Project Kit Building Coming to 2009 Dayton Hamvention

A new feature of the ARRL Expo at the Dayton Hamvention this year will be a kit building opportunity. ARRL Education & Technology Program instructors Mark Spencer WA8SME and Nathan McCray K9CPO and ARRL Lab Engineer Bob Allison WB1GCM will manage the activity. They will provide guidance on soldering technique for those attempting kit building for the first time and general guidance on how to organize, instruct and be successful with kit building. The details of the projects to be offered are being worked out. Watch for more details about ARRL’s 2009 Dayton Hamvention Expo on our website and in QST.

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BSA Radio Merit Badge Revised

The Boy Scouts of America regularly review their merit badge programs and have revised and reprinted their official Radio Merit Badge curriculum. You can review the new curriculum and the changes to the curriculum on the US Scouting Service Project website and order a new four-color pamphlet with a complete description of the Radio Merit Badge program directly from the BSA online store. A recent online ARRL news story also summarizes the changes.

BSA radio merit badge counselor Gary Wilson K2GW has provided some updated materials to instruct the radio merit badge. which are linked from our scouting resource page at: www.arrl.org/scouts/. Thanks Gary!

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Applications for 2009 Teachers Institutes are being Accepted

Seven TI sessions are being supported by generous donor funding this summer. The dates and locations are as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Application Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 26-29, 2009</td>
<td>New Mexico Military Institute Roswell, NM</td>
<td>April 15, 2009</td>
</tr>
<tr>
<td>June 15-18, 2009</td>
<td>Parallax Inc., Rocklin, CA</td>
<td>April 15, 2009</td>
</tr>
<tr>
<td>June 15-18, 2009</td>
<td>Pueblo Magnet High School, Tucson, AZ</td>
<td>April 15, 2009</td>
</tr>
<tr>
<td>June 23-26, 2009</td>
<td>Brevard Public Schools, Viera, FL</td>
<td>May 15, 2009</td>
</tr>
<tr>
<td>June 29-July 2, 2009</td>
<td>Berrien Regional Education Service, Berrien Springs, MI</td>
<td>May 15, 2009</td>
</tr>
<tr>
<td>July 6-9, 2009</td>
<td>P&amp;R Communications, Dayton, OH</td>
<td>May 15, 2009</td>
</tr>
</tbody>
</table>

You can download a brochure to hand to interested teachers from our Web page at [www.arrl.org/TI](http://www.arrl.org/TI). Word of mouth is the most effective way to recruit teachers you know who would be good candidates for participation. Teachers need not be licensed, but must be interested in pursuing the content areas presented at the TI in their classrooms.

This summer we will also be piloting an advanced Teachers Institute, a TI-II, that will focus on satellite communications. This workshop is open to previous TI graduates.

If you’d like to contribute to the Education project fund, you may do so online. [Click here](http://www.arrl.org/TI) for more information.

Education & Technology Program Grants Awarded to 21 Schools

In December the ARRL Executive Committee approved grant awards for radio equipment and instructional resources for 21 schools. For the full story and a list of the schools receiving the awards, [click here](http://www.arrl.org/TI).

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**Classroom News**

**ETP School Student Leads Amateur Radio Emergency Communications Team**

Dean LaBarba KI6CUX, senior at Wilson Classical High School in Long Beach, California, was recently recognized for his leadership of the school’s Amateur Radio Emergency Communications Team. Wilson High teacher Devon Day KF6KEE attended ARRL’s Teachers Institute in 2006 and introduced amateur radio into the school enabled by an ARRL ETP grant. Read more about Dean’s accomplishments, courtesy of LongBeachReport.com.

**University of Arkansas Fort Smith Hosts Elementary School Students for Introduction to Amateur Radio**

John Martini KE5JVD applied to ARRL’s ETP for equipment to use as part of UA’s Electronics Technology degree program and to use in connection with an educational outreach effort to young students in the local area. He also attended ARRL’s Teachers Institute as part of that preparation. In the most recent round of grant approvals, John received a satellite receiver for tracking the NOAA weather satellites. Later this spring he plans for his college students to assist him, with the help of the local Fort Smith Amateur Radio Club, to build the antennas for the satellite tracking station.

In December John hosted students from the Albert Pike Elementary School to learn about ham radio operating. “Students were shown different types of frequencies through which various transmissions can be sent and decoded. Importance was stressed on meeting new people and making friends all over the world as a sort of good will ambassador.” Read the full story, courtesy of UA Fort Smith News.

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**“Choosing a Radio” Guide Coming Soon!**

We’ve heard the voices of many volunteer license instructors asking us to provide some guidance on choosing a radio appropriate for a newly licensed radio amateur’s interests. Sometimes this assistance is also needed by hams who are recently reactivated, either because of a recent license upgrade or just because they are finding the time to get involved...
after a long respite. Volunteer instructors David Haycock KI6AWR and Greg Widin K0GW put some flesh on the bones of the concept of what was needed, and editor Ward Silver N0AX added some structure and editorial expertise to produce an initial draft. The early draft was reviewed by a users group of new hams and teachers and instructors who work with new hams. The object was to develop a guide that will address the most basic questions that need to be answered to determine the features and requirements that are important in selecting a radio. The guide is now in layout stages and will be included in the next printing of the *Ham Radio License Manual*. Its placement there will provide utility to instructors and students alike who will be asking the question, “What radio should I buy?” when they receive their ticket. The guide will also be available to members on the ARRL website, where it will be supported by links to other sources of information that will aid in making a radio selection.

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## Train the Trainer Class Held at Hamcation

With funding from the ARRL Foundation, ETP Coordinator Mark Spencer WA8SME developed and delivered a class for volunteer license instructors during the February 13-15 weekend of Hamcation in Orlando, Florida. The purpose of the session was to train a core of volunteer instructor mentors who will in turn be able to train and assist other volunteer instructors within their local areas to become better and more effective instructors. Evaluations of the session indicate it was well received by participating instructors. Look for the full story on the ARRL home page soon.

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## Ideas and Resources for Volunteer Instructors

### “Turning On” Prospective Hams

A good part of successful instruction is about forming connections with students: reaching the audience. I’d like to share the thoughts of two instructors who address this topic and have posted their articles on our resource page for Volunteer Instructors at [www.arrl.org/es/instructor-resources/](http://www.arrl.org/es/instructor-resources/) for your reference.

Joshua Long KD8BVB expresses his views on outreach to teens in his article, ”We Must Reach Them to Teach Them!” I’ve posted Joshua’s article on our resource page under *Additional Resources to Support Instruction and for Reference*. You can link directly [here](http://www.arrl.org/es/instructor-resources/).
A while back Randy Hatfield AG6RH wrote to me to share some insights on his experience with licensing instruction. He offered some specific strategies for instruction with the needs of today’s prospective hams in mind. Though some of his comments may be hard to embrace by those who have adhered to a more traditional model for offering instruction, a lot of what Randy has to say speaks to the current realities of how amateur radio licensing needs to be made relevant to prospective licensees. I’ve posted Randy’s insights on our resource page for your consideration under Additional Resources to Support Instruction and for Reference, or link directly here.

Randy includes this success story from a recent class. “The two most notable Extras are 10 and 13. They passed the Extra exam three weeks ago. They logged their Extra class study time...241 hours. The two boys and their dad, an engineer, studied together. Quinn is 13, he runs the 2 meter "2100 Net" every Friday night. The net has linked repeaters and covers the majority of Arizona and part of New Mexico. Liam is 10, and works Echolink and 20 meters around the world. He’s the rag-chewing ham of the house. Quinn and Liam taught the Echolink portion of the last class and did a great job. Liam had a schedule with a friend he’d made in Scotland.”

I think you’ll agree, this is the kind of story that makes any instructor beam!

More Shared Resources for License Instruction
New/updated additions to our Instructor Resource page at www.arrl.org/es/instructor-resources/ also include the following:

From Hamilton Carter KD0FNR comes a set of online exam practice tests. Users can track their test scores over time and see which sub elements are giving them the most trouble. Within the practice tests, online study resources (Wikipedia, NASA, ARRL, etc...), are provided for many of the questions. The list of resources available for each question is constantly growing because users can add their own favorite links to the study materials. A link to Hamilton’s site can be found under Practice Exams on our resource page, or link directly here.

Bob Bytheway K3DIO reports that he completed a set of power point presentations to instruct the General Class licensing material. A link to Bob’s resources is listed under Shared Resources on our Web resource page, or link directly here.

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Resources for Classroom Teachers

Rosalie White K1STO, ARISS Program Manager offers some resource news for classroom teachers.

1. The European Space Agency created some resources in Spanish on space science and also on how it affects life on earth. ETP instructor Miguel Enriquez KD7RPP reviewed the materials and recommends them highly. [http://www.esa.int/esaKIDSes/index.html](http://www.esa.int/esaKIDSes/index.html)

2. NASA and Google have announced the launch of a new Mars mode in Google Earth. This new mode, Google Mars 3D, enables everyone to access a high-resolution, three-dimensional view of the red Planet. The mode makes it possible for the users to travel the surface of the Red Planet, observing Millennia-old canyons, and huge mountains, or viewing Martian dust devils first hand. They can also explore Mars through the eyes of the Mars rovers and other Mars missions. Besides facilitating the understanding of Mars science for public, Google Mars 3D, also gives researchers a platform for sharing data similar to what Google Earth provides for Earth Scientists. For more information on the project and how to access it please visit: [http://www.nasa.gov/mission_pages/mars/news/google-mars.html](http://www.nasa.gov/mission_pages/mars/news/google-mars.html)

3. As part of the International Year of Astronomy (IYA), people around the world have a chance to vote on the next object the Hubble Space Telescope will study. On Hubble 's website, there is a list of 6 never observed objects to chose from. The objects range from a dying nebula, to two distant colliding galaxies, to an area of space where new stars are forming. Those who vote, have a chance to win one of 100 new high-resolution Hubble pictures of the winning object. To learn more about the deadline, and other details please visit: [http://youdecide.hubblesite.org/](http://youdecide.hubblesite.org/)

4. Your future could be in the hands of a team of brilliant high school students who right now are competing to develop the next "big thing" you didn't know you couldn't live without -and you still have time to make a difference in the outcome of the contest. The Pete Conrad Spirit of Innovation Awards program, now in its second year, effectively combines education, innovation and entrepreneurship with the goal of shaping the workforce of tomorrow. It is sponsored by the Conrad Foundation, named for the third man to walk on the Moon, a veteran astronaut who flew Gemini, Apollo and Skylab. You can vote for your favorite team and/or offer professional guidance by visiting [http://www.conradawards.org/](http://www.conradawards.org/). By doing so you will help reward innovative thinking among youth and build up a new source of human capital that help solve some of the most pressing problems of the 21st Century.

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Recent Statistics on Licensing Classes and Exams

As of the end of December, there were 28,066 new hams licensed by all VECs in 2008. This total compares to 26,728 new hams licensed in 2007—a great showing even though it is just a little short of the goal set by the ARRL Board of Directors of licensing 30,000 new hams in 2008. Classes listed with us last year totaled 539!—with 59 in Texas, 50 in California and 37 in Washington. There are already 194 classes scheduled for 2009 listed on ARRL’s website.

We appreciate all of the hard work you contributed to add to the ranks of radio amateurs!

<table>
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<tr>
<th>ALL VEC ACTIVITY</th>
<th>Jan 1 to Dec 31, 2006</th>
<th>Jan 1 to Dec 31, 2007</th>
<th>Jan 1 to Dec 31, 2008</th>
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<tbody>
<tr>
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<td>LICENSE COUNT</td>
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<tr>
<td>EXTRA</td>
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<tr>
<td>GENERAL</td>
<td>3,934</td>
<td>20,854</td>
<td>11,861</td>
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<tr>
<td>TECHNICIAN</td>
<td>20,439</td>
<td>24,249</td>
<td>25,598</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27,391</td>
<td>51,081</td>
<td>43,567</td>
</tr>
</tbody>
</table>

*Effective February 23, 2007 the FCC changes the Amateur Radio Service Rules and no longer requires applicants to pass a Morse code exam. This creates a spike in the number of individuals seeking an upgrade to General.

To subscribe, unsubscribe or change your address for e-mail delivery of this newsletter:

ARRL members first must register on the Members Only Web Site, http://www.arrl.org/members/. You'll have an opportunity during registration to sign up for e-mail delivery of this newsletter as well as others, including the ARRL Letter, W1AW bulletins, and other material. ARRL members may subscribe to the ARRL Instructor/Teacher Newsletter by going to the Member Data Page at: www.arrl.org/members-only/memdata.html?modify=1

Note that you must be logged in to the site to access this page. Scroll down to the section "Which of the following would you like to receive automatically via email from ARRL?" Check the box for "ARRL Instructor/Teacher E-Letter " and you're all set.

Past issues of this newsletter are available at www.arrl.org/FandES/ead/instructorNews.html. Issues are posted to this page upon publication.

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