Summary of articles published in the VMARS Newsletter

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 News Letters and News Sheets sent to VMARS members every month and does not link directly to the articles.

Issue 1 – December 1998

Restoration of a T1509 Transmitter

A VMARS Member

Describes an extensive struggle to repair an example of this monster, 350W fixed RAF Tx, which had evidently been "got at" by a previous owner. Includes block diagram, outline spec and sketch of the unit. 2 pages.

Issue 2 – January 1999

Wireless Set No.42 -The WWII Larkspur Set

A VMARS Member

The author asserts that not only is this the finest of the WWII era manpack sets, but the reasons given for its demise by the MOD are not credible. Some sort of official cover up of a long forgotten embarrassment is suggested. History and description of set given. Block diagram, spec and line drawings included. 5 pages.

Issue 3 – March 1999

Wireless Set A40 Part 1

Murray McCabe

Full description of this VHF manpack set given, circuitry, accessories, specification. Similar sets from other nations discussed. Some pictures of the set included. 4 pages.

Points from the A **VMARS** member QTH A VMARS Member

Brief descriptions of the RA-1 and LV-80 amplifiers given, and a method of tuning up the LV-80. 2 pages.

<u>Issue 4 – May 1999</u>

The WS42 – Its Demise: An uneducated guess

Ray Coley

Ray suggests that the disappearance of the WS42 is less mysterious than it seems, and was probably due to a defence

budget cut.

Some thoughts on vintage radio nets

Howard Aspinall

The author discusses the various band options for vintage set operation, and sets out the need for good relations with other amateurs not interested in old sets, with their inevitably wide occupied bandwidth. Mentions the danger of Type Approval

ceasing all such operations.

On the wing of a Lancaster

Stuart McKinnon

Report of operations on the 80m AM net on 24th April 1999, with a fine variety of vintage sets on the air. 1 page.

Issue 5 - June 1999

Wireless Set A40 Part 2

Murray McCabe

Ways of powering the A40 now the original battery is obsolete, using the TR-PP-8A invertor. Includes invertor circuit. 31/2 pages.

The High Power Version of the WS19

A VMARS Member

Description of RF Amplifier No. 2. Includes history of variants, drawing of unit, and circuit diagram. 5 pages.

Quality of emissions and self regulation

Peter Walker

The author discusses the need to keep emissions from vintage Tx's clean from spuriae and harmonics if we are to

avoid Type Approval being imposed. 1 page.

Issue 6 – August 1999

The ER-40-A; a French Antony Description of set given, along with some pictures. Question of 88 Set Wedgwood whether the ER-40A and WS88 have a common ancestor posed. 4 pages. The Canadian Wireless Alan Morriss Description of the complete WS52 Tx/Rx given, along with Set No.52 pictures and block diagrams. 5 pages. **Audio Output for the** Modifications given for WS52 Rx to increase audio output. Tom Bloxam **WS52 Receiver**

Includes circuit showing mods. 1 page.

Issue 7 – October 1999

The Wireless Set No.31 A VMARS Traces history of this set, and the switch to FM during WWII. Gives simple non-destructive modifications to move set up to member 6m band. Includes pictures, block diagrams, and layout for mods. 7 pages. **Surplus Military Radio** List of internet webpages (with URLs) for all kinds of vintage Murray on the Net and military wireless. 3 pages. McCabe

Issue 8 – December 1999

The SR A41 No.3 Murray Description of this rare A41 variant. Includes circuit notes, McCabe comparison with A41 No.2 and block diagram. 5 pages. Resurrecting an R109 Howard Description and restoration. Full circuit diagram and pictures. Receiver Aspinall 4 pages.

Issue 9 - February 2000

The Racal Automatic Howard Description including block diagrams. Discusses how to use **Aerial Matching Unit** with non-military sets. 2 pages. Aspinall type VRA549C An unusual set A VMARS Brief details of the GRC-19 set, with picture of the T-195 Tx. 1 member page. **Hugh Kemp's EMER Hugh Kemp** Listing of EMERs and other data held by Hugh which are and Radio data index available for copying. 4 pages.

Issue 10 – April 2000

The VMARS Equipment A VMARS Brief technical details with picture of WS19, C11/R210, R209 Directory – Part 1 member Mk.II, AR-88D, WS88. 3 pages. Mike Hazell. A Discussion of need to reform electrolytic capacitors, and Capacitor Reforming description with circuit of unit to carry out this task. 3 pages or how to avoid the Big **VMARS** Bang! member AM on Ten Roger Spear Description of conversion of Pye Cambridge to 10m, with pictures. 1½ pages. The A.D.MM Award A VMARS Rules for AD MM award – for vintage radio operators. 2 pages. member

Issue 11 - June 2000

Technical problems "A former MI5 Reprint of an article from "British Intelligence in the Second affecting radio officer" World War", 1990 Vol.4, which describes how radio was used communications by the (submitted by to fool the Germans using double agents. 3 pages. **Double Cross Agents** John Teague) Restoring a Homebrew Colin Guy Detailed description with pictures of the restoration of a dual **Transmitter** 807 AM HF transmitter. 2½ pages.

The VMARS Equipment Directory – Part 2

Roger Spear, Jim Cookson, Walter Farrar Brief technical details with pictures of Heathkit HW series, KW Vespa Tx, R308, Der Festungsnotsender. 2½ pages.

The last of the HF valved manpacks

Antony Wedgwood Comparison and description with pictures and technical specs of A510, HF156 and SR128 sets. 4½ pages.

Issue 12 – August 2000

Military Radio Communications (Part 1) Brigadier J.B.Hickman (submitted by Chris Cooper) Reprint of a classic paper published by the IEE in 1947. Describes technical developments in Army radio

communications, and how they were driven by the experiences of World War II. With additional illustrations of some of the sets to which the author refers. This first part looks at portable and

low power mobile sets. 8 pages.

The SEM-35 Manpack

Murray McCabe Detailed description with block diagram. Performance and

restoration discussed. 5 pages.

The VMARS Equipment Directory – Part 3

A VMARS member

Brief technical details, with pictures, of WS 38 Mk.I & II, WS

62, WS 46. 1½ pages.

Berkeley Castle Scrapbook A VMARS member

Account of VMARS "radio camp" at the Berkeley Military Show, with pictures. 2 pages.

Issue 13 – October 2000

Military Radio Communications (Part 2) Brigadier J.B.Hickman (submitted by Chris Cooper) Final part of a paper from the IEE *Radio Communication Convention*, 1947 (see Issue 12). This part covers high power mobile sets, wireless vehicles and long distance wireless links used in WWII, and also considers future trends. 9 pages

The "DX200" Linear Amplifier

Roger Spear

An unauthorised but effective modification of a battered Heathkit DX40 produces the mythical "DX200" linear amplifier. 1½ pages.

The VMARS Equipment Directory – Part 4

Martin Swift, A VMARS member, Jim Cookson, A VMARS member Brief technical details with pictures of the B70 Link Equipment, Receiver Type R107, Receiver R206 Mk II, AN/GRC-106 (and GRC-106A). 2½ pages.

Issue 14 – December 2000

The R-161 Radio Stations

Joe Bell

A general description (with some colour pictures) of the Soviet R161-5 frequency hopping HF radio system, together with details of the R161-A2M version in its associated Zil-131 truck. Specifications and aerial layouts included. 8 pages.

The UK PRC316/A16

John Teague

The history and development of the rightly celebrated 'Jungle Set'. Includes design requirements, basic technical data, illustrations of both the interior (in colour) and the accessories, and aerials used to achieve NVIS propagation. Appendix on its use on the amateur bands. 8 pages.

Issue 15 – February 2001

Notes on Radio Reception in Germany (1942 – 45) Anthony Lister MIEE

How the author received foreign broadcasts while a prisoner of war in Germany. Notes compiled for MI9 on his return, and not previously published. Includes a commentary by John Teague. $5\frac{1}{2}$ pages.

The R134 A VMARS A general description of the R134, a Hungarian designed tank member radio that was one of the last - and most sophisticated -Warsaw Pact equipments. 3 pages. C P Edwards A reprint of an IEE paper first published in 1943. It describes **Enemy Airborne Radio** the most widely used radio communication and aids to **Equipment (Part 1)** navigation found in German military aircraft, with brief mention of Italian and Japanese practice. 3 pages. The VMARS Equipment A VMARS Brief technical details with pictures of the Hallicrafters S-27 and Directory – Part 5 member, an Eddystone GDO. 1 page. Roger Spear

<u>Issue 16 – April 2001</u>

Near Vertical Incidence Skywave Communication	Antony Wedgwood	A brief history of the use of NVIS in the British Army. The concept is not new and was first comprehensively studied towards the end of WW2. It was used to good effect on long range patrols with low power HF sets such as the A510, SR 128 and PRC-316. Details of some specialised aerials, such as the Shirley, are included. 5 pages.
Enemy Airborne Radio Equipment (Part 2)	C P Edwards	A continuation of the paper reproduced in Issue 15, including some photos which did not appear in the original article. 3 pages.

<u>Issue 17 – June 2001</u>

Colin Guy

Is Your Shack Really

Safe?	•	long and happy old age! 1½ pages.
The TRC-77	A VMARS member	Brief details of the TRC-77, an HF manpack designed for recce patrols operating in the forward edge of the battle area. 2 pages.
Louis' Luton Legacy	Roger Spear	How some historic items, including actual hardware, which were once the property of Louis Varney G5RV, were discovered and rescued from a boot sale. A fascinating piece of research, which holds lessons for us all. 2 pages.
The VMARS Equipment Directory – Part 6	Chris Cooper	Brief technical details with pictures of armed services test gear, featuring the Signal Generator CT 212, Noise Generator CT 82 and VHF Signal Generator CT 394A. 1½ pages.

A timely reminder of some elementary precautions to ensure a

<u>Issue 18 – August 2001</u>

Enemy Airborne Radio Equipment (Part 3)	C P Edwards	A continuation of the paper reproduced in Issues 15 and 16. 10 pages.
An R107, Back from the Dead	Mike Hoddy	How a neglected and badly stored R107 was coaxed back into life. 2 pages.
When is a spy radio not a spy radio?	A VMARS member	An attempt to classify so-called 'spy radios' into more accurate functional categories, prompted by concern that indiscriminate use of the term could 'hype up' the price of other special forces sets. 1½ pages.

<u>Issue 19 – October 2001</u>

A Lifetime's Hobby	Peter Sables	Some of the fascinating byways explored by the author in the course of his hobby - 25 line mechanical television and an FM crystal radio, to name but a few. 3 pages.
Vintage Radio at G3GGK	Peter Simpson	A description of the author's 1950s and 1960s stations, mainly based on Collins equipment. 1% pages.
The AR88 Again	Tom Bloxam	Simple modifications to improve sensitivity. ½ page.
The VMARS Equipment Directory – Part 7	A VMARS member, Chris Cooper	Brief technical details with pictures of the Rohde & Schwarz SK010 transmitter and MF/HF Signal Generator CT 452A. 1½ pages.

<u>Issue 20 – December 2001</u>

Radio Link S.R. Mark II	Colin Guy	General description, technical details and method of operating some rarely encountered equipment used for gun sound ranging. 4 pages.
The RST 101 – a Belgian Special Forces set	Antony Wedgwood	A brief technical description of this small CW transceiver, probably dating from the 1950s, whose purpose and use is obscure. 1 page.
Thirteen ways to Prolong Transmitter Tube Life: Heintz & Kaufman Engineers Revisited	Robert E Grinder (submitted by Alan Morriss)	A reprinted article, which examines the scientific characteristics of thoriated tungsten filaments and suggests various ways of prolonging their active lives. $2\frac{1}{2}$ pages.
Battery Charging in the Field (The Hard Way)	Walter Farrar	A note on the WW2 German HLSa hand charging set. ½ page.
A Classic Contest Entry	Peter Chadwick	How an HRO was rebuilt and became a 'classic' contest receiver. 1½ pages.
Measuring Aerial Current	Colin Guy	Some practical advice on ways to measure aerial current – in the absence of a thermocouple meter! 1 page.
Description of Radio Emissions	Joe Bell	A key to the modern system of designating radio emissions. 1 page.
Some Speculations on the HRO	Gerald Stancey	An informed commentary on certain questions about the development and construction of the HRO receiver. 1½ pages.

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lssue 21 – February	2002	
The Labgear LG300 5 Band Transmitter	Ken Brooks	The purchase and restoration of this 'real man's transmitter', a classic design from the 1950s and once the treasured possession of a fortunate few. 3 pages.
How could you! When is it OK to modify Vintage Gear?	Simon Dabbs	How much – if at all - can one legitimately modify classic equipment? A contribution to this never ending debate, using an R1155A and T1154 as examples. 1¼ pages.
KW201 Receiver – a Restoration Project for 2002 (Part 1)	Mike Hoddy	A technical description of this 1966 receiver, with some thoughts on its future restoration. 2 pages.
KW Vanguard	Colin Guy	As vintage rigs go, the KW Vanguard seems to be one of, if not the most popular at present. After a short technical summary (including circuit diagram), the author describes the restoration of his set, which has now become his main station AM rig. 3 pages.

<u>Issue 22 – April 2002</u>

T1154/R1155 French Style	John Teague	Notes on a very rare French military radio – Type number 3/11 – designed in the mid thirties for aircraft use. Technical specification and photographs, and comparison with its British equivalent. 2 pages.
Modifications to the RA17L for SSB Reception	David Sylvester	A commonly noted limitation of the (otherwise excellent) RA17 is its performance on SSB. The author gives a detailed description of how he put in a product detector and slightly modified the AGC circuit, with most pleasing results. 2½ pages.
Replacing a Worn Out Rotary Converter in a 62 Set with a Solid- State DC to DC Power Supply	Simon Dabbs	Mechanical components such as rotary converters and vibrators are often the earliest items to fail on vintage gear, and the most difficult to replace. The author describes his home brew transistorized inverter, which has prolonged the active life of his WS 62. 1½ pages.
Restoration of the R1156	Roger Spear	A brief description, with pictures, of the little known development of the famous R1155 receiver. 1 page.

<u>Issue 23 – June 2002</u>

The RST101 – a Postscript	Antony Wedgwood	More on the Belgian Special Forces set described in Issue 20, - a testament to the value of the VMARS website! Includes technical specification, ancillary equipment and photographs. 1½ pages.
The Yaesu Musen FT- 7B	John Teague	An appreciation of this early but underrated solid state transceiver, which includes a true AM facility. 1 page.
The French TR-PP-11 (Part 1)	Jacques Feyssac and Murray McCabe	An introduction to this VHF/FM squad radio, setting it in the context of earlier British, Canadian and US developments. 4 pages.
'G4BXM Goes Commercial'	Roger Spear	Brief descriptions of three commercial rigs used (and rescued) by the author: the Redifon Radiotelephone GR 377DF, the Ajax Trawler rig and the Granger Associates SSB Teletransceiver model 174-2. 1½ pages

<u>Issue 24 – August 2002</u>

The French TR-PP-11 (Part 2)	Jacques Feyssac and Murray McCabe	A continuation of the previous article: where to find them, general description and technical details. 4 pages.
Netting the Mk 123	Antony Wedgwood	The article describes a well established arrangement for netting the receiver to the transmitter, which does not involve any modification to the set itself. 1 page.
Identification Unit RDF1	Robin Caine	A general description of this equipment, the exact purpose of which is unknown – suggestions, please! 1 page.
Powering the Soviet R107 Transceiver	Richard Walker and Colin Guy	How to power the set from a 5 Volt computer supply unit. As an alternative, Nicads can be used and recharged with a simple charger, for which circuit details are also given. 2 pages.

A Further Note on the	
RA117 AGC System	

Neil Clyne

A reader's experiences and follow up comments on the modification suggested in Issue 22. 1 page

Issue 25 - October 2002

Ken Mitchell

A brief description of the author's museum, open to VMARS

members by prior arrangement. 1 page.

Poor Boy's Collins: The TCS

Dennis Starks' history, edited by Mike Hoddy The compact design and robustness of the TCS series of equipment make it a viable (and, at present, realistically priced) mobile/portable station for VMARS type activity. 2 ½ pages.

The Aspidistra Story (Part 1)

Roger Spear

WW2 'black' broadcasting from the Sussex Downs – its

antecedents and development. 3 ½ pages.

An Audio Interface for the Soviet R107

Colin Guy

The original Soviet headset is not the most convenient or satisfactory for general use. The author describes an interface box suitable for connecting a standard Larkspur headset in its

place. 1 page.

The Muckleburgh Collection

Colin Guy

A brief description of this collection of military vehicles, tanks and aircraft, together with over 2500 other exhibits – including

a substantial radio exhibition. 1 ½ pages.

The VMARS Equipment Directory – Part 7

A VMARS member

The Canadian VRL receiver. ½ page

The Hallicrafters S-27C VHF Receiver

27C Jim Cookson

A description of the author's set, with a commentary on its key features – and what still needs to be done by way of

restoration! 2 pages.

Issue 26 - December 2002

Deception by Wireless – The Aspidistra Story (Part 2)

Roger Spear

Concluding the previous article, including a fascinating description of the author's recent visit to the Aspidistra site.|3 $\frac{1}{2}$ pages.

The Soviet Naval Spetznaz Tx/Rx 'GRANIT'

A VMARS member

Describes this small manpack radio from the 1950s, which roughly equates with the UK Mk 128 SAS transceiver. 1 page.

Recorders Sound Ranging No 1 Mk 4 & 5 Jim Farquhar

Further information on the equipment described in Issue 20, based on the author's actual experience in use. 1 page.

A Look at Decoupling Capacitors

Gerald Stancey Suitable high voltage decoupling capacitors, frequently needed in restorations, are difficult to find. The author explores the issue of HF performance and how to decide whether your junk box replacement will be up to the job. 1 page.

SOE Signals – an extract from OPERATION FRESTON

Submitted by John Teague

OPERATION FRESTON was the last SOE operation in Poland during WW2. Extracts from the book of the same name, by Jeffrey Bines, comprise remarks by the radio operator on the field use of W/T equipment (an AP 4) and a typical signals plan. 2 pages.

Repairing the RT (VRC) Joe Bell 321 Radio Set

A cautionary tale of fault finding and repair to this interesting but complex set. Includes some technical data which may help those who need to diagnose a problem in their own equipment. $3 \frac{1}{2}$ pages.

Issue 27 - February 2003

Visit to the Signals Museum, RAF Henlow	Chris Cooper	A brief account of this museum, which formed the venue for a recent Committee meeting, and can be visited by special arrangement. 1 page.
Operating 24 Volt Equipment in a 12 Volt Vehicle	Simon Dabbs	The common problem of operating 24V, usually ex WD equipment, from a 12V vehicle supply is addressed by the author, who offers his own solution. 2 pages.
Refurbishing a Clansman Battery	Colin Guy	How to refill your Clansman battery with new NiCads – not as simple a job as it might seem! 1 $\frac{1}{2}$ pages.
Aeronautical Communications (Part 1)	Submitted by Chris Cooper	The first part of a classic paper, published by the Institution of Electrical Engineers in 1947. It outlines the operational requirements governing the use of communication equipment in aircraft, drawing particularly on wartime experience.4 pages.
Obtaining VFO Stability from an LG300 on HF	Peter Mellett	The poor VFO stability of this 'real man's transmitter' is addressed by the use of an external unit, requiring minimal modification to the original equipment. 1 page.
The Plessey Type 112 Power Supply	Colin Guy	Details of this useful PSU, which can solve the perennial problem of running power hungry 24V equipment from the mains. 1 ½ pages.
Vintage Gear for M3s - or 'Sprogs for All'	A VMARS member	The need for M3s to observe equipment standards, particularly in respect of spurious emissions, raises the question of just how bad our vintage gear really is – and what M3s (and others) can do about it. Includes the results of spectrum analysis on several vintage transmitters and details of a simple filter for

<u>Issue 28 - April 2003</u>

Aeronautical Communications (Part 2)	Submitted by Chris Cooper	Concluding part of a classic paper, published by the Institution of Electrical Engineers in 1947. 5 pages.
Adding Lower Sideband to the RT 320	Andrew Smith	Describes a (fairly) simple and unobtrusive modification to this excellent equipment, making it compatible with amateur use on 7 MHz. 2 pages.
1950s Minimitter Deluxe Transmitter	Mike Hoddy	The author's restoration of this classic transmitter. 3 pages.
Adding Squelch to the Soviet R107	Colin Guy	An ingenious and non-invasive method of adding a much- needed squelch function to this VHF FM transceiver. 2 pages.

80m. 3 pages.

Aeronautical Communications (Part

Submitted by Chris Cooper Concluding part of a classic paper, published by the Institution of Electrical Engineers in 1947. 5 pages.

Issue 29 - June 2003

The Soviet R131 LRRP Sets

A VMARS member

Summarized descriptions for three Soviet manpacks used by Long Range Reconnaissance Patrols. 1½ pages.

Ahoy there, Racal fans!

Neil Clyne

Problems with the RA117E AGC system on switching from standby to manual gain control. Describes a non-standard fix, but further help would be appreciated. ½ page.

The A41 No 3 - back in captivity

Antony Wedgwood

The near mythical solid state version of the A41 appears at last. General description and pictures of the set, with details of

how it was (more or less) got to work. 11/2 pages.

Hints and Tips

Colin Guy

Suggested cures for loose valve bases and noisy PTT switches. ½ page.

Electret microphone replacement for a

F Hueber (submitted by Colin Guy)

A drop in replacement for those poor quality carbon inserts, including its own pre-amplifier. 1 ½ pages.

Issue 30 – August 2003

Exercise Feeler

carbon insert

Brian Austin (submitted by John Teague) Describes the special radio and radar trials designed to identify and eliminate problems of mutual interference during the D Day landings. 3 pages.

Portishead Radio will breathe again

Joe Bell

A last minute visit to the Rugby VLF station ran some Portishead gear to earth, which it is hoped to install at Hack Green. Photographic nostalgia included! 2 pages.

Hints and Tips

Simon Dabbs John Teague

Repairing WS19 variometer knobs; restoring crackle painted finishes; the imminent demise of lead/tin solder. 1 page.

The Pye SSB130

Colin Guy

A technical description of this 1970ish general purpose PMR set, operating SSB/CW on six preset frequencies. Includes

guidance on setting up for 5 Mc/s. 3 pages.

The Cosmetic Surgery

Simon Dabbs

Benefit from the author's experience of adding those essential finishing touches. Includes paints (with sources of olive-green); decals; knobs and machine screws. 1 page.

Band-pass Filters for

VHF

John Keeley

An appreciation of two excellent US filters, the F1482/GRC and F194/U. 11/2 pages.

Issue 31 – October 2003

The Bognor Regis Wireless Museum

Andy Hearn

An illustrated description of this museum, largely broadcast but with some WW2 military equipment. 1 page.

The Pye Bantam HP1AM	Colin Guy	A radio once sought after by the amateur community – and standard issue, years ago, for TVI inspectors! – but now almost forgotten. Detailed technical description. 4 pages.
A Possible Solution to the Noise Problem	Roger Basford	With Top Band and 80m increasingly cluttered with man made QRM, an active receiving loop may be the answer. An appreciation of the Wellbrook ALA1530. 1 page.
The Creed Model 7 Page Teleprinter	Alan G Hobbs	A technical history and description of this well known and once successful relic of the mechanical age. $1\frac{1}{2}$ pages.
Brighton Police Pocket Wireless Set	Martin Swift	Describes a very early experiment in (one way) police PMR. $\frac{1}{2}$ page.
The Orkney Wireless Museum	A VMARS member	A brief description of this museum at Kirkwall, which features both domestic broadcast and military communications equipment. ½ page.
The Bognor Regis Wireless Museum	Andy Hearn	An illustrated description of this museum, largely broadcast but with some WW2 military equipment. 1 page.

Issue 32 - December 2003

The BC-474/SCR-288 field portable man-pack transceiver	Michael Starke	An unusual and interesting US Army set dating from 1940 is described – along with restoration notes. 1½ pages.
The Yaesu FT200	Colin Guy	A 1960's amateur transceiver of some note is described, with comprehensive circuit description, block diagram and photos. Circuit for original PSU is also given. 5½ pages.
A solid state vibrator	Simon Dabbs	A very simple solid state substitute for a vibrator is given, with circuit. $\frac{1}{2}$ page.
A fault with the C11 Tx	A VMARS member & Mike Hazell	Failure of the C11's aerial changeover relay seems endemic. Repair instructions given, with long term solution. 1½ pages.
The Angrynine – a voyage of discovery – Part 1	Mike Hoddy	Description of the GRC-9 HF manpack set, particularly the receiver. Gives hints on restoration for use on the air, plus photos, a spec, contacts and some weblinks. $2\frac{1}{2}$ pages.
Extending the usefulness of the Crystal Calibrator	Gerald Stancey	Making the well known crystal calibrator more useful by adding more or different output frequencies. Circuits given. 2 pages.

Issue 33 - February 2004

Which those CV valves?	Chris Cooper	An explanation and description of the CV valve numbering system, plus a list of valve manufacturers. 2 pages.
New life for the FT200	Roger Davis	Reprint of article from "Radio ZS" 1995 and QST Feb.2000. Covers replacement of the 6JS6C PA valves with the more common 6146B. 1 page.
When Alf met Louis	Roger Spear	Fascinating tale of old amateur rigs, Alf Grimsdale, G3CJU and Louis Varney G5RV – and their restoration. 1 page.
The GRC-9 Part 2the journey continues	Mike Hoddy	Continuation of article from issue 32, discussing the transmitter, its use, and a mains power pack. 3 pages.

<u>Issue 34 – April 2004</u>

Low, medium and high frequency communication to and from H.M. ships	W.P. Anderson & E.J.Grainger	2 nd part of an historic article reprinted from the IEE Radiocommunication Convention, 1947. Problems with radio during WWII. Shipborne aerials. New equipment based on WWII experience. 8 pages.
Oscillations!	A VMARS member,	Examples of instability in the WS19 and A14HP sets are discussed, along with cures. $1\frac{1}{2}$ pages.
Hints and Tips	Antony Wedgwood	Connection of your favourite headset to a variety of vintage radios – a solution. A new source for A13 batteries. ½ page.
D-Day deception plan – Operation Fortitude	Colonel (Retd) Cliff Walters	Reprint of an article from " <i>The Shutter Telegraph</i> ", the Royal Signals Museum newsletter, describing the wireless deception of the Germans before D-Day
Shaftsbury Valve Day 2004	A VMARS member	Report on the "Valve Day" run by BVARS in Dorset, with photos. 1 page.

<u>Issue 35 – June 2004</u>

Vintage Homebrew on Five Megs!	Roger Basford G3VKM	Restoration of an old homebrewed valve Tx originally used by the ATC. 2 pages.
VMARS at Flixton	Peter Walker, G4PLW	Vintage radio stations and displays at the Norfolk & Suffolk Aviation Museum, Flixton. 1 page.
Hints & Tips	Colin Guy, G4DDI	Dealing with interference from domestic electrical machines. Tuning inductive aerials. Finding noisy contacts on an aerial. 1 page.
17mpg RTTY mobile	Mick Bone	The fitting out of 1967 vintage landrover with Larkspur radio sets, and RTTY installation of the period. 1 page.
The French/Italian TR- PP-13/RV-3 (ER-95A) VHF FM Radio	J Feyssac & M.McCabe	Technical description with block diagram of the ER-95A. Review of actual working example and comparison with similar sets, like the SEM-35. Spec & weblinks. 5 pages.

A lookalike TCS power supply unit	Ken Brooks G3XSJ	Construction of a power supply built to match the style of the TCS receiver and transmitter. 1 page.
D-Day Remembrance Net – 4 th to 7 th June 2004	Michael Buckley, M1CCF	Description with photos of the stations that took part in the military nets, June 2004 including those from Gold Beach, Normandy.

<u>Issue 36 – August 2004</u>

The Heathkit HW17	Colin Guy, G4DDI	Notes on this 2m AM transceiver sold in the 1960's. 1 photo of set. 1 page.
Plessey PTR3411 "Groundsat"	Joe Bell, G4PMY and Mike Pinfold ZL1BTB	Description with photos of a little known "on-channel" VHF repeater system – a difficult technical feat, which was patented by the company. $1\frac{1}{2}$ pages.
Some Early Admiralty Wireless Equipment	John Keeley G6RAV	Descriptions of rare early Naval radio equipment, with circuits and photos. 2% pages.
The TR1985/6/7 and TR1998 series of Airband Transceivers	Colin Guy, G4DDI	Detailed description of these transceivers, with photos and block diagram of the STR.9-X. 6 pages.

Issue 37 - October 2004

The Lincolnshire Aviation Centre	Colin Guy G4DDI	Notes about a museum local to the author which includes radio equipment in its displays. With photos. 1 page.
The Power of the Past Country Fair	Peter Walker, G4PLW	Notes on demonstration of the author's Bedford QLR with WS19 etc on board, at a show open to the public. 1 page.
Shifting crystals	Colin Guy, G4DDI	Notes on how quartz crystals work, and how to adjust their frequency by various techniques. 3 pages.
"Phantom" The Signals Regiment in Richmond Park	Roger Spear, G4BXM	The author describes the home of the Phantom unit in Richmond Park, with photos. 1½ pages.
Phantom Signals 1940 to 1941	Col (retd) DTW Gibson MBE	Memories from an officer who served with "Phantom" describing long distance working with early sets like the WS1, WS9 and WS11. $1\frac{1}{2}$ pages.
The PRC320 PSU	Colin Guy, G4DDI	Technical discussion of the switch-mode PSU used in the Clansman HF manpack, and the cure of faults in it. 2 pages.
Events 2005 & Pippingford Park – the family weekend	Michael Buckley, A VMARS member and Andy Jackson	Photos and info from events that VMARS members have attended during 2004, and request for input for events in 2005. 2½ pages.

Discussion on "Naval Communication"

Various

Reprint of historical article from the IEE Radiocommunication Convention of 1947. This is a follow up to the 1st and 2nd parts of the article in issues 33 and 34. 3 pages.

Issue 38 - December 2004

You can have this; its not working

Mike Stott, G0NEE Experiences of the repair of a WS No.22. 2 pages.

Tactical base station for VMARS nets

A VMARS member, G4BCX The author describes the sets he uses on the VMARS nets, mainly of Warsaw Pact origin. 1 page.

The "phoney" 12 set – a return to chassis bashing

Roger Spear, G4BXM The building of a replica WS12 is described, for use with a R107 at the exhibition of the Phantom units in Richmond Park. 2 pages.

The development of radio valves

J.H.E. Griffiths

Historic article from the IEE Radiolocation Convention 1946 covering the rapid development of the valve during WWII, particularly for the new area of RADAR at centimetric wavelengths. 5½ pages.

The TAU Systems SPC3000 Aerial Tuning Unit Joe Bell, G4PMY Description of a high power ATU, built in the days when they were "big and chunky" and could genuinely handle the power. 1page.

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The Great Question....Just where do you keep your collection? Mike Hoddy, G0JXX One solution to housing a growing collection – with photos. 1 page.

Modification of Crew Box 2-set and Design of an interface unit for non-Clansman Radio Sets Joe Bell, G4PMY Description with circuits of one of the main Clansman harness boxes, and details of how to interface other sets by picking up audio and control signals.. 2 pages.

Replicating the circuit of the RST-101

Tom Smith, G3EFY

A home-made replica of the RST-101 clandestine radio set, with photos and circuits. 2½ pages.

G8LIU in BC342 mode (Part 2)

Neil Clyne G8LIU

Completion of the author's experience of the restoration of one of these sets.

Sets Wireless Portable No.1 – 1942

Capt. A.C.Wray RN Memories of using a WS No.1 and other sets in the Junior Training Corps and Home Guard during WWII. I page.

British Army Wireless Sender No.53 Alan Morriss, G4GEN Photos, circuits and comprehensive description of this famous army transmitter, which the author regularly uses on the air. 3 pages.

The GRC-9 – some useful hints

Colin Guy, G4DDI Dealing with some quirks when operating this popular HF transceiver. 2 pages.

