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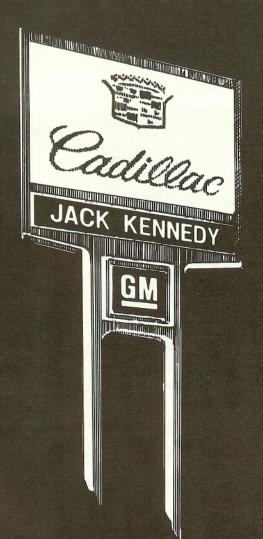
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WOMEN'S TRACKTON

VOLUME 12 — NUMBER 2

OCTOBER 1980

COVER PHOTO: HERE COMES OREGON

Photo by: WARREN MORGAN



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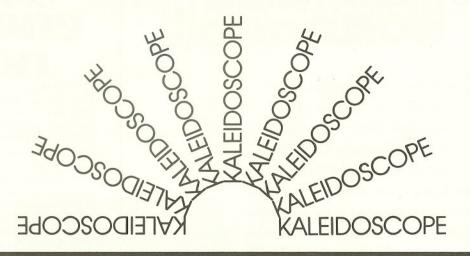
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Wonder where Al Bonney is going to work next year? 'Tis a fact, Sir Bonney, that not a single one of the coaches who have hosted the AIAW cross country championships is still at the school which hosted the meet . . . The return of the Vetter twins to Iowa State's cross country team was not a brilliant debut. They finished 34th and 36th in their first race . . . Lead runner for Arizona State this year is Sabrina Peters . . . TFA's Outdoor Open Championships and High School Meet of Champions will be staged in Wichita, Kansas, May 29-30 . . . The National Running Data Center states: "The 2:31:23 marathon performance by Joan Benoit in New Zealand is not considered to be the US record for two reasons. First, in lieu of world-wide standards for course measurement and certification - there is no evidence that the New Zealand T&F Association does so (submit to certification). Second, it is widely ignored that the Choysa course is point-to-point. Thus, even if certification were granted, Benoit's mark could only be granted a non-official status of "US Best" rather than "US Record" . . . Until we understand what all that means, we'll list the mark as the US Record.

University of Wisconsin has only two seniors on its 1980 cross country roster from a squad of 18 runners . . . Carol Urish points out the marks listed last August for Vanessa Vaojdos and Donna Burge in the marathon were made on a course approximately 800 meters short and must, therefore, be eliminated . . . Names I Like this month include Cafornia Polk (Arcadia, Florida), Fawn Young (Virginia), Debie Sprick (Duke City), Ditsy Woodbury (Greensboro Pacettes), Yolanda Waddles (Colorado Flyers), Jolyn Cheap (Woodward TC) and Lisa Polizza (West Valley Eagles) get Cindy Crapper from Canada.

... Speaking of names, who has the longest name in track and field? That honor belongs to Billee Baker Daniels Winslow Bank Connolly . . . And don't for-

WTW has a new correspondent. Matthew Artavanis will cover the sport from Greece . . . Marlene Harmon is getting about in a cast. Sprained her ankle horsing around . . . Boise State cross country team is led by Andrea Wilson from New Zealand . . . Brigham Young, never known as a national threat in cross country, may have something this time under new coach Pat Shane. The Cougars won the Annual UNLV Invitational in their first outing led by freshman Cheryl Howlett . . . Kentucky has a good one, another freshman, Bernadette Madigan, who won the Kentucky Invitational . . . Trials for the Americas team for the 1981 World Cup will be in Caracas, Venezuela, on August 14-15. The World Cup will be in Rome in September . . . We were hoping the first TAC championships at Mt. SAC last June would turn out bad so we could label the meet TACKY, but everything went smoothly and well.

England beat Sweden in a dual 91-75. Kathy Smallwood won the 100 in 11.10 with the aid of a 5.6mps wind . . . Soviet Olympic champions have been having hard times since the Games. Kazankina, Konratyeva and Tkachenko have all lost in their specialities recently . . . From the Coach's Bulletin Board: "There is nothing as uncertain as a sure thing" . . . Oregon State University announces the appointment of a new assistant track coach — Joni Huntley.

Ballots have been mailed to our correspondents for selecting the World Athlete of the Year as well as regional athletes of the year for 1980. The annual

guessing contest now begins - who will be World Athlete of the Year? Marita Koch of East Germany won the honors for the past two seasons and is a candidate once again, but the calibre of the candidates is such for 1980 that setting a world record during the season doesn't guarantee you'll be nominated for this highest honor. And who will win the title as "North American Athlete of the Year"? . . . With all the wholesale transfering of athletes from school to school during the summer months, one wonders who will take the AIAW title in 1981. Defending champ Cal State Northridge is completely out of the picture as they have moved to Division II and most of their athletes have disappeared only to reappear on other campuses. UCLA looks to be unbeatable at first glance as they return practically their whole crew from 1980 and have added such gems as Sherri Howard, Susie Ray, Lisa Scaduto, Jackie Joyner, Missy Jerald, Jacque Nelson, Kathy Robertson, Deann Gutowski, Ann Regan and Kathy Mintie. At the end of the next quarter they will pick up Jeannette Bolden, Florence Griffith and Jackie Washington from CS Northridge and probably Alice Brown, and maybe even T.Z. But shed no tears for such as Cal State Long Beach who will boast, among others, Jenny Gorham, Marlene Harmon and a few others from Northridge. Nebraska appears to have lost Ottey as well as Gorham and their dominance in that section of the country has vanished. We'll have more news on the strengths and weaknesses of the 1981 track teams in a future issue. But it will be interesting.

West Germany defeated Norway in a dual meet 106-51 with Grete Waitz winning the 3000 for Norway in 8:57.5. Other good marks included the 21'11 and 21'81/4w

(continued on page 8)

Cross Country 1980

The beginning of a new year is always the signal for hope and a bright future. The Sports Information Directors from all universities and colleges have busily prepared their 1980 cross country brochures and to a man (or woman) they all predict a better year in 1980 than was their karma in 1979. One major point on which they all agree — no one is going to beat North Carolina State. Even North Carolina State agrees to that! Here are some bits of information gleaned from these early season brochures:

NORTH CAROLINA STATE: Head coach Tom Jones, in a reversal of the usual gloomy outlook sustained by members of the coaching fraternity, states, "Providing everyone remains healthy, there's no reason why we shouldn't win the nationals again". To add reason to his statement, Jones continued, "Everybody returns off last year's national championship team, and we've added four outstanding freshmen runners. That gives us quality depth through 10 girls. If all these girls are healthy, I don't think anyone else in the country can put this kind of team on the course."

All NCS has returning is the individual champion, Julie Shea, and another All-American, Betty Springs, PLUS six other letter winners and since only Julie Shea and Valerie Ford are seniors, North Carolina State predicts they will continue to win the nationals "until the next Olympiad". Mary Shea



Mary Shea

was not herself during the 1979 cross country season. She finished 157th at Tallahassee and anyone who believes she will not improve on that placing in 1980 had best look for another job. Mary holds the American record for 10000 meters, a time which is also the World Junior Record. Joining the two Shea's and Springs and Ford will be returnees Sue Overby, Kim Sharpe, Debbie Revolta and Karen Myers. Among the frosh will be Suzanne Girard, New York state cross country champion and also the 1500 and 3000 champion on the track, Lisa Beck, the state champion of Florida in the 880, mile and two mile and a member of the Pan-Am Junior team, Sande Cullinane, Massachusetts state champion in the two mile and Tricia Malischewski, runner-up to the state titles in the 800 and 1600 from Pennsylvania.

OREGON: Although all the noise is from North Carolina State, the fact remains they did not win the AIAW Championships with ease. NCS scored 108 points for the title, but right behind them was Oregon with 120 points, a 12 point spread. Lost for the Ducks will be their top 1979 finisher Jody Parker. Parker is passing the coming season to study in Europe. Also gone will be the Oregon #2 finisher at Tallahassee, Cheri Williams who is no longer in school. But don't shed too many tears for Coach Tom Heinonen. Molly Morton, the blonde eyecatcher, finished only 32nd at the nationals, but it was a gutty performance as she was competing with an injury, one which forced her out of the 1980 track season. Morton was Oregon's #1 runner in 1978 and bids to become that again for 1980. And the improvement expected by Olympian Leann Warren adds to Oregon's prospects. Warren finished 140th in Florida. Anyone believe she will finish that far back in 1980? No takers.

Returning after skipping a year is veteran Robin Baker, a seasoned campaigner. She was 50th at the '78 championship meet, but a year of open competition as a member of the Oregon Track Club will give her greater potential. Yet another returnee is junior Irene Griffith, a former national prep record holder for the 5000 meters. Griffith has yet to compete in the nationals as she has suffered illnesses both of her first two years. That's four good runners, but five are needed. And that fifth name is the veteran of the group, Eryn Forbes. Forbes was fourth in the AAU Championships back in 1975 and was a member of the US team which competed



Leann Warren

JEFF JOHNSON PHOTO

in the World Cross Country Championships in 1977. Two returnees from 1979 are Joan Hopfenspirger and Tina Francario and yet another who missed 1979, Lori Alzner. Add newcomers Leandra Barinaga and Lani Granowski plus transfer Julie Burke of Massachusetts and 1979 Oregon prep runner-up Alice Munz and Oregon becomes a hurdle in the path of North Carolina State.

WISCONSIN: Fourth at last year's AIAW championships, Wisconsin returns five of its top seven runners and will be, according to their own prediction "once again a national contender". Returning is Kenya's Rose Thompson, the Big Ten and Regional AIAW champion. Joining Thompson will be eight other letter winners of 1979 including Suzie Houston, Sandi Grove, Mary Stepka, Amy Johns, Anne Johnston, Lynn Ranfranz, Sally Zook and Sue Agnew who sat out 1979 due to injury. Three freshmen, Tita Lewis, Carol Van Os and MaryAnn Brunner make Wisconsin a threat once again. Only losses are Marty McElwee and Anne Mulrooney. Coach Pete Tegan is

pleased and says, "We have enough talent to have two teams".

CALIFORNIA: California finished seventh in Tallahassee last year and the entire team returns for 1980. The Cal brochure boasts "Experience and Excellance" and that's just what the Bears have for 1980. Cal finally has a couple of seniors on its squad - Alice Trumbly and Lynne Hjelte - and has picked up only one freshman who might add to their depth. The newcomer is Kerry Martinson, third place winner in Oregon's prep championships last year. Joining Trumbly and Hjelte will be returnees Cindy Schmandt, Jan Oehm, Suzanne Richter and Cheryl Flowers. Other nonletterwinning returnees include Sue Jenkinson, Valerie Ross, Eugenia Zorich and Nina Gottschalk.

IOWA STATE: Look who's back. Iowa State won every AIAW national title until last year when their leaders, the Vetter twins, were non compus mentis. The Cyclones have lost Mary Seybold and Bridget Seip by graduation while Britisher Chris McMeekin will not return to school until the winter quarter. McMeekin recently underwent surgery for her chronic Achilles problem. Coach Ron Renko has four "very tough runners" and is looking for that magic fifth. In addition to the Vetters, Iowa State returns Sheila Frank, Jane Lange and Wren Schafer and has high hopes for freshman Loree Haugland from Minnesota.

PURDUE: The Boilermakers finished 13th last year and has its top six runners returning. Top returnee is sophomore Diane Bussa who earned All-American honors as a freshman with a tenth place finish at Tallahassee. Another outstanding runner returning to Coach Fred Wilt's team is senior Alanna McCarthy, out much of last year with an injured foot. As the Purdue brochure states, "The Boilermakers also have depth in underclassmen, recruits and transfer students". Purdue won their first two outings of the 1980 season sweeping the first seven places in their opener at Louisville, Kentucky, and placing nine in the top ten in their own invitational and McCarthy has yet to compete. In addition to Bussa, the Boilers have Shannon Cline, Becky Cotta, Jymette Bonnivier, Andrea Marek, Nancy Sanford and Jeannette Dowton for depth and strength.

KANSAS STATE: The Wildcats were 17th in 1979, the worst finish in KS history. But they are a young team and in spite of losing their top runner for last year, Cathy Saxon, they show promise. A very large squad greeted Coach Barry Anderson with 17 runners on the roster



Jan Oehm and Lynn Hjelte



Debbie Vetter

JEFF JOHNSON PHOTO

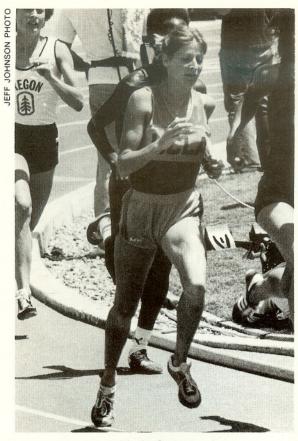
— and only one, Rochelle Rand, is a senior. Janel LeValley, redshirted last year, is a three-time State CC winner as a prepster and might lead the team for 1980. Other top runners in addition to LeValley and Rand are Sheila Varga and Deb Pihl with the fifth spot up for grabs, as it is at so many schools, between Karen Sothers, Deb Harrell, Meg Pyle, Teri Emley, Kelley McGlashon and Grace Long. Anderson is being assisted this year by Renee Urish, a former Wildcat standout.

TENNESSEE: The Lady Vols were 14th at the 1979 National AIAW and, as with most of the other contenders. have improved for 1980. The top returnee is sophomore Linda Portasik who led Tennessee in all six of their cross country meets last year. Other returnees are Ellen McCallister and Miriam Boyd. Biggest acquisition is transfer Eileen Hornberger who comes to Knoxville from West Chester State College. Hornberger was the 5000m national indoor champion in the AIAW Division II last year and was 11th at the cross country nationals. Tennessee also added some good freshmen including Donna Mc-Clain, a three-time high school All-American and Junior Olympic champion; Kathy Bryant from Ohio, runnerup to the Junior Olympic title and sixth place winner at the AAU Junior Nationals; and Beth Huff from Wisconsin.

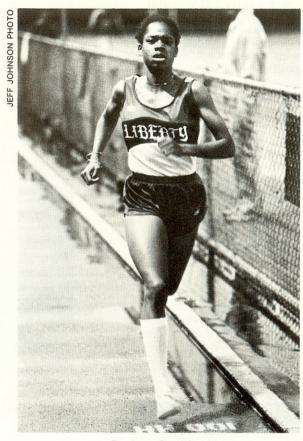
UCLA: Once again UCLA assumes its role as the "enigma" team. Scott Chisam's squad has potential, but lost its chance for national honors when Kathy Mintie decided to redshirt the cross country season. The Bruins return Linda Goen and Sheila Ralston, and that's not a bad nucleus. Transfer Ann Regan, already a veteran internationalist, joins Cal State Northridge transfer Kathy Robertson and Lisa Scaduto. Regan was California state high school 800 champion for three years and Scaduto was the two mile champ in 1979. Add returnees Cynthia Warner, Elaine Schultze and Sisue Buegin and you can see why opponents shake and quake.

HARVARD: Although not a national power, the Crimson has an adequate team led by All-Ivy Darlene Beckford and sophomore Kristin Linsley. Beckford, who blazed to top finishes in her first six meets a year ago, and Linsley are two of the best runners in New England and the East this season. However, the loss of senior Johanna Forman, who is taking the semester off, and junior Paula Newnham, currently recuperating from foot surgery, leaves Harvard with a lack of depth. Senior captain Becky Rogers is a

(continued on page 8)



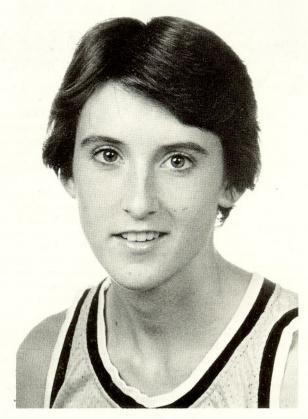
Linda Goen



Darlene Beckford



Margaret Groos



Alanna McCarthy

solid runner who will help close the gap between the experienced and untried women on this year's squad.

SAN DIEGO STATE: The Aztecs could act as spoilers to the "big ones". The Fred LaPlante crew lacks the depth to win any big titles, but with Canadians Lynn Kanuka and Monica Joyce they have the potential to cut into anticipated points by the powers. In addition, returnee Liz Baker has been leading the team across the line during the first weeks of the season while Kanuka awaits the healing of a stress fracture and Joyce awaits the return to good running condition.

VIRGINIA: Sixth at the AIAW Nationals last year, Virginia will make its presence felt once again. Returning is ace Eileen O'Connor who is backed by Jill Haworth, Martha White, Val Hardin and Virginia Wright. The Virginia group edged Maryland 28-29 in an early season



Suzie Houston

duel and they did it without their numero uno, Margaret Groos. Watch out for those gals from ol' Virginia, suh.

ARKANSAS: The Arkansas news release states, "This may be the year Coach Ed Renfrow has been waiting for in cross country. For the first time since assuming the head coaching role three years ago, Renfrow will field a team of true distance runners. "In the past, we've tried to turn quarter milers and half milers into distance runners, but this year will be different. This team will consist of six people with good distance experience." Leading the team will be junior Jody Rittenhouse and backing her will be three newcomers. Junior college transfer Maria Tilman, the national JC cross country champion plus the 3000 and 5000 meter queen on the track; freshman



Kim Schnurpfeil

Erin McCarthy an All-American from New York; and Cathy Stone from New Jersey. Add a couple of sophomores, Karen Chance and Debbie Agosta, and one can see why Coach Renfrow sleeps nights.

MARYLAND: Maryland was a surprising and disappointing 15th at last year's Nationals, but they should finish much higher in 1980. Led by a couple of Irishmen, Mary Walsh and Jean Whiston, are top runners along with Pat Walker and Kim Dunlap. Maryland lost by just a point to Virginia 'way back in September and will get nothing but better as the season progresses. Debra Pavik, who took part in the Olympic Trials, will join the team's top runners by mid-season and will be a big boost for this, yet another of the South's great distance teams.

DRAKE: Never before a national contender, Drake University may make it into the Top 15 in 1980. The Drakers are led by Swedish runners Liz Hjalmarsson and Maria Simonsson and the team whipped eight teams to win their opener with their first five runners finishing in the top 11 spots. Along with the foreign imports. Drake can boost a fine backup group which includes freshman Latha Davis, Jane Noel and the coach's wife, Sandy DeNoon. Yet another newcomer, Peggy Saracino, will join the group after conquering a virus.



(continued from page 4)

long jump marks by Germans Sussiek and Schmidt . . . We now have verification that Merlene Ottey's marks at Drake (10.98 and 22.72) were not completely electronic. Jim Duncan, long time major-domo of track in Iowa, writes, "It SNOWED the day before the meet and we couldn't get the Acutrack installed, but hooked the Data Timer up with the gun and hand-stopped the timing. But it was a great race, running away from a good field" . . . First Ivy Woman Athlete of the Week for 1980-81 was Yale's Sally Strauss. Strauss won two cross country races in one week, winning over 5000m against Brown in a fine 17:14 and over three miles against Central Connecticut in 17:42.

4 x 100 RELAY

Good relay running means giving and taking the baton at near full speed. The physical setup requires some explanation:

- First and third runners run on the inside of their lanes and hold the baton in their right hand. Second and fourth runners use the outside of their lanes and use left hand only. DO NOT CHANGE BATON FROM HAND TO HAND.
- The baton is passed upward into the receiver's hand. Receiver holds hand in a "V" shape and grasps the baton about a foot behind the body. This should take place ONLY upon command of the passer.
- 3. Receiver starts 16-20 foot paces past the beginning of the acceleration zone and uses the beginning of this zone as the "Go" mark. Through

trial and error this mark will be improved.

- 4. Your choice of running order should take into account:
 - a. Taller runners usually have trouble running on the curve.
 - Runners who have trouble understanding relay concepts might possibly run in the first position, regardless of speed.

Drills

1. Without baton: Set receivers 16-20 feet past the "Go" mark and give passers about 30m full speed run. When passers reach the "Go" mark, the receiver begins sprinting WITHOUT EXTENDING THE HAND BACKWARDS. The object is to reach a mark 15m down the track before the passer can tag the receiver.

- Same drill but using a baton, starting slowly and building speed as confidence is gained.
- 3. Using one of the exchange zones on the curves, you can practice exchanges #1 and #3 in one spot and have only to work on exchange #2 for the complete relay. There isn't much sense practicing the entire 4x100 relay very often, because fatigue prevents more than one or two repetitions at full speed.

Common Errors

- 1. Looking back for baton.
- 2. Running with arm extended back for baton.
- Receiver being very timid about accelerating to full speed before receiving baton.

WIW

DIANE BUSSA

There are rumors circulating about adding a longer distance to the women's track events in the 1984 Olympics in Los Angeles, California. If that is the case, Diane Bussa, the former Carmel, Indiana High School standout and current Purdue University cross country and track star, will be "in the running" for a spot on the prestigious United States

"If that is true," Bussa says smiling, "then I'll be the right age." Bussa, the phenomenal long distance athlete who is short physically (5-2, 93-lbs.), but long on heart and talent, is re-writing the Purdue women's cross country record books almost every time her feet hit the course. Currently, Bussa is destroying her competition by running amazing races. In the Boilermaker's first two invitationals, Bussa has won both the Louisville-Westport Cross Country Carnival and the Purdue Invitational. But the petite sophomore is quick to add that the competition is getting tougher.

squad.

"Last season Purdue was considered an underdog," admits the 19-year-old Bussa. "The other teams would ask, 'where'd they come from?' This year they know who we are, they know we're coming and they know we're good."

Good may be an understatement. Head coach Fred Wilt has recruited successfully the last two seasons and has built a potential national powerhouse. And Bussa likes the challenge of the new competition.

"I am getting tough competition from my teammates," she notes. "They're getting better and it makes you run a lot faster. It is easier to run if someone is in front of you rather than having to set the pace yourself."

Bussa began running at the age of five and since then has "set the pace" for an already brilliant career. Her parents are to thank for that.

"My dad started to run to lose weight," quips Bussa. "I would ride my bike along side him. Then my mom started running a mile a day. I decided to run with my mom and the first time I ran a mile I thought it was great."

After that she entered an all-comers meet at North Central High School in Indianapolis and that was all it took. Bussa proceeded to become the first Indiana female high schooler to break a five-minute mile in 1977. She posted times of 4:56 in the mile, 2:17 for the 880 and 10:37 for two-miles. She earned high school All-American status in 1977; placed third in the women's 3,000 meters at the USSR-USA Juniors meet in Boston in 1978.

Naturally it was time to choose a college where Bussa could exploit her talents on a national level. She began writing letters to colleges everywhere from which she received many favorable replies.

"I was interested in getting a scholarship," says Bussa. "My first choice was Indiana and my second Purdue. I had been offered a scholarship from Indiana but not from Purdue. Then I wrote Coach Wilt a letter during the fall of my senior

By Mark Brand

Bussa received a reply from Coach Wilt, who had just been hired as the new women's track and cross country coach at the West Lafayette campus. Wilt was offering the Norfolk, Virginia native a scholarship. But it was no ordinary scholarship. It was the first women's cross country scholarship ever offered to an athlete in Purdue athletic history.

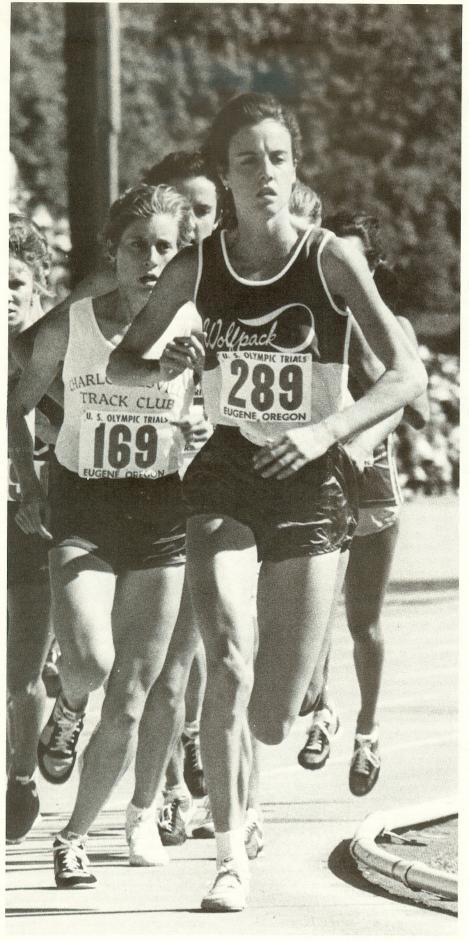
"It made me feel good," exclaims Bussa. "It's like a record that can't be broken. I just graduated at the right time."

Bussa, a public relations major who also enjoys drawing and painting, has her sights set on winning the national championships in cross country. Last season she finished 10th in the nation as a freshman and earned All-American accolades.

"It is in the back of my mind about winning a national championship," comments Bussa. "There is a lot of pressure on me this year to do better than 10th, but I have one year's experience behind me."

Eventually, Bussa would like to work for a company in the public relations department, preferably Nike or New Balance. But for now, she will just keep on running. "I would like to run in an ultramarathon which goes 50 miles or longer," she states. "I've set it as an ultimate goal."

MALAN



JULIE SHEA

Julie Shea's 1979-80 year was the stuff dreams are made of . . . she captured four individual national championships . . . became the first woman to be selected Athlete of the Year in a major conference when she won the Anthony J. McKevin Award presented by the Atlantic Coast Sportswriters Association in June 1980 . . . became the first athlete in the 11-year history of the AIAW Track and Field Championships to win the distance triple . . . started her string of national crowns with the 1979 AIAW National Cross Country Championship . . . undefeated in AIAW cross country competition last year, including the Lady Seminole Invitational, the ACC Women's Championship, the AIAW Region II Championship and the AIAW Individual National Cross Country Championship . . . undefeated in AIAW Track in 10 races last year . . . scored 30 of NC State's 55 points at the 1980 AIAW Track and Field Championships . . . won the 10000 meters in a meet record time of 33:02.4 . . . won the 5000 meters in a field record time of 15:41.3 . . . added the last leg of the triple crown with a victory in the 3000 meters in 9:13.2 . . . a three-time All-American in both track and cross country . . . represented the USA three times in World Cross Country Championships, placing fourth in Glasgow, Scotland in 1978, eighth in Ireland in 1979 and thirteenth in Paris, France in 1980 . . . runnerup in 1979 AAU National Cross Country Championships . . . a strong and powerful world class runner who brings incomparable credentials into her senior year at North Carolina State University . . . daughter of former NC State assistant track coach Mike Shea . . . majoring in Design . . . born May 3, 1959.

From NC State Cross Country Brochure

MIM

Distance Running

By Ronald Wallingford from "Athletica"

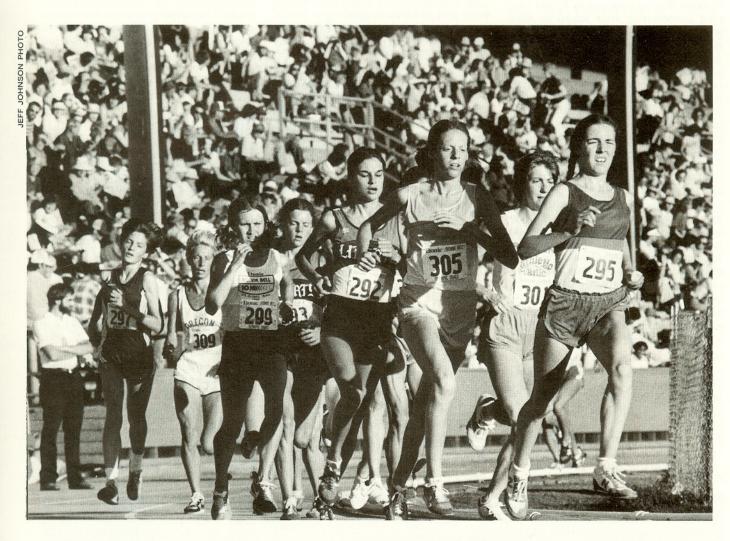
Part 1 — Getting Started in Distance Running

This is the first of a series of three articles on distance running by Ron Wallingford, who represented Canada internationally in the marathon many times during the sixties. Dr. Wallingford, now acting Director of the Division of

Physical Education at Laurentian University, prepared the articles while he was Ontario Distance Running Coach. This is their first publication.

The ideas presented have been gained from

many sources, but most importantly from the author's years of practical experience as a distance runner, and also from his professional background in physiology as a professor of physical education.



Why should I choose distance running as a sport?

One attraction is that success in distance running is not dependent on physical size. If you are short, what you lack in lever length you tend to gain through diminished lever inertia. Studies so far have not been able to substantiate the advantage sometimes claimed for tall runners.

Another positive factor is that the bulk of your distance running training can take place almost anywhere and at the time that is most convenient to you. Progress is measurable and success is very closely related to the effort you put in.

As a distance runner you can compete in other cities or countries in a small group or independently. This is something which team sports just can't duplicate to the same extent.

The inexpensiveness of the equipment you require compared with most other sports makes it indeed one of the most readily available activities, commanding a universal appeal through rich and poor countries alike.

How do I get started?

If you are relatively unfit you should start any exercise program very gradually. The body "resents" being forced to do activities it is unfamiliar with. This "resentment" is reflected in undue stiffness, injury or a lack of interest the following day. It is wise to start with a modest program, perhaps a 15 or 20 minute jog each day, and then build from there. Of course, if you are already fit, you can start with much more. The important thing is not where you start from but how far you go on a long term com-

mittment. Success goes to those who go out day after day, rain or shine, to inch ahead on their progress towards high level fitness.

Some suggestions may help you in developing appropriate training habits. Plan your training sessions for the same time each day. Fix a time in which you habitually train and don't argue with yourself as to when you are going to work out. This may mean rising an hour earlier each morning, squeezing in the workout during your lunch break, running immediately after school or after work in the evening or before going to bed at night. Your life style will often determine which time is best. However, you must be severe with yourself and not rationalize a single day of training no matter how modest your output for that day may be. It is important in order to continue your habit of training and also to maintain and increase your basic fitness level. So a run around the block on a day you don't feel like training is better than no training at all. Often once you are out you feel like doing more.

The venues for training differ immensely throughout the world, but people can adapt to almost anything. It seems to be a matter not only of finding a suitable place, but also of selecting a time of the day in which the area used is less congested. In busy cities, early morning seems more appropriate. In suburban areas frequently the dinner hours are the quietest. Early Sunday mornings are a quiet period almost everywhere.

What type of training is best?

There are several roads to Rome, as the old expression goes. Choose the training that suits your environment, your personality, your life style, your current level of fitness, as well as your overall goals. There are general principles, however, which are applicable no matter where you live or where you start from.

The human body is an amazing organism; given sufficient time and appropriate gradations in the work load, it can accomplish fantastic feats. But if you attempt to rush this adaptation, chances are that the results will be poor or even negative.

The first requirement is that you should make fairly small increments in the amount or quality of training. If you cannot "digest" or cope with a specific work load day after day, you will soon lose interest in training and withdraw from active involvement. If you continue to work too hard, you are likely to injure yourself. If it requires an unreasonable amount of personal motivation to get you out training on any given night, the workouts preceding that evening should be closely analyzed. Too

much training too soon is the most frequent cause. You should feel a mastery over your training on a given day, and workouts which run you to a "standstill" should be few and far between.

You should also be cautious about comparing training sessions to races. Very frequently athletes doing identical workouts will race at different levels. Over a considerable period of time, performances tend to match training sessions, but this is more on a seasonal or yearly basis than from day to day. The ability to perform at high levels is made up of a complex combination of factors. Systematic training greatly increases the probability of high achievement.

A good guide for a coach or athlete to use is to stay with a training system which is getting good results. As long as your times are improving systematically, your training is probably basically correct. When performances tend to plateau, it is time to consider making more major innovations.

Much has been written by coaches as to the "best" training methods to follow. Research to date hasn't been able to clearly differentiate one system as being particularly better than any other method for the training of high level performers. Some of the better runners use steady running, others use interval training, or resistance training or most likely a combination of all of these coupled with extensive competitions.

There is some scientific evidence and a good deal of practical evidence which suggests that once you have built up to a fairly heavy workload, it is more efficient to break the load into two daily training sessions, rather than to restrict training to one long session a day.

The recording of daily training in a log book might give you some more accurate means of comparing your training from month to month and year to year. In this way you can watch your training and gradually increase the intensity systematically, so as to not injure the body through too abrupt increases in work load. Emphasis should be on consistency and gradual increments of effort from year to year.

What about group training?

Working in a group makes the hours of training more palatable. It keeps up your enthusiasm, and the commitment to meet your coach or the other runners makes you less likely to rationalize out of a training session during bad weather or periods of low enthusiasm. In the early stages of training, most runners profit a great deal from being part of a group.

If there doesn't seem to be a distance running group in your area, maybe you could help to get one going. Talk to a phys ed teacher if you are in high school, or contact the local YM/YWCA or community center. There are probably many individual joggers or fitness runners in your area who would welcome the opportunity to train together; many of these start off running for fitness and then become interested in running as a sport. Eventually this could lead to the formation of a track and field club in your area, affiliated with your local track and field association.

One danger to be alert for in a training group is that the group can become excessively competitive in training. Your workouts should not turn into evening semi-races; this could cause those in the group doing twice a day workouts to start skipping morning sessions to be better rested for the evening "races". This is self-defeating and not conducive to long-term planning and optimum results.

Coaches, in particular, must constantly be on the lookout for excessively competitive training, as an athlete who is repeatedly "beaten" in training sessions will not come out day after day to face such a situation. An athlete in full training is also not "fresh" to compete in training, and could have his confidence damaged by having repeated competitive demands made on him during his training periods.

Famous distance coach Mihalyi Igloi avoided excessive competition danger amongst his athletes by switching individuals from one group to another during a single training session.

While many of the great athletes of the world combine training runs with a group once or so a week, these runners do by far the greatest bulk of their training alone. If you are squeezing in a training session before school or work, you usually just don't have the time to seek out a companion for your run. Several athletes also feel that they can match their disposition for quality training on any given day better alone than with a group. These athletes find they concentrate more effectively on what they need and can analyze their reactions to their training better if they do not have the diversion of others. However, this ability to work effectively on their own is usually achieved by senior runners after several years of group workouts.

Some Training Tips

- Keep records of the type and amounts of training you are doing. Frequently just a brief summary on a calendar is sufficient. After a few months or years, you can compare the training and assess what appears to be the most effective methods.
- Have two or three pairs of shoes on the go at the same time. No two pairs of

shoes ever seem to rub in exactly the same place, so if you are bothered by blisters, your feet have something of a rest if you wear other than the shoes that caused the blisters.

- When doing tempo training, wear spikes and if possible shorts and a light top. In training, try to get as much of the same feeling as you will be getting in races. The best way to do this is to be dressed similarily. Wear spikes on grass for quality training to prevent slipping and possible leg injuries.
- When commencing training on a new type of surface, e.g., going from indoors to outdoors, make sure to gradually accustom your body to the changes. Sudden switches of training sites without adequate preparation lead to a high proportion of the injuries which take place in distance running.

Winter training

Many distance runners use the winter time as a period to build up their basic stamina. For this, quality running is not essential. In fact, running at a reduced pace will probably increase your total aerobic training. When the footing is not good, you should ease up on the pace. Forcing the pace on a slippery surface frequently leads to stiffness which can in turn impede your overall progress. If the pace is slower, the slippery surface will be less difficult to negotiate and additional distance can be covered.

In very severe weather, you should make some adjustments to your normal clothing. A woolen sweater over a woolen T-shirt with an additional sweat suit and nylon shell should be sufficient for almost any winter. If there are very extreme winds, you can arrange a mobile scarf or balaclava to protect the cheeks from frostbite.

There is no danger in freezing the lungs while running in severe cold. On the other hand, since the air you breathe out is moisture-laden, this moisture will condense on your face as it hits the cold

atmospheric air. As a result, there is a constant supply of condensed water on the nose and face. In windy weather, this evaporates quickly causing extra cooling and increased danger of frostbite on the face. Taking suitable precautions, such as additional clothing over the face as mentioned earlier, minimizes the problem.

Many athletes find the winter a good time for a change of rhythm after the constant competition of the summer months. By building up the oxidative enzymes, the long winter runs will serve as a particularly effective way of increasing the ability of the muscles to maintain a given effort. Many experienced distance runners take part fairly successfully in occasional winter races, in spite of the fact that the bulk of their training is at a considerably reduced tempo from the warmer seasons.

If you wish to compete seriously indoors and don't have proper indoor training facilities, it is surprising how many places you can find in shopping centers or on side roads which can be used for more quality preparation during the winter months. If you are a student, workouts at lunchtime (when the weather is warmest) on bare roads can frequently maintain your competitive tempo from the past fall and allow successful in-door racing without an indoor facility. However, great care must be taken to avoid stress injuries caused by repeated tempo training on hard (especially cement or terrazzo) surfaces.

In the more rural areas trails or country roads are excellent venues for training and are often more level in winter from snow ploughing than they are in the summer with the stones, etc., on them. They are also considerably less dusty in the winter. Deep snow running, although interesting as a change, is very demoralizing if used frequently and has doubtful returns for the effort. Since most people cannot handle very much deep snow running, it is not particularly beneficial from an aerobic point of view either.

What is the best technique?

Don't concern yourself unduly with socalled proper form. Individuals differ considerably in their postures and musculatures and thus their running actions will also differ. If you do considerable training over a period of time, you will find that you eventually sort out what is best for you. Having to run when you are tired automatically helps you to adopt the style which is most economical for you.

If you plan to compete in distance races on the track, you should, however, become familiar with the sprint action so as to maximize your finish.

Can I hope to reach state or national level?

Your chances of achieving first rate performances in distance running are exceptionally good if you follow a systematic program over a long period of time. Almost all athletic careers are terminated long before potential of the individual is fully realized. With the recent progress in track and field, world experts are quite noncommittal when it comes to speculating how far athletes can go in perfecting this skill. Certainly, the rapid recent progress would indicate that we are nowhere near the ultimate in human potential. Athletes with rather modest athletic careers in high school many times turn out to be the most successful runners years later in open competition. The athlete who maintains the proper frame of mind over an extended period of time seems, ultimately, to be the better performer. A study of several of the best British distance runners showed that their best performances came nine to ten years after they commenced serious training.

Vanek, a Czechoslovakian sports psychologist, stated that most gold medal winners in Olympic Games are not those with the most so-called natural physical talent, but they have extremely high levels of the psychological factors of motivation, drive and determination.

(CONTINUED NEXT ISSUE)

WIW



TRACK RESULTS — TRACK RESULTS

Another title to Brodock

Westlake Village, California, May 4 — Sue Brodock won her umpteenth USA walking title when she annexed the 20k walk championship but the California Walkers upset the Rialto Roadrunners for the team title.

RESULTS: 1—Sue Brodock (RRR) 1:48:22, 2—Vicki Jones (CW) 1:55:46, 3—Lori Maynard (Woodside Striders) 1:55:54, 4—Paula Kash (CW) 1:57:23, 5—Diane Uribe (CW) 2:01:19; Scores, 1—California Walkers 5:54:27, 2—Rialto Road Runners 6:06:18, 3—San Diego TC 7:15:40.

World Record for 4x200

Berlin, East Germany, August 9 — A team of Marlies Gohr, Romy Mueller, Barbel Wockel and Marita Koch established a new world record for the 4x200m relay here today with a fantastic clocking of 1:28.2s. The old record set by a Soviet team was 1:30.08. The time averages out to 22.05 for each runner. Gohr holds the world record for 100 meters, Koch is the world record holder at 200 and 400 meters and Wockel won the Olympic Games 200 in 1976 and 1980. Mueller has the fifth fastest time ever recorded at 100 meters and has a best of 22.47 for the 200.

Karin Smith Wins

Cologne, Germany, August 10 — Karin Smith whipped the javelin to a new PR as she won the speer event in an international meeting in Cologne. Smith threw 212'6 to win over perennial rival Kate Schmidt who was second with a toss of 205'4.

Louise Ritter was the other winner for the US as she whipped 1972 Olympic champion Ulrike Meyfarth and China's Zhen Da-Zhen with a hop of 6'2½. American sprinters and distancers had a rather bad night although Jeanette Bolden turned in her best for the 200.

RESULTS: 100 (+0.9), 1—Angela Taylor (Can) 11.38, 2—Jeanette Bolden (USA) 11.51, 3—Annegret Richter (Ger) 11.52, 4—Alice Brown (USA) 11.55; "B" Race, 5—Gilliam (USA) 12.24; 200 (+0.3), 1—Merlene Ottey (Jam) 22.60, 2—Jeanette Bolden (USA) 23.94; 400, 1—Bussman (Ger) 51.44, 2—Jackie Pusey (Jam) 52.00, 3—Gwen Gardner (USA) 52.20; 1500, 1—Schacht (Ger) 4:12.92...9—Lynn Hjelte (USA) 4:59.25; HJ, 1—Louise Ritter (USA) 6'2½, 2—Ulrike Meyfarth (Ger) 6'0, 3—Zhen Da-zhen (PROC) 6'0; JT, 1—Karin Smith (USA) 212'6, 2—Kate Schmidt (USA) 205'4 . . . 5—Mary Osborne (USA) 173'4.

Decker gets AR in Budapest

Budapest, Hungary, August 11 — Mary Decker continued her assault on the record books as she won the 1500m run here tonight with a new American record of 4:00.04. Decker was the only American winner in this international meeting.

Yolanda Januchta of Poland won a tough 800 in 1:56.95 and Sara Simeoni defeated a fine field in the high jump with her jump of 6'41/2.

RESULTS: 100m (+0.8), 1—Chantal Rega (Fra) 11.32, 2—Jackie Pusey (Jam) 11.38; 200, 1—Merlene Ottey (Jam) 22.45, 2—Rega 22.86, 3—Beverly Goddard (GB) 22.86; 400, 1—Ilona Pal (Hun) 51.50, 2—Gwen Gardner (USA) 52.24; 800, 1—Yolanda Januchta (Pol) 1:56.95, 2—Elzbieta Katolik (Pol) 1:57.26; 1500, 1—Mary Decker (USA) 4:00.04, 2—Gospodinova (Bul) 4:04.53; 100H (+0.8), 1—Grazyna Rabtszyn (Pol) 13.04, 2—Elzbieta Rabtszyn (Pol) 13.26; HJ, 1—Sara Simeoni (Ita) 6'4½, 2—Kielan (Pol) 6'4½, 3—Krawczuk (Pol) 6'3¼, 4—Debbie Brill (Can) 6'3¼, 5—Matay (Hun) 6'2, 6—Louise Ritter (USA) 6'0¾, LJ, Wlodarczyk (Pol) 22'0½.

Upsets in Lausanne

Lausanne, Switzerland, August 15 — Chantal Rega of France upset Russia's Lyudmilla Kondratyeva to win the 200 and Gwen Gardner did likewise to Merlene Ottey in the 400 to spotlight the international meeting in Lausanne. Tatyana Kazankina won the 800 over Madeline Manning by more than four seconds.

RESULTS: 200, 1—Chantal Rega (Fra) 22.82, 2—Lyudmilla Kondratyeva (SU) 22.90, 3—Jackie Pusey (Jam) 22.96, 4—Lyudmilla Maslakova (SU) 22.07; 400, 1—Gwen Gardner (USA) 52.68, 2—Merlene Ottey (Jam) 53.40; 800, 1—Tatyana Kazankina (SU) 1:58.23, 2—Madeline Manning (USA) 2:02.74, 3—Burki (Swi) 2:04.20.



It's a Bird! Actually it's Joan Russell clearing 5'3% in the Pole Vault at the Ventura Decathlon — exactly the same as her mark in the High Jump.

Konihowski Triple Winner

Saskatoon, Canada, August 16/17 – Diane Jones-Konihowski, this hemisphere's finest pentathlete won three events at the Canadian Inter-Regional T&F Championships. Konihowski annexed the 100m hurdles, long jump and shot. In addition, she won an exhibition race in a repeat flight of hurdles and was second in the high jump. Good marks were turned in by Brit McRoberts who won the 800 in 2:10.2 and the 1500 in 4:19.7s.

RESULTS: 100 (+1.19), 1—Marita Payne 11.79, 2—Tanya Brothers 11.79; 200 (+1.50), 1—Angela Bailey 23.4, 2—Tanya Brothers 23.6; 400, Jillian Richardson 53.70; 800, 1—Brit McRoberts 2:10.2, 2—Ranza Clark 2:11.4; 1500, 1—Brit McRoberts 4:19.7, 2—Cindy Grant 4:21.8, 3—Janet Dick 4:22.6; 3000, Jocelyn Fraser 9:38.7; 100H (+1.99), Diane Jones-Konihowski 14.35; 400H, Caren Rathie 61.42; HJ, 1—Brigitte Reid 6'114, 2—Diane Jones-Konihowski 6'0, 3—Scarlet Vandenbos 5'11; LJ, 1—Diane Jones-Konihowski 5'13'4, 2—Jill Ross 20'114; SP, Diane Jones-Konihowski 5'08; DT, Sandi Ketterer 140'3; JT, Laurie Kern 162'10.

Botschina Double Winner

Nizza, Germany, August 17 — Natalia Botschina, the fastest Junior sprinter ever, won the 100 and 200 meter dashes here today over Olympic bronze medalist Merlene Ottey (Jamaica) and Angela Taylor (Canada) in fast time of 11.34 into a slight wind and 22.26. Taylor was next in the 100 with Ottey second in the 200. Olympic 800 champ, Nadyezhda Olizaryenko, tried her hand at the 400 and won in a good 51.76 over Jamaica's Jackie Pusey.

Mary Decker was the only USA winner as she annexed the 1500 in a good 4:00.4s.

RESULTS: **100m** (-0.20), 1—Natalia Botschina (SU) 11.34, 2—Angela Taylor (Can) 11.36, 3—Merlene Ottey (Jam) 11.45 ... 7—Diane Williams (USA) 12.01; **200m** (0.0), 1—Botschina 22.26, 2—Ottey 22.34, 3—Taylor 22.61 ... 6—Cheryl Gilliam (USA) 24.22; **400**, 1—Nadyezhda Olizaryenko (SU) 51.76 ... 5—Gwen Gardner (USA) 53.42, 6—Delissa Walton (USA) 53.66; **1500**, 1—Mary Decker (USA) 4.00.4, 2—Nadyezhda Olizaryenko (SU) 4.06.0; **HJ**, 1—Kielan (PO) 6'3½, 2—Louise Ritter (USA) 6'2¾, 3—Zheng Da-Zheng (PROC) 6'0½, **LH**, 1—Wlodarczyk (Po) 21'10¼, 2—Kolpakova (SU) 21'7¾.

Manning Wins in Copenhagen

Copenhagen, Denmark, August 19 — Madeline Manning won an uninspired 800 in an international meeting here today in a time of 2:02.7. Best mark of the competition was the 11.1 clocking in the 100m by Olympic 200m champion Barbel Wockel of East Germany.

RESULTS: **100m**, Barbel Wockel (DDR) 11.1; **200**, Marita Koch (DDR) 22.86, (note: second place was 25.00!); **800**, 1—Madeline Manning (USA) 2:02.7, 2—Cherry Hansen (GB) 2:02.8; **100H**, 1—Grazyna Rabsztyn (Pol) 12.93, 2—Elzbieta Rabsztyn (Pol) 13.53; **HJ**, Zheng da-Zheng (PROC) 6'0½.

(More Track Results on page 19)

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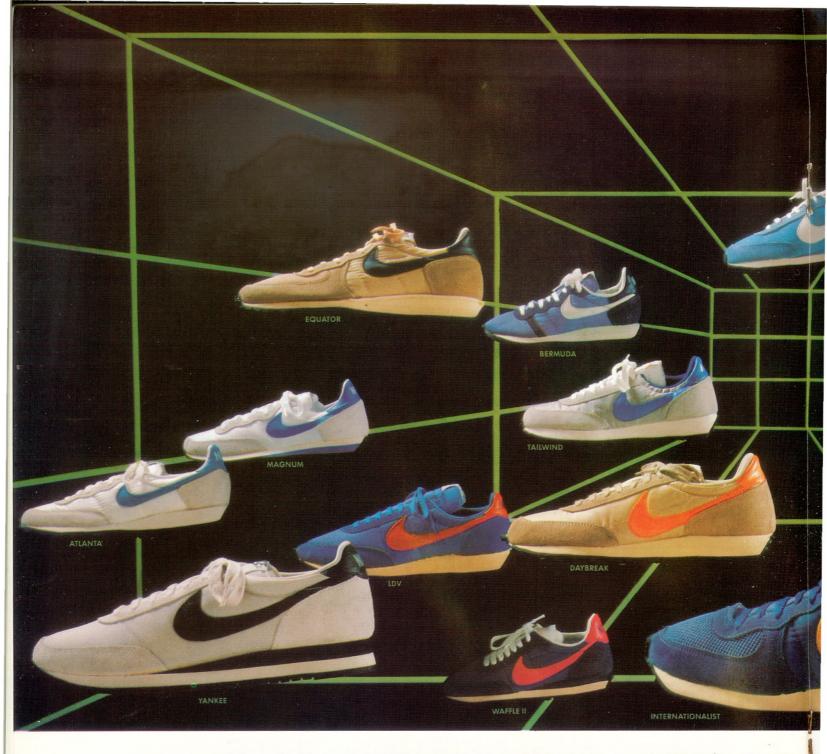
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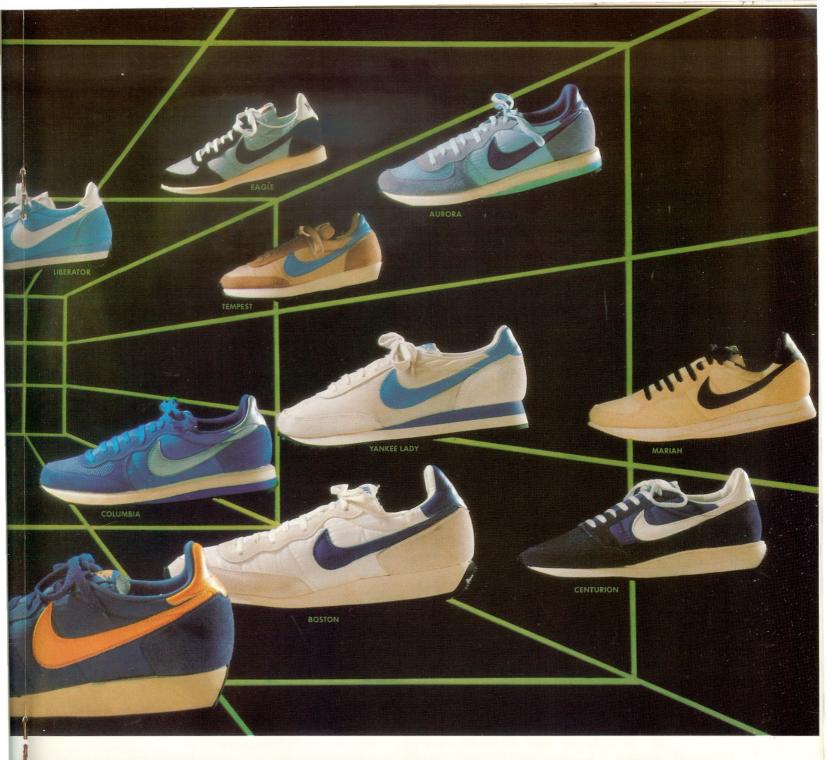
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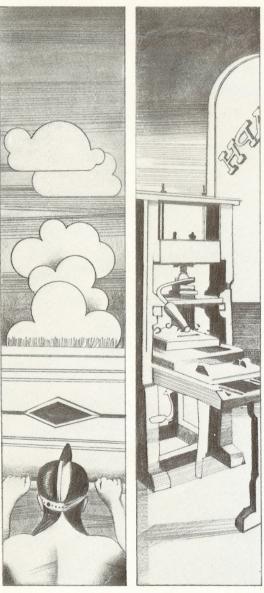
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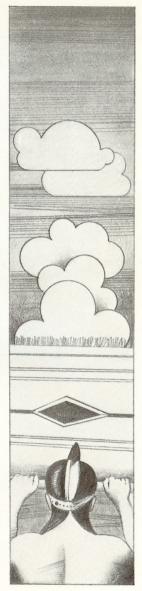
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colleges to curtail programs, reduce faculty, limit laboratory work, cut down on book purchases for libraries. We must not let this deterioration continue. We can't afford to run out of ideas. Or we may all be back to smoke signals again before we realize it.

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Taylor Wins Two in Brussels

Brussels, Belgium, August 22 — Canada's Angela Taylor continued her hot streak here today as she scored wins in both the 100 and 200 sprints to highlight the international meeting in Brussels. Taylor won the dashes over Jamaica's Jackie Pusey in 11.34 and 22.80. Only two Americans were placewinners with Gwen Gardner grabbing fourth in the 400 and Madeline Manning a disappointing sixth in the 800.

RESULTS: 100, 1—Angela Taylor (Can) 11.34, 2—Jackie Pusey (Jam) 11.41; 200, 1—Taylor 22.80, 2—Pusey 23.04; 400, 1—Gaby Bussmann (Ger) 52.45, 2—Goyschik (SU) 52.80 . . . 4—Gardner (USA) 53.11; 800, 1—Yolanta Januchta (Pol) 2:00.0, 2—Klinger (Ger) 2:00.5, 3—Chris Boxer (GB) 2:00.6, 3—Katolik (Pol) 2:01.7, 5—Chemueno (Ken) 2:01.8, 6—Madeline Manning (USA) 2:02.7; 3000, 1—Smith (GB) 9:03.3, 2—Scott (Can) 9:03.9, 3—Paula Fudge (GB) 9:13.3; HJ, 1—Debbie Brill (Can) 6'2¼, 2—Kielan (Pol) 6'2¼, 3—Matay (Hun) 6'0¾ . . . 5—(tie) Meyfarth (Ger) 5'11.

Good 3000

Koblenz, Germany, August 27 - Switzerland's Cornelia Burki won a good 3000 over Germany's Ellen Wessinghage to highlight the female side of the competition. Burki won in 8:53.76 while Wessinghage had her lifetime best with a time of 8:57.30. Canada's Angela Taylor continued her fine sprinting as she won the 100 in a swift 11.23 against a slight wind over the 1976 Olympic champion Annegret Richter. Great Britain's Kathy Smallwood took the 200 over Taylor in 22.68. Only one American was in the competition. Madeline Manning, who must be setting some kind of summer record for number of meets competed in, was second in the 800 to Margit Klinger.

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RESULTS: 100 (-0.62), 1-Deborah James (Cal) 11.5h, 2-Sharon Ware (Cal) 11.7h, 3-Teri Smejstrla (Tx) 11.7h; 200 (+2.21), 1-Deborah James (Cal) 23.60w, 2-Teresa Woodbury (NC) 23.86w, 3—Angela Thacker (Mo) 24.02, Sharon Ware did not run; 400, 1—Maxine Underwood (Ma) 53.74, 2-Angie Sibby (Mich) 54.74, 3-Ericka Harris (Wa) 54.88 (54.07h); 800, Regina Jacobs (Cal) 2:08.3, 2-Tara Arnold (La) 22:11.1, 3-Alveretta Pitts (Fla) 2:12.4, 4-Jessica Spies (Cal) 2:12.4 (2:11.8h), 5-Camille Davis (Ut) 2:13.0; 1500, 1-Lisa Mitchell (Wa) 4:33.0, 2—Jenny Stricker (Col) 4L34.0, 3—Christine Noth (Mt) 4:34.7; 3000, 1—Denise Marini (Del) 9:39.8, 2— Karlene Erickson (Nb) 4:40.5, 3-Leanne Stuckley (Wa) 9:41.4; 4x100, 1-Berkeley East Bay TC 46.04 (45.89h), 2-St. Louis Royal Knights 46.71, 3-Greensboro Pacesetters 47.03; 1500m Walk, 1—Pam Paudder (Wa) 7:12.1, 2—Aimee Burr (Az) 7:17.8; 100H (+0.17), 1—Jill Redo (Kan) 13.66, 2-Marlene Harmon (Cal) 13.71, 3-Sheriffa Sanders (Cal) 13.82, 4-Clara Hairston (NC)

13.85; 400H, 1-Marlene Harmon (Cal) 58.77, 2-Tracey Nelson (NJ) 60.02, 3-Margaret Demarest (Cal) 60.65; HJ, 1-Susan Linde (Nb) 6'0, 2-Mary Moore (Wa) 5'934, 3-Susan Patz (Fl) 5'934, 4-Melinda Morris (Ill) 5'934, 5-Bonita Harrington (Ind) 5'93/4, 6-Wendy Markham (Wis) 5'93/4; LJ, 1-Jackie Joyner (III) 21'03/4w, 2-Marlene Harmon (Cal) 20'834, 3-Jo Anna Harper (Cal) 20'3'4, 4—Kathy Harrison (Ga) 20'2'/2w, 5—Sherifa Sanders (Cal) 19'103'4w; SP, 1—Rosario Ramos (Cal) 45'111/2 (47'3q), 2-Karen Nitsch (Ind) 44'111/2, 3-Jobeth Palmer (Tx) 44'91/2, 4-Gail Smith (Tx) 44'63/4, 5-Stephanie Thomas (Va) 44'01/4, Pinky Suggs (Ks) 44'21/4q, Carol Cady (NM) 44'6q, Cindy Johnson (Az) 44'8q; DT, 1-Cindy Johnson (Az) 158'2 (159'1q), 2-Carol Cady (NM) 154'5, 3—Jobeth Palmer (Tx) 146'3, 4—Jackie Wallace (Va) 146'0; **JT**, 1—Linda Hughes (Ore) 165'10 (168'7q), 2-Deena Bernstein (Cal) 147'11, 3-Dodie Campbell (Haw) 146'10.

China Whomps Japan 83-49

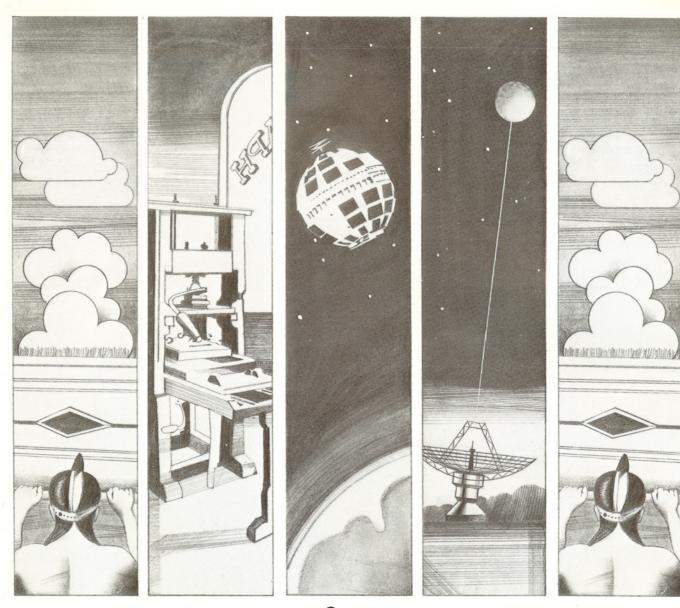
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Here's the description of the race by Mel Watman (Athletics Weekly): "The opportunity (for a new 1500 record) arose at the Weltklasse international meeting in Zurich — the most star-studded of all the post-Olympic tourneys with some 400 athletes (including 21 individual gold medalists past and present) from 40 nations involved. The still evening con-



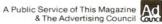
We can't afford to run out of ideas.

How many ideas do you suppose it took to develop human communications from smoke signals that covered a few miles to satellites and laser beams that reach from here to the moon? Most of those ideas came from collegetrained minds and college-based laboratories. Now these vital sources of ideas are threatened—by shortages of money that are forcing

colleges to curtail programs, reduce faculty, limit laboratory work, cut down on book purchases for libraries. We must not let this deterioration continue. We can't afford to run out of ideas. Or we may all be back to smoke signals again before we realize it.

Make America smarter. Give to the college of your choice.

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Taylor Wins Two in Brussels

Brussels, Belgium, August 22 — Canada's Angela Taylor continued her hot streak here today as she scored wins in both the 100 and 200 sprints to highlight the international meeting in Brussels. Taylor won the dashes over Jamaica's Jackie Pusey in 11.34 and 22.80. Only two Americans were placewinners with Gwen Gardner grabbing fourth in the 400 and Madeline Manning a disappointing sixth in the 800.

RESULTS: 100, 1—Angela Taylor (Can) 11.34, 2—Jackie Pusey (Jam) 11.41; 200, 1—Taylor 22.80, 2—Pusey 23.04; 400, 1—Gaby Bussmann (Ger) 52.45, 2—Goyschik (SU) 52.80 . . . 4—Gardner (USA) 53.11; 800, 1—Yolanta Januchta (Pol) 2:00.0, 2—Klinger (Ger) 2:00.5, 3—Chris Boxer (GB) 2:00.6, 3—Katolik (Pol) 2:01.7, 5—Chemueno (Ken) 2:01.8, 6—Madeline Manning (USA) 2:02.7; 3000, 1—Smith (GB) 9:03.3, 2—Scott (Can) 9:03.9, 3—Paula Fudge (GB) 9:13.3; HJ, 1—Debbie Brill (Can) 6'24, 2—Kielan (Pol) 6'24, 3—Matay (Hun) 6'034 . . . 5—(tie) Meyfarth (Ger) 5'11.

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"With the capacity crowd of 26,000 clapping them on their way, the runners got off to a fearsomely fast start. Shadowed by Kazankina, Providokhina swept around the first lap in a startling 58.3, which would be considered quite sharp for a men's 1500 at international level! Kazankina passed in around 58.6 (as against 60.0 in her 3:55.0 record) with Mary Decker another half a dozen meters back - also well inside the minute. Providokhina's pace dropped sharply to 66.2 on the second lap enabling Decker to close up to the Russians. Providokhina's time was 2:04.5, with Kazankina 2:04.7 (compared with 2:07.0 in her previous record) and Decker on 2:04.9.

"Providokhina dropped out precisely at the 800m mark, the signal for Kazankina to accelerate. Bravely as she tried there was no way Decker could respond if she was to finish the race. The Olympic champion, physically frail looking but possessed of a strong purposeful stride and an unflagging spirit, drew well clear along the back straight and by the bell (2:51.6) she was about 20m ahead of the American. She needed a 63.3 last lap to break the record. Kazankina completed the third lap in a magnificent 62.4 to reach 1200 in 3:07.1 (3:08.2 in the 3:55.0 run) and carried along on a wave of sound she consumed the final 300m of track in a mere 45.4 to finish in the astonishing time of 3:52.45 - which rounds up to 3:52.5. That's the equivalent of very close to 4:10 for a mile. She covered the last lap in 60.9, extending her margin over Mary Decker (whose time of 3:59.5 was an American record and fastest ever by a Westerner) to 45 meters. Chris Boxer (GB) won the battle for third place in 4:09.2, only 0.2 outside the best in Great Britain for the year and yet it left her the entire length of the finishing straight behind."

Decker was the best of the Americans as no one produced anything near sensational and all finished back in the pack. Marlies Gohr won a swift 100 over the still surprising Angela Taylor and Marita Koch returned to the 200 to hand OG bronze medalist Merlene Ottey a defeat. DDR's Martina Kampfert won the 800 over a fine field in 1:58.74 and Poland's Lucyna Langer whipped teammate Grazyna Rabtszyn in the hurdles.

RESULTS: 100 (-1.0), 1—Marlies Gohr (DDR) 11.18, 2—Angela Taylor (Can) 11.25, 3—Lyudmilla Maslakova (SU) 11.34, 4—Marita Koch (DDR) 11.37, 5—Ingrid Auerswald (DDR) 11.45, 6—Linda Haglund (Swe) 11.46, 7—Chantal Rega (Fra) 11.48. (In heats, eliminated were 4—Alice Brown (USA) 11.65, 6—Diana Williams (USA) 11.88 in first heat and Annegret Richter (Ger) fourth in second heat in 11.64. Lyudmilla Kondratyeva won the second heat in 11.32 but did not run in the final; in heat

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Tatyana Kazankina

Pan Am Junior Championships

Sudbury, Canada, August 29/31 — Thirteen nations scored points in the unofficial scoring of the First Pan American Junior Track and Field Championships staged in the mining town if Sudbury in Ontario, Canada. The meet was practically a dual meet between the Americans and the Canadians, however. Thanks to 1-2 sweeps in the 800, 100 hurdles and discus, the Yanks edged the hosts 208-196 with the Dominican Republic next in the scoring with 25 points.

There were no outstanding performances. Best was Leslie Deniz two-foot win over Carol Cady in the discus at 162'10 and Joetta Clark's 800 in 2:05.7 to defeat old nemesis Kim Gallagher at one second later. Canada's Angela Bailey was the only double winner with victories in the two dashes. Massachusetts' high schooler Myrtle Chester, representing Guyana, placed in the 100 hurdles, high

jump and long jump and was disqualified in the 400 hurdles after placing sixth.

RESULTS: 800, 1-Joetta Clark (USA) 2:05.7, 2-Kim Gallagher (USA) 2:06.6, 3-Nancy Rettie (Can) 2:07.9; 400, 1-Charmine Crooks (Can) 53.61, 2-Fave Paige (USA) 53.97, 3-Cathy Rattray (Jam) 54.01 . . . 5-Marcia Martin (USA) 54.89; LJ, 1-Jackie Joyner (USA) 20'31/4, 2-Karen Nelson (Can) 19'93/4 . . . 4-Robyn Johnson (USA) 18'91/2w; DT, 1-Leslie Deniz (USA) 162'10, 2-Carol Cady (USA) 160'11, 3-Liz Polyak (Can) 145'8; 400H, 1-Felicia Candelario (Dom.Rep) 60.13, 2-Peggy Sweeney (Can) 60.85, 3-Tracy Nelson (USA) 60.96, 4-Karen Hatchett (USA) 65.54; 100 (-1.2), 1-Angela Bailey (Can) 11.55, 2-Michele Glover (USA) 11.61, 3-Sharon Ware (USA) 11.82; 3000, 1-Vicki Cook (USA) 9:24.8, 2-Silvia Ruegger (Can) 9:25.6, 3-Kate Wiley (Can) 9:27.0 . . . 5-Laura Craven (USA) 9:43.8; 100H (-4.5), 1-Sherrifa Sanders (USA) 14.44, 2-Carol Lewis (USA) 14.62, 3-Karen Nelson (Can) 14.93; 4x100, 1-USA (Michele Glover-Paula Hines-Darlene Jefferson-Sharon Ware) 44.61, 2-Dominican Republic 48.63, Canada did not finish; HJ, 1-Liliana Beatriz Argent (Arg) 5'1134, 2-Linda McCurdy (Can) 5'914, 3-Sue Linde (USA) 5'81/4, 4-Melinda Morris (USA) 5'7; SP, 1-Susie Ray (USA) 45'4, 2-Cindy Crapper (Can) 44'2, 3-Kam Johnson (USA) 42'81/2; 1500, 1-Nancy Rettie (Can) 4:24.3, 2—Monica Regonesi (Chile) 4:25.8, 3—Birgit Otto (Can) 4:31.4, 4-Jennu Stricker (USA) 4:32.6, 5-Liz Beck (USA) 4:33.0; 200 (+2.5), 1—Angela Bailey (Can) 23.44w 2—Michele Glover (USA) 23.56w, 3—Diane Jefferson (USA) 24.22w; 4x400, 1-USA (Faye Paige-Robin Jackson-Marcia Martin-Maxine Underwood) 3:39.0, 2-Canada 3:45.0, 3-Dominican Republic 4:13.0; 3000m Walk, 1—Ann Peel (Can) 14:39.5, 2—Helene Daviau (Can) 15:07.1, 3—Susan Ruiz (USA) 15:41.3, 4— Aimee Burr (USA) 15:56.5; JT, 1-Linda Hughes (USA) 169'7, 2-Martha Hart (Can) 169'4, 3-Sonya Smith (Ber) 162'1, 4-Rena Antanelis (USA) 154'9; Heptathlon, 1-Theresa Lenardon (Can) 5297 (14.58-35'51/4-5'41/2-26.12-18'11'4-103'4-2:23.15), 2-Sharon Hatfield (USA) 5143 (15.33-32'71/4-5'53/4-26.17-17'3-105'0-2:20.68), 3-Connie Polman-Tuin (Can) 4879; Scoring, 1-USA 208, 2-Canada 196, 3-Dominican Republic 25, 4-Argentina 14, 5-Chile 12, 6-Mexico 11, 7-(tie) Bermuda and Jamaica 8, 9-Bahamas 6, 10-Guyana 4, 11-Brazil 3, 12-Venezuela 2, 13-Suriname 1.

Big Upsets in Tokyo

Tokyo, Japan, September 20/21 — Eight nations gathered for the second "Eight Nation" meet in Tokyo, a meet which saw two huge upsets. In the biggest surprise, Italy's Gabrille Dorio won the 1500 meters over Olympic champ and world record holder Tatyana Kazankina in a slow 4:12.6. Kazankina was nearly a full second behind. In the other upset, Britain's Heather Hunte took the 100 over Olympic champ Ludmilla Kondratyeva in the good time of 11.24s.

For some unknown reason, the 800, discus and 4x400 relay were not held, but even the inclusion of these events would not have helped the USA. The Americans failed to win a single event and had only one second place by Karin Smith in the javelin. The Yanks finished sixth ahead only of Finland and Japan as the Russians won easily.

RESULTS: 100, 1—Heather Hunte (GB) 11.24, 2—Tatyana Kazankina (SU) 11.32, 3—Laihorinne (Fin) 11.49...7—Dollie Fleetwood (USA) 11.90; 200, 1—Kathy Smallwood (GB) 22.70, 2—Maslakova (SU) 22.96, 3—Masullo (Ita) 23.44...7—Lorna Forde (USA) 23.90; 400, 1—Joslyn Hoyte-Smith (GB) 51.92, 2—Nazarova (SU) 52.45, 3—Robin Campbell (USA) 53.59; 1500, 1—Gabrille

Dorio (Ita) 4:12.6, 2-Tatyana Kazankina (SU) 4:13.8, 3-Bukis (Pol) 4:14.6 . . . 6-Cindy Bremser (USA) 4:23.8; 100H, 1-Vera Komisova (SU) 12.68, 2-Langer (Pol) 13.08, 3-Shirley Strong (GB) 13.23 . . 5-Stephanie Hightower (USA) 13.49; 4x100, 1-USSR 42.96, 2-Great Britain 43.14, 3-West Germany 44.19 . . . 5-USA 45.79; HJ, 1-Sara Simeoni (Ita) 6'514, 2-Kielan (Pol) 6'234, 3-Colleen Reinstra (USA) 6'234, 4-Ulrike Meyfarth (WG) 6'2³4; LJ, 1—Sussiek (WG) 21'6³4, 2—Susan Hearnshaw (GB) 21'3¹4, 3—Kolpakova (SU) 20'11½... 7-Gwen Loud (USA) 19'21/4; SP, 1-Krachevskaya (SU) 69'51/2, 2-Chewinska (Pol) 56'6, 3-Kivi (Fin) 54'81/4. 5-Lorna Griffin (USA) 49'1034; JT, 1-Gumba (SU) 210'7, 2-Karin Smith (USA) 193'4, 3-Quintavalla (Ita) 191'9; Scores, 1-USSR 70, 2-GB 54, 3-Poland 50, 4-Italy 48, 5—Germany 46, 6—USA 40, 7—Finland 31, 8— Japan 21.

Yanks better in China

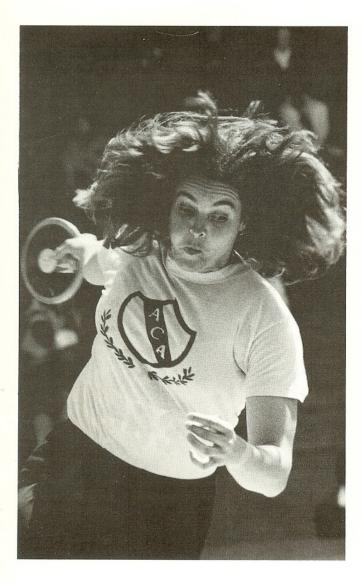
Beijing, China, September 26/27 — The People's Republic of China staged an In-

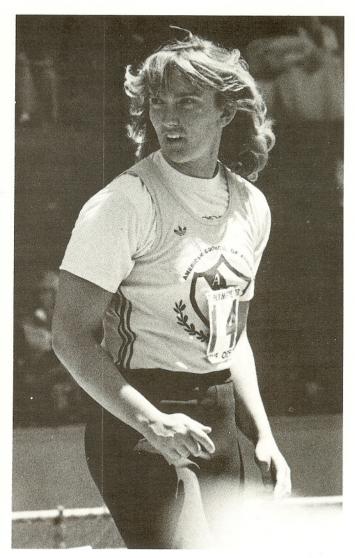
vitational which drew eight teams from England, Italy, West Germany, Rumania, Finland, France and the USA in addition to the home team. No real outstanding marks were turned in, but the USA did manage to win one event - Madeline Manning annexed the 800 in a satisfactory 1:59.9 clocking. Italy's Sara Simeoni continued her good high jumping with a win at 6'434. The USA's Colleen Reinstra was next at 6'21/2. Aside from Manning and Reinstra, the only other Yanks in top position were Karin Smith, second in the javelin, and Cindy Bremser who picked up a second in the 3000 plus a fourth in the 1500. Great Britain dominated the competition winning eight of the events while Italy took top honors in three events.

RESULTS: 100, 1—Heather Hunte (GB) 11.20, 2— Laihorinne (Fin) 11.53, 3—Rega (Fra) 11.55, 4—

Annegret Richter (WG) 11.59; 200, 1-Kathy Smallwood (GB) 22.79, 2-Chantal Rega (Fra) 23.05, 3-Masullo (Ita) 23.57 . . . 8-Lorna Forde (USA) 24.45; 400, 1-Joslyn Hoyte-Smith (GB) 52.68, 2-Tarita (Rum) 53.16, 3-Robin Campbell (USA) 53.33; 800, 1-Madeling Manning (USA) 1:59.9, 2-Gabrielle Dorio (Ita) 2:00.0, 3-Brigette Friedman (WG) 2:01.8; 1500, 1-Gabrielle Dorio (Ita) 4:12.2, 2—Christine Boxer (GB) 4:17.3, 3—Virkberg (Fin) 4:20.2, 4—Cindy Bremser (USA) 4:21.4; 3000, 1-Wendy Smith (GB) 9:17.0, 2-Cindy Bremser (USA) 9:17.2, 3-Virkberg (Fin) 9:18.2; 100H, 1-Shirley Strong (GB) 13.21, 2-Sylvia Kempin (WG) 13.54, 3-Elloy (Fra) 13.67; 400H, 1—Christine Warden (GB) 57.58, 2—Helander (Fin) 58.30, 3—Hu (PRC) 59.33, 4—Brenda Chambers (USA) 59.58; 4x100, 1-Great Britain 43.02, 2-France 43.78, 3-West Germany 44.32; 4x400, 1-Great Britain 3:31.7, 2-USA 3:32.4, 3-Finland 3:41.4; HJ, 1-Sara Simeoni (Ita) 6'41/4, 2-Colleen Reinstra (USA) 6'2½, 3—Zheng Da-zhen (PRC) 6'1½; LJ, 1— Sussiek (WG) 21'5½, 2—Valy (Rum) 21'5½, 3—Susan Hearnshaw (GB) 21'3½...7—Gwen Loud (USA) 19'7; SP, 1—Shen (PRC) 58'2½, 2—Fetrucci (Ita) 56'8, 3—Lu (PRC) 53'334 . . . 6-Lorna Griffin (USA) 50'6'4; DT, 1-Tacu (Rum) 209'11, 2-Li (PRC) 196'6, 3-Meg Ritchie (GB) 192'9 . . . 6—Lorna Griffin (USA) 170'0; **JT**, 1— Quintavalla (Ita) 199'11, 2—Karin Smith (USA) 196'1, 3-Tang (PRC) 191'4.

WTW





Two of America's top Discus throwers: Lisa Vogelsang (left) and record holder Lorna Griffin.

JEFF JOHNSON PHOTOS

Cross Country Results

NM whips Arizona State

Albuquerque, New Mexico, September 6 — The University of New Mexico scored an upset one point win over visiting Arizona State, 27-28, to open the 1980 cross country season. Arizona's threat for national honors, Sabrina Peters, won the race by nearly 1½ minutes as she covered the 5000 meters in 18:18.

RESULTS: 1—Sabrina Peters (ASU) 18:18, 2—Connie Riegelmann (NM) 19:36, 3—Sandy Beach (ASU) 19:43, 4—Loretta Chavez (NM) 20:00, 5—Lisa Phufl (ASU) 20:19, 6—Val Fisher (NM) 20:27, 7—Roberta Touchin (NM) 20:45, 8—Chris Wootten (NM) 21:03.

Bussa leads Purdue

Normal, Illinois, September 30 — Diane Bussa and Purdue University continued their unbeaten seasons as Bussa led the Boilermakers to an easy triumph over 12 other teams at the Illinois Invitational. Bussa won the 5000m race by 25 seconds and the Purdue squad took the team title by 16 points.

RESULTS: 1—Diane Bussa (Purdue) 17:28.8, 2—Doak (Iowa) 17:53, 3—Lindy Nelson (S.III) 17:54, 4—Donna Ganly (Mo) 17:56, 5—Dickerson (III) 18:10, 6—Shannon Cline (Pur) 18:13, 7—Tomlinson (W.Mich) 18:13, 8—Jymette Bonnivier (Pur) 18:15, 9—Collins (Mo) 18:18, 10—Becky Cotta (Pur) 18:22; Scores, 1—Purdue 40, 2—Missouri 56, 3—Iowa 103, 4—Eastern Illinois 135, 5—Indiana State 153, 6—Western Illinois 154, 7—Central Michigan 202, 8—Western Michigan 212, 9—Southern Illinois 217, 10—Illinois 226, 11—Illinois State 271, 12—Northern Illinois 355, 13—Ball State 399.

Virginia Whips Maryland

Richmond, Virginia, September 13 -Two of the nation's "biggies" met headon on opening day of the 1980 cross country season and the University of Virginia, minus its star performer Margaret Groos (the National AAU champion), edged Maryland 28-29 in a hard fought contest. Virginia also downed Richmond 15.49 while Maryland pounced on the Richmond runners for a 16-45 win in this double dual affair. Aileen O'Connor, Virginia, caught Maryland's Mary Walsh over the final 100 to win the close contest by less than two seconds as Walsh missed the course a couple of times while leading. Maryland grabbed 2-3-4 positions, but Virginia came back with 5-6-7 and edged the Tarapins.

RESULTS: 1—Aileen O'Connor (V) 17:34.3, 2—Mary Walsh (M) 17:36, 3—Pat Walker (M) 18:07, 4—Jean Whiston (M) 18:09, 5—Jill Haworth (V) 18:11, 6—Wright (V) 18:19, 7—Val Hardin (V) 18:22, 8—Kim Dunlap (M) 18:30, 9—Kendall Tata (V) 18:31, 10—Martha White (V) 18:50.

Win for Slippery Rock

California, Pennsylvania, September 13 - Slippery Rock with four finishers in the first seven positions, annexed the Ninth running of the California State College Invitational. The Slippery ones tallied 33 points to easily win over eight other institutions. Individual winner over the 5000 meter course was West Virginia University's Kathy Warlow in 19:01. RESULTS: 1-Kathy Warlow (WV) 19:01, 2-Juanita Vetter (SR) 19:15, 3-Sheila Fleming (Ind) 19:21, 4-Vickie Smith (LH) 19:36, 5-Nancy Pokorny (SR) 19:45, 6-Lauri Philo (SR) 19:48, 7-Grace Feasler (SR) 19:50, 8-Susie Comer (WV) 19:55; Scores, 1-Slippery Rock 33, 2-Indiana U. of Pennsylvania 68, 3-West Virginia University 77, 4—Frostburg State 123, 5—Lock Haven 134, 6—Pittsburgh 135, 7—California of Pennsylvania 137, 8-Grove City College 189, 9-Allegany CC 226. Number of finishers - 55.

Garrie Franklin Classic

Eugene, Oregon, September 20 — Lane Community College hosted the non-scoring Garrie Franklin Classic over a course which measured 55 meters beyond the 5000 mark. Individual winner was Cathie Twomey of Athletics West while the best team showing was by the University of Oregon. Twomey ran a speedy 17:09 while Oregon produced six of the first 10 finishers.

RESULTS: 1—Cathie Twomey (AW) 17:09, 2—Eryn Forbes (Ore) 17:41.8, 3—Jennifer White (AW) 17:42.5, 4—Leann Warren (Ore) 17:47.1, 5—Joanne Lahti (OreSt) 17:49.6, 6—Connie Case (OreSt) 18:04.1, 7—Robin Baker (Ore) 18:07.7, 8—Joan Hopfenspirger (Ore) 18:12.2, 9—Tina Francario (Ore) 18:18.5, 10—Caroline Walker (Ore) 18:23.2...13—Irene Griffith (Ore) 18:30.1...15—Molly Morton (Ore) 18:36.5.

Boston Wins

Boston, Massachusetts, September 19 — University of Massachusetts runners picked up 1-2-5 in their match against Boston College, but it wasn't enough as the Boston squad won the team battle 28-31 as they grabbed 3-4 and then added sixth through eleventh to clinch the victory. Massachusetts' Judy McCrone was the individual winner over the 5000 meters in a good 17:38.3. Boston College is now 4-0 for the season.

RESULTS: 1—Judy McCrone (M) 17:38.3, 2—Trish Moores (M) 17:41.8, 3—Cheryl Fanzarella (B) 18:00.7, 4—Cindy Flick (B) 18:14.7, 5—Cathy Petrick (M) 18:24.4.

Tennessee Wins KY Invitational

Richmond, Kentucky, September 20 — The University of Tennessee annexed the first big invitational of the 1980 cross country season as they won over a stubborn Michigan State team 46-53 to take top honors in the Kentucky Invitational. Thirteen teams participated along with several unattached performers as 105 runners completed the 5000 meter course. Kentucky standout Bernadette Madigan scored a 39 second win over internationalist Brenda Webb to take the individual honors in 17:43.

RESULTS: 1—Brenadette Madigan (K) 17:43, 2—Brenda Webb (Un) 18:12, 3—Kim Bird (E.Tn) 18:16, 4—Linda Portasik (Tn) 18:17, 5—Melanie Weaver (Mich) 18:20, 6—Jill Washburn (MichSt) 18:22, 7—Kathy Bryant (Tn) 18:25, 8—Eileen Hornberger (Tn) 18:34, 9—kelley Spatz (MichSt) 18:37, 10—Ann Pewe (MichSt) 18:39; Scores, 1—Tennessee 46, 2—Michigan State 53, 3—Kentucky 62, 4—Michigan 117, 5—Eastern Michigan 141, 6—Bowling Green 158, 7—Indiana 192, 8—East Tennessee 239, 9—Ohio University 270, 10—Eastern Kentucky 278, 11—Western Kentucky 318, 12—Louisville 338, 13—Morehead State 369.



Cathie Twomey

New Mexico over UTEP

Albuquerque, New Mexico, September 20 — Tony Sandoval's New Mexico team edged UTEP's foreign dominated group to win a close cross country contest 28-29. New Mexico's Connie Riegelmann took individual honors by a safe margin.

RESULTS: 1—Connie Riegelmann (NM) 19:14.7, 2— Svea Edstrom (UTEP) 19:20, 3—Tineke Kluft (UTEP) 19:21, 4—Val Fisher (NM) 19:22, 5—Cheryl Matthews (UTEP) 19:38, 6—Loretta Chavez (NM) 19:47, 7—Diann Kruger (UTEP) 20:06, 8—Chris Wooton (NM) 20:08, 9— Roberta Touchin (NM) 20:09, 10—Margaret Metcalf (NM) 20:15.

(continued on page 26)

THE TITIVE COMPETITIVE EDGE

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SPORT 15, based on the Russian "B-15" formula used in the olympics, was first introduced to the U.S. by our laboratories, and many professional athletes are now using SPORT 45 as part of their training program. The activie metabolite behind "B-15" activity is N,N-Dimethylglycine (DMG), a natural, non-toxic food component found in both plant and animal sources. The activie ingredients in our **SPORT 15** formula are based on DMG and calcium gluconate as an equimolar mixture. DMG's value as part of a remedial or

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supplemental dietary program cannot be overestimated. As an intermediary metabolite, DMG can increase the utilization of oxygen in the body, bring about faster recovery rates and aid in detoxification. Athletes taking DMG report greater endurance and stamina; it also increases the body's immune response. Most important for athletes, however, is **SPORT 15's** ability to reduce the amount of lactic acid produced by the muscles during times of heavy exercise or stress, which, in turn, reduces the onset of cramps and fatigue in muscles.

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ENERGY 80 is the most unique produce available to the athlete. This special fast-acting, fatigue fighting formula contains mineral ascorbates, aspartates, vitamins, methyl donors, and fat

metabolizers, all of which contribute to an immediate increase in the athlete's mental alertness and energy output. L-glutamine and aspartates serve as brain fuel and increase mental awareness and concentra-tion. Along with DMG, aspartates also pay an important role in the production of energy in the muscles while under stress. ENERGY 80's fat metabolizers and methyl donors—methionine, betaine, choline, inositol, and lecithin—are effective in mobilizing fats and protecting the liver from fatty infiltration. ENERGY 80 is formulated to up the athlete's energy production, and thereby optimize physical and mental performance.

and one with lunch		Jana
		% U.S.
Contains:		RDA
Vitamin C	250 mg.	417
(as Calcium, Magn		rbate)
Folic Acid	25 mcg.	6
Vítamin Bó	25 mg.	1250
(Pyridoxine HCI)		
Vítamin B12	100 mcg.	1667
(Cyanocobalamir	1)	
Pantothenic Acid	25 mg.	250
Magnesium	50 mg.	13
Lecithin	150 mg.	

150 mg

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Choline (Bitartrate) Inositol 25 mg. 20 mg. N.N-Dimethylalycine Hydrochloride Betaine HCI PABA 20 mg. 20 mg. 25 mg. (Para-Aminobenzoic Acid) Aspartic Acid 200 mg. (as Potassium, Magnesium Aspartate) DL-Methionine 150 mg. L-Blutamine "No U.S. Recom 150 mg. nmended Daily Allowance ('(U.S. R.D.A.) has been estab-lished for this nutrient.



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dasi	1	1	1	_	1	1
breakfast Junch	1	1	1	1	1	1
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exercise. The athlete under greater physical stress may wish to add to these levels as follows: FORMULA 1, add 3-6 tablets; FORMULA 3, add 6-10 tablets; FORMULA 4, add 2-4 tablets.

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Calcium	40 mg.	4
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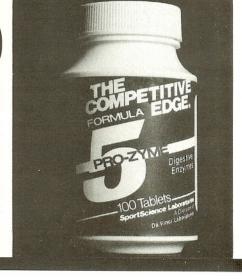
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50 mg.
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100 mg.

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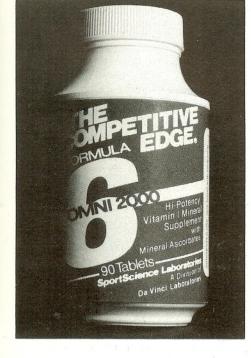
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We have an alert official at the TAC meet

JEFF JOHNSON PHOTO

Drake downs Illinois

Des Moines, Iowa, September 13 — Coach Don DeNoon opened the 1980 Drake University cross country season by downing the University of Illinois 23-33. Weather was wet and humid and the 5000m course was hilly as Liz Hjalmarsson won the opener in 17:53.5.

RESULTS: 1—Liz Hjalmarsson (D) 17:53.5, 2—Lisa Davis (D) 17:56, 3—Marianne Dickerson (I) 18:27, 4—Jana Noel (D) 18:54, 5—Sandy DeNoon (D) 19:14.

Richmond the Best

Richmond, Virginia, September 20 — The University of Richmond scored a twin win over visiting Villanova (22-34) and William & Mary (24-31) while W&M trounced a much weakened Villanova crew (26-30). Pam Malvin and teammate Joanne Sokol trotted across the finish line together, covering the 5000 meters in 19:14.8.

RESULTS: 1—(tie) Pam Malvin (R) and Joanne Sokol (R) 19:14.8, 3—Cathy Sardo (W&M) 19:39, 4—Trish Flaherty (W&M) 20:00, 5—Patti Thomas (R) 20:08.

UCLA Invitational

Westwood, California, September 20 — The UCLA Bruins opened their 1980 cross country season with an easy team victory at their own Invitational as veteran Linda Goen led the Westwooders covering the 5000 meters in 17:44.2s. The Bruins outscored five other teams with their winning talley of 35 points. San Diego State and Cal State Northridge were next in line.

RESULTS: 1—Linda Goen (UCLA) 17:44.2, 2—Terse Kozlowski (Loyola-Marymount) 17:49.0, 3—Sheila Raiton (UCLA) 17:49.0, 4—Beth Milewiski (CSN) 17:55.9, 5—Evelyn Trivole (CSLB) 18:06.0, 6—Liz Baker (SDS) 18:09.0, 7—Sherri Roach (CSLB) 18:20.2, 8—Ann Regan (UCLA) 18:23.3, 9—Heidi Perham (UCLA) 18:25.1, 10—Staci Kneeshaw (SDS) 18:28.8; Scores, 1—UCLA 35, 2—San Diego State 59, 3—CS Northridge 72, 4—CS Long Beach 83, 5—UC Riverside 141, 6—Loyola-Marymount 169.

San Diego wins Riverside Invitational

Riverside, California, September 20 — San Diego State had no trouble winning the Annual Riverside Invitational with 24 points, far ahead of runner-up Cal State Northridge. The Aztecs won it without their two aces, Canadians Lynn Kanuka and Monica Joyce. Sue Kinsey, competing unattached, was the individual winner over the 5000 meter course.

RESULTS: 1—Sue Kinsey (Un) 17:42, 2—Beth Milewski (CSN) 17:43, 3—Yvonne Yanke (Un) 18:05, 4—Liz Baker (SDS) 18:12, 5—Debra Chaddock (SDS) 18:17, 6—Diane Deegan (CSN) 18:28, 7—Stacy Kneeshaw (SDS) 18:33, 8—Lynda Prentice (SDS) 18:35, 9—Doreen Assuma (CSLB) 18:51, 10—Janey Hummell (SDS) 18:54.

Sacramento Strong

Chico, California, September 20 — Cal State Sacramento served notice they will be a team to watch as they downed AIAW Division II champions Cal State Hayward in the season opener. Hayward's Stefani Stoutt was the individual winner over the 5000 meter course in 18:29. Stoutt was followed by Carol Flourney Hannigan of Sacramento, a much travelled runner, and teammate Michele Aubuchon. Six teams took part in the competition which saw 70 runners cross the finish line.

RESULTS: 1—Stefani Stoutt (CSH) 18:29, 2—Carol Hannigan (CSS) 18:37, 3—Michele Aubuchon (CSH) 18:38, 4—Mary Anne Seannell (CSS) 18:41, 5—Krista Roberts (CSS) 18:44, 6—Robin Tracey (CSS) 18:56, 7—Diana Pappas (CSS) 19:01, 8—Terry Schmidt (Nev) 19:05, 9—Karey Robinson (CSH) 19:11, 10—Fran Castro (CSH) 19:30; Scores, 1—Cal State Sacramento 24, 2—Cal State Hayward 34, 3—Cal State Chico 114, 4—Nevada 116, 5—UC Davis 124, 6—Cal State San Francisco 220.

Boston College Whips Three

Boston, Massachusetts, September 13 — Boston College opened its 1980 cross country season with an easy win over Rhode Island, Maine and Boston University in a four team contest at Franklin Park. Rhode Island's Kristen O'Connell scored a four second margin over Maine's Kim McDonald for individual honors.

RESULTS: 1—Kristen O'Connell (RI) 17:58.8, 2—Kim McDonald (M) 18:02.8, 3—Cindy Flick (BC) 18:03.7, 4—Cheryl Panzarella (BC) 18:05.1, 5—Meggy Rinaldi (M) 18:14.2; Scores, 1—Boston College 33, 2—Rhode Island 53, 3—Maine 59, 4—Boston University 78. Number of finishers — 38.

OLYMPIC GAMES SPLITS

"Athletics Weekly" recently listed the splits for the 800 and 1500 for the Olympics in Moscow. We have taken these figures and added a few points of information to them and have come up with some interesting stats.

In the 800, there was only six-tenths of a second separating the leader at the end of one lap (Olizaryenko) from the last place runner (Ullrich). But the second lap saw a difference of 5.6 seconds from the fastest lap (57.3 by Olizaryenko) and the slowest lap (62.9 by Dorio). At the finish, Olizaryenko led Dorio by 5.7 seconds. Unfortunately there were no splits for the 200 and 600 marks with the third 200 of the most interesting stage of any 800.

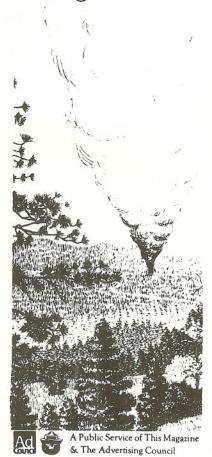
For the 1500, the difference between first and last after one lap was only seven-tenths (65.5 by Olizaryenko to 66.2 by Dorio and Silai). Kazankina had the fastest second lap at a leisurely 67.9 with the slowest by Olizaryenko and Marasescu at 68.2 - just six-tenths separating the leader Kazankina from the trailers Dorio and Silai. The third lap separated the girls from the women with Kazankina zipping a 58.4 and Olizaryenko only 61.9. Now Kazankina was in front by 2.8 seconds over last placer Silai with just 300 meters to go. Kazan-

kina covered the final 300 in 44.3 but that wasn't as fast as Christine Wartenberg who sped 44.2 and 44.0 by Olizaryenko. Marasescu was the slowest over the final 300 at 50.3 and finished last, some 8.2 seconds behind Kazankina.

Here are the charts which show the time for each lap and the place the runner occupied:

1500 Meters	400m	800m	1200m	Last 300m
Kazankina	66.0 (4)	- 67.9/2:13.9 (3) - 58.4/3:12.3	(1) 44.3/3:56.6 (1)
Wartenberg	66.0 (4)	- 67.9/2:13.9 (3) - 59.7/3:13.6	(3) - 44.2/3:57.8 (2)
Olizaryenko	65.5 (1)	- 68.2/2:13.7 (1) - 61.9/3:14.6	(8) - 44.0/3:58.6 (3)
Dorio	66.2 (8)	- 68.1/2:14.3 (8) - 60.5/3:14.8	(7) - 45.5/4:00.3 (4)
Bruns	66.1 (6)	- 68.1/2:14.2 (6) - 60.1/3:14.3	(4) - 46.4/4:00.7 (5)
Smolka	65.7 (2)	- 68.0/2:13.7 (1) - 59.7/3:13.4	(2) - 47.9/4:01.3 (6)
Puica	66.1 (6)	· 68.1/2:14.2 (6) - 60.0/3:15.0	(8) - 46.3/4:01.3 (7)
Silai	66.2 (8)	- 68.1/2.14.3 (8) · 61.8/3:15.1	(9) - 46.9/4:02.0 (8)
Marasescu				(5) - 50.3/4:04.8 (9)
800 Meters				
Olizaryenko	56.2 (1)	- 57.3/1:53.5 (1)	
Mineyeva	56.3 (2)	- 58.6/1:54.9 (2	2)	
Providokhina	56.4 (4)	- 59.1/1:55.5 (3	3)	
Kampfert	56.4 (4)	- 59.9/1:56.3 (4)	
Ullrich	56.8 (8)	- 60.4/1:57.2 (5)	
Januchta	56.6 (6)	- 61.7/1:58.3 (6	5)	
Shtereva	56.6 (6)	- 62.2/1:58.8 (7)	
Dorio	56.3 .(2)	- 62.9/1:59.2 (8	3)	MA.LAM

"I thought it was out."





Tatyana Biryulina (SU) World Record in Javelin 229'11.

The Olympic Games provided the track world with only three new world records — BUT in preparation for the Games and shortly after the Games were finished, 11 more world records were set. Here's the chronological order of the new marks:

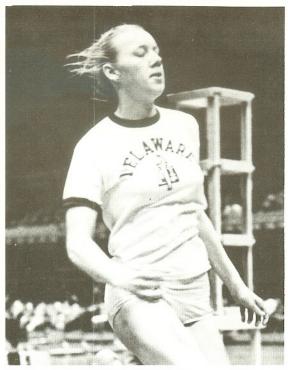
100m	10.87	Ludmilla Kondratyeva (SU)	Leningrad	June 3
800m	1:54.9	Nadyezhda Olizaryenko (SU)	Moscow	June 12
100H	12.36	Grazyna Rabsztyn (Pol)	Warsaw	June 13
Pent.	4856	Olga Kuragina (SU)	Moscow	June 20
1500m	3:55.0	Tatyana Kazankina (SU)	Moscow	July 6
4x100	42.09	DDR (Muller-Wockel-Auerswald-Gohr)	Berlin	July 9
Javelin	229'11	Tatyana Biryulina (SU)	Podolsk	July 12
Discus	235'7	Maria Vergova (Bul)	Sofia	July 13
4x100	41.85	DDR (Muller-Wockel-Auerswald-Gohr)	Potsdam	July 13
Pent.	5083	Nadyezhda Tkatchenko (SU)	Moscow	July 24
800m	1:53.42	Nadyezhda Olizaryenko (SU)	Moscow	July 27
4x100	41.60	DDR (Muller-Wockel-Auerswald-Gohr)	Moscow	August 8
4x200	1:28.15	DDR (Gohr-Muller-Wockel-Koch)	Jena	August 9
1500m	3:52.5	Tatyana Kazankina (SU)	Zurich	August 13

(NOTE: Kondratyeva's mark in the 100 is still under scrutiny. There is some doubt it was fully automatic timing for the race.)

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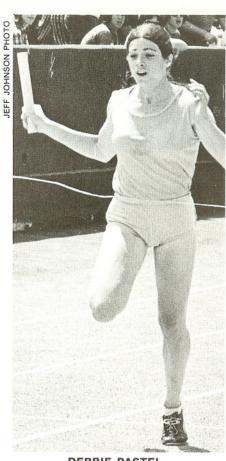


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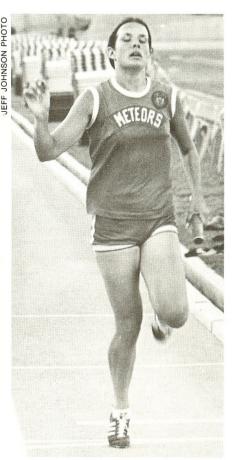




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TEST YOUR

NUTRITION IQ

By Susan Magrann, RD

Susan Magrann is a registered dietician with a masters degree in nutrition. She is in private practice as a consulting nutritionist in La Palma, California.

Now is a good time to test your Nutrition IQ. Take a couple of minutes to see if you know enough about nutrition to keep yourself in top shape.

T F

- □ □ 1. Americans can improve their diet by eating more carbohydrates
- $\hfill \square$ 2. Protein is the nutrient most lacking in the American diet
- \square \square 3. We consume less calories than our grandparents
- □ □ 4. Citrus fruits are the only good source of vitamin C
- $\hfill\Box$ 5. Breads and cereals provide essential vitamins and minerals
- \square \square 6. Potatoes contain dietary fat
- □ □ 7. Beans and rice are a good protein substitute for meat
- 8. Once your bones are formed, you no longer need calcium in your diet
- \square 9. Fruit juices are a good source of fiber
- $\hfill\Box$ 10. Iron is the only nutrient women need more of than men

Now, read on for the right answers . . .

1. TRUE—The United States Senate Select Committee on Nutrition and Human Needs, after hearing the testimony of numerous experts, recommends Americans eat more carbohydrates in the form of complex carbohydrates (cereals, grain, vegetables) and fruits. Along with this, the committee said you need to eat less refined sugars and fats. The following diagram summarizes the committee's suggestions:

THE AVERAGE AMERICAN DIET

THE AVERAGE	AMERICAN DIEI
Current	Recommended
Protein - 12%	Protein - 12%
Fat - 42%	Fat - 30%
Saturated - 16% Unsaturated - 26%	Saturated - 10% Unsaturated - 20%
Carbohydrates - 46%	Carbohydrates - 58%
Complex CHO & Fruits - 28%	Complex CHO & Fruits - 48%
Refined - 18%	Refined - 10%

2. FALSE—The average American eats twice the amount of protein required by his body. Since the body can not store excess protein, it is wasted.

Evaluate if you are a "protein waster". The amount you need each day is .36 gram per pound of body weight. This calculates out to 54 grams of protein for a 150 pound person. The chart will help you evaluate your daily intake.

Food	Protein (grams
Egg	
Milk, 1 cup	
Cheese, 1 ounce	,
Meat, poultry or fish, 1 ounce	5-
Dried beans, 1/2 cup cooked	7-3
Cereals, 1/2 cup or bread, 1 slice	
Pasta, rice, 1/2 cup cooked	
Peanut Butter, 1 tablespoon	
Vegetables, ½ cup	1-3
Fruits, ½ cup	.5-

3. TRUE—Although we consume less calories than our grandparents, obesty is more prevalent today because of inactivity. To give you an idea of how quickly the pounds add up, it has been estimated that a typist who switches from a manual to an electric typewriter, and makes no other change in lifestyle, will gain 6 pounds in one year.

Start to be energy "inefficient" when it comes to physical activity. When you go shopping, don't park in the closest space. Answer the farthest phone in the house. Use the steps instead of an elevator.

Make exercise part of your daily routine. If you start to walk an extra 30 minutes a day (at 3 mph pace), you will lose 1.2 pounds of fat in a month.

4. FALSE—There are many other foods that are rich sources of vitamin C. Compare the following foods with the recommended daily adult intake of 60 milligrams of vitamin C.

Food	Vitamin ((milligrams
Brussels sprouts, 1/2 cup	68
Strawberries, 3/4 cup	66
Orange, 1	66-
Orange juice, ½ cup	60
Broccoli, ½ cup	52
Grapefruit juice, ½ cup	48

Green pepper, ½ medium	47
Papaya, 1/4	42
Lemon, lime or juice, ½ cup	40
Mustard greens, ½ cup	33
Cauliflower, 1/2 cup	33
Cantaloupe, 1/4	32
Baked potato	30
Tangerine	27
Cabbage, ½ cup	24
Tomato juice, $\frac{1}{2}$ cup or tomato, 1 medium	20

5. TRUE—Many people omit breads and cereals from their diet because they are not aware that these foods contribute essential nutrients. Whole grain cereals and breads are a good source of thiamin, riboflavin, niacin, iron, fiber, magnesium, zinc, folate and vitamin B6.

During the refining process of making whole wheat flour into white, these nutrients are lost. Today most products made from white flour (bread, pasta) are enriched with thiamin, riboflavin, niacin and iron

For a healthy diet you should eat four servings of breads and cereals every day.

6. **FALSE**—Potatoes are not a source of fat. All fruits, vegetables, cereals and grains contain little fat, if any.

Since a high fat diet is associated with heart disease you would be healthier if you ate more low fat foods.

7. **TRUE**—In order for a food to satisfy our protein needs, it must contain eight essential amino acids which the body cannot produce. Meat along with poultry, fish, eggs, milk and cheese all contain these amino acids.

Vegetable sources of protein such as cereal grains (rice) and legumes (beans) are low in certain essential amino acids. But if vegetable proteins are consumed in certain favorable combinations (see chart), the quality of protein they provide is equivalent to meat.

Legumes	Grains
(soybeans, pea-	(rice, wheat,
nuts, black-eyed	corn, oats,
peas, kidney	barley, bulgar)
beans, chick peas,	
navy beans, pinto	
beans, lima beans)	

8. FALSE—Your bones are not like an inert rock. The calcium in your bones is in a state of constant flux. Calcium is continually being deposited and dissolved from bone tissue every minute of your life. A deficiency of this mineral can make bones brittle and fracture easily. An adult requires 800 milligrams of calcium each day. The following are foods that are good sources of this nutrient.

	Calcium
Food (m	illigrams)
Sardines with bones (3 ounces)	372
Milk, 1 cup	300
Yogurt, 1 cup	272
Cheese, 1 ounce	160-210
Oysters, ¾ cup	170
Canned salmon with bones, 3 ounces	167
Broccoli, 1 medium stalk	158
Tofu, 1 piece (4 ounces)	154
Collard greens, ½ cup	145
Cottage cheese, ½ cup	100
Mustard greens, ½ cup	97

9. **FALSE**—Fruit juice contains little fiber although fruit is an excellent source of this nutrient.

Recently fiber which is non-digestable

carbohydrates has received much attention as a dietary essential. This is because diets low in fiber are associated with constipation, diverticulosis (small pouches which protrude through the bowel wall), colon cancer and heart disease.

To ensure an adequate intake of fiber it is best to choose fruits and vegetables with edible skins and seeds (cucumbers, apples). Legumes and whole grains, especially bran products, are also high in fiber.

10. TRUE—Except during pregnancy, iron is the only nutrient women require in a greater amount than men. It is recommended that women, during child-bearing years, ingest 18 milligrams of iron while men, only 10 milligrams.

Unfortunately, there are not many excellent food sources of iron. The following table shows why iron deficiency can be a problem for women.

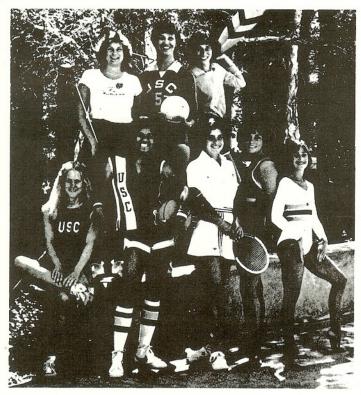
	Iron		
Food	(milligrams)		
Oysters, ¾ cup	10		

Beef liver, 3 ounces	8
Raisins, 2 tablespoons	4
Lean beef or veal, 3 ounces	3
Prune juice, ¼ cup	2.6
Sardines, 3 ounces	2.5
Dried beans, cooked, 1/2 cup	2.5
Spinach, ½ cup	2.4
Lima beans, ½ cup	2.2
Ham, tuna, chicken or lamb,	
3 ounces	1.4 - 2.2
Whole wheat bread, 2 slices	1.6
Enriched white bread, 2 slices	1.4
Mustard Greens, 1/2 cup	1.3
Dried figs, 2	1.2
Egg, 1	1.1
Dried apricots, 4 halves	.8
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Okay — how did you fare? If you got at least 8 answers right, consider yourself well informed. Of course, the information won't do any good unless you put it into practice.

(Reprinted from Vons Nutri-News which is a monthly newsletter.)

WALLAN



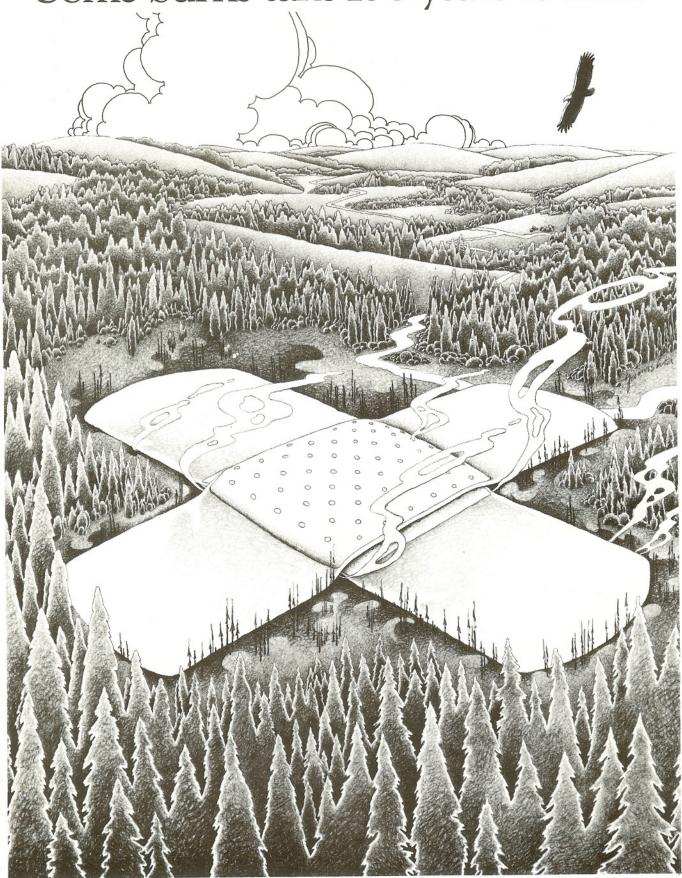
THESE YOUNG WOMEN REPRESENT THEIR TEAMS AT THE UNIVERSITY OF SOUTHERN CALIFORNIA IN INTERCOLLEGIATE COMPETITION

Front row: Sandy Crabtree, track & field, Glendale, AZ; Kathy Haynes, basketball, Madera, CA; Anna Maria Fernandez, tennis, Torrance, CA; Meredith Williams, swimming, San Jose, CA; Jill Ornstein, gymnastics, Huntington Beach, CA.

Back row: Denise Strebig, golf, San Bernardino, CA; Cathy Stukel, volleyball, Champaign, IL; Elizabeth Palmer, crew, San Marino, CA.

For more information please contact: USC Women's Athletic Dept., Heritage Hall, University Park, Los Angeles, CA 90007, (213) 741-7693 or 7770

Some burns take 100 years to heal.





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Bill Toomey is, in the opinion of many, one of the finest all-round athletes in the world. The winner of the 1968 Decathlon in all-round athletes in the world in the Olympic Decathlon in Bill also set a new World Record in the Olympic Athlete," and 1969 is a former "World's Greatest Athlete," and 1969 is a former "World's Greatest Athlete," and 1969 is a former "World's Greatest Ohis many sports of the "Sullivan Award." In addition to the Board of the "Sullivan Award." In addition to the Board of the Board of the "Sullivan Award." In addition to the Board of the Board of the "Sullivan Award." In addition to the Board of the Board of the "Sullivan Award." In addition to the Board of t recipient of the "Sullivan Award." In addition to his many sports awards and honors. Toomey also was a member of the Board of Directors of the U.S. Olympic Committee. Currently, he is on the President's Council on Physical Fitness and Sports, and the President's Council on Physical Fitness and Sports. Commission on Olympic Sports.



Mary Rand Toomey set a World and Olympic record for the first woman every set a World and Olympic record for the long jump in Tokyo in 1964 (22, 2½) and was the first woman every long jump for Great Britain. Mary completed with the long jump for Great Britain. Mary completed with the long jump for Great Britain. Mary completed with the long jump for an Achilles tendon to win a gold medal in the long jump. In the long jump in the long jump for medals include a gold for the long jump. Olympics in Mexico. Her set of Olympic medals include a gold for the long jump. Olympics in Mexico. Her set of Olympic for the 4 × 100 meter complication, a bronze for the 4 × 100 meter a silver in the pentathion, a bronze for the development of the long jump. Olympics in the pentathion, a bronze for the development of the long jump for medals in the long jump for great for the l During the course of our athletic careers we have used a number of vitamin supplements. We feel the SportScience Competitive Edge line is the most

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