



# ACORN

## March 2010

### ANDY Club Officers

President: Bill Woodhead N1KAT  
 Vice President: Earle Gilmore N1SVB  
 Treasurer: Ivan Lazure N1OXA  
 Secretary: Dick Knight N1NYW  
 Trustee: Norm L' Heureux W1SCM

Androscoggin Amateur Radio Club (AARC)

P.O. Box 1, Auburn ME 04212-0001

<http://www.w1npp.org/>

**Repeater 146.610MHz – No pl tone  
 Goff Hill, Auburn Maine**

Please submit articles, corrections and suggestions by the 16<sup>th</sup> of the month to David WE1U [we1u.david@gmail.com](mailto:we1u.david@gmail.com)

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## Events

2010 ARRL Field Day Information Packet is available:  
<http://www.arrl.org/contests/forms/fd-2010-packet.pdf>

Combined Auburn and Lewiston Citizen's Police Academy Starts Thursday March 11, 2010

Follow Link from <http://www.w1npp.org/#cpa>

Liz Allen Auburn Volunteers in Police Service(VIPS) Coordinator

207-333-6650 extension 2070 [lallen@auburnmaine.gov](mailto:lallen@auburnmaine.gov)

Sargent Anthony Harrington Auburn Police Department

207-333-6650 [aharrington@auburnmaine.gov](mailto:aharrington@auburnmaine.gov)

or Officer Thomas Murphy, Lewiston Community Resource Officer

207-786-2405 [lpdcro@gmail.com](mailto:lpdcro@gmail.com)

2010 ARRL Maine State Convention and Andyfest Friday and Saturday March 26<sup>th</sup> and 27<sup>th</sup> at the [Ramada Conference Center](#) 490 Pleasant Street, Lewiston, Maine 04240 -[Google Map](#)-

**Andy Club Officer Elections at the Club Meeting on 7 April 2010 7pm**

2010 Portland Area Wireless Association Hamfest Saturday, April 17 8 AM to Noon

Stewart Morrill American Legion Post #35

413 Broadway, South Portland, ME <http://www.pawa-maine.org/>

## Andy Club Meetings

Wednesday 3 March 2010 1900EST  
Andy Club Meeting  
Russel Park Living Center  
158 Russell Street, Lewiston, ME

Wednesday 31 March 2010 0730EST  
Monthly Andy Breakfast  
Ramada Inn, Pleasant Street  
Lewiston, ME

Wednesday 24 March 1800EST  
Androscoggin ARES/RACES Meeting  
Androscoggin Unified EMA Office  
Basement of Central Fire Station  
2 College Street Lewiston

Wednesday 31 March 2010 1900EST  
Andy Club On-air Meeting and Net  
on the Auburn Repeater  
146.610MHz no pl. tone

## Local Net Updates by David WE1U

52.2MHz USB Tuesdays 7:30pm

146.62MHz FM-simplex Thursday 7:30pm

28.46MHz USB Fridays 7:30pm

Friday 19 February 2010 28.46MHz Net Report

NCS-Bill N1KAT

ADRIEN WA1EOJ, Jim WB1HFY, Andy KB1DOI, Norm W1SCM and Richard K1RLT

## ARES/RACES Comments by Ivan N1OXA Androscoggin EC

Due to being sick, I was not able to attend the Feb. 17, 2009 ARES/RACES meeting, but only one member, Rick James N1WFO, was the only person who was there. Let's try and have more attend on the 24 of March. It's a few days before the Convention, so put it on your calender. Plan to attend the Convention and Hamfest on March 26 and 27. On Saturday the 27, Bryce, K1GAX, will be having a meeting on ARES at the Convention. So plan to go to the meeting and learn more about ARES. See you at the club meeting.

## Secretary's Report by Dick N1NYW

The Androscoggin Amateur Radio Club held its monthly meeting Wednesday February 3rd, 2010 at Russell Park in Lewiston. In attendance: N1LLU, W1SCM and son Charles, KB1DOI, N1KAT, N1NYW, N1WFO, N1SVB, N1OXE, W1SAB, W1LTX, N1JD, K1WTX and KB1QHR.

President Bill Woodhead n1kat called the meeting to order at 7 PM. Earle N1SVB made a motion to accept the Secretary's report, the motion was seconded by Rick N1WFO. Vote: approved.

Ivan was absent, but he gave the report to Bill Woodhead to read. After it was read Andy KB1DOI motioned to accept the report and Jerry K1WTX seconded the motion. Vote: approved.

Bill reminded us that the convention is coming up on March 26 and 27th and asked us to think about which jobs we would like to do at the convention and be ready to sign up for those jobs at next months meeting.

Bill would like to arrange for Bill Messier K1MNW to set up at the club table to test radios and equipment before they are purchased to be sure they work OK.

Talks on kit building and six meters are almost confirmed. If you would like to hear a talk about a special subject or could do a talk please let us know at next months meeting or before.

Bob W1LTX will be making the calls to get catalogs from dealers and manufacturers and any cool trinkets they would like to part with.

Bill reports Cory may put up a working station with a G5RV antenna.

Bill was asked if the problem with the PA speakers we had last year will be fixed so that people all over the floor could hear the ticket numbers for prizes. He will try to have them check it and try to make it work better.

Bill reminded us that there will be a special room rate for the hamfest at the Ramada and campers can be plugged into electricity in the back parking lot and have privileges in the pool and sauna for a very low price.

Bill reminded us that Winterfest will be held Saturday February 6 in Chelsea. He also told about the 10 meter net where 13 year old K1RLT did an excellent job as net control last Friday.

The 6 meter net will be Tuesdays at 7:30 and the two meter net Thursdays at 7:30 according to John N1JD.

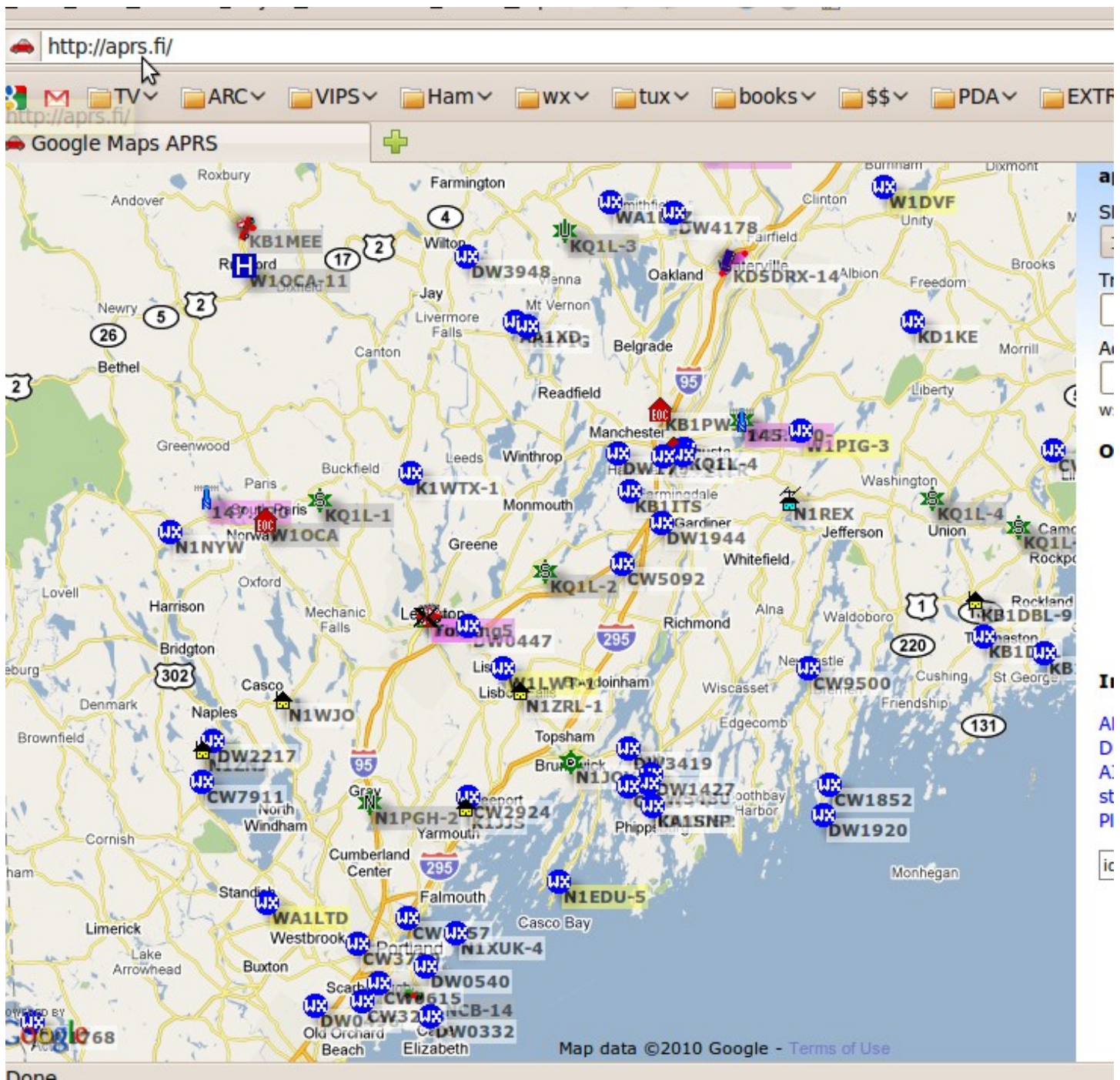
Bill reminded us to start thinking about Field Day in June and Beach to Beacon in August. Jerry K1WTX reports that he had 6 to 7 contacts in just a couple of minutes at winter Field Day and make a lot of contacts, but only operated one station at a time because of QRM.

Andy KB1DOI passed around a memento of a special event station he worked to commemorate the 34<sup>th</sup> anniversary of the wreck of the Edmond Fitzgerald ship.

Harold N1LLU motioned to adjourn with Andy KB1DOI seconding the motion. Vote: approved at 7:32 PM.

# APRS in Action-SKYWARN by David WE1U

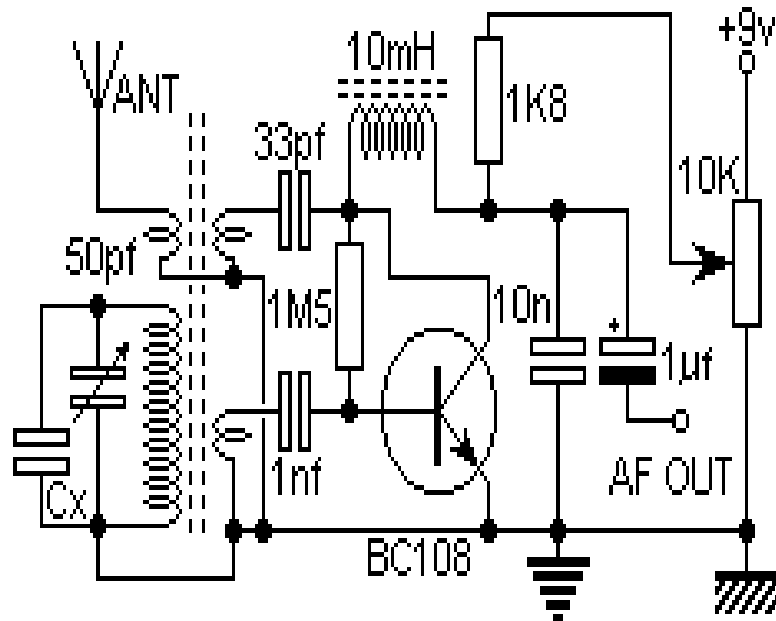
Automatic Packet Reporting System (APRS) is designed for tactical (local-immediate) communication. APRS clients, like XASTIR <http://www.xastir.org/>, enable ham operators to enter information directly into APRS. Many Operators have Weather Station that upload temperature, pressure, humidity, wind speed and direction several times a hour. The screenshot below from <http://aprs.fi/> shows many in southern Maine, the blue circles with Wx indicate a weather station. SKYWARN operators can enter reports of precipitation amount, the type of precipitation, damage reports and other sightings giving the National Weather Service a literal picture of the situation. This is handy, tornadoes do not usually carry trackers very well.



## Circuits of the Month-Regenerative Receivers by David WE1U

Regenerative receivers are simple low-power high-gain multi-mode receivers. Wide-band FM(WBFM), AM,CW and SSB can be received. The down side is the lack of selectivity and the leaking of RF out the antenna. Edwin Hoard Armstrong developed the vacuum tube version of the regenerative receiver in 1914 and the super-regenerative receiver in 1922. Doug DeMaw-W1FB(sk) and many other have developed solid-state versions over the year. Recently, Charles Kitchin, N1TEV, has written several QST and QEX articles on both Regenerative and Super-regenerative receiver design.

Regenerative receivers use positive feedback to increase gain upwards to 86db or 20000 times. The feedback and gain is adjusted, by way of the 10k(far right potentiometer, to just the point of self-sustaining oscillations for CW and SSB, feedback beyond that decrease gain. The oscillations mix with the input as a Beat Frequency Oscillator(BFO).



The Regenerative Receiver by Harry SM0VPO needs an additional amplifier for headphones(ie LM741) or speaker(LM386) Cx is approximately the bands wavelength in pFs(160m =160 picofarads)The coils use 1/4" ferrite rods (mix #61 for 200 kHz to 10 MHz and mix #67 for 10 to 80 MHz) and with approximately  $\frac{\text{wavelength}}{4}$  turns for tuning windings(160m band = 40 turns) and 2 to 4 turns for the base, and antenna coupling/tickler(reaction) windings. The 1nf(.001 microfarad) capacitor couples rf to base and blocks the dc short to ground through the base winding. 2N2222 could be used for the BC108.

Regenerative Receiver by Harry Lythall – SM0VPO  
<http://www.sm0vpo.com/rx/regenrx.htm>

Super-regenerative receivers the feedback is set to oscillate and a **second oscillator**,running at a lower-frequency, quenches or shuts-down the oscillations with gain upwards of 120db or one million. Harry SM0VPO site is a great place to visit.

Sources:

[http://en.wikipedia.org/wiki/Regenerative\\_circuit](http://en.wikipedia.org/wiki/Regenerative_circuit)

QEX September/October 2000 "New Super-Regenerative Circuits for Amateur VHF/UHF Experimentation"

<http://www.arrl.org/members-only/tis/info/pdf/000910qex018.pdf>(ARRL membership required)

## DX News by Earle N1SVB

During the past month we made 26 DX contacts representing 16 different countries. Countries contacted were:

EA6, Baleric Is.; VP8, Falkland Is.; LU3, Argentina; KC4, Antarctica; E78, Bosnia-Herzegovina; IK7, Italy; OK1, Czech. Republic; ZS6, South Africa; J79, Dominica; IT8, Puerto Rico; VA6, Canada; GI0, No. Ireland; 9Y4, Trinidad; HK4, Columbia; PR8, Brazil; CE1, Chile; MM3, England; F1, Greece;

We did not have any Pacific contacts this month. Nor, were there any other real exotic contacts made.

There are several DXpeditions to various parts of the world coming up in March. Some haven't been assigned a call as yet or the operators will use the country prefix and their home call.

Mar. 01 to Apr. 30	XR0XN	Juan Fernandez
Mar. 03 to Mar.10	VK9C	Cocos Keeling
Mar. 03 to Apr. 02	3B9/	Rodrigue Is.
Mar. 05 to Mar. 24	C56KR	The Gambia
Mar. 05 to Mar. 12	FS/	St. Martin Is.
Mar. 09 to Mar. 16	J6/	St. Lucia Is.
Mar. 09 to Mar. 18	V25WY	Antigua
Mar. 09 to Mar. 22	V7/	Marshall Is.
Mar. 10 to Mar. 17	VP2MCC	Montserrat
Mar. 11 to Mar. 15	5W/	Samoa
Mar. 11 to Mar. 24	TO5SM	St Martians
Mar. 11 to Mar. 25	J38/	Grenada
Mar. 16 to Mar. 26	CE0Z	Juan Fernandez
Mar. 16 to Apr. 04	V21ZG	Antigua
Mar. 20 to Mar. 30	E51COF	So. Cook Is.
Mar. 22 to Apr. 08	OX/	Greenland
Mar. 26 to Mar. 31	VY0V	Canada
Mar. 28 to Apr. 31	JD1DWW	Ogasanara
Mar. 28 to Apr. 12	JD/0	Ogasanara
Mar. 31 to Apr. 07	MJ/	Jersey

ARRL International DX Contest Phone Mar. 06 & 07, 2010  
CQ WW WPX Contest, SSB Mar.27-28, 2010

The above DXpeditions are correct to the 10th of the month prior to printing The A.C.O.R.N. For additions after that date, go to my web page and click On the link " Reported DXpeditions by NG3K". I invite any club members that have a computer to visit my web page. The address is:

<http://www.qsl.net/n1svb/>