"SPARKS"

- THE NORTH SHORE AMATEUR RADIO CLUB INC. -

APRIL 1981 EDITION

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Club Repeater: VE3OSH 147.72 In 147.12 Out

Club Station: VE3NSR

NETS:- 2 Meter Net meets every Thursday at 19:30, with Roy VE3AAF at control.

10 Meter Net meets Sundays at 10:00 on 28.200 Mhz. with George VE3GOU at control.

NEXT MEETING

Tuesday 14th April, 1981, in the cafeteria of O'Neill C.I.

Time - 20:00

Please be there !!!

NEWS

Volunteers have been requested by the Variety Club "Bike-a-Thon. 2 meter Ops are required for Sunday April 26th. If you could spare the time, it would be well spent. Those interested please contact Bob Elston VE3LLE at 725-5124.

The executive wishes to thank all the users of VE3OSH for their donations and reminds us that that donations are still being accepted.

Let's see more check-ins on the 10 meter net. You might even hear some choice DX in and around that time and freq.

From Eric VE3HMG: Mac VE3IKG informs me that he has about eight names on his list for the parts kit for the "Tone-Alert" and will give the word on price and availability at the next meeting.

The LAKE SIMCOE HAMFEST will be held June 12, 13, and 14, 1981 at Molson's Park in Barrie. Flea market, week-end camping, prizes etc.

The GUELP FLEAMARKET, will be held Sat. 13th June, 1981 at Centennial Arena. More details will follow in May's issue.

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NSRC members are invited to attend a club meeting in Peterborough to be held 12 May, 1981 at Sir Sanford Fleming College. The speaker for the evening will be Mitch Powell VE3OT, president of the CRRL.

"FLASH" Al VE3LUS now has his advanced ticket and we can expect to hear him on 20 and 75 with gear. Congrats Al.

This item should be perhaps listed in the SSB column but it has been hanging on too long. I have been informed that VE3AEX's SB-102, HW12 c/w p/s etc. is still available and at very resonable prices. Those of you who are the least bit interested contact Bill Hart at 655-4985.

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Mac VE3IKG is still waiting for any challengers or contesters interested in QRP(p). One fringe benefit (he says) is that he can set his TV on top of the xmtr on any band and not have TVI. Think about it.

COMPUTER CORNER

Last time, we were discussing the microcomputer, uC, the word byte, which means, or stands for 8 bits in an 8 bit machine, was referred to and now we will refer to half a byte, or nibble. Since we count from 1 through F in a hexidecimal system, and 1111 adds up to F, we need to split the 8 bits into 2 sections, so 1111 1111 stands for FF. Unless the actual language of the computer which is called the machine language is used, one does not have to deal with bytes or nibbles but it helps to know what occurs inside the computer.

With the widespread availability of the micro at the corner store it is necessary to be able to 'speak' to the computer and this is done in a formatted way by using a high level language. One of these is called BASIC and it was developed in Dartmouth College in the US many years ago. the word BASIC is an acronym, where each letter stands for a word. BASIC means Beginners All purpose Symbolic I nstruction C ode.

If you purchased a TRS-80, APPLE or PET computer, you would use the BASIC language. While it would appear to be difficult to use, with sufficient practice the average person would quickly adapt to it. One thing about this language is that it doesn't tolerate any errors. If you don't follow the format, it comes back to you with rude remarks.

Computers are advertised as having 4K or 8K etc. This refers to the the actual memory part of a computer, or storage and working area. The 8 bit computers mentioned above have a full capacity of 64K memory locations which is actually 65,536. In terms of letters, or numbers it means you could store that many of them away. But wait! When you use BASIC, the program itself may require 8K minimum so it is wise to get sufficient memory for your computer. There is a 4K basic but it is very limited in it's capabilities.

Many people purchase a computer for the purpose of playing games, while others use them for calculations, bookeeping etc. They have widespread use on the amateur bands and it would seem that nearly all RTTY users have in their shacks either a uC or some other form of gear with micro capabilities. On 20 meters, much of the chatter concerns their useage and/or problems but the ham population has gone for the TRS-80 in a big way.

What are some of the uses for the computer? While they are numerous, here are a few that come to mind:

Automatic beam headings.
QSL card organization.
Information retrieval. (articles of interest etc.)
RTTY Automatic ID. Brag Tape etc.
Tuned Circuit calculations.
Mortgage payment schedules
Contest Info

Bernie

VE3ATI

POINTS OF INTEREST (RADIO MUSEUMS)

I have sent a number of letters away enquiring about radio museums. The intention was to compile a list of interesting places to visit during the summer holiday season.

Most museums would not warrant a special trip, but if you happen to be in the area you could make a point of visiting them. The list is as follows:

The A.R.R.L. Museum, Newington, Conn., Open weekdays, free admittance.

The Ford Museum, Dearborn, Mich. Open 7 days a week. There is an admittance charge.

AWA Museum; I have a brochure about this museum which is located in East Bloomfield, N.Y. The museum is openSundays from 14:00 to 17:00 and Wed. from 19:00 to 21:00 local. There is no admittance fee.

This museum is founded and maintained by the "Antique Wireless Assoc., Inc. Exhibits are about wireless, telegraph, telephone, phonography, radio, and television.

Bloomfield is not too far from Buffalo, (exact distance not known at this time).

I would like to thank Harry MacLean VE3GRO, assistant Director of the Canadian Radio Relay League, and Bruce Kelly W2ICE, Director of the Antique Wireless Assoc. Inc. for their information.

Randy VE3MUR.

FIELD DAY

Fast approaching is the N.S.R.C.A.F.F.D. (North Shore Radio Club Annual Fun Field Day).

As you may have heard we have co-managers, Charlie VE3IBO and Evan VE3IND. There is lots of planning and preparation yet, so please come forward and give these fellas help. Remember to talk it up on 2 meters and HF as well. This a good time to be had by all.

As mentioned elsewhere in this issue, I will be looking to complete a list of names for those interested in the "Tone-Alert". At the present I'm trying to arrive at the best bulk price for all concerned and will (or should) have word at the April meeting.

Mac VE3IKG.

BELOW IS AN UPDATED EMERGENCY TELEPHONE LIST WHICH CAN BE MOUNTED SOMEWHERE NEAR YOUR LAND LINE DEVICE.

DURHAM REGION

| | EMERGENCY TELEPHONE NUMBERS | |
|-------------|---|--|
| OSHAWA | AMBULANCE FIRE | -725-6574
-579-1234
-579-1121
-576-8711
-668-9341
-723-4623
-723-4623
-723-5203 |
| AJAX | AMBULANCE FIRE | -683-1234
-579-1234
-683-2320 |
| BOWMANVILLE | AMBULANCE FIRE POLICE HOSPITAL PUBLIC UTILITIES | -623-3300
-579-1234
-623-3331 |
| PICKERING | HOSPITAL (Ajax) | -839-1111 |
| O.P.P. | WHITBY | |

FOR TORONTO AREA ROAD CONDX - 1-416-248-3561

PLEASE PUT THIS IN A PROMINENT PLACE, IT COULD SAVE A LIFE.

SELL - SWAP - BUY

FOR SALE - Linear, DENTRON MLA 2500. 160-10M. Used only 2 hours. Cost \$1819.00, asking \$1300.00. Contact Ray VE3RP 839-3051 FOR SALE - Linear, HEATH SB-330. 1KW. Must be seen to be appreciated. Call Hessel VE3FAT 728-5227, (after 17:00) FOR SALE - HY-GAIN TH6DXX tri-band beam. Brand new in the crate. Asking \$400.00. Call Tom VE3MEZ or Merry VE3LEF at 579-4480. WANTED - Still looking for an older xmtr., Viking II, DX-100 etc. Must have PP final. Want to experiment with DSB. Call Mac VE3IKG at 723-8484. _______ FOR SALE - Realistic DX-150A all band rcvr. \$100.00. Contact Les at 623-7338. FOR SALE - Kenwood TS-120S transceiver. 200W input, solid state. \$850.00. Call Bill VE3KZL at 263-2969. FOR SALE - Teletype model 28ASR. \$175.00. Call Hank VE3FHV at work 668-5811, ext.259, or have him paged if he is not handy. WANTED - "XTALS" for any HF band. Building QRP xmtr. Buy or swap. Contact Randy VE3MUR at 579-4577. WANTED - 19" relay rack or cabinet. 27" to 30" high. Will buy or swap for whatever. Need desperately. Call Mac VE3IKG at 723-8484. FOR SALE - 4 drawer steel file cabinet, letter-size. excell. condx. \$50.00. See Al VE3LUS. WANTED - Coaxial antenna switch, 3 pos. or more. Swap or buy. Contact Mac VE3IKG at 723-8484.

Well, here it is at last! Blow the dust off your 555's and soldering irons and let's get going.

Below is a circuit which is \underline{NOT} going to be an option for you to build. It is a \underline{MUST} for any of you that operate $\underline{2}$ metres through a repeater.

It is a timer, pure and simple! And it IS SIMPLE !!!!!
By simply selecting the value of Rx, the time can be varied according to those in the chart. (eg. use $Rx = 1.2 \text{ Meg } \Omega$ for VE3OSH for about 3 minutes) Real tough, Huh?

How does it work? Well, the Rx and C combination create an RC time constant. (time what?) This time sets the time which the LED is off.

"That's too complicated and technical for me!" OK, how about this ...

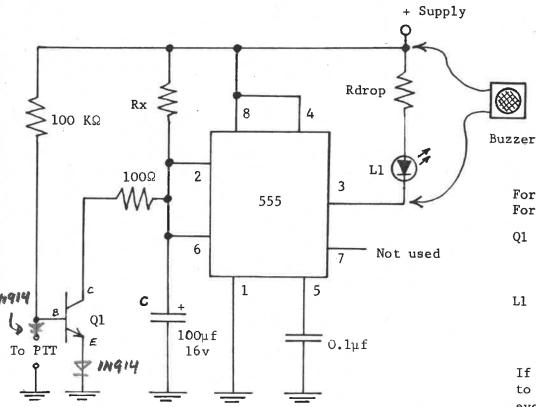
When you push your transmit button (PTT) the circuit gives you a certain time set by Rx and C before the LED lights up saying "LET GO OR ELSE YOU'LL TIME IT OUT !!! "

If an audible alarm is desired then go to Radio Shack and get a buzzer (R.S.'s cat. no. 273-060) This buzzer can be wired directly across the LED-resitor combination as shown. Now you will have both audio and visual indication of how long you have talked. Of course, the idea is to never see the light come on , right?

So now NO-ONE has an excuse to time-out the repeater again. Remember, this circuit can work in the car too! Even the XYL's have to get in on this one because the circuit makes a very efficient egg or general purpose timer for the kitchen. So no excuses! BUILD IT!

Next month or soon, I.C. CORNER will have a circuit which works very nicely with this one. "What does it do?" Sorry you'll just have to wait! But in the meantime get busy with this one.

Till then, 73 and watch the LED!



Circuit is self-resetting when PTT is released.

| Bench Test Results | | | | | |
|--------------------|-------------|--|--|--|--|
| Rx | Time | | | | |
| 1.0 MegΩ | 2min. 14sec | | | | |
| 1.2 MegΩ | 2min. 55sec | | | | |
| 1.5 MegΩ | 3min. 20sec | | | | |
| 390 Κ Ω | 47sec - | | | | |
| -good for VE3RPT | | | | | |

For +12 v supply, Rdrop= 1 K Ω For + 9 v supply, Rdrop= 680 Ω

- Q1 is any general purpose NPN transistor, type 2N2222 or Radio Shack 276-2009 will do.
- L1 is any LED, Radio Shack 276-070 will do.

If you need help, feel free to give me a call. Hopefully, everything will be straightforward since all parts are easy to get.