## Ham Radio Operators Help Save the County's Bacon

By JOHN McNICHOLAS Sentinel Staff Writer

Our near-total dependence upon today's vast and complex communications system became excruciatingly clear when it all went on the blink in the recent disaster here.

When the lights went out and the phones went down, the only reliable link between relief agencies and their workers in the field was a network of ham, or amateur, radio operators.

Urgent calls for food, manpower, medicines and supplies came in from pockets of chaos across the county, sent out by unpaid volunteers who in some cases had hiked into areas inaccessible by roads with their own expensive radios strapped to their backs.

Desperately-needed prescriptions were filled in town and delivered by four-wheel drive vehicles to isolated mountain areas; ambulances were dispatched; Red Cross and Salvation Army routed food, bedding, clothing, supplies and manpower to its shelters; and, in some cases, even the fire, police and sheriff's departments used the ham services.

"Virtually everybody except the Highway Patrol asked us to carry messages for them," says Ron Shannon, KD6BD, local amateur radio emergency coordinator.

The Amateur Radio Emergency Service was in operation as early as Monday night, radioing rainfall information to the emergency ham station in the County Building's basement disaster center.

"All I could tell them was, 'It's just pouring down rain here,'" says Ken Macy, KA6EPE of Boulder Creek.

Through the height of the crisis, some 150 operators, some coming from San Luis Obispo, King City, Contra Costa County, San Jose and Monterey, kept up to 18 stations operating 24 hours a day at Red Cross shelters, hospitals, fire stations, schools and other centers.

They still man five stations in the county, at Gault and DeLaveaga Schools and the Stroke Center in Santa Cruz, and the Red Cross Shelters in Felton and Brookdale. At the schools, the stations are open 8 a.m. to 9 p.m. for emergency messages while the phones in the areas are out. The Stroke Center station is open 10 a.m. to 3 p.m.

The highly-trained and organized group of men and women who comprise the Amateur Radio Emergency Services did not spring out of nowhere. ARES is a part of the American Radio Relay League, founded in 1911. The members serve for several reasons, says coordinator Shannon, a Watsonville attorney.

Under its Federal Commission charter, the

group is to "provide a reservoir of technicallytrained personnel who can provide just this kind of service," he notes. "This is really one of the fundamental purposes and justifications for the existence of the amateur radio service, It's written in the FCC rules.

"We've been given quite a large spectrum of frequencies (by the FCC). We want to keep them."

Shannon says ham operators are often criticized on two fronts: for their antennas, seen as "big, ugly towers on hilltops" and for interference with someone's TV reception.

"Nine times out of 10 the interference is from an untrained, unlicensed citizens band operator."

Hams are anxious to escape what they feel is unjust blame for the interference problem through public information, and to show the usefulness of those "ugly towers."

In this area, there are three high-power repeating stations on hilltops which pick up the weak two-meter signals broadcast by transmitters during the emergency, and rebroadcast them at increased power. The repeaters are on Loma Prieta's Crystal Peak, in DeLaveaga and in Boulder Creek.

Most amateur operators are quick to distinguish themselves from CB operators.

A major distinction is amateurs are licensed by the FCC, while anyone may use the citizens band. Hams must know Morse code, and must pass a fairly rigorous test on all phases of radio to obtain their licenses.

Many, if not most, build their own equipment, and since radio's early days have been in the innovative forefront of broadcast technology. The first experiments with television were made by amateur radio enthusiasts, according to Herb Scaroni, AI6D, of Santa Cruz.

Fifteen satellites have been designed and built by and for amatuer operators, Shannon says. Nine were U.S.-built and launched, and according to Shannon, three are "still up and operating."

As important as the training and technical background is the background of organization, he says. Amateurs have a sense of history, tradition and camaraderie which Shannon said CBers lack.

Shannon emphasizes amateurs donating time and equipment for public service are prohibited by the FCC from accepting compensation, though donations may be accepted for repeater maintenance. "Hams love to do it because they love it. They have good hearts."

Harvey Lawrence, K6KZ of Los Gatos, manned the DeLaveaga station last week. He gave another reason: "My wife says it's because we like to talk."

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Ron Shannon, amateur radio emergency coordinator, at the radio set in the County Building's basement emergency center.



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