#### You're Licensed: Now What?? -- Prepared By Daryl Stout, N5VLZ



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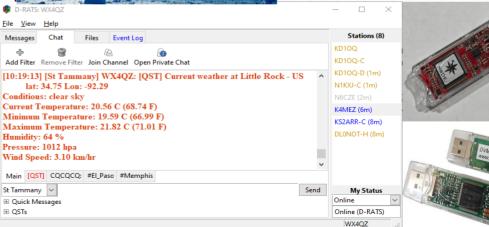
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#### Usage Of This Presentation

- This forum was originally done at the Central Arkansas Radio Emergency Net (CAREN) Club hamfest in Little Rock, Arkansas (that hamfest ended after 2016), and the information has been revised over the years. It was last done at the 2020 Arkansas River Valley Amateur Radio Foundation (ARVARF) Hamfest in Russellville, Arkansas (the last hamfest done in 2020, before COVID-19 shut everything down for a time). That hamfest has since moved to nearby Dardanelle, Arkansas.
- Material gathered is from personal experience and ELMERING from other hams, since I first became licensed in 1991, plus from memberships in several amateur radio clubs and organizations over the years.
- The idea for this forum presentation came from a forum at the Austin, Texas Summerfest several years ago; and because there's NOTHING in the Question Pools covering net/on-air etiquette, among other items; never mind that most clubs don't ELMER new ham radio licensees on much of the material which will be covered in this forum. Then, we wonder why these new hams have such poor operating habits, and labeled as "lids".
- You're free to use this info, created with LibreOffice, and exported to PDF, at hamfests, club meetings, etc., with the stipulation that I'm given credit for the information...and unless certain rules and technologies are changed in the hobby, none of the information herein is changed. Please email me (my email is good on QRZ), with any changes, so I can update the presentation accordingly. I greatly appreciate both your understanding and cooperation in this.
- As a side note, in ham radio, "hi hi" is known as "the telegrapher's laugh". Be serious enough to obey the rules, but have a sense of humor if you can't laugh at yourself, you have a lot of problems.
- I don't care what your license class is, whether or not you did a CW exam, how long you've been licensed, or how much time you are on the air. Ham Radio is a HOBBY, although some consider it an obsession (basically, "Do you, Ham, take Radio, to be your lawfully wedded spouse??" (hi hi)).
- While there are many good things in the hobby, near the end of the forum is a list of things that will destroy it, and a club. We do NOT want or need individuals who do these things in the hobby, let alone in a ham radio club. There are also noted three ways to deal with these who want to break the rules, and to destroy both the club and the hobby.
- Content last updated Mar. 20, 2024 presentation redone due to recent changes, reverting back to my original amateur radio callsign from 32+ years ago, information/net updates, addition of materials, revision of the eQSL card, and loss of the original file.

#### About This Forum – Topics That Will Be Covered

- For prospective, new, or long time ham radio operators, this is a brief, but comprehensive overview of the hobby.
- Topics covered include (not necessarily in this order) What You CAN and CAN'T do, FCC Notices and Visits, Where Compensation Is Permitted, Licensing and Exams (including dealing with COVID-19), The Amateurs Code, The Felony Question, Your Amateur Radio Callsign, Vanity Callsigns, When You Can Start Operating, On-Air Etiquette, Nets (including Net Controls and Various Net Themes (not all of them deal with amateur radio)), Sample Trains Net and Wouff Hong Certificates, Skywarn ® Weather Net Reportable Criteria, Logging Programs, Repeaters, Autopatch, RF and VoIP, Traffic Handling And Precedences, Gear, QSL Cards, The ARRL ®, Clubs, The Un-Club, Hamfests, Selected Amateur Radio Websites, Public Service Events, Tower and Shack Safety, HamTestOnline ™, "Poor Operating Is Destroying Us", "15 Ways To Kill Your Ham Radio Club", plus The Wouff Hong, Rettysnitch, and Ugerumph. You can also find my contact info, plus several ham radio related PDF files at http://www.wx4qz.net/elk.htm
- It's our job to get hams into the hobby, and ELMER them (the highest compliment for a ham), on the operating etiquette, shack safety, learning new modes, operating above reproach, and more. What you do OFF THE AIR is YOUR BUSINESS. If you don't like a ham you hear on the air, you can either ignore them, change the frequency or mode, not use that frequency or mode anymore, or power down your radio or computer.
- The world, ham radio, nets, etc. do NOT revolve around you, me, or anyone else. The hobby should NEVER take priority over church, health, family, job, or "honey-do's" (otherwise, that rig you had your eye on for your birthday or Christmas, is going back to the candy store (hi hi)). Years ago, an FCC official noted that "we're communicators first, and hams second".
- If done as a forum, the presentation lasts around 90 minutes or so, with a 10 minute intermission. More info is available from The ARRL Operating Manual (next slide) from The ARRL Store.

#### The ARRL Operating Manual – available at The ARRL Store

THE ARRL

### OPERATING OPERATING MANUAL

**FOR RADIO AMATEURS** 

**Everything for the Active Ham Radio Operator** 

Volume 1 — Basic Station and Operating Techniques

Volume 2 — Radio Clubs and Public Service





THE ARRL

# MANUAL

FOR RADIO AMATEURS

**Everything for the Active Ham Radio Operator** 

Volume 3 — On-Air Activities and Radiosport

Volume 4 — Resources for the Active Ham



#### Credit Where It's Due (1)(SK=the ham has passed away (is a Silent Key))

- The Lord Jesus Christ, for giving me the knowledge on the exams, and for this presentation info.
- The late Ken Zeigenbein, for several caboose photos at the end of the forum.
- Frank Rentja, K3VRM (SK) my late uncle, for the love of ham radio and trains.
- Bob McHugh, N4BM (SK) Ham Radio Etiquette.
- Paul Segal, W9EEA (SK) The Amateur's Code.
- Christina Cunningham, KT1NA (SK) Encouragement with HamTestOnline ™
- K.O. Higgs, N0KFQ (SK), Billie Higgs, KB0WSA (SK), Bob Smith, NS2B, and Jim Obenhofer, KN6PE –
  Packet and Outpost.
- Gunter "Lindy" Lindermeier, WW5AA (SK) encouraged me to become a Volunteer Examiner (VE).
- Bob Hancock, KB5IDB the first of my many Elmers since 1991.
- Patrick Connor, N3TSZ, and Lew, KB5HPT help with D-Rats.
- Elmer Delgado, W5SLG, John Davis, WB4QDX help with D-Star.
- Jeff Bishop, VE6DV, and Paul Miller, ZL2BEZ help with the QuadNet Array and TGIF.
- Larry Jones, NN4H, and El Erby, K4DJL help with Netlogger.
- Ross Goodall, WD4NJV, Billy Williams, N4UF, and Nigel Peacock, G4KIU some famous hams.

#### Credit Where It's Due (2)(SK=the ham has passed away (is a Silent Key))

- Mike Yuhas, AB9ON for permission to use one of his photos with my current eQSL card.
- J.J. Barnes, N5WWL, and Gary Kuhn, VE6DZ for help in setting up the SharkRF OpenSpot 4 Pro Hotspot.
- Steve Reiners, KC9SIO for keeping the legacy of "The Queen Of D-Star", Connie L. Ballantyne, KB0ZSG (SK). She started the International D-Star Net several years ago, and lost her valiant battle with breast cancer in early 2020. Steve continues the net in her memory on Reflector 91 Connie (91C) every Sunday night at 7pm US Central Time. I never met her, but heard she gave the best hugs, and made the best cookies.
- HamTestOnline™ -- the best money that I ever spent in amateur radio. They offer study and practice tests for the US Ham Radio License Exams, and offer a MONEY BACK GUARANTEE if you fail the exam. I studied 2 hours a day for 2 weeks, and went from Technician to General in 14 days, and from General to Amateur Extra 13 days later. Their website is at https://www.hamradiolicenseexam.com -- Christina Cunningham, KT1NA (SK) used the site and passed all 3 of the US Ham Radio Exams (Technician, General, and Amateur Extra) in the same session!!
- Various Ham Radio Websites and publications.
- "The Sets In Order" square dance publication (from March, 1966), for the article that "15 Ways To Kill Your Ham Radio Club And The Hobby" (near the end of the forum) was based on.
- Everyone in attendance here today, or those who are viewing this PDF file.

#### A Little About The Author, Daryl Stout, N5VLZ

- First licensed in 1991, under the No Code Technician license, as N5VLZ.
- After the FCC dropped the Morse Code exam requirement in early 2007, I used HamTestOnline ™ to upgrade from Technician to General in 14 days, then from General to Amateur Extra 13 days later. I upgraded to become a Volunteer Examiner (VE) with ARRL/VEC, and have done over 210 license exam sessions since late 2007. I'm the VE Team Leader for the University Of Arkansas At Little Rock (UALR) Ham Radio Club, and we test 4 times per year (usually in March, May, July, and October)...see the file at http://www.wx4qz.net/elk.htm for details.
- Changed my callsign to AE5WX in mid-2009, to WX1DER in late 2012, to WX4QZ in early 2019, and back to N5VLZ in late 2023. The original emphasis was weather...then it was trains (http://www.wx4qz.net/rxr.htm). However, I was square dancing 5 years before I got licensed...hence the square dancers on the QSL card, and I've "returned to my ham radio roots", callsign wise. Plus, at 2 square dance events over the years, I've used amateur radio to save the lives of individuals. I'm as much involved in square dancing, with the Arkansas State Square Dance Federation (https://www.arkansassquaredance.com), as I am in amateur radio. Details on my other callsigns and their emphasis are on the next slide.
- Started doing nets in 1991, Packet in 1996, Echolink in 2006, D-Star in 2012, and Winlink 2000 in 2020.
- Webmaster: Cabot Nightflyers Net (it's on extended hiatus right now), and Hammin' In The Park.
- Life Member: ARRL ®, Handi-Hams ™, Quarter Century Wireless Association (QCWA ®), and the Portage County Amateur Radio Service (PCARS) Club (Ravenna, OH).
- Member: PDRA (Philadelphia, PA), MDARC (Memphis, TN)(affectionately known as "the DARC side of digital"), plus QCWA Chapters 79 (Wichita, KS), and 85 (Shreveport/Bossier City, LA).
- Go to http://www.wx4qz.net/elk.htm for spreadsheets of selected Echolink, D-Star, and D-Rats Nets, in the 4 US
  Time Zones, plus PDF files related to amateur radio (appropriate utilities required to view). Also on that page is a
  PDF file with my contact information via email, my computer BBS, Echolink, CQ100, D-Star, D-Rats, and Packet Via
  Telnet.

#### My Callsign History, Emphasis, and Their Usage Over The Years

- N5VLZ I was in the hobby of square dancing 5 years before I obtained my amateur radio license. The "alternate phonetics" were square dance moves: "Now", "Five", "Veer Left", and "Zoom". It has the same syllabic emphasis as K-R-A-F-T for the commercial for some of their many food products...such as mayonnaise for a ham sandwich; and if you eat ham, you're being "cannibalistic" (hi hi). I can be reached on Winlink 2000 with email to n5vlz@winlink.org
- AE5WX Skywarn Severe Weather Operations was what got me into amateur radio in 1991, and I ran several weather nets over the years, at all hours of the day and night. It stood for "Arkansas' Extreme 5-Land Weather" (Arkansas is in the 5<sup>th</sup> ham radio call district). Indeed, Arkansas has had all kinds of severe weather...from tornadoes, large hail, damaging wind, flooding rain, remnants of tropical storms and hurricanes, snow and ice storms in the winter, as well as temperature extremes (below zero in winter to above 110 in the summer). However, in the spring of 2019, I got BURNED OUT on weather, and nearly quit the hobby. I no longer use this callsign in any of my correspondence or activities.
- WX1DER Named after a series of weather features I did when I was in college at the University Of Arkansas At Little Rock (UALR) from 1978 to 1983). I originally was a Music major and a Math minor...but after the first year, I changed to a Radio/TV Film major and a Music minor. I never dreamed my "radio" would end up as "amateur radio". The weather features, patterned after "A Meteorological Minute" done by The Weather Channel, were entitled "A Weather Wonder"...because "We analyze data, forecasts, and text but, wonder what weather will happen next". Indeed, meteorology is an inexact science, with over 2 dozen computer models and ensembles, that change "solutions" with their issuance 2-4 times a day. I'm not a meteorologist, but an amateur weather enthusiast. Yet, I know enough to be dangerous, and "I did stay at a Holiday Inn Express last night" (hi hi). My personal email address uses this callsign, as I have so much tied up in it, that it made no sense to create a new account. Plus, my email provider requires 6 characters in the email prefix. I can be reached via email to vhfnetmanager@qcwa.org -- replies will come from my personal email address.
- WX4QZ Patterned after railroad crossing safety, it stands for "Whistled Crossings For Quiet Zones". Some railroads use a "W", and some use an "X" on "whistle boards" to alert the train engineer of a highway grade crossing ahead, and to sound the whistle/horn, to alert individuals of the trains approach. The laws of physics and intertia dictate that the train can NOT stop quickly to avoid a collision, nor can it steer out of the way. "Quiet Zone" is where the horn/whistle isn't sounded, unless in the event of an emergency, Maintenance Of Way (MOW) crews working trackside, or meeting a train on a a parallel track. This is part of the URL for my personal homepage, as it was too costly to change the domain, and too tedious to change all the HTML files. However, I'm a strong proponet for railroad crossing safety...details are at http://www.wx4qz.net/rxr.htm
- Pictures of the QSL and eQSL cards that I've had over the years are noted later in this forum.

### Brief Weekly Amateur Radio Net List for N5VLZ Checkins usually start 30 minutes prior to the nets noted.

- Sunday afternoon QCWA Digital Net on XRF 757A on the QuadNet Array (4pm Central).
- Monday evening The PCL Net on the NS2B BBS (7pm Central) (see note below).
- Tuesday evening Arklatex D-Star Net on REF 48 B (backup REF 73 B) (7:30pm Central).
- Friday evening Trains And Railroads Net on XRF 757A on the QuadNet Array (7pm Central).
- Saturday Morning QCWA Sunflower Net on the Sunflower Net (9am Central).
- Saturday Afternoon -- The Pun In Life Net on XRF 757A on the QuadNet Array (3pm Central).
- No nets are scheduled to be run for either Wednesday, Thursday, Saturday, or Sunday evenings.
- For the QuadNet Array, go to openquad.net for connection options.
- For the Sunflower Net, go to sunflowernet.us for connection options.
- For The PCL Net, contact Bob Smith, NS2B, via email or Winlink 2000, for details. The PCL Net does NOT meet on Mondays of the weeks of Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas, and New Years Day.
- Note that other nets may be cancelled due to major holidays, if I have thunderstorms in my area, internet connectivity issues, or health related issues.

#### Some Famous Hams (1) – some are former hams, or Silent Keys

- ARRL Founder, Hiram Percy Maxim, W1AW
- King Hussein of Jordan, JY1
- Queen Noor of Jordan, JY2
- The Amateur's Code Author, Paul Segal, W9EEA
- Musician Chet Atkins, W4CGP
- Former CBS News Anchor Walter Cronkite, KB2GSD
- 1 time Arizona Senator Barry Goldwater, K7UGA
- 1 time Arkansas Senator Mike Ross, WD5DVR
- 1 time Oregon Senator Greg Walden, W7EQI
- Joe Walsh of "The Eagles", WB6ACU
- Blind country-western singer Ronnie Milsap, WB4KCG
- Black Gospel Singer Larnelle "Stu" Harris, WD4LZC (I understand he loves Morse Code)
- Retired Major League Baseball Player Joe Rudi, NK7U
- Nobel Prize Winner in Physics, Doctor Joe Taylor, K1JT
- First licensed ham in the US, Irving Vermilya, W1ZE
- Actor Marlin Brando, KE6PZH/FO5GJ
- Singer Burl Ives, KA6HVA

#### Some Famous Hams (2) – some are former hams, or Silent Keys

- Inventor of the Moog Synthesizer, Robert Moog, K2AMH
- Former Governor of Maine, John Baldacci, KB1NXP
- Former Governor of New York, George Pataki, K2ZCS
- Inventor of Stereo Sound System, Hazard Reeves, K2GL
- Writer and Humorist Jean Shepherd, K2ORS
- Electronic Siren Inventor, Jay Kolinsky, NE2Q
- Co-inventor of printed circuits, Robert Cusumano, W2SGG
- Radio news correspondent, Jamie Dupree, NS3T
- Member of .38 Special, Larry Junstrom, K4EB
- Country-Western singer Patty Lovelace, KD4WUJ
- Musician Jim Croce, WN3OQW
- Broadcaster Arthur Godfrey, K4LIB
- Game Show Host Hugh Downs, KB6WUS
- Band Leader Tex Beneke, K0HWY
- Heil Sound founder, accomplished pianist and organist, and member of the Rock And Roll Hall Of Fame, Bob Heil, K9EID
- Founder of the Amateur Radio Newsline ®, Bill Pasternak, WB6ITF
- And, last...but certainly not least...

## The Queen and Princess of D-Star: KB0ZSG (SK) and KE8JNU Connie Ballantyne (SK) and Danielle Edgington



#### Some Of What You Can Do In Amateur Radio

- General chat (ragchewing) ham radio operators love to talk.
- Involvement with on the air nets, as a checkin, or as a Net Control Station (NCS).
- Emergency Communications (you could end up saving someone's life).
- Send, receive, and deliver Free Radiograms (Formal Writen Traffic).
- Public Service Events (parades, bike-a-thons, marathons, etc.).
- Make friends with ham radio operators, both locally, and around the world.
- Travel to hamfests for "eyeball QSO's".
- Investigate radio signal propagation mysteries.
- Design, build, and modify your station gear (Do It Yourself (DIY)).
- Win awards for contesting, or for proficiency in Morse Code speed.
- Operate a wide variety of modes (RF, VoIP, voice, and digital).
- Teach a license class, or conduct forums (at a meeting/hamfest) on a particular mode in the hobby.
- Give and grade license exams as a Volunteer Examiner (VE).

#### Selected Ham Radio Websites To Visit

- FCC CORES Registration: https://apps.fcc.gov/cores/userLogin.do
- Vanity Callsign Information: https://www.arrl.org/vanity-call-signs
- The Felony Question: https://www.arrl.org/fcc-qualification-question
- What To Bring To A License Exam Session: https://www.arrl.org/what-to-bring-to-an-exam-session
- Amateur Radio Question Pools: http://www.ncvec.org/page.php?id=338
- Amateur Radio Newsline ™: https://www.arnewsline.org
- American Radio Relay League (ARRL)®: https://www.arrl.org
- Echolink VoIP Linking: https://www.echolink.org
- CQ100 (VoIP): https://www.qsonet.com
- Outpost Packet Manager: https://outpostpm.org
- QRZ Callsign Search: https://www.qrz.com
- Ham Radio Outlet: https://www.hamradio.com
- Gigaparts: https://www.gigaparts.com
- DX Engineering: https://www.dxengineering.com
- MFJ Enterprises: https://www.mfjenterprises.com
- HamTestOnline: https://www.hamradiolicenseexam.com
- Handi-Hams: https://www.handiham.org
- Quarter Century Wireless Association (QCWA ®): https://www.qcwa.org
- Netlogger Homepage: https://www.netlogger.org
- EQSL Homepage: https://www.eqsl.cc

#### Licensing And Exams

- As long as you're NOT a representative of a foreign government, have a US Mailing Address, an email address, and a Federal Registration Number (FRN), you can take the necessary exams. You MUST provide your Social Security Number (SSN) to the FCC CORES website (noted on previous slide) to get an FRN, and you MUST do it before the exam session itself.
- No Morse Code exam; 3 levels Technician, General, and Amateur Extra. Multiple choice exams are taken from Question Pools in the public domain, prepared by the National Council Of Volunteer Examiner Coordinators (NCVEC), that change every 4 years, with changes in technology or rules. Questions are supplied by General Class hams and above, dependent on the exam and license class. The Question Pools are at least 10 times the number of questions on the exams...likely more.
- Technician and General exam: 35 questions each, must answer 26 correctly to pass. Amateur Extra exam: 50 questions, must answer 37 correctly to pass. The Novice and Advanced Class Licenses and Exams were eliminated in April, 2000; but holders of these may still renew them at the appropriate time...or upgrade to a higher license class, if desired.
- If you have a FIRM GRASP on the topics of rules, regulations, frequencies, propagation, modes, and RF Safety, you can basically FORGET about the math, formulas, and calculations...although you should, at minimum, know Ohm's Law, and the basic metric system structure.
- There is NO DISGRACE IN FAILING; if you miss passing by 4 or less, you can possibly re-test with another exam fee, and with a different question set...or you can study more, and try again another day. Be sure you're studying the current effective dates of the desired Question Pool for your license exam...as noted, they CHANGE every 4 years.
- Per Part 97.511 of the FCC Rules, examinees MUST comply with all instructions from the VE Team. Cheating, in ANY form (including trying to bribe the VE Team to certify your exam fraudulently), will NOT be tolerated!!
- Special assistance is available for those with a handicap or disability. Medical documentation may be required if the disability isn't obvious. Contact the VE Team Leader before the session to arrange such.
- If the license has lapsed (expired more than 2 years), they must pass the Technician exam, to get licensed again, with a new callsign. More information on former General, Advanced, or Extra Class licensees, is on the next slide.

#### Recent US Ham Radio License Changes

- NCVEC Form 605 must be dated July, 2022, or later. A Federal Registration Number (FRN) must be obtained BEFORE the exam session, by going to the FCC CORES website, and providing the data, plus one's Social Security Number (SSN) – you can NOT provide the SSN at the exam session.
- Examinees must provide an email address the FCC no longer mails out paper copies of the license.
- Besides the exam fee (varies by VE Team), new or renewed ham radio license, or vanity callsign requests, must pay a \$35 fee to the FCC within 10 days of the exam session or renewal/request, or the license grant is dismissed as "defective". There is NO FEE for a sequential callsign change request, or for a license class upgrade.
- Examinees 17 years of age or younger, can get a reduced \$5 exam fee through ARRL/VEC (proof of age required), and they will be reimbursed for the initial \$35 fee by ARRL/VEC once their callsign has been granted by the FCC. Note that the reimbursement is valid ONLY for the initial callsign grant...if they decide to apply for a vanity callsign, they will NOT be reimbursed for that, or for when the license comes up for renewal.
- Examinees must answer "The Felony Question", on whether or not they've been convicted of a felony in state or federal court. If the answer is YES, all pertinent documentation must be provided to the FCC within 14 days, or the license grant is dismissed. A "yes" answer doesn't immediately disqualify you; it all depends on the circumstances which surround the conviction. More details on this topic can be found at https://www.arrl.org/fcc-qualification-question
- As noted, if one's license is expired more than 2 years, and they formerly held a Novice or Technician Class license, they're "starting over". If one formerly held a General or Amateur Extra Class license, providing proof of that license, and passing the Technician exam, gets credit for that former license with a new callsign. Former Advanced Class licensees are DOWNGRADED to General, with the passing of the Technician Class exam. They can get the "Advanced Privileges" back, and the privileges with the Amateur Extra Class license by also passing the Amateur Extra Class exam.
- Morse Code exams were ELIMINATED for US Ham Radio Licenses on Feb. 23, 2007.

#### COVID-19 and the Amateur Radio Hobby

- COVID-19 has caused widespread changes/cancellations to ham radio license classes, exam sessions
  meetings, hamfests, etc., with social distancing and other issues...and it appears that it won't be going away
  anytime soon.
- With new variants each year (just like with the flu), one should keep up with immunizations; but it's YOUR CHOICE to take the shots or not. Like with all injections, it won't keep you from getting the disease, but what you get may be far less serious than "a full blown version".
- Some VE Teams are doing "remote testing", but additional logistics are required, in regards to verifying examinee identity, getting exam fee payment, preventing cheating, grading exams, and dealing with the paperwork needed. Some teams will do a "drive-thru/drive-up" session.
- Other teams are staying with "in person" sessions, but extra cleaning/disinfection procedures may be required...including the wearing of masks, and other items...whether or not one has contracted Covid-19 (once or several times), or has had the injections (regular, and/or booster).
- Check with the VE Team Leader before the session for details. VE Teams are NOT required to do "Remote Testing". In all cases, "social distancing" may need to be observed. And, please call before you travel to the session, in case of a last minute cancellation.
- Some VE Teams, considering the age and health of their members, may decide to abandon license exams entirely, as "it's just not worth the hassle".
- If you've had Covid-19, or been around someone who has had it within 14 days of the exam session, or if you have a fever, flu-like, or other illness/symptoms, on exam day, please stay home!!

#### How You Did On The Exam/Finding An Exam

- Cheating, in ANY form, will NOT be tolerated!! If caught, your exams are all marked as FAILED, you are dismissed from the session, it could affect your ability to re-test
  later, and you could be turned into the FCC and the VEC as "a character issue". You're either ready to take the exam, or you're not. Please do NOT put yourself or the
  VE Team into an embarrassing situation.
- Once you have your license and callsign, it's no one else's business how many times it took you to pass the exam, or what your score was...whether you made a perfect score the first time or not doesn't matter...as long as you passed the exam(s) legally.
- As noted, there is NO DISGRACE IN FAILING. The guy or girl who graduates DEAD LAST in Medical School...is STILL...a doctor!! However, I might not want them doing a prostate check (males) or a pelvic exam (females)..,but, if you don't have your health, you have nothing!!
- Licenses are good for 10 years, and can be renewed from 90 days before expiration, to 2 years after expiration (you can't transmit if the license is expired). You can modify the license for a change in name, email, or mailing address, at any time. You do need to keep your mailing and email address current with the FCC, or your license could be revoked. Then, if you transmit on a revoked license, you could be hit with a substantive monetary fine.
- To find a license exam, go to https://www.arrl.org -- click on Exams, then click on Find A License Exam Session. Enter the desired criteria (such as STATE), and click search. Once you find a session that meets your liking in regards to schedule, contact the VE Team Contact Person to register (some sessions allow walk-ins, some require pre-registration, and some will allow both). The number of examinees at a session may be limited...so, register early if possible. In most cases, you can cancel at the last minute, if something else comes up. If you cancel, and you pre-paid, your money will be refunded.
- You'll need to bring a Photo ID or 2 forms of non-photo ID (utility bill, bank statement, piece of mail address to you). Those under 18 can bring the original copy of their Birth Certificate (with the official seal attached), a school library card, or a minor's work permit. All original ID documents will be returned to the examinee after examination by the VE team.
- if applicable, the original and a copy of your ham radio license (current or expired)...plus the original and a copy of any applicable Certificate Of Successful Completion Of Examination (CSCE) from a previous exam that's not reflected on the license...as well as the proper exam fee (cash, check or money order, payable to the appropriate VEC). If paying in cash, exact change is appreciated. Note that if your check for the exam fee to ARRL/VEC bounces due to insufficient funds, they may choose not to process your license exam results.
- Note that not all exam sites will have access to copiers, etc. to make copies of the needed items. The examinee gets to keep the original of the ID documents, ham radio license and CSCE's. The copies of the ham radio license and CSCE will be sent off with the exam results.
- Calculators can be used, provided they have no memory resident formulas (the VE Team will inspect them to be sure). The VE Team should have portable calculators available for loan, as well as pens, pencils, and scratch paper...all necessary paperwork is provided. Cellphone usage during the exam is PROHIBITED, and they should be turned off and put away.
- Use the restroom before starting the exam (nature tends to call at the most inopportune time). Before you leave the room, you have to turn everything in...then when you get back, you have to pay another exam fee, and take the exam with a different question set.
- Note that if you do NOT provide proper ID (photo ID or 2 forms of non-photo ID), a Federal Registration Number (FRN)(you can NOT use a Social Security Number at the exam session), or the exam fee...you will NOT be allowed to take the license exam(s).

#### Privacy And Your Ham Radio License

- Prospective and current licensees should be aware that some of the information you provide will be available via callsign databases, and in the public domain. These include your Full Name, Callsign, License Class, Mailing Address, Federal Registration Number (FRN), Felony Conviction Status (noted earlier), and dates of various transactions, administrative review status, etc.
- Callsign Search Databases are on the QRZ and ARRL website, among others. Some countries have it where the ham radio operator has requested that their data not be made viewable. Data is on the FCC ULS website first, then sites such as QRZ and ARRL from 24 to 48 hours later.
- As noted earlier, you must go to the FCC CORES website BEFORE the exam session, to supply data and your Social Security Number (SSN), to receive an FRN. Once you receive the FRN, it's yours for LIFE, even if your ham radio license expires or lapses (expired more than 2 years).
- Your SSN, Date Of Birth, and Email Address, are NOT public domain, and are NOT available to the general public.
   On the QRZ website, one has to be logged in to view your email address, if you supplied one. However, I have noted that several amateur radio operators email address on QRZ are WRONG/INVALID.
- If you don't wish to list your street address, or street address with an apartment number as your mailing address, you can use a US Post Office Box as the mailing address. Fees for the Post Office Boxes vary depending on the size of the box, and for how long the contract (in 6 month or 1 year increments), and they can be rather expensive. Note that you can only renew the Post Office Box within 30 days of expiration. Failing to renew it before expiration means you'll have to pay a hefty service fee, and the locks are changed, to where your keys won't work anymore. Normally, without a key, you can NOT access the Post Office Box, even if you have mail waiting. A Smartphone app is available for you to check if you have mail waiting; if not, you don't need to make a trip there. However, that app data may not always be accurate. If the box "fills up" (you don't check it that often), you'll need to go to the front counter during their regular business hours to obtain all your back mail.

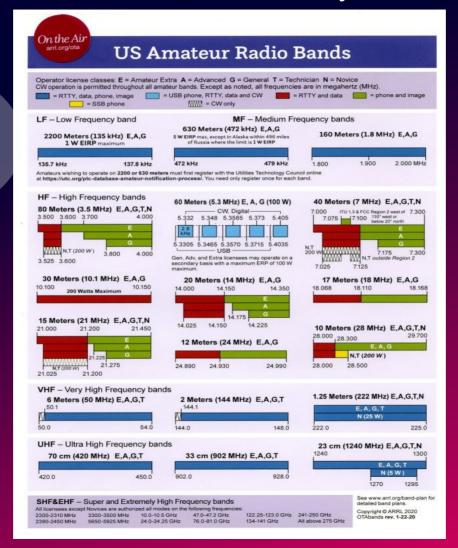
#### Your Amateur Radio Callsign

- This is what you are known by on the air, to the FCC in the US, and to your country's amateur radio regulatory agency. You are the ONLY one in the world with that particular callsign.
- Your first callsign is SEQUENTIAL. It's picked from a sequence for the particular callsign group...and you have NO CHOICE as to what your first callsign is, except for the license class that you earn at the exam session (for the US and its territories, it's either Technician, General, or Amateur Extra).
- If you like the callsign that you're issued, KEEP IT. You are under NO OBLIGATION to change it to a new sequential callsign, or to request a Vanity Callsign. I know several amateur radio operators who still have their original callsign (even at the Novice level) that was granted by the FCC. You are also under NO OBLIGATION to upgrade your license.
- Requests for a Vanity Callsign can be done ONLY after you receive your first callsign. There is a \$35 fee for each vanity callsign request made (be sure you're going to keep that call, or you have to pay another \$35, and start the process over), and there is an 18 to 21 day waiting period after application, and before it's granted. Once the vanity callsign is issued, your former callsign is no longer valid.
- Vanity Callsigns are LIMITED by the class of amateur radio license that you have, whether or not the callsign is currently in use, or is available for request (certain callsign groups aren't available). You can also go back to a callsign that you held previously, if it's still available (I did just that), as long as your license hasn't lapsed.
- As noted, if your previous amateur radio license lapsed (expired more than 2 years), and you go to an exam session with proof of a prior license class (if General, Advanced, or Amateur Extra), and pass the Technician exam; after you get a new sequential callsign for that license class (Advanced is downgraded to General), you can apply for your former callsign under the Vanity Callsign system, if it's still available. Full details are at https://www.arrl.org/vanity-call-signs

#### When You Can Start Operating

- As soon as your callsign shows up in the FCC ULS. Some VE Teams can get your callsign processed in as little as 24 hours during the week, or the first business day after the weekend or holiday. Otherwise, the usual processing time can be from 1-2 weeks (before the FCC ULS was in place, it took 2 months or longer).
- If a new or renewed license, or vanity callsign request, the FCC will email you, requesting payment of a \$35 fee to a provided link within 10 days, or the license grant is dismissed. Once you've paid that, you'll get a second email, detailing the PDF copy of your license, that you can download and print (that link is good for 30 days). If you were upgrading your license, or requesting a sequential callsign change, you'll only get the email detailing the PDF copy of the license...as there's no charge for an upgrade or sequential callsign change.
- Be sure to sign the document (one for wallet size, and one for a frame), as it's not valid without your signature. Be sure to keep your email address and mailing address current with the FCC, as your license could be SUSPENDED or REVOKED if mail sent to you from the FCC bounces back to them as "undeliverable".
- As noted, your first callsign is SEQUENTIAL whether as a first time licensee, or one getting a new license because the
  former license was expired more than 2 years. You can keep that callsign, or apply for a vanity callsign (\$35 fee). Special
  rules/restrictions apply for vanity callsigns, and some callsigns may not be available. Once you have the new callsign
  (sequential or vanity), your former callsign is no longer valid.
- There is NO FEE for a SEQUENTIAL CALLSIGN CHANGE REQUEST, an UPGRADE of your amateur radio license, or for a change in your name, email, or mailing address.
- When you pass an exam, you'll get a Certificate Of Successful Completion Of Examination (CSCE), good for 365 days. Once your license is granted, you can keep the CSCE as a novelty, or discard it.
- If you already have a license and callsign, when upgrading, special suffix identifiers let you use the new privileges immediately. You can operate in the class of your license or below it, if you desire (you're an Amateur Extra, but you choose to operate in the Technician Class privileges). Obviously, you can NOT operate in the license class ABOVE your license; although with the US Class Licenses, the Amateur Extra is at the top, and it has ALL amateur radio operator privileges.

#### US Amateur Radio Band Plans By License Class



#### FCC Visits And Notices

- If contacted for an inspection, you MUST allow them to inspect ALL of your shack (gear, antennas, computers, power supplies, etc.).
- Refusal may result in confiscation of your gear, revocation of your license, an expensive monetary fine, and you could end up being arrested and jailed.
- Both FCC officials and Law Enforcement officers could show up at your residence, with warrants for your arrest and equipment.
- Notices Of Violation, or Notices Of Apparent Liability (for forfeiture or otherwise), from the FCC, require
  a response with 10 days of receipt.
- Similar Notices from the Virtual Monitors (VM's)...successor to the Official Observers (OO's)...do NOT require a reply.
- If the violation is severe enough, you could be issued a Notice Of Liability For Forfeiture (an expensive monetary fine), a Notice Of License Revocation (you have to explain why your license shouldn't be taken away), and you could be arrested and jailed.
- Fines for unlicensed operation start at several thousand dollars, per offense. Failure to pay means that it'll be turned over to the US Department Of Justice for collection.
- You never know when the FCC or the Virtual Monitors may be listening on the bands...whether RF or "internet".

#### Prohibited Actions: What You Can NOT Do (1)

- Communications for hire or material compensation, paid or promised (limited exceptions do exist, more on that momentarily).
- Communications where you or your employer have a monetary/pecuniary interest (you or they benefit financially).
- Codes or ciphers to hide content. This does NOT apply to AMSAT telemetry commands (we don't want unauthorized people to "bring down" the amateur radio satellites).
- Vulgar, profane, obscene, sexually explicit, excretory (bowel and bladder), or prurient interest (sexual) oriented language. If you wouldn't say it to your Mother, wife, daughter, sister, pastor, or priest...let alone say it in your first grade class...you don't say it on the air; although I've known some women who cussed so much, that they'd make a sailor blush.
- Transmitting outside your license class privileges. On HF, you have to stay 3 kilohertz away from the band edges, to avoid going "out of band". No matter what your license class, there are limits on power output, modes that can be used, and the frequency ranges you can operate on.
- Failure to properly identify your station (the proper way will be noted shortly).
- Repeated callsign change requests (for vanity callsigns, it's \$35 each time).
- Using ham radio in committing a crime (bank robbery, inciting riots, etc.). Both the FBI and the FCC will be after you.
- Malicious interference...on nets or otherwise (more on nets later).
- Communications that can be provided by other services.
- Spurious emissions (harmonics on other frequencies) or "key clicks".

#### Prohibited Actions – What You Can NOT Do (2)

- Music (unless with prior approval of NASA). This includes singing "Happy Birthday" (no matter how badly you sing). However, you can "discuss" musical items such as instruments, time signatures, mathematics and tempos, metronomes, clefs, key signatures, rhythms, notations, various vocal parts, composers, musicians/performers, music terms, theory, styles, music periods, etc., as long as no actual music is detected or noted (no pun intended). The digital mode of JT-65 sounds like a flute; but that's part of the mode itself, and that's permissible.
- Broadcasting/Newsgathering UNLESS the information involves the safety of life, and the protection of property, is directly related to the event, and no other means of communication is available. This is mainly for Skywarn Severe Weather, Hurricane, or Winter Weather Nets, as hazardous weather can occur at any time, day or night, and at any time of the year. Skywarn™ Net "Reportable Criteria" will be noted later in this presentation.
- Listing of ham radio gear to buy, sell, or trade, if done REGULARLY (every day). Listing of "the same few items" is OK...but "rotating gear", every day or otherwise, is NOT (more on Swap Nets later).
- False and Deceptive Signals saying "MayDay" when there is no emergency situation...or when
  passing "routine traffic" when Net Control has specifically asked for "emergency traffic". By definition,
  EMERGENCY TRAFFIC is "Life And Death Urgency To Those Involved Right Now".
- While discussions of politics, religion, etc., are not "prohibited", they're strongly discouraged; as they
  can be "hot buttons" for so many people. These topics can also include discussions on whether one
  uses Morse Code, operates RF or internet radio, how one club operates compared to another, etc.

#### Ham Radio Communications Where Compensation Is Permitted

- In a teaching position at an educational institution (school, college, etc.), with you as the instructor, and amateur radio is the course.
- Club Station, such as W1AW at ARRL Headquarters. It transmits Morse Code practice and ham radio bulletins, for a period of 40 hours per week, on several ham radio bands, to maximize coverage. The schedule of operation is published 30 days in advance.
- Emergency Communications as part of one's job (such as being the Emergency Communications coordinator at a local area hospital).
- There are LIMITS on the length, and when emergency drills that are done by non-government agencies, can be conducted.
- Volunteer Examiner (VE) Teams, and Volunteer Examiner Coordinators (VEC's) who are involved with ham radio license exams, are permitted reimbursement for expenses generated in preparing for, or conducting a license exam session, and mailing costs for sending items back to the VEC via Business Reply Mail. These costs can include supplies (pens, pencils, scratch paper), facility rental cost, or printing, ink cartridge, storage crates for the exam supplies (for those who are "Field Stocked"), and paper costs (for the various forms such as Answer Sheets, NCVEC Form 605, Session Reports, Candidate Rosters, etc.). Some teams will do testing without requesting a reimbursement (certain criteria and limits apply). If the VE has to drive a long distance to get to a session to assist, they can apply for a mileage reimbursement (a certain fee per mile traveled).
- Non-Field Stocked teams must send ALL of the items back to the VEC within 10 days of the session.
- Field Stocked teams (with VEC authorization) can keep the items, to do "on demand exam sessions" on short notice. The main requirement is that the VE Team Leader has already done 4 sessions, and they schedule a MINIMUM of 4 sessions in the upcoming calendar year (their yearly session total can be more than that).

#### The Radio Amateur's Code by Paul M. Segal, W9EEA (SK)

- The Radio Amateur Is:
- CONSIDERATE never knowingly operates in a way to lessen the pleasure of others.
- LOYAL offering loyalty, encouragement, and support to other hams, local clubs, and the ARRL, through which amateur radio in the United States is represented nationally and internationally.
- PROGRESSIVE with a knowledge abreast of science, a well built and efficient station, and operation above reproach.
- FRIENDLY with slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, cooperation, and consideration for the interests of others. These are the hallmarks of the amateur spirit.
- BALANCED radio is an avocation, NEVER interfering with duties owed to family, job, or community.
- PATRIOTIC with station and skill, always ready for service to country and community.
- Originally written by Paul M. Segal, W9EEA (SK) in 1927.
- Note that "ALL ham radio operators were BEGINNERS in the hobby at one time".

#### Notes About The Hobby

- Do NOT let it take priority over church, health, family, job, or especially "honey-do's"; or that rig you have your eye on for your birthday, Christmas, or a hamfest, is going back to "the candy store" (hi hi). Besides, "any hobby can drain you dry, financially".
- You have a reputation to uphold, both on and off the air. Put on a good face for amateur radio.
- There's something in the hobby for everyone. Not every aspect or mode, such as contesting, Morse Code, satellites, public service events, RF or VoIP/internet...will appeal to you the same the way that it does to others in the hobby. You're NOT required to upgrade your license, change your callsign, use a particular mode, be on the air a certain number of hours, etc. If you feel you're doing too much, take a break from certain areas of the hobby, to avoid getting "burned out". If you do get "burned out", take a break from the hobby, and go back into it later.
- Explore the hobby at your own pace. Start a mode or activity, join a club, upgrade your license, etc., only when you're ready. You'll find that you're always learning something with the hobby.
- A male dominated hobby, but women make far more contacts than the men. As one amateur radio operator lamented "My wife can make contacts that I can only dream about!!". The Radio Amateurs Club of Knoxville, Tennessee, has the club callsign of W4BBB. At Field Day one year, this female amateur radio operator (not sure if she was single or married), had a sexy, sultry, voice...said that it stood for "Women For Big, Blonde, and Beautiful". Needless to say, there was "a massive pile-up" of contacts. In other words, if the women are at the mic, and the men are logging, it's "game over" with the contacts (hi hi).
- Be involved with a club or organization, local or national...even if your involvement in those is limited. Besides, health issues may mean reduced involvement in the hobby as you get older. Many clubs today offer meetings via Zoom over the internet, where you can still "be there in spirit", especially if you live far away (in another state) from where the actual meeting is held.

#### On The Air Etiquette (1) – Repeater Or Reflector Use

- Listen to various repeaters to learn of their peculiarities, such as courtesy tones, squelch tails, timeout timers, etc. The "gentlemen's agreement" is 3 minutes, but I've seen the timeouts range from 1 to 4 minutes. However, don't use the repeater (analog) or reflector (D-Star) as "your soapbox monologue". If you talk too long, and don't allow time for the "courtesy tone", the system will likely timeout, and shut down, to avoid overheating/burning out the circuitry. Plus, you may be preventing someone with an emergency situation from breaking in, to request help (put yourself in their shoes). For me personally, I try to limit all of my transmissions to no more than 2 minutes at a time.
- If the system is linked, please allow 5-10 seconds between transmissions, in case a station needs to break in with an emergency situation, and to allow the systems to recover. With systems that also use the internet, latency means that if you start speaking right after you key the push to talk (PTT), the first part of your transmission will be cut off, and not be heard. If the system has C4FM/Fusion, if there's not a 5-8 second delay between transmissions/key-ups, then those on C4FM/Fusion, will not hear anything.
- When you connect to a repeater, reflector, etc., LISTEN FIRST. Ask if the frequency/repeater, reflector, etc. is in use. There may be a
  net in progress, or an emergency traffic situation that's trying to be resolved.
- If the frequency is clear, you can call CQ, etc. The ONLY time you should break in "unannounced" is if you have a bona fide EMERGENCY TRAFFIC SITUATION. Normally, calling CQ on a repeater, reflector, etc., is DISCOURAGED; but you CAN do it via the latest version of Echolink (for Windows).
- To start a contact, say "[callsign] listening". The time of day (4am versus 4pm local time) may determine whether or not someone else will respond.
- In some areas, repeaters are usually "quiet", except for nets. Sometimes, the morning and afternoon "drive times" during the week may generate some more activity.
- Identify your station. You must do so every 10 minutes, and when you sign off. Use the "clock method" at the top of the hour, then at 10, 20, 30, 40, and 50 after the hour, to better remember "10 minutes". You can use voice (in English), an image of your QSL or eQSL card (amateur TV), or Morse Code (it may not exceed 20 wpm). Use of a standard phonetic (ITU) alphabet is encouraged. Even if on digital modes, if voice is involved at some point, you still must identify your station. The proper method is "[callsign]" or "This is [callsign]". Adding "for ID" is redundant.

#### On The Air Etiquette (2) – Repeater Or Reflector Use

- Use the MINIMUM amount of power needed to carry out communications. While your license class may have varying maximum power levels, there's no need to "move all knobs to the right", if you don't need that extra power. Regardless, the maximum power on most bands is 1500 watts. Hams operating QRP (low power) affectionately refer to it as "when you care the most to send the very least" (hi hi).
- Make sure that you're on the right frequency with your rig (offsets and PL tones)...or if using a reflector, that you're on the correct module. Otherwise, you could transmit outside of your license privileges.
- Be sure that your audio levels are set correctly. Some operating systems (especially Windows) will play havoc with sound cards, audio levels, and more. Many programs and modes offer "a test mode" to where you can check if your signal is getting out. When testing with voice, use "[callsign] testing". Then, you've done it legally, with identifying your station. You can do this as many times as you like. Echolink does offer a "Test Server" you can connect to, to adjust your send and receive audio levels, etc., and some D-Star Reflectors have the E (Echo) module, where you can test your signal. Better to have the audio a bit low at first, than to be "overdriving it", where it's distorted, and unreadable.
- On some D-Star nets, you can "quick key" (press the push to talk (PTT) for one second, then release it). There's no need to say anything, as Net Control will pick up your call with reflector software (such as DPlusReport). Please listen for directions from Net Control on quick key checkins acceptance.
- Watch your microphone, and don't let it get stuck...such as sitting on it, or putting it next to something while driving. If you do, stations will hear background music/programs/noise, your conversation, singing, or "bodily noises" (belching, flatulence, coughing, sneezing, etc.).

#### On The Air Etiquette – Repeater Or Reflector Use (3)

- Listen first, then use your callsign to enter a conversation (QSO). Otherwise, just saying "[callsign] listening" is sufficient.
- Use ITU phonetics when checking into nets, especially if your callsign has a lot of similar sounding letters (B, C, D, E, G, P, T, V, Z, or A, J, K, or Q and U, or I and Y, etc.). However, you may want to set up some "alternate phonetics", or "these jokers will pick some for you" (hi hi).
- You can use CQ on HF or simplex, but do NOT use it on repeaters or reflectors. Note that it is an option, when using the latest version of Echolink (for Windows).
- Do NOT use Q signals on repeaters (QSO, QTH, QSL, QRZ, QRM, QRN, QSB, QSY, QTR, QRT, etc.).
   However, these are permitted on the digital modes, such as PSK31, Packet, or Morse Code (CW).
- Do NOT use "10 codes" on amateur radio (this is NOT citizens band (CB) radio). While some repeater software will give the date in numeric form (such as "10-4" for October 4<sup>th</sup>), that's the design of the controller software.
- Avoid controversial topics (politics, religion, RF versus internet radio, using Morse Code or not, my club is better than yours, etc.). People can be listening on scanners, or over the internet, and arguments will give a bad face for the hobby.
- No one has the exclusive use of any frequency...and emergency situations can develop/occur at any time, day or night.
- Say "My Name is [Name]". Handles are on mugs or beverage pitchers.

#### On The Air Etiquette – Repeater Or Reflector Use (4)

- Poor operating can get you ignored, or called down on the air. Once is an accident, twice is questionable, and more than that, you should know better.
- Don't say a station's signal is "full quieting", "Q5", etc. if their signal is "noisy" (in the weeds and mud, as it were). On HF, the bands can be wide open one minute, then close up just as quick, in regards to propagation.
- Don't make fun of the way another ham radio operator sounds. They may have cerebral palsy, have had a stroke, have a speech impediment, or another medical condition. It'll just take some getting used to, where you can be understanding what they're saying.
- Don't go into graphic detail of your medical conditions. While everyone has health issues to deal with, don't be discussing your bowel and bladder habits/issues, or your sex life, etc. on the air.
- Don't announce on the air that you're going to be going on vacation, or even to a hamfest. Criminally minded individuals listening on scanners may consider that as an invitation to ransack your residence while you're away.
- Many hams will use numeric signatures when they sign off. "73" means "Best Wishes"..."75" means "May God Bless You And Yours"..."88" means love and kisses (used between spouses, boyfriend and girlfriend)..."47" is used by members of the Quarter Century Wireless Association (QCWA), as it was founded in 1947. Members were FIRST LICENSED as an amateur radio operator at least 25 years ago, and are CURRENTLY LICENSED (the license term doesn't have to be continuous). One does NOT have to be a QCWA Member to checkin to any of their nets. Further details on the QCWA are at https://www.qcwa.org

#### Ham Radio Autopatch

- On some repeaters, you can make a local phone call...such as to call 911 for an emergency situation (report a traffic accident, vehicle fire, severe weather, etc.).
- Calls are LOCAL only (no long distance), and should be kept SHORT in duration. For longer calls, and long distance calls, you should use your cellphone.
- No communications where you or your employer have a pecuniary/monetary interest (where you would benefit financially). For these, you should use your cellphone.
- You can use it to "order a pizza", call your spouse or significant other on your way home from work, to see if you need to stop off for groceries or dinner items, or to call a doctor's office to advise you're running late for your appointment. With some medical facilities, if you're more than 10 minutes late for your appointment without notification, you have to reschedule (it may be several weeks before you can be seen again), and may be assessed a rather substantial "no-show fee" (over \$100 in some cases). And, if you have more than a certain number (as few as 3) "missed appointments" in a short period of time (3 months or less), you may no longer be allowed to be seen at that particular medical practice or facility. It's always best to be "early" rather than late...as sometimes, they can "take you early".
- Special access codes are needed to bring up, and take down the autopatch. Be sure to identify when
  using it, such as "[callsign] on the autopatch" when activating it...and "[callsign] clear of the autopatch"
  when finished with it.
- Some autopatches are CLOSED to particular club members ONLY.

#### Your On The Air Status

- Operating from your residence (base station) -- no supplemental identification is needed.
- From a vehicle (car, boat/ship, train, plane, bus, motorcycle, bicycle, etc.) -- MOBILE.
- From a location away from your residence (on vacation or for work) PORTABLE.
- Callsign District Number after your "status" is OPTIONAL (i.e. Mobile 5, Portable 4).
- Some novelty operations, such as "railroad mobile", "maritime mobile", "hang-glider mobile", etc. may generate several contacts for you (although I wouldn't recommend logging while hang-gliding!!).
- Operations from a vehicle (bus, train, boat/ship, plane, etc.) requires permission from "the master of the ship", the Conductor, Captain, etc. On these, the use of a headset mic, to avoid distracting others, is REQUIRED.
- On Amtrak, "quiet time" is from 10pm to 7am local time, whether you're in coach or in a sleeping car accommodation...and the walls in the sleeping cars are surprisingly thin. Violations of this can get you "put off of the train at the next stop"; plus your ticket is confiscated, and your reservation is canceled. Then, "you're on your own" to get where you need to go.
- There is no such thing as "being destinated".
- You can NOT be "clear and listening". When you say "[callsign] clear", it means you're clear of the frequency, and shutting down your station (powering off your rig).
- When you identify your station, you're monitoring the frequency of the repeater, reflector, etc.

#### 10 Minute Intermission – Break For Time

- With the forum (or if you're viewing this file), let's take a break to stretch your legs, grab a snack, use the restroom, etc.
- Topics to come include Skywarn ® Net Reportable Criteria...Nets (and all that goes with them)...Traffic Precedences...Emergency Traffic...Clubs...Repeaters...The ARRL ®...The Un-Club...Tower and Shack Safety...QSL Cards and Logging... Equipment and Operating...VoIP Modes (Internet Radio)...Some Things To Do On The Air...Hamfests And Conventions...Public Service Events...Some Ways To Get Active With A Club...Volunteer Examiners...Poor Operating Is Destroying Us...15 Ways To Kill Your Ham Radio Club And The Hobby...Three Ways To Deal With Miscreant Ham Radio Operators...and Contacting Me With Questions, And Final Comments.



#### Skywarn ® Nets Reportable Criteria

- In ALL CASES noted below, measure, and report ONLY when you can do so SAFELY!! If you see something from a distance, but are not sure what it is, note that in your report. Spotter Reports provide "ground truth" to what the radar is "seeing"...and your report could end up saving someone's life!!
- Tornado (on the ground) or Funnel Cloud (aloft)...the terms are NOT interchangeable.
- Wall Cloud (rotating or not) on the southwest portion of a severe thunderstorm.
- Wind (50 knots/58 mph or greater is "severe")...sustained or gusts. Report if at least 40 mph. Measured data is preferred.
- Urban and/or Flash Flooding. This includes a levee or dam failure.
- Hail 1 inch in diameter or larger is considered "severe". The larger the hail, the greater chance of injury or death, if you're hit by one. Do NOT use "marble size hail", as there are many sizes of marbles. Use the following variables if the reported size grows after the initial report, the storm is intensifying:
- Non-Severe Hail: Pea ( $\frac{1}{4}$ "), Mothball ( $\frac{1}{2}$ "), Penny or Dime ( $\frac{3}{4}$ "), or Nickel ( $\frac{7}{8}$ ").
- Severe: Quarter (1"), Half Dollar (1 ¼"), Walnut/Ping Pong Ball (1 ½"), Golfball (1 ¾"), Hen Egg (2"), Tennis Ball (2 ½"), Baseball (2 ¾"), Teacup (3"), Grapefruit (4"), Softball (4 ½"), DVD (5"), Volleyball (6").
- With tornadoes, winds at 80 mph or greater, or baseball size or larger hail potential, the Wireless EAS alerts will be activated on your smartphone.
- Note: Lightning occurs in ALL thunderstorms, severe or not...it is NOT reportable criteria. However, if it strikes a structure and starts a fire, call the area fire department first, then call the National Weather Service office to report it. Take note of the "30-30 rule"...that is, if you're outside, and hear thunder within 30 seconds after seeing lightning, you're in danger of being struck, and being either hurt or killed. Then, if 30 minutes have elapsed since you last heard thunder, you may resume all outdoor and other activities. Unplug all items that are not necessary to receiving severe weather information. For comprehensive lightning safety rules, go to https://www.weather.gov/safety/lightning
- In the winter, snow, sleet, or freezing rain (measure properly; be careful with icy ground conditions).
- For tropical storms or hurricanes, the conditions that you have, preferably via proper instrumentation.
- Contact your local National Weather Service Office for dates and times of in person, or virtual spotter training classes.

## Net Control Stations And Nets (1)

- Male or female, they run the net as they see fit, persuant to FCC Rules, and closing the net in a timely manner. Net Control is equivalent to "the home plate umpire" in a baseball or softball game...and "the head referee" in a football or basketball game; they can "send you to the showers" by ordering you off of the net. If a recording is made of the net, the audio can be used against the violator with possible FCC enforcement actions against their license.
- The nets are directed, ALL calls will go through Net Control, and all stations MUST comply with their instructions. Failure to do so, could get you banned from the net or mode...as well as being reported to the Virtual Monitors (VM's), or to the FCC for malicious interference.
- When checking into a net, advise Net Control if you have traffic, bulletins, or announcements. Try to stay for the entire net if possible, for information on exams, meetings, hamfests, special event stations, etc. That way, you're not "out of the loop" on information.
- Some nets do "early/pre-net or post-net checkins"...but those...and the time allowed for such...is solely at the discrection of Net Control. They are giving up their time before, during, and after a net...and some nets can run for an hour or more. Besides, it can be hard for Net Control sitting in the computer chair for a long time. Note that MOST nets do NOT offer pre-net or post-net checkins...you're either there for the net, or you don't get logged, whether you like it or not.
- If you have an EMERGENCY (life and death urgency) or PRIORITY (official non-emergency bulletin, or serious, but not critical, such as a Significant Weather Advisory) situation at your location during the net, break in by saying EMERGENCY or PRIORITY [callsign]. At that point, Net Control will stop the net, and participants will try to help you deal with your situation, or terminate the net, and clear the frequency, if that's better. When the "emergency mode" is in effect, all regular net operations are stopped, until the emergency situation is resolved. This is the ONLY reason and time that you should break into a frequency/repeater, etc. "unannounced".

## Net Control Stations And Nets (2)

- If you need to contact another station on the net, say "CONTACT". Once Net Control lets you make
  the contact, please move off of the net frequency to finish the contact; you can return to the net
  afterwards.
- If you have a question or comment, say "QUESTION" or "COMMENT". Once Net Control lets you state your question or comment, they may open it up to net participants for a response. The only "dumb question" is the one that isn't asked...and someone else may have the same question you do. Plus, there may be several nets on the same related topic(s), as computers are so much a part of the ham radio shack nowadays.
- Announcements include things like club meetings, ham radio license classes, license exam sessions, hamfests, demos, special event stations, public service events, etc. -- or cancellations/postponements of such (especially in relation to Covid-19 or weather issues).
- Please be PATIENT when checking into a net. Unless you have an EMERGENCY traffic situation, do NOT show up right before the net starts, and expect to be put at the front of the line, as it were. This is especially true if "early checkins" were started long before you showed up.
- Note that some Net Control operators are blind or visually impaired...and it may take longer for them
  to copy down or log callsigns. Please use standard ITU phonetics when checking into nets.
- Using the 4 forms of NTS traffic, it's NOT an EMERGENCY, if your ROUTINE traffic, isn't given PRIORITY, because your HEALTH AND WELFARE (your ego) will be damaged. The world, ham radio, and nets do NOT revolve around you, me, or anyone else (the same is true for any hobby). In short, "Life isn't FAIR or BURGER KING". Fair is a fall carnival, a weather term, or a call in baseball, and you can't always HAVE IT YOUR WAY (I worked for them over 40 years ago, so I can say that).

## Net Control Stations And Nets (3)

- Try not to be "a net hopper". While several nets overlap, meeting at the same day and time...there's NO prize, bonus, award, certificate, etc., for seeing how many nets you can check into during a day or evening. You can't make every net in existence, and you can't do everything there is to do in amateur radio. The Excel Spreadsheet Lists that I maintain of selected D-Star, D-Rats, and Echolink Nets, has well over 200 monthly nets...and on some nights, at least a half dozen (if not more) meet at the same time. It's RARE that you'll find a single net in a particular time slot, especially in the evening hours, US Time.
- Some nets do offer certificates for a certain number of checkins...the amount of minimum checkins required varies. That's the exception rather than the rule, and is at the discretion of Net Control. Most of these certificates are emailed in PDF format, so an email address and PDF viewer are required. If you don't have an email address or a printer, you'll have to have a fellow ham radio operator request that the file be sent to them, where they can print it for you.
- On some nets, "SHORT TIME", means you're just noted as "a bean for the count", and you won't be asked for comments. This is due to another net, dinner, work, or something else at net time. Once the Net Control Station has acknowledged you and your status, then you can secure your station at your leisure...although you can listen as long as you'd like, and recheck later, if you have a question or comment. You can also note if you want to be noted just as "LISTEN ONLY"; you'll be logged, but won't be asked for comments.
- Some nets will cancel, or do informal nets during weeks of formal holidays...check with the various Net Control stations for details.
- Net Control stations are NOT going to wait forever for you to show up to checkin...in other words, you can't be
  "Fashionably Late" for a net. Besides "early checkin windows", some nets may offer checkins via other modes such
  as email, Facebook, or D-Rats...and the time for such checkins may vary. Again, these other checkin modes or
  windows/times are at the discretion of Net Control.

#### Net Control Stations And Nets (4)

- If you need to leave the net early, such as "after the first round", please advise Net Control of such. This is especially true for Skywarn Severe Weather Nets, so if you need to take shelter from a tornado that's approaching, do so (your life may depend on it)...then get back on the air when you can do so safely. Now, if you have a power or internet outage, or rig failure (those things happen), try to advise a fellow ham radio operator of your situation...otherwise, they may think a medical emergency has occurred. Leaving the net without telling Net Control you're signing out is equivalent to leaving a party, without bidding the host "Adieu" (goodbye), and it's considered RUDE.
- There are several programs to use for logging, and it's much better than doing it with a piece of paper and a pen or pencil. At one time, ham radio operators had to spend a minimum amount of time on the air, and log every contact. Today, that minimum time is not required, and logging is used only for contesting, Field Day, and during traffic nets. I personally use Netlogger, which is available for Windows, Mac, and Linux, from https://www.netlogger.org a screen shot for the color modes that I use for checkins is on the next slide. A PDF file on how to set it up for logging or monitoring nets is available from the hyperlink off my QRZ bio. Note that I no longer use the "status" category in my net listings, and some calls noted have changed.
- Other topics besides amateur radio includes such things as Trains/Railroading, Food/Cooking, Astronomy, Camping/RV users, Computer Related, Motorcyclists, Bible Study, Photography, Music, Aviation/Flying, Pun Humor, or nets for Youth, among other topics.
- Swap nets allow you to list ham radio gear for your shack that you want to buy, sell, or trade, but NOT on a REGULAR (daily) basis. You can mention prices on the air, but "haggling" should be taken to the phone or email. Gear is assumed to be in good working order, unless noted otherwise. Listing the same few items is OK...but rotating gear each time there's a net, is NOT.

# Netlogger Screen Shot For Checkins (some callsigns have changed)

Check-ins —								
#	Call Sign	State	Preferred Name	Remarks	City	Name	Status	Country
1	WX4QZ	AR	Daryl	Operator	Little Rock	Daryl J D Stout	(op)	United States
2	KC5IGH	NM	Johnnie	Net Control	VELARDE	Johnnie S Martinez	(nc)	United States
3	AD5RB	NM	Richard	Logger	Los Alamos	Richard Browning	(log)	United States
4	N3ZKV	GA	George	Relayed	RINCON	George R Ibaugh	(rel)	United States
5	KC5SAM	MN	Virginia	Net Control Of Another Net; Ham Radio Club Position	FRONTENAC	Virginia I Oliver	(vip)	United States
6	KEOYTP	MO	Jeff	Mobile, Portable, Special Event, Etc.	HARRISONVILLE	Jeffrey W Chailland	(W)	United States
7	W4GLE	AL	Grady	Traffic For Net	Fayette	Grady L Evans	(n)	United States
8	KJ4TBJ	AL	Kimberly	Courtesy Check	Fayette	Kimberly M Evans	(c/o)	United States
9	KC5ALH	TX	Paul	Not Heard	Big Spring	Paul G Johnson	(n/h)	United States
10	KC5UCV	TX	Frank	Short Time	JASPER	Frank A Higgins Jr	(u)	United States
11	KD4IZ	MD	Jack	No Response	Parkton	John K Spitznagel Jr	(n/r)	United States
12	KG5CEN	LA	Glen	Regular Checkin	SLIDELL	Glen P Strecker	11 21	United States

# Traffic Precedences And Passing Traffic

- ROUTINE 99.9% of all ham radio traffic handled LAST.
- WELFARE information about the health and welfare of an individual, in or out of a disaster area handled THIRD. This can include you personally, or a fellow ham radio operator. All of us have various health/medical issues, but be careful as to what you say on the air...as you never know who may be listening...especially if they want to steal your identity.
- PRIORITY time sensitive, non-emergency official messages (Significant Weather Advisories, Special Weather Statements, etc.) -- handled SECOND.
- EMERGENCY Life And Death URGENCY to those involved (Severe Weather Warnings) handled FIRST. Do NOT use this if it's NOT an emergency situation...otherwise, you'll be cited for passing "false and deceptive signals".
- Don't mention victims names, or whether they're alive or dead. You can note "a bib number" (runner 2757), or a generic reference (a 25 year old female, a 30 year old male). Those who NOT involved with the event have NO BUSINESS knowing this information, as too many want to commit identity theft, or be "ambulance chasers".
- If you don't have proper training (Skywarn ®, NIMS, ICS, etc.), stay OUT of the affected area (you risk arrest and jail for trespassing), and OFF THE AIR during such events.

# Emergency Traffic And Nets (1)

- Emergency Nets are NOT for general ragchewing (chat). Please move to another frequency, if you're requested to do so.
- Emergencies and disasters do NOT run on schedules (they can occur at any time, day or night). This means that the nets can take the place of regularly scheduled nets in that time slot.
- Stay on frequency ONLY if you can help with the emergency traffic situation...and stay OFF of the frequencies being used for emergency communications (such as after a hurricane, earthquake, etc.).
- Nets may last several hours or days, depending on the situation.
- During drills, repeatedly state "THIS IS A DRILL REPEAT THIS IS A DRILL", at the start and end of every transmission. That way, listeners won't be sent into a panic.
- If you have a bona fide emergency situation where you are, you can use ANY band or mode available, whether it's outside your license class or not...or even on frequencies outside the ham radio bands. Log all of the events, times, frequencies, etc., in case the FCC contacts you. If their data matches yours, you have nothing to worry about enforcement wise. As far as the FCC is concerned, if you have a bona fide emergency situation, in regards to handling traffic, "you can throw the rule book out".
- State ONLY what you know do NOT embellish the facts.
- Stay CALM in an emergency, as people will hear the terror/horror in your voice.
- Interfering with an emergency net can you in trouble with law enforcement, and with the FCC.

# Emergency Traffic And Nets (2)

- If the National Weather Service isn't concerned with a certain storm, there's no need for you to be, either. Don't "hype the storm" or "be a wishcaster"...as you could send listeners into a panic attack.
- Those who have personally experienced severe weather, injuries, or loss of property or loved ones during a storm, do NOT take kindly to individuals who are "wishing for tornadoes". Put yourself in their shoes. Even if a tornado is just "going through a field", that may be some farmer's livelihood, and they may have no food or income, if that's damaged or destroyed.
- Be careful what you ask for (wishing for tornadoes)...as next time, YOU may be the victim of the severe weather.
- If you have a tornado heading toward you, take immediate action to protect your life. Do NOT be worried about checking into a traffic net...or it may be the last thing you do before you die!! After the storm has passed, when you can do so SAFELY, make your report to Net Control, and to the National Weather Service, or your local meteorological agency.
- The five most feared words are "THIS IS NOT A DRILL". This was what was telegraphed when the Japanese bombed US Naval Forces at Pearl Harbor, Hawaii, on Dec. 7, 1941...which propelled the United States into World War II.
- Once the emergency traffic situation has been resolved...or an emergency drill or training net has been completed...state such, and that "all systems are returned to normal amateur radio use", then give your callsign. At that point, you may disconnect from the system/network, and leave the frequency, reflector, etc.

## Clubs, Repeaters, and The Un-Club

- To find a club, go to http://www.arrl.org then click on CLUBS, enter the desired criteria, and click on SEARCH. When you find a club that interests you, click on the link for more information.
- A large amount of time and expense is involved with maintaining and operating repeaters. If you use a particular repeater quite a bit, join the club as a member.
- Visit several clubs to find on that you like...don't just join the first club you visit. Ways to get active in a club will be noted toward the end of the forum. Note that as with anything in life, you will run into those who have personality conflicts with you, or "cliques".
- To avoid those, be part of "The Un-Club"...where folks gather at an area restaurant for food and fellowship (everyone pays for their meal (going "dutch treat")). These eating meetings are generally not affiliated with any club or group. However, many of these have been reduced, because of Covid-19 issues. Everyone has to eat, and H.A.M. stands for "H)ave A)nother M)eal", and you don't call us "Late For Dinner" (hi hi). And, if the restaurant prices are rather expensive, H.A.M. may also stand for "H)aven't A)ny M)oney" (hi hi).
- You can find repeaters via the Repeater Directory...soft or hard copy, software program, or an app for your smartphone (purchase is required).
- Some stations may setup a "mini-Field Day" operation or demo at a local park, to show what ham
  radio can do (when all else fails); although they may have to observe Covid-19 restrictions.

#### Join The ARRL ®, The National Association For Amateur Radio

- You may not agree with everything that they do. I know some ARRL Officers that don't agree with everything that they do.
- They're our lobbying voice in Washington, DC, helping us keep our frequencies and privileges from being taken away by business and other entities.
- Regular Membership dues increased in 2024, and if you want a print copy of QST ® or their other publications, you'll have to pay extra for it (the digital (electronic) copies are free to ARRL members, and are viewed online). Life Memberships are available at a "revenue-neutral" setup for those amateur radio operators who are 70 years of age or older. There's also a special membership rate for students 21 years of age and younger. Contact ARRL for details on each of these membership levels.
- Some benefits include Shack Insurance, Operating Awards, Members Only Web Services, Email Forwarding ([your callsign] at arrl dot net it goes to the email address that you choose, although you're NOT required to use that benefit), ARRL Contests, Amateur Radio Emergency Services (ARES ®), Technical Information Service (you need help with a certain item), Outgoing QSL Card Service, Member Discounts on items from The ARRL Store, ARRL Visa ® Signature Credit Card, Regulatory Information Branch (Is what I'm doing, legal under Part 97 Rules?), ARRL Field Organization, Volunteer Examiners (Info near the end of the forum), access to Logbook Of The World (LoTW) for contests, and DX logging, and much more.
- Note that ARRL Staff members, Section Managers, Appointees, etc., have an email with their callsign at arrl dot org that is NOT for anyone else.
- Amateur Radio Operators Visiting ARRL HQ in Newington, Connecticut (outside of Hartford), can operate W1AW at certain times during the week, during the day – be sure to bring a copy of your amateur radio license.
- Tours for visitors are also available. Note that these may be limited or curtailed if Covid-19 restrictions are in effect. Contact them before you plan a trip there...you can get there by Amtrak (train), plane, bus (the bus line stops a short distance away, so you'll have to walk a bit), or take a taxi (check to see if Uber or Lyft would be available).
- W1AW and ARRL HQ are closed on certain US holidays (or the days before and after them), and during weekends.

#### Tower And Shack Safety (1)

- The bottom line is SAFETY FIRST yours and everyone else's. Carelessness means that you or someone else will die!! In other words, take these rules as if lives depend upon them...as they do!!
- Do NOT work alone. Have safety gear for all involved, along with a First Aid Kit, a Defibrillator, and someone nearby, to render aid, or call 911 for help.
- Beware of used towers and gear (you get what you pay for).
- Towers should have sufficient guy wire support, the capacity for the planned antennas, and good soil conditions to hold the tower in place.
- Keep unauthorized people away from it, with protective fences, locked gates, barbed wire, alarm systems, warning signs, etc.
- Cancel ALL tower work if there's ANY threat of thunderstorms. Lightning can strike 20 miles from the parent thunderstorm, and one strike was documented close to 500 miles away. The tower is basically "one big lightning rod".
- Avoid placement near power lines. If it falls, anyone who may be on or near the tower...especially if the ground is wet...will be fatally electrocuted.
- Before starting work, be sure your insurance policy is adequate (in case of a lawsuit), check all local building codes, have all needed tools, and have plenty of people on hand for the work with the project.
- If attaching towers to a structure, make sure that it's strong enough to hold the tower, and it won't rip off the side of the building if it falls.
- Owners of towers more than 200 feet high, and near or at a public use airport, must notify both the FAA and FCC, and have proper lighting on the tower.

## Tower And Shack Safety (2)

- Those in areas with Covenants, Creeds, and Restrictions (CC&R's), or Homeowners Associations (HOA's), may NOT be able to erect outdoor antennas...and any indoor antennas may be LIMITED or PROHIBITED. Be sure to thoroughly read and check all lease agreements BEFORE you sign them, as PRB-1 does NOT cover these CC&R's or HOA's. "Internet Radio" may be your only option to get on the air (more on this momentarily).
- Be sure that shack equipment is grounded, and unplugged during potential or actual thunderstorms. No amount of surge protection will stop damage from a direct or nearby lightning stike...which as noted earlier, can occur from 20 to nearly 500 miles from the parent thunderstorm (the latter has been documented).
- Be sure that all power is OFF, and all circuits have been SUFFICIENTLY DISCHARGED, before you start to work on them.
- Do NOT eat, drink, or wear any metal jewelry while working on gear (including watches, rings, etc.). Keep one hand free...don't complete the path across your heart. Not even 1 watt of electricity can send your heart into fatal ventricular fibrillation.
- Keep people and pets away from the shack while working on gear...except for someone to render First Aid, or call for help (911) in case of an emergency.
- RF safety evaluations are required if operating RF (not applicable if operating "internet radio"). For US hams, new RF exposure rules took effect on May 3, 2021.
- If applicable, COVID-19 precautions and "social distancing" should be followed.

# Tower And Shack Safety (3)

- Do NOT touch antennas while transmitting. RF burns are extremely painful, and they'll take a long time to heal.
- Have quick access to an Emergency Shutoff Switch, a Fire Extinguisher, and a Defibrillator; plus a rapid way to call 911, in case of an emergency.
- Do NOT drink alcoholic beverages of any kind (beer, wine, liquor, etc.) while doing shack or tower work. Save the consumption of "adult beverages" for long after the tower work is completed.
- In the summer, metal towers will be HOT, and can burn your flesh/skin. If the tower is wet, you could lose your grip or footing, as it'll be slippery. In the winter, any moisture on the tower could freeze your hands to it, or cause you to slip and fall; resulting in serious/critical injury, or death.
- The use of gloves, protective clothing, helmets, safety goggles, safety nets and harnesses, proper shoes, etc., is STRONGLY RECOMMENDED and ENCOURAGED. Be sure that all these items are working properly BEFORE you begin work.
- Be alert for nests of birds (ospreys, etc.), or stinging insects (bees, wasps, hornets, yellow jackets, etc.) on the tower. They'll attack you repeatedly and viciously, if they feel threatened...and it could cause you to go into anaphylactic shock...and die if medical aid is not properly summoned and obtained...and you could fall to your death.
- If you don't know what you're doing, hire a professional, whether it's radio, computer, electrical work, climbing towers, etc. Losing your life is not worth it, if you're trying to save money.

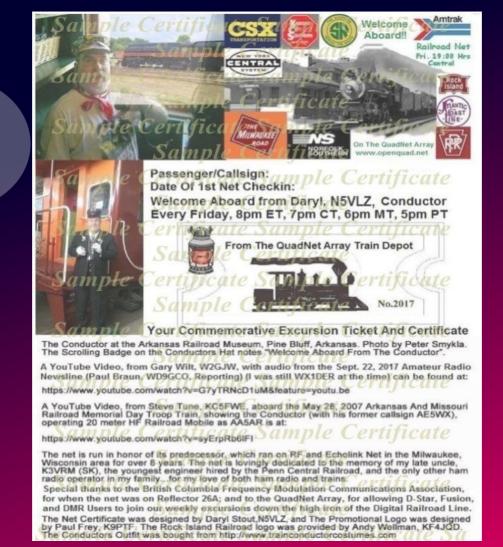
# **QSL Cards And Logging**

- Paper and electronic QSLing are done (electronic QSLing is much quicker)
- You can order paper cards from a commercial vendor, or make your own, using computer software.
- Some hams will create "business cards" for "eyeball QSO's" (photos of all my QSL cards through the years are on the next slide). The photo of the SOO Line steam engine at Random Lake, Wisconsin, is courtesy of Mike Yuhas, AB9ON. Plus, when you eQSL me (N5VLZ) through eqsl.cc, "the authenticity is guaranteed". Please be patient on such acknowlegements. On my "business card" I include a summary of the modes that I do nets on, my email address, and my phone number in the "white portion" of the eQSL card image. Again, I've returned to my original callsign of N5VLZ as of Dec. 15, 2023.
- The "premium level" of eqsl.cc allows you to design your own eQSL card, and is \$30 a year (\$2.50 a month is debited from your credit card, or bank account debit card or via PayPal).
- Use proper postage when mailing. IRC's (International Reply Coupons) are no longer sold in the US or its territories. This is why most do electronic QSLing instead.
- Logs are NOT required in the shack, except for nets and contesting. Be sure to check the rules for the proper format of submission of your logs.
- Logbook Of The World (LoTW) is available for ARRL ® members.
- Several logging programs are available (freeware, shareware, and commercialware). As noted earlier,
  I use Netlogger (versions available for Windows, Mac, and Linux) at https://www.netlogger.org

# Pictures Of My QSL Cards (paper and eQSL) 1991 to 2023



#### Sample Certificate for 1st Time Checkin to The Trains And Railroads Net



# Equipment And Operating (1)

- Prices and gear for every license and budget...from \$50 to over \$20,000. However, the phrase "you get what you pay for", applies for new or used gear.
- Handi-Talkies (HT's), base stations, mobile rigs, power supplies, SWR meters, antennas, tuners, coaxial cable, towers, computers, software, cables, terminal node controllers (TNC's), software defined radios (SDR's), hotspots, and much more.
- It's best if you can buy the item locally or nearby, and take it home with you...then you don't have to
  worry about shipping issues, or it being stolen from your residence, business, or apartment, as it's
  already in your possession.
- Several ham radio vendors on the internet see the earlier slide for a list of selected vendors. It's best
  to shop around for the best deals. If ordering from overseas, shipping costs will be rather expensive,
  and insurance for your items is STRONGLY RECOMMENDED.
- Note that Fed-EX, UPS, DHL, etc., do NOT ship to Post Office Boxes...it MUST be to a residence, an apartment, or a business.
- If it's shipped to a residence, business, or apartment, you need to be there when it arrives. Otherwise, the nefarious "porch pirates" will steal it off of your porch, or out of your mailbox. There have been reports of these thugs trailing the vehicles (US Mail, FedEx, UPS, DHL, Amazon, etc.), to grab the item right after it's dropped off.

# Equipment And Operating (2)

- If you want to get used gear (such as at Hamfest flea markets), be SURE to check out the condition of the gear BEFORE you purchase it (a test bench is preferable). If the seller won't let you test it, it's likely "a brick of a worthless boat anchor doorstop", and they're trying to make money off of a useless item. So, it's best you decline their offer, and move on. And, I've seen and heard of certain pieces of gear that were "taken from one hamfest flea market to the next".
- Learn the smell of burnt electronics, and know that antique gear will be very difficult, if not impossible, to obtain replacement parts for, if it stops working (if it isn't "dead in the water" already). Also, while the rig might power up, the "finals" might be gone, and the rig is basically worthless (that happened to me at a hamfest several years ago).
- Most hams won't give others "a bum steer", but there are some who are trying to make money off of an item that's basically worthless...you're basically handing them money, and walking away.
- Once you have gear in your shack, be sure to test everything out before operating (connections, tuning, SWR, etc.). High SWR's will burn out your rigs circuitry in a heartbeat.
- When reselling used or older vintage gear...you will NOT get what you paid for it originally...as there is just not a market or demand for them. Unless someone is wanting the item for parts (if the rig is even working), or a collector for displays of gear, no one is going to be interested in your item.
- Or when you go to sell "current or recent gear", it'll be like what's on the next slide...

# The Greatest Fear Of An Amateur Radio Operator



# VoIP Modes (Internet Radio) (1)

- While the "purists" (those who believe that ANY form of "internet radio" is NOT ham radio"), don't like this concept, it's great for those who have to live in apartments, have to deal with HOA's, CC&R's, or if they have medical issues (such as having a heart condition), or are in facilities with medical equipment...where any RF gear or antennas are limited or prohibited, because RFI could cause the medical devices to malfunction, and someone could die because of it.
- In some places (such as nursing homes), this helps take away the loneliness which is (sadly) so common in the day of residents; as so few (family or otherwise) come to visit them. This has been greatly magnified due to COVID-19 restrictions. With this loneliness, they can lose the will to live rather quickly.
- Your health can change in the blink of an eye, and "tomorrow (let alone the next 5 seconds) is promised to no one". You could go from operating RF only, to being forced to use "internet radio" to stay with the hobby, in a very short period of time.
- Echolink (for PC's and smartphones), Packet Via Telnet, D-Rats, Winlink Via Telnet, D-Star, DMR, DMR+, TGIF, WIRES-X, Fusion, CQ100, Hamsphere, AllStar, FreeStar, HamSphere, and Remote Base Operations, among many other modes, are just a few examples where you can get, and stay on the air. The SharkRF OpenSpot 4 Pro will work with your cellphone and/or computer, to do the same things that the BlueDV program does. In both cases, a rig is not required...but you will need a Wi-Fi or internet connection. I have noticed that the SharkRF OpenSpot 4 Pro may lock up under Windows, but it doesn't lock up with the smartphone. However, it's best to set up separate usage profiles, as it can be difficult to change modes, reflectors, etc., on the smartphone dashboard.
- High speed internet (DSL, Wi-Fi, Fiber Optic, or broadband) is preferred, as dial-up internet is too SLOW, and it's NOT recommended. Verizon sells a Mi-Fi device that allows for Wi-Fi anywhere, but the monthly rate can be rather expensive.
- All that's needed is a computer with Windows, Mac, or Linux (be sure to keep up with the latest security updates, and anti-virus protection), plus the needed software, and a headset mic (preferred to cut down on ambient noise).

# VoIP Modes (Internet Radio) (2)

- While you still have to pay for computer software and hardware upkeep, internet fees, and electricity, it can be
  cheaper than having to buy rigs, power supplies, microphones, coaxial cable, SWR meters, towers, antennas, etc.
- Some modes have fees (CQ100 and HamSphere). Note that some Remote Base Operations fees are rather
  expensive. I understand that remotehams.com is free of charge.
- Validation of your current amateur radio license is required send or email a PDF copy of it to the System
  Administrators, to obtain authorization to operate on those modes. This also applies when applying for an ID for
  DMR, TGIF, Fusion, or NXDN via radioid.net, or in some cases, to get access to D-Star. Do NOT send "A Reference
  Copy", or if it's expired...otherwise, your validation request will be rejected.
- Operate virtually anywhere with a Wi-Fi device or public Wi-Fi, a laptop computer, and a headset mic. This way, your amateur radio license isn't just "a sheet of paper", and you can still enjoy the hobby.
- As far as the FCC is concerned, "we're communicators first, and hams second". If you have a valid amateur radio license, you can operate RF, VoIP, or both, within your license class privileges.
- For many new hams, "mic fright" is a very real issue.
- If you can't get on the air (whether for RF, VoIP, or both), WHY study for, or get licensed...let alone stay in the hobby?? Sadly, I've known some who studied for their license, passed the exam, got their callsign, but never did anything with it...basically, they wasted their time and money.
- Most young people nowadays are so enamored in their smartphones and tablets, to even be interested in ANY hobby...including its history, present state, or its future. Yet, we need "new blood" into the hobby, to replace those who are quitting it, or to put it bluntly, "dying off" (none of us are getting any younger).

## Some Things To Do On The Air

- RF: Voice (phone), SSB, SDR (software defined radio (although it may be referred to as "spousally declined radio" (hi hi)), EME (bounce signals off the moon), VoIP (Internet Radio).
- Digital: CW (Morse Code), Packet (RF and Via Telnet), Amateur TV (slow and fast scan) JT65, FT4, FT8, M17, P25, PSK31, RTTY (2 big RTTY contests each year), APRS, MT63, Olivia, Hellschriber, Throb, D-Star, DMR, DMR+, TGIF, WIRES-X, System Fusion, AllStar, FreeStar, Amtor, Pactor, and much more. You can go much farther with digital modes (even with less power) than on voice.
- VoIP: CQ100, Echolink, and HamSphere, among other modes.
- Satellites: Technicians can make worldwide contacts. You can also work astronauts from the International Space Station, if they are using the amateur radio station on board.
- Traffic Handling: National Traffic System (NTS) Formal Written Traffic, and regular nets.
- Contesting, Dxing, and Awards: There are contests every weekend.
- Fox-Hunting (find the hidden transmitter). Competitions in one's country, and around the world each
  year. If done at hamfests, the winner gets a nice prize.
- Model controlled aircraft operations on 6 meters (for Technician Class licensees and above).
- Providing communications at Public Service Events (more on this shortly).

#### Hamfests And Conventions (1)

- Half Day Events (Saturday), to multi-day events (Hamvention in Xenia, Ohio...Hamcation in Orlando, Florida....Huntsville Hamfest in Huntsville, Alabama...among many others).
- Before traveling to these, make sure they haven't been canceled at the last minute. Because of COVID-19, many have canceled, or gone to "Virtual Hamfests". For these, you register in advance for the forums (conducted via Zoom), and there may be a registration fee to offset the cost of prizes that may be offered. In some cases, because of electronics and parts shortages, there may be cash prizes offered instead. If the hamfests are held, there may be "social distancing" and other requirements, due to COVID-19 issues.
- Dealers and Flea Market Vendors (the bigger the event, the more vendors). Have cash, because some may not accept checks or credit cards...but GUARD YOUR MONEY CAREFULLY (beware of pickpockets). Also, scan your bank and credit card statements for the possibility of identity theft (it happened to me after one hamfest).
- Check/test any used gear before buying it...again, "you get what you pay for". If the seller won't let you
  test it, it's best that you "decline their offer", and move on.
- There may also be tables of non-ham radio items such as crafts, for sale...for those in the family who are not amateur radio operators. Also, there may be computer related items, as computers are so much a part of the ham radio shack nowadays.
- Concessions are usually available (hamburgers, hot dogs, soft drinks)...with restaurants nearby. Some large events may have a banquet and guest speaker (advance paid reservations are required).

#### Hamfests and Conventions (2)

- Forums, Displays of Emergency Communications Equipment, Fox Hunting (hidden transmitter hunts), License Exam sessions, and much more. At some hamfests, fox hunting winners receive a nice prize.
- Door prizes, for which you buy tickets for. To win radios, you must be a licensed ham radio operator, or just passed your initial license exam (proof of such is required). With the shortage of both parts and electronics, cash prizes may be offered instead. For the prizes, you have to be present to win. The one exception may be the grand prize, which will be shipped/mailed to the winner; check with the hamfest coordinators for details. As noted, some events may offer cash prizes instead of actual ham radio equipment.
- Royal Order Of The Wouff Hong done at Division or National Conventions, or at selected other events.
   ARRL ® Membership is REQUIRED to participate (more on this shortly).
- Go to https://www.arrl.org click on Hamfests, then enter the desired criteria (such as State), then click on Search. If an event/events show up, click on the desired link for more information. If there are no hamfests scheduled, you'll be notified of such...but some smaller hamfests may not list their events on the calendar.
- Three of the bigger hamfests around the country, with their approximate time of year, are noted below:
- Hamcation, Orlando, Florida early to mid-February (https://hamcation.com)
- Hamvention, Xenia, Ohio mid to late May (https://hamvention.org)
- Huntsville Hamfest, Huntsville, Alabama mid to late August (https://hamfest.org)

#### Some Reasons To Attend Hamfests

- Get away from the QTH for awhile (no fun looking at 4 walls every day); it makes for a nice vacation, and it's almost like "a family reunion".
- If an accredited Volunteer Examiner (VE), oversee or help with license exam sessions with ARRL/VEC or the sponsoring VEC.
- Conduct or attend an educational forum.
- "Eyeball QSO's" to meet those who you've talked with on the air.
- Feeding your face at the food trough (if you eat ham, you're cannibalistic (hi hi)).
- Buying prize tickets to support the hamfest. With some hamfests, the more money you spend, the more tickets you can buy. At the Huntsville Hamfest several years ago, you could buy "a brick of 250 prize tickets" for \$100...and I saw several hams laying out those bills like they were nothing. The logic is that if you win a big rig, you more than made your money back, especially if someone is wanting to buy it off of you.
- Buying novelty items for the shack.
- If held, and if an ARRL ® member, attend the Wouff Hong Ceremony (more on this shortly).
- Sadly, for me, attending these events is all but over; especially considering I don't drive or have vehicular transportation anymore, due to vision, health, and financial issues. Plus, I do traffic nets on Friday evening, Saturday morning and afternoon, and Sunday afternoon, and it's hard to get a replacement net control when I can't be there, for whatever reason.

#### Public Service Events

- Parades, Bike-A-Thons, Walk-A-Thons, Marathons, etc.
- Providing communications to alert first responders (paramedics, police, etc.) to injuries of participants, or incidents along the course.
- Range from a few hours (morning or half day), or as much as 2 days, nonstop. Sleep may have to be delayed.
- Operate via a repeater or simplex...in the cities or "in the boonies". In some isolated areas, there is no cellphone, internet, or ham radio repeater coverage.
- Done rain or shine, but usually canceled if winter weather (snow and ice) or thunderstorms (lightning, hail, high winds, flooding, and tornadoes) are forecast.
- Start with small duration events, and work up to longer ones.
- Consider your health needs before volunteering. On the long, multi-day, non-stop events, nature (bladder and bowels) tend to call at the most inopportune time...and "there's no potty privacy". You basically find a tree or bush for a toilet, and have to supply your own toilet paper and storage bag for the excremental waste (urine and fecal stool).
- Contact the organizers for more information, and if you'd like to volunteer.
- Due to COVID-19, many of these events are being canceled.

## Some Ways To Get Active With A Club

- Visit the club to see if you like what it has. Most have monthly meetings, either in person, or virtually, via Zoom. It's best to
  attend at least a couple of meetings, and visit more than one club, before you make your decision. You can belong to more
  than one club. Some clubs and organizations offer both regular and life memberships.
- With COVID-19 issues, many clubs are now holding meetings over the internet via Zoom, instead of the "in person meetings", where you may have to have masks, social distancing, etc. This is also useful if you live in another area or state where the meeting is held.
- There is no such thing as "a perfect club or organization". You'll have politics, personality conflicts, etc., with any club, hobby, or organization; sacred (church, synagogue, etc.) or secular.
- Become a Club Officer or a Net Control Station.
- If a Volunteer Examiner (VE) consider serving on their Exam Team. If an Extra Class VE, consider helping out with the liaison duties, or becoming the team leader/liaison (more information on the next 2 slides).
- Take part in club functions (hamfests, public service events, demos, etc.).
- Pay your dues on time, and attend the club when your schedule permits. I've heard of hams who won't bat an eye, or give it a second thought on paying \$100 or more for prize tickets at a hamfest, or buying a new rig...but they have a conniption fit, on paying club/organization dues, which is usually far less in cost. The main exception for not paying dues is being on a fixed income (around the poverty level), or you have bills for medical items, food, and shelter...those take far more importance than paying dues.
- Do NOT kill your club with bickering and infighting. It's your job to get behind whatever decision/vote is made. If you can't accept that, go to another club...but you'll find similar things there.
- Do NOT bad mouth another competing club, whose members and methods you disagre with. In a disaster and its aftermath, ham radio operators need to be working together.
- If you don't like circumstances that develop with a club or its net, you no longer have to be associated with them...and it'd be best that you find a club or net more to your liking.

#### Volunteer Examiners (1)

- They give and grade the ham radio license exams...for those wanting to get into the hobby to get their first ham radio license...or to upgrade their license class for more operating privileges.
- Morse Code exams are no longer given or required. While you can still learn and use it, you no longer have to prove that you know it. Many are learning "the original digital mode" because they WANT to, and NOT because they HAVE to (the FCC removed the Morse Code from US Ham Radio exams in late February, 2007). In fact, many find out that "doing CW is FUN".
- Amateur Radio Operators who hold a valid General, Advanced, or Amateur Extra Class license, which has NEVER been suspended or revoked, and who are at least 18 years of age, can apply to become a Volunteer Examiner (VE). The license class of the VE determines the exam(s) that they can give and grade.
- Accreditation requirements vary by VEC (Volunteer Examiner Coordinator). With ARRL/VEC, it's an open book, untimed exam that you fill out at your leisure (it's the easiest open book exam you'll ever take)...with a study guide/manual available via download or purchase from The ARRL Store. Four to six weeks after you send in the required items, you'll get a nice certificate suitable for framing, and a laminated badge that can't be altered, and color coded for the Amateur Radio License Class that you hold. Again, the license class of the VE determines the exam(s) that they can give and grade.
- Long established teams can scan in exam session data, and upload data to the VEC in a PDF file, and you can get your callsign notice within 24 to 72 hours. As noted earlier, new or renewed licenses or vanity callsign requests must pay \$35 to the FCC, or the license grant is canceled. First time examinees 17 years old or younger, can get a reduced \$5 exam fee via ARRL/VEC, and they will be reimbursed by ARRL/VEC for the \$35 fee after the first callsign is granted. There is no fee for an upgrade to one's license, a sequential callsign change request, or a change in name, or either email or mailing address.
- As noted earlier, due to COVID-19 issues, many teams are going to remote testing, doing low contact in person testing, or abandoning exams entirely. Check with the VE Team Leader for more details.

#### Volunteer Examiners (2)

- Certifying exams fraudulently has severe consequences, for BOTH the examiners (who lose both their
  accreditation and amateur radio licenses for life)...but ALSO for the examinees at the session. They
  likely will have to re-test before the FCC or another VE Team, but only get one chance to do so. If they
  fail, they may never get a chance to take another license exam.
- Don't even think about "bribing" the VE Team, or asking them to grant you a license without you taking an exam. Cheating, in ANY form, is NOT tolerated!! If caught, your exams are marked as FAILED, you will be dismissed from the exam session, and both the VEC and FCC will be notified of your actions, making you "a character issue"...and likely making it a waste of time to try testing again.
- If the Exam Team is printing their own exams, every exam book and question order on the test (even if just A, B, C, or D) is in a different order (no exams are the same)...so trying to copy answers off of your neighbor will do you no good. If you take the same element again (you failed it the first time), the questions, and order of answers, will be DIFFERENT than the first time around. In short, "re-testing" is NOT "remembering".
- Per Part 97.511, ALL examinees are REQUIRED to COMPLY with every instruction given by the VE Team.
- In short, you're either ready to take the exam, or you're not. If you studied well, you should have no problem with passing the exam. If you fail the same exam (with different questions) more than one time in the same session, you likely need more study. You basically can't just "walk in off the street, without some preparation".

# Poor Operating Is Destroying Us And The Hobby

- When you signed the NCVEC Form 605 at the exam session, you stated that you AGREED to abide
  by the Rules in Part 97 in Title 47 of the Code Of Federal Regulations.
- New operators hear these bad practices, and think it's OK. Some areas of HF seem like "a glorified CB", with raunchy communications (rated R and NC-17), and numerous violations of Part 97 (they feel the rules don't apply to them). Plus, some of the offenders don't even have licenses to be on those bands.
- Those with poor operating habits are known as "lids". I have far more hams that appreciate what I'm doing in the hobby, than these "lids" who feel I'm egotistical (they likely wouldn't want to be doing all of the work I'm doing). I'm not forcing anyone to listen to, or checkin to my nets. If they don't like me, or the way I do my nets...they can "spin the dial" to change frequency, mode, go to another net, etc., or turn their rig or computer off...I certainly won't lose any sleep over it.
- On bad operating, once is an accident...twice is questionable...and more than that, you should know better.
- All of us were BEGINNERS at one time. It's up to ALL of us to ELMER the new ham radio operators, to show them the proper way to be on the air, to keep their shack safe, and their operation above any reproach.
- There've been operators as young as 5, and as old as over 100 on the air.
- In short, these are the reasons that I prepared this forum.

# 15 Ways To Destroy Your Ham Radio Club And The Hobby (1)

- This was adapted from a square dance publication, "The Sets In Order", originally published in March, 1966, on "15 Ways To Kill Your Square Dance Club". As noted earlier, I was into square dancing 5 years before I got my amateur radio license.
- I do NOT recommend doing ANY of these...but, if you have these in your club, its future existence, as
  well as the hobby, are in grave danger. We do NOT want or need ANY of these folks in the hobby. If
  you're doing any of these, you're the reason your club isn't growing, and helping the hobby.
- Don't Attend The Meetings They have enough without you.
- Don't Pay Your Dues The club treasury is loaded. They don't need your money.
- Ignore All Guests You didn't invite them, so why be nice to them??
- Don't Check Into The Club Traffic Net There are many other nets out there.
- Don't Obey Part 97 Of The FCC Rules They don't apply to you.
- Complain Gee Whiz, Can't they do anything right??
- Gripe About The Club Officers But, never do anything to help.
- (continued on next slide)

# 15 Ways To Destroy Your Ham Radio Club And The Hobby (2)

- Never Serve On A Committee For A Hamfest Or Otherwise And, if you're put on one, "nuts" to them.
   There are plenty of other folks to do the work.
- Deride Those Who Use Internet Modes, As Well As Those Who Never Did A CW Exam. Internet Radio is NOT ham radio, and CW is the real proof that you are a ham.
- Never Invite Guests It's too much trouble; but if you do, be sure they are below the emphasis of your club.
- Don't Learn Anything New You know enough to get by; how can you be sure something new will be fun??
- Jabber And Talk While The Meeting Is Going On You're not interested in what the speaker is saying, so why should anyone else be??
- Don't Smile Show everyone you aren't having a good time.
- Belittle Your Club Tell everyone how good the other clubs are.
- You're Always Right Everyone else makes mistakes, not you.
- In short, if these don't kill your club, you may find that some of your fellow members are ready and willing to eliminate you.

## Three Ways To Punish Bad Hams (1)

- The Wouff Hong, Rettysnitch, and Ugerumph (photo on the next slide).
- No word on the method of length of discipline to use on the miscreant amateur radio operator, but "Vaseline Is Optional" (you'll see why in a moment).
- Done at ARRL ® Division Or National Conventions, and selected other events.
- ARRL® Regular or Life Membership is required to participate in "the secret society ceremony".
- Nothing degrading or vulgar during the ceremony...but you will do a lot of laughing, and participants get a very nice certificate afterwards (photo of my certificate coming up shortly).
- It's usually done at 12 midnight local time, but it may be done as early as 9pm local time (as it's 12 midnight somewhere).
- No politics, dues, etc. -- but participants are SWORN TO SECRECY on what goes on during the
  ceremony. What I've noted here is ALL that I can say about it...but "a good time is had by all".
- I went through it at the 2007 ARRL ® Great Lakes Division Convention in Cleveland, Ohio...and at the 2013 ARRL ® Delta Division Convention in Springdale, Arkansas. I lost the first certificate, but got a replacement at the 2013 event...a photo of it is on an upcoming slide.

Three Ways To Punish Bad Hams (2)

The Wouff Hong, Rettysnitch, & Ugerumpf (3 ways to deal with poor operating hams)







# My Wouff Hong Certificate from the 2013 Ceremony



Final Comments (cabese at Brinkley, North Little Rock, and Little Rock, AR)



# Thanks For Coming – or For Viewing This Presentation!!

- As the cabese end the trains, this is slide 73 in the presentation, and since 73 (best wishes) is what hams use at "sign off", this concludes the forum presentation/file.
- I'm sorry that it was so long, but I hope you got many of your questions answered, as I covered a large amount of topics.
- Please email me with questions or comments. I'm reachable at n5vlz@winlink.org or vhfnetmanager@qcwa.org
- I'm on the air for selected nets during the week (D-Star, Echolink, Packet Via Telnet, or D-Rats), and also available for "sked requests" on those modes, plus on CQ100.
- 73, 75, 47, and thanks for coming...or for reading this presentation.

