# Episode 542 – Jeff Banke – NZ2S Transcript

Eric 4Z1UG
NZ2S. This is Eric4Z 1UG. Are you there, Jeff?

Jeff NZ2S
Yes, Eric. Good morning, Jeff.

Eric 4Z1UG
Thanks for joining me on the QSO Today podcast. Can we start at the beginning of your ham radio story? When and how did it start for you?

Jeff NZ2S
My adventure into amateur radio has had many stops and starts. Probably, as you can detect, I have a little bit of an accent because my mother was English and my parents were a wartime GI marriage. And she won the argument. Although I was born in Michigan, she won the argument about where were going to live. So from the age of 10, I grew up in England. I happened to work for a farmer as a teenager, a young teenager from the age of 11 on. And he was an amateur radio operator. So I got introduced when I was about 11 or 12. Didn't really do anything except make a spark generator. And a friend of mine and I were doing Morse code, watching our TVs striate as we sparked. Yeah, parents soon put an end to that.

Jeff NZ2S
They did, however, encourage my interest in electronic and bought me some kits and things like that. I eventually ended up making a. A receiver with an acorn type of valve, or tube valve is what they call them in England. And then I, I had an interest in aviation, so I joined something called the Air Training Corps over there, kind of like the ROTC here, only they split it into navy cadets, army cadets and air cadets. And the whole purpose, of course, is to encourage kids to end up in the military. And they had a number of courses which included an electronic course that kind of opened doors up for you if you do pursue a career in the military. So I took those and eventually ended up with a career in electronics working for Ampex.

Jeff NZ2S
I dabbled in the 70s in amateur radio, but unfortunately, excuse me, I dabbled with CB Radio back in the 70s, but the company asked me to go to Italy for two years. So I was living in Italy and ended up working all over Europe in Germany, France, Italy, Belgium.

Eric 4Z1UG
For Ampex?

Jeff NZ2S
For Ampex, yeah. Even Israel and Egypt. And being a person with dual nationality, I had both passports which allowed me to go to Israel on an American passport and then fly back out to Cyprus and down to Egypt on an English passport, because in those days, if you had an Israeli stamp in your passport, they would not allow you in any Arab country. So. And I was by then in my 30s and was. Had the same initials as James Bond and thought it was cool to be operating that way where nobody could track me. But anyway, after, when we think of.

Eric 4Z1UG
Ampex, think of, I guess we think of audio and video recording equipment. Was Ampex doing much more than that in those days especially?

Jeff NZ2S
No. I was a specialist on the. The studio cameras. Also became a specialist on engineering specialists on the. Their vision mixers, switchers. So I was involved in the video side of the business, the broadcasting mostly.

Eric 4Z1UG
Right, Your customers were television stations and recording studios?

Jeff NZ2S
Yeah, yeah. Post production facilities as well. I was supposed to be in Italy actually, just to teach the Italians, but because none of the Europeans, I don't know why, they were frightened of the cameras and the vision mixers. That's why I ended up working all over Europe. So basically I didn't really have any free time to do anything. And after the two years in Italy returned to the US they offered me a job in technical support out of Colorado. And technical support just meant that instead of having just European countries, I now got to travel to everywhere in the world and in fact ended up. I've worked in 50 countries and lived in three now. So living in three countries gives me a different perspective.

Eric 4Z1UG
Was there something about. I mean, obviously to do this for Ampex meant, you know, they were probably a great company for. But also they had a lot of interesting technologies. Was there, was there a technology at Ampex, a single one that captivated your interest the most?

Jeff NZ2S
Yeah, it was a vision mixer that actually led to my next career in Ampex because I went from working as a technician in the factory to a field service engineer in Italy to a technical support engineer in Colorado. They then offered me a job in. Because I managed to find some ways to use the vision mixers in ways that no one else had ever used them, writing what I call basically hints and tricks to you kind of thing. They then offered me a job back in California and in fact asked me to manage this group of product specialists who were basically all operators of equipment that were sales support. So we would go in, this Ampic sales guy would get his foot in the door and then we would go sell, you know, show the client how great our product was and then leave.

Jeff NZ2S
And the salesman would write up the sales order and book it for the company. So were sales assists, if you like.

Eric 4Z1UG
And this was the Southern California market primarily.

Jeff NZ2S
No Northern California Ampic, based out of Redwood City in Northern California. So were back in California throughout all of this time. My wife calls me hobby Intense. I skied all of my spare time in when I was in Colorado or hunted. And when we moved back to California, I was also an NRA training counselor, was teaching firearms, teaching Other instructors. I continue to ski. I have a pilot's license, so I was flying, basically. My wife is absolutely right. I'm hobby intensive, and I didn't get around to doing any amateur radio stuff until I moved to Washington in 2016.

Eric 4Z1UG
Which is where you are now.

Jeff NZ2S
Yeah, which is where I am now, yeah. Largely because I was involved with so many other hobbies. I just didn't have anybody that I met that was a friend of mine that was in amateur radio while I was living in California. Excuse me, living in California, but moved up here, volunteered for the sheriff's office doing incident response patrols, managing the radar trailer deployment group number. It's a volunteer position with scope.

Eric 4Z1UG
Does radar. Is that an acronym for something? When you talk about radar, what was that exactly?

Jeff NZ2S
They are trailers that we park on the side of the road that have radar guns built into them and tell people, so please slow down, you're going too fast kind of thing. We can say anything we wanted to, so. Or just give your speed. So that was kind of interesting to me. And we. We had about 10 off or have about 10 offices, scope offices in the Spokane area and 25 or so vehicles. And it occurred to me that because I went to a. Emergency management, it was a big event they had here, and I was asked to go to that. And it occurred to me that, gee, wouldn't it be nice if all of these vehicles and the officers could talk to each other? The vehicles actually had sheriff's radios in them as well.

Jeff NZ2S
However, everything and anything that is said on a sheriff's radio is recorded. So we. I thought it would be great to have a different system whereby they could all talk to each other. So I decided to go. Go take my amateur radio. Even though were going to eventually end up with a commercial license, it occurred to me it would be good to have a amateur radio license. So I went and took my technician test and aced that one. And they said, do you want to take your general? And I aced that one. And they said, you want to take your. Your extra while you're here? And I guess I missed that one by one. So I went back a month later and. And got the extra.

Eric 4Z1UG
Jeff, did you find that when you decided to have this new interest in amateur radio that the resources in the Spokane area were. Were pretty available to you? I mean, did you have a. An easy time finding, for example, volunteer examiners information about the hobby?

Jeff NZ2S
Yeah, I. I joined the Inland Empire VHF Radio army, which coincidentally, I'm now president of.

Eric 4Z1UG
Good for you.

Jeff NZ2S
I joined them and we had a gentleman that put on the classes and also did the testing. And because I happened to befriend him, I took the tests and everything, got the licenses and found that the Inland Empire group had a lot of resources, a lot of. We save a lot of our presentations that we have by other people on a Google Drive that people can access. And I obviously took a look at a lot of that stuff and in the process have ended up mentoring a lot of other people that were didn't have the electronics background that I had so very rapidly transitioned from a newbie to a mentor and that respect.

Eric 4Z1UG
Did you find with your success in getting back into amateur radio that you were influential in say, bringing the other volunteers in the sheriff's department, you know, into ham radio? I mean, did you create a number of operators that you could actually communicate with over ham radio in behalf of the volunteerism?

Jeff NZ2S
Yes, indeed. There was one other person that had an amateur radio license. He had a technician license for years and really hadn't done very much since he moved from Nebraska or wherever it was, I forget now, to Washington. I encouraged him because we formed within the sheriff's department the SCOPE group. We formed our own emergency radio communication group. So we did that and got a commercial license so that not everybody had to have an amateur license because anybody that was in scope could use the commercial license. But since we had a couple of people that were interested in getting their license and in fact one of my friends, Peter Stewart, k0ng, who has moved from Washington to Tennessee since then, he was one of the people that I encouraged and mentored to get his license.

Jeff NZ2S
And he being a very smart guy with no electronic background, but being a smart guy, he went and got his extra over a six month period. And my other friend Greg, who was in scope as well, K2HP, he got his general license. And we've had obviously a number of other people getting their GMRS licenses as well. Because the our goal, the three of us were sort of, along with Neil Sullivan, N7NAS, were the core of the Emergency Communication group. And in the process we wanted to be able to everyone else to be able to talk. So we got the commercial license. I put up a Repeater for on Mount St. Michael here for the SCOPE offices. And we put radios in cars and we put radios, transceivers in all of the offices and things as well.

Jeff NZ2S
So were influential with a large group of about 300 people, some of that were in scope, some of which did go and get their amateur licenses. But the goal was that the majority of them didn't need to do that, hence the commercial license.

Eric 4Z1UG
So as a result of your interest in amateur radio and getting back in, did you say that you created also an AR group that kind of is a subdivision of Scope?

Jeff NZ2S
No, there's, there was an ARAS group already that is they're independent, separate from scope and naturally Peter and I joined that as well. So I got involved with that. And there's another really good group that I got involved with which is Spokane DX Association. So my, the wonderful thing about amateur radio I found is that you can, there are lots of different areas that you can play. I know some people that do satellite stuff. I know some people that do poda. I'm one of those. Other people just do VHF and UA. Other people just do UHF. Other people just do DXing. Contesting. I, I'm one of the people that dabble in everything. So I have antenna farm that's got lots of capabilities.

Eric 4Z1UG
So I guess I'm trying to understand is as a result of, you know, of your involvement in activity, are there more, say drills there, are there more activities, you know, for all of the radio users, whether they have an AMATRIO license or not, as a result of these, as a result of your interest in extending communications, you know, not only in Scope, but into the other public safety service areas?

Jeff NZ2S
Yeah. The areas group obviously work with the Department of Emergency Management. So they have access to the sheriff's radio as well. We largely go and do exercises, simulated emergency situations and practice deployment of emergency radio systems, that kind of thing. One of the things that I found that was both fun and helping with the emergency management stuff is polo. I find that it's very good exercise practice to go out and on a very frequent basis to practice emergency communications. Because that's what you're doing with pota.

Eric 4Z1UG
What also POTA is Parks on the air for the uninitiated. You're going to Parks?

Jeff NZ2S
Yeah.

Eric 4Z1UG
And setting up, deploying.

Jeff NZ2S
Yeah, and deploying antenna systems, Various different systems. I've got Wolf river coils, I've got buddy poles. I have a device that plugs into the back of the trailer hitch on my truck that comes out has a vertical tube on it and I have a 33 foot push up pole that slides in the tube. So I actually don't need to guy it because my two ton pickup truck is not going to let it go anywhere. So it's holding the pole up and I have a number of different dipoles that I put up. And the interesting thing is that you find out that you go to a park, some parks, and they don't want you to put stakes in the ground, you know, so if you're doing an inverted V, you have to come up with a new idea.

Jeff NZ2S
And this is what I find that is fun is that you get to, you can, let's put it this way, there's nothing that man has ever invented that cannot be improved upon. So instead of putting stakes in the ground to hold the inverted V ends in place, I started, since photography is another of my hobbies that I've had for years, I have these sandbags. So I would take sandbags but then I would go to parks. And now you've got an inverted V where you've got a trip hazard. So I, I came up with the idea. Well, I've got these photographic stands, the light stands that go up seven feet.

Jeff NZ2S
So I would take, I take these stands with me now and the sandbags hold the stands in place and the seven foot high poles hold the ends of my inverted V. So what that did of course was raise all the wire above a trip hazard. People could walk underneath it with no problem. And of course it sha, it made the inverted V shallower. That I find is the fun part, is that you can come up with new ways to do things and improve things to avoid those types of problems.

Eric 4Z1UG
It also kind of gives you real world experience for having to set up quickly in an emergency if you needed to. Now, do your pod activity solo or do you have friends that like to go out and do the pod activity?

Jeff NZ2S

Both. I interestingly enough, started out a couple years ago in Pota. Just did one or two with a friend, Matt. Matt Barrett Kilo India7 November Oscar he and I did a couple, we did a couple of sodas as well. Hike to the top of a mountain or two and did some sodas. Didn't really get into it until literally about March, April last year and really ran into a couple of, we had a couple of new members that joined the Inland Empire VHF Club and they were Caleb N7Crd and Mike N7MES and the two of them had started getting into PODA. We became, I became a mentor for them on the technical side and interestingly enough they lit a fire under me to go out and do more product.

Jeff NZ2S
So we frequently go out together and I frequently go out on my own and we've had a few really interesting things that happened all Four of us were at a three for park and we had, in the course of two hours we had a hundred and I think it was 140QSOs. And this is me calling and then handing the mic to one of them and then passing it around. So they all had to do an exchange with the guy on the other end.

Jeff NZ2S
And this occurred to me that this is very much like the being on a D expedition because having tried to work people that are on the expeditions, like Bouvet island, which was a recent one that I got one time, thankfully, it occurred to me that what were doing was very much like what the expedition guys do in that learning how to handle the traffic very rapidly. And in our case it was passing the mic around, four people and everybody getting their exchange in about a minute, that kind of thing. So it made it even more fun when it's your operating that rapidly and having to pass information quickly, which again is great practice for emergency communication.

Eric 4Z1UG
Do you encounter civilian pedestrians in the parks and how do you manage the non hams that might be interested?

Jeff NZ2S
Yes, we do. Obviously people are kind of inquisitive as to what we're doing. I initially we had just people would come up and one of us would have to take time out to explain and talk to them. We have made some banners up now that have our club logo and the PODA logo on the banner. They're sort of. Well, we have two different sizes, 6ft and 4ft and we just hang one of those off the side of the vehicle. So people see that and it says, you know, Inland Empire, VHF radio amateurs. So it answers some of the questions they're going to ask. Anyway, we're very happy to talk to people and encourage them to take an interest in it.

Jeff NZ2S
So we will always take time out to talk to people and frequently we have park rangers come up to us and they want to know what we're doing. A lot of the parks, you in Washington, you have to have a discover pass that is $35 a year that allows you to go into the parks and park. So we have to make sure we're displaying that. Occasionally we forget the park rangers come up and ask us and we oh, it's in the glove box here it is. But they're always receptive and very interested in what we're doing. And in fact, now some of the parks that we frequent on a regular basis, the park rangers either know our vehicles or they see the. We have hamsticks on the roof of the vehicles.

Jeff NZ2S
Because a lot of the time in the wintertime we're operating from inside the vehicle with a hamstick and they see the antenna vehicle with antennas and they wave at us because they know what we're doing.

Eric 4Z1UG
Now what's, what is the poda rig that you take out?

Jeff NZ2S
I use a 7300 IC 7300 that I have in a. One of those. I've forgotten the name of the brand, but anyway, it's a box so that has the front and back come off of so you could take the front off and you have access to the controls and take the back off so you can plug in the antenna so it protects the 7300. I also have an LDG antenna tuner. Yeah. In there as well. That's. I know the 7300's got its own tuner, but I'm a belt and suspenders kind of guy. So, you know, I like to have that extra safety factor in there. Also the box has a speaker built into it as well because obviously the 7300 speaker is facing upwards into the box. So that's what we use. Matt and Caleb have since bought 7300 each.

Jeff NZ2S

So we're pretty much all 7300 guys. Just makes it easy because then we can, you know, if somebody has a problem with one, we can all help each other out.

Eric 4Z1UG
That's very amazing. Okay, so you're operating HF primarily then with the 7300.

Jeff NZ2S
But we, we also have VHS and UHF radios as well in the vehicle. So on top of my truck I have 70 centimeter, 2 meter, 1.25 meter, 2 meter and HF antennas on the roof. So I can. We can also do park to parks because some of the parks are close enough together here that we can do. We can use 1.25 or 2 meters or even 70 centimeters to do a park to park. And we're all working on. POTA has the 10 bands, 10 parks award. So currently that's what we're kind of working on. Trying to go to one of us go to one park, one go to another park and talk on as many bands as we can to each other.

Eric 4Z1UG
I saw somewhere that you might have a. Also the ICOM 9700.

Jeff NZ2S
That's correct. Yeah. I, in my QTH here I have a 7300 and a 9700, plus some other radios, but those are the two main ones.

Eric 4Z1UG
Are you operating like on VHF and UHF say single sideband, you know, horizontally polarized. You tried, you know, some weak signal work?

Jeff NZ2S
No, I haven't. But I do have obviously the capability and in my barn I have a 10 element 2 meter yagi that I am planning to put up to do exactly that.

Eric 4Z1UG
Yeah. We're discovering here that there's some amazing openings 2 meters from Israel to Europe to England and places like that. So I see some of the maps that are putting up around here. So during the summer, you know, you've got the spirit ducting to and temper invert temperature, give you some very nice VHF paths off into the distance.

Jeff NZ2S
Yeah. So that's in my near future along with a very large antenna that I'm planning on putting up as well. Right now for HFI, I'm using a hex beam on a 30 foot tower that is on the side of the house that I find the hex beam to be pretty good. I mean it's the equivalent of a two element yagi, a direct driven element and a reflector.

Eric 4Z1UG
How do you like it?

Jeff NZ2S
Yeah, I've made. Well, according to QRZ Z, I have made contacts with 190 countries, but LOTW confirmed ones are 163 countries on that antenna.

Eric 4Z1UG
Pretty amazing.

Jeff NZ2S
Yeah.

Eric 4Z1UG
So it's my understanding that you also have a workbench, right?

Jeff NZ2S
Yeah.

Eric 4Z1UG
That you do some repairs and restoration.

Jeff NZ2S
Yep. I have become the local fixer of Astron power supplies. In fact, I've had guys send me power supplies from other places. Fortunately, we have people that go back and forth that have relatives on the west side of the state. So I've had people send me power supplies from Seattle, which is, you know, five hours away, but they. People driving back and forth, you know, ferry these things.

Eric 4Z1UG
So because I. Isn't the Astron. The Astron a linear power supply or do they also sell switching supplies as well?

Jeff NZ2S
They do, yeah. I, as I mentioned before, there's nothing that man has invented that can't be improved upon. That's. And that's largely because everything is designed and built to a price point. And if you don't care about the price, then you can make something a whole bunch better. And that's what I started doing with the Astron power supplies. Because people would bring power supplies to me and I would find that they're blowing up the in. In the chain. It starts with the LM723 chip and people were blowing up the chips. And this was about when people started doing. Getting heavily into FT8 where they're not paying attention. To the fact that Astrons, and not just Astron, but also Pyramid and I work on those power supplies as well.

Jeff NZ2S
But people were not paying attention to the fact that the manufacturers are telling them it's a 50% duty cycle and FTA is much higher than that. So they were burning the chips up. And I looked at why this was happening and you have got in that power chain, you have the chip, a driver and then the pass transistors. And the pass transistors have a gain of about 25. When they're cold, it goes down to about 10. When they're hot, the driver has a similar beta as well, going down to 10. And if you start running that chain hot, then you start drawing more current from the chip. And the chip can only supply 150 milliamps. So what occurred to me was that one could save the chip by putting a different driver transistor in, for example.

Jeff NZ2S
So I was replacing the tip 29 driver transistor with initially I went to a tip 31, then the tip 41 which are just higher current devices, but they still only have that lower gain. Eventually dawned on me to put a Darlington pair transistor in there. So tip 121, 21, 122 kind of transistor that the Darlington pair has a gain of 1,000 and even when hot, probably around 500. So you're never going to blow the chip up, but it becomes the weak link in the chain. And it also then occurred to me that you could improve by putting better higher current patch transistors in there. That was another 58.

Eric 4Z1UG
They used 3055s.

Jeff NZ2S
I think those originally they went fairly rapidly to. Because that design by the way, is 1970. They've tweaked a little bit since then, but they fairly rapidly went to two N3771s.

Eric 4Z1UG
I'm showing my age. So yeah, so I'm not familiar with the Astrons, but they use this, the 723, so they could adjust the output voltage rather than a fixed voltage regulator.

Jeff NZ2S
I think it was just. Well, yes, you can adjust. Interestingly enough, there is a adjustment in their very limited range from it'll go from about 11 and a half to 15 volts somewhere in there. The, the way they're using the chip they can also there's a. Two other pins that are used as reference and they're tied together on the normal power supplies, but they make a variant of the power supply that has an adjustment on the front panel. And by using these Other two connections to the chip, you can make it swing from three, about three and a half to 15. So it's. If you need power supply, then you can make one out of the, any Astron.

Eric 4Z1UG
So I know that we're used to saying that our power supplies are 12 volt power supplies, but it seems to be that most mobile radios, from the 40s to the current time, the most mobile radios were running at like 13.6 volts because that's what the car, oh, that's what your, you know, your cigarette lighter, plug or what the car battery, whatever you're connecting to was. Do you set these power supplies then above 12 volt and not at 12 volts? Or how are these power supplies set up and how do you set them up in order to be, you know, more efficient?

Jeff NZ2S
And ham radios as delivered from Astron, they're set at 13.8 and that price set them as well. Occasionally if you buy one that has the battery backup, you'll find that the voltage is a little bit higher than 13.8 because there's a diode protection diode and you have about six tenths of a volt drop. So you will find that the voltage is about 14,5 before that diameter.

Eric 4Z1UG
So they'll float a lead acid battery across the power supply output in order to provide that backup power.

Jeff NZ2S
Yeah, yeah.

Eric 4Z1UG
Well, how about that? Are you finding that there's a lot of these power supplies still out there? And do you find that there's an advantage to a linear power supply, say, over switching supplies? The latest switching supplies seem to be pretty quiet, you know, from a, an RF standpoint. What do you find out there?

Jeff NZ2S
Yes, you're right. The initial switching power supplies were pretty noisy, but they seem to be quiet nowadays. The advantage of the linear power supplies and the reason I was buying so many of them for Scope Station things like that, is that they are very easily repaired. You can, they're almost indestructible. You can burn up a chip, you can burn up the drivers or the short, the pass transistors, but you can replace everything very easily. Switching power supplies, on the other hand, are a lot more difficult to repair. And I find a lot of them just end up in the trash when they do burn up. If, if somebody makes a mistake and causes them to burn up, there are few, I like to use the analogy there are fewer moving parts in a supply. So they're much, much easier to repair.

Eric 4Z1UG
But they're heavy, you know, obviously a.

Jeff NZ2S
Lot of iron, but and they do occupy more space. So I have an astron 60amp and an astron 50amp down on a shelf below my radio desks that provide power. I actually have run the wiring from them around to a number of Anderson type connectors around the room so I can plug in and take power from any side of the room to test any radio out that I need to. So I run everything.

Eric 4Z1UG
With your experience, obviously you have a world of professionals, but now that you're doing these repairs for amateur radio operators, what is the minimal amount of test equipment that Ham should have on his, assuming he has some technical an interest in taking care of his own equipment?

Jeff NZ2S
I guess that would depend just what their interests are. I mean, one of the areas that I'm also interested in is restoration of old tube type radios. So you need a lot more gear for that. Minimum, maybe a good multimeter and possibly a variables, voltage transformers, particularly if you want to bring things up slowly increasing the voltage.

Eric 4Z1UG
Yeah, you're talking about if you've got a, say a tube type receiver that's 60 years old and that hasn't been plugged in for a while, you want to bring its voltage up slowly so that you don't have an explosion. Right. Usually the filter caps are like that.

Jeff NZ2S
Absolutely, yeah.

Eric 4Z1UG
What, so what kind of vintage radios are you bringing back to life?

Jeff NZ2S
I've got a couple down in my barn that are projects that are coming up right now. I've got a Hammerland amplifier that I brought back to life. I have a Dentron amplifier that I'm bringing back to life as well. And as I

said, you know, there are things you can do to improve them. So I find that really more of a challenge to modify things and improve.

Eric 4Z1UG
So you're in there, you've got your hands and that's pretty cool. So you said you're the president now of your, of the DX club, did you say? Or is it?

Jeff NZ2S
No, the Inland Empire VHF Radio Amateur. But yeah, our name is something of a misnomer. We're not only involved in vhf, we're involved with, as I said before, we've got people doing hf, PODA soda and lots of other aspects of radio Amateur we don't have interestingly enough in this area. We don't have too many people that I know that are doing restoration of old radios. I have one friend in the Spokane DX Association, Gary, who lives out in Davenport and he's very heavily into restoration as well. But there are, we're of the not generation. That's the wrong word. But we seem to have. Amateur radio operators seem to have evolved into let's see if we can buy the biggest and best mousetrap. And not many people are doing much in the way of building.

Jeff NZ2S
And that's one of the things that I've been trying to do with the VHF club is we. I have had workshops that I've been putting on where we've been making simple wire antennas. We designed and made a sensor connector that takes so 239. But with our 3D printer, we, the club has a 3D printer. We designed and made a center device for these dipoles. We were just making wire dipoles and have. We had, you know, a dozen people come and build those types of antennas and I've done workshops making a five element yagi for 70cm and various other workshops like that, making balance and that kind of thing. So trying to expand their horizon.

Eric 4Z1UG
Do you find that people are actually really open and receptive to gaining more knowledge about the hobby rather than just being appliance operators?

Jeff NZ2S
Yeah. Interesting, interesting. We have, I would say somewhere around 14 or 15 people that come to all of these workshops and they're interested. Interestingly enough, the p. Some of the people I mentioned, Matt, Caleb, Mike, we have some other people I've mentored as well that they come to these and they're all, by the way, they're all in their 30s. So you know, the next generation, because most of us are way too old, continue. But probably the bulk of them are in their mid-30s, a few of them a little older. But they do appreciate having somebody that's willing to go out and buy the parts, all the necessary parts and have it and show them how to do it, how to build it. Because as a group it's kind of a social event as well. So meet other guys that are doing the same thing.

Jeff NZ2S
I think it has to do with. A lot has to do with them still working, not having the time, not knowing where to go to buy bits and pieces and stuff. So I like to try and make it easy for them and have all the parts, buy all the parts and then, you know, they just pay me back for the parts. And it just, it's the ease factor that helps them expand their abilities.

Eric 4Z1UG
Do your newbies say, you know, these 30 or do they come from like professional, like engineering, technical programming? Are they coming from technical backgrounds or. They tend to be coming from any.

Jeff NZ2S
Place, Pretty much any place. I mean, we've got one of the guys that John K7onu is one of the guys I've been taking out doing PODA. He's. He works for the hospitals and maintenance. Mack Ki7n O installs security systems. Caleb Ncrd works for the Tribal Police Department up here. And there are, of course, a few other Mike works for the fire department. N7MES works for the fire department. Other guys, David, N7LL and Dennis, WQ77 Oscar Rather. He the two of them are retired, like me, so. And we go out and do podas together as well. Dennis and David and I do the salmon run. 7QP, what is that?

Jeff NZ2S
It's a contest where everybody is trying to get all of the counties in Washington, and we go to the county north of us, Pend Oreille county, because there are very few people in Pend Oreille county that are either amateurs or. Or participate in that contest. So actually W7RMS. Rick, another friend of mine, participates in that as well. And we've won the award for most QSOs in Pend Oreille county simply because we're probably the only ones

there doing it. But the goal is to help everybody else get Pend Oreille county rather than, you know, us getting that award. But because everybody's trying to get all of the counties. So it's another area, another aspect that we do. And of course that's h. So I'm.

Eric 4Z1UG
Developing this theory, Jeff, mostly because I'm talking to my twin brother frequently these days, and that is that a lot of men, perhaps in the west, maybe North America, tend to be so busy professionally that their only social activity is coming home and talking to a spouse. And so what attracts potentially could attract, and I'm not trying to be sexist at all, but attract men to the amateur radio hobby is the ability to have social contact with other men doing projects together or at least having, you know, somebody else to communicate with outside of their professional and the family arena. Well, what do you think about that? Do you think that, you know, maybe that's a marketing question of how to either get new hams, more hams, or get hams that are out there to join clubs?

Jeff NZ2S
I think you're on the, you know, hit the nail on the head there. Largely, it's, and that's, as I mentioned, the reason I buy all the parts and stuff and put on the workshops is if you make it easy for them, then they'll come if they have to do all of the groundwork and everything, they just don't have the time for it. Matt's got a couple of kids, Caleb's got kids, you know, that kind of thing. So they're busy with their families but if you can make it so that they can come to a two hour session or something of that nature or we go. Typically we just go for two hours to do a poda. If you go that quick, then they come.

Eric 4Z1UG
Right. And they can talk to somebody older than 12.

Jeff NZ2S
Yeah, yeah, exactly.

Eric 4Z1UG
Right. Okay. Well that's very cool. What responsibilities do you think that an experienced amateur radio operator should accept as a mentor does that make. Is that, does that question?

Jeff NZ2S
Yeah. Obviously setting a good example of how to operate because that's one of the things that po. Where, where I'm taking these newbies out to do poda. They almost everybody is worried about mike fright.

Eric 4Z1UG
Yes.

Jeff NZ2S
How they don't want to make a fool of themselves. Like personally I'm like, well who's going to admonish you? You know that's right.

Eric 4Z1UG
Although somehow we're very good at admonishing each other, you know, in other forums.

Jeff NZ2S
Right. I so just taking them out and giving them a good, showing them how it's done, setting a good example for them and getting them to participate. And I mean I'm a great believer in you admonish in private and praise in public. So we, you know, when we have our weekly meetings and stuff, we have a net every week and a monthly meeting. I'm always trying to praise people that have done something special.

Eric 4Z1UG
So people like the recognition.

Jeff NZ2S
Yeah, yeah. Matt and Caleb by the way, got so much into PODA that they are now part of the PODA help desk theme. So when people make mistakes and that's one of the things that, you know, as a mentor we try to make it so that the Matt and Caleb's of the world are not having to work so hard because they tell me all kinds of stories about how people are making mistakes and uploading to the PODA website and that kind of thing. So it encourages me to be even better as a mentor to teach people so that they're not making those mistakes.

Eric 4Z1UG
It seems to me that you're passing on the wisdom. So you becoming generational. Let me ask a question that you're. You got Your license in 7 land and yet your call sign is NZ2S. How did you come up with a call sign NZ2S? You should be in the New York area.

Jeff NZ2S
Yeah, that's just a heck out of. Yeah. Obviously when I got my extra ticket it gives you the ability to get a vanity. I mean you can get a vanity earlier, but you can get a two by one or a one by two which obviously has the advantage of being quicker to communicate to other people or at least if you have one that doesn't get mixed up. A lot of people seem to mix NZ2s up for some reason, but they'll transpose the 2 and the Z. But anyway, I, I put in for a vanity call and obviously would have preferred to get my initials or something meaningful to me, but there was nothing in the seven area that was available. So you can go to the FCC's website and say okay, what's available? And that's what I did.

Jeff NZ2S
And you can put in for, I think it's 25 different call signs. And I, I think I put in for 12 and Z2s was one of the 12. That was the one I got landed with. Which actually is kind of convenient because November Zulu 2 Sierra is the standard phonetics. It seems that most Asians prefer Norway Zanzibar to sugar. And I really want to get the antipodes attention. I use New Zealand to Spokane and the folks Australia, New Zealand go what? And they pick me up. So I have no trouble talking to those.

Eric 4Z1UG
Hey, before we go, what advice would you give to new or.

Jeff NZ2S
Good question. I think that one of you have to devote some time to reading the handbooks. You know, arrl, join ARRL and get the handbook and go through it. Interestingly enough, I, I've gone through a number of them. One I just flashed up on the screen for you to see was the 2022 one. And I've gone through that multiple times. I highlight things that are, I'm interested in the things I want to research and the errors that I found in the book and have contacted them and pointed out that there's some spelling errors or that kind of thing. So. And it helps you learn about all of the aspects of the radio hobby. So I would say find a local club like the Inland Empire VHF Radio Amateurs like the Spokane DX Association.

Jeff NZ2S
We've got a new club just a year or two started up digital. They're all the digital side of it. So find a club that has your area of interest and join ARRL and find out that, yeah, get the handbook. Find out that you are going to spend the rest of your life learning.

Eric 4Z1UG
Yeah, isn't that great? Well, one of the nice things about the new handbook is also there's a digital version of it either I guess available online or it used to be. They'd give you the disks, a disc with it so that you could download the individual articles and mark those up if you wanted to. Yeah, I think that's great advice. The handbooks always served me well through the years. Although you could keep the same handbook probably years and except for the new technologies that have come about, the fundamentals are all the same. That's. That's great advice.

Jeff NZ2S
Yeah. I've purchased a number of different sets because you can get. You can get them in seven volume seven books I think it is. The 2022 was that way and the 2023 one I got the hundredth anniversary one. They swap things around and move things about and as you mentioned the digital stuff, in addition to what's in the book, they have supplemental information where they've got more information. One of the first ones that I happened to run across was there's a design of a power supply similar to an Astron linear power supply that somebody submitted to QST years ago. It has some errors in it. The fixes to the errors are in the supplemental. If you don't have the supplemental information then you're going to build it the way that the guy initially did it with the errors.

Jeff NZ2S
So you definitely need to look at the supplemental information. I try to ask arrl, why can't you take that supplemental information and just correct the schematic and the original information? But they like to keep it

separate, you know, because it was a month later or so that's in another QST magazine. So it's probably too much work for them to do that.

Eric 4Z1UG
Although in subsequent years you'd think that they would update the article with the.

Jeff NZ2S
You would think so. But unfortunately that isn't the case. I mean I have. I think I have every year from 2016 when I got my license to. To 2025. And the same errors are in a lot of them, particularly that one with the power supply. Nothing's changed. So it's. It's unfortunate. But at least they give you. If you have the supplemental or know. Know where to go. There are a lot of other great things that are in that supplemental information like software for various different things like designing your own. If you. If you buy a. A meter and want to. Want to change this what. What it's reading, then you. There's software on. In that supplemental stuff that will gentleman's made that you can design your own face plates for meters meters and things like that.

Jeff NZ2S
There's software for designing antennas and all kinds of other things that it's obviously the deepest.

Eric 4Z1UG
Well, that's right. You could get a PhD in multiple subjects there in the handbook. Jeff, I want to thank you so much for joining me on the QSO Today podcast. I so appreciate your reply and agreeing to talk to me. And with that, 73, thank you so much.

Jeff NZ2S
Thank you, Eric. 73 My friend.

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