Number 59 – August 1998

Flying the flag for Morse

Morsum Magnificat

£2.50

The Morse Magazine

Bumper 60-page Issue!

All-Brass Galvanometer

Flying the flag for Morse

Morsum Magnificat

ISSN 0953-6426

EDITORIAL AND SUBSCRIPTION OFfiCES:
Morsum Magnificat, 9 Wetherby Close,
Broadstone, Dorset BH18 8JB, England.
Phone/FAX: Broadstone (01202) 658474;
International +44 1202 658474

MORSUM MAGNIFICAT was first published as a quarterly magazine in Holland, in 1983, by the late Rinus Hellemons PA0BFN. Now published six times a year in Britain, it aims to provide international coverage of all aspects of Morse telegraphy, past present and future. MORSUM MAGNIFICAT is for all Morse enthusiasts, amateur or professional, active or retired. It brings together material which would otherwise be lost to posterity, providing an invaluable source of interest, reference and record relating to the traditions and practice of Morse.

EDITOR Geoff Arnold G3GSR

CONSULTANT EDITOR Tony Smith G4FAI
(13 Morley Road, Sheringham, Norfolk NR26 8JE, England.
Phone: 01263 821936. e-mail address: tony@morsum.demon.co.uk)
MM home page – http://www.morsum.demon.co.uk

 Printed by Hertfordshire Display plc, Ware, Herts

ANNUAL SUBSCRIPTIONS (six issues):
UK £13.00 *Europe* £14.00 *Rest of the World* £17.00
All overseas copies are despatched by Airmail

Overseas cheques, etc., must be payable in Sterling and drawn on a London Clearing Bank. Payment by Mastercard, Eurocard or Visa is also accepted; quote your card number and expiry date, checking that you have written them clearly and correctly.
We no longer accept payment via PostGiro or PostCash International, or by International Money Orders handled through the Girobank system.

For security reasons, we cannot accept orders for subscriptions, magazines, books, etc., via e-mail.

Make all cheques payable to 'G C Arnold Partners'.

"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
Limited stocks of Issues Nos. **31, 32, 34–36** and **39–58 only** are now available from the Editorial offices (see top of page). Price including postage £2.20 each to UK; £2.40 to Europe: £2.75 elsewhere by airmail. Deduct 20% if ordering 3 or more.

ON OUR FRONT COVER
Galvanometer, all brass. Possibly a linesman's instrument. Could be screwed to a telegraph pole using screw fitment shown.

Photo/Collection: Fons Vanden Berghen

Comment

LATEST DEVELOPMENTS in the 'Morse test fiasco' are reported at length elsewhere in this issue. Things have gone rather quiet of late – perhaps those responsible for the conflicting series of official announcements have suddenly realised that they were doing amateur radio no good whatsoever. The two journals published by the RSGB – *Radio Communication* and *Ham Radio Today* – have been trying to play down the whole affair as a storm in a teacup, with claims of overwhelming support for the Society's handling of the matter. That is hardly the impression conveyed by the 'balanced selection' of readers' letters on the topic published in August *RadCom*.

From comments made at the recent Radiocommunications Agency Open Forum *(see pages 18/19)* it would seem that the moves to ease access to the amateur HF bands are the result of two quite distinct agendas. The RSGB, worried about the decline in the number of amateurs generally, and Society members in particular, hopes it will attract more recruits to the hobby. Exactly why the drop in membership of 10.8% spread over the past three years should have driven them suddenly to promote such ill-thought-out panic measures, I still do not understand.

The RA, on the other hand, would obviously like to find some way to entice lots of Class B licensees away from VHF and UHF onto the HF bands, in the hope that the drop in occupancy of amateur bands above 30MHz will give an excuse to narrow our allocations. The spectrum-space so released could then be sold at lucrative rates to business users who are clamouring for more!

Most radio amateurs understand that our hobby and its rules and practices will continue to evolve. Most accept that Morse will eventually have a different place in the scheme of things; all they ask is that the changes should be properly thought out, and for the long-term good.

In the meantime, let us have no more muddled pronouncements from the RSGB or the RA. They should choose their words with more care. For example, 'reducing the Morse test speed' is **not** the same as introducing 'a new interim licence', unless, of course, it is intended that this new licence should **replace** the existing Class A. Please, please, engage brain before opening mouth!

Geoff Arnold

G3GSR

Contents

Adverts

News

WRC Date Change

WRC-99, the World Radio Conference due to be held in 1999 will now be held in Turkey in the year 2000, and designated WRC-2000. It is not known yet when the following WRC (which, provisionally, has consideration of Article S.25 of the Radio Regulations on its agenda), will be held, but it will probably be in 2003 rather than 2002.

ITU conferences have very full agendas, and amateur radio matters have a very low priority in them. Accordingly, there is no guarantee that the Amateur Morse Test issue will be considered at WRC-2002/2003, and any change in the present international regulations could well be deferred to a later date.

IARU Region II Conference to Consider FASC Proposals

The final IARU Regional Conference to consider the FASC proposals for changes in the international radio regulations (Article S.25) affecting amateur radio will be held in Venezuela at the end of September 1998.

IARU Region II covers most countries in North and South America as well as Latin America and the Caribbean. Regions I and III have previously considered the proposals and once the Region II conference has made its recommendations the IARU Administrative Council will determine the IARU position for presentation to WRC-2002/3.

ARRL Proposes Simplified Amateur Licence Structure

The ARRL Board has proposed to the FCC a simplified Amateur Radio licensing structure with four classes, involving four written examination elements instead of the present five, and two Morse code examination elements instead of the present three. The proposals include a loss of frequencies previously allocated for Novice CW operating and, effectively, a reduction of the present Extra Class 20 wpm Morse requirement to 12 wpm, and the present General Class 13 wpm requirement to 5 wpm.

The four new classes would be:

Class D – The proposed entry level to amateur radio, with the same privileges and level of examination difficulty as the present (no-code) Technician Class. All amateurs licensed as Technicians would transfer to this Class.

Class C – Proposed entry level to HF operating. Same privileges as the present General licence, but with phone subbands extended by 50kHz on 75 and 15 metres, and by 25kHz on 40 metres. To upgrade from Class D to Class C an amateur would have to pass a written examination on the operational and technical qualifications required for HF operation and a 5 wpm Morse test. All existing General, Technician Plus, and Novice licensees would become Class C.

Class B – This Class would have the

privileges of the present Advanced licence, but with phone sub-bands expanded by 50kHz on 75 and 15 metres and by 25kHz on 40 metres. To upgrade from Class C to Class B, an amateur would need to pass a more advanced written examination and a 12 wpm Morse examination. All amateurs now licensed as Advanced would become Class B.

Class A – Would have the full privileges of the present Amateur Extra Class, with telephony sub-bands expanded by 50kHz on 75 and 15 metres and by 25kHz on 40 metres. Upgrading from Class B to Class A, would require a pass in the most difficult written examination in the sequence, but no additional Morse examination would be required beyond 12 wpm. All amateurs presently licensed as Amateur Extra Class would become Class A.

The expansion of the telephony sub-bands for Classes A, B, and C, would be achieved by re-allocating Novice CW bands no longer required for their original purpose. The present 20 wpm test, required for the Extra Class licence, would be replaced by a 12 wpm qualification for this level of licensing (i.e., new Class A). The present 13 wpm test level for General licence privileges would be reduced to 5 wpm if General licensees are transferred into the new Class C. The present 13 wpm test for the Advanced licence would be reduced to 12 wpm if that level of licensing becomes Class B.

The ARRL says that where reductions in Morse code requirements are proposed, there would be a corresponding increase in written examination standards. Nine of the 15 Directors voted in favour of the plan, with six opposed. ARRL members are being urged to contact their ARRL Directors to comment on these proposals. See http://www.arrl.org for further details.

The ARRL proposals have been submitted to the FCC with a request that they be considered in conjunction with a review the FCC itself is undertaking of the regulations covering amateur radio. It is believed that the review is directed towards streamlining the Amateur Service; privatising further the administration of the Service; and simplifying the licensing process.

NCI Statement

No Code International (NCI), a US-based organisation that seeks to end Morse testing as a requirement for Amateur Radio operation below 30MHz, has issued a statement commenting on the ARRL's Restructuring Proposals.

It applauds the proposed reduction of the Morse test to 5 wpm for the General Class licence (new Class C); it suggests that the new Class A and B (both 12 wpm) should also only require a 5 wpm test, and urges the ARRL to change its proposals accordingly. It says "This is not to say that we are opposed to the use of high speed CW on the air. We simply think it is something that amateurs should do voluntarily, and it should not stand in the way of their becoming HF operators."

NCI also says "The sole remaining reason for Morse code examinations stems from a 50 year old regulation, now called 'S25.5' in the International Telecommunications Union treaty, which requires manual Morse proficiency to

be demonstrated before a licence can be issued for operation in amateur spectrum below 30MHz. S25.5 should be struck from the treaty at the next ITU meeting. We urge the ARRL, the IARU and its member societies, and all ITU member nations and observers to work toward the elimination of S25.5 as soon as is practicable.

"Once S25.5 is struck, Morse code examination should be eliminated entirely as a criterion for amateur licensing. We urge FCC to adopt a 'sunset clause' that will immediately drop all Morse requirements for amateur licensing once S25.5 is struck. We urge ARRL and American radio amateurs to join us in this proposal."

NCI has made its own submission to the FCC based on this statement.

Historical Telecomms Exhibition

Well-known telegraphy collector Fons Vanden Berghen has written to *MM* as follows:

It is with great pleasure that I inform you of a unique exhibition of historical telecommunications equipment that will be mounted in Brussels from 15 September to 15 December 1998.

Covering an area of 600m^2, this exhibition will be unique because an enormous amount of historical telecommunications apparatus will be on display, some for the first time, mostly concerned with 19th-century telegraphy. The first portion is built up around some 200 items from my own collection, the emphasis being primarily on the great diversity of the technologies: needle; dial; Morse; printing; and optical telegraphs, tickers, sounders, and various accessories. For those with Internet facilities, a good part of this can already be seen at: http://www.cris.com/~gsraven/fons_images/fons_museum.html

My collection has been augmented by a number of exceptional items on loan from the CNAM Collection Nationale des Arts et Métiers de France, the PTT Museums of the Netherlands, Belgium, and France, various university museums (Aachen, Ghent, Antwerp, Liège, Delft, and Leuven) and from other fellow-collectors.

Telegraphy demonstrated the very first widespread application of electricity. As an introduction, therefore, a series of devices are shown from the initial period of electrostatics and electromagnetism. These include a splendid series of electrostatic generators (Nairne, Winter, Holz, Ramsden, Carré), exceptional galvanometers, electrostatic experiments, tubes from Crookes and Geissler, and so on.

Additionally, apparatus is displayed from the initial periods of the other forms of electrical telecommunication: telephony (a beautiful series of 19-century models); radio (with superb radios from the 1920s); facsimile (including the pantelegraph of Meyer from 1869); television (limited to the 1930s: Nipkow disks); and telex. Special attention is also given to wireless telegraphy, mostly Marconi apparatus (e.g. coherer, magnetic detector, 10-inch induction coil, multiple tuner ...).

In total, more than 600, largely historical items, will be on display. I am convinced that such an exhibition has never been held elsewhere and can only recommend that you do not miss this

extraordinary event. An illustrated catalogue will be available in Dutch and French.

The exhibition is organised by the bank GEMEENTEKREDIET in its Gallery in Passage 44, Blvd. Botanique 44, Brussels (near the Nieuwstraat on the Rogierplein side, a short distance from the North Station). It will be open from Tuesday through Sunday from 11 a.m. to 6 p.m. (closed Mondays and holidays), admission 100 BEF (=£1.65).

World HST Championships 1999

As reported in MM58, the next IARU World High Speed Championships will be held in Pordenone, Italy, from 28 April to 2 May 1999. The following is a brief outline of the history and organisation of the championships.

Previous events were held as follows:

European Championships:
1983 Moscow, Soviet Union
1989 Hannover, Germany
1991 Neerpelt, Belgium.

World Championships:
1995 Siófok, Hungary
1997 Sofia, Bulgaria.

The evolution of the European championships into a World event demonstrates an increasing interest in this specialised aspect of Morse operating. At the 1997 championships, for instance, competitors attended from 15 countries over three continents. However, there are still many countries where their IARU societies do not publicise the championships, or attempt to organise a national team to represent them, or do so only half-heartedly.

As a result, there are potential competitors in many countries round the world who do not know that they could participate in the championships if they wished. At the very least, they should be made aware that in the absence of a national team it is possible for representatives from radio clubs, or even individuals, to represent their country in the championships at their own expense, independently of their national society.

The IARU HST Working Group, which formulates the rules for the championships, stresses that the event is not only a competition but it is also a most enjoyable meeting of CW enthusiasts from around the world. During the 1999 championships there will other events also, including the Electronic and Hamradio Fair, and an excursion to Venice.

The following is a summary of the championship rules. There are awards for both team and individual performances. Individuals do not have to enter every event. If someone is more confident in receiving than sending at high speed, for example, they can concentrate on the receiving events alone if they wish, or vice-versa.

If a national team is selected, individual members may well be selected for their strengths in particular aspects of Morse telegraphy, i.e., sending, receiving, or skills in operating with the RUFZ or PED programs, in order to maximise the team score over all events.

National teams participating in the championships, consist of up to twelve competitors in six categories as follows:
A – Up to two 'Junior Females' (age 20 or less on January 1 in the year the Championships take place);
B – Up to two 'Junior Males' (age 20 years or less on January 1 in the year

in which the Championships take place);
C – Up to two 'Females' (over 20 years of age on January 1 in the year the Championships take place);
D – Up to two 'Males' (over 20 years of age on January 1 in the year the Championships take place);
E – Up to two 'Senior Females' (age 40 or over on January 1 in the year the championships take place).
F – Up to two 'Senior Males' (age 45 or over on January 1 in the year the Championships take place);

The Championship tests are as follows *(All tests use the PARIS system)*:
(a) Reception of 5-letter groups for a period of one minute, with an initial speed of 100 marks (letters) per minute.
(b) Reception of 5-figure groups for a period of one minute, with an initial speed of 150 marks (figures) per minute.
(c) Transmission of 5-letter groups for a period of one minute, with the highest possible speed, and best possible accuracy.
(d) Transmission of 5-figure groups for a period of one minute, with the highest possible speed, and best possible accuracy.
(e) Reception of 5-character mixed text groups for a period of one minute, with an initial speed of 100 marks (characters) per minute.
(f) Transmission of 5-character mixed text groups for a period of one minute, with the highest possible speed, and best possible accuracy.
(g) Radioamateur Practising Tests, using the RUFZ radio amateur callsign receiving program compiled by DL3DZZ and the PED Pile Up Trainer program compiled by JE3MAS.

The RUFZ Callsign Copying Program test is taken on IBM compatible computers. Competitors make two attempts to receive 50 callsigns generated by the program, and the best attempt is taken as the competitor's entry. (See MM45 for a fuller explanation.)

The PED Pile Up Trainer Program test is taken on IBM-compatible computers. Competitors make as many contacts as possible in a period of five minutes. They are allowed two attempts, and the best attempt is taken as the competitor's entry.

The above is only a brief description of what is involved, extracted from the English language championship rules. It should be possible to obtain copies of the full rules from all IARU national societies, but in the event of difficulty, contact the HST Coordinator, László (Lacy) Weisz HA3NU, Box 169, H-7100 Szekszárd, Hungary. Tel: +36 74 311459. Fax: +36 73 311338. E-mail: HA3NU@npp.hu or jozsi@kvantum.tolna.net

In theory, national IARU societies will be publicising the HST world championships and inviting interested CW operators to contact them. A number will, of course, be already making arrangements to select a national team to be sure that their country is well represented in the championships.

In view of the current 'downgrading' of Morse by many societies, anyone interested in taking part in the championships should contact their own society as soon as possible to register their interest, and to inquire what action the society is taking to support this important IARU activity. If a society does not propose to send a team, individuals

can make their own arrangements to participate in the championships without permission from the society.

500kHz for Amateurs?

In view of its traditional use for CW, ham-clubs in Holland have asked the Dutch PTT about the possibility of 500kHz being allocated for amateur use when it is no longer required for maritime communications following the introduction of GMDSS next year.

In responding to this suggestion, the PTT says that it will probably be 10 to 15 years before 500kHz is finally no longer in use, and it will be prepared to reconsider the proposal at that time.
(Information from Monika Pouw-Arnold, PA3FBF)

'I Tappa Key' CW Contest

At a time when new ideas are needed to promote and invigorate amateur CW activity, Larry Kayser, VA3LK, in his 'CW Today' column in *The Canadian Amateur*, June 1998, has introduced a new, light-hearted, idea for an informal CW contest which does not involve scoring points from other contest stations!

In summary, this contest involves getting at least two miles off the beaten track on foot, taking everything you need with you; getting on the air for a minimum of six CW QSOs on any permitted band; taking photos of the team's journey and activities; and subsequently writing an entertaining account of the day's adventure.

Larry says that every effort has been made to create a contest that will be attractive to existing and potential CW operators, and to those who live in apartments and condos who want or need some physical exercise. The rules are similarly crafted to encourage participation by those who are challenged physically in some way, at the same time preventing anyone from making a financial investment that would make them an automatic winner.

Whilst being an outdoor activity, time away from families is minimised as participants select their own time to participate. Not even a whole weekend needs to be spent operating in this contest. In fact, says Larry, "one could just as well participate on a weekday if that is appropriate to the team involved!"

There are no classes of participation in 'I Tappa Key', says Larry, "Just follow the 12 rules and have fun." In your entry, tell a good story about what you did, and illustrate with photos how you did it, and what special things you want the adjudicators to notice about your entry. Photos of keys *in situ*, for example will emphasise that CW remains firmly in control of the overall communications scene.

The 'I Tappa Key' contest is offered in *The Canadian Amateur* for participation by Canadians only, but, says Larry: "Very shortly other groups are expected to announce their national versions of I Tappa Key."

He emphasises that this contest is an experiment in change, the outcome of which will tell if this model (or something like it) will be successful. Larry will be pleased to hear from anyone, or any group interested in setting up their own version of an 'I Tappa Key' contest in their own country, and to share experiences with them. Contact him at

RR2 Westport, Ontario K0G 1X0, Canada (E-mail kayser@rideau.net). *MM* will also be interested in plans made and will be pleased to publicise them.

Summary of the Canadian 'I Tappa Key Contest' Rules for 1998

1. Contest ends 31 December 1998. Entries must be received by VA3LK by 1 February 1999.

2. All bands available for CW operation may be used. This is not a contest in the conventional sense, so the WARC bands may be used!

3. Duration of the contest is 24 hours maximum.

4. Participants: Two persons minimum, of which only one must be licensed to operate on CW. Take your YL/XYL, children, friend, co-worker, anyone who can walk a few miles easily.

5. The team must carry with them all radio equipment and power generation items required. Use a loaded wheelbarrow or put a QRP rig in your shirt pocket. Let the other person(s) carry anything you can't manage!

6. Reaching the operating location must involve at least two miles travel without transportation assistance. Amongst other things, your score will depend on your approach to this problem. Finding your way home is important!

7. Hardware and antennas of any kind can be used, whatever you can carry and/or have the use of at the operating site.

8. The team must make at least six complete CW contacts and subsequently receive three QSL card confirmations. If there is a microphone visible in any of the photographs submitted, many points will be lost!

9. A write-up of the event including colour pictures suitable for reproduction on the world wide web must accompany the entry. Extra points will be awarded for a white linen table cloth or equivalent on which the mandatory celebration meal is served at the operating site. Doing it right is important!

10. Scoring will be highly subjective and determined by a committee set by the editor of 'CW Today'. Winners will be published in March in the year following the contest.

11. Innovation, ingenuity, novelty, effort, humour, community participation, and publicity for amateur CW will all be given consideration. If it takes less than a month to plan your entry in this contest you have not received the message. In the event of rain, just put the date off until the weather is better!

12. Have fun! Above all do things safely. A special checklist of safety items would be an excellent idea. Document your entry carefully, send in lots of colour print pictures, and enjoy yourself.

E-Morse by CW MIDI

Rob Dey, KA2BEO, has sent *MM* details of his latest Morse software, called CW MIDI. Basically, this allows users to send what he calls 'E-Morse', Morse code messages by e-mail. It can also be used to create useful Morse practice files; or to put Morse audio messages on web sites.

This is achieved by creating Morse code standard MIDI files (SMF) from ASCII text by simply typing the messages to be sent or by importing text files. There is a basic DOS version, which will also run within Windows

3.**, while CW Midi for Windows is a 32-bit application, with many extra features, that runs in Windows NT, Windows 95, Windows 98, and later operating systems.

Rob claims that his program is very different from any others that are available. The MIDI file output can be played directly on web sites, etc., and is the most efficient file format to use when digitising audio. As far as he knows, he says, there is no other program that can directly create a MIDI file from text.

Full details can be found on 'Rob's Ham Shack' on the world wide web, http://www.myhost.com/rdey and the two versions of CW MIDI can be downloaded from this site. A link to Rob's site is also available on the MM home page: http://www.morsum.demon.co.uk

Rob can also be contacted at P.O. Box 1849, Point Pleasant, NJ 08742-1849, USA.

(Does anyone know of a program which enables ASCII text to be created by Morse keying and saved to a .TXT file? – Ed.)

Morse 2000 World Conference

The second Morse 2000 World Conference is to be held on October 18–19 at the Holiday Inn Campus Area, Eau Claire, Wisconsin, USA.

The programme includes a range of presentations relating to the use of Morse in rehabilitation and education. There will also be informal discussion groups on: Standardisation of Morse code; Telecommunications Forum – New uses for Morse; Comparison of computer access methods; Current Morse research; Teaching and learning Morse code in rehabilitation; Morse code and the classroom teacher.

For further details contact Morse 2000 Worldwide Outreach, Office of Continuing Education in Human Sciences and Services Outreach, NUR 244, University of Wisconsin-Eau Claire, Eau Claire, WI 54702-4004, USA. Phone: 715.836.3990. Fax: 715.836.5971.

Bencher to Make Mercury Paddles

Bencher, Inc., are to produce the 'Mercury' Paddle previously made by the late Dan Nurkiewicz, N2DAN *(see review of the original highly-praised N2DAN version in MM44, p.8).*

Production by Bencher is scheduled to begin in September against back orders already received. It is understood that the keys will be hand made, as they were by N2DAN, with only one person making them.

DISCLAIMER

Morsum Magnificat was originally published in two separate editions, in the Dutch and English languages, produced by the same editorial team. Since early 1988 it has been published internationally and exclusively in the English language, and is now enjoyed by readers in 36 countries world-wide.

It is understood that a new magazine in the Dutch language is to be published in Belgium under the title 'Morsum Magnificat Benelux'. The publishers of *MM* wish to make it clear that there is no connection whatsoever between *Morsum Magnificat* and 'Morsum Magnificat Benelux'.

Zyg's Zone

As the prospective Editor/Publisher from January 1999 Geoff Arnold has kindly given over this space so that I can keep in touch with *MM* readers.

Firstly, sincere thanks for the many messages from well-wishers and *MM* enthusiasts. It is very encouraging to know that the magazine is so well received around the world, for it is my intention to strive to keep *Morsum Magnificat* the best Morse magazine there is devoted to all aspects of telegraphy. Its future depends, as in the past, on the commitment of its contributors. Please keep sending:
articles, comment, snippets of interest, news, reminiscences, letters, and, very important, those photographs/diagrams of keys, events and memorabilia.

There is often some delay in publishing articles, etc., sent in. This arises because of the need to plan ahead and obtain a good balanced range of items in each issue.

Books and Booklets

I will always be interested to hear from anyone who has an idea or proposal on a Morse topic that might be better in the form of a book or booklet.

Subscriptions

Unless there are some unforeseen large increases in costs such as postage charges, annual subscriptions (pounds sterling) will continue at the same rate for at least twelve months i.e. UK £13.00, Europe £14.00, Rest of the World £17.00. Methods of payment will continue as at present including Visa and Mastercard services. Please note:

If a subscription becomes due BEFORE JANUARY 1999 (i.e. your 'Last Copy' is MM 59 or 60), the renewal should be paid to 'G C Arnold Partners' at the present subscription address.

If a subscription becomes due AFTER DECEMBER 1998 (i.e. your 'Last Copy' is MM 61 or later), the renewal should be paid to 'The Nilski Partnership' at the address given below.

Reader Survey

I am eager to ensure that *MM* continues to meet the expectations of its readers and to assist this process Geoff Arnold has kindly agreed that a reader survey will be included with the October issue. It will be in the form of a separate sheet and so completing it will not spoil the magazine itself. Please help by returning the sheet, or e-mail the answers.

Please contact me any time on any matter by mail, e-mail, FAX or Phone at:

The Poplars,
Wistanswick,
Market Drayton,
Shropshire TF9 2BA,
England.
Phone/FAX: (+44) 01630 638306
E-mail zyg@morsum.demon.co.uk

73
Zyg Nilski G3OKD

News Special

RSGB and the Morse Test

More Confusion!

In MM58, we reported on conflicting statements issued by the Radio Society of Great Britain and the Radiocommunications Agency about proposals to change the UK Morse test.

First, the RSGB reported negotiations with the Radiocommunications Agency for a new 5 wpm licence to give Class B (VHF/UHF, no-code) licensees "full" access to all HF bands below 30MHz, "as quickly as possible."

A month later, it was announced that the envisaged new licence would only give access to limited HF bands, and members' views were invited as to what these bands should be so that proposals could be put to the RA.

There was then a surprise announcement from the RA itself, that it was in discussion with the RSGB for an 8 wpm licence for all HF bands, for "voice only".

The RA then sent invitations to all UK amateur licensees to attend an open forum to put to RA representatives any questions they had regarding amateur radio issues. This meeting was held at the National Exhibition Centre, Birmingham, on Friday, July 24, where Martin Cain, the RA's Manager CB/Marine/Amateur Radio, emphasised that no firm decisions had yet been made about the UK Morse test, and that the RA was in discussion with the RSGB on the matter. Zyg Nilski G3OKD attended the meeting on behalf of *MM* and his report appears on pages 18/19 of this issue.

The 8 wpm Proposal

The reason for the RA's 8 wpm proposal is revealed in correspondence from the RA posted by GM4PRO on packet radio, 7 July 1998. A letter signed by Mrs Karen Scott of the RA says:

"... the RSGB have asked us to consider reducing the Morse speed rate to 5 words per minute. In view of our reciprocal agreements ... this would be for operation in the UK only.

"We are still awaiting the formal proposal from the RSGB but as part of our informal discussions we have raised a concern over 5 words per minute. We understand that there is a natural learning plateau at 8 words per minute and we have therefore asked the RSGB to also consider this option."

In *RadCom*, August 1998, an editorial by the Society's General Manager, Peter Kirby, reports that there has been "some confusion" over the issue of the 5 wpm licence proposal, "brought about by a second proposal being tabled by the RA, based on an 8 wpm All HF Bands

Voice Only Licence."

"... the Society does not support this proposal, and we will be pushing hard for a 5 wpm licence in forthcoming negotiations, as we have suggested."

Referring to the Society's request in July for the views of members on the proposal for a 5 wpm licence with limited access to the HF bands, Mr Kirby says, "... the response has been overwhelmingly in support of the changes the Society has proposed."

"The Society will not shy away from the decisions we have made, and we will enter into negotiations with the RA ... knowing that we have the overwhelming support of the amateur radio community behind us."

Clarification Sought

The RA's reference to an 8 wpm all-band 'voice only' licence puzzled *MM*. On the face of it, this could mean that once such a licence was introduced, newcomers to amateur radio would not be allowed to operate with Morse on the air, thus initiating the beginning of the end of amateur CW.

It could also signal the eventual demise of packet radio and other data modes – which are seen by many 'no-coders' as the future salvation of amateur radio!

In an attempt to clarify the position we wrote to the RA asking for a reply in time for publication in this issue. We asked: "If the 8 wpm test is to replace the 12 wpm test, does this mean that no new licensees will ever be able to use Morse, data or other non-speech modes on the air once the new licence is introduced?"

Additionally, we asked: "Or is the 12 wpm test to be retained so that holders of the 8 wpm licence will be able to progress to a licence equivalent to the present Class A licence, thus giving them access to all modes as at present?"

The RA's Reply

A response from the RA dated July 31, and signed by Mrs Denise Carter, states the following: "I should point out that our discussions with the RSGB are only in the very early stages, and no firm decisions have been made.

"We are considering whether we should reduce the Morse Test speed. We have now received an initial proposal from the RSGB but we have previously discussed some ideas in principle. The RSGB did originally refer to a 5 wpm test and we expressed some concerns about this speed. The RSGB have therefore been asked to additionally consider 8 wpm, which appears to be a natural learning plateau for many individuals. I should stress that no decisions on speed have been made.

"We have also questioned whether full access should be given to those passing the reduced speed test. It should be borne in mind that we are only talking about operation in the United Kingdom, as we would not want to jeopardise our reciprocal agreements and participation in CEPT Recommendation T/R 61-01, both of which are based on the current 12 wpm test."

Correspondence

At the time of writing, it is understood that the RSGB has received around 200 letters from members in response to its

request for their views on what bands should be available to holders of the 5 wpm licence it is proposing. By way of comparison, the 1996 membership survey, which has been the subject of much correspondence recently, attracted 7500 respondents.

Readers were invited to provide *MM* with copies of the letters they sent to the RSGB about the recent actions of the Society, and extracts from some of them are printed below. Most of these comments were made to the RSGB, but a few were made direct to *MM*. We have not identified the writers because in most cases what is said by one is a reflection of similar comments made by others:

Undemocratic

The comments most frequently made relate to what the writers see as the undemocratic action of the RSGB in ignoring the results of its membership survey in 1996. This survey was undertaken as part of the Society's preparation for WRC-99 (now WRC-2000), where the issue of the Morse test was expected to be decided (but now deferred to a later conference). There was a much larger response to this survey (7500 members) than to any other ever mounted by the Society.

Typical comments are as follows:

"This has been a cynical exercise in deceit."

"Where is the democracy in your Society if 66 percent voted for the Morse exam?" (Typical of several from outside the UK).

"I find it unacceptable that the Council should take account of the views of non-members over those of members when formulating policy. What is the point of having membership surveys if no notice is to be taken of them? Council's action is undemocratic, and a betrayal of members' trust."

"The visits to a few selected clubs by a few people is in no way likely to obtain what can be called national opinion. You do not have a sufficient mandate or backing from the majority of radio amateurs of Great Britain to proceed as you propose."

"Council has made a grave mistake in underestimating and brushing aside the views of those who voted in the survey for the retention of the Morse test. To justify this by claiming there has been a 'mood change within the amateur community' without convincing evidence comparable at least to the survey results is insulting and provocative."

"Had you allowed the matter to come to its logical conclusion via WRC in 2001, and advised the membership of the intentions of yourselves and the RA, that at least would have probably been tolerated and possibly accepted. But this dishonourable behaviour calls for a better explanation than that offered to date."

"This policy pointedly ignores the results of consultation with the membership taken less than two years ago ... in matters of policy the RSGB should be nothing more than the expression of the collective will of (its) members."

Lowering Entry Standards

"Such a licence is clearly an attempt to minimise the impact of the existing regulations in the hope of making amateur radio more attractive to potential

newcomers who do not wish to take the Morse test."

"I feel the RSGB is letting down Amateur Radio as a worthwhile and valuable hobby. If accepted the proposals will lead the hobby into a position nearer to when anyone can buy a licence to get onto any of the HF, VHF and UHF bands in addition to the CB band."

"You should beware of reducing the entrance requirements of our hobby to such a low level that no effort is required – rather like CB radio. The fact that mobile phones and the Internet make personal communications easier has no bearing on amateur radio. What we do is different and it must remain so or we will have no hobby at all."

International Repercussions

"At a time when IARU is starting to get the 'FASC' – Future of the Amateur Service – actions into perspective and so far avoiding any precipitative action, this RSGB action may have created an unnecessary storm."

"There is no reason to assume that IARU policy will be to remove Morse as a mandatory requirement for access to the HF bands in the future. Internationally there is a growing appreciation of the value of Morse as it stands. The RSGB is doing a disservice to International Communications and devaluing Amateurs everywhere in trying to persuade other bodies to remove the requirement."

"The proposal to persuade other bodies in the International Amateur Radio Union to reduce or eventually eliminate the need for Morse proficiency will also be doing a disservice to International Communications and Amateur Radio world-wide. If proposals are adopted that are intended to differ from those in other European countries, the Society will be creating a break from the CEPT agreements. Any difference will be open to misuse and be uncontrollable. Apart from this the proposals may even be illegal under the rules of the European Community."

Band Plans

"If we are to see a large influx of new users, will existing band plans be respected, or will the Society and the RA make adherence to band plans a mandatory requirement of the amateur licence? It would be a great pity if, in attempting to solve the perceived problem of a decline in numbers of radio amateurs, steps were taken which might well exacerbate the situation whereby Morse users find it impossible to continue with the hobby."

Operating

"A few days ago, I listened to the IBP beacons on 14.1MHz and thought about what a great development they are and how they can contribute to operating pleasure. Then I realised that some people propose that countless persons be let loose on these bands (that have IBP beacons), persons without the understanding necessary to decode these beacons and who will be unable to appreciate their importance. What a deteriorating move that will be."

Value to Industry and the Community

"The proposals if adopted will devalue the status of Amateur Radio as a

skilled and knowledge-based hobby of value to Industry and the general community at large."

Response to Proposed Reduction in Test Speed

"Don't change the HF Morse requirement without a clear mandate from the membership. If this is obtained, a 5 wpm test should give LIMITED access to HF."

"Most school leavers are computer literate ... I know of a 16-year old schoolgirl who spends hours talking to others all over the world (on the Internet). What is the inference of this for the future of amateur radio? I believe it spells the end of HF telephony ... This does not apply to users of Morse code which will probably become a 'niche' hobby like steam trains or vintage/veteran motors, enjoyed by many but by far fewer than at present. To reduce the entry speed of Morse is probably a bad thing. At 5 wpm one may not think it worth while all the hard work to get up to a speed where one appreciates the pleasure of sending and receiving good code."

"When the 5 wpm test is finally abolished, what other comparable barrier can be put in to HF operation? Assuming a Novice licence is retained, with limited powers and frequencies, there will be just two licences, Novice and Full."

"I must register my strongest opposition to the proposals so far made about the lowering of the 12 wpm Morse test speed, or removing this test, for access to the HF bands. Despite what you say, to do this WILL lower standards; it is unavoidable and inevitable. I find it is absurd that anyone can think differently."

"A Comparatively Unimportant Issue"

RSGB President Ian Kyle, MI8AYZ, wrote to Fred Johnson ZL2AMJ, who was particularly concerned about the impact of the RSGB's actions on the IARU's 'FASC' – Future of the Amateur Service – discussions, and the need to avoid any precipitative action. Amongst other things, Mr Kyle offers an explanation as to why he does not consider the results of the RSGB's 1996 survey to be of any significance, and comments that the Morse test is a "comparatively unimportant issue" that at some time "will have to be finally interred with a stake through its heart".

The relevant parts of Mr Kyle's letter are as follows:

"... first off ..., whilst we are not trying to institute bloody revolution, we are convinced that the time is ripe for *all amateurs* to *anticipate* that which will inevitably take place and get their minds to work on what the future shape should be.

"FASC is all very well but is taking too long. The world scene has changed in the three years since our last survey, (by the way, Council did not see the questions before it was sent out and it is my belief that the result was inevitable given the way a number of them were worded) and we want the debate to be in the open within the UK and include not just RSGB members but all licence holders with an interest in the future ...

"We *do* believe that we are right, but we are well aware that not everybody shares our view. On its own, it is a comparatively unimportant issue. However it has the capacity to cloud just about everything else, and at some time it will

have to be finally interred with a stake through its heart – one way or the other.

"In future we are going to have to justify our existence by showing that we are a national and international resource of technical competence, flexibility and ingenuity, particularly in time of disaster.

"Throughout the world of communications administration outside the Amateur movement the use of Morse is increasingly seen as irrelevant, and the great danger is that by continuing to insist on *testing* for Morse code ability when it is elsewhere no longer used, the Amateur movement as a whole will be seen as outdated and irrelevant. But one thing is sure, the abolition of Morse as a mode is simply not on our agenda.

"We have at no time threatened to go it alone without IARU, and that position holds. But we do believe that the pace must be forced and that it is the job of Council to lead and not simply follow."

Would an 8 wpm Test be More Acceptable?

MM is now receiving input from a school of thought that suggests an 8 wpm test might be a better interim measure in the period (however long that might be) leading to the abolition of the mandatory Morse test by a WRC. This, it suggests, could be a better compromise for a new limited-bands, 'progressive/incentive' UK licence, but without the RA's suggested 'voice only' restriction.

For the time being, at least, the 12 wpm test could remain to qualify for full access to the HF bands, and for those wishing to take advantage of international reciprocal arrangements; and there would be time for the Morse community to produce some sensible proposals for the future. Amongst these, in anticipation of the eventual loss of the international mandatory test, could be proposals to the RA for a new national Morse test as one of several optional 'operating' tests to replace the present Morse test if it is abolished.

As the RSGB has stated its opposition to an 8 wpm test, readers favouring this idea might consider writing direct to the Radiocommunications Agency, Amateur Radio Section, New King's Beam House, 22 Upper Ground, London SE1 9SA, to express their views.

So far *MM* has only received letters of indignation, protesting at the RSGB's actions. We will now welcome constructive ideas on how to keep the flag flying for Morse, both at present and in the future.

FOC Denies RSGB Claim of Support

In an editorial in the News Sheet of the First Class CW Operators Club (FOC), July 1998, Dennis Andrews, G3MXJ, writes:

"It is particularly unfortunate that statements from the RSGB President Ian Kyle, GI8AYZ, contained quotes that purport to show that FOC supports RSGB in (its) intentions. Nothing could be further from the truth. Quotes from the President, the General Manager of RSGB and various RSGB Council Members at Dayton suggest that various FOC members, past and present, together with senior figures in IARU also supported these proposals. Subsequent enquiries show these statements to be without foundation.

"FOC became involved in the

discussions surrounding FASC in 1996, when IARU was formulating a policy to determine what would be required in revisions of the ITU Regulations that could possibly have been made at the 1999 World Radiocommunication Conference ... Amongst the items for discussion was consideration of whether or not a mandatory CW requirement would continue to be relevant to the service in regulations designed to cover the period up to the year 2010.

"Following the polling of views from the membership, the Committee discussed this issue in detail. We felt strongly that FOC should become involved in the ongoing discussion to ensure that if and when CW requirements were dropped from licences, the change should only be made as part of a restructuring that ensured that overall operating standards were maintained ... This remains our view.

"On the UK domestic issue, we will be voicing forcibly to the RSGB our objection to its proposal to the licensing authority that appears to be fuelled more by commercial pressures from its adver-

RA Meets its Customers

A report by Zyg Nilski G3OKD

Britain's Radiocommunications Agency wrote to all of its 58 000 amateur radio licensees inviting them to a meeting at the National Exhibition Centre, Birmingham, at 1 pm on 24 July 1998, saying: "in response to comments made by our customers, we have decided to hold our own open forum where you will be given the opportunity to meet Agency staff and to raise any questions you may have regarding amateur radio issues. This is your chance to have your say about the future of your hobby." Tickets were limited to the first 500 applicants, and in the event, around 400 amateurs attended the meeting.

The meeting was chaired by Martin Cain, RA Manager CB/Marine/Amateur Radio, who headed a team of six RA representatives. Also present was Peter Kirby, RSGB General Manager and Don Beatty, a member of the RSGB Council, plus representatives from SSL, the radio licensing agency.

In his opening remarks, Martin Cain explained that the purpose of the meeting was to listen to the views of radio amateurs as part of the process of formulating policy. The meeting aimed to provide a forum for those present to express views and concerns on all regulatory issues, in particular, spectrum management, repeaters and the status of Morse code.

To dispel rumours to the contrary he emphasised that there were no plans to take large chunks of the spectrum away from amateur radio. He also underlined the RA's interest in 'incentive licensing'.

Regarding the Morse test, he stated that no opinion survey would be conducted at the meeting. His view was that the mandatory Morse test for HF licensing would cease as an international obligation in 2003. But as regards the RA's position, he emphasised that no firm decisions had yet been made. The RA were

tisers and a need to increase membership than by any real concern for maintenance of standards within the hobby ...

"On the international front, it is of high concern that the RSGB, in the past a highly respected organisation in IARU, is now seen to be breaking ranks with the agreed policy of the organisation. The writer was, for many years, a member of the RSGB's team at IARU Region 1 Conferences and is very aware of the importance of showing an agreed and united front. It was in this way that the 'WARC' bands were obtained. For RSGB to publicly fragment this solidarity is nothing short of suicidal ...

"However, we must all bear in mind that the preservation of CW as an operating skill rests with us – and not with the legislators. Objections to change are worthless unless they are accompanied by alternative proposals. It is we who must formulate and propose scenarios for the hobby that take account of changing attitudes and requirements. Keeping quiet, in the hope that the issue will blow away, serves no-one."

---

in discussion with the RSGB. They had organised this meeting to listen to the views of individual amateurs.

About half the meeting time, which closed at about 3.15pm, was devoted to the Morse issue. Various points were made. An attempt to summarise these is as follows:

• Morse code was not an important mode in itself, although the RSGB representatives said that they were committed to promoting Morse as a mode of transmission.

• Morse code was an important mode on the HF Bands with its low bandwidth and staying-power in poor operating conditions. Anyone who presently wanted access to the HF Bands should make the effort to learn Morse code.

• Other tests of competence might be more appropriate than a Morse test today, e.g. constructional skills, and operating procedures.

• There needs to be some method of controlling access to respective parts of the spectrum.

• A number of speakers suggested separate bands or specific sections of bands for non-CW qualified licensees.

• There were concerns about the HF bands being flooded with additional operators if access is made easier.

• There were concerns that depleting the VHF/UHF bands of stations might result in a reduction of the amateur allocation in this part of the spectrum in the face of demand by commercial users. (Apparently the UK has the highest pressure of demand by commercial users for VHF/UHF allocations).

• It was considered unfair that Novices had some access to the HF bands with a 5 wpm qualification but there was no similar access for Class B licence holders.

• Specific disabled speakers spoke for and against the need for a Morse test, depending on their disabilities and needs.

• In the short term Morse was regarded as a means of controlling access to the HF bands, but there was a need for access to be increased. ***MM***

The Morse products of

Signalling Equipment Ltd

by Tony Smith

FROM TIME TO TIME *MM* carries illustrations of keys and other Morse items bearing the name 'Signalling Equipment Ltd', 'S.E.L.', 'J & L Randall Ltd' or 'Merit', which are different names used by the same manufacturer.

In MM45, we asked readers to provide any information they had about Morse equipment marked with any of these names, and this article is a summary of the information received.

Quite independently, we received some interesting information about the company itself from Tony Halstead of Tonbridge, Kent. He is not an *MM* reader or a Morse enthusiast, but his hobby is researching and collecting the products of this particular manufacturer. He wrote:

"The company was known as 'Signalling Equipment Ltd', also 'J. Randall (Toys & Games), later becoming 'Merit Toys'. In 1940, their premises in Old Street, London, were bombed, and they moved to Potters Bar, Middlesex, where they produced Morse Code equipment for the war effort, initially in various small vacant properties.

"Some time before 1946, they became S.E.L. although most of their products (e.g., electric motors, electrical outfits, steam engines, induction coils, etc.) did not reflect their name, which I suspect was inspired by their wartime activities.

"Amongst their post-war products, however, were 'keys and buzzers' which would have had the company's initials, SEL, or more likely their monogram, imprinted or moulded on the product. These were advertised as 'toys' on packaging for their other products, and I suspect they may have been very similar or identical to the units they made in wartime. A characteristic of their post-war products was the use of high quality materials, with several models mounted on very crisp Bakelite bases – suggesting an earlier 'quality' customer.

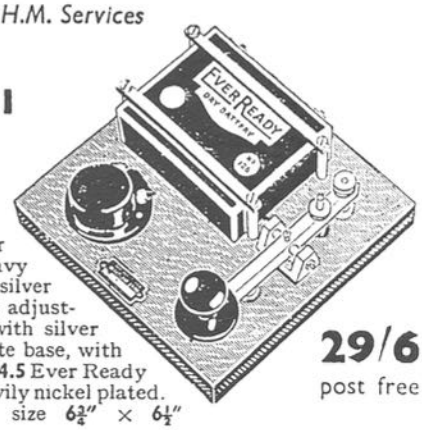
"My research has shown that J.& L. Randall were a husband and wife team who traded under the name 'SEL' from wartime until about 1952–4, and their post-war factory in Potters Bar was known as 'Merit House'. Around 1955, the name J & L Randall reappeared in conjunction with the Merit brand, with the latter name taking precedence later

M·O·R·S-E

Complete
Practice Unit

As supplied to H.M. Services

Ideal for all under Service Instruction



No. 1261. Complete Key and Buzzer Unit, ready for immediate operation. Heavy commercial key with nickel silver contacts and sensitive triple adjustment. High-tone Buzzer with silver contacts, mounted on bakelite base, with cover. Battery Holder, with **4.5** Ever Ready battery. All metal parts heavily nickel plated. Polished Mahogany Base, size $6\frac{3}{4}$" × $6\frac{1}{2}$"

29/6
post free

Send 1d. stamp for Illustrated List

SIGNALLING EQUIPMENT LTD.

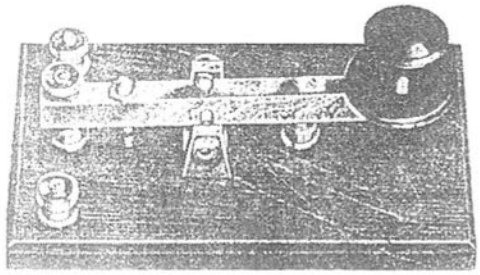
Specialists in Morse Equipment

(Dept. 11) Merit House, Southgate Road, Potters Bar

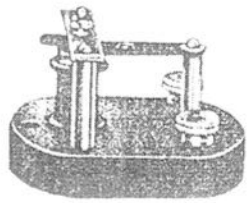
Phone: **POTTERS BAR 3133**

Advertisement for SEL Complete Practice Unit, 1944

MORSE KEYS & BUZZERS



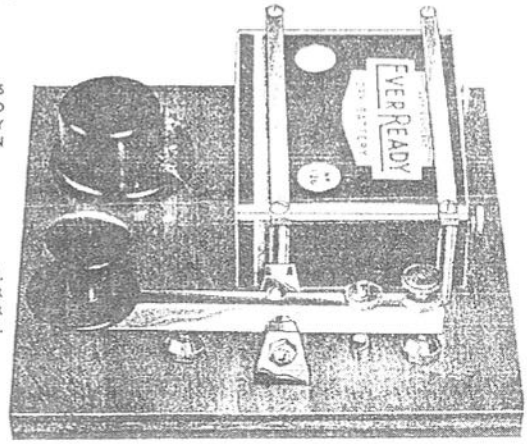
No. 2/N.P. MORSE KEY (Commercial Type).—Sensitive triple adjustment. Nickel plated parts on polished mahogany base. Solid construction. **9/6** each.



No. 2/N.P. MORSE BUZZER.—High tone. Adjustable silver contacts. Sturdy construction. Polished nickel parts. Mounted on Bakelite base. **4/6** each.

ENQUIRIES INVITED FROM THE SERVICES AND RECOGNISED TRAINING CORPS AND SCHOOLS ONLY. OFFICIAL ORDERS ONLY ACCEPTED. COMPLETE LIST SENT ON APPLICATION.

PLEASE DO NOT SEND CASH WITH ORDER. AN INVOICE WILL BE SENT WHEN YOUR ORDER IS READY FOR DESPATCH OR YOUR ORDER CAN BE SENT C.O.D. IF YOU WISH.



HEADPHONES.—We are also in a position to supply these at **17/6, 22/6,** and **57/6** per pair. Ideal for training and all practical purposes. Detailed list on application.

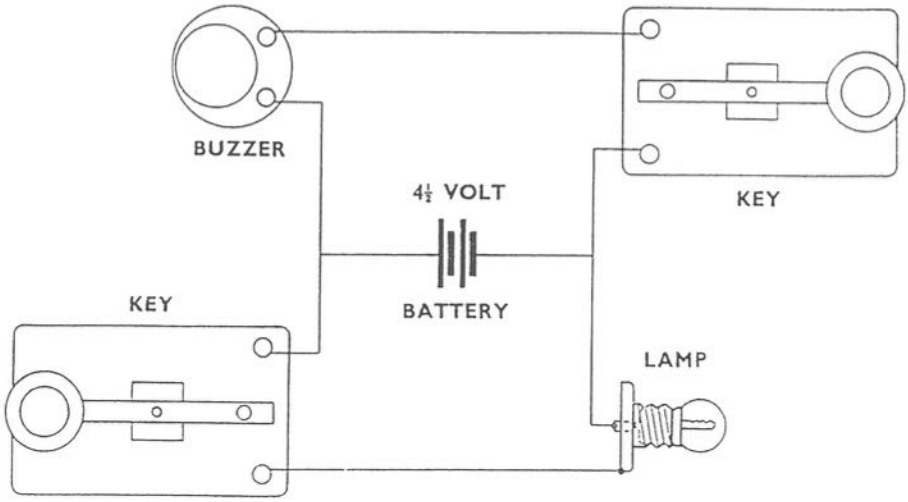
No. 1261 COMPLETE PRACTICE UNIT.—Heavy commercial key. High tone buzzer and battery holder. All metal parts nickel plated. Mounted on polished mahogany base (complete with battery). **21/–** each.

SIGNALLING EQUIPMENT LTD.

MERIT HOUSE, SOUTHGATE RD., POTTERS BAR, MIDDX.
PHONE - POTTERS BAR 3133, 3254.

SEL Advertisement 1946

Label and circuit diagram from Ken Lansdowne's Morse Signalling Outfit, Cat. No.350, c.1955 (see text). The instructions advised the use of 18, 20 or 22 gauge bell wire for the connections



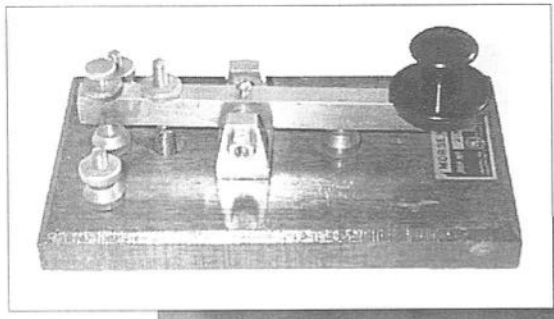
on. In 1978, the company was bought from J & L Randall by Letraset. In 1988 Bluebird Toys (Swindon) bought the company and closed it down in 1989, although some toys with the Merit brand persisted to about 1992."

Small Workshop Remembered

Reader Ken Lansdowne, G3DUN, remembers the company in Potters Bar in 1942/3. He writes: "They had a small workshop *(probably one of the 'small vacant properties' mentioned above. – Ed.)* in one of a parade of shops that was, and still is, opposite the Potters Bar main bus garage. I believe it had originally been a ladies hat shop that closed shortly after the outbreak of war.

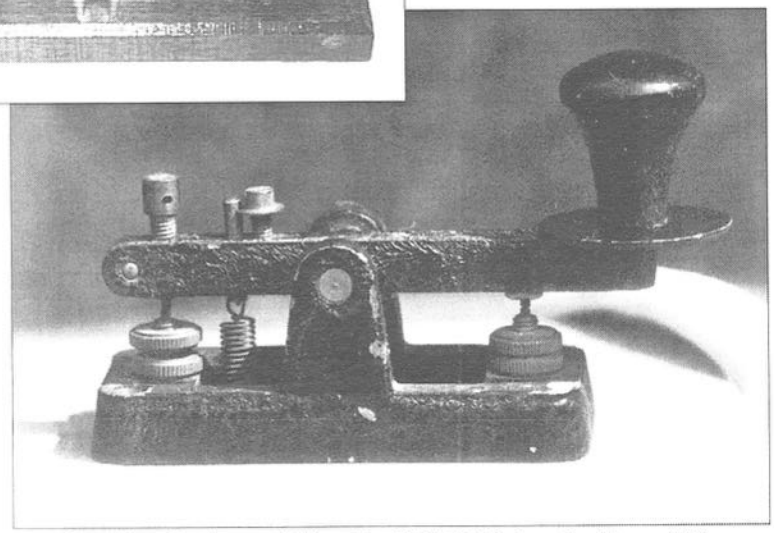
"In this workshop they were making and assembling Morse keys in decidedly primitive conditions. The smell of Bakelite moulding could be detected

text continues on page 28



SEL 2/NP key, with transfer identification label

Photo/Collection: Wyn Davies

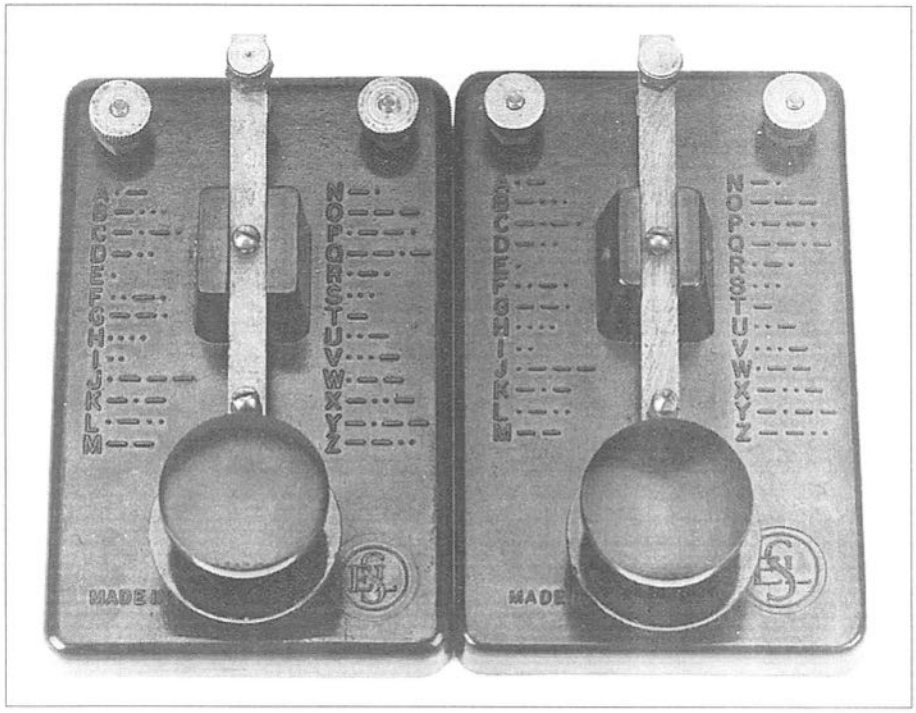


Signalling Equipment Ltd key No. DC/163/16. Length of base 3¼in. Note simplicity of design with contacts used as terminals

Photo/Collection: Tony Hunt-Duke G4IOT

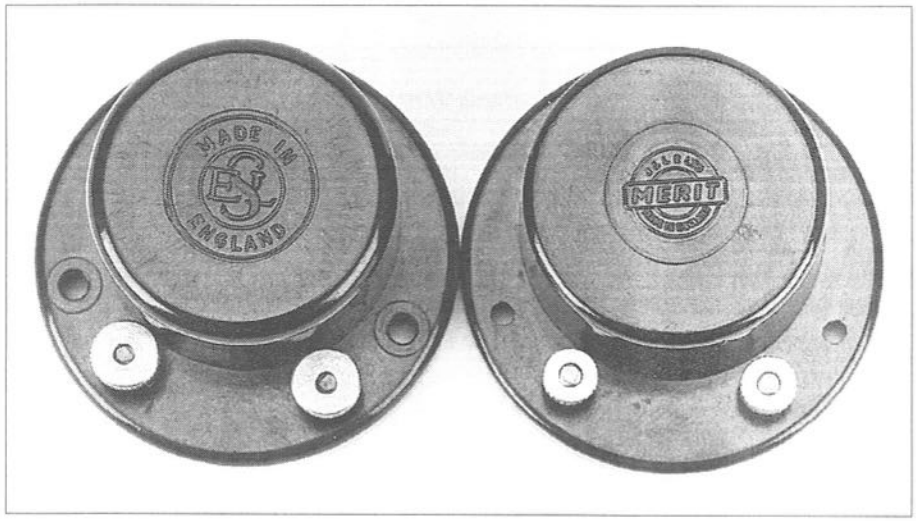
Merit Morse Signalling Outfit, comprising two keys, buzzer, lamp, and two coils of wire. Later version of No.350 set

Photo/Collection: Bob Langford G4VHL



Photo/Collection: Tony Halstead

Two keys No.1/SA with Morse code embossed on Bakelite base, produced under several different nomenclatures. Note different sized SEL logos



Photo/Collection: Tony Halstead

Two buzzers 1/SC, produced under several different nomenclatures. Note different logos

SEL/Signalling Equipment Ltd	Product Code	Orig. Price	Date Noted/ Assumed
Complete Practice Unit "As supplied to many branches of H.M. Services". Comprising key, high-tone buzzer and battery holder on polished hardwood base. Complete with 4.5V battery. (Export Code No. 281/1261). (Note: No evidence has been found that the RAF 'Buzzer Practice', Ref.10F/4067 was made by SEL. Although the layout is similar, and at first glance the SEL label looks rather like the RAF one, both key and buzzer in the RAF units are different to those in the SEL sets.)	1261 1261	29/6d 21/-	1944 1946
Morse key 'Commercial type'. Nickel plated on polished hardwood base. Nickel silver contacts. Two types of maker's identification reported on base of key, one a transfer, the other a brass plate. (Export Code No. 280/2/NP) Same assembly as provided on Complete Practice Unit.	2/NP	9/6d	1946
Morse Buzzers: Oblong base, rounded ends, no cover. Silver contacts. "Specially recommended for advanced training", per 1952 catalogue. (Export Code No. 277/2/NPB)	2/NPB	4/6d	1946
Round base, with cover. "Ideal for early training", per 1952 catalogue. (Export Code No. 276/1/SC)	1/SC	?	?
Headphones No details. 'Supplied' but not necessarily manufactured by the company - see 1946 advert.		17/6d 22/6d 57/6d	1946 1946 1946
'Commercial' Morse key Open type frame. Die cast construction. Black and nickel finish. Silver contacts. Contact posts used as terminals. (Export Code No. 279/DC/163/16) Same key also noted on wooden base with a send/receive switch. This type of key described by John Short, G3BEX, in MM25 as a Post Office Type F17 key	DC/163/-16	?	?
Morse key Hollow Bakelite base embossed with Morse code. Presumed to have been made during WWII by Signalling Equipment Ltd. Marked MADE IN ENGLAND, with the Air Ministry (AM) Crown and Ref. 10F/702, signifying use with the RAF, possibly as a practice key. Medium size terminals, approx 5/16in dia.	?	?	WWII?

SEL/Signalling Equipment Ltd (continued)	Product Code	Orig. Price	Date Noted/ Assumed
Similar key marked SEL "Highly recommended for early training", per 1952 catalogue. Large terminals, approx 7/16in dia. (Export Code No. 278/1/SA) See similar key under 'Merit', below.	1/SA	7/6d	1951
Note – SEL also marketed a range of ' Electrical Outfits' enabling youngsters to conduct simple electrical experiments. One of these, possibly the ' No.6' outfit, included a No. 1/SA key and buzzer with wiring instructions for both one-way and two-way operation (on the assumption that an extra key and buzzer was available).			

Merit (J & L Randall Ltd)	Product Code	Orig. Price	Date Noted/ Assumed
Merit Morse Signalling Outfit With two keys (similar to No.1/SA), buzzer, wire, and lamp (3.5V bulb and bulb holder), with full instructions for connecting.	350	?	c1955
Merit Morse Signalling Outfit With two keys (similar to No.1/SA), buzzer and lamp. Similar to above. Packing marked: 'As supplied to RAF, Scouts, Etc'. (Later version of above).	-	?	c1960s
Morse key Hollow Bakelite base embossed with Morse code. Similar to No.1/SA. As provided in Morse Signalling Outfit). Marked 'J&LR Ltd Merit'. Smaller terminals, approx 1/4in dia.	?	?	?

No Maker Indicated	Product Code	Orig. Price	Date Noted/ Assumed
Similar key to No.1S/A (hollow Bakelite base embossed with Morse code) also reported. Marked MADE IN ENGLAND REG.DESIGN. Presumed to be same maker. Larger terminals approx 7/16in dia.	?	?	?

hundreds of yards away. However, it was wartime and things like that went unchallenged.

"Having developed a keen interest in Morse code, I was attracted to the place and, by dint of making myself useful, running errands to buy cigarettes or sweeping the floor, I earned myself a pair of 'factory seconds' Morse keys.

"They were very basic keys, with a hollow base of black Bakelite about 3/8in deep. The Morse code was embossed in low relief on the base, and I regarded this as being slightly infra dig. when what I really hankered for was a key such as I had seen in some treasured pre-war copies of *QST*. However, they were probably adequate for cadet training, even if they required what was known in early naval manuals as a 'heavy' style of sending.

"I had the keys for some years, but unfortunately they were lost when my parents moved house at a time when I was overseas. I was therefore highly gratified a few years ago when I found a complete 'Signalling Set' at a car boot sale. It was in a light orange cardboard box (see illustration) and contained the contents as stated, and I am quite sure the keys themselves are identical to those I acquired so many years ago."

Summary of Morse Equipment Reported

A number of readers sent photos and other details of their SEL keys, etc., which show that the company made or supplied a range of Morse products including those shown in the tables on the previous two pages.

Thanks

Material used for the preparation of this article has been received from the following: Jack Barker; John Elwood; Dennis Goacher; Ron Horsley; Tony Hunt-Duke; Henri Jacob; Bob Langford; and Ken Lansdowne. Special thanks to Tony Halstead and Wyn Davies for providing additional information and help which enabled this article to be completed.

Further Information Requested

There may well be omissions in this coverage of 'Signalling Equipment Ltd', 'S.E.L.', 'J & L Randall Ltd' and 'Merit' Morse equipment. If any reader has keys or other Morse items with such markings not mentioned in this article, or can provide further information about any of those mentioned, please contact *MM*.

Morsum Magnificat

Index to issues Nos 53 – 58
August 1997 to June 1998

See the latest *Morsum Magnificat* for availability of back issues

FISTS CW Club – The International Morse Preservation Society

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

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

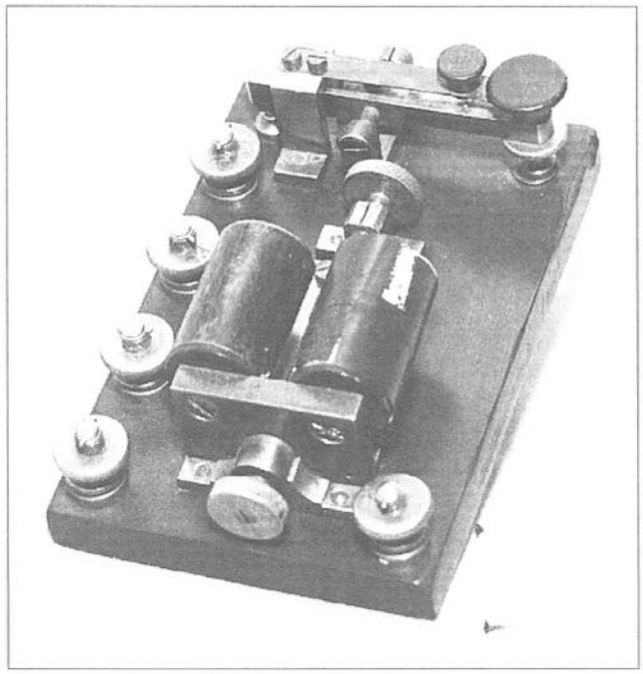
Further information can be obtained from **Geo. Longden G3ZQS, 119 Cemetery Road, Darwen, Lancs BB3 2LZ**. Send an s.a.e. or two IRCs.

G-QRP Club

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

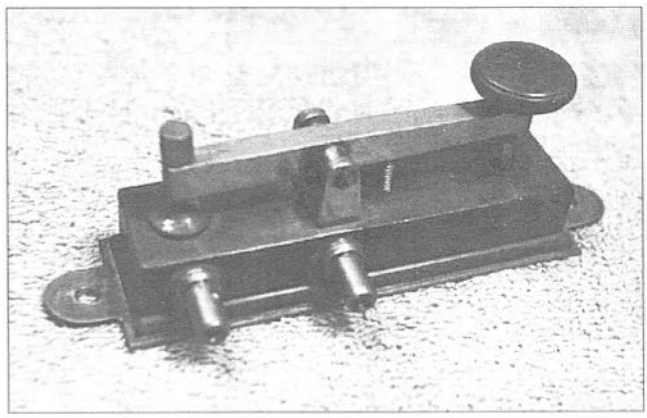
Enquiries to **Rev. George Dobbs G3RJV, St Aidan's Vicarage, 498 Manchester Road, Rochdale, Lancs OL11 3HE**. Send a large s.a.e. or two IRCs

Info Please!



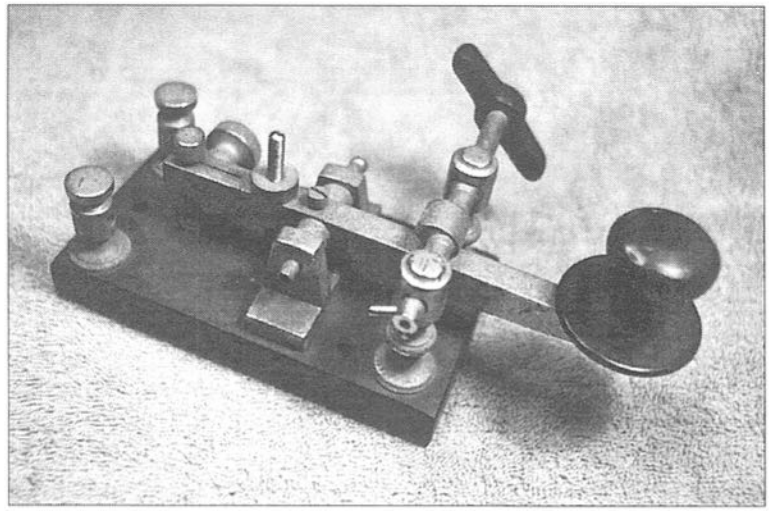
Unusual KOB, with hard rubber or Bakelite base 3x5x½in. Marked (much scratched over) "No.91 - "W.GURLT" - "BO....". Five terminals marked K, Z, T, F, & TL. Unusual key with piggyback spring lever having front contact mating with main lever. Info requested

Photo/Collection: Joe Jacobs



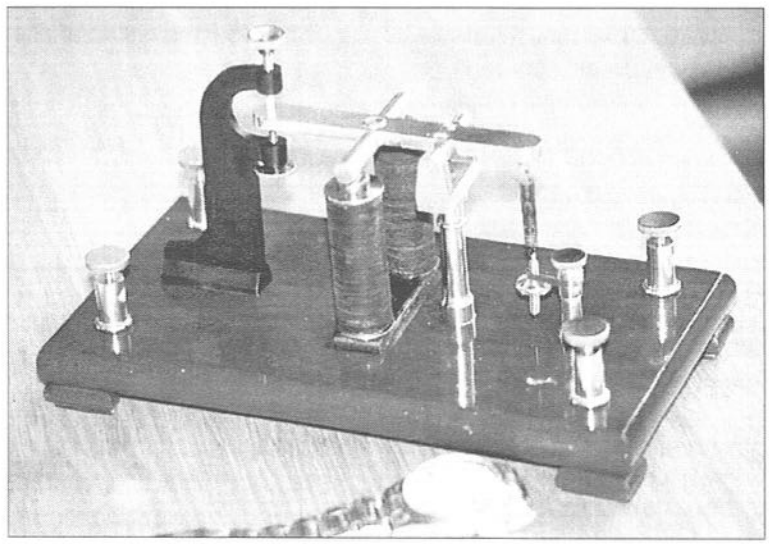
Unknown key. Info requested

Collection/Photo: Stephen P. Smith, VK2SPS



Collection/Photo: Stephen P. Smith, VK2SPS

Another unknown key. Info requested



Collection/Photo: Clive Redfern G4CZR/PA3EUX

Unknown sounder c.1880(?), bought in Holland. Any info welcomed

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

500kc/s Story

Part 3

by Jeffrey Herman KH2PZ/KH6

In this final instalment, the author continues his account of his work as a Radioman Petty Officer in the US Coast Guard in the late 1970s, including a description of the chilling impact and trauma of being at the receiving end of an SOS from a ship at sea

ONE EVENING, while sitting the 500kc/s watch and daydreaming of those lucky ops on board their ships scattered about the Pacific, my pleasant thoughts were shattered by a broadcast from a Soviet ship:

TTT TTT TTT CQ DE UBEX UBEX UBEX BT 170930Z ALL SHIPPING WITHIN 200 KM RADIUS 030-060 DEG FROM 37.42N 174.11E USE CAUTION DUE TO MISSILE TESTING DURING THE HOURS OF ...

Oh gad, he was going to send the entire text on 500 – that's a no-no for just a safety bcst. Okay, time to earn my pay as the Central Pacific 500kc/s cop – I'll just break in by sending a couple:

BT BT

But he kept right on going. Okay, I'll hold my key down for a few seconds (but not too long for long dashes will activate auto alarms on board ships):

(long dash)

Ah, silence. I'll be nice:

UBEX DE NMO NMO GE OM PSE QRT ON 500 PSE QSY 512 OK IMI K

After a few seconds of silence he proceeded to send:

TTT TTT TTT CQ DE UBEX UBEX UBEX BT 170930Z ALL SHIPPING ...

Oh geez, this guy gets the Lid-Of-The-Night award. Now I'm not happy. The Cold War on 500. I send another:

(long dash)

and silence results. Let's try it again:

UBEX DE NMO QRT ON 500 QSY 512 K

only to be followed by:

TTT TTT TTT CQ DE UBEX UBEX UBEX BT 170930Z ALL SHIPPING ...

Now, with only 30 seconds until the silent period my concern for his unlawful bcst is quickly growing. 15 seconds, 10 seconds, 5 sec.; my log:

BEGIN SILENT PERIOD 500 0945Z

OPNOTE: UBEX CONTINUING TO SEND SAFETY BCST DURING SP. SPVR NTFD. 0945Z

Having told my supervisor, I proceeded to send:

QRT QR(long dash) SP SP

But the lid kept right on sending. Now my mates on the West Coast were losing their patience too – first up is NMC (San Francisco CG):

UBEX DE NMC QRT SP SP

and he stops! But a few seconds later (still during the silent period):

TTT TTT TTT CQ DE UBEX ...

Oh man, this nut's got seaweed for brains. In jumps NMQ (Long Beach CG):

DE NMQ QRT SP SP

and even NOJ up in Alaska jumps in the brawl:

DE NOJ QRT SP

followed by Power House:

DE KPH QRT SP SP

But the kook kept right on sending his best. Finally at minute :47 (still within the silent period) he finished. I, of course, logged everything; but one thing I didn't log was my 'QSL' to him after the silent period:

UBEX UR A LID

without my callsign, and in A1 (I always kept our 500 xmtr in A2, so with it in A1 no one would know it was me). So much for diplomacy with the Soviets...

Chain of Tradition

For the most part, however, every ship and shore station world-wide followed the international procedures. The discipline on 500 around the world was amazing. During Coast Guard Radioman school we were reminded that what was being taught to us were not Coast Guard nor US Govt policies, but rather international rules set forth by the UN's ITU, and that every shipboard operator, spanning many decades, had been taught the exact procedures being presented to us.

This instilled in us an unbroken chain of tradition with those ships' radio operators from the beginning, and all of us felt a deep respect toward 500kc/s; there was a sense of mystery felt towards this frequency – very difficult to put into words.

My First SOS at NMO

In the following true narrative the ship's name and her callsign have been changed.

As mentioned earlier, I always sat the 12 hour 500kc/s night watch on my duty nights; I loved listening to the steady flow of calls from ships in far-off waters. Even though we sat in the Central Pacific I would sometimes even copy a fluttery East Coast US shore station. Throughout the night I would hear ghostly signals, just above the noise level, that would fade in and out from who knows where.

We used a Beverage-type long wire that stretched over one mile in length, and NMO sat in a very electrically quiet region. We were able to copy any ship or shore station anywhere in the Pacific.

One evening, feeling a bit drowsy (0200 local!), I thought I was dreaming when I heard a long dash, a pause, another long dash, a pause, another long dash, a pause, ... Like an electric shock, adrenaline flooded through me at the speed of light – OH MY GOD – SOMEONE IS SENDING AN AUTO ALARM!

My eyes shot to the clock to time the dashes: 4 seconds on, 1 second off, 4

seconds on, 1 second off – those 12 long dashes almost froze me. I yelled into the intercom to the chief 'Auto Alarm on 500' knowing at the same time alarm bells were ringing on board every ship scattered around the Pacific within radio range of the distressed ship.

Recall that when a shipboard operator goes off watch, ITU rules dictate he leaves a receiver tuned to 500kc/s with a decoder attached – if that decoder hears at least four 4-second dashes each with 1-second separation, relays in the decoder will clamp shut triggering alarm bells in the radio room, in the radio officer's sleeping quarters, and up on the bridge, to warn of a distress message about to be sent on 500kc/s.

Now, the two-tone AA used on the voice SSB MF distress/calling freq of 2182kc/s was common: Mexican fishing crews used them when they were drunk. But AAs on 500kc/s are NEVER sent except when a ship is in distress.

Terror

This was the first one I'd heard since my radioman school days; I can't put into words the terror I felt while sitting out the ITU-required 2-minute wait (recall that the ITU dictates every step the distressed vessel's radio officer takes: Auto Alarm, then the 2-minute wait [if possible] for off-duty ops on other ships, woken by their Auto Alarm receivers, to race to their radio shacks to copy the distress). 500kc/s was now in an extended silent period (see Part 2). Someone started tuning up and was immediately pounced on by myself.

QRT SOS was all I needed to send – dead silence. One of the Australian shore stations was sending a CQ at the same time the AA went out – he must have heard the AA through his CQ for he stopped in mid-broadcast. Nothing but an occasional static crash – dead silence. Throughout my brief 500kc/s career, I thought, there had never been a silence like this. Then it came:

SOS SOS SOS CQ DE DJNK DJNK DJNK SOS BT MV PANAMA TRADER HULL CRACKED IN HEAVY SEAS MAJOR FLOODING 42-27N 42-27N 178-51W 178-51W NOW ABANDONING SHIP SOS BT MASTER AR K

Then came the 10 second-long dash (ITU: for direction finding).

I was first – in A2 I sent:

SOS DJNK DJND DJNK DE NMO NMO NMO RRR SOS

and after me 500kc/s was flooded with ships and shore stations sending the ITU response: RRR SOS:

SOS DJNK DJNK DJNK DE NMC NMC NMC RRR SOS (San Francisco)
SOS DJNK DJNK DJNK DE NOJ NOJ NOJ RRR SOS (Alaska)
SOS DJNK DJNK DJNK DE NMQ NMQ NMQ RRR SOS (Long Beach, CA)
SOS DJNK DJNK DJNK DE KPH KPH KPH RRR SOS (San Fran.)

(ITU dictates a strict format to follow in distresses – from now on every transmission must be preceded with the SOS prosign)

along with KFS in California, NRV in Guam, a couple of Japan shore stations. The radio operator aboard DJNK must have breathed a sigh of relief and taken some comfort knowing his message was heard by so many.

PSE CL KEY BEFORE U LV

Once the RRR SOS replies ceased NMO took control. I asked the standard questions for situations such as this:

SOS DJNK DE NMO BT NEED FOLLOWING INFO
NR OF POB (number of persons on board)
CSE (course)
HULL ES SS COLOR
(hull and superstructure colors)
NR OF BOATS (number of lifeboats)
BOAT RADIO FREQS, EPIRB WX, WIND SPD ES DIR, SWELL HT ES DIRECTION, CURRENT (weather and sea data)
BT SOS K

and DJNK patiently answered each.

After getting these important answers I had the uncomfortable task of asking:

SOS DJNK DE NMO BT OM PSE CL KEY BEFORE U LV OK? K
SOS NMO DE DJNK WILL DO OM

Every shipboard telegraph key has a switch which, when closed, will continuously cause the ship's radio to transmit. This enables rescue aircraft to home in on the distressed vessel using their direction finding equipment. I had asked the op to close his key switch before he leaves the ship.

Feeling of Helplessness

At the same time our AMVER computer was generating a printout of the locations of ships transiting the North Pacific, but no ships were in DJNK's area! At least no AMVER reporting ships, although it's possible there was a ship close to DJNK that wasn't sending us his AMVER position reports*. This was a very slim possibility, but a chance we couldn't ignore. I was ordered by our Rescue Center to send the DDD SOS, i.e. to relay DJNK's distress message from our 10kW transmitter. In A2, I sent:

AUTO ALARM (12 four second dashes with a one second pauses)

then with my hand shaking, clenching the key:

DDD SOS SOS SOS DDD CQ DE NMO NMO NMO SOS BT (DJNK's message) BT ANY SHIPS IN AREA DIVERT AND ASSIST SIGNED US COAST GUARD AR DDD SOS K

Dead silence reigned for minutes that seemed like hours. An awful, awful feeling of helplessness overcame me as I sat

AMVER Position Reports

AMVER means Automated Merchant Vessel Report – it is part of a world-wide ship position indicating system. Every ship is invited to send a position report to the closest shore station, addressed to AMVER New York, every so many hours, and the shore stations accept the message free of charge. The position is fed into the AMVER computer, and the computer projects each ship's position minute by minute. Thus, if some ship is in distress and needs immediate assistance, the AMVER computer will show what other ships are close by at that particular time. Those that are near are contacted by radio and asked to assist the distressed vessel.

in that chair with the entire NMO crew standing in silence – all of us knowing at that very moment that men were perishing in an icy ocean ...

He's Gone

Already we had aircraft in the air heading to DJNK's position so I notified him:

SOS DJNK DJNK DE NMO NMO BT USCG AIRCRAFT LAUNCHED TO UR POSN ETA 3 HRS BT HOWS UR COND? K
SOS NMO DE DJNK HV TO LEAVE SHIP NOW TU OM FER (high pitched whine)

His transmitter had emitted a – a scream – it actually screamed! I turned to the Chief asking "Is that ...?''

"Yes, the ocean water just flooded his radio room shorting out his transmitter and batteries."

I couldn't accept this – the man at that key couldn't have just perished! I sent:

SOS DJNK DE NMO
(silence)
SOS DJNK DJNK DE NMO
(silence)

At this point the Chief put his hand on my shoulder and said: "He can't answer you – he's gone."

Throughout the night at 15 minute intervals I continued to send the Auto Alarm and the DDD SOS to no avail. At daybreak our aircraft reported seeing only debris: bales of hay, which was the cargo of DJNK. No lifeboats, no bodies, only debris.

To this day I sometimes hear in my sleep the scream DJNK's transmitter emitted that terrifying and horrible night. I pray the crew of that ship rest in peace.

A Typical Night

What follows is an actual log of signals copied during a typical hour or so. During our training at Coast Guard Radioman School (Petaluma, CA) we were advised to attempt to log EVERYTHING we heard. Well, that was an impossible task due to the volume of calls passing over the seas nightly! (Keep in mind that only short calls were permitted on 500 – as soon as contact was made one was to quickly move to a working frequency). What you'll see consists of only about 10–25% of the signals transmitted.

The log consisted of 3 columns: The actual signals copied, the frequency, and the time. A slash: / was used to indicate a break between two transmissions, EXCEPT when it was actually sent over the air to indicate two frequencies – you'll see '454/440' meaning 'you send on 454kc/s and I'll send on 440kc/s' (the – · · – · is actually sent).

Ships had a choice of using 425, 454, 468, or 480kc/s as their working frequencies, while shore stations were only assigned one working freq, usually near one of the above, so in order to work duplex one of the above, which was closest to the shore's freq, would be used by a ship.

Everything you see will be actual transmissions except:

1. When preceded by OPNOTE (= operator's note)
2. The BEGIN or END SILENT PERIOD entry.
3. The NO SIGS entry (meaning no signals heard in last 5 min.)

Notice the generous use of 'dit dit'. In the log it is indicated by 'EE'.

RADIO LOG
U.S. COAST GUARD COMMSTA HONOLULU: NMO
RADIO DAY: 17 JULY 1979 POSITION: MF CW (500KC / 600M)

Signals	Freq	Time
OPNOTE: RM3 J.D. HERMAN ON WATCH, OPS NML		0800Z
OPNOTE: OBTAINED WWVH TIME TICK - CLOCK CORRECT		0801Z
VVV VVV TEST TEST DE NMO GE / GE / GE ...	500	0802Z
3WLM 3WLM 3WLM DE ZLW ZLW HW? / ZLW DE 3WLM QRU? / R 480/488 / OK UP / UP / EE / EE	500	0803Z
CQ CQ CQ DE VIA VIA VIA FOR TFC LIST QSW 446 AR	500	0804Z
KOK KOK KOK KOK KOK KOK KOK / DE / KOK KOK KOK KOK KOK / LID / KOK KOK KOK / DE / KOK DE FJNB		
FJNB DE KOK GE UP / R UP / EE / EE	500	0806Z
JKPN JKPN DE JLRT JLRT / JLRT DE JKPN QTH? / NW AM 1500 KM SAILING 153 DEG OUT OF TOKYO / JLRT DE NMO PSE QSY / SRI NMO / JKPN DE JLRT UP 512 / UP	500	0807Z
OPNOTE: STATIC CRASHES ARE EAR-SPLITTING TONIGHT		0810Z
CLA CLA CLA DE 7XMC 7XMC K / 7XMC DE CLA GE / GE OM DO U HV SOUTH PACIFIC WX BETWEEN 20 ES 30 S W OF 180? / NOT YET - WILL HV IN 30 MIN - LSN FER OUR CQ / OK TKS / SEEU / SU	500	0814Z
BEGIN SILENT PERIOD	500	0815Z
VVV (SOMEONE TUNING UP) / SP / SRI	500	0816Z
TTT TTT TTT CQ DE VIM VIM VIM CYCLONE WRNG NR 17 QSW 428 UP / TTT TTT TTT CQ DE VIS VIS VIS CYCLONE WRNG NR 17 QSW 460 AR	500	0817-18Z
END SILENT PERIOD	500	0818Z
FUM FUM FUM DE KNLW KNLW OBS K / KNLW DE XSU FUM QRT TIL 0900 K / R HV OBS K / OK UP 480/488 K / R UP / EE / EE	500	0820Z
CQ CQ CQ DE ZDLK ZDLK BT ANI ONE HV 0700 HYDROPAC BCST? / ZDLK DE DJKV R UP 480 HW? / OK / EE / EE	500	0824Z
NMC NMC DE WRTY WRTY / WRTY DE NMC GE / GE I NEED NTM NR 12-384 K / R UP 425/428 K / R UP / EE / EE	500	0827Z
TTT TTT TTT DE KNLH KNLH KNLH BT HAZARD TO SHIPPING LOST CONTAINER OVERBOARD QSS 425 UP	500	0830Z
OP NOTE: SHIFTED TO 425 KC TO COPY KNLH'S MSG		0830Z
OPNOTE: KNLH LOST CONTAINER IN POSN 43.48N 135.81W - INFO PASSED TO RCC FOR DISTRICT 12 NTM		0831-33Z

KNLH DE NMO QSL WILL PASS UR MSG TO SAN FRAN K / NMO DE KNLH R TU OM NIL VA / DE NMO SU VA / EE / EE	500	0834Z
CQ CQ CQ DE CLA CLA CLA FOR SOUTH PAC WX ES NAV WRNGS QSW 470 AR	500	0835Z
JNA JNA JNA DE JNTS JNTS NW ARR TOYKO K / JNTS DE JNA QSL QRU K / QRU VA / EE / EE	500	0837Z
CQ CQ CQ DE KPH KPH KPH TFC LIST ES WX 512 AR	500	0840Z
BEGIN SILENT PERIOD	500	0845Z
XXX XXX XXX DE 9FJT 9FJT 9FJT BT ENGINE ROOM FIRE NOW EXTINGUISHED NO POWER DIW NEED ASSISTANCE 28.38S 28.38S 165.55W 165.55W / 9FJT 9FJT DE VIB VIB QSL UP 425/430 K / VIB DE 9FJT R UP / EE / EE	500	0847-49Z
OPNOTE: SPVR NOTIFIED OF 9FJT'S XXX		0849Z
SILENT PERIOD ENDED AT 0848Z		0850Z
CQ CQ CQ DE NRV NRV NRV WX AND CG MARINE INFO BCST QSW 435 KC AR	500	0850Z
NMO NMO DE KPDR OBS K / KPDR DE NMO UP 454/440 K / R UP / EE / EE	500	0854Z
KPDR DE NMO GE K / NMO DE KPDR GE OBS QRV? / R AA 99	440/454	0855Z
OPNOTE: RCVD OBS FROM KPDR	454	0856Z
KPDR DE NMO QSL QRU? K / NIL TU OM SU VA / SEEU VA / EE / EE	440/454	0856Z
CQ CQ CQ DE XJA XJA XJA FOR WESTERN PACIFIC WX QS / CQ CQ CQ DE 5JA 5JA 5JA TFC LIST AND WX QSW 4 / CQ CQ CQ DE KFS KFS KFS TFC LIST Q / CQ CQ CQ DE / (QRM 5)	500	0900Z
(TUNER) / LID / UR A LID / AM NOT / ARE TOO	500	0902Z
XXX XXX XXX CQ DE 7JN 7JN 7JN OVER DUE FISHING VSL QSW 441 AR	500	0905Z
5LVW 5LVW DE (QRN) / ? / 5LVW DE (QSA1) / ? DE 5LVW SRI OM NO COPY / UP 8361 KHZ / R UP / EE / EE	500	0909Z
NPQM NPQM DE NOJ NOJ / NOJ DE NPQM 12 MHZ IS WASTED QSY 8 MHZ RTTY / NPQM DE NOJ OK / EE / EE	500	0912Z
BEGIN SILENT PERIOD	500	0915Z
TTT TTT TTT CQ DE XSA XSA XSA UNMARKED SHOAL REPORTED QSW 448 KHZ AR	500	0917Z
XXX XXX XXX DE ONJK ONJK ONJK DH MEDICO CREWMAN WITH APPENDICITIS K / ONJK DE VIB UP 454/441 K / VIB DE ONJK R TKS UP / EE / EE	500	0917-18Z
END SILENT PERIOD	500	0918Z

Note the Pleasantries

Notice that the exchanges were short (with operators quickly moving off 500kc/s to a working frequency) and informal, with generous use of pleasantries such as TU = thank you, TKS = thanks, SU = SEEU = see you, OM = old man, GE = good evening and of course the ever present 'dit dit'. Note, too, that the prosign VA is the ham's SK. The 0900 entry was typical for the top of the hour – a dozen CQs being sent at once!

The idea of 500kc/s being an international calling AND distress frequency was finalised at the 1932 Madrid Radio Conference (see Schroeder 1964). I find it a shame that amateurs never implemented the idea of a calling frequency on each band which everyone would monitor, in which short station-to-station calls and CQs could be made, with parties moving to another frequency for the QSO. Two-metre repeaters come close to this idea but operators fail to QSY off the repeater to try to work simplex. Oh well – something about Old Dogs, New Tricks ...

(The Region 1 amateur band plan has calling frequencies, but only in the 50, 70, and 144MHz bands. – Ed.)

Readers' ADs

FOR SALE

18 PAGE ILLUSTRATED LIST all kinds of telegraph related items surplus to my needs. $3.00 plus equivalent of 4 US stamps ($5.00 refund on $25 purchase). Dr. Joseph Jacobs, 5 Yorktown Place, Fort Salonga, NY 11768. Phone: 516-261-1576. Fax: 516-754-4616. E-mail: joekey@aol.com

THE MM Q & Z CODEBOOK, a comprehensive 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.

PHOTOCOPIES OF BACK ISSUES of *MM*. All out-of-print issues available. Price per copy, by airmail (US dollars, cash only): Europe $7.00; Africa/America $8.00; Oceania $10.00. Jeronimo Orellana R, EA3DOS, Av Roma 10, 08015 Barcelona, Spain.
(Note: Original copies of some back issues are still available from the editorial office at regular prices. See inside front cover for details. – Ed.)

BACK COPIES OF MM from Number 23 to 42 inclusive, all in mint condition. Available for a minimal sum! Geoff Roberts G0HUK, 11 Moor Park Drive, Addingham, Ilkley, West Yorks LS29 0PU.

WANTED

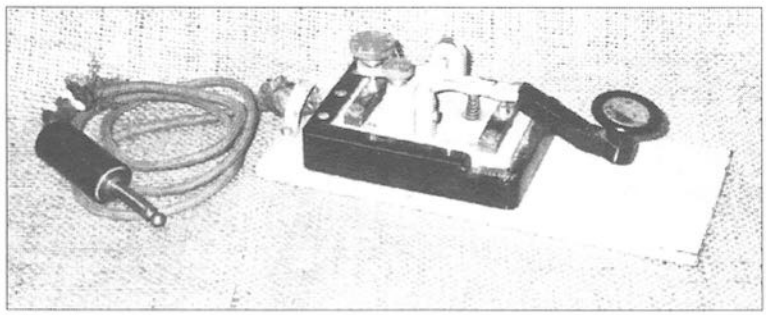
WANTED, DEAD OR ALIVE! Double needle telegraph. I am also looking for other 'special' telegraph apparatus. Fons Vanden Berghen, Lenniksesteenweg 462/22, B-1500 HALLE, Belgium. Tel: +32-16-38 27 21 (day) or +32-2-356 05 56 (evening). Fax: +32-16-38 24 38. E-mail: fovabe@telindus.be

SEL TYPE BAKELITE KEY marked 'Made in England', with Air Ministry Crown and Ref.10F/702. SEL 2/NP key. SEL DC/163/16 key. SEL 2/NP Morse buzzer. Tony Halstead, 24 Hilden Park Road, Tonbridge, Kent TN11 9BL. Tel: 01732 838764.

FREE

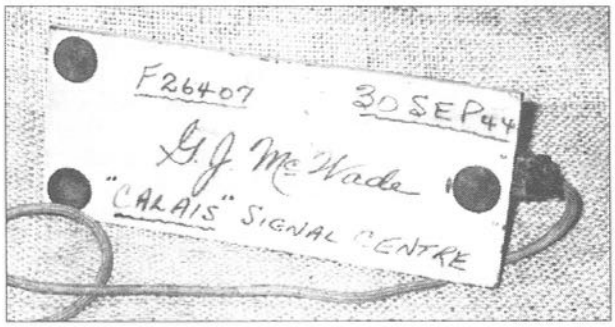
BACK COPIES OF MM Nrs 20, 21, 24, 26 to date, available free to anyone to collect or pay postage costs. W.J. Hough, 10 Furrocks Lane, Ness, South Wirral, L64 4EH. Tel: 0151-336 7262.

Showcase

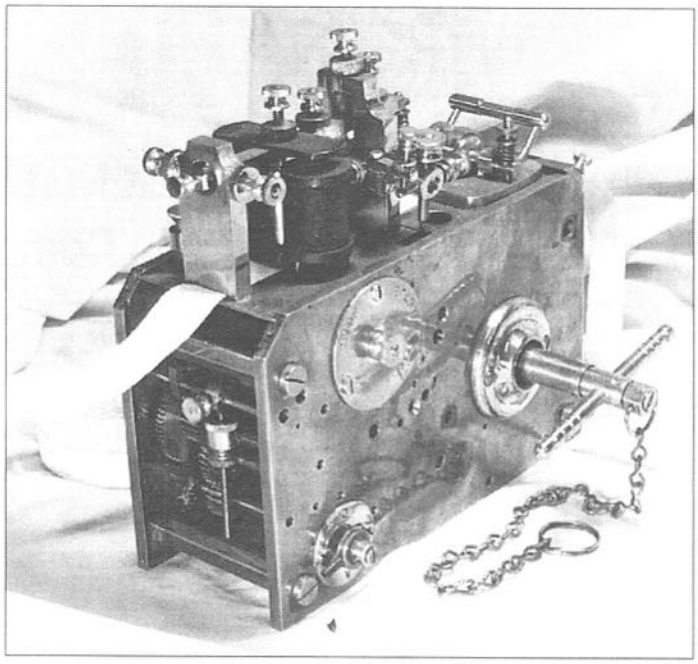


Junker key, 'liberated' in 1944. Chris Bisaillion VE3CBK writes, "not often do you get a nice bit of specific history with a key. A friend who was in my Pipe Band, Steve McWade, found out about my interest in keys and said his father had one from the Second World War. His father was glad to donate it to my collection. He was in the Royal Canadian Corps of Signals, in the Third Division, and 'liberated' this key during fierce fighting to take Calais back. He has written his regimental number on the base of the key, the date - 30 Sep 44, 'Calais' Signal Centre, and has signed it (see below). The History of the RCCS records that Cpl G.J. McWade earned a mention in Dispatches, presumably for his actions at Calais. I haven't been able to find out more because Steve has left the band and I believe is in England."

Collection: Chris Bisaillion. Photos: Deborah Bisaillion

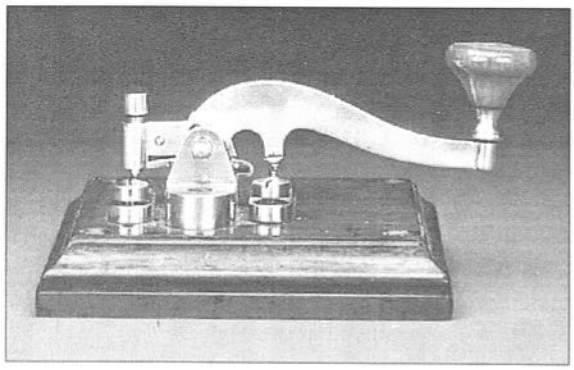


Featuring keys and other collectors' items of telegraphic interest.
If anyone can add to the information given please contact
Tony Smith, 13 Morley Road. Sheringham, Norfolk NR26 8JE



Gamewell Register. Basically a signalling device commonly used by fire and police departments to record alarm box codes. They punched a paper tape for a permanent record of the time, location and nature of a call, and were in use in the 1960s, possibly later. When acquired by Robert W. Betts, N1KPR, the unit was in poor condition. He rearranged some of the gears, built a sounder to move a pen or pencil up and down, and constructed a feed mechanism. The result – a Morse paper tape printing register. "Well almost," he says. "The project is still in progress."

Photo: N1KPR



Camelback key, c.1860

Photo/Collection: Fons Vanden Berghen

The Great Northern Telegraph Company

Founded 1869

C.F. Tietgen, founder of GNT

IN 1994, The Great Northern Telegraph Company (GNT), celebrated the 125th anniversary of its founding by publishing a fascinating book, *From dots and dashes to tele and datacommunications*. This book describes many aspects of the pioneering work of the company in the field of telegraphy in the last century, as well as its activities today in international telecommunications. It also contains many interesting photographs from the GNT archives, some dating from the very earliest days of the company.

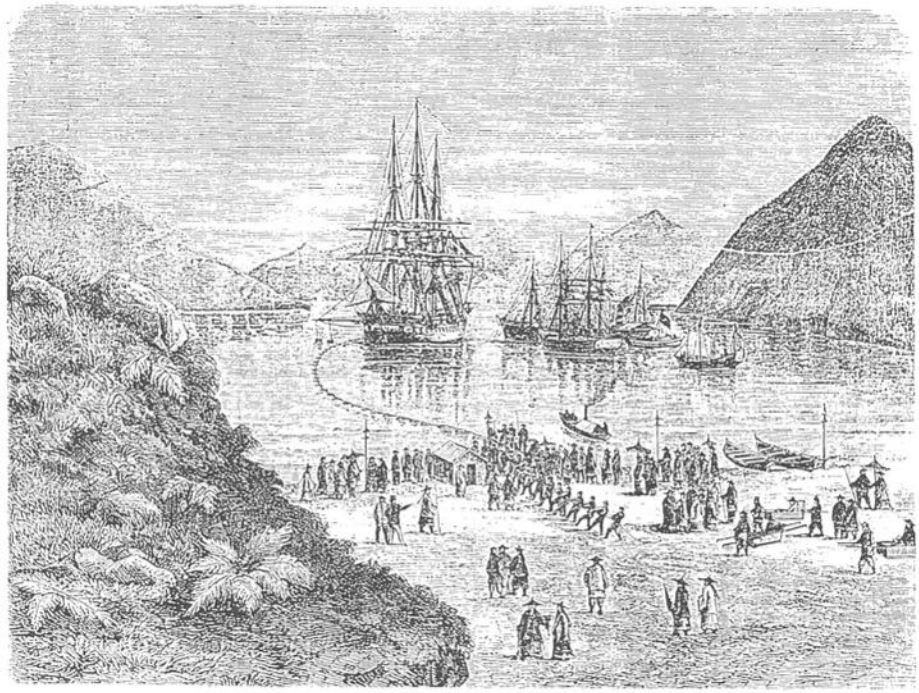
Pioneering in the Far East

In 1869, C.F. Tietgen, founder of GNT, concluded an agreement with the Tsar of Russia giving the company sole rights to lay and operate submarine cables on Russian territory. Under the same agreement the Russian authorities agreed to set up a telegraph line across Russia and Siberia, from St Petersburg to Vladivostok.

In 1870, the company embarked on a pioneering era that would put the European trade powerhouses in the Far East, China and Japan, in telegraphic communication with the rest of the world and, on October 20 of that year, it landed the very first submarine cable in Hong Kong.

GNT was also the first telegraph company in China, landing its cable on 8 December 1870 at Woosung, on the mouth of the Yangtze-Kiang. From there the cable ran up the Woosung River to a newly established telegraph station at Shanghai.

A link between Shanghai and Hong Kong was opened on 18 April 1871, and Shanghai became the operational centre for telegraphic traffic between the Far East and Europe. Three years after its opening, 45 Danes and 80 Chinese were employed at this station.



Landing of the first GNT telegraph cable at Deep Water Bay, Hong Kong, 20 October 1870

To facilitate the transmission of traffic in the Chinese language, the company created and printed a Chinese Telegraph Dictionary in which Chinese written symbols were represented by numbers transmitted in Morse code, with the recipients transcribing the numbers back into Chinese by reference to a 'reverse' dictionary (see 'Danish Watchmaker Created the Chinese Morse System', MM51, p.14. – Ed.).

The company extended its operations to Japan by laying a cable from Vladivostok to Nagasaki. In those pioneering days, the waters had not been charted and the company's ships had to survey the sea bed conditions as the cable was laid.

The cable was landed at Shembon on the coast of Japan, on 4 August 1871, and a landline connected to the company's Nagasaki station. The first telegraph traffic between Japan and China (from Nagasaki) took place on 12 August 1871.

At Vladivostok, the town had only recently been built and still lacked many facilities. As a result there were a number of problems in building the telegraph station and a house for the people sent to work there. These problems were compounded by delays in the Russian government's completion of the Siberian landline. However, the company finally opened for telegraph traffic between Europe and the Far East on 1 January 1872.

GNT telegraph line near Ulan Bator in Mongolia

Into Europe

Tietgen visualised an expansion of GNT activities into Europe, and in collaboration with other companies, and national telegraph authorities, the company succeeded in linking most of Europe with the Far East.

In July 1873, it began cable laying operations from Denmark to Oye on the French coast. From there a landline went to Calais, and some years later to Paris.

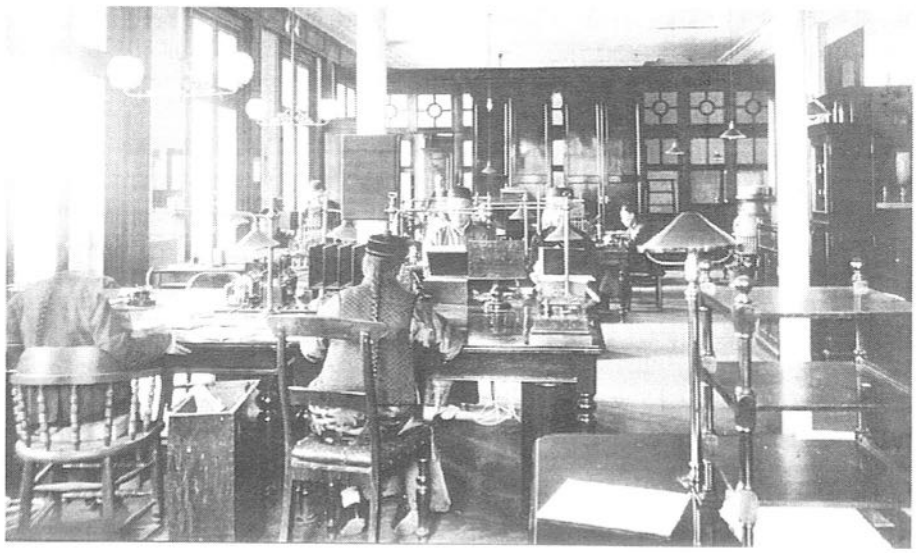
In 1873, a cable was laid between Newcastle in England and Gothenburg in Sweden, with an ongoing connection to Denmark via landline. In London, the GNT station and offices were at St Helen's Place, and this became a centre for telegraph traffic between the Far East and the commercial and financial centres of Europe.

Tietgen also visualised a cable network to America via Iceland and Greenland. In 1906 cables were laid from Scotland to the Faeroes and Iceland, and the impact on the local population was dramatic. For the first time they were in telegraphic touch with the outside world, and at the same time the rest of Europe could obtain more accurate weather reports and forecasts directly from the North Atlantic. Tietgen's plans for a connection with the USA, however, had to wait another 60 years before becoming a reality.

The Trans-Siberian Connection

The Russian concession and the landline across the vast steppes of Russia

First class of students at the Foochow Telegraph School, opened by the Chinese authorities in 1876 under the guidance of GNT. Danish instructors in front row



GNT telegraph station in Shanghai, 1910. Apart from the local dress, the station was identical in appearance to its counterparts in Europe

and Siberia were of crucial importance to the creation of GNT and its future development. The line across Siberia was soon doubled and in Europe and Asia the company soon connected more lines to the link that was the very lifeline of its existence.

In 1904, a landline was erected across Mongolia and the Gobi Desert to Peking. One reason for this was to shorten the line from Europe to China. Another was the hostile terrain of eastern Siberia, where widespread flooding during the Spring thaw caused frequent breaks in telegraph connections, bringing down telegraph poles and sweeping away whole stretches of line in the process.

Almost immediately, the new line to Peking became of supreme importance as the Russo-Japanese War of 1904–5 brought about the disconnection of the cable between Vladivostok and Nagasaki. At the end of the war, the cable to Nagasaki had to be repaired in many locations; the repair work being conducted with an escort from the Imperial Russian Navy to avoid the danger of minefields.

The Soviet Union and the Trans-Siberian Line

The turmoil of the First World War did not alter the fact that the Trans-Siberian line was the core business of The Great Northern Telegraph Company.

However, the Russian Revolution of 1917 created uncertainty about the company's future position and potential in Russia, and the civil war from 1918 to 1921 caused a physical break in the telegraph link to the Far East.

In 1920, the company entered into negotiations with the Soviet government for an extension of the concession, and in March 1922 the vital communication link between Europe and the Far East was reopened.

Research in Moscow in 1996, by GNT historian Kurt Jacobsen (reported recently in the *GN Magazine*), has revealed that in 1937 the Soviet Union considered breaking off its relations with the Company and annulling the concession. The company, however, convinced the Soviet Telegraph Administration that uncertainty about the future of the Trans-Siberian link would mean a loss of reliable revenue for the Soviet Union.

In the Moscow archives, Jacobsen found an original letter signed by the Soviet Foreign Minister and the Posts & Telegraphs Minister venturing a request to Stalin to change his mind. Stalin agreed, but only on condition that the telegraph stations were no longer manned by Danes. Had the link been lost at this time, surmises Jacobsen, the company may well have not been able to survive.

Competition, Collaboration – and Staffing

The GNT Company established a position of astonishing power in the Far East. At one and the same time, the company worked with, and competed against the Eastern Extension Telegraph Company (British) and the Commercial Pacific Cable Company (American), often sharing prestigious office accommodation with them.

In the early years, the company employed Danish telegraphists almost exclusively, although it quickly made plans to hire local staff and train them at the

stations and telegraph schools. This was a relatively simple matter in England and other European countries, but rather more problematic in the Far East, particularly in China.

In 1876, a telegraph school was opened by the Chinese authorities at Foochow under the guidance of the company. Among the Danish instructors was Jacob Henningsen who, in 1885, was to become the Manager of the Shanghai station and Regional Manager of the entire Far East.

In many parts of the world, local conditions were such that the company had to make its own arrangements for staff accommodation, and where it was not possible to buy or rent suitable property, the company built its own housing and other facilities.

The situation was particularly spartan in the Soviet Union after the Revolution, and GNT staff had to contend with extremely difficult working and living conditions. In Petrograd, for example, although they were accommodated in a town house previously belonging to a wealthy family, food for the staff had to be specially shipped in from Denmark.

Impact of WWII – and the End of an Era

Because of its pioneering status and widespread presence in the field of telegraphy, The Great Northern Telegraph Company in the 1920s and 1930s acquired a reputation as one of the leading international telecommunications companies in the world.

This position, however, came under an ever-growing threat in the middle of the 1930s. War was simmering in the Far East and in Europe, and competition from wireless telegraphy was becoming ever more serious.

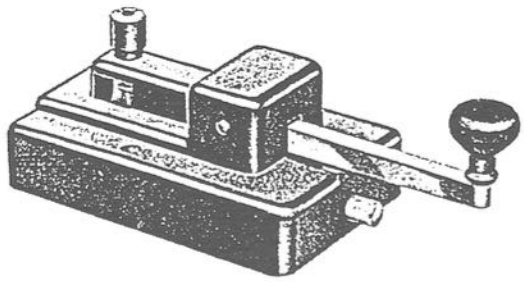
With the outbreak of WWII, links with stations around the world were broken and at the armistice in 1945 the company had only two cables in operation, England-Faeroes-Iceland and Sweden-Finland. All other cables in Europe and the Far East were interrupted and, to make matters worse, many of the vital concessions and agreements had expired during the war years.

Work on repairing cables and re-establishing the stations and telegraph lines began immediately but it was a task fraught with difficulties. The ever-present threat of mines at sea made the work not only hard going but dangerous. The link to the Soviet Union was reopened in 1946, followed two years later by the commercially vital lifeline via Vladivostok to Nagasaki and the rest of the Far East.

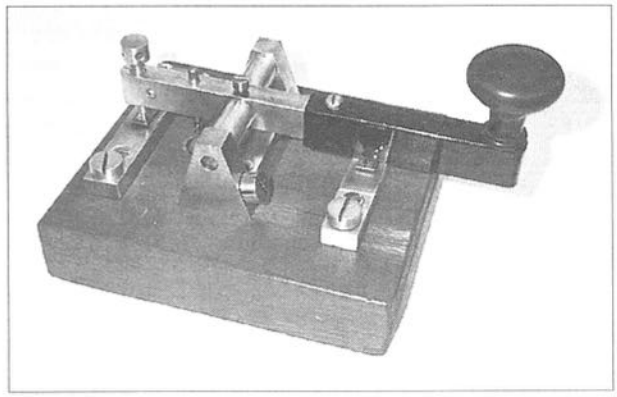
But the halcyon days of the past were never to return. The company was unable to re-establish itself in China, but new links were built, including a direct cable line between Denmark and Poland in 1948.

Before the outbreak of WWII, The GNT Company had begun to adapt to the changes in the world and in technology. At the end of the war, with the company's activities literally in ruins, it was patently obvious that there was no other option but to take up the challenge presented by a new and very different world. An era in the history of the Great Northern Telegraph Company had come to an end.

continued on page 53

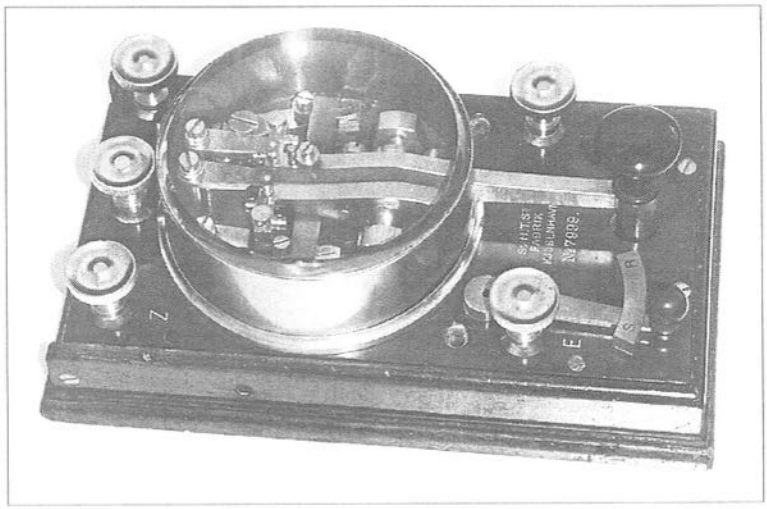


GNT Morse Key No. 605.
The 606 is an identical model with the addition of a send/receive switch



GNT 'Ordinary' Morse key No. 432/601

Photo/Collection: Wyn Davies



GNT Post Office Pattern double current key (1890), model 200/604

Photo/Collection: Wyn Davies

GN Great Nordic

The Company's close involvement with a number of other companies, either through full or part-ownership, laid the foundation for the creation in 1986 of GN Great Nordic.

Today, the GN Great Nordic Group is a modern communications conglomerate with two core business areas – telecommunications and manufacturing.

In the telecommunications sector, The Great Northern Telegraph Company, in collaboration with other companies, operates modern communication systems, while SONOFON, Comtext International and AO NEDA run operational systems.

In the manufacturing sector, GN Elmi/GN Navtel, GN Netcom and GN Rathdown develop, produce and market telecommunications products, while GN Danavox produces audiological products.

GNT and Morse

As in other communications companies which began in the Morse era, Morse code is now a thing of the past. GNT does however have a special place in the history of Morse through its creation of the Chinese telegraphic code.

Unlike many other companies, too, it is not unmindful of the past, and its archives contain many thousands of documents, sketches, water colours and photographs from the time when Morse was the principal means of international telegraphic communication.

The Great Northern Telegraph Works in Copenhagen manufactured telegraph keys from 1876 until 1969, except during WWII when production was transferred to London. In 1969 all rights were transferred to William Batey & Co. Ltd, Tring, Hertfordshire, England, (also known as Morse Equipment Ltd, and Sedgewall Ltd), who appear to have only continued production of the GNT Model 605 which dates from around 1948.

GNT made Post Office Pattern double current keys (model 200/604), a key for split battery (Model 300/603), 'Ordinary' Morse keys (Models 431/602, and 432/601) and the Model 605 mentioned above, plus the Model 606 which is the 605 fitted with a send/receive switch. The double numbers quoted (e.g., 200/604) are from two different catalogues published at different times (dates not known), when, presumably, the numbers of the individual keys were changed. If any readers have details of other GNT models, *MM* would be pleased to receive them.

(Apart from the section headed 'GNT and Morse' and the illustrations of GNT keys, the illustrations and information contained in this article are taken from the GNT book From dots and dashes to tele and datacommunications, *by kind permission of GN Great Northern Telegraph Company Ltd, Copenhagen, Denmark.)*

GN Great Northern Telegraph Company

The Company's present-day Logo

Beginner's Corner

Learning the Morse Code

by Dr Gary Bold ZL1AN

DESPITE WHAT the old-timers say, very few of us found learning Morse easy. To master Morse reception at 12 wpm requires an average of about 70 hours study, but there are wide variations. About 10 percent of learners do it in 40 hours or less, and another 10 percent take more than 150 hours.

A lot depends on the way you learn. All authorities agree that the worst possible way to learn is by memorising the code symbols from a printed chart. People who do this usually have little problem sending, but great trouble learning to receive. This is because they have to convert 'visual' images into 'sound' ones for every character they hear.

Best Way to Learn

Learn to receive Morse first, and start by listening to it. The best way to learn is from a computer program which sends characters audibly, interrogates your state of knowledge, and adapts to your own rate of progress. Don't use programs which train you for tests which are of a different format to those in your own country. Don't use programs which exclusively send random groups. The skills involved in reading plain language text are different.

Audio cassette tape systems are also available. The best ones start by sounding a character audibly, then giving its associated letter by voice. Later tapes send words, then sentences, at increasing speeds. *(In countries where the Morse test is in simulated QSO format, it is advisable to obtain tuition material which takes this into account. – Ed.)*

Practice Nets

Many countries have regular Slow Morse practice nets running on 80m or VHF. These stations are easy to recognise because after each code transmission, lasting a few minutes, the control station reads back the text and often invites comments from listeners. Speeds are varied and texts are different for each transmission.

The feedback you'll hear is useful since common problems are often discussed, together with ways of overcoming them. Some radio clubs or branches of national societies also run practice sessions, either on-air or in their club-

rooms. They will be delighted to provide enquirers with further details.

Spend some time just listening to the faster Morse sent between conversing Hams. You will pick out occasional letters, then whole words. It has been shown that this is very helpful as an adjunct to normal practising.

Receiving

Learn the numbers at the same time as the letters. They are actually easier because they are longer, but many people put off learning them until the alphabet is mastered. They then seem harder because less time has been spent on them. I recommend learning the four common punctuation symbols (stop, comma, query and slash) and the 'break' sign at this time as well.

However you learn, listen only to Morse at a character rate of 12 wpm or more (I recommend 14 wpm), initially with long gaps between the characters. As you improve, the gap can be shortened until you are reading correctly spaced Morse. This helps progress considerably, since the mind does not have to adjust to a steadily increasing character speed but has only to decrease recognition time. *(Note however, that a student needs to achieve correct spacing before taking the test or failure may result. See 'Farnsworth Preparation for the Morse Test' by Roy Clayton G4SSH, RSGB Chief Morse Examiner, in MM54 p32. – Ed.)*

If your receiving test is a written one, write the text down as you receive it. Many find it easier to print at first. Try to avoid anticipating the next character – if you get it wrong it will throw you off.

Practise Regularly

How long and how frequently should you practise? Half an hour a day is fine. Some people find that before breakfast, when the mind is fresh, is better than the evening. Others find that two 20-minute sessions morning and evening work well for them. (Longer than this, staleness sets in and little further progress is made). If you do this, in three to six months you'll almost certainly be up to 12 wpm. Some people get additional practice by listening to code tapes while driving to work, sweeping the basement, or doing the dishes.

This is where tooth-gritting dedication comes in. You have to practise regularly, and make it part of your daily routine. If you stop for a month, you'll slip back. If you use tapes or a computer you can periodically compute your error rate at a given speed. Invariably those who do this find that they are improving – even though they feel that they are standing still.

Sending

Only after you have the correct sound and rhythm of the characters embedded in the mind should you commence sending. Get a decent Morse key for your practice. New ones are expensive, but it may be possible to buy or borrow a used one. There are different styles of keys in different countries. Try to get advice from a local amateur on the best one for you.

With the higher European style keys, secure the key near the edge of a table *(with the lower American style, the key is placed further back, and a different technique applies. – Ed.)*. I recommend

opening the contacts to give a throw of about 1mm at the knob, and adjusting the tension until the key closes with the weight of two D-cells on top of the knob (although some experts dispute these settings).

Sit so that your sending arm is at right angles to the body, elbow level with the wrist. Keep the elbow stationary. Place two fingers atop the knob, thumb at the side or underneath. Form both dots and dashes by pumping the wrist and not by pressing with the fingers. 'Finger sending' tenses the whole arm, guarantees a later 'choppy' style and is rapidly tiring.

Timing and Spacing

To get the relative lengths of dits and dahs correct, practise by sending this continuous stream:

di di di di dah dah di di di di dah dah ...

Tap your foot on the accented symbols. The four dit and two dah segments should take exactly the same time (although dash and dot sounds have a 3:1 ratio, if you include the dot-space with each one, the ratio becomes 2:1). Do not try to send fast! Speed will come when you get the rhythm right. Twelve words per minute rapidly becomes an easy sending speed for almost everyone.

Practise sending along with a tape or computer from a known text, and try to synchronise your sending with the code you hear. (It is surprisingly difficult, even many regular operators have trouble doing it!). This helps in getting the correct space lengths between characters and words. By far the greatest fault you'll hear on the air is characters and words run together. This happens when operators try to send faster than their digital dexterity allows.

Gaining Experience

Once you pass the test, try to have at least a few contacts on the air. You may find that you enjoy it. You'll rapidly begin to recognise the different styles of Morse sent by straight keys, bugs and electronic keyers, and find that 'regulars' on 80m become instantly recognisable by their 'fists', which are as distinctive as their voices.

Many find that in a surprisingly short time their reading ability outstrips their maximum sending speed. They may then start using an electronic keyer which, after some practice, enables them to send at least 50 percent faster than they can on a straight key, and with much less effort.

You'll find that DX contacts with foreign stations are easy in CW, since all know enough basic English to communicate, and many in poorer countries operate only on CW.

Good luck!

(This article originally appeared in the NZART Call Book 1996, *and was intended to help amateurs in New Zealand take the NZ plain language Morse test. With the author's consent, the article has been edited by* MM *to provide advice and help to learners in other countries as well.)*

Shades of CRTB!

by John Houlder

In MM58 ("A Tribute to Spru", p20) we published Frank Spruhan's poem "Coming Round the Bend". There was no claim that Spru's poem was related to a real event, but here John Houlder tells a somewhat similar story that really happened

AUSTRALIA did not have the formal equivalent of the American Phillips code, but it was customary in Press working to abbreviate words and this was known as 'cutting it up'. This practice had largely disappeared when I became a Telegraphist in the early 1950s, due mainly to the busy stations which handled a lot of Press work converting to machine (teleprinter) working.

However, the following story describes my involvement, on one occasion, with a Morse race circuit and a piece of cutting up which may be of interest to readers of *MM*.

It was the practice in the Chief Telegraph Office (CTO), Sydney, for the Administration to establish Morse circuits on a Saturday afternoon across the borders to racecourses in Brisbane (Queensland) and Melbourne (Victoria). This was, as I understand it, to provide race results for the Sydney newspapers who, at the time, were the only papers to publish on Sundays out of the three eastern states (Queensland, New South Wales and Victoria.)

A Dash to the Nash

There were a number of conventions in the Sydney CTO regarding race circuits. One was that it was always staffed by those in the so-called racing fraternity. They were the operators who seemed to spend most of their time asking others 'what won the last race at ...?', and always seemed to be broke.

Another was that on a Saturday afternoon it was the practice for the operators, between races, to go to the local to quench their thirst. The nearest watering hole was called the 'Nash' and going there was called a 'Dash to the Nash'. An appropriate turn of phrase for a telegraphist seeking a drink, I think you will agree!

On this particular afternoon in 1954, I was walking past the operating position in Sydney which was connected to the Eagle Farm (Brisbane) racecourse. One of the operators called out and asked me to sit there for ten minutes while he made a Dash to the Nash.

continued on page 60

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

Ward & Goldstone Ltd

With reference to the photo of my Ward & Goldstone key in 'Info Please!', MM57, page 40, I have now found some information about this maker in an excellent booklet on old radio sets by Jonathan Hill, published by Shire Publications Ltd.

It appears that Ward & Goldstone was one of a number of companies supplying wireless sets to A.W. Gamage Ltd during, and possibly after, the Edwardian period (pre-1911).

A typical ready-made Gamages outfit of this period was the 'Atlantic', made by Ward & Goldstone, comprising a spark transmitter, a condenser, a spark gap, a Morse key, and an 8-foot extending aerial, the same type of aerial being fitted to the receiver unit. The range of the transmitter was about 200 feet, and the set was priced at £6.00, a month's good wages at the time!

Jack Barker
Surbiton, Surrey

Star-Masterkey – Help Wanted

I recently bought a second hand Star-Masterkey CMOS memory keyer, but unfortunately there was no instruction manual included with it. I was wondering if any *MM* readers have any experience of working with one of these keyers, and what the best way to utilise the eight memory files might be?

I am mainly a QRS operator, so would appreciate any help that could be given to a humble trier with a most unfriendly CW callsign!

Any help will greatly appreciated, and all costs fully reimbursed.

Cliff Baron G0HXQ
Greater Manchester
e-mail: clifford.baron@zen.co.uk

Voice of Sanity in Morse Test Controversy

Keep up the good work. I consider MM58 to have been an absolute gem of an issue. The one voice of sanity and accurate reasoning in an otherwise biased or distorted amateur radio press.

Roy Clayton G4SSH
Irton, North Yorks

*(Thank you Roy. We hope readers have told their non-*MM *friends about the reports in* MM. *They should be made aware that there is at least one magazine still flying the flag for Morse! – Ed.)*

Two for the Price of One

The excellent articles, with pictures, on the Aircraft Identification Switchbox by Tony Smith (MM30, p.18) and Vic Reynolds (MM33, p.36) have helped me recognise, and save from the scrap heap,

several of the type B boxes spotted at antique/junk fairs over the past few years.

Knowing very little of aircraft signalling equipment (apart from our dear old friend the bathtub key), I was surprised to find on a junk stall recently a multi-purpose switchbox with TWO keys, one at each front top corner. After a general clean up, it appears to be in excellent condition and is complete with a little snap-on canvas cover *(see photo below)*. The unit is marked 24 VOLT REF No 5C/3023.

Does any reader recognise this piece of equipment and know anything of its use?

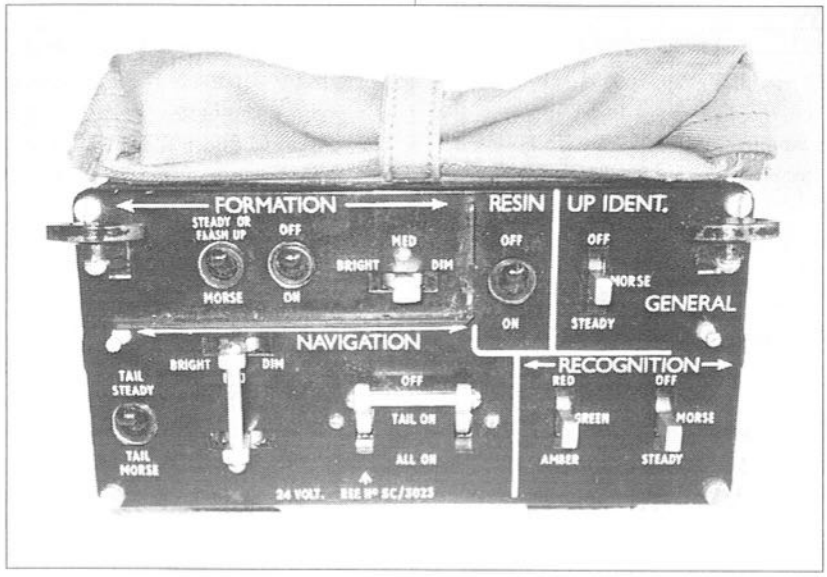
Jack Barker
Surbiton, Surrey

The Koch Researches

The article on the Koch development was extremely interesting. It explains much of what was also done on the Allied side in WWII, especially at Camp X, the Canadian spy training camp which was used by Canadian and British intelligence agencies to train operatives for missions behind the Axis lines during the war.

I knew several of the instructors there and it would appear that they used similar techniques with their students. The Royal Canadian Navy and the Royal Canadian Army Signal Corps both used variants of the Koch methods as their courses were very time compressed. The manuals used by the British Signal Schools also have a similarity to the Koch methods.

The question is, was Koch the first one to write it down, publish or patent the ideas? I believe more study into this would reveal there were many efforts by many nations which drew similar



Switchbox 24 VOLT REF No 5C/3023 (see letter 'Two for the Price of One')

conclusions. Koch may however have been the first to document his findings and thus will be remembered as the one to do so.

I have used these methods, or very close to them, for the past 30 years, and I firmly believe he hit the mark in teaching the code elements (letters) at the target speed as the only way to fly.

The spacing between the code elements can then be decreased as the student becomes accustomed to recognising and writing down the letters, a system we attribute to Farnsworth.

We need more material like this. It was one of the most thought provoking articles I have read since I first began to receive *MM*.

Dave Clarke VE6LX
Edmonton, Alberta, Canada

Short Breaks

Wasp's Nest

...then one night the signal LI2B (the call-sign of the *Kon-Tiki*) burst out into the ether, and in a moment the wireless corner was buzzing like a wasp's nest as several hundred American operators seized their keys simultaneously and replied to the call. *(From* The Kon-Tiki Expedition, *by Thor Heyerdahl, Unwin Paperbacks. Contributed by Stan Barr, G0CLV.)*

No-Go Area?

A legal ruling, said to have been made in Arkansas, about a disputed right of way, states: 'When two trains approach this intersection both shall stop; and neither shall proceed until the other has passed.'
Contributed by Charles P. Krause N7ESJ.

Shades of CRTB!

continued from page 57

I was assured that he had taken all the Press from the last race and nothing would happen. I was a bit apprehensive as all I knew about horses at the time (and even today) is that they bite at one end and kick at the other!

A Few Expletives

No sooner had this chap departed than there was this frantic call 'S S S' (call sign for Sydney) from Eagle Farm signalling Press for the *Sydney Morning Herald.* In great trepidation, I gave him GA and sat poised on the edge of the chair, writing it down and hardly daring to blink. The Eagle Farm operator romped it in on a high speed jigger (bug), and all was going well until I heard 'GBG' which I put down amongst all the other strange (to me at least) horses' names.

To my amazement, I never broke him once, but when I scanned the message at the end I thought this 'GBG' looked a bit odd, and I queried it. Well, I thought the sounder was going to jump out of the resonator box. The Eagle Farm operator started with a few expletives, repeated 'GBG' and said "haven't you ever heard of a GOLDEN BROWN GELDING?" That was my first and last encounter with Morse race circuits. Shades of CRTB!

I found out later on that even if you didn't follow the racing scene, it was much easier if you purchased the morning paper and studied the form guide just before each race to familiarise yourself with the horses' names. ***MM***

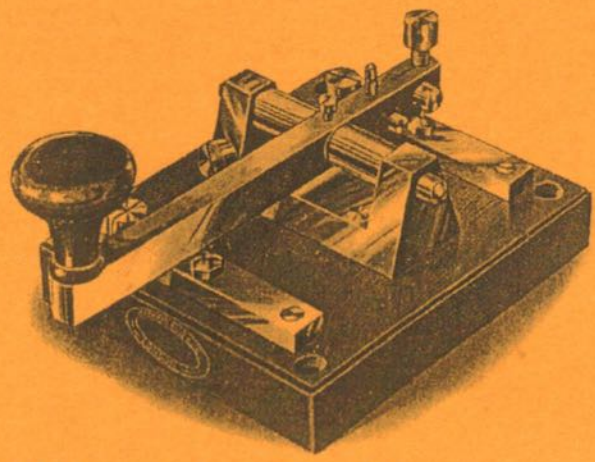
Ephemera

Five-needle Telegraph Instrument

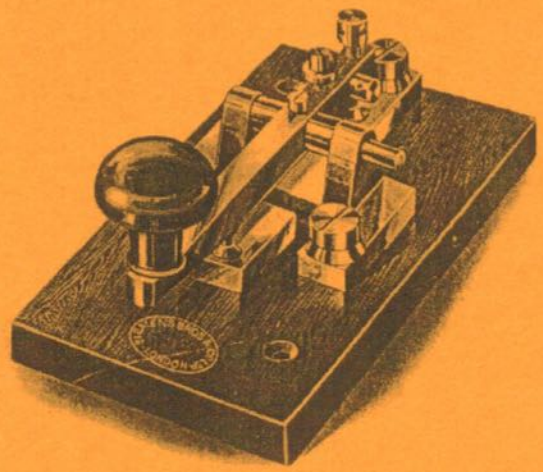
From Wills's Cigarette Cards "Famous Inventions" Series.

Contributed by John Elwood WW7P.

(This non-Morse invention was in commercial use before Morse's electro-magnetic telegraph. It was a predecessor of the single-needle telegraph which, while having its own code at first, changed to (Continental) Morse code soon after.)



Single-Current Key, Siemens Pattern. Fittings of polished brass, with Gold-Silver contacts. Mounted on a polished mahogany base. Catalogue No. T 1035. Price (in 1911) £1. 0s. 0d.



Single-Current key, Post Office Pattern. Fittings of polished brass, with Gold-Silver contacts. Mounted on a polished mahogany base. Catalogue No. T 1037. Price (in 1911) £1. 0s. 0d.

From the Morse Telegraph Apparatus catalogue of Siemens Brothers & Co., Ltd, London, 1911.
(Contributed by Fons Vanden Berghen)