

# EDUCATIONAL ACTIVITIES FORUM



AN IDEA EXCHANGE FOR AMATEUR RADIO INSTRUCTORS

DECEMBER 1998

## January Classes Follow December

With the month of December comes thoughts of your upcoming January classes. What do you want to improve over something you tried in your fall class? Look over the evaluation sheets you got back from the students. If you didn't hand out evaluation sheets, maybe now is a good time to compose one. Ask questions about what was the most effective demonstration, what was the hardest concept to learn, what it is the students hoped to learn the most about, and what was the least helpful lesson. Don't require students to sign their names, and you'll get more honest answers.

ARRL instructor **Ralph McDonough, K8AN**, writes in his club newsletter: "Starting a new Amateur Radio class always invigorates me. I am back in my 20s again. It gives me the opportunity to right what is wrong with present-day Amateur Radio. I made an impassioned presentation to the last class, explaining the fun of CW and what it means to the Amateur Radio service, asking students to please take the code portion of the class. There were only a few takers. Then the second week of class, all of them signed up to learn the code! My sell-job on the fun and tradition of CW worked. Now we're going to try real hard at making sure the students have fun learning it."

How do you make learning the code fun? Have hard candies to give to the person who progresses the most, copies the most letters in a row, sends a joke, etc. Be a cheerleader and a motivator during every CW class. Make sure students hear you talk about how much fun you had just recently making a CW QSO, or how you pulled a weak one out of the mud that you otherwise wouldn't have, if it had been on phone. Keep reinforcing why CW is a fun skill that only a few people know how to do.

How many of you have seen the sweatshirt that says: "Those who can, do. Those who can do **more**, teach!" That's how I feel about ARRL volunteer instructors!

### Your Youthful Students

Do you have kids in your class, and find it hard to keep them motivated? Dangle the carrot of whom they can talk to, once they earn their licenses. ARRL EAD has a new youth networking page on the Web, where youthful individuals and groups register that they are interested in making skeds with other youths. Check out <http://www.arrl.org/ead/youthskeds/> — it's even "gone DX," with a school from Australia registering.

## What's New with Restructuring

The ARRL Board of Directors called a special meeting in October to draft the League's comments to the FCC's amateur license "streamlining" proposals. (Comments were due to the FCC on December 1.) To provide a logical entry to HF for Technicians, the Board suggested offering CW privileges to Techs in the General CW bands on 80 through 10 meters; Techs could use up to 200 W PEP. Under the July plan — and under the FCC's proposal — the entry-level HF license would be the General, which would require passing two written exams plus a 5 WPM code test. Board members were concerned that the leap to HF privileges could prove too daunting, especially for young newcomers. Some also were troubled about the growing gulf between the "traditional" HF operator and newer VHF-only amateurs.

"The July plan eliminated the HF door by eliminating the Novice license," observed David Sumner, K1ZZ. "This is, in effect, a replacement for the Novice, but without an additional license class." The Board reaffirmed most of its plan from July,

which would eliminate the Novice and Tech Plus license classes. It also agreed to replace the proposed A, B, C, D license designations with the names Extra, Advanced, General, and Technician. The Board proposed that the FCC ban multiple-choice Morse tests and rule that a passing grade for a code test be either 70% correct answers to 10 fill-in-the-blank questions or one minute out of five of solid copy. The Board asked to see written exams modified "to demonstrate better the depth of the applicant's current radio technical knowledge and operating skill."

Sumner summed up the Board's position on the Morse requirement in the international regulations: "The new privileges would amount to self-testing. By their very nature, you can't use the privileges until you know the code....as any CW operator knows, the best way to become proficient in the code is to use it on the air."

Under the Board's proposal, the Tech exam would include 35 questions. (Tech applicants must now pass both the Novice and

the Tech tests.) General applicants would pass a 35-question test with more questions on operating practices. The Advanced exam would go from 50 questions to 40, while the Extra would go from 40 to 50 questions, including more highly technical subject matter.

If you haven't read a lot about this restructuring, then maybe you haven't started encouraging your area Technician licensees to hurry and study to pass their code exams. But what better carrot to dangle in front of them, than that the FCC might decide to grandfather them to Generals? Yep, the Techs don't know the rules of the road for HF. But who better could teach them to read about, and abide by, the road signs than you? When I was a Novice, I had HF privileges but barely knew the rules – DX windows? Listening up 5? Grey line terminator? The learning came from getting on the air and hanging out with other hams and, yes, making mistakes.

Just as with a driver's permit, beginners learn enough from passing the license exam to be safe. Then they *continue to learn* for the rest of their driving lives. We really should encourage and assist the Technicians in taking steps toward learning code. And then we need to assist them

with learning about HF. We Novices had a rig and antenna that were the same ones we could use when we upgraded. We didn't have to carefully save more money, and didn't have to learn new techniques other than how to operate a microphone. Think about it. Technicians learned different things than we had to know. Now for HF, they're having to learn totally new things. We had it easier. At least we only had to admit once (as new Novices or new hams) that we just didn't know all that much.

Why so much fuss about helping Techs? The reality of the telecommunications world. Last spring I had the privilege of attending meetings in Washington DC with Paul Rinaldo, W4RI, one of ARRL's people who helps protect our frequencies. I listened to commercial firms pushing for spectrum changes they wanted, giving them more frequencies for their communications products of the future. Then I heard people from the Department of Defense and other communications firms defer to Paul to ask how the Amateur Radio sector felt about these asked-for changes. It was awesome to see how respectfully they listened to Paul and wanted to work with us hams. But it was also scary seeing the spectrum needs of

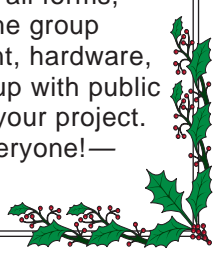
multinational companies whose future financial soundness depended on getting more frequencies.

Getting more hams active on-the-air to help fight against encroachment of our bands is enough reason for me to encourage Techs to pass their code exam. In fact, three hams at ARRL HQ recently passed their code tests, thanks in part to EAD's Dan Miller, K3UFG. And EAD's own Margie Bourgoin, KB1DCO, is the newest Tech to start studying for code – because Dan gave her a taste of HF operating. Some Techs are happy with VHF and UHF privileges, and the ease of communications via an HT. That's fine. But how about those Techs who were bitten by the ham radio bug mostly because of the lure of DX — but don't want to tell you that they need help with code. Why not be the first ham in your area to run a weekend code class or offer tutoring a half hour before the club meeting? Why not get your club to offer prizes (maybe DXCC record booklets) to the first half dozen who pass the code test? You might only get two folks to try – but you know how our hobby works – those two folks will tell more folks, and your next class will have 10! Even if you only get three, that's a nice increase for your record of students who graduate.



### In A Generous Season...

If your instructional effort could use a boost from community funding, now's a good time to get the word out. Many businesses, organizations, and individuals make year-end, tax-deductible donations to educational projects to better position themselves financially when the inevitable April 15 tax-filing looms. Publicize your project in local newspapers or announcements to community businesses. Highlight the educational and public service aspects of hamming and how the community benefits. Include contact information and an address for those interested. DO NOT solicit funds in your write-up, but do suggest that your group appreciates support in all forms, and be specific about what the group could use in actual equipment, hardware, software, and so on. Follow up with public thanks for any gifts given to your project. It's a win-win situation for everyone!—  
*Mary Robertson, N7IAL*



## Parallel Resistance

ARRL instructor Alan Mills, KA7GKH, of Brigham City, Utah, submitted a lesson plan for parallel resistance that we published in the 1998 edition of the *Proceedings of the ARRL National Educational Workshop*. (For you budding writers, authors receive a complimentary copy.) Alan knows that the absolute best way to get people to understand a new concept is to introduce it using something the students already understand. He saw that students had no trouble understanding that the total resistance, when in series, is the sum of all the resistors. He also saw that students are baffled to hear that the total resistance, when resistors are in parallel, is less than the value of the smallest resistor. Alan came up with a hands-on demonstration—the best kind—and all that's needed is eight drinking straws from your favorite food joint.

First, ask four students to each put a straw in their mouths and blow vigorously, but not enough to hurt themselves! Then ask a fifth student to put four straws side by side in her or his mouth, while you explain that the straws are now in parallel to each other. Have the student blow vigorously. Students will easily conclude that placing straws in parallel results in less wind than in any one straw alone. Meantime, you should help students make the connection between straws and resistors, that resistors in parallel offer less resistance to current than any one of the resistors alone. To reinforce the lesson, you could have five more students repeat the demo with eight new straws. You could also draw four water pipes side by side, on a white board or chart, and explain the concept about carrying water under a road, to further strengthen the idea in students' minds.

For more classroom ideas, you can pick up the 1998 *Proceedings* book at \$12 plus \$4 shipping and handling—or take advantage of our three-for-one offer, where you get three previous years' issues at that same \$16 price.

## Instructor of the Year

The 1997 ARRL Herb S. Brier Instructor of the Year was awarded at the second annual meeting of the ARRL Board of Directors to **Frank McNally, KF0WF** (shown here being congratulated by Rosalie White, WA1STO). Part of the reason Frank won this worldwide award is because he gives many sight and sound demonstrations using household gadgets that intrigue students. He also designed and wrote a CD to use in class—it is complete with a Novice and Technician slide set and curriculum. His plans for this fall's class included a kit-building project.

Frank is from Colorado Springs, and has taught classes of all ages for six years. He has about a 90% pass rate, and was nominated for the award by the Pikes Peak Radio Amateur Association. Frank is quick to acknowledge the help from many past students. Some take care of logistics, such as getting books and a classroom location, while others observe the students in order to offer them extra help.

Barb, N0VBK, is Frank's wife of 27 years, and they have two sons, Sean, N0RNN and Todd, N0RBI – definitely a "Radio



Active" family. Frank was instrumental in getting them licensed. He believes it is important to give whatever you can back to the hobby, and his way is teaching an exciting license class. He says the joy of seeing students gain an understanding of the hobby, and hearing them make their first on-the-air contact are what keep him teaching. He lives a busy life as a systems engineer for a telephone company, and his day starts at 5 AM, when he runs. He also enjoys racquetball and motorcycles. Frank loves to ragchew because he enjoys getting to know something about his contacts. He also dabbles in CW to keep his proficiency up.

Other distinguished nominees for the ARRL Herb S. Brier award were: **Monte Bateman, W5RZX**, Madison, Alabama; **Russell Hack, NM1K**, Enfield, Connecticut; **Joe "Jose" Ledesma, KA7AIR**, Hoquiam, Washington and **Herbert Clarkson, KM6DD**, Rancho Palos Verdes, California.

*If you think you do a good job of teaching, so does someone else!* The ARRL has four annual awards for ham radio instructors and recruiters. Do you, or does someone you know, deserve one? Get a colleague to start the nomination process for you, today, or nominate someone yourself. Our Web page at <http://www.arrl.org/ead/award/> lists details on the awards. The simple nomination form is at <http://www.arrl.org/ead/award/application.html> or dial 860-594-0219 for the form, information and deadlines. After quickly filling out the form, send it to your Section Manager (page 12, *QST*) by January 31. A job well done should be rewarded. – *Jean Wolfgang, WB3IOS*

## ARRL Training Materials

As always, here's the list you request of the current editions of ARRL training material. The edition number and printing number are listed in the first pages of each book — look for the copyright box. If the book is a new printing, it has minor updates. If the book is a new edition, it has gone through major revisions. Abbreviations are as follows: Now You're Talking! (NYT), ARRL's Tech Q & A (ATQA), General Class License Manual (GCLM), Advanced Class License Manual (ACLM), Extra Class License Manual (ECLM), FCC Rule Book (FRB), ARRL Novice/Technician Instructor's Guide (NTIG) and ARRL General Class Instructor's Guide (GIG).

- NYT 3rd edition: All printings (good through June 30, 2001)
  - ATQA 2nd edition: (good through June 30, 2001)
  - GCLM 3rd edition: (good through June 30, 2001)
  - ACLM 4th edition: All printings
  - ECLM 6th edition: All printings
  - FRB 11th edition: All printings
  - NTIG 3rd edition: Use with 3rd edition of NYT (good through June 30, 2001)
  - GIG 4th edition: Use with 3rd edition of GCLM
- Note: The VEC Question Pool Committee has suspended its revision to the Advanced Class Question Pool until the FCC's restructuring plans are released.



The Boulder (CO) Amateur Radio Club Elmers who teach the youths in their auxiliary club, BARC Jrs, meet to discuss what atmosphere works best with their young students.



ARRL instructor Harry Pilafian, W4SQG, sits on the floor, using the coffee table for notes – students are comfortable in his living room.

## A Letter from the ARRL/VEC Manager



The ARRL VEC Manager was recently asked by **Bob Hopkins, WB2UDC**, about examination accommodations for the disabled. Here is the reply.

*Bob:*

*The FCC describes on the back of their current Form 610, the various accommodations that can be used by the Volunteer Examiners, including:*

*VEs can administer the exam at a place/time comfortable to the examinee, even at bedside.*

*VEs can vary the volume or tone for a Morse receiving test.*

*The receiving test message can be sent via flashing light or vibrating surface (tactile pad/speaker woofer vibration) for persons with hearing difficulty.*

*The receive message can be paused after each sentence, phrase, word or even character by character to allow time for the examinee to absorb, interpret or speak out what's been sent.*

*VEs can employ a sending test (examinee sends to the VEs) in lieu of a receiving test for handicapped persons who may require that type of accommodation.*

*FCC places the decision with the VEs as to which, if any, accommodation must be used. Per FCC Rules, VEs may require the examinee to provide a statement from his/her doctor that describes the nature of the disability before the VEs can conclude which, if any, accommodation is appropriate. The Handi-Ham Courage System may also have advice or guidance; contact them at 612-520-0520.*

*73, Bart J. Jahnke, W9JJ, Manager, ARRL/VEC*

## From Karl Larsen, K5DI

ARRL instructor **Karl Larsen, K5DI**, wrote an article that we published in the 1998 edition of *Proceedings of the ARRL National Educational Workshop*. We are excerpting his article here.

"Once a year we offer a CW weekend class. We give each student a tape with code practice on it two weeks before class starts. The student is to practice 20 minutes a day; they do not do this much. They all seem to enter class with 1 WPM capability. On Friday evening, we break the attendees into four sub-groups, and each has an MFJ code practice oscillator with a straight key on it.

"Everybody sends code to everybody else. Students learn that different things are hard for different people. The usual problem is a message with both letters and numbers. So we start using this from the beginning. Teachers need to be upbeat and positive with students; they get down very easily.

"At 4 PM on Saturday, we give a sample 5 WPM test to check for trouble spots. It is graded, and the teachers learn what is hard for each student. Sunday, each student is drilled on parts they are having trouble with. Other students send QSOs (similar to the test) that we give them, to each other. At 2 PM on Sunday, the VE team gives the test. We get about 80% success.

"This CW weekend class idea has been tested and works. Students learn code, both copying and sending. It minimizes the time needed from teachers. Since I don't let teachers be VEs, it is hard to find people with enough time, otherwise. Even very busy people can find four hours to teach, and it's the very busy people who get things done. Because of the time required, the old 10-15 week class lost both students and teachers. With the weekend class, we've never lost a student or teacher."

In October, the FCC issued a Report and Order on the Universal Licensing System, which affects all Wireless Telecommunications Bureau licensees. The new rules become official around the end of 1998; the FCC expects to have the ULS fully operational by April. The Form 610 series will be replaced by the ULS Form 605 (*the Quick-Form Application for Authorization in the Ship, Aircraft, Amateur, Restricted and Commercial Operator, and General Mobile Radio Services* for all purposes). Using the ULS (at <http://www.fcc.gov/wtb/uls/>), applicants and licensees can file, modify, and renew electronically, although electronic filing isn't yet mandatory for individual amateurs. An applicant may continue to use old Form 610 for six months after the new rules go into effect. The FCC will require the submission of a Taxpayer Identification Number by applicants using ULS, "consistent with the requirements of the Debt Collection Improvement Act of 1996." The FCC said its security measures will limit access to TIN data both online and to FCC staff. —N1RL

## Happy Holidays from the ARRL Educational Activities Department



Your EAD Staff: (l to r): **Mary Robertson, N7IAL**; **Jean Wolfgang, WB3IOS**; **Margie Bourgojn, KB1DCO**; **Dan Miller, K3UFG** and **Rosalie White, WA1STO**.

## Educational Activities Forum

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