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MARA NEWSLETTER

MERCURY AMATEUR RADIO ASSOCIATION, INC.

President's Message

by Dick Potts, N7JID
MARA President

The May Newsletter stated that future editions would include information of technical, operational and policy interest. In this edition you will find an edited version of training material presented by John Walker, KB7LWW, at past seminars. As MARA is involved in emergency response, it is necessary that each member be properly trained and equipped for any need. John has given some excellent information to help us better prepare for these eventualities. You will note that this information can be detached and filed for permanent reference. Additional training items that could be published in future editions are invited.

A recent event that MARA members participated in, once again reminds us that we must be ready to assist in time of need. During June the Salt Lake Council, Boy Scouts of America invited MARA to demonstrate Amateur Radio during a Varsity Scout encampment held in the Uinta mountains of eastern Utah. Some 2,200 scouts and leaders attended the event, many actively participating in the "live" demonstration. This demonstration took on real life proportions when a scout fell thirty eight feet from a climbing tower. When the leaders realized that cellular phone service would not reach Salt Lake City, the ham center became instantly active. An HF connection was made with Dean, W7NXB, to contact the 911 operator and arrange evacuation by Life-Flite to the University Hospital in Salt Lake City. Cindy, KB7WZZ, maintained a VHF repeater link to aid in notifying the parents and church leaders.

The patient outcome of this experience was favorable, however very painful. The communications outcome got our attention in that it demonstrated that we need to be prepared to assist in meeting emergency communication needs. MARA members are again encouraged to become properly trained in as many areas of emergency service as possible. A "scheduled" emergency doesn't happen very often - once again reminding us that being prepared is a must.

Thanks again for the member support of our nets and other activities. Let us hear of events going on your area.

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Send corrections to Tim, W7IQY @
KG7FC.UT.USA.NA

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MARA TRAINING

by John Walker, KB7LWW

The Mercury Amateur Radio Association, MARA, is an association of amateur radio operators with a common interest working together to provide worldwide emergency communications. The next few pages contain some basic instructions that could help you function in MARA should an emergency occur.

Preparation

Maps: Obtain now a map of your area from a map book,

topographical map, city hall local map, sporting goods store or the like. Mark the locations of any buildings within an 8-block area from where you live that could be used as emergency shelters - churches, schools, public buildings, etc. They should have large open interior spaces for the care of many people at once. Hotels and the like have too many small rooms. Check the floor layouts of the buildings, who is in charge of them, who has the key, and mark all this on the map.

Mark key people who live in the area, such as policemen, firemen. Red Cross volunteers, doctors, veterinarians, public officials. Try to locate and mark people who have 4-wheel drive vehicles, portable generators, large tents and other emergency equipment.

Mark the locations of key leaders, such as school administrators, church leaders, local officials who might take charge, etc.

Note the locations of invalids or elderly or those whom might need special care. Note hazardous locations, such as gas stations, propane stations, etc., and allow a large danger zone around them, up to half a mile.

Personal

Make a personal grab-and-go kit and keep it handy, even in the car. It should include extra clothing, food items, water, medication you might need, flashlights, batteries, portable radio, knives, first aid supplies, aluminum blankets, duct tape, pins, extra eyeglasses, several dollars in cash, anything that would sustain you if you

were away from home.

Radio kit

Keep extra radio items in a small bag: HT batteries, hot rod or magnet mount antenna, connectors, paper, message forms, pencils, these training sheets. And, of course, keep your radio near you at all times. It is good to have an antenna such as a portable "J" pole or quarter wave magnet mount that can be put into a tree or on a roof or strung up inside a building in case the repeaters are out and you need to communicate simplex. A hot rod does well too. If you are going to be NCS, be ready to get to the highest ground you can to cover the largest possible area simplex.

Operations

If an emergency strikes: Monitor your local emergency frequency and wait for instructions. Don't tie up the airwaves asking questions. If the repeater is down, use the frequency simplex. Monitor even if your area is not directly affected - you may be needed in a neighboring zone.

Telephone the MARA leadership if possible. If phones are down and there is no activity on the frequency, assume the role of Net Control Station as outlined below.

If someone is already functioning as NCS, wait until check-ins are called for and then check in. Don't panic and interrupt. Set up the station in the location you are assigned by the NCS on the frequency assigned, even if you think you know better how to do it. Use alternate frequencies as

assigned by the NCS to conduct business, and then return to the main frequency and check in again with the NCS to let him/her know where you are listening.

If you are functioning as the Net Control Station, establish the net, key down to see if the repeater is functioning, get a signal report. Call the net, identifying yourself as the NCS. Advise of the situation as you know it, and ask for check-ins, writing down their call signs, first name, present location, type of equipment and transportation they have and their availability, both now and in the future.

Try to establish, or have stations checking in establish contact with the Red Cross or other officials for decision-making. Assign operators to local leaders or disaster personnel or to facilities such as hospitals or shelters, to facilitate their operations, and write down each assignment. You can assign people from other area if there are not enough hams in the local area. If someone is not available now, find out when they will be and schedule them in.

Keep careful notes, either by yourself or with an assistant, of everything that happens and when. Note who contacts you and what you did about the call, including whom you contacted to do what, and keep all this in a log format. Feel free to ask someone to be your scribe so you can keep to the radio. Assigning someone as alternate net control is useful, both to avoid your missing something important, and to keep

things running smoothly in case you have to leave the air for a time.

Ask stations to report back on tasks you assign them, and to stay on the net frequency unless you have given them permission to make a contact on an assigned alternate frequency. Note down each such assignment, and they cancel it as they return to the main frequency so that you know where each person is and what frequencies are available for use. Be prepared to relinquish the net to someone with operational priority.

Communicating:

Compose your thoughts before transmitting, make contact with the other station before transmitting your message, speak clearly and keep it short. Get acknowledgment from the other station for any traffic passed. Use common words, plain speech, instead of codes, and use the proper format, written out, if possible. Keep your voice low-pitched and speak slowly so that no one panics listening to you.

Try to use an earpiece, both to make it easier to hear in a noisy environment, and to prevent unauthorized people from hearing conversations. Remain calm and don't be afraid to proceed deliberately and carefully.

Activities:

If assigned to a leader, accompany (or "shadow") that person everywhere and function as his/her communicator. Be sure you have sufficient batteries and antennas to communicate no matter where they go. If you are

going into a building and feel that 2-meters might not get out, ask to use a 70 cm frequency temporarily.

It is better that someone other than you does the damage or health/welfare assessment so that you can remain free and available to do the job you do best: communicate. But, if you must do the damage assessment yourself, check for structural damage, weakening that may lead to more damage later, ruptures of gas or power lines, hazardous conditions, and external threats such as potential floodwaters or fires.

Check to see which utilities are operational and whether vehicle traffic is possible in the area. Note who is able to function in taking care of people or in preventing more damages and what equipment is on hand.

In health and welfare assessment, note the name, age, location and physical condition of each person. Ascertain the status of medications that they already take. Do not try to diagnose anything or make medical decisions. Be ready to transfer all information to a central operator who can make it available to others. Give only health and welfare conditions that you have personally seen. Make complete notes of everything you do and see.

The Logistical Net

The Logistical Net is the one used by MARA leadership to request food, medical supplies, emergency personnel and like. It is a separate net, possibly on 440,

that is reached through the NCS.

The ideal situation is to have two radio operators functioning near the affected area, one in touch with other emergency groups, the Red Cross, utility companies, ecclesiastical leaders and the like, and the other keeping up communications. They are the leg-work people who would be out checking on the welfare of individuals, shadowing leaders or working in a shelter.

ARES

The Amateur Radio Emergency Service (ARES) or some similar emergency organization may exist in your area, and would be the designated first emergency response group working under an office of emergency coordination. Information has shown, however, that they might well be bed up so much serving state agencies and the like that they would welcome MARA involvement in local emergencies as outlined in these pages. It might be well to check this out with them ahead of time. MARA is usually assigned the roles of shelter communications and health/welfare traffic, not necessarily to be directly on the police and fire lines, but since hams are often members of several groups at the same time, these designations may need to be somewhat flexible.

RACES

Generally, state emergency management offices have been given authorization to license stations in the Radio Amateur Civil Emergency Service (RACES). These authorizations allow such stations to remain on

the air when other amateur services have been suspended in a time of great emergency. You are, therefore, encouraged to become a RACES member. MARA leaders have applications.

WEEKLY NETS

A weekly net should be held on the local emergency frequency to allow local members to check in, get announcements of upcoming activities and training, and to pass traffic.

The handling of health and welfare traffic, both into and out of the affected area is a main staple of MARA. It should be remembered that requests for information concerning people in the affected area could come from other parts of the country, either by phone, if working, or on HF. Even if phone service is operational, it may need to be reserved for civil, government and relief support, so that the radio would be used to pass information for people on the status of their loved ones and for obtaining emergency help. In the Oklahoma bombing, for example, the phones were out and the radios were the main means of communication.

Nets set up in an emergency often need to be manned around the clock, and thus shifts will be set up for stations checking in. Also, all such nets are directed nets, which means that stations should gather information and transmit only under the direction of the NCS, with all calls being made to the NCS, rather than directly to another station. Therefore, the NCS needs to establish firm control, and assign his

resources carefully.

Message handling should be done in the standard ARRL format, a copy of which is attached along with a sample on how to fill out the various sections to ensure a complete and understandable message that could even go out of the area with no difficulty. Precedence is either Emergency (pertaining only to the immediate safety of life or property), Welfare or Routine, "-Check" refers to the number of words in the message. Time filed is optional, but it is probably best to use GMT or Zulu. The only punctuation used is an X (pronounced phonetically) signifying a break, and a ? (QUERY) each counting as a word in the word check.

If the message needs to go out of the area, message refile teams should be available to put messages into the correct format to be sent over HF, especially if over MARS, the military radio system, because the format has to be correct for the originating station. Also, messages requesting information may come in from the outside area and everyone needs to be able to read the format to know how to treat the message and answer it properly.

MARA operations usually begin when personnel are assigned to an area designated as a shelter, no matter where, or when they are asked to gather health and welfare information. However, in local emergencies, as we have seen MARA can function in any capacity, and members need to

have the flexibility and skills to do this. In shelter operations, staff on hand should check in each person, noting vital statistics, and give the information to someone, hopefully a packet operator, to forward to a central area, preferably a shelter communication program. This would relieve shelter radio personnel from having to keep checking on individuals in response to requests coming directly to the shelter. Calmness and accuracy are vital for this work.

We hope you find pleasure and fulfillment in preparing yourself to do this vital service to the community and to our fellow beings.


THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
 VIA AMATEUR RADIO


NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
TO							
THIS RADIO MESSAGE WAS RECEIVED AT							
AMATEUR STATION _____ PHONE _____							
NAME _____							
STREET ADDRESS _____							
CITY AND STATE _____							

TELEPHONE NUMBER

REC'D	FROM	DATE	TIME	SENT	DATE	TIME

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GREETINGS from THE GREAT PACIFIC NORTH WEST MARA AREA

by **Bill Stalder N7BAA**
Area Coordinator

I have only been the Area Coordinator since the first of the year and things are looking great. With the poor propagation on 80 meters last winter the net had become almost extinct and many members were asking if MARA still existed. I realized that the Northwest Area was too big for one person to lead so I began asking members to assist me.

The first was Mel Martin N7BCY. I asked him to be my assistant for eastern Washington and to be a troubleshooter for me. The first assignment was to get the net up and running again and then turn it over to a net manager. The net is up and running with an average of 30 check-ins each Monday night at 9:00 p.m. on 3.965 kHz. He has trained several net controls but a net manager has yet to be assigned. We also have eight VHF nets that operate in conjunction with the HF net. This gives us an additional 100 check-ins. He has also activated many of our members there.

The second was Gino Campioni WA7NUH. Gino is my assistant for Oregon and has been very busy mailing out questionnaires trying to locate all the MARA HAMS there. He has three active Chapters going in Oregon. They have training classes going at one

location or another most of the time

The third was Larry Stanley VE7AMK. Larry has just recently accepted the position for British Columbia. I only had 14 amateurs listed for BC and Larry informed me that they are active in training, have a class in progress and have more than 80 amateurs active up there.

Homer Shrewsbury W7NWP, is our message handling trainer. Homer is active in region seven and has extensive background in this field.

We have more than 200 Amateurs in western Washington but as yet I have not assigned an assistant here nor have I made contact with those in Alaska.

I am working closely with ERRS and the Church in making assignment so that two people are not doing the same job in one area. That is, one person will wear two hats. We are helping church leaders to understand the service emergency communication has available to them and to train Communications Specialists to help them.

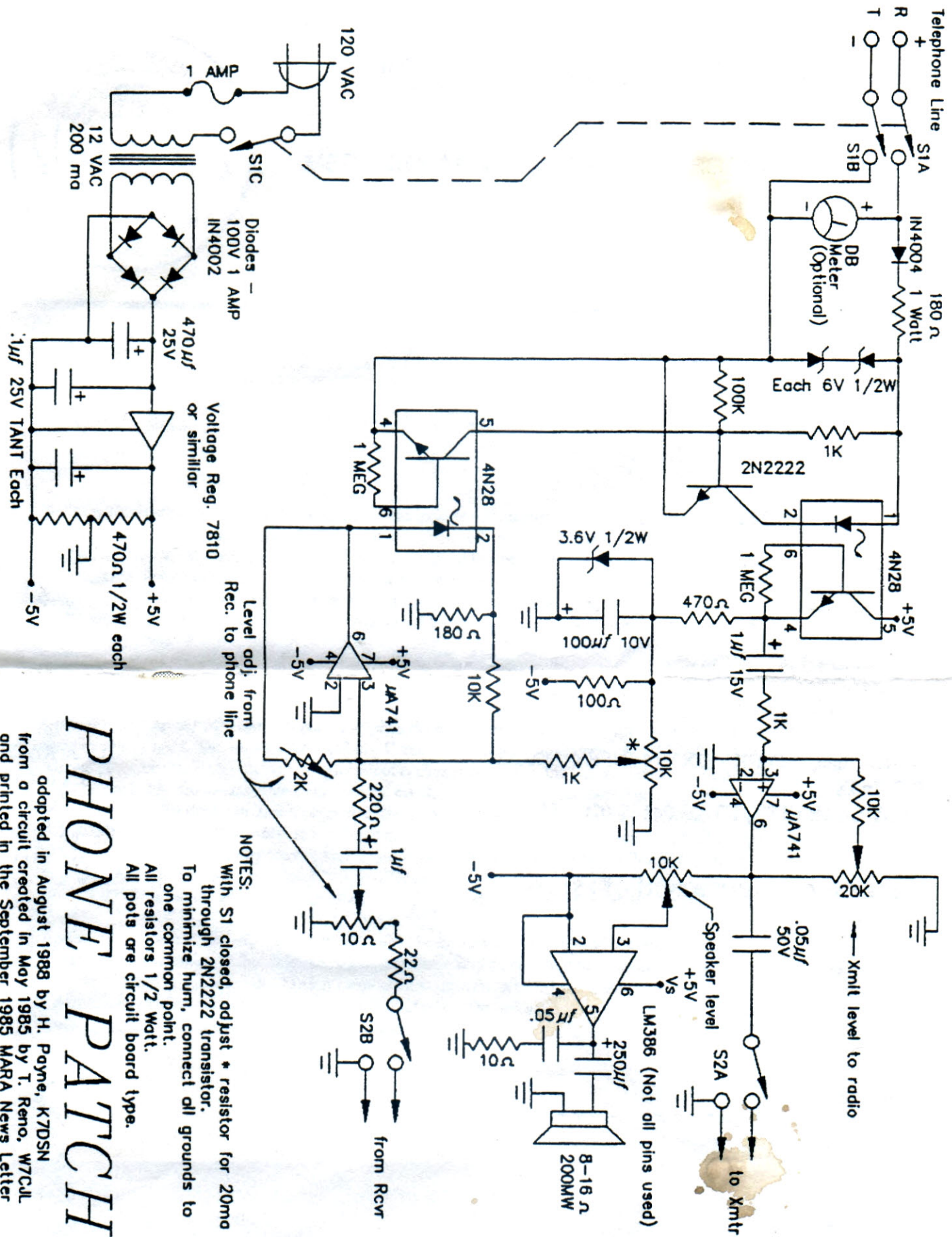
Major threats in the northwest area are, earthquakes, volcanic eruptions, floods, forest fires and landslides. We have had two major earthquakes in southern Oregon and several minor ones off the coast. Two minor ones in western Washington and one minor one in eastern Washington. Hollis Kiger W7UFM, activated the system for both of the Oregon quakes and was a tremendous service to MARA and the community. Last year we had

several major forest fires in eastern Washington. Dave Zehring AA7L, was over there helping. This last winter I found myself isolated several times by some combinations of snow, floods, mud slides and downed trees. We are working to prepare ourselves when these situations occur the next time.

Up and coming events in the North West Area are a two day training encampment at the church's Ensign Ranch in November and we have been asked to provide communications for the Tacoma Regional Conference which will be held in the Tacoma Dome. The last conference had an attendance of 16,500 and we had 23 radio stations located throughout the audience. We also provided communications for two regional dance festivals. We have been challenged by the Mid West Area to a mini field day competition. That is six hours on Saturday only, June 24th of this year.

I have a wonderful bunch of members here and appreciate them all.

73 Bill



Level adj. from Rec. to phone line

NOTES:
 With S1 closed, adjust * resistor for 20mV through 2N2222 transistor.
 To minimize hum, connect all grounds to one common point.
 All resistors 1/2 Watt.
 All pots are circuit board type.

PHONE PATCH

adopted in August 1988 by H. Payne, K7DSN
 from a circuit created in May 1985 by T. Reno, W7CJL
 and printed in the September 1985 MARA News Letter