



Northeast

**HamXposition**

***Yankee Clipper Contest Club  
Contest University  
February 10th, 2015  
6:00-9:30pm  
ARRL HQ  
Newington, CT***

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# Contest University Professors

Doug Grant, K1DG

Paul Young, K1XM

Pete Chamalian, W1RM

Tony Brock-Fisher, K1KP

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# Contest University Agenda

Before the Contest  
During the Contest  
After the Contest

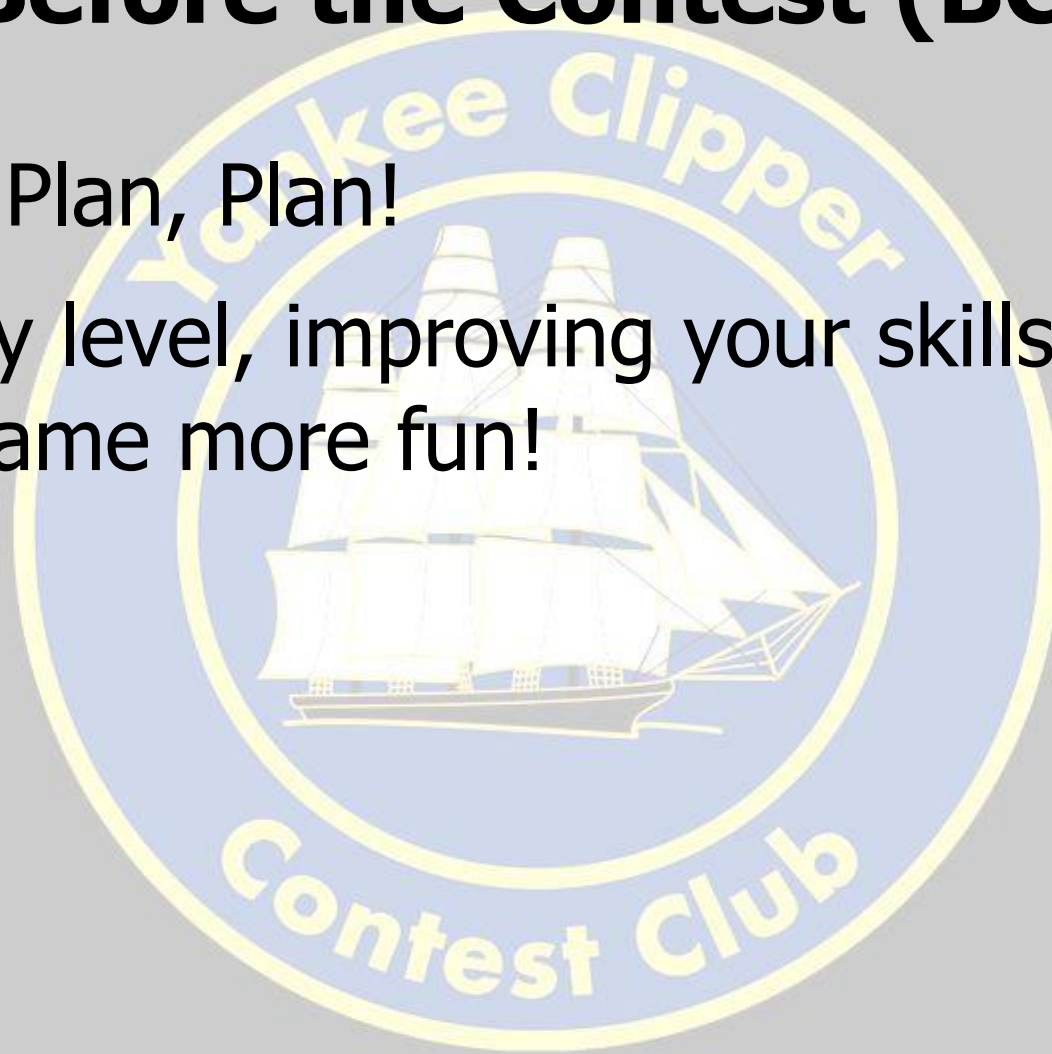
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# Before the Contest (BC)

- Plan, Plan, Plan!
- At any level, improving your skills makes the game more fun!







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# BC - Outside

- Finish up any antenna work at least a week before the contest
- Inspect coaxes & control lines for chewing, lawnmower bites, etc.
- Look up! Check for obvious problems! Why does the driven element on the 40 swing in the breeze?
- Test everything, especially stuff you haven't used recently
  - Rotate the rotators
  - Check SWR on all antennas
  - Listen for intermittent connections

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# BC - Hardware

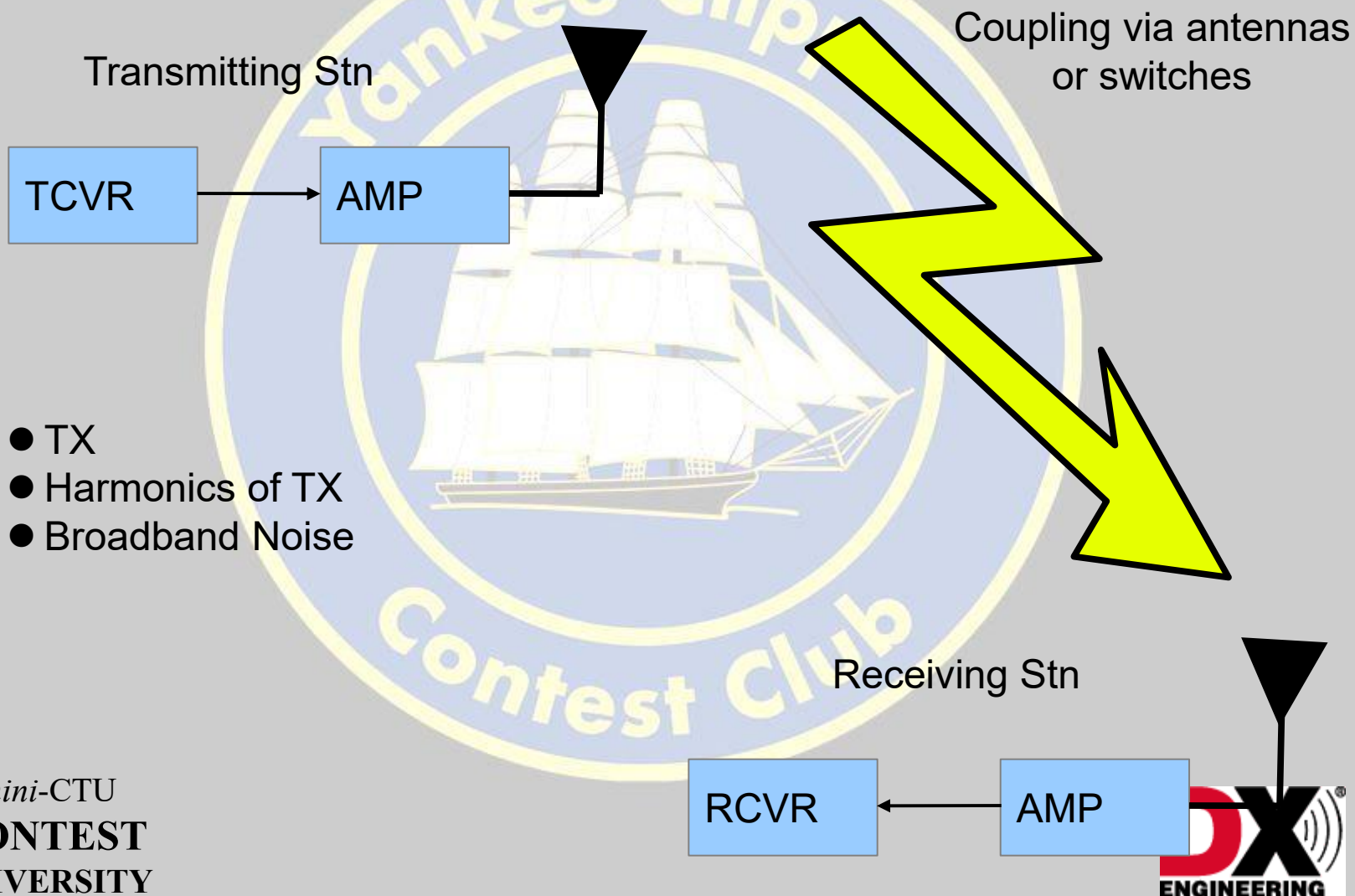
- Have at least one backup for critical hardware (radio, amp, computer)
- Test everything at full power to find issues with keyboards locking up, feedback in DVKs, etc.
- Tune up at full power on each band and check the other bands. Figure out your filters and stubs and document them.



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# BC – Hardware – M/2, MM





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# BC – Hardware – M/2, MM

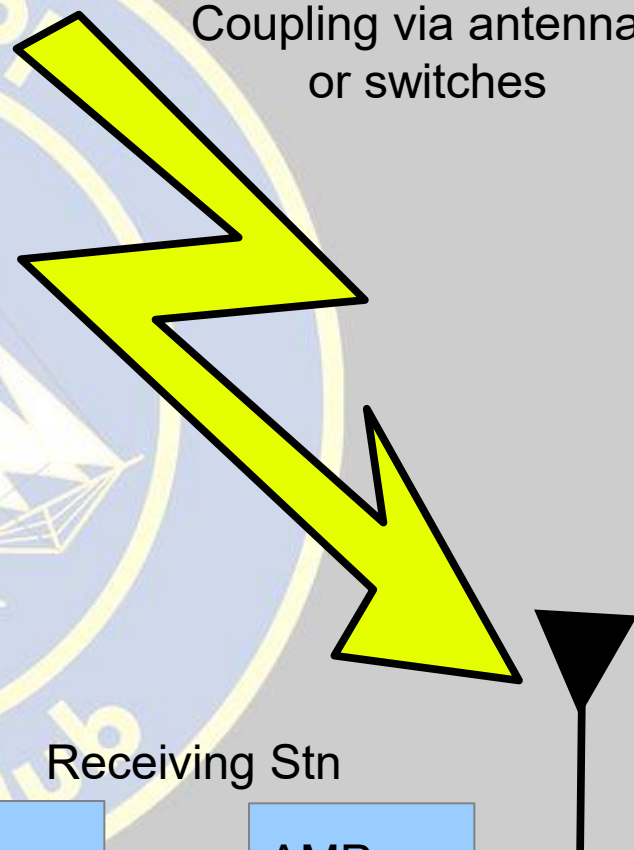
Transmitting Stn



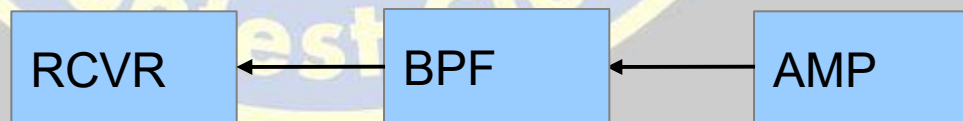
- Add Stubs to TX to attenuate harmonics of TX signal & Broadband Noise

● Needs to be a **major** part of year-long station design, not 'week before the contest' effort!

Coupling via antennas or switches



Receiving Stn



- Add Band Pass Filter (BPF) to attenuate TX fundamental, eliminate RX Overload

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# BC - Environment

- Clean up the shack the week before the contest. You want to feel positive, and a clean environment supports this.
- Adjust/modify shack lighting or good visibility without glare or eye strain.
- Ensure good shack ventilation to keep cool in heat of battle with amplifiers running.
- Get good chairs. Not too comfortable, but not uncomfortable either. Should be adjustable for different operators.



# BC - Software

- Update your logging software to the latest version and test it with all interfaced hardware.
  - If it doesn't work, go back to a previous working version (you did save a backup, didn't you)?
- Update your data files (.cty, .sec, masterdx, etc) to the current version and test them
- On logging computers, disable scheduled virus scans, backup jobs that might impact the logger program, or firewalls that impact connectivity.
- On networked multiops, make sure the network still works. Can the computers talk to each other? -Were there any network changes over the summer that might impact connectivity?
- Run a gray line program on your desktop for quick reference.



# BC – Final Prep

- Leave out a box of split-core chokes for solving RFI issues in real time.
- Shortly before the contest, go around the house and UNPLUG ALL WALL WARTS to reduce RFI
- Negotiate with your significant others and work to protect the weekend! Give the XYL a new credit card!



# BC - Planning

## ■ Set goals

- Even if you don't win, you can still set achievable goals that will motivate you and give you satisfaction when they are achieved.
- Goals can be a point level, a QSO or Mult target, certificate, or just to have fun.

## ■ Choose your entry class.

- MM just to make points for the club, and so any station can run and have fun
- Single ops choose between SO and SOA (use DX cluster)





# BC - Band Planning

- Use propagation predictions from W1HIS to figure out most productive operating times.
- Majority of contacts will be to Europe.
- Identify best propagation times and bands to major population areas like VK/ZL, JA, PY/LU, and Middle East.
- Identify Gray line times for your location, and figure out target DX locations for Gray line openings.
- Get on the air 28 days before, and the week leading up to the contest, to check what propagation is going to be like.



# BC - Band Planning

- Make notes of times to check for openings to known important DXpeditions.
- Make a list of DXpeditions, especially the YCCC ones!
- Your band plan should show bands versus hours. It should show what bands should be running, what should be S&P with rare mults, and what bands are probably dead.
- Check last year's log stats to help figure when/where, but factor in changes to propagation



# BC - Operator Plan

- Create a 48 hour operator sheet
  - For single-ops with limited time, figure out best times to operate to maximize score.
  - For Multi-ops this should include the station number or band.
- Publicize this to your operators and update it. Everybody wants the 20m Saturday morning run – but you need ops throughout the contest. You need to manage that – sharing the schedule will show your ops when they are needed most.



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# BC - Practice

Spend some time 'tuning up' your CW skills with these CW Pileup trainers:

- VE3NEA's Morse Runner:

- <http://www.dxatlas.com/MorseRunner/>

- JE3MAS's PED

- <http://www.sk3bg.se/contest/softped.htm>

- DL4MM's RUFZ

- <http://www.sk3bg.se/contest/softrufz.htm#RUFZ>

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# BC - Sleep Plan

- Have a sleep plan.
- You can't store up sleep but you can be well rested.
- Take Friday afternoon off from work and get a nap.
- Sleep in 90 minute cycles.
- Set two alarms, one of them battery powered.
- Don't sleep the same time both nights – stagger your sleep so you don't miss propagation to rare mults both nights.
- Use caffeine, 5-hour energy, Diet Dr Pepper as needed (but remember, what goes in, must come out)!



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# BC- Documentation & Labeling

- Make up a one-page cheat sheet for your logger.
  - How to log a contact, edit a contact, record and use the DVK or CW function keys, save a note in the log, set operator callsign (OPON), send talk message to other stations, pass messages.
- Make up a one-page sheet on stubs/filters
- Label everything clearly. This really helps at 3am Sunday morning!
- Make labels for amplifiers showing preset positions for each band/antenna combination (or buy an auto-tune amp).



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# During the Contest

## BIC – Butt in Chair

- No other single thing will help you more to improve your scores.
- It only works if you spend your time making QSOs







# During the Contest

- Execute your plan!
- Is propagation much better/worse than you expected? Make adjustments as needed.
- Check the next higher/lower band to make sure you don't sit on a dying band too long.
- During daylight, stay on highest band open to Europe (general rule)



# During the Contest

- Run if at all possible
- Find clear frequency, even if high in the band
- Try running on bands where you think you can't. You'll be surprised.
- If your frequency isn't working, be ready to move. There might be big QRM on your frequency that you can't hear.
- Run, run, run. You can get mults while running, but you can't get a big QSO count S&Ping.



# During the Contest

- Understand the scoring. What are Q's and Mults worth?
- CQWW example:  
You have 1000 QSOs, 100 Zones, 250 countries
- Which is more valuable?
  - Getting the 40th zone on 20 meters?
  - Working 10 more contacts?



# During the Contest

- Understand the scoring. What are Q's and Mults worth?
- CQWW example:  
You have 1000 QSOs, 100 Zones, 250 countries

$$1001 \times 351 = 983,782 \text{ points}$$

$$1010 \times 350 = 989,800 \text{ points}$$

**That mult is only worth 2.8 QSOs!**

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@60 QSOs/hour – 4 minutes

@30 QSOs/hour – 7 minutes







# During the Contest

- Don't overeat or drink too much. This is like a marathon mentally, but NOT PHYSICALLY! You don't need to load up on carbs beforehand or guzzle sports drinks. Carbs make you sleepy! Stick to small hi-protein snacks or meals. Save the carbs for just before a nap to help put you to sleep.
- Take short breaks and get some exercise to clear the head, prevent leg problems.
- Have a way to operate standing up for short periods (raise the keyboard, etc).



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# During the Contest

- At the 24-hour point, start looking for the easy mults. You should work zones 3,4,and 5 on six bands. Work VE on 6 bands, etc.
- By mid-Sunday, you're in the home stretch. Start setting mini-goals and see if you can reach them before the end of the contest, such as the next million points, the next 1000 QSO level, etc
- Don't sit in a pileup for a Caribbean station on Friday night. They will be begging on Sunday afternoon!
- Do whatever you can to shorten the exchange. Send full calls anytime you can come close to getting it right.

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# During the Contest - Phone

- Figure out the best way to say your callsign.
- If CQing, start with a short one. If that doesn't get any takers, then go to a longer one. No need to send a long CQ when you have a pileup going!
- Breathe
- Consistency & Efficiency
  - Find a rhythm that suits the conditions/rate
  - Learn not to say, "Uh", "Please copy", "Roger the 5914, you are..."; "QSL, QRZ?"
  - Say your call often – almost every QSO
- Answer guys with the phonetics they use
  - Speak Clearly
  - Go slow to go faster

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# During the Contest - CW

- Be consistent
- Let the computer send
- Sending speed depends on conditions
- Cut Numbers
  - Sometimes OK, sometimes not
- Practice
  - CW is a learned skill that improves with practice





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# Pileups

## Smart Beats Loud!

- Do Call:
  - When doing so will add more to your score than doing something else
  - When you need the station
  - When you have a reasonable chance of being able to work him
- Don't Call:
  - When he is calling something that is not you ("KC1XX 59935", or "QRZ Asia?")
  - When he is listening outside of the US phone band
  - (Watch out for packet spots, If no other US is calling it might be a clue!)
- Don't be a jerk:
  - Don't call out of turn
  - Don't transmit when he's transmitting

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# Pileups

- Call **when** he will hear you
  - When he is listening
  - When someone louder isn't calling
- Call **where** he will hear you
  - Within his passband
  - Where no louder stations are calling
  - When grabbing spots from the cluster, use XIT to move your frequency a bit off the pile.
- Call in a way that he can **understand**
  - Use standard phonetics
  - Select standard to control call length
  - "Kilo One Zulu Mary" or "Kilowatt One Zanzibar Mexico"



# Search & Pounce (S & P)

- If assisted, use point & shoot on bandmap – should be able to achieve very good rate, especially first time on the band.
- Use VFOs or Scratchpad Memories to 'stack up' stations; quickly 'leapfrog' through them to optimize timing
- When S&Ping, treat all open bands like one big band – keep going 'around the horn'



# During the Contest

- Avoid any frequency fights with nets or a\$\$#@!&s. It takes too much time; it upsets your flow, and it could give you, YCCC, or testers a bad rep.
- QRM can be your friend! Often it can cover up rare DX – work through it for the mult!
- When running, be prepared for rare ones to call in – you must believe! As hard as it can be to believe a VU2 is calling you while you are running EU, it happens!





# During the Contest

- Watch out for phantom rates. If you find a lot of stations coming back to you in a run are giving your callsign, you might be coexisting on the frequency with another loud US station that you can't hear.
- Worse yet, DX stations could be working them instead of you, which means all your Qs are NIL for their logs! If you hear stations calling, QRX a minute to see if they are working another station on the frequency. If so, move!



# Focus on Having Fun

- Challenge yourself to make it more fun. Saturday AM on 20 is fun; Saturday afternoon on 10 is more fun; 80 and 160 after European sunrise can be 'less fun'. Find ways to challenge yourself and your ops to make it fun. Use Getscores, find a partner station, and try to compete with them in real time.



# During the Contest

- Always keep going! No matter what happens, keep on trucking. If something breaks, switch in the backup gear. If that breaks, run barefoot.
- Don't get distracted by fixing hardware that doesn't work. Swap it out or do without, just keep running!



# Accuracy Matters

- Many contests have a penalty for errors
  - Loss of QSO
  - Loss of QSO + 2x penalty
- Errors happen
  - Focus on yours and how to prevent them
  - Post contest "log washing" is not an acceptable practice
- Know who you are calling
  - NEVER NEVER TRUST CLUSTER SPOTS!
- Does the prefix or timing make sense for the situation?
- min 1500 Ask for repeats if you are not sure





# After the Contest

- Transfer any correction notes MADE DURING THE CONTEST PERIOD to your log
- The CLUB field of the Cabrillo Log MUST say 'Yankee Clipper Contest Club' (do not abbreviate YCCC)
- At multi-ops, make sure Soapbox indicates % of operators' share goes to the Yankee Clipper Contest Club (and spell it out!)
- Dump a summary sheet (.txt) and a Cabrillo log from your logging program
- Go to [www.hornucopia.com/3830score](http://www.hornucopia.com/3830score) and fill in from summary sheet, post to 3830
- Post your summary sheet to YCCC email reflector and send a copy to [scores@yccc.org](mailto:scores@yccc.org)



# After the Contest

- Send your log to the sponsor's robot according to the instructions in the rules. **MAKE SURE YOU GET A GOOD ACKNOWLEDGEMENT FROM THE ROBOT!**
- CQWW DEADLINE -> FIVE DAYS AFTER THE CONTEST!!
- ARRL DX DEADLINE →
  - CW: February 21-22 (Submit logs by March 28)
  - SSB: March 7-8 (Submit logs by April 8)
- You can resubmit the log with changes, updates up to the close of the submission period.
- Send a Thank you email with final results to your guest ops or host.
- Make notes on what worked and what didn't for next time.



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# Open Discussion

**See you in the Pileups!!**

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