



BOBSLEIGH CANADA

History of Bobsleigh:

Montrealers may have pointed toboggans downhill on the famous Tuque Bleue slide in the 1870s, but it was the Swiss who later attached a steering mechanism to the toboggan and gave birth to the sport of bobsleigh. In 1897 the world's first bobsleigh club was founded in St. Moritz, Switzerland and by 1914 more than 100 natural-ice courses of varying degrees of sophistication could be found at winter resorts throughout alpine Europe.

Canada's first bobsleigh run was built in 1911 at Montebello, Quebec by Swiss ski instructor Emile Cochand, who also developed the country's first ski resort. Although bobsleigh was one of the original sports at the first Winter Olympics in 1924, it wasn't until the late 1950's that Canadian bobsledders began competing internationally. Canadian bobsledders began a steady ascent in international ratings in the mid-80's, largely in part, to new funding and a state of the art \$11 million dollar bobsleigh track built for the 1988 Olympic Winter Games in Calgary.

Another stage in the evolution of the sport came in the early 1990s with the debut of women bobsledders at events in Europe and North America. The first international races for women were held in Winterberg, Germany in 1990. The defining moment arrived on October 2, 1999 when the International Olympic Committee (IOC) confirmed that women's bobsleigh would be an official medal sport on the program of the 2002 Olympic Winter Games in Salt Lake City.

Sport Description:

Bobsleigh teams consist of a brakeman and a pilot in the two-man event and a brakeman, two crewmen and a pilot in the four-man.

i.) Start Times

The time it takes the sled to travel the first 50 metres down the track is the most critical part of a bobsleigh run. Without a competitive start -- at least within a tenth of a second of the fastest crew -- a medal finish is next to impossible. As a rule of thumb, a tenth of a second lead at the start translates into a 3/10ths of a second advantage by the bottom of the course. Bobsledders are looking for maximum power and acceleration as they push the sled from a standing start. In both the two-man and four-man events, the first 50-metres are typically covered in about five seconds while reaching speeds of over 40 kilometres an hour.

ii.) Driving

Once the crew has loaded at the start, it is the driver's job to steer the sled through twisting, high-speed turns and straight-aways where top speeds can reach over 140 km/h. Pull too hard on the steering ropes and the sled will skid, losing valuable time. Steer too little and the sled is at the mercy of the track, causing slow times at best, and a crash at worst. Drivers often talk of the "feel" they need to have to race well and the sense they develop of when to let the sled run and when to steer. Just as downhill skiers try different lines to find the quickest way down a slope, bobsleigh drivers study every twist and turn on a track to figure out the fastest way to the finish.

iii.) Tracks

Bobsleigh races historically took place on natural-ice tracks. Today however, most competitions take place on tracks with an artificial ice surface. A notable exception is the natural-ice track in St. Moritz, Switzerland, which is a regular stop on the World Cup circuit. Most tracks are about 1500 metres long and all have unique characteristics and varying degrees of difficulty. All courses drop a minimum specified vertical distance and feature numerous banked curves from top to bottom.

The Competition:

In World Cup competitions, two heats are held over one day in each event. At the Olympics and World Championships (held annually except in the Olympic year), four heats are held over two days in both the two-man and four-man events. The crew with the lowest combined time in all events is the winner. There are also America's Cup and Europa Cup race series, the development level circuits for the newer teams. These races allow the teams to gain experience and earn the qualifications needed to compete at the World Cup and World Championship level. In addition to the senior World Championships, athletes under the age of 26 can compete in the Junior World Championships.

Since the ice becomes rougher as the competition progresses, it is an advantage to be among the first to go down the track. To determine which crews get the best start positions, a seeding system is in place to reward the top crews based on their previous results. At the first World Cup competition of each season, the final results from the previous season apply. Places from 1 to 10 are allocated on the basis of World Cup results. For the remainder of the season, starting groups are based on current World Cup results as follows: Group I — 1 to 10; Group II — 11 to 20; Group III — 21 to 30; Group IV — 31 and up. A draw is used to determine start numbers within each group. At the Olympics, crews are seeded into groups of 10 based on the current World Cup standings. A draw is used to determine start numbers within each group as follows: Group I — 1 to 10; Group II — 11 to 20; Group III — 21 to 30; Group IV — 31 and up.

Competition Equipment:

The bobsleigh is very aerodynamic, with the cowling made of fiberglass, which is constructed onto a steel chassis/frame. The sled "runs" on four highly polished steel runners. The two front-runners are mounted on a steering pin, which have approximately three inches of lateral movement and are controlled by ropes held by the driver who steers the sled. The brake handles are located on either side of the brakeman in the four-man sled and in front of the brakeman in the two-man sled. The temperature of the steel runners is taken electronically immediately prior to each race heat. Heating of the runners is illegal. At the finish line, the sled and crew are weighed to ensure that they are below the maximum weight. To place all competitors on an equal footing, sleds are standardized according to specifications set by the Fédération Internationale de Bobsleigh et de Toboganning (FIBT). Maximum Weights: Two-man - 390 kgs* Four-man - 630 kgs* * The maximum weight includes the crew, along with their personal equipment (helmets, shoes, etc). Since a heavier sled will go faster once its hurtling down the track, crews which don't meet the maximum are allowed to place weight bars inside the sled. The disadvantage of adding weight bars, however, is that it makes the sled harder to push from a standing start.

Bobsledders wear full-face helmets and skin-tight racing uniforms made from a stretch material. Racing shoes have small spikes on the soles for traction on the ice. Drivers must wear goggles and most wear gloves, although some prefer bare hands for better feel of the steering ropes. Some riders wear elbow and shoulder padding over their racing suits.

