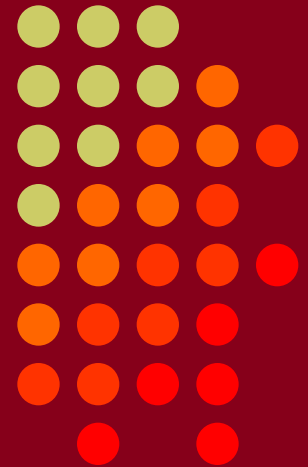


# CTU Presents

Contest Hints and Kinks  
Ward Silver, NØAX



• CTU •  
CONTEST  
UNIVERSITY

ICOM®

# Overview



- Priorities
- Building On Success
- Bang for the Buck
- Refine & Enhance
- Q&A – Anytime!

# Who the Heck is NØAX?



- And why do you care?

# Goals of the Session



- Provide tips, suggestions, and guidelines
- Give you ideas for your own circumstances
- Find “Score dB’s” and “low-hanging fruit”
- Develop confidence in your own abilities
- Laff

# Assumptions about you



- Contesting for a couple of years
- You feel comfortable with CQ or S&P
- Maybe a Division, State, or Regional winner?
- Decent radios and antennas
- Taken and given some lumps
- Want to give some more lumps
- What's the best way to get better?

# How To Use This Course



- Not a how-to cookbook
- Follow in the text
- Take short notes
- Record those ideas!

# Continuous Improvement



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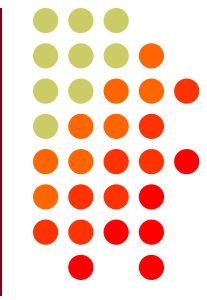
- When asked what was the most powerful force in the Universe, Albert Einstein replied, “Compound interest.”
- Incremental improvement, applied relentlessly, is unstoppable.
- Plaques are won a dB at a time
- Hints & Kinks are the ham radio equivalent of incremental improvement.

# Most Powerful Improvements



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

# Cycle of Life



**Observe**

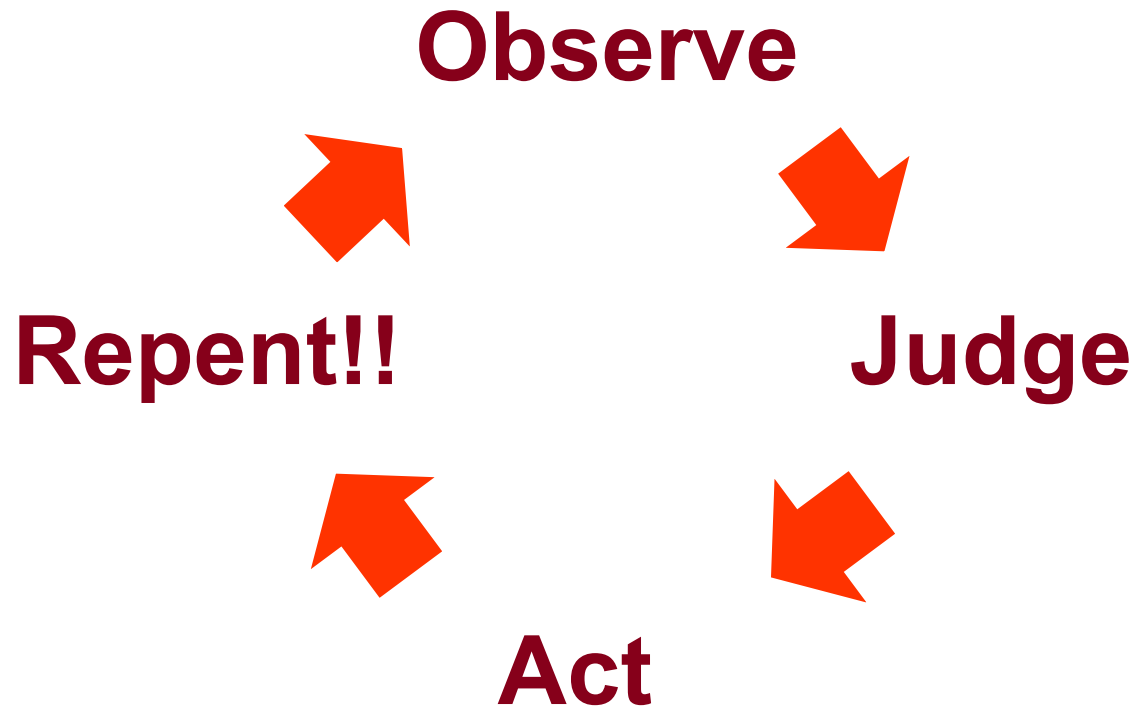


**Judge**

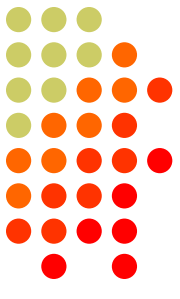


**Act**

# Cycle of Life



# The Operator



- Ergonomics
  - Incredibly important
  - Fun or Slog? – Choose!
  - Maintain concentration, remove distractions
  - Make it **EASY** to do the right thing!
    - Especially when you are tired...
  - Labels and logical layout
  - Preserve and enhance accuracy

# The Operator



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

# Fitness



- Personal fitness
  - Blood flow and stamina
- Techniques for remaining alert
  - Diet, Catnaps, Breaks
- Understand your body rhythms
- Pacing - trade low-rate periods for sleep
  - Review old logs to find the right off-times
- The 90-minute magic



# Knowledge



- Know your station equipment
- Study propagation – include possible events
- Learn your software
  - Turn OFF unneeded features and options
- Recognize calls
- Learn the goofy prefixes and zones
- Memorize approximate bearings by zone

# Technique



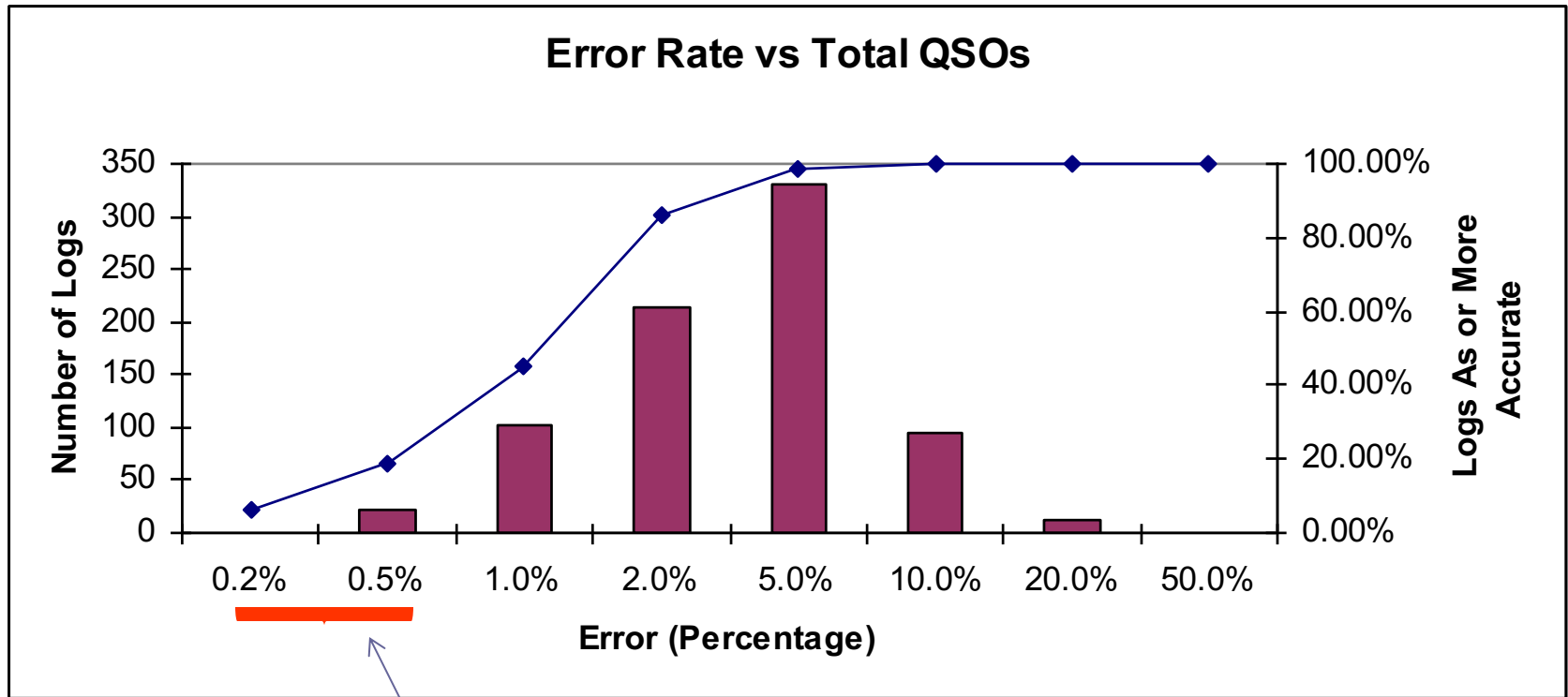
- Number one source of score dB's
- Practice makes the master
- Listen to the masters – up close and personal
  - Start working with multi-op teams
  - Or start one!
  - Ask them questions!
- Trade recordings or listen live

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

# Technique - Accuracy



Here are the Top Ten – get there!

# 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
- Avoid databases and be wary of prefill
- Don't trust spots from any source
- Learn not to guess and when to move on

# Technique – Managing Time



- Running is key
- Rate meter – QSOs per multiplier
- Distractions
  - Spots and DX-ing
  - Fiddling with the antennas and rig controls
- Plan your operating time but be flexible
- Go get that next contact!
  - No TV, no Facebook, no browsing, no chat

# Technique – Managing Score



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

# The Second Radio



- Start simple
  - Spare transceiver
  - Amp not necessary
  - Vertical and 100 watts can work a lot of stuff
  - Filters are worth it – build or buy
- Learn your program's keystrokes
- Make SO2R *normal*



# The Second Radio



- Taking it up a level
- The quick QSY – be ready!
- 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 and Attenuation
- Learn to rely on your ears for filtering

# 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 bonding of all equipment

# 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 “temporary” tribander for mult-rich area
- Explore receive antennas on low-bands
- Still the biggest bang for the buck

# 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

# Resources



- Other contesters & your contest club
- SO2R page - [www.k8nd.com/Radio/SO2R/K8ND\\_SO2R.htm](http://www.k8nd.com/Radio/SO2R/K8ND_SO2R.htm)
- Amps, Towertalk, Top Band, cq-contest email reflectors
- W2VJN's "Managing Interstation Interference" from International Radio
- W4RNL Antenna design via [antennex.com](http://antennex.com)
- ARRL *Contest Update* and NCJ

# Most Powerful Improvements



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# Thanks!



- And go get 'em!