

# INDEX

**Volume 58**  
**JANUARY TO DECEMBER 1982**



## COMMENT

Frustration .....	19	Jan
The Unexpected .....	19	Feb
Test Questions .....	19	Mar
De-Metrication .....	19	Apr
Disaster Averted? .....	19	May
Waiting .....	17	June
At the Shows .....	17	July
First, the Bad News .....	17	Aug
First, the Bad News (II) .....	17	Sept
Progress .....	19	Oct
W(h)ither Amateur Radio? .....	17	Nov
Our Society .....	17	Dec

## CONSTRUCTIONAL—General

DX Dipole for Restricted Sites by <i>D. J. Howe</i> ..	40	Mar
FM Mains Intercom by <i>Nick Allen-Rowlandson</i>	35	May
LED Audio Level Meter by <i>R. A. Penfold</i> .....	29	Sept
Mini "X" Beam for 10 Metres by <i>F. C. Smith</i> ..	25	Mar
Mobile Radio Alarm by <i>Stephen Ibbs</i> .....	56	Apr
Kindly Note	44	May
Morse Practice Oscillator by <i>Jeff Maynard</i> .....	60	Jan
Morse Show by <i>Steve Damon</i> .....	46	July
Part 2	49	Aug
Kindly Note	22	Nov
The 27MHz CB Radio Antenna		
by <i>F. C. Judd</i> .....	19	June
Part 2	58	July
3V Audio Amplifier by <i>R. A. Penfold</i> .....	46	June
144MHz Ring-base Antenna		
by <i>F. C. Judd</i> .....	20	Sept
Part 2	59	Oct

## CONSTRUCTIONAL—Receiving

Add-on Squelch by <i>P. A. Julian</i> .....	50	Dec
A DXers' Notch Filter by <i>G. S. Maynard</i> .....	20	July
Amateur TV Up-converter		
by <i>John Thornton-Lawrence</i> .....	20	Apr
Synchronous Detector by <i>R. Myers</i> .....	31	Jan
"Winton" Stereo Tuner by <i>E. A. Rule</i> .....	25	Jan
Part 5	47	Feb
Part 6	61	Mar
3-Band Short Wave Converter		
by <i>R. F. Haigh</i> .....	58	Feb
Part 2	44	Mar
28MHz Pre-amplifier by <i>Jeff Harris</i> .....	34	Aug

## CONSTRUCTIONAL—Transmitting

Iambic Keyer by <i>Jeff Maynard</i> .....	50	Mar
RF Operated Repeater Time-out Alarm		
by <i>Ted Nield</i> .....	26	Nov
"Stour" Top-Band Transceiver Follow-up		
by <i>A. K. Denyer</i> .....	29	Nov

## CONSTRUCTIONAL—Test Equipment

"Cranborne" 600MHz Frequency Meter		
by <i>Stephen Ibbs</i> .....	44	Sept
Part 1	44	Sept
Part 2	30	Oct
Part 3	48	Nov
Frequency Synthesiser by <i>Mirko Voznjak</i> .....	22	Aug
Modulated Waveform Generator		
by <i>Geoff Arnold</i> .....	29	Feb
Quadmeter by <i>C. L. Richards</i> .....	26	June
RF Noise Bridge by <i>E. A. Rule</i> .....	44	Jan
Kindly Note	41	Mar

## ON THE AIR

Amateur Bands by <i>A. E. Dowdeswell</i> .....	62	Jan, 65	Feb, 68	Mar, 60	Apr, 60	May, 62	June, 62	July, 62	Aug, 58	Sept, 64	Oct, 56	Nov, 55	Dec
MW Broadcast Bands by <i>C. Molloy</i> .....	67	Jan, 70	Feb, 73	Mar, 65	Apr, 64	May, 64	June, 65	July, 67	Aug, 63	Sept, 71	Oct, 61	Nov, 58	Dec
SW Broadcast Bands by <i>C. Molloy</i> .....	68	Jan, 71	Feb, 74	Mar, 69	Apr, 67	May, 67	June, 69	July, 68	Aug, 64	Sept, 72	Oct, 63	Nov, 60	Dec
VHF Bands by <i>Ron Ham</i> .....	71	Jan, 75	Feb, 75	Mar, 70	Apr, 69	May, 69	June, 70	July, 69	Aug, 66	Sept, 74	Oct, 64	Nov, 64	Dec
TV by <i>Ron Ham</i> .....	73	Jan, 76	Feb, 79	Mar, 72	Apr, 73	May, 73	June, 72	July, 73	Aug, 70	Sept, 78	Oct, 71	Nov, 66	Dec

## IC of the MONTH by B. Dance

National Semiconductor LM10 Op. Amp. and Voltage Regulator .....	42	Feb
Plessey SL6600C f.m. i.f./demodulator device .....	57	June
Plessey SL6640/SL6650 .....	48	Sept
Plessey SL6691 f.m. device .....	52	Nov

## GENERAL INTEREST

Air Test (user reports on sets and sundries)		
Bearcat 100FB Scanner .....	57	Sept
Drae v.h.f. Wavemeter .....	59	Jan
Icom IC-4E 430MHz Hand Held .....	25	Nov
Lowe SRX30D h.f. Receiver .....	59	Apr
Lowe UL-1000 Loop/Pre-amplifier .....	58	Apr
Microwave Modules MML144/100-LS		
Linear .....	56	Sept
Microwave Modules MM1296/144		
Transverter .....	56	Mar
MuTek SLNA144s Pre-amplifier .....	60	Aug
Plustron TVR5D Radio/TV .....	25	July
Sabtronics 2037A d.m.m. Kit .....	61	Aug
SMC-HS358 70cm 3-element Colinear ....	59	Jan
Sota SCL144PS 2m Linear Amplifier .....	26	Feb
Telereader CWR-685 .....	42	June
Yaesu FT-208R/FT-708R Hand-helds .....	46	May
A New YL by Anja Simpson-Fraser .....	31	Dec
Are the Voltages Correct?		
by Roger Lancaster .....	Part 1	44 June
	Part 2	41 July
	Part 3	19 Aug
	Part 4	24 Sept
	Part 5	27 Oct
	Part 6	34 Nov
	Part 7	34 Dec
Basic QSOs in French by G. W. Roberts ..	Part 1	38 June
	Part 2	54 July
Call for Help by A. Smith .....		20 Mar
CB Operating Impressions		
by Gordon J. King .....	Part 1	40 Sept
	Kindly Note	22 Nov
	Part 2	22 Oct
CB Rig Check		
Commtron CB-40F .....	39	Feb
Cybernet 1000/3000 .....	46	Aug
Lowe TX-40; Realistic TRC-2001;		
Uniden Uniace 100 .....	52	May
Tandy TRC-1001 Hand-held .....	67	Mar
Computers in Radio-Contests by E. A. Parr ....	34	June
From Spark to Space by Ron Ham .....	49	June
	56	Aug
	44	Nov
Happy 60th Birthday Auntie!		
by Eric Westman .....		18 Dec
How the BBC Beat the Blitz by Chas. E. Miller		52 June
Ideas Dept. ....		60 Mar
If You Can't Beat Them by Shelagh Ibbs .....		55 Aug
JFET Crystal Oscillators by M. J. Darby .....		36 Oct
Modifying the JVC 3040 UKC TV		
by Roger Bunney .....	48	Apr
	Kindly Note	23 Sept
Mods by Roger Hall (suggestions on modifying amateur equipment)		
	No. 12	43 Jan
	No. 13	25 Feb
	No. 14	42 Mar
	No. 15	29 Apr
	No. 16	32 Aug
	No. 17	37 Nov
	No. 18	46 Dec

No More Snap, Crackle & Pop? .....		37	Mar
Outer Space Communications			
by Brian Dance .....	Part 1	53	Apr
	Part 2	50	May
Passport to Amateur Radio			
by John Thornton-Lawrence .....	Part 6	53	Jan
	Part 7	51	Feb
	Part 8	26	Mar
	Part 9	30	Apr
	Part 10	54	May
Radio Interference Suppression			
by E. A. Rule .....	Part 1	45	Nov
	Part 2	26	Dec
Radio Special Product Report			
Drake TR-7 h.f. Transceiver .....		32	Mar
Icom IC-25E 2m f.m. Mobile .....		40	Jan
Shimizu SS-105S h.f. Transceiver .....		53	Oct
Trio/Kenwood TS-530S h.f. Transceiver ....		36	July
RAE—Nothing to it! by H. A. Crookes .....		39	Jan
Rechargeable Batteries in Radios			
by B. P. Castle .....		38	Nov
Reminiscences by S. Keely .....			
	Part 1	22	May
	Part 2	32	Sept
	Kindly Note	22	Nov
Setting up a Workshop by Jeff Maynard .....		42	Apr
So You Want to be a Listener?			
by Stephen J. Reading .....		21	Nov
Space Shuttle Communications			
by Brian Dance .....	Part 1	40	Oct
	Part 2	40	Nov
Special Product Report			
Electrolube CM100 p.c.b. Kit .....		54	Nov
Sabtronics 8610B Frequency Counter Kit ..		25	Apr
Studying for the RAE by Arthur Harada .....		28	Aug
The April 16 Schedule Revision .....		32	July
The CB Code of Practice .....		62	Feb
The February 12 Schedule Revision .....		30	May
Tropospheric Propagation by J. Glanville .....		52	July
Uncle Ed's Page .....	28 Jan, 50 Apr, 29 May, 30 June,		
	33 Aug, 19 Sept, 39 Oct, 33 Nov, 25 Dec		
Understanding Transmitter Parameters			
by Peter Chadwick .....	Part 1	25	May
	Part 2	50	June
	Part 3	26	July
Valves Used in the Early Days by G. Jessop ...			
	Kindly Note	57	Apr
Where are You? Where am I? by M. W. Dixon ..			
	Kindly Note	23	Sept
Working DX by Jeff Maynard .....			
YL Column by Elaine Howard .....		64	Feb
2m Fox-hunter by D. O. White .....		42	Dec
28MHz Operating by Jeff Harris .....		38	Aug
28MHz—The Low-power DX Band			
by D. O. White .....		36	Aug

## KINDLY NOTE

CB Operating Impressions — 1, Sept 1982 ...	22	Nov
Mobile Radio Alarm, Apr 1982 .....	44	May
Modifying the JVC 3040 UKC TV, Apr 1982 ..	23	Sept
Morse Show, July 1982 .....	22	Nov
Overvoltage Trip—November, Circuit Ideas		
Supplement (page six) .....	33	Dec
Reminiscences — 2, Sept 1982 .....	22	Nov
RF Noise Bridge, Jan 1982 .....	41	Mar
Special Offer—DFC4 Kit, Feb 1982 .....	41	Mar
Valves Used in the Early Days, Feb 1982 .....	57	Apr
Where are You? Where am I?, Jan 1982 .....	23	Sept

## NEW BOOKS

Amateur Television Handbook <i>by Trevor Brown G8CJS and John Wood G3YQC</i> .....	50	July
An Introduction to Radio DXing <i>by R. A. Penfold</i> .....	50	Jan
Basic Electricity .....	42	May
Parts 1 & 3		
Early Wireless <i>by Anthony Constable</i> .....	50	July
Electronic Components & Systems <i>by W. H. Dennis</i> .....	37	Sept
Electronic Projects — 4, Test Gear Projects ...	42	May
Electronic Projects using Solar Cells <i>by Owen Bishop</i> .....	50	Jan
Electronics Simplified—Crystal Set Construction <i>by F. A. Wilson</i> .....	37	Sept
Electronic Test Equipment Construction <i>by F. G. Rayer</i> .....	50	Jan
Electronic Test Equipment, Operation and Applications .....	39	Nov
Electronics Build and Learn <i>by R. A. Penfold</i> ...	42	May
Electronics for the Beginner .....	42	May
Electronics for the Service Engineer—Part 2 <i>by Ian R. Sinclair</i> .....	50	July
Elements of Electronics <i>by F. A. Wilson</i> .....	Books 4 & 5	50
Jan		
Guide to World-wide Television Test Cards <i>by Keith Hamer and Gary Smith</i> .....	50	July
How to Identify Unmarked IC's <i>by K. H. Recorr</i> .....	37	Sept
IC Projects for Beginners <i>by F. G. Rayer</i> .....	37	Sept
Long Distance Television Reception (TV-DX) for the Enthusiast <i>by Roger W. Bunney</i> .....	42	May
Mini-matrix Board Projects <i>by R. A. Penfold</i> ...	37	Sept
Oscilloscopes—How to use them How they work <i>by Ian Hickman</i> .....	42	May
Power Supply Projects <i>by R. A. Penfold</i> .....	50	Jan
Radio Handbook, 22nd Edition <i>by William I. Orr W6SAI</i> .....	39	Nov
Radio and Television Servicing, 1980–1981 models <i>by R. N. Wainwright</i> .....	42	May
Semiconductor Data Book, 11th Edition <i>by A. M. Ball</i> .....	42	May
Servicing Radio Hi-Fi and TV Equipment <i>by G. J. King</i> .....	39	Nov
The Gunnplexer Cookbook <i>by Rob Richardson W4UCH</i> .....	42	May
The Theory & Servicing of AM, FM & FM Stereo Receivers <i>by Clarence R. Green &amp; Robert M. Bourque</i> .....	50	July
The UK CB Handbook <i>by Alan C. Ainslie</i> .....	37	Sept
The World's Radio Broadcasting Stations and European FM/TV <i>by C. J. Both</i> .....	42	May
Transistors Questions and Answers, 4th Edition <i>by Ian R. Sinclair</i> .....	42	May
Two-metre Antenna Handbook <i>by F. C. Judd G2BCX</i> .....	42	May
Video Questions & Answers <i>by Steve Money</i> ..	37	Sept

Bi-Pak Semiconductors—Economy Stereo f.m. Tuner .....	39	Mar
Black Star—Low-cost d.m.m. ....	33	June
Bredhurst Electronics—Economy 10m Dipole	49	Jan
C-Brit Ltd.—CB Mobile Antenna .....	49	Jan
Carlton Nichol & Co. Ltd.—PCB Holders .....	21	Feb
Centemp—Inexpensive d.m.m. ....	20	Feb
Chable Electronics—Data Display Monitor ...	48	Aug
Chris Moulding Radio Services—		
British HF Transceiver .....	49	Dec
Chris Moulding Radio Services—		
144MHz Masthead Pre-amplifier .....	18	Nov
CQ Centre—HB9CV 70cm Antenna .....	38	Sept
Datong Electronics—Broadband Pre-amplifier	48	Oct
Dorman Smith Instrumentation—Electronic		
Tester/Calculator .....	48	Oct
Electronic Brokers Ltd.—Portable 20MHz		
Oscilloscope .....	49	Jan
Evets Communications Ltd.—Speech		
Processor .....	74	Apr
Fisher Karpark Industries Ltd.—Power		
Supplies .....	21	Feb
Frémark Electronics—CB Antenna Tuner .....	38	Sept
Frémark Electronics—Crowbar Overvoltage		
Protection Module .....	38	Mar
Frémark Electronics—Power Supply Unit .....	31	July
GVB Electronics—Morse Keyer with Memory	74	Apr
Hitachi—Easy-fit Car Antenna .....	39	Sept
Hitachi—VKC600 Colour Video Camera .....	33	June
ICS Electronics—AMTOR Terminal Unit .....	48	Dec
ICS Electronics—Morse/RTTY Reader .....	39	Sept
LAR Modules—Antenna Noise Bridge .....	31	July
Lascar Electronics—Digital Capacitance Meter	39	Sept
Lowe Electronics—R-600, TR-2500 and		
TS-780 Trio Transceivers .....	20	Feb
Lowe Electronics—TR-9130 Allmode 2m		
Transceiver .....	45	May
Microwave Modules—Advanced Morse		
Trainer .....	48	Jan
Microwave Modules—70cm Linear Amplifier		
and ATV Transmitting System .....	31	July
Microwave Modules—ASCII to Morse		
Converter .....	48	Jan
MuTek Ltd.—2m Pre-amplifier .....	48	Jan
OK Machine and Tool—Soldering Irons .....	19	Nov
OK Machine and Tool—Useful Cases .....	47	May
RFI Shielding Ltd.—Conductive Acrylic Paint .	45	May
Silicon Speech Systems—Speaking Clock .....	49	Jan
SMC Ltd.—Antenna Rotators .....	48	Jan
SMC Ltd.—New Antenna Products .....	45	May
SMC Ltd.—Oscar One CB Transceiver .....	39	Mar
Solent Electronics (Gosport) Ltd.—		
144MHz Linear Amplifiers .....	38	Sept
South West Aerial Systems—UOSAT		
Antennas .....	38	Mar
South West Aerial Systems—4GHz		
Satellite TV Receiving Package .....	49	Dec
Tandy—Base Station Microphone .....	48	Aug
TE Controls Ltd.—Lamp Magnifier .....	38	Sept
Tek Marketing—Digital Mains Timer .....	19	Nov
Telecomms—In-line TVI Suppressors .....	48	Dec
Thanet Electronics—IC-4E and IC-M12		
Transceivers .....	21	Feb
Thanet Electronics—Economy Pre-amp		
Microphone .....	48	Jan
Timstep Electronics—Digital Frequency		
Counter .....	38	Mar
Traveller International Ltd.—Versatile Mains		
Plug .....	39	Sept
Waters and Stanton—PCS-300 2m Hand-held	33	June
West Hyde Developments—Mains Plug Case	18	Nov

## PRODUCTION LINES by Alan Martin

AKD—In-line Filters & Signal Boosters .....	47	May
Allweld Engineering—Window Aperture		
Antenna Mount .....	20	Feb
Allweld Engineering—Antenna Swing Post		
Assembly .....	18	Nov
Ambit International—Tuning Capacitor .....	48	Aug
Armon Electronics—Low-cost d.m.m.s. ....	48	Oct
Barrie Electronics—Toroidal Transformers .....	39	Mar
BICC-Vero Packaging—New Wiring System ..	48	Aug

## MISCELLANEOUS

Benny .....	22 June, 35 July, 21 Aug, 37 Sept, 80 Oct, 17 Nov, 28 Dec
News—News—News .....	36 Jan, 40 Feb, 22 Mar, 40 Apr, 48 May, 25 June, 40 July, 41 Aug, 52 Sept, 62 Oct, 30 Nov, 39 Dec
Obituaries	
Bill Corsham G2UV .....	40 Apr
Peter Metalli .....	30 Nov
T. Graham Farish .....	50 Jan
Out of Thin Air .....	38 Jan, 19 July, 43 Aug, 21 Oct, (page 8 of Supplement) Nov, 74 Dec
PW RUIS .....	20 May, 18 June, 18 July, 18 Aug, 18 Sept, 20 Oct, 20 Nov, 22 Dec
Readers' Letters .....	48 Mar, 21 May, 74 June, 51 July, 23 Sept, 44 & 56 Oct, 17 Dec
Swap Shop .....	36 June, 74 July, 59 & 75 Aug, 72 Sept, 24 Oct, 51 Nov, 32 Dec
Things People Say .....	55 Mar, 44 May, 50 & 60 July, 53 Aug, 52 Dec

## SHOW REPORTS

Tokyo Amateur Radio Exhibition .....	34 Sept
--------------------------------------	---------

## SUPPLEMENT etc

### Index

Volume 58 Jan-Dec 1982 .....	71 Dec
------------------------------	--------

### Special Features

European QRA (QTH) Locator and Amateur Callsign Prefix Maps .....	Mar
--	-----

World Amateur Radio Callsign Prefix Map .....	May
It all began with F. J. Camm—Golden Jubilee Special .....	Oct
Circuit Ideas .....	Nov
Kindly Note 33	Dec
Computing for the Radio Amateur .....	Dec
Competition—Win a Sinclair ZX Spectrum Computer .....	Dec

### Special Offers

Timestep DFC4 Frequency Meter Kit .....	45 Feb
Kindly Note 41	Mar
Timestep FM4 Tuner .....	57 Oct
Set of four tweezers .....	37 Apr
Steinel Master-Check Probe .....	54 Aug
Sinclair ZX81 Home Computer .....	Dec

**PLEASE MENTION  
PRACTICAL WIRELESS  
WHEN REPLYING  
TO ADVERTISERS**

£1.25

**OUT OF THIN AIR...**  
A Guide to Aerial Theory,  
Design and Propagation

**NOW BACK IN PRINT!**

publication

Aerials and aerial accessories are very definitely among the most popular topics covered in *Practical Wireless*. In response to requests from readers, we've reprinted a selection of articles from the past three years, plus two new features—one by Ron Ham on v.h.f. propagation, the other describing the "Ultra-Slim Jim", a new version of that most popular 2-metre aerial design by Fred Judd.

*Out of Thin Air* has 80 pages, 295 × 216mm, and is available from Post Sales Department, IPC Magazines Ltd., Lavington House, 25 Lavington Street, London SE1 0PF, price £1.50 including postage and packing to UK addresses, or £1.80 by surface mail overseas. Please ensure that your name and address are clearly legible.

### OUT OF THIN AIR

Please send your order and remittance to:

**IPC Magazines Ltd., Post Sales Department,  
Lavington House, 25 Lavington Street,  
London SE1 0PF**

Please send me.....copies at £1.50 each to include postage and packing (£1.80 surface mail overseas)

I enclose P.O./Cheque No.....Value .....

UK remittances must be by crossed postal order or cheque (name and address on back please) and made payable to IPC MAGAZINES LTD

**NAME** .....

(BLOCK LETTERS)

**ADDRESS** .....

(BLOCK LETTERS)

.....

.....

.....

..... Post Code .....

Remittances with overseas orders must be sufficient to cover despatch by sea or air mail as required. Payable by International Money Order only

Company registered in England. Regd. No. 53626

A subsidiary of Reed International Limited

— Cut round dotted line —

tures, is put in a nutshell and without doubt is easy for the TV buff to understand.

For the enthusiast who just uses equipment, the sections on Data Transmission, Closed Circuit TV and Video Recording should be of great interest and the Bands IV and V DXer may well find the pages devoted to antennas and propagation and the use of a test card to adjust receivers, of great value. To sum up I would say that this book is good value at £4.35 (soft cover) and is an important key to the better understanding of more specific technical literature.

## Station Reports

Further to the use of the word *Tagesthemen*, which I mentioned in our October issue, came two replies, the first from **John Coulter**, Winchester, who said "Tagesthemen means 'topics of the day'" and the second from **Richard Hunt**, Tadcaster, who explains. "The 'FIRST PROGRAMME' of German TV, ARD has three news bulletins nightly. The first two, usually about 1615 and 2000CET respectively, are titled 'Tagesschau' and the third bulletin, around 2230CET, is titled 'Tagesthemen'



Fig. 13: E8A8HK Peter Lincoln



Fig. 14: SSTV from Norway Peter Lincoln

and lasts about half an hour with more in-depth coverage than the other two which last some 15 minutes". Richard also told me that British TV programming times are more rigid than German, so the times he quotes may vary, by design, up to three-quarters of an hour per day. My thanks to John and Richard for their trouble, such information is valuable to many readers.

"I noticed a strange phenomenon in 1982", writes Major Rana Roy, Bikaner,

India, "Whenever it was bright, sunny and hot, I received TVDX signals, but when it rained there were no signals. However, the same was not true this year". An interesting observation Rana, no doubt you will do another comparison next year and let us know the result.

Can anyone help television specialist Ron Weller with a manual or any information for a 1950s Telequipment Service, if so, drop him a line at 203, Tarring Road, Worthing, Sussex.

# Swap Spot

Have Alba, model CB H2, 40-channel hand held f.m. CB transceiver. Would exchange for a Sinclair ZX81. Tel: 021-356 6454 (Birmingham). T431

Have Yaesu FRG-7700M receiver, memories version, c.w., matching tuner, v.h.f. converter model E and active antenna unit, all as new. Would exchange for modern radio/music centre or video recorder to equivalent value. Details in writing please. B. Kennerford, 2 Mill Lane, Shoreham-by-Sea, W. Sussex BN4 5AB. T436

Have ZX Spectrum computer 48K. Would exchange for 144MHz 10W in 100W out amplifier with r.f. switched pre-amp—must be working. Tel: Bristol 550596, ask for G6MHB or leave message and telephone number. T437

Have electric bass guitar, with case, leads etc. Also Tandy four channel 144MHz scanner. Would exchange for MMT432/28 transverter, 144MHz linear + p.s.u. (10W input) or MMK1296/144 receive converter/pre-amp, w.h.y. A.G. Robson GM8YIK, 38 Glebe Park, Duns, Berwickshire. T453

Have Nato R-444 v.h.f. search receiver with tuning units 36MHz-12GHz, spectrum analyser, Marconi RCI bridge, 35mm film viewdata, RTTY converter using an oscilloscope, signal generators covering 10Hz-4GHz. Would exchange all for receiver 500kHz-30MHz. Bob Wright, 249 Sandy Lane, Hindley, Wigan, Lancs. Tel: 55948. T455

Have Datong D70 Morse tutor. Would exchange for 144MHz linear 10W input or Fairing for Yamaha 250cc motorcycle. G8XCL (NOT QTHR) Tel: Lydd (Kent) 20954. T462

Have FRV-7700B converter to work with FRG-7700 or any general coverage receiver. Covers 118-135MHz, airband, 50MHz

band and 140-150MHz. Would exchange for 432 or 1296MHz TV transmitter or w.h.y. Tel: 0942 601216 evenings (Leigh). T471

Have Skyleader 35MHz f.m. radio control outfit plus 3 model engine kits, also Super 8 sound projector, two cameras, one Super 8 and one Standard 8. Would exchange for Kenwood TR2500 or similar 144MHz handheld with NiCads and charger. Tel: 074 570 469 (Clwyd) evenings only. T480

## PW "SWAP SPOT"

Got a camera, want a receiver? Got a v.h.f. rig, want some h.f. gear to go with your new G4? In fact, have you got anything to trade radio-wise?

If so, why not advertise it FREE in our new feature SWAP SPOT. Send details, including what equipment you're looking for, to "SWAP SPOT", *Practical Wireless*, Westover House, West Quay Road, Poole, Dorset BH15 1JG, for inclusion in the first available issue of the magazine.

A FEW SIMPLE RULES: Your ad. should follow the format of those appearing above; it must be typed or written in block letters; it must be not more than 40 words long including name and address/telephone number. Swaps only—no items for sale—and one of the items MUST be radio related. Adverts for ILLEGAL CB equipment will not be accepted.

# Setting up a station?

## \* TRIO \*

Trio have just introduced some wonderful new models. There's the TW 4000A, the two-in-one mobile. It combines 70cms and 2m in one box. There are far too many features to describe here so why not come in and try it for yourself?

For those who would prefer to have two separate radios, how about the new super slim mobiles – the TM 201A and the TM 401A. Both are attractively styled with a host of features that would make a trip to see them well worth the effort.

We have these models in stock and would be more than pleased to demonstrate them to you.

Trio have also just introduced a superb new range of accessories. We can now supply Trio SWR bridges, power meters, mobile microphones, headphones, microphone adaptors etc. etc. The entire range has the Trio stamp of quality.

## Consult the professionals

You'll find all you need at Photo Acoustics. We can offer help and advice, the chance to try out the gear and financial facilities too. We offer Creditcharge Instant Finance and accept Access and Barclaycard. Part exchange welcome.

Four minutes from the M1 Exit Junc. 14. Head for the High St. Newport Pagnell. We're at No. 58. Parking at rear, opposite, or round the corner in Silver St.

COME AND SEE US: Derek G3TGE, Kerry G61ZF, Roy G3TLE  
or phone 0908 610625

## \* SPECIAL OFFERS \*

TR 9130 and 9 Ele Tonna ..... £433  
Buy either a TS 930S or a TS 830S from us and we will give you FREE an ergonomically designed and custom built equipment desk worth £69.95.

## \* ANTENNAS \*

JUST ARRIVED! Two superb new antennas from Jaybeam. TB1 for 10, 15 and 20 metres. This new rotary dipole has just three settings, Broadband, CW Only and Phone Only, with an extremely low SWR ONLY £69

TB2 A two element tribander for 10, 15 and 20 metres £126.50  
AVAILABLE SOON – Conversion kits to convert a dipole to a 2-ele, a dipole to a 3-ele and a 2-ele to a 3-ele.

We also always have available the full range of TONNA and HALBAR antennas.

We also stock Yaesu and Icom equipment, including the new IC 217E, and we are always pleased to demonstrate them to you. Many accessories always available, including the unrivalled range of WELZ meters. Pop in and see us

## Photo Acoustics Ltd. ● OF NEWPORT PAGNELL ●



Prices subject to alteration without notice.

Ex-Gov. 27ft telescopic aerial close to 5ft. Good condition, complete with all base & fittings **£45**. P&P paid. Callers welcome **£25**.

Pye Pocketfone Nightcall for PF1/TX/RX. New boxed **£17.00**.

Whip aerial Ex-Gov. 4ft collapsible **£1.00**.

Aluminium masts 4ft x 2in dia poles. Height 50ft, push in, complete in bags. Ex-Gov. stakes, ropes, base. Good condition **£45.00**. Callers **£35.00**.

Crystals HC6U Ex. Equip. 5.000 mc/s, 7.000 mc/s, 8.000 mc/s, 9.000 mc/s. Also Glass Crystal 100 Kc/s, to fit B7G base. All at **£2** p&p paid.

Telephones – Type 706 good condition **£5** p&p paid.

Small 230V fans, 4 in. x 2½ in. 2,500 r.p.m. **£4.50** p&p paid.

Pye Pocketfone PF1, battery charger, 12 way with meter **£10** p&p paid.

We have also for sale the following items which are too numerous to advertise. Callers only, valves, transformers, tuning units, receivers, bases, wave-guide, scopes, plugs, sockets, power units, capacitors, aerials, headsets, cable, signal generators, BC221.

### Opening times:

Monday-Friday 8.30am-5.00pm, Saturday 8.30am-12am

Please allow 14 days for delivery.

**A. H. THACKER & SONS LTD**  
HIGH STREET, CHESLYN HAY  
NEAR WALSALL, STAFFS.

## ANTENNES TONNA (F9FT)

<b>50MHz</b>		<b>YOUR NUMBER ONE CHOICE FOR 6m, 2m, 70, 24 &amp; 23cm ANTENNAS</b>
5 element†	<b>£34.30(a)</b>	<b>1250MHz OR 1296MHz</b>
<b>144MHz</b>		23 element† <b>£25.90(b)</b>
4 element	<b>£14.95(a)</b>	4 x 23 ele antennas – power splitter – stacking frame <b>£140.00(a)</b>
9 element fixed	<b>£17.71(a)</b>	<b>Telescopic Portable Masts</b>
9 element portable	<b>£20.00(a)</b>	4 x 1m <b>£18.68(a)</b> 3 x 2m <b>£21.85(a)</b>
9 element crossed†	<b>£32.43(a)</b>	4 x 2m <b>£33.20(a)</b>
13 element portable†	<b>£31.05(a)</b>	<b>ANDREW HELIAX LDF4-50 COAXIAL CABLE</b>
<b>NEW 17 element fixed</b>	<b>£37.66(a)</b>	Attenuation per 100ft. 144MHz-0.8dB
<b>435MHz</b>		435MHz-1.6dB. 1296MHz-2.9dB.
19 element	<b>£20.70(a)</b>	<b>£3.20 per metre (a)</b> , 'N' Type connectors for LDF4-50 male or female
19 element crossed†	<b>£34.27(a)</b>	<b>£19.35</b>
21 element 432MHz	<b>£29.67(a)</b>	<b>MICROWAVE MODULES – ROTATORS – COAXIAL CABLES ETC.</b>
21 element ATV	<b>£29.67(a)</b>	<b>POWER SPLITTERS AVAILABLE FOR 2 OR 4 ANTENNAS</b>
<b>144/435MHz</b>		
Oscar Special		
9 & 19 element†	<b>£34.27(a)</b>	

†Denotes 50Ω ONLY – all others 50Ω OR 75Ω impedance

PLEASE ADD CARRIAGE AS SHOWN (a) £4.00. (b) £1.80. ALL PRICES INCLUDE VAT AT 15%

Terms: Cash with order, ACCESS – VISA – telephone your card number.

FOR FULL SPECIFICATION OF OUR RANGE SEND 30p FOR CATALOGUE  
Callers welcome, but by telephone appointment only please. Goods by return.

**RANDOM ELECTRONICS (P)**

12 Conduit Road, Abingdon, Oxon OX14 1DB. Tel: (0235) 23080 (24 hours)

## SOFTRICKS

Softricks presents the 48K DX Spectrum Morse tutor. Menu driven large vocabulary. 30 speeds. 35 preselected tones plus morse game. £5 inc. p&p.  
Also 48K data-log totally user, defined user friendly with 32K date storage. £5 inc. p&p.

**R. GIERELO (GM6 RLE)**

**1 Rowan Place, Dundee, DD3 0PH.**

Trade enquiries welcome. We are also looking for original debugged programs for most micros.

**Phone Ricky 0382 88232 anytime.**