

Getting Organized for School Club Round-up January 2012



February School Club Roundup 2009 at William Byrd Middle School. Photo by N4JED

Here's a discussion recently shared among teachers who have school radio clubs that have participated in School Club Round-up. Tom Maxwell AE5QB at Thornton Middle School in Katy, TX asked for advice on getting started. The tips and advice shared in response to his questions may be valuable to you if you are also thinking about introducing your students to this contest. The more schools participating, the more fun for everyone!

"I would like my kids to participate in the School Club Roundup in February and am looking for organizational ideas and gotchas that I can expect to run into. This will be the first time for me. If you have participated in these

events in the past or just have some ideas of how to make it work more smoothly I'd appreciate hearing from you. Here are some questions I have: How did you manage the 24 maximum hours and no more than 6 hours per day constraint? At what times did you operate? Did you allow any kids who wanted to participate do so or did you only allow your club kiddos to operate? Did you have kiddos sign up for a time slot to operate or just handle it on an ad hoc basis? Did you try to schedule contacts with other schools or just start calling and listening? Do you have a permanent antenna set up or did you set up an antenna for this event/ in either case, what type of antenna system are you using? Anything else that might be pertinent?"

The replies that were shared follow:

Tommy Gober, N5DUX speaks from his experience at Pine Tree High School in Longview, TX

Good to hear another Texas school getting on the air for the SCR. Ronny may be able to shed some light on his operating practices. His school consistently scores in the top schools in the nation. I only have 2 SCR events under my belt, but I'll share what I did:

Scheduling. No, we didn't setup any scheduled QSOs. Just get on the air. If you don't hear any/many schools within the bandwidth of the event, find an empty spot and start calling CQ. I recommend having a script printed out for your kids to follow. If this is your kids first event, I'd advise against a voice keyer. You want the kids to start off as simple and basic as possible. Many of the "big gun" SCR stations might use a voice keyer and such, but with a good number of students, it simply isn't necessary. When one student tires, have another jump in. "CQ Roundup" seemed to be plenty effective and you don't need to call for long before you'll acquire a pileup. One funny thing happened on Wednesday of the SCR last February. One student pulled out his iPhone and used the Voice recorder feature to record the CQ message. They asked me if that was cheating - I said on the contrary that innovation like that is what ham radio is all about. The event is just the excuse we use to come up with innovative solutions. :)

Hours. I did not max out the hours of operation at Pine Tree High School last year, but the kids had a blast operating for what little time they did have on the air. My schedule worked out that I had some of my ham students each day for 1.5hrs. Knowing the SCR was coming up, I gave them time to do their work before I assigned it to the rest of the class and/or let them do it for homework. One of my ham students was also an aide for me for 2 classes, so that was more "trigger time" for him during those hours.

If my guys were able to complete their assignments in other classes, they would ask (pester?) their teachers into allowing them to come operate. Generally it was just my ham students that participated, but if they had a buddy that wanted to tag along, I could just peek out there to keep an eye on them. I also expected to see some entries in the log, this kept them accountable for their time.

Setup. Our setup was about as bare-bones as we could get. I brought my personal Gamma PS-1, ICOM 706 and LDG auto tuner to the school. I brought plenty of coax, a 20m dipole and a 40m dipole. We ran the dipole up the school's old flagpole, used string to "guy" out the legs to form an inverted-V and got on the air. The radio was setup on a picnic table under an old oak tree and ran an extension cord indoors to provide power.

Logging was done by hand, but I'd highly recommend electronic logging for electronic submission, automatic scoring and all the other benefits of typical electronic logging. (However, logging by hand did provide a few teachable moments. "Mr. Gober, what's the abbreviation for Maryland again?" It also gives that written practice of hearing a phonetic and writing a letter.) In addition to the station I printed out some paper logbook sheets that I made up with the information needed for each exchange in the SCR. I also had the "CQ" script and the relevant information about our setup for an exchange - typical operating guides you may see at any Field Day or Special Event station setup. It may also be handy to provide a phonetic alphabet for your kids to reference (if they aren't 100% on their alphabet) If they need help with state abbreviations (I gave my guys some flack after the Fall SCR), provide a printout for state abbreviations too. I also had available the ARRL map of the US with the numbered districts. As seasoned hams, we may not consider stateside contacts "DX", but most kids (and spectators) will be amazed at the distances they can talk. Having a map helps them realize just where they're talking into - it also reinforces the geography aspect of this exercise.

Another note about the dipole: having the legs spread out and staked down like I did, allowed me to also demonstrate the directionality of a simple dipole. During one class where I had everyone watching, we had nearly exhausted all stations facing East/West at that time. We did hear an Ohio station which is generally to our north (more than he was east). One student began working the station and I had two students go pick up the stakes and reorient the antenna to face North/South. There was an audible amazement by the on-looking students as they saw the dipole turn and the signal strength really pickup. The station went from a 55/56 to a 58/59. This really reinforced what we had discussed in the classroom, but when they actually saw and hear it before them - it clicked.

Participation. Like I said, I had some of my ham students come when they could. I also lucked out that there were several other campus distractions pulling many students here and there. At one point I had 5 students in a class, my aide was already outside operating, so I did a brief

explanation of what he was doing and we went outside to join him. A couple got really into it, the others just listened in amazement. I don't know that they'd admit it, but they did find it interesting - they just didn't actively participate.

My students had also asked why there are so many guys and noticed that the females seemed to get more responses when they called CQ (sadly it's true.) but it also gave the girls more incentive to participate the guys "needed" them to help. So it was easier to include them even if they wouldn't have tried to help to begin with. (Later my iPhone recorder guy figured out he could get his girlfriend to record the message for him. ha!)

Since we were outside, I showed my student onlookers how to do call sign lookups on QRZ (this was before Fred password-protected the info) [*note: call sign lookups can be done on the ARRL website too!*] and it allowed students who weren't on the mic or logging to be involved, they could share how far away the other station was or provide spelling for the QTH, etc.

Call. If you don't already, get yourself a club call. Come up with a few that you like and let your kids vote on it. It may also be fun to use a special event call for the week - but I don't know if that's in the rules or not - just a thought. I got ours and just paid out of pocket. It's cheap and wasn't worth the paperwork and explaining I'd have to do for the school to pay for it - I'm sure you know about that!

Matt Severin, N8MS speaks from his experience at elementary and middle schools in Michigan:

I've done SCR on and off since about 2000; and the best bit of advice I can give is just do it. I recall being nervous about getting it going, but like just about everything else, it's just a matter of taking that first step. If you are getting kids on the air, you really can't go wrong. SCR isn't about points in my opinion. I would encourage you to stay off of the radio....only let your students make the contacts.

To answer your questions, I usually did demos in all of my classes on Monday and got whomever was brave enough to try it on the mic. Then we would operate for a couple or few hours after school. I don't think I ever got all 24 hours in during the week. We mixed it up in the afternoons with seek and pounce operating and calling CQ. I always found this to be a good time to teach good operating skills. For example, we always listened for a while on a frequency, and followed with a check to see if the freq was in use. In fact, one year I had a ham return our CQ; he identified himself as an OO and complimented my kids on their technique, so I guess we were doing something right :-). We always QSLed with the student's name as on the card (I added a 'guest operator' line); and when/if I got a card back, I would give it to the student.

As for antennas, I have had a few different set ups. Nothing seemed to last all year, though. In Virginia, I had a vertical on top of a 2 story school help in place with cinder blocks one year and over 100 feet of coax. The next year I was able to clamp it to some conduit on the roof, but had to add a barrel connector and about 50 more feet of coax (looking back, I am amazed I made any contacts that year). I also set up a vertical clamped to a stake in front of my elementary

classroom one year. Here in Michigan, I did the vertical on a stake again, I strung a g5rv between a tree and the tennis courts (about a 500 ft span...with lots of rope), and I even borrowed a 2 element tri-bander from my club that I put on top of a tower that I had buried the base into the ground. Looking back, I wouldn't recommend that set up for a school. There was too much potential for an injury. In a nutshell, I used whatever I could get my hands on each year. Oh, and be careful with your location choice. My vertical folded in half when a janitor caught a guy rope on his riding mower!

Other suggestions and ideas that I have tried:

- keep a good log of contacts including the guest operator---and teach your kids how to fill it out properly
- have scripts for students including calling CQ, how to respond, your call phonetically, and the phonetic alphabet. I also had kids write their name out using phonetics before I let them get on the air. My kids always got tongue-tied.
- frequency charts on hand
- state abbreviation tables on hand
- US and world maps
- US and world maps that kids can shade in as they work towards WAS or DXCC
- do a 'late' night and order pizza
- a second 'listening' station. Students could find other schools for your operators to chase, and it gives them time to hone their tuning-in skills. You'll find students tune to a calling station at a painfully slow rate. :-)

Hopefully this helps and makes sense. You'll have lots of fun stories after a week of SCRing!

Ronny Risinger KC5EES is trustee of K5LBJ, the LBJ High School Amateur Radio Club at Liberal Arts & Science Academy High School in Austin, Texas

Glad to see that you are going to participate in SCR in February. SCR is the biggest event for our ham club each semester. Because it occurs during school hours, it is much easier to get kids involved than say a weekend DX contest. I second much of what Tommy sent for advice. He covered the main points, but I'll add my two cents.

First off, let me start by saying that we offer Amateur Radio as an elective class at my school, so most semesters I have about 15-25 kids in the class who will operate SCR. They will already be familiar with talking on the radio and calling CQ, etc. But, this year, I only had kids in the Fall 2011, and will not have a class for Spring 2012 SCR. As such, it will be important for me to 'remind' and 'recruit' students to operate in February's contest. Because the contesting can (and should mostly) be done during the school day, it should not be hard to get kids to participate. In addition, I have an Elmer that works with our kids. Because he is available during the school day, I do not have to worry about not being available because I'm teaching a class. That is highly preferred as the kids can be 'on the air' whenever they are available, as opposed to when you are free. With that background in mind, here are the answers to your specific questions.

1. How did you manage the 24 maximum hours and no more than 6 hours per day constraint? At what times did you operate?

AT K5LBJ, we simply operate as many hours a day as we can. On most days, we operate about 4-5 hours a day which seems to spread things over the entire week. This is important as you never know if band conditions will be great one day or the next. You certainly don't want to leave time on the table, but then again, don't kill yourself calling CQ if the bands are just dead. The kids will lose interest if no one ever returns their call. Simply keep track of your time on the air (SCRLog will do that for you, more later under logging) and make sure you don't go over your 6 hours a day.

As for operating times, I allow kids to operate during my class if they have me for their teacher and will sign notes "asking" other teachers to allow them to operate during this "once a semester national contest" if the student is caught up on their work and otherwise available. Make sure that teachers know that this is not something that occurs at any other time, but also let the kids know that if they are not allowed to leave class by their other teachers, they CANNOT just skip class. (I've had that happen.) We usually fill up our time allotment during the school day operating from 8:00 am. - 4:00 p.m. hours. Very rarely, I'll have kids come in around 7 a.m., or stay until 5 or 6 p.m. to pick up odd stations, but usually, we get it done within school hours.

2. Did you allow any kids who wanted to participate do so or did you only allow your club kiddos to operate?

Because I have a dedicated amateur radio class, I ask them all to participate. Usually, there is a core group of about 5 students that carry the heavy operating time, with another 5-10 that operate/log more sporadically. So, it is important to find that core group that will be excited by the contesting aspect and volunteer to operate "whenever they can" during the week. Without that core group, your score will be somewhat lower. But, it is nice to have various kids come in when they can to get the experience. I have students that bring their friends in to log, and I'll occasionally grab a student out of the hall to log a new school or new DX station. Since you are just setting up your station, it would be good to put up some signs around your school asking students to attend an informational session at lunch about "talking to people all over the US/World via radio" and competing in the February contest. You'll hopefully find your core group this way and get them to help expand interest. Of course, announce the contest event in your own classes, too. Since learning to call CQ, speak/understand phonetic alphabet, and give the exchange is not that hard, you can train any student in a matter of minutes. They will pick it up pretty quickly. So long as band conditions are ok, try to get a kid to commit to "just make 5 contacts." Hopefully, within that time, their confidence will build or they'll make a 'cool' contact to get them hooked. In the end, just work with the kids you have. Better to have 4 excited kids, than none. I, along with my Elmer helper, believe that we are usually really reaching about 5% of the kids in our elective class that will truly embrace radio as a hobby. The rest are just having fun in the moment, and that is just fine, too.

3. Did you have kiddos sign up for a time slot to operate or just handle it on an ad hoc basis?

Since I usually want to know if we have enough kids to operate and when, I try to get them to

sign up for time slots in advance (~ the week before contest). That way, they can get their teachers' permission before hand and not be begging at the very last minute. Also, this allows kids to see who is operating, so they can sign up to log for their friend. The gaps in operating are also visible, so kids can see where they are needed. Of course, scheduling is not always rock solid with kids and things change. Be flexible, or you may be disappointed. But, I would encourage trying to get some sort of schedule where kids are committed. Then, other kids can observe or fill in the gaps to expand the operating times.

4. Did you try to schedule contacts with other schools or just start calling and listening?

We usually do not schedule anything as we are all over the country and it just doesn't usually work as propagation changes and class times just align. As such, we just hunt/pounce on any school or DX station we hear and then find an open spot and log as many stations as we can the rest of the time. As Tommy points out, a YL on the air will bring the bands to life on most occasions. The girls do love that they can do that. It makes them feel quite special, and well, they are. I would add that some of my best (if not most of my best) operators have been young ladies. I believe that they tend to be more outgoing than my young men, so talking to strangers does not seem that odd. As an aside, you do need to have a script to guide the kids. I have a one page script that I use and it seems to work pretty well. It reminds the kids what to say when they get tongue-tied. Also, work with the kids on the exchange (call sign and name always in phonetics, Signal Report, and location, with name of Op on other end, too). It is important to get them into a rhythm on both calling CQ SCR and doing the exchange. It is also important, if you are seeking to make many contacts and do not wish to engage in rag-chewing on the radio (not saying you have to be a super contester, as rag chewing is fine, but if you DO want to maximize your time, you will need), to work with them on how to politely acknowledge someone's conversation ("Oh, I remember when I was in high school....." and the like that are geared toward rag-chewing) and then redirect back toward "trying to make as many contacts as possible in the contest." Remind students to always "acknowledge what was said to them and thank them for the contact, and then allow the other station to give you their 73." I have to sometimes remind my students to not get so contest oriented that they say things like, "Thanks for the contact, BUT we are in a contest and have to say 73." The contest aspect may be true for many, but that type of language is harsh and often disrespectful to someone who has just told some personal story. "Acknowledge the story/fact/anecdote and Thank Them." Once someone is thanked, they usually will sign and you can continue making other contacts. Of course, if you want to ragchew and get to know people, then do that, too. The SCR is not per se a contest. It is about getting students on the air.

5. Do you have a permanent antenna set up or did you set up an antenna for this event? In either case, what type of antenna system are you using?

At K5LBJ, we do have a permanent radio/antenna setup, but in the past, we have had to go with whatever we could rig up at the last minute. Our first year, we rigged a dipole on top of the school a few days before the contest and then set up our radio in the dressing room of the Theater. Make do with whatever you can muster. In fact, the kids may enjoy the fact that it has a Field Day quality to it. (I might add that headphones might be necessary if operating outdoors, as wind/students talking might muffle quiet QSOs. You can split the audio to a secondary

speaker, so kids can also hear that stations.). Right now, we use a Cushcraft vertical on top of the school with coax fed through an air vent. At other times, we have had coax feeding to my classroom window where we had a board inserted into the window allowing the coax to come into the room without losing the window's weather seal. A dipole will work just fine and has allowed us to make many, many contacts. I would caution you against waiting to the last minute, though. Have your system in place at least a week before to get all the kinks out. That will allow you to focus on the kids and not whether the system is going to work.

6. Anything else that might be pertinent.

As for logging, we have always used the SCRLog which can be downloaded for free. It has an easy to use interface which keeps track of hours operated and states worked, etc. It also generates a nice report that can be e-mailed once the contest is over. It makes the entire logging process simple, which translates to more fun. You will probably need to make sure that each kid operating brings a friend to do the logging. The logger can type in the call signs as they hear them and this can help the operator a lot when the signal is very weak.

I would mention, too, that we ran into the issue of call sign lookups being limited on QRZ.com to 20 per day or something like that. This is a new limitation and really stinks, but it is what it is. I would recommend using ARRL or FCC lookup for US call signs and use QRZ.com for foreign calls. But, do have the kids look up the call sign. It ensures that you are, in fact, talking to the person you think you are talking to. Without using phonetics (and even if you are), it is often hard to make out those weak signals. And, do have maps all around the operating station. The US Call sign Area map is nice to quickly be able to locate the region that a person is calling from. You can also point to where the person is from emphasizing the distance traveled. Kids like to see how far away people are. Since the bands are open, you really need to have a world map, too.

It is important that the kids know they will not find out "who won" for quite some time. While SCR is lots of fun, it takes a long time to get the rankings back. If they really are interested in doing well against other schools, just show them the past SCR results and let them know that they should shoot to equal those results. Remind them that sunspot cycles definitely affect the scores, so don't let them get discouraged if they think they can't make 500 QSOs. On that vein, while the bands seem to be pretty open at the moment, you may wish to look into getting some interface (or better yet, coach a kid on building one) to operate PSK31 with your radio. When the band conditions are horrible and voice is not an option, PSK31 can allow you to make a few QSOs and keep kids interested. Of course, if you have kids interested in Morse code, let them practice during the SCR. I usually have 1-3 kids a year that are really interested in code. But, most students just want to do Voice.

You may wish to have some sodas or order pizza for the kids if you wish to keep them happy (or boost their lunch attendance). Also, it pays to put up a sheet on your door telling all the cool places that you've made contact with. I have our Fall SCR Report on my door listing all the nations and I see kids reading it all the time.

Well, I hope that I've addressed some of your concerns. Be sure to let your administrators know what you are doing. They can usually be supportive (or at least not be a barrier) when included. Show them the 'cool' factor of speaking with others via radio, without reliance upon infrastructure. Heck, I've even invited them to make a contact during lunch. The kids enjoy watching an administrator on the air, especially if they blow the exchange. Just do what it takes to let the kids enjoy talking on the radio and have it be a pleasant experience.