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	Parachuting – Speed Skydiving	

## Parachuting – Speed Skydiving

### WHAT IS THE SPEED SKYDIVING COMPETITION?

The speed achieved by a human body in freefall is the function of two factors: body mass and body orientation. In belly-to-earth position, the terminal velocity of the human body is about 200 kph (about 120 mph). Freely head-down position has a terminal speed around 240-290 kph (around 150-180 mph). Further minimising body drag and streamlining the body position allows speeds to be reached in the vicinity of 480 kph (300 mph) and more.

A speed-skydiving competition is simple. Reaching and holding high freefall speed in a controlled body position is the goal of speed skydiving. Individual skydivers compete to see who can clock the fastest average speed through a vertical course that begins at 2,700 meters above ground level (8,858 feet) and ends at 1,700 meters above ground level (5,577 feet).

### HOW IS IT SCORED?

Two electronic devices attached to the lateral harness webbing on either side of the jumper measure the jumper's speed. The judges download this data to a computer, which averages the speed from the two devices to get the score. If the two recorded speeds vary by more than 30 kph (18.64 mph) the competitor receives a penalty. If the two recorded speeds vary by more than 60 kph, the judges have to score the jump as out of bounds (or "OB") for inadequate body control, which means a zero score for that jump. An OB does not count toward the final score. A full meet has six preliminary rounds, a semi-final and final round and the judges use a competitor's four best rounds to calculate the score. The jumper with the highest total score - the sum of his top four speeds - wins.

### WHAT DO YOU HAVE TO DO TO WIN?

A normal speed run starts with a head-down exit at 4000 meters (13,000 feet). Head-down is the fastest body orientation possible. The key to a good run is acceleration, acceleration, acceleration. On exit, you've to focus on building speed. The key ingredient of the skydive is to stay relaxed. Stay relaxed while your mind is at peak awareness. You have to feel how the air flows around your body at these speeds. The goal is to eliminate anything that will cause excess aerodynamic drag. If you master this challenge you are able to fall almost three times faster than normal belly-speed.

### TELL ME MORE!

So at the bottom end of a speed skydiving jump, your focus goes from 'go faster' to 'slow down fast!' You'll take that high vertical speed you've generated and shift into a fast-fall track to begin bleeding off speed, and this will create very fast horizontal movement. Horizontal speed of 100-160 km/h (70-100 mph) is not impossible after a fast speed run. Speed skydivers can often be heard from the ground.

The main competition in this event is actually with yourself, mastering your body and mind. Triumph will bring you into the ranks of humans who have gone faster without a vehicle than most will ever go with a vehicle! Speed Skydiving is the fastest sport.

*"High freefall speed in a controlled body position"*