Swimming Tech Review: FORM Swim Goggles

By Chris Stevenson

I dove into the water and my goggles immediately came off. Not such a remarkable occurrence; in the nearly 50 years I have been swimming competitively, I have lost countless pairs of goggles when diving in. But this time the dismay I felt was quite out of proportion to the ubiquity of the event.

This is because these were not just any goggles, but a brand new pair of FORM swim goggles. Had I just spend \$199 for a pair of goggles that won't even keep water from my eyes?

When I first heard about the new high-tech goggles, two opposing instincts went to war. The angel on my right shoulder reminded me that I usually pay about \$6 for a pair of workout goggles. On the other hand, the devil on my left shoulder informed me, sometimes you need to try out some new toys to maintain interest and get faster.

My wife, savvy enough to know who was going to win that fight, quickly extracted a promise that "if" I got these goggles, I would write about my impressions for the newsletter. And so here we are.

The goggles look fairly ordinary with the exception of a small block of electronics off to the side of one of the lenses. The block constitutes the "brain" of the device



Image from www.formswim.com.

while the lens it is attached to will display a variety of metrics during a swim.

These are an excellent pair of goggles, quite comfortable and fairly resistant to fogging. I had misgivings about the hydrodynamics of the bulge, but despite my early mishap I had no problems with dives or pushoffs. No one will mistake these for race goggles — they are not allowed in competition, in any event — but I had no cause to complain about leaks or discomfort beyond an acceptable loss of peripheral vision.

You need a mindset change to get over the sticker shock of a \$200 pair of goggles. It is not really appropriate to compare the FORM goggles to a standard pair of goggles. It is more accurate to consider them a cross between a portable clock like the Pace Pal underwater pace clock (\$279) and a cylocomputer, devices that are used by cyclists to monitor speed, cadence, power output, mileage (and possibly much more). Such devices also generally cost several hundreds of dollars. Suddenly that \$200 price tag starts to look a little more reasonable.

The lens attached to the FORM computer can display a number of metrics: cumulative time, splits, stroke rate, distance per stroke, lap count, swimming pace (per 50 or 100), calories, and probably other metrics that I missed. It can only display two of these numbers at any given time, and there are three different contexts: (i) what is being displayed while swimming, (ii) what is displayed momentarily after a turn, and (iii) what is displayed while resting on the wall. The photos on page 2 give an idea of the nature of the display. The specific metrics that are displayed, and their contexts, are all configurable in a well designed companion smartphone app.

For example, while swimming in between walls one might display the running cumulative time along with the distance per stroke, and have the goggles display the lap count and split after each turn. At the wall, the

Upcoming Swim Meets, Events and Clinics

General Information

 $LMSC\ for\ Virginia\ Website:$

www.vaswim.org

USMS Website: www.usms.org

Nearby LMSCs

North Carolina: www.ncmas-

ters.org *Maryland*:

www.teamunify.com

Potomac Valley: www.PVMas-

ters.org
Nearby Zones
Colonies Zone:

www.ColoniesZone.org

Dixie Zone:

www.DixieZone.org
Online Meet Registrations:

www.clubassistant.com

aptoining swith meets, events and etinics						
Date	Meet	Location	Registration Deadline			
Jan. 1 - Feb. 29, 2020	1-Hour ePostal Nationals (any length pool)	Any Pool	tbd			
Jan. 12,	Virginia Beach Sprint Invite (SCY)	Virginia Beach,	Jan. 7, 2020			
2020		VA	(online)			
Feb. 1,	David Gregg Memorial	Henrico (Rich-	Jan. 25, 2020			
2020	Meet (SCY)	mond), VA	(online)			
Feb. 29,	Club Tribe Masters Classic (SCY)	Williamsburg,	Feb. 25, 2020			
2020		VA	(online)			
Mar. 15, 2020	Maryland Series Meet #6 (SCY)	Annapolis, MD	tbd			
Mar. 21-22,	Dixie Zone and NC SCY	Cary, NC	Mar. 15, 2020			
2020	Championships		(online)			
Mar. 28, 2020	ALTS Instructor Certification	Charlottesville, VA	tbd			
Apr. 3-5,	Colonies Zone SCY	Fairfax, VA	Mar. 27, 2020			
2020	Championships		(online)			
Apr. 23-26,	USMS Spring Nationals	San Antonio,	tbd			
2020	(SCY)	TX				
Aug. 12-16, 2020	USMS Summer Nationals (LCM)	Richmond, VA	tbd			

Googles, cont'd from page 1

Figure 1: FORM Goggles Split Display



Figure 2: FORM Goggles Stroke Count Display



— Page 2 —

cont'd on page 3

goggle might display the cumulative time, the rest time, and the time on the latest repeat. In a way, it islike having your own personal coach with a watch on you, calling out splits and telling you to pick up the pace.

I have always been obsessed to timing most aspects of my workouts, and that is where these goggles really shine. I found the accuracy of the device to be far better than anything else I have tried before (smartwatches and the like). The goggle watch times were quite accurate; I found them to be consistently 0.5-1 sec slower than a wall clock, possibly because the stopwatch would be triggered when my head was going underwater but before my pushoff (I usually time the pushoff to coincide with the start of the interval). The ability to detect turns was also excellent; in a one hour practice, the goggles would miss maybe 2-3 turns. The goggles would even register and time kicking sets, unlike any other device I have tried.

The goggles sync with the smartphone app and download oodles of information about your workout. In addition to the usual statistics about total distance. duration and calories, the goggle analyzes other aspects of your workout: it breaks down distances by stroke, gives you all your splits and intervals, and tries to judge your swim efficiency with SWOLF ("swim golf") scores. If you are an athlete who obsesses about recording your training, then this kind of information would be valuable. I am not such an athlete so I didn't dive into the weeds on this aspect of the goggle, but I did find the accuracy on distance to be quite good. My Apple Watch routinely undercounts distance, sometimes by as much as 50%, possibly because I spend a lot of time kicking underwater off the walls. The FORM goggles handled this with no problems.

As much as I obsess over the pace clock, having a running clock in my face (literally) was too much for me; it interfered with my enjoyment of the workout. No problem: I tweaked the configuration so that it would briefly display split and lap count after each turn and then turn off for the rest of the length. After each repeat, the display would come back on and display my time for the repeat and give me a running clock so I would know when to leave for the next repeat.

What are the use cases for these goggles? Here is where it gets more personal. When I am training with a group, I do not use these goggles. Like I said, I don't obsess over recording every aspect of my training, and (for me) the goggles don't usually provide enough added value *in a group setting* to justify the extra fiddling and care that they require. But when swimming on my own, I would definitely use them.

More specifically, for me I can see three important use cases for these goggles:

- If I am in a pool without a pace clock, using these goggles is a no-brainer.
- If I am planning on a distance workout (alone or in a group), the combination of lap counting and displaying the current pace would be useful.
- USRPT sets.

USRPT stands for "ultra-short race pace training," a training paradigm championed by Brent Rushall that has gained some popularity. As the name implies, it involves swimming shorter distances at race pace and with specific amounts of rest; for example, one might do a set of 25s at 100 race pace with 15 seconds rest between repeats. Going into detail on USRPT is bevond the scope of this article, but my point is that these goggles can be a very useful tool to address some logistical difficulties of USRPT when training on your own: the necessity for getting accurate times, and for taking specific amounts of rest beween efforts. My only reservation about these goggles at this point is about longevity and durability, and that's not a question I can answer yet. Hopefully as more people use these goggles and report on their experiences, we can get more data about this aspect of the goggles.

In summary, the FORM swim goggles are a well designed and implemented piece of technology that are a leap beyond the capabilities of any other device currently available. Hopefully this description will help you decide whether they have a place in your swim bag.

* * *

1st Annual Virginia Beach Sprint Invite: Sunday, January 12, 2020

Sanctioned by the Virginia LMSC for USMS Inc., Sanction number 120-S001

Sponsored by: Virginia Wesleyan University
Meet Director: Mike Ginder (mginder@vwu.edu)

Date: Sunday, January 12, 2020. Warm-ups begin at 12pm and the meet starts at 1pm.

Facility: Eight-lane, 25-yard pool, with non-turbulent lane markers. At least six lanes will be used for competition (may use seven lanes depending on total number of entrants); one or two lanes will be available for continuous warm-up and cool down. Access to male and female lockers rooms will be available. Bleachers will be available on-deck for seating. Concessions will not be available. Please bring your own snacks/beverages. The length of the competition course without a bulkhead is in compliance and on file with USMS in accordance with articles 105.1.7 and 106.2.1

Parking: Ample parking is available in the Batten parking lot. Please let the Security Gate know you are here for the swim meet and they will direct you where to park.

Directions: From I-64, take exit 282, Rte 13/Northampton Blvd/Chesapeake Bay Bridge-Tunnel, and go north on Northampton Blvd. Turn right onto Wesleyan Drive. At the second light, turn right into Virginia Wesleyan University. After the Security Gate, turn left onto Smith Drive and take the third right (before the traffic circle) into the Batten parking lot. Enter the main doors to the Jane P Batten Student Center (by the painted Marlin on the sidewalk) and follow the hallway down to the rock wall. Turn right at the rock wall, walk past the racquetball courts and into the fitness center. The door to the pool will be on your right. Signage will be posted inside the Batten Center.

Eligibility: The standard Masters age groups will be used (18-24, 25-29, 30-34, 35-39, etc). Your age on 1/12/20 is your age for the competition. All swimmers must be registered with USMS and must include a copy of their USMS card if entering with a paper entry form.

Entries: A flat entry fee of \$30.00 will cover entry in up to 6 individual events. Online meet registration is paid by credit card to "ClubAssistant.com Events". Paper entry forms are available at USMS Calendar of Events or from Mike Ginder at mginder@vwu.edu, and must be received by Monday, January 6. Deck entries will be accepted up until 30 minutes prior to meet at a cost of \$10.00 per event, plus a \$10.00 facility fee. Deck entries will only be made to fill up heats.

Relays: Relays will be deck-entered and deck-seeded at no cost. The deadline for the 200 Medley relays will be **30 minutes before the start of the meet**, the deadline for the 200 Free relays will be at the **start of Event 6**, and the deadline for the 100 Free relays will be at the **start of Event 23**. All relay deadlines are on the day of the meet.

Entry Deadline: Online entries are strongly encouraged. To be seeded, paper-entries must be received by Monday, January 6, 2020. Online entries close on Tuesday, January 7, 2020, at 11:59 PM EDT. No refunds and/or swimmer substitutions will be allowed.

Warm-up/Warm-down Procedure: Swimmers must enter the pool feet-first in a cautious manner. Diving shall be permitted only from the blocks in the designated sprint lanes during warm-up. ABSOLUTELY NO DIVING WILL BE PERMITTED IN THE WARM-UP LANES ONCE THE MEET HAS BEGUN. Instructions given by the designated Safety Marshall shall be obeyed at all times.

Rules and Seeding: Current USMS rules for Masters Swimming will apply. No one will swim alone in a heat. Swimmers will be seeded according to times; heats will run slowest to fastest; men and women will swim together. "NT" will be seeded arbitrarily. Women and Men will swim separately in all individual events. For relays, Women, Men and Mixed relays will swim separately if entry levels warrant, but otherwise may be combined. Age groups will be combined in all events.

Psych Sheets, Meet Results and Heat Sheets: Meet Results will be posted at www.vaswim.org and will be sent by e-mail to meet registrants. Heat sheets will be e-mailed to meet participants by Friday, January 10, and will be posted at multiple locations on the pool deck.

Awards: Following the 100 Free Relay, we will take a short break to setup for 25s of each stroke (Women: Events 32, 34, 36, 38 and Men: Events 33, 35, 37, 39). A King Neptune and a Queen Salacia will be crowned for the fastest woman and fastest man based on aggregate 25 times. You must be entered and swim in all four (4) 25s in order to be eligible for the award. There is no charge to enter in the 25s. Results will be posted at www.vaswim.org and will be uploaded to the USMS results database.

Order of Events - There will be two breaks: one before Event 15 and one before Event 32

Events 1, 2, 3: Women, Men, Mixed 200 y medley relay

Events 4, 5: Women, Men 100 y free

Events 6, 7: Women, Men 100 y breast

Events 8, 9: Women, Men 50 y fly

Events 10, 11: Women, Men 200 y IM

Events 12, 13, 14: Women, Men, Mixed 200 y free relay

BREAK

Events 15, 16: Women, Men 100 y back

Events 17, 18: Women, Men 50 y free

Events 19, 20: Women, Men 100 y IM

Events 21, 22: Women, Men 50 y breast

Events 23, 24: Women, Men 100 y fly

Events 25, 26: Women, Men 50 y back

Events 27, 28: Women, Men 200 y free

Events 29, 30, 31: Women, Men, Mixed 100 y free relay

BREAK

Events 32, 33: Women, Men 25 y fly

Events 34, 35: Women, Men 25 y back

Events 36, 37: Women, Men 25 y breast

Events 38, 29: Women, Men 25 y free4





2020 VMST David Gregg III Memorial Meet

NOVA of Virginia Aquatic Center 12207 Gayton Road, Henrico, VA 23233 (804) 754-3401 Saturday, February 1, 2020

This is a one-day meet (Saturday only). Distance events are the 400 IM, 500 Free, and 1650 Free. The 1000 split (based on the timing system record of the touch at the 1000) of each 1650 will be uploaded to the USMS results database. No split request for the 1000 will be necessary. For fun, there will also be a 100 Mixed Free Relay® at this meet. We are looking forward to seeing you all at the meet!!

Sponsored By: Virginia Masters Swim Team Sanctioned By: LMSC for Va. for USMS, Inc. Meet Referee: Bob Rustin

Meet Directors: Heather and Chris Stevenson (hnsrva@gmail.com or chrislstevenson@gmail.com)

Location: NOVA of Virginia Aquatic Center (address above). This is a 10-lane, 25-yard indoor pool with a fully electronic timing system. The length of the competition course without a bulkhead is in compliance and on file with USMS in accordance with articles 105.1.7 and 107.2.1.

Eligibility: The standard Masters age groups will be used. All swimmers must be registered with U.S. Masters Swimming and must include a copy of their USMS card with paper entries or register online. One event (day of) USMS registrations will be permitted. Virginia registration will also be available at the meet.

Entries: \$6.00 per individual event plus a \$8.00 surcharge to help defray the administrative costs of the meet. **Deck entries will be accepted until 45 minutes before the meet start time** at a cost of \$8.00 per deck entry. A swimmer may enter a maximum of 6 events per day, plus relays.

Relays: Relays will be deck-entered and deck-seeded at no cost. Entries for all relays are due no later than the start of Event 17 (the Women's 500 Free).

Entry Deadline: <u>On-line entries are strongly encouraged</u>: <u>www.clubassistant.com</u> – meets are listed on the Club Assistant home page by date. The deadline for on-line entries is **Saturday January 25, 2020** (one week before the meet). To be seeded, paper entries must be received by **Wednesday January 22, 2020**. Entries received after the applicable dates will be considered deck entries and additional fees will apply.

Rules: Current USMS rules for Masters swimming will apply. No one will swim alone in a heat. Sexes and age groups will be combined where necessary. "NT" will be seeded arbitrarily. The 100 Mixed Free Relay[®] is a non-conforming event and times for this event are not eligible for USMS records or Top Ten.

Warm-up/Warm-down Procedures: Swimmers must enter the pool feet-first in a cautious manner. Diving shall be permitted only from the blocks in the designated sprint lanes during warm-up. There will be continuous warm-up/warm-down lanes available during the entirety of the meet; ABSOLUTELY NO DIVING WILL BE PERMITTED IN THE WARM-UP LANES ONCE THE MEET HAS BEGUN. Instructions given by the designated Safety Marshall shall be obeyed at all times.

Awards and Results: Ribbons will be given for first, second, and third place in each individual event. No ribbons for relays or time trials. Results will be posted at www.vaswim.org and will be uploaded to the USMS results database.

Special awards will be given to the **male** and **female** overall winners in two award categories: **Best Sprinters** (lowest cumulative time in all four 50s); and **Best Distance Swimmers** (lowest cumulative time in the 400 IM, 500 Free, and 1650 Free).

Nearby Lodging:

- Hilton Richmond Hotel & Spa, 12042 W. Broad Street, Henrico, VA 23233. Phone: (804) 364-3600.
- Aloft Richmond West, 3939 Duckling Drive, Glen Allen, VA 23060. Phone: (804) 433-1888.

On-line entries strongly encouraged!

On-line entries close Saturday January 25th!

Enter online at: www.ClubAssistant.com

(search for the meet by date on the Club Assistant home page)

Paper entries are due by Wednesday January 22rd for seeding.

Both this page and a signed copy of the USMS waiver (see usms.org) must be submitted with paper entries.

Fill in the following information:

Name:		Sex:	USMS Reg. No.:	
Address:		·	•	
City:		State:	Zip Code:	
E-Mail Address:		·	•	
Age as of 2/1/2020:		Birthdate (Mo/Da	Birthdate (Mo/Day/Year):	
LMSC:	Club:	Phone (Day):	Phone (Night):	

Saturday, February 1, 2020

Warmups: 2:00-3:00 PM; Meet Starts: 3:00 PM

Women	Time	Event Men T		Time			
1		400 IM	2				
3		200 Breast	4				
5		100 Free	6				
7		50 Fly	8				
9		200 Back	10				
11		100 Breast	12				
13		50 Free	14				
15		100 IM	16				
17		500 Free	18				
BREAK – 5 Minutes							
19		100 Mixed Free Relay©					
21		200 Fly	22				
23		200 IM	24				
25		100 Back	26				
27		50 Breast	28				
29		100 Fly	30				
31		50 Back	32				
33		200 Free	34				
200 YARD RELAYS							
35		200 Medley Relay	36				
37		200 Free Relay	38				
39		200 Mixed Medley Relay					
		200 Mixed Free Relay	40				
BREAK – 5 Minutes							
41		1650 Free	42				

©The 100 Mixed Free Relay is a non-conforming event.

Times for this event will not count for USMS records or Top Ten.

Entry Fees

Total event fees: x \$6.00:

Surcharge: \$8.00

Total Amount Enclosed:

Make checks payable to:

Virginia Masters Swim Team

Send paper entries to:

Chris Stevenson 7702 Hampshire Road, Henrico, VA 23229

Questions? Contact Heather or Chris Stevenson (804) 310-3069 or (804) 332-4339 hnsrva@gmail.com or chrislstevenson@gmail.com

FOR PAPER ENTRIES: A COPY OF YOUR USMS
REGISTRATION CARD MUST BE ENCLOSED FOR
YOUR PAPER ENTRY TO BE ACCEPTED!

Job Opportunity: LMSC Membership Coordinator (aka Registrar)

by Shirley Loftus-Charley

After a wonderful eight years serving as Virginia LMSC's Registrar, I have decided it is time to step down. The LMSC Board has been great and I want to thank members, past and present, for being kind, helpful and supportive over the years. Thanks to all the club representatives for making my job easy and fun. My favorite part of the job was working with LMSC swimmers and meeting them at swim meets. I'm stepping down from the position but not from the starting block! I look forward to seeing you all at swim meets and open water events. Thanks again, everyone, and keep on swimming!

Member Coordinator Position Description

At this year's USMS National Convention, it was decided to change the title of Registrar to Membership Coordinator. This change was made so that the name accurately reflects the duties of the position. The Membership Coordinator is an important position to the LMSC and to US Masters Swimming. The membership coordinator is responsible for maintaining LMSC registrations, responding to inquiries from members, clubs, potential clubs, LMSC officers and national office in a timely manner. The membership coordinator is also responsible for processing paper entries for clubs and members and printing and mailing USMS cards to all swimmers who request them. This is an ongoing, year-round job with the busiest time from November to January.

Key Responsibilities

- Communicating via phone and/or email with swimmers, club representatives LMSC Board members and USMS National Office and providing prompt responses to requests
- Manage online registrations and processing any paper registrations
- Printing and mailing USMS cards to swimmers who request them
- Processing transfers and "One Event" registrations
- Ensuring paper registration forms, transfer forms and one-event entry forms are updated and posted on the LMSC website
- Sending list of monthly online and paper registrations to the Treasurer
- Making monthly bank deposits, when necessary, and providing a detailed deposit summary to the LMSC Treasurer
- Sending monthly membership reports to the Webmaster
- Attending LMSC meetings and providing reports to Board members on new members, renewals and statistics related to LMSC memberships

Recommended Skills, Experience and Attributes

- Required to have access to a computer with Internet access and a printer
- Strong Excel and computer skills preferred
- Responsiveness to email and phone requests and questions
- · Comfortable with preparing reports and sending mass e-mails out for LMSC board members
- Ability to learn and work with USMS registration software

If you are interested in volunteering for this position, please email Kirk Clear at: vachair@usms.org.

Local Masters Swim Committee Newsletter Chris and Heather Stevenson, Editors 7702 Hampshire Road Henrico, VA 23229 Prstd Std U.S. Postage PAID Richmond, VA Permit #3022

LMSC Officers

Chair: Kirk Clear

Vice-Chair: Denise Letendre Secretary: Alice Phillips Treasurer: Becca Latimer Membership Coordinator:

Vacant

Coaches: Rich Williams

Fitness: Vacant

Long Distance: Kate Stephensen Newsletter: Heather and Chris

Stevenson

Officials: Charlie Cockrell Records & Top Ten: Chris

Stevenson

Review: Heather Stevenson

Safety: Jim Miller Sanctions: Kyle Ahlgren Webmaster: Chris Stevenson

The 12 Sets of Christmas!

We gave you 12 sets last year . . . and thought we would do it again this year. Here are 12 suggested sets to incorporate into your holiday workouts. The list is a mix of short, middle distance, and distance sets. Pick and choose as you wish!

- 12 x 100 free on 1:45 descend swim time by 1 sec for each repeat (total of 1200 vds)
- 11 x 75 on :20 sec rest interval 25 free pace, 50 fast stroke for each 75 (total of 825 yds)
- 10 x 50 pace on :10 sec rest interval first 5 stroke, second 5 free (total of 500 vds)
- 9 x 125 on :20 sec rest interval 3 sets of 3 x 125. 1st set as 50 kick/75 swim, 2nd set as 75 kick/50 swim, third set as 125 swim, build to fast (total of 1125 yds)
- 8 x 25 on :45 at 100% pace (total of 200 yds)
- 7 x small pyramid 100s 25 swim, 5 sec rest, 50 swim, 5 sec rest, 25 swim FAST 30 sec rest (total of 700 yds)
- 6 x 150 no free IMs on :30 sec rest interval (total of 900 yds)
- 5 x Golden Medal Swims! 5 x your favorite event that is 200 yds or less
- 4 x 200 free on :15 sec rest interval, hold 1000 pace (total of 800 yds)
- 3 x 100 reverse IMs, sprint the fly! :30 sec rest interval (total of 300 yds)
- 2 x 200 broken at 50s, :10 sec rest at each 50, best non-free stroke (total of 400 yds)
- 1 x broken mile! :15 sec rest after each swim. Swim as: 6 x 25, 4 x 50, 4 x 75, 4 x 100, 4 x 75, 3 x 50, 4 x 25 (total of 1650 yds)