

NZ QRPERS

NEWSLETTER NO.16 FEBRUARY 2020

COPY FOR NEWSLETTER 17 IN BY 25TH OF MARCH.



FROM the EDITOR:

1/6th of the year gone already. Isn't that a worry? I'm looking at a plan of work to be achieved this year, and it's worrying me! Roll on Winter when its cooler.

GO QRP NIGHT Start times. For MARCH the start times will be: **CW: 8.30pm – 9.30pm.**
Phone: 9.30pm to 10.30p. Each Newsletter will show Start times and any other relevant information.

HOWEVER, a more pressing question from my point of view is; is the **GO QRP NIGHT** worth continuing with? **In light of the fact that I have received only 2 logs for January, and that only 6 took part, is it worth continuing with? My response is, simply, NO!**

I have made changes to keep members happy. Is the points system too complicated? Is the whole night boring and not worth the effort? Beats me!

I have forwarded a 'new' log and points system to the Admin Group for their perusal. It's not from me, it's from another member. It is very straight forward and 'foolproof'. **Being considered.**

HOTA and QRP NZ WEB SITE.

On behalf of the QRPers Group, a big thanks to **Matt ZL\$NVW**, no, that's not a typing error – he deserves a fist full of **\$s** for his continuing efforts and work on the **HOTA** site. He is also developing a Web Site/Blog for our group, and I for one await with eager anticipation for its grand opening! No pressure Matt.

MISSION: To encourage and share the use of QRP (low power) operation, equipment, antenna ideas and information.

QRP NET: Thursday Nights @ 8.30pm on 3.690MHz LSB. **Any stations** welcome to join in so long as you're 10w or less.

SAVE YOUR FINALS – GO QRP!

Contact Info: waynezi2oz@gmail.com

NEXT GO QRP NIGHT:

The **MARCH GO QRP NIGHT** will be on **Saturday 28th March, starting at 8.30pm for CW, and 9.30 pm for SSB.** More participants would be much appreciated.

CAUGHT in the NET:

I can't get over the signals that 'Extra Long Wire' of Gary ZL2SV puts out. Even more embarrassing are the Signal reports he dishes out! I'm wondering how difficult it would be to lug a couple of thousand meters of wire with me when I go portable! Nah. Sounds like hard work! 30 meters is plenty awkward enough.

VISITING QRPer.

Mike VE6TC may have already arrived in ZL land, in which case, a welcome to 'Down Under'. Mike is a fellow QRPer and will be bringing his FT817. He'll be spending a couple of weeks on Stewart Island, then heading North with a few stops in between, with another two weeks at Paihia, so keep an ear out for him. Near the end of March, he'll be heading to Tahiti and Moorea. Lucky him! I have given him our 3.690MHz as a possible frequency while he's here, and our Net times. If you hear Mike on air, please make him welcome.

LANGUAGE! It has been noted that there has been a deterioration in the language being used on the net. As the founder of the Group I feel it is my right to object if I think standards are slipping to the detriment of the Group in the eyes of other Hams. Please curb. It is unnecessary.

SITES of INTEREST:

<https://www.amateurradio.com.au/homebrew-group>

Some members may have an interest in this celebration maybe?

From the Bendigo hams here in central Victoria, a Facebook link to a video of a recent presentation on the celebrations in Canberra last year.

<https://www.facebook.com/groups/2000006723579613/permalink/2530155700564710/>
and within it links to other presentations.

The Hewlett Packard Archive <http://hparchive.com/> and <http://hparchive.com/appnotes>
John N3AAZ from the QRP-labs website.

The finishing touches to your project involves the final appearance of the panels, this article has some suggestions.

<https://github.com/WA2FZW/Labeling-Homebrew-Projects-by-WA2FZW>

Ian VK3LA

APIAS HEADWATERS – Rockslide Bivvy Country.

It would be hard to find a more remote or difficult place to get to than Rockslide Bivvy, for a couple of reasons. Not only is it in the very center of the Northern Ruahine, but access is limited by surrounding private land, and a large Maori land block. Its remoteness is an advantage in one way – Kiwi. At last count there were some 12 nesting pairs and quite a few hanger's on in this and a neighbouring catchment, protected to some extent by a ring of traps and a fairly intensive trapping programme. This carried out by DoC and a group of enthusiastic volunteers.

The recent development of 'Self Loading' gas operated traps has meant higher kill rates, and fewer needed visits by those monitoring the trap lines. For those unfamiliar with Kiwi calls, it can be a little unnerving at first, sounding like someone being murdered or tortured. A long piercing call most often. Just to the right of where this photo was taken is the 'Masters Memorial'. See photo below.



Apias Headwaters. Top right slip is where Rockslide Bivvy is located.



A 'Good Nature' self resetting gas trap.

at you. At first quite intimidating. Another tactic is to disappear under water and not reappear for several minutes. They can amaze with their speed underwater, even when going upstream against the often-swift current. In clear water they look like a miniature torpedo!

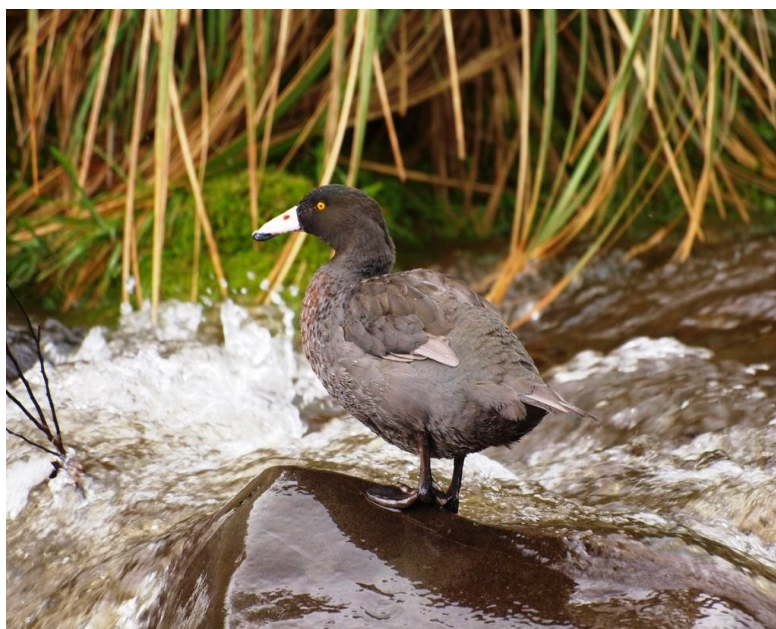
I think this year must have been a good one for Whio nesting, as I have seen a number of pairs with 2 or more chicks in tow. Watch out for both parents at this time, in spite of their appeared timidness, they can be quite aggressive. I guess they have to be with the numbers of rats, stoat, weasel and possum around. I have spent a number of pleasant minutes sitting on a rock a few meters away observing these amazing birds. They are certainly very well adapted to their sometimes-harsh environment.

The tops are tussock covered and prone to slips and weather erosion – hence the bare scree and rock. Bush in the gullies and valleys is mostly second growth as much of this area was fired in the early 1920 – 30s. Some not so bright sparks thought it would make great sheep and cattle country. Yeah! Right!

The Apias stream has the odd trout, but more significantly, it has **Galaxias argenteus** or Giant Kokopu. Hidden in daylight, but easily found and observed at night with a torch. They can grow up to 1.5Kg in weight. When taken out of the water, one catches the distinctive 'cucumber smell'.

Also frequently heard and seen are Whio or Blue Duck. See photo. I am amazed how close one can get to these birds if a careful approach is made. The male bird gives little whistles of warning, but stops if you keep your distance – 2 to 3 meters.

If the pair have ducklings, expect to get wet! The male will rush you and with a great commotion, shower water



Come any closer and I'll Scream!

I recently walked a trap line and in a distance of 2 to 3 hundred meters, counted 6 dead rats and 2 stoats, which commonly prey on Kiwi and other bird life. Quite a high count for a previously 1080 baited area. No wonder the Whio have had to be aggressive to fight these pests off.

While at the 'Old Maropea Forks Hut', I was stirred into action by the alarm whistle of a Whio and another screeching noise that I did not recognize. I rushed outside and moved quietly toward the stream. Amazingly a Whio had a rat trapped on the end of a partly fallen tree hanging out over the water. The rat was on its hind legs shrieking. I looked for something to throw, but noticed that the Whio kept advancing along the tree. I'm pleased to say the rat chickened out and dropped very unceremoniously into the water and disappeared off downstream. 'Give that bird a medal', I thought. After a few seconds the Whio hopped into the water and paddled off upstream, no doubt full of the story he was going to tell the wife and kids!

De ZL20Z



Masters Memorial Cairn. Off No Man's Road.



**Lester Masters outside Ruahine Hut.
N.E. Ruahine. 1924**

Lester Master was the genuine 'Good Keen Man' of Barry Crump Fame. A renown hunter, bushman, and author. The huts in those days were certainly put together with whatever was available close by. None of this flying it in by helicopter stuff!

The following lines come from the poem 'Alex' written by Masters in 1956.

I tramp trails of my yesterday's
See Skip and Ginger scoot away
Hear them bringing a boar to bay
Hark to the red stags' echoing roar
Stalk him as in the days of yore.

Lester Passed on in 1961.

Small Things Amuse Small Minds, or
A Geo-academic Analysis to explain an RF Propagation Bemusement

Listening to signal reports passing between two QRP enthusiasts and their tramping buddy ZL2OZ, who is being heard more and more frequently operating portable on 3.690 MHz, one has seen a pattern develop which is begging to be examined, if only out of curiosity. Hopefully this treatise will explain some of the phenomena which receive such avid discussion.

All activity has been taking place at, or just after sunset, summertime, so it's fair to say the ionosphere's D-layer will be still very much present and can be expected to significantly diminish in intensity only after three or four hours of total darkness. Why is it then that two home stations, in particular, are able to repeatedly exchange solid signal reports with the portable station at various sites in the field over several nights, and again when the same fellow has returned to his home, yet those same two home stations can often barely hear each other? The drive to winkle out the cause for this fascinating phenomenon comes from knowing that all three stations are operating well within the specified QRP limitation on transmitter power, the field station often reporting output as little as 2 or 3 watts. Fascination with this conundrum only increases when one plots the geographic locations of those stations on a map and realizes all are within ground wave range, all have relatively omnidirectional polar responses due to their antennas being low to the ground relative to the wavelength in use, yet the two home stations are roughly half the distance apart compared with either of their paths to the field station.

Plotting the paths on a map gives a more telling insight. From the map, it seems, as the famous British actor Kenneth Williams used to say in his deep-brown West-Country accent during episodes of 'Beyond our Ken', " ... the answer lies in the soil". To be accurate: a massive, 1571-meter-high pile of the stuff. From the annotated map, we see that the two home stations, although only 57 km apart, are decisively separated by the highest mound of dirt in the Tararua Range, which also happens to be covered in heavy bush. This formidable obstacle effectively eliminates any ground wave propagation between the two stations. Since it is unlikely that the antenna at either end is constructed to favor NVIS propagation, the operators are left only with an inefficient double, perpendicular pass through the D-layer for reflection by the F2 layer. Despite these perpendicular passes presenting the least-lossy angle through the D-layer (minimum possible distance), they nonetheless result in a much-weakened signal due to the well-documented absorption in that diminishing, but still heavily-ionized layer at ~ 2100 hours NZDT.

So why are both home stations still able to exchange repeatable and significantly better reports with the field station? The map again provides a credible answer. It is obvious that ZL2FC has a clear and unobstructed path to the north and therefore is utilizing the good old ground wave to work the field station when it is located in either the Ruahine Range or at home.

The story is not so different for ZL3TK when the field station is located in the Ranges. However, it is fortunate for him that there is a gap, albeit small, in the hills between the northern end of the Tararua Range and the southern end of the Ruahine Range, which allows ground wave signals through to the field station when it is located at home.

Deep, slow QSB has been reported frequently on the path between ZL2FC and the Ruahine Range huts, however, ZL3TK reported only shallow QSB on his 99 km path. It is therefore likely that the longer 112 km path is beginning to be affected by sky wave propagation. The relationship between the ground wave and emergent night-time sky waves often results in

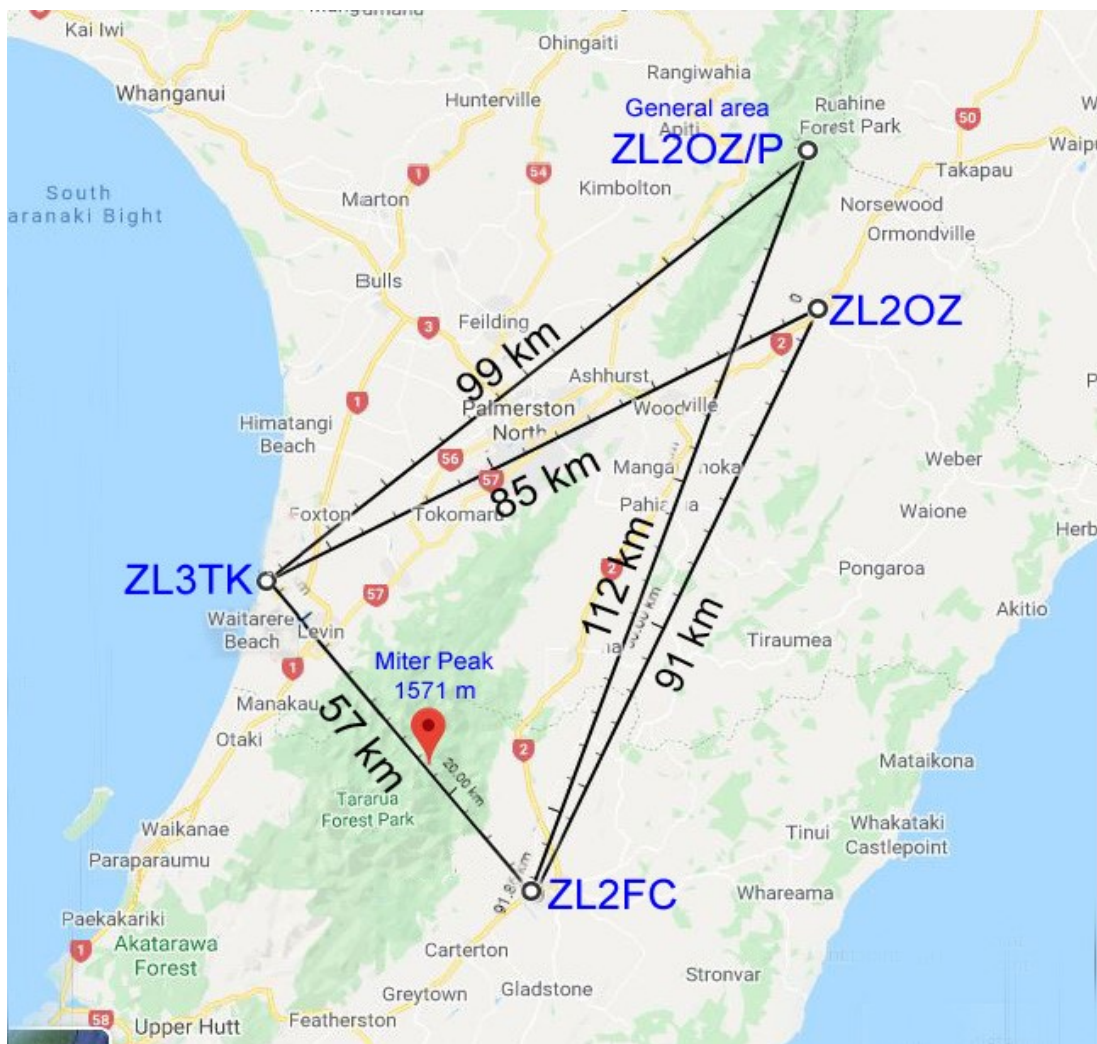
significant phase cancellation. Little or no QSB was reported between the two home stations, indicating that either the ground wave or the sky wave was absent.

We may justifiably conclude that the ground wave was absent due to the Tararua Range, incorporating as it does, the 1571m Mitre Peak.

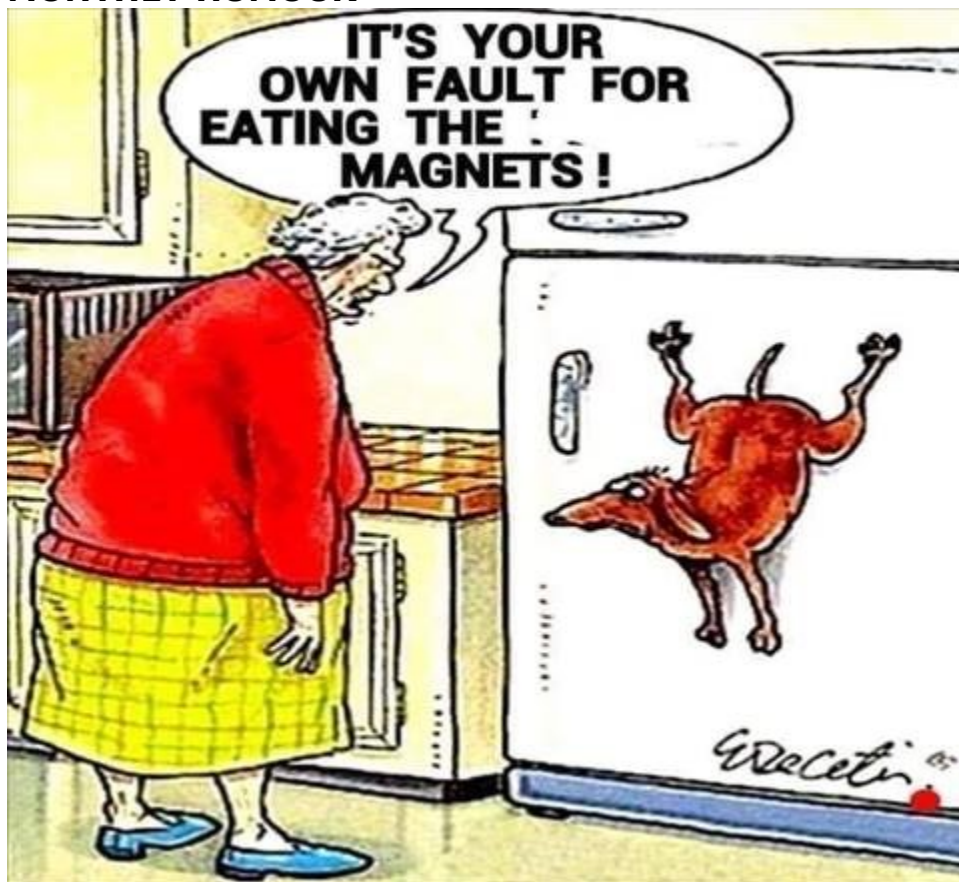
Remember in the old days when AM broadcasting was de rigeur? The effect of phase distortion between the two frequency-divergent AM sidebands and the carrier would cause stations at 50 km to 200 km or more to suffer serious fidelity problems during the grey zone of twilight hours until sky wave propagation became dominant and signals settled in strongly for the duration of the night. This much longer distance of ground wave is caused by the much higher power, up to 100 kW, which was being transmitted. With SSBSC (single sideband, suppressed carrier), we don't have either the power, the frequency divergence or the carrier, so we infrequently hear such phase distortion, the phenomenon being limited almost exclusively to phase cancellation affecting the remaining sideband.

For those interested in knowing more about their own circumstances, simply examine geographic features along a radius of between 20 km and 100 km of their location, then deduce the effects those features may have upon ground wave propagation. Beyond the 100 km range during hours of darkness, it is safe to assume propagation will be almost entirely sky wave, with all the usual codicils regarding NVIS and D-layer absorption during daylight hours.

73 De Anon



MONTHLY HUMOUR



De Mike ZL2WR

A REQUEST:

From some enthusiastic members: If you are going to go Portable, mobile, stationery mobile or marine mobile, please send an email out, or send an email to Wayne and he'll send it out. Give those that are interested a bit of a 'Heads Up'.

SERIOUS THOUGHT for the MONTH:

All intending Politicians, and those sitting, should be made to sit and listen to the Police frequency for 12 hours, to see what really goes on in their electorate and country.

De Anon

COMING EVENTS: 25th March – Closing date for copy for **NEWSLETTER No.17.**

Next **GO QRP NIGHT: Saturday 28th March CW: 8.30pm – 9.30pm. Phone: 9.30pm to 10.30pm, REGARDLESS** of Daylight-saving time or NZ Standard time.

CONTRIBUTORS to this NEWSLETTER:

Sites of Interest: VK3LA

Apias Headwaters. ZL20Z

Small things Amuse Small Minds. Anon.

A Serious Thought. Anon.

Humour: ZL2WR

With Thanks from the Editor