

The Short Circuit

Newsletter of the Arctic Amateur Radio Club

Fairbanks, Alaska

December 2012

2012 Interior VE Report Shows Gains

by Bill Brookins KC8MVW

First, I would like to thank all the volunteer examiners that have helped this past year as well as all the applicants that have made it to one of the monthly test sessions. 2012 ended up on a good note in terms of total licenses for the year.

Then again, any year where we are adding new members to the club and are experiencing an increase in the number of local hams is a good year. Overall, we had 36 successful applicants and this number includes new hams as well as those that upgraded their license. Some individuals are likely counted twice due to an initial license and then an upgrade later in

the year. Session attendance counts ranged from a low of one to a maximum of ten at a time; but be aware that the VE's are happy to assist for any number of applicants that may arrive.

Overall in 2012, we welcomed 18 Technician licenses and had 11 General class upgrades and 7 Extra class upgrades to our ranks during 2012. We have seen a general increase in successful applicants since 2009, so I have to believe that the general interest in Amateur Radio is on the rise. It is good to see the number of new and upgraded licenses on the rise and look forward to hearing more of you on the air; although I know that I need to do more of that myself, hihi.

I can only hope that the current trend continues over the coming years. If any of the upgraded hams are interested in becoming a VE and aiding others with getting their license, please feel free to contact me at kc8mvw@arrl.net and I'll get you the necessary paperwork.

Walk-ins are always welcome and pre-registration for any session is not required. To all of the potential applicants, good luck with your studies and we look forward to aiding you in your pursuit of amateur radio at an upcoming session. The 2013 test session calendar will be posted on the website as soon as our webmaster has a chance to do so after I get it to him upon its confirmation by the library staff. Please keep an eye on <http://www.kl7kc.com>

ZAP! Keep You and Your Gear Safe

'Tis the season for arcs and sparks, and a few simple measures can save you the trouble and expense of repairing equipment damaged by electrostatic discharge. First, make sure you *and* your equipment are grounded before you touch it. Invest in an inexpensive (\$15) wrist grounding strap! KL7EDK recommends spraying laundry softener mixed with water to help dissipate any built up charge.

Inside this Issue

<i>Eagle Education Update</i>	p2
<i>Vertical Antenna Ideas</i>	p5
<i>Skywarn 2012 Summary</i>	p6
<i>Alaska QSO Party?</i>	p7
<i>A New Band on Horizon</i>	p8
<i>Party Shots</i>	p9



Sadder but wiser W7USB killed his ICOM 718 without even touching it, but the static electric spark that jumped from his finger to the tuning dial did.

Eagle School Ham Outreach Continues Via Skype

by Neal Brown, W7USB

I've held seven weekly 30 minute SKYPE sessions teaching ham radio with middle school students in Eagle, Alaska, since mid-October 2012.

In our first SKYPE session Monday 22 October we spent about a half-hour going through communication protocols with me as NETCONTROL, and each of them responding when I used their first name. When I spoke their name they came to the front of the classroom to talk with me and I asked each of them a different question. I appear on a huge whiteboard screen in their classroom.

I bought and delivered to the Eagle Community School in September almost a thousand dollars worth of ham radio teaching materials. These included the computer assisted technician class learning software of W5YI and an inexpensive PC Laptop. The latter necessary as only Apple computers and laptops for each student are available at the Eagle Community School. To my great surprise principal Ann Millard was able to reimburse me for these expenses citing our effort as a part of the 4H ham radio curriculum effort at the school.

In the second SKYPE session Monday 29 October we concentrated on using the phonetic alphabet. I emailed Marlys House a copy of the Phonetic alphabet with pronunciations on it, which she photo copied and gave to each student. I talked about why we use agreed upon words as they are the ones others expect and can understand best if radio conditions are poor. I again called students forward and had them spell words I gave them phonetically for them and other students to hear.

I got the following email from teacher Marlys House the same day.

Thanks Neal, Nice seeing you today. We had fun after you left. The kids all made up their own call sign and we

Arctic Amateur Radio Club

went out to do our frost tube and used the radios and call signs to give the data to the data recorder. They are excited about remembering each others call signs and the phonetic alphabet. It is always nice to have you come to class.

In our third SKYPE conversation on Wednesday 7 November they powered up the Talking Radio brand AM radio transmitter system donated to AARC by James Jason Wentworth in Fairbanks, that I sent to them. I put a pre-recorded message on it about this being radio station WILD of the Eagle Community School. The Eagle Community School mascot is a wildcat. Working together via SKYPE they soon had it working and by the time our conversation ended a few had heard the message on the little pre-built crystal radio sets Jason had also donated to this effort.

Ann Millard, the principal at Eagle Community School appeared at the beginning of our SKYPE session Wednesday 14 November to tell me how much she and the rest of the school teachers and staff are enjoying our ham radio effort.

At the end of our SKYPE last week teacher Marlys House and five of her students were excited with the idea

of creating their own message to be broadcast on the Talking Radio AM radio system AARC gave to them. They did create their own message. And they could hear it as they walked around the school with the pre-built Rocket Crystal radios we gave them, and with the little battery powered AM radio we gave them too.

In addition we started working on their crystal radio project together on SKYPE. They taped the circuit layout to their coil forms and drilled the seven 1/8" diameter holes specified. They pushed 6-32 bolts through the holes at the five circuit junction points and captured them into position with nuts.

I gave them a hand operated drill and bits. It took us a bit on SKYPE to get them up to the point that they could drill holes with the hand operated system today. Rick Nix, the janitor at Eagle Community School observed what the students were doing and went and got a battery powered drill and made quick work of drilling the rest of the holes. By the end of 1/2 hour session all the bolts were properly assembled in the right places. Each student brought their completed work over to their video camera to show me up close what they had done. It gave me a chance to congratulate each student and praise their work.

I introduced that we must next learn how to solder lugs to the number 24 gauge coil wire they have and start winding their Crystal Radio coil.

During our Wednesday 21 November SKYPE I could see and hear them, but they could only see and not hear me. We were unsuccessful in getting SKYPE to work both ways. We worked together for about 15 minutes before I signed off. All five of the most active students learned how to solder during the week preceding this SKYPE conversation. Marlys, their teacher and I have gotten additional on-site help for soldering in the

continued on p. 3



Completed Rocket crystal radio

"Eagle Outreach" from p. 4

Eagle Community School from Rick, their janitor.

They had all soldered a lug onto the insulated wire that they then wound as the first ten turns onto their 4" diameter coil form, and used a piece of Blue painters masking tape to hold it in place.

The next step is to cut enough wire for ten more turns, and strip insulation from the ends. They are to twist the stripped end of the wire already laid on the coil form with a new wire end and to solder them together. Once soldered together they are to wrap the next ten turns and tape them down again.

By use of hand written signs from me I praised them, and we worked out that they will finish their 100 turn coils by 28 Nov, for our next SKYPE conversation.

The frequency tuning network for this Crystal Radio design has a fixed capacitor with tapped coil points.

They will solder lugs, with 6-32 holes in them, onto the other components such as ear phone, resistor, alligator clip-leads by our 28 November SKYPE conversation.

And we should have them listening to the 100 milliwatt TALK RADIO AM transmitter we gave them on the Crystal Radios they built by our 5 December SKYPE.

Our plan is to then do hands-on activities such as measuring voltage, amperage, power, in each of the follow-on SKYPE interactions. These will more directly support how to answer questions for their Technician License exam in May 2013.

We've succeeded in setting the hook so to speak in getting these kids interested and engaged in radio. I could not be more pleased personally, and Marlys has praised our effort. Her comments that we thought of most everything and that she has all the sup-

plies she needs is great to hear.

I sent an email to the AARC board of directors thanking them for making this an official AARC effort.

After reading the write-up about the Eagle ham radio effort in the November issue of AARC's monthly newsletter on www.k17kc.com, we received an email from Stanton, KK7STL, offering to buy a couple of brand new Yaseu FT 60R HT units to be awarded to Eagle Community School students who pass their technician class exam in May of 2013. Stanton followed through and had the radios sent directly to Marlys in Eagle. Stanton suggested providing them with FRS radios to help them overcome mic fright and I responded in the following email to him. Hi, Stanton, I drove to Eagle before the State of Alaska stopped maintaining the Taylor highway and delivered many items to teacher Marlys House and spent two days in the school.

I gave them several brand new FRS radios and a lot of batteries. I led an event where they learned how to put batteries into the FRS radios and to use them in the classroom. We talked about "net protocols". Then we sent the kids outside with the radios. They had a lot of fun talking to one another, all within visual sight of their teacher, a rule she imposes on all school yard activities. Then they came back in and we pulled the batteries, and then critiqued how it went. They all acknowledged some of the problems they created with one another using the radios, holding the PTT down too long, etc.

A few weeks later the teacher Marlys House had me run through the net protocol again on SKYPE with them. I was net control and used their first names. A few days later they did an outdoor activity involving GPS geocaching and this time used their FRS radios appropriately with apparently great success according to Marlys.

So, yes, they have FRS radios right now. And they are learning how to

use them as a team in doing projects. I love that they are. I wanted them to not only not have microphone fright, but also to learn how to use them effectively. Which I think they are doing.

2 of the 5 students have completed building their Crystal Radios. The other 3 have several windings on their coil forms and have been soldering parts together.

Rick Nix, the Eagle Community school janitor, has been helping them learn how to solder along with teacher Marlys House, and to finish winding their coils.

I've been building another Crystal Radio here at home along with them in Eagle, staying just a step or two ahead of them. I left a completely built one there for them to have and look at in September.

So far so good. I plan for everyone to finish before Christmas. All hands on activities starting in January 2013 will be directly connected to Technician Class exam questions.

In early December Marlys House emailed me that Artesia and Tyrese left Eagle with their mother to live in Fairbanks while she, their mother, takes classes at the University of Alaska Fairbanks during the spring semester. Artesia and Tyrese were among the most motivated and I've made contact with their mother by email here in Fairbanks to start a conversation on how we can continue their ham radio classes. Artesia and Tyrese are Alaska Native ethnicity.

SKYPE conversation of 5 December I emailed the material below to them today. They got out the multimeters, batteries and resistor I left with them in a ziplock bag last September. Everything went very well. In the next 30 minute SKYPE, in early January, they will use the resistor to drop the 9 volts from the battery to about 2 volts, a good voltage for the LED. I told them the LED would not light with one and one-half volts, *continued on p. 4*

“Eagle Outreach” from p. 4 that they should try it. I told them not to connect the LED to the 9 volts as it would burn it out.

Here is what we did together on our SKYPE conversation today: Measure voltage of nine volt and 1.5 volt batteries

- Look carefully at a one and one-half volt battery. It has a minus sign near the flat end and a positive sign near the end that has a little bullet like cap on it.

- Look carefully at a nine volt battery. It has two electrical terminals on top. One looks like a socket, the other like a plug. Look on the side and note that there is a label of minus on the side near the socket and a plus on the side near the plug.

- In general, with regard to polarity of a voltage -we use wires that are black for negative, and wires that are red for positive

- Rotate the dial on the multimeter one click clockwise. The arrow will move from OFF to VDC, which stands for Volts Direct Current.

- Touch the plus (+) end of a 1.5 volt battery with the red lead from the multimeter. Touch the negative (-) end of the one and one-half volt battery with the black lead from the multimeter.

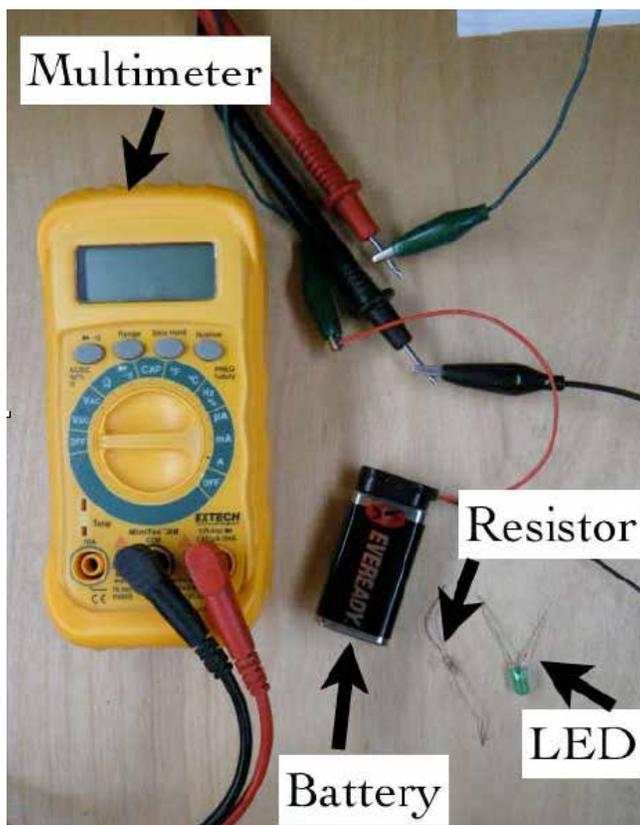
- You should see something like 1.550 appear on the screen of the multimeter. That means you are measuring 1.550 volts, the voltage of this battery. Note in the upper left corner of the multimeter screen is says “AUTO” and right below that it says “DC”. This means that the multimeter automatically registered a DC voltage.

- Now put the one and one-half volt battery off to one side and mea-

sure the voltage of the nine volt battery.

- You should now see something like 09.12 on the screen of the multimeter.

- Note that if you put the black lead on the positive end of a battery and the red lead on the negative end of the battery, the multimeter will not be hurt, but will read a minus voltage. Try switching the red and black leads as you touch the batteries.



- Small batteries like these won't hurt you if you touch their voltage terminals. Bigger batteries can, so don't do the above with them.

- Turn the multimeter off by rotating the dial counterclockwise till it points to OFF

- Now let's look at a resistor. A resistor resists the flow of electricity and we can use them in many ways, but we often use them to change the voltage from a high voltage to the voltage we need for something to work

well. That will be the last thing we'll do today.

- For now you use a clip lead to connect the red lead on the multimeter to one end of the resistor. Then use another clip lead to connect the black lead of the multimeter to the other end of that same resistor.

- Rotate the dial on the multimeter from OFF three clicks to the funny looking horseshoe looking sign. That is the Greek letter Omega which we use when we talk about resistance. And the basic resistance term is “ohms”.

- You should see something like 0.461 appear on the screen of the multimeter. Above and to the right of the number you will see k followed by that same horseshoe looking character. This means you are measuring 0.461 thousand ohms. The “k” stands for thousand. 0.461 thousand ohms is 461 ohms.

- Turn the multimeter off by rotating the dial counterclockwise until it points to OFF. I also had them multiply the current times the value of the resistor so that they saw it equals the voltage of the battery.

Email from Marlys House 6 December Thank-you for another well prepared and educational Skype presentation.

After the holiday break, we will have a week or so of Chemistry left to do in Science, and after that all of our time will be dedicated to electricity, magnetism and Ham Radio. I really think Sunny and Valerie and possibly Violet can pass the test, having Rick would be an added bonus. The other students can start and if they do not make it we could continue on next year. The 4-H projects in Ham Radio do not have to be completed in a year.

Some Practical Ideas for Vertical Antenna Systems

by Larry Ledlow, Jr. N1TX

The conventional “wisdom” among a lot of HF operators in the Interior is that verticals simply don’t work. I’ve heard that a lot over the past decade and a half, and I bought it hook line and sinker.

A couple of years ago, however, I began to change my mind on the issue and started exploring vertical antenna options for contest station KL2R. No, it’s not like we’re space-limited or anything like that. In my research and in operating, I believe some vertical designs — specifically vertical arrays — can be extremely effective. Several new products on the market make it relatively easy to put up such a system.

We’re all taught in ham radio school that ground-mounted vertical antennas are excellent for DX, because the low take-off angle can propagate farther. Maybe so, but propagation is tough from Fairbanks during much of the solar cycle, and you also need **gain** to get that low band signal across the continent. More on that in a moment.

Trap and top-loaded verticals have been popular for a long time, because they are physically short and easy to install. They are, at best, serious compromises when your objective is to maximize the power delivered to the antenna and radiated into the ether.

Even so, KL2R has a top-loaded MA-160V 160m vertical used with good results. We just recognize its inherent limitations. That said, I discovered recently my accident that by loading up the 160m vertical on 40m, I could work stations who couldn’t hear me using the 40m dipole at 120 feet! Go figure.

A popular product becoming the *de facto* standard these days is a 43-foot multiband vertical.

It sounds promising, but keep in mind it should be installed with a remote tuner at the base and erected over a substantial ground system with 32 radials or more. Check out DX Engineering, S9 (now owned by LDG Electronics), and Zero-Five for ideas.

If you really detest the idea of running dozens of radials around your yard for a ground-mounted vertical, think about a suspended 1/4 wave antenna. An elevated radial system can be just the ticket if you’d like to reserve room for mowing or avoid the labor and expense of burying hundreds of yards of wire in the ground. W1IS has a nice article about such a system in the August 2011 *QST* entitled “A Suspended Vertical 40 Meter Wire Monopole” on page 34.

A single vertical is unlikely to do much for you in the gain department, the one exception being a **vertical dipole** vs. a conventional quarter-wave vertical requiring an extensive ground radial system. You can easily build a dipole for 40m or higher bands, tie off one end to a support near the ground, and the other to the top of a tall tree. It might slope a bit, but the size is not impracticable, and the cost to build such is minimal. Because we don’t live in a redwood forest, full-size dipoles for 80 and 160 are problematic. You can use much shorter loaded dipoles in the same way, though.

An alternative for a dipole suspend-

ed from the treetops is a quarterwave 40 monopole discussed in

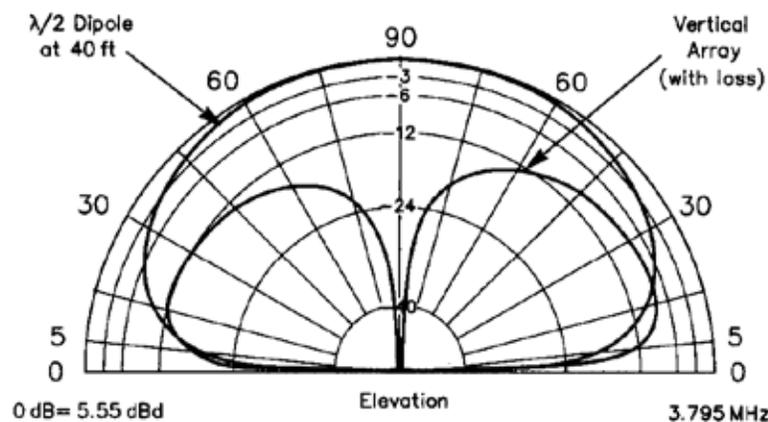
Shortened vertical dipoles designed for ground mounting are readily available from several manufacturers, like Zero-Five and Force12 (texasantennas.com). Unfortunately, some of these are expensive, in part because of the heavy hardware required. You can improvise with locally available materials, and designs are readily available on the internet and various ham radio publications.

Now let’s talk about vertical arrays. An array is simply two or more antennas that interact with each other to provide the desired results; e.g., gain, directionality, or take-off angle. In an array’s simplest form, consider two vertical antennas placed a quarter-wavelength or even slightly less apart. If you feed one but not the other, the two will interact much in the same way the elements of a yagi interact through parasitic currents. The result is a cardioid-shaped beam favoring the direction of the driven element. That’s an easy way to get some good directionality and a little gain over a single vertical or compared to a horizontal dipole. (See figure below.)

Now think about what happens when you actually split the power with a T-connector and feed them both. You end up with a bi-directional (say, east-west or north-south) by ensuring the elements are fed “in phase”.

By making one leg from the T longer than the other by 1/2 a wavelength, you end up feeding the elements out of phase, and the pattern again favors one direction.

Carl Horn WL7BDO has built a 20m bi-directional array on his city lot in Nenana with excellent

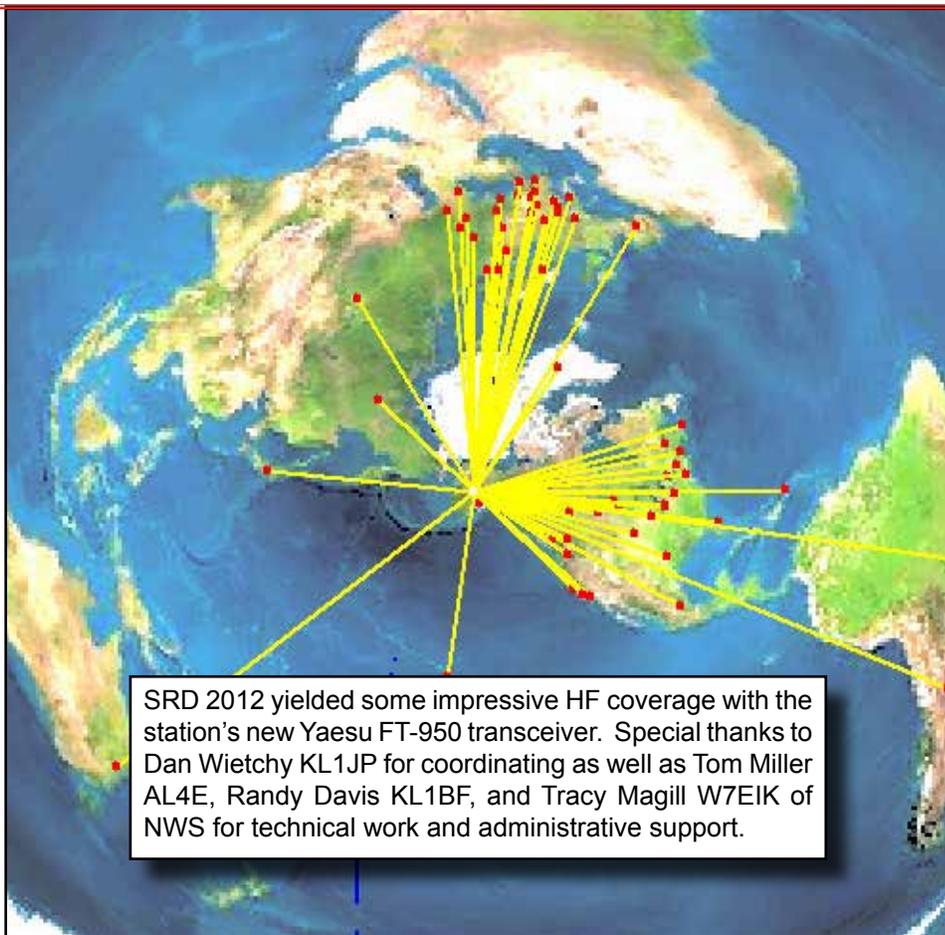


continued on p. 6

Skywarn 2012

Wrap-Up

Skywarn 2012 was another great success, our 2012 total being just shy of last year's record-breaking tally. SRD 2012 is now the second largest QSO tally on the record books. The 2012 Skywarn Preliminary Tally: 286 QSO's consisting of 111 DX stations and 175 US stations. We recorded 29 States (including 5 Canadian Provinces) - 19 NWS Offices - 47 FM on echolink, 132 on CW, 24 on RTTY and 84 on SSB. The map at right shows the worldwide coverage from KL7FWX. Tom Miller AL4E recently made some big improvements to the G5RV atop the IARC building with the arrival of the NWS Yaesu FT-950. Mac Carter KL2GS had wonderful results with Echolink, too.



"Verticals" from p. 5

results and without a huge investment. Earlier this year, Dan Wietchy KL1JP extended the idea and laid in three 15m elements in an "L" shape so he could change directions simply by disconnecting one of the outer elements and move the feed to the other outer one. Very clever.

The four-square antenna array is an extremely effective vertical array gaining enormous popularity among DXers and contesters. With proper phasing, the four vertical elements laid out in a square yield a steerable antenna pattern with peaks along the diagonals.

Gain can be significant, but another big advantage is the tremendous front-to-back ratio obtainable. The F/B ratio significantly reduces the QRM from undesired directions. ("You can't work 'em if you can't hear 'em.") I was recently very impressed with the 4SQ at KL7RA, when I was manning the 80m position late one night. I could alter-

nately work US East Coast and Japan at the simple turn of a switch, when signals from the desired direction would pop from inaudible to S9 and vice versa.

You don't necessarily have to have a small farm to build such a system. Some 4SQ designs incorporate dipoles strung from a tower or tall mast. The details of 4SQ design can be very technical and dependent on site specifics, but the principles are straightforward.

The system requires four verticals, phasing cables, a dummy load, and a controller/switch box. Controllers and even entire packages are available commercially from a number of places like Array Solutions and DX Engineering.

Elevated wire arrays can be very effective and reduce or eliminate the need for radials. Overall cost can be minimal, a big plus.

One antenna design that's been around a long time is the bobtail cur-

tain, which looks like a pitchfork with the tines pointed down. It uses the principles of cophased verticals to produce a broadside, bi-directional pattern providing approximately 5.8 dB of gain over a single element. The antenna performs as three in-phase top-fed vertical radiators approximately 1/4 wavelength in height and spaced approximately 1/2 wavelength. It is most effective for low angle signals and makes an excellent long-distance antenna for either 3.5 or 7 MHz.

I have intentionally avoided introducing any of the complex theory behind antennas in the hope of inspiring you to explore verticals more. Technical discussions can quickly become overwhelming, but do not be discouraged. Troll the internet for more ideas, and experiment freely! Some excellent books are, of course, the *ARRL Antenna Book 22nd Edition* as well as *Vertical Classics* and *More Vertical Antenna Classics*, all available from the ARRL Store.

Alaska QSO Party Proposal

by Ron Keech KL7YK
kl7yk@arrl.net

Every few years the idea of an Alaskan State QSO Party is brought to light. Recently this idea again was discussed by a few hams in Anchorage with the usual mixed bag of possible ideas for how it could be accomplished.

As I see it we need to first establish the basic ground rules of a QSO Party: Where would we want to operate frequency wise? What Mode(s) do we want to include? Do we want it to be any power levels or break it out to High and Low power? What exchange will be used? What is the duration of the event?

I personally prefer the KISS principle. I see no benefit in making it a complicated and confusing event.

I like the idea of a broad use of our available spectrum. So I would like to see any and all bands and limit modes to CW, Phone and perhaps one digital mode say RTTY.. Allow any legal power settings. Basic exchange with a Serial Number of the contact and a signal report. Duration should be limited to a single weekend for HF and a separate single weekend for VHF and up.

Scoring should be simple as well, one point for a contact regardless of band, power or mode. Only the first contact on a band would count even if you make several contacts on different modes on that band with the same station. Power levels would score the same regardless if it is 5 or 1500 watts. This keeps the playing field level for all stations.

So a contact on 15m SSB would be 1 point. If you work that station again on another band regardless of power or mode you simply gain a multiplier and another contact point.

Following that process I make a contact on 20m SSB, 1 point. Then I work them again on 10m FM, +1 point and I gain a multiplier. That second con-

tact is worth not just the one point but actually a total of 4 points, 1 for each contact times the multiplier of 2. 2 points times 2 mults = 4 points. Work that same station on 5 bands and you have 5 mults for a total of 25 points.

As to when to hold the event(s), we need to look at the contest calendar and see where we have a otherwise quiet weekend for HF. I encourage the HF event be held in the Winter months since we are all pretty much home bound then anyway. The second event on VHF and up could be held in the Summer when most of us are out and about. Since most of us have VHF and up gear in the RV, Boat or personal vehicle it makes sense to do this in the warmer months.

Duration, this one question has in the past raised all sorts of responses. You can justify everything from one day to the entire year. But seriously, this needs to be kept to a smaller period of time so everyone tries at the same time and not have us chasing contacts for months and months.

So I favor the single weekend idea, starting Saturday at 9am local Alaska time and running until 3pm Sunday.

Having participated in the ARRL VHF Contests here, I can tell you 90% of the contacts will occur between 9am Saturday and 3pm Saturday. Downside I see to longer events is the loss of interest. Can you imagine trying to keep track of a 6 month or longer contest? From a management standpoint it would be a nightmare.

Now, I prefer the shorter more focused event. Start it, run it and finish it in 2 days. Makes keeping track of things far easier and with electronic scoring that's available these days everyone should be able to get the logs submitted within 2 weeks after the event ends. Make it a Cabrillo format file and email it in. We should be able to create or have created a simple log-

ging program for use. If one of the regular logging software developers wants to build a simple template style logger great!

If not we can devise something that will fit the need. Since the math is so simple these logs could be simply a text file you export from your favorite logger and score yourself. Part of the Event Committee's job would be to check logs for correctness. By having reps from the clubs we can assure people the results are on the level.

So that's my idea, what's yours? Think it out, write it up and send your idea to the QSO Party Committee (to be established).

That brings us to the bigger headache, who will manage this event? We need to identify who the Event Committee members will be, does not need to be a huge number of people. I think a core group of 5 or 6 people could manage this.

We will need to get cooperation from the various clubs in the state, each club could provide a single committee member for example. Each club could contribute to the cost of running the event, not a huge cost either for anyone. A fund is set aside to cover the cost of certificates and perhaps a first place Gold Pan. With additional recognition as determined by the group. Certificates are cheap and easy and almost every Ham likes wallpaper. A Gold Pan for First Place is a typical Alaskan way to recognize someone.

Expenses would be limited to cost of awards and postage. Just ball parking this but if 5 clubs were to kick in \$25 each, that's only \$125 for certificates and Gold Pan and postage. More would be better and we could even get local business sponsorship since this is an Alaskan QSO Party.

I can visualize the event growing over few years to even getting some

continued on p. 8

"AK QSO Party" from p. 7

nice grand prizes in the form of a new radio and such. Carry forward any remaining funding every year and between corporate donations and sponsorships and left over funding in a few years the clubs could stop kicking in start up funding.

There are currently over ten Alaska Radio Clubs listed, getting 5 involved shouldn't be all that hard. Get 7 or 8 of course would be better. We would need a website and an email box for logs, a physical mailing address for the few who are still not online.

For the sake of getting things started I can create the website and email box if we decide to pursue this. I will donate the web space and email box. If we have access to someone who can print up nice certificates as needed even better to help keep the expenses low. We may be able to get one of the Alaska based printers to provide the certificates and printing service as a donation.

If you like this idea talk to your membership and see if they would be willing to participate. Figure out what they would like to see in the event and let everyone know. If you have a volun-

teer to represent your group we can start building the Alaska QSO Party Committee.

Logistically committee members could be anywhere, discussion can be via email, Skype or whatever.

So I have volunteered to be involved as the Elmendorf Amateur Radio Society Representative. I can further guarantee EARS will contribute the \$25 towards this cause.

I look forward to seeing this get off the ground and become a regular event. Contact me and lets see if this will fly!

The Low Down on a New Low Band NPRM

From the ARRL 12/10/12

At the 2012 World Radiocommunication Conference (WRC-12), delegates approved Agenda Item 1.23: a 7-kilo-hertz-wide secondary allocation between 472-479 kHz for the Amateur Radio Service, with a power limit of 5 W EIRP (or 1 W EIRP, depending on location). Before this portion of spectrum is made available to radio amateurs in the US, the FCC must first approve its use and amend its rules to reflect the change. As such, the ARRL filed a Petition for Rulemaking on November 29, asking the FCC to amend Sections 2 and 97 of its rules and create a domestic Amateur Radio allocation at 472-479 kHz, conforming to the allocation status and limitations set forth in the international Radio Regulations.

"The subject of a low-frequency (LF) allocation, and/or a medium-frequency (MF) allocation in the lower portion of that range for the Amateur Radio Service has a long history at the Commission," the ARRL pointed out in its Petition. "As yet, however, the Commission has not created either one." Presently, the lowest domestic frequency allocation for the Amateur Service -- and the only MF allocation -- is at 1800-2000 kHz.

The ARRL also pointed out that there is an Amateur Radio allocation in all other areas of the radio spectrum, providing for experimentation in virtually all types of radio frequency communications. "Technical self-training and furtherance of radiocommunications development in the Amateur Service (which is in essence an experimental radio service) would be greatly enhanced by an LF allocation and an allocation in the lower portion of the medium-frequency (MF) range," the ARRL maintained. "It is now timely, in response to actions taken at the 2012 World Radiocommunication Conference (WRC) to create a new, domestic MF allocation at 472-479 kHz for the Amateur Radio Service." The ARRL pointed out that while it is also desirable and timely to have an allocation in the LF portion of the spectrum, that matter was addressed in the Notice of Proposed Rulemaking and Order, just released in ET Docket 12-338 on November 20.

The ARRL has sponsored an extensive course of experimentation in the MF spectrum near 500 kHz since 2006. In September 2006, a group of 23 amateur stations -- using call sign WD2XSH -- scattered throughout the US were permitted to operate in the band 505-510 kHz for a course of experimentation with propagation and interference testing. During the course of this experiment, the number of participating amateur stations increased to 42, and includes all geographic areas of the US, including Alaska and Hawaii. The frequency bands utilized were modified to include the entirety of 461-478 kHz and 495-510 kHz. Emissions, at power levels up to 20 W ERP, include 150 HA1A, 62H0J2B, 62H0F1B and 62H0G1D. This experiment is scheduled to continue through the end of the current license term, August 1, 2015.

Naughty or Nice...AARC Holiday Party A Big Hit!

