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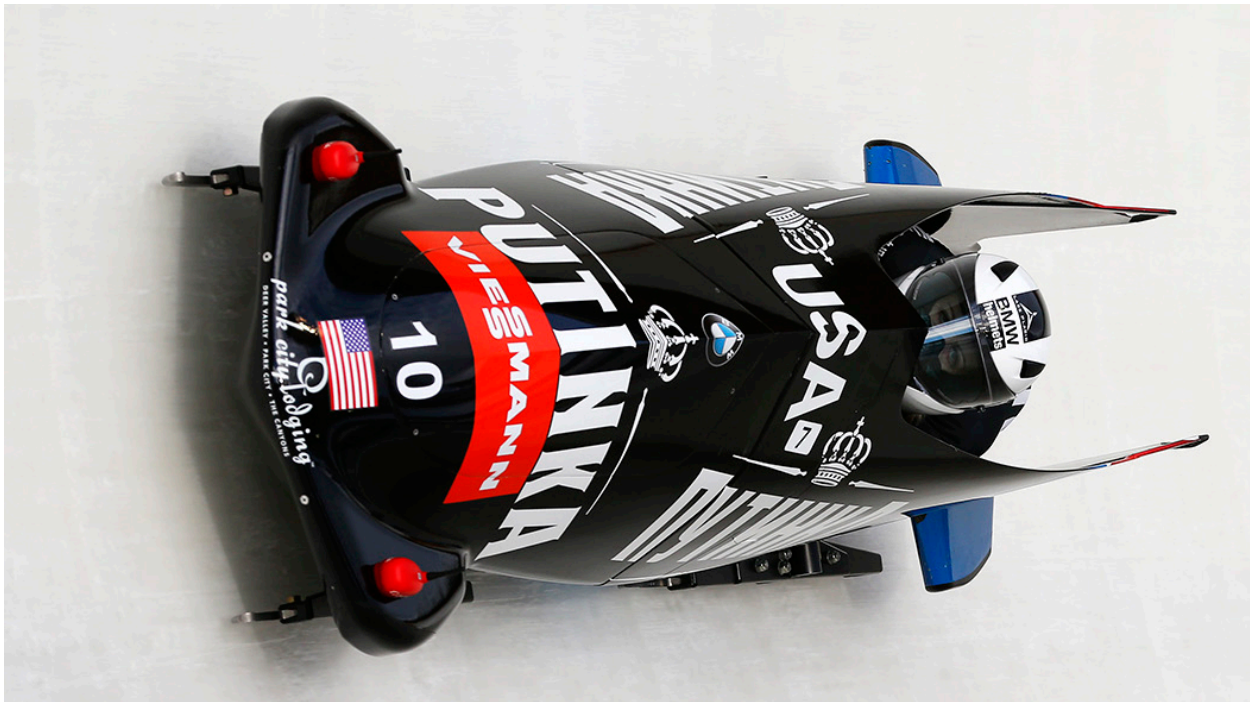
WINTER OLYMPICS SUPPLEMENT

The Need for Speed

Bobsled athletes train for five seconds of raw power followed by an icy 60-second thrill ride at 90 mph.

By Emily Beers

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Todd Korol/Getty Images



Comedian Jerry Seinfeld does a stand-up routine about the Olympics and makes fun of the sports of bobsled and luge. He proposes that there is little actual skill involved in the luge event, saying, "It's just a human being hanging on for their life—this is the whole sport."

He continued: "The luge is the only sport I've ever seen that you could have people competing in it against their will and it would be exactly the same."

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Seinfeld suggested it could be called “the involuntary luge.”

While Seinfeld’s satire would likely offend some bobsled and luge competitors, former Canadian bobsled athlete Mike McCorkell might not be so quick to judge the comedian.

McCorkell had never been in a bobsled when he was invited to Calgary in the summer of 2009 to try out for the Canadian National Team. First, he was put through a series of tests in the weight room—front squats, power cleans and bench presses—as well as sprint testing and pushing a sled in the Ice House at Canada Olympic Park.

He returned home to British Columbia after the tryouts and carried on with his life.

“And then one day, I got a message from one of the national-team pilots asking me if I could come up to Whistler for two weeks and push a sled. I was like, ‘Yep. Done,’” McCorkell said.

In McCorkell’s case, jumping in the sled was voluntary, but there’s no denying that he was more or less plucked off the streets and asked to join the national-team trials after one of the other men dropped out.

Two weeks later, McCorkell was named to the Developmental National Team.

In short, bobsled is a sport where you can wake up one morning never having raced a bobsled and go to bed that night labeled an Olympic hopeful.

The Quest for Power

Despite bobsled’s ability to create potential Olympians overnight, 2010 Olympic bobsledder and former professional football player Jesse Lumsden explained that being a bobsled athlete does, in fact, require a great deal of physical prowess.

The difference between bobsled and many other sports is that training and preparing for bobsled sometimes occurs without an athlete actually knowing he or she is training to be an Olympic bobsledder.

“Training for football and bobsleigh are quite similar in terms of the focus on power and speed. I often say, ‘I have been training for bobsleigh my whole life without knowing it,’” Lumsden said.



Courtesy of Mike McCorkell

Mike McCorkell went through physical testing for Bobsleigh Canada Skeleton in 2009, and he soon found himself on the Developmental National Team.

A running back, Lumsden was signed as an undrafted free agent by the Seattle Seahawks in 2005 but was later released. He went on to sign with the Washington Redskins in 2006 but was also released. He played in the Canadian Football League, and when a shoulder injury ended his 2009 season, he was recruited to push a bobsled that spring. By November, Lumsden had already recorded a Europa Cup victory with pilot and two-time Olympic medalist Pierre Lueders. Lumsden went on to compete at the 2010 Olympics with Lueders, finishing fifth in both the two-man and four-man events. And in February 2013, Lumsden and pilot Lyndon Rush placed first in the overall World Cup standings. He'll push for Canada at the 2014 Olympic Games in Sochi.

"Bobsleigh training is a power- and speed-based sport. You are expected to run like a sprinter, lift like an Olympic lifter and load like a gymnast," Lumsden said. "We have athletes that have a 560-lb. squat and a 375-lb. power clean and a 10.2-second 100-meter (sprint)."

Bobsleigh Canada Skeleton's testing standards are posted [here](#), and you can watch USA Bobsleigh & Skeleton's combine test [here](#).

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While bobsled athletes don't necessarily need cardiovascular endurance or stamina, they do need a serious amount of explosive power at the start of the race, where a tenth of a second earned during the push can become a three-tenths-of-a-second lead at the bottom of the course, according to Bobsled Canada Skeleton.

As in any other sport, max efforts take a toll on the body, so in-season training volume for bobsled athletes is considerably lower than it is in many other sports. A normal in-season week for Lumsden and his teammates might consist of just six runs—most likely two runs a day—over



Richard Heathcote/Getty Images

Pierre Lueders, Justin Kripps, Jesse Lumsden and Neville Wright push Canada 2 at the 2010 Winter Olympics in Vancouver, Canada.

the course of three days. Each run lasts just about one minute, although their max-effort sprint and push lasts in the neighborhood of five seconds as crews cover 50 meters and achieve speeds around 25 mph.

After, athletes hop in the sled and travel down the course at speeds that can top 90 mph. At that point, the pilot is really the only one doing any work—the others are simply along for the ride until the brakeman pulls a lever to stop the sled after it has crossed the finish line.

The offseason, on the other hand, is a time to log hours in the weight room getting stronger and faster, while athletes also spend time practicing their starts by pushing sleds in the indoor Ice House.

The two most important skills for bobsled athletes to develop are speed and power. In terms of strength training, the classic physical bobsled strength tests are a one-rep-max power clean, front squat and close-grip bench press. Athletes also spend time building strength and power by doing back squats and box squats, as well as power snatches, chin-ups and bent-over rows.

Need for Speed ... (continued)

On top of this, prowler pushes are a staple. Although bobsled athletes vary distances, loads and intervals, they generally do 30-m prowler pushes with somewhere between 100 to 200 lb. loaded onto the sled.

In addition, much time is spent in training sessions that focus on acceleration, and athletes do technical drills to improve movement efficiency.

In the end, the bobsled athlete looks comparable to some NFL athletes in size, strength and speed, which is also

why the sport recruits so many former football players. Common competition weight for male bobsledder is between 215 and 235 lb.

One-hundredth of a second can make a difference on the track, so the sled itself plays an integral role in racing. Preparing and maintaining the sled is a huge part of the sport, and athletes are also mechanics to some degree.

"Ninety percent of our time is work on our runners—the steel we slide on—and our sleds," Lumsden said.

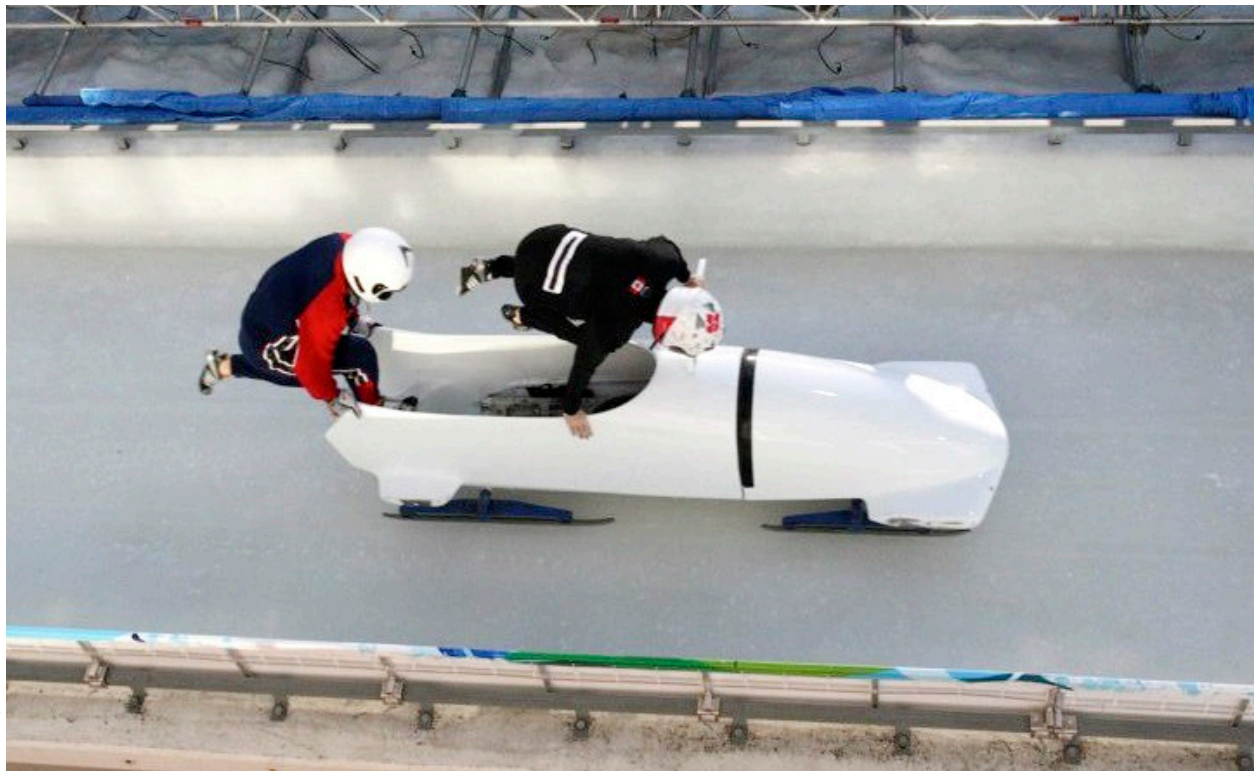
"Our runners are treated like tires for an F1 car. Different runners run better on different tracks and different conditions. They have different shapes, rock, diameters—it's a lot of work," he added.

During McCorkell's short stint with the sport, he spent many hours polishing runners.

"I remember my first race in Whistler. We got done fairly late and didn't get back to the house until 9 p.m. Our driver had gone high on one of the corners and ran over the concrete, which left a massive gouge in the sled," McCorkell said.

**"Athletes, to a large degree,
put their lives in their driver's
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—Mike McCorkell



Courtesy of Mike McCorkell

***After about five seconds of all-out effort, large, powerful athletes must nimbly load into the sled.
Any mistakes can cost valuable time or cause a crash.***

"Anything except a mirror-shine finish can take away from your time. Even if you have a little scratch the size of a hair, it would slow you down a tenth of a second . . . We were up until 3 a.m. that morning working on our sled," he said.

Usually, it's the driver who leads the crew during sled maintenance, as the driver bears all the responsibility during a race. The pilot steers the sled and has to learn about each turn on each course he tackles.

During the race, the driver hangs on to handles called D-rings, which are connected to ropes or cables attached to the steering column. The D-rings themselves are supported by bungee cords. As the driver jumps in the sled, he kicks his legs around the bungee cords, grabs on and starts steering. With between 750 and 1,390 lb. of sled and beef hurtling downhill at 90 mph, the driver struggles to find a perfect line through the twists of the track.

McCorkell explained that the driver's greatest responsibility is often earning the respect and trust of his entire crew.

"Athletes, to a large degree, put their lives in their driver's hands," he said.

USA Bobsled Training

South of border from Lumsden, USA Bobsled athlete Thomas White has found a way to incorporate CrossFit into his training.

White, who competed at the Olympic trials in October and on the world tour all fall and winter, just missed out on qualification to the Sochi Olympics. Only three countries are granted three sleds at the Olympic Games, and this year, Team USA found itself behind Canada, Germany and Russia. As a result, the American squad will comprise six athletes rather than 11.



Richard Heathcote/Getty Images

Costly crashes: Gillian Cooke and Nicola Minichiello of Great Britain and Northern Ireland are helped from Great Britain 1 after a crash at the 2010 Olympics.

Bobsled Quick Facts

1. The sport of bobsled was conceived in Switzerland in the late 1800s and made its Olympic debut at the 1924 Winter Games.
2. Both "bobsled" and "bobsleigh" are acceptable terms. The sport's governing body, the [International Bobsleigh and Skeleton Association](#), has its preference but refers to the craft as a "sled." McCorkell has his own preference: "I like 'bobsled' better because a sleigh reminds me of Santa Claus."
3. Modern four-man bobsleds are as heavy as 475 lb., while women's sleds are closer to 375 lb. They may be loaded to a max weight, including crew, of 1,388.9 lb. (four man), 859.8 lb. (two man), or 749.6 lb. (two woman). There is no four-woman race at present.
4. International bobsled courses are between 1,200 and 1,600 m, and there are generally 15 to 20 turns of varying angles along the course.
5. According to Canadian Olympic bobsled athlete Justin Kripps, part of his sport's history involves athletes getting drunk before attempting a challenging bobsled course that required liquid courage. "That was before athleticism was such a big part of the sport," Kripps said.

Before he was a bobsled athlete, White, played college football at Baylor University and signed with the Baltimore Ravens in 2009. A herniated disc cut his NFL career short, and, like Lumsden, he played in the Canadian Football League, spending the 2011 campaign with the Winnipeg Blue Bombers. When he retired from football, he joined CrossFit Dallas Central, where he has been training since fall 2011.

Like White's Canadian rivals, much of his and Team USA's training is centered around squats and cleans.

"The bread and butter for most guys is numerous heavy sets of squats in the 3-to-6-(rep) range for the squats and 1 to 3 (reps) on the Olympic lifts," White explained.

Especially in the early offseason, White and his teammates spend a good deal of time accumulating volume with higher rep sets.

"Steve Langton—the best U.S. brakeman—does 20-rep sets of squats and has done so with 170 kg (375 lb.)," White said of his teammate.

Although many American bobsled athletes train in a similar manner in the weight room, there is no official

training program for the U.S. athletes. For White, much of his training has taken place at CrossFit Dallas Central, where, on top of traditional lifts and sprints, he also spends time using the Concept2 ergometer, as well as the airdyne to help build his aerobic base. White also pushes the Rogue Dog Sled "religiously," which he said has helped him replicate specific angles and positions he needs to hit while accelerating the bobsled.

Training at CrossFit Dallas Central means White's been highly influenced by CrossFit movements and athletes.

"Early in the offseason, I'll do Olympic lifts on the minute . . . I've seen Rich Froning do similar workouts, and it seemed to work well for him," White said.

Weighing In

One of the stressful things about being a bobsled athlete is the pressure of the scale. Depending on teammates' weights, as well as the weight of the sled, athletes are often asked to gain or shed pounds in a short period of time.

Sleds, including occupants, are limited in weight (see sidebar on Page 5), and if a heavier sled is pushed to the exact same speed as a lighter one, the former will carry



Gene Sweeney, Jr./Getty Images

Elana Meyers and Aja Evans of the United States cross the finish line in first place at the Viessmann IBSF Bobsled and Skeleton World Cup event in Park City, Utah on Dec. 13, 2013.

more momentum and therefore be more resistant to forces such as friction and drag—which very much make a difference when dealing in hundredths of seconds.

Teams can add metal weights to increase the load of the sled, but that means it's heavier to push. Sometimes "adding weight" actually means hitting up McDonald's a couple of times a day.

"Sometimes your driver says, 'Hey, I need you to gain as much weight as you can in a week.' And then you start shoveling in as much as you can. That's when you'd go to McDonald's," McCorkell laughed.

"Or it could change the other way, too. If everyone is fairly heavy, then all of you have to cut weight within two days," he said.

"Not all of us are running to McDonald's, but most people don't realize how much one needs to gain to be a solid contributor to a sled," Lumsden said. "It is a gravity-based sport with minimum/maximum sled and crew weight restrictions."

**"Sometimes your driver says,
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—Mike McCorkell

"This means you can either stay at your entry weight and most likely push a heavier sled or you can get bigger and faster and push a lighter sled. The second is the most efficient, I'm sure of that," said Lumsden, who competes at 234 lb.

And with the amount of sled lifting and moving, warming up, training, sliding, and weightlifting, it can be hard for a bobsled athlete to find enough calories to consume in order to maintain or gain weight.

Lumsden keeps a freezer full of game meat and freshly caught fish, which he'd prefer to eat rather than head to a fast-food joint.

"But we are all guilty of doing (McDonald's), whether it's in between training sessions in Calgary or driving 12 hours from La Plagne, France, to Winterberg, Germany," he said.

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Adrenaline on Ice

Todd Devlin is a freelance writer who worked for the Olympic News Service at the 2010 Olympics, where he covered bobsled, luge and skeleton. Spending six weeks researching and eventually covering a sport at the Olympics, he got to know the culture of sliding more than he imagined he would.

Devlin remembers the Olympic bobsled, skeleton and luge athletes as being some of the most down-to-earth, genuine athletes of the Games. Easy to talk to, more relaxed than most athletes, and always willing to chat about their obscure sport, bobsledders were the first ones to rip their shirts off and ham it up with the spectators, and the first ones to crack and chug a post-race beer, Devlin said.

But there is another side of the sport: the danger factor. Devlin was at the track at the 2010 Olympics when Georgian luger Nodar Kumaritashvili was killed during a training run on the day of the opening ceremonies in Whistler. The tragedy became the first big international story of the Vancouver Games, tainting the experience for some.

It was quickly obvious to Devlin that the athletes he was watching, interviewing, and even getting to know on a personal level were the biggest daredevils and thrill seekers he had ever encountered.

Need for Speed ... (continued)

"I remember interviewing the Brits after they crashed in the final, and the pilot did all his interviews with his completely ripped shirt and ice burn all over his body," Devlin said.

The overall experience in Whistler led Devlin to one simple conclusion about bobsled athletes: "They all have a screw loose," he joked.

Deaths are rare but not totally uncommon. Several sliders have died at Italy's Eugenio Monti track, including American James Morgan in 1981. His death was followed shortly by the death of a stuntman piloting a bobsled during the filming of the James Bond movie *For Your Eyes Only*. Most recently, German Yvonne Cernota was killed in 2004 at Königssee in her home country.

"Very few things in life are as exhilarating, and terrifying, as hopping in a runaway sled down an icy hill with three of your buddies."

—Thomas White

Crashes are part of the sport, and McCorkell has always embraced this danger element.

"It's very intense. And stressful. It's a very big mix of emotions," he began.

"The whole day you're looking forward to the run, and you only have three-to-five seconds of actual work, and then, yeah, you just sit there, but if anything goes wrong, it can go very wrong," he said.

"It starts when the driver gets set on the push bar. When he's ready, he looks back to make sure everyone is in push position, and then he turns forward. He double taps on the sled to let everyone, especially the brakeman, know that he's ready. Then the brakeman yells, "Back!" and the pilot yells, "Up!"

And then it's go time.



Courtesy of Mike McCorkell

McCorkell says crashes are terrifying, but the thrill of the ride makes it worth the risk.

In the next five seconds, the timing has to be just right. Athletes have to run as fast and push as hard as they can, and they don't have a lot of time to get everyone loaded into the sled.

Everything happens very quickly, and if anyone messes up at all—if someone accidentally clips another athlete with his shoe or doesn't jump in the sled properly—there's a good chance of crashing.

In his short career, McCorkell remembers the shocking and terrifying feeling of crashing on nine different occasions.

"It's not so different to a car crash. It's very intense: shocking and surprising. Usually, the sled gets on top of you, so you're usually under a 500-lb. sled," he said.

McCorkell can still feel the pain of one of his crashes on the Whistler course, the fastest bobsled track in the world. His team crashed at the sixth corner, and near the bottom of the track they were still going 65 mph.



Clive Mason/Getty Images

Neville Wright, Justin Kripps, Pierre Lueders and Jesse Lumsden (L-R) of Canada 2 celebrate after completing Heat 4 of the four-man bobsled competition at the 2010 Olympics.

In a weird way, the danger is part of the beauty of the sport. It makes it exhilarating and relieving when you get through a race, McCorkell explained.

"There's nothing like the feeling of a good race," he said.

White added: "The old-timers call sliding the 'Champagne of thrills,' and very few things in life are as exhilarating, and terrifying, as hopping in a runaway sled down an icy hill with three of your buddies."

Lumsden agrees: "I love the rush and the excitement. The thrill of sliding is like nothing I have ever done before."

For Lumsden, being in the bobsled helps keep him young.

"We all played growing up as kids, and we all have to stop at some point. I am trying to play for as long as I can," he said.

Lumsden will have plenty of time to play at the upcoming Winter Olympic Games in Sochi, where he will compete in both the two-man and the four-man bobsled events.

He's hoping he plays well enough to stand on the podium.



About the Author

Emily Beers is a *CrossFit Journal* staff writer and editor. She competed in the 2011 Reebok CrossFit Games on CrossFit Vancouver's team, and she finished third at the Canada West Regional in 2012. In 2013, she finished second in the Open in Canada West.