

RADIO AMATEUR News & Views

The Official Journal of the Radio Amateurs of Northern Vermont

July • 2018

An ARRL Special Service Club

Vol. 28 No. 07

NEXT MEETING – SHARING HISTORY JULY 10TH 7 PM

The next meeting will invite each attendee to say a little more than name and call sign. This time we will also ask everyone to respond to the following questions: When did you get your license? What motivated you to become a ham? Who helped you along the way? What aspects of the hobby have you explored? What is your favorite gear? Do you have any funny, harrowing, or otherwise interesting stories about your experiences in the hobby? How has the hobby changed since you started? This meeting will be an opportunity to share experiences and have good conversations in a low-stress environment.

FIELD DAY 2018

Mitch W1SJ

Field Day 2018 was a great success and accomplishment. We logged 4615 QSO's and racked up 14,732 points. This is just slightly down from last year's 4671 QSOs / 14,794 points, due to the fact we had a monster opening on 6 meters last year whereas we only had a small opening this year. Both the phone and CW stations were slightly up from last year.

This score was good for second place last year. It is unknown how the other competitive groups fared. We'll find that out later this fall. I do know from a friend of mine in Texas that they did not have short skip openings on 20 meters like we had and their 6 meter openings were minimal.

Participation was considerably improved over last year with 25 participants and 14 visitors, compared to 18/7 last year. Keeping participation up in an active event like Field Day is a major challenge. Many clubs have gone over to Class F, where they operate at an EOC which already installed antennas because their membership is too old to erect stations in the

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Meetings: 2nd Tuesday • 7:00 PM
Wheeler House
1100 Dorset Street
South Burlington

Repeater: 145.150, PL 100; WB1GQR

New Hams, Mentoring:
RANVMentor@gmail.com

VT State Parks On The Air:
<https://www.facebook.com/groups/292829457810746/>

Online Dues Payment:
www.ranv.org/ranvpay.html

field. Our membership is old also, but we still manage to do it safely.

We significantly improved the GOTA participation with 10 operators, 3 of which were youths. Last year we had 5 GOTA operators, and zero youths. Our crack youth op, **Morghan** (OM, **KB1THX**) gathered 44 QSO's for a QSO rate of 36. That was the overall average of the GOTA station. Not bad contesting for a non-licensed operator!

We managed to break in using the FT8 digital mode with 14 QSO's on 6 meters. These were QSO's which would not have been made on SSB.

Setup was incredibly smooth. The noon start time was a great idea. Most of the heavy work was done by 4:30. No problems or issues were noted with the setup, although some improvements will be in place for next year. Take down was equally smooth. Amazingly, nothing was broken or lost. That may be a first.

Our local power company, RANV Power and Light (RP&L), had no reported outages across the site. There were no issues or bumps in the night which took down the CW or phone stations – a big improvement.

Overall, we had an excellent Field Day plan which was well executed and which produced great results. RANV has one of the best Field Day operations anywhere, and we proved it once again this year!

2018 RANV FIELD DAY BOX SCORE

80 CW	238	80 SSB	351
40 CW	460	40 SSB	438
20 CW	640	20 SSB	1614
15 CW	154	15 SSB	97
GOTA CW	0	GOTA Ph	475
VHF Dig	14	VHF Ph	120
Sat CW	0	Sat Ph	14
Total CW	1506	Total Ph	3109

4615 QSOs 2490 Bonus 14732 Pts

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
QSO's	4671	3932	3675	4548
Bonuses	2470	2530	2170	2410
Points	14794	13018	12202	14016

2018 RANV FIELD DAY HALL OF FAME

AA1SU Paul – CW op; VHF op; Equipment; Traffic; Set up; Tear down.
AB1DD Carl – GOTA coach; Set up; Tear down.
AB1T Doug – CW op; Equipment.
AC1DT Ben – Tear down.
K1TWF Mike – CW op;
KB1FRW Bob – Phone op; VHF op; Equipment; Set up; Tear down.
KB1LHB Adam – Tear down.
KB1LOT Jim – Set up; Tear down.
KB1MDC Alan – Set up.
KB1THX Tim – Phone op; Set up; Tear down.
KB1WXM Bob – GOTA coach; Set up; Tear down.
KC1IFK Stew – GOTA op.
KC1JGM George – GOTA op; Tear down.
KC1USA Steve – GOTA op/coach.
KE1AZ Jim – Phone op; Set up; Tear down.
KI6ISG Bev – GOTA op/coach; Site Safety.
KK1L Ron – CW op.
N1GGU Bob – GOTA op; Set up; Tear down.
N1YD Jeff – GOTA op/coach; Demos; Set up; Tear down; Site Safety.
N1YWB Jeff – Phone op; Set up.
NK1A Nancy – GOTA coach.
W1LWH Linn – CW op; Equipment; Set up; Tear down.
W1SJ Mitch – Chairman; Phone op; Satellite op; Equipment; Set up; Tear down; Results.
W4YFJ Bob – Bulletins.
WL7CVD Duane – GOTA op/coach; Set up; Take down.



Field Day 2018 / Assembling the Beam – Photo Courtesy of Bob KB1WXM

TEN THINGS I LEARNED THIS FIELD DAY

Jim – KE1AZ

I had the 4 - 6 am slot on Phone this year. My regular ham experience is very different; I usually have a contact or two in an evening on CW at 15 words per minute. In this one morning, I have more contacts than in the rest of the year. Doing that, you learn some things:

1. I learned that there is a surprising number of cars on the backroads of rural northern VT, at 4am, on a Sunday. Foxes and deer, OK, but the traffic is surprising.

The Japanese attacked Pearl Harbor on a Sunday morning because everybody knew that Americans did not get up until 10 on Sunday. It was different then.

And, I learned that the 4 am person playing music on the radio plays whatever they feel like.

2. I learned that some hams cannot be made to repeat the last letter of their call sign, without also repeating all the other letters. Telling them that you've got the other letters, telling them what those letters are, does not matter.
3. I learned that people who think it is better to say "Fox" than "Foxtrot" are wrong.
4. I also learned that time goes slow when the band is slow. You can get a sense of accomplishment from digging out one guy.
5. But when Mitch switches bands and it all heats up, forget that... I'm talking to the loud people.
6. I learned, again, that I can do two contacts per minute. But not three. My tongue does not move that fast, or my fingers. How do people do it?
7. I learned that kid's voices, and women's, stick out. It is not good, but it's true.
8. People from Ontario North are, broadly speaking, very nice... Northern New Jersey, not so much.
9. I learned that when people are piled up to talk to you, even a little, that is very reinforcing. It is good to be wanted.
10. I learned also that time flies when those people want to talk to you.

When FRW unzipped the tent flap, I was surprised. But he was a good relief, right on time.



Field Day 2018 – Photo courtesy of Beverly KI6ISG

FIELD DAY TEAMWORK AND INNOVATION

Bob KB1FRW

To recognize the team work and innovation that exists at our FD exercise, things I saw:

- Duane, **W17CVD**, developed some pretty nice tarp covers for the generators at GOTA and Phone which we field copied for CW because it was a great low tech idea. I think it was the best of this FD
- Bob, **KB1WXM**, came up with the idea to ground the stations through the guy anchors, no more ground rods. Yeah!
- Yours truly, **KB1FRW**, developed a method to wind the dipole haul lines quickly with a cordless drill. Not so innovative just some leg and shop work.
- Beverly, **KI6ISG**, who ramrodded food.
- Did you see the GOTA tent go up? Smoothest and fastest I remember!

There are other events (many) that occurred that helped make it work, I applaud you all, as the teamwork (def. the combined action of a group of people, especially when effective and efficient) was especially "effective and efficient".

It was a pleasure to work with all of you and again our efforts show this group's ability to get on the air in an emergency is most likely as strong as any group in the nation and we have been this way for more than 20 years.

Good Work!!!

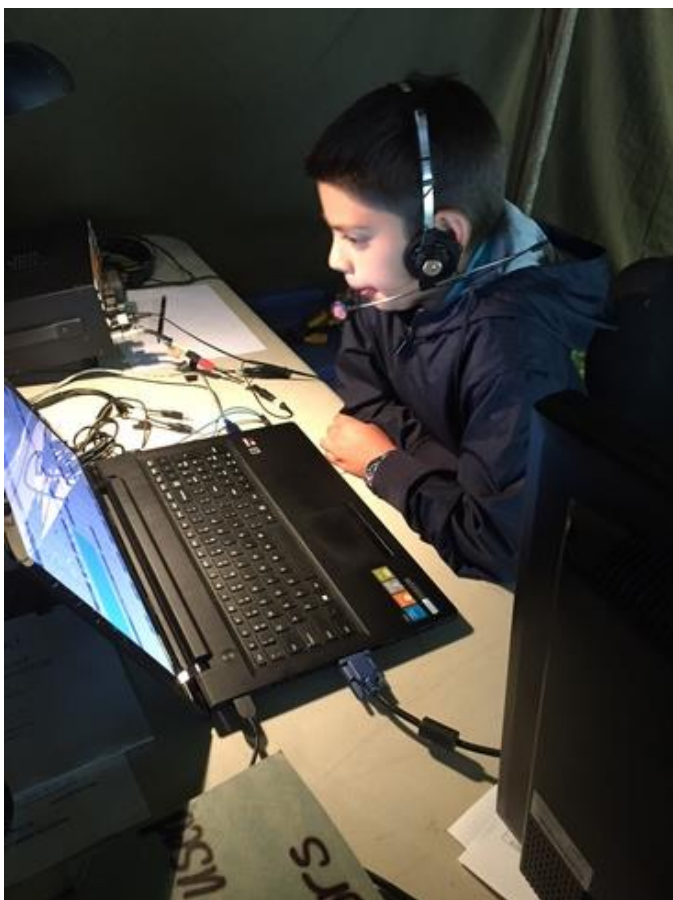


Field Day 2018 – Photo courtesy of Beverly KI6ISG

FIELD DAY 2018 VIDEO – Courtesy of Bob KB1WXM

<https://www.youtube.com/watch?v=quxe6KVA9rk>

Field Day in Williston, VT - 6/23 to 6/24/18. First the setup, then the "on the air" part. It was a 2A station (phone & CW) with an additional GOTA, and UHF/VHF stations.



Miles operating on GOTA – Photo courtesy of Beverly KI6ISG



THE TENT - - Photo courtesy of Beverly KI6ISG



Photos courtesy of Bob KB1WXM





Photos courtesy of Bob KB1WXM



CW Tent – Photo courtesy of Bob KB1WXM



Photos courtesy of Bob KB1WXM



W1SJ Operating Field Day – Photo Courtesy Bob KB1WXM

W1SJ RECEIVES HONOR IN SEQP

Remember the Solar Eclipse QSO Party last August? Mitch **W1SJ** finished 3rd overall in this event (out of 566 entries) and recently received a nice certificate from the New Jersey Institute of Technology, the organization sponsoring the event. Mitch didn't do anything special to achieve this score, stating, "I just got on and made QSO's." Conditions were rather weird and multiple bands and lots of CW were utilized to keep the QSO's coming. He even switched to 80 meters at the peak of the eclipse to determine if that band would go into night time conditions. It didn't do this in Vermont, but did respond over the areas of total darkness, producing longer distance QSO's along the eclipse path. A wealth of data from the logs and from hundreds of thousands of Reverse Beacon Network and PSK Reporter pings told a very good story of how the eclipse affected propagation. A research letter entitled, "Modeling Amateur Radio Soundings of the Ionospheric Response to the 2017 Great American Eclipse" was submitted to the science community. You can read about this in QST or on-line at <http://hamsci.org/seqp>



FIELD DAY WITHOUT THE FIELD

Cathy N5WVR

I decided that this year I would do something different, and operated from home.

Initially I was thinking of class 1-E, using my 70 amp-hours of 12V battery and 200 watts of solar panel to operate at 100 watts SSB. But the HF bands have been suffering lately as we sit at the bottom of the solar cycle, and I was more interested in maximizing contacts than score, so I chose class 1-D and used my Ameritron AL-811H and put out about 500 watts SSB for all FD operations. I initially considered doing some digital and CW work, but in the end stuck to phone. This would be a casual single-op event, with no attempt to run anywhere near 24 hours. Also, I was hoping to fill some gaps in my progress toward 20 meter WAS and 40 meter WAS.

Over the past 5 years, I've done quite a bit of work to improve my home station, but I don't have much time to use it given the demands of my job and the rest of my life. This would be a good opportunity to see how effective I've been at improving its performance.

Early Saturday afternoon saw 20 meters open across the eastern US, but not to the west. With the Moxon beam pointing west-southwest, the QTH of stations worked ranged from Georgia and Missouri to western Pennsylvania and Michigan. After a break for a walk and dinner, I resumed operating at about 7 PM. Now the western stations were coming in on 20 meters, including Texas, California, and Arizona.

When I ran out of stations to work, I moved down to 40 meters. States across the Northeast, Midwest, and South were strong, but skip seemed fairly short, with the most distant contacts in this time slot being Kentucky and North Carolina.

At about 9 PM, I moved down to 80 meters and briefly worked New Hampshire and Long Island, then shut down for the night.

The next morning 80 meters was more active, with contacts down to southern New Jersey and Virginia. At 9:30 I moved back up to 40, which finally put Rhode Island, Ontario, and Vermont in the log. (All through the first half of the contest, many stations that worked me said that they weren't hearing much from Vermont, and were grateful that I put Vermont in their logs. I never heard another Vermont station myself, except the RANV and CVARC field sites, both of which I worked on 40.)

About 10:30 I moved back up to 20 meters and added more stations from the center of the country. As noon approached, I started to run out of new stations to work, so dropped back down to 40. After a break for lunch, I continued operating until 1 PM, then ran out of new stations again and shut down.

A total of 106 contacts are in the log, which isn't bad for single-op with limited operating hours, but it was not as high

as I'd hoped. As far as I can tell from a review of my logs, I did not add any new WAS entities on 20 or 40. The propagation just wasn't there for me.

The Rocky Mountain West was disappointing. I never heard Montana, Wyoming, Utah, or New Mexico, and I worked exactly one Colorado station. Nothing in New England was heard on 20 meters, either. The skip was definitely pushing me out to western New York and beyond. No Alaska or Hawaii on any band.

On the other hand, I worked a surprising number of YLs and some younger hams for whom this was probably their first FD. (When you hear a child's voice call CQ and then start giggling before they un-key or anyone responds, this seems like a safe bet.) There was no lack of Field Day stations on the air, and many classes were well-represented, even class F (Emergency Operations Centers).

Overall I'd say this was a successful experiment. It's clear that my home station can readily do SSB across the country, even when bands are crowded, and that I can work coast-to-coast if I choose my band and operating time well.

73, everyone, and enjoy the summer.

FIELD DAY IN BENNINGTON WITH BRIAN N1BQ

John VE2EQL

Brian Riley **N1BQ** - RANV's past president and founder of the Northern Vermont QRP Society is now a permanent guest of the Vermont Veteran's home in Bennington, Vermont.

On a previous visit on May 8th of this year, we discussed the possibility of doing a FD that Brian could participate in. I contacted the home to see what permission was required, and what can we do and not do. Fortunately, the person, who is the Director of Environmental Services, Jon Endres, is a ham and member of the Southern Vermont Amateur Radio Club.

So with the green light, I made plans to bring some radio's antenna and a lot of other things.

Leaving the house around 5:30 AM, I had about a 5 hour drive using the I-87, then cutting east to Bennington. I arrived just in time for lunch, with a chocolate cake from a Montreal bakery. On Friday, June 22nd, it was Brian's birthday. The remaining cake, was divided and passed around to other Veterans.

With our bellies full, we gathered our equipment and went to an outside pavilion. The first antenna to set up was the St. Louis vertical, mounted on a wooden post and secured by bungee cords.



The weather looked more like it was going to rain, so I tossed up a line in the nearest tree, and pulled up one end of the 176 foot dipole. Even at 25 feet high, we were happy with the results.



Sunday was very relaxed. Brian asked me to show up at 10:00 AM when we went outside to the pavilion with our equipment to continue operating. Our radios were the ICOM IC-703 QRP transceiver and the Elecraft KX3 QRP radio. Both radios have an output of 10 watts.



Brian made about 38 successfully exchanges with hams all over the US. The 176 foot dipole was the winner and provided the most success. We closed up around 1:00 PM, due to the changing weather and heavy rain forecasted. We were about to enter the home... just before the rain started.

Hopefully, the pictures show the fun, we had.



Saturday operating time was cut short, since we had reservations at The Publyk House. We had great steaks plus desert. We were lucky to have the home provide us with adaptive transport.

OUR FIRST SOTA ACTIVATION

Stewart KC1IFK

Sunday June 10th is a day that I will not forget. My 5 year old son Anderson and I had couldn't have asked for better weather for our first big hike of the summer and our first SOTA activation. The sky was blue and the temperature was a breezy 65 degrees. Very pleasurable day for a hike up Camel's Hump (W1/GM-011) via the Burrows Trail from the Huntington side of the peak.

We packed our bags before we left; I had my MFJ tripod, Elk Antenna, Kenwood TH-D72A, an extra battery, med kit, water bottles, bug spray and sunscreen in my pack and he had lunch, his water bottle and his two walkie talkies so he could make his own contacts in his pack. We made it to the trail head at about 8:30 am. The TH-D72A has a built in TNC so I opened that up to track our progress via APRS. This was one of the primary reasons that I purchased this radio; so that whenever we were out in the wild our whereabouts could be tracked just in case. The APRS was chattering like I have never heard it before! I was picking up boats, planes, balloons, cars, trucks, weather stations and base stations. Never heard that much APRS action before! I wasn't until we got back that I saw Bob **KB1FRW** had given a couple updates as to our ascent progress via the reflector. That was pretty neat!



KC1IFK and son on Camels Hump (W1/GM-011) - Their first SOTA activation – photo courtesy of Stewart KC1IF

It took us 3.5 hours to get up to the top and at almost exactly Noon, I was on the air. I sent out my call on 146.520 and 446.000 to see who was out there. I ended up being able to make 7 unique contacts the second of which was Bob **KB1FRW**; but I spoke to Mike **N1JEZ** and Daniel **VA2DD** on both VHF and UHF. Mike and I were able to make contact from FN34 to FN44 on UHF when he suggested that I reorient my Elk for horizontal polarization to match his antenna. I made contact with Daniel all the way to FN68, which was my longest contact at about 400 miles as the crow flies. I also made contact with Dave **KC1APK** on VHF which was neat because I first learned about SOTA from him and I have seen his call sign on the database. I logged the contacts as I made them with HamLog on my iPhone, then later transferred them

to the SOTA database when I got home and received my first 10 points! Anderson only made one contact, pretending to talk to his classmate using his name spelled out as his call sign on his dead walkie talkie!

We made it back down in 2.5 hours and Anderson asked me when we were going to do it again! I am overjoyed that I got to share this experience with him and can't wait to get out there again! Watch for Anderson and me on Sotawatch2, the Reflector and the SOTA group on Facebook so that you can get some chaser points and we can get some activator points! If you help make me a Mountain Goat, I'll help make you a Shack Sloth!

SECRETARY'S MINUTES

Duane WL7CVD

Bob KB1FRW, called the meeting to order at 7:05 PM with about 14 in attendance.

General Announcements and Club Business

Bob Brown discussed the newsletter labels. Mike mentioned a bike ride around the lake on Saturday and said volunteers could help with communications. The ARRL NE Division cabinet meeting would take place after field days in Springfield, MA. A concern was raised about the floors of the meeting room not being treated well. Field day plans were discussed including the planning meeting on June 18th. One of our members (Tim) ran a marathon.

Bob A. made a motion to authorize up to \$500 for field day. Seconded by Bob H. Passed.

Presentation

Chris Knox, K1IP, gave a presentation on DMR, Digital Mobile Radio. The presentation was pretty comprehensive and technically interesting (which means your humble and obedient secretary may not do it justice here). Chris lives in Northfield and has been in amateur radio since he was 11. He has set up numerous repeaters in the area, and pointed out that conventional repeaters have their limitations.

DMR is set up so that assigned repeaters can be networked via the internet in defined talk groups. Talk groups allow you to access any connected repeater as needed to establish communication within a defined region. The underlying protocol automatically finds the most appropriate repeater and selects the required operating frequency automatically. The talk group can function more like a chat room, and is location-independent. Local, state-wide, and regional networks have been set up via bridging systems. One such bridge is C-Bridge, and its website can be accessed by typing the following into the address bar: 64.223.148.21:42420. It is possible to monitor traffic without becoming a member. Also check out <http://www.nedecn.org/>

As a digital mode, the system actually allows two separate conversations to share a channel by segmenting the channel into 30 ms time blocks, time slot 1 and time slot 2. There are various digital mode protocols in use besides DMR including Fusion (a Yaesu innovation) and D-Star. Chris's recommendation is to pick one and stick with it. There are many radio brands that support digital modes are available.

There are two primary DMR network systems: Mark, which is a Motorola system, and Brandmeister. The Mark system is more robust and limits the amount of experimentation allowed, while Brandmeister is more open.

How popular is DMR? There are 181 users in Vermont, and 2,000 in the north east. There are 82 repeaters on the northeast C-Bridge network.



Chris KIIP Presents DMR at the June meeting – photo courtesy of KCIAPK

FEATURED PLATE OF THE MONTH



Thanks Jonathan!

Got a ham plate or Amateur related vanity? Send us a picture, and we'll feature it one of the upcoming newsletters.

2018 MS BIKE RIDE – VOLUNTEER OPERATORS NEEDED

John N1WQS

Hello RANV! Congrats on another well-oiled Field Day!!!

I am asking for help with the 2018 Multiple sclerosis Bike Ride. This a ride to get donations for the National Multiple Sclerosis Society.

I have been riding in this ride since 2004, and it is a very worthy cause.

Vermont has the highest per capita incidence rate of MS in the US!!! 1 in 400 Vermonters are affected with this disease.

We need a few more rest stop operators. As KB1ZEB likes to say, "It's time for a ROTA activation!!! (Rest Stop On The Air).

OR... If you are interested and have a ham equipped vehicle that can carry people and bicycles at the same time. We could use help there as well.

For more information, contact me at n1wqs@w1koo.org

Here is a link to the website if you want to investigate.

http://main.nationalmssociety.org/site/TR/Bike/MAMBikeEvents?pg=entry&fr_id=29927

73 de N1WQS - John Mauger

REMEMBER - RANV GROUP HAS A NEW HOME

Here are the important addresses you need. Feel free to ask me directly if you have any questions, AB1DD@ARRL.NET.

Post: RANV@groups.io

Subscribe: RANV+subscribe@groups.io

Unsubscribe: RANV+unsubscribe@groups.io

Group Owner: RANV+owner@groups.io



NEWS&VIEWS

INSIDE

- **NEXT MEETING – SHARING HISTORY
JULY 10TH 7 PM**
- **FIELD DAY 2018**
- **10 THINGS I LEARNED @ FIELD DAY**
- **FD TEAMWORK AND INNOVATION**
- **FIELD DAY VIDEO**
- **W1SJ RECEIVES HONOR IN SEQP**
- **FIELD DAY WITHOUT THE FIELD**
- **FD IN BENNINGTON WITH N1BQ**
- **FIRST SOTA ACTIVATION – KC1IFK**
- **SECRETARY'S MINUTES**
- **FEATURED PLATE OF THE MONTH**
- **2018 MS BIKE RIDE VOLUNTEER
OPERATORS NEEDED**

NEXT MEETING SHARING HISTORY

Tuesday • JULY 10TH • 7 pm
Wheeler House, 1100 Dorset Street
South Burlington, VT

Upcoming, Notices, & Misc.

- Steering Wheel: 3rd Tues 6:30; Ninety-Nine Restaurant, Taft Corners, Williston
- VE Exams every 2nd Friday; Red Cross Building 29 Mansfield Ave, Burlington
- Dues due? Pay online at www.ranv.org/ranvpay.html