



FEBRUARY 2023

Volume 12 Issue 2

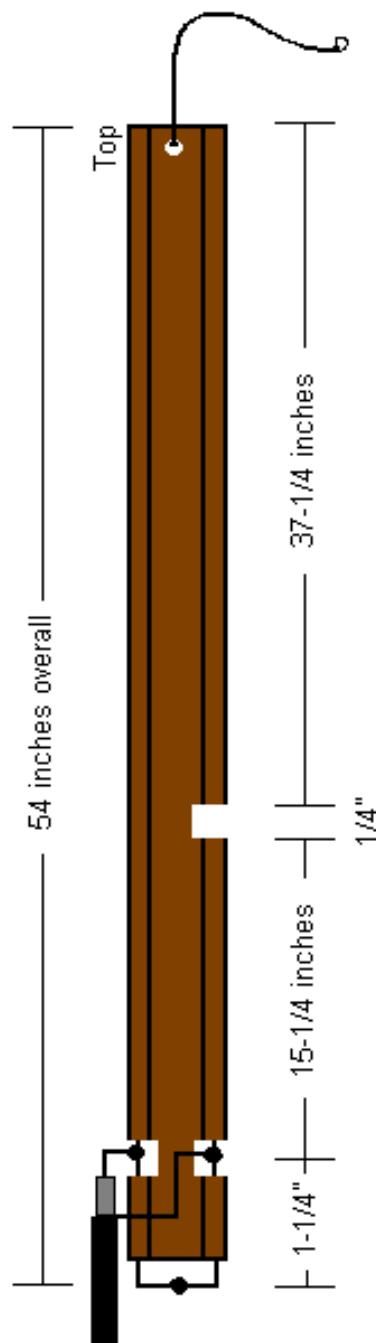
VE3ERC-LUB

President: Ted VE3TRQ
Vice-President: Frank VA3FJM
Secretary: Kirk VA3KXS
Treasurer: Paul VA3PDC
Trustee: Wes VE3ML
QSL Manager: Kirk VA3KXS
Repeater Trustee: Wes VE3ML
Website Admin: Ted VE3TRQ
Lighthouse:
Maple Syrup Display:
Newsletter: Bob VE3IXX
ERC Website: <https://ve3erc.ca>

ERC REPEATERS

UHF 444.700 + TONE: 131.8
UHF 444.700 + TONE: 123.0
VHF 147.390 + TONE: 123.0
VHF 147.255 + TONE: 131.8
EMERGENCY SIMPLEX: 146.550
UHF-IRLP node 2404,ECHOLINK VE3ERC-L
VHF- IRLP node 2403,ECHOLINK VE3ERC-R

In an emergency, tune
Into our repeaters,
UHF 444.700 or
VHF 147.390 or
HF 3.755 LSB or
Simplex 146.550
For coordination and
assignments.



A J-Pole made from 300 ohm Ladder line.



Radio Amateurs
of Canada

THE PREZ SEZ!

This club is Radio-ACTIVE
This club is Radio-ACTIVE

President's Update for February 2023

It's a good thing that the COVID-19 pandemic got us all comfortable with Zoom and other forms of getting together without being physically present. This is the second month in a row that the weather has prevented us from meeting in person - hopefully in March the weatherman (weather person?) will cooperate and allow us to meet in the Firehall in Elmira again.



I'm certainly not lamenting the availability and use of video conferencing for our meetings. Zoom has allowed us to welcome guests and presenters from pretty well anywhere, and allowed our members and friends to attend meetings even if they were unable to travel. We have continued to have regular Wednesday morning Zoom social sessions to keep in touch when not able to gather outside or in a convenient indoor venue in winter or cold weather. And of course using video conferencing allows our Snow Birds to participate!

Amateur radio is all about communicating, and we have certainly embraced some newer ways of doing that.

The Elmira Radio Club is still looking to its membership to fill two executive positions for the upcoming year: President and Secretary. If you want to have a significant say in the direction of the Club, and have a yearning to serve the membership in some way, consider contacting the nominating committee (Rich VE3DCC, Tom VE3DXQ) and volunteering your services.

73 Ted VE3TRQ

CONTRIBUTIONS TO VE3ERC-CLUB NEWSLETTER

Do you have an article you'd like to submit? Or photos? Do you have any comments you'd like to make?

Perhaps you'd like to share a photo of your shack, a special project you are working on or a special interest!

SEND THEM TO:

Bob bobve3ixx@gmail.com
(519-787-2279)



WEDNESDAY NITE NET CONTROLLERS

JANUARY 18 - FRANK VA3FJM

JANUARY 25 - M E E T I N G

FEBRUARY 1 - TOM VE3DXQ

FEBRUARY 8 - TONY VE3DWI

FEBRUARY 15 - BRIAN VA3DXK

FEBRUARY 22 - M E E T I N G

MARCH 1 - BOB VE3IXX

MARCH 8 - TED VE3TRQ

MARCH 15 - BILL VA3QB

MARCH 22 - M E E T I N G

MARCH 29 - KIRK VA3KXS

APRIL 5 - REG VE3RVH

APRIL 12 - FRANK VA3FJM

CORRESPONDENCE

Tom VA3VRA wrote the following:

It's alive!!! After a couple of years of being totally dead, I managed to poke around enough to resurrect the Sony ICF-2010 receiver. I bought it back in 1987 and travelled the world with it. It was my contact with home when I worked in Africa and the Middle East. It's quite a capable receiver: AM/HF .5-30MHz /FM//Air Band, AM/LSB/USB/FM, synchronous tuning, clock and radio wake-up, timer LCD dial w/ backlight, 30 station and mode memory, operates on 3 'D' cells or AC 'wall worst,' headphone and line level jacks, external antenna jack. It went completely dead and after a lot of troubleshooting it turned out to be the DC to DC voltage converter section. I bypassed the converter and 'hot-wired' in an external USB charger/power supply.

It's rated .7V higher than the 4.5VDC that the receiver requires, but it's the quietest DC PS that I could think of (otherwise it eats batteries) and it seems to be working just fine. So it's alive, although I can't run it on any internal batteries. If I was brave, I could glue the USB power supply into the battery compartment and run an AC cord in to power it. But that would be kind of 'Rube Goldberg' affair.



My project for next week is this 1978 Sony TC-D5M pro cassette deck. I haven't used it since around 1985. I'm going to replace the belts and then give it a clean and lube job. They're selling for \$350 to \$1,000 on eBay. I originally bought it in Tokyo.

Cheers

Tom VA3VRA



**From
the**

PAST



This picture is a recreation of that emergency transmitter that the technician built during the flood in Holland. [Ed. Note: See story in January Newsletter]

73 Tony VE3DWI

Winter Field Day

At Belwood Lake Conservation Area

By Rod Murray VA3MZD

Today, I set up my ice hut at Belwood Lake for WFD near where I normally set up for POTA. On land! It took me about 45 minutes to set up the hut, table, chair, raise the antenna and set up the radio. QRP for a contest such as this is difficult as it's hard to be heard between so many stations, I quickly discovered. I operated as a 10scar.

I then decided to go up and down the bands and hunt. It often took me a few tries to be heard. I got 4 contacts on 20, 2 on 40 and 1 on 15 for a total of 8. With the 3 band multiplier I got 24 big points. Add the bonuses for Outdoor, battery power, antenna and away from home, 2000 bonus points, my total is 2024!!

I did add the club name to my submission so we can benefit from my huge numbers! If only I'd got the VE4 station I was trying to work near the end on 10m!
I did turn my ice hut heater on later in the afternoon as it started to get chilly in the hut around 4 and I stayed until after 5.

I heard a guy on 2m 146.520 calling CQ WFD but he couldn't hear my replies. I tried on both the FT3D and the FT-818 but couldn't raise him on either. Could have had that band too, plus multiplier.

Ah well! I enjoyed my 3 hours of radio.



I wonder what battery life would be at these temperatures? I had no trouble with the battery over the 3 hours.

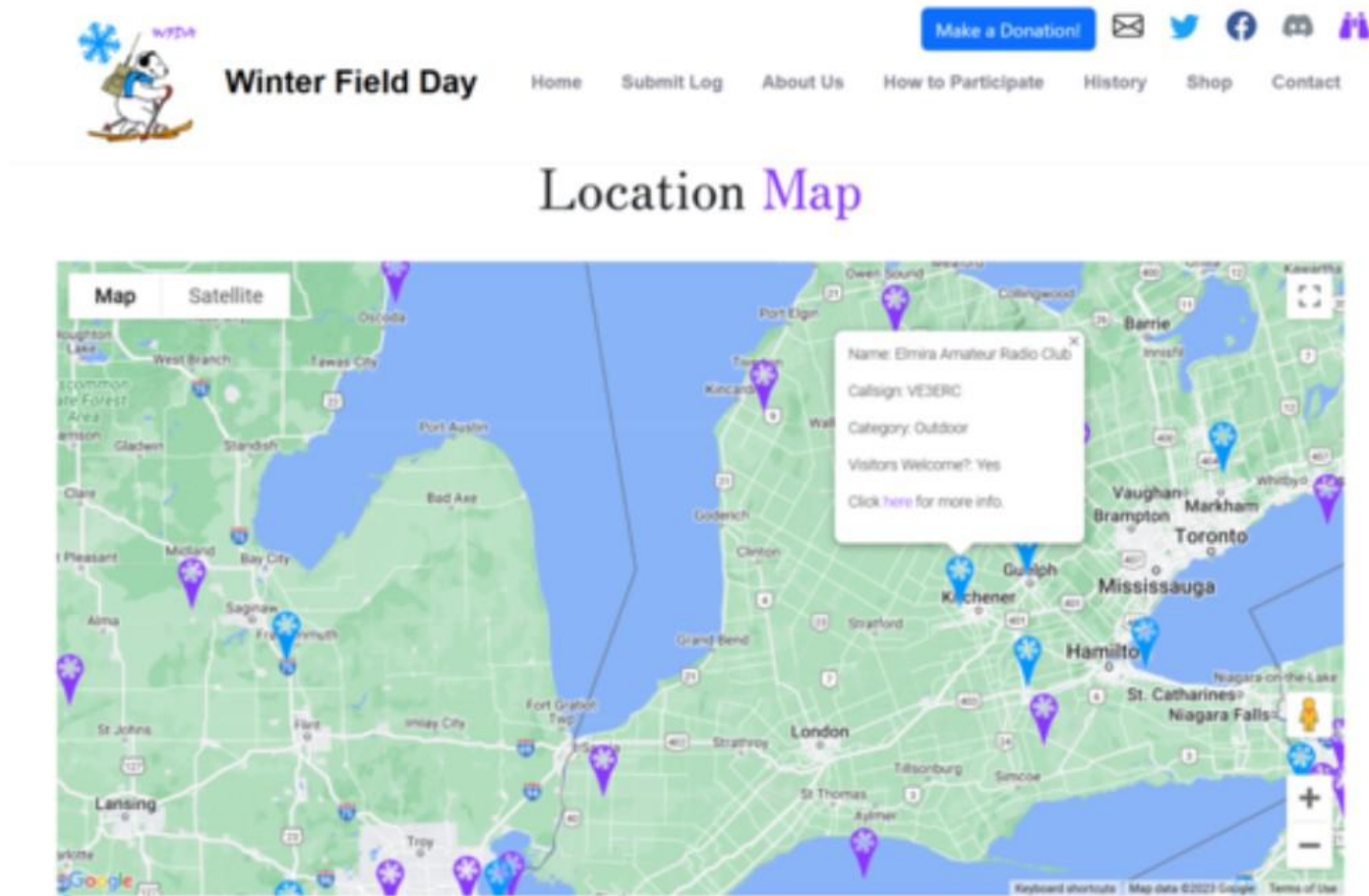
Based on my calculations I should get 3.5 hours in my 3Ah battery. Will hook up my battery monitor next time I do POTA and see what the radio actually draws.

Here's my calculations. Check my math please!

Bioenno 3Ah Battery

	Power Consumption A	Assumed Time %		
Transmit	2.4	0.20	0.48	
Receive	0.450	0.80	0.36	
			0.84	.84 A/hr
		Battery life at .84 A/h	3	Ah
			0.84	Divided by
			3.57	Hours

73 Rod VA3MZD, Fergus, Ontario



Paul VA3PDC wrote the following:

The Elmira Amateur Radio Club was "On the map" for Winter Field Day 2023. Ken VE3KCY, John VE3JXX and myself, Paul VA3PDC spent WFD at Ken's sugarbush lot near Wallenstein ON.

A good time was had by all and we even managed a few contacts during the event hi hi

....

All Keyed Up by

Dan Romanchik, KB6NU

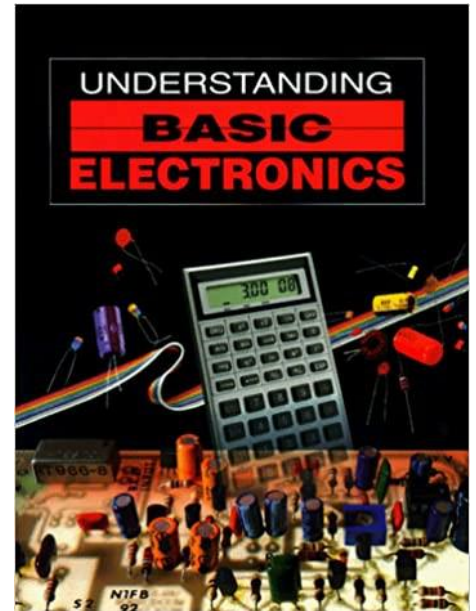


A Nice Find at the Local Library

We have a really great library here in Ann Arbor. It's won "library of the year" honors in the past, and it continues to do a fabulous job. In addition to books and magazines and music, you can borrow stuff like telescopes, energy meters, thermal cameras, and a bunch of other cool stuff.

One of the best features, however, is the Friends of the Library book sale. Ann Arbor is home to the University of Michigan, and as you might expect, people here have a lot of books. So many books that we don't have enough shelf space to store them all. So, when shelf space needs to be freed up, many of these books get donated to the Friends of the Library and get sold in the Friends' shop. This shop is open every day, and you never know what you might find.

I've purchased many technical books from the Friends of the Library book shop. My latest find is *Understanding Basic Electronics*, 1st edition. I snagged it for two dollars. I would never have purchased this book new. After all, I think that I'm pretty well versed in basic electronics. But, for \$2, I couldn't pass it up.



I'm glad I didn't. It explains some of the basic concepts in ways that makes these concepts understandable to newcomers. For example, instead of just saying that the phase angle between voltage and current in a capacitor is 90° , it explains why this is:

It appears that capacitors don't like the applied voltage to change. They react to a voltage change as to oppose that change. When the voltage is increasing, they take energy from the voltage supply. You could view this as an attempt to prevent the voltage from increasing. When the voltage is decreasing, the capacitor returns stored energy to the circuit. Think of this action as working to prevent the voltage from decreasing.

There are similar explanations of concepts such as resonance and how transistors are made and how they work. I'm hoping that by reading this book, I'll come up with new ways to explain how some of this stuff to the folks taking my ham radio classes.

Before you buy the book, note that there's nothing in the book about antennas and very little about electronic circuits. That's because this book is really devoted to the basics of electronics.

Also note that there is a second edition that was published in 2010. I haven't seen that edition, but I'd guess that it's even better than the first.

ERC Elmira Radio Club Inc. - Meeting Minutes

February 22, 2023

<u>Attendance - Members</u>	<u>Attendance - Officers</u>
Bill Reid VA3QB	Ted Rypma VE3TRQ – President
Colin Jones VA3BLW	Paul Curtin VA3PDC – Treasurer
Dave Schneider VA3DAS	Kirk Sinclair VA3KXS – Secretary
Graham Bauman VE3BYP	
Jack Sinclair VA3WPJ	<u>Guests:</u>
James Litwiller VE3JLC	None
Jim Heidmiller VE3JMU	
John Linnerth VE3OVO/VE3PT	
Ken Buehler VE3KCY	
Linda Willis VE3CZ	
Marianne Lelieveld VE3MXT	
Mike Willis VE3FE	
Reg Horney VE3RVH	
Rich Clausi VE3DCC	
Rod Murray VA3MZD	
Roger Sanderson VE3RKS	

Meeting Location: Zoom only due to weather conditions

Meeting Minutes

1. Call to Order:

- a. Meeting was called to order by President, Ted Rypma VE3TRQ at 7:30 pm and he welcomed everyone present.

2. Presentation

- a. Handheld & mobile radio configuration using computer-based tools by Ted VE3TRQ.

3. Roll Call:

- a. A roll call established those present and it was noted quorum had been attained.

4. Approval of Agenda:

- a. Ted displayed the agenda onscreen for those in the room and on Zoom.
- b. MOTION to approve the agenda as circulated.

Motion By: Kirk VA3KXS

Carried

5. Secretary Report: Presented by Kirk Sinclair VA3KXS.

- a. Correspondence Received:
 - i. None
- b. Minutes of the January 25, 2023 meeting were emailed to members on the same day.
 - i. One correction was noted – Ted VE3TRQ was only re-imbursed for the microphone & computer, not the Yaesu HRI-200.
- c. MOTION to approve the revised minutes of the January 25, 2023 meeting.

Motion By: Kirk VA3KXS

Carried

6. Treasurers Report: Presented by Paul Curtin VA3PDC

- a. Details of transactions for the month of January were displayed on the screen.
- b. Bill VA3QB requested details of our RAC Insurance policy, the deductible and how coverage works. Kirk VA3KXS to find the details and send to members.
- c. MOTION to approve the financial statements for January 2023.

Motion By: Paul Curtin VA3PDC

Carried

7. Presidents Report:

- a. Ted VE3TRQ lamented the weather conditions which have again prevented us from meeting in person. At least we have Zoom which allows us to still have a meeting and talk together.

8. Committee Reports:

- a. Repeater Technical Committee - Bill Reid VA3QB / Tony Lelieveld VE3DWI
 - i. Ted still has the Alma repeater in his basement and needs to make arrangements to move it to the Alma location.
 - ii. Tony would like to mark the Alma duplexer and put a serial number on it.
- b. Club Equipment Review Committee – Frank VA3FJM / Tony VE3DWI / Kirk VA3KXS
 - i. Tony believes some of the items on current inventory have been sold. A Zoom meeting is needed with Reg, Tony, Frank & Kirk to review.
 - ii. Some question of what equipment the club actually needs to keep, such as SWR meters, etc. Are they really necessary? We will need to make a decision on this subject after the review is complete.
- c. Nomination Committee - Rich VE3DCC / Tom VE3DXQ
 - i. Rich reports there are currently no nominees for President or Secretary, but does have the following nominees for other positions:

1. Vice-President - Frank VA3FJM
 2. Treasurer - Ted VE3TRQ
 3. Trustee - Wes VE3ML
- ii. If anyone is interested in nominating themselves for any of the positions, please let Rich VE3DCC or Tom VE3DXQ know.

9. Unfinished Business

- a. Winter Field Day Report - Paul VA3PDC
 - i. Paul VA3PDC displayed a slideshow of the participants and their setups at Ken VE3KCY's sugar bush location. A good number of contacts were made, everyone survived Paul's chili and had a good time.
 - ii. Rod displayed a photo of his winter field day setup as well
- b. Spring & Community Events
 - i. Maple Syrup Festival - Rich VE3DCC
 1. Kyle was contacted and did offer the stage area for Friday night and Saturday while they are selling pancakes.
 2. Another option is to pay \$30/day for a table. The Club needs to determine if the cost is worth the benefit (such as keeping our name out in the public). It was noted that many of the attendees are not locals anyway.
 3. Ted asked if there were any volunteers who wished to go and setup equipment - there were none, which settles the issue.
 - ii. CAER
 1. This has been a good event in the past, with a lot of engaged students. We have not seen any mention of a CAER event online this year.

10. New Business

- a. Other Community Outreach Opportunities
 - i. Rich VE3DCC suggested engaging with the Elmira Scouts, as it may be possible to generate some interest in Amateur Radio with events such as JOTA, etc. Rich is investigating if there is interest from the Scout group.
 - ii. Bob VE3IXX is working with a group of home schooled children who are working on their amateur radio licenses. This another excellent community outreach effort, which the club would like to hear more about.

11. Announcements

- a. The next meeting will be held Wednesday, March 22, 2023.

12. Adjournment

- a. MOTION to adjourn at 8:56 pm

Motion By: Bill VA3QB Carried

Mini HF transceivers for 2023

by Daniel Romila, VE7LCG

Just to clarify the title: the HF transceivers presented here are available in 2023 but many are older model transceivers.

Due to space constraint, the desire for greater mobility, plus cost constraints make more and more radio amateurs to want to have smaller equipment which possibly can do all modes on many more bands. This would allow having one transceiver both for home and field operation. The SDR (software defined radio) design permits the fulfilling of such desires, and also can be connected to a big screen, big computer if wanted, and giving the feel of working on big and comfortable equipment. There are many hybrid combinations and also "classic" versions that allow obtaining a big punch in a small case. I have posted, in this article, pictures taken from the official manufacturers'/vendors' websites.

I would just start with Elecraft KX2 transceiver for 80 meters up to 10 meters band, which can generate up to 12 Wats, has an internal battery of 2600 mA, weights around 0.37 kG and has an optional automatic internal antenna tuner. When I verified the Elecraft website there was a waiting list for buying this transceiver.

And while discussing radios that are legendary such as the Elecraft KX2, it should be good to remember another legend, the Yaesu FT817, which is still available to buy in version FT817ND:



The newer model was the FT818, which had an internal battery and max 6 Watts output on the 160-10 meter HF bands, plus the 6 meter, 2 meter, and 70 cm bands (like the FT817 has).

Unfortunately, immediately after writing this article I found out about the following announcement made by YAESU:

"Please be informed that the production of the FT-818ND and FTM-400XDR will be discontinued. We are forced to make this unfortunate decision due to difficulty we are having with the availability of some components. We appreciate your long-term patronage of the FT-818ND and FTM-400XDR."



ICOM 7100 is the mobile offer available now from the manufacturer's website. It knows HF, VHF and UHF and it has a 2 modules construction, where the main RF unit weights 2.3 kG and the controller weights 0.5 kG. This mobile offer is somehow disappointing in comparison with the old ICOM 7000, still available on the Canadian ICOM website (right picture):



Kenwood continues to let us down, when it is about offering us a small mobile HF rig.

(tr)uSDX 5-band Multimode QRP



From the not so known names that deserve mentioning, is the (tr)uSDX transceiver, which is popular because it costs in the range of \$175 USD.

There are many clones of this (tr)uSDX available on Chinese websites, which do not work well on SSB transmission. The main advantage of such (tr)uSDX transceiver is the price and the main disadvantage is also the same. I say this because the moment one enters in the price range of hundreds of dollars there are always many more cheap offerings; more expensive, but with a higher end look and more features.

By DL2MAN/PE1NNZ

One such offer is the XIEGU G106C, a 5Watts HF only transceiver, capable of SSB transmission. It costs around \$375 CAD (=280 USD).

By the way, is XIEGU one of the big manufacturers of radio amateur transceivers or not? I think it is, and maybe XIEGU products should have been in this article in the first section of the big names, not in this second section.

So, the question a radio amateur buyer can put to himself/herself is if to spend some \$230 CAD for (tr)uSDX or some \$375 CAD for XIEGU G106C? A short look at the last two pictures would generate a response from readers, whatever that response should be.





And if we are already in the \$375 CAD range, we can bump ahead at \$500 CAD (=374 USD), shipping and taxes included, for a MCF well know transceiver, which has passed through many versions and upgrades. Some versions have a battery included inside, some not, and prices vary quite a bit..

If we add some 50% more of the previous price, one can get into more elaborated toys, like the KN-990C HF All Mode 0.1~30MHz SSB/CW/AM/FM/DIGITAL IF-DSP CB 11M 27M Amateur Ham Radio Transceiver (below left) or the XIEGU G-90, (right) which is cheaper.



The KN-990C transceiver has a dedicated 100 Watts amplifier, the KP-990, shown on the left.

The observation here is that the big names like Yaesu and ICOM offer mobile/portable transceivers which also work in the 50 MHz, 144 MHz and 430 MHz bands.

But there are much less “big name” transceivers, capable of 18 Watts output, with automatic antenna tuner and capable of connection with a big computer screen. Chinese websites sell the transceiver under the name Q900 and Ailunce HS2 (which seems to be the original). It is now at the third iteration.

It costs the same as KN-990, around \$750 CAD (=561 USD), shipping and taxes included, as of January 2023.

I need to end this article by mentioning I am not affiliated neither with any manufacturer, nor with any vendors. This article is just a summarizing of my own research for small HF (and not only HF) transceivers.



Tom VE3DXQ sent this out as a warning. He calls it the:

Ham Radio Demon who tempts you to buy more stuff.

