| From: | Coach Marty Gaal [marty@osbmultisport.ccsend.com](mailto:marty@osbmultisport.ccsend.com) on behalf of Coach Marty Gaal <br> [marty@osbmultisport.com](mailto:marty@osbmultisport.com) |
| :--- | :--- |
| Sent: | Monday, August 24, 2020 9:45 AM |
| To: | marty@osbmultisport.com |
| Subject: | One Step Beyond Coaching Newsletter - July 2017 |



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The Next Level Newsletter - July 2017
Volume XIV, Issue V
Dear Marty,
It is warming up in the Northern hemisphere! Our article this month is a repeat and update from eleven years ago about training in the heat.

Our next open water swim clinic is on September 16 at Jordan Lake.
In this issue:
Article: Using power analysis for Ironman training
Summer youth programs - ongoing
Ironman 70.3 NC training program - starting now!
Recent athlete news
Powerstroke DVD
Run workout of the month
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## 2017 Open Water workouts

1 hour practices at Jordan Lake in a controlled setting with a coach / lifeguard on a board.
Open Water swim workouts - April through September

## Using power analysis for Ironman training

If you have a power meter, there are a handful of useful metrics to keep track of. First of course is getting an accurate functional threshold (FTP). You can do this in a lab using a step test and blood analysis, or on the street with a time trial. The time trial can be as short as 20 minutes and up to 1 hour. If you do a 20 minute test, multiply that by $95 \%$. 30 minutes by $96-97 \%$, 45 minutes by $97-98 \%$, and so on. 1 hour is the $100 \%$ value.

Next - if your meter has a cadence sensor, keep an eye on this. You should be over 80 and ideally approaching 90 on an average ride. A lower cadence recruits more fast twitch muscle fiber (strong-bulkpower type muscle) which burns more glycogen and produces more blood lactate. For a long distance race this is not what you want to happen. It is a bit counter intuitive but using a high cadence / slow twitch muscle is like doing a lot of little quick hops, while riding in a low cadence is like doing a slower series of deep squat jumps. Which one burns more quickly and causes longer lasting fatigue?

You should set up your display so that you can see the percentage of FTP on a 5 or 10 second rolling average ( 1 second jumps around a bit too much for me), your power, and then whatever else floats your boat. I used elapsed time but you might like watching your MPH.

A critical piece of information can be found by looking at the variability index, or VI , which you can see in Trainingpeaks and probably some other tracking software. This measures how different your normalized power (NP is a wonky way of explaining exactly how hard you really rode. It is usually higher than average power, but could be lower if you coasted down a mountain. See Rick Ashburn's article below for the full explanation.) is from your functional threshold. NP / FT = VI.

VI is a key one to watch. For any triathlon type race - disregarding certain competitive strategies like shaking off other riders, or powering past other competitors - you want your bike power output to be fairly to mostly to exactly even. Your effort should be steady. The longer the race, the more important this becomes. The reason is the physiological cost of harder efforts, which demand more from the energy systems and produce more waste. Re: You use up more glycogen and produce more lactate as you approach and exceed the lactate threshold. For long races you want to spare the anaerobic system and energy paths and use fat stores / aerobic metabolism as much as possible.

In a ten+ hour race every bit counts. Joe Friel wrote a few years ago that keeping VI under 1.05 for an Ironman is critical. Various power files on display from professionals and top amateurs usually bear this out, whether or not the course is hilly.

If you do a 5 hour training ride, with the first hour easy, the next 3.5 hours at IM pace, and the last half hour easy, you should be able to select the 3.5 hour section and take a look at that VI. If it's over 1.05, you have work to do on staying smooth. (Looking at the whole thing would include the lower efforts of the warm up and cool down so would be less accurate).

Simply put, when you hit resistance in the form of a hill or wind, rather than push harder to maintain the 80+ cadence, gear up to keep the cadence and power the same. When you have less resistance in the form of a tailwind or a downhill, gear down rather than coast. It's really plain vanilla simple. If you're the type of rider that hammers the hills and coasts the downhill, this will be a tough change for you, especially if you're not particularly aware you're doing it.

Back to NP: This is the main power number you want to go by. If you do a 45 minute time trial (riding as even as possible), let's say your average power was 220 and your NP was 227. Your VI in this case is 1.03. To calculate your FTP you would multiply NP $227^{*} 98 \%$ which ironically brings it back to 222.46 . Use the NP from your time trials to determine FTP.

Onto a couple other notes. Rick Ashburn developed a useful chart explaining the relationship between Ironman bike time, intensity factor (IF - how hard a workout or section of workout is, aka workout NP/current FTP), and TSS (training stress score). I couldn't locate the original graphic online, but Joe Friel explains it
well in the article below (with graph). In a nutshell, you want to keep your TSS under 280 in an Ironman, unless you're a super bike pro and/or willing to take chances with the run.

Your IF should be . 72 or under unless you're a sub 5:30 rider.
Regarding percentage of FTP target for an Ironman - starting point is 70-72\% for 5:30 riders, incrementally higher for faster athletes ( $75-76 \%$ for $5: 00$ ) and lower for slower athletes ( $\sim 65 \%$ for $6: 30$ ). The longer you're on the bike the lower your effort needs to be because of the amount of time you're putting in. Put this to the test in your training.

Each ride you do get a TSS score. Each long ride you do gets a score. Start to pay attention to all of these. VI and long ride TSS for your long rides, the other numbers just get you to these points.

That's it.
Joe Friel's article is a good read https://www.trainingpeaks.com/blog/how-to-cheat-by-using-a-power-meter-in-an-ironman/

Rick Ashburn on power explained http://www.slowtwitch.com/Training/General Physiology/Measuring Power and Using the Data 302.html

How to analyze a power file from Gloria Lui
http://www.slowtwitch.com/Training/Cycling/How to Analyze a Power File 4311.html
Marty Gaal, NSCA CSCS, is a USA Triathlon coach. He has been working with endurance athletes since 2002 and is the cofounder of One Step Beyond. He enjoys ignoring his power meter on easy days.

OSB Summer youth programs

## Lightnings squad youth triathlon team (ages 7-14)

Ten week program with two weekly coached practices in Raleigh/Cary area on Wednesdays and Sundays, with ongoing program advice. We'll target local youth triathlons on or near our end date. The spring squad did great at the Tar Heel Youth Tri in Chapel Hill on May 07!

When: July 16 to September 24
Coaches: Coach Marty Gaal and Coach Brooks Doughtie of All Out Multisport
Cost: \$200 per athlete (prorated for late starters)
Location: Raleigh area greenways, Triangle Aquatic Center in Cary
See all the details and enroll here.

High School age triathlon training program: (ages 14-18)
What: 8 week high school (age 14-18) triathlon training program
When: July 22 - September 17
Head Coach: Ironman + Youth / Junior Certified Coach Sara Larson
Cost: $\$ 125$ per athlete, race fee not included (prorated for late starters)
Have you aged out of the Youth Triathlons? Looking for a bit more of a challenge in distance and venue? Come train with USAT Youth and Junior Certified Coach Sara Larson to get ready for the final event in the Rex Wellness Triathlon Series in Knightdale.

Location and details: Each Saturday from 3-5pm - locations will vary between Chapel Hill/Cary/Jordan Lake
Practices will include pool swim practice, open water swim practice, biking intervals, running intervals, brick workouts, and the all important transition practice. The training program will also include a weekly emailed schedule of workouts to complete on your own.

Read the details and sign up here.

## Ironman NC 70.3 training program

Ironman 70.3 North Carolina training program
What: 12 week program with 6 coached practices (1 every 2 weeks)
When: August 1, 2017-October 21, 2017
Coach: Ironman Certified Coach Sara Larson
Cost: $\$ 180$ per athlete, race fee not included (prorated for late starters)
Who: This 12 week program will be designed for beginner/intermediate level triathletes. You will receive the entire 12 weeks worth of workouts at the beginning. You will also have the opportunity to attend a coach lead training session once every 2 weeks. The time and location of these practices will be determined by a poll of the participants prior to August 1. If you are interested in an individually customized program, this is also an available option for an additional cost.

Minimum Requirements: you should be able to complete a 1,000 yard swim workout, a 15 mile bike workout, and a 5 mile run workout before August 1.

Read the details and sign up here.

## Recent OSB athlete results

Kory Gray 2nd OA at the Midsummer Olympic Tri
Tom Lehr 5th OA, 1st AG at Rex Wellness Garner Sprint Tri
Joanne Piscitelli 2nd AG in Little Uno 1 mile swim
Paul Amisano 4th AG in Little Uno 1 mile swim
Tom Lehr 4th AG in Little Uno 1 mile swim
Karen Crews 6th AG in Little Uno 1 mile swim
Brian Searcy 4th AG at Rex Wellness Garner Sprint Tri
Lindsee McPhail 5th AG in Little Uno 1 mile swim
Lisa Hoff 1st AG in Big Deuce 2 mile swim
Thys Wind 1st AG in Big Deuce 2 mile swim
Angela Respecki runs the 5k Lunar Run Houston
Coach Bri 1st AG in Little Uno 1 mile swim
Coach Marty 4th OA, 1st AG at Rex Wellness Garner Sprint Tri
Coach Sara completes USATF Level 2 endurance clinic!
Kathy Larkin 7th AG at Colonial Beach Sprint Tri
Laura Noble 3rd Novice in her first triathlon at Triangle Sprint Tri!
Laurie O'Connor 3rd AG at Triangle Sprint Tri
Marian Bergdolt 1st Ag at Triangle Sprint Tri

Joe Dillon 3rd AG at Triangle Sprint Tri
Morgan Farrell 10th AG at Triangle Sprint Tri
Coach Sara 3rd AG at 4 on the 4th Chapel Hill
Marian Bergdolt 3rd Master OA at the Music City July 4th 10k
Colleen McCarthy 4th OA, 1st AG at Keep RLGH Independent 4 miler
Angela Respecki 17th AG at the Baytown Bud Heat Wave 5 miler
Tim Gensler 15th AG at the Boulder Peak Olympic Triathlon
Kory Gray 4th OA, 1st AG at Hagg Lake Olympic Triathlon
Larry Hamilton rides the Hot Doggett 100 miler
Morgan Farrell 11th AG at Smile Train sprint triathlon
Tim Gensler 4th AG at Lake to Lake Sprint
Larry Hamilton hits the hills for Blood Sweat and Gears 90 miler
Laurie O'Connor logs some miles at Bike Virginia

OSB coaching programs

## One Step <br> BCII multisport

One Step Beyond offers customized individual endurance training programs to triathletes, runners, and swimmers throughout the year. Our most popular ongoing program is called Basic Steps coaching.

If you want a great schedule but don't feel the need for extensive interaction during the training cycle, this is the plan for you. Our coaches will create a professional training plan designed around your specific goals and constraints, with adjustments along the way as needed. We use heart rate, power, and perceived exertion targets as appropriate.

Your coach will be available to you via email, text, and phone, which we check and respond to Monday thru Friday.

The initial interview is conducted by phone, and all ongoing coaching is accomplished through Training Peaks software, email and phone support. You will receive:

- Annual Training Plan
- A weekly schedule with specific daily workouts
- Weekly group training sessions
- Ongoing email support for all questions (client initiated)
- Ongoing phone support (<15 minute type conversations)
- Race day pacing and nutrition advice
- Necessary adjustments of your schedule
- Regular feedback from your coach
- 20\% discount on additional personal training and consulting sessions
- A premium Trainingpeaks training account


## Powerstroke: Speed through force and form DVD

Powerstroke® is Coach Marty Gaal's method for teaching competitive freestyle swimming technique to adult triathletes and open water racers. The Powerstroke $®$ DVD was specifically developed for adult swimmers looking to improve their swim speed in triathlon, open water racing, and distance pool events.


Powerstroke® is:

- A concept designed to teach the integral relationship between good form and the application of force when swimming
- A specific drill you can include in your daily workouts
- A stroke form that will help you torpedo your way to a PR finish
- A way of swimming

The Powerstroke®: Speed through force and form DVD includes:

- 40 minute lecture: What is Powerstroke?
- 25 minute general freestyle swim technique analysis: The three types of freestyle stroke mechanics and how to progress to the strongest: High elbow catch / early vertical forearm
- 25 minute Powerstroke freestyle swimming technique in-depth explanation
- 1 hour of seven key drills and detailed descriptions
- 4 minute stretching and dryland exercise video


## Purchase your copy here!

## Premade training plans

OSB premade training programs are for athletes who would like to follow a well made training plan, but don't require ongoing coaching. These plans can be set so they can end on the day of your A race and include a free TrainingPeaks account.

One Step Beyond currently offers:
Intermediate 16 week Half-Ironman 70.3 Triathlon Training Plan - \$79.99
Intermediate 16 week Olympic distance triathlon training plan - \$69.95
Intermediate 10 week Olympic distance triathlon training plan - \$59.95
Beginner 16 week Olympic distance triathlon training plan - $\$ 69.95$

Beginner 10 week Olympic distance triathlon training plan - 49.95
Intermediate 10 week sprint triathlon training plan - \$59.95
Beginner 16 week sprint triathlon triathlon training plan - $\$ 69.95$
Beginner 10k run in 10 weeks training program - $\$ 44.99$
You can review and purchase any of our plans, hosted on the TrainingPeaks platform here.

## Run workout of the month

This month's run workout is focused on top end speed! You should have a good base of aerobic and threshold conditioning before taking part in a session like this. Plan one or two days of easy/recovery workouts in the days following.

Warm up:
15-20 minutes easy running
20 x jumping jacks, 10 x leg swings
drills: $2 \times$ high knees, height skips, sideways (c skips), b skips, strides

## Main set:

12 to $20 \times 200$ s @ 1mile race pace or Z5a-b. 200 walk-jog recovery. Allow your heart rate to come down almost to full resting HR. Stay fluid on the work intervals - if you find you're really forcing the effort, discontinue and go into your cooldown run.

Cool down:
10-20 minutes very easy

## 2017 Triangle Open Water Swim Series



The 2017 Little Uno and Big Deuce was held on July 22 at Vista Point this year. The weather was pleasant and the water was pretty calm!

Overall results included

## Big Deuce women:

Alexandra Kreager 48:22
Heidi Williams 49:32
Christy Hall 52:04

Top Master: Amy Oversmith 53:25

## Big Deuce men:

Mike Cotter 44:31
Jason Fox 46:34
Anthony Lordi 48:21
Top Master: Terry Vogler 52:03

## Little Uno women:

Emily Carpenter 25:11
Jennifer Strout 25:38
Carrie Vetter 25:59
Top Master: Elizabeth Skiba 27:59

## Little Uno men:

Geoffrey Oyler 22:30
Andrew Farrell 23:31
Doug Liming 26:09
Top Master: David Oyler 27:17
Our last event is the Hurricane Championship swim on October 15. Visit www.fsseries.com to sign up today! Photo of 2017 Big Deuce sunrise below:


The Triangle Open Water Mile Swim Series is brought to you by One Step Beyond and FS Series.
Our Sponsors

Thanks to the following organizations, that provide service and support to One Step Beyond athletes.

Xterra Wetsuits
Inside Out Sports
FS Series
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Frank Rexford - Guaranteed Rate


Frank Rexford, Guaranteed Rate

# Frank Rexford guaranteed Rate 

Whether you are purchasing a new home, refinancing your mortgage, or simply considering a home improvement project, I have the experience to help you find a loan that is right for you. And I will take the time to provide clear explanations along the way, so that you will be confident as you make choices about the many financing options available.

My business is referral-based, with nearly $100 \%$ of my business coming from satisfied clients, trusted financial advisors and some of the most experienced realtors in the Triangle. I hope to earn your business by not only offering competitive rates and fees, but also by providing exceptional client service. Purchasing or refinancing a home can be stressful, and so my team and I will work hard to carefully guide you to a smooth closing.
email: frank.rexford@guaranteedrate.com
office: 919.442.4139
f: 919.869.1510
www.frankrexford.com

Clean Jordan Lake
Clean Jordan Lake is a grassroots nonprofit founded in 2009. Their stated mission is to restore Jordan Lake to a healthy and vibrant aquatic resource by removing trash from the shoreline and preventing its recurrence.

## VISIT OSB ONLINE

Sincerely,
Marty, Bri, Daniel and Sara One Step Beyond
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