



# THE SHORT CIRCUIT

October 2004

## THE NEWSLETTER OF THE ARCTIC AMATEUR RADIO CLUB

The Arctic Amateur Radio Club (AARC), Alaska's first amateur radio club, was formed in Fairbanks in 1939 and was incorporated as an Alaska non-profit organization in 1966. We have about 121 members and we meet September through May at 7:00 p.m. on the first Friday of the month at the Geophysical Institute University of Alaska. All interested persons are invited to attend.

o Larry Ledlow	<b>N1TX</b>	President
o Rod Mitchell	<b>KL7YU</b>	Vice-President
o Kevin Abnett	<b>NL7WO</b>	Secretary
o Benny Benevento	<b>NL7XH</b>	Treasurer
o Mike Drury	<b>KL7GL</b>	Board Member
o Steve Estes	<b>KL7XO</b> 488-0483	Board Member
o Dan Wietchy	<b>KL1JP</b>	Board Member
o Alex Cryan	<b>AL7EX</b>	Board Member
o John Slater	<b>KL1AZ</b> 488-5209	Board Member
o Jim Movius	<b>KL7JM</b> 452-6347	Board Member
o Linda Mullen	<b>AD4BL</b>	Board Member Past President

### Alaska Radio Nets:

**Alaska Sniper's Net 3.920 Mhz 0300 UTC (1800 L) daily**  
**Alaska Bush Net 7.093 Mhz 0400 UTC (1900 L) daily**  
**Alaska Motley Net 3.933 Mhz 0600 UTC (2100 L) daily**  
**Alaska Pacific Traffic Net 14.292 Mhz 1900 UTC (1000 L) daily**  
**Interior Net 146.88 Mhz 0500 UTC (2000 L) Sunday**

### Club Minutes:

No minutes at this time.

### Board Meeting Report:

No minutes at this time.

### Ham Classes:

Just wanted to remind all that it is scheduled for Nov. 15<sup>th</sup> through Nov. 19<sup>th</sup> at the Food Bank. Exams will be given for Technician Class license ONLY on Friday night ... Exams will begin around 8 PM. The exam will be open to everyone not just the class takers.

If you know of someone that wants to attend the class please have them contact me at: [bennie@gci.net](mailto:bennie@gci.net) or call me at 479-5203. Benny NL7XH

## Events Schedule:

5 Nov 04 AARC Club Meeting  
11 Nov 04 Board Meeting  
3 Dec 04 AARC Club Meeting  
9 Dec 04 AARC Board Meeting  
7 Jan 05 AARC Club Meeting  
4 Feb 05 AARC Club Meeting  
5/6 Feb 05 Jr. Yukon Quest  
10 Feb 05 AARC Board Meeting  
13 Feb 05 Yukon Quest/250 Start Whitehorse  
4 Mar 05 AARC Club Meeting  
10 Mar 05 AARC Board Meeting  
1 Apr 05 AARC Club Meeting  
7 Apr 05 AARC Board Meeting  
6 May 05 Last AARC Club Meeting before summer break  
12 May 05 AARC Board Meeting  
Jun 05:  
    Yukon 800 Boat Race  
    Cure-de-Tour  
24-27 Jun 05 Montly Group Picnic  
Aug 05 Annual AARC Picnic  
Sep 05 AARC HamFest  
7 Oct 05 AARC Club Meeting  
14 Oct 05 AARC Board Meeting  
4 Nov 05 AARC Club Meeting  
10 Nov 05 AARC Board Meeting  
2 Dec 05 AARC Club Meeting  
8 Dec 05 AARC Board Meeting

## AARL NEWS:

SB QST @ ARL \$ARLB030  
ARLB030 FCC Adopts New BPL Rules

ZCZC AG30; QST de W1AW; ARRL Bulletin 30 ARLB030  
From ARRL Headquarters Newington CT October 15, 2004 To all radio amateurs

SB QST ARL ARLB030  
ARLB030 FCC Adopts New BPL Rules

Meeting October 14 in open session, the FCC adopted revised Part 15 (unlicensed services) rules to specifically regulate broadband over power line (BPL) systems. Specifics of the new rules in a Report and Order in ET Docket 04-37 won't be known for a few weeks. In comments before voting, three members of the Commission, including Chairman Michael K. Powell, specifically mentioned the concerns of Amateur Radio operators and expressed either assurances or hope that the new BPL rules will adequately address interference to licensed services.

Republican FCC Commissioner Kevin Martin addressed Amateur Radio's and broadcasters' interference concerns in his written statement.

ARRL President Jim Haynie, W5JBP, said he was encouraged to see the Commission acknowledge interference to Amateur Radio as a genuine issue in the BPL proceeding.

"What the League has done in the last year and a half on this issue showed in the Commission's public meeting today," Haynie said. He cited the FCC's approval of three major points that the League had been pushing for: Certification of BPL equipment instead of verification, a requirement for a public BPL database--something the BPL industry did not want--and mechanisms to deal swiftly with interference complaints.

Anh Wride of the FCC Office of Engineering and Technology (OET), outlined the draft R&O and acknowledged that Access BPL devices "pose a somewhat higher potential for interference to licensed radio services than typical Part 15 devices." But, Wride went on to say, "we believe the specific benefits of BPL warrant acceptance of a small degree of additional risk, and that this interference potential can be satisfactorily managed."

Commissioner Michael Copps, a Democrat, said he remains concerned about interference to Amateur Radio users. "I take the concerns of this community very seriously and believe that the FCC has an obligation to work hard to monitor, investigate and take quick action, where appropriate, to resolve harmful interference."

Copps said if interference occurs, "we must have a system in place to resolve it immediately," and he expressed the hope that the new rules would include such "rapid turnaround" provisions. Copps, who dissented in part with the R&O, raised the question of whether utility ratepayers should have to "subsidize an electric power company's foray into broadband."

The Commission's other Democrat, Jonathan S. Adelstein, said the interference question made the proceeding a challenging one because it had to accommodate concerns raised by Public Safety licensees, federal government users and Amateur Radio operators. "These are important services that we need to protect from harmful interference," Adelstein said.

Adelstein also said that while it's clear that some BPL systems canco-exist with existing licensees, others "haven't fared so well." He said those systems shouldn't be deployed commercially until it's assured that they won't cause harmful interference.

Commissioner Kathleen Abernathy, a Republican, said the FCC had to "make some hard compromises" to deal with questions about interference. But she expressed confidence in "technical solutions."

Chairman Powell called it "a banner day" for communications in the US because, he said, BPL promises "ubiquitous service to all Americans at affordable rates." The chairman, a Republican, conceded that BPL will affect some spectrum users--including "all those wonderful Amateur Radio operators out there." Powell said the FCC has taken Amateur Radio interference concerns seriously from the start and has taken care to ensure that protections are in place "to allow that service to continue." At the same time, Powell implied that the FCC must balance the benefits of BPL against the relative value of other licensed services.

"But let me underscore the potential for the American economy is too great, too enormous, too potentially groundbreaking to sit idly by and allow any claim or any possible speculative fear keep us from driving this technology and drive America into the broadband future."

ARRL CEO David Sumner, K1ZZ, suggested that Powell was overstating the necessity of yet another broadband pipeline. "It's astonishing to me that the chairman of the FCC can talk about needing a 'third way' to provide broadband to consumers when multiple technologies already are available, including wireless broadband," he said.

For more information on BPL, visit the "Broadband Over Power Line (BPL) and Amateur Radio" page on the ARRL Web site, [www.aarl.org/bpl](http://www.aarl.org/bpl).

**SB QST @ ARL \$ARLB032, ARLB032 FCC BPL Report And Order stresses interference avoidance, resolution**

**ZCZC AG32**

QST de W1AW

ARRL Bulletin 32 ARLB032; From ARRL Headquarters, Newington, CT October 29, 2004

**To all radio amateurs**

**SB QST ARL ARLB032**

ARLB032 FCC BPL Report And Order stresses interference avoidance, resolution

The FCC has released the full BPL Report and Order (R&O) in ET Docket 04-37 that it adopted just two weeks ago. While extolling the purported benefits of broadband over power line technology, the 81-page document also declares the FCC's intention to "protect licensed services from harmful interference."

"We recognize that some radio operations in the bands being used for Access BPL, such as those of Amateur Radio licensees, may occur at distances sufficiently close to power lines as to make harmful interference a possibility," the FCC conceded. "We believe that those situations can be addressed through interference avoidance techniques by the Access BPL provider such as frequency band selection, notching, or judicious device placement."

Notches would have to be at least 20 dB below applicable Part 15 limits on HF and at least 10 dB below on VHF. The FCC called the ability to alter a system's operation to notch out transmissions on specific frequencies where interference is occurring "a necessary feature for resolving interference without disrupting service to BPL subscribers."

The FCC declined to reduce the Part 15 radiated emission limit for BPL systems. It maintained that emissions from BPL systems are very localized and at low enough levels to generally preclude harmful interference.

The FCC said while it had no evidence before it that BPL operation would significantly contribute to background noise levels, it seemed to put some of the onus on Amateur Radio licensees to take steps to avoid power-line interference—and, by inference, BPL interference—in advance.

"In addition, because power lines inherently can radiate significant noise emissions as noted by NTIA and ARRL, good engineering practice is to locate sensitive receiver antennas as far as practicable from power lines," the FCC said.

In a footnote, the FCC admonished ARRL that in cases where its members experience RF noise, "such noise can often be avoided by carefully locating their antennas; in many instances an antenna relocation of only a relatively short distance can resolve noise interference."

BPL operators would be required to avoid certain bands, such as those used for life and safety communications by aeronautical mobile or US Coast Guard stations. The FCC R&O makes clear, however, that similar rules will not apply to the Amateur Service.

"We similarly do not find that Amateur Radio frequencies warrant the special protection afforded frequencies reserved for international aeronautical and maritime safety operations," the Commission said. "While we recognize that amateurs may on occasion assist in providing emergency communications," the FCC added. It described typical amateur operations as "routine communications and hobby activities."

The Commission reiterated its belief that BPL's public benefits "are sufficiently important and significant so as to outweigh the limited potential for increased harmful interference that may arise."

Among other specific provisions, the FCC's new rules mandate certification of BPL equipment instead of the less-stringent verification, a public BPL database—something the BPL industry did not want—and mechanisms to deal swiftly with interference complaints. BPL systems will have to incorporate the ability to modify operation and performance "to mitigate or avoid potential harmful interference" and to deactivate problematic units, the R&O says.

Further, the new rules spell out the locations of "small geographic exclusion zones" as well as excluded bands or frequencies—concessions made primarily at the insistence of the NTIA, which administers radio spectrum

for federal government users—and “coordination areas” where BPL deployments at any frequency must be “precoordinated by BPL operators.” They also detail techniques to measure BPL emissions from system equipment and power lines.

The FCC said it expects “good faith” on both sides in the event of interference complaints. Shutting down a BPL system in response to a valid interference complaint “would be a last resort when all other efforts to satisfactorily reduce interference have failed,” the FCC said.

ARRL officials are studying the R&O and considering possible responses. The ARRL Executive Committee (EC) already has authorized filing a Petition for Reconsideration. The EC also authorized ARRL General Counsel Chris Imlay, W3KD, to “prepare to pursue other available remedies as to procedural and substantive defects” in the BPL proceeding.

**For more information on BPL, visit the “Broadband Over Power Line (BPL) and Amateur Radio” page at, <http://www.arrl.org/tis/info/HTML/plc/>. NNNN/EX**

### **Amateur Radio Emergency Communications Course Registration**

Registration for the ARRL Amateur Radio Emergency Communications Level I on-line course (EC-001) opens Monday, November 1, at 12:01 AM EST and will remain open through the November 6-7 weekend or until all available seats have been filled—whichever comes first. Class begins Friday, November 26. Seniors are strongly encouraged to participate.

Thanks to our grant sponsors—the Corporation for National and Community Service and the United Technologies Corporation—the \$45 registration fee paid upon enrollment will be reimbursed after successful completion of the course.

During this registration period, seats are being offered to ARRL members on a first-come, first-served basis. To learn more, visit the ARRL Certification and Continuing Education Web page <<http://www.arrl.org/cce>>. For more information, contact Emergency Communications Course Manager Dan Miller, K3UFG, 860-594-0340 or send your query to [cce@arrl.org](mailto:cce@arrl.org).

### **FROM THE PRESEDIENT:**

To all Radio Amateurs..... Subject: ACWN & Alaska Traffic watch

Little change I need to get the word out on...ACWN Alaska CW Net and Traffic watch has changed it's 80 meter frequency.

Due to some equipment changes at AL7N, the Alaska Traffic Watch frequency, and calling frequency has been moved to 3540 Khz instead of 3534 Khz.

Transmitter is crystal controlled on 3540 Khz, with secondary frequencies of 3570 and 3574 Khz available for use if necessary.

Receiver can move to any 80 meter CW frequency, but watch is kept on 3540 Khz.

Watch is being maintained as usual on the 40 and 20 meter frequencies 7042 and 14050 Khz.

Watch hours remain from 0100Z until 1600Z Daily, as continuous as possible during the watch period, receivers on all three frequencies all the time.

Ed AL7N, ACWN Net Manager, "DE AL7N QRU? QSX 3540, 7042, 14050 K"

### **Yukon Quest:**

Yup, it is that time of the year again! The Jr Yukon Quest will be on Feb 5/6. The main Yukon Quest will start Feb 13 in Whitehorse and run towards Fairbanks. The Yukon Quest 250 will also begin in Whitehorse and run the 1<sup>st</sup> 250 miles of the Quest trail. I don't have times for these events yet. If there is a post or time that you would like to work, please send me an email.

In the early sign-up, I have received requests for the following posts for the Yukon Quest:

Eagle  
Circle City Dave DeVoe, WL7CRD Carol DeVoe, WL7CRE  
Central  
Mile 101  
Angel Creek MaryBeth Rivera, KC0CWG, Dan Rivera, WL7UX  
Valley Center spotter  
Nordale spotter  
Log Cabin:  
4AM-8AM Tuesday/Wednesday/Thursday/Friday Dan Wietchy, KL1JP

### **Jr. Yukon Quest:**

Nordale  
North Pole Dan Wietchy, KL1JP  
Valley Center  
Mile 27  
Twin Bears  
Log Cabin:

### **For Sale/Wanted:**

1. Articles for Newsletter
2. IC 901A/E. Frequency: 28MHz, 50MHz, 144MHz, 220MHz, and 430MHz. Modified for MARS (out of band), All manuals and schematic diagrams and original boxes. \$650.00 or best offer. SGC - 231 HF + 6 meters 12v Smartturner \$400.00 OBO. Contact me @ 479-5742 de Bob WL7GK
3. Free to good home. VHF Signal Generator Model 608D, 1480C Wave form monitor, RF Voltmeter Model 91CA, TUM Transmitter Control nest with low voltage supply. Contact Clarence Gortmaker via John Slater, KL1AZ.

### **NEWSLETTER EDITOR COMMENTS:**

All input and comments/articles are welcome. The AARC has once again participated in a number of public events this past summer, if you have a report about events that have not been reported that the club has provided communications for please send that report to me and it will be included in future letters. **As a reminder if you wish to have something put into the newsletter you may e-mail me at [slaternorthp@mosquitonet.com](mailto:slaternorthp@mosquitonet.com) and be sure to include your call sign in the subject so I will know it is from another ham, or it will be deleted,** or you may call me at home 488-5209.