**Lightning will always present major problems despite technological advances**

**By Vern Patney**

The latest lightning tragedy, electrocution of a spectator at the PGA Championship Crooked Stick Golf Club in Carmel, Ind., underscores the vulnerability of the golf course audience-based sports.

Unlike most spectators at major sports events, golf fans are out in the open in the cold, subject to Nature's whims. Baseball followers can get under cover relatively quickly, and football fanatics caught in a sudden storm may get hit with plenty of snow and rain, but are rarely exposed to lightning.

Way back in the 1950s, when client weather and its mercurial twists and turns are a fact of life.

Storm clouds of criticism howled over the heads of several manufacturers of lightning detection equipment following the death of a spectator and injury to five others during the first round of the 1990 U.S. Open at Hazeltine National Golf Club in Chaska, Minn.

Unfortunately, 40,000 people simply couldn't be dispersed in less than 60 minutes. What could they do when there are few trees and practically no open area?

The most sophisticated man-made device is a seismometer when Mother Nature breakthroughs. A viewer couldn't help but be sympathetic to the broadcast team explaining the intricacies of the handheld, battery-operated M-01 Intraloud Lightning Detector piloted by Dr. Ralph Markson a few seconds before all hell broke loose.

The M-01 senses intraloud lightning activity, that is, lightning from cloud to cloud or within a single cloud. Ninety percent of all lightning is intraloud.

The Atmospheric Potential Probe made by Airborne Research Associates of Weston, Mass., complements the M-01, searching for raised electrical fields penetrated by thunderclouds that can reach up to 10,000 volts per meter.

Installed in a clubhouse and connected to a personal computer with special software, it permits a course official to monitor thunderclouds within five miles. Yellow warnings and red alert levels display information that automatically can trigger alarms and sirens.

In the northwest, systems were well invited by the USGA in assisting lightning detection at the 1990 U.S. Open. Times, weather and course conditions change, however.

Suddenly-savage Nature wasn't in the mood.

**Idaho field burning may be snuffed out, too**

**By Bob Spmack**

Idaho's burning season may be snuffed out, too. Oral burning is unnecessary and wrong, and we want it to stop. The last positive step, being added to the fires of controversy surrounding turf field burning in Idaho, was the Coeur d'Alene Resort (with the world's only floating greens) and a chapter in Idaho, has turned the cap on the fuel container, according to a Spokane, Wash., newspaper. It appears his ultimate goal is to turn the screws on the practice of field burning until it is no more.

He's not alone. Health and environmental forces are likewise incensed over the clouds of smoke that annually fill the air of North Idaho.

A Spokane columnist, the Coeur d'Alene Press, hired an ex-Spokane columnist to write about field burning. This follows comments by Don Jacklin, coowner of Jacklin Seed Co. in nearby Post Falls, that he was advised there would be a negative story every day of the burning season.

Hagadone's resort, which has won top awards and a dollar an acre levy has been imposed on growers must obtain official approval based on the 1990 U.S. Open. Times, weather and course conditions change, however.

Suddenly-savage Nature wasn't in the mood.