BREAKOUT

The Newsletter of the Hastings and Napier Amateur Radio Clubs

Hastings Branch 13 NZART - Napier Branch 25 NZART

Volume 20, Issue 8, August 2020



Hastings Br 13 Club Calls ZL2AS ZL2QS

Napier Br 25 Club Calls ZL2GT ZL2G

> IRLP Node 6793 147,250

Branch's 13/25 Net 9.00 AM Sunday Morning 670 Repeater

Editor John Newson ZL2VAF



See article Page 7
The uncertain future of Ham Radio

http://www.zl2gt.nz/

http://groups.yahoo.com/group/zl2as/

Emergency Call-in Frequencies: 3615khz and 670 repeater



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HASTINGS BRANCH 13

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From the Top Table

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Hi one and all.

What is going on with the weather? We have had some really great days of sunshine and may it go on for a lot longer as I have so much to do out side. Really we have had a mild winter but I think now we are on the upwards side and spring has sprung with lots of blossom on the trees.

Hope some of you have been doing some DXing and working the bands when you can. It is hard work as still the bands are not quite there yet but give it time as it will get better over the next few years. You all have time to buy those nice new radios that you might have been putting off buying. There are some good deals to be had and I see that Kenwood have just put out a brand new rig the TS990 HF/6 meters and, I think from looking at it, it does 144.000 as well. I stand to be put right if I'm wrong. If you like Icom they are still pushing the range of rigs as well so it is a buyers choice at the moment.

I would like all you guys and girls to look after the little ones. This week a little girl was being told off by granny when she ran off not to be found till way after midnight. She was only 9 years old. Please just think how they are feeling before you blow your top. Sometimes they just don't think about what they are doing or what happens afterwards. This wee girl had the whole street out looking for her as well as the police with a police dog. It took up a lot of police time as well as the others walking around the streets calling out for her. So be a little kinder if you can be even though some kids can be little buggers as well and they do push you so hard at times till you let go,

Well we will be one short at our next meeting as David ZL2DW is taking time off for a few weeks to rest up and take time off from his busy work load. I would like to remind you all that we are at level 2 so we need to maintain that 2 metre space from each other to stay safe.

OK that's it this time so I will see some of you at our next meeting and some I will catch up with on air. All the best and stay safe so that only the jaffas have to worry about this damn virus and let us not have it on our turf.

Your President

Blue ZL3TT

Branch 13 HBARC



Branch 13/HBARC, Hastings, office bearers. David Walker ZL2DW (Secretary), Blue Smith ZL3TT (President), Peter ZL2HM (Treasurer).

NAPIER BRANCH 25

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Committee Meetings: 7:30 pm, 3rd Tuesday of January, March, May, July, September,

November

Club Calls: ZL2GT, ZL2G

Club Web Site: http://www.zl2gt.nz/

Club Nights: First Wednesday each month (except January) 7.30pm at the Club Rooms:

123 Latham Street Napier

From Napier Branch 25

From the last general meeting of Branch 25:

13 people attended the last meeting, with 2 apologies.

General business was followed by the annual "Show and Tell ", this was well supported with Bob ZL2AN showing us his QRO Antenna Matching Unit, Errol ZL2IT showed his home brew high voltage capacitor and stepper motor system of tuning (destined for a magnetic loop antenna), Mike ZL2MY brought along his MLA made with coaxial cable, Stu ZL2XC showed his audio storage system for repetitive sounds like calling CQ in a contest and Dave ZL2MQ showed a driver module for stepper motors. Discussion on all these items was vigorous and extended.

Next meeting: I will deliver a presentation of my EME station with hopefully some video of contacts as well. This will follow the usual general business, followed by a chat / cuppa. All welcome on Wednesday 2nd September 2019 at 7:30pm. Usual Venue at the Clubrooms Latham Street.

I have spent limited time on the radio, and have been interested by the latest Break In articles on noise cancellation and the variable capacitor presented by Wellington Branch, I am experimenting with PCB developed stators, rotors, end plates and fixed capacitors, and am waiting on some components to complete this project, This capacitor will eventually be part of a MLA, with remote tuning by stepper motor (funny how there is a lot of interest in Magnetic Loop Antennae at the moment). More on this as it develops.

Hopefully, our Covid 19 Alert level will drop back to level 1 on Monday.

I wish you all an enjoyable month in Ham Radio, see you at the next meeting!

73 Dave ZL2MQ

Branch 13 Donated junk Auction under way at the 22 July meeting







Annual Table Sale

Saturday 3 October 0900 hours NZDST

Longburn Hall

Hi Everyone

It's that time of the year again – the Annual Branch 20 Table Sale. Held at the Longburn Community Hall, 17 Ngaire Street, Longburn.

Doors open for Sellers at 0730 and to the general public at 0900. Morning tea will be available at the venue. Costs are:

- Full Table \$25
- Half Table \$15

For Further Details Contact:

- Peter Moore ZL2AUB
- Bill Dench ZL2BILL

Please make bookings by emailing committee@zl2ko.org.nz

The preferred method of payment is via electronic banking to the club account.

- Westpac Account: 03-1522-0161009-000
- Put tablesale in particulars your callsign in code and sumame as the reference.

Warren Crawley President ZL2KO

Remember the Rules - don't come if any of the following apply to you:

- If you are unwell with a cough, fever, or other respiratory symptoms.
- If you have been in close contact with a suspected or confirmed case of COVID-19 until they have completed the prescribed quarantine period, even if they are completely symptom free.
- If you have returned from any overseas country until they have completed the self-quarantine period for 14 days, even if they are symptom free
- If you are undergoing COVID-19 testing, until they have received negative results and are symptom free
- If you have been advised to stay at home by a health professional.

Guideline from Ministry of Health





Longburn Community Hall, 17 Ngaire Street, Longburn. (Off State Highway 56)

The Uncertain Future of Ham Radio

Software-defined radio and cheap hardware are shaking up a hobby long associated with engineering



Photo: John Anderson

John Anderson (AJ7M), from Marysville, Washington on the air from home for the 2020 ARRL Field Day event, held June 27-28. Field Day is ham radio's largest on-air annual event and demonstration.

Will the amateur airwaves fall silent? Since the dawn of radio, amateur operators—hams—have transmitted on tenaciously guarded slices of spectrum. Electronic engineering has benefited tremendously from their activity, from the level of the individual engineer to the entire field. But the rise of the Internet in the 1990s, with its ability to easily connect billions of people, captured the attention of many potential hams. Now, with time taking its toll on the ranks of operators, new technologies offer opportunities to revitalize amateur radio, even if in a form that previous generations might not recognize.

The number of U.S. amateur licenses has held at an anemic 1 percent annual growth for the past few years, with about 7,000 new licensees added every year for a total of 755,430 in 2018. The U.S. Federal Communications Commission doesn't track demographic data of operators, but anecdotally, white men in their 60s and 70s make up much of the population. As these baby boomers age out, the fear is that there are too few young people to sustain the hobby.

"It's the \$60,000 question: How do we get the kids involved?" says Howard Michel, former CEO of the American Radio Relay League (ARRL). (Since speaking with IEEE Spectrum, Michel has left the ARRL. A permanent replacement has not yet been appointed.)

This question of how to attract younger operators also reveals deep divides in the ham community about the future of amateur radio. Like any large population, ham enthusiasts are no monolith; their opinions and outlooks on the decades to come vary widely. And emerging digital technologies are exacerbating these divides: Some hams see them as the future of amateur radio, while others grouse that they are eviscerating some of the best things about it.

No matter where they land on these battle lines, however, everyone understands one fact. The world is changing; the amount of spectrum is not. And it will be hard to argue that spectrum reserved for amateur use and experimentation should not be sold off to commercial users if hardly any amateurs are taking advantage of it

Before we look to the future, let's examine the current state of play. In the United States, the ARRL, as the national association for hams, is at the forefront, and with more than 160,000 members it is the largest group of radio amateurs in the world. The 106-year-old organization offers educational courses for hams; holds contests where operators compete on the basis of, say, making the most long-distance contacts in 48 hours; trains emergency communicators for disasters; lobbies to protect amateur radio's spectrum allocation; and more.



Photo: ARRL Former ARRL CEO Howard Michel (WB2ITX) at headquarters station, W1AW.

Michel led the ARRL between October 2018 and January 2020, and he fits easily the profile of the "average" American ham: The 66-year-old from Dartmouth, Mass., credits his career in electrical and computer engineering to an early interest in amateur radio. He received his call sign, WB2ITX, 50 years ago and has loved the hobby ever since.

"When our president goes around to speak to groups, he'll ask, 'How many people here are under 20 [years old]?' In a group of 100 people, he might get one raising their hand," Michel says.

ARRL does sponsor some child-centric activities. The group runs twice-annual Kids Day events, fosters contacts with school clubs across the country, and publishes resources for teachers to lead radio-centric classroom activities. But Michel readily admits "we don't have the resources to go out to middle schools"—which are key for piquing children's interest.

We need to "convince them there's more than getting licensed and putting a radio in your drawer and waiting for the end of the world."

ustained interest is essential because potential hams must clear a particular barrier before they can take to the airwaves: a licensing exam. Licensing requirements vary—in the United States no license is required to listen to ham radio signals—but every country requires operators to demonstrate some technical knowledge and an understanding of the relevant regulations before they can get a registered call sign and begin transmitting.



Photo: Ronny Risinger (KC5EES)

Members from the LASA High School Amateur Radio Club, K5LBJ, in Austin, Texas participated in School Club Roundup, a twice-yearly on-air event that encourages participation from ham radio school groups.

For those younger people who are drawn to ham radio, up to those in their 30s and 40s, the primary motivating factor is different from that of their predecessors. With the Internet and social media services like WhatsApp and Facebook, they don't need a transceiver to talk with someone halfway around the world (a big attraction in the days before email and cheap long-distance phone calls). Instead, many are interested in the capacity for public service, such as providing communications in the wake of a disaster, or event comms for activities like city marathons.

New Frontiers



Photo: Sateesh Nallamothu

Dhruv Rebba (KC9ZJX) with memorabilia from his ham radio contact with astronaut Joe Acaba (KE5DAR) onboard the International Space Station.

The future lies in operators like Dhruv Rebba (KC9ZJX), who won Amateur Radio Newsline's 2019 Young Ham of the Year award. He's the 15-year-old son of immigrants from India and a sophomore at Normal Community High School in Illinois, where he also runs varsity cross-country and is active in the Future Business Leaders of America and robotics clubs. And he's most interested in using amateur radio bands to communicate with astronauts in space.

Rebba earned his technician class license when he was 9, after having visited the annual Dayton Hamvention with his father. (In the United States, there are currently three levels of amateur radio license, issued after completing a written exam for each—technician, general, and extra. Higher levels give operators access to more radio spectrum.)

"My dad had kind of just brought me along, but then I saw all the booths and the stalls and the Morse code, and I thought it was really cool," Rebba says. "It was something my friends weren't doing."

He joined the Central Illinois Radio Club of Bloomington, experimented with making radio contacts, participated in ARRL's annual Field Days, and volunteered at the communications booths at local races.

"We want to be making an impact... The hobby aspect is great, but a lot of my friends would argue it's quite easy to talk to people overseas with texting and everything, so it's kind of lost its magic."

But then Rebba found a way to combine ham radio with his passion for space: He learned about the Amateur Radio on the International Space Station (ARISS) program, managed by an international consortium of amateur radio organizations, which allows students to apply to speak directly with crew members onboard the ISS. (There is also an automated digital transponder on the ISS that allows hams to ping the station as it orbits.)

Rebba rallied his principal, science teacher, and classmates at Chiddix Junior High, and on 23 October 2017, they made contact with astronaut Joe Acaba (KE5DAR). For Rebba, who served as lead control operator, it was a crystallizing moment.

"The younger generation would be more interested in emergency communications and the space aspect, I think. We want to be making an impact," Rebba says. "The hobby aspect is great, but a lot of my friends would argue it's quite easy to talk to people overseas with texting and everything, so it's kind of lost its magic."

That statement might break the hearts of some of the more experienced hams recalling their tinkering time in their childhood basements. But some older operators welcome the change.

Take Bob Heil (K9EID), the famed sound engineer who created touring systems and audio equipment for acts including the Who, the Grateful Dead, and Peter Frampton. His company Heil Sound, in Fairview Heights, Ill., also manufactures amateur radio technology.

"I'd say wake up and smell the roses and see what ham radio is doing for emergencies!" Heil says cheerfully. "Dhruv and all of these kids are doing incredible things. They love that they can plug a kit the size of a cigar box into a computer and the screen becomes a ham radio.... It's all getting mixed together and it's wonderful."

But there are other hams who think that the amateur radio community needs to be much more actively courting change if it is to survive. Sterling Mann (N0SSC), himself a millennial at age 27, wrote on his blog that "Millennials Are Killing Ham Radio."