

Why Not Go Roving?

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whoami

- Licensed since 2012 as KB1YOQ, Extra since 2015 and became WA1TE
- Trustee of the Signals, Summits, and Suds radio club callsign, K1SIG
- Relatively new rover – a veteran of 2 September (2016, 2017) contests and 1 January contest (2018)

What is a Rover?

- “A rover consists of no more than two operators that moves among two or more grid squares during the course of a contest”
- 3 classes – Limited, Classic, Unlimited
- Boatloads of fun
- May work from 1 grid Saturday, 1 grid Sunday
- May work 27 grids on a mammoth rove from PA to TX
- Likely to be somewhere in between
 - K1SIG/R 3 grids, 6 grids, 14 grids

Why Does K1SIG Rove?

- QTH in a hole
- No towers/tall masts
- Hard to make any real effort from compromised stations
- Well...let's give it a shot
- Turns out, a load of fun
- Operate from scenic locations
 - Like Walmart parking lots
 - Also mountain tops
- Something to do during the slow times of the contest

September Setup

- ICOM IC-746, 100W on 2m
 - 7el M2 yagi
- ICOM IC-7000, 100W on 6m
 - PVC + wire 2 el moxon
- Yaesu FT-790RII, 25W on 70cm
 - 15el Diamond yagi
- RS HTX-100 + UR3LMZ xvrtr, ~6W on 1.25m
 - 10el DSE yagi
- Yaesu FT2900RII @75W and Yaesu FT290RII @25W on 6m while mobile
- Homebrew drive over mast mount
- Hitch flagpole holder
- 2m, 1.25m and 70cm loops while mobile
- 2 masts while fixed – 10' EMT conduit
- 2x 100Ah 12VDC AGM Deep Cycle Batteries







January Setup

- ICOM IC-7000 on 6/2/70 at 100W/50W/35W
- HTX-100 with xvrtr on 1.25 at 6W
- Yaesu FTM-100DR on 2m, 70cm FM
- Alinco DR-235T on 1.25FM
- Yaesu FT-290RII w/ SG-Lab Transverters on 903 and 1296
- 10' PVC mast with loops (assorted brands)
- 2/70 short vertical
- 1.25m $\frac{1}{4}$ wave vertical
- 2el HB9CV beams on 903, 1296
- Same batteries (overkill, but trying to wear level)





Why Such Different Setups?

- **Stop and Shoot**

- Lots of time to work stations
- Get up high, work long range
- Long setup – don't want to move much
- Awkward to work from populated areas
- Easier to split workload

- **Run and Gun**

- Good spots closed in Winter
- Work more mults, vs longer contacts
- Get in their face
- Fast setup – can use full station while moving
- Compact, easy to operate from parking lot

Simple Rovers

- Modest stations can be effective
 - You don't need long range capabilities if you can just drive in close
 - Fixed stations are much more capable and will look for you
- HF+6 rig and a loop or moxon
- Dual band mobile
- Focus on 6 and 2 – as loud as you can get here
- 2m FM is handy, though a bit quiet
 - If it's all you have, USE IT
 - If you have 2m SSB/CW, bring the FM radio anyway



Rover Power!

- Don't strand yourself
- Car batteries do not like to be drained
- 12V Deep Cycle batteries
- 6V Deep Cycle batteries in series
 - Handles high current a little better
- Generators
 - Useful, but annoying to those around you
 - Longer operating time
 - Heavy and take up space
- Difficult to handle voltages other than 12V
- Laptops are power hungry
- 28/24V devices might be hard
 - Need boost converter or 2nd battery string (which you may not be able to charge)
- 4AWG jumper cables are cheap source of heavy gauge cable
- Quick disconnects are useful to break battery string from car battery when car is off during operation
 - K1SIG uses Anderson SB-120 connectors

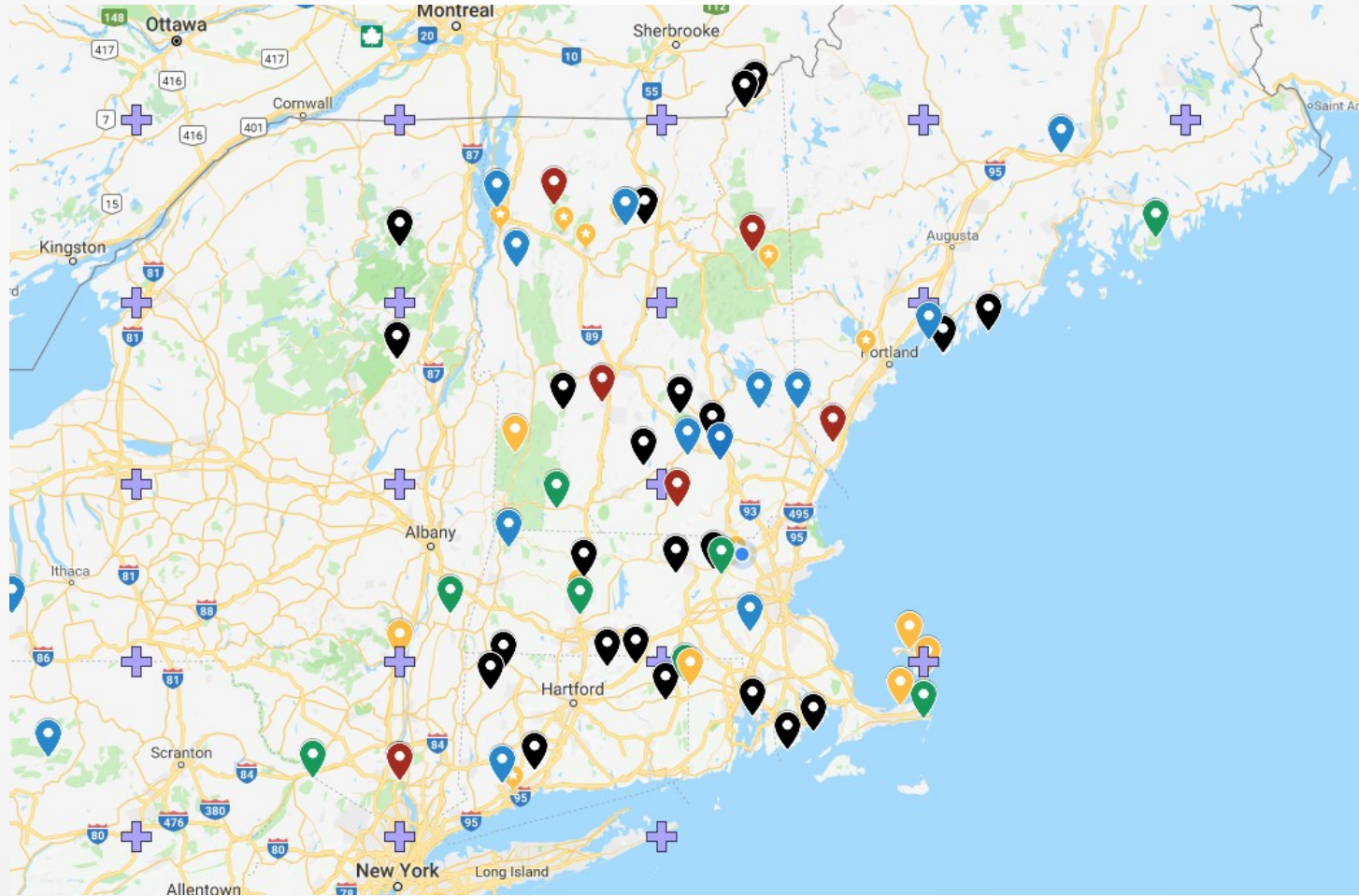
Always Improving

- Look at what others are doing
 - Getting caught late at night by your wife while staring at pictures of other rovers...
- Read soapboxes
- Ask for help!
- What went well, what went poorly last time?
- Keep notes
- More bands are an easy way to add mults
 - Unless you want to stay limited
 - Modest setup can work well here as well
 - May surprise you how far you can work with these
 - Diminishing returns, watch who in your path have the bands you want to add

Choosing Locations

- Get up high
- Get out in the open
- Find the big stations and look for paths to them
- Compact Rover? Parking lots!
- Watch for RF Hell
 - Mountain tops are full of cell, pager, radio towers
- Careful of tempting grids where no one aims
 - FN51
- Have backup sites
 - Other ops may already have “your” site

Choosing Locations



Spot, spot, spot

- Spam the mailing lists with your plans
- K1RZ/W3SZ database
- Get phone numbers
 - Some ops like calls, other SMS
- Roverstatus app on android
- APRS
- Facebook, reddit, discord, twitter...
 - Really, just be annoying
- Fixed stations WILL look for you if they know you are out there

Be Safe

- Those batteries have a lot of juice and you are conductive
 - So are your antennas, masts, cables...
 - People weld with big batteries
 - Sealed batteries are better – less venting of hydrogen gas or dumping out of acid in your car
- Secure stuff in the car
 - Keep it away from the batteries
 - Keep it away from the driver
 - Keep it from clobbering you if you experience a sudden deceleration (or roll...)
- Take breaks!
 - Tired drivers are no good
 - Coffee keeps you awake...and mandates stretching of legs
- Don't park in unsafe spots
 - Edge of highway
 - Bronx park at 1am

Be An Ambassador

- You are more visible to the public than most fixed stations
- You will get questions
 - What is that stuff?
 - Are you the NSA?
 - Are you talking to the mother ship?
 - Are you tracking birds?
 - Are you nuts?
- Be friendly
 - Especially if the nice police officer actually had a reason to pull you over
- Maybe consider bringing flyers
- Signs on your car may be nice as well
- Don't park where you're a nuisance
 - If asked to move, just move

Links

- <http://w3sz.x10.mx/k1rz/K1RZDataBaseInstructions.html>
- <http://www.roverstatus.info/>

Thanks!

Any questions?