



From our Club President...

### Expand Your Horizons

By Robert Grinnell KD7WNV, President

It has puzzled me for a long time that we have such a marked drop-off in attendance from the business meeting to the program portion of our general membership meetings. There is no data on this, but my personal observation would put it at typically one-third to one-half attrition.

If anything, I would expect the opposite to be the norm: to find members sheepishly slipping in around 11:00, having missed the perfunctory business meeting—perhaps to have caught an extra hour of extended Saturday morning zzzz's—to then partake of the more-interesting program presentation.

Now, this is in no way to be construed as any kind of encouragement or endorsement of such theoretical behavior! The business meeting is the formal portion of our gathering, it is how we conduct the necessary business of the Club, and we need members there both to establish a quorum and provide a broad spectrum of inputs and views to Club business.

We *do* try to make it useful and informative, even with moments of entertainment or hilarity, but I always sort of viewed the program as the main attraction: either an opportunity to learn something new about our hobby, or a related entertainment, or perhaps both in one.

So it just eludes me that a substantial number would make the effort to trek to Renton and come out for the business meeting—some foregoing even more of those precious Saturday morning zzzz's to turn out substantially early—and then leave right after, depriving themselves of the best part.

Certainly, a few will have other pressing matters to depart to, but honestly, how many things are scheduled to begin at noon on the third Saturday of the month? We all have lawns to mow, garages to clear out, or what-have-you. This is a chance to take one hour, when you're already there, to grow in this great hobby of endless learning opportunities.

I know that many of you like to spend time chatting with your friends in the Club after the business meeting, but if you and your friends *all stay for the program*, then there is plenty of time to chat after *that*. Many of us already do.

Annually, four of our program times are already committed or lost, to the Flea Market briefing (February), elections (March), Field Day orientation (now May), and the Picnic (August).

That leaves us with eight opportunities to be exposed to something that will expand our knowledge and understanding of our hobby. We are now in the heart of that season, with a string of such programs lined up for the coming months by our hard-working Activities Manager, George AE7G. Some of these are on cutting-edge technologies, and present a chance to learn about something really new. I hope to see the meeting hall as packed for those programs as it has been for recent business meetings.

See you on the 17<sup>th</sup>!

### The Seattle Marathon 2012

By Fran Underwood N7FWZ

As we near the end of recruiting for the Seattle Marathon, I personally want to thank each of you who have made the volunteer commitment of your time and talents. This is one of the biggest events in the Washington State that we work.

**Please let me know as soon as possible if you have not already done so. Send email to [W7AKA@comcast.net](mailto:W7AKA@comcast.net).**

What do we learn? We learn how to be a member of the larger team (each one is needed and helps make a complete security blanket for the runners or walkers). We learn more about our radio and its ability to transmit to a given location. We learn about our personal endurance and how we deal with weather and being a little bit uncomfortable for the sake of others. We appreciate the abilities of others who are able to run or walk this event and cheer them on by a yell or word of encouragement. If a participant is hurting, we can provide them a way to get help or a much needed ride to the finish line. We can return home and not complain of sore muscles or blisters, but our feet might be sore. More important we have done something for the community. And we get to have a warm cup of coffee or tea and feel good about what we have been a part of: **The Seattle Marathon 2012.** -Fran Underwood N7FWZ

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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

**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>

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## Club Contacts

|                       |   |                         |   |                              |
|-----------------------|---|-------------------------|---|------------------------------|
| <b>President</b>      | Robert Grinnell                               | KD7WNV                  | r-grinnell @ comcast.net                    | 425-398-1466                 |
| <b>Vice President</b> | Kathy Martin                                  | KB7QMO                  | klsmartin1 @ gmail.com                      | 253-631-5370                 |
| <b>Secretary</b>      | Ivy Nelson-Groves                             | WA7IVY                  | ivy @ wa7ivy.com                            | 425-269-3259                 |
| <b>Treasurer</b>      | Dave Smith                                    | KB7PSN                  | kb7psn @ yahoo.com                          | 425-235-5095                 |
| <b>Activity Mgr</b>   | George Thornton                               | AE7G                    | GTLAW @ seanet.com                          | 206-920-7072                 |
| <b>Radio Officer</b>  | Hal Goodell                                   | N7NW                    | n7nw.hal @ comcast.net                      | 253-549-4178                 |
| <b>Trustees --</b>    |   |                         |   |                              |
| <b>No. 1</b>          | Michael Dinkelman                             | N7WA                    | n7wa @ arrl.net                             | 253-631-3756                 |
| <b>No. 2</b>          | Kathleen Weiss                                | KF7MUD                  | kf7mud @ live.com                           | 425-283-6545                 |
| <b>No. 3 (CoB)</b>    | Tim Kane                                      | K7ANE                   | k7ane @ arrl.net                            | 206-251-7467                 |
| <b>No. 4</b>          | Gil Drynan                                    | W7GIL                   | gild @ seanet.com                           | 425-392-1668                 |
| <b>No. 5</b>          | Daniel Stevens                                | KL7WM                   | KL7WM @ arrl.net                            | 206-228-9274                 |
| <b>VE Testing</b>     | Scott Robinson                                | AG7T                    | ag7t @ arrl.net                             | 425-788-0452                 |
| <b>Logo Committee</b> | Jim Aigner<br>Dan Humphrey<br>& Dawn Humphrey | N7MU<br>N7QHC<br>KC7YYB | jimaigner @ comcast.net<br>n7qhc @ arrl.net | 253-630-2752<br>206-243-0163 |
| <b>Club Library</b>   | 'Toku' Okumura                                | AD7JA                   | tokuzo_okumura @ msn.com                    | 206-772-2450                 |
| <b>Webmaster</b>      | Jim Etwiler                                   | KD7BAT                  | kd7bat @ arrl.net                           | 425-788-7887                 |

### ***Mike & Key Online – The following Club resources are available:***

**On the Web** – The Club's site at [www.mikeandkey.org](http://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, visit: <http://groups.yahoo.com/groups/mkarc>.

**E-Relay** – Help the Club save on printing and postage, Email the *Relay* Editor: kg7ku @ arrl.net.

## M&K Club - November Activities

By George Thornton AE7G, Activity Manager

### TO THE MOON AND BACK

Our November meeting features a talk by our own Radio Officer, Hal Goodell, about some of the more exotic forms of communication involved in our hobby.

The goal is long distance communication between two radio transceivers. This is a bit easier using signals in the HF range, since the stratosphere can act as a mirror under the right conditions. Solar energy ionizes the atmosphere at varying heights creating conditions ionization that will reflect signals at certain frequencies

Higher frequency signals will generally not reflect off of ionization at strengths normally found in the atmosphere. These frequency ranges offer line of sight communication paths. Because of curvature of the earth, line of sight is usually not possible beyond about 50 miles.

Enter Moonbounce. Signals that won't bounce off of the stratosphere will bounce off of the surface of the moon. This means communication is possible using moon bounce to any place on earth where the moon is above the horizon. Hal is going to show you how it is done.

Even more exotic is meteor scatter. A meteor strike in the atmosphere is a high energy event. The resulting high energy ionization allows unusual propagation patterns, bouncing signals at frequency ranges normally limited to line of sight. Again, Hal is going to show you how it is done.

Since meteor scatter propagation paths are transitory and difficult to predict, meteor scatter communication requires unusual techniques and procedures. It's a good story. Come listen.

### LAST MONTH TO BUY TICKETS FOR YEAR END PRIZE

Our year-end door prize is the Elecraft KX3.

Transceivers are typically judged by their receiver performance. Many feel the most important performance measurement is "close in dynamic range". This is a measure of how well the receiver can separate a weak, usually distant signal from much stronger adjacent station. This capability is particularly useful in DX hunting and radio contesting.

Sherwood Engineering conducts comparative tests of receivers and publishes the results. The KX3 does pretty well in those tests. A few months ago it held the number 1 rating. Now it has been barely bested (by 1 decibel at close range) by a Hiberling.

I had not heard of a Hiberling. I looked into it. The Hiberling is a really high end German transceiver, described as the Rolls Royce of amateur radio. These little puppies cost in the range of \$20,000 each. I don't know anyone who actually owns one.

So, come to the next meeting and buy a ticket. For one dollar you might end up owning the equivalent of a Hiberling that fits in the palm of your hand.

## M&K November Door Prizes

Prize List & Photo By Jim Aigner N7MU

*I've been slow lately in acknowledging all of you who have donated new and used items for our monthly door prize drawings. Your contributions have made it possible to offer a wide selection of prizes every month. It increases the fun and the odds of being a winner. Thank you!*

**Here's the line-up for November door prizes:**

- HT belt Radio Pouch
- 16GB USB Flash Memory Stick
- Yaesu and ICOM caps
- 12 Volt Automotive DC to 5.0 Volt USB Adapter
- Amidon Balun Kit
- Emergency Rescue Hammer
- Opek 3-way 1000 Watt Coax Switch (used)
- Vintage headphones (used)
- 60 Piece Crimp Terminal Set
- 30A PowerPole Connectors
- Plastic project box
- Inline Fuse Holders



## FM'13: November is Flyer Stuffing Time

By Michael Dinkelman N7WA

It's November and time to stuff the Vendor-Table Flyers for next year's Fleamarket.

For the uninitiated, we'll mail out around 12,000 flyers a year to support our Fleamarket in March. Each flyer (pre-folded) has to go into an envelope. The envelope flap has to be tucked in and a mailing label applied.

Stuffed and labeled envelopes need to be grouped by 5 digit zip with a rubber band and counted. It works well if people work in groups of 3-5 people with most of the people performing the specified operations and an overseer to make sure the group stays supplied with material and the end results are properly counted and grouped.

This year, Hal will be presenting a program on Meteor Scatter following the business meeting but has no problem with us continuing to process flyers during his presentation. That said - we still want to keep the noise level down. Stuffing and labeling will start before the General Club meeting as soon as people start arriving. So... perhaps come early?

**M&K: Salvation Army Bell Ringing**

By Jim Etwiler KD7BAT

This year, we have requested bell ringing assignments for the Salvation Army on December 1 at both Wal-Mart and Fry's. This is a lot of fun and earns us a gratuitous break in the rental fee of our Club's General meeting location.

Sign-up sheets will be available at the Club meeting, November 17. You'll be able to sign up in one hour increments with a maximum of two hours. Or you can send an Email to the webmaster indicating that you want to be part of this worthwhile project. Spouses or significant others are welcome.

Mind you, this is a standing assignment and you'll most likely be outdoors, so dress accordingly.

Contact: Jim: [kd7bat@arrl.net](mailto:kd7bat@arrl.net).

**FM'13: Fleamarket Signups**

By Michael Dinkelman N7WA

The new signup system with Volunteer Spot is going well. I have 80 positions filled over the two days. I have sent out email invites to everyone who worked last year. (You can only signup if you get an email invite.)

I can sign up people directly that do not have access to email or the Internet – just drop me a line or talk to me at Club meetings.

**If you have NOT received an email invite and would like one** (hint-hint to the new members), please send me an email at [n7wa@arrl.net](mailto:n7wa@arrl.net).

We'll be talking more about the Fleamarket as time moves on.

**M&K Radio Officer Report**

By Hal Goodell N7NW

Our two meter repeater continues with a backup system in place. The repair of our repeater is awaiting parts from Motorola. We expect shipment now by Nov. 27th.

I hope to have it back in operation by mid-December, hopefully sooner. The MSF5000 continues to operate and support our needs. I have noticed that we have had some periodic noise on the squelch tail. We are looking into this and hope to have a remedy soon.

Tiger mountain access remains good, so we shouldn't have much problem getting to the site, providing we don't have a real storm bringing snow to the hill. - Hal N7NW

**Special Peoples' Holiday Cruise**

By Dick Radford WA7NIW

Sunday December 2 is coming up quickly. What does that mean? It's the Special Peoples' Holiday Cruise. This is when a couple of dozen hams, close to a dozen yacht clubs and boating organizations, SEAFAIR, and others get together to provide a fun afternoon to a few hundred Special Needs people.

It only takes a few hours to bring joy to lots of people who really appreciate it. Our participation is from about 1:00 PM until 6:00 PM, and besides the warm feeling we get from helping in such a worthwhile activity, there are usually snacks and some folks get a boat ride.

There are still some spots available for Hams who want to help out with this event. If you are interested, contact me at [wa7niw@arrl.net](mailto:wa7niw@arrl.net) and I'll put you on the list. See you there.

**100 Years of ARRL Celebration**

Proposed Project by Bill Balzarini

**Up, Down, Around & Thunder W1AW or W100AW 2014 - All Year Long, World-Wide Amateur Radio Fun.** ( Using Log Book of the World "LOTW"?)

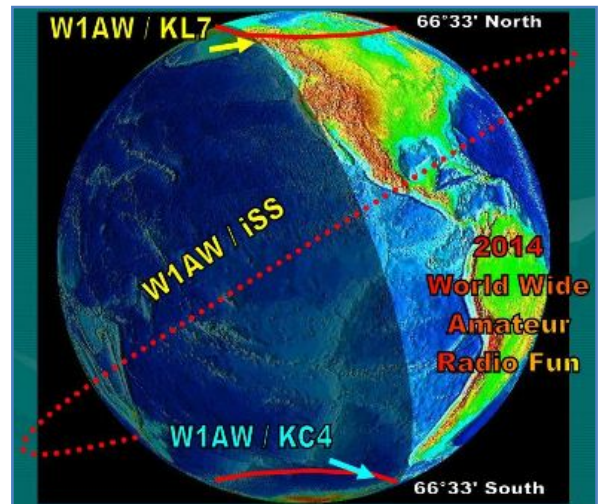
**Special Events Stations for:** Field Day, Sweepstakes, and ARRL DX contest.

**Up= Arctic Circle +66.33Deg North Lat.** (SSB, CW, Digital ) (W1AW/KL7 W100AW/KL7)

**Down = Antarctic Circle -66.33 Deg South Lat.** (SSB, CW, Digital ) ( W1AW/KC4 W100AW/KC4 )

**Around** = W1AW/ISS or W100AW/ISS on-board the International Space Station ( ISS ). (FM)

**Thunder** = Museums operating with period Radio Equipment from their Collections. ( USS BB-63 MO, NJ, NC, MOF) ( Museum of Flight in Seattle Washington, might use W1AW/W7 ) Museums could use equipment like BC-610 Tx, BC-348 Rx, ARC-5 TxRx, and thousands of other vintage Tx and Rx equipment. 73 de Bill Balzarini KL7BB 206-400-1723



**Celebrate Our November Members!**

By Dave Smith KB7PSN, Treasurer

As of November 2012, these have been Mike & Key members for the number of years stated. Congratulations to all of you, and thanks for your participation & service.

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

|                 |        |          |
|-----------------|--------|----------|
| Jack Grimmett   | N7IHS  | 24 Years |
| Richard Bridges | N7YOB  | 20 Years |
| Gil Drynan      | W7GIL  | 19 Years |
| Joe Langjahr    | KJ7DG  | 18 Years |
| Fred Roberts    | W6TKV  | 17 Years |
| Mike LaFerla    | K7JML  | 15 Years |
| Ronnie LaFerla  | KC7UFS | 15 Years |
| Dick Radford    | WA7NIW | 12 Years |
| Dave Mackin     | KB4ERF | 11 Years |
| Hideki Saito    | WU7J   | 10 Years |
| Tim Kane        | K7ANE  | 6 Years  |
| Adam Koczarski  | K3ARK  | 6 Years  |
| Robin Carter    | WA7BRI | 2 Years  |
| David Tebrink   | K7NZU  | 2 Years  |
| Charles Graff   | K7CHV  | 1 Year   |
| Denise Johnson  | KF7RSK | 1 Year   |
| Leslie Johnson  | N2YNK  | 1 Year   |

**Mike & Key ARC – Elmer Contacts – By Jim Aigner N7MU**

| Area                   | Elmer Coordinator    | Email  | Phone        | Description                                   |
|------------------------|----------------------|--|--------------|---|
| Homebrew, DX, antennas | [-Open-]             |  |              | 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          | Curt Black, WR5J     | <a href="mailto:wr5j@westseattlearc.org">wr5j@westseattlearc.org</a>         | 206-755-4541 | Digital modes, software, TNC's                |
| D-STAR                 | Curt Black, WR5J     | <a href="mailto:wr5j@westseattlearc.org">wr5j@westseattlearc.org</a>         | 206-755-4541 | D-STAR technology and operation               |
| Emergency Comm         | Tim Kane, K7ANE      | <a href="mailto:k7ane@arri.net">k7ane@arri.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 | Eq't, Antennas, best HF operating practices   |
| New Members            | Dick Radford, WA7NIW | <a href="mailto:wa7niw@arri.net">wa7niw@arri.net</a>                         | 425-828-9791 | Getting started, Eq't 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 & construction    |
| VHF / UHF Operation    | [-Open-]             |  |              | 6-Meters & up; radios, antennas, modes        |

**FD'12: ARRL — Field Day Results**

Contributed by Michael Dinkelman N7WA

*Alas, we're Number 2 this year in our class (#11 in the country).*

| # | Call         | Score         | Category  | QSOs         | Power Mult | GOTA Call   | Section    | Participants | Club                      |
|---|--------------|---------------|-----------|--------------|------------|-------------|------------|--------------|---------------------------|
| 1 | W5UR         | 20,654        | 6A        | 6,026        | 2          | K5HAB       | NM         | 26           | Albuquerque DX Assn       |
| 2 | <b>K7LED</b> | <b>16,720</b> | <b>6A</b> | <b>5,363</b> | <b>2</b>   | <b>AE7G</b> | <b>WWA</b> | <b>73</b>    | <b>Mike &amp; Key ARC</b> |
| 3 | WY7FD        | 15,548        | 6A        | 4,648        | 2          | WY7SS       | WY         | 19           | WY Flamingo Desperadoes   |
| 4 | K2AA         | 13,318        | 6A        | 4,135        | 2          | W2EA        | SNJ        | 42           | South Jersey RA           |
| 5 | AA4NJ        | 10,496        | 6A        | 3,472        | 2          |             | KY         | 21           | Central Kentucky ARS      |
| 6 | W7DK         | 9,142         | 6A        | 2,429        | 2          | W7OS        | WWA        | 90           | Radio Club of Tacoma      |

**SEATTLE MARATHON 2012****Saturday, November 24 – (Kids Staged Marathon & 5K Run & Walk)****Sunday, November 25 – (Half Marathon, Half Marathon Walk, Full Marathon, & Full Marathon Walk)**

By Fran Underwood N7FWZ

**Please e-mail as soon as possible – to [w7aka@comcast.net](mailto:w7aka@comcast.net) or call 425-226-4115 (Home) or 425-890-5752 (Cell).**

As is the case every year, I continue to find more staffing opportunities than I have volunteers. A continuing need is for Hams that are **EMT or Paramedic trained**. I'd like to invite each of you, even if you aren't available to help us, to spread the word to your fellow Hams.

The Kids Staged Marathon will still be held on Saturday, the 24th of November. This is a 1.2-mile run around the perimeter of Seattle Center, with around 2000 or more kids and many parents participating. Experience tells me that I'll need about 10 Hams for this short event. A 5K Run/Walk will also be held that same morning. I'll need a few additional Hams for this event since they overlap.

I hope that you will work with us this year. I will try to follow your wishes as to assignment. The position that you served last year is yours unless you ask for a change of assignments. I will work with new Hams to select an assignment that will meet their needs. I will try to make everybody happy – if possible.

**There will be four (4) meetings at my home – to orient you and to deliver the materials to you, that will make it possible to handle whatever assignment we ask you to take. While I only ask that you attend one of the four meetings, I encourage you to make every effort to attend.**

**As in past years, there will be ID badges, tee shirts and orange baseball caps for identification, as well as orange vests for your safety. Please reserve a couple of hours on Saturday, Nov. 17 or Sunday, Nov. 18. I've asked David Flood to rewrite the PowerPoint presentation so hopefully it will more informative and will help shorten the meetings. There will still be apples and Krispy Cream donuts for your enjoyment.**

So I am asking each of you to plan to be a part of this great event and to let your fellow Ham friends know also. Please confirm your participation as a member of the great Ham radio support team for this year's Seattle Marathon as soon as possible. Thank You!

To learn more about the Seattle Marathon, look at this site <http://www.seattlemarathon.org>

Thank you, Fran Underwood, N7FWZ.

## Pacific Northwest Hamfairs &amp; Events

Source: PNW Hamfair webpage at <http://www.n7cfo.com/amradio/hf/hf.htm>. (Used with Permission)

**February 16, 2013. Salem Hamfair & Computer/Electronics Swapmeet. Rickreall, Oregon** at the Polk County Fairgrounds. <http://www.w7sra.com>.

**October 23, 2013. HAM Days '13, Elma, WA. Grays Harbor Amateur Radio Club.** This is an ARRL sanctioned event. <http://gharc.org/>

**March 23, 2013. MicroHAMS Digital Conference. Redmond, WA.** <http://www.microhams.com/softcontent.aspx?sclid=9>

**March 9, 2013. Mike & Key Swap Meet. Puyallup fairgrounds exhibition hall, Puyallup, WA.** This is an ARRL sanctioned event. For information, contact [dmdink@yahoo.com](mailto:dmdink@yahoo.com) or [n7wa@arrl.net](mailto:n7wa@arrl.net). <http://www.mikeandkey.org/flea.htm>

**April 2013 Yakima Hamfest. Yakima, Washington.** Selah Civic Center, 216 South 1st Street, Selah, WA. For information, contact Lindsay Kooser (509)965-6612 [n7rhw@arrl.net](mailto:n7rhw@arrl.net). <http://w7aq.org/>

**April 13-14, 2013. Communications Academy. Seattle, WA.** This is an ARRL sanctioned event. <http://www.commacademy.org>

**April 26-27-28, 2013. Idaho State Convention. Boise, ID,** Voice of Idaho ARC. This is an ARRL sanctioned event. Info, Don Lynn, ND7L, (208)899-5801, [don\\_lynn@pacbell.net](mailto:don_lynn@pacbell.net). <http://www.idahostateconvention.com/>

## A Visit to the Satsop Nuclear Plant, Washington

By Michelle Baskett WA7PVE [with additional Wikipedia source information]

Here are a few pictures I took during my recent visit to the Satsop Nuclear Plant.  
A perfect alternative location for Field Day, perhaps?



### From Wikipedia...

**Satsop Development Park; formerly [Washington Public Power Supply System Nuclear Power Plants 3 and 5](#)**

Satsop is known for the unfinished [Satsop Nuclear Power Plant](#), a facility designed to house two 1250 megawatt [pressurized water reactors](#). Construction of the Satsop [Nuclear Power Plant](#) began in 1977 and was halted in 1983 after a \$961 million budget shortfall, leaving the plant 76% complete.

The plant was maintained, ready for construction to be resumed, until 1994, when it was finally canceled. In 1995, a demolition plan was finalized that eventually turned the site into the [Satsop Development Park](#). Listed among the top three office parks in Washington state for 2005 by Washington CEO Magazine [\[1\]](#), the park offers office space with high-speed, redundant telecommunications links and dedicated utility infrastructure.

Because of the controversy surrounding the construction and cancellation of the power plant, the facility is known locally as "whoops", a play on its official acronym, WPPSS (Washington Public Power Supply System).

### These Workshops-Classes open to All Washington-State, FCC Licensed Hams and CERT Members

Contributed by Bill Balzarini KL7BB

Location: Auburn Annex Building @ One East Main Street (3<sup>rd</sup> Floor) in Downtown Auburn WA. 98002 (206-400-1723)

Also see: <http://HamShare.com>

**November 17, 2012 1:00PM to 5:00PM Saturday, Class # 12070-MSG – [Message Handling](#), Both Paper and Digital Messages. Also DRATS Digital and the ICS-213, ARRL Radiogram, Sneaker Net, Snail Mail, and High Speed Multi-Media RF Networking**

**November 24, 2012 9:00AM to 5:00PM Saturday, (Lunch 12 to 1 PM) Class # 12255-IMD – [Interference to My Radio, Why, Why, Why.](#)**

**IMD Spec, Towers, Antennas, Power Amps, Locations.**

**December 01, 2012 9:00AM to 5:00PM Saturday, (Lunch 12 to 1 PM) Class # 12072-GND – [Ground and Grounding](#) "The other half of your antenna". Vertical, Dipole, Beam, Dish, NVIS. How to use everything as an antenna in the time of Emergency. ps Bring your Antenna Matchbox.**

**December 08, 2012 9:00AM to 5:00PM Saturday, (Lunch 12 to 1 PM) Class # 12560-DRATS – [Ham Radio and DRATS Digital](#) for EOC Use. (Ham Radio HSMM-MESH networks for DRATS)**

**December 15, 2011 9:00AM to 5:00PM Saturday, (Lunch 12 to 1 PM) Class #12500-RPT – [High Performance Repeater Systems designed for EOC and EMCOMM Environments.](#)**

**December 22, 2012 9:00AM to 5:00PM Saturday, (Lunch 12 to 1 PM) Class # 12575-DXC – [DXing, Contesting and QSLing](#) What to do with Your New Equip. Getting Ready for the Big One. Not all contests are Disasters.**

**December 29, 2012 9:00AM to 5:00PM Saturday, (Lunch 12 to 1 PM) Class #12071-RPGM – [Programming Your VHF-UHF Ham Radio HTs & Mobiles, Also NW-Repeaters in Washington.](#)**

- 73 de Bill KL7BB 206-400-1723

## Photos From Our October General Meeting

By Ric Danielson K7RIC

### Welcome Our New Members!



Robert Simson



Mark Hanson-KF7VSF



John Downs III-KF7VNB



James Gregory



Sean Kronberg-KF7YAZ



**Mike Mraz N6MZ presented an interesting video of the VP8ORK DXpedition to the South Orkneys in Antarctica**



**New Member Committee 'Core' Group, led by Kathy Martin KB7QMO, held its first meeting following the Club Meeting**

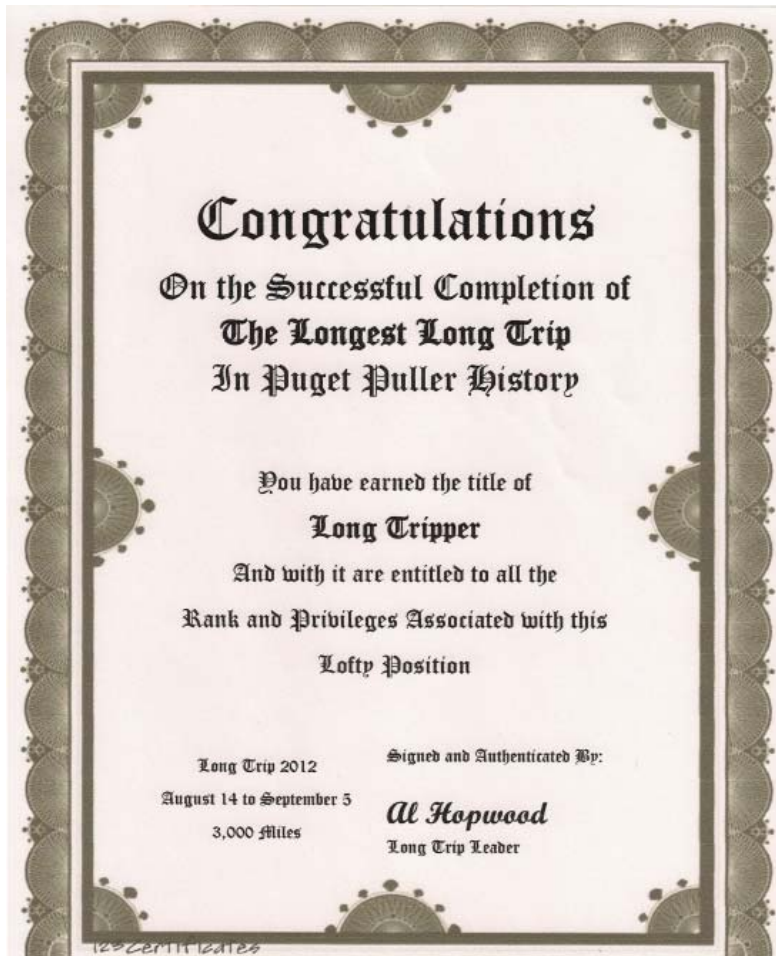
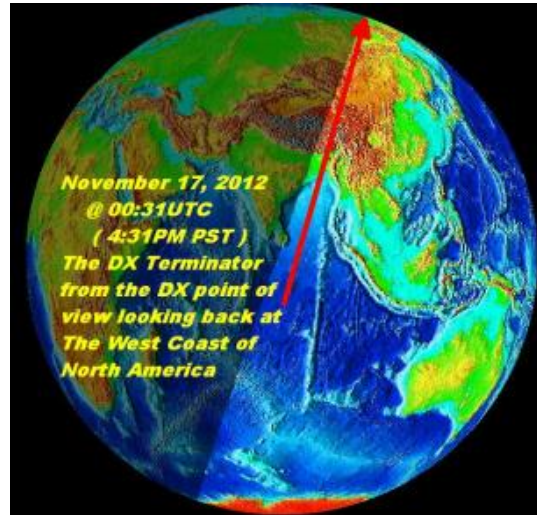
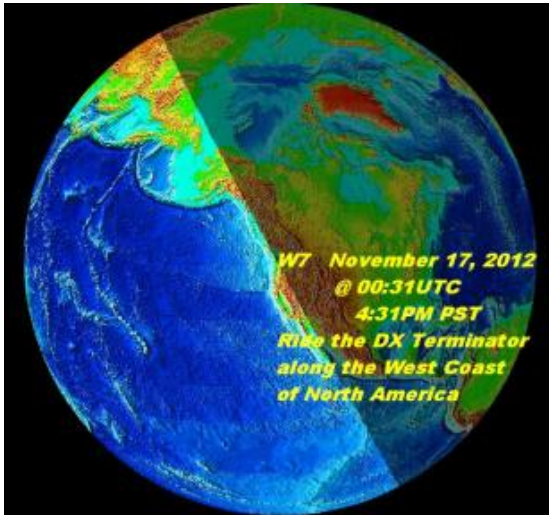
**E-Mails Received...**

**Dear Gary KG7KU 11-04-2012**

**What is shown is the position of the Sunset Terminator riding along the West Coast of North America on November 17, 2012 at 00:31Z .**

**Let the DX begin.**

**73 de Bill KL7BB**



**Al and Becky Hopwood writes...**

**While walking the streets of Wallace Idaho I spotted this in a shop window. It talked to me and made me feel warm. Maybe it will do the same for you.**

**de Al, KB7THX**



November 2012

## M&K General Meeting Minutes

By Ivy Nelson-Groves WA7IVY, Secretary

General Meeting Agenda – 20 October 2012

Meeting was called to order at 10:05 am by the President, Robert KD7WNV.

Pledge of Allegiance

Announcements: The Mike and 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:** Robert KD7WNV: The report is in the Relay

**Secretary:** Ivy WA7IVY: Nothing to report.

**Treasurer:** Dave DB7PSN: The club's books are in good order.

**Activities Manager:** George AE7G: George previewed some of the upcoming months' programs. He also discussed the end of the year prizes.

**Chairman of the Board:** Tim K7ANE: nothing to report.

**Radio Officer:** Hal N7NW: There were some problems caused after a power outage on Tiger Mountain. The main AC power supply was damaged – should be back on the air around mid-November. We have a loan repeater currently operating. The 220 repeater has been working just fine.

#### **Quorum present.**

A motion was made to approve the minutes of the previous meeting as printed in the Relay was made by Sam and seconded by Tim K7ANE. Motion passed.

**Vice President:** Kathy KB7QMO: The following prospective members were voted on by the membership: Robert Simson (no call sign); James Gregory (no call sign); Sean Kronberg (KF7YAZ); John Downs (KF7VNB); Mark Hanson (KF7VSF). All were approved by the membership.

**Relay Editor:** Gary KG7KU: Gary thanked everyone who submitted an article for the Relay. We have a wide readership and Gary encourages folks to submit articles.

**Webmaster:** Jim KD7BAT: Swap page has some updates; Education page has been updated; If you have something, let Jim know.

#### Standing Committee Reports:

**Strategic Planning:** Mike N7WA: no report.

**Facilities:** Daniel KLWM: no report.

**Education:** Tim K7ANE: Lots of training going on: technician, general, intro to D-Star. There is a two day class on D-Star at the Microsoft campus, and requires pre-registration. There are some emergency communication classes upcoming as well. The website is updated with upcoming classes. There is a Morse Code class today from 1-5.

**Public Service:** Robert ND7WNV: The Seattle Marathon is coming up, the Sunday following Thanksgiving. Fran N7FWZ needs to have about 120 hams to help out this year. This is a great event even for new hams to help out with. There are also the Kid's marathon and a 10K run the day prior to the

*K7LED Relay*

marathon. The Special Peoples' Cruise will be December 2<sup>nd</sup> and ham radio operators are also needed for this event. SeaFair Parade Marshalls will need folks for the Veteran's Day parade in Auburn and Pancreatic Cancer Walk on November 4<sup>th</sup>. The Public Service committee will be meeting after the program today at the Cedar River Smokehouse.

#### Other Committees:

**VE Exams:** Scott AG7T: 14 people attended exams: 9 Technicians; 3Generals; and 1 Extra were awarded.

**Logo:** Jim N7MU: See Dan and Dawn to order logo items.

**Membership:** Kathy KB7QMO: Meeting today after the meeting.

**By Laws Review:** Dave KB7PSN:

**Christmas Party:** Need a chair this month if we are going to have a Holiday Party this year. Please contact George if you are interested.

**Flea Market:** Hal N7NW/Mike N7WA: 32<sup>nd</sup> Year of the Flea Market! We have committee chairs for the Flea Market. We will be stuffing and labeling the flyers for the Flea Market at next month's meeting. It takes about 120 people to put this event on and it requires nearly everyone in the club to help out. This year we are going to use Volunteer Spot for signups; Mike has to send you an invite in order to use the site.

**Field Day:** Ivy WA7IVY: 252 days until Field Day 2013. The Barracks and Wagon Wheel have been reserved. Most of our planning starts in earnest after the first of the year; with high gear starting after Flea Market. We do need a location to work on the tower trailer, so if you have a place, let us know.

#### Old Business:

The board will be getting ready to set the next year's budget. Speak to any board member if you have a suggestion for putting in the budget or you can come the board meeting.

#### New Business:

No new business.

#### Good of the Order:

**Alligator Award:** Dean N7XS still holds the alligator award.

Jim KD7BAT received an email from a group from the "Cactus Run" who are looking for ideas on better ways to handle their radio communication for their event.

The next Mike & Key Board meeting will be on the first Tuesday of the month, November 6<sup>th</sup> at 7:30 pm at the Salvation Army in Renton.

The next Mike & Key General Membership meeting will be on the third Saturday of the month, November 17<sup>th</sup> at 10:00am at the Salvation Army in Renton.

Michelle Basket made a motion to close the meeting, seconded by Jim KD7BAT. The motion was passed. Meeting adjourned at 11:22 am.

16 guests; 58 members; 52 ARRL members

**Attested:** Ivy Nelson-Groves, WA7IVY, Secretary

November 2012

K7LED Relay

## M&K Board Meeting Minutes

By Ivy Nelson-Groves WA7IVY, Secretary

Meeting Held 06 November 2012

### Officers present

|   |                    |                   |        |
|---|--------------------|-------------------|--------|
| X | President          | Robert Grinnell   | KD7WNV |
| X | Vice President     | Kathy Martin      | KB7QMO |
| X | Secretary          | Ivy Nelson-Groves | WA7IVY |
| X | Treasurer          | Dave Smith        | KB7PSN |
| X | Activities Manager | George Thornton   | AE7G   |
| X | Radio Officer      | Hal Goodell       | N7NW   |

### Trustees present

|   |           |                |        |
|---|-----------|----------------|--------|
| X | No. 1     | Mike Dinkelman | N7WA   |
|   | No. 2     | Kathleen Weiss | KF7MUD |
|   | No. 3 CoB | Tim Kane       | K7ANE  |
| X | No. 4     | Gil Drynan     | W7GIL  |
|   | No. 5     | Daniel Stevens | KL7WM  |

### Other officers (non-voting)

|   |              |             |        |
|---|--------------|-------------|--------|
| X | Relay Editor | Gary Bryan  | KG7KU  |
| X | Webmaster    | Jim Etwiler | KD7BAT |

### Visitors

Michael Hansen  
Chuck Stroehrer  
Pete Hedberg

The President called the meeting to order in the absence of the Chairman of the Board at 7:34 p.m.

**Minutes:** A motion was made to approve the minutes as published was made by Gila W7GIL and seconded by Robert KD7WNV. Motion passed.

### Reports:

**Chairman of the Board – Tim K7ANE:** Not present.

**President – Robert KD7WNV:** No report.

**Vice President – Kathy KB7QMO:** Membership applications for consideration: Seth Maddox KF7YGP, Don Heaverlo, KF7ZED; John Robson, Jr., AC7LK. They were approved.

**Secretary – Ivy WA7IVY:** No report.

**Treasurer – Dave KB7PSN:** The Club's books are in order. The club now has the ability to accept credit cards for payment of dues, etc. Discussion of adjusting prices of credit card transactions to make up for the cost charged.

**Activity Manager – George AE7G:** Speakers are lined up for the next three meetings; the door prizes will be purchased by December. Discussion concerning the length of the general membership meeting.

**Radio Officer – HAL N7NW:** Still running the backup repeater (which is on loan from Hal); the ICOM was fixed but is still having some issues; Hal is working to correct. The power supply was confirmed to be bad for our Motorola; it has gone through troubleshooting and replacement parts have been ordered but not yet received. We are on the air.

**Relay Editor – Gary KG7KU:** Gary thanks everyone for their contributions to the Relay. Dave asked about perhaps putting a copy of the Relay on our Facebook page.

**Webmaster – Jim KD7BAT:** The website went down on November 3<sup>rd</sup>. Normally our renewal date is November 18<sup>th</sup>, but there was a minor snafu with the due date. It has been paid for the next year; the price has gone up one dollar a month. He has added an email address for the treasurer, and has put up the flyer for Flea Market on the website.

### Standing Committees:

**Strategic Planning – Mike N7WA:** No report.

**Facilities – Daniel KL7WM:** No report.

**Education & Training – Tim K7ANE:**

**Public Service – Kathleen KF7MUD:** Marathon and Special People's cruise are coming up. Work on the booklet is getting started and they are exploring other vendors for printing the booklets (3000 copies – 5 pieces of paper plus the cover, double-sided).

**Technical – Gil W7GIL:** No report.

**By Laws – Dave KB7PSN:** Last Saturday, six people met for the meeting and went through almost half of the existing by-laws. Most of the important issues were discussed.

**Membership – Kathy KB7QMO:** Had a meeting after the last general meeting and have enough people for the committee. Need an additional meeting to select the chair and Kathy is enthusiastic about the committee.

**Logo – Daniel KL7WM:** Nothing new to report.

**Field Day – Ivy WA7IVY:** Ivy reported a minor problem with the Wagon Wheel reservation (error on Ivy's part) but it has been corrected. Alan asked when we want to make the tower trailer repairs (on this year's budget or next year's).

**Flea Market – HAL N7NW and Mike N7WA:** Next Meeting will be the 2<sup>nd</sup> Tuesday of December at Mike's home 7:00pm. Mike will be bringing Field Day Flyers for folding will be at the November meeting.

### Old Business:

We have had no volunteers for the Holiday Party, so we will not be holding one this year. Jim is working to confirm a date for bell ringing with the Salvation Army; we have asked for the first Saturday (10M contest on the 2<sup>nd</sup> Saturday) of December.

**New business:** No new business

### Budget Discussion:

A suggestion was made, since park fees have gone up for the Wagon Wheel and Barracks; we might need to offset the costs. Hal proposed that we charge \$5 per person (over age 18) per night to help offset these fees. Ivy will come up with the number of people who attended Field Day (barracks and wagon wheel) in the past so we can get an idea. Dave went over a number of items for which the costs are fixed and we know what will be charge for 2013. Chuck brought up an item that had been discussed in the past: the possibility of donating to the ARRL scholarship fund or other ARRL fund (spectrum defense, etc.); we will put a line for a contribution, but determine the actual amount next month. We also want to list a balance forward from 2012 in our budget for 2013, and to add a note with the total reserve from the CDs. Dave will move lines over from the 2012 budget unless specified during our discussion.

### Good of the Order:

No Good of the Order.

There being no further business, the President adjourned the meeting at 10:14 pm.

**Attested: Ivy Nelson-Groves WA7IVY, Secretary** 



## M&K-K7LED Club Library

By Tim Kane – K7ANE

*Library open 8:30 AM to 11:15 AM (General Meeting)*

*M&K Library Shop open Tue. to Sat. ([www.skywaytv.net](http://www.skywaytv.net))*

*The Library is located 11818 Renton Ave So., Seattle WA, Tel. 206-772-2350*

Four new books have arrived for the Club Library. Based on suggestions from the members, we've acquired the ARRL's excellent set of three books on the basics of electronics, radio and antennas, along with the newest ARRL book on Software-Defined Radio (SDR). These four new books will be available to checkout at the general meeting in May:

- **Understanding Basic Electronics, 2<sup>nd</sup> Edition, 2010, by Walter Banzhaf, WB1ANE**
- **Basic Radio, Understanding the Key Building Blocks, 2006-12, by Joel R. Hallas, W1ZR**
- **Basic Antennas, Understanding Practical Antennas And Design, 2008-09, by Joel R. Hallas, W1ZR**
- **The ABCs of Software Defined Radio, 2012, By Martin Ewing, AA6E**

The Basic Electronics book discusses the basics of electricity, electronics, and simple circuits. Chapters cover components, DC and AC electrical circuit concepts, basic analog and digital circuits, series and parallel circuits, problem solving and applied math (by hand and calculator), frequency, active devices, semiconductors and integrated circuits. The book also takes a look back at vacuum tubes and their applications. A good glossary of electric and electronic terms is also included.

Basic Radio looks at the development of radio from the simplest crystal sets, early simple receivers through modern superheterodyne receivers. It then looks at the parallel development of transmitters, from earliest CW sets through the evolution of voice transmission from AM to SSB. Chapters also cover power amplification, wave propagation, transmitting and receiving antennas, radiolocation and radionavigation systems, and another glossary of relevant terms. The author also looks into his crystal ball to see what the future might hold. The appendix includes several build-it-yourself projects.

The third book in the series, Basic Antennas, looks at a wide range of communications antennas, starting with the venerable dipole, and continues through both verticals and horizontals, arrays, surface reflector antennas, yagis and log periodics, and loops. Also discussed are microwave and vehicle-mounted antennas. The author discusses antenna measurements and modeling, using EZNEC software. Instructions for some easy-to-build antennas are also included.

The Software Defined Radio publication is really more of a pamphlet than a book, and thus somewhat disappointing. It discusses the application of digital electronics and the road that has led to this new metamorphosis of radio and computers. However, it covers the basic concepts and suggests where the future of this new technology may take amateur radio.

We've still got some of our annual budget left for the library, and are always anxiously seeking good suggestions for editions to add to our shelves. Get in touch with me if you have a good idea. We'll order some more new books later in the year.



# Ham Nets & Events – 2012 – November / December

| SUNDAY   | MONDAY   | TUESDAY  | WEDNESDAY  | THURSDAY   | FRIDAY                                      | SATURDAY   |
|--|--|--|--|--|---|--|
| <b>11</b><br>1700 – NWWA-LDS Net 147.34 (Weekly)<br>2000 – King Co. ARES Net 147.08 (Weekly)<br>2015 – Kids Net 145.49 (Weekly)<br>2200 – NW Astronomy Net 145.33 (Weekly) | <b>12</b><br>0545 & 1645 – Weather Net 145.33 (M-F)<br>1700 – Evergreen State Traffic System Net 145.19 (Daily)<br>1830 – WA Emerg. HF Net-ARES 3.985 (Weekly) | <b>13</b><br>2000 – Seattle Red Cross Comm Team Net 147.080 (Weekly)<br>2000 – Snohomish Co. ACS/RACES Net 146.92 (Weekly) | <b>14</b><br>2000 – Evergreen Intertie Gen/Tech Info Net – 145.33 (Weekly)<br>2000 – Educational Radio Net – PSRG 146.96 (Weekly)<br>2100 – NWSOAR Net 146.82 (Weekly) | <b>15</b><br>1900 – M&K Public Service Net 146.82 (Wkly)<br>2000 – Computer & Packet Net 145.33 (Wkly) | <b>16</b>                                   | <b>17</b><br>1000–M&K Club Meeting, Renton<br>1230– M&K Ham Radio Exams, Renton.<br>Scott- <a href="mailto:ag7t@arrl.net">ag7t@arrl.net</a><br>Seattle Marathon- INFO-SESSIONS:<br>10am & 2pm. Contact: Fran, N7FWZ<br><a href="mailto:w7aka@comcast.net">w7aka@comcast.net</a><br>0900 – WA State Emerg. Net (WSEN)<br>ARES HF Net 3.985 (Weekly) |
| <b>18</b><br>Seattle Marathon- INFO-SESSIONS:<br>10am & 2pm.<br>Contact: Fran, N7FWZ<br><a href="mailto:w7aka@comcast.net">w7aka@comcast.net</a>                           | <b>19</b><br>1900 – Seattle ACS Net 146.90 (Weekly)<br>1930 – PSRG Net 146.96 (Weekly)<br>2000 –YL Net 145.33 (Wkly)   | <b>20</b>  | <b>21</b>  | <b>22</b><br>Happy Thanksgiving  | <b>23</b>                                   | <b>24</b><br>Public Service:<br>Seattle Marathon, Seattle.<br>KIDS - STAGED<br>Contact: Fran, N7FWZ<br><a href="mailto:w7aka@comcast.net">w7aka@comcast.net</a>  |
| <b>25</b><br>Public Service:<br>Seattle Marathon, Seattle.<br>FULL & HALF RUN/WALK<br>Contact: Fran, N7FWZ<br><a href="mailto:w7aka@comcast.net">w7aka@comcast.net</a>     | <b>26</b>  | <b>27</b>  | <b>28</b>  | <b>29</b>  | <b>30</b>                                   | <b>01</b><br>—DECEMBER—<br>Public Service:<br>Auburn Santa Parade. Meet 2:30pm.<br>Contact: Liz N7ZXH<br><a href="mailto:hamradiosignup@seafairparademarshals.org">hamradiosignup@seafairparademarshals.org</a>  |
| <b>02</b><br>Public Service:<br>Special Peoples' Holiday Cruise – Seattle<br>Contact: Dick WA7NIW<br><a href="mailto:wa7niw@arrl.net">wa7niw@arrl.net</a>                  | <b>03</b>  | <b>04</b><br>M&K Board Mtg<br>Salvation Army Bldg<br>Renton, 7:30 pm   | <b>05</b>  | <b>06</b>  | <b>07</b><br>Relay Articles<br>Due 23:59:59 | <b>08</b>  |
| <b>09</b>  | <b>10</b>  | <b>11</b><br>FleMarket Mtg<br>Dinkelman's 7:00 pm  | <b>12</b>  | <b>13</b>  | <b>14</b>                                   | <b>15</b><br>1000–M&K Club Meeting, Renton<br>1230– M&K Ham Radio Exams, Renton.<br>Scott- <a href="mailto:ag7t@arrl.net">ag7t@arrl.net</a>  |