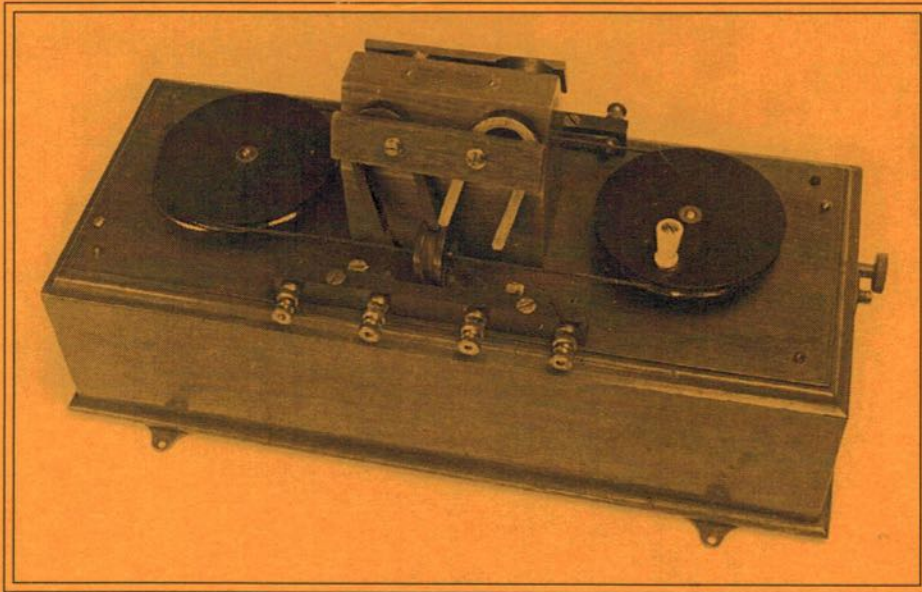


Flying  
the flag  
for  
Morse

Number 48 – October 1996

# Morsum Magnificat

*The Morse Magazine*



*"Maggie" – the Marconi Magnetic Detector*



Flying  
the flag  
for  
Morse

# Morsum Magnificat

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

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**ON OUR FRONT COVER**

Marconi Magnetic Detector. Affectionately known as the "Maggie", this type of detector was used at sea for nearly twenty years from the early 1900s.  
Photo/Collection: Fons Vanden Berghen



## Comment

**A**T A TIME WHEN MANY PEOPLE are devoting so much effort to proving just how redundant an ability to communicate in Morse code has become in today's high-tech world, it is heartening to find yet more support for it coming from unexpected quarters.

In the 17 September 1996 issue of the *Daily Telegraph*, Dr James Le Fanu remarked in his 'Doctor's Diary' column as follows:

"The fax and Internet would seem to make the Morse code redundant, but correspondence in the *New Scientist* suggests otherwise. Ronald Key, from North Wales, knew Morse code thanks to being a radio ham and it proved useful when he found himself in intensive care, unable to speak or write. 'I was able to send and receive messages from my wife, who is a former Girl Guide, through movement of my toes,' he said.

"This week Mr N.R. Vary, a former officer in the Royal Corps of Signals, now living in Australia, describes just such a situation when a former colleague was left completely paralysed for some months after being struck down by Guillain-Barré syndrome [an acute neural disease].

"His wife, after visiting him in hospital, reported to the family that he had developed a twitch in his eye. Soon afterwards his grandson (to whom he had taught Morse code) visited and immediately recognised the twitch as an R9 VE signal.' Apparently VE means 'I have a message for you' [sic] and R9 'Received loud and clear'. 'From then on he was able to communicate until his paralysis got better.'

"Perhaps Morse code should be included in the national curriculum in anticipation, God forbid, of being struck down by paralysis in later life."

I would have thought that teaching school-children a basic skill in receiving and sending Morse code would do far more for their audio and manual coordination than frantically stabbing at the trigger button on the joystick of a video game!



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# News

## **SOWP Opposes FASC Proposal**

The Society of Wireless Pioneers, Inc., has sent the following communication to the International Amateur Radio Union's 'Future of Amateur Radio Service Committee' (FASC), commenting on the FASC conclusion that the necessity for an amateur radio Morse test should be removed from the International Radio Regulations:

"We, the undersigned Officers and Members of the Board of Governors of the Society of Wireless Pioneers, Inc., wish to express our firm unanimous opposition to the stated position of the Committee to remove the Morse code proficiency requirement from discussions being planned for the World Radio Conference to be held in 1999 (WRC-99). We are all present or former commercial radiotelegraph license-holders as well as amateur radio licensees governed by several administrations.

"The Committee's proposal is severely premature. It is not based on any survey of the amateur radio community. It amounts to a sudden, 180-degree turn, based on expediency, not upon reasonable discussion.

"We believe the Committee has arrogated to itself a position which would NOT be supported in any such discussion. It is a complete reversal of the position of the ARRL Board of Directors in 1993 which REAFFIRMED treaty support for demonstrated proficiency

in International Morse code for amateur radio stations operating below 30MHz.

Respectfully,

(SOWP Officers and Board of Governors)"

*(The conclusions of the FASC on this matter were reported in MM46, p.16. There is a special news report including the response of the Radio Amateurs of Canada (RAC) to the FASC conclusions on page 36 of this issue. – Ed.)*

## **CW Success at WRTC-96**

At the second World Radiosport Team Championship, held in the San Francisco bay area on July 13–14, CW emerged as the major mode used.

The WRTC pits two-person teams, comprised of many of the world's top DX operators from thirty countries, in a head-to-head competition. All teams run the same amount of power and operate from stations having similar antenna systems, from flat terrain in the same geographical area.

There were 52 teams entered, running a maximum of 100 watts in the 40, 20, 15, and 10 metre bands. The contest, which was held in conjunction with the IARU HF World Championship, lasted for 18 hours, from 1200 UTC, Saturday July 13, until 0600 UTC Sunday July 14. (The IARU contest ran for another six hours).

During the competition, some 109 000 QSOs were completed, of which



seventy percent were Morse code contacts. The teams generally preferred CW since it carried a higher point value per QSO.

The winning station was W6X, operated by Jeff Steinman KR0Y and Dan Street K1TO, with a score of 761 829 points. The event was professionally video-taped and it is planned to make the video available to network TV and to ham radio clubs.

*(Condensed from the W5YI Report)*

### **British Army Morse Training to be Reduced**

At the Annual General Meeting of the Royal Signals Amateur Radio Society, held on 30 June 1996, the Society's Chairman, LtCol M.J. McKinlay reported that Digitization of the Battlefield had reduced considerably the requirement for Morse training once BOWMAN enters service. The scale of Morse training at the Royal School of Signals would be reduced but the Corps would retain the training capability well into the next century. Specialist units would, however, continue to train soldiers in Morse skills. *(From Mercury, journal of RSARS. BOWMAN is the British Army's new computerised radio system. - Ed.)*

### **UK Morse Test Fees Increased**

Fees for UK amateur Morse tests were increased as from 1 September, 1996. The 12 wpm test now costs £20.00, and the 5 wpm test £15.00.

Amateur Morse tests in the UK are administered by the Radio Society of Great Britain on behalf of Britain's licensing authority, the Radiocommunications Agency.

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### **Changes at MTC and Tributes to Retiring President Dunbar**

Earlier this year, Jim Adkins of Freeport, Illinois, who at one time was an Illinois Central Railroad telegrapher and train dispatcher, formally took over the duties of president of The Morse Telegraph Club Inc.

In another change, John M. Barrows, a newspaper publisher from Dillon, Montana, and a former Northern Pacific and Great Northern Railway telegrapher, became editor of *Dots and Dashes*, the journal of MTC.

Both positions were previously held by Bill Dunbar of Normal, Illinois, who had held these posts for the past twelve years. A number of tributes were paid to Bill in the Summer 1996 issue of *Dots and Dashes*, and these are best summed up by the following proclamation from the Phoenix Chapter of MTC.

#### ***Proclamation***

WHEREAS, William K. Dunbar has served as both President of the Morse Telegraph Club Inc., and as Editor of its publication *Dots and Dashes* for more than a decade; and

WHEREAS, the women and men who proudly claim membership in this distinguished organization in the United States, Canada, and in numerous overseas locations, owe him a debt of gratitude that can never be repaid; and WHEREAS, during his long and extraordinarily capable tenure, he has worked tirelessly and successfully to recruit new members to the thinning ranks of Morse telegraphers; and

WHEREAS, he has built the *Dots and Dashes* newspaper from a small journal

consisting of chapter meeting notes and elections of officers to a lively and professional newspaper of immense interest to members and non-members alike; and

WHEREAS, he has labored without compensation and has provided office space in his home for club business, has carried on extensive correspondence, and has provided historical and technical data for students and researchers, as well as for Club membership; and

WHEREAS, in this endeavour he has developed archives on Morse telegraphy that are second to none by tirelessly recording and coordinating the memories and experiences of the Club membership and other sources; and

WHEREAS, he has travelled extensively to take part in Morse telegraphy demonstrations at rail fairs, depot museum dedications, and other events to keep alive the knowledge and role of telegraphy in rapid communications; and

WHEREAS, while many dedicated members have contributed to the healthy state of the Morse Telegraph Club, it was principally through the unselfish volunteer efforts of William K. Dunbar to take on the considerable chores of President and Editor that saved the Morse Telegraph Club from extinction several years ago;

NOW, THEREFORE, we the members of the Phoenix Chapter of the Morse Telegraph Club, Inc., on the eve of his retirement as President and Editor, do hereby proclaim

WILLIAM K. DUNBAR

To be the benefactor and first citizen of Morse Telegraphy and acknowledge our undying gratitude for his long and un-

selfish service to the Morse Telegraph Club Inc.

In Witness Whereof, we proudly affix our signatures hereto. Done in Phoenix, Arizona, on the 27th Day of April in the year of our Lord One Thousand Nine Hundred and Ninety Six.

*(MM joins in the accolades for retiring president Bill Dunbar. He has worked long and tirelessly for MTC, and has been a good friend of MM in the process. We wish Jim Adkins and John Barrows every success in their new appointments. There is a club profile of the Morse Telegraph Club in MM28, p.35. – Ed.)*

### **Morse Code Saves the World!**

The film *Independence Day* has an intriguing scenario in which major cities around the world are threatened and attacked by huge alien spacecraft. The only possible way to save the world is if all countries can mount an attack on the invaders at the same moment in time.

America works out the details, but the aliens have taken control of the communications satellites. How can the Americans communicate with other countries reliably, and without the aliens eavesdropping on their plans?

The answer is by Morse. CW operators miraculously appear around the world, capable of sending and receiving 'old fashioned Morse code' as it is described in the film. The message gets through, the aliens are defeated, and the world is saved.

Most people who see the film will take this part of the story for granted. After sitting through two hours of stunning special effects depicting

astounding technology far in advance of anything known on earth, they may not attach much importance to this short, not very well presented, communications sequence.

But it will have a special significance for those aware of the accelerating demise of Morse telegraphy. A message is there for those who will see it. A message that has been demonstrated many times over in real life. HF CW can get through in an emergency when, for whatever reason, other systems, including satellites, can't. Once it is discarded, a valuable communications back-up system will be lost for ever.

*Review by Tony Smith*

### **G4ZPY in Hawaii**

Gordon Crowhurst, G4ZPY, and his wife Brenda, proprietors of G4ZPY Paddle Keys International, have just returned from their third visit to Hawaii, where they were married in 1994.

Gordon reports that they took the opportunity to deliver two of their keys to a local radio amateur. Kimo, KH6IFN, and through him had the opportunity to meet several other local amateurs – and to operate from the station of Marty (now N6VI), high up on a mountain, two miles from the nearest neighbour.

Marty's station comprises an antenna farm with six

towers carrying various arrays, and a shack containing five eight-foot trestles each with a transceiver and 1K5 linear amplifier. It is used by several operators of the 'Lava' DX group as well as by Marty.

Gordon says, "My CW was atrocious, I was so nervous operating under conditions to which I am not accustomed. I have not found time to transmit for many years due to pressure of work, so that did not help the situation."

In an interesting comment on local conditions, he says, "Why does anyone need 1kW to operate? Well, when you are situated 2500 miles from your nearest contact, and night falls very early, then a little more smoke up the chimney comes in very handy. Conditions on the rim of the Pacific Basin are often very poor."

Spurred on by Brenda, Gordon is now back on the air with what he describes



*Gordon Crowhurst, G4ZPY,  
operating from Hawaii*



as a Rolls Royce of transceivers, a Yaesu FT-1000 MP. Listen out for him between 0600 and 0800 hours, before he starts another day of key-making. "If you hear me", he says, "please be patient with my poor quality CW."

*(We were sorry to hear as we went to press that Gordon was about to enter hospital for a heart bypass operation. We wish him well and hope that he is back on the key again very soon. – Ed.)*

### QRPers Honoured

The QRP Amateur Radio Club International has announced seven inductees to its QRP Hall of Fame for 1996.

These are:

Brice Anderson W9PNE  
George Burt GM3OXX  
Tom Davis K8IF  
Wes Hayward W7ZOI  
Rick Littlefield K1BQT  
C.F. Rockey W9SCH  
Adrian Weiss W0RSP.

All are well-known and dedicated CW enthusiasts who have served the world of low power transmission with distinction in various ways. These include operating achievements, technical design, writing, publishing, encouraging newcomers to QRP, and the organisation of QRP ARCI itself.

Without denigrating the other recipients of this honour in any way, *MM* is particularly pleased to see among a mainly American list the name of George Burt, GM3OXX, from Clermiston, Scotland.

George has been deeply involved in QRP, both operationally and technically for many years. He was the first recipient of the G-QRP Club's prestigious

QRP Master's Award. He has designed a number of well-known QRP projects, such as the OXO, ONER, and STX, of which the ONER transmitter is probably one of the most commonly built QRP projects in the world; and he has written many technical articles for *SPRAT*, the journal of the G-QRP Club.

In his QRP work, he has only ever used home-designed and home-built equipment, all of a very high standard, and he has never used more than one watt of RF output. With this equipment, and using simple wire antennas, he has worked the world with CW, gaining many awards and trophies in the process.

With such a background, George was unanimously inducted by the voting body into the QRP Hall of Fame. *MM* offers its congratulations to him and to all the other inductees similarly honoured by QRP ARCI.

### EUCW

#### Fraternising CW QSO Party 1996

The European CW Association's 16th CW Fraternising Party will be held on 16–17 November 1996 as follows (all times UTC):

#### 16 November

1500–1700	7.010–7.030MHz 14.020–14.050MHz
1800–2000	7.010–7.030MHz 3.520–3.550MHz

#### 17 November

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 – Short-wave 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 (Russia); VHSC (Very High Speed Club), 3A-CW-G (Monaco) and 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. To be received by the EUCW Contest Manager, Guenther Nierbauer DJ2XP, Illinger Strasse 74, D66564 Ottweiler, Germany, not later than 31 December 1996.

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, 'Standard', 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 short-wave 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 six 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 Fraternalising CW QSO Party (see above) offers an excellent opportunity to gain qualifying points for this prestigious CW only award.

### **Come to the HOT Party!**

AGCW-DL's annual Home-brew and Old-Time Equipment Party will be held on Sunday, 17 November 1996, from 1300 to 1500 UTC on 7.010–7.040MHz, and 1500 to 1700 UTC on 3.510–3.560MHz.

All radio amateurs are invited to join the party, using home-brew equipment (old or new) or commercial equipment more than 25 years old. Home-brew or old-time receivers may be used with modern transmitters or vice-versa.

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

**Call:** 'CQ HOT'.

**Categories:** A – TX AND RX home-brew or older than 25 years; B – TX OR RX home-brew or older than 25 years; C – QRP – TX not more than 10W/5W input/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:** Class A working A; A working C; C working C = 3 points.

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

**Logs:** Including a specification of the home-brew or old-time equipment used, should be sent to – Dr Hartmut Weber DJ7ST, Schlesierweg 13, D-38228 Salzgitter, Germany, to be received not later than 15 December 1996.

### **75th Anniversary of First USA/EU Contact**

To celebrate the anniversary of the first complete amateur radio message from USA to Europe, from station 1BCG, a replica of the original transmitter will be used by station W1BCG, in Greenwich, Connecticut, for a new series of transatlantic tests. These will be from 2200 UTC on 9 December, to 2400 UTC on 15 December 1996, on 1815kHz, CW only. QSL to SARA, PO Box 4225, Stamford, CT 06907-0225, USA, enclosing a 9 x 12in SAE for a certificate.

The first message was addressed to Paul Godley, 2ZE, a well-known American amateur who came to Europe specially for the 1921 tests. At 0500 GMT on December 9, he identified signals from 1BCG, a station set up on his own recommendation at Greenwich, Conn., by six members of the Radio Club of America. Two days later, the first complete message from the USA was received in Europe, as follows:

"No. 1 de 1BCG. Words 12, New York, December 11, 1921. To Paul Godley, Ardrossan, Scotland. Hearty congratulations. Burghard, Inman, Grinan, Armstrong, Amy, Cronkhite."

The message was transmitted on a wavelength of 230 metres and was logged correctly by Godley at 0252 GMT, 12 December 1921. In 1950, the Radio Club of America erected a stone



marker commemorating 1BCG, on a spot about 200 feet east of the original station site.

### Museums of Interest

#### GERMANY

The following German PTT-museums all have telecommunications sections which may be of interest to visiting *MM* readers. Details of admission charges are not known.

##### 1. BONN

Museumsstiftung Post & Telekommunikation (Headquarters),  
Heinrich-von-Stephan-Strasse 1,  
D-53175 Bonn.

Includes stamp collection, open 1000–1600, Monday – Friday.

Tel: +49-228-1850

Fax: +49-228-185190.

##### 2. FRANKFURT

Museum für Post & Kommunikation,  
Schaumainkai 53,  
D-60596 Frankfurt.

Hours: 1000–1700 Tuesday – Sunday  
1000–2000 Wednesday

Tel: +49-69-60600

Fax: +49-69-6060123.

##### 3. BERLIN

Museum für Post & Kommunikation,  
Ringbahnstrasse 130,  
D-12103 Berlin.

(Note: Berlin has three 'Ringbahnstrasse's'. This is the Ringbahnstrasse in Berlin's Tempelhof district (at highway 100).

Tel: +49-30-75016801

Fax: +49-30-75016810.

##### 4. NÜRNBERG

Museum für Post & Kommunikation,  
Lessingstrasse 6,  
D-90443 Nürnberg.

Specialises in Bavarian PTT-history, including Bavarian telegraph and telecommunications technology.

Hours: Open every day, including weekends, 0930–1700.

Tel: +49-911-2308885

Fax: +49-911-2308896.

##### 5. HAMBURG

Museum für Post & Kommunikation,  
Stephansplatz 5,  
D-20354 Hamburg.

Specialises in Maritime Radio/Mail.

Hours: Tue, Wed, Fri, 1000–1500. Thurs, 1000–1800.

Tel: +49-40-35037701

Fax: +49-40-3480566.

Please Note: Details of other museums in Germany can be found in *MM44*, pp6–7. The telephone numbers of the Postmuseum Berlin (West), described in that issue, have recently been changed to: Tel: +49-30-75016890 and Fax: +49-30-2141897.

#### NORWAY

##### 1. OSLO

Telemuseum, Norsk (located in Teknisk Museum, Norsk),  
Kjelsåsveien 143,  
N-0491 Oslo.

The main exhibition covers the communications technology of Norway, ranging from the time of the Vikings to the technology of the future.

Hours: Tues-Sat, 1000–1600. Sun, 1000–1700.

Prices (including visit to Teknisk Museum): Adults, NOK 30; Children, NOK 15; Families NOK 75. 2

Tel: +47-22779000.

For more details, also information about Oslo, see 'Oslo Promotions' on

the world wide web - <http://www.sn.no/oslopro/>

## 2. STAVANGER

Norsk Telemuseum Stavanger,  
Dronningensgate 12,  
Stavanger.

The history of telecommunications, specialising in wireless telegraphy.

Hours: June 15–August 15, daily, 1200–1500. Rest of year, Sunday only, 1100–1600, also by appointment.

Prices not known. Tel: +47-51765045.

## 3. TRONDHEIM

Norsk Telemuseum Trondheim,  
Kongensgate 8,  
Trondheim.

'An historic walk, from the Morse era to the digital age.' Exhibits partly restored for exhibition purposes. Covers telecommunications from about 1855 to the present time.

Hours: Tuesday and Thursday, 1200–1500, also by appointment.

Prices not known. Tel: +47-73543885.

## 4. TROMSØ

Norsk Telemuseum Tromsø  
Kvaløyveien 450.

Contains the 1930s long-wave transmitter from Tromsø Radio which closed down in 1991. Tells the story of telecommunications in Norway. Collection includes telephone exchange, telegraph, and weather forecasting equipment.

Hours: Wednesday and Thursday, 1000–1400, also by appointment.

Prices not known.

Tel: +47-77625289. Fax: +47-77670601.

*(Our thanks to Monika Pouw-Arnold, PA3FBF, who obtained the above published information on behalf of MM. We welcome news about museums with some element of Morse interest from*

*around the world. As well as being of general interest, this information is for the benefit of MM readers visiting other countries who like to include visits to such museums in their itineraries. – Ed.)*

### Websites

A new site on the world wide web is PA3BWK's 'Ultimate CW Website', at <http://www.dutch.nl/wilbwk/>

This site contains the official homepages of the Very High Speed Club (VHSC), the Super High Speed club (SHSC), and the Extremely High Speed Club (EHSC). It includes details of membership and audio samples of the appropriate code speeds for each club.

The *MM* homepage continues to attract visitors and can be found at <http://www.retiarius.com/morsum/>

### Solenoid Winners

Solenoids for the W4FOK solenoid sounder offered in MM47 (p.8) have been sent to the following readers:

Torben Dahl, Copenhagen, Denmark.

Rev. Duncan Leak, Stoke-on-Trent.

Tom St John-Coleman, Braintree.

L.W. Symons, Plympton.

Our thanks go to Jim Farrior, W4FOK, who provided these solenoids free of charge for our readers.

### News from Porthcurno

The Porthcurno Telegraph Museum continues to expand. New additions this year include a working 'Sterling' spark transmitter; a WWI 'trench' spark transmitter; a single needle telegraph instrument c.1860; a Wheatstone ABC set; more Morse keys and sounders of various patterns; a British Army field

Morse sounder set; various vintage communications and domestic receivers, and other items. It is planned to install a CW-only vintage amateur radio station, and put it on the air using only equipment more than 50 years old.

MM has received more information from John Packer, the museum's Hon. Curator, but as it is now nearly the end of the season, we will use this to produce a feature on the museum in the new year. This will enable readers planning their holidays in the West Country to include a visit to the museum in their itinerary.

#### Last Morse from Norddeich Radio/DAN

The following message was recorded live on 4MHz by Bruce Morris GW4XXF, at 1800Z on 30 September 1996:

THIS IS THE LAST ANNOUNCEMENT  
FROM NORDDEICH RADIO IN  
MORSE CODE. WE NOW CLOSE  
THE RADIOTELEGRAPHY SERVICE  
ON HF. BYE BYE AR AR VA

This historic message marks the end of all Morse services from German coastal stations. Bruce has added the recording to his archives, and it will be included in his next collection of final Morse messages from coast stations around the world to be issued at a future date.

#### MARS Converts to Digital Modes

Effective 1 October 1996, Morse code communication is no longer used in the Military Affiliate Radio System (MARS). All MARS traffic handling is being converted to digital communications.

*(W5YI Report, 1 October 1996)*

MM48 – October 1996

## Short Break

### Chinese Style Morse Code – In Esperanto!

The Esperanto Scout Journal 2-3/94 has an entertaining suggestion for sending secret messages to your friends, contributed by Bjarke Nielsen of Denmark.

'Chinese Style' Morse involves writing Morse dits as vertical strokes and dashes as horizontal ones; and the message is written from top to bottom of the page.

⌈	⌊	∧	∩	↵
∩	∪	∟	∩	∟
∩	∩	∟	∩	∩
∩	∩	∩	∩	∩
∩	∩	∩	∩	∩

In the example given, the message reads 'Kiel oni diras Estu Preta', meaning 'How one says Be Prepared'.

*(Contributed by the Rev. Duncan Leak, G0RJT)*

### 'Golden Section' Key Plans Available Again

With the kind assistance of Dr Jim Lycett, the designer of the key, photocopies of the engineering drawings (3 A3 sheets) and parts list are available once more from the Editorial Offices.

The prices, to cover postage and packing (and VAT where appropriate), are as follows: UK £1.00; rest of European Union £1.25; elsewhere £1.10. Overseas despatch by airmail to Europe, surface mail elsewhere.



**I** WOKE UP when the chief mate shook my bunk in the middle of the night. It was pitch dark and the first thing I noticed was the fierce rocking of the ship which meant that the storm was still blowing forcefully.

It took me a few minutes to come to my senses since the last few days had been very tiring. Hurricane Bertha had passed just a few miles north of our ship, and living and working in a ship under such circumstances is a bit hard.

In my cabin I saw Peter Olsen, the mate, and an unknown person wearing a uniform and carrying a leather briefcase. "Wake up Sparks; this is a Cuban navy officer who is in urgent need of a weather report." I dressed as quickly as I could and left my cabin to go to the radio room. Enormous waves were still hitting the decks and I hurried to get inside again.

#### **Radio Failed**

Our ship, the ss *Stavanger Eksplorer*, was anchored a few miles off the northern coast of Cuba near a small town where we had to unload heavy machinery for a sugar factory. This difficult task had to be performed with the aid of barges since the town had no harbour to speak of, and because of the high seas the work had been delayed for a few days.

When I was on deck I saw at a relatively short distance a small Cuban naval vessel which had also dropped its

## **Reflections from Uncle Bas - 24**

**Helping Out the Cuban Navy**

**by Bastian van Es PA0RTW**

anchor. The distraught navy man, who followed me like a dog, told me that he was the ship's radio officer but because of a failure in his radio equipment had not been able to communicate with headquarters in Havana.

This much I understood after a while from his halting English/Spanish. His 'capitan' had been extremely angry and had threatened to drown him if he did not produce a weather forecast *subito*.

#### **A Piece of Cake**

Repairing the equipment was out of the question since he had been trained to handle the Morse key and the tuning of the various units, but did not know anything of the innards of the equipment. The only way out of his problem was to climb the rope ladder of our ship and hope somebody on board might supply him with the required information.

During the hurricane season every coast station in the region transmits, day and night, extensive weather reports and information on low and high pressure formations. So it was a piece of cake to obtain in less than an hour several complete reports from American coast stations and the US Coast Guard, which I handed over to the Cuban officer.

Happily he put the papers away in his leather suitcase and then asked me to contact navy headquarters in Havana. I was a bit nonplussed at this request because I had never made contact with navy stations before. Which frequencies were to be used and was a Norwegian freighter allowed to transmit on those frequencies? But my main question was about my civil equipment? Was it suitable to work navy stations?

#### ***Reported Missing***

The Cuban did not see any problem. He said he was under orders from the Cuban navy and was allowed to do anything that was necessary. I called for over an hour on 500kHz, but no-one answered. A tremendous noise (QRN) covered the entire band, and even Havana Radio (CLA) which was just a few hundred miles from our position could not be heard.

Finally I contacted Santiago on short-wave, and no doubt the operator was very surprised to receive dozens of coded messages for the Ministry of Defense in Havana.

After confirmation of the cables he informed me that the navy vessel had been reported missing and told me to 'hang on'. After a little while, during which no doubt the officials in Havana had been asleep, I had to copy dozens of cables from headquarters. The Cuban radio officer, who had posted himself beside my chair, did not leave me for a second. He was pretty well-informed and was able to deal with all the questions in the telegrams received.

#### ***Thank You Very Much***

The sun was rising above the horizon when, with a happy face, he climbed down the rope ladder into a small rowing boat in which a sailor had been waiting patiently all night.

Before he left I suggested I might have a look at his faulty equipment, but this offer was refused vehemently. Did he consider me a spy? What about all those secret telegrams I had copied and sent?

Whatever happened to my Cuban friend and colleague I don't know, but it was very nice to receive, several months later, a letter from the Cuban Embassy in New York, thanking me for my co-operation, etc., etc., and they were always available to reciprocate my services. Thank you, thank you, and so on and so forth.

What they meant by their services I still don't know. A bottle of Bacardi would have been a nicer gesture.

***MM***

**If you enjoy reading *MM*, why not tell your friends and encourage them to take out a subscription too!**

**A** NEW PADDLE has arrived that only a few avid CW buffs know about. It is made to order by Peter Byam ZL2JJ. A professional engineer turned cattle farmer, Peter makes all the gear for his 1930s replica ham station in his well-equipped workshop. He is a keen DXer with DXCC and WAS, CW only.

Peter had been trying out many different paddles but was not 100 percent satisfied with any of them, so it was no surprise when I discovered an exquisite hand-crafted paddle on his operating table. With a little coaxing I persuaded him to make one for me. The word got out, and to date he has made about a dozen for enthusiasts around the world.

These are highly prized possessions and not just for their rarity. The design has been carefully optimised and there is no compromise on quality. The Zed-

## The Zedder Paddle

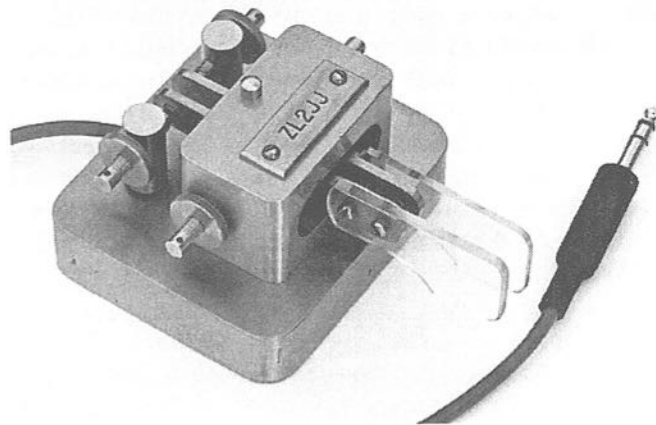
A review

by Dr Barry (Baz) Kirkwood ZL4OK

der is a heavy and robust key, weighing about two kilos (nearly five pounds), but the base is only 100 x 90mm (4 x 3½ inches).

### *Delight to Use*

The arms pivot on four sealed miniature precision ball races which need no adjustment or lubrication. The base, bearing block and paddle arms are machined



*The Zedder paddle  
manufactured by  
Peter Byam ZL2JJ*



from 'Herculy' bronze castings which are sand-cast in his own workshop. I can tell you that melting and pouring bronze is an impressive operation to watch. Each key is hand polished with fine emery and protected with two coats of clear baked-on lacquer.

The key is a delight to use. With its large 18mm (<sup>3</sup>/<sub>4</sub>in) knurled lock nuts and extra fine threaded contact screws, it is easy to fine-tune to the individual operator's touch. The contacts are generous and machined from silver alloy to minimise wear and tarnishing. All pins, shafts, springs and screws are stainless steel. The finger paddles are tough clear 'Lexan' plastic and may be inverted to give a choice of height above the table.

#### *Made to Order Only*

Each key is individually stamped with a serial number which is recorded together with the owner's name and call-sign. On top there is a brass plate which is engraved with your call-sign, which can be changed if you change your call. The plate can also carry a presentation message.

Those of us who have owned or tried the Zedder, including FOC member Mike Hutchins ZL1MH and Morse columnist Gary Bold ZL1AN, believe that this is, arguably, the finest dual-lever key ever made.

The Zedder is made to order only. If you would like to write to Peter, his address is: Peter Byam, R.D.2, Waverley 5182, New Zealand. He will send you a full technical description of the key and a colour photograph on request. I think the price is still NZ \$400 plus shipping.

**MM**

## Readers' ADs

### WANTED

LORENZ STYLE KEY (ZA 54574). Peter Queded G0DRT, 'Nethercroft', Southsea Avenue, Minster, Sheerness, Kent ME12 2NH. Phone: 01795 876277.

SPECIAL TELEGRAPH EQUIPMENT. Single needle; Undulator; Wheatstone... Can be collected in the UK. Buy or swap (TGR, TF, RADIO...) Fons Vanden Berghen, Lenniksesteenweg 462/22, B-1500 Halle, Belgium. Phone: Office +32.16.38.27.21, or late evening: +32.2.356.05.56.

KEYS, bugs, sounders, and other Morse related items wanted to purchase or trade. Specially looking for unusual bugs. List of items for trade available. Dave Pennes, 4607-C Santa Cruz Dr., Indianapolis, IN 46268-5354, USA. Phone: (317) 471-9605.

### BACK ISSUES

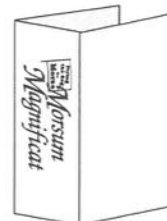
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**I**N MY ORIGINAL ARTICLE I wrote: 'there is a mystery about the association of Farnsworth's name with this learning method. Research by Bill Fisher W2OC reveals that Donald R. (Russ) Farnsworth was a blind amateur who was first licensed in the mid-1930s as W9SUV, who also held the calls W6TTB and W0JYC. In the late 1950s, Russ Farnsworth asked Bart Bartlett W6OWP to help him prepare some tapes for a code learning course he had developed.

'Bart had a Kleinschmidt tape perforator and with this he produced the perfectly timed punched tapes which Russ then used to make the final audio tapes for his Epsilon Records code course. Surprisingly, however, it appears that Farnsworth did not use the increased spacing idea now universally attributed to him.

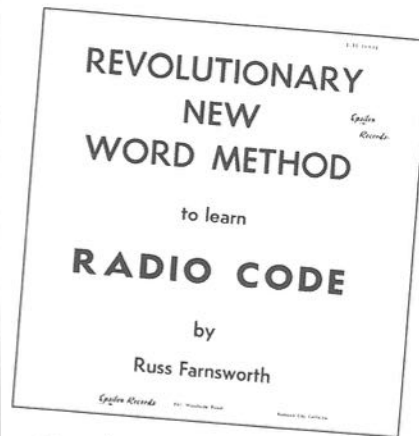
'His method of instruction was to maintain the code speed at a constant 13 wpm (characters and spacing) throughout the course, starting with simple text and gradually increasing the complexity of the text material. But if Farnsworth didn't invent the system, who did? And why is it named after him?'

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[Ref: *Morse Code – The Essential Language*, by L. Peter Carron Jr., W3DKV, 2nd edition, 1991, pub. ARRL. Also correspondence (1989) between Bill Fisher W2OC, and W3DKV, courtesy W3DKV.]

## Farnsworth Mystery Solved!

Tony Smith's article 'Why Farnsworth?' in MM24, p.36, asked why the Farnsworth method of learning Morse (i.e. with extended spacing between letters and words, reducing as competency improves), was so-named. The only Farnsworth identified as publisher of a Morse learning system did not appear to have used this system. Now, thanks to an MM reader, the mystery has been solved. Tony explains ...



Record cover  
for the Farnsworth Morse course

### ***It WAS Russ Farnsworth!***

The mystery deepened when an obituary was placed on packet radio in February 1994 for the late Wes Farnsworth KEONH, claiming that he was 'the father of the Farnsworth method of code'. Despite attempts by *MM* and by several readers, however, it has not proved possible to contact the originators of that message to clarify their claim.

Now, thanks to reader Milton Bramer N6MB, the mystery has been solved. It WAS Russ Farnsworth, and he DID use extended spacing in his Epsilon Records course!

Milton wrote, 'I bought a set of Farnsworth Code Records about 30 years ago which sent the characters at thirteen words per minute and gradually decreased the time between characters as proficiency increased. There are three (12in) 33 $\frac{1}{3}$  rpm albums in the set and the date 1959 is on the record label. The back of the album cover refers to Russ Farnsworth W6TTB who was a wireless telegraphy instructor during WWII.'

Milton also sent a copy of the course notes from the Epsilon album cover. These notes refer to the complexity of the text material increasing as the course progresses, but do not explain what this means. This is where the misunderstanding has occurred, and in the original correspondence on this matter it was not realised that 'increased complexity' meant that extended spacing was progressively reduced.

### ***Based on Long Experience***

The notes explain that Russ Farnsworth, of Redwood City, California, was a teacher of wireless telegraphy at

the Illinois Institute of Technology in Chicago during the early years of WWII. After the war, he devoted many hours of his spare time teaching code and theory to anyone who wanted to learn.

The record course was based on his long experience of teaching code and, say the notes, was 'presented in a warm personable style which creates the illusion that the instructor is talking to each student individually rather than to a large heterogeneous audience'.

The entire course was at a constant code speed of 13 wpm, but Unit 6 could be played at 45 rpm instead of the normal 33 $\frac{1}{3}$  rpm to increase the speed of the code to 17 $\frac{1}{2}$  wpm.

### ***Special Keyer***

The recording was made on an Ampex professional recorder using an Altec microphone and Scotch Brand III tape. The oscillator providing the tone was specially designed for the task. It used a single transistor 'in a special circuit to produce a signal with just enough harmonic content to alleviate the fatigue experienced when listening to a pure tone for extended periods of time'.

Hand sending by the instructor 'was accomplished with an electronic keyer especially built for the purpose to maintain uniformity of rhythmic beats throughout.'

Exercise material at the end of each Unit, and the material contained in all of Unit 6, 'was punched out on a Kleinschmidt tape perforator by Mr Forest Bartlett W6OWP, an operating engineer for Press Wireless in Belmont, California, and who has, for 12 years

## The ARRL Morse Transmission Timing Standard (Extract)

### 2.1 Standard timing

The period of a single dot is one unit, measured in seconds. A dash is a period of three units. A period of one unit separates each element (dot or dash) within a character. A period of three units separates each character within a word. A period of seven units separates each word. For purposes of specifying code speed, the PARIS 50-unit standard is used ...

### 2.2 Farnsworth timing

At speeds below 18 wpm, characters are sent using 18 wpm timing, but with extra delay added between characters and words to produce an overall lower speed. Speeds are specified as  $s/c$ , where  $s$  is the overall transmission speed and  $c$  is character speed. For example, a 5 wpm transmission sent with 18 wpm characters is specified as 5/18 speed. The character timing used is as

specified in 2.1 (above), using the unit, dot and dash periods, as well as the one-unit inter-element spacing. The adjustment to a lower speed is made by adding delay between characters and words. The added delays are constant for a given Farnsworth speed and will maintain the 3/7 ratio of character space to word space. The added delays are calculated as follows:

$$t_a = \frac{60c - 37.2s}{sc}$$

$$t_c = \frac{3t_a}{19}$$

$$t_w = \frac{7t_a}{19} \quad \text{where}$$

$t_a$  = total delay to add to the characters (31 units) of a standard 50-unit word, in seconds

$t_c$  = period between characters, in seconds

$t_w$  = period between words, in seconds

operated stations for the Western United States.'

The master tapes 'were processed, and the records pressed on Grade A Vinylite, at one of the West Coast's largest record manufacturing companies in Hollywood, California.' 'Every precaution has been taken', claim the notes, 'to insure the highest standard of quality and fidelity. The records were

cut on the standard RIAA Curve.'

### Two Versions

'The script was prepared by the instructor, Mr Donald R. Farnsworth, whose voice is heard on the recording, and who also served in the joint capacities of producer and recording engineer.'

The course is catalogue No. ER1001. It is titled *Radio Code by the Word*

*Method*, Vol.1, and cost \$9.95. The same material was also available on a single 7-inch reel of twin-track magnetic tape, playable at 3.75 i.p.s. This was catalogue No. ER1002, and also cost \$9.95.

ER1003, *Radio Code by the Word Method*, Vol.2, was a single 12in LP, titled 'A life sketch of Nikola Tesla in Morse code'. When played at 33 $\frac{1}{3}$  rpm the code speed was 15 wpm; 45 rpm gave a code speed of 20 wpm; and 78 rpm, 35 wpm. The catalogue description claims 'Transmission on this record is perfect. Ideal for those learning to master Electronic Key.'

### **Name Perpetuated**

As I mentioned in my previous article, and as referred to in subsequent correspondence in *MM*, Morse learning systems using extended spacing go back to the turn of the century, if not earlier. It cannot be claimed, therefore, that Russ Farnsworth was the inventor of this method of learning Morse.

What he clearly did, however, was to create and market a formal course using the extended spacing method which became well-known to radio amateurs. As a result (in amateur circles at least) his name has been associated with that method ever since.

As explained in *MM24*, there is even an official ARRL Transmission Timing Standard under his name (for ARRL code practice and test tapes and WIAW transmissions), although in the absence of an original specification the League had to create its own standard (see panel).

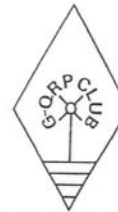
It has taken a long time, but at last we know for sure why the Farnsworth system is so-named. It is universally recognised as the best way of learning Morse, and it is useful to have it formalised and easily identified by a name. Russ Farnsworth would surely have been pleased to know how his name has been perpetuated, and so it will remain, at least as long as amateur Morse survives!

**MM**

### **G-QRP Club**

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

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



### **FISTS CW Club – The International Morse Preservation Society**



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

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

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



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## Railroad Telegraphy and the Railroad

In this new book, Bob Betts N1KPR has put together a collection of news reports about American railroad telegraphy published in magazines such as *The Railroad Gazette*, *The Electrical Review*, *The Electrical Engineer*, *Telegraph & Telephone Age*, and so on, from 1852 to 1913, but principally from 1876.

They tell a story of struggles, defeats and triumphs, as the railway telegraphers tried to improve their pay and working conditions; and include fascinating insights into the working lives of the telegraphers themselves.

The following are a few excerpts taken at random from the book, the first dated 1885: 'Dr Hedrick has been engaged by the Baltimore & Ohio Railroad to... examine all telegraph operators... for color-blindness. All those who fail to pass the examination will be removed.'

In December of the same year it was reported that the West Shore Railroad had so reduced the force of telegraph operators that two men were now required to do the work of three. Their hours of duty were increased from eight to twelve, and their pay reduced by \$5 per month.

In April 1887, complaint was made 'that the men in the telegraph offices

## Book Reviews

Railroad Telegraphy and  
the Railroad

and

Wren's Eye View

reviewed by Tony Smith

along the New Jersey Central Railroad are now compelled to work on Sunday without any extra compensation.'

At the same time, the railway companies were employing inexperienced juveniles and learners as telegraphists, with at times, catastrophic results. In March 1887, a 'cub' who was learning telegraphy took a train order and, without telling the regular night operator about it, went to church. The result was a train crash, fortunately without loss of life. The company then issued an order that no learners were to be allowed on its premises.

Other crashes resulted in fatalities, sometimes caused by telegraphers sleeping on duty, or by mistakes made by young and inexperienced staff, and attempts by the companies to improve their

safety record are recorded in these reports.

Various Unions were organising and fighting for existence, including the Brotherhood of Telegraphers, and the Order of Railway Telegraphers (which later amalgamated), and others. In response, many companies instructed their employees that they must cease membership of the Unions or leave the employ of the company.

Things got really out of hand in 1892. On one railroad a strike was started by the telegraph operators and subsequently supported by the trainmen who said that working without the operators was unsafe. The strikers overpowered a night-watchman and disabled 15 locomotives. There was other violence and strong guards were placed on some of the passenger trains run by new employees.

On another line, a party of trainmen and telegraph operators, on their way to replace the strikers were attacked. Their car was uncoupled from the train and the men were driven into the swamps. The car was re-coupled to the train and a mile further on 'another mob took possession and destroyed the baggage of the hated passengers.'

There is just too much detail in this publication to give it an adequate review. It comes down to this: If you are interested in the history of Morse telegraphy, and in particular railroad telegraphy in the United States, this book is for you. It is a useful source of reference, and an interesting 'straight read' into the bargain. My only criticism is that it does not have an index, which for researchers, at least, would have been a useful addition.

*MM48 – October 1996*

*Railroad Telegraphy and the Railroad*, Volume I, 1852–1913, by Robert Betts, is available from RWB/CG (Publishing), 8 Little Fawn Drive, Shelton, CT 06484, USA; price \$9.95 USA, \$14.95 foreign (in USD only), post-paid. Please note that it is **not** available from the MM Bookshelf.

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## Wren's Eye View

### The Adventures of a Visual Signaller

Stephanie Batstone volunteered for the Women's Royal Naval Service (WRNS) in 1942. She had been attracted by a leaflet about the Navy's training school in Lancashire, HMS 'Cabbala', where they trained Wireless Telegraphists, Coders, and Visual Signallers. She says "As soon as I saw the photographs of girls signalling with lamps and doing semaphore and hoisting flags up masts, I knew that was what I was going to do, and nothing else."

Her book is about her life in the Wrens, during training as a Visual Signaller at 'Cabbala', and subsequently in a War Signal Station at Ganavan, near Oban, in Scotland. There, her work involved signalling by Aldis lamp to all passing ships, from fishing smacks to battleships, all of which had to be challenged and identified.

When she joined 'Cabbala', her course was told by its instructor, "You're going to learn Morse until it comes out of your ears. You're going to think in Morse. You won't be able to speak except in dots and dashes. When you walk along the road you'll look at hoardings and read all the advertisements in Morse.

And you're going to signal Morse faster than any girls have ever signalled it before", and, says Stephanie, "We did."

The instructor, Chief Petty Officer Brown, had an ingenious way of interesting the girls in his practice transmissions. He sent them scandal about the camp's personalities. "Who do you think Third Officer Bates was out with last night? And what time she came in?" As a result, the class was rapt, and avid for more. The Training Commander wanted to know why they were taking a two week test after only one week's instruction, to which CPO Brown replied "They've all passed sir."

Training proceeded onto semaphore, and then signalling lamps, first the ten-inch projector, which was slow and clanking, then the smaller Aldis. "This will be your first love", said the Chief, "It has a reflector behind the lamp. Your forefinger tilts the reflector and sends the beam focusing on the ship you are signalling to. It's light and very fast."

"As I cupped the Aldis in my left hand", says Stephanie, "put my forefinger on the trigger, and my other fingers on the lamp switch, and my right eye to the half-perished stiff grey rubber telescopic eye-piece, what he said came true. I fell in love with the Aldis lamp, as I knew I would. In my hand I had ultimate power over the Navy. I could say to a battleship five miles away, 'turn round and go back again', and it would obediently do so."

The weeks rushed by, as the girls moved on to naval flags, the international code of signals, and then to their final exam. There were practical tests in semaphore, ten-inch and Aldis, and papers on

Visual Signalling procedure, coding practice, and V/S general. When the results came through, the Chief was so pleased he hired a taxi and took eight of the girls out to dinner in Manchester.

Stephanie, like most of the other girls, wanted to go to Portsmouth, but the Navy sent her to Oban. The book continues with her experiences of Navy life, working as a Signal Station watchkeeper in spartan conditions, and all the time operating her beloved Aldis lamp with skill and affection.

The popular concept of Navy signalers has them up on the bridge of a ship fighting through storms, determined to get their message through to vessels experiencing similar conditions; or they are in the radio cabin pounding out vital messages, sometimes an SOS after their ship has been torpedoed.

This is a story of a less dramatic type of wartime Morse signalling, which nevertheless had to be done – and which had its moments too. Apart from the routine work, Stephanie did on occasion have to signal to, and receive from, ships battling with poor weather conditions. She then needed to be every bit as skilled as the signallers on those ships to establish communication with them.

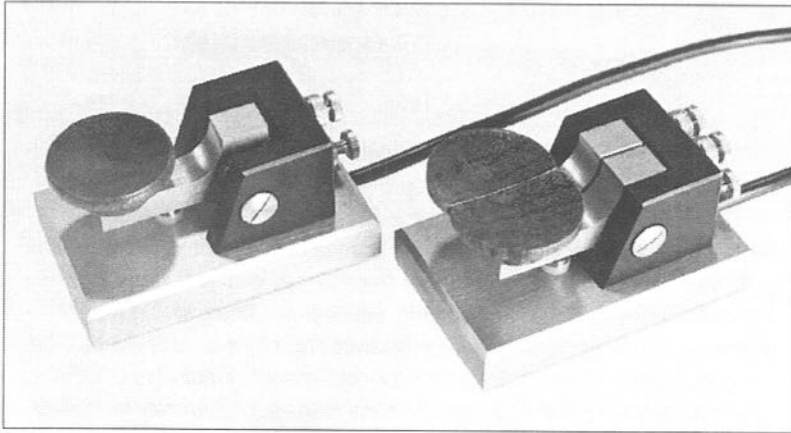
This is a highly entertaining, human story with a good Morse content. The author has a light touch which makes it very readable. I liked it a lot.

*Wren's Eye View, The Adventures of a Visual Signaller*, by Stephanie Batstone, (ISBN 1-898594-12-0), was published in 1994 by Parapress Ltd, 12 Dene Way, Speldhurst, Tunbridge Wells, Kent TN3 0NX, price £15.95. It is **not** available from the MM Bookshelf. **MM**

## The CW Centre! ©

Englmar Wenk, DK1WE, has designed a pump key and twin lever paddle especially for the backpacker and miniature equipment operator.

The twin paddle is unusual in that it has a vertical lever operation. This means it can be light in weight without the risk of skidding across the bench. Both keys are made of anodised high strength light alloy and use instrument grade ballrace bearings.



**“Minky” £87.95    “Twinky” £94.95**

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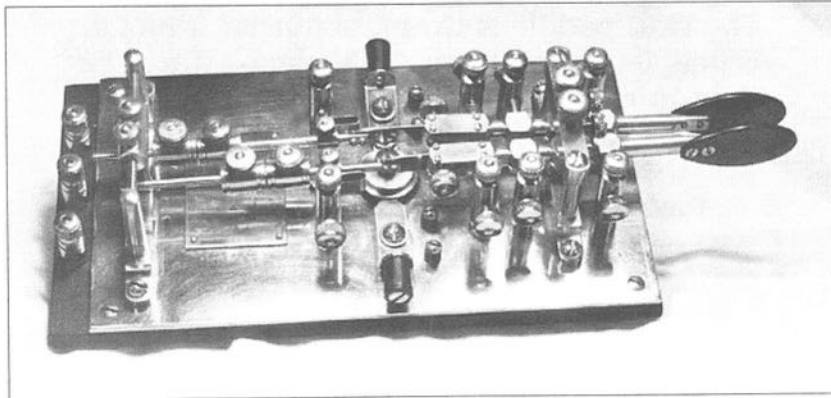


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# Showcase



*'The Multiplex', a home-brew semi-automatic key with twenty individual adjustments. Possibly the largest key in the world? Or the most complex?*

*This key is switchable from iambic to single paddle output. Pendulum fundamental period adjustable, allowing speeds from 4 wpm to 70 plus wpm.*

*Adjustments for damper stops, lever travel stops, lever rest stops, lever height, spring force, contact position, element weighting, sliding weight position and main spring length. Closing switch for either or both levers. Size 5 x 9in, weight 9 pounds. Base is black cast iron with a polished 0.125in stainless steel top plate. This key was hand-made almost entirely from what would be another man's junk. Total time to make – about 300 man/hours of design, machining, cut-and-try, polishing and assembly. All four springs, the two coils and two leafs, were designed empirically to obtain the final 'feel' and speed range. Made by Robert W. Betts, N1KPR, who says, "This key is a lot of fun to use on-the-air, but when I want to relax I still pull out the old Bunnell Triumph key!"*

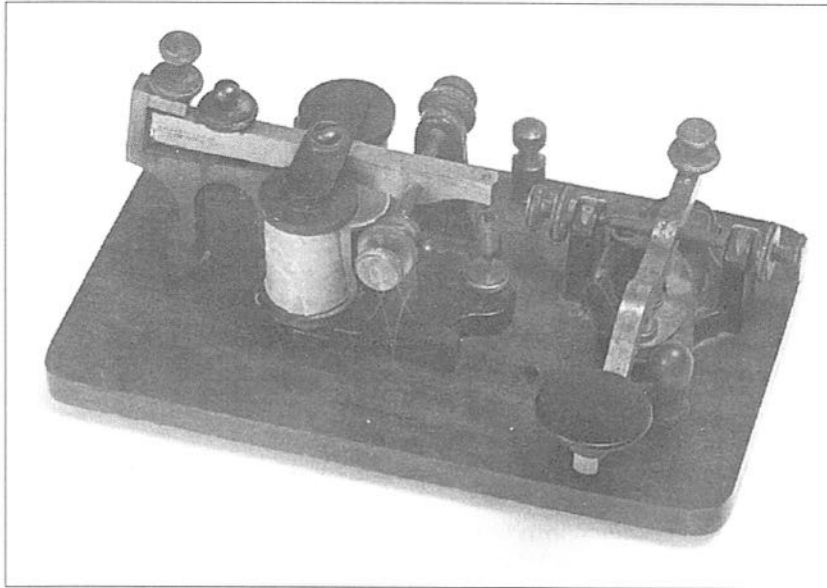
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*Featuring keys and other collectors' items of telegraphic interest.*

*If anyone can add to the information given please contact  
Tony Smith, 13 Morley Road. Sheringham, Norfolk NR26 8JE*

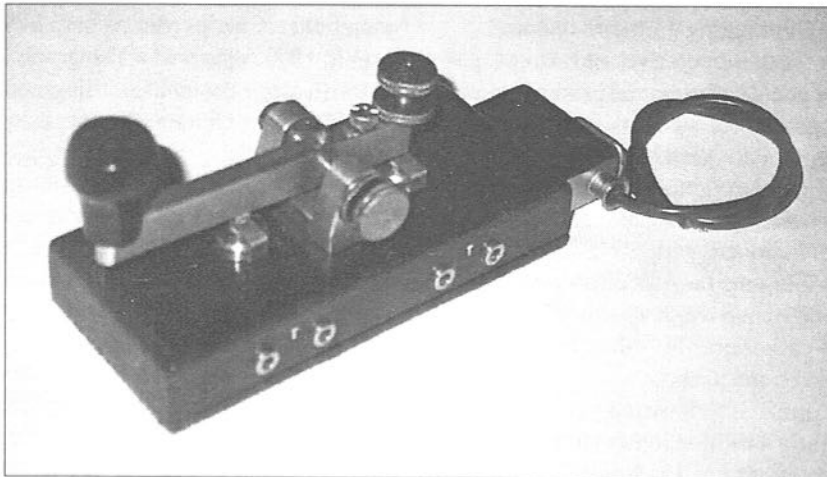
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Bunnell "Morse Learners' Outfit". Advertised in 1884 for \$3.75 "complete with Battery, Book of Instruction, Wire, Chemicals and all necessary materials for operating."

Photo/Collection: Fons Vanden Berghen



Swiss Army key, possibly for training, c.1960/70

Photo/Collection: Christian Chefnay F9WT

**O**N 7 APRIL 1953, I commenced duty as a telegraph messenger at the Delivery Section of the Chief Telegraph Office, (CTO) Melbourne, in the State of Victoria. It was ninety-nine years to the day after the official opening of the first Morse telegraph circuit in Australia and the Southern Hemisphere, between Melbourne and Williamstown in the Colony of Victoria. (The Colonies became States, following Federation in 1901).

The authority and responsibility for all internal telegraph and telephone working in Australia in 1953 (and until 1975) was the Department of the Post Master-General (PMG). Remuneration was high for a 15-year-old – six pounds ten shillings (Aust) per week. Melbourne at this time, was a large city but with its feet still dragging a little in the past.

A few inoperative old street gas lamps could still be found in some streets, corrugated roof awnings stretched from shopfronts to kerbsides, supported by fancy iron upright poles, and in several older buildings, hydraulic elevators (lifts) still functioned, with lift-drivers pulling or pushing the large controlling ropes.

Some shop windows carried the scroll of an earlier era. The film *On the Beach* was to be made about a year later in this now, great skyscrapered, attractive city of nearly 4 million inhabitants. The telephone system in 1953 was in a state of gradual improvement and expansion – and Morse Telegraphy was still King.

## Telegraphy in Australia

Melbourne, Victoria, 1953–1961  
(and afterwards)

by Allan Moore VK1AL

### *Ancestral Ties with Telegraphy*

My interest in joining the PMG was ignited by the gentle prodding of my grandfather, Charles Moore, born in Victoria in 1873, who was a Telegraph Operator (later re-designated Telegraphist) in the Colony of Victoria before the turn of the century.

He joined the Service in 1888 and retired in 1933 as Post Master at one of the larger Melbourne post offices. It is interesting to note that his salary in March, 1901 was one hundred and twenty pounds per annum.

My father was in the Royal Australian Navy prior to and during the Second World War. Although he was not an operator he learned Morse and operated Aldis lamps on vessels at sea. Part of his communications training and work in-

volved the competent use of signal flags, as well.

### *Telegraph Messenger*

Twelve months of pushing heavy red bicycles around Melbourne in the heat and cold to deliver telegrams at all hours, was sufficient incentive to look for something a little more elevating.

In 1954, and into the 100th year of telegraphy in Australia, I was chosen as one of the assistants and worked at the main Telegraph Counter, GPO (General Post Office) Melbourne, for the next 12 months.

During this period, among other duties, I learned to count and charge telegrams and overseas cables, and had the opportunity to see, at last, how messages were despatched once they were lodged at the counter.

They were placed in cylindrical containers, and blasted through pneumatic tubes to the Circulation Section of the fifth floor of the CTO in the adjacent building – ready for Morse or teleprinter transmission.

### *Telegraphist-in-Training*

Just after my seventeenth birthday and following a round of selection procedures with other young hopefuls, I became a telegraphist-in-training. At the time, 10 years after the Second World War had ended, a large number of telegraphists were retiring through age, including a number of competent women who had been recruited during the war.

My course did not include Morse telegraphy. It comprised three months concentrated learning to touch-type, learning to send (or 'punch') telegrams on Tele-

types and teleprinters, traffic handling rules, and some technical theory.

My group was to be quickly trained to replace the retiring officers, and we were told that those who could learn Morse in their own time would be admitted to the normal telegraphist-in-training course the following year, and coached in Morse reception and transmission. We would be able to join the regular 8–9 months course without the need to repeat typing, traffic and technical theory.

For the moment we were called machine telegraphists. Surprisingly, some of the older and better Morse operators could not type and would still pen telegraph messages in what we termed 'copperplate' fashion. Some were to have difficulties with the expansion of machine telegraphy in the near future.

### *Incentive Scheme*

Encouraged by my grandfather, who could still tap out a good message on the key (he was 82 at the time), I started to learn Morse. Together with some of the other machine telegraphists, I joined the Postal Institute where supervisors from the PMG would send to us for a few hours, several nights a week, to bring us up to speed. Some lads dropped by the wayside but others including myself, kept at it.

There was an official incentive scheme in operation at the time. If a young learner could pass 5, 10, 15, or 20 words per minute during a properly conducted test, he would receive an equivalent payment in pounds.

I missed the 15 w.p.m. receiving test on the first attempt by a few errors, but

was rewarded with 10 pounds and admission (in 1956) to the much sought after telegraphy course at the Melbourne Postal Training School.

The Telegraph Delivery Section had a scheme called 'Morse feeder' whereby young lads were released from delivery duties for about two hours a day, and sat in on the sending and receiving sessions with slightly older trainees. In general, they too had started to learn Morse at the Postal Institute.

#### *Final Morse Qualifying Tests*

At the CTO we machine telegraphists worked normal day or evening shifts, but were released for about two hours a day to attend Morse classes. Finally, the great day arrived. We had to receive (and send) 18 standard telegrams, including the preambles, in 20 minutes – and worse – we had to do this twice to pass, using two different sets of telegraph test messages.

While this is a little hazy, I believe we were only allowed two uncorrected, and three corrected words in each test set. I passed hand sending with 60 percent, (just scraping through), but managed 100 percent in reception.

We were told at the time that the tests represented an average of 22.5 words per minute. It seemed faster when one had to feed telegram forms into the typewriter during the tests, making sure that the time of reception and one's initials also appeared at the bottom of each received telegram form.

I recollect that our Morse class rooms had positions for 24 trainees and each position was equipped with a key, sounder and typewriter. The Training

School had the capacity to patch-in to many of the Morse telegraph circuits at the CTO and everyone preferred copying 'live' traffic, to the monotonous Wheatstone tape transmissions we had at the beginning of the course.

(One of my favourite instructors at the time was Jack Paruscio (VK3EK) who is still my friend and now aged 83. He lives in Melbourne and is an active radio amateur, with computer, packet and all the rest – a very good technical man and a great Morse operator).

#### *CTOs in the States*

Now that we were fully-fledged telegraphists, the entire fourth and fifth floors of the CTO were our domain. The fifth floor was dedicated generally to interstate and country stations, while the fourth floor was home to suburban stations (post offices).

Over three hundred and fifty telegraphists were on the roster, with numerous teletype/teleprinter channels to capital and provincial cities, and an abundance of Morse lines to country and suburban post offices.

A similar scenario could be observed in the CTOs of Sydney, Brisbane, Adelaide, Perth, Hobart, Launceston, Canberra and Darwin, with staff numbers adjusted to the needs and population of the State or Territory.

Sydney for example had over 450 telegraphists on their books at the time, while Canberra our small Capital City, boasted a small but talented group of up to 14 or 15 operators.

Larger provincial cities in many of the States had telegraphists to handle telegraph traffic, but in the thousands of

smaller country and suburban post offices throughout the country, the lines were manned by equally well-trained postal clerks.

In the Melbourne CTO at least, there was no air conditioning or heating. Summers were hot – 110°F or more, and down to freezing in winter. In winter, many of us would warm our hands before operating, by holding them under a hot water tap for a few minutes in the mornings.

#### ***Competition and Camaraderie***

The CTOs were marvellous places for young people to work. Plenty of mates, some of whom became life-long friends, most shifts not exceeding 6 hours a day and the appeal of the exciting nature of the work as it was at the time.

Competition among the new telegraphists was keen, and it was not long before some young men of 17 or 18 were punching up to 100 telegrams an hour sometimes on the inter-capital teleprinter links. There was also an occasional capacity to exchange 60 telegrams an hour or more on Morse circuits – provided one had a great day. Speed, however was not quick in coming to all and most slogged along for a year or two before being able to punch or key these levels of traffic.

#### ***'Barrier' Examination***

Although we were now fully qualified, this did not entitle us to an adult salary. The official viewpoint was that on completion of training it took about four years for a telegraphist to become fully competent. We learned quite early that this was a fallacy in many cases.

A 17–18-year-old operator following his qualifying examinations, had to sit further tests in due course to pass the formidable 'Barrier' examination. This exam required higher speeds and accuracy in Morse and machine telegraphy, plus more advanced technical and traffic knowledge. If one did not pass this exam a certain salary – or 'Barrier' could not be passed.

Most telegraphists and postal clerks did not reach their maximum salary levels until they were about 27 years of age. In spite of this the work went on. The CTOs remained open 24 hours a day, every day of the year, and some provincial centres opened until 8 or 10 o'clock at night.

#### ***Morse Equipment and the Code***

The Morse circuits were fairly straightforward. In general, four or five (or more) stations would be on one line and the CTO telegraphist was in charge of the circuit. Sounders were a mixture of BPO (British Post Office) and American Pony types, with conventional telegraph relays, milliamp-meters, and handkeys.

The PMG administration provided semi-automatic keys (bugs, or jiggers as we called them), and almost every operator quickly abandoned the hand-key for the jigger shortly after leaving the training school. There was a marvellous mixture of semi and fully automatic keys, many made in Australia, plus Vibroplex and Eddystone keys. There were others, as well, some made by the operators themselves.

Some of the best jiggers of the time were the semi and fully automatic,



mechanical keys made by Leo Cohen of Melbourne called the Simplex Auto. Another two companies in Adelaide manufactured the Auto Morse, and the MacDonald Pendograph. (I own right and left-handed jiggers made by Cohen and a left-handed model of the Auto Morse machine).

The International Morse Code was used throughout Australia, with a number of signals presumably peculiar to our Service. We had a Pound sign (LX) laugh sign (reverse letter J) and a number of others. Until the last gasp of Morse in Australia the PMG operators still used a

few American Morse signals – especially the OK sign.

There were a number of codes in use in Australia until July, 1897 including American Morse, at which time the International Code was adopted, and all Colonies at the time had three months in which to come to grips with the new, standard code. It must have been difficult for quite a number of operators.

#### *Teletypes/Teleprinters*

Teletype Model 12s and Morkrum machines had long gone. The Murray Multiplex system had just been phased



*Armistice Day, 11 a.m., 11 November 1937, on the fifth floor of the Chief Telegraph Office, Melbourne. (This building was first commissioned in 1926 and closed in 1986.)*

*Allan Moore comments: "All telegraph keys were left open for the two minutes of silence we always observed throughout Australia. The room had hardly changed when I first saw it in 1953, and subsequently when I commenced as a machine telegraphist in 1955. The Cathedral Galvanometers on the Morse circuits had gone by this time, however."*

out when I commenced and we operated a mixture of Chicago Teletypes and Creed Model 7s on the machine circuits.

Siemens Model 100 series machines (three-row keyboards) were introduced in the late 1950s but were generally confined to Telex and private wire services. The average speed of the equipment was usually 66 words per minute (50 Baud), and on some circuits, 75 Baud (100 words per minute). These were the two principal Australian standard machine speeds.

#### ***Backup and Extra Circuits***

In some of the CTOs, radio-teletype and CW links were established with other stations on long haul routes, as backups or additional capacity channels. For example Melbourne to Perth radioteletype (distance 1700 miles), Brisbane to Townsville radioteletype (700 miles) Brisbane to Thursday Island by CW (1200 miles), Perth to Broome CW (1050 miles), and so forth. On machine land-lines, all the major capital cities were connected to each other and obviously hundreds of channels were in use every business day.

#### ***Special Morse Circuits***

A country like Australia cannot do without its sport. The CTOs would provide Morse links to suburban and country race meetings, where members of the press lodged their stories for the newspapers.

Betting prices were telegraphed to newspapers, bookmakers and other individuals. Only the 'gun' telegraphists (fast and accurate) were allowed to work at the racecourse end of the line.

Morse links (and later teleprinter links) were established as the need arose, at golf-courses, Scout Jamborees, international tennis tournaments, and even large cattle sale-yards so that land agents could wire details of sales to their owners throughout the state.

Frequently, portable picturegram machines operated at sporting venues so that the winning horse or tennis player could be featured in the next edition of the newspapers. The ability to operate picturegram equipment would add another 30 or so pounds per annum to a lucky telegraphist's salary.

#### ***Unusual Morse Stations***

International migration had started in a big way in the early 50s and several Commonwealth Immigration Camps had post offices located in them, with postal clerks manning the distant terminal. One CIC was a country town located at Bonegilla near Albury which I recollect working on a number of occasions.

Another circuit from the CTO was connected to the giant Ford Motor Company at Geelong where a lot of us cut our teeth on lengthy telegrams containing dozens, or hundreds of groups with mixtures of figures and letters representing motor vehicle parts.

Post offices were located in military establishments such as RAAF East Sale, Flinders Naval Depot and the Army at Bandiana, which were connected by Morse line to Melbourne.

Similar arrangements prevailed in the other States. Oddly enough, situated next to Australia's busiest Teletype channel – (Sydney/Melbourne – channel 'A') – was a lightly loaded Morse circuit to

Currie, King Island, which is located approximately midway between Melbourne and Tasmania in stormy Bass Strait.

Referring again to migration, we had a number of telegraphists who came to live and work in Australia from, for example, the UK, Mauritius, Ceylon, South Africa and Malta, who settled in very well with us and were very competent operators.

#### ***Wide Range of Traffic***

Telegraphists handled a wide range of traffic including press telegrams, public telegrams, international cables, and bank and embassy cypher messages in five-unit code letters (and sometimes figures).

Our busiest times were at Easter, Mothers' Day and Christmas/New Year. Special congratulatory/celebratory telegram forms were printed with fancy coloured headings appropriate to the occasion, and delays were inevitably expected.

Nevertheless, everything was finally delivered on the day. Saturday morning was a big day for wedding telegrams, but this old tradition disappeared many years ago.

#### ***Weather Telegrams***

Each CTO had a special network to receive and retransmit meteorological information on behalf of the National Weather Bureau Service. During my time the entire system was operated using teletype/teleprinter equipment. A particularly busy job, without much variety.

Weather telegrams were received from hundreds of observation points

throughout the country, placed on 5-unit (Baudot) tape in figures and retransmitted to the main Weather Bureau in each capital city. While the value of this service is obvious, it was particularly important to fisherman on the southern coast of Victoria, and other places, subject to the brunt of weather emanating from the Antarctic region.

#### ***Railway Communications***

Without attempting to describe the Railway Communications System in great detail, the Australian (and government-owned) railways had their own Morse and machine systems and employed their own telegraph operators.

Some of the principal stations were connected by Morse to the CTOs in each capital city, where traffic was exchanged. Sounders, relays, keys, etc., were identical to those used in the PMG.

#### ***Overseas Cable and Beam Traffic***

CTOs in most, if not all, capital cities were connected to the local Overseas Telecommunications Commission (OTC) offices. The Commission was responsible for the management of all international traffic, as well as running the many coastal radio stations around the Australian coastline.

Connections between the CTOs and OTC in my time were either by pneumatic tube, or Teletype circuits. In some states direct links were made with coastal radio stations such as VIM (Melbourne Radio).

OTC coastal radio stations also provided CW and radioteletype circuits to Australian Antarctic bases, principally through Sydney, Perth and Esperance

Radios. There may have been other circuits from time to time.

Prior to its independence, and certainly in the early 1960s OTC manned the Port Moresby (Papua New Guinea) coastal radio station, and also worked direct to Sydney by radioteletype. (I remember seeing a Teletype model 14/15 in their Port Moresby office in 1961).

### ***Discipline***

These were still the days when a young chap would call his supervisor Mister – unless otherwise advised. All the supervisors I remember were good operators and in those days this attracted respect.

Some of us, as we grew older, and I don't exclude myself, enjoyed a beer and arrived back from lunch a little late on occasion. Sometimes if we worked flat out for a few hours we were forgiven on the day – but some tougher supervisors (some actually born in the mid-1890s) would hand out 'Please Explains' and were less forgiving.

Many of my friends from Melbourne and other interstate CTOs still remember the days of discipline, but do not regret them – years later! Several crusty old, but loveable, senior supervisors would occasionally let their trainees handle lightly-loaded Morse lines before they had qualified. This was a source of immense pleasure to us, and actually brought our speed and confidence along more quickly.

### ***Work Exchanges***

Another great job advantage which received official approval, was the ability of any operator with a good track

record to exchange duties with other telegraphists throughout the country. For example many exchanges were made over the years for 3, 6 or 12 months when one could find a willing partner in another state.

You could find yourself working in any of the Australian capital cities (or large country centres) for an agreed period. The only stipulation made by the PMG administration was that travel was to be undertaken at your own expense, and in your own time. (This was a bit difficult for Eastern State operators exchanging with Perth operators (and vice-versa) who, rather than catch a train, would have to fly on occasion.)

During my time with the PMG, I worked in the Melbourne, Brisbane and Canberra CTOs. Because the PMG controlled all internal communications, the rules and regulations were identical at every centre, making these exchanges easy to manage.

Melbourne hosted the 1956 Olympic Games and several dozen telegraphists from most other capital cities were temporarily transferred to Melbourne to assist with additional traffic.

### ***External Opportunities***

Good telegraphists were in demand in the 50s and early 60s and opportunities arose to serve as radio officers in the Australian Antarctic Territory. (*See MM36, p.8*)

Papua New Guinea was a Trust Territory of Australia and a number of radio positions were also available there from time to time on secondment from the PMG.

While not as distant or exciting, some

telegraphists assisted at large city newspaper offices punching press on their equipment and lines, on official loan, or 'moonlighting' for a few extra pounds.

#### ***Telegraphists Good 'All-rounders'***

PMG telegraphists were able to become telegraph supervisors and many rose to the highest levels in the service. Some operators became telegraph inspectors and, when qualified, worked as radio inspectors on interference duties, or at the many PMG monitoring stations throughout the country.

Many became radio amateurs and a few qualified for their First and Second Class Marine 'tickets'. One PMG Radio Inspector with whom I once worked, had earlier flown on Qantas DC-6Bs as a radio operator between San Francisco and Sydney, making numerous flights during his career.

#### ***Beginning of the End***

The last telegraphist-in-training course in Melbourne commenced in 1957, and a year or so later a new system called TRESS (Teleprinter Reperforator Electronic Switching System) came into being.

This system involved the gradual removal of Morse lines, replacing them with teleprinter circuits Australia-wide. Old Model 15 Chicago Teletypes were retained in the CTOs (less keyboards) for reception, and 5-unit tape reperforators were located at every send position for message preparation.

By 'punching' a small sequence of destination letters a telegram could be prepared and sent to any one of thousands of post offices throughout Aus-

tralia, without the need for intermediate/repeating operators. The switching system was identical to the system used in telephone exchanges of the day, but dedicated to telegraph lines.

#### ***Death Knell***

This was the death knell for Morse telegraphy in Australia. In 1953, when I began work as a messenger, older telegraphists were still wearing waistcoats and tennis-type eyeshades; and two large operating rooms in Melbourne alone hosted the clatter of hundreds of sounders. Ten years later, in 1963, the last circuit closed down and Morse was no more.

Machine telegraphy was very much in demand for some years after that, and then it too declined with the coming of facsimile machines, telex circuits, private wire circuits, improved telephone services, mobile phones and satellite services.

In almost all respects, the word 'Telegram' no longer exists and yet I can remember one year when about 23 million telegrams were lodged, involving transmissions or retransmissions by Morse or machine telegraphy.

#### ***Overland Telegraph Lives!***

We can at least be thankful in Australia that Morse Code endured for 110 years. It created a breed of people that will never be seen in their old form or numbers, again.

We are lucky that the old Overland Telegraph Station at Alice Springs (Northern Territory) is still in existence and we are able to man the lines once or so each year, passing hundreds of public messages by Morse to Canberra, where



the National Science and Technology Centre has two functioning operating positions set up as a 'permanent' working exhibit.

### *Experiences of Others?*

It would be interesting to hear from former operators who worked in 'Chief Telegraph Offices' in other countries, and learn of their experiences. I hope they had as much fun as we did. (Obviously, the foregoing is just a thumbnail sketch of Telegraphy in Australia, and

particularly in Melbourne, as I knew it, and is confined to a short and interesting period.)

I was a telegraphist for a much longer period and served in various places, but this article covers in general, events that occurred while Morse still had a few years to run. Other CTOs had a variety of circuits and odd conditions which other Australian telegraphists may remember and care to relate, sometime in the future, in this magazine?

MM

## *Short Break*

### **OK for Morse!**

July 1962. Somewhere in the Sahara, on the edge of the Western Erg, at a seismic prospecting camp. Two days had elapsed and a newly-detailed French driver should have returned from El Abiod with a tanker full of water. Had he been hijacked, or held-up?

Anything was possible, even the worst. At that time of unrest and transition the region, like others in Algeria, was not too safe. We were getting worried. The AM radio link with the French Army at El Abiod was on a QRM-infested frequency and recent contacts had been highly problematical.

However, on that particular afternoon, coming back from a good day's work among the sand dunes, I was greeted urgently, "come quick, we've got the Army but we can't make out a word in

all the noise, except for something like morse... morse!"

Straight away, using the ancient camp radio, I transmitted in CW, using a push button: "OK FOR MORSE, QRV K". And my mates at Abiod saw me extract from that tumult of noise a message telling us that our vehicle had suffered a major mechanical breakdown. It was now serviceable and was on the way back to us, driven by our own driver and with a tank full of water. ETA about midnight. Relief all round!

After QSL and general greetings we raised our glasses. Everyone praised the effectiveness and incontestable superiority of Morse, commenting that just for once I had been of use for something. True mates!

F8MA

*(From La Pioche, journal of UFT (Union Française de Télégraphistes) 4/94, and specially edited for MM. Original translation by Ken Quigg, GI4CRQ.)*

**Please mention *Morsum Magnificat* when responding to advertisements**

# Special News Report

## Radio Amateurs of Canada Support End of International Requirement for Morse Test

*In a Bulletin issued 22 August, 1996, J. Farrell Hopwood VE7RD, President of the Radio Amateurs of Canada, Inc., outlined the response of Canada's national radio society to the IARU FASC discussion paper on the future of Amateur Radio which, as reported in MM46, p.16, covers a number of matters suggested for discussion at the 1999 World Radio Conference. This MM report concentrates specifically on the RAC approach to the Morse issue, and its suggestions concerning future qualifications for radio amateurs.*

Under the heading 'THE RAC REPORT TO IARU: LOOKING AT THE ISSUES!', Mr Hopwood says:

"There is no more important subject than our vision of the future of Amateur Radio. The RAC ad hoc committee report to the IARU is the result of careful analysis and judgment. It is a major milestone en route to the 1999 World Radio Conference (WRC-99). Governments, preparing to review international Amateur Radio regulations, are looking to the IARU for suggestions that are timely and realistic. Faced with needs for the future of Amateur Radio, RAC, as an

IARU Member Society, recommends changes to international regulations that are practical and forward-looking.

"Questions concerning regulations over the 'Definition Of The Amateur Services', 'The Banned Countries List', 'The Amateur Service As A Resource for Emergency Communications', 'Messages on Behalf Of Third Party' and 'The Technical And Operational Qualifications To Be An Amateur' are examined and explored in a straightforward manner within the report. The issue of the 'Morse Code', however, took much time to consider.

"What to do about the Morse Code question is the most difficult to answer. It touches upon something which, for many, is sacred. The issue is charged by firm beliefs and deep emotional feelings. Yet, we know that radiocommunications authorities in many countries are moving to have Morse Code abandoned: not as a mode of operation, but rather as an international mandatory requirement to operate below 30MHz. While administrations may continue to use the code in their licensing program, it is no longer viewed by some governments as a suitable international 'treaty' obligation.

"RAC is a solid supporter of the use of the Morse Code 'mode'. We cannot, however, demand that it be kept as a 'mandatory' requirement in the HF licensing process. The original need, to be able to respond to government

stations in CW, has disappeared. A large majority of amateurs use SSB. Many prefer modes which embrace the newer digital technologies. To suggest that the code be viewed as a 'filter mechanism', to exclude those unable or unwilling to learn the code, is discriminatory. A more appropriate and effective approach, in this regard, is to ensure that licensing examinations demand more in-depth knowledge of all modes of operation and also focus on operating procedures and on operating ethics.

"The RAC report to the IARU is just that, 'a report'. A set of proposals which will be considered, modified, adopted or rejected by the IARU. Over 150 Member Societies will be weighing the issues

and presenting their recommendations to IARU over the next three years. IARU Region 1 (Europe and Africa) will address the same issues at the forthcoming October conference in Tel Aviv, Israel. Region 3 (Asia and Oceania) will deliberate on it in 1997 and Region 2 (North and South America) at Caracas, Venezuela in 1998. IARU is working hard to ensure that the decisions taken at WRC-99 impact favourably on the survival and growth of Amateur Radio into the '21st century.

*On behalf of the Board of Directors  
and the Executive,  
J. Farrell Hopwood, VE7RD  
President and IARU Liaison Officer  
Radio Amateurs of Canada, Inc."*

### **Committee's Comments on the Morse Test**

The wording in the RAC Ad Hoc Committee's report relating to the Amateur Morse Code Test is as follows:

#### ***1.11 Morse Code:***

The ITU RR S25.5 reads as follows: *'Any person seeking a licence shall prove that he is able to send correctly by hand and to receive correctly by ear texts in Morse code signals. The administrations concerned may, however, waive this requirement in the case of stations making use exclusively of frequencies above 30MHz.'*

Of all the issues in the Discussion Paper, the Morse code has definitely taken precedence in discussions and

was high on the list of membership feedback. However, many of the respondents were not addressing the matter of whether S25.5 was really appropriate as an ITU treaty requirement, but were in most part, expressing their feelings towards the usefulness of, and traditions surrounding Morse code in the Amateur services.

The committee felt that the arguments advanced by the IARU FASC Discussion Paper surrounding S25.5 are convincing, but do not remind the reader that the main reason (perhaps the only reason) for including in ITU-RR a requirement for knowledge of Morse code was to ensure that an amateur station operator could understand an instruction from an

official station to close down or move frequency. An official station would no longer use Morse code for that purpose. In spite of the arguments about the benefits of retaining Morse code within the Amateur services, the

ITU-RR treaty provisions should not be used to look after the needs of the services itself. Therefore the committee accepts that RR S25.5 may be deleted.

### **Future Qualifications for Amateurs**

Regarding future qualifications for radio amateurs, the report says:

#### ***1.10 The Technical And Operational Qualifications To Be An Amateur:***

ITU RR S25.6 reads:

*'Administrations shall take such measures as they judge necessary to verify the operational and technical qualifications of any person wishing to operate the apparatus of an amateur station.'*

The committee felt that the wording of S25.6 is not ideal, but deleting S25.6 could be counter productive for the future of the Amateur services. At least it still puts some onus on individual administrations to recognize operational and technical qualifications.

Adding the words 'including modes or procedures that facilitate communications between persons using different languages, and the efficient use of frequency spectrum' may be very helpful. Including 'the efficient use of the frequency spectrum' provides the opportunity to

promote modes which utilize narrower bandwidths, including CW.

There is nothing in S25.6 that requires knowledge of circuitry or construction, but most countries do include this in a test. 'Technical' could refer to how the equipment works. Absence of a specific reference to Morse code in S25.6 would not necessarily mean it would be forgotten. Rather a reminder instead of a mandate would encourage implementation. The committee suggests that IARU could prepare a recommended set of guidelines for content to establish the 'operational and technical qualifications'.

Under the new ITU structure, endorsing such a guideline may be appropriate at the level of the Radio-communication Assembly. FASC could consider the possibility of administrations accepting IARU as the author of a Draft Recommendation. A couple of suggestions for an IARU guideline on operational and technical qualifications were as follows:

1. Have examinations that would reflect a basic knowledge of all modes

of transmission and essential knowledge in operating practices and operational ethics, and

2. This could provide the basis for future extension of CEPT/IARP (reciprocal licensing and privileges) assuming basic knowledge and certifi-

cation levels are similar for all participants.

Radio Amateurs of Canada will be pleased to contribute to the production of an IARU guideline, as a follow up to this report.

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## *FASC Report*

### ***Morse Issue Attracts Greatest Response***

The International Amateur Radio Union's 'Future of the Amateur Services Committee' (FASC) has received many hundreds of comments from societies, organisations and individuals in response to its April 1996 Discussion Paper "The International Regulations Affecting the Amateur Service" (see MM46, p.16).

As promised in the Paper, the Committee has now published a report based on this response, intended for consideration by the IARU Region 1 Conference held in Tel Aviv in the week ending 5 October 1996.

The Committee's full report, which also refers to other important matters affecting the future of amateur radio, can be found on the World Wide Web at <http://www.arrl.org.iaru/> and no doubt the journals of many national radio societies will be carrying the text also. This *MM* summary, as in our report in MM46,

concentrates on what the Committee says about the Amateur Morse Test.

### ***Many Addressed This Issue Alone***

The Committee says: "We did not question the value of Morse code as a means of communication, nor did we question the right of an administration to require its amateurs to demonstrate a skill in Morse code. At present, Morse code as a qualification is a treaty obligation. We said that we had regard to the fact that we were concerned with obligations that will govern the amateur service in the next century.

"We asked: 'Should testing the Morse code ability of certain amateur licences be retained as a treaty obligation? If so, what are the reasons that administrations would find persuasive?'

"This issue attracted by far the greatest response, particularly from US amateurs. Very many addressed this issue alone, seeing it as more important, we

assume, than what we saw as the prior question of qualification in general terms.

"Many opposed our suggestion that the requirement should cease to be a treaty obligation, though many did not address the issue in the context of a treaty obligation.

"On the other hand, we received some careful arguments in favour of taking the requirement out of the international regulations and leaving it to administrations to determine whether the Morse is a licensing requirement for their country.

"A number of societies are still considering the matter, and we do not feel that we can take the discussion further at this stage.

"We would find it unfortunate if this single issue was allowed to overshadow the many other and we think equally important issues that are raised."

#### **Further Comments Welcomed**

The FASC report ends: "We continue to seek the views of individuals, groups and societies, and will be particularly interested in the discussions at the forthcoming regional conferences.

"We welcome further comments.

Please communicate 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](mailto:iaru@iaru.org) (Subject: 'To IARU FASC')."

### **STOP PRESS**

**The IARU Region 1 Conference held in Israel, from 30 September to 5 October 1996, discussed the conclusion of the FASC that S.25.5 should be removed as a treaty obligation of administrations, but no vote was taken on the matter.**

**Further information on the conclusions of the conference on this matter will be included in the next issue of *MM*.**

## **Radio Bygones**

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# G4ZPY PADDLE KEYS INTERNATIONAL

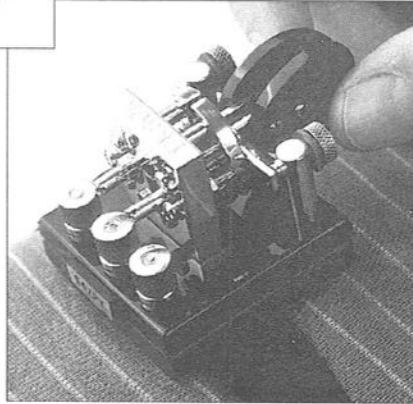
41 MILL DAM LANE, BURSCOUGH,  
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Another two of our World Famous Keys ...



#55 - The "Baby" Micro Miniature Pump Key. Fully adjustable and useable. At 25mm by 32mm, it is the smallest in the World.

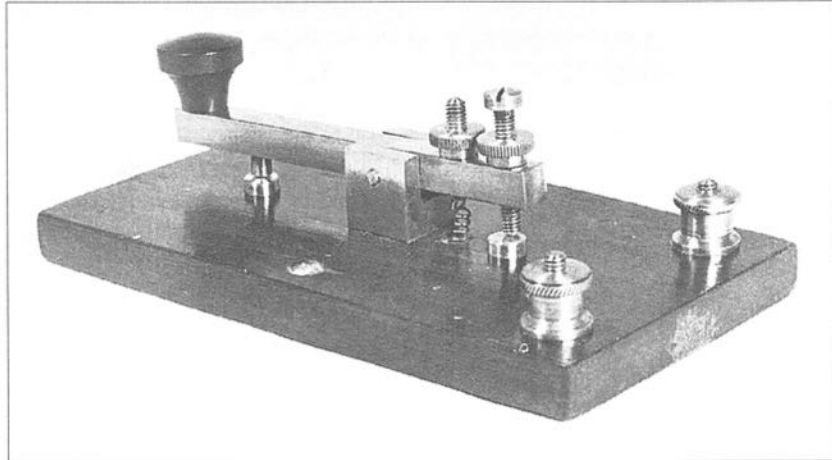
#56 - Miniature "3 in 1" Twin Paddle Key. Just 44 by 44mm, the only key in the World with a Magnetic Base.



Both designed with QRP in mind

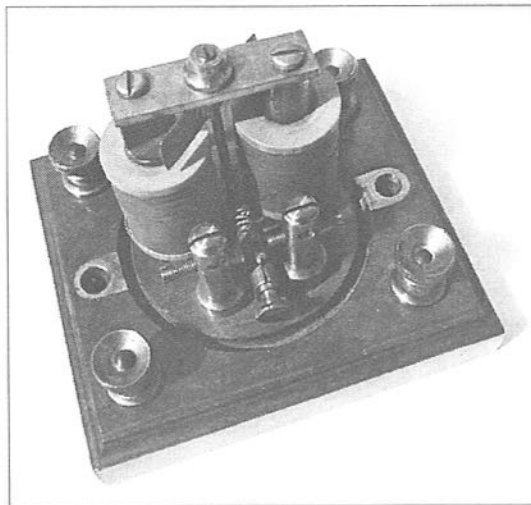
For information on all our Products, just send a 9" x 4" S.A.S.E. (GB), or 2 IRCs Overseas

# *Info Please!*



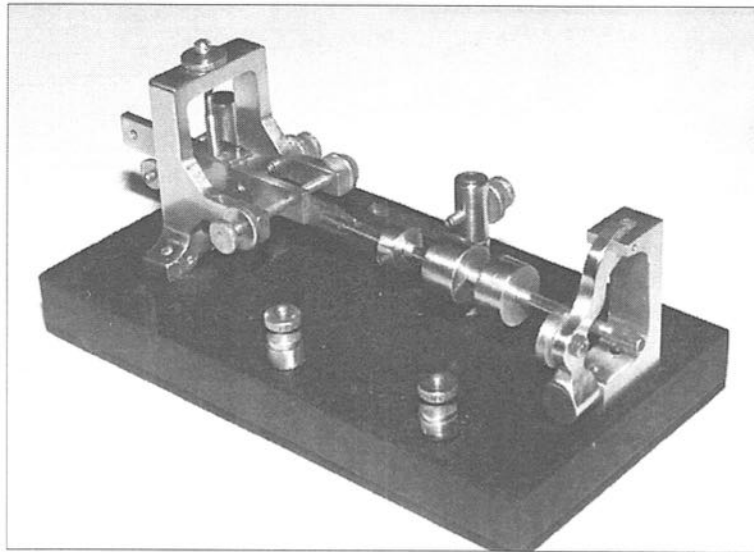
*Unknown small key. Wood base  $4\frac{1}{2} \times 2\frac{1}{2}$ in. Small ebonite knob. Arm  $3\frac{1}{8} \times \frac{1}{4}$ in square brass. Apart from the tension spring, all parts are plain brass including the parallel pivot pin. Terminals not original. Info/identification please*

*Collection: John Goldberg G3ETH. Photo: G3GKS*



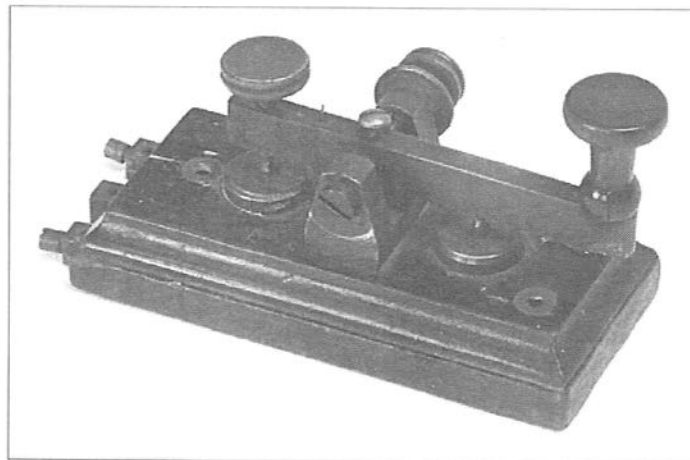
*Sounder? or Relay? Does anyone recognise this type of instrument please? Any information welcome*

*Photo/Collection: Martyn Jones G4XZJ*



*Unknown semi-automatic; name plate and paddles missing.  
In course of restoration by John Francis, G3LWI, who says the feel and  
movement is "first class". Identification/maker required*

*Collection/Photo: G3LWI*



*Unknown key.  
Information  
requested*

*Photo/Collection:  
Fons Vanden Berghen*

---

*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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**A**T THE END of November 1991, at the Naval College, St Mandrier, the Merchant Navy Radio Club took part, as it had for several years past, in the CQ WW CW contest with, on this occasion, the callsign TV6MN. The previous year we had done quite well compared with the national performance and this year we wanted to do even better.

Saturday evening, the 40m band was very active indeed; the list of multipliers was already well-filled and the shift relief operators were sleeping. At the computer keyboard was Bernard, F5OYC; on the key was Maurice, F6IIE, and at their side was Alain, F6HBR, ready as a replacement. 7.028MHz was where the action was, and it was just a steady stream of QSOs.

Suddenly an enormous carrier appeared, interfering with the traffic. This lasted for several minutes until the cause, an OM(!)-G ordered us to QSY, telling us that the contest 'band' was a good deal lower! Of course we paid no attention but tried to continue despite his insistent demands. Despite some 'choice' remarks (...) from Maurice, the 'little Hitler' continued and the traffic began to feel the effect of all this, with the rate of QSOs going into free-fall.

Deciding not to be intimidated, Maurice connected our two sets of headphones in parallel. With each of us wielding a pencil, making the best use of BFO and filters, we were able,

## Thanks OM G ...!

by F6IIE/F6HBR

between us, to catch first a letter then a digit, then another letter. Each QSO thus became a puzzle, quickly decoded and put down on paper.

In that fashion we were able to continue, making child's play of the ever-present QRM, which was accompanied every now and then by some Anglo-Saxon insults which we cannot repeat here...!

Paradoxically, with this method, the more the idiot excited himself the more the QSOs piled up. In fact, we were able to attain a better average than the previous year at the same time.

Many thanks OM-G...!

*(From La Pioche, journal of UFT (Union Française de Télégraphistes) 4/94, and specially edited for MM. Original translation by Ken Quigg GI4CRQ.)*

# Bookshelf

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

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

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## New to the Bookshelf

### Sparks around the bridge by Harry C. Hutson

There have been a number of books written by 'deep-sea' R/Os over the years, but this is different! Subtitled 'Arctic fishing as it really was', it is about the life of the 'sparks' on a Grimsby trawler.

Conditions on some were primitive, to say the least, but the array of radio, radionavigation aids and electronics fitted to many exceeded that on most tankers and tramps. Harry Hutson describes the work of the R/O, and of the rest of the crew, and conveys a vivid impression of the hard life of a trawlerman.

166 pages, 8 1/4 x 11 3/4 in, soft cover

### Traeger, the pedal radio man by Fred McKay

The story of Alfred Hermann Traeger, son of a South Australian farmer, who qualified in electrical engineering and went on to devise a way for farms and communities in the Australian bush to keep in contact.

His design for a radio powered by a pedal-driven generator turned this into a reality, and gave access also to emergency aid from the Royal Flying Doctor Service. He invented an automatic Morse keyboard to ease the problems of the unskilled operators, and later introduced voice communications. An absorbing tale; recommended! 108 pages, 6 3/4 x 9 1/2 in, soft cover

See below for prices of these books

Railroad Telegrapher's Handbook by Tom French (MM22) .....	£6.75 (UK): £7.05 (Eur/Sur)
McELROY, World's Champion Radio Telegrapher by Tom French .....	£14.70 (UK): £15.40 (Eur/Sur)
The Story of the Key by Louise Ramsey Moreau (MM38) .....	£3.95 (UK): £4.25 (Eur/Sur)
Wake of the Wirelessman by B. J. Clemons (RB41) .....	£12.95 (UK): £13.75 (Eur/Sur)
Gentlemen on Imperial Service by R. Bruce Scott (MM45) .....	£8.75 (UK): £9.25 (Eur/Sur)
Deep Sea 'Sparks' by Olive J. Carroll (MM37) .....	£17.90 (UK): £18.50 (Eur/Sur)
Wires, Wheels and Wings by Harry G. Reddin (MM42) .....	£19.25 (UK): £20.00 (Eur/Sur)
Radio Art by Robert Hawes (RB16) .....	£14.75 (UK): £15.35 (Eur/Sur)
Communications Receivers - the Vacuum Tube Era by Raymond S. Moore .....	£15.00 (UK): £15.85 (Eur/Sur)
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The RACAL Handbook by Rinus Jansen .....	£13.00 (UK): £13.75 (Eur/Sur)
The Golden Age of Radio in the Home by John W. Stokes .....	£17.75 (UK): £18.35 (Eur/Sur)
More Golden Age of Radio by John W. Stokes .....	£25.25 (UK): £25.85 (Eur/Sur)
<b>Comprehensive Radio Valve Guides, in five books:</b>	
No. 1 (1934-1951); 2 (1951-1954); 3 (1954-1956); 4 (1956-1960); 5 (1960-1963) .....	Each £2.95 (UK): £3.25 (Eur/Sur)
Or, the set of five books: .....	£14.00 (UK): £15.50 (Eur/Sur)
Radio, TV, Industrial & Transmitting Valve Equivalents .....	£2.95 (UK): £3.25 (Eur/Sur)
70 Years of Radio Valves and Tubes by John W. Stokes .....	£20.50 (UK): £21.60 (Eur/Sur)
Wireless for the Warrior - Volume 1 (WS1 - WS88) by Louis Meulstee (RB38) .....	£27.75 (UK): £28.65 (Eur/Sur)
Electronic and Radio Engineering by F. E. Terman (RB37) .....	£22.75 (UK): £23.65 (Eur/Sur)
Audio! Audio! by Jonathan Hill .....	£11.35 (UK): £12.00 (Eur/Sur)
Saga of the Vacuum Tube by Gerald F. Tyne (RB39) .....	£14.30 (UK): £15.20 (Eur/Sur)
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Watchers of the Waves by Brian Faulkner (MM47) .....	£13.50 (UK): £14.20 (Eur/Sur)
Traeger, the pedal radio man by Fred McKay .....	£9.45 (UK): £9.75 (Eur/Sur)
Sparks around the bridge by Harry C. Hutson .....	£8.85 (UK): £10.00 (Eur/Sur)

Credit card orders welcome by phone or fax on 01202 658474

# Your Letters

Readers' letters on any Morse subject are always welcome, but may be edited when space is limited. When more than one subject is covered, letters may be divided into single subjects in order to bring comments on various matters together for easy reference

## USCG Last Code Transmission Award

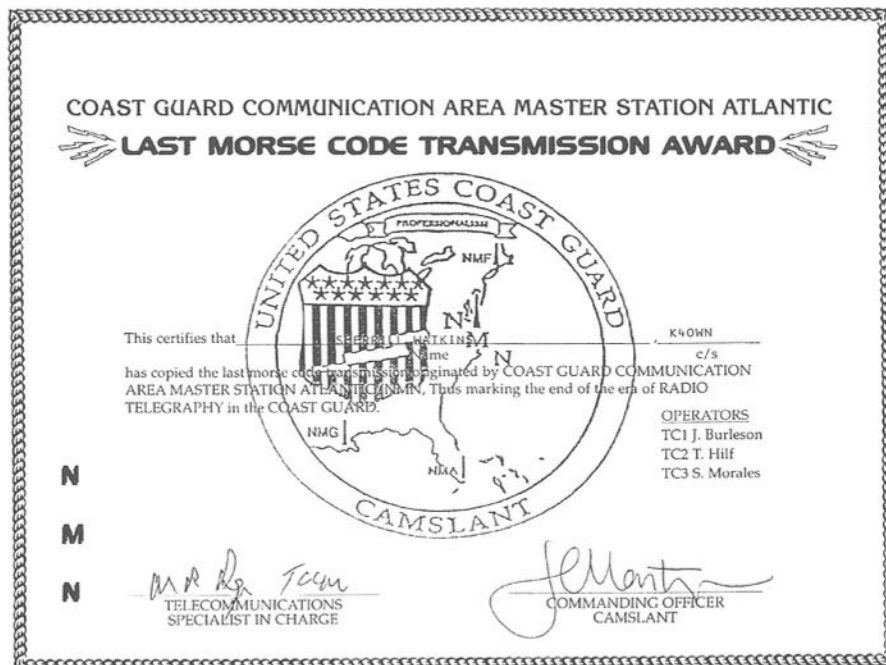
I thought you would like to have a copy of my US Coast Guard Last Morse Code Transmission Award Certificate. This is one certificate that marks a sad event of a historical nature.

I am glad to have earned it, but wish the good old USCG was still on CW.

I copied the transmission last year. It was sent at about 16 wpm.

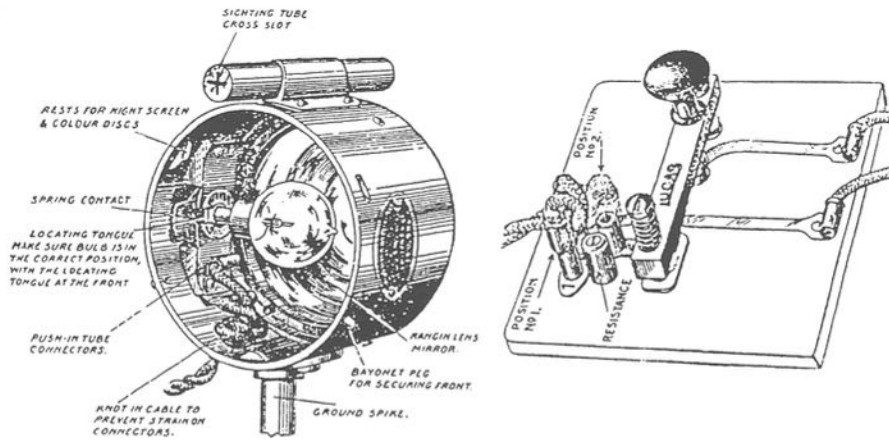
**Sherrill E. Watkins K4OWN**  
Midlothian, VA, USA

*(The final CW transmission from the USCG, on 31 March 1995, was reported in MM39 (p.36) and MM40 (p.2). – Ed)*



USCG certificate received by Sherrill Watkins





Lucas Lamp and Key (from AWA Review No.8)

### Lucas Key

The Lucas key on page 17 of MM47 is the key fitted to the 'Lamp Signalling, Daylight', which was devised in WWI for short range visual signalling. It was initially manufactured by Joseph Lucas Ltd, Birmingham, England, and another maker was Arthur Lyon & Wrench Ltd.

This type of lamp, in different versions, and with different keys, was used during both world wars. Further information can be found in Louis Meulstee's article 'Unusual Military Morse Keys', in the *AWA Review* No.8.

*Wyn Davies*

*Brymbo, Wreccsam, Wales*

*(A similar Lucas key, from a LAMP ELECTRIC SIGNALLING DAYLIGHT LONG RANGE, 1918, is shown in MM34, p.25. - Ed.)*

### Morse in Advertising

While watching television recently, I was startled to hear dah-di-dah-dit resonate from the speaker, after which a large

block letter 'C' appeared on the screen. This was followed immediately by more Morse and more block letters until the word 'Caravan' filled the screen.

It was the opening of a commercial for the Plymouth Caravan minivan, a popular sports/recreation vehicle manufactured in the United States by the Chrysler Corporation.

I saw the commercial only three times, and I have no idea what prompted the auto company to use Morse code in its advertising, but I'm glad it did.

*Richard L. Thomas KB7BAD  
Phoenix, Arizona, USA*

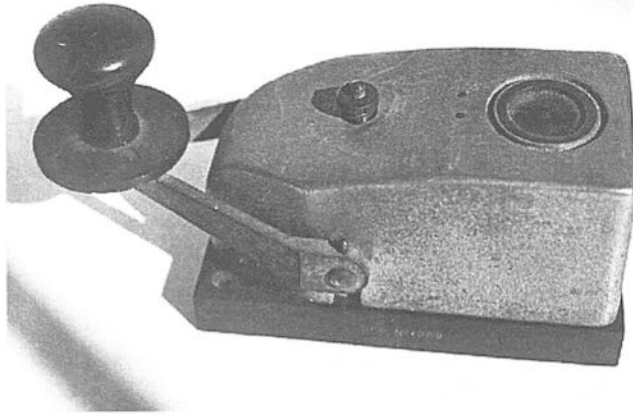
### Exclamation Mark Not Needed

With reference to the debate about the exclamation mark, I think that this symbol is superfluous in Morse as it is in literature generally.

The emphasis is, or should be, obvious from the text.

*Alan L. Smith GOLSH  
Chelmsford, Essex*

### Advice on Restoration Wanted



I have a key marked 'S.G. Brown, Acton, London NW. Ref No 1969' with a cast aluminium cover. Could anyone suggest, please, the best way to clean this cover?

I also have a Bakelite KEY WT 8 AMP, No 2 MK III, and would appreciate advice on how to remove the pivot pin without damaging the key.

**Tony Wilkes ZL3SLH**  
**Whangaparaoa, New Zealand**

*S.G. Brown key, Ref No 1969*

*Photo/Collection: ZL3SLH*

*(Would readers like to send in their own tips for restoring keys, either general or relative to a particular key? If enough are received, we could make up a composite article for a future issue of MM. – Ed.)*

### Another Service Closes

The following closing down message was received from Halifax Coastguard Radio in Nova Scotia at 2359 GMT, 30 September 1996, on 6.490MHz. Here in Ringwood his signals were SINPO 32433.

“CQ CQ CQ de VCS VCS VCS

Please note, this is our final broadcast on this frequency = As of 2400 GMT tonight, Halifax Coast Guard Radio/VCS will no longer provide services on HF

CW, HF RT, or SITOR. Our services on MF CW, MF RT and VHF will continue as usual. Our Satellite Telex Number is 21 1921540 = We thank you for your patronage over the years = The Radio Operators of VCS Halifax Radio wish you a safe voyage and to all a good night 73 and 88 de VCS VCS VCS AR SK.”

Transmissions ceased at 0006 UTC, 1 October 1996.

**Geoff Williams**  
**Ringwood, Hants**

*MM48 – October 1996*

# Ephemera

Beginning reproductions from a series of cigarette cards from the  
'Signalling' Series of W.D. & H.O. Wills of Bristol & London



44

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ALBUMS FOR THESE PICTURE CARDS CAN BE OBTAINED AT 1/- EACH FROM ALL TOBACCONISTS

**HELIOGRAPH.**  
1.—With the heliograph signalling is effected by means of mirrors, which are so placed as to reflect the sun's rays on to a distant station. The distance which these signals can be read varies according to the state of the atmosphere. Under favourable conditions signals can be read at a distance of 70 miles. The mirrors used are plane circular glasses, and the system adopted is the Morse code.

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**WILLS'S CIGARETTES**

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**HELIOGRAPH.**  
2.—To set up the helio, as hereon shown, the tripod should stand firmly, and be placed so that the head of it is as level as possible. The instrument is then screwed on to the main socket, and by passing the jointed arm from hand to hand it is screwed home. A sheltered spot should always be selected for the helio, provided you have a clear range.

**W.D. & H.O. WILLS.**  
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46

SIGNALLING SERIES  
**WILLS'S CIGARETTES**

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**HELIOGRAPH.**  
3.—To align the helio, using the sighting rod.—The signaller either looks through the hole in the back of the mirror, or places himself in the position shown in the illustration. He now moves his head so as to get the reflection of the distant station covered by the spot on the mirror; he next gets the sighting mark to cover the reflection of the distant station.

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To be continued





RSGB MORSE  
TEST SERVICE

# 10<sup>th</sup> Anniversary Award

*This is to certify that*

**JOHN DAVIES G4ETQ**

*has submitted satisfactory evidence of contacting/hearing  
at least ten GB10 Special Event Stations operated by  
Morse Test teams throughout the United Kingdom on the air  
during May 11-12th 1996 to celebrate the  
10th anniversary of the RSGB Morse Test Service.*

*This certificate is awarded in recognition  
of outstanding achievement.*

Peter Shepherd, G4EJP  
President RSGB



Roy Clayton, G4SSH  
Chief Morse Examiner