# ARRL Scout Handbook

... for use with Boy Scouts and Girl Scouts



Edited by Jean Wolfgang, WB3IOS

This information is provided by:

THE AMERICAN RADIO RELAY LEAGUE (ARRL)

Field & Educational Services (F&ES)

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#### Introduction

Welcome! The world of Amateur Radio fun and adventure awaits. Ham radio is a hobby that's known for making friends across town or around the world. JOTA has long been a favorite activity, combining Amateur Radio and Scouting. Amateur Radio operators are ready to help Scouts to join in the excitement. This booklet will tell you how to get started with Scouting and JOTA. *Let's GO*!

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# 1A -Boy Scout Radio Merit Badge

#### **ARRL Guidelines for Counselors**

#### Objectives:

- 1. Register and serve as the local Radio Merit badge counselor for your area Scout troop.
- 2. Set a personal goal to help at least 10 Scouts earn the badge this year.
- 3. Develop a plan to achieve that personal goal.
- 4. Publicize the Radio Merit Badge among Scout troops in your area.
- 5. Assist interested Scouts in working beyond the merit badge to earn their entry-level Amateur Radio license.

#### Resources:

Your Introduction to Morse Code, from the ARRL. A Morse code training package that includes two 90-minute audio cassette tapes and an instruction booklet. Tape 1 teaches the Morse code characters needed to pass the five word-per-minute Morse code exam. Tape 2 provides plenty of practice at this speed. Available on audio tapes or CD

Morse Tutor Gold, available from the ARRL. This computer (Windows format) program by GGTE teaches and drills you on required Morse code practice and provides random code character practice as you progress. The final lesson is a typical ham radio 2-way contact (QSO).

Passport to World Band Radio. Listings of short-wave broadcast (non-ham) stations with frequency, time and language of each broadcast.

The ARRL Operating Manual. Your complete guide to operating in the ham bands—basic operating, long distance (DX) communications, ham radio satellites, awards, contesting, short-wave listening (SWLing), packet radio, repeaters and more!

Night Signals, Hostage in the Woods, Easy Target, Firewatch!, Disappearing Act, and A Spark to the Past, by ham-author, Cindy Wall, KA7ITT. These books are about the fictional adventures of teenage hams and their friends.

ARRL provides educational materials for both Amateur Radio Instructors and students. Publications are available for each license class level. ARRL offers some study materials in several different formats such as, text book, video and computer aided. Please contact ARRL Field & Educational Service for information on current teaching and study materials. http://www.arrl.org/ead/instructor/ also contains current instructor information.

To encourage more ham radio classes, ARRL has established the ARRL

Discount Program. Under this program, ARRL -registered Instructors and Teachers may order discounted instructional material from the ARRL. Visit <a href="http://www.arrl.org/ead/discount/">http://www.arrl.org/ead/discount/</a> to view current Instructor Discount information.

The ARRL Video Library contains 12 videos containing a variety of Amateur Radio topics. Volume 1 (Recruitment) contains the following programs: "The New World of Amateur Radio," produced by the ARRL, offers a fast-paced introduction to Amateur Radio. 29 minutes. Visit http://www.arrl.org/ead/materials/videos.html to view information on each volume. Please contact ARRL F&ES (860-594-0292) for a complete list of available video, current prices or place an order.

Ham Radio...Planning for the Future, available from ARRL. This publication includes articles on teaching the Radio merit badge, Jamboree-On-The-Air and School Club Round-up. You will also find a few building projects from the simple to more challenging and descriptions of a few radio club activities.

#### PRICES AND TERMS SUBJECT TO CHANGE WITHOUT NOTICE.

Radio Merit Badge Pamphlet, latest edition. Published by Boy Scouts of America, available from a local BSA Council Office or Scouting distributor (look for "Boy Scouts of America" in your local telephone directory).

#### Incorporating Ham Radio into the Scout program

Scouting programs are usually active all year long. Many scout troops plan a yearly activity calendar in late summer. Start publicity for classes or JOTA in the early fall—this allows time for Scouts to earn their Amateur Radio licenses after (or while) they work on their badge. Troop leaders are always looking for speakers—offer your services and introduce Scouts to ham radio!

Start plans now for the Jamboree-On-The-Air (held during the third weekend in October). Find out when your local troop holds camporees, and begin thinking of ideas for Amateur Radio demonstrations, message handling, and third-party QSOs. Kids love packet radio, handi-talkies (HTs), auto patches, amateur television (ATV), and long-distance communications (DX).



#### **Contact information:**

American Radio Relay League 225 Main Street, Newington, CT 06111-1494 USA phone (860) 594-0219; (860) 594-0259; e-mail scout@arrl.org

# 1B - Radio For 100,000 Scouts

#### Become a Boy Scout Radio Merit Badge Counselor!

#### The Merit Badge Counselor and the Scout

The merit badge plan is based on the concept that a counselor working closely with a Scout acquaints the boy with an adult knowledgeable in one or more fields. The counselor introduces the Scout to subjects that may lead to a career choice or to a lifetime hobby.

From astronauts to high-tech patent holders to corporate officers in the electronics industry, many people's careers grew out of their early involvement in Amateur Radio. Today's youngsters need a chance to expand their horizons both intellectually and socially through wholesome, challenging and constructive activities.

The millions of boys who can now be exposed to Amateur Radio through Scouting may not have that opportunity in years to come. Though we can't realistically expect "Radio" to compete with required badges such as cooking, camping and first aid with active counselors, we have the opportunity to reach thousands of 11- to 14-year-old Scouts. We're betting that with your experience and enthusiasm for Amateur Radio, many of those Scouts will quickly outgrow the limitations of the Radio Merit Badge and seek your help in earning their tickets. Though earning the badge represents a significant achievement to a Scout, he still can't transmit with it.

Scouts must complete each step of the Radio Merit Badge requirements even though they may already hold an Amateur Radio License.

#### Do You Qualify?

What's the first step? Get the approval of your regional BSA Council. They'll explain the merit badge counselor's role. Start with a local Boy Scout troop. If you're a newcomer to Scouting, simply call your local Council office; most are listed in the white pages of the telephone book under "Boy Scouts of America." Tell them you want to register as a counselor for the Radio Merit Badge and they'll put you in touch with the right person at the District or Council level.

"Merit badge counselors must meet the Scouting membership requirements. Hams must become a registered adult Scout. (The registration fee is waived.) They must be men and women of good character over age 18, recognized as having the skills and education in the subjects for which they are to serve as merit badge counselors, as well as having the ability to work with Scout-age boys."

They'll want your name, address and phone number, and permission to release them in a listing of the Council's merit badge counselors. The list is distributed annually to all Scout troops in your area. They'll also want to know why you're interested in becoming a radio merit badge counselor and what your qualifications are. The fact that you're an FCC-licensed radio amateur and an adult who

knows the importance of a youngster's developing an interest in the sciences, a familiarity with modern technology, a first-hand appreciation of other cultures and a personal sense of citizenship in the world should be sufficient.

Don't forget to pick up a copy of the revised Radio Merit Badge pamphlet that should be available through your Council office or local Scouting supplier.

By Steve Place, WB1EYI
out and a lifelong Scouter

Steve Place is an Eagle Scout and a lifelong Scouter.

—Adapted from QST, February, 1988. Updated November, 1999

#### Radio Merit Badge

#### Requirements for the Radio Merit Badge

- 1. Explain what radio is. Include in your explanation: the differences between broadcast radio and hobby radio, and the differences between broadcasting and two-way communicating. Also discuss broadcast radio and Amateur Radio call signs and using phonetics.
- 2. Sketch a diagram showing how radio waves travel locally and around the world. How do the broadcast radio stations, WWV and WWVH, help determine what you will hear when you listen to a radio?
  - 3. Do the following:
    - a. Draw a chart of the electromagnetic spectrum covering 100 kilohertz to 1000 megahertz.
    - b. Label the MF, HF, VHF, UHF, and microwave portions of the spectrum on your diagram.
    - c. Locate on your chart at least eight radio services such as AM and FM commercial broadcast, CB, television, Amateur Radio (at least 4 ham radio frequency bands), and police.
    - d. Discuss why some radio stations are called DX and others are called local. Explain who the FCC and the ITU are.
- 4. Explain how radio waves carry information. Include in your explanation: transceiver, transmitter, amplifier, and antenna.
- 5. Learn some safety precautions for working with radio gear, particularly Direct Current and RF grounding.
  - 6. Do the following:
    - a. Explain the difference between a block diagram and a schematic diagram.
    - b. Draw a block diagram which includes a transceiver, microphone, antenna, antenna switch, dummy antenna and feedline.
    - c. Explain the difference between an open circuit, a closed circuit and a short circuit.
    - d. Draw 10 schematic symbols. Explain what 3 of these parts do. Match 3 electrical components to 3 of these symbols.
  - 7. Do ONE of the following (a, b, or c):

#### a. AMATEUR RADIO

- (1) Describe some of the activities that Amateur Radio operators can do onthe-air, once they earn a license.
- (2) Carry on a 10-minute real or simulated ham radio contact using voice or Morse code; use proper call signs, Q signals and abbreviations. (Licensed ham radio operators may substitute five QSL cards as evidence of contacts with Amateur Radio operators in at least three different call districts.)
- (3) With the help of a local Amateur Radio operator, talk to and properly log 2 Morse code radio contacts. Record signal reports. Explain how often Amateur Radio operators must give their call signs during a radio contact.
- (4) Explain at least five Q signals or Amateur Radio terms you heard while listening.
- (5) Explain some differences between the Novice class license and the Technician Class license requirements and privileges. Explain who gives Amateur Radio exams.
- (6) Explain how you would make an emergency call on voice or Morse code. Tell why the FCC has an Amateur Radio service.
- (7) Explain hand-held transceivers versus home "base" stations. Explain about mobile Amateur Radios and Amateur Radio repeaters.

#### b. BROADCAST RADIO

- (l) Prepare a program schedule for radio station "KBSA" of exactly one-half hour, including music, news, commercials, and proper station identification. Record your program on audio tape using proper techniques.
- (2) Listen to and properly log 15 broadcast stations; determine for five of these their transmitting power and general areas served.
- (3) Explain at least eight terms used in commercial broadcasting, such as segue, cut and fade.
- (4) Discuss the educational and licensing requirements and career opportunities in broadcast radio.

#### c. SHORTWAVE LISTENING

- (1) Listen across several shortwave bands for two 4-hour periods, in the early morning, the other in the early evening. Log the stations properly and locate them geographically on a globe.
- (2) For several major foreign stations (BBC in Great Britain or HCJB in Ecuador, for example) list several frequency bands used by each.
- (3) Compare your morning and evening logs, noting the frequencies on which your selected stations were loudest during each session. Explain the differences in signal strength from one period to the next.
  - (4) Discuss the purpose of and careers in shortwave communications.
- 8. Visit a radio installation approved in advance by your counselor (ham radio station, broadcast station, or public service communications center, for example). Discuss what types of equipment you saw in use, how it was used, what types of license are needed to operate and maintain the equipment, and the purpose of the station.

# 1C - Girl Scout — Suggested Patch

#### Girl Scout Patch Program—A Proposal

by Arline Berry, W1LIO

A proposal for an Amateur Radio patch for Girl Scouts follows this introduction. I welcome any comments you have on it. There are a number of Girl Scout badges that you can incorporate Amateur Radio into, such as the Junior Scouts'

Communications badge, or the Cadettes and Seniors' High Tech Communication badge. But this outline is for an Amateur Radio patch.

We must be sure the program that I have outlined (below) is called a Patch Program, and not a badge. As far as I can determine, anyone can outline a Patch Program and it doesn't have to be approved by a Council or National. Badges can only be authorized by the National Organization with two exceptions:

- 1. A Troop's Own Badge, which is written by the girls in a Troop, and is only for those girls.
- 2. A Council's Own Badge, which is approved by the Council's Program Committee, and is unique to that particular Council. That is why I have proposed this Patch Program.



My suggestion is that a girl complete all of the outlined requirements for each age level, or have passed an FCC Amateur Radio license exam. A Patch Consultant, usually a ham, or the Leader, determines if the requirements have been completed—which is the process for passing a Badge.

#### A Proposal:

An Amateur Radio Patch for Girl Scouts

#### Junior Girl Scouts:

- 1. Learn what Amateur Radio is.
- 2. Who are Amateur Radio operators and what are some public services they perform?
- 3. How do you become an Amateur Radio operator?
- 4. Visit an Amateur Radio operator or invite him or her to demonstrate radios to your Troop.
- 5. Find out about Amateur Radio clubs and if (or when) they give classes to become an Amateur Radio operator.
- 6. Learn how radio waves travel.
- 7. Find out how Amateur Radio operators can communicate with hams in other countries who do not speak English. Make a list of some of the "Q" signals used.
- 8. Learn how "traffic messages" are handled.
- 9. List some of the ways to have fun being an Amateur Radio operator.

#### Cadette Girl Scout or Senior Girl Scout:

- 1. Complete the Junior Girl Scout patch requirements.
- 2. Draw a block diagram which includes a transceiver, microphone, antenna and feedline.
- 3. Draw 10 schematic symbols often used in radio diagrams and explain what each part does.
- 4. Explain the difference between an open circuit, a closed circuit and a short circuit.
- 5. List 5 typical Amateur Radio call signs.
- 6. With the help of a local Amateur Radio operator, talk to and properly log at least two voice, or two Morse code, contacts.

Suggested by Arline F. Berry, W1LIO Volunteer Coordinator, Girl Scouts-Ham Radio, with modification by others.

Girl Scout Amateur Radio patches can be purchased (for \$1 each) from:

Arline F. Berry, W1LIO 6 Causeway Lane, Medfield, MA 02052

# II- JOTA: Information and Ideas

#### What Is JOTA?

When Scouts want to meet young people from another country, they think of attending a World Jamboree. But few people realize that each year more than 400,000 Scouts and Guides "get together" over the airwaves for the annual Jamboree-on-the-Air (JOTA). JOTA offers Scouts the exciting opportunity to make friends in other countries without leaving home.

JOTA allows Boy and Girl Scouts and Guides from all over the world to speak to each other via Amateur (ham) Radio. Scouting experiences are exchanged and ideas are shared via radio waves. Many contacts made during JOTA have resulted in pen pals and links between Scout troops that have lasted many years.

Many Scouts and leaders hold ham radio licenses and have their own stations, but the majority participate in JOTA through stations operated by local radio clubs and individual radio amateurs. Some operators use television or computer-linked communications.

#### When

JOTA is held the third weekend in October. It will begin on Saturday at 0001 hours local time to Sunday, 2359 hours local time, though some activity continues over from Friday to Monday to take advantage of long distance (DX) time differences.

#### How Do We Take Part?

First, contact a local Amateur Radio operator or club to ask for assistance. If you need help finding one, contact the Field & Educational Services at ARRL HQ at (860) 594-0219. Radio amateurs are enthusiastic about their hobby and most will be willing to help you participate in JOTA. The radio operator may suggest that the Scouts visit his/her station or that the operator bring equipment to your local campsite. Often, JOTA stations are set up in unusual locations, such as the top of a mountain, or on a boat. Girl and Boy Scout brochures may be ordered by contacting the ARRL.

#### Rules

Radio operators run their stations in accordance with their national licensing regulations. License conditions vary from country to country. In some, Scouts may speak over the air; in others, special permission can be obtained for Scouts to speak over the radio during JOTA. In the USA, FCC makes no distinction between "greetings messages" and other types of third-party traffic. This means during JOTA, US hams must still abide by the third party agreement.

Stations should call "CQ Jamboree," or answer stations doing so. It is recommended that stations use the agreed World Scout Frequencies listed a bit later. Once contact is made, it is advisable to move to a nearby frequency to avoid congestion.

All groups are asked to send reports and pictures of their activities to their National JOTA Organizer (NJO) at BSA Headquarters, and to ARRL HQ after the event. http://www.arrl.org/ead/jotalog/

Although the worldwide JOTA is organized in October, Scouts can meet on the air at other times during the year. Regular Scout "nets" (pre-arranged times and frequencies when operators meet) are organized nationally or regionally. A list of these nets can be found in the World JOTA Report, published in March.

#### HB9S

The World Scout Bureau operates its own Amateur Radio station, with the call sign HB9S. There is a permanent radio room in the Bureau's Geneva offices, and the station is regularly on the air during Scout nets and JOTA weekends. Transmitters are on the 10/15/20 meter and 160/80/40 bands. Making contact with HB9S requires patience, as many stations call at the same time. Please follow instructions given by the operators and do not interfere with on-going contacts.

# **Scout Station Call Signs**

Each licensed Amateur Radio station has a call sign. The first letters specify the country. Here are call signs of stations that can often be contacted during JOTA:

HB9S = World Scout Bureau — Geneva Switzerland

**K2BSA** = Boy Scouts of America — Dallas TX

JA1YSS = Boy Scouts of Nippon — Tokyo Japan

**PA6JAM** = Scouting Nederland —Netherlands

5Z4KSA = The Kenya Scouts Assoc. — Kenya

VK1BP = Scout Assn. of Australia-National Station

GB2GP = The Scout Assn. — London, UK

**XE1ASM** = Boy Scouts of Mexico

**DU1BSP** = Boy Scouts of Philippines

TF3JAM = Scouts of Iceland

#### JOTA Program Activities

Before the event:

- ♦ Send a report of your plans to local news reporters. Ask them to visit the station.
- ♦ Ask a radio operator to talk about ham radio communications. Visit his/her station to actually see how it works. Learn about radio waves.
- ♦ Learn to say hello in other languages.
- ♦ Learn about other countries and prepare questions to ask over the air.
- ♦ Design special QSL cards for JOTA. Find a way to print cards or prepare different handmade cards.

# **Third-Party Traffic List**

Countries that Share a Third-Party Traffic Agreement with the

United States of America

V2 — Antigua/Barbuda4X — IsraelLU — ArgentinaJY — JordanVK — AustraliaEL — Liberia

V3 — Belize V7 — Marshall Islands

CP — Bolivia XE — Mexico
T9 — Bosnia-Herzegovina YN — Nicaragua
PY — Brazil HP — Panama
VE — Canada ZP — Paraguay

CE — Chile OA — Peru
HK — Colombia DU — Philippines

D6 — Comoros VR6 — Pitcairn Islands\*
TI — Costa Rica V4 — St.Christ./Nevis

HI — Dominican Republic J8 — St. Vincent
J7 — Dominica 9L — Sierra Leone
HC — Ecuador ZS — South Africa
YS — El Salvador 3DA — Swaziland

V6 — Federated States of Micronesia 9Y — Trinidad/Tobago

9G — Ghana TA — Turkey
J3 — Grenada GB — U.K.\*\*
TG — Guatemala CX — Uruguay
8R — Guyana YV — Venezuela
6Y — Jamaica 4U1ITU - ITU Geneva
HH — Haiti 4U1VIC - VIC Vienna

\* Since 1970, there has been an informal agreement between the U.K. and the US, permitting Pitcairn and US amateurs to exchange messages concerning medical emergencies, urgent need for equipment or supplies, and private or personal matters of island residents.

\*\* Limited to special-event stations with call sign prefix GB, (GB3 excluded).

♦ Build a simple antenna.

HR — Honduras

- ♦ Build a simple radio-related project.
- ♦ Learn about electricity.
- ♦ Practice Morse code. ARRL has a computer program that helps teach code: GGTE Morse Tutor Gold for IBM or compatible PCs.
- ♦ Practice talking into microphones using radio procedures.

♦ Find out about your local area in order to answer questions from Scouts in other regions.

During the event:

- Get a large wall map of the world. Ask the Scouts with whom you speak to give the local weather. Mark it on the map for the area where they are located and you will have a global weather picture.
- ♦ Determine the distance between each radio contact that you made and add them all up. Can you reach 100,000 km (62,000 miles)?
- ♦ Learn to say "Scout" in several different languages. Use it whenever possible.
- ♦ Invite parents and friends to visit your JOTA station.
- ♦ Organize a weekend hike and take portable radios.
- ♦ Ask Scouts to keep his/her own personal logbook of names, addresses and other information for Scouts contacted.
- ♦ Set up an information section with maps and atlases. When a contact is made, Scouts can find out details about the country or region.
- ♦ Plot contacts made on a world map.
- ♦ Invite the media to your station. Ask a newspaper photographer to take photos.

# **EXAMPLES OF RADIO JARGON:**

Ham: An Amateur Radio operator.

Log: A written (or computerized) record with details of contacts made.

"CQ Jamboree": A request for any other JOTA station to answer your call.

**QSL card**: A card which gives the details of the contact, such as location, time and date of contact, etc.

"73": Ham lingo for "sincere best regards." (Used on both phone and CW toward the end of the contact.)

**CW** (continuous wave): Morse code telegraphy.

**SSB** or **Phone**: Voice mode of sending messages.

**Packet**: Electronic mode of sending radio messages using ham radios and personal computers.

**RTTY** (radio teletype): Radio signals sent from one "teleprinter" to another. What the sending operator types on his or her keyboard will be printed on the screen of the receiving station.

**Shack**: The room where an Amateur Radio operator has set up his or her radio equipment.

#### After the Event:

- ♦ Write to the Scouts contacted. Establish pen pal or troop links. Send your badge and information about your area.
- ♦ Send your reports (and photos!) to the ARRL. Maybe you'll see your picture in our monthly magazine, *QST* or on our Web site!
- ♦ Send a report to your NJO.

#### Ideas for Amateur Radio Scouting:

- ♦ Have your merit badge candidates build the 80- or 40-meter "Neophyte Receiver"; not only will they learn the required construction basics, they'll end up with a solid CW, SSB and AM receiver tuned into a ham band. What better way to further their interest in Amateur Radio? (Get "The Neophyte Receiver" information from ARRL Headquarters, TIS.)
- ♦ Show "The New World of Amateur Radio" (ARRL order #5447) at a Scout troop meeting to generate interest in the merit badge (and in Amateur Radio). Have the boys invite their parents—especially when the boys' interest grows from earning merit badges to earning Amateur Radio licenses.
- ♦ Host Scouts in your shack during the annual Jamboree-on-the-Air in which Scouts talk about Scouting with their counterparts around the world.
- ♦ There's nothing to prevent your working with local Girl Scouts or other youth groups, which do not have formal radio badges. We're particularly interested in learning of your successes in these areas.

What have you found to be productive, enjoyable activities for Scouts in Amateur Radio? Do you sponsor an Amateur Radio Explorer Post? Have you had success with Cub Scouts during their annual Communications Month? Send your ideas to ARRL Headquarters, "F & ES."

World Scout Frequencies:				
Band:	SSB (phone):	CW (Morse code):		
80 meters	3.740 / 3.940 MHz	3.590 MHz		
40 meters	7.290 MHz	7.030 MHz		
20 meters	14.290 MHz	14.070 MHz		
17 meters	18.140 MHz	18.080 MHz		
15 meters	21.360 MHz	21.140 MHz		
12 meters	24.960 MHz	24.910 MHz		
10 meters	28.390 MHz	28.190 MHz		

<sup>\*</sup>Start planning for next year!

#### JOTA Resources

Postcard-sized certificates are free to anyone participating in any way. Order beforehand for presentation during JOTA or award later at Scout or Amateur Radio club meetings. (These are not "QSL" cards.) Send a self-addressed stamped envelope large enough to hold the cards ordered. Send requests to: Jamboree-on-the-Air Certificate Cards, S221, 1325 West Walnut Hill Lane, PO Box 152079, Irving TX 75015-2079

Pocket patches are \$3.00 each (plus tax); order early. Include state sales tax. Send to: JOTA Coordinator, International Division, S221, Boy Scouts of America, 1325 W. Walnut Hill Ln., PO Box 152079 Irving TX 75015-2079.

For a list of Amateur Radio Clubs contact: ARRL Field & Educational Services 225 Main Street Newington CT 06111 Phone (860) 594-0219; FAX (860) 594-0259 Internet e-mail: scout@arrl.org

> Special thanks to the World Scout Bureau, Geneva, Switzerland for this section

#### Notes from Jamboree-on-the-Air:

Skatakvedja! Icelandic Scout greetings! That's how US Scouts of Troop 364 in Iceland greeted many over the air during one year's Jamboree-on-the-Air. Using the call sign WA4JVL/TF, Troop 364 completed two-way contacts with 44 other Jamboree stations in 17 countries and plotted them on a large world map.

Jamboree-on-the-Air provides a "radio-flavored" kickoff to the many fall and winter activities Scouts traditionally enjoy. California Girl Scouts and Cub Scout Packs of the Santa Clara County Council joined in the fun at the Foothills Electronics Museum. The museum exhibit featured packet-radio operations, a fast-scan TV demonstration, Morse code instruction and at-the-mike operating pointers from Foothills Amateur Radio Club members, sponsors of the exhibit.

The Bell Tower Pioneer Radio Club hosted members of Boy Scout Troop 434, of Orange Park, Florida, to a presentation of the video, "The New World of Amateur Radio," a short code-practice session and a discussion on the requirements for obtaining a license. Instruction in the proper operation of equipment, followed by each Scout's chance at the key and mike, made for a well-rounded and enthusiastically received presentation. Club members have scheduled a Novice class in January for the many Scouts who were inspired.

Mary Lau, N7IAL ARRL Special Services Coordinator

# III - Jamboree-on-the-Air — JOTA

Each year, on the third weekend of October, Boy Scouts, Girl Scouts, Cub Scouts, Brownies, Explorers and Guides from all around the world gather together using the field of Amateur Radio as their common "campground." They exchange information about themselves, their hobbies, their countries, and when they "break camp," come away with a greater understanding of the world—and of ham radio.

What's it like to participate in JOTA? One year, we heard from Pete de Volpi, KC3TL, of New Cumberland, Pennsylvania, who writes: "One memorable note was a three-hour 2-meter packet QSO carried on between the Girl Scouts [of Troop 430, Penn Laurel Council] at our station and a nearby Boy Scout Troop camping in Columbia, Pennsylvania. A memorable event for all, more fun than I've had in a long time. See you on the air for next year's JOTA."

ARRL HQ staffer, Larry Wolfgang, WR1B, and members of the Radio Amateur Society of Norwich, Connecticut, organized a Field Day-type of setup at a Boy Scout Camporee and operated K2BSA/1. Larry recalls the events of Saturday morning: "As we made contacts during the day, any Scouts who wanted to talk on the radio had an opportunity to try it out. We talked with many stations that had Scouts at the other end and were glad to trade stories with them. We even made contact with a group of Girl Scouts set up in a school in Minnesota."

If you'd like to take part in JOTA, contact your local Scout leaders and offer your station for the event. JOTA gives hams a chance to intrigue Scouts—perhaps they'll want to become hams. You may find enough interest generated to hold a licensing class.

Contact Field & Educational Services at ARRL HQ for Scout information or visit our web site at http://www.arrl.org/ead/jota.html

You can also order the ARRL JOTA Kit. This package contains brochures that introduce Girl and Boy Scouts to ham radio, a few small project sheets and a poster. You pay only the shipping cost. With your help, future JOTAs can be even better! You can place an order at https://www.arrl.org/forms/ead/recruit/orderform.html

Once JOTA is over, we'd like to hear about your event. Send us a short summary of what you did for the Jamboree. Include any "action photos" and descriptions of any media coverage you receive. Perhaps you'll see your reports and photos in QST, the ARRL's flagship Membership journal! Scouts the world over hope to meet you and your local Scouts on the air during JOTA!

Adapted from QST, June 1995 by Glenn Swanson, KB1GW

# IV - Getting Prospective Hams

#### Introduction

Fred Barmore, AB4FF, lives in Tampa, Florida. His motto is: "Be available." Fred particularly enjoys recruiting Scouts to become hams. He calls Scout councils and offers to set up ham radio stations at Scout Camporees. Then he recruits ham friends to help by promising them "some enjoyable DX in the hours of darkness when all of the good little campers have retired to their sleeping bags."

Once the demo station is set up, Fred asks the Scouts to do logging and QSO paperwork. He asks the area's ARES group to come to put on a simulated emergency drill to impress the Scouts with what they could do if they were licensed. Fred gives certificates to each Scout who exchanges a few words on the air. He also has cue cards that tell the Scouts typical things to say during a QSO, and QSL cards with plenty of space for signatures of each Scout who spoke with those at the receiving station. He also hands out copies of the Radio Merit badge requirements.

Fred also asks Boy Scout leaders to allow him to put on demonstrations about Amateur Radio at troop meetings. With one troop, after the demo, all of the boys decided to get licenses—Fred decided to teach them. Now he has the troop invite other Boy Scout troops, Girl Scouts, Cub Packs and Webelos to come visit their troop and watch them put on Amateur Radio demos or to take part in their Jamboree-on-the-Air.

#### Getting Them on the Air

Fred invites new hams to visit his shack. When they arrive, he checks in to an on-the-air informal roundtable of friends (he's set this up in advance, unbeknownst to the new ham). He then announces to the roundtable that he has an interested person standing by. Fred reports: "The new ham get coaxed into saying good evening, all around, and is acknowledged by all participants, in like spirit. Although new hams may be nervous, talking to friendly folks puts them at ease and makes them a part of the group, right away. The new ham is often thinking that he or she would like to have access to a group such as this on a regular basis, and is motivated to get involved in operating, right away."

Rosalie White, WA1STO Field & Educational Services Manager



# Has participated in the 1989 Jamboree-On-The-Air

Host Troop 215 Saint Christopher's Episcopal Church Tampa, Florida, U.S.A.

Operator	
OSL	

Address	Name of Person Talked To:	Location QTH	Operator's Name	Time (UTC)	Station Call Letters
			1744114		Jan Lenois
				-	

## A Sample Letter to Parents:

Dear Parents,

Troop 215 has the unique opportunity to participate in the 1996 Jamboree-On-The-Air. We will be partners with a ham radio group led by Fred Barmore, (AB4FF). The adult leadership of Troop 215 request your help in this project, because it may cause you to bring/pickup your son at Camp Borein at different hours.

Your Scout will be assisted by a certified ham operator at all times. Your son will have the unique opportunity to talk with Scouts in other countries. You will be able to see the sparkle Scouting puts into your son. You may even want to plan a family picnic around this event.

The Jamboree-On-The-Air (JOTA) starts at midnight Friday to midnight Sunday. Keep in mind the time differences around the world. On Sunday evening, Scouts will stop transmitting about 7 o'clock because of school the next day. Our plans are to run two or three hour shifts on the air. It will not be a requirement for your Scout to be present during all of the transmitting time.

Yours in Scouting, Troop 215 — Adult Leadership

## V- Letters

#### Dear ARRL,

Please send me three ARRL JOTA Packages: one for my Troop, and two others for clubs in the Houston area. I will need 35 Boy Scout brochures and 10 Girl Scout brochures.

I am an Assistant Scoutmaster for Boy Scout Troop 1332. During ARRL Field Day, our radio club operated out of the Scout Hut. During the event, several of us taught the Boy Scout Radio and Electronic merit badge courses to 4 boys.

So impressed were the rest of the boys in the Troop, and several of the adult leaders that the merit badge counselor for Citizenship in the World merit badge and Citizenship in the Nation merit badge (both required for Eagle rank) has tied completion of the two badges to JOTA!!! Thank you!!

Alan W. Cross, WA5UZB 4714 Coltwood Drive Spring, Texas 77388

#### To: ARRL Field and Education Services

Troop 85 is going to host a fall camporee along with the Jamboree-On-The-Air here in east-central Iowa. We are expecting about 2000 people to attend our two-day event. The Collins (ARC) and the Cedar Valley ARC are putting on the radio side of our camporee, and Scout troops are organizing everything else.

Last year we had a campout on the JOTA weekend just for our own troop, but word got out about what we were doing and before we knew it, 65 Scouts had their hand at a QSO. Several of the Scouts were very interested and have been attending Novice/Technician classes, looking forward to getting their tickets.

This year, Radio Shack has promised to help with equipment and give-aways for the Scouts, and some of the local celebrities will also help promote our event. In QST magazine, it says to contact you for a packet and brochures promoting Amateur Radio activities. We plan on having some hands-on electronics for the Scouts to build. Something simple but useful like code-practice oscillators. We will have lots of hams to help the Scouts with their projects.

Yours in Scouting, Boy Scout Troop 85 c/o James Covington, AAØXJ 161 Broadmore Road N.W. Cedar Rapids, Iowa 52405-3135

# VI - We're ARRL... Join With Us

It's only natural to want to be on top of the latest developments in the Amateur Radio world. That's why more than 170,000 US Amateurs are proud members of The American Radio Relay League.

The American Radio Relay League, Inc. (ARRL) is a non-commercial association of radio amateurs, organized for the promotion of Amateur Radio communication, for the establishment of communications in the event of disasters, for the advancement of the radio art, for the representation of the radio amateur in legislative matters, and for the maintenance of a high standard of conduct.

#### Benefits you're entitled to as an ARRL member:

QST, our monthly membership journal, is simply THE SOURCE for news and information on any topic that's part of, or relates to, Amateur Radio. And as a member, you'll be welcome at our Member's Only Website. Here's some of what you'll find every month:

Informative *Product Reviews* of the newest radios and accessories.

Coming Conventions/Hamfests columns tell you about hamfests and conventions in your area.

The New Ham Companion section is filled with features and how-to information. Technical Information Service (TIS). Questions on topics ranging from antennas to Zener diodes (A to Z), and anything in-between, are answered by HQ experts. Ham Radio Equipment Insurance: As a member, you can take advantage of the ARRL All-Risk Equipment Insurance program at a substantial savings over other plans.

# **ARRL Membership Rates in the US:**

	Regular	65 or older	Family or Blind
1 Year	\$34	\$28	\$5
2 Years	\$65	\$53	\$10
3 Years	\$92	\$76	\$15

#### DUES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

A member of the immediate family of a League member, living at the same address, may become a League member without QST at the special rate of \$5 per year. Family membership must run concurrently with that of the member receiving QST.

Individuals who are age 65 or over, residing in the US or possessions and upon submitting one-time proof of age, may request the dues rate of \$28. If you are under the age of 21 and the oldest licensed Amateur in the household, a special rate may apply.

To join ARRL by email, be sure to include your credit card number, type, and expiration date; your name as it appears on the card; your shipping address; and a daytime telephone number.

By mail, please remit a check or money order (drawn on a US bank) or credit card information, and please include your name, date, your call sign and your full mailing address. Send to:
The American Radio
Relay League
225 Main Street
Newington, CT 06111-1494 USA
phone 1-888-277-5289
fax (860) 594-0303
e-mail scout@arrl.org

# VII- Scout Handbook Feedback Form

Please use this form (e-mail to Internet: scout@arrl.org) to give us your comments about the booklet, and what improvements you would like to see in future editions.

Or send via regular mail to:

ARRL

225 Main Street Newington, CT 06111-1494

Attn: F & ES Scouting

#### **ARRL Scout Handbook Feedback Form**

Name	Call sign
Daytime Phone ( )	_
Address	
City/State/ZIP	
How long have you been licensed? _	
Are you an Instructor, Scout, Scouter	r-ham, or Other?
Thank you fo	or your comments!

This booklet was made possible through contributions from generous hams like yourself. Please consider a donation to the

#### ARRL Scout Handbook Fund

to make future booklets possible. Every tax-deductible contribution helps . . . regardless of the amount.

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