



WHPSC 2025

Official Press Package

Condensed version
Last update - August 18 2025

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Introduction

The World Human Powered Speed Challenge (WHPSC) is the flagship event of the International Human Powered Vehicle Association (IHPVA), an international organization dedicated to advancing the sport and science of human-powered travel. At WHPSC, teams and competitors from around the world race experimental high-speed vehicles on a specially-surfaced stretch of highway southwest of Battle Mountain, Nevada.

The overarching goal of WHPSC is to provide the best possible opportunity to set new world records. Throughout the week-long event, competitors participate in two daily sessions of time-trial racing in an attempt to achieve the highest possible speed. Success at WHPSC depends on a unique blend of athletic fitness, riding skill, engineering, strategy, and luck.

WHPSC 2025 is the 23rd iteration of the event. The race is carefully scheduled to take place at the time of year when warm and calm weather is most likely. Since the event's inception, no speed record set at WHPSC has ever been broken elsewhere; this is the place to go *fast*.



Tricycle built by Macquarie University (AUS) passing the finish line at WHPSC 2024. Photo by Jun Nogami.

Race Format

Competitors ride the course one at a time without the assistance of a pace car or any other external aid. Each rider has the full length of the course (8.0 km or 5.0 miles) to gain speed, but their speed is only officially measured through a designated 200 m section terminating at the finish line. Riders then gradually slow down, finally stopping and exiting their vehicles at the catch area. Depending on the class of vehicle and the capabilities of its rider, riding the course from end to end generally takes 10 minutes or less, and the fastest entrants often pass the finish line in as little as 5 minutes.

Each competitor is required to successfully complete a half-length “qualifying” ride before graduating to the full-length course in order to demonstrate that they can safely operate their vehicle and achieve a competitive speed. These qualifying sessions take place in the morning sessions on an as-needed basis, usually ceasing by mid-week.

Many competitors - including all credible contenders for the major record categories - ride fully-enclosed 2-wheeled bicycles which don’t allow the rider to put their feet on the ground once seated in the bike. These vehicles require external assistants to “launch” and “catch” the bike at either end of the course, adding a new and challenging dimension to an already complicated physical feat.



Politecnico de Torino (ITA) vehicle Taurus starts down the 5-mile course. Photo credit Team Policumbent.

Vehicles

WHPSC is simultaneously an athletic event and a design challenge; no competitor can achieve excellence without both a well-designed vehicle and the skill and fitness to ride it fast. In contrast to other disciplines of cycling and of sport more generally, technical innovation is expected and encouraged to the point that victory is at least as much about the design of your vehicle as it is about your strength as an athlete. The progressive evolution of vehicle designs for WHPSC has led to modern marvels of vehicle efficiency, precisely tuned for the specific demands of achieving the highest top speed.

A state-of-the-art “speedbike” is a two-wheeled recumbent bicycle with a fully-enclosed aerodynamic fairing that reduces air drag by 95% or more compared to a typical cyclist on a road bike. Speedbikes use a mix of off-the-shelf cycling components and custom-built hardware to create high-efficiency drivetrains with the extreme gear ratios necessary to pedal a bike at 130+ km/h. Most top competitors have abandoned the use of transparent windscreens in favour of camera vision systems that offer improved aerodynamics, optimized ergonomics, and real-time awareness of detailed vehicle performance data.



The current overall world record of 144.17 km/h was set in 2016 by athlete Todd Reichert in *Eta*, a speedbike designed and built by the Canadian team AeroVelo at the University of Toronto. Photo credit Jun Nogami.

High-strength composite materials are used in constructing each vehicle’s shell to provide protection in case of mishap, and all vehicles incorporate safety harnesses and rollover protection elements to further mitigate the risk of injury. Many vehicles additionally have internal padding, and every competitor is required to wear a certified cycling or motorsports helmet.

Current World Records

The table below gives the current world records for some of the major vehicle and demographic categories recognized by the IHPVA. A full listing can be found on the IHPVA website.

Category	Athlete(s)	Date	[kph]	[mph]
Male, Single Rider	Todd Reichert (CAN)	2016-09-17	144.17	89.59
Female, Single Rider	Ilona Peltier (FRA)	2019-09-13	126.52	78.61
Male, Multi-Rider	Calvin Moes and Evan Benneweis (both CAN)	2019-09-13	120.26	74.73
Female, Multi-Rider	Denise Mueller, Charlene Yarnali, Lenita Anthony, Lori Hoechlin, Barbara Sullivan (all USA)	2023-09-12	99.10	61.94
Male, Multi-Track*	Gareth Hanks (AUS)	2016-09-17	119.01	73.95
Female, Multi-Track*	Lizanne Wilmot (AUS)	2024-09-14	96.83	60.17
Male, Arm-Powered	Diego Colombari (ITA)	2024-09-12	83.28	51.75
Female, Arm-Powered	Karen Darke (GBR)	2018-09-15	74.91	46.54

*multi-track vehicles include three- and four-wheeled vehicles



Current world record vehicles *Altair 6* (FRA, female single rider, top left), *TITAN* (CAN, male multi-rider, top right), and *Sprocket Rocket* (USA, female multi-rider, bottom). Photos courtesy of Jun Nogami, Arnold Ligtoet, and Calvin Moes.

2025 Schedule

Sept. 6	19h00	Kickoff Meeting at the Battle Mountain Civic Center
Sept. 7-13 (Daily)	07h00 - 10h30	Morning race sessions
	11h00	Daily competitors meeting at the Battle Mountain Civic Center*
	17h00 - 19h00	Evening race sessions
	20h00	Evening meeting at the Battle Mountain Civic Center*
Sept. 9	13h00	Show'n'shine open house at the Battle Mountain Civic Center
Sept. 13	13h00	Official group photo session
Sept. 13	20h30	Awards banquet

* Please note that meetings commence at *approximately* the given times, but in practice begin as soon as all teams and officials are back at the Civic Center. Exact times may vary.

Locations and Map

WHPSC takes place in Battle Mountain, Nevada, U.S.A. This small, rural town is generally reached from any of three major airports:

- **Reno, NV (RNO)** - 350 km (218 miles) west of Battle Mountain, about 3 hours' drive
- **Salt Lake City, UT (SLC)** - 480 km (300 miles) east of Battle Mountain, about 4 hours' drive
- **Las Vegas, NV (LAS)** - 675 km (420 miles) south of Battle Mountain, about 6.5 hours' drive

Within the town, official WHPSC meetings and activities all happen at the Battle Mountain Civic Center, 625 S Broad St, Battle Mountain, NV 89820.



Location of WHPSC race course southwest of Battle Mountain, Nevada.

The race course is located 32 km (20 miles) southwest of the town on SR 305, about a 20 minute drive. The starting area from which competitors launch their bikes is located at the south end of the course, while the timing trap, finish line, and catch/recovery area are at the north end of the course. Parking and porta-potties are available at each of these locations. A small amount of grandstand seating is located adjacent to the finish line so spectators can watch the bikes coming down the course at their absolute fastest.

Designated parking areas are marked in red in the site maps below. Vehicles should never be parked on or adjacent to the course except in the designated areas. Stopping or parking at the 2.5 Mile Start area is only permitted during qualifying runs; no people or vehicles are permitted to be at that location while the 5-mile course is active.



Designated parking areas at 5-mile start, 2.5-mile start, finish line (with spectator seating) and catch area.

Press Access

WHPSC can be a challenging event to interact with for press and spectators - speedbike racing is a unique sport that can feel inaccessible if you don't know where to be or how to understand what's happening. However, the community of participants and volunteers are happy to assist in raising awareness, facilitating access, and providing you with every possible opportunity to cover the event.

Here are some recommended things to do at WHPSC to make the most of the opportunity and develop an engaging, powerful story:

- **Attend Racers' Meetings** - By coming to a meeting, you'll hear the latest updates on who is participating, how fast each competitor has gone so far, and what their plans are for the next sessions of racing. You'll also get the opportunity to introduce yourself and become, at least in some small way, a part of our diverse community of competitors and enthusiasts.
- **Interview Competitors, Teams, and Event Officials** - Every person at the event has a story to tell. Some are professional athletes and engineers with the backing of major universities and corporate sponsors, some are self-taught artisans building world-class bikes at home on a shoestring budget, some come out simply because they enjoy being a part of the community. All the athletes and teams are generally happy to tell you anything you'd like to know about their ambitions and prospects, and the numerous university teams at the event are eager to talk about the research and innovation involved in their speedbike designs. Time permitting, the various event officials - many of whom are themselves active or former competitors - are similarly happy to share their perspectives.
- **Watch the Racing** - As long as you abide by the safety rules of the course and don't make yourself a danger or distraction for the competitors and officials, you are welcomed and encouraged to be at the start, finish, and catch/recovery areas during sessions of racing. At start, you can watch the often hectic choreography of teams getting their athletes and machines ready to race. At the finish line, you can see the bikes riding down the highway at their very fastest. At the recovery area, teams and volunteers "catch" the bikes as the exhausted athletes try to bring their vehicles to a stable and controlled stop - with varying levels of success.
- **Ride Along With a Team** - Each vehicle is followed down the course by a chase vehicle to assist the rider in case of mechanical trouble or emergencies. Often - and particularly with the larger teams - a spare seat might be available to allow you to see the action from as close as anyone gets without actually racing for themselves.
- **Ask for Photos and Video** - In addition to whatever you and your media team might create, there are a number of excellent photographers in the WHPSC community ranging from enterprising amateurs to experienced professionals, and many are happy to share their work with the press. Ask around at the Civic Center after a meeting to see what is available!

Both for safety and out of respect for the enormous effort that the competing teams have made to have a chance at success at WHPSC, it is supremely important that everyone present on the course carefully follow the event rules and comply with the directives of the event organizers. With that in mind, here are a few things to keep in mind while on the course:

- **OBEY THE RULES OF THE ROAD** and the instructions of law enforcement, event officials, and all posted signs and notices.
- **STAY OFF THE COURSE WHEN THE ROAD IS CLOSED** except at the aforementioned areas or unless you have made specific arrangements with the Race Director.
- **WEAR A SAFETY VEST** any time you are outside your vehicle within the SR 305 highway corridor. This is required for all participants, volunteers, and spectators.
- **DO NOT PARK ALONG SR 305** other than at the designated parking areas or outside of the highway corridor. Parked vehicles within the highway corridor - even several meters off of the road - are a major hazard for riders on the course.
- **DO NOT BE A NUISANCE OR DISTRACTION** for the participants or officials. Do not interrupt the teams or athletes in their preparations, and stay well clear during launch and catch activities. In particular, do not approach or interact with the Timing Officials, as their work requires a high level of focus to ensure every racer's efforts are recorded.
- **DO NOT FLY DRONES ABOVE, IN FRONT OF, OR CLOSE TO VEHICLES** on the course. Drones are welcome at the event and many photographers make excellent use of them, but they must never be used in a way that might interfere with or endanger the riders, chase drivers, or course officials.



Politecnico de Torino (ITA) vehicle Taurus X at the catch area after a successful ride. Photo credit Team Policumbent.

External Links

[IHPVA Website](#)

[WHPSC 2025 Website](#)

[NPR - 2024](#)

[Nevada Magazine](#)

Competitor Videos

[University of Toronto - Vortex - 2011](#)

[Aerovelo - Eta - 2016](#)

[Team Policumbent - 2022](#)

Press Release - Event Announcement

March 26, 2025

The 24th annual World Human Powered Speed Challenge (WHPSC) will be held on Sept 7-13, 2025. The course is on State Route 305, south of Battle Mountain, Nevada.

The fastest humans from around the world - including a variety of professional athletes, collegiate teams, and amateur racers - will compete across several speed record categories. Of particular note, François Pervis of Team Altair from IUT Annecy in France - the world's second fastest rider at 138.22 km/h (86.39 mph) - will once more attempt to break the current land speed record of 144.17 km/h (89.59 mph) set in 2016 by Todd Reichert of team Aerovelo, from Toronto, Canada.

SR 305 just south of town possesses the unique features necessary for these highly engineered pedaled vehicles to achieve top speeds. The 1408 m (4,619-ft) altitude road allows riders an acceleration zone of 8 km (5 miles), enabling them to reach their maximum velocity before being timed over a 200 meter distance. This high-altitude section of pavement has drawn athletes worldwide to test their speedbike designs and athletic abilities since the first WHPSC in 2000.

The longstanding partnership between Lander County Tourism and the IHPVA has motivated both to create a permanent facility in Battle Mountain specially created for human power events, record attempts and other like-minded endeavors. With a suitable plot of land already allocated for the project, the IHPVA and Lander County are currently seeking partnerships to make this dream facility into reality.

Spectators are welcome to this free event each morning from 7:00-10:00 and each evening from 5:30-7:00. Please come at least 1/2 hour early to make sure you don't get caught in the road block. Spectator seating is located at the timing trap for maximum speed thrills or, for those curious about the riders and vehicles, you can wait in the "catch" area at the end of the course to see the racers assisted from their fully enclosed speedbikes.

A Show and Shine will be held Tuesday at the Battle Mountain Civic Center, 12:00-2:00. Come meet and greet the teams and riders and see the bikes up close.

All records set are sanctioned by the IHPVA. Don't miss this opportunity to attend what could be world record setting history!

The WHPSC is open to all riders. All vehicles and riders must pass a safety inspection and reach a minimum speed during qualification runs. Entries may be limited due to road-closure time constraints.

For more information, contact:

Email: info@whpsc.org

Phone: 1-775-455-0990

For more information go to WHPSC.org, IHPVA.org, and Landercountytourism.com.

Like us on Facebook at **World Human Powered Speed Challenge** and **International Human Powered Vehicle Association**