



## Episode 425, Hayden Honeywood, VK7HH

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Eric , 4Z1UG

QSO Today, Episode 425, Hayden , VK7HH, VK7HH.

This episode of QSO Today is sponsored by ICOM America, makers of the finest amateur radios and accessories for your ham radio station, and by Nuts & Volts magazine.

Welcome to the QSO Today podcast. I'm Eric Guth, amateur call sign 4Z1UG, where I demonstrate the diversity and relevance of the amateur radio hobby and its impact on society by interviewing ham radio operators, many of whom played vital roles in shaping our technology through the amateur radio hobby. And while many people might say, "Ham radio, do people still do that?" This podcast demonstrates through in depth interviews just how amazing, diverse and dynamic the amateur radio hobby continues to be.

Ellen White, W1YL, was my guest in episode 94 back in 2016. She passed away on November 6th, 2022 at the age of 95 years. Ellen was a radio pioneer from the end of World War II and was an active ham for over 70 years. She loved 40 meter CW until recently. I encourage you to listen or listen again to my conversation with Ellen. She was the grand dame of HAM radio and I was happy to have known her. May her memory be for a blessing.

The QSO Today Virtual Ham Expo is up on YouTube once again. I am posting the presentations from the last expo in September for everyone to watch. I have over 370 total presentations from five expo's and posting them a few every day. Please help me out by subscribing to the channel. It is very important as a way to get the word out about the expo and the whole QSO Today project.

Hayden , VK7HH, VK7HH is a ham radio YouTuber with an interest in VHF, UHF and microwave amateur radio operations using multiple modes including Whisper. Hayden operates remotely controlled station as well as maintains the repeater network that serves his island state of Tasmania, Australia. VK seven HH shares his knowledge, expertise and his ham radio story in this QSO today.

VK7HH. This is Eric 4Z1UG. Are you there, Hayden?

Hayden , VK7HH:

4Z1UG. This is VK7HH. Yes, I've got you. Five nine, Eric.

Eric , 4Z1UG

Hayden. 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?

Hayden , VK7HH:

Yeah, well the start. Obviously I'm relatively young so I can remember the start quite well. And I guess it goes back to when I was a very young kid. My mum has always said to me that I was fascinated with playing with switches, pressing buttons, putting things together, touching the remote probably a little bit too often when I shouldn't be. So I was always a kid who enjoyed playing with things and wondering how they worked. So I think that's probably where it all started.

Eric , 4Z1UG

And did your parents encourage you by gifting you with, say, electronic kits or toys?

Hayden , VK7HH:

Yes, I guess in some regards they did. My foray into electronics sort of started, I guess, first of all, with computers because computers were a relatively newish thing even when I was a child. So I would always be playing video games at school, funny enough when I was a very young child, and playing with computers. And then I think it sort of grew from there. And one of those things that did happen eventually was electronics kits and diving down into how everything worked a little bit more in depth, but the real rekindled interests in electronics and radio didn't start with them. It actually started with a couple of my uncles that I have and they are both amateur radio operators as well.

Eric , 4Z1UG

That's very interesting. Let's back up just a little bit. I'm speaking to you and you are in Australia, but you're not just in Australia. Where are you in Australia?

Hayden , VK7HH:

Yeah, so I'm in Tasmania, which is a little island just south of the Australian mainland. Not a lot of people know about it and it's right down the bottom of the earth. So a fair way from everything really.

Eric , 4Z1UG

Is it colder than the rest of Australia? When we think of Australia, we think of the Australian desert, warm and dry.

Hayden , VK7HH:

Yes, it is a lot colder than the rest of Australia due to it being a lot further south, a little bit closer to Antarctica. So our weather patterns are a little bit cooler than the deserts that you would see on the television, the traditional Australian outback, I guess, that you would see. We don't have that. We're a little bit probably more suited to the UK environment, what you would have in the United Kingdom, I think.

Eric , 4Z1UG

So more rain, more fog?

Hayden , VK7HH:

Yes, yes, very much so. In fact, it's raining and being foggy for the last three days. So it really is. Yeah.

Eric , 4Z1UG

Tasmania being a small island, does it have individual towns? Are you in a town in Tasmania or does Tasmania, is it just one urban center?

Hayden , VK7HH:

No, so I'm just based outside of the capital city of Tasmania, which is called Hobart. It's a city which has roughly about 200,000 people. I did grow up in a town which was just south of the capital, and you are correct, there are many little towns dotted all around the entire state. And we have, I think, it's three major urban areas. So one is, as I said, the capital here in the south. And then in the north of the island we have two other smaller cities that a lot of the population live in.

Eric , 4Z1UG

Would you describe the terrain as flat and tropical or is it more like maybe New Zealand, kind of hilly and forest-y?

Hayden , VK7HH:

Well, one of the many terms that Tasmania is referred to as is the Switzerland of the South. So that gives you a bit of an indication that it is very mountainous. Similar to New Zealand. New Zealand has a lot higher mountains, especially in the south island of New Zealand. But yes, we have a very mountainous terrain here. There's not a lot of flat open country. There is a little bit in the middle of the state, but mostly it's very mountainous and very, very beautiful if you ever come to visit.

Eric , 4Z1UG

How did your uncles influence you in terms of bringing you to amateur radio?

Hayden , VK7HH:

Their story is actually a very interesting one as well. So one of my uncles, his uncle was also an amateur radio operator in the United Kingdom. So that's where my family originally was from, was from the UK, and then they moved out here to Australia. And they learnt from their uncle over there in the UK. And then they subsequently taught me, I guess. I think the earliest memory that I can have is going to visit one of my uncles who lives in the north of Tasmania, so not very far away. And he had an old Kenwood TS120V sitting on his work desk one day, and I come along as an 11 or 12 year old kid. And he had this radio sitting there and he was listening to 20 meters and I can vividly remember the frequency band.

And I asked him, I said, "What's this?" And he said, "Put the headphones on and have a listen." So I was tuning around the band and I heard a gentleman in the United Kingdom actually and he was talking to somebody else and I tuned up and down and he said, "This is amateur radio." And from there on I was very, very hooked.

Eric , 4Z1UG

In what year?

Hayden , VK7HH:

This would've been in around about the year 2003. So not really that long ago.

Eric , 4Z1UG

I don't think we had smartphones at that point. I think people had cell phones, but you had computers. What was different about that experience than perhaps using computer technology at that time?

Hayden , VK7HH:

Well, I would've been at that age about 11 or 12 years old. So I didn't have, as you say, we didn't have smartphones. I didn't even have at that stage a mobile phone. I got a mobile phone once I entered high school here. I don't think I even really had my own personal computer either, because as I mentioned, I've been using the ones at school up until that stage. So it was a rather new experience, it was something that I didn't really understand at first. And the fact that you could communicate with someone else on the other side of the world at that time was still quite amazing and a new experience, especially compared to, say, today where it's more common. But yeah, it was something that really grabbed my attention and I really wanted to follow up with and learn more about it.

Eric , 4Z1UG

What happened after that?

Hayden , VK7HH:

So after that I asked him and I said, "What is it?" And he said, "It's amateur radio." And he gave me some information to look up about how to get your license. I purchased some kits, electronic kits, and I think it was around about that time that I started to dabble a little bit with the electronics more. And I purchased those kits. They were a famous entrepreneur here in Australia called Dick Smith, VK2DIK, who I've had the privilege to interview, which is become one of my many, many things that I've done. And I was really happy to do that. And he made these kits called Funway into electronics. And basically you could put a kit together on a plastic breadboard, very basic kits like an LED, light chasers, there was doorbells that you could build. And then for the more advanced builders you could do solar kits as well.

So I built a couple of those and one of those was a crystal radio set. And I built that and it worked. And I learned a little bit about how radio works and I just wanted to learn more and I wanted to... I had at a very, very quick introduction to receiving and I really wanted to start transmitting basically.

Eric , 4Z1UG

What was your uncle's name and call sign?

Hayden , VK7HH:

My uncle that introduced me first, he's name is Jeremy and his call sign is VK7 November Oscar. He's not as active as I would like, which we constantly rib him about, but that's okay. And my other uncle, his name is Darrell and he's had various call signs but his call sign at the moment is VK3 Delta, Mike Juliet.

Eric , 4Z1UG

What available resources were there in Tasmania at that point?

Hayden , VK7HH:

I started to learn a little bit more about what bands there were. I got given a call book by my other Uncle, Darrell. He come down for a visit and he gave me one of his old call books. So if you're not familiar with what a call book is, here in Australia, we used to have printed a public... Oh, I think we may even still do. Printed publication with everybody's call sign across the entire country in it so you could look up their name and their location. So we had one of those and in the back of that was information on how to get your license and it involved contacting the Wireless Institute of Australia, which is the national body here in Australia.

And basically I booked in for my license, I booked in for my exam, that was, at that time, called the Novice Limited exam, which didn't require any morse code, which was a very easy decision for me to make because I didn't want to learn morse code, I wanted to dive straight in and get on the air. And yeah, I booked in that exam and I studied. I studied with the radio and electronics school, which is still running courses today. And they sent a

course down on CD ROM and I studied that over and over and over again before my test. And then I took my exam

Eric , 4Z1UG

Now what privileges did you get with the Novice Limited?

Hayden , VK7HH:

Ooh, they have changed over the years, but I believe we had two meters and 70 centimeters. That was our VHF allocation. We also had 80 meters and we also had, I think, 40 meters, 15 meters and 10 meters, I think, were the allocations at the time. As I said, it's changed a little bit over the years. We also were restricted to, which is still the current restriction for that equivalent license, a hundred watts for SSB and 30 watts for FM.

Eric , 4Z1UG

So you actually had SSB privileges in those lower frequencies?

Hayden , VK7HH:

Yeah, yeah. We had SSB capabilities lower down on the lower HF bands. Yeah.

Eric , 4Z1UG

Was there a time limit to the novice limited or could somebody continue to be a novice limited for years and years?

Hayden , VK7HH:

No, someone could continue to be a novice limited. At that time, I think from memory we had I think four or maybe even five different license classes, which is currently being consolidated down to three now. And each one had various different privileges, various different bands that you had access to. And that was the lowest license privilege that was available at the time. But it still offered us quite a lot actually.

Eric , 4Z1UG

What year were you first licensed and what was your call sign?

Hayden , VK7HH:

So I was first licensed in 2004, so it was only about a year later after I discovered amateur radio that I took my test, passed my license in 2004. And my first call signed was VK7 Hotel Alpha Yankee, HAY.

Eric , 4Z1UG

And you were 13 years old?

Hayden , VK7HH:

Yes, I was 13 years old. In fact, I actually received the document that confirmed that I had passed my test on my birthday and I still have that document. I have the original document still in my file somewhere.

Eric , 4Z1UG

And then how did you upgrade after that?

Hayden , VK7HH:

I upgraded in 2010. So at that stage I had been working for a few years, so I'd grown up, I'd done some extra schooling and I was doing what we call a TAFE course here, which was basically studying to be an apprentice. And I was doing electronics actually as my apprenticeship and the course was communications, electronics and communications. And a lot of that, that I was studying for the carried over to what was required to upgrade your license to, at that stage, advance. So fast forwarding those, what was that, six years, we'd actually gone through a substantial change in the way the licensing structure was in Australia. So we'd consolidated down from, I think, it was the four or the five to about three different license classes, which we still got today. And as part of that I upgraded to the advanced, which is the highest level of license class in Australia at the moment.

Eric , 4Z1UG

And now you have a vanity call sign?

Hayden , VK7HH:

Yes. So when I upgraded to advance my call sign, I changed, I dropped the Y, so it was VK7 Hotel Alpha. But I always wanted my initials as my call sign and a gentleman had that at the time. Unfortunately he became silent key. I think it was around about 2013 or '14. And that's when I managed to get the current call sign that I've got, which is VK7 Hotel-Hotel. And it is a two letter call sign. So after the VK7, the two digit call, which are quite rare across Australia because of the limited amount of them. But yes, I was able to obtain the call on that I wanted.

Eric , 4Z1UG

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Was it your interest in ham radio that led you to the TAFE course and the things that you're doing now professionally?

Hayden , VK7HH:

Yes, a hundred percent. And I would also say that everything that I did in regards to ham radio has led up to finding a career and everything else that I've done. I can't put into words actually how much ham radio has influenced my life in that regard. So I very much had this interest in electronics. And just rewinding a little bit back to my schooling days when I received my ham radio license, when I first passed my test, I was just starting to come into high school. And part of our schooling we did electronics, we built things such as we did metal work and we did woodwork. And all of these skills that you got in ham radio translated into your schooling. You become more hands on, you understood terms a little bit easier and whilst a lot of my peers didn't know how to solder, by the time we got to that in the class, I had no problems in soldering because I'd been doing it for quite a number of years.

And then of course fast forwarding into a work environment, again, getting a job as an electronics apprentice was relatively easy because I had experience in doing these things, and it all came from ham radio basically.

Eric , 4Z1UG

Does the high school system in Australia divide people into say tracks, either kind of an industrial track for learning skills, maybe it's a non-college track versus a college track, very similar to the European schools. Does that happen there in Australia as well?

Hayden , VK7HH:

Not really. So the schooling here is more reliant on the student deciding what path they would like to choose. So while whilst we were in school we were always encouraged to follow the things that we would like to do, which I guess is the same everywhere else across the world. But once you've finished high school, there is a strong encouragement to go to college, which is a little bit different I think to the way other college is structured around the world. College is just an extension of high school here for two years, which is like a separate schooling from high school.

And then once you've finished college, it's encouraged that you try to either go to university or to do some additional training at a trade school or just get a job. And my avenue, I actually skipped the college portion. I went straight from high school to the trade school, trade school slash TAFE, is what we call it. And basically got that apprenticeship which is a four year apprenticeship, which basically as you are working, you are learning at the same time. So you're doing theory and learning and education. You're getting paid for it at the same time as you're working on the job. So it's very practical and I was a practical person and hands on. So that suited me really well.

Eric , 4Z1UG

So you actually did the TAFE course in a business, and does this TAFE organization, does it provide the employer with a structure and even academic materials in order to be able to teach that in parallel with working?

Hayden , VK7HH:

So when you start an apprenticeship, the TAFE organization's main goal is the theory portion of teaching. So what they do is you will go off to their school and you will learn the theory portion of things. Depending on what course you're doing, there are some practical courses there that you do. For instance, if you are working in automotive on a car, it's not much just sitting at a desk just learning about theory. You'll also get in and you'll work on cars. But at the same time, the business that you are working for, that's where you get on the job training. And what you do is, whilst you are working there, you will fill in various sheets. At the time when I did it, I had various sheets where I had to detail down what I did on the job, what I learned on the job, how long I did it for. And then that would be sent

back to the TAFE organization and then they would find out what gaps that I needed filling and they would recommend that I work on this or work on that.

So yeah, it's a very good system and it's how a lot of what we call in Australia, tradies, start. So electricians, builders, that sort of thing. They all go through the same system.

Eric , 4Z1UG

So if I was going to translate that to American East, then the two year college is a junior college and America you get an associate of arts degree after two years in junior college and then that could translate to university. Does that mean that two years of college, does that give you two years credit towards a four year university program or is the university program an additional number of years?

Hayden , VK7HH:

No, so the university as far as I understand is an additional component to that. So college to me, it didn't really seem like a lot of sense for me personally, not that I want anyone to copy what I did. But I think it's more for gaining life skills. You're transferring now out of school into the real working world and it's kind of a bridge there rather than just going say straight into university, which is quite a different environment altogether. They try to make it similar to university but also similar to allow you to learn how to basically function in the real working world as well. It's a bit of a funny arrangement. It is hard to describe to those that are not aware of it. But yeah, I think your example that you used with junior college and then straight into university is a very similar way to think of it. Yeah.

Eric , 4Z1UG

Right. And your TAFE course apprenticeship sounds like what we would call work study?

Hayden , VK7HH:

Yes.

Eric , 4Z1UG

You are in the classroom half the day and maybe half the day on the job site?

Hayden , VK7HH:

Yeah. And you are required to do in some jobs, not in the one that I was in, but in some jobs such as an electrician, I believe that there is a minimum amount of hours that you need to do on the job. That's why they space it out over four years so that you get quite enough time to be able to learn exactly what you're doing basically.

Eric , 4Z1UG

Right. And how to do the job properly.

Hayden , VK7HH:

Yes.

Eric , 4Z1UG

What was the first rig that you had as a novice limited?

Hayden , VK7HH:

So my first rig was a Yaesu FT 757 GX. That was a HF only radio. It was purchased off of eBay of all places and I paid 500 Australian dollars for that radio, which as a child was quite... Oh, I suppose I was a teenager then. But still it was quite expensive. And going back to the support that my mum and dad provided there, they provided quite a bit of money towards that radio so they could see how much ham radio was meaning to me at that time.

Eric , 4Z1UG

What kind of antenna did you put on your house at that point?

Hayden , VK7HH:

So antennas was a very funny thing and there's a bit of a story behind that. So being very newly licensed, and I'm sure that there's many people that also struggle with these concepts is, you don't really know when you first get licensed what bands you should be operating on to be able to make a contact with somebody. And I can't remember why I picked it at the time, but someone showed me, I think it may have been one of my uncles, showed me how to build a dipole. That was the first antenna that I learnt how to build. I built one for 15 meters and I stuck it up probably not high enough just with what I had in the backyard and I didn't hear anything and I didn't make contact with anyone and I thought, "What's going on? What have I done wrong?"

And I managed to reach out to some other amateurs that were closer because both of my uncles lived a fair way away. So I reached out to some who were more local to me and they actually came out and they put up an 80 meter dipole for me because they said, "You'll make contacts at nighttime on 80 meters a lot easier." And they put an 80 meter inverted V dipole in the backyard up for me.

Eric , 4Z1UG

Did you become a member of a ham radio club?

Hayden , VK7HH:

Not initially, no. I didn't initially. That took actually quite a number of years for me to become a member of a ham radio club. I went to another amateur's house and he was a well-known amateur for having build nights and experimenting nights at his house. And dad drove me out at one evening and we arrived at this amateur's house and he had

probably about half a dozen other amateurs there. And that's pretty much where it started from the ham radio community and getting help from them. I went in and they gave me a two meter rig actually as well at that point. But the deal was to get the two meter rig I had to solder a fuse and a power lead onto the end of the radio because it didn't have one. So they said, "You can have the radio but you need to learn how to do that."

And luckily at that age and with the electronics kits that I've been playing with, it was rather easy for me to do that. So they lent me that. They lent me a little magnetic base for the car. And basically, pretty much all the way home, which was a 45 minute drive, I had the magnetic whip antenna on with the little two meter radio and I chatted on the repeater all the way home after that first evening down there. And that's where I made some friends and they really helped a lot.

Eric , 4Z1UG

And how important was that group after that?

Hayden , VK7HH:

Very, very important because like I said, they come and installed that antenna for me on 80 meters, that HF antenna. Actually I took the two meter radio home and we lived in an area which, like we said before, Tasmania is very mountainous, so I couldn't get into the repeater very well using that little magnetic whip. It was just a little quarter wave whip antenna. So they come out and they installed a Yagi antenna for me for two meters for VHF so that I could get into the repeater better. So I owe a lot to those guys that were there that evening and also extension to the others who also helped out too. And I become very, very frequently known on the repeater after that stage.

Eric , 4Z1UG

What are you doing now? What's your profession now?

Hayden , VK7HH:

So my profession now is I am a systems' administrator and I work in unified communications, so that is telephones, that's video conferencing, so such as Zoom and Teams that we use at our workplace. Yes, so I administer those systems, make sure that they're all working. I also design and help commission these systems as well. And that really ramped up post or during COVID and post-COVID, we've become very busy in that space and it's a job that I enjoy doing.

Eric , 4Z1UG

What's The current rig?

Hayden , VK7HH:

So I have quite a few rigs. I have an ICOM IC 7300, which is my main HF and six meter radio. I have an ICOM IC-9700, which is my main VHF UHF radio. And I also have an IC 705 as well. So you can see a bit of a theme here. I've got quite a few ICOMS. But I do have, in my car I have a Yaesu FT 8900 quad bander. So I do have Yaesu and I've also got a Yaesu handheld and a few other radios as well, but they're the main ones.

Eric , 4Z1UG

You also operate a remote station?

Hayden , VK7HH:

Yes. Yes, I do. So one of my interests became VHF and above. I was fascinated for some reason with VHF and above, and that flowed into quite a few different projects, which I'm sure that we'll talk about. But the remote station got started. The idea behind that was so that I could have a location where I could basically get out because where I am here in Hobart, it's in a valley, it's on the east coast of Tasmania or the southeast coast rather. So it's blocked by terrain in pretty much 270 degrees. So to get out on two meters or VHF and above was very difficult and that was something that I really enjoyed.

And someone said that, they said, "Well, there's no activity on VHF down here because of those reasons." So I set up a remote station on two meters and above and I set it up on a mountain top, which I had access to through some connections that I had in regards to building repeaters that I'd done over the years. And I set that up and run that as a beacon most of the time so that it benefits other people. But then I switch it off occasionally when I want to use it when the band's open and that's been very successful.

Eric , 4Z1UG

And what are you operating remotely? Are you operating at 9700?

Hayden , VK7HH:

Yes, the 9700 is currently the remote radio of choice. I did have a couple of different variations. I did have a Yaesu FT 857 there at one point that was running over a remote, I think it was called remote rig. It's like a little box that connected to it. And then you had the matching unit here at home with the remote head and you plugged the remote head in this end and the body of the radio would be at the remote end. So I had that for a little while, but the 9700 makes things a whole lot easier and a whole lot simpler.

Eric , 4Z1UG

9700. I think has a TCPIP connection or an ethernet connection on it, right?

Hayden , VK7HH:

Yes. So that's how I operate it remotely using the ICOM software here on the client side and it just connects in with a land cable very, very easily. And the remote station first

started with just two meters and 70 centimeters and now it's grown to 23 centimeters as well. Yeah, 1.2 gigahertz. And in actual fact, that remote station is responsible for the current Australian and New Zealand record on 23 centimeters. So that is around about 2,458 kilometers, I think, whatever that is in miles, I'm not sure. But yes, quite a long distance on 23 centimeters. So it's been really worthwhile setting that up.

Eric , 4Z1UG

Now do you have a steerable antenna at the remote site? What are you using for antennas there?

Hayden , VK7HH:

Yes, so there's two main antennas there now for the 9700. One is a 36 element YAGI for 23 centimeters. That is at the top of the mast. Just below that is a 25 watt amplifier and a preamp in one. So that's just below that antenna. And then the other antenna is a two meter and 70 centimeter jewel band YAGI on the one boom with separate connectors. So I do run separate coax lines down. And both of those antennas come from antennas and amplifiers that are in Serbia. And they're fantastic antennas. They're well built. This remote station location is very remote and it is hard to get to in the winter. So when you put things together you have to make sure that they're going to stay together and not get blown off the mountain. There's very, very high winds. We've had damage there before from just from wind. But these antennas have been fantastic. Not a problem at all with them and over the moon with how they've performed.

Eric , 4Z1UG

And then you're using some kind of antenna rotator?

Hayden , VK7HH:

Yes. So I use the Yaesu G 1000 DXA rotator, so that's located there. And that's plugged into a box from Germany, I think it's called easy rotator control or easy rotor control. And that plugs into the back of the rotator control box, and then you connect that via USB to a PC and you can run a program on the PC and you can remotely move the rotator to wherever you want to go.

Eric , 4Z1UG

Oh, that sounds pretty amazing actually.

Hayden , VK7HH:

Yeah.

Eric , 4Z1UG

And sounds like a lot of fun, especially if you're working long distance records.

Hayden , VK7HH:

Yeah. So the good news about being here in Tasmania is that we're due south of everybody. So what I normally do is I run the beacon in it. I run two meters mainly in the whisper mode as a beacon and I'd usually point that north most of the time. Occasionally, I'll check to see if there's any enhanced conditions on VHF in a certain direction and then I might move the YAGU in that direction. And there's been lots of people that have heard it and I've heard them as well, and they use it as a useful propagation source and to figure out if the band's open. So it's become very handy for other people as well as myself, which is fantastic. And I added in addition just a little six meter whisper transmitted there as well.

So that also runs 200 milli watts out of just the little whisper transmitter, which is a standalone unit from Zach Tech, and that's just into a vertical dipole, coax vertical dipole. And that's been heard as far as new Caledonia or Fiji I think, when conditions have been right. So 5000, 6000 kilometers away, which is quite amazing really.

Eric , 4Z1UG

You maintain repeaters on six meters and 10 meters as well. How well do they work and can you compare them to the two meters in terms of coverage and reliability?

Hayden , VK7HH:

Yeah, so I guess in regards to repeaters, the main thing is to go back to why I got into repeaters, why I got into them in the first place. And like I said before, we lived in a valley which had no coverage. So one of the things I researched was repeaters. I thought, "Well, surely I can build my own repeater and I can link it somewhere so that we can have some coverage." So I first built a 70 centimeter repeater, which did indeed cover the area and I built that up and moved it to a site a little bit higher, and that worked really well. And then I dabbled a little bit, as you said, I dabbled a little bit in six meter repeaters and 10 meter repeaters. And when you compare those to two meters, they're very interesting when you compare them to two and 70. Six meters actually works very, very well in mountainous terrain.

It works extremely well in fact. But the problem with six meters is you do have a higher noise level in urban areas. So that is one downside. The other downside is that it requires a larger antenna on your car. That wasn't a problem for me. It might be for some other people, but that was interesting. And especially when you are mobile, everyone will be familiar with when they're mobile on a repeater, they'll hear the flutter or they'll hear the picket fencing. On six meters, it's a lot slower because you're driving through noles a lot bigger in wavelength than two meters. So that's an interesting thing.

But the key thing, other key thing that sets six meters apart from a higher repeater is that you can have people using that repeater when conditions are right. They can access that repeater from thou hundreds or even thousands of kilometers away. Much is the same is true with 10 meters. I also experimented a little bit with 10. And 10 meters is a very challenging band to build or repeater on, much more challenging than six meters. But it

has a very similar characteristic, again, only that it moves out from maybe a couple of thousand kilometers to worldwide. When we're on the way up in solar cycle 25, you can work FM repeaters on 10 meters all around the world very, very easily.

Eric , 4Z1UG

I want to take a minute to tell you about my favorite podcast, The Ham Radio Workbench podcast with George KJ6 VU, and now joined by Rod CA3 ON, Mike VA3 MW, Mark N6 MTS, and Vince VE6 LK. Every two weeks, George and Company offer up a status report on the many amateur radio projects on their work benches and explore projects on their guest work benches. This group is project active and prolific covering many technical areas of amateur radio. So the next time you want to deep dive into ham radio electronic project building, or to learn about technology tools, test equipment, construction techniques, and the rest, listen to the Ham Radio workbench podcast available on every podcast player and channel. Use the link in this week's show notes page to get to the ham radio workbench podcast directly. And now back to my QSU.

Now are these repeaters split site where the repeater, transmit and receiver are in separate locations due to the cost of duplexes or even the availability of them?

Hayden , VK7HH:

Yes. So on 10 meters they are. So the basic concept is that 10 meters, there's not as much bandwidth and the repeaters are spaced a hundred kilohertz apart. So when I say spaced, the output and the input of the repeater is only a hundred kilohertz in indifference in frequency. So if you put them on the same site, once the transmitter starts transmitting, it'll just completely wipe out the receiver. And you mentioned duplexes, which stop that from happening. They're too large at 10 meters to be used. I think there'll be over two and a half meters tall. They're quite high and quite big.

So that's why you split them, you split site them. So you put the receiver at one location and then you put the transmitter at another location spaced a few kilometers apart or a few miles apart, and then you link them together using a low power UHF link. And that works quite well. The coverage area doesn't really change that much because 10 meters is quite a large wavelength and offers pretty decent local coverage. So yeah, that one is split site six meters though runs on the one side. I have a duplex for that and it's actually one that I home brewed.

Eric , 4Z1UG

Really? Could you talk a little bit about that?

Hayden , VK7HH:

Yeah, so the duplex is made out of Helix or Andrews, I think, it's LDF seven 50 is the model or, sorry, the coax, the coax name, the coax brand, whatever. And it's basically really large hard line. And I built some stubs out of that and there's three on each side. One side

passes the receiver, but not just the transmitter. And then the opposite is true on the other side, it notches the transmitter, it passes the... Sorry, it passes the transmitter, but it notches the receiver. So I built those from an article that I found online and that particular thing to build took me a very long time because I was very fussy for one. And two, they're very complicated, they're not the easiest things to build in the world. But I learned a whole heap building that duplex, and it is relatively large.

I'm talking, they're probably about a meter and a half tall, so they're quite big. But the alternative to buying one, I didn't have the money to buy one. So I got the coax, I think, scrap, someone sent me some scrap pieces from an old broadcast transmitter. So I got those for free. I got the bits and pieces, I think there's some bits of copper in there and some connectors. And I think the most expensive, it was the coax that connects the stubs together. And even that wasn't really that expensive. So yeah, everything was home brewed and it works really, really well.

Eric , 4Z1UG

That's the picture that I saw of the VK7 RCH repeater where I noticed on, looks like a piece of plywood behind the cabinet, were at least three of these stubs? Was that what I'm looking at there?

Hayden , VK7HH:

Yeah, yeah. That's correct. So I screwed them all to, as you say, a bit of marine plywood put them on, I put some feet on them and they're just sitting in the back of the repeater cabinet. And yeah, that allows us to operate the six meter repeater, which has a one megahertz split. So 53.7, it transmits on and it receives on 52.7 and it just transmits into a single five eighth wave vertical antenna and there's no descents. Yeah, it works really, really well. So yeah, that's correct. That photo was taken when I first installed the repeater quite a number of years ago and I haven't disturbed it or moved it in, I think, probably five or six years I think. And it's still stable. The good thing about duplex is if you don't touch them, they generally don't fail.

Eric , 4Z1UG

They'll last forever.

Hayden , VK7HH:

Yeah, yeah.

Eric , 4Z1UG

I have a UHF repeater here that has a Phelps Dodge Mobile duplexer that I used in my car maybe 45 years ago. So if you don't mess around with it, they'll just last forever.

Hayden , VK7HH:

Yeah, the build of those is actually very interesting, the six meter stub builds as well because not only do you have to wind a little inductor and things like that. But to notch out the opposite frequency, you have to build a little capacitor and you have to make it adjustable. So what I come up with was down the center of the coax, and you can Google all of this and find out how the build is. It's a little bit hard to describe in this format. But it's basically a little copper tube, which is solder down the center of this coax, because the center of this coax is a hollow tube itself, copper tube. So you sold another little copper tube in the middle of that and you pass a bit of RG213 dielectric down the center of it with the center conductor still in it.

And what I did was I sold it to the end of a brass, I think it's a brass screw. And then that allowed me to adjust it up and down how far in the tube it would go in and out, and that was my capacitor. And you can hook it up to a spectrum analyzer, which I have, or a tracking generator analyzer and you can tune it. I don't know, with everything when you build something, it's good to be able to see it working and the fruits of your labor of what you've built. But I think equally is more important is the whole journey of putting it all together. I think that's more important than actually getting it working because now I can sit back with some of those projects and go, "I built that and I learned a lot from it."

Eric , 4Z1UG

Well, I think that's the best part of how radio are projects like this. At least it has been for me.

Hayden , VK7HH:

Yes, I agree wholeheartedly. Yeah.

Eric , 4Z1UG

What is VK link?

Hayden , VK7HH:

Ah, VK link. That is, in a nutshell, what people would know to be is All Star. Only, it's a VK only version. So a lot would know that with All Star there is a public database of all Star nodes. But then there's also the ability to have a private network. So VK Link is basically a private network or a private collection of nodes for Australian amateurs. And the idea was born out of the fact that we had a lot of unused repeaters and we wanted to link them. Now when you link repeaters, you basically have two options. One is via RF, so another radio attached to the repeater linking to a far away repeater. Or you can do it over IP, which is how All Star or VK link works.

And we also wanted to run it on a raspberry pies because raspberry pies were, they're not now, but relatively cheap back then. And I did a lot of the testing. I didn't do the development of that. The development and credit goes to Matt VK3, Victor Sierra, and he basically wrote all the code. The All Star code is open source, he got all of that. He got rid

of everything that wasn't needed, all star asterisk I should say. He got rid of everything that wasn't needed. He cut it down so it would run on a raspberry pie and attached it to radios and yeah, it's now a national linking system.

Eric , 4Z1UG

Does that network have the ability then to also connect outside somehow on All Star? Or is it just an internal nationwide system?

Hayden , VK7HH:

Yes. So it does have the ability to connect to all star nodes. We have a bunch of nodes which are gateways, so those gateways can connect to All star. The main thing that we wanted to avoid was just random All star nodes coming into the network and joining repeaters, which we had, say, permanently linked. So for instance if a club permanently links two of their repeaters together, they didn't want all star nodes being able to come in randomly. But there is the ability to join via a Gateway, the VK link. So I have a couple of all star nodes, which I use as my gateways when I want to talk outside of the network and that works quite well. Another thing that I also experimented with VK Link was, and you can do this with All Star as well, is voting and somal casting repeater.

So it's back. It's actually currently in progress being moved to two meter system, but it was previously a 70 centimeter system and it consisted of two repeaters on different sites and both those repeaters operated on the same frequency. They both transmitted on the same frequency and they both received on the same frequency and the audio gets sent to a voter and the voter picks which... So if you transmit through the repeater, the voter decides which receiver on whatever repeater is hearing you the best, picks that audio, and then sends it to both transmitters. And both transmitters transmitted exactly the same time, exactly the same phase, and exactly the same modulation as well. So yeah, that was a very, very interesting experiment.

Eric , 4Z1UG

And how is that experiment working?

Hayden , VK7HH:

Yeah, very good. There's some challenges. So the first challenge is you have to make sure that both frequencies are stable. So you overcome that by GPS locking the transmitters so that they're both to the same standard so that they're both on frequency. You also have the problem with the audio, which you have to make sure that both transmitters deviate at the same level. So that requires that both transmitters have to have the same audio characteristics because not all transmitters have a flat audio or the lows might not be the same amount as the next transmitter. So you have to make sure that they're all the same and that they'll all deviate at the same modulation.

So there are some challenges. The challenge that you can't help is time launch delay. So basically, the speed of light, the speed of RF. When you are listening to the repeater, sometimes you'll hear because you're physically closer, you'll hear one repeater before the other, and we're talking a fraction of a microsecond.

But what that does is in your receiver, you hear a phase distortion or it sounds like phase distortion mostly. You can just ignore it and it's still completely legible, but it is a bit of a challenge and it's something that you can't really deal with. It's just one of the downsides of simul casting on the same frequency. But it means that the benefits is that you've got one big giant repeater that covers a massive coverage area and you don't even have to change frequencies on your radio. You just stick on one frequency. And that's very handy for a mobile station. If they drive from one coverage area to another, they don't need to know what repeater they're on, they just stay on the same one and it works really well.

Eric , 4Z1UG

Now did you find with VK link and creating these kinds of systems that it increased your usership because essentially you've taken a lot of infrastructure over a large geographical area to essentially get the hams that 30 years ago would've been on the repeater all the time, are not on the repeater now. Did it actually start to create more usership from that?

Hayden , VK7HH:

Yeah, for sure. So here in the south of the state, we decided to link to the north of the state to their repeater system, and that just was fantastic. It meant that we could talk to our friends up in the north, which we're spaced out quite geographically by I think 200, 250 kilometers. And then we linked, again, we linked over to the northwest of the state. So we managed to exponentially increase this coverage area really easily using VK Link. And then a similar thing was happening on the mainland Australia. So another club up there also did the same thing. They started to expand their coverage. And also, they linked in repeaters, which previously weren't being used at all. They were quiet sitting there, perhaps maybe used by one or two users occasionally. But then once they were linked, the traffic just increased and it was a very, very good thing. And I think that having traffic on the repeater is the best thing. Sometimes you get on there and you almost attempted to call CQ on the repeater because there's no one around. But yeah, it definitely increased the usership for sure.

Eric , 4Z1UG

We have a similar situation here in Israel where we're about the same length, perhaps, a few hundred kilometers north to south, kind of narrow in the middle. But the discussion is always, is it worth the cost to build infrastructure in order to create some activity on it? And could we create activity on it by joining all of the systems together? Which is what we've done on the one hand. But it seems to me that this is an interesting question in terms of whether or not the cost benefit of building infrastructure that no one uses, and

what can you do to actually boost the usership? Does that mean connecting to the outside world just to have traffic? That's been an approach that I've taken, but it doesn't necessarily mean that that's local traffic.

Hayden , VK7HH:

Yeah, anyone can do this. We speak of VK Link, but anyone can do this with All star. As we mentioned before, you can create your own private network with All star. You can also create an entirely public network that links all the repeaters together with All star as well. It's essentially the same thing, only that VK links a little bit more cut down. We have a central server that it talks to. So rather than the All Star servers, it actually speaks to an Australian version of the servers. And you mentioned about the infrastructure. That was a massive reason why we also went down this route. So we had RF links in place beforehand. The problem with RF links is one, there's an awful lot of equipment that you need to install. You need another radio, you need a controller that can have a link radio attached to it.

You need another antenna, another feed line. So that all adds up in cost. Whereas this solution was basically a raspberry pie that we just wired into the repeater unit and the only other thing we needed was an internet connection. Now in some regards, if the internet does go down, we do lose the linking ability. We still have the local repeater, local coverage area of the repeater. But again, if you're worried about the internet going down, you can move it onto say, a private land if you can see the other repeater line of sight or something. In most cases, the internet's been up and we've had no problems with that. The connections really stable. Good audio quality as well. Probably the best audio quality that you can find with an analog repeater system with voiceover IP, if you compare it to the other ones. Yeah. We've had no problems with it at all.

Eric , 4Z1UG

We will return to our guests in just a moment. Nuts & Volts Magazine is a new sponsor and it's an amazing resource for new and old hams alike. Click on the banner to get your online or paper subscription of nuts and bolts. A new way to show your support of the QSO Today podcast is to buy me a coffee. I consume gallons of coffee to create this weekly podcast. Invite me for coffee by pushing the yellow button. Buy me a coffee on the QSO Today show notes page. And now back to our QSO today.

When and how did you start your ham Radio DX YouTube channel? And I'm just going to point out to the listeners that if you haven't seen Hayden's channel on YouTube, you should see it. I think it's really a go-to channel for ham radio. How did you start that?

Hayden , VK7HH:

Oh, thank you for that, Eric. I'd appreciate the kind comments about that. Yeah, so Ham Radio DX kind of started around about mid or early to mid 2018, and it was around about the same time that I was starting my interest into microwaves. Now, at the time I was

writing some blog articles, and there's still, some of those articles are still on my website where I would, say, do an antenna build or I would maybe do, there's a few fair few repeater builds on there, and I would document them and I would type them out. And then I kind of thought, "This is very time consuming. I could do this in video instead." And the added benefit was, is the main reason why I was typing all of these things out and also creating the blog articles was so that I would remember what I did when I have to revisit it later on.

I don't know, a lot of your listeners are probably like this, where you'll start a project, you'll put it aside for six months and then you'll forget where you are at or what you had done up to that point. So I'm very much like that. I always would forget what I'd done, or if I wanted to do it again, I would forget what I'd done. So the benefit was I thought, well, I'm starting to build some microwave trans converters. I want to know how I put it together. And I want to document this for others as well. So I decided to get the camera out and some of the first videos that I've got are basically the transverter builds that I've done and how they work. And then it moved from there into more general amateur radio stuff.

I watched a couple of other YouTube channels and massive credit has to go to Josh Nash from Ham Radio Crash course. His was one of the first channels, like a lot of people that I found and I saw what he was doing and I thought, "Yeah, I can do that." I thought that I could help out newer hams, I think was one of the main goals, and that's carried through now with the channel. It's inspiring, promoting and educating ham radio operators to not just jump on the radio and maybe make some context, but also to experiment and try other facets of the hobby that they may not have thought about before.

Eric , 4Z1UG

Well, I think you're doing that quite successfully from what I can see. And you've got a fair number of subscribers, I think, which is key to YouTube success. What do you think makes your channel maybe different than, say, other hand radio YouTube channels?

Hayden , VK7HH:

The first thing that you mentioned there about subscribers, it's interesting because subscribers, I guess, are a very public way of measuring the success of a ham radio, or not ham radio of a YouTube channel in general. But the channel at the moment is getting around about 200,000 views every month, which is absolutely ridiculous. I'm still amazed that people actually want to watch the stuff that I do. I'm not a very confident person when it comes to the stuff that I put out. I like to make sure as best I can do, but I'm never really pleased with the stuff that I do. That's just me. But other people seem to enjoy it. It's one of those things where I'm not quite sure how to measure success when it comes to it. When comes to the difference between my channel and others, I guess there's not a lot of other Australian amateur radio operators.

That's probably the main draw card, I guess, is the fact that it's interesting to see how people do things in different countries. The United States has a very large ham radio

YouTube channel following. The UK's also got quite a few as well. But here in Australia, off the top of my head, it's really just myself and Peter VK3 YE, and with two very different amateur radio channels as well. And I guess even if you compare my channel to others, you won't see a lot of microwave stuff and VHF and above stuff on many ham radio, YouTube channels. So that's also, I guess, appealing to some people. I also have a very strong experimental side of my channel as well. Sometimes that's stalled because I'm busy with other projects and things. I think that that's probably the main differences is, I guess, when it comes to what I do compared to others.

Eric , 4Z1UG

You put up a YouTube post I think 12 days ago where you talk about how the summer is beginning and you've got some ideas of presentations you're going to make on your YouTube channel, but that you also do sports?

Hayden , VK7HH:

Yeah, yeah. That's the other thing too is that the channel is an offshoot thing. I have a full-time job. It takes a lot of time and effort to do something like this. I know that I've received a lot of comments before. A lot of people say that you know, only do this for money, and I can guarantee that I don't do this for money because it's not a full-time job on YouTube. It definitely doesn't pay enough for that sort of thing. But yeah, sometimes it does take a little bit of a backseat, especially as we're coming into summer here in the southern hemisphere. I play sport to keep active and one of those sports is cricket. Cricket's a very time consuming sport. I have training twice a week for my club. I play at least once a week on the weekends, sometimes twice a week because we are short of numbers occasionally. And I also sometimes occasionally play midweek as well. So it does take quite a bit of time out. And the reason just is that I just enjoy doing it. It's much the same as amateur radio. I enjoy doing ham radio for what it is. And it's the same too with sport and cricket in particular. I just enjoy playing it. I only started playing it in the last couple of years, so I guess catching up on lost years. I like to play it as much as possible while I still can, while I'm still relatively young. But yeah, it does take a little bit of time away from the channel, but I do have plans coming up into summer with longer daylight hours, better weather. I have quite a few projects which I'm going to get to, and I think a lot of the viewers are going to enjoy the videos that are going to be coming out.

Eric , 4Z1UG

As a younger ham, I said this to you before we started at the beginning that the majority of the QSO today interviews are with older hams, hams that were licensed in the fifties, sixties and seventies. But you're recently licensed, which is in the 2000s. You're a younger ham. What do you suppose the appeal is of ham radio to younger people now and how do we put that message over? What are we doing wrong in terms of trying to attract young people into ham radio?

Hayden , VK7HH:

Yeah, well, I'm 31 this year, so I'm 32 next year. Ham radio is just as exciting today as it was the day that I got licensed, which may be a little bit different to other people's experiences. Also, the scene has changed a little bit compared to... Well, the reasons why I got into it. There's a lot of differences. One is that I can see that seems to be very popular with younger crowds is parks on the air, especially in the United States. [inaudible 01:08:08] getting outdoors and active. That wasn't something that I had when I first got licensed. That program didn't exist, or at least to my knowledge I didn't know about it.

And it was mainly confined to scouts, type of stuff. And I wasn't a scout, I wasn't interested in that side of things. But I think that the appeal is still there today for younger It's a bit of an interesting topic because we always talk about younger hams should get into amateur radio and it's one of those things where it is difficult because they have a lot of the latest technologies they can communicate with their friends at the touch of a button, they can talk around the world and a lot of people say, "Well, what's the point of ham radio?

Why would you do it?" And I guess it goes a little bit deeper for those kids that are interested in how it works, not necessarily that they can do it, but actually how it works. So that might not necessarily be jumping on a radio and calling CQ and talking to someone on the other side of the world, although some people enjoy doing that. I think it's more about how the signal gets from A to B, how does the transmitter work in the same way that how does a phone work? A phone is effectively the exact same thing. It's a transmitter and receiver in your hand and much of the same basics, the basic structure of a phone is exactly the same as a radio. So I think it goes to that. And when it comes to targeting younger people into the hobby, I think, obviously it's a very good thing to be able to do that.

But I think that it actually sets them a majority up for later on because when they're young, there's a lot of stuff that is happening in their life, they're setting up for a career, they've got friends, they've got responsibilities that they've got to think about. And they also don't have a lot of income as well unless they're working. So I think ham radio with a lot of people of tends to kick into gear when they're in their late thirties, maybe early forties when disposable income increases a little bit, they have a little bit more time because their children are a little bit grown up if they have children and they want discover maybe ham radio that they did is when they were younger or that their dad did when they were younger or something like that.

So I think that's an important thing as well. So I don't think it's just about the now, but I think it's about the future. And I'm seeing that constantly today. I'm seeing younger guys, or not just guys, but younger people in their thirties and forties starting to rediscover the hobby again, if that's a way to describe it.

Eric , 4Z1UG

I think that's a great way to describe it. What do you think the greatest challenge facing amateur radio is now?

Hayden , VK7HH:

Oh, that's a very, very good question. I think that the greatest challenge that's facing the hobby at the moment is not relevancy. A lot of people think that it is relevancy. It might be controversial, but I think that the greatest challenge is from within the hobby itself. And unfortunately, and it's definitely not limited to amateur radio, but sometimes there is a level of elitist about ham radio where you must know how something works or you must have the knowledge to be a ham radio operator. I think you understand where I'm going with that. But it becomes the point where sometimes it can be very difficult for someone who's starting new to come into, say, an amateur radio community or into a club or something. And they do feel very isolated and left out because they don't have the knowledge. They're just starting.

And sometimes people can be quite blunt on the air as well or just quite blunt to new amateur radio operators. So I think that that's a major challenge which we need to remove. And that's only going to be done basically I think over time with generational changes as new people discover the hobby and we move through that. So we are actively trying to do that in our amateur radio club. We have a membership team who, as soon as someone new joins, we reach out to them. We try to help them, we put them in the right direction of somebody. We always make sure that they feel welcome. And that extends out the same too. And that's what I try to do with my YouTube channel as well, is try to make sure that everyone... There's no dumb questions. Just because you don't understand something, that's fine. You've got plenty of time to learn this.

You can learn at your own pace. That's the joy of amateur radio. It's experimentation, it's self experimentation and it's a great hobby. So yeah, I think that that's probably one of the biggest challenges that we face in the hobby today at the moment.

Eric , 4Z1UG

Is that us old folks we know too much and we're just disappointed with the younger folks that don't know anything?

Hayden , VK7HH:

I wouldn't say it's that. And this is the other thing too is, I feel very strange using the OM and the OM tag and the YL tag and-

Eric , 4Z1UG

XYL?

Hayden , VK7HH:

XYL and all this stuff. And I understand what it was. It's much easier to send on Morse code, that's for sure. It's no specific age bracket at all because I've seen amateur radio operators who may not be so supportive or not be so friendly towards newcomers from all age groups. The young guys might rat on about the older guys and the older guys don't

like the young guys and you get these... For a non-political hobby, it gets fairly political sometimes, so.

Eric , 4Z1UG

That's right.

Hayden , VK7HH:

Yeah, I think that we should just sit back and just enjoy the hobby for what it is, enjoy the community that we have around with everyone. Everyone is constantly learning. And just help each other out and have fun.

Eric , 4Z1UG

Well, I knew a lot more about amateur radio 50 years ago than I do now, or at least I thought I did. I'm surprised I'm still around and in the hobby because of perhaps the way I thought I knew so much in those days.

Hayden , VK7HH:

That's the thing, it's a lifelong hobby, isn't it? It sticks with you and you're constantly... It's a hobby of a thousand hobbies. There is so much to do. I've got lots and lots of things that I want to do and I want to play with in the hobby. I just don't have the time at the moment. So I do see myself that in about 10, 15, 20 years time, because guarantee you amateur radio is still going to be around. I've heard the arguments. Someone who's been in the hobby for quite a long time who I admire very, very much, Rollies 801 BQD, he said to me, "Don't worry Hayden." He says, "They thought SSB was going to kill ham radio. They thought that all these other advancements, FTA and all these other things were going to kill ham radio. Don't worry, it's sticking around for quite a long time."

Eric , 4Z1UG

Yeah, I hear that as well. What excites you the most then about amateur radio now?

Hayden , VK7HH:

What excites me the most now, I'm still very much a propagation nut, making contacts on frequencies that you normally wouldn't do to either ionospheric conditions or my main interests, tropospheric conditions. So what excites me the most is when there's a massive opening on a VHF or above band or, in my case, six meters is my favorite band. It's just amazing to me how that works. And yeah, I just get really, really excited when that happens. I've still got some goals. I want to be able to eventually get my DXCC on six meters. I've got a massively long way to go. I haven't even worked the US on six meters yet. But those kind of things are definitely what excite me.

The other thing that does excite me too is now seeing newcomers coming into the hobby, and them having the same level of passion and interest that I had when I was younger.

And to be able to help people to do that because people have said that I've helped them come into the hobby and that my videos have inspired them to try something new. That's very, very humbling. And I think that yeah, it's something that I can see a little bit of myself in each person that I wasn't when I first come into the hobby. It's fantastic to see.

Eric , 4Z1UG

Do you set aside time on your calendar for ham radio?

Hayden , VK7HH:

No, I don't really. It's when I have time. I used to commute quite a long distance to work. I don't anymore. It's only about a five minute drive, but I used to commute a fair way. And when I did, one of the ways that I would make sure that I was active on amateur radio, because I always wanted to make sure that I was active. That's why I installed the mobile radio in the car and I would jump on the repeater every morning and I would usually be able to talk to somebody. I know a lot of people do it on the HF as well. They install HF in the car. And that used to pass the time as I would travel to and from work and it would cut down the amount of time that it would seem like considerably. So that wasn't really allocated time.

I do in the summer set aside time when I know that the band conditions will be open on six meters due to sporadic E here in the southern hemisphere usually peaks around or roundabout in a couple of weeks time, and that start in November through to about January. So I will usually make sure that I'm at home at about nine to 9:00 AM till midday, which is when it usually starts to appear. And then later on in the late afternoon as well. So they're probably the only times that I really make sure that I set aside for ham radio. And then of course, with creating videos for the YouTube channel, I do have to plan some time to make those as well. But I class that in a separate bracket. That's not really enjoying ham radio for what it is. That's more teaching and basically doing the videos and showing that aspect of things. But I enjoy doing that too.

Eric , 4Z1UG

What advice would you give to new or returning hams to the hobby?

Hayden , VK7HH:

For new hams, I would give the advice to just take it at your own pace. Don't worry about anyone else saying that you need to learn any quicker. Don't also be put off by a lot of the knowledge. Because as you mentioned before, a lot of people have been in the hobby for a long time, they have a lot of knowledge. Don't be put off by that. Find one aspect of the hobby that you really want to learn about first. Don't do all of them at once. So it might be as simple as putting a radio, plugging up an antenna and making a contact. That might be the first goal, the first thing you want to do. Once you've done that, maybe you might

want to do satellites, you might want to then use that radio to work a satellite or you might want to learn or do something else.

Maybe you want to learn morse code or something like that. But don't do them all at the same time because it can become overwhelming. So just pick one thing to do. And for returning hams, I think if you're coming back to a hobby after a fairly extended period of time, again, focus on something that you enjoyed doing previously that you may not have explored in its entirety and just work on that. Focus on one thing, I think is the blanket thing is to have a play with and then you know can always move on to something else.

Eric , 4Z1UG

Hayden, I want to thank you so much for joining me on the QSO Today podcast. This is really a blast and it's amazing to have your perspective, not only from your age point of view, but also from Tasmania. So with that, I want to thank you so much and wish you 73.

Hayden , VK7HH:

No worries, Eric, it's been an absolute pleasure. Thank you very much for having me on today and everyone for listening, and yeah, I very much enjoyed it and hope to see you on the air.

Eric , 4Z1UG

That concludes this episode of QSO Today. I hope that you enjoyed this QSO with Hayden , VK7HH VK7 HH. I came away impressed with his knowledge, his can-do attitude, and his willingness and ability to share what he learns with all of us on his YouTube channel. If VK7 HH represents his generation of hams, then our hobby is in great shape for the future. Please be sure to check out the show notes that include links and information about the topics that we discussed. Go to [www.qsotoday.com](http://www.qsotoday.com) and put in VK7 HH in the search box at the top of the page.

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