An athlete is not permitted to join in any road race whether to accompany the competitors for the whole distance or any part or stage of the whole

distance unless he has properly entered for that race or stage and is otherwise qualified and eligible to compete... Any athlete infringing on this rule may be dealt with under (regulations governing) misbehavior or unfair practices."

Any such runner who does so accompany a race will greatly lessen the trouble he is likely to cause by keeping well clear of all check and timing points, and by telling all officials who are checking or timing competitors, loudly and in good time, that he is not competing, and by refraining from crossing the finish line.

It should be understood that the fact he is not wearing a number is *not* sufficient to identify him as a non-competitor, as he might of course have lost it. And if he is running with a bunch of competitors, it may not be possible to see that he is without one.

From British R.R.C.

About That Race

If you're a long distance runner, you're accustomed to being asked by non-runners how you did in "that race?" You know that the conversation normally follows a course like this:

"Well, my time was 3:15."

"Minutes?"

Three *hours* and 15 *mintues*."

"Just what *kind* of race was this?"

"A marathon."

Usually this ends the conversation, either because your fellow conversationalist doesn't know what a marathon is and is too embarrassed to ask, or he simply doesn't give a damn.

If you are like me and happen to be a compulsive talker when the subject is marathons, you will supply the information that "a marathon is a footrace 26 miles and 385 yards long."

Warning: It is advisable *not* to add the 385 yards. Only say 26 miles. 26 miles *and* 385 yards seems to turn people off. If they were already skeptical of your integrity, they will now safely assume that you are an out and out liar.

"You ran a race that was 26 miles *and* 385 yards long? Sure!"

One more hint: When somebody asks you about how you did, do not give your time (as you probably would to another marathoner). Instead, give your *place out of how many runners started*. The number of starters is most important. Can you imagine telling the uninitiated that yiu finished 656th in the Boston marathon? Definitely not! Tell them you finished

656th out of 1400. Now *that* sounds impressive!

But be careful not to let the conversation go on much longer. Your friend may be looking for an opening to tell you about the time he fought three lions barehanded.

From Gary Furtak

Everyone Can Run

Guy Collette is a French distance runner. Like all distance runners, he has this persistent theory on how good running is for everyone—especially those who have never tried it. He also works with mentally handicapped children. Naturally, it didn't take him long to apply his theory to the kids—with spectacular results.

Not that he didn't meet resistance. First, the schools and education centers in and around Paris had never made the kids run over 300 yards, and that was in some sort of silly game where running was only incidental. Second, the parents of the children had serious doubts. Wouldn't it be dangerous to run that far? How would the children react to such open, naked competition? Cross-country? In that mud, on those hills, in that foul weather?

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All of the questions sorted themselves out. Each child entered in the race had to present a recent medical certificate with a doctor's permission to run. Prizes were collected, to be awarded to each child who *started* a race, so there would be no losers. And only the parents noticed the rain, the mud, and the hills. The kids loved it!

One-hundred fifty runners showed up for the big day, coming from seven schools, education centers and social clubs for the mentally handicapped. Six races were to be run, with a cup awarded to the "running club" which scored best over the entire six races.

There were separate races for boys and girls. The divisions were not by age but by the child's ability to cope with the competition and the distance. The higher handicapped children ran only one kilometer, while the better adjusted ran two or three kilometers, repeating the same kilometer loop.

Who did the most running? Guy Collette, of course. He had asked several of his friends from his regular running club to come along to help organize and direct the meet, so he was free to start with each group to moderate their efforts and early pace, and to encourage those who immediately fell behind the others. Like any good cross-country meet, there were judges posted on the major corners so the kids couldn't get lost.

The mayor of Meudon, the city closest to the national park in which the meet was run, presented the cup to an excited, cheering team. Each individual winner got a special prize and winning times were announced, but it didn't really matter who won that at which time. To run in a race was to be a winner. An added high-

light was the filmed TV coverage on the early evening news.

The kids went home pleased with their prizes and their efforts, and very, very proud that they had participated in a "big" cross-country meet, just like their brothers and sisters and friends.

Maybe that theory of Collette's is true. Maybe running is for everybody.

Mary Decker

This winter, Mary Decker accomplished the following incredible feats: world indoor records in 800 meters (2:01.880 yards (2:02.4), 1000 yards (2:26.7). Where does she go from here? Will the running pressure and sizzling pace take their toll on her?

Some veteran runners and coaches believe Mary may jeopardize her fabulous career and burn herself out before she reaches her 21st birthday.

"She's the greatest female 800-meter runner in the world right now at 15," says Steve Prefontaine, America's top male runner in the middle distances. "She can be the greatest for quite a few years. But she's not going to make it if she keeps going like she is now."

But Francie Larrieu says, "Somehow, I have the feeling Mary is different. There's something about running that lures me to compete, and I think Mary's the same way. You can tell she loves it.

Mary's Blue Angels Track Club coach, Don DeNoon, warns against underestimating the girl: "She's got goals other people have never dreamed of having. I learned long ago never to underestimate her."



M. JULIUS BAUM PHOTO.

Track coach Tracy Sundlun of the La Jolla Track Club is envious of Mary's running ability and mental attitude. "She's so fluid, she gives the impression she's hardly working," Sundlun says.

What are Mary's own long-range goals? "To be able to compete in the Montreal Olympics in '76 and 1980 Games."

Will she reach her goal? Francie Larrieu's opinion, "You've got to see how Mary reacts to the downs. I know I went through a down period in 1971 and I thought I was a has-been."

From Jess Hernandez

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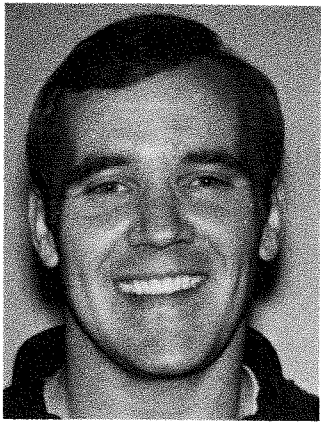
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RICH KIMBALL

Rich Kimball won the International Junior cross-country championship in Italy on March 16, the first American ever to do so. He is 17, and was competing against runners up to two years older. Before the race he had hoped to "finish in the top 20," but he outkicked the Italian Venanzio Ortis and won with a 21:30.8 for the 7000-meter course (about 4.3 miles).

Kimball, a senior at De LaSalle High School in Concord, Calif., has been largely unknown until this last year. Runner's World first became fully aware of him last summer, during our 24-hour relay. Rich ran 69 miles, most of them under five minutes. Indoors this winter, he set an American high school record for the 1500 with 3:50.0.

He says he "really wants" Craig Virgin's two-mile high school record of 8:41. When asked how he feels about stepping into the line of high school superstars behind runners like Gerry Lindgren, Jim Ryun, Rick Riley, Marty Liquori and Craig Virgin, Kimball says, "I always used to look at those guys and think it's great they could do it, and never thought I could. I've been developing just right, at the right stages. I haven't done anything tremendous, but I've done well enough so that I'm building up like I should."

In the next few years Rich Kimball may run those "tremendous" times.

RW: What kind of experience was the race in Italy?

Kimball: That was great, just great. The arrangements and where we stayed, everything was fine. The people were really nice there.

RW: What did you think about your competition before the race?

Kimball: I knew nothing about who was there, or anything. In fact, I really didn't have any idea until we were up at the line. They were announcing something, and I guess Matt Centrowitz (another American, who finished fifth) and I were talking, and the gun went off. Bang, you know. I guess a lot of people understood what they were saying, but we didn't. We were back there shaking hands. So we took off after them. The race was 7000 meters. It was a hippodrome, like a track for horses.

RW: Were there fences to jump?

Kimball: They were two-by-fours, raised up 2½-3 feet high. I thought they were going to be hard, but they weren't. You really don't think about them, since you're racing. The first lap was 2000 meters, then you go off the course about 100 meters up a hill, and down the other side. It was kind of wet.

RW: Steep?



Kimball: Just enough to make you tired going up. Then you go down the other side, and make the same loop, going over the steeple again. And the last lap you go up the hill, and around the hippodrome, and you have two sets of steeple this time. You have two on one side, and then, as you're going into the last 200 meters, there's another one. So as you're making your kick, you've got to be just right, or you're going to trip and fall.

John Roscoe (of the US) took the lead in the first 300 meters. I was up there, by 2000 meters. Then I picked it up in the second lap, and I was running with the Italian, Venanzio Ortis, and John Treacy (Ireland). The three of us left the field behind. We were racing, three in a row, neck and neck till the last 800 meters. Right over the barriers, we seemed to land at the same time.

We were all tired, huffing and puffing, and it was going to depend on who had the most kick left. They went ahead of me with 1000 meters left, just slightly, then I picked it up. In the last 800 meters, I turned it on as much as I could. I just had a little faster kick than he (Venanzio) did. Treacy fell way back.

RW: Were you feeling strong at the end?

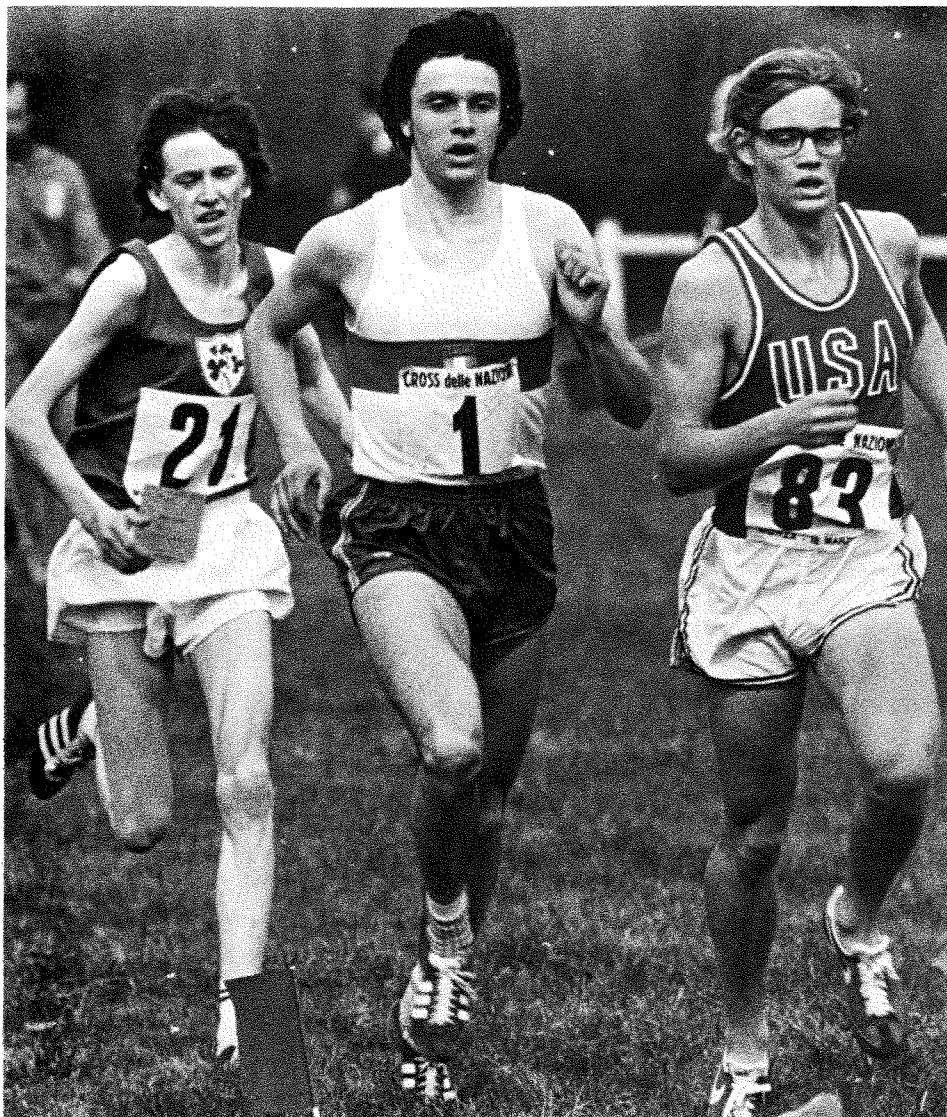
Kimball: I was having stomach problems, to tell you the truth. I felt the pace. I really didn't think I was going to be able to do it, but I've developed a kick since last year. The last two times I've run in big cross-country meets, I've sat back the first mile or two, to feel out the pace. Then if I feel good, I'll pick it up. This race I ran well, I think. We went out fast, but I felt good at the end, and I was able to pick it up.

RW: What kind of a crowd was watching?

Kimball: When I thought of a cross-country meet, I thought of maybe 100 or 200 people. But the estimate was 10,000 to 20,000. Just the police I think there were 2500, to control the crowd. Even though I was racing an Italian, they were yelling USA and Americano.

RW: How did you feel about it being an international championship?

Kimball: It felt great. One reason, I never realized how much representing the US meant until I was up on that platform getting the medal. I never knew what it meant to be part of the country in that way.



RW: The US team came on very strong to win (with four runners in the top 10, for 22 points), didn't they?

Kimball: Yes, they did very well. It wasn't that the other countries didn't have good teams. It's that we had a strong team. We got to know each other pretty well.

RW: You had to prepare both for the international cross-country and for your track season. Have you been doing any speedwork?

Kimball: No, today (end of March) was my first day of speedwork. I ran a 1:55 half and most people don't do that without some really intense speedwork. All I'm doing is distance.

RW: Could you describe your training in detail?

Kimball: I run 15-18 miles per day, five days a week. Saturday or Sunday, I'll go for a 20-mile run. I really don't have a set schedule in the morning. It's just how I feel. If I only feel like going three,

Up until the final half-mile, it was a tight race among (left-right) Ireland's John Treacy, Italy's Venanzio Ortis and Rich Kimball. (Mark Shearman photo)

I go three. If I feel like going five, I go five. In the afternoon, I run my distance. I try to get in a lot of hill work, because that's what I enjoy. I do a lot of fartlek. That's the only place where I really get my speed. When I go on a distance run, the last three or four miles I will push, a little more than three-quarters speed. Another thing that's hard, I don't run with anybody.

I think this spring I'm going to keep up the distance and do intervals once or twice a week.

RW: I wonder if you're worried about pushing yourself too hard. It might be a temptation since you're young and have so much talent.

Kimball: That's why I want to stay

with distance. Because if I start training intervals... I'm doing well with my distance. A lot of coaches I've talked to say if I'm doing well with distance to stay with it.

Some people tell me I should try to run a 4:05 mile (his best is 4:10.8). I tell them if it's the right atmosphere, the right day, if I feel okay, the race is okay, the pace is right, then I'll run a 4:05. I'm not going to say I'm going to run a 4:05 on a certain day. I've got goals set, but not for each race. I just go into a race loose, and I go out according to how I feel.

RW: Do you have a coach?

Kimball: I've coached myself the last two years, since I've moved up here (Concord, Calif.). I've pretty much just set myself doing long distance. Next year I'll have a good coach, Berny Wagner at Oregon State.

RW: Do you think he'll change your workouts?

Kimball: No. His goal is after four years you can coach yourself. The distance runners up there are coached, but they're coached the way they want to run. That should be good for me.

RW: How long have you been running, and how long have you been keeping up the 15-18 miles a day?

Kimball: I've been running seriously since sophomore year (1972). I swam for six years when I was younger, and I got tired of it. I really had no interest in track. I liked to play football and basketball. I had nothing to do during the spring, and I was always doing something. I didn't like baseball. So I went out for track (seventh grade).

I was sprinting for the first couple of meets. Then two guys got the flu, milers, and I was just there for the heck of it. I jumped in for the mile, and it happened I was racing the league mile champion. And I beat him that day, with a 5:44 or something like that.

In eighth grade, I kind of got a little bit serious. I wanted to break five minutes. Freshman year, I ran cross-country. I had a knee problem, and I went to a regular doctor, a medical doctor. The first thing he said was "lay off eight months." Fine, I listened to the doctor. Finally, I went to a doctor who was one of the '68 Olympic doctors. He told me to get back on my feet and start running. He changed my style and gave me a few exercises I could do.

In my sophomore year, I started running. I had problems the first couple of weeks, but it was mainly psychological. I started working out on the grass a lot, and I changed my running style. When

my knee starts hurting I land so that the pressure is on the inside of my foot, instead of on the outside. It takes the pressure off my knee. Since I was doing well, I really got interested in it. I started training seriously at the end of my sophomore year.

Last year, I really trained hard, but I had my ups and downs since I broke my ankle in February. I wasn't supposed to run for three weeks, but the day I got out of the cast I ran. I kept myself in shape by bicycling about 20 miles a day. I raced a week after I got out of the cast, and ran a 1:56 and a 4:20.

RW: How do you feel about running overall, and how do you look toward the future?

Kimball: A lot of people ask why I run. I run because I enjoy it. I don't think anyone can run the distance that distance runners do unless they enjoy it. I run because I like to get away. You can see a heck of a lot more up in the mountains. You feel at peace with yourself, and when you're running, no one can stop you. In football, you're on the field. In swimming, you're in the pool. In track, you go around the track. But cross-country and distance men can go off and go anywhere they want to. It's just a neat feeling.

When I get in college I want to run the three-mile and the six. I wish there was a three-mile in high school.

I hesitate when people ask me if I want to go to the '76 Olympics. I want to go, I hope to go, but I'll only be 20, and runners are at their best in their late 20s. This last year I've improved considerably. Eighty is more reasonable, '88 might be better (laughing)... still, the future is two years away.

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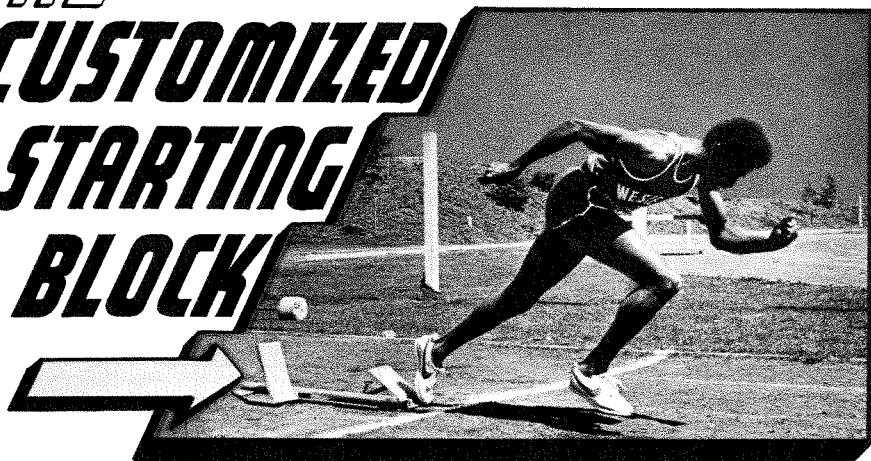
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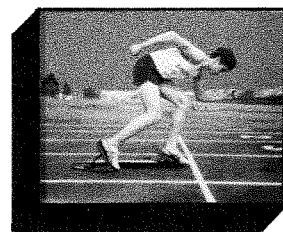
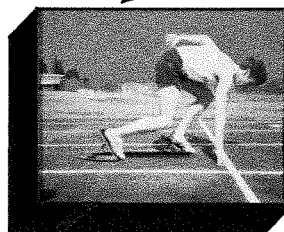
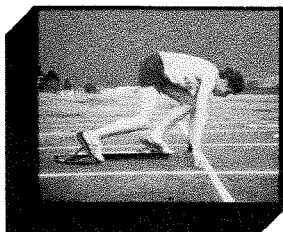
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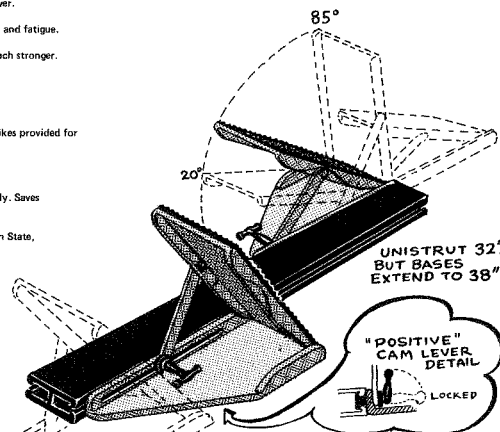


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INTERNATIONAL CROSS-COUNTRY HIGHLIGHTS

The way the US Juniors—Rich Kimball and Co.—cleaned up in the International cross-country race at Monza, Italy, it would be easy to get carried away with US chauvinism here—if we only had to look at a third of the meet. The other two-thirds offered less reason for national pride.

One out of three wasn't bad for a country that is just now learning to treat the International with that degree of respect the Europeans give it. "One out of three" refers to the fact that only the juniors of the three eligible US teams were at full strength. Francie Larrieu boycotted the women's team. The older men weren't there at all.

The problem, again, was money—or more precisely the lack of same. The men's AAU had just enough

of it to send one team (only full teams can race the International). The distance committee opted to send the 19-and-unders.

Bob DeCelle, the AAU long distance chairman who almost single-handedly scraped up the expenses for the group, said, "Olympic development funds have been used. We insist that development through international competition is a far more practical method of building world class cadres of long distance runners than through the clinic method." (A large portion of the AAU's "development" money had been budgeted for instructional clinics, but DeCelle was able to divert it.)

The money was well spent, as it turned out. Kimball, this issue's interview subject and cover boy, won the junior title. His teammate Matt Centrowitz, of Manhattan College, already an international track veteran at 18, and John Roscoe, the national junior college champion from Michigan, finished fifth and sixth. Michigan high schooler Pat Davey, AAU junior cross-country winner, was the final scorer in 10th place.

The juniors couldn't have done better. They won by 36 points. The US women did well, all in all, finishing fifth. But they must have left the Europeans wondering why Francie Larrieu wasn't there.

The answer, most simply, was money. *Sports Illustrated* reported that Francie would have had to foot some of the bill herself. Other women would have had to do the same, and did. Larrieu refused.



PAGE 14: Defending champion Pekka Paivarinta (57) and his successor-to-be, Erik De Beck (97), run one-two early in the men's International.

ABOVE: American Claire Choate (33) and Nina Holmen (45) of Finland share the women's pacing. Holmen finished second, Choate was 12th.

BELOW: Matt Centrowitz, second man for the winning US team. Centrowitz placed fifth. (Mark Shearman photos)



"I want to go badly," she said. "I'm number one and I'm in great shape. I should run. But it just isn't right. Why should I have to pay \$180 in air fare when I'm a member of the United States team? It's ridiculous. Somebody has to stand up and protest."

Politics and finance aside, it's a shame Larrieu couldn't have been at Monza. It would have been her opportunity to meet Italy's Paola Cacchi on equal terms, since Francie was obviously in the shape of her life following her indoor 1500, mile, 3000 and two-mile records.

As it was, Cacchi won her second straight title, beating the surprising runner-up from Finland, Nina Holmen, rather easily. The winning English women, John Rodda wrote in *Athletics Weekly*, were "curiously called upon to contribute 10 pounds each towards the cost of their trip because funds were low."

In the men's race, Belgium turned up a new star—and a strong enough group of backup talent to win the team championship without Emiel Puttemans.

Mariano Haro of Spain must be wondering what it takes to win the race. He finished second to Gaston Roelants in 1972, second to Pekka Paivarinta in 1973. This time he beat both Roelants (14th) and Paivarinta (15th), but was second again.

The winner: Erik De Beck of Belgium, a 22-year-old whom four-time winner Roelants coaches. De Beck, who was called "strictly a cross-country runner" (his fastest track 10,000 is 29:45—almost two minutes slower than Haro's) beat the Spaniard by less than a second.

Wouldn't it be nice to know how Frank Shorter might have done?



Megalopolitan areas in the U.S. in the year 2000.

Where you live determines how you run. Where are the best places to live?

THE NEXT RUNNING BOOM

by Martin Cohen

Martin Cohen is a distance runner and geography student living in "Chipitts," an area which will become known to you as you read his article. More specifically, his home is in Michigan.

California, Oregon, New England. These are three of the places within the United States that are associated with a great amount of distance running activity. What is it about these areas that makes them desirable to runners? Geographers have at their disposal various means to aid in the determination of this. In simplified terms, geographers study the distributions of things over the earth's surface, and the reasons why these things are where they are. With this article I claim to be the founder of a new field, the geography of runners and their races.

The most important factors which govern the distribution of running activity in the United States appear to be (1) urbanization, (2) economic development, (3) educational opportunities and (4) climate, though not necessarily in that order. They are tied together very closely. Obviously, as these factors improve (all of them can, except climate), so do the opportunities for running—especially if the area concerned is near a location where those opportunities are already well developed. If a place can be found where this is occurring, we have most likely predicted the site of a new running "boom."

Let's consider each of the factors, remembering that not all of them are absolutely necessary for the development of

running programs. In fact, there are places in the United States which have more races and runners yet lack all of the factors than areas which possess a majority of them.

Urbanization and economic development are practically the same. Highly urbanized areas are usually well developed economically, i.e., their wealth is based on industry of some kind. The wealth of these areas and resulting higher standard of living allows people to direct their energies toward "leisure" pursuits such as running.

Geographers today are predicting the development of four large "megalopolitan" areas within the US. The first megalopolis is the coalescing system of metropolitan areas along the eastern seaboard between Boston and Washington, D.C., which includes New York, Philadelphia and Baltimore. This region is known as Boswash. The other three megalopolises are Chicago-Detroit-Pittsburgh (Chipitts); San Diego-Los Angeles-San Francisco (Sansan), and the Miami-Ft. Lauderdale-West Palm Beach-Jacksonville (Jami).

All of these regions have at least one other of the characteristics that spur running activity. Besides being highly urbanized, two (Sansan and Jami) possess relatively favorable climates the year round, while Chipitts is the most industrialized area in the world and therefore prospers economically.

The roots of American track activity are in the high schools and colleges. Not only are the training and competitive seasons based on the school year, but universities provide opportunity for the post-graduate runner, such as the University of Chicago and Florida Track Clubs. Being a student or teacher with short daily hours and frequent vacations is not only conducive but may be *necessary* for high-level running. In this way, the mere presence of educational institutions—even without any active attempt to provide facilities and races for non-team runners—has a positive effect.

Obviously, a mild climate is a great help in training as well as in competition. At the same time, severe winter climates need not be a barrier to reaching one's highest level. Many national class runners live and train in the state of Minnesota, where temperatures of 20 degrees below zero and colder are experienced, not to mention prodigious quantities of snow. Not all of the runners have indoor facilities to use, either.

As I said, some locations lack all four "requirements" but still have commendable running opportunities with plenty of interested runners. These areas may be placed in a separate category where the effort of an individual or club is the driving force. An example of this would be the West Virginia Track Club based in Morgantown at West Virginia University.

The state of West Virginia is unurbanized, with a population of less than

California has more runners (like this one on the Golden Gate Bridge) than any other state—but also more people. (G. Beinhorn)



two million. Between 1960 and '70, West Virginia's population dropped by 8.5%. (The only other states which lost population during this period were North and South Dakota and Mississippi, down 3.4%, 2.8% and 0.9% respectively.) Nor is the state's climate any better than other Midwestern states which border it. Although runners may be able to use West Virginia U's facilities, the real reason for the development of a running program has been the individual effort of Carl Hatfield.

It may be argued that cities are not

the best places for runners to live because of the problems of traffic and pollution, in addition to the social ills that beset major US urban areas. While this is certainly true, the fact remains that cities of medium to large population provide the best educational and employment opportunities for runners. Apparently only a small very number (and probably none at the higher levels) of runners are engaged in farming or other rural occupations.

The only area in the United States where the three alterable "requirements" are improving rapidly is the state of Florida. Although I have included it as a megalopolis, many geographers would not. The region is showing early but definite trends toward extensive urbanization. Racing results published in *RW* include new races all over the state. The climate is conducive to training and racing outdoors the year round.

The entire distance running program started at an educational institution (University of Florida) with individual efforts (coach Jimmy Carnes and Jack Bachelor) in a city close to a developing megalopolis (Gainesville is less than 100 miles from the Jami axis). This will be, if it is not already, the location of the next running boom.

After Florida, all of the highly urbanized and economically developed regions of the United States which also have warm climates will have reasonably full running opportunities. Other than those scattered places around the country developing running programs because of individual efforts (which are totally unpredictable), we can look to the areas immediately surrounding the megalopolises to provide new opportunities.

Finally, a word of caution: don't pack your bags and head south. Some areas with what appear to be the worst climates and opportunities have produced the best runners. Yes, even North Dakota.

CATCHING UP TO CALIFORNIA

BY HUGH BOWEN
AND JOE HENDERSON

You don't have to live in or even like California to see that this state is the country's garden spot where running is concerned.

Last year, California alone had 22% of the sprinters, hurdlers and middle distance runners on the US lists living within its boundaries, and 20% of the sub-

three-hour marathoners. By comparison, Texas and Oregon ranked next in the two track categories with just 6% each, and New York had the same percentage of marathoners.

And why shouldn't it be this way? California has favorable weather year-round, a tradition of running excellence, more meets than other states, more schools which treat running as a major sport, more clubs, more people...

More people. Above all else, California has that. While it's true that more runners live there than anywhere else, remember too that this state has the largest population to draw from. Does its apparent advantage hold up when weighed on a per-capita basis? Let's see.

Some years ago, the California-based Seniors Track Club set up a "one-in-a-million" list. The idea was that not one American in a million ran the marathon. A year ago, we checked to see how true this was, using all the runners we had available—the ones under three hours. There were quite a lot more than the supposed one per million, but the figure was still close enough to be used for measuring participation per-capita. When broken down by states, it gave a strikingly different picture of US running than the one that comes from straight numbers.

It showed in 1972, for instance, that California wasn't the unquestioned leader after all. In the marathon, Oregon had already taken over, and Arizona and Nevada were closing fast. By the time 1973 ended, California ranked *sixth*. More Californians than ever were running, but not as many more as elsewhere.

Is this true in all the events? Does that big lead California enjoys—one runner in five on all the US lists—disappear in the face of population comparisons? We won't keep you guessing. The answer is a most definite yes.

We won't maintain any suspense on your next question, either. What is the best state? A good case can be made for New Mexico. The District of Columbia, Oregon and Arizona rank next. And only then does California squeeze in.

Ranking lowest overall are, from the bottom, Maine, North Dakota, Arkansas, Mississippi and Rhode Island.

Before you start writing your poison-pen letters to the editor, note that these "bests" and "worsts" aren't subjective judgments. They're based completely on the men's and women's 1973 track lists from *Track and Field News* and *Women's Track and Field World*; and the times from *Marathon Handbook*. This includes more than 500 sprinters-hurdlers and middle distance runners, and almost 2000 marathoners.

SPRINTS-HURDLES

New Mexico has the most sprinters and hurdlers (through 440 yards) for its population. The next three states, which all lead California, refute the claims that short distance runners flower best in hot climates. The track season is rarely hot in the District of Columbia, Delaware or Colorado. (The chart lists runners per million population, based on the 1970 census.)

Top 10		Bottom 10	
N.M.	9.8	Alaska	0.0
D.C.	9.2	Ark.	0.0
Del.	9.1	Hawaii	0.0
Colo.	6.8	Maine	0.0
Calif.	6.2	Nev.	0.0
Nebr.	6.1	N. Dak.	0.0
Tenn.	5.4	R.I.	0.0
Tex.	4.5	S. Dak.	0.0
La.	4.4	Vt.	0.0
Idaho	4.2	Wyo.	0.0

MIDDLE DISTANCES

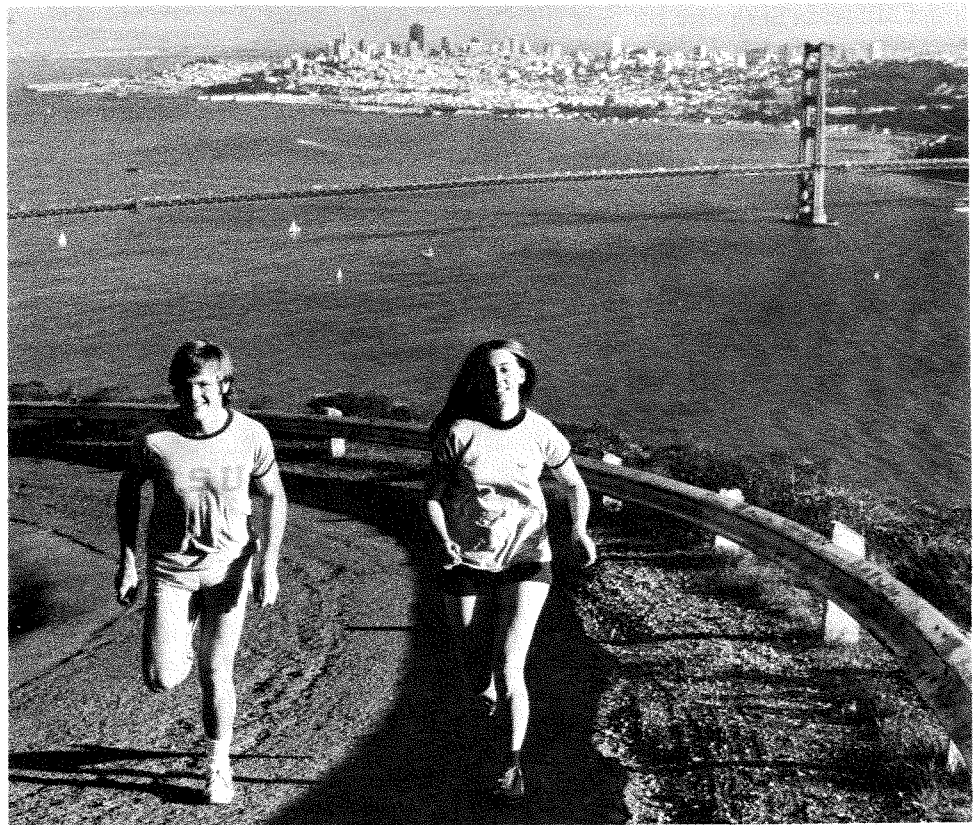
Draw a line from the northeastern tip of Washington to the same tip of Kansas. The area to the south and west of that line is the richest middle distance (through 10,000 meters) land in the country. Eight of the top 10 states are there. New Mexico again is in front. Oregon is up to second.

Top 10		Bottom	
N.M.	17.6	Alaska	0.0
Ore.	16.7	Ark.	0.0
Ariz.	12.4	Ga.	0.0
Wash.	9.8	Hawaii	0.0
D.C.	7.9	Idaho	0.0
Utah	7.5	Maine	0.0
Colo.	6.8	Md.	0.0
Calif.	6.3	Miss.	0.0
Tenn.	5.1	N.H.	0.0
Kans.	4.4	N. Dak.	0.0
		R.I.	0.0
		Vt.	0.0
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		Wyo.	0.0

MARATHON

By rights, Oregon should have led the long distances last year. It did in 1972, and had a lot more people racing marathons in '73. But no one could have expected what would happen in Hawaii, where the climate seems more conducive to beach-combing than to road racing. Marathon participation there shot up six-fold during the year to a nation-leading 29.9 runners per million.

This showed what opportunity can do, at least in the marathon. One new race, the Honolulu marathon in December, was almost entirely responsible for Hawaii's gains (though the size of that race also reflects strength in the entire program there). The number of Maryland



Gentle year-round weather and spectacular scenery aren't enough to make California the leading running state per-capita. That honor belongs to New Mexico. (Bill Reynolds photo)

runners was five times bigger than the previous year, thanks largely to the new Maryland marathon.

On the other hand, six of the 10 poorest states in the marathon had no races at that distance, and few of the runners there seemed to travel far from home to race.

Top 10		Bottom 10	
Hawaii	29.9	Mont.	0.0
Ore.	28.7	S. Car.	0.4
Ariz.	26.6	Ala.	0.9
N. Mex.	24.5	Ky.	1.2
Nev.	22.4	Miss.	1.4
Calif.	19.6	S. Dak.	1.5
Mass.	17.0	Tenn.	1.8
D.C.	17.0	Maine	2.0
Wash.	16.4	La.	2.2
Vt.	15.9	W. Va.	2.9

Again at the longest distance, as in the shortest ones, climate doesn't seem to be much of a factor in determining how many runners a state has. True, the top six marathoning states are more or less warm-weather areas, but of those only Oregon and California have ideal climates for distance running. Hawaii is on the hot and humid side. Arizona, New Mexico and Nevada get desert heat at

the low elevations and snow in the mountains. The next 24 states after these are in severe-weather belts.

Climate isn't the reason some states have more top runners than others. Population isn't the only reason, either. New Mexico, a great place to live if you like to run and don't like a lot of people, has barely a million population. The factor that decides a state's status is opportunity—chances to run in school programs, clubs, races of all kinds.

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by John A. Kelley

John Kelley has been running and racing continuously since 1928—more than 45 years. Twice he has won the Boston marathon. Now 66 and retired, Kelley spends his days running and painting at Cape Cod.

"Down here on the Cape," he recently told Boston Globe sports editor Jerry Nason, "I see a jogger or two once in a while when I'm working out. But I don't know them and they don't know me."

Kelley said he "might be able to help some of the beginners with their programs," but he's never been asked. "It's a strange thing, but nobody has ever asked about my thoughts on jogging."

Nason gave the veteran runner that chance, and the results are summarized here.

I've thought a lot about running for exercise since 1968. When I went out that year to San Diego to compete in the US Masters marathon, I read a report in the paper about two or three joggers dropping dead, and it frightened me.

One had just gotten up from a heavy meal and was running energetically up a hill. Another was a newcomer whose age and weight, combined with the too-ambitious program he had taken on, was just an invitation to disaster.

It preyed on my mind. These people didn't have sensible programs. I don't know of a distance runner who wouldn't be happy to give a jogging candidate proper advice if asked for it. But no one asked me. If they did, this is what I'd tell them:

Precautions: The average jogger, I suspect, is not an old track athlete who has had the benefits of coaching and training discipline. He is more likely to be a doctor or lawyer or businessman, a bus driver or sports writer—someone who suddenly realizes his physical condition isn't what it should be and suddenly decides to jog his way there.

Invariably, he's too ambitious, and can become a victim of it. He hasn't set up a disciplined approach and he can make hard work out of jogging, which should be fun. He has no program.

The first thing he should do is get a line on where he stands. He should have *two* physicians give him a physical, just to double check.

Then it's my suggestion that he should do some really brisk walking—two or three miles a day—for about a month. By then he should be able to jog and enjoy it.

Warmup: I'd recommend a brisk walk before the jogger begins to jog—es-

pecially if he is a man over 40 and desk-chained all day. Get the body adjusted to the work load of jogging first. Even now, when I go out in the morning, I walk 300 brisk yards before I run a step in my workout. Then I trot a slow 200 yards before moving into my normal pace.

Footwear: For runners, our shoes are our tools. Every individual should wear the shoe most comfortable for him. Sneakers are not good for any kind of distance running—that is, unless you like blisters. Wear running shoes. And I suggest cotton socks a size smaller than usually worn with street shoes, and turned inside out to minimize the number of blisters.

Training While Sitting Down: The human arch is the strongest ever made. But when it breaks down you can't really ever repair it. Don't let it break down. Two things I do that joggers might find helpful are to walk around the house a lot barefooted or in stocking feet, and sit watching TV in the evening rolling a tonic bottle under each arch. Grin if you want, but the tonic-bottle bit is great. It strengthens every muscle in your foot.

Terrain: If possible, start out on a soft surface. Golf course grass is ideal, and running through the woods is great. Get the leg muscles and feet built up before running on pavement.

Time of day: Ideally, the jogger should get in his daily workout in daylight hours, preferably in the morning before going to work. He will be more relaxed, get more enjoyment from it. It will set him up for the day in the office.

Diet: I can't get that story out of my mind—the one about the over-40 jogger in California who took on a workout after a heavy meal, and died. At any age, that's tempting fate. Wait an hour after a meal.

Personally, I'm an early riser and I project my own program as an after-breakfast thing. Generally, I'm up at six o'clock for a light breakfast. Then I sit around reading the morning paper for an hour. By seven o'clock, it's light enough and my 66-year-old body is ready for a workout.

Summing Up: What I counsel is moderation, getting a sensible daily program lined up and—in case of the beginner—doing a lot of walking for a month before getting into the actual program. A jogger should gear to miles at whatever pace is comfortable, maybe stopping occasionally to relax and walk a couple of minutes.

Everyone's body is different, so the best guideline is common sense. Be moderate. Make it fun, not hard work.

The way
to start running.

ADVICE NO ONE ASKS FROM ME



HOW OFTEN TO RUN AND RACE?



BENEFITS OF REGULARITY

BY DRs. MICHAEL POLLOCK, HENRY MILLER AND A.C. LINNERUD

Dr. Pollock is director of research at Kenneth Cooper's Institute for Aerobics Research in Dallas. He was assisted in this study by Dr. Miller of the Bowman Gray School of Medicine, Wake Forest University, and Dr. Linnerud of North Carolina State University. Copies of the original study are available from Dr. Pollock, 11811 Preston Rd., Dallas, Tex. 75230.

It is clear that if a person wants to increase aerobic fitness and reduce weight and fat, one must work at it. But how often and for how long? Can one expect significantly greater health benefits from running, say, four days a week, than from running two? That is what we set out to determine in this study. Our purpose was to examine the change in certain physiological variables as a function of frequency of training.

This report summarizes a series of six training investigations conducted in the last seven years. Ten separate groups were studied during that time, with the data being combined here to compare the role training frequency plays in improving cardiovascular function and body composition of sedentary middle-aged men.

Some previous studies have sought to evaluate frequency of training by attempting to control the total number of training sessions in various regimens and/or total work output. These investigations generally showed no difference among the groups in performance with frequency of training, often because they had equalized the total training loads or the tests were of too short duration for training effects to be measured precisely.

For example, one investigator trained some men either three or five days a week for a total of 30 workout sessions. It took the five-days-a-week group six weeks to complete the study and the three-days-a-week group 10 weeks. When compared in this way, the authors concluded that no significant differences were noted between training frequencies. When groups were compared at the end of six weeks (30 total workouts for the five-days-a-week group and 18 for the three-

days-a-week-group), the five-days-a-week group had greater improvements in aerobic capacity.

We feel the latter to be a better comparison of frequency of training, because in reality, exercise programs are not stopped in order to let comparison groups catch up. Exercise should be continued

exercisers were always compared with a non-running sedentary control group.

Results after 20 weeks (see chart) showed that all running frequencies had a significant effect on cardiovascular function. Oxygen uptake increased on the average of between 6.2 to 8.7 milliliters per kilogram per minute. Resting pulse

PHYSICAL RESULTS OF RUNNING FREQUENCY

Frequency (Days/Week)	Max. Oxygen Uptake (% improved)	Resting Heart Rate (% improved)	Body Weight (% improved)	Skinfold Fat (% improved)
Control	0.0%	0.0%	0.0%	0.0%
2 days	17%	8.6%	0.1%	5%
3 days	16%	11.1%	1.6%	11%
4 days	22%	11.9%	2.2%	16%

Data on 148 previously sedentary men, ages 28-64. Subjects ran 30-45 minutes a day for 20 weeks.

indefinitely. Therefore, the three-days-a-week-group would possibly never catch up.

In conducting training experiments with sedentary subjects, it can take several weeks before adaptation to training transpires. Thus, a short-term program would have many limitations in evaluating the effects of an endurance regimen. The length of an experiment appears to be critical. This was shown in two studies we conducted comparing two-days-a-week and four-days-a-week runners. The mid-test results of the 20-week programs showed no differences between groups, but subsequent final testing found the four-day-a-week group to have improved significantly more in most variables. These findings point to the limitations in interpreting results from investigations conducted over a short time span. Therefore, the studies included in this report were 20 weeks in duration.

The subject included 148 healthy, previously sedentary, volunteer men ranging from 28 to 64 years of age. The experiments were carefully controlled and included running 30-45 minutes two, three or four days a week for 20 weeks.

Training was conducted at heart rates between 80 and 95% of maximum on a quarter-mile track. Exercise sessions were supervised, and subjects not adhering to the training protocols were omitted from the results. All men were encouraged to keep their diet and daily living habits as constant as possible throughout the 20-week training period.

The beginning runners were tested for changes in maximal oxygen uptake, resting heart rate, total body weight, percent fat and skinfold fat measures. The

rates dropped by between 5.8 to 7.9 beats per minute. The improvement was greater for men who ran four days a week than for those who ran two.

Interestingly enough, only three- and four-days-a-week runners showed significant reductions in body weight and fat. These body composition changes did not occur in four different two-days-a-week training studies (even when the groups were running approximately 4½ miles per workout). It appears that if one wants to lose body weight and fat, a two-days-a-week regimen is just too intermittent to do the job. Weight loss for the two groups ranged from less than a kilogram for the two-day men to 1.8 kilograms for the four-day runners. Skinfold fat measures decreased an average of 6.7 millimeters for the least frequent exercisers to 20.4 for the most active ones.

The data support the notion of training frequency being an important criterion for improving cardiovascular function and body composition.

THE DRAIN OF RACING

BY JACK MAHURIN

Jack Mahurin, a 2:25 marathoner, is a graduate student in exercise physiology at the University of Maryland.

Most of us love to race. This is the primary reason many of us train. But where do we draw the line between rac-

ing and training? What do we use as a guide to tell us when we have had enough racing? What tells us it is time to rest or ease off?

I won't attempt to describe a secret formula for how much and how often one should race. This formula simply does not exist. I'll simply stick to some physiological evidence concerning strenuous exercise and its effects on the body. (See the writings of Tom Osler, Dr. George Sheehan and Ken Young for further information concerning the races a runner should attempt.

During exercise, blood is shunted away from the visceral area and kidneys to the heart, lungs and muscles involved in the exercise. While the kidney functions are greatly reduced, many other body functions are working overtime to add increased amounts of substances to the bloodstream. Many of these substances found in blood and urine samples taken following exercise allow the researcher to detect beneficial and harmful changes brought on by exercise.

It has been shown that the appearance of serum enzymes lactate dehydrogenase (LDH) and creatine phosphokinase (CPK) accompanies physical exertion. Following strenuous muscular activity, these enzymes are found in skeletal and cardiac muscles and may reflect neurosis (localized death of tissue) and/or altered cell permeability of these tissues.

LDH has been found to increase as the race distances become longer, which indicates the greater physiological stress in longer races. One researcher found significant increases existing for three weeks following a 50-miler run.

Studies imply that LDH does no damage to myocardial (heart) tissue in the trained athlete. But this finding may not apply to the unconditioned individual. Higher total enzyme levels are found in the unconditioned person after exercise. In rat studies, a slight fatty change has been shown to occur in the myocardium during exercise due to the increase of LDH. Physical conditioning apparently will decrease the magnitude of LDH rise.

Another researcher points out that overtraining may influence the level of plasma proteins and glycoproteins. Usually, overtraining reduces the level of protein in the blood and raises the levels of glycoproteins and urea. This information suggests that excessive strenuous exercise induces disruptions in the connective tissue.

An increase in the concentration of alpha-one acid glycoprotein is associated with destruction of internal tissues, as is indicated by an additional increase



aware of the problems of overtraining and over-racing. This information of this product in injured athletes. It has been hypothesized that the elevated seromuroid levels found in athletes results from tissue damage during repeated heavy exercise.

Researchers have found no significant changes in the alpha-one acid fraction and seromuroid values after exercise bouts of less than 30 minutes. Another interesting item is that no significant changes exist in seromuroid levels a half hour after a 90-minute bout of exercise as compared with pre-exercise levels. However, the levels were considerably higher after several days of hard training.

This information is not an attempt to scare all runners away from the starting line and from heavy training loads. It is merely an attempt to make them

Hard races take a great toll on the body's reserves. The results of a race, physically, are fatigue, soreness and injury. After a marathon, like this runner's Boston effort, simply going down steps can be painful. (Mary Rosenfeld photo)

partially explains, physiologically, the information Tom Osler, et. al, have been preaching for several years—that you cannot train and race hard all the time.

Even though much information concerning physical stress remains unknown, a runner should consider the following points:

1. If you choose to race regularly, race over short distances rather than long distances since long distance racing is more demanding physiologically.
2. Only run a few long races (like marathons) each year and space them throughout the year to allow yourself adequate recovery time between them.
3. Do not resume full training until adequately recovered from races. The longer races require longer recovery periods.
4. Do not run all races in an "all-out" manner. Use some races as good, brisk training runs and do not worry about your finishing position.

Race promoters should also consider the above information. Frequent races over the short and intermediate distances will allow the runners to race frequently and not subject themselves to undue physiological stress and the increased possibility of injuries.

Quite frequently we find an overbalance of long distance races being sponsored by well-meaning promoters prior to an important marathon such as Boston. These long races may be hurting the frequent racer rather than helping him. Maybe the 100-plus marathons existing in the United States are not the blessing we thought they were.

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PERCY CERUTTY: 14 YEARS LATER

by Larry Myers

Larry stayed with Cerutti a year, and came back with much to tell others. He reports that at 79, Cerutti—who will be lecturing in the United States this summer—is as active and outspoken as ever...

When I first entered Percy Wells Cerutti's athletic center, commonly known as "Ceres", I immediately thought back to Herb Elliott's words in *The Golden Mile*: "I took one look at glorious, God-kissed Portsea and wanted to run through the sand from sheer joy and exhilaration."

In the 14 years since Elliott graced the sand hills of Portsea, little has changed. "Ceres" is the same—beautiful as ever and an idyllic setting for the athlete of any sport who aspires to world record heights or the Olympic challenge. One could say after experiencing it that Ceres is to Cerutti as Walden Pond was to Henry David Thoreau. After spending a year in Cerutti's little corner of the world, I can say now that if there is a runner's paradise in the world, it surely must be Ceres.

I got involved with Percy through a lengthy correspondence. Before I went to Portsea, I had been competing myself as well as coaching athletes in Denver on a free-lance basis. Out of all this emerged a book called *Naturalistic Training*. I would send copies of each of the chapters to Percy for his critical evaluation. He would write back giving a complete analysis of my thoughts, always ending his letters with the same message: "Come to Portsea, I have much to teach you!"

So when the time was right, I did just that. At Ceres Percy prepared a desk for me to work and study directly behind him. He was the teacher, I was the student. And did he teach me! From the day I arrived to the day I departed, Percy was constantly teaching me—always something provocative, influential, inspirational, full of analytical genius. He was never boring!

Percy's classroom is not limited to his office. He can come up with his little pearls of wisdom at the oddest times—in the kitchen, on the sand hills, while lecturing at the oval, or strolling down the beach. An example that readily comes

to mind is when we were working in the garden and he said, "My best thoughts come to me when I am closest to nature, with my hands in the soil." Then Percy went on to talk about Plato, Aristotle and Socrates, telling about their works.

Percy ended his lengthy discussion as the job in the garden was finished. As we put the tools in the shed, he said, "You'll never learn that at a university, or read it out of a bloody textbook, Mate!" Every day was like this at Portsea.

Essentially, Percy does more to the athlete than just strengthening the body with weights, running sand hills and eating the right foods. He goes one step further to recondition the human being's total psyche, re-educating the person on every facet of life that relates to the total improvement of the individual.

What is the formula for success that Cerutti has used to lift with athletes like John Landy and Elliott? The answer does not lie in printed schedules, or the psychological or physiological data that has been compiled through endless research. I found the answer to the question lies in the fact that the person is reconditioned to embrace nature—to give in to God's handiwork, thus enabling a total outpour of the person's inborn personality, or what Cerutti would call "spirit."

Now that Cerutti's athletic ambitions have been mostly satisfied, he has turned his energies to educating the world to his "Stotan" philosophy. The message is simple—"Learn and survive to keep alive!"

With the growing dangers of pollution, disease, drug problems, the rise in crime, climbing divorce rates, etc., Cerutti strongly believes that the same humanitarian principles which were taught to Elliott and others like him who established 30 world records in all sports can help mankind to identify with nature, thus leading to healthier and more creative individuals.

In this regard, Cerutti has written many thousands of words to be published in pocket editions. In a nutshell, Cerutti says that: "Mankind has lost its basic instincts for survival. So it's important to reteach the individual, and humanity in general, to return to nature to come alive."

You might ask, "What is it that is so powerful about Cerutti's humanitarian

works, and how do they apply to the runner who is out to beat the world?" To answer briefly, I found that the Portsea environment revives the individual's body, whereas Cerutti's philosophy revitalizes the athlete's innate personality by teaching the person the difference between humbleness and humility. When the person grasps this one concept alone, he rapidly develops a "killer instinct" or the "sooner die than be beaten" attitude. In short, all words meaning failure are banished from Percy's dictionary. He knows nothing about failure or defeat.

In regards to the Stotan philosophy, Percy still advocates that the athlete should learn to endure discomfort. Quoting St. Francis of Assisi, he said, "Walk towards suffering. Love suffering. Embrace it." Hence, there are no heaters in the bunk room during the winter months when the chilly winds blow up from Antarctica. I'll never forget the last winter in Portsea when I had the flu with a temperature of 104.

I was lying there in the Landy Bunkroom when Percy walked in with a pot of tea. He said, "Drink this and get well. If you die, I'll bury you in the sand hills with all the other runners." Percy's words of encouragement at the time were a big help to me, as somehow I managed to crack a smile. Within a couple of days under his wife Nancy's care, I was running again and back in the study reading the essays Percy had placed on my desk while I was away.

When I ran, Cerutti concentrated on teaching me his style of movement, actually five basic movements which he together calls "full-lung aeration." One of the hardest things to master was learning to run like a horse: (1) the freeing of the entire musculature, called the *stretch-up*, (2) the *amble*, (3) the *trot*, (4) the *canter*, and (5) the *gallop*.

Percy told me many times, "When my teachings and techniques are fully understood by humanity, they will revolutionize every event in athletics, sport and health generally..."

Percy's natural running technique enables the runner to (1) fully fill the lungs, (2) run with a nine-foot stride, (3) lift his weight out of the pelvis, and (4) constantly vary his movements.

On my final day at Ceres, Percy gave me his concluding lecture and an elaborate diploma saying that I had mastered his techniques, philosophy and humanitarian works 100%. When Nancy drove me up to Frankston Station and let me out to catch the train to Melbourne, Percy said, "You've made the grade. Now go out and teach the world how to run and and keep alive."



OUR PIECE OF THE PUBLICITY

Distance runners don't get much media attention now. Here's how to attract more.

by Marc Bloom

Marc Bloom, editor of the publication *New York State Scholastic Track*, has been involved for years in publicizing running on a number of levels.

Competitive road-running and cross-country is the stepchild of the nation's sports pages. Preoccupied with the money-making professionals and guided by our ball-playing culture, the sports media pays little attention to the runner. Sure, track races receive a share—however inadequate—of the pie. But aside from a few events, particularly marathons like Boston, it can be estimated without exaggeration that at least 90% of American long distance races receive only token (if any) coverage by the sports press.

There are many reasons for this vacuum. Perhaps it can be said that money is the root of all sports coverage—or at least most of it. Get some movie star to start a golf tournament and give away \$100,000 in prizes, and he'll be guaranteed a place in the hearts of American sports editors.

Decision-makers at newspapers, magazines and radio and TV stations can hardly be expected to be familiar with running. Most likely, they were bred (as most of us were) on an athletic diet of basketball or baseball, and they reflect that diet in the way they allocate space or time.

In general, the print media has suffered from a decrease in advertising revenue. (The paper shortage hasn't helped either.) Less advertising (or paper) means a thinner newspaper. And when sports space tightens, don't expect the Super Bowl to be trimmed. Running also has felt the effects of the enormous expansion of the professional ranks. With more leagues and more teams every year—and no end in sight—running coverage would seem to be headed for a greater drought.

It might be argued by traditionalists that it is the level of performance that dictates the priority given to various sports events. Pro football players are supposedly the best at their craft; hence, they get the headlines. But that

PAGE 25: A race with the right kind of publicity attracts large crowds of both athletes and spectators. This is the scene at the annual Paavo Nurmi marathon in the little town to Hurley, Wisc. (Jay McNally photo)

BELOW: The Bay-to-Breakers race in San Francisco has built-in publicity. It's sponsored by a newspaper, and has grown to 5000 runners. (John Marconi)

would not explain why their high school counterparts on the gridiron also are mediated (my term) in the fall. Nor would it explain why even events with superior runners are sometimes ignored. Superior does not have to mean Frank Shorter, but 2:20 marathoners aren't bad.

It might also be pointed out—something justifiably—that the public does not want to read about, or watch, running, so why cover it? But among the scores of reasons for the popularity of a sport is the influence of the press. In the way it handles—or does not handle—an event, the press can make or break it, financially and otherwise. Sufficient coverage of road running could elevate interest in and concern and appreciation for the sport.

Alas, we cannot blame this unfortunate situation only on the sports editor, who is constantly pressured by lobbyists from various sports and publicists from various teams seeking equal space. The persons who conduct the running events—the directors or promoters—must share some of the blame.

By and large, they do not know how to—or do not wish to—deal with the media so as to obtain optimum press coverage of their races. They may be extremely capable of having the joys of their races spread through the running grapevine, and they may properly heed the suggestions outlined in the booklet *Race Promotion*. Great—the welfare of the runner will remain the prime objective of any race. But media coverage will enhance a race, and may serve to get more people to run and more runners to continue running. Moreover, significant achievements will be accorded the recognition they warrant.

The following suggestions are intended to help race directors gain more benefit from their local media. Obviously, there are differences among the media, and many of these points could be tailored appropriately. Also, the effects of these suggestions would be diluted if

implemented for an entire program that might involve weekly races in areas with high running interest. It would be too time-consuming for the meet's administration and would eventually turn off the media. Consequently, this list would be best applied to not more than a handful of races during a 12-month period.

BEFORE THE RACE

1. Have you, well in advance of the race, formulated a list of the media that might be interested in your event?
2. Have you decided upon ways to keep them informed of race developments in the weeks preceding the race?
3. Have you sent pre-race notices that would include: expected number of participants; expected age range; whether women will compete with men; the number of races; a tentative time schedule; any course records and other pertinent statistics; a course layout (essential for TV camera crews and photographers)?
4. If possible, have you decided to hold your race early in the day so that reporters will have sufficient time to conduct interviews, obtain results and report the race fully and accurately?
5. Have you kept them informed of the entry of any "name" runner or local hero whose participation may require special coverage?
6. Have you, perhaps, organized a press luncheon in which reporters can mingle with (and interview) leading entrants, and photographers can accumu-

late photos? (This can serve as a press conference as well so that late meet changes can be announced.)

7. Have you designed your entry blank so that any unusual circumstances involving a runner's participation could be ascertained and, in turn, provide the media with a fresh "angle" prior to the race?

8. Have you arranged for the use of duplicating equipment (or at least a typist) that will make race results available quickly?

9. Will you have a full-scale race program or at least a mimeographed list of entrants' names and other essential information?

10. If the site of the race may be unfamiliar to the press, have you notified them of the availability of phones that may enable them to call in their stories?

11. If you will be too busy with other matters, have you assigned an assistant to handle this work and serve as a sort of press liaison?

DURING THE RACE

1. Are there tables and chairs as part of a "press area" where reporters can work if they so choose?
2. If a trail car is to accompany the field, is there room available for the press?
3. Is there a specific spot to which the winner will go after the race so that—when he is ready—he can be interviewed and photographed?
4. If there are several races, will results be distributed between races?

AFTER THE RACE

1. If press representation is weak, will someone phone in the highlights of the race to those reporters who did not attend?
2. Will official results be distributed as quickly as possible?
3. Have the dates of other (upcoming) races been announced?

The reporter, of course, assumes the responsibility of covering a road race properly. But his unfamiliarity with the sport may not give him an inclination to even concern himself with road running. Therefore, an event must be clarified for him so that he could recognize its importance and feel confident in the manner in which it could be covered.

The implementation of these suggestions does not guarantee that the Po-dunk Easter Egg 7.6-miler will share equal billing with Hank Aaron's 715th home run. But it might mean that some day, when someone eventually runs a two-hour marathon, the kid who steals his shoes could sell them for \$10,000.





KEEPING YOUR RUNNING COOL

*How to cope with the human body's
distressing tendency to overheat when it exercises.*

by Dr. Alan Claremont

This article by exercise physiologist Claremont reviews some of the current concepts regarding temperature regulation during running. Discussion is focused on the importance of maintaining thermal balance while training and competing in hot weather.

Man, being a warm-blooded animal, is presented with a unique challenge. He must possess the physiologic mechanisms to withstand both heat and cold exposures. He must be capable of adapting to temperature changes experienced during exercise under a wide variety of environmental conditions. Since the rate at which biochemical reactions proceed depends to a great extent upon temperature, the ability to maintain a relatively constant internal environment insures the continuous optimal functioning of metabolic processes.

Thermal equilibrium is achieved when heat production is equal to heat loss. Air-to-skin and skin-to-deep body (rectal) temperatures constitute the main avenues for heat transfer.

The characteristic responses of the body to heat stress are:

- Dilation or expansion in the diameter of blood vessels underlying the skin surface. This permits increased flow of body heat via the blood to the body surface for heat dissipation mainly through the sweating mechanism.

- Increased sweat gland activity and cooling of the skin by evaporative heat loss.

- The return of cooled venous blood from the skin to the central circulation.

Conversely, when the conservation of body heat is of paramount importance, cold responses are characterized by:

- Constriction of skin surface blood vessels.

- Increased heat production by involuntary muscle contractions (shivering).

- Redirection of blood from surface vessels to deep vessels.

Man has the ability to protect himself from cold by bringing his semi-tropical environment with him. Surrounded by a micro-climate of warmth provided by adequate insulative clothing, he may enjoyably participate in cross-country

skiing, running, winter camping, etc., that involve long-term exposures to cold. Yet there are limits in the ability of temperature control mechanisms to maintain thermal balance at the lower end of the scale.

However, the upper end of the temperature scale is of greater significance to exercising man, for he can more easily protect himself from overcooling than overheating. During exercise, he must dissipate the heat produced by muscles or increase body temperature.

If heat removal mechanisms function adequately and heat is lost to the environment, a new steady state of thermal equilibrium will be reached and performance will be limited by factors other than elevated body temperature.

But if external temperature and humidity are high, or if clothing inhibits heat loss by radiation, convection, conduction and the evaporation of sweat, body temperature increases as a function of the exercise rate, with voluntary activity terminating as temperatures increase to critical levels.

Although there appears to be a thermoregulatory response in which internal body temperature is controlled and tolerated at a new and higher temperature, a portion of this internal heat surplus must be eliminated if the individual expects to survive such stress.

The ability of an individual to survive heat stress is among the prerequisites for successful endurance performance. The standard of performance in exhaustive long distance running is markedly influenced by the metabolic heat load associated with increased muscular metabolism.

Physiologically, the rate and extent of temperature elevation during activity is influenced by: (1) the level of metabolism (heat production increases directly with metabolic rate; the faster one runs, the greater is the heat production); (2) ability of the body to dissipate heat, mainly by the sweating mechanism; (3) extent of dehydration incurred.

Factors one and two have been discussed. As for the third, it is possible for a man to sustain sweating losses of up to one liter or 2.2 pounds per hour during heavy work in an air temperature of 90 degrees. Weight reduction of 5-7 pounds following marathon races are not uncommon. At these sweating rates, salt depletion is approximately three grams per hour. Fluid volume and electrolyte losses are so large that normal functioning of the body cannot be maintained without liquid and electrolyte replacement.

Dehydration is a stressor on the

system since a dehydrated individual will exhibit a higher rectal temperature than in the hydrated state. When a runner loses weight through sweating, he increases the total amount of heat held by the body. As a result, his temperature may rise from 0.3 to 0.5 degrees for every 1% loss of body weight.

In addition to the dehydration effect, requirements to dissipate the metabolic heat gain through sweating places a further strain on the circulation. The subjective discomfort of muscles and skin having to share a limited amount of blood during hot weather running inevitably results in a decrease in performance. To compensate for this circulatory embarrassment, running pace must be reduced to avoid the accumulation of an intolerable heat load, and the potential of heat stroke.

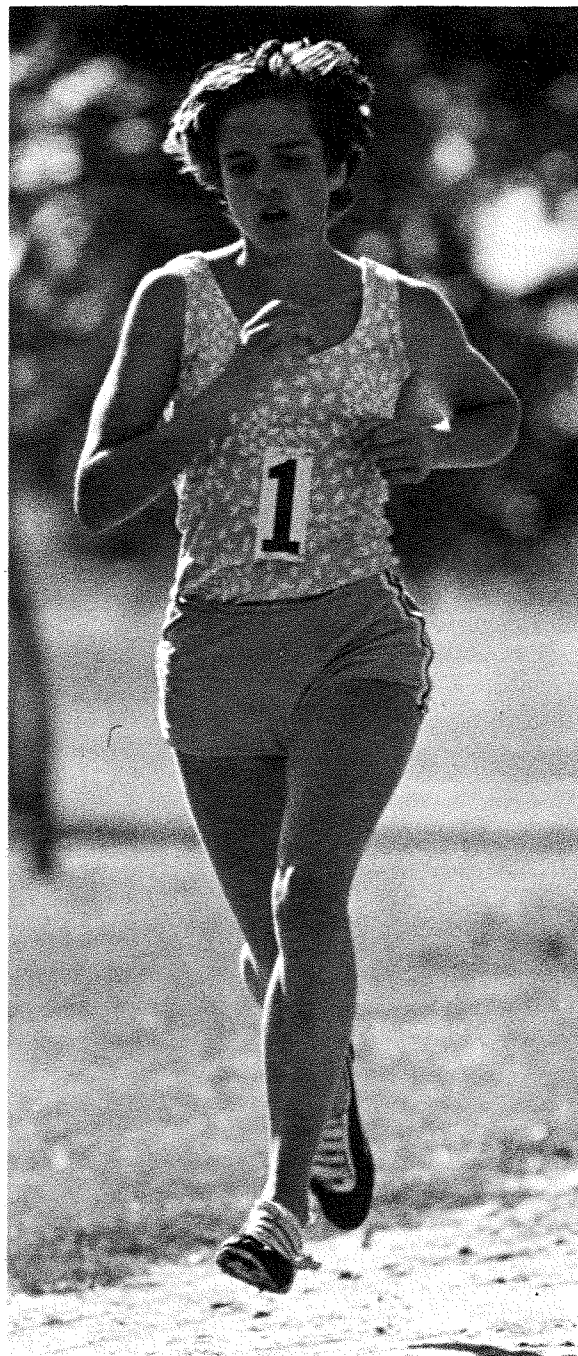
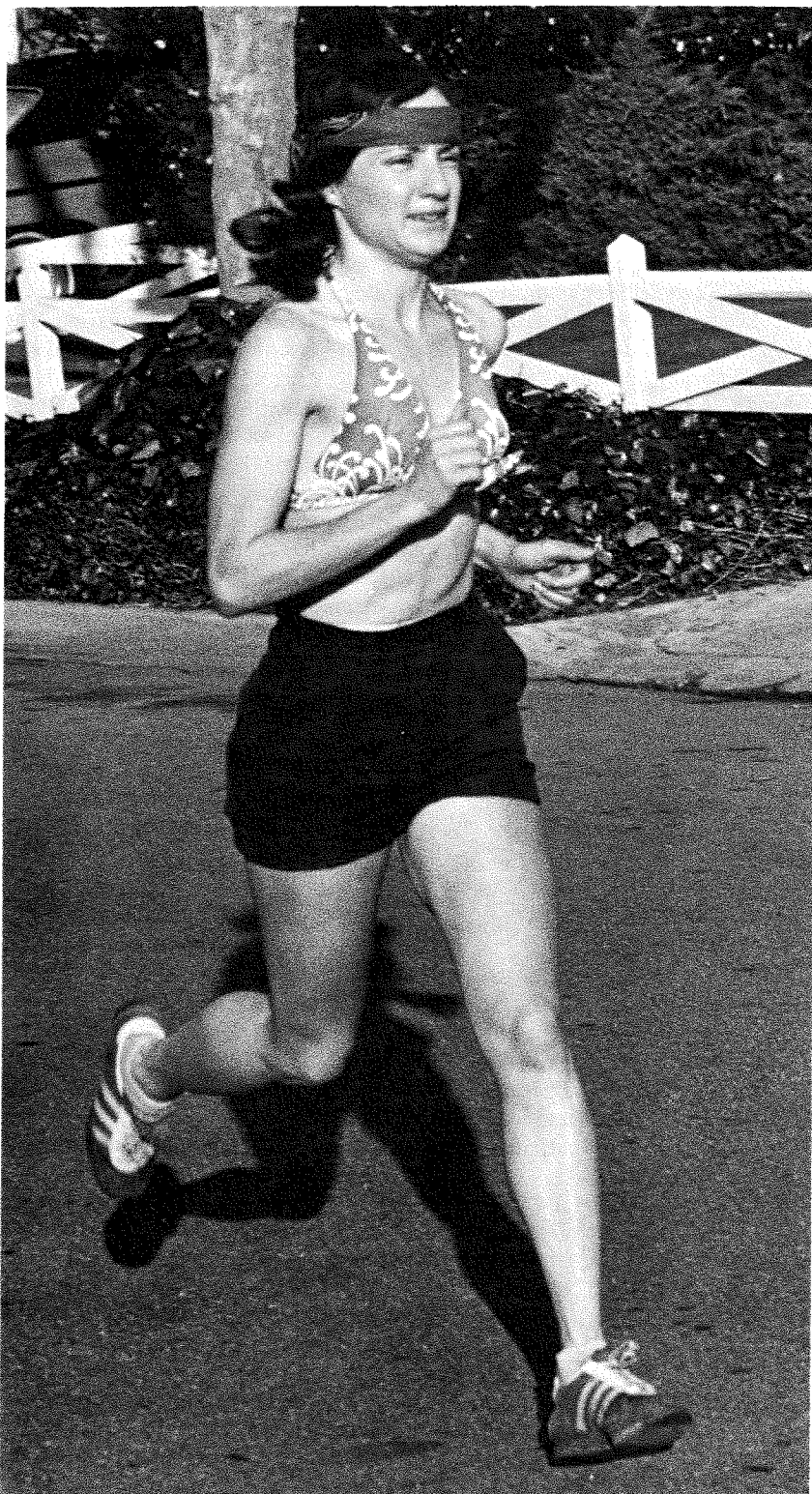
Sweating losses of 1.0 liter per hour result in salt losses of three grams per hour. Restoration of fluid volume or, better yet, attempts to maintain the hydrated state, raise questions of how often and what type of fluid to drink.

If one relies solely on the thirst mechanism, he will inevitably acquire a water deficit, for the sensation of thirst is satisfied before adequate fluid volumes have been restored. It is therefore necessary to force-feed. Current recommendations indicate the ingestion of small volumes at frequent intervals (e.g. 250 cc. every 15 minutes) to maintain the hydrated state.

Dr. Martin Eisman has analyzed a number of commercially available fluid replacement solutions. His findings (reported in *Acute Volume and Electrolyte Changes—Consequences of Dehydration*, annual meeting of American College of Sports Medicine, 1973) indicate that the solutions Sportade, Gatorade and Half-Time Punch are inadequate to replace all the fluid lost by an unacclimatized man but are reasonably adequate for the acclimatized individual.

Dr. Eisman says, however, that tomato juice taken in equal volumes with water (drinking each separately for palatability) provides an almost ideal replacement. It contains about twice the required amounts of sodium and chlorine, and more than six times the recommended quantity of potassium.

During activity under heat stress conditions, a major factor contributing to impaired function is related to the degree of dehydration incurred from sweating losses. Evidence to date indicates that the athlete who attempts to maintain the hydrated state has a lower body temperature, less circulatory strain and an increased work capacity.



WOMEN'S WEAR FOR RUNNING

Beyond men's castoff clothing.

by Janet Heinonen

Finding ready-to-wear women's running clothes is as easy as finding gasoline on the weekend. As many of us take to other forms of transportation—buses, bikes and feet—so the female runner takes to other wardrobe sources—the back of the closet, her husband's drawers or the nearest used clothing store. Innovation is the key.

A Portland, Ore., housewife in her 30s runs marathons in a basic black ensemble of leotard, tights and skirt. She accents her outfit with a gold chain necklace. In the same race, a 16-year-old girl tops a similar leotard outfit with a mod-

ish cotton print smock, complete with ruffles and sash. Both women take off at eight-minute pace and finish less than four hours later, not as fresh looking as when they started, but definitely prettier than the soaked-and-stretched-out-T-shirt bunch.

Away from competitions, you may see a university coed running a hilly workout wearing her boy friend's long-johns. On cloudy, gloomy days, a young wife slips into a pair of shocking violet tights, an old pair of purple hotpants and a pink turtleneck pullover and takes off for a drizzly 10 miles.

Your running clothes are going to be your own creation—or monster—depending on your own tastes, sense of humor and your area's climate. I've found that "expensive" can rarely be equated with "best." I recommend spending your money on a good pair of running shoes rather than on expensive sweats or on plastic running clothes designed to make you sweat like a fish in Handiwrap.

If you have a husband or boy friend who runs, you may have already discovered that his shorts, T-shirts and sweats fit reasonably well for your own running purposes. Men's nylon running shorts are cheap and easy to care for, although some women may find them too baggy or too large a slit on the side seam. You can easily sew up the slip or piece in some lightweight material for maximum comfort and modesty. Braid trim down the side seams adds a feminine touch—as well as preventing the man from borrowing your running clothes in retaliation for your raids on his things.

Cheaper still are boy's PE shorts, usually made of durable cotton twill. You can buy them for 25-50 cents at Goodwill or other used clothing stores. While you're searching through the clothing racks, look for cotton and wool turtlenecks. They may cost from 25 cents to \$1.50 and are perfect for cold weather running.

Sweat pants are expensive and I find them cumbersome for daily training. For cool to cold weather, a pair of heavy-duty tights are a good investment. Dance tights are available for about \$5. Regular tights (the kind children wear) are less expensive but difficult to find in adult sizes. If you're tiny, you may have luck in the children's section of most department stores. Tights come in various colors. You can mix and match them with colored shirts for some eye-pleasing combinations. If you happen to tear your tights, they can be easily darned. The more sheer they are, the greater the chance of a run or tear.

Cotton or nylon? The choice of

materials depends on the weather. Cotton "breathes" more and you stay cooler. Nylon can get very hot, but it also repels water well and dries quickly. For tights, you'll most likely choose nylon for foul weather. For underwear, you're best off in cotton for hot weather. Nylon running shorts coupled with nylon underpants on a hot day can be terrifically hot.

Beware of tight-fitting nylon racing tops on hot days! A loose-fitting cotton T-shirt will give you more protection from the sun as well as allow more air to circulate between your skin and shirt.

Or you can make your own midriff-baring top in half an hour. Chances are

The varied dress of women runners: (page 28, left) Jean Maier; (right) Teri Johnson; (below) Kathrine Switzer.



that you never did get rid of a useless collection of summer tops that shrank to irresectability by the fifth washing. Any sleeveless cotton tank top will do. Cut off several inches from the bottom, allowing enough material to form a casing for elastic under your bustline. Sew a quick casing by folding under the raw edge and stitching a hem wide enough to contain the elastic. Insert the elastic and you have a comfortable top that fits snugly under your bust, leaving your midriff cool and bare.

For winter running, follow the old advice of dressing in layers. Layers trap more heat. They can also be removed in degrees. A stocking cap not only keeps your hair dry, but prevents important body heat from escaping. Wool is the best bet for warmth. It's unique in that even when wet, it retains its warming properties.

My husband criticizes women for being "over-dressed" in races. I'm inclined to agree that women wear too much clothing, forgetting how much heat the body generates, especially when it's working at race pace. Once you've started a long run in a body stocking, you may have trouble getting out if you get too hot. If the weather is uncertain, start in layers that can be easily removed. A wind-breaker gives a lot of protection, and if necessary can easily be tied around the waist without hindering the runner. Use your sweats only for warming up (remember, they used to be called "warm-ups"). I learned the hard way, running the last four miles of a rainy 12-mile race. The wetter my sweat pants got, the heavier they were until I ended up running with the waistband clutched in my cold, dysfunctioning hands. Holding onto wet, soggy britches for four miles does little to accelerate your pace.

Three final tips:

- The golf socks with little pompons attached at the heel stay in place where other footlets creep down and end up under your arch. You can find these socks least expensively in dime stores.

- Bras. Some women run comfortably without them. Most women, though, need support when running. Most favor an old, well-worn bra as there is less chance of chafing. Just make sure your bra is in good repair. A broken strap or hook can needlessly spoil a run or race.

- Dr. Larry Hilt of Eugene recommends that women carry a hat pin with them on solitary runs. If you're pursued, just head for the nearest hill and chances are you'll outrun your pursuer, says Hilt. If not, you can inflict a lot of damage with the pin.



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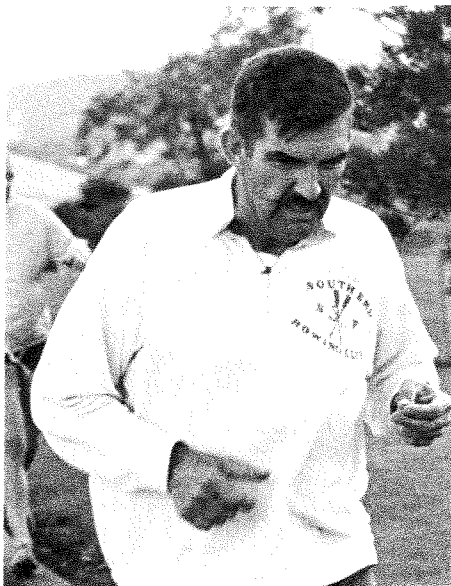
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Looking At People



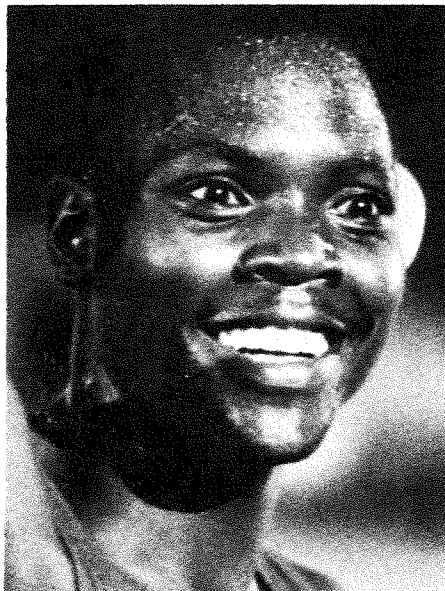
John Boitano

● **John Boitano**, reacting to published criticism of his daughter **Mary Etta's** long distance running (see cover, and "A Hot Race For The Women," April 74, *RW*), defends his coaching of his 10-year-old daughter who has run a 3:01 marathon: "People are constantly telling me they don't push their kids. Well, I do. For years now, I've pushed them in running (2500 to 3000 miles a year). I push them in piano, judo, school and church. I think a parent should do a little something now and then. When my kids are running, I'm in there, too."

● **The Chatterton brothers** of California totaled more than 200 miles among them in the recent Camellia Festival 100-mile—the only regularly scheduled race of that distance in the US. None of the nine starters finished. **Dave Chatterton**, 18, went farthest with 65 miles. His brother **Steve**, 13, covered 52½ miles. **Mike**, 10, went 47½. And eight-year-old **Terry** ran 45.

● **Ben Jipcho**, in San Francisco for a pro meet, went looking for 10 miles of straight road for a workout. The most obvious route was along the Bayshore Freeway, against onrushing traffic. "I ran near the side of the free highway," Jipcho said later, "and the sound of the wind made by the passing cars was very pleasant." The run didn't last long, however, as a highway patrolman plucked the Kenyan from the freeway and was about to write him a ticket when he realized who Jipcho was. The officer drove him back to his hotel, then asked for his autograph.

● **Scott Slovic**, whose father **Paul** has written a number of articles for *RW*, set a world record for 13-year-olds at the Trail's End marathon with 2:45:15. The Slovics, reports their neighbor **Lili Ledbetter** (herself a marathoner of some renown; see Feb. 74 *RW*), recently returned to Eugene, Ore., from Israel. Scott's impressions of running in Israel: "The drivers don't slow down when they come near you, and would almost run you over. Soldiers would wave and shout encouragement at us, and kids would count cadence in Hebrew and clap as we ran by." Scott, whose best mile is just under five minutes, averaged 55 miles a week for four months before his marathon, most of the distance being run in Israel.



Ben Jipcho

● **Emiel Puttemans** is learning, as Jipcho did earlier, that amateur officials are driving runners of their class into the pro camp. Puttemans said in March, "I have gotten offers from the American professional group, and I plan to accept them after the European championships (this fall)." Immediately, the Royal Belgian Athletic League ruled that their star could compete only in meets as part of the Belgian national team. No more individual races until August. Puttemans hinted that the move could hasten his decision to turn pro.

● **Chris Fisher** and other non-Americans on the ITA tour have found that the Yankee dollar's value shrinks before they can get it home. Fisher, an Australian who has been the top 880-1000 runner in the early pro meets, says, "The winner of each event gets \$500. But I have to pay \$100 to the US in income tax, and



Emiel Puttemans

I lose \$120 because of devaluation. So I wind up with \$280, not \$500."

● **Senator Alan Cranston** is one of the veterans to defy the AAU ruling that amateurs can't run in pro meets without disqualifying themselves from further amateur competition. (David Pain comments on this question in "US Masters on Tour," April 74 *RW*.) Cranston writes, "I have concluded that the AAU position is unsound, and proceeded to run in the Baltimore ITA meet and plan also to run in their Los Angeles and San Diego meets. If the AAU takes any retaliatory action against anyone, I'll try to help out."

● **Burnis Hicks** of Washington, D.C., apparently is the oldest American woman ever to finish a marathon. At 60, she did 4:45 in March. She also has finished the JFK 50-mile, and says, "I'm in this for my health. It's done so much for me. I'll never quit. Of course, I feel satisfaction when someone at a race comes up to me and says I'm an inspiration. But I feel we can all do more than we think we can. The excitement is in the trying."

● **Cavin Woodward** of England, according to English subscriber **C.H. Park**, "has demonstrated that it is not only possible to undertake a heavy program of long and ultra-long distance races during the year, but also to actually improve times considerably in the course of such a program. This appears to contradict the often stressed view in *RW* that frequent racing at any distance 'tears down' more than builds up." Woodward's 1973 races: May 5—marathon in 2:22:20. May 19—marathon in 2:23:43. June 2—marathon in 2:19:50. July 28—37½-miler in 3:41:48. Aug. 18—marathon in 2:26:01. Aug. 25—36-miler in 3:25:51. Sept. 1—30-mile in 2:58:49. Sept. 15—marathon in 2:34:18. Sept. 30—London to Brighton (52-plus miles) in 5:16:36. Oct. 27—marathon in 2:26:18.

MY SON, THE RUNNING PRODIGY

A thin line separates fatherly pride in his son from ambition for him. Support and pressure are but a step apart in attitude, but a world apart in the effect they can have on a child. In sports, where success is so easily measured and so tempting to chase, the risk of stepping over that line is great.

Richard Heywood knows the difference between helping a boy do what he wants in sports and herding him into competition over his head. Rich has read all the right things about what athletics do for and to youngsters. He has coached them in Nevada and Arizona schools for years. And he operates a summer camp for runners in the Utah mountains.

Heywood's greatest concern is that he not hurt or exploit a young runner, yet that he help him go as far as his own talents and interests will take him. It's a tricky compromise to reach.

Never was it trickier than in late 1973, when Heywood's own son Reg started to show unusual running possibilities. Rich not only had his usual concerns as a coach then, but he had to be careful that he wouldn't be typed as a pushy "Little League parent." That was bound to be a possibility if the boy realized any of the potential he was showing during the summer.

Reg Heywood is 10 years old (he'll be 11 on March 30), and lives in Mesa, Ariz., where his dad is a high school track coach. Reg is 4'5½" tall and weighs 64 pounds. A year ago, he ran a mile in 6:40. Now he has done 5:27. This story, though, doesn't concern his miling but what happened between those two races.

Last summer, Reg stayed with his father at the running camp in southern Utah. Emphasis there was on distance training, with most of the runners eyeing the Deseret News marathon at Salt Lake City in late July. Reg fell in with them during training, and eventually would adopt their goal.

Elevations near the camp range from 5000 to 11,000 feet. Rich had told his son that running in the thin air was good for him and that it would make running easier for him.

At the 10,500-foot level in one run, Reg gasped to his father, "Dad... I thought... you said... this air... was thin."

"It is thin... rarified... Doctors say that 10,000 feet... is the ideal training elevation."

"But Dad... you said that it would make running easier... It's harder!... And

Coaching a 10-year-old marathoner.



this air isn't thin... It seems *thick* to me!"

Only later, when he ran the Deseret News marathon, did the 10-year-old start to realize what his father meant. Running easily, Reg hit 3:25—within seven minutes of the world age-10 record. The altitude of the Salt Lake race was still a breathtaking 4000-7000 feet.

Father and son decided together then that Reg would try for the record in December. The original goal was 3:10-3:15.

"At the beginning, when I started training for the marathon," Reg says, "I wanted to average 7:20 (per mile)."

That was revised downward to sub-3:00 as training progressed. Reg had never run much more than 20 miles a week before. Now the idea was to spurt up to 60-70 before backing off again. Young Heywood followed the "Ken Young Formula" (averaging one-third of the racing distance each day for two months; see "The Theory of Collapse," Sept. 73 RW). Father Rich reports:

"We have kept a rather careful record of Reggie's runs over the last year. His average weekly mileage was a mere 22 miles. We conformed to the Young Formula. We built up this mileage and followed the formula at an absolute minimum (8-9 miles daily) during the eight or nine weeks preceding the marathon. Included were 10-13-mile road runs which were low-keyed and friendly. Our only interest was building up the confidence that he could handle the distance. Reggie's highest week was two weeks before the marathon. He hit 72 miles, which seemed quite natural since he had worked up to it very slowly."

Reg adds, "Maybe once every week I had a long run on the track. A lot of my training was on the track with my dad's pacer (Rich Heywood invented the Sports-Tronix pacing device). It's just like I'm running competition when I have it on. If I get behind the beep, it means they're winning. If I'm ahead of it, I'm winning."

Shortly before the Fiesta Bowl marathon, Reg ran 16 miles on the track against the beeper. He averaged 6:27 miles.

He did just about the same for more than 20 miles of the Dec. 21 race from Cave Creek to Scottsdale, Ariz. That pace would have brought him in under 2:50.

"I was okay until I got to 24 miles. But oh boy, it was really getting tough there. My stomach hurt me. I didn't eat enough. I had donuts and soda pop an hour before the race."

Other runners were passing the little fellow for the first time. He was losing heart when he passed his father, who stood at the 24-mile checkpoint. Reg, half-crying, said, "Dad, I'm trying... But I'm hungry."

Rich told him, "Son, you're doing fine. You're way ahead of schedule. You could walk in and break the record."

"That's a good idea, Dad. Can I walk?"

by Skip Olsen

If you've heard of Marymount College it has probably been because of Tony Brien. Marymount is in Salina, Kans., and has an enrollment of about 600. Tony Brien is from Ireland. He is the NAIA cross-country and indoor two-mile champion, but perhaps his biggest accomplishment since coming to the United States was his fourth place in the AAU cross-country.

When Brien decided to come here, he didn't know of Marymount himself. Two friends from Ireland, brothers Phil and Liam Ryan, had persuaded Tony to join them at Cal Poly in Pomona. Brien arrived only to find the school had filled its quota of foreign students.

The Ryans contacted Tom Rupp, a former Poly coach who had gone to Marymount. Rupp said sure, send him along. How often does a school of 600 in Kansas come across an almost-Olympian?

At 18, Brien had been good enough to make the Irish team for the international cross-country championships. His competitive running had only started when he was 17, having evolved from his soccer playing. The soccer team ran 6-8 miles three days a week at a track club's facilities. The club's coach talked Tony

AN IRISHMAN IN KANSAS



*NAIA champion
Tony Brien.*

MY SON, THE RUNNING PRODIGY

The father handed the boy a piece of chocolate and patted him on the head. Reg's pace picked back up. He finished in 2:57:24—an age-10 record by more than 20 minutes, and faster than both the 11- and 12-year-old marks.

Whether Reg gets the records for 11, 12 and beyond is not being left to chance. His dad believes he should guide the boy into the future with a gentle but firm hand and a wise head.

"I hope he keeps running," Rich says. "We're going to try to encourage him to run. We are *not* going to leave the decision entirely up to him. Parents make a mistake when they do that. They shun their responsibility when they do that.

"I think we are doing the right thing, and so does Reggie. I don't think you can start a good thing too young. But I qualify this by saying to start runners young you have to handle them with kid gloves and learn how to work with them so they will feel deprived if they don't get to run. We are going to make running look as attractive as possible to Reggie, and hope that he continues."

into running for its youth team, and his running career blossomed quickly after that.

It wasn't without hitches, however. "Due to severe attacks of tendinitis and shin splints," Brien says, "I have never been able to train continuously for a long period of time." He didn't have another injury-free period until almost three years after he ran the cross-country international.

"In the spring of 1972, I remained free of injury long enough to train for the Olympic Trials in the marathon. I ran twice a day for four months (99% LSD) and built my mileage up to 180 a week. I finished fourth in 2:18:45 (my previous best was 2:46). The first three went to Munich."

At the time, Brien was working as an air traffic controller in the British Air Force, and he says "the shift work was not conducive to hard training. So when I was offered an athletic scholarship in the States I jumped at the chance to be able to train harder plus gaining the benefits of travel and a college education."

He tried to train harder when he

got to Kansas in late 1972, but the tendon problems cropped up again. Tony placed 20th in the NAIA cross-country race as a freshman. Last track season, he began to come around. He ran a 29:18 six-mile at the Kansas Relays. The same weekend, he did 2:26 in the meet's marathon. A week later, he had a 2:27 marathon at the Drake Relays. Again he was having tendon troubles—hardly a surprise considering the heavy schedule of races. (Brien himself says he prefers only to run a hard race every two months or so, with the others being easier and used as training sessions.)

By fall, 22-year-old Tony was back in the best form of his life. He won all but three races, losing only to Australian Garry Bentley (NCAA College Division champion from South Dakota State), Kenyan Mike Boit, and US Olympians Frank Shorter, Doug Brown and Jeff Galloway—these three in the AAU.

Brien had lost to Boit by 15 seconds in an early season race. They met again at the NAIA, this time on Marymount's home course in Salina. Tony says he was hoping to place "in the top three." But after the first mile, he felt he could win. That first mile was run in 4:16! Boit ended up falling after two of the five miles and coming in 11th. The fall may or may not have changed the outcome. At any rate, a tailwind of 30 miles per hour pushed Tony across the line a comfortable winner in course record time of 23:42.

Anthony Joseph Brien: Dublin, Ireland (student at Marymount College). 23 years old (born Dec. 31, 1950 at Dublin). 5'10", 138 pounds. Single. Began racing in 1968 at age 17. Self-coached.

Racing: 2 miles—8:58.4 (74); 3 miles—13:29 (74); 6 miles—29:18 (71); 10 miles—49:10 (71); 20 miles—1:45:05 (72); Marathon—2:18:45 (72).

Training: one to three times a day, 7 days a week, year-round; 135 miles a week.

Typical week in fall 1973: Sept. 16 AM—8 miles; PM—10 miles including 4 x mile at three-fourths effort; PM—5 miles. Sept. 17 AM—4 miles; PM—11 miles; PM—5 miles. Sept. 18 AM—8 miles; PM—12 miles including 3 x 2½ miles at one-half effort; PM—5 miles; Sept. 19 AM—6 miles; PM—12 miles including fartlek; PM—5 miles; Sept. 20 AM—8 miles; PM—6 miles. Sept. 21 AM—4-mile race in 19:22; PM—10 miles; Sept. 22 AM—8 miles; PM—11 miles; PM—5 miles. Total: 147 miles.

Brien plans to try later this year for Ireland's European Games team in the marathon.



ULTIMATE RACING DIET

by Mick Hamlin

All his career, Dale had been obsessed with winning the Olympic marathon. He thought the title was rightfully his. Why, before the last Games he had even gone so far as writing to a number of track publications, telling how he was going to turn the trick and then retire a winner. But Dale had not turned the trick and he was still here.

Dale had cut holes in his shoes, vest, shorts and jock. He had painted his body a reflective color. He had gurus, tarot cards and horoscopes, but he still had not won the Big One. The close friends he kept were astounded by his workouts and knew that he was leaving no stone unturned this time.

In fact, there was genuine concern about him. The obsession had definitely got a hold on him. His topics of conversation had gone down from one (running) to none. And when Dale didn't talk about running, or more specifically, Dale's running, then people worried. He began to repeat his line to the magazines about how he was going to cream the lot this time and go out in a blaze of glory. The readers scoffed. They had heard this recipe before, but little did they know.

For the next year, Dale painstakingly experimented with diet. He had done this before, dosing up with carbohydrates. But he had let the secret out and the whole marathon world had imitated him. This time he would be quiet. He took the carbo stocking up to an extraordinary level and ballooned up for a trial. He decided to race over 20 miles but to start back with the slower guys and then eat 'em up. This way no one would be sure of what shape he was in.

At five miles he was well back, but it went all strictly to plan and he sailed past the field to eventually come home second. He covered the last 15 miles faster than anyone in the race, a whole lot faster. His plans were going great.

This experiment was followed by another race six months later in the same vein. But for this one Dale upped his carbo intake even further. On the starting line, he appeared grossly overweight, but the excess fairly steamed off him as he raced along.

Came the Olympic Trial and Dale was there, although he had often protested that he was good enough to be on the team without the formality of a Trial. He finished a relaxed second and claimed that he was coasting.

Before the Games, he was off to

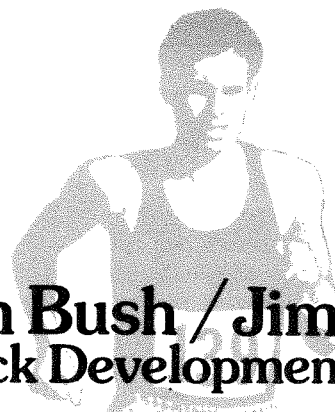
altitude to work out in peace. His workouts had been going remarkably well, his carbo intake had been fantastic, and on the ninth day of the track program he lined up so inflated that his portly shape drew gasps of astonishment from the onlookers who had been used to the sight of starved-looking runners. It wasn't just his body, but his outfit was on show for the first time: an aluminum fig-leaf and his shoes sprayed on his feet, "foot-mits" he called them.

The gun went and so did Dale. He flew around the track in 59.6 and out the door. Going through the five-mile point, the excess weight was being shaken off. He ran 22:10.

Dale almost beat the timers to the 10-mile post as he sailed along the traffic-free roads to get there in 45:13. The flying barrel looked great. Fifteen miles went by in an unbelievable 1:08:15, and he barely slowed as he took 20 in 1:31.

Shortly before 22 miles, the course wound through a small wood where the runners were out of sight for a matter of seconds. Dale steamed into the thicket and... Bang! An explosion was heard. The ambulance men on the course hurried to the spot, but there was no sign of Dale.

There in the middle of the tarmac course was a deep, scarred hole. The ambulance men peered in and something was on the bottom. One of the men slid down the edge and looked...all he found was his fig-leaf. But you know, plastic surgery is a wonderful thing and he insists he'll be back for the next Games.



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RUNNER'S GUIDE TO DETROIT

Ed Kozloff, a Detroit area educator, is the Michigan AAU long distance running chairman, as well as track and cross-country coach at Highland Park College.

Despite, or because of, Detroit's negative crime image, more and more individuals are taking to running in this metropolitan area.

A major contributor to organized programs, and the club to contact if you are interested in running here, is the Motor City Striders Long Distance Running Club, an organization of nearly 100 enthusiasts of all ages and abilities who compose the core of this area's program.

Led by Ernie Smith, the club's president, they have been putting on a program of 20 or more races annually for the past 15 years and have seen the number of entrants rise from two or three to an average of more than 50 runners per event in distances ranging from two miles to the Motor City marathon.

Because of the proximity of Detroit to Canada, an international flavor is added to many races. The club sponsors the Annual Freedom Festival 10-mile run, which until a few years ago was one of the few races in the world to start in one country and end in another. In the past, the runners started at one city hall, crossed the Ambassador Bridge linking the two countries, and finished at the other city hall. Unfortunately, problems with traffic curtailed the bridge portion of the race, but the run continues at Belle Isle.

Belle Isle, along the Detroit River less than four miles from the downtown business area, is an island park where many of the races are held. Three courses have been marked on the island. The longest circles the island's perimeter and is 5.3 miles long. This course has been AAU certified for the annual marathon. On the east end of the island is a 5000-meter road course where metric races are held. Finally, at the center of the park is a mile loop for races of shorter distances. These courses are on pavement, but if one wishes to train on softer ground he can run on the grass adjacent to the roads.

Two miles north of downtown is Wayne State University. The all-weather track is fenced in, but one can utilize the playing fields or run around the phy-

sical education complex which is 1.1 miles per lap.

An additional five miles north of downtown is Palmer Park (Woodward Avenue and Seven-Mile Road). The park itself has a community college four-mile course and a university five-mile route. Unfortunately, they are marked only by paths and one can easily get lost unless he is running during the cross-country season when the area is lined. Once around the park is three miles, but traffic on the east side is rather heavy.

A block north of Palmer Park is Sherwood Forest, an area composed of a multiplicity of elegant homes. There is very little traffic through here, and one can enjoy an unusually invigorating and interesting combination sightseeing tour and run through this area.

Four miles east of Palmer Park is Derby Hill at Dorias Playground (Mound Road and Outer Drive) where the sum-

mer soap box derby races are held. An area with one of the few hills around, once around the park is about a mile. However, the main attraction is the possibility of doing interval training up the 250-yard asphalt straightaway. The hill inclines at approximately a 15-degree angle. In addition, those of a masochistic nature can also devise workouts that include running up the nearly perpendicular back of the straightaway.

If one is on Detroit's far east side, the place to run is Chandler Park (Edsel Ford Freeway and Conner), where cinder paths have been laid out specifically for running. The path is located near the center of the park, which is south of the golf course. The way to run is a figure-eight pattern, which encompasses two distinct sections of the park and is 1½ miles per lap. At times, signs mark the route and markers indicate half-mile distances. Furthermore, in the center of the park is a paved loop eight-tenths of a mile long, which is utilized for bike races but lends itself well to running.

On the far west side of Detroit is sprawling Rouge Park. The city cross-country races are held here on a course that includes some slight hills and is well-marked with posts which lead to a 40-yard finish chute staked with four-foot green logs. At the south end of the park is Wayne State University's cross-country course. This five-mile route zig-zags about and around the park and, like most courses, one needs a running tour of it in order to be able to follow all of it. In the center of the Rouge area is a towering hill which presents a pleasant diversion from the usual flat terrain of the area.

The inherent problem when visiting an unfamiliar area, aside from its reputation, is that the runner must find his own training ground. While most of us can run anywhere, anytime, there are areas that make the sport more enjoyable.

It should be understood that the information presented above is far from a complete listing, but, rather, represents some centrally located and easily accessible places that through the years have provided terrain where successful running has taken place in the city.

(For information on distance racing in the Detroit area, contact me at 10144 Lincoln, Huntington Woods, Mich. 48070.)

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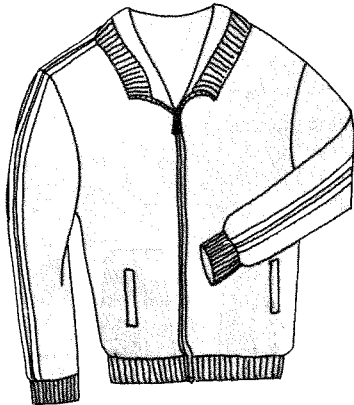
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by George Sheehan M.D.

MEDICAL ADVICE

Even the doctor sometimes gets sick. The best marathon of his 55 years was followed immediately by that wintertime curse of runners, the flu. It was the first ailment since 1949 which confined him to bed.

Pride goeth before the flu.

In Seaside, Ore., I had run my fastest marathon of my career, an amazing (to me) 3:01:25. It was a race I had started with every intention of simply making a fair showing, a nice respectable time for my hosts who had been good enough to ask me out to speak the night before the race.

But as the early miles passed, I began to feel better and better. My concern over using up too much strength and energy before the annual visit to Boston began to fade.

I had begun to knock off consecutive seven-minute miles, a pace that would bring me in around 3:04, when it suddenly struck me that I had a chance to get in under the magical three-hour limit that had always resisted me.

When I still felt strong at the 18-mile mark, I said to myself, "To hell with Boston," and began to cut loose. By 20 miles, I was under seven-minute pace and reaching for the 6:52 average that would put me under three hours.

It was not to be. I had given up too much time in the first miles, but still it was the best I had ever done. I was clearly in the best shape of my life.

Back home, I started on speed work to sharpen up for the Eastern Master's championships. But something seemed wrong. Everything seemed to be a great effort.

Then the flu struck. The influenza virus is a submicroscopic particle. How it accomplishes its ravages is beyond me. My flu started with a sore throat and then progressed to a cough. At one point, I thought my lungs would come out inverted like an umbrella on a windy day.

The fever came and with it went all interest in anything but survival. I finally went to bed for two days, the first medical problem to put me there since I had hepatitis 25 years ago.

The weakness persisted. Only now do I face the day with any curiosity about what is going to happen, with any zest in living. Running was out of the question until the bug let me out of its grip.

Even the virologists are in doubt as to why the bug has such a grip. Apparently, the virus somehow gets into the cells, reproduces itself and attacks the membrane or outer lining of the cell, finally killing it and moving on to attack another cell.

Why this makes you feel as if someone has plugged in to your energy source and siphoned it all out, I'm not sure. What it does is bring you up short on the old agenda game.

Agenda is simply the what-I'm-going-to-do-tomorrow-and-the-next-day-and-the-next, the how-great-I'm-going-to-be-in-the-future. The flu changes all that. It brings you back to the now and makes you thankful for the basics. Being alive for instance, and having available to you enough strength to start all over again, just as if it were the first day you bought your Tigers.

When you come back, it is difficult at times to know whether fatigue is physical or psychological. There is, however, a simple test for this. Start your runs very slowly until you reach the point where you start to sweat. This usually takes about six minutes. At this point, you should feel like running no matter how you felt in the beginning. If you don't and five more minutes confirms it, pack it in. Throw away your agenda for today.

When you throw away the agenda, you taste the food you are eating right now instead of thinking about dessert. And you begin to hear what your body is telling you this instant instead of dreaming of glory and perfection. Pride is nothing more than looking beyond the present moment.

I'm glad I had that marathon. But I won't be too broken up if I never have another like it, or go under three hours. All I want is to be myself in health, and enjoy today. Tomorrow and Boston can take care of itself.

INTESTINAL CRAMPS

Q: I usually run 3-5 miles 4-5 times per week at around a seven-minute pace. My problem is this: if I push myself for time or run longer, I get rather severe stomach or intestinal cramps plus diarrhea that lasts up to 12 hours. (W. B., Georgia)

A: I am aware of your problem. I have it, to a degree, myself. In fact, one way I'm sure I've put out in practice is

to get stomach pain. My interpretation of this has been varied over the years. I have ascribed it to diet, poor blood supply to the gut and an excessively irritable colon.

It seems to me that this last is most likely. Running promoted peristalsis or intestinal movement. In some of us with spastic colons, this is too much and causes symptoms. The cramps indicate that is where your diarrhea originates (and not in the small bowel, as happens with milk and gluten intolerance).

I suggest you cut out coffee, nuts, corn and gassy foods. Use a bulk laxative (Metamucil or Konsyl) to get a well-formed stool. Also attempt to empty your bowel before your run. If this fails, I would get a belladonna preparation from your doctor to use prior to running.

TAPERING

Q: My question concerns the week preceding a marathon. Approximately how much less mileage should be performed? Is it better not to run for the preceding one or two days in order to rest leg muscles? (B. N., California)

A: My own custom is to train at my regular mileage up until three days prior to the marathon. I then take two days off so as to be ready. I have on occasion taken three days off and found that to cause psychological problems. You get to where you wonder whether you can even run around the block. I am certain, however, that taking one or, better yet, two days off (or very easy) is essential to a good performance.

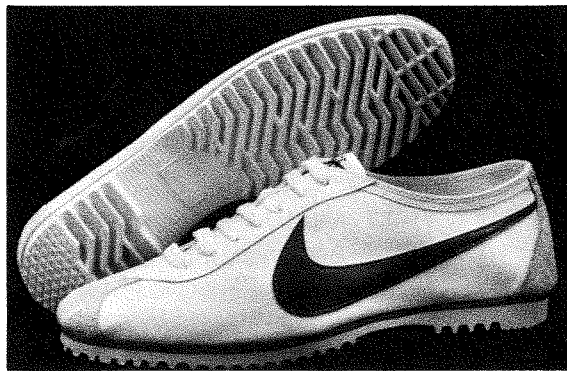
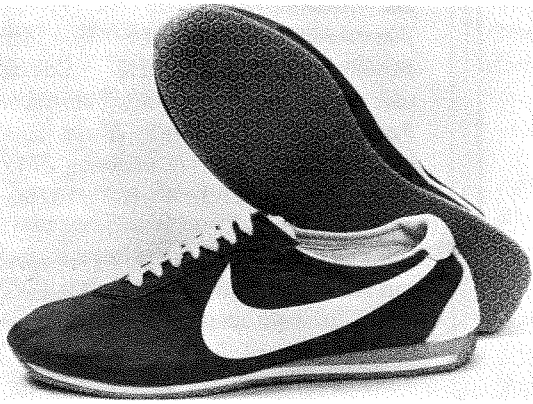
ACHILLES

Q: I ruptured (completely) my achilles tendon last June and am now starting to train and rehabilitate the tendon. Can it be rehabilitated completely?

A: There have been many notable instances of athletes returning to full activity after surgery for ruptured achilles tendons. Two runners who come to mind are Bruce Kidd and Al Lawrence.

I think, however, that you have to be aware of why you had the rupture to begin with, and to work on prevention. This will undoubtedly include flexibility exercises for the achilles, gastrocs and hamstrings. Give additional attention to any foot problem (Morton's Foot, unstable heel, accessory scaphoid bone, weak long arch, etc.) which would put more stress on the achilles.

I would suggest walking barefoot or with heel-less shoes, but running with a heel lift in a shoe with a good shank.



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Washington, D.C.: Irene Mirkin, 11109 Rosemont Dr., Rockville, Md. 20852. Denver, Colo.: Dick Haggerty, 5905 Estes, Arvada, Colo. 80302. Houston, Tx: Tom McBrayer, 7733 Molino, Houston, Tex. 77017. Saginaw, Mich.: Roger Hanson, 3865 Hospital Road, Saginaw, Mich. 48603. Gainesville, Fla. 32601. Ken Burnsed, 24-B, 205 S.E. 16th Ave., Gainesville, Fla. 32601. Portland, Ore.: Charles Dagg, 7-75 S.W. 155th, Beaverton, Ore. 97005. Fort Lauderdale, Fla.: Jim Thomas, 7160 Venetian St., Miramar, Fla. 33023. Cincinatti, Ohio: Ron Harmon, 6868 Marvin Ave., Cincinatti, Ohio 45224. Entries from above race directors. Any city can host a section. Final results on time tabulated by a computer. If you would like to host a section contact: Gabe Mirkin, M.D., 11109 Rosemont Dr., Rockville, Md. 20852.

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20 KILOMETER, VESTAL, N.Y.—(Near Binghamton) June 15. 4th annual. Certified course. Course record: 1:07:01 by Karl Thornton. Age groups. Runner's World subscriptions for prizes. Alan Jones, 3717 Wildwood Dr., Endwell, N.Y. 13760.

IF YOU ARE 40 AND FIT, you can run in the National AAU Master's 15 Kilo run championship, to be held on August 3 in Michigan City, Indiana. If you are 40 and not fit, you can walk in the race. We're not fussy who we accept. Details later.

3RD ANNUAL GRIFFISS CHAMPIONSHIP RUNS—5 km & 15 km, plus Adirondack AAU 15 km Championship running concurrently. June 9 at 12:30 p.m., Rome, N.Y. For information contact Lee Kortz, 3306B Vega Dr., Rome, N.Y. 13440 (315)

SECOND ANNUAL SPOKANE EXPO MARATHON—June 8, 1974 at 8:30 a.m. at the Washington Water Power Co. parking lot, E. 1411 Mission. Course is certified AAU and is flat, out and back on asphalt road with dirt shoulders. It skirts the Spokane River for most of the way and through some residential areas. At this time camping in trailer parks and along the river are available. Motels will be more of a problem with the Expo World's Fair in full swing. Suitable awards in open, masters 40 and over, women and juniors. Certificates to all finishers. Course record 2:35:02 Gary Bryan; Temp 60-65 deg. and good running. Entry forms may be obtained from Ken Hendrix, Inland Empire Harriers, S1621 McDonald, Opportunity, Washington 99216.

FIRST ANNUAL MAYORS' MARATHON—Anchorage, Alaska, June 22, 1974 at 7 a.m. "Morning of the Midnight Sun". Supported by combined Parks and Recreation Departments of the City of Anchorage and Greater Anchorage Borough. Mayors George Sullivan and Jack Roderick endorsements. Planned as an Alaskan qualifying race for marathons throughout USA. Certification not expected until 1975. Course nearly flat over City of Anchorage new bike trails and Greater Anchorage Borough highways. Start and finish at West An-

chorage High School. Entry fee \$2.00. Entry deadline application postmark June 15, 1974. All late entries \$1.00 extra with absolute cut-off June 21, 1974 at 5 p.m. Race Director Terry Martin of Anchorage Boys Club. Race Coordinator Jim Cody of Anchorage Parks and Recreation Department. This is a joint effort of Pulsators Running Club and Boy Scouts of Alaska. Applications by writing Marcie Trent, Pulsators Running Club, 1700 Tudor Road, Anchorage, Alaska 99507.

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VIRGINIA 10-MILER—The Lynchburg Road Runners announce the Virginia 10-miler, Saturday, September 21, 1974, 10 a.m. Be on the mailing list. Contact Rudy Staub, 3020 Cranehill Dr., Lynchburg, Va. 24503 (703) 384-6816.

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MID-MICH TRACK CLUB ANNUAL MEMORIAL DAY RUN—Holt (adjacent to Lansing) High School, Sat., May 25 at 10 am. 5-mile and 10-mile road races. Age groups. Last year trophies to over ½ the field, will order same for '74. Showers/dressing available. Early entry \$1.00, day of race \$1.50. Contact Gordon Schafer, 4378 W. Holt Rd., Holt, Mich 48842.

HARRISBURG NATIONAL MARATHON—November 3, 1974 at 9:00 a.m. Be on the mailing list. Write: Jack Scarbrough, c/o Harrisburg YMCA, Front & North Streets, Harrisburg, Pennsylvania 17101.

JUNE COMING EVENTS

NORTHEAST

- 2 National AAU marathon, Yonkers, N.Y. (Yonkers Raceway, noon; open; Mel Goldberg, Yonkers marathon, Yonkers Raceway, Yonkers, N.Y. 10704).
- 8 Met. AAU Sr. T & F Champ. 3 & 6 mile, New York, N.Y. (Randall's Island, noon; open; Road Runners Club, P.O. Box 881, FDR Station, New York, N.Y. 10022).
- 9 Race of Champions marathon, Holyoke, Mass. (open; Walter Childs, P.O. Box 1484, Springfield, Mass. 01100).
- 9 National AAU Women's 10-kilometer, New York, N.Y.
- 16 Mt. Washington 8-mile, Mt. Washington, New Hampshire (Bob Campbell, 39 Linnet St., West Roxbury, Mass.).
- 22 Gunpowder Neck 10-mile, Edgewood, Md. (Edgewood Arsenal, 10 a.m.; open; Burt Dall, E1226 Everette Rd., APG, Md. 21020).

SOUTHEAST

- 1 Montgomery Masters T & F, Montgomery, Ala. (Paul Reeder, P.O. Box 11341, Montgomery, Ala. 36111).
- 22-3 National AAU Junior Track, Gainesville, Fla.

MIDWEST

- 1 USTFF marathon, Wichita, Kans. (open; Herm Wilson, Track Coach, Wichita State U., Wichita, Kans. 67208).
- 1 "Road Runner" marathon, Gage, Okla. (7 a.m.; open; Vern Whiteside, 6916 South Knoxville Ave., Tulsa, Okla. 74136).
- 2 Pea Soup Days 10-kilometer, Somerset, Wisc. (8:30 a.m.; open; Herbert M. Florczyk, Rt. 2, Hudson, Wisc 54016).
- 8 Marathon marathon, Terre Haute, Indiana (7 a.m.; open; Pierre Burke, St. Mary-of-the-Woods, Indiana 47876).
- 8 Mackinaw Trails marathon, Saginaw, Mich. (6:30 a.m.; open; Mackinaw Trails Marathon, Ray Anderson, 5456 Adrian St., Saginaw, Mich. 48603).
- 15 Jackrabbit 15.2-mile, White-Brookings, South Dakota (7 a.m., Jay Dirksen, Track Coach, SDSU, Brookings, S.D. 57006).
- 15 Mo. Valley AAU one-hour, Columbia, Mo. (Hickman H.S., 7:30 p.m.; Joe Duncan, 4004 Defoe Dr., Columbia, Mo. 65201).

- 16 Glass City marathon, Toledo, Ohio (Univ. of Toledo, 8 a.m.; open; Jimmy Edwards, 3809 Maxwell Rd., Toledo, Ohio 43613).
- 16 LEAAU 20-kilometer, Independence, Ohio (high school, 10 a.m.; Bill Bredenbeck, 5916 Longano Dr., Independence, Ohio 44131).
- 29 Freedom marathon, Monticello, Ill. (Allerton Park, 6 a.m.; open; Illinois TC, Box 2976, Station A, Champaign, Ill. 61820).
- 29 Breckenridge marathon, Breckenridge, Mich. (open; Breckenridge TC, 5811 E. Olive Rd., Breckenridge, Mich. 48615).
- 29 Madison marathon, Madison, Wisc. (open; Jeff Wick, 333 Meadowlark Dr., Madison, Wisc. 53714).
- 29 LEAAU One-hour, Akron, Ohio (Akron U) 6:30 p.m.; Bill Bredenbeck, 5916 Longano Dr., Independence, Ohio
- 29 AAU One-hour, Mankato, Minn. (Mankato State College, 8 a.m.; John Cramer, 1006 Matilda, St. Paul, Minn. 55117).
- 30 South Dakota AAU one-hour, Brookings, S.D. (Sexauer Field; Jay Dirksen, Track Coach, SPSU, Brookings, S.D. 57006).

ROCKIES

- 9 RMAAU One-hour, Boulder, Colo. (CU Track, 5 p.m.; Jerry Quiller, Athletic Dept., Univ. of Colo., Boulder, Colo. 80302).
- 30 National AAU Jr. 20-kilometer, Aurora, Colo. (8:30 a.m.; Joe Arrazola, 12336 E. Kentucky, Aurora, Colo 80012).
- 30 NAAU Jr. 20-kilometer, Aurora, Colo. (Aurora H.S., 9 a.m.; Joe Arrazola, 12336 E. Kentucky Ave., Aurora, Colo. 80010).

WEST

- 1 Juneau marathon, Juneau, Alaska (7 a.m.; open; Jim Dumont, Recreational Dept., Juneau, Alaska 99801).
- 1 Kennedy Games, Berkeley, Cal.
- 2 Senior Olympics marathon, Irvine, Cal. (7 a.m.; Senior Sports International Inc., 5225 Wilshire Blvd., Suite 302, Los Angeles, Calif. 90036).
- 8 Palos Verdes Peninsula marathon, Los Angeles, Cal. (Palos Verdes Estates, 8 a.m.; open; Terry Wallace, P.O. Box 153, Palos Verdes Estates, Cal. 90274).
- 14-5 National AAU Men's Track, Los Angeles, Cal.
- 15 Midnight Sun marathon, Fairbanks, Alaska (Univ. of Alaska, 8 a.m.; open; Paul Vanture, Box 95552, Fairbanks, Alaska 99701).
- 16 Pacific AAU One-hour, Mill Valley, Cal. (Tamalpais H.S., 10 a.m.; Rich Perry 3909 Peppertree Ct., Redwood City, Cal. 94061).
- 16 "Ride & Tie", Klamath Falls, Ore. (Levi's Ride and Tie, Bud Johns, 98 Battery St., San Francisco, Cal. 94106).
- 22 Mayor's marathon, Anchorage, Alaska (Bob Layman, 322 Muldoon Rd., Anchorage, Alaska 99504).
- 28-9 National AAU Women's Track, Bakersfield, Calif.

- 29 PNA-AAU Hour-Run Champ., Seattle, Wash. (a North Seattle track; open; Al Huff, 18127 1st Ave. N.W., Seattle, Wash 98177).

CANADA

- 2 Marathon, St. Joachim, Quebec (Michael Rose 12232 Armand Bombardier, Montreal, Quebec, H1E IW7, Canada).
- 2 Calgary Roadrunners marathon, Calgary, Alberta (Motor Vehicle branch, 9 a.m.; open; Jim Bradford, 625-29th Ave. S.W., Calgary, Alberta, Canada).
- 8 One-hour Track, Toronto, Ontario (7 p.m.; open; Doug Laister, 1556 Warland Rd., Oakville, Ontario, Canada).
- 29-30 Canadian Masters Track, Richmond, B.C. (Minorv Park, Canada).
- 30 St. Hyacinthe marathon, St. Hyacinthe, Quebec (6 p.m.; open; Gerard Cote, Le Courrier C.P. No. 340, St. Hyacinthe, Quebec, Canada).

INTERNATIONAL

- 14-5 100-kilometer, Bienne, Swit. (Organization 100-km., P.O. Box 437, 2501 Bienne, Swit.).

RACE WALKING

- 8 Iowa AAU 5-km., Grinnell, Iowa (9 a.m.; Dave Eidahl, Box 72, Richland, Iowa).
- 9 National AAU 20-kilometer, East Meadow, N.Y. (Eisenhower Park; Bruce MacDonald, 39 Fairview Ave., Port Washington, N.Y. 11050).
- 9 National AAU "B" 20-kilometer, East Meadow, N.Y. (Bruce MacDonald, 39 Fairview Ave., Port Washington, N.Y. 11050).
- 9 National AAU "B" 15-kilometer, Washington (Dick Baker, 5017 N. Adams, Spokane, Wash. 99203).
- 29 PNW-AAU Hour-walk, Seattle, Wash. (a North Seattle track; open; Al Huff, 18127 1st Ave. N.W., Seattle, Wash. 98117).
- 29 Iowa AAU 10-kilometer, Newton, Iowa (7 p.m.; Dave Eidahl, Box 72, Richland, Iowa).

NATIONAL

- 8 National Postal Mile, Hollywood, Washington, D.C., Portland, Bakersfield, Cincinnati, Saginaw, Houston, Denver, Ft. Lauderdale, Gainesville (8 p.m.; boys and girls 9 and under, 10-11, 12-13, 14-15; Raymond Russell, 2506 N.E. 8th St., Ft. Lauderdale, Fla. 33304 or Milt Criswell 12509 Arbor View Terrace, Silver Spring, Md. 20902; Charles Dagg, 7075 S.W. 155th, Beaverton, Ore. 97005; Dale Knox, 714 Sixth St., Wasco, Cal. 93280; Ron Harmon, 6808 Marvin Ave., Cincinnati, Ohio 45224; Roger Hanson, 3865 Hospital Rd., Saginaw, Mich. 48603; Tom McBrayer, 7733 Moline, Houston, Tex. 77017; Dick Haggerty 5905 Estes, Arvada, Colo. 80002; Jim Thomas, 7106 Venetian St., Miramar, Fla. 33023 for the Ft. Lauderdale run; Ken Burnsed, 24-B 205 S.E. 16th Ave., Gainesville, Fla. 32601).

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RACING HIGHLIGHTS

TRACK RECORDS

● 60 meters—6.4 by Valeriy Borzov (Soviet Union) and Juris Silovs (Soviet Union) Feb. 14, and Aleksandr Korneliuk (Soviet Union), March 2, Moscow, USSR, tying world indoor record.

● 60 meters (women)—7.1 by Renate Hoser-Thie (East Germany), Bucharest, Rumania, Feb. 10, tying world indoor record.

● 60 meters(women)—7.1 by Martha Watson (US), Nadezda Besfamilnaya (Soviet Union), Maslakova (Soviet Union), Theresa Montgomery (US), Moscow, USSR, March 2, tying world indoor record.

● 100 yards (women)—10.48 by Renate Stecher (East Germany), Berlin, East Germany, Feb. 23, breaking world indoor record of 10.7.

● 400 meters (women)—52.64 by Jelica Parlicici (Yugoslavia), Goteborg, Sweden, March 10, breaking world indoor record of 53.0.

● 3 miles and 5000 meters—by Emiel Puttemans (Bel), Pantin, France, March 17, 12:59.0 to break world indoor record of 13:05.2. 13:24:06 to break world indoor record of 13:30.8.

● 5000 meters—13:56.4 by Jim Johnson, Moscow, USSR, March 2, breaking American indoor record of 14:07.6.

● 3 miles and 5000 meters (women)—by Claire Choate, Valencia, Calif., Jan. 12, 16:32.8 to break American outdoor record of 16:36.0, and 17:08.6 to break American outdoor record of 17:36.0.

● 10,000 meters—29:05.6 by Seppo Tuominen (Finland), Vierumaki, Finland, Feb. 17, breaking world indoor record of 29:29.0.

● One-hour—11 miles 752 yards by Phil Davis, Champaign, Ill., March 16, breaking American indoor record of 11m 700y.

● Mile walk (women)—7:15.2 by Sue Brodock, Cypress, Calif. Jan. 26, breaking American outdoor record of 7:53.3.

● 50m hurdles (women) 7.2 by Patty Johnson, Toronto, Canada, Feb. 15, setting American indoor record.

● 60y hurdles—6.7 by Rod Milburn (US), Salt Lake City, Utah, Feb. 22, unofficially breaking world and American indoor records of 6.8; pro race.

● 60m hurdles (women)—8.4 by Patty Johnson, Moscow, USSR, March 2, setting American indoor record.

● 4-mile relay—16:44.8 by Indiana University (US), Bloomington, Ind., Feb. 19, breaking world-American indoor records of 16:56.4.

NORTHEAST

● **Mallits Bay, Vt., Feb. 23**—Mallits Bay marathon: 1. Len Hall (NH) 2:51:12; 2. John Dimick (Vt.) 2:52:21; 3. Lynn Capen (Vt.) 2:58:35. (8 finished, 8 under 3:30).

● **New York, N.Y., Feb. 24**—Mike Hanon Memorial 20-mile Run: 1. Tom Fleming

(23, NYAC) 1:40:47; 2. Joel Pasternack (23, Wm. Paterson College) 1:49:32; 3. Bill Bragg (24) 1:49:51; 4. Bill O'Brien (20, Millrose AA) 1:53:19; 5. Jack Levy (22) 1:54:28; 6. Syl Pascale (25) 1:54:29; 7. Larry Hanson (18, Columbia U AA) 1:55:16; 8. John Brennan (24, Central Park TC) 1:55:23; 9. Tom Stoothoff (22, St. Anthony Boys Club) 1:57:27; 10. Dean Perry (24, Bethel Bananas) 1:57:37... 17. Joe Burns (44, East Coast AC) 2:01:56... 46. Ted Corbitt (54, NY Pioneer Club) 2:13:32... 63. Nina Kuscsik (33, Suffolk AC) 2:18:37. (135 finished, 13 under 2:00, 36 under 2:10; from Joe Kleinerman).

● **Middletown, Conn., Mar. 3**—Conn. AAU marathon: 1. Ray Crothers (31) 2:31:05; 2. Tim Smith (26) 2:31:09; 2. Mike Baxter (30) 2:33:14; 4. Chris Chambers 2:33:36; 5. Steve Norris (28) 2:37:52... 13. John Kelley (43) 2:41:57... 31. James Taylor (50) 2:56:58... 36. Kathy Gervasi 3:00:10. (93 finished, 35 under 3:00, 81 under 3:30, 91 under 4:00; from Bernie O'Rourke).

● **Albany, N.Y., Mar. 3**—20-mile: 1. Lloyd Rysysylaineu 2:03:12; 2. Ted Bick 2:13:43... 10. Kathy Shrader 2:49:46. (10 finished, 7 under 2:30).

● **New York, N.Y., Mar. 3**—25-kilometer: 1. Chris Stewart (23, Great Britain) 1:20:49; 2. Arthur Hall (26) 1:22:31; 3. Mike Scarsborough (19) 1:24:28; 4. Roy Lapidus (22) 1:24:33; 5. Joel Pasternack (23) 1:24:41... 15. Joe Burns (44) 1:32:40... 50. Bill Coyne (52) 1:43:37... 106. William Brobston (60) 2:04:16. (127 finished, 11 under 1:30, 53 under 1:45; from Joe Kleinerman).

● **Baltimore, Md., Mar. 10**—50-kilometer: 1. Mike Sabino (34, Balt. Olympic Club) 3:19:59; 2. Les Kinion (37, Balt. Fire Fighters) 3:39:00... 5. Don Heinecke (60, Howard County Striders) 4:15:37. (5 finished).

● **Marlboro, Mass., Mar. 23**—Last-Chance marathon: 1. Ken Mueller (Boston AA) 2:32:41; 2. Charles Diehl 2:35:35; 3. Jim Capezuto (Boston AA) 2:36:38; 4. Alan Miild 2:40:21; 5. Paul Huyffer (North Medford Club) 2:42:33... 9. James Green (40+, Boston AA) 2:47:55... 32. Charlotte Lettiss 3:08:54. (121 finished, 15 under 3:00, 93 under 3:30, 113 under 4:00; from Fred Brown).

● **Washington, D.C., Mar. 23**—10-mile 469y Cross Country: 1. Bernard Allen (Washington SC) 56:40; 2. Cliff Clark (USAF) 57:49; 3. Jack Mahurin (North Carolina TC) 1:00:31... 20. Bob Horman (55) 1:18:54. (54 finished, 10 under 1:05; from Bob Thurston).

● **Ithaca, N.Y., Mar. 24**—Boston Qualifier marathon: 1. Keith Hartman (31, Finger Lakes RC) 2:45:40 and Chip Boehm (17, Triple Cities RC) 2:45:40; 3. Tim Welles (34, Finger Lakes RC) 2:48:40... 9. Fred Davis (40) 3:06:47. (31 finished, 7 under 3:00, 30 under 3:30; from James Hartshorne).

● **New York, N.Y., Mar. 24**—Mass Transit 10-mile: 1. Chris Stewart (23, Great Britain) 50:23; 2. Morgan Fennell (23) 50:32; 3. Bill Bragg (24) 52:22; 4. Ron Veneman (19) 54:20; 5. Roy Lapidus (22) 54:43... 21. Joe Burns (44) 58:43... 52. George Sheehan (55) 1:04:14... 54. Cathy Greene (15) 1:04:58. (157 finished, 23 under 1:00; from Joe Kleinerman).

SOUTHEAST

● **Gainesville, Fla., Mar. 2**—Florida TC 13-mile: 1. Bruce Carpenter (Florida TC) 1:07:07; 2. Dave Milliman 1:09:00; 3. Ken Adams (Univ. of Florida) 1:11:32... 9. Ted Beardsley (Daytona Beach TC) 1:27:44... 27. Emily Cade (Plumbus Pedis TC) 1:47:13. (32 finished, 15 under 1:30; from Roy Benson).

● **Stone Mt., Ga., Mar. 16**—50-mile: 1. Mark Sperre 6:16:24; 2. Bill Gates 6:36:51. Marathon: 1. Vinnie Doran 3:03:46; 2. Butch Copeland 3:11:04... 4. Bill Neace (40+) 3:18:15. (10 finished). 5-mile: 1. Greg Camp (27) 25:03; 2. Wayne Roach (21) 25:11; 3. Robert McDuffie (19) 25:46... 38. Bill Wooley (40) 32:21. (81 finished, 20 under 30:00; from Tim Singleton).

● **Virginia Beach, Va., Mar. 17**—Rotary Shamrock marathon: 1. Ed Hereford (26) 2:27:07; 2. John Lott 2:27:58; 3. John Greenplate 2:30:30; 4. D. Drechsel 2:36:14; 5. E.A. Jerome 2:43:01... 11. Tony Diamond (40+) 2:50:36... 85. B.G. Hicks (61) 4:45:23. (86 finished, 19 under 3:00, 53 under 3:30, 75 under 4:00; from Dave Theall).

● **Fort Myers, Fla., Mar. 24**—Florida marathon: 1. Bob Bowman (43, Canada) 3:20:30; 2. Joe Nicholson (Ft. Lauderdale Road Runner) 3:40:23. (7 finished, 4 under 4:00; from Lou Cappi).

SOUTHWEST

● **Dallas, Tex., Feb. 23**—White Rock marathon: 1. Terry Ziegler (23) 2:19:18; 2. Don Kennedy (26) 2:21:34; 3. Brian Harrington (27) 2:32:54; 4. Dennis Manske (27) 2:33:50; 5. Wayne Comer (32) 2:35:27; 6. Mike Matheny (31) 2:35:35... 11. Randy Milstead (19) 2:44:12... 14. Bob Coffey (42) 2:45:10... 51. Elijah Galloway (53) 3:13:32... 53. Kathy Loper (31) 3:13:48... 84. Clyde Villamez (63) 3:30:05. Teams: 1. Terlingua 'B' (18); 2. Tulsa (44). (125 finished, 34 under 3:00, 83 under 3:30, 112 under 4:00).

● **Houston, Tex., Mar. 16**—Gulf AAU One-hour: 1. Gary Tuttle (26, Beverly Hills Striders) 12m 430y; 2. Wayne Comer (32, Cameron TC) 10m 1696y; 3. Simon McNamee (34, Cameron TC) 10m 1578y... 7. Don Slocumb (40, Terlingua TC) 10m 755y... 10. Philip Edelen (18, Tex. A&M) 10m 143y... 29. Gene Askew (53, Amer. Nat. Run.) 8m 1395y... 42. Clyde Villamez (62, Cameron TC) 8m 468y... 44. Gay Fowler (27) 8m 355y. Teams: 1. Terlingua TC; 2. Cameron TC. (65 finished, 14 over 10m, 24 over 9m, from Pete League).

● **Oklahoma City, Okla., Mar. 16**—6-mile: 1. Gene Horton 30:26; 2. Nolan Grayson 32:47... 4. Hub Barker (40+) 34:29. (12 finished, from Jim Thomas).

MIDWEST

● **Indianapolis, Indiana, Mar. 9**—Windy marathon: 1. Jim Varnau (18) 2:28:12; 2.

Bill Carr (28) 2:32:40; 3. Chuck Koeppen (28) 2:41:00... 20. George Branam (43) 3:02:30... 29. Don Phillips (55) 3:13:53... 35. Scott Beasley (12) 3:25:02... 53. Bobbi Widmann (31) 4:48:29. (53 finished, 16 under 3:00, 42 under 3:30, 48 under 4:00; from Carl Carey).

● **Keokuk, Iowa, Mar. 9**—10-mile:

1. Fred Whiteside (21, Augustana College) 54:20; 2. Dave Nye (20) 55:52... 7. Bob Vandel (16) 59:58... 10. Phil Clark (50) 1:15:22. (10 finished, 8 under 1:00; from Jim Breitenbucher).

● **Athens, Ohio, Mar. 10**—Athens marathon:

1. Carl Hatfield (West Va. TC) 2:28:05; 2. Kim Nutter (West Va. TC) 2:34:22; 3. Roger Rouiller (West Va. TC) 2:40:56... 8. August Jarvis (40+, Lake Erie AA) 2:48:28... 128. Susan Mallory (Ohio State U) 3:23:38. Teams: 1. West Va. TC; 2. Marietta College. (83 finished, 16 under 3:00, 60 under 3:30, 75 under 4:00; from E.J. Holden).

● **Detroit, Mich., Mar. 10**—Detroit

News USTFF marathon: 1. Paul Pearson (Toronto Olympic Club, Can.) 2:29:02; 2. Donald Anderson 2:29:57; 3. Miro Svab (Sarnia TFC) 2:30:07; 4. Kenneth Leonowicz (Macomb TC) 2:30:21; 5. John Doyle (40+, Windsor YMCA) 2:31:44... 50. Paul Hansen (50+, Motor City Striders) 3:08:52... 79. Teresa Ashworth (Windsor YMCA, Ontario) 3:19:34. (103 finished, 40 under 3:00, 90 under 3:30, 101 under 4:00; from Ernie Smith).

● **Akron, Ohio, Mar. 10**—Lake Erie

AAU 15-kilometer: 1. Felix Rendina (22, LEAA) 47:13; 2. Kevin Foley (19, Edinboro State) 47:31; 3. John Foreman (19, Edinboro State) 47:31; 4. Don Slusser (22, Indiana TC) 47:57; 5. Joe Cume (18, Edinboro State) 48:01... 34. Jim Comyns (41, LEAA) 54:56... 43. Bill Eppright (53, Warren Y) 57:45... 66. Dick Inglis (61) 1:07:22. Teams: 1. Edinboro College (31); 2. Indiana Pa. TC (54). (78 finished, 12 under 50:00, 34 under 55:00; from Jim Klett).

● **Champaign, Ill, Mar. 16**—Ill. TC

Indoor One-hour: 1. Phil Davis (28) 11m 752y; 2. James Dickey (19) 9m 481y; 3. Mal Shurtleff (51) 9m 245y... 8. Nancy Thurmon (15) 8m 146y. (11 finished).

● **Champaign, Ill, Mar. 17**—Boston

Qualifier marathon: 1. Jeff Palmer 2:50:03; 2. Bob O'Connell 2:50:31. (7 finished, 3 under 3:00, 6 under 3:30; from Phil Davis).

● **Cleveland, Ohio, Mar. 24**—Lake Erie

AAU 30-kilometer: 1. Felix Rendina (Lake Erie AA) 1:46:56; 2. Bryan Sobczak (Lake Erie AA) 1:50:25; 3. Wally Mieskoski (Summit AC) 1:51:36... 7. August Jarvis 1:56:41... 8. Ken Bowles (15) 1:58:45. (31 finished, 8 under 2:00; from Bill Bredenbeck).

● **Monroe, Ohio, Mar. 24**—Ohio RRC

30-kilometer: 1. Terry Gallagher 1:45:07; 2. Jim Gallagher 1:50:50; 3. Bruce Kritzer 1:51:29; 4. John Merola (40+) 1:52:00; 5. Randy Miller (17) 1:53:07. (13 finished; from Felix Le Blanc).

WEST

● **Littleton, Colo, Feb. 24**—RMRR 10-mile: 1. Wes Crist (25, CTC) 54:57; 2. Alex

Ware (25, CTC) 55:40; 3. Ronn Smith (24, Colo. School of Mines) 55:58; 4. Ken Young (32, U Chicago TC) 56:12; 5. Don Starbuck (27, CTC) 56:17; 6. Eric Broom (33, Boston AA) 56:37... 14. Roger Wilcox (45, SCS) 1:00:35. (60 finished, 12 under 1:00; from Dennis Kavanaugh).

● **Culver City, Mar. 3**—National AAU

30-kilometer: 1. Reid Harter (Santa Monica TC) 1:35:30; 2. Mark Covert 1:36:37; 3. Mark Kushner (UCLA) 1:36:45; 4. Ray Hughes (35, Beverly Hills Striders) 1:36:54; 5. Ron Kurrle (BHS) 1:36:55; 6. Darren George (Athletes in Action) 1:37:28; 7. Peter Fredriksson (SDTC/Swe)... Phil Ryan (Golden West AA) 1:39:12; 9. Ed Chaidez (unat) 1:40:19; 10. Bob Price (AIA) 1:40:30; 11. Dennis Kasischke (SDTC) 1:40:43; 12. Todd Ferguson (AIA) 1:41:04; 13. Mike Chambliss (SBAA) 1:42:17; 14. Liam Ryan (Golden West AA) 1:42:48; 15. John Casso 1:42:58... 98. Mikki Gorman (BHS) 2:06:27. Teams: 1. Athletes in Action (no others available). (112 finished, 40 under 1:50, 71 under 2:00; from John Brennand).

● **Los Angeles, Cal., Mar. 9**—marathon:

1. Vladimir Novy 3:07:47... Tom Cory 3:07:47. (from Tom Long).

● **Snohomish, Wa., Mar. 9**—P.N.W.

AAU 20-kilometer: 1. Reuben Diaz 1:08:51; 2. Ken Voss 1:09:34... 8. Dave Soukup (40+) 1:16:03... 22. Lillian Jacobson 1:43:07. (22 finished, 13 under 1:20).

● **San Diego, Cal., Mar. 9**—10-mile:

1. Dennis Kasischke (27, SDTC) 53:20; 2. Herb Parsons (36, Cambridge Sports Union) 57:45; 3. Pancho Elliston (31, New Mexico TC) 59:15; 4. Bill Stock (43, SDTC) 59:28... 18. Donna Gookin (36, SDTC) 1:13:13. (from Kaj Johansen).

● **Las Vegas, Nev., Mar. 9**—6-mile:

1. Dennis Fridly and Bruce Brown 34:32. (10 finished; from Tommy Hodges).

● **Honolulu, Hawaii, Mar. 10**—Mid-

Pacific RRC 15-kilometer: 1. Gordon Haller 49:23; 2. Steen Rafto 50:13... 16. Carlos Mora (40+) 55:57... 23. Leah Ferris 62:09. (57 finished; from Chuck Greenley).

● **Palos Verdes Estates, Cal, Mar. 23**—

SPA AAU 25-kilometer: 1. Ray Hughes (BHS) (BHS) 1:22:45; 2. Walt Hitt (So. Cal. College) 1:26:17; 3. John Casso 1:26:32; 4. Jim Perez 1:26:59; 5. Truman Clark (BHS) 1:27:29... 18. Norman Lumian (Seniors TC) 1:37:14... 30. Al Corwin (50+, STC) 1:44:20... 77. Jim Bole (60+, STC) 2:05:17... 80. Luanne Kralich (40+) 2:05:45. (92 finished, 8 under 1:30, 31 under 1:45; from Carl Paulson).

INTERNATIONAL

● **Toronto, Ontario, Mar. 10**—Metro

Toronto RR 20-kilometer: 1. Peter Lever (27, Toronto Olympic Club) 1:06:43; 2. Brian Richards (27, Mercury TC) 1:06:47; 3. Roger Martindill (16, Hamilton Olympic Club) 1:06:54; 4. John Mowatt (28, Toronto Olympic Club) 1:07:39... 8. Bryan Martindill (42, Hamilton AC) 1:12:36. (39 finished, 20 under 1:20; from D.S. Milne).

● **Monza, Italy, Mar. 16**—International

Cross-Country Championships: Men, 12-kilometer: 1. Erik De Beck (Bel) 35:23.8;

2. Mariano Haro (Spain) 35:24.6; 3. Karel Lismont (Bel) 35:26.6; 4. Jim Brown (Scot) 35:29.2; 5. Detlef Uhlemann (W. Ger) 35:30.4; 6. Wilfried Scholz (E. Ger) 35:31.8; 7. Ray Smedley (Eng) 35:35.8; 8. Noel Tijou (Fr.) 35:36.4; 9. Dave Black (Eng) 35:37.2; 10. Franco Fava (Italy) 35:38.4. Teams: 1. Belgium (103); 2. England (109); 3. France (215)

4. West Germany (220); 5. East Germany (226). Juniors, 7-kilometer: 1. Richard Kimball (US) 21:30.8; 2. Venanzio Ortis (Italy) 21:33.0; 3. John Treacy (Ire) 21:42.4; 4. D. Millonig (Austria) 21:48.0; 5. Matt Centrowitz (US) 21:48; 6. John Roscoe (US) 21:52.2... 10. Pat Davey (US) 21:58.2... 15. Mike Pinocci (US) 22:02.6... 18. J.J. Griffin (US) 22:09.8. Teams: 1. US (22); 2. Morocco (58); 3. Italy (90); 4. Scotland (93); 5. Ireland (95). Women, 4-kilometer: 1. Paola Pigni-Cacchi (Italy) 12:42.0; 2. Nina Holmen (Fin) 12:47.6; 3. Rita Ridley (Eng) 12:54.0; 4. Ann Yoeman (Eng) 12:58.6; 5. Pirio Vihonen (Fin) 13:02.0... 12. Claire Choate (US) 13:20.8... 27. Julie Brown (US) 13:34.8... 31. Kathy McIntyre (US) 13:38.6... 40. Brenda Webb (US) 13:55.2... 45. Vicki Foltz (US) 14:01.0. Teams: 1. England (28); 2. Italy (50); 3. Finland (61); 4. Belgium (97); 5. US (98). (from *Athletics Weekly*).

● **Coyoacan, Mex., Mar. 21**—Benito

Juarez 30-kilometer: 1. Mario Cuevas (Mex) 1:36:45; 2. Juan Martinez (Mex) 1:37:27; 3. Sergio Gonzalez (Mex) 1:38:01... 12. Ron Kurrle (US) 1:47:37. (85 finished; from Gustavo Ibarra).

RACE WALKING

● **Pekin, Iowa, Feb. 23**—Iowa AAU

50-kilometer walk: 1. Augie Hirt 4:40:01; 2. Jim Breitenbucher 5:28:30. (from Dave Eidahl).

● **Boulder, Colo., Mar. 2**—Rocky Mt.

AAU 50-kilometer: 1. Chris Amoroso 5:18:35; 2. Jerry Brown 5:18:35; 3. Chuck Hunter 5:27:33; 4. George Lundmark (54) 6:24:39.

● **Reno, Nev., Mar. 10**—Nat. AAU

Junior 15-kilometer: 1. Jim Bentley (Sierra Race Walkers) 1:16:34; 2. Bryan Snazelle (unat) 1:17:02; 3. Bob Rosencrantz (Univ. of Wash.) 1:19:11; 4. Randy Mimm 1:20:29; 5. Brad Bentley (Sierra Race Walkers) 1:21:48. 6. Scott Massinger (Portland TC) 1:23:00. (15 finished, 10 under 1:30; from James Bentley, Sr.).

● **Westbury, New York, Mar. 16**—

15-mile: 1. Gary Westerfield 2:11:17; 2. Jim Murchie 2:14:37; 3. Bill Hungelman 2:31:57; 4. Lynn Hayden 2:33:06.

● **Huntington Beach, Cal., Mar. 17**—

National AAU 35-kilometer: 1. Floyd Godwin (Colo TC) 2:55:28; 2. John Knifton (N.Y.A.C.) 2:59:42; 3. Bill Ranney 3:01:15; 4. Carl Swift (BH Striders) 3:02:08; 5. Jerry Brown (Colo TC) 3:07:31; 6. Bryan Snazelle 3:08:35; 7. Jim Bean (Ore. Col. of Ed.) 3:13:51; 8. Wayne Glusker (WVTC) 3:15:13; 9. Ed Bouldin (BH Striders) 3:17:06; 10. Steve DiBernardo (BH Striders) 3:22:32; 11. John Kelly (40+, BH Striders) 3:24:52. Teams: 1. Colorado TC (14); 2. BH Striders (14). (20 finished, 13 under 3:30; from Bob Bowman).

READERS' COMMENTS

HEART QUIRKS

The article "Our Normal Abnormalities" (Feb. 74) might deserve brief additional comment. There is a great deal in the article that needed to be said. The problem is, however, that should a runner report to a physician and have the specific tests obtained, and were they abnormal, the inference he might draw from the article is that he falls in the category of "normal abnormalities."

Because many middle distance runners and beginning runners read your magazine and many of them are not really evaluated prior to entering a running program, then at some time in the individual's running history a more comprehensive evaluation might be undertaken, at which time the abnormality is determined. The tendency then would be to lump the individual in the "mega-athletes" category. This would be wrong. There are certain illnesses that affect the cardiovascular system that do not necessarily

cause symptoms during exercise, but may without warning cause fatalities.

In our program, we use exercise testing routinely. We have had the opportunity to evaluate many athletes, and rather than finding it detrimental, the information that is obtained is of extreme interest. We have been involved in cardiac rehabilitation for three to four years and have yet to have a patient on a prescribed exercise program collapse or die while exercising, which I think is adequate testimony to the fact that exercise testing in proper hands enhances rather than decreases running ability.

*Jack Scaff Jr., M.D.
Honolulu, Hawaii*

RECORDS

J. D. McNatt's attempt ("Record Play," March 74) to devise a formula for predicting world records is a good try, but he makes the mistake of plotting average speeds for *each* of the *current* records to obtain his formula. The consequence is that his formula can do no better than fit those particular records, and as soon as those records spiral downward McNatt will have to revise his equation once more. Presumably, the idea is to predict future records and not merely state an equation fitting present marks.

One method of predicting, and I admit it has problems too, is to compute the smallest difference in pace between related distances that some outstanding runner has achieved. For example, Ron Clarke has run two miles at less than 10 seconds per mile slower than his best one-mile. Accordingly, an equally good 3:50 miler should run under eight minutes for two miles.

For a 5000-10,000 doubler, I offer Evan Maguire, who to the best of my knowledge has never run under 14 minutes for 5000. Maguire has run 28:15 for 10,000. Assuming that he has, or could, run 5000 in 14 minutes, the difference in pace is still mighty small. A 13:13 runner like Emiel Puttemans would have to run 26:41 for 10,000 to match that.

My guess is that 7:59 and 26:41 will eventually be run, but probably not by a 3:50 miler or 13:13 distance runner. Still, if anyone will check the history of records using this method, he will find it gives a pretty good estimate of how records have evolved.

*Sid Gendin
Ypsilanti, Mich.*

THE OVER-40's

Three terms are being used in the over-40 category ("US Masters On Tour," April 74): "veterans," "seniors," and "masters." I feel that seniors and vet-

erans are far more accurate terms. Senior means older, that's why the Senate is so named. One must be older to be a member. Veterans is good, too, although there are 27-year-old veterans and 42-year-old novices.

Least descriptive and thereby most misleading is master. I'm not a master runner, nor is Hal Higdon any longer. Publicity aimed at attracting over-40 types which uses the term masters is certainly going to scare them away. The *American College Dictionary* defines master as "eminently skilled." And that's the common understanding of the word, as in US Masters golf tournament and master plumber.

Older runners no longer need (if they ever did) euphemisms to hide behind to protect their pride.

*Dave Theall
McLean, Va.*

NEW YORK A.C.

The paternal interest of the New York AC (toward Ron Laird, "Interview," Feb. 74) brought back negative memories of the National AAU 20-kilo running championship last fall. The event ended in a scoring tie, Boston AA with runners from eastern Massachusetts and NYAC with runners from the eastern seaboard and points south. There is no point in protesting to the AAU. They have a history of gutlessness. But we just didn't enjoy losing the team title in that fashion.

*Ken Mueller
Bellingham, Mass.*

Please send comments on articles, clarifications, questions, and queries about writing for the magazine to the editor, *Runner's World*, Box 366, Mountain View, Calif. 94040.

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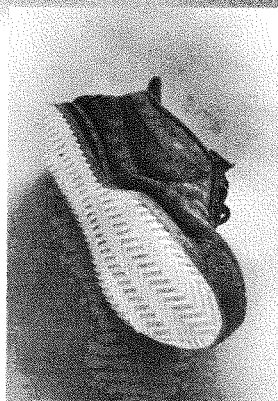
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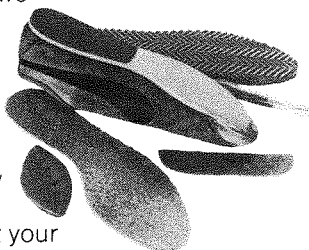
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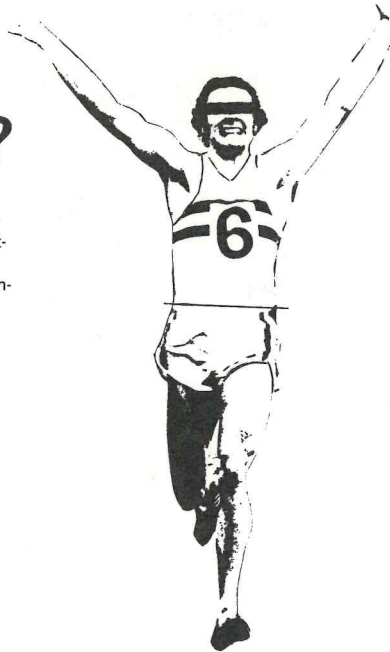
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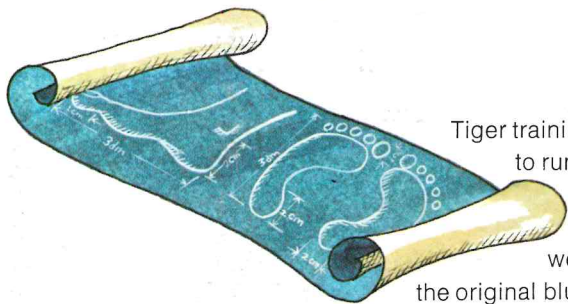
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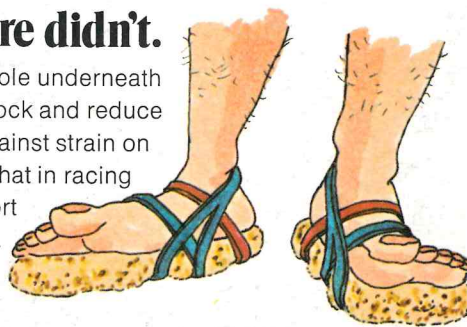
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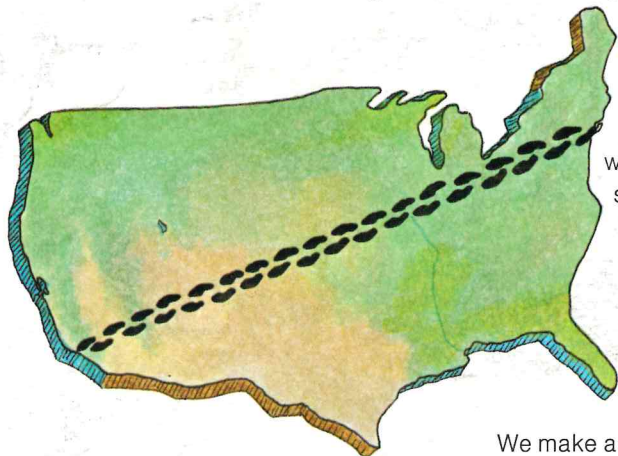
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