

FRONT PAGE INDEX FOR THE VMARS SIGNAL JOURNAL

Search this index by selecting the “Control F” keys and typing in a keyword. (Capitals and spelling are important, so try various options.) The index is for information on where to find articles in the hard copy sent to VMARS members every three months and does not link directly to the articles. For information on how VMARS members can obtain hard copy back issues, see the end of this index.

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

ISSUE 2 January 2007

Garden Party Surprise – Another B2 Spysset
“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 15m bandspread coil pack

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 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 5 October 2007

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 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 R20-9 Receiver

Another Look at Crystal Current in Crystal Oscillators

Vector Network Analysers – receiver/antenna matching

Letters...

ISSUE 7 April 2008

Editorial: ...

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 4m Beam

Tricks of the Trade

ISSUE 8 July 2008

Editorial: ...

Allo, Allo.....(The Jupiter ER 504)

A History of Amateur Radio in the UK, Chapter 4 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 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 80m

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 80m 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 80m

Letters to the Editor

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 80m

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 TT21's

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 80m

Clapp, Colpitts, Seiler or Vackar. What's the difference?

The Clansman Intelligent Battery Management System

Netometer II – time for the needle

600v HT at 250mA

Letter to the Editor

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 80m or 160m AM

The Reception Set R103

A 300W, 50ohm, 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 40m CW band spread 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 FM

Letters to the Editor

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 450kHz

Racal ComSec MA4450 Tactical Data Entry Device (TDED)

Circuit diagram of the RBZ receiver

Letters to the Editor

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 Whermacht

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

Letters to the Editor

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

Letters to the Editor

ISSUE 22 February 2012

Common aerial Working with B40's

An 80m 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

Letters to the Editor

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 vane 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 Syncal 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 GB2 RHQ
Clansman battery disassembly revisited
Voltage control in Larkspur vehicle installations
Police radio communications pre- and post WARC
Tricks of the Trade

ISSUE 29 November 2019

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 5MHz band

Valve testing

An improved ADSL filter

Letters to the Editor

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 WW1

The 'Round' valve

Tricks of the Trade

Heart transplant for a dying RV2P800 valve

Bandspreading

A static 'crash' reducer

Extract from WW1 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 an 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 boat anchor!

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 PA's
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
15th 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 reveiver(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
Lampemètre Analyseur MB
Tricks of the Trade
The μ Tracer: a versatile valve curve tracer
A QRO VFO-controlled transmitter for 80m: 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 history of 468 KHz in the UK

Rotary power supplies Type32 and Type 34

Tricks of the Trade

Main PSU and amplifiers for T1154/R1155 station

Standard connectors

A compact PSU for the GRC9

ISSUE 47 May 2018

The Original Paraset

British Type A Mk.II/H 15a World War II spy set replica

Sherlock Holmes investigates a PRC319 Mission Failure

Antenna couplers/ATUs/Transmatches

Tricks of the Trade

TCS transmitters and a 50Ω load: a simple solution

A compact PSU for the GRC9

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

Back issues of *Signal* are available to current VMARS MEMBERS ONLY as follows:

1-9 issues at £4 per issue. 10+ issues at £3 per issue. 20+ Issues at £2.50. 30+ issues at £2 per issue; all + 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.

A complete list of the contents of each of the first 41 Issues of *Signal* was published in Issue 164 of the VMARS News Sheet.

Any Member wishing to purchase back issues should contact the VMARS Membership Secretary in the first instance. Ron Swinburne, memsec@vmars.org.uk