

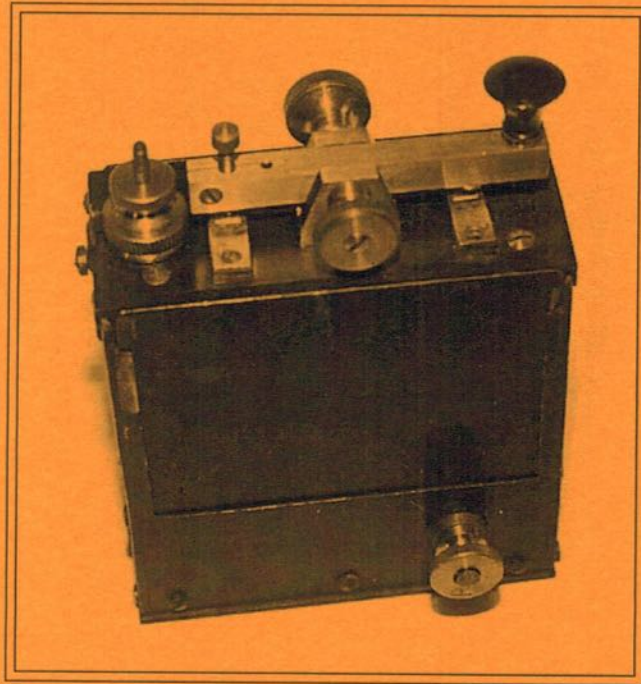
Flying
the flag
for
Morse

Number 58 – June 1998

Morsum Magnificat

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The Morse Magazine



Ducretet Key & Sounder



Flying
the flag
for
Morse

Morsum Magnificat

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MORSUM MAGNIFICAT was first published as a quarterly magazine in Holland, in 1983, by the late Rinus Hellemons PA0BFN. 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.

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MM Back Issues

Limited stocks of Issues Nos. **31, 32, 34-36** and **38-57** 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. (See also page 14)

ON OUR FRONT COVER

A French Ducretet key and sounder

Photo/Collection: Jean Le Galudec

Comment

WE ARE VERY PLEASED TO REPORT that we have agreed with Zyg Nilski, G3OKD, that he will become editor/publisher of *MM* following publication of our December 1998 issue, MM61.

Unless we are advised to the contrary by those affected, all outstanding subscriptions for issues beyond MM61 will be transferred to the new publisher. All articles and photos still awaiting publication at that time will also be passed on for use in later issues of *MM*.

We are sure everyone will give Zyg a warm welcome and continue the same enthusiastic support for *MM* as before. He introduces himself on page 2 of this issue, and invites submission of articles, photos, etc., for use in MM62 and subsequent issues.

What's Happening at the RSGB?

On April 22, the RSGB's General Manager sent out a 'briefing document' to all Morse examiners saying, amongst other things, "The Society is in discussions with the Radiocommunications Agency (RA) to secure ... the introduction of a new interim All-Bands Licence which will allow all amateurs access to the HF bands below 30MHz on attaining a Morse Test speed pass at 5 wpm. The RA support this move and it is hoped that this licence can be introduced as quickly as possible."

In an editorial in the June *RadCom*, the RSGB President said that Council had agreed to open discussions with the RA to obtain an additional 5 wpm licence category giving full access to the HF bands to existing Class B licensees, but there was no mention of the ongoing discussions with the RA previously referred to.

Now, as can be seen from our Stop Press report on page 14, the President has apparently forgotten the previous statements made on behalf of the Society, and the new 5 wpm licence will provide access to only a limited number of HF bands!

Furthermore, before putting proposals to the RA, the Society wants input from its members on what these bands should be!

What will happen next? Perhaps someone will discover the results of the overlooked membership survey misfiled under 'WPB', and there will be a further revised statement relating to this too!

Whatever happens now, its mishandling of the situation must surely make the once highly respected RSGB the laughing stock of the international amateur community.



Geoff Arnold
Editor



Tony Smith
Consultant Editor

EVERYONE CALLS ME 'ZYG' although the full version is 'Zygmunt'. Born of a Polish father and Canadian-born mother, I spent the first 18 years of my life in Nottingham, England. My dad had been a Wireless Operator in the Polish Air Force. Now aged 55, I live in Shropshire, England with my wife Viv and two (of four) sons still at home.

I have been a Radio Amateur since 1960 and it was probably during the earlier years of ham radio that my passion for CW developed. At 17, without much money, affordable ham radio equipment was generally home built or government surplus. To make things worse we had a DC mains-electricity supply, making high power outputs harder to achieve.

My first transmitters were home-brewed and all low power; a crystal controlled 807 on forty metres, a top band AM rig and a modified BC459 for twenty. But with CW there were, and still are, plenty of stations to work even with the most modest set-ups. As time went on and income increased the necessity of Morse turned into the preferred choice. It has been so ever since.

I studied electronics and communication engineering at what is now Southampton Institute of Higher Education for a career in electronics engineering, but with a couple of career moves, my work quickly shifted into computing and systems analysis.

After further study at the University

Meet *MM*'s New Editor/Publisher!



Zyg Nilski G3OKD

of Lancaster I turned to lecturing in management and information technology, eventually to retire from the education service as head of Information Technology at Stoke-on-Trent College. Now, semi-retired I provide consultancy services in information technology, leaving time to follow other interests.

Like many radio amateurs there have been periods of greater activity than others. But interest in CW has broadened to encompass line telegraphy, the history of telegraphy and the technologies used. An avid reader of *MM* for several years, I now have time to take on its publication with the aim of continuing the editorial policy of Tony and Geoff. *MM* will continue to be published six times per year, and I am hoping for support from existing and new contributors to give it the widest possible coverage of Morse topics.

The challenge will be to meet the high standards that Tony, Geoff and the late Rinus Hellemons have set. New articles, letters and photographs are needed so that I can begin to compile next year's editions of *MM*. Comments and new ideas for the magazine are particularly welcome.

Please send articles, etc., for next year to me at: The Poplars, Wistanswick, Market Drayton, Shropshire, TF9 2BA, England. Telephone/Fax: (01630) 638306; International +44 1630 638306 or e-mail to zyg@morsum.demon.co.uk

73,
Zyg

*MM*58 – June 1998

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News

RSGB Seeks to have Amateur Morse Test Abolished. Proposes Interim All-Bands Licence with 5 wpm Test

In a dramatic change of policy, the Radio Society of Great Britain has decided that retention of the mandatory Morse Code proficiency test required for access to the Amateur bands below 30MHz in its present form can no longer be justified. It will attempt to persuade other IARU member societies to support this position, with a view to appropriate recommendations being put to the 2001 (or later) World Radio Conference which is to consider the issue.

In the meantime the Society says it is discussing with the Radiocommunications Agency a proposal for a new interim All Bands Licence which will allow Class B amateurs full access to the HF bands below 30MHz after passing a Morse Test of just 5 wpm. Such a licence will only be for use within the United Kingdom, and amateurs wishing to operate under CEPT agreements outside the UK will still require a 12 wpm qualification.

There is a ground swell of dissatisfaction amongst many RSGB members who feel that the Society has disregarded the results of a membership survey published only eighteen months previously.

See page 8 for further information

and comment on this controversial decision which has wide implications for UK amateur Morse operators.

Germany De-Emphasises Morse Code

According to the *W5YI Report*, 15 May 1998, the German Bundesamt fuer Post and Telekommunikation (BAPT) has completed a major deregulated restructuring of Germany's Amateur Radio Service in which the old Class A, B, and C licences have been replaced with new numbered Classes

The report says: "The DARC (Germany's national amateur radio society) wanted more than three license classes but that did not happen. There were some surprises in the new German ham service. All currently licensed Class A (6 wpm code and limited HF) and Class B (12 wpm code, full HF) were converted to the new Class 1 with full all band/all mode amateur privileges without further examination or restrictions.

"This would be similar to the beginning US Novice and Tech Plus operator class being converted to the top-of-the-line Amateur Extra Class without examination!"

Canada Proposes 5 wpm Access to 10 Metres

At the recent semi-annual meeting of CARAB, the Canadian Amateur Radio

Advisory Board, between representatives of Industry Canada and Canada's national radio society, Radio Amateurs of Canada, RAC proposed permitting operation on 10 metres by Radio Amateurs with Basic+5wpm qualification. (*RAC Bulletin*, May 27, 1998)

HST World Championships 1999 – Advance Notice

The next High Speed Telegraphy World Championships will take place from 28 April to 2 May 1999, in Pordenone, Italy. This event is not only a competition. It is also a meeting of CW enthusiasts from around the world.

Everyone who likes CW, and who likes meeting fellow-devotees, is welcome. You are welcome in the competition too, but that's not essential! During the championships there will be other events, including the Electronic and Hamradio Fair, and an excursion to Venice.

Entry to the competition is usually via a national IARU radio society which, hopefully, will organise a national team. When a society shows little interest in promoting this aspect of Morse operating, it is open to CW clubs to enter teams, or even for individuals to enter, on behalf of their country.

In the past the HST competitions took place mainly amongst Eastern European countries but recently there has been an increase in interest from around the world. The HST Working Group responsible for organising the championships would very much like to see entries from more countries, and are especially keen to see the first ever contestants from the United Kingdom, who would receive a

very warm welcome indeed!

This should surely be one of the areas of Morse activity to be promoted in efforts to popularise the mode. Training sessions, local competitions and eventual selection of a national team could create wide interest within the CW community and beyond, heightening the profile of amateur CW. All it needs initially is for someone to offer to do the organising!

There will be more information about the competition in the next issue of *MM*, but in the meantime details are available from 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

OE-CW-G Applies for EUCW Membership

The Austrian CW Group, formed in May 1997 and believed to be the first CW club in Austria, has applied for membership of the European CW Association. OE-CW-G's aim is to promote the use of Morse telegraphy among radio amateurs, and especially to encourage beginners to experience the enjoyment of communication by 'fist'.

The group meets on the first Friday of each month at 1800UTC (summer-time 1700UTC) on 3.575MHz \pm QRM. Membership requires one QSO on one of the sked evenings and proof of 20 other CW contacts, plus 8 IRCs. Full details can be obtained from G. Csapo OE4CSK, 7535 - St. Michael, Neuberg 346, Austria. E-mail gcsapo@bnet.co (*From EUCW Bulletin 1998/1*)

'The Mill' Now Available as Freeware

Normally distributed as shareware, Jim Farrow W4FOK's intriguing computer program which teaches both International (CW) and American Morse is now available as freeware to any user who downloads the program from Jim's website, <http://www.net-magic.net/users/w4fok/> and 'registers' by e-mail.

The program contains features of interest to Morse enthusiasts at all experience levels, including a number which uniquely classify it as 'Morse Heritage Software'. Full details can be found on the website (or see MM51, p7).

Users are encouraged to 'help keep telegraphy alive' by distributing copies of the program to others. To make this easy, the program contains e-mail instructions and a feature for cloning installation disks. Jim will be delighted to receive feedback from users after they have tried the program.

Morse Memorial Day in Holland

To celebrate the anniversary of the birth of Samuel F.B. Morse, a group of 37 amateurs and their families visited the Dutch Signal Corps School, located at Ede, Holland, on April 23. The visit was organised by Pieter/PA3BWA, Coen/PA3ARR, and Rienk/PA3AYF.

A serving soldier, Hans/PA3EBT, described the organisation of the Signal Corps. The visitors then saw both the older and the latest HF equipment used by the army in base stations and in vehicles.

No Morse keys could be seen, and there appears to have been no interest in learning Morse at the school for some years. Nevertheless, in the official 'mon-

itoring service' there are apparently still about 13 active telegraphists whose work is still regarded as important both for now and for the future.

Following a very nice lunch in the officers mess, where a number of 'eyeball' QSOs took place, the party visited the Signals Museum close by. Run by volunteers from the Signals Corps, this contains all kinds of military radio equipment, and the German equipment on show includes an original Enigma set. Most of the HF sets are operational, connected to antennas, and can be used by visitors! In the library, circuits and information are available on a wide range of military equipment.

Under construction at present is a separate section devoted entirely to CW communication. When this is operational in the autumn, it will be possible for visitors to communicate with each other by Morse telegraphy. This museum will then be highly recommended for CW enthusiasts!

Museum details: Stichting Museum Verbindingsdienst, Postbus 9012, (Nieuwe Kazernelaan 10), NL-6710 HC Ede, Holland. Phone: +31-8380-81306.

Open: Thursdays only (not holidays) 1330-1630 and 1900-2100. **Admission:** free. Suitable for disabled visitors.

(Report from Monika Pouw-Arnold PA3FBF, Mijdrecht, Holland.)

New Dutch Ham Museum

A new museum is due to open in the next few months at Budel, south of Eindhoven, on the Dutch/Belgian border. It is intended to cover the history of amateur radio in Holland from its beginnings to the present time.

Included in the exhibits is the Morse test equipment used by the Dutch PTT before the present computer testing equipment was installed. Other exhibits include Heathkit equipment, spark equipment, and an operational PC program to test visitors' keying abilities.

Present information: Museum Jan Corver, Broekkant 1, NL-6021 CR Budel, Holland. Phone/fax: +31-495-

494448. **Admission:** Adults, 15 years and over - NLG 5; up to 15 years - 1 NLG. **Open:** 1st and 3rd Saturday each month, 0900-1700. Suitable for disabled visitors; also for the hard of hearing. After the formal opening, hours will be extended and will be reported in *MM*.

(Report from *Monika Pouw-Arnold PA3FBF, Mijdrecht, Holland.*)

Bookshelf

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

The prices quoted for each title are inclusive of postage and packing, the first figure being for despatch to UK addresses, the second for despatch to the rest of Europe by airmail or elsewhere in the world by sur-

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News Special

Report, Comments, and Opinions

**RSGB Says Amateur Morse Test
No Longer Justified.
Proposes Interim All-Bands Licence with 5 wpm Test**

In an editorial in the June 1998 issue of *RadCom*, journal of the Radio Society of Great Britain, Ian Kyle, G18AYZ, M10AYZ, President of the Society writes:

“... At its meeting in April, Council agreed that it would open discussions with the Radiocommunications Agency to begin a process of liberalising access to the HF amateur bands. Council sees the first step in this as an additional licence category giving full access to the HF bands to existing Class B licensees, subject to a 5 wpm Morse capability. The Society hopes that the RA will support this approach. If agreed, however, this licence would only be available for use within the United Kingdom, and would not grant privileges on HF bands in other countries under the CEPT arrangements.

“The maintenance of Morse as a mandatory requirement for access to the HF bands is IARU (International Amateur Radio Union) policy. Council, however, now believes that this position cannot be sustained in the longer term and will

be opening discussions with IARU societies and other interested bodies to reconsider the position to be adopted at the World Radio Conference in 2001, when the matter of Morse as a necessary qualifier for access to HF bands is likely to be considered. The current IARU policy was determined some years ago, since when circumstances have changed and will no doubt change further by the time of the next WRC at which amateur radio will be discussed.

“In taking its position on Morse, Council is mindful of the strength of feeling around this issue. Morse has many advantages, including spectrum utilisation, relative simplicity of equipment and cost. The Society wishes to see Morse (and Morse segments of the HF bands) preserved as core elements of amateur radio globally. However, Morse is but one mode among many in current use, and it should take its place alongside the others as an equal.

“Council is also seeking ways of making the qualifications for the amateur licence – be this the (existing)

Radio Amateurs Examination or a new qualification – more accessible and less expensive. Also under discussion are proposals that might lead towards an acceptable system of progressive licensing.

“Our hobby is in need of stimulation. The numbers of radio amateurs are falling in many parts of the world and this trend is an unhealthy one for the future of Amateur Radio. We must be seen as progressive and forward looking. We believe that this position will be welcomed by the majority of radio amateurs in the United Kingdom who share the view that the Society should take a forward looking and progressive stance on the future of our hobby.”

Survey Results Ignored

The decision to no longer support retention of the Morse test, and to propose to the RA an interim 5 wpm test were made less than eighteen months after the RSGB announced (in December 1996) the results of a membership survey on ‘The Future of Amateur Radio’. In the largest response ever received to an RSGB survey, two-thirds of those replying indicated their belief that Morse should remain as an international licensing requirement. The new RSGB policy ignores the results of that survey.

It is understood that many RSGB members, incensed by the RSGB’s action, have decided not to renew their membership when it falls due for renewal. The action of the RSGB Council has been compared unfavourably with that of the Board of Directors of the American Radio Relay League (ARRL) which, in January 1997, adopted a policy supporting the retention of the Morse test

following the results of its own membership survey.

The ARRL policy was reaffirmed in an editorial by David Sumner K1ZZ, Secretary of the League, in *QST*, April 1998, which is reprinted on page ## of this issue of *MM*.

Drastic Implications

Morse enthusiasts now need to consider the possible implications of the RSGB action on the UK amateur CW community. The Society’s nationwide Morse Testing service and Morse Practice service have been thrown into crisis by the unexpected announcement. Protest resignations by volunteers running them could result in the collapse of both services. Those wishing to obtain the new all-bands 5 wpm licence may have great difficulty in finding an examiner to test them.

Assuming that problem is resolved, an influx of non-CW operators to the HF bands, following the introduction of the new licence, will result in overcrowding and ever increasing pressure on users of the CW bands to relinquish band space to other modes.

A 5 wpm test merely pays lip service to the test requirement. Few if any of those taking the test will ever take up CW. A reduction of newcomers to CW operating to virtually nil will result in a steadily declining CW population over the next few years, an eventual yielding to pressure and a gradual reduction in the size of the CW band-plan allocations.

As the trend spreads to other countries and the CW population reduces, CW activities, such as contests, awards

and activity periods, organised by national societies could disappear, and there will be virtually no Morse coverage in society journals or popular radio magazines. The remaining organised Morse activities on the air, will be those arranged by specialised national or international CW clubs. These organisations will be the last remaining champions of Morse activity.

An immediate response to the introduction of a 5 wpm test will be a dramatic drop in the demand for Morse training programs, tapes, books, and other aids for learning Morse as no great effort will be involved in learning the code and passing a test at 5 wpm.

At some point, manufacturers of transmitters and transceivers will cease to offer CW options in their equipment due to lack of a commercially viable demand. Manufacture of specialised CW equipment will diminish and eventually disappear. Conversely, sales of HF equipment without Morse facilities will increase dramatically to meet the requirements of the incoming new generation of HF operators!

At the present time, when Morse is thriving and activity is apparently on the increase, it may be hard to visualise the dramatic forecasts made here. They certainly won't happen overnight, but they will in due course. The reduction of the UK Morse test to 5 wpm, will be the first step on a downward slope which cannot be ignored by its devotees if amateur CW is to survive.

What Happens Now?

Resignations or prospective resignations from the RSGB reported to *MM* indicate

a strong feeling by those concerned that the Society is no longer interested in representing their particular interests. One suggestion put to *MM* is that the Morse clubs now need to take a more positive role in promoting CW.

Certainly, with a 5 wpm test, and eventually no test at all, there will be little incentive for newcomers to amateur radio to take up CW unless they can be persuaded of its attractions by existing users – and are offered considerable help and encouragement to reach a reasonable operating standard.

How is this to be achieved when the RSGB has declared that Morse must find its place in the hierarchy of modes on its own merits? The implication is that the CW community should find its own solutions. Readers' views are invited on what these solutions might be, and how they could be implemented?

Still Time to Write to the RSGB?

It is understood that a presentation of the Presidential Working Party Report to the RSGB Council is scheduled for 18 July 1998 when, presumably, the terms and conditions for the new licence will be agreed for submission to the RA. Accordingly, RSGB members may care to write to the General Manager of the RSGB, or to individual Council members, to express their views on the new Morse test policy, the proposed 5 wpm test, and its implications; and ask for these views to be drawn to the attention of Council at its meeting on July 18. Copies of such correspondence will be welcomed by *MM* to help us assess and report further on the CW community's response to the RSGB's actions.

Comments From the Chief Morse Examiner

“A large number of Morse test examiners have reacted to the announcement that it is the intention of the RSGB to press for an all-bands licence on passing a 5-wpm Morse test with shock, disbelief and anger. They believe that it is an attempt to manipulate international regulations to circumvent the delay in discussion of changes scheduled for WRC 2001.

“The fact that the 12 wpm test will remain on paper is regarded as irrelevant – by giving all-bands privileges to the proposed new class of licence, the effect will be to lower the Class A requirement to 5 wpm. Many examiners have advised me that once the pride and satisfaction of sending Morse at 12 wpm to a candidate by hand is no longer required, and they are relegated to switching on a tape recorder for 5 wpm tests, then they will not wish to remain in post. This is a perfectly understandable reaction from an experienced team of CW enthusiasts

who are responsible for setting a National standard.

“Examiners have been placed in a most difficult position; on one hand they feel aggrieved that their views have not been sought, and on the other hand they feel a responsibility to candidates to continue to provide a service to fellow amateurs which gives them such pride and satisfaction.

“It is early days, and the situation may well have undergone a change by the time *MM* goes into print. I have written a five-page letter to every member of the RSGB Council, explaining the reactions of the Morse Test Service and my own views on this course of action. I have also offered constructive advice in an effort to resolve the situation and prevent the Society heading towards self-destruction. If this falls on deaf ears I may well find that my position as Chief Morse Examiner becomes untenable.

*Roy Clayton, G4SSH
Chief Morse Examiner*”

Morse Practice Service Ignored

“At the end of April I was astounded to receive from the General Manager of the RSGB a copy of a ‘Mandatory Morse Testing Briefing Document’ addressed to ‘All Morse Examiners’, to be followed a few days later by an almost identical document this time addressed to ‘All Committee Chairmen, Honorary Offic-

ers and RLO’s.’ The document had, by then, appeared on Packet Radio and the Internet. It has now been quoted worldwide and, at the time of writing, is due to be published for the benefit of the ordinary members of the Society in the June issue of *RadCom*.

“Since the volunteers in the RSGB Morse Practice Service were not given

the courtesy of an advance copy, as were the Morse Examiners, I feel that until they have had the opportunity to read and digest the official details in the June *RadCom* I am not able to speak on their behalf.

“The Chief Morse Examiner has already made plain the feelings of anger and sadness felt by most Morse Examiners, and I associate myself unreservedly with Roy’s statements.

“A number of MEGS members have intimated their intention of resigning from the RSGB as a direct result of the ‘Briefing Document’ but once again they have had to make their judgement on the basis of what they have picked up from sources other than the RSGB.

“I have written to the General Manager of the Society asking for confirmation and clarification of Council’s

intentions together with a timetable for implementing the changes in policy. Should the reply to my letter confirm that the Briefing Document does represent Council policy then I will have no option but to add this latest action to a whole catalogue of incidents which have taken place over a number of years, which indicate the complete lack of enthusiasm shown within the Society for Morse related matters. I would then find myself in the unhappy position of having so little in common with the Society that there would be no point in remaining a member.

George M. Allan, GM4HYF”

(George Allan is Secretary of the Morse Enthusiasts Group Scotland (MEGS), an RSGB Morse Examiner, and the RSGB’s National Morse Practice Coordinator. – Ed.)

Unconstitutional Action

“I regard the result of the discussions between the RSGB and the RA as unconstitutional. Since the Society definitely does not have a mandate to seek such relaxations from the RA then we must begin to question whether it is the proper body to represent the interests of the amateur.

“My first reaction has been that the members should lobby the RA and not the RSGB since it is the RA which has spiked the pudding at the suggestion of the RSGB. My second has been that all amateurs with a concern for the health of CW should

immediately withdraw their membership of the Society and not simply fail to renew when the time comes. How can one support an organisation which first seeks the opinions of the members and then acts in direct contravention of the results of such survey?

This however is impulsive rather than sensible. We do need a voice and without such a voice we have absolutely no chance of maintaining the CW segments which we now have.

**E. Longden, Secretary
FISTS CW Club**

5 wpm Test "will ease things a bit"

"We're not trying to get rid of Morse! No way!" insisted RSGB President Ian Kyle, GI8AYZ/MIOAYZ, during a visit to ARRL Headquarters. In a statement slated to appear in the June issue of *Rad-Com*, the RSGB journal, the Society says it will continue to support Morse code and CW subbands on HF "as core elements of Amateur Radio globally." But, Kyle said, "Mandatory testing of Morse is going to go whether we like it or not."

Kyle and RSGB General Manager Peter Kirby, G0TWW, say there no longer is any good reason to insist that applicants pass a Morse code test to operate on HF. "It's stopping growth in the hobby," Kirby said, adding that he disagrees with those who think it will be the death of the hobby or would lead to lower operating standards.

Kirby, a former professional CW operator, said that making someone pass a 12 wpm test "doesn't make one a good operator." He allowed that enhanced practical testing requirements were a possible replacement, and said the Society is looking at a possible revamping of the entire licensing and testing structure in the UK.

Both Kyle and Kirby have been making the rounds of Amateur Radio clubs in the UK and floating the idea of eventually getting rid of the Morse code requirement altogether. They say most of the hams they speak with support the elimination of compulsory Morse testing. As Kyle put it, most hams in the UK are "thinking with their brains, not with their hearts".

Kirby says the RSGB Council has determined that it cannot support com-

pulsory Morse testing in the long term but also recognises that it can't change things overnight. "This will ease things a bit," he said of the RSGB's 'intermediate' proposal to the RA.

Kirby said the RSGB proposal "gives other countries the opportunity to debate this subject" before it's dealt with in a World Radiocommunication Conference in 2001 or 2002. He says the RSGB's plan has received support "from around the world and even from within the US," and that other European countries are beginning to embrace the British position.

"There are approximately 58 000 hams in the UK, and slightly more than 28 000 of them are RSGB members."

(Extracted from the ARRL Letter Online, Volume 17, Number 20, May 15, 1998, published by the American Radio Relay League)

'Mood Change' Since Survey

Peter Kirby, G0TWW, General Manager of the RSGB, claims that there has been a mood change within the amateur radio community on the subject of Morse testing. Writing in response to letters of protest received at RSGB HQ, he says: "We are aware of the feelings of our members especially the 30 percent who responded to the survey of the future of CW which was carried out in late 1995.

"Since the survey there has been a mood change within the amateur radio community in the UK. This change is very apparent when the subject is raised at club talks up and down the country and from inputs received for consideration by the Presidential Working Group currently looking into the future of

amateur radio within the UK.”

He continues: “We have gone out of our way in the statements that have been issued to emphasise the need to continue to support CW as a mode of operation and to protect the segments of the HF band currently allocated for HF (sic) operation by those who prefer and enjoy the use of the code. This we fully intend to do in our discussions with the administration on the introduction of a new interim 5 wpm licence.”

ALL COMMENTS WELCOME!

What do readers think about the RSGB's actions? Were they democratic? Were they inevitable? Can the CW community itself do anything to minimise their effect? Should it 'go it alone', independently of the RSGB? Or should it continue to trust the RSGB to look after its interests? Are the Society's promises of continued support for CW reassuring? If not, would it help if they were more specific? If so, how? Can the Society really protect the bandplans for future CW operation? Given the possibility of a 5 wpm test by the end of 1998, and no test at all a few years later, how do YOU see the future of amateur CW?

If you have views on these or any other aspects of the Morse test issue, write to the RSGB now – and send a copy of your letter to *MM* for our information! If you have already written, we would appreciate copies of that correspondence also.

STOP PRESS

RSGB Denies Plans for 5 wpm All-Bands Licence!

As this *MM* was going to press, we learned of an interview with RSGB President Ian Kyle, due to be published in the July issue of *RadCom*.

Questioned about the proposed 5 wpm licence which he described in the June issue of *RadCom* as “... giving full access to the HF bands to existing Class B licensees”, Mr Kyle offers a dramatically modified response.

He now says “We are seeking the support of the Radiocommunications Agency for the early introduction of an intermediate level licence with access to some of the HF bands based on the existing Class ‘A’ licence qualifications, but with a reduced Morse competence requirement at 5 wpm.” He goes on to say that the Society now wants input from its members, before the end of August 1998, on which HF bands would be appropriate for such a licence.

This climb-down is clearly a response to the widespread reactions the Society received following its arbitrary decisions on the question of Morse testing, although it does not respond to accusations that it has undemocratically ignored the results of its most recent membership survey. The unexpected invitation for members' views on what, until now, has seemed a *fait accompli*, reinforces the suggestion on page 10 of this issue of *MM* that RSGB members should write to the Society to express their view on all aspects of this matter.

Short Break

State of the Art when Spark was King

Q. What is the difference in sound between spark and continuous wave Morse signals?

A. Spark signals do not as a rule possess a very musical sound, but may range between a harsh buzzing sound and a clear whistle. Their pitch is not altered by varying the tuning of the receiver, and when the set oscillates they are all heard with a rough scratchy sound. Continuous wave signals on the other hand, cannot be heard at all until the set oscillates or a local heterodyne is used, and have pure musical notes which can be adjusted to any pitch, between the highest and lowest audible, by varying the tuning of the receiver or the frequency of the oscillations generated by the separate heterodyne if the latter is used.

Q. What is the range of the average ship's transmitter?

A. Using such receivers as are at present employed for maritime communications, the reliable range is about 200–300 miles under normal conditions. This range is often greatly exceeded when conditions are favourable. The figure given relates, of course, to the 1 kilowatt spark transmitter, and not to the continuous wave sets installed on some of the larger liners, which cover 2000 miles and more quite regularly.

Q. Upon what wavelength are spark signals sent?

A. 300 metres (chiefly fishing vessels), 450 metres (maritime direction finding), 600 metres (ships and coast stations which work them), 1800 metres (Scheveningen and one or two other medium power stations), 2600 metres (Paris), 3100 metres (Nauen).

Q. Is it likely that the 'spark' system will be superseded by continuous waves for maritime communication?

A. Not at all likely. The traffic problems which would arise if CW were employed are almost insuperable. When stations have to be constantly picking up and working with numbers of others at short notice, it is necessary to employ rather broad tuning.

(From '500 Wireless Questions Answered', 1924.)

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Showcase

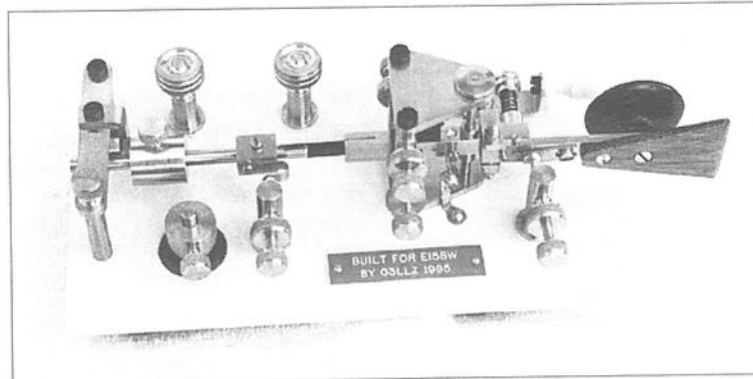
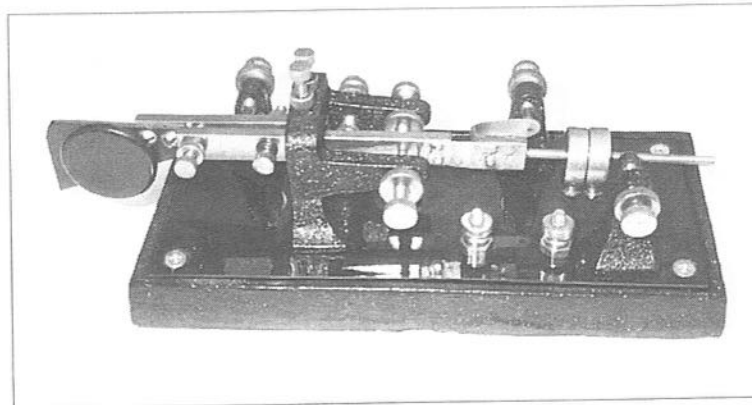


Photo: Dennis Goacher

Home-built unusual hybrid semi-automatic key made by Dennis Goacher, G3LLZ. With Vibroplex style yoke, Mac-key style arm, extra large finger pieces and GPO style terminals. Dennis tells MM that he was pleased with the end result, as was EI5BW, for whom it was made



Photo/Collection: Wyn Davies

Kenco semi-automatic key, USA 1935

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FIRST, let's look at paddles. These are the most important part of any electronic keying system. If you can't instruct the keyer properly, no amount of electronic wizardry will generate good CW for you.

Some people seem to manage quite well with hacksaw blades or nail files, but this is not a route to be recommended for those with average skills. Hence, it is worthwhile investing in a good quality paddle. The initial cost may seem high but so is its resale value.

We all have our preferences, and when choosing a paddle this will be the final arbiter. However, there are some basic features which will be present in every good paddle. It must be ruggedly constructed so that it will not slide about on the table, and settings once made should remain fixed.

There is no reason why a paddle should not be screwed to the table but this is not normal practice. It is essential that small adjustments can be made to the gaps and tension, as such changes can have a marked effect on the 'feel' of the paddle.

Single Lever Paddles

Let's now look specifically at single lever paddles. It is not easy to design a good one. The biggest problem is to prevent the lever swinging to the other side when it has been released, thus generating a spurious dot or dash.

It is easy to check whether this is

Beginner's
Corner

Which Paddle, Which Keyer?

by Gerald Stancey G3MCK

Users of electronic keying systems have a very wide choice of equipment from which to choose. In fact it is probably more correct to say they have a bewildering range of equipment from which to choose! This article describes some of the basic features of keyers and paddles in the hope that it might be useful to those who wish to take up electronic keying

happening by hitting the dash paddle sharply with one finger, while ensuring that your thumb is clear of the dot paddle. If you get an 'N' then you have a problem with over-swing.

Similarly, check the dot side to ensure you don't get an 'A'. It may be possible to adjust the paddle to rectify this problem. If not you have a poorly designed paddle, which means you need to buy a better one.

Twin Lever Paddles

Twin paddles suffer less from this problem. However, they can suffer from interference between the levers which can produce spurious dots or dashes. Using

a very small gap tends to make this problem more likely to happen.

Keying Styles

It is customary to use the thumb to form dots, but this is not mandatory. There are two distinct keying styles: fingers-off and fingers-on. With fingers-off keying, your fingers only touch the paddle when a dot or dash is being initiated. Users of this style tend to have a fairly robust hand action, rather like the users of bug keys.

With fingers-on keying, your fingers lightly touch the paddle(s) at all times. With this style, nervous twitches can easily generate unwanted dots or dashes.

If you want to send iambic Morse (squeeze keying), you must use a twin paddle. However, there is nothing to say that you must use iambic keying if you have a twin paddle!

Keyers

Keyers can be grouped into three general classes; basic, complex and simple. A well designed basic keyer will produce excellent CW. It will also have the ability to produce iambic Morse, have self-completing characters, and will have dot and dash memories.

The latter function is best explained by considering the actions needed to form the letter 'K' when using a keyer with dot and dash memories. Three paddle movements are needed. Sometime after initiating the first dash, the dot lever is pressed and then, any time before the start of the last dash the dash lever is pressed. The result is a perfect letter 'K'.

Note that it is not necessary to hold the paddle until a character is completed to ensure a dot or dash of perfect length,

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neither is it necessary to wait until the start of the dot or the second dash is due before pressing the appropriate paddle.

Complex keyers have, in addition to the above features, the facility to enable messages to be stored and sent at will. This is a great help when contesting. Some complex keyers can also be programmed to emulate the characteristics of many of the well-known types of basic keyer.

Simple keyers, like basic keyers, just produce CW. However, as they do not have dot/dash memories, and may not have self-completing characters, they are more difficult to handle. With the low cost of ICs it seems hard to justify the small saving in cost that is made by building a simple keyer.

Beware of any keyer that uses a continuously running clock. With these designs it is very unlikely that a dot or dash will start the instant a paddle is touched. In other words, you have to hold the paddle over until a dot or dash starts. It is much more difficult to send good CW on such a keyer.

Summary

To summarise: if you want to use squeeze (iambic) keying then you must use a twin-lever paddle and a suitable keyer. Just because you have the equipment to squeeze key does not mean you have to squeeze key.

For most people, a basic keyer will meet all your requirements. However, I strongly recommend that you use a quality paddle. There is nothing more frustrating to you, or the other guy, than being driven by one's keyer. Money spent in minimising this is money well spent.

MM

FRANK SPRUHAN ('Spru') was a telegraphist in the Sydney Operating Room of the Telegraph Branch of the Australian Post Office. When he retired in 1948, 'Coming Round the Bend' and other poems, plus his observations on a variety of subjects written over the years, were brought together and published as a booklet by his workmates without his prior knowledge. This was done firstly as a memorial tribute, and secondly 'to preserve his work for the future'.

'Coming Round the Bend' is his best known poem. According to the booklet, it was displayed 'on post office notice boards and in training classes for the enjoyment of the younger generation of Morse hands.' It has also been reprinted many times in various magazines since that time.

On this occasion, with the help of John Houlder and several other readers 'Down Under', *MM* has provided a small glossary explaining the meaning of at least some of the Australian words for non-Australians. For the rest, any Morse enthusiast worthy of his or her salt can surely translate Spru's telegraphic contractions. It's well worth the effort!

Also included here are a few examples of Spru's other humorous talents. According to the booklet (titled *Coming Round the Bend and other Verse*), Spru was 'a consummate raconteur with a glittering fund of anecdote; an elocutionist of the bush school with a versatile reper-

A Tribute to 'Spru'

toire, and, as we know him best of all, a good mate who has lived well, satisfyingly, and more for others than himself.'

MM is pleased to echo the approbation of his Sydney friends and print this small tribute to Frank Spruhan.

Coming Round the Bend

I well remember Charlie Teede,
Who used to work the races;
No need, indeed, to ask for speed,
He'd pace it with the pacers.
Lord help the man who 'broke' him once
Or questioned his 'creations';
On him a flood of scorn was turned,
The atmosphere with brimstone burned,
And Pitman, green with envy, squirmed
At his abbreviations.

'Te field got wl awa to ti
& as ty settld dwn
Te Shicr 1st t bk te li
ws flwd by Jo Brown
In clos proxim, ws Tired Tim,
Tn came Arbtratn,
Bhnd te bunch was Cntr Lunch,
Gd Luck and Hi Taxatn.
Ty whizzed alng (and so did Charles)
Wthout te least cessatn.

'C R T B te topwt jumped
& got on trms wi Shicr,
Wo tn & tre hs bundl dumpd
Wh labld him a twicer.'
I scrambled after Charlie
Like a trailer round a bend,
Then gave OK – but queried:
' "C R T B" u send.
Now what is that in aid of?
Enlarge a bit my friend.'

The sounder nearly hit the roof
As Charlie scorched the line.
'U ort t b on te rabtproof
Or up at Doodlakine.
Chasin poddies rnd te yd
Shd be ur chf pastime.
T tnk u cndt wrk tt out
It nrly mkes me sik.
Ani ole gin or rousabt
Cd write it wi a stik.

'Fanci a man wo calls hmslf
A tgst askg tt!
A record O S vacuum
Is located neath ur hat.
D' u want it in oils bi Lambert?
Or carved on a marbl stone?
Ole "Winja" Mortill cd tke it
& ud nvr hr a moan;
Not spelt out li Ive dun fr u
But cut dwn t te bone.

'Wl I mst sa its te bst dspla
Of ignrce Ive hrd,
O all te sqtrrs in W A
Ur crtnli te "bird"
& ani hrsh remks Ive mist
Ty all cn be inferd
"C R T B" – its knwn bi rote,
Wt wd u ha me snd?
Its cmg rnd te bnd – u goat
COMING ROUND THE BEND!'

A Short Glossary

Topwt: Top Weight, heaviest horse in the race
Got on trms wi Shicr: Drew even with another horse in the race
Hs bundl dumped: Gave up the race
Rabtproof: Rabbit-proof fence in Central Australia
Doodlakine: A small hamlet in Western Australia
Poddies: Young cattle being fattened for market

Gin: Derogatory term for a female aboriginal. Not polite to use today
Rousabt: Sheep or cattle station hand
Tgst: Telegraphist
O S: Over size
Lambert: Famous artist
Winja Mortill: Refers to an operator in W A of some repute
Sqtrrs: May be a misprint for 'squirts' – meaning a small and miserable man
W A: Western Australia.

A Few More Words from 'Spru'

Meaty Telegrams to Enliven the Day

The old lady who wired her married daughter on the advent of a new grand-

child: 'Baby not marvellous I have 28 teeth and can jump backwards – present following. Signed "Gran."'

The pugilist in Kalgoorlie who wired his father in Sydney after a terrific fight: 'Won easy – in 75 rounds.'

If brevity is the soul of wit, it can also contain much pathos, as the following: 'Baby died last night.' The hopes and fears and the might-have-beens contained in that brief message.

Then there was the illiterate man who went by steamer from Melbourne to Brisbane and wired back: 'Dreadful voyage Ship crowded Gave birth to two girls.' Well, if he was bit lacking in the spelling art, he made up in generosity.

The humorous side shows out sometimes in the midst of disasters. Lately, when King Cyclone raged and roofs were lifted and lives were in jeopardy, the following wire came through from Mascot to relieve the strain: 'Lavatory a total wreck Wire instructions.' Instructions!

The Telegraphist (From *The Evening News, Sydney*)

A bantering remark by a navvy friend who accused me of 'fiddling about with a tapping machine' reminded me of a few calculations I had made as to the physical strain on a telegraphist who transmits by hand. I was thus enabled to respond as follows:

'The Morse characters used to form letters and figures vary from one to five, and six in the case of a fullstop, bracket or inverted comma. I had made an exhaustive count, and found that the number of symbols required to form each letter, say, in a long Press message, averaged exactly 2½.

'The resistance offered by the key, caused by a spiral spring at the back – the function of which is automatically to bring the key back to its original posi-

tion each time – varies considerably with individual operators. I had tested mine, and found that it required a weight of 12 ounces to overcome the spring.

'The rest is simple arithmetic: thirty words a minute represents 1800 words an hour. The English language averages five letters to the word; therefore, 9000 letters or 22 500 assaults on the key. So that during that hour I have pushed away from me a 12oz key 22 500 times – almost 7½ tons, or in a six-hour shift a total of 45 tons!

'The rule when working duplex lines is for men to change over every alternate hour – receive one hour, send the next – but this is not always possible, and on occasions I have sent almost continuously for 10 hours, and even longer.

'It would be utterly impossible for anyone – other than a telegraphist – to keep the wrist in such rapid motion for even a short while. Supposing, however, that a ... torturer by some mechanical means forced a person's hand, wrist and forearm into such motions for even an hour, shocking pain would result, and, no doubt, permanent injury.

'A scientist recently declared that the world was gradually getting smaller. The cause is the continual pounding on the increasing number of telegraph keys surrounding this old mud ball, and accounts for the mysterious groaning heard lately at Euroa, Darwin and other places. Final implosion will be the ultimate result ...

The One-Legged Typewriter

Finally, a poem by Spru about a typewriter in the Sydney Telegraph Office which bore the pathetic notice – 'This typewriter has three broken legs.'

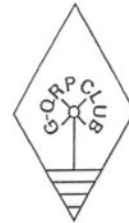
You wear a sad dejected air,
 Poor old cripple, tott'ring there;
 But still you bravely 'carry on'
 Though three of your four legs
 have gone.
 Telegraphists with thatches grey,
 In youth upon your keys did play;
 You've surely earned distinguished
 mention
 How is that you've missed a pension?
 Some men have gained an OBE
 Whose merits can't compare with thee:
 They have less wisdom, far, than you –
 You only speak when spoken to.

You bear the marks of many wars,
 Your broken legs are honoured scars,
 And even the ribbon you have worn,
 Is sadly faded and forlorn.
 Throughout your many weary years,
 You have recorded joy and tears,
 Hopes, doubts and loves –
 you've known them all,
 Births and deaths – gay festival.
 I feel for you my old companion,
 For, though you've but one leg
 to stand on,
 I'm forced to prop you up anew
 And pound the dying breath from you.

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



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.



THE MORSE ENTHUSIASTS GROUP SCOTLAND

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

THE FIRST THING an op coming on watch does is to check his clock against WWV (per ITU regulations), because certain operations on 500kc/s have to be timed down to the second. In the log it goes as:

OBTAINED WWVH TIME TICK -
CLOCK CORRECT 2500 0900Z

Because of the steady stream of signals on 500, a weak station sending a distress message might not be heard. At one time, calls AND traffic were passed on 500. There was no shifting to working frequencies to pass messages. Thus, silent periods (SP) were created.

These consist of two three-minute intervals in which no-one transmits, world-wide. Volume controls are turned up; ears are pressed to the speaker grille; one's breath is held, from minute :15 to minute :18 and again from minute :45 to minute :48. Even if traffic is being passed on working frequencies, it too, would stop. For example, if I were sending the weather report on 440kc/s:

... HIGH PRESSURE 1028MB 35.8N 132.3W
BT CQ CQ CQ DE NMO AS SP SP AR

at which point myself and my listening audience would shift back up to 500 for that particular 3-minute SP.

Pity the station whose clock is off or who forgets the SP, for a half dozen stations might jump on him:

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500kc/s Story

Part 2 Silence Periods

by Jeffrey Herman KH2PZ/KH6

Continuing the author's account
of his work as a Radioman Petty
Officer in the US Coast Guard in
the late 1970s

VLA VLA VLA DE 3FWR 3FWR K
QRT SP SP
SRI
SP
OK SRI
SP SP

The ship 3FWR calls the shore station VLA – someone breaks in to tell him to stop transmitting. He responds with 'sorry' and is still scolded. Says he's sorry a second time and is scolded again. Someone, somewhere in the Pacific was more direct and to the point:
JNKB JNKB DE FHWN FHWN
SHUT UP SP (sent at 30 wpm)

The last 15 seconds of a SP was set aside for safety and urgent preliminary transmissions – TTT and XXX as explained below.

Broadcasts

From the lowest to the highest prior-

ity, the following types of broadcasts exist:

CQ – meaning ‘Hello All Ships and Stations’ sent in a 3X3 format :

*CQ CQ CQ DE FUM FUM FUM WX AND
TFC LIST QSW 430 AR*

Here, the shore station FUM, French Navy Tahiti, makes an announcement that he’ll be sending the weather and his traffic list on 430kc/s. The CQ is the most common broadcast announcement. One CQ will go out every few minutes.

TTT – This is the prosign for a safety broadcast: storm warnings, navigation hazards, or anything involving the safety of shipping:

*TTT TTT TTT CQ DE ZLW ZLW ZLW
CYCLONE WARNING NR 38 QSW 475 UP*

Each T is longer than that usually sent in order to provide a very distinctive sound. During the last 15 seconds of a silent period, a half dozen TTTs could be going out.

In particular, the shore stations running around the perimeter of Australia would sent the same TTT, one station following the previous station. Everyone in the Pacific wanted to be the first one out with their TTT announcement instead of waiting for a station 1000 miles away to finish – so many a time they’d all go out at once. What a mess!

XXX – This prosign is indicative of an urgent broadcast where shipping and lives might be in danger (the CO might order the auto alarm sent prior to the preliminary announcement on 500kc/s):
*XXX XXX XXX CQ DE NMO NMO NMO
HURRICANE WARNING QSW 440 AR*

Again, each X is drawn out so as to provide a very distinctive sound. This, as with the TTT announcements, went

out during the last 15 seconds of a silent period. Those sending a TTT were supposed to give way to an XXX. Remember, everyone is working duplex or full QSK – you MUST be able to hear anyone sending under you.

SOS – The darkest hour of an op’s career is when the Captain of the ship enters the radio shack, hands the op a piece of paper, and says ‘Send the SOS – here’s our position’. International procedures then dictate EVERY step that the operator will take.

Distress Procedures

Auto Alarm (AA): Twelve 4-second dashes, each dash followed by a one-second pause, sent in A2 (modulated CW). ITU regulations demand that every ship carry an AA decoding receiver. This decoder will only respond to AAs sent in A2 mode.

In A2 mode, the transmitter is modulated by a tone (two metre ham repeaters ID in this manner). What you would hear on your receiver, with your BFO on, would be several tones, or harmonics – very musical and an attention getter. A station sending CW in A2 sounds like someone sending code on a piano keyboard by pressing a half dozen keys at once!

(One very old book in my collection describes an easy, but archaic method of modulating a CW transmitter. A toothed wheel is rotated at several hundred RPM with a wiper, connected to the keying circuit of the transmitter, rubbing over the teeth of the wheel. Crude but effective.)

The AA will activate the decoder aboard every ship within receiving

distance after four correctly sent dashes are received. The decoders are designed to be a bit forgiving concerning the timing of the AA dash. They will accept, as a valid dash, a dash of between 3.5 and 6 seconds in length – just in case the sending op is nervous!

As mentioned, only four correct dashes are needed, but just to be sure, ITU demands that twelve be sent. Once the AA decoder receives four dashes, its latching relay closes activating lights and bells in the radio room, the radio officer's stateroom, and up on the bridge.

The op in distress must now wait two minutes (if possible – if his feet are getting wet, then he skips this step) for off-duty ops on board other ships that have received the AA to get to their radio rooms. 500kc/s is now in a continuous silent period until the controlling station sends:

*CQ CQ CQ DE (cs of controlling station)
QUM 500 KC VA*

Note that QUM = 'Distress traffic has ended – resume normal traffic'. Initially, the controlling station is the distressed vessel. He can and does give control to the first responding shore station, thus if I was the first shore station to respond, then NMO would be the controlling station.

Pity ANY ship or shore station who transmits normal traffic during a distress:
*9JBV 9JBV DE HCKO HCKO HW OM K
QRT QRT QRT SOS 500 (sent by dozens
of stations)*

The Distress Broadcast

All traffic pertaining to the distress will be sent on 500kc/s. Those not in a position to assist will move to 512kc/s –

512 is the alternate calling frequency when 500 is in distress use.

Here is a typical distress broadcast, sent at no more than 16 wpm (per ITU regulations):

*SOS SOS SOS CQ DE 5TER 5TER 5TER
BT SOS 281751Z MV PANAMA TRADER
TAKING ON WATER ENGINE ROOM
FLOODED POSN 13.73N 152.55W 13.73N
152.55W NEED IMMEDIATE ASSISTANCE
AR MASTER SOS*

This broadcast would be followed by a 10-second long dash to aid receiving stations in getting a bearing onto 5TER's position.

Then would come the acknowledgements:

*SOS 5TER 5TER DE NMO NMO NMO R R
R SOS
SOS 5TER DE KFS KFS KFS R R R SOS
SOS 5TER 5TER 5TER DE JNA JNA JNA
R R R SOS
SOS 5TER 5TER 5TER DE WNPB WNPB
WNPB R R R SOS WE ARE IN POSN
11.81N 151.32W CHANGING CSE TO UR
POSN WILL GET ETA K
SOS WNPB DE 5TER R TU HERE IS
MORE INFO ...*

The first thing you'll notice is that all transmissions must start with SOS (ITU regulations). What happened here is that three shore stations QSLd the distress broadcast. ITU regs state that you must send R R R SOS. A nearby ship also QSLd and is proceeding to 5TER's position.

The 500 op at NMO (me!) would be on the phone to the Rescue Coordination Center (RCC) passing all information. RCC would launch aircraft and also key up the AMVER computer to check for nearby vessels. Suppose the

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AMVER computer shows that KPLH is steaming nearby:

SOS KPLH KPLH DE NMO NMO NMO
would be sent every 5 minutes both on 500kc/s and on all the HF frequencies.

In case no ship responded to 5TER's distress call, 5TER might give control to NMO. We would then periodically send:
AUTO ALARM

DDD SOS SOS SOS DDD CQ DE NMO
NMO NMO BT <repeat 5TER's distress msg>

where the DDD indicates that NMO is relaying a distress.

I mentioned that the last 15 seconds of the silent period were reserved for safety (TTT) and urgent (XXX) preliminary broadcasts. The problem was that 10 or 20 shore stations might have such a broadcast to put out and none of them knew who else would be a sending one. The result was sometimes a mess. To hear a dozen shore stations trying to send at the same time: *TTT TTT TTT CQ DE ...* was extremely funny!

Some would start a bit earlier than H:17:45 or H:47:45. I would start hearing *TTT TTT TTT CQ DE* sometimes as early as the last 30 seconds of an SP. EVERY shore station worked duplex and everyone wanted to be the first to get their broadcast out.

The Japanese stations were always the most polite. I'd hear a New Zealand TTT and an Australian TTT and a Japanese TTT, and the Japanese station would always stop his broadcast to yield to the others. Once the frequency was quiet, then the Japanese station would start his TTT prelim again.

A preliminary broadcast is a short announcement on 500 telling everyone

to shift to one's working frequency for the full broadcast text:

XXX XXX XXX CQ DE VLA VLA VLA
URGENT MARINE BCST MAN OVER-
BOARD QSW 472 UP

is a prelim broadcast.

The Australian shore stations were a well behaved unit (even though they might crush other countries trying to send prelims!). The following Aussie stations would take turns sending their prelims – as soon as one finished, the next would start: VII, VIA, VIR, VID, VIS, VIT, VIM, VIB.

The only New Zealand shore station I used to hear was ZLZ. Other South Pacific shore stations I heard nightly were:

FJP – New Caledonia

3DP – Fiji Islands

P2M – Papua, New Guinea

DUQ – Samoa

8BB – Indonesia

VJZ – New Britain

FUM – Tahiti (French Navy)

XSU – can't remember – used to hear a lot of X-- shore stations, and ones from Korea, Philippines, China, Central and South America ...

North Pacific West Coast shore stations that would boom in nightly included:

NMQ – USCG Radio Long Beach, CA

NMC – USCG Radio San Francisco CA

NOJ – USCG Radio Alaska

KSF – San Francisco commercial station

KPH – another SF commercial station

KHK – Honolulu commercial station

KOK – Southern California commercial station

To hams, 500kc/s would have been a

DXer's dream, but we took the excellent conditions for granted. Keep in mind that NMO had a VERY long receiving antenna – a long-wire over one mile in length.

Not only would there be pile-ups at the end of a silent period, but also at the top of each hour. That's when the low priority CQ CQ CQ DE ... WX AND TFC LIST QSW ... AR type of prelims would go out.

So, not wanting to take a number and wait for others, prior to sending a prelim broadcast, I would always send the Morse letter I or E as a way of saying 'Hey – don't anyone else send anything because I'm running ten thousand watts in A2 mode and I'll crush you ...' or something like that.

Seriously, if I had a safety or urgent message to send at the end of a silent period, as I was sending my TTT or XXX, I'd hear other countries under me as they started their prelim and they would suddenly stop when they heard us. NMO must have put out a commanding signal to the entire Pacific for everyone to yield to us. Generally, 500kc/s was very orderly and everyone was a gentleman.

Frequency Scheme

Ships had a choice of using any of the following working frequencies: 425, 454, 468, 480, and 512kc/s. Shore stations only had one fixed working frequency, so during an initial call on 500kc/s, a shore station would give his working frequency and the ship would choose one of the above to get as close as possible (so as to work duplex):

3LF 3LF 3LF DE CKHB CKHB TR K

CKHB DE 3LF GE QSW 471 K
DE CKHB R 471/480 UP
R UP
EE

Here, the ship CKHB called the shore station 3LF wanting to pass a travel report (TR). 3LF has a fixed working frequency of 471kc/s so the ship chose to use 480kc/s. 471/480 means: 'you use 471 and I'll use 480'.

Why these particular choice of frequencies? Note that 454kc/s was the old 660 metre wavelength, 480kc/s = 625 metres, and of course, our star frequency 500kc/s = 600 metres. If you haven't guessed, shore stations have 3-character callsigns, and ships have 4-character calls.

Many folks have shown their surprise that this kind of activity was occurring on a world-wide scale, and that it was just below the broadcast band. As a young pup, I knew something was lurking just below the rock and roll band. Living near NMQ (USCG Radio Long Beach, CA), I would occasionally hear an unusual on-and-off hissing sound which would get stronger the lower I tuned:

sheeeesh shesh sheeeesh shesh ...
sheeeesh sheeeesh shesh sheeeesh

(This was NMQ sending their CQ – of course my AM table-top tube radio didn't have a BFO). That prompted me to both study the code and take the cover off my AM radio to move down to the source of this noise. (Boy, did I ever ruin that radio. Thank goodness my parents bought me a Heathkit short-wave receiver – with a BFO).

To be continued

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FOR NOW, the issue of the Morse code testing requirement for an HF licence is settled. ARRL members were asked to consider whether or not to support the elimination of the requirement, and by a margin of better than two to one they favoured the status quo. The ARRL Board of Directors has heeded this mandate.

About 30 percent of ARRL members disagree. That's a minority, but a substantial one: about 50 000 members. Some believe the League's position is wrong, and no doubt they will continue to work to change it. They are welcome to do so; representative democracy can be messy and even unpleasant at times, but if history has taught us anything it is that there is no good substitute for constructive discussion – for the mutually respectful clash of competing ideas.

Meanwhile, it is important for all of us to remember that the issues on which we agree are far more significant than the ones on which we may disagree. It is fundamental that Amateur Radio as a whole needs to be promoted and defended, and the ARRL is the best means to that end; all else is secondary.

The League's position does not necessarily determine the issue. The Morse requirement is a part of the international radio regulations; these regulations are subject to the will of administrations, not of Amateur Radio organisations. But they have the force and effect of a treat-

The Joy of Morse

This excellent editorial, by David Sumner, K1ZZ, Secretary of the American Radio Relay League, appeared in *QST*, journal of ARRL, April 1998, and helps to put the Morse test issue into perspective. It makes a number of points about representative democracy in amateur radio which, by coincidence, are in marked contrast to the situation in the UK, as reported elsewhere in this issue. It provides some very interesting information about the current status of CW in the USA. Finally, it shifts the focus away from Morse as a licensing requirement to Morse as an enjoyable operating mode, highlighting a need to give more attention to training newcomers – not so they can pass a test, but so they can enjoy amateur radio to the full

ty, and the earliest that administrations will even consider amending or eliminating the treaty document will be towards the end of the year 2001. Two or three more years would pass before any changes in domestic rules could take effect.

In short, even those who support change must now accept that the peak of the new sunspot cycle will have come and gone before any change could possibly occur. It's time to move on to other matters.

The licensing requirement debate has obscured how CW is doing as an operating mode. To those who don't listen carefully to the parts of our bands where Morse is used, the answer may be surprising: it's doing very well indeed, even in the part of the spectrum for which it is no longer a licensing requirement. In his February column (in *QST*) VHF columnist Emil Pocock, W3EP, discussed 'The Necessity of CW' in exploiting unusual propagation modes, even in the world above 50MHz. This month Jim McMasters, KD5BUR, describes a marriage of CW and computers to take advantage of the most fleeting, yet the most reliable, of VHF propagation phenomena: meteor scatter.

QRP – operating with 5W or less – is an increasingly popular pursuit for which CW is particularly well suited. Tuning quickly across an HF CW band with your receiver set to an SSB bandwidth, you will miss the fact that there are scads of weak stations whose operators are happily pursuing a low-impact, minimalist approach to radio communication – often with equipment they have built themselves. Not only is it fun, it combines several of the best aspects of Amateur Radio: improvement of one's operating skills, technical self-training, and the development of an emergency communications capability.

CW contest operators can only chuckle when they hear of the impend-

ing demise of the mode. The fact is that scores keep climbing as both the number and the skill of the participants continues to increase.

The ARRL staff regularly commission random-sample member surveys to find out what you like and don't like about *QST*. The surveys also ask questions about your operating interests and activities. In a late 1997 survey, 46 percent of all respondents said they used CW regularly or occasionally. This places CW third in popularity among the operating modes, with FM at 78 percent and SSB at 74 percent. Among Extras, CW and SSB were tied for second at 78 percent, just behind FM at 81 percent. In other words, CW remains a strong second in popularity among HF operating modes, well ahead of everything but SSB.

Finally, if you read our mail you would be forced to conclude that amateurs who operate CW must enjoy Amateur Radio more than others. Complaints about rude behaviour, inappropriate language and jamming almost invariably involve voice (and occasionally packet) modes, almost never CW. For many, simply chatting by Morse with old or new friends remains the core of Amateur Radio and a pleasant way to wind down after a hectic day.

But there's another side to this happy picture. While there are enough skilled CW operators among the Baby Boomers to keep the dits and dahs flowing for another three decades or more, recently those of us who enjoy this mode have not done a sterling job of motivating and assisting others in developing those same skills. We have permitted

Morse to be seen as an unpleasant obstacle to be overcome, not as an enjoyable skill to be developed for its own sake. Except in a few local training nets, it is rare to hear poorly sent, slow Morse on the air any more. Paradoxically, that's not a good sign. CW operating is learned by practice, and you have to do it badly before you can do it well.

So, here is a challenge to accomplished CW operators and an invitation to other HF licensees. Sometime over the Easter weekend or at some other convenient time during the month of April, get on the air in the CW Novice bands. Maybe, invite a friend to join you in your shack. Keep your speed down, seek out and encourage struggling operators. Don't collect contacts as if they were scalps. Rather, collect them as you would new acquaintances with whom you share a common interest.

If you're a newcomer to CW, no matter what your licence class or how long you've been licensed, don't be afraid to make mistakes: that's what the Novice bands are for. We were all struggling beginners at one time, even if selective amnesia protects us from the memory of how truly awful we were!

David Sumner, K1ZZ

Reprinted with permission from April 1998 QST; copyright ARRL. (It's too late to take up K1ZZ's suggestion for April contacts with beginners, but MM readers can surely take up the idea on a permanent basis anyway! Make a habit of working and encouraging obvious newcomers whenever you can - remember, the future of CW is increasingly in your own hands from now on! - Ed.)

MM Back Issues

If you are a recent recruit to *Morsum Magnificat*, you may well be unaware of some very interesting articles published in years gone by. Details of the major features in some of the early issues which are still available are shown here (very limited stocks remain of those marked with a †).

These magazines are available from Morsum Magnificat, 9 Wetherby Close, Broadstone, Dorset BH18 8JB, England, price £2.20 each to UK addresses, £2.40 to Europe or £2.75 elsewhere, including postage.

Deduct 20% from the total bill if ordering 3 or more issues.

Please make your cheque payable to G C Arnold Partners, or quote your Visa or Mastercard number, plus expiry date. Credit card orders can also be faxed or phoned to 01202 658474 (overseas +44 1202 658474).

† MM31 – Christmas 1993

Acquiring the Radiotelegraph Code - 1

A survey of learning methods

'The Telegraph' - a book review

Morse in Great Houses

Using telegraphy to call the servants!

Reflections from Uncle Bas - 18

Uncle Bas goes to sea

Up, Up and Away!

Early tests of a weather reporting system

Computers and Morse

Gary Bold discusses how they cope

QUS?

Use and abuse of the Q-code

† MM32 – February 1994

Morse in the Associated Press
The pre-Teletype days
Rudder-Joke
How many Charlestons in the USA?
Progress by Mr Marconi – 1909
A report from The Times
Airship Over the Pole - *a book review*
Portishead Radio Today
Maritime HF CW in 1993
The US Morse Tests
Gary Bold looks at the arrangements
Borkum - First German Coast Station
Marconi installation of 1899
Acquiring the Radiotelegraph Code - 2
See MM31, above

MM34 – June 1994

CW on the Comet
RAF recollections from the late 1950s
So You Want to be a Morse Examiner? - 1
A view from the other side of the key
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Problems over aeriols
More Transmitting Plates
Tony Smith continues his researches
Home-Brew
A ship's Radio Officer's ingenuity
The Porthcurno Telegraph Museum
Its origins and development
The Code Book: Morse Code Instruction
Manual – *a book review*
The Language of Maritime Telegraphy
An ex-R/O remembers

MM35 – August 1994

Low-cost Easy-to-Build CW Filter
A design using standard 88mH inductors
The Telegraphic Inventions of Dr Dujardin
Early developments in line telegraphy
Museums of Interest:
Bo'ness, W. Lothian
Deep in the Heart of Texas - 1
Decision to emigrate
So You Want to be a Morse Examiner? - 2
See MM34, above

† MM36 – October 1994

Missing Out
Don't anticipate the next word
Australian Radio Operating in the Antarctic
Recollections from the 1960s
Smoother Speed Control for Keyers
Keyer Design
Reflections from Uncle Bas - 20
Bas joins his first ship
Deep in the Heart of Texas - 2
A job at last!
Dit Dit That final acknowledgement
Measuring Wheatstone Tape Speed
Checking the transmitter
Wireless Aids Man-hunt
How Dr Crippen was apprehended

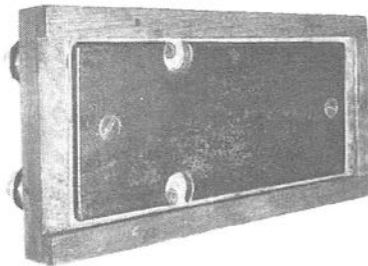
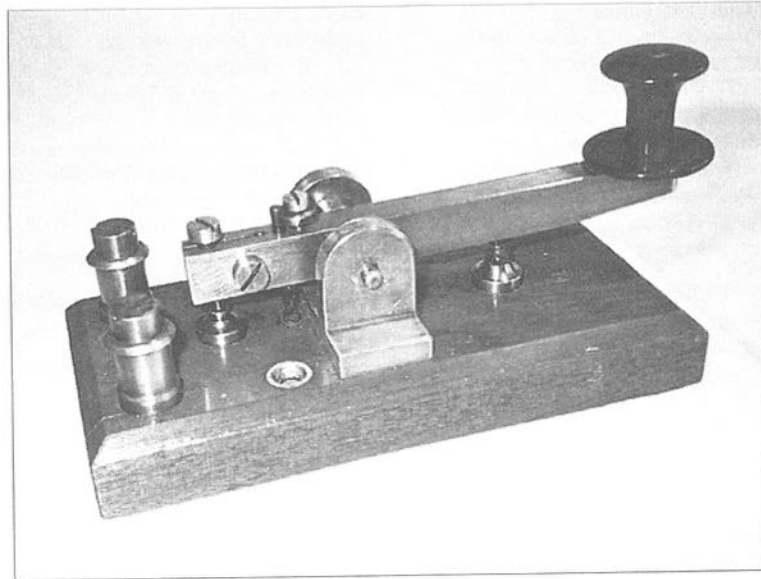
† MM38 – February 1995

The Samson ETM-SQ Paddle – *a review*
Future of Amateur and Commercial W/T
A look at developments
Morse Code and Amateur Radio
The IARU clarifies its position
NZART Statement – *Morse Code and*
Amateur Radio in New Zealand
Arizona Territory Boasted 'Wireless'
An early heliograph system
New Morse Software
The latest learning aid from Gary Bold
Post Office Key as Cigarette Lighter
An improvised 'carbon' arc

MM39 – April 1995

Reflections from Uncle Bas - 22
Working at PCH
Electronic Keyer Speed Calibration
Military Morse Training USA
Official Instructions from 1957
What Happened to TOPS?
A mystery investigated
Commemorating E.T. Krenkel
A Russian radio pioneer
A Morse Filter/Digital Decoder
Simple receiver/computer interface
First HST World Championships Rules
NMN (Chesapeake) Closedown

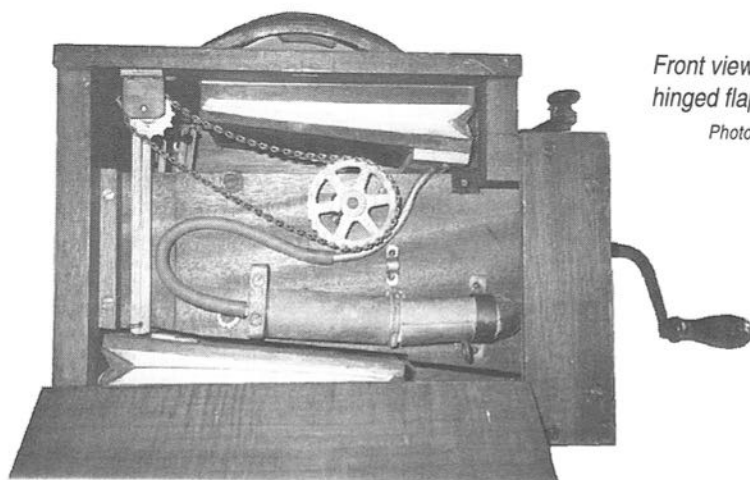
Info Please!



Unknown heavy brass key on mahogany base with iron plate inset underneath on waxed paper (see left). Unusual terminals. Info requested please

Photo/Collection: Jack Barker

*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*

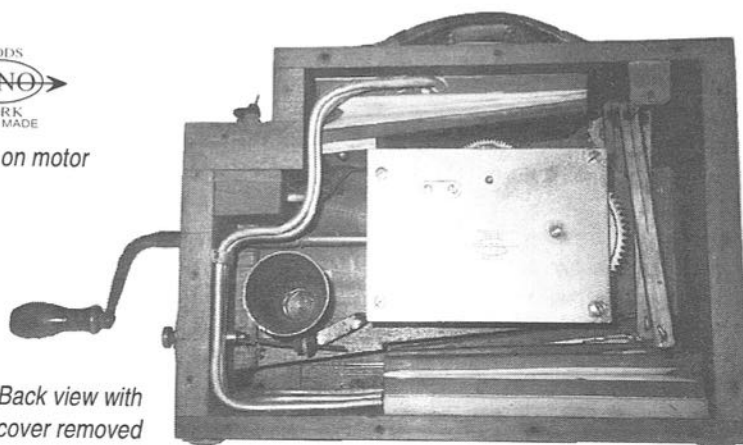


Front view with
hinged flap down

Photos: Jack Barker



Marking on motor



Back view with
cover removed

Clockwork and Compressed Air Morse Practice Set? The handle winds up a powerful clockwork motor with wooden arms activating bellows connected by pipes to an expansion chamber and tapered horn which has an outlet at the back of the case. When the key is depressed, a wire attached to the end of the key apparently lifts a valve controlling the amount of air released to the horn. A dial below the handle appears to control the valve possibly for note or volume. The key is of rather poor quality. The case is marked 'J.W. Walker & Sons, 27 Francis Street, London, W.C.' Scratched on top is the date '1912'.

There are no other markings other than on the motor, as illustrated. The owner has a pair of these instruments. Can anyone provide further information about them, or the firm of J.W. Walker & Sons, please?

THE OBVIOUSLY EXTENSIVE researches of Ludwig Koch, psychologist at Die technische Hochschule, Braunschweig, Germany, reported in Jan–Feb 1936, seem to be virtually unknown outside of Germany.

His goal was to discover the most efficient way to teach the Morse code to prospective radiotelegraph operators to meet the International requirements for commercial radio operators. These requirements were:

1. Send 100 words in five minutes,
2. Copy a 100 word telegram in five minutes, and
3. Copy 125 words of ordinary text in five minutes, one word being reckoned as five letters.

Koch's researches involved: determining what competent operators are doing, examining teaching methods in current use, then devising better methods, and testing them in actual classes.

His conclusions and recommendations seem to be the earliest real research into how best to teach the Morse code. They agree on the whole with the best methods of today, and may offer some further ideas of value to us. They are summarised here.

Tests to Determine what Competent Operators are Doing

Koch ran three series of tests to determine how the code is comprehended and for this purpose used four competent, actively-practising radio telegraphers.

The Koch Researches

by Wm.G. Pierpont N0HFF

Three of these operators had learned the code solely by sound, while the fourth was self-taught from printed code charts.

Sending Test

For the sending test, each operator was to send by regular hand-key the series of ten letters B C V Q F L H Y Z X at various speeds while monitoring his sending with a pair of headphones to satisfy himself as to its quality. Out of his sight and hearing a recording system made an accurate timed graphical record of his sending, so that the actual timing of signal and space durations could be examined in detail.

He was instructed to send, using standard International Morse timing, at each of six different speeds ranging from about 20 to 80 characters per minute. Standard International Morse timing was then used to compare his sending at all speeds.

Below about 10 wpm the only operator who closely conformed to standard timing was the one who had visually learned the code. The three others deviated considerably from the standard.

At 5 wpm these deviations were appreciable:

1. The dits were too short,
2. the dahs tended to be longer than 3 times dit length, and
3. the spaces between characters were too long. However, spacing between the components of a letter was almost perfectly equal to their dit lengths.

At successively higher speeds this situation changed slowly and somewhat irregularly until by about 10 wpm the character rates of all four operators were forming fairly accurate patterns of sound (nearly to the International Standard), except that the letters themselves were somewhat faster and the spaces between letters were somewhat longer than standard.

By about 12 wpm all sending had become quite consistent with the standard. (Only the well-known individual peculiarities of sending by hand were obvious. At 10 wpm and above these deviations were always very small.)

The three operators who had learned by sound obviously showed no real sense of sound patterning (Gestalt) at the very low speeds: no sense of unity, but rather just a series of separate elements strung together. Only by about 10 wpm were the code characters now felt to be entities of sound in themselves, patterns which were clear-cut in each operator's mind, no longer shattered elements, disjointed parts.

Receiving Tests

Test No. 1: Each operator was to copy

the 30 German Morse characters sent by a machine in perfect 'standard' timing at each of four different speeds over the same speed range as before.

At about 5 wpm these experienced operators hardly recognised a single character correctly! At 7 wpm only 40% to 60% of the letters were correctly identified. At 10 wpm all operators were getting about 95% correct. By 12 wpm all of them correctly identified every character. **Test No. 2:** Here the length of the spaces between the letters was doubled. This time the operators recognised almost all letters correctly at all speeds. That is interesting.

Conclusions

From these tests it was concluded that experienced operators recognise a code character by its overall acoustic pattern (Gestalt), and that this pattern stands out clearly only when sent at a minimum character speed of about 50 characters per minute. At lower speeds it is heard simply as a disjointed series of signals.

Koch concluded that these operators could recognise the too-slowly sent letters only when letter spacing was doubled, because this increased interval gave them time to integrate the sound and mentally speed it up to where they could recognise it. (A beginner would not have the skill to do this.)

The operator who had learned from a printed code chart apparently formed better proportioned characters at very low speeds because his visual mental picture was so strong. However, the price paid for this was that it limited his maximum speed of copying: he could barely meet the minimum requirements – a marginal operator. (See below)

Analysis and Criticism of Previous Teaching Methods

Analytical

The 'Analytic' Method introduces the student to the code using some sort of systematic arrangement, or chart, where the code characters are arranged by number and type of related elements, etc., in a visual form.

The student is required to memorise this as a mental picture before going any further. After that, the characters are sent to him in standard timing, at first very, very slowly. This means they are sent with long drawn out dits, dahs and spaces. The speed is then very gradually increased in tiny steps.

The faults with this system are:

1. To begin by learning visual symbols creates a useless detour.
2. Slow sending destroys any unity, or coherent sound-patterning.
3. The disjointed signal doesn't meet our need for a sense of unity.
4. The learner can hardly help counting the dits and dahs.
5. The long spaces between letters distract his attention from listening by: (a) encouraging him to think and try to put the shattered parts together to make sense of them, a shaped unity, (Gestalt), or (b) guessing what may come next
6. At each increase in speed everything sounds different, and he virtually has to start over again.

In short, the student is side-tracked and severely penalised all the way along: needlessly translating from bits and pieces of sound to try to put it together into a meaningful whole, then converting that to visual form and then finally to the letter.

By Sound

The 'Sound-Pattern' Method first introduces the Morse characters to the student at a character speed fast enough for them to be perceived as an acoustic unity (Gestalt), but with wide spaces between the characters.

However, the student has usually already visually mastered a code table or is encouraged to do so as he learns. Unfortunately, visual mental pictures are usually very much stronger and easier to recall than auditory sound patterns. Thus the student tends to convert the signal pattern he hears into the corresponding visual representation, break it into its component parts, and then finally into the letter. This complex action tends at least partially to destroy the wholeness of the acoustic impression.

This series of actions is encouraged by the long pauses between characters, giving adequate time for thinking, speculation and the cumbersome translation processes.

With increasing speeds the pause time becomes too short to go through all this, and so the student gets stuck below or around 10 wpm, just as with the analytic method. So this method tends to suffer about the same faults as the analytical method.

Conclusions

Both methods generally lead directly to that troublesome plateau at around 10 wpm, where the distinct change in perception from bits and pieces to coherent unity of each signal occurs. Analysing these methods, two classes of errors can be seen:

1. Errors which hinder the building of a

sense of acoustic unity. (a) Detour through an optical symbol. (b) Disintegration of the acoustic form of the character.

2. Errors which prevent going directly from acoustic impression to the letter:

(a) Thinking about the signal during long pauses.

(b) Guessing what may come next.

(c) Converting or translating from sound to visual and from visual to the letter

(d) converting or integrating into a total rhythm pattern.

The remedy is obviously to eliminate all visual references and associate the sound directly with the letter, to send fast enough from the very beginning so that coherent sound patterns are immediately sensed, and to eliminate non-normal spacing between letters.

Devising Better Methods

Tests to Establish a Better Teaching Method Character Speed for Initial Learning

The obvious goal was to meet the International requirements. The question is how best to get there. Would it be better to begin from the first using a 100 character rate per minute, or some lesser speed? This experiment was tried.

For the average student it was found that the demands on his concentration were significantly greater at 100 letters per minute than at 12 letters per minute, especially as more and more new characters were introduced. (Above-average students did well, however, at the higher initial speed.)

But, of course, if one learns initially at some lower speed, this is going to have to be increased to meet the requirements.

Various tests showed that about 12 wpm was an optimal speed for most people to begin learning. It is far enough above the 10 wpm plateau to avoid it.

Further tests showed that once the student had mastered all the code characters at 12 wpm, it was relatively easy for him to advance to 70 letters per minute, and by continuing to practise using the same principles, to advance fairly rapidly, step by step, to the required speeds. Thus a 12 wpm beginning speed seemed well justified.

Can the Rhythm Patterns be Enhanced?

Koch observed that in the early stages of learning, the beginner has to concentrate intensely to catch the letter rhythm-patterns. Is there anything which could be done to make this easier for him?

He observed that some teachers were speaking, or even almost singing, the sound patterns of code characters using the syllables 'dit' and 'dah', whose vowel qualities and lengths make sound patterns stand out somewhat like little melodies. This helps accentuate the differences between sound patterns and simultaneously promotes an immediate sense of meaningful unity of the acoustic patterns.

Could the use of two different pitches, one for dits and the other for dahs, make it easier for the new student to recognise the wholeness of the rhythmic pattern ('melody') of a code character, and make it easier to learn? Could it help reduce the stress caused by the intensity of his concentration in the early learning stages, while he is being introduced to the rhythms and trying to get accustomed to them?

It looked worth a try. He conducted

two classes simultaneously to evaluate the merits of the two-tone approach. After the first lesson, at each stage the two-tone group averaged two lesson periods ahead of the monotone group. (For the two-tone class the pitches were gradually merged into one by about mid-course.)

Results: The two-tone class in 24 sessions reached what took the monotone class 28 lessons to achieve. Total teaching time was 12 (two-tone) to 14 (monotone) hours. (With both groups there were the usual, occasional short plateaux, each lasting generally no more than one lesson period.) Conclusion: This is a worthwhile improvement to help the beginner.

What Letters Should be Taught First?

1. Distinguishing Between Similar-Sounding Patterns

What characters should first be presented to the student? Although tests had shown that students can, in their first lesson, readily learn to distinguish similar patterns such as the series E-I-S-H, the degree of concentration required had a negative effect on them.

Experience has shown that many sound patterns, as speeds rise, can be mistaken for similar sounding patterns, especially in regard to the number of dits which become pretty short at higher speeds: e.g., S and H, or U and V.

The dah characters do not run this risk so much: e.g., W and J. In addition some beginners do experience temporary confusion between mirror image characters, such as B and V, D and U.

Thus it seems best to begin with sound patterns which are distinctly and obvi-

ously different. In this way the student can learn more gradually to discriminate between smaller differences.

2. Letters that Tend to be Troublesome

Koch says these (for German students) are generally X Y P Q. (Z is very frequent in German.) If these are introduced during the first third of the programme, there is more opportunity to give them adequate practice, and this generally results in shortening the total program.

When to Introduce a New Character?

His tests showed that it is safe to introduce a new character into the list only after the student knows thoroughly all the characters he has already studied.

He set his working standard at a minimum of 90%: that is, not to introduce a new character until the students were getting at least 90% correct copy at any stage. This provided a good measure for comparison, and at the same time let the student evaluate his own progress.

It is indeed interesting that the test classes showed that students learned new characters almost in exact proportion to the number of lesson periods (total hours). The experiments also showed that three to four new characters were about optimum for any one lesson period.

Should Practice be by Groups of Letters?

The question he asked is this: should the student practise one group of characters until he knows them well, then work on a second group separately in the same way, and after that combine the groups?

He began this teaching test with characters composed of dahs only: T M O CH

(German single character CH). After enough practice (a couple of class sessions) to 'master' this group of letters, he began teaching the dit group E I S H by itself in the same way.

Next he combined these two groups together, and found that somehow during the intensive study of the second group, the students had forgotten the first group almost completely, and their confidence was badly shaken.

He had to begin all over again teaching these eight letters together until they were mastered together. After this, when these eight letters had been practised to the point where they were correctly and consistently identified, two new groups were studied separately in the same way as the first two groups.

First the group D B G, then after that the group U V W. Next, when these two new groups were mixed together, it was found that the D B G group had been forgotten. But worse, after these two groups had been re-learned together (D B G U V W) to the point of correct identification, and then combined with the first 8 letters, alas, the (combined) first two groups of 8 letters had been virtually forgotten!

It appears that the student's intense concentration upon a new group of characters by itself causes that group to override and replace what had been previously 'learned'.

He sensibly concluded that teaching by groups is wrong-headed. Therefore, the most efficient way is to introduce one new letter at a time and then immediately integrate it into the group of letters already learned, until finally the whole alphabet is complete. In this way all the

previously learned characters are under constant review and repeated frequently without lapses.

Troublesome Characters

Experience has shown that quite a few students have some trouble identifying one or more individual characters, tending to miss or confuse them. They show up as little plateaux on his record of advancement.

What letters these are varies greatly from student to student. The five-column copying forms described below serve to help identify which these troublesome ones are – needing more practice.

How Long Should Lessons be and How Distributed in Time?

He cited B. Jost's researches which found that people learn more quickly and retain it longer for a given total learning time, when the lesson periods are shorter and widely separated in time.

For example, for a total of 24 lesson periods (which always include reviews), to schedule four lesson periods a day for six days is four times more effective than to schedule eight lesson periods a day for 3 days, and that to schedule two lesson periods a day for 12 days is eight times more effective. That is, spread out the lessons in time.

What is the ideal length of a lesson period? Koch found by testing that to have a long morning lesson, and then after a corresponding length of rest period to continue in the afternoon, demanded too much intense concentration.

The students got tired too quickly and the repetition practice was not as effective as it should be. By trial he deter-

mined that a half-hour lesson period was about optimum. (Even a 45-minute period began to show diminishing returns.) He finally recommended two half-hour periods, one in the morning and one in the afternoon as optimum.

Testing the New Principles

Several courses using various of these principles were conducted. However, at the time of this report, he had not had classes where he could combine all the optimum test conditions. The students available were people who were interested, but not primarily, at least, for professional purposes.

Furthermore, they were employed at full-time work during the day, and were often tired by class time, which had to be scheduled in the evenings. Also, he could schedule only two or three half-hour lesson periods per week. Hardly ideal.

In spite of this progress was good, and no difficulties were encountered. Three to five characters were presented and learned in the first half-hour period. He aimed for many repetitions during each lesson, never less than ten repetitions of each character during a given lesson period, even after the entire alphabet had been introduced. Each successive period began with a lively review of what had been learned up to that point.

New Philosophy for Teaching

1. It is a mistake to let the student see a code character in any kind of visual form, because a visual impression is so strong that it will almost invariably lead to analysing it into dits and dahs, and thus shatter its unity.
2. Each Morse code character must retain

its unitary nature, its acoustic wholeness at all times. This is facilitated by:

(a) Sending at a speed of at least 12 wpm (60 letters/minute) from the very first. This will promote the sense of acoustic unity and bypass the discouraging 10 wpm plateau (transition) region completely.

(b) Emphasising the melodic nature of the code patterns initially, like a little tune, by the use of one pitch for the dits and a slightly different pitch for the dahs. These pitches are then gradually to be brought closer together so that by about the mid-point of the programme they are identical and continue from there on as a single pitch.

3. From the very first all practice is to be in five-letter groups, with normal spacing between the letters, as in ciphered texts, but with distinctly longer pauses between groups. This has a dual purpose:

(a) to leave no time for conscious thinking or translation between letters, and thus to require direct passage from sound pattern to the letter itself, and

(b) so that the student will immediately become used to hearing letters in groupings as in normal communication, and not as isolated letters.

Designing an Efficient Teaching Program

1. Recognise the Rhythms

The first exercise is to teach the student to hear and begin to become accustomed to hearing the different overall rhythms of sound and silence:

(a) Character rhythm: Character – space – character – space ...

(b) Group rhythm: Letter-group – space – Letter-group – space ... From the very

first, to get the student accustomed to overall rhythms, he is supplied with 'copying' sheets having several sets of five-column groups of little squares like graph paper, as shown in **Fig. 1**. They will also be used for all subsequent regular copying practice.

Five letter random groups are then to be sent. At first these will all be unknown letters. As he hears each acoustic pattern of a letter in a five-letter group, he is to place a dot in the square which corresponds to the position of that sound pattern within its group.

Thus he works along across the five-space line, becoming used to hearing each letter-rhythm pattern and then writing a dot for it in the appropriate square. (At this stage he only recognises the sound patterns as entities, nothing more.)

He continues to work line by line down the column as each new group is heard. In this way he begins the practice of focusing:

- (a) on the coherent acoustic forms and
- (b) on the associated rhythm, letter by letter, of the writing hand, and
- (c) on recognising the pause after each group.

A relatively short initial session (10 minutes or so) of this will begin to accustom him to these overall and detail patterns of sound as entities.

2. Recognise Differences

The second exercise is to start him on the way

(a) to recognise the differences in rhythm-pattern between two quite different-sounding letters, and

(b) become familiar with the sound patterns of each character, and to become accustomed to them. (All sending to be machine precise.)

A. This begins by introducing the two first characters just as sound patterns – without identifying what letters they are. They are to be sent separately and at random until the student definitely recognises and distinguishes their individual patterns (pattern one and pattern two, or whatever). At this time they are not yet to be identified with their printed letters: they are simply recognised as different patterns of sound.

B. Only after he has become accustomed to distinguishing the first two letter patterns from each other, and to the rhythm groups as they are, and writing dots in the little squares, is he to be told the names of these first two characters.

He should from then on have no difficulty in writing their letters down in the little squares whenever and as he hears them. This is to train him during these early stages, and later on, that he is to recognise and react to the presence of

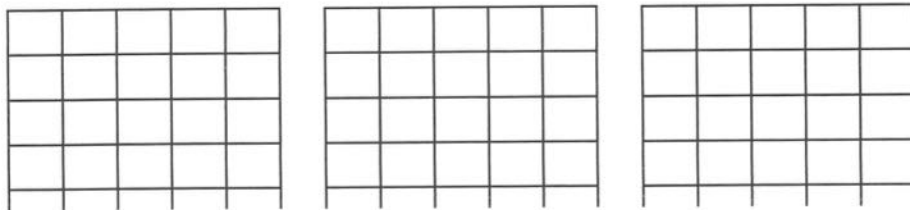


Fig. 1 - Layout of Koch's suggested 'copying' sheets

each and every acoustic pattern, either by identifying it or by a dot in the square, equally the larger groupings of letters identified by the longer space.

No Hesitation

It is obvious that, especially in the learning stages, there are going to be acoustic patterns passing by which he may or may not be able to recognise immediately and automatically.

He must get accustomed to giving such signals no thought at all (except to put down a dot), so that he can give his undistracted attention to the next incoming sound pattern. Otherwise, during the all-too-short pause after each signal which he does not immediately identify, and before the next one is heard, he is going to try to think about what signal it was. But while he is thinking about it the next signal arrives, tending to upset him and cause him to lose the flow of the rhythm.

This interruption must from the very first be stopped. His teacher must insist that whenever the student does not immediately and automatically recognise a sound pattern, he must put a dot in the corresponding square, then immediately let it go, and continue on with the rhythm.

This action must become habitual, and this technique has been devised to develop it from the very first. Now as he identifies the acoustic patterns he will write their corresponding letters in the little squares.

If the teacher chooses to mix into the 5-letter groups code characters which the student has not been taught, there should be dots to correspond with them.

After one or two short (about 10 min.) practice periods this way, the relation-

ships between the acoustic impression and the letters they represent should have become so closely knit together that there is an immediate transition from the acoustic sound pattern to the letter (or a dot). Only when this point is reached is a third letter to be added to the first two.

3. Introduce One New Letter at a Time

Only one new letter at a time is to be introduced and added to those already known. The criterion for adding a new letter is: when at least 90% of the letters already well known are correctly identified.

Each new letter is added to the group of recognised sound patterns in the same way as the first two were: first by simple recognition of the pattern without knowing what letter it is, and in contrast with the previously known ones, and only when he readily recognises its individual sound pattern is he to be told what letter it is.

As an example of the introduction of characters and the five-letter groups used, if the sequence of letters taught was H – F – A – G – C etc., in the initial two-character lesson, the groups were like:

1. HFHHF FHFHF ...
2. Next character: AAHFH FAHFH ...
3. Next: GGBAF GHFAH ...
4. Next: CCGAF GCAFH ..., etc.

(In this example he did not begin with the more frequently 'troublesome' letters.)

*Reprinted and specially edited
for MM from Bill Pierpont's
book The Art and Skill of
Radio-Telegraphy.*

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

RSGB and the Morse Test

I read with dismay the news that RSGB will no longer support a CW requirement for HF licensing. But I have to say that I regard such change as inevitable. Look at the facts – in the States, the novice licence is virtually a dead letter. The tech plus licensees all immediately go to 10 metre SSB and never again touch a key, except one on a keyboard agitating for more privileges for that licence class.

Sure, there are exceptions – but in truth they are rare. We are becoming dinosaurs.

I suggest we need to adopt a different tack. Change in the licensing requirements is inevitable. Let us concentrate instead on protecting what we have, and even improving it. What we need are 'protected' CW bands. Bands free of digital, AMTOR, RTTY and of course any form of voice modulation, and where only CW may be used.

We need at a minimum today 50kHz of protected spectrum on 80, 40, 17 and 12 metres, 75kHz on 20 metres, and 100kHz on 15 and 10 metres. During major CW contests of course this is not enough, but the rest of the time we do not begin to use what we have. And in the meantime, the digital modes keep

encroaching ever more, mostly with unattended automatic stations. And they get away with it. We need to stop this.

I am 55 years old. I hope to be active at least 40 more years. It will all be on CW. I want bands where I can work other like-minded CW ops. I don't give a fig for what happens outside the CW bands, except as it affects amateur radio overall. But my real interest is to protect the frequencies I need for CW operating.

If we can achieve protected CW allocations, by law or by convention, we can work on bringing newcomers into CW, even though licences will no longer require CW ability. We know we have something special. We need to sell it. But there is no hope of recovering times gone by, or turning back the clock.

Let's be realistic. My credentials as a CW operator are reasonably well known. Let's work on protecting our wonderful mode on a realistic basis.

Bob Locher W9KNI
Geyserville, CA, USA

(Widespread discussion started on this issue in the USA before the RSGB made its official announcement on May 27. This is an early reaction which originally appeared on the Internet's CW Reflector. – Ed.)

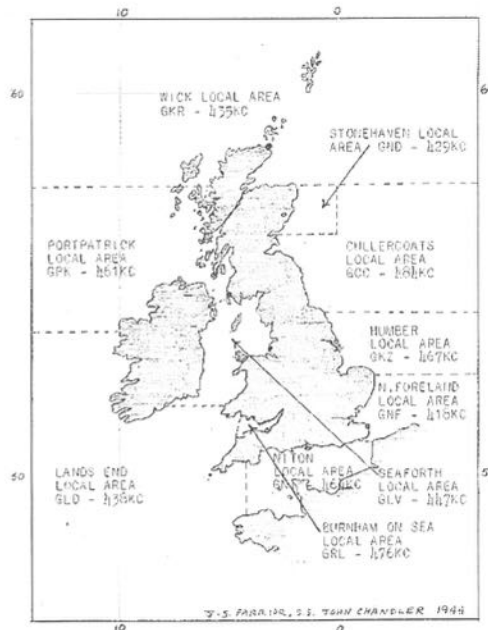
Chart of UK Shore Stations – 1944

In early 1944, while I was a Radio Officer in the US Merchant Marine, I copied the attached chart from a document so that I could post it on the bulkhead of the shack for ready reference.

During the war, merchant ships seldom transmitted, but messages were often transmitted by coastal stations. Except for general information, most messages were coded.

The Radio Officer was responsible for decoding the message. A typical message would be a change of destination. During the war, I sailed in all of the UK local areas except the North Foreland Local Area (GNF).

*Jim Farnior, W4FOK
Fernandina Beach, Florida, USA*



Photos in MM57

The following information may be of interest to *MM* readers:

The 'Unknown German key' at the top of page 41 is described by Louis Meulstee in the *AWA Review*, vol 8, 1993 (pp29 & 31), as a USSR key, used with vehicle-mounted high-power radio stations such as the R102M, around 1985.

Regarding the 'unknown key MM38' on page 45, I have a similar key, but on mine the wiring is somewhat different with contacts 2 and 3 inverted. Mine is marked on the base 'P.S. 213A, INST N 149092', and was probably made by the Marconi Company.

In the *AWA Review*, vol 3, (p.109),

Murray Willer illustrates a similar key which was used at a Marconi transatlantic station in Drummondville (Canada) from 1926 to 1963. Murray says it was possibly made by Ericsson.

*Jean Le Galudec
Nancy, France*

AWA Keys

Further to my letter in MM57 (p.46), the Manipulating Key R688A was used with the 3B Teleradio which was released between 1940 and 1942 (I have some contradictory dates). The 3B was originally intended for use by mining companies, small boats and missionaries.

Since many of the Coastwatchers

came from these fields, and the 3B was already on location, its use by the Coast-watchers was a natural outcome. I assume the R688B is merely a slightly later version of the R688A

Thus, the Key, Transmitting 3R2018 would not have been originally supplied with the 3B set as suggested in my letter, but was used with the 3BZ (c.1944) and the AMC-145.

*Tony Bell VK5UA
Broadview, South Australia*

Morse Learning Methods

I especially enjoyed Tony Smith's article on 'Morse Learning Methods' in MM57 (p.24). Thank goodness I didn't get exposed to any of those memory schemes when I was learning the code. I first learned American Morse as a boy, and I remember that I learned, without much concern for order, the dots and dashes and special spaces that make up each American Morse character. I think most learners find that to be quickly and easily done. From that point on, it was simply a question of listening to the sound of the characters.

Learning International Morse was similar, except perhaps easier. Whereas it is difficult for one to make a sound that approximates the sound of a sounder, the tone can be simulated by whistling, softly hissing, or saying dit dah.

You can take this a giant step further and put your mind to work. Whether practising landline or radio code, it is easy to 'hear' in your mind's ear the sounds of the characters you have learned – by looking at printed text and letting your mind's ear hear the sound of the character being viewed. If you mentally

picture yourself actuating a telegraph key (hand key, bug, or paddle) while doing this exercise, you will, in effect, be both sending and receiving. That is very powerful practice, and you can do it any time.

It is a very good way to make use of time that would otherwise be wasted. You can take it a step further and make up text as you go, or you can put to practical use some text that you have memorised for some other purpose. Anyone who has learned the sound of the characters can quickly check this out in a few minutes, regardless of their skill level. Start at the beginning of this paragraph, and before you get to the end you will be convinced of the potential of this approach.

Jim Farrior W4FOK

Fernandina Beach, Florida, USA

Jim's idea of 'hissing' the sound of a Morse character is not unlike a method I devised for myself when presented with signals by flashing light, not long after going to sea.

I was on the bridge one evening when a passing ship began calling. The Watch Officer, who was rather busy with other tasks at the time, handed me an Aldis lamp and said: "Answer that for me, Sparks!". The flashing light made no impression on my brain whatsoever, and I had to admit defeat.

Some time later, watching whilst one of our deck officers talked to another ship on a signal lamp, I somehow found that if I 'thought' a hissing sound in step with the flashes my eyes were seeing, my brain could happily read and interpret the hissing. Don't ask me how I discovered this; I couldn't tell you! – Ed.

Codes on Stamps

by Don deNeuf WA1SPM (SK)

As any seasoned philatelist can tell you, the depiction of simple telegraphic codes on postal stamps issued years ago was not especially a rarity. But one of the most interesting stamps to appear, and one which caused some confusion amongst even experienced communicators, was the 5 yen stamp reproduced here which was released by the Japanese postal authorities on 6 October 1954. This commemorated the 75th anniversary of Japan's joining the International Telecommunications Union.

Those communicators who had forgotten about the old Japanese telegraph code were puzzled by the top strip of tape from an old telegraph ink register. In that code it reads 'KO-KU-SAI', the Japanese word for 'International'.

On the right side, running from top to bottom is a strip of Wheatstone perforated transmission tape in the same code, reading 'DENKI', meaning 'Electrical' in Japanese.

On the bottom of the frame there

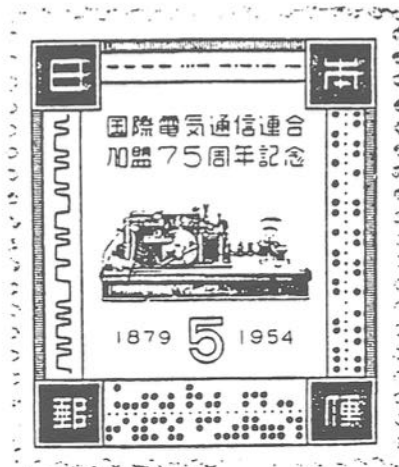
appears a real brain twister for many. It is a strip of 6-unit Japanese teleprinter tape which reads 'TSUSHIN' ('communications'), followed by 'RENGO' ('union') and 'KAMEI' ('accession'), and then 75 'SHUNEN' ('years').

Finally, on the left hand margin of the stamp there appears a strip of conventional radio circuit syphon recorder undulator tape (called 'ANDURATA' as spoken by old-time Japanese operators), again reproducing the old kata-kana code and reading 'KINEN', meaning 'Commemorative'.

The two-line inscription in Japanese characters in the upper portion of the

stamp translates into 'International Electrical Communications Union Accession (or affiliation) 75 year commemoration.' A very old Japanese Morse telegraph tape inker (with a 'key on base') is depicted in the centre of the stamp.

This stamp is generally considered to be the most unique ever issued from the standpoint of telecommunication code history.



Telegraphy on Stamps

A further selection



100 years of the Danish States
Telegraphs, 1954. 30 øre



Commemorating 150 years of the
electric telegraph, 1987. Monaco 4^F



Scheveningen coast radio
station. 75c



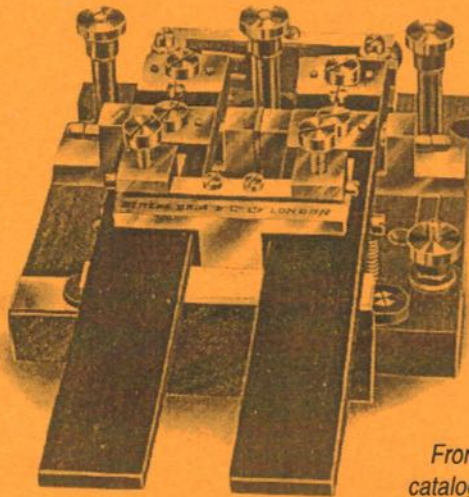
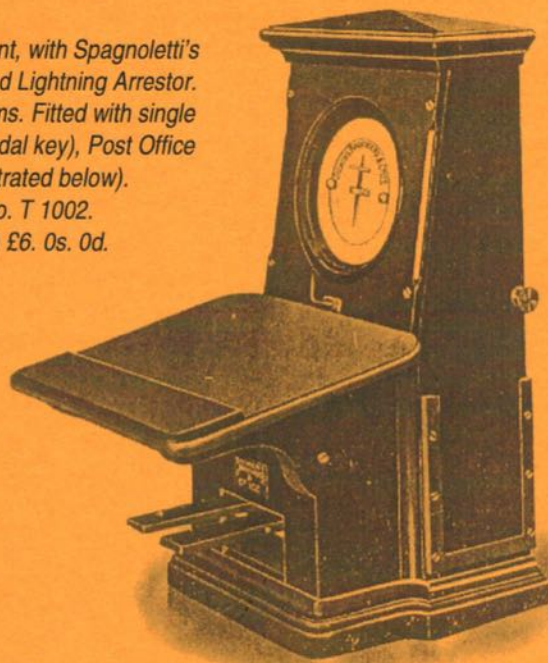
Two of a series issued by the
UK Royal Mail, commemorating
Marconi's first wireless message,
1895. 41p and 60p



Centenary of the telegraph in
New Zealand, 1962. 3^D

Single Needle Instrument, with Spagnoletti's Induced Needle Dial and Lightning Arrestor. Coils wound to 200 ohms. Fitted with single needle commutator (pedal key), Post Office Pattern (as illustrated below).

*Catalogue No. T 1002.
Price (in 1911) £6. 0s. 0d.*



Single Needle Commutator (Pedal Key), Post Office Pattern. As fitted in Instrument T 1002. Catalogue No. T 1003. Price (in 1911) £3. 5s. 0d.

From the Morse Telegraph Apparatus catalogue of Siemens Brothers & Co., Ltd, London, 1911.

(Contributed by Fons Vanden Berghen)