



VOLUME 56 ISSUE 4

May 2006

BPL UPDATE Bob Witte KØNR

You've probably heard about Broadband over Power Line, commonly known as BPL. This technology uses an electric utility's power lines to deliver broadband Internet to consumers. Sounds pretty good until you understand how many of these systems cause interference to the ham bands. This is an update on what is happening around the nation and in Colorado concerning BPL.

First, the good news, we have formed an amateur radio BPL team in Colorado to monitor the situation and deal with any interference issues. Here's more good news: we have not heard of any BPL deployments in Colorado. Some utilities have looked at the technology but so far none of them have deployed it. If you hear of a BPL deployment in the state, please contact me at the email address or telephone number shown above.

BPL Deployments - Nationwide: Here are some recent developments across the US concerning BPL and ham radio:

- City of Manassas (Virginia) and COMTek continue to deny that BPL

presenting flawed measurements from a third party. ARRL continues to call on the FCC to shut down this BPL system. The local ham community is doing an excellent job of documenting the interference.

- BPL interference continues in Briarcliff Manor, New York. The ARRL sent a letter that takes both BPL operator Ambient Corporation and the FCC to task, documenting continued interference on Amateur Radio frequencies.
- Cinergy Corp's BPL deployment in Cincinnati, Ohio, using Current Technologies equipment, has proceeded *without major interference problems*. This is good news as it indicates that not all BPL deployments are a problem to ham radio. A BPL field trial in Cottonwood, Arizona, that drew complaints from Amateur Radio operators from 2004 until earlier this year apparently has shut down for good. The small system, which Mountain Telecommunications Inc (MTI) operated under FCC Part 5 Experimental license WD2XMB, is now silent.
- The Southern Maryland Electric Cooperative (www.SMECO.com) has ended a limited broadband over power line (BPL) pilot project, concluding that the technology

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BPL Update - Cont'd

is not yet ready for prime time in its service area.

- **Avista Utilities** announced this week that it's re-evaluating its plans to deploy a broadband over power line (www.arrl.org/BPL) project in Northern Idaho. The company, which serves some 330,000 electrical power customers in three western states, said it and a BPL vendor had "mutually agreed" to end contract negotiations for the test deployment.
- The latest FCC statistics on the status of high-speed Internet services indicate a minuscule market share for broadband over power line (BPL). [FCC Wireline Bureau report, "High-Speed Services for Internet Access: Status as of June 30, 2005,"] Fundamentally, BPL is failing in the marketplace.

Technology Developments

It is important to note that several BPL equipment vendors are having success with avoiding interference to ham radio frequencies. The ARRL has correctly taken the position that the amateur radio community is *not opposed to BPL*, but is *opposed to BPL systems that cause interference* on the amateur bands. These technical developments are encouraging:

- A demonstration at ARRL Headquarters of DS2 BPL equipment suggests the manufacturer is working to minimize--if not altogether eliminate--interference from its products on amateur bands. The

new DS2 technology is capable of 40 dB notches in the ham bands.

- Current Technologies BPL equipment has been deployed successfully in Cincinnati without significant amateur radio interference. Current has avoided putting high-frequency energy on the medium-voltage lines by using low-band VHF (30-50 MHz) instead. Current's system uses Homeplug modems, which avoid all ham bands except 60 meters, to connect to individual customers.
- A Motorola "Powerline LV" BPL system has been installed and tested at ARRL Headquarters, operating without interference to ham radio frequencies.

BPL Team

If you hear about a BPL deployment in Colorado, please contact the Colorado BPL Team via Bob Witte bob@k0nr.com, <http://www.k0nr.com/bplteam.html> Members of the Colorado BPL team are Bob Witte KØNR, Ron Hranac, NØIVN, Randy Reynard, NQØR, Jim Pierson, N1SZ, and Kit Haskins, KAØWUC. ###

NONPROFIT STATUS

The PPRAA is a federal 501(c)(3) nonprofit organization, and welcomes all contributions. Your contributions or donations may be tax-deductible.

AMATEUR RADIO LICENSE EXAMINATIONS

June 10 -- Aug. 12 -- Oct. 14 -- Dec. 9

9AM Colorado Technical University
4435 North Chestnut

Exam fee is \$14.00 for 1, 2, 3, or all 4 elements at a session. Checks payable to ARRL/VEC.

For further details: contact Erik Mugele KGØXE or Dennis Major NØABC or visit the PPRAA web site.

FIELD DAY
June 24-26
Dan Scott KBØPPM

Field Day will again be held at Sourdough Valley Agilent Recreation area. This beautiful location is near Woodland Park and has been a favorite location for Field Day over the years.

Last year we had a Geo-caching event which went over well with individuals and families. This year we are looking at repeating that, and maybe add some twists. If you have a family oriented event that you think would work well at Field Day please contact me. (Dan KBØPPM)

Food:

Again, Mona has volunteered to cater most of the meals this year!!! So those of you who really like good food, be prepared for a treat.

Saturday:

Breakfast: 0600-0800
Lunch: 1100-1300
Dinner(potluck) 1600-1800

Sunday:

Breakfast 0600-0800
Lunch(maybe)1200-1400
1. 24-hour coffee during Field Day operations
2. Donations welcome for food and coffee but not required
3. Potluck dinner
a. EVERYONE bring a main for yourself, family, or share a dish

b. A through I - salad
c. J through R - dessert
d. S through Z - side dish

4. Soda will be available to purchase
5. We will need volunteers to help with KP duty at each meal, please help!

Stations:

This year the call will be AFØS (3A Colorado) with the GOTA call NXØG. We will have 3 primary transmitters this year:

HF CW Mike KØTER
(coordinator)

HF Digital Jim W9KOZ
(coordinator)

HF SSB (volunteers?)

The "free" stations will be:

Satellite Tom NØNTX
(coordinator)

GOTA Paul NØPWM
(coordinator)

VHF/UHF (volunteers?)

If you operate any non-contest modes, these modes can be used as demonstration modes. Please contact me with the mode you want to demonstrate and when you would be available, I'd like to get a schedule posted for demonstrations, if you are not sure when you will be available for a demonstration that's fine too.

Digital:

Some have asked why the addition of Digital this year. Being Field

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Jess Miley

KØTAA

719 W. 7th, Florence, CO 81226

Amateur & Hobby Radio Products. We Trade.

Excellent Tech @ \$35 per hour Commercial rates higher / 719-784-3040

WILL BE AWOL MONTH OF SEPT 06. MIGHT MAKE IT BACK BY 9-20.

Please call before you drive.

Field Day Cont'd

Day's primary goal is to make sure we are field ready for emergencies; I thought the additional station will provide some form of Digital Education for us that are not equipped for digital. The additional station will also mean we will have 4 HF stations operating simultaneously, adding a challenge we may see during a field deployment and therefore an important opportunity.

If you are ARES ready for digital, you might want to get in touch with Jim (WØKOZ). I would really like to see the ARES modes either worked during Field Day or if they are not contest modes, have them available for demonstration modes.

CW:

CW contest operators are needed. If you work CW and would like to try Field Day contesting, please get with Mike (KØTER) to coordinate operating schedules.

SSB:

We still need someone to volunteer as coordinator

GOTA:

The rule-of-thumb for the GOTA station is to never get use to the rules. Again there are a number of rules changes. In general, if you have friends and family that want to get on the air, bring them. If they are high school aged (or less) we can get even more points.

Questions or need contact information?:
Contact Dan Scott - KBØPPM
(kbøppm@arrl.net)

Disclaimer:

Things are not yet finalized. I'm sure there will be changes, check the PPRAA web site (ppraa.org) for current information. ###

**COMMITTEE CHAIRS/
POINTS OF CONTACT**

Auditing:	Open
Asset:	Mike Stansberry KØTER
E-Mail Refl:	John Wishart KCØJFH kcøjfh@arrl.net / 488-2439
Field Day:	Dan Scott KBØPPM
Swapfest:	Rick Brown KØSU køsu@adelphia.net 531-9423
Historian:	Ron Deutsch NKØP
Interference:	Bill Petty NØNJX
Membership:	Les Borst KCØNC
Programs:	Mike Allison KØMLA k0mla@arrl.net 590-4812
Publicity:	Christopher Taylor NC6T nc6t@arrl.net 260-8081
Public Service:	Mike Stansberry KØTER
Tech Ed:	Mike Anderson WV7T wv7t@arrl.net 229-8610
VEC Liaison:	Dennis Major NØABC nøabc@arrl.net 531-6774
VE Contact:	Erik Mugele KGØXE ve@teuton.org 278-4363
Webmaster:	Doug Nielsen N7LEM n7lem@n7lem.net
AMSAT Coord:	Tom McDaniel NØNTX
ARRL Awards Mgr:	Rick Brown KØSU
ARES Em. Coord:	Dean Haskins KAØPII
ARES Liaison:	Mike Stansberry KØTER
ARRL Section Mgr:	Jeff Ryan KØRM
CCARC Liaison:	Dan Scott KBØPPM
HamCon Chairman:	Jerry VerDuft ADØA
RACES Officer:	Doc Cornell WØMCT

To Contest or Not to Contest

WV7T

Many people conjure up visions of Blood, Sweat and Tears when they hear the term Contesting. Well, it is not always like that. Sure, there are the Out-For-Blood crowd, there are the Skills-Honed-To-Perfection, Cream-Of-The-Crop operators, but there is another more colorful side Contesting. I call it Contesting Lite.

My contesting began in the summer of 1971 when I participated in the PPRAA Field Day in Memorial Park as a brand new Novice ham (I was 16 at the time). I wasn't very skilled and only made one contact, Rosie, WAØMNL. (Rosie left the Field Day site and went home to work me from her station). With amazement and envy I watched the club members in the van with the beam atop the light pole racking up the QSOs. For me, that's where my contesting experience started.

For 35 years I have participated in contests around the world and in all different modes. My contesting is slow and relaxed. I don't rack up the big scores, but I have won many, many contest awards. Once I won an ARRL 10 meter contest with 28 QSOs. Recently I won 1st place in both 2005 ARRL CW-SSB Sweepstakes (school) in the Rocky Mountain Division. Contesting has more facets than just the numbers.

Join me at the May 10th meeting and I'll show you the laid back style of Contesting Lite. You might find yourself in front of your rig trying a contest on for size.



Ask me about this picture at the meeting

Megafest 2006 – KØSU

Location:

Lewis-Palmer H.S. 1300 Higby Rd Monument, CO 80132

Date/Time

Date - July 8, 2006
Vendor entrance – 0600
Ticket sales 0730
General entrance 0800
Drawing at 1200
Close 1300

Raffle License

Raffle - License No. 2006-0304

Main Prizes

Grand Prize: Yaesu FT-897D HF/VHF/UHF Xcvr
Second Prize: Yaesu FT-8800R Dual Band Mobile Xcvr
Third Prize: Yaesu VX-6R Dual Band HT

Hourly Prizes

Susan, KCØSYA
Anything new?

Raffle Tickets

Jim
Christopher
5000 Printed
How many sold so far
Purchase barrel for club use – Christopher will look into this – where do we stand? We have new barrel. It needs a couple of slight modifications.

Tables

John, KCØJFH
Visit L-P Results
Have table map to hand out to vendors
John has completed a layout.
Small number of table sales (five I think)

Publicity

Christopher
Flyer complete
Susan will give flyers to folks she sends letters to looking for prize donations
Copies to HRO
Have we distributed around town
Jerry, ADØA said he would have flyers in Hamcon registration packets if we give them to him
Any new publicity: Send to CQC Reflector.
Talk to Mo about nets.
Talk to NØWGQ about Colorado Connection Net

Hamcon

Table – Sign up sheet had one person
Board members will be there. Need to see Hamcon schedule first

ARRL Sanctioning

Jim, ABØUK This is done but we need to get on QST calendar.
Christopher will take care of that along with World Radio and CQ

Food

Su, KCØPRN
Has new Troop willing to do this
Troop 8
St. Mathias Church, Monument
Scoutmaster Michael McKinley
481-0098

Mike.McKinley@email.com

Check availability of food service counter in school. Number of tables needed.

Talk – in

Doc WØMCT, told me needs a table for talk-in
Dennis NØABC 146.97 repeater usage – will do that

Forums

EOSS
ARRL – Talked to Jeff. He is not certain a forum is well enough attended to make it worth while.
Discussed New Ham forum. Person is not available but might want to do at a club meeting.

QSL Card Checking

DXCC – Contacted Joe, K8FC and he is available
WAS/VUCC – Rick, KØSU available

VE Testing

Dennis, NØABC - Discussed how much the VE group will give to club
VE team will pay us \$4 per person tested

Medical

Ski Hipszky, NØPRY
Done – confirm later in year

Announcer

Mo WBØRTF
Need to confirm availability of PA system
John asked, but the school did not respond
Alternative???

Vendors

Jess Miley – Response that he will try to be there but will let us know if time to sell other tables if he can't make it.
No response from others. My goal in the next couple of weeks it to get some response – positive or negative.
Kartronics, Mountain West, Arrow Antennas, Bob's Electronics, Badges – Jim, ABØUK will check, Mad Pack Rat Market, Wes's sister, Hanger18
Sent information on these vendors and a couple of others to Su. She will try calling them.

Club Table

Mike WV7T and Jim ABØUK will man table – probably need two table for club assets
Elecrafft table next to club table.

Expenses so far: Prizes, Flyers, Table, Other?

Income: Ticket Sales, 476 tickets so far, ~~ \$400

NEXT MEETING: 20 May

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PPRAA BOARD MEETING MINUTES**16 April 2006**

Attendees: Christopher NC6T, Mike KØMLA, Jim ABØUK, Mike WV7T, Rick KØSU, John KCØJFH, Su KCØPRN.

Christopher called the meeting to order at 7PM.

The minutes were approved as printed in the Zero Beat.

Reports

Treasurer's Report - Jim ABØUK reported the total balance in our 3 accounts was \$59767.37 as of 4/16/2006.

Vice President's Report - Mike KØMLA outlined upcoming programs:

May - Contesting by Mike WV7T

June - Field Day Prep

July - Hamcon Overview AD0A

Aug - RF Interference

Sept - BPL Update (possible)

Oct - Election

Nov - TBD

Dec - Xmas party

Unfinished Business

Annual Inventory - Rick KØSU & Mike KØTER completed the inventory. We still need to get the written list file updated. What do we want to keep/get rid of? How should we dispose of the excess? Suggestions are welcome.

Hamcon 2006 Rick KØSU - still seeking volunteers to man the club table.

Donation letter - Mike WV7T - Fr. Tom W2TJO has a Gap Titan antenna to be donated to the club worth about \$200. He needs a letter of acceptance. Christopher will draft a letter to be provided when it gets picked up. Person to pick it up is TBD.

Tech Class Status - Frank was unable to get his class going due to a lack of a suitable location. Mike WV7T is working on getting his outbuilding cleared out and turning it into a classroom training and storage area.

Projector Loan Policy - Jim had a lawyer friend review this. Christopher will provide the document to Doug to post on the website.

Pike Peak Discovery 200th anniversary special event station - Mike KØMLA - planning for this activity is proceeding with the Pioneers Museum.

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PRESIDENT:

Christopher Taylor NC6T*
nc6t@arrl.net / 260-8081

VICE PRESIDENT:

Mike Allison KØMLA
k0mla@arrl.net / 590-4812

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DIRECTOR:

Mike Anderson WV7T*
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DIRECTOR:

Suisei Goguen KCØPRN
cobweb@divide.net / 481-8684

DIRECTOR:

Paul Moraine NØPWM
pmoraine@msn.com / 638-0273

** In final year of 2-year term.*

Board Minutes - Cont'd

Mike is setting up the QSL card design. This will be on July 1st Sat. (tentative date).

New Business

Request for donations from the Jefferson ARC in LA was reviewed. We will post a notice on our website for the donation request.

After some discussion, Mike KØMLA/Rick KØSU moved/seconded that we offer a 2006/2007 membership for initial (not upgrade) licenses earned (regardless of class) at PPRAA-sponsored VE sessions through Dec 2006. Passed.

Received a letter of acknowledgment from the Hamcon 2006 organization for our donation of the radio prize.

Received a letter confirming and acknowledging our support for Riley Hollingsworth's trip for Hamcon 2006.

Jess Miley needs one more run of his ad in the Zero Beat.

Round The Table

Rick KØSU - Megafest meeting this Sat 9AM at The Remodeler.

Mike MLA - What should we do with our extra Zero Beats? Can we give them to Centennial Electronics or other enterprise?

Mike WV7T - would like people to come by and look at his outbuilding and offer suggestions for improvement.

The meeting was adjourned at 8:33 PM

Next Board meeting: Monday, May 15, 2003, 7AM, at The Remodeler

Submitted by:
John Wishart KCØJFH
PPRAA Secretary
22 April 2006

**PPRAA CLUB MEETING MINUTES
12 April 2006**

President Christopher Taylor NC6T called the meeting to order at 7 PM in the El Paso County Health Department Auditorium, followed by introductions around the room.

Silent Keys: Russell Calaway KBØFNM

Pat KCØMIR/Mike WV7T moved/seconded that the minutes be approved as printed in the Zero Beat. Passed.

Treasurer's Report: Jim ABØUK reported that we had a \$5938.25 total balance in our three accounts as of 4/9/2006.

Committee Reports:

Reflector - John KCØJFH - we currently have 150 e-mail individuals on our reflector membership list.

Field Day - Dan KBØPPM noted that coordinators are still needed for the HF SSB and UHF/VHF stations. He would like to have motorized transportation available for between-station transport for those not able to move well. Does anyone have a golf cart we could use during Field Day please?

Programs - Mike KØMLA

May - Contesting - Mike WV7T

June - Field Day Preparation

July - TBD

August - Picnic

September - Hamcon 2006 Overview

October - Elections

Special Event Station - Mike KØMLA - This will commemorate the discovery of Pikes Peak by Zebulon Pike. It will held in early July at the Pioneers Museum. KØCI's XYL will be assisting w/ publicity.

Technical Education - Mike WV7T noted that he has a building available when he can get it cleaned out. This will be used for ham classes. He offered that if anyone is interested in

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PPRAA PRESIDENT'S CORNER

Wow, spring sure has started off fast around here. It seems like the upcoming amateur radio activities that are scheduled "sometime this summer" will be here before you know it. The first big event on my calendar is HamCon Colorado 2006 June 9-11 up in Estes Park. This should be a fantastic convention with a full slate of engaging amateur radio topics and plenty of vendors. Get yourself registered now if you haven't done so already! The program schedule is available on the convention web site at www.hamconcolorado.org.

Just a few weeks after HamCon, our club will be working with the Mountain Amateur Radio Club to put on a great Field Day event June 24-25. Dan KBØPPM is coordinating from the PPRAA side. Check out the Field Day page on the PPRAA web site for the latest details on the event. There are many ways you can help out, just let Dan know you'd like to participate.

Speaking of Field Day, Tom NØNTX has once again graciously volunteered to coordinate a group order of official Field Day T-shirts and pins for the club. By making a group order, we are able to take advantage of reduced shipping rates. Tom will place the order by mid month so he will have the items available in time for our June meeting. You can check the ARRL web site for the details on the items and then give Tom your order. He can be reached at n0ntx@amsat.org or 570-1465, and of course at this month's meeting.

This year the Pikes Peak International Hill Climb does not conflict with any other major amateur radio activity since it is

scheduled for July 1. Pat KCØMIR is once again orchestrating the extensive amateur radio support this event calls for. Please get in touch with Pat soon if you want to participate in this exciting day of racing and unpredictable weather! Pat can be reached at pwkellysr@juno.com.

The club's annual fundraising event, the Megafest, takes place on Saturday July 8 at Lewis-Palmer High School in Monument. Rick KØSU is our Megafest chairperson coordinating the efforts of many club members to ensure we have a memorable event. Jim ABØUK and I traveled up to Longmont in April for the annual Longmont Amateur Radio Club LARCfest. We set up a table there to promote the Megafest and sell raffle tickets. We received lots of encouraging feedback that many hams will be making the trip to Monument in July to take part in the Megafest. Make sure you mark your calendars too!

Mike WV7T is still soliciting your ideas for a time and place for a monthly club social breakfast. So far it will be between 7:00 and 9:00 on a Saturday in each month; he has a few possible restaurants that have been suggested. Get in touch with Mike and let him know where and when you'd like to meet up with fellow club members to share breakfast and some amateur radio in-person rag-chewing. You can email Mike at WV7T@aol.com or catch him at a club meeting.

Well I've only been able to cover some of the bigger events here. Watch for announcements of other opportunities to be radio active soon!

73,
Christopher NC6T

Club Minutes - Cont'd...

contesting, they are welcome to join him at his home for contests. The Diabetes Walk needs volunteers for communications. Contact Mike at WV7T@arrl.net interested.

VE Liaison - Dennis NØABC had 8 candidates at last Sat session. All passed. The exams are held the second Saturday of even months. (June 10 is the next exam). The suggestion was made to offer PPRAA membership to new licensees at the PPRAA-sponsored VE sessions. This will be reviewed at the board meeting.

Megafest 2006 - Rick KØSU. Planning is proceeding well for this event. It will be held on Saturday, July 8, 2006 at Lewis Palmer High School in Monument. Next planning meeting will be 9 AM, Saturday, April 22, at The Remodeler, 3205 N Hancock.

Webmaster - Doug N7LEM - Field Day page is now available on our new web site, www.ppraa.org. He is working on some other new features to be announced.

AMSAT - Tom NØNTX. Some small telemetry satellites were launched recently. See www.amsat.org for further info.

ARRL Awards Checking - Rick KØSU - ARRL will now accept Logbook of the World QSL information.

Hamcon 2006 - Rick KØSU - Our club will have a table at the event. Volunteers are needed to man this. Please sign up for a stint at the table if you are attending.

ARRL CO Section Manager Report - Jeff KØRM - 25% of advance registrations for Hamcon 2006 are from Colorado Springs. The next CCARC meeting is April 29 at the Valmont Presbyterian Church in Boulder. They do repeater coordination. Contact Jeff at kØrm@arrl.net for further info.

Public Service - Wes Wilson and Dean Haskins gave a DRT presentation to the J6 staff at Cheyenne Mountain.

Pat KCØMIR - Pikes Peak Hill Climb is on July 1. Volunteers are needed for this. See Pat for forms and e-mail. First meeting is April 29.

Dave NØEOP - be very cautious about receiving false emergency transmissions. These have been occurring recently.

Jim ABØUK - Please pay up on late dues. Foxhunt recently in Denver. Watch the reflector for announcements of future foxhunts. Planning on special event nights in the future.

ARES/RACES - Dave NØEOP - having digital training at next Thursday meeting.

New Business

Hammy Award - Dennis NØABC presented the award to Jim ABØUK for his service to the club as treasurer.

Program - Peter I Island DXpedition (3Y0X) to Antarctica 2006. Don DuBon N6JRL gave a fascinating account of this trip. He also presented plaques to our club and to Dave WA6IFI and Jeff KØRM for their support of the event. See www.peterone.com for more info and pictures.

Next Club Meeting: 7 PM, Wednesday, May 10 at the El Paso County Medical Department Auditorium.

Next Board Meeting: 7 PM, Monday, May 15 at The Remodeler.

Submitted by:

John Wishart KCØJFH
PPRAA Secretary
22 April 2005

MEMBERSHIP APPLICATION

All memberships are up for renewal at the end of the year. If you haven't renewed your membership yet, please use the form at the bottom of this page, and fill out all of the appropriate information so that the Membership Committee can update the records. Include your family so they can share the value and the fun. If you know someone interested in joining, make a copy for them or have them visit PPRAA on the web and download a copy of the PDF file at www.qsl.net/ppraa/membership.html.

Membership Application for the Pikes Peak Radio Amateur Association, Inc. P.O. Box 16521, Colorado Springs, CO 80935-6521			
Date: _____	<input type="checkbox"/> New Member	<input type="checkbox"/> Renewal	In which activities would you like to participate?
Name: _____			Field Day <input type="checkbox"/>
Address: _____			Demonstrations <input type="checkbox"/>
City: _____ State: _____ Zip: _____			Nets or round tables <input type="checkbox"/>
Call: _____ Class: N T + G A E Phone: _____			Organize activities <input type="checkbox"/>
Mbr of ARRL? <input type="checkbox"/> Yes <input type="checkbox"/> No E-mail: _____			Teach ham classes <input type="checkbox"/>
Additional Family Members to Join/Renew:			Full Member \$15: <input type="checkbox"/>
Name: _____ Call: _____ Class: _____ ARRL? _____			Family Membership \$18: <input type="checkbox"/>
Name: _____ Call: _____ Class: _____ ARRL? _____			Over 65 \$10: <input type="checkbox"/>
Name: _____ Call: _____ Class: _____ ARRL? _____			Over 65 Family \$12: <input type="checkbox"/>
			Associate \$12: <input type="checkbox"/>
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			Donation to Club: \$_____
			Total Enclosed: _____
MAKE ALL CHECKS PAYABLE TO "PPRAA"			
Please indicate how you'd like your Ø-Beat delivered: <input type="checkbox"/> Standard hardcopy via U.S. Mail			
(Defaults to standard hard copy in the event that NO check boxes are checked) <input type="checkbox"/> As a PDF file attachment via e-mail, to help save a few bucks			
<input type="checkbox"/> I'll save the club a few bucks and download it from the Web!			
Circle your interests ⇒ HF / V/UHF / FM / SSB / Digital / DX / Contests / Technical / Hardware / Other _____			
New and renewing members must submit a completed application form along with your check to the Treasurer.			
Please Type or Print Clearly!			

**Pikes Peak Radio Amateur Association, Inc.
P.O. Box 16521
Colorado Springs, CO 80935-6521 USA**

First Class Mail

To: