Clausen Adds Two Titles To Resume

Curt Clausen, having established himself at the top of the U.S. racewalking elite, solidified that spot with two more titles in the past month. On August 24 in Wilkes-Barre, Pa., he easily won the 5 Km title in 20:22. Two weeks later, walking virtually unopposed, the 29-year-old Shore AC athlete, picked up the 40 Km title with an impressive 3:16:42 solo effort. In both races, he was followed home by 41-year-old walkers with international credentials--Jonathan Matthews in Wilkes-Barre and Ohio's own Chris Knotts at Ft. Monmouth. Women's winners were Debbi Lawrence at Wilkes-Barre and Doris Attias at Ft. Monmouth.

Clausen, now living in Chula Vista, Cal., won the 5 Km in 20:33, 21 seconds ahead of Matthews. Dave McGovern was an isolated third in 21:27. Lawrence won the women's race in 22:39, leaving Joanne Dow 15 seconds back at the finish. Victoria Herazo was a surprisingly long distance back in third. Master's titles were reportedly given to Dave Lawrence and Gloria Rawls, though they were well behind Matthews (41), and Lyn Brubaker (40) respectively. Don't know what the story is there. Impressive performances were turned in by Jim Carmines with his 23:36 at age 54 (also well ahead of Lawrence), Olympian Dave Romansky with his 24:45 at age 59, and 71-year-old Bill Flick, of Corry, Pa., with 29:01. Unfortunately, at this time, we have results only through 10th place in the two races. Youth was not on display here, particularly among the women, where Dow, at 33, was the youngest among the first four.


With no one else present who could give him any real competition, Clausen was on his own all the way in the 40 Km at Ft. Monmouth on September 7. After covering the first 2 Km lap in 9:49, Curt was 51 seconds ahead of second-place Steve Pecenovsky. Stepping up the pace to 9:30 on the second lap, Clausen established a pace which he held at around 9:40 per lap all the way through 32 Km. He had 47:59 at 10, 1:36:00 at 20, and 2:24 at 30. After one more lap in 9:42, he appeared to be well on his way to obliterating Carl Schueler's meet record of 3:13:57, but he slowed a little more than a minute per lap over the final 8 Km to finish in 3:16:42. Chris Knotts, still in seventh place at 16 km, moved up to fourth by the half-way mark and was into second by 28 km. He was unchallenged from there and finished in 3:46:17, after hitting 20 Km in 1:51:59.
The Ohio Racewalker is published monthly in Columbus, Ohio. Subscription rate is $10.00 per year ($12.00 outside the U.S.). Editor and Publisher: John E. (Jack) Mortland. Address all correspondence regarding both editorial and subscription matters to: Ohio Racewalker, 3184 Summit St., Columbus, Ohio 43202. No FAX number or E mail address at this time.

The 25th of the month, but it is usually

Approximate deadline for submission of material is the 20th of the month, but it is usually

25th or later before we go to the printer, so later material will probably get in.

Pecinovsky, who was second most of the way until Knotts caught him (he trailed Rifkhat Sultanov at 10 and 12 Km), slowed way down after 30 Km and faded to fifth at the finish. The 52-year-old Sultanov faded even more to finish fifth at 32 Km, but quickly caught the struggling Pecinovsky and Josh Ginsburg (who dropped out), to take fourth.

Clausen, a 29-year-old Trenton, N.J. born, Wisconsin-reared, North Carolina-trained, Shore AC athlete was repeating a 40 Km victory of 9 years earlier. He had taken the title in 1988 at Kean College while a Duke University student. Commenting about today's race, he said: "It was good to win the 40 again and for most of the race I thought I had a pretty good shot at Carl's record."

Shore AC athlete was repeating a 40 Km victory of 9 years earlier. He had taken the title in 1988 at Kean College while a Duke University student. Commenting about today's race, he said: "It was good to win the 40 again and for most of the race I thought I had a pretty good shot at Carl's record."

Just a few months into her training, she finished fifth in a big race. "I was hooked right then and there," added Herazo. "But I never could have imagined that I would have had such a successful career. It's been a lot of fun."

Matthews, 41, hoped to go faster himself, but a change in his training regimen held him back in the 5 Km, which is essentially a sprint. "My focus has now changed to the 50 Km," said Matthews. "It was necessary for me to get away from speed work and begin to pile on the miles in order to prepare myself for the big races after the first of the year. In the past couple of years, I had gone 20.54 and 20.57 in the 5 and I knew my times would not get much faster. It was time to make the training change, and I felt it wouldn't jeopardize my chances of coming in here and winning this event again.

Curt Clausen, 29, from Chula Vista, Cal., one of the nation's top racewalkers finished first overall with a splendid time of 20.26. He has won six National championships, is an eight-time member of the U.S. National Team and a 1996 Olympian. "Curt was really cooking out there," added Matthews. "I tried to go with him in the early part of the race, but he was just too fast for me today."

Results

The following is a list of results from the September 1997 race, including the age groups and finishers:


Other Results

Looking to test your racing skills? Try some of these

Sat. Oct. 4  8 Km, Kalamazoo, Mich. (Z)  5 Km, Bowling Green, Kentucky, 10 am (X)  5 Km, Indianapolis, Indiana (T)  3 Mile, Miami, 7:30 am (Q)  East Regional 30 Km, New York City, 8 am (P)

Sat. Oct. 5  8 Km, Alexandria, Va. (Z)  5 Km, Alexandria, 10 am (Z)  4 Mile, Miami, 7:30 am (Q)  East Regional 30 Km, New York City, 8 am (P)

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H--Bob Carlson, 2261 Glennco St., Denver, CO 80207
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M--Frank Sobey, 3907 Bishop, Detroit, MI 48224
P--Jack Bray, Marin Race Walkers, P.O. Box 21, Kentfield, CA 94901
Q--Florida Athletic Club, 3250 Lakeview Blvd., Delray Beach, FL 33445

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Our son Derek continues to make progress in his rehabilitation from his spinal injury suffered in a motorcycle racing accident (see June ORW). He is getting plugged into many recreational opportunities (including skiing and waterjet skiing), is considering vocational avenues, and is experimenting with special braces that enable him to "walk" using a walker. While his paralysis is permanent (baring future miraculous breakthroughs in spinal cord research) he is determined to lead a full life, as do many other paraplegics. Again, all your prayers and messages are most appreciated. There is a fund established for Derek through the Wegman Benefit Fund for injured road racers. They have already purchased his new wheelchair through their established fund and are accepting contributions for a special fund for Derek. Anyone wishing to contribute can contact Gordon Lunde Sr. at 414-871-5682, FAX 414-871-5690 or Eric Nacke 615-458-5740. John Gray comments on the issue of the new racewalking rule and the aging walker: "At 73, I certainly qualify as old, and I have some advice for aging walkers who are having trouble complying with the new walking rule. Instead of complaining about it and dreaming of the good old days, get going and do something about your own style. As you noted, Jack, if you can't straighten the leg at any point, you'll still be disqualified under the old rules. But if you still can straighten out, here's what I'm doing, and it works: Get good advice on how to start walking, and take it slowly step by step until you are racing once again with legal form. My own solution has been to buy a copy of Ron Laird's fine book (for a $21.95 check to him at 4706 Diane Drive, Ashland, OH 44804, 216-998-1371) and pretend that I am a neophyte. I'm trying to do just what he suggests, and it's working. After all, even the elderly complainers admit that younger walkers are doing it correctly so it's really just a matter of starting anew and using normal intelligence. I know that ORW has boosted Laird's book before, but it is so helpful that it needs to be said again. For one thing, it's a way to get anyone who's considering taking up our sport to actually do it, making it a great book to lend out or to give as a present." Note that John authored his own book, Racewalking For Fun and Fitness, published by Prentice-Hall in 1985. A long-time competitive runner and walker, he is a strong advocate of racewalking as the superior exercise. I'm not sure if his book is still available in bookstores, but you might find it in a library. You can write John at 193 Vernon Street, Wakefield, MA 01880. And, yes, Ron Laird's book is a good buy... IAAF Racewalk Chairman and T&F News racewalking correspondent Bob Bowman comments on the World Championship racewalks (see results in the August ORW): Men's 20 Km—Daniel Garcia, after being disqualified in '93 and '95, finally got it right with his 1:21:43 victory. The 25-year-old Mexican was content to racewalks (see results in the August ORW): Men's 20 Km -- Daniel Garcia, after being disqualified in the 1995 World Championships. When a string of 24 walkers passed the 5 Km mark at times from 20:11 to 20:26, Garcia was not among them. Leading was Ilya Markov, Russia's 96 Olympic silver medalist, who eventually built a 19 second lead over his teammate, the ever-dangerous Mikhail Sennikov. When Markov hit 10 Km in 40:05, the next group of challengers, including Garcia and 96 Olympic winner Jefferson Perez, was 40 seconds back. It looked as if Markov would steal this one as he continued to open up distance on the others. However, just before the 15 Km mark, he was shown the red DQ paddle. This left Sennikov, Garcia, and Khmehlitsky in the lead, with the others fading badly over the remaining 5 Km. It was not an easy task to hold off perhaps the greatest sprint walker of all time, the 29-year-old Sennikov. However, Garcia did just that over a tough course in hot, humid conditions. The defending champion Didoni, finished seventh and Perez, who hadn't lost in over a year, was a disappointing 14th. Sennikov commented: "To attain the prize of this silver medal, I had to walk monthly on average 600 Km. Frankly, I don't understand why I had two warnings against me. The most critical moment came when I heard the steps of Garcia behind me." Women's 10 Km: Anna Rita Sidoti, whose best previous result was ninth in both '91 and '93, lead almost from wire to wire in recording a 42:55.49 victory. "During the last 3 Km, my legs were terribly aching," said Sidoti, who had passed 5 Km in 21:24 with Stankina of Russia on her heels. Stankina, who had been the youngest ever world champion in '95, continued to dog the diminutive Italian until she received her third red card with 5 1/2 laps remaining in the track race. This left Sidoti with a comfortable margin over Olimpia Ivanova and Stankina collapsed by the side of the track, holding her head in her hands. Over the last 3 years in six major championship races, Stankina had won three and been DQ'd in the other three! Ivanova finished a distant second with the veteran Kardopoltseva of Belarus third. The 96 Olympic champion, Nikolayeva, recovering from an early season injury, was never a factor. Later in the week, in a rare occurrence for walkers, Ivanova was stripped of her medal when she tested positive for the steroid stanozolol. Men's 50 Km: Poland's Robert Korseniovski added the world gold to his 96 Olympic title in a superb time of 3:44:46 considering the humid conditions. The cautious start by the 42 competitors resulted in a large number still being grouped together at 25 Km in 1:55:02. However, at 35 Km only Korseniovski, 97 World Cup champion, Jesus Garcia, and 97 World Cup silver medalist, Oleg Ishutkin, remained in the lead group. Ishutkin soon dropped off the pace and it was a two-man duel from there. Korzeniowski managed to match the Spaniard's repeated attempts to pull away. Finally, with just over 4 Km to go, Korzeniowski sensing Garcia was laboring, pushed the pace and Garcia couldn't respond. "My abductor muscle started to hurt and I couldn't saty with Korzeniowski anymore," said the '93 champion... We reported last month on efforts to raise money in order to retain Bohdan Bulakowski as resident coach at the ARCO Olympic Training Center. To date, $3,976.10 has been collected and the effort continues. Elaine Ward of the North American Racewalking Institute (NARI) reports: "Last month, when I wrote of the emergency at the ARCO Center and the need to raise funds to keep Bohdan Bulakowski there for our athletes, I didn't admit all the facts. I want to share them as they broaden the horizon of our opportunity and challenge. I have the marvelous experience of visiting the Center and watching our young athletes training. The Center offers them exactly what is needed: a permanent place to live and train with the right kind of food provided. The Center also offers a magnificent track, weight room, sports science support—and a disciplined environment. It's facilities will soon match the worldwide, state-subsidized training centers. With Bohdan in residence, our athletes have a permanent status allowing them free room and board. Without a coach in residence, they go on temporary status and can only stay 6 months without incurring significant expense. Unfortunately, USATF has a policy of not providing coaching salaries and does not allow any diversion of development funds to salaries. So what do we do with USATF in financial straits and unable to help? Thanks to those who have so generously responded to this emergency, the coach at the Center will not be without a salary in the short term. But we need to buy more time for those on the National Committee to approach potential sponsors and pursue options for grants for a permanent coach. Not being willing to admit the impossible, it seems to me that we have already proved as individuals and clubs that we can find a way to make the ARCO Center dream a continuing reality.
Towards this end, the NARI has set a goal of raising $20,000—a year's salary for Bohdan. If each of us donates what he or she can individually, dollars multiply. If more clubs accept the $100 challenge (or can donate more), dollars multiply. For those seeking tax deductions, contributions to NARI are tax deductible and a receipt for this purpose will be mailed promptly. We have set a deadline of December 15 for this drive. Let's join together and carry the baton in this long-term quest for an Olympic gold. Please make contributions payable to N.A.R.I. and mail to P.O. Box 50312, Pasadena CA 91115-0313. Credit donations: 800-898-5117...

Dave recommends and avoid the problems altogether—and improve the strength and speed of your walking.

The importance of shin and ankle strength for racewalkers

by Dave McGovern—Dave's World Class

Nearly every beginning racewalker has experienced the intense burning in the shins that signals the awakening of long-dormant, even vestigial, anterior tibialis muscles. These muscles are rarely, if ever, activated in any other sport but racewalking, so such pain, although often quite severe, is not surprising. Novice racewalkers are also frequently frustrated by an inefficient, "stumpy" style that prevents them from competing with comparably fit, but more economical athletes. (Ed: We should note here, that at least in my experience, this pain, though severe, is not residual—you won't feel it again until you have racewalked for a half-mile or so again the next day, or whenever. And, if you can endure the pain, you can usually walk through it within a workout, though it may take awhile—a mile or two. Furthermore, after days, weeks, or months, depending on the individual, it will be gone altogether. None of which means you shouldn't take heed to what Dave recommends and avoid the problems altogether—and improve the strength and speed of your walking.)

Despite the emphasis many walking coaches and athletes put on hands, arms, elbows, and even noses(!), the feet are the only parts of the body that are in contact with the ground during the walking gait—they play a vital role in both providing propulsive force, and in allowing this force to be transferred into forward momentum. This article will describe how strengthening the muscles of the foot and lower leg can help to eliminate shin pain, and improve walking efficiency, legality, and speed.

The swing vs. propulsive phases of the walking gait

The stride of a racewalker in motion can be logically broken down into two distinct—yet intimately connected—phases. These are the so-called "swing" and "propulsive" phases. The swing phase begins as soon as the rear foot loses contact with the ground. The knee of the rear leg bends to allow the advancing foot to clear the ground and the leg swings forward. The momentum of the leg's mass swinging forward causes the walker's body to fall forward, pivoting about the stationary foot of the other leg.

The propulsive phase, which occurs concurrently with the swing phase, begins as soon as the advancing foot contacts the ground in front of the body to pivot over the leg. After the body's center of gravity passes over the "planted" foot, the calf muscles contract, flexing the ankle. The rearward drive of the leg, coupled with this explosive ankle plantarflexion provides a strong propulsive force that helps to move the body forward. Pushing off strongly from the rear in this manner allows for a momentary lag in the stride cycle that causes the opposite side of the hip to swing forward, thus extending the walker's effective stride length, and helping to align the feet on a line, one in front of the other. The explosive push-off also helps to initiate a strong swing phase of the next stride.

Removing barriers to fast racewalking

In addition to necessitating the generation of a great deal of explosive power, high-speed racewalking requires that the athlete remove any barriers that may prevent this power from being translated into forward motion. There is no single optimum racewalking style—each walker does the best he or she can given the constraints of conditioning level, body type, and degree of muscular flexibility. Consequently, video analysis shows that different racewalkers can utilize a variety of different swing-to-propulsive phase ratios in their stride cycles. That is, some walkers tend to generate more power via a strong swing phase, while others benefit from a very strong ankle plantarflexion. Although different coaches may favor one approach over another, all walkers can benefit from improving ankle strength and flexibility because strong foot action is required during all phases of the walking gait:

• Heel plant. Racewalkers must possess sufficient shin strength to hold the toes up during heel plant, otherwise the foot will flatten out due to strong levering forces acting on the heel. If the shins are too weak to hold the toes up, the flattened foot acts a lot like the broad base of a floor lamp. The base imparts stability to the lamp, preventing it from toppling over, but stability is the last thing a walker needs. The walker actually wants to fall forward, pivoting around the small contact point that the outside edge of the heel provides. A flattened foot will create friction with the ground and a resulting braking effect that causes a momentary interruption in forward momentum. This braking effect tends to cause a very percussive stride—the foot hits the ground with excessive downward force, causing a noticeable jolt. A great deal of this force is transferred directly to the knee, which often causes a less than solidly locked knee to collapse. Many older walkers have been able to cure this kind of creeping problem by simply strengthening the shin muscles.

• Single support phase. After heel contact, the walker should roll smoothly on the outside edge of the shoe until the body passes directly over the foot. The foot should not flop down before this point. If the foot does flatten out prematurely, braking forces will again interrupt forward momentum. Strong ankle and peroneal muscles will prevent the foot from collapsing at this point of the stride, allowing a fluid, efficient rolling motion.

• Toe-off. Once the road blocks have been removed, racewalkers can utilize their foot, ankle, and lower calf muscles to generate forward momentum. The walker should begin flexing the calf muscles as soon as the body passes directly over the foot, and continue until the toes push off the ground far behind the body. To maximize propulsive power, the foot should roll completely up to the toes, but many walkers begin the swing phase too early, punching the knee forward while the ball of the foot is still on the ground. Doing so is counterproductive, because power is dissipated as soon as the knee begins to collapse. Always strive to fully flex the ankle behind the body while the rear leg is still straight to maximize the effect of the propulsive phase.
Pump up those tires

Strong shins and ankles throughout the foot's entire range of motion allow the body to pivot very smoothly over the ankle joint—much like a bicycle tire rolling about the axis of its hub. Racewalking without sufficient shin and ankle strength is like trying to ride a bicycle with two very flat tires—it still works, but you can't "roll" forward very smoothly.

To effectively maintain proper foot placement throughout the stride cycle, shin and ankle strength is imperative. But how can a walker strengthen these muscles? There are a number of drills, resistance training exercises, and other techniques that can be used to build up lower leg and foot strength. Try the following:

- Walk on your heels with straight knees to strengthen the shin muscles; on the outsides of the feet to work the peroneal muscles on the outside of the lower leg. Continue for about 30 seconds, then stretch and repeat.

- Perform toe raises for shin strength; calf raises for calf/ankle: Stand on the edge of a step with the front 3/4 of the foot hanging over the edge. Slowly dip the feet down, then all the way up. Repeat until fatigue is felt in the shin, then stretch the shins and repeat several times. For calves/ankles repeat with the back 3/4 of the foot hanging off the step.

- To strengthen the bottoms of the feet, use toe grip exercises. Repeatedly pick up a towel or other soft object with your foot by curling your toes.

- Racewalk slowly up a gradual incline to strengthen the ankles and calves. Hill work will also help to ingrain proper heel placement. Somewhat faster hill repeats may be used to develop an explosive toe-off.

- Special range of motion exercises with some form of elastic band or tubing are excellent for isolating weak areas of the shins and ankles. Simply loop a heavy elastic band (theraband, surgical tubing, bungee cord, etc.) around your foot and work the muscles against the resistance provided by the elastic.

- Finally, avoid wearing "fat" shoes: The thicker the midsole, the greater the levering force imparted to the heel. "Real" racewalking shoes or running flats with a low heel will help to keep the foot from flattening prematurely.

To reduce "stumpiness," your feet must be strong, and an active part of the walking motion. Racewalking will eventually strengthen the feet and lower leg muscles, but by adding some of these extra exercises to your daily routine, you will be able to drastically reduce the time required to build up these muscles. Reduced shin pain, and more efficient, legal walking technique may be just a couple of feet away!

(Dave McGovern is a current and long-time member of the U.S. National Racewalking Team. His 1:24:29 for 20 Km last year placed him fourth on the all-time U.S. list for the distance. To support his racewalking habit, Dave leads week-long training camps and weekend clinics in various cities across the U.S.)

About the Flight Phase In Race Walking

by G. Korolyov, Soviet Union

The breaking of contact with the ground is an often discussed subject in racewalking. The following article is a condensed translation from Legkay Atletika, USSR, No. 6, June 1989. The author sums up the results of several studies showing that virtually all leading walkers lose contact with the ground at some stages of a race and recommends changes to the international rules. Of course, changes have been made since the article was published, but the debate continues as to their effectiveness.

As far back as 1836, the Weber brothers published a book on the mechanics of racewalking in which they used simple methods to define basically the various phases of racewalking, including the vertical movement of the body's center of gravity, the correlation between walking speed and stride length and stride frequency, the reduction of the double support phase when walking speed is increased, and the critical tempo in walking.

A noteworthy contribution to race walking studies came many years later from Soviet scientist Bernstein, who used cinematography to divide the walking stride into different phases according to the dynamic characteristic. He determined the speed and acceleration of the prime mover joints and measured the velocities of vertical and horizontal components in the different phases of the walking stride.

Critical speeds

Further progress in the studies of racewalking came mainly from the improved methods to establish the critical limits of racewalking speed. It is interesting to note the work of Zorkin, who attempted to discover the reasons that lead to a flight phase in racewalking and how it can be avoided. He claimed that a transfer of running is almost unnoticeable to walkers as well as judges and coaches. This observation was based on film studies of highly qualified racewalkers and allowed Zorkin to come to the following conclusions:

- The transfer from walking to running with a flight phase of 0.093 seconds is virtually impossible for observers to detect.

- Racewalkers themselves fail to notice the change to running even in situations where flight phases have increased the stride length by up to 36 cm.

Zorkin's film studies of 42 walkers in a 10 Km event showed that all the competitors changed at some time to running. The judges not only failed to disqualify any of the walkers, they didn't even make a single warning. The results confirmed the difficulty of noticing infringements of racewalking rules and indicated the need for devices that are capable of detecting objectively faults that occur in the walking locomotion.

The following article provided by Bob Carlson, Front Range Walkers.
Sakharov's studies

In 1972, Sakharov, together with Frukov, discussed the kinetic characteristics of racewalking and analyzed the duration of the double support phase at various speeds. They noticed that flight phases occurred already at a walking speed of 4.112 ± 17.5 seconds per kilometer with a stride length of 121 ± 7 cm and came to the conclusion that there must be a critical moment when the double support phase reaches zero and a transfer to running occurs. They fixed the critical speed for highly qualified walkers as 4.45 ± 0.31 m/sec (stride length 125 ± 7 cm, stride frequency 3.57 ± 0.22), but agreed that constant double support phases can be maintained over short distances at faster speeds.

While the above mentioned results made a contribution to the studies of racewalking technique, there were certain shortcomings in the analysis:

- The analysis of the space and time characteristics from film segments overlooked the dynamic factors (strength and power) and was therefore presented in somewhat subjective format.
- The 64 and 100 frames a second film speed was not sufficiently fast to avoid mistakes. At a walking speed of 4.55 meters/second, it is possible to miss in between the frames 4.6 cm of a single stride.

It should be noted here that most racewalking studies have limited practical value. The majority are purely based on biomechanics and fail to take into consideration differences in training and competitive walking or the influence of fatigue at the various stages of the distance.

Micro flight phases

The IAAF World Championships analysis revealed that all competitors without exception had at some stage of the race flight phases. According to Sushansky et al., even the leading racewalkers recorded the following flight phases:

- In the 20 Km distance, 20 to 60 milliseconds at speed variations between 3.8 to 4.3 meters/sec.
- In the 50 Km distance, 10 to 40 milliseconds at speed variations between 3.5 to 3.8 meters/sec.

Contemporary authors have presented speed limits that allow, according to biomechanical principles, definition of correct racewalking. Some claim that speeds exceeding 2.0 meters/sec. can lead to an action where walking resembles running even if the difference is revealed in microscopic flight phases. In other words, it can be said that racewalking is walking with a flight phase.

There have been treadmill tests of a highly qualified racewalker including his actual and hypothetically calculated stride length and frequencies. The hypothetical stride lengths at different speeds are based on walking without flight phases. Walking at competitive speeds without flight phases would, however, lead to a stride frequency that corresponds to top-class sprinters. For example, if a racewalker would attempt to cut out flight phases at a speed of 4.5 meters/sec (1 km in 3.42 min.), his stride length would be reduced from the actual 124 cm to a hypothetical 103 cm. At this speed, it would mean stride frequency of 4.37 strides a second, a frequency achieved by Carl Lewis and Ben Johnson in the 10.0 second range in the 100 meters.

Structural differences

Available information indicates that the average stride length of a racewalker varies between 1.00 and 1.30 meters. Any attempt to lengthen the stride can only be achieved with a flight phase— a bounce on straight legs. It must be stressed that a micro flight phase common to all leading racewalkers does not mean a deliberate breaking of the rules. On the contrary, the presence of a flight phase has been discovered only with the help of modern high speed films and the analysis of video tapes.

This brings up the question whether continuous contact with the ground really represents a basic criterion to separate walking from running. This question has been answered by Czechoslovakian expert Sushansky after a series of experiments at various speeds and stride frequencies with a group of racewalkers. According to Sushansky, cinematographic and dynamic analysis of walking and running have shown that the main structural difference is in the movement of the body's center of gravity. In walking, the center of gravity moves upwards from the moment the foot is planted until it reaches the vertical. The opposite can be observed in running.

Further studies conducted between 1978 and 1986 have left no doubt that the development of racewalking depends on finding ways and means to change the present competition rules. It is clear that humans are not capable of judging the duration of a few milliseconds long flight phases of one or another racewalker.

In addition, from the physical viewpoint, the main difference between walking and running is not in permanent contact with the ground, nor is in the presence of a short flight phase. Decisive is the maintenance of the extended position of the support leg. These facts should be a sufficient stimulus for the International Amateur Athletic Federation to seriously consider making changes to the present competition rules.

Ed. It seems I published this or part of it sometime before, but looking back, I couldn't find it. Anyway, it supports what one camp has been saying for a long time. But, of course, the sport is still thriving at its own level and in its own way despite predictions of its collapse for the last 100 years. On another point, when I spelled out IAAF above, which I don't usually do, I paused to ponder how much longer this organization will retain the world "amateur" in its title. It's been untrue for as long as I have known anything about the sport, but there used to be a pretense with payments under the table. Now, with prize money awarded at World Championships, even to racewalkers, prize money at the Grand Prix events constantly escalating, golden events, and endorsements carrying a select few maybe into 7 digit contracts, how can they retain the word amateur and keep a straight face? I'm not begrudging anyone their money, just asking a simple question.)

LOOKING BACK

35 Years Ago (From the September 1962 Race Walker, published by Chris McCarthy)—On a course on Detroit's fabulous Belle Isle, later measured to be at least 600 yards long, John Allen won the National 15 Km in 1:16:07, beating Ron Laird by 16 seconds. Canada's Alex Oakely was third, and young Ron Daniel of the New York AC upset the Ohio Track Club's dynamic duo of
Jack Mortland and Jack Blackburn for fourth. Laird and Daniel led the NYAC to the team title over the Ohio TC. Future star, Goetz Klopfer was 11th. Current IAAF Racewalk Chairman Bob Bowman won a 2 miler in Venice, Ca. in 16:19. Laird won a national postal 10 Km, held on Aug. 18 and 19, walking a 48:31.4 on the new Stagg Field track in Chicago. Allen was second with 48:52 in Amherst, N.Y. Race sponsor Chris McCarthy captured third, ahead of Daniel and Blackburn. The Ohio TC was an easy winner of the team title, despite the absence of Mortland.

The annual 4.5 mile walk across the Mackinac Bridge separating Michigan's Upper and Lower Peninsulas also went to Laird as he broke his own course record with a 34:08 effort. Klopfer was second in 36:44. The day also featured the general pedestrian walk across the bridge with about 4,000 people strolling across. Daniel was the Pedestrian of the Month. The NYAC athlete was born in Miami, but was then living in Port Washington, N.Y. At that point in his career, he had best times of 6:59.9 for a mile, 51:00 for 10 Km, 1:14:57 for 15 Km, and 3:44:55 for 40 Km. He went on to international status a few years down the line.

30 Years Ago (From the September 1967 ORW) – Ron Laird won the National 15 Km in Berwick, Pa. with a time of 1:08:13, leaving Steve Hayden 3 1/2 minutes in arrears. Jack Blackburn was a strong third. The first U.S. 100 miler of this century was held on the track in Columbia, Missouri and Montana's 60-year-old Larry O'Neil broke the long-standing record with a 19:24:52, walking an amazingly even pace all the way.

25 Years Ago (From the Sept. 1972 ORW) – At the Munich Olympics, East Germany's Peter Frenkel won at 20 Km in 1:26:42 and West Germany's Bernd Kuenenberg at 50 Km in 3:56:12. Vladimir Golubnichiy, USSR, took the silver at 20, his fourth Olympic medal at the distance – golds in 1960 and 1968, bronze in 1964. Hans-Georg Reimann and Gerhard Sperling completed a near sweep for East Germany in the 20 with their third and fourth place finishes, and the USSR's Veniamin Soldatenko took the silver at 50. For the U.S., Larry Young was brilliant with a 10th place finish at 20 preceding his second bronze medal performance at 50. He missed the 4 hour mark by just 46 seconds. In the 20, Tom Dooley was 15th and Goetz Klopfer 19th. At 50, Bill Weigel took 17th and Steve Hayden 27th.


10 Years Ago (From the Sept. 1987 ORW) – Italy's Maurizio Damiano won at 20 Km in the World Championship T &F Meet in Rome, defying high heat and humidity to record 1:20:45. He controlled the pace throughout to beat Josef Pribilinec by 22 seconds with Spain's Jose Marin third. Tim Lewis was the first U.S. finisher with a 1:26:00 in 19th. The Women's 10 Km went to Irina Strakhova, USSR, in 44:12, 11 seconds ahead of Australia's Kerry Saxby. Hong Yan of China was third. Lynn Weik led the U.S. with 46:51 in 15th. Debbi Lawrence was 40 seconds behind Weik. Just as they had earlier in the year at the World Cup in New York, the GDR's Hartwig Gauder and Ronald Weigle finished one-two at 50, but switched positions as Gauder took gold in 3:40:53. Weigle had 3:41:30 and Vyacheslav Ivanenko, USSR, 3:44:02 in third. Carl

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