

# *TRACK* **COACH** 2021 / ISSUE 234





# TRACK COACH

Winter 2021 — 234



The official technical  
publication of  
USA Track & Field

<i>USING THE STEP-UP FOR TRACK &amp; FIELD ATHLETES</i>	<i>..... 7454</i>
<i>THE EVOLUTION OF FIBERGLASS VAULTING TECHNIQUE</i>	<i>..... 7458</i>
<i>PRACTICAL TRAINING SOLUTIONS USED DURING JUSTYNA ŚWIETY-ERSETIC'S RECORD-BREAKING SEASON</i>	<i>..... 7463</i>
<i>DON'T SNOOZE? YOU LOSE!</i>	<i>..... 7470</i>
<i>MULTI MAGIC?</i>	<i>..... 7472</i>
<i>USATF COACHING EDUCATION</i>	<i>..... 7479</i>

# TRACK COACH

FORMERLY TRACK TECHNIQUE

234 — WINTER 2021



**USATF**

The official technical  
publication of  
USA Track & Field

ED FOX.....PUBLISHER  
RUSS EBBETS.....EDITOR  
TERESA TAM.....PRODUCTION & DESIGN  
FRED WILT.....FOUNDING EDITOR

## **PUBLICATION**

Track Coach is published quarterly by  
Track & Field News,  
2570 W. El Camino Real, #220,  
Mountain View, CA 94040 USA.

The Spring 2021 issue (No. 235)  
of Track Coach will be e-mailed to  
subscribers in April 2021.

## **SUBSCRIPTIONS**

\$19.95 per year, U.S. or foreign.  
Track Coach became a digital-only  
publication in 2015. Track & Field News  
subscribers get free access to  
all Track Coach articles.  
See [www.trackandfieldnews.com](http://www.trackandfieldnews.com).  
Click on "subscribe"

## **BACK ISSUES OF TRACK COACH**

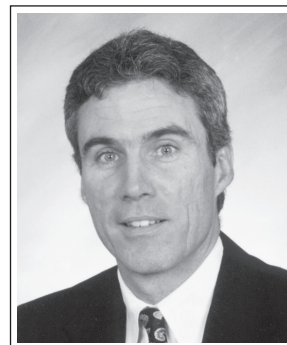
Many back issues of Track Technique/  
Track Coach, #111-208, are available  
singly at \$5.50 (U.S. delivery)/  
\$9.50 (foreign delivery) each  
postpaid. No issues previous  
to #111 are available.

To order, send your check to

**Track Coach**  
2570 W El Camino Real,  
Suite 220,  
Mountain View, CA 94040

FROM THE EDITOR

## **RUSS EBBETS**



### **A QUESTION OF BALANCE**

I am willing to bet if you took a survey most Americans would agree with the statement that "everything we do, we do the best." Cars, planes, lifestyle, hands down we lead the pack. Right or wrong, the sentiment that "we are the best" is something core to the American way of life, something deeply embedded in our DNA. USA, USA, USA!

I'm also sure a similar sentiment would describe an evaluation of America's sports prowess. My surveyers would no doubt point to football, baseball and basketball as glaring examples. Forget the facts that all three sports are American inventions or that barely 50 years ago there was little world-wide participation or understanding of those sports. Those are just trivial details. As the survey list progressed to the Olympic sports the sentiment of excellence would not change, certainly not with track & field. The U.S. has consistently been the world's dominant player in track & field for the last century. If pressed my survey volunteers might be able to rattle off three or four iconic names like Jesse Owens, Carl Lewis, FloJo or JJK but past that I'm sure there would be some shoulder shrugs, upturned hands and a request for "a little help here."

When our survey got to coaching greats past Knute Rockne, Vince Lombardi, Red Auerbach or that lady from Tennessee (Pat Summit) answers would morph back to the shoulder shrug and upturned hands. The general public would be hard pressed to name even one great track coach.

But what makes a great coach? One simple answer is a great athlete. You see it all the time. Lightning strikes and suddenly there is a league, county, state or national champion when said coach's skill set might be limited to feeding, watering and pointing in the right direction. Or a favorable aid package.

Our own American conceit has served us well. Heck, ask any sports psychologist and they'll tell you self-belief is half the battle, even 95% if you believe Yogi Berra. But for all those positives this line of thought entails it also disguises a greater blindness or inability to see the forest for the trees. Whether this is due to denial or ignorance we don't like to go there. Any suggestion that one's greatest strength could be one's greatest weakness is blasphemous.

But really, isn't introspection what good coaching should be about? Trial and error, learn from one's mistakes, change, adapt and thrive? For some, maybe yes; for others, maybe

CONTINUED ON NEXT PAGE



## EDITORIAL COLUMN

*Continued from page 7452*

no. Some feel that if one can make the athlete bigger, faster or stronger you can solve the Riddle of the Sphinx. This thought only gets fuel from charting the evolution, over the last 30 years, of a football players' size and skill sets to create a compelling argument. To a degree, I am forced to agree. But were I to mention there is a price to be paid? The lifelong injuries and other long-term consequences of football are conveniently pushed aside.

Track & field is a technique dominant sport. The better able one is to execute biomechanically sound movement patterns the better the result. Pick any event and one's success rests on the ability to balance the development of the five biomotor skills. Get too strong and you can lose speed and flexibility. Get too flexible and you dampen the stretch reflex. Bulk up and that mass can be more difficult to move higher, faster and farther. Test the outer limits of speed actions and coordination begins to unravel to the detriment of soft tissue and joints. There is a price to be paid for achievement. The elusive quest for perfection/excellence also has its consequences in our sport.

Twenty years ago, I attended a strength seminar in Toronto. One of the presenters was an Australian strength

coach named Ian King. He spoke on shoulder injuries and weight training. One of the points he made was that poor shoulder postures combined with heavy duty lifting programs create shoulders that have a five-year lifespan before there is a major injury. What is a major injury? For an athlete—anything that precludes participation. And as anyone who has had a shoulder injury knows the return to participation can take a loooong time.

Balance is an invisible quality and is the most important biomotor skill. Doubt it? The simple fact is one cannot do anything, including applying force to run, jump or throw, without one's balance. Yet regardless, many training programs blindly charge ahead always striving for a visible more, more, more.

I would also suggest one consider balance in the larger sense. What I am referring to here is an even tempered presentation in the personal life, lifestyle and athletic aspirations. Without a balanced approach the quest for bigger, faster, stronger can easily shift towards bigger, faster, wronger.

Fundamentals should be at the core of any athlete's life and lifestyle. We could be talking about movement patterns or postures but also included would be dietary practices, values and religious or moral beliefs. Athletic participation offers the opportunity to develop or

evolve in these areas that on the back end will leave the former athlete truly bigger, faster and stronger in both the literal and figurative sense.

## HIGH SCHOOL TRACK 2021

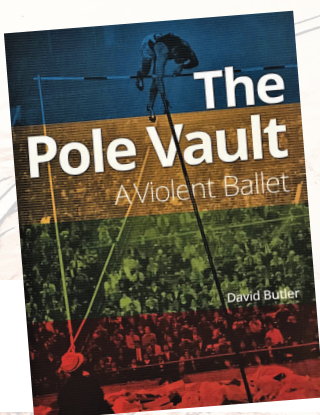


HST'S 63rd (!) edition is now available. It has a complete statistical wrap-up of the historic 2020 prep season, men & women, indoors and out. National, age and class records. 2020 and all-time performance lists. An indispensable resource for the high school track fan. 68 pages. \$12.00, includes postage/handling. Prepared by T&FN HS editor Jack Shepard.

Make checks payable to and order from:

**Jack Shepard**  
**14551 Southfield Dr.**  
**Westminster, CA 92683**

Back issues and volume discounts available—  
write for quotes or e-mail: [shepwest@aol.com](mailto:shepwest@aol.com)



## THE POLE VAULT A VIOLENT BALLET

**By David Butler**

Foreword by Scott Huffman & Tim Mack / Introduction by Jim Bemiller

**Facebook: The Vault: How Bamboo Steel & Fiberglass changed our lives**

For More Information Contact:

David Butler at [stavhop@comcast.net](mailto:stavhop@comcast.net)

\$47.95 USA / \$79.95 International

## CHAPTER 2

# THE EVOLUTION OF FIBERGLASS VAULTING TECHNIQUE

This is Part 2 of a historical review of pole vaulting technique by David Bussabarger. Part 1 was in *Track Coach* #232.

BY DAVID BUSSABARGER

ILLUSTRATIONS BY DAVID BUSSABARGER

*Rigid pole vaulting, using poles made of various materials, dominated the pole vault from the mid-to-late 19th century to 1960, when the last WR using a stiff pole was set by 1960 Olympic Champion Don Bragg at 15'-9¼"/4.81. Rigid pole technique was based on the Double Pendulum principle. Simply put, this meant the vaulter should strive to literally become a pendulum rotating about his closely spaced hands as the pole rotated about the box, creating a second inverted pendulum.*

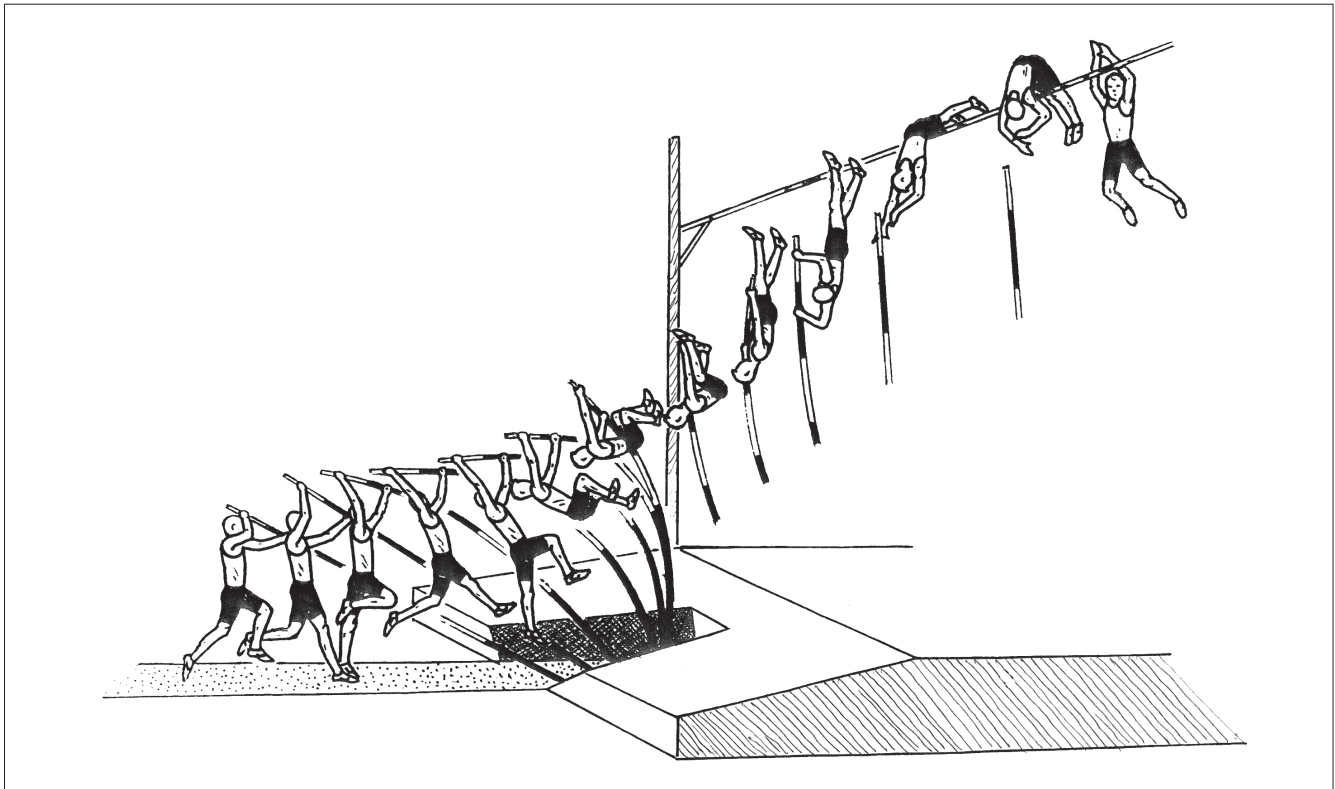
*The earliest competitive rigid pole vaulters typically had a relatively*

*wide handsread of 1' to 2' (ideal for rigid vaulting). Based on photographic evidence, the Double Pendulum principle appears to have been introduced in pole vaulting in the early 1900's. This can be deduced by the fact that vaulters in this period had developed closely spaced hands, which was necessary to create a single axis of rotation, the single most critical factor in the development of the vaulter's pendulum-like swing.*

In 1961 George Davies became the first fiberglass vaulter to set a WR by leaping 15'-10½"/5.83. Note that Davies increased his handsread

to about 6" apart and only bent the pole roughly 20 degrees. In short order most of the best rigid pole vaulters at the time switched to fiberglass poles. Soon WR's were being broken routinely. In 1963 alone, the WR was broken 10 times ending with John Pennel becoming the first man over 17' (17' 1¼"/5.20).

In the early years of fiberglass vaulting no one knew how to best take advantage of bendable poles. Most vaulters in this period used modified rigid pole technique with wider hand spreads. This improved the vaulter's control and stability, which was an important factor when using bend-



1988 Olympic champion Sergey Bubka (Ukr), 19'8¼" (6.00), 1985

ing poles. Note that most vaulters started with handspreads of only 6" to 1', which was then increased over time. So right from the beginning fiberglass vaulters began evolving away from the Double Pendulum principle. John Pennel was the first fiberglass vaulter to use a very wide handspread of about 26" and also to fully bend the pole to about 90 degrees at maximum bend.

In the first 10 years or so of the fiberglass era almost all vaulters and coaches believed there had to be one ideal way to vault with fiberglass poles. This seemed reasonable at the time due to the fact that rigid vaulters had developed one ideal method of vaulting and the fiberglass era was still quite new and in its developmental stage (typified by a plethora of individual vaulting styles at all levels of the event). The greatly varying vaulting styles seen among elite vaulters

at this time made it impossible to have any clear idea of what ideal fiberglass technique might look like.

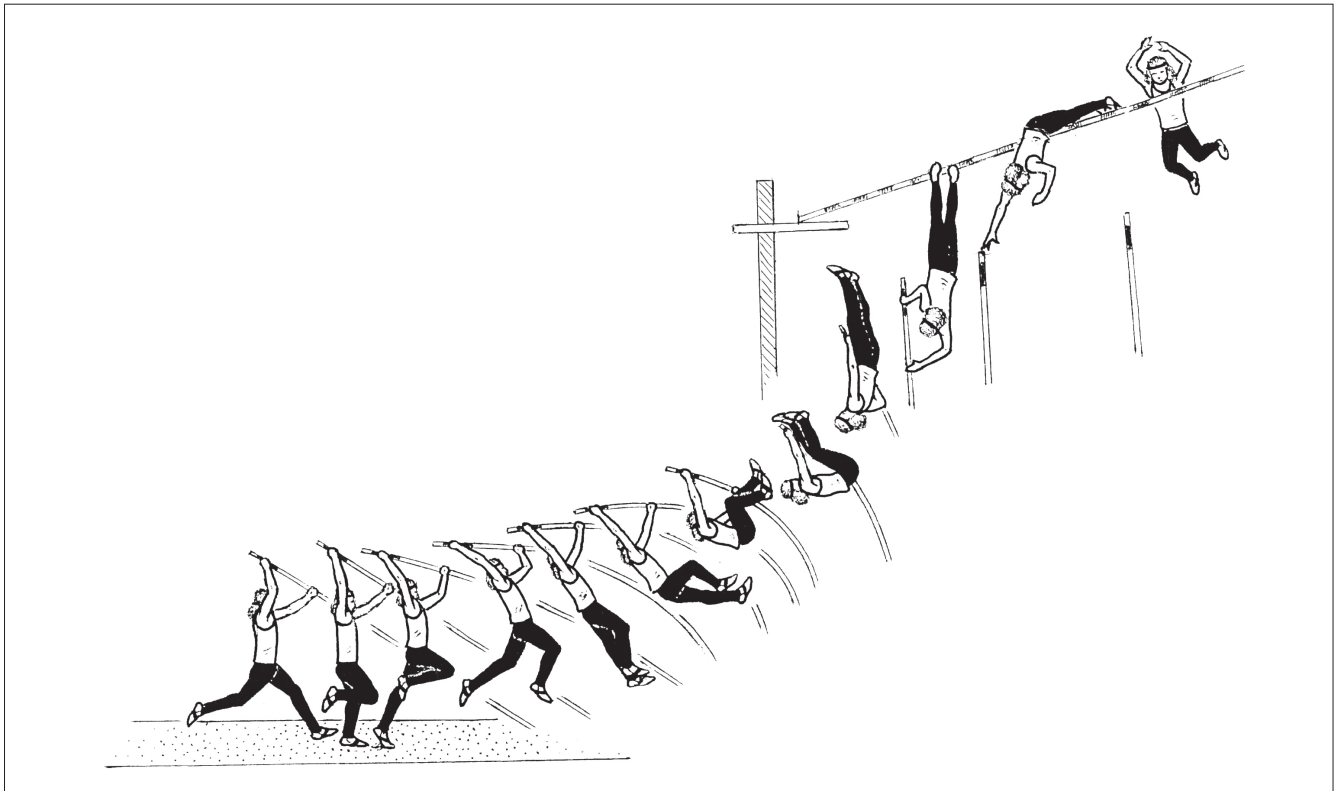
In 1972 Kjell Isaksson of Sweden set three outdoor WR's, culminating in a WR 18'4¼"/5.60. Many at this time thought Isaksson's technique was nearly perfect. However, Isaksson was only in top form for a short while and his WR was soon broken by Bob Seagren at the 1972 U.S. Olympic Trials with a vault of 18'-5¾"/5.63. Note that Seagren had an individual vaulting style that strongly contrasted with Isaksson's.

As time went on, individualized fiberglass vaulting styles continued to proliferate and the WR continued to improve. As a result, the view that Isaksson's technique was ideal faded.

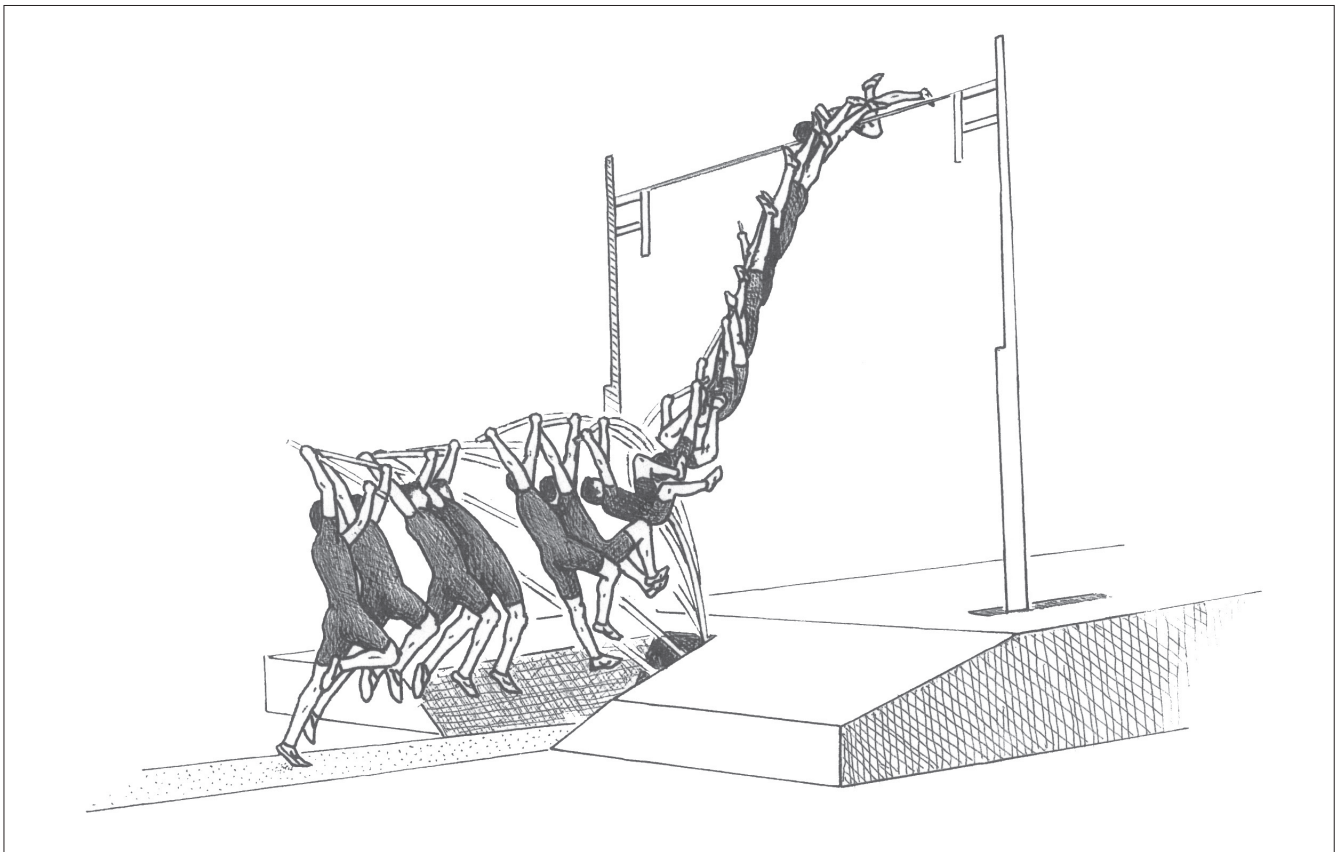
Based on personal experience as a successful vaulter in this time period

(PR 16'9"/5.10, 40th highest vault in the world in 1971), the writer did not know of any coach or vaulter at the time who attempted to design fiberglass technique based on the Double Pendulum principle, as rigid vaulters did. A major reason was that there were a good number of conflicts between effective fiberglass technique and rigid pole technique. As a result, vaulters and coaches were free to develop technique in any direction that produced good results. This led to the continued development and evolution of individual fiberglass vaulting styles that persist to this day and has been a critical factor in the improvement of vaulting performance over the years.

However, in the early 1980's Vitaly Petrov of Russia developed his own technical "model", which he taught to his star pupil Sergey Bubka. Bubka went on to set over 30 WR's and became the first man over

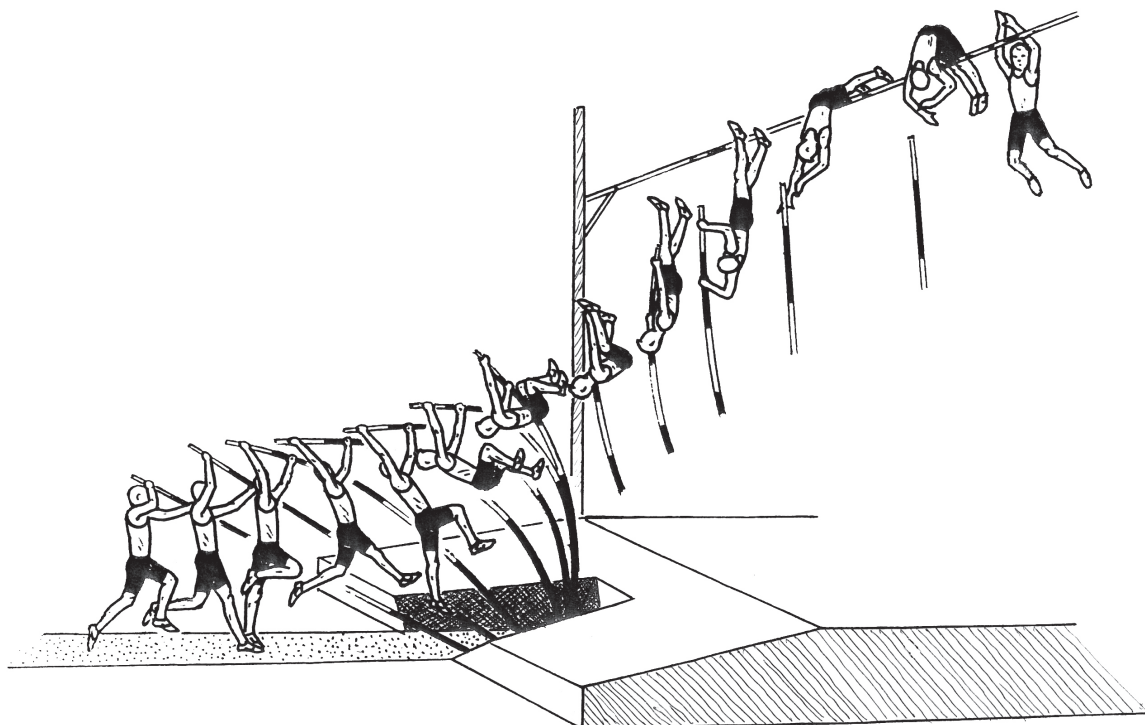


2008 Olympic champion Steve Hooker (Aus), 19'10½" (6.06), 2009

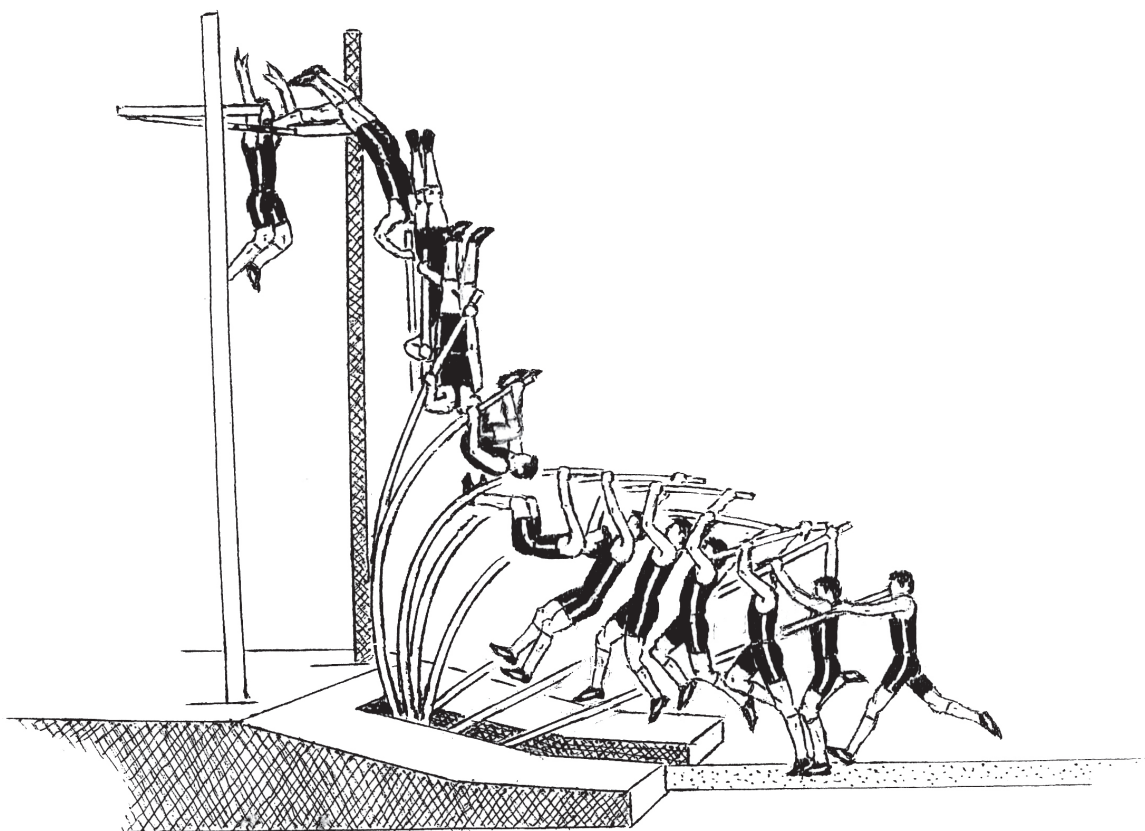


2012 Olympic champion Renaud Lavillenie (Fra), 19'8½" (6.01), 2014





2016 Olympic bronze medalist Sam Kendricks (USA), 19'10½" (6.06), 2019



World Record holder Mondo Duplantis (Swe), 19'10¼", 2017



20'6.10 in 1991. His great success convinced a great many people in the world wide vaulting community that Petrov's model was ideal and therefore all vaulters should base their technique on it.

Ironically, even though a great many coaches and vaulters became Petrov advocates, very few elite vaulters over the years (both men and women) actually adopted the Petrov model in its entirety. Bubka is the only vaulter to reach 6m or better who completely mastered all aspects of Petrov's model (with some inconsistency). Several other 6m+ vaulters, such as Maksim Tarasov, Dmitriy Markov and Timur Morgunov incorporate/incorporated parts of the Petrov model into their own individual vaulting style with excellent success.

The Petrov model is based on the idea that fiberglass vaulters should rotate the pole to vertical like rigid vaulters did. In effect he was reintroducing the idea of a pole pendulum in fiberglass vaulting. This, in turn, was based on the idea that as the

pole bends, the axis of the pole becomes an invisible line from the top hand to the tip of the pole in the box. If the invisible pole axis is "plotted" it makes it appear that bending poles rotate to vertical.

It is the writer's view that the movement of bending poles during the vault should be plotted following the vaulter's top hand on the pole through the vault. This reveals a wave-like motion in the pole and a concave parabola (verses a convex parabola in rigid vaulting). It is important to point out that in fiberglass vaulting the path of movement of the top hand is based on what actually occurs in the real world, while the path of the pole's axis is basically an illusion. Therefore, in this writer's judgment, the Petrov model is based on a questionable mechanical premise.

Despite the great influence of the Petrov model, which continues to this day, individualistic vaulting styles have continued to evolve and improve. As previously pointed out, Bubka is the only vaulter among the

current all-time top five vaulters to adopt the Petrov model. The other four vaulters (Steve Hooker, Sam Kendricks, Renaud Lavillenie and Mondo Duplantis) all have highly individualized vaulting styles that have little relationship to the Petrov model.

It is the writer's philosophy that no vaulter should attempt to directly duplicate the technique of another vaulter, no matter how successful the vaulter in question may be. A good example here is Mondo Duplantis, who set indoor and outdoor WR's in 2020. Duplantis has stated that he was strongly influenced by Lavillenie's technique when developing his own vaulting style. But Duplantis "personalized" his technique to the point that it became an easily recognizable individualistic technical style.

In conclusion, each vaulter is an individual with individual characteristics. Therefore, each vaulter should strive to create an individual style that suits him or her the best.

## TAFNEWS BOOKS NOW AVAILABLE ON **AMAZON.COM**

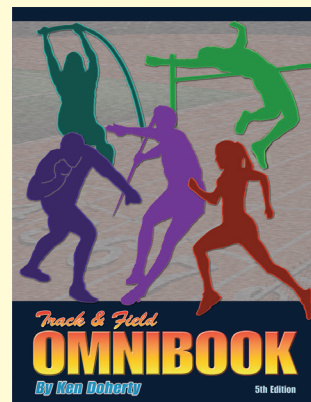
### **The Book Every Coach Should Have**

Track & Field Omnibook is a complete guide to track & field technique and training in one volume, along with the best-ever discussion of how to be an effective and humane coach. Ken Doherty, a member of the Track & Field Hall of Fame, coached at Michigan and Penn and was a longtime director of the Penn Relays. He wrote the first Omnibook in the early 70's, and three subsequent revised editions appeared through 1985. Under the guidance of Dr. John Kernan. Most of the Human Side of Coaching material has been retained, but the event/technique chapters were extensively revised and updated.

The result allows Omnibook to reclaim its position as the best and most comprehensive textbook in the field and a reference source that will be invaluable to veteran and beginning coaches alike. 5th edition, revised, edited and updated by John Kernan. 418pp.

**Available only from [www.amazon.com](http://www.amazon.com) \$45<sup>00</sup>**

*This book was formerly out of print and not available, but we have arranged with Amazon.com to print on demand and offer on their website. Order directly from Amazon.com.*



*Note: There may be other offers on amazon.com for used copies, but for the new, T&FN-authorized, pristine copies look for the entries with the above prices.*

# **USING THE STEP-UP FOR TRACK & FIELD ATHLETES**

Carl Valle has coached track & field at all levels, high school and above, since 1997.  
He is currently the lead sport technologist for [spikesonly.com](http://spikesonly.com).

BY CARL VALLE

The step-up is one of the most versatile exercises and underappreciated movements in the weight room. Seen primarily as an assistance exercise, it strangely doesn't get the same respect as other exercises such as squats and lunges. All athletes in track & field—not just sprinters & field event athletes—can benefit from this timeless exercise. If you are a track & field coach looking to improve leg strength or a sports medicine professional trying to help an athlete get back to competition, the step-up is one of the best single-leg exercises an athlete can use in training. With countless variations and numerous ways to load and manage it, the step-up is one of the crown jewels

of movement in strength training.

## **WHAT IS THE STEP-UP PRECISELY?**

The step-up exercise is exactly what it sounds like: a unilateral exercise that literally projects an athlete up and sometimes forward using a box or platform. While a step-up is basically a single-leg exercise, it can be difficult to discern how much the rear leg contributes without careful observation. To be transparent, the number one drawback to using step-ups is the challenge of managing the exercise's difficulty so it doesn't dissolve into a movement that involves cheating. Unlike single-leg squats where the

rear leg is sometimes involved to help the athlete self-spot, the rear leg in step-ups is sometimes part of the movement when transitioning between repetitions. Thus, the step-up can be rendered a liability when the exercise is not coached with a high standard.

It can be argued that the step-up is a variation of the single-leg squat on a box, with the only difference being the step-up movement is initiated with a primarily concentric action rather than an eccentric muscular contraction. Over the years, step-ups have slowly migrated from a concentric-only exercise to a more balanced way to raise and lower an athlete on a box or other elevation.

Currently, many coaches prescribe eccentric-only “step-downs” to elicit neuromuscular changes that help with either deceleration abilities or rehabilitation needs, and for reinforcing technique. Loading is fairly simple: The exercise adds either external load or range of motion, with a higher box creating more difficulty and a higher load increasing the demand of the exercise. External loading in the form of barbells, dumbbells, weighted vests, and even sandbags are common with coaches.

While the step-up has many variations, including small modifications to improve special training qualities, the biggest similarity between them all is that the athlete starts on the ground and pushes down and through a box or bench-style equipment. The height of the box can vary from a shallow platform, merely inches up from the ground, all the way up to a point that maximally challenges an athlete’s hip flexibility. Athletes can emphasize the eccentric motion as a way to ensure the contraction is balanced, but most focus on accelerating the femur down until the hip is vertical and stacked over the foot.

Some coaches actually encourage a jumping action using a bench, but nearly everyone, regardless of the load, attempts to push in a manner that accelerates the entire body in a similar way to running out of the blocks. Although technically a vertical single-leg exercise, many high-level coaches believe the exercise is specific to early acceleration in sprinting.

## NEW SCIENCE AND PRACTICE

The current body of evidence for

the step-up is sparse, but extensive enough to support the value of the exercise as a fine contributor to lower body strength. Most of the research performed on the step-up attempts to appraise the exercise by using electromyography to infer the contribution of muscle groups to the joint motion of the exercise. Very few have studied the effect of the exercise on training over time. From the sum of the research, however, it’s safe to say the exercise is a well-rounded option for training the lower body.

Small differences have been seen between lateral (stepping up to the side) and frontal (traditional), but for the most part the exercise challenges the gluteals, hamstrings, quads, and adductors. Nothing in the research reveals anything startling about the exercise, but in general, the exercise seems to have a lot of interest beyond sport, such as for seniors and those in independent living. Without extrapolating the research too much, it’s my opinion that the exercise is important for locomotive climbing, an asset in acceleration and cross country. As for general running, the step-up is likely just a Swiss Army knife of exercises that can be added to any program.

As I mentioned in another article dedicated to the step-up, perhaps the use of the free leg punching up through hip and knee flexion has merit in vertical ground forces. While I don’t know the true contri-



**Pictured here is the eccentric version of the step-up using a tall set of boxes and a light kettlebell. The most common differences between exercises are the load, box height, rear leg contribution, and speed of the movement.**

bution, the faster the motion, the more likely the body can exploit the cross-extensor reflex in the exercise to put more force down vertically. This additional motion, swinging the knee up, is more of a choice or option, in my opinion, but we need more research to truly know.

## OPTIONS IN TRAINING

The step-up’s strongest asset is the numerous modifications that can be made to individualize it to both the athlete and the phase of training. Perhaps the most important quality of the step-up movement is how plastic it is with solving the specific needs of the training or rehabilitation session. Therapists can use it for post-surgery, strength coaches can use it with beginners, and scholastic coaches can

---

use it to help with transfer in the throws, jumps, and sprints. Overall, coaches can modify the load, step height, contraction style, and speed of the exercise. The exercise can be used in different parts of the year, ranging from general preparation movements to maximal strength and power for the championship season.

---

**IT IS UP TO THE COACH TO SELECT THE TYPE OF STEP-UP, WHERE TO PLACE IT DURING THE SEASON, AND HOW TO LOAD THE BODY DURING THE SESSION.**

---

For sports medicine purposes, the step-up is a great indicator of readiness due to the obvious fact that the right and left legs can be compared and contrasted for asymmetry deficits. While an asymmetry isn't a guarantee of injury risk or cause of poor performance, the current body of evidence does hint that a significant asymmetry is a sign of possible risk or that the rehabilitation program is incomplete. The popularity of eccentric training for rehabilitation in sport is well documented, and jumper's knee and other patella tendon pathologies respond well to the eccentric step-up (step down) if managed properly. In addition to the knee, the step-up is also suited for foot, ankle, hip, and spinal rehabilitation.

Most proponents of the step-up see the exercise as a general strength movement, ranging from work capacity type circuits to max strength sessions. Usually, the greater the load, the slower and lower the movement is performed, utilizing small boxes with loads

larger than body weight. Provided the exercise is done with skill and appropriate loads, it can be used as a primary movement, similar to barbell squatting and Olympic lifts. Regardless of the load, the exercise must accelerate through the concentric phase of the motion. Lowering safely and under control is recommended with all strength-style options.

Higher speed motions or jumping variants, usually without external load and done with benches that are safe and sturdy, are seen as assistance exercises. Due to the rear leg acting as a pogo stick, the exercise moves from a single-leg emphasis exercise to a double-leg jump with unique power development characteristics. Heavy vests and hand weights such as dumbbells and kettlebells are fine as long as the movement is crisp and the repetitions are uniform. Additional sensors such as velocity-based training tools are welcome ways to ensure the intention of the exercise is executed in training. Testing the exercise for power development is too embryonic for guidelines, but eventually we will see more data-driven field assessments with this type of exercise, as a one rep maximum test is inappropriate and too risky.

Last but not least are the true jumping options, where an athlete jumps up but doesn't run up a box or platform. While not a pure step-up, any exercise where the athlete lands higher than the previous take-off point has step-up-like qualities, as accelerating the body up and forward is technically a comparable exercise. Finally, while single-leg step-ups tend to be the mode of choice with most variations, the use of a bilateral double-leg jump

up specialized stairs or stacked boxes is effective for rate of force development, provided the athlete projects far and fast enough.

It is up to the coach to select the type of step-up, where to place it during the season, and how to load the body during the session. Removing the step-up entirely is certainly possible, as no exercise in the weight room or outside the track complex is indispensable when so many other options in training exist. Still, due to the benefits of the exercise, it warrants some type of inclusion, as the practitioner can mold and shape it according to specific needs.

## **TAKE STEP-UPS TO THE NEXT LEVEL**

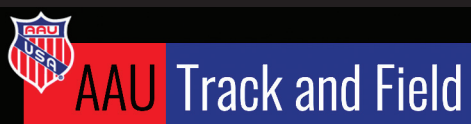
In parting, the step-up exercise is gold for improving athlete strength and providing the ability to accelerate the body in a meaningful way. While functional training has had its literal ups and downs with the step-up, today a fully integrated approach to using this classic movement should be fairly easy to adopt in any environment. It doesn't matter if you work with a large team of cross country athletes or one-on-one with an athlete rehabbing an injury, the step-up provides countless ways to challenge an athlete and is only limited by a coach's creativity and experience.

Due to its safety and flexibility, all professionals should include the exercise in a well-planned training program without hesitation. I have benefitted from the step-up for years and know that a vast array of track and field professionals can leverage this fantastic exercise.



## REFERENCES

- Appleby BB, Newton RU, Cormack SJ. Kinetics and Kinematics of the squat and step-up in well-trained rugby players. *J Strength Cond Res.* 2019 Jul;33 Suppl 1:S36-S44. doi: 10.1519/JSC.0000000000003055. PMID: 30707142.
- Park SH, Lee YS, Cheon SH, Yong MS, Lee D, Lee EJ. Analysis of the ratios of medial-lateral and proximal-distal muscle activities surrounding the hip joint in the step-up and step-down positions. *J Back Musculoskelet Rehabil.* 2019;32(2):299-303. doi: 10.3233/BMR-160779. PMID: 30347585.
- Simenz CJ, Garceau LR, Lutsch BN, Suchomel TJ, Ebben WP. Electromyographical analysis of lower extremity muscle activation during variations of the loaded step-up exercise. *J Strength Cond Res.* 2012 Dec;26(12):3398-405. doi: 10.1519/JSC.0b013e3182472fad. PMID: 22237139.
- Nyberg LA, Hellénus ML, Wändell P, Kowalski J, Sundberg CJ. Maximal step-up height as a simple and relevant health indicator: a study of leg muscle strength and the associations to age, anthropometric variables, aerobic fitness and physical function. *Br J Sports Med.* 2013 Oct;47(15):992-7. doi: 10.1136/bjsports-2013-092577. Epub 2013 Aug 21. PMID: 23966416.
- Chinkulprasert C, Vachalathiti R, Powers CM. Patellofemoral joint forces and stress during forward step-up, lateral step-up, and forward step-down exercises. *J Orthop Sports Phys Ther.* 2011 Apr;41(4):241-8. doi: 10.2519/jospt.2011.3408. Epub 2011 Feb 2. PMID: 21289449.
- Muyor JM, Martín-Fuentes I, Rodríguez-Ridao D, Antequera-Vique JA. Electromyographic activity in the gluteus medius, gluteus maximus, biceps femoris, vastus lateralis, vastus medialis and rectus femoris during the monopodal squat, forward lunge and lateral step-up exercises. *PLoS One.* 2020 Apr 1;15(4):e0230841. doi: 10.1371/journal.pone.0230841. PMID: 32236133; PMCID: PMC7112217.
- Mercer VS, Gross MT, Sharma S, Weeks E. Comparison of gluteus medius muscle electromyographic activity during forward and lateral step-up exercises in older adults. *Phys Ther.* 2009 Nov;89(11):1205-14. doi: 10.2522/ptj.20080229. Epub 2009 Sep 24. PMID: 19778980.
- Ebben WP, Feldmann CR, Dayne A, Mitsche D, Alexander P, Knetzger KJ. Muscle activation during lower body resistance training. *Int J Sports Med.* 2009 Jan;30(1):1-8. doi: 10.1055/s-2008-1038785. Epub 2008 Oct 30. PMID: 18975260.



## Continues to reach for NEW heights by now offering New Event Opportunities for the Open/Masters Age Division!

The AAU will be hosting the AAU Open & Masters National Championship & High School Extravaganza at the VIRGINIA BEACH SPORTS CENTER located in Virginia Beach, VA.

**Event Date: March 6-7, 2021**  
**Official Event Page Link: [aautrackandfield.org](http://aautrackandfield.org)**

Adding the **AAU Open & Masters National Championship & High School Extravaganza** to an already impressive AAU Indoor Track and Field Calendar shows the commitment to taking AAU Track and Field brand to the next level. By giving our AAU Track & Field members another opportunity to continue to compete at high level against competition from all over the country.

This state-of-the-art venue will host a diverse roster of sporting events and tournaments when it opens in the fall of 2020. The new Sports Center is located across the street from the Virginia Beach Convention Center and within an easy stroll to local shops, restaurants and attractions, including the Oceanfront Boardwalk and beach, making it the perfect place to play... and then play some more!

Meet information and registration can be found on [aautrackandfield.org](http://aautrackandfield.org) and [coacho.com](http://coacho.com) when available. Send any questions to Yolanda Freeman, Meet Director at [yfreeman.aau@gmail.com](mailto:yfreeman.aau@gmail.com)

### VIRGINIA BEACH SPORTS CENTER VIRTUAL TOUR:

<https://www.vbgov.com/government/departments/communications-office/hot-topics/entertainment-district/Pages/Sports-Center.aspx>



**ABOUT THE AAU:** The Amateur Athletic Union (AAU) is one of the largest- non-profit volunteer sports organizations in the country. As a multi-sport organization, the AAU is dedicated exclusively to the promotion and development of amateur sports programs. Founded in 1888 to establish standards and uniformity in sports, the AAU philosophy of "Sports For All, Forever" is now shared by nearly 700,000 members and 150,000 volunteers across 41 sports programs and 55 U.S. districts.



# **PRACTICAL TRAINING SOLUTIONS USED DURING JUSTYNA ŚWIĘTY-ERSETIC'S RECORD-BREAKING SEASON**

This is a continuation of the article that appeared in TC#232 re the meticulous training data involving the Polish 400m champion.

*BY JANUSZ ISKRA AND ALEKSANDER MATUSIŃSKI  
THE JERZY KUKUCZKA ACADEMY OF PHYSICAL EDUCATION IN KATOWICE, POLAND*

## **TRAINING PERIODIZATION**

Achieving high performance during the season, especially peak performance during the most important competitions, depends on properly planned training work. Each training cycle contains data on the training loads to be used by the athlete, taking into account their magnitude, quality, and variations throughout the season. The complete training plan should include data on volume, intensity, and correction of the emphasis during individual training sessions in the microcycle. The plan should also include information on the training measures used and

the fitness and technical requirements to be met by the athlete. In general, the annual training cycle in track & field can be divided into three periods: preparation period (general and special), competitive period, and the transition period. In the case of the athlete discussed in this study (she successfully participates in indoor competitions and is the current Polish indoor record holder, 8-times Polish champion, and 3-times World Cup finalist), there are two competitive periods (the indoor and summer competitive periods) and the associated two periods of general and special preparation.

## **SHORT DESCRIPTION OF PREPARATION FOR THE 2018 SEASON**

In 2017, Justyna Święty-Ersetic won two medals at the European Indoor Championships and a bronze medal at the World Championships in the 4x400 m relay. Furthermore, the sprinter improved her personal best significantly and achieved a second result in Europe (51.15 in Hengelo). Unfortunately, in the middle of the season, the athlete suffered a serious injury as she tore her ligaments in the ankle joint. The preparation period for the 2018 season started on 13 October 2017, without know-

ing how much the injured leg would affect the athlete's training. All the above achievements from the previous year made her even more involved in training.

The athlete trained six times a week in her hometown of Racibórz, with rest days on Sundays. In the training camp cycle, Justyna usually performs 10 training sessions a week, with Sundays also left as rest days. After three weeks of quiet training at home, Justyna Świąty-Ersetic had her first two-week training camp in Szklarska Poręba, Poland. During this camp, she focused on aerobic endurance, pace endurance, general strength, running strength, efficiency, and running technique. Another camp in Portugal in December, due to the warmer climate, allowed for more intensive speed endurance training performed in track spikes.

The athlete spent January in South

Africa, in hot weather using excellent training facilities located at 1400m above sea level. With the possibility of training in a warm climate and at altitude, Justyna Świąty performed training sessions with significant loads, both in terms of volume and intensity.

The athlete focused mainly on maximum strength, special endurance (after which she reached lactate levels of above 20 mmol/l), and speed endurance. At the same time, she continued to improve the previously developed abilities. The end of January and February were the period spent on two training camps in Spała, Poland, and the practice of the tasks related to the technique of running on the curve, maximum speed, dynamic strength, and speed and special endurance.

During the 2018 indoor season, Justyna Świąty-Ersetic participated in 12 competitions, which included

distances of 200, 300, and 400 meters. She often competed twice a day, e.g. 200 and 300m or preliminary heats and a semifinal. It was then that she set an indoor Polish record (51.78), took 4th place in the Indoor World Championships in Birmingham in the 400m and 2nd place in the 4x400 m relay.

After a few days off, the sprinter flew again to South Africa for three weeks, where she trained in a similar way to what she did in November and December, but with much greater intensity. In April, she participated in another camp in a warm climate on the island of Tenerife. The focus during this camp was on special endurance, speed endurance, maximum strength, and running technique. After her return, she stayed at a training camp in Spała, where she improved her abilities developed at previous training camps. The difference, however, was in reducing

Table 1: Training measures and their importance each period in training for 400m

Training measures	Training periods		
	General preparation period	Special preparation period	Competitive period
<b>Basic (main, the most important)</b>	<ul style="list-style-type: none"> <li>-pace endurance</li> <li>-strength endurance</li> <li>-extensive interval</li> <li>-general strength</li> <li>-additional strength exercises</li> <li>-flexibility</li> </ul>	<ul style="list-style-type: none"> <li>-technical speed</li> <li>-interval speed endurance</li> <li>-special endurance 1</li> <li>-mixed speed endurance (classic interval)</li> <li>-comprehensive endurance</li> <li>-dynamic strength</li> <li>- running strength</li> <li>-flexibility</li> </ul>	<ul style="list-style-type: none"> <li>-maximum speed</li> <li>-classic speed endurance</li> <li>-special endurance 1</li> <li>-dynamic strength</li> <li>-explosive strength</li> <li>-flexibility</li> </ul>
<b>Necessary (important)</b>	<ul style="list-style-type: none"> <li>-technical speed exercises</li> <li>-interval speed endurance</li> <li>-intensive intervals</li> <li>-interval strength endurance</li> <li>-continuous running</li> <li>-comprehensive endurance</li> </ul>	<ul style="list-style-type: none"> <li>-maximum speed</li> <li>-classic speed endurance</li> <li>-special endurance 2</li> <li>-stress training</li> <li>-extensive interval</li> <li>-general strength</li> <li>-explosive strength</li> <li>-additional strength exercises</li> </ul>	<ul style="list-style-type: none"> <li>-mixed speed endurance (classic interval)</li> <li>-technical speed</li> </ul>
<b>Additional (complementary)</b>	<ul style="list-style-type: none"> <li>-technical speed</li> </ul>	<ul style="list-style-type: none"> <li>-technical speed exercises</li> <li>-interval speed endurance</li> <li>-intensive intervals</li> <li>-pace endurance</li> <li>-strength endurance</li> <li>-interval strength endurance</li> </ul>	<ul style="list-style-type: none"> <li>-extensive interval</li> <li>-general strength</li> <li>-running strength</li> <li>-additional strength exercises</li> </ul>

the number of sections, extending rests, and increasing the intensity during running training sessions.

After 10 days of competition in Osaka, the athlete started the competitive period, setting her personal best (51.05). After seven starts in 400m, the camp in Zakopane initiated the period of direct competition preparation for the most important competitions of the season, particularly the European Championships in Berlin. The direct competition preparation period consisted of classic phases of accumulation, intensification (during which the Polish Championship took place), and transformation. At the Polish

Championship, where she was the favourite, the sprinter took only second place.

The European Championship in Berlin proved to be an extraordinary challenge because, after the winning final in the 400m and a new personal best (50.41), there were only 90 minutes before the relay. Despite this, the athlete went down in history, winning her second gold medal in the 4x400 at the Continental Championships.

The well planned one-year preparation period and the lack of training breaks caused by injuries contributed to the fact that Justyna Święty-

Ersetic competed 19 times during the summer season, including 17 times in the 400m. In all with the indoor season, she competed 29 times, always achieving top results.

Interestingly, she actually competes as often every year. The number of starts increases as the sports skill level rises: on the one hand, the athlete is invited to international sporting events, prestigious competitions, and on the other hand, she participates in all the rounds at championships, including relays, which almost doubles the number of starts.

The transition period for this athlete

**Table 2: Layout of training emphasis in the microcycle in individual training periods**

Day	Training periods		
	General preparation period	Special preparation period	Competitive period
<b>Monday</b>	Strength + agility (hurdles)	1 Speed 2 General strength	Dynamic strength + jumping ability
<b>Tuesday</b>	Running strength + aerobic endurance	1 Speed endurance 2 Aerobic endurance + hurdle agility	Speed+speed endurance
<b>Wednesday</b>	Strength endurance	Special endurance	Special endurance
<b>Thursday</b>	Pace endurance	1 Dynamic strength 2 Running strength + aerobic endurance	Dynamic + explosive strength
<b>Friday</b>	Interval speed endurance	1 Speed endurance 2 Aerobic endurance + hurdle agility	Technical speed
<b>Saturday</b>	Aerobic endurance	Special endurance	Competition 400m
<b>Sunday</b>	Rest	Rest	Rest

**Table 3: General preparation period: training details**

Day	Training emphasis	Example training unit
Monday	Strength + agility (hurdles)	Strength 100% + walking on the hurdles (on lead leg, trail leg, through themiddle) - 6 hurdles 84 cm, distance 10 feet
Tuesday	Running strength + aerobic endurance	5x100m A-skips +20x45s extensive intervals, r=45s + 5x100mmultiple jumps
Wednesday	Strength endurance	10x200m uphill, r=200m (downhill running)
Thursday	Pace endurance + running strength elements	5x100 A-skips + 5x(1-2-1 min), r= 1-2-3 min+ 6x60mstrides, r=30s
Friday	Interval speed endurance	4x5x100m, r=slow running/5 min, t=17-16-15-14s
Saturday	Aerobic endurance	5x1000m, t=5 min/4 min50s/4 min 40s/4min 30s/4min 20s, r=4min, +strides 6x60m
Sunday	Rest	

**Table 4: Special preparation period I (before the indoor season). A camp cycle with two training sessions**

Day	Training emphasis	Example training unit
Monday	Speed	3x crouch starts on the curve + 3x40m+2x60m, r = 3-6min
	Strength	Strength 90% (submaximum loads)
Tuesday	Jumping ability	5x5 jumps over hurdles,multiple jumps: various versions
	Speed endurance	3x150m +3x120m, r = 6-8min, intensity up to 90%
Wednesday	Special endurance	150+250+150+250m, r = 6-12min, intensity up to 85%
	Recovery	Hydrotherapy (sauna)
Thursday	Dynamic strength	With a light weight
	Technical speed	Indoor runs on the curve: 2x60m run-in + 2x60m run-out+ 2x60m curve, r = 4-6min
Friday	Speed endurance	2x5x100m, r = 2-3/10min
	Aerobic endurance + hurdle agility	10x1min, r = 1min + walking on the hurdles (on the front leg, rear leg, through themiddle) - 6 hurdles 84 cm, distance 7 feet
Saturday	Special endurance	150+250+350+250+150m, r = 6-12min, intensity up to 85%
	Recovery	Massage
Sunday	Rest	

**Table 5: Competitive period: indoor season**

Day	Training emphasis	Example training unit
Monday	Dynamic strength	With a light weight
Tuesday	Speed	3x crouch starts on the curve + 3x40m+2x60m, r = 3-6min
Wednesday	Special endurance	3x200m, r = 6-12min, intensity up to 90%
Thursday	Explosive strength	Shot put exercises (3 kg shot)
Friday	Technical speed	Indoor runs on the curve: 2x60m run in, 2x60m run out, r = 4-6min
Saturday	Start	400m or 300+200m
Sunday	Rest	

**Table 6: Special preparation period II (before the summer season). A camp cycle with two training sessions**

Day	Training emphasis	Example training unit
Monday	Speed	Exercises and running on low hurdles, intensity 100%
	General strength	Load 100%
Tuesday	Speed endurance	3x(150 -120-150m), r = 2-3 4 /5-7min, intensity: 70 80% (running shoes) and 85% (running spikes)
	Agility (hurdles)+ aerobic endurance	Hurdle walks (on the front leg, rear leg, through themiddle) - 6 hurdles (84 cm), distance 7 feet + extensive intervals 10x45 s, r = 45 s
Wednesday	Special endurance	2x3x300m, p = 3-4/5min, t 54 51 s + r=7min +2-3x(300m in 45 s+100m walk +100m "hard"), r = 5-7min
	Recovery	Hydrotherapy (sauna)
Thursday	Dynamic strength	With a light weight
	Running strength + aerobic endurance	5x60m multijumps + 10x40-45s, r = 40s + 6x60m strides
Friday	Speed endurance	3x5x80m, r = 2/6min, first two sets with sleds, V=85%
	Aerobic endurance + agility (hurdles)	Hurdle walks (on the front leg, rear leg, through themiddle) - 6 hurdles (84cm), distance 7 feet + 10x45 s, r = 4-5min
Saturday	Special endurance	300+500+300+500m, V=80-95%, r = 6-10-15min
	Recovery	Massage
Sunday	Rest	

lasted three weeks, focused on physical and mental recovery before the next season, which would last 12 months (the athlete started preparations at the beginning of November 2018 and ended the season with the Military World Games in Wuhan in late October 2019).

During the detraining in the transition period, Justyna Święty-Ersetic does not do any training, and most often she goes to warm countries and takes brine baths in the sea. The disadvantage is that in the initial period of preparation, the athlete has muscle and joint pain in the whole body and starts training from lower strength and endurance levels. A similar method was used by the Polish record holder Irena Szewińska, who did not participate in any activity during the period of detraining.

## DETAILS OF TRAINING ORGANIZATION FOR THE 2017-2018 SEASON

Details of training organization for all periods of training are given in Tables 1-9. Table 10 offers an annual preparation cycle: organization

of training for 400m adult female athletes in the 2018 season (original table of Polish Athletic Association)

The key point of the 400m training program for female runners is the training sessions focused on special endurance (see part 1 of the paper).

**Table 7: Period after the first part of the competitive season—accumulation phase of the direct competition preparation**

Day	Training emphasis	Example training unit
Monday	General strength	Loads 100% + 6x60m, r = 30s
Tuesday	Speed endurance	3x4x100m, r = 1/5min, intensity up to 85%
Wednesday	Pace endurance	8x300m, r = 3-9min, intensity up to 80%
Thursday	General strength+running strength	Loads 100% + 6x100m multiple jumps
Friday	Speed endurance	2x5x80m, r = 2min
Saturday	Pace endurance	6x500m, r = 2-8min, intensity up to 80%
Sunday	Rest	

**Table 8: Period after the first part of the competitive season—intensification phase of the direct competition preparation**

Day	Training emphasis	Example training unit
Monday	Strength	Loads 90% + 6x60m multiple jumps
Tuesday	Speed+speed endurance	5x crouch start + 3x40 + 2x60+100+120m, r = 3-10min, intensity up to 95-98%
Wednesday	Special endurance	6x200m, r = 6-12min, intensity up to 90%
Thursday	Dynamic + explosive strength	Strength with small weight +multiple shot put exercises (3 kg shot)
Friday	Speed+speed endurance	3x60 + 3x80 +2x100m, r = 4-8min, intensity up to 95%
Saturday	Special endurance	3x300m, r = 6-12min. intensity up to 90%
Sunday	Rest	Recovery

**Table 9: Period after the first part of the competitive season—transformation phase of the direct competition preparation**

Day	Training emphasis	Example training unit
Monday	Dynamic strength + jumping ability	Loads 90% + standing long jumps and triple jumps
Tuesday	Speed	3x crouch starts on the curve + 3x40+2x60m r = 6min
Wednesday	Special endurance	150+250+150m, r = 8min, intensity 95%
Thursday	Explosive strength	Shot put exercises (3 kg shot)
Friday	Technical speed	Running on the curve - 2x60m entry into the curve, 2x60m exit from the curve
Saturday	Start or test	400m or 300+200m
Sunday	Rest	



**Table 10: Logistics of special endurance training for the 400m race**

No.	Order of organization	Examples*
1	Sports skill level (age)	A - Beginners B - Intermediate C - Advanced D - Champions: individual solutions
2	Training goal(s)	A - General goal, e.g. the improvement in race results by 0.5s B - Specific goal: faster first part of the run C - Lower speed decline on the last straight D - Faster starting entry into the curve
3	Training period	A - Preparation period (winter, general) B - Preparation period (early spring, specific) C - Pre-competitive period (late spring, sport-specific) D - Competitive period
4	Training method	A - Repetitions (short) B - Repetitions (long) C - Interval (short) D - Interval (mixed)
5	Length of running sections	A - Short sections (sprints): 30-200m B - Medium sections (classic for 400m): 200-500m C - Long sections (5000-1000m) D - Mixed sections (varia)
6	Intensity	A - Low (below 80%) B - Medium (approx. 85-90%) C - High (over 90%) D - Maximum (95-100%)
7	Number of repetitions (and sets)	A - Small (1-2) B - Medium (3-4) C - Classic (5-8) D - High (over 8)
8	Rests	A - Short (up to 2min.) B - Medium (2-4min.) C - Classic (6-8min.) D - Mixed (1-20min.)
9	Total training volume	A - Small (up to 500m) B - Medium (500-1000m) C - High (1000-2000m) D - Middle distance (over 2km)
10	Developed training unit (comment)	4x(300 + 100m), r=2-3min/10-15min (depending on the fitness level), V=85/95%.

\* - points A-D are only a part of the possibility to analyze training needs

## PLAN AHEAD **BUDAPEST 2023**

[www.trackandfieldnews.com](http://www.trackandfieldnews.com)



Budapest, Hungary, is the host city of the 2023 World Championships. A city on the Danube of endless fascination and Old (and New) World charm, Budapest welcomes us to the 19<sup>th</sup> World Championships. The dates have recently changed to August 19-27, 2023. We'll be there with a sizable tour group of fans, and we invite you to join us. The current deposit required is just \$250/person. Possible attractive optional extension trips to Vienna, Prague, Krakow, Zagreb, Dubrovnik, etc. Projected tour price, ca. \$4000 double occupancy. Air not included.

Track & Field News Tours • 2570 W. El Camino Real, Suite 220 • Mountain View, CA 94040

## Nine examples of special endurance training for the 400m race

A.

1. Champion-level female athlete
2. Problems in the last part of the run
3. In the pre-pre-competitive period (May)
4. The interval (mixed) method was used
5. The sections were divided into long and short
6. The running times were substantial (in the first run) and submaximal (in the short run)
7. 3-4 sets of two sections were planned
8. Rests between the sections were typical of the repetitive interval method (2-3/8-12min)
9. In total, the athlete ran 1600m
10. Comment: after 300m, the runner was already very tired, but has to continue running with high intensity for the last 100 m. The section after a break of 2-3 minutes forces the sprinter to maximal mobilization.

B.

1. Champion-level female athlete
2. Problems with the first part of the run (too slow a start)
3. Pre-competitive period (January)
4. Repetitive method
5. Short sections: 100m
6. High intensity - up to 90% of maximum intensity
7. 8 sections are planned, with the possibility of shortening in case of the decrease in speed
8. Classic rests until full recovery 6-8"
9. In total, the athlete ran 800m
10. Comment: the athlete has a problem with the quick start of the run. Running from the crouch start with high intensity allows the athlete to "code" the speed needed to start a 400 m run during the competition.

C.

1. Champion-level female athlete
2. Problems with running evenly over the distance: starting too fast or too slowly
3. Pre-competitive period (May)
4. Repetitive interval method
5. Medium sections: 200m
6. High intensity - up to 90% of maximum intensity
7. 6 sections are planned
8. Classic rests 8' and short rests 2'
9. In total, the athlete ran 600m
10. Comment: the first two 200m sections with intensity as in competition, allow the athlete to "code" the speed needed to start a 400m run during competition. Subsequent sections with short rests help develop the energy pathways to reduce a decrease in speed in the second part of the distance.

D.

1. Advanced female athlete
2. Problems with maintaining the pace of two races completed day after day
3. Preparation period (March)
4. Interval method
5. Short sections 100m and medium sections 500m
6. Medium intensity of up to 80%
7. 20 sections in one training session and 10 in the second session
8. Classic rests: short 1' and medium 5'
9. In total, the athlete ran 2000m and 5000m
10. Comment: on the first day, the athlete completed a speed endurance interval training session, and on the second day, after 12 hours, a pace endurance training session. Two intensive running training sessions simulate the competition conditions: preliminary heats and the final day after day.

E.

1. Intermediate female athlete
2. Problems with maintaining the pace on the second curve
3. Preparation period (March)

4. Interval method

5. Medium sections: 300m
6. Medium intensity of up to 80%
7. 8 sections are planned
8. Medium rests 3-5'
9. In total, the athlete ran 2400m
10. Comment: the runner is unable to maintain the pace after entering the curve, and therefore she runs 300m with the emphasis on running on the curve. The 300m section is marked every 100m, the athlete is expected to run the second 100m (on the curve) faster than the first and the third.

F.

1. Advanced female athlete
2. Problems with the last 50 meters of the distance
3. Pre-competitive period (May)
4. Repetitive method
5. Short sections: 150 m
6. High intensity of up to 95%
7. 5 sections are planned
8. Medium rests 8'
9. In total, the athlete ran 750m
10. Comment: the runner is unable to finish effectively: she "lets go" running on the last 50 m, and therefore during the training sessions, 150m runs with variable intensity were introduced: the first 100 m at 95% and the last 50m with maximum speed

G.

1. Advanced female athlete
2. Problems with getting close to the curb after 150 m during indoor runs
3. Competitive period (February)
4. Repetitive method
5. Medium sections: 250m
6. High intensity of up to 90%
7. Two sections are planned
8. Long rests 15min
9. In total, the athlete ran 500m
10. Comment: the runner is unable to win a high place after a 200m indoor run and therefore 250m runs from blocks were introduced during the training sessions, with the emphasis on active running on the curve and getting close to the curb

H.

1. Advanced female athlete
2. The athlete is afraid to compete at a distance of 400 m
3. Pre-competitive period (May)
4. Repetitive method
5. Short and medium sections: 150m and 350m
6. High intensity of up to 100%
7. Two sections are planned
8. Long rests 12min
9. In total, the athlete ran 500 m
10. Comment: the runner is afraid of competing in 400m races and therefore test training sessions were introduced, with a maximum intensity at a distance of 350m

I.

1. Advanced female athlete: she is at a high sports skill level in a 200 m sprint and changes the competition to 400 m
2. She is afraid of pace training sessions
3. General preparation period
4. Interval method
5. Medium sections: 250 m
6. Medium intensity of up to 70%
7. 8 sections are planned
8. Short rests 1' and medium rests 5'
9. In total, the athlete ran 2000m
10. Comment: the runner is unable to cope with the pace endurance on longer sections and therefore the sections of 500m were divided into two 250m sections with a short break (1min) run in 4 sets

# DON'T SNOOZE? YOU LOSE!

Sleep is an often overlooked, but vital, component of athletics performance. This article is adapted from the October 19, 2017 issue of *Athletics Weekly*.

BY JOHN BREWER

Most of us spend approximately one third of our lives asleep, and it is easy to view this as time that is “wasted”, with little benefit for training or competing. However, sleep is an essential part of an athlete’s training, and is the time when many of the physiological adaptations to the stimulus of training take place.

## HOW WE SLEEP

The human “body clock” is regulated by a series of cycles known as the circadian rhythm, which determines areas such as digestion, hunger, body temperature and heart rate, as well as the time of day when we sleep.

Sleep scientists have found that we have a series of sleep phases each lasting approximately 90 minutes, which initially take us into alternating periods of deeper and lighter sleep, before gradually emerging

to a lighter preawakening stage characterized by rapid eye movement, or REM.

## HOW SLEEP AIDS RECOVERY

It is during the deeper, non-REM phases, where sleep does most to help to support athletes. One of the first things to occur is the redistribution of blood supply, with over 40 per cent of the blood that normally goes to the brain during waking hours diverted to the muscles.

At the same time, hormones are released that help with the repair and growth of tissues, something that is essential after a long or intensive run or race. One of the main hormones that is released is human growth hormone, which plays an essential part in rebuilding and developing the proteins that constitute the muscle fibers that will

have been repeatedly exposed to the rigors and stimulus of running. Muscle and liver glycogen stores will also be replenished, ensuring that energy reserves are at full capacity in time for the next run.

## IMMUNITY BOOST

There is also evidence to suggest that sleep helps to support the body’s immune system. Setting your alarm clock at the same time each day is beneficial and infections are to be avoided. While asleep, the body releases proteins called cytokines.



Setting your alarm clock at the same time each day is beneficial

## FIVE THINGS YOU SHOULD KNOW ABOUT SLEEP

### You can eat yourself sleepy

A study in the American Journal of Clinical Nutrition found that eating high-glycemic carb such as jasmine rice or cereal around lunchtime can halve the time it takes to fall asleep because these foods increase the amount of the sleep hormone tryptophan circulating in the blood.

The Sleep Council, a trade association, recommends a “sleep sandwich” of banana (rich in magnesium and potassium, which help relax muscles), Marmite (rich in B vitamins, which assist the release of tryptophan in the brain) and lettuce.

Failing that, try eating two kiwi fruits, which are rich in the relaxing hormone serotonin, an hour before bedtime; this has been found to help people fall asleep 35% faster after four weeks.

### You need anything from 7-9 hours sleep a night

At Stanford University's sleep disorders clinic, Dr Cheri Mah analyzed the sleep/wake patterns of five female athletes over three weeks and asked them to perform a series of athletic tests that included sprinting, tennis serves and other drills.

On average, the women were getting between six to eight hours sleep a night, which, considering their activity levels, was probably too little. When the same subjects were asked to extend their sleeping one hour per night, their performance in the drills improved significantly and they were able to run faster, hit tennis balls more accurately and exhibit greater arm strength.

However, Dr Neil Stanley, a sleep consultant who was formerly the direc-

tor of sleep research at the University of Surrey, says you will know if you get enough. “Everyone has a different sleep requirement and some get by on six to seven hours, others need nine,” he says. “If you wake up tired every morning, then you probably aren't getting enough. It's that simple.”

### Skipped sleep hampers performance

Men who slept less than five hours a night for just one week were shown to have lower levels of testosterone than when fully rested. In the University of Chicago study of fit 24-year-old males, it was found that sleep deprivation caused a 10-15% drop in testosterone, a hormone essential for building muscle mass and bone density.

Dr Jonathan Leeder, an exercise physiologist at the English Institute of Sport in Manchester, has researched the effects of sleep loss and says both strength and endurance “can take a knock” as a result.

During deeper sleep, human growth hormone (HGH) produced by the pituitary gland is released into the blood. It is HGH that enables essential recovery processes such as repairing muscles and converting fat to fuel.

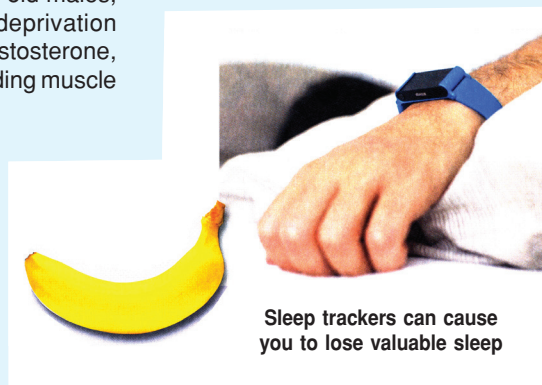
Consequently, too little sleep means the body produces less HGH and more of the stress hormone cortisol that Leeder says “definitely won't help with muscle recovery and building”.

### Sleep trackers can stop you sleeping

Got a sleep tracker on your GPS watch? You could do worse than turn it off.

Dr Kelly Glazer Baron, an associate professor at Rush University and a researcher on the sleep disorders program in the department of behavioural sciences, has shown that an obsession with sleep data is causing more insomnia than it is curing.

“For some people, sleep tracking became an obsession which interfered with sleep rather than made it better,” Baron says of her paper in the Journal of Clinical Sleep Medicine. Stanley says the data produced by sleep trackers is “meaningless”.



Sleep trackers can cause you to lose valuable sleep

### You should set your alarm for the same time each day

If you do just one thing to aid your sleep, make sure you try to get up at the same time every day, Stanley advises. Hitting the snooze button for a weekend lie-in is not the answer.

Sleep researchers at the University of Arizona showed that a one-hour lie-in at weekends was enough to cause “social jet lag”, a phenomenon caused by a discrepancy between your body's internal clock and your sleep schedule, that she linked to mood swings and fatigue.

Peta Bee

Some of these help to promote sleep, while others are important in the fight against inflammation and infection, and to combat the physical stresses that are caused as a result of training.

## PLAN TO SLEEP

Scientists and medical practitioners often recommend exercise during the daytime as a means of enhancing sleep quality, since the body

responds to the need to recover and repair by increasing sleeping time and quality. However, since sleep involves a reduction in heart

*(Continued on page 7478)*

# ***MULTI MAGIC?***

## ***A SUCCESSFUL FORMULA FOR COACHING THE COMBINED EVENTS***

Another comprehensive and well thought out piece by Coach Thorson

*BY MIKE THORSON, ASSISTANT COACH (HURDLES) AT THE  
UNIVERSITY OF MARY, FORMER DIRECTOR OF TRACK & FIELD/CROSS  
COUNTRY AT THE UNIVERSITY OF MARY, BISMARCK, ND*

We see change around us every day. It happens in life and certainly in the track & field world. One thing that doesn't change is that people want to be successful. We are still asked today how the University of Mary in Bismarck, ND, was able to have so much success in the combined events in the late 1990's and early 2000's. What were the ingredients and formula for success? Would that recipe still work today? Unfortunately, we can't pull out a cookbook that includes recipes for multi-events success. Every coach and institution has a different situation and set of circumstances.

The University of Mary had a unique set of circumstances to train com-

bined event athletes, and training had to be designed with this in mind. Winters can be brutal in North Dakota for a number of months and the only facility for indoor use at the school was the basketball gymnasium. Mary had no indoor track & field facility at the time. The Marauders did have access to their outdoor track, provided they were willing to shovel the snow from several lanes and train in temperatures that were often -10 degrees or lower (much lower with the wind chill).

A great deal of training was done on gravel roads near the university and in the swimming pool when the outdoor track was totally inaccessible. We were forced to be creative and

tailor our training to the environment we faced on a daily basis. Obviously, given the individual circumstances, every coach and program must determine **what** and **how** it wishes to coach its multi-event athletes.

We developed a training program that produced **repeated success** and that is always a trademark of a successful program. We had four different women win national titles in the combined events, some being multiple titlists. We had a number of men who were very successful as well. We can share what "worked" for us at Mary with our different circumstances and some of the commonalities that would apply to each and every combined events coach





and program. These will be outlined and discussed followed by some general training considerations.

## COMBINED ATHLETE TALENT

One of the major factors in the Mary combined event success was the fact that the Marauders always had great athletes competing in the multi-events. Not good. Great! They were athletes who possessed speed, strength, endurance, stamina, and explosive power. Perhaps more importantly, they were all very passionate and committed to

excellence and had an incredible work ethic!

None of the Mary combined event athletes specialized in the multi-events. Most of the multi women were national champions (or at the very least All-Americans) in other events and the men were typically conference and regional champions in individual events. Many programs make the mistake of guiding average athletes into the combined events with the idea that they can do "okay" in all or nearly all of the events. It rarely results in a successful heptathlete/decathlete.

An "average" athlete is more often than not an average or sub-average multi-eventer.

We always informed our prospective heptathletes and decathletes that they needed to be one of the best athletes on the team. We insisted that they have minimum of one great event, ideally more. That always narrowed the field considerably and resulted in our obtaining the very best athletes to compete in the heptathlon/decathlon/pentathlon.

One need not look any further than the University of Mary Athletic Hall of Fame to discover that the Marauders were placing their top athletes in the combined events. In fact, two of the Mary HOF athletes are in the NAIA Hall of Fame. Jamey Mulske, an eight-time national champion and 21-time All-American, and Mandy (Schroeder) Sheldon, a four-time national champion and 11-time All American, are both in the NAIA shrine. Annie Goodson and Cindy (Leingang) Thompson were other Marauders who captured national titles in the combined events. The top men's decathlete was Mary HOF standout hurdler/jumper Rob Renschler, who won a national championship in the triple jump.

My standard reply when people ask why we were so successful in the combined events: "We had great athletes who were very passionate and very highly motivated to be the best they could be."

## STAFF APPROACH

There is no question that coaches can and do make a difference. It's only common sense that the level of coaching that an athlete receives will significantly affect his/her final performance. The Mary approach to



training multi-event athletes was a **staff/coordinator approach** for a number of reasons. Many programs have enjoyed tremendous success with the “solo” method of coaching multi-event athletes where a coach basically coaches all of the events. Mary was very blessed to have tremendous assistant coaches and our thinking was that it would be a shame not to utilize their talents and knowledge in the coaching of the Marauder heptathletes/decathletes. More often than not, too, the multi-event athletes were being coached by the assistant coach in their individual event(s).

“The staff approach is the best method,” noted former Marauder jump coach Doug Schweigert, who was one of the top jump coaches in the country while coaching at the University of Mary and North Dakota State University (Fargo, ND). “Most multi-event athletes are jumpers and it would be tough for the athlete to go back and forth from different methodologies if the

athlete has to have several different coaches,” added Schweigert, who coached 14 national champions and 13 runner-ups.

“I had great coaches throughout my high school and college career and that made a huge difference for me,” said Mandy (Schroeder) Sheldon, commenting on her coaching. Mandy was a national champion in the multi-events and the high jump for the Marauders.

It should be noted that the staff approach employed by the University of Mary will only successfully work if you have a coordinator to organize and devise a total training program for the athlete.

## COMBINED EVENTS STRATEGY

The Mary approach to the multi-events and what percentage of time we spent on the different areas and events was quite likely different than most schools. Whereas most

programs lean toward a very balanced training scheme, we spent a much greater percentage of our training time on our so-called “strong events” where we felt we could gain the biggest dividends and capitalize on the scoring tables. Our question was always this: Where can we get the biggest rewards in scoring? Our answer: the events that stressed **speed**. We felt the sprint events, hurdles, jumps (including the pole vault for men) and even the 800m in the women’s heptathlon were events that utilized speed and explosive power.

The hurdles, sprints and jumps (pole vault) always seemed to our staff to offer the most opportunities to result in high point production for our particular athletes. Most were national caliber athletes in the hurdles and jumps. Consequently, a very low percentage of time was spent on the throws. We didn’t neglect the throws, but due to our cold weather environment, our throwing training time was certainly not in balance with the other events. We were forced to rely on athleticism a great deal in the throws, especially in the javelin.

A considerable percentage of time was allocated to training **maximum speed**. It was our thought process that this would assist us in the big “point producing” events like the hurdles, 100, 200, 400, long jump and even the women’s 800m. It’s obvious that improved speed will assist any athlete’s performance. Most coaches will agree that **acceleration** and **sub-maximum speed** will improve as the maximum speed of an athlete improves. All are important ingredients that a coach wishes to train with nearly any athlete, but most certainly combined event athletes. A common phrase



---

in our program: “**You are what you train.**” It was true in the 1990’s and it is still true today.

The fact that we had stellar **coaches** in the hurdles, sprints and jumps was another important factor in focusing on those particular events. We always felt we would be foolish not to take advantage of the superb expertise of some of the best coaches in the country.

## GENERAL TRAINING SUMMARY

“To achieve great things, two things are needed: a plan and not quite enough time.” That is a quote from Leonard Bernstein, the great American composer who was one of the first American born and educated conductors to gain worldwide acclaim. It is a quote that sums up combined events training quite well.

Coaches must have a very balanced and systematic plan of **what** and **how** to train their multi-event athletes. Organization is a must in order to blend everything together in a comprehensive training plan and maximize the training time. Time and facilities, which often can go hand in hand, can typically be limited at the collegiate level. Combined event coaches must be very detailed and resourceful to utilize all of the available time and facilities.

To put the University of Mary combined training into a nutshell, it would be characterized by **low volume, high intensity, simplicity**, and an emphasis on **maximum speed**. It was a rather conservative approach that allowed athletes to be very consistent in their training. The consensus of the staff was that success in track & field is fueled by consistently training at high levels for

long periods of time without interruptions and injuries.

The conservative, simpler approach by the Mary staff prevented overtraining and largely limited major injuries. We always like to remind people, however, that **simple doesn’t necessarily mean easy**.

The lack of an indoor track & field facility (our facility was a tarran basketball floor) and our harsh climate dictated our training to large degree. We had to adapt our training to the available facilities and what the weather would allow. That often meant hurdling (with flats and no spikes with the maximum amount of hurdles being three) on a gym floor at 10 pm at night after a basketball game! It certainly limited our training time and we were very conscious of obtaining “**quality reps**.”

Most of our strength training came in the form of functional training such as plyometrics (lower and upper body), medicine ball circuits (multi jump/throw circuits), and hill training. Our weight room was very tiny and poorly equipped. Although we could do a limited amount of strength training, it certainly went along with our simpler version of training the combined events.

It was our desire to achieve a very balanced training program that “covered all the bases” so to speak. Unfortunately, as stated earlier, we



didn’t always meet that goal, namely in the throws.

In summary, the ultimate goal of our training program for the multi-events was to have a very sound, fundamental and science-based process that combined everything into a comprehensive yet simple program. It was designed to meet the individual needs of each and every combined event athlete.

“We really had a great training environment and we always had great training partners,” said Mandy (Schroeder) Sheldon, commenting on what the author always described as the University of Mary’s “championship training environment.” “That was a major factor in our multi-event success. No question,” she added.

---

## IDEAL TRAINING FOR THE COMBINED EVENTS

Most coaches will agree that the best or “ideal” training opportunities for athletes come in competition. The Mary program was practicing this concept long before it was a popular idea in the coaching community. We were doing this out of necessity: weather and a very limited indoor training facility forced us to use our competitions as the best forms of training.

Our training was arranged around our meet schedule. As stated earlier, our athletes did not specialize in the combined events. They were outstanding athletes in individual events, quite often being national champions. So naturally they were going to compete in their specialty events at the various meets we attended, usually on a weekly basis indoors and outdoors. In addition to their “regular events,” competition afforded our athletes the opportunity



to work and train in some of the other events that they would contest in the multi-events.

Other coaches were always quite surprised—or alarmed—depending how you looked at it— that our top athletes were doing three or more events at a meet and competing on a relay(s). We merely saw it as taking advantage of a situation that we likely wouldn’t have obtained because of our lack of facilities and difficult winters.

The other benefit from an extensive competition where we could “ideally train” was planned rest and recovery. In reality, resting, tapering and recovering from the frequent competitions prevented Mary athletes from overtraining and overuse injuries.

## MENTAL/PSYCHOLOGICAL ASPECTS

Very few coaches would agree that the mental or psychological component isn’t a very important part of the combined events. There is little question that these events can be very stressful and emotional at times. How athletes handle this will often dictate success or failure. We always found that it took a very focused, confident athlete who was very strong mentally, was extremely disciplined and who enjoyed tackling challenges “head-on.” It is essential that athletes battle through adversity and “see the other side” without “breaking” in a long, grueling competition. A calm and positive approach by the coaches was always an extremely important factor in guiding the athletes through an often pressure-filled event.

We have always maintained that coaching and athletics are about people and relationships. A key

element in successful coaching is having excellent relationships/rapport with athletes. Good communication skills (verbal and non-verbal) are undoubtedly a prime factor in successful relationships. An athlete needs to have a very open, honest line of communication with the coach. Without it, it is very difficult for the coach to challenge and critique the athlete in a very positive, constructive manner.

A reassuring approach that assists an athlete to keep a very even keel throughout competitions is extremely critical. It is equally important that training be designed with positive outcomes to create confidence, with confidence being a critical factor in determining the success of a combined event athlete.

## TRAINING CONSIDERATIONS

The following are some of the principles, concepts and guidelines that our program adhered to in the training of the Mary combined event athletes. It is by no means a complete list. They are discussed in no particular order.

**\*\*Preparation** is a key to success in any training program, and certainly in the combined events. Not only preparation, but the **correct** preparation. The author received the ultimate compliment as a young coach when the late Hall of Fame Doane (NE) University coach Fred Beile commented: “I don’t always know where the Marauders will finish at the national meet, but I know one thing. They will be well prepared,” he said in his scratchy, gravelly voice.

**\*\*Although** we trained all of the different energy systems, our empha-

---

sis was on developing **maximum speed**. It was our belief that it would aid in the development of a number of different components, including acceleration and sub-maximum speed. The goal was to train max speed/CNS as frequently as possible.

**\*\*Quality over quantity** was stressed, with the volume of training quite low. This was especially true when one looks at the workload that many multi-event performers undertake today. We always remember Hall of Fame Coach Gary Winckler telling us at a clinic he did at the University of Mary in 1997: “Work capacity is not a biomotor quality.” A thread that we have always tried to weave: “Less is often more.”

**\*\*Sprint mechanics** were a constant point of emphasis. The mechanical advantage gained from proper sprint mechanics is a big advantage for athletes. The ability for an athlete to put the body in the correct position at the proper time is a very powerful force. One of our common themes: “You are only as fast as your mechanics will allow.”

**\*\*We did not believe in mileage and base work.** Going out and jogging slowly was not part of our training vocabulary. We have always said that the base or foundation for explosive athletes like multi-event athletes is **speed**. Yes, we did do some fartlek and steady runs on occasion. But the runs were for relatively short distances and no jogging was permitted. Slow mileage (aka jogging) ruins sprint mechanics. Hill work, pool training and a lot of pace 200’s were a means to develop strength and endurance in our program. Hill work was a weekly staple in the

fall training months. When athletes would ask us about going out and jogging for endurance, we always said, “Go take a nap. You will get more out of it.”

---

### **JOGGING WAS NOT PART OF OUR TRAINING VOCABULARY**

---

**\*\*The pool** was a very valuable resource for training. It was used for recovery/regeneration, rehabilitation, and training endurance (aerobic). It was considered a great general fitness and conditioning component. A great deal of endurance and stamina is needed for not only the 800m, 1000m and 1500m, but in general for heptathletes and decathletes. A high fitness level was certainly a requirement when you think of multi-event athletes competing 8-12 hours on back-to-back days.

**\*\*It was important to train in a fatigued state** at times. Fatigue can certainly influence technique and the athlete must be prepared to encounter and overcome that. That obviously comes with the territory in the heptathlon and the decathlon. Only by experiencing it in a practice setting will the athlete be prepared to overcome and deal with it in an actual competition. We also thought it was essential to train and be prepared to compete in all types of weather (this was never a problem in North Dakota).

**\*\* The focus in our program was explosive strength and power.** There are very few athletic performances that don’t demand power—high force production in a short period of time. We have always said what a lot of coaches

term strength is actually power.

**\*\*Only impactful drills that had a high degree of transfer** to competition were used. Drills can be extremely important. It is our feeling, however, that many coaches “over drill” and use drills that do not translate to success in competition.

**\*\*Quality repetitions** were always of importance, with time and energy always a concern. An example: We combined sprint training with approach work in the long jump. Coaches should be mindful, however, that it takes up to **500 hours** to perfect a motor pattern before it becomes unconscious.

**\*\*The pole vault** was one of the events that presented problems in our program due to a lack of indoor facilities. We did, however, have a box in the gym floor and our goal was to vault several times a week, even if one of the sessions was drill work.

**\*\*One of our goals** was to carry out precise technique training following a rather light or easy day, with the focus being on having the athlete as fresh as possible for the technical work.

**\*\*The area that we spent the least amount of time** was the throws. Weather was always a factor and a high volume of throws with the fouls kept to a minimum was the order of the day when the opportunity to throw presented itself.

### **LOOKING BACK**

Time passes and it’s gone. You can’t get it back. Most coaches have reflected on the past and what they would do differently if they had a “do-over.” Upon reflection, we



would do several things differently to minimize several limiting factors. They include:

**\*\*We would certainly devote more time to the **throws** and strive for a better balance in our overall training plan, although as we have stated, some neglect of the throws was due to circumstances out of our control.**

**\*\*We would certainly place more emphasis on **nutrition**, especially knowing now how much nutrition can assist the athlete in recovery and performance.**

**\*\*We would increase the value we placed on the use of the weight room and developing a total body strength program. We would have benefited more from the functional strength training with the increased use of the weight room.**

**\*\*More time and energy should have been devoted to flexibility/joint mobility. We certainly stressed sprint mechanics and running efficiently.**

But the reality is this: many athletes can't place themselves in the correct mechanical positions due to a lack of flexibility and joint mobility and their performance suffers.

**\*\*The use of daily double sessions or even multiple sessions would have allowed for athletes to maximize the training time and aided in recovery for the athletes. Often our training schedules jammed everything into a single, lengthy session that wasn't as productive. Again, however, facilities, or a lack of, often prevented this from happening.**

## CONCLUSION/SUMMARY

One can quickly see that the University of Mary did a lot of things right when we look back at the way the Marauder heptathletes/decatletes were trained. Could we have did it better? Of course. Hindsight is always golden. But it is difficult to argue with the success of the program. National champions and

repeated success were trademarks over an extended period of time!

Our training program worked for us in our situation and circumstances. It wasn't fancy. It wasn't complex. It was actually quite practical and quite simple. We understand it wouldn't work for everyone. Every program has a unique set of parameters that it has to deal with. We were able to figure out a path to success in our reality, in our environment. We often say it is "difficult to argue with great results." The results from our training of combined events speak volumes. Large and loud!!

## REFERENCES

- Gambetta, Vern, *The Gambetta Method*, 2020, Second Edition  
Maher, Amelia, Director of External Operations and Administration (Former University of Mary Coach), Research, Editing  
Mann, Ralph, *The Mechanics of Sprinting and Hurdling*, 2018 Edition  
Murphy, Amber, *The Mechanics of Sprinting and Hurdling*, 2018 Edition  
Morris, Buddy, Arizona Cardinals, articles  
Poole, Craig, BYU, articles  
Winckler, Gary, clinics, articles

## DON'T SNOOZE? YOU LOSE!

*Continued from page 7471*

rate, core temperature and blood pressure, it is not advisable to finish a training session or run just before going to bed, because the residual effects of an elevated metabolic rate will make it much harder to fall asleep.

### SLEEP LOSS HAMPERS PERFORMANCE

While there are clear and unequivocal benefits from sleep for athletes, continuous sleep loss can be a major issue, with the risk of injury, illness and fatigue all increasing.

Getting a good night's sleep is one of the best things the human body can do



The amount of sleep that we require varies from one person to another, with 7-8 hours being the norm for most adults, athletes sometimes needing slightly more. So sleep is as much a part of your training and preparation as your weekly sessions, and without the restorative effects of sleep it would be impossible to train effectively and compete.

Nevertheless, few athletes get a sound night's sleep before a major competition, due to the combined effects of anxiety and the need to wake at an early hour to get to the start line.

While it is easy to panic if you are not sleeping well on the night before a race, I have never yet seen an athlete fall asleep while racing or competing. Keep things in perspective.

Professor John Brewer is head of the school of sport, health and applied science at St Mary's University in Twickenham and author of *Run Smart: Using Science to Improve Performance and Expose Marathon Running's Greatest Myths*.



## **USATF CALENDAR OF SCHOOLS**

<https://www.usatf.org/programs/coaches/calendar-of-schools>

Jan 8-11	Level 1 Zoom #2021 – 1 (Pacific Standard Time)
Jan 15-18	Level 1 Zoom #2021 – 2 (Eastern Standard Time)
Jan 22-25	Level 1 Zoom #2021 – 3 (Central Standard Time)
Jan 29-Feb 1	Level 1 Zoom #2021 – 4 (Pacific Standard Time)
Feb 5-8	Level 1 Zoom #2021 – 5 (Central Standard Time)
Feb 12-15	Level 1 Zoom #2021 – 6 (Mountain Standard Time)
Feb 26-March 1	Level 1 Zoom #2021 – 8 (Pacific Standard Time)
March 5-8	Level 1 Zoom #2021 – 9 (Eastern Standard Time)
March 12-15	Level 1 Zoom #2021 – 10 (Central Standard Time)
March 19-22	Level 1 Zoom #2021 – 11 (Eastern Standard Time)
March 26-29	Level 1 Zoom #2021 – 12 (Pacific Standard Time)

Please note all USATF Coaching Education programs are currently being conducted virtually on Zoom. Watch for summer 2021 program dates to be posted on the Calendar of Schools by March 1 – including the next USATF Level 2 School and Cross Country Specialist Course.



## **2020 USATF COACHING EDUCATION AWARD WINNERS**

### **Dr. Joe Vigil Sport Science Award: Mike Judge, Throw 1 Deep**

This award recognizes a coach who is very active in the area of scholarship, and contributes to the coaching literature through presentations and publications. This award identifies a coach who utilizes scientific techniques as an integral part of his/her coaching methods, or has created innovative ways to use sport science.

### **Ron Buss Service Award: Dr. Lawrence Judge, Ball State University**

This award recognizes a coach that has a distinguished record of service to the profession in leadership roles, teaching, strengthening curricula and advising and mentoring coaches. This person is a leader, whose counsel others seek, and who selflessly gives his/her time and talent.

---

### **Fred Wilt Coach/Educator of the Year Award: Shawn Venable, Liberty University**

This award recognizes a coach that has a distinguished record, which includes sustained, exceptional performance. This award will be presented annually to recognize one individual who has exemplified passion and leadership nationally for the promotion of USATF Coaching Education.

### **Vern Gambetta/Young Professional Award: Rogers Glispy, Community College of Philadelphia**

This award recognizes a young coach in the first 10 years of his/her career that has shown an exceptional level of passion and initiative in Coaching Education. This award will be presented annually to recognize one individual who has exemplified passion and leadership nationally for the promotion of USATF Coaching Education.

### **Terry Crawford/Distinguished Female in Coaching Award: Christine Brooks, University of Florida**

This award recognizes a female coach that has shown an exceptional level of accomplishment, passion and initiative in Coaching Education. This award will be presented annually to recognize one female coach who has exemplified passion and leadership nationally for the promotion of USATF Coaching Education.

### **Kevin McGill/Legacy Award: Scott Christensen, Stillwater High School**

This award recognizes a veteran coach with 25+ years of involvement that has shown an exceptional level of passion and initiative in Coaching Education. This award will be presented annually to recognize one individual who has exemplified passion and leadership nationally for the promotion of USATF Coaching Education.

### **Level 2 Coaches/Rising Star Award: Marissa Chew, IUPUI**

This award recognizes a coach that has utilized the USATF level 2 CE program to make an impact on their coaching that includes sustained, exceptional performance. This award will be presented annually to recognize one individual who has recently completed the level 2 school and it has helped to make an impact on their coaching. This award winner exemplifies the impact of the USATF Coaching Education program.



## **REMINDER SUBMIT USATF LEVEL 1 RECERTIFICATION APPLICATION BY 12/31/2020**

USATF members with an expiring Level 1 certificate (according to table below) must submit for renewal by December 31, 2020. Members who completed a Level 1 during the waiver period (below) do not need to take any action until the next recertification period.

Level 2 and 3 coaches remain exempt from recertification and no action is necessary.

#### **Earned**

January 1, 2013-June 30, 2019

July 1, 2019 – December 31, 2020 (waiver period)

#### **Expiration**

December 31, 2020

December 31, 2024



## ***HOW DO I RENEW MY LEVEL 1 CERTIFICATE?***

You must complete all steps below to renew your Level 1 certificate.

1. Renew USATF membership for 2020
2. Complete latest SafeSport Training (must be current through 12/31/2020)
3. Complete one USATF approved recertification course
4. Submit recertification application and processing fee (\$30)

Upon approval, your new certificate will be awarded on USATF Campus and valid until December 31, 2024.

### **Frequently Asked Questions Concerning Level 1 Recertification**

**Q: Where can I find a complete list of USATF approved recertification courses?**

A: <https://www.usatf.org/programs/coaches/recertification>

**Q: What is my login for USATF Campus?**

A: The login for USATF Campus differs from the USATF Connect membership portal. If you have an existing account, your username will be your membership email address. You will need to request a password reset if you have not signed into USATF Campus since May 2020.

To create a new account, select a course from the catalog and proceed through the checkout process.

**Q: How do I verify my Level 1 certificate expiration date?**

A: Members may verify their certificate expiration date by logging into USATF Campus and proceeding to Transcripts for a copy of their certificate.

**Q: I already completed a course on USATF Campus or attended an approved specialty course, do I still need to submit a recertification application?**

A: Yes. Completing an approved recertification course alone will not renew your Level 1 certificate. You must complete all steps (1-4) indicated above to recertify.

**Q: I have submitted my recertification application, when will I receive my updated certificate?**

A: Please allow five business days for processing of completed Level 1 Recertification applications and do not send copies of your certificates unless requested. Your new certificate will be awarded on USATF Campus.



# TRACK & FIELD NEWS

[www.trackandfieldnews.com](http://www.trackandfieldnews.com)

SERVING THE TRACK & FIELD

## COMMUNITY SINCE 1948

### TRACK & FIELD NEWS

T&FN is the standard of accuracy and completeness for reporting of U.S. and worldwide track and field athletics. Published monthly. Call 1-800-GET-TRAK (1-800-438-8725) to subscribe or subscribe online: [www.trackandfieldnews.com/subscribe](http://www.trackandfieldnews.com/subscribe).

Annual Subscription Rates:	USA	Canada	Foreign
Digital only	\$79	\$79	\$79
Print only	\$79	\$127	\$177
Digital + Print	\$109	\$157	\$207
Premium Archive Digital Only	\$128	\$128	\$128
Premium Archive Digital + Print	\$158	\$206	\$256

*Print subscriptions include 12 monthly print issues. Etrack weekly results newsletter is included with all digital subscriptions.*

### TRACK COACH (Digital Only) 1 yr subscription — \$19.95

The official technical quarterly of USA Track & Field, *Track Coach* (formerly *Track Technique*) has been the sport's major technical publication since 1960. TC became a digital-only publication in January 2015.

### TOURS

Popular sports tours since 1952. Write for information about tours to the Olympics, Olympic Trials, World Championships, etc.

#### TRACK & FIELD NEWS

2570 W. El Camino Real • Suite 220 • Mountain View, CA 94040 • USA

Phone (650) 948-8188 • Fax (650) 948-9445

<http://www.trackandfieldnews.com> • email: [subs@trackandfieldnews.com](mailto:subs@trackandfieldnews.com)



