



Western Washington Repeater Association

PO BOX 1001, Silverdale, WA 98383-1001

VHF 146.620 MHz & UHF 442.650 MHz Repeaters (tone 103.5 Hz)

2004 NEWSLETTER

This newsletter is designed to provide the Membership with information in addition to functionally support and provide details on the administrative and technical aspects of our repeater system. If open space is available Members who desire to contribute articles that are on amateur radio related subject matter must contact Bob, KC7DRQ no later than June 30th annually.

Your WWRA Working Staff

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Drake Evans	KD7GAR
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Bill Hurd	N7YT
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LEFT PHOTO: Bill, N7YT-Treasurer, Bob, KC7DRQ-President, Drake KD7GAR-Vice President and George, N7GME-Chief Operator for **2003 board of directors** were all around the WWRA table at the October 2003 Hamfest.

YOUR EMAIL ADDRESS IS VERY IMPORTANT: All year we send out email Ops Bulletins to the Membership keeping the Members informed of changes in repeater status. A quarter of these bounce about every two months. Please keep us informed of your email address changes by clicking on Contact Us on the website.

OPERATIONS COMMITTEE: Re-elected this past meeting was **Bill, N7YT, George, N7GME and Joe, W7COM**. They can be contacted via telephone and email. If you have any questions regarding the repeater feel free to call them.

RIGHT PHOTO: HAMFEST RECRUITERS:



Bob, KC7DRQ and Drake, KD7GAR were very busy signing up new and renewing old Members at the Hamfest table

Drake, KD7GAR is on 146.620MHz repeater the **SECOND SUNDAY** of every month **AT 8:00 PM**. Drake has been committed to this NET night for the past several years and gets on there so the new hams can get some information. If no one announces their presence he will sign off the net and you will have to wait another month to ask your question.

WEBSITE: <http://www.ww7ra.org> Make sure you have a copy of Acrobat reader program to read the attached files. Free download at the site. The maintenance of our website is labor intensive and is done for you, the WWRA Membership. All information is dated so that you can easily tell what is new and how long it has been on there. Also look at our site on QRZ at <http://www.qrz.com/callsign/WW7RA>?

DUES: WWRA dues are \$20 and are due on 1 January annually. If you use the repeater please become a Member. The WWRA repeater is open to all. Member owned and with your financial support we are able to maintain a working repeater system. Thank you very much for your support.

BOB, KC7DRQ PRESIDENT'S CORNER

SILENT KEY: We lost a long time WWRA and 2004 Member at the beginning of this past year. **Larry, W7MHL** could be heard carrying out a QSO with his buddy for many years at 7pm daily on our VHF repeater. Larry, we miss you.

FIVE-YEAR MEMBER: We want to thank **RUSS, KI7PG** for signing up at the October Hamfest for a **5-year membership** with the WWRA. Russ has the distinction of being signed up until December 31st, 2008. Russ is a long time Member of the WWRA and his recent long-term commitment to our organization is most appreciated by all. Thanks for the confidence Russ.



PATCHES \$4 DONATION

REPEATER POLICY: The WWRA BoD sets policy. Policies that we go by now have evolved and changed over the past several years and are not necessarily what has been done in the past. We actively recruit new members via mail and do not resort to strong arm or embarrassing tactics on the air. By the same token we do not appreciate it when past officers who are not in the current loop pontificate about what they think whether a potential member should do or not do such as supporting this repeater or another repeater and so forth and so on. You have the right to your opinion and also the right to expound on it on the air but make sure the listener knows it is your opinion and not necessarily that of the management. If someone asks you about joining the repeater we would appreciate it by referring them to the website or give them the address of the WWRA. Thank you.

WELCOME to OUR NEW FAMILY OF WWRA TRUCKERS: A group of Members that make good use of our VHF repeater. They are a welcome addition to our repeater. They are polite, possess an above average knowledge of ham radio technology, use the repeater when it's most inactive and most importantly are supporters the WWRA repeater. I would like to take this opportunity to welcome them as Members for 2004. They are Rick-N7YQU a long time WWRA member and supporter, Steve-W7HDO, Len-AA7AH, Blaine-N7NHO, Rich-KD7NVB, Adam-KD7TQX, William-KD7ZBY, Jim-KC7MTN and Mike-WA7YNY. I hope I have got them all. Toni, KD7PIU was a 2003 supporter.

VHF REPEATER COVERAGE MAP Request Inputs for DEVELOPMENT of 146.620MHz Repeater Coverage Map for I-5 Corridor between Vancouver, BC & Vancouver, WA We are interested in finding out where the black holes are along the I-5 corridor and some main arteries off of it. The repeater has great coverage but it would be good information for travelers who don't frequently get out on the road. If you send in the information you WWRA staff will develop the map and put it on the website for all to have access to. We asked for inputs starting this past March but so far we have had no responses.

LONG DISTANCE AUTOPATCH SERVICE IS NOW OFFERED TO ALL MEMBERS: In an ongoing effort to provide more services to the Membership we have setup the ability for our outlying members to add their numbers to the autodial.

30-year WWRA Anniversary in 2006: In 1976 a group of ambitious hams got together and founded the WWRA. See our website for the charter members, history and founding documents. In recognition of their efforts your current board of directors is working on marking this 30-year anniversary at the 2006 general membership meeting. It is not too early to start thinking about it and sending us your ideas. One of the things we plan on doing is tracking down all the **CHARTER MEMBERS** and sending them special invitations. It is commendable to note that four are still active members of the WWRA so we will be paying a special honor to these in particular and all the charter folks in general. So please let us know what you would like to see for this important milestone.

WE NEED REFRESHMENT VOLUNTEERS: For the past two years at the last two general meetings the spouses of Bill, N7YT and George, N7GME provided the two food platters and beverages. These two gents do a lot including most of the administrative and technical work. Many times I hear someone saying ".... just let me know if you need any help...". This is one of those times that are a fairly easy and straightforward thing to do. The WWRA will reimburse you for the cost of the food you purchase to make up the vegetable and meat/cheese platters. Make sure you hang onto the receipts and there is a reimbursement form on the website. Here is your chance to help. Please contact me at one of the addresses above. Thanks.

REMINDER of ADDRESS REQUIREMENTS with the FCC: Helpful hint. Under the conditions you received your amateur radio license you are required and must notify the Federal Communications Commission with 10 days of your address change.

MEMBERSHIP RENEWALS: We certainly appreciate all the member support. This year we hope to streamline the renewal process by getting everyone to sign up in January. Membership dues are due on January 1st annually. Every year the treasurer and myself are burdened with sending out reminders. Last year we even sent out a second reminder since the ops committee just happen to be in the process of programming the new Club Deluxe controller and this would save them some labor if we knew exactly who was still a member for the speed dial programming. For 2005 we are taking some steps to try and enhance this administrative work and reward those of you who have always and faithfully sent in your dues at the beginning of each year. It sure makes our administrative job much easier when members do this and since Bill, N7YT is on the operations committee he can focus his real work on the repeater maintenance with Joe, W7COM and George, N7GME. So your timely submission of dues will enhance our work effort. Thanks.

1. Some members renew at the Hamfest in October. We would encourage you to do that.
2. Speed dials turned off 30 days after 1 January due date. So you have a 30-day grace period. Your last chance will be to renew at the meeting so if you don't make the meeting send them in. Reprogramming these numbers will not automatically give you the same number you previously held so if you have them programmed in your radios this will generate more work for you.
3. The four charter members we have will get their personalized cards since they have remained faithful to the WWRA for the last 29 years. Thanks again to these very special members. ☺

WWRA PROPERTY. I have spent the past few years chasing down and rounding up all the WWRA property. When we first inherited the organization much of the peripheral equipment not bolted down and all the files were located at the residences of previous officers of the board. Some had forgotten they had WWRA property. Elected officers would run off with the files and the individuals trying to make things happen would be left guessing what information was available. One officer left a box of files and told us it was junk. In it we found the original letter from our host giving us permission to be on the hill. This was a very important piece of paper. We finally gathered it all up and we now keep all equipment on the hill unless it is necessary to have it in the possession of the board or ops committee members for updating or maintenance. Original documents are kept in binders in special storage containers on the hill and copies of the inventory are located on our website for any member to read.

SPONSORSHIP Following on with the theme above addressing WWRA PROPERTY it is this BoD policy for all equipment to be owned solely by the WWRA membership. No personal equipment to be installed or operated on the hill. We do have one exception. That would be when a new technology comes into existence and we have an operations committee member who is the sponsor. In this case the individual pays for the equipment and if it proves to be an enhancement to the repeater system then the association will pay for it at cost. We have many suggestions and ideas from members but little follow through on their part. A good example of how to get a new feature installed on the WWRA repeater system is the new installation and operation of our "still in testing mode" echolink capability we now have operating on UHF. Most of the costs for this has been borne by its sponsor, Bill, N7YT. Bill keeps it running and is still filtering out the bugs. Another example is the weather station and microphone encoder equipment which was originally sponsored and cared for by George, N7GME. Past BoD member and long time Treasurer, Norm, N7SI strongly recommended that this equipment be owned by the WWRA. The board agreed. After it was working for a period of time the BoD voted to purchase it. Both of these people are members of the operations committee. So if you have a favorite project you want to see incorporated into the WWRA repeater system then the first thing you need to do is get elected to the operations committee at the next general meeting, get qualified on the existing equipment and be prepared to be a SPONSOR of your project with a view that the WWRA membership will have the option to procure your equipment within a very short period of time.

PASSING TRAFFIC: About once a day around noon we have some visitors on our repeater "passing amateur radio messages" for people who may or may not be within the amateur radio world. These traffic passer's are providing a valuable community service and giving us hams a good name. So we more than welcome these users to our repeater system and thank them for their dedication.

EMAIL RESPONSE FROM A FREQUENT USER: To whome it may concern, My name is Bruce Horish (kc7qdo).First off when I was a memeber last time you were not sending out mail to ask for membership like you are doing now. I was considering doing the membership thing but now after you snobbish post card I will not join nor recomend your repeater to anyone. I just wanted to use the system to make a few contacts like I was doing. I have used other repeater systems for years and have never gotten solititation to be a memeber. In the future you might as well close the repeater and make a note of it in the repeater directory. Good luck on all your membership solitition and one less user of the system. I am starting over again in ham radio and with this type of greetings I am surprised you have any members. As of now the repeater is no longer in memory in any of my radios. Sincerely, Bruce Horish KC7QDO. (*Email re-printed un-edited*).

SUNDAY NIGHT NET: It was decided to let **Drake, KD7GAR** enjoy his summer and not run the 2nd Sunday of the month evening net. Anyone who wishes to assist Drake in this commitment please contact me at [www@telebyte.com](mailto:wwra@telebyte.com) We have a standardized script that you need plus we want to make sure your onboard. Thank you.

Bob, KC7DRQ, WWRA President

VICE PRESIDENTS COMMENTS

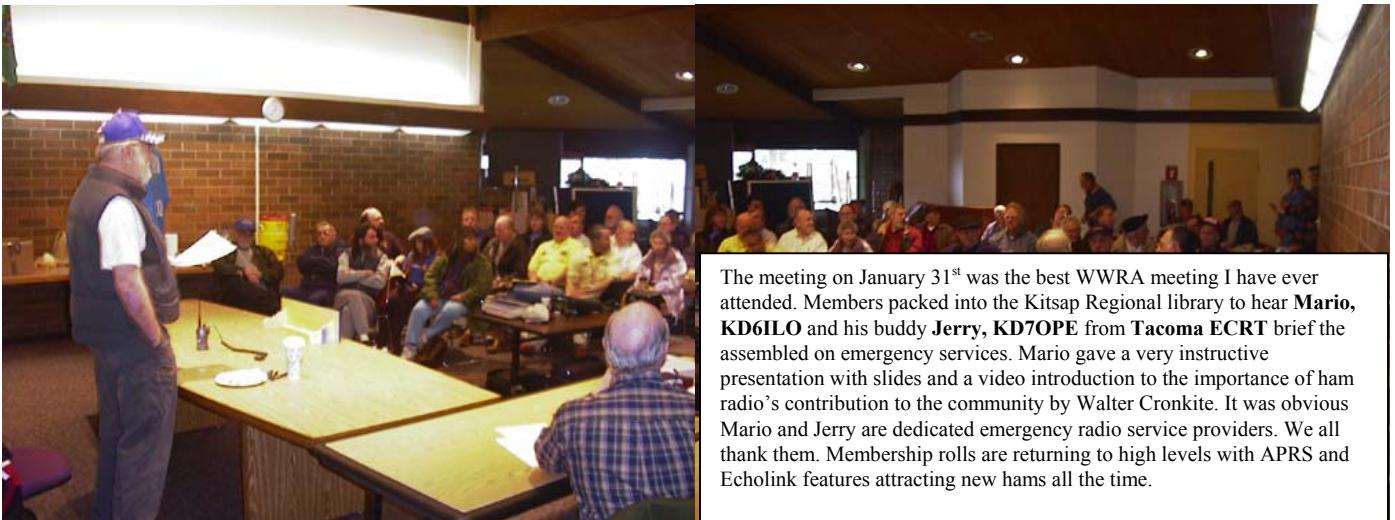
MONTHLY WW7RA NET: We are looking for "hams" to host our monthly radio net. WW7RA hosts a monthly net on the second Sunday of each month at 2000. The purpose of the net is to broadcast information about our repeater system and to encourage new amateurs as well as "seasoned" amateurs to use the various

features we provide. We use a scripted narrative to broadcast the basic information about our repeater group. We also ask listeners to check in and frequently have hams from as far as Vancouver B.C. to Vancouver Washington checking in. Sometimes we get new hams (very nervous) and have a chance to provide encouragement and even membership into our organization. The NET is an important part of our membership and helps to keep our membership growing. WW7RA is asking (the membership) if you would volunteer fifteen minutes or more to help man our monthly net. No experience necessary. We will provide a suggested script and you can be flexible yet professional. If you are nervous about someone asking a question about the WW7RA repeater organization and you might not know the answer, don't worry. We have an excellent elected board of officers and the best Operations Department of any amateur radio group and they are ready to provide answers and help with most any questions that come around. So, take a deep breath, send an email (draevans@comcast.net) or call KD7GAR (479-6855) and get started with our monthly net. This is voluntary and we would like to have several people that would make themselves available to run the monthly net. All you have to do is be able to reach our repeater with your base unit, mobile, or HT.

VOLUNTEERS: **Do you want to be “in the click” as it were or be an INSIDER too?** We are fortunate that our current group of volunteers work well together. They take ownership and to a man they are all goal orientated and just plod on pursuing technical challenges keeping everything up and running [no small feat] in addition to providing more capabilities to our repeater system. I have tried to be useful by running the net once a month and recruiting new members when I can. I find myself addressing this issue of volunteers because at the last general meeting in January all the current members of the board were taken by surprise when someone in the audience challenged me on the slate of officers I had listed. I had, like the rest of the board, tried to interest members in becoming volunteers in our organization all year long. Specifically, I couldn't even get a volunteer to run a 30-minute Sunday night net once a month once in awhile. Not every month, just occasionally to spell me so I could make plans to be with my family. I even asked a previous net controller and he blew me off by telling me that maybe he would do it when he retired. Thanks a lot! Bottom line is that we have a good team that works well together, don't get into fights and we are all happy working on the repeaters but like most good things it is not going to last forever. We are looking to pass the baton onto others. Bill, Joe and George are not going to be around forever. Training takes time. Responsible members should consider getting involved. This is a community support thing. I could go down a laundry list of volunteers who had hidden agendas and only volunteered to pursue them. People should leave their own agendas, egos and self-importance at home and become part of the WWRA team. Just make sure you are up front about what you want to do. We try to spread the workload around so that we don't burn anyone out. Just so you know whether you would fit in or not I give you an example; If you like to sit at long meetings, be confrontational, impress others with your belligerence, pontificate your strategies on some long-range hypothetical, volunteer to do something and then don't, etc. then don't waste your time and ours, however, if you like to have fun, learn about technical aspects of the hobby hardware, return a little something back to the ham community, leave the repeater better than how you found it, work in the background, treat problems as challenges and like to seek out solutions to difficult technical issues then this is for you. We have heard every story in the book. When I retire, I can go up with you on one Saturday but I have to be somewhere else at 10 o'clock, I am too busy, etc. bottom line is, that if you want to do it you will find the time and support the team. It is really not that hard when there are several people to share. We welcome your interest.

Drake, KD7GAR, WWRA Vice President

SECRETARY'S MINUTES



GENERAL MEETING on January 31st Membership Comments: From the floor came questions, suggestions and comments.

These were either addressed at the board of directors meeting or given to one of us to explore and then report to the board at the meeting they had on February 20th. They are listed here as a report back to the membership at large.

COMMENT: Nye the “science guy” use to be a member of the WWRA. Why don't we write to him and ask him to join again.

ACTION: Bill Nye was contacted via mail. No response.

COMMENT: The website is great for the new member but how about sending out emails with URL's for us old members with new additions to the WWRA website so I don't have to waste my time looking through everything to see what's new.

ACTION: Oh well.

COMMENT: How about selling 4 year and/or life memberships.

ACTION: The WWRA relies on a stable annual income. When this current administration took over the membership was down to less than 60 members due to neglect of the serving president and his total disregard for the administrative support needed by the repeater. Fortunately we were left a large enough treasury from previous dedicated administrators before him with which we needed to fix many problems so the money went down fast and the income rose slowly. It was difficult to restore the equipment and confidence of users while trying to build up the membership rolls again. One of the issues was that there were many four year memberships that were not renewing. This phase has passed and now we can budget much better with a steady membership income. So selling 3 or 4 year memberships works well for one year only. The argument could be made that you got the money in the bank however we have found it only looks good on paper and does little to keep members interest in attending meetings and financially supporting the WWRA. We are not real interested in visiting this situation again. We now have gone back up over 100 members and climbing due to confidence being restored in the repeater coverage and dependability. The association is not really big enough to support life memberships at this time. The board however did discuss this idea at some length and agreed it was an idea that has some merit but the board could not come to a decision on the cost. It was tabled and will be decided on after each individual board member has had a chance to think it over.

COMMENT: The use of electronic mailboxes on the repeater was brought up.

ACTION: This capability was advertised as a feature when we got the RLC 2 controller about 3 years ago on the Sunday Night Net but did not receive much attention. The mailbox just happens to come with this capability and can be explored for use. Some of the features we do have on there get very little use so mailboxes have a low priority. This type of work is volunteer time dependent. The operations committee will work on this once they have other peripherals all working again and place mailboxes in a test mode. It is envisioned that once this mailbox system is working we can take requests from the members similar to the autodialers on the telephone patch. Each member will be assigned a code he can share with his buddies.

MEMBERSHIPS: There are two types of memberships:

1. **PRIMARY** member who pays the \$20, gets the WWRA **CODE** card with the various access codes, gets to vote and gets the FREE ticket for the door prize. Primary member needs to be present at time of drawing at the general meeting in order to win, otherwise a second drawing will be held, so stick around. ☺
2. **SECONDARY** member is an immediate family member living at the same address who gets the codes from the primary member. We can accommodate secondary members with speed dials also.

CODE CARDS: For 2005 there is no membership cards. The card you receive from the WWRA is actually a **CODE CARDS**.

The only reason for sending you a card at all is so that you will have a convenient way to carry the WWRA codes around with you.

VOLUNTEERS: Drake, KD7GAR our VP and the man who has to beg for help has written quite an article on that subject so I would only agree with him. My only addition to Drake's comments above is that we certainly have gotten many "volunteers" over the years on a variety of projects. In fact we have had quite a few, but getting them to do anything is the real challenge. Lots of words on the radio or at meetings but no assistance.

EMAIL: The use of email has become untenable. The combination of spam, server filters that only allow 20 outgoing emails at a time, members email addresses constantly changing and service provider companies changing ownership thereby creating wholesale changes in email addressing has created an extraordinary amount of database work. It has taken two people just to keep track of U.S. Postal mail addresses. Email has become another database to manage. We will continue to answer your email requests. For the foreseeable future operations bulletins will be used under rare circumstances if at all.

TAKING A TRIP? GOING ON VACATION? We all want to share the news of our good fortune and tell all our ham friends that we are about to go somewhere and have fun. When you tell one person on the air about your impending plans you should remember that hundreds of others are also listening. Some of these folks are not hams. Lots of burglars and thieves have scanners and listen to everything. It is one of their tools. A potential burglar hears you say your going to California or Alaska for a couple of weeks. All he/she has to do is go to <http://www.qrz.com> and punch in your call sign and just like magic he has your home address. He/she then waits for your pre-announced departure date, drives over to your QTH and low and behold you are not home. How convenient to have this information so they can figure out when to rent the moving van. Our repeaters have significant coverage and the whole world can be listening. You are not alone!

DISASTER PREPAREDNESS: As a WWRA Member you should ensure you have a speed dial setup with the repeater. During the last earth quake in March 2001 cell phone service was turned off within 20 minutes of the quake partially due to overload and partially because emergency needs preempted their use. Had the damage been significant they may have stayed off. Your autopatch capability maybe the only connection with your family when this event occurs. Hopefully the repeaters will still be up.

George, N7GME, WWRA Secretary

BILL, N7YT – TREASURERS REPORT

REPEATER FINANCIAL SUPPORT: Please encourage your ham friends who use the repeaters regularly to join. We spend about \$1000 a year just to keep everything running. Our volunteers who maintain the equipment donate their time and equipment to take care of our radio hobby. Additionally, all volunteers are paid members. No one gets a free ride so it is important that we get people who enjoy the WWRA resource to help support it. Thank you. We provide a detailed financial report at the general meetings.

AUDIT: Our last audit was in 2003. It was an outstanding audit and we followed the recommendations. When the Bob, KC7DRQ asked for volunteers this last general meeting, one of the candidates would have been the auditor. No one came forward so we did not have one this past year. Hopefully at our next meeting we will get someone to step forward.

Bill, N7YT, WWRA Treasurer

JOE, W7COM - OPERATIONS COMMITTEE UPDATE

EMERGENCY SHUTDOWN of REPEATERS: The general membership should know who are the people qualified and entrusted with the **codes to shutdown the repeaters** in case of an emergency. There is usually one of them monitoring at any given time. There are four of us: **Bill, N7YT-George, N7GME-Ron, K0BQ** and myself **Joe, W7COM**.

DECEMBER 2003 CONTROLLER BREAKDOWN: Our RLC 2 controller as far as can be determined suffered some sort of electrical shock and began cycling both repeaters in late December. Bill, N7YT ran up there and shut everything down and lit off the ALTERNATE VHF REPEATER bringing us back on line. He shipped the RLC 2 to me and I made an emergency repair. We then both went up the hill again and restored the RLC 2 and UHF along with Echolink. We did not put the VHF repeater back on the RLC 2 controller because the voice chip was damaged and making announcements in the Cling-On language as Bill called it. On January 10th we voted to procure a new RLC Club II Deluxe controller. It arrived a couple of days before our general meeting but it took us until March 5th to get it operational. We just don't load software in these controllers they have to be programmed by us methodically reading the manual and doing the programming ourselves. Very time consuming and no easy chore. In a couple of cases we have made extra trips up the hill because the manufacturers technical documentation has been lacking important information. This is just part of the fun. The RLC 2 has been repaired, programmed and groomed up by George, N7GME and will be placed on the hill as a backup controller for now. Additionally to avoid a repeat performance of electrical shock George and I went up the hill in February and installed heavy-duty Polyphaser telephone line lightning protection that is substantially better than what we had previously installed from times gone by. In addition to some earth grounding steps we have taken this gives us some robust lightning and electrical shock protection.

SWR: We have had articles in the newsletter in the past addressing this issue. WWRA control operators listen to both repeaters 24/7 and are happy to hear stations operating up and down the I-5 corridor with clear signals. We are then amused to hear another mobile station in the I-5 Edmonds area barely making the VHF repeater where we just heard other mobiles doing just fine. It is obvious that the mobile station that cannot

get into the repeater where another has been able to has some major deficiency in their mobile station setup. It could be power, it could be geography or many things but most likely it most probable the mobile stations SWR, which is simply the match between the back of the radio at the transmit business end and the antenna mounted on the vehicle. Just because you bought a 2-meter or dual bander from a commercial dealer and you mount it and screw the PL-259 onto your radio does not make it automatically match properly. You, as an amateur radio operator, need to do that. You should look into it and you will find that your radio hobby is much more fun and those important QSO's are rewarding. Bottom line is that just because you hit the repeaters mobiling around Kitsap and Mason counties is no assurance you will do the same when you get over near Edmonds.

MEMBERSHIP LOCAL & LONG DISTANCE SPEED DIALS: Individual speed dials for Members will be issued only upon request from a Member. Send us an email at wwra@telebyte.com or a postcard or just call anyone of the officers and we will respond. We do not take requests from your buddy. Additionally you might want to double-check your SWR when using the auto-patch. All too often we hear users trying to access the auto-patch system with very poor signals. It is also a good idea to utilize the correct codes.

COMMON AUTOPATCH MISTAKES: When you have a four-digit SPEED DIAL you DO NOT NEED to bring up a the auto-patch dial tone, just press the four numbers and it will do it for you. The other common mistake is we hear lots of broken or bad signals from HT's or mobiles with bad SWR. Try using the keypad test utilizing the "73" code located on the back of your membership card. It will tell you whether the repeater is hearing your digits okay. Many of you get frustrated because the auto-patch does not seem to be working. In most situations it is your signal and procedures that are preventing you from having a successful connection.

CALL SIGN IDENTIFICATION REMINDER: Please remember to ID. During long QSO's many forget. The repeaters ID every 9.5 minutes as a reminder. A good way to operate is when you hear the repeater ID then you should quickly do it right after that then you are covered under the FCC regulations for station identification. Some of us become forgetful when engaged in long conversations and be sure to use your call sign at the end of each QSO. We have heard some QSO's during early morning hours that if recorded by the FCC would cause us to "shut it down" or put in a "sleep mode" during these hours and we do not want to do this. PLEASE IDENTIFY. Thank you.

BREAKING IN ON QSO's in PROGRESS: The correct approach for interrupting a QSO is to say your CALL SIGN once or use the term BREAK only once. To use the term "break" more than once is reserved for emergencies. Also keep in mind when you get engaged in long QSO's that others maybe a little timid to break-in even though you may comment that its okay to do so. They may feel that what they have to say is not important and shy away from interrupting you. You should consider breaking off your QSO for 5 minutes or so to let these users have a crack at it.

COPYING THE MAIL: A QSO on 146.62MHz REPEATER. Base station "C" called mobile "E" for what sounded like a radio check. E responded by stating that C had some white noise. C then apparently shifted from a rubber duck to another antenna or shifted locations at his base and E then told him that the noise was still there. C stated that it must be "repeater noise" and signed off. E who was talking to C on his Kenwood microphone encoder radio continued on to his destination by cycling the 146.620MHz repeater every couple of minutes because he forgot to either turn his "beaconing mode" OFF or shifting his radio back to the APRS frequency of 144.390MHz.

LESSONS LEARNED: What information we can all draw from this short QSO was that station E's signal although mobile was excellent and clear while C was at his base station was having clarity problems with his transmission. They both could have asked for another stations opinion and would have learned what was really going on. We should also remember that the repeaters pass on what they hear. Also those of you out there operating the Alinco and Kenwood radios that have built in TNC's have an additional responsibility to properly set up their radios to ensure they do not transmit these signals.

COMMUNICATIONS SERVICE MONITOR: In May the BoD authorized the purchase of a much needed service monitor. This test and service equipment has been needed by the WWRA operations committee for years but has for various reasons slipped out of our grasp. Finally we have located and successfully purchased a Motorola Communications Service Monitor. A copy of the operations manual can be downloaded on our website at <http://ww7ra.org/Newsletters/MotorolaServiceMonitorManual.pdf> for all you aspiring operations committee volunteers. Having this equipment on the hill will save money over time by the ops committee not having to continually run up the hill to tweak something.

This was in our last newsletter but consider important enough to include in this one since we have many new Members.

MALICIOUS INTERFERENCE: Occasionally we have to temporarily shut down the repeaters due to someone attempting harassment. If it is the accidental keying of a microphone and the Time Out Timer (TOT) will take over.

If it is purposeful malicious interference than **YOU CAN HELP:** Users should be aware that this type of behavior will happen from time to time and we all should be prepared to deal with it. You can be very helpful by following some very simple steps.

PLEASE:

1. DO NOT talk to him/her.
2. DO NOT acknowledge this type of behavior in any way.
3. DO NOT make comments to your ham buddies during your QSO about him or reference a hint of interference in any way.
4. DO NOT acknowledge if he interferes with your QSO just sign off normally giving absolutely no recognition to him. Normally, his signal is down in the mud and most QSO's can continue without interruption. You will hear him when you unkey.

Anything you do in the way of an acknowledgment will merely provide the perpetrator with encouragement. He/she is waiting for your reaction. You can really help by following this simple procedure listed above. Hopefully a control operator will shut the system down with no fanfare. Additionally, if you hear this character on there and would like more information about his history call someone on the Ops Committee or Board of Directors via landline that can brief you. Go to a website and send us an email. We will also not discuss it on the air but if someone happens to ask why a repeater was OFF then the most you will get out of us over the air will be a "down for maintenance" response. If you are really curious and want further elaboration then it will have to be offline via email or landline. We do not want to let our friend know what we are doing or thinking. Thanks for your understanding and patience.

KILOCYCLE COPS: We don't have any! One other issue the managers of the WWRA wrestled with this past year was one ham harassing another ham about some procedure the harasser apparently didn't approve of. The BoD was forced to send a letter to the offender requesting them to refrain from this behavior but welcoming them to continue use the repeater. Bottom line is that if there is a FCC violation or real obnoxious behavior the control operators will shut down the repeater, otherwise everyone should understand that this is a hobby to have fun with. No one including the WWRA managers have the right to criticize a fellow amateur radio operator, especially over the air. We got rid of kilocycle cops sometime ago and are not interested in them returning on our watch.

AUTOPATCH ID: Also when using the auto-patch please use the proper procedures outlined in the Ops Policy and ID the station your calling which is the WW7RA repeater and your own call sign.

Joe, W7COM-WWRA Chief Operator

BILL, N7YT – ECHOLINK Coordinator, WWRA Operations Committee

WW7RA UHF ECHO LINK SYSTEM: The WWRA Echolink connection resides on our UHF repeater. This feature is open to all hams regardless of membership status. Echolink is voice over IP linking software that enables the UHF repeater to be linked over the internet to thousands of other repeaters, simplex links, and direct internet connected hams world wide. The WW7RA UHF repeater setup uses a link radio and computer at N7YT to interface with the network via DSL. Repeater audio is received at N7YT, and then fed to a sound card interface for transmission to the remote station via the Internet. Audio from the remote station is taken off the Internet by the computer at N7YT, fed through the sound card to the link radio, and on to the repeater. The system is normally available 24/7, and is controlled via DTMF tones. To determine system status, enter DTMF "77208". The computer will respond:

1. Disconnected [Available, but not in QSO]
2. Connected (station) [Available, in QSO]
3. Disabled [Not available, not connected to the internet servers]

To connect to a remote system, simply key in the prefix **772** along with the remote node number. Two popular ones that **Chas, W4HFZ** recommends as the people on the other end understand Echolink can be used for your learning and testing:

Call Sign	Prefix/Node Number	Location
KO4HO-L	772 53772	Hampton, VA repeater
W1AAA-R	772 90769	Salem, CT repeater

Another useful node is the APRS conference, **772 70715**. There are several thousand total available nodes. An up to the minute active node list, as well as full details on the software, can be found at <http://www.echolink.org>. Once connected, enjoy the QSO. Note that capabilities at the remote site vary, and in particular with repeaters, there may be up to 4 T/R transitions that have to happen when completing an exchange. Given that the link radio is half duplex, the far side has to drop our repeater before you can transmit back. We have done a fair amount of tweaking to our settings right, but that is not always the case with the remote systems.

When the QSO is over, disconnect the link with the DTMF "772#" command.

77253 (LD or Link Down). It can later be re-enabled with the DTMF command

77258 (LU or Link Up).

Our repeater can support up to 5 simultaneous connections. The link radio identifies every 6 minutes in QSO, upon connection, upon disconnect, and every 45 minutes when not connected. The every 45-minute when not connected announcement will be moved to the repeater controller. More work is being done to enhance capabilities, and suggestions are always welcome. Also, consider taking a copy of Echolink with you on your travels this summer, and using it to link to the repeater when you are out of range.

Our WW7RA node number is **121776**, and status is kept up to date in the APRS status text of W4HFZ. It works great on a 56k dialup and laptop.

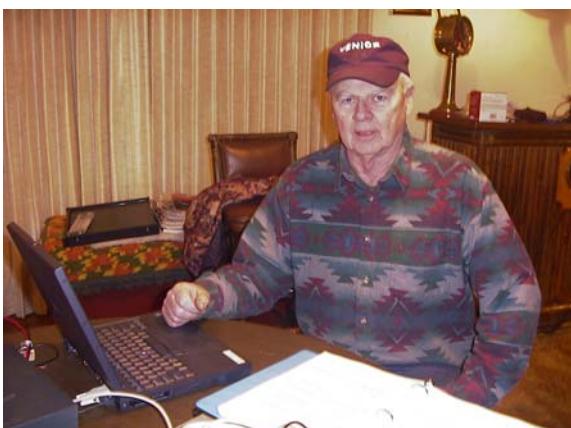
Bill, N7YT- Ops Committee Echolink Coordinator

WW7RA MEMBERS EXTEND THE RANGE OF THEIR REPEATER ALMOST HALFWAY ACROSS THE WORLD BY USING THE ECHOLINK FEATURE!

Bill, N7YT and George, N7GME used Echolink this past holiday season to communicate via the WW7RA UHF repeater located on Gold Mountain 7 miles west of Bremerton, Washington, USA to cross 9 time zones between the N7YT mobile in Silverdale, Washington, USA and N7GME/I laptop in Naples, Italy. Bill and George have always carried on QSO's between 6:30 and 7:00am during their commutes to work for the last several years so Echolink enabled them carry on with this tradition when George would connect to the WW7RA UHF [Code 121776] repeater using his laptop while he was touring Italy this past holiday season. Both George and Bill have been volunteers working on the WW7RA repeaters for a few years and were involved with the installation of this Echolink hookup and were looking forward to using it on George's trip. Just as George arrived in Naples the repeaters controller went out, the telephone lines to where George was staying went down for about 36 hours and then the server George was utilizing decided to quit. George said, "Bill, N7YT and Joe, W7COM another volunteer ran up to Gold Mountain and made a repair. Meanwhile I kept my fingers crossed and the Italians came through and got their end back on line within a couple days. After that it was clear sailing and the audio had unbelievable clarity.



Bill, N7YT - Silverdale, Washington



George, N7GME/I - Naples, Italy



MOTOROLA SERVICE MONITOR The WWRA has finally procured its very own communications service monitor. Members of the operations committee have been discussing this most valuable piece of test equipment for years. In years past on a few occasions we have almost got one but for various reasons the repeaters ended up being cheated and came up short. This equipment is vital for checking deviation and setting the audio levels for the repeaters. The unit came with a technical schematic manual but no operations manual. We then called Motorola and by explaining our situation to a technician at their instrument calibration lab he very graciously sent us an original manual that he had extra laying around his shop. We have made a copy of this manual and is it currently located on our website. The ops committee is very happy. ☺