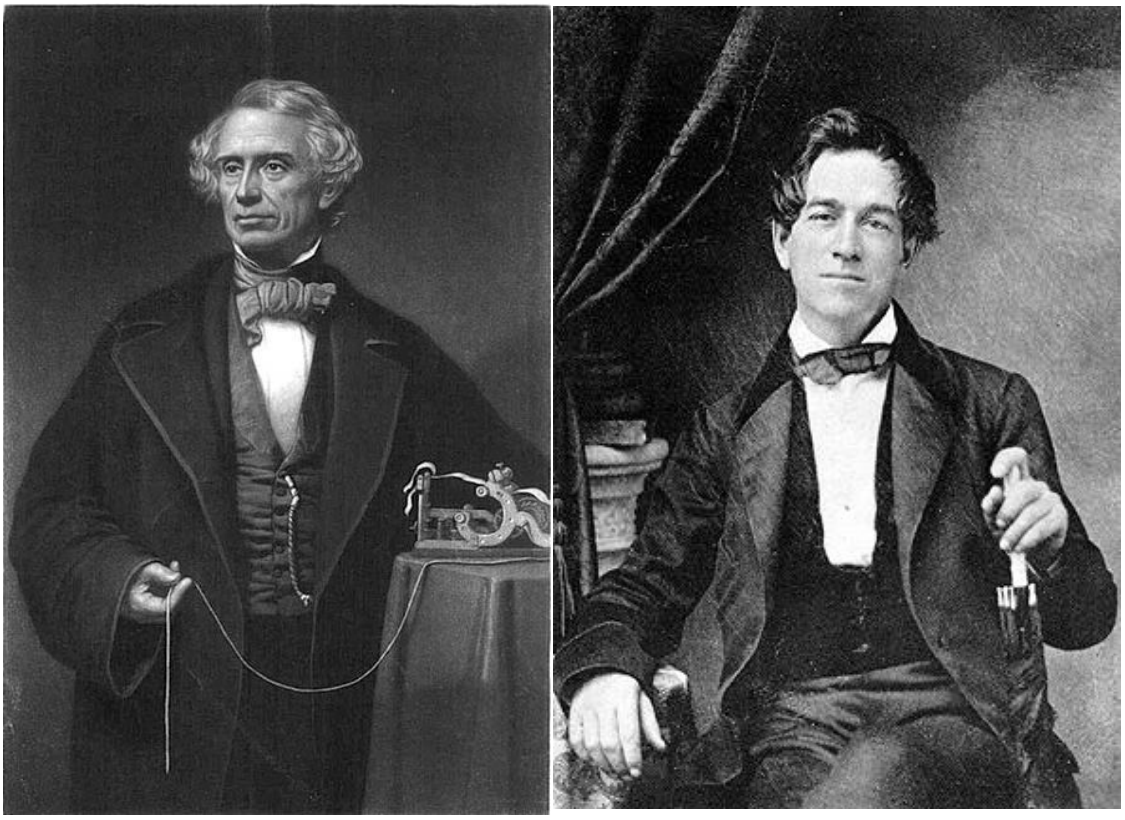
Communicating With Morse Code

Alfred Vail's telegraph key, 1844, in the collection of the Smithsonian

Alice T. Miner Museum

Chazy, NY

Morse Code and Telegraphy



Samuel Morse (left) and Alfred Vail (right)

Over the early 1800s, a number of different electrical telegraph systems, which sent signals over wires to represent letters and numbers in different ways, were developed to enable quick, straightforward long-distance communication at a time when messages could rarely be sent faster than a person on horseback could travel. By midcentury, though, the system developed by portrait-painter-turned-inventor Samuel Morse (1791-1872) in cooperation with machinist Alfred Vail (1807-1859) was almost universally used in both Europe and America.

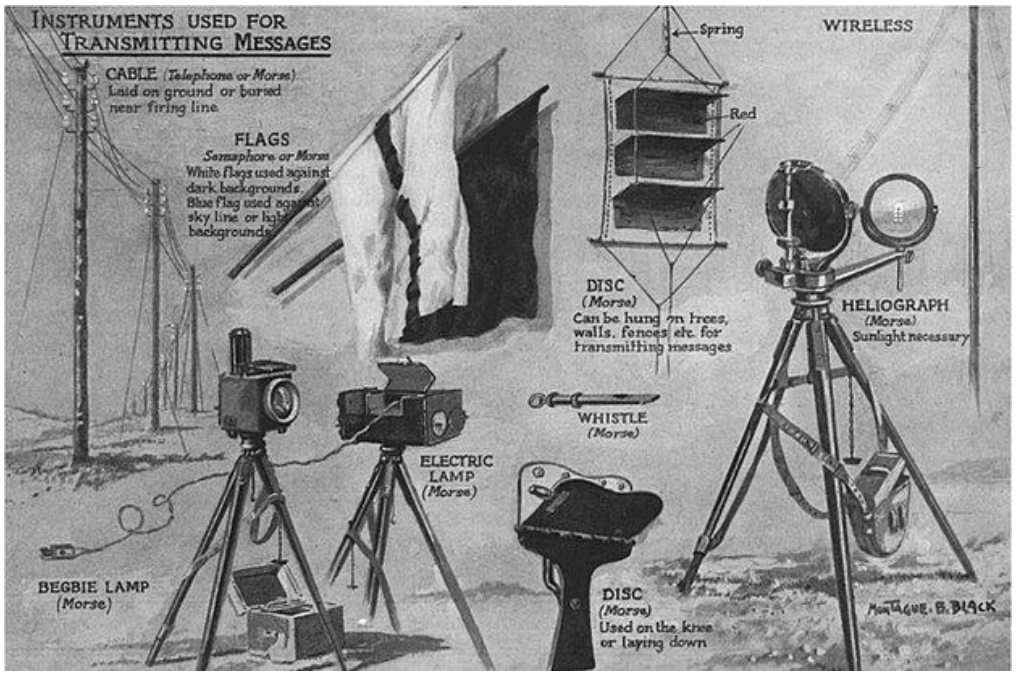
Around that time, cables were also starting to be laid across bodies of water for trans-oceanic communication, and by 1902 underwater cables circled the entire globe. People became used to being able to communicate from afar, and as the world became more and more interconnected in the late 19th and early 20th centuries, this communication became ever more important.

In the late 1800s another important development was also taking place: the development of wireless telegraphy, which used radio waves to communicate long-distance, using the same Morse code for communication used on the wired electrical telegraph system Morse had developed. This proved very important in the First World War for communication between warships and land, and for communication dealing with the unpredictable movements of armies. Wireless telegraphy used pulses of sound over radio waves to send its messages.

The rise of radio, telephones, and then computers and smartphones competed with and finally ended telegraph service around the world; the last telegram was sent in India on July 14, 2013.

Morse Code

In Morse code, different patterns of short (dit) and long (dah) pulses represent each letter or number and can be "translated" back into language. In the earliest days, these were recorded on a paper tape, then recorded by an operator listening to the clicking sounds the machine made or the tones of the wireless telegraph transmitter.



Different methods of Morse communication (from the Moseley Society)

Morse was used almost universally in long distance communications, but it could also be utilized closer by, especially in battlefield or military maneuvers. It was especially versatile because the dits and dahs of the wireless could be adapted into messages sent other ways, too: flags, flashing lights, and other methods could be used to communicate as long as the receiver of the message had a clear line of sight.

In the following exercises, you can practice Morse code dits and dahs can be produce by knocking or tapping on a wall, table or other surface to produce the right combinations.

Tips for Practicing Morse Code

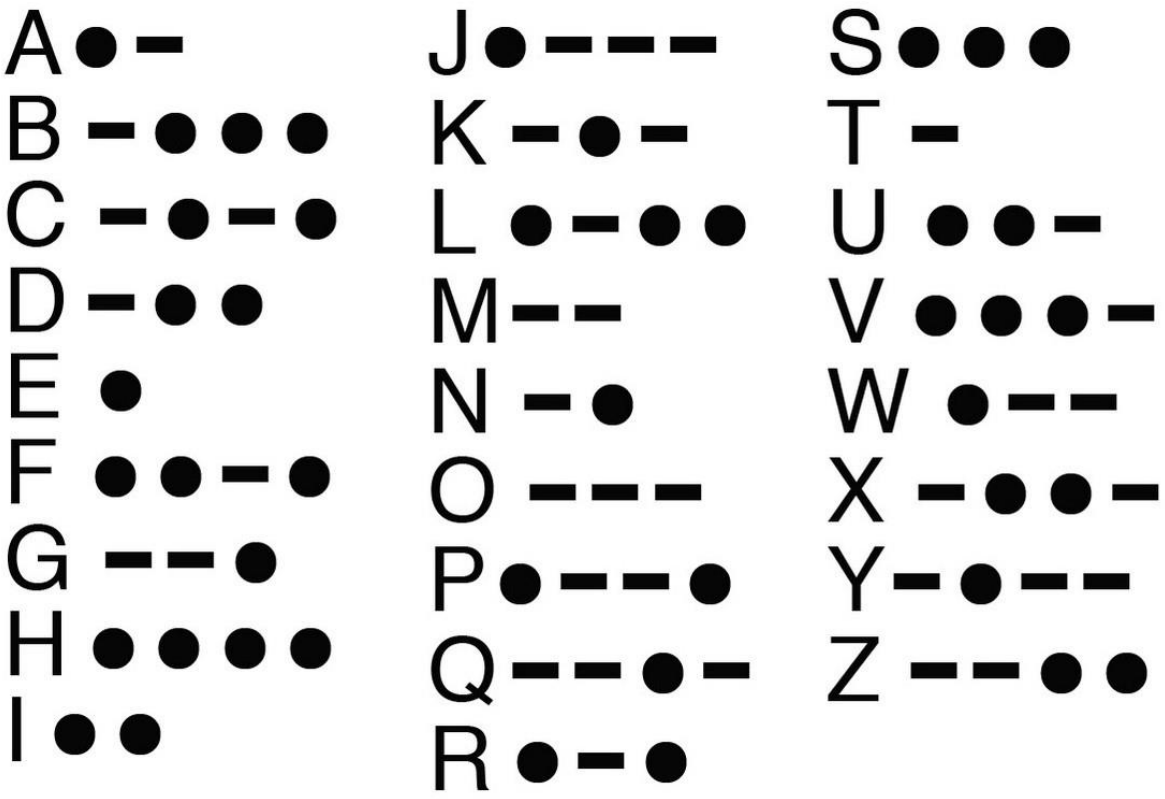
1. Go as slow as you need to! It's much more important to key at a steady pace than it is to key fast—the length of your dits, dahs and pauses will affect the message you send.

2. Start simple. Start learning with shorter, simpler letters—like "e," whose Morse code translation is a single dit—which are usually also the most commonly used.

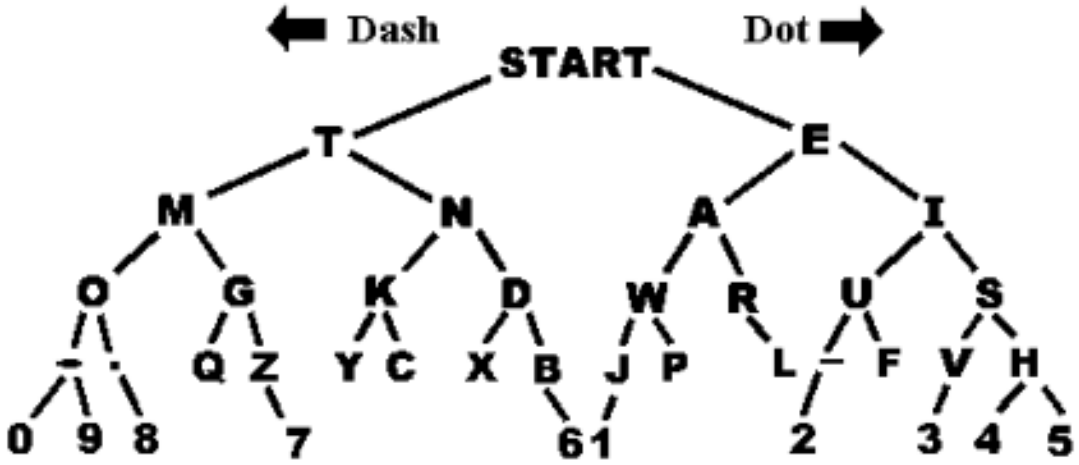
3. Try to "see" or "hear" the Morse messages as they are as well as "translating" them back into the English alphabet. If you key or write down dit-dit-dit, dah-dah-dah, dit-dit-dit, can you tell it means "SOS" without checking your code table? Practice being able to understand basic words and letters immediately in Morse.

4. Listen to Morse transmissions (you can often find them online) to practice "hearing" Morse even if you're not composing messages yourself.

The Morse Alphabet



An alphabetical reference for Morse letters (above) and a chart to decode Morse dits and dahs (below), from learnmorsecode.com)



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Practice Transmitting

Try to practice by knocking, or keying, your messages loudly enough to actually hear the dits and dahs, so you can work on recognizing letters and longer strings. If you want to write your message out in dots and dashes—"dits" and "dahs"—before you practice sending, feel free to write it out below.

1. First try the most famous telegraph message of all: SOS.

2. Transmit your name in code.

3. Compose a message for someone else in your home. Then try to interpret their message as they send it.

4. Try transmitting Samuel Morse's famous first telegraph message: WHAT HATH GOD WROUGHT.

More Resources

There are a lot of resources online for Morse code learning, from reference pages to online apps to tips from experienced communicators.

http://www.learnmorsecode.com has a variety of tips and resources.

http://www.arrl.org/learning-morse-code is a list of resources compiled by the Amateur Radio Relay League for people hoping to learn Morse code to communicate via ham radio.

https://sites.google.com/site/gw6itj/morse-code is another amateur radio-focused site with tips and advice for learners.

https://morsecode.scphillips.com/translator.html is an automatic translator you can use to practice with or check your code.

http://www.1728.org/morstest.htm offers memorization tips and an interactive test to practice your knowledge of the Morse alphabet.

https://boyslife.org/games/online-games/575/morse-code-machine is a Flash game you can use to practice or test yourself.