



# GROUNDWAVE

April 2000

P.O. Box 8873, Ottawa, Ontario, Canada, K1G 3J2  
Check out our Web Page: [www.oarc.net](http://www.oarc.net)

**Editor runs out of cool photos!**

**This space  
intentionally left  
blank!**



**AMSAT**



**Help!** If you have some digital images of your ham radio hobby, email them to [editor@oarc.net](mailto:editor@oarc.net)

....Yes, we accept picture of the shack!

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## **Club Information**

**The Ottawa Amateur Radio Club, Inc. (OARC).** Is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communications in the National Capital Area and to the advancement and achievement of club members.

**Regular Meetings of the OARC Inc.,** are held on the first Wednesday of each month (except July and August) in the Keefer Room (2nd floor of the Old Teacher's College) of the Regional Municipality of Ottawa Carleton Head Quarters complex on Lisgar Street. Meetings commence at approximately 19:30 hours. Further details about each meeting is elsewhere in this publication.

**Executive Meetings of the OARC, Inc.,** are normally held on the second Wednesday of each month at 19:30 hours. Contact the President to confirm the date, time and place of the next meeting.

## **NET's of Interest**

**The Capital City FM Net** meets every Monday at 20:00 hours on the club repeater VE2CRA to pass traffic and to make announcements of interest to amateurs in the National Capital Region.

**The SWAP Net** is a service provided and conducted by Dan Reardon, VE3GUU. This feature appears on the Capital City FM Net. To list items and make inquiries, call Dan Reardon at 721-3339, ve3guu@igs.net. Also available on the web: <http://www.igs.net/~swap>

**The POT-HOLE NET** is a SSB/HF net sponsored by the Ottawa Valley Mobile Radio Club and is conducted every Sunday at 10:00 hours on 3.760 Mhz. All amateurs are welcome to check in.

**The POT-LID CW NET** is an informal slow-speed CW net sponsored and conducted by Ed Morgan, VE3GX, and meets every Sunday, except during July and August, at 11:00 hours on 3.620 Mhz, to promote interest in CW and CW procedures.

**The QCWA Chapter 70 NET** every Thursday evening at 2000 hrs local time. Repeater VE3TEL is used, courtesy of the Pioneer Amateur Radio Club. The frequency is 147.03 out, 146.43 Mhz in. The callsign used is VE3QCW. Visiting Hams are invited to check into this Net. You do not have to be a QCWA member to check into this Net.

## **Club Repeaters**

Voice (VHF)	146.94/146.34	100 Hz output tone
(UHF)	443.300/448.300	
Packet	147.07(sx)	For QSO and Packet BBS.
Packet 56 kbps	220.55/433.55	
East of Ottawa	145.69(sx)	
Ottawa Centre	145.07(sx)	
Hull	145.05(sx)	
West of Ottawa	145.03(sx)	
South of Ottawa	144.91(sx)	
Nepean	145.59(sx)	
West Carleton	144.97(sx)	

For further information, please contact the Repeater Chair.

## **OARC Inc. Memberships**

- **Individual Membership** is available for \$20.00
- **Family Membership** is available for \$25.00
- **New Hams** just licensed may qualify for free membership, contact the membership Chair.
- **Junior Memberships** - To encourage young people to join the club and to participate in amateur radio, the club is opening a junior class of membership. Dues will be at 50% discount but the junior member must pick up his/her copy of the Groundwave (preferably at the meeting).

## March Meeting Minutes

Minutes of the OARC General Meeting - March 1, 2000 (third meeting of the millennium)

The meeting was called to order by Past-President Richard (VE3UNW) at 7:40 p.m. (Our Regular President Ed, (VA3MPY) was not able to attend this evening's festivities. Read on Ed, you missed a darn fine meeting.)

We had our usual substantial number of guests, including: Maurice-Andre (VE3VIG), Rick Lawrence (a prospective amateur-good luck Rick!), Mike Kennedy (VA3TEC), Bob Shaw (VE3SUY), Jim (VA3AZZ), and Tom (VA3BC). Welcome guests, we are glad you could join us. Plse come again.

Richard, always respectful of tradition, would not let an evening go by without reaching out to those amateurs who are in need. In response to his call for Needs and Wants, Dave (VE3AV), with the help of George (VE3BNO) explained that he was having some trouble with his ATV. Fred (VE3IO) asked members if they had a rotor which would support a Hy-Gain TH3 antenna. Fred also is looking for some driven element insulators. Tom indicated that he may be able to help out. Finally, Fred is looking for a DC to DC converter chip marked 426-APC. Dave may know something about this item.

Richard thanked Ken (VE3CV) for the donation of some surplus equipment that he had around the shack. (Thanks Ken, I guess the XYL put her foot down. : )

Peter (VE3BQP) invited all Ottawa amateurs to attend the EMARG/AREAS general meeting on March 18<sup>th</sup> at the City of Ottawa Fire Station on Industrial Ave. This is to be followed the next day (Sunday) by an emergency test. Participants are to meet on VE3MPC and then move to simplex.

The CANWARN/APRS Summit, organized by Marc (VA3DRV) and sponsored by the OARC will be held on Saturday April 15<sup>th</sup> at Algonquin College (Lees Ave

Campus). The morning session is devoted to CANWARN training and the afternoon to the APRS summit. Details may be found at the following web address:

Rick (VE3IHI) asked the Pioneers, via Peter; to correct the impression left in their publication that the Joe Norton Award was the responsibility of another club, other than OARC. (Everyone knows, or should know that it is the OARC that hands out \$500 to a deserving new amateur, each year in the Fall.)

Greg (VE3YTZ) briefed members on the continuing preparations for the Flea Market to be held Saturday, September 2<sup>nd</sup> at the Carp Fair Grounds in Carp (of course).

With Phase IIID scheduled to go up (hopefully) in July, its time to start to think about assembling your satellite stations. On that, Richard welcomed our guest speakers Clare (VE3NPC) and Jeff (VE3EFF) who spoke on establishing your first analogue and digital stations respectively. (Thanks guys, very interesting indeed!)

Upon drawing of the 50/50 ticket (won by Al (VE3ANO) who took away the impressive sum of \$24 ), Richard closed the meeting at 9:20 pm.

(The April meeting will be held in the Keefer Room and the topic is Home Brew. The \$100 prize to the best project hopefully will entice some of our more shy members to show off their work.)



### April is Homebrew month!

**A \$100 gift certificate from Bytown Marine is up for grabs!**

Can you afford to just look at your creations?

Share your project (new or old) with the club for your opportunity to take that gift certificate home!

## Radio Amateurs of Canada

*All News below is received from Radio Amateurs of Canada (RAC) bulletin service. Readers may subscribe to this service, visit the RAC website at [www.rac.ca](http://www.rac.ca) for more information. Guy Charron VA3FZA Bulletin Editor. Email: [va3fza@rac.ca](mailto:va3fza@rac.ca) Packet: [va3fza@ve3kyt](mailto:va3fza@ve3kyt)*

### RAC Bulletin 00-019E BC SM Steps Down

Date: Feb 29, 2000

Ralph Webb, VE7OM has advised me that he is stepping down as Section Manager for British Columbia effective immediately.

Section Emergency Coordinator Fred Orsetti, VE7IO has agreed to act as Section Manager for British Columbia until it can be filled on a permanent basis.

Pierre Mainville, VA3PM RAC Field Services Manager

### RAC Bulletin 00-021E

#### RAC Elects New First Vice President

Date: Feb 29, 2000

The RAC Board of Directors is pleased to announce Ralph Webb, VE7OM has been elected First Vice President, Radio Amateurs of Canada for a two year term. Ralph was serving as BC Section Manager and tendered his resignation to seek the RAC First Vice President position.

### RAC Bulletin 00-022E

#### Amateur Streamlining Becomes Effective April 1, 2000

Date: March 3, 2000

As part of an initiative to streamline the administrative process for the amateur radio service and remove duplication, Industry Canada will be introducing regulatory amendments as was previously outlined in the discussion paper released last year. A new amateur operator certificate will become the sole document required for the operation of amateur radio equipment. It will replace both the traditional amateur radio licence and operator certificate. Amateurs will no longer be required to pay a licence issuance fee or annual licence renewal fee. However, amateurs will still be required to advise Industry Canada of a change of mailing address.

A new certificate, consisting of both diploma and wallet size, will be mailed to each amateur currently holding a radio license. All call signs currently held by amateurs will now appear on the new certificate. Amateur clubs will receive an amateur registration identifying the call signs currently issued to clubs on behalf of the sponsor.

Any amateur that did not hold a radio license prior to March 31, 2000 will be eligible to apply for a call sign. There will be no charge for the initial call sign however, additional or specially requested call signs will now cost \$60.00. If amateurs move from one call sign region to another, they will still be required to change their call

sign but no fee will be charged for such changes. Likewise, there will be no charge for an amateur updating their mailing address.

For additional information regarding this new streamlined procedure, amateurs should contact the Amateur Service Centre of Industry Canada at:

Industry Canada Amateur Radio Service Centre P.O. Box 9654 Postal Station "T" Ottawa, ON K1G 6K9

E-Mail address: <http://strategis.ic.gc.ca/radioamateur.e>  
Telephone: 1-888-780-3333 (Toll free) Fax Number: 1-613-991-5575

### RAC Bulletin 00-026E Alberta Director Resigns

Date: March 13, 2000

The Alberta Regional Director Valerie Hepburn, VE6VMH announced her resignation March 2 due to increased work related demands and for personal reasons.

The RAC Board of Directors is pleased to announce the appointment of Barry Middlebrook, VE6TN as the Interim Alberta Regional Director. A call for nominations will appear in the May/June issue of TCA.

The OARC proudly sponsors the first ever **OARC/APRS Summit!**

April 15<sup>th</sup> at Algonquin College

Check the webpage at  
**HTTP://ONTARIO.APRS.NET**

Environment Canada **CANWARN** training will take place in the morning, followed by an afternoon of **APRS.**

Registration is \$10

## RAC News, continued

### RAC Bulletin 00-030E

#### Industry Canada issues new Information Circulars

Date: March 26, 2000

Industry Canada issues new Amateur Radio Information Circulars

Industry Canada has recently posted one new, and three revised Information circulars on their Strategis web site.

RIC 3 updates Operating Information to reflect the changes to be introduced with the new authorization process on April 1

RIC-9 spells out in detail the policies governing amateur radio call signs and special call signs and prefixes and RIC-7 and RIC-8 are updated versions of the new examination question banks.

Copies of the new documents in pdf format can be downloaded from the IC strategis web site at the following URL: <http://strategis.ic.gc.ca/SSG/sf01709e.html>

### RAC Bulletin 00-031E

#### IC seeks comments on 2285-2483.5 Mhz

Date: March 26, 2000

Industry Canada seeks comments on policies for the band 2285- 2483.5 MHz

Industry Canada has recently released a proposed policy governing spectrum utilization in a band which overlaps the amateur 2300-2450 MHz band. If approved, the policy will make provision for ore users of this part of the spectrum. At the present time, Canadian amateurs have only a secondary allocation between 2300 and 2450 MHz, and may not cause interference to primary users.

The proposed policy does not mention our current request for a primary allocation around 2400 MHz, nor does it propose any changes which would take into account our concerns.

The Industry Canada document is available in pdf format from the IC Strategis web site at:

<http://strategis.ic.gc.ca/SSG/sf02105e.html?he=y>

Amateurs have an opportunity to comment now, with a deadline of **June 23**. RAC will be discussing the implications of the proposal with Industry Canada, and submitting a response outlining our use of the band and expressing our concerns, together with our recommendations.

### RAC Bulletin 00-029E 75th Anniversary of the IARU

Date: March 26th, 2000

As April 18, 2000, nears, the IARU is about to embark on a significant milestone in amateur radio history by celebrating 75 years of operations. At the same time founding member REF-Union, will be celebrating 75 years as a national organization. Similarly IARU Region I will be celebrating their 50th anniversary, May 2000.

Canada was one of the founding nations of IARU having been present at both the 1924 planning meeting and the 1925 founding



congress. It therefore gives me great pleasure to extend greetings to all Society Members on behalf of the RAC Board, Executive and members on this auspicious occasion. May all have many more years of success and opportunity to represent amateur radio in the future.

Ken Oelke, VE6AFO President Radio Amateurs of Canada

### RAC Bulletin 00-032E

#### On The Air On Air Events Reminder

#### April

- 1-2 EA RTTY Contest
- 1-2 500th Anniversary of Brazil Discovery Contest, SSB
- 2 SP DX Contest
- 7-9 Japan Int. DX Contest, 20-10m
- 8-9 QRP ARCI Spring QSO Party
- 8-9 King of Spain Contest
- 9 UBA Spring Contest, SSB
- 10 VHF/UHF Spring Sprints

## mk's words

I recently re discovered one of the things that got me into ham radio in the first place. Homebrewing. Real, from scratch, without a safety net homebrewing. When one builds a kit, or duplicates an article from a magazine, it is pretty certain that someone has gotten the device to work at some point. There may be corrections needed, or an error on the schematic, but most of these are not too difficult to spot. In the case of magazine articles, there is often a correction published a few issues down the road anyway. In the case of kits, there is someone at the other end of the mailbox who can help to figure it out.

Fun as that is, I'm talking about the kind of homebrewing that comes before all that. Before someone writes an article, or stuffs parts into baggies and calls it a kit, comes the real challenge.

That is taking an idea from a bunch of doodles on a notepad to a schematic, or maybe first to a circuit. Nobody is going to invent the Pierce oscillator again, but nobody has ever made your particular Pierce oscillator work before either. At the start of the project you don't know if the whole thing has a chance of working with the parts you plan on using (ie the parts you have in your junk box). There may be some nasty unknown problem that is the reason you have never been able to find a magazine article that describes a circuit that does what you propose to build. The only way to find out is to try to build it.

Slowly, over time, the sections of the circuit come to life. You smile at the victory over Murphy, for just this one time. You grab the notebook and draw another "final" version of that part of the schematic.. again. Another block

in the block diagram is working and it is off to the next challenge. Hours fly by. Days would disappear also, if only you could continue to work on "it" without the work week getting in the way.

Off in the fuzzy future are the worries about how you are going to package the whole thing, how to power it and a half dozen other tedious details. By the time it is all done, you may decide you don't really need a box that does what this one does. You certainly won't be in a mood to try to analyse the final circuit to see if it could have been made more optimum, if some circuit could have been biased differently. Thoughts of a magazine article are the furthest from your mind, as the whole thing comes to life for that first time on your work bench.

Remember that little moment, at the point where you know that each stage really will work. There is a moment where you see the whole thing, that no one seems to have thought of before, working as a unit. The feeling you get at those times can't be bought for the cost of the most sophisticated top of the line transceiver. It is one of the things that got me into amateur radio in the first place, and I had been away from it for too long. It's good to have it back.

73, and keep your iron warm

mk

## Next Meeting

### OARC

The next meeting of the **OARC** will be held **Wednesday, April 5th at 19:30** at the RMOC headquarters - 111 Lisgar St. In the Keefer room.

### WCARC

The next meeting of the **WCARC** will be held **Tuesday, April 4th at 19:30** at the offices of IGS. #2-155 Terrance Matthews Cr., Kanata

## News from Near and Far



### CPC Breakfast tradition continues!

The April CPC Radio Club breakfast was held on April 1st at Louis Steak House.

Contact Guy Ladouceur, VE3WGL [gal@igs.net](mailto:gal@igs.net) for information about the June edition!

### EMRG (Ottawa-Carleton ARES) Information Update

#### City Of Kanata Table Top Emergency Exercise

The Emergency Measures Radio Group (EMRG) participated on Thursday in the City Of Kanata table top emergency exercise, "Exercise Impact". Kanata updated their emergency plan last year and have been working since then on testing the various components to ensure that what is written will work.

This exercise took place at Kanata City Hall, with two rooms, one for the EOC and one which was the emergency site command centre. The purpose of the exercise was to help people practice and learn that the EOC has a role and the on site command has a role, but the two must stay in contact.

EMRG has been working with the Kanata Fire department for several years and they have been very interested in getting EMRG more involved. This exercise introduced the various groups in the City of Kanata, that there is a communications resource and some of the things that EMRG can be used for. The exercise planner pointed to amateur radio several times, stating what a valuable resource this can be in an emergency.

Thanks to Allen VE3ZTU and Bob VA3PQ for taking time to be the on site radio operators. I also participated in a planning role. I was allowed to move from the EOC room to the on site command room, allowing me to watch the information flow. I will be submitting a report to the city, outlining what I saw and what could be done better. One of the key items for us, is the need to verify if amateur radio will work from the designated emergency sites, such as City hall and emergency shelters.

The short version of the exercise scenario is as follows:

It's hockey night at the Corel Centre. The director of Community Services and the Deputy Fire Chief are at the game. Traffic on the Queensway is very slow and there is a tanker truck with 40,000 litres of gasoline, making its way in the traffic.

The tanker truck gets off the Queensway at the Terry Fox Drive exit, then heads south on Terry Fox, to make a regular delivery to the gas station. At the Palladium Drive-Katimavik intersection, the light turned red and the truck driver found that he had no brakes. As the tanker went into the intersection, it is broadsided by a 5 ton truck carrying cylinders of compressed gas. The 5 ton truck rolls over, spilling the gas cylinders onto the road, sending them rolling down hill. The tanker driver tried to maneuver out of the way, but with the impact of the 5 ton truck and the sudden maneuver, the tanker lost control and rolled over. Rivers of gas were now flowing down Terry Fox and Palladium Drive.

At 19:00 hours, the Kanata fire department received the first of several phone calls to report the accident.

One of the first issues faced by the EOC, was that the EOC had to move, because the accident was just outside of City Hall, the main EOC location. The EOC did not actually move for this exercise, but the point was made. Amateur radio was used to pass a few messages, but the greatest value was public relations, with Allen and Bob talking to many people about amateur radio and what we can do.

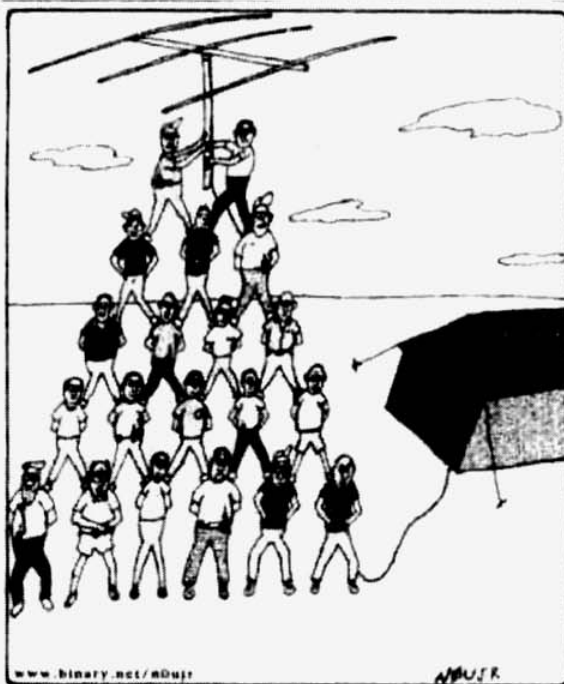
If you have questions, or want more information, please contact me directly; [ve3bqp@rac.ca](mailto:ve3bqp@rac.ca)

Peter Gamble, EMRG Team Leader



## Upcoming Meeting Schedule

- April 2000** Homebrew. If the iron's not hot, now's the time to plug it in!
- May 2000** Tentatively scheduled to meet at the Communications Squadron
- June 2000** Elections, Budget, Volunteer Recognition and Cheese and Cracker night!



Copyright 1999 by Greg Trook

The Oak Valley Amateur Radio Club demonstrates its well honed emergency operations skills, by improvising a tower during Field Day.

From WORLDRADIO, August, 1999  
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 www.binary.net/n0ujr

## WCARC, continued

### GPS20

Rick, VE3CVG provided a possible fix for dead GPS20s:

1. Short out or remove the on-board battery for 10 seconds to reset. Mercury batteries have a high internal resistance and shorting them for 10 seconds should be okay.
2. Place the antenna in a location with a clear view to the sky. It should take about 20 minutes to acquire and produce a fix. It should then take about 30 minutes to download new tables.

3. These units MUST be used at least ever 6 months to continue working.

Note: The software reset does not work!

John, VE3IAO closed the meeting at 21:25

Next month's meeting is April 4th, 19:30 at the Galactic Headquarters of IGS.

Richard, VE3UNW acting secretary.

## WCARC

Minutes of the West Carleton Amateur Radio Club at the Worldwide headquarters of IGS. 2000-03-07 14 amateurs were present.

### Welcome

John, VE3IAO welcomed those present and started the meeting at 19:45.

### Minutes

The minutes of the last meeting were not challenged.

### Treasurers Report

Ken, VA3KA reported a bank balance of approximately \$3448. Other notes:  
 - \$400 was due from Environment Canada as part of the Y2K amateur effort.  
 - Ken is unsure how much, if any money is owed to Sigem for GPS and antenna sales. \$1200 was mentioned, but that amount is not confirmed.  
 - Possibly 16 GPS's and 4 GPS antennas are on order. There are some issues with credit card validation between Brian and IGS (apparently, IGS is running out of amateurs?!).  
 - 12 members are paid up. (but he cornered those present who were not paid up after the meeting)  
 - It is VERY difficult to open up a bank account these days.

### Field Day 2000

-Peter, VE3TFP (not present) has no problem with the club participating with the FD2000 effort.  
 -Ken, VA3KA, Clare, VE3NPC and Jeff, VE3EFF are running the 440 and up stations and all the satellite for FD2000.  
 -Ken suggested that each member decide for themselves regarding FD2000 participation.  
 -A separate Field Day, possibly with the OARC would be considered by members who do not want to participate in FD2000.  
 -MOTION: Richard, VE3UNW / Graham, VE3BYT that the WCARC give \$50 to the FD2000 effort. CARRIED.  
 -Ken, VA3KA will continue as liaison with FD2000 and keep the members informed.

### WX station.

-Graham, VE3BYT report no significant progress since last meeting. He is still waiting on an answer about the PIC WX.  
 -The TAPR PIC-E and the Tiny-Trak clone may be another possibility.  
 -The 1998 TAPR DCC (sorry Graham, I don't have that year. RH) conference proceedings have information on programming a PIC as a TNC.

-The TAPR PIGSIG remailer is an excellent source of PIC assembler programming.

### SSB Net

-In Kieran's, absence, Manfred, VA3MWK reported a surprising number of check-ins during last Friday's net (Kieran has been time challenged lately).

### Club Licences

-VE3WCC & VE3DVQ are currently held by George, VE3GWS. John, VE3IAO will ask George if he is willing to continue holding the licences.

### Mailing List

-John, VE3IAO and Rene, VA3RDK will manage the mailing list. Ken noted the efficiency of IGS in preventing SPAM.

### OARC Club Affiliation

-The bill for the last year's Groundwaves is about \$105. It will be paid when an official notice comes from the OARC.  
 -MOTION: Manfred, VA3MWK / Graham, VE3BYT that the club continue the affiliation with the OARC. PASSED.  
 -Ken, VA3KA pointed out that the club should provide more content for the Groundwave.

### 10 Metre Repeater

-The remailer discussion was continued. The status of the Constance Bay repeater owned by Brian, VE3DHS is not clear. Consensus was that Kieran contact Brian to find out the status and possibly provide some support in finishing the project. 6 metre repeaters were also discussed.

### Y2oK funds from Environment Canada

-Ken, VA3KA said that the club needs to decide what will be done with the money.  
 -After much discussion it was agreed that the money be sent to Radioworld for a gift certificate.  
 -Some ideas were; antenna analyser, power meter, beam antenna, vertical antenna, tower harness.

### GPS and GPS antenna sales.

-Gord, VE3PPE will change the pages on the web site to note that the GPS and antenna are not currently available.  
 -John, VE3IAO will talk to Brian about the current status of orders.  
 -Fred will create a FAQ with Manfred for posting on the web site.



## BML Communications

(a division of Bytown Marine Limited)

5 Corvus Court, Nepean, ON, K2E 7Z4

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## TM-D700A



Kenwood continues to provide new and advanced APRS[tm] ham radio equipment by introducing the new **TM-D700A** mobile transceiver. For current owners of the **TH-D7A** handheld with built-in TNC and APRS[tm] software, the **TM-D700A** offers even more features and versatility. The **TM-D700A** is unlike any other dual-band mobile radio Kenwood has ever produced. The control head is detached and comes with remote cable for easy installation. The new radio also incorporates a 9-pin PC connection for easy hook-up to program frequencies and other APRS[tm] mapping programs. Your **TM-D700A** is a full dual-band operation radio so VHF+VHF/VHF+UHF/UHF+UHF operation is possible. Full digipeater functions allow anyone to set up a digipeater location wherever needed to help fill in APRS[tm] nationwide network. Internet gateway operation is also possible for world-wide text communication over VHF.



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