

# Swim Arizona

Volume 29 Number 1

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## More Efficient Speed

Emmett Hines

You are used to doing heart rate sets where you check your heart rate every so often and maintain some minimum or maximum heart rate or stay within a specific range. Typically this is done in an effort to make sure you are working at the intensity required to effect a specific training adaptation.

You are also used to doing stroke count sets where you swim distances using specific stroke counts. Usually this means that some or all of the distance is to be done at something less than your normal number of strokes per length. This is done to help you focus on making your stroke more efficient so you can go further with each stroke and encounter less resistance.

And you are (or should be) very used to paying attention to your pace per 100 (or 200 or 50 or whatever) while swimming a long set?

But rarely do you put all three of these together in one set. Recently we have been doing some long, moderate intensity sets where we ask you to maintain a heart rate in the 130 - 140 area. From an energy system training standpoint this type of set improves your body's ability to produce energy for work through lipid metabolism - burning fat. The more energy you are capable of producing by burning fat (which cannot produce lactic acid) the longer you can delay fatigue that results from lactic acid accumulation (produced by burning carbohydrates).

This moderate intensity stuff is low stress work that you can carry on for extended periods of time. And, truth be known, this can get boring if you let it. But it is necessary work so let's explore a way to make it more challenging.

As you know, speed is not always directly related to effort. (If this comes as a surprise think of one of those recreational swimmers you see from time to time that dive into the pool, and begin thrashing about, tossing water in every direction, looking more like a big splash moving slowly down the pool than a swimmer. This guy

has a 200+ heart rate by the end of 25 yards and is probably done with his workout. Lots of effort, not much speed.) Speed is more directly related to efficiency than energy expenditure. At any given physical effort level if we improve efficiency (as measured by strokes per length or SPL) we increase speed.

This gives us a natural, and very challenging, focal point for moderate intensity sets. Let's say the set is 10x200 holding a 130-140 heart rate. The idea would be to see how fast you could swim each repeat while staying in the heart rate range prescribed. Not working harder, just swimming faster. The key here is to improve the efficiency of the swim. Decrease your SPL by increasing distance per stroke, improving your streamline position, longer glides off each wall, being aware of and avoiding unnecessary resistance etc.

And keep track of your times for each repeat. This is very important because improving efficiency can be deceiving. If you are one of the majority of swimmers that consciously or unconsciously equates effort with speed then, when you swim more efficiently, your internal speedometer may erroneously tell your brain you have slowed down. Use the clock for speed feedback and learn to trust it.

This efficiency= speed concept takes some getting used to. Applying it in workouts takes mental activity and involves lots of trial and error. Once you get good at this at moderate intensities you can apply the concept at higher intensities. Give it a try.

*Emmett Hines is the head coach of H2Ouston Swims. He has coached competitive Masters swimming in Houston since 1982 and was selected as United States Masters Swimming's Coach of the Year in 1993. Currently he coaches workouts at the University of Texas Health Science Center, the University of Houston and The Houstonian Club. This article first appeared in Schwimmvergnugen, the monthly newsletter of H2Ouston Swims.*

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Upcoming Events

On Dec. 11, 2003 Lee Starr passed away at the age of 94. With his passing Arizona Masters lost one of its most enthusiastic supporters and competitors. In addition to forming and coaching the Del Webb Sun City team for many years before he had to curtail his activities, Lee served on the Arizona Local Masters Swimming Committee Board of Directors for many years and competed in most of the Local, National and International meets until 1992 when for health reasons, he had to curtail his participation in competition. None the less, Lee would attend the meets and cheer on his friends and team members coaching from the deck. During the years from 1978 until 1992 Lee dominated his age group in the backstroke events and won numerous Local, National and International competition.

As a result of his enthusiastic support of Masters Swimming, many Sun City Swimmers were introduced to competition, made new friends and enjoyed the benefits of training and physical fitness the Masters program provides. His energetic efforts on behalf of Masters Swimming will be missed, but the legacy he left with all of us; his enthusiasm and the example he set of trying to strive to improve oneself and to help others to do the same will stay with all who knew Lee forever.

Edie Gruender

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Send written submissions to Doug Adamavich, [dpa\\_az@cox.net](mailto:dpa_az@cox.net). Please submit your article in one of the following electronic formats: Text (\*.txt), Microsoft Word™ (\*.doc), or Microsoft Excel™ (\*.xls). Articles are due on the 15th of the month before the publication date. **Swim Arizona** reserves the right to edit or not publish submissions for publication. We welcome your widespread use and sharing of our materials, and ask that you give credit to AZ LMSC. Back cover artwork provided by Max Von Isser.

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# Around the Deck

## One Quarter for Penny

This year marks the 25th anniversary of USA Swimming, the governing body for youth and elite swimming in the US. As part of their ongoing celebration, a panel of voters selected the 25 Most Influential People in the History of USA Swimming. Those honored were chosen for their long-time dedication to the organization of swimming, leadership and numerous contributions. Among the 25 honored was Penny Taylor of Tucson. From competing at the Olympic level to serving on numerous committees, Penny Taylor has been involved in the sport for most of her life. She has served as team manager on international trip, including at the 1984 Olympic Games. Taylor also headed the United States Aquatic Sports delegation at several World Championships. She's been on the USS Board of Directors too.

## Splash and Dash

Aquathlons are in their infancy in this country, but starting in February 2004, the Red Rock Triathlon Company will be hosting a series of bi-weekly Saturday morning races. These events will consist of a 500-1000 meter lake swim and 3k - 5k run in downtown Tempe at the Tempe Town Lake. Each race will cost \$20 but discounts are available if you sign up for multiple races in the series. For more information, log on to [www.redrocktriathlon.com](http://www.redrocktriathlon.com). All races in the series will be sanctioned by USAT. Athletes who are not USAT members can purchase a one-day license for each race or become a member for \$30 a year by going to [www.usatriathlon.org](http://www.usatriathlon.org).

## Open Water Swims

DCB Adventures will again be offering open water swims in conjunction with their triathlons this year. You can start the season off early at the Arizona Extreme Desert Triathlon, March 7th with two swim races. At 8:30 a.m. there will be a 1500-meter swim and at 9:00 there will be a 3000-meter race. The course will be at Saguaro Lake starting at the Butcher Jones Beach. Water temperature is expected to be chilly, so this will be a wet suit race. This race is sanctioned by USAT

## Second Time Around

In June, the second season of the New Belgium Fat Tire Triathlon Series will get under way. The Fat Tire event includes the Tempe Town Lake Swims. Again, an 800-meter and 1500-meter race will be offered. For those that can't get enough open water racing in, the events will be timed so you can compete in both distances on the same day. This year the event has been expanded to a three race series with races 1 and 3 taking place in Tempe. The second race of the series is slated to be in Fort Collins, CO in August. Dates for the Tempe events are June 12 and October 2. The October race is again being held in conjunction with the city's Oktoberfest celebration. These races will be sanctioned by USMS.

## Remembering Esther

Esther Grafrath, an excellent Arizona Masters swimmer who was living with her daughter in Twinsburg, OH, died Dec. 17, 2003, at the age of 90 from a fall, surgery and a heart attack. She came to the meet in Cleveland in 2002 to cheer on the Arizona Masters swimmers and it was great to see her then.

## SCM Records

Picking up right where we left off last Short Course Meters season, the meet held at the Mona Plummer Aquatic Center proved to be a fast one once again. Over the course of the two days, 5 World, 14 USMS and 78 Arizona records were set. As a meet, the SCM Championship is a record-breaking event as recent history shows.

2000 130 state  
2001 190 state 12 USMS 8 World  
2002 83 state 28 USMS 19 World  
2003 78 state 14 USMS 5 World

Over the last three years, there have been 173 National and 34 World records set in meets in Arizona. Of those, 160 National and all the world records were set at the Mona Plummer Aquatic Complex.

## New Webmaster

Arizona Masters has a new webmaster! His name is Mike Carey and he is from Tucson. He currently works for Carb-BOOM, who make energy gels for endurance sports. Welcome aboard Mike!

# Go the Distance, New Season

June Hussey

It may be the off season for open water swimming here in the Northern Hemisphere, but don't let that stop you from going the distance and staying in shape for an exciting 2004 season. Here are some events to put on your training calendar:

USMS is offering all registered Masters the opportunity to compete in the 27th Annual One-Hour Postal Swim Championship sponsored by Pacific Masters MSC for USMS. See how far you can swim in one hour! Then, see how your pace stacks up to others in your age group across the country. You can do this individually or with your team, in any short course or long course pool, any time during the month of January. For more information and registration form, go to [www.usms.org/longdist/ldnats04/1hentry.pdf](http://www.usms.org/longdist/ldnats04/1hentry.pdf).

Now you can kick off the 2004 Open Water season in Mexico! A new open water race is being offered April 3, 2004 in Rocky Point (Puerto Penasco), Mexico, an easy four hour drive from Tucson and Phoenix. Race Director Jonathan Grinder of Tucson Racing, Inc. has added the 1500-meter swim event to his ninth annual Rocky Point Triathlon upon request, so that Masters swimmers who don't bike and run can join the fun.

The Rocky Point swim event will start at approximately 10:30 am after the triathlon waves. The swim start and the swim finish will be the same as the triathlon (along the beach by Playa Bonita and the Plaza Las Glorias Hotel.) Entry fee will be \$25 in advance or \$35 on April 2 with no registration on race day. Water temp should be in the mid 70s. There's a festive banquet for all athletes and their families Saturday night. Banquet tickets will be \$12. Plan ahead to enjoy a full weekend of R and R on the beach. All details about travel, lodging, banquet, race course and registration are posted at [www.tucsonracing.com](http://www.tucsonracing.com). I look forward to seeing a great turn out for this event by Arizona Masters.

I welcome your comments and questions about long distance swimming opportunities. I recently had a call from a swimmer who wasn't training with a team, but wants to enter the Big Shoulders open water swim in Lake Michigan next summer, in celebration of her 50th birthday. I suggested working out several days a week with a Masters team at least four months before the race to build her strength, endurance and most importantly confidence. It's hard to get that kind of training

swimming laps on your own. Open Water swimming is a lot of fun and gives you great motivation to train hard and long with your fellow Masters.

*June Hussey swims for the TJCC Stingrays and is Long Distance Chairwoman for Arizona LMSC.*

## Last Month's Trivia Answers

Queen Elizabeth II .....	Alexandra Mary Windsor
Kirk Douglas .....	Isidore Demsky
Shania Twain .....	Eileen Regina Edwards
Blackbeard.....	Edward Teach
Joseph Stalin.....	Iosif Dzhugashvilli
George Orwell .....	Eric Arthur Blair
Muhammad Ali .....	Cassius Marcellus Clay
Pele .....	Edson Arantes Do Nascimento
Ahmad Rashad.....	Bobby Moore
Mark Twain .....	Samuel Clemens
The Rock .....	Dwayne Johnson
Pope John Paul II .....	Karol Wojtyla
Marilyn Monroe.....	Norma Jean Baker
Lewis Carrol .....	Charles Lutwidge Dodgson
Mr T.....	Laurence Turead
John Wayne .....	Marion Morrison
Mother Teresa.....	Agnes Gonxha Bojaxhiu
Alan Alda .....	Alphonso D'Abruzzo
David Koresh.....	Vernon Wayne Howell
Elle MacPherson .....	Eleanor Gow
George Burns .....	Nathan Birnbaum

# Edie and Dan Gruender Award

Helen Bayly

The AZ LMSC Board of Directors recently established "The Edie and Dan Gruender Award", in honor of our friends, Edie and Dan Gruender of Phoenix. The Gruenders are in large part responsible for the very existence of Arizona Masters Swimming: their efforts from over thirty years ago got us launched and thriving. From a few swimmers of the early 1970's, AZ LMSC has grown to the near 1000 AZ Masters swimmers of this new century. For twenty of those thirty years, Edie and Dan led, inspired, organized and encouraged Arizona Masters swimming - with no computers, kids! (All by phone, postcards, grit and determination....even unto their present ages of approximately 75 years each.)

Bravo Edie and Dan Gruender! During the summer, the Board voted to create this award in your names, and also to make you the first recipients. This is our way of thanking you for creating our Masters organization, with all its statewide swim teams, clubs and fitness-swim-programs. This Gruender Award is to be an annual award, given to that person who contributes the most to AZ LMSC in any given year. The award starts its life this year, 2003, appropriately presented to the Gruenders. The inscription reads:

"The Edie and Dan Gruender Award: Celebrating 30 years of Dedicated Service to AZ LMSC".

Here in Arizona, from AAU swimming in 1970 to the formal start of organized swimming-for-adults in 1973, the Gruenders from 1973 have "parented" Arizona's Masters Swimming, to the enormous benefit of all of today's Arizona Masters swimmers. Edie founded the organized swim-activities in 1973, while Dan supported and helped with swim gatherings - first in the Gruender home pool, and later across the state. Not until 1993 did our organization elect Judy Gillies of Tucson to take on some of the onerous duties of chairing the state-wide Arizona Masters Swimming, a growing group of swim-fitness enthusiastic adults of all ages. (Then from 1997 to 1999, Jack Salvatore of Phoenix was Chairman; from 1999 to 2002, Helen Bayly of Tucson was the Chair; and this past year and a half, Sam Perry of Phoenix has

become our Chair).

During this last decade, Edie and Dan have remained faithful friends of AZ LMSC, by remaining on the Board of Directors in varying capacities (Sanctions Chairs, Historian, Archivists, President and Chair Emeriti, to name a few). They have brought their wisdom and experience to AZ LMSC's general progress, and on a national level, both Gruenders have been invaluable to USMS - Dan as a lawyer, Edie as a former teacher, and both as Masters boosters non-stop!

Honored by other Masters swimmers, Edie and Dan were awarded prestigious national recognition by USMS in 1989 as they received "The Ransom J. Arthur Award" - for furthering the objectives of Masters Swimming. Edie's mailings, history and archives, record-keeping, planning all meets' relay combinations (remember - no computers!) - with support from Dan, added enormously to the effectiveness of USMS as our national organization.

Both Edie and Dan have held national office in USMS, Edie as Southwest Zone Chair, a USMS archivist-historian, and Dan as USMS President, 1990 thru 1993. We're fortunate to have Edie and Dan so vitally active in AZ LMSC concerns - their experience makes them pure gold as our advisors, and keeps AZ LMSC well-represented in USMS concerns.

Edie and Dan, AZ LMSC salutes you for the super job you've done for us AZ and US Masters swimmers. For over thirty years you both hung in there, to bring Masters Swimming to so many of us across Arizona and the United States. The Gruender Award will enhance AZ LMSC's activities and enable us to honor some of today's and the future's best volunteers in Arizona. So we wish both of you the best of health, much happiness, and fun Masters Swimming for many more years. And thanks again, Gruenders!

For further accounts of the Gruenders' Masters Swimming contributions, go to [www.usms.org](http://www.usms.org), then to "History and Archives"; see also SWIM MAGAZINE, volume XV, #5, 1999.

*Helen Bayly swims for Ford Aquatics Masters Swimming in Tucson AZ. She was also Chairman, AZ LMSC from 1999-2002. Currently she serves as USMS History and Archives.*

United States Masters Swimming, Inc. and Arizona Masters are now, as they always have been, concerned for the health and safety of their members. They will continue to disseminate such information concerning swimming safety, training, and health as comes to their attention. However, United States Masters Swimming, Inc. and Arizona Masters cannot and does not accept responsibility for the content of any information or material not authorized by United States Masters Swimming, Inc. or Arizona Masters. All opinions stated in any such material are solely those of the authors and not necessarily those of United States Masters Swimming, Inc. or Arizona Masters.



## 2004 Sun Devil Invitational Short Course Yards March 7, 2004



- Format:* This is a tri-meet between Sun Devil Masters, Brophy East Swim Club and the Unified Team (everyone else that enters the meet). Events will be organized and seeded by gender and age. The first 3 swimmers in each age group will score points (10, 6, 3).
- Meet Director:* Katy James, [katyjamesswims@hotmail.com](mailto:katyjamesswims@hotmail.com), 480-897-6411
- Sanction:* Held under the sanction of U.S. Masters Swimming and the Masters Swim Committee of Arizona, sanction # 484-0003.
- Facility:* Competition will be held at Mona Plummer Aquatic Center at Arizona State University located at College and 6<sup>th</sup> Street in Tempe. The facility is an outdoor 25-yard, 8 lane pool operated at 80 F with non-turbulent lane lines and electronic timing. There will be separate lanes available for warm-up and loosen-down during the actual meet.
- Parking:* Spaces are available during the meet at no charge in Parking Structure 5, which is adjacent to the aquatic complex.
- Eligibility:* Open to all registered Masters Swimmers holding a valid 2004 USMS Card. For further information on registration contact Marilyn Fogelsong at [mfogelsong@aol.com](mailto:mfogelsong@aol.com).
- Rules:* 2004 USMS rules apply. All events are timed finals. There is a limit of five (5) individual events plus relays. Your age as of March 7, 2004 determines the your age group for the meet.
- Entries & Fees:* Entries must be received by February 27, 2004. There is a \$30.00 fee for the meet. This covers up to 5 individual events per day plus a meet Baseball Cap. Please use the Arizona Consolidated entry card. You must also send a copy of your USMS registration card. There will be **no deck entries**. Make checks out to **Sun Devil Masters**. Mail your entry card, check and photocopy of your USMS Card to:

Katy James  
723 East Diamond  
Tempe, AZ 85283

If you need an Arizona Consolidated entry card or USMS application, go to [www.arizonamasters.org](http://www.arizonamasters.org) and look under forms.

*Seeding:* All events will be pre-seeded (women & men swim separately) by age group. When necessary, age groups may be combined within a heat.

*Scoring:* Top three places within each age group and gender will score points: 10-6-3.

*Awards:* Individual High Point and Team high points (women, men & combined) will be awarded for the meet.

*Results:* During the meet, results will be posted. At the conclusion of the meet, results will be listed at [www.sundevilmasters.org](http://www.sundevilmasters.org) (look under results).

## Order of Events

Sunday - Warm-ups at 9am and the meet begins at 10:00am

Event Order			
1	Women	100	Breast
2	Men	100	Breast
3	Women	200	Free
4	Men	200	Free
5	Women	400	IM
6	Men	400	IM
7	Women	50	Free
8	Men	50	Free
9	Women	100	Back
10	Men	100	Back
11	Women	200	Fly
12	Men	200	Fly
13	Women	50	Breast
14	Men	50	Breast
15	Women	100	IM
16	Men	100	IM
17	Women	200	Back
18	Men	200	Back

Event Order			
19	Women	500	Free
20	Men	500	Free
21	Women	100	Fly
22	Men	100	Fly
23	Women	50	Back
24	Men	50	Back
25	Women	200	Breast
26	Men	200	Breast
27	Women	100	Free
28	Men	100	Free
29	Women	50	Fly
30	Men	50	Fly
31	Women	200	IM
32	Men	200	IM
33	Women	200	Free Relay
34	Men	200	Free Relay
35	Mixed	200	Free Relay



## 2004 Southwest Zone and Arizona State Masters Championships March 26- March 28, 2004

**Rules:** 2004 USMS rules apply. All events are timed final. Swimmers are limited to a total of 9 individual events for the entire meet, no more than 4 per day not including relays. Age on March 28th determines the age group of the swimmer for the entire meet.

**Long distance events:** The 1000 and the 1650 events will be limited to the first 40 entries received for each event and will be run slowest to fastest, ages and sexes combined. You may swim either the 1000 or the 1650 but not both. Positive check-in is required for the 1000 and 1650 events. Check-in will close at 3:30pm for the 1000 and 4:00pm for the 1650.

**Seeding:** All events (except the 1000 and the 1650) will be pre-seeded, men and women separately, slowest to fastest. **Absolutely, positively no deck entries or late entries will be accepted.**

**Eligibility:** Any swimmer with a valid 2004 USMS registration, or a valid travel permit from another country is eligible. Each swimmer must submit a copy of their 2004 USMS registration card or travel permit. Failure to submit proof of registration will result in the entry being rejected. For further information on registration contact Marilyn Fogelsong, [mfogelsong@aol.com](mailto:mfogelsong@aol.com) or 991 E. Calle Mariposa, Tucson, AZ 85718.

**Affiliation:** A swimmer's club affiliation as stated on the consolidated entry card will apply throughout the meet, except that a swimmer may unattach at any time.

**Awards:** Ribbons for places 1-8 will be awarded. Male and female high point awards for each age group will be awarded. Team awards for teams finishing first, second, and third will be awarded.

**Entries and fees:** Entries must be postmarked by March 13, 2004. Absolutely, positively no deck entries. A flat entry fee of \$35 includes a meet T-shirt. Be sure to include T-shirt size in the lower left corner of your consolidated entry card (S, M, L, or XL). Please use the Arizona consolidated entry card; fill it out completely (front and back) and be sure to note event numbers and seed times for all events you wish to swim.

**Make checks payable to Ford Aquatics. Mail check, consolidated entry card with T-shirt size in the lower left corner and copy of USMS card to:**

**Rane Stites  
PO Box 44233  
Tucson, AZ 85733**

Consolidated entry cards are available online at [www.arizonamasters.org](http://www.arizonamasters.org).

**Sanction:** Held under the sanction of USMS and the Local Master Swim Committee of Arizona, Sam Perry, Chairperson, (480) 941-0232, email [azperrys@hotmail.com](mailto:azperrys@hotmail.com)  
Sanction number: 484-0002

**Location:** University of Arizona Hillenbrand Aquatic Center located on the west side of Campbell Road between 6th Street and Speedway. Outdoor, 18 lane, 25 yard pool operated at 80° F with non-turbulent lane lines and electronic timing. We will run 8 lanes for competition and set aside other lanes for warm-up. A snack bar will be set up at the meet. Pool phone is 621-4203.  
**Questions????? Call the meet director: Rane Stites at (520) 621-4203.**



## 2004 Southwest Zone and Arizona State Masters Championships Order of Events

**Friday, March 26.** Warm-ups start at 3:00 PM, meet starts at 4:00 PM. Check-in required!! Men and women seeded together, slowest to fastest.

1	Women's 1000 Free <i>check in by 3:30PM</i>
2	Men's 1000 Free <i>check in by 3:30PM</i>
3	Women's 1650 Free <i>check in by 4:00PM</i>
4	Men's 1650 Free <i>heck in by 4:00PM</i>

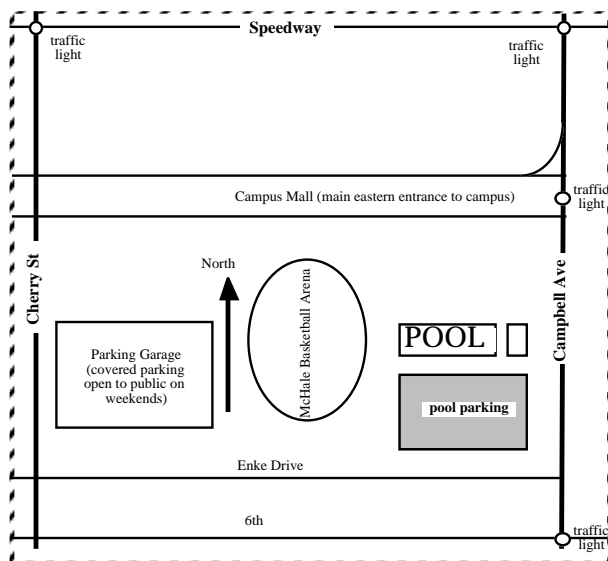
**Saturday, March 27.** Warm-ups start at 8:00 AM, meet starts at 9:00 AM. Seeded slowest to fastest.

5	Women's 200 Free
6	Men's 200 Free
7	Women's 50 Fly
8	Men's 50 Fly
9	Women's 100 Back
10	Men's 100 Back
11	Women's 200 Breast
12	Men's 200 Breast
13	Women's 50 Free
14	Men's 50 Free
15	Women's 100 Fly
16	Men's 100 Fly
17	Women's 50 Back
18	Men's 50 Back
19	Women's 200 IM
20	Men's 200 IM
21	Women's 200 Free Relay
22	Men's 200 Free Relay

**Sunday, March 28.** Warm-ups start at 8:00 AM, meet starts at 9:00 AM.

Seeded slowest to fastest.

23	Women's 500 Free
24	Men's 500 Free
25	Women's 100 IM
26	Men's 100 IM
27	Mixed 200 Free Relay
28	Mixed 200 Medley Relay
29	Women's 50 Breast
30	Men's 50 Breast
31	Women's 100 Free
32	Men's 100 Free
33	Women's 200 Fly
34	Men's 200 Fly
35	Women's 200 Medley Relay
36	Men's 200 Medley Relay
37	Women's 200 Back
38	Men's 200 Back
39	Women's 100 Breast
40	Men's 100 Breast
41	Women's 400 IM
42	Men's 400 IM



**The \$35 entry fee includes the meet T-shirt.**

**Please indicate your T-shirt size in the lower left corner of the consolidated entry card.**

# Using Recovery to Bolster Training

Scott Rabalais

It has been said that for every hill there is a valley, so it follows that with every intense practice effort should follow a period of recovery swimming. The human body, though a fascinating machine, is not one that provides infinite energy. Instead, the body requires replenishment and recovery time, whether it is from a fast set of 50s or a hard day at work. Use the ideas in this workout to ensure that you recover from those moments in practice when you swim at or near your maximum potential. Not only will you feel better after the practice, you'll recover more effectively for your next training session.

## Warmup

700 swim, alternate 100 swim, 100 build-up

On the even-numbered 100s, increase the pace from slow to moderate. Return to a slow pace for the even-numbered 100s. This will allow you to complete the warm-up at a slow pace, fully rested from your build-ups. Keep in mind that this is the initial part of warm-up and that any build-up in speed should be gradual and to perhaps 75-80 percent of top effort.

## Kicking

18 x 25

Alternate:

3 x 25/:40 - slow

2 x 25/:35 - medium

1 x 25/:30 – fast

At end of set of 18 x 25, go 50 kick easy.

Note in this set that each 25 on :30 will be followed by recovery or easy kicking. With interval decreasing during each set of 6 x 25, the swimmers is "forced" to pick up the pace to make the interval.

## Pulling

2 x 500 on 1:00 rest, even pace through each 500

1st 100 – breathe every 3rd stroke

2nd 100 – breathe every 4th stroke

3rd 100 – breathe every 5th stroke

4nd 100 – breathe every 4th stroke

5nd 100 – breathe every 3th stroke

The more intense part of this set is in the middle of each

500, when swimmers breathe every 5th stroke. This set is designed so each repeat is concluded with a less-strenuous 100 (breathing every 3rd stroke).

## Main Set

4 x 100 IM on 2:00

descend #1-3, #4 is easy

rest extra :30

4 x 100 free on 1:45

descend #1-3, #4 is easy

rest extra :30

In this IM/free set, the swimmers has four particularly intense efforts, the third 100 of each set of 4 x 100. Not only is each fast 100 followed by an easy 100, but also with an extra :30 rest afterwards so the swimmer is not rushed by the interval. Again, the entire set of 16 x 100 concludes with an easy 100 free.

## Speed Play

6 x 50/1:30 – At the 12.5 yard mark of each 25, sprint three stroke cycles at an all-out pace. In an often neglected type of swimming (race-pace swimming), the swimmer focus on a fast stroke rate for a short period. These short bursts of sprint swimming will be sandwiched by easy swimming, since the speed bursts occur in the middle of the pool.

## Warm Down

200 slow

Many swimmers neglect to warm down at the conclusion of the workout. If your workout has been predominantly freestyle, include some backstroke in your warm down. Take at least five minutes to relax physically and mentally – you've earned your chill time!

For more ideas on recovery training, refer to your November/December issue of SWIM Magazine, or go to [www.savannahmasters.com/articles/recoverytraining.htm](http://www.savannahmasters.com/articles/recoverytraining.htm)

*Scott Rabalais is coach of Savannah Masters in Savannah, GA. Currently Vice President of USMS, he is former Coaches Committee chairman. He is head coach of the Men's and Women's Swim Teams at Savannah College of Art and Design and is the Mentor Coach for the clinic this January at Brophy.*

# Arizona LMSC Board

## EXECUTIVE OFFICERS

CHAIRMAN	Sam Perry	<a href="mailto:azperrys@hotmail.com">azperrys@hotmail.com</a>	480-941-0232
VICE CHAIRMAN	Katy James	<a href="mailto:katyjamesswims@hotmail.com">katyjamesswims@hotmail.com</a>	480-897-6411
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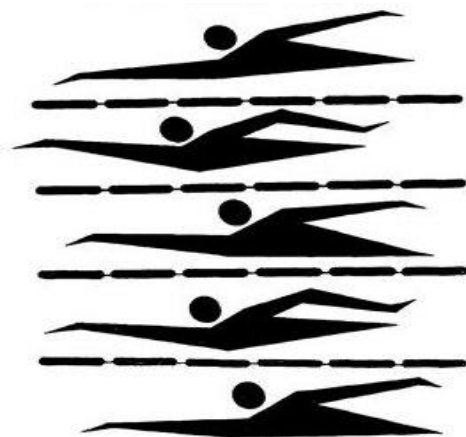
## WEB GUIDE

Check out these sites on the Internet for information on Masters swimming, news, events, workouts, and more from throughout the world.

FINA	<a href="http://www.fina.org">www.fina.org</a>
US Masters Swimming	<a href="http://www.usms.org">www.usms.org</a>
Arizona Masters Swimming	<a href="http://www.arizonamasters.org">www.arizonamasters.org</a>
Southern Pacific Masters	<a href="http://www.spma.net">www.spma.net</a>
Swim.net	<a href="http://www.swim.net">www.swim.net</a>
Swim Info	<a href="http://www.swiminfo.com">www.swiminfo.com</a>
Southwest Zone Masters	<a href="http://www.southwestzone.org">www.southwestzone.org</a>
Places to Swim Worldwide	<a href="http://www.swimmersguide.com">www.swimmersguide.com</a>

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