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MORSUM MAGNIFICAT was first published as a quarterly magazine in Holland, in 1983, by the late Rinus Hellemons PAOBFN. 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 **38–53 only** are now available from the Editorial offices (see top of page). Price including postage £2.20 each to UK; £2.40 to Europe: £2.75 elsewhere by airmail. Deduct 20% if ordering 3 or more.

ON OUR FRONT COVER

Norwegian EB Key. This key should be familiar to those who have been Radio Officers on Norwegian ships. Made by Elektrisk Bureau, Oslo, in the 1950s, it was used extensively in Marine applications. The liner Queen Elizabeth 2 may have had one, as her main transmitter was delivered by the EB company. The key is of slim design with stylish black plastic and nickel/chrome plated brass. Transparent cover. Ball bearings, Baseplate 175x60mm. It is somewhat reminiscent of the Danish MP-key from the same period, shown in MM50, page 41. Photo/Collection: Einar Hogseth

Comment

N THIS ISSUE you will find the final part of Tony Smith's investigation into methods of learning the Morse code. It has been fascinating to see the various ideas which have been used over the years – some of them really weird and wonderful!

As I write, it is 48 years ago almost to the day that I was first introduced to the world of dots and dashes, whilst studying for my PMG tickets at the School of Marine Radio at Hamble, Hants. I must admit I am not now 100 percent clear as to the various stages we went through in bringing us up to the 20 wpm and 25 wpm levels we needed to pass. I do recall, though, that we began by being taught the symbols as 'di-dah', 'dah-di-di-dit', 'dah-di-dah-dit' and so on, at the rate of five or six a day, being tested on the day's complement at the first Morse class of the following day.

This test caused consternation on the second day, as all of us gave the wrong answer for the letter 'F'. It transpired that in a moment of inattention, our lecturer had told us that 'F' was 'di-dah-di-dit'! Since the whole intake of students was new to the code, and we were not allowed any reference books showing the Morse alphabet at that stage of the course, none of us had known it was wrong. We were told to forget that letter, and were taught the correct one the following day. By the end of the first week, we had more or less learned the whole alphabet, and from then it was just practice, practice, practice.

At a later stage of the course, we were introduced to Morse sent by a Wheatstone tape reader, or 'Creed machine' as it was always referred to at Hamble. The lecturers had a selection of tapes, both plain language and code groups, which we listened to over and over again. As we got to know some of the tapes, we would mentally send along with them as we listened – I found this marvellous for establishing a good sense of rhythm in my sending.

I never know how to answer when people ask me the best way to learn Morse. Instructors form their own opinions of the system which works best, but from the student's viewpoint, he or she only ever learns it once, and so is not really in a position to compare methods. I know that the way we were taught at radio school worked, for only one of the course – an ex-REME radio mechanic – failed to make the grade to 20 wpm, and most made it to 25. With that one exception, we all went off to begin seagoing careers.

Geoff camold G3GSR

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News

MARS Report Incorrect

According to the *W5YI Report*, 1 September 1997, the report in MM53 (p.2), and elsewhere, that CW nets had been resumed on Military Affiliate Radio System (MARS) nets was incorrect due to a misunderstanding. A message sent to all Army MARS members and stations by the Chief Army MARS, 18 August 1997, states that the original decision that CW was no longer to be used on Department of Defense MARS circuits as from 1 October 1996, is still in effect and that there has been no change to this policy.

Second FASC Report Published

The International Amateur Radio Union's Future of the Amateur Service Committee has published its second report on matters expected to be considered by the World Radio Conference in 1999, or later. The first report of the Committee was summarised in MM46, p.16.

The FASC proposals are intended for discussion by successive IARU Regional conferences leading up to WRC-99. This is part of a process attempting to achieve a unified approach by IARU member-societies to their national administrations on various revisions to the amateur radio regulations to be proposed by the IARU to the WRC.

Amongst other matters, the first report contained a conclusion that the

present international requirement for a Morse test for operation below 30MHz should be discontinued.

This conclusion was considered at the IARU Region 1 conference in Tel Aviv in 1996, resulting in a Recommendation being endorsed by the conference as follows:

'Morse Code (S25.6)

The existing S25.5 definition should be retained.'

The second FASC report says: 'We took advantage of our meeting in Tel Aviv to review our work... We simply invite further comment.'

In essence, the FASC has moved slightly from its earlier suggestion that the Morse test be totally discontinued as an international requirement. It now suggests that the regulations, which at present provide no guidance on the technical and operational qualifications required of a person wishing to operate an amateur station, should contain a list of non-mandatory 'topics' (not yet specified) in respect of which a knowledge should be demonstrated.

This, it says, would leave each administration free to take whatever measures they judge necessary to verify the qualification of a person seeking to operate an amateur station.

It also says, 'If the recommendation was to be consistent with the present Radio Regulations one of the topics that

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would be specified for operation below 30MHz would be the ability to send and receive Morse code.'

This suggested approach was considered by the IARU Region 3 Conference (representing amateur radio organisations in 20 Asia-Pacific countries) held in Beijing, China, from 8–12 September 1997.

The conference agreed an ARRL suggestion that the proposed, as yet unspecified, examination 'topics' for licensed operation should be mandatory rather than non-mandatory. This change, it suggested, would give the IARU greater control over the standards for entry into amateur radio, since the IARU has a voice in the ITU-R Study Group and Working Party that would consider the matter.

Discussion on the question of the Morse test itself indicated strong support for retention of the Morse treaty requirement by the majority, but comments of a significant minority were in favour of eliminating the mandatory requirement and the adoption of a more flexible approach.

Following the Beijing Conference, the FASC is to prepare a further report, noting the conclusions of the conference and any other views or comments received from organisations or individuals in the meantime. The IARU Administrative Council will determine IARU policy on all the matters under discussion (including the question of the Morse test) after it receives the final FASC report in September 1998.

The full text of the second FASC report can be found on the IARU home page at URL http://www.iaru.org/

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The FASC will welcome comments from individuals on the report, which may be sent to the Committee as follows:

By Mail: IARU FASC c/o IARU International Secretariat PO Box 310905

Newington, CT 06131-0905, USA.

By FAX: +1 860 594-0259 (label 'To IARU FASC, c/o IARU International Secretariat')

By electronic mail: iaru@iaru.org (Subject: 'To IARU FASC')

Down-Under Low-frequency DX Firsts

The first two-way VLF CW contacts between Australia and New Zealand have been logged. ZL3FJ used 100W on 176kHz and a 122-metre (approximately 400 feet) mast to work AX2TAR (operated by VK7ZAL) in Australia late August. Reports were Q5 on both ends of the circuit. An attempt at an SSB contact was less successful.

VK7RO and VK7ZAL both had solid copy on ZL3FJ, who was unable to read AX2TAR due to QRM from local power line carriers. The mast used by ZL3FJ had recently completed service for an MF AM broadcast station. – Thanks to Bob, ZL2CA, and the Wireless Institute of Australia

(From the ARRL Letter Online, September 19, 1997, published by the American Radio Relay League.)

RUFZ Version 3.0 Released

RUFZ is a computer program for an off-line 'CW callsign reading contest' simulation as used in the IARU World

High Speed Telegraphy Championships, and previously described in MM45, p.38. It is used for the worldwide RUFZ-TopList competition which publishes an ongoing table of results every week.

Version 3.0 of RUFZ was released by its author, Mathias Kolpe DL4MM, at the HAMRADIO-fair in June with a number of improvements including the ability to listen to a call for a second time if required, and it can now be used with either DOS or Windows 95 (MS-DOS-mode). Full details of all improvements are provided with the new software which can be obtained as follows:

1. Packet Radio

Search for RUFZ30!.EXE at @CON-TEST in any PR-BBS or mail a request to DL4MM@DB0TUD.#SAX.DE.EU for personal 7PL-files.

2. Internet:

ftp://kgiprn.geo.tu-dresden.de/pub/hamradio/ rufz

http://www.pobox.com/~toec/rufz.htm

http://www.geocities.com/SiliconValley/Park/ 4182

http://www.sk3bg.se/contest/rufz.htm

3. E-mail info-server

mail to: info-contest@dumpty.nal.go.jp with the command in the body:

#get rufz30.uu

When reply is received, uudecode the body when rufz30!.exe will be generated. Run rufz30!.exe at the DOS-prompt to obtain all RUFZ files.

4. By Mail

Free disc from Mathias Kolpe DL4MM, Franz-Mehring-Str. 8, D-01237 Dresden, Germany. Charge for handling/mailing only: For Europe, send 5 DM or US \$3.00 or 2xIRC. For addresses outside Europe, send US \$5.00 or 3xIRC.

It is not necessary to be a super highspeed Morse expert to take part in the Toplist competition. The 'top guns' will undoubtedly take it seriously, but it is also very enjoyable for the less-skilled and it can help them improve their Morse reading and typing skills.

(Information from DL4MM)

Intruders on 7MHz – French Concern

Jean Claude Perrottey F9IQ, former president of the Union Française des Télégraphistes, has alerted the European CW Association to the dangers posed to CW operators by the intrusion of packet and other non-CW stations into the amateur 7MHz band between 7.020 and 7.035MHz. The resultant heavy interference, he says, is causing many QRP/ CW stations to disappear from part of the 7MHz band allocated exclusively for CW operation under the IARU Region 1 bandplan.

He believes these stations are trying to move CW operators from their allotted frequencies. Writing in the EUCW Bulletin, 1997/2, with the agreement of UFT, he asks all EUCW clubs to alert their members to this danger and to urge them to work as much as possible on the affected frequencies to emphasise that they are intended for CW operation only.

ORACLE Campaign

The New Zealand based 'Organization Requesting Alternatives by Code-Less Examinations, Inc.', has sent a formal letter to the telecommunications regulatory agencies of 64 countries. In it they ask for support in ending the Amateur

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Radio Morse code examination requirement which is due to be discussed at the World Radio Conference in 1999 (WRC-99).

As an alternative to the present international requirement, ORACLE suggests that individual administrations should introduce suitable alternative ways for radio amateurs to qualify for operation on frequencies below 30MHz, such as a higher level technical qualification.

(Information from W5YI Report 1 September 1997)

New Dimensions in Morse Decoding

Under the above heading, a recent article in *News from Rohde & Schwarz* describes a new professional Morse Radio Decoder GM094 designed for 'tolerance to different types of keying' including 'varying dot-dash ratios from letter to letter (within the range 1:2 to 1:5)' and 'fluctuations in keying speed (by a factor of 3)'. With many advanced features, 'It is implemented as a software module that can be run on a DSP card in a PC which can be connected to almost any shortwave receiver.' The decoded signals are displayed on screen and are saved on hard disk as a text file.

The article comments: 'Because Morse continues to be widely used, its monitoring is an important focus. The nature of Morse, however, makes monitoring the signals highly labourintensive. The decoder is aimed at cutting down on personnel especially for routine tasks and at extending the range of channels covered, even in unmanned operation.' It continues with an assessment of Morse as a communication technique:

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'Morse has a long tradition as a reliable shortwave transmission technique and still remains an important medium along with more advanced techniques. This is primarily due to two factors.

1. Compared to other kinds of signal, Morse signals are affected relatively little by the various types of interference present on the transmission path.

2. Neither transmitter nor receiver are operated automatically but by trained operators. Routine and experience enable them to compensate for interference on the transmission path as well as for any shortcomings by the person they are communicating with.

Morse profits from human capability to adapt to very different transmission errors occurring in a message guided by its context, and thus to tolerate errored transmissions.'

(Article sent by Dennis Goacher, G3LLZ, who comments: 'They think Morse code is alive and well, and are still making equipment to prove it!')

Handbook of Radiotelegraph and Radiotelephone Codes, Prowords & Abbreviations

We have been advised by John Alcorn, VK2JWA, that the price for the above handbook dispatched by airmail, as mentioned in MM53, p.6, is incorrect. Instead of A\$18.00 this should be A\$21.00.

Full details are on John's home page: http://www.nor.com.au/community/sarc/ phonetic.htm

which includes the Australian Post Prices link and a currency calculator to enable the actual cost to the buyer to be ascertained.

EUCW

Fraternising CW QSO Party 1997 The European CW Association's 17th CW Fraternising Party will be held on

15–16 November 1997 as follows (all times UTC):

15 November

1500-1700	7.010-7.030MHz
	14.020-14.050MHz
1800-2000	7.010-7.030MHz
	3.520-3.550MHz
16 Novembe	er

0700-0900	7.010-7.030MHz
	3.520-3.550MHz
1000-1200	7.010-7.030MHz
	14.020-14.050MHz

All amateur and SWL stations in Europe are invited to enter in one of the following four classes: A – Members of EUCW clubs using more than 10W input or 5W output. B – Members of EUCW clubs using QRP (less than 10W input or 5W output). C – Non-members of EUCW clubs using any power. D – Shortwave listeners.

Exchanges: Class A & B, RST/QTH/ Name/Club/Membership number. Class C, RST/QTH/Name/NM (i.e., not a member). Class D, Log information from both stations.

Call: CQ EUCW TEST. Stations may be worked or logged only once a day, per band, during the contest.

Scoring: Class A/B/C – 1 point per QSO with own country, 3 points per QSO with other EU country. Class D - 3 points for every complete logged QSO.

Multiplier, all classes: 1 multiplier point for each EUCW-club worked/logged per day and band.

EUCW clubs are AGCW-DL (Germany); Benelux-QRP; BTC (Belgium); CTCW (Portugal); EAQRP (Spain); EHSC (Extremely High Speed Club); FISTS; FOC (First Class Operators); G-QRP; HACWG (Hungary); HCC (Spain); HSC (High Speed Club); HTC (Switzerland); INORC (Italy); MCWG (Macedonia); OHTC (Finland); OK-QRP (Czech Republic); SCAG (Scandinavia); SHSC (Super High Speed Club); SPCWC (Poland); SLDXC (Germany); UCWC (Russia); UFT (France); U-QRQ-C (Ukraine); VHSC (Very High Speed Club), 3A-CW-G (Monaco); 9ACWG (Croatia). Members of these clubs are especially asked to support this event which is one of the principal EUCW activities of the year.

Logs: to include date, UTC, band, call, info sent, info received, and points claimed per QSO.

Summary: to include full name, call, address, total points claimed, station details, power used, and signature. Entries to be received by the EUCW Contest Manager, Gunther Nierbauer DJ2XP, Illinger Strasse 74, D-66564 Ottweiler, Germany, not later than 31 December 1997.

Certificates will be awarded to the three highest scorers in each class. Additionally, this event offers a good opportunity to make contacts qualifying for the 'Worked EUCW' Award (see below).

Worked EUCW Award

The European CW Association's 'Worked EUCW' Award offers an award certificate printed on heavy parchment type paper depicting the map of Europe 'at the time of Samuel F.B. Morse'. There are three classes of award, 'Stand-

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ard', for contacts made using any authorised transmission power; 'QRP', for contacts made using not more than 5 watts RF output transmission power; and 'SWL', for shortwave listeners.

Open to both members and non-members of EUCW Clubs, the requirements of the award are confirmed CW only contacts (SWLs – CW stations heard) with 100 different stations who are members of EUCW clubs, over 3 different amateur bands with a minimum of 20 stations worked or heard in each band. The total of 100 stations worked or heard over 3 bands must include at least 3 members of 6 different EUCW clubs.

Only contacts made on or after Morse bicentennial day, 27 April 1991, count for the award, with up to 40 stations worked or heard on that day counting for double points. Full details of the award may be obtained by sending two IRCs to the EUCW Award Manager, Gunther Nierbauer DJ2XP, Illinger Strasse 74, D-66564 Ottweiler, Germany.

The EUCW Fraternising CW QSO Party (see above) offers an excellent opportunity to gain qualifying points for this prestigious CW-only award.

HOT Party

AGCW-DL's annual Home-brew and Old-Time Equipment Party will be held on Sunday, 16 November 1997, from 1300 to 1500 UTC on 7.010–7.040MHz, and 1500 to 1700 UTC on 3.510–3.560MHz.

Participants: All radio amateurs using home-brew equipment or commercial equipment more than 25 years old. Home-brew or old-time receivers may

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be used with modern transmitters or viceversa. No keyboards or automatic readers to be used.

Mode: Single operator, CW only. Maximum input 100 watts.

Call: 'CQ HOT'.

Categories: A – TX AND RX homebrew or older than 25 years. B – TX OR RX home-brew or older than 25 years. C – QRP – TX not more than 10W/5Winput/output, either home-brew or older than 25 years.

Exchanges: RST, serial number (starting with 001 on each band), and category, for example, 579/001/A.

Scoring: A working A; A working C; C working C = 3 points.

B working A; B working C = 2 points. B working B = 1 point.

Logs: Including a specification of the home-brew or old-time components of the station, should be sent to – Lothar Grahle DL1DXL, August Bebel Str. 15, D-01468 Moritzburg, Germany, to be received not later than 15 December 1997. **Please note new address**.

(Information: Activity Group CW – Germany)

CW Used in Major Rescue Operation

The American-flagged container ship *President Adams*, sailing from Busan to Kaohsiung in the East China Sea, was involved in a major distress communications operation on 19 August 1997, when it received a NAVTEX message that the Panamanian-flagged 6388 grt M/V *Anatoli I* was in distress.

Radio Officer Paul Gatts received a CW call from JNJ/Kagoshima Radio on 500kHz, confirming the distress on

478/480kHz. He also received VHF messages from other ships and relayed them to the Japanese Safety Agency (MSA) via CW through JNJ.

Additionally, he made calls on 2182kHz, VHF, and 500kHz in an attempt to contact the *Anatoli I*, as directed by MSA. The coordination and direction of the search and rescue between the *President Adams* and MSA was conducted entirely in Morse.

The entire crew was occupied with search and rescue activities in treacherous sea conditions. As darkness fell R/O Gatts moved to the bridge to assist with VHF contacts with fixed wing aircraft, helicopters and other vessels in the area. In all, the *President Adams* was in Morse contact with JNJ for seven hours.

The ship was released from the distress scene by a direction from a Japanese aircraft on VHF after approximately twelve hours overall crew effort. R/O Gatts reports one comment heard: 'Not too anxious to see the antennas pulled down after that experience!'

Of the nineteen crew on board the stricken *Anatoli I*, thirteen were rescued, two bodies were found, and four crew members are still missing.

(Information from ARA Radio Press Report, 3 October 1997, relayed to MM by Ted Phelps, W8TP, Editor, Society of Wireless Pioneers' World Wireless Beacon.)

GMDSS News

Implementation Date Put Back – Following considerable debate at COMSAR 2, the second meeting of the IMO Subcommittee on Communications and Search and Rescue, the 68th session of

the IMO Maritime Safety Committee (MSC) has decided that the deadline of 1 February 1998, on which SOLAS vessels would no longer be required to maintain aural watch on VHF channel 16 (*i.e.* the VHF maritime distress channel, 156.8MHz. – Ed.), is to be rescinded. A new date for this obligation to be discontinued will be decided at COMSAR 3, to be held at IMO in February 1998.

False Alerts – The UK, Norway, France and the Netherlands all reported that GMDSS false alerts were currently still running at between 90 and 100 percent for each of the various transmission methods

Equipment May Not be Fitted in Time – A leading GMDSS equipment manufacturer has warned that almost half the ships that will need to comply with GMDSS regulations by the 1 February 1999 deadline have yet to be fitted with the necessary equipment. He said there would be sufficient manufacturing capacity world-wide to cope with the onslaught of orders, but he predicted that installing the equipment in time for the deadline might present a far more serious problem.

(Excerpts from ARA Radio Press (weekend broadcast by the American Radio Association), 3 October 1997, copied by W8TP)



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HE CW KEYING that I hear on the bands sometimes leaves a lot to be desired. I recently heard a chap running the characters together so badly at 15 wpm that I could hardly figure out his callsign!

What made it worse was that no-one came back to his call, and after six or seven CQ calls the station disappeared. The operator went away frustrated.

Will this chap keep trying or will SSB get another convert? I wonder what his priorities were? Had he even thought about CW priorities? Let's spend some time thinking about sending priorities for CW operators.

Me First

My priorities are to work conversational CW and to improve my speed to my personal limit. I have very stiff fingers and my finger response time is so bad that I make a mess with a paddle at 25 wpm.

Unfortunately, I am unable to use an iambic keyer and my hand key work is OK only for the first five minutes. Then I start to slide pretty quickly.

Accordingly, I use a keyboard almost exclusively. Keyboard sending can sound excellent, or it can sound very 'off' if one does not overcome the issue of latency. This is the time delay from when a keyboard key is pressed to when the CW starts to come out of the transmitter.

CW Sending Priorities

Larry Kayser, VA3LK, has a new bi-monthly Morse column, 'CW Today', in *The Canadian Amateur*, journal of Canada's national radio society, Radio Amateurs of Canada, which has been well received by RAC members. We are happy to welcome Larry to the pages of *MM* with what we hope will be the first of many extracts from his column, presenting a Canadian view of the CW scene

Focus

If you use a keyboard and wait until each character is sent before you hit the next key, you will have good character sending with lousy spacing. This is the impact of latency. Good keyboard sending is achieved by using a character buffer. When the CW is coming from a buffer it usually sounds excellent, just like W1AW or other machine-sent Morse.

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My focus is to send excellent CW and I load the buffer at the start of the transmission as quickly as I can. The resulting CW, for the most part, comes out nice and smooth.

How Do Others Judge You?

I work a chap regularly on 40m whose focus is to use an iambic paddle of great value – a gold plated model – with perfection. He is a joy to copy. I know his first priority is perfect, paddlesent CW; his second is to be an excellent conversationalist. He thinks of others constantly and always has something new that will interest me during our next QSO.

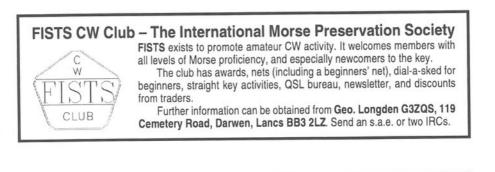
Let's review what has been said here. The quality of the CW you send determines how others will judge your signal. Your conversational skills will determine how well the other station remembers you, AFTER a judgement is made of your signal quality. These two components are closely linked.

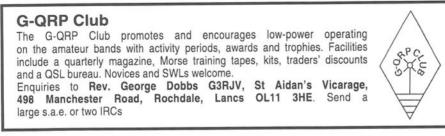
Set Your Own Goals

If you have the courage, ask a friend to tape record your CW signal during a QSO. Play it back in private and judge yourself as you judge the signals coming from others.

In summary, think through the issues for your CW sending skills and set your CW goals. Then be consistent in the things you do to achieve the goals you have set.

(Extracted and edited for MM from 'CW Today', in The Canadian Amateur, journal of Canada's national radio society, RAC.)





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RIGINALLY INVENTED by Samuel F.B. Morse in 1839, Transmitting Plates have been marketed over the years as both learning and transmitting instruments, in various versions.

Basically, this is a plate on which the Morse symbols for letters and numbers are represented by short and long strips of metal connected to a battery circuit. For learning, a pointer or stylus, also connected to the circuit, is moved along the strips corresponding to the desired letter or number, causing a buzzer to sound the appropriate code signal.

A plate of this type was advertised by Graham & Latham Ltd, Military



Graham & Latham 'Scribo-Morse', 1920 Photo: Tony Smith

Morse Learning Methods Part 4

Systems Spanning the Years, Dates Unknown and Some Unusual Methods

by Tony Smith

Engineers of Chelsea, in 1920. This was the 'Scribo-Morse', a self-contained Morse learning instrument, complete with battery and buzzer.

Another version was the 'Automatic Keyless' Morse Code Sender, marketed in 1935 by toymakers The Chad Valley Co., price 7s. 6d.

In Wireless World, August 1939, there was a constructional article for a home-made transmitting plate which, it claimed, 'would be of assistance in the process of learning the code.'

In the United States, in 1958, the Aerovox Corporation of New Bedford, Mass., advertised the 'E-Z-CODE Junior' as the 'New Way to Learn Code', price \$3.98. In 1970, the idea reappeared as the 'Code Board', from Stuhlman

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Engineering Co. of Plainfield, Illinois, price \$9.95. This time learners were invited to 'Learn Code the New Easy Way'.

Yet another version (date unknown) was the 'Code-Tutor Radio Code Instructor' from International Electric Co. of Chicago, Illinois, price \$7.95. This had a built-in battery, buzzer and telegraph key. After drawing the stylus across the plate to hear the code signal for a particular symbol, the learner operated the key to duplicate the code character. Two or more Code-Tutors could be connected together for intercommunication, 'with



Advertisement for the 'Code Board', 1970

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operators located in different parts of the house or next door to each other.'

(Details contributed by Gaspard Lizee, VE2ZK).

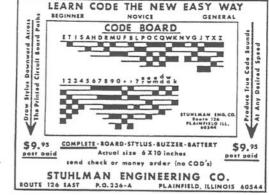
For further information about transmitting plates, including their use as telegraphic sending instruments, see 'The First Hand Key... and its 20th century descendants', MM19, p.16, and 'More Transmitting Plates', MM34, p.26.

Phonograph Recordings

In 1917, what was possibly the first sound-only course for International Morse was produced. It consisted of 12

> lessons recorded on six 78 rpm phonograph records, produced by a 'code expert,' approved by the Marconi Wireless Telegraph Co. and put out by the Victor Phonograph Co.

> Lessons 1 and 2 gave the code and conventional signs. Lessons 3 and 4 contained easy sentences, etc. Lessons 5 & 6 had Marconi Press and then messages with static interference. Lessons 7 & 8 were Press with static, and



13

messages with errors and corrections. Lesson 9 was Press with interference from another station. Lessons 10 through 12 were groups of figures, ten-letter words and ten-letter code groups. It was an ambitious program which included realistic, typical, practical problems of reception, but playing time was short.

In 1922 the American Code Co. put out a two-record phonograph course recorded by the famous hero operator Jack Binns, whose bravery and skill saved almost every life aboard the liner *Republic* after it was struck in 1909. This course claimed to be able to teach the code in one evening! Ambitious indeed. (*Above information from Bill Pierpont's book* The Art and Skill of Radio-Telegraphy.)

According to the Morse Memory Book (see below), at one time Linguaphone had a Morse course with exercises composed almost entirely of five-letter cipher groups. If anyone has further details of these records please contact *MM*.

The record course which seems to have made the most significant impact on amateur Morse learning is the Epsilon Records course 'Radio Code by the Word Method', Vol.1, of 1959. This was recorded by Russ Farnsworth W6TTB who used the now well-known system of extended spacing between letters and words, reducing as the learner's competency improves.

The course comprised three (12-inch) $33^{1/3}$ rpm albums in the set and ran at a constant code speed of 13 wpm, but part six could be played at 45 rpm instead of the normal $33^{1/3}$ rpm to increase the speed of the code to $17^{1/2}$ wpm.

As evidenced by the Audible Alpha-

bet System of 1902, described in Part 1 of this article, Farnsworth did not invent the 'extra spacing' learning system, but his course appears to have resulted in his name being associated with the system, which today is universally recognised as the best way for radio amateurs to learn Morse. (See 'Why Farnsworth?' in MM24, p.36. Also 'Farnsworth Mystery solved!', MM48, p.16).

A Morse Memory Book

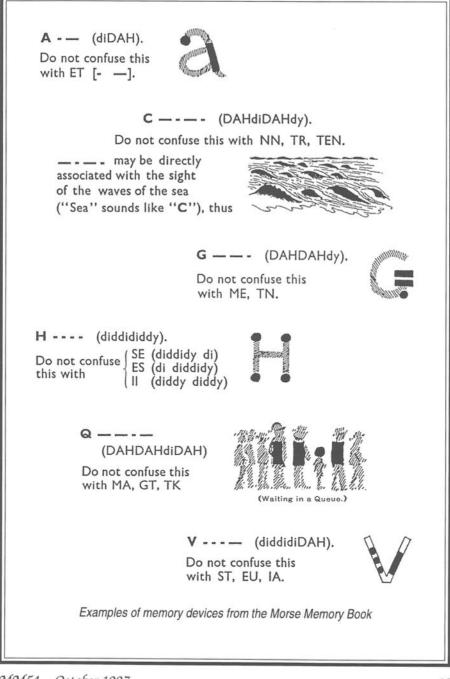
This is yet another course which uses pictorial symbols to help learners memorise Morse symbols. It was written by Harold E. Palmer, D. Litt., 'Formerly Lecturer on Methodology University of London, and Educational Adviser to Japanese Ministry of Education. Author of many works on languages and educational devices.' It was published by Memory Charts Limited, London, date unknown, price 9d. Thanks to Wyn Davies for the loan of this material for review.

Mr Palmer says 'The shortest and the only effective way of memorizing the Morse Alphabet consists in learning the letters in little groups, and of inwardly digesting each group thoroughly and progressively by means of systematic exercises.'

He provides ten lessons for this purpose introduced in order of their wordforming utility, 'thus' he says, 'with A, E, H, I, M, N, O, R, S, thousands of words can be spelt, while with J, K, Q, V, W, X, Y, Z, comparatively few words may be spelt.'

Each letter is to be spoken as part of a 'di-DAH' system, with spelling of the diDAH's adjusted to give them 'a more

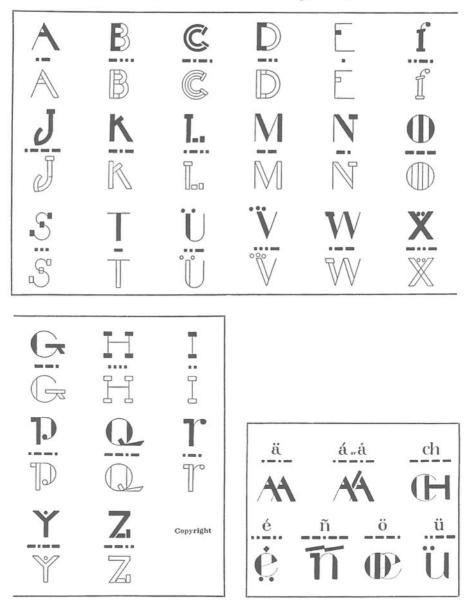
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The "READY" Method of Memorising Morse.



The full alphabet plus Continental accented letters from the 'Ready' method

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familiar appearance' (e.g., C = DAHdi-DAHdy, S = diddidy, E = did). Each letter is also allocated a 'memory device' in a few cases as small pictures, but mainly in the form of letter outlines with dots and dashes highlighted on them.

The author says 'In general, however, the sooner you can dispense with these and other memory devices the better, for in course of time they will become a hindrance rather than a help. You must finish by forming a close association between a letter and the Morse

sign for it, that one will immediately bring the other to your mind. DAHdiddy, for instance, must not only be the "sign" of the letter D, but the letter D itself.'

There is a short section on Messages in Cipher which 'are far more difficult to receive than those sent in plain English ... You should therefore train yourself in signalling and receiving meaningless combinations of letters'. Presumably this was in anticipation of service in the Armed Forces. The course concludes with a list of the '200 Commonest Words in General Use', and advises the learner 'to concentrate on them.'

The 'Ready' Method

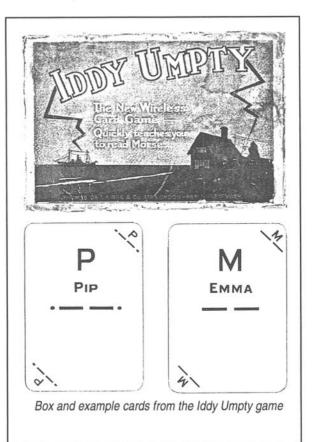
Properly titled 'The "Ready" Method of Mem-

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orising Morse in Five Minutes Permanently', this is another system based on letter images (*see facing page*). Designed by G. Ready, it was published (date unknown) by R.F. Roberts, Croydon, Surrey, price sixpence. *This material came from Don Breen GOFQI*.

Iddy Umpty Card Game

'Iddy Umpty', the 'New Wireless Game – Quickly teaches you Morse', was published by Thomas de la Rue & Co. Ltd, London, and contained four packs of cards, 'each containing a



complete set of Morse Code Alphabets and the Joker (representing any card)', one pack being used in a game for every participant.

The game is very similar to 'Snap', with each player exposing one card in turn. If a card exposed is similar to another already exposed by another player, both players attempt to call the signal and meaning of the card before the other.

For example, if two Bs are revealed, the first one to call 'Umpty Iddy Iddy Iddy Beer' takes all the cards exposed so far by the other player and adds them to his own unexposed pack. The winner is the player who succeeds in taking all of the cards from the other players.

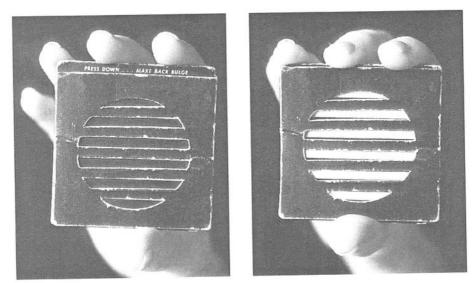
The date of this game is unclear. The phonetic alphabet appears to be that used by the British Army from WWI up to the late 1930s, however, the use of 'Iddy Umpty' rather than 'Didah' seems to suggest a date early rather than late in this period. When were 'Dit' and 'Dah' first used when speaking Morse symbols? Suggestions or comments will be welcome on this point.

Light-signalling Aid

Bruce Haffner WD9GHK, and T.R. Hurst GW0GEV, both sent details of a light-signalling training aid issued by the US Bureau of Navy Personnel (date unknown). Made of light cardboard, this is operated by squeezing the top and bottom edges to produce the white bars, representing the light of a signalling lamp.

Home-made Card Game

Douglas Byrne, G3KPO, has a home-



The US Navy light-signalling aid, in the 'on' and 'off' conditions Photos: T.R. Hurst GW0GEV

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Examples from the home-made card game in the collection of Douglas Byrne G3KPO

made Morse learning aid in his collection, comprising a pack of ordinary playing cards modified to show the letters of the alphabet on one side and the appropriate Morse symbol on the other. Presumably some simple game was devised by the modifier to use these cards in the learning process.

VICK Cards

'Brown's "VICK" Morse Cards', by L.C.E. Gould, for self-examination and self-instruction, were published by Brown, Son & Ferguson, Ltd, Glasgow (date unknown), price 1s. 3d. No other

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information is available, but presumably these had information printed back and front for working through the code. A similar set was published for Semaphore signalling. *Information from Douglas Byrne G3KPO*.

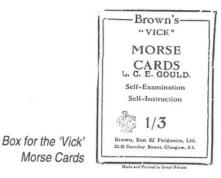
Flip Cards

A modern set of 'FLIP CARDS' is currently available from Flip Cards, Longheadland, Ombersley, Worcestershire WR9 0DU. This company started producing Morse Flip Cards around 1977 as an extension of their range of Marine cards (Flag signals, Buoyage, etc.) for yachtsmen and professional seamen worldwide.

The first cards aimed 'to present the Morse signal to the student over a time period... and to do this we evolved a method of touch sense with the symbol embossed on the surface of the card.' The company claims many

reports of success of this system, but the cards were difficult to produce and consequently became expensive.

Nowadays, they are simple cards,



87 x 60mm, with the character printed on one side and the Morse symbol on the other. The brief instructions include the advice 'Try to remember the symbols by creating mnemonics such as "Coca Cola" for "C" which has the same rhythm as Dar dit Dar dit. "L" could be "to Hell with it", "Q" sounds like "God Save the Oucen" - and so on.'

C-O-D-E-C-K Flash Cards

Jim Clark sent a sample of the C-0-D-E-C-K phonetic flash cards, which again have the letter or number printed on one side and the Morse symbol on the other. They also use phonetics as part of the teaching system.

These cards came from Bandmaster Enterprises, 3164 Cahaba Heights Road, Birmingham, Alabama 35243, USA. In 1994 they cost \$11.99 a deck, plus postage.

Morse Code Decoder Medal

Thanks to Jim Clark for sending me one of these ingenious 1¹/₂in (38mm) diameter novelty medals. One side has the Morse code set out in alphabetical order. To send, say the instructions, simply pick out the letter you want alphabetically (only letters are shown, no numbers).

To receive, refer to the other side of the medal where the code is set out in a chart. 'Start at the star in the centre and follow the dots and dashes through to find the letter. If it starts with a dash it will be on the right side. If it starts with a dot it will be on the left side.

'As the coded letter changes from



Example of a C-O-D-E-C-K flash card

dots to dashes or dashes to dots, you turn a corner; otherwise you keep going straight. Example: If you hear $\cdot - \cdot$ start at the star and go left for the first dot, then down for the dash, then left for the last dot. When the coded letter stops, that is where the letter is found; in this example it is R.

'Try it out a few times', say the instructions, 'and you will soon be sending and receiving Morse code quickly and easily.'

This medal came from Larry Hall, PO Box 1010, Morgan, UT 84050-1010, USA. The cost in 1994 was \$3.00 each, or \$2.50 each for two or more, plus postage, etc.

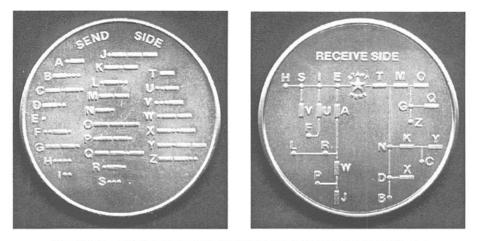
Unusual Systems

Several unusual learning systems have been described in previous issues of *MM*. These include:

'Dits and Dahs', in MM14, p.20. The learning method of the King's African Rifles in 1951, using a combination of Morse, Physical Training and African Rhythms.

'An Old Method in Modern Times', in MM8, p.36. A successful 'counting'

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The two faces of the Morse Code Decoder Medal, shown larger than life size

method (somewhat akin to the Perry Auto-Time Morse System described in Part 2 of this article in MM52) used in Indonesia before and after WWII, and

'Morse Rhythm', in MM29, p.38. Acquiring accurate sending rhythm using the 'drummers' routine'.

Thanks

My thanks to all those readers who sent in examples of learning systems to help with this feature. For various reasons, it has been a long time reaching completion and I apologise to those who have been waiting to see their contribution in print.

There have obviously been many more Morse learning systems in the past than those I have described here, and I will welcome receiving details of others with unusual or distinctive features, if readers have them. MM



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TEVEN (STEVE) D. KATZ, WB2WIK, (30 years a ham, 25+ as Advanced, now Extra) has taught hundreds of students in classes of 5 to 15 over the years, and says "CW surely isn't difficult." Most of his students didn't know a dit from a dah, but after eight class sessions they all (except two) passed the 20 wpm CW element (US Morse test) for the Extra Class licence. How did he do this?

He doesn't hand out any learning materials, but teaches the entire class by vocalisation and demonstration. They need not do any homework or study of any kind. He uses a ham radio station (transceiver and antenna) along with an electronic keyer and paddle key for demonstrations and for live on-the-air contacts.

He teaches by rhythm and sound, not by 'dits' and 'dahs' or dots and dashes. He says: "The code is the world's easiest language. It only has 26 words. Who here can't learn 26 new words in one night?"

Each Letter Has a Sound and a Meaning

"When one learns a foreign (new) language, you don't think about how each word is spelled, or how many letters are in each word. You think about how the word sounds, and what it means. The same goes for learning Morse code. Each letter has a sound and a meaning. That's all one needs to know." Then he

One Highly Successful Teacher

by Wm.G. Pierpont N0HFF

begins with the simplest letters, E T I M A N S O and progresses to the intermediate letters, U D V B W G, and finally the last twelve.

This is the way he taught his nine-year-old nephew Sohrab (Rob) Esfandiari, who has cerebral palsy. Rob got interested in ham radio from watching Steve communicating with distant stations. Steve started teaching him the code and in about three weeks he passed the Novice exam with flying colours, becoming KD6EWT at the age of 10.

At 14, this teenager can copy almost any speed with 100 percent accuracy, but he doesn't really know a dit from a dah. He didn't learn the code that way. This is how he did it:

Don't Write Anything Down

Rob was hacking around in the Novice CW bands at 5 wpm for a while

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when, one day, he tuned in where some high-speed operators were working each other and was intrigued that they were going so fast. He tried to copy them but was disheartened to find he couldn't write as fast they were sending.

Steve, using his 'proven CW teaching technique'*, said: "Don't write anything down. Just listen to the code and if you get a little bit of it, that's fine." So Rob listened and 'copied' in his head maybe one percent of a QSO at first, then two percent and soon five percent. After a few days listening to high-speed operators he could copy maybe 20 percent which, Steve said, "is more than enough to make a contact."

Steve encouraged him to do just that – make contacts with operators going much too fast for him to 'copy'. He did, even if he could only copy a callsign and name ("that's a complete contact"). It didn't take long for him to copy very solidly without paper (Steve said: "I never use any either"). Then, when Rob upgraded to General Class at age 11, Steve encouraged him to hang out near the Extra Class sub-band and find the really great operators to contact.

5 to 35 wpm in Three Weeks

He did that, and "within two weeks he was copying 35 wpm, maybe 40, quite solidly." So, he increased his code speed from 5 to about 35 wpm in three weeks, without using tapes, computer programs or other 'artificial' means. He just did it by getting on the air and making contacts, which is how Steve says he did it too.

When Rob was 12 he passed the Advanced exam, and also took the Extra

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Class exam where he passed the code element easily (100 percent solid). He got all answers correct, without writing anything down on paper, but failed the theory parts of the exam because he hadn't had enough maths yet in school.

The examiner said: "You didn't write anything down. You must have a [terrific] memory!" – But it doesn't take a great memory to recall a few minutes of casual conversation (which is all the US code test represents).

Never Knew it Might be Hard

Rob is certain that anyone who can't pass the code exam must be an idiot since it wasn't very hard for him and he has a learning disability, plus cerebral palsy which restricts his co-ordination.

Just before his 13th birthday he did completely pass the Extra Class exam. Now, at age 14, he works CW contests where most QSOs are at 45–50 wpm, and never writes anything down except the other station's callsign in his log.

Rob had Steve's excellent example. He was never told it might be 'hard' so it was always easy for him. He had no ill will towards it, and didn't know he wasn't supposed to like it. There seemed to be no limit to his ability. He was learning it the right way, with understanding.

*Steve's 'proven technique' is described as: making the student put away his pencil and paper and just listen to the code at very high speeds. The familiar text sent includes words like the names of sports teams, cities and so forth.

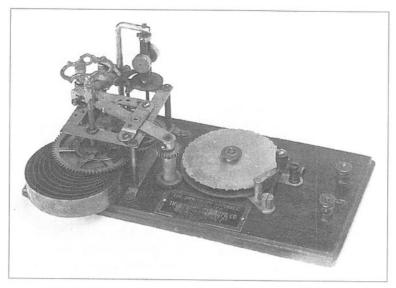
(This article is based on material from two Worldradio articles and personal correspondence).



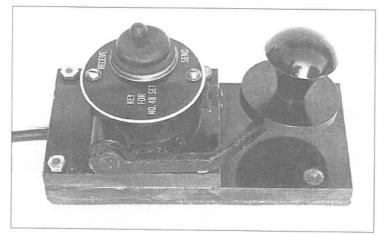
Homebrew sideswiper, made by Robert W. Betts, N1KPR. Bob says: 'It's nothing special except it features adjustable spring stops. When properly adjusted for travel, the spring stops give the effect of a centre detent... a tactile centre, as it were. The spring compression is also adjustable.' Photo: N1KPR

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

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Omnigraph Automatic Transmitter, a Morse learning instrument originally patented in 1904. See MM22, p.28 for more details Photo/Collection: Fons Vanden Berghen



Flameproof key for No.48 Set Photo/Collection: Dennis Goacher G3LLZ

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OR A NUMBER OF YEARS I took a small amateur radio rig with me into the jungles of Central America, where I participated in archaeological digs. My amateur radio call, W4FOK, was issued in 1938, and I operated as W4FOK/TG in Guatemala, and as W4FOK/V3 in Belize.

My little rig, a Ten-Tec Century 22, has an output of only 20 watts, and no voice capability. The transceiver, AC power supply, antenna tuner, a 20/40/80 metre antenna system, tools, manuals, and spare parts, all fit in a small case which is carried aboard the aircraft.

In each year of jungle operation, approximately 100 messages were handled by radio amateur volunteers in various parts of the country. Notably among those who nearly always met the regular evening schedule were W4EQE, NS5H, WD8PNL, N8GDO, and W9CN. Often there were others.

Most of the messages handled were personal messages for the staff, but a number dealt with emergencies, mostly medical. All were handled promptly and accurately, and this could not have been done using voice due to the low power, the primitive antenna, and the congested state of the amateur radio bands.

Urgent Traffic by CW

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In Guatemala, our camp was in the extremely remote, uninhabited north eastern corner of the Petén near a large Maya archaeological site known as Rio

Telegraphy in Action

by James S. Farrior W4FOK

Azul. In 1986, when digging at Rio Azul, we found a Maya tomb just as we were closing the season. Had it not been for the radio, we would have had to back fill the extensive excavation without clearing the tomb, with a strong possibility that it would have been looted before the next season.

However, in less than three hours after finding the tomb, by using our CW communications link, we had sent a message to the National Geographic Society's headquarters in Washington, DC, and had received a reply authorising funding for another week's work to clear the tomb.

In 1987, we had a severe malaria epidemic at Rio Azul. Medical advice was obtained through an exchange of messages with the Center for Disease Control in Atlanta. A radio message was also sent to San Antonio, Texas, requesting that the US Embassy in Guatemala be contacted and that arrangements be made for medical assistance. As a result, two days later, a doctor and a nurse

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arrived with medical supplies after a difficult trip through the jungle.

Deadly Snakebite

In 1990, we dug at Kinal, another large Maya site 10km from our Rio Azul camp. The dry season had not arrived, and we were spending an average of six hours of the work day travelling through the muddy jungle between our camp and the work site.

On March 12, a little after 4 p.m., while he was cutting palm thatch for the camp buildings, a young Guatemalan native workman, Victor Medrani, was bitten on the lower right leg by a huge snake. A fellow workman killed the snake with his machete and ran at top speed to the camp bringing the snake with him.

Dr. Dick Adams, the project director from the University of Texas at San Antonio, and I were the only staff in camp at the time, and we saw immediately that the snake was the dreaded Fer de Lance. Bites from this snake are often fatal, even with the best medical treatment.

We grabbed the snake bite kit, climbed in the small four-wheel drive pickup and headed down the muddy jungle road. Victor, who had been left in the jungle beside the road was already very ill, in pain and bleeding from the mouth and eyes. Dick immediately injected the anti-venom we had brought, but back at camp, Victor's condition quickly worsened, and we had soon used all of the remaining anti-venom.

Call for Help

While others tended to Victor, Dick

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and I met in the radio tent to decide what might be the best course of action. It was clear that Victor would die if we could not get him to a hospital quickly, and our best chance was to use the radio to try to get a helicopter to pick him up. However, this would have to be done working through a US radio contact, despite the difficulties often experienced in getting a telephone call through to Guatemala from the USA.

It was time for the normal 5 p.m. radio schedule, and, as usual, Marty Morrison, NS5H, who lives in San Antonio, was on the job. She is a fine telegrapher, who sends fast beautiful code on a bug, and she normally handled all of our traffic for the San Antonio area.

Through her, we sent a message to Dick Gill, a friend of the project who lives in Austin and San Antonio, requesting that he call the US Embassy in Guatemala and try to make arrangements for a helicopter to pick up Victor from a cleared area near the camp.

By 5.30 Gill had been located with the help of Jane Adams, Dick's wife, and he placed a call immediately. The telephone service between San Antonio and Guatemala City was working much better than usual, and the necessary contacts were quickly made.

It then took an hour and a half for the US Embassy in Guatemala City to determine that the Guatemalan military would not take their helicopter into the jungle at night, and no other alternatives were available, probably not even the next day.

Request for Medical Team

Upon receiving that information at

7.10 p.m., we asked Marty, by CW, to ask Gill, who speaks fluent Spanish, to call the Fire Chief in Santa Elena, a small town on the edge of the jungle, to arrange for medics to depart Santa Elena as soon as possible with the necessary anti-venom, antibiotics, etc., to treat the patient. We would leave the camp shortly, and hopefully would meet the medics about half way, where they could begin treating Victor.

Luck was again with us. It normally took a long time, hours and sometimes days, to get a call through from the US to Santa Elena, but miraculously, the call went through immediately. At 7.25, Marty, back on the key, told us that the Fire Chief had agreed to help. However, he had no anti-venom, and no money to buy it.

Through the CW link with Marty, and the telephone link to the Chief, we asked him to get the money from the Project's Guatemalan agent, Edmundo Solis, who lived in Santa Elena. We also suggested they take Edmundo and use his truck, as he was familiar with the jungle road and his vehicle was well suited to jungle travel.

Help On The Way

Marty was asked to pass along the information that our trucks would depart camp within the hour. Gill confirmed that he had made the necessary requests, but he could get no confirmation from Guatemala on the action taken until the following morning. The excellent telephone service we had experienced for a short while had returned to its normal condition.

In fact, the medical team had been

quickly assembled, the pharmacist located, and the needed supplies obtained. Because of the rain, however, their chances, and ours, of getting through the dark jungle and making a rendezvous that night were poor.

Medicine Man

At the camp, Victor was clearly very sick, and screaming with pain and fear. We had used all the drugs and other medications that could help, and the workmen were now insisting that one of their number, a medicine man, should be allowed to administer to him.

He wanted to brush Victor's body with branches from certain shrubs, to lay leaves from certain plants on his leg, and have him drink a concoction made from jungle plants. What they wanted to do seemed to be rather harmless, especially in view of the situation that would have existed if their request had been denied and Victor had died.

Remarkably, this treatment seemed to calm Victor down a bit, but he was still in agony, and everyone including him, I'm sure, felt he had little chance of surviving.

'Vaya con Dios'

A litter was made for him in a small four-wheel-drive van. Other trucks carried workmen with flashlights, machetes, a chain saw, shovels, cables, extra fuel, and other things they would need to force their way through the jungle. Everyone said 'Vaya con Dios' to Victor, who groaned 'gracias', and at 8 p.m. the convoy left camp.

For half an hour, the sound of their engines could be heard as they struggled

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through the muddy jungle. Although Victor was wedged into his litter, we knew he was being bumped, jolted, and thrown about, and that this would continue for many hours.

Marty was still on the radio, so I thanked her, Jane and Gill for the tremendous job they had done. She said that they would continue trying to get through to Santa Elena to find out what had happened. In the meantime, there was nothing that we could do, so we arranged to contact them the next morning at 7 a.m. on 20 metres.

At 7 a.m. Marty's signal was clear and strong, and she reported that Gill had finally received word that the team from Santa Elena had started out. At 8 a.m. and again at 9 a.m., she reported that they had had no further luck in getting through to Santa Elena. The phone service had now returned to its normal state.

Dig Terminated

Two days later, at our normal CW schedule, Marty said that she had received a confusing report from Santa Elena. Apparently the patient had had his leg amputated, but attempts to verify that report had failed so far.

The next day our team arrived back in camp with stories of their difficult trip but also some good news. Victor had survived the trip and had responded to the treatment. The report we had received related to another snake-bite victim in the hospital.

The scheme to meet halfway almost failed because the two teams were travelling on separate, parallel detours, and would have passed each other if one

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man had not by chance spotted a headlight through the jungle. Edmundo told me later that without the wireless telegraph to set up the jungle rendezvous with the medics, there was little chance that Victor would have arrived at the hospital alive.

Because of the costs associated with Victor's hospital treatment, Dr Adams decided to terminate the dig at Easter; and when we left the jungle at that time, we spent the night in Santa Elena.

Urgent Transfer

We fully expected that Victor would be well, or nearly so, and were shocked to find him very near death. He had had several operations to remove infections from his stomach, intestines, and elsewhere, and just prior to our arrival, his kidneys had failed. His leg was a mass of infection. The poorly equipped hospital had run out of antibiotics, and had not been able to handle the situation.

Dr. Adams immediately decided that we must try to transfer Victor by air ambulance to a modern hospital in Guatemala City. Over objections by his family, and also by the local hospital who demanded that Victor's bill be paid immediately, he began making arrangements.

It was already after dark, the bank was closed, and the small airport had shut down for the night. However, Dick had friends locally, and at the hospital in Guatemala, who helped him make arrangements for an air ambulance and for the airport to reopen.

The Fire Chief who had come to our aid before, agreed to transport Victor from the hospital to the airport. Although

the hospital was assured that they would be quickly paid, Victor's leaving was more like an abduction than a dismissal.

Leg Amputated

When Victor arrived at the hospital in Guatemala City his heart and lungs stopped, and he had to be revived and placed on life support systems, including kidney dialysis. In spite of his general condition, the doctors decided that his leg had to be amputated immediately if he were to have any chance of surviving.

When I left Guatemala City a week later, he was out of danger, and would soon be transferred to a rehabilitation hospital. When he recovered, he returned to Santa Elena on crutches, and Dick arranged for him to be paid his normal wage for the remainder of the year.

The next year, 1991, Victor was back at camp. He was in good spirits, looking healthy, and using crutches. His muscular appearance indicated that he had not been idle. When offered a job washing artefacts in camp, he asked for a 'man's job'. In 1992, still without a prosthesis, he showed an amazing ability to do hard work.

I learned that arrangements had been made for Victor to be fitted with an artificial leg. Our project moved the next year to the Rio Bravo area in Belize. I suppose I will never hear of him again but I will always wonder how he made out.

Although Victor lost a leg, his life was saved, and Morse telegraphy played an important part in making that possible. Let's not ring down the curtain on telegraphy. It still lives! *MM*

Readers' ADs

FOR SALE

Q & Z CODEBOOK STILL AVAIL-ABLE. The MM Q & Z codebook, a comprehensive list of the Q-codes and Z-codes, including a one-page list of the original Q-codes dated 1912, is still available. Printed in English, it can be obtained from Dick Kraayveld PA3ALM, Merellaan 209, 3145 EH Maassluis, Holland, price £5 UK, or US\$10.00 outside UK, including postage in both cases. Payment accepted in cash only.

PHOTOCOPIES OF BACK ISSUES of *MM*. All out-of-print issues available. Price per copy, by airmail (US dollars, cash only): Europe \$7.00; Africa/America \$8.00; Oceania \$10.00. Jeronimo Orellana R, EA3DOS, Av Roma 10, 08015 Barcelona, Spain.

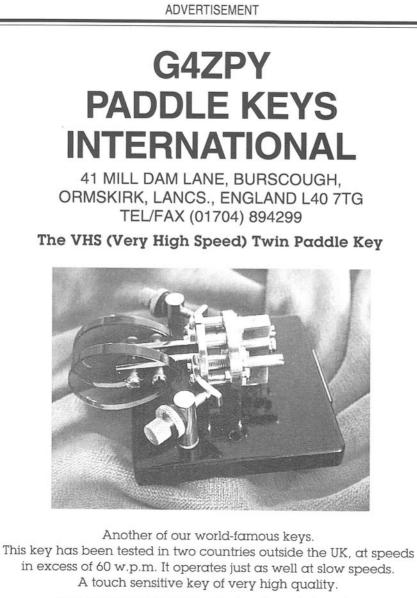
(Note: Original copies of some back issues are still available from the editorial office at regular prices. See inside front cover for details. – Ed.)

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

WANTED

HELIOGRAPH TRIPOD stand with 1¹/₂in diameter screw thread. Wyn Davies, Pen-y-Maes, Halcog, Brymbo, Wrecsam, LL11 5DQ. Tel: 01978 756330.

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NEWS ITEM in MM53 (p.5) quotes a report from the August 1997 issue of *Radio Communication*, journal of the Radio Society of Great Britain, which noted that some candidates who had been taught using the Farnsworth method of learning Morse were found to be incapable of reading correctly proportioned code when taking the UK Amateur Radio Morse Test. As the author of the report from which these extracts were printed, I am sure that readers of *MM* will be interested in the background to this observation.

Let me commence by explaining that the comment was not a criticism of the Farnsworth method of instruction (which when used by an experienced tutor can be an efficient way of learning Morse) but was more a reflection on how incorrect application can result in over-confidence, disappointment and frustration for unsuccessful candidates.

Novice Upgrades

The UK 5 wpm QSO format Novice Morse test (reviewed in MM21, p.28) uses Farnsworth spacing, with Morse characters sent at 12 wpm and longer than normal gaps between characters to reduce the overall speed to 5 wpm. This ensures that successful candidates have a sound foundation on which to progress to the full 12 wpm test.

So successful was this method that in the 18 months following the introduc-

Farnsworth Preparation



by Roy Clayton G4SSH RSGB Chief Morse Examiner

tion of the 12 wpm QSO format Morse test there were no failures of any Novice candidates upgrading to the 12 wpm test. It was not difficult to see why. These candidates were already used to reading characters sent at 12 wpm, and a period of on-air experience, operating on the Novice HF bands, had enhanced their Morse reading capability.

When they applied to sit the 12 wpm test they had already progressed to a

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level of competence which enabled them to easily cope with the slight but crucial difference of receiving correctly proportioned hand-sent Morse at 12 wpm without the need for built-in recognition time between letters, as employed in the Farnsworth method of spacing. In addition, the test for the full licence was written in the same format as the Novice test, using the same abbreviations.

Starting from Scratch

Now let us consider preparation for the 12 wpm Morse test for students who are not Novice candidates, but who are starting to learn Morse from scratch. Many instructors use the Farnsworth method, but in an effort to cut corners commence with characters sent faster than the test speed (typically at around 15 wpm) from day one.

With the wide availability of handheld automatic Morse tutors and computer programs, many self-taught candidates do the same, and some books on the subject even recommend that if you are aiming for an eventual target speed of 20 wpm, then it makes sense to train the student to recognise Morse characters at this speed from the very beginning.

Farnsworth Theory

The theory behind using Farnsworth spacing as a teaching aid is that the student commences listening to Morse characters sent at the speed at which it is intended to eventually copy, using long gaps between characters to allow thinking time. The student is training the brain to recognise the sound pattern of each Morse character sent at this speed, and

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is also training the hand to react by writing that character.

Slowly but surely, as the student becomes more competent at recognising the different Morse characters, the thinking time is progressively reduced until the day arrives when he or she is receiving Morse sent at the target speed of 15 wpm, with the normal spacing of three dots between characters and seven dots between words.

Programme Must be Completed

This goal will normally be achieved in about six to nine months time, but only if the programme continues successfully to its conclusion. Not until this level of proficiency has been achieved can the student read correctly proportioned Morse, and so begin to gain experience at reading the code at faster, or slower speeds. It is vitally important to realise that you cannot stop this programme three-quarters of the way through and expect the student to read correctly proportioned Morse at 12 wpm.

The reason is quite straightforward. Once you have trained the mind to automatically recognise and write a Morse character when you hear a certain sound pattern, then if you vary that sound pattern very much the mind will not be able to recognise it. The short burst pattern of Morse sent at 15 wpm with long gaps between characters sounds nothing like the flowing rhythm of correctly proportioned Morse sent at 12 wpm, especially to a beginner.

The problem is compounded because self-taught candidates often experience a sense of optimism at the thought that they are receiving Morse at what they

confidently believe is 15 wpm. They put in for the test before they are ready, in the misguided conception that if they can read Morse at this speed then 12 wpm should not cause any problem.

Complaints

Typical letters of complaint from these unsuccessful candidates usually read as follows: 'The examiner sent the text with no inter-character spacing and with word spacing about the same as for character spacing. This made the readability of the passage almost impossible. I have been practising with my Morse machine at 15 wpm and felt that the sending was a disgrace, and it did not even give me a fighting chance.'

My investigation into the cause of the problem invariably reveals that the candidate has used an automatic Morse machine set in the Farnsworth mode with a character speed of around 15 wpm, and an overall speed of 12 wpm. When faced with correctly proportioned Morse at 12 wpm, the candidate experiences exactly the symptoms described above.

Problem Being Addressed

One of my duties is to arrive unannounced at Morse test sessions in order to check out the examiners, and I usually take the opportunity to chat to candidates and send a test. Only last month a candidate told me that my sending was much too slow, with the characters run together. He went on to say that he could not possibly receive Morse sent so slowly, but could copy easily if sent much faster.

I expressed my disbelief, but in order to give him the benefit of any doubt said that I would send another test at 15 wpm; an offer which he accepted with enthusiasm. His pen poised above the paper and never moved. What he really meant was 'I can receive at 15 wpm with half-second gaps between characters.'

This problem has been recognised and is being addressed. Amended information to Morse test candidates contained in the 1998 RSGB callbook and information directory will contain the following additional advice: 'Some candidates learn to receive Morse using the Farnsworth method of spacing, with individual characters sent much faster than test speed, using longer than normal gaps in order to reduce the overall speed down to 12 wpm. Many of these candidates have great difficulty receiving correctly proportioned Morse as sent by the examiner because the two methods sound very different.'

MM



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.**

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Y FIRST JOB after finishing school was with the Department of Posts and Telegraphs run by the Newfoundland government. This was in 1941, and shortly thereafter they established, in conjunction with the Royal Canadian Air Force, what they called the Ground Observer Corps.

This was composed of all the operators in the country (it was a separate country at that time), together with police, customs officers, postmasters and other prominent people in the community who would have the authority to sign messages reporting any aircraft movement, day or night.

The telegraph system in use consisted of individual offices reporting to regional offices which in turn worked directly with the Head Office in St John's. Thus, messages could be transferred from one region to another.

Frequencies Scanned

After the close of business at 1800 daily, the time remaining until 0800 next day was split between two operators, and at that time I was one of those operators working the regional office at Placentia.

Our job was to scan the frequencies normally covered by our five positions during normal daytime operation, and to be alert to anything heard on these bands during the night.

We were not to try to establish

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Clandestine Station in Labrador

by John Hann

contact with any station heard unless specifically called by that station. This was to avoid alerting any illegal transmitter that it was being monitored. (No station would have been operating legitimately without regional office authority during these night hours).

Suspicious Message Heard

One night, sometime around 0230, I came across a station transmitting plain language in landline (American Morse) code, the system we then used on lowpowered wireless sets.

I heard no heading or preamble to this message, which ran to about seven or eight lines. It was about a landing successfully completed, and about waiting for results, although I cannot remember the detailed wording after all this time.

This message made me suspicious, so much so that when I sent it to head

office I deliberately left out one word. This in no way altered the sense of the message, but in some small way gave me a measure of control over something, but I wasn't sure what ...

American Inquiries

When I was heading toward my front gate in the morning after finishing my shift, an American 4X4 with a driver and three passengers was heading toward me from the opposite direction. They came up close behind me, and invited themselves inside. They were an American Colonel and two Lieutenants and after some small talk got down to business.

The inquiry was extensive and some time into the conversation one of the Lieutenants read me his copy of the message and asked me for confirmation of the wording. The wording was 100 percent as I had copied it except for one small detail – the word I had deliberately left out when I sent it WAS INCLUD-ED IN THE COPY WHICH THE LIEUTENANT READ TO ME.

I decided immediately that my decision had been insightful and I would NOT provide further information. After some more small talk, cajoling and glib promises which gleaned them nothing,

U-537 Mission

John sent *MM* a copy of the article from the *Canadian Geographic*, Dec/ Jan 1982, written by Alec Douglas, official historian of the Canadian Armed forces. It tells the story of how a German U-boat, U-537, set up an automatic weather station in northern Labrador in 1943.

On October 22, that year, the submarine anchored just inside the entrance to Martin Bay. The northerly site was chosen, according to the captain's log, partly to reduce the chances of detection but mainly because he thought there would be fewer Eskimos there.

Working through the night, the crew manhandled ten heavy canisters into rubber dinghies, onto the beach and up a hill about a quarter of a mile inland. The canisters contained nickel-cadmium and dry-cell batteries, a transmitter, weather measuring devices, a tripod and a mast. The entire operation lasted about 28 hours, and after checking that the station was working properly, on 3.940MHz, the submarine slipped back out to sea.

In 1981, the author visited the site and found the station, with every canister opened and the contents strewn about, the equipment smashed and cables removed. He subsequently discovered that the site had been visited by a geological survey in 1977 when everything was in the same condition except that the cables were at that time still there.

The station was, therefore, dismantled earlier, possibly by personnel sent to discover and destroy it during the war, but many questions remain unanswered.

Douglas says the Germans set up 21 automatic weather stations, of which 14 were in Arctic or sub-Arc-

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they left and I heard nothing further about the matter.

Did I Help?

UNTIL, one day – it must have been in 1982 – I heard on the radio that the remains of a German weather station had been discovered on a small island in northern Labrador. I said to my wife 'I wonder if this has anything to do with that message I copied so many years ago.'

Not much was made of the discovery, in public anyway. It disappeared from the news reports when more current events displaced it. Then in early 1994 the *Canadian Geographic* magazine carried an article on a different subject but which referred briefly to an earlier article about the discovery of the German weather station.

I was able to obtain a reprint of that earlier article (see below), with a map showing the exact location of the station and some close-up photographs of the equipment as it was found.

Any time I am reminded of this incident now, I wonder, 'was I instrumental in some small way in the discovery of this station?'

The military, of course, never reveals any secrets! MM

tic locations, with all except this one on sites in the Barents Sea above Norway. They transmitted temperature, barometric pressure, wind force and direction, and were intended to be of assistance to the U-boat packs in their campaigns against Allied shipping.

Highly sophisticated for their time, they were activated by a timing device which switched on the transmitter for three minutes every three hours. One minute was taken to warm up the 150 watt transmitter, and two minutes were spent sending coded weather information.

The life of the Labrador station could not have been long. The log of the U-537 records that it transmitted for at least two weeks then, on November 4, intensive jamming is reported on the frequency. Mysteriously, on November 18, further jamming is reported from an unknown own (i.e., German) radio station, and the log records 'Weather transmissions not received at scheduled times.'

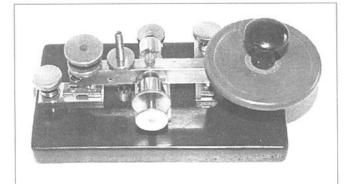
A further submarine was sent in the summer of 1944 to set up a second automatic station in Labrador. This one was sunk *en route* and no more attempts were made to install a weather station in enemy territory.

It is intriguing to speculate about the message John Hann intercepted. Was it connected with the German station? If so, why was it in English and in landline code? (John thinks this was to make the transmission appear non-suspicious, using the language and code any monitoring station would expect to hear from local traffic). Why did the American officers turn up as they did? And if the message wasn't connected with the German landing, what did it refer to?

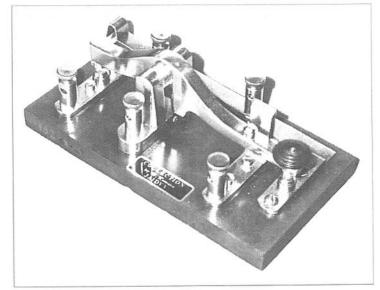
Does this story 'ring any bells' with anyone?

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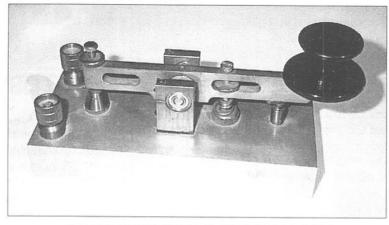


French spark key. Info requested Photo/Collection: Jean Le Galudec

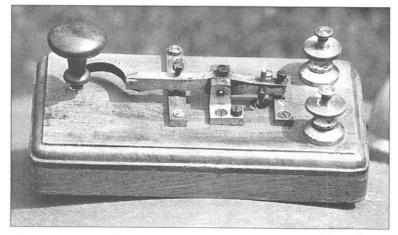


Unknown key. Info requested Photo/Collection: Heisuke Kimura JA1DVV

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Unknown key with slotted arm. Information requested Photo/Collection: Wyn Davies



Unknown key, possibly home-made, or assembled from parts of other keys? Has anyone seen a similar key, or do they recognise individual parts of it as coming from other keys?

Photo/Collection: Tony Hunt-Duke G4IOT

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

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F YOU'VE PASSED the amateur Morse test without doing much, or any, listening on the air, listening to real CW conversations is initially a perplexing experience. It takes some time to get used to the conventions, the Q-codes, the abbreviations, the HF noise, and the interference.

After a while, however, you'll realise that the first few overs are usually very stylised, especially between stations who have not made contact before. The 'standard information' (name, QTH, signal report, maybe power, rig, antenna) is always exchanged in a similar manner, and critical bits are always repeated. Only after a couple of overs does the conversation become less formal – but even then most of us follow patterns.

How should you go about it? Here are some suggestions.

For the first QSO, it's a good idea to arrange a contact with a local station who can send good slow Morse, and have a strong enough signal to overcome the noise – which is quite unsettling if you have been used to noise-free code sent in practice sessions. And when you make that contact, practise by sending the standard information just the way you would to an unknown operator.

Assume that I have called you. Here is how the conversation might go. I have included the abbreviations you'll hear frequently, and which you'll need to become familiar with:

ZL1XYZ ZL1XYZ DE ZL1AN ZL1AN K

The First CW QSO

by Dr Gary Bold ZL1AN This article appeared in the 1996 NZART Callbook for the benefit of beginners in New Zealand. With Gary's approval, *MM* has edited out specific references to that country to make the article generally applicable to beginners anywhere

ZL1AN DE ZL1XYZ - GE OM ES TNX FER CALL - RST 589 589 - NAME HR FRED FRED ES QTH AUCKLAND AUCKLAND HW? ZL1AN DE ZL1XYZ K

ZL1XYZ DE ZL1AN - GE FRED - RST 579 579 - NAME HR GARY GARY ES QTH AUCKLAND AUCKLAND HW? ZL1XYZ DE ZL1AN K

ZL1AN DE ZL1XYZ - R - FB GARY -WX HR TODAY FINE ES TEMP 23 - RIG HR TS440 RUNNING 100W - ANT IS DIPOLE AT 10 METRES - HW? ZL1AN DE ZL1XYZ K

ZL1XYZ DE ZL1AN - FB FRED - HR WX COLD BUT NO RAIN - RIG TS520S -RUNS 80W - ANT IS ONLY END FED

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RANDOM WIRE WITH TUNER HI - BAND GUD TONITE - NO QRN OR QRM - HW? ZL1XYZ DE ZL1AN K

ZL1AN DE ZL1XYZ - R FB GARY -TNX FER QSO - NW CUL ES 73 GARY GN OM - ZL1AN DE ZL1XYZ SK

dit dit

dit dit

Now at 12 wpm those exchanges will have taken just over ten minutes. That's plenty long enough for a start, so you can sign off gracefully. I guarantee you'll get a real buzz out of doing that!

Points to Note

Overs start and finish with the callsign exchanges and terminate with 'K'. Some operators insert 'AR' before the last one and finish with 'KN' – which means 'I don't want anyone to breakin'. But most of us enjoy having others enter our conversations.

We used the most common standard abbreviations: GE, OM, ES, TNX, R, FER, HR, HW, FB, WX, RIG, ANT, HI, GUD, NW, CUL, GN. 'HI' is often sent as 'HEE'. If some of these are strange, look them up. They rapidly become intuitive, and really save time.

We used the most common Q-code and procedural signs: QTH, QRM, QRN, QSO, and RST.

We exchanged information in a very stylised manner. Between friends or inveterate ragchewers conversations will be less formal, especially after the first few overs – but you won't go wrong doing it just this way, and many DX conversations sound just like this.

We each ended with a pleasant 'dit dit' to say goodbye – it's not necessary

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but you'll often hear it. Sometimes after an interesting QSO several other 'dit dits' will sound from phantom listeners who have been following the conversation with interest.

Write it Down at First

Almost everybody, initially, finds it difficult to 'send from the head' instead of reading from a text as they did when learning. Therefore, write down the first few overs you'll send – at least in skeleton form, so you can send from the hard copy. You'll rapidly find that this becomes unnecessary.

You'll also find it more natural initially to write down **everything received**, again as you did in the learning process. With experience you'll begin to 'read in the head' and will then only need to note down callsigns, times, reports, names and items to comment on.

Experienced operators write up the log as the QSO proceeds, but at first it's much easier to write the details on a note-pad and complete the log carefully afterwards.

What do You Say?

If the conversation continues longer, what do you say? CW operators talk about almost everything. To begin with, make two more lists, one containing short phrases about your job, your age, your family, your other hobbies, other modes you operate, and so on.

The other should contain questions you can ask, e.g.: What is your job? Do you operate Packet? How long have you been a ham?

This may seem a very stilted approach but it will get you going, and

after a while these memory joggers won't be necessary either.

Calling CQ

You will often hear stations calling 'CQ'. At some stage you will want to send, or answer, one yourself and the '3x3' format is the best way to do it, i.e.: CQ CQ CQ DE ZL1AN ZL1AN ZL1AN, repeated three times and terminated with a 'K'.

Don't be one of those irritating people who send 'CQ CQ CQ...' 25 times before giving a callsign. Listeners get impatient and wander off. Short calls, repeated after a few seconds are best.

If you call CQ, tune around a few kilohertz listening for answers, somebody might have forgetfully left his RIT engaged and be replying outside your passband.

PSE QSL

At the end of a QSO, you'll often hear, 'MY QSL SURE PSE QSL VIA BURO', which means 'I will certainly send you my QSL card, please send yours via the QSL Bureau'.

Arrangements for using the QSL Bureau vary from country to country so, if you don't already have it, you need to obtain that information from your Call Book, national society or local radio club.

Operating Speeds

If you answer a CQ the accepted polite thing to do is to send back at a speed no greater than that of the calling station – unless you know that the other operator is capable of higher speeds.

If somebody answers you at a speed higher than you can comfortably receive,

send back 'PSE QRS 15' – or whatever speed you can copy.

If the other station won't do this, just sign off gracefully and talk to someone else. There are plenty of stations (including DX) who send around this speed and many, CQing faster, will gladly slow down to talk to you.

Listen to the Higher Speed Contacts

You will also hear conversations at higher speeds, in the 20–30 wpm range. These operators generally use electronic keyers and send very good Morse. Listen to such contacts frequently and you'll find your reading speed slowly improves.

Once you have the experience to operate in this range, you'll find contacts very enjoyable as a surprising amount of information can be passed at these speeds, and the Morse is better.

At higher speeds than these it becomes difficult for ordinary mortals to send accurately with any sort of keyer. You'll hear stations conversing at 35– 45 wpm using keyboards for sending, although they will be reading the received Morse in their heads.

Once you can copy at these speeds the Morse, being perfect, is a delight to copy – it just 'decodes itself'. You'll hear people talking in plain language (without abbreviations) and they'll use punctuation like commas and fullstops.

Come and Join Us!

A good way to start is to come and join the regular occupants on 80 metres who can be found most nights talking to each other, to newcomers, or to anyone else they can hear.

We'll be glad to talk to you!

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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.

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Wireless for the Warrior Volume 2

I am sorry to have to tell you that, due to circumstances beyond our control, publication of this eagerly-awaited book is again delayed, and it will not now be ready until early in 1998.

It is turning out to be very much larger than we first thought - we now anticipate it will be in excess of 700 pages in total - and as a result it is taking much longer than expected to prepare.

We hope to be able to announce a firm price and publication date in the next issue of MM.

In the meantime, our apologies to all for any disappointment caused - I can assure you that the wait will be worthwhile!

Geoff Arnold

The Story of the Key by Louise Ramsey Moreau (MM38)	£3.95 (LIK): £4.25 (Eur/Sur)
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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

Degrees of Proficiency

A Northern Ireland correspondent recently sent me a newspaper report about the imminent demise of Morse at sea. In the report, a Portishead operator is quoted as saying that it took years to learn and send Morse proficiently.

He goes on to say: "You can learn the code pretty quickly but you couldn't get your brain and hand working in conjunction so easily. After about six months you could get up to ten words a minute. At sea the minimum standard was 20 words a minute. Most skilled operators can take 30."

There are, of course, degrees of proficiency. In the Royal Air Force, the Wireless Operator course lasted just over seven months during which most recruits passed the twelve wpm barrier at about three months.

At this stage one's brain and hand had to be in auto when receiving or sending. By the end of the course most were up to 18 wpm (AC2 rank) and a percentage attained AC1 status at 20 wpm.

The syllabus for the course also included basic radio, procedure, physical training, and 'square bashing' (arms drill, etc.), so only about 30 percent of the time was actually spent on Morse. This, at least, was the regime at No.13 Radio School, Blackpool and Compton Bassett during WWII.

Dave Walker Banchory, Scotland

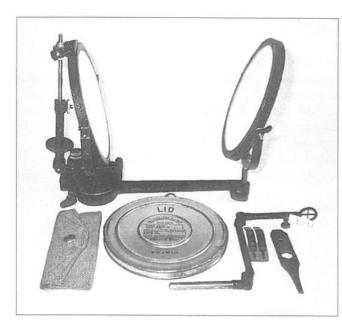
(When studying for our seagoing PMG tickets back in 1949/50 the course officially lasted eight months for a Second class ticket, with Morse examined at 20 wpm plain language and 16 wpm 5letter code groups. For the First Class ticket the course lasted twelve months and included Morse up to 25 wpm plain language and 20 wpm code.

With one exception, we all got well past 10 wpm in six months. Because of timetable factors, we actually sat the Second Class exam in six months and the First class in just under eleven.

In my first seagoing post I had to take overnight Press broadcasts which were three-quarters of an hour long, at 22 wpm, with a three-minute break each Silence Period. I am certain I was not alone in being thrown in at the deep end immediately on leaving college with a shiny new ticket! It has to be admitted, however, there were always R/Os around whose Morse could border on the virtually unreadable, and whose reception skills were not much better! – Ed.)

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Wyn Davies' heliograph Photo: Jack Barker



Helio Maker?

Thanks to Jack Barker, I recently acquired a Heliograph Mk.V in lovely condition. Its leather case is stamped 'L.A.M.' and its spares tin is marked 'B.W. & M. LTD'. Does anyone know what these initials stand for please?

> Wyn Davies Brymbo, Wales

Unknown Key MM53

I was surprised to see the photograph of Jack Barker's unknown key on page 28 of MM53. I have an apparently identical one which I have always assumed to be a one-off home-made item.

In my judgement, the somewhat crude finish and machining inaccuracies of my example would not usually be found in a commercial product, but clearly it was made to the same plan as the key shown in *MM*. The (oak?) base of

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my key is well made, and is certainly an original fitting.

The knurling of the terminals, etc., the machining of the bridge and pivot bearing, and the turned wood knob, all remind me of the sort of thing I was given to do in my school workshop!

Perhaps they were home-made to a published design, or maybe they were made as a class exercise in a school or college. Good workshop facilities would have been needed to make the bridge and pivot bearing. It will be interesting to see if other *MM* readers can provide further information.

I wish you continued success with the magazine, which is consistently of great interest.

> John Goldberg G3ETH Christleton, Chester

I was most interested to see Jack Barker's 'unknown key with round brass lever' in MM53, p.28, as I have one also.

I had assumed this was home-made and produced by an amateur, due to its poor 'feel', construction and finish. My only doubt in this connection lay in the

method of forming slots for the connecting wire and spring under the base, which have been milled out.

Mine is identical to Mr Barker's with the exception of the terminal posts which are shorter and with a waisted and knurled finish of about ⁵/s-inch diameter. The base is mahogany but without any feet. It is possible it had a maker's plate on the rear right-hand side at one time, judging from two 'puncture' marks made by screw holes.

Graham Jones G4DPH Yatton, North Somerset

I have a similar key to Jack Barker's unknown key in MM53 (p.28), but on mine the lever is square, not round. On mine all parts are original. He says the base of his is not original, but I think that the screw near the support, and the terminals too, are not original.

Jean le Galudec Nancy, France

Rosewood Wanted!

I am pleased with a reproduction

c.1855 US sounder I have made based on an illustration in George B. Prescott's *History, Theory, and Practice of the Electric Telegraph*, particularly as all the fancy shaped parts

G3LLZ's repro sounder from Prescott

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were produced using only a lathe's crossslide and saddle handles; i.e., no files or form tools were used.

I used oak for the base because I do not have any rosewood, which is what the book indicates it should really be. I wonder if any reader could let me have a suitable piece of rosewood so that I can use the correct material for the base?

> Dennis Goacher G3LLZ 27 Glevum Road Swindon, Wilts, SN3 4AA

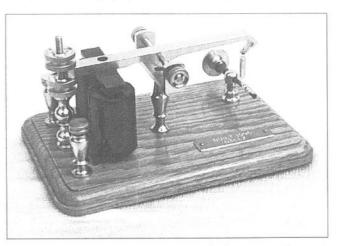
Dyna Key Correction – MM43

I regret that the description of my French key on page 25 of MM43 is incorrect. It should read Dyna 'Marine' and not Dyna 'Americaine'. My apologies for providing this wrong information.

Wyn Davies, Brymbo, Wales

Numbers Station Puzzle

I am puzzled by an MCW numbers transmission which is regularly heard on HF. This is the 'Morse arm' of the more common musical box station which plays the *Swedish Rhapsody* and has been



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around since the mid-1960s. The MCW transmissions only appeared a few years ago.

The question is about the introduction. The station sends a string of UUUUUs for 10 minutes before the start of a scheduled transmission, followed by 5 minutes of LO LO LO LO LO LO interspersed with an encrypted traffic header until the actual message is sent at five minutes past the hour.

Does any reader know: Why the UUUUs? Why the LO LO LOs, do they have any meaning? Is this a current or outdated format? Do any other stations use it? (LO LO LO has been reported in loggings of the 'Piccolo-6' station).

If anyone would like to listen to this station, the schedule always commences on the first Saturday of the month, and the most common transmissions are:

Week			Day	Time	MHz
	2	3	Mon	20.00	5.340
1		3	Tue	18.00	4.195
1	2		Tue	20.00	4.195
1	2		Tue	21.00	3.823
1			Wed	09.00	4.195
		3	Thu	19.00	5.340

There are others also, but there are never any transmissions on a Friday.

Chris Midgley, Enigma Newsletter Bradford, West Yorkshire (For information about 'Enigma' see MM34, p.6. – Ed.)

Farnsworth Method

Concerning the report 'Farnsworth Method Criticised' in MM53, p.5, it is quite certain that candidates for a Morse test who are used to Farnsworth timing will be surprised when tested at standard timing.

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In my own case, I began studying the code with normally proportioned Morse up to 14–16 wpm, but had serious problems trying to continue past that speed.

I then started again, from 6 wpm, using the Farnsworth method and this enabled me to reach 20–22 wpm without any problem.

After that, when I happened to receive Morse at 10 wpm I was surprised to find it too slow, although not with insufficient spacing between letters. I believe this is a temporary phenomenon which quickly passes. I note that the ARRL Morse training records have a section at 13–14 wpm with standard spacing and this is, perhaps, to help avoid the difficulties mentioned in the RSGB report.

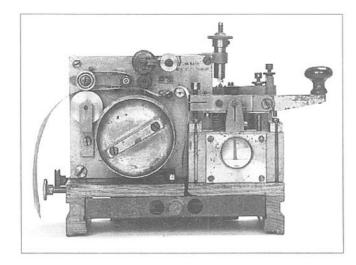
Incidentally, my apprenticeship was my own, without help from clubs or instructors. Just an MFJ tutor... and a lot of time.

Jesús Lahidalga Serna Baracaldo, Spain

(See also the article 'Farnsworth Preparation for the Morse Test', by the RSGB's Chief Morse Examiner on page 32 of this issue. – Ed.)

Folding Key, MM53

I now have some further information about my folding key illustrated on page 28 of MM53. It comes from a signalling lamp dated 1928, contained in a wooden box. The key was fixed inside the box and it was folded up when not in use to allow the box to be closed. Another box contains a generator/dynamo turned by hand to feed the lamp.



A similar key is on a military brass telegraph, c.1930, used by the French army.

Jean le Galudec Nancy, France

The folding key from Jean le Galudec (MM53, p.28) is very similar to the one on my portable military telegraph (*see photo above*) made by W. Gurlt – Berlin. The key folded up in order to put the instrument in its leather carrying case.

Fons Vanden Berghen Halle, Belgium

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Marconi Wireless Stations in Canada

Being a certified radio operator with the Canadian Coast Guard, my interest in Morse code goes without saying. I've worked for my current employer for the past 6 years, mainly in the Great Lakes basin. Most radio stations in these parts no longer use CW as a means of communications, whereas at the turn of the century, it was the only way to communicate. W. Gurlt portable military telegraph Photo/Collection: Fons Vanden Berghen

I am searching for information on the history of Canadian wireless Marconi stations that started up around 1912. Following the *Titanic* disaster off the shore of Newfoundland, there was a mad rush to set up wireless stations globally, and Canada was no exception. If readers have anything to offer, it would be greatly appreciated.

> J. Guevremont PO Box 101 Camlachie, Ontario Canada NON 1E0 E-mail: guevremontj@dfo-mpo.gc.ca

Was a subscription reminder included with your copy of this issue of MM?

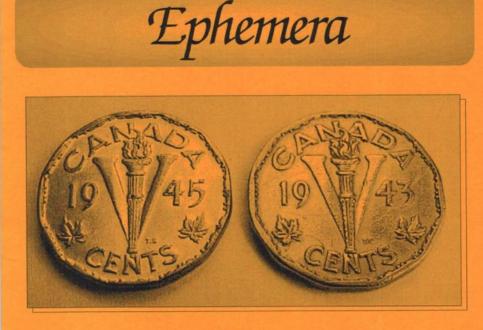
If so, please renew promptly – it helps us to keep administration costs to a minimum, and so puts off the evil day when we might have to think about increasing the subscription rates

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Morse Coins

Two Canadian 5-cent pieces bearing a message in International Morse 'We win when we work willingly'. This was placed along the rim on the reverse of the coin in place of the denticles (the usual continuous bead of small dots forming a frame on the coin). The design was intended to promote the WWII war effort and incorporated the 'V for victory' sign.

Coins issued with this design were:

1943 – tombac (a kind of brass; 0.88 copper, 0.12 zinc, introduced in 1942 to save nickel), of which 24 760 256 were minted.

1944 - ditto, 8000 minted.

1944 - steel, plated with nickel and chromium (some plated with nickel only),

11 532 784 minted.

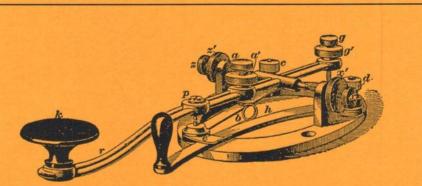
1945 - ditto, 18 893 216 minted.

Diameter of coin (opposite sides) 20.9mm; weight 4.54 grams.

The Morse message starts at the bottom of the coin, between the E and the N of the word CENTS and continues clockwise. It can easily be read with a magnifying glass. The original master matrix was engraved entirely by hand, by the Royal Canadian Mint's Chief Engraver, Thomas Shingles, whose initials appear to the lower right of the V sign.

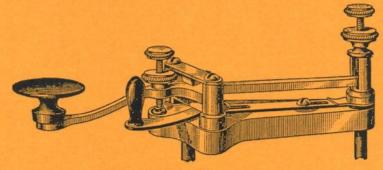
(Our thanks to Olive Roeckner, VE7ERA, for providing the above information.)

(Collection: Tony Smith G4FAI. Photo: Geoff Arnold G3GSR)



Western Electric Key

In this key, the upper platinum point is fastened to the end of the screw p, which passes through the lever r, so that, if ever necessary, the screw and the platinum contact can be removed and replaced without disturbing the key.



Lefley Key

This key is made by S.B. Lefley. The lever works on knife edges instead of on trunnions and screws. The maker claims that the knife-blade hinges eliminate all side motion of the lever and make it necessary to give the key only a very delicate touch, which enables an operator to send faster with it than any other key. He also claims that the adjustment is permanent and that the rear-end contact, being the same distance from the knife edge as the key knob, gives a greater opening between contact points and hence produces a clearer break. There is a contact plate on the rear end of the lever, which is claimed to insure a firmer contact than when two small points are used. The lever is thinner at the front end, thereby making it quite resilient and easy on the sender.

Illustrations and text taken from: Elementary Telegraphy, published for International Correspondence College, USA, 1911