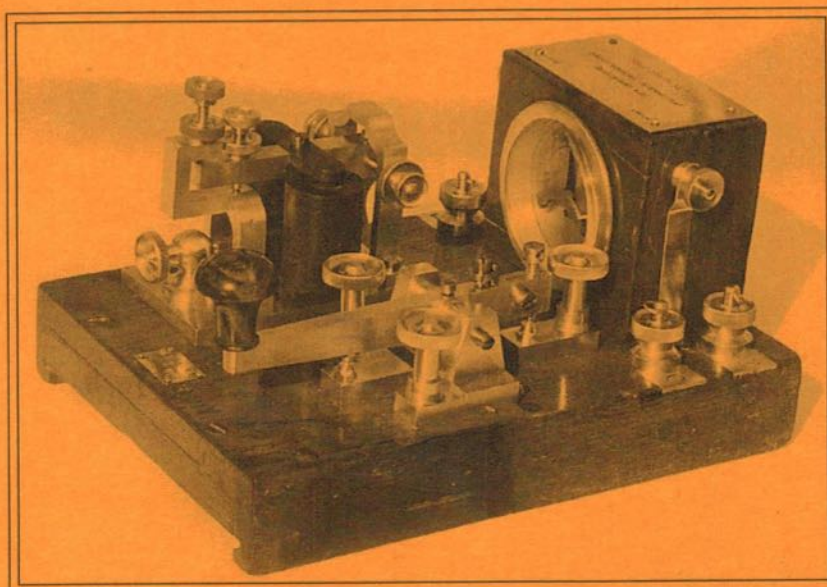Flying the flag for Morse

Morsum Magnificat

£2.50

The Morse Magazine

Telegraph Set by Gilbert, Petty France, London

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.

"When does my subscription expire ...?"
This ranks as an FAQ – a 'Frequently Asked Question', generating many a phone call, fax or letter. The answer is to be found on the envelope that contained your latest *MM*, where the number on the top line of the address label tells you the last issue you've paid for.
Also, we shall jog your memory with a renewal reminder included with that final issue.

ON OUR FRONT COVER

British 'KOB'. Galvanometer has label reading 'Telegraph Set, Direct Working Intermittent (Baseboard S-C), Gilbert, Petty France London'. With PO sounder and key by ATM, dated 1915. Label at front of board is located over wording burnt into the board '6 London Div'. (We understand that 6 London Div was an Army Unit forming part of III Corps, together with 12th, 20th, 29th, plus 2nd and 3rd Tank Brigade, which took part in the first day's attack on the Somme in WWI. Info from John Francis/Wyn Davies.)

Photo/Collection: Wyn Davies

Comment

Contents

Radio Officers – the resurrection

RECENT DEVELOPMENTS in the maritime sector have highlighted the increasing enthusiasm among some of the more enlightened shipowners and marine agencies for the return of the radio officer.

At the recent GMDSS conference in Plymouth no fewer than four speakers spoke out in favour of retaining the radio officer even if the legal requirement to do so has disappeared with the advent of GMDSS. Why should this *volte face* have occurred? Quite simply because they have now finally realised what a valuable resource they have let slip through their fingers. Talk about 'throwing the baby out with the bathwater…!' But there's more. False GMDSS alerts are costing ships' masters hundreds of hours in wasted time.

At the same GMDSS conference, one master spoke strongly on the subject of poor planning when the whole GMDSS process was inaugurated some nineteen years ago, resulting in much confusion today. (His point was dramatically confirmed when a senior delegate asked just how many GMDSS General Operator's Certificates were required on board. The resulting confused dialogue proved conclusively that interpretation of IMO regulations left much to be desired.) To demonstrate how much time was wasted due to false GMDSS alerts, he unrolled just one day's telex roll which measured the length of the conference hall. And his solution? Yes, the return of the radio officer.

On a recent trip to Russia and the Ukraine I was advised by three leading shipping companies that the radio officer would be retained even after GMDSS had been fitted. It seems that they have learned from the European experience that this versatile officer should not be let go, for you might not get him or her back. Now there is a real shortage of Electronic Radio Officers and Electronic Technical Officers in European shipping. Many R/Os who were made redundant have decided to remain ashore. For younger people there is a real future as a ship's Information Technology Officer. The worm turns!

Paul Durkin

Paul is Secretary of the Radio Officers' Association of Europe (ROAE), and the above item is reproduced with kind permission from the April 1997 edition of QSO, the Association's newsletter (see MM47, p.9).

Membership of ROAE has now spread far beyond Europe. Current or past seagoing radio officers interested in joining should write for further details to Paul Durkin, ROAE, 73 Maple Drive, Burnham-on-Sea, Somerset TA8 1DH, England.

Adverts

News

GMDSS Implementation Problems

The Global Maritime Distress and Safety System, which will replace Morse at sea, is due to be fully implemented by 1 February 1999. (See MM38, p.8, for a detailed explanation of what is involved). The following is extracted from reports posted on the Internet by GMDSS Training Associates of Maryland, USA, who provide GMDSS training for individuals, crews, and fleets in preparation for the changeover.

'The GMDSS was designed to provide shore to ship communications during an emergency. It requires at least two paths of communication. The advent of INMARSAT (International Maritime Satellite) provided the ability to communicate by picking up a telephone. The use of the Marisat communications has resulted in a continuing move away from Morse and into technologies which reflect the computer age.

'International laws now require that all ships over 300 tons carry a GMDSS station by 1999. This means that there must be two licensed GMDSS radio operators on board. The time is growing short and the world's limited capacity to train over 200 000 officers in two years will place a significant burden on the officers and the schools.'

In a report posted 4 May 1997, the company says: 'The biggest problem is that there is no way to meet the deadline for all GMDSS ships. Too little training capacity world-wide and not enough equipment to instal in a timely manner. IMO (International Maritime Organisation) is sticking to the date, but many countries are balking at the date.

'IMO has still taken the position that 2182kHz and VHF Channel 16 (*i.e., the present R/T distress frequencies. – Ed.*) will be done away with. Other countries are also balking at this because there will not be any way for a non-GMDSS ship and a GMDSS ship to communicate in an emergency. IMO are standing their ground, however they will have to give in by extending exemptions or options. There is no other way to deal with the problem.

'Because of the problems being experienced in communication in English, rumour has it that some shipping companies have hired back their radio operators. Strange thing to do, but the word is that they felt it was necessary until the problems are ironed out.

'US companies are beginning to make the transition to GMDSS. Some are getting rid of the RO, and some are keeping them. The ones that are keeping them are doing it because the ROs can work throughout the ship on electronic and electrical repairs, and can help the master handle all the ISO/ISM day-to-day paperwork. The companies who have made the transition to full use of

computer-based daily business and messaging seem to be retaining the technically capable RO. The non-technical RO is a thing of the past and has no future. GMDSS has made all the shipping companies rethink the way they communicate.'

In an earlier posting, dated 14 December 1996, the company reported: 'Problems with distribution of distress alerts to RCCs (Rescue Coordination Centres): The RCC closest to the distress is responsible to coordinate the SAR (Search and Rescue). This is proving a significant problem because several responsible RCCs are not attainable and the personnel of a number of RCCs have no knowledge of the English language.

'There is an ongoing effort to solve this problem, but the IMO must come up with a policy to do this. To date, the IMO has not done this. The IMO must develop specific criteria for RCCs which have to carry out the duties of the SAR Coordinator.

'This is a major, significant problem which could degrade the entire GMDSS system concept. Failure to solve this will leave major portions of the globe where Morse code will be the best means of alerting since a "Q" code is understood in any language. Since we have to overcome a language problem, no short-term solution is in sight at this time. We feel that this problem will leave the English-speaking world covered under GMDSS, but those non-English speaking countries will leave major holes in the fabric. This is especially true in undeveloped or third world countries.'

On 5 December 1996, the company reported: 'The 406MHz EPIRBS (Emergency Position-Indicating Radio Beacons) are experiencing a 90 percent false alarm rate. Most of these can be readily explained, but this level is unacceptable. The false alarm rate is the single biggest problem for the GMDSS system... This is rather embarrassing in light of the fact that the old system, 500kHz Morse, has less than a 1 percent false alarm rate. It is easy to see that a lot of work has to be done.

'The 1999 date is under attack. Many efforts are being made to have IMO recognise that 1999 will have to be moved in order for the training and equipping of ships to occur... A number of administrations have indicated that they will be keeping the Radio Officer and will also participate in the GMDSS.'

(The homepage of GMDSS Training Associates is http//www.qpage.com/host/gmdss.shtml)

Morse 2000 Conference

The Morse 2000 World Conference will be held on 25–26 October 1997, at the Radisson South Hotel, Bloomington, MN, USA. Sponsored by the University of Wisconsin-Eau Claire; Trace Research & Development Center-Madison, WI; The Johns Hopkins University Center for Enabling Technology; and the University of Wisconsin-Extension, the target audience for this conference includes Clinicians, Teachers, Researchers, Product Developers, Assistive Technology Users and their families.

An early draft outline of the scope of the conference, published in MM34, 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, dialling, 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.'

'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.'

Further information about the Morse 2000 Conference can be obtained from Debra R. King, M.Ed., Morse 2000 Out-

reach Director, University of Wisconsin-Eau Claire, Eau Claire, WI 54702-4004, USA. Tel: (715) 836-3990, or e-mail: kingdr@uwec.edu

The Morse 2000 homepage on the world wide web is at URL http://www.uwec.edu/Academic/Outreach/Morse2000/morse2000.html

New RSGB Morse Practice Co-ordinator

MM reader George M. Allan, GM4HYF, has been appointed by the Radio Society of Great Britain as its Morse Practice Service Co-ordinator. His responsibilities include organising and directing the Service which puts out slow Morse transmissions daily across the United Kingdom under the callsign GB2CW; appointing volunteer operators for the Service; and providing headquarters with up-to-date schedules of the transmissions for inclusion in the Society's journal *Radio Communication*, its Call Book and its GB2RS News Service.

Congratulating George on his appointment the Dundee Amateur Radio Club's Newsletter, March 1997, reports on his Morse background as follows: 'George's love affair with Morse began as a BB (Boys' Brigade) boy, and by 1940 he was teaching it. As a young man of 18 he was off to sea as a Merchant Navy Radio Officer, having attained his Certificate of Proficiency in Radio Telegraphy, Second Class..., and another certificate for Visual Signalling, (and he) served on at least six ships during the war...

'Having decided not to make marine operating a life-long career... he "swal-

The Lord Provost of Dundee and members of MEGS raise their glasses to celebrate the anniversary of the birth of Samuel F.B. Morse

MEGS SFBM Celebration Success

Morse code enthusiasts from all over Scotland boarded the Royal Research Ship *Discovery* at Dundee, on April 27, to celebrate the 206th anniversary of the birth of the code's creator, Samuel Morse. The enthusiasts, from as far afield as Banff and Dalkeith, were joined by Dundee's Lord Provost, Mervyn Rolfe.

His greetings message to mayors of cities twinned with Dundee were sent out in Morse code from the wireless cabin on the *Discovery*… In the 1920s, *Discovery* was fitted with Marconi wireless sets which were operated by Royal Navy telegraphists using Morse code. There are plans to make a contemporary restoration of the wireless cabin in the near future. *(Report from* The Dundee Courier, *28 April 1997).*

Donald Black, GM0PIV, Publicity Officer for the Morse Enthusiasts Group Scotland, reports that the party was very successful. 120 contacts were made, with Japan, Canada, USA, and all over Europe. The Lord Provost cut the cake and toasted 'Samuel F.B. Morse'. Jack Nicholson GM0MFE, MEGS chairman, proposed the toast, 'Dundee – City of Discovery', and Stewart Spence GM3YCG presented a MEGS plaque to RRS *Discovery* by way of thanks for hosting the party.

Stirling and District Amateur Radio Club will host next year's party, on April 27, 1998, in their shack at Menstrie, mid-Scotland. All CW operators are made welcome at this annual MEGS get-together.

lowed the anchor" in 1947. Since then he has coached many hundreds of amateurs through their Morse tests, has been actively involved for many years in the RSGB Morse Practice Programme and was appointed a Morse Examiner 11 years ago. Nearly everyone who comes to the MEGS stand at rallies seems to know George. Most likely he trained them, and he can name them all.

'In January 1991, he called a meeting of four fellow amateurs especially interested in Morse at his home in Rutherglen, and they founded the Morse Enthusiasts Group Scotland (MEGS) which now has more than 350 members. The founder members, Stewart Spence GM3YCG, Bob Rankin GM0NPS, Peter Gibson GM0GYN, and George GM4HYF, were the first recipients of (the Dundee) club's "Joe Kelly Memorial Award", "for fostering Morse".'

The RSGB slow Morse transmissions are an invaluable aid to those preparing for the amateur Morse test, and the amateur service is indebted to all those volunteers who provide this facility, now headed by George Allan. *MM* offers its congratulations to George on his appointment to this important post.

Arabic Morse Still Used

Following the request by *MM* for information about the current status of various non-English versions of the Morse code (MM51, page 34), the same request was posted on the MM home page on the Internet. We subsequently received the following e-mail report from Harry Brooks, N1PG.

'Just read the www article asking if Arabic code was still used. I am happy to report that it is. I am a Radio Officer on a US merchant vessel, ss *Robert E. Lee*/KCRD. Our regular run is from New Orleans to Alexandria, Port Suez, Aqaba, then down the Red Sea, into the Persian Gulf, and on to India and Southeast Asia.

'I regularly hear JeddahRadio/HZH working Saudi ships (c/s HZ##) and Sudanese ships (c/s ST##) using the Arabic code for chatter and msg tfc. Occasionally, PortSudanRadio/STP will make a short bcast in Arabic Morse but the frequency of this is decreasing.

'Morse is still frequently used in this area. For instance, I copy wx for the northern Arabian Sea from Karachi Naval Radio, c/s AQT. I also hear Pakistani and Indian Naval vessels using Morse with their shore stations. India has a very active network of MF shore stations with relatively heavy activity.

'These are: Kandla/VWK; Bombay/VWB; Goa/VWG; Mangalore/VWL; Cochin/VWN; Tuticorin/VWT; Madras/VWM; Vishakapatnam/VWV; Calcutta/VWC; Port Blair, Andaman Islands/VWP; Okha/VWO; Porbander/VWY. The latter two stations are daylight-only. Chittagong/S3D and several Malaysian and Indonesian stations are also active.

'73, Harry Brooks, N1PG'

Well Done Jessica!

On 26 March 1997, 13-year-old Jessica Hyde who is profoundly deaf obtained her Guides Communications Badge by taking the practical element in Morse, reading the code at 5–6 w.p.m. from the vibrations of a loudspeaker.

Her instructors, Mike Soars G4TCI and his wife Alison G0ALI, operated a

Special Event callsign, GB0JES, in Kingswinford, West Midlands, to enable Jessica to meet the badge requirement of communicating on-the-air, under supervision, on such a station.

Using the code, she had a full scheduled 'QSO', including callsigns and

Jessica Hyde

procedural signals, with David 'Duke' Barlow G3PLE, operating from the Poldhu Amateur Radio Club Station, GB2GM, 250 miles away in West Cornwall. She made no mistakes and was thrilled to communicate with someone at such a distance without the need for lip reading or visible sign language.

While 'listening' to a later contact between Mike and Alison's son Iain G3HGI, and RSGB Chief Morse Examiner Roy Clayton G4SSH (who had also monitored her contact with G3PLE),

Jessica was upset when Iain plugged in his headphones, automatically disconnecting the speaker. It was quickly reconnected so that she could continue to 'hear' the signals.

Jessica previously obtained her Brownie Communications Badge using packet radio. It is thought that she was the first Brownie ever to gain that badge, and that this is probably the first time anyone has met the requirements for the Guide Communications Badge using CW.

In April there was a press conference at Jessica's school where she was filmed showing her friends what she had done and how she did it. Local Radio, TV and press picked up the story in the West Midlands and David Barlow was interviewed about it on Radio Cornwall.

The Radio Cornwall announcer said at the end that he 'had heard recently that Morse was to end as an emergency communications method but this story showed that it was not finished'.

(Report by David 'Duke' Barlow, G3PLE)

No-Code International

No-Code International is a new temporary organisation dedicated to the abolition of the Morse code requirement for all classes of Amateur Radio licence. It has a web site on the Internet sponsored by ARRL member Bruce Perens K6BP who is searching for people who are committed to the idea of abolishing the code requirement and would like to help organise No-Code International.

He says it is not an anti-ARRL group. Instead, it is one dedicated to getting ARRL's members and leaders to change

their minds on the code issue. (As reported in MM50, the ARRL Board of Directors, at their annual meeting 17–18 January 1997, responding to survey results, decided that the ARRL will not support changing the existing treaty requirement regarding Morse code – an issue on the WRC-99 agenda.)

Perens says it is intended to disband the organisation as soon as the Morse Code requirement has been eliminated in all English-speaking countries.

W2AX Attempts to Fill Shipboard CW Gap

While aboard the *Queen Elizabeth 2* for an around-the-world cruise earlier this year, Larry Amodeo, W2AX, of Manhasset, New York, found his CW ability suddenly in demand. On February 5, while operating /mm from the ship's ham radio shack – which is located in the *QE2*'s radio room – the ship's radio operator called him over to see if Amodeo could copy what he thought was a distress call on 500kHz – the old [sic] maritime emergency frequency. Amodeo said the ship's operator told him he did not copy CW much above 10 w.p.m., and there was not a telegraph key in sight (although Amodeo said he later found out there's one hidden away in case it's needed).

'We were about two days out of Fiji,' Amodeo said. 'At the time, I was working JAs on 20 – a pileup.' By the time he got to the ship's radio, the signal was gone. Amodeo went back to 20 metres, but the ship's operator called him over again after a few minutes when the distress signal reappeared. 'It quit by the time I got there,' he said. But the third

time around, Amodeo managed to copy '4X' out of the noise. He surmised the vessel might be of Israeli registry, but he was not able to copy anything further.

The next day, however, he learned his hunch was correct. An Israeli freighter had run aground off Fiji. Another ship intercepted the call and, fortunately, there were no casualties.

Amodeo has been a ham for 45 years and was a merchant marine shipboard radio operator himself in the late 1940s and early 1950s, but he'd never heard a distress call before. 'When I sat down at that receiver, I was hit by a wave of nostalgia,' he said.

(From The ARRL Letter Online, 25 April 1997, published by the American Radio Relay League)

Morse Code to the Rescue

The *Vera* (Russian-registry 1750-dwt dry cargo ship) was disabled recently when a bridge window broke during bad weather. Water that entered through the hole shut down electrical equipment on the bridge, and the ship drifted towards Terschelling Island, the Netherlands.

The only communication equipment working was a 500kHz broadcasting unit, which the crew used to send a CW (Morse Code) distress signal. A station in Ostend, Belgium, received the signal and the ship was assisted by tugs.

(Internet World Maritime News, 18 April 1997)

N2DAN, SK

We regret to report the death of Steve Nurkiewicz, N2DAN, on 20 May 1997. He was the maker of the highly

acclaimed N2DAN Mercury Paddle, reviewed last year in MM44, p.8.

(Reported on the Internet Keyclicks list server)

CW Beacon

Long Beach California operates a 24-hour CW beacon, WA6APQ, running 50 watts on 28.245MHz, signalling 'DE WA6APQ/BQN LONG BEACH, CA…' It is located on the highest hill nearby, Signal Hill, 350ft above sea level.

(Information from James Harlan Smith, Long Beach, California, USA)

'THE MILL'
Free to Morse Instructors

In MM51 (p.7), we reported that Jim Farrior's intriguing computer program, which teaches both International (CW) and American Morse and contains many other interesting features, is now available as shareware. We omitted to mention that 'The Mill' is available to Morse Instructors free of charge.

As a reminder, copies of 'The Mill' can be obtained by e-mail from Jim Farrior at w4fok@net-magic.net. If you have a PC, but no e-mail capability, ask a friend having this facility to obtain a copy for you.

Alternatively, send a formatted HD disk together with a stamped addressed envelope for its return to Jim Farrior at 1232 Harrison Point Trail, Fernandina Beach, FL 32034, USA; or to Tony Smith, 13 Morley Road, Sheringham, Norfolk NR26 8JE, England.

All who receive 'The Mill', from any source, may distribute as many copies as they wish. No shareware fee is payable if the user distributes at least five copies of the program to others by disk or e-mail. To make distribution easy, the program contains e-mail instructions, and a feature for cloning program installation disks.

Spark Key Info Wanted

Reader Russ Kleinman, WA5Y, is trying to assemble information for a comprehensive treatise on spark keys and manufacturers. He writes, 'What I need optimally is complete information on each spark key with manufacturer, model, and any information on a label if present.'

If any readers possess spark keys, Russ would be pleased to receive information about them. Please write to him at: 25 Oxbow Road, Silver City, NM 88061, USA.

Welcome to
Morsecodians President

We are very pleased to welcome the President of the Morsecodians Fraternity, Gordon Hill, as a reader of *MM*. Allan Moore, VK1AL, tells us that Gordon, who is 84, retired as a Post Master over 20 years ago, and still sends and receives Morse like a youngster. He joined the team in Canberra this year for the Morsecodians' annual Alice Springs/ Canberra telegraph demonstrations and helped handle traffic on the Morse duplex sounder circuit. Allan is sure that Gordon will pass the good word about *MM* when he speaks to his Morsecodians membership around Australia!

Entries for World HST
Championships Grow

At the time of writing, the following countries have declared their intention

to participate in the World High Speed Championships to be held in Sofia, Bulgaria, 6–10 October 1997: YO, OK, UA, UT, 9A, LZ, EU, ER, YU, Z3, HA, HL, JA, with final decisions to participate awaited from: DL, I, VE, USA …

A summary of the rules can be found in MM51 (page 3). Readers interested in high speed telegraphy are reminded that in the event of any country not entering a national team, it is open to CW clubs or individuals to represent their country, at their own expense, subject to the approval of their IARU national society.

Further information about the championships can be obtained from national societies, also from members of the IARU Region 1 HST Working Group, as follows:

ARI: Vito Vetrano IN3VST

BFRA: Kostadin Kishisev LZ1FN
DARC: Mathias Kolpe DL4MM
FRR: Gheorghe Dragulescu YO3FU
HRS: Goran Grkinic 9A3UF
VSV: Dipl.ing. Hanno Jax OE1JJB
REF: Colombani-Gailleur Maurice J.L. F6IIE
RSM: Boro Stojkoski
SRJ: Dusan Ceha YU1EA
SRR: Oleg Bezzoubov UA4FBP
UBA: Oscar Verbanck ON5ME
URE: Ricardo Montollu Bagant EA1QF.
Co-ordinator:
MRASZ: László Weisz HA3NU (P.O. Box 169, H-7100 Szeksárd, Hungary. Tel: +36 74 311459. E-Mail: kvantum@mail.matav.hu)
(Information from IARU HST Championships Coordinator, László Weisz HA3NU)

Bookshelf

A mail order book service for selected telegraphy and radio titles. The letters *MM* or *RB* followed by a number after each title indicate the magazine and issue in which a review appeared.

The prices quoted for each title are inclusive of postage and packing, the first figure being for despatch to UK addresses, the second for despatch to the rest of Europe by airmail or elsewhere in the world by surface mail. Airmail rates for the rest of the world on request, or if you are using your credit card we can ship by air at your instruction, simply adding the difference in postal cost to your bill.

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─────── *Credit card orders welcome by phone or fax on 01202 658474* ───────

Morse Learning Methods
Part 2 – 1911 to 1940
by Tony Smith

ONE OF THE MOST famous Morse learning courses was the Candler system, originated by Walter H. Candler, a professional telegrapher, in 1911. His 'High Speed' course was originally designed for operators who already knew American Morse, but wanted to improve their speed. Later he added International code to it, and covered both codes.

His first course for beginners was called 'The Scientific Code Course.' This was, in effect, the regular 'High Speed' course with the addition of beginners' material, and was later renamed 'The Junior Code Course.'

Candler's basic approach was to train the mind, to develop co-ordination, concentration, confidence and responsiveness. He died on 23 April 1940 but his wife, who was an experienced telegrapher herself, continued to handle the course for a number of years. (It was last advertised in *QST* in 1959.) A 1942 advertisement is reproduced **opposite**.

There is an article, 'The Candler System', by Bill Pierpont N0HFF, in MM10, p.1, describing the Candler approach to learning code. A future issue of *MM* will feature a revised article under the same title, reprinted from Bill's book *The Art and Skill of Radio-Telegraphy*.

'Umty Iddy', c.1916

This is the title of a Morse learning system invented by Major W.G. Craigen, RFA (T), while serving as an Army officer in WWI, details of which have been supplied by his grandson, Stuart Craigen G4GTX, of Sunderland.

Again based on 'Letter images' *(see Part 1, MM50)*, the system was intended to assist in learning sounder operation, with the spoken 'umty' and 'iddy' representing the sound of the instrument; and it claimed that the Morse alphabet could be learned in 'a few minutes'!

Published by A. Murray & Co., Aberdeen, John Menzies & Co., Ltd, Edinburgh & Glasgow, and Percival Marshall & Co., London, it evidently enjoyed some degree of success as it had reached a fifth edition by 1916. Stuart wonders if any *MM* 'old-timers' learned the code using his grandfather's system?

A reproduction from the booklet describing the system appears **overleaf**.

"UMTY IDDY."

⁂

In this System of memorising the Morse Code, the Letters of the Alphabet are formed by a combination of their corresponding "Dashes" and "Dots."

A "Dash" should be referred to as "Umty" and a "Dot" as "Iddy",—the longs and shorts as sounded by the tapping Key.

In the System Letters, "Dashes" are represented as straight lines, "Dots" as curves or loops. For the sake of clearness, the straight lines (Umties) are shewn darker than the curves or loops (Iddies).

For example, System Letter **A** (. –) consists of a curve (Iddy) and a line (Umty): System Letter **B** (– . . .) consists of a line (Umty), a curve (Iddy), a loop (Iddy), and a curve (Iddy): System Letter **L** (. – . .) consists of a curve (Iddy), a line (Umty), a loop (Iddy), and a curve (Iddy).

In forming the System Letters, the sequence and direction of the pen-strokes are those used in hand-writing, except in the case of the letter **G** (– – .), where the two lines of the tail (Umty, Umty) are formed first, the curve (Iddy) being formed last ;—*i.e.*—It is to be remembered that System Letter **G** is written "*a-gee*."

M (– –) is too long (*two long*) for representation as a System Letter.

E (.) and **T** (–) may be remembered as "Idd-E" and "Um-T."

———

The Morse Alphabet may be learned in a few minutes by copying the System Letters on a sheet of paper, at the same time noting their component "Umties" and "Iddies."

When transmitting a message, the beginner has merely to recollect how the System Letters are formed and he will at once remember their equivalent in Morse.

The Perry Auto-Time Morse System, *1922*

This booklet was written by F.W. Perry, 'Late Wireless Instructor – Royal Air Force'. It was published by The Wireless Press Ltd, London, first edition 1922, second edition 1924, price sixpence. Thanks to Wyn Davies for the loan of his copy.

The author claimed that 'With the aid of this AUTO-TIME system one can now transmit perfectly timed Morse signals after only fifteen minutes' practice and can gain speed in about one-third of the time usually required. Practice reception can also be carried on with any-

one even should they not possess the slightest knowledge of Morse. All this is possible without the use of apparatus of any kind.'

As far as possible, opposites were used to implant the symbols in the learner's memory. The alphabet was covered in four practice sessions contrasting the following pairs: E – T, M – I, A – N; W – D, G – U, S – O; K – R, V – B, X – P; and F – L, Q – Y, H – C, J – Z. Figures were also learned in pairs as opposites or near opposites in two practice sessions, i.e., 1 – 6, 2 – 7; and 3 – 8, 4 – 9, and 5 – 0.

The heart of the Auto-Time system

MORSE	SYSTEM LETTER		MORSE	SYSTEM LETTER
A .—	*a*		N —.	*n*
B —...	*B*		O ———	(P)
C —.—.	*C*		P .——.	(P)
D —..	*D*		Q ——.—	(Q)
E .	(IDD E)		R .—.	*r*
F ..—.	*7*		S ...	*S*
G ——.	G (AGEE)		T —	(UM T)
H	*H*		U ..—	*U*
I ..	*9*		V ...—	*V*
J .———	*J*		W .——	*W*
K —.—	*R*		X —..—	*X*
L .—..	*L*		Y —.——	*y*
M ——	(TWO LONG)		Z ——..	*Z*

was the use of numbers to emphasise the timing of the code. The symbols were counted out (by tapping a finger) from the beginning and as the ratio remained constant correct spacing was retained at any speed. Examples of how the letters were set out to memorise symbol, sound and timing are shown **below**.

Unusual though this system may seem, a successful use of a similar counting method has previously been noted in *MM* in a story from Indonesia. ('An Old Method in Modern Times', MM8, p.36.)

'When correct timing has been acquired by numbers', says the author, 'signals may be practised without their use, but by occasionally reverting to the number system an automatic check is maintained on irregular sending.'

On sending, he says, 'If you possess a Morse key and Buzzer they will be found useful for later practices, but are not recommended until you have firmly implanted the comparative time value

DE	DAH	DAH DAH	DE DAH	DE DAH DAH
E ·	T –	M – –	A · –	W · – –
1	123	123/123	1/123	1/123/123

of the DE, DAH and spacing into your mind.'

Commenting on the learning process, he makes a few general points which are as useful today as they were in 1922, i.e.; Do not expect to be able to receive complete words at first, even from the slowest sending. 'If you do not know at once the letter for any Morse signal sent, forget it immediately and you are ready for the next signal; if you puzzle your brain over past signals you will miss three or four future ones which you might

otherwise have been able to read. By following this simple rule alone you will become efficient in much less time than usual, and will often be able to complete a word by guessing the missing letters.'
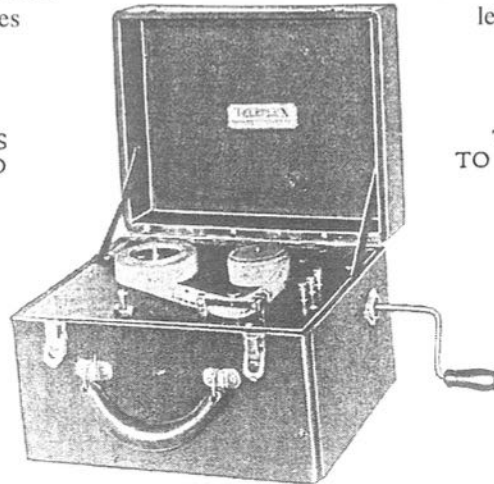
'Do not receive by buzzer practice from one who is just learning to send, because there will be no rhythm in the signals, and irregular spasmodic transmission will only tend to retard progress.'

The best method of speeding-up, he says, is 'If you already possess a Wireless Installation listen in until you can

"TELEPEX"

TEACHES TO SEND

TEACHES TO RECEIVE

No. 10207

The Telepex is an instrument designed for code instruction. It is a mechanically correct instrument which utilizes a spring motor to drive a spindle on which a drum is placed. By means of drawing a perforated tape across a spring contact, dots and dashes are recorded on either a sounder or a buzzer, as the case may be. A third binding post is supplied, which permits the learner to imitate the characters directly after the machine makes them. Sufficient space is allowed on the tape to permit this to be done.

Schedule BC.	Price Each
10207 Telepex, complete, less Batteries	$27.50
10235 Additional Rolls of Tape	1.00
10236 Special Tapes, made to order	2.00

The Teleplex from J.H. Bunnel & Co.'s 1928 catalog. It is intriguing to note that the product name was mis-spelt in both the heading and the description. One wonders whether heads rolled in the company's publicity department as a result!

Announcing A NEW MASTER TELEPLEX!
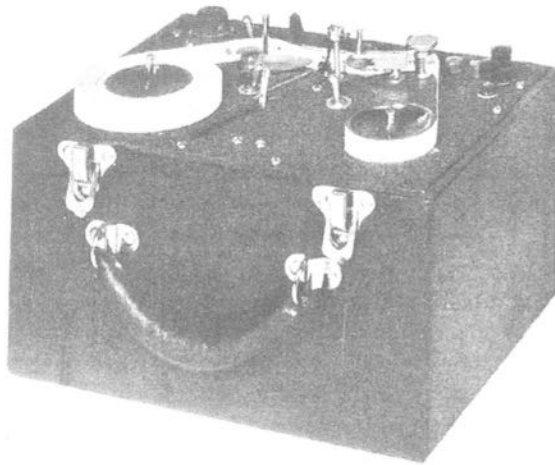
A Revolutionary New Instrument Brought to You by **TELEPLEX** — *The Name Synonymous with Code Success.*

NO PERFORATIONS NO INK

A Marvel of Simplicity!

Master the Code with MASTER TELEPLEX

The Master Teleplex from Teleplex Company, advertised in 1942

fix on a station not sending too rapidly (Eiffel Tower, Paris, for instance). Naturally you will find it too rapid at first for complete reception, but if you manage to catch a letter here and there you will know it is not too rapid for speeding-up practice. Before you attempt this reading, however, make sure that you have thoroughly memorised the Code.'

Finally, to those experiencing what today we call a 'plateau', he says 'A few words of encouragement will not be out of place to those who try to receive the Morse code but get "stuck" at about eight words a minute. This peculiarity is natural with certain types of over-eager brains, and it has been repeatedly noticed that such people often attain wonderful speeds when once the sticking period has been passed. It may last in

some instances from one to three weeks after which time progress is very rapid. Should you therefore find yourself limited to about eight words a minute for a time, do not give up practice, but persevere until you break the barrier down. It will be well worth the effort.'

The Teleplex

J.H. Bunnell's catalog No.30 of 1928 carries an illustration (**see opposite**) of the 'Teleplex'. Using perforated tape and a spring-driven motor, it looks rather similar to the later Instructograph described below.

The Radio Amateur's Handbook, 1942, has an advertisement (see **above**) for 'A New Master Teleplex' with 'No Perforations, No Ink', offered by the Teleplex Company of Jersey City, NJ,

which I believe had a chemically treated tape. If anyone knows how this worked, please contact me.

The Instructograph c.1940

The Instructograph illustrated **below** was produced by the Instructograph Co., Chicago, Illinois, possibly in the 1940s, but the make apparently dates back to 1920. It followed the same principle as the Audible Alphabet Transmitter of 1902 described earlier, using perforated tapes to run through a contact breaker, the main differences being that it was motorised and the tapes were wound on spools instead of lying loose on the floor.

Speed was adjustable from 3 to 40 words per minute, and a variety of tapes were available in both International and American Morse. These included: elementary; words; messages; plain language and coded groups; also an 'Airways' series for those interested in aviation.

Advertisements said 'It is a well-known fact that practice and practice alone constitutes ninety percent of the entire effort to necessary to "Acquire the Code"… The Instructograph supplies this ninety percent… It will send slowly at first, and gradually faster and faster, until one is just naturally copying the fastest sending without conscious effort…

'The Instructograph's *Book of Instructions*… supplies the remaining ten percent necessary to acquire the code. It directs one how to practice to the best advantage, and how to take advantage of the few "short cuts" known to experienced operators, that so materially assist in acquiring the code in the quickest possible time.'

The machine was available in several versions, equipped with either a 110-volt, 60-cycle, electric motor or a phonograph type wind-up spring motor. One model had an internal valve (tube) oscillator for study of Wireless (i.e., International) code. Another had no
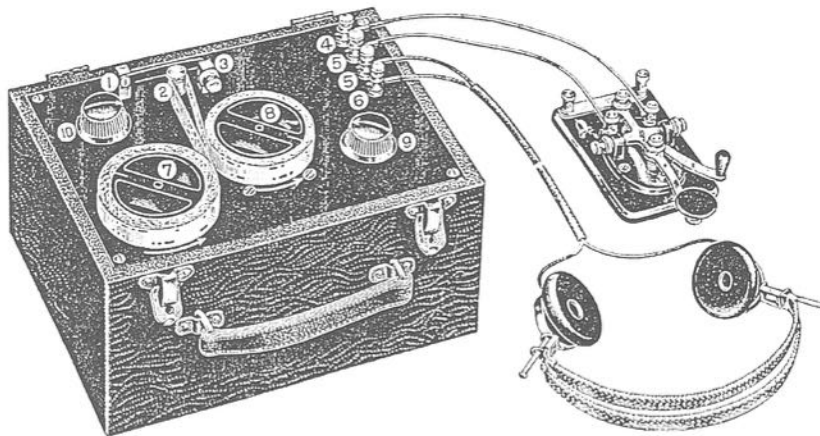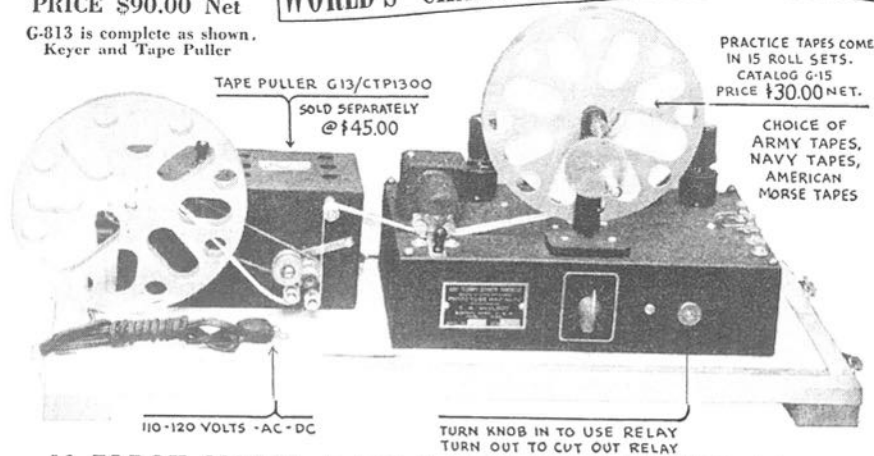

Instructograph with internal oscillator, hooked up with key and headphones for study of Continental (i.e. International) Morse

RADIO TELEGRAPH APPARATUS *Manufactured by*

WORLD'S CHAMPION RADIO TELEGRAPHER

PRICE $90.00 Net

G-813 is complete as shown.
Keyer and Tape Puller

TAPE PULLER G13/CTP1300
SOLD SEPARATELY
@ $45.00

PRACTICE TAPES COME
IN 15 ROLL SETS.
CATALOG G-15
PRICE $30.00 NET.

CHOICE OF
ARMY TAPES,
NAVY TAPES,
AMERICAN
MORSE TAPES

110-120 VOLTS -AC-DC

TURN KNOB IN TO USE RELAY
TURN OUT TO CUT OUT RELAY

McELROY MODEL G-813 RADIO CODE KEYING UNIT

Designed for radio operator training schools of the United States Army.

Dots and dashes are inked on regulation telegraph recorder paper slip ⅜" wide. These recordings resemble the conventional visually read slip, excepting the pen is heavier which results in an inked line about 1/16" thick and the ink used is a black India drawing ink. Paper slip is mounted on 400' 16mm, motion picture reels, each roll containing sufficient inked slip to operate the keyer at speed of 20 words per minute for one hour.

Paper slip is drawn through a guiding gate between an exciter lamp and a photo tube. The inked dots and dashes interrupt light onto photo tube, actuating a relay which keys any external tone source.

Practice tapes consist of a set of fifteen rolls prepared from master tapes furnished by Signal Corps School, Fort Monmouth, N. J. Best results will be obtained if the keyer is used in collaboration with Signal Corps School Pamphlet No. 53, Radio Operator's Manual, 1940 Edition.

oscillator and was intended for use with the student's own external oscillator. This version could also be used for the study of American Morse with a telegraph key and sounder hooked up to the Instructograph.

The Instructograph could be bought on 'convenient monthly payments' if desired, or it could be rented. In this case, if the renter decided to purchase the equipment the first three months' rental paid could be deducted from the purchase price. Thanks to Reg Holland, G3BPE, for providing a copy of part of the instruction manual for the Instructograph.

McElroy Radio Code Keying Unit

Designed for US Army radio operator training, another learning apparatus using tapes advertised in the early 1940s, was manufactured by Ted McElroy, 'World's Champion Radio Telegrapher'.

Instead of perforated tape, however, the tape was inked so that when it was drawn between an exciter lamp and a photo tube the interrupted light actuated a relay to key any external tone source. McElroy's advertisement (**above**) from the 1942 *Radio Amateur's Handbook* tells the rest of the story.

To be continued

J UST OUTSIDE THE VILLAGE of Tetney, at 6 o'clock in the morning on April 8, seventy years ago, Lincolnshire achieved the distinction of being the location of the radio stations which provided the first radio service between the United Kingdom and Australia.

This was, at the time, an astonishing achievement. Traffic was by means of high speed Morse, the transmitter being keyed directly via landline from the Central Telegraph Office in London, where the received Morse signals, arriving by landline from the receivers at Skegness, were transcribed manually from paper tape.

Many eminent wireless communications experts, supporters of the intended long wave 'Imperial Chain' scheme, had believed the proposals, put forward by the Marconi Company in 1924, to be impractical in the state of knowledge at the time. However, as a result of the pioneering research into the possibilities for short wave radio communication by Marconi and his very able team of engineers, particularly C.S. Franklin and G.A. Mathieu, the so-called beam stations proved to be an outstanding success.

Ultimate Achievement

In their time, they were the ultimate achievement in wireless telegraphy. The Tetney station, six miles south of Grimsby, was initially operated by the Post

A Morse Link with the Empire Commemorated

by Ken Jones G3RRN

Office. A similar 'Empiradio' beam station at Lanivet, near Bodmin in Cornwall, provided telegraphic communication with Canada and South Africa, and these stations changed the whole technique of long distance wireless communication throughout the world.

Other beam transmitters, owned initially by the Marconi Company, were located at Dorchester for transmissions 'via Marconi' to the USA, Argentina, Brazil, Egypt, and the Far East, with the corresponding receiving site at Somerton. The beam transmitting and receiving stations in Australia were located at Ballan and Rockbank respectively, between Melbourne and Ballarat, Victoria.

In the words of R.N. Vyvyan, the Marconi engineer responsible for carrying out the 'Imperial Contract', '... the Marconi Company found itself in a po-
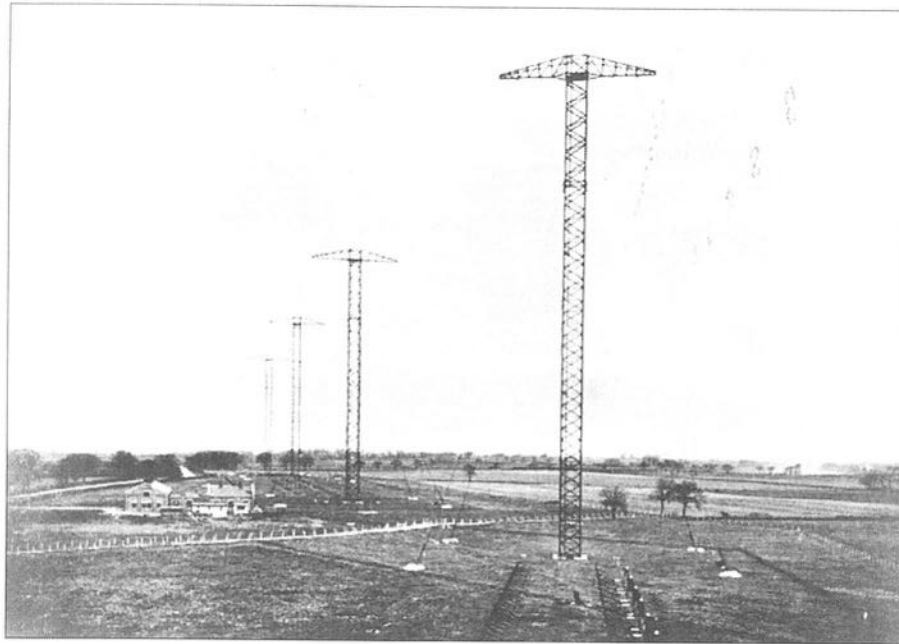
Tetney Beam Station, looking north, c.1927, showing the station buildings and four of the eight towers. The three towers beyond the buildings were used for the Australia beam. The area under the nearest of these towers was the site of the Lincoln SW Club's rhombic aerial aligned with the original beam (on Melbourne), using the base of this tower, excavated by the author from the now dense undergrowth

sition where it was essential to take enormous risks and give guarantees of performance for the effective working of a new system that had as yet never been used on any commercial circuit.' No aerials on the Franklin principle had ever been erected, little was known about the wavelengths proposed, and no plans or designs had been prepared for a commercial short wave station!

Important Place in History

The building of the Tetney Beam Wireless Station must have come as a surprise to the villagers of Tetney, and indeed to the inhabitants of Winthorpe, near Skegness, where the equally large aerials for the Skegness receiving station were erected. Radio was very new, and wireless broadcasting was only five years old. Eight towers, between 275 and 287 feet high, strode across the countryside for nearly a mile at both locations. These events ensured for Tetney an important place forever in the history of world-wide telecommunications.

Although the Lincolnshire stations were closed and dismantled more than 50 years ago, plentiful evidence remains today at Tetney in the form of the Beam
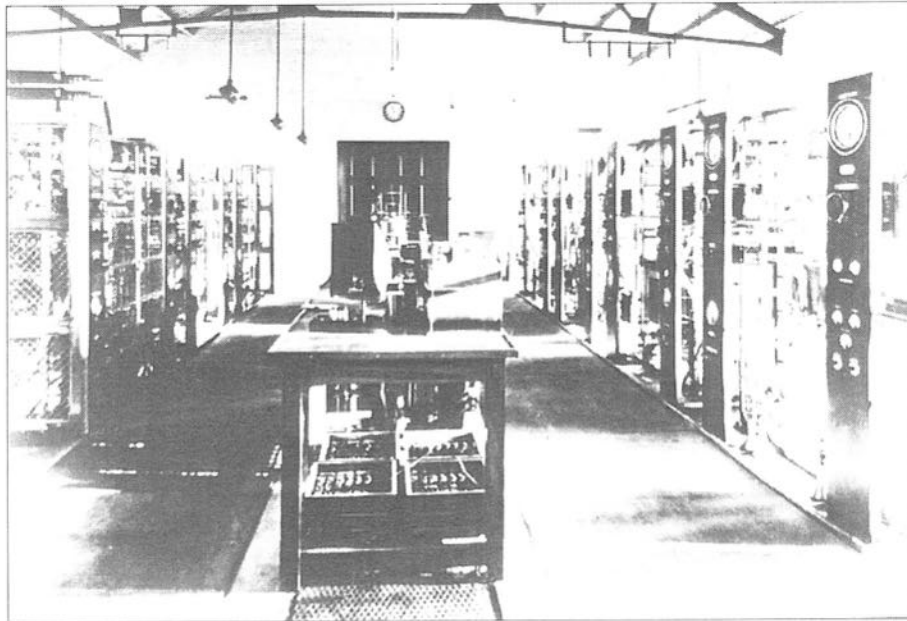
Interior of the Tetney Transmitter Building, c.1927

Station buildings, now commercial premises, and the bases and stay anchorages of the Franklin beam towers. Three large square plantations just to the north of the village mark the bases and stay anchorages of the most southerly of the five towers which provided the Beam Service to India, opened in September of the same year. They give some impression of the visual impact these stations had on the rural environment.

Commemorative Station

In an effort to ensure that Lincolnshire's place in these momentous events is not forgotten, the Lincoln Short Wave Club operated an amateur radio station over the period 5 to 14 April 1997, to commemorate the inauguration of the Empire Beam service to Australia. The Radiocommunications Agency issued the 'special' special event callsign GB7GBH, GBH being the callsign allocated in 1927 to the Australia beam transmitter.
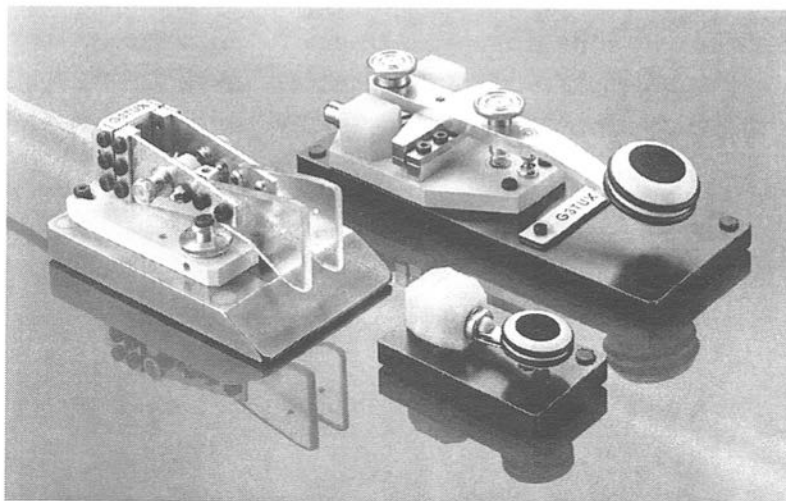
For the event, a rhombic aerial, aligned with the original beam, was erected over part of the site of the Franklin Australia beam aerial. Many DX SSB and CW QSOs were made. However, without doubt, the really exciting highlight of our efforts came at approximately 0600 GMT on April 8, the anniversary date and time, when greetings were exchanged on 10MHz (10Mc/s in 1927 terms) with VK3AUC and VK3ZC, Melbourne. The original beam transmitter frequency was 11.66Mc/s. The QSO was, of course, in Morse!

© *G3RRN 1997*

Showcase

Dummy key, made by J.H. Steward, 406 Strand, London
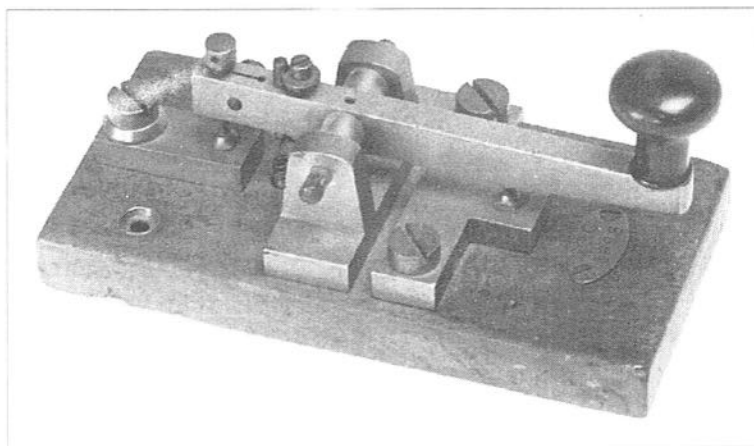
British Post Office brass key

*Featuring keys and other collectors' items of telegraphic interest.
If anyone can add to the information given please contact
Tony Smith, 13 Morley Road, Sheringham, Norfolk NR26 8JE*
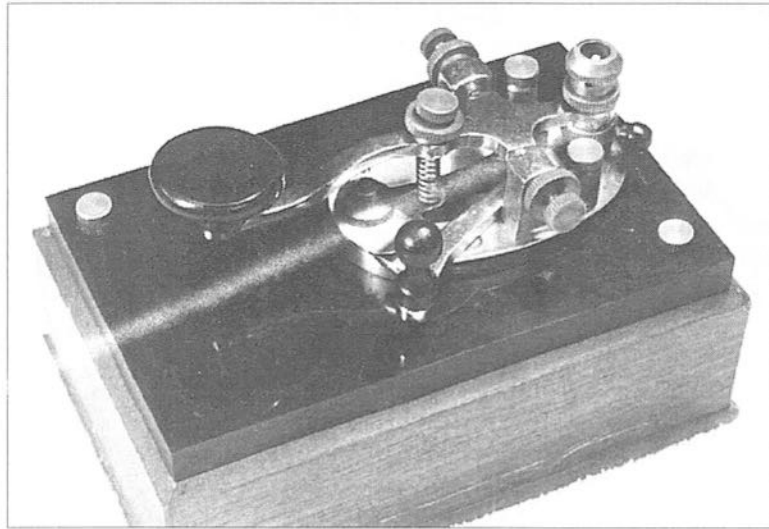
Lighter/Buzzer KOB (Key on Box). A gift shop version of a Bunnell or J38 key. Press the knob and the 'D' cell in the base heats the tungsten coil in the travel adjustment knob and you can light your cigarette. Slide the closing lever to the shorted position, manipulate the lever and a buzzer is heard. The owner of this novelty, Robert W. Betts N1KPR, says 'It sounds like a milk cow with an ill voice box. Maybe a warning for people who use the lighter function too much!'
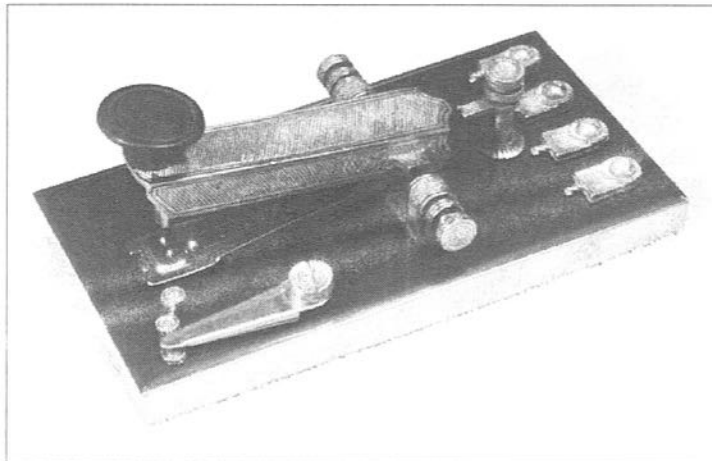
DTDC (Desk Top Dust Collector). Looks like a fancy Western Union 1B Pole Changer. This is really a stapler, which works, and has no electrical function

Coherent CW
A Brief Outline
by Peter Lumb G3IRM

COHERENT CW first made its appearance in 1975 in *QST* in an article written by Ray Petit W7GHM, although he had published other articles in lesser known journals before.

The idea caused quite a stir when the system offered a 20dB improvement in signal-to-noise ratio and used a bandwidth of only 9Hz. There were complications however which led to its demise. In order to operate the system all oscillators had to be stable to within 2Hz and this had to be maintained with keying.

In addition a somewhat complicated sample and dump filter had to be built which also required the same frequency accuracy. Some contacts were made and one of the most notable ones was a contact between W6NEY and JR1ZZR on twenty metres when the Japanese station was using 100mW.

I have a copy of the recording of that contact and signals are fully readable and absolutely accurate. Attempts to copy the signal without the Petit filter proved futile – the signal could not even be heard! There were other contacts (I actually worked four countries) but the complications of the system proved too much and little was heard of CCW for many years.

Newsletters

About ten years ago I started issuing newsletters to stations I knew were interested and a few contacts were made but, once again, the complications proved too much.

A hint to VE2IQ (Bill de Carle) that a computer program for CCW may be a good idea produced a complete program within two weeks. The program called COHERENT used an IBM computer to send and receive code without the Petit filter but using an analogue to digital converter in its place.

Once again there was an increase in interest but very few contacts resulted. Perhaps the earlier fears of frequency stability and the fact that the converter had to be built were still too much.

Improved Program Now Available

Early in 1974 Ernst Schroder DJ7HS wrote to me saying that he would like to improve on the COHERENT program and did I think VE2IQ would object.

Bill very kindly gave his permission and a new program called PCW became available. COHERENT did not allow decoding to the screen, PCW did.

Some other improvements were made but the VE2IQ interface was still needed. Now version 2.0 of the program is available as shareware and your editor has asked me to compile these few notes.

Requirements

The shareware copy can be obtained from me for £1 ($2 US outside the UK) to cover cost of disk, Jiffy bag and first class/airmail postage. To use the program you need an IBM compatible computer fitted with a Sound Blaster card.

You also have to provide an interface between the RS232 output keying pin and the transmitter key socket. Usually all that is needed is a single transistor or a relay. It is recommended that a fairly modern transceiver is used which is as stable as possible, though frequency correction for drift is included in the program.

I would like stations without the most up-to-date equipment to give the program a try to see how well the program compensates, so don't hesitate to ask for a disk if you do not have the very latest transceiver.

All loading and operating instructions are provided with the program and it is just as easy to use CCW as it is to use CW. There is no need to go into details of how to use the program – just ask for a disk and you will soon find out.

Phase and Frequency Synchronised

Coherent CW is based on the idea that the more you know about what you

are looking for the easier it is to find. This applies to radio receivers just as it does to humans.

Both stations are first synchronised by sending a string of dots which enables the program to make the stations phase-coherent, so that if one station sends a dot or dash the other knows exactly when it should start and stop.

Sending at both ends is at exactly the same speed with the basic element taking 100 milliseconds. All marks and spaces are exact multiples of this basic unit. The original CCW timing (12 w.p.m.) has now had extra speeds added with a maximum of 24 w.p.m. but the principal idea that the slower the code the better the system works still applies.

The speed of 12 w.p.m. has been found to be a good compromise. It is then able to integrate the signal which is decoded as either a dot or dash. Phase and frequency are automatically synchronised during the contact so that, if there is a pause, the receiving station still knows when the next mark can be expected and is ready to receive it.

Operating Times Co-ordination Needed

As a result of a note in 'Technical Topics' (in the RSGB journal *Radio Communication*) I have so far had requests from eight UK stations for copies of the program and have a list of about fifty stations in the UK, the USA and Europe of stations who are interested.

The problem is the lack of co-ordination of operating times. It is most unlikely that a CQ call will produce a contact although I often get calls from CW stations who do not know about

CCW. It is still possible to work these stations but not coherently. CW and CCW are exactly the same except that CCW is always perfect Morse at a constant speed with correct spacing.

Most Interference Nulled Out

One final thought – if every station in the world used CCW and used channel spacing of 10Hz (the CCW standard), there would be little mutual interference and we would pack thousands of stations into the amateur CW bands.

This assertion is based on the principles used by CCW where there are nulls every 10Hz on both sides of the receiver filter centre frequency so interfering stations are largely nulled out.

MM

Readers' ADs

FOR SALE

Photocopies of 'out-of-print' back issues of *MM* available. Price per copy, by airmail (US dollars, cash only): Europe $7.00; Africa/America $8.00; Oceania $10.00.
Jeronimo Orellana R, EA3DOS,
Av Roma 10, 08015 Barcelona, Spain.

[See page 10 of this issue for details of some original copies of the magazine which are still available from the Editorial offices]

Two collectors' keys: Marconi Transmitting Key, Type No 365B, Serial No. 12570, and an Eddystone Semi-automatic Key, Model S689, Serial No. GZ0514. Offers to: Peter I. Park GM3PIP, 23 Longside Road, Mintlaw, Aberdeenshire AB42 5EJ, 'phone 01771 623654.

18-page illustrated list all kinds of telegraph related items surplus to my needs. $3.00 plus equivalent of 4 US stamps ($5.00 refund on $25 purchase). Dr. Joseph Jacobs, 5 Yorktown Place, Fort Salonga, NY 11768.

Phone 516-261-1576. Fax 516-754-4616. E-mail: joekey@aol.com

WANTED

For reproduction purposes: pictures or drawings of a Masse Key and a Magnetic Blow-out Key, as used at the time of the sinking of the *Titanic*, or information on where I might see such illustrations, or the keys themselves. ALSO, can anyone give me the opportunity to examine a Walters adjustable fulcrum key please? Dennis Goacher G3LLZ, 27 Glevum Road, Swindon, Wilts SN3 4AA, England.

To buy or exchange, very old telegraphic items; also early Marconi equipment. Interesting items available for exchange (telegraphy, telephony, radio, physics…). Fons Vanden Berghen, Lenniksesteenweg 462/22, B-1500 Halle, Belgium.
Phone day +32.16.38.27.21, evening: +32.2.356.05.56.
Fax +32.16.38.24.38.
E-mail fovabe@telindus.be

IT IS YET TO BE DISCOVERED why on earth a clever mechanical device like a semi-automatic key should have come to be used so often for incoherent fast-sending frenzies when it was invented to give *comfort by saving unnecessary wrist-action.*

The very nimbleness of the automatic dots it can produce makes continuous monitoring imperative, and when this is done a bug can, to the receiving end, be absolutely indistinguishable from any straight key. The causes of code mutilation must therefore be sought elsewhere – in correct handling and adjustment.

An examination of the handling question can be commenced by honestly admitting that a bug can actually be used as intended by its makers for *slow*, comfortable sending with the weight permanently set far forward towards the tip of the shaft.

McElroy's Advice

An extract from one of McElroy's old articles in *Radio* may bring out some further points about bug handling. He says, 'Take your present automatic and slide a book under it. Get those paddles about $2^1/_2$ to 3 inches (64–76mm) above the table where they belong. Take a look at your wrist. You'll see it runs smoothly straight. There is only one correct method of sending on an automatic. You've got to slap the paddle with your thumb, actuated by your whole arm, to make dots. And you've got to slap it

Behaviour of the Bug
Hints on How to Tame It
by N.P. Spooner G2NS

In MM50 (p.51), Colin Waters recommended newcomers to bug operating to look for a flat-shaft Vibroplex bug with a little extra weight (such as that provided by the Slo-Bug he was reviewing) to slow it down. He also recommended them to read the advice given in an article from the February 1954 issue of *Short Wave Magazine* which describes the setting up and operation of such a bug. We reprint here part of the article which Colin mentioned.
As it covered several other matters as well, *MM* has extracted only that part dealing with bug adjustment and operation.

over to the dash side with your whole arm, with the wrist straight up and down and the index finger and large finger hitting the paddle with a full arm movement. Try it!
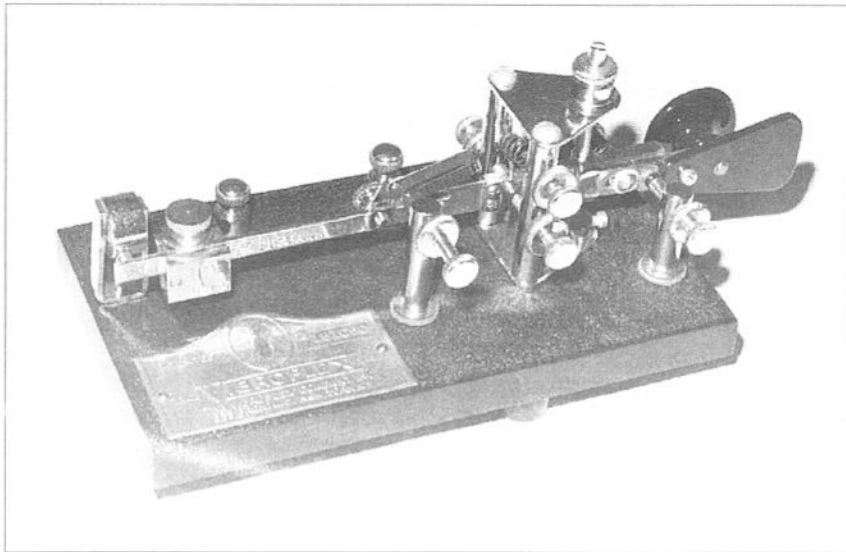
Vibroplex 'Champion' flat shaft bug. The various adjusting screws mentioned in the article can be clearly seen

'Put that automatic on the desk in front of you where it belongs, about where a letter would be if you were gonna sign it. It'll be somewhere around 12 inches (305mm) in on the desk directly in front of you. Your arm diagonally across the desk with the fingers resting on the paddle and the elbow just off the desk. And the hand up and down.

Keep your wrist off the table. You send with your whole arm.

'Do what I'm telling you. Just try it. It won't cost anything. If you could only realise how easy it is to be really good at this code racket, you'd go wild over it.' Well, that's how Ted McElroy, world champion telegraphist, puts it!
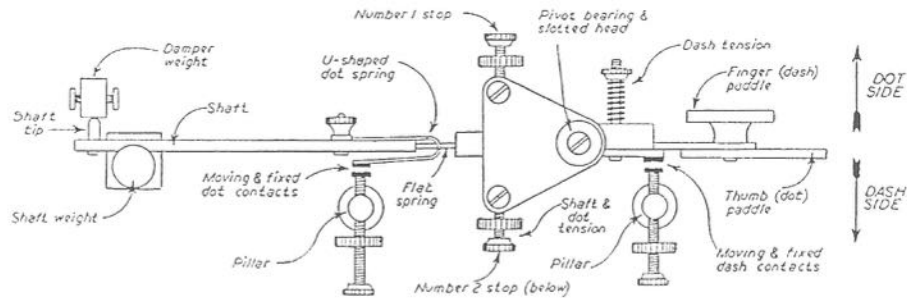
Detail sketch of a Vibroplex flat-shaft bug, showing adjustments. The correct way of setting up this and any similar type of key is discussed in the article

Easy Adjustment Drill

Although the sketch accompanying this article illustrates a Vibroplex (flat shaft model) semi-automatic key, the same general layout will be found in most other bugs to which the following suggested sequence of adjustment will apply:

1. Loosen the lock-nuts and fully unscrew the fixed dot contact, the number 1 and 2 stops and the fixed dash contact.

2. Gently lift the tip of the shaft for vertical play. If any, take it up by loosening the lock-nut of the pivot bearing, turning the slotted head slightly and relocking. When looked at from the side or immediately above, the shaft should appear straight and its tip should be resting lightly against the damper weight. If the shaft does not lie in this position, increasing the tension of the dot spring will force the shaft over against the damper weight. When in action it is this spring that is responsible for returning the shaft smartly to its resting position against the damper weight after the thumb paddle has been released.

3. Proceed next to adjust the number 1 stop by screwing it inwards until it pushes the shaft over towards the dot side and the tip of the shaft parts from the damper weight. (This is only being done to make the actual adjustment that follows more clearly visible). The process is then reversed by unscrewing the stop until the tip of the shaft returns and just lightly rests once more against the damper weight.

To check the correctness of this adjustment, the thumb paddle should be slowly pressed over towards the dot side without allowing the shaft to vibrate,

and as the movement is commenced it should be seen that the flat spring joining the front portion of the shaft (holding the weight and the U-shaped moving dot-contact spring) to the rear portion of the shaft (holding pivot, moving dash contact and paddles) does not bend before the shaft tip parts from the damper weight. If it does bend, the stop should be readjusted until this disappears and the two portions of the shaft both move as if made of one solid bar when the thumb paddle is pressed as directed.

4. To determine the total swing of the shaft over to the dot side, the number 2 stop (visible in the drawing immediately below the dot-tension spring screw) should be adjusted. To do this, the thumb paddle is pressed slowly over towards the dot side without the shaft vibrating and the position is held when a gap of about one eighth of an inch (3mm) appears between the shaft tip and the damper weight. Still holding this position, the stop is screwed in until it meets the shaft. If an eighth of an inch is found to be too wide for individual preference it can be reduced slightly before re-locking.

5. To adjust the dot contacts, the thumb paddle is pressed slowly over towards the dot side without the shaft vibrating, and when it meets the stop (number 2) it is there held stationary while the fixed dot contact is screwed inwards until its face just meets that of the moving dot contact, which at the moment is of course stationary. A piece of paper placed on the key base, immediately below these contacts, will clearly show up their faces, which should be clean and meeting squarely.

If out of alignment, the faces can be

altered by either turning the fixed dot contact pillar slightly or by altering the horizontal backwards-and-forwards positioning of the moving contact by loosening the screw that holds the U-shaped spring to which the moving dot contact is fixed. It will be found that the pivot bearing adjustment affects the vertical positioning of the moving dot contact when this is necessary.

When adjusting the dot contacts by making their faces meet this is done lightly without forcing or bending the moving dot-contact U-spring. A final touch of the fixed dot-contact should, when monitored, give complete firmness of dots devoid of scratchiness in sound and good following of even an ordinary telephone type of surplus relay if one is used for keying.

6. The dash contacts are next adjusted and should have the same gap as the dot contacts. This is done by pressing the finger paddle over towards the dash side while screwing the fixed dash contact inwards. The gaps will be equal if the finger paddle travels as far over to the dash side as the thumb paddle travels over to the dot side. The two dash contacts should have clean faces that meet squarely, the fixed contact pillar being turned slightly to effect this, or the moving dash contact being moved horizontally or vertically as required. The tension of the dash spring should suit individual requirements and is usually the same as that of the dot spring.

7. While the longest string of dots required will be eight, for an 'Erasure', operating will in general be found more comfortable if the weight is set well forward towards the shaft tip to produce the greatest possible number of automatic dots before coming to rest after the thumb paddle has been smartly struck and held.

8. Finally, the key base should be held down by screws or extra weighting if there is any tendency for it to slide about when in action. This helps during the process of proving to the world that 'as a good tree is known by its fruit, so is an OP known by his favourite fist.'

(The article from which the above extracts are taken first appeared in Short Wave Magazine, *February 1954; they are reprinted by kind permission of the present Editor, Dick Ganderton.)*

Short Break

Automatic Morse Transmitter

Designed for the automatic transmission of callsigns and code numerals, the R.W. Mechanical Morse Transmitter measures only 6 inches cube. It transmits at a speed equivalent to fifteen words per minute, and may also be obtained with keyboards suitable for sending latitude and longitude or letters of the alphabet. It is obtainable through R.A. Rothermel Ltd, Canterbury Road, London, NW6.
(From Wireless World, *March 1940.)*
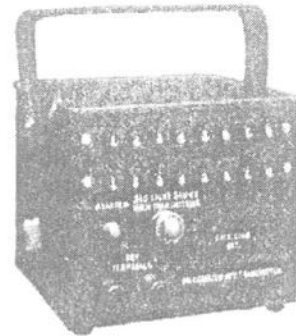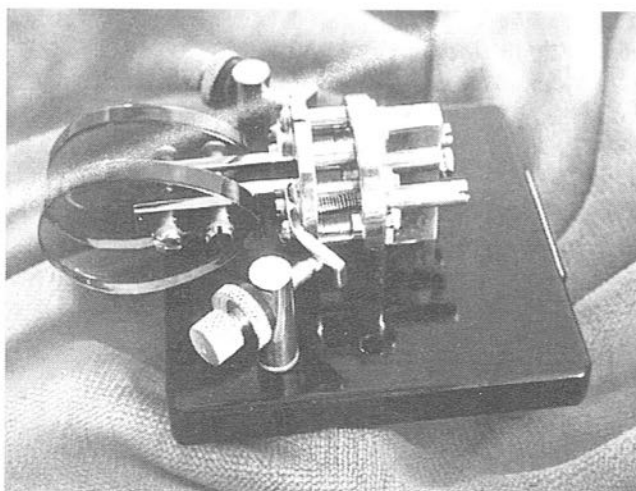
THE USE OF MORSE as a communication medium has always been praised for being able to get a message through a great amount of interference and still be understood.

What if there is no interference, does this make things easier?

Not necessarily.

During the summer of 1976, I was Radio Officer on a 35 000-ton LPG carrier en route from the Mediterranean to Buenos Aires. The ship was only two years old, fitted with IMR equipment *(IMR stands for International Marine Radio Co., part of the ITT group. – Ed.)*. It had been quite a pleasant trip with few problems until the day the 2nd Engineer came into the Radio Room and asked if he could send a telegram to his solicitor.

A Straightforward Message

He was buying a house and his wife needed a power of attorney from him. We both reckoned that a telegram authorising this probably had no legal standing, but I said I would send it anyway.

Now this might sound very straightforward and, up to now, it is. In an effort to clear the message quickly, I decided to send it via Barbados/8PO. In those days that station shared its HF frequencies with North Post/9YL. (I think it was 9YL; my memory is not what it was!) When one station finished its period of watch on, say, 8MHz, the other would start up on the same frequency.

Which Alphabet Was That...?

by Brian Faulkner

I decided on 8PO because Portishead Radio/GKB was giving out QRY40 *(Your turn is No. 40 – Ed.)*, and it was almost lunch-time (the bar was open). This somewhat cavalier attitude on my part was my undoing.

Which Alphabet?

The message was in legal jargon and began: 'To whom it may concern. I Joe Bloggs...'

'No problem', I hear you say. Well, as someone once said, let me tell you a little story.

I had no difficulty getting hold of 8PO; he answered after my first call. After going up to a working frequency, I started to send the message. This was where the trouble started. I was only just into the text when he stopped me.

'Word after concern.' he asked.

'Concern. I' I replied.

'Sri om not understanding pse wa concern.'

'Concern. I = the ninth letter of the alphabet.'

'Which alphabet?'

Now what would you think? Was I being wound up, or what?

'The English alphabet.' I replied.

'Ok om pse repeat all txt.'

And so I started again; and again he stopped me after 'concern.'

'Sri om I'm still not getting it.'

Again I repeated the word. By now we were getting very near the end of his half-hour slot on the frequency.

'Sri om have to close on this freq now pse QRX 12MHz in half an hour.'

And with that he disappeared, and so did my lunch.

Penny's Dropped

Half an hour later his band-call tape appeared on 12MHz and I called him. He came straight back.

'Om three of us have been trying to figure this out but we're none the wiser. pse send txt agn.'

So I started once more, and this time he let me send the lot.

Again he came back, 'wa concern.'

By now I was racking my brains to think of a way of getting through to him. I said, 'the word after concern. is the ninth letter in the English alphabet = A B C D E F G H I = k'

There was a pause, then 'ok om penny's dropped QSL.'

I almost said 'hallelujah', but contented myself with 'Tks ere QRU.'

'Only the strong survive' came back.

'Too true,' said I.

Another Story!

This whole episode took the best part of an hour and a half, and I never did find out whether the telegram had the desired effect. That was probably the most peculiar problem I had as an RO – unless you count the time I had to send a message to Kaohsiung describing, in phonetic Chinese, the size of discharge pipes we had and asking for reducing valves. But that, as they say, is another story. *MM*

Short Break

This Man Has The Job *by John Hann*

This story has been going the rounds for a long time, but maybe there are some who have not heard it before.

In the old days of shipping companies hiring their own operators, and the line-ups in hiring halls, there is a report of a crowd of eager hopefuls waiting in the personnel officer's ante-room for a job as operator on the United Fruit Company's banana boats.

There was a speaker or two in the ceiling connected to a live set tuned to an actual working frequency in the personnel officer's office. This was ostensibly to occupy the time of anyone not smart enough to bring something to read during the presumed long wait for his turn to be interviewed.

Of the twenty or so men waiting, everyone seemed to be reading or talking to his neighbour and no one noticed one man getting up and walking into the office without saying anything to anyone. After a few minutes he came out again and standing in the doorway behind him was the hiring officer who said: "You fellows can all go home now, this man has the job".

Everyone looked at him in surprised wonder and he continued: "If you guys had been paying attention you would have heard me tap out over the receiver traffic this message, 'The first guy to enter my office after reading this gets the job'. This is the kind of man we want for our company."

A NEW SET of keyer paddles made its commercial debut at the Mike and Key Club swap meet in Puyallup, Washington, in March. 'The Paddlette' is manufactured by Bob Hammond, KI7VY, under the name of The Paddlette Co. in Edmonds, Washington.

This is a miniature iambic paddle with only two moving parts. It is particularly adaptable to field use because it has an adhesive backed magnetic base that can be attached to almost anything. Two magnetic strips are included with the Paddlette so it can be used at a second location.

Bob also produces a knee mount for mobile use. The knee mount consists of a 2½-inch-wide piece of powder-coated aluminium formed like a shallow inverted 'U'. It rests on the leg just above the knee and the key is held firmly to the horizontal section by a magnetic plate included with the mount. An adjustable, 1inch-wide, elasticised belt is permanent-

The Paddlette
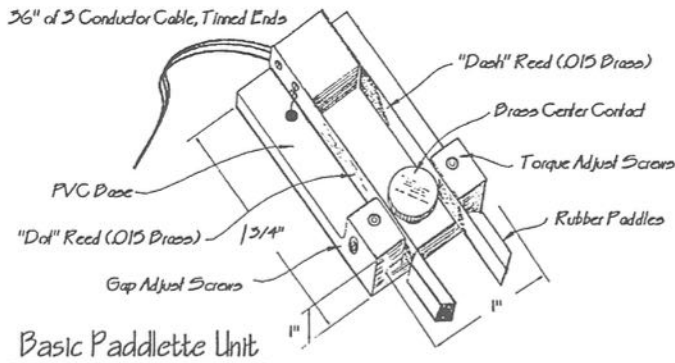## A Review
by Lynn Burlingame N7CFO

ly attached to one 'wing', wraps around the leg, and secures to the other wing with Velcro. With the key mounted, the total weight is only 2.7 ounces. Although light in weight it is both sturdy and comfortable.

The design of the key is very simple, so there should be nothing to go wrong.

36" of 3 Conductor Cable, Tinned Ends
"Dash" Reed (.015 Brass)
Brass Center Contact
Torque Adjust Screws
PVC Base
Rubber Paddles
"Dot" Reed (.015 Brass)
3/4"
Gap Adjust Screws
1"
1"

Basic Paddlette Unit

The footprint is only 1in x 1³/₄in, and it weighs less than two ounces. The base is a single piece machined out of dark (grey) type 1 pvc and the electrical parts are made of solid brass. The paddles are flexible metal strips that contact a centre post, and the gap is adjustable using 56 pitch screws.

The fineness of the adjustment screw allows for very precise adjustment. The design of the set-screw for the adjustment is interesting – an Allen screw (shown as 'Torque Adjust Screw' in the drawing) bears against a neoprene slug that bears against a ball bearing that rides on the adjustment screw. This serves as both an adjustment screw lock and 'drag', making the adjustments very smooth and precise.

The 'feel' of this key is surprisingly delicate. I quickly got used to it (have you ever used a set of paddles that you just can't 'learn'?) and find it to be as good as any of the numerous sets of paddles in my collection. This seems strange when you consider the incredible lengths that most paddle manufacturers have gone to in their efforts to make a paddle with a sensitive and light touch. I suspect that Bob spent a lot of time working on the exact dimensions of the Paddlette to make it this sensitive.

The Paddlette comes well packed in a styrofoam box and includes connecting cables and an Allen wrench for adjustments. It can be ordered from: The Paddlette Co., PO Box 6036, Edmonds, WA 98026, USA. Tel: (425)743-1429. The cost is $38.50 including US postage and handling. The knee mount is $9.95, including US postage and handling. Payment by check, or money order.

For foreign postage (other than to Canada) add $2 for key or the leg mount. If both are purchased together, add $3. Payment for foreign orders should be by cash or check in US dollars. Charge cards cannot be accepted. *MM*

Info Please!

Combined inker used on the Uruguayan railways, refurbished by Gustavo A. Coll. Information required on maker (assumed to be British as Uruguayan railways were of British origin). Has six terminals (marked C, Z, L, E, L, C) instead of the usual five. The second C indicates, perhaps, the use of a split battery. Can anyone provide a circuit diagram for this particular set, or other information? All expenses reimbursed with pleasure.
Write to Gustavo A. Coll, Casilla 250, Montevideo, Uruguay

Readers require further information on the keys, etc., featured here.
Please write to Tony Smith, 13 Morley Road, Sheringham, Norfolk NR26 8JE
if you can help.
All useful information received will be published in MM *in a later issue*
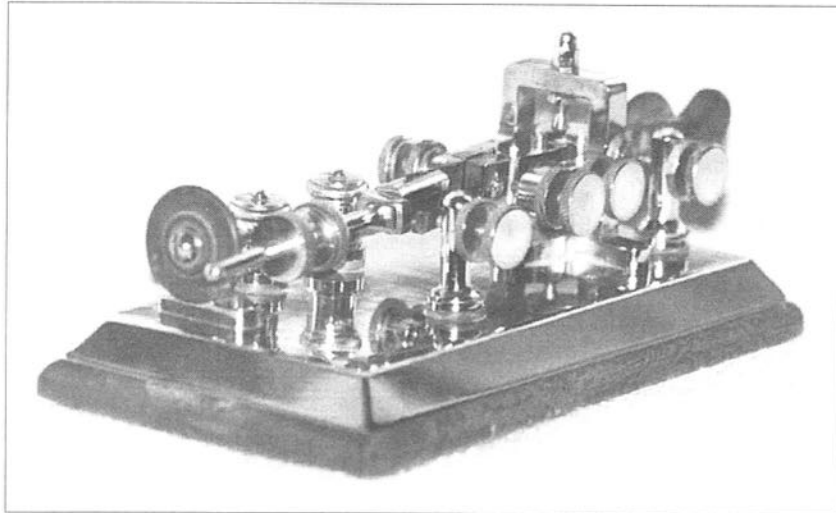
Photo: Peter Park GM3PIP

*Unknown make semi-automatic key, with chromed brass base.
Used at Marconi Radio School, Edinburgh. Info requested*
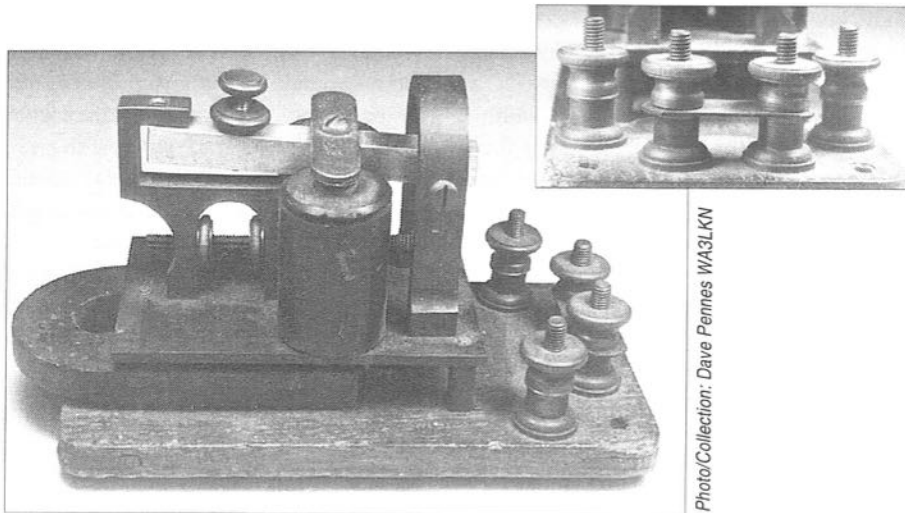
Photo/Collection: Dave Pennes WA3LKN

*Unknown instrument on laminated mahogany base. Sounder? Relay? Magnet
suggests polarisation. Close-up of knurling (see inset) suggests manufacture by
Tillotson, Greely or New Haven. Dave Pennes says 'A great deal of work and
craftsmanship went into this device.' Any information welcomed*

Secret Signals

by Steve McCallum K4URX

A PERSONAL WARTIME value, precious at the time, can seem pitifully fragile years later. Yet, still bright in memory, it can live on and never dim. Here's one that's endured 50 years. Hundreds of military and commercial ship's radio operators – many of them hams – serving on Allied cargo vessels during WWII often illegally transmitted coded radio signals.

They were harmless emissions, logged as procedural signals, and no written copies were ever made. They probably puzzled enemy listening posts. Although there's no telling how many military and civilian Morse operators were involved, nor who they were, it's no mystery what they sent or why they sent it.

In wartime, ships maintain 'radio silence' at sea for fear of revealing the ship's position. In time, this builds up an occupational frustration in a radio operator. Trained to communicate in Morse code, he's now prevented from transmitting. All he can do is listen, listen, listen and copy, copy, copy.

BAMS

During WWII, ships got their orders from shore stations via daily coded radio broadcasts called BAMS, short for 'Broadcasts to Allied Merchant Ships'. BAMS used a numbers code: groups of five digits transmitted at scheduled hours. And day after day, four to eight hours a day, the shipboard operator listened for messages addressed to his vessel and copied meaningless numbers. The only permissible transmission was SOS or SSS.

The former is, of course, the international Morse code distress signal sent only when a ship is in imminent danger of sinking. SSS was a special wartime distress signal sent by a ship under submarine attack. What radio operator ever wanted to have to send either of those!

But ships eventually arrive somewhere. When in port, a merchant ship's radio operator was required to test his transmitter by requesting a signal report from the port's shore station. The wartime procedure for this kept the names of vessels in port a secret.

DIDIT DIT

A ship's radio operator requested a signal report by simply sending the letters OE – two short letters in American Morse code. An O in American Morse is two dits with a slight space between them. Actually, most operators used the

International Morse letter I in lieu of the American Morse O, which made the signal DIDIT DIT instead of DIT-DIT DIT.

Upon hearing this signal, the shore operator would reply with an International Morse number from 1 to 5, indicating the ship's radio signal strength. He never knew what ship sent the DI-TIT DIT. Usually he replied with a 5, DIDIDIDIDIT. And that was the end of the exchange – officially,

TU

Well, the ship's radioman – let's call him Sparks, for that's what his shipmates called him – has been at sea copying BAMS in the Pacific Area Theatre for who knows how long. He can't possibly be satisfied with such a titbit of conversation.

Here he is, safe from submarines in the port of Ennui, let us say, on the north coast of New Guinea, where in this steamy rainy season there's nothing ashore but jungle and mud.

So, bored and frustrated, and knowing that anything else he sends is illegal, Sparks must – for politeness' sake at least, he reasons – express his thanks for the signal report. He takes the law in hand and sends TU, 'Thank you'.

DMI

The shore operator smiles. He's been at sea and recognises Sparks' frustration. Illegally, he sends a signal in reply: DMI – short for 'Don't Mention it.' This is a much longer transmission, takes maybe two seconds.

Delirious in the ecstasy of a long-awaited QSO, Sparks plunges ahead with another misdeed. He sends PAM – a 50 percent longer transmission, about three seconds, meaning 'Pleasure all mine!'

But pleasures soon end. The shore operator now tells Sparks, 'Okay, good to talk with you. I got your signals fine, but I must stop now.' He says all this with the affable and cordial, albeit extremely brief, customary preliminary to ending a CW QSO: DIT DIT, taking maybe half a second.

Final Rapture

One final instant of rapture remains for lonesome Sparks aboard his ship. He simply must acknowledge the shore operator's DIT DIT with the shortest signal of all. He closes the 'ragchew' with the usual DIT.

Now he's ready to go back to sea. Sparks has talked with someone on the air – a pitiful ragchew of perhaps 10 seconds.

Big Deal? Yes, it really was, at the time. A spark of enjoyable comradeship. A rare bright moment in a war that to many of its veterans was only yesterday.

MM

If you enjoy reading *Morsum Magnificat*, please tell your friends about us, and encourage them to take out subscriptions too!

Your Letters

Morse Scout Neckerchief

Further to my letter in MM51 about Canadian Scout Signalling Badges in the '60s, readers may also be interested in the neckerchief (scarf) I wore when I was a Scout. It has an ingenious plaid, giving it a 'tartan' look which spells out the word CANADA in Morse in two directions.
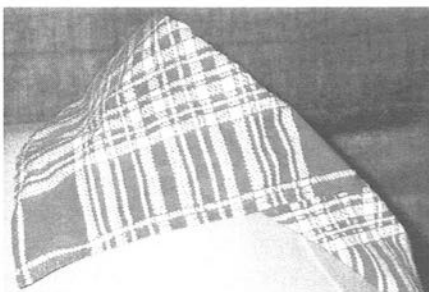
Chris Bisaillion's National Canadian Scout neckerchief from 1971, with design spelling out CANADA in Morse in two directions
Photo: Deborah Bisaillion

A spokesman at the National Headquarters for Scouting in Ottawa told me that this was the National Canadian neckerchief in the 1970s–80s (I was a Scout in 1971), and Scout troops had the option of wearing their own neckerchief or the national one. He believes it was available as Red on White or Green on White. It did not commemorate anything or have a special meaning or purpose. The design of the National neckerchief was changed in the 90s.

Chris Bisaillion VE3CBK
Kanata, Ontario, Canada

Bendigo Commemoration

I worked as a telegraphist with the Australian Post Office, and its predecessors, at Bendigo from 1954 to 1969 (after full-time training in Melbourne and a short stint at the Chief Telegraph Office). I was only 17 when I came to Bendigo – it was quite an experience.

The electric telegraph reached the gold fields of Bendigo on 6 January 1857. This year we had a two-day commemoration of the event in the beautiful old former Bendigo Post Office. We had an excellent attendance from the public, also many former operators came from throughout the state.

I am on the Australian dial-up network, through which we work sounders via the public telephone system, using a modem and interface relay set. On the first Wednesday of each month, Morsecodians meet at the Lonsdale Telephone Exchange in Melbourne and we communicate via the dial-up network with operators at the Science and Technology Centre in Canberra and at the former Ashfield Post Office in Sydney, as well

as calling a number of operators on their home sets.

Moves are under way to try to get a telegraph office set up in the old Bendigo Post Office which is now occupied by Bendigo Tourism. The chairman of that organisation is a former Senior Postmaster at Bendigo, and a keen Morsecodian. We are endeavouring to get equipment from Telstra (Australia's Telecom). They have closed their museum and put their exhibits into store.

There is a good collection of gear at the original 1857 Telegraph Station at Castlemaine, 40km south of Bendigo, and I have been down there on some occasions to 'fire it up' for public demonstrations.

Although I went into Telecom management after 1969, and am now retired, I feel sure all my blood units are shaped like dots and dashes! Love your magazine – make me a subscriber please.

Peter Shaw
Eaglehawk, Victoria, Australia

Calls You Have Loved

Further to Doug Coe's letter in MM50 (p.56), about likeable rhythms within calls, those who also like classical music will find several within the rhythms of J.S. Bach, for example in his Suite No.1 in C major BWV 1066, and Suite No.2 in B minor BWV 1067.

Referring to the editor's comment on the callsigns of coast stations, in my view he missed the best one, heard in the Caribbean, the station of Ciudad Trujillo (Santo Domingo) on 530 and 425kHz, with the call HIA just repeated time after time!

There are stations on the usual 12, 8,

6, 4, 2, and 16MHz bands but they spoil it with HIA2 or 3. I wonder if they have ever been heard this side of the ocean?

Allan L, Taylor G3JMO
Redcar, Cleveland

I have always been cursed with awkward calls, e.g., G3ZXY. My 9J2PH was not too bad, but a bit lengthy, ditto VK4COZ. A fellow member of the Leeds University Amateur Radio Society in the early 70s had G3ZSE which sounds rather good.

This reminds me, I was providing sending practice for a G8 member and for some unknown reason we used Spenser's *Faerie Queene* as the text!! A phrase including the word 'beesnest' cropped up in it, which has a lovely rhythm. The end of practice Q-signal became 'Qbeesnest'! It's almost a Morse palindrome too.

Dr Peter Holtham VK4COZ
Chapel Hill, Queensland, Australia

Too Slow?

Monika Pouw-Arnold referred to her experiences in working amateur beginners on 2m at slow speeds (MM51, p.47). Without doubt, the QSO which gave me the greatest happiness was in VERY slow Morse.

Although it was several years ago, I still recall the time I heard a particularly weak and faltering signal calling CQ from the other side of the Atlantic. Answering at the same, or even a slightly slower speed, the operator turned out to be a 13-year old schoolgirl. She had only had her licence a short while and was absolutely delighted to make contact with someone over 2000 miles away.
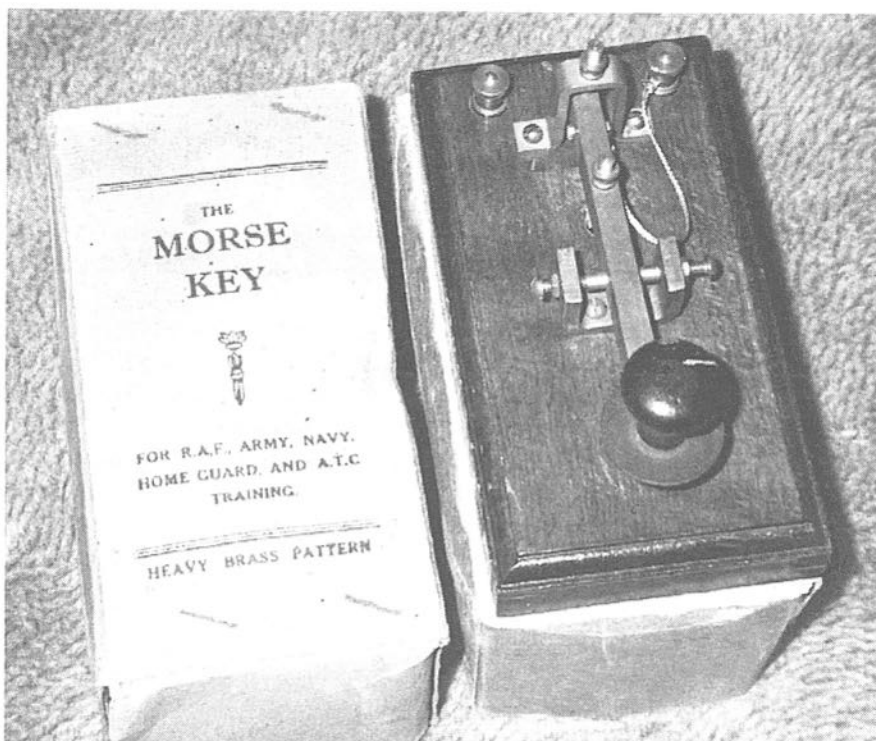
'The Morse Key'

Photo: Tom Arris

Sending her QSL card direct, she wrote how really thrilled she had been to have me reply to her CQ call – and more importantly, how glad she was I sent code at such a slow speed. She could actually read it…!

Douglas Byrne G3KPO
Ryde, Isle of Wight

Unknown Key MM51

I enclose a photo *(see above)* of a key similar to Jack Barker's unknown key with a box base shown in MM51, p.25. As can be seen I have the original packing showing some limited information which may be of value.

I used this key on the air for some time until my wife complained about the loud tapping coming from the shack. She was right, because the key has its own characteristic hollow sound.

Tom Arris G4OSB
North Hykeham, Lincoln
(Reference to the Home Guard on the label suggests that this key was initially sold during the period 1940–1944. – Ed.)

'The nicely dovetailed wooden box' on which Jack Barker's unknown key is mounted (MM51, p.25) is/was an electrician's platten (or platen) on which

sockets and switches were mounted in domestic premises between the wars and for a short time after 1945.

I used them for Morse key bases on many occasions, often filling the hollow base with molten lead to give weight and stability.

H.E. Smith G3IVF
Kirk Langley, Derbyshire

The unknown key from Jack Barker, is one that was fitted to Morse practice trainers, sold by Gamages, etc., in the 1930s and possibly up to the 1950s. A few months ago, I was given one of these sets, with the buzzer and clip for the battery missing. I cleaned the key and reset it, installed a modern buzzer, and it worked well. When the key was set with a nice gap I noticed that the arm was sitting low at the knob end. This just shows in Jack's photo. It doesn't look right, but it works OK. The base of Jack's key is an old wooden pattress block, normally wall-mounted to carry lighting switches.

Albert Heyes G3ZHE
Penketh, Cheshire

High Speed Morse

I would suggest that some Morse experts who specialise in high speed Morse are missing a vital point. In bad QRN conditions it is normal to slow down because copy gets worse the higher the speed in relation to the level of QRN/ QRM. It is desirable in my opinion, to have a variable speed because of the problem stated.

Morse in any case, is like music and can either be spurted out as fast as possible, or given great expression and musical entertainment by suitable articulation. The same thing applies to fast talking and elocution: communication depends not on speed but on being understood. There is no point in sending at 50 w.p.m. when one has to repeat and repeat because the other chap didn't copy it – parts having been smothered in QRN for instance.

Roger Gould-King, ZS6QL
Johannesburg, South Africa

Who Said This is the End of Morse Code?

In common with many readers of *MM*, I have sobbed quietly into my beer as I listened directly or via recordings to the farewell Morse messages from many famous Coastal Radio stations. My tears have dropped unashamedly onto the printed pages as I read of the indecent haste with which the powers-that-be are ending the use of a mode of communication which has served many generations so well, and which has saved so many lives at sea.

No sooner had I read in one newspaper that the only UK maritime radio station still using Morse code was Portishead, than a friend phoned me to say that he had just read that GKU (and all its derivatives) had received confirmation of its date of execution.

However, I dried my tears when I noticed that some media have been generous enough to mention that very soon the only organisation making significant use of this quaint, antiquated mode of communication would be the Amateur Radio Service.

Now, if that is the case surely the result of all this passion for speed and

so-called 'progress', as far as Morse enthusiasts in the amateur service are concerned, is that we are being given an opportunity to maintain this simple and reliable means of communication more as an ART than a SCIENCE?

Already we are becoming custodians of Samuel Morse's code, and the way that we handle this responsibility will determine how well the code survives, and indeed if it does survive at all.

By all means, let's continue these established skeds and natters with old friends at 20 and 30 wpm (even faster if the arthritis permits!) but remember it is also our responsibility to ensure that new (and sometimes not so new) operators learn to get the same thrill from Morse QSOs that we still do.

How about an occasional 'CQ' at 12 wpm, or even less? If we can't get our speed down as low as that on our favourite keyer, let's try the old straight key which used to be our pride and joy but is now gathering dust in a drawer somewhere.

At least, let's take it out, clean the contacts and put it in parallel with the keyer output so that when that very important call comes, when we are asked to slow down, we can do so without fear of making a fool of ourselves. Who knows, we may even recall another thrill, long forgotten, that of sending rhythmic Morse with our own indelible signature on it.

Now there's a real thrill to relive! And we may well make the day for another up and coming Morse enthusiast.

George Allan GM4HYF
Rutherglen, Scotland

The Kon-Tiki Expedition

Fifty years ago, the famous scientific adventurer Thor Heyerdahl set out on his Kon-Tiki expedition to prove the possibility of crossing the Pacific Ocean by balsa rafts – something considered to be sheer madness by all experts at that time. Among the six members of the expedition, two were telegraphists, both of whom had a background of WWII clandestine radio operations in German-occupied Norway.

Torstein Raaby had been assigned as a secret agent, following the movements and whereabouts of the large battleship *Tirpitz* which was constantly being hunted by the British in northern Norway. He was landed in the *Tirpitz* area by submarine, and by means of his mobile CW radio station was able to send daily reports to London. His reconnaissance activity together with that of others, eventually led to the sinking of *Tirpitz* by British bomber planes.

The other telegraphist, Knut Haugland, had been operating a clandestine radio station in Oslo from the attic of a women's hospital. The Germans managed to locate his radio transmitter, and one day while he was sitting at the key, a patrol of soldiers arrived at the attic door. He grabbed his pistol and shot his way out through the patrol. With bullets whining around his ears, he ran down the stairs and escaped. He managed to flee to England, but later went back to Norway to participate in the legendary heavy water sabotage action.

Those were 'our' people on the Kon-Tiki expedition. The voyage lasted for 107 days and ended with great success. Radio contact with the outside world

was maintained by CW and voice. Several amateur radio stations around the world had contact with the raft, and some of them might still be around to tell the story – maybe some of them *MM* readers? Undoubtedly, many people in the CW community were greatly inspired by these adventures.

The raft and other objects from Thor Heyerdahl's expeditions can be seen at the Kon-Tiki museum in Oslo, close to the Viking ship museum and Amundsen's ship *Fram*. It is well worth a visit.

Einar Hogseth
Fyllingsdalen, Norway

Morse Poets Society

When one takes Japanese poetry – haiku, waka (tanka) and renga, and expresses them in Morse, one opens up a whole new world of beauty. An haiku is a 5-7-5 syllable poem, famed for its beauty, extreme brevity and capacity for saying the most with the least words. 'Less is More'. Combine this with carefully chosen words so that one gets rhythmic Code, and here you have beautiful communication.

A typical haiku –
Autumn leaves and I
Vagabonds of yesteryear
Waiting for Winter
– says it better than 'I'm getting old and unwanted'.

So, why not start something new in *MM* along the above lines? Readers could send in their own haiku, the idea being to produce not only a poem of beauty but one with beautiful-sounding Code when it is sent. As we know, there are particular combinations of letters which are musical, so the challenge is to make musical sounding poetry in the most disciplined and difficult way available!

For me Code becomes extremely beautiful on a cold Winter's night, with a bright starry sky and the empty silence of the country. And then, from far, far away, comes the lonely sound of Morse, reaching out across the world, like the wind in the trees, bringing me news of others' thoughts.

We reach out and touch each other for those moments of rare communication in that very special way the Code brings people together. It is not just the Code, but the words used, the alliteration, the brevity and need to communicate the most with the least.

This is just an idea to exercise the brains and souls of those inclined to want beauty in their communications with others, rather than just a blippety-blip 'contact' in order to make a scribbled record in the log book.

Roger Gould-King ZS6QL
Johannesburg, South Africa

Junker History

Early this year, Tony Smith G4FAI suggested to my husband, during a conversation that began about something else, that he might be able to gather some information on German Morse keys, about which little appeared to be known. How I was delegated to the task I'm still not sure. Was it good management on his part or just guile?

With our relocation to California imminent, and with all the traumas of trying to look after our 4-month-old Steven, selling our house in Holland and commuting between there and

Oberkassel, what, after all, is just one more stress! – So began something of a marathon.

Our apartment in Germany was just on the other side of the Rhine from Bonn. Oberkassel is but a few minutes by Autobahn (and my husband's low-flying rocket, sometimes called a car) from Bad Honnef... and the Junker factory. An interview with the owner was quickly arranged, and then another only a week before leaving Europe. A good deal of information was unearthed and, as an outsider, I began to appreciate the fascination you all have for these intricate things.

I have completed a short history of 'Junker' in English, which includes details of how to date the devices; original patent details; many photographs of the company's employees over the period, and of Joseph Junker himself. I also have photographs of some rarer Junker-made keys, previously unknown or mis-attributed to other manufacturers.

As soon as the German version of the manuscript is completed it must be approved by Herr Falk, the current owner and nephew of Joseph Junker. Then a précis will be prepared for *MM* and, hopefully, a small history of this professional key can be published.

Dr. Uschi Biedinger-Redfern
(YF/G4CZR/PA3EUX)
Marina Del Rey, California, USA

SHIPBOARD WATCHKEEPING

Readers with a seagoing background will be familiar with the arrangements laid down in the diagram on the back cover of this issue of *MM*. Others may be somewhat puzzled by them. As a ship travels eastwards or westwards, clocks are adjusted (traditionally at 0200 hours, when most souls are asleep!) to keep ship's time roughly in step with solar time. The R/O on a single-operator H8 ship in UK waters keeps watch for 2 hours on, 2 hours off commencing at 0800 GMT, and finishing at 2200 GMT. Let's assume that the ship is setting off for Jamaica.

By the time the vessel reaches Longitude 30°W, the ship's clocks will have been put back by 2 hours (each of the eight zones marked A, B, C, etc., on the map is 4 hours wide), and the R/O's first watch will start at 0600 ship's time. On entering Zone F, the R/O's first watch of the day now commences at 1200 GMT, which is 1000 ships' time, but as the clocks continue to be put back the ship's time corresponding to 1200 GMT gets earlier and earlier, so that by arrival in Kingston (5 hours behind GMT) he starts his working day at 0700 ship's time. This procedure continues as the ship travels further around the globe, with the time of the R/O's first watch changing by four hours each time a new Zone is entered.

All this was not intended just to give the R/O an easier life, by the way! It was designed to make him available to maintain communications during the ship's working day. In the early 1970s, this system was replaced by a new one which reflected, in part at least, the growing availability of radiotelex and other automatic systems.

See the next *MM* for details of the new watchkeeping hours.

G3GSR

Ephemera
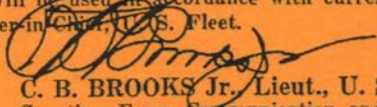
'Speed Key' certificate issued to Roy Hellmandollar when serving in the US Navy in 1941. Roy recalls that Navy ops were not allowed to use a bug unless they passed a test to get this certificate. He thinks the test speed was 25 w.p.m. Although the certificate refers to operating in ships, he says that bugs were mainly used in shore stations. This certificate, together with Roy's own bug, a Vibroplex Original, Standard, which he used in the Navy, is now in the possession of John Elwood WW7P.

The certificate states: 'Speed keys will be used in accordance with current instructions issued by Commander-in-Chief, U.S. Fleet.' If any reader has them, MM would welcome a copy of these instructions.
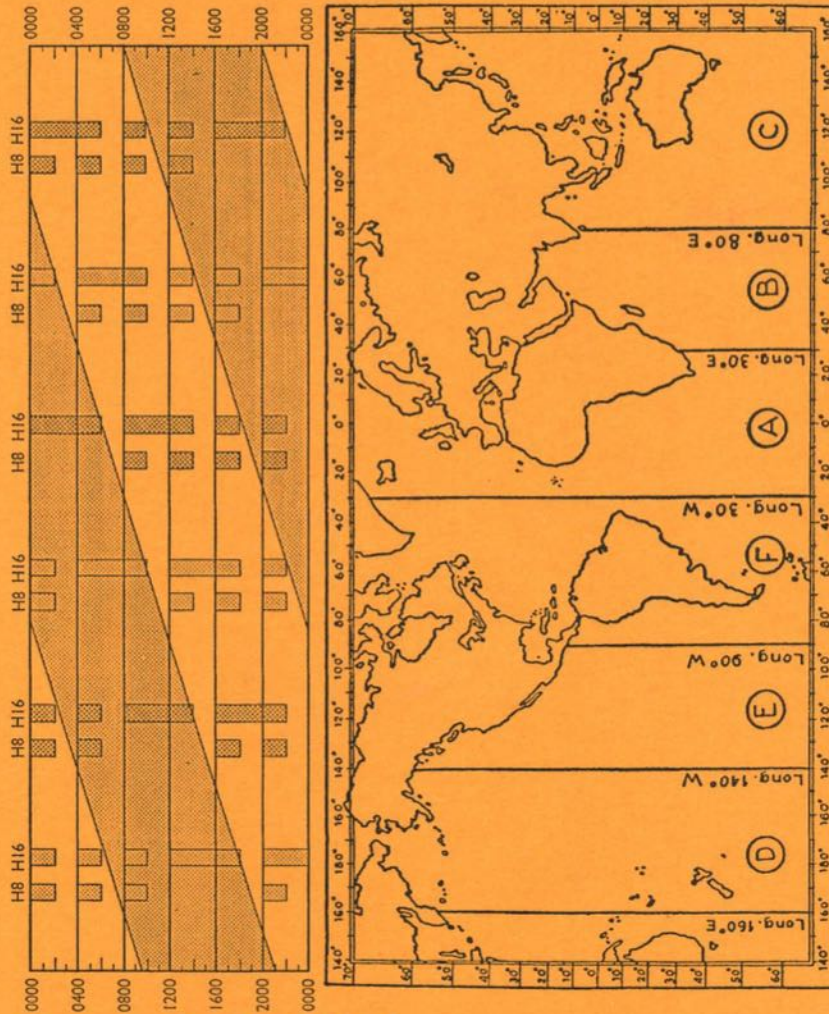
Diagram showing radio watchkeeping hours laid down for ships not keeping continuous watch. Ships of the Second Category (carrying two operators) kept watch for 16 hours a day (known as H16), whilst those of the Third Category (having a single operator) kept watch for 8 hours a day (H8)

From GPO Handbook for Radio Operators, Thirteenth Edition (© Crown Copright 1968)