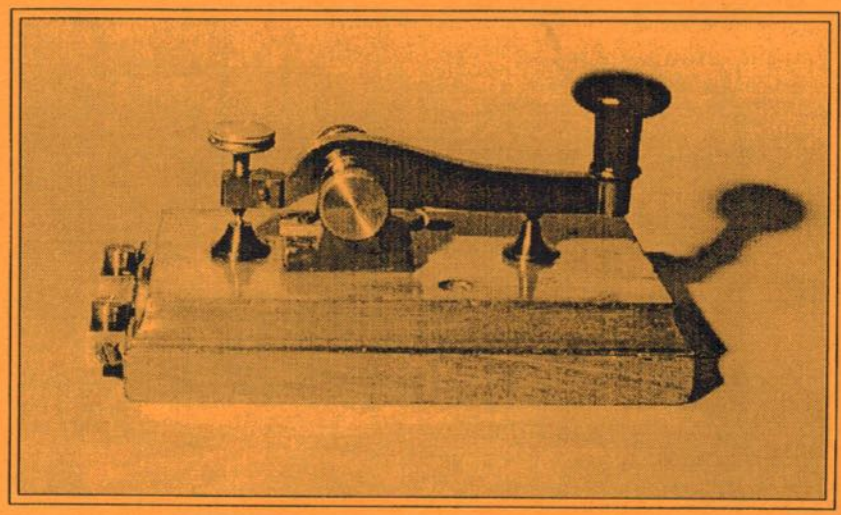
Number 34 – June 1994

Flying the flag for Morse

Morsum Magnificat

The Morse Magazine



A Camel-back Key

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Morsum Magnificat

Flying the flag for Morse

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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EDITORIAL AND SUBSCRIPTION OFFICES:
Morsum Magnificat, 9 Wetherby Close, Broadstone, Dorset BH18 8JB, England.
Telephone/FAX: Broadstone (0202) 658474; International +44 202 658474

EDITOR Geoff Arnold G3GSR

CONSULTANT EDITOR Tony Smith G4FAI
(until further notice, please write to Tony care of the Editorial office)

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ON OUR FRONT COVER

A Camel-back key from the collection of Lee Grant G3XNG, photo by Jim Lycett G0MSZ.

ON OUR BACK COVER

In this 1961 advertisement, former Marconi R/Os will probably recognise the Seaguard auto-alarm, Salvor transmitter (behind operator's head), Alert and Atalanta receivers, and just a corner of the Autokey. Above are the T.1052 aerial switch, T.554 battery charging control panel, extension loudspeaker and T.2432A power switching unit for the Atalanta. Beside the operator's hand, his trusty Type 365B key.

Comment

I AM CONSTANTLY AMAZED, as I read books and magazines, visit stands at amateur radio rallies and the like, or look at photographs of keys sent in by *MM* readers for our 'Showcase' or 'Info Please!' features, just how many different designs and makes of Morse keys have been produced.

I guess that it is a figure that is impossible to compute, but I wonder just how many there are – it must certainly run into many hundreds, if not thousands. Among those are many, some quite eccentric in concept, which have been 'home-made', either just for the personal enjoyment of the constructor or perhaps because he couldn't afford a 'proper' key. These would include designs based on micro-switches (I made one of these myself, once), contact-sets from relays or key-switches, even trimmed-down hacksaw blades!

For the impecunious, unable to afford anything more ambitious, it is still possible to come by the occasional bargain Morse key for 50p to £1 at junk shops or car boot sales, some of them quite useable. Ex-government keys released onto the surplus market and offered by dealers at rallies in the UK are currently priced at £5 for an all-plastic Army Key W/T 8-amp, or £8 for the version with metal arm and bridges, while a Navy or NATO key (NSN-5805-99-580-8558) in mint condition will set you back in the region of £35 to £45.

Any surplus stocks of RAF Type D keys, the subject of Tony Smith's next key survey as announced in this issue, have obviously long-since been exhausted, and it is now unusual to come across one even in junk shops and boot sales. Those that do appear have frequently suffered cracking of the plastic base or cover.

My all-time favourite key, remembered from days at radio school where our Morse instructor had one on his desk, was in the Swedish Ericsson style, and looked very like the P.S. No. 213A key pictured on page 35 of this issue. It had an extremely smooth and light action; one of those delightful keys which seem almost to send by themselves, with minimal prompting from the operator!

Geoff Arnold

G3GSR

Contents

Advertisement Index

News

IARU Morse Committee

As reported in our last issue, the International Amateur Radio Union has set up a Morse code *ad hoc* Committee. In response to a request for further information about this Committee, the following statement has been sent to *Morsum Magnificat* by Richard L. Baldwin W1RU, President of the IARU.

'IARU COMMITTEE TO STUDY THE MANDATORY REQUIREMENT FOR COMPETENCY IN MORSE OPERATING.

'In Article 32 of the Radio Regulations of the International Telecommunication Union appears Regulation 2735 which has a mandatory requirement for competency in Morse code operating to be shown before a radio amateur is permitted to operate on the HF bands – the "DX" bands below 30MHz.

'There are some groups of radio amateurs who from time to time query the necessity for this mandatory Morse code requirement. On the other hand, many radio amateurs – indeed possibly complete societies and even whole regions – continue to support the continuance of this provision.

'As part of an ongoing review of the Amateur Service, the Administrative Council of the International Amateur Radio Union (IARU AC) has established a "CW Ad-Hoc Committee" to produce a report for consideration by the IARU AC at its meeting in Singapore in September 1994.

'The Committee comprises: Fred Johnson, ZL2AMJ, a Director of IARU Region 3 as Chairman; Dr John Allaway, G3FKM, Secretary IARU Region 1; and David Sumner, K1ZZ, from the IARU International Secretariat and the American Radio Relay League, as members. The Committee is thus drawn from the three IARU Regions.

'It is expected that after consideration by the IARU AC, the Report of the Committee may be made available to the IARU Regional organisations for further study and comment.'

NZ Morse Test Consultation Exercise

Amateur Morse testing in ZL was devolved last year to the NZART, the New Zealand Official Amateur Organisation. The Ministry of Commerce (MOC) continues to offer tests as before, once a month, while the NZART test can be requested on demand. The NZART test is distributed on cassette tapes, preceded by spoken instructions for the candidates, to NZART Branches who have undertaken to join the scheme.

The receiving test tape is computer prepared at 12 wpm, with 15 wpm Farnsworth characters, at 750Hz audio frequency, for 3 minutes. Three errors are permitted, and the candidates' scripts are mailed back to the NZART Chief Examiner for marking. Results usually come by return mail, whereupon successful candidates can apply for callsigns at their local Radio Office. The

sending test, also for 3 minutes, is judged by the local testers. To determine whether the system could be improved, the NZART are now calling for submissions, and have set up a working group to collate suggestions and give a report. The text of the invitation reads:

'1. NZART Council, at its "face to face" meeting on 12/3/94, responding to comments from representatives of the Ministry of Commerce, passed a Resolution forming a "Working Party" to seek submissions from interested persons or groups on the subject of "possible ways in which the Morse Test may be improved, FROM THE APPLICANTS POINT OF VIEW."

'2. Given the recent "debates" on the subject of Morse, it is now necessary to make the following statement: "NOTHING IN THE RESOLUTION SHOULD BE CONSTRUED AS IMPLYING A CRITICISM OF THE PRESENT SYSTEM OR ANY PERSON INVOLVED WITH IT".

'3. ZL1BAD was appointed as the Convener of the Working Party and instructed to seek submissions from ALL interested parties. Submissions should be sent to R. Knowles. Onewhero R.D.2 Tuakau, 1892. FAX: 09-238-3884.

'4. Submissions will be received up until 1st June 1994 and should relate ONLY to possible ways in which the Morse test may be improved from the applicants point of view. No submissions will be accepted that seek to further other points of view on the various Morse "issues" or are used as a medium to criticise any person.

'5. Submissions will be circulated to the members of the Working Party for discussion, following which the Working Party will report to NZART Council on the feasibility of submissions made.

'6. Any person (amateur or not) is invited to respond to this call for submissions.

'7. The omission of the names of the other members of the working party is quite deliberate. This is so that they may consider the submissions without being subject to any possible "lobbying".

'Bob Knowles ZL1BAD, Convener,
NZART Morse Test Working Party,
19/3/1994.'

(News item submitted by Gary Bold ZL1AN, Birkenhead, Auckland, New Zealand)

High Speed Telegraphy Working Group

As a result of difficulties in contacting the previous HST Working Group chairman (UV3AED), a new chairman, Klara Lendvai HA5BA, was elected at the last IARU Region 1 conference, and the Hungarian Radioamateur Society will be organising the next IARU Region 1 championships.

All Region 1 societies have been invited to appoint delegates to the HST Working Group. Unfortunately only a few countries have responded positively (LZ, YO, Z3, HA) with the possibility (at the time of writing) of F, OE and DL also joining the WG.

In view of the role of the competition in supporting amateur CW, Laszlo Weisz HA3NU, President of the Hungarian CW Group (HACWG), has written to all European CW Association member clubs asking them to help find delegates willing to represent their

national societies on the HST Working Group.

The work involves only one or two days a year and ideally, HA3NU says, there should be 10–12 countries taking part in this work. 'If you manage to find a candidate,' he writes in EUCW Bulletin 1994/1, 'please contact your national society and ask them to send a nomination to the Hungarian Radio-amateur Society.'

If any *MM* readers are interested in this important work they are urged to contact their national society, either direct or through their EUCW club (if they belong to one), to express their willingness to serve on the High Speed Telegraphy Working Group.

Morsecodians at Alice '94

The Sydney Morsecodians Fraternity operated their sixth annual old-time telegraph circuit between the National Science and Technology Centre in Canberra and the old Telegraph Station at Alice Springs, during the Alice Springs Heritage Week in April.

The circuit, halfway across the continent, was provided by courtesy of Telecom Australia. Last year John Houlder reported (MM29, p.2) that the Morsecodians were having to give up their modern laminated booths on the ground floor of the National Science and Technology Centre, which had been there for five years. However, the channel was left in situ and the Morsecodians are able to reinstall the equipment each year prior to the Alice Springs link-up. John reports on this year's event:

'The NSTC gave me some money to purchase a suitable second-hand table large enough for two operating positions. We eventually found a solid pine table 7ft long by 3ft 3in wide which was just ideal. We stripped off the old varnish and re-stained it a dark maple colour, more in keeping with the period of the Morse equipment to be installed.

'We were allocated a new area on the mezzanine floor of the NSTC and the difference the new table and location made as far as visitor interest was concerned was nothing short of amazing. The previous operating booths were a little cramped and its wasn't always easy for the public to get a good view or understanding of what was going on.

'With the open table we had the public around us three or four deep on the weekends. Where in the past we could get by with one person operating and another explaining to visitors what was going on, it often took two of us to explain and answer questions from the public.

'It was interesting to note the different perceptions that people had of what we were doing. Some were quite switched on and worked out exactly what was happening. Others, after a detailed explanation, wanted to know, "is it something like Morse code?"

'Quite a number thought that when we were receiving and typing the messages down we were in fact transmitting. They thought that we typed the messages on the typewriter which then converted the printed words into Morse, and that the signals they heard were actually going out, not coming in.

'You had only to look at the old single-case Imperial typewriter we were using, at least 50 years old, to realise

this couldn't be the case! One chap was most insistent that no one could understand the rattle of the sounder and that we must have had a small speaker with voice coming out of it hidden in the resonator box. After showing him the resonator box I finally convinced him that there was no speaker! (At least, I think I did!).

'Of course, we had the usual number of ex "gun" operators who claimed they used to be able to do 35 and 40 wpm. When we asked them to send a few words on the key they would either shy right away or, if they did handle the key it became obvious they probably never got past 15 wpm.

'All in all, it was again another very successful week (nine days actually), with 1470 messages transmitted in both directions during the period. It was my turn to stay at home this year but already the wheels are turning with a suggestion that Fred Ryan and I go to Tennant Creek at the end of next year's Canberra-Alice event for another fund-raising weekend to help restore the old repeater station buildings. The line of course will be extended north from Alice Springs for the occasion.'

(Report from John Houlder, Charnwood, ACT, Australia.)

CW in Monaco

Monaco has a population of 280 000. This small territory has been a member of the United Nations Organisation since 1993 and is also a member of the ITU.

Its national radio society, the Association des Radio Amateurs de Monaco (ARM), was founded in 1953 and is a full member of the IARU. The 3A-CW-Group was founded in 1991 independently of ARM and includes both 3A and foreign members.

The club callsign is 3A2CWG, and since its inception the club has organised many CW activities, including the special 3A200SM award celebrating the bicentennial of Samuel F.B. Morse, which was very successful.

The Chairman of 3A-CW-G is Claude Passet 3A2LF, who writes in the *EUCW Bulletin*, 'We think it is now a good time to become a member of the European CW Association.'

Vibroplex (UK) Catalogue

UK readers may have noticed the superb colour photograph of a Vibroplex bug in advertisements by Eastern Communications recently, in amateur radio journals such as the RSGB's *Radio Communication*. This company, who are European distributors of Vibroplex keys, tell us that when the photograph was first used they were inundated with enquiries even though they had already been advertising Vibroplex products for some time previously!

Their Vibroplex catalogue (essentially a collection of leaflets in a folder) describes all the keys currently available in the range which are as follows:

The Vibroplex 'Original'. This is claimed to be made using the same tools and dies as the earliest Vibroplex, said in the leaflet to have been invented by Horace Martin in 1890 – although *MM* understands it was not marketed until 1904. The 'Original' comes in three versions, namely,

The 'Original' Presentation – with a

24K gold plated brass plate on a highly polished chrome base, with bright chrome top parts and jewelled movements.

'Original' Deluxe – same as the Presentation, but without the gold plated brass plate.

'Original' Standard – with a textured finish grey base and bright chrome top parts.

The Vibroplex Iambic, while retaining the Vibroplex 'look', is a modern iambic twin paddle for use with electronic keyers, and again comes in three models, i.e.:

The Iambic Presentation – with the same finish as the 'Original' Presentation, and with jewelled movements.

Iambic Deluxe – same as the Iambic Presentation, but without the gold plated brass plate.

Iambic Standard – with a textured finish grey base and bright chrome top parts.

The Vibroplex Vibrokeyer is designed for bug operators who want to move to electronic keyers without relearning keying. The single paddle operates with the same motion as a bug, using the same main frame and parts as the 'Original'. There are two models available:

The Vibrokeyer Deluxe – with a highly polished chrome base, bright chrome top parts, and jewelled movements.

Vibrokeyer Standard – with a textured finish grey base and bright chrome top parts.

The Vibroplex Brass Racer Iambic paddle comes in two versions, i.e.:

The Brass Racer Iambic – made of solid lacquered brass mounted on a triangular hardwood base.

Brass Racer EK-1 – the Brass Racer Iambic key plus a built-in fully iambic dot-dash insertion and adjustable speed control keyer using the Curtis 8044 chip.

Additional to the various paddles, Vibroplex market a range of accessories including key carrying cases, dust covers, cords and plugs, Vibroplex pennant, Vibroplex patch for shirt or jacket, Vibroplex T-shirt, mug and key chain. Also available is the excellent history of the Vibroplex Company 1890–1990 by William Holly K1BH, which is a 'must' for all key collectors and Vibroplex enthusiasts.

The Vibroplex catalogue and price list can be obtained from Eastern Communications, Cavendish House, Happisburgh, Norfolk NR12 0RU, 'phone (0692) 650077. If you decide to visit their showroom to inspect the range, obtain directions first – they are in the middle of nowhere, with ducks wandering across the car park!

(Report by Tony Smith)

ENIGMA

A new organisation has been formed to bring together those who interested in 'numbers stations'. Appropriately titled ENIGMA, the European Numbers Information Group and Monitoring Association is devoted to monitoring and gathering information about these mysterious transmissions.

Formed in January 1993, ENIGMA publishes a quarterly newsletter which acts as a forum for ideas and information about the numbers stations, and carries features about them. It gives details

of current transmissions, frequencies, times, etc., plus possible explanations of their purpose and/or origin based on experience and past monitoring by group members.

Apart from spoken messages, some numbers stations still use Morse for their transmissions, and ENIGMA newsletter No. 5 includes the first of a two-part special feature on those stations which transmit in both CW and MCW.

The feature suggests that for those interested in monitoring the stations, but who do not know Morse, it is not necessary to learn the full code. Letters are rarely used, so only numbers need be learned, and these are easier to copy than letters, especially when sent slowly, as sometimes happens.

There's some good advice on getting started, and the feature recommends the 'Three Long Dashes' station to beginners. Its entire transmissions are always slow and it uses short zeros (one dash instead of five). There are 32 different frequencies listed, and 21 three-figure identifications which have been heard at different times and which presumably represent the number of the 'agent' the message is intended for. This station has an irregular schedule, but it has been heard at all times of day and night, although never on a Friday!

The feature is part of an attempt by ENIGMA to extend its activities to cover Morse stations, and monitors to report on their transmissions are desperately needed.

The ENIGMA newsletter is published four times a year and is available, price £5.00 (including postage), from ENIGMA Newsletter, c/o Bradford Resource Centre, 31 Manor Row, Bradford, West Yorks, BD1 4PS. (Overseas, £10.00). Cheques should be payable to 'C.A. Midgley'. A sample copy can be obtained by sending £1.00 or 4xIRCs to the same address.

Morse 2000 Conference

The University of Wisconsin-Eau-Claire is tentatively planning this conference to take place in the Spring of 1996. A draft summary of the scope of the conference states (in part):

'Individuals of all ages who have severe motoric and/or sensory disabilities are using newly-developed adapted-access software programs, hardware peripherals, and learning methods that allow them full use of microprocessor devices via Morse input from switches external to the computer...

'This alternative computer access method can help bestow the power of speech output, writing, typing, dialing, graphics, music, and other modes of expression. Also, Morse code input to activate mobility and environmental control devices may open worlds of educational, vocational, and recreational opportunities to many persons previously shut out of these pursuits...

'More than 30 manufacturers/developers of Morse-input hardware or software (for these applications) have been identified to date. However, beyond standard Morse encoding patterns for letters, numbers, and basic punctuation, each manufacturer appears to be developing their own non-standard "Morse-type" patterns for keyboard functions not addressed in the original code. Some examples of these functions include

Shift, Alt, Delete, Enter, and other non-alphanumeric commands/functions found on computers as well as cursor control via mouse or keyboard arrow inputs.'

It is felt by the organisers that 'A unified, global effort to promote use of, research in, and standardisation of Morse code in rehabilitation contexts, as well as in other specialised communication settings appears essential at this time. Morse 2000 will begin to address these needs.'

The goals of Morse 2000 are to:

- Develop and maintain an international repository world centre for, and database of research in, Morse code applications in rehabilitation.
- Apply research and clinical findings to establish and promote use of standardised Morse-type entry patterns for all currently-used keyboard functions and mouse emulation.
- Promulgate a standardised methodology of Morse Pattern creation for representing new keyboard functions as they are developed by manufacturers.
- Influence the computer industry to include Morse code access as a standard transparent access alternative built in to all new computers. (Access could be from space bar, shift keys, or from external switches via serial port, etc.)
- Expand Morse literacy and awareness for potential users and the general public globally. (Similar to how awareness/use of fingerspelling and sign language have been expanded in the popular media and culture.)
- Continue to research and develop enhanced, efficient methods of learning Morse code for various expressive and receptive communication applications.
- Publish a regular scholarly journal focusing on Morse code research.'

At this early planning stage, indications of support for Morse 2000 are invited, including additional suggestions and ideas for matters to be considered, willingness to be involved as a conference participant, presenter, exhibitor, or vendor.

Enquiries should be addressed to Thomas W. King, Assistant Professor, Department of Communication Disorders, University of Wisconsin-Eau-Claire, Eau Claire, WI 54702-4004, USA.

Those in philosophical agreement and willing to provide a letter of support for the Morse 2000 concept are requested to send or FAX such a letter immediately to Professor Richard D. Florence, Assistant Dean, School of Arts and Sciences Outreach Office at the University as above. FAX Nr (715) 836-2380.

Whilst all correspondence relating to Morse 2000 should be addressed direct to the University, *MM* will of course continue to be interested in receiving reports of research, experiences in, or suggested approaches to, work in the field covered by the proposed conference.

UK Call Book on Disk

The UK amateur radio callbook is now available on disk for use with IBM-compatible computers. The first edition covers all current UK calls issued up to 10 April 1994, namely G0UQZ (Class A), G7SGS (Class B), 2E0AHR (Novice A) and 2E1CUL (Novice B).

The basic data was purchased from the Radiocommunications Agency (RA)

and supplied by Subscription Services Ltd (SSL) on their behalf. Other information was supplied by user groups and other sources 'to the best of their knowledge.'

Menu driven, the callbook comes on 3 x 3.5in HD disks. It requires DOS 3.1 or above and about 15MB of hard disk. It covers individual UK callsigns, repeaters, beacons, mailboxes and nodes. The name and address of a particular licensee can be found by simply typing in the callsign, or it can be searched for when only the address (town) or post code is known. Information on repeaters, beacons, mailboxes and nodes includes details of the type of station, its frequency, location, and keeper.

The G0LOV & G4LUE Spring 1994 UK Callbook on disk is available from J. Bailey, 8 Hild Avenue, Cudworth, Barnsley, South Yorks S72 8RN, price £10.00 plus £1.50 post and packing. Overseas, £10.00 plus £5.00 post & packing, payable in Sterling only. If you order a copy, please mention that you read about it in *MM*.

RAF Type D Key Survey

As a result of requests received for information, *MM* wishes to bring together and publish all available information on the RAF Type D key. Would any readers having Type D keys, or information about them, please send all details they have to Tony Smith c/o the editorial office.

Tell us what the markings are on your particular key, and if you know what they mean. Tell us about the features of this key, and what you like and dislike about it.

We would like to establish the year it first came into service; how long it was in service; where it was used, what it was used for, and the equipment it was used with; the name of the company (or companies) that made it; and if there were different versions or 'Marks' over the years.

If anyone has official literature containing drawings or other information, copies would be very welcome. We would also welcome the memories of operators who used these keys.

Any information will be welcome, and please don't worry about duplicating information we already have. Such duplication serves a useful purpose in cross-checking and verifying everything received.

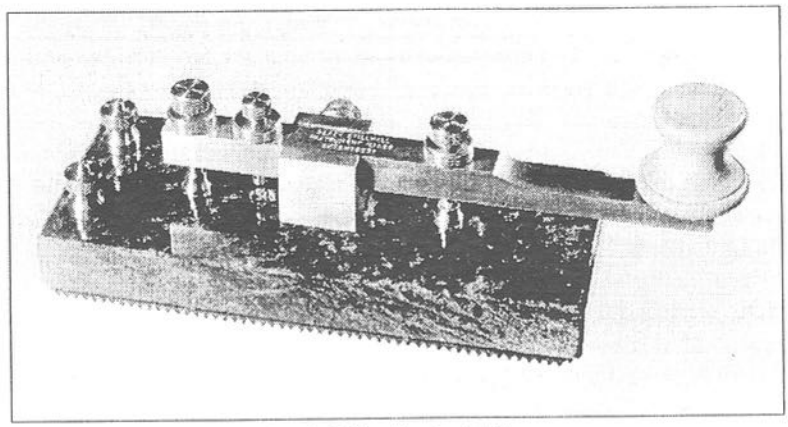
Straight Key

Derek Stillwell, Instrument Maker, has announced the introduction of a new straight key (pictured on the next page). These keys are produced in limited quantities, all parts being individually made, hand finished and assembled in person by Derek Stillwell.

The base is of heavy polished black Portuguese marble, with a non-slip ribbed rubber mat on the underside, which reduces noise and is also claimed to enhance the feel of the key by adding some compliance.

Solid brass is used for the arm and for the bearing block, which incorporates fully adjustable ball and cone bearings. These allow the contact gap to be set as fine as desired, with settings maintained during the longest of operating sessions.

The polished, hand-turned, hardwood



Derek Stillwell's straight key

knob (a choice of Box, Zebrano or Padauk is offered) has a concave top surface to reduce fatigue.

Derek Stillwell tells us that some very experienced operators have said it is the finest key ever, with a superb balance and feel. Each key will be engraved with the maker's name, serial number and, if required, owner's callsign.

The base measures 7 x 3 x ¾in (178 x 76 x 19mm), and the arm is ½in square by 7in long (12.5 x 178mm). The total weight of the key is 2lb 10oz (1.19kg).

For full details and a colour photograph of the key, send a 4 x 8½in s.a.s.e. (UK) or 2 IRCs (overseas), to Derek Stillwell, Instrument Maker, 27 Lesley Owen Way, Shrewsbury, Shropshire SY1 4RP.

For Your Diary

LONGLEAT: The 1994 **Longleat Amateur Radio Rally** will be held at its usual site in the grounds of **Longleat House**, near Warminster, Wilts, on **Sunday, June 26**, commencing at 10am.
STAFFORD: Hamfest-UK will be held at the **County Showground**, Weston Road, Stafford, on **Saturday and Sunday, July 2 and 3**, from **10am to 5pm**.
WIMBORNE: The Flight Refuelling ARS are staging **Hamfest '94** at the **FR Sports and Social Club**, Merley, Wimborne, Dorset, on **Sunday, August 14**, from **10am to 5pm**.
TELFORD: The 1994 **Telford Rally** will be held at the Exhibition Centre, Telford, Shropshire on **Sunday, September 4**, commencing at 10.30am.
ABERDEEN: The **Scottish Amateur Radio & Computer Convention** will be staged at **Cults Community Education Centre**, Earlswell Road, on **Saturday, September 17**, commencing at 10am.

There are also amateur radio rallies at **Leicester** on **October 21/22** and **Llandudno** on **November 5/6**. More details will appear in the next issue of *MM*.

Morsum Magnificat/Radio Bygones will be in attendance at each of the above shows.

CW on the Comet – 2

John Densem G4KJV

NUMBER 216 SQUADRON, based at Lyneham, was re-formed as the Comet Squadron in July 1956 and at that time airways as we know them now just did not exist. VHF radio was at airfields only so that route communications were by CW or HF R/T.

The radio operators carried on RAF aircraft were called signallers, an idiotic name which most of us detested. I have often wondered what brainless idiot thought that one up!

We, the signallers, were responsible for keeping in contact with not only the civilian areas, or Flight Information Regions as they were called, but also with the RAF Areas of Responsibilities. They extended, as far as I can remember, from halfway across the Atlantic and then eastwards as far as New Zealand.

Relaying

Civilian aircraft used HF R/T, as they had ceased to carry radio operators, and in most parts of the world it was very unreliable. We, the RAF operators, used CW and I can well remember relaying many times for civilian aircraft who were out of contact, using CW not only with RAF stations but with civilian ones as well. Many RAF signallers would have done the same, it was quite a common happening.

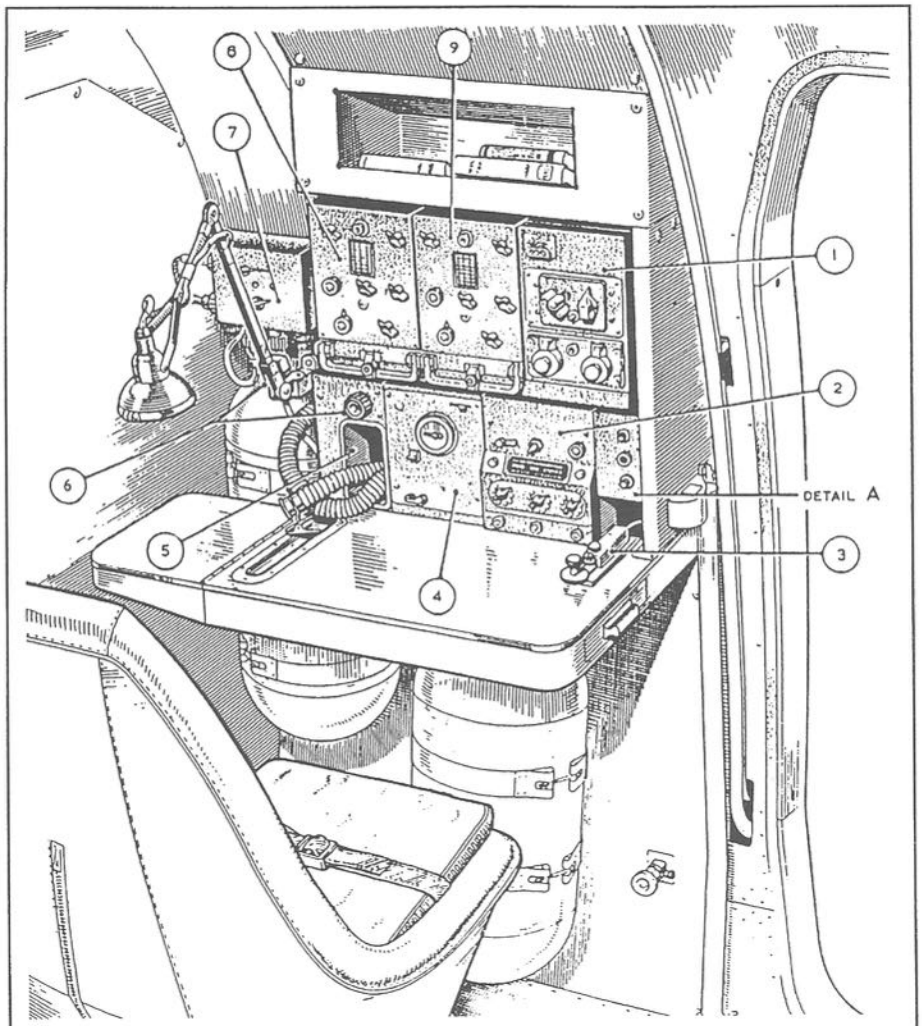
Leaving Lyneham for the Middle East, for example, one would contact London using VHF on departure and stay with them until halfway across the Channel, where we would change over to Paris, now using CW.

We would also have contacted the RAF Area which happened to be called Gloucester, and that extended to the south coast of France where we would change over to Malta. The contact with Paris was from halfway across the English Channel to halfway across France, when we would change over to Marseilles. We then called Rome from Elba.

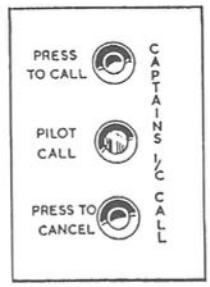
Only Sure Way

CW then, and over about the next five years, was the only sure way of

In 'Comet Key', in MM20 (p.10), the Walters Mk.IV key used on the prototype Mk.1 Comet, G-ALVG, was described and illustrated. While it was known that the early Comets carried radio officers and used CW for long-distance communications, little was known about the CW equipment installed, where it was located on the aircraft, and how it was used. John Densem G4KJV, who served on Comet Mk.2s in the Comet Squadron of the RAF, helps fill in some of the gaps



1 I.F.F. CONTROLLER
2 RADIO SERVICES STATION BOX
3 MORSE KEY
4 OXYGEN PRESSURE DEMAND REGULATOR
5 OXYGEN MASK STOWAGE
6 ANGLEPOISE LAMP AND DIMMER SWITCH
7 RADIO JACK BOX
8 H.F. MASTER CONTROLLER No.1
9 H.F. MASTER CONTROLLER No.2



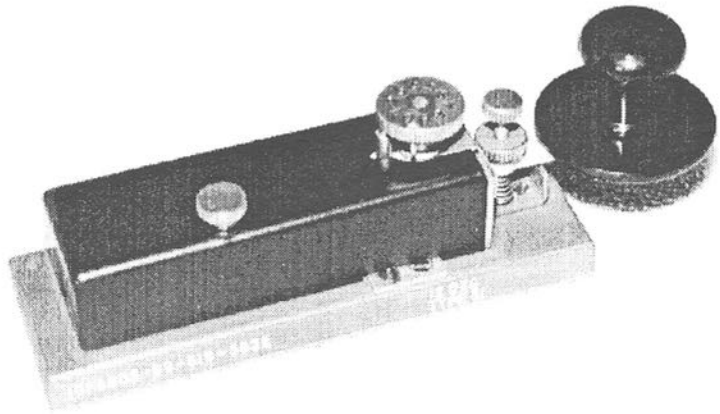
Signaller's station in the Comet 2, with (left) Detail A, layout of the Captain's Intercom Panel

remaining in contact whilst on route, and one article that appeared in an RAF publication at the time proved beyond all doubt that the left hand did not always know what the right hand was doing.

This article was about the Comet 2, describing quite accurately what a wonderful aircraft it was. Unfortunately, right at the end it made the following comment: 'It contains of all things that 20th Century anachronism, the signaller.'

recently, when he brought along a brand new key of the type used on the Comet Mk.2. This was marked RAF KEY TYPE 51 10F5805-99-619-3832. WALTERS E.M.Co.

The signaller's station and the radio rack were both located in the forward freight bay which was also used for passenger seats and/or the two iron lungs and the Stryker Frames. Unlike most RAF aircraft fitted for CW, the Comet



Collection/photo: Gerry Farrance G3KPT

RAF Key Type 51, 10F5805-99-619-3832. Walters E.M.Co., as used on the Comet 2. This appears to be a similar key, possibly identical, to that used in the prototype Mk.1 Comet, as illustrated in MM20

If the writer had had full experience of world-wide route flying he would have known beyond all doubt that an aircraft with a signaller on board was 100 per cent sure of being in contact with someone.

Walters Key

Regarding the Morse key used, I met *MM* reader Gerry Farrance G3KPT

did not have a trailing aerial. They had long ceased to be needed. One final comment. We RAF signallers did of course also use HF R/T when communicating with the odd place that did not have CW operators.

MM readers may like to know that as a tribute to that period, Comet 2C, XK 697 is the Gate Guard at RAF Lyneham, Wilts, its original home base. ***MM***

So You Want To Be a Morse Test Examiner?

Part 1

by Roy Clayton G4SSH
(RSGB Chief Morse Test Examiner)

THE GENTLE BUZZ of the alarm wakes me at 0800 on a bright summer morning and it takes me a few moments to collect my thoughts. What day is it? Then I remember. It is Saturday and I am the Senior Morse Examiner for the county, with nine candidates scheduled for a test at noon. As I shower, I reflect on the feelings of the candidates at this time.

I know from experience that some will have had a sleepless night, some will be having a final practice, some will already be on the road determined to find a parking place and avoid a last minute panic, and some will even have made a couple of dummy runs to the test centre in the last few days, just to ensure they know the way.

Today is the culmination of planning that commenced six months ago, when I booked rooms at the local college, and details were fed into the RSGB computer. That same computer has now distributed appointment slips to the hopeful candidates, allocated times, details of the test, directions on how to get to the centre; and provided me with a copy of everything plus individual blank result sheets to be completed.

Everything Checked

Will everything run smoothly? It should do. Every eventuality has been anticipated. The availability of the room has been confirmed and I spent last night checking the equipment as it was packed into the holdall. Oscillator, spare batteries, phones, pens, keys, leads, scrap paper, notices, etc. Three examiners will be attending; Mark and Phil will be arriving within the hour for the 30-minute journey to the centre.

There is just time after breakfast to check the DX bands and make contact with a JA6 on 20 metres. Conditions are

MM sometimes publishes articles about the traumatic experiences of candidates taking the amateur Morse test. Here, Roy Clayton describes the same event from 'behind the scenes', from the examiner's viewpoint. He demonstrates how hard the examiners try to reassure candidates and put them at their ease. Every incident mentioned has been experienced by him, and some of these experiences offer useful tips for prospective candidates that could help them through their own tests

average, with 449 signals each way. A comfortable sked with Hiro in Tokyo, using the basic set-up of 100 watts to a vertical antenna.

As I close the log, I reflect on the glow of satisfaction that the exchange has given me. Will the candidates scheduled for today appreciate the advantages of the mode? Or will they consider that CW is obsolete and the test just a hurdle to be overcome to allow them access to the HF SSB bands, with a linear and a beam to work the DX? Only time will tell.

Last Minute Hitch

We arrive at the centre 60 minutes before the scheduled start, which is just as well. The expected tables and chairs are nowhere to be seen and it takes 15 minutes to locate the secretary and carry the furniture from the store to the test room. While two examiners set up the equipment, the third member of the team puts up the notices directing candidates to the waiting room.

Thirty minutes to go and the examination room is ready. A last-minute check of equipment and a final run through the test passage selected. I am session examiner for the first test, responsible for sending to the three candidates and assessing their sending tests. Phil will sit alongside me as the witness examiner.

The candidates begin to arrive and Mark, assigned to reception duties in the waiting room, begins to earn his keep. It is his job to introduce himself and attempt the difficult task of calming down candidates who are in a high state of nervous tension.

Words of Encouragement

After 15 minutes he has managed to gain the confidence of most of the first group, chatting about the preparation they have done, answering questions on the test procedure and completing the check of identification documents.

Ten minutes before the first session is due to commence we all go down to the waiting room to meet the candidates. We introduce ourselves and welcome everyone with a warm handshake and words of encouragement. A typical mixture of experience for the first session; a retired gentleman in his late sixties, a middle-aged lady and a youngster, barely twelve years old, with his parents.

The lady catches sight of us for the first time and gasps 'Thank goodness, you are all normal!' We are not quite sure how to take this comment – perhaps she was expecting a panel of disagreeable-looking gentlemen in pin-striped suits? We decide it is a compliment. The young lad looks worried and the elderly gentleman is very quiet. We leave for the examination room with 'Good Luck' cries from friends and supporters ringing in the ears of the candidates.

Prisoner's Friend!

I ask the candidates to make themselves comfortable at the three seats around a large table at right angles to our operating position. The young lad has a problem with the height of the table. It's fine for the adults but he needs a cushion. We are prepared for this and produce one. A few minutes chat helps to break the ice, with nervous laughter

from the candidates. Now it is time to commence the test.

I run through the format, telling them what to expect, and I let them listen to the note and volume of the oscillator. They have a choice of listening to the loudspeaker or using headphones. The elderly gentleman produces a pair of phones and plugs into one of the terminals. A slight lowering of the note assists his hearing and is also considered satisfactory by the other two.

They smile when I introduce the witness examiner as the 'prisoner's friend'. He will copy the test passage with the candidates and make a note of any distractions that occur during the test, such as unexpected external noise, in which case the word where this occurs will not be marked.

The Test Begins

Now that the candidates are settled I go straight into sending a short practice passage, before their nerves begin to play up. This is not compulsory, but it helps to settle them down and gives me a final check on my sending speed. At this stage someone's ball-point pen dries up and is quickly replaced. The witness examiner is observing the candidates closely to ensure that nobody is struggling. A pause to check that everyone is satisfied. All appears well. A final word of encouragement and the test begins.

All is quiet, apart from the rhythm of the Morse and the scribbling of the candidates. I concentrate on sending as near perfect Morse as possible, anxious to give the candidates every chance, while my witness examiner closely monitors the candidates to check that all is well.

He knows what to expect. They are all wound up by nervous tension. This is transferred to their fingertips, gripping their pens hard with excess pressure on the paper. Although I am sending at a steady 12 wpm, the candidates are frantically writing at a very jerky 25 wpm, whipping the individual letters onto paper just as soon as the Morse symbols are sent.

Guessing Ahead

Their brains are racing ahead, attempting to guess the word before it is finished, failing to take account of the pauses between words. This is the downfall of one candidate. I send 'THERE ARE NO'. He writes 'THE REAR ENO' and goes to pieces when he fails to make sense of the last word.

The test continues. A final $\overline{\text{KN}}$ and the receiving part is over. The candidates sigh with relief; we allow them two minutes to read through the passage and make any corrections. For myself, I am relieved that I did not make an error which could have disturbed their concentration.

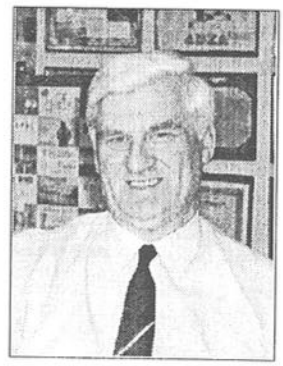
Time is up and the papers are collected in. The witness examiner has written the name of the young lad on my scrap pad. This means he was the most nervous of the three candidates and we wish to spare him the extra tension of waiting outside. I ask him to stay for the sending test while the other two retire to the waiting room to be quizzed by friends, 'How did it go?'

Beautiful Morse

The youngster produces a beautiful handmade brass key mounted on a

wooden base which we connect to the oscillator. He is handed a card with practice passages so that he can try the oscillator and adjust the tone and volume to his preference.

When he is ready we hand him the test passage to send. A hesitant $\overline{CT}$ and he is off, sending beautiful Morse, correctly spaced and proportioned, a pleasure to listen to. We met his parents in the waiting room and know that his dad is a keen CW enthusiast. Within the first five words we know that he can send good readable Morse. Sure enough, he only makes one mistake, taking a deliberate pause to compose himself before sending eight distinct dots, and repeating the word, going on to complete the passage without further incident.



Roy Clayton G4SSH

We thank him for attending, ask who taught him to send like that and help him pack his equipment away. He departs with a beam on his face and shortly after the lady returns to the room.

Like a Machine-gun

We go through the same procedure but this time the candidate has not brought a key. It never ceases to amaze examiners that some candidates come for a Morse test without one. A key is a most personal object and individuals become used to a particular gap and spring tension. Attempting to send perfect Morse on a strange key is an obstacle that candidates should never burden themselves with on the day of the test.

We offer a selection of three keys and she tries each one in turn. She selects the German design, with the flat knob, but is so nervous that dots are splashing around the room like machine-gun bullets. We stop. She holds her head in her hands and explains that she sent perfect Morse at around 15 wpm to her husband last night. We sympathise and indicate that we would have loved to have been there, but unfortunately we require her to demonstrate that ability in front of us now.

Separating Nerves from Ability

We chat for a few minutes while she calms down. We are attempting to separate nerves from ability. Finally, we are off and after one false start, where she makes three mistakes on the $\overline{CT}$ (which is not part of the test), she ploughs on. The remainder of the test is a struggle, with the maximum of four corrected errors made.

Her Morse, although jerky, is reasonably readable and up to speed. It is not an easy decision to make and after she has departed I consult my witness examiner for his views, although the final decision is mine. We agree that Mrs Jones is a borderline case.

However, although the character formation was rough in places, she demonstrated her ability to control the key by correcting every error. It was probably a case of 'nerves on the day' so we decide to give her the benefit of the doubt.

Wrong Jack

The elderly gent enters and pulls from his holdall the biggest Morse key we have ever seen, about 18 inches long. The knob is an actual doorknob. He explains that he has made it himself. We believe him.

Unfortunately the key jack is a mini-jack, not the 1/4-inch standard jack requested in the candidates' information sheet. However, we are not easily defeated. This is a common occurrence and we produce a long lead with a standard jack and crocodile clips which we fasten across the terminals of his key. A word of encouragement and off he goes into the practice passage.

(The concluding part of this article will be in the next MM)

Readers' ADs

FOR SALE

The Code Book: Morse Code Instruction Manual, 1st Edition still available. Designed for students having trouble learning or increasing efficiency in Morse code. For all speed levels. Price: USA $14.95, Foreign $19.95. Supplement to 1st edn, USA $5.75, Foreign $7.75. Both for $25 USD, foreign only, shipped by air. Robert W. Butt N1KPR, 8 Little Fawn Drive, Shelton, CT 06484, USA.

WANTED

Code, Cipher and Cryptography books and other papers. For a project in progress. Robert W. Butt N1KPR, 8 Little Fawn Drive, Shelton, CT 06484, USA.

The Kapiti Coast Museum, which has a small collection of keys, is particularly interested in obtaining an Australian Auto Morse key. Or does anyone have drawings which we could use to produce a replica? Write to Max Kempson ZL1VV/G3JJT, 3 Horopito Road, Waikanae, New Zealand.

Dimensions of the damper wheel of the McElroy 600 model. Please write to Brian Otter 9J2BO, PO Box 30222, Lusaka, Zambia.

Can any readers offer advice on how to replicate the original crackle finish on my Eddystone Bug? John McGinty G4GZQ, 4 Barley Close, Thatcham, Berks, RG13 4YJ.

Photocopies of following articles/pages from *Morsum Magnificat*: No.1 pp7-8; No.3 pp9-11; No.7 pp4-7; No.10 pp1-6; No.11 pp18-20; No.12 pp18-20 and 24-26. Copying, shipping and handling costs willingly repaid. Yuzuru Suzuki N1REP, 36 Dartmouth St., Apt. 412, Malden, MA 02148, USA. Bitnet/Internet E-mail address ys@isr.harvard.edu.

WANTED/EXCHANGE

Telegraphy Equipment & Books. Needle telegraph; ABC telegraph: Marconi Multiple Tuner. Fons Vanden Berghen, Lenniksesteenweg 462/22, B-1500 Halle, Belgium.

American key collector seeks purchase or trade for camelbacks, Chubbock, Melehan, Valiant and other unusual telegraph keys. Send photo, info, etc, to Joel Wisotsky N2LAI, 31 Cow Lane, Great Neck, NY 11024, USA.

EXCHANGE

Still on offer for swap. Vibroplex 'left-handed' chrome bug. Not for sale. Will exchange for any rare bug. This is like new and in original box. Very rare. Any left-handers out there? Colin Turner G3VTT, 'Hurley', Weavering Street, Maidstone, ME14 5JJ, Kent. Tel: 0622 739936.

Reflections from Uncle Bas – 19

Aerials

by Bastian van Es PA0RTW

ERECTING RANDOM WIRES or hefty three-element beams do not seem to pose any problems nowadays. Neither financially nor with housing corporations, at least that is the impression you get when listening to some of the everlasting conversations on 80 metres!

When I started with radio, things were quite different and from the very start I ran into enormous difficulties so far as aerials were concerned. Not financial ones, though, since the FD3 and W3DZZ aerials were not invented as yet, and at that time I didn't have any money anyway.

The outstanding problem was space to erect my aerials. My parents lived in an apartment building with a very steep roof and the owner, who lived nearby, was not very happy when he saw me climbing on the roof of his property in pursuit of my radio hobby. This extremely dangerous activity was performed when no one was at home since my mother did not look kindly on me when I disobeyed her orders, namely, 'Stay off the roof!'

Sort of Random Wire

In spite of all this, I did manage to erect a sort of random wire. This was far too short, however, as the roof was quite

small. Not at all satisfied with this, I dreamed of Zeppelin antennas and open feed lines.

About fifty metres behind the apartment where we lived was a row of three-storey houses and I would have loved to nail my antenna to one of those roofs. I didn't know anyone living in those houses but brazen as a serious young scientist can be I just rang a doorbell and had a persuasive speech ready.

The gentleman who answered the door was not exactly encouraging with his 'Get lost!' response. His neighbours took the same attitude and the remarks I heard that day would be sufficient to encourage most people to forget about hobbies, and especially radio, but not me though!

'Don't Fall down!'

That day I didn't visit all the houses and the next day, undeterred by my experiences, I carried on where I had left off. Finally, I met a friendly lady who said: 'Be careful when climbing on my roof, and don't fall down because I'm not going to pick you up.' This was quite obvious since she was using a wheelchair, but in no time at all I secured my long-wire to her roof, and the results were fantastic.

Looking back on that period, I believe things seemed much better than they actually were. However, conditions in the fifties were excellent and with thirty watts from the then well-known 807 valve I made hundreds of contacts with the USA and I still treasure the QSL cards I received. Those exciting experiences with a long-wire antenna were never forgotten and to this day I have always used long-wires for my radio experiments.

Egg in the Sky

The strangest experience I had with this type of aerial occurred when I was newly married and living in an apartment in Ymuiden on the North Sea coast. Stepping out of my back door, one was in the middle of nowhere, and at night you could see the flashes of the Zandvoort Lighthouse.

The lease contract stipulated 'It is forbidden to construct ANYTHING on, in, or under the building.' Three days after moving in, and in spite of this severe warning, I erected a long-wire from the roof to a small shed behind our house. The shed was about 80 metres away and I used some 60 metres of wire terminating at an egg-shaped porcelain insulator, followed by another 20 metres to finish the job.

For the aerial, I did not use the usual 2mm copper wire, but a very thin wire (0.2mm) from a transformer. This resulted in an almost invisible antenna and it happened regularly, especially at weekends, that people walking by were seen staring into the sky, wondering about the 'egg floating on air' that they could see! The wire was so thin, it could hardly be seen, and we had many a good laugh sitting behind our windows. It was a miracle!

Friendly Neighbour

However, there was one disadvantage. The wire was so long and so thin that it stretched continuously, getting thinner by the day. Every week I had to tighten the aerial to compensate and

after a few months I had to renew the installation, although this was no problem since I had an ample supply of transformers.

The end of the story came when a truck-driver ran into the wire and destroyed my antenna. A few days later, a friendly neighbour gave me a 'ball' of thin copper wire, saying, 'For your benefit, and for future use, I have rolled the wire carefully around the egg.'

MM

Bookshelf

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NEW TITLES

History, Theory and Practice of the Electric Telegraph *by George B. Prescott*

Recently discovered stock of a 1972 facsimile reprint of an 1866 book describing the 'state of the art' in telegraphy at that time. Written by a Superintendent of Electric Telegraph Lines in the USA, it provides a fascinating insight into the techniques and equipment then in use in land-based and submarine telegraph systems.
514 pp, 5 x 7¾in, hardback
£12.75 (UK): £13.65 (Eur/Sur)

The Sound & Vision Yearbook 1994/95

A directory for collectors of sound & vision technology. Listings of shops, auctions, museums, exhibitions, books, magazines, clubs, societies, etc., in the fields of radio, TV, gramophones, audio, telegraphy, telephones, cinema, phonecards, jukeboxes, amusement machines, etc.
96 pages, 5¾ x 8¼in, paperback
£3.50 (UK): £4.00 (Eur/Sur)

TELEGRAPHY BOOKS

Detailed descriptions of the titles listed below available on request

Introduction to Key Collecting by Tom French *(MM17)* ..... £6.75 (UK): £7.05 (Eur/Sur)
Vibroplex Collector's Guide by Tom French *(MM17)* ..... £9.75 (UK): £10.25 (Eur/Sur)
Bunnell's Last Catalog (with commentary) by Tom French *(MM23)* ..... £4.85 (UK): £5.05 (Eur/Sur)
Railroad Telegrapher's Handbook by Tom French *(MM22)* ..... £6.75 (UK): £7.05 (Eur/Sur)
Keys, Keys, Keys by Dave Ingram K4TWJ *(RB13)* ..... £6.55 (UK): £6.95 (Eur/Sur)
McELROY, World's Champion Radio Telegrapher by Tom French ..... £14.70 (UK): £15.40 (Eur/Sur)
The Telegraph by Lewis Coe *(MM31)* ..... £19.10 (UK): £19.80 (Eur/Sur)
History, Theory & Practice of the Electric Telegraph by George B. Prescott ..... £12.75 (UK): £13.65 (Eur/Sur)

RADIO BOOKS

A First Class Job! – a biography of Frank Murphy by Joan Long ..... £8.50 (UK); £9.30 (Eur/Sur)
Dawn of Australia's Radio Broadcasting by Philip Geeves ..... £3.95 (UK): £4.40 (Eur/Sur)
Discovering Vintage Radio by Peter Lankshear ..... £4.15 (UK): £4.65 (Eur/Sur)
Communications Receivers – the Vacuum Tube Era by Raymond S. Moore ..... £15.00 (UK): £15.85 (Eur/Sur)
The RACAL Handbook by Rinus Jansen ..... £13.00 (UK): £13.75 (Eur/Sur)
The Golden Age of Radio in the Home by John W. Stokes ..... £17.50 (UK): £18.00 (Eur/Sur)
More Golden Age of Radio by John W. Stokes ..... £25.00 (UK): £25.50 (Eur/Sur)
Radio! Radio! by Jonathan Hill ..... £28.50 (UK): £29.50 (Eur/Sur)
70 Years of Radio Valves & Tubes by John W. Stokes ..... £21.00 (UK): £22.00 (Eur/Sur)
History of the British Radio Valve to 1940 by Keith R. Thrower *(RB22)* ..... £12.25 (UK): £13.00 (Eur/Sur)
Comprehensive Radio Valve Guides, in five books:
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Showcase

Featuring keys and other collectors' items of telegraphic interest.
If anyone can add to the information given please contact TS

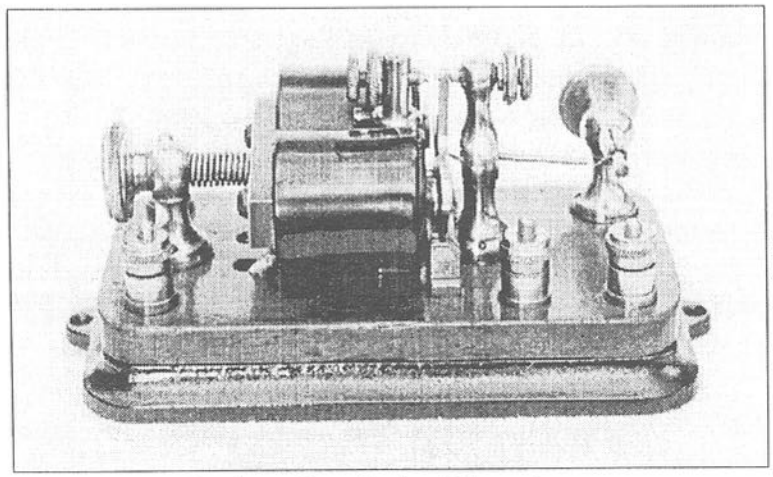
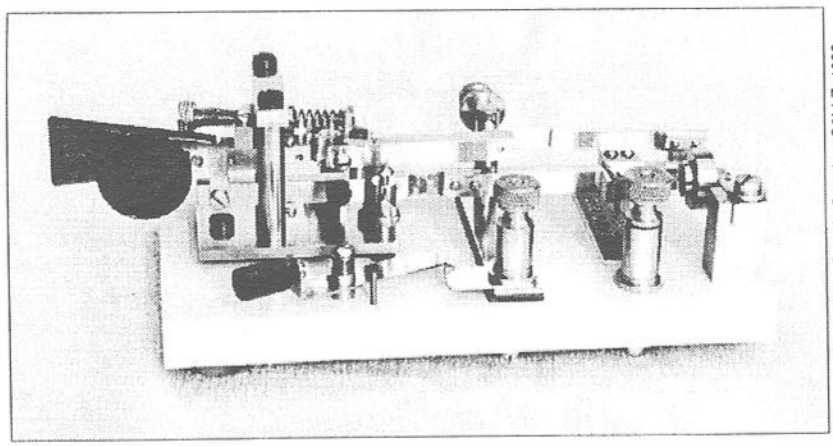


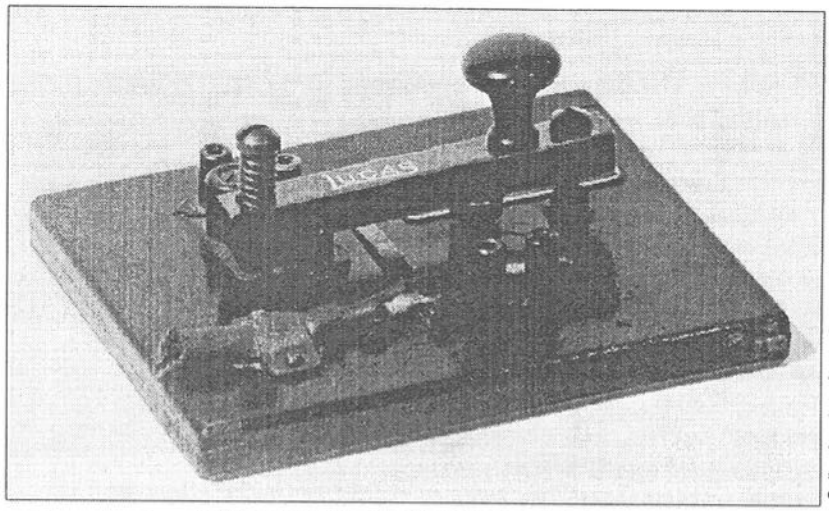
Photo: Dennis Goacher G3LLZ

American telegraph relay. Maker unknown



Reproduction built by Dennis Goacher G3LLZ, 1993

Reproduction Vibroplex, Model X, also known as the 'Direct Point' (makes dots and dashes on the same contact), originally manufactured 1912–22



Collection, Lee Grant G3XNG. Photo: Jim Lycett G0MSZ

Lucas key from LAMP ELECTRIC SIGNALLING, DAYLIGHT LONG RANGE, 1918. Made by Joseph Lucas Ltd, Birmingham, England. 'Rescued' from a junk shop in Capetown, South Africa, 1993

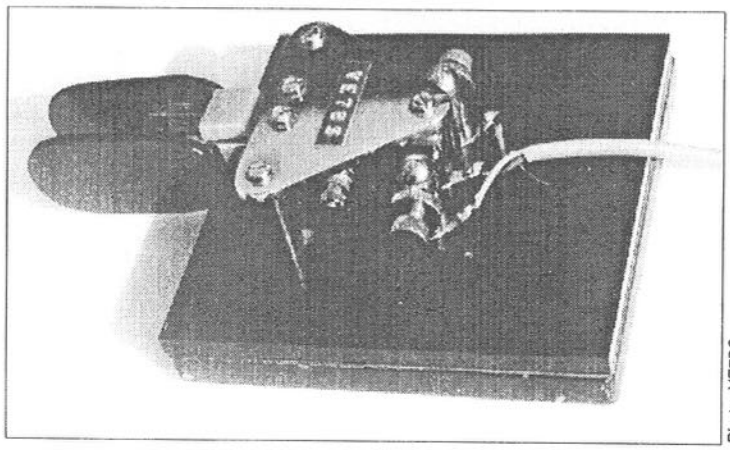


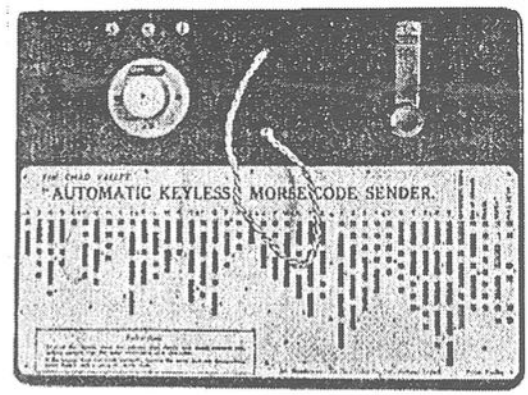
Photo: VE7BS

G4BKU Paddle. Made by Ron Foot G4BKU, this key has been in daily use by Bob Eldridge, VE7BS, for at least fifteen years without adjustment. It has a black plastic base cemented to a ¼in metal plate with three feet made from a Swiss non-slip polymer. There is a single rod through both levers with a tension spring on either side. The small block between the levers is Bob's own addition for non-iambic keying. It prevents the levers from making simultaneous contact and, shaped like a fat 'T', can be lifted out when iambic operation is required

More Transmitting Plates

by Tony Smith

IT SEEMS THAT the transmitting plate, an invention of Prof. Morse, had a far longer life than he could have ever visualised. It has been re-invented or copied a number of times since 1839 with applications ranging from that of a toy to an instrument of war (in both world wars).



The Chad Valley instrument, c.1935

Just a Toy?

Following on from 'The First Hand Key' (MM19, p.16), four more versions of the Morse transmitting plate have come to light. The first is the 'Automatic Keyless' Morse Code Sender, marketed in Britain by toy-makers The Chad Valley Co., price 7s. 6d., and described in *Television and Short-Wave World* in 1935 as follows.

'This gadget consists of a brass plate connected to one side of a battery over which is fitted a cardboard template. This template is cut so as to form the proper dots and dashes. A metal pencil is connected to the other side of the battery and when it is drawn across the template, say beneath the letter A, an automatic dit-dah is sent.

Of course, the whole alphabet is arranged in order from A to Z with numerals for 0 to 9, so even the beginner can send simple messages without knowing anything about Morse code at all.

'With such a gadget it is a much more simple matter to pick up the correct dots and dashes with perfect spacing. Letters can be formed automatically, and then after the alphabet has been memorised they can be sent by hand with the key supplied and checked up by means of the automatic sender.'

This unit can probably only be considered a toy, with its cardboard template giving limited life. If any Chad Valley Senders have survived, however, they would make an interesting addition to any key collection, bearing in mind the origin of the design (probably totally unknown to the makers!) which goes back to Samuel F.B. Morse himself as described in MM19.

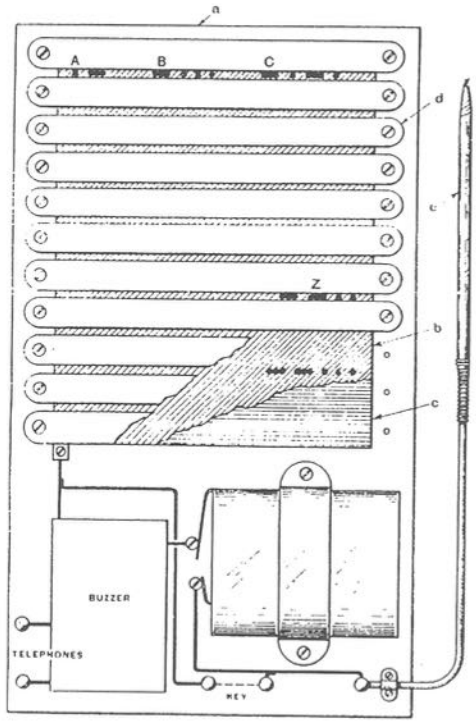
WW *Version*

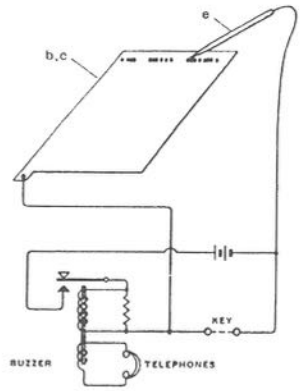
The 3 August 1939 issue of *The Wireless World* carried an article, 'Mastering Morse', by A.R. Knipe, describing how to construct yet another plate, complete with buzzer, headphones and key. It was claimed that, to some extent at least, this device would overcome the disadvantage of not having a skilled operator to provide proper receiving practice. It would also enable letters or words to be sent without any knowledge of Morse, and would be of assistance in the process of learning the code.

Strips of wood were fitted across the transmitting plate to serve as guides to the stylus, which in this case was in the form of a metal brush, with bare copper wires extending about 3/16in from the end of a rigid holder. While the template took account of the standard Morse symbol lengths, the spacing between the elements was increased slightly 'to allow for the thickness of the stylus brush'. For example, for the letter 'A', the dot was formed from a perforation in the template 1/8in long, and the dash was 3/8in long. The space between the dot and the dash, however, was 3/16in instead of the 1/8in which might be expected for a space length equivalent to the length of one dot.

This construction project suggested various materials for the template, ranging from stout paper to empire cloth or thin celluloid, so it did offer at least one advantage over the Chad Valley version – a potentially longer life.

To avoid disturbing other members of the household unnecessarily, the writer suggested 'the buzzer can be mounted on sponge rubber and enclosed'. A buzzer was employed in





Constructional details and electrical connections for a transmitting plate described in an issue of The Wireless World *dated 3 August 1939*

place of a valve oscillator 'to make the apparatus simple and completely self-contained', but the importance of using a 'good quality high-note buzzer' was stressed.

For Use In Aircraft

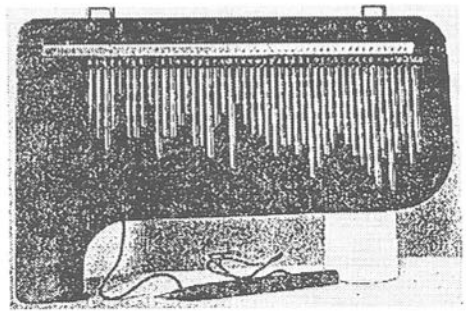
The philosophy behind a far more deadly instrument, made by Telefunken, is described in *Funkentelegraphy fur Flugzeuge* by Erich Niemann, c.1920:

'The eyes, hands, feet and nerves of the pilot are fully occupied with other activities to such an extent that it is essential for him to be able to operate the aircraft wireless telegraphy station with just one or two simple manipulations.

'The fewer the manipulations, the more ideal the wireless outfit. Experience in war has taught that in the same way that even an inexperienced person can handle the common telephone, the design of an aircraft wireless telegraphy outfit must be equally simple so that any pilot, even without previous knowledge, may be able to operate it after brief instruction.

'Regrettably, it took us a long time to come close to this ideal, advancing step by step, and only the transition to the continuous wave vacuum tube transceiver made it technically possible to materialise the above principles.

'The final success has been achieved to a large extent by the fact that development was mainly in the hands of engineers and military men who continually practised flying in the home defence area as well as before the enemy. After each flight, these men arrived anew at the certainty that aircraft wireless telegraphy was still not sufficiently simple to operate, and that they should not rest until all operating elements had disappeared except for one, namely the key, while providing the possibility of two-way communication.



WWI Telefunken 'Automatic signal transmitter' for artillery spotting (reconnaissance) plane

'These efforts to simplify as far as possible the operation of aircraft wireless telegraphy have led to the so-called automatic signal transmitters as shown in the illustration...'.

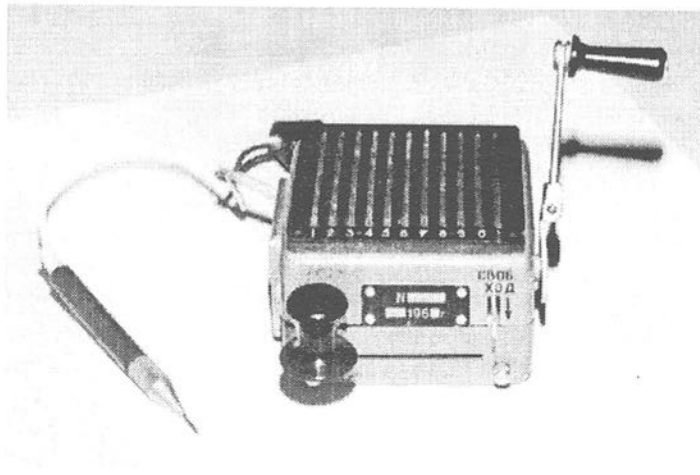
The illustration shows a transmitting plate similar in principle to other plates mentioned in MM19, with an electrically connected stylus to draw along the lines for specific Morse symbols. It is not clear whether this device was used on active service or not, but even with the degree of simplification achieved it is hard to visualise its successful use by a pilot in a vibrating bone-shaking WWI aircraft.

Russian Instrument

An intriguing, relatively modern, Russian version includes a conventional key (see photo). A transmitting plate on

the top of the case has numerals only, 1 to 0, plus the error signal (8 dots). The instrument is marked N 7138 5 1969r, which possibly indicates the year of manufacture as 1969.

When not in use the stylus fits into a hole at the back of the case. The crank handle at the side acts on a mechanism inside the case with several electrical contacts related to the slide lever at the front (there is a similar lever at the back).



Photo/collection: Henri Jacob F6GTC

Russian instrument marked N 7138 5 1969r. What is (was) its purpose?

The purpose of this assembly is not known. The crank handle folds round to the front when not in use.

Perhaps this instrument was used to send coded messages in military or clandestine situations rather like the 'Squirt' described in MM19? If anyone has specific information on it and its purpose, please contact me.

Any More Versions?

I continue to be interested in the history of the transmitting plate and would be pleased to hear from any readers who can provide information on further versions of this device.

Acknowledgements

My thanks to Norman Burton, Revesby, New South Wales, who sent me a copy of the original article about the Chad Valley instrument from *Television and Short-Wave World*, April 1935. Also to Gerhard Paul, Bortlingen-Breech, Germany, who translated the German text about the Telefunken automatic signal transmitter. This text was received from Louis Meulstee, Schiedam, Holland, via Kaye Weedon, Blommenholm, Norway. The *Wireless World* article, 'Mastering Morse', was sent in by Dave Adams of West Wickham, Kent. The Russian instrument is part of the collection of Henri Jacob F6GTC, who hopes very much that further information will be forthcoming about it!

MM

Home-Brew

In this sequel to 'Rudder-Joke' (MM32), John Lingards (Jack) Sykes G3SRK describes how he occupied some of his time during his seventy-five day stay in Charleston, South Carolina, waiting for the missing rudder to arrive.
He demonstrates once again the remarkable ability of a ship's radio officer to turn his hand to anything when there is no traffic to handle!

STRANGE AS IT MIGHT SEEM, I, as an Englishman, got on royally with families in Charleston, just because I was English. After all, England had been a friend of the South in the American civil war. Some of my shipmates, however, were tarred with the name 'Yankee', still a very dirty word in the 'Deep South'. It seemed up to me to try to boost morale on board the *West Kamak*. I appointed myself unofficial thirst quencher to the officers' mess.

Prohibition was still big business in 1928, but it didn't call for much ingenuity to circumvent it. Do-it-yourself beer packs of malt, sugar, yeast and flavouring could be bought openly at any corner grocery store as could Californian unfermented grape juice bearing the warning:

> 'If four ounces of cane sugar is added to the contents of this bottle, which is then permitted to stand in a cool (not cold) place for a few days, there is a real danger that it could turn into alcohol, the production of which is forbidden by law.'

The instructions for brewing beer were equally explicit and I decided to make a start in a very modest way with a single ten-gallon beer pack. My capital came from the sale, for eight dollars, of one of my personally imported and recommended accumulators.

Remote location

Fortunately for my nefarious activities, my 'suite', comprising cabin, radio room and battery room, was situated at the after end of the boat deck, a position relatively remote from any other accommodation or regular work space. There was little risk of my being pestered by prying eyes and volunteer tasters' before I was ready.

My battery room made an ideal brewery. I was the only person with any business there and the door was normally kept locked. The floor and walls were lead-lined, there was plenty of shelf space, and a well-designed ventilation system which could cope with beer fumes as readily as sulphuric acid vapours.

But where was I to find a fermentation vat, and what was I to do about bottles? Well, as I have written in another place, 'nothing baffles great zeal', and in those days zeal was something I believed myself to possess in fair measure. In the end I rescued empty

10-pound butter tins from the pantry trash dump. Scrubbed and scalded, they would serve for fermentation and as for bottles, I could make do with two five-gallon carboys normally used to store distilled water.

Near-dehydrated Officers

It would mean serving five gallons of beer at a single sitting, but what's five gallons among seven near-dehydrated ship's officers? I didn't count myself among the proposed imbibers; I was strictly a Coca Cola addict and, for that matter, I still am!

I have always suspected recipes, particularly food and drink recipes, of veering on the stingy side and not wishing to appear stingy myself I doubled up on the sugar and cut down a little on the water, nine gallons instead of ten.

The fermentation stage was completed without a hitch and seven days after smuggling my cans of malt aboard I had four and a half gallons of soon-to-be-beer in each of my two carboys. All that remained was to wait quietly, and if possible patiently, through the recommended seven days maturing period.

Stickler for Hygiene

Unfortunately, while I could command the patience, I was unable to guarantee the quiet. When I went to inspect my 'cellar' on the second day after bottling, I found that two corks had blown out and a couple of gallons of 'near beer' was swilling around the lead-lined floor. Taking a clean towel (I was quite a stickler for hygiene even as a young man), I mopped up the evil smelling liquid and wrung it back into my carboys. The slight trace of acid thus introduced would almost certainly neutralise any harmful germs, if any, introduced at the same time, and might even add a little 'bite' to the brew.

Next day, I found that the corks had come out again. This time the mopping up process took a little longer – my almost new towel was full of holes. Up to that time I had never anticipated that there could be mice on the ship! Anyway, this re-bottling process was becoming tiresome and this time, after hammering in the corks as tightly as I could, I tied them down with rope; they wouldn't come out again!

Big Bang at Charleston

Well! Explosions have been described by far abler pens than mine (e.g. Jenkins on Krakatoa, *National Geographic Magazine*, vol. 26), and for my present purposes it may suffice to quote from ear-witnesses of the 'big bang' at Charleston, SC, in the early hours of 29 May 1928.

According to one account, 'at about two o'clock in the morning a tremendous explosion shook the ss *West Kamak* stem to stern'. According to another version, 'a second explosion about half an hour later shook the ship from keel to truck.'

I feel certain that both these stories suffer from a measure of exaggeration and I prefer the claim of the night watchman, a most trustworthy old Negro, who strongly maintained that 'two big bangs awakened me twice within the space of an hour.'

Continued on page 39

The Porthcurno Telegraph Museum

by John Packer G3NRD
Hon. Curator

I HAVE HAD LETTERS from a number of *MM* readers enquiring about this museum, its origins, its location, and its future development in the wake of the closure of the Cable & Wireless College at Porthcurno. I hope that the following information will be of interest.

The cable that landed on Porthcurno ('PK') beach in 1870 was the start of a world-spanning system that stretched via the Mediterranean to Australia and the Far East. Brainchild of John Pender, businessman and entrepreneur who had made a small fortune from the Atlantic cable of 1856, it was the start of the Eastern Telegraph Company's (E.T.C.) great network.

Other cables were landed until, with 14 cables linking Britain with her Empire, 'PK' became the largest cable station in the world. Messages were sent in 'cable code', a type of Morse sent in early years by hand, and received as flickering spots of light, or wavering ink lines on paper tape.

This network was of strategic importance in wartime. Wireless signals could be intercepted but cables were secure from eavesdropping. In World War II, tunnels were dug into the granite hillside and the station moved underground, closing in 1970 after a century of service. British cable ships cut enemy cables in both world wars, which is how a German Atlantic cable was 'stolen' and diverted into Mousehole and then Porthcurno.

End of an Era

In the 1980s, David Kendall-Carpenter of the Cable & Wireless College could see the 'end of an era' for the old cable telegraphy which had linked Britain with the world for so long. His foresight resulted in the saving of a collection of polished brass and mahogany instruments that is unique.

Britain's Empire-spanning Victorian cable network had social, political, and commercial significance equal to the invention and development of railways. Yet almost nothing remains except miles of rusting cables in the ocean deeps – and this one collection at Porthcurno.

Much of the value of the collection lies in its completeness. Not only do we have early ink recorders, we still have stocks of glass siphons, the siphon grinding jigs, the beeswax and resin and silken cords to mount them, the ink and paper slip. We have not only samples of submarine cables, but the cable-ship reports, cable repair kits, early cable charts, cable test sets, and more.

Porthcurno is part of the history of submarine cables. Many of the methods used to locate faults on cables had their origins in experiments made here in the

last century. Three cables which still terminate in the museum demonstrate varying earth currents, stray polarisation effects, and other classic problems associated with fault location, while 'Regenerator' equipment developed by the E.T.C. in the 1920s to boost signals on long cables forms a chapter in the development of today's computerised digital networks.

The College Moves

The Cable & Wireless College move to Coventry in 1993 meant a danger of this link with Cornwall's role in cable communications disappearing. A relocated museum would lose the historic context of Porthcurno with its Victorian and wartime associations.

The Trevithick Trust was therefore anxious that it should remain. This was supported by Cable & Wireless (C & W) who still own the site, and happily the new tenants of Porthcurno College did not require to use the north tunnel. A feasibility study was commissioned by the County Council, and it was agreed to try and keep the museum at Porthcurno and open it as an all-weather attraction for visitors.

With the help of the Trevithick Trust, meetings were held, twenty ex-members of C & W showed interest in preparing for public opening, and weekly working parties have begun. Some of the beautiful brass and mahogany instruments need repairing, walls need redecorating, demonstration tables need wiring.

Preparation of interpretive displays and an audio-visual room, further historical research, collections and library indexing, restoration of the beach cable hut, etc., will all be addressed in time.

The immediate aim is for guided tours on a limited basis in the Summer of 1994, with a short audio-visual presentation, and as much of the equipment as possible shown in working order. Improved display and interpretation, a programme of school and educational events, curation to professional standards and eventual Registration with the Museums and Galleries Commission will follow.

Potential

The potential educational value of the collection is wide. Unusual and memorable demonstrations of electricity and magnetism can reinforce Physical Science aims in the National Curriculum. Geographical and social aspects of life in Cornwall, and on remote relay stations around the Empire will vividly illustrate aspects of Victorian life, and World War I and II connotations are obvious.

The collection is not just electrical equipment, there is a growing collection of handwritten logs, photographs and social history memorabilia of all kinds. We have recently been donated a scale model of a cable ship made by a ship's engineer in off-duty moments, and shown a diary kept by a wireless pioneer who once worked with Marconi. There is a small vintage wireless collection and some interesting associations with industrial espionage circa 1901!

For the future we value support of all kinds. Donations of early wireless, telegraph, or electrical equipment will be appreciated. Offers of practical help from painting walls or signboards to

conducting guided tours, and from clearing paths with a machete to doing historical research in the County library are sought, while for electronic experts there are vintage wireless receivers to be coaxed back to life.

Properly financed and managed the museum can fulfil three main functions, providing an unusual and 'different' all-season attraction for visitors (Cornwall's secret wartime underground communications centre), a resource and curriculum enhancement opportunity for local schools, and a reference collection for the serious researcher into the history of electrical technology.

(Readers of MM *visiting Cornwall who would like to see the Museum should telephone John Packer on (0736) 67088 to make appropriate arrangements.)*

Morse Saves Lives!

The *Edmonton Journal* (Alberta, Canada) of 28 August 1988 quoted a Reuter report from Lima, Peru, as follows:

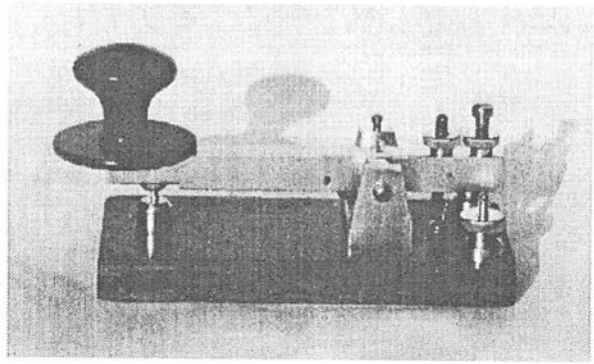
'Rescuers have freed 23 Peruvian sailors trapped in a sunken submarine for almost 24 hours after a collision with a Japanese fishing trawler. Seven of the 52 crew members, including the commander, died in the accident, but 22 sailors were rescued immediately after the crash.

'The impact of the collision cut electricity in the submarine, plunging the remainder of the crew into darkness as water and chlorine slowly began to fill the sunken craft as it lay in 30 metres of water. A Peruvian Navy team used a rescue diving-bell to enter the submarine through one of the hatches and release the trapped men, after establishing communication with them by tapping on the side of the submarine in Morse code.'

From Moe Lynn VE6BLY

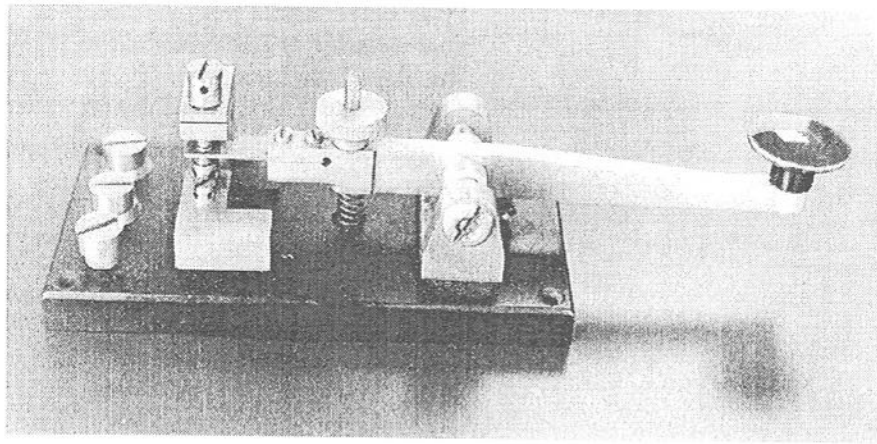
Info Please!

Readers require further information on the following keys, etc.
Please write to Tony Smith, c/o the Editorial Office (see inside front cover), if you can help.
All useful information received will be published in MM *in a later issue*



Collection/Photo: Wyn Davies

Brass key, with 'RAF 2533' stamped on the side of its wooden base



Collection/Photo: John Hann, Ontario, Canada

P.S. No. 213A key, INST No. 31532. Base 3 x 5¾in. Overall length 9in. Information requested on maker, approximate date, and original use

G-QRP Club

The G-QRP Club promotes and encourages low-power operating on the amateur bands with activity periods, awards and trophies. Facilities include a quarterly magazine, Morse training tapes, kits, traders' discounts and a QSL bureau. Novices and SWLs welcome.
Enquiries to **Rev. George Dobbs G3RJV, St Aidan's Vicarage, 498 Manchester Road, Rochdale, Lancs OL11 3HE.** Send a large s.a.e. or two IRCs

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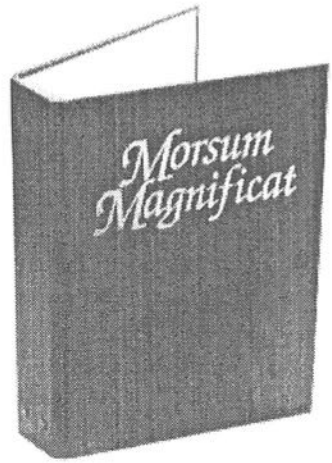

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The Code Book: Morse Code Instruction Manual

A Book Review

by Tony Smith

MORSUM MAGNIFICAT reader Robert (Bob) W. Butt, N1KPR, researched this book for three years before sitting down to write it. The idea, he says, 'hit me after seeing person after person battle with the Morse code. Many people who would otherwise be on the air today have given up in sheer desperation.

'To me it seemed like such a waste, not only of time, talent and resources, but of pride in achievement, self respect and the potential fun that may otherwise lie ahead.'

For Beginners & Improvers

What he has produced is a combination instruction book and course-of-study manual designed for both beginners and those who want to improve their existing performance with the code.

In the first part of the book he discusses thought processes, how the brain works, learning attitudes, the distinction between academia and skill, the qualities of commitment, determination and discipline.

It is a long time since I learned the code, but it seems to me that if I had read Bob's comments at the time it might have helped me concentrate wonderfully on my own learning process instead of taking two years of unstructured and irregular study before I was ready to pass the test.

Farnsworth Only

In terms of actual learning, he recommends only listening at Farnsworth speeds, i.e., with the code symbols at realistic speeds (he suggests not less then 18 wpm) and the spacing adjusted to provide the overall, lower, speed required.

His structured study course of 24 lessons is intended to be combined with commercial audio cassettes, computer program courses, classroom studies, or 'home-brewed' tapes made by an experienced amateur. Interestingly, the old EISH5, TMO0(zero) system, followed by other grouped similar or reverse letters, is used.

This system has been pronounced unsatisfactory by many teachers because of the possibility of confusion in the mind when receiving signals, thus delaying recognition unnecessarily. However, if a Farnsworth speed is used, as recommended here, it is generally thought impossible for learners to differentiate, say, between two and three or three and four dits by counting, or to compare di-dah and dah-dit to decide which is which, when received at 18 wpm.

In this case, it probably doesn't

matter how the symbols to be learned are grouped or presented – although even then there is likely to be debate on whether it's best to learn the most common or most uncommon letters first!

Most Common Difficulties

Guidance is given on the more commonly experienced difficulties, there are study and practice hints, and several appendices cover the Q-code, the RST system, abbreviations, the phonetic alphabet, and various aspects of the American code scene. These include the required characters for the US Morse test, W1AW code schedule, time zone conversions for the US and Canada, and the FCC amateur band frequency allocations.

Since the book was published, Bob has received many comments and suggestions relating to the Manual – from volunteer examiners, instructors, upgrade candidates and also from beginners themselves.

Supplement

As a result, he has produced a Supplement to the Manual containing additional study hints, discussion on the problem of mental block, identification of the most common problem characters and how to deal with them, and hints on how to prepare for the test and pass it. He also includes an interesting table showing the frequency of usage for the letters of the alphabet, in both alphabetical and numerical order.

It seems to me that the general parts of these publications, particularly the advice on how to approach the learning process, could be of value to learners or improvers anywhere – although other parts are related specifically to the requirements of the USA Morse test.

For learners still struggling after trying various other ways of learning Morse, Bob's book could, therefore, well show them where they are going wrong, and help them finally master the code.

The Code Book: Morse Code Instruction Manual, is obtainable from Robert W. Butt N1KPR, 8 Little Fawn Drive, Shelton, CT 06484, USA. It costs (USA) $14.95, (Foreign) $19.95. The Supplement to 1st edn, is (USA) $5.75, (Foreign) $7.75. The two together (Foreign only) cost $25.00, shipped by air.

MM

HOME-BREW

Continued from page 31

Epicentre Not Discovered

I myself was awakened only once, since I never slept a wink after the first bang. Ten dollars of my hard earned savings went up in froth that night, and eventually I would have to account for two missing carboys.

But it could have been worse. If the epicentre of the explosion had been discovered I could have been sacked and sent home in disgrace; and if I had been in the battery room at the time I would undoubtedly have come to a very sticky end.

Brewing beer can be a very sobering experience. Certainly it is one I have never felt tempted to repeat! ***MM***

The Language of Maritime Telegraphy

by Barry Johnson

IN 1959, AS RADIO OFFICER of the *Baron Inchcape*/GVJL on my first solo voyage, my ability to receive Morse 'in my head' was still limited, and so I used the blank pages of an old *ALRS* volume to jot down weather forecasts, any interesting exchanges on 500kc/s to be written up in the radio log, and all traffic addressed to me.

For some reason, I kept this unofficial log for the next thirty years, during which time I left the sea, joined the Army, left that, and became a teacher, working in primary and secondary schools in the UK and abroad, before arriving at my present post of Senior Lecturer in English at Gwent College of Higher Education.

In 1989, I heard with dismay of the obsolescence of maritime W/T at the same time that I was thinking of carrying out research for an MSc in linguistics. The opportunity was too good to miss, and, using the old ALRS log together with new recordings of maritime radio service traffic (W/T, R/T and telex), I eventually wrote a dissertation on the language of maritime radio officers.

Theory and Practice are Different

As far as I can tell, no-one else has studied the unique linguistic features of maritime telegraphy. Indeed, some 'experts' on maritime communication have concluded, presumably on the evidence of the official procedures and the injunction forbidding 'all unnecessary transmissions and superfluous signals', laid down in the *Handbook for Radio Operators*, that no linguistic competence is needed: it's all a matter of Q-codes, not English! Ex-R/Os will smile knowingly at this point; theory and practice are very different!

Before getting on to linguistics proper, consider some features called *paralinguistic* such as voice (the distinctive 'throaty' note† of the Cunard liner *Queen Mary*/GBTT on 500kc/s), intonation (the lengthened dashes of 'QRT SP'!, and even the adjustment of tuning in mid-transmission to produce a rising note of rage or exasperation – usually anonymously!).

There's also the marked contrast between theory and practice in punctuation. I *never* heard MIM used as a comma, though it was the most used punctuation signal for the one mark which was *not* prescribed – '!'.

†An article describing in some detail the wireless installation on *Queen Mary*/GBTT, and the reasons for that 'throaty' note, appeared in *Radio Bygones*, Issue 16, April/May 1992. Copies available price £3 including postage from the Editorial Office.

Spelling and Grammar

In the area of linguistics, first of all, take spelling. Letters are often simply omitted (ERE, AVE, TINK), or more easily Morsed letters are substituted (ANIONE, FER, DEM, WOT, GUD), while other abbreviations are frequent (POSS, INFO, REF, ETA, MSG, U, YR, PSE, GM, TU, WX).

Secondly, there are interesting grammatical features. Although each Q-code theoretically represents a complete sentence, they are often treated as nouns (VERY MUCH QRN, SERIOUS QRM, GIVING QTH), or verbs, usually in the infinitive (UNABLE QSP, CANNOT QSW), but also with a past tense marker (AVE YOU QSOD ANI OTHER BARON BOATS THIS TRIP?).

Verbs and other functional words are often omitted (PSE ANIONE GOT AMBROSE WX?, MEDICO PSE SHIP WITH DOCTOR?, ER DOCTOR).

Politeness Strategies

On the other hand, some exchanges are much wordier, even conversational on occasion, and certainly the most noticeable group of 'unnecessary and superfluous' signals are related to politeness. Positive politeness strategies, expressing solidarity, include the frequent use of OM, and swearing, slang or references to an 'out' group.

Take these turns from GBXH off the US West Coast, after he had called CQ on 500kc/s with QSP? GKL MSG ERE HF ON FAULT, and then switched to 468kc/s with me (unfortunately, my Morse was sufficiently good for me to reply without writing it down first, so the GVJL turns are omitted!):

YES YR QRI GUD OM ER ON NEW SHIP AND BLDY HF T/X ON BLINK

R R TU OM WHAT BOTHERS ME IS THE SHORE BODS WERE ER MESSING ABT ALL WEEK WITH TX AND THEN IT GOES LONG ENOUGH FOR DEM TO CLEAR OFF WHEN DIS SHIP SAILS OM

WELL OM IM NOT AND ALL I KNOW IS SOMEWHERE DERE IS A OVERLOAD AND TINK SAME TRBLE AS DEPOT LADS HAD AND EVEN WHEN IT WENT SHORTLY BEFORE WE LEFT AFTER ONE LAD WAS AT IT ALL NIGHT THEY CUD NOT SAY EXACTLY WOT PART OF OSCILLATING CIRCUIT WAS OVERLOADED SO THEY MANAGED TO GET IT RIGHT JUST BEFORE WE LEFT

Negative politeness, expressing restraint and a desire not to impinge on another's freedom of action, is also very common, especially when asking for help: SRI OM DIDNT GET MUCH OF THAT ER VERY MUCH QRN IF POSS OM CD U GIVE IT AGAIN PSE AND MIGHT GET IT THIS TIME. PSE is especially frequent, sometimes repeated even in a short turn: PSE ANI SHIP FROM NEW YORK ERE RQ INFO PSE.

Poetic Function

Among the functions of language distinguished by linguists is the *poetic*, which celebrates the qualities of the medium itself: nursery rhymes are a good example in spoken English.

The expert who believes R/Os keep to official guidelines would not expect

GLOSSARY

ALRS – *Admiralty List of Radio Signals.*
AMBROSE WX – Weather report from Ambrose Light Vessel.
ER – Here.
GBTT – Callsign of the Cunard liner *Queen Mary.*
GKL – Portishead Radio. GKL was the callsign allocated to the main 8Mc/s answering frequency. Although many other callsigns beginning in 'GK' were used on other services and bands, the seagoing fraternity almost always referred to Portishead as GKL.
MIM – This was the official prosign for the exclamation mark before it was officially changed to the comma as from 1 September 1939.
RQ – Indication of request
R/T – Radio telephony.
SP – Silence Period observed for three minutes twice each hour by all stations to listen for emergency traffic.
500kc/s – International distress frequency for radiotelegraphy. Used for distress calls and distress traffic, urgency messages, short safety messages, call and reply, and limited defined other purposes.

to find any examples of this function, but he would be ignorant of the usual 'signing-off' exchange ESE / EE, which expresses a delight in the rhythm of Morse, as does the other signing-off formula of SEE U.

Incidentally, this last signal demonstrates another feature of 'natural' languages: change over time. When I was at sea, CU was most frequent, changing to SU, before arriving at the more rhythmically pleasing most recent form.

Speech Community

MM readers will readily appreciate the conclusion of my study: through Morse, R/Os formed a unique and international *speech community*, which linguists define as 'a group of people who form a community, e.g. a village, a region, a nation, and who have *at least* one speech variety in common'.

Unlike other speech communities, R/Os did not usually come face-to-face with each other, and, more importantly, they did not use speech before the advent of R/T, but the community they formed greatly facilitated maritime communication, often in very difficult and sometimes in dangerous conditions.

Most importantly, their community depended on a very liberal interpretation of what constituted 'unnecessary and superfluous signals'!

Note: Readers who may be interested in a more thorough-going account of maritime radio service traffic could consult my article 'Maritime Radiotelegraphy: A Reduced Language?' in the journal *Fachsprache* 14 3/4 1992, pp. 126-131, which should be held in most University libraries, or could be obtained by inter-library loan through a public library.

I would be interested if any *MM* readers have *actual data*, like my old ALRS log, from another Morse speech community, which I could use as the basis for another article. Any such help would, of course, be fully acknowledged.

My address: 11 St Cybi Drive, Llangybi, Usk, Gwent NP5 1TU, Wales.

MM

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

Congratulations Michael!

I am writing with reference to my letters published in MM26 (p.42) and MM27 (p.41) regarding my son Michael and his method of learning Morse – and his success in passing the 12 wpm test on his 8th birthday.

On 14 March 1994, ten days before his 9th birthday, Michael took the Novice examination. I am pleased to report that he passed, and his callsign is 2E0AHY.

Mike Hindley G4VHM, Hull

90th Anniversary of PCH

Coast station SCH (··· ----), later PCH (Scheveningen Radio), was founded on 19 December 1904. In 1979 and 1989 a group of radio amateurs celebrated this anniversary on the air.

PCH, itself, was contemplating its own demise in 1989 when there were only 40 out of 150 staff left, revenues were negative, and Morse for the maritime mobile service came to an end.

Now, due to the growth of satellite service 'Station 12', the staff of the coast station wish to remember the 90th anniversary of PCH with another amateur radio station on the air.

For years, PCH used the frequency 3.673MHz USB, and in 1989 the government agreed the use of this frequency for amateur radio on the anniversary day. We will try to be on that frequency again on 22 October 1994, from 0900Z to 1600Z with radio amateur/former PCH operators. We hope to use the call PA90PCH during this event.

Other amateur stations will also be active to commemorate the history of the maritime mobile service in the Netherlands. I hope to inform *MM* readers in time about the arrangements for that day.

Ko Lagerberg PA0JY
Velserbroek, Holland

Acquiring the Radiotelegraph Code

May I clarify a few items arising from Part 1 of my article 'Acquiring the Radiotelegraph Code' in MM31?

On page 14, I mention the Morse University program. Unfortunately, so far as I can ascertain, this has not been commercially available for some years. For the information of readers, however, some currently available commercial or freeware programs are as follows:

1. MORSEMAN+ by Robin Gist NE4L/ZF2PM. This is one of the good commercial programs available today. It began as a freeware series. A Tutorial module teaches the characters, the Trainer develops skill, Testing provides for various evaluations of skill, while an Interactive mode provides for certain

user-response reactions. Several types of practice are provided in each of these modes or modules.

2. MORSE TUTOR PROGRAM by Gary E.J. Bold ZL1AN of New Zealand is a fine freeware program of the bare-bones type (no fancy menus or screens). *(Available from* MM, *as described in MM25–26, and now updated into a menu-driven environment. Details to be announced later. – Ed).*

3. SUPERMORSE by Lee Murrah is a freeware program from National Amateur Radio Association. A great deal of variety is built into this program, which is really a series of integrated programs. A Learning phase introduces the student to the code characters, a Building speed phase provides a lot of variety in practice materials, an Enhance phase extends this further to as fast as one wants to go, while a Measure phase provides for testing of skill with built-in or user-constructed tests, and finally an Operate phase. Interaction is provided in several aspects. It is the originator's intention to make this the most extensive program available, and he has done an excellent job of it.

Under 'The Koch System', a reader might suppose that the 'whole method' described on page 15 of MM31 is part of the Koch System, whereas it is totally different.

On the same page, the second paragraph under the heading 'Sound or Rhythm Pictures' mentions the Wireless Press offering of 1921. Since it directly follows the clause 'payday today' as the rhythm for the letter 'Q', the reader might assume it resembled such 'sound-alike' methods. In fact, I have not been able to find out what the Wireless Press method was. Possibly it was simply using dits and dahs instead of dots and dashes – if so it could have been the earliest such usage. Maybe some reader in England might know what it was?

I hope that readers will have seen from the comments and the tables of the presumed 'sound-alikes' and the 'Eat Another Raw Lemon' memorisation method (p.16) that these do not really help the learner. I should mention that the actual charts of the 'Dodge Radio Shortkut' did not use dit-dahs but rather printed dots and dashes using very thick lines.

Bill Pierpont N0HFF
Wichita, KS, USA

(There will be an article by Bill Pierpont explaining the Koch System in more detail in a future issue of MM. – Ed.)

Left-handed Bugs

Further to the letters from Boris Real (MM29 and MM32) and Dr David Pennes (MM31), readers may be interested in the following story told by Warren Vance of Mesa, Arizona, a telegrapher on the Chesapeake and Ohio Railroad (C&O) and later the Santa Fe Railroad.

This describes how R.O. Landrum solved his need for a left-handed bug in the late 1940s when he developed telegrapher's paralysis in his right arm. Landrum was third trick (midnight to 8 a.m.) wire chief in the C&O's Huntington, West Virginia, relay office (HU).

When his right arm gave out, he had a machine shop drill and thread holes in each corner of his Vibroplex and attach screw-in metal legs on top of the bug's

base. The legs were long enough for the mainframe to clear the desk top and for the thumb and finger pieces (paddles) to be at the correct height when the bug was turned upside down.

Landrum quickly learned to send left-handed, but when his paralysis cleared up he went back to sending right-handed. He left the long legs on the bug, however, and would occasionally turn it over and revert to left-handed sending just to show he could do it.

Richard L. Thomas, KB7BAD
Phoenix, Arizona, USA

Non-success Story

After re-reading the story by Peter Davies, G0KQA, of his trials and tribulations in the course of learning the Morse code (MM26, p.27), I thought that, perhaps, readers would be interested in my experiences.

My interest in Ham radio started in 1990 at age 54. I had no technical background and had not been involved in electronics before.

I bought a copy of the ARRL's *Tune in the World with Ham Radio*, and this came as a package with code study tapes. It's now four years later. I still have not mastered the code and I'm still not licensed!

Shortly after I started the learning process the 'No-code Tech' licence became available. However, I chose not to follow this route, believing that anything becomes more valuable in direct relationship to the effort expended in acquiring it.

I started studying the ARRL tapes but had little success in remembering the letters from one study session to the next. I studied them at various times over a two-year period, sometimes making an intensive effort, sometimes not going near them for long periods of time.

I contacted the ARRL and obtained a list of amateurs in New York City. I contacted several of these, but was unsuccessful in finding an 'Elmer'. The same situation applied to Ham clubs. I work at night. These clubs either meet on my work nights or are too far away to be accessible.

I have a Hammarlund HQ-170 receiver, a Ramsey 80m receiver and a Matric 80m receiver pre-set to receive the W1AW code practice sessions, but I have not been able to construct a working antenna for any of these receivers. Sometimes at night, a piece of 'long wire' dangling from my 15th storey apartment window will pull in some reception on the Hammarlund.

I also possess a pocket Morse code trainer which sends programmed sets of code. I do not own a computer. When I use the code trainer, I can only recognise a few letters, and even then I'm not sure that they are correct.

Given my experiences with my existing receivers, I'm reluctant to purchase a Short Wave Radio at this time; although it is my hope that if I can ever pass the code test I will be able to get on the air with CW.

However, I intend to continue studying the code until they carve

·–· ·· ·––·

on my tombstone! The code is fascinating. It has not outlived its usefulness, just as chess has not outlived its usefulness because of computer games.

That's my non-success story. I do

hope, one day, to be able to DX on CW with other Morse coders. I wish *MM* all of the best, and look forward to future issues.

Morton Goodman
New York City, NY, USA

(Can anyone suggest how Mr Goodman could make better progress with his code learning in the circumstance he describes? – Ed.)

Smallest Key?

I'm enclosing a photo *(below)* of what may be the smallest key yet. I made this key from scrap brass and an old pocket watch case. Actual size is 1.187in (30mm) x 0.5in (12.7mm). It's great for QRP field days!

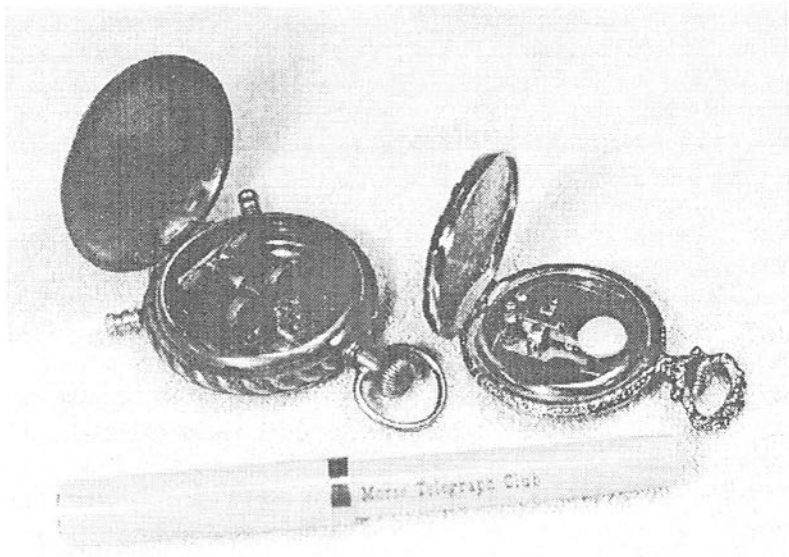
Bob Butt N1KPR
Shelton, CT, USA

(Bob also sent us details of what may be the biggest (or most complex) key yet, weighing 9 pounds! He has promised a better picture than the one he sent and we will print details of this interesting key when we receive this. – Ed.)

Morse on the Don 5

With reference to Jeff Jeffrey's letter (MM33, p.44), I too was interested to see the photo of the YA1860 key on page 39 of MM32. I was given one recently and use it occasionally for Morse practice at my local club to show that you do not have to have a super-duper key on which to send Morse.

As Jeff says, the Don V Telephone Set was, indeed, the workhorse of field communications. My experience was in a Royal Signals Section attached to an



Bob Butt's miniature key with mini-sounder. Both all brass. The key knob is an ivory collar button

Artillery Regiment in Malaya (as it then was) and, due to the poor wireless conditions there, line signalling bore the brunt of the work within the Regiment

We only 'played' among ourselves on the Don V for Morse practice. I seem to remember a distance of 4 miles using Don 8 cable (7 strands of steel and one of copper) and an earth return, but my memory may be at fault.

Jeff referred to the use of a magneto to call a distant station. I did not think the Don V had a magneto generator but I waited to be sure until I recently visited the Royal Signals Museum at Blandford. There is a Don V with a buzzer unit only, but alongside it is a Tele 'F' which did have a generator.

Although not used much for Morse, the Don V was a robust instrument which stood up to the strenuous conditions in Malaya where swift withdrawals (strategic?) were common.

Incidentally, the Royal Signals Museum is a most interesting place to visit for anyone interested in past communications.

Frank Wilson G4ISO
Baldock, Herts

(It seems, as we hinted in MM32, that the key on the Don 5 set was rarely used for Morse signalling. If at all, it was used only for Morse teaching or Morse practice. Its main purpose, apparently, was to activate the buzzer in a distant station in lieu of a telephone bell. If any readers remember otherwise we would still like to hear from them! – Ed.)

Seeking Correspondents

I have come to the conclusion that the Morse enthusiasts in Europe have all the advantages when it comes to collecting fascinating keys. How I would love to even handle, let alone own, one of those monstrous marble-based Marconi keys.

I am writing not just to lament my geographical fate regarding key collecting, being six thousand miles away from the action, but to ask for assistance from *MM* readers in two areas.

I have a great interest in the radio equipment used by the Underground during WWII. This was, of course, recently fanned by the wonderful article in the last issue, 'The First Time I Saw Paris'. I would very much like to enter into correspondence with those who may have owned or reproduced any of the 'suitcase' radios of the period. I need technical information including photographs, schematics, descriptions of the equipment. Any sources of information would be appreciated.

Secondly, I would like to correspond with any Australian enthusiasts who can shed light upon the equipment used by the coastwatchers in Australia and in the Solomons. Again photographs and technical information are desired.

Thank you for a fine magazine.

Phillip Cleveland WT6P
20892 Bald Ridge Drive
Penn Valley, CA, USA 95946

D-Day Memories

The following letter was sent to Jean-Jacques Legrand F5SMR, organiser of 'Operation Maquis 1994', who felt it would be of interest to the readers of MM*:*

'Cher Jean-Jacques,

'I have been reading about the event you are organising and thought that a

few comments from me might be of interest to you. I was a Naval Telegraphist member of the Bombardment Unit – a small specialised unit consisting of members of the Royal Artillery (RA) and Naval Telegraphists – providing Naval big gun support to the infantry whilst waiting for the RA to get ashore.

'We were known as FOBs (Forward Observation Bombardment) and were organised in Troops consisting of 9 separate parties – 1 Captain and 1 Bombardier from the RA and 2 Naval Telegraphists. We found an observation post and "spotted" for the Royal Navy ships, bringing down gunfire on strategic positions.

'We used a 68 set (a variation of the 18 set) which was battery operated, and usually crystal controlled, with the Morse key strapped to the thigh. The 68 set was carried on our backs. In 1944 there was a Collins TCS with the Headquarters party.

'Most of the Unit had their Parachutist Wings (not me as I can't stand heights) but we were attached to the Commandos, Glider Regiment, Airborne and the Infantry. My Troop lost a third of its members as casualties in the first three days of the landings.

'We had the German Houlgate batteries on our left flank and one of our Airborne Bombardiers was mistakenly dropped behind the German lines and took three days to rejoin his Unit.

'Some of the first situation reports to arrive at Eisenhower's Headquarters in the south of England were our Unit's battle communications which were heard by our reserve Telegraphists listening in on our frequencies. Not a bad range for a 68 set with six feet (2 metres) of rod antenna.

'I used the same type of Morse key screwed to my bench top at my UK home station and I still have it although, as yet, I am not licensed in Canada where I have been living for the last four years.

'As far as I know, I am the only member of the Bombardment Unit to continue an interest in radio communications as a Radio Amateur. After the war we formed a Bombardment Unit Association which still functions although it is now sadly very much depleted. Members of the Association will be coming over to France in June. I was there in 1989 and visited the beach on which I landed, and the graves of fallen comrades. Regretfully, I will not be there this year.

'I wish you many contacts on the 11th and 12th June.

'Harry Brooklyn (formerly G3RJN)
Victoria, BC, Canada'

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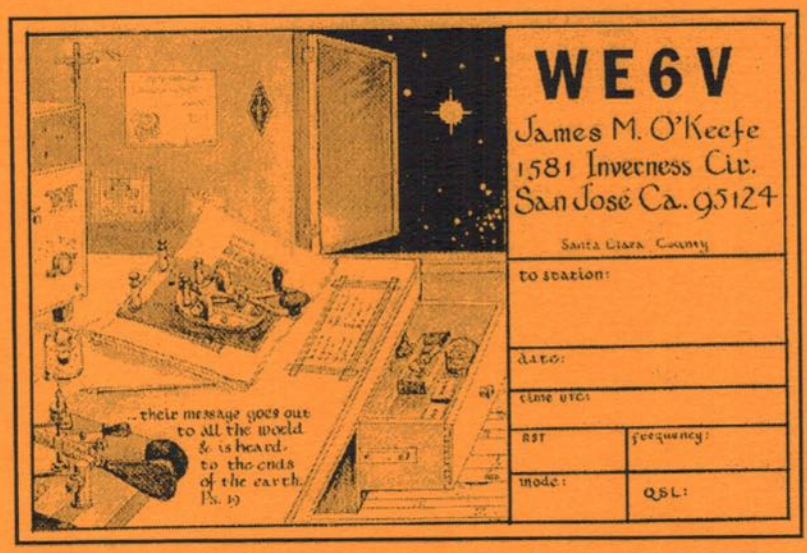

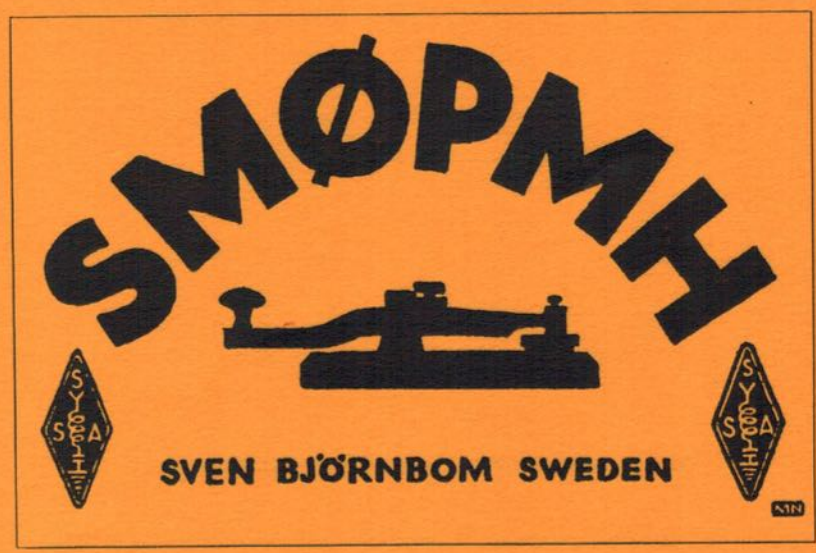

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