Happy New Year
Saskatoon Amateur Radio Club Meetings are held usually on the 2nd Tuesday of each month September till June unless otherwise noted.

Our meeting location is Alvin Buckwold School
715 East Drive – West entrance

Meeting is 01:30 UTC (7:30PM local)

VISITORS AND GUESTS ARE ALWAYS WELCOME!

President                 Gus Schmid VE5SPI
Past President            Vacant
Vice-President           Nathan Mirva VE5NAT
Secretary                Lou Curti VE5LOU
Treasurer                Ned Carroll VE5NED
Director                 Ken Bindle VE5KRB
Director                 Mike Luciuk VE5MIK
Director                 Mike Mikityshyn VE5MMG
Director                 Bob Tower VA5BRT

Committees
Repeaters
Property and Assets Record
Training Coordinator
Public Service
Sick and Visiting
Field Day
Elmer
Vacant
Vacant
Vacant
Vacant
SARC Net
L.B.L. Rep
Coffee
50/50 Draw
Feedline
Web-site

Gus VE5SPI Club Executive Ken VE5KRB Club Executive Vacant Sean VA5LF Vacant
John VA5RJA Mike VE5MIK, Al VE5MDC John VA5RJA Ken VE5KRB John VA5RJA Nate VE5NAT Mike VE5MIK Bruce VE5BNC

NEXT ARES MEETING
1st Tuesday of each Month
7:00 PM
Co-op cafeteria on Attridge Drive

Call in: 146.640-
Saskatoon and Area Frequencies
October 2010

LOCAL AREA REPEATERS
VE5SK 146.640- Saskatoon, SARC
VE5XW 146.730- Rock Point
VE5ZH 147.270- 2 MHz offset, Saskatoon, Auto Patch
VE5CC 146.970- Sktn. MARS. Linked to VE5SKN,VE5DNA, and IRLP node 1360. Link code 502*/503*
VE5SKN 145.940- Sktn MARS. 100Hz tone on xmt only. Linked to VE5CC. VE5DNA and IRLP node 1360. Link code 500*/501* ARES SAME wx Rcvr.
VA5LLR 145.390- Lizard Lake
VA5SV 145.330- Ridge East of Sktn
VE5RPD 145.190- Elbow/Davidson
IRLP NODE
1360 Hard linked to VE5CC UHF Hub (444.975 +5M) & available to VE5CC, VE5SKN and VE5DNA VHF repeaters when linked.

All the above repeaters are completely open.

APRS
VE5RHF 144.390 Saskatoon DIGI
VE5BNC-3 144.390 Saskatoon IGATE & SATGATE
VE5XW-1 146.730- Rock Point
VE5HAN-4 144.390 Hanley DIGI
VE5YR-4 144.390 Davidson DIGI

CONTESTS

Hunting Lions in the Air Contest
0000Z, Jan 8 to 2400Z, Jan 9
ARRL RTTY Roundup
1800Z, Jan 8 to 2400Z, Jan 9
North American QSO Party
CW1800Z, Jan 8 to 0600Z, Jan 9
CQ 160-Meter Contest
CW2200Z, Jan 28 to 2200Z, Jan 30

For a full calendar of contests see: http://www.contesting.com

Currently off the air
**From the PREZ**

*Happy New Year!!!*  Here we are at least by the time you read this into the New Year and it seems like yesterday that I was thinking of what to buy my XYL for Christmas.

I hope everyone had a joyous Christmas Season. We are embarking on a new year and already we are at the start of eleven years into this century. We will start this year with new students interested in Amateur radio but not nearly in the numbers required to keep the hobby going and the government from selling off our precious spectrum allocations.

I feel that we need to get RAC going with a better representation of all the Hams that we have in Canada, so that the government and the bureaucracy does not cast us aside with the belief that we are few and don’t count. At the present time with the government cut backs, it is possible for them to auction off the sections of the spectrum that we now occupy to the highest bidder. TV spectrum is only one example. Try and put up a tower in the city for your antenna. Industry Canada, locally, has been showing that they have no understanding of the hobby or care to assist us against complaints by neighbours. This has been escalating over the last several years on a regular basis. So sell off some surplus gear or whatever and join RAC, so that we have a voice that will be heard in Ottawa before it is too late. We could all end up owning boat anchors and door stops.

Speaking of boat anchors and door stops, the Ham Fest is in July and we need your help to get it organized and programs set up etc. It is also a good chance to sell off surplus gear and to perhaps purchase that perfect something for your latest project, if you can get it past the XYL. Speaking of XYL we need some help with a program for them for the Ham fest as well? Just remember if they are happy we will be happy and can enjoy the festivities.

We also need some suggestions for programs for the Feb, March, April, May and June meetings so let the executive know what you would like to see or hear.

I have received a note from the Marathon organizers requesting our help with the Saskatchewan Marathon. This event is growing in popularity and has attendees from all over the world attending the races. It will require lots of volunteers so I would like an indication from the membership whether we should continue to be involved in this event. I feel it is very good exposure for Ham Radio and its capabilities.

That’s all for now, I hope to see you at the meeting and I sincerely hope this finds you all in good spirits!

Gus
VE5SPI
Rock Point (Lucky Lake) Repeater Update

Well the weather was clear, cold, lots of snow on the ground and did I mention cold? We set off after loading our equipment, at Bruce’s, VE5BNC QTH, into two vehicles. Devon, VE5DWR was kind enough to volunteer his 4x4 so that we could hopefully get into the VE5XW repeater site and Mike, VE5MMG was bringing his vehicle complete with generator and tools. The trip down was good and everything went well. Did I mention it was cold?

The trip was the result of our telemetry telling us that the batteries were slowly being depleted to a point, where it was becoming dangerous. When the temperature got below the freezing point they were in danger of freezing and being damaged. It was evident that the solar panel alone would not keep things going. The wind charger was not working very well if at all.

When we arrived at the gate of the pasture the wind had picked up making the cold bite into the layers of clothes we were all wearing. All the equipment, or so we thought, was loaded into Devon’s truck and we were off. Bruce, Mike and I were scouting out the best path along the route to the repeater site with the hope of not getting stuck. A couple of the hills took a few runs to get up on top of due to the snow drifts. The snow drifts had a very hard layer that would support our weight at times so Bruce had to keep probing with his ski poles so that we would know how deep the snow was. The snow had a layer of ice near the top and under that it had the consistency of sugar. The last thing we wanted was to get the vehicle stuck on the way into the site. We topped the last hill and were about 100 meters from the repeater when we all said, “There’s the gate! Go for it!”

Well when you get a 4x4 stuck you are really stuck! Due to a time dead line we decided to divide and conquer. Mike and Bruce would look after the repeater and wind generator while Devon and I dug out the truck. I thought this would not take long at all. However due to icy snow conditions, gravity, and down hill slope it took over an hour and one broken shovel. The snow was so hard we were breaking it into huge blocks that would have been great for igloos and snow forts.

Meanwhile Mike and Bruce shut down the repeater and removed the wind generator from the tower as it was not generating any power for battery charging. The Digipeater was removed from the cabinet and replaced with the old beacon so that we would continue to have telemetry coming from the site with very little load on the batteries. Mike attached a small solar panel to the second set of batteries so that they would be kept charged and out of danger of freezing in the cold. Murphy struck again! The beacon transmitter was not working. Tools and material were loaded back onto the toboggan and then the truck it was time to give the battery banks a boost with the generator but we then discovered, thanks to Murphy, that the battery charger was out in Mike’s truck on the grid road. Oh well at least this way we could conserve fuel for a later date. Too bad Murphy couldn’t shovel snow.

I am happy to say that the solar panels are slowly charging the battery bank. The beacon came on after a week when we had given up hope that it would ever work again (dropping it repeatedly on frozen ground in not a good thing). I think Murphy got tired of the cold. So after making everything secure and taking a few pictures we were off for the road. The trip out was uneventful and within two hours we were back in Saskatoon unloading our equipment and reclaiming our vehicles.

Bruce checked out the wind generator and found that it was in serious need of warranty repairs. He had a long laundry list of things that were in need of attention. Canadian Tire referred us to the manufacturer who is in the USA. They advised they had a Canadian repair and warranty depot in Canada, which is in Quebec, so the unit has been shipped off to them. We are waiting to hear back from them about the next step in the process. We hope to have the system up and running again in the spring as I doubt we will get into the site without the use of a ski doo and toboggan. Take care and the next chapter is on the way. Did I mention it was cold?

Gus
VE5SPI
Multi-Hop Paths Explained
Mike DeChristopher, K1KAA

My main area of interest in propagation is multi-hop paths. Why? Well, because I deal mostly with sky wave propagation on HF. My goal here is to clear up some misconceptions about multi-hop paths. Since the easiest way to visualize what happens when you throw a radio wave into open space (or into the ionosphere, as the case may be) is to actually draw it, I have illustrated some common examples below.

This is the first example. Some (including the ARRL handbook) have referred to this as an "F-Layer Hookup", which is exactly what it is. Propagation is a virtual "crapshoot", keep in mind. Trying to map E-Layer absorption versus relative F-Layer absorption is nearly impossible, which is why this first example is so difficult to map.

The second example is what I call the "square-knot" of paths. This is due to refraction in the E-layer, which shortens the distance of the two F-layer hops.
This is my personal favorite. The E-Layer above the maximum usable frequency (MUF) lacks the refracting ability to return a signal to earth. It does refract it enough, however, that it can continue on and refract back to earth via the F-Layer.

The Pedersen Ray is our final example. This is because it is the most confusing, bizarre, and wonderful type of propagation, especially on 15m during CQWW. Why? Because it dynamically increases the distance of the hop. The initial refraction occurs in the F-Layer, and only when the signal originates from a very high take-off angle. Although prone to any minor atmospheric disruption, when conditions are right, this is the way to throw around "CQ's".

Okay, now that you have seen the paths, WHAT ABOUT GRAYLINE? Here are some facts to keep in mind: (1) At daybreak, D- and E-Layers appear(2) F-Layer MUF rises. Just the opposite happens at night. For a little while, during the transition between night and day (the grayline), the D- and E-Layers are not quite formed, yet the F-Layer MUF remains higher than 4MHz. Keep diagram 3 in mind for this. Although dia.3 details the E-Layer MUF, the same occurance happens in the F-Layer. This enables great propagation on 80, 160, and even 40m. Also keep in mind that grayline propagation is still shortpath. Multi-hop paths are very complicated to understand. Once you figure them out, you will have a greater understanding of how radio really works. You can look inside your tranceiver all day long, but it is just a machine!
Driving in Traffic

Contesting isn’t like day-to-day operating. The bands are full of strong signals packed close together. It’s like playing a real football game instead of a game of catch. You'll find that you need to use some of those receiver controls and narrower filters. For example, you’ll find that having the noise blanker or preamp turned on will likely lead to severe intermodulation and overload problems in your receiver. Turn them off whenever possible - doing so may also work for a non-contester. In fact, cranking in some attenuation or turning down the RF Gain control will improve receiver performance dramatically under the strong-signal tractor-pull of a contest.

The attenuator seldom gets a workout, but it can be your biggest friend when dealing with strong nearby signals. It's surprisingly easy for a strong signal to drive a receiver's RF amplifier or mixers into non-linearity known as overload. This creates spurious intermodulation products, known as “crud,” up and down the band. 10 dB of attenuation cures a surprising number of ailments at the cost of just a couple of S-units of signal strength. Try cranking in some attenuation and you may find that interference drops dramatically when your receiver is no longer being overloaded. Remember that the goal is to maximize signal-to-noise ratio, not necessarily absolute signal strength. Try out your attenuator and you may be surprised at how much it cleans up a band!

Late breaking news - RF Gain controls are not welded in the full-on position! This makes your receiver very sensitive, but also leaves your IF (and sometimes the RF) amplifiers susceptible to overloading. Experiment with backing off the RF Gain to see if it doesn't improve your receiver's performance in a strong signal environment. Even during casual operating, backing off the RF Gain can dramatically reduce background noise.

Does your receiver have Passband Tuning, IF Shift, Variable Bandwidth or similar controls? All those new DSP features you paid for can also clean up noise and attenuate low-frequency or high-frequency audio. There's no time like the present to find the receiver's manual and learn what these controls do. Experiment with changing the AGC settings or even (gasp!) turn it OFF and use the RF Gain control instead. It doesn't take much to change a QRM-clobbered QSO into a fairly manageable channel.

By effectively using the capabilities of a modern receiver, you will surely find that the band is quieter and nearby signals less disruptive. In fact, you will find yourself making better use of your receiver's controls every day!

Sharing the Road

When operating in a contest, you need to be sensitive to the effect of undesired spurious transmitter byproducts. It's one thing to set up your voice keyer and speech processor on a calm, weekday after work and quite another thing to then hammer it during the contest when you're excited.

Do an on-air audio check with a friend to learn where to set mic gain and processing level. Learn what your ALC and Compression meters show with audio levels set properly. Turn on the amplifier fan and every other noisemaker in the shack to see if they make an unwanted contribution to your signal. Be sure you don't have RF feedback on any frequency. Listen to a playback of your voice with every noisemaker in the shack turned on. It's important that all that RF energy is carrying your message and not fan noise. Use a windsreen on your boom mike to limit the high-frequency pops and snaps. You need the crisp high end of speech, but not the transients that overdrive a compressor. Windscreens also reduce fan and background noise.
Check to be sure that running an amplifier doesn’t cause RF feedback or distortion to your mic or voice keyer. Better to find that out now instead of during the contest. CW operators should check for key clicks, too.

A small digression. I often hear that contest stations have low-quality audio and I believe that some of these complaints are a result of confusion. Contests are not about audio fidelity, they are about intelligibility. The two do not always go hand in hand as the military well knows. The important thing is to convey the information, not to sound like Bing Crosby. During a contest, I want to have a punchy, crisp signal that is easy to understand on a crowded band. During a regular ragchew, I’ll switch to a signal with more dynamic range and more low-frequency response. The two types of operating have very different audio requirements.

Ready to Give It A Try?

It’s a lot of fun - the hours will fly by. Keep a simple paper log the first time out to make it easy - you can worry about entering it on a computer later. There are usually complete rules and instructions for operating and scoring and sending in the log on the contest sponsor’s website.

An African chieftain flew to Ottawa to visit the Prime Minister. When he arrived at the airport, a host of newsmen and television cameramen met him. One of the reporters asked the chief if he had a comfortable flight.

The chief made a series of weird noises... “screetch, scratch, honk, buzz, whistle, z-z-z-z-.” ...and then added in perfect English, “Yes, I had a very nice flight.”

Another reporter asked, “Chief, do you plan to visit the many museums here in Ottawa while you’re in the area?”

The chief made the same noises... “screetch, scratch, honk, buzz, whistle, z-z-z-z-.” and then said, “Yes, and I also plan to visit the Museum of Man and the Rideau Canal.

Where did you learn to speak such flawless English?” asked the next reporter.

The chief replied, “Screetch, scratch, honk, buzz, whistle, z-z-z-z-... from ham radio.”
Announcements

Message from the President

Well here we are and another year of Amateur Radio activity within the Saskatoon Amateur Radio Club is fast drawing to a close. We have one more meeting and then the Field Day at the WDM. We have had a successful year with our public service events including the Santa Claus Parade, our classes, and other projects like assisting the Space Club. We hope to get the Rock Point Repeater back on the air this summer. Ken is arranging for another summer event at the Little Bear Lake site. My thanks to all those who have participated, helped organize and taken part in the club activities. The club is only as good as the effort put into it by the members.

The executive have received requests for an advanced class this fall and an antenna class. We need input from the membership to see who is willing to attend or help with these projects. If there is enough interest we will try to book space at the Club site to make it happen, so let us know your thoughts and wishes for the upcoming year.

We have had a number of "Silent Keys" this past year and our thoughts and prayers go their families.

It is with sadness that I report that Les VE5LPP has resigned his post as editor of the Feedline. Les has done this for over 10 years and he has done an excellent job! I can remember when he was actually cutting and pasting up master sheets to be photo copied, collated, folded, stuffed into envelopes and mailed. We now have one of the best on-line newsletters in the province for Amateur Radio thanks to Les’s efforts. All one has to do is look in the archives on our website to see just what a great job he has been doing over the years. I would like to personally thank you, Les, for your hard work on the Feedline and I am sure I can speak for the membership as well. And may you enjoy your "retirement" from being our editor in chief of the Feedline.

Well summer has been trying to arrive although there seems to be quite a battle going on with old man winter who just seems to not want to let go. Hopefully field day will have great weather and everyone can enjoy the weekend.

I would like to wish everyone a great summer. Stay safe and enjoy!

Gus
VE5SPI

SARC New Mailing Address
Saskatoon Amateur Radio Club
c/o Alvin Buckwold School
715 East Drive, Saskatoon, SK
S7J 2X8

Call for Articles
Have a story to share? An experience to relate? Some gear to review? A technical tip to dispense? Write it up, add a couple of appropriate photographs and send them off to VE5 MIK (mluciuk@sasktel.net) or (mluciuk@gmail.com) Hams reading The Feedline will thank you.

SARC 2010 - 2011 Meeting Dates (subject to change)

Jan. 11    Feb. 8    Mar. 8    Apr. 12    May 10    June 14    June 25, 26 (Field Day)

Origin of the term "Elmer" - Norm Fusaro, W3IZ—ARRL Website

The term "Elmer"--meaning someone who provides personal guidance and assistance to would-be hams--first appeared in QST in a March 1971 "How's DX" column by Rod Newkirk, W9BRD (now also VA3ZBB). Newkirk called them "the unsung fathers of Amateur Radio." While he probably was not trying to coin a term at the time, here's how Newkirk introduced "Elmer" in his column and, as it turned out, to the rest of the Amateur Radio world:
"Too frequently one hears a sad story in this little nutshell: 'Oh, I almost got a ticket, too, but Elmer, W9XYZ, moved away and I kind of lost interest.'"

Newkirk went on to say, "We need those Elmers. All the Elmers, including the ham who took the most time and trouble to give you a push toward your license, are the birds who keep this great game young and fresh."--Rick Lindquist, N1RL

As you can see, the term is not very old. Prior to the first use of Elmer as the one who guided and encouraged us, what were these folks called? I have received a lot of suggestions; teacher, mentor, tutor, guide, helper, sage? All are appropriate but my guess would be that first and foremost they were called friend.

The Saskatoon Amateur Radio Club currently has a vacancy on two of it’s committees. The position of “Elmer” and “Sick & Visiting”. Volunteers needed!
Christmas Party 2010
If you’re the Net Control . . . .

Here’s the script. All you have to do is ask the questions, listen for the responses, and record numbers/call signs.

Good evening all, this is VE/VA5 ____ with the 2 meter net that meets nightly at 8 pm or 0200 UTC on the 146.64 repeater. This net passes on information about the Saskatoon Amateur Radio Club’s activities, events, bulletins, etc. If you want to break the net, give your call sign (preferably in phonetics), and stand by to be acknowledged.

1. Do we have any emergency traffic?
2. Do we have any net bulletins?
3. Any visitors in the area?
4. Any news of sick or hospitalized?
5. Anyone wanting to call another station?
6. Any mobiles around?
7. Any stations out of town to check in?
8. Any stations in town?
9. Anything further?
10. Not hearing anything, I’ll close the net. Thanks to one and all for checking in.

This is VE/VA 5 ____, clear.

You can give the time of the net closure if you want to, but it’s not necessary. You don’t have to stick exactly to the script, but you should have all the elements of it included. Make it your own.