

" Talk With The Hand! "

The Radiotelegraph Morse Code (for Kids of All Ages)

What is Morse Code?

Morse code is a way of sending messages across long distances. It uses patterns of dots and dashes to send the letters, numbers and punctuation. The code was originally used to send messages over telegraph wires. Samuel F. B. Morse, the inventor of the first really practical electric telegraph, created the code around 1840, but he had quite a bit of help from Alfred Vail, one of his business friends. After wireless (the forerunner of radio) was invented, it was natural to use Morse code there, too, since by then a large number of operators were already familiar with it. The code patterns for many of the letters were changed when Morse code began to be used on the European continent, and that version of Morse code, called "Continental" Morse or more often, "International" Morse code, is the version used by radio operators around the world.



*The form of a modern telegraph key like this is still true to its century old roots
-photo courtesy of Milestone Technologies, used with permission
<http://www.mtechnologies.com>*

The Morse code sending instrument, then and now called a "key," was almost the same for both wired telegraphy and radiotelegraphy, but the receiving instruments were different. For "landline" telegraphy, a device called a "sounder" made a clicking noise when the key was pressed down at the distant end of the circuit and another click when the key was released. The sounder used coils of wire which magnetically attracted an iron bar while the key was depressed.



*A modern reproduction telegraph sounder
-photo courtesy of Milestone Technologies, used with permission
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When wireless came into being the sounder was replaced with headphones, and they would make a hissing or sizzling noise when the key was down. When wireless became radio, the sound became a steady tone, maybe heard through a loudspeaker. It takes some practice for an experienced radio operator to make sense of the old fashioned sounder and its clickety-clacking!

Once Morse code began being sent over radio, people started thinking about the dots and dashes in a different way. They thought the dots sounded like “dits” and the dashes sounded like “DAHs.” It seems to take a bit longer to say DAH than to say dit, and, since the dashes take more time to send than the dots, that worked out just fine and is still the way we think about it.

How is Morse Code Used Today?

Until very recently, radiotelegraph Morse code was still being used by some government agencies, like the Navy and the Coast Guard, but they don't use it much anymore. They have changed to more “modern” methods of communication, and now Amateur Radio operators are the most visible group of Morse code users. Even though these “ham” operators also have access to the more modern ways, and even though Morse code proficiency is no longer required to get a license, many hams still prefer to use the good old fashioned Morse code, for good reasons:

- Morse code was the original digital means of communication and is still today the only

digital signalling method that can be understood by both people and computers.

- Morse code can be sent using the simplest and most inexpensive radio equipment.
- Watt for Watt, a Morse code signal can travel farther than a voice signal and still be understood when conditions do not allow voice transmissions to be understood.
- Using Morse code, you can exchange information and carry on a simple conversation with somebody who doesn't speak your language!
- You can send Morse code using a whistle, car horn, or a flashlight and get help during an emergency.

Why Not Go Ahead and Give It a Try!

Here is a chart of the letters of the alphabet along with the Morse code pattern of dits and DAHs for each letter:

The Letters

Letter	Morse Code	Letter	Morse Code
A	di-DAH	N	DAH-dit
B	DAH-di-di-dit	O	DAH-DAH-DAH
C	DAH-di-DAH-dit	P	di-DAH-DAH-dit
D	DAH-di-dit	Q	DAH-DAH-di-DAH
E	dit	R	di-DAH-dit
F	di-di-DAH-dit	S	di-di-dit
G	DAH-DAH-dit	T	DAH
H	di-di-di-dit	U	di-di-DAH
I	di-dit	V	di-di-di-DAH
J	di-DAH-DAH-DAH	W	di-DAH-DAH
K	DAH-di-DAH	X	DAH-di-di-DAH
L	di-DAH-di-dit	Y	DAH-di-DAH-DAH
M	DAH-DAH	Z	DAH-DAH-di-dit

Look at the chart of the alphabet in Morse code and use it to find the letters that make up your

initials. Just fill in the blanks here with the correct Morse code for each of your initials:

The Initials of My Name in Morse Code

My Initials	The Morse Code for Each of My Initials
1	
2	
3	

Can you use a Morse code key to send them? (If there's no key available, you can whistle the characters.) When you send them, make the DAHs about three times longer than the dits and include a little pause between each letter of your initials so they don't all run together. Once you've got the hang of it, get a couple of hams to witness your sending and sign the ["Talk With The Hand"](#) certificate for you. You can stop there, or you can [go further](#) by learning the rest of the Morse code character set!

What is the Future of Morse Code?

"Newer" isn't always the same as "better." In fact, "newer" isn't even always "faster." On April 16, 2005, in Sydney, Australia, veteran Morse operators demonstrated that their "old fashioned" code was quicker than modern text-messaging, and in the US on May 13, 2005, there was a contest on Jay Leno's television program between two ham radio operators using Morse code and two text-messaging teenagers. One of the teenagers was said to be a champion high-speed text-messenger. The hams communicating with Morse code were quicker than the text-messagers in three rehearsals and the televised contest. And the hams weren't even sending and receiving at their top speed, either!

At the same time that some Western countries are trying to replace Morse code with newer (which in this case means "more expensive") means of communication, Morse code is still being promoted in many other places in the world. In Eastern Europe especially, young people are encouraged to learn Morse code. They compete with each other to see who can send and receive the quickest, and code proficiency is one very important part of the group of activities they call "radiosport."

Even though Morse code is 170 years old, it will continue to have a future for people who want to communicate easily, cheaply, and effectively. In an emergency, when lives are in danger, you could build a transmitter that can send Morse code signals using little more than some wire and a battery. During that same emergency, could you build yourself a cell phone?

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