

VE5AA

April 2008

The Feedline

SASKATOON AMATEUR RADIO CLUB





Saskatoon Amateur Radio Club

P.O. BOX 751
Saskatoon, SK S7K 3L7

ve5aa@qsl.net

<http://www.sarl.ca/ve5aa>

**Saskatoon Amateur Radio Club
Meetings are held the 2nd 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, April 14, 2008
7:00 PM**

**#9 FIREHALL
870 Attridge Dr.**

Talk in 146.640-

<http://www.sarl.ca/ares/saskatoon>

NEXT CLUB MEETING

**Tuesday, April 8, 2008
7:30 PM**

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

BE THERE!

CONTESTS

April 4-6 YLRL DX to NA YL CW

April 5-6 QCWA S[romng QSP Party

April 5-6 ARCI QRP Spring CW

April 11-13 YLRL DX to NA YL SSB

April 19 Holyland DX Contest

April 19-20 Ontario QSO Party

April 19 Michigan QSO Party

April 26-27 Florida QSO Party

April 26-27 Nebraska QSO Party

May 3-4 ARI DX Contest

May 3-4 MARAC County Hunters CW

*For further information on any of
these contests look in TCA, CQ or
QST magazines.*

COFFEE

Tomas Cook Restaurant

Saturdays 9:00 AM

Idyllwild & 24th 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

February 2008

LOCAL AREA REPEATERS

VE5SK 146.640- Saskatoon SARC

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.*

ATV

VE5ATV 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 Eyebrow 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	3735 Khz
ARES (Sun.)	80m	1430Z	3735 Khz
Aurora	40m	2330Z	7055 Khz
		& 0200Z	

Manitoba	80m	0000Z	3747 Khz
Montana Tfc	80m	0030Z	3910 Khz
Sask.	80m	0100Z	3735 Khz
Alberta	80m	0130Z	3700 Khz
Local Area	2m	0200Z	146.640-
B.C.	80m	0200Z	3727 Khz
Sask.	2m	0300Z	146.970-
		linked net	146.940-
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**



MINUTES SASKATOON AMATEUR RADIO CLUB

March 11, 2008

President Terry, VE5HF opened the meeting at 7:40 and welcomed all present, including our guests, Neil, VE5NEK and Devon, VE5DWR.

The minutes of our last meeting were approved as circulated in The Feedline on a motion by Eric, VE5HG, seconded by Jim, VE5JIM.

There was no business arising out of the minutes.

The treasurer's report was presented by Al, VE5MDC and was accepted on a motion by Ned, VE5NED, seconded by Per, VE5PER. The report has been filed with these in our minute book.

Budget – The treasurer presented the proposed budget for 2008-2009. After a considerable amount of discussion, it was moved by Bob, Va5BRT, seconded by Bruce, VE5BNC, that a line be added to income in the budget listed as "CD training project - \$6,000.00 – carried.

There was further discussion re whether the club should underwrite the cost of the barbecue planned for May. It was moved by Ron, VA5RON, seconded by Eric, VE5HG, that a charge of \$5.00 per person be made to those participating in the event – carried.

Moved by Al, VE5MDC, seconded by Ned, VE5NED, that we budget \$175.00 to cover the cost of carrying out this event – carried.

It was moved by Al, VE5MDC, seconded by Eric, VE5HG, that the budget as modified be accepted – carried.

The president then opened the meeting for nominations to the executive for the 2008-2009 term: positions to be filled include, Vice-President, Treasurer, and three directors.

Nominated for Vice-President – Mike – VE5MMG

For Treasurer – Al, Ve5MDC (declined) Mike, VE5MMG (declined)

For directors – John, VA5RJA, Gus, VE5SPI, Nat, VE5NAT, Ken, VE5KRBMike, VE5MIK.

Nominations from the floor will be open at the April 8th meeting.

Info – the estate sale for Bob (VE5NFG's estate) carries on and some items may be listed in The Feedline.

ARES update – Terry, VE5HF indicated that installing required cables at ARES headquarters should not be a problem. Regular ARES meetings usually held at Fire Hall No. 9 on the Monday following the meeting date of the Saskatoon Amateur Radio Club.

Service events – Bruce, VE5BNC reported that the MS Walk-a-thon is scheduled for April 27 and he was taking names of those wishing to assist.

Next meeting – April 8

Program – presentation on RADAR SAT by Al, VE5MDC.

Ken, VE5KRB indicated the necessity of the club obtaining the lease for the facility at Little Bear.

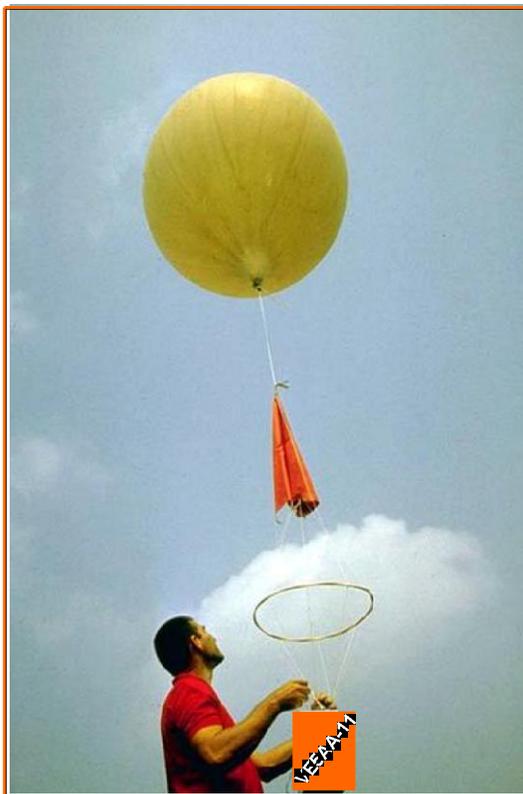
The 50/50 draw won by Ned, VE5NED!

The meeting was adjourned at 8:36, on a motion by Les, VE5LPP.

After coffee and doughnuts, Devon, VE5DWR gave us an excellent presentation on repeaters and the IRLP system complete with instructions as how to use this segment of ham radio as well as a demo of how easy it is to link up with places as far away as Australia. Thanks Devon!

Herb Essenburg VE5HE

Recording Secretary



High Altitude Balloon Project

VE5AA-11

The winters in Saskatchewan can be a bit long so we often look for something to take our minds off of it. Late in the fall of 2007 while warming ourselves in a local coffee shop, Gus (VE5SPI) brought up the idea of launching a high altitude balloon. We discussed some of the things we could do and what each of us would like to accomplish. We agreed that we would at least want to fly an APRS tracker as well as take pictures during the flight. We also discussed the possibility of some type of voice repeater but it soon became obvious that we should keep our first flight relatively simple. At this point all we really knew was that our project would involve a balloon, hopefully going high. We knew then that we had a few things to learn. Our hope was that we could introduce new aspects of amateur radio to local members as well as promote existing areas such as APRS and fox hunting and have a heck of a good time doing it. An idea was born.

Early on we decided that no idea would be too crazy for consideration. The only limitations would be size and weight. Our entire payload had to fit in an 8 inch cube. We also set a target of 500 grams each for our individual payloads. Based on this, we decided that each of us would be responsible for the design and assembly of our own payloads. We were also having trouble coming up with a suitable name and acronym for our project so we decided to give ourselves official sounding titles instead as you will see below.

Over the next few weeks we immersed ourselves in the information on the various ballooning web sites. We knew we would want to use APRS as a method of tracking and we also wanted to bring back pictures from the edge of space. Another local ham, Bob (VE5RGM) had often mentioned the idea of flying balloons and kites. Bob was instrumental in getting the local ATV repeater on the air in 1998 so it was only natural that he would introduce the idea of flying an ATV transmitter. Bob set to work designing an ATV payload. His home ATV transmitter was too large and heavy for a balloon so he purchased a smaller one from another local ham. By now, it was obvious that Bob had become our **ATV Payload Specialist**.

Gus began work on a Byonics PocketTracker that he had purchased a couple of years ago but never assembled. Our research showed that the Rand McNally GPS that he already owned should work above 60,000 feet. Gus works for a local electronics distributor so he has easy access to technical information. This would be vital for our research into battery technologies. Gus also took on the task of parachute research. This meant that we had to call him our **Tracking, Power and Recovery Specialist**.

I also wanted to fly APRS but took a different approach. I chose to use an OpenTracker, an old Motorola MX330 radio and a Garmin GPS18. I also took on the task of building our payload capsule, primarily because I already had a large sheet of Styrofoam insulation in my basement that had been purchased for another project that never got off the ground. I also found a source for balloons and ordered 3. A local surplus store had digital cameras on sale just before Christmas and I just couldn't resist, so I bought two, one for still pictures, and one for video clips. There was no turning back now. I guess this makes me the **Lift, Imaging and**

Assembly Specialist. I also made a fluorescent orange slip cover for the payload box, so I'm sometimes referred to as the **Chief Seamstress**, but I don't like to talk about that.

As I mentioned our winters are long but they're often cold too. This would normally be a problem for unless you want to do low temperature testing of your balloon payload. In January, the whole province is like one big cryo-chamber. After roughly assembling my APRS module, two cameras and a battery pack, it was time to do some testing. I turned everything on and placed it outside at -20 for a few of hours. It fared very well, but it didn't really tell us what would happen at -40 and below. I would just have to wait ... but not for long. In late January the temperature finally took its usual dive. Outside it was -39 with a wind chill of about -60, a perfect night for a test. I bundled myself, slipped outside and put the payload in the wind swept driveway. I then retreated to the warmth of the house and a steaming cup of tea, where I monitored the temperature and battery voltage via APRS. Three hours later, the payload internal temperature was still above freezing and the battery was going strong. "Good enough for me", I thought.

Meanwhile, my two co-designers were also hard at work. Gus purchased a parachute made from one panel of each of the brightest fluorescent colours he could find. He had also done some research onto battery technologies. As many other balloonists have also found, lithium batteries were the clear winner. Other experienced balloonist had cautioned us against using a single power source for all of our modules. We took this advice to heart, and each of us became responsible for our own power system. Bob chose to use high capacity lithium AA cells. I chose to use lithium CR123A cells. As of this writing, Gus has not chosen which battery he will use, but it's probably safe to bet it will be different than either Bob or I have chosen. Only in ham radio can everyone do everything differently and still all be right.

With our planned launch date of May rapidly approaching we have finalized most parts of our design. We will be flying two independent APRS trackers, an ATV transmitter, one still camera and one video camera. Both APRS trackers will operate on 144.390. VE5AA-12 will be the 300 mW PocketTracker, Rand McNally GPS using a coaxial dipole below the payload. VE5AA-11 will

be a 3 watt transmitter, OpenTracker monitoring battery voltage and internal and external temperatures and a Gramin GPS18 using a vertical 1/4 wave ground plane antenna built into the top of the payload. The ATV transmitter will be a 1 watt PC Electronics AM transmitter operating on 439.250 and using an inverted 1/4 wave ground plane antenna built into the bottom of the payload. The cameras are built from Polaroid iZone i310 digital cameras with 1GB SD cards and a custom made controller board. Our next instalment will contain technical details on the entire payload and each of our modules.

73, and happy ballooning.

Bruce - VE5BNC



WALK in your community.
Take a step closer to a cure.

2008 MS Super Cities WALK

Saskatoon: April 27, 2008
Archibald Arena
check in at 8:30am and the
WALK starting at 10:00am

http://www.mssociety.ca/sask/scwalk_saskatoon.htm

Contact:
Bruce - VE5BNC
373-5672
or
SARC - ve5aa@rac.ca

FOR SALE

From the estate of Bob Hilton
VE5NFG

The following is only a
partial list.

HF-VHF-CB's-Transmitters-
Receivers-Transceivers-
Handhelds-Antennas-Tuners-
Linears-Cables-Parts-
Thousands of tubes-Antique
radios-Radio books-
Magazines-VHS tapes-Reel
to reel recorders-1/4 in. Audio
tapes-8mm projectors-power
supplies-33 rpm records-
Odds and ends.

Contact;

Arlea Genest 931-3446

or

arlea.g@sasktel.net

MEMBERSHIP APPLICATION/RENEWAL



SASKATOON AMATEUR RADIO CLUB
 P.O. BOX 751
 SASKATOON, SK, S7K 3L7

For Office Use Only
 Pd__Rcpt__Card__
 A B C D E

Membership valid from September 1, 2007 to August 31, 2008

NAME.....CALL SIGN.....

ADDRESS.....

CITY.....PROV.....POSTAL CODE.....

TELEPHONE (Home)(Bus).....

E-MAIL ADDRESS.....

Would you prefer your copy of "The Feedline" be sent by:- Mail.....Electronically.....

LICENCE: (Please check)

Basic (.....) Advanced (.....) Code (.....) HF (.....)

Occupation (optional)

Name of spouse (optional).....

Family members (For Family membership application)

1) NameCall sign.....

Basic (.....) Advanced (.....) Code (.....) HF (.....)

(2) Name.....Call sign.....

Basic (.....) Advanced (.....) Code (.....) HF (.....)

WHICH CLUB ACTIVITIES CAN WE COUNT ON YOU FOR?

Special Event or areas of interest to you.....

Affiliation (Check where applicable)

ARRL.....RAC.....SARL.....MARS.....OTHER.....

MEMBERSHIP FEES

Regular Membership:

(must be licensed to operate an amateur station).....\$25.00 \$.....

..Family Membership:

(one newsletter per family).....\$30.00 \$.....

Associate Membership:

(enthusiasts – not eligible for office).....\$25.00 \$.....

Junior Membership: (under 18 yrs of age)

(full privileges if licensed to operate a station).....\$12.50 \$.....

Laminated membership card (each).....\$1.00 \$.....

Donations;

development, maintaining or upgrading facilities (specify).....\$.....

TOTAL REMITTED \$.....

Cheques payable to : **Saskatoon Amateur Radio Club Inc.**

REVISED 03/01/08