



# ARRL

## The national association for AMATEUR RADIO

INTERNATIONAL SECRETARIAT OF THE INTERNATIONAL AMATEUR RADIO UNION

04-37

### RECEIVED

JUL 22 2005

Federal Communications Commission  
Office of the Secretary

- JIM HAYNIE  
W5JBR, PRESIDENT
- JOEL M. HARRISON  
W5ZN, FIRST VICE PRESIDENT
- KAY C. CRAIGIE  
N3KN, VICE PRESIDENT
- RODNEY J. STAFFORD  
W6ROD, VICE PRESIDENT  
INTERNATIONAL AFFAIRS
- JAMES E. MCCOBB  
W1LLU, TREASURER
- DAVID SUMNER  
K1ZZ, CHIEF EXECUTIVE OFFICER  
SECRETARY
- BARRY J. SHELLEY  
N1VXY, CHIEF FINANCIAL OFFICER
- MARK J. WILSON  
K1RO, CHIEF OPERATING OFFICER
- MARY M. HOBART  
K1MMH, CHIEF DEVELOPMENT OFFICER
- PAUL RINALDO  
W4RI, CHIEF TECHNOLOGY OFFICER

### DOCKET FILE COPY ORIGINAL

March 16, 2005

Commissioner Kevin J. Martin  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554



Dear Commissioner Martin:

On behalf of the 680,000 FCC-licensed radio amateurs, it gives me great pleasure to offer congratulations on your designation as the new Chairman of the FCC. I am certain that your tenure as Chairman will extend and expand your distinguished record of public service.

ARRL General Counsel Chris Imlay and I met with you and Sam Feder on July 6, 2004 to discuss our concerns about radio interference from Broadband over Power Line (BPL) systems. At the time you said you had not realized that interference was such a problem for us. In your statement on October 14, 2004, when the Commission adopted the Report and Order on BPL, you were kind enough to observe that you take these concerns very seriously. You said you were confident that the Commission would take steps, where needed, to address interference problems going forward.

Unfortunately, I must advise you that the Commission's record of addressing BPL interference has proved to be woefully inadequate. Yesterday the ARRL filed a complaint with the Enforcement Bureau and the Office of Engineering and Technology outlining an ongoing BPL interference case in Irving, Texas. Later this week we will renew a complaint of ongoing BPL interference in Briarcliff Manor, New York. To date the Commission has not ordered a single BPL system to be shut down, despite the failure of BPL system operators to resolve interference.

The ARRL and the nation's radio amateurs are anxious for a sign that we can expect this sorry situation to be corrected under your leadership.

Again, congratulations. I hope we will have the opportunity to renew our acquaintance soon.

Sincerely,

David Sumner  
Chief Executive Officer

No. of Copies rec'd \_\_\_\_\_  
List ABCDE

0

**AMERICAN RADIO RELAY LEAGUE**

*The shut down the Irving, TX system. The ARRL complaint was filed on March 17. The interference was still present on April 20. ARRL has the authority to file a complaint.*



Lee Schuett, KB1ETR (left), and Roddy McComber, KA1BSS, at the ARES staging area.



ARRL Connecticut SM Betsey Doane, K1EJC, takes traffic from the net.



Connecticut SEC Chuck Rexroad, AB1CR, at the ARES staging area, just outside the "hot zone."

explosion's immediate aftermath, "hundreds of gory victims processed into the site to assume positions of death and agony." Pitts says Amateur Radio's real work only began in earnest after the media also drifted away, once the smoke and simulated blood were gone.

After ARES stood down from the drill late on April 6, ARRL Connecticut Section Manager Betsey Doane, K1EJC, and SEC Chuck Rexroad, AB1CR, said they felt Amateur Radio had acquitted itself very well during the drill.

"The energy, enthusiasm and absolute dedication of all the volunteers for this event are a testament to the real dedication and teamwork in the Connecticut Section," Doane said in a statement thanking all who took part.

Rexroad agreed. "It's just been amazing," he said. "People came into this drill prepared and ready to stay. It was a very positive experience."

Under the National Disaster Plan, the Red Cross has primary responsibility for mass care. ARES provided communication among all of the Red Cross emergency response vehicles (ERVs), mobile canteens, kitchen, headquarters and other sites the organization needed stay in touch with.

In all, as many as 40 of the 150 ARES volunteers from Connecticut and other states in the Northeast were deployed to the field at any given time. "Everybody had a job to do," Rexroad said. "Everyone had at least one shift when they were able to get on the radio and provide communication support."

Doane also credited the ARRL Amateur Radio Emergency Communications courses and other training with raising the overall level of operating skill—even among newer operators. "There were a few new people that were assigned to be observers, and before the end of the drill ended up trained well enough to be an operator on an ERV," she said. "I have to tell you, I was impressed."

TOPOFF 3 required participants to be ready for unexpected events, and the ARES operation was no exception. "The only big curveball we got thrown was when one of the judges decided they were going to take one of our repeaters down," Rexroad explained. Connecticut ARES was able to promptly switch to a backup. Ironically, a genuine repeater breakdown occurred just before the exercise got under way.

Rexroad and Doane agreed that TOPOFF 3 not only was a success but a helpful learning experience. "We learned a fair number of lessons, and most of them were organizational, not technical," Rexroad remarked. Connecticut ARES also prepared to assist the Connecticut Office of Emergency Management and actually activated several of its stations to show the state officials that it had the back-up coverage in case they needed it.

A bioterrorism incident was the scenario in New Jersey—the only other TOPOFF 3 site. Emergency officials there not only were key to the exercise, they had real problems owing to flooding in the northern part of the state. ARES teams in New Jersey were called out in various communities for TOPOFF 3 as well as for the flood emergency.

Bergen County, New Jersey, ARES/RACES members conducted two emergency communication drills during TOPOFF 3; said Ramsey Office of Emergency Management Coordinator Michael

Adams, WA2MWT. Radio amateurs assisted at the Ramsey Emergency Operations Center.

Barry Cohen, K2JV, reports members of the New Providence (New Jersey) Amateur Radio Club worked with the local Office of Emergency Management and the Summit Chapter, American Red Cross, to provide communication during the drill.

Cape May County RACES members activated an ATV link to assist local emergency managers. The group operated entirely from battery power.

Brian Fernandez, K1BRF, a Connecticut Assistant SM and ARES liaison to the Red Cross, said Amateur Radio's performance in TOPOFF 3 did not go unnoticed within the Department of Homeland Security. "Amateur Radio made a major contribution to the nation," he said, "and those who contribute to making it safer and stronger and folks in the right places know it."

## NO BALANCING ACT FOR BPL, ARRL SAYS

In filings before the FCC, the ARRL has again challenged some basic assumptions made by BPL proponents and included in the FCC's *Report and Order (R&O)* adopting new rules governing the deployment of broadband over power line (BPL) systems. The League took particular issue with any notion that a balancing test exists between BPL's purported public benefits and its potential to interfere with licensed services.

"There is no balancing to be done in the case of compatibility between unlicensed devices and licensed radio services," the ARRL asserted April 1 in its *Reply to Oppositions* from Ambient Corporation and the United Power Line Council (UPLC). "Unlicensed devices are not entitled to operate if they cause harmful interference to licensed radio services, and they cannot be authorized at all . . . if they have, as does BPL, a significant interference potential to licensed services." The League's remarks reiterated a point it's made in other FCC proceedings pitting unlicensed Part 15 devices against licensed services.

The *Reply to Oppositions* comments marked the final opportunity for BPL stakeholders to comment in the FCC rule making proceeding that led to last October's *R&O*. In separate replies, the ARRL zeroed in on oppositions filed by Ambient, UPLC, Current Technologies, three utilities—Ameren Energy Communications, Virginia Electric Power and Tucson Electric Power—Homeplug Power Line Alliance and Intellon.

The ARRL targeted Ambient's stated assumption—that the FCC's goal in the

## Other BPL Developments

An Irving, Texas, BPL pilot project that was the target of an ARRL complaint shut down and removed its equipment in March. Earlier that month, the League had called on the FCC to pull the plug on the system and issue fines for causing harmful interference to Amateur Radio communications. The ARRL's March 15 filing to the FCC's Enforcement Bureau, its Office of Engineering and Technology, system operator TXU and equipment manufacturer Amperion supported a complaint from ARRL member and North Texas Section BPL Task Force Chair Jory McIntosh, KJ5RM, who regularly commutes through the BPL test zone. The ARRL became involved after the FCC failed to respond to McIntosh's formal complaint last fall. ARRL measurements at the Texas site verified McIntosh's observations. As a result of the shutdown and McIntosh's report, the ARRL withdrew its complaint to the FCC. TXU has not indicated why it shut down the system and removed the equipment. The Irving BPL test site is the third using Amperion BPL equipment to shut down following Amateur Radio complaints of interference.

The ARRL charged BPL equipment maker Ambient Corporation and the FCC with being unwilling or unable to effectively deal with harmful interference stemming from a New York BPL pilot project. The League in March also asked the Commission for the fourth time to shut down Ambient's Briarcliff Manor system "with-



out further delay" until Ambient addresses interference complaints. The ARRL's latest salvo in the Briarcliff Manor BPL battle was in response to a February 10 letter from Bruce Franca, deputy chief of the FCC Office of Engineering and Technology. Franca's letter concluded that FCC measurements in response to Amateur Radio complaints of harmful interference showed no changes were required to the BPL system. "The Commission's failure to conduct a thorough investigation of this matter, and the tenor of your February 10, 2005, letter, lead to speculation that the Commission is really not interested in finding the interference that exists at Briarcliff Manor or at other BPL test sites or in enforcing the Part 15 rules," the ARRL responded. "Ambient's apparent tactic of making changes in the system after receiving interference complaints and then denying that the interference problems complained of ever existed is not helpful." ARRL measurements did turn up a reduction of BPL emissions in some areas, but it also detected emissions that would "substantially preclude Amateur communications."

ARRL Chief Executive Officer David Sumner, K1ZZ, told a New York City conference on "Alternative Broadband Platforms" in March that BPL has "an inherent technical flaw"—interference potential—that cannot be completely nor inexpensively eliminated. "BPL is not a radio spectrum user. It is a radio spectrum polluter," Sumner told the Columbia Institute for Tele-Information (CITI) workshop, "Alternative Broadband Platforms: Can They Compete With Fiber Optics? Where?" at Columbia University. "And if the pollution causes harmful interference to an authorized radio station, the BPL system operator has the absolute burden of fixing it—even if that means shutting off the system." Sumner asked his audience to keep this unique shortcoming of BPL in mind as they compare and consider the alternative broadband platforms discussed.

proceeding should be to "ensure that its interference protection rules and policies do not inadvertently hinder development and deployment" of BPL—citing its own experiences with Ambient.

"Ambient's priorities and spectrum manners are evident not only in [its] statement, but as well in its atrocious record of harmful interference and unresponsiveness to verified interference complaints in its BPL test operations," the ARRL said. The League attached a copy of its latest

interference complaint involving Ambient's Briarcliff Manor, New York, BPL pilot project. "The interference to Amateur Radio communications at that site has been unresolved for a period of an entire year," the League emphasized.

Ambient's *Opposition* filing, the League said, suggests the company "believes that the potential future benefit of BPL justifies whatever harmful byproduct there is in terms of interference to licensed radio services."

The ARRL also took issue with the UPLC's suggestion in its *Opposition* that the FCC's R&O "struck the right balance between protecting against potential interference and promoting the public interest in BPL deployment." The League said previously stated FCC policy that radiated emission levels be sufficiently low to prevent interference to licensed services rather than mitigating it after the fact has provided the basis for authorizing unlicensed RF devices.

Beyond that, BPL operators have a greater incentive to deny the existence of any interference, harmful or otherwise, the ARRL said, "and so far, the Commission has given every indication that it will indulge them." The ARRL said BPL providers are the beneficiaries of the *Report and Order*, while amateur licensees "must bear the burden" the R&O creates, despite the fact that Amateur Radio is a licensed service.

The ARRL says analyses by the National Telecommunications and Information Agency (NTIA) and others have shown that by deploying a large number of BPL emitters, "they will raise the ambient levels of man-made noise worldwide." The League also countered assertions that BPL is a point-source radiator for measurement purposes rather than a line-source radiator.

The ARRL urged BPL providers to seriously rethink the idea of using BPL to carry emergency communications and provide utility company management of the power grid. "BPL is entitled to no protection from interference at all, and it can neither expect nor claim any such protection," the ARRL said, pointing to tests demonstrating that even low levels of RF can disrupt BPL transmissions.

### ARRL Files *Opposition* to Reconsideration Petitions

In late March, the ARRL filed its own *Opposition* to three petitions for reconsideration in the BPL proceeding, targeting points raised in reconsideration petitions from Current Technologies, Amperion and the UPLC. Each is seeking reconsideration of certain aspects of the October 14, 2004, R&O. In its *Opposition*, the ARRL says the FCC should not eliminate a requirement that BPL providers give 30 days' advance notice of service initiation, as Current, UPLC and Amperion requested.

"Grant of the petitioners' request to eliminate the 30-day advance notice requirement would not only be antithetical to the Commission's goal of providing competitive, affordable and efficient broadband access," the ARRL said, "it would



## FCC TO UPDATE THIRD-PARTY TRAFFIC LIST TO INCLUDE UK

At press time, the FCC indicated it would be updating its Web site listing of countries with which US Amateur Radio Service licensees may exchange third-party traffic to include all amateur stations in the United Kingdom (the UK, the Channel Islands, including Guernsey and Jersey, Great Britain, the Isle of Man and Northern Ireland). The change is already effective.

Section 97.115 of the FCC's Amateur Radio Service rules regulates communications from a station's control operator (first party) to another amateur station's control operator (second party) on behalf of another person (third party). No FCC-regulated amateur station may transmit messages for a third party to any amateur station located within the jurisdiction of any foreign government not on the FCC list or whose administration has not made specific arrangements with the US to allow amateur stations to transmit international communications on behalf of third parties. The prohibition regarding third-party traffic does not apply to messages for any third party who is eligible to be the control operator of the station.

The FCC list of countries that have third-party agreements with the US is on the FCC Web site, [wireless.fcc.gov/services/amateur/about/intoperating.html](http://wireless.fcc.gov/services/amateur/about/intoperating.html).

## FCC ADOPTS RULE CHANGES FOR "SMART RADIOS"

The FCC has released a *Report and Order (R&O)* on cognitive or "smart radio" systems. The 42-page *R&O*, "Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies" (ET Docket 03-108), declined to adopt any new regulations for Amateur

Radio transceivers or for digital-to-analog (D/A) converters "at this time." The ARRL and the National Public Safety Telecommunications Council had commented earlier on the impracticality of incorporating hardware features to prevent out-of-band transmissions. The League, AMSAT-NA and TAPR also opposed regulating the marketing of high-speed D/A converters as burdensome, more costly to consumers and unnecessary because the four devices don't pose an interference risk.

"No parties have provided any information that shows that software programmable amateur transceivers or high-speed D/A converters present any significantly greater risk of interference to authorized radio services than hardware radios," the FCC concluded in its *R&O*. The Commission went on to note that it may revisit the issues "if misuse of such devices results in significant interference to authorized spectrum users."

In its December 2003 *Notice of Proposed Rule Making (NPRM)* leading up to the *R&O*, the FCC had proposed exempting manufactured software defined radios (SDRs) designed to operate solely in amateur bands from any mandatory declaration and certification requirements, provided the equipment incorporated hardware features to prevent operation outside of amateur bands. The Commission also had sought comment on the need to restrict the mass marketing of D/A converters "that could be diverted for use as radio transmitters."

In its comments last May, the ARRL sympathized with the Commission's concerns about out-of-band operation and expressed its appreciation for the FCC's "sensitivity to the need to encourage, rather than discourage, amateur experimentation and innovation." But, the League characterized the FCC's fears as "overstated."

The Commission said its *R&O*, released March 11, is intended to "facilitate continued growth in the deployment of radio equipment employing cognitive radio technologies and make possible a

full realization of their potential benefits." The FCC expressed the hope that cognitive radios will allow more efficient use of the radio spectrum.

## Amateur Enforcement

◆ **FCC tells Vermont ham that fine is next step:** The FCC has warned David J. Tolassi, WA1BHV (ex-KB1EVE), of Barre, Vermont, that he's risking a substantial fine if he continues to violate the conditions of his 2004 license renewal. After a series of "enforcement issues" relating to the operation of KB1EVE, the FCC renewed Tolassi's General class ticket in January 2004 on the condition that he refrain from 20-meter voice operation for three years. Following up on allegations that Tolassi had violated the prohibition, FCC Special Counsel Riley Hollingsworth wrote the licensee February 23.

"Information before the Commission indicates that you have violated the condition of your license by operating voice on the 20-meter amateur band," Hollingsworth said. "Please be advised that if the condition is violated again, you will be issued a monetary forfeiture (fine)." Hollingsworth noted that fines for such unauthorized operation typically range from \$4000 to \$7000.

In late 2003, the FCC's Wireless Telecommunications Bureau (WTB) referred Tolassi's renewal application to the Enforcement Bureau for review as a result of the "enforcement issues," which, Hollingsworth says, involved inappropriate on-the-air behavior. To resolve the situation, Tolassi agreed to stay off 20-meter phone until February 1, 2007, in exchange for having the FCC renew his license.

In 1999, Tolassi, formerly KC1ZQ, failed to pass the Advanced class examination after being summoned by the FCC for retesting, and his license class was downgraded to General. The FCC issued KB1EVE, a call sign appropriate for a General class licensee in March 2000. Tolassi obtained WA1BHV in May 2004 through the vanity call sign program.

also eliminate even the most minimal means for Amateur Radio licensees to be able to identify and contact the source of harmful BPL interference when it occurs."

Current, UPLC and Amperion contended in their petitions that the 30-day rule forces BPL providers to tip their hands to their competition. The League charged that the petitioners were, in effect, asking the Commission "to protect them by regulatory means from compe-

dition in broadband delivery."

The ARRL also took issue with requests by Current and UPLC either to extend the transition period for certification of BPL equipment made, marketed or installed on or after July 7, 2006, or to drop it altogether. Either approach, the League contended, "is tantamount to an abdication of any requirement to implement any of the admittedly inadequate interference mitigation requirements in the *Report and*

*Order* at all." As the rule is written, the League's *Opposition* points out, "no BPL system placed in operation ever has to come into compliance with the interference requirements." The ARRL maintains that the FCC erred in its *R&O* by permitting the installation and operation of non-compliant equipment after the *R&O*'s effective date.

The ARRL also took the FCC to task with respect to how it's dealt with the BPL

initiative and the industry itself. "The extent to which spectrum-polluting BPL systems have been accommodated by a Commission with its collective head in the sand about interference is shameful and an abdication of duty," the League's *Opposition* concluded. "To further deregulate this ill-advised polluting technology would, in this context, be unconscionable."

### "WIRELESS LITERACY" IS ARRL EDUCATION & TECHNOLOGY PROGRAM GOAL

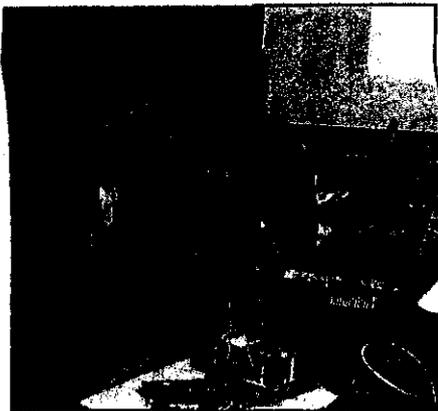
With some 130 schools now on board, the ARRL Education & Technology Program (ETP)—also known as "the Big Project"—has set its sights on transforming the teaching of wireless technology in the US. ETP Coordinator Mark Spencer, WA8SME, acknowledges that incorporating what he calls "wireless literacy" into the broader educational landscape is not something that will happen overnight. Even so, he believes the ETP not only can have a role in developing a favorable climate for wireless literacy and establishing it as an educational mainstay but in ultimately setting academic standards. Spencer says reaching teachers first is key.

"You've got to have a jazzed teacher," Spencer stresses, pointing out that many teachers remain uncomfortable with wireless technology and are unaware of the best ways to teach it. To address this problem, the ETP last summer sponsored its first Teachers' Institute on Wireless Technology, an intensive weeklong, hands-on session aimed at getting the nine attendees up to speed on wireless and electronics technology basics and how to teach them.

Expanding on the success of the inaugural institute, the ETP this year will sponsor three sessions—two at ARRL Headquarters and possibly one "on the road" in Ohio. The institutes will immerse two dozen educators from across the US in wireless technology—all expenses paid.

The ARRL Education & Technology Program recently kicked off its 2005 fundraising effort, and ARRL Chief Development Officer Mary Hobart, K1MMH, says subsidizing the expansion of the Teachers' Institute initiative is one facet of the current drive. She reports the ARRL Teachers' Institute has leadership funding for 2005 with gifts from the Brandenburg Life Foundation and from ARRL Vice President Kay Craigie, N3KN, and her husband Carter, N3AO.

"Those contributions will provide about one-half of the total funding needed for the three Teacher's Institute programs in 2005," Hobart notes. ARRL corporate



partner Parallax will contribute robotics kits for participating teachers to build and program during this year's sessions.

Hobart says the ARRL has dedicated close to \$470,000 in resources and member contributions to make the ETP a success.

Beyond local schools and teachers, Spencer looks to Amateur Radio clubs in the community to establish close relationships with participating schools, sharing their expertise and providing assistance. "The teachers can be jazzed," Spencer says, "but if they don't have any support from the local ham community, they're just going to get themselves burned out." He says he's frequently urging amateurs to "walk the walk as well as talk the talk."

Overall, Spencer feels the program is moving in the right direction, although he said the progress is not easy to document. "Any real change in the educational community takes at least 12 years to come to fruition," Spencer said. In many cases, he believes, the program plants a seed that might flower down the road when a youngster exposed to wireless technology and electronics via the ETP makes his or her academic plans and career choices.

"We need to be patient," he cautions those who may feel that an enterprise like the Big Project should yield more immediate, obvious results. "Contributions that are given today don't necessarily turn into rubber on the road today."

"We're really talking about changing the culture of the school," Spencer concluded.

The 2005 Teachers' Institute sessions at ARRL Headquarters will be June 13-17 and August 1-5. For more information, contact Mark Spencer, WA8SME, [m Spencer@arrl.org](mailto:m Spencer@arrl.org); 860-594-0396.

### PAST ARRL DIRECTOR RUSH S. DRAKE, W7RM, SK

Past ARRL Northwestern Division

Director Rush Drake, W7RM, of Vancouver, Washington, died March 11.

He was 87. Drake served as Northwestern Division Director from January 1987 through December 1989, when he stepped down due to medical problems. Prior to serving as Director, he was the division's Vice Director for two years. A Life Member of the ARRL and an inductee to the CQ Contest Hall of Fame (Class of 1993), Drake may have been best known for his wholehearted devotion to contesting and to hosting some of the nation's top operators—initially from his well-outfitted oceanfront multi-multi station on Foul Weather Bluff northwest of Seattle.

"As one who knew Rush very well during his glory years at Foul Weather Bluff, I must say that it was an honor to have grown up in contesting at the helm of his station and at his side on many a tower," said Chip Margelli, K7JA, in a message to the CQ Contest Reflector. "He put together a potent antenna farm at one of the premier locations in North America and reshaped contesting in the USA for many years."

The heyday of Foul Weather Bluff was during the 1970s, with major multi-op and single-op wins in DX events and in the ARRL November Sweepstakes. Drake acquired the 2.5-acre tract atop a 210-foot bluff on a peninsula northwest of Seattle in the 1960s. As a result of the confluence of superb location and effective antennas, W7RM was able to challenge the dominance of East Coast DXers with their built-in advantage of being a continent closer to Europe.

Drake sold the Foul Weather Bluff site in the late 1970s due to his wife's failing health, subsequently starting all over again on five acres in La Center, north of Vancouver. Recalls ARRL Contributing Editor Ward Silver, NØAX, "By the mid-'90s he had it all up again—at age 80—and the station started making pretty big scores again." Silver says Drake retired from multi-multi operating "by default" after the 2002-2003 contest season.

Past ARRL Midwest Division Director Lew Gordon, K4VX, said Drake, a close friend, "possessed a charismatic presence" that served him well in business and in Amateur Radio. "I will miss him," he said.