

FOURTH ANNUAL EMERGENCY RESPONSE INSTITUTE

January 13-14, 1990

Normally this seminar has been held in the spring of the year. This special session was scheduled to cover issues arising from amateur radio experiences following the October 17, 1989 earthquake. An invitation to attend was extended to groups throughout northern California. It is possible there will be a regular ERI scheduled in May.

The following summary is based upon my notes taken during the 1 1/2 day session.

Wayne Thalls, KB6KN

Contra Costa County

- _ There was no appreciable quake damage in the county. Approximately 50 hams reported to net within the first couple of hours. No repeater equipment problems occurred. Supplied operators for the State OES Region II office at Pleasant Hill.
- _ The 9-1-1 center experienced some telephone problems where they were unable to transfer incoming calls to the agencies concerned. Hams were used briefly at some public safety locations to relay messages

Alameda County (Art Anderson, K6JNW)

- _ Didn't activate 'phone tree, or issue alert via radio. A number of operators reported to the OES in San Leandro, even without a request.
- _ RACES is under the auspices of the Sheriffs office. There was no coordination with ARES.
- _ Considerable⁴ equipment and operators were available, but unneeded within the county. Some did work with the Red Cross, later.
- _ Since there were no requests for volunteers from other areas, many hams simply went away. There was no knowledge of how bad the situation was in other areas.
- _ Experienced jamming of repeater.

San Francisco City and County (David Buell, AA6RM)

- _ Buell was appointed EC just 2 months prior to the quake. He had appointed 1 AEC. There was no other ARES or RACES staff. There had been no ARES activity for at least 2 years.
- _ Buell had just completed a mailing to 700 area hams in the county. Only 10

had responded. This mailing was done through the Office of Emergency Services.

- _ Had a great deal of difficulty in recruiting volunteers following the disaster. This was complicated by a lack of prior coordination with any of the area clubs or repeater groups. There were no served agency agreements in place.
- _ This was primarily a learning experience. Hams did not play any significant role in the disaster operations.
- _ Red Cross, East Bay (Livermore to Crocket)
- _ There was no EC in Oakland, therefore no coordinated effort in that city. The Red Cross group is separate.

Among the problems observed by this group:

- _ Lack of standardized message forms, for either the amateurs or the served agencies, was a major problem.
- _ Problems existed within the message center. Did not know who should receive messages, or who was authorized to originate messages.
- _ Logs were not kept by all locations.
- _ It is imperative that all operators brief their relief, to assure continuity. Sufficient time must be allowed for this to occur.
- _ Jamming occurred on several occasions on two repeaters.

San Mateo (KJ6BN, Training Officer)

- _ Years ago some hams employed by the county emergency services office ripped off some county owned equipment. That organization will have nothing to do with radio amateurs, after that experience. We hope to eventually repair that situation.
- _ There is currently no ARES at the county level. Some of the cities do have amateur emergency groups, however there is no tie-in at the county level.
- _ There was no plan for coordinating the net efforts of the individual groups. Conflicts developed as a result.

Santa Clara County (Sharon Moerner, N6NWD)

- _ It was quite some time before there was a realization that Los Gatos had severe problems---the remainder of the county had no major problems. This slowed the response by many hams.
- _ There were many equipment problems:
- _ Low power, primarily due to heavy reliance upon handheld units created many problems.
- _ Lack of replacement batteries made many volunteers ineffective.

Recommendations

- _ Many repeaters were damaged due to movement in the quake. Even if the particular system was adequately restrained, damage was often due to movement of other equipment at the same site. See that other systems are properly installed.
- _ Many antenna drops (coaxial cable from antennas) could not be located. They had been moved, or inadequate directions made them difficult to locate.
- _ Packet played no role in tactical communications. System was totally occupied with Health and Welfare traffic.
- _ Too many ARES managers did not play a leadership role, even though they reported as volunteers. When other volunteers see or hear an EC or AEC, they are confused if these people are not playing a management role. Some managers, who thought they were not needed, simply disappeared.
- _ Some people were forced to work excessively long shifts. This was particularly true of some of the managers.
- _ Special efforts are needed to effectively utilize untrained volunteers.
- _ There was a need for a greater role by ARRL at the Division and Section levels.

Santa Cruz County (Wayne Thalls, KB6KN)

- _ Except for intentional jamming experienced most of the problems reported by others. Accidental jamming did occur on several occasions (jammed

microphone switches?).

- _ By far, the most severe problems were personnel shortages. Complicated by fact that every ham in the county was, in some way, a victim of the quake---whether they suffered personal losses or not. Relied overwhelmingly on outside volunteers. More than 370 hams were used during 8 days of operation. At the peak 25 locations were being simultaneous manned---some 24 hours per day. Several required 2 or more operators per shift.
- _ Manpower problems were accompanied by lack of ARES management depth. This was a major problem in resource management.
- _ The County OES---center of operations---was manned most of the time by outside volunteers. Learned later that many locals would not consider entering the basement of this five story building.
- _ Needed additional repeater capability. Acquiring a portable repeater system. Also plan to stockpile some base station antennas for temporary installations.

San Benito County (Roy Engehausen, AA4RE)

- _ A group took our communications van to Hollister, even though there was no formal request. Worked 8 hour shift and left. Another group took the CDF communications bus from Morgan Hill down and stayed 3-4 days.
- _ There is no amateur organization in the county---of course there are very few hams.
- _ All three repeaters in the area failed, therefore all operations were simplex.
- _ There was a total lack of organization at the local governmental level---"it was a circus".

Packet Radio Operations (Roy Engehausen, AA4RE)

- _ Nothing but Health and Welfare traffic was handled on the BBS system. The net was totally clogged. Approximately 10,000 messages were cleared throughout the area.

ARRL Response (Glenn Thomas, WB6W, Section Manager)

- _ We received no reports from Santa Cruz County to give us any idea of the severity of the damage, or the amateur needs.
- _ Rick Palm called from ARRL headquarters early Wednesday morning wanting to know if there was anything the league could do to help. Thomas informed him that he had no specific information, at that time.

NOTE---Messages were being handled over several nets requesting supplies and giving situation reports to surrounding county OES's and the State OES. Thomas and others were monitoring these nets.

The Santa Cruz DEC did not, at any time, compile a report for the Section, or otherwise make contact. On the other hand, strict adherence to organizational protocol was inappropriate in this situation. The ARRL officials could easily have initiated inquiries to fill in their knowledge. Thomas did come on the inter-county net, in the early morning hours October 18, to determine the number of ham volunteers participating in each county. He stated how important this information could be in testimony before congressional committees. I told him we did not have time to compile this information, while our operations were still very much in progress. I discussed this with him, by telephone, two days later.

It is interesting to note that FEMA is saying some of the same things in testimony before the California State Seismic Safety Commission. They were emphasizing that some locations, because of the geography, may be isolated without help for some period of time following a disaster. They cited, for example, San Francisco because of it's location on the peninsula. The witness also stated that FEMA did not know of the situation in Santa Cruz County until Wednesday morning. This in spite of the fact that reports were being forwarded directly to State OES in Sacramento via our amateur radio facilities at the county OES---within the first hour of operations. Telephone and Fax communications were established before midnight. The isolation was apparently between Sacramento and FEMA.

- _ A number of people recommended a more active role by the League in major disaster operations.

Summary of Problems Most Frequently Reported

- _ Resources (People) in short supply
- _ Management of ARES resources
- _ Net Supervision
- _ Shift Supervision at sites
- _ Volunteer Housing, Coordination of
- _ Agency Interfaces Lacking
- _ Coordination of inter-area nets

Coordination of field resources

- _ There must be more coordinated exercises at the section and division level. Three ARRL Sections were involved in this situation.
- _ There must be greater prior communication between Section Managers, Section Emergency Coordinators, District Emergency Coordinators, and Emergency Coordinators--before, during and after disasters.

Traffic

- _ Need for standardized message forms in a site or organization. To be used by **all** participants, not just the hams.

- _ Factual bulletins are needed to forestall rumors
- _ There was **no** coordination with Health and Welfare traffic. **No** NTS participation
- _ **No** coordination of packet operations, even if it had not been totally occupied with H & W

Equipment

- _ Access - need more information available on resources in area. Need "cheat sheets" to help people use strange equipment.
- _ Function - need to manage the application of the resources.
- _ Personal - more attention by individuals to preparedness at the personal level--spare batteries, antennas, personal apparel and supplies.
- _ Standardization at the national level, of at least power connectors, would be extremely helpful. ARRL has refused to consider this in the past. Bring pleasure to bear on Rod Staffed prior to next directors meeting.

Repeaters

- _ Liaison - advance agreements with owners and operators. Try to avoid conflicts over utilization of "non-emergency" (eg: W6WSH) systems.
- _ Coverage - define in advance the areas of operation for each available resource.
- _ SEC to compile directories of resources for section.

Recordkeeping

- _ Message forms and logs must be available.
- _ Health and Welfare Traffic
- _ The lack of NTS organization was a problem. No coordination with ARES or with Packet operations. Who was handling HF operations?
- _ Many local agencies are extremely interested in the hams handling Health and Welfare messages for their personnel. The magnitude of this requirement is too great for us to even consider.