The Maritime Contester

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President's Column

Things are starting to move within MCC. Mike, VE9AA has put together a campaign to attract new members to the club. Over the last few years, our numbers have diminished considerably. This campaign has already been successful with former members renewing their membership. If MCC is going to be successful, we need to attract new members.

Another group of members have reinstated the old MCC ANS award program. This new program is now called the Maritime Contest Club Contest Championship (MCCCC). Thanks to Mike, VE9AA, Scott, VE1OP, and special advisor Rick, VE9HF. I encourage MCCers to take part in the contests that make up the MCCCC.

Since we're a contest club, it only stands to reason that new members, as well as seasoned contesters, are looking to increase their knowledge of contesting. This can be easily accomplished through the sharing of information, be it through the Yahoo Group or the Newsletter. When you look at it, we're all a source of knowledge and we see this time and time again on the Yahoo Group. It's all about sharing information!

I'd like to encourage all MCC members to become more active during 2017. I realize that some of us are still working, have families and other obligations, but it's nice to take a break, relax and give a few contacts once in a while.

JP LeBlanc, VE9BK
President

Introduction to SO2R

By Mike Smith, VE9AA

Although I am relatively new to SO2R, and not fully trained in the art, I thought I would try to write a piece for the Maritime Contester. I know several members have tried it and then went back exclusively to SO1R. Sometimes I still only do SO1R. There are others here perhaps wondering what it's all about. I was, for many years. It seems to be a well kept secret as there is very little on the Internet of "how to" do SO2R. What is SO2R? It stands for Single Op, 2 Radio. Contrary to popular belief, (or rumours from SO1R ops that think we're cheating) only one transmitted signal goes out on

the air at a time (**never** two!)

In basic terms, what happens is that by using an outboard controller , a logging program and 2 HF transceivers you can make better use of your transmitting time (when you are just staring at a screen or out the window) by listening on a second radio (usually on a different band).   Same band is doable, but a little trickier and is known as SO2V (Single op, 2 VFO….and can be achieved with 1 radio, but does not offer as much as SO2R)
Usually a person starts out just by listening for band openings (say, like on 10m for example) or for rare stations to show up on bands you haven't worked them on yet.

Although there are many variations of SO2R, the way most folks start out is by working your normal run frequency on radio #1 and tune a different band on radio #2. When something of interest is noticed on radio #2, then with careful timing, you "interleave" a QSO on radio #2 with whatever you are doing on radio #1. (this is much harder than it sounds and takes a lot of training so you don't sound like a LID on either band!). Macros and SSB recordings are mandatory to make this sound right. If you have to talk or send with paddles it seldom goes smoothly. Similarly, if you are already a good RTTY op, RTTY is the easiest to start with when trying out SO2R
It's generally accepted that when you first begin SO2R that your scores will go down. I have found this to be true. My first few contests doing SO2R were actually small QSO parties etc. where I had little basis for comparison, but I sure was a fish out of water and I could tell I was stumbling and trying to decide what to do. I am sure I could've had a larger score just doing one band at a time and hitting band buttons when things might have been better elsewhere.

Now, a year and a half later, I find in most contests I can increase my score from 2% to perhaps as much as 15% at times. The problem with those estimates (by the CABSTATS program) is that, yes, those percentages represent increases made on the 2nd radio when running on radio #1, but surely some of those same stations may have been worked anyways.
SO2R can be both radios doing S&P (I have found this very hard!) Run/S&P (easiest) or Run/Run….takes special condx and you need to be loud on 2 bands (and being rare helps two).

Timing is everything. When your timing is off or length of your sent messages is of the incorrect length, there are pauses heard on the air, and you sound like a goof !

When rates get too high on radio #1, then QSO's on radio #2 will suffer, or be totally ignored altogether (this is normal). Intrigued but not willing to shell out some $$ only to find that it's "too much" or "distracting" or "not your cup

of tea"? Fair enough. There is something easy you can try just to see if it MIGHT interest you. Get a 2nd HF radio. Most of us already have one or more collecting dust. (even a shortwave receiver might work just to test the concept). Put it on a vertical as far away from your horizontal Tribander as possible. At QRP or 100w, there should be no need for bandpass filters or coax stubs if you can separate them by 125' or more.(you'll need to do some pretesting to verify you aren't going to smoke a receiver first).

Don't even worry about interfacing it with your logging program yet. Just contest as per normal and when you aren't getting answers to CQ's on 20m, keep CQing, but tune your 2nd radio on 15m for example. Still interested? There are cheap ways to dip your toes in the water. How in heck do you direct your transmit signal to radio #2 anyways? Well, if you own a K1EL Winkeyer, the setup in N1MM logger is a few keystrokes away (this isn't a how-to, but trust me, it's easy). If you are the soldering type you can make up a little box with a couple toggle switches too. I tried both methods with some success just to see if it interested me. It did.

Setup your logger for "SO2R" and learn the keystrokes to direct your transmit signal and N1MM will do the rest. Sorry, I only really know this logging program, but I understand the other loggers perform similar functions. With this setup….just 2 radios, Winkeyer and N1MM logger you can do simple SO2R on CW.

There is a catch however. With only a Y-connector, you are listening to 2 audio streams 100% of the time from both radios. This is very tiring, but you will get an idea what "true" SO2R is like. Still interested? Make a small switch box or buy a controller. There are 3 or 4 popular ones. I use the YCCC SO2R+, and Top Ten Devices makes the "DX doubler" both in the $250 or so range. MicroHam and one or two others are much more expensive and have things like built in sound cards which aren't really needed if you're still in "testing or trial mode" with SO2R.

The real advantage of using a controller is being able to direct your voice (SSB) and also coordinate your headphone audio, all from the keyboard. (No reaching!) As I said, listening to two audio streams can be exhaustive, especially over an entire contest. What the usual procedure is, when you are transmitting on radio #1, your audio feedback is muted (a little disconcerting at first) and both your ears are listening on radio #2…..if someone comes back as soon as you are done transmitting on radio #1, then all your attention is on radio #1 and you work the QSO as per normal. Hard to describe, a little tricky to learn, but if you are running at a normal 50/hour, then not so bad to do and pick up 4-5 mults an hour on radio #2 by careful timing.

Lucky for the person who does not enjoy SO2R after investing $250-$300 is the fact there are always folks willing to buy your used controller from you. If you invest in a big way, ie: bandpass filters, automatic antenna switching mechanisms etc. these are easily sold too.
Basic SO2R could be nothing more than that old TS-830S off to the side of your desk listening on a 2nd band, or a $10k solution involving an entire array of devices that mirror your radio #1 setup.
It's up to you.
For slower contests, I absolutely love SO2R….I can CQ CQ CQ on radio #1

and tune radio #2 looking for that mult on the 2nd radio (SS, QSO parties, slower contests). For the big busy contests like the most popular CQWW's, radio #2 generally doesn't get used until things slow down on the 2nd day, or like now, I might leave radio #2 on 10m waiting for those rare band openings. I don't (normally) use the cluster or have any kind of panadapter/bandscopes, so a 2nd radio is a second set of eyes/ears. It may not provide as much benefit to the assisted fellas connected to the cluster. Do I think it helps my score? Yes. Do I think it helps my score a great deal? Nope! I am still very much a beginner in the SO2R world and have a small station, but on average I see about 5-10% score increase using SO2R (as analyzed by CABSTATS). Some of the really good fellas can see 30-50%, but they are the guys in the top 1% of contesters, usually operating from somewhere rare (or semi rare) and having big stations. To get that 30-50% increase you really have to be doing "RUN/RUN" and be in demand. There is no contest in the Maritimes that I could envision that even the best of the best could realize that kind of return unless you were at a super station and the only one on in your Province that weekend.

So, is SO2R worth it? It certainly is challenging to learn, and sometimes I have to put it off to the side, but what I can tell you is that it's 'interesting' and has advantages like spotting band openings or moving a station to a second band where you already have a frequency, or just combating those Sunday afternoon blues.

Is it for everyone? Probably not. I am a small station (no towers here) so what I am willing to invest in SO2R is low on the scale of what is possible. I now use identical IC-7410's (but have used dissimilar radios), usually 100w (but sometimes 500w). Radio #1 uses mostly verticals and radio #2 uses only a horizontal antenna. By careful antenna separation I do not need any expensive bandpass filters or antenna switching techniques. When the 2 small amps I have are used, it's manually tuning and switching.
So whether you want to increase your score a small amount or just combat boredom while issuing those unanswered CQ's I encourage you to give it a whirl. It's doable almost for free to stick your toe in the SO2R waters. Where you go from there is up to you!

RTTY Skimmer

By JP LeBlanc, VE9BK

In the first issue of the MCC Newsletter in 2014, I had included an article on RTTY Skimmers that were making their appearances on the bands. Since many MCC members are active in RTTY Contests, I thought I'd do an update on the current status of RTTY Skimmers.

From what I've been able to determine, the use and adoption of RTTY Skimmers by operators has been slow due to a number of reasons. The main issue appears to be the ability of the RTTY Skimmers to correctly decode call signs correctly.

The main RTTY Skimmer being used is still RCKskimmer by DL4RCK. RCKskimmer is able to search for digital signals (RTTY, BPSK31, BPSK63 and BPSK125) in a FFT-spectrum of a standard receiver or a SDR receiver with a NF-connection to the soundcard of the PC by using the MMVARI module. All bands and frequencies can be scanned in a row.

All call signs with CQ, QRZ, DE or TEST will be detected and listed with exactly mark-frequency by using the OmniRig Transceiver Control by VE3NEA. The callsigns are posted in real time to the RCK - Digital-Cluster-System which is specially designed for RCKskimmer and accessable by everyone. The RTTY spots are going also going to the reverse beacon network.

Overall, the concensus between RTTY operators is that RTTY Skimmer spots are getting better. It's also agreed that the use of "aggressive" validation" by RTTY Skimmers is required in order to get better spot accuracy.

So if you're an RTTY contester, you should keep an eye on the RTTY Skimmer technology. With time, RTTY Skimmers may be as good as CW skimmers and revolutionize RTTY contesting just like CW Skimmer did for CW contesting.

Ref: https://www.sites.google.com/site/rckskimmer/
Ref: http://www.dxatlas.com/RttySkimServ/

Contesting Software

By JP LeBlanc, VE9BK

All serious contesters these days use some sort of contesting software. As we all know, computers and software do like to "act up" and this usually happens right in the middle of a contest. I've come across some helpful hints which hopefully readers will find helpful.

The most important aspect of using contesting software is to have a simple means to re-start your software. This isn't the time to try to remember what you called your file(s). Reading the documentation for the contest software you're using before the contest should provide you with how to achieve this goal. This should be your number one priority, even you do nothing else.

At VE9ML, we use N1MM+ for our logging requirements. Since we normally enter the Multi category, we have several computers linked, so when we experience a computer problem, it's very easy for us to deal with the issue. That is because we have one computer on the VE9ML Logging network that is designated as the Master. This computer's main function is to log into the DX Cluster in order to get DX spots to the other stations on our network. It's also used to make sure that all the computers on the network are synchronized. Although we have a radio hooked up to this computer, it is never used as this is a spare radio that could be used if we have a radio or computer issue. No need to re-boot the computer, as the Master computer is already in place and the only requirement is to turn on the spare radio. This

solution can also be used by single operators by adding a second spare computer and radio to your logging software network.

Contesting software is such an important part of your contest station that you need to be thoroughly familiar with every aspect of the contesting software you are using. A contest is not the place or time to test out your software for the first time. Become familiar with the program and exploit useful features. One of the greatest features of these programs is the ability to modify settings to suit your needs.

The N1MM+ features on my station (VE9BK) at VE9ML are different that those on Marcel's station. We've modified N1MM+ features to suit each of our operating styles. I also have a list of useful functions that are used occasionally at my finger tip as a quick reference. Again, this saves me time and makes for a smoother operation during a contest.

References: Contest Tips for Little Pistols by K2YWE

Your article here!