

NEED FOR SPEED

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What does it take for Carlsbad resident Denise Mueller to break a cycling land speed record? Here are some of the elements that are key to her attempt next year.

SPEED

The best pro sprinters in the world travel 48 to 50 miles per hour in the final 300 meters of a Tour de France cycling race. Accelerate that speed to nearly three times the velocity, imagine a woman riding a bicycle that fast and then the rush of adrenaline. That is what Denise Mueller will do when she aims to set the women's bicycling land speed record. The Carlsbad resident plans to ride 125 to 140 miles per hour—motorpacing behind a vehicle's draft to reach that high speed—for a mile on the Bonneville Salt Flats in northwestern Utah during Speed Week in 2015.

a) Carlsbad resident Denise Mueller (photo by Lauren Schroeder); **b)** Mueller with Fred and Tiny Rompelberg and John Howard; **c)** Mueller and Howard; **d)** Mueller goes fast on four wheels as well as two—she also races cars; **e)** crossing the finish line at the Arizona Ironman (photos courtesy of Denise Mueller).

Opposite page: **a)** Mueller in action (photo by Jinna Albright); **b)** training at the San Diego Velodrome; **c)** Mueller with Howard and Fred Rompelberg, who holds the bicycle land speed record (photos courtesy of Denise Mueller).

THE RIGHT COMBINATION

This fast moment will be the result of an intersection of technical brilliance (courtesy of the motorpacing dragster and a specialized bicycle), expert mentors and Mueller's inspiration, courage and dedication.

Denise Mueller is a vivacious, attractive strawberry blonde—her freckles are beguiling. She is a truly multifaceted woman, with enthusiasm and energy for all of her endeavors. On one hand she is a dedicated mother with three sons, ages 20, 19 and 14, and the prominent business owner and CEO of Rancho Santa Fe Security Systems, Inc. On the other hand, she is an experienced and accomplished cyclist who was a world-class junior downhill mountain bike racer. She won the silver medal in the downhill and bronze in the cross-country mountain bike events at the 1991 Junior World Championships in Italy, and captured 11 national cycling titles between 1988 and 1991. She is a fiercely competitive race car driver and a runner whose goal is to run a half marathon in all 50 states. (She's completed 28 so far.) Mueller's latest accomplishment was completing an Ironman in 2013. In her life there is a steady rhythm of setting and achieving goals.

In just the past six months, Mueller has raced the Ironman Arizona, four cycling criteriums and several half marathons. She has gone skiing, bobsledding and airsofting. She scored the fastest team lap at Sonoma Raceway in the Toronada Racecar and raced her Mini Cooper named Diablita in several races. She also raced around deserts on her dirt bike and down mountains on her mountain bike. And, of course, there is the cycling. In every situation she has brought panache, vision, connection to experts and mentors and extreme dedication. Her spirit is indomitable.

HISTORY

There were early signs that this record-breaking bicycle land speed event would be within Mueller's grasp. When asked if the attempt was John Howard's idea, she states matter-of-factly, "Absolutely. I was like a puddle of gasoline and he was the match."

Howard and Mueller met when she was a teen. "When I was 14 years old I did the San Francisco-San Diego ride with the American Youth Hostels," Mueller says. "It was two weeks long. I did it with my dad and by the last leg, I missed my mom and my dog! I wanted to get home and remembered that drafting on a bicycle sped you up, so I jumped on the wheel of a man riding by."

That man was Howard, who thought, "Who is this little girl on my wheel?" When Mueller's dad caught up to them, Howard told him that he should encourage her to race bikes.

"I did my first bike race a month later and won," Mueller says. "I was hooked! He [Howard] and Doreen Smith coached me for the next four years."

Years later, the two reconnected and the bicycle land speed record idea emerged. "John put it together, saying, 'You love to race cars, you are an adrenaline junkie, you love to race bikes and draft.'" As Howard says, "She's the perfect candidate and there is nobody I'd rather work with to accomplish big goals."

Historically, the bicycle land speed record was set by Allan Abbott at the Bonneville Flats, where he reached 139 miles per hour in 1973. It was reset by none other than Howard in 1985. An Encinitas athletic legend, he is known for winning the first Ironman Triathlon in Kona. He competed in three straight Olympic Games, in 1968, 1972 and 1976. He also won a gold medal in road race cycling at the Pan American Games in 1971. When he completed his motorpaced one-mile,

record-breaking ride in 1985 he traveled 152 miles per hour. That record was broken in 1995 by Fred Rempelberg, and his 167 miles per hour still stands. No woman has ever made the attempt to set the bicycle land speed record motorpaced—until now.

FAST WHEELS

The challenge involves a low-to-the-ground, carbon-fiber bicycle with heavy-duty disc brakes, two chain rings and two cogs (double-reduction gearing), and a dragster-style tow vehicle. The vehicle will help Mueller push a very high (heavy) gear up to speed, and then provide draft and stability when she unhooks at just under 100 mph. To cover one mile in 23 to 25 seconds, she will have to contend with gear selection, the car driver, bicycle geometry, power, speed wobble and bike handling strong enough to stay in the draft of the car and off the ground.

PREPARATION

Howard will work with Mueller on the various aspects of preparing to set the record. He set up her bike sponsor, KHS, which is banking on her success—it has committed to building the tandem bicycle that Mueller and Howard will race together at this year's Masters National Cycling Championship. KHS will also sponsor the state-of-the-art bicycle that Mueller will ride in her record-setting attempt.

Howard will help replicate his record-setting training and adapt it to Mueller's needs. This includes work on leg speed and power at the velodrome, strength in the gym and stamina enhanced by her return to criterium racing with the Sisterhood of Cycling Team. All of this will build enough speed, power and stamina to accelerate a massive chain ring and maintain speed for a mile.

This historic moment will be epic and symbolic. Mueller embodies her motto, "You can do anything you want to do."

