QUA FARC OCTOBER 2022

Franklin Amateur Radio Club Inc. NZART Branch 10

VOLUME 30 ISSUE 10

President: Gary Landon ZL1WGL
Vice President: Peter Henderson ZL1PX
Secretary: Tom McDonald ZL1TO Ph. 09 238 8580
Committee Members: Mike Jane ZL1UOM, Ted Doell ZL1BQA, Durlene Griffin ZL1ULK, Gary Collins ZL1GAC

Examiners: Tom ZL1TO, Peter ZL1PX

Web page: www.qsl.net/zl1sa/ Webmaster: Peter ZL1PX

MEETINGS: The club meets on the third Tuesday each month, in the clubrooms, 19 Stadium Drive Pukekohe, 7.30 pm. Visitors welcome.

The committee meets on the first Tuesday of each month (excepting January) at 7.30 pm in the clubrooms.

SUBSCRIPTIONS: $20.00, family $30.00.

NETS: Every Sunday at 9.00 am on 3.700 MHz (controller ZL1UOM) and 9.30 am on the 146.900 MHz repeater (first log-on becomes controller). Other 2 metre frequencies are 145.775 MHz, 146.625 MHz, and 146.900 simplex if repeaters off air.

Newsletter: Editor Peter ZL1PX pjh@teachlit.com
A copy is sent to members and clubs in the Auckland area. Sent free of obligation by e-mail to anyone interested.

Summit on the Air

At our September meeting, Philip Sharp ZL1PSH gave a clear, precise presentation on SOTA, how it originated in the UK, has been adopted in over 130 countries and how amateur operators can be an 'activator' or 'chaser'. Activators set up their portable QRP rigs at the peak of their chosen target before calling CQ SOTA. Chasers mostly operate from a home station. To achieve activation for a target, four chasers must respond, and activators must wait a full year to activate that target again. Philip reported New Zealand has a large number of summits but Auckland region mostly has summits that are less than 400 metres in elevation and these offer the activator only one point per activation.

Purple triangles show the location of SOTA summits around Auckland.

Activators and chasers both stay in touch through https://ontheair.nz/? which maintains up-to-date times, locations and frequencies for activators trying to activate a wide range of targets – summits, parks, huts, lakes, islands, nature reserves – so there is always plenty going on. It was clear Philip enjoys this aspect of ham radio very much and his enthusiasm extends to publishing an Auckland-wide SOTA SIGNAL newsletter. You can subscribe to this by emailing Philip at zululima1psh@gmail.com.

Thank you, Philip, for your well-executed activation of Franklin Radio Club.

World Rally Championships

Three communications teams from Franklin Club assisted in the WRC Te Auku stage on Friday 30 September – Tom and Lynette ZL1TO/ZL1LLK, Mike and Durlene ZL1TO/ZL1ULK and Gary ZL1WGL with son Michael. Our picture, taken from Bravo location (Tom and Lynnette) on stage 4 of the rally, shows Car 1 in full flight across a graveled road with spectators glued to the action.

Tom reported, "This picture, taken from the operator's position, shows a top rated hybrid car, No. 1. The crowd are behind their barrier. The weather was overcast with light drizzle at times, so there is little dust. The picture is cropped from a wider view, which includes a helicopter as well!"

NZ Net - Secret Spy

Last month QUA presented a story about Secret Spy. Appearing on NZ Net CW sessions over the last few months, this resilient but clandestine character travels the world from one capital city to the next always remaining as inconspicuous as possible. His next target location was given in a set of coordinates and QUA readers were invited to investigate where in the world our Secret Spy was headed.
Two readers, Rob ZL1RJS and Gary ZL1WGL, correctly identified the Secret Spy's next destination as Abuja in Nigeria. Thanks for your sleuthing efforts. And well done to all those who also identified Abuja but didn't contact QUA.

Minutes of Franklin Amateur Radio Club (Inc) General Meeting held at the clubhouse, Stadium Drive, Pukehohe
20 September 2022

President Gary ZL1WGL opened the meeting at 1930 hours. A special greeting was extended to Councillor Howard ZL1BXA, and tonight's speaker Philip ZL1PSH.
A moments silence in memory of Queen Elizabeth II was observed. Bob ZL1BBZ related how his mother wheeled the Queen's pram. Then followed a number of stories of interaction between members and the Queen or Royalty.
Attendance: ZL1WGL, ZL1TO, ZL1PX, ZL1BBZ, ZL1BQA, ZL1TZP, ZL1UOM, ZL1ULK, ZL1LL, ZL1PSHZ ZL1BXA, ZL1GAC Apology: ZL1MFL ZL1ULK/ZL1TO

Minutes of the August meeting
The August minutes were approved as true ZL1TO/ZL1BQA

Correspondence :
Inward
Vaughan Henderson – seeking someone to attend Anniversary Conference work at Wellington this weekend. ZL1TO attended. Janet Kamau responded to acknowledge receipt of our questions re progress on relocation.
Correspondence report received. ZL1TO/ZL1PX

Finance:
Income- Nil
Expenditure – Power bill to 19 Aug $52.97 paid 2 Sep
The finance report was received : ZL1TO/ZL1BQA

Reports
Damage to clubhouse – tags and bent fence.
AREC – Successful coms support to Ak Car Club rally 18 Sep
AREC – World Rally Champs at Te Auku – 3 stations attended
AREC – Regional meet at North Shore 18 August.

General Business
Amendment to NZART Remit 2 Number of Councillors. Our representative ZL1TO voted as per instructions for five councillors. He then voted in favour of amended remit as otherwise reduction in size of Council could not proceed.
Topics for future meetings: At October meeting, we will have three 10 min speakers - CW (ZL1PX), Rally (ZL1TO) and hydrogen welding (ZL1UOM).
Congratulations to Jason Woodger for successful exam sat at clubhouse 24 August. Jason (ZL1JRW) has complimentary membership for a year.
Membership list – Secretary will circulate our club member call signs and names with the minutes of this meeting. Members expressed opposition to including addresses and phone numbers.

This meeting followed by presentation on SOTA by Philip Sharp ZL1PSH.

Minutes of Franklin Amateur Radio Club (Inc) Committee Meeting held at the clubhouse, Stadium Drive, Pukekohe
4 October 2022

President Gary ZL1WGL opened the meeting at 1930 hours. A greeting was extended to John Anderson, President of Morris Register of NZ – Auckland Branch;

Attendance: ZL1WGL, ZL1TO, ZL1PX, ZL1BQA, ZL1UOM, ZL1ULK, ZL1GAC, John Anderson

Minutes of the September meeting.
The September minutes were approved as a true record.
ZL1BQA / ZL1PX
Discussion of our interest in Ngahere Road
Tom had noticed the advertisement of a lease proposal at Ngahere Road in the County News of 22 September. Prior to this meeting he reached out to the Morris Register so that we could compare notes.
Gary spoke about the history of FARC at this present place, Stadium Drive, and the increased incidence of vandalism since the skate park had been built next door.
John indicated that he would take the discussion we have had tonight to Morris members, and thought most of their members would be sympathetic to FARC wishes.

Correspondence:
Inward
Newsletters from Branches 65, 29, 29, 65
From Auckland committee organizing NZART Conference 2026 advising a meeting is to be held 7.30 pm 13 October at Branch 66 clubhouse. Some ideas for the conference were brainstormed at Conference 2022.
A thank you message for our AREC contribution at WRC has been forwarded by Richard ZL1BNQ.
The correspondence report was received. ZL1TO / ZL1PX

Finance:
Income Interest $1.02
Expenditure Power Bill to 19 September $52.09 paid 20/9/22
Finance report was received. ZL1TO/ZL1BQA

AREC
Three amateur stations from Franklin provided safety communications for the WRC rally at Te Akau North on Friday 30 September.

General Business
Topics at Future Meetings
October: Show and Tell on CW QRS net by Peter ZL1PX, WRC Rally, welding with hydrogen with ZL1UOM, ZL1BQA building a diplexer HF and VHF/UHF.
November: Annual General Meeting
Ngahere Road – Secretary is to write to Morris Register thanking John for coming along and hearing our position.

Meeting closed at 2050 hours.

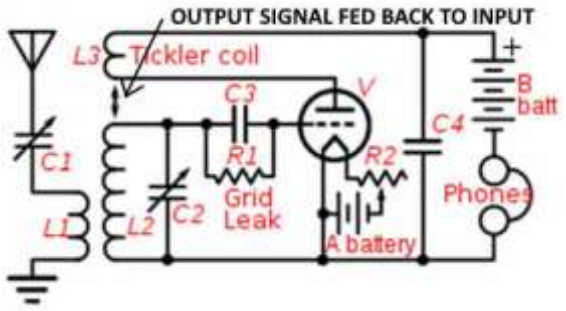
Edwin Howard Armstrong (1890-1954)

On December 14, 1901, Guglielmo Marconi held a press conference in St John's New Foundland. He announced to the world the successful reception of a Morse code message containing the letter S from Poldhu, more than two thousand miles away on Cornwall's west coast. The signal had arrived on December 12, two days previously on the site now known as Signal Hill south west of St Johns. There is some doubt about this achievement, as Marconi's technology was intended to print out the dots and dashes it received on tape but the signal proved not strong enough for it to complete this task. However Marconi showed the technology did indeed work by completing the experiment successfully with print-out two months later when he received a similar message from Cornwall while on board the steamer Philadelphia which he had fitted out with an on-board Marconi adherer, antenna and telegraph tape.

Edwin Howard Armstrong, who was only 11 at the time of this announcement, probably read about Marconi's success in the New York Tribune, his local newspaper. Edwin contracted Sydenham's Chorea (also known as St Vitus' Dance or Chorea Minor) as an eight year old. This disease affects the brain, particularly causing unusual movements, unsteadiness and poor coordination. It can turn a normal child into someone unable to speak, walk or feed themselves. As a result of Sydenham's Chorea and tic-like symptoms, Edwin stayed home from school immersing himself in books such as Ray Stannard Baker's *The Boys Book of Inventions* (1899). He decided he would become an inventor. With Marconi's cross-Atlantic success before him, he determined he would enter Columbia university and devote himself to the development and improvement of this spectacular new means of communication.

Marconi's technology required spark gaps. Bigger spark gaps needed huge voltages and generators. It has been calculated the spark gap used to transmit across the Atlantic needed voltages of around 150 KV. Spark gap transmitters also broadcast across a wide range of frequencies – creating selectivity issues for those receiving signals. Armstrong and others immediately saw this type of transmission was unsustainable. They researched the vacuum tube – newly created by German and American engineers – to find more effective methods of transmitting as well as a way of amplifying weak signals at receiving stations.

Armstrong entered Columbia University School of Engineering in 1912 and almost immediately solved the second of these problems, amplifying weak radio signals. By exhaustively researching the newly created 'Audion' vacuum tube created by Lee De Forest, he found a feature not known to De Forest – if the output of the tube was fed back to the input circuit, the original signal could be amplified thousands of times. Armstrong had invented the 'regenerative' or feedback circuit which meant an audio signal could be fed to a speaker and heard across a room rather than only on headphones.



If this regenerative feature was increased further, so that more of the output was fed back into the Audion tube, Armstrong found the tube became an oscillator - creating radio waves in a completely different manner to those employed by Marconi's spark gap. These new radio waves could be fitted within a narrow range of frequencies allowing a number of stations to broadcast at the same time. Moreover, vacuum tube oscillations could be modulated to transmit voice and sound information rather than just the Morse code information sent by spark gap methods. Armstrong went on to invent the superheterodyne circuit and FM broadcasting. These discoveries are the basis of almost all radio and television applications in use today.

So why do we celebrate Guglielmo Marconi as the founding father of radio and Edwin Howard Armstrong remains largely unknown? Perhaps this is similar to the Wright Bros in aviation. The techniques they applied at Kitty Hawk to lift the Wright Flyer off the ground were what seemed best at the time. However, Orville Wright nearly lost his life in one early flight and his passenger was killed. Later pioneers designed safer, more reliable aircraft. The Wright brothers demonstrated manned heavier-than-air flight could be achieved. Others then made it better.

It took Marconi to prove radio would work across such a big distance as the Atlantic Ocean. Armstrong then improved or 'democratised' the technology to make it reliable and convenient for simultaneous use across a wide range of applications. – but people remember the man who did it first rather than the man who made it easier for everyone to use. It's just the way folks are, Edwin.