



Congress may take a stand on BPL

Editor's note: BPL represents perhaps the biggest threat to Amateur Radio, which merits its placement on the cover of this month's Relay. If you haven't contacted your congressman urging support of this new resolution, consider doing so—soon.

Rep. Mike Ross, WD5DVR, has introduced a resolution in the U.S. House calling on the FCC to “conduct a full and complete analysis” of radio interference from broadband over power line.

Ross, a Democrat from Arkansas, is urging the FCC to comprehensively evaluate BPL's interference potential, incorporating “extensive public review and comment.” In light of that analysis, his resolution calls on the FCC to “reconsider and review” its new BPL rules.

If approved by the House, the non-binding resolution would convey “the sense of the House of Representatives.”

The resolution's prime focus is on BPL's potential to disrupt critical public safety radiocom-

munication. It cites National Telecommunications and Information Administration studies that “have determined BPL creates a ‘high risk’ of radio wave interference.”

These studies also indicate that “harmful interference to public safety mobile radio receivers can be expected at distances of 75 meters from the power line where broadband over power line is in operation, and at distances of up to 460 meters from fixed stations, such as VHF police or fire dispatch communications facilities.”

Many public safety agencies and support services, including emergency medical services, firefighters and law enforcement, use Low-Band VHF (30-50 MHz). Thirteen states use the band for state police operations—Washington does not—while it's the primary public safety radio band in nine states.

The resolution also notes that the FCC has struggled for years to resolve harmful interference



to the radiocommunications of first responders on 800 MHz and “should not have proceeded with introduction of a technology which appears to have substantial potential to cause destructive interference to police, fire, emergency medical services and other public safety radio systems” without first conducting a comprehensive evaluation.

ARRL President Jim Haynie, W5JBP, is urging ARRL members to contact their U.S. representatives to support the resolution when it reaches the House floor.

A sample letter is available on the ARRL Web site, although members are encouraged to express support in their own words.

To expedite delivery, send your letter—preferably as an attachment—to hres230@arrl.org or fax it to 703-684-7594. The ARRL will bundle correspondence addressed to each member of Congress for hand delivery.

— The ARRL

The Inside Story

It's time to sign up if you want to stay in the Barracks for Field Day.

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Measuring and understanding voltage standing wave ratio.

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How to build a handheld controller for Kenwood transceivers.

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The *K7LED Relay*, published monthly, is the official newsletter of the Mike & Key Amateur Radio Club. Mike & Key ARC is an ARRL-affiliated club dedicated to the growth and betterment of Amateur Radio.

The club meets at 10 A.M. the third Saturday of every month at Salvation Army Headquarters, 720 S. Tobin Street, in Renton (near the southeast corner of Renton Airport). Anyone interested in Amateur Radio is invited to participate in the Mike & Key ARC and its activities. Annual dues are \$12 for individuals and \$18 for families.



Postal Address

P.O. Box 4234
Renton, WA 98057-4234

K7LED Repeaters

146.82 output / 146.22 input (PL 103.5)
Squak Mountain

224.120 output / 222.520 input (PL 103.5)
Tiger Mountain

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www.mikeandkey.org

E-mail

info@mikeandkey.org

Reflector

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Several club resources are available electronically:

Web: The club's site at www.mikeandkey.org includes extensive information about club events, VEC testing, membership, past editions of the *Relay* and more.

Mike & Key Online

Reflector: The public message board offers an easy and free way to converse with club members. To sign up, surf to: <http://groups.yahoo.com/mkarc>.

E-Relay: Want the newsletter in color and a day or two before the print edition arrives by regular mail? You'll also help the club save money in printing and postage costs.

To sign up, send a message to the editor: k7stq@arrl.net.

Got ideas? Board wants to hear yours

Sam Sullivan / N7RHE

President

Last month, I wrote that the state of the club is *good*. This month, I report that the progress is *exciting and encouraging*. The new board has had two meetings, which is usually a settling-in period. Well, we're settling in well.

From the Hot Seat

We have two experienced members back on the board and two new members, plus the carryover trustees and officers. The exciting thing is the fresh ideas, different ways of looking at issues and the positive team attitude that is already evident.

Be sure to express your concerns, ideas, hopes or concerns to the officers and board members. Remember, you're always welcome to come to a board meeting, which is held the last Wednesday of the month.

If you want something specific covered or just want to speak, get in touch with Brendan KD7IKV

to be included on the agenda.

Remember to suggest or volunteer any activities or events to Dawn KC7YYB. Contact Guy N7ZG about any training issues you would like addressed.

Contact information for club officers is on Page 2 of every *K7LED Relay* and on the club's Web site at www.mikeandkey.org.

My hope this year is to have more technical articles in the *Relay* and more technically related programs, when possible (see Pages 4 and 5 of this issue for the first of these stories).

The Field Day Committee is really getting revved up. Co-chairs are Mike K7OV and Gary KG7KU. I'm sure they have some more jobs open and, as always, the more people who participate the better the event will be. Dave KB7PSN has the picnic well in hand.

This is our club; help keep it the best club known. Contact any of the board members with ideas and suggestions. I can be reached at 253-631-0663, svsullivan@comcast.net or n7rhe@arrrl.net.

Sign up now to stay in the Barracks

Rita Danielson / KD7CNU

Field Day 'Barracks Mom'

This is your Mother speaking. Well, your Barracks Mom, anyway.

As usual, the beds are filling up fast in the Barracks. All those who stayed in the Barracks last year have a standing reservation. However, please confirm with me that you will be returning.

Whether you stayed in the Barracks last year or not, you can contact me—the sooner the better—at gamatoad@msn.com. I check my e-mail daily and will reply.

What's involved in staying in the Barracks? I provide breakfast



Field Day 2005
June 24 - 26
Fort Flagler

and a clean, comfortable place to stay. You provide your own bedding, lunch for Saturday, contributions for the potluck Friday and Saturday evenings, and some muscle for the cleanup on Sunday.

I still have a policy of not giving showers. If you can operate a mike, you can wash yourself.

There is a full-service kitchen in the main Barracks for you to stow your food. Coffee will be flowing all day Saturday.

A couple of jigsaw puzzles will be going and I'm sure the beading trio will be making their beautiful creations, as well.

You are more than welcome to stop in and say "hey," even if you're staying at the Wagon Wheel or on CW Beach. The more the merrier, except for the nights. We only have 29 beds.

I still have not decided on a breakfast menu, but I promise you won't be disappointed.

I'm sure Larry and Rachelle will keep us all entertained with their endless supply of wit.

I plan to be at the May meeting to answer questions.

See you all there—Rita KD7CNU, aka "Barracks Mom."

Key Club Dates

Next General mtg.: **May 21**

Board mtg.: **May 25**

Relay deadline: **June 10**

Measuring and understanding VSWR

Sam Sullivan / N7RHE

President

As we know, when the source (transmitter impedance), the line (coax or balanced feedline) and load (antenna impedance) are not matched, some energy is reflected back to the source.

This reflection causes transmission line heating, loss of radiated power and can cause damage to the finals in the transmitter.

A calculation using the forward power and the reflected power is known as *standing wave ratio*—or SWR. Since most detection methods use and display the voltages present, we most often use the term *voltage standing wave ratio*—or VSWR.

Using the desired impedance values of the transmission line and the antenna, $SWR = Z_o/Z_l$, where Z_o is the characteristic impedance of the transmission line and Z_l is the impedance of

the load. The equation can be inverted so the larger number is in the numerator.

With RG-8 and a 100-ohm load, $SWR = 100 / 50 = 2$.

I've skipped the definition of reflection coefficient and its relation to voltage and current ratios—perhaps that's a topic for later discussion.

The most common way to accurately determine the SWR is to measure forward and reflected powers with a wattmeter, such as a Bird 43. Then SWR is the relation of forward and reflected power.

If you have a nomograph, you look at the intersection of the forward and reverse power lines. The math is $SWR = (P_f/2 + P_r/2) / (P_f/2 - P_r/2)$

But even with a calculator, square roots are messy. I've been able to use a calibrated directional coupler and vector voltmeter to measure the reverse power characteristics. This also gives



The Bird 43.

the phase angle of the reflection to allow a mathematical or Smith chart analysis of the true impedance.

Knowing the return loss in decibels, the messy math is $SWR = (1 + 10dB/20) / (1 - 10dB/20)$.

I plan on a future demonstration of this method at a meeting.

The most important thing to remember is that the built-in reading or external meter reading of VSWR might not be laboratory accurate. But, it is a relative indication that you have reduced the reflected power at the measurement point by tuning out the reactive component of the load to achieve resonance.

Our club's Web site is buffing up

Jim Etwiler / KD7BAT

Webmaster

You may have noticed that some of the club's Web pages have a new format. All pages on the club site will be converted as time allows.

The changes include:

- ▶ The logo in the upper left corner of the page is a link to the home page.

- ▶ Addition of a "path" to the current page from the home page just under the club logo.

- ▶ Trading the few blue buttons at the top for a list of all the page links down the right side of the page.

- ▶ And the addition of a search box just below the links down the right side. The Google search box can be set to search just the club Web site or the whole Web.

Following the vote at the last board meeting, the club Bylaws have been posted online. If you have lost your copy or would like one with the latest revisions, visit the page at:

www.mikeandkey.org/bylaws.htm

The pages are formatted to print on a standard 8.5- by 11 - inch paper instead of the 5.5-by-8.5 folded pamphlet previously distributed.

We have received requests to

link to two other sites. One is a manufacturer:

www.cwtouchkeyer.com

The other—"The Marketplace for your Electronics Airwave Auctions"—is a new site that "caters to anything and everything pertaining to radios and radio electronics." Find it at:

www.airwaveauctions.com

I have not visited either Web site, but pass along the information for those who may be interested.

As a reminder, note that our Web site address is changing to www.mikeandkey.org.



Schematic and all photos / Eric N7DLV

Photos 1 and 2: A \$2 joystick controller. Right: Figure 1.

Build a hand-held controller from a gaming joystick

Eric Snyder / N7DLV

Special to the *Relay*

This project was inspired by a fortuitous find in a local thrift store. While browsing the aisles, I spied a computer gaming joystick controller.

What piqued my interest was its ergonomically sound form and the three push buttons on top, in addition to the trigger. The joystick was also ambidextrous—it could fit either hand comfortably. Upon closer examination, I also noticed a gray ON/OFF slide switch.

I realized this would make an excellent hand-held controller for my transceiver. The trigger would control the push-to-talk and the three buttons on top would control the messages to be transmitted. The slide switch could be used to disable message transmission. Two shielded cables would go from the controller to the transceiver.

The Hand-held PTT and Playback Controller can be constructed in an afternoon. It is

Editor's note: Some hams enjoy building things as much as talking on the radio. This month, Eric N7DLV explains how to build a controller for Kenwood transceivers. Coming up, Ted KC7ZEO will offer a guide to programming calculators to solve homebrew electronics problems. A very special thanks to Eric and Ted for sharing their expertise.

simple to make and the required parts can be found in a well-stocked junk box. Any additional needed parts are readily available at Alphasatronics (formerly Supertronix) or Radio Shack.

The Kenwood TS-850S/AT and TS-950S/AT transceivers have, as an option, a digital voice recorder and playback module. This module can be programmed with up to three voice messages, which are accessible remotely by using a resistor network and switches.

Other Kenwood HF transceivers also have voice record and playback abilities. Unfortunately, I do not know of any that can remotely control these messages using a similar device.

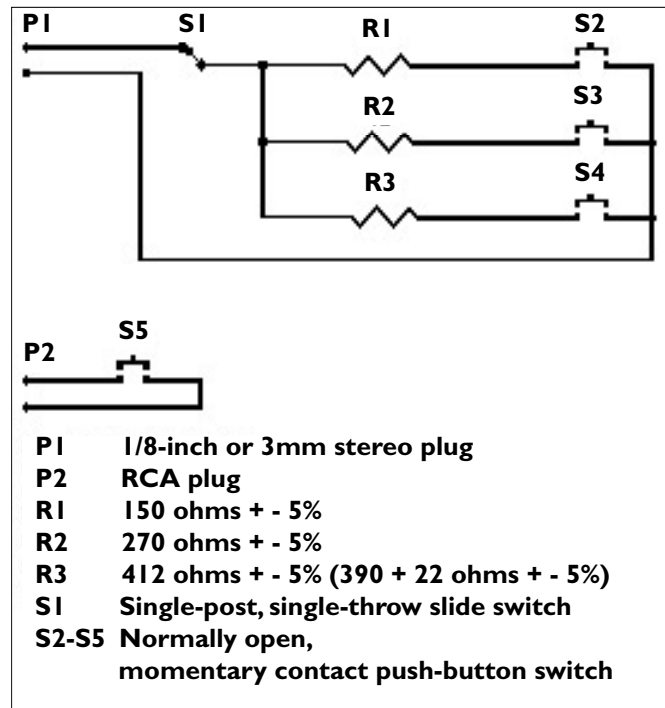
When I originally purchased my TS-850S/AT, I also bought the DRU-2 voice module. I also built a remote hand-held con-

troller to play back messages and allow for PTT operation. This made contesting and Field Day operating very easy and convenient, especially with a headset.

Though it served me adequately and never failed, it was uncomfortable to use.

The TS-950S/AT transceiver uses the RM-1 to remotely access the messages. However, the RM-1 is cumbersome and does not offer PTT capability. Fortunately, the resistor values used for message playback on the TS-950S/AT are the same as those used on the TS-850S/AT. This controller should work just as well on both transceivers.

When operating Field Day, I use a Heil headset. The adapter cable that connects the headset to the transceiver has an RCA



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Building a controller from a joystick

Continued from Page 5

jack for a PTT switch. I decided that the PTT line from the controller is to connect to this RCA jack.

Alternatively, you can select one of the connections on the rear of the transceiver. Pin 3 and ground of the 7-pin remote connector can be used. Also, if you choose, you can use Pins 13 and 8 of the accessory 2 connector.

The playback select function is connected to the accessory 3 terminal. Both transceivers use a 1/8-inch or 3mm stereo phone plug.

Figure 1 (on Page 5) shows the schematic diagram of the controller. Play-1 is enabled by selecting a 150-ohm resistor; Play-2, 270 ohms; and Play-3, 412 ohms (390+22 ohms).

Messages are played back by the use of three normally open, momentary closed contact switches. A single-post, single-throw slide switch opens the circuit, thus disabling message playback. The trigger controls the PTT.

Photo 1 (Page 5) shows the joystick I selected—a Tiny brand, model JSK210 joystick controller. It has three push-button switches, which is perfect for our use. These switches also have tactile feedback to give you a positive indication when they are selected. The ON/OFF switch can be used to disable these switches to prevent inadvertent playback of the voice messages.

This joystick was purchased at a thrift store for less than \$2, plus tax. If you cannot find this particular joystick, consider an alternative. You or your children may have a suitable replacement

somewhere around the house.

The first step is to remove the controller from its base. Most joysticks can be disassembled easily and are put together with screws located on the bottom or handle.

After you remove the controller from the base, you will have something resembling the joystick shown in Photo 2 (Page 5).

The next step is to disassemble the controller. This is required since the controller must be modified and parts added. Some controllers snap together and can be difficult to take apart. Be sure to choose one that screws together.

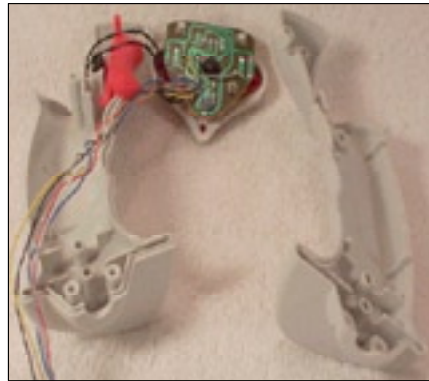


Photo 3: The disassembled joystick.

Once the joystick has been taken apart (Photo 3), examine the parts. Be sure to note how the switches are arranged and see if there are any unusual circuits or parts.

Right off, you can see a black shape in the middle of the switch circuit board. This is some sort of surface-mounted IC chip that must be removed or isolated from the rest of the circuit. I chose to isolate it by cutting the associated traces.

Upon closer examination, I was able to visualize how the circuit for this joystick controller

was to be modified. All I had to do was isolate the IC chip, isolate the slide switch, reposition a wire, remove others and install a short jumper as part of the construction process.

Be sure to check the other side to make sure there are no unexpected parts.

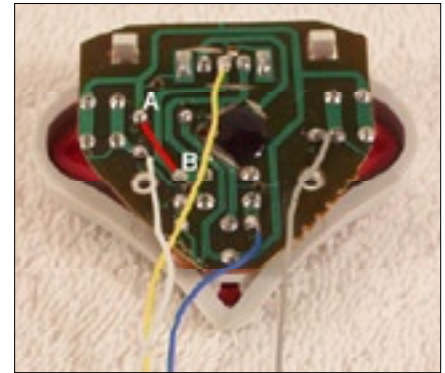


Photo 4: Isolating the IC chip.

I isolated the IC chip by taking a Dremel-brand tool and cut the traces connecting it to the rest of the circuit (Photo 4). I also isolated the slide switch by cutting additional traces.

A yellow wire was repositioned and connected to the center lead of the slide switch. Finally, a short jumper wire was connected between points A and B. This short jumper connects the common side of the center push-button switch to the common of the other push-button switches.

At a convenient place near the base of the controller, cut a notch in each half to facilitate entry of the cable assembly.

As per page 51 of the TS-850S/AT owner's manual, voice channel 1 playback is controlled with a 150-ohm resistor, channel 2 with a 270-ohm resistor

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and channel 3 with a 412-ohm resistor. Since 412 ohms is not a common value, a 390-ohm and a 22-ohm resistor are placed in series.

Using a hot-glue gun, glue the resistors to a convenient place inside the controller handle. Connect one side of the three resistor values together. This will be connected to the yellow wire later.

Please note the black push-button switch above and to the left of the resistor network (Photo 5). This is the trigger switch. The cable connecting the PTT line will be soldered to this switch later during the construction process.

Decide if the controller is to be used by your right or left hand. If used by your left hand, solder the wire connecting the right-side playback switch to the switch side of the 150-ohm resistor.

Solder the wire connecting the center playback switch to the switch side of the 270-ohm resistor. Next, solder the wire connecting the left-side playback switch to the switch side of the 390+22-ohm resistors.

This way, your thumb will be able to select messages 3, 2 and 1 from right to left. If you will be using the controller in your right hand, just reverse the two outside switch connections.

If you want, you can add circuitry that will allow left- and right-hand operation.

Next, we'll construct the cable assembly that leads from the controller to the transceiver. I chose to use a 6-foot length of shielded stereo audio cable (Photo 6). Make sure the cable you used is shielded. You want to minimize the amount of RF intrusion.

At one end of the cable, slide

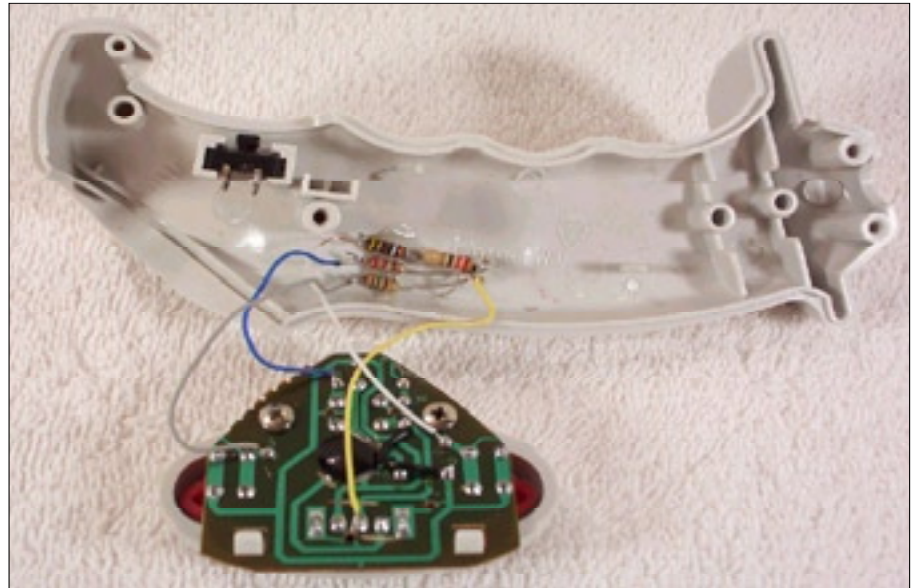


Photo 5: Resistors are glued in place. Note the push-button switch at upper left.



Photo 6: The shielded audio cable.

a piece of heat shrink tubing and place it about 2 feet along its length. Apply heat to the tubing to shrink it in place. This prevents the cable from separating beyond this point.

Next, "unzip" or separate a 2-foot length of the cable up to the heat shrink tubing. Take one of the separated conductors, measure approximately 3 inches and cut it off at this point.

Make a note of the color of the center conductor. Attach an RCA plug to the 3-inch section. The center of the RCA plug is soldered to the center conductor of the cable. The shield connection of the RCA plug is soldered to the shield of the cable.

Attach a 1/8-inch or 3mm stereo plug to the end of the 2-foot section of the cable. The center conductor is soldered to

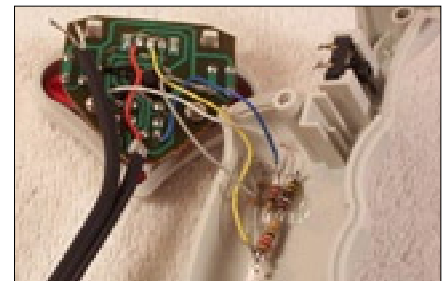


Photo 7: Final controller connections.

the tip of the stereo plug. The shield of the cable is soldered to the shield of the plug, and the "ring" terminal is left unused.

Prepare the controller end of the cable as shown in Photos 7-10. Connect the shield of the cable for message playback to the common of the message playback switches.

Connect the center conductor to the appropriate lead of the ON/OFF switch. I chose to solder the shield to the common side of the push-button switches.

Connect the PTT line to the trigger switch. Route the cable through the notches cut earlier, and reassemble the controller.

This completes the construction of the Hand-held PTT and

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A controller for Kenwoods

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Voice Playback Controller. Now, we're ready for testing.

Connect an ohm meter to the RCA jack. The meter must show an open. Press the trigger. The meter must show a short. Release the trigger and the meter must return to show open.

Connect the ohm meter to the tip and shield connection of the 1/8-inch or 3mm phone plug. With the playback enable slide switch in the ON position, the meter must read open.

Press the switch for message playback No. 1. You must get a reading of 150 ohms, + - 5%. Release the push-button switch and the meter must read open.

Press and release message playback switch No. 2. While the switch is pressed, the meter must read 270 ohms, + - 5%.



Photo 8: Final controller connections.

Press and release message playback switch No. 3. While the switch is pressed, the meter must read 412 ohms, + - 5%.

Turn the message playback slide switch to the OFF position. Press and release the message playback switches. The meter must read open. Return the slide switch to the ON position.

Connect the hand controller to your transceiver and confirm the proper operation of the controller. If any of the tests reveal a problem, it must be corrected prior to on-the-air operation.

Amateur Radio operators are encouraged to construct this or a similar controller. All oth-



Photo 9: Routing the PTT cable.



Photo 10: A fine piece of work.

ers please note that a patent is pending for this controller and all rights associated with it are reserved.

This article is also online at: www.angelfire.com/wa3/n7dlv

Meeting called to order by Brendan

In attendance: Dave, Ted, Brendan, Gary, Robert, Dick, and visitors Meredith and Jay.

Old Business

Made note of various errors in the booklet that managed to escape our rigorous proofreading process. A copy of the booklet was marked up for future reference in order to further our process of continuous improvement.

One item that was mentioned was that in consideration of all that they do for the club, Hot Press should get a complimentary ad, if space is available.

Brendan will send a copy of the current sales letter to Dick to include with these minutes when they are sent out to the committee members.

There was discussion of potential page layout changes for the Nets and Repeaters pages.

Public Service Minutes April 16, 2005

Dick and Brendan will continue the Public Service Database project, which has been languishing for the past couple (dozen?) months. We'll be racing against the impending Blessed Event, though.

The subject of JOTA (Jamboree On The Air) was brought up. This year we might be in time to get through/around the procedural blocks that have prevented us from participating in the past.

New Business

There was discussion of potential notification methods for public service events as they come along. This will be a bit tricky as the information in the database was given under condition that it would not be shared with outsiders.

This could potentially be accom-

plished through the establishment of e-mail reflector type notification so that when there is a need for operators, someone from our board could notify those among our members who had expressed an interest in supporting that type of activity. They could then respond directly to the organizer without having their information given out.

Various methods were discussed for letting the public know just who it is that is providing communications for these various events. A sign or banner would be nice, but what organization should be credited, and who will pay for it?

A generic "Communications Provided by Amateur Radio" banner would serve the purpose, but leaves the matter of explaining to the public just what "Amateur Radio" is and who will pay for the banner hanging. Also, do we support events that have professional event organizers? More to come in the future.

Dick WA7NIW,
Public Service Committee Secretary

Public Service Events

Tuesday, May 17**Leif Erikson Parade**

Ballard

Contact: Gene, N7QLT

425-485-5405

gbudbill@

seafairparademarshals.org

Saturday, May 21**ADA Tour de Cure Ride**

Redmond to Monroe

Contact: Gene, W7AKA

425-226-4115

w7aka@comcast.net

Sat.-Sun., June 4-5**Wash. Special Olympics**

Fort Lewis

Contact: Colleen, N7LEX

206-388-4428

ccurrid@msn.com

Sat.-Sun., June 4-5**SCCA Dryad Quest**

Shitepoke at Shelton area

Contact: Jerry, KD7CZN

360-943-

jbjulian@comcast.net

Saturday, June 11**Sound to Narrows Race**

Tacoma

Contact: Judy LeFluene

253-370-3280

Saturday, June 18**Strawberry Fest Parade**

Marysville

Contact: Gene, N7QLT

425-485-5405

gbudbill@

seafairparademarshals.org

Sunday, June 19**Father's Day Parade**

Seattle / Central Area

Contact: Gene, N7QLT

425-485-5405

e-mail: see above event

The stinging bite of the 'Alligator' is music to our ears

Editor's note: For those who missed last month's Awards Banquet, you also missed the PL Tones performing their hit single, Alligator. Despite the band's subsequent breakup due to a dispute over royalties, the Relay managed to obtain the song's lyrics.

Done to Dead Skunk by Loudon Wainwright III

Talking up a storm on the repeater last night,
Shoulda checked the time, shoulda let up on the mike.
Didn't see the gator, as it's coming up for air,
The repeater timed out and there you are.

*Timing out repeater, now you're talking to dead air.
Timing out repeater, now there's no one else to hear.
Timing out repeater, now you're tearing out your hair.
Victim of the Alli-gator.*

Yeah, you're often destinated and you're sometimes negatory,
You like to go hi hi when you tell a funny story.
But timing out the repeater, you'll never live it down,
You might as well pack it up and head on out of town.

*Timing out repeater, now you're talking to dead air.
Timing out repeater, now there's no one else to hear.
Timing out repeater, now you're tearing out your hair.
Victim of the Alli-gator.*

Sorry ol' Man but your signal's kinda sucky,
'Cause you like to work mobile, with a rubber ducky.
Roger on that, very best 73s.
Enough bad jargon, to bring you to your knees.

*Timing out repeater, now you're talking to dead air.
Timing out repeater, now there's no one else to hear.
Timing out repeater, now you're tearing out your hair.
Victim of the Alli-gator.*

Now you're red in the face and that ain't good.
You wanna slink away and leave the neighborhood.
You don't have to look and you don't have to see,
Your mantel's gonna get a new trophy.

*Timing out repeater, now you're talking to dead air.
Timing out repeater, now there's no one else to hear.
Timing out repeater, now you're tearing out your hair.
Victim of the Alli-gator.*

Officers present:

President – Sam Sullivan (N7RHE)
 Vice Pres. – Carolyn Pasquier (WV7Q)
 Secretary – Gary Bryan (KG7KU)
 Treasurer – Jack Grimmett (N7IHS)
 Activity Mgr. – Dawn Humphrey KC7YYB

Trustees present:

No. 1 – Brendan Burget (KD7IKV) / CoB
 No. 2 – Dick Radford (WA7NIW)
 No. 3 – Guy Molinari (N7ZG)
 No. 5 – Frank Tate (NA7O)

President Sullivan called the meeting to order at 10 A.M. at the Salvation Army Building in Renton, Wash.

All members and guests recited the Pledge of Allegiance.

The president made several announcements: The Mike & Key ARC is affiliated with the ARRL, which members are encouraged to join; everyone, including visitors, should sign the rosters; visitors are reminded not to vote on membership matters; smoking is allowed in the parking lot but not in front of the chapel. Members and guests introduced themselves.

Quorum present.

Minutes: Motion by Paul K7STQ and seconded by Adrian KB7BVL to approve the minutes of the previous meeting as printed in the *K7LED Relay*. Motion passed.

President Sullivan called upon the officers and board members of the previous year to stand, at which time the general membership applauded them in appreciation for work done well. The president then called upon the current officers and board members to stand, at which time the general membership applauded them in supportive fashion.

Welcome, new member

The Mike & Key Club warmly welcomes our newest member, who was approved in April:

Gail Richardson of Seattle. Shortly after becoming a member, Gail earned her Technician license and now has the call sign KI4JVM.

**General Meeting Minutes
 April 16, 2005**

Officer Reports

President – Sam N7RHE: The next Mike & Key general membership meeting is May 21.

Vice President – Carolyn WV7Q: New Memberships – Gail Richardson (no call) introduced herself, then the general membership voted, and the motion passed for Gail’s membership into the Mike and Key Club. Welcome aboard, Gail.

Secretary – Gary KG7KU: The April ‘05 *Logger’s Bark* of the Radio Club of Tacoma is available, as is the Mt. Baker ARC April Newsletter, *Ground Wave*.

Treasurer – Jack N7IHS: Issued the P&L statement.

Radio Officer – Terry WX7S: Not present. Alan KB7SVU – As RO alternate, Alan is looking into the repeater status.

Activity Manager – Dawn KC7YYB: Raffle items are available, please participate. Our own Guy Molinari N7ZG will be presenting today’s program, “Building an Elecraft K2 Transceiver,” following the break.

Chairman of the Board – Brendan KD7IKV: The Mike & Key Board meets April 27 at Galliano’s Cucina in SeaTac.

Standing Committee Reports

Technical – Dick K7NEX: Not present. No report.

Education – Guy N7ZG: A review of the needs of the Club members and Ham classes is under way.

Facilities – Brendan KD7IKV: Nothing new to report.

Public Service – Dick WA7NIW: Event listings can be found on the tables. The committee will meet today.

Strategic Planning – Frank NA7O: Nothing new to report.

Field Day – Mike K7OV, Alan KB7SVU and Gary KG7KU. Mike K7OV: This year’s event will take place on June

25-26. Band chair sign-up and other assignments are going well. Contact Mike to claim your band or assignment.

Alan KB7SVU: A work party will be scheduled soon to clean up the antennas and related equipment / trailers. Let Alan know of your willingness to help with this important preparation-for-Field-Day activity.

Banquet – Jim N7HKO: Barnaby’s, April 9. The Annual Awards Banquet went well.

Sam N7RHE: Handed out the club Service Awards and acknowledged the tremendous individual and collective contributions of the “Senior Class” of excellent service to the club.

Old Business

Alligator – The “honorary” custodial recipient Calvin KC7IYP not being present, the Alligator—which was present—now awaits its home.

New Business — None

Good of the Order

Alan KB7SVU: The Tall Ships event, to be held in Tacoma during July 4th festivities called Freedom Fair, will need Ham support. Contact is formalized by filling out a volunteer form on the Tall Ships Web site: www.tallshipstacoma.com, or contact Alan to relate your ability to help.

There being no further business, Mike K7OV moved and Jim N7HKO seconded a motion to adjourn. Approved and President Sullivan closed the meeting at 11:25 A.M.

Attested: Gary Bryan – Secretary, KG7KU

How our members stack up in the club

As of May 1, two-thirds of our licensed members were Extra or Technician class:

Class	Number	Percent
Extra	73 38.6
Technician.....	53 28.1
General.....	37 19.6
Advanced.....	15 7.9
Tech Plus.....	11 5.8
Total.....	189	

Seeking to buy and sell ham gear

For sale

Hygain 7-2: 2-element 40-meter Yagi with 22-foot boom. Never assembled. \$300.

Hygain TH3 Jr.: 3-element tribander. Used once on Field Day. \$200.

Cushcraft A35: 3-element tribander on ground. \$100.

Seeking to buy

220 MHz mobile rig.
VFO for Kenwood TS-820.
Contact Frank Tate, NA7O, at 206-762-4732.

Anderson connectors

Anderson Powerpole® connectors in 30- and 75-amp capacities are now available locally at Vetco Electronics in Bellevue.

Officers present:

President – Sam Sullivan (N7RHE)
Vice Pres. – Carolyn Pasquier (WV7Q)
Secretary – Gary Bryan (KG7KU)
Activity Mgr. – Dawn Humphrey KC7YYB

Trustees present:

No. 1 – Brendan Burget (KD7IKV) / CoB
No. 2 – Dick Radford (WA7NIW)
No. 3 – Guy Molinari (N7ZG)
No. 4 – Dick Vance (K7NEX)
No. 5 – Frank Tate (NA7O)

Visitors: Dan N7QHC.

Chairman Brendan called the meeting to order at 7 P.M. at Galliano's Cucina in SeaTac, Wash.

Minutes: Motion Sam N7RHE and seconded by Frank NA7O to approve the minutes of the previous meeting as printed in the *K7LED Relay*. Motion passed.

Officer Reports

Chairman of the Board – Brendan KD7IKV: The next scheduled board meeting is May 25.

President – Sam N7RHE: Will try to keep introductions at general membership meetings less lengthy, though the information shared is a good way to get to know fellow hams. Next general membership meeting is May 21.

Vice President – Carolyn WV7Q: Review of New Membership applications. Mark Sandler, K7MAS, and Wayne Means, KI7XA, approved.

Secretary – Gary KG7KU: Amber Alert Web Portal – Monte Simpson, K2MLS, of Washington State Patrol is asking various ham groups and clubs to post the Web site link. The Board agreed that a copy of the e-mail with the Amber Alert Web Portal link is to be sent to Jim KD7BAT for consideration as to placement on the M&K home page.

Treasurer – Sam N7RHE presented

Board Meeting Minutes April 27, 2005

copy of the P&L report as received from Jack N7IHS. The Board discussed the distribution of the monthly P&L report and Dick K7NEX made the motion that the P&L report be e-mailed to the board members prior to each board meeting. Sam N7RHE seconded, motion passed.

Activity Manager – Dawn KC7YYB: Monte Simpson K2MLS will give a presentation of the Amber Alert Web Portal at an upcoming meeting.

Radio Officer – Brendan KD7IKV: The new repeater has been through testing and calibration. The board discussed status of the new repeater and installation. The board agrees the task of installation needs to take high priority. The board senses its obligation to the membership to see this task to completion.

Committee Liaison Reports

Facilities – Brendan KD7IKV: No major issues or concerns.

Sam N7RHE: Will send a list of Field Day assets, in spreadsheet form, to the board in an e-mail. The list shows items and current location of each.

Strategic Planning – Frank NA7O: Looking for input—perhaps a view of some of the historical data from previous membership survey results will provide some insight.

Technical – Dick K7NEX: Nothing new to report.

Public Service – Dick WA7NIW: Advertising is going to be a big push for next year's *Puget Sound Special Events & Information Guide*. Effort is already under way to target and capture more advertising.

Education – Guy N7ZG: Training and educational ideas are welcome from the membership. Contact Guy.

Old Business

Sam N7RHE: The By-Laws should be posted to the M&K Web site. Motion by Guy N7ZG and seconded by Dawn KC7YYB to have the By-Laws posted to the M&K Web site.

New Business

Field Day: A report copy of Field Day status was reviewed, as received from Mike K7OV. Still looking for a 10/75-Meter phone chair.

Sam N7RHE mentioned the use of battery backup as a possible source of power, should the generator stop. The board was not prepared to consider this option at this time.

Sam N7RHE: The Audit Committee needs to be staffed. Dick K7NEX, Guy N7ZG and Sam N7RHE (and with Dick WA7NIW as backup) volunteered to form / staff the committee.

Brendan KD7IKV: Flea Market—Questions have been raised whether non-members at the Flea Market should get a commission discount for Country Store items. Following board discussion, Carolyn WV7Q made a motion and Dick WA7NIW seconded that the topic be deferred to the Flea Market Committee with the board's recommendation that the policy be stated, "Members working pay no commission." Gary KG7KU was selected to deliver this recommendation.

Good of the Order — None

There being no further business, Carolyn WV7Q moved and Dick WA7NIW seconded a motion to adjourn. Approved and Chairman Brendan closed the meeting at 8:36 P.M.


Attested: Gary Bryan – Secretary, KG7KU





Ham Nets & Events May / June 2005

Nets are on 146.82 unless indicated otherwise
Send calendar items to the Relay editor: k7stq@arrl.net

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
15 2000 — King Co. ARES (weekly) 2000 — Amateur TV net: 147.08 (weekly)	16 0545 — VWeather net: 145.33 (M-F) 1645 — VWeather net (M-F)	17 2000 — Snoho. Co. RACES: 146.92 (weekly)	18 2000 — General / Tech info: 145.33 (weekly) 2100 — NWSOAR net (weekly)	19 2000 — Computer & Packet net: 145.33 (weekly) 2000 — Amateur TV net: 147.08 (weekly)	20 2000 — Youth net: 145.33 (weekly)	21 1000 — Club mtg. 1300 — Ham exams ADA Ride Redmond to Monroe
22 2030 — Snoho. Co. ARES: 146.92 (wky.) U.S. Counties QSO Party — SSB (Sat. - Sun.)	23 2000 — YL net: 145.33 (weekly)	24	25 1900 — Board mtg.	26	27	28 0900 — NW Swap net: 145.33 (weekly)  CQ Worldwide WPX CW con. (Sat. - Sun.)
29 2200 — Northwest Astronomy net: 145.33 (weekly)	30 1730 — Puget Sound Traffic Sys. (daily) 1800 — VVA Emerg. HF: 3.985 (weekly)	31	1	2 1900 — Pub. Service net (weekly)	3	4 Special Olympics Fort Lewis SCCA Dryad Quest Shelton area
5 Special Olympics Fort Lewis SCCA Dryad Quest Shelton area	6 1830 — VVA ARES: 3.985 (weekly) 1930 — PS Repeater: 146.96 (weekly)	7	8	9	10 Relay deadline	11 0900 — WA ARES HF: 3.985 (weekly) Sound to Narrows Foot Race / Tacoma
12	13	14	15	16	17	18 1000 — Club mtg. 1300 — Ham exams Strawberry Festival Parade / Marysville