

The content which follows is a transcript of the Practical Amateur Radio Podcast hosted by Jerry Taylor, KDOBİK. This monthly version of PARP is typically released the last week of each month.

The Practical Amateur Radio Podcast – Episode number 53.

From the ham shack of KDOBİK, located in Colorful Colorado, this is the Practical Amateur Radio Podcast.

This is show number 53, volume number 5 with a release date of March 21 , 2012.

Hello everyone. My name is Jerry Taylor; my amateur radio call sign is KDOBİK and welcome to the Practical Amateur Radio Podcast...Creating Elmers One Podcast at a time. Amateur radio or ham radio is what this podcast is all about. If you are currently studying for your exam or have been in ham radio for years....I'm hopeful this podcast will help you. If it has helped you, I hope you will continue to listen and I also hope you'll tell others. Also, in keeping with our Creating Elmers one podcast at a time philosophy, if you learn something from our podcasts....please share that knowledge with others.

We have another full-featured episode this month. But before I kick the tires and light the fires, I just wanted to plug the Practical Amateur Radio Podcast - Become A Ham audio program for just a minute. Some of you may remember back in 2010, I recorded all the question pool questions and answers and created twenty audio study sessions. Last year when the new general was released I started recording those.

Through a busy late summer, then studying for extra myself and a busy fall/winter, I seriously procrastinated getting the general material completed. Completing all twenty audio sessions did weigh heavy on my mind and I'm happy to say that I pushed really hard and managed to get all twenty sessions, including all of the general class question pool recorded. The 2011 - 2015 material is 100% complete.

What about the US Extra class Q&A? Yes...Until just recently I was somewhat unsure if I would tackle that project. But...Become A Ham with Tech and General just isn't complete without the extra audio material as well. Plus I've received enough feedback from enough listeners who really want me to do this. Well...that is really all the motivation I needed....simply knowing someone wanted it, would use it and very likely benefit from it was all I really needed to say YES!

The extra Q&A will be much more difficult and especially time consuming. I want to keep with the same format as the other two and in order to do that, I'll need to wait until the ARRL Extra Class book is published then I'll start the recording. So stay tuned for this.

Now what is this Become A Ham audio program? I'll try to give you the short answer. Essentially, when I prepared for both the technician and general exams, I did what most everyone else does. I read the ARRL study guide, I listened to the Gordon West audio material and I completed dozens of the online sample tests. I also asked my very supportive wife to assist me. She would read the question to me and I would try to answer. If I couldn't answer immediately, she would read the four possible answers, if I still couldn't answer then she would provide the answer. She would mark the questions I had difficulty with and I would go back and re-read that section in the ARRL study guide.

By the way, this especially came in handy when in the car. I kept a copy of the question pool in the center console and would ask her to quiz me.

In a nutshell, the Become A Ham audio program is essentially a audio flash card style program. I read the question, I pause, I read the four possible answers, I pause, I re-read the question, pause again and then announce the correct answer. It really is this simple.

However, I really believe for the process to work and you to be successful, you really do need to read the book. Let me say that again.....READ THE BOOK!!!! This is important for many reasons. One, you truly want to understand the content and not just memorize the answers. Second, I use the ARRL version of the question pool which accurately aligns with the ARRL book. The audio sessions are based on the various chapters and sections of the book. If you miss getting the correct answers during the audio Q&A, I remind you of what chapter and section you need to go back and re-read. So the key to your success is to get the ARRL book and to read it.

Once you have read the book....perhaps consider READING IT AGAIN!!! I'll admit that sometimes I have to read through something twice before it really starts to crack through the cobwebs in my brain. Once you have READ THE BOOK, go register for a free account at hamtests.co.uk. Don't let the .co.uk URL throw you off. Hamtests offers both the US and the UK level study exams.

Yes I am aware there are other alternatives. Hamtests.co.uk is operated by some friends of mine in the UK. These are fantastic guys and the program works. It's also free. The other advantage is the hamtests.co.uk forums and chat room. Yes, I realize the other really big website which offers free online quizzes also has a forum. However, it is my opinion this forum is not as friendly to newbie's and the sorts of questions newbie's might ask. The hamtests.co.uk forum is very friendly to those just starting out. Plus they also have a chatroom which is staffed by extremely knowledgeable individuals who don't mind answering a question or two.

So to re-cap. The Become A Ham audio program is simply a flash card style audio program to help you polish your knowledge once you have read the ARRL study guide and while you are taking practice exams.

How much does the Become A Ham audio program cost? Absolutely NOTHING!!! Just like this podcast and all the content on MyAmateurRadio.com....it is all absolutely free and it is commercial free as well. Meaning no ads...never.

However, due to several emails I received in the past several months, I've reinstated the donation link. There is absolutely no obligation. As before, 100% of all donations will go to cover web hosting costs. If you feel you have received some value..could be a dollar...could be more...and you want to help support the costs...just go to myamateurradio.com and click the tab on the top of the page labeled Donate. It is that simple and that's all that needs to be said about that subject other than a very sincere Thank You.

Let's get to our educational topic.

Did you know not all signal reports are 59? I know.....it's hard to believe. Spin the dial up and down the HF bands and you hear everyone giving 59 signal reports. While this is typical in contest exchanges, outside of contests do you know how to give an accurate signal report? Do you know what the numbers mean? Do you know the difference between a signal report of 59 and 599?

This episode I want to discuss signal reports, also known as an RST report. RST stands for Readability, Strength and Tone. This code was developed in the early 20th century and was in widespread use by 1912. So consider this 100 years old this year.

Now before we get into the meat of this topic. Do you know and understand what constitutes a QSO? Not a contest QSO...but just a regular run of the mill QSO?

If you talk to a half dozen hams and ask this question, you might get a half dozen different answers, but hopefully one thing in common will be at the very least you need an exchange of call signs and an exchange of signal reports. Now some might also add exchange of name, location including city, state, county and perhaps a weather report. Those latter items are just nice to haves and not actually considered necessary for a true and legal QSO. Again, what constitutes a valid QSO is the exchange of call signs and signal reports. Again, please understand I'm not talking about contest exchanges. I'm just talking about the bare minimum requirements for a plain, ordinary QSO.

Now let's break down each element. The R in RST stands for Readability. Readability is measured using a scale of 1-5. Readability is how easy or difficult it is to correctly and accurately copy the information being sent in the transmission.

A readability of 1 is simply unreadable. You are unable to make out any words in the transmission. If conditions don't improve, this might be considered a busted QSO as you would not be able to even distinguish a call sign, nor the exchange of signal reports. Remember...what constitutes a valid QSO is the two way exchange of call sign and signal report.

A readability of 2 is considered barely readable, with occasional words distinguishable. In this situation, you might eventually be able to pull out from the mud the other operators call sign and signal report. If you can, then this could become a valid QSO.

A readability of 3 is considered readable with considerable difficulty. Again, this QSO will probably require a little bit of effort on your part. But is probably very much doable.

A readability of 4 is considered readable with practically no difficulty. Now we're getting into the easy peasy type of QSO's.

A readability of 5 is perfectly readable. Need I say more? This is like having a face to face conversation with someone sitting next to you.

Now just as important as the readability, the S in RST stands for Strength. Strength is an assessment of how strong the received signal is heard at the receiving station.

I've heard a couple of different schools of thought regarding how one goes about correctly identifying the strength of a signal. Some say it is completely determined by how the received station perceives the strength of the signal by using their ears. Others suggest using the S meter on your transceiver as the determining factor and some say it is a combination of both. For me, I tend to lean more towards the first option and rely less on using the S meter on the transceiver. Actually I almost never rely on the S

meter to determine strength for an RST signal report. I did say ALMOST never and this will prove important in just a minute. Remember, the S in RST stands for the strength assessment of how strong the received signal is **heard** at the receiving station.

Like a lot of aspects in our wonderful hobby, in time it is possible to train your ears to correctly identify the appropriate strength based on the 9 levels which make up the strength as heard by the receiving station.

A strength reading of 1 is considered a faint signal, barely perceptible.

A strength reading of 2 is considered very weak.

A strength reading of 3 is considered weak

A strength reading of 4 is considered fair

A strength reading of 5 is considered fairly good.

A strength reading of 6 is considered good.

A strength reading of 7 is considered moderately strong

A strength reading of 8 is considered strong

Finally, a strength reading of 9 is considered very strong signals.

Research this <http://www.hamuniverse.com/rst.html>

Let me quickly talk about the T in R S T and then we'll tie all this together.

The T in R S T is Tone. A numerical value of 1 to 9 is assigned to CW and some digital modes.

- 1 -- Sixty cycle a.c. or less, very rough and broad
- 2 -- Very rough a.c. , very harsh and broad
- 3 -- Rough a.c. tone, rectified but not filtered
- 4 -- Rough note, some trace of filtering
- 5 -- Filtered rectified a.c. but strongly ripple-modulated
- 6 -- Filtered tone, definite trace of ripple modulation
- 7 -- Near pure tone, trace of ripple modulation
- 8 -- Near perfect tone, slight trace of modulation
- 9 -- Perfect tone, no trace of ripple or modulation of any kind

So if we were operating CW and we were given a signal report of Five, Nine, Nine this would essentially tell us the five means your signal is very easy to understand with absolutely no

difficulty. The first nine means your signal is very strong. The second nine means your CW tone has a nice pure clear tone or sound.

If we are talking about phone or voice QSO's, the R for Readability and the S for Strength is all we need to know. I'm going to go out on a limb and suggest that based on what I've been hearing on my station, in the current band conditions we've been experiencing....most of the phone QSO's I hear and work are NOT Five Nine. Yes, there are some strong stations from time to time and YES....many of these are a true Five Nine.

Some of these are even what we would consider over Five Nine. Perhaps you've heard someone say 20 over Nine or Five Nine Plus 20. So how does that work? As I mentioned earlier, the R or Readability is a 5 point scale and the S or Strength is based on a nine point scale. As a reminder, the S in RST stands for the strength assessment of how strong the received signal is **heard** at the receiving station. Finally, I also said that I rarely use my S Meter to determine the strength of the signal. Actually I think I said, "I almost rarely use it".

Here's the deal. Yes, I do glance at the S meter on my rig. I mainly use my Yaesu FT-950 and it has a nice sized digital S meter read out. On the occasion band conditions are good...wait...exceptional and I have a nice strong station coming into my headphones, I will have a look at the S Meter. The S meter would tell me how many DB over the 1 - 9 strength range. So in the above mentioned example of 20 over 9 or 5 9 plus 20, it simply means the signal is a really strong signal.

Now before the limb completely cracks, breaks and I land on my head. I tend to hear and of course give a lot of 4 5's, 4 6's, 5 6's etc. Which in my opinion are actually VERY good signal reports. While these of course aren't as good as a 5 9 signal report. A true and accurate 4 6 signal report is better to hear than a falsely given 5 9. Agree?? Disagree????

My final thoughts....

There is a part of me that understands why contest exchanges always default to 5 9 regardless of how they are truly heard. An example of this was a few weeks ago during the recent ARRL DX contest. I was trying to bust the pileup of a station in Barbados. This was a new DXCC entity for me and I really wanted to get the station in my log. The contest station finally heard enough of my call sign to know my suffix of Bravo, India, Kilo...but he had difficulty hearing my prefix. I had to repeat Kilo, Delta, Zero two to three times before he finally had it straight. He gave me a 5 9 signal report.

The reason I understand the automatic 5 9 exchange is of course it is faster to just give a 5 9 than to have to analyze the accuracy. Plus most contesters will pre-record their voice keyers for not only CQ Contest, QRZ....but just as importantly they may have one setup with the exchange as well.

But at the same time, the practice of ignoring reality for an automatic 5 9 just creates a problem down the line with the misunderstanding of how signal reports really work.

In closing, I encourage you to print out the R S T signal report chart (I'll post a link in the show notes) and hang it on the wall next to your band plan chart, then use it to provide honest signal reports. I'm sure the operator on the other end will appreciate it.

<http://www.acsu.buffalo.edu/~maxwell/RSTInfo.html>

Featured Website Segment

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Our featured website for episode 53 is a new video podcast called Ham Radio Now. Ham Radio Now is the work of Gary Pearce, KN4AQ. You probably know Gary from his ARVN or Amateur Radio Video News service. In addition, Gary also fills in from time to time for Bob Heil on Ham Nation.

Through Gary's Amateur Radio Video News videos, he's covered many interesting topics including digital voice for amateur radio, amateur radio direction finding, and D-STAR programming just to name a few. I believe it is safe to say that Gary has been bitten by the Elmer bug through his participation on Ham Nation and started this new video podcast in an effort to give back to the amateur radio community.

To date Gary has produced three episodes of Ham Radio Now. The first two cover the Orlando HamCation Hamfest and the third is the full-length session on Ham Radio Deluxe which he also recorded during the Orlando HamCation hamfest.

I hope each of you listening will check out Ham Radio Now and add it to your catalog of content you consume on a regular basis. From one amateur radio podcaster to another, I truly wish Gary the best of luck with Ham Radio Now and believe it will be very successful.

Now before I close out this segment and move to the featured gadget segment, I would like to direct your attention to the MyAmateurRadio.com website. As I've done for many years, I have listed a complete list of all amateur radio audio and video podcasts I know about and still have active websites to link to. If you visit MyAmateurRadio.com and scroll down while looking on the right hand side, you'll find the section labeled as My Favorite Amateur Radio Podcasts.

As it stands today, I have listed about 16 different amateur radio related audio and video podcast websites. I truly encourage you to visit these shows and give them a try. As I've said before, unlike other subjects which might consider other shows competition....I don't view it this way with regards to the subject of amateur radio. This is why I actively support each of these shows with a link back to their website.

We are all in the business of Elmering to those who listen for the exact same reason. It is a shared passion and love of the hobby and service of amateur radio which inspires us to give of our own time. I'm honored to share the role of amateur radio podcaster with each and every podcaster I have listed on MyAmateurRadio.com and encourage anyone who has a desire to start their own podcast to do so.

Featured Gadget Segment

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Amateur Radio is all about gadgets. Some gadgets may directly relate to amateur radio and some may not. However, in most cases the featured gadget will at the very least be something that may help you in some capacity around the shack.

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Like last month, our featured gadget is fairly low tech and requires no batteries. However, it does carry a lot of power if you let it.

Of course, I'm talking about Anderson Powerpoles. If you don't use them...you really should. Especially if you operate portable and even more so if you interact with other amateurs in emergency communications activities.

Anderson Powerpoles are the little red and black plastic connectors which you may have seen others use. I've mentioned Anderson Powerpoles before and also created a "how to" video back in early 2008 demonstrating how to assemble them. In this video I used the specially designed crimper which is available from PowerWerx. That's www.powerwerx.com (whiskey, echo, romeo, xray). As a matter of fact, I order most of my Anderson Powerpoles and accessories from PowerWerx. If you assemble a lot of powerpole connectors, the TriCrimp as it's called on the Powerwerx website is a must have.

Back to the powerpoles themselves. These little red and black plastic housings have been adopted by most emergency communications groups as standard practice. If you participate in ARES, RACES, MARS, SATERN etc. and want or need to power your radio, You'll want to make sure you have Anderson Powerpoles installed.

They are not just for emcomm use. The 12v power in my hamshack is produced by a 45 amp power supply which connects into a power distribution panel. This power distribution panel has Anderson Powerpole connectors installed and it mounts on the wall just behind my operating position. All of my radios, tuners, sound card interfaces....everything which requires 12v power is plugged into this power distribution panel. This means every piece of equipment gets a set of anderson powerpoles installed.

My Ford Escape is no different. I have a 10 gauge red and black zip cord connection direct to the battery which leads through the firewall and connects into a small 40 amp RigRunner power panel mounted in the rear of the Escape. This allows me to take any of my radios from out of the shack and into the mobile with ease.

Portable use? Yep....Anderson Powerpoles are an integral part of my SOTA and portable operations. My Buddipole battery pack has powerpoles installed and from there I connect to a pocket size power splitter which I connect multiple devices into and power all from the same power source. Likewise if I'm setting up for Field Day I can be certain my radios will interface without issue into the clubs power connection.

Regardless of home ham shack, mobile or portable use. Anderson Powerpoles will help you keep your negative and your positive connections all flowing in the correct direction.

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Ham Adventures Segment

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And now for the ham adventures segment. Solid progress continues on the new ham shack, home office, podcast studio and just overall general man-cave. Last month in episode 52 I briefly mentioned the sheetrock was going to be delivered and it was. The difficult task of moving 46 sheets of 4x8 by 1/2 drywall from the garage, into the house, down the hall, down the basement steps and then around the corner into the unfinished area was completed. Boy was I tired after that. When I start to think of things being tiring, I'll just remind myself of how I felt after. But thankfully that is why I have a Jacuzzi tub and nice strong pain medication.

We made good progress on hanging the drywall. We worked two and a half weekends in a row to get the walls completed. The ceiling hopefully will get done next weekend. The ceiling will be made much easier with the rental of a drywall lift device. You place the sheet of drywall onto the lift and roll it into position and crank it up in place, then attach a few screws, move the lift out of the way and then continue adding screws.

While I've saved the harder tasks such as hanging drywall and such for weekends, I have been working two to three evenings each week on wiring in the electrical outlets, network and cable tv jacks etc. It's all coming together rather nicely. When I stand back and look at the unpainted sheetrock walls I can see it. I can see the new shack and it's definitely something I'm going to be proud of....extremely proud and I've done it all myself.

Now I estimate I'm still a few months from the official move in day. I plan to have ALL work completed. That's painted, flooring done...everything. Then I'll spend the necessary time to move my radio gear into the new home and officially christen it as the new basement ham shack of KDOBİK. I'll probably tweet the big day and I hope to work many of my good friends and let you all help me break in the new ham shack.

In addition to the ham shack work, I've also been continuing the work needed on MyAmateurRadio.com. As reported last month, I did manage to get the content all moved over. In recent days I've been working on a new audio player. The new audio player will work across multiple platforms including Windows, Mac OS and especially on portable devices such as iPad, iPhone etc. I'm really pleased to be able to say that the content I produce and make available via either mp3 audio or video can be consumed or played on any type of device. I believe this is important.

Also in recent months I've been speaking to some of the smaller amateur radio clubs in the greater Denver area. I've given two presentations on SOTA or summits on the air and have a third one coming up in about 10 days. But before that, I've been invited to come and speak to a large group of Boy Scouts. I'm going to provide them information about getting started in amateur radio as well as talk about SOTA. I'm really looking forward to this talk.

While I won't discuss specifics at this time, I've been invited to talk at a large ham fest this coming fall and I'm really looking forward to it. If you've been listening to this podcast from the very beginnings....I mean waaaaay back from episode 1, you probably notice that I sounded nervous in those early episodes. Today I'm very comfortable and relaxed when I sit down in the basement podcast studio to record these episodes.

Well...just like those early podcast episodes, I do get nervous when presenting to a live audience. I suppose a dead audience could be worse....but you know what I mean. As you can tell I'm also not a joke teller. In any event, these smaller club meetings I've doing here locally are all in an effort to help me build up to a larger opportunity. I'll of course be certain to update all of you once we get closer to fall and let you know the where, when etc. once all the details are worked out.

Finally, please bookmark the MyAmateurRadio.com website and please subscribe and or continue to subscribe to the Practical Amateur Radio Podcast. If you don't yet have your license or....are preparing to upgrade to general, please consider using the Become A Ham audio Q&A material. If you are

planning to upgrade to extra class, stay tuned and I'll be certain to let you know when I start on the material.

Thank you all so very much for listening to the podcast, for your emails and most importantly, THANK YOU for sharing your knowledge with others. The Practical Amateur Radio Podcast....Creating Elmers One Podcast at a time.

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Mailbag

Mail goes here

Well this wraps another episode of The Practical Amateur Radio Podcast. We will return again with episode 54 sometime in April. In the mean time, want more amateur radio audio and video content? Of course, every practical amateur radio podcast from episode 1 through this episode, episode 53 are available 24 hours a day, 7 days a week on MyAmateurRadio.com. But don't forget about all the other wonderful amateur radio podcasts available. You'll find a list of all that I know about on MyAmateurRadio.com. Just look on the right hand side, for My Favorite Amateur Radio Podcasts. Enjoy!

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Until next time, 73 to all from KDOBİK.

This has been The Practical Amateur Radio Podcast. The Practical Amateur Radio Podcast is written and produced by Jerry Taylor. You may contact Jerry by email at kd0bik@arrl.net or by visiting his website at www.myamateurradio.com. The practical amateur radio podcast and myamateurradio.com are protected under the Creative Commons license. Please see myamateurradio.com for details.

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