



CROSSTALK

News Bulletin of the TRW Amateur Radio Club

Member, American Radio Relay League

OCTOBER 1986

** FD*71 ** FD*73 ** FD*75 ** FD*76 ** WAS ** WAC **

Garrett/W6TRW Repeater: 145.32/- .600(2A-PL) -- UHF: 442.000in/447.000out

CALENDAR FOR OCTOBER AND NOVEMBER

Wednesday	Each Wednesday, noon	Emergency Communications Team Check-in. 145.32 via repeater and simplex.
Friday	Each Friday, 7-8am	Club Breakfast, S Cafeteria, VERY informal, good breakfast for less than \$2.00!!
Saturday	Oct 25, 8-11am	Swapmeet. Corner of Compton/Marine and Aviation, in Manhattan Beach. Seller's lot is directly behind the Standard Station. Sellers please DO NOT arrive before 0700!
Tuesday	Oct 28, noon	Club Meeting, R4/1041. Speaker will be Bob Boucher of Astro-Flyte. Bob will be speaking about solar powered aircraft. Bring your badge for a free doorprize ticket!
Wednesday	Nov 11, after work	Executive Board Meeting. All members are welcome! At Shakey's Manhattan Beach, 2000 N. Sepulveda Blvd., just south of Marine Ave.
Saturday	Nov 15, evening	Annual Club Banquet Del Conte's Restaurant, 2900 Pacific Coast Hwy, Torrance. Happy Hour begins at 6 pm with dinner at 7 pm. Bring the YF or YL and enjoy the evening.
Tuesday	Nov 25, noon	Club Meeting, R4/1041. Nominate new officers and VOTE on a new Constitution!
Saturday	Nov 29, 8-11am	Swapmeet.

TRW/ARC Annual Banquet

This is the final announcement for the TRW/ARC Annual Banquet. It will be held on Saturday, November 15th in the King's Room of Del Conte's Restaurant. Del Conte's Restaurant is located at 2900 Pacific Coast Hwy, on the south side of the street, between Hawthorne and Crenshaw Blvds. The evening will begin with "Happy Hour" at 6 pm with dinner served at 7 pm. Choice of meals will be Baked Chicken or Prime Rib. Those who attended last year will tell you that the food was excellent and the room was good for the number of people we usually have attend. The cost for members and one guest will be \$9.00 each and for non-members and additional guests it will be \$14.50 each. Please send your check for the proper amount AND YOUR CHOICE OF MEAL to the Club Treasurer, Dave Stockwell at mail station R3/2170. If you are retired or an associate member, mail your check AND DINNER CHOICE, to the Club address found on the back page of the Crosstalk to the attention of Dave Stockwell, R3/2170. Don't forget that there will be \$150 in door prizes for those attending as well as a great meal. The speaker for the evening has not been confirmed but Dick LaBelle, W6FXN, has been contacted and it looks like he is interested in the free meal that comes with preparing a presentation to the TRW/ARC. So get your checks into Dave and we'll see you on Saturday, November 15th for an evening of interesting conversation and good food and just a darn good time!

So what if your dreams don't come true. Neither do your nightmares.

Microwave Update 1986 Shows Amateur Radio Contributions

...from rf Design Magazine, October, 1986

Technical seminars on amateur radio communications at microwave frequencies drew dozens of participants to Estes Park, Colorado, on Labor Day weekend to exchange ideas on the design and construction of equipment for the L-, S-, C-, X- and K-bands. Don Hilliard, a National Bureau of Standards researcher, was the organizer of the conference. Although an "amateur" group, over half of the attendees were RF professionals employed by such firms as Texas Instruments, Martin Marietta, Westinghouse, Michigan Tech and San Jose State. Topics presented included design techniques for low-cost MMIC amplifiers, a discussion of spectrally pure crystal oscillators, construction of a tetrode cavity amplifier for 1.3 GHz, and an interesting report on experiments with rainscatter propagation at 5.76 GHz. Other papers emphasized practical aspects of performance measurement, construction and modification of equipment. A description of the S-band transponder included in the next amateur radio satellite was another presentation of note.

With recent allocation of new operating frequencies, the microwave spectrum represents the greatest technical challenge to amateur radio enthusiasts. Lack of commercial equipment makes it necessary to build or modify equipment, and the ingenuity of these technically advanced hams in finding low-cost solutions was clearly evident.



A lot is happening on the emergency communications front. I am currently writing up a proposal to security which will explain what the Emergency Communications Team is and how we can help out in an emergency situation at TRW. I think that it's very important to do the job right and get the support of Security and Health and Safety. I would appreciate any input from the club members regarding what they think the Emergency Assistance Team should be and how we can help.

It looks like it's only a matter of time before we'll have a new site for the Garrett 2-meter repeater. Pending everyone's approval, the machine will be located in the Del Amo area on top of Building 134. The goal is to make it not only a backup repeater with emergency power, but to use it as a full time voting receiver linked to the repeater on E2. That should really improve the ability of our users in that area to get into the system with low-power handhelds. Keep your fingers crossed. There's still a lot of work to do to make the system a reality.

Well, at last count, I've located 13 of the 15 2-meter handhelds that the club has for emergency communications. Thank's to all of you who responded to my plea a couple of months ago. A new loan out policy was adopted by the Executive Board at the last board meeting limiting the loan period for any club-owned property to 90 days maximum, with extensions after that granted on a case-by-case basis. So, all of you with club handhelds can expect to be receiving new loan out forms soon. With this new system I'll (hopefully) be able to keep closer tabs on our radios and also be able to verify that they'll be in working condition when we need them. By the way, if you experience any problems with the radios while you have them let me know. If something is broken, I'll get it fixed. It's no use having emergency equipment that won't work properly when we need it - and we don't know when that will be. We have to be prepared. Our noontime Emergency Communications Team check-ins continue every Wednesday on the club repeater. Try to make an effort to get to your radio and let us know that you're there. I'd like to see more interest - especially from those who have the club handhelds checked out to them. Hey, those Icoms were purchased to be used for emergency communications.

OK. I'll get off my soapbox now and say thanks to those of you who did check in and those who acted as net control:

Sept. 17th: N6CIZ (Net Control), N6DMV, KB6CUT, W6EKK, N6JLS, W6ZWS and K6AWO.

Sept. 24th: W6EKK, Stan (Net Control), WA6VHC, W6ZWS, K6RGW, W6ODI and KE6LB.

Oct. 1st: N6JLS, John (Net Control), N6CIZ, W6EKK, W6ZWS, K6MAU, KE6LB and K6AWO.

Oct. 8th: W6ZWS, Randy (Net Control), KE6LB, W6EKK, and K6AWO.

Oct. 15th: N6CIZ (Net Control), W6ZWS, N6CRR, N6JLS, KE6LB, W6ODI and W6EKK.

As I See ItRon Jalubowski, K2RJ

Last month, I, along with another long time club member, visited the widow of a local Silent Key to help her determine the worth of the remaining items in the shack. Like many of us this ham was a collector and prided himself on having a part for anything (built before 1960!). The widow thought she had a veritable gold mine, unfortunately she was disappointed.

This scene repeats itself year-in and year-out and lays heavily upon us who are called to help liquidate estates. It seems cruel for a widow to have to rent a dumpster to dispose of many of her husbands "treasures."

I would suggest that all hams, but especially those over 50, take a good look at all that junk they are storing in the basement, attic or garage and get rid of anything

more of "As I See It"

that hasn't been used in the last 5 years. (ed. The TRW ARC Swapmeet is a great way to get a few bucks for good used equipment.) If you think something is too valuable to throw out, get the opinion of another, preferably younger amateur. He may help you get a new perspective on things. This would also be a good time to make a log of all your station equipment and what it is worth. I would suggest that the figures be reviewed by another ham for realism.

If you just don't have the time or the stomach for doing the above, at least think about taking an extra \$1000 life insurance policy for the specific purpose of your junk. It's only fair.

Thanks, the Lockheed ARC Bulletin.

From the PresidentChris Wachs, WA2KDL

Well, it has been a while since I last wrote a column and as many of you already know, I have a new QTH. I just bought a house and hope to get my antennas up soon. The Club officers have been very busy. We are working on a new Club Constitution and By-Laws to incorporate changes required by SEA. These changes must be in place by this November so that we can conduct our elections according to the new Constitution. Voting members of the Club will have a chance to review and approve the new Constitution on or before the November Club meeting. Please let me know if you have any questions concerning the changes we are making.

Other news: Oscar 10's memory has failed and the satellite is uncontrollable. AMSAT is working on the next satellite and will launch some time next year. They have also upgraded the memory on the new satellite so that it does not fail as it has done on Oscar 10. Fuji-Oscar 12 is operational and working fine. The satellite was launched in August and the Club shack should be ready to use the satellite as soon as I get the new rotors and running. If you would like to know more about Oscar 12, give me a call.

Don't forget that the Club has a complete HF antenna farm thanks to Bob Hume who designed it and all those who helped put it up. If you have not been to the Club shack lately you are missing the best HF station in the South Bay! Well, except for maybe Bob's own QTH station. We have an 80 Meter Inverted Vee, a 40 Meter 2-element Quad and a KT34XA up about 70 feet to complete 20, 15 and 10 Meters.

The competition is slim for the "Who gets to eat free at the TRW banquet on November 15th." What do you need to do? It's easy. The TRW ARC member who shows me that he contributed to helping bring in a new, previously non-ham into the world of Amateur Radio will receive a free pass to the TRW ARC Annual Banquet. Of course, the member that has brought in the most NEW hams will be the winner! So speak up and get your free dinner.

I have been trying to get most TRW ARC members on Packet to keep their TNC parked on one of two frequencies. First is 145.360 simplex and second is 146.745 (-.600). So if you have a TNC, this is a good place to find TRW ARC members.

The Swapmeet is growing each month and Frank Cartier is doing a great job! Just like to remind all to please keep the Swapmeet ground clean!! Also, the Swapmeet is just that - a Swapmeet - not a free store front for businesses! If you are running a business at the Swapmeet you will be asked to leave. Those of you who read this are encouraged to pass this information on to those who don't that the Swapmeet is not a free place to bring your store and make money! In other words, if you have a business license you CANNOT PACK UP AND OPEN SHOP AT THE SWAPMEET!! I myself have been to swapmeets that have been shut down for that very reason! See you all very soon at the TRW Annual Banquet. If it's anything like past years it should be great.

Manhattan Beach 10K Run

John Keller, N6JLS

Even though the response from the TRW/ARC community was very disappointing (only one associate member called to unteer) the hams of Manhattan Beach did a fine job of applying communications for the 9th annual running of the Manhattan Beach Old Hometown Fair 10K Run. Each of the operators who took up stations around the course were given volunteer t-shirts so that they could be identified easily by any of the participants. Things went so smoothly that the organizers of the race were already looking at how the amateur radio contribution could be expanded next year for the 10th running of the race. Operations this year were restricted to participant welfare and monitoring of the first and last runner positions during the race. One operator was given the duty of tailing the last participant which alternated between a 9 year old girl and a wheelchair participant. After about 2 hours the worried father of the girl asked one of the operators near the finish if we had a idea as to the location of his daughter and was quickly told her location. He decided to wait at the finish for her to arrive. Everyone had a lot of fun at this primarily community event limited to 4000 runners, and the amateur radio operators that participated are looking forward to repeating the performance next year.

Executive Board Meeting 14 Oct 1986

Paul Lukas, N6DMV

The central issue of the meeting was the discussion of the new Club Constitution. President Chris Wachs supplied copies of the proposed new Constitution in a very rough draft form. Rich Sauer volunteered to have it typed and printed double spaced for distribution. Vice President Scott Gilmartin announced the speaker for the next Club meeting will be Bob Boucher of Astro-Flyte, who will talk about solar powered aircraft. Treasurer Dave Stockwell distributed the financial balance sheet, with discussion following. LAACARC Delegate Bill Daley indicated that the next LAACARC meeting will be on November 4 and the Red Cross Headquarters, 2700 Wilshire Blvd. Membership Chairman Bill Dews announced that we have 224 members. Technical Chairman Jim Cox mentioned that the 440 MHz repeater is being evicted and needs a new site. Jim asked that the Secretary, Paul Lukas, draft a document that outlines the agreement between the Garrett and TRW Clubs concerning the relocation of the W6NWP repeater at a TRW site. Emergency Communications Coordinator Rich Sauer passed out copies of his status report on the Emergency Communications Team. He requested a lump sum plus monthly allowance for upkeep of the Club Icom HT's. Rich was asked to submit an estimate of the cost to repair and refurbish the HT's in need and submit it at the next meeting. Rich suggested that Club equipment loans be made for 90 days maximum and then be renewed if there is no one else that requests the equipment. A Nomination Committee was formed consisting of Chris Wachs, Bill Dews, Jim Wike and John Keller. Since the President had to leave before the meeting was over, the Vice President adjourned the meeting at 1938 hours local time.

Tidbits from the Jolly Little S...

Make sure that you catch the finish of the article started last month on the California Earthquake. It's good reading. I will admit that I don't agree with everything that the author states, but, if even half of the things stated are true we need to do something about it now. When the big one hits it will be too late. Are you active in RACES or ARES? If you are not, you will not be of any use to these organizations because you won't know how they work. If you are active, how active are you? Do you only check in once a week (or less)? Is

...more Tidbits

there some level of the organization that you can get involved at? Are you doing all you can to pass on your knowledge of radio theory and practice to the younger generation? Or is the sum total of your amateur radio "experience" on your 2 Meter mobile rig? Remember, your "right" (read privilege) to operate is given with the agreement YOU supply emergency communications in time of need.

Bill Dews informs me he has copies of the FCC Form 610 for those of you about to have your license expire. Contact Bill directly, his phone and mail station is on the back page.

From the Library

George Lee, W6IOW

What's new in the October issues of:

QST: The W2PV 4-element Yagi (A high performance antenna with example for 24 MHz, 9.5 dB gain, >30 dB F/B).
An All Band 1.5 KW output 8877 Linear, Part II (RF deck and Power Supply).
Broadband Dipoles - Some new insights (for 80 M).
Review of Kenwood TM-2570A 2M Xcvr (70 watts!)

HR: ACSSB (Amplitude Companded [or Compandored] SSB, a technique that yields significant S/N improvement).
Get on SSTV with the Commodore 64.

CQ: Review of Ten-Tec Corsair, Part II.
The Unexpurgated Transmatch, Part III.

73: Review of Dick Smith 440 MHz Mobile Xcvr.
Review of Heath HOA-5404-1 Pan Adapter.
Just the FAX Ma'am (One Chip WX FAC for C-64).
Make the Switch to PIN Diodes.
Microwave Building Blocks: The IF Amp. (Signetics TDA-7000).
The DX'ers SCF (Switched Cap Filter for CW & SSB).

The Club still has extra copies of QST (mostly 70's). If any club or individual could use any, please contact the President or Librarian.

A \$2 Insurance Policy

Bob MacCallum, VE3NIO

Many of us have seen surge protectors advertised in the computer magazines offering protection for delicate computer power supplies from the evils of the power line. Most of these devices consist of Metal Oxide Varistors (MOVs) and in some deluxe models an RF filter.

My first experience with MOVs came last year at Field Day. John, VE3NOC, and I were setting up stations for 15 and 80 meters when we heard a loud pop in the direction of my 20 amp power supply which was connected to the extension cord to the generator. When I turned the supply on a few minutes later, I blew the AC line fuse. Undaunted, I made the rounds and came up with a second 6 amp fuse only to find that it also blew. Opening the cover, I found a red disc-like component with a nice black hole in it connected across the AC line. The component was shorted. I discovered then that the component was a MOV. A voltage spike when the generator was starting had likely caused the MOV to blow.

Unfamiliar with this component, I later found out that the MOV had performed just as designed. They are normally very high resistance devices that lower in impedance when large voltage excursions are momentarily applied. At that moment, the MOV either absorbs the peak or it fails and thereby shorts the circuit. Either way the MOV serves its purpose of protecting the circuit behind it, in this case the power transistors.

MOVs are now used to protect most solid state devices and are available with a variety of ratings.

Thanks, The Rah Rah Rag, Rochester, NY

Vice President Scott Gilmartin opened the meeting. Scott gave a status report on the relocation of the W6NWP repeater. The Club is looking for a speaker for the Annual Banquet, a recommendation was made to get Dick LaBelle, W6FXN and Steve Ng agreed to attempt to schedule him. Bill Dews reported that we now have 220 members and there were two new potential members attending the Club meeting. Volunteers are needed for the Tournament of Roses Parade in Pasadena on New Year's Day. 2 Meter synthesized HT's are required. Contact Steve Ng. Chris reported that the cable, rotors and controller for the OSCAR antenna are in and ready to be installed. Irv Emig, W6GC, was introduced and presented a DXpedition he took to the Easter Bahama Islands of St. Marten, Antigua and Aguilla). Irv's slides gave an excellent picture of life on these islands that are part French, Dutch and English. Thank you Irv, it was exceptional. Irv stated that he may visit Africa in the future so we will keep our ears open and radios is fine tune. The door prizes included: a Walkman radio, an ARRL Handbook, diagonal cutters, two flashlights, a 30 drawer organizer and a set of jewelers screwdrivers. 22 people attended the meeting which was adjourned at 1253 local time.

How NOT To Put Up an Antenna Tower

Author Unknown

I am writing in response to your request for additional information. In block No. 3 of the accident report form I put, "poor planning" as the cause of the accident. You said in your letter that I should explain more fully and I trust that the following detail will be sufficient.

I am an Amateur Radio Operator. On the day of the accident I was working alone on the top section of my new 80 foot antenna tower. When I had completed the work, I discovered that I had, over the course of several trips up and down the tower, brought up about 300 pounds of tools and spare hardware. Rather than carry the now unneeded tools and material down by hand, I decided to lower the items in a small barrel by using a pulley which, fortunately, was attached to the gin pole at the top of the tower.

Securing the rope at ground level, I went to the top of the tower and loaded the tools and materials into the barrel. Then I went back down to the ground and untied the rope, holding it tightly to insure the slow descent of the 300 pounds of tools. You will note in block No. 11 of the accident form that I weigh 155 pounds. Due to my surprise at being jerked off the ground so suddenly, I lost presence of mind and forgot to let go of the rope. Needless to say, I proceeded at a rather rapid rate up the side of the tower. In the vicinity of the 40 foot level, I met the barrel coming down. This explains my fractured skull and broken collarbone. Slowed only slightly, I continued my rapid ascent, not stopping until the fingers of my right hand were two knuckles deep into the pulley. Fortunately, by this time I had regained my presence of mind and was able to hold tightly to the rope in spite of my pain. At approximately the same time, however, the barrel hit the ground and the bottom fell out of the barrel. Devoid of the weight of the tools, the barrel now weighed 20 pounds.

I refer you again to my weight in block No. 11. As you might imagine, I began a rapid descent down the side of the tower. In the vicinity of the 40 foot level I met the barrel coming up. This accounts for the two fractured ankles and the lacerations of my legs and lower body. The encounter with the barrel slowed me enough to lessen my injuries when I fell onto the pile of tools and, fortunately, only three vertebrae were cracked. I am sorry to report, however, that as I lay there on the tools, in pain, unable to stand, and watching the empty barrel 80 feet above me, I again lost my presence of mind. I let go of the rope.

New Members - - Old Members

Welcome to the Club:

Norbert Nizze, who has passed his Novice examination but does not have his ticket from the FCC yet.

Ron Q. Terrey, K6RQT, a ham for 34 years and an AR member too. Nice initials and call sign suffix Ron!! Lowell Frazier, WA5QJQ, a holder of an Extra Class ticket and ham since 1963. Lowell says we should hear him on the repeater as his main interest is VHF.

Mike Lehman, WB2KFY, holder of an Advanced license and a ham for just over 9 years. Mike likes VHF and computers and hopes to be on Packet in the near future.

Julio Urquidi, not yet a ham but joined the Club to find out what it's all about. Quick, get him in a Code class!

Welcome to all and hope to see you at the next Club meeting on Tuesday, October 28th in R4/1041 at noon!

Club Office Nominations

Bill Dews, K6AWO

Webster's Dictionary defines a nominee as a candidate for office. You will read in the minutes of the executive board meeting that four of us have a job to do. We will be putting out the call by phone (better not answer it for a couple of weeks) or by radio (on any frequency) for you to become a "wheel" in W6TRW. If we really feel strongly about you we will even give you an eyeball QSO so we can twist your arm a little (better not show up at the Friday breakfast for a while). SEA regulations require that Club officers must be TRW employees, not retired or family or associate members, so those of you who are members but not TRW employees need not fear us. Please keep in mind that we would not call upon you to serve your club if you did not meet up to some pretty rigid standards, so just being asked is an honor. That's not to say that you can't volunteer to run for office. Many of you may feel that the Club would require more time than you have, but Club officers only meet at the General Membership meeting and the Executive Board meeting each month. Sometimes a few extra hours are required but that is the exception rather than the rule. We need strong leadership to keep the TRW/ARC one of the best Clubs in Southern California. So, if you're called, don't be too quick to reply - think about it and see if you could lead the Club to new levels of achievement.

The California Earthquake

Robert S. Hoover, KA6HZF

(ed. This is the continuation of the article begun last month. Last month we learned what a rude awakening we are in store for. This month we learn how we can get ourselves ready - if - we have the determination to do what is necessary. The decision rests with you!)

Can We Prepare in Time?

That's a tough one. Given that we've known of the threat since 1973 and measuring that against our lack of progress, the outlook isn't very hopeful. Besides problems of administration and organization, we really don't have the people to deal with a Great Earthquake. Many will argue with that because California has a higher ratio of hams than the national average. But numbers alone don't tell the full story. Southern California attracts a lot of retirees and that includes hams. The average age of hams in this region is nearly sixty, almost twice the median age for Southern California. Disasters have a nasty habit of killing the young and the old. Chances are, the typical Southern California ham is more likely to be a casualty of the Great Quake than an asset for it's relief.

What Can We Do to Prepare

I've already mentioned the need for a different disaster plan but there's one thing we can do which solves all the other problems as well. We can make ourselves younger. A Great Earthquake as a Fountain of Youth? I know it

sounds silly but follow me through.

The typical ham recruits his friends; people he knows. Over the years the average age of American hams has climbed and so has the age of new licensees. It's a natural trend but a deadly one for the future of Amateur radio.

The only way to reduce our average age is to bring in a lot of younger people. To find young hams we have to go to the schools. We need to go as deeply as the third grade showing kids the pure fun of ham radio. We must climb down from our ivory tower and accept the fact we'll have to compete against a wide variety of interests to recruit the type of people we need.

The threat of a catastrophic natural disaster is felt more strongly in our schools than in any other organization, for the schools hold the future of us all. We must form a partnership with local school districts, giving them the safety our communication resources can provide, extracting from them a corps of younger hams.

Going into the schools for hams offers a tremendous advantage in earthquake preparedness. If the school has hams, we can make sure it also has a station that meets our criteria; the infrastructure of a distributed communications network will already be in place.

A large number of younger hams in and of itself will determine the future direction and usefulness of amateur radio. For this reason alone many older hams, while giving lip service to recruiting goals do little to actively support such programs. As we get older things seem to speed by more quickly. Constant change is the normal state for the young but often spells trouble for the old. Many of our hams retired here with the hope of spending their closing years in peaceful reflection, not high-tech confusion.

Modern Disaster Communications Equipment

Field Day is approaching as I write this. People are trying to remember who saw the generator last and hoping to find enough CW ops to man a station.

Originally intended as an exercise in emergency communications, Field Day has degenerated to a combination social event and contest. With a year to get ready, many stations still fail to get on the air, blaming their lack of preparedness on "Murphy" in an orgy of self pity, promising to better "next year."

When an earthquake strikes Murphy not only reigns, he rules. You either have the right stuff or you don't. And there's no "next year."

If we are to weather the storm of the Great Earthquake, we need hundreds of high speed stations; fully portable stations capable of being on the air within minutes after the quake. Each station should be completely self-contained with a minimum endurance of ten days.

Star Wars? Hardly. A station as I've described fits quite easily into a foot locker and uses existing off-the-shelf hardware and software. The primary power source is four car batteries. A lawn mower engine belted to an alternator keeps them charged. The batteries plus charger technique expands your fuel supply by a factor of six; ten gallons of gas will keep a 30 watt station on the air for ten days.

The low power causes many hams to shake their heads. Under traditional schemes they had high power and handhelds and little in between. Modern disaster communications doesn't need high power, it needs high capacity networks; the ability to pump large volumes of data from many points to a few central points. VHF-FM with data rates of 300 to 1200 bits per second is ideal for this task.

High power gets us into and out of the disaster area but without low powered networks inside the region we can't keep the central stations running. Traffic piles up from both directions and the disaster managers lose contact with the situation.

Limited area natural disasters were often dealt with using nothing more than common sense and locally available resources. This isn't true of Great Earthquakes. The decision making process is a complex,

multi-faceted procedure requiring large volumes of information to insure the best decisions. Without a widely distributed, high-capacity network the information tap is shut off and decisions are made by default instead of design.

One Final Chore for Ham Radio

Wherever hams gather, whenever the talk turns to disaster communications, you'll hear the romantic story of a young wireless wizard who saved his town using a one-tube transmitter made from an Atwater-Kent. And though we've heard the story a thousand times we'll listen politely and enjoy a secret warmth knowing we're a part of the legend.

Tough Darts, fellers. A Great Earthquake is about as romantic as a hand grenade in your shorts.

Modern Disaster Management requires the capture, storage, manipulation, communication and display of vast quantities of data. Many relief functions are highly automated and must be spoken to in the proper format and syntax to make them respond.

A large part of disaster preparedness involves learning the necessary language and procedures to communicate effectively with diverse agencies. This complex structure has evolved over many years but hams are largely ignorant of it. We, the Communicators of Last Resort, have failed to keep up to date in the one type of communications we've been specifically asked to perform.

In the modern world the stakes of disaster management are very high. If Southern California is not swiftly returned to full productive capacity, the economy and possibly even the defense of our nation will be at risk. The final analysis reveals this horrendous responsibility rests squarely on the shoulders of one man, one key ham. You.

Are you a part of the problem or a factor in its solution? Do you know your EC? Do you know your role in the local disaster plan? Is it a good plan?

Or are you one of those hams that casually ducks his responsibilities by saying you'll be there if you're needed.

No "ifs" about it, old man - you're needed. But you're needed now, before the event. Hams who wander in after the quake waving their ticket and grandly offering to "help out" are about as welcome as a finger in the eye. This isn't story-time at the club; we're fresh out of Atwater-Kents. It doesn't matter if you swat out CW at thirty words a minute, an unlicensed kid with a VIC-20 can handle fifty words per second and pick his nose at the same time.

If you don't know the language, if you don't know the organization, you just don't know enough to be useful. Maybe you could help out with the coffee?

If you're under fifty, you're going to see the big quake. Your task is to prepare yourself and your family; if you and your equipment don't survive you can't help anyone else. Learn your role in the plan and get your station ready.

If you're over fifty, your task is more demanding. You probably won't live to see the Great Earthquake but your legacy could mean the survival of amateur radio. Your task, if you are willing to accept it, is to see your skills and the essence of your experience passed safely into younger hands.

Summing Up

Amateur Radio is facing the most critical test in its history, a trial imposed by a cataclysmic natural event. Failure may be the deathblow for ham radio, and for thousands of innocent victims.

It's ironic. Hams are always helping someone else; for almost seventy-five years we've given of ourselves at home and abroad, during desperate wars and fragile periods of peace. If help was needed, we were there. Disaster has a way of making brothers of us all, wiping away questions of politics, race and nationality. But if we are unprepared for the Great Earthquake, history will record that the only group we ever failed to help, was ourselves.