Peaks And Valleys: The History Of Competitive Distance Running In The U.S. Since 1954

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Introduction

I began to run seriously in the summer of 2000 before I entered high school. At the time, I had very little knowledge of the sport beyond my team and the teams we competed against in our conference and state. That fall, attending my first cross-country state meet, I watched Dathan Ritzenhein, a senior and defending high school national champion obliterate the field and win the 5-kilometer race by nearly a minute.[1] The summer of 2001 was my first track season and happened to coincide with Alan Webb breaking Jim Ryun's high school mile record. These performances came early in my involvement with the sport, and perhaps as a result, I did not truly appreciate their significance. I may have been dimly aware of a disconnect between these stunning high school performances and the woeful state of professional distance running in the United States, but took little notice. As my interest in the sport grew with my involvement in it, I heard romanticized stories about amazing U.S. runners from the past, giants like Jim Ryun and Frank Shorter. Growing up, I was without any such role model on the world-stage. As my academic interests turned towards history at Grinnell College, and my running career continued, I inevitably sought to combine the two.

In the fall of 2006, I began discussions of a summer project with my research and academic advisors at Grinnell. My goal, put simply, was to figure out what happened to elite distance running in the United States. I began working on the project at what is proving to be a pivotal moment in the sport. Ryan Hall shattered the American half-marathon record and later the American marathon-debut record. This summer, Alan Webb broke the long-standing American record in the mile. Several other records have

[1] RunMichigan.com, "2001 Cross Country State Meet Results" http://www.runmichigan.com/results/00/statefinals/lpxc/d1resboys.shtml

been threatened, coupled with a surprising depth in the distance events that was lacking just a few years ago. Beginning shortly after the scope of this project ends is the 2007 World Track and Field Championships in Osaka, Japan. Next summer, Beijing will hold the 2008 Summer Olympics. My theory became that distance running in the U.S., after a long drought, was beginning to turn-around. The goal of the project became explaining the peaks and valleys that litter U.S. performances on the world stage.

I began my examination in 1954, the same year that Roger Bannister became the first man to break four minutes for the mile. That came at a time when American distance runners as a whole were struggling. Beginning approximately 10 years later was an American dominance in distance running that showed up in the record books and at the Olympics. By the mid eighties however, American runners were beginning to disappear once again. Today we need to account for the recent performances and times that seem to suggest a turn-around?

Over the course of the summer, I spoke with several people who had been involved in the sport in various capacities at different periods over the past fifty years. I began with the help of my project advisors, Professors George Drake and Will Freeman. In addition to being a member of the history department at Grinnell, Professor Drake was an elite collegiate runner at Grinnell in the early fifties. Professor Freeman serves as a professor of physical education as well as coach of the cross country and track teams at Grinnell. In the seventies, he was a national-caliber pole vaulter who went on to hold various positions with U.S.A. Track and Field (USATF). After them, I spoke with Coach Joe Vigil. Vigil is entering his 51st year of coaching and has been a central figure in the sport, coaching countless all-americans, national champions and Olympic medalists.

Next I exchanged emails with Chris Solinsky, a former Wisconsin all-american who had just undergone the shift from college to professional athletics and was competing in Europe for the summer. I was also able to speak at length on the phone with Bob Schul and Steve Scott. Schul is the 1964 5,000m Olympic gold medalist. Scott held the American record in the mile for over twenty years until it was broken by Webb this summer. He competed at a high level for over a decade which spanned the seventies and eighties. Supplemented by available biographical, academic and statistical material, I began to see patterns emerge.

There were very few opportunities available to runners who sought to continue training and competing after college in the first half of the 20th century. Modern training theory for distance runners and endurance athletes was also just beginning to emerge when Bannister broke the four-minute barrier. When opportunity and training theory came together for athletes in the early sixties, success followed. It became apparent that distance runners had not reached their peak when they graduated from in college, but were in fact just beginning to reach it. Runners improved after stringing together several years of consistent training. The boom period lasted from the early sixties well into the seventies. We had Olympic champions in the 800m, 5,000m, 10,000m, and marathon. We had medalists in the 1,500 and steeplechase.

That world of elite distance running would be unrecognizable by the late 1980s. Political and financial developments had stunted the continued growth of the sport. The U.S. seemed poised to do well at the 1980 Olympics in Moscow, but an entire generation was deprived of Olympic heroes with the U.S.-led boycott that year. Elite distance running hit an all-time low by 2000. The sport had moved away from what had made it

so successful in the sixties and seventies. In this void, several key components began coming together. A recently-implemented coaching certification program began to provide consistent training principles at all levels of the sport (high school and up). Training groups began to pop up all over the country again, bringing together top athletes to train together after college. A promising young generation of athletes graduated from high school. All these developments have left the U.S. distance runners on the verge of a return to prominence on the international stage.

The omission of women in this study was not an oversight, but intentional. The stories of male and female distance running in the U.S. over the past 50 years are completely different. Prior to 1928, women were not allowed to race further than 200m in the Olympics. In the1928 Olympics, however, women were allowed to race 800m. Several competitors collapsed at the finish, and despite the same thing happening in the men's race that year, the outcry from the public said that this proved women not capable of competing in the longer distances. The Olympics would not include a race that long for women until 1960.[2] Title IX was passed in 1972, but until that time, and indeed for several years after, track and field for women at the collegiate level was terribly under-developed. In the years that followed, the women's side of the sport did not experience the same void that the men's did. Women such as Mary Decker, Joan Benoit-Samuelson, Suzy Favor-Hamilton, Regina Jacobs and Deena Kastor have consistently kept female distance runners from the U.S. in the lime-light. The story of female distance running in the U.S. is not one of peaks and valleys, but of developing opportunity and this calls for a separate study.

[2] Rick Beyer. *The Greatest Stories Never Told: 100 Tales from History to Astonish, Bewilder, and Stupefy.* (New York: Collins, 2003), 160-1

Lastly, this study does rely heavily on Olympic performances, but not at the expense of the non-Olympic seasons or a fuller picture of the sport. For much of the history of track and field, the Olympics was the only competition that brought together all the best athletes in the world. The World Championships were not introduced until 1983 and gradually came to take place every 2 years, but even these competitions do not have the same effect of the Olympics. The Olympics serve as the true proving ground for the sport's top athletes and takes place under the public's rapt attention, insuring lasting legacies for athletes who perform well.

Main Section

Competitive distance running in the United States struggled for much of the fifties and early sixties. In an era when runners were breaking the four-minute mile barrier as, quite literally, never before, and revolutionary new training theories were being developed all over the world, American distance runners were a non-factor on the international scene. The most prominent athlete in track and field, or any sport for that matter, was a British medical student named Roger Bannister. When he broke the world record for the mile with his 3:59.4 in 1954, he broke a barrier that was as much mental as it was physical. In the ensuing years, runners flew under the once-impossible barrier. Americans barely factored into this mass-movement in distance running, as the country's lack of finalists in the 1956 Summer Olympics demonstrated. Despite the country's wealth and athletic success in other sports, development of U.S. distance runners had not kept pace with the rest of the world. In the 1950s, runners in the U.S. suffered from a lack of opportunity and a lack of sound training theory.

Roger Bannister's life-style and accomplishments are well-documented. The most famous runner of his era achieved all his success while a medical student. Neal Bascomb described Bannister's day-to-day life in his book, *The Perfect Mile*:

> "Bannister finished his typical day by falling into bed…having crowded into a single day caring for his ward, puzzling over patient histories, taking notes during lectures, fitting two hours' worth of effort into a thirty-five minute workout, boiling down two years of lab research into cogent results, serving as secretary to the Medical Society, and trying to sustain a social life that included inviting dates to dances like the Achilles Club Ball, acting as Lord Darlington in Oscar Wilde's *Lady Windermere's Fan*, and enjoying drinks out with friends to discuss politics and art."[3]

Running, it was clear, was just one aspect of Bannister's busy life, as was expected of an amateur athlete at the time. Running was not to be an occupation. Bannister did increase his training as he approached the 1954 season, but that certainly did not indicate a change in profession. Bannister retired from running the same year he broke four minutes.[4]

After his record run, Bannister said "Après moi, le deluge," a quote attributed to Louis XV meaning"after me, the flood".[5] Bannister's choice of words proved significant. The four-minute mile had stood for so long as an impregnable barrier. On paper, Bannister had really only lowered the world record for the mile by 1.9 seconds. He was not the first or last to do so by that amount. Yet once he had demolished that mental barrier, the flood did come. In 1954, Bannister and his Australian rival John Landy were the first two people to run under four minutes. In 1955, six new athletes broke the barrier or ran the metric equivalent (3:42.2 for the 1500).[6] In 1956, eight new athletes broke the mile and/or metric equivalent. The next year 11 new names broke through and by 1958 it would take the equivalent of a 3:59.1 mile to get on to a list of the top-12 1500m times in the world, which featured five new athletes. Three other new athletes broke four minutes

[3] Neal Bascomb*,The Perfect Mile: Three Athletes, One Goal, and less than Four Minutes to Achieve it* (Boston: Houghton Mifflin, 2004), 95
[4] Bascomb, 259
[5] Bascomb 265
[6] Cordner Nelson and Robert Quercetani, *The Milers*, (Los Altos, Calif. : Tafnews Press, 1985) 223-4

for the mile that same year.[7] This adds up to 34 athletes who broke the four-minute barrier in the just over four years following Bannister's accomplishment. Despite the flood, only two- Don Bowden and Bill Dellinger, were from the United States.

Distance runners in the U.S. as a whole shared many similarities with Bannister. They were amateurs. Runners prior to the sixties often retired by the age of 24.[8] In the first half of the twentieth century, one notable exception to this practice of early retirement was another miler, Glenn Cunningham. Cunningham found time to compete at a high level for nearly a decade and remains one of the best distance runners in U.S. history. He was just coming into his best years as he graduated from college in 1934 when he set a world record for the mile. Despite critics saying he appeared past his prime leading up to the 1936 Olympics, at the ripe old age of 26, Cunningham took the silver in the 1500. Cunningham found time to train until 1940 as he pursued masters and doctorate degrees. His fastest times came towards the end of his career.[9] Cunningham was able to continue competing at a high level because his career as a student allowed him enough time to train, but it is especially revealing that his best times came well after college. As a whole, runners in the U.S. did not, or were not able to follow his example.

At the 1956 Olympics, the first in the Sub-four minute mile era, the U.S. was a non-factor in the distance events. No U.S. runners advanced out of the preliminary heats of the 1500. One runner made it to the final in the 5000m, but did not finish the race. Americans took 18th and 21st in the 10000m final (run without heats) with a third runner not finishing the race. Two Americans competed in the marathon and only one finished,

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[7] Nelson, *The Milers* 234, 242, 252
[8] Peter Gambaccini, "A Brief Chat with Jim Beatty", Runnersworld.com http://dailynews.runnersworld.com/2007/06/a_brief_chat_wi_8.html
[9] Mark D. Hersey, "Cunningham Calls it a Career," KU Connection, http://www.kuconnection.org/april2002/people_Glenn.asp

taking 21st. One American advanced to the final in the steeplechase, managing 9th. In the 800m, the U.S. did surprisingly well, taking 1st, 4th and 6th, but the 800 is the only one of these races where the distance is more demanding on an athletes' speed (anaerobic capacity) than endurance (aerobic capacity).[10]

It was clear that distance runners from the United States were not developing at the same rates as their European and Australian counterparts who comprised the top distance runners internationally. The period during which these athletes competed was one of fairly radical development in the training of distance runners. It is difficult now to relate to an athlete who thinks it best to take five days off from running before a race, but that's exactly what Bannister did before his 3:59.4.[11] His well-documented training sessions that took place during his lunch break could not possibly allow an athlete to succeed in the sport today or most other eras. That Bannister was so successful speaks more to his talent and determination to continue training after college than to his training model. The fifties and sixties were a time when today's widely-accepted training principles were just beginning to develop.

Training staples such as intervals or a long run are common vernacular in running circles today. It's hard to imagine running successfully on a collegiate level, much less internationally, without any of those components. During Bannister's career, these ideas were just developing. Emil Zatopek introduced the world to hard, long interval training at the 1956 Olympics, where he credited his three gold medals to his routine of large numbers of high-stress intervals with gradually diminishing recovery between each interval.[12] In the sixties, Arthur Lydiard's New Zealand distance runners took the world

[10] "USA Track and Field Coaching Education: Level 1 Curriculum" 2005, 113
[11] Bascomb, 178
[12] Bascomb, 72

by storm, having trained upwards of 100 miles per week in the off-season- an unheard of distance for 800m runners and milers. Lydiard introduced the world to the benefits of high-mileage work that allowed the body to adapt to higher training loads.[13]

These advances in training theory typically played out on a regional basis. When Zatopek was at his best, runners from all around Eastern Europe had been doing the same high-interval training, many under the coaching of Mihaly Igloi, whose training had led several runners to world records.[14] With Lydiard came a flood of runners from New Zealand. Peter Snell was foremost among them, winning gold in the 800m in 1960, but in that same Olympics, Lydiard's New Zealand athletes, won the 5000m and took bronze in the marathon.[15] This was proof that Lydiard had not made a name on the exceptional talents of Snell alone, who would take two more gold medals in the 1964 Olympics. At the same time, the University of Oregon was producing international-caliber athletes at an exceptional rate. Credit goes to the track coach Bill Bowerman for implementing forced recovery days into his runners' training where their workload was a fraction of what they might do on a hard day, allowing their bodies to fully recover and improve over time.[16] Later, in much greater numbers, came East Africans from Kenya, Ethiopia and other countries who demonstrated the benefit of living and training at altitude, now standard practice for most elite distance runners.

While modern distance training owes a lot to this mid-20th century era, not all training systems have stood the test of time. In the 50s and 60s, Australian runners were competing very well under the coaching of Percy Cerutty. Cerutty took a radical

[13] Kenny Moore, "Bowerman and the Men of Oregon: The Story of Oregon's Legendary Coach and Nike's Co-founder" (Emmamus, PA: Rodale Books, 2006), 120
[14] Moore, 89
[15] Moore, 119
[16] Moore, 91

approach to training his runners. His advice to them included to "run like primitive man", "run like a rooster, clawing at the air", and banning warm-ups and stretching, after demonstrating how a frightened cat didn't need them.[17] His runners were subjected to extremely intense training, running through knee-deep water and up sand dunes. His most successful athlete was Herb Elliot. Elliot would lower the mile world record by 2.7 seconds, the largest margin in the sub-four era, from 3:57.2 to 3:54.5.[18] Perhaps more impressive was his 1500m world record in the 1960 Olympics, when, after running through the qualifying rounds, Elliot ran a 3:35.6, equal, by some accounts, to a 3:52 mile.[19] Elliot would retire undefeated, but left the sport in 1961, as "a meteor, it was said, who had burned himself out with his intensity"[20]

Distance running was going through a trial and error process in the mid-20th century, and although American runners were not able to quickly benefit from these radical new ideas, there were signs of improvement by the 1960 Olympics in Rome. U.S. athletes did not come home with any medals in the distance events, even in the 800m, where runners had to advance through a seemingly excessive four heats including finals. Five athletes who competed in the '56 games found arrangements that allowed them to train and compete again in the Rome Olympics. Four of them competed in the same event and three of them improved on their previous finish. Max Truex improved to 6th in the 10,000m, which tied him for the best finish by an American in a distance event that year.[21] The outlier was Bill Dellinger, competing in the 5k for the second time. He came down with the flu before his preliminary heat and was unable to advance to the final, but

[17] Bascomb, 39-40
[18] Appendix C
[19] Moore, 118
[20] Moore, 118-9
[21] Appendix A

he was not done with the Olympics.[22] These athletes all defied convention by extending their careers to span two Olympiads and improved as a result.

American runners competing in the fifties and early sixties did not achieve much, but several factors crucial for success began to emerge. It became clear that experience and consistent training were necessary ingredients for success for American runners. Just as Cunningham years before them, runners were extending their careers, competing in multiple Olympiads, and doing better as a result. Heading into the sixties, American athletes were now competing in a time when revolutionary training concepts were available to the general public, thanks to the success of athletes like Peter Snell and Emil Zatopek among others in the preceding years. Leading into the 1964 games, several of these factors began to come together for American distance-runners and they created a period of incredible success on the world stage.

In the early sixties, a number of things started to come together for runners in the U.S. The famous coach Mihaly Igloi came to the U.S. in 1956 after the Hungarian revolution.[23] Igloi settled in California and formed the Los Angeles Track Club (LATC) which soon started producing the best distance runners in the U.S. and the world. The Armed Forces track teams served as an opportunity for runners to continue training after college as well, with little or no military work to do after basic training. These groups along with others served to lengthen the careers of several post-collegiate athletes that, when coupled with consistent work under the best training principles available, produced an unparalleled period of success in U.S. distance running.

[22] Moore, 119
[23] Moore, 90

Bob Schul was one of many runners who found himself in the L.A. area when Igloi was beginning the LATC. Schul was based in southern California while serving in the armed forces. He was not accepted onto the Air Force track team, but was able to train while he was stationed there. He joined the club with the likes of Jim Beatty and Jim Grelle, two of the best runners in the U.S. at the time. Beatty was just coming off the first-ever sub-four minute mile on an indoor track. He found the LATC to be a group of athletes who had made the choices to work hard, day-in and day-out, and to be great. Igloi held them to it. Schul worked out at 5:30 a.m. and 5:30 p.m. every day, and worked 8 hours in between. Igloi broke all his athletes' runs into interval work.[24]

Despite the perception that they were going hard twice a day, according to Schul, there was a fair amount of variation in pace day-to-day. Often a workout might consist of several quarters with as little as a 10-20m walk in between, amounting to almost continuous running. Igloi had even reserved Wednesday as an easy jog day for his athletes. They had time to recover, but spent a fair amount of time pounding out intervals with a training group that consisted of several American record holders. Schul trained with Igloi's group from 1961 to 1963 and spent another year following Igloi's training on his own in the build-up to the 1964 Olympics. By the summer of 1964, Schul had improved from being a very good college runner to the American record-holder in the 5k (missing the world record by 3 seconds) and the world record-holder in the 2-mile.

Also continuing with his training was Bill Dellinger. Dellinger was already a rarity when he chose to continue training after graduation from Oregon in 1956. He had found time to train while stationed with the Air Force in the years leading up to the 1960

[24] Bob Schul. Interview by author. Phone. Grinnell, IA., 3 August 2007

Rome Olympics and was in the shape of his life.[25] Illness derailed his hopes on improving from his finish at the previous Olympics but he was still not prepared to retire. He took a teaching job at an Oregon high school and also coached the track team- an arrangement that allowed him time to compete in the summers and plenty of training partners. By 1964, Dellinger was nearing 30, but still showing plenty of promise.

The 1964 Olympic team was probably the most promising distance team the United States had ever fielded. Bob Schul, who was 26 and training as never before, entered the games as the favorite in the 5000m. Joining him was Bill Dellinger, entering his third Olympiad, and bringing with him a wealth of experience in championship settings. George Young qualified for his second Olympic team in the steeplechase. Young served in the Army and then as a high school principal. Both arrangements allowed him plenty of time to train.[26] Dyrol Burleson had taken 6th in the 1500m in Rome and after graduating in 1962 had stayed in Oregon and continued training under Bowerman.[27] Competing in the 10,000m would be a young phenom named Gerry Lindgren who was among the favorites to win a medal. Joining him was a man named Billy Mills, who had been allowed time to train while serving in the Armed Forces and had finished 2nd to Lindgren at the Olympic trials.

After two straight Olympiads with little impact, the American distance contingent dominated at the Tokyo Olympics in 1964. Bob Schul and Bill Dellinger took 1st and 3rd in the 5000m. Dellinger would later refer to a picture of the three medalists on the podium as "the three smartest guys in the race".[28] All three, Schul and Dellinger

[25] Moore, 112
[26] Schul, Bob. Interview by author.
[27] Moore 166
[28] Moore, 238

especially, had stayed off the early leader's erratic pace in the slow conditions and bad weather they found in Tokyo. Schul and Dellinger both came dramatically from behind in the latter stages of the race to overtake the early leaders. Also kicking from behind to win the 10,000m and surprising everyone in the process was Billy Mills, the man who had not even won the Olympic trials. While to most this was a huge shock, some of his Olympic teammates expected a great race from Mills. After making the Olympic team, Mills began to train with Schul and other team members. He quickly rounded into the best shape of his life under their interval system. Young and Burleson also ran well. Each improved from the previous Olympiad to take 5th in their respective event. Lindgren finished 9th in the 10,000m, suffering from an ankle injury.

Now there were several Olympic distance medalists competing in the United States, something U.S. track athletes had completely lacked in previous years. It no doubt put the Olympics into focus for many young athletes competing in meets like the Compton Invitational and the Amateur Athletic Union (AAU) national championships. Now the Olympic champion wasn't some far-away New Zealander or Czechoslovakian. He was on the starting line of the U.S. championships. Competition took off in the U.S. The very next year, Mills and Lindgren battled to a tie in the six-mile race, setting a new world record in the process, at the AAU championships in San Diego.[29] Dellinger had not finished the 5000m final at the 1956 Olympics and had not advanced to the final in 1960, but then in his third trip to the games, he had won the bronze medal. Dellinger, like all the team's medalists that year, was well over 24 and had continued training despite what 1950s wisdom said.

[29] Moore, 192-3

A high-school senior-to-be named Jim Ryun had also competed on the 1964 Olympic team, but failed to advance to the final in the 1500m after getting sick in Tokyo. In the company of a group of roommates that included Dellinger and Burleson, Ryun was awed, saying he "never dreamed" he'd be on the Olympic team.[30] He came home from the trip a changed man. His coach noticed an impressive growth in Ryun's maturity. It was that senior season in which he began to take the track world by storm. At the AAU meet in 1965, Ryun beat the defending Olympic champion, Peter Snell, in a new American record of 3:55.3.[31] In 1966, Ryun lowered the world record in the mile by over 2 seconds (3:51.3) and would set the world record for 880 yards. The next year he lowered his mile record again and broke the 1500m world record by 2.5 seconds.[32]

With his amazing performances in the world's most popular track event (the mile), Ryun brought an exclamation point to an incredible era of American running. In 1967, the United States had the 1st, 3rd, 4th, 5th and 6th fastest milers in the world. One of them was Marty Liquori who explained how Ryun "kicked off a generation of great American running. We were back on top again, and Ryun showed that was possible".[33] American distance runners were poised to carry their success from 1964 into the 1968 Olympics, that is, until the International Olympic Committee (I.O.C.) made the fateful decision to hold the games in Mexico City, at an altitude of 7,400 feet.

The IOC's decision to hold the games at such an extreme altitude was made without an understanding of the effect the altitude would have on endurance events. The United States Olympic Committee (U.S.O.C.) put Bill Bowerman in charge of preparing

[30] Cordner Nelson, "The Jim Ryun Story" (Los Altos, Calif.: Tafnews Press 1967), 96
[31] Nelson, "The Jim Ryun Story", 137
[32] Appendix B, C
[33] "Unforgettable: The 40 Most Influential People and Momens of the Past Four Decades" *RunnersWorld*, November, 2006: 88

endurance athletes for the altitude.[34] Bowerman set up altitude training sites for Olympic hopefuls in Los Alamos, New Mexico; Flagstaff, Arizona; Alamosa, Colorado; and South Lake Tahoe, California. Research teams at these sites included young experts such as Jack Daniels and Joe Vigil- two men who would prove to be two of the country's greatest distance running coaches over the ensuing decades. The experts set about preparing athletes as best they could in the time allotted, but as Dr. Roger Bannister pointed out, "to produce the same times with less oxygen at altitude, athletes had to either be born in such extremes or train there for twenty-five years." Jim Ryun felt a 3:40 would be enough to win the 1500m in Mexico City, and he actually ran 3:37 in the finals, but Ryun, along with most of the world, under-estimated the East African contingent's advantage, having been born at altitude and having trained there all their lives.[35]

The Olympics had felt the impact of African distance runners at previous games. Abebe Bikila of Ethiopia won the marathon in 1960 and 1964, running the first bare-foot on the cobblestone streets of Rome and the second in world record time. It was in Mexico City, however, that the East African athletes appeared on the track in force. Athletes from the high-altitude areas of Kenya, Ethiopia, and Tunisia dominated. Between them, they took 1st in the 1500m, 1st, 2nd, 3rd, 6th and 8th in the 5,000m, 1st, 2nd, 3rd, and 8th in the 10,000m, 1st and 6th in the marathon and 1st and 2nd in the steeplechase.[36] The only American distance medalists were Ryun who took silver in the wake of an astounding run by Kip Keino (3:34.91) and George Young who took bronze competing in his third

[34] Moore, 209
[35] Jim Ryun and Michael R. Phillips. "In Quest of Gold". (San Francisco: Harper and Row. 1984), 86
[36] Barry Hugman, "The Olympic Games : complete track and field results, 1896-1988." (New York. Facts On File, 1988). 248-56

Olympics. Tom Farrell took bronze in the 800m, which went relatively unaffected by the altitude.

The so-called "Altitude Games" were not a total wash for the U.S. Distance athletes; Ryun had run well. He would say afterwards he was pleased with his effort.[37] Often overlooked is the fact that, besides Ryun, the two other American 1500m competitors had also made the final. One of them was Marty Liquori, the youngest 1500m finalist ever. He would finish 12th out of 12 but would prove richer for the experience and go on to be the top-ranked miler in the world in 1969 and 1971.[38] Young turned in a Dellinger-esque performance, finally winning a medal in his third Olympiad. He continued to defy the odds by setting several world records in the 1969 indoor season and competing in a fourth Olympics in 1972.[39] The impact of the altitude did leave the running community with several what-ifs, U.S. runners demonstrated depth in at least one distance, and continued to prove the benefits of consistent training over several years coupled with the experience those years bring.

In the lead-up to the 1972 Olympic Games in Munich, a new generation of talent joined several repeat-Olympians to comprise a very promising distance team. By this time, runners who had been in high school watching Billy Mills or Bob Schul's thrilling victories in the 1964 games, not to mention Ryun's successes, were now entering their college and post-collegiate years. Among those runners were Steve Prefontaine and Frank Shorter, two who were favored as medal contenders in Munich. Prefontaine, while still in college, took 4th in the extremely tough field that came together in the 5,000m that

[37] Ryun, 97
[38] Marty Liquori and Skip Myslenski. "In Search of the Perfect Race". (New York: Morrow, 1979). Back cover.
[39] National Distance Running Hall of Fame "George Young"
http://www.distancerunning.com/inductees/2003/young.html

year. Frank Shorter ran two consecutive American records in the heats and final of the 10,000m to finish fifth, an impressive accomplishment in itself.[40] His real success came in the marathon, where he won gold by over two minutes. The men's marathon team as a whole performed incredibly well. Kenny Moore took 4th and Jack Bacheler took 9th. Dave Wottle is certainly worth mentioned for his thrilling finish to win gold in the 800m.[41]

As was the case with many of the runners competing in the '64 Olympics, several of the successful athletes in '72 trained together. Frank Shorter was the common thread for many. In 1970 he moved to Gainesville and joined the Florida Track Club and with it a group that included, Bacheler, Marty Liquori, and Jeff Galloway, who was an Olympian in the 10,000m in Munich.[42] On his European tours, Shorter typically roomed with Kenny Moore where they developed into good training partners and were very influential in each other's development. It was Moore who suggested Shorter try the marathon.[43] With members of the Florida Track Club, Shorter also began taking trips to train at altitude for an extended period of time in Colorado.[44] After qualifying for Munich, he spent time training with Moore and Prefontaine under the eye of Bowerman. Most of the best athletes at the Munich Games all trained together, pushing each other and incorporating the latest developments in training theory into their daily schedules.

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[40] Appendix A

[41] According to archived results, Jim Ryun did not advance out the preliminary round of the 1500 in Munich, but that does not tell the whole story. After a brief retirement, Ryun had run the third fastest mile of all-time and was the favorite again going into Munich. In his first heat, he was hit by another runner, lost his balance and fell. Ryun had suffered from an inner ear problem since an early age and did not have very good balance. Nevertheless, a tape clearly showed another runner fouling Ryun but IOC officials refused to allow him to advance, putting an end to his Olympic career in the process. (Ryun, 168-70)

[42] Frank Shorter and Mark Bloom "Olympic Gold: A Runner's Life and Times" (Boston: Houghton Mifflin, 1984), 55

[43] Shorter, 61-2

[44] Shorter, 66

The impact of their successes in Munich was considerable. Their achievements are widely credited with beginning the "jogging boom" in the United States, bringing distance running, and especially that odd-bird marathoning, into the mainstream. Shorter was quoted recently in a *Runner's World* retrospective saying "until [1972], the marathon was considered the domain of athletes from British cross-country clubs or northern Europe or Africa."[45] Between the combined effects of his gold in '72 that he followed up with silver in '76, running exploded. In his excellent book "Duel in the Sun," an in-depth look at the 1982 Boston Marathon specifically, John Brant describes the changes the Boston Marathon went through in the 1970s. According to Brant, the jogging boom truly peaked after Shorter's silver, but had begun to build as early as the sixties. The Boston Athletic Association instituted time-standards for its marathon, considered the most elite in the country, for the 1st time in 1969 after numbers grew to over 1,000. The times were 2:50 and 3:20 for men and women under 40, respectively, and 3:10 and 3:30 for each gender over 40. These standards required runners to devote time to serious training, and to run a qualifying marathon before they could be considered for entry into Boston. The standards did little to stem the tide, as by 1979, entries climbed to nearly 8,000.[46]

1976 was more of a transition year for the U.S. distance team in Montreal. 1972 had been a fairly experienced group of athletes. The team was still successful. Frank Shorter took silver in the marathon.[47] His U.S. teammate Don Kardong followed him in

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[45] RunnersWorld, 89-90

[46] John Brant, "Duel in the Sun: The Story of Alberto Salazar, Dick Beardsley And America's Greatest Marathon". (Rodale Press, 2007) 11

[47] Shorter was the heavy favorite going into the race, but an unknown East German, Waldemar Cierpinski, surprised the heavy favorite in winning by 50 seconds. The state-sponsored drug system in East Germany has since become common knowledge and Cierpinski is believed to have been involved. Shorter has since appealed for a gold medal. (Jere Longman. "U.S. Seeks Redress for 1976 Doping in Olympics" *New York Times*.http://query.nytimes.com/gst/fullpage.html?res=9A05E0DE173CF936A15753C1A96E958260&sec=health&pagewanted=1)

4th. The Olympic team was without Steve Prefontaine, who would have been 25 at the time. He died in a car accident in 1975. Rick Wolhuter was the other medalist for the U.S., taking 3rd in the 800m, as well as 6th in the 1500m. He, along with Shorter and Douglas Brown, a steepler, were the only repeat Olympians from the 1972 team. As was the case in 1968, there was a slight dip in the U.S. distance team's overall performance, but this was still the fourth consecutive Olympics in which American athletes had won at least 2 medals.

By the 1970s, the running scene in the United States was unrecognizable from what people experienced in the fifties. In the sixties, runners had been pursuing post-collegiate training opportunities. They came together in groups such as the LATC or Oregon Track Club. In each, athletes and coaches employed the latest training models being developed internationally and pushed each other to new levels. They acquired experience at the international level, and achieved great success. The overwhelming medal-haul in the '64 games proved not just a flash in the pan. Despite a slight setback in Mexico City, Americans continued to show depth and consistency at the international level. Runners at the Munich Olympics mirrored the careers of the athletes that came before them in Tokyo and Mexico City. They worked out arrangements that allowed them to continue training after college. The most successful athletes trained together and benefited from each other's knowledge, as well as the recent training developments of their own time. Their success went so far as to trigger a national phenomenon. By the mid-70s, it appeared that U.S. distance runners would always be in contention for Olympic medals.

It was in the late-seventies that the sport of track and field, and the Olympics with it, began to change. Politics were not new to the Olympics, but beginning in 1976, the next three Olympiads saw major boycotts for political reasons from a host of different nations. Most applicable to the U.S. athletes was their country's boycott of the 1980 Olympics in Moscow. Coming eight years after Shorter's triumph in Munich, just as he came eight years after Schul and Mills, a host of new American athletes appeared poised to win medals at those games, but were denied that chance, to the detriment of the sport. Parallel to this development was the increasing professionalization of a formerly amateur sport. The United States was slow to respond to these developments and soon faced a growing disadvantage as athletes from other countries were now able to train fully-funded. Track and Field in the United States lost an entire generation of potential Olympic medalists just as the sport was facing its stiffest competition from soccer at the youth-participation level. Basketball and football became prominent in the media. The difficult transition to professionalism and the 1980 boycott and set competitive distance running in the U.S. back signifficantly.

Heading into the 1980 Olympics, the U.S. distance scene had appeared to come around again, just in time for the games. Performance lists for 1980 show that the U.S. had the top 800m runner, three of the top nine milers, the 7th fastest 5,000m runner, the fastest 10,000m runner, and, perhaps most revealing of all, 10 of the top 25 marathoners that year.[48] That list doesn't even include Bill Rodgers, who had not run in fast conditions that year. In the 4 years since his 40th place finish in the marathon at Montreal, Rodgers had won the Kyoto Marathon, Amsterdam Marathon, New York City Marathon (three times), Boston Marathon (three times), and the Fukuoka Marathon. Craig Virgin, another

[48] Track and field statistics, http://trackfield.brinkster.net/

competitor from the Montreal Olympics, held the fastest 10,000m time in the world in 1980. His time was only seven seconds off the existing world record. On paper, the United States distance team was poised to do better than any of the previous Olympic teams that had been so successful.

Politics interfered with the dreams of U.S. Olympic hopefuls in 1980. It was not as if the Olympics had not been free from politics before 1980. In 1968 two U.S. sprinters, John Carlos and Tommie Smith raised their gloved fists on the medal podium as the national anthem played, protesting the treatment of African Americans. In 1976, several African countries boycotted to protest the trip a New Zealand rugby team made to apartheid South Africa-- a country not allowed to participate in the Olympics because of its practice of apartheid. In 1980, Jimmy Carter made the controversial decision to boycott the Moscow Olympics to protest the Soviet invasion of Afghanistan. In reflecting on it, miler Steve Scott summed up the feelings of many regarding Carter's decision:

> "It leaves a sour taste in my mouth anytime somebody mentions Jimmy Carter…we got cheated out of an experience of a lifetime for nothing. I didn't see them [the white house] boycotting selling grain or computers to the Russians. No one else sacrificed a bit except the athletes."[49]

The boycott had little effect on Soviet policy. Soviet troops remained in Afghanistan until 1989, mired in what many refer to as the "Soviet Union's Vietnam".[50]

Steve Scott would go on to compete in the next two Olympics, but cited not being able to compete in the 1980 games as critical in his development as a runner. He felt he had a very good chance at medaling in the 1500m that year and his times support that assertion. He had the second fastest mile time and sixth fastest 1500m time going into the

[49] Mark Will-Weber "The Quotable Runner" (New York: Breakaway Books, 1995). 242
[50] Wikipedia. "Soviet War in Afghanistan" http://en.wikipedia.org/wiki/Soviet_war_in_Afghanistan

Olympics. He had been ranked third best miler in the world in 1979.[51] He considered the experience he missed as especially critical.[52] We have seen how dramatically previous Olympians improved from one Olympic experience to the next. Not having that experience going into the Los Angeles Olympics cost him and a whole generation of runners. In 1980 it appeared the talent had come together. There were several competitors back from the Montreal Olympics. Men like Rodgers and Craig Virgin had improved considerably and would have been favored in Moscow. A younger generation included a group that would go on to multiple Olympiads but would never medal after missing out on the experience and competition in Moscow, such as Scott and Henry Marsh.

Distance running dropped off the map in the U.S. just as it was undergoing radical changes around the world. Dating all the way back to well before Bannister's time, track and field athletes competed as amateurs who could not profit from their sport. By the 70s, the United States was one of few countries still trying to operate under this guise. Several American athletes such as Scott and Shorter talked about the blatant hypocrisy of continuing in the amateur-mindset. Carl Lewis, a successful sprinter from this transition era, even titled his autobiography "My Professional Life in Amateur Track and Field". In his autobiography, Shorter describes living on food stamps in his early competitive days.[53] Jim Ryun had to make the difficult decision whether or not to take under-the-table payments from meet promoters, a common practice, because it would put his amateur-status in jeopardy. In 1971, he said "True amateurism is dead. To continue competing

[51] Steve Scott and Marc Bloom, "The Miler: America's legendary runner talks about his triumphs and trials" (New York: Macmillan USA 1997) 199
[52] Steve Scott. Interview by author. Phone. Grinnell, IA. 7, August 2007.
[53] Shorter, 183

you either put enormous burdens on yourself and your family…or you cheat. The choice is simple. If I want to make that Olympic team, we have to take some money for some of these races."[54] Ryun sacrificed his amateur status after Munich in 1972 at the age of 25 to join the International Track Association, a professional track tour that would not last to the next Olympics.

It was not until 1978 that the U.S. officially acquiesced. In front of the President's Commission on Olympic Sports (P.C.O.S.) in 1975, Shorter, at that time the reigning gold medalist, testified that, had he been from Finland, he could have received a new house, a car, and plenty of endorsement deals and upwards of $2,000 per race. The committee asked him "But as an American, what did you get?" Shorter's reply was "You know, I haven't even gotten my ring from the Olympic Committee yet."[55] American athletes had been succeeding despite the policies of their governing body, the Amateur Athletic Union, which controlled their amateur status. Whereas in other countries, athletes could be sponsored by their government or by companies, Americans had to negotiate the dilemma Ryun described.

After the PCOS made its recommendation, Congress passed the Amateur Athletics Act of 1978. The act acknowledged the need for a shift to professionalism to remain competitive, and did away with the AAU, forming The Athletics Congress (TAC).[56] In theory, the TAC was formed to guarantee athletes and coaches a voice in their own governance, which was something they had previously been denied. While the TAC was much more flexible than the AAU, there was still a difficult adjustment to professionalism. The TAC now allowed companies to sign deals as "National Sponsors",

[54] Ryun, 120
[55] Shorter, 190
[56] Moore, 348

which forced them to go through TAC before contacting any specific athlete.[57] To manage prize money, TAC required athletes to submit their payments to a "training" bank account which the organization managed. Steve Scott admitted to never putting a dime of his winnings into the account.[58] The hypocritical under-the-table payments continued well into the 80s as TAC remained reluctant to relinquish the old amateur mind-set. Struggles continued into the mid-80s until Athletes were finally openly sponsored by groups like Nike and, in Scott's case, Sub-4 Running Club.[59]

In addition to all these factors working against it, Track and Field was struggling for participation numbers and attention. Youth Soccer leagues began springing up all over the country in the eighties. Steve Scott experienced this during the peak of his athletic career with his own children.[60] Basketball re-entered the mainstream as players such as Magic Johnson, Larry Bird and Michael Jordan came into the NBA. The NFL began Monday Night Football in 1970, the same year the AFL and NFL merged. Rule changes in football had created a much faster and exciting pace for the average fan by the late 70s.[61]

With these considerations in mind, the decline we see in distance running over the next 20 years could be expected. American athletes performed well enough in 1984.[62] Scott struggled in the 1500m, but Jim Spivey took 5th and Brian Diemer and Henry Marsh took 3rd and 4th in the steeplechase.[63] After 1984, however, the decline became evident. 1988 was the first year Americans had not brought home any medals in a

[57] Shorter, 199
[58] Scott, 117
[59] Scott, 154
[60] Scott, 171
[61] Wikipedia. "NFL". http://en.wikipedia.org/wiki/Nfl#Modern_era
[62] The U.S.S.R. retaliated by leading its own boycott of the 1984 games, but despite this more countries participated than any Olympics in history.
[63] Appendix A

distance event since 1960. The teams had won at least 2 in each of the games they had participated since Tokyo. In 1988, the 1500m was the only distance event with preliminaries where the U.S. had more than one finalist. Steve Scott, Johnny Gray and Sydney Maree were the top placers, taking 5th in the 1500, 800 and 5,000 respectively. All three of these athletes had qualified in the previous Los Angeles Games. In the past, there appeared to be a cycle in which every eight years, there was enough time for runners to progress from high-school to post-collegiate runner, allowing a new generation of top American runners to assume the mantle. We saw it in the transition from 1964 to 1972. We saw a large group of athletes prepared to do well in 1980. After the boycott in 1980, combined with previously discussed factors, the U.S. entered a drought.

This performance drought became more pronounced in the next few Olympiads. Johnny Gray won bronze in the 800m at the 1992 Olympics in Barcelona, but the U.S. had only one athlete qualify for the finals in each distance event. Gray's medal would be the last for the U.S. for several years. In 1996, in Atlanta, the top U.S. runner in the marathon finished 28th. No athletes advanced out of the heats in the 10,000m or the semis in the 1500m. Bob Kennedy was the lone bright spot. He electrified the Atlanta crowd during the 5,000m when he took the lead with two laps to go but finished sixth. He was also the only American athlete to turn in a top-10 time that year in an Olympic distance. In Sydney in 2000, it's safe to say the U.S. hit an all-time low. No runners advanced out of the first round in the 800m. One runner made it to the 1500m final and finished 10th. Adam Goucher was the only 5,000m runner to advance, finishing 13th. Abdi Abdirahman and Meb Keflezighi managed 10th and 12 in the 10,000m final, but only one U.S. athlete

even qualified for the Olympics in the marathon. He finished 69th. The only U.S. runner to turn in a top-10 time during 2000 was in the marathon where Moroccan transplant Khalid Khannouchi, who became a U.S. citizen that same year, had the third-fastest time in the world.

By 2000, it appeared that distance running in the U.S. was back where it had started 50 years before. The string of success at the Olympics had snapped by the mid-80s. Several factors played into this stunning decline. The Olympics are the proving ground for track and field. It is the only time every four years when all the best athletes come to the same competition and the whole world is watching. The controversial decision to boycott the 1980 games proved hugely detrimental to the sport. On a stage where reputations are made and role models created, the U.S. was absent. The early 80s proved a crossroads for the sport. Youth soccer came to dominate youth athletics soon after. Track and Field in the U.S. was in the middle of the difficult transition to professionalism and already well behind most European and African athletes in that regard. These factors reacted with each other to create the decline that was most noticeable in American performances in the distance events at the next several Olympiads.

In 2004, Meb Keflezighi, a U.S. citizen originally from Eritrea, who had lived in the U.S. since high school, won the silver medal in the marathon at the Athens Olympics. It had been 12 years since the U.S. had won a medal in any race above the 400m and 20 years since any above 800m. Combined with his teammate Deena Kastor's bronze in the women's marathon, running enthusiasts raved that U.S. distance running was back. This despite the fact that no American athlete appeared on the top 10 performance lists in

2004 in any Olympic distance race. Keflezighi turned in an incredible performance, but was really by himself at that Olympics. The true evidence of a turn-around has come in the years since, and is a product of developments that took place well before the Athens Olympics. Running clubs began to spring up again en masse and bring elite runners together just as the LATC had done previously. Track and Field coaching certification was implemented and a promising generation of athletes was soon graduating from high school.

In 2007, Joe Vigil entered his 51st year of coaching and involvement in the sport. When he first began coaching U.S. national teams, his travels took him to Europe to compete in dual meets. One of the things that struck him was the coaching program several countries had developed there. He realized that "American coaches by and large are not as educated in coaching theory as their European counterparts".[64] His interest came back to this process in 1980 when he took a sabbatical from teaching and coaching at Adams State College to study the licensing procedure for coaches in 17 different countries. He found that the programs ranged in their structure and effectiveness, but that "they were all ahead of us." The findings on his trip were put to use in forming a coaching certification program for U.S. Track and Field (USATF), then still known as TAC. There is now a three-level licensing program for coaches that teaches complex biomechanical and physiological principles. U.S. athletes were dealing with a generally more educated coaching population and more consistent training principles at all levels of the sport.

At the turn of the century, several elite training groups began springing up around the country that gave athletes an opportunity to train together after college. Team

[64] Joe Vigil. Interview by author. Recorder. Indianapolis, IN. 23 June 2007.

Running USA, which eventually counted Keflezighi and Kastor as members, was founded by Vigil and Bob Larsen, the former UCLA head coach, in 2001.[65] Team USA Minnesota joined it that same year. Keith and Kevin Hanson, two brothers from Michigan, began the Hansons-Brooks Olympic Development project in 1999 with a goal of providing an environment for successful collegiate runners to train together.[66] A range of other clubs began at around the same time. The list of other groups includes ZAP fitness, Indiana Invaders, the Nike Farm Team (later Oregon Track Club) among others. All were founded with the purpose of bringing elite runners together to train with each other and improve. Many of these groups' stated goals include attracting runners who are not necessarily elite national champions with lucrative shoe contracts and to create an environment where they can continue to train and compete, improving over time to an elite-level they might not have reached without the opportunity the group provided. These organizations hearken back to the LATC or Bowerman's OTC as groups that bring elite athletes together and provide them with the best coaching available. Indeed, just as four years after the LATC's founding in 1960 there was the great success in Tokyo, we began to see early signs of improvement with Keflezighi's and Kastor's marathon performances.

The internet began to play a role in developing runners nationally in the 90s. Chris Solinsky, a current professional runner who just graduated from Wisconsin describes being lucky enough to develop as a runner just as websites such as dye-stat and letsrun.com were created.[67] Dye-stat, a website that focuses on high school performances

[65] Team Running USA. http://www.runningusa.org/teamUSA/teamUSA_socal.html
[66]Hansons-Brooks Olympic Development Program. http://www.hansons-running.com/odp/about_us.htm
[67] Chris Solinsky. Interview by author. Email. Grinnell, IA. 21, July 2007.

around the nation, debuted in 1998.[68] Letsrun.com was founded in 2000 by two brothers, Weldon and Robert Johnson, each a successful elite runner in his own right.[69] Solinsky was able to track the results and training of other high school runners around the country. For him, that served as a huge motivating factor, but also informed his own running and training. Letsrun founder Weldon Johnson describes the impact of the internet on running by saying

> "If you're some kid in Vermont and you're running a 4:30 mile and you win your state meet, no longer do you think that's really good. You get on the internet and you see 'hey, there's a whole other world out there. There's more information about how people are training…In the past when performances dropped off, people were content to be best in their city, best in their state…but they didn't have anything to compare it to on an absolute level."[70]

The results of these developments began to show on the high school level by 2000. At the 1999 Footlocker National High School Championships, the results had a list of names that included Dathan Ritzenhein, Don Sage, Ian Dobson, Matt Tegenkamp, Josh Rohatinsky and Alan Webb, a veritable "who's who" in today's younger generation of professional runners. These runners have gone on to win national titles, set American records and turn in very competitive times at the world-level The 2001 graduating class included a group dubbed "The Big 3"- Ritzenhein, Webb, and Ryan Hall. They were three of the best high school runners in decades, and they were all from the same graduating class. Ritzenhein won national titles in cross-country and the 2-mile in high school, threatening long-standing national junior records in each. Ryan Hall ran a 3:42 1500m.[71] It was Webb who truly stole headlines, beginning in 2001 when he became the first high school runner to break 4 minutes for the mile indoors. He would go on to shatter Jim Ryun's long-standing high school record that outdoor season with a 3:53

[68] Dye-Stat. http://www.dyestat.com
[69] Letsrun.com "What Is Letsrun?" http://www.letsrun.com/WhatsLetsRun.html
[70] "Showdown: Five Elite Distance Runners, One Dream" (DVD) (WIT Media, LLC 2007)
[71] Wikipedia, "Ryan Hall" http://en.wikipedia.org/wiki/Ryan_Hall_(runner)

mile. The race was televised on ESPN, a rarity in their coverage of sports. A.J. Acosta, the number one high school miler in 2006, described how "Webb's record really put some excitement back into high school and American distance running. It's inspiring to know that given the right race conditions and settings, miracles can happen."[72] Better performances in high school running seem to signal a turnaround that would come in the ensuing years as these talented runners developed.

By 2004, there were not many performances that would indicate the flood that would come quickly. "5,000 Meters" was a documentary that came out after the Athens Olympics. A crew had followed all the best 5,000m runners in the U.S. as they trained to qualify for the Olympics. To do so, they would need to place well at the Olympic Trials and have the Olympic qualifying A-standard of 13:21.5. Tim Broe and Jonathon Riley would be the only two to meet that time-standard and advance to the Olympics where Broe made the final and finished 12th.[73] To emphasize how dramatic the turn-around has been since those games, consider the fact that from 2005-2007, 18 different U.S. runners have run times faster than that same standard.[74] In the four years leading up to the Athens Games, only seven athletes ran under the standard, including Riley and Broe.

Several performances over the next few years dramatically signaled the return of U.S. runners to the world stage. Adam Goucher took sixth at the 2006 World Cross Country Championships in the 4k, the best finish ever by an American. Ryan Hall shattered the American half-marathon record. Hall's time for the 13.1 mile distance was only 48 seconds off the existing world record, while the current American 10k record is

[72] Runners world, 99
[73] Appendix A
[74] Track and field news Performance Lists, "U.S. Men", http://www.trackandfieldnews.com/lists/us_m.html

56 seconds off the world record for the much shorter distance. Hall would go on to set the American record for a marathon debut that April in London with a 2:08:24. Dan Lincoln broke the long-standing American record in the steeplechase when he ran 8:08.82. Alan Webb returned to prominence in 2005 with a 3:48 mile.

Contemporary distance running in the U.S. has improved dramatically and we can credit several athletes for the strong influences on the running scene. Keflezighi and Kastor certainly inspired with their performances in Athens, but more important than that was what their achievement represented. Both of those runners demonstrated how running well was a process. They had continued to work and train consistently for several years before Athens. Keflezighi, along with several athletes and coaches, phrased it in just that way in a documentary that chronicled the 2007 U.S. Cross Country Championships. "It was a small process," he said. "25-30 miles a week in high school my freshman and sophomore year. Then 45. Then 55. Then to UCLA…65-75, 75-85, then 90-95, then after college…I'm doing 110-120."[75] Bernard Lagat was a two-time Olympic medalist for Kenya who recently became a U.S. citizen. He has said on several occasions how his goal before he retires is to improve the quality of competition in the U.S. and provide a model for success for other milers and distance runners and the results have shown already. In Lagat's second U.S. outdoor championship appearance in June of 2007, the top four finishers in the 1500m all ran under the Olympic-A standard, a rare feat in a tactical championship setting. Lagat, the reigning silver medalist at the distance and defending U.S. champion only managed third.[76]

[75] Showdown DVD

[76] It should be noted that Lagat had run the 5,000m final two days before, and winning. Lagat said after the 1500m final that he certainly was tired from the 5k. In 2006, however, Lagat completed the same double, winning both events against virtually the same fields. Things have changed.

In recent years, the U.S. distance runners appear to be overcoming the difficulties the sport went through in the late 80s and 90s. As we have seen, the reasons for this lie in several factors. Training groups began spring up at the turn of the century. These groups provide funding, coaching and training partners for elite athletes. Just as with the clubs of the early sixties, we are seeing their investments in athletes mature today. Information has become more available to athletes and coaches at all levels. The internet serves to put an athlete's accomplishments into perspective, as well as providing a vast source of information and motivation. Coaches are now trained at all competition levels. USATF licensing is all but required in hirings at the high school level and higher standards are expected at colleges around the country. Several athletes competing currently serve as examples for what is possible with consistent hard work. Their experience is serving the sport just as a talented new generation of runners is ascending. These factors combine to put the sport at the promising point is today, presumably primed for success in the years to come.

Conclusion

1954 was a turning point in the world of distance running and track and field. With Bannister as the model, runners were breaking four in ever increasing numbers. Unfortunately in the U.S., runners reproduced Bannister's training methods, but not his results. They retired young, trained little and accomplished less. The U.S. was slow to adapt, but eventually did. Modern training methods made their way to the U.S. With Coach Igloi's move to the U.S. came interval training. The success of Lydiard's athletes emphasized the importants of conditioning in the form of long miles. Bowerman's

achievements in Oregon emphasized the need for athletes to rest and recover from hard training. Runners also found ways to continue training after college, when, as they proved, they were entering their best years. This came in the form of post-collegiate track clubs, or jobs with flexible hours that allowed them to train.

With these increased opportunities came increased success. Schul, Mills, Dellinger all won medals at the 1964 Tokyo Olympics and proved to be just the beginning of a new era in American distance running. Jim Ryun dominated the track and the record books and along with him came a whole generation of young and successful athletes. Shorter, Prefontaine and others captivated the public in the early seventies. Shorter's success in the marathon especially caught the public's attention and helped to trigger the jogging boom that swept the country. All these successful athletes were training long after graduating from college. Many trained together. Just as they grew up watching Schul and Mills, another generation of high school and college athletes came through the ranks watching their success in 1972 at Munich and 1976 at Montreal.

Things began to slip in the eighties. Several distance runners were prepared to do well at the Moscow Olympics, perhaps more so than any other Olympiad. They were all denied that chance when the U.S. decided to boycott. This came at a pivotal time for the sport. Track and Field officials had been slow to adjust to the onset of professionalism in the formerly amateur sport. Their slow reaction caught up to the sport in the mid-eighties. Athletes in the U.S. were not given the same opportunities as runners elsewhere in the world and it began to show. At the same time, participation levels slipped as competition from soccer, basketball and football increased. Distance running in the U.S. went into a

depression that would last for multiple decades. By 2004, the sport had declined to a point that no U.S. distance runners turned in a top-10 time in any Olympic event.

Despite the glaring absence of Americans at the top of the sport, Meb Keflezighi took silver in the marathon at the 2004 Athens Olympics. Keflezighi's performance was an early symptom that things were beginning to turn around for American distance runners. Training groups that brought the best runners in the U.S. together had been largely absent since the sixties and seventies, but several began to spring up again at the turn of the century. Coaching at all levels of the sport was brought up to par with the rest of the world through a coaching certification system. A talented generation of athletes emerged from high school into their college and post-collegiate years in an environment that is much better suited for their continued training and development. The times and records since the 2004 games have drastically improved. On the eve of the 2007 World Championships and in the build-up to the 2008 Games in Beijing, the U.S. appears poised to return to prominence.

The state we find the sport in today is a promising one. USATF, coaches and even runners can't always control what happens at the Olympics. Illness, injury or even foulplay can derail their best-laid plans for an event that only occurs every four years. What can be controlled is the environment in which distance runners develop. The sport as a whole is returning to the sixties and seventies mindset that advocates providing athletes with a means by which they can continue training, developing and progressing. Athletes are taking advantage of opportunities to train at altitude as well as advanced scientific analysis of their own bodies during training. In terms of money, participation, training theory and emphasis on long-term development, the U.S. has again caught up

with the rest of the world in its approach to distance running. All that remains are the medal opportunities, which the coming year will provide.

Appendix A- U.S. Olympic Performances, 800m and Up (1956-2004), by Olympiad

1956 Olympic Results - Melbourne

800m

-Courtney 1:52.83 2, 1st	1:53.62, 1, 1st	***F-1st 1:47.75***
-Spurrier 1:51.52, 4, 2nd	1:53.71, 1, 2nd	**F-6th 1:49.38**
-Sowell 1:51.27, 3, 2nd	1:50.08, 2, 1st	**F-4th 1:48.41**

1500m

-Bowden, 4:00.0 2, 11th DNA
-Walters 3:55.6, 3, 8th DNA
-Wheeler 3:50.02, 1, 8th DNA

5000m

-Dellinger 14:26.92, 1, 3rd F-DNF
-Stone 14:52.0, 2, 7th

10000m

-Hart F-21st
-McKenzie F-18th
-Truex DNF

Marathon

-Kelley – 2:43.40.0 F-21st
-Thakwray DNF

Steeple

-Ashenfelter, 8:51.12 1, 6th DNA
-Colemon, 9:10.0 2, 9th DNA
-Jones 8:47.57, 1, 4th F-9th 9:13.0

1960 Olympic Results - Rome

800m

-Cunliffe, 1:48.95, 3, 3rd	1:49.35, 3, 2nd	1:50.92, 2, 6th DNA
-Murphy 1:52.3, 9, 1st	1:48.12, 1, 1st	1:48.29, 1, 6th DNA
-Siebert, 1:49.08, 2, 2nd	1:51.53, 2, 3rd	1:48.2, 2, 4th DNA

1500m

-Burleson, 3:42.4, 1, 3rd **f-6th 3:40.9**
-Close 3:50.69, 3, 9th DNA
-Grelle, 3:43.65, 2, 2nd **F-8th** 3:45.8

5000m

-Beatty 14:44.4, 1, 9th DNA
-Dellinger 14:08.72 3, 4th DNA
-Soth 14:40.85, 4, 7th DNA

10000m

-Truex, **F-6th 28:50.34**

Marathon

-Breckenridge f-30 2:29:38
-Kelley F-19th 2:24:58
-McKenzie F-48th 2:35.16

Steeple

-Coleman 8:56.72, 1, 5th
-Jones, 8:49.32, 3, 2nd **F-7th** 9:18.22
-Young, 8:50.93 2, 4th

1964 Olympic Results - Tokyo

800m

-Farrell, 1:48.6, 1, 2nd	1:47.8, 3, 2nd	**F-5th 1:46.6**
-Groth, 1:51.4, 3, 6th DNA		
-Siebert, 1:49.2, 4, 2nd	1:47.0, 1, 2nd	**F-6th** 1:47.0

1500m

-Burleson 3:45.6, 1, 3rd	3:41.5, 2, 1st	**F-5th 3:40.0**
-Ryun 3:44.4, 2, 4th	3:55.0, 1, 9th DNA	

5000m

-Dellinger, 13:52.2, 2, 2nd	***F-3rd 13:49.8***	
-Moore 14:24.0, 4, 8th DNA		
-B. Schul 14:11.4, 3, 2nd	***F-1st 13:48.8***	

10000m

-Larrieu, F-24th 30:42.6
-Lindgren F-9th 29:20
-Mills F-1st 28:24.4

Marathon

-Edelen, **F-6th** 2:18:12.4
-McArdle F-23rd 2:26.24.4
-Mills F-11th 2:22:55.4

Steeple

-Fishback 8:50.2, 3, 4th DNA		
-Young 8:34.2, 2, 3rd	**F-5th 8:38.2**	
-Zwolak 8:43.6, 1 4th		

1968 Olympic Results - Mexico City

800m

-W. Bell, 1:51.52, 1, 5th DNA		
-T. Farrell, 1:47.96, 5, 2nd	1:46.1, 2, 4th	***F-3rd 1:45.46***
-Kutschinski, 1:47.61, 2, 3rd	1:47.39, 1, 5th DNA	

1500m

-Liquori, 3:52.78, 5, 1st	3:52.17, 2, 4th	F-12th, 4:18.22
-Ryun 3:45.8, 4, 1st	3:51.25, 2, 1st	***F-2nd 3:37.89***
-Von Rudel 3:59.15, 2, 1st	3:54.12, 1, 3rd	F-9th 3:49.27

5000m

-Bacheler 14:31, 2, 4th	F-DNS	
-Day 14:23.23, 3, 6th DNA		
-L. Scott, 15:13.69 1, 11th DNA		

10,000m

-Laris F-16th 30:26.2
-Nelson F-28th 31:40.2
-Smith F-11th 30:14.6

Marathon

-R. Daws, F-22nd 2:33:53
-Moore, F-14th 2:29:49.4
-Young, F-16th, 2:31.15

Steeple

-Nightingale 9:13.23, 1 6th		
-Reilly, 9:10.35, 3, 5th		
-Young, 2, 2nd 9:02.31	***F-3rd 8:51.86***	

1972 Olympic Results - Munich

800m

-K. Swenson, 1:51.06, 8, 2nd	DNF	
-Wohlhuter, 1:49.43, 1, 4th DNA		
-Dave Wottle 1:47.64, 4, 2nd	***1:48.68, 2, 1st***	***F-1st 1:45.86***

1500m

-Ryun- 3:51.52, 4, 9th** DNA		
-Wheeler – 3:41.34, 6, 3rd	3:40.36, 3, 6th DNA	
-Wottle, 3:40.69, 1, 2nd	3:41.64, 1, 4th DNA	

5000m
-Prefontaine 13:32.6, 2, 2nd **F-4th, 13:28.25**
-Young 13:41.2, 5, 4th
-L. Hilton, 14:07.2, 4, 8th
10,000m
-J. Anderson 28:34.2, 3, 8th DNA
-J. Galloway, 29:35, 1, 11th DNA
-Frank Shorter, 27:58.23, 2, 3rd **F-5th 27:51.3**
Marathon
-Bacheler 2:17:38.2, F-9th
-Moore, 2:15:39.8, F-4th
-Shorter 2:12:19.8 F-1st
Steeple
-Brown, 8:41.2, 3, 9th DNA
-M. Manley 8:50.4, 4, 10th DNA
-S. Savage, 8:39.0 1, 7th DNA

1976 Olympic Results - Montreal

800m
-Enyeart, 1:47.96, 6, 3rd DNA
-Robinson 1:47.56, 2, 2nd 1:46.43, 1, 5th DNA
-Wohlhuter 1:45.71, 1, 1st 1:46.72, 2, 1st ***F-3rd 1:44.12***
1500m
-Centrowitz 3:45.02, 1, 6th DNA
-Durkin 3:38.89 2, 5th DNA
-Wohlhuter 3:39.94, 4, 3rd 3:38.71, 2, 2nd **F-6th 3:40.64**
5000m
-D. Buerkle 13:29.01, 3 9th DNA
-Geis 13:32.36, 1, 2nd F-12th 13:42.51
-Macdonald 13:47.1, 2 7th
10000m
-Bjorklund 28:12.24, 3, 2nd F- 13th 28:38.08
-Mendoza 29:02.97, 1 10th
-Virgin, 28:30.2, 2, 5th
Marathon
-Kardong, **F-4th 2:11:58**
-Rogers, F-40th 2:25:14.8
-Shorter F-2nd 2:10:45.8*
Steeple
-D. Brown, 8:33.25, 2, 8th DNA
-Marsh, 8:31.46, 1, 6th F-10th 8:23.99
-Roche, 8:37.36, 2, 10th

1984 Olympic Results – Los Angeles

800
-Johnny Gray, 1:47.19 6, 1st 1:45.82, 3, 3rd 1:45.82 2, 3rd **F-7th 1:47.89**
-E. Jones 1:47.5, 4, 1st 1:45.44, 4, 1st 1:44.51, 1, 3rd ***F-3rd 1:43.83***
-J. Marshall 1:47.99, 3, 3rd 1:47.18, 2, 5th DNA
1500
-Scott 3:41.02, 4 2nd 3:35.7, 1, 2nd **F-10th** 3:39.86
-Spivey 3:40.58 6, 2nd 3:36.53, 2, 2nd **F-5th 3:36.07**
-Maree DNS
5000
-D. Clary 13:44.97, 2, 3rd 13:46, 2, 11th DNA

-S. Lacy 13:46.16, 3, 3rd 13:46.65, 1, 10th DNA
-D. Padilla 13:52.56, 1, 5th 13:41.73, 1, 6th **F-7th** 13:23.56

10,000

-P. Cummings 29:09.82, 2, 9th DNA
-P. Porter 28:19.94, 3, 7th F-15th 28:34.59
-Virgin 28:37.58 1, 9th

Marathon

-P. Pfitzinger F-11th 2:13:53
-Salazar F-15th 2:14:59
-Tuttle DNF

Steeple

-J. Gregorek 8:38.43, 2, 8th 8:38.19, 2, 11th DNA
-B. Diemer 8:25.92, 1, 1st 8:18.36, 2, 3rd ***F-3 8:14.06,***
-H. Marsh 8:29.23, 3, 4th 8:20.57, 1, 4th **F-4 8:14.25**

1988 Olympic Results - Seoul

800m

-Johnny Gray 1:48.83 3, 1st 1:45.04, 2, 1st **F-5th 1:44.80**
-Mark Everett 1:49.86 4, 4th DNA
-Baskin. T 1:50.38, 5, 4th DNA

1500m

-Atkinson, J, 3:38.33, 3,2nd 3:39.12, 1, 5th **F-10th 3:40.8**
-Deady, M 3:41.91, 2, 2nd 3:39.47 2, 8th DNA
-Steve Scott 3:41.57, 1, 2nd 3:38.2, 2, 1st **F-5th 3:36.99**

5000m

-Sydney Maree, 13:47.58, 1,2nd 13:22.61, 1, 2nd **F-5th 13:23.69**
-Doug Padilla 13:58.45, 2, 5th 13:37.1 2, 11th DNA
-Terry Brahm, 13:45.28, 3, 13th 14:04..12 2, 15th DNA

10000m

Bruce Bickford 28:16.16, 1, 7th F-18th 29:09.74
Pat Porter 28:45 2, 11th DNA
Steve Plasencia – DNF

Steeple

Abshire, B.- 8:36.56, 3, 4th 8:27.78 2, 9th DNA
Brian Diemer –8:38.4, 2, 4th 8:23.89 2, 7th DNA
Henry Marsh –8:33.89, 1, 6th 8:18.94**,** 1, 7th F-**6th 8:14.39**

Marathon

Mark Conover DNF
Ed Eyestone- 29th
P. Pfitzinger, 14th 2:14.44

1992 Olympic results - Barcelona

800m

-Mark Everett, 1, 2nd 1:48.65 3, 2nd 1:46.94 DNS/F
-Johnny Gray, 3, 1st 1:46.62 1, 1st 1:45.66 ***F-3rd 1:43.97***
-Jose Parilla, 8, 4th DNA 1:48.17

1500m

-Jim Spivey, 1, 3rd 3:38.01 2, 4th 3:35.55 **F-8th** 3:41.74
-Steve Holman, 2, 2nd 3:38.38 1, 9th DNA 3:40.49
-Terrance Herrington, 3, 6th DNA 3:44.8

5000m

-Ruben Reina 2, 5th DNA 13:40.5
-John Trautmann DNF/S
-Bob Kennedy 4, 2nd 13:35.76 F-12th 13:39.72

10000m
-Steve Plasencia, 1, 13th DNA 28:45.59
-Aaron Ramirez, 2, 13th DNA 29:00.12
-Todd Williams, 2, 5th 28:26.32 F- 10th 28:29.38
Marathon
-Steve Spence F-12th 2:15:21
-Ed Eyestone F-13th 2:15:23
-Robert Kempainen F-17th 2:15:53
Steeple
-Brian Diemer, 1, 2nd 8:28.88 2, 3rd 8:23.30 F-7th 8:18.77
-Daniel Lopez, 2, 7th 8:29.01 1, 11th DNA 8:41.28
-Mark Croghan, 3, 4th 8:28.15 1, 7th DNA 8:30.15

1996 Olympic Results – Atlanta

800m
-Johnny Gray, 5, 1st 1:45.97 2, 2nd 1:44.00 **F-7th** 1:44.21
-Jose Parilla 6, 6th, DNA 1:49.99
-Brandon Rock, 8, 5th DNA 1:48.47
1500m
-Brandon Hyde 1, 9th, DNA 3:48.2
-Jason Pyrah, 3, 9th DNA 3:39.91
-Paul McMullen, 5, 2nd 3:39.94 2, 9th DNA 3:37.81
5000m
-Matt Giusto, 1, 9th DNA 14:30.76
-Jim Spivey, 2, 9th 13:52.16 2, 13th DNA 14:27.72
-Bob Kennedy, 3, 4th 13:54.57 1, 4th 13:27.9 **F-6th** 13:12.35
10000m
-Dan Middleman, 1, 17th DNA 29:50.72
-Brad Barquist, 2, 16th, DNA 29:11.20
-Todd Williams DNF
Marathon
-Keith Brantly, F-28th 2:18:17
-Mark coogan, F-41st 2:20:27
-Bob Kempainen F-31st 2:18:38
Steeple
-Robert Gary, 1, 11th DNA 8:49.68
-Mark Croghan, 2, 3rd 8:27.91 2, 6th 8:21.01 **F-12/12** 9:51.9
-Marc Davis, 3, 5th 8:31.25 1, 1st 8:26.76 **F-5th** 8:17.84

2000 Olympic Results – Sydney

800m
-Richard Kenah Jr DNA round 1, 1:47.85 heat 1, 6th
-Bryan Woodward DNA round 1, 1:47.64 heat 6, 5th
- Mark Everett, DNA round 1, 1:49.77 heat 8, 5th
1500
-Michael Stember Round 1, 3:39.13 1,6th 3:42.30. 1,9th DNA
-Gabriel Jennings Round 1, 3:40.96 2,6th 3:40.10 2,9th DNA
-Jason Pyrah Round 1 3:38.94 3,7th 3:40.04 1, 3rd **F-10th 3:39.84**
Steeple
Mark Croghan, 8:25.88. 1,5th DNA
Anthony Cosey, 8:35.25 2, 10th DNA
Pascal Dobert, 8:29.52 3, 6th DNA
5000m

-Adam Goucher 13:24.34, 1,7th F-13th, 13:43.20.
-Nick Rogers, 13:46.18 1,12th DNA
-Brad Hauser, 13:39.41 2, 11th DNA
10,000
-Abdi Abdirahman – 28:09.04 1, 7th Final - **27:46.17 (10th place)**
-Mebrahtom Keflezighi- 27:58.96. Final **- 27:53.63 (12th place**
-Alan Culpepper – 29:00 2,17th DNA
Marathon
-Rod Dehaven – 2:30.46 F-69th

2004 Olympic Results – Athens

800m
Jonathon Johnson- Round 1, 1:45.31, 2nd DNA, semi, 1:50.1 8/8
Khadevis Robinson- DNA Prelims 1:46.1
Derrick Peterson- DNA prelims 1:47.6
1500m
-Alan Webb – DNA Round 1, 3:41.25 9th
-Charlie Gruber – DNA Round 1, 3:41.73 9th
-Grant Robison – Round 1, 3:53.66 11th, DNA Semi 3:47.03 12th
Steeple-
Daniel Lincoln - Final, 8:16.86 (11th place)
Anthony Famiglietti – DNA Round 1, 8:31.59 8th
Robert Gary – DNA Round 1, 8:38.01 12th
5000m
Tim Broe – Round 1, 13:20.29, 6th **Final 13:33.06 (11th place)**
Jonathon Riley – DNA Round 1 13:38 (dna)
10,000m
Dan Brown – Final, 28:14.53 12th
Abdi Abdirahman – Final, 28:26.26, 15th
Dathan Ritzenhein – DNF
Marathon
Mebrahtom Keflezighi - 2:11:29 (silver medal)
Alan Culpepper - 2:15:26 (12th place)
Daniel Browne - 2:27:17 (65th place)

Results for Olympiads, 1956-1988:

Hugman, B. *The Olympic Games : complete track and field results, 1896-1988*. New York. Facts On File.

Results for Olympiads, 1992-2000

LA84 Foundation, 2005. http://www.la84foundation.org/5va/reports_frmst.htm

Results for 2004 Olympics:

Wikipedia. United States at the 2004 Athens Olympics, Athletics. http://en.wikipedia.org/wiki/United_States_at_the_2004_Summer_Olympics#Athletics

<u>Appendix B –</u> American Record Progression (800 and up), from existing 1954 record to present (with notation when close to or actual World Record)

800m
1.47.9 Malvin Whitfield Jul 17, 1953
1.47.5y Lonnie Spurrier Mar 26, 1955
1.46.8 Tom Courtney Jul 17, 1955
1.46.7 Arnold Sowell Jun 16, 1956
1.46.4 Tom Courtney Jun 30, 1956
1.46.0 Tom Courtney Jul 26, 1957
1.45.8 Tom Courtney Aug 09, 1957
1.44.9*y Jim Ryun Oct 06, 1966 **WR**
1.44.8 Ken Swenson Jul 16, 1970
1.44.3* David Wottle Jul 01, 1972 **WR**
1.44.6y Rick Wohlhuter May 27, 1973 **WR**
1.44.1y Rick Wohlhuter Jun 08, 1974 **WR**
1.43.9 Rick Wohlhuter Jun 22, 1974
1.43.74* Johnny Gray Jun 19, 1984
1.43.74 Earl Jones Jun 19, 1984
1.43.28 Johnny Gray Aug 24, 1984
1.43.28* Johnny Gray Aug 26, 1984
1.42.96 Johnny Gray Aug 29, 1984
1.42.60 Johnny Gray Aug 28, 1985 .87 off WR

1500m
3.44.2 Wesley Santee Jul 23, 1953
3.42.8 Wesley Santee Jun 04, 1954 **WR**
3.41.5 William Dellinger Aug 05, 1958
3.41.3 Dyrol Burleson Aug 12, 1960
3.40.9 Dyrol Burleson Sep 06, 1960
3.40.9* Jim Beatty Jul 29, 1961
3.40.2 Jim Beatty Aug 07, 1961
3.39.9 Jim Beatty Jul 22, 1962
3.39.4 Jim Beatty Aug 09, 1962
3.39.3 Cary Weisiger Jun 07, 1963
3.38.1 Tom O'Hara Jun 28, 1964
3.36.1 Jim Ryun Jul 17, 1966
3.33.1 Jim Ryun Jul 08, 1967 **WR**
3.31.96 Steve Scott Aug 26, 1981
3:31.24 Sydney Maree, Aug 28, 1983 **WR**
3.31.76 Steve Scott Jul 16, 1985
3.29.77 Sydney Maree Aug 25, 1985 **.31 off WR**
3.29.30 Bernard Lagat Aug 28, 2005

Mile
4.02.4 Wesley Santee Jun 23, 1953
4.01.3 Wesley Santee May 29, 1954
4.00.6 Wesley Santee Jun 04, 1954
4.00.5 Wesley Santee Apr 02, 1955
3.58.7 Don Bowden Jun 01, 1957
3.58.6 Dyrol Burleson Apr 23, 1960
3.58.0 Jim Beatty May 28, 1960
3.57.6 Dyrol Burleson May 24, 1961
3.55.5 Jim Beatty Jun 07, 1962
3.56.5 Jim Beatty Aug 18, 1962

3.56.3 Jim Beatty Aug 21, 1962
3.55.4 Jim Grelle Jun 15, 1965
3.55.3 Jim Ryun Jun 27, 1965
3.53.7 Jim Ryun Jun 04, 1966
3.51.3 Jim Ryun Jul 17, 1966 **WR**
3.51.1 Jim Ryun Jun 23, 1967 **WR**
3.49.68 Steve Scott Jul 11, 1981 **.72 off WR**
3.48.53 Steve Scott Jun 26, 1982 **1.2 off WR**
3.47.69 Steve Scott Jul 07, 1982 **.36 off WR**
3:46.91 Alan Webb, Jul 21, 2007

5000m
14.30.? Ralph Hill Aug 05, 1932
14.26.8 Fred Wilt Jun 29, 1950
14.26.0 William Dellinger Jun 29, 1956
14.25.5 William Dellinger Oct 13, 1956
14.22.8 Max Truex USA Oct 20, 1956
14.16.2 William Dellinger Nov 01, 1956
14.14.5 Max Truex May 11, 1957
14.04.2 Max Truex May 31, 1957
14.03.6 Max Truex May 06, 1960
13.51.7 Jim Beatty Jun 03, 1960
13.49.6 Max Truex Jun 02, 1962
13.45.0 Jim Beatty Aug 24, 1962
13.38.0 Bob Schul Jun 05, 1964 **3 seconds off WR**
13.38.0* Gerry Lindgren Jun 04, 1966
13.33.8 Gerry Lindgren May 25, 1968
13.32.2 George Young May 15, 1971
13.30.4 Steve Prefontaine Jul 03, 1971
13.29.6 Steve Prefontaine Apr 29, 1972
13.22.8 Steve Prefontaine Jul 09, 1972
13.22.4 Steve Prefontaine Jun 27, 1973
13.21.87 Steve Prefontaine Jun 26, 1974
13.19.40 Duncan MacDonald Aug 10, 1976
13.16.00 Martin Liquori Aug 24, 1977
13.15.06 Martin Liquori Sep 04, 1977 **3 seconds off WR**
13.12.91 Matt Centrowitz Jun 05, 1982
13.11.93 Alberto Salazar Jul 06, 1982
13.01.15 Sydney Maree Jul 27, 1985 **.75 off WR (same race), .74 off previous**
12.58.75 Bob Kennedy Jul 08, 1996 11 seconds
12.58.21 Bob Kennedy Aug 14, 1996

10000m
30.33.4 Curtis Stone Jun 20, 1952
30.31.9 Joe Tyler Jun 07, 1956
30.19.2 Lew Stieglitz Apr 22, 1960
29.58.9 Bud Edelen , CA May 06, 1960
28.50.2 Max Truex Sep 08, 1960
28.24.4 Bill Mills Oct 14, 1964
28.17.6 Bill Mills Aug 12, 1965
28.08.0 Gregory Seattle Jun 16, 1972
27.58.2 Frank Shorter Aug 31, 1972
27.51.4 Frank Shorter Sep 03, 1972
27.43.6 Steve Prefontaine Apr 27, 1974
27.39.4 Craig Virgin Jun 17, 1979
27.29.16 Craig Virgin Jul 17, 1980 **7 seconds off WR**

27.25.61 Alberto Salazar Jun 26, 1982 **3 seconds off WR**
27.20.56 Mark Nenow Sep 05, 1986
27.13.98 Mebrahtom Keflezighi May 04, 2001

Marathon
2.29.01 Albert Michelsen Oct 12, 1925 **WR**
2.24.52 John J. Kelley Sep 30, 1956
2.20.56 John J. Kelley Oct 11, 1958
2.18.57 Leonard Edelen Dec 02, 1962
2.14.28 Leonard Edelen Jun 15, 1963 **WR**
2.13.28 Ken Moore Dec 07, 1969
2.11.36 Ken Moore Dec 06, 1970
2.10.30 Frank Shorter Dec 03, 1972
2.10.20* Tony Sandoval Sep 09, 1979
2.10.20 Jeff Wells 1979
2.10.08 Alberto Salazar Apr 09, 1983
2.09.21 Alberto Salazar Dec 04, 1983
2.07.01 Khalid Khannouchi Oct 22, 2000
2.05.38 Khalid Khannouchi Apr 14, 2002 **WR 43 seconds off WR**

Steeple
8.45.4 Horace Ashenfelter Jul 25, 1952 **WR**
8.40.8 Philip Coleman Aug 02, 1958
8.38.0 George Young Jul 16, 1961
8.34.2 George Young Oct 15, 1964 **4.6 seconds off WR**
8.32.4 Pat Traynor Aug 17, 1967
8.30.6 George Young Jun 21, 1968
8.26.4 Sid Sink Jun 26, 1971
8.23.2 Douglas Brown May 11, 1974
8.22.54 George Malley Jun 11, 1977
8.21.55 Henry Marsh Jul 05, 1977
8.19.29 Douglas Brown Aug 18, 1978
8.15.68 Henry Marsh Jun 28, 1980
8.12.37 Henry Marsh Aug 17, 1983
8.09.17 Henry Marsh Aug 28, 1985 **3.77 seconds off WR**
8.08.92 Daniel Lincoln Jul 14, 2006

Statistics from:
Track and Field Statistics 2004. http://trackfield.brinkster.net/

<u>Appendix C</u> – World Record Progression (800m and up), from existing 1954 record to present (U.S. Athletes in bold)

800m
1.46.6 Rudolf Harbig GER Jul 15, 1939
1.45.7 Roger Moens BEL Aug 03, 1955
1.44.3 Peter Snell NZL Feb 03, 1962
1.44.3*y Jim Ryun USA Oct 06, 1966
1.44.3* Ralph Doubell AUS Oct 15, 1968
1**.44.3* David Wottle USA Jul 01, 1972**
1.44.6y Rick Wohlhuter USA May 27, 1973
1.43.7 Marcello Fiasconaro ITA Jun 27, 1973
1.44.1y Rick Wohlhuter USA Jun 08, 1974
1.43.50 Alberto Juantorena CUB Jul 25, 1976
1.43.44 Alberto Juantorena CUB Aug 21, 1977
1.42.33 Sebastian Coe GBR Jul 05, 1979
1.41.73 Sebastian Coe GBR Jun 10, 1981
1.41.73* Wilson Kipketer DEN Jul 07, 1997
1.41.24 Wilson Kipketer DEN Aug 13, 1997
1.41.11 Wilson Kipketer DEN Aug 24, 1997

1500m
3.43.0* Werner Lueg GER Jun 29, 1952
3.42.8 Wesley Santee USA Jun 04, 1954
3.41.8 John Landy AUS Jun 21, 1954
3.40.8 Sandor Iharos HUN Jul 28, 1955
3.40.8* Laszlo Tabori HUN Sep 06, 1955
3.40.8* Gunnar Nielsen DEN Sep 06, 1955
3.40.6 István Rózsavölgyi HUN Aug 03, 1956
3.40.2 Olavi Salsola FIN Jul 11, 1957
3.40.2* Olavi Salonen FIN Jul 11, 1957
3.38.1 Stanislav Jungwirth TCH Jul 12, 1957
3.36.0 Herbert Elliott AUS Aug 28, 1958
3.35.6 Herbert Elliott AUS Sep 06, 1960
3.33.1 Jim Ryun USA Jul 08, 1967
3.32.2 Filbert Bayi TAN Feb 02, 1974
3.32.03 Sebastian Coe GBR Aug 15, 1979
3.31.36 Steve Ovett GBR Aug 27, 1980
3.31.24 Sydney Maree USA Aug 28, 1983
3.30.77 Steve Ovett GBR Sep 04, 1983
3.29.67 Steve Cram GBR Jul 16, 1985
3.29.46 Said Aouita MAR Aug 23, 1985
3.28.86 Noureddine Morceli ALG Sep 06, 1992
3.27.37 Noureddine Morceli ALG Jul 12, 1995
3.26.00 Hicham El Guerrouj MAR Jul 14, 1998

Mile
4.01.4 Gunder Hägg SWE Jul 17, 1945
3.59.4 Roger Bannister GBR May 06, 1954
3.58.0 John Landy AUS Jun 21, 1954
3.57.2 Derek Ibbotson GBR Jul 19, 1957
3.54.5 Herbert Elliott AUS Aug 06, 1958
3.54.4 Peter Snell NZL Jan 27, 1962
3.54.1 Peter Snell NZL Nov 17, 1964

3.53.6 Michel Jazy FRA Jun 09, 1965
3.51.3 Jim Ryun USA Jul 17, 1966
3.51.1 Jim Ryun USA Jun 23, 1967
3.51.0 Filbert Bayi TAN May 17, 1975
3.49.4 John Walker NZL Aug 12, 1975
3.49.0 Sebastian Coe GBR Jul 17, 1979
3.48.8 Steve Ovett GBR Jul 01, 1980
3.48.53 Sebastian Coe GBR Aug 19, 1981
3.48.40 Steve Ovett GBR Aug 26, 1981
3.47.33 Sebastian Coe GBR Aug 28, 1981
3.46.32 Steve Cram GBR Jul 27, 1985
3.44.39 Noureddine Morceli Rieti Sep 05, 1993
3.43.12 Hicham El Guerrouj Rome Jul 07, 1999

5,000m
13.58.4 Gunder Hägg SWE Sep 20, 1942
13.57.2 Emil Zátopek TCH May 30, 1954
13.56.6 Vladimir Kuts URS Aug 29, 1954
13.51.6 Christopher Chataway GBR Oct 13, 1954
13.51.2 Vladimir Kuts URS Oct 23, 1954
13.50.8 Sandor Iharos HUN Sep 10, 1955
13.46.8 Vladimir Kuts URS Sep 18, 1955
13.40.6 Sandor Iharos HUN Oct 23, 1955
13.36.8 Gordon Pirie GBR Jun 19, 1956
13.35.0 Vladimir Kuts URS Oct 13, 1957
13.34.8 Ron Clarke AUS Jan 16, 1965
13.33.6 Ron Clarke AUS Feb 01, 1965
13.25.8 Ron Clarke AUS Los Jun 04, 1965
13.24.2 Kipchoge Keino KEN Nov 30, 1965
13.16.6 Ron Clarke AUS Jul 05, 1966
13.16.4 Lasse Viren FIN Sep 14, 1972
13.13.0 Emiel Puttemans BEL Sep 20, 1972
13.12.9 Dick Quax NZL Jul 05, 1977
13.08.4 Henry Rono KEN Apr 08, 1978
13.06.2 Henry Rono KEN Sep 13, 1981
13.00.41 David Moorcroft GBR Jul 07, 1982
13.00.40 Said Aouita MAR Jul 27, 1985
12.58.39 Said Aouita MAR Jul 22, 1987
12.56.96 Haile Gebrselassie ETH Jun 04, 1994
12.55.30 Moses Kiptanui KEN Jun 08, 1995
12.44.39 Haile Gebrselassie ETH Aug 16, 1995
12.41.86 Haile Gebrselassie ETH Aug 13, 1997
12.39.74 Daniel Komen KEN Aug 22, 1997
12.39.36 Haile Gebrselassie ETH Jun 13, 1998
12.37.35 Kenenisa Bekele ETH May 31, 2004

10,000m
29.01.6 Emil Zátopek TCH Nov 01, 1953
28.54.2 Emil Zátopek TCH Jun 01, 1954
28.42.8 Sandor Iharos HUN Jul 15, 1956
28.30.4 Vladimir Kuts URS Sep 11, 1956
28.18.8 Pyotr Bolotnikov URS ct 15, 1960
28.18.2 Pyotr Bolotnikov URS Aug 11, 1962
28.15.6 Ron Clarke AUS Dec 18, 1963
27.39.4 Ron Clarke AUS Jul 14, 1965
27.38.4 Lasse Viren FIN Sep 03, 1972

27.30.8 Dave Bedford GBR Jul 13, 1973
27.30.5 Samson Kimobwa KEN Jun 30, 1977
27.22.5 Henry Rono KEN Jun 11, 1978
27.13.81 Fernando Mamede POR Jul 02, 1984
27.08.23 Arturo Barrios MEX 18, 1989
27.07.91 Richard Chelimo KEN Jul 05, 1993
26.58.38 Yobes Ondieki KEN Jul 11, 1993
26.52.23 William Sigei KEN Jul 22, 1994
26.43.53 Haile Gebrselassie ETH Jun 05, 1995
26.38.08 Salah Hissou MAR Aug 23, 1996
26.31.32 Haile Gebrselassie ETH Jul 04, 1997
26.27.85 Paul Tergat KEN Aug 22, 1997
26.22.75 Haile Gebrselassie ETH Jun 01, 1998
26.20.31 Kenenisa Bekele ETH Jun 08, 2004
26.17.53 Kenenisa Bekele ETH Aug 26, 2005

Marathon
2.25.39 Yun Bok Suh KOR Apr 19, 1947
2.20.42 James Peters GBR Jun 14, 1952
2.18.40 James Peters GBR Jun 13, 1953
2.18.34 James Peters GBR Oct 04, 1953
2.17.39 James Peters GBR Jun 26, 1954
2.15.17 Sergey Popov URS Aug 24, 1958
2.15.16 Abebe Bikila ETH Sep 10, 1960
2.15.15 Toru Terasawa JPN Feb 17, 1963
2.14.28 Leonard Edelen USA Jun 15, 1963
2.13.55 Basil Heatley GBR Jun 13, 1964
2.12.11 Abebe Bikila ETH Oct 21, 1964
2.12.00 Mono Shigematsu JPN Jun 12, 1965
2.09.36 Derek Clayton AUS Dec 03, 1967
2.08.34 Derek Clayton AUS May 30, 1969
2.08.18 Robert de Castella AUS Dec 06, 1981
2.08.05 Steve Jones GBR Oct 21, 1984
2.07.12 Carlos Lopes POR Apr 20, 1985
2.06.50 Belaine Dinsamo ETH Apr 17, 1988
2.06.05 Ronaldo de Costa BRA Sep 20, 1998
2.05.42 Khalid Khannouchi MAR Oct 24, 1999
2.05.38 Khalid Khannouchi USA Apr 14, 2002
2.04.55 Paul Tergat KEN Sep 28, 2003

Steeple
8.44.4 Olavi Rinteenpää FIN Jul 02, 1953
8.49.6 Sandor Rozsnyoi HUN Aug 28, 1954
8.47.8 Pentti Karvonen FIN Jul 01, 1955
8.45.4 Pentti Karvonen FIN Jul 15, 1955
8.45.4* Vasiliy Vlasenko URS Aug 18, 1955
8.41.2 Jerzy Chromik POL Aug 31, 1955
8.40.2 Jerzy Chromik POL Sep 11, 1955
8.39.8 Semyon Rzhishchin URS Aug 14, 1956
8.35.6 Sandor Rozsnyoi HUN Sep 16, 1956
8.35.6* Semyon Rzhishchin URS Jul 21, 1958
8.32.0 Jerzy Chromik POL Aug 02, 1958
8.31.4 Zdzislaw Krzyszkowiak POL Jun 26, 1960
8.31.2 Grigoriy Taran URS May 28, 1961
8.30.4 Zdzislaw Krzyszkowiak POL Aug 10, 1961
8.29.6 Gaston Roelants BEL Sep 07, 1963

8.26.4 Gaston Roelants BEL Aug 07, 1965
8.24.2 Jouko Kuha FIN Jul 17, 1968
8.22.2 Vladimir Dudin URS Aug 19, 1969
8.22.0 Kerry O'Brien AUS Jul 04, 1970
8.20.8 Anders Gärderud SWE Sep 14, 1972
8.19.8 Benjamin Jipcho KEN May 19, 1973
8.14.0 Benjamin Jipcho KEN Jun 27, 1973
8.10.4 Anders Gärderud SWE Jun 25, 1975
8.09.8 Anders Gärderud SWE Jul 01, 1975
8.08.0 Anders Gärderud SWE Jul 28, 1976
8.05.4 Henry Rono KEN May 13, 1978
8.05.35 Peter Koech KEN Jul 03, 1989
8.02.08 Moses Kiptanui KEN Aug 19, 1992
7.59.18 Moses Kiptanui KEN Aug 16, 1995
7.59.08 Wilson Boit Kipketer KEN Aug 13, 1997
7.55.72 Bernard Barmasai KEN Aug 24, 1997
7.55.28 Brahim Boulami MAR Aug 24, 2001
7.53.63 Saif Saaeed Shaheen QAT Sep 03, 2004

Statistics from:
Track and Field Statistics 2004. http://trackfield.brinkster.net/

<u>Appendix D</u> - U.S. Athletes with top 10 times in the world, by Olympic Year
(recorded by where their performance ranked them in the top 10 lists in each event)

1956
800- 1,3,9
Mile- 8, 10
5000-x
10000-x
Marathon-x
Steeple-x

1960
800- 5,6,7
1500-7
Mile- 2,3,9
5000-8
10000-6th
Mar-x
Steeple- 10

1964
800- 3,7,8
1500- 2,3,4
Mile- 5,6,6,8
5000m-1,5,7,
10000-1
Mar-x
Steeple, 5

1968
800- 3,4,9
1500- 5
Mile- 3,5,6,7,9
5000- 7
10000-x
Mar- 10
Steeple 5

1972
800- 1,3,4,5,6,8
1500-7,10
Mile- 1,7,10
5000-6
10000-5
Mar-1
Steeple- x

1976
800-4,7
15- 8,10
Mile-x
5000- 9
10000- 5,8
Mar- 2,3,5
Steeple- x

1980
800- 1,7
1500-6,9
Mile-2,8,9
5k- 5,7
10k-1
Marathon-2,8,9,
Steeple- 6

1984
800- 3,6,8,8
15-4,9
Mile-6,9
5k-x
10k- 4,6,7,9,10
Marathon- x
Steeple-4,7

1988
800-1
1500-2
Mile-5,6
5-5
10-x
Marathon-x
Steeple- 7

1992
8-1,4,6,8
15-7
Mile- 8,10
5-x
10-x
Mar-x
Steeple-x

1996
8-x
15-x
Mile-4
5-8
10-x
Mar-x
Steeple-x

2000
8-x
15-x
Mile-x
5-x
10-x
Mar- 3,

Steeple-x

2004
8-x
15-x
Mile-4
5-x

10-x
Mar-x
Steeple-x

Statistics from:
Track and Field Statistics 2004. http://trackfield.brinkster.net/

Appendix E – USATF Coaching Certification Program

The coaching education program provides educational opportunities for all levels of coaches, from grass roots to the elite level. The program is comprised of three progressional levels, each of which has the following components:

* Sport Science
Extensive instruction in sport science is covered in order to provide a scientific basis of understanding for rational development of technique and training programs. The sport science portion has been developed by the American Coaching Effectiveness Program (ACEP) and the USATF National Coaching Education Committee. It includes sport psychology, pedagogy, and sports medicine.
* Technical, Event-Specific Instruction
Throws, jumps, sprints/hurdles, and endurance events are all covered at the basic level in this school. Event-specific instruction is progressive in nature. Consequently, at Levels 2 and 3, each event is covered in greater depth and detail than the previous level.
* Hands-on Training
Experience is the best teacher. Minimum standards of practical experience are expected of participants at each level.

Education Levels

* Developmental - Association-based, introductory course that offers a grass roots overview of the sport and coaching.
* Level 1 - basic knowledge course that emphasizes rules, basic mechanics, and teaching progressions.
* Level 2 - more in-depth training in an event specific group (sprints/hurdles/relays, endurance, jumps, throws, combined events).
* Level 3 - very high-level seminar structure educational experience in a specific event area.

Taken From:
USATF Coaching Education. http://www.usatf.org/groups/Coaches/education/

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