

# Thinking Day On The Air

## *Girl Scouts and Guides Think about a Larger World via Ham Radio*

By J.W. "Skip" Youngberg, K1NKR

If your club is anything like ours, you sit at Saturday breakfast and lament the lack of youth in Amateur Radio and in STEM (science, technology, engineering, and math) generally. Eventually someone says, "But we don't even dare follow Dr Sheldon Cooper's suggestion in *The Big Bang Theory* that someone drive around in a van and offer kids candy to come to demonstration!" No. No. NO. But there is a way.



## Thinking Day On The Air

The World Association of Girl Scouts and Girl Guides reserves the weekend closest to 22 February for a special Thinking Day activity. The 22nd of February is called Thinking Day because it was the birthday of Lord Robert Baden-Powell, the founder of the Scout and Guide movements, as well as that of his wife Olave, who was the first World Chief Guide. In 1909 Baden-Powell, faced with an increasing number of girls wishing to take part in Scouting, decided that girls should have their own separate movement and the Girl Guides were founded in the UK in 1910. Many, though by no means all, Girl Guide and Girl Scout groups across the globe trace their roots to this point.

In November 2014 while planning for her troop's Thinking Day, Scout leader (and soon-to-be club member) Jill Galus, KB1SWV, discovered that there is a Thinking Day On The Air world activity.<sup>1</sup> Les Mitchell, G3BHK (SK), one of the Radio Scouters who gave birth to the idea of Jamboree On The Air in 1957, had initiated Thinking Day On The Air (TDOTA) some twenty-five or so years ago. TDOTA complements the theme of the girls' recognizing a larger world by introducing Scouts to communications as a way of knitting the world together and making it smaller. Jill asked whether the Nashoba Valley Amateur Radio Club (NVARC)<sup>2</sup> would be willing to support trying TDOTA out at her troop's Raymond, NH, meeting space.

February 2015 was the year Jill and NVARC tentatively put a foot in the water—or the snow. Jill had arranged to use the local Masonic hall for Saturday the twenty-first. She set up activities tables and reserved a space for us to install an Amateur Radio station. Despite a record snowfall a few days before—and more expected that evening—eighty Scouts and adults participated. To accommodate for the hall's tiny 30- by 50-foot meeting room, half the troops had been scheduled during the morning and half during the afternoon. Unfortunately, because snow was forecast, almost everyone arrived in the morning. The result ended up setting

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<sup>1</sup> See <http://www.guides-on-the-air.co.uk/>.

<sup>2</sup> [www.N1NC.org](http://www.N1NC.org).

the pace for a very challenging day! The audio QRM was a “S9-plus” but it proved the girls were excited and having fun, and that the day was a resounding success.

For February 2016’s TDOTA, Jill arranged a better venue. Raymond’s Iber Holmes Gove Middle School allowed her to use the auditorium-cafeteria and two classrooms on Saturday the twentieth. Having just participated in authoring the pamphlet for the ARRL’s Girl Scout “Radio and Wireless Technology” interest patch, Jill used the girls’ activities in the auditorium to proof-out some of the patch requirements.<sup>3</sup> She set up the first classroom for Morse code, both code practice provided by NVARC members and code crafts provided by other Girl Scout leaders. (See Sidebar One.) The second classroom hosted an exhibit of US and world maps with QSLs from the previous year, a demonstration explaining world time zones, and the Amateur Radio station. One unique gambit Jill tried was to issue each arriving troop an FRS walkie-talkie and route the troop from activity to activity the way a net control station would do with “mobile” units.



**Jill Galus, KB1SWV, routes troops from one activity to the next using an FRS walkie-talkie. Each guest troop was issued one. This gave the Scouts first-hand experience in communications protocols and discipline. (K1NKR photo)**

February 2017 found NVARC supporting two events. We, of course, expected to join Jill in Raymond (which is an hour away). But two more local leaders, Kelly Dinneen of Dunstable, MA, and Elizabeth Flagg of Shirley, MA, had heard of TDOTA and asked us to help them in a joint event closer to home. Who could refuse? Because Kelly and Elizabeth chose Saturday the eighteenth and arranged the use of a church hall in Shirley, Jill moved her middle school event to Sunday. Everyone arranged their event program similar to the one Jill had done the year before. The two events were resounding successes. Kelly and Elizabeth quickly graduated from “Can we really do this?” to “This is a lot of fun.” And Jill’s host troop—already “pro’s”—brezed on through.

Everyone is already talking about next year.



**The TDOTA activity patch**



**The ARRL Radio and Wireless Technology patch**

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<sup>3</sup> The program, plus supporting materials are at <http://www.arrl.org/girl-scouts-radio-patch>.



**Two-year veteran Bruce Blain, K1BG, explains HF to scouts in Shirley MA. One of the girls was excited to be able to speak to a ham in a country she would be visiting in a few weeks. (Ralph Swick, KD1SM, photo).**

## Getting Started

Your club can participate in Thinking Day On The Air. And you don't have to do it all yourself. Planning things and carrying through is a prime element of the modern Girl Scout program. The girls are responsible for their Thinking Day event's size and venue, its infrastructure and hospitality, and whether they will invite other troops to participate. They also need to decide on, plan, and find resources for the day's activities—experiences, experiments, and (oh, maybe) getting on the air. That's where we hams come in.

Few non-hams have an understanding of what our hobby has to offer to any public special event.

Fortunately, Thinking Day On The Air is what you might call a self-defining special event. Point the troop to available TDOTA materials,<sup>4</sup> offer support, and engage in a conversation that bounds the event to something you and the Girl Scouts can reasonably and successfully accomplish.

That said, this will be a new event for the host troop. The leader may be overwhelmed. Offer all you can without inundating her with options. Discuss what you want to accomplish together. A first event can start slowly. Remembering that “any success is a success” will take a lot of the pressure off.

Start now.

It's never too early to establish long-term relationships with Girl Scout leaders. In fact, if you're not already connected it may take a while to find out who is active in your area. Once you are connected, stay connected. Be a part of your community. Use e-mail early and often. For actual TDOTA planning, however, starting in late-October or early-November seems to be about right. We have found that it allows enough time to set things in place, to avoid the inevitable December social obligations, and to follow up in January to resolve issues. Reconvene sometime during the first two weeks in February to see that everything is going fine.

Girl Scout leaders have an uncanny ability to engage their local community. Don't be surprised that coffee, donuts, and a pot-luck lunch might be arranged—but don't presume it.

Schedule a re-engagement with the sponsoring troop after the event. Review the log. How many QSOs were there? Where were the other stations? QSLing, introduced to the Scouts as “thank-you” cards during the day, will be a new topic for them. Tell them how to make or buy QSLs and introduce them to the mailing process.<sup>5</sup> SASEs are appropriate and quick for stateside acknowledgements. You will probably be using your club call or a member's call. Perhaps your club subscribes to an outgoing QSL service for cards destined for

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<sup>4</sup> See <http://www.guides-on-the-air.co.uk/downloads.html>.

<sup>5</sup> If the troop has QSLs printed be sure they are not date-specific. Minimum orders typically far exceed what a troop will need for a few years. Excess stock can be rolled over year to year or used as souvenirs at subsequent events.

foreign recipients. The bureau may be slow but the trickle of cards can provide a continuous reminder of a notable day's experience.

## Suggestions and Observations

Do a site survey. Supporting a TDOTA event is a lot like Field Day or a mini-DXpedition. You will need to know about the venue ahead of time. Where, and how, will antennas be set up? How long do cables have to be? How will they enter the building? What AC power will be available, and how will you access it? Stumbling through problems the day of the event isn't fun and harms your image as an expert.

Dress appropriately—business or weekend casual, not flea market casual. Nobody will say anything, but both Scouts and leaders notice who is visiting them. First impressions are lasting ones.

While on the air, self-spot or have folks you contact spot you. CQing does work but it's not as efficient a use of time as having people see a spot and call you. If you have Internet access use it, but don't turn your station into a computer technology exhibit.

Remember you're introducing non-hams to the "when all else fails" and "I can do it myself" aspects of communications. Expect questions like, "Why can't I just do this on my phone or on Skype?" Analog voice (*e.g.*, SSB on HF) best expresses this, with occasional CW QSOs to demonstrate the utility of the Morse code that the Scouts have just been introduced to. Repeaters, ECHOLINK, and IRLP may be quick ways of getting on the air and working DX but they rely on infrastructure and just don't make the "when all else fails" point.

Work at the Scouts' level. You are not lecturing to a classroom. Choose your phrasing to be consistent with that of people who haven't experienced what Ham radio is all about.<sup>6</sup> Be excited as well as informative. Also, meet your new friends "eyeball-to-eyeball." Sit at the table with them. Standing adults can be an imposing turn-off for kids.

Always say "Morse Code." The Scouts probably think "CW" is music. Explain what Morse code is and send your own name (at, maybe, 2WPM) so they can hear it. Tell them that they are going to do the same. Have numerous copies of the code at the table. We've found that letter sending is smoother if the Scouts write their names vertically on a sheet of paper and then write the Morse equivalent of each letter next to it. Maintain the Scouts' focus by being sure that the tone controls on your code practice oscillators are defeated. Don't be surprised if some Scouts self-graduate from keys to paddles.

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<sup>6</sup> During the transition of GPS from development to production and operations my boss, Col. Gaylord Green, commented to me in an evening bull session that kids and adults all have the same questions about technology. The two groups just express themselves differently. Therefore, it's up to us to deliver the same simple answer to everyone at the right level of expression. And we need to remember that the answer to a first-timer's question needn't be preparation for the Extra exam!



**Three-year veteran Stan Pozerski, KD1SM explains Morse code. (Ralph Swick, KD1SM, photo)**

Here's an idea for introducing phonetics:

- Explain that we have a special way to "spell" things out so the person at the other end doesn't make mistakes. Let them know that this is important when there's a lot of noise or confusion.
- Ask someone to tell you their name.
- Say "did you say your name is ..." and make a mistake in the name (*e.g.*, "Jessica" becomes "Jeffrey"). They'll say "no" and repeat their name.
- Do another mistake round. They'll say "no" and repeat their name more urgently.
- Say, "Could you spell that please?" When they spell it, repeat the letters back but make a mistake like "s" vs. "f" or "b" vs. "v."
- When you see they're getting the point, show them the phonetic alphabet and explain that this frustrating conversation often happens—even over cell phones—and here's how we can do better. Even airline pilots and police officers do this!
- Spell your name phonetically and then have them spell their name phonetically.

You get the idea. And they will, too.



**Bruce Blain, K1BG, on the air in Raymond, NH. Sunday operation was on both 20 and 40 meters, with the latter better for long conversations. (Ralph Swick, KD1SM, photo)**

Finally, even though your group members are the invited support staff, thank the leaders at the end of the day. Let them engage you for next year. They will.

## **Conclusion**

These events serve Girl Scouts who typically are five to fifteen years old. They are not tech savvy when they arrive, but you should see the excitement in their eyes when the magic of Amateur Radio unfolds in front of them. The girls have been empowered (by learning a new “secret” code and the skill that goes with it) and enlightened. Further, since there might not be an Amateur in their neighborhood they’ve also been helped in achieving some of what might have been their hardest to access requirements for the ARRL’s Radio and Wireless Technology interest patch.

Thinking Day On The Air has been a rewarding outreach activity for our club. Not every NVARC member participates, but that’s appropriate for the typical “all service” local club. Still, Saturday morning breakfasts are a lot different now than they were a few years ago.

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ARRL Life Member, Registered Instructor, and VE Skip Youngberg, K1NKR, has been licensed since 1960. He is primarily a VHF/UHF/SHF and DATV experimenter but admits that he did learn later in his Amateur life “how to make antennas out of wire.” (As a Novice without an Elmer, he thought that he might be able to afford two meters for a transmitter but that buying forty or eighty meters just to get on the air was beyond what his paper route could support.) Skip graduated from Rensselaer Polytechnic Institute, the University of Utah, and the Department of Defense’s Systems Management College. He is retired from both the Air Force and industry after a career developing and fielding systems for communications, navigation, intelligence, and electronic warfare.

John Bristow, 1JP (W1JP), was his grand-uncle and Jill Galus, KB1SWV, is his daughter—now he’s working on getting a fourth generation of the family licensed. You can reach Skip by e-mail at [K1NKR@arrl.net](mailto:K1NKR@arrl.net).

#### SIDEBAR ONE

Girl Scouts love crafts and trinkets. The “Activities” tab on the UK website ([www.guides-on-the-air.co.uk](http://www.guides-on-the-air.co.uk)) suggests a number of crafts, Morse bracelets being the most popular. These crafts, plus the event’s QSL and maybe the UK’s TDOTA patch, make excellent take-homes. UK TDOTA patches are available from the Girlguiding Online Shop, online at <http://www.girlguidingshop.co.uk/en-GB/Product/Search/?term=thinking+day+on+the+air>.



**Morse code bracelets were a popular craft. Scouts assembled “GSUSA,” “GSGWM” (Girl Scouts of the Green and White Mountains), or their initials using one green bead for a dot, three green beads for a dash, and an appropriate number of white beads for intra- and inter-character spacing. (Ralph Swick, KD1SM, photo)**

#### SIDBAR TWO

If you plan to support a TDOTA event, realize that this is probably not merely the first time your visitors will have heard of Amateur Radio. It may well be the first time they’ve heard about communications at all. (Remember, in most peoples’ minds, cell phones are not radios; there *are* no radios anymore.) This is *not* a radio club show-and-tell. We are not here to impress. Leave the digital modes, the repeater accessing, and the ATV and moonbounce at home and concentrate on SSB for contacts but keep a little CW to show how the Morse Code they learned is used in real life.

### **SIDEBAR THREE**

Here's a summary of NVARC's participation, year by year.

2015: 80 Girl Scout and scout leader attendees, representing 13 troops—and 4 Radio Amateur volunteers.

2016: 59 Girl Scouts and 30 Girl Scout leaders, representing 13 troops, 9 towns, and 2 states—and 7 Radio Amateur volunteers.

2017: Saturday, 41 Girl Scouts and 15 Girl Scout leaders, representing 9 troops, 2 towns, and 1 state—and 10 Radio Amateur volunteers. Sunday, 26 Girl Scouts and 10 Girl Scout leaders, representing 8 troops, 6 towns, and 2 states—and 8 Radio Amateur volunteers. **Total:** 66 Girl Scouts and 25 Girl Scout leaders, representing 16 troops, 8 towns, and 2 states—and 11 Radio Amateur volunteers.

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