# YOU DON'T HAVE TO BE A ROCKET SCIENTIST TO BE A SUCCESSFUL RACE WALKER BUT IT SURE HELPS 

By Paul F. DeMeester

I wanted to call this article, Validation of Overflow for Computing Plume Effects during the Ares I Stage Separation Process, but that title had already been taken by some NASA aerospace engineers who authored a conference paper in 2011 to describe issues that arise when launching an Ares rocket into space (Validation of Overflow for Computing Plume Effects during the Ares I Stage Separation Process.pdf). The lead author of the paper was Goetz Klopfer, a first rate rocket scientist whose resume is outright impressive: a bachelor's of science degree in mechanical engineering from Wayne State University (Michigan), a master's and graduate degree in engineering from Stanford University and a Ph.D. in engineering from the University of California, Berkeley.


Straight Knee But Loss of Contact - NASA's Ares Rocket
Now, what is all this rocketry talk doing in a race walk magazine? The explanation for that is a lot simpler than the content of that conference paper. Rocket man Goetz Klopfer is the same guy who rocketed past his competitors in the last 20K of the 1968 Olympic Games 50K Race Walk in Mexico City. Goetz had a habit of having a strong second half in his 50 K races. Mexico City was no exception. At the 30 K mark, Klopfer was in $17^{\text {th }}$ among the 28 finishers at this tough race conducted in the heat at high altitude (another eight walkers did not finish, including 1964 Olympic Champion Abdon Pamich (Italy) and Tokyo silver medalist Paul Nihill (Britain)). But in the last 20K, Goetz managed to overtake seven competitors, including Australia's own Frank Clark, West Germany's Gerard Weidner, Shaun Lightman (Britain) and Henri Delerue (France). Of the top ten finishers, Goetz was the second fastest in the last 5 K , faster even than winner Christoph Höhne, who had a phenomenal race:

Last 5K of top ten finishers at 1968 Olympic 50K (finishing position in brackets):

| 1. | Jose Pedraza (Mexico) | $27: 10.4$ (8) |
| :--- | :--- | :--- |
| 2. | Goetz Klopfer (USA) | $27: 10.8(10)$ |
| 3. | Christoph Höhne (East Germany) | $27: 15.6(1)$ |
| 4. | Peter Selzer (East Germany) | $28: 37.8(4)$ |
| 5. | Bryan Eley (Britain) | $28: 39.2(7)$ |
| 6. | Stig Lindberg (Sweden) | $28: 45.0(5)$ |
| 7. | Antal Kiss (Hungary) | $28: 47.0(2)$ |
| 8. | Larry Young (USA) | $29: 09.4(3)$ |
| 9. | Vittorio Visini (Italy) | $29: 54.2(6)$ |
| 10. | Karl-Heinz Merschenz (Canada) | $30: 37.4(9)$ |

Only Pedraza, who had won silver in the 20 K in spectacular style the week before, bested Goetz in the last part of the race, before the Mexican's home crowd. Looking back on his career, Klopfer calls that his best race. He exceeded expectations at top level and beat guys who usually beat him. Goetz attributes part of his great Mexico form to the sixweek preparatory training camp conducted for U.S. walkers and distance runners at Alamosa, Colorado, where the finals of the U.S. Olympic Trials were held.


A light-hearted Goetz at altitude in Lake Tahoe in 1968
Goetz did not start out a walker. He ran the 120 yards hurdles at Bloomfield Hills High School near Detroit. Soon, he discovered that longer distances suited him better. This self-discovery process kept going until he reached the 50K. But let's not jump that far ahead, yet. While still in high school, Goetz loved cross-country and switched from the hurdles to the 880 yards on the track. By the time he was in college, the mile and cross-country beckoned. Collegiate athletics is a big deal in the United States. Goetz was proud of being made the captain of his cross-country team during his junior year.

A group of runners, Goetz among them, would meet periodically at Belle Isle, located in the middle of the Detroit River. One day in 1963, just for the heck of it, the group decided to stage an informal race walk meet on the island instead of doing their usual long distance run. It was the first time Klopfer ever race walked. His two brothers beat him. Goetz stuck with the race walking; his brothers did not. Later that same year, Goetz entered official race walk competitions.

His break-out at top national level came in the 1966 35K National Championship held in Pomona, California. Goetz finished second to Ron Laird, the 1960 and 1964 U.S. Olympian (at that time; Ron added two more Olympics to his career highs later). A new U.S. distance star was born. Goetz earned his first U.S. national team berth for the Pan American Games by finishing second to Larry Young at the 1967 qualifier 50K in 4:44:03.6. Young would go on to win the Pan Am 50K title in Winnipeg in the summer of ' 67 . Goetz joined him on the podium for bronze, having set the third best U.S. time of all-time in 4:37:59.2, behind only Young and Chris McCarthy ( $21^{\text {st }}$ at 1964 Tokyo Olympics). In the fall, Klopfer bested Young at the fourth edition of the Lugano Cup as the top American in $17^{\text {th }}$ with a time of 4:46:41.6.

The next year, Goetz set off for some races in Europe, in the company of his dear friend and fellow 1968 Olympian Tom Dooley. They had some great races in Europe. Goetz posted a 1:33:16 while placing second behind Laird in the 20K at the U.S.-Britain track meet in London, even though Klopfer was entered as a guest only as the U.S. team consisted of Laird and Dooley. The British and U.S. walkers bonded well. British 50K 1968 Olympian Shaun Lightman had arranged for Goetz and Tom to stay in some empty rooms at a boarding school where Lightman worked. Their free quarters came to an abrupt end when the head master found out. After finding new quarters with a British distance runner, Goetz finished third behind British 50K Olympians Brian Eley and Lightman in 4:25:04. Just like at the previous year's Olympics, Goetz had a flying finish, moving up from $7^{\text {th }}$ to $3^{\text {rd }}$ in the final 10 K , crossing the line only six seconds shy of Lightman. Klopfer capped off his fabulous British summer with a third place finish in the ultra-long London-to-Brighton classic ( 52 miles and 1055 yards or 84.651 K ) in $8: 19: 22$. Once back stateside, 1969 continued to be good to Goetz, as he walked a 1:32:24 track 20K three days before the end of the decade ( $45: 14$ after 10K).

After his return from England, Klopfer left California and moved north to Seattle, Washington, where he was hired by Boeing to work on the U.S. competitor to the British-French Concorde project, the Boeing 2707 Supersonic Transport (SST). Without training partner Tom Dooley, Goetz was on his own, completing his long distance work-outs in the cold
and rainy climate of the Northwest, and his speed work on a 220 -yard track. Goetz perused the world record books and concluded that the most achievable world record for him to break was the 20-mile track record, then held by Anatoly Vedyakov (Soviet Union) in 2:31:33 twelve years earlier. In November of 1970, Goetz came close, when he posted 2:33:59.8, while breaking three U.S. records in the process ( $25 \mathrm{~K}, 30 \mathrm{~K}$ and 20 Miles). Early the next year, Goetz tried again, and was well on pace with a 1:14:35 half-way but dropped out at the 16.5 mile mark. Had he just finished even without the world mark, he would have netted three new national records. Tom Dooley was supposed to have traveled up from the San Francisco area to help Goetz along but cancelled three days before the attempt when Tom injured himself while demonstrating the shot put to his high school gym students. It was the end of Goetz's 20 miler record attempts. It was not the only end. Soon after, the U.S. government cancelled the SST project and Goetz, along with 7,000 others, was out of a job.

Jack Mortland ( $17^{\text {th }}$ at the 1964 Tokyo Olympic 20K for the U.S.) commented in his monthly race walk publication, the Ohio Race Walker (Vol. VI, no. 6, 1970), that "Goetz, for some reason, has been better over the shorter distances this year." But starting in 1971, Goetz decided to drop down to the 20 K , despite setting a 4:23:01 track time in the 50K in April of that year. Angry at his good mate Dooley for having stood him up in his world record attempt, Goetz decided to try to keep Tom off the U.S. 20K Olympic team for 1972. Having lost his Boeing job, Klopfer had time again to train seriously for an Olympic team spot. He moved back to Northern California to team up again with Tom, who arranged a teaching assistant post for Goetz at the high school where Tom taught. The effort to get back at Tom for the latter's 20mile default almost worked, if it had not been for Rudy Haluza's disqualification at the 1972 Olympic Trials. Haluza, who had been fourth at the Mexico Olympics, made the mistake of hurrying and passing Goetz for second at the very end of the race. Haluza beat Klopfer by three seconds but was red carded after the race ended. Fourth place Tom Dooley was now third and grabbed the last Olympic team spot. Had Haluza stayed put in third, it was unlikely he would have earned a DQ. Goetz's ploy to deny Tom almost worked.

Truth be told, Goetz's return to Tom's home area and their renewed training partnership, this time with both focusing on the same distance, is what earned both a second Olympic selection. Had the SST project not been cancelled, the U.S. Munich Olympic 20K team may well have consisted of Larry Young, Rudy Haluza and newcomer Todd Scully (who made the team in 1976). As soon as they started training together again in 1971, both Goetz and Tom benefited. Later that year, Goetz won gold at the Pan American Games in the 20K. Silver went to Tom. A year later, at the ' 72 Munich Olympics, Tom was $15^{\text {th }}$ and Goetz $19^{\text {th }}$.

After Munich, Goetz went back to academia and completed his doctorate at Berkeley in 1975, followed by two years post-doctoral work at NASA in Mountain View, not very far from where Tom lived. Once more, this dynamic duo aimed for the Olympics. Their valiant effort fell short, Goetz ending up $6^{\text {th }}$ and Tom $8^{\text {th }}$ at the Olympic Trials. Goetz had started his Olympic comeback in the fall of 1975, probably too late to have a realistic shot at selection.

Their respective competition retirements soon followed. But never say never. In 2015 Tom Dooley encouraged Goetz to join him in Lyon, France, for the World Masters Athletics Championships. The two fast friends competed in the 20K. They have been to every World Masters since, including Perth (2016) and Malaga (2018), even though Goetz ended up with the flu while in Spain and did not start there.


Goetz and Tom hard at work in Perth 2016

Perth was a true Olympic '68 reunion, with Goetz having time to speak his native German with Christoph Höhne. Turns out both were born just miles apart in the former East Germany. Goetz's parents moved the family, first to West Germany, then to the United States, in the early 50s. East Germany's loss was the U.S.'s gain.

I have been privileged to have spent many hours in the company of these two race walking greats. Best of friends since the 60s, their friendship endures. Starting in 1966, they have trained together, Goetz race walking the 40 miles roundtrip on public streets between their respective schools on weekends. Goetz calls it the "over distance." Their joint efforts produced two Olympics for each. Well done. Looking back, Goetz disagrees with the 1990s rule change in race walking. He refers to the current top level 20K races as "stiff legged running." Indeed, today's top walkers seem to be "floating." Unlike Goetz's professional career, it has nothing to do with space.

Paul F. DeMeester
10 November 2020

