

KINEMATICS

Units 4&5 Dr. John P. Cise , Professor of Physics , Austin Com. College , 1212 Rio Grande

St., Austin Tx. 78701 jpcise@austincc.edu & NYTimes November 19, 2012 by Daniel E Slotnik Send Dr Cise an e-mail on how you used this.

Jamie Pierre, Free Skier Known for Feats of Daring, Dies at 38

In 2006, Jamie Pierre skied off a 255-foot cliff in the backcountry of Grand Targhee, Wyo., plummeting nearly headfirst and without a helmet for more than four seconds. He struck the deep powder at the base of the cliff with such force that friends had to dig him out.

Jamie Pierre moments after starting what was considered a record leap off a 255-foot cliff in Grand Targhee, Wyo., in 2006.



QUESTIONS: (a) Verify it took ~ 4 seconds for Pierre to fall 255 ft? **HINT:** $g = 32 \text{ ft/s}^2$
(b) Find the speed(in ft/s & mph) Pierre hit the snow after falling 255 ft at the bottom of cliff? (c) If he stopped in powder snow over a distance of 10 ft. find his rate of deceleration. (d) Pierre's 255 ft jump has been exceeded by a Norwegian by the name of Syversen(see end of article). Syversen jumped 350 ft. Find Syversen's time to fall 350 ft and the velocity he landed in the powder snow?

ANSWERS: (a) _____ (b) $\sim 127.8 \text{ ft/s}$ or $\sim 87 \text{ mph}$ (c) $\sim -816 \text{ ft/s}^2$ (d) 4.68 s , 150.7 ft/s or 102 mph.

The jump was intentional. Pierre was a professional big-mountain skier, and his monumental leap in the Teton Mountains was considered to have set the world height record for a cliff jump on skis. Except for a bloody lip, he emerged unscathed that day, as he had often done in his career as an extreme skier.

On Sunday, Pierre was on a more routine snowboard trip at Snowbird Resort in the Wasatch Range of Utah when an avalanche carried him about 800 feet over rocky terrain and a small cliff. He came to a stop partly buried and died of trauma, a representative of the Utah Avalanche Center said. Pierre was 38 and lived in Big Sky, Mont.

Pierre and a friend, who was Jack Pilot, according to the ski photographer Pete O'Brien, had hiked out to ride an area of Snowbird called the South Chute when the avalanche occurred. A report by the avalanche center said the area was off-limits at the time; the resort had not yet opened for the season and avalanche-control measures had not yet been taken. Pilot, who was at a higher elevation, called for a rescue after watching the avalanche sweep Pierre away.

Pierre was a free skier known for his daring, tackling dizzying drops in dangerous terrain. Surviving plunges of more than 100 feet requires technical prowess, near-perfect snow and weather conditions, and careful planning.

In 2003, Pierre was the first to leap off a 165-foot cliff at Wolverine Cirque near Alta, Utah. The next year, he landed on his back in shallow snow amid rocks after skiing off a 185-foot cliff in Switzerland. In 2005, he launched himself more than 40 feet into the air off an eight-foot-tall snow ramp over an Oregon highway, traveling about 110 feet. The Norwegian skier Fred Syversen eclipsed

Pierre's cliff-jump record with a drop of more than 350 feet.