



K7LED

Relay

The Prez Sez Alan Hughes, KB7SVU

Greetings and Salutations - It's sure is nice to see the sun again and have warm weather. A good time to repair your antennas from the winter damage. I took advantage of the warmer weather and got my 6-meter antenna up. I hope to have my 6-meter repeater (51.97 MHz input and 53.67 MHz output) going soon. Feel free to use it. Putting a repeater together has been quite a learning experience. I was also able to take down Jed's antenna and tower. It sure feels good on the old back to be climbing again; I need to do it more often.

In my opinion the club is doing great. The flea market was a success thanks to everyone that helped. Joyce did a fantastic job with the banquet. I even made it though my first meeting running only about ten min. over. I was told that each meeting gets easier we will see what happens.

Don't forget up coming events, Field day and our picnic. If you have never been to them, you are missing a lot of fun times. Not only operating radios for a shift or two but the setup, barbecue at night and the sitting around the fire just getting to know each other. The Mike and Key club is invited to two events with the Radio Club of Tacoma. The first is W7DK at the beach Sunday May 16th at Owens Beach at Point Defiance from 10:00 AM to 4:00 PM. The second is June 20th at McChord's Holiday Park. Both are potluck. Come enjoy the fun.

I also want to report that Ray Leslie is no longer the chairman of the education committee for now. I understand he is going to do some fishing. I want to say thanks Ray for all you have done for the Mike & Key ARC and hope after you have had some time to take it easy and enjoy life that you will come back with lots of great new ideas.

Jed Clawson W7JED will be leaving us soon. Even though he has assured me that he is keeping his membership, his presents at meeting and field day will be missed. Good luck Jed and thank you for all you have done for the Mike & Key ARC.

As I look over the people at the meetings and at the hamfest, it amuses me how ham radio can bring together people from all walks of life. Kings, world leaders, Doctors, Lawyers, laborers all with one thing in common, amateur radio. With all this talent what can we do to improve our community? I have a few things that I feel are important. First are Elmers, with all that knowledge out there, its time to pass it on. After looking over what percent of each license class makes up our club, I wonder what will happen to field day. If we don't help people upgrade or teach them how to operate. Will field day get smaller or disappear altogether? Don't let ham radio die away. Take someone under your wing and help guide him or her through the upgrade process. I'm not asking you to give up a lot of time just a few hours a month. This ties into the second item, schools. We need to get more young people into amateur radio. If you have never taught young people you have missed an awarding experience. I had a scuba instructor that told me that working with

young people made her feel young, I agree. I would like to see more members volunteer to start radio groups at schools. The third item that I feel is important is emergency services. Not because I'm the Pierce County EC, but because we never know when a major earthquake or disaster will hit the area. As I read the news from around the world I see disasters happening almost weekly. Are we truly prepared or do we need to have some practice drill. Please give me your input on any of the above items or anything else that is on your mind. Remember this is your club. Lets work together to keep our club going strong. One other area that we need people is on committees. Please volunteer to be on a committee. More about committees next month.

I need to take this time to inform the Mike & Key membership that as of May 1st Roger Terwilliger WA7ANJ will be stepping down as President of the Radio Club Of Tacoma. This is due to his wife illness, as vice President I will be the new President. Although it's a big responsibility, I am confident that I can serve as president for both radio clubs. I have contacted all officers and trustees of the Mike & Key ARC and have been given their support. I ask for you continued support.

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General Meeting Minutes, 4/17/99

Joyce Strocher, N7JPW

Officers Present: President Alan (KB7SVU); Vice President - Calvin (KC7IYP); Secretary - Joyce (N7JPW); Treasurer - Chuck (WA7EBH); Activity Manager - Tressie (KC7BAL); Radio Officer - Harry (W7JWJ); Trustee #1 - Jack (N7IHS); Trustee #3 - Jim (W7FKI); Trustee #5 - Mike (KB7YXB).

The meeting was called to order at 10:00 AM with all members and guests repeating the Flag Salute at the Salvation Army Building in Renton. Please announce your name and call clearly for the secretary.

Minutes: It was moved, seconded and passed to approve the minutes of the March meeting as printed

in the RELAY.

Introductions of members and guests were done. Members are asked to take breaks on the West Side of the building at the request of Salvation Army. The coffee and donut fund is self-supporting. We are an affiliated club, please be a responsible member and join the ARRL. Please sign the rosters at the table. Visitors are asked to refrain from voting on club matters requiring a vote.

Officers Reports

President: Alan (KB7SVU) - Ronnie LaFerla's mother died. A card is being sent around to sign. Radio Club of Tacoma (W7DK) at the beach is Sunday, May 16, 10 AM, Owens Beach at Point Defiance. Talk-in on 147.28. Calvin presented the 5 and 10-year certificates of membership to those not present at the banquet. E-mail was received from Norway thanking club for Web site.

Vice President: Calvin (KC7IYP) presented new member certificates to those voted as new members previously. Prospective members Don Hickman (KC7MDA); Marie Masterson (KC7NAL); Claire Navarre were presented and voted in as new members.

Secretary: Joyce (N7JPW) has no report. Treasurer: Chuck (WA7EBH) reports books are in good standing. Books available for members to see.

Activity Manager: Tressie (KC7BAL) has raffle tickets available. Prizes will be raffled off at end of meeting. Program today will be on MARS by Larry Smith, Jr. (AB7FJ).

Radio Officer: Harry (W7JWJ) states all repeaters working well.

Relay: Jack (N7IHS) has no report.

Alligator Award: Presented to Chuck (N7STR). Education: Chuck (N7STR) - Later today is signup for code class. Each person that signs up will receive a set of code tapes. Cost is \$25.00. There will be a \$10.00 refund to those who pass the code test. The class will also include General Class theory. Classes on Monday nights with a code instruction on 146.82 on Thursdays from 8:00 -9:00 PM.

Committee Reports

Flea Market: Good profit. Still waiting for a couple of bills.

COB: Mike (K7JML) was not in attendance. Chuck (N7STR) presented items from the In-Put box.

Picnic: Tressie (KC7BAL) reports the date as August 28 at the Auburn park.

Field Day: Nils (WB7TJK) has no report.

Public Service: Wayne (K6DOW) - May 1 is Husky crew races 8:00 AM till noon. See Chuck for car passes. Leif Erikson days is Monday May 17 at 5:00 PM.

Banquet: Joyce (N7JPW) 60 people attended. The event went very smoothly. Need suggestions for next year for report.

New Ham Report: Pat (W0OPW) - Two prospective new hams, Ted Mouser with his son Josh who

plan to get their licenses. Pat states he is retiring and moving back to Minnesota. Pat would like to see this program continue to encourage new hams. Larry (AB7FJ) volunteered.

Contest: Larry (N7USB) - Larry has set up a 2-meter FM contest, May 1st from 5:00 - 9:00 PM. Contest packets available at the meeting and Radio Depot. After reading the rules, call Larry for questions. Needs help afterwards to verify entrants.

Good of the Order

Tressie has more tickets to sell. Must be present to win. Bill (KK7MC) has a friend who has ham equipment for sale. The ham is Mac (WA7CSG), 738 - So. 231st, Des Moines. He will start on Thursday, April 22nd, 8:00 AM to 5:00 PM and will run about 5-6 days.

There being no further business, it was moved, seconded and passed to adjourn the meeting.

Relay Deadline

Submittals for the June Relay are due to the editor by June 9, 1999. Early submittals would be appreciated

From the W7JWJ Notebook Operation Upgrade Technical Parameters of Morse Code Learning

What frequency should that code practice oscillator generate? How wide should the contact gap on my code key be set? Should there be any side movement of the knob on my code key. Are these things important? Yes?

When adjusting a hand key and initial adjustment should be made with the aid of a conventional ruler. Hold the ruler vertically and adjust the gap so that the back of the knob moves up and down one-eighth of an inch. Adjust the spring tension for what ever feels comfortable when using the Catlin method of sending.

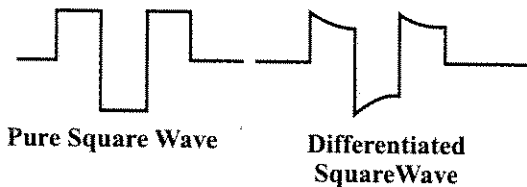
The human ear is most sensitive to sounds that are produced in the vicinity of 700 to 800 hertz. Side-tone oscillators on many transceivers are adjusted to a frequency of 750 hertz. If this tone sounds comfortable, then use it.

It is absolutely necessary that the pivot screws on ones hand key be loosened enough to permit approximately one-eighth inch of side-play measured at the wide part of the knob. Old time telegraphers soon found that not to do so would invite the *dread disease* called *The Telegrapher's Glass Arm*. Computer users know it as the Tunnel Carpal Syndrome. The wrist, of course, should never rest on the table when sending code or keyboarding.

In the mid-1970s the home computer was introduced to the American market. Along with the computer came many amateur programs including the popular one called Super Morse. Excellent software indeed! Now one could surely learn the code in much less time. It *didn't* happen. Why not? The time-base of a computer generates a square-wave at its output, that's why.

A perfect square wave contains an infinite number of odd-ordered harmonics as defined in the rise-time, whereas the low frequencies are defined in the square-wave flat top. When an audio square wave is conducted to the inductance of a loudspeaker it is differentiated which causes a leading spike to occur as well as a trailing edge spike. This over-emphasis on odd-ordered harmonics inhibits rapid code learning. Most code practice oscillators on the market also produce such a square wave.

Humans learn code faster when the generating source is a pure sine wave. The correct ratio of odd-ordered harmonics must be present for successful code learning to occur. What to do? Use the computer to key a sine wave circuit. Technical parameters account for less than 5% of ones ability to learn Morse code.



Events Calendar

May

- May 5th**, Wednesday – Mike & Key ARC Net, 7:30 PM - 146.82 repeater
May 6th, Thursday – Public Service Net, 7:00 PM - 146.82 repeater
May 12th, Wednesday – Mike & Key ARC Net, 7:30 PM - 146.82 repeater
May 13th, Thursday – Public Service ARC Net, 7:00 PM - 146.82 repeater
May 15th, Saturday – Mike & Key ARC General Meeting, 10:00 AM - Renton Salvation Army HQ
May 15th, Saturday - University District Street Fair - contact Tim (K7QMI) 206-368-3970
May 16th, Sunday - University District Street Fair - contact Tim (K7QMI) 206-368-3970
May 17th, Monday - Leif Erikson Nordic Days Parade - contact Wayne (K6DOW) 425-271-5314
May 19th, Wednesday – Mike & Key ARC Net, 7:30 PM - 146.82 repeater
May 20th, Thursday – Public Service Net, 7:00 PM - 146.82 repeater
May 26th, Wednesday – Mike & Key ARC Net, 7:30 PM - 146.82 repeater

May 26th, Wednesday – Mike & Key ARC Board Meeting, 7:30 PM - Renton Salvation Army HQ

May 27th, Thursday – Public Service Net, 7:00 PM - 146.82 repeater

June

June 2nd, Wednesday – Mike & Key ARC Net, 7:30 PM - 146.82 repeater

June 3rd, Thursday – Public Service Net, 7:00 PM - 146.82 repeater

June 9th, Wednesday – Mike & Key ARC Net, 7:30 PM - 146.82 repeater

June 10th, Thursday – Public Service Net, 7:00 PM - 146.82 repeater

June 16th, Wednesday – Mike & Key ARC Net, 7:30 PM - 146.82 repeater

June 17th, Thursday – Public Service Net, 7:00 PM - 146.82 repeater

June 19th, Saturday – Mike & Key ARC General Meeting, 10:00 AM - Renton Salvation Army HQ

The Mike & Key ARC Web Site

Jim Etwiler, KD7BAT

The Mike & Key ARC maintains a set of WEB pages on the Internet. These WEB pages have been visited by viewers from across the nation and internationally. The home page is at <http://mikeandkey.com/>. Jed Clawson (W7JED) and Sean Kelly (KC7WNY) have assembled and maintained some wonderful pages.

I have recently accepted the job of maintaining these pages to keep them up to date and relevant to the activities of the club. I have made an initial pass through the WEB pages to make minor revisions and update of the data. The members of the club can help me by visiting the WEB and browsing through the pages. Please send me an e-mail if you find any corrections or updates that need to be made. Also send me an e-mail if you are looking for particular information about the club and do not find it. I may have overlooked the need.

Other changes might need to be made because you use a different Internet Browser than I do. It may display the page differently than my browser does and a small change will improve the appearance for all Browsers. I am looking for pictures to update, or compliment those currently on the WEB from Field Day 1997 and Hamfest 1998. I will return the originals. If I don't hear from someone about an "opportunity looking for a solution", I may begin to think that I am doing a great job. The members of this club are too great of a group to let my ego grow that way!

Northwest Hamfests

Jack Grimmitt, N7IHS

The following is a list of Hamfests that I was able to get flyers on at the Flea Market. If you know of others in the Northwest please let me know.

SEA-PAC Northwest Division Ham Convention

June 5th and 6th, 1999

Seaside Convention Center
Seaside, OR

Talk-In: 146.660- PL none

W7TD Wenatchee Hamfest

June 11 - 13, 1999

Dryden Gun Club
Dryden, WA

Talk-In: 146.680- PL 156.7

South Coast/Coos County Hamfest

July 31, 1999 - 9:00 AM to 3:00 PM

Brandon, OR

Talk-In: 147.38+ PL 103.5

Tacoma Electronics Flea Market

September 11, 1999 - 9:00 AM to 3:00 PM

Frontier Park (Pierce County Fair Grounds)
Graham, WA

Talk-In ; 146.610- PL none

Belling Ham Radio Flea Market

October 30th, 1999 - 9:00 AM to 2:00 PM

Ferndale Band Boosters Bingo Hall
Ferndale, WA

Talk-IN: 146.74- PL none

Field Day on CW Beach

Michael Dinkelman, N7WA - CW Beach Chair

As I will be in Dayton during the May Club meeting, I need to get out some word on CW Beach planning. We are again looking at a two-station layout. Station 1 would generally run 20/80m and Station 2 would generally run 15/40M. Before we can finalize these plans, I really need a good estimate of those interested in doing



CW. Station 2 is usually dedicated to the occasional CW op and contester while allowing the more experienced OP's to go full bore on Station 1. If we don't have enough occasional OP's to run Station 2 efficiently, we may want to back off and just run one main station full bore and put a part time Station up on available space for those who want to dabble in CW. The reasoning behind this would be that it is a lot more fun and efficient for the experienced CW OP's to have 4 bands to run around on instead of being limited to 2. This would entail actively managing the bands allocated to each Station - moving the experienced OP's to the most active running band and station 2 to whatever was left over.

Over the past number of years, we have had an informal challenge with the Western Washington DX

Club in regards to the best CW effort at Field Day. The challenge has always been a bit uneven because they only have one station for each mode while we may have one or two CW stations depending on turnout and enthusiasm (we like to give plenty of operating time to both the experienced and neophyte contester). Of course, this never bothered the WWDXC until last year, when we sorta... actually... accidentally of course... won.

Now, I felt guilty about winning with two stations on the air (even though I knew Station two was really only running about 25% of the rate of station one but occupying 50% of the band space). And then, mind you, THEIR station was fully manned by some of the best testers in Western Washington - but I still felt guilty. So, Ward N0AX and I have been trying to come up with some means to even the scoring. I think Ward has come up with something to try.

Using last year for a basis, we won by a certain percentage of QSO's last year. Let's say we beat the WWDXC by 10% (1000 Q's to 900 Q's). In 1999, it will be required (to win) that we beat the WWDXC by a minimum of 10% again. In other words, we must work 10 Q's for each 9 that they work. If we get 1000 Q's and they get 910; they win by virtue of the handicap. If they do beat us in 1999, the handicap gets adjusted. Hopefully, in this manner, the handicap becomes a means of adjusting the inequity of our station layouts. Of course, if we go back to one station against one station, there would be no need for handicaps.

So this is important. Because the population of experienced and occasional CW OP's changes so much from year to year, I REALLY need to know if you are planning on being part of CW Beach in 1999. Also, I REALLY need to know if you are an experienced OP or an occasional player, (I may disagree and call you on it!) and how much time you are going to devote. None of this is meant to scare away prospective OP's. It's just that there is a lot of work involved here to supply two stations. If one is only going to be used at 25% of capability, I need to make adjustments - especially in light of our WWDXC challenge this year. So let me know - you can reach me at mwdink@eskimo.com.

Public Service Events

Michael Ross, KB7YXB

University District Street Fair - May 15th & 16th.
Contact Tim (K7QMI) 206-368-3970.

Leif Erikson Nordic Days Parade - May 17th.
Contact Wayne (K6DOW) 425-271-5314.

Special Olympics Summer Games - May 29th & 30th. Contact Wayne (K6DOW) 425-271-5314.

Net Controllers Needed

Calvin Doss, KC7IYP

We need some volunteers to replace Jed as net control for the following dates at the 7:30 PM Wednesday night for the Mike and Key Check-In-Net.

May 19, June 16 and 30, July 21
August 18, September 15 and 29, October 20
November 17, December 15 and 29

Or any of the dates you wish to take will help. You can contact me by E-mail at:

kc7iyp@aol.com

Batteries

Chuck Benefiel, N7STR

This article was taken from a MARS newsletter, author unknown.

The past few years have seen a remarkable improvement in energy storage technology for the amateur radio community. Nickel Cadmium cells, long the mainstay of portable operation, and have given way to Nickel Metal Hydride as well as Lithium Ion sources. In this brief article, I will attempt to bring you up to speed on Nickel Metal Hydride battery packs.

Nickel Cadmium has been the standard of the communications industry for going on twenty years. Reliable, and relatively inexpensive, these rechargeable batteries have served the ham community faithfully. However, they have not been without their problems. Most objectionable has been the memory effect that NiCd batteries can develop. Rare is the person that will completely drain a battery pack before setting it on the re-charger. Worse, when we have a need for several packs, i.e. going on a trip or to some sort of event, we will often "top off" our packs. Unfortunately, NiCd packs have a tendency to remember charge levels, and in time, will exhibit characteristics of being fully charged while only really carrying a partial charge. Newer chargers can often condition a battery pack that adopted these characteristics, but takes several charge/discharge cycles to remove it. This main annoyance, together with environmental concerns over their disposal (NiCd is considered a highly toxic substance) caused the battery industry to seek a better source. They have found it in the newer NiMh batteries, as well as in the emerging Lithium Ion cells.

Nickel Metal Hydride is actually in its second generation. The first generation cells were only reliable for 250-350 charge cycles, and unlike NiCd cells, they could not accept a trickle charge. The second generation of cells solved both problems. Good for 500-1000 cycles (similar to NiCd) and able to be trickle-charged as well as rapid charged, the 2nd generation cells are the current state of the art for radio battery packs.

Other advantages of NiMh over NiCd cells are their lighter weight, higher capacity for the same given volume (more talk time on the same size battery packs), a higher maintained discharge (NiMh will maintain its rated voltage for 70-80% of its usage versus 45-50% for a NiCd pack) and no memory effect. On top of that, they are environmentally friendly. No need to call the HAZMAT team when it is time to dispose of them. If you are still using NiCd packs, you really need to ask yourself why. By the way, NiMh packs also will store a charge for twice as long as a NiCd pack. Most NiCds need to be recharged after being stored for a month. NiMh packs can be stored for upwards of two months before requiring a recharge from 'just sitting there'. Just do not get too comfortable. Lithium Ion, the expense of which has kept it solely in the domain of back-up power for memory units, is now being employed in some of the newer amateur radio HT's. I am sure it is only a matter of time before Li technology will supplant NiMh but for now, NiMh is the best you can get. You really should be using it.

May Exams

Jim Christiansen, K7ND

I am planning on being in Dayton during the week-end of May 15, 1999. There will be no exams held on that date. Exams will be held as normal in June.

Buy, Sell, Trade, or Wanted



This column is available members and relatives or friends of member (no dealers please) who have electrical/electronic equipment (including computers and software) related to Amateur radio for sale or trade. Ads will be run for two months unless the editor is notified otherwise.

Estate Sale

- 2 Meter Alinco Amplifier, 5 watts in - 50 watts out, tested, \$50 or make offer.
- Icom 751 HF transceiver, \$350, needs work, estimate about \$150 worth, has P15 power supply, hand and desk mic.
- Icom R71 HF Receiver with remote, fair shape, \$450 or make an offer
- Nye Viking Tuner MVBA, fair condition, \$600 (\$800 new).

Contact Michael Dinkelman (N7WA) at 253 631 3756 or mwdink@eskimo.com

Board Meeting Minutes, 4/28/99

Joyce Stroehrer, N7JPW

Officers Present: President - Alan (KB7SVU); Vice President - Calvin (KC7IYP); Secretary - Joyce (N7JPW); Treasurer - Chuck (WA7EBH); Activity Manager - Tressie (KC7BAL); Radio Officer - Harry (W7JWJ); Trustee #3 - Jim (W7FKI); Trustee #4 - Mike K7JML; Trustee #5 - Mike (KB7YXB).

Visitors: Visitors attending the Board meeting were Ray (WA7EKH), Mary (W7QGP), Dick (K7NEX), Jim (KD7BAT), Pete (K7WTG), Dawn (KC7YYB), and Dan (N7QHC).

The meeting was called to order by COB Mike (K7JML) at 7:25 PM at the Salvation Army, Renton.

The minutes of the previous board minutes were approved with the following change, Mike LaFerla's call to K7JML in three places.

Officer Reports

President: Who has keys for the building and radios? Mike (K7JML) will make a list to be maintained by the club. The mailbox keys will be included.

Vice President: Calvin has 3 names to present for membership: Joshua Moser (no call), Ted Moser (No call), and Atsushi Sasaki (JR1NKN). All approved to present to the general meeting to be voted on. Calvin is listing all supplies and suppliers for his office.

Secretary: Nothing to report.

Treasurer: Looking good. Books balanced.

Activity Manager: Tressie has program already scheduled by Larry.

COB: Mike (K7JML) has no report.

Radio Officer: Repeater working OK. CW is on the air not working right now because of wind damage to his antennas. Presented demographics of membership in the Mike and Key ARC.

Committee Reports

Technical: Mike (KB7YXB) needs to know the committee members. Pete (K7WTG) says to start a new committee and get a new chairman.

Public Service: Has no report. Vic Carter is the chairperson and needs to resign because of going to Arizona. Meetings are on the first Tuesday of each month.

Education: Nothing to report.

Long range planning: Nothing to report.

Facilities: Nothing to report.

Field Day: Camp sites not signed up for at Fort Flagler will be released on May 17, 1999.

Flea Market: Preliminaries for next year are completed. Date is March 11, 2000.

Relay Editor: Not present.

Web Master: Jim (KD7BAT) is trying to make the Web sites the same. He will list the officers and trustees with E-mail addresses. Suggested that membership application be put on the web. It was decided not to do this. When members visit the Web site and notice any changes that need to be made, call Jim Etzwiler (KD7BAT).

Old Business

Harry has the money from the students. He will turn the money to the Treasurer at the end of this class. There are 18 students to upgrade.

New Business

Dan Humphrey (N7QHC) suggests we have a "Collectors Corner" where members may share their collections at the meetings. Dan will chair. Harry (W7JWJ) will bring a collection for the next meeting.

Mary states there are some changes in the rules for Field Day. She suggests these be downloaded now. Alan states there is a Field Day pin for this year for participants. They are \$5.00 each and need to be ordered by the club. There is money set aside in the treasury to help with this. Moved, seconded and passed that the club orders 100 to 125 pins to give to participants.

To change address, etc., must include social security number to ARRL.

There being no further business, it was moved, seconded and passed to adjourn.

Y2K

Victor Carter, N7YPB
Public Service Committee

Editors note - this is a continuation of the article which appeared in the April issue of the Relay.

Storing your emergency food

Short-Term Food Supplies

Keep food in a dry place where the temperature is fairly cool-not above 70 degrees Fahrenheit and not below freezing.

Keep food covered at all times.

Open food boxes carefully so that you close them tightly after each use.

Wrap cookies and crackers in plastic bags, and keep them in tight containers.

Empty open packages of sugar, dried fruits and nuts into screw-top jars or airtight cans to protect them from pests.

Your emergency food supply should be of the highest quality possible. Inspect all food containers for dents or for signs of spoilage before use. Your water supply should be less than 6 mos. old from production date if in plastic bottles. One year if in Glass bottles.

You may already have a two-week supply of food on hand. Keeping it fresh is simple. Just rotate your supply twice a year.

Even though it is unlikely that an emergency would cut off your food supply for two weeks, you should prepare a supply that will last that long. A two-week supply can relieve a great deal of inconvenience and uncertainty until services are restored.

As you stock food, take into accounts your family's unique needs and tastes. Try to include foods that

they will enjoy and that are high in calories and nutrition. Foods that require no refrigeration or cooking are best.

Individuals with special diets and allergies will need particular attention, as will babies, toddlers and elderly. Nursing mothers may need liquid formula in case they are unable to nurse. Also remember your pets. Use disposable eating utensils and plates as you may not have water to wash them.

Nutrition Tips

Eat at least one well-balanced meal a day.

Drink enough liquid to enable your body to function properly (two quarts a day per person).

Take in enough calories to enable you to do any necessary work.

Include vitamin, mineral and protein supplements in your stockpile to assure adequate nutrition.

If Electricity Goes Off

First, use perishable food and foods in your refrigerator. Then use foods from your freezer. To minimize the number of times you open the freezer door, post a list of your freezers contents on it.

Remember if your power goes off January 1, you may be able to keep your food longer outside in the shade in a foam cooler (In Jan. our temperatures rarely gets above 50 degrees), but keep stored food away from animals that might be looking for a free meal. So buy a cooler or couple of foam coolers and store them. You also might want a thermometer, so you can make sure it is staying cold enough. (We have two, one in the refrigerator and one in the freezer.) If the food is getting too warm, leave the cover part way open at night and keep it closed during the day. King County Emergency Management says there is more of a chance that your power will go off due to a winter storms then Y2K.

In a well-filled well-insulated freezer, foods will usually have ice crystals in their centers (meaning foods are safe to eat) for at least three days. If you have a generator, plug in your refrigerator four times a day for at least at total of three hours. The last time just before you go to bed. Plug in your freezer for 20 minutes after each opening. Some generators are big enough to have both plugged in at once. The circuit breaker (if your generator has one, will trip if it is over loaded). If you are unsure of when your power will come back on, use your gasoline sparingly. Charge your batteries while running the generator to keep your refrigerator cold. You generator should be grounded to an earth ground for your ground fault circuits to operate correctly.

Make sure your lawn mower/generator gas can is filled starting 15th of December. Keep you cars gas tank at least 1/2 full, and make sure your motor home, if you have one, is full as well. If you plan to use a portable generator, connect what you need to run directly to the generator. Do not connect the generator directly to your home's electrical system. Also be sure to keep your generator in a well-ventilated area either outside or in a garage keeping the door

open. Don't put the generator in the basement or anywhere inside your home. Do not refuel a gasoline engine while it is hot.

Keep your manual can opener and camp stove handy, and plenty of fuel on hand for it. If you have a gas barbecue, keep the propane containers filled. If you have a generator, keep fuel on hand in a certified container, in a building away from your home, and not in your garage. Have at least 100 paper plates, 50 paper bowls and lots of plastic knives, forks and spoons on hand. (These can always be used at Field Day.)

If you plan to use alternative cooking devices, follow manufactures instructions. Do not use open flames or charcoal grills indoors. (We use a single burner hot plate plugged into our generator or the out door barbecue).

Have extra blankets, coats, hats, and gloves to keep warm. Please do not use gas filled appliances, as an alternative-heating source. The same goes for wood-burning or liquid-fueled heating devices that are not designed to be used in a residential structure. Camp stoves and heaters are to be used only out of doors in a well-ventilated area. Being Hams, we need to keep our batteries for our radios charged and ready to go at any time.

Starting in November keep all your receipts for medical bills and payments, utility bills and payments, insurance bills and payments, and your banking transactions. If they have not fixed their computers, they may send you late notices showing you have not paid these bills.

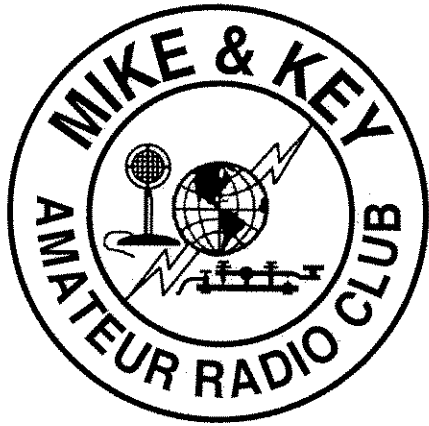
Get to know your neighbors. Start a block watch in your neighborhood. Have a list of neighbors telephone numbers. (Burglars may figure that if everyone is keeping large sums of money at home, now is a good time to clean up.)

Also starting November 15 make sure you have copies of anything that is important in your home computer. (We should all have this anyway, right) Check your computer's clock and see if it says 1999 or 99. If it says 99, you have to get it fixed or make sure you have your copies. There are free downloads on the Internet for fixing your computer's clock. If you don't have access to the Internet, find a friend that does and have them download the file.

What else could we do? We can learn to live life as if every year has a Y2K problem, because most of what has been listed above, is common sense and should be practiced on a day to day basis. We can assure our relatives, friends and neighbors that if they take these precautions, Y2K could be just another New Year, with more and bigger parties.

Web sites to visit.

<http://www.coolpages.net/2000/survival>
<http://www.metroc.gov/prepareY2K>
<http://www.geocities.com/CollegePark/Square/2663/index.html#downloads>



K7LED Relay

The RELAY is the official tabloid of the Mike and Key Amateur Radio Club. The Mike and Key ARC is dedicated to the growth and betterment of Amateur Radio. We meet the third Saturday of every month at the Salvation Army Renton HQ, 720 Tobin St., Renton, WA. The Club operates repeaters on 146.82 MHz (103.5 CTCSS) and 224.12 MHz under the call sign K7LED. Two nets meet on the 146.82 repeater: the Club net on Wednesdays at 7:30 PM and the Public Service net on Thursdays at 7:00 PM. All persons interested in Amateur Radio are invited to participate in the Mike and Key ARC and it's activities. Yearly dues are \$12.00 for individual memberships and \$18.00 for family memberships.

Volume 27, Number 5

May, 1999

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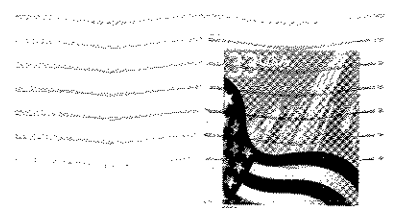
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First Class Mail

Next Club Meeting

Saturday, May 15th at 10:00 AM
Salvation Army in Renton
720 Tobin, Renton
Doors open at 9:30 AM for donuts
Talk-in on 146.82 RPTR

Next Board Meeting

Wednesday, May 26th at 7:30 PM
Salvation 5th Army in Renton
720 Tobin, Renton

Program

ARES
Doug Wetzel (K7IP)

Sam Sullivan N7RHE 7/00
13626 - SE 232nd
Kent, WA 98042



Check Mailing Label for Dues Status

Mike & Key ARC Web Page: <http://www.mikeandkey.com>

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