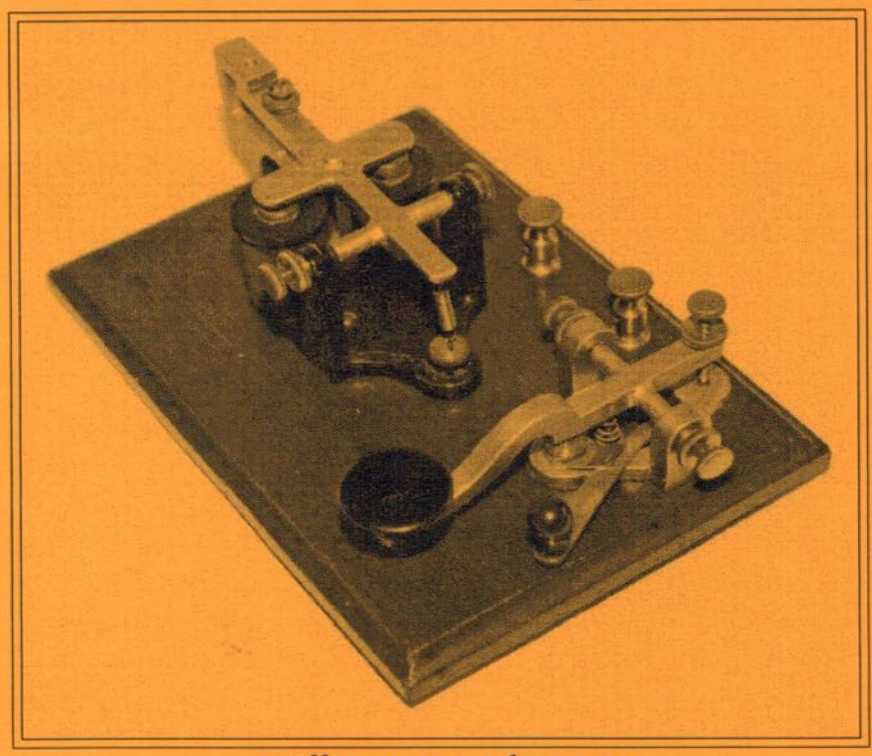
Number 62 – February 1999

Flying the flag for Morse

Morsum Magnificat

£2.50

The Morse Magazine



Tillotson Sounder & Key

Flying the flag for Morse

Morsum Magnificat

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

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"When does my subscription expire ...?"
The answer is to be found on the envelope that contained your latest *MM*, where the number on the top line of the address label tells you the last issue you've paid for. Also, we shall jog your memory with a renewal reminder included with that final issue.

MM Back Issues
Issues Nos. **31, 32, 34–36** and **38–61** available from the Editorial offices (see top of page). Price including postage £2.50 each to UK; £2.70 to Europe; £2.85 Rest of the World by airmail. Deduct 20% if ordering 3 or more.

ON OUR FRONT COVER
Camel Back Key and Sounder: L G Tillotson & Co., New York
Photo/Collection by Jean Le Galudec

Comment

Thank you for the many messages of support that have been offered over the past few months. If ever there was clear evidence of the great enthusiasm for Morse telegraphy it was in these messages. There was a 36% response rate to the reader survey with an overwhelming rejoinder to keep the magazine more or less as it is. There will be a full report in the next issue. The comments received were a great tribute to Tony Smith and Geoff Arnold both in terms the quality of the magazine and their commitment to its independence.

In contrast to this enthusiasm, the main items of Morse news in the wider world are less cheerful. This edition of MM is the first after the end of the 500kHz distress watch for maritime services, a Morse service which for over 90 years has saved countless lives at sea . The debate will continue over GMDSS as the replacement. A special tribute to the end of this service, a landmark in the history of Morse code, is included with this issue.

In the sphere of amateur radio, moves by regulatory agencies to reduce or remove Morse a qualification for access to the HF bands continues. The hope is that these decisions will be in the hands of reasonable people who can find a sensible way forward.

Whatever your view-points are on these issues, Morsum Magnificat is for *all* who love the many aspets of Morse telegraphy whether it is the pleasure of using the code, studying its history, collecting & restoring keys or just reading about it. Whatever the future is for Morse, one key point remains, many people know its value, understand its robustness when communication is difficult and cherish its history. Can another generation be persuaded of this?

Zyg Nilski G3OKD

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News

RSGB Search for New Chief Morse Examiners

Volunteers have still not been found to take on responsibilities of RSGB Chief and Deputy Chief Morse Examiner, in spite of a vacancy notice sent to all 300 UK Morse test examiners. The search follows the resignation of Roy Clayton, G4SSH and Geoff Pritchard, G4ZGP, at the end of December.

Without a Chief and Deputy, the Special-needs Morse test service for disabled candidates cannot function. Nor can Morse tests on demand at radio rallies be authorised, and investigation and arbitration of complaints cannot be carried out.

Although Roy and Geoff officially stood down at the end of the year, it was not their intention to inconvenience Morse test candidates or discourage new CW enthusiasts. They have therefore agreed to temporarily remain in post until the end of March at the latest, in order to allow time for the positions to be filled and a smooth hand-over arranged.

The 13th Anniversary Morse Test weekend on the air, scheduled for the 8th and 9th May, when Morse test teams from around Britain are active on the air using GB0 special event calls, will go ahead as planned.

Morse Telegraph Back in Business

Peter Shaw writes from Eaglehawk, Victoria, Australia to report that Morse telegraphy has returned to the beautiful old former Post Office building in Bendigo (Central Victoria) after an absence of 36 years.

Bendigo Tourism, who now occupy the lower levels of the building, have had a working telegraph office set up for viewing as part of the display in their Interpretive Centre.

An automatic transmitter may be used to send a continuous message through a 100 ohm relay to a 20 ohm sounder when operators are not in attendance. On the dial-up network line there is a key and sounder which were part of the equipment removed from the Post Office premises in 1962 together with a 150 ohm relay, cathedral galvanometer and 100 ohm sounder. The story of the telegraph's part in Australia's history is illustrated to the side of the operating position, and an overhead display cabinet contains many items including a Macdonald's Pendograph (in the style of tha American Meccograph), a pole changer, Wheatstone bridge and many other items including received telegraph messages over 130 years old.

Voluntary operators man the office and contact is regularly made with the National

Science and Technology Centre (Canberra), the Killer Whale Museum at Eden in New South Wales, and Tally Ho electric telegraph office in Melbourne. The latter office a well equipped centre in the home of Morsecodian Bill Morrow. Paid messages are transmitted to/from these offices and then after recording on commemorative message forms, posted for delivery to adressees.In addition there's almost 90 other dial up contact points which may be contacted on occasions in all Australian states except South Australia.

The electric telegraph came to Bendigo goldfields in 1857 and was initially operated in a tent from whence it moved to a more substantial building nearby. With the coming of the railway to Bendigo the office was moved to the railway station. It later went to a purpose built Post and Telegraph office in View Street, and finally to the present location in 1877.

Bendigo was an important telegraph centre, and even as late as the early 1960's many morse lines eminated from the office to points both north and south of the city. Balranald and Deniliquin in New South Wales were the furthest points served from Bendigo. Deniliquin was far enough into New South Wales to have a line to Sydney as well as the one via Bendigo to Melbourne. Some of the longer open wire lines suffered from substantial leakage during damp weather, and kept the manipulative staff busy adjusting stations through Bendigo into the VFT system. Bendigo's own traffic was handled on a duplex and simplex teletype system and a morse order wire into the Chief Telegraph Office in Melbourne was used for testing purposes; this line operated on the open circuit principle to conserve the batteries.

Scheveningen Radio PCH Farewell Party

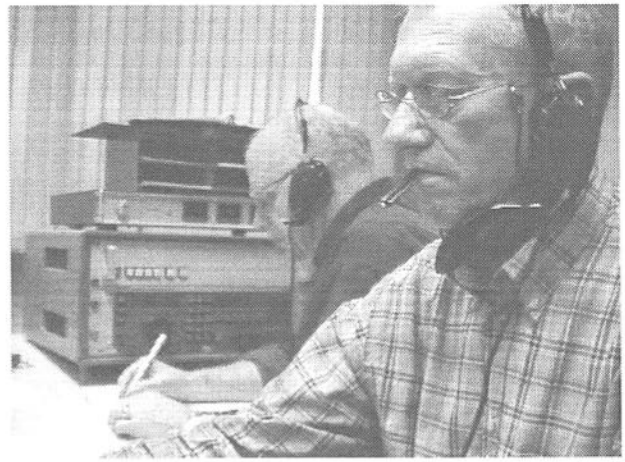
Scheveningen Radio/PCH, the Dutch shore station for maritime radio, closed for all time on 1 January 1999. It opened on 19th December 1904 and to commemorate the anniversary, an on-the-air Farewell Party was organised to work cross-band from the maritime frequencies to the radio amateur bands particularly so that ex-Radio Officers with ham licences could say goodbye.

André van den Bos, PAØJR, one of the operators reports, "We worked with about 30 operators (list below) during 24 hours on 2 and 80 meters as PA6PCH and made 1500 QSO's. Between 1600 and 0800 hours we used the telegraphy transmitters of PCH for crossband working in the hambands and made about 1000 QSO's with stations all around the world: VK, JA, KL, PY as well as European. We were very pleased to contact so many old friends. One in three of the QSO's was with a ex-radio officer or an (ex-)employee of a coastal station".

Operators who took part at PCH during the farewell party were:
Rob van Dijck, PAØDCK / Piet van Ree, PAØDXK / Tjeb van Kleef, PAØFNL / Gerard Kuijer, PAØGSM / Hans Hopstaken, PAØHOP / Henk Stek, PAØHSK / André van den Bos,PAØJR / Ko Lagerberg, PAØJY / Karel Geense, PAØKGV / Jan Ludekuizen, PAØOKE / Bas van Es, PAØRTW / Hans Remeeus, PA1HR / Joost Hilbers, PA2EAR/

Jan Bosch, PA3BME / Dick Klijn, PA3DEU / Frits Blom, PA3EXW / Fred Nolten, PA3FDI / Klazien Knop, PA3FIQ and Chris Geurtsz, PA3GZK.

The double folded QSL cards have arrived from the printer, and André hopes to complete all cards by the end of February. All cards will be sent via the Dutch QSL-bureau. Any SWL or radio ham who cannot use a QSL-bureau should send their card to PAØJY.



Fred Nolten,PA3FDI & Frits Blom,PA3EXW take CW at PCH

"On December 31st at 16.20 hours the last messages were sent out from PCH on CW and SSB. Ex-employees of PCH were invited to the station in IJmuiden for this event. About 400 watched this sad moment. Also at Kootwijk Radio (where a part of the PCH HF transmitters were located) there was a meeting, including ex- employees. After sending out the last messages, the emergency button was pushed in for the first time and all transmitters silenced..."

A Special Tribute

Of the many stations who worked PCH at the Farewell Party none could have done it greater style than Bruce Morris GW4XXF! A picture of Bruce working PCH is featured on the insert in this months MM.

Bruce explains, "My shack is a reconstruction of a Marconi Marine W/T Office with lovingly restored working gear. My uniform still fits me after 30 years so why not re-enact a ship-board scene so typical of old!

The Oceanspan VII was persuaded to work with a reasonable amount of power from the three 807s through the type 1052E Aerial Selector Switch into the main aerial, a 150 ft long wire.

Keying the 'Span with a Marconi Type 365A key, via the Autokey created a clatter of desens relays but the Mercury & Electra receivers worked well.

Some will remember the frustration of many hours calling coast radio stations in an effort to clear TFC? Well that was familiar too this time! What a pile-up! Starting at 1500Z I worked my way down through 16, 12, & 8 until at 2112Z my call was answered on 4MHz. A brief exchange, the PCH R/O was pleased to hear of the historical setting of the QSO.

A sad but exciting moment." PCH closed finally on HF on 31st Dec 1999 at 1520Z. Bruce has recorded the final SK

message to add to his huge collection and would like to hear from anyone who has made recordings of coast radio stations closing down, especially on the distress & calling frequency 500kHz. Please help Bruce to build this important archive.

He apologises to anyone waiting for a copy of the cassette "500kHz - The End Is Nigh!", it has been difficult to know when to produce a new edition due to the spate of closures over the last few years.

The definitive end of Maritime Wireless Telegraphy occurred on 31st January 1999 with the official adoption of GMDSS on 1st February.

(Ed. - ABC News (London Office) contacted MM for a suitable location to film for their news story on the end of maritime Morse. They spent a day with Bruce in his shack, filming authentic simulations of maritime Morse operation)

PCH Reunion

In March, there will be a reunion for all R/Os who ever worked for Radio Holland or for PCH. The event is being organised by the "Foundation Historic Material Radio Holland", in co-operation with Radio-Holland Marine. Albert Spaans said, "Over 600 participants have already responded, but there must be many more who are not aware of this event. There will be films, video shows and a photo exhibition as well as historic and modern equipment on display. And there's even a chance to get one's 'wrist' checked – formerly a requirement in order to qualify for annual bonus payments." The event will be held on Saturday 13th March from 11.00 to 17.00 at The Rotterdam Cruise Terminal (formerly the departure hall of the Holland America Line), Wilhelminakade, Rotterdam. The cost is 59,00 gilders or 99,00 gilders per couple, including a simple lunch. To book contact Jan Schenk: +31 (0)181 312807 or Bram Boutkan: +31 (0)181 402037.

And From Scandinavia

Special amateur callsigns were QRV from Scandinavian coast stations on 1st – 28th February 1999 and will be for the weekend event on 10th – 11th April, 1999. For the February period, there is a special QSL card outlining the history of each station.

Svalbard Radio/LGS, the world's most northerncoast station - special callsign JWØLGS.

Greenland - Qaqortoq Radio/OXF with the call sign OX3OXF, Nuuk Radio/ OXI with the call sign OX3OXI, Aasiaat Radio/OYR with the call sign OX3OYR

Iceland - Reykjavik Radio TFA with the call sign TF3TFA

Faroe Island -Torshavn Radio/ OXJ with the callsign OY3OXJ

Denmark - Lyngby radio/OXZ, call sign OZ1OXZ (opr OZ8AE), Lyngby radio/OXZ,callsign OZ5OXZ (opr OZ5DL), Lyngby Radio/OXZ, call sign OZ1OXB (opr OZ6TL).

All QSO's will be confirmed via the Bureau. Those, who want a direct QSL card can obtain it via the operator worked. Awards will be issued:

(1) For Amateur Stations and SWL, confirming QSOs with 3 of the 4 Countries, (2) For QSOs with all 4 Countries an Award will be issued, (3) For QSOs with all 8 Amateur Callsigns.

Royal Flying Doctor Service "All CW Award"

This award seeks to recognise the great work being done by the Australian Royal Flying Doctor Service, and to acknowledge the assistance given, especially in its formative years, by Amateur Radio Operators, many of whom today are still involved in its operation.

For the Rev. John Flynn, the establishment of the service in 1928 was the fulfilment of a dream - to spread a 'Mantle of Safety' over the people of the vast Inland of Australia, combining the use of aviation, medicine and radio.

Flynn maintained that, due to radio the service was 75 percent effective. Today, the people of the inland areas still rely to a large extent on radio to communicate with each other, and the 'School of the Air' helps bring education to the children of isolated settlements.

The 'Twenty Eight' Chapter of 10-10 International offers this award to any radio amateur or shortwave listener worldwide. (Although offered by the 'Twenty Eight' Chapter of 10-10, it is NOT a 10-10 activity.)

It will be of interest to MM readers that, although the award can be obtained by the use of any mode, a large proportion of applications (mainly at present from Germany) are accompanied by a request for the certificate to be endorsed 'All CW'.

Contacts can be made on any band in any mode. The requirement is to make up the words 'Royal Flying Doctor Service' using letters from the prefix/ suffix of station callsigns worked/heard from anywhere in the world. Each callsign can be used once only each year, but can be used in successive years.

If a VK station is worked/heard whose operator works for, or relies on the RFDS for normal contact with the world, or has an RFDS callsign, this counts as an 'instant qualifier' for the award. All VK6 stations may also be claimed as instant qualifiers.

To claim the award, list all contacts, including date, band and mode, station worked/heard and letters used. SWLs should list (and can use) both stations heard.

The cost of the certificate is $5.00 ($A in Australia, $US or equivalent for other countries. From this sum, only $1 Australian, or enough for return airmail postage will be taken. The remainder will be sent to RFDS on behalf of the applicant. (If an applicant wishes to donate more to the RFDS, postage only will be taken. For amounts of more than $5.00 a receipt will be issued if requested. Applications for the RFDS Award should be sent to the Award Manager: Dave Handscomb VK6ATE, P.O. Box 39, Quinn's Rocks, W.A. 6030, Australia. If all contacts used for the award are in CW, ask for the certificate to be endorsed 'All CW'.

Wanted - Articles, Letters or Pictures on Aviation Morse - Contact MM

Liverpool Praises Examiners

The Liverpool & District Amateur Radio Society has sent an open letter to the RSGB commending the work done by Roy Clayton, RSGB Chief Morse Examiner and his Deputy, Geoff Pritchard, but critical of the RSGB's silence over their resignations. The letter reads, 'We the members of the Liverpool & District Amateur Radio Society wish it to be known that we do not agree with the lowering of the standards, or the abolition of CW as a qualification for an Amateur Radio Licence.

Our local Liaison Officer was unaware that the Chief Morse Examiner, and his deputy, tendered their resignation on the 7th of November 1998, and not a word has been spoken or written about it. Is this subjudice or subterfuge? We consider that these two officers have done a sterling job over the past ten years, and we want to know if the RSCB intends to reward them. The RSGB has lost 30 Morse Examiners and 4 complete teams, yet this fact has not been brought to the attention of members, WHY ?

Qualifications in Amateur Radio are being cynically diluted in a determined effort to attract newcomers, who lack the motivation and interest necessary to engage in self-training in basic radio communications. This can only lead to further resignations from the RSGB.'

Awards from AGCW-DL

The German "Activity Group Telegraphy" has a programme of CW awards open to any licensed radio amateur, whether a member of AGCW-DL or not, as follows:

CW-2000/CW-1000/CW-500: For these awards 2000/1000/500 CW QSOs per calendar year are required. All HF QSOs are valid, including contest QSOs and ZAP QSOs. AGCW members submit a declaration stating the total number of QSOs between lst January and 31st December. Non-members should send a list of the total number of QSOs for each month in the same period, certified by two radio amateurs.

QRP-CW-500/QRP-CW-250/ QRP-CW-100: This award is for QRP traffic on the HF bands. 500, 250, or 100 CW QSOs per year are required. Rules as above but with an additional declaration required, that the applicant has used a QRP transmitter with a maximum output of 5 watts or a maximum DC input of 10 watts.

UKW-CW-250/UKW-CW-125: These awards are for CW QSOs on 144 MHz or above. 250 or 125 QSOs per year are required within legal power limits. Rules as above.

W-AGCW-M (Worked AGCW Members): This award is for QSOs with AGCW members. Bronze award requires 200 points; Silver award 300 points; Gold Award 500 points. QSOs with DL members score 1 point, QSOs with other EU members 2 points, QSOs with members outside Europe 3 points. A QSL for a ZAP QSO scores 5 points. QSOs on 144 MHz and above count for double points. Apply with the standard GCR list and send the ZAP QSLS, which will be returned.

AGCW Long Term Award: For this

award, the basic calendar year awards CW-500/QRP-CW-250/UKW-CW-125 must be obtained for every single year since the creation of the Long Term Award in 1988. (QRP-CW-100 is not designated 'basic' for this award). All applicants for a basic award can ask for an additional record card (or can have one at a later date by sending an SAE). For each year a maximum of 2 stickers for basic awards can be applied for. A record card is complete when it contains 9 stickers for the same award. Send the completed card to the award manager to obtain a 'Certificat Langzeit-Wettbewerb' (A4 colour print) free of charge. Award Manager: Tom Roll DL2NBY, Service-Referat P.O. Box 568, D-91774 Weissenburg, Germany.

AGCW Trophy: The highest award of AGCW-DL can be obtained by any ham or SWL who has gained at least six awards in CW only and who has participated in at least three different CW contests with a top ten result. At least one award and one contest must be from AGCW. All awards must have been worked for after the founding date of AGCW (lst January 1971). Trophy Manager: Guenther Nierbauer DJ2XP, Illinger Strasse 74, D-66564 Ottweiller, Germany.

AGCW has a new web page: http://www.qsl.net/agcw in both English and German. It contains the above information plus contest results, a membership list and other information about AGCW-DL.

New IOTA Island

Argentina's CW group, GACW has announced that they will, jointly with the Ushuaia Radio Club mount an expedition to a new island in the South Atlantic Ocean. The group of six will be ready to activate a new SA number from next December. There are several small Islands from a list in the Islas de Año Neuvo group, located to the north of Staten Island. Observatorio Island, with an old beacon will be the first.

Argentina CW Group -GACW Telegraphy YES, Telegraphy no

The Co-ordinators of the Argentine CW Group (GACW), Alberto U. Silva, LU1DZ, Raúl M. Diaz, LU6EF and Jorge F. Vrsalovich, LU7XP, have published an open letter on the future of telegraphy. It has been widely circulated including170 to radio amateur organisations and national bodies as well as 1500 e-mails to other interested parties. The 1400 word document argues the case for the retention of a CW qualification as the means of controlling access to the HF bands. Of the many points raised, it stresses that amateur radio is a hobby linked to international communication needs; 'which regulation is going to replace the need to operate an Emergency CW station?', it asks.

There are some who see amateur radio in purely business terms and claim that the need for a CW qualification is 'killing' the hobby, whereas in fact, there are many more communication pursuits today with which HF radio competes, cellular phones, satellite phones, interactive TV, the internet etc.

Communication technologies will continue to develop and change but telegraphy and telegraphers should always be available to provide this very robust and fundamental mode of communication.

Portihead Radio - Special Event

World wide DX event is being organised to mark the closure of Portishead Radio (GKA), England (1927-1999). It was to become one of the worlds largest communications centres and will close on 31st March 1999. As a tribute to GKA, the Radio Officers' Association has organised a Commonwealth 'Area' Stations DX event to revive the old Area coast stations around the world for the month of April. The help of ex Radio Officers and the Royal Naval Amateur Radio Society has been invaluable. Precise locations and call signs are not always possible, as the stations have closed down, but representative stations will operate from Australia, New Zealand, Hong Kong, Singapore, India, Sri Lanka, Mauritius, Malta, South Africa and Canada.

An award will be available for any amateur who contacts, or logs as a short wave listener, four of the area stations on the map. Qualifying stations will be on air during April 1999 mainly using CW. The Portishead station will be on air during the first fortnight of April 1999. Full details of stations on air will be available nearer the date. The award will be distributed by the Radio Officers Association. Proceeds will go to the Royal National Lifeboat Institution and Mission to Seamen.

This will be a mainly CW event as the 'Area' scheme operated mainly in this mode. There is no need to worry about the fact that the stations will be run by ex-professionals. It will be a strict rule that operators will send no faster than the stations received, and time will be put on one side for QRP and QRS working. The award will also be open for short wave listeners.

To date, the DX "Area" scheme stations expected to be on air are:

Portishead GB0GKL/HMS Belfast GB2RN/Rugby GB0GBR/Stenbury GB0ROA/Capetown ZS1ZSL/Mauritius 3B8CF/Namibia V31VSW/Wellington ZL2ZLW/Awarua ZL4ZLB/Irirangi ZL4ZLO/Singapore 9V1GY plus QE2 and some guest stations. There may be

Goodbye Maritime Morse?

- Not Yet -

by Bruce Morris GW4XXF

WITH THE FULL implementation of GMDSS 500kHz ceased to be the maritime W/T distress frequency at midnight GMT on Sunday 31st January 1999. For those of us monitoring this historic event, it was sad to hear the familiar callsigns of old signing Silent Key. There were so many CQ final messages and exchanges of farewells, that at times it was impossible to log them all, the ether was full of 73 TU SU CL AR VA. Here on the coast of Wales I heard stations as far east as Varna/LZW on the Black Sea, to the west St Anthony/ VCM in the Gulf of St Lawrence and at 73 degrees N., Upernarvik/OYR on the far north-west coast of Greenland.

A glorious profusion of callsigns filled 500kHz from 2230Z until0130Z: TFA OXF LZW OXI OYR OST EAS OXZ OZJ LGA LGD LGQ 9AR SPE SAA OHCLYL EAC VCM EAL VOK IAR EAF VCO OXB OXP SDJ SAE SPN EAO SPH IDC IPB, a ghostly EJM and just a few ships C6NE7 FNBK GXXF. A poignant moment occurred at 0016Z when a plaintive "SP SP" tried to remind OXJ not to transmit but of course the hallowed Silence Periods are no more. Here are some snippets.

OST Ostend Radio: "the time has come to end our watch on 500kHz"

TFA Reykjavik Radio: "will close down listening watch and service on 500kHz telegraphy"

LGQ/LGT Rogaland/Tjøme Radio: "Since 1919 LGQ has maintained continuous watch on 500kHz for distress traffic. This period is now over"

OXJ Tørshavn Radio: "we now close

500kHz as a distress channel, since 1917"

OXZ/OXB/OXP Lyngby/ Blavand/Skagen Radio: "concluding an era of more than 90 years of W/T service from Danish coast stations starting in 1909 with Koebenhavn Radio GRA, later OXA. This is the last transmission for ever"

EJK Valentia Radio: "this is the last W/T transmission from Valentia Radio. We are proud to have been of assistance to many vessels over the years. A wonderful era has ended, God bless you all"

VIP/VID Perth/Darwin Radio: (QSP via Larry VK6CP) "This is the final Morse transmission. We conclude our final CW watch after 87 years of continuous service with pride and sadness"

VIM/VIS/VIT Melbourne/ Sydney/Townsville Radio: "On behalf of the countless souls who would have died but for them, we salute all who have served our profession with skill and dedication through the years"

It was a night to remember, but has 500kHz fallen silent, has maritime wireless telegraphy actually ended?

Not Yet

Callsigns heard on 500kHz since February 1st range from Italy to Casablanca, from Helsinki to Las Palmas, Portugal to Estonia. Scans of the maritime HF bands indicate that there are still numerous stations all over the world actively seeking Traffic by W/T from ships. A TFC list from IDC contained no less than 131 callsigns! I decided to telephone a sample of coast radio stations around the world for information.

Sweden continues the distress watch, broadcasts and full W/T service until 31st August 2001! Norwegian stations will still reply to calls on 500kHz, as will Tørshavn. The Spanish stations close W/T on 1st April at the earliest. ZS5JH at Durban Radio advised me that ZSD, ZSQ & ZSD will continue until 31st March 1999.

Colombo/4PB has no prospect of obtaining any GMDSS equipment so continues on W/T. V51DB is a Radio Officer at Walvis Bay Radio, Namibia, V5W (known to us old timers by its former callsign ZSV!). There are no plans whatsoever to implement GMDSS and indeed the term DSC was unfamiliar to him. W/T continues until the equipment packs up!

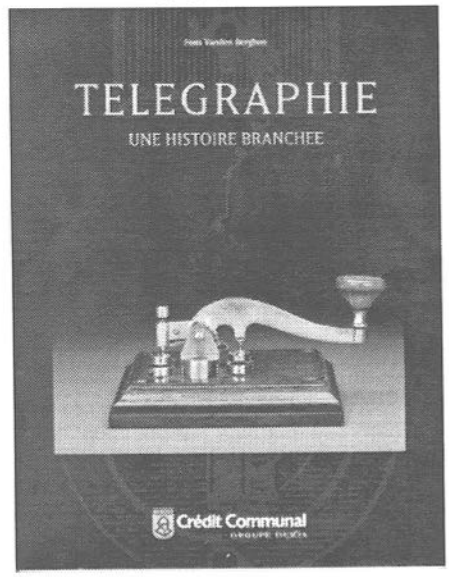
Is the much heralded GMDSS yet a worthy successor to the tried and trusted Morse distress watch? I do not believe it is. At 0115Z on 7th February 1999, the irony of hearing the Auto Alarm signal transmitted by EAC on 500kHz followed by DDD SOS DDD, relaying a GMDSS DSC distress alert. Minutes later a different DDD SOS DDD broadcast came from EAL! Real distresses? The probability is that they were, not, given the reported very high false alarm rate to date. There is of course no going back and realistically GMDSS should be a better system. What seems to be going wrong? Could there be too much reliance on highly complex technology as a substitute for specialist trained personnel. Contrast that with the simplicity of W/T together with the countless highly trained and dedicated radio officers who have served at sea and on shore since Marconi and started the whole thing going way back at the turn of the century. ***MM***

Unique Exhibition of Telegraphy in Brussels

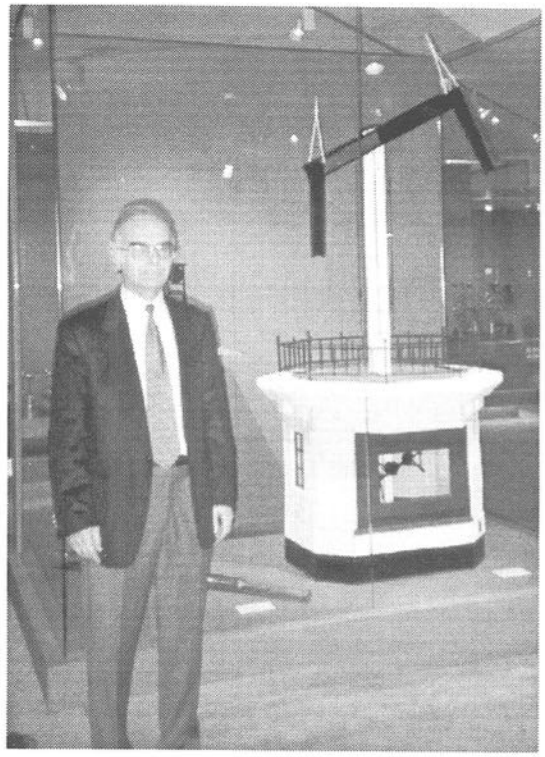
A Report by Zyg Nilski

MANY YEARS OF collecting historical electrical and telegraphy items by Fons Vanden Berghen culminated in a major exhibition sponsored by the Germeentekrediet (Crédit Communal) Bank in Brussels. It was held in the Bank's own Exhibition Gallery from September to December last year. Six hundred items were on display, 400 of which were from Fons's own collection and 200 drawn from museums and fellow collectors. " The invitation to mount this exhibition is to me the height of my collecting ambition.", said Fons.

The sponsorship included production of a high quality brochure (24.5cms x 29.5cms – 107 pages). Two versions were produced, in Dutch and French and illustrated with 240 high quality photographs, 140 in colour. The narrative covers the history and technology of electricity through to wireless and early television, as well as a section on telecommunication before 1800. Telegraphy is central to the exhibition, symbolised by a cover picture of a Prussian 'camel-back' key, (see MM 53 cover) which Fons restored after discovering it in a rubbish bin. He started his collection with early telephones and old radios, but since 1992 has specialised in telegraphy bringing together exceptional examples covering the whole history of the electric telegraph.



A visitor was greeted at the entrance by scaled models of two semaphore telegraphs by Chappe and Murray followed by comprehensive displays of electrostatic and electromagnetic devices



Fons Vanden Berghen beside a scale model of a Chappe Telegraph

including impressive friction and induction machines, galvanometers, batteries and vacuum devices of many types (Crookes, Geissler, Philips, Siemens & Halske, Marconi etc.), illustrating the technical developments which underpin early telecommunications. The display of telegraphic instruments both in quantity and quality was inspirational. It isn't possible to describe all the exhibits in this space, but among those worthy of special mention are the 5 needle telegraph of Cooke and Wheastone, printing telegraphs of Hughes and Baudot, a Western Union stock ticker and a Wheatstone high-speed tape telegraph. There were also a number of examples ofsingle needle telegraphs used mainly by British railway companies. Rightly, Fons Vanden Berghen was especially proud of the dial telegraphs exhibited, which brought together collections of Bréguets, Siemens and Wheatstone devices. His own full size replica of Morse's 'Correspondent' (see MM57 cover) used in the first demonstration of his original numbered code in 1837 was also featured. It was constructed for Fons by the Provincial Technical School of Brabant, Belgium.

There were many fine examples of European and American telegraph landline inkers, keys, sounders, galvanometers and relays, some together as key-on-board sets. Of special note in the wireless telegraphy section was the display of early Marconi items, including a 'Maggie' (MM48 cover), a Coherer, and the Multiple Tuner (MM50 p56) which he restored from the remains of one found in a Netherlands' garage.

My sincere thanks to Fons Vanden Berghen for giving me a personal tour and to the Gemeentakrediet Bank for making this special event possible.

(*Fons has a limited number of brochures for sale together with an English translation of the text as a separate booklet. Readers should contact him direct at: Lenniksesteenweg 462/22, B1500 Halle, Belgium. E-mail: fovabe@telindus.be*) **MM**

Brigham Young's Deseret* Telegraph Tied Lands Together

By Richard L. Thomas

BRIGHAM YOUNG IS known world-wide as the bold pioneer who led his Mormon followers to settle Utah in the 1840s. Few today know he was responsible for building a vast spider-web of telegraph lines connecting remote Mormon settlements. While the Mormons fled to the wilderness from the Midwest to escape religious persecution, it was never Young's intention for his people to remain segregated or to be without communications and commerce with the rest of the country. From his distant frontier outpost, he was an enthusiastic supporter of a transcontinental telegraph. Western Union sought his influence and help in constructing the segment through Utah.

Young served as contractor in supplying materials and labor, and "Mormons furnished poles for almost 1,000 miles of the line as well as a large share of the labor, food, seed, and transportation", writer and historian Leonard J. Arrington says in the 1951 Journal of Economic History. The wires were spliced together at Salt Lake City in 1861 to provide almost instant communications between the West and East coasts.

Young immediately laid plans to construct a church-owned system to connect more than 100 widely separated Mormon settlements. It is, Arrington says, "the only known instance in which a major regional telegraph line was constructed and operated by a church." It is also the only case, he adds, in which a major telegraph line was a completely public enterprise. Because of the Civil War, however, Young couldn't get wire insulators, batteries, and telegraph instruments. The actual construction was delayed until 1866. Enthusiasm for the line ran high among the Mormons, and each ward pledged its share of labor and cash. Much of the cash was actually contributions of poles, which were free for the cutting in the mountains. A letter of instruction calls for poles 22 feet long, eight inches at the butt, and five inches at the top. They were to be set four feet in the ground and 70 yards apart.

Each ward wishing a telegraph

** The Mormons called the area to which they migrated, the provisional State of 'Deseret', later declared Utah Territory by the federal government.*

office was instructed to send one or two young men or women to the church telegraph school at Salt Lake City. The instructor was John C. Clowes, the Western Union operator and a Mormon convert. Thirty students, 12 to 18 years old, made up the first class.

At first, the young operators were paid nothing because their work was considered a mission for the church. Later, however, there was token compensation. Estelle Parks received, in addition to her board, 50 bushels of wheat, which was delivered to her father. Another operator was paid with voluntary donations. One congregation voted to pay the operator $50 a month in produce or livestock.

By October 1866 the poles were set and 500 miles of wire were ready to be strung. Construction labor in almost every instance was donated. The first message was sent December 1 on the 34-mile segment from Salt Lake City to Ogden. The 300 miles of line between Salt Lake City and St. George, near the Arizona and Nevada borders in south-western Utah, was completed in January 1867. In another 30 days, the rest of the line was finished.

As settlements and mining activity grew, so did the telegraph. By 1880, there were 995 miles of poles and 68 telegraph offices. The telegraph line even extended to Mormon settlements in Idaho, ran for 100 miles into north-eastern Nevada mining districts, and skipped just across the border into Arizona Territory. The Arizona station was the first telegraph line in Arizona Territory.

When the church's telegraph was up and running, Brigham Young chose to spend most of his winters until he died in

Brigham Young

1877 in St. George's mild high desert climate instead of cold Salt Lake City. He found he could conduct church affairs very well by telegraph. At least one of his wives was a telegrapher. On the grounds of his large St. George home, now a church operated museum, is a small building that served as the telegraph office.

While the Mormons' Deseret Telegraph Company was hugely successful and popular, it never was profitable. There were many reasons for this, including general economic ups and downs, but the main reason was the free service afforded church business as well as much personal and community social correspondence.

At one point during the U.S. Government's attempt to disband the Mormon Church because it condoned polygamy, church property was confiscated, including the telegraph lines. After six years of court battles and

compromises, the property was returned to the church. In 1900, the church sold the line to Western Union for $10,000. It had operated 34 years.

Thanks are in order to the Utah Division of State History, Salt Lake City Library, and the Historical Department of the Mormon Church, as well as to Marion MacLavity, Public Affairs, The Church of Jesus Christ of LDS, Solihull, England, for furnishing the artwork of Brigham Young.

And a Lantern to Give Light....

By Richard L. Thomas

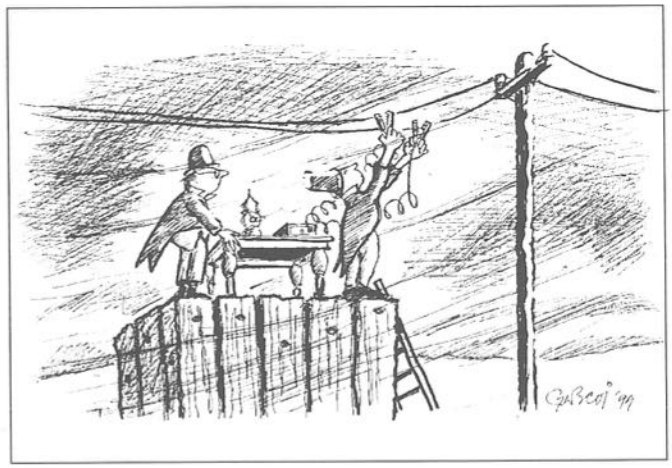
Before we get out the violin to play sad,pitiful music on behalf of all those who endured depots that were like deep-freezes in winter in spite of the cherry-red glow of the old pot-bellied stove, hear the lament of William Andrew Bryan. Bryan was the personal operator for Brigham Young when the Mormon president was visiting Utah settlements in the 1860s.

Young demanded a daily news report out of Salt Lake City when he travelled. At one point the youthful operator rode his horse ahead to copy the news so it would be available immediately when Young arrived.

"There was no telegraph office in (the village of) Scipio, but the telegraph wire was strung directly over a pile of wood standing on end," Bryan wrote in his memoirs.

"It was snowing, like white feathers dropping down, when I arrived. I told Bishop Martin he must arrange for me to use my telegraph apparatus. He said, 'How are you going to do it?' I said, 'Get a table and we will put it on top of your woodpile and I will put my instrument to work up there.'

I cut the wire and installed my instruments - it was still snowing and it was getting too dark for me to write, so the Bishop got an umbrella to hold over me, and a lantern to give light, and when the president arrived, I was up there copying the news."



Dad's Army Morse

by Tony Smith

ON THE 14TH MAY, 1940, Britain's Secretary of State for War, Anthony Eden, appealed on the radio for volunteers: "We want a large number of men.... between the ages of 17 to 65 to come forward and offer their services.... The name of the new force which is now being raised will be the Local Defence Volunteers...."

Within 24 hours, 250,000 men had converged on their local police stations to join the new force. There were no uniforms available at first. Each man received an armband bearing the initials "LDV", and what weapons they had ranged from old muzzle-loaders to double-barrelled elephant guns.

By July the number had reached 1.060,000, although there were still no uniforms and few weapons. On 23rd July, the LDV was officially renamed the "Home Guard". Many years later it was to be affectionately remembered as "Dad's Army", thanks to the popular BBC TV series of the same name.

In September, when it seemed that Germany was about to invade Britain, the Home Guard stood ready to help the regular forces defend the country. Massive German bombing raids were seen as a prelude to the invasion, but in the event it never materialised.

By May, 1941, the Home Guard stood at 1,500,000 men, organised in 1,200 battalions, now equipped with WW1 service rifles and bayonets shipped from America. Its primary function was to guard vulnerable roads and railways and to keep watch for landings by enemy paratroopers.

In case of invasion, a secret Home Guard underground movement was also set up. This organisation took the form of guerrilla bands which were to take cover in pre-prepared underground bunkers or other hiding places, with stocks of ammunition and explosives for use against locally based enemy forces once the main invasion force had moved on.

Although the Home Guard was never called on to directly engage with the enemy, it trained continuously throughout the war, and stood ready to do whatever was required of it should the need arise. It was formally disbanded on 31st December 1944. In that month, units from across the country marched in a

huge parade through London's West End, starting from Hyde Park where the King, accompanied by his family and War Ministers, took the Home Guard's final salute.

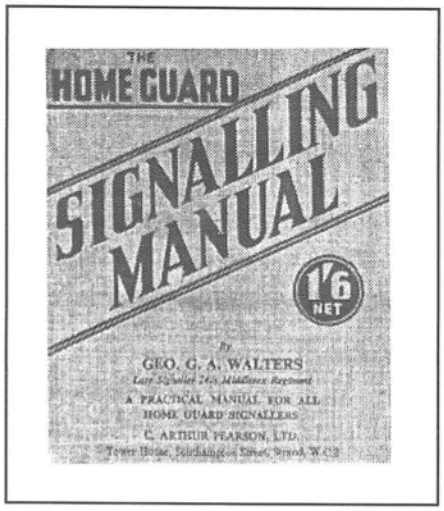
Communications Essential

Although the Home Guard eventually became a uniformed and armed force, much of its training was very informal and on a do-it-yourself basis. This particularly applied to signalling, where the situation was summed up in the introduction to a small booklet published in 1942, "The Home Guard Signalling Manual" written by Geo G.A. Walters, Late Signaller 24th Middlesex Regiment.

Mr Walters who, like so many other old soldiers had joined the Home Guard in response to the War Minister's call wrote: "A great many Home Guard units are now taking up signalling either as a specialised subject for a section of selected volunteers or as an item of company training.

"Some people think it is rather unnecessary. Well, my personal view is that it is most essential, for whether one still regards the Home Guard as guerrillas or as a second-line to the regular army, communication over a distance will be required and it is not always possible or advisable to send a messenger.

"If the Home Guard is a reserve army, then it must be complete in all respects with its own services of signals, transport, ambulance , and everything else. If, however, you choose to regard it as what it was undoubtedly intended in the first place to be, an organisation of guerrilla bands, then it will be even more necessary for its members to be able to



signal warnings and information to each other.

Semaphore

"I advocate the scheme that is in operation in my own company. That is that the whole unit is given a short course in signalling, say about six weeks at two or three hours a week, by which time they should be able to send and receive Morse with the flag and lamp at four words a minute and buzzer at six words a minute.

"It will be necessary for the operational signallers to learn Semaphore in addition to Morse... Semaphore is useful for quick communication over short distances in good daylight when signallers can stand up in full view of the receiving station. Beyond that it isn't much use, but the War Office has ordained that Army Signallers should know it, so that's that!

Value of Morse

"Morse, on the other hand, is almost unlimited in its application.

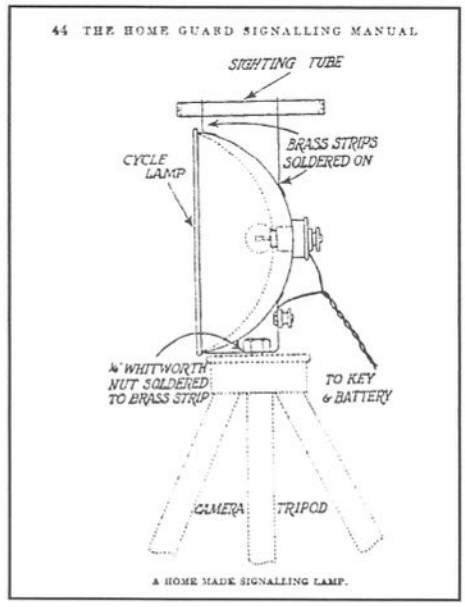
Wireless, lamp, line telegraph, flag and even whistle and motor-horn can be used, while a man lying behind cover can open and shut the white pages of a book for long or short periods corresponding to dots and dashes of the Morse code, or can wag a hand in long strokes. Further, for every man who knows Semaphore there are fifty who understand Morse.

"When warfare is more or less static as in 1914-18 the regular signal units can organise an elaborate system of communications comparable to the civil Post Office telegraphs, but so far the tendency of this present war has been anything but static, and when an urgent message must be transmitted it is more than likely that sender and recipient will be far from an established signal station or even from a specialist signaller.

"Here, then, is the need for as many as possible to have a working knowledge of signalling so that in an emergency they can communicate with each other without having to rely on a third party.

"It is not to be expected that the Home Guard, as such, will be able to get elaborate equipment, although they should take every opportunity of seeing, and if possible practising with, the Army signal apparatus in use by regular units in their neighbourhood. The Army people are very helpful and as far as Service conditions allow will assist the Home Guard in many ways.

"However, as far as equipment is concerned you will have to improvise in most cases. Some flags are available and lamps will be issued shortly, but both are easy to make; and practice buzzers and keys can be bought quite cheaply. Indoor



A HOME MADE SIGNALLING LAMP.

lamp practice can be obtained by making a small hole in one of those pretty landscape targets and fixing a flash-lamp bulb behind it controlled by a key. Our company has an excellent outdoor lamp made from a good bicycle lamp mounted on a camera tripod and working off a torch battery. It is readable at over a mile in daylight."

Official Procedures

The booklet goes on to provide help and advice on learning Morse and using it in various ways. Although this is not an official publication, it is obvious when reading it that while the author is expressing his own views on improvised training methods. the procedures, etc, outlined are based on official instructions for Army or Home Guard practice.

For example, when describing the symbols for numerals, he explains that while figures are sent in full, the shortened

versions are intended to be sent back by the receiving station as a check to confirm that they have been received correctly.

Each word or group of letters, other than figures, was to be answered with the "General Answer" - "T". This, he says, is the procedure used by the Home Guard. "Expert regular army signallers usually send messages straight through without waiting for answers, and check figures at the end, but it is not to be expected that Home Guard personnel will reach this stage of proficiency in the limited time they usually have for training."

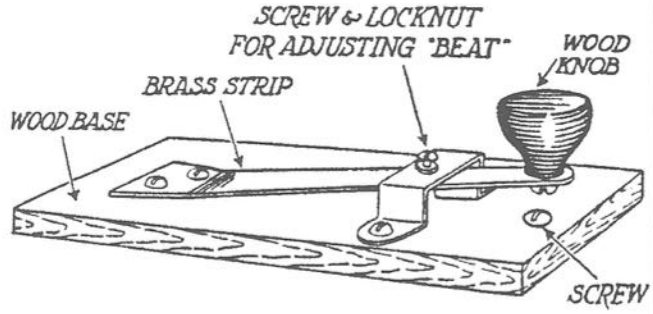
Signal Station - Sending

After instruction in flag signalling, buzzer and lamp, Home Guards learning signalling would form "signalling stations", with an allocated callsign, to practice passing messages by the different methods they had learned. In a visual station, for instance, there would ideally be three men, but sometimes only two who would share the duties between them.

When sending, there would be a "caller", who would call the message a word at a time, spelling out long or unusual words, to the "sender" who, with flag or lamp, sends each word as instructed. The sender waits between each word or group of letters until the distant station is reported to have answered by the "answer" reader (who looks for the general answer ("T") and reads out all figure checks and other signals that are made.) The caller does not call the next word until he has heard "Answered" from the answer reader. If the general answer is not received the word is repeated until it is acknowledged.

Signal Station - Receiving

A similar procedure applies at the receiving station. A "reader" calls out each letter as he reads it from the sending station. He calls "Miss" if he is unable to read a letter, and "Group" as each word or group is ended. A "Writer" writes down each letter or figure at the dictation of the reader. On hearing the word "Group", the writer satisfies himself



AN IMPROVISED MORSE KEY.

that the word or group received appears to be correct and tells the "Answerer" to send figure checks or the general answer signal "T". No signals are sent except on the instruction of the writer.

Usually, the reader also acts as the answerer, and has to remember that he is acting in two capacities; he must never send answers of any kind unless instructed by the writer.

Abbreviations & Special Signals

These included both barred signals (where the letters are sent together as one symbol) and unbarred where the letters shown are sent separately:

AA Call sign for an unknown station. Or "All After" when asking for corrections

—
AR End of message
B Have you received message?
F i Make no further signals
ii Separative signal, used between groups of figures to make division clear
iii Full stop

—
IMI Send again (whole message)
K Go on
LL Your signals are too strong
MH Move higher or farther away
ML Move to your left as you face me
MM Signal preceding numerator of a fraction
MO Mover lower or closer
MR Move to your right as you face me
NA I can make no further signals
OL Open light (or flag up) (To align lamp or telescope, etc)
Q Wait
R Message received correctly
T General answer (Morse)

—
UK Block letters (Sent at beginning and end of letters concerned)
V From

—
VE I have a message for you
W Your signals are too weak
WA Word after
WB Word before

—
XE Fractional bar or oblique stroke 8 dots Erase (Answered by repeating same signal)

Improvised Equipment

Mr Walters explains that the most important instruments for visual signalling, by day or night, are electric lamps, and that the regular army had two main types; the short range lamp, with a range of about 3 miles in daylight, and twice as far at night; and the long range lamp which could be read at 8 miles in daylight on a clear day.

There were several other obsolete types of lamp which might come into the possession of Home Guard signallers, but he emphasised that it was also quite easy to improvise such a lamp with a long enough range for training purposes.

The lamp illustrated can be focused to give a straight parallel beam, and has a sighting tube for alignment on the distant station. Working with an ordinary flash-lamp bulb and a dry battery, it could be read quite easily at a range of one mile in daylight.

For indoor training in lamp or buzzer signalling, he suggested an

improvised Morse key as illustrated if no service or commercial keys were available.

Mr Walters describes the use of army field telephones incorporating a buzzer circuit, although it seemed unlikely that many of these instruments would made available to the Home Guard. He then describes a pair of home-made field telegraph instruments used by his own Home Guard company.

These comprised cheap practice keys and buzzers, with batteries, enclosed in small wooden boxes. Connected in series with the buzzer and battery was the primary winding of a home-made transformer (wound round a nail) with one side of the secondary going to line, through an old pair of headphones; and the other to earth, via an iron spike. He comments "we haven't succeeded in scrounging more than three hundred yards (275m) of wire for our line, but we get very strong signals in the headphones at that distance and are confident that these instruments would work over several miles."

Army Practice

In case the Home Guard managed to obtain the proper equipment, he described the proper way of doing things. As in his company's temporary arrangement, Army line telegraph stations were connected by a single wire with an earth return via an earth spike. In training, or for temporary lines, a light single strand of steel wire insulated by a coating of black enamel was used.

A mile drum of this wire could be carried in one hand and could be reeled out very quickly. One man would carry the drum and pay out the cable, while one, two or more would follow behind to place the cable on hedges, etc, and generally make it safe and secure. Gates were crossed by running the cable across from adjoining trees or erecting poles on either side; if all else failed a shallow trench was dug and the cable laid in it.

Passing through towns, the cable was tied high to lamp posts, gutters of houses, etc. When crossing roads it was to be high enough to miss tall vehicles. All lines were to be patrolled daily and faults repaired. Troops had strict orders not to interfere with cables and were instructed to report any lines that they found broken.

Training

The author devised a training course for his own company, intended to give them all elementary training and to identify those capable of being trained further as operational signallers. This took place for two hours per week, over a period of six weeks as follows:

Lesson 1. Introductory talk, explaining purpose of training and the use of signallers. Dictate Morse code or hand out printed copies. Exhibit equipment and demonstrate methods of sending. Point out the easiest letters to learn first, and send simple words and sentences slowly, made up from these letters, which the men can read and so acquire confidence at the start.

Lesson 2. Reading flag and lamp alternately from instructor's sending. Simple messages leaving out the "awkward" letters, Q, Y, L, etc.

Lesson 3. Flag drill for short period, followed by buzzer reading from

instructor's sending. All letters now introduced.

Lesson 4. Lamp reading with periods of buzzer to rest the eyes.

Lesson 5. Flag drill, followed by pairing off and sending odd words to each other by flag, while instructor goes round correcting faults.

Lesson 6. Buzzer. Working in as many small groups as there are buzzers available. Taking turns to send while the rest read.

Lesson 7. Talk on duties of signallers in the field and details of station procedure, followed by forming stations at short range and exchanging messages. Instructor going from station to station to check that correct procedure is carried out.

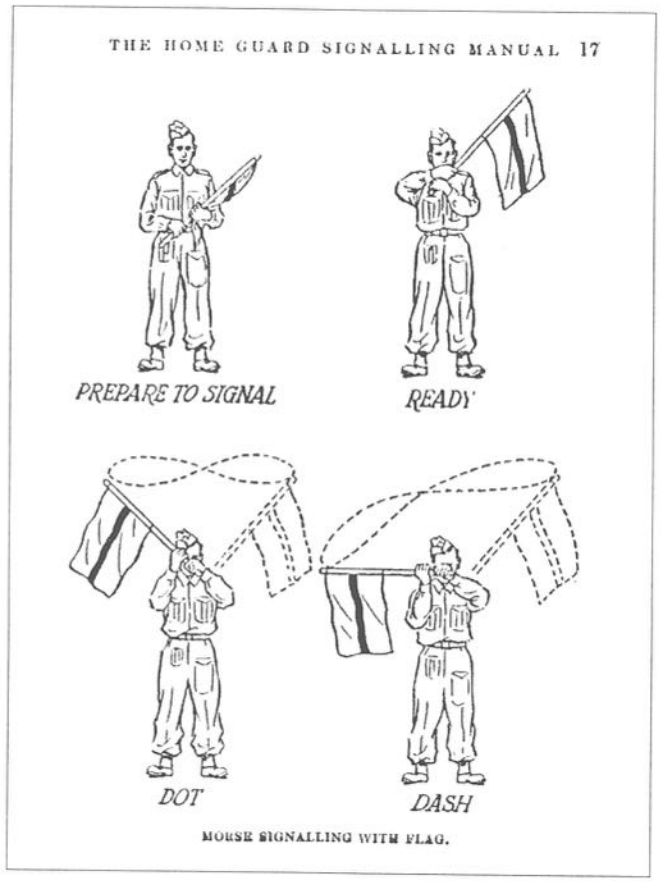
Lesson 8. Lamps. Reading from instructor's sending, also from selected pupils.

Lesson 9. Flag and lamp stations. Exchanging messages at about 200 yards (183m).

Lesson 10. Buzzer. Sending and reading as in lesson 6.

Lesson 11. Stations with flag and lamps, exchanging messages at distances of about half a mile (800m)

Lesson 12. Passing out tests.



It was impressed on the men that it was impossible to learn everything in the time available on the course, and that they needed to practice together in between lessons whenever they could.

Testing

The passing out tests involved reading 78 letters in groups of five at 6 wpm on a buzzer and 4 wpm on flag and lamp sent by an examiner. Each letter of the alphabet was included three times in the 78 letters. Candidates were then stationed in pairs, taking turns to send

short messages to each other by flag, with one examiner watching the standard of flag sending and another the procedure.

Each man was then required to transmit a short message by lamp or buzzer (decided by lot), with an examiner acting as the receiving station, giving answers and figure checks. Points were allocated for actual sending and for correct use of procedure, etc.

The standard aimed at in this elementary course was that laid down by the War Office for OTC (Officer Training Corps), the Territorial Army, and the Home Guard. It required 95 percent accuracy at 6 wpm on buzzer and 4 wpm with flag and lamp. A knowledge of procedure for the transmission and reception of VE(barred) messages was required.

Mr Walters concludes "It need hardly be added that only bright, alert men of good general education should be chosen to train as signallers, and they should be drawn from the younger men in the company. It is very hard to learn such a subject when a man is no longer young though, strangely enough, at least two of the best signallers in the writer's company are over fifty."

Reader's Memories

Tony Timme, G3CWW, wrote to MM some long time ago about his experiences in the Home Guard (sorry for the long delay Tony!). He had had some very good experience as a Signals Sergeant in the cadet corps at Christ's College, Finchley, with the Fullerphone, Heliograph, Telephone D Mark III, and the Lucas keyed lamp, and this stood him in good stead when he joined the Home Guard.

He writes: "I served in the Home Guard in Hendon, my birthplace, and built a number of sets of DIY equipment which consisted of a telephone handset, Morse key and buzzer, with most of the bits and pieces coming from a firm called Dixon in the East End of London. We laid a number of lines around Hendon using ex-army field cable (from the same source) with an earth return. We had a number of vantage points for visual signalling, mainly using Lucas lamps. We also used Morse flags, but did not pursue Semaphore as it was felt that trying to teach too many new ideas would be counter-productive.

"(Incidentally, Hendon was the headquarters of Air Formation Signals, the branch of Royal Signals which provided ground communications for the RAF overseas. Units were raised and trained there, and I think every lamppost in Hendon was pressed into service as a support for Service lines of some sort!).

Informal Approach

"In terms of radio equipment, I recall that in 1942 the Home Guard were issued with the WS No.38. This was probably one of the few occasions when it was issued with 'state-of-the-art' equipment rather than relics from old storehouses! The Wireless Set No.38 was a British Army lightweight man-pack R/T transceiver, designed for infantry patrol short-range communication. It was simple to operate, thus eliminating the need to train special operators.

"From the foundation of the LDV (later the Home Guard), I was involved as an instructor in handling small arms

(the school armoury became a Home Guard armoury), and I taught the use of .22 rifles on the school range. Most of my "pupils" were old enough to be my grandfather but we got on very well indeed.

"I think the informal approach described in the "Home Guard Signalling Manual" does ring true. We certainly had no official manuals of any sort in my time. The general approach of the Home Guard was to gladly accept the advice and expertise of anyone who could offer it.

"It was considered inappropriate that chaps as young as myself should become NCOs or officers because this might upset the feelings of some of the older volunteers. From being a cadet Sergeant I became a private in the Home Guard, but my instructing ability was still acknowledged and used. In any case, they wanted continuity of service from NCOs and it was obvious that I would enter regular service before long.

Unrivalled Spirit

"There was an almost unrivalled spirit to serve, and there was also a tremendous fund of past experience to call upon once the units had been constructed, and the expertise that existed amongst the officers who had to knit the units together was superb.

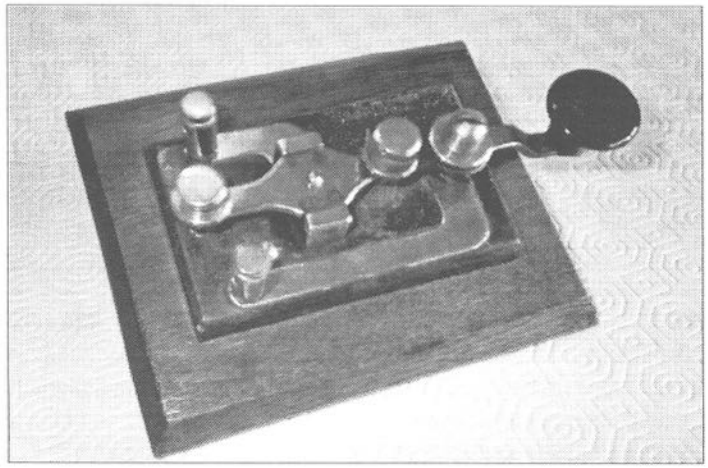
"One final recollection. Army message procedure was changed around 1942, to a new system which would link in with US Army procedures - and become Allied Forces procedure. We were taught this new procedure in the Home Guard. When I joined the army and arrived at Catterick for Signals training a test session was arranged to see what knowledge we already had of Morse. We were told to take down whatever we could on the backs of message pads while the instructor gradually increased his speed.

"After the first few groups, I recognised the procedure, turned the pad over and filled in the message forms correctly - and I was still going strong when the instructor gave up at 20 wpm. A somewhat incredulous training officer put me on an intense equipment familiarisation course, on 19, 21 and 22 sets and I completed my B.3 Operator, Wireless and Line course in 6 weeks."

(MM would be pleased to hear from other readers who had any form of signals experience in the Home Guard. Ed)

MM

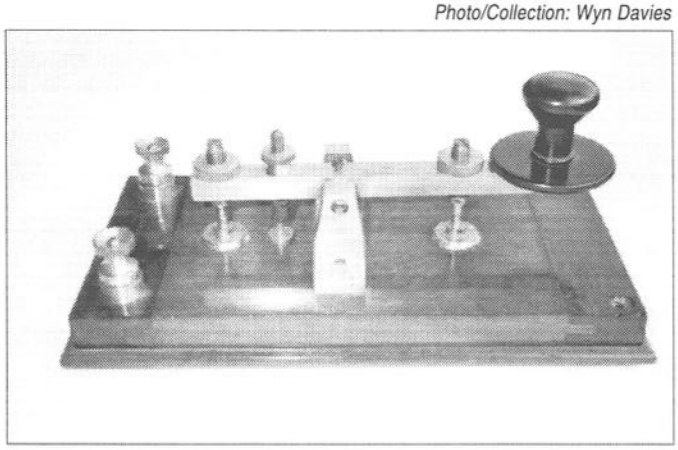
Showcase



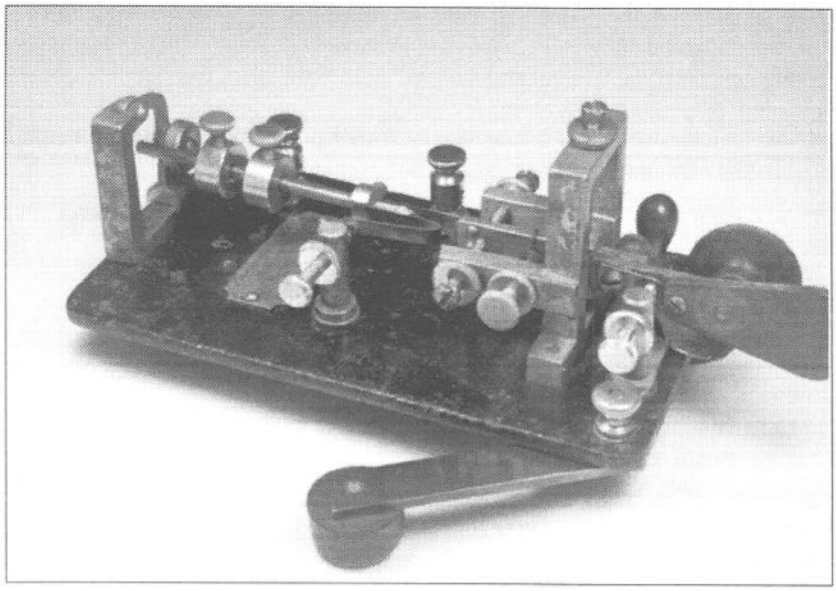
Photo/Collection: Jack Barker

This US Marconi "Road-map" spark key was found, minus the knob, by Jack Barker at a local antique/junk fair. It has now been refurbished to good order. It appears that it was nicknamed "Road-map" because the copper connecting strips look a bit like road-map. The lever also appears to be copper and the contacts are 0.125 inches (10mm) silver. The key, which dates from the early 20th century, is mounted on very hard "sandwich" sub-base. Jack Barker comments, " It is a lively key and a great pleasure to use"

Photo/Collection: Wyn Davies



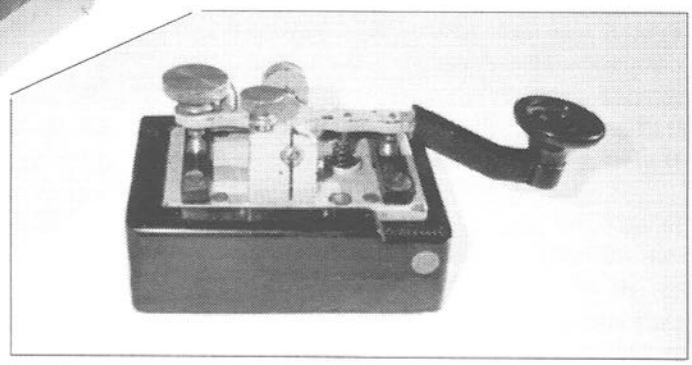
Another Marconi key from the same period as above. Note the slot head adjusting screws.



Photo/Collection: Dave Pennes WA3LKN

Extension Arm Vibroplex, also known as the 'thin base model'. This one is Serial No. 3126, c. 1907, with Martin New York label A-3. It is a regular Vibroplex 'Original' mounted on a lighter base than normal, but with a retractable extension arm to provide stability in use. See also, 1907 U.E.M. Co. advert on the back cover of this issue

A Junker key with four spikes on the underside, presumably for the purpose of gripping a surface, e.g. a table?



Photo/Collection:
Wyn Davies

Two Tone Telegraphy

Morse with a Difference

By John Packer

Hon. Curator - Museum of Submarine Telegraphy, Porthcurno

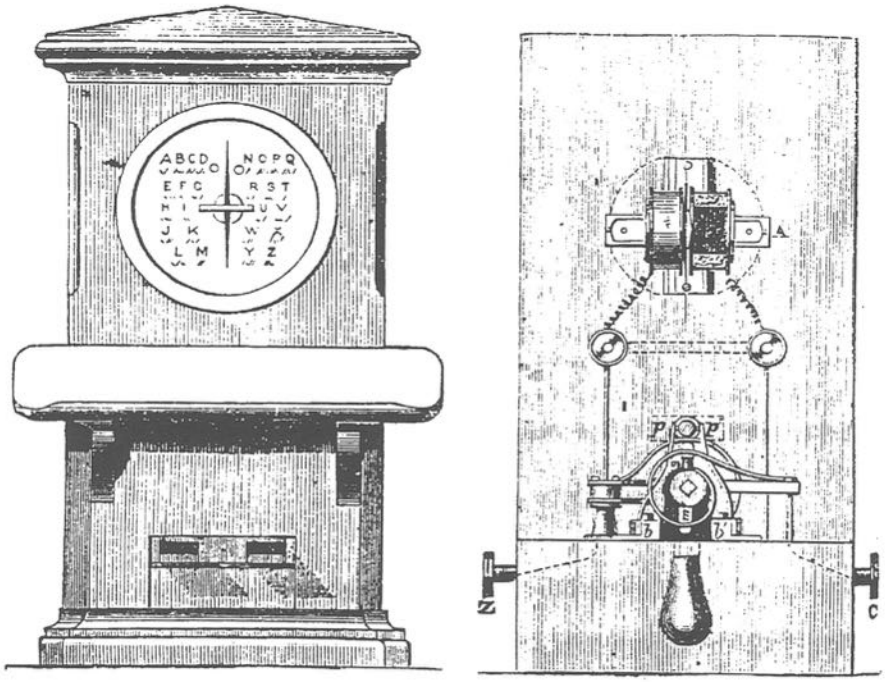
THE EARLY RAILWAY telegraphs of Wheatstone and Cooke used coded and non-coded systems. The latter used receiving instruments which "pointed" at the signalled characters so that operators did not need to learn a code. In the five needle instrument two out of five needles were made to point at the correct letter from among twenty printed on a diamond shaped board. The ABC telegraph had a dial with characters printed round its circumference. Pulses from the distant transmitter made a pointer rotate like the second hand of a clock. This stopped at the intended characters one by one to spell out the message. The five needle telegraph required five two-way keys, five line wires and an earth return, and had a limited character set which did not cover the full alphabet - it was never widely adopted. The simpler Wheatstone 'ABC' needed only a single wire and earth return, required no batteries as the sending instrument generated its pulses from a magneto, and was widely used on minor lines where traffic was light. It was much slower than systems using trained operators and code, which reigned supreme in the world of high traffic commercial telegraphy.

Double & Single Needles

Many early telegraphs used a system in which the receiving operator watched two needles, each of which could deflect to left or right. The system used an elaborate code - for example different characters might be signalled by:-

Needle one to the left, needle two to the right.
Needle one to the left, needle two to the left.
Needle one to the left, needle two remains steady.
Needle two to the left, needle one steady.
Needle two to the left twice, needle one steady.
Needle two to the left twice, needle one points right.

You can dream up your own combinations and I will not attempt to list an alphabet as different railways and commercial telegraph companies used different codes. When Samuel Morse introduced his dot and dash code, it was soon adopted in modified form on a single needle telegraph. The usual convention was needle to left for a morse "dot" and



'Left & Right' - Single Needle Telegraph
The code, based on Morse is shown on the face of the dial

to the right for a "dash". The "dash" signal was of the same length in time as the dot and differed only in polarity. (equal length binary computer code that we call 0 and 1 has a long pedigree!) Sending keys on needle instruments were vertical wooden drop-handles which were pressed to left or right, or horizontal "tappers" like primitive morse keys.

Ting and Tang

Carefully watching a needle while at the same time trying to write down the incoming message was tedious. It was not long before somebody thought of fitting two little gongs of brass strip of slightly differing length. The needle hit these as it moved left and right, and made a ting or tang noise so that audio reception was possible. The higher ting sound for Morse "dot" and lower tang for "dash". The letter F for example was received as *ting ting tang ting*. However the delicate instrument with its light needle was not loud enough noise for noisy conditions, or when two or three instruments were working in the same room. Submarine cable pioneer Charles Bright therefore introduced his bell receiver which was widely used by the railways. Line signals operated a relay which actuated two single-stroke bells of different sound from a local battery. The weak 'ting tang' of the needle instrument was replaced by the louder 'ding dang' of the bells, but as

there wasn't a needle to watch this was an acoustic only instrument. This two tone approach with *equal length bi-polar* fine signals was in contrast to the 'sounder' beloved of American railways, where unequal length dot and dash Morse was received by noting the time intervals between clicks. All these devices were in use before the invention of the telephone (and hence earphones, loudspeakers etc.) so there was no way to receive an audio line signal directly. DC line signals were converted into audiable clicks or dings at the receiver.

Mirror Working

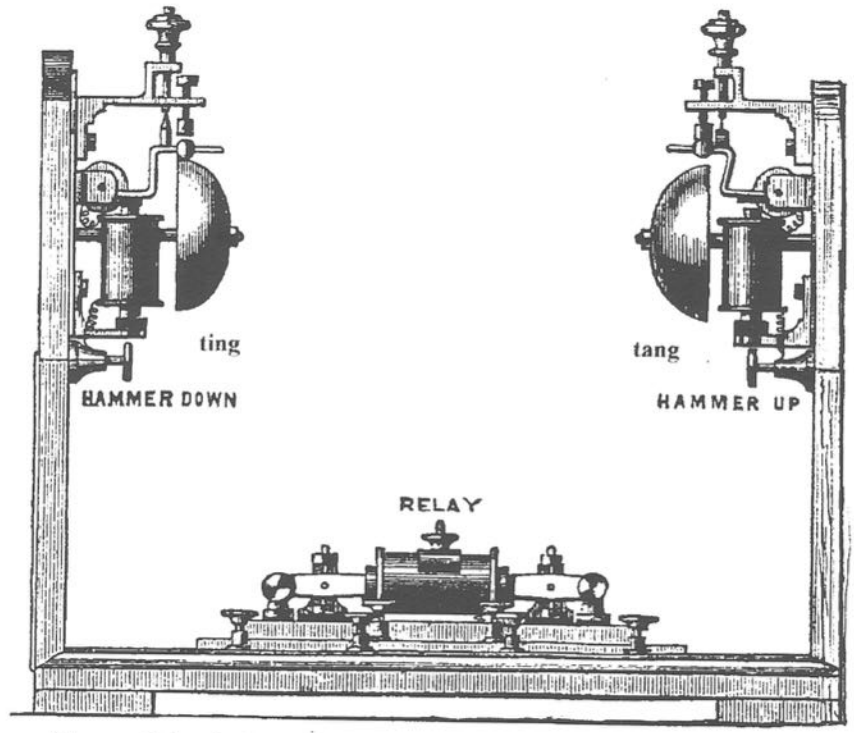
With the coming of long submarine telegraph cables, the equal length bipolar "Morse" of the single needle telegraph was adopted under the name 'cable-code'. However the needle instruments were not sensitive enough to detect the tiny current at the end of say a 2400 mile Atlantic cable, and initially sensitive mirror galvanometers were used. The tiniest deflection of a coil between the poles of a powerful magnet was observed by watching a spot of light. A beam of light from a candle or oil lamp was focussed onto a tiny circular mirror attached to the coil which reflected the light back onto a screen. Bipolar received signals caused the coil to deflect a minute amount to left or right. Laws of reflection meant the reflected beam moved by twice the angle of coil movement and this was further magnified by the distance to the screen. It was like having a sensitive single needle instrument with a needle 3 ft long weighing nothing. Instruments tested at Porthcurno museum gave a good deflection with a fraction of one microamp.

'Binary Morse' by Buzzer

In 1876 Bell developed the telephone, but early tests showed they wouldn't work on long submarine cables. Cable-code sent by hand at five pulses per second could cross the Atlantic, but voice frequencies from say 300 to 3,500 Hz faded out after a hundred or so miles. Cable staff did however find a use for the Bell telephone ear-piece. Most damage to submarine cables is caused by fishing activity or ships dragging their anchors, and faults usually occur within the first fifty or a hundred miles off shore. In deep water there is little to disturb the cable. The cable-ship grapples and lifts the faulty cable aboard and cuts in to communicate with the shore over the cable itself In pre-Marconi days there was no other way of communicating from ship to shore. Attempting to use a sensitive, mirror galvanometer on the heaving deck of a cable-ship with perhaps spray coming over the bows was nobody's idea of fun - much simpler to clip a Bell earphone onto the end of the cable and communicate by Morse buzzer. However submarine cables used equal length signals and cable engineers were used to signalling on a double cable-key, left for 'dot' right for 'dash'. How could one achieve a bipolar buzzer signal?

Raymond-Barker's two tone telegraph

Raymond-Barker's two tone telegraph provided the answer. A buzzer with one coil but two armatures and contacts was activated by a cable-key mounted on the same base. The armatures were adjusted to produce two frequencies of about 800 and 1200 Hz. Just as with Bright's Bells, Morse was used, the letter 'F' became 1200, 1200, 800, 1200 Hz or



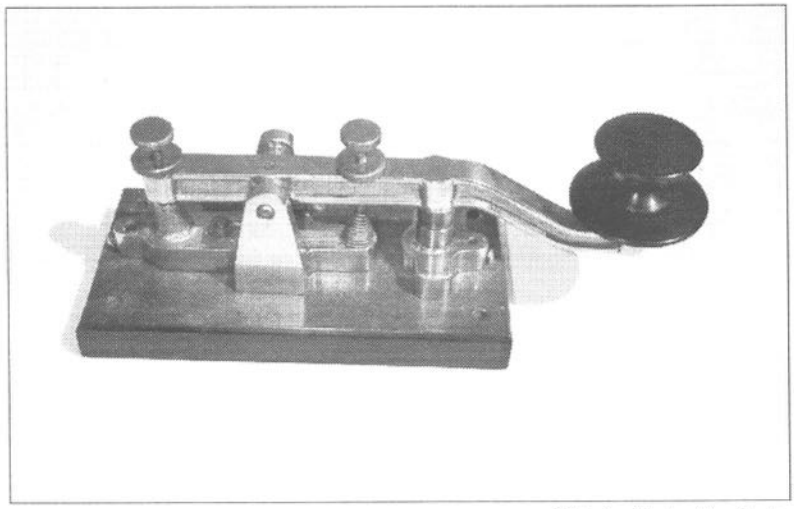
'Ting and Tang' - Bright's Bells. An acoustic version of the single needle, substituting two sounds (ting and tang) for left and right

high, high, low, high. As dashes are three times the length of dots, this is actually quicker than classic Morse - why send a dash when a "different" dot will do? The Raymond-Barker buzzer produced a signal whose amplitude was many times greater than telephone speech waveforms, and the two-tone system would work through a fault or break in the cable as long as the two ends of the snapped cable were not too far apart on the seabed. The versatile equipment also gave a bi-polar DC bias to the audio tone signals so that at the shore station they could be received on either an ear-piece or a normal siphon (ink) recorder. As we have working Raymond-Barker equipment at the Porthcurno museum, I am tempted to use two-tone Morse on the amateur bands. It's really a form of frequency shift keying (f.s.k.) but with a subtle difference. In normal Morse f.s.k the carrier is always on and unequal dits and dah's are transmitted. In two-tone Morse, the carrier is only keyed on for a 'dot' or 'dash', the shift produces the two differing audio tones on reception, and 'dots' and 'dashes' are equal in length. It really sounds quite pleasant to copy - but I'm afraid a two-tone Morse 'CQ' might produce puzzled brows so I haven't yet had the courage to try!

MM

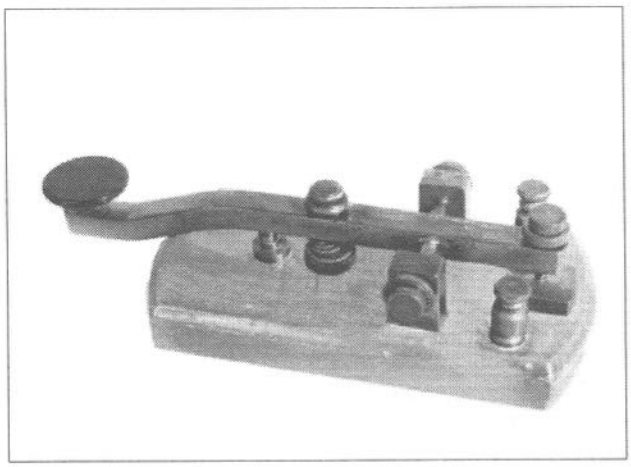
Info Please!

Please send all information to the Editor, Morsum Magnificat so that readers can share the information



Collection/Photo: Wyn Davies

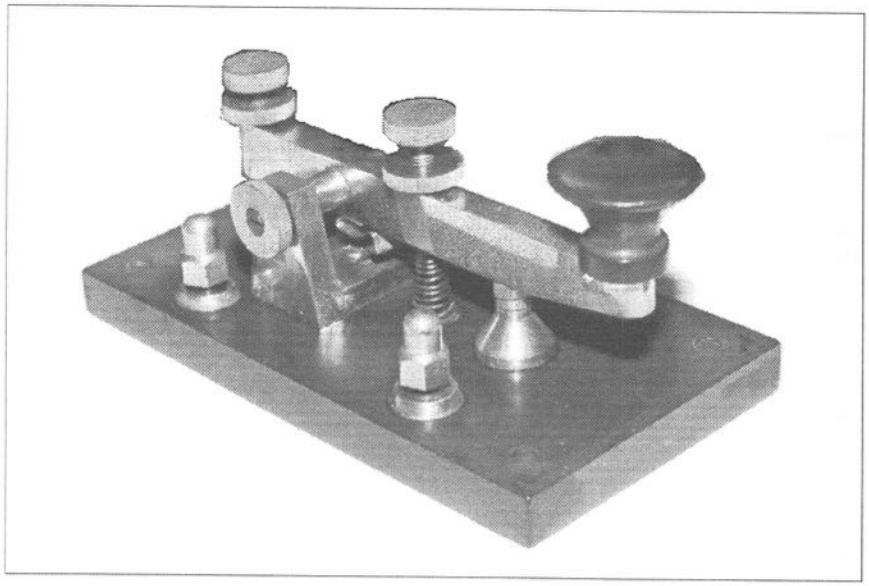
Unknown spark key. Has anyone information on this please



This American key has, stamped under its arm " Fairbanks Patent" The base is of American oak. It was found in an antique shop specialising in the Civil War era

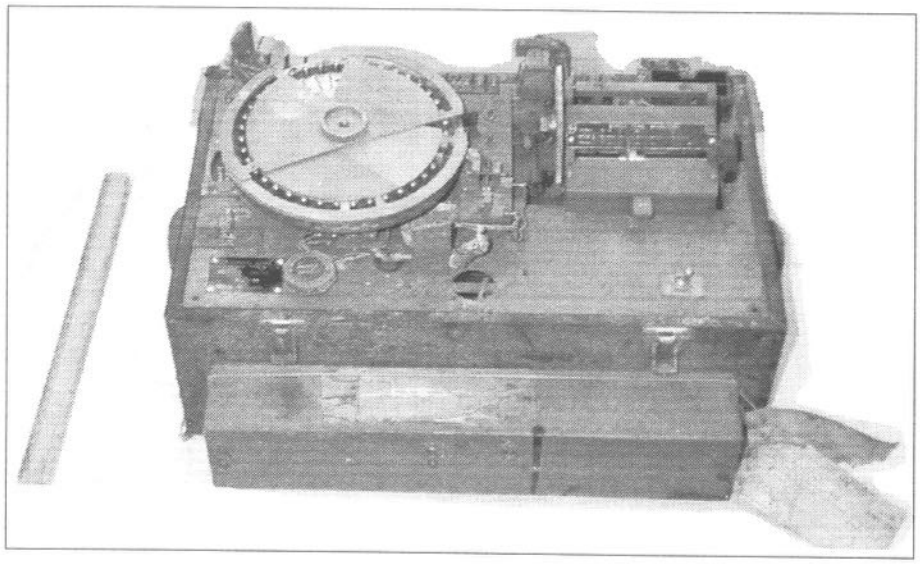
Collection: Lee Grant, G3XNG

Photo: Jim Lycett, GØMSZ



Collection/Photo: Ray Lee VR2UW (ex-VS6UW)

Unknown key said to be from a Greenland coast station. Info please



Probably not produced in any great quantity, this RAF equipment is labelled "Automatic Keying Device Type 1A. Ref 10G/1881 Serial No. 225. It seems to function by setting brass pegs in a revolving turret. Info requested

Collection/Photo: John Elgar-Whinney

The Codax Automatic Keyer

by Tony Smith
G4FAI

THINK OF AN ELECTRONIC keyer today and, whatever sophisticated operating features it possesses, it has only one main function - to send Morse code by switching the keying circuit of a CW transmitter on and off. Back in 1964, when transistorised keyer circuits were still quite new, the Codax 361 Automatic Keyer had some extra features which are not needed for today's rigs. And using these features there was a little more to it than just plugging in the keyer!

The Model 361 Codax Automatic Keyer was first advertised by Waters Manufacturing, Inc., of Wayland, Massachusetts, in late 1964. The company continued to advertise it until at least September 1969, and it re-appeared in 1972 under the banner of Barker & Williamson, Inc., of Bristol, Pennsylvania.

The following information is taken from the B & W Codax installation and operating instructions, with additional information from a review of the Waters model which appeared in CQ Magazine, July 1965.

The instructions describe it as "a fully solid-state automatic keyer... a complete unit with its own internal battery power supply and an integral, front panel mount, double-paddle key. Only two controls are necessary. Speed (5-50 words per minute) and an audio gain/ON-OFF switch. CODAX may be used with any type of transmitter - AM, CW, and SSB, without any modification to the transmitter."

Features of the Codax included:

- Provision for mixing the incoming signal from a receiver with the keyer's own sidetone.
- A reed relay for keying the transmitter (grid-block keying).
- A 'keyed audio output' of 1500 cycles (nominal), at a voltage output level of .050 volts, for insertion into the microphone input of SSB transmitters, or AM transmitters operated above 50.0 MHz for MCW operation.

AM or SSB Operation

Within certain power limits (see later) the reed relay will switch the keying circuit of a transmitter like any other keyer, but the reference to its use for AM or SSB operation may puzzle some of today's operators.

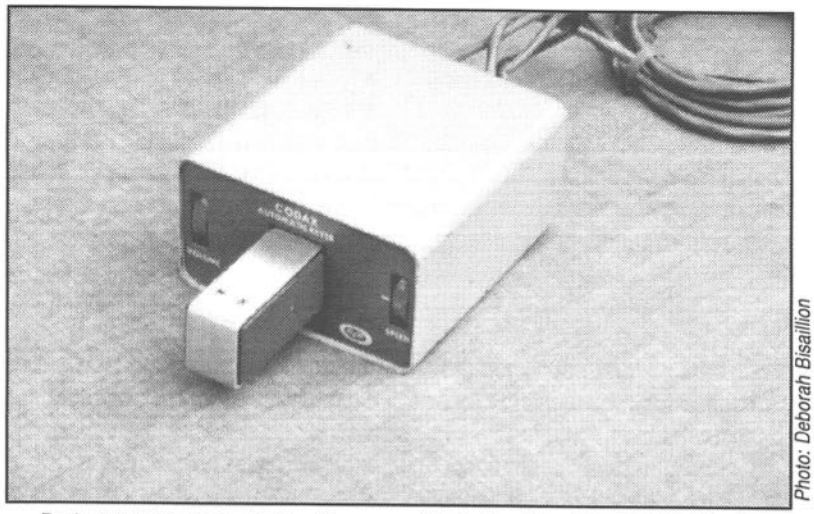


Photo: Deborah Bisaillion

Barker & Williamson Codax Keyer *Chris Bisaillion, VE3CBK Collection*

In a contemporary article, "Look What's happened to the Telegraph Key!" ("73" magazine, October 1966), referring first to another unit, the 'Codaptor', Jack Althouse, WA6CEZ, explains:

"SSB KEYERS.... what about the transmitters that don't have a carrier to key - SSB suppressed carrier transmitters? A few of the popular transceivers have provision for carrier injection so that they can be used for CW. Many do not.

"Sideband Engineers has the answer to CW for the SSB operator in their 'Codaptor'. It works this way: Connect an audio oscillator to the microphone jack of a SSB transmitter and out comes a CW signal. Its frequency is above (USB) or below (LSB) the suppressed carrier frequency by the audio oscillator frequency. Key the audio oscillator and, presto, you're on CW. The 'Codaptor' also contains delay circuits that close the T-R relay of a transceiver before the keyed tone reaches the transmitter and keeps the relay closed, VOX fashion, for a time delay adjustable by a front panel control. *(We will welcome further information on the 'Codaptor' if any reader can help? Ed.)*

"INTEGRAL ELECTRONIC KEYERS.... Waters Mfg. Co. offers a fully equipped package at $92.50. In one box it has a transistorised electronic keyer, a key, a tone oscillator for keying SSB transmitters and for monitoring, a mixer to combine the station receiver output with the sidetone oscillator, and its own battery supply. This, at present, seems to be the Cadillac of keyers."

Used with AM, a keyed audio signal inserted via the microphone jack provides modulated CW (MCW), a system much used in maritime services at one time. What is not clear from the Codax instruction leaflet is why it specifies MCW operation "above 50.0 MHz." Presumably the FCC regulations relating to amateur radio at that time allowed A2 emissions (modulated telegraphy) only above 50 MHz, but MM

would appreciate confirmation of this, also an explanation of why this restriction was imposed, if any reader has knowledge of it.

CW Transmitters

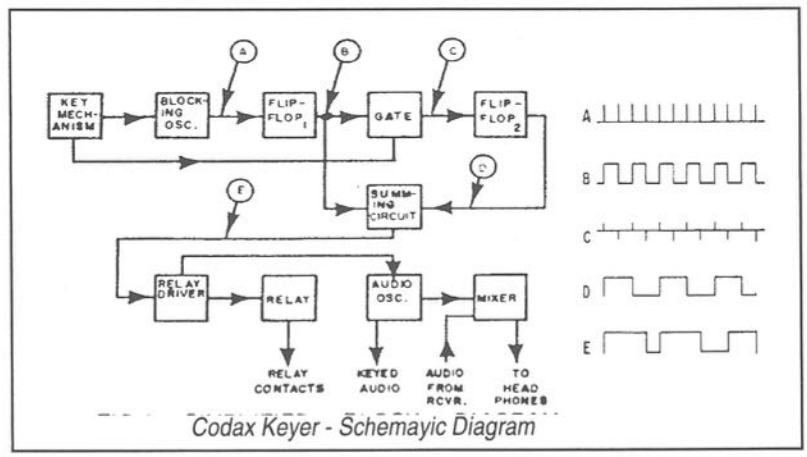
For CW transmitters, operation of the Codax was straightforward enough, by plugging in or attaching the appropriate cable to the transmitter's keying terminals. There was a need, however, to take note of the keyer's power handling limitations. The instructions laid special emphasis on this:

"The reed relay will handle only 15 watts of total power (keyed voltage times keyed current equals keyed watts, 15 maximum). Refer to transmitter Instruction Manual to determine type of keying circuit and maximum voltage and current to be keyed. The maximum voltage is 250 volts and the maximum current is 1000 milliamperes, but note that you may not switch more than 15 watts.

"In general, blocked grid circuits will be found to be within acceptable limits... but don't take chances - check and measure! If your keying circuit is beyond this 15 watt limit, or 250 volts, or 1000 ma, obtain an external keying relay that will handle the power and use the Codax reed relay output to control the external relay. If in doubt, we recommend that you write to our factory Amateur Service Department for 'specific' connection information, including in your letter complete information on make, model and, if possible, instruction book on your particular transmitter."

SSB and AM Operation

A cable marked 'Keyed Audio' is provided, to be fitted by the user with an appropriate plug for the transmitter's microphone socket. After plugging in, the instructions continue: "Using SSB with VOX, adjust VOX hold-in time to suit your operating speed. When the key is pressed for either dots or dashes, the VOX relay actuates the transmitter and mutes the receiver. Adjust receiver audio level and Codax audio level for comfortable headphone level on both



Codax Keyer - Schemayic Diagram

Codax and the incoming CW signal. Set speed control to desired transmitting speed. Markings on this knob are approximate and are for reference only.

"Adjust transmitter microphone gain so that on continuous dots at a speed of 20 words per minute the average final plate current is about 25 to 33 percent of the tuned up, loaded, full carrier value. If used with an AM transmitter (only above 50 MHz) external changeover switching from transmit to receive will be required. Transmitter microphone level should be set to avoid over-modulation in the same manner as used for voice transmission."

Paddles/Keying

Each paddle is individually adjusted for gap and tension. Two screws visible at the top of the trim strip around the paddles provide individual adjustments for the spacing of the contacts. Two screws on the paddles themselves adjust the tension of the paddles. The two adjustments are somewhat interdependent. Tension should be set first and then the spacing adjustment as required.

If desired, the high speed limit of 50 wpm can be increased to 65 wpm by shunting R3 with a 47K ohms, 1/4 watt resistor.

Where possible, it is preferable to use the reed relay contacts to key the transmitter "because certain crystal filter or phasing-type transmitters (transceivers) will not accept any single tone keying input without putting out spurious signals that are the unwanted sideband, residual carrier, and harmonics of the keyed audio frequency."

For left-handed operation, the paddles can be reversed by interchanging two wires attached to either side of the paddle assembly inside the case.

Only light pressure is required to operate the Codax. "No trouble will be encountered with Codax 'walking' on the table. If Codax walks, you are not operating properly. Put your hand on the table and operate the paddles using only light finger pressure of the thumb and index finger... no wrist or arm movement to be used. Give yourself and Codax a little practice!"

An external (paddle) key can be used in place of the Codax paddles by installing a 3-wire cable to connect the external key.

Similarly, a hand key can also be used after installing additional wiring. "Turn Codax on, adjust the volume and you now have a CW monitor-CW signal mixer... hand key controlled, and a code practice oscillator. All of the keying precautions applying to Codax still apply... you still key through the reed relay contact, but with a hand key, the speed control knob has no effect."

Spacing ratios, and dot and dash ratios, are fixed for all speeds of operation. "Dots and dashes are self-completing and a dash may be inserted into a series of dots at any time by pressing the dash paddle." Despite its double paddles, however, the Codax is not capable of iambic operation.

Contemporary Comment

When the Codax was marketed, electronic keyers were not in such widespread use as they are today and it is interesting to read the comments of Wilfred M. Scherer, W2AEF, in a review of the Codax keyer in CQ Magazine, July

1995.

He wrote: "When you've been used to a certain type of operation or equipment for many years, you sometimes resist 'new-fangled' ideas. This has been the tendency of this operator who has been accustomed to using the good ole fashioned bug over the past forty years...

"Happily... we took to this keyer like a duck takes to water... Compared to the use of a straight key or other mechanically operated keys, more uniform sending can be attained, and at faster speeds. Operation is less tiresome too.

"One of our experiences using the reed relay was that we accidentally tried to switch too much power with it. The only noticeable damage was that the relay contacts stuck closed together, but fortunately it was possible to free them again by jarring the unit.

"One thing you cannot do with the Codax is to send in Continental (American) Morse code, because there is no long dash for the letter 'L' (this is the case with other normal electronic keyers).

"Operation of the keying paddles was comfortable after a bit of practice and after some readjustment of the gap and tensions. Even though it is said that you can't teach an old dog new tricks, we encountered no particular difficulties in learning to operate the Codax; in fact, the uniform and machine-like sending... made our keying by other accustomed means sound surprisingly inferior by comparison."

(Thanks to Lynn Burlingame, N7CFO, who provided MM with a copy of the Barker & Williamson Installation & Operating Instructions for the Codax Model 361 Automatic Keyer; the earlier Waters advertisement; acopy of the CQ Magazine review, July 1965; and a list of advertisements covering the period December 1964 to July 1972).

Codax Key - Specification

Circuit:	Solid state, with 10 transistors & 14 diodes.
Audio input:	1/2 watt (maximum) at 4 to 500 ohms.
Headphone output:	(Adjustable) 0-0.2 volts into 600 ohm phones.
Keyed Audio Output:	050volts, 1500 cps, nominal.
Reed Relay:	15 watts (maximum) 250 volts, 1 ampere.
Paddle Pressure/Gap:	Factory adjusted to 20 grams at .001 in. (nom) gap.
Battery Life:	(With 6 mercury batteries) In excess of 400 hours.
Dimensions:	L 3-3/4" x H 2-1/4" x D 4-1/4" (95 x 57 x 108mm).

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

The Don 5 Morse Telephone

I enjoyed the article about the development of the D Mk.5 by John Packer in MM61. I have in my collection a unit marked 'CONTROL UNIT S.R. No.2 Mk.1 CAT No. VB 0732 Serial No.60. This item appears identical to the normal Don 5 pictured on page 21 of MM.61 except for the omission of the bell for exchange calling and the change in nomemclature.

The VB stores number is a mystery as all the British Army signals equipment that I have encountered in the past had either a YA (for line signalling) or a ZA (for wireless) code number. The Electrical & Mechanical Engineering Regulations for the D Mk.5 (Telecommunications T100/1 - T103/1) does not mention the VB 0732 model.

Has any other MM reader had any dealings with this unit ? Since it is called a control unit S.R., what equipment. was it intended to control ? What is the significance of the VB stores prefix ?

Ian G. Mant, BA,G4WWX
Vintage Technical Services, Liverpool
Tel : 0151 722 1176

Key Type P.S.213A

Without wishing to drag out unduly the correspondence on this key (see MM60, p.43), I may be able to throw some light on its possible origins history and manufacture. At the same time, from my researches into the Marconi Short Wave Beam System of 1926/27, I feel I can provide an interesting historical association between this key, the Drummondville station and the article I wrote for MM on the Lincolnshire beam stations ('A Morse Link with the Empire Commemorated' MM52 - June 1997).

The Drummondville beam station, which was about 60 miles northeast of Montreal, initiated, with its similarly revolutionary counterpart near Bodmin, Devon, the world's first short wave beam wireless link, at midnight on 24/25 October 1926. Hence the dates referred to by Murray Willer in MM40 and in subsequent correspondence. Both stations were built by the Marconi Company, but whilst the British Empire beam stations near Bodmin and Grimsby were initially owned and operated by the Government, through the Post Office. The Canadian station was left originally

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

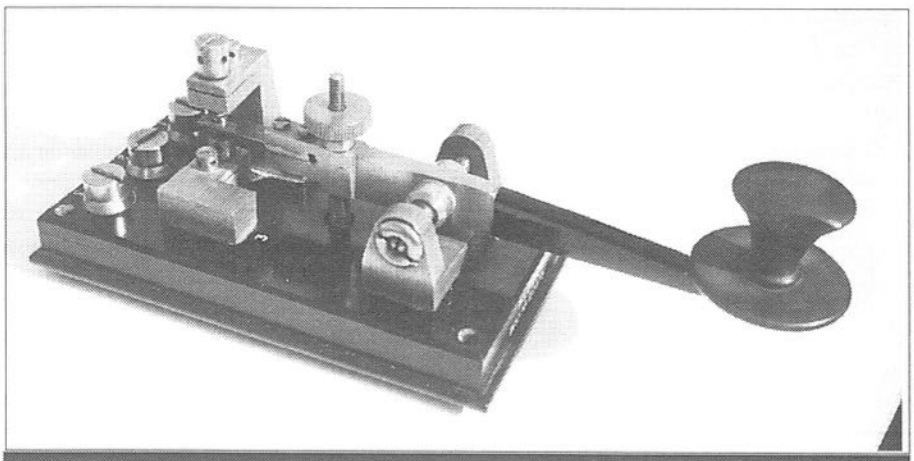
in the hands of the Canadian Marconi Company, but subject to a measure of public control.

I think it most unlikely that the P.S.213A key dates to 1926, and in any case it would not have been used normally to control the 20kw SWB1 beam transmitters. These were keyed remotely and not normally hand keyed (see MM52, p20). Archive photographs of the British beam stations show clearly that their keys, provided purely for test purposes, were originally of the glass-topped double current Post Office type. Standard Post Office sounders were provided also.

The beam stations in Canada, Australia and India, operated by Marconi subsidiary companies, if not provided with the standard double current key, may have used originally keys similar to those provided for Marconi ship installations of the time, since they had no special requirements. However, it is worth noting that there was very considerable standardisation of all equipment in beam stations worldwide.

The dates referred to in the letter from Murray Willer in MM40 are simply the years between which Drummondville was operational as a beam station. For a number of reasons, I feel fairly certain that they do not refer to the period during which this particular design of key was used, the key being more modern in origin. Its use at Drummondville was probably during the last decade of that station, prior to its closure as a beam station in 1963.

In 1929, all the beam stations became part of what was to become, in 1934, Cable and Wireless, until their return to public ownership in this country in 1947, and similarly in Canada and the other Dominions in 1950. It was from about this latter postwar period, or later, that the P.S.213A key was introduced



Photo/Collection: Wyn Davies

Wanted - volunteers to read MM onto tape for the visually impaired

increasingly into all British Post Office stations, replacing older designs, and becoming the standard key, particularly in the maritime coast stations (see Portishead Radio Today, MM32, p.28). I would suggest that it may have been at this time that the original beam stations, such as Drummondville, were supplied with th P.S.213A.

As a standard British Post Office equipment, where were they manufactured? The terminals are of Post Office style, similar to those on Post Office sounders and current keys. Was their manufacture contracted out by the Post Office and possibly by the Marconi Company? They certainly bear no resemblance to Marconi marine keys, or indeed other Marconi keys, of whatever age. Or were they in fact manufactured by one of the Post Office factories at Woodrough Lane in north London and Studd Lane, Birmingham?

The key was well within the quantity production facilities of those factories and the P.S. suggests a Post Office designation. Towards the end of their life, the surplus keys of this type were sold to Post Office employees for £20, being described at the time as a 'Post Office standard key'. One of my ex-Post Office radio amateur friends has a P.S.213A so purchased and it is still in use.

Perhaps a former Post Office employee, possibly involved with Post Office manufacturing at the Post Office factories, can provide the definitive answer regarding this Post Office standard key.

Ken Jones G3RRN
Sudbrooke, Lincoln, UK

Copying Morse

After 30 years of absence from ham radio, I recently returned to the hobby and was pleasantly surprised to find that I was still able to copy CW at 15 wpm. Not bad, but I have a 30 wpm certificate dated 1964 so I was not totally satisfied. Now aged 75, I set myself a target to copy at 30 wpm just to see whether I could still hack it. In case anyone is interested, here's how it happened.

Taking advice from the experts, I saw that the logical mind's attention to the individual letters in every word is a barrier to copying Morse code at speeds above 20 to 25 wpm. I chose to break the problem into two parts, word-endings and beginnings, and deal with each part separately before bringing them together. I made a tape recording of common words grouped according to their endings such as 'est', 'ent', 'ion' and so on, and practised listening until the endings, which were repeated, became familiar. Using the same words, I recorded them in alphabetical order of the initial letter. In this way, the word beginnings were predictable but the endings varied. With the second tape, I listen for the beginning of a word and rely on memory to recognise the ending. This helps to build a vocabulary of common words. To follow this up, I made more recordings of short stories using the same vocabulary and these allowed me to 'copy behind'.

I submitted my 30 wpm hand-written copy to the ARRL for certification but it was returned as 'illegible'. Luckily, I was allowed to resubmit the copy along with a typewritten transcript and I was

granted the 30 wpm certificate. Who says you can't relive the thrill?

Now I'm trying to copy to keyboard; does anyone have any helpful hints? I could touch type at 40 wpm but the ear-to-finger connection is sluggish.

H. Neill, VE3EAW

J. H. Steward, The Strand, London

With reference to the practice key by J. H. Steward shown on p.36 of MM60, I recently found a K.O.B. practice set bearing a brass plate inscribed:-

No. 356

THE ALDERSHOT SIGNALLING INSTRUCTOR J. H. STEWARD 406 STRAND LONDON

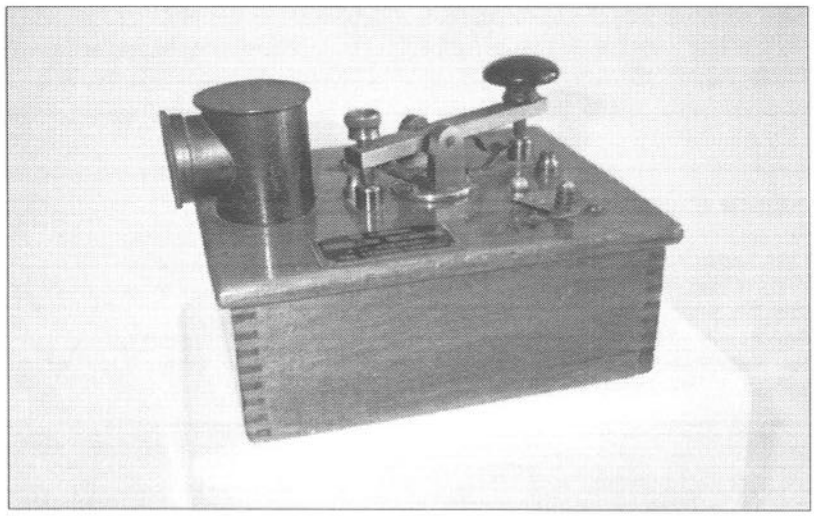
The set is beautifully made and the key has the same angled tension spring as Wyn Davies' key, with the addition of a further leaf spring/contact in front of the pivot bearing. The whole key swivels on a circular brass plate, which has stops to allow the key to engage one set of contacts for the buzzer and another for the lamp. There is also a spring-loaded ON-OFF switch.

The set appears to pre-date the early Gamages sets, and Wyn has heard a suggestion that this firm ceased trading around the year 1900. Has any reader further information on J. H. Steward?

Jack Barker
Surbiton, Surrey

Copying CW is Good Therapy

For the past few months I have been sending CW to a few of our Radio Club members to assist them to pass the test. This week one of the group who is dyslexic and has had a stroke, said his wife had seen his copy and commented that for the first time ever she could read what he had written. Another member of



Photo/Collection: Jack Barker

The Aldershot Signalling Instructor by J. H. Steward

the group then said after a neck problem his hand-writing had become unreadable and that the writing of CW copy for the test and after, had improved his writing and his condition.

I never thought I would hear the claim that CW is good therapy, but there it is. I won't name the members but it was nice to hear another use for CW.

Albert Heyes, G3ZHE
Warrington, Cheshire, UK

R- & S- Codes

I am doing research on marine radio through 1912, and have had absolutely no luck in finding the R- and S- codes that were in use prior to July, 1912. They are referred to in the following extract: 'Also, in 1908, the British Post Office, despairing of action to agree an international code of abbreviations, issued its own list of two letter abbreviations intended for use between British coast stations and ships. The list, published in the PMG's Instructions to Wireless Telegraphists, included abbreviations RA to RZ and SA to SF. The next International Radiotelegraphic Convention, held in London in July 1912, adopted and extended the GPO abbreviations. Q was added as the first letter and so the Q code was born. The new code now ran from QRA to QRZ and QSA to QSX. On lst July 1913 the Q code finally became an official international information code, updated as changing circumstances demanded to include new codes relating to such matters as aviation and maritime.' Any assistance you can provide will be greatly appreciated.

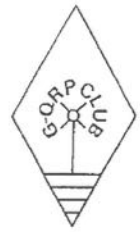
Scott Anderson
Tennessee USA

New Version of CW Software

Back in 1995 I wrote an article for QST entitled 'Quick and Easy CW for your PC' which described a very simple parallel port interface and free software to improve both sending and receiving CW, using a PC. The software has continued to evolve and is now Version 8.0 – and it is still free! The program and lots of support pages are available from my CW web page at: http://taggart.glg.msu.edu/wb8dqt/cwpage.htm

There is no charge for the software and it may be freely distributed to others.

Ralph Taggart, WB8DQT



Clubs & Societies

Clubs, Societies and Associations with a special interest in Morse are welcome to introduce themselves on this page

OE-CW-G The First Austrian Telegraphy Interest Group

by Dr. Georg Csapó, OE4CSK

The era of telegraphy in the oldest and most traditional form of long distance communication but regrettably this period has come to an end on the field of commercial as well as Naval radio services. When thousands of radio amateurs all over the world still make use of their key, it is not due to nostalgic enthusiasm alone but because telegraphy, as is universally acknowledged,enables global communication by use of simple means even under unfavourable conditions.

To provide a homestead for all radio amateurs who are willing to make use of their key at least once in a while or - even better- to give preference to telegraphic communication in general, the Radio Society of Austria - OVSV -has decided to create a specific section for telegraphy within the society under my auspices from May 24th 1997, whereby interested persons from Austria as well as abroad may subscribe into the OE-CW-G an interest group for radio telegraphy whose objectives are to promote the improvement of telegraphy techniques and encourage the use of CW, thereby attempting to establish contacts and create friendship between radio amateurs all over the world.

All Hams are most welcome to participate at our monthly sked meetings (every 1st Friday of the month at 18:00 UTC in winter and 17:00 UTC during summer on 3.575 mHz = QRM). Every call heard will be answered as presicely as possible in the proper calling speed. The OE-CW-G is not a high speed club and is also open to beginners and amateurs with little experience. The monthly sked is usually under guidance of OE6FYG (Herbert), OE1JJB (Hanno) or myself OE4CSK.

To all who want to join our club, the simple application is as follows:

1. Please send informal application for membership in the OE-CW-G
2. To encourage the use of CW on the bands add copies of 20 QSL cards confirming contacts in telegraphy
3. One valid contact (QSO) on one of the sked evenings
4. To cover printing and mailing costs please ad 8 IRCs or appropriate value in foreign currency (membership is lifelong, no further charges are collected)

Please send applications please to Georg Csapó, OE4CSK, Neuberg 346, 7535-St.Michael, Austria.

Looking forward to meeting you on the bands. Best 73 and Always Good BrassPounding. ***MM***

Bookshelf

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

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

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

FOR SALE

FOR SALE OR TRADE Electric Speciality Co. ("Cedar Rapids") bug $135. Western Union telegraph galvanometers used in duplex telegraph circuits (150-150 ma). One made by Western Corp, another made by the Jewell Corp. $30 each. Signal Electric 4 ohm KOB in excellent shape $75. Bunnell camelback KOB exc shape $150.
Rare Morse practice set made at the New York Repair Shop ('NYRS') of Western Union containing a W.U.T. Co. Bunnell Sounder and a key of unknown manufacture, probably made by Skirrow Co. $150. Dave Pennes, WA3LKN, 4607-C Santa Cruz Drive; Indianapolis, IN 46268-5354, USA. Tel.:(317) 471-9605.

TEN-TEC ARGOSY 50W/5W trncvr. with original power supply, microphone(unused) and handbook plus virtually unused Kent key. Good CW rig with full break-in. £470 plus delivery. Free delivery up to 75 miles. Tony Smith, G4FAI, 01263 821936.

COLLECTION OF CW KEYS, Vibroplexes, paddles, keyers, special CW devices. Amongst them there are : bugs - "MacKey", "Model SAS", "Original", key type J-36, "Electropribor - Moscow", twin paddle KM-22, Sweepstake (Russia), special mechanical devices for burst transmission, Rebroad key (1922, Russia), Lorenz keys T.2 (1941), Ta.P. (1934/36), Hi Mound HK-702 and other species, 55 in all. US$ 3000. Write in English to Valery Pakhomov, UA3AO (N7PLX), P.O. Box 95, 123364, Moscow, Russia, Tel. (095) 493-4237.

FOR SALE WITH CIRCUITS and/or complete manual: Marconi Marine Guardian II Trawler Rx type 2354A. Warden II 2182 Rx & Coastcall selcall unit. Kestrel III Trawler Tx/Rx c/w DC PSU. Redifon GR470 Marine VHF Tx/Rx. Bruce Morris, 62 Gerllan, Tywyn, LL36 9DE, Walas, UK.(01654 710741.

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

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BACK COPIES OF MM FREE for collection or postage cost, Numbers 20, 21, 24, 26, 27 and 29 - 61 inclusive. Mr W.J. Hough, 19 Farnham Close, Appleton, Warrington WA4 3BG Tel. 01925 269655.

KEYS, ETC, FOR SALE: A.M. Buzzer Practice 10F/4067 £30; Gamages Sounder £30; RAF Switchbox Identification No.2 Mk III £25; Gamages style Morse Practice Set in box with buzzer and light £35; RAF bathtub key £25; 2 keys from Telephone Set D Mk V (Don 5) £20 each; Scribo-Morse Transmitting Plate (plate only, see MM19, p.19) £40; Fullerphone MkV, complete, with superposing unit, £40; A.M. Sounder/Relaying, Type B, Ref. 10G/138 £40; Junker key (modern) £60; Vibroplex Lightning bug, c.1956 £80; All plus carriage. Phone or write for more details. Tony Smith, 13 Morley Rd, Sheringham, Norfolk NR26 8JE. Tel: 01263 821936.
E-mail: g4fai@connectfree.co.uk

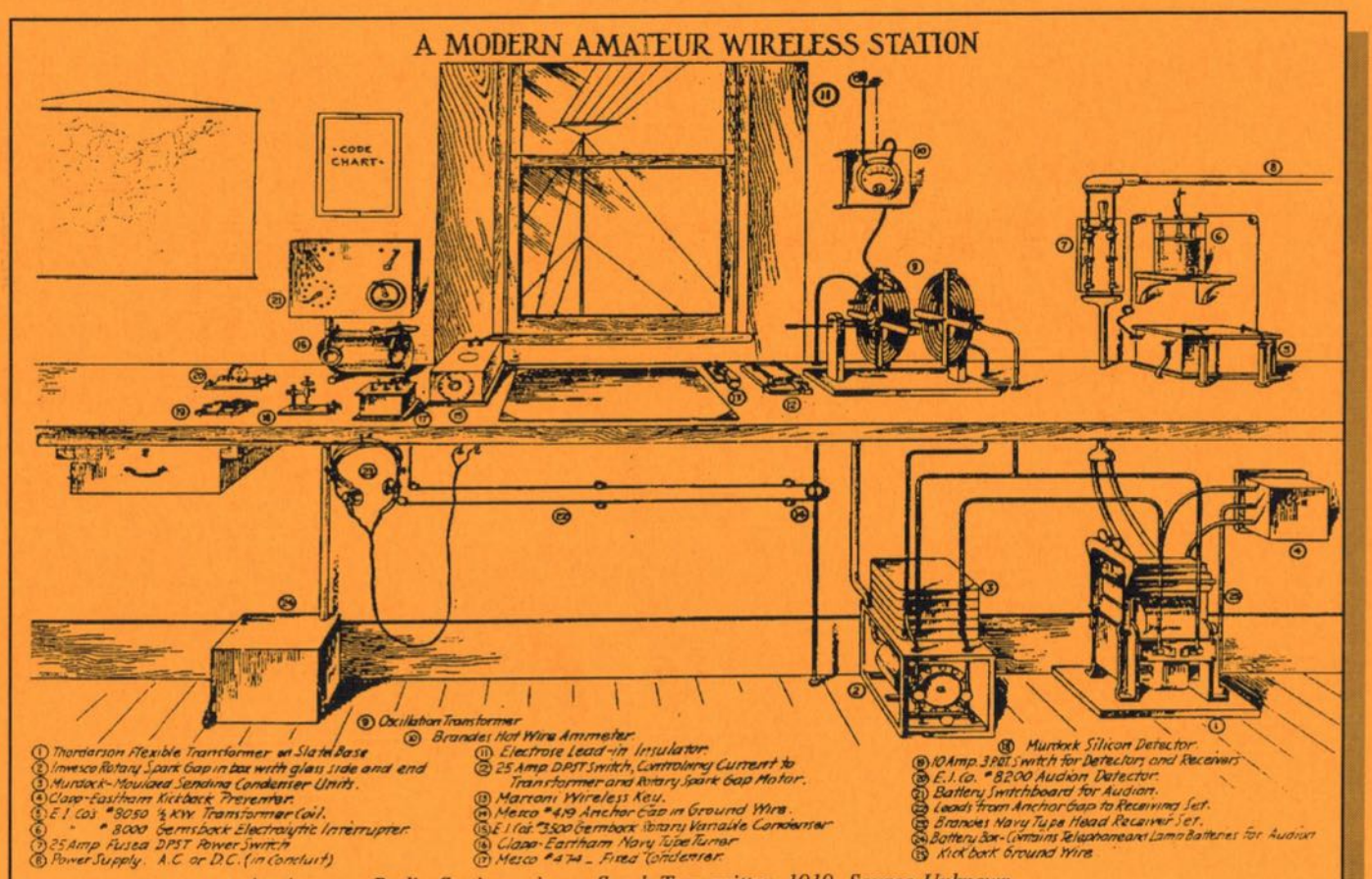
WANTED

WANTED: MARCONI MARINE Alert Rx, Seaguard A/A Rx, Reliance Tx, "Mariner" magazines 1971-end, NSWS & etc. Bruce Morris, 62 Gerllan, Tywyn, LL36 9DE, Walas, UK.(01654 710741.

LOCAL HISTORY SOCIETY would like to make contact with anyone who worked at, or has information on, the Morse listening station at "The Old Rectory", Whitchurch, Shropshire, England. Please contact MM.

MM Binders

Unfortunately we are temporarily out of stock of MM binders and are having to find an alternative supplier. We expect to have stocks within four weeks and



An Amateur Radio Station using a Spark Transmitter, 1919. Source Unknown

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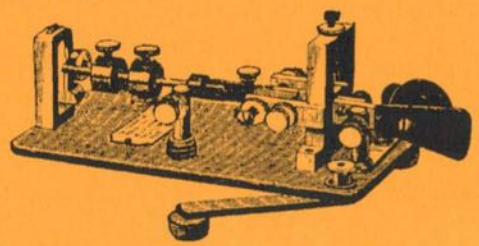

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