

## **Updating the ZL2BMI Pages**

These pages have remained inactive for many years – although articles have been published in Sprat magazine. But it seems time to update them.

### ***Background info about this site – and the author, Eric ZL2BMI.***

The WEBSITE:

[www.mightymessage.com](http://www.mightymessage.com) is maintained by Richard ZL2RDY in Blenheim New Zealand.

He and I have been tramping companions (= bushwalking, hiking, backpacking in other countries!) for many years. We have climbed mountains, hiked over fairly rugged trails and mountain passes, even in places with no trails. Some trips exceeded 7 or 8 days with all food and gear.

We also happen to both be retired Anglican church ministers. You may find some photos of our exploits if you look elsewhere on this site.

Over more than 45 years since I got my amateur radio licence, my biggest interest has been building small lightweight transceivers for use in remote areas where other forms of communication were not available, or very expensive. This was for more generally keeping in touch as well as for safety. Even the advent of cellphones made only marginal difference, as many backcountry areas still have little or no access. With the possibility of cellphones that link directly to satellites, this may change – but the thrill of using your own home-built radio still has appeal.

In earlier days all my radios were DSB, using analogue vfos – which gradually shifted to ceramic resonators and crystals about 20 years ago. They were not used for general ragchewing, but for fixed frequency skeds to confirm safe arrival at huts etc. At times they proved very useful when we were diverted to other routes and needed to be met at remote roadends.

More recently – having now reached the age of 78 – they have proved useful when requiring early pickup or change of plans for health reasons! And we still do the hiking – if perhaps a little more sedately. 4 – 5 hours a day and 15km max. That still gets us to lots of huts!

Some people may ask why I did not use CW – which would have been more efficient and far better under difficult noisy conditions. Yes, I did have to do code for my licence, but there were so few operators who I could keep skeds with, if that were the only mode. In addition, my wife, ZL2TFS likes to hear me out in the backblocks. She was often the one with whom I needed to make changed plans.

The first few articles will be about building digital vfos – especially for those who do not have programming skills.

Then I hope to share various projects from the last 15 years which I have written up as I went along. Some of these may just be pics of what I wrote at the time and I don't say that everything will be accurate. They are really just to get your interest. So come back from time to time in case there is a new offering – spelling mistakes and all!

***(Continued)***

## ***Moving into digital VFOs***

My radios of the last few years have again been adapted. Many trampers have passed their ham licence, so that I could build them a radio to use. But crystals and resonators did not always meet the need – so digital vfos have needed to be used.

About 10 years ago I built my first DSB radios with digital vfo. The first vfo was a unit from USA – and I built one for myself and another for ZL2TMH – Martin – also a keen tramper. But it was fairly expensive and nor really small enough.

About 7 or 8 years ago the CDV (Compact Digital VFO) from Leon VK2DOB became available, at a very good price, and small enough for my needs. I soon realized that I could build it into an SSB rig – something I had not done before. This was published in the GQRP magazine SPRAT about 2020, after a visit to UK. Others who wanted a rig were instructed to purchase the kitset.

About this time the SugarCube VFO from Andrew ZL2PD in Christchurch, also became available.

Even though it required some learning to write hex files and put them onto the Attiny85 that it used, it could be made even smaller – and Andrew customized some of it for me so that I could use a very small display indeed. This was also used to build some yet smaller SSB rigs.

Sadly, Leon's website closed a couple of years ago – and I got to a point where it took too much time to produce the sugar cube for others.

So recently Neville ZL2BNE in Blenheim – another GQRP CLUB member, took up the task of producing a small programme for the Arduino – that anyone with rudimentary skills should be able to make. I hope to refer to this in an article in **Sprat** magazine, and intend to have fuller details on this website.

Neville decided to call it the - EWV (Eric's wonder VFO) !! Though as Neville did all the hard work – he should get the credit.

In addition, Pete ZL2FSK here in Nelson, downloaded and compiled a vfo programme from the web by J.Cesar – and also made a few changes to it. Subsequently, at Pete's urging, I have made small progress in working with vfo sketches from others – though I really don't understand much of the language. But if I can learn how to compile these, I will endeavour to make available the hex files for those who don't want to delve into the programming.

So that's where it is at August 2025.

I'm not into blogging or any of the social media  
– so email is my only contact.

Happy building!

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Smallest digital rig. 50X75x26mm.  
Up/down buttons to tune. Weight 80am.