QST63
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NEW ZEALAND ASSOCIATION OF RADIO TRANSMITTERS - BRANCH 63 UPPER HUTT
Branch 63 Clubrooms
Park Street, Upper Hutt

ZL2VH Newsletter – February 2026

President's Report

Trips to Mt Climie over December 2025/January 2026 were not required as the equipment appears to have survived the weather. Although some trips were proposed to look at trimming the track especially from the Emergency Services site to ours, the weather really has not been good enough. The same applies to the painting of the two huts. Too much wind and rain to even think about it. I am expecting the weather to get more settled over February/March so if you can be available for these jobs, it would be ideal. Let's talk about it over the coming Friday nights and see if we can find some days and then hope the weather is OK.

Project 5 – Mt Climie UHF PRS Repeater

The club has approved a new initiative to install a UHF PRS repeater at Mt Climie, to be developed as a community-owned and community-operated asset.

This initiative is known as Project 5, named after the intended repeater channel: Channel 5 – 476.5250 / 477.2750 MHz.

The club will provide:

- The repeater site at Mt Climie
- The repeater licence
- Mains power
- Ongoing maintenance and operational support

To bring this project to life, the club is seeking community donations to fund the installation. The total project cost is estimated at approximately $10,000, covering:

- A Tait TB7300 repeater 40 W UHF 470-520 MHz
- Duplexer: DPRE8-6UH-0.65
- Feedline: SPUMA 400
- Antenna: ZCG Scalar EA40-67-P 4 x dipole array

This will be a brand-new installation using all new components, not a refurbished or second-hand system. Our goal is to deploy high-quality equipment to ensure reliability and a long service life for the community.

If you would like to support Project 5 and assist with its financial backing, please contact the Club President via email. Contact details are available on the Contacts page.

The above information is posted on the front pages of our web site and on social media. Let's see if anything comes of it. I am in the process of applying for grants to get this underway. I am told by various community groups that funding is very tight or non-existent so will see how it goes. All monies donated will be returned of the project doesn't go ahead.

1292 Repeater: new equipment

At a recent Club Meeting approval was sought for monies to upgrade the 1292 repeater. The new repeater will be a an ICOM ID-1200VD 1.2 GHz repeater. This is like the third generation ICOM repeaters we have on 5425 and 860. It will be mixed mode doing DSTAR and FM a first for the Wellington region. It will have 10 Watts output, slightly less that the 12 Watts of the old repeater. The current repeater is fifteen years old having be installed on 29 December 2010. The current repeater is now showing its age, as the output power is

dropping and its off frequency. The decision to replace it was age related and the opportunity to get up to date equipment from ICOM. We wish to thank Richard from RWB Communications, New Zealand's ICOM Agent for enabling this upgrade.

Climie 730: new repeater

No doubt you have been using Climie 730 as the results now show. DX contacts from Levin, Palmerston North and Whanganui are regular on the repeater. The refurnished antennas and duplexer re-tune have all made this possible.

The new Tait TB7300 repeater has still yet to be installed. We are awaiting Tait to make a fix so that that if quick keying the repeater, it doesn't go into transmit mode unexpectedly thereby locking users out. If the standard three second delay is done, then this doesn't occur – we cannot guarantee amateur users will do this. This was picked up when testing all use cases, we would expect the repeater to do. Once we have a fix the repeater will be installed. Another option that is required is have the repeater connected to the Internet. This is to allow the operating logs to have proper date and time stamps. Plus allows other remote monitoring of the repeater without site visits.

Repeater Report

Repeater: Status

Climie KiwiSDR	On Air
10 m Beacon (28.229 MHz)	On Air
3 cm Beacon (10368.275 MHz)	Off Air – antenna/beacon removed for maintenance.
1292 (23 cm)	On Air.
D-Star 5425, 860	On Air
730	On Air
395 (6 m)	On Air

Jock White Field 2026

Jock White Field 2026 is on Saturday 28 February 2026 and Sunday 1 March 2026. We will activate the clubs callsign again for this event using the caravan. So, mark this weekend down in your calendars as its any easy event to take part in.

EME Newsletter

https://eme.radio/images/newsletter/pdf/2025-12-vol-54-12.pdf

https://eme.radio/images/newsletter/pdf/2026-01-vol-55-01.pdf

New Satellite Tracking Application Released

Bob McGwier, N4HY, has announced the release of a new satellite tracking application entitled Visible Ephemeris.

Visible Ephemeris is a modern, spiritual successor to Quiktrak (1986), re-engineered for the Raspberry Pi 5 and modern silicon. It is capable of propagating 13,000+ satellites in real-time with sub-second updates while maintaining <5% CPU utilization.

Visible Ephemeris is high performance physics based program using Kelso/Villado SGP4, to track satellites (all in the Celestrak TLE). It uses McGwier's implementation of Pedro Escobal AOS/LOS search but rewritten for altitude and not Eccentric Anomaly. The code is designed for and intended for Raspberry Pi and displays graphics components using Web UI.

It features a Hybrid Decoupled Architecture where the UI, Orbital Mechanics, and Network Services run on independent threads, ensuring the interface never freezes—even during heavy calculation loads.

Visible Ephemeris has been released under the MIT license and further details can be found at https://github.com/n4hy/VisibleEphemerisCPP.git

[ANS thanks Bob McGwier, N4HY, for the above information]

23cm Band Developments in the UK that may affect New Zealand

This link is to a PDF (PowerPoint) from the UK about changes to the 23 cm band. As of yet, we have seen no change for New Zealand, but this might happen here and may look similar to their band plan.

https://zl2vh.nz/assets/pdf/other/g4sjh_slides_final_240126.pdf

10 m Beacon: Repaired

The clubrooms based 10 m Beacon 28.229 MHz went intermittent last week (19 January 2026). It was initially suspected to be a loose cable, rack moving issue or waterlogged balun box. None of these were the cause however the balun box has not been opened for inspection.

We leave well alone until the next time signals are lower than expected.

Mark ZL2UFI took his radio with SWR meter to the clubrooms and checked the antenna. In FM (CW) the SWR was 1.3:1 and nothing was hot however the signal was no longer received in Lower Hutt and is usually a reliable weak signal.

The Mount Climie SDR http://123.255.47.67:8073 reported no signal some days and S-4 on other days. The beacon is usually S7 so something was wrong.

I went to the clubrooms and found after switching off the beacon and physically moving the rack to get access to the antenna port that the beacon would no longer show any output when switched back on again.

Removing the beacon to the workshop I found the problem quickly.

A faulty bias control 470 ohm pot, a burnt up bias power transistor caused by a loose and no longer torqued down heat sink. The plastic insulator washer had melted allowing the device to float loose and burn up.

The transistor had burnt the PCB solder joints and resulting in the intermittent operation during temperature changes. I also noticed was a burnt filter coil and a burnt driver stage bias resistor.

With four components replaced the beacon is back working with 17 Watts output on a dummy load.

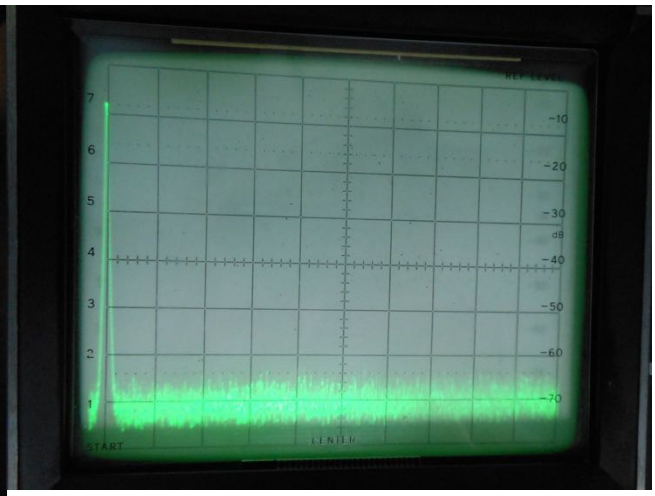
At the club rooms using the Bird 43 meter the forward power was measured at 15 Watts with 0.5 Watt reverse. This is an SWR of 1.45:1 so there could be some water in the balun JB box or this was the expected SWR anyway.

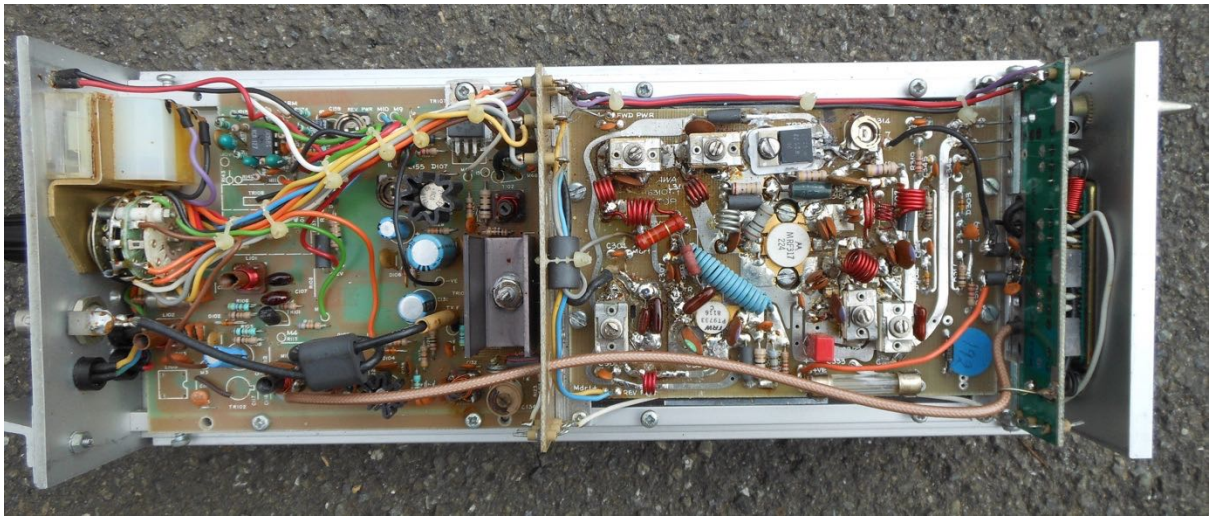
The club's HP 8448B analyser shows the clean output.

Signal is shown as 28.3 MHz and 100 MHz / Division.

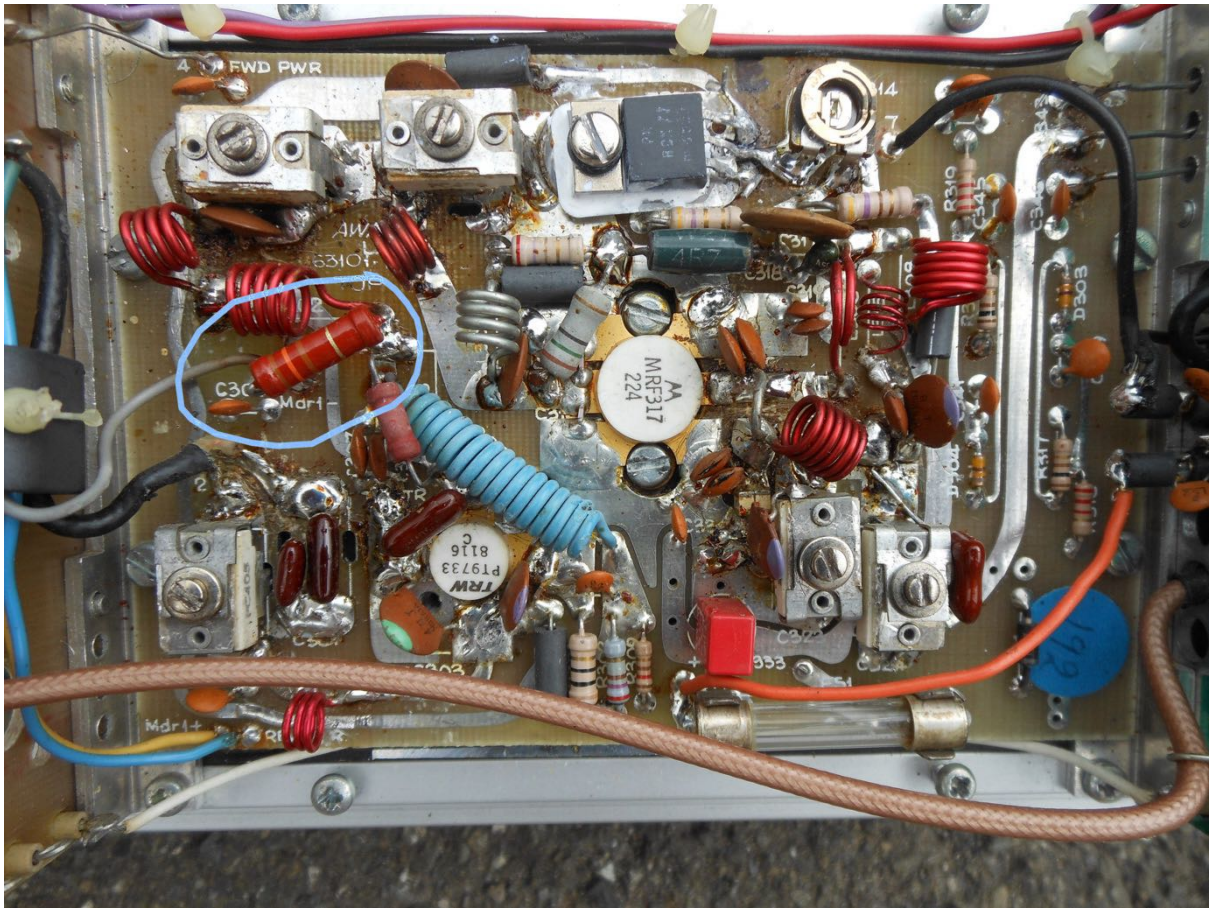
Pictures show the components replaced and the inside of the beacon power amplifier.

Clean Spectrum-100 MHz per Div-2

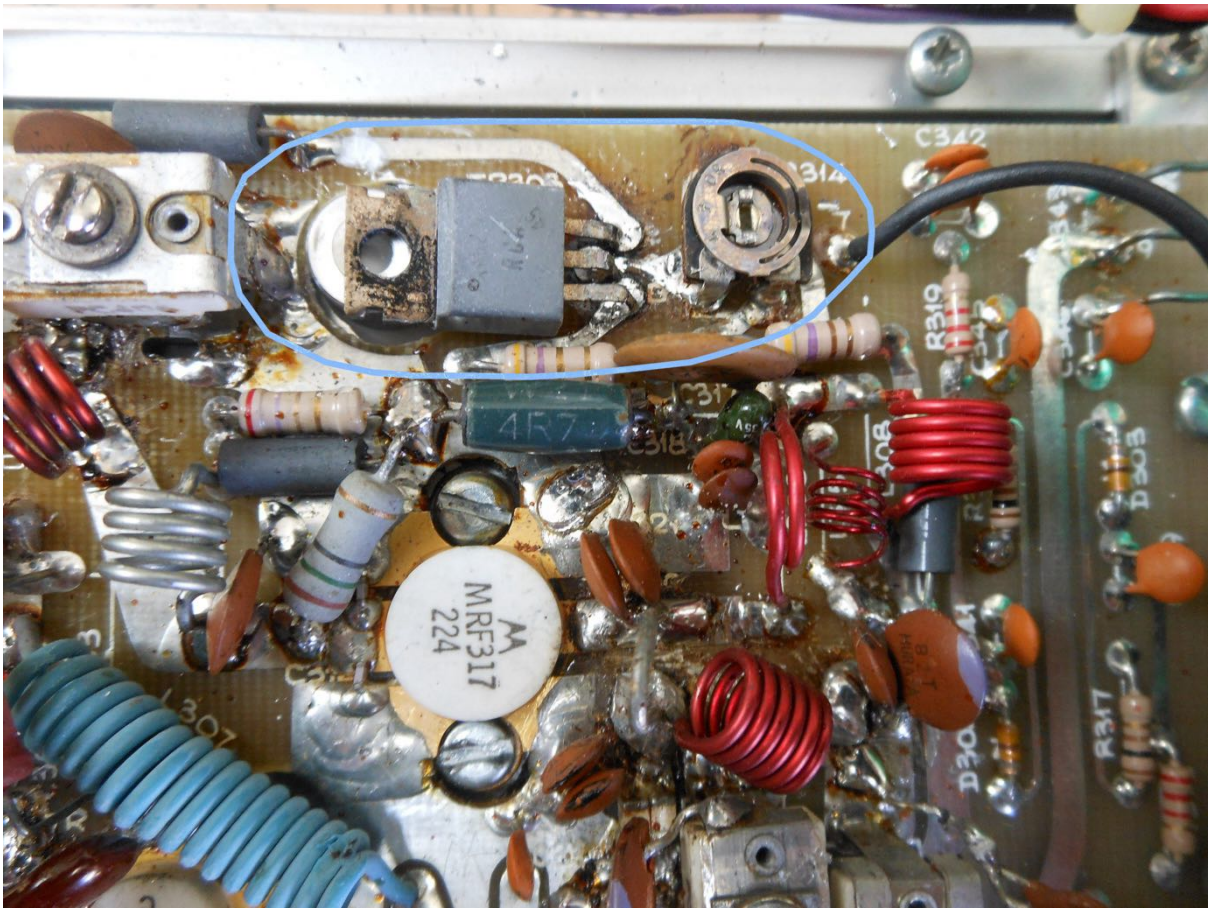

28.3 MHz centre spectrum sweep



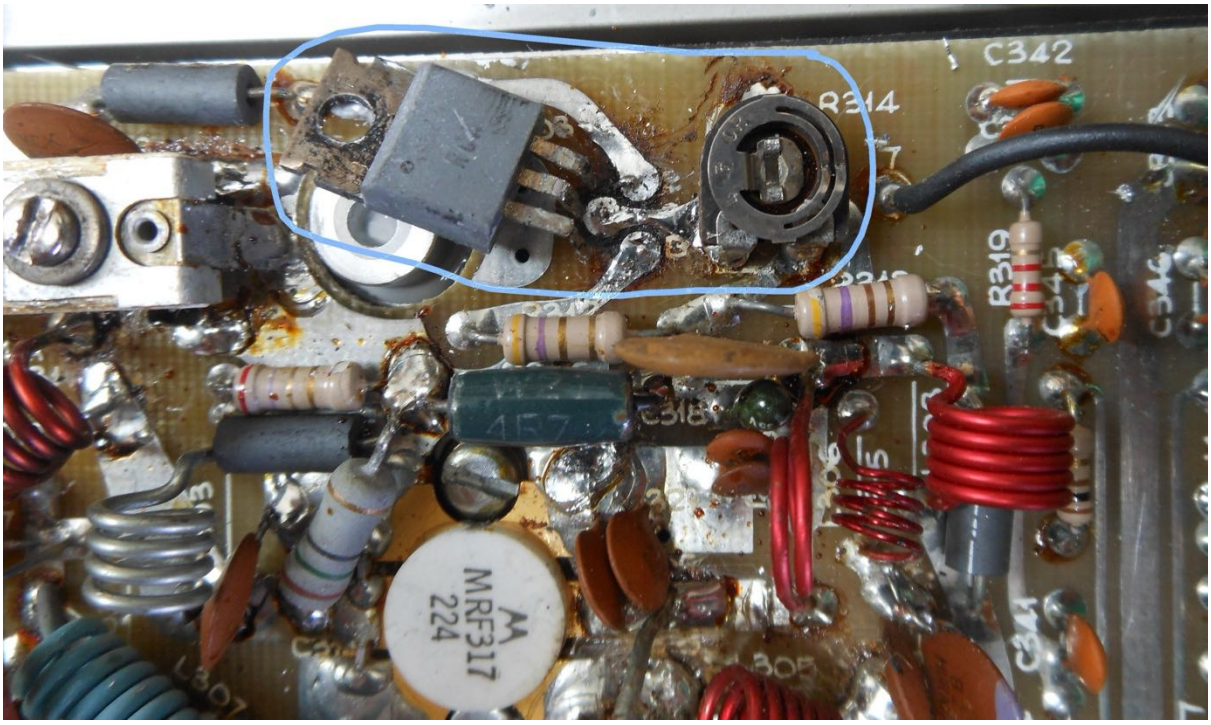
Repaired working Beacon

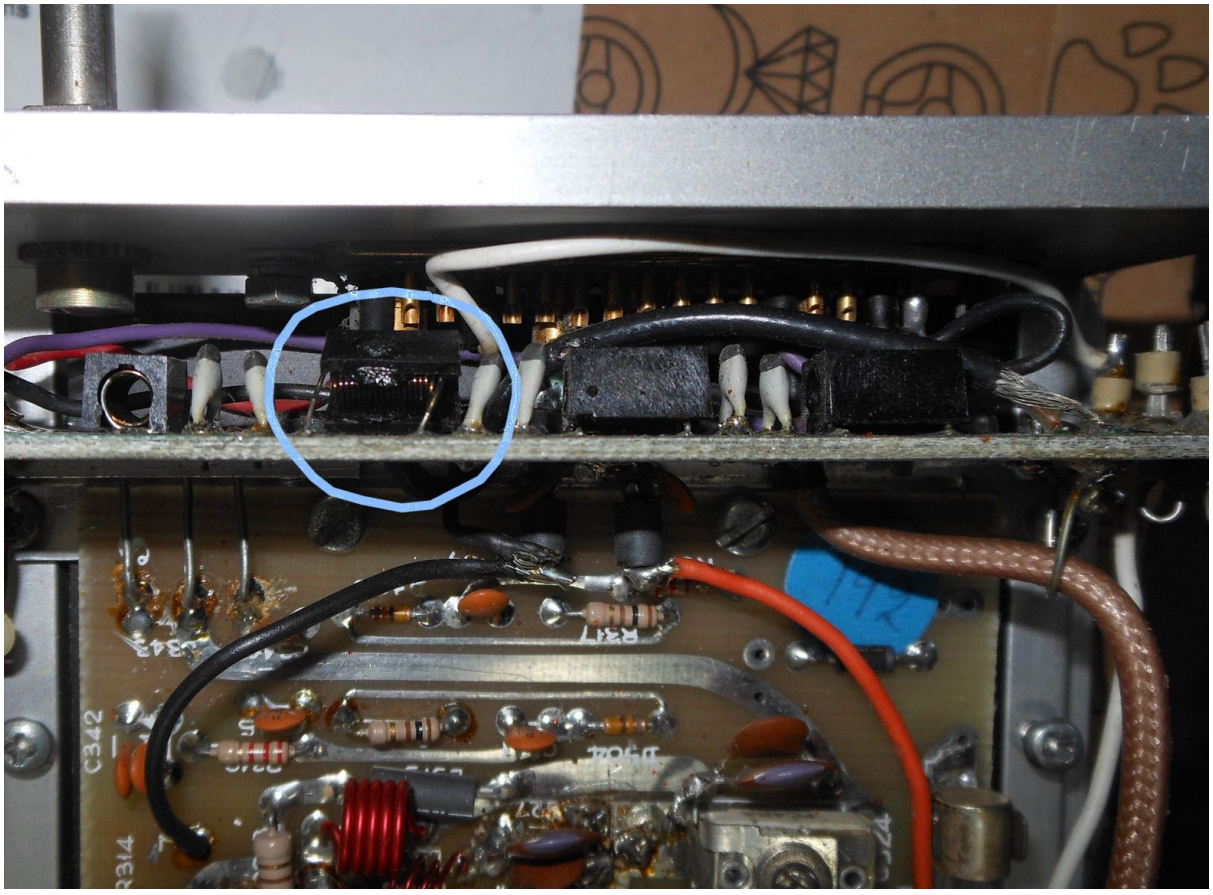


New 120R base Bias Resistor

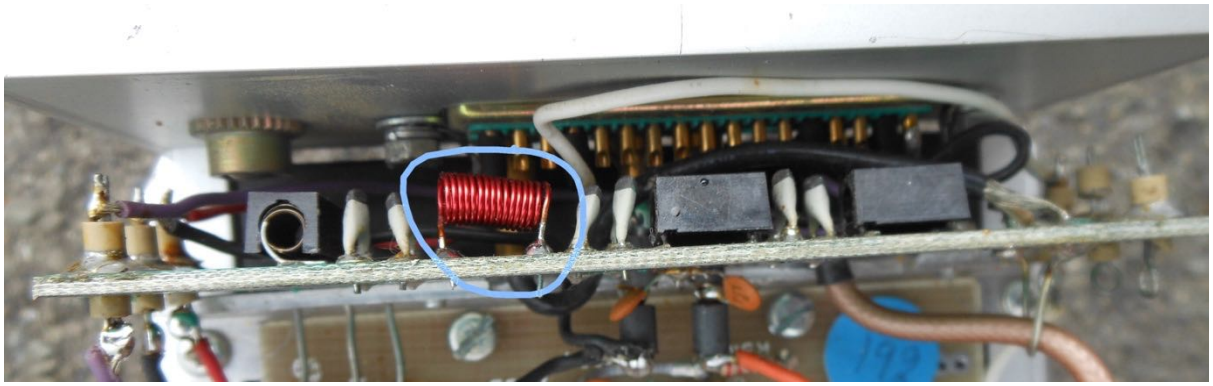


Burnt Bias Transistor and 470R

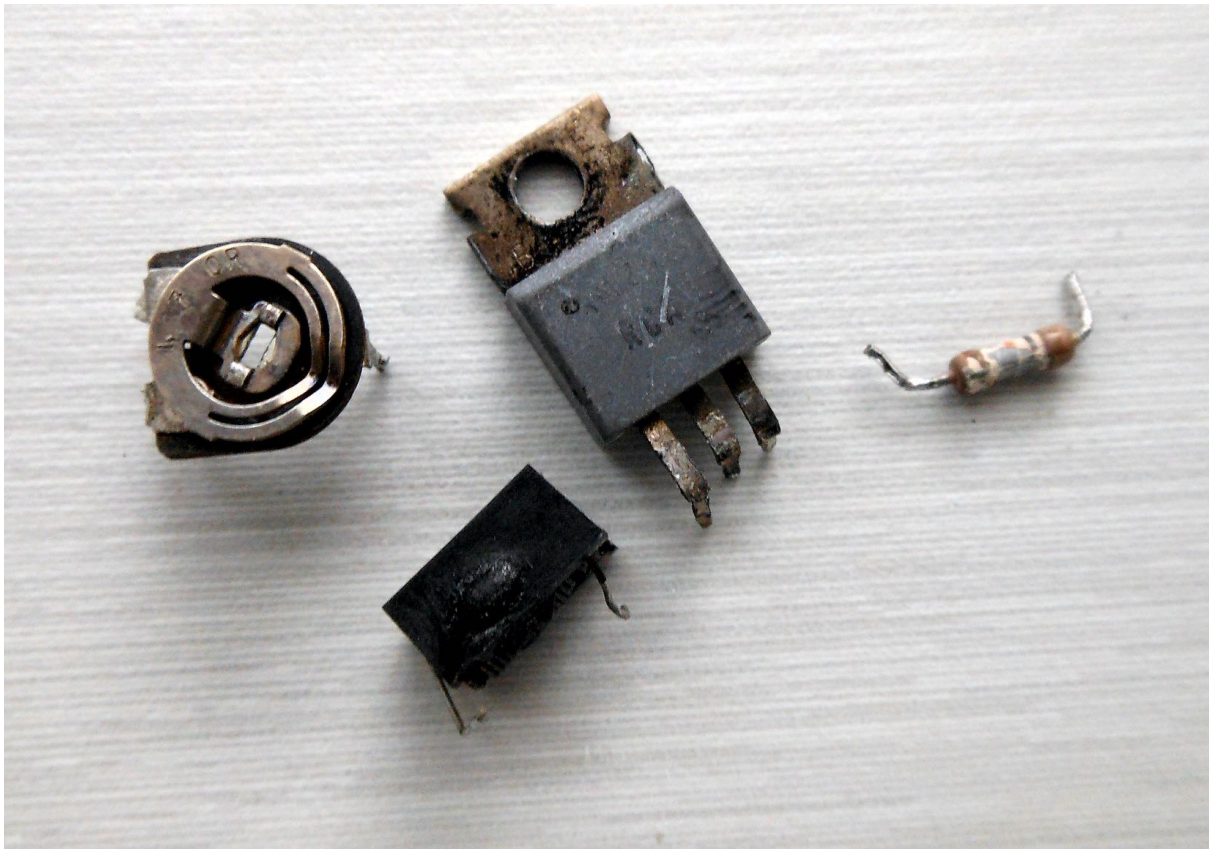




Burnt Filter Coil



New Filter Coil



Burnt Components

The 6m beacon 52.275 MHz was also tested.

12 watts output and it runs well but for now, in the rack for safe keeping, with DC wiring disconnected.

73, John ZL2TWS


THE RULES OF
HAM RADIO OPERATOR
1. TALK WHENEVER POSSIBLE!
YAK! YAK! YAK!
2. COLLECT MORE GEAR THAN YOU NEED
I NEED MORE STUFF!
3. ANTENNAS CAN ALWAYS BE BIGGER!
BIGGER!
BIGGER! HIGHER! WIRES!
4. USE CONFUSING JARGON
QSL, MY XYL IS QRT, QRM ES 73!
HUH?!
5. EAT WHILE YOU TRANSMIT
BURP! SLURP! MUNCH!
6. STAY UP LATE
CQ, CQ, ANYONE AWAKE?
Zzzz...
7. ARGUE ABOUT PROPAGATION
THE BAND IS DEAD!
NO IT'S NOT!
IS TOO!
IS NOT!
8. ALWAYS END WITH 73!
"73! SEE YOU LATER!
KEEP CALM & CALL CQ!