

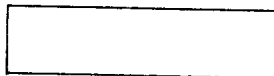


Q S X
P E



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

P.O. BOX 10402
LINTON GRANGE
6015



Port Elizabeth Branch NOTICE OF MONTHLY MEETING

MEMBERS ARE REMINDED THAT THE GENERAL MEETING OF THE BRANCH WILL
BE HELD ON FRIDAY 15TH JULY, 1988 AT ST. MARTINS CHURCH HALL,
KABEGA PARK, PORT ELIZABETH AT 8.15P.M.

COMMITTEE

CHAIRMAN	BRIAN WELLER ZS2AB	30-3498
VICE CHAIRMAN:	LIONEL COOMBE-DAVIS ZS2DD	32-1770
SECRETARY:	MARGE WELLER ZS2OB	30-3498
TREASURER:	LYNNE CROTHALL ZS2MM	35-4671
SPECIAL/SOCIAL EVENTS:	BEAVAN GWILT ZS2RL	30-6968
AWARDS:	BILL HODGES ZR2AAN	51-2580
EDITOR QSX-PE	MARGE WELLER ZS2OB	30-3498
MEMBERS:	DICK SCHONBORN ZS2RS	21356
LIBRARIAN:	COLIN ASHWELL ZS2AO	31-2471
(NON-COMMITTEE POST)		

BULLETIN ROSTER.

DATE	COMPILER	40M NET	2M NET
17 JULY	LIONEL ZS2DD	ZS2DD	ZS2RL
24 JULY	MARGE ZS2OB	ZS2AB	ZS2MM
31 JULY	LYNNE ZS2MM	ZS2MM	ZS2RS
7 AUG	BILL ZR2AAN	ZS2AB	ZR2AAN
14 AUG	BEAVAN ZS2RL	ZS2RL	ZS2DD

Sunday Bulletin Information

PRIMARY FREQUENCIES FOR BULLETINS AT APPROXIMATELY 08:40
H.F. 7098 KHz IN 40 METRE BAND
V.H.F. 145,650 MHz VIA TOWN REPEATER

BRANCH V.H.F. SERVICES PROVIDED

TOWN REPEATER (P.E. CENTRAL)	145,050 / 145,650 MHz
GRAHAMSTOWN REPEATER	145,150 / 145,750 MHz
LADY'S SLIPPER REPEATER	145,100 / 145,700 MHz
COCKSCOMB REPEATER	145,000 / 145,600 MHz
R.T.T.Y. BULLETIN BOARD	145,150 / 145,750 MHz
BEACON (C.W. ID ZS2PE)	144,910 MHz

****WE LIKE BEING YOUR BRANCH ****

THIS AND THAT.

FLEA MARKET

THE FLEA MARKET AT WHICH COMPUTER AND ELECTRONIC COMPONENTS (AND NOT FLEAS) WILL BE SOLD WILL BE HELD ON SATURDAY 16TH JULY, AT THE NEWTON PARK METHODIST CHURCH, 3RD AVENUE STARTING AT 9A.M. HOT DOGS AND COFFEE WILL BE ON SALE AT LUNCHTIME.

WELCOME

A HEARTY WELCOME TO COLIN ZR2DU WHO HAS JOINED THE BRANCH SINCE HIS MOVE TO FORT ELIZABETH. WE HOPE YOU HAVE A LONG AND HAPPY ASSOCIATION WITH THE BRANCH.

P.L.C. - NEW MEMBER.

GUS WINTER ZS2MC HAS NOW ALSO JOINED THE ELITE 'PERMANENT LOAFERS CLUB' AND WE HOPE YOU ENJOY YOUR RETIREMENT AND GET LOTS OF TIME TO DO ALL THE THINGS THAT YOUR WORK HAS INTERFERED WITH.

GLOBE TROTTERS.

ALAN SMITH ZS6BTI AND HIS FAMILY ARE TRAVELLING AROUND EUROPE FOR A MONTH AND WE WISH THEM GOOD WEATHER, A HAPPY HOLIDAY AND A SAFE RETURN.

SUBSCRIPTIONS.

SUBSCRIPTIONS HAVE BEEN COMING IN WELL AND WE WOULD LIKE TO THANK THOSE WHO HAVE PAID SO PROMPTLY. PLEASE REMEMBER TO RETURN YOUR FORM WHICH WAS INCLUDED IN THE LAST ISSUE OF RADIO ZS WHEN YOU PAY YOUR SUBS AND PLEASE PAY DIRECT TO THE BRANCH TREASURER AND NOT TO HEADQUARTERS.

PACKET RADIO B.B.S.

THE P.E. BRANCH PACKET RADIO BULLETIN BOARD SYSTEM (BBS) IS ON THE AIR FROM THE QTH OF ANDRE ZS2BK. ANDRE HAS KINDLY OFFERED TO RUN THE SYSTEM UNTIL THE FINAL HF AND VHF RIGS HAVE BEEN PREPARED AND CRYSTALS OBTAINED FOR THEM. IT IS HOPED TO PUBLISH A FULL LIST OF COMMANDS AND OPTIONS IN NEXT MONTHS ISSUE. FOR THOSE WHO HAVE AN INTEREST IN THE SYSTEM, THE CALLSIGN IN USE IS 'ZS2PE', THE HF FREQUENCY IS 14,114 MHz LOWER SIDE-BAND, AND THE VHF FREQUENCY IS 144,675 MHz FM. THE STANDARD TONE SHIFT AND BAUD RATES ARE IN USE, i.e. ON HF:- 200 Hz SHIFT AT 300 BAUD, AND ON VHF:- 1000 Hz SHIFT AT 1200 BAUD. THE CALLSIGN EXTENSIONS IN USE ARE ZS2PE-0 TO TALK TO ANDRE, ZS2PE-1 TO ACCESS THE BBS PROPER, AND ZS2PE-2 TO ACCESS THE NODE. WHEN THE NODE HAS BEEN ACCESSED, YOU WILL BE ASKED FOR A COMMAND ACCORDING TO YOUR NEEDS. A STRAIGHT CONNECT WILL CAUSE THE BBS TO OPERATE AS A DIGIPEATER ON THE BAND ON WHICH YOU ACCESSED IT, WHILE YOU MAY X-CONNECT (CROSS-CONNECT) TO THE OTHER BAND IF YOU SO WISH. HAVE FUN...MORE DETAILS NEXT MONTH.

WANTED.

1 OF EACH OF THE FOLLOWING VALVES:

12BE6, 12BA6, 12AV6, 50C5 FOR HALLICRAFTERS S120 RECEIVER.

PLEASE CONTACT JOHN MASTERS, ZS2AAN, 27 MURRELL CRESCENT, FRAMESBY, 6025. PHONE 041-305751.

FOR SALE.

KENWOOD TS 820 H.F. TRANSCEIVER, GOOD CONDITION. R1800. PLEASE CONTACT BRIAN ZS2AB, 25 OLIVE SCHREINER AVE, VAN DER STEL, 6025 OR PHONE 041-303498.

MINUTES OF GENERAL MEETING OF THE P.E. BRANCH OF THE S.A.R.L. HELD ON 17TH JUNE,
1988 AT ST. MARTIN'S CHURCH, PORT ELIZABETH.

PRESENT: 31 members and visitors.

APOLOGIES: ZS2MG, ZS2RG.

The Chairman extended a welcome to all and especially to Colin ZR2DU who had recently moved to P.E. and joined the branch, to Paul ZS2PR, Julian S83M, who had also moved to P.E. and to Lionel ZR2AAJ. Noel and Werner were congratulated on their 200 cw qsos.

MINUTES: The Minutes of the general meeting held 20th May, 1988, having been printed and circulated in QSX-PE, were amended at the request of ZS2AE, who said that the repeater licence had yet to be re-instated and were then taken as read, proposed by ZS2RL and seconded by ZR2AAN.

ARISING: (1) The library would be moved back tomorrow.

(2) Articles for Radio ZS had to be in Cape Town by the end of the month. Thanks to those who had contributed.

FINANCE: The Treasurer reported that an amount of R2107 had been received from the sale of parts. The balance in the account was R3821.09.

CORRES: Several Branch letters and a letter re Wefax project.

GENERAL: (1) Wolf ZS2MG was thanked for his effort on the repeater at Grahamstown in spite of bad weather. The fault had been lack of mains and this was restored after a call to the suppliers.

(2) Thanks also to Trevor ZS2AE and the others who had braved the very bad weather for a trip up Cockscomb. The units had been replaced. Trevor said he would like the repeater listed in Radio ZS.

(3) Oscar 13/14 was in orbit and a new weather satellite.

(4) Brian reported on the Wefax project and said that he had received a letter about several new versions. One version had already been purchased and this would be made available to those interested.

(5) Volunteers were asked to help with the moving of the library from the QTH of Colin ZS2AD back to the hall.

(6) A box of picture frames originally from certificates of ZS2RM and ZS2FA were available to members.

(7) Plans were going ahead with the Flea Market and members would be kept informed.

There being no further business the meeting was closed and tea was taken.

Thereafter a talk on the proposed Packet Radio link-up was given by Andre ZS2BK, the local Representative of the Packet Board System, and after a vote, it was decided to purchase a KAM unit for use by Eastern Cape amateurs.

sgd: B.A. Weller ZS2AB
Chairman

sgd: M.T. Weller ZS2OB
Secretary

GREAT PIONEERS - S.F.B. MORSE

A good Trivial Pursuit question might be "Who invented the Morse Code?". Not very taxing you might think, but the answer is less obvious than it seems. Morse was an artist, painting his great love. He was a founder and the first President of the U.S. National Academy of Design. When he took up a second career as an engineer-inventor he left his art unwillingly and grieved over the loss for many years.

Samuel Finley Breese Morse - the American Leonardo, according to an enthusiastic biographer - was born on 27th April, 1791 in Charlestown, Mass., a sixth-generation American. Named after his mother's parents, taking their surnames as his Christian names, he was called Finley by his family. He and two brothers were the only survivors through birth and infancy of 11 children. Later he fathered eight of his own.

Whilst a student at Yale his reputation as an artist began to grow especially for his ivory miniatures. But his father dissuaded him from art as a career and for a time, Morse became a clerk in a bookshop. His talent was not to be restrained, and on 13th July 1811, aged 20, he sailed for England where he studied art for the next four years mainly at the Royal Academy in London. Among his works were at least three of outstanding merit. One, 'The Dying Hercules' was exhibited at the Royal Academy and another, a statuette of Hercules won a gold medal from the Society of Art. On his return home, his hopes of reviving the splendour of the fifteenth century crashed. Though admired, his historical paintings were not bought so for income he turned to portraiture, seemingly the only paintings the Americans would buy. At this he excelled.

His personality brought him social respect; his art scratched him a living, though at times meagre. Best known of his works are probably two portraits of Lafayette, painted in Washington in 1825 and the slightly earlier 'The Old House of Representatives', which includes 86 portraits. Even in those early years, Morse appears to have been something of an experimenter. For a portrait of his wife and children he mixed the pigments in milk. Another time he used beer!

The mid-1820s brought change for Morse. In four short years his wife, father and mother all died. In 1829 he sailed for Europe and spent the next three years in France and Italy. On his return voyage in 1832, a fellow passenger drew the dinner-time conversation to electricity. Soon Morse was hooked. "If the presence of electricity can be made visible in any part of the circuit", he remarked, "I see no reason why intelligence may not be transmitted instantaneously by electricity". By the end of the voyage his notebook was crammed with sketches and ideas. The next dozen years transformed his life - and the world.

He devised a system in which words were represented by groups of numbers and he began work on a code book. Each numeral was further coded into dots and dashes for transmission, but this was not the now-famous Morse Code. Speedy transmission was to be achieved with lead 'types' which had teeth representing the dots and dashes of the numerals. Assembled on a bar, they were pulled across contacts so that the teeth

switched a battery in and out of a two-wire circuit. From the beginning he wanted a receiver that would give a permanent record of the message. The earliest model had an electro-magnet which moved a pencil to mark the dots and dashes on to paper tape driven along by clockwork.

Evidently Morse's proposals owed little to the rush of European ideas for magnetic needle telegraphs. His thoughts were his own and for years he found it difficult to believe that anyone had considered electric telegraphy before him. After landing in New York he tinkered with telegraphy until necessity forced itself upon him. He had children to support, paintings to finish and very little money.

By the end of 1835 he was at the University of the City of New York (now New York University) as professor of painting and sculpture, later as professor of literature of the arts of design. Apart from teaching and painting, both of which brought in little money and took most of his time, he was once again working on the telegraph. A friend who saw this early telegraph was Leonard D. Gale, a professor of science, and in him Morse found a partner. In particular, he learned from Gale of Henry's achievements with electromagnetism. Henry had pointed the way to telegraphy in 1831 when he signalled through more than a mile of wire to cause an electro-magnet to strike a bell - the first electric bell!

Gale's contributions included recognising the need for a large number of turns of fine wire (hundreds instead of tens) at the receiving electro-magnet and a multiple-cell rather than a single-cell battery at the transmitter so as to give a much higher voltage. This knowledge Gale had learned from Henry and with such help Morse increased his range from a meagre 40 feet to a respectable 10 miles. On a number of occasions later Henry gave direct advice and encouragement.

Meanwhile, the U.S. Government had begun to consider whether some form of telegraph system would be of use to America. Amongst others, Morse responded with his proposals on 27th September 1837. In October, he began his application for a patent which was granted on 20th June, 1840. His bid for a British patent was foiled by objections from Cooke and Wheatstone, who had already patented their own telegraph system. A third man, Alfred Vail, who had been a student only a year before, joined the partnership in September 1837 bringing much needed financial backing as well as great mechanical skill. In Morse's own words, the original equipment was made up of 'an old picture or canvas frame fastened to a table, the wheels of an old wooden clock moved by a weight to carry the paper forward' and '3 wooden drums'. It was so crude he was reluctant to have it seen.

Morse and Vail set to work to improve it. The lead types at the transmitter were soon replaced by a key and keyboard. At the receiver, pencils, fountain pens and embossers were tried, and the number-coded words and code book were thrown out in favour of a dots-and-dashes code for each letter. It is likely that this "Morse" code which underwent a number of changes, was actually designed by Alfred Vail. Morse who was very protective of his own inventions, did not refute the suggestion.

F.O.J. Smith, a fourth partner, joined in March 1838. As a lawyer, his job was to steer the telegraph through the labyrinths of Washington. Here Morse made a dreadful mistake. Smith has been described by many adjectives of which perhaps the gentlest is unscrupulous. In his attempts to further the telegraph of which he was now part owner he is said to have abused his position as a congressman. Much later he harried Morse for a share of 400 000 francs which European countries had given to Morse as an honorary gratuity. Morse was at times close to despair.

In 1838, with the improved equipment, public demonstrations began. The dots and dashes were embossed on to paper and gave a transmission rate of 10 words per minute. Morse's long and personal struggle for government recognition was finally rewarded in 1843 when Congress, by a narrow margin, granted \$30 000 for a 40 mile trial line from Washington to Baltimore. The long and frustrating delays had once again brought Morse to the brink of financial ruin with even Vail's family, who had provided funds, refusing more support. The years from 1837 to 1844 were hard, Morse preferring poverty and hunger to debt. It was his tenacity in the face of rejection which brought him eventual success.

The twin 40-mile lengths of iron wire were tested before laying. Then, with a specially designed 'plough' the wires were encased in hot lead and speedily buried. When it was discovered that the line no longer worked (the insulation having been damaged by the heat) all was discreetly recovered (Government money was involved) and the line strung up on chestnut poles using glass and doorknobs as insulators. As the two-wire line reached out from Washington it was regularly checked by sending messages both ways. At last on 24th May 1844, soon after his 53rd birthday, Morse opened his telegraph with the famous first message. "What God has wrought!"

That year's Democratic Convention in Baltimore brought further publicity. The vote for the presidential nomination ran to nine ballots. The result of each was telegraphed immediately to Washington where Morse had cunningly established his office in the Chamber of the Supreme Court. As the excitement grew, politicians flocked to Morse's room in such numbers that the Senate was adjourned. The Morse telegraph had arrived.

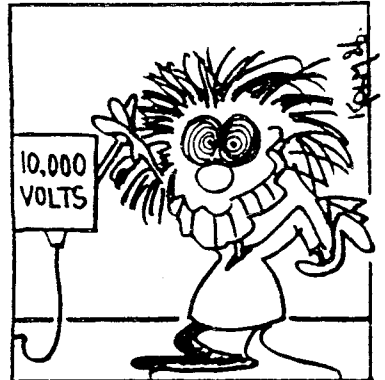
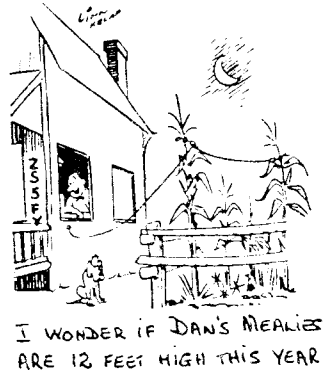
By 1845 the line had been extended to New York and Boston, using one wire and an earth return. The paper embossers were eventually replaced by inkers. In turn, these gave way to the sounder, perfected by Vail when it was realised that operators could recognise messages from the clicks of the receivers.

Rarely can anything so novel have caught on so quickly. After only four years there were 6000 miles of wire in use in America and after eight years the figure was over 16000 miles, about 70% of the world's total. Morse had hoped that the Government would take up and run the telegraph as a national asset but this was not to be. Instead licences were granted and private companies set up. The first big merger took place in 1851, and produced the Mississippi Valley Printing Telegraph Co. better known later as Western Union.

At 57, after 23 years as a widower, Morse remarried. Later as he grew rich from the exploitation of his system he became a philanthropist and again supported the furtherance of art though his own skills were never really recovered. In 1836 he had tried his hand at politics when he ran for mayor of New York. Aged 63, he had another go, this time attempting to become a Democratic Congressman. Again he was defeated.

As the Morse telegraph spread, only memories remained of the early system over which the artist had laboured in New York. Gone were the lead types, code book, pencil or embosser and buried line. In their place was a simple system of Morse key, overhead wire and sounder. Gone too was a public naivety which prompted one man to ask the cost of sending a parcel to Baltimore by telegraph.

HAVE A LAUGH



SUPPRESSING AUTOMOTIVE ELECTRICAL NOISE

PLEASE NOTE:

Most modern vehicles are fitted with special resistive suppression cable. No other suppression device is required in the high tension system when this is fitted. If your vehicle is an older type, it may be necessary to fit the suppressors shown. An in-line type suppression type resistor is fitted in the HT lead between the coil and the distributor. This must be installed as near to the distributor as possible. In most cases this suppressor will be all that is necessary to remove impulse ignition noise that is induced into your radio. In cases where noise is still a problem, it may be necessary to fit spark plug suppressors as shown. These are screwed into the lead and fitted onto the plug.

CAR RADIO INSTALLATIONS.

In most car radio installations, it is usually only necessary to have the ignition high tension suppressors and the metal clad capacitors on the coil and alternator. Other points of suppression are only done when absolutely necessary.

IMPORTANT.

Before any suppression equipment will operate efficiently it is most important that the engine is in tune and in top condition. All the wiring has to be in good condition and all the connections tight. Mechanical couplings between the motor and chassis should be tightened. All earth straps must be in place and broken straps must be replaced.

CAUTION.

Before fitting any suppression components or making any adjustments, the battery must be disconnected.

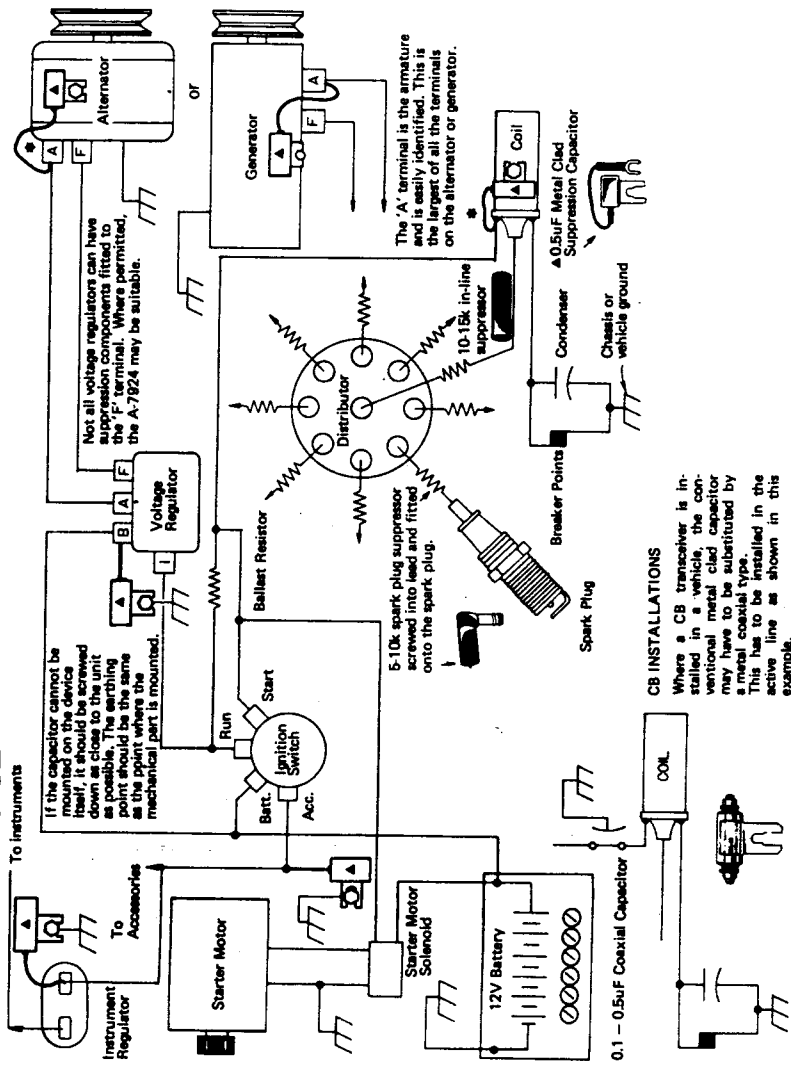
WARNING.

Damage may be caused to the vehicles electrical equipment if suppression components are incorrectly installed. If any doubt exists as to how the installation is to be made, specialised help should be sought.

Many thanks to Dudley for this article.

The diagram will be found on the next page.

SUPPRESSING AUTOMOTIVE ELECTRICAL NOISE



Instant Printing

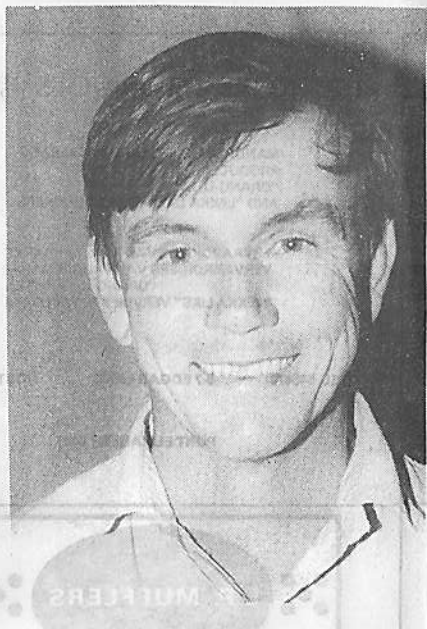
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WHO'S WHO?

COLIN ZSZO

BORN IN DURBAN, GREW UP IN NATAL, MOVED TO THE TRANSVAAL AND FINISHED HIS EDUCATION IN PORT ELIZABETH. HE LAYS CLAIM TO THE DUBIOUS DISTINCTION OF ATTENDING A GRAND TOTAL OF 11 SCHOOLS DURING THAT PERIOD, 3 OF WHICH WERE DURING STD. 6! THE FAMILY MOVED AROUND QUITE A BIT! STARTED WORK WITH THE CITY ENGINEERS DEPARTMENT AS AN APPRENTICE AT SWARTKOP'S POWER STATION AND THEREAFTER HE WAS INVOLVED WITH THE ENGINEERING AND MOTOR TRADE UNTIL 1974 WHEN HE STARTED WORK AT THE PORT ELI ZABETH MUSEUM WHERE HE IS PRESENTLY EMPLOYED AS ASSISTANT TECHNICAL MANAGER.

RADIO CONTROLLED MODEL AIRCRAFT WAS HIS MAIN INTEREST AFTER COLIN LEFT SCHOOL AND REMAINED SO FOR NEARLY 25 YEARS. IN THAT TIME HE WAS VERY ACTIVE IN COMPETITIONS AND ATTENDED NATIONAL AND PROVINCIAL CHAMPIONSHIPS COLIN STILL ATTENDS CHAMPIONSHIPS THESE DAYS BUT MORE IN THE CAPACITY OF SUPPLIER OF RADIO COMMS. SOON THE RADIO SIDE OF MODEL AIRCRAFT TOOK PRECEDENCE AND HE PASSED THE R.A.E. IN 1975. HIS FIRST RIG WAS A PHILLIPS ZEPHYR WHICH WAS CONVERTED TO 2 METRES. C.W. FORMED A BIG PART OF THE FIRST FEW YEARS FROM 1974, AND HE WAS ACTIVE IN TEACHING C.W. COLIN GETS GREAT SATISFACTION FROM HOME-BREWING (RADIO EQUIPMENT, THAT IS!) AND GETTING A QRP 40M SSB TRANSCEIVER ON THE AIR WAS A GREAT PRIDE AND JOY. IN 1981 HIS INTEREST TURNED TO SSTV WITH A SEMI-KIT DESIGN AND THEN HE PROGRESSED RIGHT UP TO EXTREMELY HIGH RESOLUTION PICTURE TRANSMISSION. COMPUTER GENERATED RTTY/CW PLAYED A PART IN HIS ACTIVITIES FOR A WHILE.

HE HAS WRITTEN NUMEROUS ARTICLES FOR SPECIALIST MODE MAGAZINES OVERSEAS ON SSTV AND RTTY MODIFICATION AND ALSO FOR QSOX-PE AND RADIO ZS. SSTV ACCOMPLISHMENTS INCLUDE RECEPTION OF 'LIVE' VIDEO FROM THE SPACE SHUTTLE ON 2M WHILE IT WAS PASSING OVER P.E. AND RECEPTION OF THE FIRST COMMERCIAL SLOW SCAN FROM AN AUSTRALIAN SHORTWAVE STATION. ALTHOUGH NOT ACTIVE IN WEATHER SATELLITE RECEPTION HE HAS BUILT UP A COMPLETE SYSTEM FOR THE MUSEUM AS AN AUDIO/VISUAL EXHIBIT. HIS PRESENT INTEREST IS SATELLITE TV AND HIS EFFORTS LATELY HAVE BEEN TO IMPROVE RECEPTION QUALITY.

HE HAS SERVED ON THE COMMITTEE AT VARIOUS TIMES, USUALLY IN THE SPECIAL EVENTS PORTFOLIO AND IS NOW LIBRARIAN. SPECIAL EVENTS ARE ONE OF HIS MAIN INTERESTS AND HE TAKES PART IN J.O.T.A, HOBBIES FAIRS, RALLIES, ETC. HIS XYL MARLENE TOOK UP THE CHALLENGE RECENTLY AND PASSED THE R.A.E. TO PROVE A POINT. HER CALL IS ZR2ED. THEY HAVE THREE CHILDREN.



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