For Holcomb: US Gets 3 Medals in World Cup Bobsled Opener

LAKE PLACID, N.Y. — Some of Steven Holcomb's ashes are scattered at Mount Van Hoevenberg, the track where the longtime U.S. bobsled driver dominated like no other for about the last two decades. His initials are on the speedsuits that his teammates will wear this season. His words still echo in their heads. He's gone. He's clearly not forgotten.

For the first time in nearly two decades, the U.S. raced in a World Cup bobsled competition without Holcomb — the three-time Olympic medalist — on the roster. They took three of the six available medals Thursday, a silver in women's bobsled from the pairing of Elana Meyers Taylor and Lauren Gibbs. It was far from a first podium trip for **Kaillie Humphries, who went to bobsled school in Lake Placid** and clearly paid attention in class. The two-time reigning Olympic champion from Canada got her season off to a winning start, teaming with Melissa Lotholz to **win gold at Mount Van Hoevenberg in the World Cup women's bobsled season-opener.** It was the fourth time Humphries won in Lake Placid, where she drove a bobsled for the first time in 2006 and quickly became one of the sport's stars. "To beat the Americans on any track is difficult," Humphries said. **(((Humphries' two-run time was 1:54.40))).** She edged longtime friend and rival Meyers Taylor, who paired with Gibbs to finish in 1:54:43 — with a start record in there as well. Germany got the bronze, with Stephanie Schneider and Lisa Marie Buchwitz finishing in 1:54.60 and nipping Greubel Poser and Aja Evans of the U.S. by 0.01 seconds. "I love this track just as much as anybody," said Humphries, **whose hair was dyed in the colors of the South Korean flag in a nod to the upcoming Pyeongchang Olympics.** "I've been driving it for numerous years and I'm really happy to do it justice today."
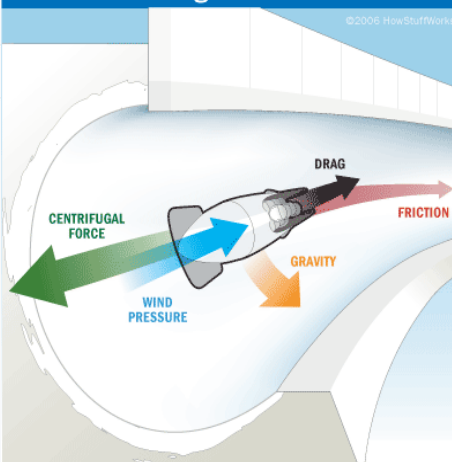

Mt. Van Hoevenberg Olympic Bobsled Run

U.S. National Register of Historic Places

2005 aerial view of the current bobsleigh, luge, and skeleton track

How Bobsledding Works Motion Forces

Bobsled

INTRODUCTION: Goal for this application is to find coefficient of friction between bobsled runners and ice. The hill is 1130 meters long (x) at a 9.8 degree angle on average. As you can see in the left picture of the bobsled course there are many turns ,most of time, and thus normal force is 5 g s (F_{NORMAL} = 5 m g). Mass of sled with two riders is 340 kg. by competition rules. $W_{FRICTION} = \Delta K + \Delta U$, where K = ½ m v^2 , U = m g h , $W_{FRICTION}$ = f x = F_{NORMAL} μ x

QUESTIONS: (a) Find height of hill h ? , (b) Find speed v (in ft./s.)of bobsled ? (note know is x and time to win was 1:54.4 min. = 1 min + 54.4 s.), (c) Find coefficient of friction μ ?

HINTS: sin.Ө = opp./hyp. , v = x/t , 60 s. = 1 min., g = 9.8 m./s.^{2} ,

ANSWERS: (a) h = 192.33 m. , (b) v = ~ 9.88 m./s., (c) μ = ~ 0.0332

COMMENT: Coefficient of friction determined (0.0332) is in range found on Google for bobsled runners and ice.