

**VE5AA**

**March 2007**

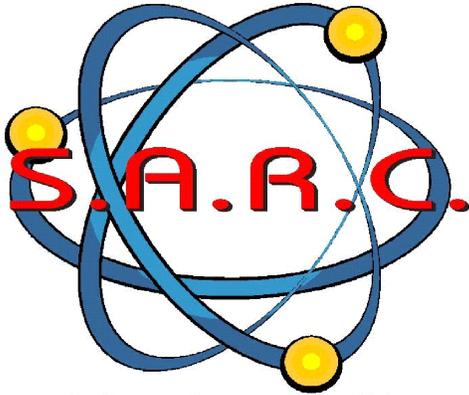
# **The Feedline**

---

SASKATOON AMATEUR RADIO CLUB

---





**Saskatoon Amateur Radio Club**

P.O. BOX 751  
Saskatoon, SK S7K 3L7  
ve5aa@qsl.net  
<http://www.qsl.net/ve5aa>

**Saskatoon Amateur Radio Club  
Meetings are held the 2<sup>nd</sup> Tuesday  
of each month September til June.**

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

**Meeting is 0130Z (7:30PM local)**

**VISITORS AND GUESTS ARE  
ALWAYS WELCOME!**



**ARES  
Saskatoon**

**NEXT ARES MEETING**

**Monday, March 19, 2007  
7:00 PM**

**No 9 Firehall  
870 Attridge Dr.**

**Talk in 146.640-  
<http://www.ares-saskatoon.ca/>**

## **NEXT CLUB MEETING**

**Tuesday, March 13, 2007  
7:30 PM**

**ALVIN BUCKWOLD SCHOOL  
715 East Drive  
West entrance**

**BE THERE!**

## **CONTESTS**

**Mar 3-4 ARRL INT. DX SSB**

**Mar 10-11 RSGB**

**Commonwealth CW**

**Mar 10-11 Oklahoma QSO Party**

**Mar 11 NCJ Sprint RTTY**

**Mar 11-12 Wisconsin QSO  
Party**

**Mar 24-25 CQ WW WPX SSB**

**For further information on contests  
refer to TCA, CQ & QST magazines**

# **COFFEE**

**Tomas Cook  
Restaurant**

**Saturdays 9:00 AM  
Idyllwild & 24<sup>th</sup> St.**

**Everyone is welcome. Hams, non-  
Hams, it doesn't matter. We're  
there to have good conversation  
with good friends.  
C'mon out and visit!**

# Saskatoon and Area Frequencies

## March 2007

### LOCAL AREA REPEATERS

<b>VE5SK</b>	146.640-	Saskatoon SARC
<b>VE5SCA</b>	146.940-	Saskatoon
<b>VE5ZH</b>	147.270-	2 MHz offset, Saskatoon, Auto Patch
<b>VE5FUN</b>	145.290-	Sktn 100Hz tone, IRLP node 1340, IPARN, Terrestrial Net, Remote base, tied to VE5CC
<b>VE5CC</b>	146.970-	Sktn. Linked 100Hz Tone IRLP node 1340 , IPARN, Terrestrial Net, Remote base, tied to VE5FUN
<b>VE5SKN</b>	145.210-	Sktn 100Hz tone, MARS IRLP node 1350
<b>VE5BRC/1</b>	147.240+	North Battleford
<b>VE5RPA</b>	147.150+	Bellevue to PA
<b>VA5LLR</b>	145.390-	Lizard Lake Permanently linked to VA5SV
<b>VA5SV</b>	145.330-	Ridge East of Sktn Permanently linked to VE5LLR

### ATV

<b>VE5ATV</b>	439.250 in	1277.250 out	Saskatoon
---------------	------------	--------------	-----------

### APRS

VE5RHF	144.390	Saskatoon	DIGI
VE5BNC-3	144.390	Saskatoon	IGATE & SATGATE
VE5HAN-4	144.390	Hanley	DIGI
VE5YR-4	144.390	Davidson	DIGI
VE5YMJ-4	144.390	Eyeblow	DIGI
VE5ADR-4	144.390	Avonlea	DIGI

### PACKET

VE5BBS	145.010	Saskatoon	BBS
VE5USR-3	145.010	U of S	DIGI
VE5YR-7	145.010	Davidson	DIGI

VE5HAN	145.010	Hanley	DIGI
VE5TH	145.010	Regina	BBS
VE5XXX	145.010	Prince Albert	BBS
VE5MPK-2	145.010	Melfort	Node
VE5MPK	145.010	Melfort	BBS
VE5NEP-3	145.010	Minichinas	DIGI

### LOCAL AND REGIONAL NETS

Sask WX	80m	1400Z	3753 Khz
ARES (Sun.)	80m	1430Z	3753 Khz
Aurora	40m	2330Z	7055 Khz
		& 0200Z	
Manitoba	80m	0000Z	3747 Khz
Montana Traffic	80m	0030Z	3910 Khz
Saskatchewan	80m	0100Z	3744 Khz
Alberta	80m	0130Z	3740 Khz
Local Area	2m	0200Z	146.640-
B.C.	80m	0200Z	3727 Khz
Saskatchewan	2m	0300Z	146.970-
80m YL Net	80m	0315Z	3755 Khz
		Sundays	
Prince Albert	2m	0330Z	147.150+

**(All nets are daily except where noted)**

**All qualified Hams are welcome to check into any of these nets**



**SASKATOON AMATEUR RADIO CLUB**  
**Meeting Minutes**  
**February 20, 2007 - 7:40 pm**

1. **Opening of meeting** and welcoming of guests by Ron VE5RMS:

Guests: Matt (a friend of Ron Watson VA5RON), who's plane had to make an emergency landing!

Dave Eng VE5DHE

Paul Florizone VE5LF

David Quick - Solar/Wind Energy guest speaker.

2. **Motion to accept minutes** of Previous meeting as circulated in The Feedline.  
made by: Eric VE5HG, seconded by: Don VE5LQ, Motion Passed.

3. **New business** arising out of the previous minutes

VE5FS (448.000) is now off the air indefinitely as mentioned by Eric VE5HG.

4. **Treasurer's report** - postponed until next month.

5. **Ham Class Update.** A brief update was provided by Terry VE5HF regarding the fact that five students are still involved in the class with just a few weeks remaining. Next Thursday's class will be a radio demonstration which corresponds to the chapters on establishing and operating a station. The new RAC study guides have been updated to include more information on digital modes and among other things adding topics such as switching power supplies.

6. **Other business**

Service Events - Saskatchewan Marathon will be held May 27th and Gus VE5SPI is looking for 12 to 15 volunteers. Volunteers could perform double duty as course marshals if they like. The course will include 10 km, 1/2 and full marathon options, and has changed from last year since it will not be starting on the U of S Campus. There will be a 7 am start, with the race running until 1 pm. Volunteers will not necessarily be needed for the full duration. We should get the trailer read prior to the event at least for 2 meter operation as a central hub for operators to meet. Please contact Gus as soon as possible to help him help us be more visible in the community helping others. Service events are the greatest PR work we can do for our hobby.

Bruce VE5BNC mentioned that the Kinsmen Band association has asked us to help out with their event coming up July 1st and 2nd at Griffith Stadium to supervise bands entering the stadium on queue. Bruce will not be able to run this event since he will be away, so we are looking for a volunteer to run the show. Once again please help out.

Interference Reports: Eric VE5HG mentioned there was a lot of interference on 145.330. There appears to be a key-up, then it is locked until timeout. Would the caretaker of this repeater please look into it? Also John VA5RJA noted that 146.640 appears to have someone playing music on it at noon on a regular basis.

Herb VE5HE requested that we announce our meeting nights on the Nets prior to the meetings to help remind people. Both the HF and 2M Nets.

Don VE5LQ asked that the new band plans be published in the Feedline for Phone and CW. There was also a request for the map to be published for the upcoming Hamfest in Moosejaw.

Waive of Club Audit Requirement - The Saskatchewan government is now forcing all non profit organizations to have their books audited by an external professional accountant. This could potentially cost our club more money than it currently has on the books. A motion was made by Les VE5LPP to waive the need to perform the audit, and seconded by Ned VE5NED. The motion was passed by all voting members present (19), none identified as abstaining or against. Al VE5MDC will follow up to determine what further requirements we may need to do in order to allow for the audit to be waived.

The next SARC Executive meeting will be held Tuesday February 27th at the A & W on 8th street at 7:30 pm.

Herb VE5HE mentioned that he has a Kenwood TS570 DSP Transceiver and an Atlas Power supply for sale.

Lastly, Ken VE5KRB mentioned that the club should drive up to the Little Bear site to pick up the aluminium tower sometime in mid April since the snow should be gone by then, and give us more time to prepare for Field Day. Also there is some light duty piping available as well for the rotor drive.

7. [50/50 draw](#) was won by Bruce VE5BNC (although it may have been Leigh's ticket!?)

8. [Motion to Adjourn](#) : by Herb VE5HE Time: 8:10 pm

A presentation on Solar and Wind Power Generation by David Quick from Solar West Inc was held after coffee.

Terry VE5HF  
Recording Secretary



## Welcome to the Digital Age of Saskatchewan Amateur Radio Emergency Alerts

For the last 10 years amateur radio repeaters have been linked using the Internet Radio Linking Project (IRLP) system developed by Dave Cameron VE7LTD.

Saskatoon was an early site when Chris Bar VE5BAR set up IRLP node number 7 (there are now over 2000 active nodes).

Early on, it became very clear that IRLP nodes and reflectors had huge potential for emergency communications. The Saskatoon reflector node 9300 saw first emergency use in February of 2001 when it was used in support of a train derailment evacuation in Red Deer, AB. This was the first reported use of IRLP for an ARES operation anywhere in the world. Since then, Saskatoon reflector 9300 has been the hub of repeater activity for the Saskatchewan Linking Net and home to provincial ARES operations.

### ARES Challenge #1.

VHF/UHF repeaters in Saskatchewan are not permanently linked by UHF radio. IRLP reflectors are designed to be end user driven. That is, the local node calls in to the reflector. The reflector does not call out to the local nodes. This makes it difficult to use IRLP repeaters around the province as a "first alert" tool. Once hams around the province know that there is an emergency they can link into the reflector and connect their local

repeaters to the provincial net. After the various repeaters are connected the system works very well.

### ARES Challenge # 2.

With millions of frequencies and constantly changing atmospheric conditions HF radio makes for a poor "first alert" tool for ARES operations in Saskatchewan. Most HF radios and antennas are not portable until well after an emergency need is identified. HF is a poor tool for rapidly developing urban emergencies or weather watches. HF is at its best when long distance communications are needed from fixed sites over long periods of time or when there is massive infrastructure failure. The best use of HF usually occurs after everyone is alerted and operating frequencies are selected.

Most ARES responses in Canada involve a rapid response within a 50 km radius of an emergency site with a need to reach out from mobiles and portables to the nearest unaffected community in order to connect to the rest of province or the country.

### ARES Challenge # 3

Very few hams monitor their radios all day long. This is especially true of working hams. Real world experience as well as tests conducted between 2004 - 2006 have shown that a net call during normal working hours will usually get only 2 or 3 active ARES hams responding in the first 30 minutes of an emergency. The first ARES task

is to get hams on the air in a timely manner. After the alert 30-50 hams are often available.

#### **ARES Challenge # 4**

Very few hams can be reached by means of their land line phone number in a timely manner. Traditional telephone fan out procedures have been tested since 2000 and produce "on air" net response times ranging from 1 hour to 4 days for a majority of the phone list. Voice mail, tape machines or children answer more calls than ARES members. It may take as long as 3 hours to complete the fan out. During one actual weather related alert in 2005 it took 4 hours to reach the ARES EC for that area. In one flood emergency it took 4 days.

Traditional email alerts have shown similar response times.

Cell phone voice calls are vulnerable to network saturation during emergencies as everyone with a cell phone calls family etc. During the Saskatoon blizzard of Jan. 2007 the Fire and Protection Service issued a public appeal to curtail cell phone use because of concerns about dropped 911 calls during the city wide white out and traffic grid lock.

#### **ARES Opportunity # 1**

A 2004 survey of "active" Saskatchewan ARES members showed that 100% of the respondents carried cell phones. Unlike their amateur radio

gear, these cell phones were active regardless of where they were. Many were turned on 24/7.

#### **ARES Opportunity # 2**

All major cell phone carriers in Saskatchewan have converted to digital service and their phones all have text message receive capability as a basic service (whether the user knows it or not).

#### **ARES Opportunity # 3**

Although cellular networks are often the first communications system to saturate in an emergency (such as the recent Saskatoon blizzard) it takes a few minutes to a few hours for saturation to occur and the voice network is more adversely effected than the text message part of the network.

Tests and real world emergency experience have shown that text messages make much more efficient use of bandwidth and node time than voice communications. Text messages will get through in less time that it takes to acquire dial tone and ring through for a voice call. Text messages will automatically keep retrying until they get through when network saturation blocks voice calling. Sounds like packet radio doesn't it? That's because it essentially is.

Connect to <http://www.readyalert.com/html/customers.html> for a look at a commercial text alert system currently being

tested by the City of Saskatoon and being used to send alerts to the SARL ARES system. Read some of the testimonials.

#### **ARES Opportunity # 4**

Text messages can alert hundreds of ARES hams in less time than it takes to make the first voice call in a traditional telephone fan out. Even hams in the middle of a professional meeting can get the quick alert message without serious intrusion into their workplace activities. A typical ARES alert message reads like this one from last summer.

-----  
Tornado warning issued. CANWARN Active, Node 9300 and 146.640 Saskatoon, 145.390 Lizard Lake . Tornado sighted near Radisson. de VE6PNQ ARES SEC  
-----

Note that only the body of the text shows on the screen of the cell phone. There are no headers.

Environment Canada email alerts come in two sizes. The full message version contains the entire text of the weather advisory. These are routed to the traditional email addresses for retrieval on a computer. EC severe weather cellular text messages are filtered to contain the subject line only and look like this:

-----  
BLIZZARD WARNING ISSUED For Saskatoon BY ENVIRONMENT CANADA  
BULLETIN ISSUED AT: 8:19 AM CST WEDNESDAY 10 JANUARY 2007

Copyright © 2007 Environment Canada

-----  
These short text messages are designed to do only one thing, that is to alert you to the existence of a developing situation and allow you to tune into your local ARES net frequency, Environment Canada's VHF frequency or website. The real work starts when you check in to the net on your local repeater.

The typical response time in 2006 for available ARES responders was 3 - 10 minutes from text alerts to on air check in on the repeaters around the province.

#### **SARL ARES Alert system**

Chris Bar VE5BAR maintains the Saskatchewan Amateur Radio League email server in Saskatoon which has supported the provincial ARES alerts for the last 2 years. Garry McCallum VE5PNQ administers the 24 regional ARES alert lists.

Each of the 10 ARES zones in the province have 2 email addresses. One is for conventional long format email addresses to send full text messages to a computer and the other is a cellular text message short format system (160 character) that only sends alert messages to cell phones.

Environment Canada's system is built on the same model. Full text weather advisories are routed to a conventional email address while the short

subject line messages are designed for text message cell phones and PDA's. Environment Canada's system allows you to select what kind of message is sent to each email address. In Saskatchewan that allows us to specify what types of weather information and what municipal jurisdictions are fed to each ARES zone. The ARES zones are based on repeater coverage areas around regional centers.

Although a severe weather system may generate up to 1400 email messages from Environment Canada as the system moves across the province each local ARES zone only gets a message every 30 minutes while the storm is in their immediate area. The exception is when things get really bad. Environment Canada usually issues updates within minutes of a CANWARN volunteer calling in an observation.

There are 2 similar mail lists for the province wide alerts and 2 more for exclusive use by the Emergency Coordinators. By selecting appropriate addresses in a CC list any combination of regions and conventional email or text message systems can be alerted with a single outgoing email message. These systems are all restricted access lists for authorized participants only. Messages from unauthorized users get deleted automatically.

This system has been operational since June of 2005 and has been used and tested through 4 severe weather seasons for CANWARN operations. ARES Volunteers can

sign up for as few or as many zones as they wish.

### **Amber Alerts**

The Saskatchewan RCMP F Division information office was added to the existing SARL ARES system in January of 2007 to facilitate "Amber Alerts". The RCMP use email, text message, and telephone fan out simultaneously for an Amber Alert. Their email alert is now linked to the SARL ARES system. It has been tested and is operational. Alerts refer hams to a web site for a full description of the missing child and instructions for reporting sightings. Net controllers are then asked to broadcast the descriptions every 15 minutes on their local repeaters and report local sightings to 911. Amateur radio operators are instructed to observe and report only and to never intervene in a child abduction situation.

### **City of Saskatoon**

The City of Saskatoon Emergency Measures Office uses text message distribution of alerts backed up by a conventional voice telephone fan out. The Saskatoon ARES alerts and VE5PNQ's cellular phone are connected to their system. The most recent test was January 19, 2007. Messages sent from the Fire and Protective Services at 10:29 were received by VE5PNQ at 10:31 announced on the 146.640 repeater by 10:33 and most text replies were received by 10:41. The slow response was because of the lack of

urgency for what was only a test. All respondents reported that they could have responded faster had it been a real emergency.

### **RARAN (Regional Amateur Radio Alert Network)**

*(The RARAN section is from Bob Cooke VE3DBD, VP Field Services, RAC)*

The RARAN was initiated by the RAC Field Services to support the AMBER Alert. It became clear that its secondary purpose could be -- and is -- a means by which to disseminate ARES-type information across Canada, to all participating Sections, if and when such ever became necessary. However, the main purpose is AMBER Alert.

The RARAN is intended as a means by which AMBER Alert information can be instantly sent to Amateur Radio base installations and then be transmitted primarily but not exclusively through local VHF/UHF repeaters to other Radio Amateurs, especially those who might in a position to assist -- in other words, mobile stations, as in every case there is a vehicle description included in the Alert. I won't go into the basics of the system but they are the same in every case where a RARAN is implemented and can be viewed on the RAC website. They are also very simple.

RARAN does support cellular text messaging. In fact, whichever email address the volunteer registers with -- and he/she may register with more than one -- is the address to which an AMBER Alert is sent.

The SK RARAN is ready to go and been so for some weeks. The electronic registration form has been created and the web information pages are written. All that is needed is for a test by the originator of AMBER Alerts (the RCMP) to ensure integrity. Once that is done, the registration form will be activated and SK Radio Amateurs will be able to volunteer to be added to the reflector list. Volunteers on the list will receive ONLY, while the RCMP will send ONLY. Upon registration every volunteer will receive information on how the system works, as well as his/her responsibilities.

The main concern regarding Amateur Radio assistance to the AMBER Alert is that alerts be handled swiftly and consistently, using no more or not less than that information which is sent by police. For that reason, volunteers must be mature and have reliable email and radio facilities.

It is important to bear in mind that every AMBER Alert is part of a criminal investigation, one that has the potential to result in injury or even death. All it takes is for one over zealous operator to fail to use due diligence and common sense for the entire Amateur Radio involvement to be jeopardized. Worse, it could have legal repercussions. That is why the RAC RARAN has been implemented. It's not a toy.

Having said that, no one is expected to sit by his computer waiting for an ALERT. We do what we can, when we can. For that reason, it is important to have as many

volunteers, in every area, as is possible.

Garry has taken it upon himself to get things started in SK Section and it is my fervent wish that it be put into service without further delay.

I hope this is of some assistance. I also refer you to recent past issues of TCA wherein the RARAN in support of the AMBER Alert has been detailed.

Many thanks to all for the expressions of interest and support. No doubt you will be among the first to register.

73,  
Bob  
VE3BDB  
Vice President Field Services  
Radio Amateurs of Canada

### Final Thoughts

When considering the merits of any emergency communications system it is important to eliminate words like "either" and "or" from the language of ECom. Words like "and" , "in addition to" and most importantly "as an alternative to" are essential themes to building the framework for flexible and survivable communications networks.

Redundancy and diversity are the essential tools for building communications systems that can contribute to emergency situations and more than anything else these two characteristics are what amateur radio brings to the ECom mix. It is not about RAC or SARL, commercial

cellular or ham radio, HF or VHF/UHF, DStar or cellular text message or telephone fan out. If needed, even banging out code on water pipe or a flashlight is a useful mode of communications. Emergency communications is about using all of the above, as needed and when needed. Just get the job done anyway you can.

73  
Garry McCallum VE5PNQ  
Amateur Radio Emergency Service,  
Saskatchewan Section

For more information about the Saskatchewan ARES Alert system contact:  
Garry McCallum VE5PNQ  
[ve5pnq@sasktel.net](mailto:ve5pnq@sasktel.net)

For more information about the RAC RARAN program contact:  
Bob Cooke VE3DBD  
[ve3dbd@sympatico.ca](mailto:ve3dbd@sympatico.ca)

---

**WANTED**  
2 metre handheld.  
Something a little  
newer but doesn't  
have to be fancy.

**Les VE5LPP**  
**Ph. 477-3429**  
**[ve5lpp@rac.ca](mailto:ve5lpp@rac.ca)**

## **FOR SALE**

Radio Shack 2 meter mobile transceiver, built-in CTCSS, dual vfo, built in DTMF, output 45/10 watts  
I bought it but never got it on the air, it's still in the original box  
Was \$250.00, will sell for \$150.00

**Roy Cushman VE5XS  
249-6404**

## **FOR SALE**

Yaesu FT757GX  
Transceiver  
FT757HD power supply  
Table mike  
Handheld mike  
CW key  
\$500 OBO

**Harvey Clark VE5AOK  
934-5108**

## **Saskatoon Marathon**

The Saskatoon Marathon will be held on April 27<sup>th</sup>. We'll need lots of operators. For further info contact:

**Gus VE5SPI  
249-3996  
or guss@sasktel.net**

## **All Swap & Shop ads are free to Hams**

Contact:  
Les (VE5LPP) at  
ve5lpp@rac.ca