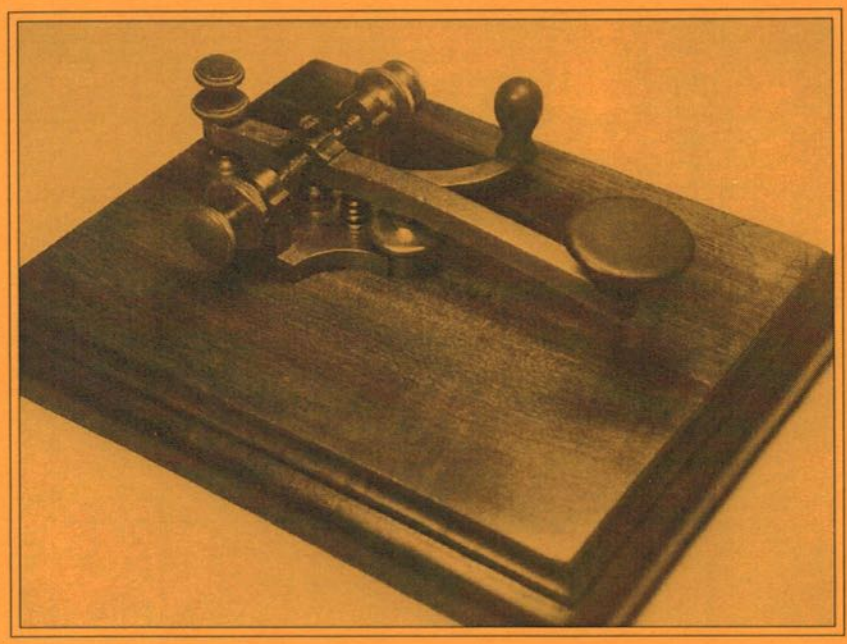
Number 42 – October 1995

Flying the flag for Morse

Morsum Magnificat

The Morse Magazine



An 1850s 'Altoona' Key

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Morsum Magnificat

ISSN 0953-6426

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MORSUM MAGNIFICAT was first published as a quarterly magazine in Holland, in 1983, by the late Rinus Hellemons PA0BFN. Now published six times a year in Britain, it aims to provide international coverage of all aspects of Morse telegraphy, past present and future. MORSUM MAGNIFICAT is for all Morse enthusiasts, amateur or professional, active or retired. It brings together material which would otherwise be lost to posterity, providing an invaluable source of interest, reference and record relating to the traditions and practice of Morse.

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 Printed by Hertfordshire Display plc, Ware, Herts

ANNUAL SUBSCRIPTIONS:

	UK	*Europe Airmail*	*Rest of the World Airmail*
1 Year:	£12.00	£12.75	£15.50
2 Year:	£22.50	£24.00	£29.50

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RATES:	*Airmail*
1 Year:	$26.50
2 Year:	$50.00

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ON OUR FRONT COVER

'Altoona' key, 1850's. Made by Pennsylvania Railroad at their Altoona Works in Altoona, PA. Note lack of spring adjustment which this key pre-dates. According to Louise Moreau, W3WRE, in 'The Story of the Key' (MM7, p.19), some of the finest keys and sounders were made at the Altoona Shops by master craftsmen, and included the latest improvements introduced by other manufacturers

Photo/Collection: Dave Pennes, WA3LKN

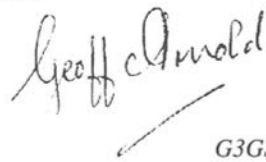
Comment

THE LATEST NEWS in the 'No-code' debate appears on page 8 of this issue. It is disturbing to hear that the UK's Radiocommunications Agency appears to have put a somewhat selective interpretation on the results of surveys of the UK Radio Amateur population which were carried out in 1993. The RSGB survey (carried out on behalf of the Agency), revealed that just 32.5% of respondents were in favour of a no-code licence, with 67.5% against. A second survey, carried out by the RA, revealed that most Class A licensees were in favour of retaining a Morse test, but most Class B licensees were not – hardly surprising, really. If you select the appropriate criteria, you can always get the answer you want!

Rather more heartening is the news that the IARU has established a Committee on Roaming Licence Qualifications, to examine the technical and operating requirements appropriate to the Amateur Services of the future. The Committee's aim is to formulate proposals for a global roaming licence which would be acceptable to all countries, and which would allow radio amateurs to operate abroad with a minimum of formalities.

In the UK and, I understand, elsewhere, the various political parties have begun to trade insults on the basis that "Our information technology proposals are bigger and better than your information technology proposals". It seems more necessary than ever, in view of the hype surrounding the whole, so-called information technology revolution, to stand back and take a cool, considered look not just at what is possible, but what is desirable and likely to be beneficial for future generations.

This is equally true regardless of whether it is looked at in the context of the world as a whole, or Amateur Radio in particular.



G3GSR

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There is a separate report on page 8 giving the latest position in this matter at the time of going to press.

Come to the HOT Party!

AGCW-DL's annual Home-brew and Old-Time Equipment Party will be held on Sunday, 19 November 1995, from 1300 to 1500 UTC on 7.010–7.040MHz, and 1500 to 1700 UTC on 3.510–3.560MHz.

All radio amateurs are invited to join the party, using home-brew equipment (old or new) or commercial equipment more than 25 years old. Home-brew or old-time receivers may be used with modern transmitters or vice-versa.

Mode: Single op, CW only.

Power input to final: Up to 100 watts.

Call: 'CQ HOT'.

Classes: A – TX AND RX home-brew or older than 25 years; B – RX OR TX home-brew or older than 25 years; C – QRP – TX not more than 10W/5W input/output, either home-brew or older than 25 years.

Exchanges: RST, serial number (starting with 001 on each band), and class, for example, 579/001/A.

Scoring: Class A working A; A working C; C working C = 3 points.

Class B working A; B working C = 2 points. Class B working B = 1 point.

Logs: Including a specification of the home-brew or old-time equipment used, should be sent to – Dr Hartmut Weber DJ7ST, Schlesierweg 13, D-38228 SALZGITTER, Germany, to be received not later than 15 December 1995.

Maritime CW

Although the USCG has ceased CW operation, the Canadian Coast Guard is committed to offering distress and safety service, including CW guard on 500kHz, until 1999. Some CCG coast stations are scheduled to continue to that date. Others, especially those located on inland waters, have already ceased CW operation.

Some stations still use CW for paid ship's business and private radiotelegram traffic, also for government-business traffic (clearance, carriage of dangerous goods, etc.).

Some still transmit CW broadcasts. However, except for the safety commitment, there is no obligation to continue revenue producing services, so downsizing, privatising and cost-cutting will determine future changes.

It is interesting to note that following the recently much publicised cessation of Coast Guard CW in the USA, the USCG has turned over CW operation to private coast stations. While undoubtedly CW traffic has diminished, it has not vanished and has simply been

farmed out to the private sector as a cost-cutting exercise.

Globe Wireless, which operates KFS and WNU in the US, and VCT in Canada is constructing new coast stations in Hawaii, New Zealand and Sweden.

(Information from Bob Eldridge VE7BS, based on an item in his 'QUA' column in The Canadian Amateur, *September 1995.)*

Ostende Radio/OST, the principal Belgian coast station, will cease all commercial radio telegraphy services on 1 November 1995.

(Information from Bruce Morris.)

UFT AGM

The 10th annual general meeting of the Union Française des Télégraphistes was held at Rheims on 30 April 1995. There was socialising on Saturday afternoon, including a visit to the local champagne cellars, and a dinner attended by 85 guests later in the day.

The AGM on Sunday had an attendance of 102 members. F6DKV opened the proceedings and noted that from the original five members UFT membership had risen in 10 years to over 750.

F9IQ, the first president of UFT, recalled how UFT came into being as a result of the anti-CW climate in France, and recalled highlights of the first ten years.

The original aim was to create an independent association which was prepared to dissolve itself when there existed in France one single organisation to represent radio amateurs. This aim has been, and remains, written into the statutes of UFT. The option has been taken into account in the present situation, and in full recognition of future needs.

Thanks to the efforts and participation of many members, UFT has achieved incontestable results in raising awareness about telegraphy and the promotion of amateur radio in general. F9IQ concluded his speech, "Long live the UFT so that Telegraphy lives in peace."

F6AXX, the current president formally opened the AGM which commenced with one minute's silence in memory of four members of UFT deceased during the last 12 months.

Commenting on the health of the association in the previous year, he said the most noteworthy event had been the union of UFT with REF-Union, France's national radio society, as an associate member. This gave UFT the responsibility of being the national spokesman for all matters concerning CW. Further, UFT participation in the 'Training' and 'Publicity' groups had begun to show concrete results.

F3YP, president of REF-Union, expressed his pleasure at being present at the 10th anniversary AGM of UFT. He dealt with a number of topics, including callsigns, licensing, the acceptance of military and civil certificates, and more. He was bombarded with questions from members but time did not allow him to deal with them all.

The report of the Education Committee, by F9IQ, recorded that as an integral part of REF-Union, UFT has an official representative on each committee/group ('education' and 'publicity') with a deputy covering both in case of need. The publicity group has strong links with the principal object of REF-

Union, i.e., to bring together all (or at any rate the maximum possible number) of hobbyists – all of those whose interests can be encompassed by the word 'radio-amateur'.

During a Question and Answer session, it was noted that *La Pioche*, journal of UFT, was exchanged with numerous other clubs in Europe, and overseas; a winter contest on 160m was to be organised by UFT; closer collaboration with the G-QRP club would be welcomed; and publication of a call book on floppy disk was under consideration.

(The above is a brief summary of the report of UFT's 10th anniversary AGM, taken from La Pioche.

Thanks to Ken Quigg GI4CRQ, who translated the report in full for MM.*)*

For Your Diary

Notice of some of the radio-related events in both the amateur and vintage fields being held over the next few months.

On **Saturday and Sunday, November 4/5**, the **North Wales Radio & Computer Rally** will be held at the Aberconwy Conference Centre, Llandudno. Doors open at 1000 both days, close at 1800 on Saturday, 1600 on Sunday.

On **Sunday, December 3**, from 10.30am to 5pm, **The National Vintage Communications Fair Christmas Special** will be staged at the National Exhibition Centre, Birmingham. In response to demand from traders and visitors alike, organiser Jonathan Hill has agreed to stage this 'extra' show for the first time in 1995. As well as the usual range of vintage radio, TV, telephones, gramophones and classic audio and hi-fi, this Christmas show will be extended to include scientific instruments, sewing machines, typewriters and other electrical and mechanical antiques and collectables.

The **London Amateur Radio and Computing Show**, which has been staged each March since 1990, has grown from an initial attendance of 2000 visitors to 8000 in 1995, and now regularly occupies three halls at the Lee Valley Leisure Centre, Edmonton, London.

For next year's show, to be staged on **March 9 and 10**, the organisers RadioSport Ltd are planning to set aside one of the halls for a Vintage Sound and Vision Fair, which will be of particular interest to all enthusiasts for yesterday's technology.

Any organisations or individuals interested in booking table space in the vintage section of the show, available for either or both days, should contact RadioSport Ltd at 126 Mount Pleasant Lane, Bricket Wood, St Albans, Herts AL2 3XD, telephone 01923 893929, fax 01923 678870.

The *MM/RB* team will be in attendance at each of the above shows, and others during 1996.

'Story of the Key' Well Received...

The Story of the Key, the first of 'The Best of MM' series, published earlier this year has received good reviews around the world.

It was 'This Month's Book Choice' in May's *RadCom*, journal of the Radio Society of Great Britain. In his review,

John Hall, G3KVA, wrote "It is a readable and interesting potted history of sending instruments still used by thousands of amateurs world-wide... The key is part of amateur radio history and if you are interested in that then buy the book – it's well worth the £3.95."

Pat Hawker G3VA, writing in 'Technical Topics' in *RadCom* the following month said, "interest in the design and use of Morse keys in the early days of telegraphy is being kept refreshingly alive by the publishers of *Morsum Magnificat*."

Practical Wireless commented "Anyone interested in the history of Morse and the history of telegraphy can't fail to be fascinated... It's fascinating and highly recommended."

Dots and Dashes, journal of the Morse Telegraph Club, said "Anyone interested in the history of the telegraph will appreciate this volume."

Tom French, W1IMQ, writing in *The Vail Correspondent*, describes it as the most complete history of the telegraph key that he is aware of, and a worthwhile addition to the key collector's bookshelf.

The *Old Timers' Bulletin* of the Antique Wireless Association said "As friends of Lou would expect, this book is not only very readable but also authoritative... This book is surely a must buy for any serious collector of early keys... even for someone... with only half a dozen keys in his museum, it is a most interesting addition to one's library".

QST, journal of the American Radio Relay League, gave it nearly half a page, concluding "Morse code historians and key collectors will delight in reading *The Story of the Key*, and if this volume is indicative of the remainder of the planned *Morsum Magnificat* series, start clearing space on your bookshelf."

In *Amateur Radio* (Australia), Stephen Smith VK2SPS, in his 'Pounding Brass' column, gave it well over half a page, concluding "I highly recommend this book... as a fine reference source, and an excellent means of key identification... The book makes interesting reading and is a must for any telegraph book collection."

The Story of the Key also received honourable mentions in NZART's *Break-In*, the ISWL's *Monitor*, RSARS's *Monitor*, and RAFARS's *QRV*.

Have You Got Yours?

As a result of these fine reviews the first printing of *The Story of the Key* sold out quite quickly. It has now been reprinted and is still available from the MM Bookshelf at £3.95 post free to UK addresses or £4.25 to Europe. For the rest of the world, it costs £4.25 by surface mail or £4.75 by airmail. Please note these prices are in pounds Sterling, not US dollars as quoted in error in one review. Payment by Sterling cheque only, or by Visa or Mastercard credit card – quote your card number and expiry date

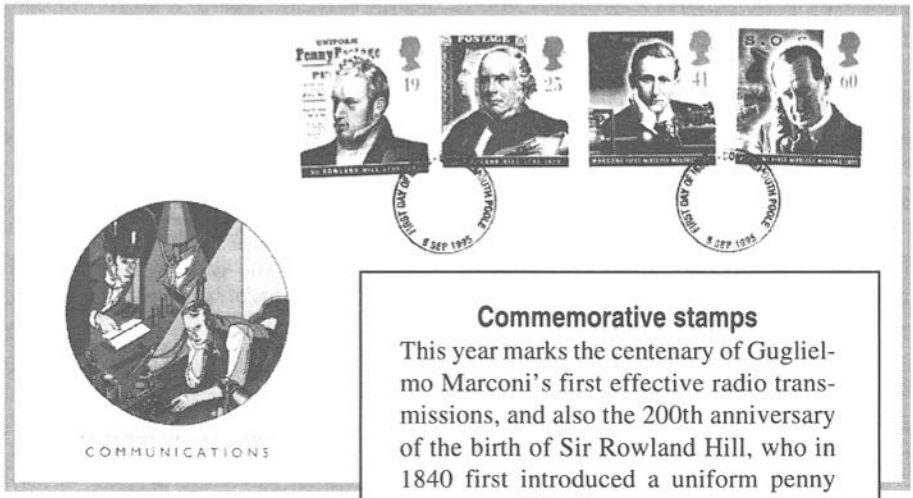
If you haven't got your copy yet, send for it now before the new supply has sold out too. There may not be another reprint!

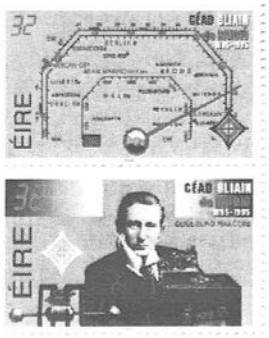
One final thought – with Christmas approaching, *The Story of the Key* would be an ideal gift for the Morse friend who has everything!

Successful Conference

The '100 Years of Radio' conference held at the IEE in Savoy Place, London on September 5–7 was adjudged a very considerable success by those who were fortunate enough to attend.

Among the range of very interesting papers presented, and the various supporting exhibitions, a particular highlight was a surprise Morse message of greeting to the Conference. The message was transmitted on what must be the world's oldest functioning radio transmitter, a 200kW Alexanderson alternator operating under the callsign SAQ on 17.2kHz and preserved at the radio station at Grimeton, near Varberg, Sweden. This message was relayed to the lecture theatre at the IEE by ISDN landline from the BBC Monitoring Station at Caversham – a nice combination of old and new technology!





Commemorative stamps

This year marks the centenary of Guglielmo Marconi's first effective radio transmissions, and also the 200th anniversary of the birth of Sir Rowland Hill, who in 1840 first introduced a uniform penny postage and the first postage stamp.

The Royal Mail in Britain decided to mark both these landmarks in the evolution of communications by the issue on 5 September 1995 of a set of four stamps, two devoted to each pioneer. We reproduce above a reduced facsimile of the First Day Cover bearing the set of stamps.

Over the past few months, several other countries have also issued stamps in tribute to Marconi's work; those produced by Eire are shown left.

Our appreciation to Dave Hooper of Dublin for sending samples of the Eire stamps.

No-code Proposals

An Update

by Tony Smith

UK Supports Deletion of RR 2735

IN A SURPRISE DECISION, taken against the wishes of the Radio Society of Great Britain, the UK's Radiocommunications Agency has decided to support proposals for the deletion of RR2735 from the Radio Regulations.

If approved by a World Radio Conference, such a proposal would remove the international mandatory Morse test for radio amateurs and allow the Agency to consider 'other options'.

Even if a WRC did delete RR2735, however, the Agency says it will not be making any changes in the near future to the UK national qualification requirements for radio amateurs without further consultation nationally and with other CEPT countries.

In the latter case, the intention would be to continue to take full advantage of CEPT recommendation T/R 61-01 (which allows amateur operation during temporary visits to other countries) and T/R 61-02 (the Harmonised Amateur Radio Examination Certificate), both of which currently require a Morse qualification to obtain the highest licence class.

The RA says it has taken into account the results of a survey it conducted in 1993, which showed that the majority of Class A licensees wish to retain the Morse test while the majority of Class B licensees do not.

From these conflicting views, the Agency has concluded that the UK should not act unilaterally, but it does consider that RR2735 is outdated and an inappropriate requirement to remain at international level.

RSGB Protests

The Radio Society of Great Britain says 'we are astounded at the way this policy decision was made, and that our subsequent input has been totally ignored', and has published the correspondence it has had with the RA on this matter. It has protested that the Agency's decision was made without consulting the society, and that it was based on letters received by the RA from individuals AFTER a national survey had been conducted by the society at the request of the RA.

The Agency has ignored the result of the national survey *(which showed a majority of 67.5 percent in favour of retaining the test, see MM31, p.4. – Ed.).* It has also ignored the views of the International Amateur Radio Union (supported by all three IARU Regions),

which recently decided to neither propose nor support any change to the international regulations. *(The IARU report was summarised in MM38, p.14. – Ed.)*

In earlier correspondence the RSGB pointed out to the Agency the chaos that would result from leaving countries to set their own requirements. If any change was to be made to the regulations, the society felt strongly that proposals should come from within the Amateur Service itself. These, it says, should be discussed and agreed by the IARU so that the purpose and benefits of a new approach could be agreed and a smooth and co-ordinated changeover could be made.

The RSGB points out that the RA has continually publicised its policy of 'Quality of Service to our Customers', but on the subject of the Morse code requirement it has chosen to completely ignore the customer.

The Society has requested the RA to reconsider its position which, 'if pursued will not only affect the UK, but will undermine one of the established cornerstones of the Amateur Service world-wide.'

G-QRP CLUB Protests

The G-QRP Club has written to the Radiocommunications Agency to express its concern that the RA will support any proposal to remove the Morse requirement, and has asked it to reverse its decision. The club, which has some 5000 members, with about 3500 holding UK amateur licences and overseas membership extending to some 50 countries, points out the problems that will arise through overcrowding of the HF bands if a no-code licence is introduced. It forecasts mode wars, a breakdown in band planning and anarchy on the bands.

It stresses the value of Morse operation for those of modest means, or those in third world countries, and points out that the ability and willingness to build and operate simple but effective CW equipment is a major area in what remains of amateur radio home construction. If CW activity is reduced, says the club, this important technical aspect will be killed off, bringing amateur radio several steps closer to being a minor adjunct to the hobby of computing.

The club feels that once the Morse test requirement is gone it will only be a question of time before another campaign is mounted to eliminate the Radio Amateur's examination on the grounds that it is 'difficult/elitist/unnecessary'. It concludes that the effects of ANY lowering in amateur licence qualifications are incalculable, and could present real dangers to the future of the hobby.

NZ Firms Up Proposal

As reported in MM40 (p.8), it is the intention of the New Zealand administration to propose the abolition of RR 2735 at WRC-95, to be held in Geneva from October 23 to November 17 this year. This move is against the expressed wishes of New Zealand's national radio society, NZART. There is, however, no certainty that the matter will be discussed at WRC-95 or, if it is, that the proposal will be agreed.

The actual proposal is as follows *(SUP means 'suppress', i.e., delete)*:

'SUP RR2735 (S25.6) Reason: This

provision does not mandate for specific qualifications and as such is not considered appropriate in a treaty text. RR2736 (S25.6) additionally allows administrations to have in place and agree on any technical or operational provisions or accords that may be deemed necessary. It is not intended that any existing reciprocal agreements that contain a Morse code component be modified as a result of this proposal, but administrations would be able to modify their national requirements if desired.'

The Hispania CW Club of Spain has written to the NZ authorities expressing great concern at the abolition proposal, and also pointing out that some very advanced technological agencies including NASA, the US National Aeronautics and Space Administration, retain Morse as a final resort for survival communications.

RAC to Canvass Members on Morse Test

Canada's national radio society, Radio Amateurs of Canada (RAC) is to canvass its members to determine their views on the Morse code requirement for radio amateurs.

Reporting this decision in *The Canadian Amateur*, September 1995, Tim Ellan VE6SH, RAC First Vice President, points out that there is no international regulation covering technical standards that a person must meet before being issued with an amateur radio licence.

Mr Ellan comments that dropping the code requirement could mean that some countries would be able to issue amateur licences to individuals who are not properly qualified, simply on payment of a fee. This could lead to increased use of the already overcrowded HF bands and possible misuse of amateur allocations by commercial interests.

He concludes, 'The Morse code requirement may eventually be eliminated. The difficulty will be in replacing it with some other form of evaluation.'

Nations Not Supporting NZ

IARU sources advise that the administrations of several nations have indicated to their IARU member societies that they will not support a New Zealand proposal to suppress RR2735. These nations say they support the IARU policy established by the IARU Administrative Council at its meeting last year in Singapore *(see MM38, p.14)*. These include Australia, India, Japan, Korea, Malaysia, Norway, and USA.

LATE NEWS

IARU Response to NZ Proposal

The Administrative Council (AC) of the International Amateur Radio Union met in Niagara Falls, Canada, from 30 September to 2 October 1995, immediately following the IARU Region 2 Conference.

Following its meeting the Administrative Council issued a press release outlining the action it had taken on various matters. The following extracts relate to the current Morse issue.

'2. The Administrative Council agreed on instructions to be given to the IARU delegation to the 1995 World Radiocommunication Conference (WRC-95) and

requested that the International Secretariat update this material as new information becomes available. The delegation will be headed by IARU President Richard Baldwin, W1RU, and will include Wojciech Nietyksza, SP5FM, and Larry Price, W4RA.

'11. An Ad Hoc Committee on Roaming License Qualifications was created, to prepare a report having as its ultimate objective the forming of a consensus of the three regional organizations regarding the technical and operating qualifications that are appropriate to the Amateur Services.'

It is understood that the AC established the above objective after discussing the Morse test issue. Such a consensus could form the basis for a global roaming license, following either the CEPT or CITEL models or some combination of the two concepts. The establishment of a global roaming license is a high priority for the IARU and for several administrations, some of whom have cited it as a reason for their reluctance to consider changes to Article 32 (i.e., the NZ proposal) at this time.

A timetable set out by the AC calls for a report to the Council within four months. No more than two months later it should be ready for submission to the IARU Region 1 conference, to be held in Tel Aviv, Israel, in September 1996. The report will then be considered at each subsequent regional conference and a world-wide consensus developed prior to WRC-99. At that time the issue of a global roaming license should be ready for ITU consideration.

The AC stated that it was not desirable for administrations to address particular aspects of the technical or operational qualifications for licensing in the Amateur Services in isolation, and without having regard to the opinion of the amateur community as expressed through the International Amateur Radio Union.

Discussions are continuing regarding New Zealand's proposals to WRC-95. The conference will be taking place as this issue is published, and the outcome will be reported in MM43. ***MM***

Operating the B2

on the Amateur Bands

by John Pears G0FSP

MM35 (p.8.) contained a report by John Pears on the involvement of the Dacorum Amateur Radio Transmitting Society (DARTS) in Operation Maquis 1994, using the special call GB50CR. The operating team hoped to use a B2 clandestine radio set during the event, and the following account, omitted from MM35 because of space limitations, describes how the B2 was modified to provide improved performance in the amateur bands. The set was successfully used a week beforehand, but on the weekend of Operation Maquis the 40-metre band was very congested and with regret the team had to switch to a modern transceiver in order to participate successfully

THE B2 RECEIVER covers the frequency range 3.1 to 15.2MHz in three bands and can resolve CW, SSB, and AM. Band one covers 3.1 to 5.4MHz, providing operation in the 80m amateur band. Band two covers 5.2 to 9.4MHz, providing operation in the 40m band, and Band three, 8.7 to 15.2MHz, provides operation on the 30 and 20m bands.

The transmitter is a CW only crystal-controlled unit with a power output of about 20 watts. It has four plug-in tank coils to provide transmission in a frequency range comparable with the receiver. Each crystal can be used to transmit on its fundamental, 2nd, 3rd, and 4th harmonic. So, for example, a crystal having a fundamental frequency of 3.515MHz can provide operation at 3.515, 7.030 or 14.060MHz.

Comprehensive metering is provided on the transmitter. This allows the operator to check and fault-find, as the various voltages and currents on both transmitter and receiver can be monitored. The metering is also used to tune the transmitter and load the antenna.

Switching between transmit and receive is manual. The key has about 250 volts DC on it so you have to be just a bit careful where you put your other hand!

User Friendly Modifications

It goes without saying that any modifications to a classic piece of equip-

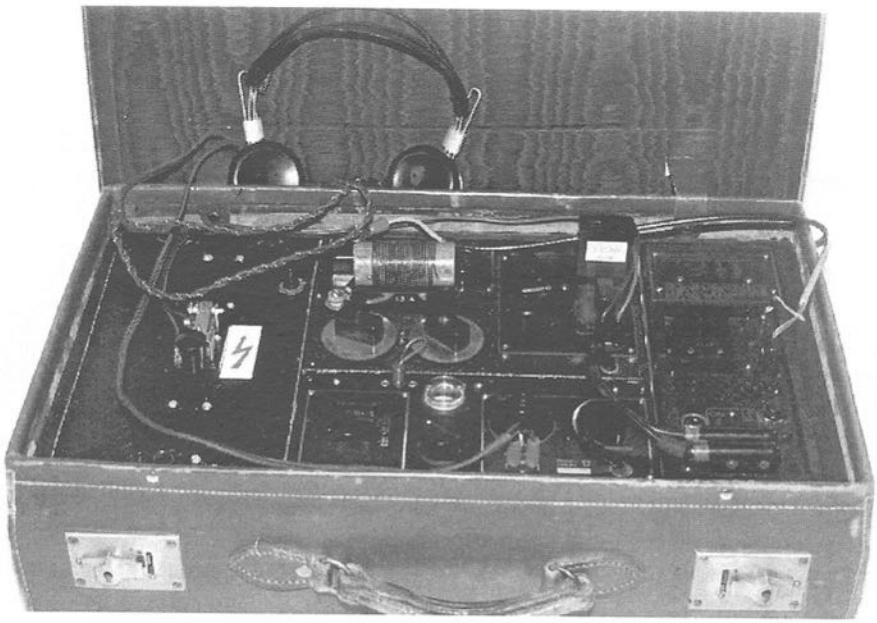


Photo: John Pears

The B2 set, fitted in a suitcase, described in this article. The test-meter is hidden behind the tank coil, just below the headphones

ment like the B2 should not to alter the set in any way. Drilling holes in the front cover and the like can affect the appearance and the operating characteristics of this lovely old transceiver.

All the modifications listed below are simple add-ons that help to compensate for the busy amateur bands of today. They cover four operating areas that can be improved by simple modification, or by the use of ancillary operating aids.

Adding Sidetone

The first problem is the lack of sidetone. This was overcome by the use of the KANGA RF sniffer which also serves as a Morse code buzzer.

This is powered by its own internal 9V battery; you simply lay the 3-inch-long RF sense antenna wire next to the tank coil to provide loudspeaker volume sidetone. You can even hear it with headphones on, and best of all you are monitoring the actual RF output.

No Netting Facility

The second problem with the B2 is the lack of a net control. The transmitter and receiver are two separate units and there is no provision to net the receiver onto the transmitting frequency.

The HT power for the two units is controlled by the transmit/receive/tune switch on the transmitter. With the set switched to transmit or tune, the HT to the receiver is switched off; and with the set switched to receive the HT to the transmitter is switched off. The valve heater circuits for the transmitter and receiver, however, are always live.

To overcome the problem, a small switch was fitted to the lid of the spares box. This was permissible as the spares box cover was not original but was made when the B2 was installed in a suitcase.

With the B2 switch set to 'tune', only the oscillator stage of the transmitter is live. The new switch is used to power up the receiver at the same time and you can then hear the transmitter in the receiver headphones. The receiver can then be tuned to the null between the two sidebands of the transmitter, first checking that the BFO is set to zero.

CW Filter Added

The third problem is the audio frequency bandwidth of the receiver, which, as stated above, is wide enough to resolve SSB and AM quite easily.

This was improved for Morse reception by using an external passive CW filter as designed by Mike Michael W3TS and featured in *SPRAT*, the G-QRP magazine, issue 58. This is fine for headphone use, but to provide loudspeaker volume so the person logging can also hear the signals, the KANGA AF amplifier was added to the filter.

Crystal Oscillator Switching

The fourth and final problem is coping with a crystal-bound transmitter. This was overcome by the use of a circuit again from *SPRAT*, issue 77, called '40m Fixed Capacitor XO Switching', by Mac McNeil G3FCK.

Two crystals 7.020 and 7.025MHz, and a switching arrangement with fixed capacitors give a frequency range from 7.0198 to 7.0292MHz in approximately 700Hz steps, with a constant power output of 20 watts, without retuning the transmitter.

Trial Run

One week beforehand, the B2 was introduced to the antenna and location which was to be used for Operation Maquis. This was a useful exercise, which gave club members the opportunity to familiarise themselves with the set, and offered the opportunity to check out the full station with its new operating aids.

As a result of this trial run the loading procedure was amended. Rather than load the B2 straight onto the G5RV antenna it was found easier to load it into the dummy load of the ATU, and set the ATU for a 1:1 SWR. Using this procedure, we coaxed just over 20 watts from the transmitter and made four contacts, the most distant being LA1IE in Ålesund.

Everyone who took part in Operation Maquis, either operating or logging, had a great time. We were very disappointed, however, at not being able to use the B2, but the weekend traffic was just too much for the old lady.

Update

John Pears reports that he has now obtained a proper spares box for the B2. As the box cover is now original, and to conform with the philosophy outlined above, some work is now required to resite the added netting switch onto an additional panel to ensure the appearance of the original equipment is not changed in any way.

John hopes that the B2 'should be up and running shortly, and back on the bands where it belongs.' ***MM***

The YTG Story

by Donald K. deNeuf WA1SPM (SK)

GERMANY invaded Yugoslavia in April 1941 and King Peter II fled to London. But many Yugoslav troops continued to fight the Nazis in the mountains. Draja Mikhailovich led the largest group – Chetniks. Eventually they became involved in open warfare for control of the resistance movement with another partisan group backed by the USSR and Great Britain and led by Josip Broz – later known as Marshal Tito.

The Press Wireless station on Long Island in New York during WWII continually scanned the frequency spectrum for new or unusual signals. One day a hand-Morse signal was discovered repeatedly and frantically calling one of the PW New York stations 'WPK WPK – can you read me?' PW answered with a 'QTH?' and the reply was 'This is General Mikhailovich's press station in the mountains of Yugoslavia and we will sign YTG. We have a big load of press messages for you – can we start now, please?'

PW operations were of course under Government surveillance and it had to inform the authorities what they had discovered and for approval to tell YTG to go ahead. Approval was finally granted, and PW instructed YTG to proceed. Thereupon day after day YTG would run a string of long press messages to major American newspapers, news magazines and press associations. None of the dispatches was ever signed with a name, but they provided vivid (and most accurate) reports on the activities of General Mikhailovich and his forces.

The station moved from one location to another, staying close to the fighting. The operation sounded exciting at times, especially when YTG would stop transmitting and say: 'Nazis are shelling us – we've got to get out of here quickly – see you later' and off the air he'd go – often not to be heard from for several days. Then we'd suddenly hear him tuning up and calling us with another big load of press messages. Of course the 'Y' call letter prefix has always been assigned to Yugoslavia, but we wondered sometimes whether the called letters really stood for 'Yugoslav Travelling Guerillas'.

In listening to his transmissions I often had a feeling that the 'fists' at YTG were typically American. Not till long after WWII had ended did I learn that this was actually so. The OSS had parachuted a group of seasoned US Navy radiomen to assist Mikhailovich.

General Mikhailovich was captured and executed in Belgrade, 17 July 1946 by the Tito regime. ***MM***

Such Were the Sets They Used in the Field

by Pierre Lorain F2WL

DO YOU KNOW F3DM – my friend Tony? If you never hooked up with him you are missing something, for he is an excellent CW operator and a nice old chap. In case you meet him, you should brush up your French a bit because Tony, to his great shame, has only sketchy schoolboy English left, fading away as years fly past.

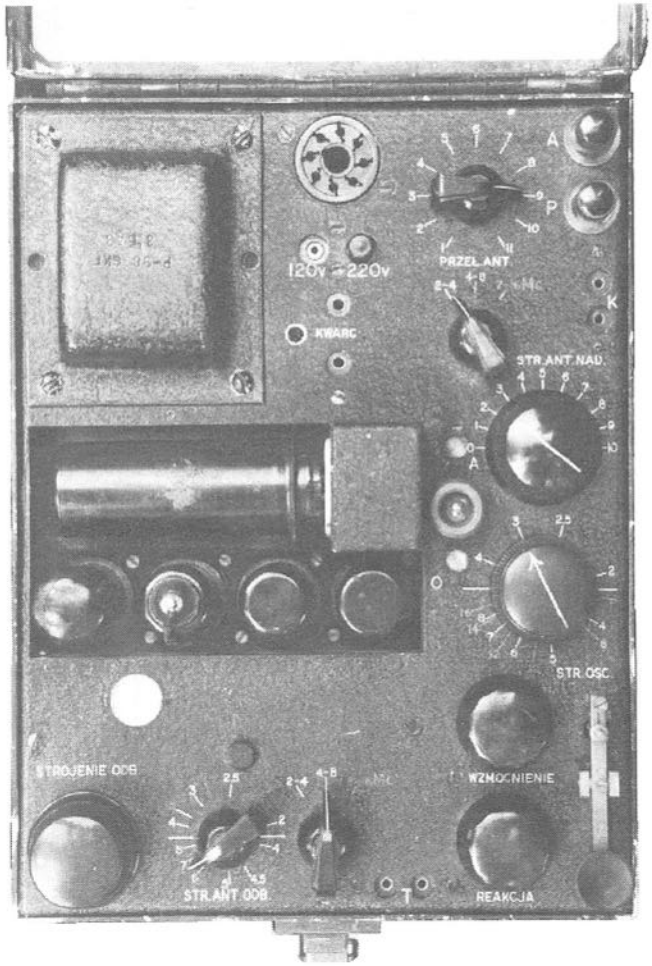
His ham career began at a tender age in 1932. An adventurous young boy, he enlisted early in the French Air Force as an airborne radio operator in Bomber Command. When his service with the Air Force came to its end, in 1938, he started up a new career in the Police Force.

At the outbreak of WWII he was a police radio operator and the fateful year 1940 found him, after the Battle of France, a Superintendent in Vichy in charge of reorganising radio links between what was left of 'free regions' in the 'unoccupied zone' south of the river Loire. He set up communications as best as he could with salvaged military sets removed from the prying eyes of German Armistice Control Commissions. His office was then composed of two bedrooms in a commandeered hotel which served as the Vichy Police Directorate.

Contacted by Resistance

Tony, whose father served gallantly in the trenches of WWI, was given a strict patriotic upbringing. He had not to wait for too long before being contacted by discreet go-betweens asking him if he would join an embryonic Resistance movement. With a job in the very heart of the French Vichy police HQ, Tony would make an invaluable Intelligence agent, the more so as he dealt with radio communications.

Some of the first attempts at air-supplying made by the SIS or the SOE for the benefit of French Intelligence or Resistance centres located in the free zone were not always accurate, and more than one container fell far off from its intended destination. Such mishaps had to be reported to French 'Gendarmes' who, instead of delivering the contents to the German Armistice Commission, handed them to Tony who stored these orphan radios in one of the office/bedrooms under lock and key, after having assessed their qualities and drawbacks.



The Polish AP-5 clandestine transceiver

He was, after some months, responsible for eleven SIS and SOE sets of various models, from the primitive pre-war single 807 crystal-controlled 'Whaddon' Mark I SIS transmitter, in a large wooden box, to the sophisticated 'AP-5' transceiver which was brilliantly designed for clandestine operations by Polish technicians who had found their way to London. Though several 'copies' were to be made in France in secret factories, radio sets were always a dire need.

Set Substitution

Soon Tony got in touch with an Intelligence Officer, belonging to the so-called 'Action-PTT' network, who was desperately looking for a transceiver. All seized sets in working order had been duly sealed by Tony, with the exception of a broken down and useless one. It was easy to affix a new

seal to the piece of junk and, at the same time, to break the seal on a good set and hand it to the grateful visitor.

So far so good, the number of sets had not changed. Such a treasure-house soon became known to other clandestine agencies, notably the Gaullist 'Ajax' net which had lost three of its radio operators and wanted badly to resume its links with the BCRA[1] HQ in London.

The Germans invaded the 'Free Zone' on 11 November 1942 and conditions suddenly became deadly for all clandestine work as the dreaded Gestapo was then free to operate anywhere in France. The very life of each net was at stake, notably for the French SR[2] 'Y' Service[3], intercepting 'Enigma' signals, which had up to then maintained a constant link with Bletchley Park from a castle located in the Rhone Valley. But that is another story...

Hidden in Oven

The problem seemed insoluble for Tony, until he had the bright inspiration to simulate a burglary with the help of the vice-director of the Vichy police force. One night he broke the lock and 'stole' the eleven transceivers in the depot. The suitcases were put into a lorry, stored in a safe place and transported, one by one, by train to the suburbs of Lyons where the 'Ajax' HQ was located. Tony duly reported the burglary 48 hours later.

Life was then hectic for him since he had to wake up at 5 in the morning, cycle 15 miles to send urgent messages to London on one of the stolen sets, an 'AP-5' transceiver, which he kept hidden in the kitchen oven in an isolated safe house. Afterwards he pedalled back to Vichy to be at his office at 9.

Later on, he travelled by train to operate several 'outstations' around Lyons. Messages were coded by the 'Ajax' staff, retrieved from 'dead letter boxes' by Tony, who tapped out the 5-letter groups as fast as he could. He used three different schedule plans for doing so; the microfilmed plans were named after famous cinema stars – 'Josephine Baker', 'Lilian Harvey' and 'Viviane Romance' (a striking French beauty of the time).

Mentioned in Despatches

Soon, Tony was working like mad for several intelligence nets. The last six months before the invasion looked desperate as the Gestapo was hot on his scent. Warned by his chief, the police vice-director, he left hurriedly and went to Lyons on bicycle without proper identity papers.

Earlier he had been given a Colt .45 pistol and a Sten gun to defend himself; later, an armed team was put at his disposal to ensure the protection of his ever-changing addresses. Anyway, he escaped at last without having to make use of either of his weapons, to his great relief...

Mentioned in Despatches, he was awarded a Croix de Guerre (with vermilion Star) by General de Gaulle on 5 June 1945. The citation mentions: "For bringing a great help to several Resistance movements. Radio operator of a clandestine Intelligence agency, he took an active part in an operation which led to the recovery of 11 radio sets in the depot of the Police Directo-

rate in Vichy. He maintained the sending of a large number of radiograms for his own net and for several others which had been deprived of communication means".

AP-5 Still There

When the war was over, Tony remembered that he had left his 'AP-5' in the kitchen oven in the safe house near Vichy. The set was still there. Nobody had touched it and Tony came back home, a soldier of the shadows from the wars, returning with a small bundle and the 'AP-5'. A Police Superintendent again in the peaceful country near the Pyrenees. The Polish set was put on top of a cupboard and was then forgotten for 48 years!

Tony was good enough to give me the set last summer. After wiping off the accumulated dust, I eagerly and hastily erected a makeshift dipole, draped over a nearby oleander, only seven feet from the ground, and switched on the mains. Lo and behold, after some anxious ten seconds the well-known rushing waterfall noise came through the earphones; the receiver worked as if it had been used only the day before!

Tentative CQ

I plugged in a 7.025Mc/s crystal, tuned in the transmitter settings until the neon tubes shone brightly, and sent out a tentative 'CQ'. 400 miles away, on the other side of the Channel, G3ZWH came back with a 569 report! Another rock on 3.505Mc/s, new settings, and back came the aforesaid station with a 559 report at the improbable time of 1000Z.

The 'Free Poles' who manufactured the set would have been flabbergasted had they been told it would be in working order half a century later, and still capable of sending and receiving messages between Creuse (200 miles south of Paris) and a charming village in Kent.

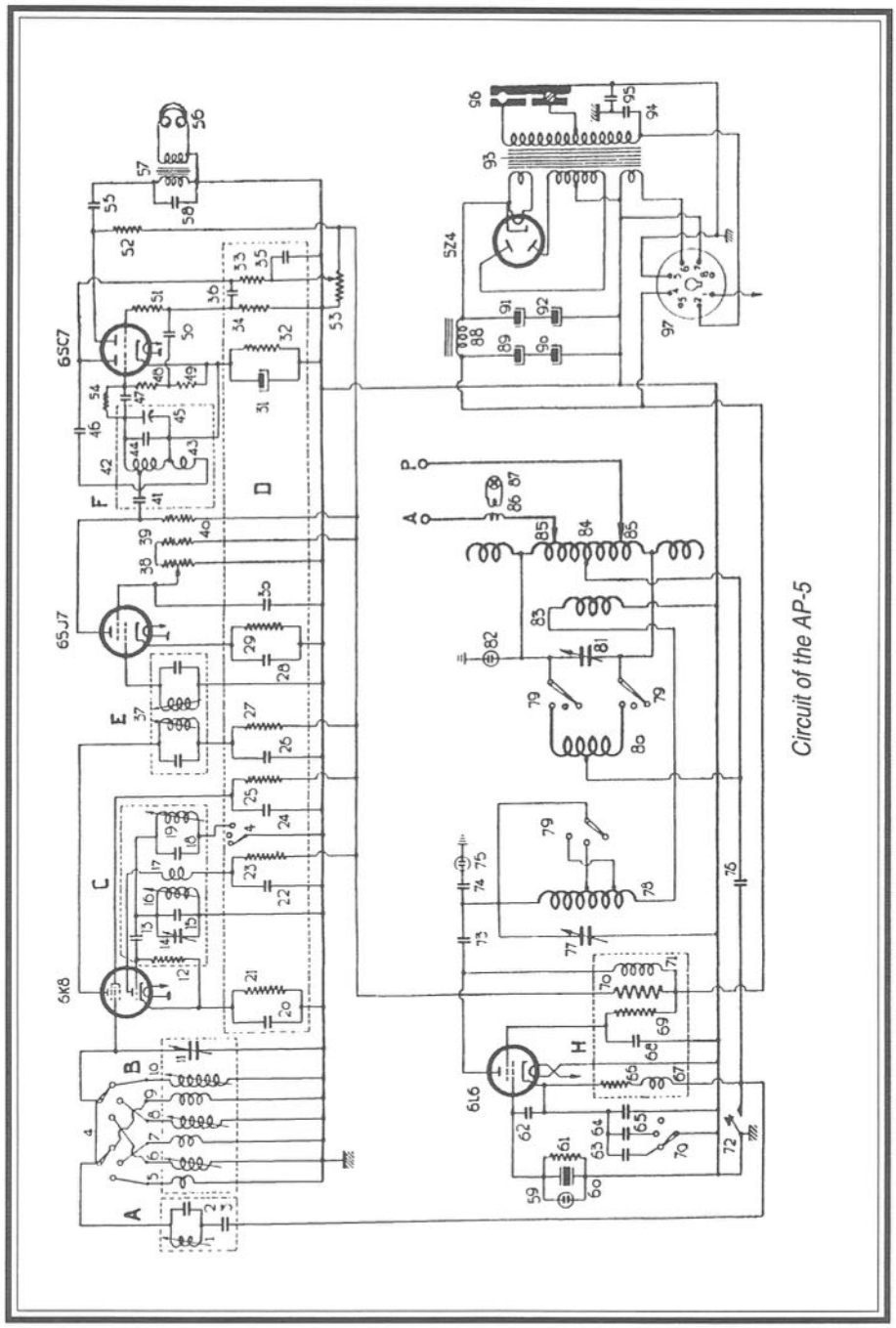
The 'tone' was reported to be 'crystal pure' on 3.5 and slightly chirpy on 7Mc/s. The set was not tested on 14Mc/s but the slight chirp would probably have been more pronounced due to the single valve oscillator.

No Transmit/Receive Switch

The output power of 15 watts proved ample for clandestine work with a poor aerial, the full-BK system is smooth and silent. There is no transmit/receive switch other than depressing the key, which is an excellent feature for fast duplex traffic though rarely found in any other clandestine radio.

To be honest, the weak point is the receiver which is both much too sensitive and not selective enough by far, with an average bandpass of 10kc/s or more. Though the dial drive is smooth, the bandspread is so cramped that an angle of 2 degrees covers 50 kc/s on the 4–8Mc/s band.

Because the receiver is virtually useless nowadays for ham traffic in our ultra-crowded bands, we should not fault it. It was brilliantly engineered and as compact and light as was possible at the time, and it was designed for receiving strong CW signals from a 'Control' station using directive folded dipoles or rhombic aerials. In a given band, practically the whole spectrum could be used. I did not hear that Tony complained of



Circuit of the AP-5

not copying London loud and clear with the 'AP-5'.

Set Details

The PSU (mains only), Transmitter and Receiver are contained in a small 11 x 8.5 x 4 inch metal container weighing 12 lb. It covers from 2 to 16Mc/s in three bands (2 to 4, 4 to 8 and 8 to 16). The five octal metal valves are exposed to air, their functions being: **Transmitter:** 6L6 crystal oscillator; **Receiver:** 6K8 frequency changer, 6SJ7 reactive IF on 1500kc/s, 6SC7 grid detector and AF; **PSU:** 5Z4 rectifier.

This set is one of the many models manufactured between 1941 and 1945 by the Free Poles for the SIS. As can be seen in the photograph, the receiver is housed in the lower third of the box, together with an excellent built-in key. Valves and transmitter settings are located in the middle.

PSU and aerial settings are in the upper third. AC cord and miniature folding headset are housed within the box, under the lid. Aerials had to be dipoles, which were not so easy to erect as the usual random thrown out wires which were common with most clandestine sets.

The complete, ready to be fired-up, 'AP-5' was easily slipped into a bicycle bag if you were brave enough to risk your life in doing so on the roads of France in WWII.

Abbreviations

[1] BCRA. *'Bureau Central de Renseignements et Action'*. The Gaullist central Intelligence agency in London which worked in close contact with the SIS and the 'RF' SOE Section.

[2] SR. *'Service de Renseignements'*. The official pre-war French Intelligence agency. Exclusively staffed by French Army regulars. HQ in the 'free zone' from June 1940 until 11 November 1942. After that date, part in France and part in Algiers. Worked in close co-operation with the SIS and the OSS.

[3] SR 'Y' Service. Intercepts by French SR military personnel of German radio 'Enigma' traffic and of German land-lines all over France. Intercepts were decrypted and/or sent to Bletchley Park through secure Anglo-French 'Enigma' link! This 'Ultra' traffic worked from 1940 to the end of the war.

(Reprinted, with permission, from Mercury, *journal of the Royal Signals Amateur Radio Society, and adapted slightly for* MM. *Pierre Lorain is the author of* Secret Warfare *(titled* Armament Clandestin *in France, and* Clandestine Operations *in the USA), described in MM7 by the late John I. Brown G3EUR (designer of the series of SOE W/T sets which included the Type A Mk.II and Mk.III, and Type B Mk.II) as "the most informative book available now on the SOE sets".)*

A Remarkable QSO

by Jo Doering DL1RK (SK)

DURING WWII, I served as a Lance Corporal in a special army signal corps unit in the Afrika Korps. We intercepted the enemy's tactical radio communications in the African war theatre and used to be Rommel's ears.

Late afternoon on 7 May 1943, five days before we surrendered in Tunisia, our company commander asked me if I would like to communicate with the enemy. "Sure I do", was my answer. My first thought was that it was the give up message, the end of the fighting in Africa. But the message to be sent was about a target not to be bombed.

Since the allied bombers flew in from the west, the message had to be addressed to the British lst Army who operated in this area. Therefore I chose a radio net from the HQ British First Army, noted frequency and callsigns, took the message and went to the transmitter van about half a mile from our receiving site.

The British net was very busy that night, and I had to wait for a long time. Meanwhile I practised with the straight key since I had not used one for about a year or so, sitting in front of a receiver taking down the foe's radio traffic. At last the net I was tuned into had worked through all the traffic they had at hand. Now it was my turn.

With the 80 watt Lorenz transmitter carefully set to zero beat and with the 'borrowed' call they had used last, I hit the key: "QTC", and then I made a big mistake by using the British 8th Army's 'X279?' instead of the 1st Army's 'QRK?'.

The HQ station came back with a question mark. I started over again, but this time with "QTC 1 QRK? K". QRK 5 was the answer. DA-DI-DA-DI-DAH, "To the headquarters allied expeditionary forces in Africa from the HQ of the Axis Forces in Africa". Then the guy I had 'borrowed' the call from came in: "That's not me, its a propaganda message from the enemy." But I broke in with "It's not propaganda, but life or death for your own people". In the end the HQ station told me to go ahead with my message.

It read as I recall from memory: "Two ships are in the harbour of Tunis. One freighter with 600 allied prisoners in its holds and a hospital ship. Do not bomb those two ships to save the lives of your own people." I received "QSL" for my message and said "I will QRX tomorrow same time, same frequency for a possible reply."

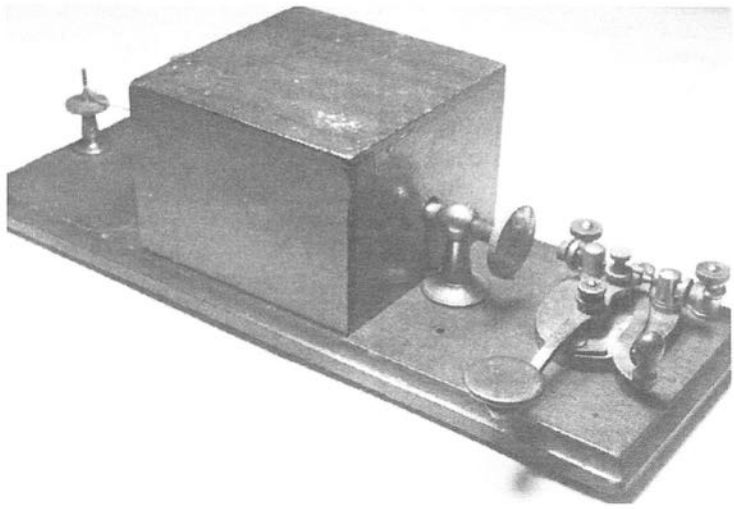
No reply was received during the next

days. The event faded in my memory during the years that followed until in 1950 I bought a book about the war in Africa. In it I found the message I had sent and the reaction that took place.

General Alexander, Commander of the British lst Army, met the captured German General von Arnim and thanked him for the message which saved 600 of his soldiers. He agreed to send 600 wounded Germans in a hospital ship to Italy. In a small way I had helped to add some human touch in this cruel war. Therefore I call this my only worthwhile QSO ever.

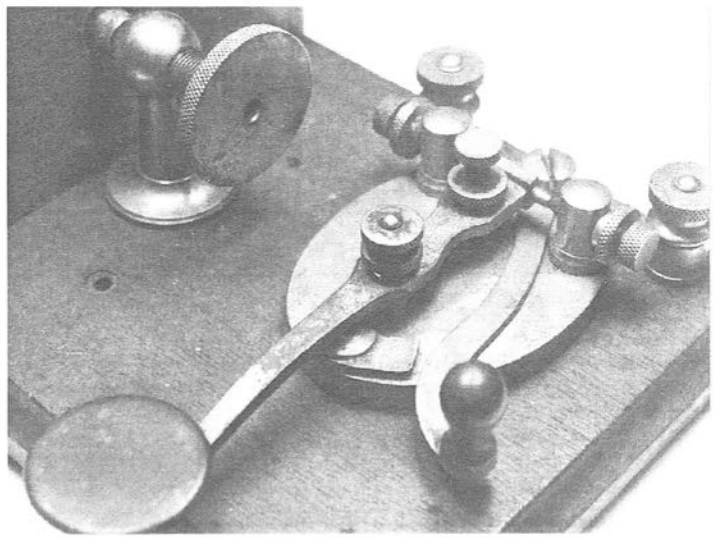
(From FOCUS, *journal of the First Class CW Operators' Club, Winter 1991.)*

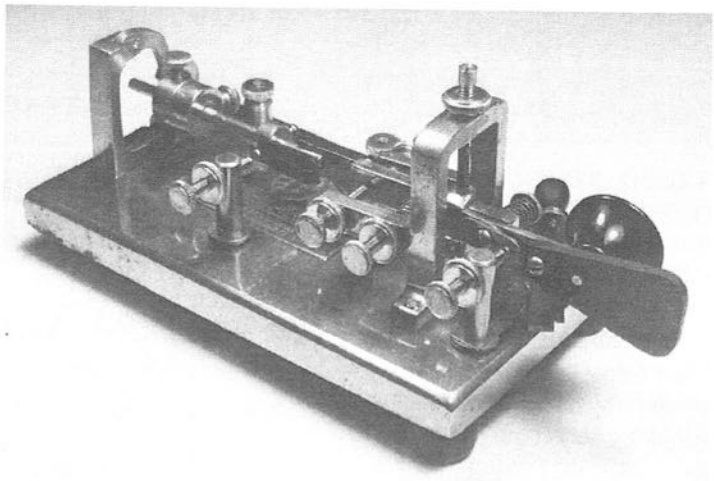
Showcase



Photos/Collection: Dave Pennes, WA3LKN

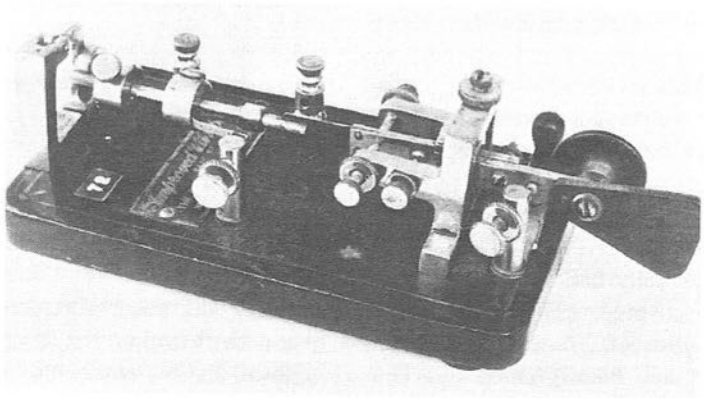
Box Relay KOB. Early Western Electric design. Dated 1886 on underside. Unusual key design shown in close-up below





Photo/Collection: Dave Pennes, WA3LKN

Vibroplex 'Original', about 1920.
Nickel plated; after 1940 plating was in chrome



'Improved Vibroplex' made by the A to Z Electric Novelty Company of Chicago, 1914. According to Louise Moreau, W3WRE, in 'The Story of the Key' (reprint available from the MM Bookshelf), this was the most flagrant copy of the Vibroplex Original at a time when many companies were flouting the Vibroplex patents

Collection: John Elwood WW7P. Photo: Ray Nelligan

Featuring keys and other collectors' items of telegraphic interest.
If anyone can add to the information given please contact
Tony Smith, 13 Morley Road. Sheringham, Norfolk NR26 8JE

The Bug that Never Was

(Vibroplex US Patent 1042457, Oct. 29, 1912)

by Dennis Goacher G3LLZ

I DECIDED TO BUILD THIS KEY for no particular reason except that I had enough steel plate to make the base and it looked, on paper, a straightforward project without any awkward machining.

I ended up with a key which is probably unique and which provided me with a lesson in making very small parts, akin to horology.

The details were derived from the US patent and drawings which are reproduced in the *Vibroplex Collector's Guide*, by Tom French. By reading the description and comparing the words with the pictures, it was fairly easy to work out how it operated, and by measuring the drawings and scaling them I was able to make the major components without any problems.

Never Produced

I had already half finished the key before I discovered, in Bill Holly's book, *The Vibroplex Co., Inc.*, that although the patent had been granted this key was never put into production. When I realised this, I made sure that my model was as near to the drawings as possible, taking into account any limitations imposed by the tools and machinery at my disposal.

The main area of difficulty was making, or obtaining, the taper springs controlling the main arm. The drawings show two coil springs, tapered in diameter along their length. One end is attached to a screw to provide adjustment for pressure and the other end has an extension which is pushed into a hole in the appropriate hinged lever to provide anchorage.

Finding or making such springs proved impossible so I chose a method I have used on other keys, namely, using a normal coil spring with one end fitting over a short stud on the lever to hold it in place, and the other end fitting into a cup which is a loose running fit over the reduced end of the adjusting screw. Apart from this variation, the key is as near to the original drawings as is practicable.

Like Putting a Clock Together

From an engineering point of view, there are several small parts which need careful attention to detail, especially in the arm and spring lever assembly. The parts are held between two plates which

H. G. MARTIN.

ELECTRIC TELEGRAPHIC APPARATUS.

APPLICATION FILED JULY 1, 1911.

1,042,457. Patented Oct. 29, 1912.

Fig. 1.

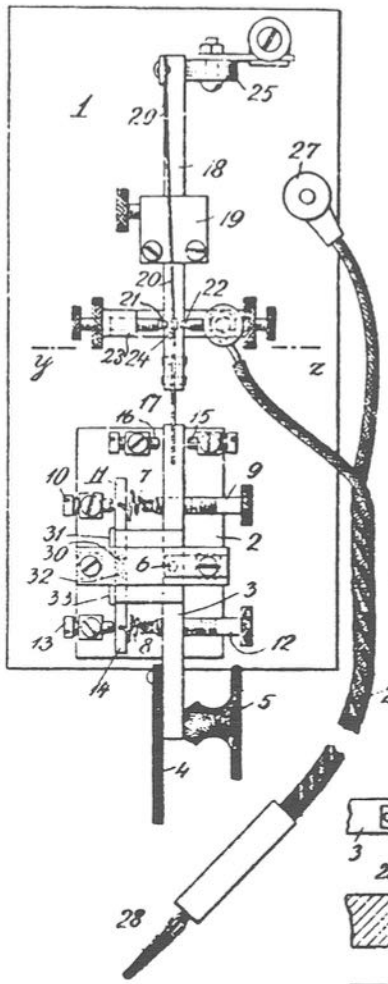


Fig. 2.

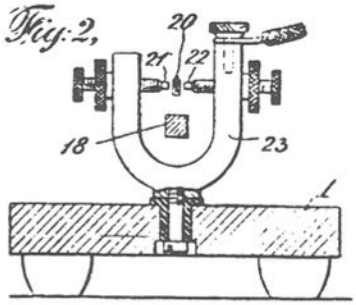


Fig. 3.

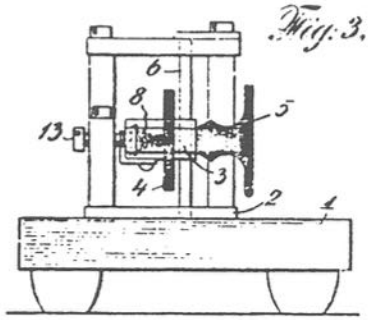
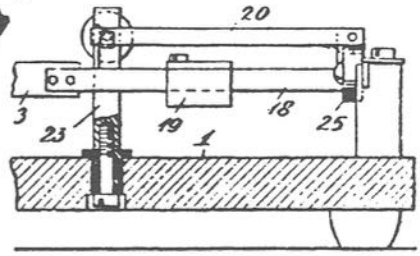


Fig. 4.



Witnesses:
Max F. A. Dorring
Philip Simmott.

Horace G. Martin. Inventor
By his Attorney
Murray Corrington

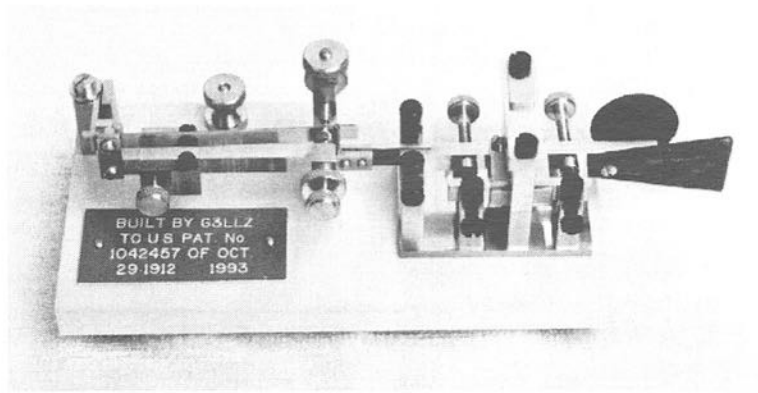
need to be accurately drilled as a pair. These are assembled with two shouldered pins, $^{1}/_{16}$-inch in diameter, reduced in diameter at the ends where they engage in the plates. The assembly process is very much like putting a clock together. All parts are assembled dry, no oil is used in any part of the mechanism, so all movement must be free and not liable to bind when in use.

All the levers, arms, plates, pillars, etc., are made from brass. The pivot is of silver steel, the base of mild steel, stove enamelled, and the screws of mild steel finished with gun blue. The pendulum spring is a short piece of clock spring, the round finger knob is turned from aluminium bar and painted, and the flat paddle is made from a scrap of teak, shaped using glasspaper.

The total time to make the key was around 80 hours, spread over three months, mainly during lunch breaks at work, with the final finishing carried out at home in the evenings. The power machinery used was a lathe, which was essential; a milling machine, which reduced the amount of manual work but which could be dispensed with; and a bench drill which was very useful.

Overtaken by Model X?

Most of the work was done by hand, using a hacksaw and files, and the finish obtained by patiently rubbing on fine grades of wet and dry abrasive paper, held down on a flat surface and using plenty of water. The coating used to prevent oxidation was Rustins clear lacquer.



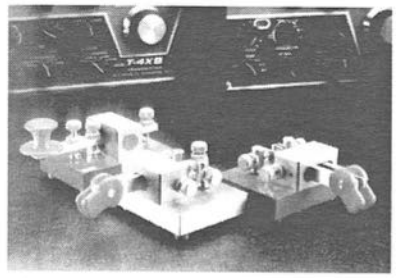
Vibroplex key to US patent 1,042,457 made by Dennis Goacher. This key was never produced by Vibroplex

In use, the key is a little heavy but this could be due to the springs I had to use. I am looking for 'softer' springs to replace them and will carry out tests when I have more samples.

I have speculated as to why this key never went into production, and would suggest that as the arm assembly required

continued on page 33

The CW Centre! ©



Jones keys

Peter Jones

Pump Key	Red base	£62.61
	Brass base	£70.76
Single paddle	red	£86.82
	brass	£83.61
Twin paddle	red	£77.19
	brass	£85.22

R A Kent

Pump key	kit	£41.50
	assembled	£53.50
Single paddle	kit	£46.50
	assembled	£56.50
Twin paddle	kit	£53.50
	assembled	£67.50

Bencher twin lever paddles

BY1	Black base	£64.95
BY2	Chromed base	£79.95

Keyers

Curtis 8044ABM chip		£19.95
"Oak Hills" Curtis keyer	kit	£33.95
	assembled pcb	£44.95
R A Kent Electronic keyer	NEW!	£45.00
R A Kent Memory Module		£25.00

Morse Tutors

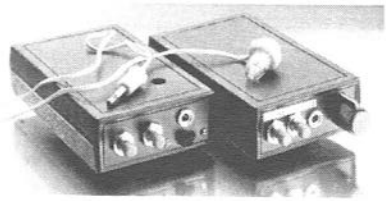
G3TUX "Omega" multimode		£44.95
R A Kent		£49.95

Practice Oscillators

R A Kent (built in speaker)		£17.50
C M Howes ST2	pcb kit	£9.80
	HA12R case	£10.10
ST2+HA12R	ready to use	£29.95

RX Audio filters

C M Howes ASL5	pcb kit	£15.90
	HA50R case	£13.90
HA50R+ASL5	ready to use	£49.95
Oak Hills SCAF	kit	£56.50
	ready to use	£89.95
Timewave DSP9 plus		£239.00



Omega Tutor

Prices include 17.5% Value added tax but **not** shipping costs. Export orders welcome.
Used keys and paddles of all makes bought and sold.

G3TUX

The QRP Component Company
PO Box 88, Haslemere, Surrey GU27 2RF
Tel: 01428 641771 Fax: 01428 661794

Beginners' Corner

Changing to a Keyer

by Gary Bold ZL1AN

BARRY, ZL1ACZ wrote to me: "Do you think there is a particular speed where it is advantageous to progress to a keyer? I send differently on a straight key and a keyer. In particular I still tend (subconsciously) to count the dots/dashes when sending numerals on a keyer. I think it's because of the lack of wrist movement, compared with a straight key. One has to listen to the sound."

Others ask about this. Using a keyer is different, and those long multi-dot numerals, in particular, are difficult to form at the beginning. With experience, the mind and fingers work out what to do, and just do it. They just have to learn the rhythm. But it is a more complex operation. I find that I have to warm up for a minute or two on my keyer to fine-tune my reflexes.

Last night, I heard Bill, ZL4QL calling CQ, and called him cold. I tried several times to send his call correctly, but '4' came out as 'V' or a character with 5 dits and a dah. It took several tries for my fingers and brain to get their act together.

I digress. When should you progress to a keyer? If you enjoy CW, and want to send the nicest possible Morse, I'd recommend as soon as possible. Firstly, you'll start to master a new sending skill, which you'll certainly need when you can read above 25 wpm – few of us can send faster than that on a straight key. Secondly, your reading speed will improve, because after a while your comfortable sending speed will increase, and you'll start to listen to QSOs going faster than you could send on a hand-key. Thirdly, your straight-key sending will improve.

This may seem strange, but it's because just listening to your keyer sending will reinforce the sound and rhythm of correct Morse in your brain. That certainly happened to me!

Some Paddle Fundamentals

The Christchurch EXPO Morse contests and my review of the CMOS Super Keyer have renewed interest in paddles, which are basically just two horizontally switches, mounted an inch or so above the table.

Conventionally, the thumb makes the dots with one switch, the index finger the dashes with the other. That's the way Horace Martin set up his early bugs, and keyers followed that convention. The reason was that the index finger, clever-

er than the thumb, had to form the dashes manually, while dots were formed automatically by the less clever thumb.

With keyers, dashes are also formed automatically, and there is a modern school of thought which contends that the index finger should form the dots, which now require the greater manual dexterity. I don't have strong feelings, but since I used bugs before keyers, I use the original convention.

But you can always turn the paddle upside down if you have to use one wired for the opposite polarity. The CMOS Super Keyer, which I reviewed in an earlier column, can be commanded to reverse the polarity without changing the wiring.

There are actually two types of paddles. The simplest, and earliest, is just a single pole, double throw switch, which can only close one contact at a time. This is a 'non-iambic' paddle. If you hold both contacts closed, most keyers will just send dots, as the dot logic overrides the dash logic.

Iambic paddles have two separate switches, and all modern keyers support iambic operation. With these, when you hold both contacts closed, an iambic stream of alternate dots and dashes results, starting with the element whose contact was closed first.

This makes it possible to send characters like C, K and R with a single squeeze. This takes a bit of practice, and some never master it. But it's worth acquiring the skill, because sending iambically requires much less finger movement, and so is less tiring for long periods. *(See below. – Ed.)*

In fact, that's something you'll begin to notice, with any sort of keyer, because the fingers are required to move at less than half the frequency required for straight key sending. My rule of thumb is that, with practice, you can learn to send accurately at nearly twice your hand-key speed with a keyer.

Modern keyers also have dot and dash memories. These 'remember' the next element to be sent, if it is of the opposite type to the one currently being sent. That is, to send 'N', a single squeeze, with the dash contact closed first, sends both elements, even though the squeeze is released before the dot begins.

The exact moment at which the next remembered element is stored by the keyer is determined by whether it implements what Jack Curtis defined as 'type A' or 'type B' logic. With type A, you have to hold the next element paddle closed a little longer. All modern rigs I know of which have built-in keyers implement type A, which is recommended by Jack because there is slightly more latitude possible for the finger timing.

But the Accukeyer, a very popular design evolved by James Garrett in the 1970s, implements type B. I used an Accukeyer for so long that the required timing algorithms are indelibly stored in ROM, and I won't change now. But if you're starting, it doesn't really matter.

A point of confusion often crops up. The timing logic implemented doesn't affect the code coming out in any way. You can't tell, by listening, whether you're hearing a type A or B keyer. The finger movements driving the keyer are subtly different, that's all. So subtle,

that I can't tell even if I'm watching the sender's hand.

I can tell, immediately, if I use the keyer myself, because I hold the memory element contact closed for the shorter time required by type B keyers. My 'CQ' comes out as 'KG' if sent on type A devices.

Some readers, after trying the CMOS Super Keyer, have told me that their fingers can detect no difference between any of its alternative timing and memory combinations. If this is the case, then you're not utilising its iambic and memory capabilities fully. I can assure you that there is a difference, and you'll notice it when you attempt to acquire minimum finger movement sending.

Obtaining a Paddle

Often I'm asked what paddle I use, and what do I recommend?

Well, I usually use the beautiful Brown Brothers paddle movement, mounted on a piece of scrap brass. This was the paddle originally recommended by James Garrett for use with his famous Accukeyer.

It's very simple, has gold-plated contacts, and a single spring. I prefer it to all the expensive, complicated paddles I've ever tried. I like it so much I've home-brewed two other paddles to the same pattern. Maybe somebody can tell us whether the Brown Brothers Machine Company still makes these?

I also have a zero-cost paddle made from a piece of bent aluminium, 7 nails, a piece of firewood, and masking tape. Instructions are given in my August 1988 column (5 minutes to make if you have the components, I'll repeat them if there's a demand). The humbling thing is that although I prefer sending with the Brown Brother's paddle, up to about 30 wpm I don't send Morse any better with it than with the junk-box one, and nobody who is listening has ever been able to tell which one I'm using.

In fact, my observations over 30 years are that the quality of the keyer Morse I hear is almost totally unrelated to the cost of the paddle in use. A nice, expensive, gleaming paddle will look great and make you feel better, but it won't magically improve your Morse. So if you're starting out, don't buy an expensive paddle until you're sure you're going to like keyers. Not everybody does.

You can also home-brew paddles with microswitches, back-to-back, horizontally mounted cheap straight keys, and converted bug movements – I know operators who use all of these. There are even touch-sensitive paddles, with capacitive or leakage current sensing, which have no moving parts. I have never liked these, as there's no tactile feedback. My fingers need to sense a small movement to tell them the contacts are closed. Using a paddle efficiently with minimum finger movement is an art. You have to practise, like a pianist on scales.

Learning to Send Iambically with a Keyer

I know several old-time operators who dislike keyer-sent Morse, and a few who even refuse to talk to anybody sending with a computer. They say that the Morse lacks 'character' and 'individuality', and so is sterile and impersonal. On a straight key, or even

a bug, everyone has a distinctive 'fist' which can be recognised instantly. Some purposely cultivate a distinctive style, often very eccentric, and it is well known that different 'dialects' of Morse have always existed.

With a keyer, the fist is submerged, and everybody tends to send like everybody else. Nevertheless, after sending with just about everything over the years, I'm a firm believer in keyers, and particularly iambic memory keyers, for reasons I'll come to.

Many who now use iambic dot-dash memory keyers, having converted either from bugs or the early simple keyers, rarely or never take advantage of the reduced finger movement made possible by the iambic action. That is, when sending 'C', they make 4 finger movements, one for each element.

But using an iambic keyer, you can do it with one squeeze, by closing the dah contact a little before the dit, and releasing it first. Similarly, 'Q' can be formed by holding the dah contact closed throughout, and inserting the dit at the right time with a quick tap of the thumb.

This means that 'CQ' can be sent with just 4 movements, instead of the 7 required on a simple keyer, or 8 on a bug. If you've never programmed your fingers to do this, it takes time for it to become automatic, but it's well worth the trouble since the reduced movement makes sending for long periods much less tiring, and at higher speeds, makes sending more accurate. The other letters you can form iambically are those where one element is surrounded by two of the opposite type – F, K, L, R, and Y.

The down side of using a keyer, of course, is that you will never be able to use a bug accurately again, because the dashes now form automatically, and the fingers rapidly get used to more relaxed timing. Sadly, that means that although I was once a snappy bug operator, I can no longer use the beautiful Vibroplex I now keep in trust, donated to my Department by a retired technician who had been a seagoing operator.

It is said that some people have trained one hand to send with a keyer, the other with the bug. Each hand remembers its own skills, and can do its own thing. Others have learned to send with their LEFT hand, leaving the right free for writing contest exchanges, or filling in the log. Can you do this? Write and tell us about it!

(Extracted and adapted for MM *from Gary Bold's 'The Morseman' column in* Break-In, *journal of NZART).*

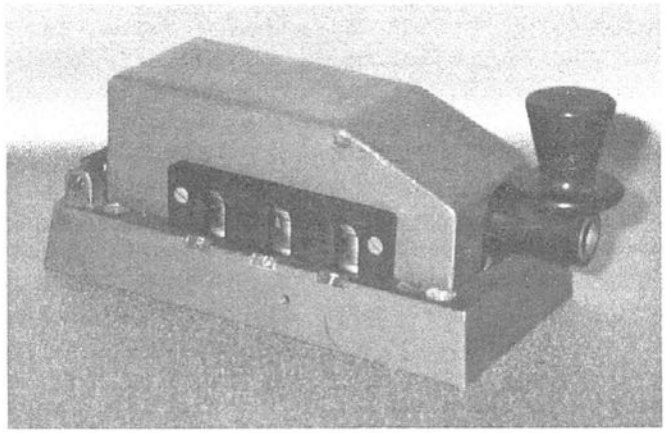
The Bug that Never Was

continued from page 28

some dexterity in putting it together, this could have caused the production people at Vibroplex to rethink its introduction when the Model X was soon to make its appearance. ***MM***

An exploded drawing of the arm of this key is available for anyone interested. Contact Dennis Goacher G3LLZ, 27 Glevum Road, Swindon, Wilts SN3 4AA, for details.

Info Please!

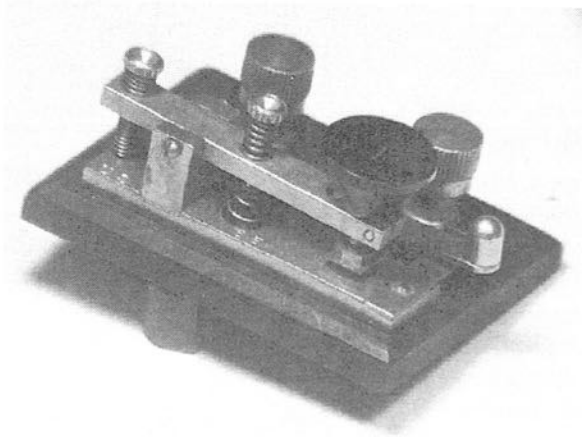


Unknown (presumed) French key, with terminals marked R,O,T. further information please

Photo/Collection: Christian Chefnay F9WT

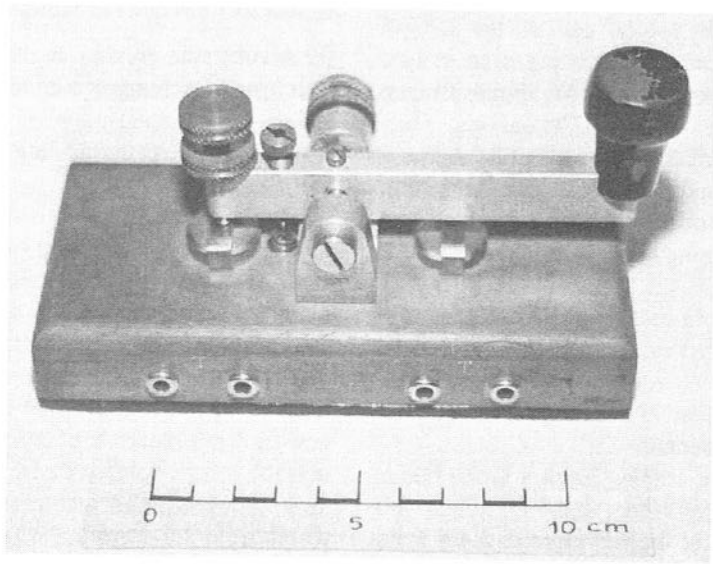
Unknown key marked S.R.D.E. SERIAL No. R013, with hinged cover

Photo/Collection: Nigel Ackland G0IIK



'Spy key' believed to be of US manufacture. Travel and tension screws replaced. Originals had slotted round heads. Base home-brew. Any information please?

Photo/Collection: Robert W. Butt N1KPR



Unknown key. Wood base, aluminium key. No markings. Any information welcomed

Photo/Collection: Henri Jacob F6GTC

Readers require further information on the keys, etc., featured here. Please write to Tony Smith, 13 Morley Road, Sheringham, Norfolk NR26 8JE if you can help.
All useful information received will be published in MM *in a later issue*

Wires, Wheels and Wings

A Wireless Mechanic's Diary

A Book Review by Geoff Arnold

THE AUTHOR OF THIS BOOK, Harry Reddin, was born in Yorkshire in 1914. He developed a typical childhood passion for motor transport, which remained with him throughout his life. He joined the family hardware business in Thirsk from school to work as a wireless engineer, marking the beginning of a lifetime's involvement in the radio industry.

The author invites the reader to relive the golden age of the British wireless industry and gives an insight into the work of the RAF Signals Branch during World War II. Crystal sets, 'Murphy Madness', the first Public Address systems and the early years of television are all remembered with fondness.

Returning to civilian life after WWII, he found that things were changing in the radio industry, and not generally for the better! His last years before retirement were spent in the sales organisation of Radiospares Ltd, now RS Components.

With a lifelong passion for all things mechanical, Harry Reddin is able to tell the story of the last eight decades from an engineer's point of view, keeping up a lively commentary on a variety of subjects, from the changes he has seen in the British motor industry to the perils of submarine-hunting in the Mediterranean. The result is a marvellously entertaining memoir, packed with amusing stories and authentic period detail – an unashamed feast of nostalgia for anyone who grew up in the 1930s. It also forms a worthy tribute to the technicians and ground crew of the RAF, who were among the unsung heroes of Britain's war effort.

This book, first published in 1994, was drawn to my attention by a reader of *Radio Bygones*, who termed it absolutely 'unputdownable', a description confirmed by his wife who complained that she had been unable to get a word out of him until he finished it! Having now had the pleasure of reading it for myself, I must confess that I was similarly 'hooked', and would thoroughly recommend it to anyone with an interest in the fields described.

Wires, Wheels and Wings by Harry Reddin, ISBN 1-85821-128-X, is a hardback of 370 pages measuring 6¼ x 9½in (158 x 240mm). It is available through the *MM* 'Bookshelf' service by mail order (see facing page) or from the *MM/RB* stand at rallies and exhibitions, etc. ***MM***

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AVAILABLE LATE NOVEMBER ...
Wireless for the Warrior *by Louis Meulstee* – Volume 1 (see page 23)

More Indo-China Memories

by Francis Marinesco F6EQC

In MM26 (p.18), the author recalled some of his experiences in the French Army in what was then Indo-China (now Vietnam). Here, he describes a few more of the problems he experienced, working at pressure under difficult and often chaotic conditions

AT THE BEGINNING of my first tour of duty, in Hanoi, certain nets were rather casual, for example the link with Saigon. That wasn't so with the other circuits, however, and later the traffic did nothing but increase. There was one solitary woman in Hanoi's central radio office at that time (1948). They made her work Saigon and she could usually get to bed before midnight, the balance of the traffic then being taken by someone else.

Later, things were different. Several female operators arrived, the traffic increased and the problems started. You could no longer allow several people to go for a sleep. Sometimes it was just the opposite, it was necessary to search out extra operators, wake them up and set them to work even if it wasn't their shift.

Unhappy

However, you didn't wake up the female ops, there were enough problems just having them on normal night duty. Some were taking drugs to keep awake, and it was useless telling them this would only result in their being taken to hospital, which did happen several times.

I was a duty officer when they arrived. In the circumstances, I was not happy about their being there, and found it impossible to have confidence in them in such difficult and strained conditions. You had to be on your toes all the time, including making them pay attention to priority work and the time of handing in telegrams, which really should have been second nature to them. If they lost contact in QSB I couldn't rely on any initiative on their part. If they lost the signal they were unable to say if it was because of poor copy, receiver problems, or whatever...

Remote-controlled TX

The work of a duty officer at that time was pretty rough. The service was maintained by only three people, when there should be four; it was necessary to keep an eye on everything; no telegram could be delayed; and official reports of the traffic had to be written up to relieve the overworked operators.

It was necessary to record all incidents for the following morning's report to the centre head, explaining the reasons for delays along the route of each urgent message (and that was practically every one); to arrange relief for those operators having a call of nature; and facilitate the flow of 'flash' telegrams directly to the secure frequencies of the different correspondents.

The latter created considerable problems. The watch frequencies were nominal, so it was necessary to call 5kHz up and down around a nominal frequency. The transmitter was remote-controlled, so you can see the problem. You needed to agree a code with the duty technician, using the telephone bell, to go up and down in frequency, eventually achieving zero beat on the station you were listening to.

I skip the best, like doubling or tripling a link because of the tremendous traffic flow.

Transfer

In the mornings, at shift change-over, it was necessary to make a verbal report to the centre head, write it into the watch log, then brief whoever was taking over. I rarely finished all this in under an hour, even after preparing it all in advance; and during this time the telegrams continued to pile up.

Finally, I became fed up being head of watch, and asked for a transfer to a mobile unit. I got it, but not without difficulty. There, at last, I could breathe a little and be happy with my work as an operator. It is true there were other inconveniences, but a change is as good as a rest.

Supermen of Saigon

After that, I found myself in the centre of Haiphong as head of the central radio office. There were no female staff, and there were too few operators to have watch chiefs. Since the traffic was less important than at Hanoi, that was OK provided you pulled your weight and knocked the Vietnamese personnel into shape – some of whom, by chance, were very capable.

I trained them for high speed operation just so they could thumb their noses at Saigon where the operators considered themselves to be the champions. My Viets succeeded completely in taking on the 'supermen' of FLZ and bringing them down a peg or two!

Magnificent RAS

Later, I was transferred to Tien-Yen, a small centre not functioning very well, and not far from the frontier with China. All the operators were Vietnamese, and it took less than a month to put things into order.

The officer in charge of transmissions said to me, "We'll see from the monthly report if you're such a big shot." The results spoke for themselves. The reports from Hanoi and Haiphong arrived with a magnificent 'RAS' (*rien à signaller*, i.e. a clean report) covering our work, which was repeated later. My predecessor never had the ability to get on well with the Vietnamese.

On the other hand, I had some run-ins with the assistant officer in charge of transmissions who couldn't stand my presence. An ignorant little

continued on page 48

Reflections from Uncle Bas - 23

My Gravest Blunder

by Bastian van Es PA0RTW

THE GRAVEST BLUNDER I nearly made as a radio officer will forever stay in my mind. Thanks to an old Greek boatswain, however, who had more sense in his little finger than I had under my skull, my act of stupidity did not have disastrous consequences.

In 1956 I had been radio officer on a Norwegian freighter, the ss *Sun Ingrid*, for three years and was getting restless. Again and again we made the same ports of call, the same voyages. Above all I had been in the same radio cabin, with its obsolete TDE transmitter, and its even more antique BC-348 for all that time.

The freighter was chartered by NORGULF in New York and it was very unlikely that the situation would change in the near future. Every port on the east coast of the USA, and nearly every country in South and Central America was visited with boring regularity. The itinerary was like a bus timetable, and you could set your watch by it. I was young and adventurous, I wanted a change.

Resignation

One breezy winter morning in the Atlantic I told the captain I wanted to resign. Obviously this could not happen straight away. We were at sea and our next port of call was still a few thousand miles away. For the captain, Eigil Vesti, there was an even greater problem, since in those days radio officers were hard to come by.

Not surprisingly the old man was very unhappy about the situation and tried to persuade me to stay on for just another period. He even mentioned court rules and nonsense like that. He knew as well as I did that this was ridiculous, but he tried it nevertheless, and I quite admired him for it.

Finally we agreed that if the owner in Oslo could find a replacement I would be discharged in New York. After sending several cables to Stabekk, the captain received confirmation a week later that a new sparks had been found and was on his way on a plane to New York.

Unemployed in Manhattan

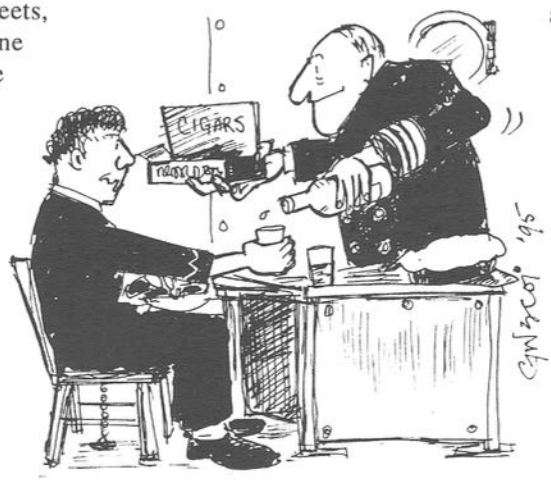
On reaching New York, I said goodbye to the captain and various crew members, picked up my bags and left the ship in which I had, despite the tedium, served for several happy years.

The first thing I did on solid ground was look for a single room, and I quickly found board and lodgings near Battery Place more or less on a day-to-day basis. I also found myself alone and unemployed on the streets of Lower Manhattan.

The immigration authorities gave me a shore permit for three months, on the understanding that after that period I had to leave the US pronto. I had no intention to stay that long, because from the very first moment I arrived in New York I was shivering with cold. As is well known, winter temperatures in that city often drop to 20°C below zero.

New Job

To find a new job I had to walk for hours on end in snow-covered streets, going from one shipping office to another. After a few hours of this, it felt like I was at the North Pole. I started dreaming of the old *Sun Ingrid* on its way to sunny Cuba and cursed the day I decided to leave that tropical paradise.



Fortunately, after a couple of weeks, I was able to sign on as a radio operator in another ship. The procedure took place in the office of the Greek consul. The pay was acceptable, and the ship's destination was Hamburg. Apart from the owner's name (Greek) and the flag of the ship (Liberian) the Greek official could not give me any information about the vessel or its crew.

I was told to get on board as soon as possible, but to reach the location where the ship was discharging I had to travel half a day by bus and complete the last few kilometres by taxi.

Warm Welcome

First impressions of the rusty WWII Liberty-ship did not put my mind at ease. The reception by the captain, his wife and little son was overwhelming, and they greeted me as if I were their long-lost son.

The radio gear appeared to be a little better than in the old *Sun Ingrid*, but only a little. My predecessor had been taken to hospital with a complicated bone fracture, so the captain was overjoyed to have a replacement on board.

Shortly after my arrival, the steam engine started turning and we sailed slowly down river on our way to Norfolk, Virginia, to load coal for Hamburg. From the very first day I had

no problem whatsoever with the radio equipment. It was just my 'cup of tea', but on board the ss *Georgios Sidderatos* dinner was another story.

Greek Food

During the first few days in the messroom I felt like closing my eyes and keeping my teeth clamped together. However, hunger prevailed! Ground beans mixed with bones and pieces of mutton, covered with a spinach-like soup, is a bit different from dinner at home, but looking round the mess, seeing everyone else eating to their hearts' content persuaded me it could not be all that bad.

In fact, it was delicious and after a week it tasted lovely indeed! The names of the dishes I cannot recollect, not even the ingredients. My knowledge of the Greek language never got beyond alpha, beta, omega, and you'll agree this is not sufficient for a serious conversation, let alone discussing the intricacies of the kitchen.

Family Concern

After a few days I realised that the entire crew belonged to the same family. The first mate was the father of the captain and the latter was main shareholder of the ship, the second mate was a nephew and the engineers were related in some incomprehensible way to the captain's wife. I never ventured to ask for more details since apart from the captain and the boatswain nobody spoke English.

At Norfolk we had to wait our turn because there were quite a few ships waiting to be loaded. After many thousands of tons of coal had been dropped in the holds, the decks were cleared and secured, the entire upper structure was hosed down, and we set sail for Europe.

The weather was beautiful, almost no wind and the temperature just a few degrees below 0°C, and it promised to be an outstanding voyage home.

Poor Aerial

People call me a curious lad and that is quite true. During the first days on board I inspected the drawers and cabinets in the radio cabin and found immeasurable amounts of 'spares'. However many of them proved to be either obsolete, broken or from old equipment that had been dumped somewhere on shore and replaced by new equipment. Among many other articles, I stumbled on a huge spool of red copper aerial wire. I thought this might

come in handy, because the first day on board I had noticed that the aerial strung between the masts was of a very poor quality and needed replacing.

In the Atlantic Ocean, somewhere near Newfoundland the weather started to change. A heavy fog drifted in our direction and within a couple of hours the entire ship was lost in a big cloud. Visibility was next to nothing, at best several feet. The captain gave the order 'Half speed' but the situation remained treacherous, despite the blowing of the ship's horn at regular intervals.

Red In The Face

In fact, the thunderous sound of the ship's horn increased the feeling of insecurity. Far away, there were more ships blowing their horns, obviously in an identical situation. On deck on the other hand, between times, it was extremely quiet, silent in fact, as if nobody dare venture in the open.

Due to the engines going at 'Half Speed', and with no wind at all, the ship was almost motionless and I thought this a perfect opportunity to renew the main aerial. When I talked to the boatswain about giving me a hand for this innocent job he gave me a dubious look and told me that before doing anything he wanted to have a word with the captain. I considered this silly and asked him to get it over with on the double. Then he said to me in his peculiar 'Ingleesh': "Mister Sparks, how you send in fog without aerial SOS?"

Like a naughty little boy, I crept back to the radio cabin. When I think about it now, forty years later, I still become red in the face. ***MM***

Readers' ADs

WANTED

MORSE SOUNDER in working order, to gain experience in reading code from a sounder. Phil Beckley GW6CDO, Church Farm House, Bettws Hill, Newport, Gwent, NP9 6AD, Wales.
Phone: 01633-853906.

MORSE PRACTICE OSCILLATOR, 1-valve or 2-valve, as marketed by Webbs Radio, London, in the 1940s. Jim Dennis, 16 The Ridge, Yatton, Bristol, BS19 4DQ.
Phone: 01934-833265.

SPECIAL TELEGRAPH EQUIPMENT. Single needle; Baudot; Hughes... Also Marconi multiple tuner. Can be collected in the UK. Exchange items (telegraphy, telephony, radio) also available.
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Tel: Office +32.16.38.27.21.
Late evening: +32.2.356.05.56.

FOR SALE

TELEGRAPH SET TG-5-A.
Serial No. 1958. Designed at Signal Corps Laboratories, New Jersey. Order No. 18475-NY-39. Date 4-7-39. Made by Kollogg Switchboard & Supply Co, Chicago, Illinois. £50 plus p+p.
Kenneth Wikberg, Bildradiogaten 14, S-421 34 Vastra Frolunda, Sweden.

EXCHANGE

SEVERAL CHINESE KEYS and ZA/CAN BRO937 KEYS offered to swap for good military keys like ZA 34835 (WWII SOE), Clansman RT320, RAF Type 51, Marconi Type 365, 971, and Australian Lifeboat key.
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FAX: +852-2757-8383.

Your Letters

Readers' letters on any Morse subject are always welcome, but may be edited when space is limited. When more than one subject is covered, letters may be divided into single subjects in order to bring comments on various matters together for easy reference

New Exclamation Mark?

When I learned the Morse code back in the late '50s, the exclamation mark was − − · · − − and I still use this character. I have asked other amateurs with long-standing knowledge of the code, and there is overwhelming agreement with me.

I am aware that − − · · − − is now used as a comma, so perhaps it would be a good idea to adopt the suggestion by AGCW-DL (MM41, p.41), that − − · · · · · · − − be used, as this really does sound like an exclamation mark!

George Eddowes G3NOH
Ealing, London

(There is no dispute that − − · · − − used to be the exclamation mark. It was deleted from International Morse, and the signal reassigned as 'comma', by the Cairo revision, 1938, of the International Radio Communications Regulations. As happened with other changes over the years, many operators continued to use the old meaning long after the official change took place. – Ed.)

There can be no Swedes reading your interesting magazine, or least none of them seem to have reacted to AGCW-DL's proposal to use − − · · · · − − for the exclamation mark.

I doubt that this proposal can have its origins in Scandinavia as we already have a signal for the exclamation mark, i.e., · · · − − · and have had it for a very long time.

Anders 'Andy' Nyberg
EA8CN/SM5CUN
Los Relejos, Tenerife, Spain

(Andy enclosed a list of Morse code signals published by Föreningen Sveriges Sändareamatörer which includes the signal · · · − − · for the exclamation mark.

As a matter of interest, we do have readers in Sweden., also in Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Netherlands, Norway, Russia, Spain and Switzerland, as well as Australia, Brazil, Canada, Hong Kong, Israel, Japan, New Zealand, Oman, Singapore, South Africa, Uruguay, USA and Zambia! – Ed.)

Misunderstood

I had a good laugh at the story about 'GS' ('Sorry Grace', MM40, p.41). It reminded me of an embarrassing mistake I made on 3.553 some years ago. I had several QSOs with a G-YL station and in our first contact I mentioned something I regretted. I stressed this by sig-

nalling 'sob sob', intending to mean 'weep' or 'I'm sad about it'.

Only later did I learn this expression could have been misunderstood as 's.o.b.', and my ears burned with embarrassment! I never received a QSL card from her for this or any other contact. I apologise to her and to any shocked listeners who may even today associate my call with such inappropriate language. I honestly didn't realise how it could be misinterpreted.

Monika Pouw-Arnold PA3FBF
Mijdrecht, Holland

Taking Down Code

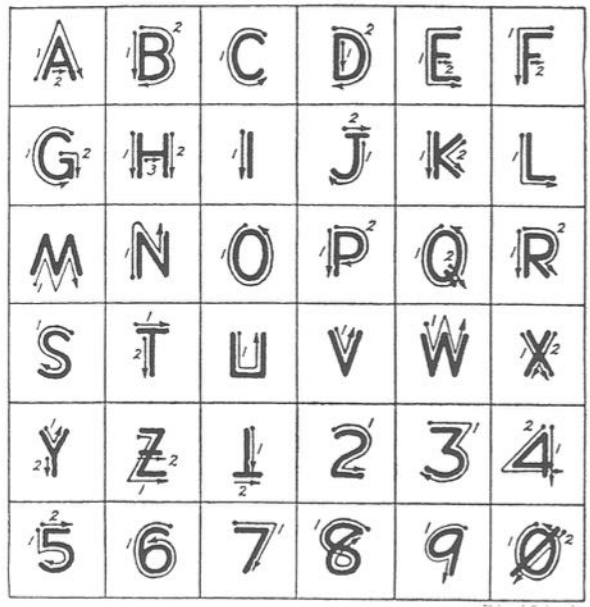
I was interested that ZL2ASK could only copy Morse in block letters at 13 wpm (MM41, p.31). He was obviously never instructed in copying code using the least number of strokes per letter.

During WWII the military turned out thousands of radio operators with a minimum speed of 20 wpm. I'm enclosing a page from a US War Department Manual on the proper way to print in block letters. It's from 'Instructions for Learning International Morse Characters', dated June 2, 1943. Note that the last stroke always ends up going to the right.

Incidentally the same manual, under 'Visual Signalling', reads: 'After passing twelve words per minute, you will be given instruction in reading blinker signals.

'You will work in pairs, alternating between calling the letters as they are flashed from the blinker and writing them down as your partner reads them. You will continue practice until you are able to read the blinker at a speed of 10 words per minute.'

John Elwood WW7P
Phoenix, Arizona,
USA



US Signal Corps Lettering Guide

Reading Visual Signalling

Following the recent correspondence on visual signalling speeds, I was disappointed that no ex-Navy signaller came forward to give us an authoritative opinion on real-life working speeds, rather than leaving us to rely on dubious theoretical guesses (my letter MM40, p.46).

So I 'phoned the Scottish maritime headquarters and asked for the Signals

Office. The helpful people there found me a signaller to speak to, and he told me that he could work at 10 to 12 words per minute.

Three days later, when I guessed that the shifts would have changed, I 'phoned again and got a different signaller, who claimed that 14 wpm was his absolute maximum.

Bill Lord GM5NU
Edinburgh, Scotland

(See also the information contained in John Elwood's letter 'Taking Down Code' from a 1943 US military signals instruction manual, above. – Ed.)

'Understand'

After reading recent correspondence about the use of ···–· given as $\overline{SN}$ but always known to me as $\overline{VE}$, the letter from Gerald Stancey G3MCK (MM40, p.40) rang a loud bell.

As an RAF Y Service operator copying German military Morse for over four years, I can confirm that $\overline{VE}$ appeared to be almost standard usage by German operators as an acknowledgement and end of message signal, i.e., 'R $\overline{VE}$ $\overline{SK}$'. We often used it when working our D/F outstations by key – it sounded much slicker than the usual 'OK'.

Jack Barker
Surbiton, Surrey

TOPS

I can confirm Peter Lumb's version (MM40, p.43) of the origin of the name TOPS. 'The ops' in dialect equals 'T'ops'. Phil Evans told me this years ago when I asked him about the title.

Vic Reynolds G3COY (TOPS 309)
Hartshill, Stoke-on-Trent

I remember reading somewhere, in the late '40s, that the name was a shortened form of THE OPERATORS as spoken by a Yorkshireman, i.e., T'OPS.

John St. Leger G3VDL
Throwleigh, Devon

Media CW

I was interested in Monika Pouw-Arnold's report on Morse signals on German and Dutch TV (MM41, p.40).

The Spanish radio network 'Cadena Ser' has been using Morse code for more than 30 years to announce football goals scored during their Saturday and Sunday Sports programmes.

They have journalists at every match and when any team scores a goal they superimpose on the current commentary a continuous signal in Morse code, 'GOL GOL GOL' (that's 'goal' in Spanish), until the station can switch over to the match in question for details about who scored, when, how, etc.

Not everyone realises it is Morse code, but as football is so important in Spain I guess that if you sent GOL with a key and buzzer, and mentioned Sunday afternoon, most Spaniards would tell you that it meant 'a football goal'.

Dr. Jon Iza EA2SN
Vitoria-Gasteiz, Spain

Overdoing It

I think some operators are overdoing their knowledge on the air, sending, for instance, the apostrophe in 'don't' instead of 'do not' (or why not just 'dont'). After all, it's only a question of being effective, isn't it?

And what about these question marks flying around the amateur bands? Many

times (and I mean MANY) when I call CQ I get a ··−−·· in reply. Having been QRT for 23 years this was new to me and I fell into the trap of responding. In most cases this means no QSO since the guy at the other end doesn't want a contact. I ignore them now, but they certainly create QRM.

Anders 'Andy' Nyberg
EA8CN/SM5CUN
Los Relejos, Tenerife, Spain

(I have heard 'DNT' used as an abbreviation for 'do not', although it doesn't seem to feature in any of the published lists.

Unnecessary punctuation can be just as off-putting to the receiving operator as non-standard abbreviations, especially where understanding depends very much on how conversant the other operator is with your language. – Ed.)

Code-free Licences

On the issue of code-free amateur radio licences, I have to admit I am distinctly uneasy about continuing to insist on the need for a Morse test as a prerequisite to HF band operating.

I would however, retain a mandatory Morse test for those wishing to use the mode. We could then continue to evangelise the joys and benefits of CW without being accused of having a dog-in-the-manger attitude, or worse.

My greatest disquiet in respect of Morse operations is the likelihood of losing spectrum space for the mode, which is already under pressure from the various data transmissions.

A code-free licence can only serve to increase this pressure – but I feel the onus is upon the CW user to fight 'positively', rather than by the indirect and rather negative means of insisting on the retention of the Morse test.

Chris Rees G3TUX
Haslemere, Surrey

CW Tones

On the ham bands in the fifties, there were three qualities of tone coming from the largely home-built rigs of the day.

Group A were signals of much less than T9 quality. Group B were the normal T9 signals, and Group C were signals of beautiful purity, comparable to the T9x notes from quartz crystal oscillators.

The three groupings remain today, but in different proportions. Group B has become by far the largest, producing the acceptable but not exceptional quality signals that come from today's commercial rigs. Group A has happily been much reduced, consistent with better access to suitable components, but what has happened to Group C?

This group is now very small indeed. It is rare to hear a T9x tone on the bands apart from those from low power homebrew crystal controlled transmitters.

My own valve variable frequency oscillator – which I still have! – was a Colpitts derivation. Its fundamental was on 320 metres into a cathode follower and buffer amplifier, before a doubler to 160 metres.

This was my Top Band rig and also the drive source for the 'Big Rig', as the main station transmitter was commonly called. Much care was taken in the design and its physical and electrical construction. Not least, this was to ensure that in screen grid keying the doubler

there was nil, or minimal, pull on the oscillator.

Also, provision was made for varying the time constants to match different keying speeds – all controlled by a 5-position switch on the front panel. Happy days!

So what went wrong? Why cannot the output from today's oscillators and frequency synthesisers match yesterday's degree of purity? Is it really something to do with oscillator noise? I have often asked the question but have never really been given a satisfactory answer.

There is inherent 'noise' in a valve due to random emission of electrons and 'noise' in bipolar transistors from stray internal voltages. But FETs, according to research by Walter Schreuer, K1YZW, are quieter than valves! So why do not today's commercial rigs, although improving all the time, match the possible performance of their valved ancestors?

A T9x note will stand out in a DX pile-up even against stronger signals. Contesters take note!

Mike Whitaker G3IGW
Hipperholme, West Yorkshire

Corset Bug

In response to the editor's note at the end of my letter about Commander Meade's Method (MM39, p.44) allow me to give the following explanation about the semi-automatic keys made from corset steel inserts which I mentioned in that letter.

Over fifty years ago, a young RAF wireless operator, exhausted from eight hours of copying German high speed Morse staggered over the threshold of his civilian billet to be confronted by his middle-aged twenty-two stone landlady, waving her outsize corset above her head and shouting 'come upstairs darlin' and pick the bones out of this lot!'

Not wishing to cause offence, he accepted this generous offer. Wondering later how the gift could best be used to speed the war effort, the idea of the Corset Key took shape.

Production of the key was strictly limited due to two factors:
(a) the stamina of the W/Op concerned and
(b) the need to avoid ruining the corset for its proper use by removing too many steel 'bones'.

As a result, only two or three Corset Bugs were actually made, and if found they would now be collectors' items of great value.

I trust this clarifies the matter.

Jack Barker
Surbiton, Surrey

(What amazing things happened in those days in the interest of the war effort! – Ed.)

More Indo-China Memories

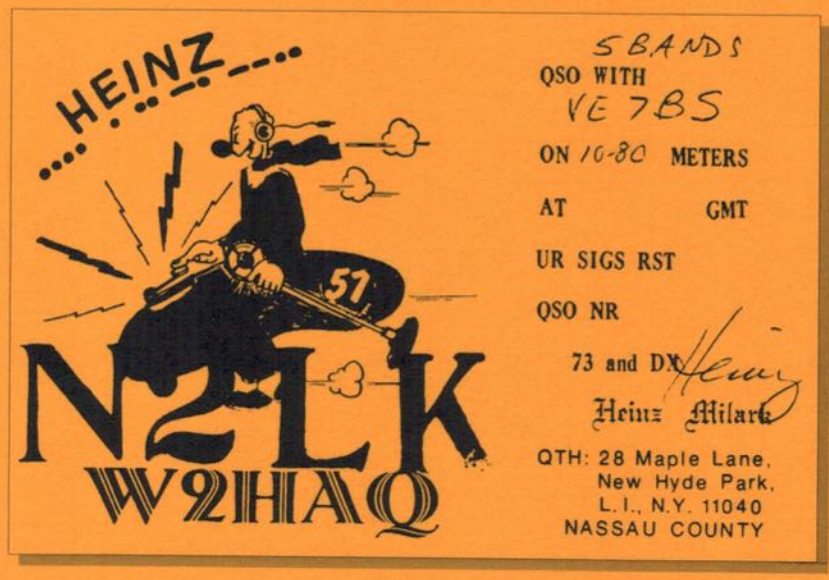
continued from page 39

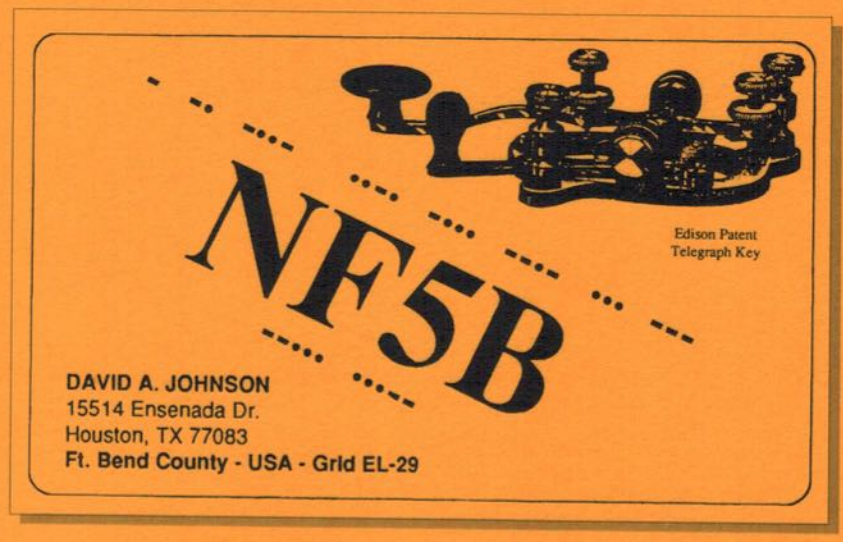
sub-lieutenant who understood nothing and issued stupid orders. He believed, for instance, that by increasing the power at Tien-Yen you could hear the inaudible stations better. It gave me more worries and another transfer...

(Article based in correspondence between Francis Marinesco, F6EQC, and Dominique Bourcart, FE1OEB, translated by Ken Quigg, GI4CRQ, and edited by MM.*)*

Morse QSLs

A series of reproductions of QSL cards with a Morse theme





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