



# The Hamilton Amateur

The Hamilton Amateur Radio Club Newsletter — 73 Years of Amateur Radio 1932-2005

The Hamilton Amateur Radio Club  
 PO Box 91215, Effort Square PO  
 Hamilton, ON L8N 4G4  
 Est. 1932 Inc. 1956  
<http://www.hwcn.org/link/harc/>

## In This Issue

New Look----- 1  
 Dis & Dat----- 1  
 HARC Executive----- 2  
 Minutes of the March 16th Meeting----- 2  
 HARC Chairs----- 3  
 Ontario QSO Party ---- 4  
 Important Points----- 5  
 Propagation ----- 5  
 Applying for a Telegraph Operator's Job ----- 5  
 A Prediction Made in 1954 (picture)----- 6  
 Report on a Speech by ARRL CEO David Sumner ----- 6

As you know, the material in each issue of The Hamilton Amateur is sent in by members. If you have something that would be of interest please pass it along.

## New Look

by Mardy VE3QEE

You may notice that the title of this issue of The Hamilton Amateur looks slightly different than previous issues.

A software program called, Pages, has been used to produce the April issue. The Pages software is designed specifically for production of newsletters, like this one, and is more accommodating than the word processor we had been using, which often produced unexpected surprises. Other than the title, I have tried to keep the look, and placement of items pretty much the same as before.

Adding pictures and graphics along with a caption, is easier using the Pages software. Scrolling is also faster. The result for me is shorter production time with less frustration. The result for members should be earlier delivery time.

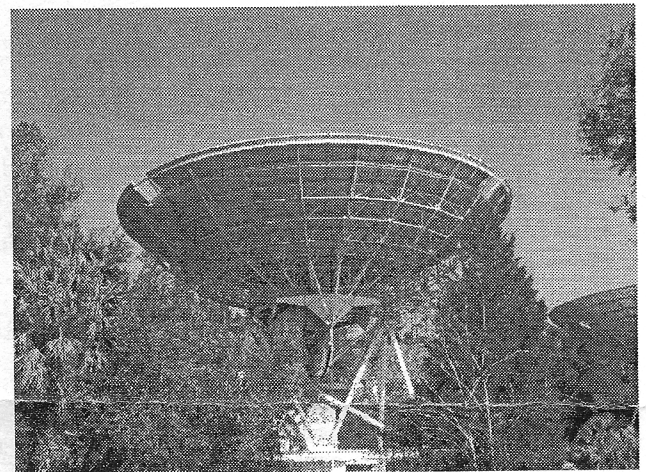
## Dis & Dat

by Bernie Granby, VE3EKY, VA3XJ

Ok..... Looking forward to a new season of Hamming but first lets get rid of the last few months.

As you know, I was away for a month in Florida. Oh! the things I've seen. First we stayed in Crystal Springs Fla. The camp we stayed at was called Rock Crusher Canyon. A posh RV park which used to be a satellite tracking station back in the late 70's and early 80's. Then it was mothballed

and then sold off. The fee was \$20.00 a night which included cable TV. Should be about \$35.00 per or maybe higher. There were two very large satellite dishes set down in a maybe 80 or 100 foot high quarry (picture below).



I took my hand held with me. Total loss. nobody on the air....couldn't program the HT any way. One morning there was a bright spot. I was trying to program in 146.520, and I accidentally got 146.620 where I heard a couple of Ham RV'ers having a brag session about their million dollar RV's. I listened for a while. all the time trying to figure out where they were coming from. I quickly figured out the local repeater Crystal River was a closed repeater. I never heard a repeater ID. Then a guy broke in from Carolina full quieting. Great copy and these guys were amazed, then people started to join in from all over Florida. I guess there was some kind of an opening. First time I have been reading the mail during one of these openings. I heard them mention repeater a few times but couldn't find it anywhere on that freq. That was it for Hamming on VHF.

Lets get back to the quarry .There was supposed to be a crocodile in the little swimming hole. I went down there every second day on my bike to see if I could find him (or her). Never did; but one day I was wandering up to one end of the quarry and I saw these very large birds flying around at the rim of the quarry which was about 80 to q 100 ft. high. Their wing span appeared to be about six feet. I thought they must have been hawks. They never moved their wings and often one or more would swoop down near the rocks at the base of t he wall where I was standing they did not ever pick anything up and never went to a nest. A few times they swooped down to look at me, which made me nervous because it was deserted down in the quarry. Finally I left. I think they were putting on a flying circus just for the joy of flying. (Were they Eagles ? ) *don't know. I went back there looking for them every day, but they never came back again.*

Oh yes about theT7H ICOM HT talky. I finally was able to program in the two Hamilton repeaters.; I'm close but still am doing a lot of stumbling and still haven't added sub audibles. I'll try VE3WIK next. Don't laugh I haven't met anyone else that can do it. Just for fun I looked up the warranty on the HT. It was 1 YR. It ran out a year ago, and I don't know if there are any problems with it, or not. At that rate Radioworld would be safe in giving a 10 year warranty. One thing I'm quite proud of, I put into memory all the marine band simplex freq's. You know, the devil is in the details, I thought I could assign the channel numbers as memory numbers. I thought I had enough, but no, at least 10 memories are reserved for calling channels and band edge ch's. Beats me what they are for. The book is not very clear on this, soooo I started to change the memory numbers, which turned into a nightmare as the old listings did not disappear. At one point I decided to wipe the CPU back to factory defaults. Its quite simple just hold down about four keys and then with your other foot turn the thing on. No way, no way. It doesn't work. I don't want to do that now as I have too

## HARC 2004-2005 Executive

### President

Mardy Eedson VE3QEE  
905-648-0187  
meedson@cogeco.ca

### First Vice President

Michael Krebs VA3WXS  
905-523-9005  
mkrebs@sympatico.ca

### Second Vice President

Ron Ouwehand VA3OUW  
905-692-4684  
ron.ouwehand@sympatico.ca

### Secretary

Roger Pimm VE3UFZ  
905-560-2628  
rpimm@cogeco.ca

### Treasurer

Fred Robinson VE3GCP  
575-5197  
FredRobinson@MountainCable.net

### Repeater Chairman

John Vandenberg VE3DVV  
905-692-3802  
JVandenberg@mountaincable.net

### Membership Chairman

Emsley Mitchell VE3JAI  
905-627-0333  
eamitch@mcmil.cis.mcmaster.ca

much programming in the HT to lose.

What have you been doing on the air? My log book shows no contacts in 2005. Come on field day so I can make a few QSO's. Anyone interested in joining me? OK I won't harp on it.

If you missed last month's meeting you should be sorry and vow to never miss another one. Our guest put on a very interesting presentation . Imagine giving away 500,000 free radios, in some cases

dropping them from an airplane. When they land they turn themselves on. Only one station on them.

MMMM ! No freedom of choice there eh?

Dis is all about Dat for Dis & Dat

73, de....Bernie, VE3EKY/VA3XJ / VA3MCM

## Minutes of the March 16, 2005 General Meeting

Secretary, Roger Pimm, VE3UFZ

Fred VE3GCP opened the meeting at 8:00pm sharp. Ron VE3OUW introduced our guest speaker, Mr. Allan McGuirl. Allan heads up a company on Nebo Road in Hamilton called GALCOM International Inc. This "not for profit" company manufactures solar powered receivers for distribution within third world countries. To date, over 500,000 radios have been manufactured at the Nebo road factory.

The company currently manufactures two types of radios. There is a digital FM receiver with two preset channels, and a SW radio with two preset channels. The development of a dual band SW radio was necessitated by the unpredictability of band conditions in different parts of the world. This necessitated the design of two oscillator frequencies and two separately tuned ferrite rod antennas. Manufacture of these radios started out being very labour intensive. Allan has, over the years, managed to design and acquire inexpensive surplus automation equipment to ease the hand labour portion of the assembly and improve on the ruggedness and durability of the radio units. Allan's formal training in computer engineering and his enthusiasm for problem solving have facilitated this automation.

The mission to create an inexpensive (approximately \$20) radio, which was solar powered, began in 1989. The mission to create these units was started with 3 founders. Allan McGuirl in Hamilton, Harold Kent in Israel, and Ken

Crowell in Florida. The solar powered circuits were designed in Israel.

The radio units have been distributed to Inuit in the far North, nomadic people in the Sahara desert and inhabitants of the Rain Forrest areas of South America. The radios are distributed to provide help to underdeveloped cultures in three main areas:

**Mind** -to provide educational information to the people on farming techniques.

**Body** -to provide medical and health information.

**Soul** -to provide Bible study.

The original radios were designed with a solar panel, which was capable of charging the NiCad batteries, but not powering the receiver circuit simultaneously. The new models have the capability of both charging and operating the radio at the same time, and also provide sufficient power to charge the batteries for night listening. Although production began in Israel, the production was moved to the Hamilton Nebo road location in 1992. The staff there grew to 6 workers producing 3 different models of receiver.

Each radio is tuned to preset frequencies at the factory. Changing frequencies is accomplished by a simple slide switch. That switch and an on/off slide switch completes the controls on the radio – simplicity personified. The FM radio was originally coil tuned requiring hands on trimming in the manufacturing process. The new models utilize a programmable oscillator, which is manufactured by Cardinal Components. There were several reasons for going to the programmable oscillator: -more accurate tuning, -minimum frequency shift due to environmental influence, -faster manufacture, -last but not least, – TAMPER free

Before digital tuning was employed there were numerous problems encountered in the manufacturing of the radios. The analog components were subject to environmental

## HARC 2004-2005 Chairs

### Awards Chair

Lorraine MacPherson VA3NZ  
905-389-7653 va3nz@rac.ca

### Contesting/Property Manager

Rick Danby VE3BK  
905-544-3253 rdanby@simpatico.ca

### Education

Mardy Eedson VE3QEE  
905-648-0187 meedson@cogeco.ca

### Volunteer Examiners

Bernie Granby VA3XJ  
905-527-7175 berngran@hwcn.org  
and  
Lorraine MacPherson, VA3NZ  
905-389-7653 va3nz@rac.ca

### Field Day

David Bruton VE3DWJ  
905-383-9808 am983@hwcn.org

### Flea Market

Mardy Eedson, VE3QEE,  
905-648-0187 ve3qee@rac.ca

### Health/Welfare

Mary Urbanski VE3OGQ  
905-388-8383

### Hospitality

Bernie Granby VA3XJ  
905-527-7175 berngran@hwcn.org  
and  
Ilona Davidson VE3UGM

### Membership/Web

Emsley Mitchell VE3JAI  
905-627-0333  
eamitch@mcmail.cis.mcmaster.ca

### Newsletter

Mardy Eedson VE3QEE  
905-648-0187 meedson@cogeco.ca

### Public Liaison Co-Chair

Stanley Bolibruch VE3GFE  
905-528-4002  
Neil Galloway VE3VNG  
905-383-6986

### Repeater

John Vandenberg VE3DVV  
905-692-3802  
Jvandenberg@mountaincable.net

### Swap Net Control

Don Grisenthwaite, VE3DDQ,  
905-388-1365 ve3ddq@cogeco.ca

influence. Each unit had to be custom tuned since "in-circuit" programming was not possible. Also digital SINAD emulation had to be utilized to permit a computer to tune the receiver circuit.

There were several problems encountered in early production. ABS cement was used to seal the radio cases. Even performing this assembly in well ventilated areas lead to headaches and intoxication. The acquisition of a surplus SONIC welding unit eliminated the toxicity problem and improved on the integrity of the plastic radio case. Allen was also able to acquire surplus Adept Robotic Arms from the Eastman Kodak plant. By utilizing his computer engineering skills, Allan was able to implement automation to several parts of the production line.

Volunteers are welcome at the plant. Allan indicated that he needed someone who can design a compact dual frequency SW antenna that would be used in production of their SW radio. If you are interested in lending a hand or radio skills to Allan, please don't hesitate to call or visit him at:

Galcom International Inc., 115 Nebo Road, Hamilton, ON, L8W 2E1 (905-574-4626) <al@galcom.org>

**New Hams.** It gives us great pleasure to introduce Jim Sawadski VE3EEZ, Jocelyn Escalderon VE3BXZ and John Hudak VE3CXB to the HAM fraternity. Congratulations new radio amateurs. We will be listening for you on the airwaves.

**CERV Group.** Lorraine VA3NZ reported that there over 30 students that applied for the Basic HAM course at the Dofasco location. Only 16 were able to attend the course due to shift work. This is an commendable achievement for Lorraine and her associates in this program. It appears that there will be a number of new HAMS working in the SERVE Group this year thanks to their efforts.

**Contesting.** Rick VE3BK announced the Ontario QSO party contest, which will run from 7pm

Friday April 15, 2005 to 7pm Saturday  
April 16, 2005.

**Field Day.** Volunteers are requested to contact David VE3DWJ to help in the organization of our annual Field Day event. David and Emsley VE3JAI will be meeting with the RBC committee to discuss the usual arrangements for parking and space for the set up. There is some concern regarding the initiation of parking meters at our Field Day location. Alternate locations are under consideration by your executive and the Field Day co-ordinators. We are looking for Band Captains. If you were so inclined would you please contact David Bruton directly?

**Health and Welfare.** David VE3DWJ announced that Gerald Johnston is now out of hospital and at home. His present condition is not known.

**CWHM.** Two large signs have been erected at the museum radio room to attract the visitor's attention. Doug Last announced that there will be a reunion of the Mississauga Maritime Net participants on April 21, 2005 at the CWHM.

**Awards.** Nominations are required for the Order of Merit. Please send in your nominations directly for Lorraine VA3NZ. The award is given annually to the HAM who made a significant contribution to the community at large.

**Adjournment.** Motion by Roger VE3UFZ and seconded by Rick VE3BK that the meeting be adjourned at 10:00pm. Voted and unanimous.

## Ontario QSO Party

*Saturday April 16th 18:00 UTC to  
Sunday April 17 18:00 UTC 2005. If  
you are not participating with the  
VE3DC Contest Group at the Contest  
Site, then listen on your rig at home and  
give the contesters a contact. You don't  
have to be a competitor. Anyone can  
throw "a bean in the pot" by responding*

*to a call. Here are a few of the basics  
from the contest web site:*

The Ontario QSO Party is open to all amateur radio operators regardless of license class and shortwave listeners world-wide.

**Objective:** For Ontario stations to contacts as many amateur radio stations as possible on as many bands as possible world-wide.

For stations outside Ontario to make as many contacts with Ontario amateur radio stations as possible.

**Frequencies:** (Phone/CW) All HF Bands 160-10 meters with the exception of the WARC bands. All VHF/UHF Bands.

### Suggested Manner of

**Operation:** Work HF SSB on the hour, work HF CW on the half hour, work VHF/UHF (either SSB/CW or FM Simplex) at 15 minutes past the hour.

**Use of FM:** Operators can not use repeaters for either contest contacts or for soliciting contacts. Please keep the FM Simplex calling frequency of 146.520 MHz. clear.

**Categories:** Multi-operator, Single Operator Low Power (under 150 watts HF and under 50 watts VHF/UHF), Single Operator High Power (over 150 watts HF and over 50 watts VHF/UHF), Single Operator Single Band, Single Operator HF QRP (under 5 watts), VHF/UHF Band-Restricted (for those with VHF/UHF privileges only) CW-only, SSB-only or Mixed Mode, SWL, Mobile/Rover.

A mobile station is a station that moves between multiplier areas operating from a vehicle (either stopped or in motion) only using antennas that have the capability of being used while in motion.

A rover station is a station that moves between multiplier areas but may operate using antennas that do not have the ability to be used while the vehicle is in motion.

Mobile and rover stations are encouraged to sign "/Rover" or "/R" as the case may be so that other

operators can anticipate their moves to a new multiplier area.

**Exchange:** Ontario stations send signal report and county, district, regional municipality or city in the case of the Cities of Toronto, Sudbury, Ottawa, Hamilton and Kawartha Lakes The "Townships" of Haldimand and Norfolk are considered a single multiplier. Non-Ontario stations send signal report and Canadian province/territory, U.S. state, or DXCC country name.

**Scoring:** Ontario stations work everyone. Non-Ontario stations work Ontario stations only. Mobile/Rover stations may be worked again when they change multiplier areas. SWL's only log Ontario stations.

Score 1 QSO point for each station worked on SSB per HF band. Score 2 QSO points for each station worked on CW per HF band. (You may work a station TWICE per HF band, once on SSB and once on CW). On the VHF/UHF bands you may only work a station ONCE per VHF/UHF band regardless of mode. Score 5 QSO points for each station worked per band.

Score 10 QSO points for each contact made with ODXA club station VE3ODX and RAC Ontario club station VA3RAC. (You may work VE3ODX and VA3RAC twice per HF band i.e. SSB & CW and once on each of the VHF/UHF bands).

Ontario stations claim 1 multiplier point for each of the 48 multiplier areas worked on each band. Ontario stations also claim 1 multiplier point for each Canadian province/territory, U.S. state and DXCC country worked on each band.

Non-Ontario stations and SWL's claim Ontario multipliers only.

Total Score = Total QSO points x total multiplier points.

**More Information:** go to <http://www.odxa.on.ca/oqp/oqprules.html>

## Propagation

The weekly propagation report is written by Tad Cook, K7RA and published by ARRL in their weekly e-bulletin. This report has a couple of web page addresses for more information.

Propagation Forecast Bulletin 12  
From Tad Cook, K7RA Seattle, WA  
March 25, 2005 To all radio amateurs

Seasonally this is a great time for HF propagation, as the Northern Hemisphere passed into spring last Sunday. But sunspot activity is low as we slip toward the bottom of the cycle, still estimated at nearly two years away.

The weekly average of the daily sunspot number slipped over 16 points from last week to 44.3. The daily average of solar flux was down over 12 points to 92.1. Geomagnetic A and K indexes showed stable conditions, but slightly unsettled on March 19. There were many periods with the K index at zero or one, even at high latitudes. For the entire day on March 22, the College K index from Fairbanks, Alaska was zero, which produced an A index for that day of zero. This was even slightly lower than the planetary or mid-latitude values for that day.

The forecast for this week shows more of the same, with solar flux slipping below 90. A solar wind stream may cause some unsettled to active conditions. The U.S. Air Force shows unsettled to active conditions with a planetary A index around 15 for March 27-29. RWC Prague shows unsettled to active conditions for March 26 and 27, with unsettled conditions for March 25, 28 and 29.

Noel Petit, WB0VGI, sent a link to a magnetometer in Minnesota which is on a rural farm north of Minneapolis. The approximate location is northwest of Cambridge, Minnesota at 45.616 degrees N, 93.312 degrees W. You can observe the output in terms of K index from a server at Augsburg College at <<http://space.augsburg.edu/ucla/Pictures/kIndex.png>>. This is similar to a K index from NOAA generated by 9 magnetometers in North America at

## Important points

### Executive Meetings

HARC Executive committee meets each month, except July and August, at Mohawk College in room E031B. All members are invited to attend and participate. The meetings are on the Tuesday following the club General Meeting each month.

### VE3NCF [146.760- & 444.075+]

HARC operates VE3NCF repeater, located atop the Niagara Escarpment. It's open for use by all Amateurs. Special features are a privilege of membership.

### Nets

HARC "check-in net" is held every Tuesday evening, except July and August, at 7:30pm. HARC "swap net" follows at 8pm. The ARES net is held on Thursdays at 8:00pm. All contacts are welcome.

### Examinations

Amateur radio licence examinations are conducted the second Wednesday each month, except July and August. Contact the voluntary examiners to make an appointment. Each test \$5.

### Membership Information

Club membership, including all privileges, is \$25 per person, per year, Sept 1 to Aug 31. Additional membership, for immediate family living in the same home, is \$1 per person. One newsletter sent to each address.

### The Hamilton Amateur

The Hamilton Amateur is published ten times each year (not in July or August). Deadline for article submission is the *last Saturday* of the month for the next month's issue. Preferred format is .txt file. Articles will be checked for spelling and grammar, but the author is responsible for the factual content. E-mail submissions to Mardy, VE3QEE <[ve3qee@rac.ca](mailto:ve3qee@rac.ca)>

<[http://www.sec.noaa.gov/rt\\_plots/kp\\_3d.html](http://www.sec.noaa.gov/rt_plots/kp_3d.html)>. The Cambridge K index gives a nice localized indication of real time geomagnetic activity at that latitude in the upper Midwest.

## Applying For A Telegraph Operator's Job

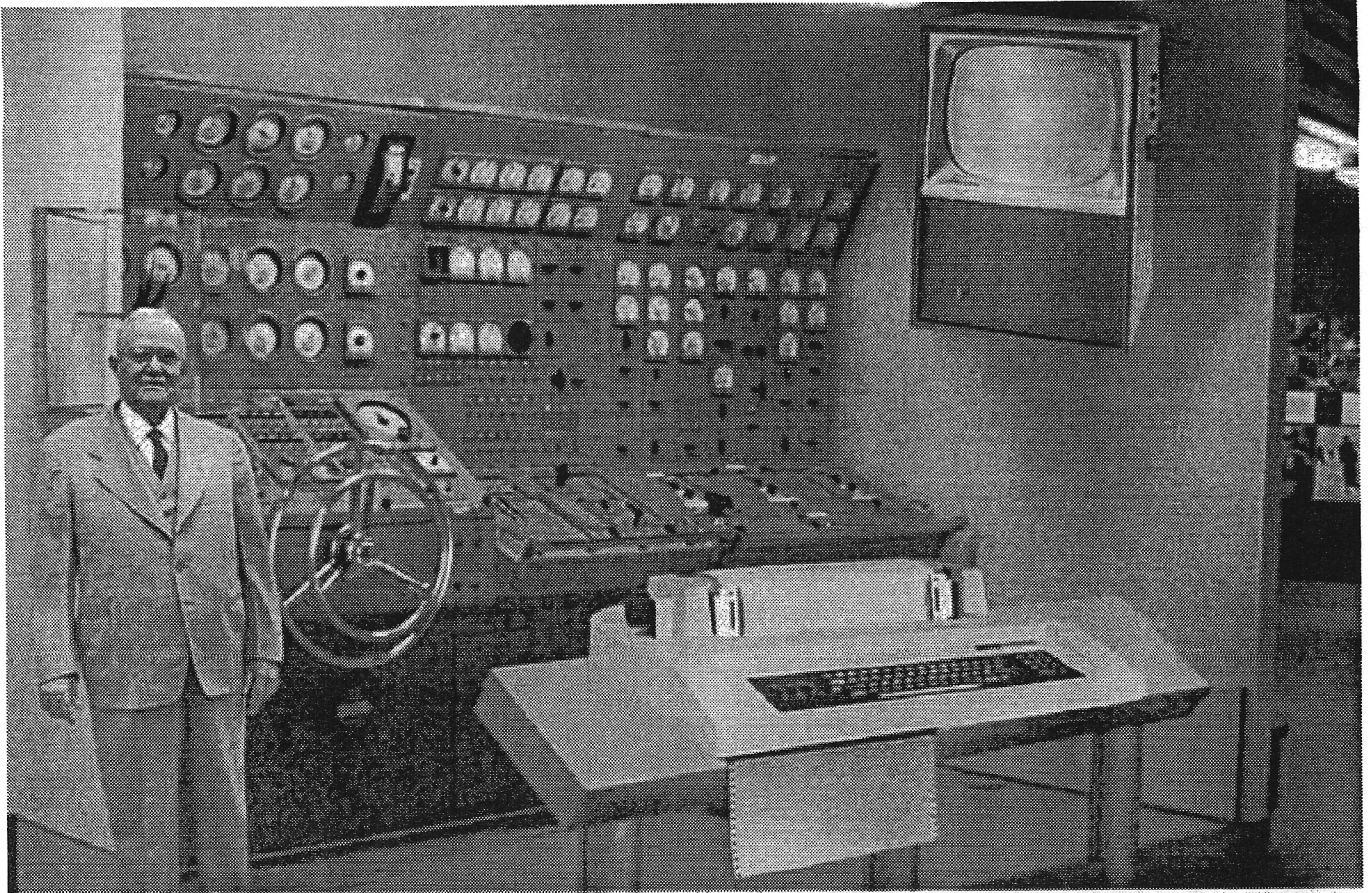
A friend forwarded this interesting story. Source unknown. de Tom N4KG

Back when the telegraph was the fastest method of long-distance communication, a young man applied for a job as a Morse Code operator. Answering an ad in the newspaper, he went to the office address that was listed. When he arrived, he entered a large, busy office filled with noise and clatter, including the sound of the telegraph in the background. A sign on the receptionist's counter instructed job applicants to fill out a form and wait until they were summoned to enter the inner office.

The young man filled out his form and sat down with the seven other applicants in the waiting area. After a few minutes, the young man stood up, crossed the room to the door of the inner office, and walked right in. Naturally the other applicants perked up, wondering what was going on. They muttered among themselves that they hadn't heard any summons yet.

They assumed that the young man who went into the office made a mistake and would be disqualified. Within a few minutes, however, the employer escorted the young man out of the office and said to the other applicants, "Gentlemen, thank you very much for coming, but the job has just been filled." The other applicants began grumbling to each other, and one spoke up saying, "Wait a minute, I don't understand. He was the last to come in, and we never even got a chance to be interviewed. Yet he got the job. That's not fair!"

The employer said, "I'm sorry, but the last several minutes while you've been sitting here, the telegraph has been ticking out the following message in Morse Code: 'If you understand this message, then come right in. The job is yours.' None of you heard it or understood it. This young man did. The job is his.



*Scientists from the RAND Corporation have created this model to illustrate how a "home computer" could look like in the year 2004. However the needed technology will not be economically feasible for the average home. Also the scientists readily admit that the computer will require not yet invented technology to actually work, but 50 years from now scientific progress is expected to solve these problems. With teletype interface and the Fortran language, the computer will be easy to use.*

## A Prediction Made In 1954

See picture above. Thanks to Fred, VE3GCP for passing along the picture with its explanation.

## Presentation by ARRL CEO David Sumner

On March 18th, in a statement delivered to the Columbia Institute for Tele-Information Alternative Broadband Platforms panel David Sumner criticized the Broadband Over Power Lines concept on the grounds that the technology inherently has the potential to interfere with radio receivers. While the interference might be reduced

such measures would be too expensive.

David Sumner illustrated his remarks by showing a video in which a mobile Amateur Radio HF station was shown picking up interference from BPL signals while being driven block after block in one of the locations where the technology is being tested..

Quoting briefly from his presentation he stated:

"Here is an important point. You may hear BPL proponents say that their equipment and systems meet the FCC emissions limits. That is a necessary, but not a sufficient condition for legal operation. If a BPL system exceeds those limits, it is in violation even if no harmful interference results. The problem is that those limits were originally set with intermittent, narrowband, point

source radiators in mind. Applying them to a high duty cycle, broadband emitter that is attached to a long conductor such as a power line is like saying that there's no difference between the noise of a helicopter that goes over your house once a day and one that hovers over your back yard all the time. You wouldn't complain about the first, but you'd raise quite a fuss about the second."

To read the full text of his talk go to the web at: <http://www.arrl.org/tis/info/HTML/plc/presentations.html> and select the option **(New) BPL Presentation at ... by Dave Sumner, K1ZZ**.

You can also view the demonstration video by visiting the web at: <http://www.arrl.org/tis/info/HTML/plc/> and selecting the option **See the video of BPL interference**.