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General Information for ARRL Field Day and youth engagement with:
- Scouts BSA, Cub Scouts (BSA) for support of their rank advancement and merit badge achievements
- foundation information for ARRL Wireless award for GSUS Girl Scouts of the USA.
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FAQ
How many hams do we need just for the YOUTH aside from the already confirmed Public, Media, ARRL, special guests and Operators that are planning to show?

*** We will need 1 POC to greet, explain the set up, hand out the copies of prepared material and introduce them to an operator to work with, discuss their set up, and make some contacts-10 mins (HF or 2M).

As many of the YOUTH are now on their Summer Camp trips from traffic will be lower Jamboree on the Air or a Merit Badge University. Expected youth: 8 to 20

What are the rules surrounding the achievement of the YOUTH requirements and the FCC?
Operating time, length of contact, band?

***Total of 10 mins of conversation per YOUTH logged with QSO information and operator's info/initials any band okay. We have worked them singularly and in groups of two.

Please have them annotate their QSL sheet & your youth sign-in log with their Unit/Troop/Pack number (Like Troop 123 -1st Baptist), their name & contact email (a certificate will be emailed to them later.).

Each of the Scouts BSA youth should have a "Blue Card" with them from their S.M. extras cards should be on-hand. Initial the call sign req of operator on the Blue card confirming their QSOs and activity orientation is complete.

See in section below the suggested "on the air questions" to help avoid shy yes and no conversations.

>>Who is the coordinator that will be giving the safety and operations brief to them?
It's preferred that a BSA Radio Merit Badge councilor lead events, however any FCC licensed operator is qualified to provide the information, demonstrations and assist in the education as guest experts. For blue cards, only a BSA registered council can sign off requirements, however nearly every ARRL club has at least one qualified individual. wB4SA / www.RadioScouting.US has been working to expand this network to every club. If your club has no BSA Radio merit badge councilors please contact us. MBC's can also assist by remote to fulfill requirements.

>>How will they arrive? By private cars or a bus? Parking is limited and will be directed and controlled.

>>What day and time is this intended for?

Q: The Barriers to Abuse say that there must be two registered adults present for all Scouting activities and meetings. Does that include merit badge counseling? Fund-raising events?

A. Yes. However, the parent or legal guardian of the Scout may serve as the second adult. This parent or legal guardian does not have to be a registered leader. Two(2) Scouting adults or 1 Scout Leader and the Scout's parent must be in be in attendance with the operator (unless operator is current BSA Youth Protection Training current registered with background check) Bottom line: No Scout ever alone or out of line of direct sight of the group with any adult who is not their parent.

If anyone wants do the YP Training and background check to be registered
https://www.scouting.org/health-and-safety/yp-faqs/#as
https://www.google.com/amp/s/blog.scoutingmagazine.org/2018/01/19/whats-the-difference-between-two-deep-leadership-and-no-one-on-one-contact/amp/

Insurance and Liability
***Scouts engaged in council or troop approved activities are covered by the Council liability insurance policy.

Scouts BSA Radio Merit Badge Requirement focusing on Ham Radio for Field Day Activities

Useful Information

a. K2BSA Radio Scouting Website
https://k2bsa.net/radio-merit-badge/

b. Radio Merit Badge Pamphlet
https://www.dropbox.com/s/wvgnwnfchugrhxl/radio%20merit%20badge%20pamphlet.pdf?dl=0

c. QSL Card… (usually customized for each event or use your local club QSL card)

d. Radio Merit Badge Online Study Guide
https://www.dropbox.com/s/7niwmf6aci15dgg/radio%20merit%20badge%202018%20study%20guide.pdf?dl=0

e. BLANK QSL Log Sheet for QSOs
http://www.ve6kq.com/log.pdf

f. Teaching the Radio Merit Badge
https://www.dropbox.com/s/q7p0avu0mv38tca/teaching-radio-merit-badge.pdf?dl=0

g. Scouting abuse prevention 2 Deep leadership policy.
https://www.scouting.org/health-and-safety/gss/gss01/#a

Field Day Opportunity

A. The Clubs and Scouts should be focusing at field days with Merit Badge Reqts 1, 4, 5c, 6, 7 and 9.
We will cover the rest in depth during the upcoming MB classes and/or during Jamboree-On-The-Air this fall.

Logging Operational QSOs are most important. Can be on HF, 2M/70cm, any band.
Clubs advised to have 2M teams or repeater to provide QSO back up. (MB objective 7 and 9 most important)

Scout should have a merit badge "Blue Card" signed by their Scoutmaster for "Credit" for field day activities toward the Radio, Electricity or Electronics or Emergency Preparedness merit badges

Sample questions for talking to Scouts on the air to prompt more than yes no discussions

MB Requirements From Radio Merit Badge workbook: See 4, 5 b and c, 7 and 9.

1. Explain what radio is. Then discuss the following: (a) The differences between broadcast radio and hobby radio (b) The differences between broadcasting and two-way communications (c) Radio station call signs and how they are used in broadcast radio and amateur radio (d) The phonetic alphabet and how it is used to communicate clearly

2. Do the following: (a) Sketch a diagram showing how radio waves travel locally and around the world. (b) Explain how the radio stations WWV and WWVH can be used to help determine what you can expect to hear when you listen to a shortwave radio. (c) Explain the difference between a distant (DX) and a local station. (d) Discuss what the Federal Communications Commission (FCC) does and how it is different from the International Telecommunication Union.

3. Do the following: (a) Draw a chart of the electromagnetic spectrum covering 300 kilohertz (kHz) to 3,000 megahertz (MHz). (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, citizens band (CB), television, amateur radio (at least four amateur radio bands), and public service (police and fire).

4. Explain how radio waves carry information. Include in your explanation: transceiver, transmitter, receiver, amplifier, and antenna.

5. Do the following: (a) Explain the differences between a block diagram and a schematic diagram. (b) Draw a block diagram for a radio station that includes a transceiver, amplifier, microphone, antenna, and feed line. (c) Discuss how information is sent when using amplitude modulation (AM), frequency modulation (FM), continuous wave (CW) Morse Code transmission, single sideband (SSB) transmission, and digital transmission.

(d) Explain how NOAA Weather Radio (NWR) can alert you to danger. (e) Explain how cellular telephones work. Identify their benefits and limitations in an emergency.

6. Explain the safety precautions for working with radio gear, including the concept of grounding for direct current circuits, power outlets, and antenna systems.

7. Visit a radio installation (an amateur radio station, broadcast station, or public service communications center, for example) approved in advance by your counselor. Discuss what types of equipment you saw in use, how it was used, what types of licenses are required to operate and maintain the equipment, and the purpose of the station.

8. Find out about three career opportunities in radio. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

9. Do ONE of the following (a OR b OR c OR d):

a) Amateur Radio

(1) Tell why the FCC has an amateur radio service. Describe activities that amateur radio operators can do on the air, once they have earned an amateur radio license.

(2) Explain differences between the Technician, General, and Extra Class license requirements and privileges. Explain who administers amateur radio exams.

(3) Explain at least five Q signals or amateur radio terms.

(4) Explain how you would make an emergency call on voice or Morse code.

(5) Explain the differences between handheld transceivers and home “base” transceivers. Explain the uses of mobile amateur radio transceivers and amateur radio repeaters.

(6) Using proper call signs, Q signals, and abbreviations, carry on a 10-minute real or simulated amateur radio contact using voice, Morse code, or digital mode. (Licensed amateur radio operators may substitute five QSL cards as evidence of contacts with five amateur radio operators.)

Properly log the real or simulated ham radio contact, and record the signal report.

B. Sample questions to ask Scouts On the Air

On Air Questions to Ask Scouts

Suggested questions to ask the youth on the air. Originally provided to support the World Scout Jamboree operation, but can be used to support any Radio Scouting event including Jamboree on the Air.

Note: The intent with this list is to ask questions that elicit responses that are more than a simple "yes/no" or simple one or two sentence response. The goal is to carry on a conversation that is both engaging and enlightening, which helps them to overcome any stigma they may have being "on-the-air", and at the same time enlighten them and possibly learn more about the hobby at the same time.

§ Where do you live, and what is your favorite thing about your hometown?

§ What are your favorite things to do when not in school, and why?

§ How long have you been in Scouting, and what rank are you now? What was the most memorable thing you have done in scouting, so far?

§ What are your favorite sports teams, and do you participate in any sports? What position do you play?

§ How long have you been in Scouting, and what is your favorite activity? Do you do any of that activity outside of Scouting and if so, why?

§ Do you have any pets? What kind? Do you take care of them, or do your parents? What was the most interesting thing your pet did (does)?

§ What things at the Jamboree/Event have you done so far? Do have a favorite yet, and if so what?

§ What is your favorite subject in school? Do you hope to go to university to further study that subject?

§ Do you have a subject in school you don't like? Why?

§ Have you ever talked with someone from another country? If so, from where and what was the most interesting you talked about?

§ Is this your first experience with Ham Radio, and why did you want to come to the station?

§ Was it curiosity, or something else? If not your first experience with Ham Radio, what interested in you to doing it again?

§ Did you know you are talking with someone over _____ kilometer/miles from where you are located? Do you have any idea how that can happen without the internet? Can you guess how?

§ Have you ever heard of Samuel Morse, or Marconi? Do you know what contributions they made to Ham Radio?

§ Have the operators at your location explained the antennas/radios to you? Can to tell me about them?

§ Has the operator explained to the Q codes ham radio operators use? Can you carry on a conversation using as many of those as possible? Let's try.

§ What is the weather like at the Jamboree/Event?

§ What other activities/events have you participated in beside the Jamboree/Event? If so, which ones did you like the most/look forward to and why?

§ Have you met a lot of people from other countries and who was the most interesting?Why?

§ Do you know other languages beside your native one? If you know that language, talk with them in it.

§ What is the most interesting thing about your native country, and why?

§ Are there places in the US or other countries you have been fascinated with, and if you were given the choice, would you visit them again, and why?

C.. Radio Merit Badge as related to Rank and Advancement

Radio Scouting Advancement Information

The BSA National Radio Scouting Committee, led by Gary Wilson, K2GW, has examined the Cub Scout and Scouts BSA advancement requirements with a particular eye toward connecting, where possible, radio activities to help Scouts complete the requirements. You can well imagine that we have some bias in the matter. But here's what we've found, for your consideration in pulling together advancement activities for your Scouts.

Cub Scout Requirements Related to Radio

Tiger - *Curiosity, Intrigue, and Magical Mysteries (Elective)*

4. Create a secret code.

5. With the other Scouts in your den or with your family, crack a code that you did not create.
(Consider using Morse code for this)

Wolf - *Howling at the Moon (Required)*
1. Show you can communicate in at least two different ways.
(Consider using radio or Morse code for this)

Bear - None found

Webelos - *Stronger Faster Higher (Required)*

6. Try a new sport you have never tried before.
(Consider using Foxhunting for this)

Engineer (Elective)
1. Pick one type of engineer. With the help of the Internet, your local library, or a local engineer you may know or locate, discover and record in your book three things that describe what that engineer does. (Be sure to have your Webelos den leader, parent, or guardian's permission to use the Internet.) Share your findings with your Webelos den.

2. Learn to follow engineering design principles by doing the following:a.

a. Examine a set of blueprints. Using these as a model, construct your own set of blueprints or plans to design a project.

b. Using the blueprints or plans from your own design, construct your project. Your project may be something useful or something fun.

c. Share your project with your Webelos den and your pack by displaying the project at a pack meeting.

3. Explore other fields of engineering and how they have helped form our past, present, and future

4. Pick and do two projects using the engineering skills you have learned. Share your projects with your den, and also exhibit them at a pack meeting.
(Consider using Electrical Engineering for this and building a simple code practice oscillator, crystal radio or other electronic device as a project)

Arrow of Light - *Building A Better World (Required)*

10 d. Under the supervision of your parent, guardian, or den leader, connect with a Scout in another country during an event such as Jamboree on the Air or Jamboree on the Internet or by other means.
Also, see the Webelos Engineer elective which can also be used for Arrow of Light.

Scouts BSA Requirements Related to Radio

Aviation Merit Badge
2 e. Explain the purposes and functions of the various instruments found in a typical single-engine aircraft: attitude

indicator, heading indicator, altimeter, airspeed indicator, turn and bank indicator, vertical speed indicator, compass, navigation (GPS and VOR) and communication radios, tachometer, oil pressure gauge, and oil temperature gauge

4 b. Visit a Federal Aviation Administration facility—a control tower, terminal radar control facility, air route traffic control center, or Flight Standards District Office. (Phone directory listings are under U.S. Government Offices, Transportation Department, Federal Aviation Administration. Call in advance.) Report on the operation and your impressions of the facility.

Citizenship In the World Merit Badge
7. Do TWO of the following (with your parent's permission) and share with your counselor what you have learned:
e. Participate in or attend an international event in your area, such as an ethnic festival, concert, or play.(JOTA counts for this and should be specified)
Electronics Merit Badge

(c) Choose ONE of the following three projects. For your project, find or create a schematic diagram. To the best of your ability, explain to your counselor how the circuit you built operates.
A control device - A digital circuit - An audio circuit
A radio circuit (This option should be added)

Emergency Preparedness Merit Badge

7. Do the following:
(a) Take part in an emergency service project, either a real one or a practice drill, with a Scouting unit or a community agency. (Field Day can count for this)

8. Do the following:
(a) Tell the things a group of Scouts should be prepared to do, the training they need, and the safety precautions they should take for the following emergency services:

(2) Messenger service and communication

Engineering Merit Badge:
6 c Understanding electronics.

Using an electronic device such as a mobile telephone or portable digital media player, find out how sound travels from one location to another. Explain how the device was designed for ease of use, function, and durability.

Radio Merit Badge - Obviously everything.

Space Exploration Merit Badge

4. Discuss and demonstrate each of the following:
d. How satellite pictures of Earth and pictures of other planets are made and transmitted