



Landline Telegraphy

Morse code has not always been the code that radio amateurs learn and use today. American

Morse Code (also known as Railroad Morse) is the latter-day name for the original version of the Morse Code developed in the mid-1840s by **Samuel Morse** and **Alfred Vail** for their electric telegraph. The 'American' qualifier was added because, after most of the rest of the world adopted International Morse Code, the companies that continued to use the original Morse Code were mainly located in the United States.

American Morse Code was first used on the Baltimore-Washington telegraph line between Baltimore, Maryland, and the old Supreme Court chamber in the Capitol building in Washington, D.C. The first public message "*What hath God wrought*" was sent on May 24th 1844, by Morse in Washington to Alfred Vail at the Baltimore and Ohio Railroad (B&O) 'outer depot' (now the B&O Railroad Museum) in Baltimore.

American Morse is now nearly extinct. It is most frequently seen in American railroad museums and American Civil War re-enactments. Morse Code today virtually always means the International Morse, which supplanted American Morse.

The railroad operators were extremely skilled at reading Railroad or American Morse, using a sounder. Each relay station had these installed and the click-clack noise from the sounder was the only sound the operator had to decode messages. This may sound easy but only when you actually try it, and try to copy a whole message, is the difficulty realised. Slow speeds are not too bad but anything over about 15WPM and it takes consummate skill to decode.

Sounders are still around. Indeed, there will be an evening at the Norfolk ARC in July when we shall be showing and operating the sounders, courtesy of **Roy G3ZIG** who has a few in his collection. It will be fun to see who can actually use them to decode a message, **Fig. 1**.

Needless to say, we will not be using American Morse, only the International variety. Those railroad operators who had a problem copying the distinct clickety-clack of the sounder used to place a tobacco-tin

Roger Cooke G3LDI looks at American (and Japanese!) Morse before turning to other CW-related topics.



Fig. 1: Bunnell American Morse sounder.

lid on the top of the sounder to make it easier to copy. They were referred to as LIDS, a term which has become synonymous with poor operators on the air today.

American Morse differed from the more modern International Code in its construction. In its original implementation, the Morse Code specification included the following:

- short mark or dot (•)
- longer mark or dash (—)
- intra-character gap (standard gap between the dots and dashes in a character)
- short gap (between letters)
- medium gap (between words)
- long gap (between sentences)
- long intra-character gap (longer internal gap used in C, O, R, Y, Z and &)
- 'long dash' (—, the letter L)
- even longer dash (—, the numeral 0)

American Morse code is shown in **Fig. 2**. I had a lifelong friend in Seattle, **Dick Bendicksen N7ZL**. He was originally licensed as W7LPM and was a real expert in code. He operated in WW2 in the Philippines and was fluent in both American and International Morse Code. He is a Silent Key now, unfortunately, passing away some years ago, at the age of 87. We had regular skeds almost every day for years and visited with each other several times too.

To see how difficult it is to copy from a sounder, take a look at this YouTube video: www.youtube.com/watch?v=ID6r4-2_0bc

Japanese Morse

Working Japanese stations is fine when using International Morse Code but if you speak Japanese and wish to converse using Japanese Morse, then you will have some more learning and more practice to do! Their code is shown in **Fig. 3**.

Bootcamps – again!

There are now three Bootcamps scheduled for the remainder of this year as below.

Norfolk ARC will be adding another in the autumn, but no date has been set as yet.

- Sunday, April 28th, Norwich ARC, G3LDI.
- Saturday, May 4th, Hereford area, G4FAD.
- Saturday, October 19th, Essex CW ARC, G0IBN.

If your club is starting a Bootcamp, please let me know and I will add it to the list. I don't think you will regret running one at your club; it really is both beneficial and a lot of fun.

The Essex Club was fortunate to receive sponsorship from FOC in order to run their Bootcamp at a local village hall. They used the money to acquire some training equipment and are happy to offer it for loan to

American Morse code, as used by the railroads.				
	A	● —	N	— ●
	B	— ● ● ●	O	● ● ● long space
long space	C	● ● ●	P	● ● ● ● ●
	D	— ● ●	Q	● ● — ●
	E	●	R	● ● ● long space
	F	● — ●	S	● ● ●
	G	— — ●	T	—
	H	● ● ● ●	U	● ● —
	I	● ●	V	● ● ● —
	J	— ● — ●	W	● — —
	K	— ● —	X	● — ● ●
long dash	L	— —	Y	● ● ● ● ● long space
	M	— —	Z	● ● ● ● long space

Fig. 2: American Morse code.

Morse Codes モールスコード											
A	イ	● —	○	レ	— — —	エ	— ● ● ● ● — — —	?	?	● ● ● ● ● — — —	
	ロ	● ● ● ● — — —		ソ	— — — ● ● ● ●		テ	● ● ● ● ● — — —		・	● ● ● ● ● — — —
B	ハ	— ● ● ● ● — — —	P	ツ	— — — ● ● ● ●		ア	— — — — — — — —			
C	ニ	— — — ● ● ● ●	Q	ネ	— — — — — — — —		サ	— — — — — ● ● ●			
D	ホ	— — — ● ● ●	R	ナ	— — — ● ● ●		キ	— — — — — ● ● ●			
E	ヘ	●	S	ラ	— ● ● ● ●		ユ	— — — — — — — —			
	ト	● ● ● ● ● ● ●	T	ム	— — —	-	メ	— — — — — ● ● ●			
F	チ	● ● ● ● ● ●	U	ウ	— ● ● ● ●		ミ	— ● ● ● ● ● ●	1	—	● ● ● ● ● — — — — —
G	リ	— ● ● ● ● ● ●		キ	— ● ● ● ● ● ● ●		シ	— — — — — ● ● ● ●	2	二	● ● ● ● ● — — — — —
H	ヌ	— ● ● ● ● ● ●		ノ	— ● ● ● ● ● ●		エ	— ● ● ● ● ● ● ●	3	三	● ● ● ● ● — — — — —
I	・	● ●		オ	— ● ● ● ● ● ●		ヒ	— — — — — ● ● ● ●	4	四	● ● ● ● ● — — — — —
	ル	— ● ● ● ● ● ● ●	V	ク	— ● ● ● ● ● ●	!	モ	— ● ● ● ● ● ● ●	5	五	● ● ● ● ● — — — — —
J	ヲ	— ● ● ● ● ● ● ●	W	ヤ	— ● ● ● ● ● ●		セ	— ● ● ● ● ● ● ●	6	六	● ● ● ● ● — — — — —
K	ワ	— ● ● ● ● ● ●	X	マ	— — — — — ● ● ● ●		ス	— — — — — ● ● ● ●	7	七	— — — — — ● ● ● ●
L	カ	— ● ● ● ● ● ●	Y	ケ	— — — — — ● ● ● ●	+	ン	— — — — — ● ● ● ●	8	八	— — — — — ● ● ● ●
M	ヨ	— — — — — ● ● ● ●	Z	フ	— — — — — ● ● ● ●	・	ノ	— — — — — ● ● ● ●	9	九	— — — — — ● ● ● ●
N	タ	— — — — — ●		コ	— — — — — ● ● ● ●	!	ノ	— — — — — ● ● ● ●	0	〇	— — — — — ● ● ● ●

Fig. 3: Japanese Morse code.

other clubs running a Bootcamp. If you would like to borrow it, please contact **Andy GOIBN** at: g0ibn1@yahoo.com

MOAGA Chevron Paddle

If any of you are lucky enough to own a Rolls Royce paddle, the Chevron, made by **Kevin Gunstone MOAGA**, you might be interested in protecting it with a dust cover. There are two people that I know of who make these. One is **Tom Kelly AB6Z** (web-site below), who now has the dimensions for making a dust cover for Kevin's Chevron paddle. He can add your callsign (and FOC emblem where applicable) if you like. gifts4hams.com

The other, in the UK but who sells world-wide, is **Pete Soby G0PNM**, who also has the dimensions for Kevin's key. www.g0pnm.uk

Pete featured on the last episode of TX Factor when he was the winner of the prize draw. He also makes other shack accessories, so it's worth taking a look at his range of products. When I am lucky enough to own a Chevron, I shall be in touch Pete!

Morse Practice Oscillator

The following was sent to me by regular PW reader and correspondent **Bob Houlston G4PVB**: KMK (Kent Morse Keys) offer a ready-built Morse practice oscillator but for just a fraction of the price you can build it if you supply the case. So, for use in my GB2CW broadcasts I did. The instructions were clear and well presented. It worked first time. The pitch (quite pleasant) and volume are variable. Silicone sealant (wear eye protection in use) secures most loose things. I fitted 3.5mm and 6.35mm jack sockets. Total cost, including the supplied kit, about £30, though this will vary according to what you have to hand. Apart from

waiting for the silicone sealant to dry, it took about two hours to build so could be a useful club night project, **Fig. 4**. Source: www.kent-engineers.com

Adjusting Paddles

I recently took my Begali HST apart, disassembled the contacts and so on and gave it a thoroughly good clean. I was surprised at just how much dust and accumulated fluff there was. I suppose I should have a dust cover to protect it, like those with the Chevron probably have! After reassembly I spent 20 minutes setting it up and adjusting the contacts. Again, surprisingly, it did make a difference to my keying accuracy. I thought my age was causing some mis-keys and mistakes but I definitely noticed an improvement. It obviously pays to take a regular look at our paddles.

If you have an MFJ-564B twin lever paddle, there is a YouTube video regarding maintenance that's worth a look: <https://youtu.be/uiXz-AZdDPM>

Rag Chewing

There are so many 5nn73 QSOs now, that some people have resorted to forcing the other station to actually say something in the way of conversation. This was the theme of Ray G4FON's talk at the RSGB Convention this year.

Stew GW0ETF/GW4J had this to say about it: "I find contesting immense fun but it doesn't do much for my conversational skills. So, I do try to CQ outside of contests when I can to try to rebalance things. At the moment I try to spend some time around dusk here on 20m and regularly have some nice QSOs with West Coast/Rockies area but conditions usually keep them fairly short plus sometimes if I'm lucky, there will be others waiting. Often when there's Euro-

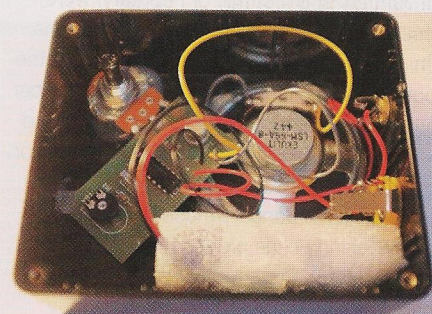


Fig. 4: Kent Morse practice oscillator.

pean propagation, say, on 40m, I get called by stations only after my GW prefix, which means lots of 599/73 type contacts but that can be fun too.

"I don't know if you use a panadapter but if you do, take a look on 20m a few minutes before 1300UTC on a Wednesday [the CWops CW Test events, as Roger has mentioned previously, run over three operating periods each Wednesday, the first being 1300 to 1400UTC – ed.]. Barring DXpeditions, the middle part of the CW section has lately been flat as a snooker table. Then as the seconds approach 1300 and beyond, a forest of mid-height signals springs up and lasts until 1400UTC when the forest becomes a desert again. Post-CWT there is clearly propagation – it's just that nobody is on. Most CWters, including me, want (or need) to upload their scores and get away but maybe I'll try hanging on with a few CQs with my official CWops call (G(W)2CWO) in case there may be some lingerers happy to chew some rag. And there's always 40m and 80m for us locals (80 is usually a graveyard in the day). If this becomes a regular thing, we could think about advertising it as a time for potential new members to look for those conversational QSOs".

Please keep the input coming. 73 and May the Morse be with you. Roger G3LDI.