Learning Morse Effectively

ALLOCATE PRACTICE TIME

You can succeed in mastering Morse code if you practice. If you can spare only 15 minutes a day, make sure you spend those 15 minutes each day. Decide what time of day is best and stick to that schedule.

BANISH CHARTS

If you have a visual Morse code dot • and dash ━ chart, shred it, recycle it, or whatever. That's an invitation to slow down your skill building. It introduces a useless visual stage into your learning process. By starting with a dot and dash chart, you are inviting yourself to reach a speed plateau which is difficult to overcome.

Morse code is an aural communications system. You want to convert directly from sound into copy, whether on a keyboard, a piece of paper, or better yet, directly into your brain. Teach Morse to your ears and fingers, not to your eyes.

EAR TRAINING

There are lots of free online resources for learning Morse by ear. One excellent program for beginners is the **G4FON Koch Trainer**.[1] The Koch method starts you at your target speed. **It's actually easier to learn Morse at higher speeds than slower.** (Read that sentence again!) Since most ham CW operation is about 25 WPM or less, try setting your Koch speed to 25 WPM, although you could push that to 30 WPM if you wish. Once you've learned to receive all of the characters at that target speed, you're ready to practice sending it with your paddle and keyer.

For the next stage of improving your listening skill, I'd suggest using another free online program called **RufzXP**,[2] which is available for Windows, Apple and Linux. The basic program sends random call signs at a starting speed which you specify. Each time you copy a call sign correctly on your keyboard, the speed increases by 1 WPM. If you make a mistake, it decreases the speed by 1 WPM. Call signs make great practice, since they include arbitrary combinations of both letters and numbers. **RufzXP** is an absolute demon, but it's a great way to limber up your Morse listening skill, whether you're just starting out or you've been doing Morse for decades. I like to use it just before a CW contest. A maximum of about a 15 minutes per session is about right for that advanced program. **RufzXP** is used for international Morse speed competitions. Maybe you'll reach that level someday.

FORGET STRAIGHT KEYS

Skip the straight-key stage entirely. Except for the fun Straight Key Night on New Year's Eve and New Year's Day, hams rarely use straight keys anymore. Professional telegraphers who used straight keys yesteryear often had to retire early, suffering from what we now call **carpal-tunnel syndrome**.[3] The standard way of sending Morse manually is with left-right paddles and electronic keyers, although it can be done with keyboards as well.

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[1] http://www.g4fon.net/CW%20Trainer.htm
[2] http://www.rufzxp.net/
[3] http://en.wikipedia.org/wiki/Carpal_tunnel_syndrome

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You can use either a keyer built into a transceiver or a purpose-built keyer. A simple pocket-sized keyer which is quite sophisticated is the **HamGadgets PicoKeyer Plus Kit**.[4] The speaker is quite small, which yields weak volume in stand-alone mode. So if you have some hearing impairment, either use the **PicoKeyer Plus** to drive a transceiver with a loud sidetone or choose another keyer. I taught a ham radio course to middle-school students and they thoroughly enjoyed building the **PicoKeyer Plus** as their first hands-on project.

There are other quality keyers available, like the **Begali CW Machine**[5] (which can also include a trainer) or the **K1EL WKUSB Kit**[6] or the factory- assembled **HamGadgets MasterKeyer MK-1**.[7] If you own the magnificent **Elecraft KX3**, it includes an excellent Morse decoder function, which is especially helpful for transmitting. If you're not leaving enough space between words, the decoder will tell you so. You can practice off the air with the KX3 by changing from VOX to PTT in CW mode. The **Begali CW Machine** (actually a USA product which is marketed through the Italian company) also includes a sending Morse decoder.

BASIC PADDLES

You can probably find a used paddle at a hamfest or on EBay or similar sources. If its return force and contact spacing are not readily adjustable on the fly (without pesky lock washers), give it a miss. If you want a new one, the dual-lever **American Morse Equipment Porta-Paddle II**[8] will do just fine. Instead of buying the **AME Porta-Paddle Base**,[9] you can order an **AME Quick Mount**,[10] which you can then attach to any operating surface with some matching 3M™ Dual Lock™ installed there. Avoid the dual-lever **AME DCP**.[11] It has only one mounting screw and since it doesn't have a channeled base, you can't easily fix the problem of its rotating around that single screw. The single-lever **AME Bushwhacker Paddle**[12] is a fine choice which is also compatible with the **AME Quick Mount**.

the AME Bushwhacker single-lever paddle

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[4] http://www.hamgadgets.com/index.php?main_page=product_info&cPath=21&products_id=89

[5] http://www.i2rtf.com/html/cw_machine.html

[6] http://www.k1el.com/

[7] http://www.hamgadgets.com/index.php?main_page=product_info&cPath=31&products_id=106

[8] http://www.americanmorse.com/portapaddle.htm

[9] http://www.americanmorse.com/portapaddlebase.htm

[10] http://www.americanmorse.com/ppquickmount.htm

[11] http://www.americanmorse.com/dcp.htm

[12] http://www.americanmorse.com/bushwacker.htm For ultra-portable single-lever operation, try the AME Mini-B http://www.americanmorse.com/minib.htm with 3M™ Dual Lock™ plastered on its channeled base, overcoming its single-screw design. Operators who are making the transition from a semi-automatic bug may do very well by starting with a single-lever paddle and sticking to it. The advantages of dual-lever paddling are minimal at best.

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The critical characteristic of a paddle is that it should feature easily-adjustable return force and easily-adjustable contact spacing. (Yes, you read that before.) For starting out, any paddle meeting those standards will do just fine. Notice that this does not include the **Elecraft KXPD3**[13] or the **Palm Radio Mini Paddle**[14] or **Palm Radio Pico Paddle**,[15] which are difficult to adjust.

ADVANCED PADDLES

High-end paddles without lock-nuts are available from **Begali**,[16] **Schuenemann**,[17] **K8RA**,[18] and **N3ZN**.[19] Study their features carefully and read whatever reviews you can. The website **eHam.com**[20] has a large collection of paddle reviews.

In my opinion, the finest Morse keys in the world are made by Pietro Begali[21] in the comune of Cellatica near the Italian Alps. His company prides itself in excellent customer service, and his products are normally shipped promptly via air freight. The operating position in my shack currently sports four Begali paddles, the unsurpassed single-lever **Sculpture Mono**,[22] the hybrid dual-lever/single-lever **Leonessa**,[23] the single-lever **Adventure Mono**[24] and the dual-lever **Adventure**.[25] I've taken the latter two on Summits On The Air (SOTA)[26] activations, but they also get frequent use at home, mounted on the **Adventure Magnetic Base**. The beautiful **Leonessa** is an excellent choice if you don't know right now whether to choose a single-lever or a dual-lever paddle.

the Begali Leonessa paddle

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[13] http://www.elecraft.com/manual/E740166%20KXPD3%20Paddle%20Instructions%20Rev%20D.pdf
[14] http://www.palm-radio.de/english/empaddle.html
[15] http://www.palm-radio.de/english/eppaddle.html
[16] http://www.i2rtf.com/html/keys_paddles.html
[17] http://www.scheunemann-morsetasten.de/
[18] http://www.k8ra.com/
[19] http://www.n3znkeys.com/
[20] http://www.eham.net/reviews/products/16
[21] http://www.i2rtf.com/
[22] http://www.i2rtf.com/html/sculpture_mono.html
[23] http://www.i2rtf.com/html/leonessa.html
[24] http://www.i2rtf.com/html/adventure_mono.html
[25] http://www.i2rtf.com/html/adventure.html
[26] http://www.sota.org.uk/ Watch out! SOTA activating and chasing can be addictive. Now that the US states with mountains outside of Alaska have joined the SOTA system, it has become increasingly popular. The task of documenting Alaska's mountains for SOTA is huge, so it has not been accomplished yet.

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My Begali **<u>Simplex Mono</u>**[27] is currently stored away, but there's nothing wrong with its quality. It was my first single-lever paddle, by which I learned to enjoy single-lever paddling after years of using the dual-lever kind. Now I switch back and forth regularly between dual-lever and single-lever paddling. All of the Begali paddles in the Simplex family are pretty economical and fine quality. These include the **<u>Simplex</u>**, **<u>Simplex Pro</u>**, **<u>Simplex Basic</u>** [the cheapest Begali paddle, and still a quality product], **<u>Simplex Mono</u>** and **<u>Mono Basic</u>**.

the economical Begali Simplex Basic paddle

The original Begali **<u>HST Single Lever</u>** is the only Begali paddle which I don't like. It's no longer available, and has been replaced by the **<u>HST II</u>**, which still goes by the old name on the website. If you see an **<u>HST Single Lever</u>** on the used market, be wary. Avoid it if it doesn't look exactly like the one currently on the Begali website.[28] The old version had too long a lever and is awkward for ordinary mortals. Apparently some world-class speedsters liked it. Even the current **<u>HST II</u>** is not for beginners. If you can already can send at 40 WPM and you're trying to get to 50 WPM, you might consider the **<u>HST II</u>**. Otherwise, any other Begali paddle would be better.

You won't regret investing in a quality paddle.

<mark>PROPER WORD SPACING</mark>

ManyCWoperatorsforgetthatweusespacesbetweenwords. That makes it just as difficult to understand on the air as it is to read in print. For sending practice, you can copy any printed text. However, to learn sending on the fly while still using proper word spacing, try something you already have in your mind, like the Pledge of Allegiance, the Gettysburg Address, or the full names and birthdates of family members. The latter will give you practice with numbers. Think up whole sentences describing your recent activities. By using non-printed text with a transmit decoder, you can pay attention to leaving proper word spacing. When we're ragchewing on the air, we don't usually quote from printed text. We translate our thoughts directly into hand motions.

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[27] http://www.i2rtf.com/html/simplex_mono.html
[28] http://www.i2rtf.com/html/hst.html