



News Clips
August 2, 2002

GPS:

NATIONAL

Surveyor's savvy helped create lifesaving airhole for miners ** High- tech equipment and luck played role in getting 'bubble' right.

John L. Micek Of The Morning Call

07/30/2002

Allentown Morning Call

FIRST

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When his boss called him at home late Wednesday night, Bob Long grabbed some clothes, kissed his wife and headed for the door.

He knew the call had to be important, but what the 36-year-old surveyor didn't know was that he was about to become a key player in what some already are calling the Miracle in the Mine.

Long, who works for CME Engineering in Somerset, used his sophisticated surveying equipment to determine where to drill for nine trapped miners.

The accuracy of that hole -- used to pump heated fresh air 245 feet down to their refuge chamber -- is credited with creating a "lifesaving bubble" that helped all nine survive.

"That 6-inch pipe was on the money, and thank God it was," Gov. Mark S. Schweiker said Monday. "It turned out to be a lifesaver."

Long said his boss called him and said Long and his global - positioning satellite equipment were needed as quickly as possible. "I grabbed my clothes, kissed my wife, and out the door I went," Long said Monday over the roar of heavy machinery.

He was speaking at the drill site, where he was mopping up after Sunday's rescue. A cow pasture off Route 601, the site has become an obligatory stop for the curious. At the front of the driveway, near where a state trooper stands sentinel, a sign brags, "Dairy of Distinction."

It took Long 10 minutes Wednesday to drive from his home in Boswell, Somerset County, to the Quecreek Mine. What he saw when he got there -- a frenzy of rescuers above ground on behalf of those trapped below -- amazed him.

"It was nuts," he recalled. "There were people running everywhere. It was crazy. They told us there was a flood in the mine."

Long said he had just one question: "Where are they?"

State officials, Long and other experts went into the mine office and consulted maps of the subterranean void. Together, they made a best-guess estimate of where the miners would have sought refuge.

"We started to figure out where we would punch and figure out where [the miners] were working," he said. "I set up my GPS and then figured out where to punch the hole."

The working mine had been well-mapped. But a single miscalculation and they could have missed the miners entirely.

Office of Space Commercialization

Success hinged on a mixture of high technology and old-fashioned luck. The high tech was the GPS , a sophisticated system that relies on satellites and also can be used to guide fishing boats back to shore and missiles to their targets.

The luck was not hitting the natural gas line that ran close to the drilling spot.

"We knew approximately that [the miners] were under the Arnolds' farm," Long said. "I took my laptop out, and they gave me the coordinates for where they wanted the hole."

Long said officials initially considered drilling in the center of Route 601, a busy highway that links much of rural Somerset County to the Pennsylvania Turnpike. But drilling in the center of the road would have meant punching through an additional 20 feet of rock.

"We picked the point we did for the 6-inch hole," Long said, "and we were lucky enough to find the mine void, and the guys were there."

john.micek@mcall.com

717-783-7305

Photo by Cesar L. Laure, The Morning Call; Caption: LYNNE WEAVER of Lancaster visits the Quecreek Mine on Monday and shows her son Wyatt, 4, the drill used to dig the