



*From our Club President...*

**SEAFAIR, RAMROD & Public Service**

By Ivy Nelson-Groves WA7IVY, President

*My Field Day sunburn has finally healed!*

Wow, it's July already! First, let me thank all of you who participated in Field Day this year. For the most part, I feel we had a successful Field Day this year. I haven't completed the compiling of the band totals yet, but it looks like we have a record setting year on one of our bands, not bad considering the sunspot count for Sunday was zero.

Since I'm new at this Chair thing, and I couldn't see everything that went on during Field Day, I'd really appreciate feedback from those who went this year. What went well, what went wrong, what we can do better for next year. I'd like to get your comments and suggestions at the next General Meeting. If you want to submit feedback with some level of anonymity, I'll have a "suggestion box" at next General Meeting. Or feel free to email me if you can't make the meeting.

Now back to the future... Summer is upon us in full force - with SEAFAIR parades, bike rides, and other opportunities for Public Service. The upcoming RAMROD bike event could use your help (contact Gene W7AKA for more information). Please take time to check the public service pamphlet or the web site for events that you would be interested in helping out with. Next to Field Day, I think Public Service events are one of the most enjoyable ways to spend a day with my radio! Stay cool everyone. See you on the 17<sup>th</sup>. -Ivy

**SEAFAIR Torchlight Parade**

By Gary Bryan KG7KU

*Here it is again- SEAFAIR throws a huge summer Parade in Seattle. It's the Torchlight Parade, July 31.*

Any and every Ham that wants to be part of a truly professional Parade event, this is it. Just take one look at the Events calendar this month... chock full of opportunities, and by all means, check out & support the RAMROD event as well.

The more you do, the better you get and the more you get back in return. So, charge up those batteries, key up your radios and 'Ham It Up.' Sign-up for Torchlight: [www.seafairparademarshals.org](http://www.seafairparademarshals.org) ,

[See: 'Why Public Service?' Article on Page 8.]

**Mike & Key Club's Annual Picnic**

By Hal Goodell N7NW

Wow, summer is finally here. Isn't it great to finally bask in those 95 degree temperatures! Driving to and from work, stuck in the sweltering heat on I-5 or I-405! Thinking about the coolness of the beach? Well the Mike and Key club has the fix for the summer heat. Let's do a picnic at the beach.

**August 21<sup>st</sup> is the date of the Annual Picnic.**

Come one and come all. We have the Gene Coulon Memorial Beach Park, South Shelter #1, in Renton reserved from 8:30am till 1:30 pm. This is a covered shelter with picnic tables and barbecues adjacent to the shelter.

**The 21<sup>st</sup> is also the regular Mike and Key meeting date**, so we will be holding a short meeting at the park at 10 am.

*[Continued on Page 4]*

**IN THIS ISSUE:**

<i>From Our President- Ivy WA7IVY</i>	1
<b>SEAFAIR Torchlight Parade- Gary KG7KU</b>	1
<b>M&amp;K Annual Picnic- Hal N7NW</b>	1
<b>M&amp;K Club Contact Information – K7LED</b>	2
<b>M&amp;K July Club Meeting – Jim N7MU</b>	3
<b>Year-End Drawing Grand Prize – Jim N7MU</b>	3
<b>FD-2010: The Last Word – Rita KD7CNU</b>	3
<b>VE Update: Tech Question Pool- Scott AG7T</b>	4
<b>Neighborhood HamWatch- Rich K7RFH</b>	4
<b>Celebrate July Members- Dave KB7PSN</b>	5
<b>PortableRadioBox/PublicSvc- George AE7G</b>	6
<b>Elmers' Corner- Jim N7MU</b>	7
<b>The Radio Amateur's Code – Sam N7RHE</b>	7
<b>Why Public Service? – Gene N7QLT</b>	8
<b>Torchlight Parade – Wikipedia</b>	8
<b>M&amp;K June General Mtg Minutes- KD7WNV</b>	9
<b>M&amp;K June Board Mtg Minutes- KD7WNV</b>	10
<b>Ham Radio Gear for Sale- Ed NL7VP</b>	11
<b>Antique Radio Swap Meet- PSARA</b>	11
<b>M&amp;K-Picnic Map- Gene Coulon Beach Park</b>	12
<b>M&amp;K Reference Lending Library- Tim K7ANE</b>	13
<b>Ham Radio Nets &amp; Events- July / August</b>	14



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

**Web Site:**  
[www.mikeandkey.org](http://www.mikeandkey.org)

**Send dues to:**  
Mike & Key ARC  
P.O. Box 4234  
Renton, WA 98057-4234

**K7LED Repeaters:**  
146.82 output / 146.22 input  
(PL 103.5)  
Tiger Mountain  
224.120 output / 222.520 input  
(PL 103.5)  
Tiger Mountain

**Email:**  
info @ mikeandkey.org

**Send newsletter submissions to:**  
Gary Bryan, *Relay* Editor  
34033 33rd Ave SW  
Federal Way, WA 98023-7724  
kg7ku @ arrl.net

**Reflector:**  
<http://groups.yahoo.com/groups/mkarc>

### Club Contacts

<b>President</b>	Ivy Nelson-Groves	WA7IVY	wa7ivy @ live.com	425-269-3259
<b>Vice President</b>	Steven Cook	KD7IQL	kd7iql @ arrl.net	253-236-4205
<b>Secretary</b>	Robert Grinnell	KD7WNV	r-grinnell @ comcast.net	425-398-1466
<b>Treasurer</b>	Dave Smith	KB7PSN	kb7psn @ yahoo.com	425-235-5095
<b>Activity Mgr</b>	Jim Aigner	N7MU	jimaigner @ comcast.net	253-630-2752
<b>Radio Officer</b>	Hal Goodell	N7NW	n7nw.hal @ comcast.net	253-549-4178
<b>Trustees --</b>				
<b>No. 1</b>	Tim Kane	K7ANE	k7ane @ arrl.net	206-251-7467
<b>No. 2 (CoB)</b>	George Thornton	AE7G	GT LAW @ seanet.com	206-920-7072
<b>No. 3</b>	Michael Dinkelman	N7WA	n7wa @ arrl.net	253-631-3756
<b>No. 4</b>	Alan Hughes	KB7SVU	kb7svu @ junos.com	253-840-4947
<b>No. 5</b>	Daniel Stevens	KL7WM	KL7WM @ arrl.net	206-228-9274
<b>Logo Committee</b>	Dan Humphrey & Dawn Humphrey	N7QHC KC7YYB	n7qhc @ arrl.net	206-243-0163
<b>Webmaster</b>	Jim Etwiler	KD7BAT	kd7bat @ arrl.net	206-633-1512
<b>VE Testing</b>	Scott Robinson	AG7T	ag7t @ arrl.net	425-788-0452

### Mike & Key Online -- Several Club resources are available online:

**On the Web** — The Club's site at 'www.mikeandkey.org' includes extensive information about Club activities and events, such as: VE testing, membership, past editions of the *Relay* and more.

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

**E-Relay** — Want the newsletter in color and a day or two before the print edition arrives by regular mail? You will also save the Club some money in printing and postage costs. To sign up, send a message to the *Relay* Editor: kg7ku @ arrl.net.

## M&K July Meeting & Activities

By Jim Aigner N7MU, Activity Chair

With Field Day in the books and the Flea Market a distant memory, our two major events for 2010 have already happened. But don't check out yet. There are still some hot dogs to eat, some QSO's to make, some laughs to be had, and some door prizes to claim.

By all accounts Field Day was another smashing success. As a club it looks like we know how to run this event even with an occasional change in cast members from year to year. Kudos to Ivy WA7IVY for taking on the task! Thanks to all who planned it, especially to those who helped set up and tear down, and to those who attended and operated. If you didn't get to Ft. Flagler this year, you missed our best group operating activity. And not a bad family weekend either.

Continuing the theme, this month's program will be a Field Day follow-up. Expect to hear about our QSO and bonus points, the GOTA station, and bragging rights from the bluff and CW beach.

On August 21<sup>st</sup> the meeting will take place at the beginning of our Club's Annual Picnic. Hal N7NW and Annie have all the details taken care of. Join them for another pleasant family summer outing. No door prize drawing will be held in August.

## The Big End-of-Year Drawing

By Jim Aigner N7MU, Activity Chair

Your enthusiastic participation in our monthly door prize drawings will fund four great prizes at the yearend drawing in December. Here's a preview of one of them.



*Photo: This ICOM IC-2200H is the Year-End Drawing - Grand Prize.*

The ICOM IC-2200H is a great little 65 watt 2 meter FM mobile transceiver. Any one of us would like to have it. And when you are ready to dabble in digital voice modes, you can add an optional UT-118 board for D-STAR operation. This unit can be yours for the cost of one monthly door prize ticket – and a bit of luck, of course.

Door prize tickets purchased from December 2009 through November 2010 are eligible for the December end-of-year drawing. Tickets sold for the regular December monthly door prize will be eligible for the following year's year-end drawing. Stay in the game. Good luck. -Jim Aigner, N7MU



*Photo: These prizes await you at the (17-July) meeting.*

**July door prizes include:** a pair of Deluxe MFJ communications headphones, an MS8264 Digital Multimeter with temperature probe, a Ten-Tec 1056 direct conversion receiver kit with aluminum chassis, a 2 meter rollup 1/2 wave vertical dipole antenna, and 25' of #14 DC zip cord with Anderson Powerpoles.

Just a note: The "Mystery Box" door prize will make its debut in September, not July.

See you later this summer.

## FD-2010: The Last Word from Mom

By Rita Danielson KD7CNU

Well, Kids, we had a great family reunion at Fort Flagler a couple weeks ago. Everyone behaved themselves very well. No one was grounded.

I think our new family members had a good time as well.

Once again, Jim, KD7BAT, was there with his handy, dandy pocket knife, loosening painted shut windows so air could circulate in some of the rooms. Not sure how the wildlife liked being kept awake at night with all the snoring that could be heard coming through the windows, but I'm sure they fared quite well.

Jim also helped where and when needed, especially on Sunday morning during the clean-up. I don't think we could have finished on time without his help, and the help of all those that pitched in and did the chores. In years past we had until noon to clean the barracks, but this year they moved it up to 11 AM. We sure do need that extra hour, or so I thought.

Thank you, Jim for pitching in and helping with the dishes.

*[Continued on Page 4]*

July 2010

### **The Last Word from Mom... [Cont'd from Pg 3]**

Larry and his quick wit didn't disappoint. Always enjoy being around Larry. The beading trio were at work all weekend creating beautiful works of art. It was so good to see Tressie looking healthy again. Sally, Rusty & Tressie make up the beading trio. They are awesome to watch and listen to as they work.

We even had a bit of geo-caching going on. A group of about 6 went around and located all the caches they looked for. That's *100% success!* Congratulations. I think the Geo-cache bug has bit a few more people in the process.

I think we can call this a good year in the barracks. We were full, which is awesome. I was able to return all the deposits again this year. Since this system works so well, we will continue this for as long as I'm doing the barracks. The food was great, even if I do say so myself. I didn't hear any complaints, except from my back, but I don't listen to that anyway.

Already looking forward to next year. Hope to have some new family members again. Hideki, thank you for bringing Eugene and his parents. They are great people and it was nice getting to know Peter and Kathy. I'm sure they had a good time, too.

See all of you soon. 88's -I'll be [KD7]-C-N-U...

---

### **M&K Annual Picnic... (Cont'd from Page 1)**

The plan will be to arrive early around 8:30 for setup and the normal pre-meeting ragchew. The usual coffee and donuts will be available. The meeting will be held from 10 to 10:30. Followed by more ragchew. (We hams do love to talk)

**The BBQ will start at 11:30** so that we can be done by 1pm allowing us 30 minutes to clean up. The club will furnish the hot dogs and hamburgers and all the fixings along with water, soda pop and coffee. Please bring a side dish or desert.

Please contact Hal Goodell, N7NW, by email at [n7nw.hal@comcast.net](mailto:n7nw.hal@comcast.net) or Phone 253-549-4178 if you are planning on attending. I'll also have a signup sheet passed around at the July meeting. Please let me know what you are planning on bringing as a side dish or desert.

One word of caution, all park rules must be observed. Gene Coulon Memorial Beach Park consists of 57 acres of land and water at the southeast corner of Lake Washington. The park offers a unique opportunity for water-related recreational enjoyment.

**That having been said, Park Rules Forbid: Animals, alcohol, rollerblades, skateboard, and bike touring.** Bikes must yield to pedestrians and stay on the roadway. See these links for more details:

ThePark: <http://rentonwa.gov/living/default.aspx?id=74>

TheRules: <http://rentonwa.gov/uploadedFiles/Living/CS/REC/Park%20Rules.PDF>

PicnicPlanner: <http://rentonwa.gov/uploadedFiles/Living/CS/REC/Picnic%20Planner.PDF>

**K7LED Relay**

### **Directions to Gene Coulon Memorial Beach Park:**

#### **From I-405 North:**

Take Exit 5 and head west on NE Park Drive. Go to the bottom of the hill and turn right on Lake Washington Boulevard, proceeding north. The park entrance is approximately 1/4 mile on the left.

#### **From I-405 South:**

Take Exit 5 and head west on NE Park Drive. Go to the bottom of the hill and turn right on Lake Washington Boulevard, proceeding north. The park entrance is approximately 1/4 mile on the left

#### **Link to map of the Park [also, see Map on Page12]:**

<http://rentonwa.gov/uploadedFiles/Living/CS/REC/Coulon%20Map.PDF>

See you all at the Picnic!

---

## **VE Update: Tech Exam Question Pool Changed on July 1**

**By Scott Robinson AG7T**

As the technician question pool changed on July 1 there were a lot of last minute examinees for the previous question pool in June. So just remember to tell your friends that are studying for the technician license to use the 2010 Technician question pool.

Quite a few of the online study sites are not updated just yet, but here is one that has them: <http://aa9pw.com/radio/technician/> . -73, Scott AG7T

---

## **Neighborhood Ham Watch**

**By Rich Hand K7RFH**

In the June 2010 issue of QST (page 77), Norm Lauterette, WA4HYJ wrote a piece on a growing aspect of Amateur Radio known as the Neighborhood Ham Watch. Much like the old Neighborhood Watch elicited neighbors to help within their local areas, this concept adds the "when all else fails" resiliency of Amateur Radio to the mix. Norm mentioned the new program was developed in 2009 by Andy Gausz KG4QCD of the Lake Monroe Amateur Radio Society (LMARS) in Seminole County Florida.

In our local CERT group the question was asked "How do we communicate to official channels about our situation in the event of a major emergency?" With Hams throughout the neighborhoods, this may be a possible answer to that question.

A short "**What is Neighborhood Ham Watch?**" sheet provided by Andy Gausz states:

Neighborhood Ham Watch is a **voluntary** program for all amateur radio operators who want to provide a helpful service to their neighbors during times of extended power outage.

When the power goes out for long periods of time, such as after a major storm, and everybody's batteries wear out and their generators run out of fuel, people

**[Continued on Page 5]**

## July 2010

### **Neighborhood Ham Watch... [Cont'd from Pg4]**

are virtually left in the dark and without any way to receive radio or television, or talk to friends and relatives outside the affected area. It gets lonely and you feel isolated because you can't talk to anyone and you can't find out what Emergency Managers in local governments are planning or doing to help you.

"Communication Isolation" can be worsened by downed trees and power lines which make it very difficult for emergency services to reach your neighborhood. This is a time period that often lasts several days, perhaps even weeks.

It is a time when Amateur Radio Operators, often called "Hams" can help.

#### **There are three things "Hams" can do:**

1. Neighborhood Hams can get on their radios and talk to each other across the city and county and share information about what's going on in their neighborhood. This conversation provides effective therapy to fight against the psychological depression that often accompanies communication isolation. Just talking to each other, and sharing information with their neighbors helps keep people in touch with what's going on and how the community is coping with the emergency.

2. Hams in your neighborhood can also contact local government Emergency Operations Centers that are equipped with Amateur Radio Stations and operators and describe conditions and special needs in the neighborhood to local emergency managers. This information helps officials plan and coordinate a response to current needs and organize the recovery effort with first hand information about community conditions. Emergency Managers can also relay information through Hams to neighborhoods providing vital information about the recovery effort and reassurance that action is being taken to help the citizenry.

3. Hams that are equipped with special capability can also relay simple, short messages from their neighbors to distant relatives or friends, helping people reassure others that they are OK, survived the storm, and are in the recovery stage. There are two ways they can accomplish this special service, one through an amateur radio nation-wide message relay system called the Amateur Radio National Traffic System, and another more direct and efficient way, by using their Ham Radio to link their computer to the Internet, totally independent of Internet providers who are likely to also be without power.

In the ARRL article, Norm summarizes the three elements of Ham Watch in a different way. The NHW program design consists of three levels of participation.

The **first level** is nothing more than ham's **communicating with each other** during the recovery period for the purpose of **sharing information and**

## **K7LED Relay**

**relieving communication isolation** associated with an extended power outage. Just hearing another hams voice from a different neighborhood can help ease the suspicions that grow from not knowing what is going on outside your immediate area.

The **second level** of participation is **establishing a NHW net and communicating with local EOCs** through their ARES station and operator. This is the information relay tool that connects emergency managers with the neighborhoods in their community.

The **third level** will allow **hams with Winlink capability to directly send welfare traffic at the request of their neighbors to extended family outside the stricken area to relieve concerns and reduce clogging of commercial cell phone and telephone systems.** Winlink allows hams to send email directly to message recipients without stressing the National Traffic System with routine or welfare traffic requests.

I have additional information from Andy including a customizable NHW brochure for sharing with neighbors, clubs and public officials or just about anyone else who has an interest.

Andy Gausz is President of the Lake Monroe Amateur Radio Society in Seminole County, Florida. Norm Lauterette is ARRL Public Information Officer. QST June 2010 Public Service Section (includes Neighborhood HamWatch article)

**[Ed. Note—hover your mouse over the above agencies for an access 'link' to the respective site.]**

## **Let's Celebrate our July Members!**

**By Dave Smith KB7PSN, Treasurer**

As of July 2010, these folks have been Mike & Key members for the number of years stated.

Congratulations to all of you, and thanks for your participation and service.

**Each of you makes us who we are:**

<b>Jimmy Sutton</b>	<b>K7NQ</b>	<b>35 Years</b>
<b>Hap King</b>	<b>W7WCV</b>	<b>26 Years</b>
<b>Jim Maras</b>	<b>WA7FMT</b>	<b>23 Years</b>
<b>Dick Vance</b>	<b>K7NEX</b>	<b>21 Years</b>
<b>Sam Sullivan</b>	<b>N7RHE</b>	<b>19 Years</b>
<b>Ermanno Rusi</b>	<b>N7VIQ</b>	<b>18 Years</b>
<b>David Lee</b>	<b>KC7FSR</b>	<b>15 Years</b>
<b>George Hammel</b>	<b>KB7MYU</b>	<b>14 Years</b>
<b>Larry Smith</b>	<b>AB7FJ</b>	<b>14 Years</b>
<b>Robert Grinnell</b>	<b>KD7WNV</b>	<b>7 Years</b>
<b>Tom Johnson</b>	<b>K7GOA</b>	<b>6 Years</b>
<b>John Lawrence</b>	<b>KE7LHL</b>	<b>3 Years</b>
<b>Jim Greccostoliesimile</b>	<b>KE7WLW</b>	<b>1 Year</b>

## **A Portable Radio Box for Public Service Events**

By George Thornton AE7G

I do a lot of public service work, mostly with sporting events. Over the years we have evolved a need for an ideal combination of radios and peripheral devices.

We work on VHF/UHF, both through repeaters and direct via simplex. We are often in and out of vehicles, so an HT is helpful. We often work in areas with poor communication paths, so it is very helpful to cross band our HT to a more powerful mobile rig.

APRS is a valuable tool. While laptop APRS mapping software is ideal, using a laptop while driving is dangerous and cumbersome. GPS plotter devices that will directly plot APRS locations on a GPS screen are a plus because they work automatically and do not distract the driver.

We typically work with up to five different frequencies and a lot of our operations require 220 m capable equipment.

On top of that, I sometimes have to move my equipment into other vehicles.

Here is the equipment I have come to prefer:

**HT:** Kenwood TH-F6a: Tri-Bander with 220.

**Dual-Bander:** Kenwood D700/710: Dual band and integrated APRS. In this configuration I do not connect a GPS to the D700 so I do not fully use the Kenwood APRS functions.

**Tri-Bander:** Kenwood TM-742/942: These radios are discontinued but can be found used. They offer full triband operation including 220 MH. Moreover, they can serve as a cross band repeater.

**APRS:** I use the Tracker 2. This device can be used with almost any 2 meter radio to provide full APRS capability. Using this device with a Garmin Nuvi 350 GPS navigation device opens a whole realm of new opportunities. The 350 has a fleet mode capability that will accept APRS plots from the radio as favorite destinations. These are automatically plotted direct to the screen and you can even use the 350 to get turn by turn directions to the last plotted location for that station. You can even use the Nuvi to send messages to another APRS station. I have found this combination to be reliable, stable and very easy to use.

Because I want to be able to use all five bands for the two mobile stations, I have dedicated a separate two meter rig solely for APRS work. I had a spare Icom V8000. This rig is overpowered for APRS work, so it is necessary to lower the power transmit settings.

This combination of equipment of course also requires connector cables, remote mounting heads, two microphones, AC power for the Garmin and two remote speakers. The Tri-Bander requires use of a Tri-Plexer to connect to a single multiband antenna.

Plus, direct connection to the vehicle's battery would

be a necessity. Add to all of that three separate antennas and cables.

### **Adapting for Mobile Use**

Switching all this equipment between vehicles could be a nightmare. A need developed for a clean, elegant solution for combining the radios to minimize setup headaches. With all that equipment there would also be a need for cooling fans to minimize heat during extended operation.

I came up with the idea of using a dual height rack mount computer server case. These can be bought for around \$100 and already include cooling fans.

The box is flat and sturdy and protects the equipment well. I was able to install all three radios, the duplexer and the Tracker 2 with plenty of room to spare.

Power is brought in using 8 gauge red/black wire connected with 75 watt Anderson PowerPole connectors. Power is distributed through terminal strips.

The two Kenwood radio heads are mounted on a plate that can fit into the cup holder of a vehicle. I mounted a toggle switch to the plate a well.

The APRS radio does not have a remote control head. We placed a relay in the box that can be activated by a remote toggle switch. When in the on setting the dedicated APRS radio, the Tracker 2 and the fans are all activated.

So, in the vehicle I have two radio control heads and a toggle switch, as well as two remote speakers and two microphones. I also have the Garmin 350.

To simplify the connection between the box and the control head, existing radio control cables were reorganized using commonly available modular cable connections. We now can make all connections using one D sub 9, one D sub 25 and one eight pin Ethernet cable.

### **Installation in a New Vehicle**

Switching between vehicles is very simple.

The hardest step is accessing power from the vehicle battery. For the first use we connect cable directly to the battery, fuse it near the source and run the cable to the radio box location, installing 75 AMP Power Pole connectors on the end of the wire. Once this has been set up in a vehicle, we leave the cable in place so it can be reused later.

The radio box is brought to the vehicle. We connect the 25 pin and 8 pin Ethernet between the radio box and the control plate. Plug the speakers and microphones into the control head. Plug the Garmin 350 into the car's AC power adapter and connect the garmin cable to the 9 pin connector.

We of course need antennas, simple mag mount antennas can be put on the roof of the vehicle and the cables run to the radio box, which has three external PL259 connectors that are patched through to the individual radios. **[Continued on Page 7]**

**Portable Radio Box... [Continued from Page 6]**

If we don't have to mess with the battery connection, this whole setup can be assembled and made operational in about 20 minutes.

**Operation Is Simple**

Operation is indeed quite simple. Just turn on the individual radios.

The Garmin device has a suction cup and it can be secured to the windshield. Turning the toggle

switch to on starts the Tracker 2, the APRS radio and the cooling fans. In a few seconds the tracker 2 will establish communication paths with the Garmin and the screen will show connection made. The combination has worked flawlessly for me.

The box draws NO power when the switch and radios are off.

When running I can simultaneously monitor up to five different frequencies, plus have full APRS capability. I have access to 2 meter, 220 and 440 bands with full mobile power.

**Special Focus: Elmers' Corner... by Jim Aigner, N7MU**



Please visit the Elmer Wiki at <http://k7ledelmerwiki.wikispaces.com/>.

Area	Elmer Coordinator	Email	Phone	Also...
Homebrew, DX, antennas	Jeff Wandling, W7BRS	<a href="mailto:dew7brs@gmail.com">dew7brs@gmail.com</a>	206-605-2278	New Hams, satellite work
Beams and Towers	Alan Hughes, KB7SVU	<a href="mailto:kb7svu@juno.com">kb7svu@juno.com</a>	253-840-4947	Beam antennas and towers, safety
Contesting	Mike Dinkelman, N7WA	<a href="mailto:mwdink@clearwire.net">mwdink@clearwire.net</a>	253-631-3756	Contest operations
CW	Mike Dinkelman, N7WA	<a href="mailto:mwdink@clearwire.net">mwdink@clearwire.net</a>	253-631-3756	Learn CW, operating proficiency
Digital Modes	Andy Lengenfelder, KE7ZGR	<a href="mailto:ke7zgr@arrl.net">ke7zgr@arrl.net</a>	425-430-1804	All digital modes, software, TNC's
D-STAR	Steve Hatch, WA7DAD	<a href="mailto:stephen@hatch.net">stephen@hatch.net</a>	206-851-8842	D-STAR technology and operation
Emergency Comm	Tim Kane, K7ANE	<a href="mailto:k7ane@arrl.net">k7ane@arrl.net</a>	206-251-7467	CERT, ARES, organizations & Eq't
HF Operation	Dale Tongue AC7NP	<a href="mailto:dale.tongue@gmail.com">dale.tongue@gmail.com</a>	425-432-4254	Equipment, Antennas, and best HF operating practices
New Members	Dick Radford, WA7NIW	<a href="mailto:wa7niw@arrl.net">wa7niw@arrl.net</a>	425-828-9791	Getting started, equipment selection and operation
QRP	Frank Qualls, AB7HA	<a href="mailto:franklin_qualls@hotmail.com">franklin_qualls@hotmail.com</a>	425-802-1837	Low power operation, design and construction
VHF/UHF Operation	Dave Smith, KB7PSN	<a href="mailto:kb7psn@yahoo.com">kb7psn@yahoo.com</a>	425-235-5095	6 meters and up; radios, antennas, modes

**The Radio Amateur's CODE**

Contributed by Sam Sullivan N7RHE

**CONSIDERATE**

Never knowingly operates in such a way as to lessen the pleasure of others.

**LOYAL**

The operator offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

**PROGRESSIVE**

With knowledge abreast of science, well-built and efficient station and operation above reproach.

**FRIENDLY**

Slow and patient operating when requested; friendly advice and counsel to the beginner, kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

**BALANCED**

Radio is an avocation, never interfering with duties owed to his family, job, school or community.

**PATRIOTIC**

Station and skill always ready for the service to country and community.

*[The original Amateur's Code was written by Paul M. Segal, W9EEA, in 1928]*

## Why Public Service?

By Gene Budbill N7QLT

This is a wonderful hobby that we are all engaged in; using our equipment for chasing DX, rag chewing, contesting. We are afforded these privileges by our Government Agencies and therefore are obligated to adhere to the regulations which provide them. Part 97 which governs Amateur Radio starts with:

### Subpart A—General Provisions

#### § 97.1 Basis and purpose.

The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

(a) **Recognition and enhancement of the value of the amateur service to the public as a voluntary, non-commercial communication service, particularly with respect to providing emergency communications.**

Paraphrasing the above, one of the purposes for which we are granted frequencies is to perform public service, especially emergency communication. Fortunately disasters do not happen every day, but then how do we prepare? Opportunities for Public Service happen much more frequently, but why bother participating?

### Public Service = Public Relations

Being in the public eye and explaining what we are doing can generate interest in the hobby. How many of us just woke up one day and thought “I want to play on the radio!” Something is drawing in lots of new blood. From the ARRL 2009 Annual Report:

*2009 was a banner year for new Amateur Radio licensees. A high level of exam session activity has produced an elevated influx of new applications, far outpacing recent years. In 2009, a total of 30,144 new licenses were granted, an increase of almost 7.5 percent from 2008. In 2005, 16,368 new hams joined Amateur Radio's ranks; just five years later, that number had increased by almost 14,000—a whopping 84 percent!*

### Public Service = Experience

With regards to Emergency Communications, Amateur Radio provides both long range and local communications via HF and VHF/UHF frequencies. Field Day is one opportunity to practice. The objective of Field Day is to work as many stations as possible on any and all Amateur bands (excluding the 60, 30, 17, and 12-meter bands) and to learn to operate in abnormal situations in less than optimal conditions. Public service events provide an opportunity to practice the VHF/UHF techniques that we would employ for local communications during an emergency.

## Public Service = Fun

Working an event is a chance to renew old acquaintances and make new ones, both within our hobby and with the event participants. It is a chance to try new experiences.

Amateur Radio used to support many more events in the greater Seattle area than it does today. The Shore Run, Beat the Bridge, Jingle Bell Run, Tour de Peaks, the Tri-Island Trek and others are all events that used to utilize Hams for Checkpoints and Safety teams but because of lack of interest from the Ham community (not enough volunteers to support the events) they now make do with the community volunteers they can gather.

**So, check out the Mike & Key Website's [Public Service page](#) and consider helping with an event or two. This is the season for SEAFAIR parades and bicycle rides. The big SEAFAIR event is the *Torchlight Parade on July 31<sup>st</sup>*.**

If you are aware of an event that is using Hams for support that isn't listed on the page, contact the [Webmaster](#) and get it listed. If you're helping with an event that could possibly use Ham support but aren't sure what "we" could provide, contact the Club's Public Service committee.

***“America's quiet warriors are the legion of Ham Radio operators, 700,000 of them, who are always at ready for backup duty in emergencies – amateur, unpaid, uncelebrated, civilian radio operators, during and after floods and fires and tornadoes. After the 9/11 attacks, hams were indispensable in reuniting friends and families. Most recently it was they who expedited the search for debris after the disaster to the space shuttle Columbia, and right now, at this moment, they are involved in Homeland Security to a greater degree than you would want me to make public.”*** — Paul Harvey News and Comment, ABC Radio, March 19, 2003.

### From Wikipedia, the free encyclopedia:

**Torchlight Parade** - *The Torchlight Parade is the finale in a long series of [parades](#) around the greater [Seattle](#) area under the auspices of [Seafair](#), a Seattle summertime celebration. The parade is one of the original Seafair events dating to the 1951 centennial celebration. The first parade was actually held on August 12, 1950, in the afternoon, as the Seafair Grande Parade.*

*The Torchlight Parade is usually on either the first Saturday in August or the last Saturday in July. The parade starts in the evening, close to [dusk](#) which gives it the name. Because of the dark, participants are encouraged to include creative uses of light and luminescent devices in their display. The parade draws an estimated crowd of over 300,000 people each year. Some of those wanting a prime viewing location arrive the night before with couches, rugs, and portable refrigerators.*

*The parade has had several route changes in its history. The first year it was held in a loop on 2nd and 3rd Avenues. It was later changed to start at 4th and Madison and make its way to [Memorial Stadium](#). The current parade route begins by [Seattle Center](#), follows 4th Ave through [Downtown Seattle](#) and ends at the north parking lot of [Qwest Field](#), a distance of about 2 to 2.5 miles.*



## M&K General Meeting Minutes

Meeting held June 19, 2010

Meeting was called to order at 1002 hours by the President, Ivy WA7IVY.

Pledge of Allegiance.

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.

Introductions.

### Officer Reports

**President** – Ivy WA7IVY: Report was in the *Relay*.

**Secretary** – Robert KD7WNV: Mail was picked up and delivered to the Treasurer.

**Treasurer** – Carolyn WV7Q standing in for Dave KB7PSN: The club roster was distributed to members this month. Please report any corrections to Carolyn. The Fleamarket transfer to general account was made June 1<sup>st</sup>, though by a Board decision, only the budgeted amount was transferred; a surplus was left in Fleamarket account.

**Activity Manager** – Jim N7MU: The program today is final planning and orientation for Field Day. Door prizes include some Field Day t-shirts – sizes vary, pins, 900 MHz wireless headphones, TenTec direct conversion receiver. On the table are some handouts related to UPS batteries. There are a large number of batteries, retired from UPS service at the Costco data center, available to hams involved in emergency communications. They are large capacity and are in good shape. Contact info is on the table—call Skip Frans KE7MPO, or see Jim.

**Chairman of the Board** – George AE7G: Jeff W7BRS has resigned from Trustee position #5. We will have an election today to replace him.

**Radio Officer** – Hal N7NW: The 222 MHz repeater is back in operation on Tiger Mountain. Still working to resolve mixing problem on 2-meter repeater. Has some other tweaks and improvements in mind, too. Working to get battery backup in place.

### **Quorum present.**

Is there a motion to approve the minutes of the previous meeting as printed in the *K7LED Relay*?

Sam N7RHE made a motion to approve the minutes as amended; Gil W7GIL seconded the motion. Motion passed.

**Relay Editor** – Jim KD7BAT for Gary KG7KU: Gary appreciates all the *fifteen* people who contributed to the newsletter, making for a great issue! The roster was distributed. There are four ways to submit an update for the roster when you have a change: Send to Gary's email (address on the roster); send to Jim at the [info@mikeandkey.org](mailto:info@mikeandkey.org) address (on every page of the website); give changes directly to the Treasurer, or fill out a form from the Vice President.

**Webmaster** – Jim KD7BAT: Website has been corrected for the 222MHz repeater's PL tone, and Hal's (N7NW) 222 MHz repeater has been added.

**Vice President** – Steve KD7IQL: Membership applications: none of the applicants were present.

**Awards Committee:** Dick WA7NIW was awarded a plaque in recognition of his service as President for the previous two years.

### Standing Committee Reports

**Strategic Planning** – Jeff W7BRS: Not present.

**Facilities** – Mike N7WA: Not present.

**Education** – Tim K7ANE: Nothing to report.

**Public Service** – George AE7G: Nothing to report.

**Technical** – Alan KB7SVU:

### Other Committees (as appropriate)

**VE Exams** – Scott AG7T: There were 14 people taking tests in May—awarded 6 Technician and 6 General. Today's exam session is the last one for the old Technician question pool; a new question pool is in effect July 1.

**Field Day** – Ivy WA7IVY: We need more barbeques. Bonus points chair Andy KE7ZGR is looking for bonus points, wants to put together a seminar on the NTS traffic system, probably in the rec room around Noon or 1:00 PM on Saturday. GOTA chair Frank AB7HA asked that HF-inactive hams coming to Field Day be sent to the GOTA station before they become active by operating on the regular stations. Ivy asked for volunteers to coach at the GOTA station for an hour or two each. Robert KD7WNV announced that the group order for t-shirts, etc., has arrived; pick up items from him during the break.

**By Laws Review** – Dave KB7PSN: Not present.

**Picnic** – Hal N7NW: August meeting will be at the picnic at Coulon Park in Renton, but VE exams will still be at the Salvation Army HQ at usual time, 1230 hours. Looking for a couple of volunteers each for food, cooking, and games. Club supplies burgers, hot dogs and beverages; bring a side dish or dessert.

**Old Business:** None

### New Business

Election to replace Trustee #5: Nominations: Brendan KD7IKV, Daniel KL7WM. Daniel was elected.

### Good of the Order –

Seafair public service events – Liz N7ZXH: The Marysville Strawberry is tonight; meet at 4:00 PM at Safeway on State St. Parade is at 7:45. New Relay will have a list of all parades for July, which is busy, busy, busy—some days have multiple parades. Need many hams to help with the big Torchlight Parade (July 31). Sign up at:

[hamsignup@seafairparademarshals.org](mailto:hamsignup@seafairparademarshals.org), or:

[radio1@seafairparademarshals.org](mailto:radio1@seafairparademarshals.org).

Gene W7AKA - The RAMROD is July 29. We need about 30 hams to man rest stops and patrol the route.

Steve W9SK noted that today is Kid's Day (1800-2400 UTC). Help a kid get on the air, or get on the air to answer a kid's call.

Daniel KL7WM asked about the surplus funds that were left in the Fleamarket account. Hal N7NW explained that it is because the Fleamarket has sometimes hit a point in past years where funds get pretty tight, this move is to provide more cushion.

Alligator award: Dean N7NKO caught Roy N7AVN timing out the repeater. Roy was awarded the alligator.

*[Continued on Page 10]*

**M&K General Mtg Minutes... [Cont'd from Pg 9]**

Frank NA7O has name tags for those who ordered them. Michelle WA7PVE announced results of the ARRL 10-meter contest. Dean N7NKO earned 1<sup>st</sup> place in Western Washington for Low Power Phone (3<sup>rd</sup> in Northwest Division). Michelle earned 1<sup>st</sup> place in Single-Operator QRP Phone (2<sup>nd</sup> in Division).

Hal N7NW noted that 6-meters has been really good, check it out.

David KC7FSR would like to work Torchlight but needs a ride (lives near Fairwood).

The next Mike & Key Board meeting has been rescheduled to the first Tuesday (instead of Wednesday) of the month, July 6th at 7:00 pm, at the Salvation Army in Renton.

The next Mike & Key General Membership meeting is the third Saturday, July 17, 2010.

Daniel KL7WM made a motion to close the meeting, second by George AE7G. The motion was passed. Meeting adjourned at 1054 hours.

7 guests; 58 members, 45 ARRL members

Attested: Robert Grinnell KD7WNV, Secretary

**M&K Board Meeting Minutes**

*Meeting Held July 7, 2010*

**Officers present**

X President – Ivy Nelson-Groves (WA7IVY)

X Vice President – Steve Cook (KD7IQL)

X Secretary – Robert Grinnell (KD7WNV)

X Treasurer – Dave Smith (KB7PSN)

X Activity Manager – Jim Aigner (N7MU)

X Radio Officer – Hal Goodell (N7NW)

**Trustees present**

   No. 1 – Tim Kane (K7ANE)

X No. 2 – George Thornton (AE7G)

X No. 3 – Mike Dinkleman (N7WA)

X No. 4 – Alan Hughes (KB7SVU)

X No. 5 – Daniel Stevens (KL7WM)

**Other officers (non-voting)**

X Relay Editor – Gary Bryan (KG7KU)

X Webmaster – Jim Etwiler (KD7BAT)

Chairman of the Board George AE7G called the meeting to order at 1904 hours.

**Minutes:** A motion to approve the minutes of the previous board meeting was made by David KB7PSN and seconded by Ivy WA7IVY. Motion passed.

**Officer Reports**

**Chairman of the Board** – George AE7G: Nothing to report.

**President** – Ivy WA7IVY: Nothing to report.

**Vice President** – Steve KD7IQL: Membership applications: Thomas L. Voss, N7WLE; Arlene Hand (no call); Dave Swenson, KD7YJL; Gary Greve, W7TRJ; Chuck Burgess, KF6TWK; Dave Tebrink, K7NZU; all recommended for approval.

**Secretary** – Robert KD7WNV: Mail was picked up and delivered to the Treasurer.

**Treasurer** – Dave KB7PSN: Distributed a budget status report for review, verbally noting recent significant expenses. Some discussion of Wagonwheel fee—Dave indicated that he has not yet received a bill for the actual number who camped this year. Carolyn WV7Q expressed deep concern about the Board's action in June to leave additional funds in the Fleamarket account, and suggested it be rescinded.

George AE7G ruled this to be Old Business, and tabled until that section of the meeting.

**Activity Manager** – Jim N7MU: Our next big activity is the picnic in August; things are “under control.” Surplus food and supplies from Field Day will be used there. The July program is not yet determined; George AE7G ruled we will pick up that under New Business. Sold 140 door prize tickets in June, a bit lower than recent months. For July, door prizes include a digital multimeter, DC power cord with Anderson Powerpole connectors, and a 2-meter half-wave dipole. Jim will not be present for the July meeting; Mike N7WA will cover. Lee KE7NBN donated a 56’ military pole kit that will be a door prize at the September meeting. Jim expects to have a good pool of money for end-of-year door prizes, and discussed some ideas for the prizes, emphasizing having some radios.

**Radio Officer** – Hal N7NW: Repeaters are still operating well. With Field Day and other time demands, has not yet been able to go up to the site to do further trouble-shooting on the mixing port, but still plans to do so. Mentioned that Steve KD7IQL is working on battery backup, expected in place September-October. Steve expressed thanks to Skip KE7MPO for providing several very substantial backup batteries, retired from commercial UPS service.

**Relay Editor** – Gary KG7KU: Not present. Jim KD7BAT noted that Gary had been asked to take a 3-month assignment in North Carolina. He declined due to other commitments, but if it is offered again, he may accept and we would need to find a substitute.

**Webmaster** – Jim KD7BAT: Web site is up-to-date. Has not yet obtained materials from Gene W7AKA; Jim is busy for a couple of weeks and Gene will be busy with RAMROD after that, so Jim will pursue later.

**Standing Committee Reports**

**Strategic Planning** – Daniel KL7WM: No report.

**Facilities** – Mike N7WA: Has completed about 90% of an audit/inventory. Have identified five cabinet keys and six Salvation Army door keys. One cabinet key is not accounted for.

**Education** – Tim K7ANE: Not present.

**Public Service** – George AE7G: Would like to see a closer relationship between the Club and RAMROD support.

**Technical** – Alan KB7SVU: Nothing to report. Will be meeting with Steve KD7IQL.

**Other Committee Reports**

**Picnic** – (Covered above under Activity Manager.)

**Field Day** – Ivy WA7IVY: Will be meeting with bonus points chair to wrap up score submission. Writing letters of thanks to Icom for pamphlets, and to the State Park staff. Among feedback received is concern about the number of people who are coming up for the weekend, but not helping with either setup or cleanup, and so those critical functions are being performed with too few people. How do we get more people to come up for setup on Friday, and/or stay and help with cleanup? Richard N7MER will co-chair next year. Discussion moved to admiration for the achievement of a record number of contacts (approx. 1,150) on 40-meter Phone, and for band-chair and primary operator, Dean N7NKO. Robert KD7WNV suggested devoting some Club programming to contesting techniques, to help bring along other operators.

**Flea Market** – Mike N7WA / Hal N7NW: Steve KD7IQL mentioned that bulk mail rates are increasing by 8%--will raise the cost of mailing the flyers.

*[Continued on Page 11]*

July 2010

**M&K Board Mtg Minutes... [Cont'd from Pg 10]**

**Elmers** – Jim N7MU: Reported that he confirmed with Jeff W7BRS that he wants to continue manage the Elmers even though he has resigned from the Board.

**By-Laws** – Dave KB7PSN: Committee is “on vacation.”

**Logo** – Jim N7MU: Two additional members have copies of the logo and are working on applications. One of them has a related business, and is interested in making a “store” for the Club on their website. Jim sought Board reaction to that, which was favorable, so long as it is clear that the store is not exclusive—the purpose of the committee is to make the logo available to members through multiple channels.

**Old Business**

Item tabled from June meeting, pending comment from the Radio Officer: The suggestion that the club might pursue a second call sign, for use secondary to K7LED, such as for a GOTA call. Robert KD7WNV summarized the matter for Hal N7NW. No interest by Board in pursuing it; dropped.

Carolyn WV7Q, as former Treasurer, urged the Board to rescind its action in June, which left additional funds in the Fleamarket account, and leave the decisions of inter-account transfers to the Treasurer, under his authority and responsibility. Discussion. Motion by Daniel KL7WM, second by Hal N7NW, to rescind the prior Board action. Approved unanimously.

**New Business**

Alan KB7SVU advised the Board that a neighbor of his is attempting to enforce some supposed property covenants, which could impact his ability to store the antenna and equipment trailers. Requested that the Board think of options, just in case.

It was decided that the program for July will be on Field Day results and ideas for improvement--particularly, what can be done to get more people up on Friday for setup.

An incident has been reported involving an off-leash dog causing harm at Field Day. One party presented their case at the meeting, requesting sanctions. Motion by Alan KB7SVU, second by Ivy WA7IVY, to table the matter until next meeting so that George AE7G can contact the other party to invite them to present their side at next meeting, or failing that, obtain their statement.

Steve KD7IQL noted that 2011 will be 40<sup>th</sup> anniversary of club. Discussion followed of possible activities to celebrate the occasion.

**Good of the Order**

Jim N7MU mentioned that FreeGeek Seattle and Portland have donated computers to the class he is teaching.

George AE7G mentioned new methods (NVIS) that RAMROD hams will be attempting, to deal with challenges of managing communications for the ride.

There being no further business, George AE7G adjourned the meeting at 2057 hours.

Attested: Robert Grinnell KD7WNV, Secretary

**K7LED Relay**

**Ham Radio Items for Sale**

By Ed Maher NL7VP

I have the following Ham gear to sell:

**Yaesu VX7R Handheld Transceiver** w. NC-72B Battery Charger, CD-15 Rapid Charger, spare FNB-80 Battery, MH-57 Speaker/Microphone, Operating Manual, Original Box & "The Pouch" Carrying Pouch. \$250.

**Yaesu VR-500 Hand-held Communications Receiver** w. spare FNB-79 Battery, Operating Manual & Quick Reference Card. \$175.

**Prices negotiable.** Please contact Ed Maher, NL7VP, Email: [hamradioed@msn.com](mailto:hamradioed@msn.com) , or call me at Phone: 206-465-8816.

---

**Around the Sound--**

**Antique Radio Swap Meet**

Contributed by Jim Etwiler KD7BAT

**The Puget Sound Antique Radio Association will hold its 28th annual swap meet on Sunday, August 15, 2010 in the North Seattle/Shoreline area.** This community event, the largest of its kind in the Northwest, attracts collectors from California to Canada. The public is encouraged to bring old radios of their own that they wish to sell. Sellers can tailgate or bring their own table. Admission is free—there is no charge to buyers or sellers. A \$5.00 donation is recommended for sellers.

Information on radio restoration and repair services will also be available to aid collectors in returning their old sets to their original condition.

The Swap Meet will take place from 9:00 AM to 1:00 PM in the Shoreline Museum parking lot, North 175th and Linden Avenue North, just west of Aurora Avenue.

A large exhibit of antique radios and related items will be on display in the museum during the Swap Meet. This collection has been assembled and maintained by The Puget Sound Antique Radio Association, a nonprofit group dedicated to the preservation and appreciation of these vintage sets. Membership information will be available at the Swap Meet.

For more information, please visit our Web site at <http://www.eskimo.com/~hhagen/psara/index.html>

Thank you.

Norman L. Gilinsky, Vice President  
Puget Sound Antique Radio Association

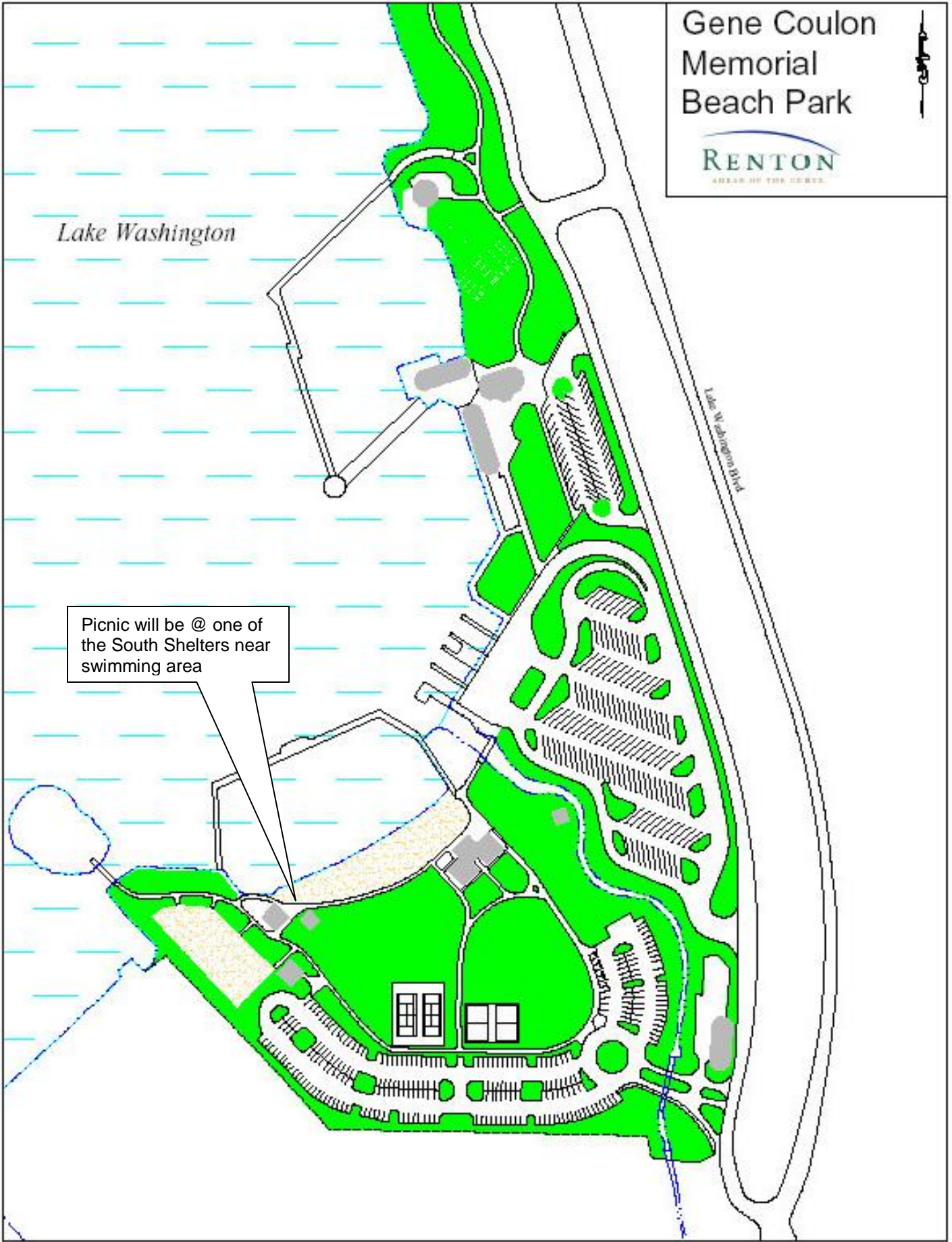
# Gene Coulon Memorial Beach Park



Lake Washington

Lake Washington Blvd

Picnic will be @ one of the South Shelters near swimming area



## New Arrivals at the Club Library

Tim Kane – K7ANE



Members have several newly acquired books to check out and enjoy from the Mike & Key library.

As part of our annual efforts to expand and improve our Club library we've just obtained five great new books, suggested by various members:

- **ARRL's Low Power Communications - the Art and Science of QRP**, by Rich Arland K7SZ (2009)
- **The ARRL Handbook for Radio Communications 2010** (including the entire volume on CD-ROM)
- **ARRL's HF Digital Handbook**, by Steve Ford WB8IMY, 4<sup>th</sup> Edition (2007)
- **ARRL's VHF Digital Handbook**, by Steve Ford, 1<sup>st</sup> Edition (2008)
- **The ARRL's General Q&A**, 3<sup>rd</sup> Edition, good through June 30, 2011 (2007)

The Low Power Communications book includes sections on equipment and station accessories, antennas, operating strategies, emergency communications, and surplus military equipment. The complete assembly manual for the MFJ Cub QRP transceiver kit is also included.

This new QRP volume was donated by a member. Donations by members are always welcome, and gratefully appreciated.

The new 2010 Handbook, now over 1,250 pages, has great new sections on digital communications technology, solid state RF power supplies, switch mode power supplies, as well as projects for antennas, solid state amplifiers, and more.

The HF Digital Handbook covers assembling your digital station, RTTY, PACTOR, PSK 31, Winlink 2000, and other topics. The VHF edition includes packet radio fundamentals, APRS, D-Star, and much more.

The General Q&A will give you the entire Element 3 question pool, to aid in your license upgrade preparation and review.

Some additional volumes, mostly older, were donated by Universal Radio. Included are:

- **Listening to Longwave – the World below 500 KHz**, by Kevin Carey, 1<sup>st</sup> Edition (2007)
- **Discover DXing!**, John Zondio, 3<sup>rd</sup> Edition (2006)
- **Joe Carr's Loop Antenna Handbook**, 1<sup>st</sup> Edition, (1999)
- **RTTY Today**, by Dave Ingram K4TWJ (1983)
- **The RTTY Listener, Issues 1-25**, Editor Fred Osterman, 2<sup>nd</sup> Edition (1991)
- **Buying a Used Shortwave Receiver**, by Fred Osterman, 4<sup>th</sup> Edition (1998)

Thanks to the tireless efforts of Toku (AD7JA), who brings the library holdings to each meeting, any of these books can be checked out at any regular Club meeting. Members can retain a book for up to a month at a time.

Or you can check them out any workday at the M&K Club library in Toku's television service shop in the Skyway neighborhood of Seattle, not far from the Club's Renton meeting site.

The library is located in Skyway Radio & TV Service, 11818 Renton Avenue South, Seattle. It's just across from the Skyway Park Bowling center. You can't miss Toku's tower and multi-band HF Yagi!

It was also suggested that the library obtain some video DVD's or tapes of DXpeditions and other Ham events. Research found that most of these videos are available for free short term loan to Clubs, for only the two-way postage.

We'll coordinate with the program chairman, and schedule some for upcoming meetings. Let us know if any DXpedition has especially caught your imagination, and we'll see what we can do.

If you want the Club to obtain other particular books or have some volumes you'd like to donate to the library, contact Tim K7ANE.

# 2010 -- Ham Nets & Events -- JULY / AUGUST

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<b>11</b> 1915 -- Kids Net 145.49 (Weekly) 2000 -- King Co. ARES Net 147.08 (Weekly) 2200 -- NW Astronomy Net 145.33 (Weekly) 2030 -- Snohomish Co. ARES Net 146.92 (Weekly)	<b>12</b> 0545 & 1645 --Weather Net 145.33 (M-F) 1730 -- Puget Sound Traffic System Net 146.82 (Daily) 1800 -- WA Emerg. HF Net 3.985 (Weekly) 1830 -- WA ARES Net 3.985 (Weekly)	<b>13</b> 2000 -- Seattle Red Cross Communications Team Net (includes 'Elmers Corner') 146.82 (Weekly)	<b>14</b> 2000 --General/Tech Information Net 145.33 (Weekly) 2000 -- Educational Radio Net – PSRG 146.96 (Weekly) 2000 -- HARC CW Net 28.055 (Weekly)	<b>15</b> 1900 -- M&K Public Service Net 146.82 (Weekly) 2000 -- Computer & Packet Net 145.33 (Weekly)	<b>16</b> 2000 -- Youth Net 145.33 (Weekly) <b>Hamfest:</b> <b>Glacier-Waterton International Peace Park – JULY 16-18</b> <b>Contact:</b> <a href="http://www.gwhamfest.org">www.gwhamfest.org</a>	<b>17</b> 1000 -- M&K Club Meeting, Renton 1230 -- M&K Ham Radio Exams, Renton 2000 -- HARC CW Net 28.055 (Weekly) <b>Public Service:</b> <b>Snohomish Kla-Ha-Ya Days Parade – 4pm</b> <b>LAKEFAIR Parade, Olympia</b>
<b>18</b> 2100 — LDS Net 146.82 (Weekly) <b>Public Service:</b> <b>SEAFAIR Triathlon – Seward Park 5:30am</b>	<b>19</b> 1900 -- Seattle ACS Net 146.90 (Weekly) 1930 – PSRG Net 146.96 (Weekly) 2000 -- YL Net 145.33 (Weekly)	<b>20</b> 2000 -- Snohomish Co. RACES Net 146.92 (Weekly)	<b>21</b> 2100 -- NWSOAR Net 146.82 (Weekly)	<b>22</b>	<b>23</b>	<b>24</b> 0900 -- WA ARES HF Net 3.985 (Weekly) 2000 -- Amateur TV Net 147.08 (Weekly) <b>Public Service:</b> <b>West Seattle Hi-Yu Parade – 11am</b> <b>Renton River Days Parade</b>
<b>25</b> <b>Public Service:</b> <b>Chinatown Parade – 7pm</b>	<b>26</b>	<b>27</b>	<b>28</b> <b>Public Service:</b> <b>Greenwood Parade – Seattle, 6:30pm</b>	<b>29</b> <b>Public Service:</b> <b>RAMROD- Ride Around Mt. Rainier in One Day. Enumclaw. Contact Fran</b> <a href="mailto:n7fwz@comcast.net">n7fwz@comcast.net</a>	<b>30</b> <b>Public Service:</b> <b>Mountlake Terrace Tour de Terrace Parade - 7pm</b>	<b>31</b> <b>Public Service:</b> <b>SEAFAIR Torchlight Parade – Seattle, 7:30pm. Contact-</b> <a href="mailto:radio@seafairparademashals.org">radio@seafairparademashals.org</a>
<b>01</b> - AUGUST -	<b>02</b>	<b>03</b>	<b>04</b> M&K Board Mtg 7pm- Salvation Army, Renton	<b>05</b>	<b>06</b> SEAFAIR Hydro Races	<b>07</b> SEAFAIR Hydro Races
<b>08</b>	<b>09</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b> Relay Articles Due 23:59:59	<b>14</b> <b>Public Service:</b> <b>Auburn Good Ol' Days Parade – 12noon</b> <b>Hamfest:</b> <b>Radio Club of Tacoma</b> <b>Contact:</b> <a href="mailto:hamfest@w7dk.org">hamfest@w7dk.org</a>