



The Operator

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

CTU Presents

Contesting Operations and
Techniques
Tim Duffy K3LR



How To Use This Course

- Not a how-to cookbook
- Follow in the text
- Take short notes
- Jot down ideas as we go

Knowledge

- Know Your Stuff
- Study Propagation
- Learn Your Software
- Recognize Calls
- Learn the Goofy Prefixes & Zones
- Memorize Approximate Bearings by Zone



Priorities

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

Technique

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



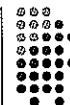
Technique

- 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
- Learn NOT to log it!
- Type – send – speak – copy accurately
- Breathe, be consistent, find a rhythm
- The second radio – make it play

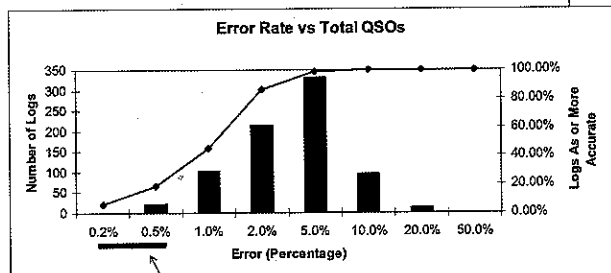


Technique – Managing Time

- 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 email, no browsing



Technique - Accuracy

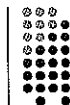


Here's the Top Ten



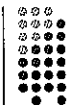
Technique – Managing Score

- Watch for & move mults (Sunday!)
- Avoid penalties at all costs
- Expeditions – work 'em all!
- Make skeds – during the contest
 - Know the propagation
- Quick reviews of the situation now and then
- Compare to last year or the competition



Technique – Accuracy

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



The Second Radio

- Taking It Up A Level
- The Quick QSY
- Running and Tuning at the Same Time
 - Learn to listen to two audio streams at one time
 - Practice shifting your focus
- Automate to Beat Fatigue
 - Build or buy a single-box controller
 - Make the layout match the equipment



Pileup Management

- Don't panic – set a rate you can maintain
- Respond in a consistent amount of time
 - This establishes a rhythm and keeps order
- Pick the fast guys first
- Listen for “DX sound” and odd first letters
- Manage your RF Gain & Attenuation
- Learn to rely on your ears for filtering



Software

- Turn off unused features & windows
- Upgrade and test **before** Friday
- Arrange windows to match your layout
- Learn how to edit a previous QSO while not suspending a run
- Put the monitor where you can see it easily
- Be familiar with several major programs



Interstation Interference

- Filters at the exciter, stubs on the amp
 - Wide-band noise must be filtered **at the xmtr**
- QRP (and maybe LP) can S&P on the same band as the run radio!
 - Protect the receiver front end
- Bypass diodes connected to wires
 - Rotor control boxes, relay kickback diodes
- Good RF “grounding”



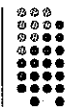
Resources

- Other contesters & your contest club
- K8ND's SO2R Web page -
www.k8nd.com/Radio/SO2R/K8ND_SO2R.htm
- W4RNL Antenna Design – cebik.com
- Amps, TowerTalk, Top Band reflectors
- W2VJN's “Managing Interstation Interference” from International Radio
- ARRL *Contest Update* newsletter



Antenna Selection

- Hear the next level (they already hear you)
- Think in terms of steps
 - Hear better, then transmit better, step-by-step
- Simplify switching and aiming
 - Contesting is not DX-ing
- A small fixed-bearing Yagi to mult-rich area
- Explore receive antennas on low-bands
- Still the biggest bang for the buck



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Thanks !

Tim, K3LR