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Flying the flag for Morse

Morsum Magnificat

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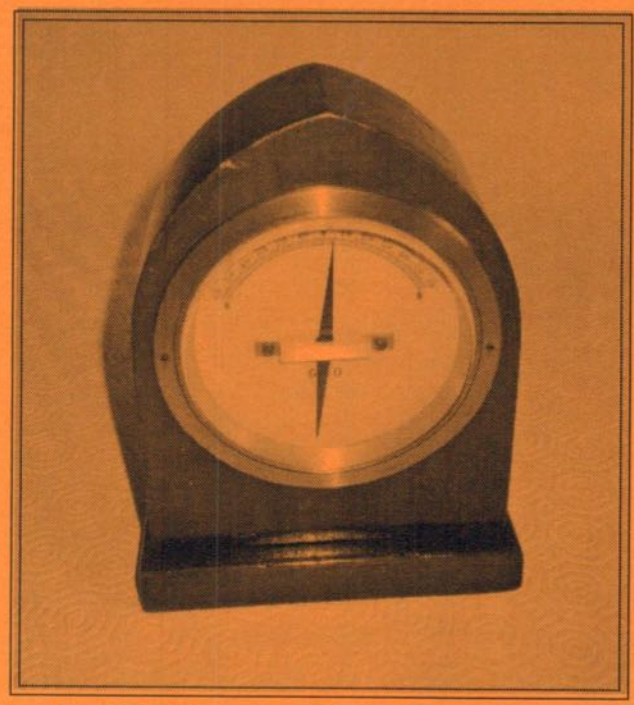

GPO Differential Galvanometer 1A

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.

EDITOR Zyg Nilski G3OKD

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Also, we shall jog your memory with a renewal reminder included with that final issue.

MM Back Issues

Issues Nos. **34,35** and **38–67** 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

British Post Office 'Cathedral' Differential Galvanometer type 1A
Photo/Collection: Jack Barker

Comment

This first year's experience of MM has been on a steep learning curve. A Special thanks to all who have sent messages of support, contributed news, articles, letters photographs and drawings. These are especially appreciated. A continuous flow of articles, letters etc. coming in keeps a magazine fresh and ensures a variable mix of topics. Remember too the free 'readers ads' service and that the free advertisement can now include one photo. E-mail has proved invaluable in keeping in touch with readers and contributors around the world. Please ensure that we have any e-mail address that you may have.

SPECIAL SURVEY - For this issue only we are conducting a survey of the delivery times for MM. It would be especially helpful if all readers with e-mail could inform us of the date of delivery of this MM. Please send an e-mail to: survey@MorseMag.com simply stating the date of receipt.

Thank you

Zyg Nilski G3OKD

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Adverts

News

USA Reduces Code Requirement to 5 wpm

As part of a major restructuring and simplification of the rules governing the amateur service, the U.S. Federal Communications Commission (FCC) has announced that, effective 15th April 2000, applicants for amateur radio licences will be examined for only three licence classes. These are *Technician*, the VHF/UHF entry level, with no code requirement; *General,* the HF entry level; and *Extra,* a more technically demanding senior licence. The Morse speed requirement for both *General* and *Extra* classes will be 5 words per minute.

The FCC says; "We believe that an individual's ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual's ability to contribute to the advancement of the radio art. As a result, we find that such a licence qualification rule is not in furtherance of the purpose of the amateur service and we do not believe that it continues to serve a regulatory purpose."

The Commission has, however, declined to automatically abolish all Morse testing when, or if, the ITU eliminates the current international mandatory Morse requirement for amateur radio licences. "...we do not believe that it would be prudent, at this time, to premise the resolution of this issue on decisions to be made at the next World Radio Conference (WRC), particularly given that it is uncertain whether the WRC will actually address this issue."

"We also note that the International Amateur Radio Union (IARU) Administrative Council has stated that it opposes changing the (international) Radio Regulations to reduce the minimum international qualifications for an amateur radio license, making the potential changes to this Radio Regulation even more uncertain."

The full 70-page Report and Order (FCC 99-412) can be found on the internet at http://www.fcc.gov/Daily_Releases/Daily_Business/1999/db991230/fcc99412.txt

First Reactions to US Amateur Restructuring

Initial reactions to the FCC's new rules, effective 15th April 2000, for the restructuring of the Amateur Service vary from those who totally opposed the new structure to those who think they are 'great', those who are confused and those

who need help so they can take advantage of the changes.

According to the *W5YI Report*: "Long term Extra Class amateurs are generally dissatisfied (or furious). They say it 'waters down' their privileges that they worked hard to achieve, that the top code speed of 5 wpm represents a 'dumbing down' or reduction in standards, and that the HF bands will be congested with less desirable operators....

"But most other licensees - especially those radio amateurs holding Tech Plus and Advanced Class licenses - are thrilled with the Commission's restructuring decision. It means they will not have to pass a high speed code exam. It appears that the high speed telegraphy examination is indeed a very real barrier to achieving the higher class licenses and that we are going to see thousands of new General and Extra Class operators now that 5 wpm is the top telegraphy speed." *(Extracted from the W5YI Report February 1st, 2000)*

Intrusion in Amateur CW Bands During CQ WW SSB Contest

The Union Française des Télégraphistes has sent the following open letter to the International Amateur Radio Union and all amateur radio CW Clubs. It invites individual operators concerned about this matter to write to CQ Magazine to support the protests made by UFT.

Subject: *Misuse of IARU Bandplan during CQ WW SSB Contest*

Dear Friends Worldwide,

A great shame again... This year (again) the SSB CQ WW contest was a real shame for the amateur radio community. We all know and must admit this band is too narrow for any contest. But, until we will get a world wide band plan from 6.900 to 7.200 MHz, all amateurs taking part in any contest MUST FOLLOW the rules which are very simple: Follow the IARU recommendations and, much more important, follow their own country's rules and regulations.

F6QE, on behalf of the Union Française des Télégraphistes sent several letters to complain about the misuse of the IARU band plan, especially on 40 meters, to the CQ contest committee. We never had any reply, which in fact should be the minimum we could wait for. The worse is that no action was taken since so many years. We must do something all together and put on pressure on the CQ contest committee.

They must:

1. Announce clearly by all means, in their magazine, through their contest committee supervisors, packet radio internet etc... that the rules of the contest MUST be followed.
2. Every entrant could be disqualified if they do not follow their national laws and regulations and/or the International Amateur Radio Union band plan.
3. Start a new action with band supervisors where it is possible. It could then be very easy to watch the band misuse. I.E: Ten minutes listening gave more than two pages of callsign misuse...

For example, in France, SSB is

NOT ALLOWED in the CW portion of the band. This means we should NOT hear any SSB operators from France under 7.040 MHz! It's rather funny when you get contest sheet summaries full filed with the signature of the entrant telling you they "did follow the gentlemen's agreement and the laws and regulations of their countries". True lies and I will take only one example: We had this year (and he was the worse case, splattering over 10 Kcs up and down), HG6N on 7.019 MHz at around 05:31 UTC. We can even tell you that the operator at that time was so idiot that he gave his personal callsign which is Y05BRZ, not a native Hungarian, Hi! I wonder if this chap will be in the club log...

S520 was operating on 7.030 MHz (QRP calling frequency for CW) at around 05:43 UTC with a lot of stations. He worked so many stations that you call check his log at that time. A real shame for the Hungarian amateur radio community like for the WPX contest in 98, and it is really time to take this misuse of the band plan into account and disqualify those bad contesters.

Action from our clubs is very simple: Keep on the pressure on CQ magazine, promising the CW club members will read something else if they don't listen to Morse code users and that therefore the magazine will suffer on a commercial basis. I explain: More and more CQ readers, especially CW ops, will cease to buy and read the magazine!

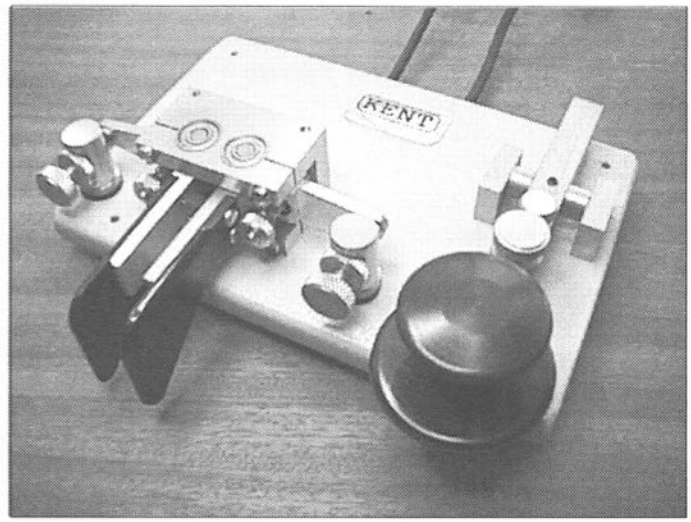
We have to start a campaign this year using all medias available, internet, packet radio network, on the air club bulletins, during QSO's etc... to put on the pressure on the contest committee until they will take drastic statement to get the contest entrants to follow the rules and the ham spirit.

We count on you to drop even a few lines to the magazine or the contest committee. Regards to all your club members, 73's, F5JDB, UFT President - 3rd December 1999.
(Note: CQ Magazine, 76 North Broadway, Hicksville, NY 11801, USA.)

GACW Promotes Morse in Spanish

In an effort to promote Morse code, the Argentine CW Group (GACW) distributes CwLab, a complete program in Spanish for learning and improving Morse skills. It features a speed range of 1-100 wpm, generation of characters ranked for practice purposes and statistical analysis of performance. It includes total number of characters generated, correct and incorrect answers as well as percentages. It sends texts in Spanish in a form to improve reception. Options include Q codes, usual abbreviations in CW, recommendations for study and advice on operating technique. It can be downloaded at:
http://www.qsl.net/lu5gpl/spanish/index.
The program is free but with rights reserved in the name of the Argentine CW Group, which prohibits its commercial use.
(Information: Luis Pistoia, LU5GPL, GACW Morse Program Leader.)

QRP Component Co. Announces New Key



The QRP Component Company has announced an addition to the extensive range of keys and paddles already available from leading manufacturers.

A new Kent Dual Key - available exclusively from The QRP Component Company will be shown for the first time at the London Amateur Radio Show at Picketts Lock on 11/12 March. It comprises a twin lever paddle and pump key which are mounted on a single base. Whilst this is not a new idea, it uniquely offers the opportunity to position the pump key to the right or left of the paddle mechanism to suit the operator's preference.

The steel base is finished in a textured light grey colour - again a feature exclusive to QRP Component Company. UK VAT inclusive price is £99.90 and the key is supplied ready assembled and with leads. Connectors to suit individual transceiver/keyers will be required. UK P&P for this weighty item is £7.50 from QRP Component Company, PO Box 88, Haslemere, GU27 2RF, UK. Tel: +44 (0) 1428 661501; Fax: (0) 1428 661794.

E-mail: g3tux@aol.com

New Book on the Trans-Australian Telegraph

A new book about the Adelaide to Darwin telegraph line has recently been published. It describes the work of Charles Heavitree Todd , the engineer who constructed the line, and is written by Alice Thomson, his great-great granddaughter, who retraced the original route with her husband 150 years later. The line went via Alice Springs which Todd named after his wife. The book is entitled "The Singing Line" and is published in hardback by Chatto and Windus; ISBN 0701 166762 and soon in paperback by Vintage; ISBN 00992 72822.

(information: E. F. Jones)

Special Award for Coast Station Event

The Council of the Radio Society of Great Britain has awarded a special certificate of appreciation to David H. Barlow, G3PLE in recognition of organising the 1999 Area/Coast Station special event to mark the closure of Portishead Radio, GKA. The event took place in April 1999 and coast stations around the world were represented using special amateur radio callsigns. The Radio Officers Association issued an awards to radio amateurs and listeners who sent qualifying logs.

David Barlow says, "This came as a great surprise and...the RSGB had received a number of testimonies that the event was well organised it is the more satisfying. However, such events can only be a success if everyone pulls together and in this case the events depended on the work done not only in the UK but in Europe and all the Commonwealth Area Stations. My thanks to all who helped make this such a wonderful event."

AGCW-DL CW News Bulletins

The German 'Activity Group Telegraphy' (AGCW-DL) news bulletins have been reorganised. They are now transmitted every Monday on 3573 kHz +/- 3 kHz, at 1800 UTC, but are QRV 15-30 minutes earlier to log any stations wishing to be called after the news bulletin.

The bulletins are transmitted in the German language at easy handwriting speed, and the text can be checked on the internet at:
http://www.qth.net/archive/agcw/agcw.html
(Information: Martin Zurn, IK2RMZ for AGCW-DL)

From Radar to Morse Reminiscences Wanted

Colin Latham and Anne Stobbs, authors of RADAR: A WARTIME MIRACLE and of PIONEERS OF RADAR (pub.1996,1999; Sutton Publishing Ltd) are preparing another book surveying the life and times of Samuel Morse and the various ways in which his code has been used to the benefit of all. The format will resemble that of the radar books, being a mixture of simplified technical explanations suitable for the general reader and reminiscences from those who have been closely involved in the subject.

Contributions are welcomed from those with interesting tales to tell including triumphs, problems (even failures!) and how Morse was taught and used in the armed services, especially in wartime.

Readers are invited to contact Anne Stobbs at 76, Vicarage Road, Marsworth, Nr Tring, Herts, HP23 4LU, UK or colin@latham55.freeserve.co.uk

RSGB Morse Test Service 14th Anniversary Weekend

County Morse test teams will again be on the air during the 14th anniversary weekend of the 13th & 14th of May 2000. For ease of identification all stations will use a special event GBØ prefix, followed by the county code suffix; e.g. the Isle of Wight will use the callsign GBØIOW and London GBØLDN. The Chief Morse Examiner will use GBØCW and the Deputy Chief Morse Examiner GBØMTS.

There will be a minimum of 27 stations active and a Morse Test 14th anniversary certificate will be available to any amateur who makes contact with at least 10 of the GB stations. The cost of the certificate is £2.50 (cheque or postal order made out to RSGB, or $5 or 6 IRC'S). Applications with log extracts only should be sent to the Chief Morse Examiner, David Waterworth, G4HNF, 116 Reading Road, Woodley, Reading Berks. RG5 3AD, United Kingdom. QSL cards are not required to claim the award, which is also available to listeners.

Activity will be concentrated in the 80 and 40 metre bands and in order to encourage newcomers to apply for the award each team will spend some time calling slowly in the Novice CW section of the 80 metre band, above 3560 kHz. The event is not a contest and examiners will be happy to reply at any preferred calling speed. There are no restrictions on the type of Morse key used, all are welcome to call in and enjoy the friendship.

EA QRP CW Contest 2000

Spain's QRP Club CW Contest takes place during the third weekend of April each year. There are three periods. The first period is on Saturday 15th April from 17.00 until 20.00 UTC in the 20 metres band between 14.005 and 14.065 mHz. The second period is on Saturday 15th April from 20.00 until 23.00 UTC in the 80 metres band between 3.540 and 3.570 MHz. There is an 8 hour pause between 23.00 - 07.00 UTC during Saturday night and then the third period is on Sunday 16th of April from 07.00 until 13:00 UTC in the 40 metres band between 7.015 and 7.035 MHz

Participation: The contest is open to radio amateurs world-wide and aims to encourage QRP activity between and with QRP stations, either EA or foreign.

Exchange: EA stations must exchange RST and provincial car plate letter/s for the actual QTH. Foreign (non-EA) stations should send RST only.

Power: Limited to 5 watts maximum output.

Categories: QRP - 5 watt maximum output power and QRPp - 1 watt maximum output power.

Scoring: Every contact will be worth one point with the exception of contacts made with QRPp stations, which will count 2 points regardless of your power category.

Multipliers: Every Spanish province, including the QTH (for spanish stations) will be counted as a new multiplier. Also every new DXCC country, not including the QTH. EA6, EA8 and EA9 will be

counted as the same country (Spain - EA).

Final score: The total addition of points multiplied by the multipliers.

Awards: There will be awards for the first and second place in each category. Prizes will be related to the QRP and CW world .

Penalties: Every QSO made outside the assigned frequency range will be void. Every contact not present in at least five lists will be void.

Lists: Should be sent in A4 sheet format. Entries should be in completely readable capital letters including GMT hour, then the worked callsign stating if QRP or QRPp, RST and provincial car plate letters if a Spanish station and, finally, if possible, the frequency of the contact. The lists must be accompanied by another sheet giving details of working conditions, i.e. the transceiver or transmitter and receiver, the aerial used and the transmitter output power. The closing date to send the lists is May 5th, 2000 (by the postal date mark on the envelope). Entries should be sent to: EA4CM, Angel Garca Garca, C/Jos Arcones Gil n70 5-2, 28017 Madrid, Spain.

Dutch Morsum Magnificat Meeting

Shortly after the first appearance of the Morsum Magnificat Magazine in Dutch in 1983, most of the readers came together in a Meeting in an Harbor Pub in Maassluis. After this first meeting it became a tradition to come together each year at various locations. The number of participants is sometimes is limited, due to the size of the venue, but normally ranges from 35 to over 50. Regrettably, since the death of Rinus Hellemons, only the English version of the original MM continues, but some ex-readers of the Dutch version meet each year.

The next meeting is at the Maritiem Museum, Rotterdam on 26th April, 2000. Details of this 15th meeting is at:
http://qsl.net/pa3bwa

If any readers of MM would like to attend, please contact Pieter Lemmers., PA3BWA, E-mail: plem@kabelfoon.nl

RAC to ask Industry Canada to drop 12 wpm Morse Requirement

The Board of Directors of the Radio Amateurs of Canada (RAC) has voted unanimously in favour of a motion to approach Industry Canada with a proposal to drop the requirement for a 12 words per minute Morse code test in Canada.

Following the lead of the recent FCC decision in the US, as well as in some European countries, RAC proposes that Canadian amateurs who have passed a 5 wpm Morse code test as well as the necessary written examination, be allowed full access to the HF bands.

A formal proposal will be submitted to Industry Canada in the near future.

(Guy Charron, VA3FZA, RAC Bulletin)

Is the Internet the Enemy?

& A Review of the Kachina 505DSP Transceiver

by Dr Gary Bold
ZL1AN

ALAS! OUR NUMBERS ARE declining. Our average age is increasing. The beautiful but treacherous sirens "Netscape" and "Internet Explorer" are luring our clean-living potential young recruits away from healthy Ham radio into the gorgeous, poisonous jungle of the World Wide Web. What can be done about it? How can we compete?

This is the tenor of a lament I hear quite frequently now. I heard it several times at the NZART Conference, and I see it in Ham Journals and letters. But I don't believe it. In the first place, I think that the vast majority of youthful cyber-citizens over whom we mourn were never potential radio Amateurs.

They flocked to the web because it offers an environment quite different from that of Ham Radio. It's easy. An entry-level PC, a modem, an account with an Internet provider, and in 24 hours you're a midnight cowboy, riding the range to Geocities.com with your sidekick Alta-Vista and his buddies. So many places to visit, so many pictures to download, so many home pages to view.

Instant Gratification

That's the point. It's easy, and it offers instant gratification. These folk would never have been interested in entering the uncertain, difficult, communication world we inhabit - or at least not initially.

Our initiation rites are too hard. The mystical incantations we have to learn seem like the songs of Druids welcoming the solstice at Stonehenge. Face it. There never has been a surging tide of young people itching to get into Ham Radio, anyway.

However, the Internet does also work as a quiet recruitment medium for us. There are a thoughtful few who want something more challenging. Sometimes they stumble into one of the many Ham-related sites around the world, and are intrigued enough to send an email asking what it's all about. Without the web they would never have come across Ham Radio. You can help increase its effect.

Information Source

Overall, I believe that the effect of the web on Ham recruitment is about neutral. We lose some, we gain some. But there's another, much more positive

effect.

A growing number of existing Hams around the world are finding that the web greatly enhances their hobby by bringing information that they would otherwise never get. We can, for example, belong to things called "reflectors", international bulletin boards where enthusiasts ask, answer, and debate questions on all manner of Ham matters. There are reflectors dedicated to CW, Satellites, QRP, antennas. A great example of feedback obtained this way is the flood of informed comment on paddles I published in a recent Morseman column.

On other occasions I've asked a question on behalf of a Morseman reader, and received an instant, detailed answer to pass on. I acquired the NorCal paddle, the MRP373 Morse reader, the K8+ keyer, GoldWave, Pspice, BTL RTTY software, all over the web.

Listen On-line

You do have web access? Are you interested in propagation? Do you wonder what they're hearing overseas? Visit this site:
http://www.chilton.com/scripts/radio/R8-receiver

This gives you access to a Drake R8 receiver in Reston Virginia, USA, which is always on-line! The antenna is a 60 foot attic loop. You can tune the R8 to a frequency and bandwidth of your choice, and listen, through your sound-card, to live audio for 5 seconds, or download a compressed 30 second sound file, recorded right now! This plays back immediately it's arrived.

Since July, 1995, the R8 has been tuned by network visitors 110,000 times. 156,000 audio samples have been sent to 64,000 sites in over 85 countries. The first time I listened I heard a tantalizing exchange between a couple of my CW buddies on 7033 kHz. In great excitement, I fired up my own rig. Alas, I couldn't hear them. But I knew they were there!

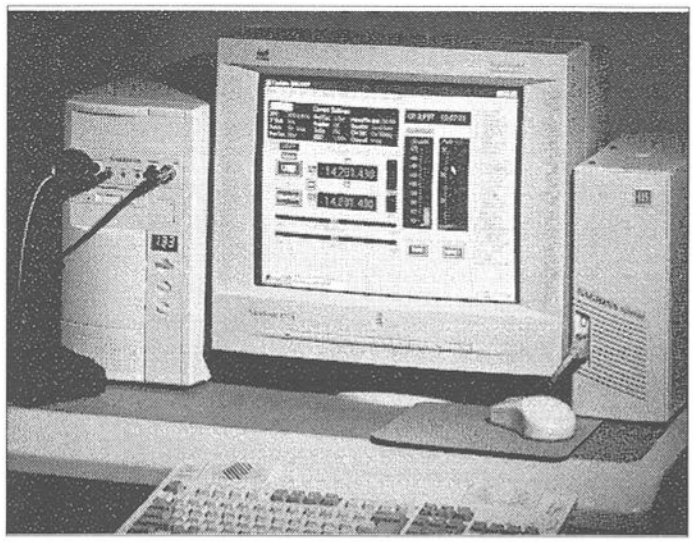
Sorry to the old-time CW purists for all this nonsense about computers and the web. I just wanted to make a point. The Internet enhances Hamming!

The Kachina 505DSP Transceiver

The world's first "virtual front panel" HF Ham transceiver is produced by Kachina Communications Inc, of Arizona. It generated hundreds of visitors to their booth at the 1997 Dayton Hamvention, and already has a dedicated following. Several very detailed reviews have already been published (see references below) and full specifications and pictures appear on the Kachina home page, at http://www.kachina-az.com

Everything is controlled by a PC running Windows 3.1 upwards. There are two units. A "control head" installs in a spare front panel slot of the PC. Alternatively, just put it on the operating table. This has sockets for speaker, 'phones, key, paddle, microphone (supplied), and a power switch. There are no other controls at all. One supplied lead goes from this unit to a COM port. Another goes to the rf unit, which can be located up to 8 feet away with the cable included, though a 75 foot cable is available as an option.

The rf unit is about the same size as a standard transceiver, is off-white with a nice logo, and looks good. It requires a separate 12 volt supply, rated



at 25 amps to deliver 100 watts. An optional, internal automatic antenna matching unit is available, and this was installed in the review unit. Your antenna coax connects to one of two optional sockets on the back.

It takes longer to read about all this than it does to connect it up. Software to drive it installs painlessly from a 3.5" disk. Plug in speaker or phones (not supplied), push the power switch, click on the screen shortcut, and you're away.

The Kachina User Interface

A full-colour, "virtual front panel" appears on the computer screen. Everyone who sees this for the first time is surprised and impressed. A 10 option menu bar is at the top, with labels like "filters", "Tx", "Rx". Underneath a status panel tells you things like what filter bandwidth you're using, your output power, mode, IF shift, and even the rf unit's heat sink temperature!

Other panels show frequency (both analog and digital, to 1 Hz accuracy), S-meter reading, forward and reverse power, SWR. Two mouse operated slider controls appear at the bottom. These can be selected to change any two of many parameters such as output power, RIT, passband shift. Initially you do most things from the menu bar with the mouse, but on the far right there's a "help" panel showing alternate shortcut keys, which rapidly become intuitive.

G-QRP Club

The G-QRP Club promotes and encourages low-power operating on the amateur bands with activity periods, awards and trophies. Facilities include a quarterly magazine, Morse training tapes, kits, traders' discounts and a QSL bureau. Novices and SWLs welcome.

Enquiries to **Rev. George Dobbs G3RJV, St Aidan's Vicarage, 498 Manchester Road, Rochdale, Lancs OL11 3HE**. Send a large s.a.e. or two IRCs

Tuning is done with the left and right arrow keys, or you can enter a frequency from the keyboard. The published specs on intermodulation performance, image rejection etc. are impressive, and I'm prepared to believe them. If your up-market rig has it, this rig probably has it too.

SSB

How does it go? Murray ZL1BPU and I both ran it up on separate occasions so we could listen to each other on SSB. We found both transmitted and receiver audio excellent. You can tailor the transmitted audio with up to 12 dB of bass or treble boost to suit your voice, but we found it fine set to "flat".

Receiving filter options include an adaptive DSP noise reducer, with a control to vary the degree of application. This certainly zapped electrical noise at my location, but also gave received voices the hollow, somewhat muffled sound that's inevitable with the algorithm. People have divided opinions about this. I've never found that it improves SSB intelligibility much, if at all, but others insist that it does.

The first IF frequency is 75 MHz, the second, only 40 kHz! All receiver signal processing is done at 40 kHz using a DSP chip. This accounts for the excellence of the band-pass filters - see later. SSB is generated via the phasing method at 40 kHz, which accounts for the audio quality.

CW Performance - Sending

The sidetone volume can be adjusted on-screen, a nice feature. An iambic keyer is implemented in software - just plug your paddle into the socket provided. This seems to have type B timing, but the manual doesn't comment.

It works fine, but doesn't have the autospace option my fingers and brain are used to, so I plugged a K9 keyer into the "straight key" socket. This produced mysterious garbage until I found that you have to run the speed control on the built-in keyer up to the top of its range (5 - 80 wpm) before an external keyer produces correct morse. An odd feature.

The K9 then also worked correctly, and I charged into some CW. Bruce, ZL1ADF, could hear no clicks or strange artifacts. A "live type" CW transmitting option implements a morse keyboard sender (what you type is sent as Morse). This also worked fine, except that the Morse had Farnsworth spacing. The character spacing was 4 dot units (not 3), the word spacing was 12 units (not 7), and I couldn't find any way to change it. Oddly, no other review or user comments on this.

CW Performance - Receiving

So, to the receiver's CW performance. This is impressive. Excellent bandpass filters are available. I plotted the response of the 1000, 500 and 200 Hz ones using the technique I've described in previous columns, with one of the SSB filters, 2.7 kHz, for comparison - see fig. 2. The jagged nature of these curves is an artifact of the processing.

The audio to produce these came from the phone jack, with the receiver tuned to flat rf noise. Kachina specs say that these filters all go down at least 70 dB in the stop-bands, but the plots I produce never do. All I can say is that

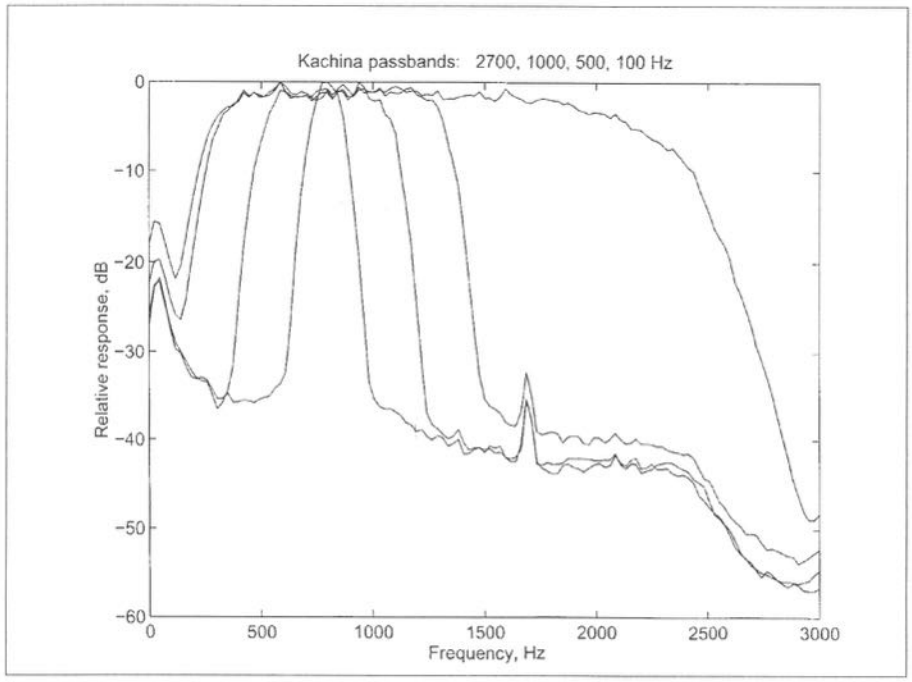


Figure 2 - Kachina passband performance

these curves faithfully reflect what comes out of the audio system, so maybe the higher stopband levels I always see come from noise introduced after the filter.

The filter skirts are very steep. Signals vanish at the edges. There is no ringing. The adaptive DSP "noise reduction" filter was much more effective when receiving CW. It dramatically reduced the electrical hash I often get here, and made copy much more pleasant. The code sounded slightly "hollow", but intelligibity was little affected. I was impressed.

Comments from other Users.

I knew that some members of the Ten-Tec reflector have experience with Kachinas, and I solicited their comments. Paul, W9AC wrote:

"The receiver of my Kachina 505DSP is every bit as good as my Omni Six Plus and Yaesu FT-1000MP. Receiver overload characteristics, DSP I.F. filtering, and upper band sensitivity are all excellent. I believe the construction is the '90s equivalent to the Collins KWM-380.

"I can't comment on the CW spacing except to say that weighting may be adjustable. In any event, the CW spacing seems perfect to my ears and the transmitted CW waveform is symmetrical - clearly better than any of my Ten-Tecs, including my heavily modified Omni Six. I really like the ability to change the CW keying dynamics.

"On the other hand, QSK is not

even close to any of the Ten-Tecs: the T/R relay is noisy, QSK does not work in the CW keyboard mode, and one cannot hear receive audio between keyed elements, only characters. For all that, the Kachina design is very well thought out and again, the quality is exceptional."

Remotely Accessed Operation

This is one area in which the Kachina has no competitors. Paul added: "I'm nearing completion of my remote-controlled Superstation located on the Atlantic Ocean. I will be running a remote Kachina 505DSP on an ISDN telco circuit into an Alpha 87A and Force12 C51XR at 60-meters height for 40-10M, and a 4-square array on 160-meters."

Carl Hyde wrote: "Our club has a Kachina with a nice Windows NT server tied to the internet. It is on 24 hours a day 365 days a year. Protected by all kinds of backup power, passwords, and a firewall. The computer also controls an antenna select switch, the rotator for multi stacked beams and a long wire beverage for 160 meters.

"We installed it as part of an emergency communications system but it has grown into the most popular item in our club! Many of our members are retired and live in restricted developments, apartments and assisted living facilities. They can no longer have radio shacks or antennas. But those who have decided to try remote operation of the Kachina are now able to get on the air, make contacts, rag chew and operate contests from their home wherever it is.

"We have one old gent who was in a critical state of depression in an assisted care facility. A generous club member set him up with an older pentium computer, monitor and internet account. He completely recovered and is in excellent mental and physical condition because he can now talk to friends and family on daily schedules.

"The system became so popular that we have to schedule time slots to give everyone a fair opportunity! Many of the old gentlemen work the radio daily, taking turns working stations around the world. No other radio could do this. It definitely has a place in many ham shacks. I have Ten Tec radios, a Collins Collection and many other boat anchors. If I ever find a used Kachina, I'll jump on it."

Summary

This radio has many detractors. A lifetime of turning "real knobs" makes it difficult to adjust to operating with keyboard and mouse, and I found this too. On the other hand, this makes it much easier to explore the many menu functions and understand what they do. After the first hour, I simply accessed the on-line help when stuck, and never looked at the manual again. I've not been able to do that with any other unfamiliar radio I've used. It is a fascinating radio.

References

"Kachina 505DSP HF Transceiver", Larry Wolfgang, WR1B, QST, May 1998, pp 63-69.

"Look Ma, no Knobs!", Richard Lubash, N1VXW, 73, August 1998, pp 27-33.

(Extracted and adapted for MM from Gary Bold's 'The Morseman' column in Break-In, journal of NZART, August 1998 and March 1999) ***MM***

Telegraph Stamps

by Don deNeuf
WA1SPM (SK)

TELEGRAPH STAMPS WERE ISSUED by a number of telegraph companies primarily for use in free franking privileges issued to various railroad, newspaper and express company officials when their concerns were large users of the companies telegraph lines. The stamps were usually issued in "books" of various quantities much like postage stamp books are issued today by the U. S. Post Office.

Philatelists for many years have officially recognized and listed "Telegraph Stamps" as collectibles, even though they were never used in any postal service. This doubtless came about because in the early days of telegraph service in this country there were strong efforts in some quarters to induce the US Postal Service to acquire the various telegraph companies and to administer and operate them.

Incidentally the name "*Postal Telegraph Service*" was a psychological effort to ease the way towards achieving this objective. While such efforts were unsuccessful in the U. S., the telegraph and telephone services in the majority of other countries are, and always have been operated by one entity which embraces the postal service. (Hence the identity "PTT" - posts, telegraphs and telephones).

The telegraph not only revolutionized railroad train dispatching, but many of the U. S. telegraph companies enjoyed contracts to utilize the railroad rights-of-way for erecting their pole lines.

Some Telegraph Stamps clearly reveal this, such as the Baltimore and Ohio Telegraph Company which was incorporated in several states, and which connected with other lines, such as the

(a)

Connecticut River Telegraph Company - see (a).

One of the earliest companies to issue such stamps was the California State Telegraph Company in 1870. It operated lines between a number of California cities including one from San Francisco to Marysville via San Jose and. Stockton.
The Pacific Mutual Telegraph Company operated between St. Louis and Kansas City in 1884. One of its 20 cent frank stamps is shown in (b). In 1910 the

(b)

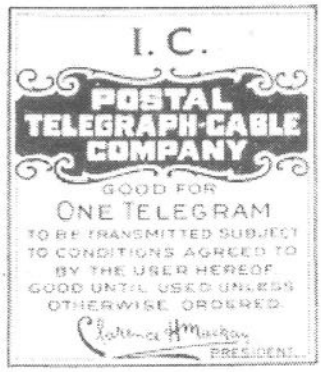
organization was acquired by the Postal Telegraph Company.

The Commercial Union Company in 1887 had operating lines from Albany through Troy and Berlin to Adams, Massachusetts. One of its 25¢ franks

(c)

stamps "*good for 20 words*" is shown in (c) .

Some of the Postal Telegraph Company stamps were printed with the initials of a railroad, such as C. G. W. and I. C., and whilst most franks stamps specified the amount of value expressed in cents or in the number of words, the



(d)

FISTS CW Club – The International Morse Preservation Society

FISTS exists to promote amateur CW activity. It welcomes members with all levels of Morse proficiency, and especially newcomers to the key.

The club has awards, nets (including a beginners' net), dial-a-sked for beginners, straight key activities, QSL bureau, newsletter, and discounts from traders.

Further information can be obtained from **Geo. Longden G3ZQS, 119 Cemetery Road, Darwen, Lancs BB3 2LZ.** Send an s.a.e. or two IRCs.

type shown as (d) merely says it is "*good for one telegram*".
In 1942 Postal issued a frank stamp, pink

(e)

in color, to all its employees in the Armed Forces. It is depicted in (e).
Western Union issued a wide variety of frank stamps for many years - (f) and (g).

(f)

(g)

Some of the early Wireless Telegraph companies also issued frank stamps - see (h).

(h)

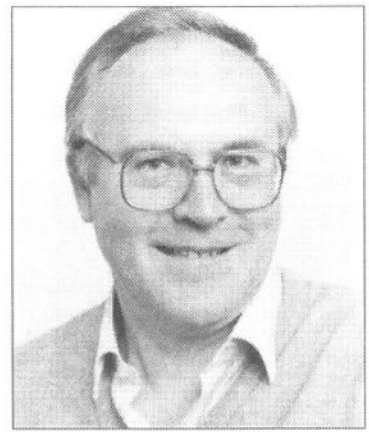
(i)

A World Telecommunications Conference was held in Atlantic City, N.J. in 1947: A frank stamp for use by attendees on messages destined to overseas points was issued cooperatively by All America Cables, Commercial Cables, Globe Wireless, Mackay Radio, RCA Communications and Western Union. See (i). ***MM***

-Beginners-

Hints on Your First CW QSO

by Gerald Stancey
G3MCK



THERE IS ONLY ONE way to become comfortable with CW and that is to take the plunge and use it. This can be a rather daunting experience but with a little planning and help, it is not as bad as it may seem. The best way is to work the continental stations and 40m is an excellent band. Most of them have very limited English and rarely use other than a standard "rubber stamp" QSO format.

Copy the following four exchanges onto postcards but substitute your call and other details. Most rubber stamp QSOs follow the format of the three overs given. Some people may make their first over a mixture of overs 1 & 2 but the examples given will enable you to follow what is going on. If everything becomes too much for you then use the escape over to exit gracefully and go and make yourself a cup of tea!

Initially you may find that you don't copy much of what the other station sends you. Don't worry, just keep sending the overs as if you had. Very soon you will find that it all makes sense and that you are handling CW with ease at normal rubber stamp QSO speeds. Try to have one CW QSO each day. No time? Well get up ten minutes earlier in the morning!

Early on, try to enlist the help of an experienced CW operator to take you on a tour of the band. You need someone who can point out which signals are sending unreadable Morse and those that are too fast for you to even attempt to read. This will help to build up your confidence.

Prompts for Rubber Stamp QSO

In the following exchanges I have called **CQ** and have been answered by someone with the callsign **STN**. The format is virtually the same if I am replying to a **CQ**.

1st Over

STN DE G3MCK GE OM MNI TNX FER CALL RST 589 589 = QTH LONDON LONDON = NAME GERALD GERALD = HW ? STN DE G3MCK KN

2nd Over

STN DE G3MCK R OM TNX FER INFO = RIG FT101ZD = PWR 75W = ANT DIPOLE = WX GUD = HW ? STN DE G3MCK KN

3rd Over

STN DE G3MCK R OM TNX FER QSO = QSL OK = HPE CUAGN 73 GB AR STN DE G3MCK SK

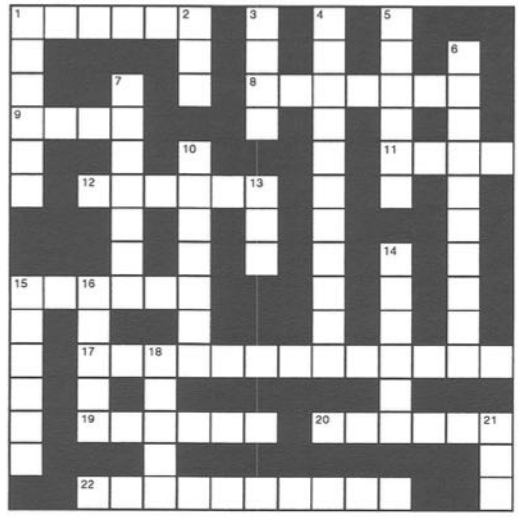
Escape Over

STN DE G3MCK SRI OM QRM = NW QRT = TNX FER QSO = QSL OK = HPE CUAGN 73 GB AR STN DE G3MCK SK

*(Originally published in the Newsletter of the Echelford Amateur Radio Society)**MM***

MM67 Searchword - by Tony Smith

(Find the answers to this puzzle in MM67. Solutions P48)



Across

1 Institute, well-known telegraph school (6)
8 Walter didn't last a day in the WU office here (7)
9 First group in Lesson One (4)
11 Journal of DARC (4)
12 Makes "Profi" and other keyers (6)
15 Send for his list from Fort Salonga (6)
17 Scandinavian telegraph company (5, 8)
19 Unusual Morse detector - not to everyone's taste! (6)
20 Developer of 16 Down (6)
22 Location of Patriot Hills (10)

Down

1 Example of keyboard key needing a standard code for Morse Code Access (6)
2 Grimeton Radio (3)
3 Lincoln station taking code from Press Wireless (4)
4 Location of IARU Region 1 Conference 1999 (11)
5 Recent activity reported from this Principality (6)
6 Makers of Dyna keys later (10)
7 First home of the Candler System (7)
10 Did anyone hear Hrane from here? (7)
13 Where Alexanderson was one-time chief engineer (3)
14 Detective in Panama City, Florida (6)
15 Later name for the "Scientific" Code Course (6)
16 Code reader from UA9OSV (5)
18 Alexanderson's first name (5)
21 Technique which produces a tone-modulated transmission (3)

A Tribute to the Late Harry Matthews

by Dr J. T. M. Stevenson

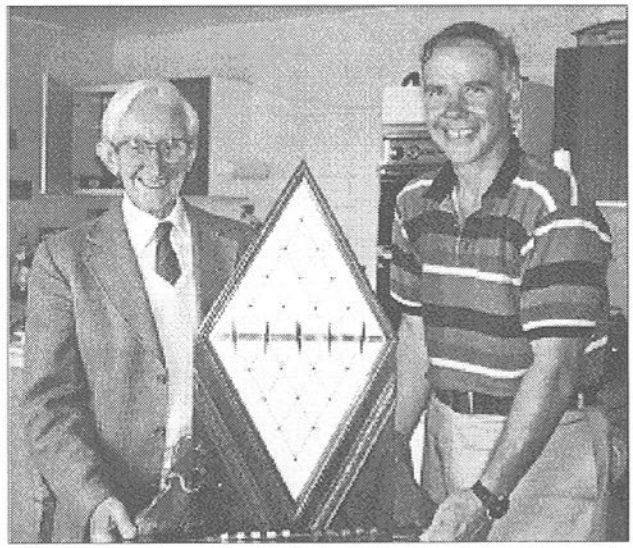
Based on a verbatim transcipt of Dr Stevenson's address at Harry Matthews' funeral.

HARRY MATTHEWS, inspiration for and founder of the Museum of Communication Bo'ness near Edinburgh died on 15th February, 2000. He was 81 years of age.

It is not easy to summarise a life as varied and colourful as Harry's. Some of the words that come to mind, in no particular order are: enthusiast, collector, photographer, whistler, very fast driver, restorer, dare-devil, apparatus builder, flashes and bangs, French polisher, Mr fix-it.

Impossible is a word that could be applied to Harry in various ways. It is a word that he sometimes ignored - he would often just go ahead and do it anyway! Achieving the impossible was just another challenge! In later years when he had health problems and was supposed to take it easy, avoiding heavy lifting, he just carried on when he thought nobody was looking. In medical terms he was sometimes an impossible patient.

Photo: Tom Perera, W1TP



Harry Matthews shows his replica Cooke & Wheatstone 5 Needle Telegraph to Prof. Tom Perera, W1TP, creator of the internet cyber-museum of telegraphy, now Chairman of the Antique Wireless Association in the USA.

He was born in London in 1918. At primary school, one of his teachers was an enthusiast in the new technology of wireless. By the age of 7, with the help and encouragement of this teacher, Harry had built his first crystal set. From that moment on, Harry was hooked! By

the age of 13 he was running a class, teaching others about wireless. He had a number of jobs, while still pursuing his interest in radio including motorbike stunt rider in a 'wall-of-death' show. He took time off to race motorbikes in the Isle of Man and to take part in the Spanish Civil War. Yes, he really was a dare-devil!

During WWII he was transferred onto development of the top secret RADAR, and in this capacity he was 'attached' to both the Navy and the RAF.

In 1948, he arrived at the University of Edinburgh and established a reputation as a dare-devil spiderman when rigging high radio aerials.

By 1974 Harry was starting his collection of old radios and electronic equipment which was originally on display in a spare laboratory in the Faraday Building of Edinburgh University. This activity had been triggered when he rescued a round bakelite Ekco wireless set, now considered a classic of its time, which had been put out on the street on bucket day.

When Harry retired in 1982 and moved to Bo'ness the collection followed. It has moved several times since then. At a rough calculation, the average growth rate has been about 1.5 tons per year, or about 2.5 hundredweight per month, over a period of about 25 years - this means that it now amounts to about 40 tons of hardware including many intersting and rare telegraphy exhibits.

The collection became too big for one person to handle and realising it had become a unique resource for future generations, Harry launched the Museum

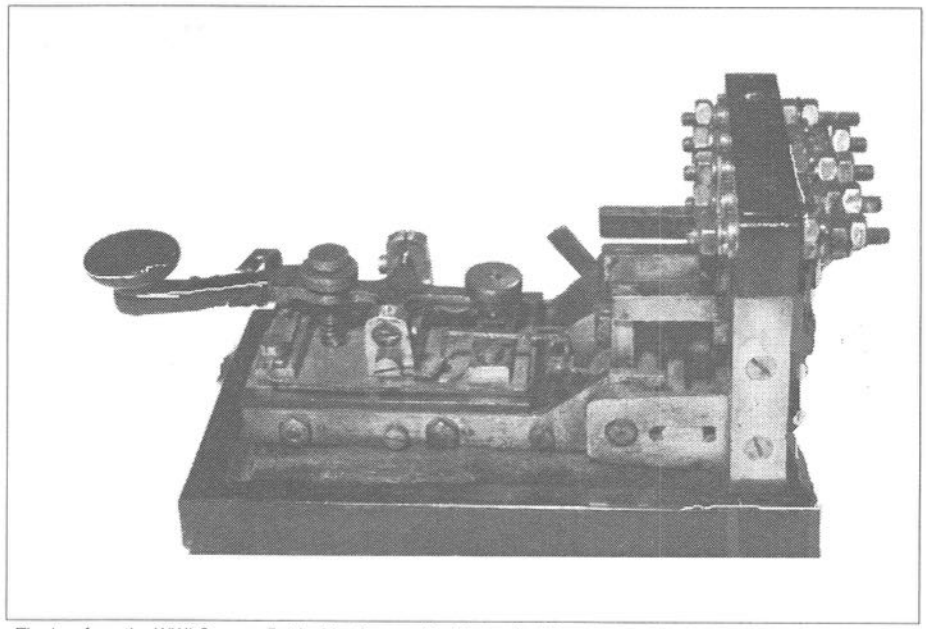


Photo: Chris Gill, Museum of Communication

The key from the WWI German Battleship, Grosser Kurfürst, raised from Scapa Flow in the 1930s. A rare exhibit - all communication equipment was confiscated when the German High Seas Fleet was interned there in 1918.

of Communication Foundation Trust in 1992 and became its Honorary Life President. Who knows how many young people may have been influenced or inspired by Harry into following a career in science?

In his own words, recorded on a video in 1997, "I hope we'll continue to collect and my various committees tell me that we have got to become selective and it is a word I do not know. But then that is up to the museum which is now not my museum. It is organised so that when I am no longer here it still will be and that is very important, well to me anyhow it is very important."

(Harry Matthews was a supporter of MM since its beginning. See MM4 p.31 for an article on the key recovered from WWI German Battleship, Grosser Kurfürst - Ed) ***MM***

Photo: Chris Gill, Museum of Communication

Young visitors explore some exhibits at the Museum of Communication

THE MORSE ENTHUSIASTS GROUP SCOTLAND

MEGS was formed in 1991 to encourage the use of Morse, especially by newcomers. Regular skeds are held using our callsign 'GMØRSE' each Monday and Thursday from 7 until 9 p.m. (local time) around 3.530MHz. Among other services, we offer Morse practice tapes free of charge, other than postage. This offer is now also available to *MM* readers. Membership is open worldwide, the 'Scotland' in our title simply shows place of origin. Lifetime membership £1.00.
Details from Secretary: G.M. Allan GM4HYF, 22 Tynwald Avenue, Rutherglen, Glasgow G73 4RN, Scotland.

The Jubilee of the Atlantic Cable

Contributed by David Prout G8FEX

"THE NECESSITY OF going to press in advance with this number demands that on August 5th my notes should be written in a little Cornish cove not far from a cable station, and within sight of the wireless telegraphy installation which has already commenced to supersede the cable.

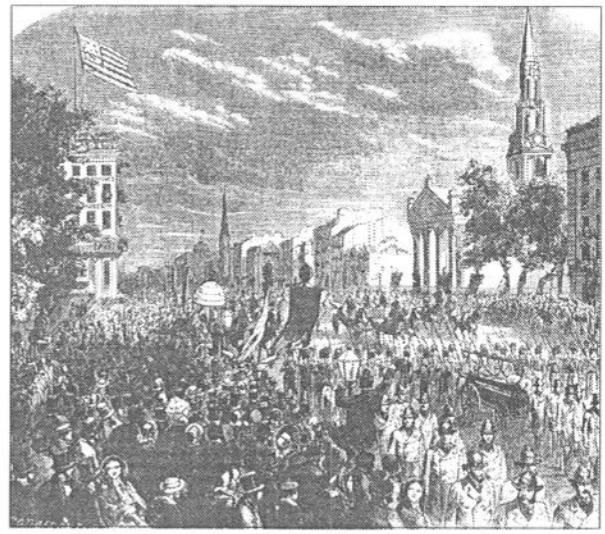
Today is the jubilee of the first message sent under the Atlantic by means of electric cable (ie, in 1858, Ed.). It consisted of a message of peace and goodwill to the President of the United States from the late Queen Victoria, and was a fitting triumph over the difficulties which had been fought against for so long before success was reached.

In this age of hurry and bustle my readers have doubtless got so used to reading of the giant Cunarders and of 'Marconigrams' that few, if any, ever pause to think that the only means of keeping in touch with the doings of America before the opening of the cable was by the slow speed vessels which carried letters to and fro.

In those days it was many weeks before a letter reached its destination and a reply could be sent back to England. Now a message can be cabled to New York and a reply received in London in fifteen minutes!

Marconi's invention is wonderful, and may make many time-saving achievements in the near future; but it can never cause such a tremendous revolution as was brought about fifty years ago today! H.V. LOBB. "

(From 'Young England', 1908, an Illustrated Magazine for Boys). ***MM***

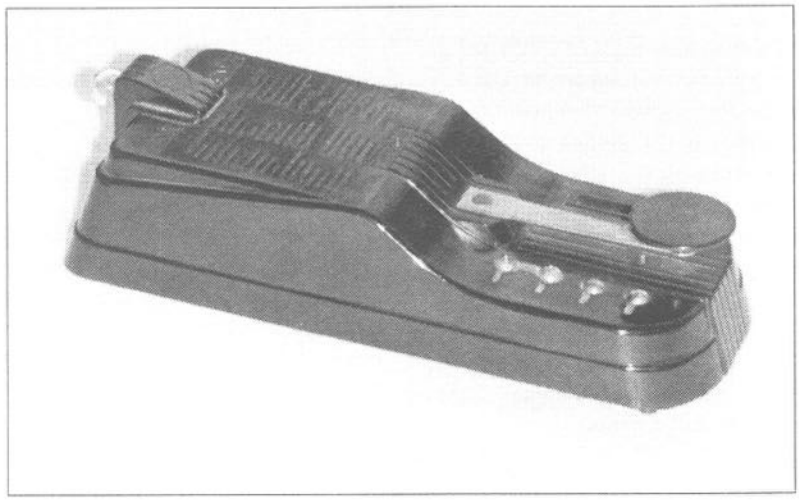


Celebrations in New York in 1858 after the exchange of messages between the President and Queen Victoria. From L'ILLUSTRATION, JOURNAL UNIVERSEL.

Showcase/Info Please!

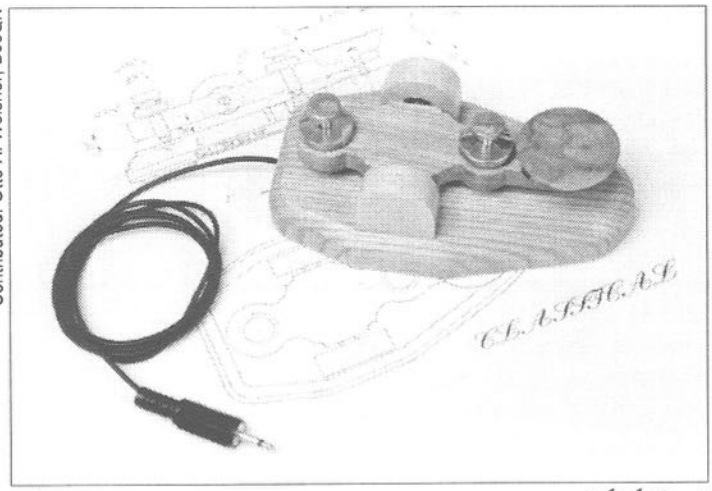
Readers are invited to contribute any additional informationand stories, no matter how minor, to the Editor, Morsum Magnificat. There have been thousands of designs of keys & telegraphy instuments. Information will be lost unless it is compiled in one place and shared with other readers.

Photo/Collection: Wyn Davies



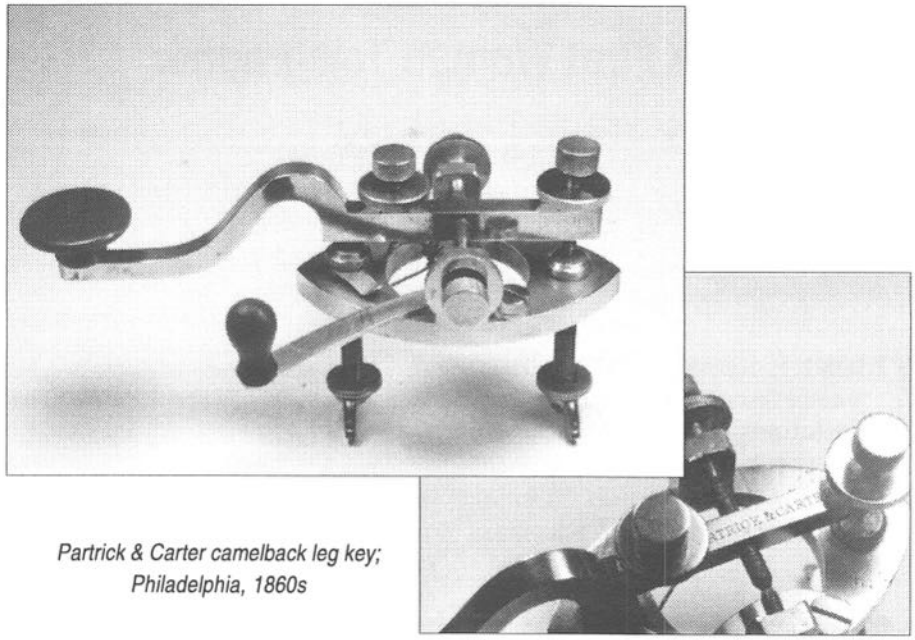
Fleron official scout signaller. Made of bakelite,the batteries are mounted in the base with the buzzer circuitry etc. Two stations can be wired together or a light bulb mounted at the end can be used.

Contributed: Otto A. Weisner, DJ5QK

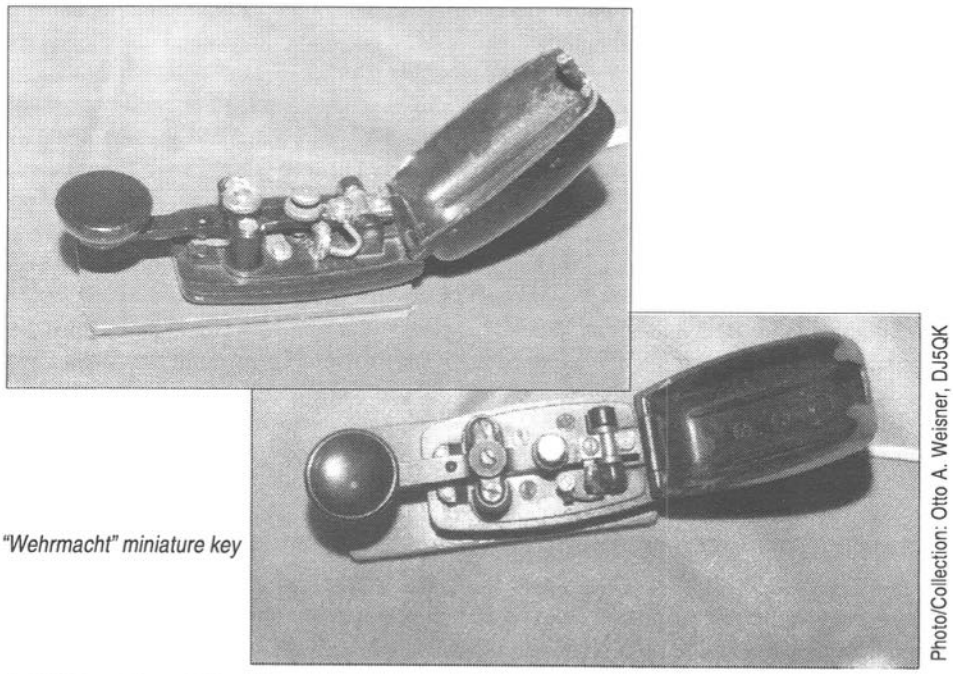


Precision key made of wood by Petr Doudêra, OK1CZ. She is president of the OK-QRP-CLUB

Photo/Collection: Dave Pennes, WA3LKN



Partrick & Carter camelback leg key; Philadelphia, 1860s



"Wehrmacht" miniature key

Photo/Collection: Otto A. Weisner, DJ5QK

The First Woman Telegrapher

by Richard L. Thomas
KB7BAD

THERE IS NO MYSTERY ABOUT who the first woman telegrapher was. Historians agree it was Sarah G. Bagley. The mystery is, what became of Sarah Bagley after her brief career as superintendent of the Lowell Telegraph Depot?

Her life is well documented as a worker in the Lowell, Massachusetts, textile mills in the mid-1800s. But history hasn't been kind to one who deserves more recognition as a pioneer in the communications field as well as the feminist movement.

Learned to Operate in 3-6 Weeks

During almost nine years as a weaver and dresser, she was a union organizer and a tireless crusader for better working conditions for what Poet John Greenleaf Whittier describes as "acres of girlhood." Her major goal was to cut women's hours from 12 to 10. She fought also for better lighting, ventilation, and other improvements in the factories. Her efforts were unsuccessful.

Miss Bagley (described in court records relating to a land purchase as "a spinster of Lowell") went to work as superintendent of the Lowell Telegraph Depot on February 21, 1846. This was 21 months after telegraph inventor Samuel Morse demonstrated his invention to the U.S. Congress. Records say Bagley spent between three and six weeks learning to operate the telegraph machine.

She had a "fair knowledge of orthography, arithmetic, geography, and ordinary mechanical ability." At that stage of the telegraph's development, operating the key activated an inking device that printed dots and dashes on a paper tape.

Less Than a Year

Bagley was three months short of her 40th birthday when she was hired by Paul R. George, a Lowell merchant, speculator, and all-around wheeler-dealer. He apparently had a financial interest in the telegraph line. One writer says the press considered the completion of the telegraph line and Bagley's appointment "amusing rather than significant."

The *Boston Journal* wrote, "The long mooted question 'can a woman keep a secret?' will now become more interesting than ever." In a similar vein, the *Lowell Courier* said, "We presume the young bachelors in Boston will be sending Valentines over the wire all the time."

The Lowell telegraph line ran 30 miles to Boston. It connected with the New York and Boston Magnetic Telegraph, a just-completed project of Francis O.J. (Fog) Smith, one of Morse's partners. Bagley's career as a telegrapher lasted less than a year. No one knows why she left.

No Trace

There is no record of her work after her appointment was announced in a labor newspaper. In the 1979 summer issue of *Labor History*, author Helena Wright, writing of Bagley's union activities, says, "By the end of 1846, Bagley had faded out of the Lowell scene."

Wright points out, however, that payroll records show Bagley did return to work as a weaver in a Lowell mill for eight months in 1848. Not a trace of her can be found after that. Nothing. The census of 1850 does not list her. No one knows when and where she died. There is not even an image. Janine Whitcomb, of the Lowell Historical Society, says, "That we know of, there are no photos of Sarah Bagley." The first woman telegrapher's place in history is only a footnote at the bottom of a page with meager text above.***MM***

The Indo - European Telegraph

Contributed by Reverend Duncan Leak

Another desert journey, made on horseback, lay between the capital and Isfahan. During its course Mrs Bishop was more than once the guest of the European telegraphists stationed on the Persian section of the Indo-European telegraph line. The centre of telegraphic control is at Tihran; but all along the line, at distances from fifty to eighty miles apart, there are solitary stations. 'At stated hours the clerks place their instruments in circuit, and ascertain if all is right. If this testing reveals any fault, it can be localised at once and horsemen are dispatched from the control station on either side of it, with orders to ride rapidly along the line until they meet at the fault and repair it. As the telegraph crosses passes such as the Kuhruk, at an altitude of over eight thousand feet, the duties of both inspectors and linesmen are most severe, full not only of hardship, but of danger in terrible winter storms and great depths of snow; yet on their ceaseless watchfulness and fidelity the safety of our Indian empire may some day depend.' All the Government despatches from Indiaand newspaper reports are sent over this line, the time occupied in transmission being less than an hour and a half.

(An extract from "Journeys in Persia and Kurdistan" an account of the travels of Mrs Bishop in 1890 by Isabella L. Bird, pub. John Murray, London.)

The CW Centre

UK Price List

R A Kent Keys and accessories

· Hand key, kit	£43.50
· Hand key, assembled	56.50
· KTI Professional key	65.50
· Twin paddle, kit	56.50
· Twin paddle, assembled	69.50
· Single paddle, kit	48.50
· Single paddle, assembled	59.50
· The Dual Key	99.90
· Morse trainer	44.95
· Practice oscillator	18.50
· Practice oscillator kit	7.50
· EK4 keyer	47.50
· EK4/ M memory keyer	73.50
· EK4 memory upgrade kit	29.50
· Touch twin keyer kit	27.90
· Electronic keyer kit	15.00

Bencher keys and paddles

· BY1 Twin, black base	£79.95
· BY2 Twin, chrome base	89.95
· ST1 Single, black base	79.95
· ST2 Single, chrome base	94.95
· RJ I Pump, black base	69.95
· RJ2 Pump, chrome base	74.95

Swedish Pump Key

· Pedersen DK1000	£99.95

Logikey keyers

· Logikey K3 keyer	£129.95
· Superkeyer 3, kit	59.95

Samson keyers

· ETM9C X3, with paddles	£139.95
· ETM9COG X3, no paddles	109.95
· ETM SQ Twin paddles	39.95

Schurr keys and paddles

· "Profi" twin paddle	£129.95
· "Portable" twin paddle	119.95
· Twin mechanism, no base	74.95
· ditto for ETM keyers	79.95
· Hand key, mahogany base	139.95

DK1WE

· "Minky" miniature pump	£74.95
· "'Twinky" miniature twin	85.95

MFJ

· MFJ418 Morse trainer	£58.95
· Soft case for 418	8.50

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e-mail: g3tux@aol.com

Telegraphs in the Franco-German War 1870-71

by Ted Jones, G3EUE

THE IMMEDIATE CAUSE of the Franco-German War of 1870-71 was a telegram sent by the Morse telegraph. Both sides had been preparing for war, and hostilities began after the Prussian Chancellor, Bismarck, altered and published the so-called "Ems Telegram".

This was a telegram to Bismarck describing an interview King William I of Prussia had had with the French Ambassador on a matter of dispute between the two nations, and the King's refusal to discuss the matter further with the ambassador. Bismarck changed the wording to falsely imply that the King had dismissed the ambassador from his presence, and this apparent slight so angered the French that they declared war on Prussia on July 19, 1870.

The German States were among the earliest users of the Morse telegraph in Europe, and this article describes how it served the armies of Prussia, Bavaria and Wurtenberg in the build-up to, and during, the war with France.

Support from State Telegraph System

The German Army made extensive use of line telegraphy during the Franco-German War of 1870-71. The officially recognised purpose of the field telegraph was to organise as rapid a means of communication as possible between the different parts of the field army; also between the army and the home territory; thereby facilitating unity of command over the entire army. As a result, the telegraph service became of great importance in the progress of military operations.

In the field, the service was divided into field telegraph divisions and 'etappen' telegraph divisions. The task of the former was to connect the headquarters of Armies with their Corps in the field; while the latter connected army headquarters with the permanent lines of the country, thus ensuring communication between the various Army HQs and the Royal Headquarters.

A third service, the State Telegraph, provided officials for the field stations, and ensured that the lines of the etappen telegraph were properly established and working correctly.

Control Structure

The Head of the Military Telegraph (a representative of the Director-General of the State Telegraph) was based at the Royal Headquarters, and had overall responsibility, working through a Quartermaster-General, to ensure the proper use and functioning of all lines of communication. The

Commanders-in-Chief, however, had free disposal of the telegraph divisions attached to them for whatever special objects and requirements were considered necessary in pursuit of the war.

At the outset, five field and three etappen telegraph divisions were mobilised in Prussia and attached to the army. Bavaria mobilised one etappen and two field divisions, one for each Army Corps; and Wurtenberg one field division. To replace officials detailed for duty with the field telegraphs, the State Telegraph took non-commissioned officers and men from the army already trained in those duties.

Composition of Field Telegraph Divisions

1 Captain as commander
3 Lieutenants
1 Surgeon
7 Telegraph officials
90 Pioneers
45 Train soldiers
73 Horses (15 riding, 58 draught)
1 train (13 carriages)

Composition of the Etappen Telegraph Divisions (Two Sections)

1 Director in Charge

First Section

2 Lieutenants (1 from train)
7 Telegraph officials
35 Pioneers
37 Train soldiers
60 Horses (8 riding, 52 draught)
11 Carriages

Second Section

5 Telegraph officials
15 Train soldiers
4 Telegraph foremen
20 Telegraphists
21 Horses (3 riding, 18 draught)
5 Carriages

Inadequate Resources

Prior to entering France, working parties and material were placed in readiness at the French frontier and supplementary lines were erected in strategic areas, and along the coasts of the North Sea and the Baltic.

When the German Army first entered France, communications from the headquarters of the three armies back to the royal headquarters were restricted to two lines. As the armies advanced, lines from the field telegraph were connected to the permanent lines, while transverse lines and shorter branches were also installed.

During one of the earlier engagements, lines were constructed to follow the army as it advanced. However, the army went ahead so far that the telegraph division ran out of materials. Despatches from the front then had to be relayed back to the field telegraph by mounted orderlies or by optical signals.

During such advances, it became evident that the resources of the field telegraph were insufficient to meet the objects visualised. The idea of connecting the Army headquarters with the daily halting places of the Corps HQ had to be abandoned. On the other hand, every effort was made to ensure continuous telegraphic communication between Army HQ and the permanent networks to the rear.

Difficulties Overcome

As the army and its headquarters advanced, the lines erected by the field telegraph divisions were gradually replaced by those of the etappen divisions

who, in turn, gradually removed their lines as the permanent lines of the State Telegraph were able to replace them.

At the beginning of the war the German Command could not always prevent their own troops from destroying the French telegraph lines, which could otherwise have been used for German purposes. A problem arose here due to the employment of pioneer detachments which, initially, had neither the skills nor the necessary materials for repairing the French lines; and in fact, only the second sections of the etappen divisions were equipped with material and tools to repair permanent lines.

Eventually these difficulties were overcome by the creation of two more field and two more etappen telegraph divisions, and gradually the telegraph succeeded in covering the extensive field of military action.

However, the size of the theatre of war coupled with the rapid movements of the troops frequently gave rise to serious difficulties. To overcome these, it was found that construction of lines was most quickly effected when the telegraph divisions were attached to the advance guards, working in tandem with them.

Saboteurs

Considerable disruption of the lines was caused by local inhabitants, and franc-tireurs (irregulars), due to the limited number of garrison troops available to guard the lines. It is interesting to note that foreign apparatus was frequently found attached to the German telegraph lines - particularly the ettapen lines - while the French dispatches were seldom intercepted.

During the siege of Paris, Versailles became the permanent centre of the German telegraph network. The capital was surrounded by two parallel lines. One was used primarily for communication between the Royal HQ, the Army HQ, and the Inspectors-General of the etappen. The other, having numerous branches, was used for communications between the different parts of the Army. After the Armistice, and during the occupation of Paris, three stations were installed in the city itself.

Final Conclusion

The official report of the operations records in considerable detail the spread of the telegraph lines as the German army advanced into France and pursued the French East Army into Switzerland. It comments that, in spite of their initial lack of experience, the new telegraph corps were able to comply with the many demands made on them, and proved to be an invaluable means of facilitating military and political action.

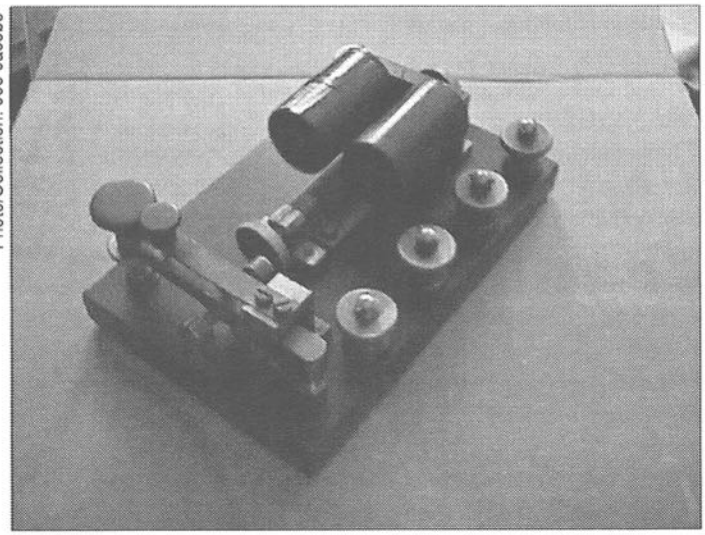
During the war, the field telegraph corps laid 1,106 miles of lines in the field and repaired over 5,000 miles of French lines, whilst operating 407 telegraph stations. The State Telegraph operated 7,765 miles of lines with 118 stations, and the etappen divisions operated as a link between the field divisions and the civil circuits, forming a communications zone behind the front-line troops.

(Ref: The German Official Account of the Franco-German War, 1870-71. English translation published by HMSO, 1884, for the Intelligence Branch of the Quartermaster-General's Department, Horse Guards.) ***MM***

Showcase/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.

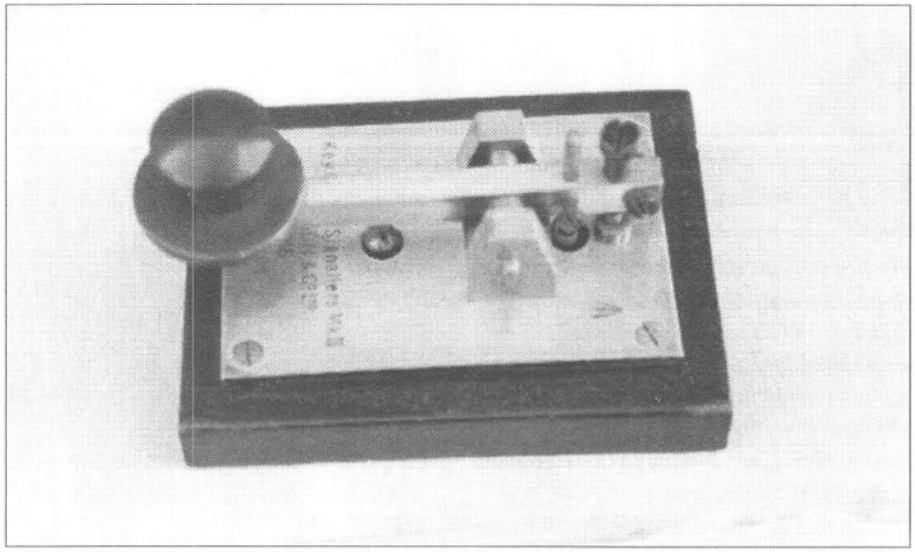
Photo/Collection: Joe Jacobs



This late 19th century key & sounder was apparently made by W. Gurlt, Berlin. More information please!

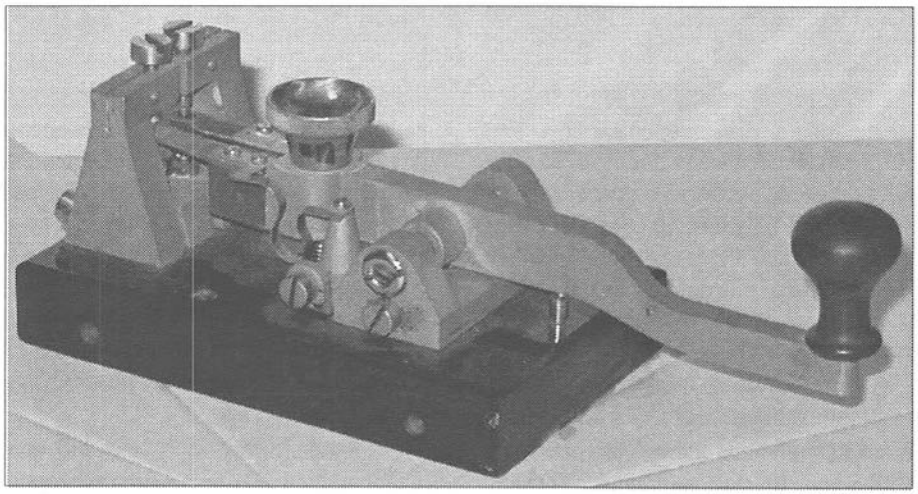
Photo/Collection: Dave Pennes, WA3LKN

US Navykey, CAQ26026, used with leg clamp



Photo/Collection: Malcolm Brass

Mk 2 Dummy Signallers key made by Croggan & Co. Ltd., 1915; Serial No. 11294



Photo/Collection: Raymond Lee, VR2UW

An unmarked Swedish Morse key measuring (overall) about 19.5 cms (L) x 7.5 cms (W) X 7 cms(H). It is a plated brass key equipped with dual contact plates at the far end of the key arm. The mechanism acts smoothly with high speed output (30 wpm effortlessly!). Info please, especially its maker, year of manufacture and its usage.

AP - The Story of News

A Book Review

by Tony Smith
G4FAI

BEFORE THE INVENTION of the electric telegraph, only the most successful newspapers in America could afford the heavy expense of maintaining the necessary mixture of pigeons, ponies and boats to obtain the then fastest possible delivery of news.

Then came Morse's telegraph. This too, was an expensive way of sending and receiving news, so in May 1848 six New York newspapers formed a co-operative organisation, the Associated Press, sharing news-gathering and transmission facilities to reduce their costs. This book is the story of how the co-operative was formed, how it gradually expanded, taking into membership newspapers across the United States, and eventually extended its reporting facilities to cover the globe.

It follows many of the great news stories of the day, describing how they were obtained and, in many cases, the part played by Morse telegraphers, sometimes in difficult or dangerous circumstances, in getting the news to member papers as quickly as possible.

Hired its own Lines

Initially the AP used commercially available telegraphic services. Then it hired its own lines and its own operating staff, and in due course the Traffic Department became an important part of the organisation in its own right.

By 1923, for instance, its leased wires across the continent totalled 92,000 miles, with an operator every 85 miles along the circuit. By then the Association had 1,207 member papers, served by 55 domestic news bureaux, and 27 foreign bureaux, which were linked to the US by cable.

Outwitted

One of the earliest stories told in the book concerns a competitor of the AP who, in 1849, always managed to get to the wire first at Halifax, Nova Scotia, with news from incoming ships. To outwit this competition, Daniel Craig, the AP's first correspondent on foreign soil, had an undercover employee at Halifax send a cryptic message to Amherst, the next telegraph office along the line, as soon as a steamer was sighted. On receipt of this message an operator at Amherst would begin to send 'Associated Press Steamer News' to New York.

Craig immediately set out to meet the steamer at Halifax. After getting the news from the ship he would send it by pony express to Amherst, a journey of five hours. During all this time the Amherst operator would be transmitting

text from the Bible to hold the line for the AP until the pony express arrived. He then transmitted the newly arrived news from the steamer to reach New York ahead of the dispatches from the rival organisation.

Earthquake

When the San Francisco earthquake of 1906 occurred the wires to the AP Bureau, and to the Western Union office on the floor above, went dead. AP men ran out from the building hoping to find another company's wires still working so they could send news of the disaster to the outside world.

The Pacific Cable Company was able to send a brief message to Honolulu, but there was no direct route inside the USA until Postal Telegraph re-established contact with Chicago, only to have it fail again as the AP dispatches were being relayed over the wire.

A government launch took two AP telegraphers to Oakland, across the Bay, where both Western Union and Postal Telegraph had set up workable wires and AP dispatches were given right of way. Back in San Francisco the WU building, which housed the AP bureau, was dynamited in an attempt to halt the spreading fire.

The AP staff moved to the offices of a nearby newspaper. They continued to send their dispatches by messengers to the wire offices in Oakland, and in the first 24 hours they wrote and telegraphed 21,300 words describing the devastation of the city.

'Flash'

The experience of the earthquake emphasised the need for initial bulletins on matters of supreme importance to be brief, and identified in such a way as to take precedence over all other bulletins on the wire.

In an order to its employees worldwide, less than two weeks after the earthquake, the AP stipulated that such initial bulletins were never to exceed ten words in length, and were to be identified by the word 'Flash'.

Bare-knuckle Fight

Sports coverage in newspapers gradually increased until, before the turn of the century, many American papers had their own 'Sports Page'. An example of early sports reporting was the 1889 bare-knuckle championship fight between John L. Sullivan and Jake Kilrain. This went seventy-five rounds, lasted two hours and sixteen minutes and, to avoid legal complications, was held in woods near Richburg, Mississippi.

The nearest telegraph office was in New Orleans, a hundred miles away, and a railroad engine with two cars was chartered by AP to get the result to New Orleans ahead of the special trains laid on for spectators.

The train stood ready to go, with steam up, in a siding not far from the ringside. At the conclusion of each round, brief reports were written, placed in specially made hollow balls, and thrown over the heads of the spectators to an assistant at the back of the crowd. At the end of the fight he rushed with the reports to the train, which immediately headed for New Orleans.

After a few miles it was discovered that some other newsmen had managed

to get on the train. The AP man transferred to the engine, the cars were cut loose and the engine ran on alone at full speed for the remainder of the journey. The AP reports were thus put on the wire ahead of the opposition.

Such were the early methods of sports reporting, but by 1913 telegraph lines were being strung direct to the scene of almost any sporting event and reports could be telegraphed direct from the venue.

Nationwide Link-up

In 1916, an achievement by the Traffic Department caused a sensation in the newspaper world. As the World Series took place, AP telegraphers transmitted a play-by-play account, over a 26,000 miles circuit, direct from the baseball park into the office of every leased wire member newspaper.

An added sensation occurred during the first game. As chief operator John A. Bates was keying the commentary, the wire was interrupted by:

F-L-A-S-H NEWPORT, R.I., OCT. 7 - A GERMAN SUBMARINE HAS ARRIVED HERE.

A fighting submarine, the U-53, had entered port, and the first person permitted to board her was an AP man who was told by the commander that he had entered port "to pay his respects". He also asked the reporter to post a letter for him to the German Embassy in Washington.

The U-35 returned to sea and once outside the three-mile limit torpedoed five non-American ships, some within sight of the American shore. In common with other news organisations, the AP covered this story in detail. It used a team of twenty men, relaying the story over the wires as fast as the news came in. This incident brought the reality of submarine warfare into American waters and imposed a considerable stress on the US government's then policy of neutrality.

Impact of War

After the United States entered WWI on April 6, 1917, the Traffic Department lost many of its staff to the armed forces. The Signal Corps needed trained telegraph men and within the first few months a hundred of the 630 regular telegraphers had joined the Corps. Some 200 others, unable to join because of age or disability, became spare-time instructors to Signal Corps recruits.

The first drawing of the draft created a heavy demand on wire facilities. As the Secretary of War drew out the first draft number, 258, it was on the wire network within a minute. To the men numbered 258 in each of 4,500 draft precincts it was notice that they had been chosen for the draft.

In all, 10,500 numbers were drawn. All were carried by the AP over four special parallel trunk wires, with the last one flashed only ten minutes after it was drawn. One telegrapher, John Mooney at the Scranton 'Republican' stayed on duty twenty-six hours and fifteen minutes. At 8 a.m., on the second day, one particular number ticked off the sounder. It was his own!

Erroneous Signal

The book continues with stories of news gathering through the remainder

of the war, and into the post-war era. In 1932, one event that caught the attention of the world was the kidnapping and murder of aviator Charles Lindbergh's baby son, Charles A. Lindbergh, Jr.

In 1935, at the trial of Bruno Hauptmann for the crime, at Flemington, N.J., representatives of the press went to great lengths to be the first to get the result out of the locked courtroom. However, a local arrangement made by AP staff went seriously wrong and became a news story in its own right.

A Traffic mechanic, who was also an amateur radio operator, was in the courtroom with a portable short-range radio transmitter under his overcoat. He was to key a pre-arranged signal when the verdict was given and this was to be picked up by a receiver in another part of the building.

For some unknown reason, the wrong signal was received and a message was flashed to all AP member newspapers across the United States that the accused had been found guilty and sentenced to life imprisonment.

Eleven minutes later it was discovered that the jury had not yet delivered their verdict, and another message was hastily sent across the wires:
F-L-A-S-H
KILL HAUPTMANN VERDICT - ERRONEOUS

A few minutes later the true result was keyed by the operator in the courtroom and wired to New York:
F-L-A-S-H
HAUPTMANN GUILTY DEATH SENTENCE

The clandestine operation by staff attending the trial was totally unauthorised by the AP, and the fact that all the Association's members across the country had nearly printed an incorrect trial verdict itself became a major news story. According to the book, it was never discovered where the wrong message came from, or how it had been accepted despite the omission of pre-arranged safety checks.

Side by Side with the Morkrum

The AP continued covering the stories of the day, and they continued to be carried by the Morse telegraph, although the Morkrum telegraph printers, introduced in 1913, were gradually taking over the work. This process took many years and during that time, in many places, Morse and Morkrum continued working side by side

The Italian invasion of Ethiopia, the Spanish civil war, the abdication of King Edward VIII, the Sino-Japanese war, the rise to power of Adolf Hitler, the beginning of WW2. The AP covered these and many other stories, national and international, transmitting them over their wires.

As the story unfolds it becomes quite apparent that the eventual development of the AP into a highly sophisticated worldwide news-gathering organisation, owed its success not only to the efforts of its news-staff but to its telegraphers as well.

Long Out of Print

It should be emphasised that this book was written to tell the story of the AP itself, and not its Traffic Department. The story of the development of its telegraph services emerges as part of that

overall story, and this is surely one of the best ways to learn about the significance of the role played by Morse, in its time, in a specific field of activity?

The book is long out of print, but those interested in the contribution made by the Morse telegraph in its many different fields of activity will surely wish to have a copy on their bookshelves. However, nowadays they will only find one in the secondhand market.

("AP - The Story of News", by Oliver Gramling, was published 1940 by Farrar and Rinehart, Inc, New York, USA.) ***MM***

Your Letters

MM67 Info Please - P.38 (Top)

These keys were used in open circuit working - hence no circuit closer and the third terminal for earth connection. Typical use was on an 'order wire' which was a line mainly from the Chief Telegraph Office test board in each state capital city to one of the larger provincial offices where traffic related to line testing and rerouting of lines etc. rather than normal telegraph traffic. Order wires sometimes ran between two provincial centres.

However I can't agree it has a close resemblance to the Clipsal which had brass fittings whereas this model has steel fittings, the circuit closer which Clipsals did not have, a different knob and the terminals were on the opposite side.

Also the base of the PMG key is wider than the Clipsal. The backstop of the PMG keys always had a hole through the adjusting screw whereas there was none on the Clipsal.

Both, however were very good keys and both had two and three terminal versions. The steel keys superseded the earlier PMG brass keys which had wooden bases.

Ron McMullen
Yass, New South Wales

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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

North Eastern School of Wireless Telegraphy

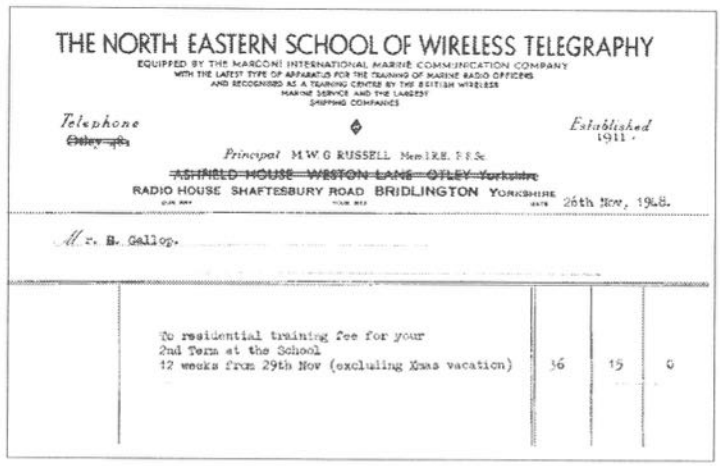
Tony Smith's article in MM66, p.29, brought back some happy memories for me. In July 1948 after four years service at sea, in both the Norwegian and British merchant service, I was returning to Liverpool on board the *Javanese Prince*, a Bibby Line general cargo passenger ship from Buenos Aires. At this time doubt was being expressed that my sea time in a Norwegian ship would count towards my total time at sea to enable me to sit my ticket. As a result, instead of four years the Board could only recognise 18 months sea time.

Having been interested in radio since a boy, I enquired of the ship's Radio Officer how one went about obtaining a Radio Officer's ticket, and he told me about the North Eastern School of Wireless Telegraphy which at that time was still based at its wartime location, Ashfield House, Weston Lane, Otley, Yorkshire.

I paid off the *Javanese Prince* in Liverpool and made my way by train to Otley, only to find the school had returned to Bridlington. There was nothing for it but to continue my travels, finally reaching my destination to find the school closed for the summer vacation! A notice board at the school gave the name of the chief instructor, a Mr Maclane. A phone call to his home resulted in an invitation to join him and his family for their evening meal. They also put me up for the night and the following morning I was interviewed by Mr Maclane as to my suitability to join the school next term.

So, by a rather round about journey I became a student at the school to study for my P.M.G.2 certificate. During the next twelve months I learned all about the radio receivers and transmitters to be found on British merchant ships, together with electrical theory and practical fault finding. I was also taught to master Morse and was introduced to the many logs and forms used to record messages at sea. Many of the students at that time were going through the school on various grade courses. During the war many operators held a special licence but after the war these were restricted to trawlers and coasters.

Accommodation at the school was in dormitory form in two-tier bunks, and many a lamp was swinging well into the night with tales of the sea and experiences thereon. At the time I was at the school I was charged a quarterly fee of £36.15.0



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RADIO HOUSE SHAFTESBURY ROAD BRIDLINGTON YORKSHIRE 26th Nov, 1948.

Mr. B. Gallop.

To residential training fee for your 2nd Term at the School 12 weeks from 29th Nov (excluding Xmas vacation)	36	15	0

to cover all tuition, three meals a day and accommodation. The Principal of the school was Mr M.W.G. Russell, the school secretary Miss B.J. Shaw, the chief instructor Mr Maclane (R.N.), and other instructors were ex-R.N.

I spent a very enjoyable hard-working twelve months at Bridlington and sat my P.M.G.2 examination in July 1949. Having had a taste of shore life, however, I took the decision to swallow the anchor. I was married in November 1949 - and we have just celebrated our Golden Wedding Anniversary.

Although I never returned to sea, I found that the training I received at the North Eastern School of Wireless Telegraphy stood me in good stead in my newly chosen career as a technical training manager with a large domestic appliance manufacturer with whom I spent a very happy 31 years. I took early retirement in 1986. The following year saw me sitting for my amateur radio licence and the training I obtained as a student at the school helped me obtain a pass with credits.

Yes, I have very happy and thankful memories of the old school. For me it produced the building blocks for a successful career and a happy retirement.

Dick Gallop, G0KNQ
West Runton, Norfolk

Signalling Torch by Shimwell, MM67 P.38

This picture appeared in Info Please in error since much information is available. Guy Taylor described its use in MM20 P.38 in an article entitled 'Lamps and Whistles - Another Morse Experience'

Of this torch he said " Night Signalling by Morse in the WWII convoys was a different ball game as bright flashing lamps were a quick road to suicide! Instead , one used the Admiralty Night Signalling Torch. This was a large 3 cell torch with a blue lens and a tiny Morse at the back of its body."

"Its tiny blue flashes covered quite a few hundred yards, but were invisible at greater distances. Using it was a two handed job, and I well remember being thrown off my feet in a North Atlantic hurricane, bringing down the Old Man and the Mate with the three of us ending up against the wheelhouse in a tangle of arms and legs!"

Wyn Davies has used this type of torch and says that it was in service by the Royal Navy and merchant ships from before WWII and still in service when he left the RFA (Royal Fleet Auxiliary) in 1966. It was used in ports and between ships in close formation at sea e.g. for taking on stores.

The Navy version carried the Admiralty Pattern number AP16001. They were manufactured by several companies and Wyn has had in his collection at various times versions made by Eveready of Canada and Santon Ltd Newport, Monmouthshire.

Ray Bullock also has one these signalling units made by Santon and is marked WD 1942.

(With thanks to Wyn Davies, Ray Bullock and Guy Taylor's article for the information - Ed)

Testing Telegraphists' Skills - Volunteers Wanted

To send Morse is a skill which takes time to develop. Some telegraphists no doubt reach close to the limits of human attainment and have controls of the level of a skilled musician. I am interested in determining how accurately operators of various levels of skill can send Morse code using straight keys. The test determines how closely an operator sends Morse to the theoretically correct values for the structure of the code, i.e. dashes three times as long as dots, spaces between characters equal to 3 dots and equal to 7 dots between words.

The system comprises a laptop computer, used as a digital oscilloscope which can save files of Morse sent for several minutes. These files can be statistically analysed and histograms produced to show the timing accuracy.

Volunteer operators are sought of varying degrees of skill willing to give a little time to undertake a timing test. They will probably reside in the Edinburgh region or be CW enthusiasts visiting the city.

I would also like to have the opportunity of testing the accuracy of the timings sent by someone skilled in the use of a mechanical bug key.

Most operators can no doubt only give their best with their own key. The tests could either be done at my home in the South of Edinburgh, or elsewhere by arrangement.

Any MM reader willing to help please contact me at 64, Liberton Drive, Edinburgh, EH16 6NW, UK., phone +44 (0)131-664-3046 or e-mail: Geoffrey.Walsh@ed.ac.uk Visit http://www.ed.ac.uk/~gwalsh

Geoffrey Walsh, GM4FH

Learning High Speed Code

How can the skill of those truly high speed operators (60 > 100 + wpm) can be developed. Some of them must force themselves to maintain their skill - that is artificial, not natural. For others it all seems so effortless, so natural.

From knowing how shorthand skills develop into high speed stenographers I am convinced that it is a change in approach - in attitude or method

- how one thinks of it which makes those speed boundaries vanish. If we could somehow come to know how to approach it, then almost everybody could copy easily at 80 wpm or more. George Hart, formerly on the QST staff is one example of such a man.

Reading or copying code at any speed (over about 12-18 wpm) ought to be as easy as talking. But those highly skilled operators, like expert singers, often, maybe almost always, do not know how they really achieved that skill - in order to help others do the same. Maybe some day we will learn....

William G. Pierpont, NØHFF
Wichita, Kansas

Morse Clickers Information Wanted

I am in the process of compiling a book on telegraphy and am looking for more information on a children's toy which made the noise of a Morse sounder. The item is/was variously named: clicker, cricket, grillo, cricri, cicalino, raganella, clic-clac, etc. One internet site describes a toy which includes this clicker at http://www.antique-toy.com/vintagegeneral.htm

The caption reads "*Marx City Airport. A great toy, but very sad it has no airplanes, maybe you have some that need a home. Played with condition, the search light works and is removable to store a battery. The front tab has been repaired. The Morse clicker is complete and in working order.....*". Perhaps the spring it is in the hangar.

Can anyone help please with information about:

1. the usage of the clicker in War movies (signalling, password, etc.)
2. the usage of the clicker in War movies (Morse communications between paratroopers, etc.)
3. the usage of the clicker in War movies (simulation noise of rifles, etc.)
4. the names of this movie, novel, etc.
5. the usage of the clicker in training Morse code (American or International?)
6. description of various clickers
7. explanation of the technology of the spring
8. references, sources, etc.
9. where the clickers are available.

Please send any information me at: via G. Mantellini 10 - 00179 Roma, Italy - Tel. 06- 7857083, e-mail: andreagaeta@tin.it

Andrea Gaeta, Rome

Comparison of USA and UK Telegraphs

There was a fundamental difference between the land-line telegraphy circuits that were used in the USA compared with those used in the UK. When the line was in the stand-by state, in the UK no current flowed whereas in the USA a current did flow. Also in the USA, if an operator forgot to close his shorting switch at the end of a session, the line could not be used.

Can anyone explain the advantages and disadvantages of each as both systems seem to have given satisfactory service

Gerald Stancey, G3MCK
Rutland, England

GPO Equipment

Browsing around a local antique/junk fair recently I was approached by a gentleman who said he had overheard me discussing with a stallholder the scarcity of old GPO equipment.

He stated that in the 1950s and early 1960s he was employed by a demolition company in Essex, engaged in stripping out a number of GPO substations and remembers large quantities of brass and mahogany instruments and other equipment being thrown into a furnace in order to burn off the wood. The brass was then raked out and sold as scrap.

Happily, not all these instruments ended up in this way as, over the past three or four years I have found several GPO Morse keys, both PATT 1056A and GPO 3818; also a couple of GPO double current 'cathedral' galvanometers and quite recently a GPO 3958 sounder in good condition.

It would be interesting to know if anyone else has heard of the destruction of this lovely old equipment.

Jack Barker
Surbiton, England

Troublesome Callsigns

Most CW operators will have fallen foul of the Murphy's Law which dictates that once a distant station receives your callsign incorrectly they will resolutely stand by the version they have written in the log for the remainder of the QSO, no matter what you send in an attempt to correct the situation.

This I have grown to accept, although it causes me some grief that with an all-dot suffix, UK amateurs with callsigns in the permutation ranging from G4III to G4HHH must receive a lot of my cherished DX cards.

However, I was totally unprepared and quite taken aback at the world-wide reaction to the granting of the /2K suffix to UK amateurs during the month of January 2000 to celebrate the start of the new Millennium.

I used both G4SSH/2K and the club call GXØOOO/2K to make about 300 CW contacts and was amazed to discover that a staggering 77% (230 stations) refused to recognise the "K" as part of the suffix, assuming that this was "over to you" and replying to G4SSH/2 under the mistaken belief that I was perhaps operating mobile or at an alternate address.

This was in spite of the fact that I deliberately repeated the full callsign at least three times and added the prosigns AR (and KN after contact) in an attempt to draw attention to the validity of the call. It would appear that very many CW operators read characters they expect to hear instead of the Morse symbols that are actually sent.

My commiseration's to any holder of a callsign ending in K. With the UK allowing newly licenced amateurs to select an MØ callsign of their choice from 1st April 2000 it would perhaps be an opportune time for the authorities to label some callsigns with a health warning such as "this sequence of call letters will seriously affect your chances of working DX". I am sure that many readers will be able to supply similar examples of troublesome calls.

Roy Clayton, G4SSH
Scarborough, England

Morse for E-mail and Web Information

May I enquire through the Letters Page if you know about Morse characters for some of the currently used symbols in electronic mail. Some of these have been around a long time and I am sure I am not the first to enquire, but I have never seen them referred to.

I have needed them whilst trying to send e-mail and web information, and am sure that the problem is going to become more, rather than less frequent.

The symbols are < > ^ \ _ ~ @ # * $ and also, when sending case-sensitive letters, how do you send the instruction to respect the case as upper or lower? Incidentally, what is the Morse character for the exclamation mark ! and what is the instruction to underline or emphasise a phrase? Is it **UNDERLINE**[text] or **ITALICS**[text] for example?

If there is no internationally agreed Morse character at present, which is the authority to approve one? Is it the ITU, or RSGB or who?

On another matter, I have always been intrigued about the code words 73 [best wishes] and 88 [love and kisses, or similar] at the end of telegrams and in common use on both amateur and professional circuits. My question is: are there or were there any others in common use in the merchant marine or other telegraphy services in previous times? I once heard or read an apocryphal tale that the WWII use of HH by German military operators, for their salutation, became 55, but I have never heard it, nor had that confirmed.

I hope you or the readers are able to shed some light on these questions.

Prof. J F Alder G4GMZ
Congleton, England

(As regards Morse for computer keyboard symbols, this was addressed last Oct at the Morse 2000 conference, University of Wisconsin - Eau Claire, which set up a working party to propose a Morse set for every computer keyboard character, underlines, mouse movements etc. Their proposals allocate Morse code to positions of characters on a US keyboard. For the full report on this, e-mail Jim Lynds, President, WesTest Engineering, Bountiful UT: jim@westest.com - also see article in MM67 P.9. Exclamation mark has had several Morse notations over the years. There now isn't one in International Morse Code. It used to be — — - - - — — which is now used for a comma. More information from readers on this letter very welcome. - Ed)

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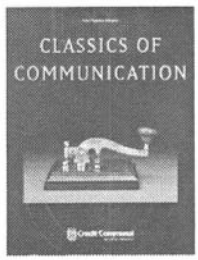

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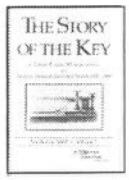

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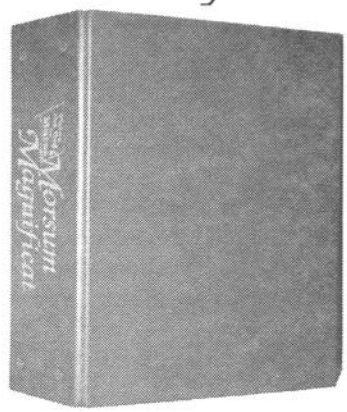

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SOLUTION TO MM67 SEARCHWORD

(Page numbers in MM67 shown in brackets)

Across: 1 Dodge's (30), **8** Atlanta (30), **9** EISH (34), **11** CQDL (2), **12** Schurr (37), **15** Jacobs (48), **17** Great Northern (46), **19** Tongue (26), **20** Sergei (15), **22** Antarctica (3).

Down: 1 Delete (9), **2** SAQ (4, 6), **3** KFAB (40), **4** Lillehammer (2), **5** Monaco (2), **6** Jardillier (41), **7** Chicago (30), **10** Tunisia (2), **13** RCA (7), **14** Luther (3), **15** Junior (31), **16** CwGET (15, 16), **18** Ernst (4, 7), **21** ICW (43).

Photo: Chris Gill, Museum of Communication

'The Spirit of Telegraphy', one of a pair of spelterware figures, the other being 'The Spirit of Telephony'. They are about 55 cms (20 inches) high and date from around 1900. Her hand is resting on the key at the side. This is part of the extensive collection of the Museum of Communication, Bo'ness near Edinburgh. *See A Tribute to Harry Matthews on P.20*

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