

Bluetooth and Ham Radio – John Beckwith, N6JCB (Previously published in the MARC Newsletter – May 2019 – Updated)

I've been playing around with Bluetooth and Ham Radio for some time. For two reasons – if it works, it's sure a lot easier than running a bunch of wires all over the place. And secondly, more recently, I've been looking for way to hear better when I'm working the radio. Like some of us, my hearing has been in steady decline since my days flying helicopters and riding motorcycles. So, working events, whether on a bike, car, foot or net control, I need to find a way to hear better if I'm going to continue this hobby.

My first experience was several years ago when I bought a used Yaesu FTM-10 from a member (Andy, W6AJB and his wife Pat, KI6ETG). Pat had mounted the radio on her bike, but apparently had problems opening a repeater once the RPM got above about 1000. I mounted the radio on my 2007 HD Heritage Softail and it worked like a champ. At that time, it was an entirely wired solution – but a simple one. Just one set of wires from the radio to my helmet – with a PTT mounted on the handlebar (a trick in its own right on that bike.). While this was setup, I played with Bluetooth a bit and got it to work but wasn't confident it was reliable. (More on that in a bit.)



Ultimately, I got a Yaesu FTM-350 (predecessor to the current FTM-400). I have mounted that on several vehicles including the current 2009 HD Heritage Softail, a 2007 Goldwing, a Toyota Sequoia and an RV. While I had it mounted on the Wing and the 2009 HD (both hard wired) – I



found I had good luck pairing the radio with my Sena Headset (SMH10 at the time). Eventually I've used the 350 paired with the Sena on a couple of our events with excellent luck.



More recently, I mounted the FTM-10 on the current 2009 HD (I'm reluctant to put the 350 – read "expensive" – on the Harley for any length of time – but it has worked well, so far.). I've worked a couple of events and done a couple of rides with Mark, KE6ZRP (Zippy) and found that it loses the BT connection frequently. Don't know why that is – and certainly not a problem with the 350.

So, going forward, I will revert to using the 350 on MARC events or anytime I need reliable comms on the bike.



Now, beyond basic BT connections between the radio and the Sena headset (now Sena 20S EVO), I still want to find a way to use BT for other operations when I'm not on the bike. So, I started rooting around and found that Pryme makes BT adapters for various radios.

Basically you plug their adapter into your radio (primarily HT's) and you pair their adapter with "any" Bluetooth headset – specifically ones designed to be used with cell phones etc. – 2 way comms. I put that in quotes

because obviously there are going to be exceptions, but so far, I've had great luck pairing with Bose Noise Cancelling BT headphones and Beats BT headphones. I find the Bose NC headphones solution particularly attractive because of their ability to knock down external "noise" – while still allowing voices to come through. And then to be able to hear the radio right "in" the headphones.

A point of interest here – I also have a pair of Bose "Hearphones". With my inherent hearing limitations (and I've been through 4 – now 5 – sets of hearing aids) I was reading about the Hearphones and how they help with "conversation". I was skeptical, but knew I could take them back to Fry's if I was dissatisfied. However, they work extremely well. Better than my first 4 sets of hearing aids – by a significant margin. More on the Hearphones another time.



So, using the Prymeblu BT adapter (I have the BT-502 for my VX-7 and FT2DR – both use the 4 pin TRRS plug) I can keep the radio on my belt and wear a BT headset (as mentioned above). The 502 has a PTT button built into it – so I just clip the 502 on my belt next to the HT and I'm set to go.

Now here's the fun part. I indicated earlier that I had little luck with 4 different sets of hearing aids (all covered by insurance). All are supposed to be "high end" – and are supposed to be good at hearing voices in noisy environments. Well, so much for that idea. They've all been little more than amplifiers. (FYI – all are Phonak units.).

However, after much prodding by my wife and other veteran friends I applied for VA disability for hearing loss – obviously from my years of flying eggbeaters. To my surprise, I was approved for a 10% disability (which brings in a little spending money each month as well.). But that also means I'm eligible for hearing aids under the VA program. Yeah, right, what can they do that all these other folks have not accomplished? Well, guess what – these really do work! I'm still not 100% in noisy environments, but considerably better than all the previous aids. And as good as the Hearphones (while not being nearly as "obvious" – with the Hearphones it's obvious I'm wearing "headphones"). But wait, there's more.....

When I got these Oticon hearing aids from the VA, the Audiologist also got me a couple of other goodies. These hearing aids are fully BT. So, they pair directly with my cell phone. So, now, all my outgoing calls are on my cell phone – because the audio is right in my ears. WONDERFUL!!!



In addition, he got me a device I plug into the audio out from my TV so now I'm getting 95% or better dialog from my TV. (I was using a regular BT headset previously, but those totally block out my wife – good news, bad news....lol – (Yeah that's her over on the couch waving frantically trying to talk to me.....-)). So, another benefit of these hearing aids from the VA. But wait, there's Still more.....

These aids also come with a little multifunction device – primarily a microphone. Again, they talk directly to the hearing aids via BT. So, I can give my wife this microphone and she can talk to me from across the room (there's that TV thing again...;-). But wait, there's Still more.....



This “microphone” can pair with other BT devices and transfer their signal directly to my hearing aids. See where is this is going? I plug the Prymeblu adapter into my radio, pin the microphone to my shirt, pair the microphone doohickey with the Prymeblu adapter and, voila, my radio is now talking directly (well, indirectly through the adapter I guess) to my hearing aids. So, my HT is on my belt. My Prymeblu is on my belt next to it. My microphone is on my shirt where it will pick up my voice – I’m now getting my Ham Radio directly in my ears – no additional headphones. I tested this out recently when Zippy and I went to the Yuma Hamfest and it work wonderfully. Admittedly I haven’t “stress” tested it yet on an event or such, but so far so good.

A side note – While the Yaesu radios (10 and 350) can both do BT – I’ve never had any luck at all pairing them to traditional cell phone type headsets and I’ve tried several – with both radios. But it works well with the Sena headsets. I’m sure it has to do with what protocols they’re all using, but that’s my experience.

A final note – Mark/Zippy has also setup his new radio on his Hog with BT to his Sena headset and it is apparently work well for him as well. I’ll leave that to him to publish more info.

So, these are my experiences with BT and Ham Radio. It’s been an interesting journey – one that is not over I’m sure.

Holler if you have any questions about any of these topics.

73

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