Small Station Bang for the Buck

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Adapted from Ward Silver, NØAX's 2016 CTU Presentation

Class Goals

- Define the Problem
- Discuss making an overall strategy
- Find "Score dB's"
- Encourage you to improve

Assumptions About You

- Somewhat familiar with contesting - (good thing you didn't come in late!)
- Modest station - one radio, no amp
- Modest budget
- Willing to progress step-by-step
- Taken and given some lumps
- Want to give more lumps
- What's the best way to get better?

How To Use This Presentation

- Not a how-to Cookbook
- Follow in the text
- Take short notes
- Every operator and station is different
- We all have to start low and slow
- Think about how some of these topics can be worked into your station

Priorities

- Operator First
- Technique Second
- Antennas Third
- Radios Fourth
- Gadgets Last

Some things to keep in mind

- Contest Success is incremental
- Operator improvement is continuous
- Study, analyze and plan
- Address the obvious deficiencies first

The Operator - Ergonomics

- Incredibly important
- Fun or Slog? - You Choose!
- Maintain concentration, remove distractions
- Labels and logical, consistent layout
- Preserve and enhance accuracy

The Operator - A Human!

- Head & Eyes
- Back & Arms
- Your Butt
- Fitness (Before and During)
- Stay Alert and Engaged

Knowledge

- Know your stuff
- Study Propagation
- Learn your software
- Recognize calls
- Study your old logs
- Study the logs of winning stations

Technique

- Number one source of score dB's
- Practice makes the master
- Listen to the Masters - Up Close
    - Start working with multi-op teams
    - Ask them questions
- Trade recordings or listen live

Technique - Gimme's

- Run more and whenever you can
    - Find propagation that allows your station to run
    - You don't have to be on the band edge
    - Think signal to noise on both ends
- Type - Send - Speak - Copy accurately
- Breathe, be consistent, find a rhythm
- The second radio - make it play

Technique - Accuracy

- Go for World Class Accuracy (<1% error)
- Study LCR/UBN Report
    - What do you consistently miss?
    - What do other consistently miss from you?
- Pull Out Full Calls
- Be wary of Databases, Spots, Skimmers
- Learn Not to Guess and When to Move On

Technique - Managing Time

- Running is key
- Rate Meter - QSOs per mult
- Distractions
    - Packet and DXing
    - Too much information
- Operating time planning
- Go get that next contact!
    - No magazines, no TV, no browsing, no email, no facebook, no texting

Technique - Managing Score

- Watch and move mults (Sunday!)
- Avoid penalties at all costs
- Expeditions - work 'em all!
- Make skeds - <u>during</u> the contest
  - Know the propagation
- Quick review of the situation now and then
- Review and adjust your plan

The Second Radio & Antenna

- Keep it simple
- Temporary is OK - be consistent
- Integrate into your station
- Target low-rate periods
- Don't diminish your primary rig & antenna
- Consider automation

The Second Radio - Using it

- In-band tuning
- The Quick QSY
- Running and Tuning at the same time
    - Learn to listen to audio streams at one time
    - Practice shifting your focus
- Great for spot-chasing while slow-running
- Operate for a net gain

CQing

- Call high in the band for best SNR
- Respond consistently & efficiently
- Work fast stations first
- Pull out a full call when you can
- Listen for "DX Sound" and odd first letters
- Manage your RF gain & attenuation
- Learn to rely on your ears for filtering

Antenna Selection

- Improve to the next level
- Simplify switching and aiming
    - Contesting is not DX-ing
- A small fixed Yagi to EU, Carib, PacRim, or ?
- Simple low-band receive antennas
    - Reduce noise = reduce fatigue
- Still the best bang for the buck

Radios

- Clean reciever - most important
    - Gain Management
    - Filtering
- Clean transmit - code, phone, digital
- Learn to use them!

Gadgets

- The fewer the boxes to manage, the better
- Carefully evaluate the need
- Are there alternatives?
- Is the extra complexity worth it?
- Integrate into the station
- Learn to use it!

Software

- Turn off unused features & windows
- Upgrade and test *__before__* Friday
- Arrange windows to match layout
- Learn how to
    - Edit a previous QSO while not suspending a run
    - Switch focus between radios
- Put the monitor where you can see it easily

Resources

- Other contesters & your contest club
- 3830scores.com soapbox
- K8ND's SO2R Web page - www.k8nd.com/Radio/SO2R/K8ND_SO2R.htm
- W4RNL Antenna Design – cebik.com
- Towertalk, Top Band reflectors
- National Contest Journal & ncjweb.com
- ARRL Contest Update newsletter

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Thanks!