



The *KEY*

The Bi-Monthly Newsletter of the Contoocook Valley Radio Club

Volume 8, Number 1

February, 1996

February Meeting

Have you gotten bored with the same old contests? Are the walls in your shack looking a little bare? Then come to the CVRC meeting on February 12 at the Hopkinton Community Center. Our scheduled program is *Awards—Wallpaper for Your Shack* by Brad Hutton, KT1H. Over the years Brad has amassed an enviable collection of awards and he's agreed to share his "tricks of the trade" with us. Don't miss what is sure to be an exciting and informative program!

CVRC meetings are held at the Hopkinton Community Center in Contoocook on the second Tuesday of the month. The Rag-Chew begins at 7:00 PM; the program at 7:30; and a business meeting follows the program and refreshments. Members and nonmembers alike are welcomed. Talk-in is on the K1BKE 146.895 -600 kHz repeater.

The Results are In!

The elections for 1996 CVRC officers were held at the annual Christmas party due to the snow-cancellation of the November meeting. The results are as follows: President: Cal Calvitto, WA1WOK; Vice-President: Dale Clement, AF1T; Treasurer: Tom Matisko, N1SKZ; and Secretary: Marc Fraser, N1QGM.

Silent Key—N1IDR

Ray Miner, N1IDR, passed away on January 13 after a short illness. Ray first joined the CVRC in 1988 as KA1KPN. Club records show that in 1990 he changed his callsign to N1IDR. Ray was a dedicated member of ARES and was regularly heard on the Merrimack County ARES Net and the Granite State FM Net. He was responsible for keeping the ARES net active for nearly a year

while there was no ARES coordinator for Merrimack County.

He worked as a school teacher in the vocational graphic arts department for the Concord School District for 38 years, retiring in 1993. Ray had also served with the United States Army during the Korean conflict. Stationed in Japan, he was a recipient of the National Defense Service Medal.

In addition to the CVRC, Ray was a member of the ARRL, the NH Retired Teachers Association, the New England Sled Dog Club, the Siberian Husky Club of America, the Alaskan Malamute Club of America, and the NRA.

Dues are Due Tom Matisko, N1SKZ

It's that time of year again. The time when the snow is falling and our thoughts drift to a DXpedition on a warm South Pacific island. Now back to reality, it's also the time of year when we need to pay our dues to the CVRC. Dues are payable according to the following rate schedule:

Individual membership: \$20
Family membership First adult member: \$20
Second adult member: \$10
All other adult members: \$10
Student 18 and under: Free
Senior members (over 65): \$10
New Hams: First year free, starting with date first licensed was issued.

Dues may be mailed to the club at PO Box 88, Henniker, NH 03242 or can be given to me during a club meeting.

Thanks and 73, Tom - N1SKZ

K1BKE/R

Lindsay Collins, NR1N

For those of you who missed the 146.895 repeater this past weekend (January 20-22), and have been asking, "What happened?", here's what happened. Just about 6:00 PM on Friday (Jan 19), a tree came down on a three-phase line in the vicinity of Pat's Peak Ski Area. When the wires came down, they must have crossed sending a voltage spike up a still connected phase. The repeater is plugged into the other end of that wire. The spike resulted in tripped breakers, blown fuses, and blackened surge suppressors on several radios at the Pat's Peak communication building. The outage included Pat's Peak, Craney Hill, and two radio stations. Within the '.895 repeater, the spike destroyed the surge suppressor in the outlet strip tripping a circuit breaker in the strip. What of the spike was left, was clamped by a MOV (metal oxide varistor) across the input of the transformer in the Astron power supply, blowing the 8 amp fuse in the supply. A MOV is designed to short out when the voltage across it exceeds the designed break-down voltage, in this case 150 volts. So, two surge suppressors sacrificed themselves to save all of the power supply, receiver, transmitter, and controller electronics plugged into them. They did exactly what they were intended to do. The outlet strip suppressor has been replaced with one external to the strip. Most of the repair time was in peeling back the covering on the power transformer to get at the leads of the MOV, soldering a new one in place, and taping the transformer back up. Since the supply was taken from the site for this repair, two trips to the site were necessary. Thanks to Jack, WA1ALM, for his assistance, company, back pack, and making sure that the supply and I landed safely on the seat of a moving ski lift for the descent and return trip.

From the Secretary's Notebook

Marc Fraser, N1QGM

As the new year begins, the CVRC has both good news and bad news. On a sad note, the Club lost a dedicated member and good friend when Ray Miner, N1IDR, passed away on January 13. Ray was one of the Club's active Emergency Coordinators and he will be missed by all who knew him. Also this year, the new officers were elected at the Christmas Party meeting. They are - President, Cal (WA1WOK); - Vice President, Dale (AF1T); - Secretary, Marc (N1QGM); - Treasurer, Tom (N1SKZ). This year promises to be exciting for both new and old alike. At the December business meeting (held on January 4) discussion centered on several issues the Club will focus on. These include rebuilding the treasury, the upcoming NH QSO Party, newsletter issues and Club goals for the year. Newly elected President Cal (WA1WOK) expressed several goals for the upcoming year: Increasing membership, revitalizing the treasury and, most importantly, to HAVE FUN! That is, after all, the whole point of Amateur Radio.

The Club's treasury needs a "shot in the arm" due to many unexpected expenses this past year. Several upgrades to the repeater were necessary, and the Club decided to donate to several Charitable organizations on the passing of Club members during this year. Many methods of increasing cash flow in and decreasing cash flow out were discussed. Among these are a drive to increase membership, increasing dues, decreasing membership discounts for students and seniors, and decreasing the frequency of the Newsletter. Of these, the most likely starting point will be to increase membership. Rob, KA1AUA, will begin to canvass the area using output from the call sign database to see if we can convince area hams to join our Club. We are the most active Club in the Capital area. We will try to become more vis-

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ible to local hams and potentially increase our membership. The other items are really benefits that were felt to be important to the Club in general and not to be sacrificed. One more item considered was a temporary suspension of donations to charitable organizations on the death of a Club member or close relative. Cards and other expressions of sympathy to the family will still continue, however. The monthly raffle will also be examined to make sure that the cost of prizes is met by the sales of tickets.

The January club meeting featured a live demonstration of APRS software by CAL, WA1WOK. This looks like a package that will be very useful for Emergency coordination of stations. Local weather, geographic features and current conditions can be posted to the APRS and made available to any viewing station. Cal also handed out copies of APRS and APRTrack, a satellite tracking program for packet. This new technology in Ham Radio is proof to me that the hobby just continues to blossom and grow!

Finally, I want to add a personal note about involvement in Club activities. I became licensed in September of 1992 and immediately joined the CVRC. I decided on this Club because of the enthusiasm of one long-time member, Cliff, N1GJF. He is one of a "core" group of a dozen or so club members who do most of the work within the club. If our Club is to grow (or even survive) our members have to take a more active role in club affairs. This can be as simple as devoting some time to an organizing committee (QSO Party, Field Day, Flea Market, etc.) or as involved as operating the club call during a contest. We are asking that an amount of time you may other-

wise devote to operating your favorite mode be channeled into a club activity. Even just "being there" at Field Day gives a sense of club involvement.

The ARRL January VHF Sweepstakes

Dale Clement, AF1T

There were lots of stations to work in this year's contest, held on Jan. 20-22. And more than ever were equipped for the higher frequencies, where contacts are worth progressively more points. I operated nine bands: 50, 144, 222, 432, 903, 1296, 2304, 3456, and 10,368 MHz. A highlight was making six contacts on 2304 MHz, two on 3456, and four on 10 GHz, with a small dish antenna aimed out of my bedroom window! I found lots of activity on 2-meter FM—and made 45 contacts on 146.55 Mhz simplex, from as far as NY and NJ. Various locals gave out points.

Club members K1PDY, N1JQH, N1JHJ, and N1KPZ were active. Ron had 144, 222, and 432 MHz SSB. Steve tried out his new Icom 706 on 6 meters, and he had a nice sounding signal. Dennis scooped up some of those distant grid squares on 2 meters SSB. Both Steve and Dennis have been bitten by the contest "bug," and are already making plans to improve their future results. They're finding these events to be excellent for learning about equipment, antennas, propagation, and operating skills.

Do you know what's best about these VHF events? Its the people. Scarcely a nicer bunch of operators can be found anywhere. This is especially true of the higher bands, where folks will go out of their way so that you can make a contact. The camaraderie is what's kept me enthusiastic for nearly 30 years. Check out the various upcoming events, such as VHF/UHF sprints (April & May), ARRL VHF/UHF contests (January, June, August & September), CQ VHF prefix (July), and 10 GHz contest (August & September). We'll gladly help you get involved!



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Dr. PC

Ron Herman, K1PDY

It was suggested recently that the Doctor do something on APRS to go with the presentation given by WA1WOK at the January meeting. Well here it is. Most of this has been extracted from documentation files in the APRS distribution. APRS stands for Automatic Packet Reporting System. The "P" doesn't stand for "Position" as many might think. From the APRS "README.1ST" file in the distribution:

"..... Think of APRS as just a multi-user distributed packet network with a MAP display for many exciting amateur applications:

Network topology monitoring
Direction Finding
Weather reporting
Frequency Coordination database
DX cluster monitoring
HF DX plotter
AMSAT ground station tracker
Satellite tracker
Search & Rescue
Special event tracker/organizer
Boat/mobile/RV tracker
RF path estimating
Local area CHAT mode
Telemetry displays....."

Basically APRS is a software package which by itself is not a "system." When many packet stations are running under control of APRS a system develops that allows communications between most all stations without a dependency upon a packet network. The APRS System establishes its own "network" by using each stations' ability to digipeat. APRS is not intended for large transfers of data or for long conversations. It works best when communications are kept to "one liners". APRS does not, in general, require any special equipment other than a computer, TNC and 2 meter radio. However, for it to be of most use, a "spare" packet station would be best so that it can be left running full time with another rig available for voice and/or "normal" packet activity. This becomes even more important if the APRS station includes an Ultimeter-II or Ultimeter 2000 weather station which allows automatic broadcasting of local weather conditions. This could prove to be of great value to the National Weather Service and emergency organizations in time of severe weather conditions.

APRS includes about fifty text files documenting various aspects of its functionality. Most

can be read on line using the "Help" function. It is not well organized and may require some searching to find what you are looking for. Don't bother printing much of it out since it changes frequently. It lacks a first time setup guide. The following was pulled out of a file at the TAPR internet site.

UNZIPPING THE PROGRAM

APRS is normally found in two forms. The first form, is the full size program called APRSxxx.ZIP, where xxx is the version number. This has everything in it. The next form is called xxxTOyyy.zip, where xxx is one version number, and yyy is a second version number (example 403to503.zip). This is an upgrade, which will update program, and add any new files added sense xxx. It is normally 1/2 the size of the full blown program. This is handy if you are downloading the program from a BBS. (B.T.W., if you are using a later version than xxx, and want to upgrade to yyy, the upgrade will still work.)

To unzip the program, you must have at least version 2.0 of PKUNZIP. Any earlier versions will not be able to unzip the program. Because the program was zipped up with the directories intact, it must be unzipped with the "-d: switch. (i.e.: PKUNZIP -d a:APRS504.ZIP). This creates the needed directories, and places the files in them. If you don't use the "-d", everything will end up in the same directory, and nothing will work. Ask any of us "Old Timers", we've forgotten the -d on more than one occasions.

HOW TO START THE PROGRAM FOR THE FIRST TIME

To start the program, Just type "APRSxxx", where xxx is the version number that you just unzipped.

Next you will be asked to enter your call sign.

Next you will need to enter the Comm Port number that your TNC is connected to. If you do not have a TNC, but want to look at the program, enter "N".

Next it will ask what speed does your Computer talk to your TNC at. Normally it will be 9600 baud. If you have it set for a different speed (1200, 2400, 4800, etc.) type that it. THIS IS NOT

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THE SPEED OF THE TNC.

Next it will ask you what Band you want to work, HF or VHF. Normally you will be on VHF. (Columbus operating Frequency is 145.79 MHz.)

Next it will ask you what type of TNC you are using. The MFJ and PacComm are TAPR clones.

Next you will enter in your UTC time offset. For Eastern Daylight Savings time, it is -4.

Next you will need to enter in the Comm Port number that your GPS/LORAN receiver, Weather Station, or Dopler Direction finder is located. These will work only if you have the proper registration numbers for them. Otherwise type "N".

Now the program will draw a Map of Ohio[USA]. Move your cursor to where you are located, using the arrow keys, and push the page down key to zoom in on your location. New maps may pop up on the screen as you are zooming down. Keep moving your cursor to your general location. If it moves off the screen, hit the home key, and the screen will redraw to where the cursor is.

Once you have the cursor on top of your location, write down the LAT & LON numbers located in the upper left hand of the screen. Once you have done that, hit the "INSERT" key. Type "B" for Building, then "Q" for QTH/home.

At this time it will then ask for a course, just hit enter, a speed, again just hit enter, a comment, type in and short message about yourself if you like, then hit enter, then DAY-TIME, again hit enter, and finally it will ask if this is accurate. This is for your location. If it is, type "Y", if not, type "N" and you will start over again with the cursor location.

Once you are in the program, you can bring up the help screen by hitting "F1" key. This brings up a menu along the bottom of the screen. Hit the appropriate key for the help that you need.

To quit out of the program, hit "Q" then follow the instructions. [Normally type "Q" to next prompt and "0" to the next. Hit enter to the last prompt and the program will exit. If this is not done, the TNC may be left in an odd state or with Beacons enabled.]

If you are not registered, you can save some

time locating your qth when the program first comes up, by putting your QTH's LAT & LON numbers in the first two lines of the MAPLIST.APR file. (You will have to convert these numbers to Decimal Degrees by dividing the Minutes and decimal minutes by 60.) This is a simple ASCII Text file, and you can use most any word processor to do it.

This first time setup guide was put together by KB8JXO in Ohio. Be sure to also read README.1ST and INSTALL.TXT in the distribution.

In addition to this the second time users' guide might include running the program as "APRSxxx /zzz" which forces APRSxxx to run without loading previous saved data. After recently upgrading to APRS74E, the Doctor discovered that the new version was able to find the saved configuration of the older version in another directory. Unfortunately it didn't use the serial port setup parameters and got the TNC and weather interfaces reversed. There is no obvious way to change the serial port assignments after the initial installation. So running the program with a switch that tells it to use a non existent backup file forces it into its first time setup prompts.

Put your station on the map, run APRS!

Remember, the Doctor needs your questions to stay in business. No questions, no answers.

Good luck and see you on 145.79 Mhz. The Doctor.



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The KEY—A Great Place to be Seen

Tom Matisko, N1SKZ

A little over a year ago the staff of the Key began accepting paid advertising from local businesses. This was done in an attempt to offset cost associated with the publication and mailing of the newsletter. The goal of the club is to have the key a self-sustaining part of the CVRC. Currently this is not the case. Last year it cost approximately \$500 to print and mail the Key to approximately 100 members, clubs and advertisers. Currently advertising only brings in \$100/year, the rest of the money comes from your dues. Some of you might ask, isn't this is what are dues are for? To this I would answer yes and no. If the CVRC were to only publish the Key and forego other activities, then yes, dues would adequately cover the cost of publishing the newsletter. But, how interesting of a club would we have?

To serve the Amateur Radio community of the Capital region, the CVRC has to maintain, and hopefully increase, the number of activities in which it is involved. The CVRC sponsors the K1BKE repeater and packet node, holds licensing classes, VE sessions and regularly scheduled meetings. Let's not forget Field Day and the outgoing QSL Bureau. The CVRC is alive because of dedicated members and the activities which are as varied as our member's interest.

All of these areas need funding to some extent, and as we all know, expenses do not decline. We could increase dues, advertising cost, the amount of advertisers, or hold fund raisers. Increasing dues is not popular and we feel that the current rate for advertising is fair to our advertisers. Fund-raisers are an option, if you have an idea please feel free to attend the business meetings and make your voice heard. Increasing the number of advertisers is within our grasp.

If you own a business, why not advertise it in the Key? Maybe you have a friend who owns a business and would be interested in some cost-effective advertising. Remember, the Key goes not only to club members, but also to businesses

who advertise in the Key and to all other NH Amateur Radio clubs for viewing by their members. The cost to place an ad in the Key for a year is \$25 for a business card size ad. The ad will run 6 times a year on a bi-monthly basis.

If you are interested in placing an advertisement in the Key please feel free to call me at 464-4095 or talk to me at the next club meeting.

73, Tom - N1SKZ



**Rock and Roll Hits All Day
on i93.3 and i107.7**

Personalized "License Tag" Keychains



\$5.00

See a club officer for details.

Interesting Frequencies

Steve Jones, N1JHJ

For those folks (Few, I'm sure) that have no scanners, are amateurs, have no scanner directories, and want to plug a few interesting frequencies into their wide band 2 meter rigs:

Police: 154.845 (Manch. PD), 155.685 (Merr. Co. PD), 155.475 (Conc. PD #2), 155.625 (Conc. PD #1), 155.520 (Hills. C. PD), 155.250 (Keene PD), 155.790 (Laconia PD), 155.700 (Franklin PD), 155.310 (New Bost. PD), 154.665 (Maine S.P.), 155.475 (NHSP all), 156.090 (NHSP alt.), 155.070 (Keene PD alt.).

Fire: 154.235 (Mut. aid), 154.355 (Conc. FD), 154.160 (Weare FD), 158.880 (Goffs. FD), 154.160 (New Bost. FD).

Miscellaneous: 155.34 (Conc. Hospital), 170.575 (White Mtn. Nat. Forest), 162.475 (NOAA Burlington VT), 162.550 (NOAA Maine), 162.400 (NOAA Concord), 151.805 (Valley Transportation busses), 159.465 (Fish & Game car to car), 151.34 (Fish & Game Mt. Washington), 155.655 (NH State Prison), 151.445 (Fish & Game tower to tower).

Old low band: 37.94 (NHSP Tolls), 33.9 (Lakes region mut. aid), 37.28 (NH Marine), 45.18 (NHSP aircraft).

Aircraft: 110.725 (Radar C. Manch.), 115.700 (Rad. #2 Manch.), 121.400 (tower-Manch.), 124.9 (Approach cont.).

Hi Band misc. applications: 453.675 (DPW-Hooksett), 453.975 (DPW-statewide), 453.925 (DPW-alternate), 453.775 (DPW-Guilford, NH),

465.02 (NHSP).

Disclaimer: Accuracy and currency of above FREQS. are *not* guaranteed. Have fun and scan 'til your buttons jam!

CLASSIFIEDS

Classified ads are free for C.V.R.C members. Ads received by the fourth Tuesday of each odd numbered month will appear in the next month's issue.

Heavy-Duty Rotator — Alliance HD73 (in box): \$160, 10/15/20 meter tri-band beam — Cushcraft A-35: \$175, Remote antenna selector — Yaesu FAS-1-4R (in box): \$90, Antenna tuner — Yaesu FC-700 with manual: \$100, remote VFO — Yaesu FV-707-DM with manual: \$90, 35 mm. Camera — Minolta X-700 with separate zoom lens, telephoto lens, connecting flash unit, and case. All in exc. cond.: \$175. Dale Clement, AF1T, 2 Corbin Road, Henniker, NH 03242-3367. Tel. 428-3840.

For Sale: Tentec QRP radio. It is an argonaut 509. In excellent shape and working condition. This rig covers 10,15, 20, 40, and 80 meters. Power output is about 2 watts on all bands. I also have an electronic keyer and a QRP antenna tuner. I would like \$230.00 for the radio but I might be able to do a package deal for the works. Please see Dennis, N1KPZ or call at 774-3833. I would like to see a CVRC member getting some use out of this rig. TNX ES 73.

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Mon-Fri 10-6, Thurs 10-8 Sat 9-5 Mon-Fri 10-8, Sat 9-5, Sun 12-5

The KEY Schedule

The KEY is published every other month at the beginning of the even numbered months. The deadline for articles and submissions is the fourth Tuesday (coinciding with the usual business meeting schedule) of the preceding month.