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Flying the flag for Morse

Morsum Magnificat

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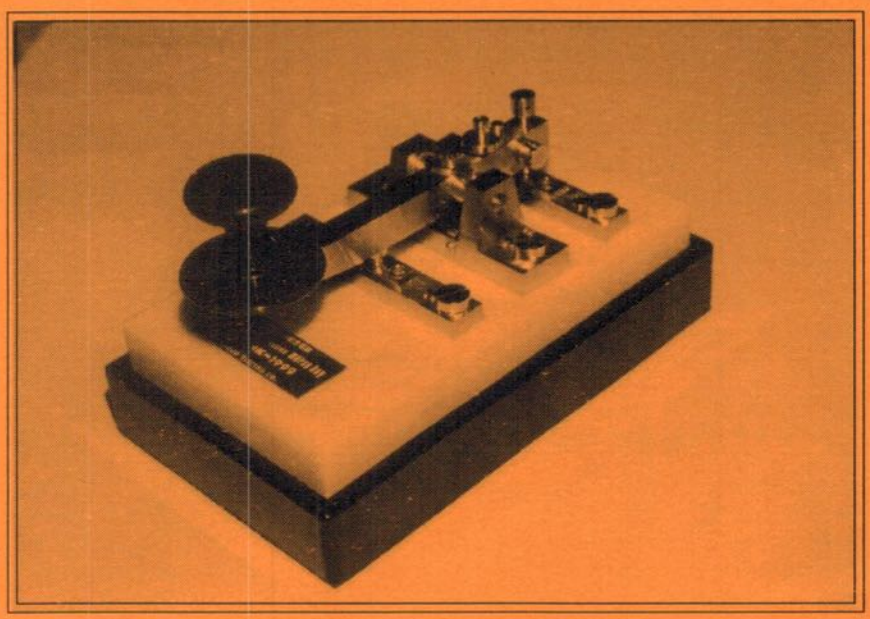
The Morse Magazine



Hi-Mound HK-1999 Millenium Key

The International Journal of Morse Telegraphy

Flying the flag for Morse

Morsum Magnificat

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MORSUM MAGNIFICAT was first published as a quarterly magazine in Holland, in 1983, by the late Rinus Hellemons PA0BFN. It has been produced four, then six times a year in Britain since 1986, and up to January 1999 was published and edited by Tony Smith, G4FAI and Geoff Arnold, G3GSR. It aims to provide international coverage of all aspects of Morse telegraphy, past present and future. MORSUM MAGNIFICAT is for all Morse enthusiasts, amateur or professional, active or retired. It brings together material which would otherwise be lost to posterity, providing an invaluable source of interest, reference and record relating to the traditions and practice of Morse.

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"When does my subscription expire ...?"

This is printed on the top line of the address label.
Also, we shall jog your memory with a renewal reminder included with that final issue.

MM Back Issues

Issues Nos. **34,35** and **38–69** available from the Editorial offices (see top of page). Price including postage £2.50 each to UK; £2.70 to Europe; £2.85 (US $5) Rest of the World by airmail. Deduct 20% if ordering 3 or more.

FRONT COVER

Hi-Mound Model HK-1999 - the last key of the 1900 age.
A special memorium edition.This model was used by the Japanese Post Office for the Public Telegraph Service

Photo/Collection: Motoaki Uotome, JA1GZV

Comment

In this issue there is a full report by David Barlow, Chairman of the Radio Officers Association Amateur Radio Society, on the highly successful farewell cross-band event to commemorate the end of maritime services in Morse from Portishead Radio.

Another famous Morse service comes to an end. But uses of Morse as a mode for professional use still come to light. There is a short news item on the recent involvement of the Parachute Regiment in Sierra Leone who used Morse to maintain secure communications.

I am sorry to have to announce that as from 1st September, 2000 the price of MM will increase. The price of Morsum Magnificat has been held since 1997 but there are extra production costs that can longer be absorbed. From 1st September new subscriptions and renewals due, will be:

Individual Cover Price - £2.75
One year , UK - £15.00
One year - 6 issues, EUROPE - £17.00
One year - 6 issues, WORLD - £20.00 ($35.00 approx)

Mailing to Europe and the World will continue to be by Priority/Air Mail.

Zyg Nilski G3OKD

Contents

Adverts

News

Portishead Gone

Portishead Radio, known to mariners the world over, has now closed its doors. British Telecom. Maritime Radio Services had announced that Portishead Radio and its VHF stations would close at 1200Z on Sunday 30 April. The Medium Frequency stations were to close at 1200Z on Friday 30 June.

Portishead Radio first came on air 80 years ago in 1920 and was to become the largest communications centre in the world. It employed over 340 people and was the Morse code and radiotelephone centre for the British Commonwealth for many decades.

The following was the final broadcast made by Portishead at 1200z on April 29, 2000 using phone, Telex and CW: "CQ de GKB2/4/5/6 -

This is the last broadcast from Portishead Radio. For 81 years we have served the maritime community. We say thank you to all those who have supported and used our station. We pay tribute to Marconi who made it all possible. His first transmissions across water were made from nearby here and so started the radio era. We are proud to have been part of that era. As this historic time in the commercial messaging world comes to a close the Manager and Radio Officers wish you farewell from Portishead Radio/GKB AR VA"

As a final salute, there was a cross band event in which Portishead radio made contacts with the amateur radio community. This is a full transcript of their final message sent on 8559.5 KHz between 1955/2003z 29APR00

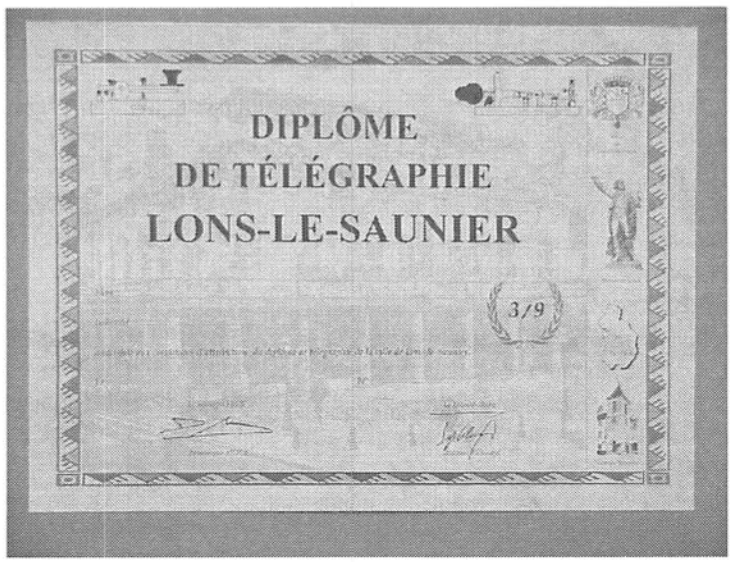
"'CQ de GKB 2/4/5/6/7 =
THIS UNIQUE MARITIME/ AMATEUR CROSS BAND EVENT
IS NOW AT ITS END. THE RADIO OFFICERS ASSOCIATION
WISH TO THANK BT MARITIME SERVICES & THE RADIO COMMUNICATIONS AGENCY FOR MAKING IT POSSIBLE.
QSL ALL CONTACTS VIA BURO. NO INCOMING CARDS PLEASE.
ONLY S.A.E TO PO BOX 50 HELSTON TQ12 7YQ ENGLAND.

LETS REMEMBER ALL THOSE WHO DID NOT MAKE IT BACK
TO PORT BOTH IN WAR & PEACE TIME. THEIR LOG BOOKS
CAN NOW BE CLOSED & THEY CAN GO OFF WATCH AS WILL
PORTISHEADRADIO TMW. TO ALL OF THE AMATEURS, MNI
TKS NW QTP & CL SEE U TMW FOR LAST TIME = TU AND
GOOD BYE AR VA".

(David Ring, N1EA)

City of Lons-Le-Saunier Telegraphy Award

A CW award has been announced for contacts with the Jura département, the city of Lons-le-Saunier and Offenburg. Lons-le-Saunier is the administrative capital of the Jura département of France (dept N° 39) and is twinned with the German city of Offenburg. A certificate may be awarded to any French or foreign station holding an official amateur radio licence, or to any SWL station in the same conditions.



You must provide proof of three QSO's with three different stations on the following nine HF bands: 160, 80, 40, 30, 20, 17, 15, 12, 10. Three QSO's on nine bands matches our département (county) number: 39, Jura being département N° 39 in the list of French départements in alphabetical order, with Ain being N° 1, Aisne N° 2, Doubs N° 25, Paris 75, etc.

These figures are used as the first two figures in postcodes (Lons-le-Saunier being the county-town is 39000) in last two figures on car number plates, on social security numbers, etc. These 3 radio amateurs must have their QTH in the Jura département (N° 39) and one of them must reside in or operate from the city of Lons-le-Saunier. A contact with special call-sign station TM5CW activated from the Jura by a TLG member, or a contact with a station operating from Offenburg can be used as a joker instead of a contact with Lons-le-Saunier.

To qualify for the award send GCR list and a fee of $US10, 10Euros or 10 IRC's to Dominique MEIGE, F5SJB, F-39130 HAUTECOUR, France.

Special award

Any radio amateur who can present proof of 9 confirmed CW contacts with 9 different Jura (39) radio amateurs and a contact with TM5CW and a contact with Offenburg will receive a special award from the city of Lons-le-Saunier.

TV Film on the History of the Telegraph - 'How the Victorians Wired the World'

Readers of MM69 in the UK and USA will have received a loose insert in their copy from Blakeway Associates, a TV production company, wishing to contact ex-landline telegraphers for a one hour documentary film on the history of the telegraph. Entitled "The Victorian Internet" it is planned for transmission in early in July 2000 on the UK Channel 4 Network. (Channel 4 is also broadcast on digital satellite). The film is directed and produced by Russell Barnes for Blakeway Associates, one of the UK's leading and multi-award-winning independent television companies and a specialist in history documentaries of all kinds.

A fascinating film combining interviews with leading scientific and social historians who provide insights into this formative period in the making of the modern age, atmospheric locations and dramatic, detailed reconstructions of Victorian telegraph machines in action, the 'hardware' of its day that first sent information instantaneously round the world. Filming took place in a variety of locations including the Bluebell Railway in East Sussex, Times Square in New York, The Museum of Submarine Telegraphy at Porthcurno, Cornwall and a cable-laying ship in the Irish Sea.

Summary

"The information age is born... a wired network that encircles the world ... young entrepreneurs boosting a technological future that will transform society - a sceptical public watching as fortunes are made and fortunes lost ... the quantity of information within our grasp, the future of business, of politics, of democracy itself, all utterly transformed - and it all happened a hundred years ago and more - during the reign of Queen Victoria.

This film tells the story of the electric telegraph, the mother of all networks, the revolution in communications that opened the door to the modern world. The parallels with the internet are amazing, and in terms of the depth and breadth of its impact the internet looks like little more than an electronic refinement of what happened 150 years ago.

In the early 19th century, the industrial revolution was straining at its natural limits. Entrepreneurs were laying railways, building steamships, and constructing factories of mass production, but their world was still a local one, where information could go no faster than the messenger who carried it. A businessman would watch his cargo sail over the horizon. He would cross his fingers, knowing nothing of the price it would fetch when it arrived, and only weeks or months later would he know whether he had made a hefty profit or whether his fortunes lay at the bottom of the sea.

This was a world of blind commerce, stale news, railway accidents that could not be prevented, battles needlessly fought. But scientists busy tinkering in their labs with batteries and electromagnets made a remarkable

discovery - that electric signals could be sent, instantaneously, over apparently unlimited distances. In an age of steam engines and gear wheels, electricity was still arcane and mysterious, but a few tough-minded visionaries like William Cooke in Britain and Samuel Morse in America - the inventor of Morse code - had the insight to see what this could become.

The telegraph had lowly beginnings, but spread astonishingly rapidly. In Britain, the first telegraph line ran just thirty miles from Paddington Station to Slough, but within a decade the whole country was wired up and the busiest telegraph offices were handling thousands of messages a day. In America, the first line ran from Baltimore to Washington - little more than forty miles - but two years later 2,000 Miles of wire had been laid and two years after that the total was 12,000 miles. The telegraph was the first network the world had seen and obeyed the fundamental law that the more people who got connected, the faster it would grow. By the 1880s, the Western Union telegraph company was the biggest business in the world.

With any new communications technology, there are certain social groups who see its potential before anyone else. Criminals, traders, lovers, and the military all began to use the telegraph, investing in the network, popularising it, and exploiting the ignorance of others. But before long the network began to have dramatic effects right across the Victorian world.

And the telegraph didn't stay confined to national boundaries. Possibly the greatest engineering feat of the 19th century, described as "the moon landing of its day", was the laying of a telegraph cable across the Atlantic Ocean in 1866 from the stern of the biggest ship in the world. By the 1880s cables had connected up the whole of the British Empire too, and the network stretched as far as Australia and South America.

For the first time, newspapers could get reliable news, from around the world, day by day. Press agencies like Reuters sprang up to fill their pages with their telegraphed news reports. Suddenly journalists could build a story day by day, and suddenly editors could be scooped by their rivals.

And the network played a fundamental part in the formation of nations - America, just recovered from its Civil War, could finally be the United States. For the British, who had in Malaya a monopoly over the only natural material for insulating undersea cables that really worked, the resin from the Gutta Percha tree the cable network quite literally bound the empire together and gave them the strategic advantage necessary to protect it.

Even time itself was fundamentally altered, No longer would noon be the hour when the sun was overhead your village church, as standard time and time zones were imposed across the world.

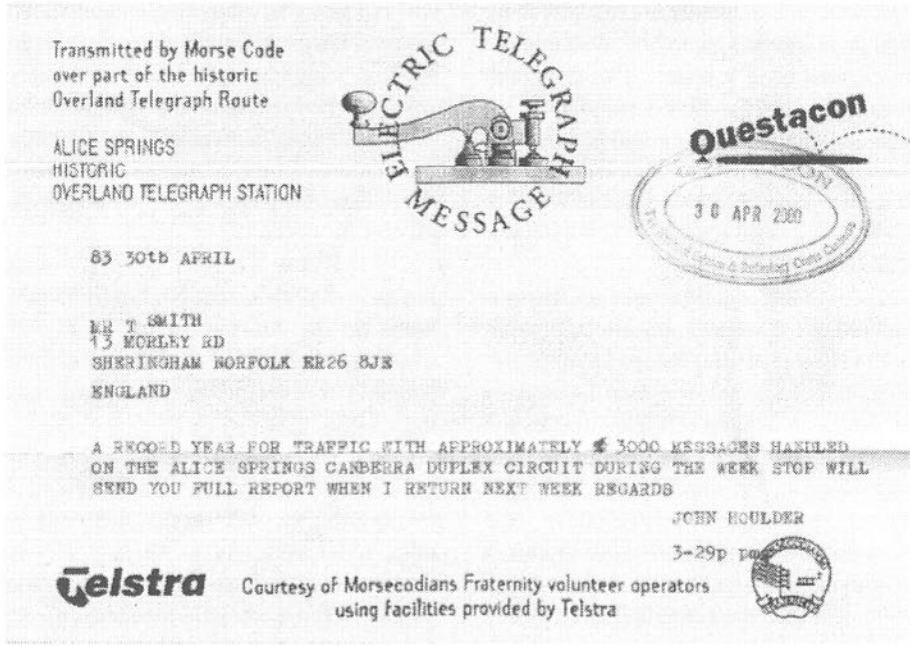
The telegraph saw the birth of the 24-hour day, the international corporation, the mass media, and so many other touchstones of modernity, It was the profound and invisible heart of the Victorian progression to the modern age, beating to the rhythm of Morse code."
(Jeremy Lee, Blakeway Associates)

Morsecodians at Alice 2000

The Morsecodians Fraternity operated their annual 'landline' circuit in April from the historic Overland Telegraph Station at Alice Springs to Questacon, the National Science and Technology Centre, in Canberra, handling a massive total of nearly 3000 messages during the event. John Houlder reports on the happenings of the week and the circumstances which resulted in a much greater interest than usual in this notable telegraphic re-creation:

"We usually try to have five operators, but this year we were down to three owing to one chap dropping out with medical problems a month or so before, while Fred Ryan had an accident in a caravan park some 300 km south of Alice, sustaining a severe gash to his right arm and a compound fracture just above the elbow. This put him in hospital for the period as the arm required surgery.

"Three would have been manageable, however when we landed in the plane it started to rain, and did it rain! There were 10 inches in two days, putting the normally dry Todd and Charles Rivers into flood, with the confluence of these rivers at the Telegraph Station. The town became isolated, the tourists in town were locked in, and those on the road, on their way to Alice, were stranded. Everyone at Alice came out to



Telegram from Alice Springs sent to Tony Smith by John Houlder, via Questacon, Canberra.

the Telegraph Station to see the flooded rivers, a rarity in the normally dry parched inland, and of course while they were there they did a tour of the Telegraph station.

"On top of this, Easter was very late this year and for the first time it coincided with Heritage Week in the Northern Territory. On the day after Easter Monday we had a public holiday known as Anzac Day (commemorating the landing of Australian and New Zealand forces at Gallipoli in WW1) so that gave everyone a 5-day break. If that wasn't enough, in the eastern states there were school holidays in N.S.W. the A.C.T (Canberra) and Victoria. Consequently it seemed everyone made a beeline for Canberra and of course Questacon.

"The boys on the line at Canberra were telling us continually of people 3 and 4 deep around the operating table, and of course everyone wanted to send a 'free' message. Once the line opened up at 8.30 a.m. the pressure never stopped. It was unrelenting, and we were taking 50 or 60 messages at a time.

"Of course conditions for Morse operating at both ends were far from ideal. Because of the large crowds in Canberra it was very noisy, and equally the old building at Alice with its sandstone floor and corrugated iron walls hardly lends itself to 20 or 30 people at a time all talking at once, and with the noise of the typewriter it all becomes pretty demanding.

"We got the usual stupid questions, such as "does the typewriter actually type all that out for you" (the typewriter looks as though it came out of the Ark). When I tried to explain to one woman that I was listening to the signals in the box (we had to receive traffic and talk to the public at the same time), she said 'I don't hear any signals, but what is all that noise coming out of that box'. I told her that was what I was listening to, and she said 'but I still can't hear any voices'. I gave up at that stage!

"Fortunately, our friend Peter Shaw from Bendigo (Victoria) brought his wife along for the trip and she manned the counter for the entire period, doing a tremendous job. The total traffic for the week was 2922 messages with about 10 per cent of those written in (to us anyway) a foreign language. It was our most hectic year ever. Each day just seemed to blur into the next."

(Report by John Houlder, Charnwood, A.C.T., Australia)

The Portishead Trophy

In recognition of the work done by and at Portishead Radio for the 80 years before closure in April 2000, the Radio Officers Association have announced that there will be an annual contest for the Portishead Trophy. It will be held every year on the last Sunday in April from 0900z - 1500z.

Twenty three stations will be set up with call signs followed by =GK- (the dash will be A,B,C,D, etc missing out Q,R and Z; being the call signs used by Portishead). For example G3PLE=GKG. The aim is to work all the stations in the shortest time using 100w or less or to work as many as possible in the shortest time. Band: 40m, Mode: CW.

The Trophy:- A Marconi Marine Morse Key engraved with winners names to be retained for one year only. There will also be an Award Certificate to the GK- station making the most QSOs.
(David Barlow, G3PLE, Radio Officers Association)

"Wireless Giant of the Pacific" Will Once Again Be Heard

The former Marconi and RCA Morse code radio station KPH will make a commemorative broadcast on Wednesday, 12 July, the first anniversary of the last commercial Morse code transmission in North America.

KPH began life at the dawn of radio. Its first home was the Palace Hotel in San Francisco, from which it derived its first call letters, PH. When the Palace Hotel was destroyed in the 1906 earthquake and fire the station moved to several different locations, eventually finding a permanent home on the mesa west of the small California town of Bolinas. Along the way federal regulators added the K prefix to the original PH, creating KPH, one of the most famous radio call signs in the world.

Radio operators ashore and afloat came to regard KPH as "the wireless giant of the Pacific". Only the best operators worked at KPH. They were there 24 hours a day, ready to help with everything from the mundane messages of maritime commerce to urgent requests for assistance from ships in distress. The KPH signal literally spanned the globe. Radio operators on ships in the far corners of the world were comforted by the steady signal of KPH in their earphones.

As technology progressed the end of Morse code was predicted many times. But KPH soldiered on providing good, reliable service to the maritime community. The end came at Bolinas in 1997 when Globe Wireless purchased the license and the big transmitters were finally shut down. On July 12, 1999 Globe Wireless sent the last commercial messages in Morse code from KFS, their master station near Half Moon Bay. It was the last time the famous call KPH would be heard on the air - or so it was thought.

Today the former KPH facilities are part of the Point Reyes National Seashore which has a strong interest in the important role the station played in the history of radio communications. The Maritime Radio Historical Society has been working with the Point Reyes National Seashore to preserve and restore KPH with the goal of eventually creating a museum dedicated to this great station that was once heard throughout the world.

On 12 July KPH will return to the air from its original location, using its original equipment and its original frequencies - generously made available by Globe Wireless, the current owner of the KPH license and operator of the equally famous KFS from which the last commercial Morse message was sent.

Veteran operators, radio engineers and those with an interest in

radio history will gather at the Bolinas transmitter building to watch the station come on the air one year and one minute after the last Morse transmission from Half Moon Bay. Commemorative messages will be sent by hand by the operators who once stood watch at the station. And then they will listen for any calls from the few remaining ships at sea with Morse capability.

While this event does not signal the return of KPH to commercial Morse service we intend it to acknowledge and honor all the radio operators who have "worn the earphones" and played a role in the history of maritime radio.

The station will operate on 4247.0, 6477.5, 8618.0, 13002.0 and 17016.8 Kc/s on shortwave and 500/426 Kc/s on medium wave.

The broadcast will commence at 5:01pm Pacific time, 12 July, (0001 GMT 13 July). On HF it will start with the KPH V marker followed on HF and 500 Kc/s with a CQ advising listeners that a commemorative broadcast will follow. These will be sent using a Boehme keying head, reading punched paper tape.

The commemorative messages will be sent by hand on HF and 426 Kc/s by veteran operators who actually stood watch at KPH, KFS, NMC and other coast stations.

The cycle will repeat, probably every half hour, so that all operators will be able to get in some key time. Listen particularly for the sine of each operator so you will know who is sending. We expect to remain on the air until about midnight Pacific time.

(Dick Dillman, Maritime Radio Historical Society, San Francisco)

Crunch Time for Morse Test at WRC-2003?

At the World Radio Conference (WRC-2000) held in Istanbul, Turkey, May 8 - June 2, 2000, it was agreed to place a review of S.25 of the Radio Regulations (which governs amateur radio internationally) on the agenda for WRC-2003.

The International Amateur Radio Union's recommended revision of the regulations relating to operating qualifications, which omits any reference to the amateur Morse test, is to be discussed by ITU-R Working Party 8A in advance of WRC-2003. If approved, the impact of the recommended new regulations would be to give national administrations discretion to include or not include knowledge of the code as one of the "operating skills" required for an amateur HF licence. (See MM66, pp 4-5 for the background to, and full wording of, the IARU recommendation).

Subject to confirmation by the ITU Council, it is expected that WRC-2003 will be held in June 2003 in Geneva, Switzerland.

Sierra Leone Paras had to Rely on Morse

British paratroopers serving in Sierra Leone had to use Morse code because their ageing communications system was not considered secure enough for combat, writes Neil Tweedie.

Commanders believed that putting messages into Morse would be

safer than using voice transmissions via Clansman, the 30 year old standard radio system of the British Army, because the latter was vulnerable to interception.

Sources within the Parachute Regiment cited the problem as another example of how Britain's rapid reaction forces were expected to use inadequate equipment ...

(Daily Telegraph Ltd.)
(London, Mon. 19 June, 2000)

Telegram from Son Ends Texas Drought Tears from Mom

FORT WORTH, TEXAS — Here in this 150-year-old ultra-modern city on the north-central Texas prairie the click-clack of telegraphy drowned out the ringing of walking-around cell phones at the annual Fort Worth Railroad Fair.

The event, commemorating when nine railroads passed through Fort Worth, was held during the Memorial Day holiday. Thousands of railroad buffs converged on the Will Rogers Coliseum. A good portion stopped at the Morse Telegraph Club table sponsored by the Dallas-Fort Worth Chapter.

"Some of the younger visitors were simply curious and then amazed," said Gene Wood, Chapter President. "But many remembered when 'telegram', 'Western Union', and 'Postal Telegraph' were household words." Several former operators stopped to visit and recall old times.

Many visitors couldn't believe their eyes and ears after they'd scribbled out a souvenir telegram and then witnessed it being sent from one end of the table and received at the other end.

There was an old Vibroplex bug on the table, but sending was by hand key. George Nixon, Executive Vice President of the MTC Grand Chapter, was present and did much of the sending. Principal receiving operators were Pat Carey and Gene Wood. Other members who participated included Ray Pascoe and Macalee Hime.

Even the battered Prince Albert can stuffed in the Mascot resonator drew comments. But there was only one Prince Albert can, and to enhance the sound further above the crowd noise, it was found that plastic soft-drink cups would also work.

"I know this smacks of sacrilege," confessed Pascoe, "but in an emergency you have to do what works."

A 10-year-old boy with a sense of humor but mixed-up spelling wrote, "Mom, I'm in New York. Please right."

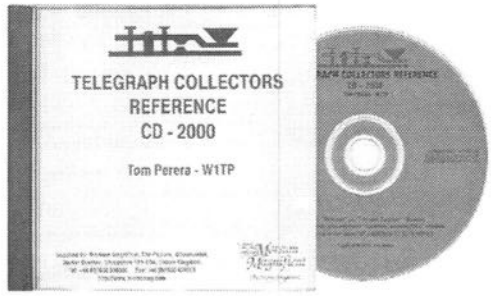
A little girl was so taken with the magic of telegraphy she sent several messages.

A moving moment came when a lad named Adam thoughtfully crafted his telegram in block letters and handed it to Nixon.

A moment later, his mother was handed the telegram at the other end of the table. She flashed a quick smile, and then the tears began to flow as she hugged her son, the yellow telegram clutched in her hand.

"Mom and Dad," the telegram said. "I love you."

(Macalee Hime, Morse Telegraph Club, Lone Star Chapter DF)



Telegraph Collectors Reference CD-2000 Announced

This year's Dayton Hamvention in May saw the launch of Tom Perera's Telegraph Collectors Reference CD – 2000, an absolute mine of information for collectors compiled from a variety of sources including important web pages.

Users need a PC running Explorer or Netscape web browsers to access the CD. The great advantage of using the CD is that the browser software is used off-line, which means that no phone connection is needed. As a result access is much faster and the CD includes the whole of the book 'Perera's Telegraph Collectors Guide' and his cyber-museum but with high resolution pictures, many in colour. A draft version of the cumulative index of MM from 1986 is included.

Contents:

1. **CD - VERSION of Perera's TELEGRAPH COLLECTORS GUIDE**
   With all the 300+ original high resolution images of the pictures embedded right in the text.
2. **CD - "INLINE PICTURES" VERSION OF THE W1TP TELEGRAPH MUSEUMS**
   With all 1600+ pictures embedded in the text for easy picture browsing / scrolling.
3. **MODERN PRACTICE OF THE ELECTRIC TELEGRAPH, (1881) by Frank L. Pope**
   With instant access to pages and illustrations. Digitized and converted to HTML coding by Charles Keith.
4. **The 1929 WESTERN UNION PLANT CATALOG**
   Transcribed by Richard S. Loveland, N31A. Converted to HTML coding by Lynn Burlingame, N7CFO.
5. **Russ Kleinman's SPARK KEY PROJECT**
   With some of the pictures... You must go online for access to some of the privately owned images.)
6. **CUMULATIVE INDEX TO BACK ISSUES OF "THE VAIL CORRESPONDENT" (1992-1998)**
   A complete listing of 250 articles from this out-of-print journal with back-issue ordering information.
7. **CUMULATIVE INDEX TO BACK ISSUES OF "MORSUM MAGNIFICAT" (1986 - Present)**
   A complete listing of 3000 topics with subscription & back-issue ordering information.

8. **CUMULATIVE INDEX TO BACK ISSUES OF THE "N7CFO KEYLETTER" (1992 - Present)**
   A complete listing of 1600 topics with subscription & back-issue ordering information.
9. **ORIGINAL VERSION OF THE WITP TELEGRAPH & SCIENTIFIC INSTRUMENT MUSEUMS**
   Text Pages for fast Reading ... with Instant One-Click Access to 1600+ Images.
10. **ORIGINAL HIGH RESOLUTION MUSEUM PHOTOGRAPHS IN .PCX and .BMP FORMATS**
    1100 pictures located in subdirectory (folder) called: \pictures. They REQUIRE a Viewer/Editor [see 11].
11. **SHAREWARE VIEWERS FOR THE ABOVE HIGH RESOLUTION PHOTOGRAPHS**
    Viewers & image managers/editors for slideshows, etc. Located in a subdirectory (folder) called: \viewers.

(Telegraph Collectors Reference CD - 2000 is available from MM. See Bookshelf)

Friedrichshafen Ham Radio 2000 A Report

This year's Friedrichshafen event was held on 22-24 June. There did not seem to be so many keys in the flea market this year and the prices of Eastern European military pump keys have really crashed. I was looking for a Junkers and could only find a high mileage military model.

Gerhard Schurr was much in evidence. He again showed a beautiful looking semi-automatic key. This is available to order only and costs DM800. Even at that price, I would say that it represents good value for money.

The weak Euro makes UK and US key prices look expensive, e.g. the Bencher BY1 paddle was selling for the equivalent of £110.

Of special interest was DARC's "CW Manual" at DM 16.70. This is in German but for the English reader, apart from some historical notes about the development of the Code and how to learn it, in chapter 2, it has comprehensive references of the characters for Japanese, Arabic, Russian, Turkish and Greek alphabets and, even, special Esperanto characters! Q and Z codes are comprehensively described in the same chapter, along with many common abbreviations - including the German ones. Chapter 3 includes a description of several of the world's CW Clubs. Strangely, the defunct TOPS CW Club rates a full paragraph, whereas FISTS only receives a passing mention. Contact addresses are also omitted. For the price, a very useful reference, but hardly a good read.

Overall, the Friedrichshafen Hamfest seems to be suffering from the declining trade and visitor support that afflicts most present day radio rallies. Nevertheless, its greatest virtue is that it is easily accessible to many of the European countries and provides a good meeting ground for the OMs of these countries. It is a very pleasant lakeside town in a picturesque setting and offers much to entertain and interest visitors who do not share an interest in ham radio. A good opportunity for a family holiday in addition to a visit to Europe's most international radio rally.

(Report by Chris Rees, G3TUX)

Farewell Portishead

Morse Pro/Am Event

by David Barlow G3PLE

Written for Morsum Magnificat by David Barlow, G3PLE, Chairman, Radio Officers'Association Radio Society. Amateur Radio Liaison Officer GKB event. Manager Maritime Radio Month 1999.

THE CLOSING HOURS of Portishead Radio (GKA) brought back the halcyon days of CW operating. On Friday 28th April 2000 Morse keys were taken out of storage where they had resided for several years in preparation for what was to be the largest Pro/Am Radio event ever staged to be held on the following day. It was to be a tribute to Portishead Radio, its remaining staff, its past operators and those who were in contact with the station at the other end of the key.

Keys Used

The Morse keys included hand built straight keys made in the 1960's in GPO workshops specifically for the station. These keys had to be easy to handle when you consider that in 1965 eighty six Radio Officers (R.O.s) were handling 11 million words a year; the wear on the keys and contacts was great indeed. They were very heavy and would not move on the consoles that were used in those days.

It was not until the 1970's that bug keys were allowed at GKA, although before that many operators owned the original Vibroplex bug keys which were used "under the table" out of the gaze of the supervisor.

In the earlier years the operator would have an Olympia typewriter in front of him, a control panel to his left and the key to its right.

At sea many R.O.s owned

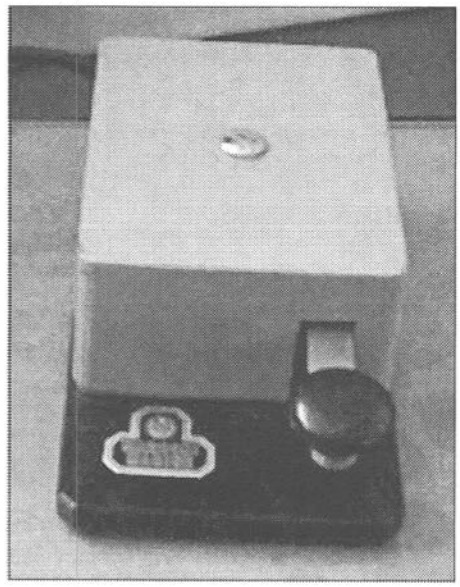


Photo: David Barlow, G3PLE

A Marconi Type 365 key

Vibroplex keys even though the operating companies had banned their use. There was one individual who came on board ships in Newark, New Jersey and sold them at a very reasonable price. The Vibroplex was easily wired across the Marconi Marine Type 365 Transmitting Key (a misnomer if ever there was one). As long as the ship was moderately steady and not too much engine vibration then the bugs were very handy. The GKA operators never seemed to mind and they could always tell the difference!

Progress won as usual and the R.O.s were given Katsumi "Squeeze" twin paddle keyers. These were modified for use at Burnham-on-Sea, working off 5v. DC with the side tone taken from the keying line. This led to problems with the closure event as two of the consoles in use shared one keying line! The key itself is very user friendly.

By the time "Squeeze" keys were in use traffic at GKA had increased to over 20 million words a year with 154 R.O.s employed. At this time working conditions improved and each R.O. would be at a console purpose-built for the job. As aerial systems improved the R.O. could use the rhombics for optimum reception. It has been noted that all R.O.s did not use the key in line with their right arm but some used it out to their right hand side. Others preferred to have the dot and dash sides of the paddle reversed.

From 1948 until 1972 the Commonwealth "Area" scheme was in use and ships could relay messages, free of charge, through the Royal Naval stations in New Zealand, Australia, Hong Kong, Singapore, India, Mauritius, South Africa and Canada which were then relayed to GKA. This was at the time of the Marconi Oceanspan transmitter with an output of a nominal 100 watts into a random length aerial, Hardly conducive to DX work.

In 1972 when the Area scheme came to an end GKA handled traffic from UK registered ships (and others) from round the world. While R/T was emerging the work was predominately with the Morse key. A queuing system was evolved and it was not unknown for a ship to be given

Photo: Cathy Stanfill, KF6TIW

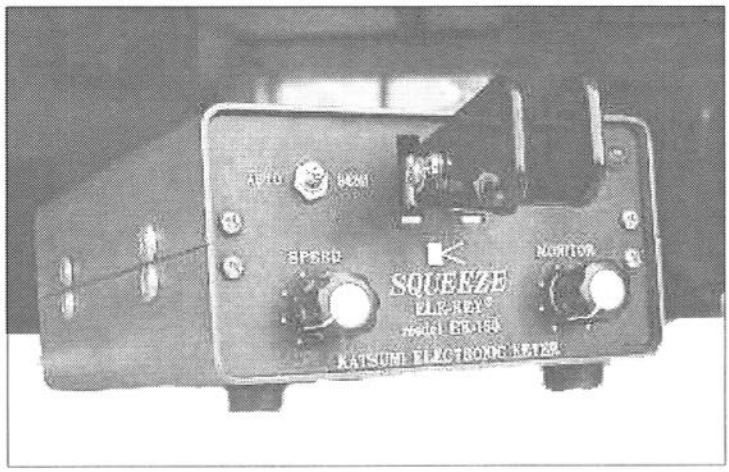


Photo: David Barlow, G3PLE

A Katsumi ER-150 Squeeze key used at GKA

QRY (turn number) 34. However the wait could be less than 25 minutes - although this was worrying when conditions were failing. The operators at GKA were always renowned for their precision and accuracy.

Portishead Radio was previously run by the Post Office through the Postmaster General and latterly by BT (British Telecommunications plc) following privatisation. During the time of the "Area" scheme the overseas stations were operated by Royal Navy personnel and there were RN teams seconded to Burnham. The station was shared with a similar scheme for armed forces traffic and there was a land line to Whitehall Radio.

A Tribute to Morse

Twenty-five years later the Morse key had all but been replaced by the microphone or the computer and H.F. distance communication replaced by microwaves and satellites. In common with the other world H.F. stations Portishead Radio was to close. The Radio Officers Association (ROA) requested that it be allowed to hold a farewell tribute to Portishead Radio and this was granted by B.T. Maritime Services.

It seemed only fitting that the event should be Morse only, and that ROs and others should have the opportunity of working the station for the last time on the key. Indeed, as it turned out, cross band working with a microphone would not only have been bedlam but virtually impossible with the bandwidths involved. The event demonstrated the advantages of CW brilliantly. The use of 5kw power and highly directional transmittting and receiving aerials made world wide communications possibe using C.W. which again would have not been likely using a microphone.

Having been given only three weeks notice and the Radiocommunications Agency only granting permission a week before the event, rapid publicity was vital. All the national amateur radio societies with e-mail were contacted and RNARS did a superb job. The event was to be for Class A licence-holders only, to take place from 0700z to 1900z on the penultimate day of GKA, 29th April 2000. The equipment was tested at 0600z and the amateurs were already waiting.

Special First QSO

The first QSO was with ex RO Bruce Morris GW4XXF who then switched to MCØROA to send a greetings message from the Chairman of ROA, Brian Cotton. The third was from George Banner G3AFX who first contacted GKL in 1934 on a spark transmitter from near Gibraltar. And then the flood gates opened! The 3,7,14,18 & 21 Mc amateur bands vibrated with Morse code for over 12 hours while the lone sound of GKB 2, 4, 5, 6 & 7 on 4, 8, 12, 17 & 22 Mc/s replied to the pile ups. (Please forgive an old timer using old fashioned measurements for this article).

Radio Officers from around the world sought to work the station for the last time and over 3000 succeeded. Over 100 DXCC countries were worked and many old stations such as DAN, PCH, ZLW contacted us. GKA ROs both present and past revelled in hearing the

Photo: Bruce Morris, GW4XXF

Bruce Morris, GW4XXF suitably dressed in RO's uniform makes the first call from his reconstruction of a 1960s ship's radio room.

airwaves as they used to be. Some of the comments were " This is great - just like the old days" and " Who says that Morse is finished?"

The amateur world met the professionals at GKA for the first and last time. BT Maritime Services, the Station Manager Martin Davies and all the Radio Officers were delighted at the magnificent send off they received. They were also highly complimentary about the standard of CW operating that they heard. Operators refused to stop sending until the plug was pulled. The amateur radio world can be proud of the role it played in the last hours of Portishead Radio. As the Head of BT Maritime Services Mike Wilton said "The station went out with a bang rather than a whimper - what a way to end an era."

Commemorative QSL Card

A commemorative QSL card is available(see inside back cover). All QSOs have been confirmed by a QSL card via the bureau. Those who heard the station can obtain an endorsed card. A blank card will be sent on request. All cards will be sent via the bureau unless an sae or IRC with envelope is received. The address is GKB, PO Box 50, Helston, TR12 7YQ, England. ***MM***

Wanted - articles and tips on making and restoring keys - contact *MM*

Wartime Radio Operations at Port Lockroy in the Antarctic - An Update

by Alan Carroll*

PUBLICATION OF THE 1944 photograph on page 16 of the article in the MM65 issue brought a magnificent response from readers. One of the two unknown items has now been identified as an Eddystone 'All World Two' receiver dating from around 1935, a two-valve battery powered unit marketed by the manufacturer in kit form. One of its plug-in coils may be seen on top of the [still unidentified] portable receiver on the left-hand side of that picture. I am very grateful to everyone who contacted me with help and advice for this project – the Antarctic Heritage Trust recently described the site as the jewel in the crown of all Antarctic Peninsula heritage projects.

Busy Time

The commemorative display of the types of radio equipment used by the Royal Navy covert station set up in 1944, was carefully carried ashore at Port Lockroy, located on the Antarctic Peninsula, during the second week of November 1999, by which time the tourist season was already under way.

It is intended that more work will be done on this display next summer, as currently the radio room is also the repository for other electronic equipment, found when the base was restored. Port Lockroy received 96 tour ship visits, 34 yacht visits and four other ships also called in, leav-

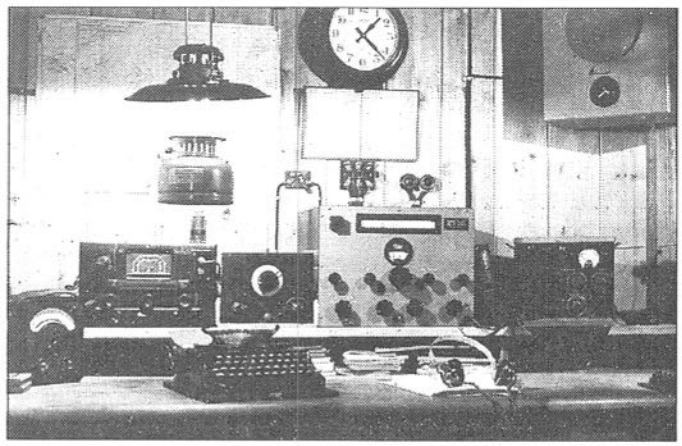


Photo: British Antarctic Survey, Cambridge

Original 1944 Photograph of the Royal Navy station

Photo: David Burkitt/British Antarctic Survey

A Port Lockroy warden compares the reconstruction with the original 1944 photograph in MM. On the top shelf, from left to right: BC221, B28 receiver, 5G clandestine transmitter and the partly gutted rig control panel (built by the writer in 1956.) On bench: original Remington typewriter used in 1944 and Admiralty pattern X691 key.

ing little spare time for the summer wardens to set up the display. A total of 7289 people came to see the site, nearly double the number who visited four years ago.

The Radio Shack

As always, the shack is the most photographed part of the interior and the commemorative display has proved to be of great interest to visitors. Not long after the previous article was written the original portable typewriter used by 'Fram' Farrington in 1944 was donated and added to the display. It is hoped that a second B28 receiver may be 'scrounged' for next summer, correct in every external appearance but otherwise not in working order, which will then be gutted and fitted with a solar powered solid-state HF unit. Rigged to receive CW, it will allow visitors to listen to WT transmissions, further enhancing the atmosphere of the room. In addition an RCA 89M transmitter will be displayed to provide a 'second era' view of how the room also looked in 1956, when two B28's were in use and the 5G transmitter served as a spare. A duplicate of the control panel is being made, complete with built-in carbon granule GPO telephone microphone, voltmeter and a loudspeaker – the original 1955 panel cannot be removed for

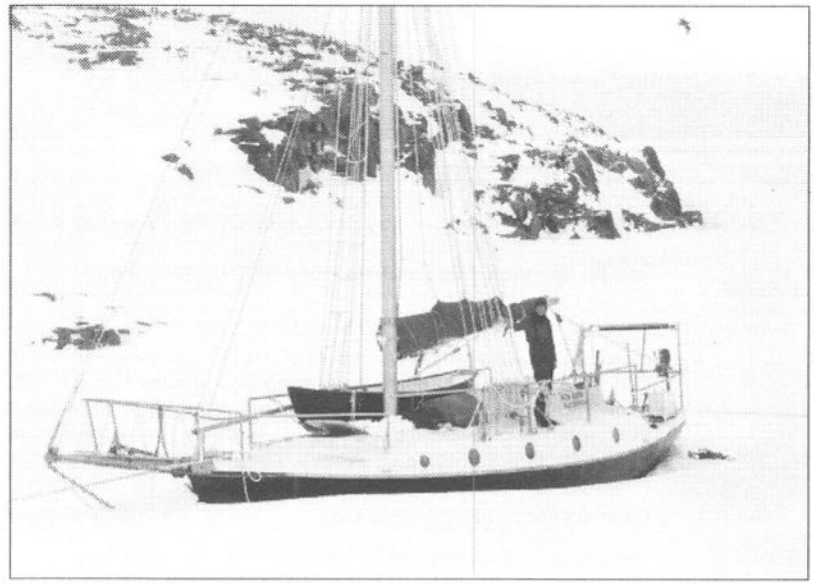


Photo: David Burkitt/British Antarctic Survey

Iron Bark II fast in the sea ice in December 1999. The yacht broke out of the ice and sailed on 4 January 2000. Trevor Robinson was Port Lockroy's first winter resident since 1961.

refurbishment, being part of the archived site material. The equipment already donated will remain, all in its pristine original format.

Lone Sailor

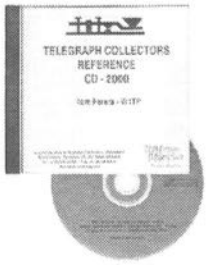
Last winter Trevor Robinson, owner and builder of the 35-foot steel-hulled gaff cutter *Iron Bark II*, sailed single-handed to Port Lockroy and remained there alone during the winter. Depending upon how one defines such undertakings he was either the second or third person ever to winter alone on the continent. While his yacht was frozen into the sea ice, he maintained weekly penguin counts and a daily record of other wild life: the first winter records taken there since the base was closed in 1962.

Alan Carroll was Base Leader of Port Lockroy from November 1954 to March 1957. He is currently researching the history of Port Lockroy.* ***MM*

MM Bookshelf

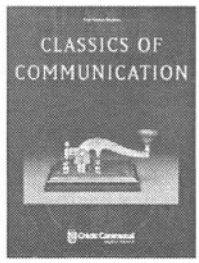
Specialist Books on Telegraphy by Mail Order

ALL WORLD ORDERS ARE SHIPPED BY AIR MAIL UNLESS OTHERWISE STATED



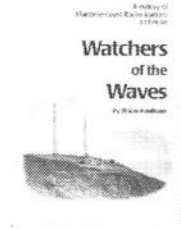
NEW - Telegraph Collectors Reference CD-2000 *by Tom Perera*

An absolute mine of information for collectors compiled from variety of sources including important web pages (See MM70, p11 for details). Users need a PC running Explorer or Netscape web browsers to access the CD. The great advantage of using the CD is that the browser software is used off-line, which means that no phone connection is needed. As a result access is much faster and the CD includes the whole of 'Perera's Telegraph Collectors Guide' and his cyber-museum but with high resolution pictures, many in colour. A draft of the cumulative index of MM is included. **£9.00 UK - £9.20 EU - £9.70 World**



Classics of Communication (English Edition) *by Fons Vanden Berghen*

A book of exceptional quality produced originally to accompany a Brussels Exhibition sponsored by a Brussels bank. Illustrated with 240 high quality photographs, 140 in colour, including many rare telegraph instruments. The text includes the history and technology of electricity through to wireless and early television, but a large section of the book is devoted to telegraphy. Without sponsorship, a book of this size and quality could not have been economically possible for such a limited readership - 107 pages, 24.5cms x 29.5cms (9.7in x 11.6in). **£16.95 UK - £18.25 EU - £21.00 World (US $36)***



Watchers of the Waves *by Brian Faulkner*

A history of maritime coast stations in Britain, from Marconi's early experiments and through the days of spark, valve, and automatic W/T and R/T to the computer-controlled systems of the 1990s. Profusely illustrated with 24 drawings and over 80 photographs -128 pages, 21 cms x 29.5 cms (8.25 in x 11.6 in).

£15.00 UK - £15.50 EU - £17.10 World

	UK	EU	WORLD
Perera's Telegraph Collector's Guide by Tom Perera An essential pocket-size reference guide for collector and historian	£7.60	£8.10	£8.90
The Story of the Key by Louise Ramsey Moreau The Best of MM Vol. 1. 77 photos/Illustrations, 60 pages.	£4.25	£4.50	£5.00
Wake of the Wirelessman by B. J. Clemons A true story of an early maritime wireless operator	£14.20	£14.70	£17.00
"Q41" and Beyond by Shirley Lawson The story of a Wren (Womens Royal Naval Service) telegraphist	£6.20	£7.20	£7.90

CONTINUED ON NEXT PAGE

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McElroy: World's Champion Telegrapher by Tom French The life and times of T. R. McElroy, telegraphist & key maker	£15.30	£16.00	£18.00
Railroad Telegrapher's Handbook by Tom French Old-time telegraphy on the American railroads	£8.00	£8.30	£9.00
Bunnell's Last Catalogue with notes by Tom French Illustrates and describes the company's many telegraph instruments	£5.50	£5.70	£6.00
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The Victorian Internet by Tom Standage *(MM63)* The story of the early telegraph pioneers	£8.30	£8.40	£9.30
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Marconi's Catalogue of Receiving & Measuring Instruments (circa 1912) A high quality facsimile of the 1912 book with photos, circuits and specs	£4.70	£5.25	£6.60
The Phillips Code - a facsimile reprint by Ken Miller*(MM61)* Telegraph codes for press reports	£10.00	£10.20	£10.50

Book Review

MODERN MORSE CODE IN REHABILITATION AND EDUCATION
by Thomas W. King

Reviewed by E. Geoffrey Walsh M.D., F.R.C.P.
GM4FH (Geoffrey.Walsh@ed.ac.uk)

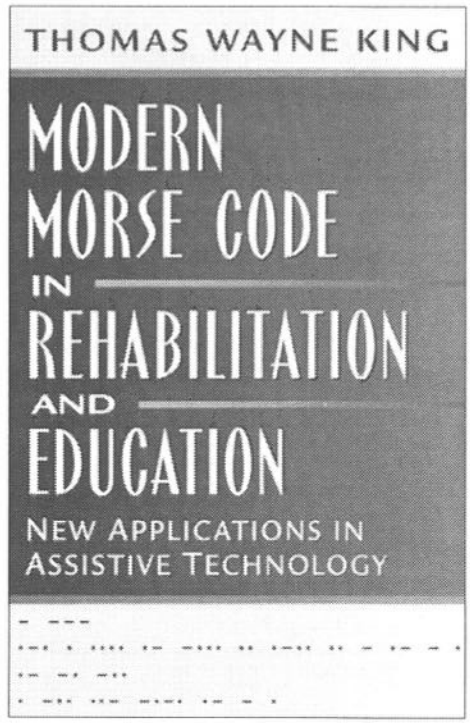
In the last 150 years, in the developed world, there have been tremendous medical advances. Public health measures, the provision of good water supplies and sanitation together with immunisation have been highly cost effective. Following these were notable successes with antibiotics to control infective diseases so that pneumonia and tuberculosis came under control. Surgical techniques have also advanced tremendously. There is left however a hard core of problems. Journalists are keen to spot 'breakthroughs' but inevitably there are many conditions which can at best only be relieved not cured; a liability to such misfortunes is part of the human condition.

Prominent in these problems are those of the nervous system where repair is often little more than a distant, and alas perhaps vain, hope. Some people who retain good intellectual functions have great difficulty communicating, a condition which can be highly frustrating. From muscular weakness or paralysis, for instance, they may be unable either to speak or to write. One method used, scanning, is to hold up a card bearing an alphabet', the therapist points in order to the letters and the patient indicates, say by blinking, the letter he intends, so a simple message may be spelt out. This is slow and laborious but what is the alternative? Here we need to cross the Atlantic and consider something which at first sight may seem absurd, but which is highly relevant to the interests of readers of 'Morsum Magnificat'. This book is an example of work in the best traditions of North American enterprise, no effort having been spared to bring highly technological solutions to bear on the problems of the disabled, evidently with no mean success for many people.

People who cannot speak or write are sometimes referred to as being 'locked in' but they can, in general, control some parts of the body; this is where Morse comes in for if a switch can be operated it is possible to send signals and so communicate with carers. The switches can be adjusted for position and sensitivity. A single switch may be used as a straight key, or there may be two for

electronic keying. As a variation the person may be given the chance to confirm that the character has been sent correctly by the operation of a third switch. A switch may be operated, for instance, by a single finger, by 'puff and sip', by pulling and pushing a heel, or by the a contraction of a muscle of the thigh; there are many possibilities.

Some patients may have learnt the Morse code in their youth, if not this book is a valuable aid. They need to be able to send but do not need to know how to receive. Auditory learning, the proven way for telegraphists to become proficient, is not in any way necessary, so the problems are greatly simplified. A patient who is alert and of good intelligence may well be able to use the system; the book contains many fine visual aids to remembering the signals and these could be of great use to persons coming to Morse for the first time, not necessarily the disabled. New users may be intrigued by this new access to the world and may have fun 'Morsing around' within a few minutes of being introduced to the system.



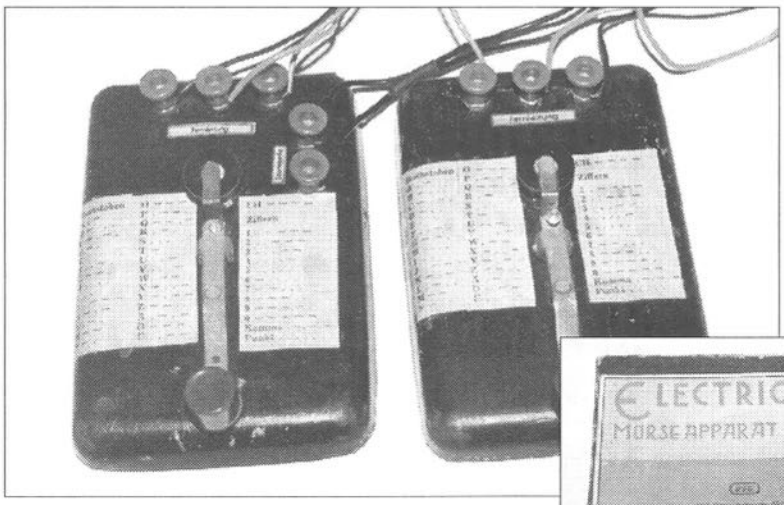
But there is much more to it than this for by the use of Morse signals computers can be controlled, and there are in-depth discussions of the virtues of the different 'keyboard emulators' which are available. Some severely disabled patients have in this way got onto the web and exchange messages by e-mail with people far and wide.

This is an important book which can be highly recommended, not merely to those in the caring professions and teachers. It is profusely illustrated and there is an extensive bibliography. Some readers of 'MM' may be well placed to apply methods such as these to local unfortunate people who could become deeply grateful for the help given.

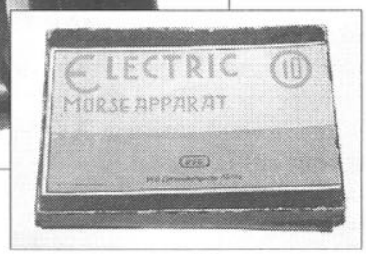
Modern Morse Code in Rehabilitation and Education by Thomas W. King
ISBN: 0-205-28751-4, pp X11 + 308.
US Edition: Pub. Allyn & Bacon, Boston, $ 35. UK Edition: Pub. Prentice Hall, £25.00 ***MM***

Showcase

Readers are invited to contribute any additional informationand stories, no matter how minor, to the Editor, Morsum Magnificat. There have been thousands of designs of keys & telegraphy instuments. Information will be lost unless it is compiled in one place and shared with other readers.



Photo/Collection: Wyn Davies



'Electric Morse Apparat' - German toy key set by VEB Elektroschaltgeräte, Görlitz.

Collection: Ermanno Chiaravalli, I2BFF

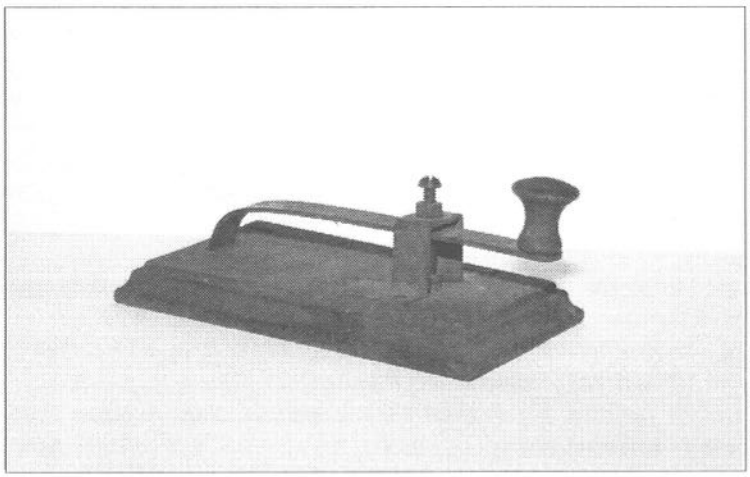
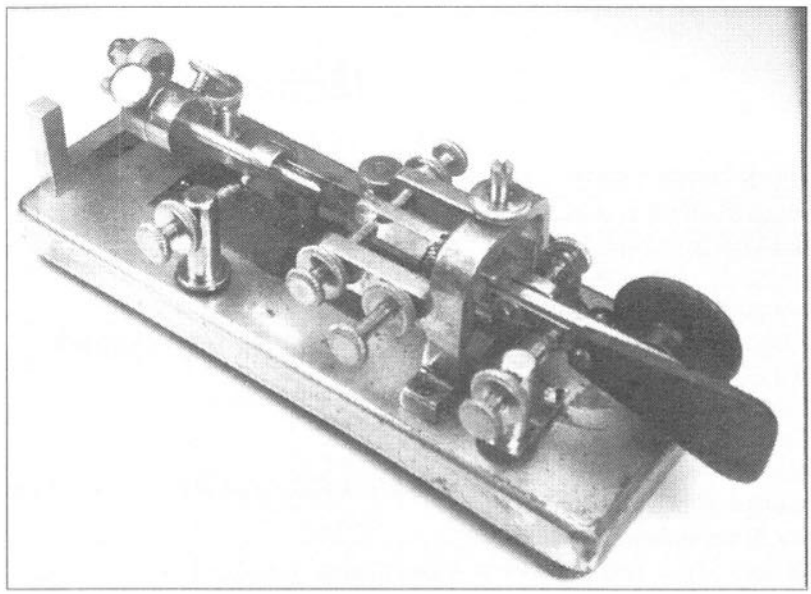


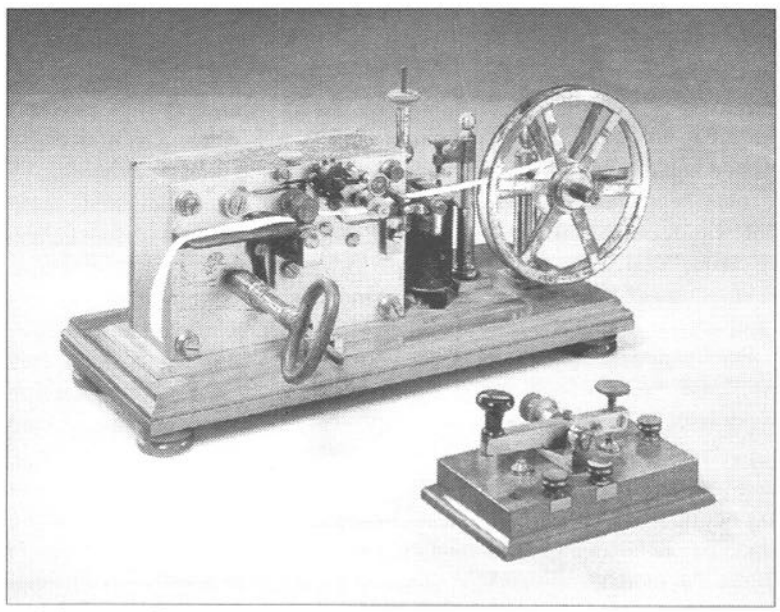
Photo: Ted Jones, G3EUE

Italian strap key. It is 5½ inches (16 cm) long with a wooden knob. There is no tension adjustment and the gap is altered by the top screw.



Photo/Collection: Dave Pennes

This nickel plated Vibroplex #4 (blue racer) serial number 59,692 dates from around 1917. Nickel plated base bugs cost about $2 more to purchase than the black painted base bugs. At a weekly salary of about $12, professional telegraphers were loathe to spend 1/2 day's salary just to have a more attractive instrument. Collectors sometimes forget that these were strictly workday utilitarian devices.



Photo/Collection: Fons Vanden Berghen

Inker and key by Ducretet & Lejeune, Paris

McElroy Sets World CW Copying Record - 75.2 wpm

by Tony Ricicki, W2VRK

EARLIER THIS YEAR, I was privileged to have a conversation with Harry Robinson, W2AZ, a 70 year member of ARRL, who was first licensed in Asheville, North Carolina in 1929. During our chat, Harry told me about the Asheville Hamfest and how he stood next to Ted McElroy as he set a new CW copying record during a special competition on July 2, 1939.

At 88 years of age, Harry is one of only 4 or 5 remaining eyewitnesses from that historic day. You could hear the excitement in his voice as he told me his version of this story.

Harry also promised to send me a copy of an account originally published in The ARC, the newsletter of the Asheville Amateur Radio Club, North Carolina, dated August 2, 1939. The following is an excerpt from that article:

"The code machine had been adjusted to take the high speed and the Judges made sure that the text had been sealed and was intact just as it was received from the FCC office in Boston. W4HX sends a few preliminary centimeters of tape through the machine and the contestants adjust their "cans." One can observe intent concentration in the faces of all the contestants. W4HX glances at his stopwatch, says "ready", and pulls a switch and a code contest that is destined to make history begins.

The machine is hitting up at 40 wpm and McElroy, McDonald, W4CRV and one or two others are transcribing effortlessly. Then, W4HX, at the machine, steps it up to 45wpm. One or two contestants sigh, and take off their "cans." At 50 wpm, the staccato clicks of the typewriters at the far end of the table become piano, then pianissimo. Now, there are only 2 contestants left plus McElroy.

At 55 wpm, they increase their tempo but W4CRV slackens noticeably and resigns himself to the inevitable. All the while, McElroy and McDonald seem to be playing a symphony with four hands, so perfectly that their typing seems to blend into one cacophony of sound.

As the machine is stepped up to 60 wpm the silence among the spectators becomes almost eerie. The machine drones on and the two contestants pound relentlessly.

At 65 wpm, they are approaching the world's record. Bulldog like, McDonald hangs on as McElroy is keeping an even rhythm. At 70 wpm

there is discord in the typing of the two contestants. A glance of the eye reveals that McDonald is losing his timing but McElroy with only a momentary pause to adjust, gathers more momentum. McDonald takes off his "cans" and moves a shaking hand across a perspiring brow and concedes victory to McElroy.

Meanwhile, the machine does not stop. At 75 wpm, McElroy, having already eclipsed his former record of 69 wpm at Brockton, Massachusetts, in 1935, tires and slackens his speed. At 80 wpm, he copies furiously for a breath or two and then halts the movement of his hands on the keyboard.

Amid the silence, W4HX stops the machine and the full import of the occasion dawns upon the gallery. There is an almost deafening volume of applause. A new record in receiving code had been established."

(Theodore Roosevelt McElroy (1901-1963) was a world famous code copying champion, code instructor, and manufacturer of straight and semi-automatic keys. He possessed the extraordinary ability to decipher code and transfer it to paper with his equally gifted talent as a typist). ***MM***

With Learners in Mind

Advice from The Morseman*

by Dr Gary Bold ZL1AN

FROM TIME TO TIME, I receive a letter that gives me particular pleasure. Chris, ZL2VJC wrote: "Just dropping you a line to tell you that I passed my 12 wpm after two years of hard work and many hours. To remind you, I was the one with dyslexia. The most helpful of the tips you gave me was to cover up the words I had written with my hand so that I could not see what I had done, and have no distractions. Two others have asked me how I managed to pass the 12 wpm, and I passed on the tips you gave me. Now they have passed 12 wpm as well!"

Welcome to the HF bands, Chris! The tip mentioned is designed to help eliminate the "guessing ahead" problem that most of us had when we were learning. As the letters of the word we are copying get written down, the mind gets sidetracked attempting to figure out what word they will spell. Often it's wrong, and the brain goes unstable. We not only miss that word, but possibly the next one too. Here are things that people have successfully done to break this habit.

- Cover up what you've written as you go (as Chris did).
- Write with a knitting needle on 2 sheets, separated by carbon paper. Nothing appears on top, but afterwards you can read the copy on the bottom sheet.
- Remove your spectacles so the letters become fuzzy.
- Write with your eyes closed.

Straight-Key Sending.

I'm concerned about some of the Morse I see and hear during informal sending clinics and even testing sessions. More and more people are turning up having mastered reading pretty well, but with dreadful hand actions. Their sending starts off sounding OK, but degenerates rapidly over three minutes into staccato rubbish.

Paradoxically, this seems to be a result of learning to read Morse with a computer. In the old days, you had to attend a class or meet regularly with maybe an elderly curmudgeonly ex-telegraphist. The Morse you heard was sent with a hand-key, and everybody had a chance to see how it was done, and you were forced to send yourself. If you had any sending problems, they were soon ironed out. On the other hand, some pretty strange Morse was sent in some classes, and even at the test by some Radio Inspectors.

Years ago an old Ham wrote to me: "I learnt Morse from a crusty old guy who had worked a telegraph line for 40 years. After 6 months I could read him perfectly at 15 wpm, and went to the test full of confidence. But the testing officer's Morse didn't sound anything like what I'd learned to read, and I failed dismally. I found out that nobody else sent Morse like he did! I had learned to read Morse perfectly, but only if that old guy sent it!"

All good computer programs send the same, correct Morse to learners, at the right speed, and the test will come from a tape or computer, also correctly sent. So that problem has largely gone away. This means though, that you can learn to read Morse at home, and even participate in practice sessions on VHF without ever seeing anyone send properly, and without anyone seeing how you are sending.

Sending the Right Way

Back in 1929, H.M. Lewis, an experienced telegrapher, published an article in *QST* which described the correct American and European sending techniques, different because the keys are different. I published this in my July 1988 (yes, 1988) column. I repeat it here. Here's what Lewis says about the differences:

"There are two distinct patterns of Morse key in use today. One is the regular light, springy, steel-lever type American key. The other is the rigid, heavy 'chunk of brass' European key. It is quite obvious that these two fundamental types require entirely different methods of handling.

American: Key fixed with knob 15 to 18 inches back from the edge of the table, two or three fingers lightly on the knob, towards the back, and thumb touching the edge. Movement must be from the wrist and forearm, not the finger joints, and the elbow should not walk about the table. Generally the fingers should not leave the knob during a word.

European: Key fixed at edge of table, a little to the right of the operator's normal sitting position. Two fingers hooked over the top of the knob, just under its head, with the third and fourth fingers hanging free. The wrist should be about level with the key knob and the forearm absolutely horizontal, the elbow quite a few inches away from the body. The wrist should drop sharply with every signal, but the elbow should be almost stationary.

"The light grip on the knob may be completely released at the termination of each complete letter, assisting in the formation of good spacing."

This is still excellent advice. But what I often see is "Hollywood" sending, as depicted in virtually all TV and movie scenes by un-Morsed actors. This is all done with the fingers and a tense, stationary, quivering wrist. Are we learning our sending techniques, like our science (shudder) from the one-eyed living-room monster? American telegraphers used to call this twitchy stuff "nerve-sending", and it was guaranteed to produce irregular Morse and rapid fatigue. Lewis said: "If this is persisted in for long periods it results in the affliction known as 'telegrapher's cramp' or 'glass arm'."

We now know this affliction as "RSI", and it's more often associated with long periods of keyboard use in our computer literate society. When Horace Martin invented the bug, those with glass

arm could often send again because the action was quite different, or so I'm told. Do bug users get glass arm? Somebody out there may know.

Please, before you practise sending in earnest, get some local CW type to eyeball your action!

What Should I Send With?

I'm sometimes asked "when should I start using a keyer or bug? After the test, should I stick to a standard key for a while?" Since the basic Morse tool is the straight hand-key, we all start with it initially - especially since the current interpretation of the regulations is that we have to use one to pass the sending test.

Aside: the wording of the International regulation is just that the Morse test shall be "sent by hand". An "up and down" key is not specifically mentioned. Sending with a bug or even an electronic keyer could conceivably be justified as "sending by hand". I have US who friends contend that even using a Morse keyboard or computer is still "sending by hand", since it's the "hand which presses the keys". Before their Ham Morse sending test was abolished altogether, at least some US tester's interpretation was that it was OK to send for the test with anything.

I recommend that everybody learns, and retains the skill of sending reliably at 12 wpm on a hand key, but there's no reason why you shouldn't immediately transfer to a keyer, a bug, or even computer software. Especially if your fingers are beginning to stiffen with arthritis or you simply lack the manual dexterity or co-ordination to find operating a hand key easy. In fact, the earlier you start, the easier you'll find the transformation. Most of us find that keyer sending, once mastered, is much less tiring, and what comes out is usually much better Morse.

However, older Hams have often told me that after 30 years of pounding the traditional brass, they simply can't get the hang of using a keyer. The vertical reflexes are too deeply embedded. Many fine CW operators, particularly ex-professionals, have used traditional hand keys all their lives, their Morse is a joy to copy, and they see no reason to change.

I respect and admire them. But I have never been able to send reliably above 18 wpm on a hand key, and since most of my QSOs take place at higher speeds than this, I use a keyer. These days, even my keyer sending deteriorates above about 35 wpm, so faster than this, I use home-brew computer software.

Don't feel though, that you have to become a speed merchant. You can work the world at 15 wpm, and you'll always find somebody keen to talk to you.

Balanced Lines: Better for CW?

Here's a query I got recently: "I am a new ham, and have visited a number of local operators to see their setups. The three who operate CW almost exclusively had open-wire lines feeding their antennas. Why is this? Are open-wire lines better for CW?"

The answer is 'no', but there's more to this than meets the eye. It is true that many (especially older) CW hams do use homebrew open-wire lines - I have noticed it myself. The answer lies in what

the lines are connected to. These people usually use very simple, multiband, wire antennas, because that's all you need to get around the world on CW.

Such antennas have high, and reactive, feedpoint impedances on harmonic bands. If 50 ohm coax is used, with a 1:1 balun, very high SWRs result. High SWR causes line losses to increase.

Better in Three Ways

Open-wire lines have higher characteristic impedance than coax lines, which give lower SWR on harmonic bands. But they also have much lower inherent loss, are balanced, and can be directly connected to the antenna without a balun. So they are better in three ways.

An example. The simplest multiband antenna is just a wire dipole resonant on the lowest operating band. Compare feeding it in two ways: with 20m of RG58U plus balun with 1dB loss, and with 600 ohm open-wire line.

I've assumed a half-wave dipole, isolated from ground (for computational simplicity), resonant at 3.5MHz, constructed from 2mm diameter wire. I computed the feedpoint impedances, and the performances that result on three bands, in Table 1. I don't have any figures for typical open-wire losses, so I've assumed 0.2dB at each frequency.

The Only Way to Go

The SWRs for coax feed at harmonic bands are so high that they're off the top of the scale in the standard ARRL Antenna Handbook graph normally used to read them off, hence the estimates of "greater than 10dB". These SWRs are computed at the antenna, and would be measured lower at the transmission line feedpoint.

However, since at least 90 percent of the input power would be dissipated in the coax this is clearly unusable. Open-wire lines, with a balanced tuner at the input end, are the only way to go.

"Morse Code: Breaking the Barrier"

This is the the title of a new book by Dave Finley, N1IRZ. The Subtitle is "The fastest, most effective way to code proficiency". Dave promises to enhance the rate at which you acquire Morse proficiency by using the "Koch method", pioneered by Ludwig Koch in 1936, and since largely forgotten.

Along the way, Dave covers a lot

Table 1

	Frequency (MHz)		
	3.5	7.0	14.0
Antenna feedpoint impedance	69	5430–j1256	4121+j280
SWR, 50 Ω coax	1.37	114	83
SWR, 600 Ω open-wire	8.7	9.5	6.9
1:1 attenuation, coax	0.4 dB	0.6 dB	1 dB
Attenuation with SWR, coax	1.5 dB	>10 dB	>10 dB
Attenuation with SWR, open-wire	0.9 dB	1 dB	1 dB

of other ground. Chapter one exults in the "fun" of Morse code, and chapter two is an excellent historical survey of how Morse evolved, in which I found a number of interesting things I didn't know. There are some fascinating photographs of early telegraphy as well.

Chapters four to six cover keys, how to send, what happens during QSOs, and specialized aspects such as QRP and mobile operation. The tone throughout oozes enthusiasm. It's clear Dave is talking about a mode he knows and loves.

The book is published by MFJ Press, so as you'd expect, it includes information and pictures of an MFJ code practice tutor, MFJ keyers and paddles and a portable 20 metre CW station. This is fine, as many learners want to know what these things look like.

Be aware though, that this is a book written by a US Ham for US Hams. It's geared towards preparing you for passing the US code tests, which are very different from ours. When discussing sending, Dave shows, and describes the technique for only the flat-knobbed, light US key, which is manipulated with a very different action from the traditional round-knobbed, heavy European key - typified by the classic Colonial PO "telegraph" key, cherished by collectors, and the "ZC1 key" found in many NZ shacks (see above for a discussion of the differences in sending technique required).

It's in the 15 pages of chapter three that the new stuff occurs. Firstly, Dave summarizes and (rightly) condemns the "traditional" method of code learning which starts with visual memorization, sometimes aided by verbal trigger-phrases, tree diagrams, dot-series, opposites. (All the great code teachers and schools agree in condemning these, incidentally).

Koch's Reflexive Method

Learning code, Dave says, is not an intellectual exercise, it's a conditioning process geared to building automatic reflexes in the brain. He then introduces Koch's "reflexive" method. I'm not going to tell you all about it, because if you're involved in learning or teaching Morse, you should buy this book, and read it yourself.

All authorities agree that hearing Morse comes before sending it. The main ideas Koch introduced were to:

- Start with just two characters, and copy them until you achieve 90% accuracy.
- Introduce another character, in order from a given list. Practice for 90% accuracy again.
- Loop to step 2 until all characters are introduced.

After this, you'll be able to reflexively read characters by sound, pretty well. Dave then recommends moving on to random groups, then finally text with "radio specific words", slowly increasing speed until the target speed is reached. There's a bit more too it than that, and a lot of helpful hints, but I'll leave you to read about it.

Personally, I recommend moving immediately from "character recognition" to "real text", because (and Dave agrees) the mind perceives that reading random text and English words are somewhat different, and I've written about this at length several times. ZLs

should also not initially copy "radio words", because our test involves hard copy of a plain English text, not comprehension of a "simulated QSO", as do the US (and British) tests. Finally, Dave discusses how you might adapt any Morse-teaching computer software that you have to implement the Koch method.

It's refreshing to find a highly successful training method revived, and I hope that a lot of you buy it. Highly recommended. Get it for the history and pictures, if for no other reason.

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

My First CW QSO

by Cathy Stanfill, KF6TIW

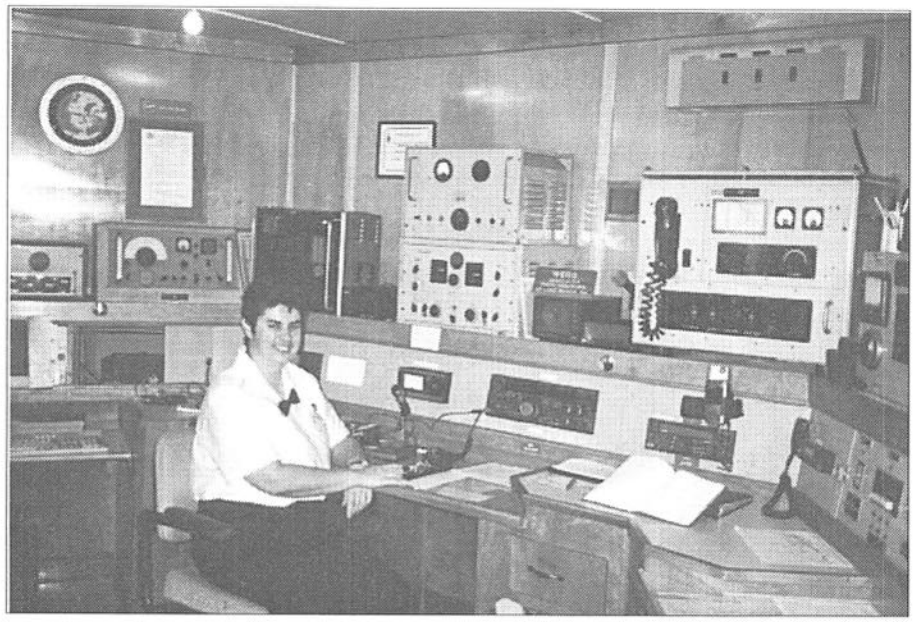
ON SATURDAY MAY 13, 2000, aboard the Queen Mary - W6RO, I finally made my first CW contact.

I've had the "green light" to work CW since February 2000, but didn't transmit anything because I wanted to practice with my sending skills and CW procedure. For a period of three months I did not communicate via CW on Amateur Radio until now.

Since I do not have access to a HF rig at home, I depend on W6RO aboard the Queen Mary in Long Beach to do my transmitting. Last month I tried to make my first contact (on several different days) and was not successful. The airwaves were dead. It was as if Morse code bit the dust! I was beginning to feel silly sitting inside the radio room hoping to work CW. Every time I sent a CQ the only people that heard my signals were the tourists aboard this ship! I was the Morse code exhibit for the tourists to enjoy.

Saturday, May 13, 2000, I was determined to catch me a fish on the CW bands from the Queen Mary (W6R0). It took me a little over an hour to finally locate a living fish on Amateur Radio - I was now tuned to 7041 on 40 meters when I came across a strong CQ signal. The signal was coming from Ted Tate, K6YN of West Covina. Ted is also a member of the International Morse Preservation Society - FISTS.

At the beginning of my QSO, I missed the caller's call sign and I sent



Cathy Stanfill, KF6TIW in the Radio Room of the Queen Mary, W6RO.

QRL DE KF6TIW as to get his attention - it worked! The next thing I heard was KF6TIW DE K6YN K. It was awesome to hear my own call sign coming back to me in code! Now I was convinced that Morse code is still alive on Amateur Radio.

As I was in the middle of my very first CW QSO, I also had to deal with loud tourists that were just fascinated over the sounds of Morse code. I was not wearing a pair of earphones (mistake) while I was operating CW aboard a major tourist attraction.

Without the earphones I could hear everything the tourists were saying about the code which was really distracting. "They're calling SOS!" tourists would exclaim. At one point during my QSO, I took my hand off the key and turned around and told the tourists that I was communicating - not sending SOS. The tourists were all excited and happy and continued to talk to me about this radio room. I told them about it till I started hearing signals coming at me.

I had to drop the tourists in a flash so that I could keep up with the dots and dashes being sent to me. Evidently Ted thought I was waiting for his signal and so he started sending. The tourists got a big kick out all that. I had thought (I should never assume) that Ted would wait till I gave him the signal "K" before he would transmit again. Oh well. It was all a very good learning experience.

Morse code, like a song from the past, is still in the air like music from another era! Amateur Radio will carry Morse code into this new century. ***MM***

A Cheeseboard Key

by Thomas Smith, G3EFY

I READ WITH INTEREST the article "CW Notes With Character" written by George F. Franklin, WØAV, in MM64 - July 1999. A friend of mine allowed me to read the issue. George mentions 'sideswiper' keys, and that there are still a very few OT's, of a vanishing breed, who are using this type of key. This comment caused me to grin to myself. I am 77 years of age, and after 50 years of activity as a licensed radio amateur, and having used a sideswiper key for many years, should I consider myself in the category of an 'Old Timer'! I have been called one on several occasions, but I hope that I shall not vanish for some time yet. When does one become an 'OT'! The ensuing tale is written not for any technical merit, but rather in the hope that it may raise an eyebrow, even a chuckle or two. A drawing is appended as it may assist with the reading of the construction of this home made key.

My XYL has very good hearing ability. In fact it could be said that she has real DX ears. However, on the other hand I have difficulties in hearing, aggravated by an ear defect. Consequently I do not always appreciate 'keying noises'. The use of a straight type, standard motion, up and down, or pump handle (call it what you will) Morse key, presented a problem.

The mechanical key clicks, or thumps, caused some annoyance to the XYL. She could hear the pounding brass in rooms adjacent to the shack. A rubber mat, between the key base and the wooden operating desk top, did not resolve the noise nuisance. It became apparent that for a harmonious situation, the problem had to be solved. One solution may have been to purchase an electronic type key complete with a paddle assembly. However, I have never mastered keys that self generate dots and or dashes - not even one of the older mechanical 'bug' keys. My preference is for straight type keying, where the operator's skill is necessary to form the code signals. There is nothing like hand keying to give 'style' and 'fist' character to Morse signals. But perhaps I have old fashioned ideas about the subject, coupled with the challenge of making a key for my own purpose.

After some thought on the matter, I decided, logically, that a light-weight straight key mounted with the action sideways, or paddle fashion, may be the answer. Years ago I had attached a straight key to a right angled bracket on a base and used the key in that

position; but the clicks persisted to some degree.

What was necessary, was to cut down on the residual weight of the key arm. In other words, to reduce the 'mass', and this seemed to suggest:

- standard paddle assembly. There would be one difference in my use of this
- paddle action for straight keying, i.e. only one contact (or side) of the paddle key contacts, would be required. Both dot and dash signals would be keyed between the paddle arm, and one contact only - the other contact would have to form the normal back stop function as in the case of a standard straight key.

The junk box supplied the basis of a set of key contacts, in the form of a scrap Polarised Telegraph Relay - a Carpenter Type 47. This type of telegraph relay consists of a die cast alloy plate attached to a plug base, together with line coils, and two permanent magnets.

Contact mounting blocks are fixed to, but insulated from the base plate. The contact positions are adjusted by finely threaded adjusting screws threaded into the ends of two adjuster mounting blocks, and once adjusted can be locked in position by locking screws. The contacts themselves are of the anti-bounce type.

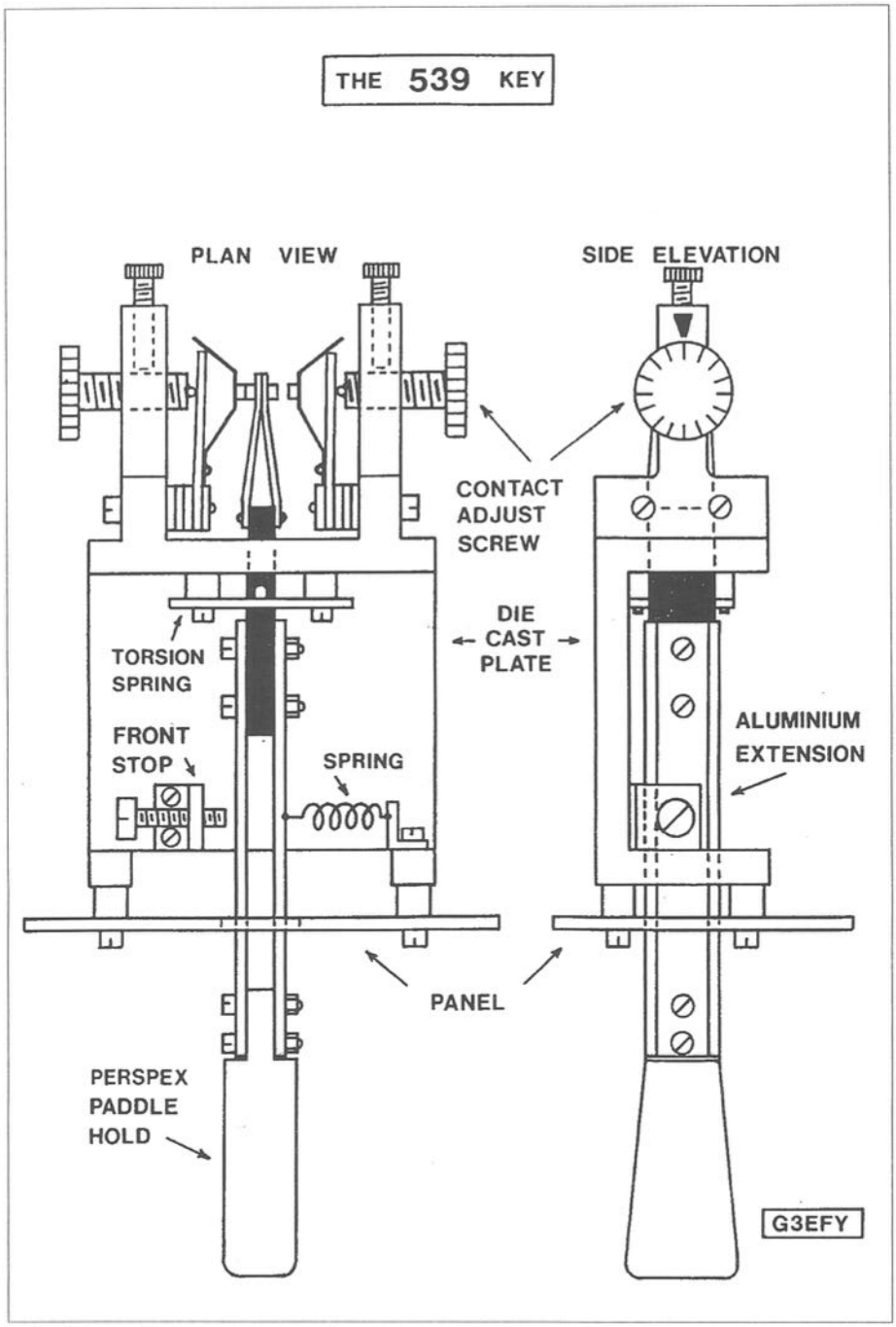
The central moving contact is attached to a low 'mass' light-weight, thin, flat, magnetic armature. The armature being mounted on flat torsion springs between the two outer contact assemblies. This forms a simple single pole change over switching action, and when used for teleprinter or RTTY purposes the outer contacts would be termed 'Mark' and 'Space'.

The moving contact/armature was made centre stable i.e. resting midway between the outer contacts, but not touching either of them.

This was achieved by the removal of the two polarising permanent magnets, from the relay plate, together with the relay operating coils; and the base plug. This left a basis for the construction of a light-weight side swiper action Morse key. The armature was however, rather short in length, to handle manually. The scrap aluminium box yielded a length of polished, thin, flat, hard aluminium alloy strip of an 'I' section, which seemed just right for extending the centre contact/armature. Two 10 BA[1] clearance holes were drilled in the end of the flat armature, and similar matching holes in the ends of the two pieces of aluminium strip which were cut to the required equal lengths. The aluminium strips were bolted to the flat armature, one on either side of it using 10 BA brass nuts and bolts. This resulted in an extended armature, with the aluminium strips about 3 mm. apart.

A suitable shaped key paddle, made from a piece of flat polished Perspex[2], was fitted in the 3 mm. gap between the aluminium strips at the ends remote from the armature. Two 10 BA nuts and bolts were used for fixing the paddle in previously drilled holes.

A small lightly tensioned spiral spring, was attached to the aluminium strips near the armature end, and the other end of the spring to an anchor point on the die cast plate. This was to hold the centre contact/armature in mechanical


THE 539 KEY
PLAN VIEW
SIDE ELEVATION
CONTACT ADJUST SCREW
DIE CAST PLATE
TORSION SPRING
FRONT STOP
SPRING
ALUMINIUM EXTENSION
PANEL
PERSPEX PADDLE HOLD
G3EFY

contact with the outer fixed contact used as a back stop for the key in the unoperated position. This corresponds to the normal key up position of a standard pump handle type of key.

In my particular case, I opted for the unoperated position of the key to be 'biased' mechanically to the right, when viewing the paddle from the front. To make contact for dot and dash symbols the key paddle is moved to the left. A nylon 4 BA[3] bolt threaded into a bracket fitted to the die cast plate, formed a forward stop for the paddle. This completed the contacts and paddle assembly. All that was needed now was to mount the sideswiper in a suitable case.

The junk box provided a surplus die cast aluminium alloy case of a suitable size and shape. After a spray of aerosol car paint to the case, the paddle assembly was fixed inside with just the Perspex paddle handle protruding. To prevent the crabwise sliding action of the case across the operating desk when the key was in use, what was needed, apart from physically screwing the key case down to the wood top of the desk, was to mount the case on a heavy marble base. I did not like a suggestion of going to a monumental mason for the marble!

It was during a holiday break, that the problem was unexpectedly finalised. Whilst browsing around the shops I found what could be the solution to the problem. There was only one left in the shop, and it was a marble cheeseboard. The white and grey veined polished marble was perfectly flat, rectangular in shape, 200 mm x 115 mm x 16 mm in thickness. The underside of the marble was provided with four hard plastic feet. This item was purchased, and was perfect for the job of providing a heavy base for the key case. On returning home two 4 BA clearance holes were drilled in the marble base with a masonry drill. Two corresponding holes were drilled in the key case, which was bolted to the marble base with 4 BA Nylon nuts and bolts. Eureka, or words to that effect, the finished cheeseboard key.

I have used the key for many years, and although I have several pump handle keys, of ex-Army, Navy origin, I still prefer to use the sideswiper. A great advantage is that one can rest ones wrist on the operating desk, which relieves arm fatigue, and simply key with one finger. And the noise problem has been eradicated to the satisfaction of the XYL, and domestic harmony restored! On a more serious theme the key can, if desired, be modified quite simply to become an electronic type. All that is necessary, is to remove the existing paddle arm restoring spring. In addition, the contacts can be readjusted in position -a simple adjusting screw action. The final modification would be to add the electronics to the key. A suitable sized PCB would fit into the key case.

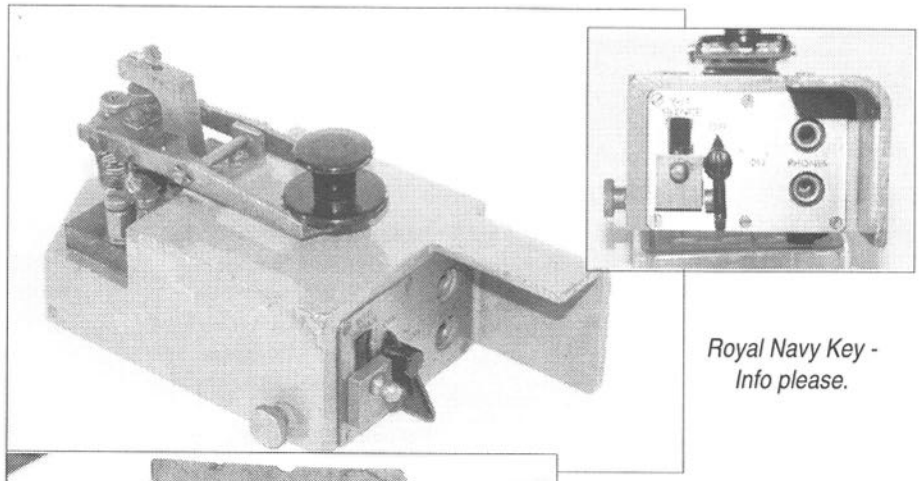
[1] 10 BA – major diameter 1.7mm
[2] Perspex – clear acrylic sheet
[3] 4 BA – major diameter 3.6mm **MM**

Wanted - articles and tips on making and restoring keys - contact MM

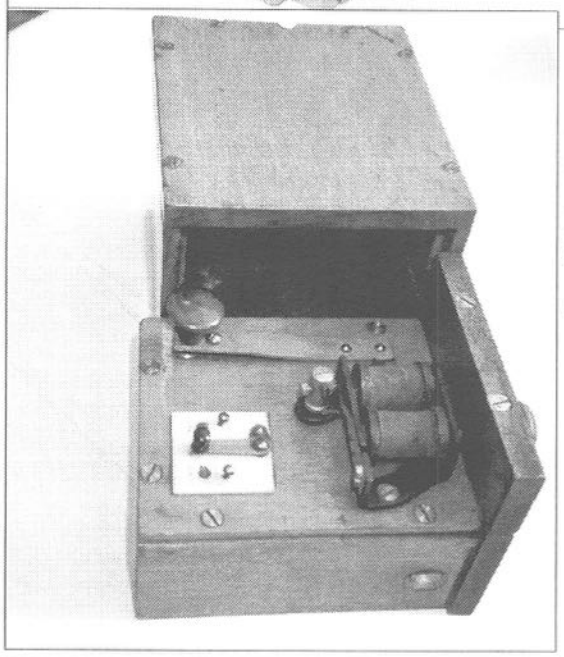
Info Please!

Readers are invited to contribute any additional informationand stories, no matter how minor, to the Editor, Morsum Magnificat. There have been thousands of designs of keys & telegraphy instuments. Information will be lost unless it is compiled in one place and shared with other readers.

Photo/Collection: Jean Le Galudec

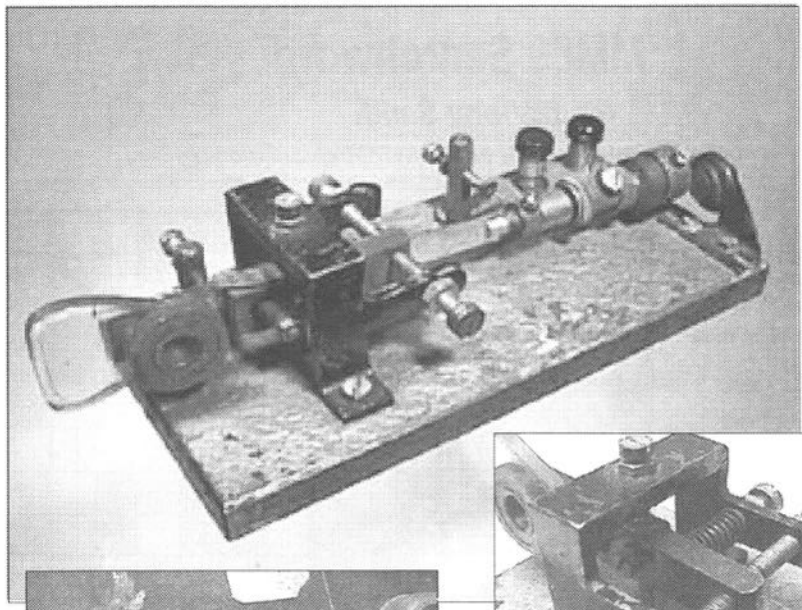


Royal Navy Key - Info please.

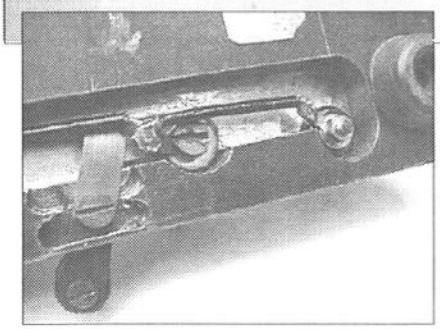


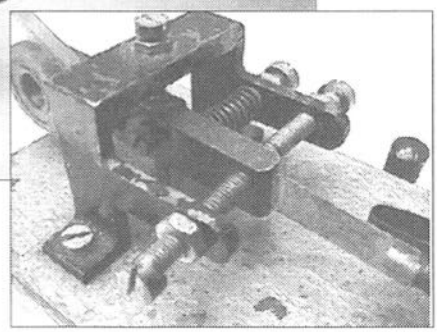
Photo/Collection: Wyn Davies

Unknown Practice set in wooden box comprising strap key, buzzer and light

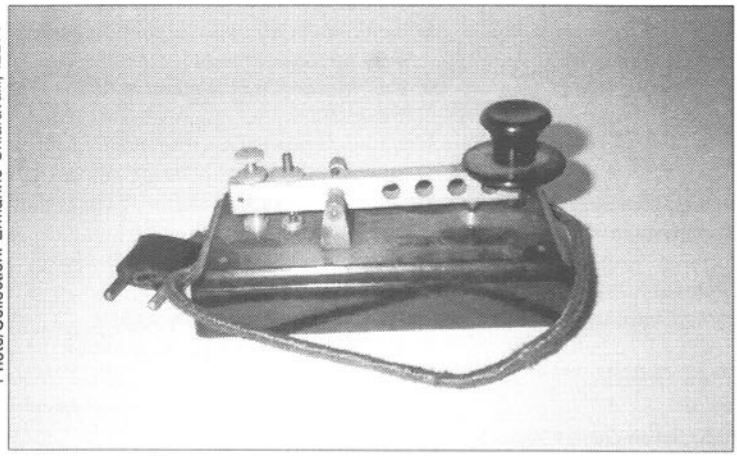


Photo/Collection: Tony Rogozinski, N7BG





This key was purchased from the UK by Tony Rogozinski. He thought it was homebrew but the seller suggests that it probably isn't. Info appreciated.



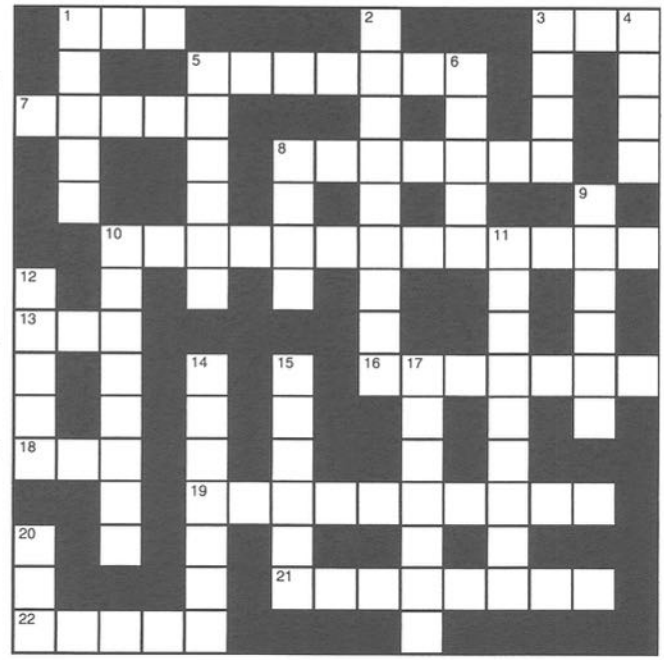
Photo/Collection: Ermanno Chiaravalli, I2BFF

Italian lightweight ket with aluminium lever and hollow bakelite base

MM69 Searchword

by Tony Smith

(Find the answers to this puzzle in MM69. Solution p.48)



Across

1 Probably one's first fleet duty to copy this broadcast (3)
3 World's oldest radio society (3)
5 Albert's weather chart rather handy during this season (7)
7 He wants 50 percent reduction in spectrum reserved for CW (5)
8 Pedal-powered radios(7)
10 Gary Bold's favourite paddle (5, 8)
13 Australia's radio licensing authority (3)
16 World Champion Telegrapher (7)
18 It became the Royal Air Force in 1918 (3)
19 Finnegan was reprimanded after reporting this (10)
21 Used at MTC demonstrations (8)
22 Petitioner to retain 20 wpm Extra Class test (5)

Down

1 MTC Grand Secretary/Treasurer (5)
2 Albert Spaans learned Morse at Radio School there (9)
3 BT MF station GKR (4)
4 Group whose current Chairman is DL5XL (4)
5 General, seen in New Orleans. Telegraphic error! (6)
6 Their proposals look set to change ham regulations in New Zealand (5)
8 Tom, W4BQF, uses one of these rigs only up to 60 wpm (4)
9 Ex - Master Chief Radioman, US Navy (6)
10 Morse Mania comes from them (5, 3)
11 Home of QRP Component Company (9)
12 After crossing the Pacific, on the blink, and a bit of a blast! (5)
14 Garden fork to the rescue with this whip (7)
15 AGCW have nine of these (6)
17 Author of "A Telegraphic Code for Fingerprint Formulae" (7)
20 Primary testing instrument on a typical telegraph switchboard (3)

Your Letters

Readers' letters on any Morse subject are always welcome, but may be edited when space is limited. When more than one subject is covered, letters may be divided into single subjects in order to bring comments on various matters together for easy reference. Please note that the views in readers letters are not necessarily those of MM

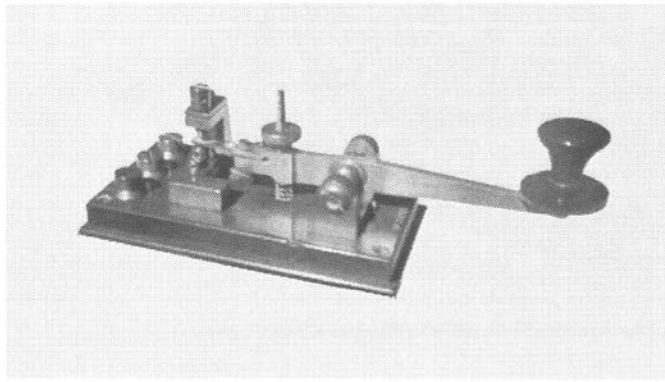
Key Identification

I wonder if any MM readers can identify or provide information on the key in the photograph. It is all brass on a brown ebonite base. Only the lever arm is plated. The end contacts are fixed to a short strip of flexible steel which is bolted to a short brass strip which is bolted onto the end of the long arm.

The three front terminals are marked '1', '2', '3'. On the top front of the base is stamped 'No 300989'.

I would be grateful for any help.

K. J. Lloyd
Cheltenham, England



Morse Signalling Torch MM67, p38

I remember these torches well, my father was issued with one sometime inthe '40s, possibly when he was stationed in Freetown, and he managed to hang on to it. I remember playing with it in the bath when I was 5 or 6 years old – they are waterproof after all! That would have been about 1948/9.

I was apparently particularly intrigued by the pull-out Morse key, and I remember my father showing me the Morse characters for my name, so perhaps my interest in Morse code dates from that time. My father's torch was all brass, and very good quality, I remember - but then he would have had his pick of them! I seem to recall that it had traces of a chemical blacking finish, unless it was just patina...

If my father was still alive, he could have given us chapter and verse, as he worked in the stores, but I

remember him telling me once that they were issued to small-boat crews, hence the corrosion and water-proof construction. Could they have been used for flashing recognition signals etc?

As for lifeboat use, I would have thought that maintaining a supply of good batteries with a full charge would have been difficult in all the lifeboats in use, but it is possible.

Stan Barr, GØCLV
Wirral, England

'Auto-Dot' Key

The semi-automatic key shown on the back cover of MM69 appears to be an 'Auto-Dot', First Model made by the Delaney Telegraph Transmitter Co.

"The Bug Checklist" by Doug Seneker, NØWAN describes 'Auto-Dots' as follows:

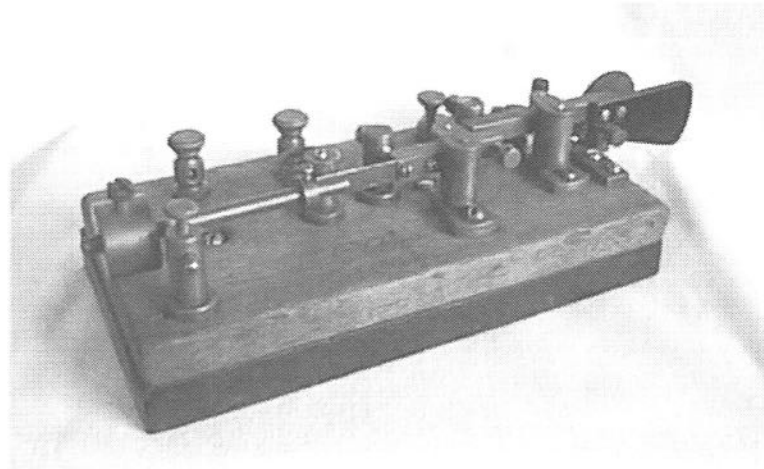
Auto-Dot, First Model: 1906 made by Delaney Telegraphic Transmitter Co., NYC. Wooden base on steel sub-base. Lever on right side of base, connects to a cross-arm to move. Weight is at left-front, near the paddle.

Auto-Dot, Second Model: 1908, straight-line pendulum and lever but with damper at left-rear. Some have a clover-leaf logo embossed in the top of wooden base bearing letters 'DTTC' on the four leaves. Both models have a conventional finger knob and thumb paddle.

"Domestic Manufacturers of Semi-Automatic Keys – 'Bugs'" compiled by B. Neal McEwen, K5RW, lists - *Manufacturer:* Delaney Telegraphic Transmitter Co., *Location:* New York, NY, *Date:* 1907 – 1924.

The following data from "American Telegraph Instrument Makers 1837 – 1900" by Roger W. Reinke may or may not be germane as the company title is different - *Maker:* Delaney Patent Relay Co., *Address:* 61 Broadway, *City:* New York, Dates: 1881, *Products:* Relays and Sounders.

John N. Elwood, WW7P
Phoenix, Arizona



Neal McEwen, K5RW at the Telegraph Office http://www.metronet.com/~nmcewen/tel_off.html

Code Quick

With reference to the letter from MØAQQ on p.42 of MM69, I recently came across a booklet "How to Learn The Morse Code in Thirty Minutes and Remember It", which may be another example of the technique described. It seems to date from the inter-war years since it refers to the 'Kaiser' and 'peace' in the text.

It breaks down the Morse alphabet into types, e.g. 'Simple Opposites' remembered by the sentence "Ate 'im so hot" for the letters

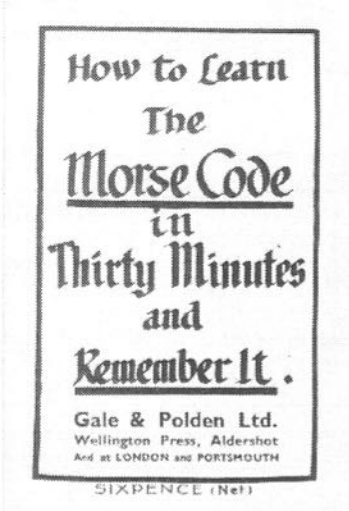
ET IM SO H:

E is one dot T is one dash
I is two dots M is two dashes
S is three dots O is three dashes
H is four dots

Learning the code in 30 minutes seems a bit optimistic.

Chris Rees, G3TUX
Haslemere, England

(See also MM57, p26 - Ed)



Code Quick Method

In answer to Ken Evans' letter in MM69, p42 on the "Code Quick" method, it is used in scouting in Holland. They use, (of course in Dutch!) words to remember the dashes and dots of the first letter of the word. I don't know what words they use but I am 99% sure the method is used.

Ko Lagerberg, PAØJY
Velserbroek, Netherlands

Numeric Telegraph Codes

I refer to Gerald Stacey's letter in MM 69, particularly in respect of the use of '73'.

In 1909 Victor Laughter published a manual entitled "Operator's Wireless Telegraph and Telephone Hand-Book" when he was the Technical Director of the American Wireless Institute in Detroit, Michigan, U.S.A. Amongst the operational and constructional details is a brief list of numeric codes :-

4	Please start me, or where.
5	Have you anything for me ?
9	Important official message.
13	Understand.
25	I am busy now.
30	No more.
73	Accept best regards.
77	Message for you.
92	Deliver.

The manual includes several pages of two and three letter abbreviations which were substitutes for full-length words (e.g. Tw - tomorrow . Ur for your which is still in use today). No reference is made to omitted numbers.

Ted Jones, G3EUE
West Sussex, England

RAF Leuchars Key MM69, p37

Thank you very much for printing my letter and photograph of the key that I was given by a GPO telegraphist at RAF Leuchars. I remember it was part of Coastal Command at that time. You could identify the wireless operator by the 'style' of Morse transmission, and that was at 25 wpm.

I seem to remember when working aircraft, an HFDF direction finding transmitter working on 3870 kilocycles was used. Ground to ground transmissions were via a large '1084' receiver working at 2840 kilocycles. These were used for transmission on the Leuchars – Stockholm run. My 'on watch' GPO telegraphist colleague, George Wiseman, eventually became Head Postmaster at Inverness.

Tom Nunn
Derby, England

I used one these keys for CW practice in the 1930s. It was originally designed for spark and there should be a spark-gap mounted at the end of the lever, which seems to have been removed. There is a glass 'porthole' in the aluminium cover to view the spark On the other side from that shown in the photograph there should be the marking 'REF No 1969'

C. Markie
Coventry, England

(This key has been described before in MM. In MM25, p24 Tony Timme has drawn a circuit diagram of the internal connections and in MM26, p41 explains that he used this key to instruct fellow cadets at Christ's College, Finchley in 1941-42. They knew it as a 'P&O' key.

In MM26 Gus Taylor recalled it being known as a 'Siemens Key' at the Liverpool Wireless College, and also remembers them being sold pre-war as ex-Air Ministry keys. Gus had a gut feeling that they were originally for airship use, perhaps originally by the RNAS (Royal Naval Air Service) and then, when merged with RFC after 1st April 1918, the RAF.

In MM48, p48 Tony Wilkes writes of a key of the same design marked 'S. G. Brown Nr 1969' - ED)

Wanted - articles and tips on making and restoring keys - contact *MM*

ReadersAds

Readers advertisements are free to MM subscribers. The number of insertions should be specified, otherwise it will be assumed that it is required in the next issue only. Non-subscribers are welcome to advertise in the Classified Ads section. Please contact MM for styles available and rates.

New - Ads can include one photo free of charge

FOR SALE

FOR SALE OR TRADE: British, European and other keys for sale or trade. Send want lists to Wyn Davies, Pen-y-Maes, Halcog, Brymbo, Wrecsam, Wales LL11 5DQ, United Kingdom.
E-mail: dw.davies1@talk21.com

FREE TO A GOOD HOME! Lake DTR3 80 metre CW QRP transceiver and Lake TU1 antenna tuning unit. These two units are fully built. Plus! Full size and half size G5RV wire aerials. First come, first served! You collect or carriage at cost. Phone Martin on +44 (0)1926 640171 office hours (Leamington Spa / Banbury area).

FOR TRADE: Vibroplex 'Model-X' bug. S/N 25,137 (1913) AND a Vibroplex 'Junior' bug S/N 110,638 (1937) for a 'Premier' model (straight line; non-right angle mechanism) Mecograph bug. Dave Pennes WA3LKN; 4607-C Santa Cruz Drive; Indianapolis, IN 46268-5354 USA. Phone (317) 471-9605.

16+ PAGE ILLUSTRATED LIST all kinds of telegraph related items surplus to my needs including straight/semi-automatic keys, sounders, relays, KOBs, military items and many miscellaneous items (e.g. WU dolly gram - 1950s'-code learning machines. $3.00 plus equivalent of 4US stamps ($5.00 refund on $25 purchase). Dr. Joseph Jacobs, 5 Yorktown Place, Fort Salonga, NY 11768, USA. Phone: 516-261-1576. Fax: 516-754-4616. E-mail: joekey@aol.com

BOOK: "Radiotelegraph and Radiotelephone Codes, Prowords and Abbreviations." 2nd Edition. AUD$16 posted within Australia. 90 Pages. Q,X,Z Codes, 97 Phonetic, 20 Morse Codes. Phillips, Myer, 10,11,12,13 Codes. Much other info. Probably world's best listings. Internet: http://www.nor.com.au/community/sarc/phonetic.htm. Also via MM. VK2JWA, John W.Alcorn. QTHR. +61 02-66215217. jalcorn@nor.com.au VISA, MASTERCARD, BANKCARD (Aus, NZ) accepted.

THE MM Q & Z CODEBOOK, a comprehensive 82-page list of the Q-codes and Z-codes, including a one-page list of the original Q-codes of 1912. Available from Dick Kraayveld PA3ALM, Merellaan 209, 3145 EH Maassluis, Holland. Price £5 UK, or US$10.00 outside UK, including postage in both cases. Payment accepted in cash only.

Please mention Morsum Magnificat when replying to advertisements

WANTED

WANTED: "Snapper Key" and/or sounder as shown on the inside back cover of MM69. Contact Andrea Gaeta, via G. Mantellini 10, 00179 Roma, Italy. Phone: +39 (0)6-785-7083. E-mail: andreagaeta@tin.it

WANTED: Early paddles such as the Nikey, Autronic, Ham-key HK1 & HK2. Ray Bullock, 40 Little Harlescott Lane, Shrewsbury SY1 3PY, England. Tel: +44 (0) 1743 245896.

WANTED: REMOTE CONTROL Unit 'K' (ZA 46190), enclosed key with leg straps; also 'K' Mk 2 NATO 5820-99-949-1174 gap and tension screws. Mine have snapped off – perhaps you have a Junker key with screws to spare? Please write to Chris Bisaillion, VE3CBK, 1324 Old Carp Road, Kanata, Ontario, Canada, K2K 1X7.

WANTED TO BUY: Telegraphic Code Books, as used to reduce the costs of telegrams by replacing common phrases with codewords. Would be interested in both originals of photocopies. I am a hobbyist in Cryptography and am facinated in different ways data is and has been represented for different purposes (e.g. speed, economy, confidentiality etc.) Also interested in related items. Letters to Mark Darling, 132 Knowlands, Highworth, SN6 7NE, United Kingdom or e-mail: darling@patrol.i-way.co.uk

WANTED: TELEGRAPHY ITEMS (esp. land-line). I am looking for somewhat special telegraphy apparatus: Single and Double Needle, Wheatstone etc. Buy or swap. I can swap for early electricity (e.g. tubes from Crookes, Röntgen and Geissler; Ruhmkorff; Wimshurst;..), very old radiovalves, some telephony and of course telegraphy. Who else collects telegraphy ?? All letters answered. Fons Vanden Berghen; Lenniksesteenweg 462/22; B-1500 Halle, Belgium.
Tel. +32.2.356 05 56 (home: after 8 pm my local time) or office: +32.16.38 27 21 or e-mail: fovabe@telindus.be

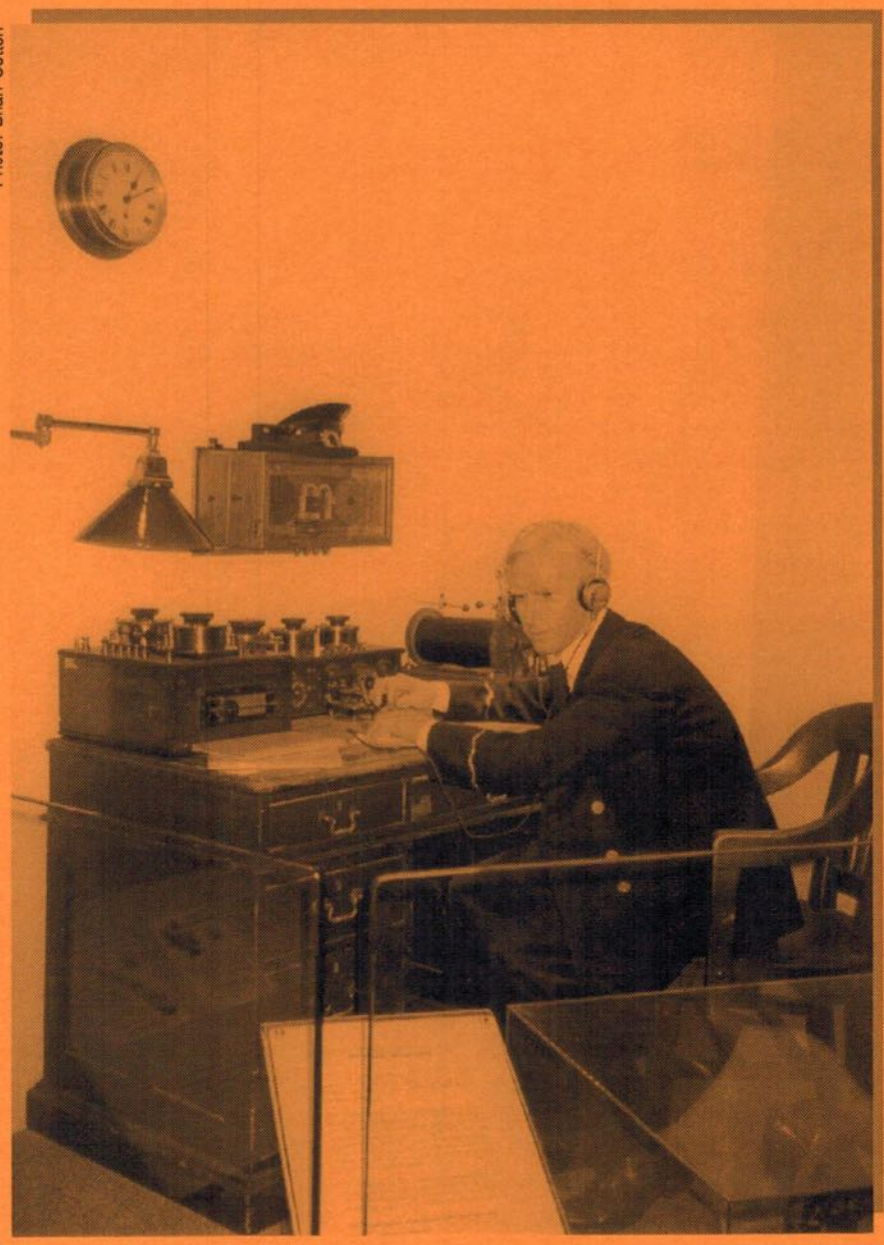
SOLUTION TO MM69 SEARCHWORD

(Page numbers in MM69 shown in brackets)

Across: 1 Fox (23), **3** WIA (7), **5** Typhoon (10), **7** Kippa (4), **8** Outback (13), **10** Brown Brothers (15), **13** ACA (7), **16** McElroy (16), **18** RFC (40), **19** Derailment (19), **21** Sounders (7), **22** Adsit (5).

Down: 1 Fried (8), **2** Rotterdam (10), **3** Wick (2), **4** AGCW (43), **5** Taylor (33), **6** NZART (3), **8** Omni (15), **9** Brakob (22), **10** Black Cat (6), **11** Haslemere (9), **12** Radar (10), **14** Trident (14), **15** Awards (43), **17** Collins (48), **20** VMA (26/27).

Photo: Brian Cotton



This photograph was taken by Prof. Brian Cotton, Chairman of the Radio Officers Association."I was surprisedand delighted to see a Titanic exhibition at the Smithsonian Museum in Washington DC some years ago. This is one of the exhibits"

Portishead Radio

80 YEARS OF SERVICE TO THE MARITIME COMMUNITY

BT Maritime Radio Services

BT

GKA GKD GKE GKF GKH
GKI GKJ GKK GKL GKM
GKN GKB GKO GKP GKS
GKT GKU GKV GKC GKW
GKX GKY GKP GKS GKT GKU
GKG nw QRT

QSL card for the special cross-band Pro/Am event to commemorate the closure of Portishead Radio. It is a folded card and above are two of the four sides.