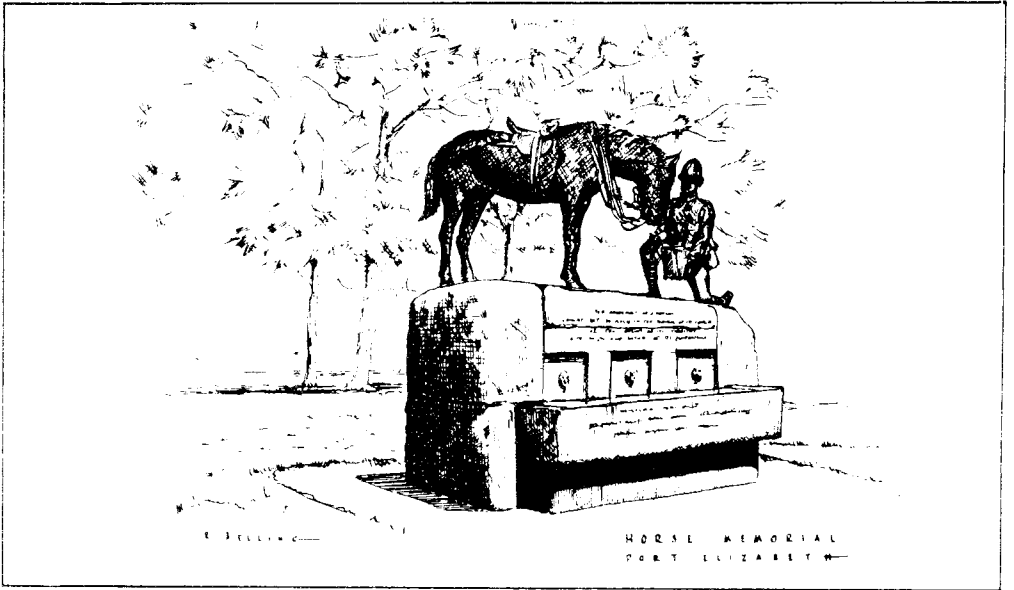




# Q S X P E



THIS NEWSLETTER IS PUBLISHED BY THE  
PORT ELIZABETH BRANCH OF THE SOUTH  
AFRICAN RADIO LEAGUE.

P.O. BOX 10402  
LINTON GRANGE  
6015



# Q S X P E



## PORT ELIZABETH BRANCH

### NOTICE OF MONTHLY MEETING

MEMBERS ARE REMINDED THAT THE MONTHLY GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE, WILL BE HELD AT ST. MARTIN'S CHURCH, GREAT WEST WAY, KAPEGA, ON FRIDAY 20TH FEBRUARY, 1981.

### COMMITTEE

<u>CHAIRMAN:</u>	BRIAN HELLER ZS2AB	303498
<u>VICE CHAIRMAN:</u>	LIONEL COOMBE-DAVIS ZS2DD	321770
<u>SECRETARY:</u>	MARGE HELLER ZS2OB	303498
<u>TREASURER:</u>	LYNN CROTHALL ZS2MM	338607
<u>SPECIAL EVENTS AND SOCIAL ACTIVITIES:</u>	OWEN WHEELER ZS2HZ	381310
<u>AWARDS:</u>	BILL HODGES ZS2-157	512580
<u>EDITOR QSX-PE:</u>	MARGE HELLER ZS2OB	303498
<u>MEMBERS:</u>	DICK SCHONBORN ZS2RS	322111
	BEAVAN GWILT ZS2RL	306968
<u>LIBRARIAN</u>	COLIN ASHWELL ZS2AO	312471

### BULLETIN ROSTER



	40 METRES	2 METRES	80 METRES
22 FEB	ZS2RL MIDDLE DOWN	ZS2MM	ZS2PL
1 MARCH	ZS2RS MIDDLE UP	ZS2AB	ZS2PL
8 MARCH	ZS2AB TOP DOWN	ZS2RS	ZS2PL
15 MARCH	ZS2DD BOTTOM UP	ZS2HZ	ZS2PL
22 MARCH	ZS2OB MIDDLE DOWN	ZS2PL	ZS2PL

### SUNDAY BULLETINS

HF	40M - 7095KHZ (LOWER SIDEBAND)	BRANCH FREQUENCIES
	90M - 3640KHZ (LOWER SIDEBAND)	P.E. REPEATER
VHF	145.700 AND 145.75MHZ	GRAHAMSTOWN
		LADY'S SLIPPER
		CUCKSCOMB
		RTTY MAIL BOX
		VHF BEACON
		145,05/65
		145,15/75
		145,10/70
		145,00/60
		145,35
		144,910MHZ

WE LIVE BEING YOUR BRANCH

MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT ST. MARTIN'S CHURCH, KABEGA PARK, PORT ELIZABETH ON FRIDAY 16TH JANUARY, 1987.

PRESENT: 28 MEMBERS AND VISITORS.

APOLOGIES: ZS2MJ, JJ, HB, MG, RG AND ZR2EY.

THE CHAIRMAN WELCOMED ALL TO THE FIRST MEETING OF 1987 AND WISHED THEM A HAPPY AND PROSPEROUS YEAR. A SPECIAL WELCOME WAS EXTENDED TO WINNIE BROWNE, STEVE ZS2AAB AND FINDLAY AUSTIN.

MINUTES: THE MINUTES OF THE GENERAL MEETING HELD 21ST NOVEMBER WERE ADOPTED.

GENERAL: THE CHAIRMAN SAID THAT THE COMMITTEE MEETING HAD JUST BEEN HELD AND IT WAS DECIDED THAT IN VIEW OF THE FACT THAT THE COMMITTEE EXISTED TO DEAL WITH THE DAY-TO-DAY RUNNING OF THE BRANCH, THE FORMAT OF THE GENERAL MEETING WOULD BE CHANGED TO CONCENTRATE MORE ON THE SOCIAL SIDE. AS MUCH OF THE BUSINESS SIDE WOULD BE DISPENSED WITH AS POSSIBLE, BUT SHOULD THERE BE ANYTHING OF IMPORTANCE REQUIRING THE CONSENT OR OPINION OF THE ENTIRE BRANCH, THIS WOULD OF COURSE BE DEALT WITH AT THE MEETING, SUCH AS THE DISCUSSION OF THE A.G.M. MOTIONS.

THE FORMAT WOULD BE AS FOLLOWS:

(1) ANY NECESSARY BUSINESS. (2) 30 MINUTES BREAK FOR RAG CHEW AND LIBRARY. (3) TEA BREAK AND (4) 'ENTERTAINMENT' FOR THE EVENING. THE MEMBERS OPINION WAS ASKED ON THIS. TREVOR ZS2AE SUGGESTED THAT IF THE SPEAKER FOR THE EVENING WAS NOT AN AMATEUR, THEN POSSIBLY THE TALK SHOULD BE BEFORE TEA IN CASE THEY WISHED TO LEAVE EARLY. MEMBERS SHOULD STAY FOR THE TALK OR DEMONSTRATION WHERE POSSIBLE, AS IT WAS NOT VERY GOOD MANNERS TO HAVE EMPTY SEATS FOR THE SPEAKER. THE MEMBERS THOUGHT THE NEW FORMAT WAS A GOOD IDEA.

BRIAN ZS2AB SAID HE WOULD BE RUNNING TECHNICAL CLASSES FROM FEBRUARY AND IF ANYONE KNEW OF A PROSPECTIVE STUDENT, TO PLEASE CONTACT HIM AS SOON AS POSSIBLE.

THE BRANCH AND INDIVIDUAL MEMBERS HAD DONE WELL IN THE RECENT S.A.R.L. CONTESTS AND THEY WERE EXTENDED CONGRATULATIONS.

THE PROBLEM EXPERIENCED BY THE PRINTERS OF QSX WITH THE SUPPLY OF CHEMICALS WAS NOW OVER AND QSX WAS ONCE AGAIN BACK TO ITS HIGH STANDARD. MANY THANKS TO THE PRINTERS. ROBBIE ZS2RB EXTENDED THANKS TO THE EDITOR FOR AN INTERESTING EDITION.

AS WITH LAST YEAR, IT HAD BEEN DECIDED TO HAVE OUR "CHRISTMAS PARTY" IN FEBRUARY AND THIS WOULD TAKE THE FORM OF A TRAVELLING SUPPER ON VALENTINE'S DAY. WE WOULD BE TRAVELLING BY BUS, STARTING AT THE 0TH OF COLIN ZS2AD, GOING TO LYNN ZS2MM FOR THE FISH COURSE, TO OWEN ZS2HZ FOR THE MAIN COURSE AND BACK TO COLIN FOR THE DESSERT AND COFFEE. THE COST WOULD BE R10 PER PERSON.

MIKE ROBERTSON HAD VERY KINDLY OFFERED TO HAVE CARDS PRINTED WITH THE BRANCH CALLSIGN AND THE ARTWORK WAS NOW COMPLETED AND HANDED OVER. JOHNNY ZS2DO HAD DONATED SOME NOTE PADS FOR THE USE OF MEMBERS AND ALSO SHOWED SOME COMPONENT BOXES WHICH WERE FOR SALE. ALLAN ZS2AJ THANKED THE BRANCH FOR THE NICE SURPRISE RECEIVED IN THE POSTBOX IN THE FORM OF AN ANNIVERSARY CARD.

NO LICENCE RENEWAL FORMS HAD BEEN RECEIVED FROM THE G.P.O.

THE MEETING WAS THEN CLOSED AND TEA WAS TAKEN. THEREAFTER A DEMONSTRATION OF HAM PROGRAMMES ON VARIOUS COMPUTERS WAS HELD. BRIAN SHOWED THE MAILBOX

PROGRAMME AND COLIN SHOWED VARIOUS HAM PROGRAMMES INCLUDING SSTV AND A TALK GIVEN BY BRIAN ON A RADIO ALARM SYSTEM EVOKED MUCH INTEREST.

SGD: B.A. WELLER ZS2AB  
CHAIRMAN

SGD: M.T. WELLER ZS2OB  
SECRETARY.

## OUR UNLIMITED POSSIBILITIES.

TAKEN FROM HQ BULLETIN 18TH JANUARY 1987.

A LETTER IN THE CORRESPONDENCE PAGE OF A RECENT QST MAGAZINE WRITTEN BY K2UVV OF NEW YORK READS AS FOLLOWS:

"I IMPLORE ALL HAMS TO REMEMBER THAT THIS IS A HOBBY. THERE ARE ENOUGH VARIED AVENUES OF EXPLORATION AVAILABLE TO KEEP US ALL INTERESTED AND AT PEACE WITH OURSELVES AND OUR FELLOW AMATEURS.

THERE IS SIMPLY NO NEED OR EXCUSE FOR BOORISH BEHAVIOUR ON OUR BANDS. IF SOME AMONGST US HAVE BECOME DISENCHANTED, I CAN'T HELP BUT THINK THEY HAVE ALLOWED THEMSELVES TO BECOME LAZY AND UNIMAGINATIVE.

SO 10 METRES IS OFTEN SILENT AND 20 METRES IS NO LONGER OPEN WORLDWIDE TWENTY-FOUR HOURS A DAY. HOW ABOUT TRYING THE LOWER BANDS, OR 10MHZ? CAN'T SEEM TO FIT A 160 METRE ANTENNA ON YOUR 30 X 80 LOT? DON'T GIVE UP; RISE TO THE CHALLENGE AS OTHERS HAVE DONE. PERHAPS YOU WILL COME UP WITH A DESIGN WHICH WILL BENEFIT THOUSANDS OF THOSE SIMILARLY SITUATED. WHAT ABOUT SATELLITE OR PACKET OR RTTY, ETC? THE POSSIBILITIES ARE VIRTUALLY LIMITLESS.

ALONG THIS LINE I STRESS THE NEED TO SUPPORT THE LEAGUE AS OUR VOICE IN THE WILDERNESS. IF YOU DON'T LIKE SOMETHING, MAKE YOUR OPINION KNOWN - STAND UP AND BE COUNTED. REMEMBER: THE LEAGUE DOESN'T JUST REPRESENT RADIO AMATEURS ON EACH COAST. THERE IS A VAST AND WONDERFUL COUNTRY IN BETWEEN AND OPINIONS AS DIVERSE AS OUR CITIZENRY. IT IS THIS DIVERSITY, AND OUR ABILITY TO RECOGNISE AND CONSTRUCTIVELY UTILIZE THIS MULTI-FACETED RICHNESS, WHICH FORMS THE BEDROCK OF AMERICA AND, IN TURN, OUR HOBBY.

IF YOU REMAIN IN DISGRUNTLED SILENCE, YOU HAVE YOURSELF TO BLAME FOR YOUR UNHAPPINESS."

I THINK YOU WILL AGREE THAT EVERYTHING MENTIONED IN THIS LETTER APPLIES TO RADIO AMATEURS IN SOUTH AFRICA. WHY DON'T YOU STAND UP AND BE COUNTED AND SUPPORT YOUR LEAGUE.



### Instant Printing

9 ST. PATRICK'S ROAD  
PORT ELIZABETH  
6001

TELEPHONE 22614



**FOR ALL YOUR COMMERCIAL PRINTING REQUIREMENTS**

**TRY US FOR YOUR OSL CARDS!**

## THIS AND THAT

**CONGRATULATIONS:** TO THE BRANCH FOR COMING FOURTH IN THE RECENT FIELD DAY CONTEST. LOOKS LIKE WE'LL HAVE TO PULL UP OUR SOCKS IF WE WANT TO BEAT THOSE YL'S. MANY THANKS TO ALL THOSE WHO ASSISTED IN ANY WAY.

## RECIPROCAL LICENSING WITH THE UNITED KINGDOM

THE FOLLOWING INFORMATION IS FOR THOSE SOUTH AFRICAN RADIO AMATEURS WHO WOULD LIKE TO BE LICENSED WHILE THEY ARE ON HOLIDAY IN THE U.K., SO THAT THEY MAY TRANSMIT FROM THERE. THIS IS THE PROCEDURE TO FOLLOW: WRITE TO THE BRITISH AUTHORITIES AT LEAST THREE MONTHS BEFORE YOUR DEPARTURE, INCLUDING COPIES OF THE NECESSARY DOCUMENTS TO PROVE THAT YOU ARE A LICENSED HAM IN SOUTH AFRICA.

ADDRESS: RADIO AMATEUR LICENSING UNIT, FA3.5, POST OFFICE HQ, CHETWYND HOUSE, CHESTERFIELD, DERBYSHIRE, F49-1-PF, ENGLAND.

FROM HQ. BULLETIN 25 JANUARY 1987.

**H.Q. BOOKSHOP:** H.Q. HAS BEEN ADVISED THAT THE 1987 ARRL HANDBOOK HAS BEEN SHIPPED. THIS IS THE MOST COMPREHENSIVE EDITION SINCE THE HANDBOOK WAS FIRST PUBLISHED IN 1926. THE 64TH EDITION IS PACKED WITH INFORMATION ON DIGITAL COMMUNICATION MODES AS WELL AS POWER SUPPLIES AND AMPLIFIERS. READY-TO-USE ETCHING PATTERNS ARE PROVIDED FOR MANY PROJECTS. THIS HANDBOOK BELONGS IN EVERY HAM SHACK. CONTACT H.Q. FOR DETAILS REGARDING PRICE AND ARRIVAL DATE.

### FOR SALE:

KW 77 HAM BANDS ONLY RECEIVER, TRIPLE CONVERSION. WITH MANUAL. SOME SERVICING NEEDED.

HYGAIN 2BDQ TRAP ANTENNA FOR 40 AND 80 METERS, ALUWELD WIRE. NEEDS BALUN AND COAX FEEDER.

MAKE OFFERS TO BUCK ZS2RM PHONE 041-732207.

### P - M - P!

TOM CLARK W3IWI IS STILL NOW KNOWN AS THE FIRST AMATEUR TO SUCCESSFULLY BOUNCE PACKETS FROM PACKET RADIO OFF THE MOON. HE USED 140 WATTS ON 432MHZ AND A VERY HIGH GAIN ANTENNA. TOM RECEIVED HIS OWN PACKETS BACK AGAIN AND THERE WAS NO TWO-WAY CONTACT MADE. (PERHAPS THE MOON-MEN HAVEN'T HEARD OF IT YET!)

### INTERFERENCE PROBLEMS:

THE PROBLEMS OF R.F.I. IN ELECTRONIC APPARATUS IS FAST BECOMING A SERIOUS PROBLEM ALL OVER THE WORLD. RECENTLY, IN SWEDEN, AN AMATEUR WAS ORDERED BY THE GOVERNMENT TO USE ONLY 300 MILLIWATTS ON 80M TO PREVENT INTERFERENCE IN HIS NEIGHBOUR'S VIDEO MACHINE.

### NEW EXAMINATION FORMAT:

WE HAVE RECENTLY BEEN ADVISED THAT THE FORMAT FOR THE POSTMASTER-GENERALS AMATEUR RADIO OPERATORS CERTIFICATE EXAMINATION HAS BEEN CHANGED TO THAT OF MULTIPLE-CHOICE QUESTIONS. THIS SHOULD PROVE HELPFUL TO MANY CANDIDATES. WE WILL SUPPLY MORE DETAILS WHEN THEY BECOME AVAILABLE.

Rain is caused by high pressure areas, cold fronts, warm moist air, a newly washed car and the first day of your holiday.

Success is getting what you want - if the government will let you have it.

## THE ULTIMATE IN SOAPS

PRAY THAT THE ULTIMATE IN TV SOAPS DOESN'T HIT US.

THE oft-voiced complaint that the terrible programmes on television get in the way of the commercials will be aired with renewed force if the latest trend in the U.S.A. catches on.

IT'S THE 30 SECONDS--AN-EPIISODE MINI-SERIES (WHICH THE AMERICANS INSIST ON WRITING "MINISERIES", SO THAT IT SOUNDS LIKE SOME AWFUL NEW CABINET PORTFOLIO).

PACIFIC BELL OUT IN CALIFORNIA IS A PIONEER OF THE GENRE, COMING UP WITH A FULL 12 EPISODES OF "GARLAND AND ME", THE EVERYDAY (FIVE TIMES OR MORE AN EVENING) SAGA OF THE 65-YEAR FRIENDSHIP BETWEEN TWO MEN, NEATLY PACKAGED UP INTO 60 SECONDS OR SO AND EPISODE.

IT "HAS A LITTLE SOMETHING FOR EVERYBODY", REPORTS THE *WALL STREET JOURNAL* - "HUMOUR, ROMANCE, ADVENTURE - PLUS A SALES PITCH FOR THE LOCAL PHONE COMPANY".

THE STORY TELLS IN FLASHBACK THE LIFE STORIES OF LAWRENCE BISHOP AND GARLAND PARKS, NOW IN THE 70S, AS THEY GROW UP ON THE FARM, GOING TO A BARNDANCE AS TEENAGERS AND COMPETING FOR THE FAVOURS OF THE SAME GIRL, MARY ELLEN THOMPKINS.

IN EPISODE THREE, GARLAND STEALS A KISS FROM MARY ELLEN WHEN THE THREE ARE ON A PICNIC; IN EPISODE FOUR, LAWRENCE GETS HIS REVENGE ON GARLAND BY SPIKING HIS SODA POP WITH CASTOR OIL, IN A MOVE CALCULATED TO MAKE HIM RUN AND RUN, JUST LIKE THE COMMERCIAL.

"THE STORY REALLY TAKES OFF WHEN THE CHARACTERS GO TO COLLEGE," SAYS ROBERT BLACK OF THE AD-AGENTS WHICH PUT TOGETHER THE CAMPAIGN. "THE PASSION AND THE ANGER WILL GET STRONGER AS THE CHARACTERS LIVE THROUGH THE DEPRESSION AND WORLD WAR II". NOT TOO STRONG, THOUGH, TO SWAMP THE MESSAGES AT THE END, AS THE OLD BOYS ARE CHATTING ON THE TELEPHONE AND THE VOICE-OVER INTONES "AT PACIFIC BELL WE BELIEVE FRIENDSHIPS THAT DON'T DRIFT AWAY ARE PRETTY SPECIAL".

DON'T TELL THE SABC-TV ABOUT THIS ONE; THEY'LL BE GREEN WITH ENVY. BUT PERHAPS THEY ARE ALREADY WORKING ON IT.

FROM *COMPUTING SA* JANUARY 12 1987.

## STATIC NUISANCE PUT ON THE MAT.

THE HIGH PREVALENCE OF STATIC ELECTRICITY - PARTICULARLY ON THE REEF - HAS CAUSED MALFUNCTIONS OF ELECTRONIC CIRCUITRY AND COMPONENTS IN COMPUTER SYSTEMS.

ELECTROMAGNETIC INTERFERENCE (EMI) WHICH CAN BE CAUSED BY MOVEMENT OF OPERATORS, CAN RESULT IN A TERMINAL SENDING WRONG DATA TO THE MAIN COMPUTER, OR LOSE DATA ALTOGETHER.

MEMORY IN THE MAIN COMPUTER CAN BE ALTERED CAUSING PARITY ERRORS, OR EVEN A LOSS OF PROGRAM WHILE PRINTERS MAY OVERPRINT, GARBLE DATA, OR "RUN WILD".

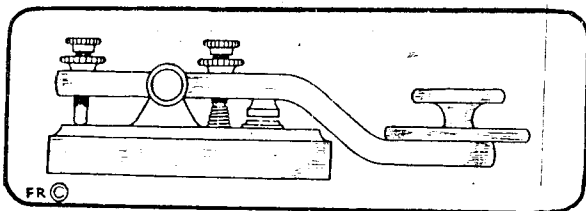
ALTHOUGH STATIC DISCHARGES MAY EACH LAST FOR LESS THAN ONE MILLIONTH OF A SECOND, INTERFERENCE CHARACTERISTICS MAY EASILY BE DETECTED BY SENSITIVE EQUIPMENT.

CHARLES LONG, A SALES EXECUTIVE AT A COMPANY WHICH MARKETS STATIC CONTROL SYSTEMS, SAID THAT ALTHOUGH STATIC WAS MORE PREVALENT DURING WINTER, IT WAS ALSO PRESENT DURING SUMMER AT A LOWER VOLTAGE NOT FELT BY PEOPLE BUT SUFFICIENT TO CAUSE COMPUTER MALFUNCTIONS.

TO COUNTER STATIC AND TO IMPROVE SYSTEM PERFORMANCE, STATIC LEVELS AROUND EQUIPMENT COULD BE CONTROLLED BY INSTALLING CONDUCTIVE MATS WHICH HAVE TO BE WALKED ACROSS BEFORE REACHING COMPUTER EQUIPMENT. THE MATS WERE IN THE PROCESS OF BEING MANUFACTURED IN SOUTH AFRICA.

THE ORIGIN OF  
"WIRELESS  
TELEGRAPHY"

ED MARRINER W6BLZ.



I HAVE ALWAYS BEEN INTERESTED IN THE HISTORICAL BEGINNINGS OF WIRELESS TELEGRAPHY AND MANY TIMES HAVE WONDERED WHEN THE NAME WAS FIRST APPLIED. RESEARCH AT THE LIBRARY REVEALED BEFORE 1898, "WIRELESS TELEGRAPHY" HAD BEEN CALLED "SPACE TELEGRAPHY" OR "HERTZIAN WAVE SIGNALLING". AFTER THAT THE DATE THE NAME "WIRELESS TELEGRAPHY" APPEARED OFTEN. I WAS GETTING CLOSE TO MY PROBLEM AND SCANNED THE PAGES MORE CAREFULLY AND CHANCED UPON A LETTER TO A BRITISH MAGAZINE, *THE ELECTRICIAN* BY A MR. J. MUNRO DATED 1898. THE FOLLOWING IS THE CONTEXT OF THE CORRESPONDENCE BETWEEN THE EDITOR AND MR. J. MUNRO:  
"SIR: "WIRELESS TELEGRAPHY" IS NOT A BAD TECHNICAL TERM, BUT IF A MORE SCIENTIFIC NAME TO BE DESIRABLE WOULD NOT RADIO-TELEGRAPHY OR RAY TELEGRAPHY BE PREFERABLE TO "SPACE TELEGRAPHY" WHICH DR. LODGE EMPLOYS IN HIS INTERESTING LECTURES? PERHAPS SOMEONE WILL SUGGEST A GOOD TERM.  
YOURS, J. MUNRO. JAN 15, 1898"

THE IDEA WAS PRESENTED BUT THE EDITOR DID NOT GET AROUND TO ANSWERING MR. MUNRO'S LETTER UNTIL MAY 13, 1898 WHEN HE HAD THIS TO SAY:  
"ONE OF THE MINOR DIFFICULTIES CONNECTED WITH THE DEVELOPMENT OF THAT FORM OF ELECTRIC TELEGRAPHY IN WHICH THE ENERGY IS PROPAGATED THROUGH NON-CONDUCTING SPACE IS THE CHOICE OF A SUITABLE NAME BY WHICH TO DESIGNATE IT. POPULAR CUSTOM SEEMS TO HAVE FASTENED ON THE TERM "WIRELESS TELEGRAPHY": AND SO EXTENSIVELY HAS THIS NAME BEEN ADOPTED THAT, IN SPITE OF ITS MANIFEST INACCURACY, ITS USE BY THE ELECTRICAL PROFESSION AND PRESS MAY, PERHAPS, BE EXCUSED. IT IS SCARCELY NECESSARY, HOWEVER, TO REMARK THAT IN NONE OF THE SYSTEMS OF SO-CALLED WIRELESS TELEGRAPHY AS YET EXPERIMENTED UPON, ARE WIRES ENTIRELY DISPENSED WITH. WHILE TO THOSE SYSTEMS WHICH DEPEND UPON ELECTRO-MAGNETIC INDUCTION A CONSIDERABLE LENGTH OF EXTENDED WIRE IS ESSENTIAL. BUT THOUGH THIS TERM HAS BEEN GENERICALLY APPLIED TO ALL FORMS OF ELECTRIC SIGNALLY WITHOUT CONNECTING WIRES, IT IS BECOMING MORE PARTICULARLY USED IN CONNECTION WITH SIGNALLING BY MEANS OF HERTZIAN WAVES. FOR THIS LATTER, IT MIGHT HAVE BEEN BETTER, AND IT CERTAINLY WOULD HAVE BEEN MORE IN ACCORD WITH THE SCIENTIFIC CONDITIONS, HAD THE TERM "HERTZIAN TELEGRAPHY" OR WAVE TELEGRAPHY RECEIVED THE SANCTION OF POPULAR USAGE. BUT *VOX POPULI* HAS DECREED OTHERWISE AND IT IS PROBABLE THAT THE UNITED PROTESTS OF SCIENTIFIC PROFESSORS AND THE ELECTRICAL PRESS WOULD AVAIL NOTHING TO ERADICATE AN ALREADY WELL ESTABLISHED CUSTOM.

"IT WERE, INDEED, WELL FOR THE SCIENCE AND PRACTICE OF WIRELESS TELEGRAPHY IF THE NAMING OF IT INVOLVED THE ONLY DIFFICULTY OR EVEN THE MOST SERIOUS ONE. AND IT IS CHIEFLY TO DIRECT ATTENTION TO ONE OR TWO OF THE PRACTICAL DIFFICULTIES INVOLVED THAT WE HAVE TURNED TO THE SUBJECT AT THE PRESENT MOMENT."

THUS WITH THE SUDDEN ADVANCE AND DEVELOPMENT OF WIRELESS TELEGRAPHY DURING THE FOLLOWING YEARS, MAGAZINE ARTICLES BECAME MORE NUMEROUS AND THE NAME "WIRELESS TELEGRAPHY" WITH ITS PUBLICITY BY THE PRESS STUCK AND BECAME COMMON USAGE.

IT SEEMS TO ME IN THE ABSENCE OF THE NAME BEFORE THIS DATE IN MAGAZINES, AND ITS COMMON USAGE AFTERWARDS, THAT THE LETTER SENT INTO THE EDITOR BY MR. J. MUNRO MIGHT HAVE HAD SOMETHING TO DO WITH IT. THE NAME CONTINUED IN USE UNTIL THE WORD "RADIO" BECAME COMMON. STRANGE TO SAY, MR. MUNRO ALSO OFFERED THIS WORD IN THE SAME LETTER BUT IT DID NOT TAKE HOLD WITH THE PUBLIC.

## PERISHABLE IMAGES

IN THE UNITED STATES, THE ENTHUSIASM OVER THE USE AND POSSESSION OF VCR'S SHOWS NO SIGNS OF ABATING. VCR SALES CONTINUE AT PHENOMENAL RATES, BLANK TAPES ARE BEING CONSUMED LIKE MAD AND PRE-RECORDED FILMS ON TAPE ARE BIG BUSINESS, ESPECIALLY STUDIO-DISCOUNTED TITLES IN THE UNDER 30 DOLLAR RANGE, SUCH AS STAR TREK II, BEVERLEY HILLS COP AND PINNOCHIO. YET AMID ALL OF THE NOISE AND EXCITEMENT THERE'S ONE ASPECT OF VIDEO THAT HAS BEEN CURIOUSLY, ONE MIGHT ALMOST SAY INTENTIONALLY, OVERLOOKED; THE USABLE PRODUCTIVE LIFE OF IMAGES STORED ON VIDEO TAPE. IT THEREFORE SEEMS ESPECIALLY IMPORTANT TO ME THAT THIS ISSUE BE BROUGHT TO THE ATTENTION OF VIDEO MOVIE MAKERS AND COLLECTORS EVERYWHERE.

THE LIFE OF VIDEOTAPE IMAGES IS SOMETHING THAT THE MANUFACTURERS OF VCR'S AND TAPE NEVER BRING UP - AND WITH GOOD REASON. AT PRESENT, AMERICAN TECHNICIANS AND ARCHIVISTS ESTIMATE THAT A VIDEOTAPE MAY BE EXPECTED TO PERFORM AS WELL AS IT DOES AFTER THE THIRD PLAYING (THE FIRST TWO PASSES OF A TAPE ACTUALLY INVOLVE THE TAPE HEADS' FURTHER POLISHING OF THE TAPE'S SURFACE, RESULTING IN A DRAMATIC DECREASE IN DROPOUTS) FOR AT BEST, TEN YEARS. BY THAT TIME, THOSE VIDEO TAPES OF YOURS WILL PROBABLY BE NOTHING MORE THAN PALE IMITATIONS OF THEIR FORMER SELVES.

WHAT HAPPENS TO YOUR TAPES OVER THAT TIME SPAN TO CAUSE SUCH A TERRIBLE CHANGE?

FIRST, AS WITH ANY MAGNETIC MEDIUM, THERE WILL BE AN INHERENT LOSS OF MAGNETISM IN THE TAPE OVER THE YEARS.. I KNOW, YOU SAY YOU HAVE CASSETTE AND OPEN REEL AUDIO TAPES THAT YOU'VE BEEN ENJOYING FOR LONGER THAN THAT. MAYBE - BUT VIDEO TECHNOLOGY IS FAR MORE DEMANDING THAN AUDIO.

CONSIDER: WHEREAS AUDIO RECORDERS/PLAYERS USE A FIXED SET OF HEADS, CONVENTIONAL VCR'S ALTHOUGH THEY USE FIXED HEADS FOR AUDIO, EMPLOY 3600 RPM HEADS FOR VIDEO. IT'S THOSE SPINNING VIDEO HEADS THAT IMPOSE AN AWESOME AMOUNT OF WEAR ON THE TAPE AND VICE VERSA. INITIALLY, THIS WEAR WILL MANIFEST ITSELF AS REDUCED PICTURE QUALITY, PREDOMINANTLY IN THE FORM OF INCREASED DROPOUTS. WITH TIME OXIDE PARTICLES WILL BEGIN TO STRAY AWAY FROM THE TAPE'S BASE; CONSIDER YOURSELF LUCKY IF THOSE PARTICLES MOVE AWAY FROM THE VCR'S HEAD-TO-TAPE CONTACT AREA INSTEAD OF STICKING AROUND TO GOUGE AWAY AT THEIR STILL-TAPE-BOUND BROTHERN.

ONE OF VIDEOTAPE'S BIGGEST ENEMIES IS STATIC ELECTRICITY, WHICH BUILDS UP ON THE CASSETTE SHELL AND RESULTS IN THE SHELLS DRAWING MILLIONS OF DUST AND DIRT PARTICLES INTO THE CASSETTE'S EXPOSED PARTS. PLAYING AFTER PLAYING, THIS DUST AND DIRT SLOWLY MOVE AWAY FROM THE TAPE'S LEADER AND INTO THE TAPE'S BODY, RESULTING IN DROPOUTS, SOUND LOSS, ETC. CURRENTLY, ONE OF AMERICA'S MAJOR TAPE MANUFACTURERS, 3M (WHO MARKET THEIR TAPE PRODUCTS UNDER THE SCOTCH BRAND NAME), SELL A PROFESSIONAL HALF-INCH TAPE IN A RELATIVELY STATIC-FREE HOUSING. UNFORTUNATELY, THE COMPANY HAS NO PLANS TO SELL THIS PRODUCT TO NON-PROFESSIONAL USERS.

EVEN IF YOU'VE AVOIDED THESE ALREADY MENTIONED ILLS, THERE ARE ENVIRONMENTAL CONDITIONS IN THE HOME THAT WREAK HAVOC WITH TAPE. ALL ODOURS ARE THE RESULT OF SENSORY-PERCEIVED, AIR-BOUND SOLIDS. ANY ODOURS AROUND THE HOUSE THAT YOU CAN SMELL CAN BE "SNIFFED" BY TAPE TOO. MORE SOLIDS RESULT IN MORE EVENTUAL WEAR ON THE TAPE AND THE VCR'S HEADS. AND IF YOU SMOKE ANYTHING AT ALL WHEN YOU'RE HOME, THOSE SMOKE PARTICLES ARE GOING TO WORM THEIR WAY INTO EVEN THE MOST APPARENTLY AIRTIGHT CASSETTE CONTAINER; THAT'S WHY SMOKING IS STRICTLY PROHIBITED IN ALL PROFESSIONAL BROADCAST AREAS WHERE TAPE IS BEING USED. ODOUR PARTICLES, SMOKE PARTICLES, DUST AND DIRT PARTICLES - THEY ALL ADD UP TO TROUBLE FOR YOUR VIDEOTAPE AND VCR.



THEN, TOO, THERE ARE THE DIMENSIONAL CHANGES WHICH TAPE SUFFERS AS A RESULT OF VARIATIONS IN TEMPERATURE, HUMIDITY, ETC; TAPE IS SUBJECT TO SHRINKING, STRETCHING, WARPING AND CRINKLING. ALSO, LET'S NOT FORGET THAT UNLIKE FILMS WITH OPTICAL SOUND TRACKS, VIDEOTAPES CAN BE ACCIDENTALLY ERASED, EITHER BY PRESSING THE WRONG BUTTON ON YOUR VCR OR INADVERTENTLY LEAVING YOUR TAPES TOO NEAR EVEN WEAK MAGNETIC FIELDS, SUCH AS THOSE EMANATING FROM TV'S, RADIOS, SPEAKERS, ETC. AND ONCE THOSE IMAGES AND SOUND ARE GONE, THEY'RE GONE FOR GOOD.

MORE BAD NEWS: PRINT-THROUGH FROM ONE OXIDE LAYER OF A TAPE TO THE NEXT, RESULTING IN EITHER ECHOES OR ANTICIPATIONS OF SOUND AND IMAGE - OR, AT BEST, A LOW BUT SURE BUILDING-UP OF BACKGROUND NOISE IN THE TAPE. AND HOW ABOUT THE HORRORS RESULTING FROM OCCASIONAL MISTREADING, RIPS, JAMMED CASSETTES?

IF ALL OF THAT ISN'T ENOUGH, CONSIDER THIS: IN THE SAME MANNER AS A MAGNETIZED PIECE OF METAL CAN HAVE THE MAGNETISM DRIVEN RIGHT OUT OF IT BY SHARPLY RAFFING IT AGAINST A HARD SURFACE, A VIDEOTAPE LOSES MAGNETISM EVERY TIME IT IS DROPPED.

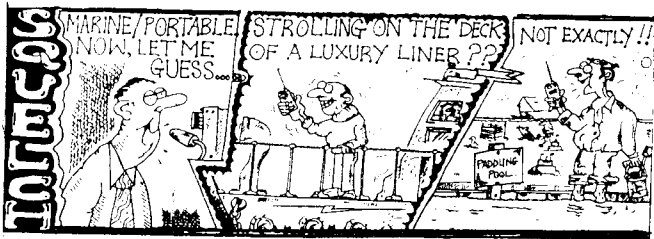
BELIEVE ME, I'M RELUCTANT TO TRUMPET FORTH SUCH BAD NEWS; AND THIS INFORMATION ISN'T THE RESULT OF INTENTIONAL DOOM-SAYING OF THE PERVERSE BAD WILL OF SOMEONE WHO HATES TAPE; ANY STORAGE MEDIUM THAT PLAYS BACK MOVIES IS GOOD NEWS TO ME. STILL, I THINK THAT PRESENT AND POTENTIAL TAPE USERS SHOULD BE FULLY ARMED WITH THE FACTS, IF ONLY SO THAT OVER THE YEARS THEY DO EVERYTHING THEY CAN TO ENSURE THAT THEIR TAPES HAVE THE LONGEST POSSIBLE LIFE. BUT REMEMBER: AMONG PROFESSIONALS, TAPE - UNLIKE FILM - IS NOT CONSIDERED AN ARCHIVAL MEDIUM.

#### 8MM VIDEO.

I'VE MENTIONED THE 8MM VIDEO SYSTEM BEFORE. WHAT HAS ONLY RECENTLY COME TO LIGHT IN THE STATES, THOUGH, IS THAT MANUFACTURERS EVENTUALLY PLAN TO HAVE 8MM REPLACE HALF-INCH AS THE CONSUMER STANDARD. WHAT DOES THIS PRESAGE FOR OWNERS OF HALF-INCH VHS AND BETA MACHINES? APPARENTLY, IT LOOKS LIKE THE HALF-INCH MODE WILL BE EFFECTIVELY OBSOLETE WITHIN THE NEXT FIVE YEARS.

A REASONABLE QUESTION TO ASK AT THIS POINT IS WHY, GIVEN THE HALF-INCH'S GREATER POTENTIAL FOR SUPERIOR SOUND AND IMAGE ( ASSUMING, OF COURSE, THAT INNOVATIONS LIKE PCM OR DIGITAL SOUND, PRESENTLY ONLY AN 8MM FEATURE, ARE APPLIED TO VHS AND BETA) ARE VIDEO COMPANIES SWITCHING THEIR ALLEGIANCE TO 8MM? THE ONLY ANSWER SEEMS TO BE THAT THERE'S AN INTERNATIONAL BIAS IN FAVOUR OF MINIATURISATION FOR ITS OWN SAKE. WITNESS IN THIS RESPECT THE ASTOUNDING POPULARITY OF SONY WALKMAN AND WALKMAN-LIKE AUDIO CASSETTE PLAYERS. IN AN AMAZING DISPLAY OF WHAT APPEARS TO BE BACKWARDS LOGIC, THE MAJOR ADVANCES AT PRESENT IN VIDEO TECHNOLOGY - NAMELY DIGITAL/PCM SOUND AND METAL PARTICLE AND METAL-EVAPORATED TAPE - ARE EXCLUSIVELY LIMITED TO THE 8MM FORMAT. THAT MAKES AS MUCH SENSE AS SOMEONE INVENTING CINEMASCOPE AND THEN EXCLUSIVELY CONFINING ITS USE TO 8MM FILM.

MICHAEL BLISS - "MAKING BETTER MOVIES"  
THANKS TO CLIVE FIFE FOR THIS ARTICLE.



# One Night's Work

IF, LIKE ME, YOU OFTEN BUY OLD COMPONENT BOARDS FROM RALLIES OR JUNK SALES WITH THE INTENTION OF RESCUING THE ICS, RESISTORS, ETC., YOU WILL - NO DOUBT - AT SOME TIME ACQUIRE A NUMBER OF DUBIOUS LOOKING ZENER DIODES WITH WEIRD NOTATIONS - AND YOU WILL HAVE NO WAY OF TELLING WHETHER THEY ARE STILL FUNCTIONAL. A SIMPLE GO/NO GO TESTER IS THEREFORE REQUIRED.

## A ZENER DIODE CHECKER.

THE CIRCUIT THAT I'VE USED FOR SOME TIME IS SHOWN IN FIGURE 1. THIS CAN BE CONSTRUCTED EITHER ON VEROBOARD OR ON A PCB, A DESIGN FOR WHICH IS GIVEN IN FIGURES 2 AND 3. IN THE 'PROTOTYPE', VEROPINS WERE USED FOR THE VARIOUS CONNECTIONS.

THE PRINCIPLE OF THE CIRCUIT IS AS FOLLOWS. THE INPUT OF THE VOLTAGE REGULATOR IC 1 IS HELD AT APPROXIMATELY 18V BY THE BATTERIES. (I USE TWO PPS'S CONNECTED IN SERIES.) THE OUTPUT FROM THIS DEVICE, WHICH CAN BE VARIED BY ALTERING RV 1, IS FED VIA A CURRENT-LIMITING RESISTOR R2 TO THE ZENER DIODE ON TEST. IF THE DIODE IS GOOD, THEN THE 0-15V METER MOUNTED IN PARALLEL WITH IT SHOULD GIVE A RELATIVELY STABLE READING ONCE THE AVALANCHE POINT HAS BEEN REACHED. (I USE AN OLD METER MOVEMENT WITH A SERIES RESISTOR TO GIVE ME THE RIGHT RANGE, BUT A MULTIMETER CAN BE CONNECTED INTO THE CIRCUIT JUST AS EASILY).

IN USE, RV1 IS SET FOR MINIMUM VOLTAGE, THE DIODE IS CONNECTED AND THE UNIT TURNED ON. GRADUALLY TURN RV 1 AND WATCH THE METER RISE AND THEN STABILISE: THIS VOLTAGE IS THE ZENER VOLTAGE.

A WORD OF WARNING AT THIS POINT. DON'T TURN THE APPLIED VOLTAGE UP MUCH BEYOND THAT AT WHICH THE METER STABILISES OR THE DIODE MAY HAVE TO DISSIPATE TOO MUCH POWER.

IF THE METER FAILS TO MOVE, OR DOESN'T STOP MOVING, THE DIODE IS EXTREMELY SUSPECT - OR ITS CHARACTERISTIC VOLTAGE IS ABOVE 15V AND OUT OF RANGE OF THIS CIRCUIT.

## AN RF SNIFFER.

THE USE OF AN OLD METER MOVEMENT IN THE ABOVE CIRCUIT REMINDED ME OF WHAT IS PROBABLY THE MOST USEFUL PIECE OF ELABORATE(!) TEST EQUIPMENT IN THE SHACK - AN RF SNIFFER. THIS DEVICE DISPLAYS WHEN THERE IS ANY RF IN THE VICINITY AND IS INVALUABLE FOR POKING INTO TRANSMITTERS WHEN TUNING UP.

THE DESIGN SHOWN HERE (FIGURE 4) COSTS VIRTUALLY NOTHING AND CONSISTS OF THE MOST SENSITIVE METER MOVEMENT YOU CAN FIND (MINE IS AN OLD 50 $\mu$ AMP MOVEMENT), SOME 18-20 SWG WIRE (ENAMELLED TO PREVENT POSSIBLE SHORTING) AND A DIODE - PREFERABLY A SENSITIVE GERMANIUM TYPE. WIND TWO OR THREE TURNS OF WIRE, LEAVING TAILS ABOUT 3 INCHES LONG: THEN TRIM A BIT OFF ONE END AND CONNECT THE DIODE. NEXT, ATTACH THE OTHER END OF YOUR COIL AND THE SPARE END OF THE DIODE TO THE METER TERMINALS.

IN PRINCIPLE, THE DEFLECTION SHOULD RISE AS THE METER IS MOVED TOWARD ANY R.F. SOURCE AND, AS A RESULT, PEAKING IS EXTREMELY EASY. ONCE YOU HAVE CONSTRUCTED THIS UNIT, SWITCH ON A NEARBY TRANSMITTER: IF THE METER NEEDLE DEFLECTS THE WRONG WAY - JUST TURN THE DIODE ROUND. THAT'S IT - AND YOU'LL WONDER HOW YOU EVER MANAGED WITHOUT ONE!.

Fig 1: Circuit for the Zener diode checker

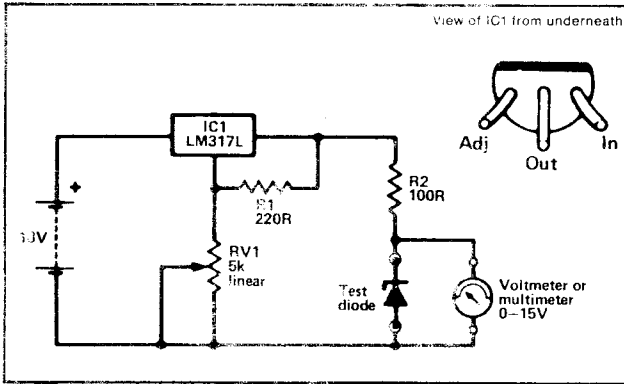
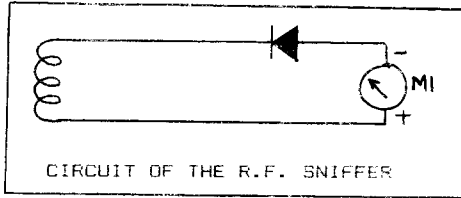
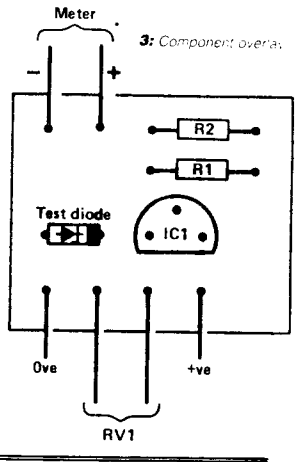
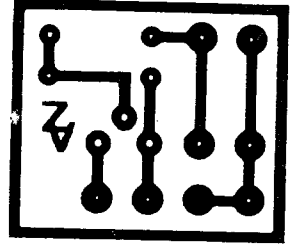
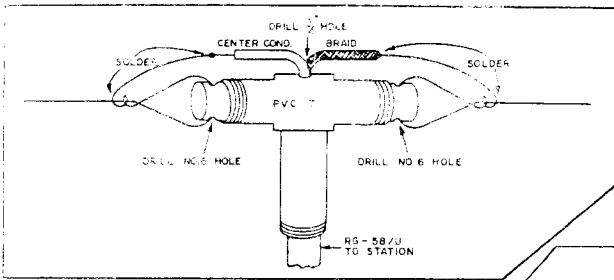


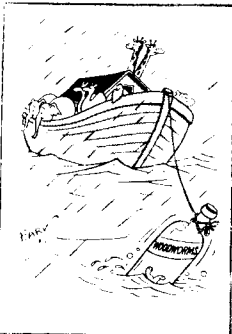
Fig 2: PCB foil pattern



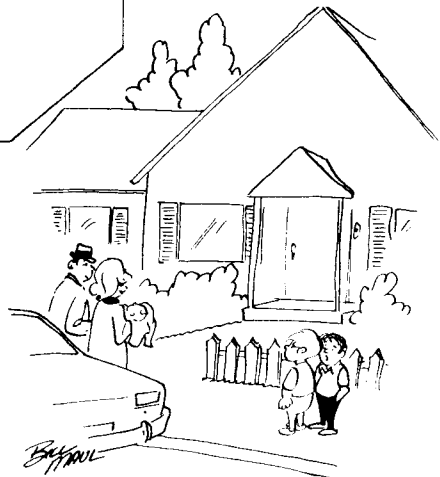
TIPS -----



A dipole antenna center insulator made from a PVC plumbing T fitting



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