

The Dummy Load

Official Bulletin of The Cambridge Amateur Radio Club (SWARC Inc)
Serving the community since 1964

Club Executive and Volunteers

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Tom Franks VE3MAH

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VE3SWA

Bob Kernohan VE3MF

VE3SWR

Tom Franks VE3MAH

Web Master

Club Contest Coordinator

Steve Nyul VE3USP

<http://www.cambridgeham.ca>

Club Net

Every Wednesday on VE3SWR at
9 pm. Local time.

All comers are welcome.

VE3SWR is an open repeater
146.790 MHz -600 KHz offset



VE3SWA
DXCC HONOR ROLL
(335/335)
WAZ, WAC, WAS.

Next Meetings

Second Monday* of the month
Preston Arena Boardroom at

7:30pm

June 13, 2016

September 12, 2016

October 17, 2016

November 14, 2016

December 12, 2016

Visitors are always welcome

Editor's Column

It is with great sadness that I start out this column this month. On Wednesday May 25th our long time friend Mike VA3MP passed away a short time after signing off of the morning gathering. See a short tribute to Mike further down the bulletin.

As you will see from the minutes of the May meeting, club meetings for the remainder of 2016 will begin at **07:30** local time.

Backing up by 30 minutes is intended to give us more time for some social time after the actual business portion of the meeting. As well, coffee is back. Since we did not discuss the cost per cup, coffee for the June meeting will be paid for by your editor. As to snacks, several members offered to supply – something.

We welcome new member Mike VE3EAX. Hopefully we will see him out to meetings and be able to assist him with any and all technical and operating questions he may have.

The June meeting as always is the time to make our FD plans. While Steve VE3USP sent out a spread sheet to determine operators, setup, barbeque etc. It did not go to all members. Field Day 2016 is the weekend of June 25th and 26th. Please make your intentions known to Steve (contest coordinator) as soon as possible so that VE3SWA will be heard once again. See further down for basic rules and setup of FD.

The club call VE3SWA has now been transferred to Bob VE3MF. Should you want to use this call from your station, contact Bob to make sure it is not in use. Responsibility for use includes presenting a completed log to Bob on a monthly basis. (exception -- club sponsored contests). We will need to discuss in the fall how we will deal with the deluge of QSL requests that result from the usage of VE3SWA.

This will be the last edition of the Dummy Load until September. Please submit what you might like to read about.

Tom ve3mah@bell.net

Remembrances of our friend Mike VE3LNM/VA3MP

sk May 25th 2016



Notes from my visit with Ibi and Mike Pap on May 24, 2016. by Bob VE3MF

I had the opportunity for this visit and am grateful for the opportunity. Mike had Steve VE3USP over on the previous weekend to take down the tower. Mike had mentioned that they were waiting for the right time. Mike was pleased that the tower was down and was busy getting things organized for clearing out.

I had arranged to buy his rotator and came by at just about 3:00 PM. We chatted in the drive for a few minutes and then went in via the garage. He had just repaired the garage door drive gear with one that he acquired from Kijiji. We went in and met

with Ibi right away. We chatted for a few minutes and discussed the latest knee operation that she had a few months past. She was doing very well with the knee and felt that the doctors had done a very good job. Mike gave me a tour of the basement, showed me the bathroom that he had finished a while back, not fancy, but just what he wanted. He then showed me his workshop that was all sealed, so that no saw dust could make its way into the rest of the house.

We then went into his shack and he gave me a tour of his rig and amplifier and we spent time discussing the traps that he built and the different techniques he used. He did a very good job and was proud of the traps he built. There is a link on the club web site for his traps. He showed me the DSP tuning on his Kenwood TS-870, he was very happy with the radio. We went up stairs and into his back yard. The tower was taken down a few days earlier and he showed me the dipole that he had on a short tower by the house. This dipole is a parallel or fan dipole and was working well for him. The base of the old tower, standing about 2 feet tall in the concrete, was working very well as a flower pot holder. It was a large flower pot.

We went into the house and the three of us sat and chatted. Ibi made us coffee and we had a great conversation. They had some brownie chips from Florida and Ibi made some semi-sweet, what looked like edges of waffles. Mike and Ibi emigrated from Europe in the 1968, originally arriving in Montreal and then moving on to Toronto right away. A large part of the discussion was about the incredible difficulty they had coming to Canada and not speaking English. Ibi spoke three languages and Mike spoke two, I believe, but neither spoke English. I will take the opportunity to say how strong both Ibi and Mike are, coming to Canada, struggling, growing as a family and being a strong part of our great country. We continued to sit and chat, but the time came that I needed to leave. Mike then said how he was going to do some work on his dipole so he could be using 80 metres and be able to chat with me and others when I am at the cottage. Mike also said how much fun it was for us to sit and chat and that we should look forward to doing this many times when I come back from up north in the fall.

We then visited the hallway that had many pictures and collages that their daughter Heidi had put together. I was so happy to see the excitement of both Ibi and Mike looking at all these pictures.

I want to express how blessed I am to have had the opportunity to visit with Mike and Ibi at this very special time.

Bob

Remembering --- Tom VE3MAH



Many of us met Mike for the first time in 1994 when he joined our club, having just moved to Cambridge from Toronto.

Mike got right into the club activities of the day and for the next 22 years was seen most every year, microphone in hand, at our annual Field Day event diligently making contacts.

His wife Ibi VA3IBI always supplying the rollout bed and other necessary supplies to make the weekend as comfortable as possible. I believe she also supplied the custom made FD Flag.

Mike liked to operate HF on both phone and the digital modes and received the club's Member Award for the most DX in a calendar year for 2005, 2008 and 2012. He also picked up the club's Most Active Member Award in 2004, 2007, 2009 and 2010.

When Mike retired from Panasonic about 12 or so years ago, he became a regular on the morning gathering. "I've been out for my walk already" and "I am just sitting on the deck" were heard on a regular basis.

We will miss his unique ramblings that sometimes were extra long and timed out the repeater.

We will all miss you '73 Mike



Cambridge Amateur Radio Club Meeting 10th May 2016

Meeting opened at 8:02pm moved by VE3ANT 2nd Shawn VE3PSV carried.

Attendees: VE3ANT; VE3EAX; VE3USP; VE3MAH; VE3PSV; VA3WIF; VE3MF; VE3ESW; VA3MP; VA3GGT; VA3CF; VA3NXV; VE3NQM.

Minutes were accepted as read , moved by VE3NXV 2nd VA3CF
Accounts:

Move accounts be accepted by VE3ANT2nd VA3WIF; carried

VE3MF asked for any discussion on points brought up from the minutes.

VE3ANT reported that there were 17 at the banquet and the earlier time for dinner seemed to be well received. The room was quite large and may have been too “loose” for such a small group with round tables being a possible draw back. Everyone in attendance had a good time.

Club tent: A discussion ensued as to who would actually use it, and it was decided not to move forward with this project for practical reasons.

Donation of Icom 735 and PSU: VE3MF reported that the PSU was fine but the Tx only output at 25w (at present). This will be looked into.

Name tags for club officers have been issued and VA3CBE is to be given his as Past President (PP)

Call sign custodian was VA3CBE, VE3SWA and VE3SWR are separate sponsors. Call sign custodian is in control of the call signs. By tradition the Call sign custodian will be the Club President. VE3MF will put the URL for VESWA on QRZ web site.

We are not affiliated with RAC (Radio Amateurs of Canada), should we be? VE3NQM informed us that Stratford Radio club has a membership with RAC and is also insured (they are in the Red Cross Building). VE3NXV moved the we affiliate with RAC, 2nd VA3MP. carried.

VE3NXV asked who is liable for field day injuries and it was stated we are incorporated and no individual is responsible.

Meeting time: the question was asked, is it time to bring the start time forward? A discussion ensued and VE3NQM reported that Stratford open at 7:30pm. VE3MAH moved that the start time for the club meeting be moved to 7:30pm for a trial period of 6 months, 2nd VA3CF carried.

Social time: VE3MF suggested a coffee time after the meeting and it was decided to have a coffee hour. The coffee is to be supplied by the VP of the club (re-imburement, donations accepted), snacks on a volunteer basis.

Field day: The sent list for Field Day did not go to all members therefore it should be re-sent to all members. VE3MAH to update the membership list and send it to all members. VE3PSV gets snail mail.

ARES: VE3GGT gave a talk on ARES. VE3MF asked what criteria do we as a club need to fulfill the requirements of ARES ? VE3GGT has this under control and is following up. VE3NQM gave a précis (*a concise summary – ed.*) of the Stratford club ARES, the primary communications for the Red Cross and the Stratford Club is on the Perth Emergency Plan with 10 members being involved. He spoke of the evacuation of a 1st Nations community to Stratford and the need for working with neighbours. He also pointed out that although cell phones are used they do not work in some areas or buildings (Faraday cage principal), therefore radios are required. The breakout would be from the coordinator, therefore we would need people committed to the project before moving forward.

A repeater donation of \$12 plus \$12 was given by VE3MF

Meeting adjourned at 9:21pm moved VE3PSV 2nd VA3CF carried



Hugh, VE3IHM tells me that he was introduced to amateur radio at a very young age. In fact he doesn't actually remember -- you see -- his father VE3IC was an amateur but Hugh was too young to know what his father was doing with all those wires and stuff. Actually, Hugh didn't really know much about his father's hobby until he and I were discussing the first history columns written by me several years ago.

At the tender age of 3 years, Hugh's father Bill Martin was called to war and joined the RCAF. Once in England and attached to the RAF he was responsible for the construction of radar systems and their supporting towers. After hostilities

ended, he found himself in Cairo continuing his work.

Upon returning home, Bill VE3IC had a small mishap with his station where his wife could have been seriously injured. Subsequently he gave up his equipment and call sign to his friend Stan Jackson VE3AIX who picked up the 2 letter call VE3IC.

Hugh finally picked up a microphone in the mid 1970's when 23 channels and a 5/8 wavelength vertical could get you around town and (contrary to official rules) many contacts into the southern US and South America. While being most interested in amateur radio he could not get those dit's and dah's to imprint in his mind and so had to pass. When he found out that Morse was no longer a requirement RAC got an order from Hugh for some study manuals. That was in 2009; the year he also joined our club. With the help of a few of our members, Hugh was ready for the 'big test'. Mike VA3MP having just been authorised as an accredited examiner, Hugh was Mike's first. As is said -- the rest is history. Hugh with his Basic plus Honours started to build his shack first with a Yaesu VX-70 handheld, FT-1802 mobile and power supply, some new and vintage HF equipment up to and including his recent purchase of a Kenwood TS-2000. But all of this equipment is somewhat useless without some antennas. Spending much of his time, along with wife Judy, at their trailer near Port Dover, Hugh's first antenna project was a 2 element quad for 2 meters that he proudly displayed at a club meeting before using it from his portable location. Unfortunately, Port Dover lies behind a rather high area of land between there and Cambridge and so reliable two way communication was not possible.

Living in a condominium presents some unique obstacles if you want to have antennas. Apparently being a board member doesn't generally help the situation.

Part of the learning that we amateurs get involved in is the design/modification of design and construction of antennas. As can be seen in the pictures below, Hugh has used many of his other skills in constructing some interesting antennas.



How many antennas can you see in this area of Hugh and Judy's solarium?

Obvious near the top is a 3 element 2 meter beam. Made with telescoping old 'rabbit ears', the wood work is an interesting approach to mounting the elements.

Vertically polarised is a dipole mounted below the beam and attached to an old lamp stand also for 2 meters.

Partially hidden behind Hugh's recent award, is a 2 meter J-pole that he uses regularly to access VE3SWR.

I'll bet you missed the 6 meter horizontal dipole!

Along with the antennas is an interesting collection of pictures and knick knacks.

If I didn't know any better, it almost looks like the two clowns are tight rope walking on one of the antennas just below the 6 meter dipole.





Let's not leave out the others.

Above is a multi dipole that is near resonance on 10 meters, 15 meters and 20 meters. It will also tune on 17 meters. How well this one works is a work in progress.

Not to be left out is the ground plane for UHF.

The question you may ask yourself – I certainly did – is what interaction takes place with all of these antennas in close proximity to each other and to all of the other 'radiators' present. It would be a real challenge to model or estimate the radiation patterns for this antenna farm! I suspect ezec or other similar computer programs would just quit trying if asked.

I know Hugh enjoys himself with his very interesting station and antenna array.



If you would like to have your station profiled in the next issue – contact your editor.

At the March meeting Scott VA3GGT indicated to club members that he was interested in investigating the reactivation of the ARES group started by Robin VE3OAV in 2006.

The Amateur Radio Emergency Service (ARES) is a public service organization that delivers communications services during emergencies. According to Radio Amateurs of Canada (RAC), ARES is the public service branch of the organization. ARES Canada operates under the same principles and structure as ARES in the USA. While ARES does not replace the communications infrastructure used by federal, provincial, municipal or other local government departments and agencies, it assists the existing communications infrastructure as requested by local agencies. In 1980, Radio Amateurs of Canada agreed to provide communications for the Canadian Red Cross.

ARES groups rely on the services of amateur radio operators who volunteer their time, equipment and expertise. While not required to be part of a local amateur radio club, many ARES groups are linked in some way to the clubs in a particular area.

Since March, Scott has completed a comprehensive assessment of the strengths, weaknesses, opportunities and threats for the city of Cambridge and Red Cross. Following is the opening document from Scott.

“Summary

From the May meeting, there was a discussion about what resources are needed from the club, to reactivate the ARES group within Cambridge. This document provides detail on items discussed such as resources and examines considerations of two different ARES routes that we can pursue.

The original ARES team was set up with the assistance of the Cambridge Fire Department, and was originally intended to be working as a backup in case something went wrong with their radio system, and amateur radio was needed to be used. It should be noted that the two radios that were part of the original ARES system, are actually the property of the City of Cambridge, and not that of the Cambridge Amateur Radio Club, as per the previous EC.

The ARES group has not been active since approximately 2011. A lot has changed technologically within that time. Not only that, but there is now a requirement for detailed documentation to be put in place outlining our roles with an agency that we serve.

It should also be noted, that we should consider reaching out to the City of Cambridge, such as the Cambridge EMO and Fire Department, and advise them that we no longer have an ARES group in effect in Cambridge, and undergoing changes in regards to our ARES offerings. The reason this is suggested, is that on the previous callout lists, we have a couple of silent keys, and whatever information they have on file for the CARC would be outdated.

Overview

While looking into the resources required, taken into consideration was the discussion about the Red Cross that the club had last night, and the information Walter provided us about his group's involvement with them.

The discussion at the May Club Meeting, has yielded some great results, and additional thoughts.

I have attached to this email a two-page PDF document, which outlines what's called a SWOT – Strengths, Weaknesses, Opportunities and Threats – for putting together a plan for a City response, and a Red Cross response. Also attached would be the resources needed for both a City planned ARES response, and a Red Cross planned response. Please note that the Red Cross response is based on assumptions, as we do not have actual specific details.

There may be more to add to these columns, please feel free to let me know if there are others, and we can definitely add them in.

Possible Outcomes:

There are three possible outcomes for planning an ARES response:

1. We plan with the City to put together an ARES plan. *This will be very time consuming, and it's not only liaising with the City, but with the Region as well. Each of these two groups have subgroups that meet on a regular basis, and each has their own ways of functioning.*

a. Estimated man hours to get this off the ground, would be about 100 hours.

2. We plan with the Red Cross to put together an ARES plan. *This would not be as time consuming, and it's liaising with one group only. There is an understanding already with RAC that our primary focus is to support the Red Cross.*

a. Estimated man hours to get this off the ground, would be about 40 hrs to get off the ground.

3. We abandon all of the ARES efforts, *as it's too time consuming and complicated.*

a. No man hours, and nothing gets off the ground.

Review of City of Cambridge Planning and Red Cross Planning

City of Cambridge ARES Planning

There are several issues related to creating a formal ARES plan with the City. Based on the conversation at last night's meeting, as well as discussions with Robin in the past, I have come to the following findings and considerations, that we as a club may need to consider:

- To implement a plan with the City would be time consuming, and we may not get the level of support needed from them. There have also been issues in the past where in an emergency – in other cities – where municipal, provincial or federal groups have shut out amateur radio operators as the EMO's have expressed interest to have control over all operations from start to finish, as part of their operations and mandate.*
- The City and Region have disaster plans in place for almost any conceivable emergency and how to react to it. Although CARC is mentioned in their plans, we have no immediate defined role. We are listed as a group they may consider reaching out to.*
- There is also the issue of duplication of work that we could be providing. The Region and Cities appear have an agreement with another organisation called REACT. They are the 'go to' people that the Region and Cities go to when there is some sort of community help required for radio communications.*
- While the previous ARES plan from years ago mainly dealt with the Cambridge Fire Department, specifically, and the use of HAM Radio, this has changed over the years and the role of amateur radio within a government context now, is somewhat redundant with the resources that they can call in for assistance (i.e.: EMO Ontario has a truck that is capable of running radio towers, internet, phones faxes etc.... everything they need in an emergency).*
- See <http://www.emergencymanagementontario.ca/> for more details.*

Red Cross ARES Planning

The RAC has an Memorandum of Understanding with the Red Cross about providing services. It also requires much less manpower to setup and can be easily scaled up and down depending on volunteers.

- The Red Cross is aware of the amateur radio operators and what we can provide, through the Memorandum of Understanding.*
- It has been suggested that the Cambridge Red Cross may already have a radio system setup for communications. This would be something we would need to confirm in the preliminary meeting with them.*
- This has not been confirmed. Even if this is the case, there is still an opportunity for us to be of assistance to them. The Region's radio systems can only handle so much traffic.*
- The Red Cross is one organisation or group to deal with. The fact that we would have one group to deal with for an ARES matter, would allow us to focus on the needs of the one group, and not that of several different ones. This would allow us to maximize our resources, and scale up and scale down as needed.*

Suggested Use of ARES Resources:

Taking into consideration the amount of work that would be involved in setting up an ARES team, the best option for us, at this time, based on the points above, would be to consider pursuing discussions with the Red Cross. The numbers for resources can be easily scaled up or down, and could run with very few people.

The other thing to take into consideration, is that it is also one organisation to deal with, as opposed to several government bodies and groups, and we can tailor a solution to meet the needs of the Red Cross.

In the event of an emergency situation affecting Cambridge, or surrounding areas, we would be able to assist with their specific radio-communication needs, provide them with additional man power to free them up to concentrate on the emergency situation themselves."

Having read Scott's summary thus far, a number of questions arise that we as a club probably need to discuss. The following is not necessarily a complete list but a start for discussion.

1. Considering that ARES is a separate entity from our club;
 - a. What resources and/or involvement do CARC members want to provide?
 - b. What resources and/or involvement are CARC members able to provide?
 - c. How would CARC manage these resources and involvement?
2. What level of involvement do the various organizations actually require?
3. While we had an agreement that goes back to approximately 1998 with the Cambridge branch of the Red Cross; what is the current status of that agreement?
4. ...

P.S. Only moments after this edition of the Dummy load was completed, update #2 was sent out to your executive from Scott.

Field Day 2016:

The ARRL annual Field Day is always the fourth full weekend of June, beginning at 1800 UTC Saturday and running through 2059 UTC Sunday. Field Day 2016 is June 25-26. While Steve VE3USP sent out to club members a spread sheet asking for your availability to determine operators, setup, and barbeque and so on, response was low. Based on this, he has proposed that we suspend club participation in FD for 2016. Instead, club members who want to participate could do so from their home station, using your personal call sign. ARRL rule 4.6. (Class D) **Home stations:** Stations operating from permanent or licensed station locations using commercial power. Class D stations may only count contacts made with Class A, B, C, E and F Field Day stations.

As to the use of our club call VE3SWA, only one station would be allowed under the FD rules to use this call sign to operate their 1 delta station.

ARRL rule 4.1. (Class A) **Club / non-club portable:** Club or a non-club group of three or more persons set up specifically for Field Day. Such stations must be located in places that are not regular station locations and must not use facilities installed for permanent station use, or use any structure installed permanently for Field Day. A single licensee or trustee for the entry is responsible for the group entry. All equipment (including antennas) must lie within a circle whose diameter does not exceed 300 meters (1000 feet). To be listed as Class A, all contacts must be made with transmitter(s) and receiver(s) operating independent of commercial power mains. Entrants whom for any reason operate a transmitter or receiver from a commercial main for one or more contacts will be listed separately as Class A-Commercial.

For complete rules and contact exchange see: <http://www.arrl.org/field-day>

RAC Canada Day Contest:

Each year on **July 1**, the anniversary of Canada's Confederation, Radio Amateurs of Canada sponsors the Canada Day Contest. Amateurs all over the world are invited to Canada's Birthday Party on the air. Club members have been active in this contest for many years both as individual entries and as a club station.

Contest Period: 0000 UTC to 2359 UTC July 1, 2016

There is a new rule this year that changes the way we as a club might operate.

Similar to the ARRL FD rules concerning clubs, RAC Canada Contest rule #6 states; 6) Operators in either the multi-multi or multi-single categories should note that a distributed contest station is not permitted in the RAC contests. Within Canada such operations are contrary to the requirements of the regulatory body, Industry Canada, and for consistency are not permitted. A distributed station is defined as a station that is not within the physical address of the registered call sign owner's address or which does not have all transmitters and receivers within a 500-metre diameter circle of each other, excluding antennas.

For complete rules and contact exchange see: <https://wp.rac.ca/canada-day-contest-rules/>

A Filler:

Tom VE3MAH

On the morning gathering one day last week the discussion turned to the famous "To Do List" or "The list" or "The Honey Do List" or "The Job Jar".

I suspect all of us has at one time or another been faced with how to handle this situation whether we are handed the list or shown where it hangs on the refrigerator or had a boss who wanted everything written and checked twice. I actually created a "To Do" list with 2 check boxes, one for me and one for my supervisor. Later on the 2 boxes served for me and the student who was getting caught up.

Sometimes we need to shorten 'the list'. One method that works (sometimes/rarely) is to create a second list of those things you actually want to do and claim that these have a higher priority. Bt the time you complete this high priority list, the first lot of assignments may be redundant or so far out of date that they no longer need doing. In a busy environment -- read impatient boss/spouse -- many of the original tasks may have been reassigned to someone else.

Apparently, if you attempt to remove any jobs from the "Honey Do" list, make sure you don't just tear it off! Use scissors so it won't be so obvious.

One of my favorite methods to keep my list under control is to only write down those tasks that have already been completed – pages and pages of them. This way you can check off as many or as few tick boxes as you like.

Choses à faire

- sortir les poubelles
- nettoyer la voiture
- explorer le schéma
- de blanchisserie
- remplir la douche
- nettoyer les fenêtres
- couper l'herbe
- arracher les mauvaises herbes
- pendre le garage
- laver la voiture
- print alub récompenses
- ramasser les billets
- payer les factures
- prendre une pause!
- _____
- _____
- _____
- _____
- _____
- _____
- _____

There are a few methods that I discovered work well to show how busy you are.

Create your list in another language and leave it out on your desk.

Věci ke splnění or **Ting at lave**

Dinge die zu tun sind or **Cose da fare** or **Saker att göra**

Just make sure that you are sure your spouse/boss doesn't recognise this deception. Also, I would stay away from those languages that use non standard characters.

Learn to write and speak "take a break" in as many forms as you can so that when asked what you are doing next, you can point and read off a strategically placed unchecked line. No deception here!

Never let anyone see your actual list!

Happy planning.

Upcoming Events:

Mark your calendar in advance:

Saturday June 11, 2016 [London Vintage Radio Club Flea Market](#) London Vintage Radio Club, Guelph

Saturday and Sunday June 25 and 26, 2016 ARRL Field Day

Friday July 1st, 2016 RAC Canada Day contest

Saturday July 9, 2016 [ONTARIO HAMFEST](#) Burlington Amateur Radio Club. Milton

DX News:

Rather than list some of the events coming, here are some sources that I find quite complete.

For DXpedition news: <http://www.dx-world.net/>

For special events: <http://www.ng3k.com/Misc/adxo.html>

Islands on the air: <https://www.rsqbiota.org/index.php>

For Sale / Swap / Free

The intention of this section of the bulletin is to provide a space where **members** can advertise items of a ham related nature to other members of the club. It is not intended as competition to the many on air and internet based swap shops.

For Sale: Kenwood R-300 Communications Receiver. An oldie but a goodie. Pilot lamps replaced and aligned.
\$80 Tom VE3MAH

For Sale: 2 Coleman 20 watt solar panels. (\$140 each new/\$70 on sale) -- \$30 each slightly used. (or offer)
Tom VE3MAH

Free: (to club members) 440 ohm Ladder line. About 66 feet available – enough for 2 G5RV's. Tom VE3MAH

Free: (to club members) Cushcraft A3S TriBand beam. Needs new hardware. Tom VE3MAH

Free: (to club members) CDE AR-44 rotor unit only. Working when removed from VE3FC's tower.
Tom VE3MAH

Free: (to club members) Tripp-Lite Internet 750u UPS. Battery is about 60% capacity. Tom VE3MAH

Real Swap Sites:

KWARC Swap Shop -- one of the best around. <http://www.kwarc.org/swapshop/index.htm>

Maritime Swap Shop -- <http://www.ve1pjs.com/swap.html>

ONTARS Marketplace -- http://www.ontars.com/cgi-bin/classifieds/classifieds.cgi?session_key=&search_and_display_db_button=on&results_format=headlines&query=browse

Membership / Information update form: Membership in the Cambridge Amateur Radio Club is \$20 per calendar year. Please help the Treasurer by printing this page, filling in your information and giving it to him. If mailing, please use the address listed.

**Cambridge Amateur Radio Club
% Tom Franks Treasurer
264 Fearnwood Street
Cambridge, Ontario
N3C 3W9**

***First Name:** _____ ***Last Name:** _____ *** Call Sign:** _____

***Address:**

***Email Address:** _____ **Telephone Number:** _____

Full membership \$20 Renewal New Member
Associate member \$5 Renewal New

*required – your information will not be shared with third parties.