

Amateur Radio - Communicating Worldwide for A Century

Newsletter of the Boston Amateur Radio Club February 2011 - VOLUME 23, NUMBER 2 www.barc.org - w1bos@arrl.net



# Message from the President -- Tom Bertolino, KB1P, President

Well it is February. Only 8 more weeks before I can start to think about putting my snow shovel away. (Maybe) You've got to love New England to live here.

Although we did not have a presentation or an assigned topic for January's 2
General Meeting we accomplished a lot. The club members and elected officials 2
discussed a wide variety of topics which included; a presentation schedule for 2
our General Meetings; consideration of a club function after the summer break; 2
running a 2 meter slow code net; putting a secure page on BARC's web site for 2
members only; and, opening a BARC Facebook page. 3

We determined that the club needs five presentations for our General Meetings to bring us to the summer break. Jim Bradley, KB1JKJ, agreed to give a presentation at the February General Meeting on APRS. Arthur Ashley, N1NHZ, agreed to to give a presentation on Public Service at the March meeting. Ed Parish, K1EP, will give a presentation on Contesting in April; Bill Collins, W1PL, will give a presentation on Communicating with the Space Shuttle, at the May meeting; and, the topic for the June General Meeting will be Field Day presented by Tom Bertolino, KB1P.

Everyone at the meeting thought it would be a good idea to to have some type 6 of function that would bring the club members together after the summer 7 break. Some of the things discussed were; • hold the event during one of the 8 last two weekends in August; • have a family picnic rather than a BBQ; • consider Georges Island in Boston Harbor, Houghton's Pond, or Blue Hills Reservation as possible sites.

#### Inside This Issue

- 1 Message from the President
- 1 It's Time for Membership Renewal
- 2 BARC Newsletter Is Green and Saves Money
- 2 What is the Incident Command System?
- 2 Testing Needed for New 70cm Repeater Freq
- 2 A Field Day Rule Change
- 2 Everything You Wanted to Know and More
- 3 Fractal Antennas: Hype or Hope?
- **BARC Growth**
- 4 I See the Future
- 4 Solar Update
- 4 Field Day Packet Available
- 4 ARRL School Club Roundup
- 5 Looking Ahead At Public Service
- 5 <u>Directions: Brookline Police Headquarters</u>
- 5 Spread the Word
- 6 BARC Volunteer Exam Sessions
- 6 Know Your Magnetic Compass Declination
- 7 <u>Cardiopulmonary Resuscitation</u>
- BARC Officers and Staff

This topic and the others will be discussed and acted on during the March Business Meeting. If you have opinion or a recommendations on any of these topics please let me know before the March Business Meeting.

I hope to see you at February's General Meeting. I am looking forward to Jim's Presentation.

Just a reminder: if you have not yet paid your club dues use the 2011 Membership Information form in this newsletter issue to renew your membership. If you are reading this as a non-member, we invite you to join us with this form.

73's Tom, KB1P

# It's Time for Membership Renewal

If you have not yet renewed your membership for 2011, a Membership Information form is included with this issue of the newsletter. Be sure to complete the form when submitting your dues as the data is necessary for statistical purposes and to notify you with important information. To assist the Treasurer with his burden, please return it promptly with your dues.

BARC accepts PayPal. If you want to renew your membership on-line, just go to <a href="http://www.barc.org/membership.html">http://www.barc.org/membership.html</a> or click on the membership link on our home page. You can use this to pay for membership or make donations with a credit card (even if you do not have a PayPal account), from your PayPal funds, or from your linked bank account. Our PayPal address is <w1bos@arrl.net>.

Repeaters: 145.230 ( - ) CTCSS 88.5 Simplex: 147.420 443.550 ( + ) CTCSS 110.9

# **BARC Newsletter Is Green and Saves Money**

Effective with the January 2011 issue, this newsletter, the official source of BARC news (and other interesting tidbits), will be distributed exclusively online. It will be a significant saving of costs, effort and trees. Readers will be notified monthly by email to link to a web page where the earliest posting of *The SPARC* can be read. Of course, this makes it necessary for all who will receive *The SPARC* to provide their best email address on the 2011 Membership Information form. We thank you for your cooperation.

# What is the Incident Command System?

The Incident Command System (ICS) is a standardized approach to managing incidents of any size or complexity that:

- Enables a coordinated response among various jurisdictions and agencies.
- Establishes common processes for planning and managing resources.
- Allows for the integration of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure.

The National Incident Management System (NIMS) provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment.

The National Response Framework (NRF) is a guide to how the Nation conducts all-hazards response - from the smallest incident to the largest catastrophe. This key document establishes a comprehensive, national, all-hazards approach to domestic incident response. The Framework identifies the key response principles, roles, and structures that organize national response. It describes how communities, States, the Federal Government, and private-sector and nongovernmental partners apply these principles for a coordinated, effective national response. More information and training in the various aspects of the programs can be found at <a href="https://www.training.fema.gov">www.training.fema.gov</a>.

# Your Testing Is Needed for the New 70cm Repeater Frequency -- Bob Salow, WA1IDA

As you may know, BARC has been assigned a new frequency pair for our 70cm repeater. Your help is needed to verify the coverage and signal quality. At several times of the day, please try to make contacts and get signal reports. Make notes of your location, the type of radio, the power used, and the reported signal quality. Send this information to Tom Bertolino, KB1P, at **kb1p@arrl.net** or call him at 781.608.6186.

## The new frequency is: 443.550 MHz (+), PL 110.9 Hz. Check it out.

Based on these reports and other measurements, further tuning and other improvements are in progress. Please continue checking and reporting to help make this repeater fully operational.

# A Field Day Rule Change -- ARRL Contest Update, 2 February 2011

The ARRL Contest Branch Manager, KX9X has just released some important information for this year's ARRL Field Day. The "free" VHF station that was previously restricted to Class A participants with two or more transmitters is now available to all Class A operations! This should promote additional VHF and weak-signal operation and know-how. In order to promote better VHF operating practices, a VHF Operator FAQ document presents information on how to operate on 6 and 2 meter SSB and CW, using FM phone, and working the satellites. Field Day offers VHF operating opportunities to hams who may not have tried it before. This document will help them get better results and follow regular operating practices. Now it's up to the VHF operators out there to help their teams get that VHF station on the air and making QSOs! Read more about this year's rules on the ARRL Field Day web site.

# **Everything You Wanted to Know and More**

Here is a one-stop resource with answers to almost every question raised by both new and old hams (and many non-hams, too). Ancient origins, obscure facts, practical punditry – it's here. Check the AC6V "Jargon" web page at <a href="https://www.ac6v.com/73.htm">www.ac6v.com/73.htm</a>.

Repeaters: 145.230 (-) CTCSS 88.5 Simplex: 147.420 443.550 (+) CTCSS 110.9

# Fractal Antennas: Hype or Hope? -- Dan Romanchik, KB6NU

QRZ.Com currently has a very interesting item on fractal antennas at <a href="forums.qrz.com/showthread.php?t=277623">forums.qrz.com/showthread.php?t=277623</a>. While the idea of applying fractals to the design and construction of antennas has been around for quite some time, very few hams have actually built them, and there are currently no companies building commercial fractal antennas for the ham radio market. The question, of course, is why?

Those that are hyping fractal antennas — most notably W1YW, the CEO of Fractal Antenna Systems — claim several advantages. These advantages purportedly include wider bandwidth and smaller size when compared to traditional antennas, such as verticals and dipoles. Those that are trying to debunk these claims contend that this is all just hogwash, and that there's no real scientific basis for these claims.

One thing that's confounding this debate is that there have been very few articles published on the topic. For commercial reasons, W1YW has made his articles unavailable. He says that he will be publishing something real soon now, but there is nothing definite at this point.

There is at least one article on the Internet that describes the construction of a fractal antenna for amateur radio use. *FYI:FYQ: Another look at the Fractal Quad Yagi* www.scribd.com/doc/18788401/fyifqyhtt was published in the October 1999 issue of 73 Magazine. It describes the construction of a two-element, 10m antenna. Like most 73 articles, it's not incredibly technical, though, and doesn't really contribute to the technical debate, except to demonstrate that physically small antennas can be made using fractal design.

The PDF contains several photos of the antenna. It's a crazy contraption that looks relatively difficult to build. So difficult, in fact, that it makes me wonder if it's even worth it to try building one. After all, 10m antennas are not really all that big or all that difficult to build to begin with.

Even more interesting than the antennas are the personalities on both sides of the debate. The QRZ.Com discussion quickly devolved into a flame war, with neither side scoring a knockout.

Personally, I think the brouhaha is much ado about nothing. It seems to me that it's been demonstrated that you can build antennas using fractal design techniques. They are physically smaller than traditional antenna designs, but you really don't get something for nothing. Overall, they don't have as much gain as Yagis or quads, and they're more complex to build.

My opinion on this is that if W1YW can build antennas that radiate a signal and can sell those antennas to someone, then more power to him. In the end, his company will live and die by how well his antennas work and how much they cost when compared to antennas from other companies.

As for me, I think I'll stick with the more traditional HF antennas. If I need to make my antennas smaller, I'll use loading coils or designs such as the Moxon. I may not be on the bleeding edge of technology, but I'll certainly avoid a lot of headache trying to figure out who's right.

#### **BARC Growth**

It's a rare month when we fail to add or upgrade a few members. Periodically we publish their names so that you can give them a special welcome. There may also be some upgrades and long lost members who rejoin, so greet them, too.

Bob Isaacs WA1SMI

Please welcome new BARC members and congratulate the new upgrades. Make it a point to introduce yourself when you see them at a meeting. In addition, we would like to note here all call sign changes. If you fit any of these categories, please promptly notify the Keeper of the Database, Bob Salow, WA1IDA at: 508.650.9440 or email: walida@arrl.net .



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# I See the Future

14 Feb	BARC VE Session (by reservation)
17 Feb	BARC General Meeting
19 Feb	AARC Flea (Marlboro)
26 Feb	HAM-CON (Colchester VT)
3 Mar	BARC Business Meeting
5 Mar	MtTARA Flea (Feeding Hills)
14 Mar	BARC VE Session (by reservation)
17 Mar	BARC General Meeting
3 Apr	FARA Flea (Framingham)
10 Apr	MS Boston Walk (Rp)
11 Apr	BARC VE Session (by reservation)
17 Apr	BAA 5K/1 Mile Races (Rp)
17 Apr	MIT Flea (Cambridge)
21 Apr	BARC General Meeting
29-30 Apr	Near-Fest (Deerfield NH)
9 May	BARC VE Session (by reservation)
15 May	MIT Flea (Cambridge)
19 May	BARC General Meeting
20-22 May	Dayton Hamvention (Trotwood OH)

(Rp) = BARC Repeater(s) may be used

As you might expect, there are many more events (public service, hamfests, flea markets, etc.) taking place - some only peripheral to ham radio. For information on these, covering New England and some of New York, the "Ham - Electronic Flea Market" and the "PSLIST" lists tell the story. Of course, if you know of an event that would be of interest to the readers, please let the Editor know.

# Solar Update - The ARRL Letter February 3, 2011

Tad Cook, K7RA, reports: The past week had a single zero sunspot day, on Thursday, January 27. Activity came right back, but the average daily sunspot number for the week fell over 12 points to 20.1, and average daily solar flux declined 2.7 points to 80.8.

Predicted solar flux values for the next week are below the average for the previous seven days. Values forecast by NOAA/USAF for solar flux are 78 on February 3-8, 76 on February 9-10, then 80, 80 and 82 on February 11-13.

Predicted A index on February 3-5 is 15, 8 and 8, followed by 5 for February 6-28.

Look for more information on the ARRL website on Friday, February 4. For more information concerning radio propagation, visit the <u>ARRL Technical Information Service</u> Propagation page.

#### Boston Marathon Volunteers Wanted

Ham volunteers are needed for the Boston Marathon on April 18 to provide safety communications and to assist the Red Cross. Assignments are available in Hopkinton, along the route, and in downtown Boston. To volunteer, go to <a href="http://marc.mmra.org">http://marc.mmra.org</a>.

# A Field Day Rule Change

-- ARRL Contest Update, 2 February 2011

The ARRL Contest Branch Manager, KX9X has just released some important information for this year's ARRL Field Day. The "free" VHF station that was previously restricted to Class A participants with two or more transmitters is now available to all Class A operations! This should promote additional VHF and weak-signal operation and know-how. In order to promote better VHF operating practices, a VHF Operator FAQ document presents information on how to operate on 6 and 2 meter SSB and CW, using FM phone, and working the satellites. Field Day offers VHF operating opportunities to hams who may not have tried it before. This document will help them get better results and follow regular operating practices. Now it's up to the VHF operators out there to help their teams get that VHF station on the air and making QSOs! Read more about this year's rules on the ARRL Field Day web site.

# ARRL School Club Roundup Jeremy KB1REQ

On February 14-18, 2011, schools across the country will take to the airwaves for the annual ARRL School Club Roundup. This contest lasts an entire week and is held to encourage the use of amateur radio in the classroom and to expose the next generation of radio amateurs to contesting. The exchange is simple and there are competition levels for every school from elementary to university and for non-school clubs and individuals as well. SCR is not generally regarded as a high-intensity contest; it is rather a chance for schools everywhere to have some fun on the bands.

In years past the Eastern Massachusetts Section has had a good showing for this event. Let's continue that this year! If you are involved with a school club operating this event, let us know so we can listen for them during the contest and share their story with the amateur radio community.

All rules and information available at the SCR website at <a href="http://www.arrl.org/school-club-roundup">http://www.arrl.org/school-club-roundup</a>>.

Repeaters: 145.230 (-) CTCSS 88.5 Simplex: 147.420 443.550 (+) CTCSS 110.9

# Looking Ahead At Public Service -- Bob Salow, WA1IDA

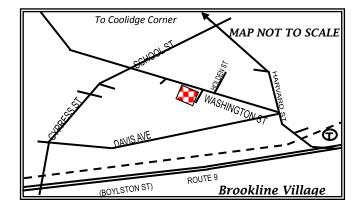
When hams engage in public service as mandated by the FCC Rules, the benefits go well beyond just following the rules. We can enjoy our hobby - have fun! We protect the health and safety of event participants. We support worthy charities. We learn to work within an organized effort. We experience the technical aspects of operating under adverse conditions. We practice communicating under emergency conditions. We can demonstrate these qualities to the communities we serve and thus promote our service for their acceptance.

Throughout the year BARC coordinates numerous public service events. Most of these are open to hams that are new to helping at such events as well as experienced hams. For 2011, we have already been tasked with several events, and more are expected. Feel free to contact Tom Bertolino, KB1P, at 781.608.6186 or **<kb1p@arrl.net>**.

- MS Walk 10 April (Boston/Cambridge)
- ▶ BAA 5K/1 mile 17 April (Boston)
- ➤ MS Journey of Hope 4 May (Natick)
- ➤ Run of the Charles 30 April (Charles River = Needham to Boston)
- ➤ BAA Half Marathon 9 October (Boston)

Other events may jump in on short notice. Among our skills is the ability to apply our technical, organizational and staffing quickly and proficiently. Join our team and join in the fun and learning.

# Direction to the Brookline Police Headquarters, 350 Washington Street, Brookline MA





# Spread the Word

The new e-book versions of the No-Nonsense Technician Class License Study Guide are available for both the Amazon Kindle and the Barnes & Noble Nook.

www.amazon.com/no-nonsense-technician-class-license-ebook/dp/b004g8qvd2/ref=tmm kin title 0?ie=utf8&m=ag56 twvu5xwc2&qid=1295917361&sr=8-1

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Both cost \$9.99. A PDF version is free at <a href="www.kb6nu.com">www.kb6nu.com</a>.

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### **BARC Volunteer Exam Sessions**

The Boston Amateur Radio Club holds monthly VE sessions on the second Monday of each month. *The July, August and October exams are omitted.* Sessions are held at 7:00 pm at Brookline Police Headquarters, 350 Washington St in the Community Room across from information desk. A map is shown below

We give all exams (Technician, General, and Extra). Testing is by reservation only. Please bring the following with you:

- Your current license and a photocopy for the ARRL, if you are upgrading
- · Any CSCEs you are claiming, and a photocopy of them
- Valid ID (picture ID preferred)
- A pen and a calculator (if you want to)
- \$15.00 (good for all the tests you take at that session, except for retests)

Note: Written tests can be taken sequentially at the same session for the same \$15 fee.

The needed FCC forms will be provided.

For further information, contact:

Jim Clogher, N1ICN, 617.364.4658 n1icn@arrl.net Tom Bertolino, KB1P, 781.395.5538 kb1p@arrl.net



#### **Business Can Advertise Here**

The SPARC accepts commercial advertisements. BARC encourages monthly promotion of your products and services which would be of interest to hundreds of our members and others interested in the Amateur Radio Service.

The rates for display advertising are:

1 col x 2 in. (business card) \$15 per issue

1 col x 2 in. (business card) \$75 per 6 consecutive months 1 col x 2 in. (business card) \$125 per 12 consecutive months

1 col x 4 in. (1/2 column) \$30 per issue 1 col x 9.5 in. (full column) \$60 per issue

Originals of ads must be presented to the Editor in MS Word or .jpg format to print 1:1. Other composition will be at extra cost. We will be glad to quote other ad sizes and durations.

Members are urged to seek prospective advertisers who are appropriate to our readers.

For additional information, contact Tom Bertolino, KB1P, at 781.608.6186 or **kb1p@arrl.net**>; or Bob Salow at **kwa1ida@arrl.net**> or 508.650.9440.

# Know Your Magnetic Compass Declination -- ARRL Contest Update, 2 February 2011

Magnetic declination - the difference between True and Magnetic North - varies quite a bit across the US and especially Canada. This NOAA web page at <a href="www.ngdc.noaa.gov/geomagmodels/Declination.jsp">www.ngdc.noaa.gov/geomagmodels/Declination.jsp</a> will figure your magnetic declination based on ZIP code or lat/long, plus the date.

Repeaters: 145.230 (-) CTCSS 88.5 Simplex: 147.420 443.550 (+) CTCSS 110.9

**Cardiopulmonary Resuscitation (CPR)** can help someone survive a cardiac arrest. With CPR you can start a person's heart again and keep them breathing if the heart has stopped beating. To be fully effective, the bystander should have observed the arrest and action started immediately.

New guidelines from the American Heart Association for hands-only (compression-only) cardiopulmonary resuscitation indicate an improvement in recovery over hesitation because of breath contact. Doing CPR is tiring, but it's best to keep on until the emergency services arrive. If there are other people around who can help, you can take turns doing CPR.

The principles of CPR are:

- Pressing down on the person's chest to make blood leave their heart.
- Breathing into the mouth to give them oxygen. However, if you don't want to breathe into someone's mouth, it's better to just press on the chest than do nothing at all.

The idea is to manually help someone's heart and lungs work until medical help arrives. CPR won't usually get someone's heart beating again. That's why you need to keep going until the emergency services arrive.

CPR needs to be done correctly to work. It's best to go to a class to learn how to do basic life support, and to practice. The key steps are below.

Gently shake the person's shoulders and ask them loudly if they are all right. If there is no response:

- Shout for help and dial 911 for an ambulance, or get someone else to do it.
- Turn the person on to their back and make sure that air can get down their windpipe by:
- Placing one hand under the back of the neck, and the other hand on the forehead. Tilt the head back.
- Using your fingertips, lift the chin.
- If you don't think you can do mouth-to-mouth properly, go straight to doing chest compressions. Otherwise, if the person is not breathing and not responding, give them two "rescue breaths" by holding the nose closed and use mouth-to-mouth resuscitation.

Don't waste time trying to find a pulse, as it can be hard to be sure whether you can feel one.

- Kneel by the person's side
- With one of your hands, place the heel in the center of the chest
- Place the heel of your other hand on top of the first hand and interlock the fingers of your hands
- Position your upper body directly above the person's chest and, with your arms straight, press down on the breastbone (sternum) 1 1/2 to 2 inches. This may take some force.

This is called **chest compression**. Don't press on the ribs, the bottom end of the breastbone or the stomach. After each compression, release all the pressure on the person's chest, without taking your hands off the breastbone. You should do about two compressions a second, or about **100 every minute**. The compression and the release should take the same amount of time. If you can keep the CPR going, you are more likely to save the person's life.



#### Your Personal Ad Could Have Been Here

Are you a depressed BARC member because you have a treasure you must turn to cash? Cheer up, Bunky! *The SPARC* will run your (non-business) ad for free. Of course, a 10% donation if you sell it will be cheerfully accepted. Just send your ad to Tom Bertolino, KB1P, at **<kb1p@arrl.net>**.

Repeaters: 145.230 ( - ) CTCSS 88.5 Simplex: 147.420 443.550 ( - ) CTCSS 110.9

### **BARC Officers and Staff**

President: Tom Bertolino, KB1P; 781.608.6186; kb1p@arrl.net

Vice President: Linda Blair, NA1I 617.500.4406; na1i@arrl.net

Secretary: Jim Bradley, KB1JKJ; 978.663.7114; kb1jkj@arrl.net

Treasurer: Jim Clogher, N1ICN, 617.364.4658; n1icn@arrl.net

Volunteer Exams:

Jim Clogher, N1ICN,

617.364.4658; n1icn@arrl.net

Tom Bertolino, KB1P;

781.608.6186; kb1p@arrl.net

Membership Services: Linda Blair, NA1I 617.500.4406; na1i@arrl.net

Public Service: Tom Bertolino, KB1P; 781.608.6186; kb1p@arrl.net

Newsletter Editor: Jim Bradley, KB1JKJ 978.663.7114; kb1jkj@arrl.net

Programs & Activities: Phil Temples, K9HI; 617.744.9780; phil@temples.com

The Boston Amateur Radio Club is a non-commercial association of persons interested in the Amateur Radio Service. The Club is organized for the promotion of interest in Amateur Radio communication and education, for the establishment of emergency communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of the radio amateur in legislative and regulatory matters, and for the maintenance of collegiality and a high standard of conduct.

The Club is open to all persons interested in Amateur Radio without regard to race, color, religion, creed, national origin, gender, disability, or sexual preference. Our General and Business meeting locations are handicap accessible. Other meeting and activity locations may be handicap accessible by arrangement.

The Club is an ARRL-affiliated Special Service Club, and is a member of the Council of Eastern Massachusetts Amateur Radio Clubs (CEMARC) and the New England Spectrum Management Council (NESMC). The Club is also an associate member of the Courage HandiHams system.

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#### Greater Boston Net Directory

Daily 5:30 pm Eastern Mass/Rhode Island Phone Net (NTS) 3.915
Daily 7 and 10 pm Eastern Mass/Rhode Island CW Net (NTS) 3.658

Daily 8 pm Eastern Mass 2M Traffic Net (NTS) 145.230 (PL 88.5)

Daily 8 pm Slow Speed CW Net 28.160

Daily 10:00 pm Heavy Hitters Traffic Net (NTS) MMRA-linked repeaters:

146.610, 146.670, 146.715, 146.820, and all 222 and 440 repeaters

First Mon 8:30 pm EMA Section ARES Net 146.610 and all MMRA links

Mon 9 pm BARC Club Net 145.230 (PL 88.5)

Tue 8 pm MMRA Club Net 146.610 and all MMRA links Wed 8 pm Wellesley Amateur Radio Society Net 147.030; 444.600 (PL 88.5)

Wed 8 pm Wellesley Amateur Radio Society Net 147.030; 444.600 Wed 9 pm HHTN Swap Net 146.640

 Thu 8:30 pm
 AMSAT Net
 146.640

 Sat 9 am
 Northeast SATERN Net
 7.265

 Sun 9:30 am
 Yankee SSB Net
 50.275

Sun 8 pm Algonquin Amateur Radio Club Net 446.675 (PL 88.5)

Sun 8:30 pm NSRA Net (with Newsline) 145.470



DB by

Memb Nr

# Boston Amateur Radio Club MEMBERSHIP INFORMATION - 2011

Members: if you have already renewed for this year, please use this form to sign up a friend.



Gratuitus est per

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General	Life Annual	you wish to <b>restrict</b> such limited online. You will be notified monthly by email to link to a web page where the					
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ARRL certified VE?	ICS-700? YES NO						
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Membership Category ———			Full year <b>2011</b> if paid Half year <b>2011</b> if paid between between				
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FAMILY MEMBER: [Regular member I live with				2.50	\$ 6.50		
I am the family member to receive club mailings YES NO							
Note: Each mem	ber in the family <b>must</b>	complete a separate form.	! !		! !		
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Your cancelled check is your receipt; membership acknowledgement is for the year shown on the newsletter address label.  BOSTON AMATEUR RADIO PO Box 15585							
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