

The International Omnium event is a multi-race event for individuals in track cycling. Historically the omnium has had a variety of formats. Currently, and for the 2012 London Olympic Games, the omnium as defined by the Union Cycliste Internationale (UCI) and consists of six events (both timed individual events and massed start pack races) for men and for women that are conducted over two consecutive days. Ideally, the Omnium event showcases the best all-round, consistent rider -- speed, endurance and savvy race intelligence make up an International Omnium champion.

Points are awarded in reverse order for each event within the omnium. The rider who finishes first in an event receives one point, the second rider will get two points and so on down the placings. The winner is the rider with the lowest total points. If two riders are tied on points, the combined time of the three time trials will be the tie breaker to determine final placing. Also, riders must complete every event in the omnium. So if a rider were to crash in an early segment and not make it to the finish, they would be eliminated from continuing on in the next portion.

The International Omnium was re-introduced into the World Championships as a five race format for men in 2007 and then for women in 2009. The omnium was changed in 2010 by the UCI to include the elimination race and the distances of the events were lengthened to favor an endurance type of track athlete.

The International Omnium event replaces the endurance races of the individual pursuit, the points race, and the madison team race that were previously in the program but will not be starting at the Summer Olympic Games beginning in London 2012.

## MEN

- 1) Flying Lap (against the clock)
- 2) 30 km Points Race (15 km for junior men)
- 3) Elimination
- 4) 4 km Individual Pursuit (3 km for junior men)
- 5) Scratch Race
- 6) 1km Time trial

\*Timed events are conducted individually while the rest are pack style races.



## WOMEN

- 1) Flying Lap (against the clock)
- 2) 20 km Points Race (10 km for junior women)
- 3) Elimination
- 4) 3 km Individual Pursuit (2 km for junior women)
- 5) Scratch Race
- 6) 500 meters Time trial

\*Timed events are conducted individually while the rest are pack style races.



## USA Cycling Rules & Regulations

### Definition 3.2.247

The omnium is a single competition consisting of six events run with a maximum number of riders set by the track limit which shall be held over two days in the following order:

1) **Flying lap** (against the clock)

2) **Points race**

30 km for elite men

20 km for elite women

15 km for junior men

10 km for junior women

(intermediate sprints every 10 laps on 250 meter track)

3) **Elimination**

4) **Individual pursuit**

4000 meters for elite men

3000 meters for junior men and elite women

2000 meters for junior women

(without finals, opposing each time two riders seeded from the overall ranking after the Elimination)

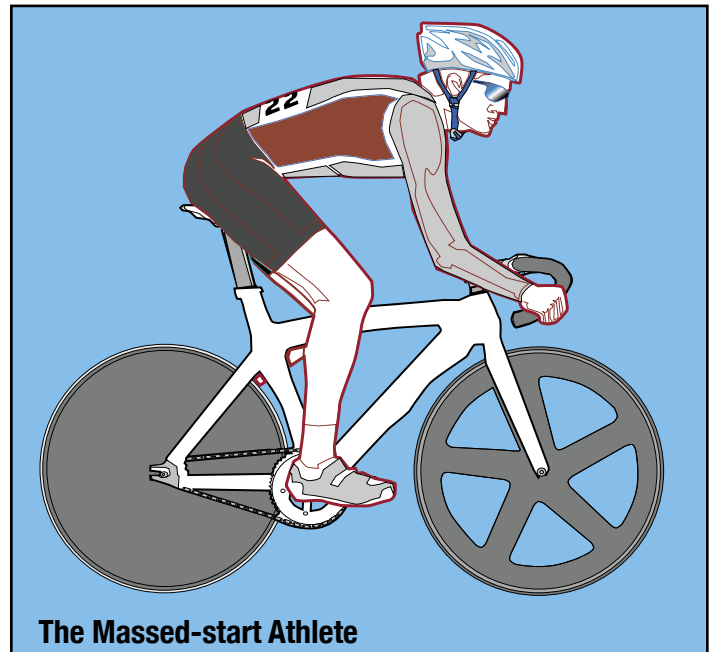
5) **Scratch race**

6) **Time trial:**

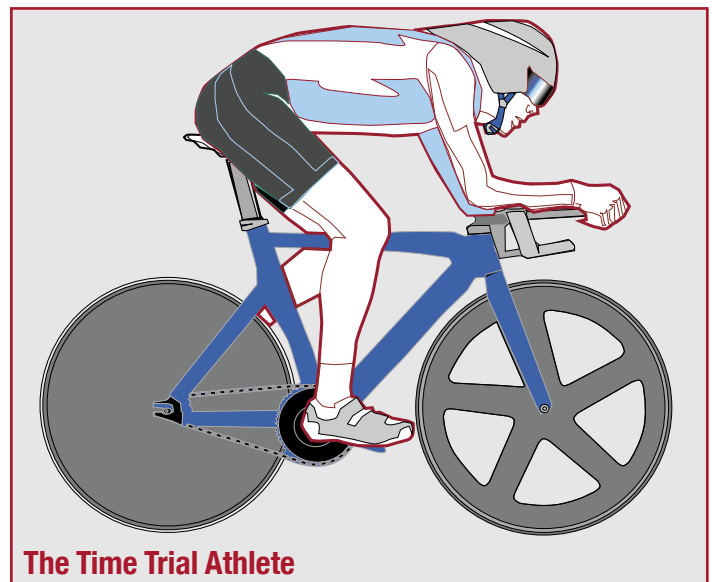
1000 meters - men

500 meters - women

(each time with two riders on the track, seeded from the overall ranking after the scratch race).



**The Massed-start Athlete**



**The Time Trial Athlete**

In competitions for which the number of riders entered exceeds the track limit and there basis no existing qualification system to establish the number of participating riders, their selection shall be determined as follows: All riders entered shall first participate in qualifying Points Race heats run over the distance and with the number of sprints, as per the regulations for Points Race heats. The heats shall be run in such away so as to qualify up to the track maximum number of riders, without necessarily qualifying the maximum number of riders permitted. An equal number of riders shall qualify from each heat to participate in the Omnium. All riders not qualifying to participate in the Omnium shall be placed jointly in last position. Any riders not finishing any of the qualifying rounds shall not be placed (shown as DNF).

## Omnium Q & A

with Brad Huff

EQUIPMENT –

**Q1.** What is the ideal set-up? Two bikes – one for massed start races and another for timed events (but could be swapped handlebars and work as massed start back up)?

**A:** In an ideal world a rider would have two bikes, but in reality with cost of flying with two bikes it is just not always that simple and or practical. I usually just use the same bike for all the events. I swap out handle bars depending on the event. Recently I've spent so much time on my massed start bike that my body likely produces the best wattage on that bike - I am dialed in really used to how I feel riding it. Right now it would feel better to just ride that bike with the right bars for the race.

**Q2.** Set-up on the cheap? -- Are good wheels where I might get a good bang for my buck?

**A:** YES!!! You can have oldest, most out-of-date track bike in the world and when you throw a pair of

Brad Huff image



fast wheels on.....VOILA - an instant increase in speed at the same effort! See the packing tape disk wheel? It works in a pinch and you can find what you need to make it at the local supermarket. Not too bad.

**Q3.** the Brits talk about the “marginal gains” – a little time gained from the aero helmet, a little gained from the fast tires, etc... all combining to make a real difference – what do you think? What marginal gains do you work on?

**A:** Yes marginal gains can make all the difference. Just look at any World Cup or World Championship timed event and even the massed start events for examples to my point. A marginal gain in aerodynamics can mean the difference from 7th to 4th, or even winning.

The easiest marginal gains can be in equipment and with your position on the bike for timed events. Although gaining a second or 2 via equipment can be quit expensive. I see the easiest gain in time being from position and then equipment. The UCI limit on saddle fore-aft set back position is 5cm. Set your bike saddle at 5cm behind the bottom bracket and see how your body handles this position. In most cases it will be more aggressive than your road bike, but it will allow for the best power at the high rpms that are required for track racing. Next would be a skin suit uniform and an aero helmet -- those items can make the biggest gains at the least cost. Then comes the big one -- wheels. If a rider can afford a disc wheel then I say buy one and use it for everything because they will see the most gains in speed from this one piece of equipment.

Also please know that nothing beats enough time doing the hard work paired with a well done plan and coach.



## ROUTINE BETWEEN RACES?--

**Q4: With 30 minute breaks between races each day – what is the recovery routine?**

A: Always spin down after every event, no matter how tired you feel. This will limit heavy legs at the start of the next event. I always do a little warm up before each and every event. It doesn't have to be super-warm-up-intervals because your body has already been fully warmed up from the previous event. It just needs to be a little spinning to get your blood flowing again.

**Q5: What about food intake (Light, liquid calorie replacement)? and equipment change and some time on the rollers?**

A: With food I stay away from consuming gel after gel, after gel, as this can totally clog your gut and limit gastric emptying. Chocolate milk can be your best friend at the end of each session. Light foods that digest quickly work best for me. Always have an electrolyte drink available as dehydration can be your biggest enemy of the day with the continuous warming up, racing and cooling down routine. Carbohydrates are king when it comes to track racing, as you are living in the high intensity range of effort that burns glycogen like it's air.



USA Cycling image

## THE MENTAL GAME

**Q6: How do you approach the whole make up of the races... ?**

A: This will be your toughest 2 days of racing that you will attempt. Ensure that you have simulated what you will be up against in training so that when you're fatigued and start to over-think the Omnium, you'll be able to fall back on the fact that you have done everything in your power to be the best you can be on race day. I make sure my equipment is dialed and that I am organized. Plus, at the end of the day it's good to remember it's 'just a bike race.' There are always more.

## TROUBLE SHOOTING

**Q7. Hypothetically, say that you have a mechanical issue & it costs you time (and places) in one segment – how do you bounce back?**

A: Never say 'die' in the Omnium. All you have to do is be consistent. Nothing says you have to dominate every event. Turn the situation into a positive -- make that something that works for you and to your advantage. What I mean is that one can look at such a mechanical issue as a time that you "rested more" than the other competitors and how it will allow you to be fresher for the next event. Always do your best to stay calm. Being calm comes from practice, being organized and learning from all that you experience. When racing, look for every opportunity to move up in position and stay on the wheel until it's your turn to shine.

## PREPARATION

**Q8. Leading up to a major competition – what general preparation works for you? A block of a few weeks of road racing... track prep?**

A: Being a roadie that sometimes rides the track, I always feel that my best days on the track are inside the first 5 days back on the velodrome. I must always tell myself -- DO NOT OVER DO

IT in the first few days on the track because you will most likely get slower or just maintain. Going slower, that would not be a good thing. You always want to get faster on the track so arriving to the track fresh and mentally ready can pay big time.

## **Q9. Fundamentals – what do you work on? Starts, pacing, practice of best line for flying lap, etc?**

A: Training Races can be the best way to sharpen your fundamentals but if you are limited on such opportunities then try to break down each event and work on your weaknesses.

1. Standing starts are the do-or-die point for the pursuit and kilo races. I always practice them at each training session.

2. Anyone can hold a pace on the track after dropping into the group, but holding pace after doing a standing start will show who has prepared and who has only done flying laps everyday. For the Flying lap, an omnium rider has to watch how the real sprinters ride a 200 meter time and how they wind up their speed and translate that to the lap. This will ensure that he or she is able to maximize what speed is in their legs. Learning how to ride “the line” that the sprint specialists take can vastly drop time on your Flying Lap in just one day. That’s a huge return!

3. Motor paced training is a key fundamental for me with the massed start races. So if you can hold the pace but then you can’t use your sprint or pursuit ability to take a lap or win a sprint, you’ll be on the defensive the entire time. Incorporate some motor work if you can. In addition, you need to learn how to hold the wheel like your life depends on it! Such a simple thing, but it is often so crucial to getting to the finish line in a good position. Efficient motor pace training sessions help me with this.

RIDER QUALITIES ---

## **Q10. What kind of qualities lend themselves to being good Omnium racers? (From Sprint training, from endurance training, and from racing?)**

A: A great Omnium rider is an all-rounder that has pack riding skills like a ‘Star Wars’ jedi knight. A road rider that can just cut through a criterium ‘like it’s butter’ will lend themselves to performing well on the track. Finally, having the ability to apply raw power that other riders only talk about and an appetite for suffering like it’s nourishment-to-your-soul will pay off big time in track racing. Suffering is what you will do on the track, so wrap your head around the idea and get used to it being a part of the routine. Again, putting in the hard work training sessions is what will help you do well. Having a huge engine goes a long way, but if you can’t spin, you can’t win! A rider that can spin a gear up and dig out of a corner in a criterium will be able to assimilate that same effort directly into track racing so much easier than a rider that who mashes their life away.



Cari Higgins photo

RACING EXPERIENCE --

**Q11.** It seems many of the racers at the World level have a few years of International race experience.... Does being a bike racer, going to races all over, seeing different tracks – competitors – events ---- what does that kind of experience play in building someone up for Omnium competition mean?

VeloVeritas.com photo



**A:** YES the more races you can do, at more tracks, equals a better chance for development and will only further

ensure he/she can be competitive no matter where they might end up. I recently went to two winter PRO 6-day Races in Germany. The last time I did a Madison on the world level was 3+ years ago. The only way I survived jumping back in the 6-day circuit was for the fact that I had that vast amount of experience to pull from to keep me out of trouble. Track racing leaves no room for error, so the more racing you get into your legs -- the less mistakes you'll make. Do not expect to just show up at a track race with your roadie skills and dominate.

**Q:** What is a key aspect for you?

**A:** Saddle choice will make or break you on the track. Keep where you sit on the bike from feeling like you have taken a rough sand paper to it (for a few hours) if you do not ensure your saddle and position are dialed. Besides the pressure from the g-forces in the bends, the high RPMs you will be riding/training at could easily become enough to start a small camp fire, so to speak. That thought should warrant caution on your saddle choice, if

it doesn't, I don't know what will! Let me just say that blister band-aids and surgical paper tape can go a long ways sometimes in the right situations.

Another thing -- don't ever stop pedaling.

Always ask questions from more experienced folks, be willing to try different things even if you make mistakes, but do your best not to crash. Crashing is more than just expensive on equipment. It's time recovering back to normal that you lose that is so costly.



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I hope that sheds a little light for you.

See you out at the track,

**- Brad Huff**

2013 Continental Road Professional with Jelly Belly Pro Cycling team with multiple US National Track Championships and a 2007 Omnium Bronze at World Elite Track Championships along with multiple UCI Track World Cups and Track World Championship starts for USA Cycling.