



Committee

President: Gary Landon ZL1WGL

Vice President: Peter Henderson ZL1PJH

Secretary: Tom McDonald ZL1TO Ph. 09 238 8580

with: Mike Jane ZL1UOM, Ted Doell ZL1BQA, Durlene Griffin ZL1ULK, and Gary Collins ZL1GAC.

Examiners: Peter ZL1PJH, Tom ZL1TO.

Web page: www.qsl.net/zl1sa/

MEETINGS: The club meets on the third Tuesday each month, in the clubrooms, 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 (controller ZL1PZ). Other 2 metre frequencies are 145.775 MHz, 146.625 MHz, and 146.900 simplex if repeaters off air.

Newsletter: Editor Peter ZL1PJH 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.

Ian ZL1PZ

Club members will be aware that one of our highly respected Life Members Ian ZL1PZ had a fall mid November and is recovering from broken ribs. Ian has asked that we advise his new digs - Room 359 Possum Bourne Village. Ian is now set up with a VHF radio and regularly joins our 2 metre morning nets. Our best wishes go to Ian for a full recovery.

New Editor

I want to thank Tom ZL1TO for his fine work in producing such excellent copy over the last nine volumes of this newsletter. His newsletters always arrived on time and on topic and their quality shone. Thanks Tom. I hope I can do justice to the excellence of your work in promoting enthusiasm for all things amateur radio. Peter ZL1PJH

Seasons Greetings

We are all looking forward to a year where Covid is less of a hindrance. We hope you have had a Merry Christmas and will experience a Happy New Year. Let's also wish a happy, satisfying holiday for you and safe journeys on our roads.

Club Notice Board

Next General meeting, Tuesday 18 January

We meet at the clubhouse at 1930 hours, with Covid pass verification and mask requirements. The agenda will follow the pattern of previous general meetings, with the 2021 December minutes printed in the Members edition of December 2021 QUA. The meeting will be followed by coffee or tea and light refreshments.

Jock White HF Field Day, 26-27 February 2022

A decision on the venue for Franklin's team will be made at our January meeting. There is a possibility we will be able to enter the contest for the Montgomery Cup by including a CW operator as there has been CW training available over the last year from Papakura Club's David ZL1DK and Rob ZL1RJS.



OTHER CLUB NEWSLETTER ITEMS...

Branch 3 Western Suburbs Radio Club – used equipment sale postponed until Saturday 12 February 2022

Branches 13/25 Napier/Hastings combined clubs newsletter article Simple Filters From Transmission Line Stubs. Detailed analysis of filter system.

Branch 65 Papakura. Comprehensive article on power supplies in November Newsletter. Worth keeping.

Branch 80 VHF Group plans to have a 70cm repeater on our site

Branch 86. Musik Point - H Night Memorial Contest activity report. AM radio contesting at its vintage best.



**Minutes of Franklin
Amateur Radio Club (Inc)
Annual General Meeting
held in the Clubrooms
Stadium Drive Pukekohe
on
21 December 2021**

President Gary ZL1WGL opened the meeting at 7.35 pm, welcoming all and thanking those present for their attendance

Attendance: ZL1WGL, ZL1TO, ZL1PJH, ZL1BBZ, ZL1BQA, ZL1LL, ZL1GAC, ZL1ULK

Apologies: ZL1PZ, ZL1MFL, ZL1UOM, ZL1TZP, ZL1DW accepted
ZL1PJH/ ZL1BQA

The minutes of the 2020 Annual General Meeting, 17 November 2020 were approved as a true and correct record.
ZL1PJH / ZL1TO

The President, Gary ZL1WGL gave his report for 2021.(See report in full below)

The President's report was adopted ZL1WGL / ZL1BQA

The financial statement was circulated with November QUA. Explanations were given by the Treasurer. The financial statement as presented was received and approved.
ZL1TO / ZL1PJH

An AREC report was given by Tom ZL1TO. This has been another year of on-again, off-again lockdowns. Members helped with one car rally (to end up being the recipient of first aid). The group attended one regional meeting in substantial numbers. Two members were involved in an Auckland-wide exercise designed to give operators of SARTrack some experience at message handling and logging. Regional meetings have been held using Teams software, in what have been relatively short business sessions.

The report was received. ZL1TO / ZL1BQA

The Editor reported that 12 issues of QUA, have been produced during the year. It is usually published a day or two ahead of the monthly general meeting. Delivery of all 80 plus copies has been by email, and QUA is posted on the Club web site by Peter ZL1PJH. By using electronic publication exclusively the cost to the club is zero. The Editor trusts that members will continue to give their support to the new Editor. Peter ZL1PJH is only the fourth Editor in the newsletter's 29 year history; after Bob ZL1BAD, Laurie ZL1WU and Tom ZL1TO.

The Editor's report was received. ZL1BQA / ZL1PJH

Election of Officers.

Nominations were received for:

President Gary Landon ZL1WGL ZL1TO/ZL1BBZ

Vice President Peter Henderson ZL1PJH ZL1ULK/
ZL1BQA

Secretary/Treasurer Tom McDonald ZL1TO ZL1BQA/
ZL1BBZ

Committee Durlene Griffin ZL1ULK ZL1PJH/ZL1WGL

Committee Mike Jane ZL1UOM ZL1BQA/ZL1WGL

Committee Ted Doell ZL1BQA ZL1WG/ZL1PJH

Committee Gary Collins ZL1GAC ZL1WGL/ZL1PJH

All were declared elected.

Newsletter Editor Peter Henderson ZL1PJH ZL1TO/
ZL1WGL

Clubroom custodian Gary Landon ZL1WGL ZL1BQA/
ZL1TO

Call sign trustee Tom McDonald ZL1TO ZL1BQA/
ZL1WGL

Contact person Tom McDonald ZL1TO ZL1BQA/
ZL1WGL

Web Master Peter Henderson ZL1PJH ZL1BQA/
ZL1WGL

Tea maker Lynnette McDonald ZL1LL ZL1BQA/
ZL1WGL

Examiners Peter Henderson ZL1PJH ZL1BQA/ ZL1TO
(Ian ZL1PZ has asked to be removed. Tom ZL1TO
remains an examiner.)

All were elected unopposed.

Bank account signatories

The signatories on BNZ records are any two of Tom McDonald ZL1TO, Gary Landon ZL1WGL, Durlene Griffin ZL1ULK and Peter Henderson ZL1PJH.

We have internet banking with Pukekohe BNZ.
ZL1PJH / ZL1BQA

Subscriptions

These are currently \$20 and \$30 family and are to remain the same for 2021/22.

The committee's spending limit presently is \$700.00 and is to remain unchanged.

General Business

That Ted ZL1BQA, Mike ZL1UOM, and Tom ZL1TO become life members. ZL1WGL / ZL1PJH. (See President's report below)

The President gave a vote of thanks for tonight's participation and attendance, to spontaneous applause.

The meeting closed at 8.39 pm

Franklin Amateur Radio Club - Presidents Report 2021

Well what a year it has been seems to have been mostly lockdown after lockdown, it started okay until February and we had got going with our Jock White field contest doing very well until around 9pm word came through that the country was going into lockdown so a quick pickup and off home for the operators. I think that lockdown was for about 6 weeks then with a gradual return to normal and we organised our annual junk sale and it was very successful and as I always say it is a very important social occasion with buyers and bargain hunters coming from far and wide. We also arranged a mid-winter dinner at Waiuku cossie club with members from Papakura Radio club attending also. Then Delta arrived in New Zealand and it was lockdown again and for Auckland it was lockdown for three and a half months with borders north and south of the city keeping most people at home. Our club carried on with meetings starting on 690 repeater then those that could went on to a Zoom meeting on line which went very well. We even had a guest speaker on one of our Zoom meetings which came across very well, so well in fact I can see us able to arrange for a guest speaker to give us a presentation from anywhere to our clubroom TV screen. All we need would be a Wi-Fi signal and that is something we may be able to arrange some -how perhaps.

What the New Year holds for us who knows with covid's new variant omicron making its presence known in New Zealand right now. Let's hope that the vaccine will keep it

under some control, and also the committee has agreed that for members to attend our meetings a vaccine pass will need to be sighted. I would also like to thank very much all the committee members for their work done over the past year. On that note, I would like to wish all members and their families a Merry Christmas and a happy new year.

President FARC Gary Landon ZL1WGL

Just a follow up after our AGM and as some members couldn't attend for whatever reason and it was a very important meeting along with the election of officers which went well with a couple of changes so thanks to the members that elected to go on the committee and take on a new job. We also decided that we should recognize the service to this club over many years from several of our members. The members of this club we offered life membership too are Ted ZL1BQA, Mike ZL1UOM and Tom ZL1TO, They have done so much for the club and have been members for a long time and indeed it was a honour to offer them life membership of FARC, so congratulations to Ted ,Mike and Tom and may you have many more years of involvement and enjoyment with FARC,

Regards Gary ZL1WGL

Minutes of Franklin Amateur Radio Club (Inc) General Meeting held at the clubhouse, Stadium Drive, Pukekohe on 21 December 2021

President Gary ZL1WGL opened the meeting at 2041 hours.

Attendance: ZL1WGL, ZL1TO, ZL1PJH, ZL1BBZ, ZL1BQA, ZL1LL, ZL1GAC, ZL1ULK

Apologies: ZL1PZ, ZL1MFL, ZL1UOM, ZL1TZP, ZL1DW
accepted ZL1BQA / ZL1TO

Minutes of the November meeting, on 690 repeater.
The report in December QUA was approved. ZL1BQA / ZL1PJH

Correspondence:
Inward - Newsletters from Branches as listed in December QUA.
Email from Janet Kamau – of Panuku asking for access along driveway. The Committee's reply has not been acknowledged.
The correspondence report was received. ZL1TO / ZL1PJH

Finance:

Income: Nil

Expenditure:

We remain in credit with Watercare. Fire extinguishers will be due for checking and maintenance in the next month. Term deposit matures early January. The deposit will be rolled over.

The report was received. ZL1TO / ZL1PJH

Donation to Branch 66 for repeater licences. A \$200 donation was approved. ZL1PJH / ZL1BQA

Bob ZL1BBZ asked if anything is being done to fix Klondyke. Ted ZL1BQA said professional riggers are required due to Health and Safety requirements. The Covid boundaries have been a problem.

General Business:

The fence palings have been removed at the street frontage of the ally-way. Bare timber has been painted to match the basement. Our thanks to Mike ZLUOM and Gary ZL1WGL.

Ian Sexton ZL1PZ is now in the rest home section of Possum Bourne Village. Contact detail is in December QUA.

The meeting closed at 2111 hrs

Keyer Interface Circuit for Kenwood TS-830

What was my problem? I had a paddle (from E-Bay) and a keyer (MX-K2 from AliExpress) and they worked fine together as a Morse tone generator. I could make clear iambic code. What I really needed, however, was a way to make my Kenwood TS-830 Transceiver accept Morse from this paddle and keyer combo.

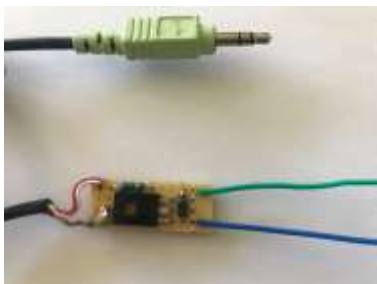


Kenwood TS-830 and other rigs of this generation with valve finals (1970s and 80s) use grid block keying. When the key is open, you can measure -65 volts across the key points.

When the key closes, this grid bias cut-off voltage is removed and the rig transmits. The problem is that my iambic keyer (MX-K2) has an open-drain, N-channel MOSFET output so cannot handle either the voltage or the polarity and would die in a blue puff if connected directly to the rig.

As you undoubtedly already know, NPN transistors require a minimum voltage to cause current to flow from base to emitter before they will 'turn on'. Once base current is flowing, then current will flow from collector to emitter, thereby closing the circuit. This meant my keyer would be isolated from the 65 volts of the transceiver. It would see only the small current fed from the 1 K ohm resistor to the base of the transistor. A press of my paddle would now trigger transmit in the Kenwood – and no blue smoke!

Here is the interface soldered up. The 3.5 mm plug fits into the keyer (MX-K2). The blue and green wires connect to the Kenwood's key socket.



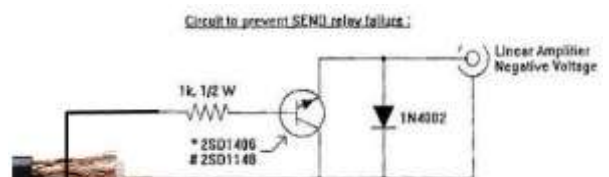
Using this coupling, I have now paddled on to NZ Net half a dozen times. (NZ Net is on 3.535 MHz every weekday at 2100 hrs). I check in and request a QRS (slow) reply. Net

Iambic keyer (MX-K2)
(under threat from blue puff)



My CW mentor Stan (ZL3TK) researched and found a solution. Insert an interface circuit between the transceiver and the keyer. This circuit would use the -65 volts from the key input on the Kenwood to power an NPN transistor. No battery needed.

You can see the interface circuit below. The coax (left) goes to the keyer. The output labelled 'Linear Amplifier' (right) goes to the Kenwood's key input.



Control then reward me by wishing me a good evening and parking me while the really fast guys (QRQ) exchange trivia questions. With my CW moving at a relatively slow speed, I cannot copy all they TX, but it's a lot of fun.

Glossary

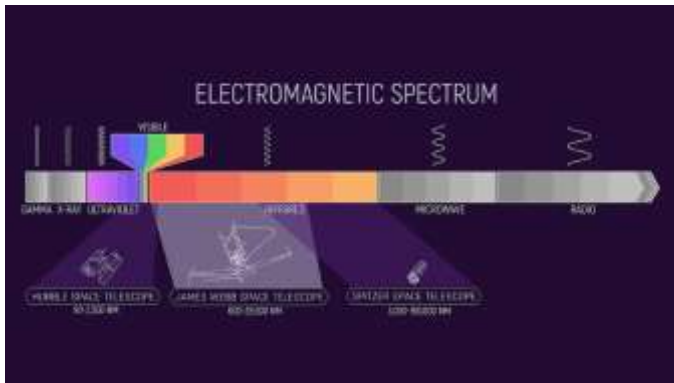
Iambic paddle – set of two paddles which when operated separately deploy one for dots and the other for dashes. When connected to an iambic keyer, pushing both paddles together will produce alternating dots and dashes. Operators use combinations of left and right paddle to form Morse code characters. It sounds complicated but it is arguably easier than straight key operation. In right-handed operation, the thumb makes the dots and the first finger makes the dashes. Changing a jumper inside the keyer reverses the paddles.

keyer – This is a PIC-based device which creates a keying signal consisting of dots, dashes and spacing with perfect timing ratios for sending to a transceiver. Keyers can be adjusted for speed and can record into memory sequences of characters for repeat operation, such as sending automatic CQs.

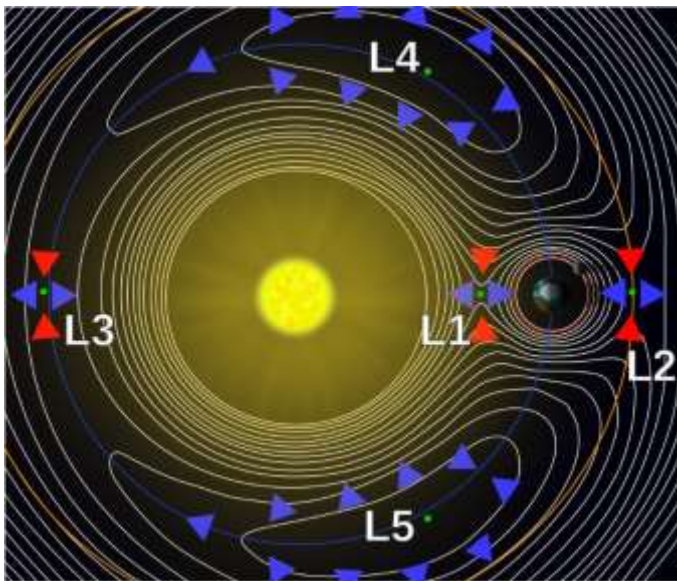
Peter Henderson ZL1PJH - with help from Stan (ZL3TK)

James Webb telescope is launched

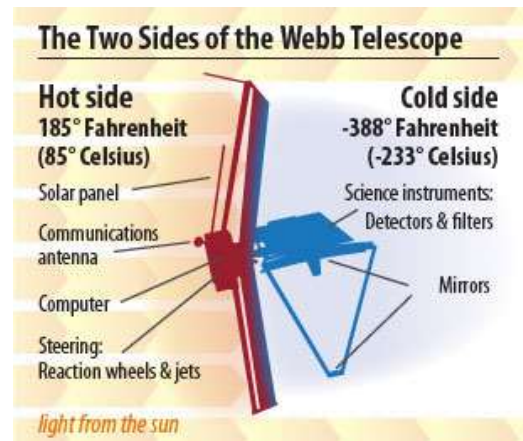
The James Webb telescope was launched from French Guiana on Christmas day 2021. This space telescope has been planned for 25 years and will have a greater ability to research the early years of the universe than Hubble. The new telescope is designed to operate in the near infrared to mid infrared spectrum.



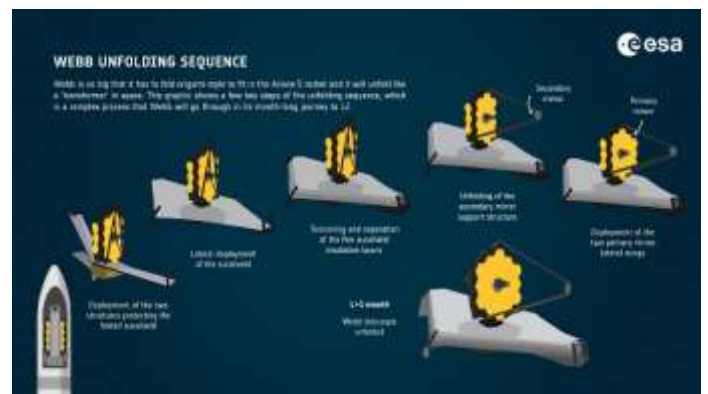
In order to prevent infrared contamination by heat radiated from the sun, earth and moon, the orbit chosen is an Earth-Sun Lagrange L2 halo at 1.5 million kilometres beyond earth. This is effectively an orbit about the sun keeping in pace with Earth.



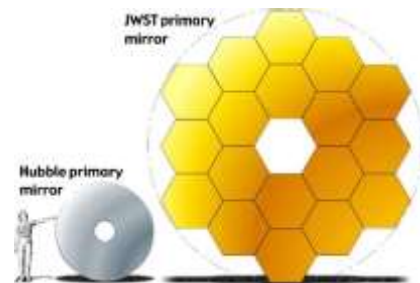
A heat shield keeps the telescope very cold at less than 50 K while solar power panels, radio antenna and the jets are on the hot side at 85oC. The telescope should settle into its halo orbit around the end of January.



The new telescope is too large to fit as one piece into its launch vehicle. Consequently, it was folded for launch and unfurls in the deployment phase.



The secondary mirror was successfully deployed on 5 January. The telescope's eighteen hexagonal gold-plated beryllium mirror segments making up the primary mirror have a light catching area of 25.4 m2 which is a little more than the 200 inch Hale giant on Mt Palomar. Despite having a primary mirror that catches five times the light of Hubble, the mass of James Webb is half that of Hubble.



The radio communications are:
on S-band (for telemetry, tacking, and control) at 16 kbit/s (up) and 40 kbit/s (down).
on Ka-band (for data acquisition) at up to 28 Mbits/s (down.)

Tom MacDonald ZL1TO