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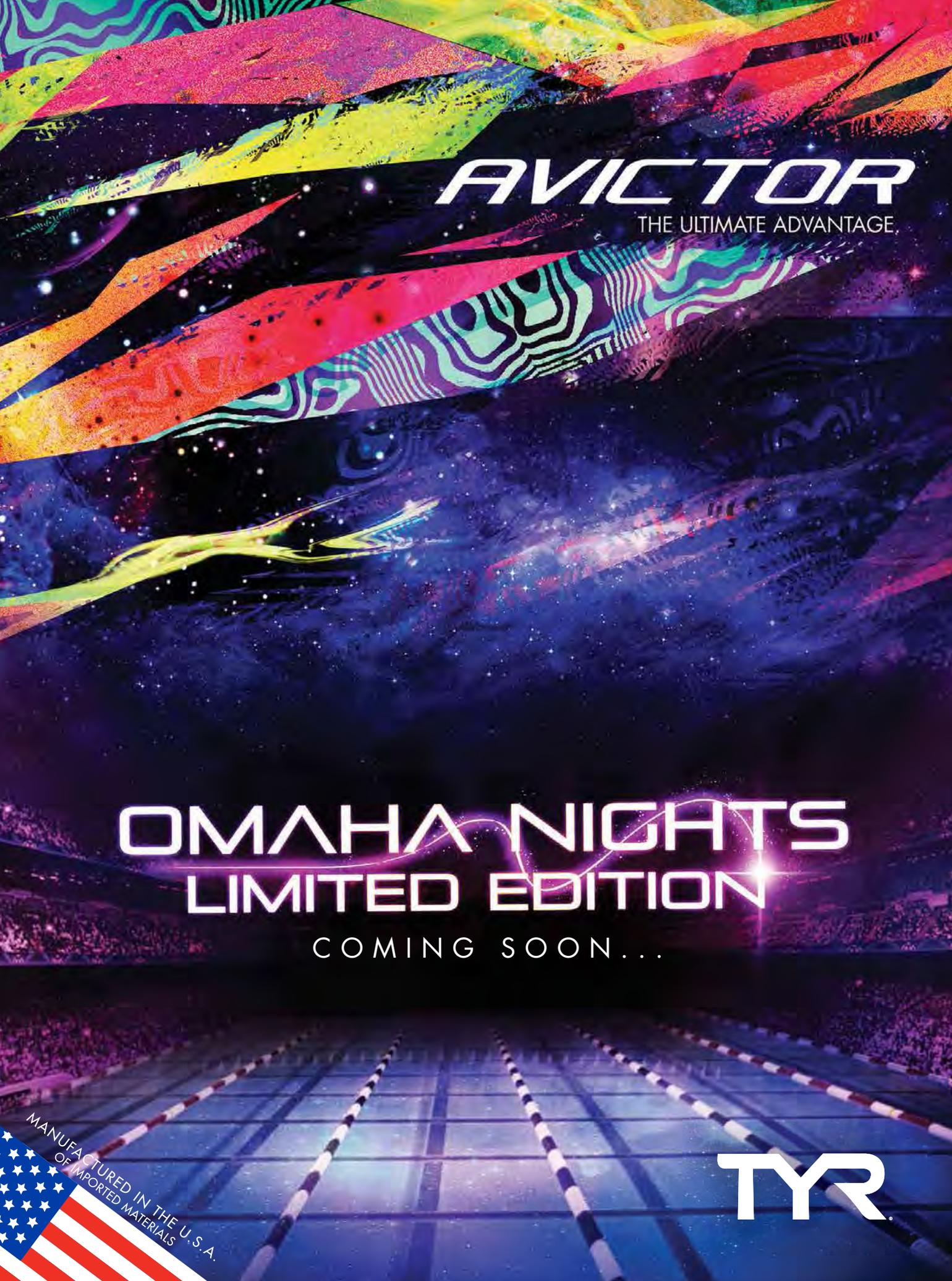


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014 TOP 9 OLYMPIC UPSETS: #8 SYLVIA POLL

by **Chuck Warner**

Beginning with the November issue and running through July 2016—a month before the start of the Olympic swimming events in Rio on Aug. 6—Swimming World Magazine will bring you its top 9 upsets in the individual events in Olympic history—in particular, in the last 50 years.

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World/European Male: *Adam Peaty*

European Female: *Sarah Sjöström*

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Swimming World Magazine has been naming male and female World Swimmers of the Year for more than 50 years. In 2015, the honors went to Adam Peaty and Katie Ledecky. Peaty, 20, pictured in front of a backdrop of some of the magazine's covers that have featured past World Swimmers, became Great Britain's first swimmer ever to win the award. The USA's Ledecky, 18, won her third straight title, tying her with Debbie Meyer and Shirley Babashoff in second place behind Janet Evans with four. (See story, page 16, plus related stories, pages 24 and 27.)

[PEATY PHOTO BY ANDREA MASINI]





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10 MOST IMPACTFUL PEOPLE OF 2015

BY BRENT T. RUTEMILLER



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Peter H. Bick, USA Today Sports Images,
Reuters, Getty Images

OFFICIAL MAGAZINE OF:



ENDORSED BY:



PUBLISHER:



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Phone: 928.284.4005
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www.SwimmingWorldMagazine.com

Our sport is graced with great people. Some are public figures; others work behind the scenes. As appropriate for this time of year, I want to recognize 10 people who are making an impact in our sport. Thanks to the following people for their contributions and inspiration.



1. Dick Pound. As the former president of the World Anti-Doping Agency (WADA) and former vice president of the International Olympic Committee, Pound led an independent investigation into claims of widespread drug-testing abuse and cover-up in Russia. His 323-page report sent shock waves through all levels of sport as it accuses the Russian government of destroying urine samples and accepting bribes from athletes to cover up positive drug tests.



2. Bill Sweetenham. The five-time Olympic head coach became very outspoken in 2015, leading calls to reform FINA as the governing body for aquatic sports. His opinions and reasons for change within the sport resonated with coaches worldwide and led to the formation of recommendations and action plans that will reverberate through 2016.



3. Casey Barrett. The outspoken journalist sent ripple waves through the sport when he took on subjects that few dared to discuss in 2015. Barrett has repeatedly demonstrated an ability to put chlorine on paper and write commentaries about the sport. He is one of the few journalists who understands what the term, "freedom of the press," really means.



4. Joel Shinofield. As the executive director of the College Swimming Coaches Association of America, Shinofield has personally taken on the mission of saving college swimming programs at all NCAA levels. With the help of a \$150,000 grant from United States Swimming, Shinofield visited numerous athletic directors and coaches throughout the country to educate key people on the value of college swimming for schools and communities.



5. Glenn Mills. The 1980 USA boycotted Olympian continues to make his mark in the pool, leading the industry in technique education through online videos. Mills pioneered new ways to educate coaches and athletes through his Go-Swim platforms that USA Swimming has fully embraced as the repository for technique analysis and instruction.

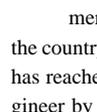


6. Bob Bowman. A man of many hats pulled another rabbit out with his continued success in leading Michael Phelps back to world dominance.

Bowman, who has now set up shop in the western part of the United States as head coach for Arizona State University, balanced a transition from consulting, speaking engagements and professional coaching to college coaching. He continues to further his handprint on American swimming.



7. Bruce Gemmill. The three-time ASCA Coach of the Year has young coaches listening and taking notes during his multiple speaking engagements at conferences and clinics around the country. Since his star athlete, Katie Ledecky, has reached unworldly heights, Gemmill, an engineer by trade, has remained grounded. Expect great things in 2016.



8. Doug Fonder. As the executive director of the International Swim Coaches Association, Fonder has successfully led the start-up coaching association into its seventh year. Originally considered a rogue group of coaches, the organization pioneered new anti-establishment methods for hosting and insuring events that are counter to USA Swimming traditions. The organization has found a niche with age group swimmers and many traditional coaches wanting change.



9. John Mix. As the president and owner of FINIS Inc., Mix has continually created products specific to the sport of swimming that are so unique that new product categories had to be created. From the monofin, front-mounted snorkel, underwater mirrors and tempo trainer to the new dual-functioning pull buoy, every product Mix has brought to the market has filled a need that ultimately made swimmers faster.



10. Rod Havriluk. An important figure in educating the aquatic community on the importance of science in swimming, Havriluk broke down myths with his *Swimming World* series on "Misconceptions" in 2015. As a respected scientist, his *swimmingtechnology.com* website is visited by coaches from around the world. ❖



Brent T. Rutemiller
Publisher of Swimming World Magazine



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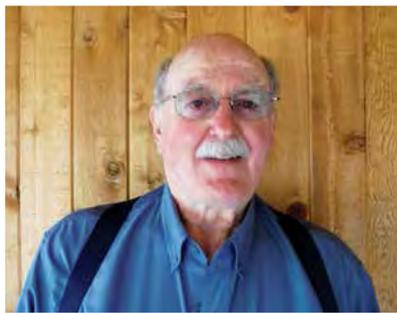
SWIMMING WORLD
CONTINUES A SERIES
IN WHICH TOP
COACHES SHARE SOME
OF THE SECRETS OF
THEIR SUCCESS.

BY MICHAEL J. STOTT

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BILL BOOMER



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Intellectually curious Bill Boomer gravitated from coaching land-based sports to swimming (University

of Rochester, 1962-90) to become a seminal and global influence on stroke technique and theory. While he does not always think or speak of swimming in layman's terms, his use of physics, exhaustive aquatic research and collaborations with former Rochester exercise physiologist, Dr. Al Craig, nurtured one of the world's most respected aquatic minds. In addition to producing more than 100 NCAA D-III All-Americans at Rochester and once winning four straight New York Collegiate conference titles, it is his inquisitive intellect that has helped shape the understanding and coaching of the sport.

Beyond college coaching, Boomer has worked with many swimmers who have gone on to represent the U.S. internationally, set world records and win Olympic medals. In 2000, he served as technical coach for the USA men's and women's Olympic swimming teams. In January of 2012, Boomer was honored at the inaugural World Aquatic Development Conference at Lund University (Sweden). Later that year, he received the CSCAA Benjamin Franklin Award for his efforts to promote the integrity and enhancement of the student-athlete ideal. He is presently an assistant coach at the University of Tennessee, where he works with like-minded Matt Kredich to alter and improve the paradigm of competitive swimming.

In 2000, he and then-Stanford assistant coach, Milt Nelms, produced *The Boomer Chronicles*, a series of videos on competitive swimming technique that became the basis for Richard Quick's subsequent proselytizing of the "posture line and balance" concept. In December 2015, Boomer and Kredich will release a video through Championship Productions entitled, *Reimagining Freestyle*, a presentation designed to change the conversation, discussion and vocabulary of swimming.

While Bill Boomer has been a successful mentor at all levels, his ability to innovate and educate are, perhaps, his greatest contributions. This profile identifies two of those innovations:

THE TRACK START

Universally performed today, Boomer began experimenting with this momentum-creating start in the 1970s. His purpose in developing it was to win the exit location for both time and distance (i.e., breakout). Along the way, he found that in using the technique correctly, his swimmers were also winning the front edge of the block (i.e., getting off the blocks first).

Boomer's swimmers focused on placing their center of mass up and back, then collapsing the lead knee toward the water at the horn to enlarge gravity over time and allow pelvic muscular dynamics to be the main power source in that explosive moment.

"We were the pioneers in the development of that starting technique, and helped guide it through the various rulebooks as swimmers worldwide adopted it. Coupled with the development and perfection of underwater harmonic activity, the track start has become the sport's accepted method of block activity at the beginning of individual races," he notes.

THE SWIM WATCH

Heuer, Omega and Minerva analog watches were early staples in swimming. However, it was Boomer's collaboration with two Xerox engineers in Rochester, N.Y.—Paul Nielsen and Richard Kellerman—that led to the introduction of tempo or rate measurements for swimming.

Boomer recalls one day in the 1970s being asked if the "cox box"—a timing and tempo device they had developed for rowing—could be useful in competitive swimming. That query surfaced at a time when University of Rochester's Dr. Al Craig and the school's swim staff were doing basic fundamental research into the nature of bipedal swimming velocity (distance per cycle times cycling tempo).

The next few years were spent developing many functions and forms of what became the Nielsen-Kellerman Swimming Watch, then an industry first. "This watch was used to help measure the choices (distance per cycle and tempo) every swimmer made during the 1976 and 1984 Olympic Trials—every lane, every length, every event. Those studies formed the basic understandings we have today when we discuss the elements of swimming velocity," observes Boomer.

During the 1980s and 1990s, Boomer was the lane 4 bulkhead turn judge at the women's and men's NCAA Division I Championships. From that location, using the watch, he was able to chart the tempo choices for top-seeded swimmers in lanes 3, 4 and 5.

Using this data, he created and shared with his swimmers, body-type rate-window charts, which revealed information required to swim specific times in all NCAA short course yards events. While Ultrak, Seiko and Accusplit are big names in stop-watches today, one can look to Boomer as the "Father Time" of swimming watches. ❖

Michael J. Stott is an ASCA Level 5 coach whose Collegiate School (Richmond, Va.) teams have won eight state high school championships.

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SWIMMING TECHNIQUE
MISCONCEPTIONS:

ARM COORDINATION

(Part II of II)

BY ROD HAVRILUK

Many people believe that it is worth copying the technique of the fastest swimmers. In reality, even the fastest swimmers have technique limitations, but they offset them with strength and conditioning. The purpose of this series of articles is to address scientifically the technique misconceptions that have become “conventional wisdom,” and to present options that are more effective.

The four most recent articles in this series (July, August, September and October) addressed misconceptions about the limits of human swimming velocity, based on concepts of resistance and propulsion. The October article explained how generating maximum propulsion is likely the key to overcome perceived swimming velocity limits. This article—the second of a two-part series in November and December—explains how the typical arm coordination (based on conventional wisdom) limits velocity and how a unique arm coordination can result in much faster swimming. Part I on “Arm Coordination” (SW Nov, pages 12-13) specifically discussed:

- Arm Index of Coordination
- Typical Negative Index of Arm Coordination
- The Negative IdC Paradox

POSITIVE INDEX OF ARM COORDINATION TO INCREASE PROPULSION

In June 2010, Ludovic Seifert was a keynote speaker at the XIth International Symposium in Biomechanics and Medicine in Swimming in Oslo, Norway. In his talk, he explained that a positive Index of Coordination (IdC) differentiated expert and non-expert swimmers. In addition, he summarized that with increasing speed, “expert swimmers increased IdC,” but “non-expert swimmers did not significantly change their arm coordination—which remained in catch-up mode”—i.e., a negative IdC.

While expert sprinters usually have a positive IdC of less than 5 percent, an

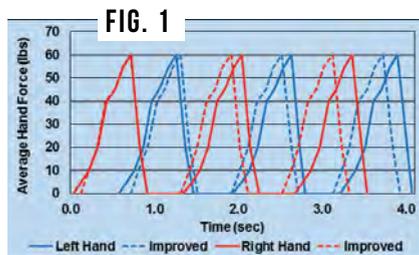


FIG. 1 > (ABOVE) The solid lines show the hand force curves for an elite swimmer with an adjustment for improved elbow flexion. The broken lines show an arm coordination adjustment with an overlap of 2-tenths of a second.

IdC greater than 30 percent is possible and necessary for the fastest swimming. The solid lines in **Fig. 1** show the hand force curves for an elite swimmer, adjusted for improved elbow flexion. (See “**Misconceptions: Propulsion**,” SW Oct, pages 30-31 for more details.) The broken lines show an arm coordination adjustment with an overlap of 2-tenths of a second for an IdC of 33 percent.

The increase in the IdC from the overlap in the force curves would increase propulsion. Note how the average hand

force would increase from 18.4 to 20.8 pounds (see **Table 1** below). The calculated value for swimming velocity would then increase to 2.4 meters per second (m/sec).

In addition to velocity, the 50 meter freestyle times were also calculated. The times were based on completing the first 15 meters in 5 seconds, and then swimming the remaining 35 meters at the listed velocities.

Based on this elite swimmer’s ability to generate 40 pounds of force with his arm in a relatively weak position (as also explained in the October *Swimming World*), an increase in peak force to 70 pounds is certainly possible. The additional force would further increase velocity to 2.5 m/sec.

TABLE 1. Data for actual and improved hand force values.

	Average Force per Hand (lbs)	Swimming Velocity (m/sec)	50 m Freestyle Time (secs)
Actual values	15.5	2.1	21.7
Calculated values for improved elbow flexion	18.4	2.3	20.4
Calculated values for improved arm coordination	20.8	2.4	19.5
Calculated values for increase in peak force	22.4	2.5	18.9

The calculations provided in **Table 1** show the potential for one elite sprinter. In his case, an increase in swimming velocity requires substantial changes in both elbow flexion and arm coordination. Although these changes are considerable, they are entirely possible for him and many other elite swimmers.

However, given the complexity of the technique adjustments and the habit strength of elite swimmers’ technique, current top swimmers may not make these changes.

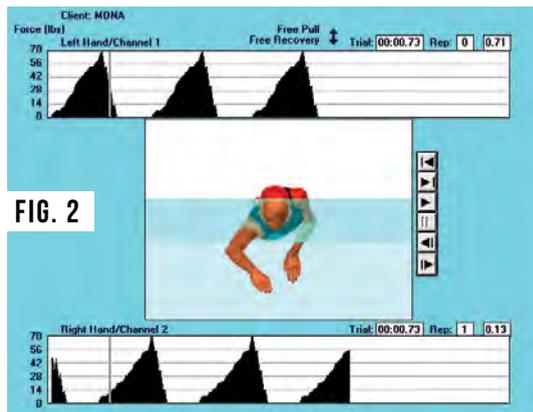


FIG. 2

FIG. 2 > (LEFT) This data graph shows hand force versus time for a biomechanical model sprinter. The vertical gray lines are synchronized with the video image. The force curves overlap by 2-tenths of a second, resulting in an IdC of 33 percent.

Instead, the swimmers who master the skills to swim 2.5 m/sec may be those just beginning their swimming careers. Younger swimmers would benefit tremendously from initially learning opposition coordination and then increasing the amount of superposition as they increase stroke rate for racing.

TECHNIQUE ADJUSTMENTS TO INCREASE THE INDEX OF ARM COORDINATION

It is absolutely possible for swimmers to have considerably more overlap in arm propulsion—and even more than the current fastest sprinters at top speed. An optimal arm coordination, however, does require mastery of three critical technique elements: a complete push phase, an arm entry with a downward angle and an extremely fast arm recovery. There are explicit instructions to follow:

1. As the torso rotates upward, push the hand backward beneath the thigh until the arm straightens completely. The hand must be pushing back and generating force for as much of a horizontal range of motion as possible.

2. Angle the hand downward when the arm enters so that at the completion of the entry, the hand is deeper than the elbow and shoulder. A sufficient downward angle quickly puts the hand in position to begin generating force immediately.

3. Move the recovery arm from the finish of the push phase to the beginning of the pull phase as quickly as possible. A rapid arm recovery increases the overlap of force curves for superposition coordination.

Unfortunately, only a small percentage of swimmers master *either* technique elements 1 or 2. And it is extremely rare for a swimmer to master *both* technique elements 1 and 2. Typically, the hand moves upward (and not backward) with the upward torso rotation, and the arm enters parallel to the surface (and not at a downward angle).

As a result, even if a swimmer recovers quickly (element 3), he/she will not benefit from an optimal IdC.

PRACTICE STRATEGIES TO INCREASE THE INDEX OF ARM COORDINATION

It requires many thousands of repetitions to master pushing the hand backward when the torso rotates upward. Once a swimmer masters the push phase at a slow stroke rate, it requires many more repetitions to control an effective push at faster stroke rates (and with fatigue). Similarly, mastery of a downward angle on the arm entry requires many repetitions.

A swimmer must master the push and entry phases before he/she can work on the arm coordination. With an effective push and entry, the IdC should be at least zero and possibly slightly positive. Then, gradually increasing the speed of the recovery arm will increase the IdC to a more positive value. As shown in **Fig. 2**, the resulting arm coordination has a 2-tenths of a second overlap of force curves for an IdC of 33 percent.

Mastering the three technique elements to increase the IdC is a long-term project. Mastery of each individual element generally requires months and the combination of elements much longer. Learning to maintain all the elements at top speed (and with fatigue) requires total concentration using deliberate practice strategies (e.g., Havriluk, 2014).

While achieving an IdC > 30 percent presents a challenge that requires superior technique precision and control, it is also the most likely method for making substantial increases in maximum swimming velocity. The biomechanical model in **Fig. 2** displays a 2-tenths of a second overlap in her force curves for an IdC of 33 percent. While her

arm coordination may look unique, it is essential for the fastest swimming. ❖

Dr. Rod Havriluk is a sports scientist and consultant who specializes in swimming technique instruction and analysis. His unique strategies provide rapid improvement while avoiding injury. Learn more at the STR website—www.swimmingtechnology.com—or contact Rod through info@swimmingtechnology.com.

SUMMARY

A negative IdC arm coordination (i.e., catch-up) is very common and also very natural, particularly when fatigued. However, a swimmer cannot maximize velocity with a negative IdC.

As shown in Fig. 2, an elite sprinter can improve his arm coordination to an IdC of 33 percent with a resulting increase in propulsion and swimming velocity. While a very positive IdC (superposition) is unique, it is also possible and essential for the fastest human swimming.



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Who will shock the world of swimming in Rio? Is it someone we can anticipate if we take a deeper look into the backstory of past upsets? The understanding and appreciation of an Olympic upset can enhance our enjoyment of tracking athletes in the years, months and now days leading up to the 2016 Olympics.

Beginning with the November issue and running through July 2016—a month before the start of the Olympic swimming events in Rio on Aug. 6—Swimming World Magazine will bring you its top 9 upsets in the individual events in Olympic history—in particular, in the last 50 years. This month:

#8 SYLVIA POLL

BY CHUCK WARNER

Swimming champions most often sprout from the seeds of talent, a competitive personality and progressive, systematic training that enables the athlete to climb the rungs up the ladder toward the highest-level competition. This is the story of someone who not only overcame the absence of some of these qualities, but also outperformed athletes generated by the height of the sophisticated East German (GDR) doping system.

After the 1976 Olympic Games, when the GDR women routed their competition, winning 11 gold, six silver and one bronze medal, the following two Olympics featured boycotts that diminished the Olympic stage. In 1980, the Americans boycotted the Games held in Moscow, and in 1984, many eastern bloc countries—including the GDR—boycotted the Olympics in Los Angeles.

When the XXIV Olympiad opened in Seoul, Korea in 1988, an ambitious American squad, led by such veterans as 1984 Olympic gold medalist Mary Wayte and young world record holder Janet Evans, arrived ready to race. So did a teenage girl from Costa Rica.

UNLIKELY BEGINNINGS FOR A CHAMPION

Finding Costa Rica on a map isn't easy. At just 19,000 square miles, the tiny Central American country sits between Nicaragua

PAN AM GAMES

'WHAT TIMES, SYLVIA!'

BY CRAIG NEFF

OF THE ATHLETIC HEROES AND heroines who emerged during the first week of Pan Am competition, none was more startling than Sylvia Poll, a tall, reedy 16-year-old swimmer from Costa Rica. "I time her in practice lately and I think my watch is broken," said Poll's coach, Francisco Rivas, last Friday. "But it is right. What times, Sylvia!"

The 6'2" Poll took to the pool for five individual events in Indianapolis and won three, tying a Pan Am record for women's swimming gold medals and making herself a top prospect for the



With three gold medals, Costa Rica's Poll was clearly the consensus winner in the pool.

1988 Olympics in both the backstroke and freestyle sprints. "She's so big and strong," said U.S. coach Scott Brackett. "She's just—boom!—off the blocks and away, and nobody can catch her."

Amidst intermittent jolts of political controversy, Poll seemed the perfect heroine. Born in Nicaragua of West German parents who owned a cotton-processing business, she and her family fled the country in 1979 because of the Sandinista-led revolution. Now an enthusiastic Costa Rican, she bristled at the suggestion that to develop her talent fully she might need to leave her unheated

training pool in the capital city of San José and come to the U.S. Even though the best of the U.S. swimmers were at the Pan Pacific competition in Brisbane, Australia, leaving a less than top-notch team at Indy, Poll's winning times of 56.39 and 2:00.02 in the 100 and 200 frees, respectively, were superb. They would have won at the U.S. long course nationals at Fresno, Calif., two weeks ago. "Maybe the Americans ought to come to Costa Rica to train," she sniffed.

Results Of A Poll: Winner By A Landslide

Sylvia Poll outshone the competition at the Pan Am Games, scooping up eight medals for Costa Rica.

By Mark Muckenfuss

INDIANAPOLIS, Ind.—When Sylvia Poll showed up at the World Championships last year in Madrid, Spain, she was an oddity. With shock-blonde hair, blue eyes and a pale complexion, one might have suspected an error when she was listed as representing Costa Rica. Colder still was her size. When Poll walked onto the deck, her 6-2 frame dwarfed her opponents and brought murmurs from the crowd.

This year at the Pan Am Games, Aug. 8-15, she still drew oohs and ahhs from the crowd because of her size. But those exclamations were followed by cheers and applause as Poll raced to victory in three events, won silver medals in two others and led Costa Rica's relay team to three medal performances. She emerged from the Pan Am meet a star—the star. Her eight medals were twice the number the top American medal-winner, Sara Linke, was able to claim, and she was the only swimmer in the meet with three individual golds. Bill Stapleton and Tami Bruce were the only other swimmers with more than a single individual gold. Both—history,



Poll's victory, the U.S. team swept up the gold in every other event the first day.

Richard Koehnhammer and Tami Bruce swam to career-best times and gold medals in the 100 breast and 400 IM, respectively, while teammates David Lundberg and Katie Welch picked up the silvers. Uruguay's Carlos Saucedo split the U.S. contingent in the men's 300 free, taking second to John Wincek (1:50.96-1:51.21), while Brian Jones finished with the bronze.

The day's most impressive swim came on the final leg of the women's 400 free relay. At the 400, Susan Haberman from by a margin of nearly 10 seconds over Canada. In third, more than six seconds out, was the United States team. When Poll entered the water, she faced a 6:19.65-1:00, she had eliminated 4.2 seconds of that margin, and she didn't slow down, blasting home for the silver medal with a relay time of 8:24.25 to Canada's 8:25.69. Poll's fastest previous split, 1:59.06, was swum by East Germany's Birgit Meineke in 1983.

It was hardly any wonder, then, that Poll took her second gold the next day in the 200 free.

She had counted, along with most of the other top swimmers, through the morning prelude, turning in a 2:08.40. But when it came time for the final, she jumped second-place Whitney Handgarth by a wide 2:00.02-2:02.06 margin. Her previous best in the event had been a

Before Sylvia Poll earned the first Olympic medal in any sport for Costa Rica by placing second in the women's 200 free

at Seoul in 1988, she opened the swimming world's eyes to her potential at the 1987 Pan American Games when she won eight medals: three gold, three silver, two bronze (as reported here in *Swimming World*, above, and *Sports Illustrated*, left).

a gutter system to guide traffic patterns and calm the rough waters.

Rivas read voraciously and traveled internationally to learn as much as he possibly could about coaching and swim training. He encouraged his swimmers to work to be the best in the world. And to provide them with the best opportunity for success, his top swimmers were in the pool very early in the morning before school from 3:45-5:15 and again afterward from 3:30-6:45 p.m.

While the expense limited them, Rivas' top swimmers attempted to travel to search out high-level competition. By 1986, Sylvia had established herself as the best swimmer in her region when in January, as a 15-year-old, she set Central American Games records in the 200 and 400 meter freestyles (2:02.80, 4:17.98) and both back-

stroke events (1:04.43, 2:19.32). However, she still had quite a bit to improve to be in the discussion for an Olympic medal in any event.

At the Pan American Games in August 1987, Sylvia, now 16, opened the swimming world's eyes to her potential when she won eight medals: three gold, three silver, two bronze. It was at that meet, held in Indianapolis, where she turned in a bevy of impressive times, including 56.10 in the 100 free, 2:00.02 in the 200 free and 1:01.86 in the 100 back. Her performances were broadcast by radio to an eager audience back home. The parade and celebration that greeted her return overshadowed even Costa Rican President Arias Sanchez's Nobel Peace Prize Award celebration two months later...because for the first time, Costa Rica had a bona fide sports hero!

Up to that point, the improvement shown by the 6-2 blonde was stunning, but her true test would come the following year in Seoul when she would be facing all of the best swimmers in the world. Her stiffest competition likely would come from the victims of East Germany's State Plan 14.25 (as it was officially known), which remained fully underground at this point in history. In another year, the GDR system of doping would collapse into public horror. The challenge for Olympic medals in women's swimming in Seoul was daunting for anyone, especially those outside of the traditional powerhouse swimming nations.

SYLVIA'S OLYMPIC EXPERIENCE

On the first day at the Olympics, the GDR's Kristin Otto ran away with the 100 free in 54.93. America's top finisher was Dara Torres, who placed seventh (56.25). Quietly finishing fifth was Sylvia Poll (55.90), who was disappointed and noted that her goggles had slipped on the start, which ruined her concentration.

Coach Rivas believed in the power of the mind and prided himself in telling his swimmers that they would not only go after beating Americans, but would also aim to swim faster than anyone in the world. So at the 1988 Olympic Games, Rivas' squad regularly pounded on the door to the pool at 5:30 a.m.—the first swimmers there—making a statement that they were eager to perform.

The 200 free was held on the second day, Sept. 21—just three days before Syl-

via's 18th birthday. The field included East Germans Heidi Friedrich and Manuela Stellmach, plus Americans Mary Wayte and Mitzi Kremer. All four qualified for the finals, with Friedrich first in 1:59.02 and Wayte third in 1:59.50. Second in the early morning session was Poll, swimming a personal best time of 1:59.22.



[PHOTO PROVIDED BY ITU PICTURES]

Sylvia Poll, serving as Ambassador, Deputy Permanent Representative of the Permanent Mission of Costa Rica to the United Nations Office in Geneva and other international organizations in Switzerland, is shown here in 2013 at a briefing on the Global Youth Summit, which was held in Costa Rica.

The Olympics are in some respects “just another swim meet” because what is critical to any swimmer's success is maintaining one's competitive calm and performing in his or her optimum emotional zone. The difference at the Olympics tends to be the staggering numbers: nearly 8,500 athletes from 159 nations competed in Seoul; 11,331 media were on hand to cover the 263 events in 23 sports; the Olympic Swimming Pool seated 10,000; and then, of course, there were millions of people watching worldwide on TV!

While a medal for Sylvia Poll would make her a folk hero in Costa Rica, her first task was to keep her poise if she wanted to succeed.

In the finals (scheduled at noon to accommodate American TV), the USA's Mitzi Kremer took command in the first 100, splitting 57.89. Trailing, in order, were Wayte (58.43), Friedrich (58.50), Stellmach (58.60) and Natalia Trefilova (URS) (58.61). Poll turned in sixth with a split of 58.78.

Some people look at the strategy for swimming the 200 freestyle as “going up the hill” the first half and “downhill” on

the second half. Was Sylvia Poll going to be able to swim the second half downhill? Even if she did, would it be good enough?

On the third length, Sylvia accelerated. First, she passed Trefilova, then Stellmach, then Wayte. Finally, she inched closer to Mitzi Kremer, who dropped to second at the 150 behind Friedrich (1:28.38 to the East German's 1:28.03). Poll turned third, just 8-hundredths behind the early leader.

People across Costa Rica stood and cheered at the electronic image stroking down the pool on their television sets.

Kremer faded, Stellmach chased and Friedrich soared down the last length, but Sylvia Poll raced them to the finish. That day, she stopped the clock at 1:58.67, placing second between the two East Germans—Friedrich (1:57.65) and Stellmach (1:59.01)—and earning the first Olympic medal in any sport for Costa Rica. By all rights, Sylvia was the real *gold* medalist in '88, knowing now that the East German women were doped.

During the awards ceremony, the Costa Rican anthem wasn't played, and its flag rose just beneath one GDR flag and beside another. But a proud Sylvia Poll stood on the podium and waved with dignity as though she expected to be there.

She became such a hero in her country that her name remains recognizable even today as you walk down almost any street in Costa Rica. And it's not only because of what she achieved, but also how she achieved it.

Sylvia sat through her post-race interviews, speaking calmly and fluently in three languages. When asked about her future, she spoke about making a difference beyond the pool and over many years to come. Today, she works in international relations at the United Nations and is a member of “Champions of Peace.”

Sylvia Poll is living proof that an Olympic medalist can come from anywhere in the world, including places with some of the most unusual conditions and circumstances. ❖

Chuck Warner is a part of Swimming World Magazine's editorial board and author of “Four Champions: One Gold Medal” and “And Then They Won Gold.” Both books are available for purchase online at www.SwimmingWorld.com. Next month: “Top 9 Olympic Upsets: #7.”

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[PHOTO BY BELLY CARR]

2015 SWIMMERS OF THE YEAR

BY JASON MARSTELLER

KATIE LEDECKY

Female World and American Swimmer of the Year

Katie Ledecky was selected as *Swimming World's* Female World Swimmer of the Year a third consecutive year, joining Debbie Meyer (1967-69) and Shirley Babashoff (1974-76) in second place behind Janet Evans' streak of four straight (1987-90).

Ledecky also won her third straight Female American SOY award, tying her with Katie Hoff (2005-07) and Tracy Caulkins (1980-82) for the second most consecutive wins. Evans reeled off five straight from 1987-91.

The 18-year-old had just graduated from Stone Ridge High School (Md.) before dazzling the world this summer at the FINA World Championships in Kazan, Russia. While winning five gold medals, Ledecky also became the first swimmer to win the 200-400-800-1500 meter freestyle events at a major international meet.

She set world records twice in the 1500 meter freestyle

(15:27.71p, 15:25.48) before adding a third WR four days later in the 800 (8:07.39). She now has 10 world records in her career since first clocking a 15:36.53 as a 16-year-old at the 2013 World Champs.

However, her most stunning victory in Kazan came in the 200, an event in which she was not favored. After turning in the fastest time during the morning prelims, she was faced with a difficult double that night: the finals of the 1500 followed by the 200 semis—just 29 minutes later!

Still hurting from her WR effort in the 1500, she qualified sixth in the 200 semis and had to be consoled by teammate Missy Franklin, who helped her out of the pool.

The next day—after plenty of rest—Ledecky clocked 1:55.16 to beat a stellar field that included Franklin and world record holder Federica Pellegrini of Italy. ❖

(First-place votes in parentheses)

THE TOP 5

FEMALE WORLD SWIMMER OF THE YEAR

1. **KATIE LEDECKY, USA (14)**
2. Sarah Sjöström, Sweden
3. Katinka Hosszu, Hungary
4. Emily Seebohm, Australia
5. Bronte Campbell, Australia

THE TOP 5

MALE WORLD SWIMMER OF THE YEAR

1. **ADAM PEATY, Great Britain (10)**
2. Michael Phelps, USA (3)
3. Sun Yang, China
4. Mitch Larkin, Australia
5. Florent Manaudou, France (1)

[PHOTO BY GIAN MATTIA DALBERTO/LAPRESSE]

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ADAM PEATY

Male World and European Swimmer of the Year

Adam Peaty finished runner-up to Japan's Kosuke Hagino in 2014 as *Swimming World's* Male World Swimmer of the Year. A year later, he became Great Britain's first swimmer ever—male or female—to win the award. He also was the first male swimmer from Europe to be so honored since 2000 when The Netherlands' Pieter van den Hoogenband topped the voting following the Sydney Olympics.

Early in the year, Peaty, 20, sent shockwaves through the entire swimming community when he broke the 58-second barrier in the men's 100 meter breaststroke with a 57.92 at the British Championships in London. The closest anyone came to that time this year was when South Africa's Cameron van der Burgh clocked 58.49 in semi-finals at the FINA World Championships in Kazan, Russia.

Peaty went on to win the 50 and 100 breaststrokes at Worlds (26.51, 58.52)—as part of a three-gold performance that included an upset win by Great Britain in the mixed 400 meter medley relay.

A day after Peaty beat van der Burgh by 7-hundredths of a second in the 100, both swimmers bettered the world record in the 50 breast: first by van der Burgh in prelims (26.62), then by Peaty in semis (26.42). The next day, Peaty erased any lingering doubts about who was King of the Pool with a convincing 26.51-26.66 triumph over his Commonwealth rival.

Peaty also became the first repeat winner of the Male European Swimmer of the Year award since Laszlo Cseh of Hungary (2005-06). The only British swimmers to take European honors are Peaty (2014-15) and Adrian Moorhouse (1990). ❖

(First-place votes in parentheses)

THE TOP 5

FEMALE AMERICAN SWIMMER OF THE YEAR

1. **KATIE LEDECKY, USA (14)**
- 2T. Ana Marcela Cunha, Brazil
- 2T. Missy Franklin, USA
4. Alia Atkinson, Jamaica
5. Haley Anderson, USA

THE TOP 5

MALE EUROPEAN SWIMMER OF THE YEAR

1. **ADAM PEATY, Great Britain (12)**
2. Florent Manaudou, France (2)
3. Laszlo Cseh, Hungary
4. James Guy, Great Britain
5. Gregorio Paltrinieri, Italy



[PHOTO PROVIDED BY ARENA INTERNATIONAL]

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SARAH SJOSTROM

Female European Swimmer of the Year

Sweden has had its share of world-class swimmers over the years—Par Arvidsson, Lars Frolander, Therese Alshammar, Gunnar Larsson, to name a few—yet, surprisingly, it was Sarah Sjostrom who became her country's first-ever *Swimming World* European Swimmer of the Year, male or female!

The 22-year-old was phenomenal at this summer's FINA World Championships, twice breaking the world record in the 100 meter butterfly.

Prior to Kazan, the USA's Dana Vollmer was the only female swimmer to dip under 56 seconds in the event—a 55.98 at the 2012 London Olympics. Sjostrom joined her during the semifinals with a sizzling 55.74 before lowering the record even further with a 55.64 in finals.

She also captured the gold medal in the 50 fly with a meet-record time of 24.96. Sjostrom is still the only swimmer to break 25 seconds in the event, having done it five times since first setting the world record of 24.43 at the Swedish nationals in July 2014.

The speedy Swede also won two silver medals and a bronze medal at Worlds. She finished runner-up in the 100 free to Australia's Bronte Campbell, and took third in the 50 free behind Campbell and Ranomi Kromowidjojo of The Netherlands. And for good measure, Sjostrom helped Sweden to second place in the women's 400 medley relay and fourth place in the 800 freestyle relay—leading off with the world's fastest 200 free time this year (1:54.31). ❖

(First-place votes in parentheses)

THE TOP 5

FEMALE EUROPEAN SWIMMER OF THE YEAR

1. SARAH SJOSTROM, Sweden (12)
2. Katinka Hosszu, Hungary (2)
3. Yuliya Efimova, Russia
4. Ruta Meilutyte, Lithuania
5. Jennie Johansson, Sweden



[PHOTO BY PETER H. BICK]

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MICHAEL PHELPS

Male American Swimmer of the Year

2014 was a year that Michael Phelps would rather forget: he was arrested for a second DUI in September; suspended for six months by USA Swimming—which also took away his monthly funding stipends during the suspension; he underwent treatment at a six-week rehab program; and withdrew himself from Team USA's 2015 World Championships roster.

But in 2015, Phelps showed his resiliency by being selected *Swimming World's* Male American Swimmer of the Year for a record 10th time—even without competing at Worlds in Kazan, Russia.

Instead, he focused all of his energies on the 2015 U.S. summer nationals. He did so well there that he even finished second in the Male World Swimmer of the Year voting!

With all of his rivals swimming in Kazan, Phelps, 30, put on a show in San Antonio. And since the results at Worlds were available before Phelps stepped on the block before each of his events, he had the chance to have the “last laugh.” And he did:

- First, it was the 200 meter butterfly: Hungary's Laszlo Cseh won the gold medal at Worlds in 1:53.48, ahead of South Africa's Chad le Clos in 1:53.68. Two days later, Phelps clocked 1:52.94.
- Next, the 100 fly: Le Clos and Cseh in Kazan—50.56, 50.87; Phelps in San Antonio later in the day—50.45.
- Then, the 200 IM: countryman Ryan Lochte at Worlds—1:55.81; Phelps at nationals three days later—1:54.75.

Phelps finished the year with three No. 1 times in the world. ❖

(First-place votes in parentheses)

THE
TOP
5

MALE AMERICAN SWIMMER OF THE YEAR

1. MICHAEL PHELPS, USA (10)
2. Ryan Lochte, USA (3)
3. Jordan Wilimovsky, USA (1)
4. Kevin Cordes, USA
5. Matt Grevers, USA



[PHOTO BY PAUL SEISER]

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EMILY SEEBOHM

Female Pacific Rim Swimmer of the Year

For years, Australia's Emily Seebohm had her sights set on America's Missy Franklin. Beat her, and Seebohm believed she would be considered the best women's backstroker in the world.

She did just that last year in the 100 meter backstroke at Pan Pacs with a world-leading 58.84 (Franklin finished third in 1:00.30). She also beat Franklin in the 200 by placing second in 2:07.61. However, Franklin had suffered a back injury shortly before the meet, so the jury was still out.

This year, there no longer was any doubt: the 23-year-old Australian swam lights-out at the FINA World Championships and earned *Swimming World's* Female Pacific Rim Swimmer of the Year honors. In addition to winning both the 100 and 200 back, she also helped Australia to a gold medal in the women's 400 free relay and a bronze in the medley relay.

In the 100 back at Kazan, Seebohm topped fellow Australian, Madison Wilson, 58.26 to 58.75, and nearly broke her own national record of 58.23 from 2012. She then overtook Franklin down the stretch in the 200 back to win, 2:05.81 to 2:06.34, setting an Australian record in the process. Seebohm trailed Franklin by more than a second at the 150 (1:33.36 to 1:34.67), but threw down an epic 31.14 final split for the victory. Seebohm also took fourth in the 50 back (27.66).

With Seebohm's SOY honors, Australian women have won the award every year since its inception in 1995 except for three: 1996 (China's Le Jingyi) and 2011-12 (China's Ye Shiwen). ❖

(First-place votes in parentheses)

THE
TOP
5

FEMALE PACIFIC RIM SWIMMER OF THE YEAR

1. EMILY SEEBOHM, Australia (11)
2. Bronte Campbell, Australia (3)
3. Kanako Watanabe, Japan
4. Cate Campbell, Australia
5. Natsumi Hoshi, Japan

[PHOTO BY DELLY CARR]

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MITCH LARKIN

Male Pacific Rim Swimmer of the Year

Although the Australian women have held onto the Female Pacific Rim Swimmer of the Year award with an iron fist since *Swimming World* began awarding it 21 years ago, their men have actually had a rough time since Ian Thorpe and Grant Hackett ruled the roost Down Under.

This year, let's just say the timing was right for Australia to end its 10-year drought of not winning the award:

- Japan's Kosuke Hagino, the 2014 Male World and Pacific Rim Swimmer of the Year, had his season cut short after he broke his elbow in a biking accident prior to Worlds, thereby forcing him to withdraw from the meet.

- China's Sun Yang, the 2013 Male World and Pacific Rim Swimmer of the Year, swam well at this year's World Champion-

ships, winning two gold medals and a silver. However, it's possible that Sun's positive drug test in May 2014—which was not reported for six months—influenced this year's SOY voting.

That left the door wide open for Aussie Mitch Larkin to snatch this year's Male Pacific Rim award...and deservedly so.

At Kazan, Larkin, 22, swept the 100 and 200 meter backstroke events. He beat France's Camille Lacourt in the 100, 52.40 to 52.48, and posted an Oceanic record in the 200 in 1:53.58 to win by a full second over Poland's Radoslaw Kawecki (1:54.55). Larkin also helped Australia to a silver medal in the men's 400 medley relay.

In November, Larkin added two Commonwealth records to his 2015 resumé: 100 and 200 back, 52.11 and 1:53.17, at the World Cup in Dubai. ❖

(First-place votes in parentheses)

THE TOP 5

MALE PACIFIC RIM SWIMMER OF THE YEAR

1. MITCH LARKIN, Australia (8)
2. Sun Yang, China (5)
3. Daiya Seto, Japan
4. Ning Zetao, China (1)
5. Cameron McEvoy, Australia



[PHOTO BY PETER H. BICK]

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KIRSTY COVENTRY

Female African Swimmer of the Year

Zimbabwe's Kirsty Coventry survived an epic year by Egypt's Farida Osman to claim a record eighth *Swimming World* Female African Swimmer of the Year award.

In a particularly difficult selection that featured neither of the two front-runners winning medals at this summer's World Championships, Coventry edged Osman with more consistent top-two votes from the magazine's panel of 14 voters. While Osman owned the advantage in first-place votes (eight to six), some voters ranked her farther down their top-five lists than Coventry.

Coventry, 32, led the African region in four events. As usual, she dominated the 50, 100 and 200 meter backstroke with times of 28.08, 1:00.09 and 2:10.01. She was nearly a second faster than her

competition in the 50, two seconds in the 100 and three seconds in the 200. She also showed her versatility by turning in the region's top time in the 200 IM (2:14.32)—nearly a second-and-a-half ahead of runner-up Marlies Ross from South Africa (2:15.71).

Meanwhile, Osman, 20, also topped the region in a quartet of events: 50 and 100 free (24.92, 55.41) as well as the 50 and 100 fly (25.78, 58.22). The American-born competitive swimmer who represents Egypt internationally just wasn't as dominant in all of her events.

Away from the pool, Coventry has been pretty busy as well. In 2012, she was elected to the IOC Athletes' Commission for an eight-year term that will take her through the 2020 Tokyo Olympics. ❖

(First-place votes in parentheses)

THE
TOP
5

FEMALE AFRICAN SWIMMER OF THE YEAR

1. **KIRSTY COVENTRY, Zimbabwe (6)**
2. Farida Osman, Egypt (8)
3. Karin Prinsloo, South Africa
4. Michelle Weber, South Africa
5. Tara-Lynn Nicholas, South Africa



[PHOTO BY FABIO FERRARI, L'ESPRESSO]

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CHAD LE CLOS

Male African Swimmer of the Year

A gold medal in the 100 meter fly at the 2015 FINA World Championships earned South African Chad le Clos his fourth straight *Swimming World* Male African Male Swimmer of the Year award.

He is now tied with Roland Schoeman for the most career and most consecutive wins since the magazine first began recognizing the regional award in 2004. Schoeman won the first four honors from 2004-07.

Le Clos, 23, and three-time winner Cameron van der Burgh, 27, of South Africa turned in similar performances this year, but le Clos' gold-silver showing in Kazan compared to van der Burgh's silver-silver performance seemed to give le Clos the advantage. Still, van der Burgh collected five first-place votes, compared to le Clos' nine.

Le Clos first captured the silver medal behind Hungary's Laszlo Cseh in the 200 meter butterfly. Cseh won in 1:53.48, with le Clos coming up a bit short on his final 50 sprint to the wall, just 2-tenths behind in 1:53.68.

The two swimmers also finished 1-2 in the 100 fly, with le Clos finding a measure of redemption with a 50.56 African record, ahead of Cseh's 50.87. Le Clos also placed sixth in the 200 free (1:46.53).

Van der Burgh, meanwhile, earned two silver medals in the 50 and 100 breastroke events, finishing twice behind *Swimming World's* Male Swimmer of the Year Adam Peaty of Great Britain. ❖

(First-place votes in parentheses)

THE
TOP
5

MALE AFRICAN SWIMMER OF THE YEAR

1. **CHAD LE CLOS**, South Africa (9)
2. Cameron van der Burgh, South Africa (5)
3. Chad Ho, South Africa
4. Ahmed Akram, Egypt
5. Myles Brown, South Africa



Michael Phelps had something to prove at the U.S. summer nationals...and did he ever! He swam three top-ranked world times and came within 7-hundredths of the world record in the men's 200 IM.

PHOTO BY PETER H. BICKJ

With five swimmers setting world records and three others breaking major barriers in short course yards, it was a record-setting year to remember. Here are *Swimming World's* top 10 swims.

10 BEST PERFORMANCES OF 2015

BY JEFF COMMINGS

1. KATIE LEDECKY, USA

800 Meter Freestyle, 8:07.39 (WR)

By the time Katie Ledecky stepped up for the 800 freestyle final at the World Championships, she had already raced a staggering 5,400 meters over the course of seven days. Would she have the energy to put a stellar cap on an incredible week that cemented her status as the world's best swimmer?

That question was soon answered. Ledecky took the lead quickly—as she always does in her distance races—and was racing the clock. Specifically, she was gunning for her world record of 8:11.00 from a year ago. Based on her swims earlier in the week in Kazan, a swim under 8:10 was possible. But even Ledecky did not expect a swim under 8:08.

Yes, the average split per 100 was 1:00.92, an incredible feat not only when you isolate the race in itself, but also when you consider how much she had swum at the meet before that race. Ledecky blasted through a barrier that continues to keep her competition well out of reach.

2. KATIE LEDECKY, USA

1500 Meter Freestyle, 15:25.48 (WR)

If you like, you can pick Ledecky's world record swim in the heats of this event as a tie for the second best performance of the

year. Both were just as thrilling. In the prelims, Ledecky cruised through the race, putting in very little effort to post a world record time of 15:27.71. The next day, she was back to blitz the field and lower the record by more than two seconds.

Many had wondered if Ledecky would coast through the 1500 free final in order to save her energy for the 200 free semifinal that was coming up about 30 minutes after she swam. Ledecky is never one to back away from a challenge—whether it comes from the clock or the field—and she stayed comfortably ahead of the world record pace for more than 15 minutes. Her time is mind-boggling, considering that a year ago at the Pan Pacific Championships, her 15:28.36 was considered untouchable.

3. ADAM PEATY, GREAT BRITAIN

100 Meter Breaststroke, 57.92 (WR)

In the last event of the British spring nationals, Adam Peaty set the world on fire. Already known globally for his 50 breast world record of 26.62 set the previous summer at the European Championships, the 20-year-old made himself the new frontrunner for Olympic gold in the 100 breast, blazing through the 58-second barrier in qualifying for the World Championship team. To take 5-tenths off the existing world record in a 100-meter race is astounding—and it shows how much Peaty had been improving in the event in one year.

4. SARAH SJOSTROM, SWEDEN

100 Meter Butterfly, 55.64 (WR)

Sjostrom had been fighting to reclaim the world record in the 100 butterfly since Dana Vollmer took it in 2012. Not only did Vollmer steal Sjostrom's thunder by becoming the first woman under 56 seconds, but Vollmer managed to take the Olympic gold medal as well.

It took three years of hard work, but Sjostrom got the record back, first with a 55.74 in the 100 fly semifinals at the World Championships, then a 55.64 in finals. Taking command at the start and leading at the 50 in a blazing 26.17, she extended her lead with every stroke, coming home in 29.47—more than a second faster than all of her competitors save one—to win by 1.41 seconds.

5. KATINKA HOSSZU, HUNGARY

200 Meter Individual Medley, 2:06.12 (WR)

When Ariana Kukors—wearing a high-tech swimsuit—clocked 2:06.15 in the 200 IM at the 2009 World Championships, most people believed that her world record wouldn't be broken any time soon—initially, because she had obliterated the previous mark by 2.30 seconds...and especially the next year when the polyurethane swimsuits were banned by FINA.

Enter Katinka Hosszu. In the past three years, she's made it her goal to take down that world record, getting closer with each passing year. After trouncing the world records in the short course 200 IM in the FINA World Cup meets, Hosszu wanted to prove that she was the one to watch for next year's Olympics.

She was under record pace for the entire swim in the World Championship final—and the 26-year-old needed to be, know-

ing that Kukors' final WR split in 2009 was a blazing-fast 29.84 freestyle leg. Hosszu's final 50 meters was 30.48, fast enough to claim the WR by 3-hundredths of a second. Upon seeing her time, Hosszu's face showed utter disbelief, then shock, then joy...with some tears mixed in.

6. DAVID NOLAN, USA

200 Yard Individual Medley, 1:38.38
(American, U.S. Open Record)

After breaking the American record by 1-hundredth of a second with a 1:40.07 at the Pac-12 Championships, the race that everyone wanted to see at the men's NCAA Division I Championships was David Nolan's 200 IM. Could he break 1:40?

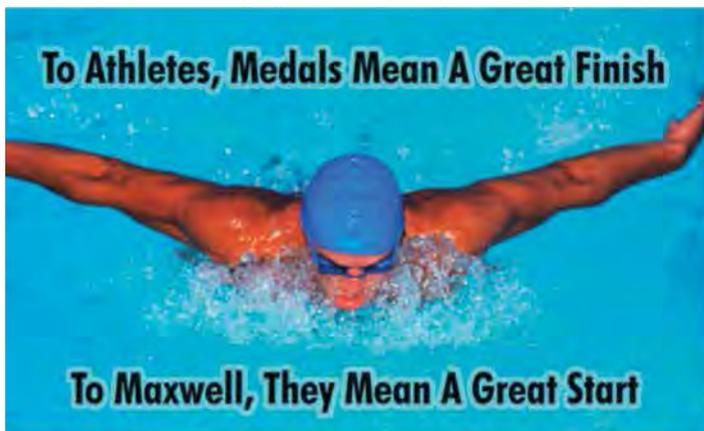
Nolan gave himself every opportunity to make it happen, taking the first 100 yards out nearly a second faster than he did three weeks earlier. Nolan's breaststroke and freestyle splits weren't as fast, but by then, his date with destiny had been sealed.

7. MICHAEL PHELPS, USA

200 Meter Individual Medley, 1:54.75

Yes, Michael Phelps had something to prove at the U.S. summer nationals, coming off a six-month competition suspension after his DUI arrest in September 2014. Phelps had been training harder than ever, and that showed with some amazing butterfly swims earlier in the meet that put him at the top of the world rankings.

— continued on 26



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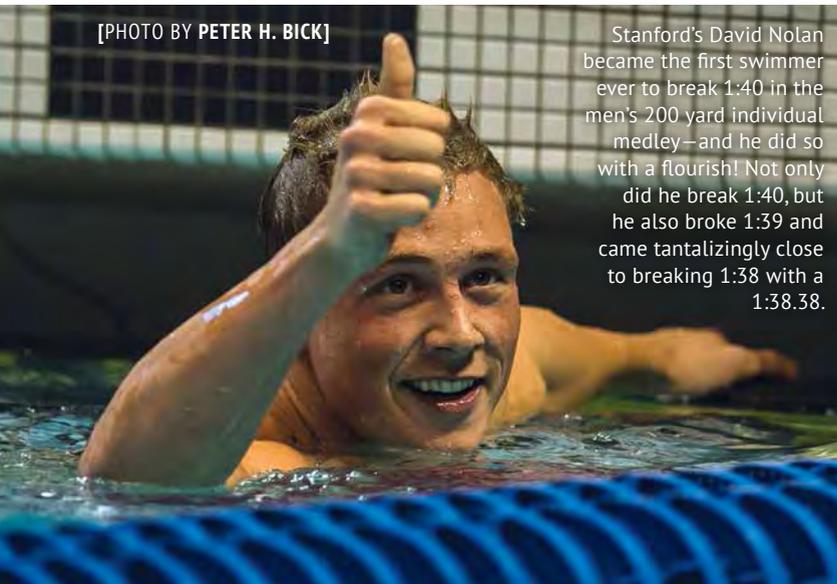
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[PHOTO BY PETER H. BICK]

What made Missy Franklin's sub-1:40 performance in the 200 yard free even more memorable was seeing the Franklin smile after she saw the time, as well as an uncharacteristic—but much deserved—slap of the water in celebration.



[PHOTO BY PETER H. BICK]

Stanford's David Nolan became the first swimmer ever to break 1:40 in the men's 200 yard individual medley—and he did so with a flourish! Not only did he break 1:40, but he also broke 1:39 and came tantalizingly close to breaking 1:38 with a 1:38.38.



[PHOTO BY MARIA DOBYSHEVA]

It's not that often one swimmer would earn three of the year's top 10 performances, but that's exactly what Katie Ledecky did. Her 800 (#1), 1500 (#2) and 200 (#10) freestyle performances at the 2015 World Championships showed just how dominant a year it was for *Swimming World's* Female World Swimmer of the Year.

Phelps hasn't been under 1:55 in the 200 IM in a long time, but judging by the way he was swimming in San Antonio, it was likely the crowd would see another big swim from Phelps. Earlier in the week, Ryan Lochte had won the World Championship title in 1:55.81. That was a pretty fast swim, though not as fast as Lochte probably could have gone with Phelps in the pool next to him. Phelps, on the other hand, showed that he didn't need anyone to push him to swim fast: he was under world record pace through the breaststroke leg, and only fell 75-hundredths short of the record.

8. KELSI WORRELL, USA

100 Yard Butterfly, 49.81
(American, U.S. Open Record)

Kelsi Worrell was on pace to win the 100 fly at the 2014 NCAA Championships, but faltered at the end to finish second. She wasn't going to let that happen in 2015, scorching the field to break 50 seconds twice in one day.

The University of Louisville junior started with a 49.89 in prelims, then returned with a 49.81 in the final. What stood out in Worrell's swims was that her turns weren't perfect, leaving her the opportunity to approach the 49-second barrier this March.

9. MISSY FRANKLIN, USA

200 Yard Freestyle, 1:39.10
(American, U.S. Open Record)

Missy Franklin's final meet as a collegiate swimmer for Cal will be remembered mostly for her 200 free final, in which she became the first woman under 1:40. She took the race out in a blistering 47.74 to rattle Simone Manuel and put her Stanford rival out of contention. Franklin held on strongly in the final 100, knowing that this might be her last chance to put together a truly spectacular short course 200 free.

What made the performance even more memorable was seeing the Franklin smile after she saw the time, as well as an uncharacteristic—but much deserved—slap of the water in celebration.

10. KATIE LEDECKY, USA

200 Meter Freestyle, 1:55.16

This swim did not result in a record, but it was one that had the world's swimming community buzzing. Not only was this Ledecky's first World Championship final in the 200 free, but she was facing world record holder Federica Pellegrini and defending champion Missy Franklin. Pellegrini and Franklin took the race out hard, with Ledecky seemingly out of it at 100 meters in fourth place. But Ledecky had tons more endurance than her competitors, and she managed to get to the finish first, beating Pellegrini by 16-hundredths of a second.

Ledecky—the world record holder in the 400, 800 and 1500—ended up winning four freestyle gold medals in Kazan, becoming the first person to accomplish the feat at a World Championships. ❖



**“LET’S
GIVE IT
SOME!”**

With Coach Bill Furniss at the helm, the culture of British Swimming is changing from its athletes striving to be not just the best in the nation, but the best in the world. Spearheading the surge is the fearsome British breaststroke contingent.

BY ANNIE GREVERS

GE-TIMING



Leading the charge in Great Britain's new regime are the up-and-coming male breaststroke. At the top of that list is Adam Peaty (above), the world record holder and world champion in the 50 and 100 meter breast.

If you tuned into any of the 2015 World Championships this past summer, you might have noticed the Union Jack cap flashing across the screen quite often. In 2012, when Great Britain played host to the Olympic Games, we saw much of Team GB's distance darling, Rebecca Adlington, and breaststroker Michael Jamieson...because they were the only English swimmers to make the podium.

In February 2013, in the wake of Great Britain's hangover from the Olympics, Adlington's coach, Bill Furniss, was appointed British Swimming's new head coach. The culture needed a revamp. Expectations needed to be lifted. The goal for Team GB in London was five medals. Two swimmers earned a combined three, none of which were gold. The home crowd did not hear "God Save the Queen" played once.

Times they are a'changing. At this summer's World Championships in Kazan, five gold, two silver and three bronze medals clanked together, ringing in a swimming renaissance for England.

Bill Furniss hard-lined a shift in goals for Great Britain. The British Olympic team should not be content merely making an Olympic final, he told his team. Every swimmer on the team should be gunning for a spot on the Olympic podium.

Some call it tough love, but Furniss prefers "raising the bar" and recognizing the talent within the territory.

GOLD MINING AT WORLDS

Leading the charge in this new regime are the up-and-coming (or shall we say, "surging"?) male breaststroke. Adam Peaty shocked the clock—as well as the crowd—at British nationals last April when he touched the pad for the 100 meter breaststroke in 57.92: a world record and the first time anyone had swum the event under 58 seconds. Anyone who watched that race knows Peaty's underwater pullouts need some work. His future looks freaky fast.

Peaty recognizes that world record swim was not a silky smooth performance. "Hopefully, that 57 was just a start," Peaty said after the race.

Four months later at World Championships, Peaty was up against Cameron van der Burgh of South Africa—formerly Peaty's swimming idol. Van der Burgh, the 2012 Olympic champion and former world record holder, led almost the entire race. But in the last 10 meters, Peaty's youthful vigor reeled in the veteran. It was gold for Peaty with a 58.52. The last time a Brit won a world title in the event was in 1975 when David Wilkie stood atop the podium.

— continued on 28

"LET'S GIVE IT SOME!" – cont'd from 27

Peaty went on to set a world record in the 50 breast (26.42) and also joined forces with Chris Walker-Hebborn, Siobhan-Marie O'Connor and Fran Halsall to set a world record in the 4 x 100 mixed medley relay.

But the world record holder has not always felt at home in the pool: "I absolutely hated being in the water to begin with, but once I started racing—and winning—that changed it all, and it got addictive," Peaty said. The sport becomes more thrilling with each year for the breaststroking Hercules.

Over a 48-year span, two Brits have won Olympic medals in the 100 breaststroke: David Wilkie (silver) in 1976 and Adrian Moorhouse (gold) in 1988. If Peaty leaves the world floundering in his wake again in Rio, he will be the first Brit in 28 years to strike gold in the event.

One of Great Britain's coveted three medals that it won in the 2012 Games was Michael Jamieson's silver in the 200 breast. Before Jamieson, there had not been Olympic hardware in the 200 for Team GB since 1988, when Nick Gillingham took silver.

Although Jamieson has endured a slump in his career since the London Games, young talent continues to swell in Great Britain's breaststroke department.

Twenty-one-year-old Scotsman, Ross Murdoch, earned his first World Championship medal last summer, and said he was

profoundly inspired by Jamieson's swimming at the London Games.

"Britain didn't have the best Olympics, but it still encouraged a lot of people to get in and get involved," Murdoch said. "It certainly inspired me watching Michael Jamieson. He's a Brit, but he's also a Scot. Watching him there made me truly believe that not just British people, but Scottish people are capable of getting medals on the world stage."

A SHOCK FOR MURDOCH

Murdoch, training under Coach Ben Higson's tutelage at the University of Stirling, had a storybook breakout performance at the 2014 Commonwealth Games.

In his home city of Glasgow, Scotland, Murdoch upset his fellow countryman, Jamieson, to seize gold in the 200 breast (2:07.30).

"Being able to stand on top of the podium with a world-leading time and hearing the national anthem, 'Flower of Scotland'—it's so rare to be able to have that. I'll probably never experience that again," Murdoch reminisced.

Murdoch was diagnosed with glandular fever last November, which took him out of the pool for a month. A weaker Murdoch hopped back into the water to train for British nationals, which served as the qualifier for World Championships.

"The best way to describe it is I'm almost a bit of a diesel. It takes a bit for me to get going, but once I get going, I'm big, I'm efficient, I'm clean," Murdoch said regarding his proclivity for the 200 breast.

After a realistic evaluation of his conditioning, "the Diesel" told Coach Higson he thought he lacked the necessary conditioning to swim his 200 the way he wanted to.

"I basically said to him (Higson) that I don't believe I'm in shape to go sub-2:08, so what I want to do is I want to change the focus," Murdoch stated. "I said we should take up the 100 (breast), and really try to work the speed for the front end (of the 200 breast), and think of it as a process leading

"Being part of the English team at the 2014 Commonwealth Games gave me a sense of belonging to something big, and I wanted to carry that pride and success of England with me into my swims. I think it enabled me to have this confidence that I'd never had before, and I had this 'DO-or-DIE'-type attitude: you either give it your absolute best or nothing at all."

—Adam Peaty

Ross Murdoch (left), who was diagnosed with glandular fever a year ago, was out of the pool for a month. He bounced back, though, at the World Championships, finishing third behind winner Adam Peaty (right) in the 100 breast, giving the Brits a 1-3 finish.



up to the Olympic season, where you want to be attacking that season as the fastest you've ever been. The thing was I wanted to increase my 100 speed so I could make the front end of my 200 speed a lot easier."

For someone who claims to need time to find his rhythm, Murdoch seems to have discovered a way to speed up the process. Murdoch stroked to a 59.09 from lane eight last summer in Kazan—good enough to earn him bronze behind Peaty and van der Burgh.

Another notable Brit is Andrew Willis, who finished fourth in the 200 breast at both the 2013 and 2015 World Championships, and made the 2012 Olympic final in the same event. The United Kingdom may only be one-third the size of Texas, but conditions are prime for training world-ranked breaststrokers. The depth of breaststroke talent on Team GB fosters a tangible sense of pride among the English.

"It's really nice to have that because it's one of those things where I wake up in the morning, knowing that the world record holder in the 100 (Peaty) is no more than 500 miles away, and I need to race him every single race," Murdoch said.

Peaty agrees: "It helps having British breaststrokers to race all year round, too, as you can never take your foot off the gas pedal!"

A CULTURAL OVERHAUL

British Swimming released its qualifying standards for the Olympic team in early October. Most standards are times that would make—and likely even medal—in an Olympic final. The top finishers at next summer's British nationals will need to grab one of these exacting cuts to progress to the Games. Based on last summer's performances, 10 swimmers would qualify for the Olympic squad. Great Britain brought a team of 45 to the London Games. We can expect a dramatically higher level of swimming from Great Britain's smaller team in Rio.

Mark Foster, a world, European and Commonwealth champion swimmer many times over, saw promise in what the media saw to be a lackluster showing in London. Foster pointed out in the UK's *The Telegraph* that the team had more Olympic finalists in London than ever before. And the young man who will be looked to for inspiration in Rio, Adam Peaty, was not even on that roster.

Peaty will be 21 in Rio, Murdoch, 22, and standouts James Guy and Siobhan-Marie O'Connor will both be only 20 years old, so it seems this legion is definitely on the rise.

Bill Furniss, head coach of British Swimming, hard-lined a shift in goals for Great Britain. The British Olympic team should not be content merely making an Olympic final, he told his swimmers. Everyone on the team should be gunning for a spot on the Olympic podium.



Furniss has changed hundreds of things, but they all point toward the main goal: changing the culture of British Swimming.

He has used Peaty as the prime example of what he wants to see—someone striving to be not just the best in his nation, but the best in the world.

Peaty spoke with *The Sentinel* (a local paper in Stoke, England), and his words speak to the positivity roused by hungry, young talents on the World Championship squad:

"It's great to have that sort of catalyst going on in the team. Jimmy (James Guy) swims well, I swim well, and it kind of went through the whole team. I saw Jimmy winning the 200 free, and it spurred me on to go and get a world record. That success shows what it's like to be (a member of the Great Britain team). It's great to see other people doing well."

CAREFREE CONFIDENCE

Melanie Marshall spent 13 years racing internationally, highlighting her career by winning six medals at the 2006 Commonwealth Games for England. Her freestyle and backstroke prowess earned her spots on Great Britain's Olympic teams in 2004 and 2008. Now she can be found on the pool deck in City of Derby coaching garb.

Marshall was named Coach of the Year for the second consecutive year by the British Swimming Coaches Association in October, and is the first woman to have been granted the honor.

She has steered Peaty's career since he was 14, and her tactics continue to work wonders.

"I think that the friendship and professional attitude we have for each other makes it so much easier to communicate and tell each other what we both want to achieve," Peaty said. "Mel has believed in me all the way."

Peaty's recent feats give him every reason to be confident, but the foundational self-belief existed before this summer.

Coach Mel knew back in 2013 when Peaty was 18 that he was on his way to being one of the fastest lads ever.

"I think it was perfect timing being part of the English team at the 2014 Commonwealth Games. It gave me a sense of belonging to something big, and I wanted to carry that pride and success of England with me into my swims," Peaty said. "I think it enabled me to have this confidence that I'd never had before, and I had this 'DO-or-DIE'-type attitude: you either give it your absolute best or nothing at all."

Walking out with your competitors to the roar of the crowd, body steeped in adrenaline, stepping up to the blocks—Peaty embraces the gladiatorial nature of the big meets. The goosebumps propel him to perform.

Between the 2014 Commonwealth Games, 2014 European Championships, 2014 Short Course World Championships and 2015 World Championships, Peaty had collected nine gold medals and four silvers. That is a prodigious haul for the 20-year-old, who seems too young to recognize the magnitude of his accomplishments.

However, if he were to realize just how successful he's been thus far, it might only complicate the game for the young breaststroker who seems to have jumped on a wave in 2014 and has yet to be knocked down by failure.

The naive fearlessness will indubitably add altitude to Peaty's meteoric rise rolling into Rio.

Peaty's final thoughts before stepping up to race are simply: "Let's give it some!"—a simple battle cry that may have the power to rally a team to their greatest Olympic showing of all time. ❖

ON-LAND SWIM STROKE MOVEMENTS: BACKSTROKE

BY J.R. ROSANIA

PHOTOS BY EMMI BRYTOWSKI

DEMONSTRATED BY

CARL MICKELSON AND SUSIE PAUL

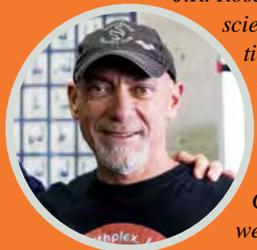
This month's article—which provides instruction and stroke movement technique pertaining to backstroke—completes our series of swim stroke movements done on land. (See the March issue for freestyle; June for breaststroke; and November for butterfly.)

Again, our objective is to create more power into the stroke to enable the swimmer to pull with greater resistance and create more distance per stroke. As with the other stroke articles, make sure you're using solid technique with each movement, emulating the stroke in the water as closely as possible.

Perform each exercise for 12 to 15 repetitions, and do two to three sets per session. Two to three sessions per week is appropriate. Whether it's weights or bands, make sure to use resistance light enough to allow yourself to complete the sets and reps. ❖

MEET THE TRAINER

J.R. Rosania, B.S., exercise science, is one of the nation's top performance enhancement coaches. He is the owner and CEO of Healthplex, LLC, in Phoenix. Check out Rosania's website at www.jrhealthplex.net.



MEET THE ATHLETES

Carl Mickelson swam for the University of Arizona. As a senior, he finished fourth in the 100 and 200 yard breaststroke at the 2012 NCAA Division I Championships.

Susie Paul has been a Masters swimmer for the past 10 years.

NOTICE

All swimming and dryland training instruction should be performed under the supervision of a qualified coach or instructor, and in circumstances that ensure the safety of the participants.

1 MEDICINE BALL THROW-DOWN WITH SHOULDER ROTATION

Hold a medicine ball overhead and rotate to either side. Complete a single-arm throwdown, catching the ball on its upward return. Alternate to the opposite side.



2 SUPINE CABLE PULL WITH FLUTTER KICK

While lying on your back at the base of a cable machine, perform a backstroke pull movement with your arms and incorporate a straight-leg flutter kick.



3 STABILITY BALL SUPINE TUBE BACKSTROKE PULL

Lying supine on a stability ball—using your legs to stabilize your body—perform backstroke pull movements by using tube stretch cords for resistance.



4 SINGLE-ARM SUPINE PULLOVER WITH FLUTTER KICK

While lying on your back on a bench, perform single-arm pullovers combined with straight-leg flutter kick.



DADS ON DECK

KJELL LARSON

BY ANNIE GREVERS

It's hard to believe Breeja Larson started swimming five short years before qualifying for her first Olympic team in 2012. Breeja lettered in track and field, softball and swimming in high school. She didn't specialize in swimming until committing to swim for the Texas A&M Aggies in 2010. Larson's Olympic berth was epic: she won the 100 breaststroke at Olympic Trials, outtouching Olympic champion Rebecca Soni in the process. The girl behind the megawatt smile is the second eldest of Kjell and Marni Larson's seven daughters. Super swim dad Kjell beams with pride at what his Breeja has accomplished and what a lovely example his gracious daughter is to the swim world.

At what point did you realize Breeja was an exceptional swimmer?

When she was in ninth grade, she qualified to swim at the state swim meet in Arizona. After semis, an observant coach in the crowd came up to her and gave her a couple of tips on her pull-outs and told her she could drop time if she would execute. She dropped a couple of seconds and jumped two spots to finish sixth in the finals. At that time, her stroke was "a beautiful mess," but I knew she had the potential to become an exceptional swimmer after that meet. She just needed someone other than me to spark the fire. She found the spark and desire she needed two years later—swimming in Boise for only three months during that time—when she started club swimming with Brad Hering in Mesa, Ariz.

Do you think her late entry into the sport has been advantageous?

Yes! Fortunately, Steve Bultman (Texas A&M women's swim coach) took a chance on her based on the fact that she was not burned out, but, in fact, fired up about learning to race and get faster. I've since learned that Brad convinced him of that.

What's your favorite Breeja swim moment?

After finishing second in the 100 breast at NCAAs her freshman year, she told reporters that her next goal was to set an American record the next year. She ate, slept, doodled and focused on the time she wanted to go for the entire next year. I got to be in the stands and watch as she accomplished her goal. I went a little crazy! I was so excited to share that moment with her. Then, there was the Olympic Trials win—that was pretty cool.

Any tips for the novice swim dad out there?

Actually, Breeja gives the best advice to novice dads: make sure your swimmer is having fun! Help them set goals. Help them with nutrition. Celebrate personal bests with them, regardless of where they finish in the race. I highly recommend a trip to the Olympics to watch your little girl swim! Haha. Oh, and get a comfortable, portable bleacher seat. ❖

"Moms at Meets" and "Dads on Deck" is a quarterly feature sponsored by TRI SWIM about swim parents for swim parents. Check out the website at: www.sbrsportsinc.com

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PICTURED > Breeja Larson with dad, Kjell



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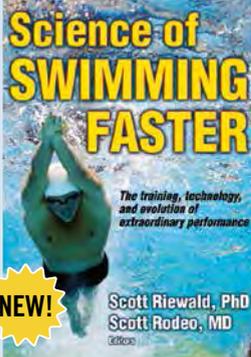
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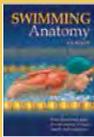
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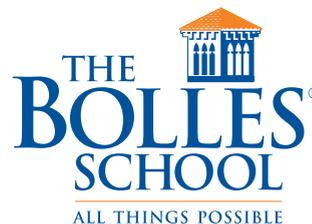
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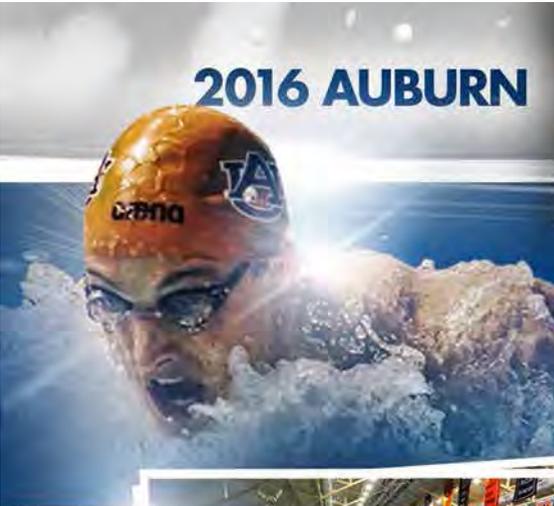
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JACK CAUCINO

BY MICHAEL J. STOTT

Jack Caucino balances a myriad of administrative responsibilities at the Red Bank YMCA in New Jersey while also building a team that frequently contends for national titles.

Q. SWIMMING WORLD: *How did you start coaching swimming?*

A. COACH JACK CAUCINO: When my eligibility expired, St John's coach Dick Kempecki suggested I stay on and coach. After that experience, I was hooked.

SW: *Any influences along the way?*

JC: Coach Kempecki was a big influence. I have applied some of the insights from Glenn Neufeld at Upper Main Line YMCA (now at Mercersburg Academy) and Peter Wright at YSSC (now at First Colony) to our program at Red Bank, and they have helped contribute to our success. The friendships and relationships among Y coaches have been invaluable.

SW: *How healthy is Y swimming today?*

JC: Very. Both the short course and long course YMCA National Championships have improved in quality and quantity (depth and qualifying standards). In the 2014-15 short course season, 11 of the top 100 teams in USA Swimming's Virtual Club Championships were Y programs.

SW: *Has Y swimming become overshadowed by USA club swimming?*

JC: Not at all. YMCA swimmers have made an impact on all levels. Many swimmers at NCAA Championships and Olympic Trials (think Mitchell Friedemann, Margo Geer, et al.) are former YMCA athletes. They probably represent Y's at the NCAA level in far greater numbers than (one would think), based on USA swimming memberships. — continued on 42

[PHOTO PROVIDED BY RED BANK YMCA]



Coach Jack Caucino

Head Coach
Red Bank YMCA Aquarockets
Red Bank, New Jersey

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JACK CAUCINO

- St. John's University (Queens, N.Y.), B.S., business administration, '84
- Big East finalist all four years at SJU
- Has coached more than 30 years, starting as an assistant coach at St. John's
- Has coached more than 50 NJCAA All-Americans at Ocean County College (Toms River, N.J.) plus two national champions
- Earned NJCAA Coach of the Year (1996)
- Named head coach of the Red Bank YMCA (1997)

Thanks in part to a comprehensive dryland and weight training program, Caucino—in his 19 years at Red Bank—has led the Aquarockets to seven top 10 finishes at the YMCA Nationals and has coached five YMCA national champions, an Olympic Trials qualifier and more than 150 YMCA All-Americans. He also has sent more than 125 swimmers to NCAA programs. A respected leader, he is currently president of the YMCA Swimming National Coaches Advisory and has been a member of that group since 2011. He also is a representative for YMCA Swimming in the Middle Atlantic Region.

SW: Y swimming seems to be predominantly a Midwest and East Coast phenomenon. Why is that...and do you see it expanding beyond those geographic areas?

JC: YMCA swimming is stronger in areas where Y's are common. I know that the majority of the YMCAs in New Jersey were built post-war. So, that is where the indoor pools were built and where YMCA teams exist, the majority of which compete as a USA Swimming team. There are many YMCAs being built today, and it is the job of the regional representatives to grow our sport and educate the CEOs and executive directors about the benefits of competitive swimming. In addition, there are many YMCAs with small teams that don't swim in USA Swimming, and function as feeder programs for other clubs. One of the goals of the YMCA National Committee is to help those programs grow and become more involved with both USA Swimming and the YMCA national events.

SW: Red Bank finished among the top 20 combined teams at the 2014 Long Course YMCA Nationals.

JC: Our goal is to always be a top 10 team. As a coaching staff, we never stop reminding our swimmers that qualifying for a short course or long course meet is only the beginning. We want swimmers to enjoy the moment, but understand that every swim at the season-ending meet is significant.

We were not happy with our results in 2014. This past summer, we spent a lot of time talking to our younger swimmers about the tone they set for the team by racing well in the early heats. Fast swimming is contagious. The approach worked very well for us and helped lead our boys to a third-place finish and our entire time to sixth place in the combined team standings at the 2015 Long Course YMCA Nationals. We want to instill the same philosophy and goals at the age group level, too.

SW: What needs to happen for RBY to move higher in the Garden State and national conversation?

JC: The biggest thing already occurred three years ago when we built a bubble over an 8-lane, 25-yard camp pool. This has allowed us to expand our team from 200 to 300 swimmers. We also increased the amount of pool time our swimmers get, especially for age groupers. The new facility has also allowed us to reduce by two or three the number of swimmers per lane. We work hard to keep a low coach-to-swimmer ratio, and we always stress technique. We have ramped up competition in practice at all levels and also expanded the size of our Y-National team.

SW: You were selected National Junior College Coach of the Year in 1996. What made that year so special?

JC: We recruited some great athletes, and we were lucky to catch Indian River not as deep in some events in which we were strong. That definitely made a difference and impacted the meet. That year was so much fun because we had a really good season of training and had athletes who were hungry and fearless racers. ❖

Michael J. Stott is an ASCA Level 5 coach whose Collegiate School (Richmond, Va.) teams have won eight state high school championships.



TOTAL ACCESS MEMBERS CLICK HERE

to download additional questions-and-answers for Coach Jack Caucino.



Tyler Kauth, a senior at Christian Brothers Academy (Linfield, N.J.), typifies a Red Bank YMCA swimmer, says his coach Jack Caucino: "Although he has individual goals and made his first USA Swimming long course junior national standards this summer, Tyler gets even more excited when his teammates do well. That mindset is contagious, and it makes him very popular with his teammates. It also enables him to consistently put up numbers on relays—as he did at Y-Nats this summer—that far exceed his individual swims.

"In August, he split 23.47 on our winning 200 free relay (1:35.26) while only going 24.26 in his individual swim. He also made a junior cut leading off our second-place 400 medley relay (58.87, 3:54.24), which was faster than his individual result (59.28). In fact, he was more upset with the second-place finish than making his cut because his focus for that race had been to help a perennial bridesmaid teammate win a gold medal. As his coach, I find his approach both satisfying and frustrating," says Caucino.

"Tyler has an engaging personality, great work ethic and knows what he needs to do to succeed. He brings a meet-type enthusiasm to practice daily, pushing his teammates in the pool and in dryland. He is not afraid to call out his teammates, and he's accepting when the staff and teammates do likewise. He loves a challenge and relishes competition whether in practice or at meets," says the coach.

On a white board at the RBY pool are the numbers 17-5. "In our world, that means you should be ready to swim and be fast 17 times between relays and individual events over the five days at YMCA Nationals. Tyler lives the goal every day, and he's a great role model for his teammates," says Caucino.

HOW THEY TRAIN: TYLER KAUTH

BY MICHAEL J. STOTT • PHOTOS PROVIDED BY RED BANK YMCA

SAMPLE WORKOUTS

Typical Stroke Day (SCY)

(30 min. weights and 40 min. dryland preceding practice)

- 2,000-2,500 warm-up and kicking
- 3x the following (backstroke):
 - 4 x 25 @ :30 (6 wall kicks - flip - 8 dolphin kicks underwater - kick rest on back)
 - 1 x 50 @ :50 (drill)
 - 4 x 25 @ :25 (12 kicks underwater - race breakout - technique)
- 3x the following (backstroke):
 - 4 x 25 @ :30 (2nd flag underwater)
 - 2 x 50 @ :45 (15 meters underwater each lap - MAKE IT! - technique swim)
 - 3 x 100 @ 1:15 (1st 75 back, 25 free; 2nd 50 back, 50 free; 3rd 25 back, 75 free)
- 4x the following (backstroke):
 - 1 x 25 @ :40 (scull free)
 - 1 x 50 @ 1:00 (drill/swim)
 - 1 x 25 @ :25 (build-flip-finish free)
- 4x the following (backstroke):
 - 1 x 50 @ :40 (1st set), @ :45 (2nd set), @ :50 (3rd set), @ :55 (4th set) (@ 200 pace + :02 - choice)
 - 2 x 25 @ :30, @ :35, @ :40, @ :45 (@ 200 pace + :01 - choice)
 - 1 x 50 @ :40, @ :45, @ :50, @ :55 (@ 200 pace - choice)

Typical Speed Day (SCY)

(followed by 40 min. dryland)

- 2,000-2,500 warm-up and kicking
- 10 x 25 @ :30 (paddles and fins - 1 breath - get heart rate up)
- 4x the following:
 - 1 x 75 @ 3:30 (blocks - 2 free - 2 choice)
 - 1 x 125 @ 2:00 (cruise free)
- 4x the following:
 - 1 x 50 @ 3:30 (blocks - 2 free - 2 choice)
 - 1 x 100 @ 2:00 (cruise free)
- 6x the following:
 - 1 x 25 @ 2:30 (blocks - 3 free - 3 choice)
 - 1 x 75 @ 2:00 (cruise free/do a 200 easy on 4th set) ❖

PROGRESSION OF TIMES

SCY	2011-12	2012-13	2013-14	2014-15
50 Free	23.77	22.53	21.54	21.18
100 Free	52.10	48.12	47.13	46.78
100 Back	54.14	52.09	51.07	50.38
200 Back	1:58.07	1:54.38	1:51.09	1:49.54
LC				
50 Free	27.67	26.89	24.38	24.26
100 Free	59.02	55.39	53.60	53.30
100 Back	1:03.96	1:00.99	59.61	58.87
200 Back	2:18.05	2:14.36	2:09.86	2:07.37



TOTAL ACCESS MEMBERS CLICK HERE to download another sample workout: "Typical IM Day (SCY)."



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Morgan Rodriguez (10)
Nitro Swimming
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San Antonio Cinco de Mayo Meet



Breanna Hoskins
Age 11
Piranhas Swim Club
Bettendorf, Iowa
Iowa LC Summer State Meet, 2nd Place



Asia Minnes
Age 12
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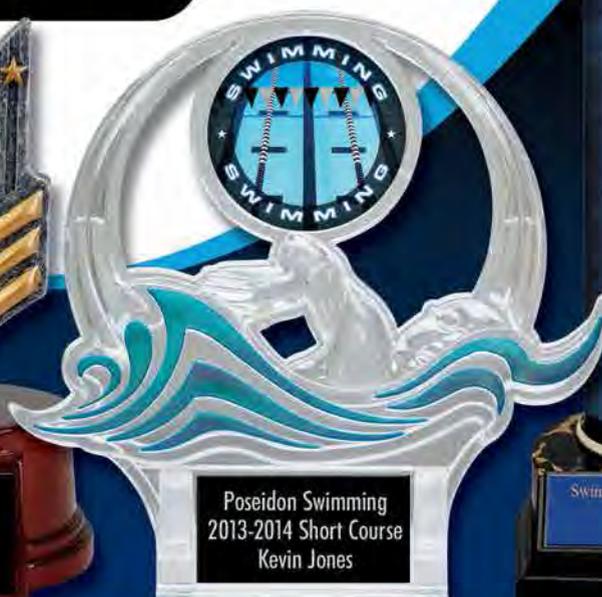
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UP & COMERS

AGE GROUP SWIMMER OF THE MONTH

BY TAYLOR BRIEN

Katharine Berkoff

It seems that Katharine Berkoff, 14, of Missoula Aquatic Club in Montana was born to swim—and she excels at it with ease and grace. Berkoff trains with her father, Olympian David Berkoff, and has followed in his footsteps by becoming a successful backstroker.

Being able to share an interest such as swimming and spend hours at the pool together with her dad has treated the youngest Berkoff well. She ended the long course season ranked sixth nationally in the 100 back (1:03.65) and ninth in the 200 back (2:18.16) in the girls 13-14 age group. David comments, “Katharine is one of the hardest workers I’ve ever seen, let alone coached. She has no self-imposed limits.”

That work ethic paid off this summer when she took down two Montana state records at junior nationals in San Antonio. Most notably, she broke Sarah Robson’s 31-year-old 13-14 50 meter freestyle record of 27.51 from 1984 with a 27.44. She also added the 100 back mark with a 1:03.65 at juniors, to go along with her 2:18.16 standard in the 200 back from the Northwest Section Championships.

Outside of the pool, she enjoys spending time with her two dogs, seven cats, and hanging out with friends. ❖



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WHAT IS THE BEST THING YOU DO IN SWIMMING?

The best thing about swimming is the friends I have made. I also like working hard and having good results.

WHAT ARE SOME OF THE TOUGHEST SETS YOU'VE DONE?

- 31 x 200 on Halloween
- Hour Race Backstroke
- 100 x 100 for New Year's

WHAT IS YOUR FAVORITE THING ABOUT SWIMMING?

Hanging out with friends and teammates, meeting new people and racing.

WHAT ARE YOU MOST LOOKING FORWARD TO THIS YEAR?

Competing at Olympic Trials.

WHO IS YOUR SWIMMING IDOL...AND WHY?

Aaron Peirsol. He is super smart, nice and laid-back...and he's a really good backstroker!

WHAT ARE YOUR FAVORITE HOBBIES?

Writing, taking care of animals and photography—especially taking pictures of animals.



DO YOU THINK THAT FINA SHOULD BE REFORMED OR REPLACED?

BY JASON MARSTELLER



DAVE JOHNSON / Head Coach & Director of Swimming, Cascade Swim Club (Calgary, Canada)

“I do (think that FINA should be reformed or replaced). The simple truth is that they’re (FINA) not in touch with their constituency in swimming. They have elements they’ve worked toward—like universality—but they don’t seem to be able to keep the finger on the pulse of the sport.

“With issues like doping and the late-night finals in Rio, they’re clearly not able to take a responsible position to look inwardly and rectify the shortcomings within the organization.

“They need to change or step aside to allow another agency to manage the sport at a higher level—because they are definitely not engendering the confidence they need to be.”



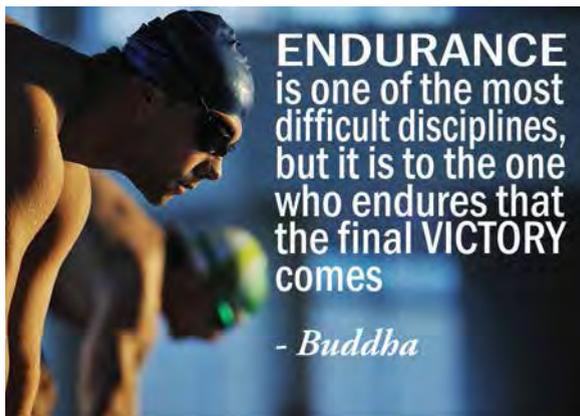
BILL WADLEY / Head Coach, Ohio State University

“I don’t think it’s my job to comment, but I think every coach would like for FINA to be athlete-centered—meaning, it would be a service to the people who are the stars of our sport. So, we need to be providing the best experiences, safest venues, best-officiated events.

“We would love to make sure everything FINA does is athlete-centered and athlete-focused—every decision made. We need an athlete’s voice and experience at every major decision point. Everything (for which) we spend money should have an athlete purpose. Without the athletes, there’s no coaches, no administrators, no officials.

“We’re all in this to help the athletes achieve a dream.”

[PHOTO BY PETER H. BICK]



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TONY SHAW / ASCTA President

"I was in Cleveland (recently), representing ASCTA (Australian Swimming Coaches & Teachers Association) at the WSCA (World Swimming Coaches Association) meeting. All the participants there agreed that we needed to form the WSA (World Swimming Association) in direct opposition to FINA—with the view that WSA would replace FINA.

"The great thing about the WSA is the direct involvement of the athletes. The athletes are the game changers in all of this—both on the domestic front as well as the international front. They can influence their national governing bodies to ask the hard questions of FINA.

"In Australia, we have the Australian Swimmers Association, who—like ASCTA—are stakeholders of Swimming Australia, and I am in dialogue with them regularly.

"Until the WSA rises to prominence, we still have to take the fight to them, particularly on the governance, financial accountability and the doping issues.

"There has been a very interesting development with IOC wanting WADA (World Anti-Doping Agency) to be in charge of all doping tests for all Olympic sports—surely a step in the right direction. Given the fact that the FINA president was in attendance, maybe this is the first sign of the winds of change.

"Yes...we all DESERVE better." ❖

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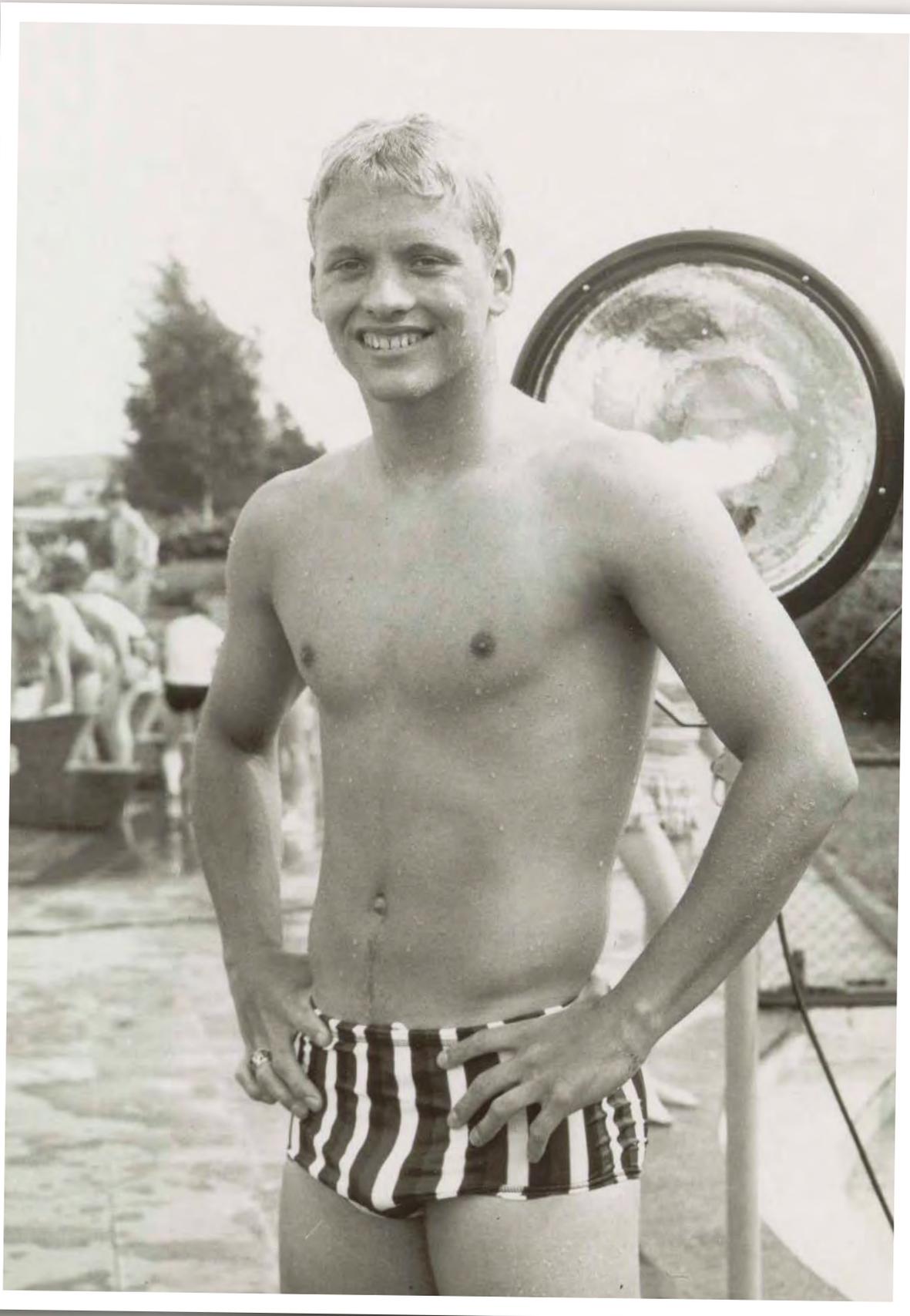
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PICTURED > 2015 marks the 52nd year that *Swimming World Magazine* has recognized the world's best swimmers. The first honoree was the USA's Don Schollander in 1964. That year, he was the most successful athlete of the 1964 Tokyo Olympics, capturing gold medals in the 100 and 400 meter freestyles as well as the 4 x 100 and 4 x 200 freestyle relays. Schollander, now 69, swam for Santa Clara Swim Club (Calif.) and Yale University. He was inducted into the International Swimming Hall of Fame in 1965 when he was only 19 years old.

[PHOTO BY SWIMMING WORLD]