



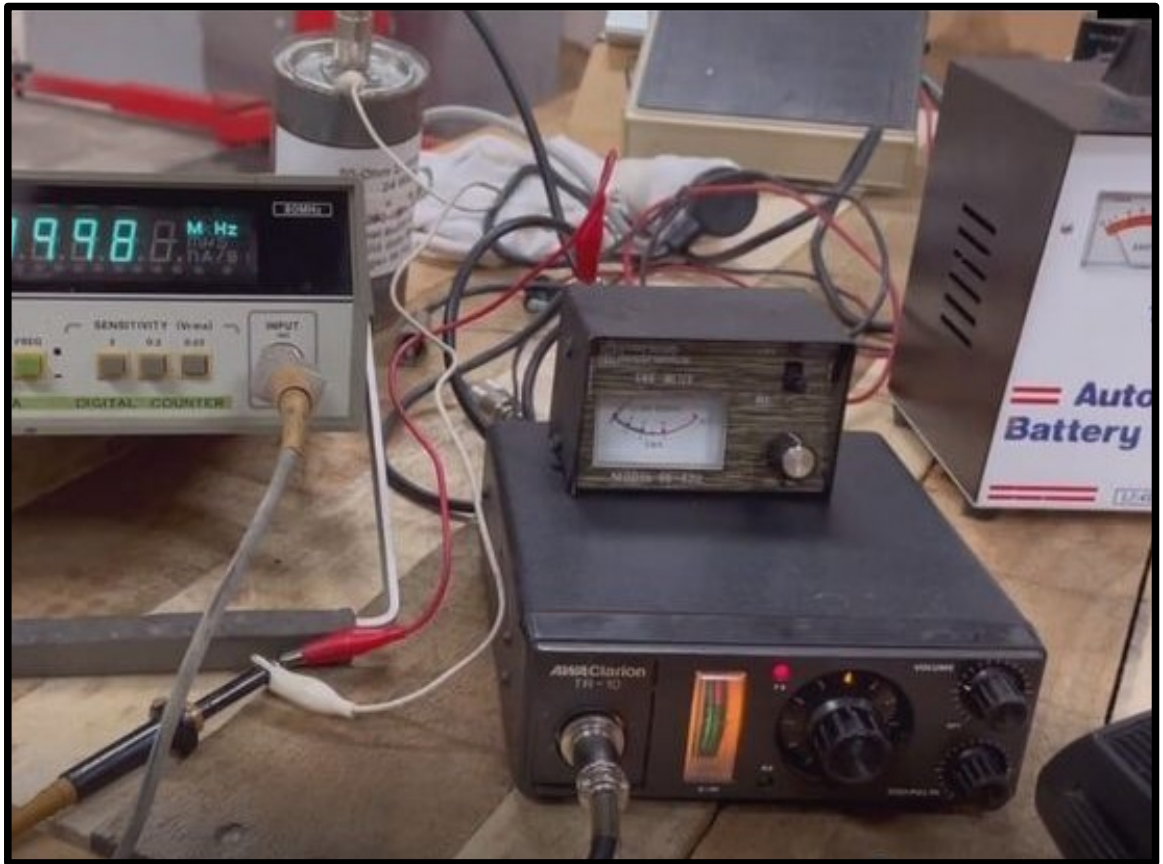
Hastings Br  
13  
Club Calls  
**ZL2AS**  
**ZL2QS**

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



*Eric's ZL2TSU project for this month - Article inside.*

<http://www.zl2gt.nz/>

<http://www.zl2as.org.nz/>

**Emergency Call-in Frequencies: 3615khz and 670 repeater**



<https://arec.nz/join-arec/>

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## **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

## **Napier Amateur Radio Club Branch 25 NZART**

I thought Winter had arrived early, but as I sit here banging keys, the weather outside can only be described as beautiful, hopefully it will remain like this until after Easter.

At our last meeting Rob ZL2AN gave an interesting talk on Dxing and general operating tips for the HF bands as to information on selecting the best band for the conditions and a ton of other useful tips to keep you on top as a Dxr. Next month, Rob ( again) will tell us about Valve theory, in particular about High Power transmitters and how not to destroy them. Hopefully after that we can have a round table with questions from the floor on any Ham related subject, someone in the room should have an answer to your tricky questions!! This segment of our meeting is designed to help our newer members to get across some of the ways of "Hamdom", so no question isn't worth asking.

It appears that Starlink have locked down their system from accepting DDNS and other services, which has affected my remote control aspirations. I'll have to think of something new....

My venture into SHF projects has moved forward marginally with building some rudimentary test equipment, now to test my theories on miniature cavity filters for 10Ghz.

Otherwise my Ham activities have been pretty muted.

The Home Brew group continue to meet on the 2nd and 4th Mondays at 7:00pm at the Clubrooms, with Errol ZL2IT showing the way, all welcome, bring your project and share a bench and some ideas while constructing, or just have a chat.

Our next general meeting is scheduled for the 3rd of April, 7:30pm. at the Latham Street Club rooms.

That's all this month, Hopefully I will see you all at the next meeting.

73 Dave ZL2MQ

## HASTINGS BRANCH 13

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<b>NZART License Examiners:</b>	Peter – ZL2HM, Dave – ZL2MQ, Ray – ZL2RB		
<b>Club Call:</b>	<b>ZL2AS and ZL2QS</b>		
<b>Net Controllers (Sunday '670 repeater, 9am) ZL3TT/ZL2DW</b>			
<b>Club Nights: Fourth Wednesday each month (except December) at 7.30 pm Pakowhai Hall, Pakowhai Road</b>			
<b>Club Fees \$20 per year payable to Branch 13 a/c # 03 0642 0733310 00 (use your call sign as a reference).</b>			

## From the top table

Right I have been for my morning walk with the dog and now I can get ready for the rest of the day with just a little HF thrown in for good measure.

This month at the meeting we are going to have a bragging on your best DX contact or maybe just your best or unusual 2 meter or 70 cm contacts but really anything along these lines. You will need the call sign of the station you worked, the band and roughly the time of the day along with any other info you care to share with the rest of us. I bet there will be some interesting contacts out there.

Last month I asked you to renew your subs if you have not and I do the same again now. If you are not sure you have paid then ask Peter ZL2HM.

I have now got my DMR rigs up and running again thanks to Rob ZL2AN who did a nice job of reprogramming them for me. From what I can hear they are both working as good as, all that remains is for me to get one of them back into my car and to sort out the antennas to see which I will use for each of the 2 radios that I have in my car or which radio I will use the most. I must admit the DMR radio is easy to see when driving as it has a 7 inch screen that is right in front of my eyes with a touch screen that makes life easy when driving.

I still find it quite funny at times when you hear those amongst us that think one brand of radio is better than the next when in fact they are all just about the same The basics are the same yes there are the fancy ones at a high price and then there are the not so expensive ones but on a whole they are very similar. Really it is a personal choice for everyone and I for one don't give a rats rear end as long as the radio works and does what I want from it.

Well that's it see some of you at next weeks meeting and some not but we will run across each other at some stage.

Blue ZL3TT President Branch 13 HBARC



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



*Pic of Colin ZL2TMX and his XYL*



## **FOR SALE**

(towards Branch 13 Club funds)

several LED computer monitors (22" (580mm) diagonal size). No stands or leads. I will bring them to the next Branch 13 meeting on 27/3. \$10 each, contact David ZL2DW 0274 502501



## **Branch 13 NEXT MEETING**

"Best or Special contacts Brag Night". Listen to and/or contribute your special contact story with others gathered.  
Orphans Club Hall, 700 Miller St, (corner of Miller St and Albert St) Hastings, Wednesday 27/3, 7-30pm

## Second life of a CB radio.

The start of the new year.

Each new year I try to have a clean out and new coat of paint on the floor so I can find what I have dropped. I was reading the latest copy of Break In from NZART and there was an article on Green Radios on the Air, 2023 in review.

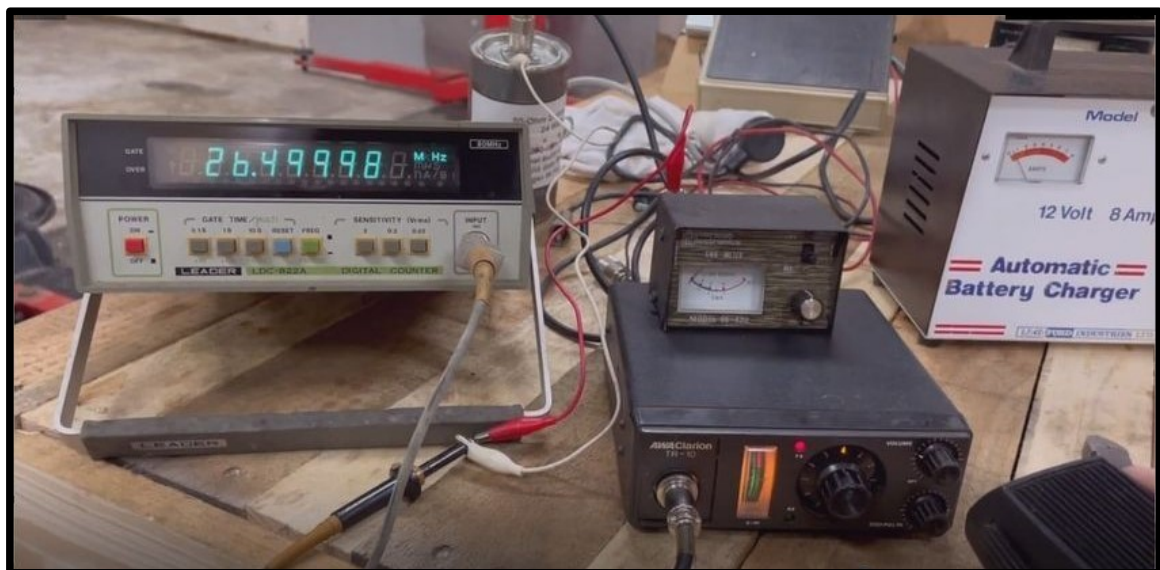
The more I read it, the more I thought, these folks in Christchurch sure are having a awful lot of fun and I would like to get in on it, and so started my latest Saga.

Now not having a WS-48 set, and having looked up the price of one in England, I decided that I would build my own one. But I would build a clone one and (naughty word), a transistorised WS-48.

I belong to The Napier building Club, some of the senior members here look at me rather strange sometimes, with the things that I say. Not so much strange but "certified weird strange." But that has never stop me before so I decided to just go for it.

I have a manual, it gives photographs and the measurements of the box size. The Valves and the internal parts may be hard to get and probably costly so transistors was the way to go.

I needed a low power 12 volt AM transceiver. As luck would have it, I recently purchased at a junk sale in the Napier Club (branch 25) a CB radio. A Clarion Model TR10 CB radio AM with a output of about 4 Watts. Now why don't I just convert it to 7 meters. That got more strange looks, but with the radio came a manual. This manual has the only circuit diagram of the transceiver that I can find on the internet.



The Clarion TR10 CB radio was simpler in design to the WS-48, and that was equally strange.

The CB radio had no change over relay and that it powers the transmit and receive circuits simultaneously.

Just switching a mute circuit to stop the transmitter oscillator from running on receive and the receiver oscillator from running on transmit. No aerial change over either from transmit to receive. The WS-48 had the same problem but they needed to save the current drain of running a relay from the batteries. The CB radio has not the same excuse as it was powered from a mains power supply.

From the circuit I found that the mic switch pulled a signal line to Earth. I could use this negative going signal to switch a relay on.

To do this I would use a PNP transistor, I built one up on a piece of Vero board. Yeah, that worked great on the bench but when I wired it in, it would switch on the relay but not switch off the relay.

The problem was that the voltage rise on the signal line didn't swing positive enough to turn off the PNP transistor. With a lot of mucking around I thought a Darlington pair might do the job.

I don't understand anything about them but I do understand computer chips so I ask Google for Circuit to switch a negative going signal into a positive going signal, and it came up with a line driver IC 4049 Hex inverter.

As there are only \$1.40 at the local electronic shop

that's the way I went, and it works great. As I intend to run my WS-48 off a 12 volts DC battery backpack or off my car battery, and standardise the whole system, this IC circuit will work well.

One side of the relay will switch the power from transmit to receive with the other half to switch the aerial over.

The next problem is to shift the CB radio from 25 Mhz down to 7 Mhz.

I took out the 25 Mhz crystal put in a 7 Mhz crystal and oscillator decided not to run at all.

With the radio on my workbench, during the week I have modified the oscillator circuit to get it to run. There was some discussion as the circuit shows two windings on a coil with a ferrite slug for adjustment between the stages.

As it's Transformer coupled between the output collector to the base of the next stage, the turns ratio is important.

But I sometimes use the "tune for maximum smoke technique".

I found that if I just wound the slug down into the core we got what we needed with drive to the next stage, and leave the transformer ratio exactly the same. The driver stage then feeds to the power output stage.

This Rf power output stage is an Emitter follower circuit. I've never seen that used before and I have looked around on the internet to find any reason why this circuit was used.

If any one can recommend a site that can explain the reason I would like to hear from them.

The load is developed across a coil in the emitter circuit and that is then feed through the low pass filter to the aerial socket.

This RF load is set for 25Mhz not 7Mhz, so I needed to change this small inductance. I have a box of small inductors I have saved from dismantled pcb's. Finding one I looked up its impedance on the internet. The answer said 440 ohms, that's close enough for me.

We getting signal out, about two Watts. I have my frog (FRG7) set on the oscillator frequency and heard the RF come up, now I just need to play around with the modulation and get that up.

The senior members at the building Club said how are you going to get the receiver to be on frequency ?

I said " I was going to Crystal lock the transmitter and then build a VFO to net the receiver into the transmitter and they after some thought "yeah that might work".

Next problem is I need make the front plates and from then on everything else will be the same. The audio Jacks sockets for the headphones microphones and key are all same size today, as are the switches. I have a meter about the right size so that's a go. I need to make up the tuning dials, they are 70 mm

Going down to my brothers scrap yard I found some 10 mm rod that I will make up a oblong Mold to make the curved edges of the front plates. Put a couple pieces of plywood, screw down the face plate cut from a back of an old TV sit and and hammer over. Weld up the corners slap a coat of paint on ,and "bobs your uncle" we are good to go.

So this is still a work progress, I have a circuit for VFO which the internet say is a good one using Fets. Apparently they tend to be a bit more stable than transistors .

Once I get my receiver frequency set, the mixer output is 455Khz, so everything from then on should work without being modified .

Crazy I know, but life's for the living! When I get my WS-48 working, I will give you a photograph and then you can make up your own mind.

As I drive backwards and forwards from Hastings to Napier I see some bunkers that were built during World War 2, to defend a Hawke's Bay Coast from invasion and we'll have a lash at activating them on air. Getting into Christchurch on AM is going to be a struggle during the daytime but we can always have a go. There is a fall back that we can use Morse code. If someone in Christchurch can understand morse because I have never learnt it.

So that's another project that this has spawned to get around my lack of morse code. I will keep you in touch as we make progress.

I am off inside for a coffee and a biscuit.

Eric ZL2TSU.



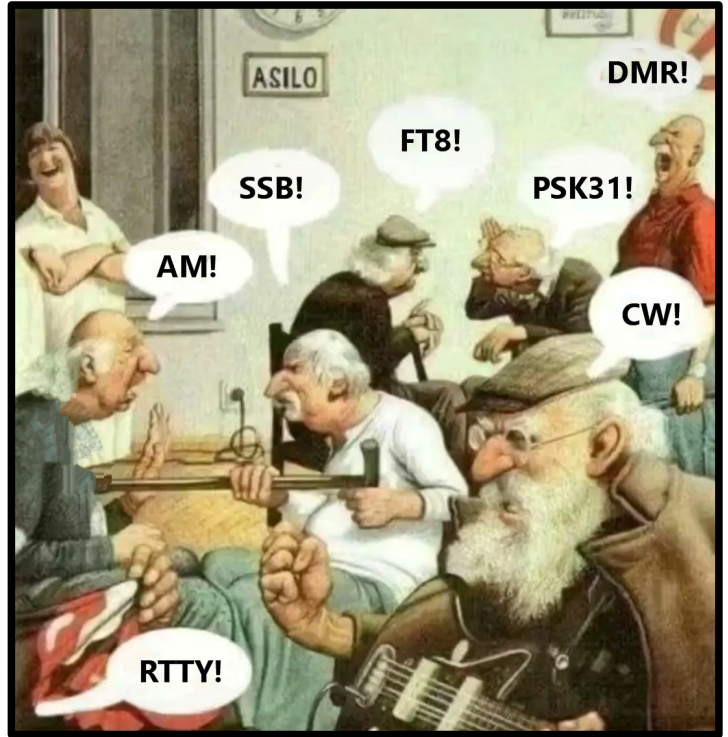
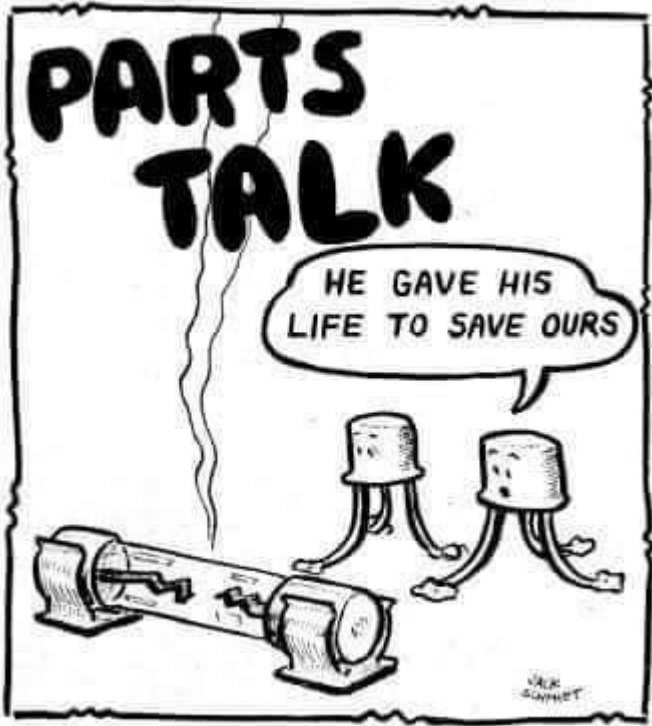
## HISTORICAL PICTURE (courtesy of Joy ZL2UGV)



A group of "Corn Flakes Net" members from Oct. 1987. The 'Net' began in 1977 and is still going today.....

Those in the picture are

Les ZL2AWL (SK), David ZL3DK (now ZL2DW), David ZL2AZC (SK), Joy ZL2UGV, Tony ZL2UBN, Gordon ZL2TJJ (SK), Marilyn ZL2BOA, Harold ZL2AAS (Dannevirke) (SK), Owen ZL3QW (now ZL2KW).



I HATE BEING  
**SEXY**  
BUT I'M A  
**HAM RADIO**  
**OPERATOR**  
SO I CAN'T HELP IT





## A South American Does It!

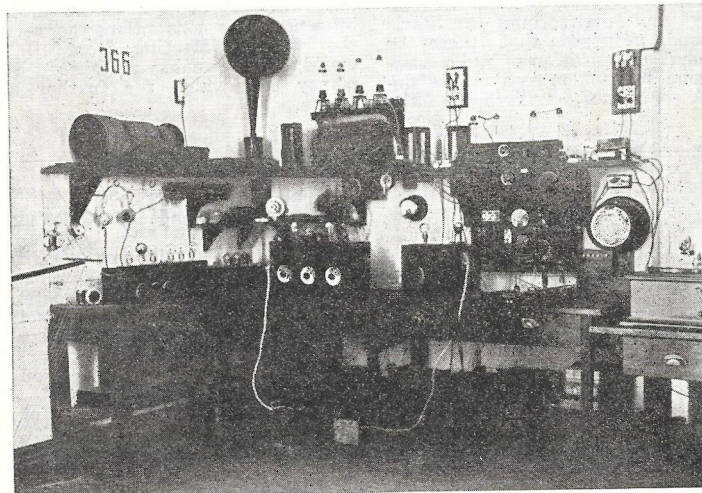
**Argentine CB8 Captures World's DX Record by Working New Zealand 2AC; Also Works Three U.S. Hams.**

**A**NOTHER world's record went to smash on May 22d when, without prearranged schedule, Argentine CB8 and New Zealand 2AC held two-way communication for over two hours? This is the first time the signals of a South American amateur have been heard across the Pacific, and it also gives 2AC the distinction of being the first New Zealand amateur to work two-way with either of the Americans.

Carlos Braggio, operating station CB8 (former call "366") at Bernal, near Buenos Aires, had spent most of the night of May 22d transmitting in the Pan-American Tests,

The previous two-way DX record was between 6CEU, Hawaii, and WNP, Refuge Harbor, Greenland, 4600 miles.

To CB8 also goes the distinction of being the first South American amateur to work North America, that station having worked 3BWJ in Collingswood, N.J., on May 30th and having exchanged signals with 1XW on May 31st and with 1XC-1ER on June 2d. 3BWJ says that for about ten minutes following 4 A.M. on May 30th he heard rCB8 calling CQ, and so he tuned his transmitter to the same wave and called him until 4:15. CB8 came right back with



The Star of the Pan-Americans, Argentine CB8

then in progress. About four in the morning he was amazed, upon switching over to the receiver, to hear 2AC, operated by J. H. O'Meara at Gladstone Road, Gisborne, New Zealand, calling him. The ensuing conversation lasted until well after six o'clock, when Braggio told O'Meara he had been up all night and wanted to go to bed. Later the same day a congratulatory cablegram, confirming the conversation, was received by Mr. Braggio from the New Zealand amateur. The distance between Buenos Aires and Gisborne is about 6400 miles, part of it over the Andes mountains.

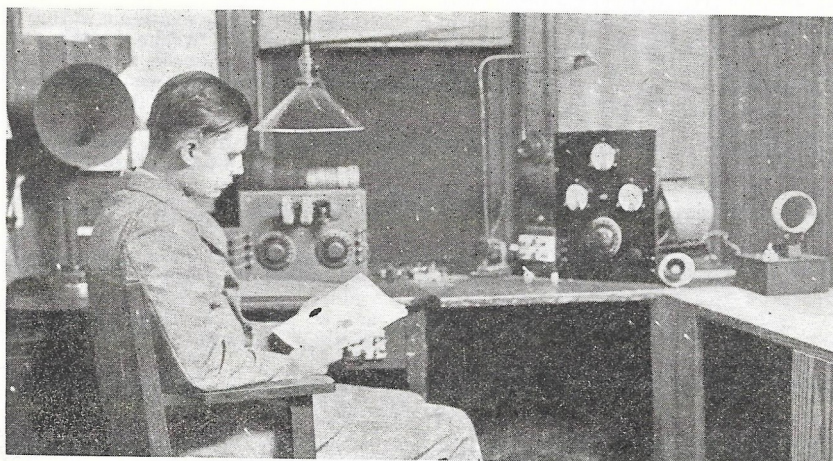
"GM GREETINGS AND CONGRATULATIONS QRZ QRK?". 3BWJ gave him some Spanish: "SALUDO AMIGO DE AMERICA DEL SUD QRK"; but nothing further was heard as it was then about 4:30 at 3BWJ and getting towards daylight. 3BWJ used two UV-202's with an input of but 70 watts, with 1.8 amperes in a small antenna only 30 feet high, wave 120 m.

CB8 is a star station, having been reported up to this writing by eleven U.S. amateurs, one Canadian, and four British. A message to Reinartz, 1XAM, conveying greetings from Argentine amateurs to their

northern brothers was copied solid at g.O.D and reported to us. Carlos Braggio and his son, Juan Carlos, A.R.R.L. members, are two of the foremost amateurs in the Argentine Republic. Their station has been heard throuth the southern part of South America and stations in Chile have been worked. They were among the first, if not the first, to hear U.S. broadcasting in Argentine. Most of their work was done on phone until recently, when the news of the Trans-

wave very steady, good fist. CB8 uses a straight regenerative receiver with one stage of audio.

Mr. J. H. O'Meara is a New Zealand experimenter who, like his many friends, has heard many U.S. amateurs. His transmitter is one of the best in New Zealand and most of the apparatus is home-made. The transmitter uses one 50-watt Cunningham tube in a reversed-feedback circuit with series feed, supplied by a 1000-volt 300-watt Esco



3BWJ, Collingswood, N. J., First North American To Work South America

atlantic amateur work inspired them to put in a good C.W. set and try their luck in the Pan-American Tests. There are several sets at CB8 but the one probably used in the recent work is a set having four Telefunken RS5 tubes in parallel, supplied with plate current at 1000 volts and

generator. The antenna, total length 75 feet, consist of two parallel cages, each 5 inches diameter and of 5 wires, in which 4.5 amperes is obtained at 190 meters. The December issue of *N.Z. Wireless News* says his receiver consists of two stages of r.f. amplification, detector, and three stages of a.f. We strongly suspect, however, that he was using a haywire "low-loss" tuner and one tube when he worked CB8, for it seems records are nearly always made on one-tube sets.

Truly, U.S. amateurs must look to their laurels if they expect to be leaders in long distance work on amateur wavelengths. While we have been waiting for New Zealand signals to come our way for over a year so we could communicate across the Pacific, the feat has actually been accomplished by Mr. Braggio and Mr. O'Meara. More power to them!

But how about getting that DX record back in this country?

—H.F.M.



Carlos Braggio and his son Juan Carlos, operators at CB8

putting 4 amperes into the antenna. The successful wave length is 121 meters, and the U.S. stations hearing it report the note as D.C. with a 25 to 40-cycle ripple on it,

At last we have the complete routing on President Coolidge's holiday-greetings message to MacMillan: 10A, 8APT, 9CP, 9AIM, 9ZT, c5GO, c9BP, WNP.

## Offers

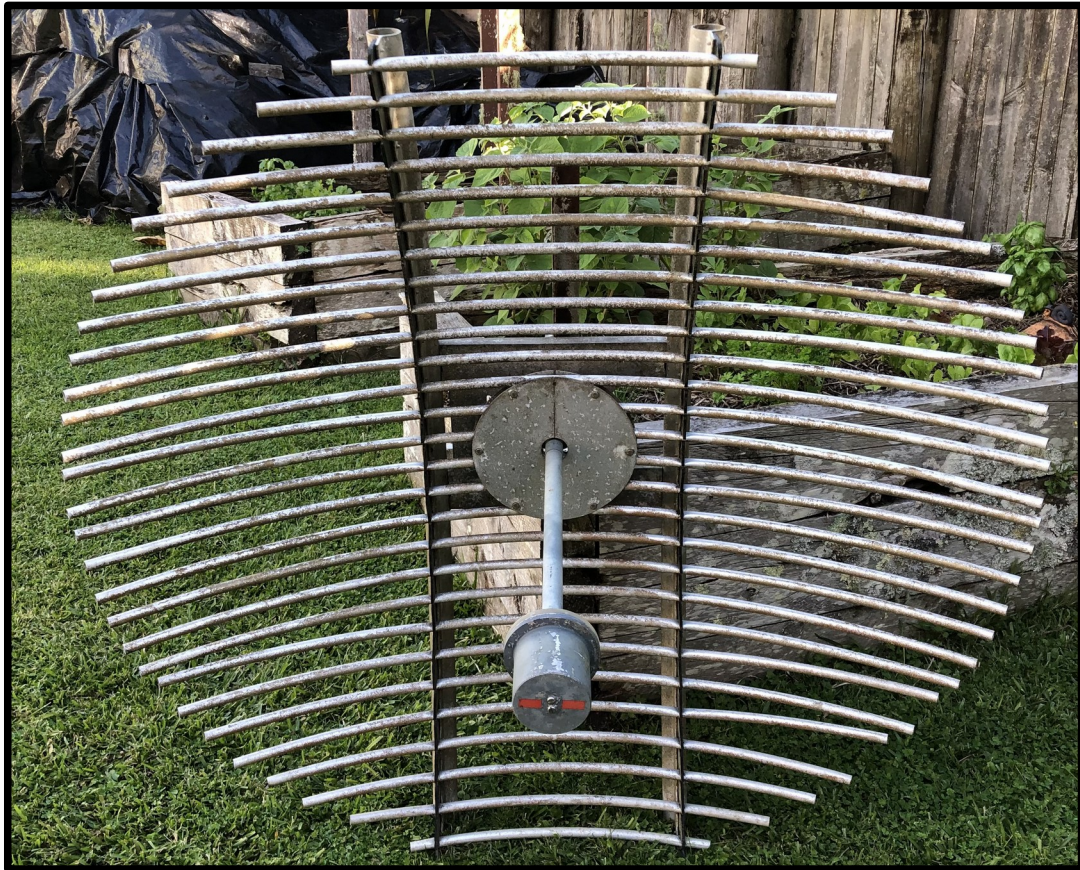
A colleague is under orders from 'Her-who-must-be-obeyed' to have a clean up / out. Offers wanted for the gridpak dish, Photo attached.

1.3m diameter, complete with feedhorn, was in use on around 2.3 GHz.

Currently in Auckland, shipping can be arranged for cheap so long as it is not wanted in a hurry.

Any interested parties can contact me and we can sort it from there. I have been told I don't need it !

73, Keith, ZL2TAB



## Internet Links

### HF Wire Antennas

[https://www.gsl.net/va3iul/Antenna/Wire%20Antennas%20for%20Ham%20Radio/Wire\\_antennas\\_for\\_ham\\_radio.htm](https://www.gsl.net/va3iul/Antenna/Wire%20Antennas%20for%20Ham%20Radio/Wire_antennas_for_ham_radio.htm)

### Amateur Radio on Pintrest

<https://www.pinterest.nz/pin/845339792572739787/>

### Another Pintrest site

<https://www.pinterest.nz/pin/682576887261758188/>