

## SALE OF BACK ISSUES OF SIGNAL

Back issues of *Signal* are available to fully paid-up VMARS MEMBERS ONLY at £4 per issue + postage at cost. Signal is available in hardcopy only. Similarly, we can provide hardcopies of individual issues of the VMARS Newsletter; back issues are not held so reprints would need to be made and will be charged at cost +postage. Any Member wishing to purchase back issues should contact the VMARS Membership Secretary in the first instance.

### LIST OF THE CONTENTS OF ISSUES 1–65 OF SIGNAL

#### ISSUE 1: October 2006

A modern rebuild of an HRO GEE – A radio navigation aid Notes on the WS38 Little Dora and her offspring Building a replica Paraset A note on R210 vibrators New for old – a restorer's dilemma The explanation A newcomer's arrival into valve & vintage The Admiralty Pattern AP1803A transmitter

Editorial: Elegant simplicity, but is it working as well as it should? Rebuilding the BC-348 The TRC 522 The National HRO receiver "Tricks of the Trade" The Codar AT5: Tales and tweaks The Royal Air Force R1155 radio receiver How good is the match? Jingle Bells Band spreading the HRO on 30 metres

#### ISSUE 2: January 2007

Garden party surprise – another B2 spysat "AM" – Ancient and Modern? AVO 8 batteries Build a QRO transmitter. Part I: The RF deck "Tricks of the Trade" Calculating meter shunts WS24 reconstruction project An introduction to Clansman The T1509 transmitter Silica transmitting valves How far can we push that crystal? On him may depend the aircraft's safety Letters: HRO 15 m bandspread coilpack

#### ISSUE 6: January 2008

Editorial: A work of art A history of amateur radio in the UK from 1939 to 1955 A practical look at Arnhem communications "Tricks of the Trade" The military CT443 power meter Introducing...the NETOMETER Struggles with the 813 valve at the EEV Company Build a QRO transmitter. Part 4: Postscript Vibrator replacement for the R209 receiver Another look at crystal current in crystal oscillators Vector Network Analysers – receiver/antenna matching

#### ISSUE 3: April 2007

An irresistible urge The development of the ER-95\* military transmitter Build a QRO Transmitter. Part II: The modulator

and power supply Rejuvenating a Type 43 Acos microphone Tiger, tiger glowing bright "Tricks of the Trade" The future of the past or some thoughts on 2057 High quality modulation monitor Add an RF ammeter to the TT21 TX The tiny TX with the big voice Enigma Letters: Colpitts oscillators, equipment survival

#### ISSUE 7: April 2008

The Secret Intelligence Service Mk 33 transmitter Electronic replacement vibrators for military radios British military communications during the Falklands War Adding LSB to the Clansman UK/VRC321 HF transceivers Low-cost linears A new regulated power supply for the PRC-6 and similar radios Amateur radio history A DIY 4-metre beam "Tricks of the Trade"

#### ISSUE 4: July 2007

Editorial: Fixing things SDR - Steve Designed Radio – A QRP transceiver for 2007 The Marconi/GEC RC.410/R receiver Wireless and Radar in the Royal Artillery 1956–63 Build a QRO transmitter. Part 3: The final-final The Pearce Simpson Bimini 550 AM radio telephone Repairing Cossor valved oscilloscopes A high-power modulator for the LG300 A test of the Shirley aerial Recreating decals and labels for vintage equipment Notes the WS38: Part 2 The WS68P at large Experimenting with a Franklin VFO "Tricks of the Trade" Letters: Audio phase-shifter in an AM transmitter

#### ISSUE 8: July 2008

Allo, Allo.....(The Jupiter ER 504) A history of amateur radio in the UK. Chapter 2: 1948–55 An international erection The T1154 and post-War use "Tricks of the Trade" Decals (waterslide wet transfers) The T1154 on Top Band Restoring RF ammeters, Part 1: The 5G RF ammeter Build a QRO transmitter: The circuit diagram

#### ISSUE 5: October 2007

#### **ISSUE 9: October 2008**

Editorial: The greatest patented invention ever  
The Hallicrafters HT-4 (BC-610) transmitter in war  
and peace Part 1 – “Voice of Victory”  
Siemens Plessey Vixen system receivers  
Modifications to the Plessey PVS38XX receivers  
A history of amateur radio in the UK from 1939 to  
1955. Chapter 3: 1947 A 6AM6/807  
transmitter for 80 metres An unusual balanced ATU  
for a doublet on 80 m “Tricks of the Trade” Build a  
stabilised PSU Repairing the Marconi TF2002B  
signal generator Letters: Amateur operation during  
WWII?

#### **ISSUE 10: January 2009**

Editorial: Investigating how things were A history of  
Amateur Radio in the UK: Chapter 4:  
1948–55 A D/F Loop for the R1155 A  
homebrew D/F cross-pointer meter for the R1155 A  
test-rig for measuring the dynamic range of 80  
metre receivers Book  
Review: ‘The Secret War Factory’  
by Charles Exton  
Soft-starting Arnhem – some further thoughts  
“Tricks of the Trade” Letters: Adding LSB to the  
RT-321 – a postscript Letters: T1154 and Xtal  
front-ends: Which PA tube  
to use Letters:  
Comments on TOTT and  
receiver dynamic range

#### **ISSUE 11: April 2009**

Editorial: Ten years of progress The RAF receiver  
R1475 Donald MacKay (1870–1958) The Uni-Timer  
construction project “Tricks of the Trade” Operation  
of VFOs and the Wofferton Drive League The  
Marconi HS27, HS28 and NT201 transmitters An  
introduction to Clansman. Part 2 Digging for Victory  
– (and profit) PICs are vintage – honest A  
frequency-changing project An active loop aerial for  
80 m

#### **ISSUE 12: July 2009**

Editorial: What you read is what you write  
Introduction to Clansman: Part 3 Modifying the  
Clansman RT321 for easier use Chinese Type 339  
HF receiver “Tricks of the Trade”: Aspidistra and  
OSE5 A low level oscillator for 80 m A ‘classical’  
6-metre converter The UK/PRC 349 The half-wave  
filter PICs are vintage: further scribbling Some  
post-War HF manpacks for long range  
patrols Image  
rejection circuits

#### **ISSUE 13: October 2009**

Editorial: A rewarding experience The

Hallicrafters HT4 (BC610). Part 2  
Making thermocouples for aerial  
ammeters Arnhem 2009 Multi-Rock. A  
novel transmitter signal source The  
single sideband C11 – MEL L556  
“Tricks of the Trade” Racal MS869  
sequence unit A tale of two TT21s

#### **ISSUE 14: February 2010**

Editorial: Just because you are a VMARS member  
The Redifon GR479 HF SSB radio station RF power  
relationships in WWII low power HF man-  
packs “Tricks of the Trade” An alternative to the  
Smith Chart A control-grid modulated transmitter for  
80 m Clapp, Colpitts, Seiler or Vackar. What’s the  
difference? The Clansman Intelligent Battery  
Management  
System Netometer II – time for the needle 600 V HT  
at 250 mA

#### **ISSUE 15: May 2010**

Editorial: A blend of old and new The rebuild of a  
Gee navigation system The Gee Whiz – a Gee  
ground station simulator Telephone handsets for  
VHF/FM military man pack  
radios “Tricks of the Trade” A 10 MHz IF crystal filter  
for AM Repairing IF transformers Grid and other  
modulation schemes Donald MacKay (1870–1958)  
RAT5 – a superhet receiver for 80 m or 160 m AM  
The Reception Set R103 A 300 W, 50 ohm, dummy  
load

#### **ISSUE 16: August 2010**

Editorial: Into our fifth year Further reflections on  
Arnhem The Telefunken E52 communications  
receiver A ‘suitcase’ transmitter-receiver WS No. 68  
P modulation The Clansman PRC320 LSB  
modification FAT-MAX – an analogue speech  
processor Pi-tank outputs and safety “Tricks of the  
Trade” Letters to the Editor

#### **ISSUE 17: November 2010**

Editorial: Season’s Greetings Further reflections on  
Arnhem. Part 2 A 40 m CW bandspread coil for the  
HRO Datacomms in the field over Clansman radio  
systems A Clansman computer interface “Tricks of  
the Trade” Broad spectrum radio The Saturday Net:  
how it all started Using 75 ohm test equipment in 50  
ohm  
transmission lines The Racal TRA967 Practical tips  
Building an ultra low-power Acorn valve transmitter  
A ‘budget’ version of the 10 MHz IF crystal filter for  
AM

**ISSUE 18: February 2011**

Editorial: A VMARS Handbook? Elements of the Soviet mobile radio station R161A  
2M WS 46 aerial matching and RF power  
An unusual WWII HF pack set Spread spectrum  
Practical tips Logarithmic amplifiers An AM ladder filter for an IF of 450 kHz Racal ComSec MA4450  
Tactical Data Entry Device  
(TDED) Circuit diagram of the RBZ receiver

**ISSUE 19: May 2011**

A quick look at the Russian R311 field receiver  
"Tricks of the Trade" Make your own IF transformers  
The BC611 Handie Talkie Air navigation during World War II  
Practical tips Clansman PRC320 LSB modification revisited

**ISSUE 20: August 2011**

The 3-phase supply and active aerial in the R161 TV or Radio  
The faithful relic Back in the USSR courtesy of the Wehrmacht  
The BC-312 receiver The Clansman UK/PRC350 RT320 EMERS, manuals and mods  
The Wonder Pit story "Tricks of the Trade" Portable power for the TCS

**ISSUE 21: November 2011**

Further reflections on Arnhem. Part 3 How wide is your signal?  
UK/RT320 SSB filter bandwidths The Marconi CP-34 transceiver  
The BC-223 transmitter "Tricks of the Trade"

**ISSUE 22: February 2012**

Common aerial working with B40s An 80-metre bandspread coil for the HRO  
"Tricks of the Trade" Practical tips Clansman VRC32 lower side band  
The WS38 transceiver The Collins 618T airborne transmitter-receiver  
Valve RF amplifiers and mixers An electromechanical T/R sequencer

**ISSUE 23: May 2012**

The Collins 618T HF airborne transmitter-receiver Stable regenerative receiver using the 6V6  
Radiovision and the Commander Valve oscillators "Tricks of the Trade"  
AWA C17020 Amenities receiver How to make white decals  
After Enigma: the move to electronic cyphers

**ISSUE 24: August 2012**

Interrogator Type 242 AM and CW valve signal detectors  
618T signal fadeout on 9th May 2012 "Tricks of the Trade"  
Matched PA valves Practical tips The hedgehog  
The Collins 618T. Part 3 Watching AM

**ISSUE 25: November 2012**

Wireless Set No. 1 Defence HF communications in the 1960's  
A bench power supply for manpack

radios Inductors or coils "Tricks of the Trade" The Collins 618T airborne HF TX-RX. Part 4  
Book Reviews

**ISSUE 26: February 2013**

A series modulator for AM The ultimate regenerative receiver by NR5Q  
Superheterodyne receiver ganging and tracking The Collins 618T. Part 5  
Jamie Dodger calling Speedbird The AN/GRA-71 Burst Coder  
Unwanted emissions in the spurious domain "Tricks of the Trade"  
A Racal Synical 30 modification

**ISSUE 27: May 2013**

60 metres from the M54 Police radio communications pre- and post-WARC  
An experimental straight receiver for 80 metres Casting small components  
"Tricks of the Trade" The Collins 618T airborne HF TX-RX. Part 6  
Book Reviews

**ISSUE 28: August 2013**

Admiralty Pattern Indicator Frequency Drift Wireless Set No. 128  
backpack transceiver Designing valve circuits Web-streamed SDR receivers  
at GB2RHQ Clansman battery disassembly revisited  
Voltage control in Larkspur vehicle installations Police radio communications pre- and post-WARC  
"Tricks of the Trade"

**ISSUE 29: November 2013**

A speech conditioner for AM About.....Turn! Using a short vertical antenna  
at HF An audio white-noise generator A humdinger of a smell "Tricks of the Trade"  
The 'Windom-style' DX-100U mod. transformer Woden modulation transformer connections  
Refurbishing batteries The ionisation tester-restoration and use

**ISSUE 30: February 2014**

Built a replica Paraset and been disappointed? Using the BC221 as signal generator  
The lifting link, Faraday screen, etc. RF chokes "Tricks of the Trade"  
A shocking story Valve and semiconductor passwords The WR1/P amenities radio  
The Australian Wireless Set 108 Repairing the Systron Donner 1720  
Screening

**ISSUE 31: May 2014**

Metropolitan Police wireless prior to 1930 A valve-buffer amplifier to drive an 813 from DDS "Tricks of the Trade" The WS B70: a potted history. Part 1 The PRC-64A HF transmitter-receiver Using vintage equipment on the 5 MHz band Valve testing An improved ADSL filter

**ISSUE 32: August 2014**

Transmitter W/T No. 1 and related transmitters Transmitter and receiver tuning: wavemeters The D111 Telephone The Zimmermann Telegram Canadian Army wireless in WWI The 'Round' valve "Tricks of the Trade" Heart transplant for a dying RV2P800 valve Bandspreading A static 'crash' reducer Extract from WWI Battle Orders

**ISSUE 33: November 2014**

"How to make a wireless telegraph" Increased selectivity for a vintage receiver The WS B70: A potted history. Part 2 Vintage satellites "Tricks of the Trade" Ham audio processing in a nutshell – basics A PSU plug Repairing a badly damaged variometer AGC or AVC? Making a BA1509 battery for a PRC-64 Shall I risk it?

**ISSUE 34: February 2015**

1944 RAF aircraft MF/HF wireless operations Good quality TCS mod without a mod A 30 dB coupler Power and SWR measurement Build a low-pass filter Operation Overlord WAS Butement (1904–1990) Shall I risk it? Important safety information Modifications to an HRO-5T for CW operation "Tricks of the Trade" New life for a Heathkit C-3U R/C Bridge

**ISSUE 35: May 2015**

'Conditions' during the eclipse The VMARS solar eclipse experiments An experimental ATU. Part 1 The G8TMV CTCSS encoder board The I-177 valve tester A 1921-style superhet "Tricks of the Trade" Decoupling Instant HT on and off the M54 A well-behaved and efficient end-fed multi-band aerial Accuracy in published work Modulating the Wireless Set No. 10 A one-valve double-reflex superhet receiver

**ISSUE 36: August 2015**

A non-standard B2 'spy set' Variable inductors The Harris RF-2301 tactical radio and RF-RF-2360 PSU Aerial antics Further comments on the BC-611 Handie Talkie "Tricks of the Trade" MCR1 Receiver (Type 36/1) Book Reviews

**ISSUE 37: November 2015**

Saved from the skip: a wartime RCA AR88 receiver rescued The Bomber Command Signals Security Set Distributed amplifiers The Schaub Lorenz Music Centre 5001 model A simple antenna

changeover and keying system BC-611 inverter Cold War 'Y' Station, Berlin, Teufelsberg, 1969–72 Improving Clansman VCR321 performance on AM Tricks of the Trade A vintage medium-wave regenerative receiver Some thoughts on the magnetic loop antenna An experimental remote ATU. Part 2

**ISSUE 38: February 2016**

MAFTX-350A: a 3.5–50 MHz AM/CW transmitter Three slide rules for wireless (spark-gap) telegraphy Calibrating the BC221 WS19 Mk111 H 028: a personal experience Standard Beam Approach receiver The 1936 Eddystone All World Two receiver "Tricks of the Trade" Conventional high-voltage power supplies Signal frequency filter for 3615 kHz A synchronous demodulator for AM

**ISSUE 39: May 2016**

Restoration of a KW Vanguard Now, that's what you call a boatanchor! Follow-up to the 3615 kHz signal frequency filter The Volna-K receiver A green computer "Tricks of the Trade" T1154 power supplies and related issues A.F. Bulgin & Co., Ltd. Another slide rule for wireless Corrigenda: the 1936 Eddystone All World Two Receiver

**ISSUE 40: August 2016**

Crystal-Control for amateur transmitters "Tricks of the Trade" Shaving off even more Cents The CNC mill A solid-state 3615 kHz AM "tower" The Electrician Practical Wireless Slide Rule Atomic-referenced frequency calibrator The German HF community and amateur radio scene

**ISSUE 41: November 2016**

Amateur radio training in the 1960's Quartz crystals and oscillators Downward modulation in beam tetrode amplifiers A home-constructed mobile transmitter from the

1950's The WEEE Directive and disposal of old electronic equipment AIRMEC Type 871 signal generator "Tricks of the Trade" Labgear wideband coupler rebuild A 'panadaptor' for the B40

#### **ISSUE 42: February 2017**

Dornier Do.17Z 5K + AR Bord Funk Gerat A simple Q-multiplier Radio Link Sound Ranging MkII "Tricks of the Trade" Testing power transformers MTR1 MkII transmitter-receiver Ground conductivity at Arnhem

#### **ISSUE 43: May 2017**

MAFRX-35A: an all-valve 3.5 MHz receiver Solder Heater-cathode insulation and cathode-keyed PAs Wireless Set X20-the other 'beam' radio set "Tricks of the Trade" RACAL TRA967 VHF FM transceiver A compact PSU for a valved receiver The T1154 on the 5 MHz band-keeping the faith The GW3OQK balanced 'S-Match' tuner Book Review: The Real Dad's Army

#### **ISSUE 44: August 2017**

15<sup>th</sup> Motor Gun-Boat Flotilla, Coastal Forces Capacitors for transmitters A straightforward near-replica of a WS19 PSU "Tricks of the Trade" "Wireless" by Rudyard Kipling ARB receiver (CRV-46151) Tales of a National Service Signaller—Tent 46 A semi-automatic Morse keyer Letters to the Editor

#### **ISSUE 45: November 2017**

Mason A-3B Technical Surveillance Counter-Measures Receiver Grid bias for a PA stage Lewis Golden: Obituary The Racal MA4202 voice encoder Lampemetre Anlayseur MB "Tricks of the Trade" The □-tracer: a versatile valve curve-tracer A QRO VFO-controlled transmitter for 80 m. Part 1 Errata: Signal Issue 44, pages 13–17 and 29–35 How to repair handles

#### **ISSUE 46: February 2018**

The Wireless Operator Radio Link, Sound Ranging MkII: follow up The Hhstory of 648 kHz in the UK Rotary power supplies Type 32 and Type 34 "Tricks of the Trade" Mains PSU and amplifiers for a T1154/R1155 Standard connectors A compact mains PSU for the GRC-9

#### **ISSUE 47: May 2018**

The original Paraset  
British Type A Mk.II/H 15a World War II spyset replica  
Sherlock Holmes investigates a PRC319 mission failure  
Antenna couplers/ATUs/transmatches  
"Tricks of the Trade"  
TCS transmitters and a 50 ohm load :

a simple solution  
A compact mains PSU for the GRC-9

#### **ISSUE 48: August 2018**

Battle of Britain Radio: the TR9  
The UF-1 VHF transceiver  
How accurate is your DFM?  
The ATB transmitter (type CRV-52233)  
Across the Channel on AM with 600 mW  
"Tricks of the Trade"  
How to refit a scrap PRC319 for QRP  
A TCS receiver repair  
Reviving 'dead' metal-can crystals  
Book Review: Arnhem - The Battle for the Bridges 1944

#### **ISSUE 49: November 2018**

Follow-up to Arnhem: The Battle for the Bridges 1944  
Converting the Burndept BE527 AM transmitter from VHF to HF  
"Tricks of the Trade"  
The Command set  
Marconi Flexible Receiver  
400 Hz inverters for air-borne radios. Part 1

#### **ISSUE 50: February 2019**

Whaddon Mk V SIS 'Spy Set' replica  
A T1154 restored  
A small multi-band receiving loop and amplifier  
Dual diversity adaptor type RX3A as a crystal tester  
The WS48 on 3615 kHz  
"Tricks of the Trade"  
The RAF microphone  
The R1155 homebrew PSU & amplifier  
Step-start without a discreet timer  
Book Review: The History of the Rugby Radio Station

#### **ISSUE 51: May 2019**

The Wadley masterpieces  
How to lace cable harnesses  
Sun, rain and radio: a personal reflection  
A 60-metre Codar clone  
Southwold's secret Y-Station. Part 1  
Some dynamic microphones and their signatures  
Increased microphone gain for the WS19  
"Tricks of the Trade"  
Valve specifications and the cathode-keyed PA revisited  
An 80-metre CO/PA transmitter

#### **ISSUE 52: August 2019.**

VMARS' contribution to the D-Day 75<sup>th</sup>  
Anniversary Vintage satellites "Tricks of the Trade"  
Bendix RA-1B 'super RX' The AN/ARC-60 (ARC Type-12)

Southwold's secret Y-Station. Part 2: Y-Service  
Overview Athlone calling Advance signal  
generator Model Q1

#### **ISSUE 53: November 2019**

RN equipment nomenclature Mr Pepin of  
Marlborough The PYE 619 transmitter/receiver  
R1155N rebuild A 618T tidy up Southwold's secret  
Y-Station. Part 3: East Coast Y-  
Stations The G3IKR Elizabethan  
transmitter "Tricks of the Trade" Ajax Leader

#### **ISSUE 54: February 2020**

Southwold's secret Y-Station. Part 4 A portable field  
radio Tubes, transistors and takeovers An AM-level  
meter Clansman in the Falklands "Tricks of the  
Trade" SAMOS receiver Fu MB 4 An iso-frequency  
converter for the BC669  
transceiver  
Repairing Bowden cables

#### **ISSUE 55: May 2020**

The humble transmission line: its properties and  
practical applications Denco coils for valve  
receivers My father Harold Chadwick G8ON A  
simple valve analyser for measuring mutual  
conductance A field study of the 'Hallmark'  
speech security  
device Radio transmitter T1223A The  
MODAF 'Corona' 80-metre AM receiver Southwold's  
secret 'Y'-Station. Part 5: Watch hut interiors and  
equipment "Tricks of the Trade" Handy propagation  
monitor accessory The input capacitance of valve  
amplifiers The Enigma machine. A history and my  
story

#### **ISSUE 56: August 2020**

LSB for the Clansman – digitally Cathode  
modulation of AM transmitters A novel AM  
transmitter using an ECL80-series  
valve Making replacement scales for moving-coil  
meters Spy messages 1950 to the present 4-400A  
linear amplifier The 394, 394A, 394F and 394G  
receiver family Southwold's secret 'Y'-Station. Part  
6:  
References and Appendices Project Raven  
"Tricks of the Trade"  
'EF50' one-valve AM transceiver for Top Band  
The Bendix RA-1B aircraft radio receiver  
The R.1224 receiver  
The G3VTD one-valve AM transmitter  
Spectre: spectral inversion for USB-only radios

#### **ISSUE 57: November 2020**

SOE S-phone Ship A bit of nostalgia The G4EJM  
one-valver Build a rack-mount chassis A  
screen-modulated one-valve AM transmitter "Tricks  
of the Trade" Cathode modulator with  
current-controlled feedback RAF SYKO machine  
Developments in communications during the Great  
War Japanese surrender at Rabaul Rhode &  
Schwarz ESEF military VHF FM receiver Aumann

coil winder Input circuits for the passive-grid  
amplifier Building an 80-metre bandspread coil for  
the HRO Wideband interference monitor WS52  
(Canadian): Overcoming construction issues  
with a replica PSU

#### **ISSUE 58: February 2021**

Internal Fire – Museum of Power Synchronous AM  
detector for improved shortwave  
reception The lucky accident, The BSA Net and  
West Africa A receive-converter for 10 metres Earth  
Induction Telegraphy The G6TVJ 'one-valver' A  
case for a WS48 Etching quartz crystals "Tricks of  
the Trade" A home-constructed DF loop for the  
R1155 Screws, nuts and screw threads The  
development of medium-powered mobile HF  
equipment for the Army Restoration of a Wireless  
Set 48 The sinking of the Flying Enterprise: an  
amateur  
radio adventure The G3RZP 'one-valver' The  
rocking armature – an investigation

#### **ISSUE 59: May 2021**

Swiss LF-HF receiver E44 . Restoration of a Power  
Supply Unit No. 5 Re-stuffing 'bathtub' capacitors  
Troubleshooting Spectre A tale of two amateur radio  
pioneers The Royal Navy's Type 5/6 Portable Set of  
1914 The smart bypass diode – a useful device with  
potential The reflex klystron "Tricks of the Trade"  
j-Demystified: why does  $j = \sqrt{-1}$ ? Memories come in  
"three's" An analysis of stripline directional couplers  
A gallery of Spectres The A.E.W.1 amenities  
receiver New life for an old valve-based receiver A  
40-watt modulator with cathode-coupled driver  
Dumped radio equipment

#### **ISSUE 60: August 2021**

Daystrom Limited  
An original war-time Paraset and a forensic  
investigation  
Criggion Radio Station  
Inside Criggion  
Criggion Radio Station (odds and ends)  
Maxwell's equations and their implications for  
Amateur radio  
A state-of-the-art speech processor  
Tricks of the Trade  
An experimental HV PSU  
Wireless Set No.62 transceiver  
The cathode follower  
The BC-357-B marker beacon receiver  
Solid-state rear end for hybrid receivers

#### **ISSUE 61: November 2021**

One hundred years of short waves across the Pond  
Simple mechanical repairs to valves  
Adding a digital frequency meter to a valve based  
receiver  
The missed opportunities  
Cigarette-card TRF  
Echolink and military radio  
Wavemeter Class C

The M1PVC TRF Receiver  
A very straight receiver  
The origin of  $jX_L$ ,  $jX_C$  and inductance L in electrical circuits  
An inverter PSU for the WS19  
"Tricks of the Trade"  
The G4OJY TRF receiver 'challenge'  
A novel approach to IF 'Q-multiplication'.  
The Optimod-AM 100.  
A companion receiver to the G3RZP one-valver  
A trawler-band TRF receiver

#### **ISSUE 62: February 2022**

Making replica control knobs (and other items)  
A remote-control high-power L-network AMU  
A T1154/R1155 power supply unit  
80 Years of BBC and VoA  
HF transmission audio  
The CSF Type RS550 Stabilidyne receiver  
A tale of two triodes  
Transmission lines, antennae and the Smith Chart  
Part 1  
AGC, detection and distortion Wavemeter Class C (Aust)  
"Tricks of the Trade"  
Labgear LG50 transmitter rescued  
Letter to the Editor Re: "The missed opportunities"

#### **ISSUE 63: May 2022**

Alan Morriss G4GEN SK  
In defence of Bill & Bob  
The Wullenweber antenna  
Red Army GRU Colonel Ursula Maria Kuczynski  
The Comet 70 years on  
A modular CW/AM transmitter for the 80-metre band  
T-195/GRC-19 transmitter  
Valve characteristics  
"Tricks of the Trade"  
Low-voltage power supply and high-current dummy load  
Loudspeaker output for the R1155  
Transmission lines, antennas and the Smith Chart.  
Part 2  
A blank Smith Chart  
A new feeder for a 102-foot doublet on 80 m

#### **ISSUE 64: August 2022**

A four-square phased vertical array for the 80-metre band  
The BAARE (British Arctic Air Routes Expedition)  
EMF and all that!  
The Harmonikker: effective and economical harmonic attenuator  
Agent Sonya's wireless: fact, fiction, fantasy and fable  
Wireless through water at Fastnet Rock – 1895  
Mixers or frequency changers  
HM W/T Station, Mount Pearl, St. Johns, Newfoundland  
Made in GDR: R5, the portable EKB HF receiver in its Czech variant  
Realistic DX160 receiver  
"Tricks of the Trade"  
Book Review: Charles Exton. The Secret War Factory

#### **ISSUE 65: November 2022**

A high-power 813 AM transmitter based on the WS53  
An effective RF speech clipper  
New modulator circuit utilises 807s in Class-B with zero bias 807s in zero bias Class-B  
"Tricks of the Trade"  
Build a sliding-plate capacitor  
Resonant lines and matching applications. Part I  
Neutralisation  
The TRA3755 Racal HF transceiver

#### **ISSUE 66: February 2023**

A positive-peak amplitude Modulator  
Reserve Telegraphist for HM Navy  
The trouble with QRM  
A quad-loop antenna for top band  
A balanced ATU with a "Mickey Match"  
Real ground and its effects on low horizontal HF antennas  
Crystal control for the ZC1  
Tricks of the Trade  
My small contribution to Hitlers downfall  
Borders radio pioneers and WWII  
Wireless Set Number 108 Mark I  
Practical solutions Resonant lines and matching applications. Part 2  
An AM transmitter for ten  
PRC319 operating peculiarities  
Letter to the Editor

#### **ISSUE 67: May 2023**

The Labgear LG300 revisited  
Illuminating the Eddystone EC958  
Dragging a Geloso G209 amateur bands receiver into the 21<sup>st</sup> Century  
Conversion of the Clansman hand cranked generator to lithium ion charging  
Restoring transformers. Part 1. Principles.  
Double L- match unit for open-wire or ladder line feeders  
Tricks of the Trade  
Build a 40dB RF line sampler MCR21: a volunteer's account  
MCR1 spy set (Huntley & Palmers best!)  
R-392 receiver  
Historical note on H2S  
Addendum to "A positive peak AM modulator"

#### **ISSUE 68: August 2023**

Restoring transformers. Part 2. Solutions  
Fundamentals of H2S  
Open Monument day, The Netherlands  
Morse code and me  
Tricks of the Trade  
The case of three orange pips  
Wireless Set No.48  
A return to the bread-board

#### **ISSUE 69: November 2023**

Why do we do it  
Refurbishing the Racal RA17L N3991  
Synchrodyne receiver research  
A PLL synchronous AM demodulator for an IF of 100kHz

A Mk II SIS "Spy Set replica  
The H2S aerial problem  
Chorehorse battery charger (15v VDC, 300W)  
High speed Morse  
Restoring an ASV Mk II IND6 display indicator  
How to apply wrinkle paint  
Tricks of the Trade  
An acoustic audio filter for reception of Morse

**ISSUE 70: February 2024**

Mk III "spy set"  
RCAF ATR5 transmitter-receiver  
An SSB transmitter for 40, 20 and 15 metres  
"Winter"  
Matching the Command Set to 50 ohms  
Behind the MASC. Part 1  
Reverse engineering an Army Larkspur -era BID150  
DM box  
HMAS Diamantina  
Tricks of the Trade  
The PCR2 receiver  
Lithium-ion battery charging safety shutdown  
A portable loop antenna kit for 80m (and other  
bands)  
Inexpensive inverter power supply modules  
investigated  
WIRELESS Set Number 11