LAKE TAHOE
Treacherous slopes
Number of deaths, serious injuries increasing at Sierra ski resorts
- Peter Fimrite, Chronicle Staff Writer
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Lake Tahoe -- The two snowboarders were racing in opposite directions down a steep slope at the Squaw Valley ski resort, and everybody else on the mountain could see what was about to happen.

"They were arcing down from different directions on the same course, backs to each other, just flying," said Keith Brauneis, a 38-year-old photographer from Truckee (Nevada County), who watched helplessly from a chairlift.

Everybody on the lift cringed as they heard the horrific "smack" that followed. Luckily, neither boarder was seriously injured.

"They don't mean to do it, but it's the nature of that sport because they are blind to one whole side of their body," Brauneis said.

Ski patrols are on especially high alert now for such accidents and for recklessness on the slopes. Ten skiers have been killed in California since late January, a string of deaths the likes of which resort officials and accident investigators say they haven't seen in decades.

The deaths, including that of a 16-year-old boy who fell into a creek at Squaw Valley on Feb. 24, has put safety on the minds of most ski industry officials, even though many believe the rash of accidents to be an anomaly.

The national average of 39 deaths on the slopes has remained about the same over the past 10 years, according to the National Ski Areas Association. During the 2003-04 ski season, 41 people died. That's compared to 43 people who were killed by lightning in 2003.

But there has been an increase in serious injuries at Sierra ski resorts over the past year, said Dr. Myron Gomez, the chief trauma surgeon at the Washoe Medical Center in Reno, which handles all the major injuries from Sierra ski resorts.

In recent years, the hospital has seen an average of 250 ski and snowboard trauma patients. That jumped to 309 patients during the 2004-05 ski season, and similar numbers are expected this winter, Gomez said.

"In 2005 we did see more cases than we've ever seen before," Gomez said. "It's difficult to know whether that is statistically significant."

There were, in fact, no common denominators linking the recent deaths. They included a skier who fell into a hole and was smothered, a snowboarder who slid off a ledge into a
creek, a snowboarder who smashed into a tree and a skier who was buried in an avalanche.

The deaths happened at ski resorts and in the back country from Lake Tahoe to Mount Shasta and from Donner Summit to Mammoth Mountain. Those who died included experienced skiers, even an instructor.

Still, there is a perception among alpine enthusiasts that resorts have become more dangerous, and the recent carnage hasn't helped change that view. The clash between skiers and snowboarders is probably the most common lament.

Brauneis said he began wearing a helmet while skiing after a series of close calls with snowboarders. It was a prescient move, because soon after he bought a helmet last year a snowboarder veered into him on a trail at Alpine Meadows.

"He just clocked me," Brauneis said. "We had what we call a yard sale -- gloves, hats, helmets strewn everywhere -- as we rolled down the slope."

A friend of Brauneis' wife, Theresa, was killed six years ago at Squaw Valley when he collided with a snowboarder and crashed into a tree.

"I absolutely feel like it is more dangerous," said Theresa Brauneis, 40. "I see a lot more accidents. On the weekends there are way too many people on the slopes. They drink, they use recreational drugs. The attitude these days seems to be, 'How far can I push it?'"

Dick Penniman, a ski accident investigator from Truckee, believes there are plenty of reasons to be concerned even if national statistics do not indicate increases in the number of accidents or deaths.

The National Ski Areas Association reports an average of 2.63 injuries per 1,000 skier visits, about the same as it was 15 years ago. Snowboarding injuries have increased from 3.37 to 6.97 per 1,000 visits over that same period. There were, of course, hardly any snowboarders 15 years ago.

Still, Penniman said, of the nearly 15,000 skiers and snowboarders who are injured each year in accidents involving two or more people, thousands more accidents go unreported.

He said ski areas, in an attempt to draw more people, have built terrain parks where snowboarders and trick skiers can practice jumps and flips, something that was unheard of in the 1970s when building jumps was generally prohibited. This, combined with a plethora of extreme-snowboarding videos marketed mainly to young people, encourages reckless behavior, he said.

"There is no training, no control and no design criteria for this stuff," Penniman said. "Accidents are happening because of marketing that says, higher, bigger, better."

The terrain park at Squaw Valley was jokingly dubbed "the vegetable garden" by skiers after a series of catastrophic injuries there soon after it was opened. Squaw Valley officials have since taken steps to engineer the jumps for safety, opened up an easier half-pipe for less-advanced riders and assigned a safety patrol team to monitor user safety.

Dr. Gomez said spinal and other life-altering injuries are a terrain park hazard.

"We know terrain parks are a definite mechanism of injury, but it is not clear how much they have added to the overall injury rates," he said. "We see spine injuries with paralysis from terrain parks, but we also see those injuries from other types of accidents."
The mix of skiers and snowboarders is also dangerous, Penniman said. Boarders, who make up about 30 percent of ski area visitors, don't have the peripheral vision that skiers have facing down the mountain because they're strapped sideways on their boards.

But the problem isn't just snowboarders, Penniman said. The new parabolic skis, shaped like hourglasses, and grooming of areas that were once inaccessible to all but the experts make it easier to go faster. Add to that the ability of most resorts to pack in more people using high-speed lifts, he said, and you have a volatile mixture.

"I snowboard every day, and I've run into skiers and they've run into me," said Genna Benson, 15, of Truckee. "It happens a lot more when it's a crowded mountain, especially on the weekends. I don't think it is anyone's fault. The snowboarders and the skiers have to be aware."

Injuries on the slopes are nothing new. Films from the 1960s and 1970s that depicted skiing usually had at least one shot of a person inside the ski lodge with a cast on his or her leg.

Equipment has improved dramatically since those days. In fact, the incidence of lower leg fractures has declined 95 percent from the early 1970s, according to Jasper Shealy, professor at the Rochester Institute of Technology in Rochester, N.Y., who has studied ski-related injuries for more than 30 years.

Reckless skiers and overcrowded slopes are not the only priority of Sierra ski patrols this weekend. Heavy snowfall over the past few days has increased the danger of avalanches.

Erik Knudson, the 46-year-old senior ski patrol officer at Squaw Valley, was buzzing around late last week posting signs, blocking off dangerous areas and checking hazards.

"This is a very competitive business," Knudson said after he finished setting out bamboo stakes marking a cliff. "We don't get return skiers if we don't make it safe."

The bottom line with safety, Knudson said, is for people to know what they are doing whether they are skiing, snowboarding, cutting through powder in the back country or catching air at a terrain park.

And, he said, danger is all in the eye of the beholder.

"Look at that," he said, pointing to a skier dropping down an icy, tree-dotted vertical chute known as "The Finger." "When I first started working here in 1986, only 20 to 40 people could do stuff like that. Now a couple of hundred can do it. Maybe it's the new skis or because of the improved quality of skiing, but, whatever it is, it represents growth of the sport and that's good."

Skiing safety tips

Tips for staying safe on the slopes.

-- Wear a helmet. The Consumer Products Safety Commission says many head injuries could be prevented or made less severe with helmet use.

-- Buy boots and bindings that have been set by a ski shop that follows American Society of Testing and Materials standards.
-- Wear warm, close-fitting clothing. Loose clothing can become entangled in lifts, tow ropes and ski poles.

-- Ski with a partner and stay within sight of each other. If one partner loses the other, stop and wait.

-- Warm up with slow ski runs at the start of the day.

-- Stay on marked trails and avoid potential avalanche areas such as steep hillsides.

-- Stay in control: make sure to ski within your abilities.

-- Yield the right of way to skiers ahead of you.

-- Stop in places safe for you and others.

-- When starting downhill or merging, look uphill and yield.

-- Rest when you get tired. Many accidents happen late in the day, when skiers are worn out.

Sources: American Academy of Orthopedic Surgeons, Consumer Products Safety Commission, National Ski Areas Association

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