

WYDOT

Avalanche Control



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Why do we control any slide path

Thursday, February 15, 1979, Jackson Hole

Buried in an all-white tomb

By John O'Connor



A tanker truck, one of three vehicles swept off Wyoming Highway 26 last Wednesday morning by an avalanche, is drained of its cargo prior to being winched back up to the road. Photo by George Norton.

It's hard to imagine the thousands of flakes in a handful of snow as something insidious, an irrational wall of destruction doing its unthinking best to force its way into your mouth and down your throat in an attempt to take your life.

But it has happened in the past and it will continue to happen. It happened again last week.

On Wednesday, February 7, two Jackson men, Mike Bishop and Jack French, were returning to Jackson from their work at a construction site in Afton. Over a cup of coffee at Alpine's Lakeside Lodge they listened to a radio broadcast which said Teton Pass was closed but one-way travel was possible on Highway 26/89 through the Snake River Canyon.

"We had been waiting for the roads to be cleared for a long time," French said later. "The radio said to travel at your own risk. We decided to go for it."

French and Bishop set out for Jackson, Bishop driving his 1974 Ford pickup. The men drove east into the canyon for almost a mile when their progress was halted by a snow slide which had recently crossed the road. They waited for awhile at the slide before deciding to try and make it back to Alpine.

French and Bishop managed to turn around in the narrow confines of Highway 26 and set out for Alpine. Shortly after starting, their way was barred once more by a freshly fallen slide. While they sat there with what French estimated to be around "six other vehicles" a slide fell in behind them. French, Bishop and the other

motorists found themselves effectively trapped.

"There wasn't much else we could do," French said. "So we both fell asleep."

Sometime around midmorning a "loud crashing noise" woke French from his sleep. At first he thought that the roads had been cleared while he had been asleep and they were moving again. In actuality the truck had been hit by a wall of sliding snow and was being swept towards the Snake River some 300 feet below.

The avalanche had swept two trucks from the road, Bishop and French's pickup and a tanker truck. Rescuers quickly found the trucker tank driver. His truck had come to rest with its cab above the snow. As men pulled him from the truck's cab, the driver told them that a pickup had been in front of him when the slide hit. Searchers armed themselves with shovels, using the handles as probes.

A man who had escaped the slide went for help on his snowmobile, returning with additional rescue teams from Star Valley. Six hours later rescuers discovered the pickup buried under three feet of snow.

Rescuers pried off the pickup roof and one of its doors. They removed French, who was unhurt except for some lacerations, and Bishop who suffered a fractured jaw, broken nose and minor head injuries. He is recuperating in a Salt Lake hospital at this writing.

"My buddy (Bishop) took the beating," French said of the incident. "We figured his head must have been hitting the steering wheel as we went down the embankment."

See page A 10



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Slide Paths Controlled

WYO 22, Teton Pass

Upper Twin

Lower Twin

Glory Bowl

US 189/191, Hoback Canyon

Cow of the Woods

Calf of the Woods

US 26/89/189/191, South of Jackson

151 Slide



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What have we tried?



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75 mm Pack Howitzer



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105 mm Recoilless Rifle



A bystander covers his ears a split second before the blast of the 105-millimeter avalanche gun that sent tons of snow slithering down the slopes of Teton Pass. For stories and photos on avalanche control and the account of two men buried in the Snake River Canyon avalanche, see pages A-3 and A-6. Photo by Mark Rohde.



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Avalauncher



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GazEx



Initial Cost: \$600,000

Upgrade: \$90,00

Annual Costs: \$1770



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106 mm Recoilless Rifle



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M-102 105 mm Howitzer



Lease: \$3400/year

Ammunition Cost: \$95/Round



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Snow Sails



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Doppelmayr Avalanche Guard



Total Cost \$300,000

Round Cost: \$115

Avg. 25 Rounds/season



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Infrasonic Avalanche Detection System



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Post Processor: WYDOTSystemConfiguration.xml

File View Debug Help

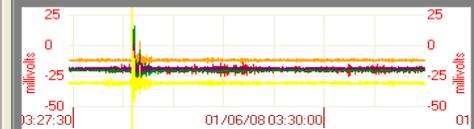
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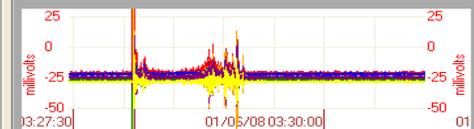
Data Acquisition System

Twin_TSSens
 Enabled Output Current Archive Data to File



7070 Archive Data Records Read (1.42 Seconds) @ 1/23/2008 8:

Glory_GBSens
 Enabled Output Current Archive Data to File



7082 Archive Data Records Read (6.39 Seconds) @ 1/23/2008 8:

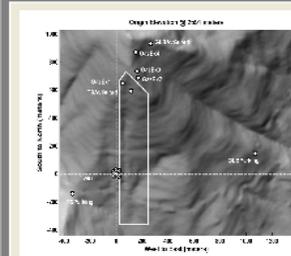
Archive Data Reading Succeeded for All Data Acquisitions (8.03 Seco

Post Processor System Status

Signal Analyzer Thread Glory_GBSens Spawned @ 1/23/2008 8:42:23 AM

Signal Analyzer System

TwinSlides (Uses Twin_TSSens)
 Enabled Output Time Graphs to File Generate Geographic Animation



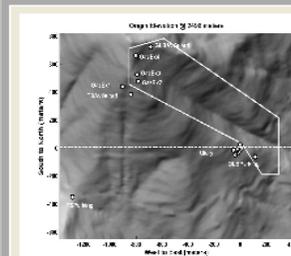
Geographic View

Analysis Completed (3.78 Seconds) @ 1/23/2008 8:42:21 AM

6 New Discriminations!

No New Identifications

GloryBowl (Uses Glory_GBSens)
 Enabled Output Time Graphs to File Generate Geographic Animation



Geographic View

Analysis Completed (4.02 Seconds) @ 1/23/2008 8:42:27 AM

7 New Discriminations!

2 New Identifications!

TwinAndGlory (Uses Twin_TSSens And Glory_GBSens) - Disabled
 Enabled

Signal Analysis GloryBowl Data Processing Succeeded (4.02 Seconds) @ 1/23/2008 8:42:27 AM



WYDOT

Problems



Missing shell found in snow, not garage

By Rachel Keating

Another missing armed anti-tank shell used for avalanche control was discovered and detonated on Teton Pass last week.

The shell was one of five 105 mm recoilless rifle duds that search teams discovered earlier this month and painted orange, intending to return later and detonate them.

Three of the painted duds, however, were missing when the teams returned. Officials were concerned about the missing shells because it's not safe to be within 400 yards of an exploding shell.

More shells that are not painted may be buried under snow on Glory Bowl.

The Wyoming Department of Transportation fired the Army surplus anti-tank shells this past winter to knock down avalanches above Wyoming Highway 22. Several shells may have rebounded off the deep, heavy snow and failed to fire.

One of the shells was discovered by a Jackson teen-age snow boarder who stored it in his parent's garage in the Rafter J subdivision.

The third shell discovered on July 3

had fallen downhill and became imbedded in the deep snow, said Steve Kruse, artillery and avalanche coordinator for the state highway department in Jackson.

State and U.S. Army 62nd Explosive Ordinance Detachment officials searched the mountainside and detonated shells for three weeks.

Although the painted duds are accounted for, officials warn that several other shells may still be in the area.

"We cannot be sure that all the duds have been found until the rest of the snow melts off the pass," Kruse said.

The search teams have detonated 13 duds to date, but are looking for more in the Glory Bowl area.

Kruse warns people not to touch the shells, instead just report their location.

The olive drab-colored shells look like a large bullet — 16 inches long, four inches in diameter. They each contain more than five pounds of explosives.

The shells are already armed and any movement or temperature change can set them off, he said.

Kruse said search teams will continue to go up this week and next to search the area.



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Annual Budget: \$115,000

Forecasting & Control Work: \$65,000

Ammo., Explosives, Helicopter Time, Maint. &
Equipment Cost: \$50,000



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The End



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