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WEB & WIRELESS TECH

Guglielmo Marconi

The Father of Wireless Radio

Sending Signals Without Wires

Guglielmo Marconi was an inventor from Italy. He lived from 1874 to 1937. As a young man, he became interested in radio waves. Radio waves are invisible, but they can travel through the air. Marconi wanted to use them to send messages without any wires. This was called wireless.

Marconi built a **transmitter** to send out radio signals. He built a **receiver** to catch them. In 1895, he sent his first wireless signals about 1.5 miles. He kept making his machines better. In 1901, he sent the first radio signal across the Atlantic Ocean. The message was the letter 'S' in **Morse code**. In Morse code, 'S' is three dots. The signal traveled from England to Newfoundland (now part of Canada), about 2,200 miles!

Marconi's invention changed the world. Ships began to carry his wireless radios so they could call for help at sea. In 1909, Marconi won the Nobel Prize in Physics for his work. In 1912, the radio operators on the Titanic used Marconi radios to send calls for help. Those calls helped rescue many survivors.

WORDS TO KNOW

- **transmitter:** A machine that sends out radio signals.
- **receiver:** A machine that catches radio signals and turns them into messages.
- **Morse code:** A way to send messages using short and long signals called dots and dashes.

Part 1 • Reading Comprehension

1. What country was Marconi from?

2. In what year did Marconi send the first radio signal across the Atlantic Ocean?

3. What letter did Marconi send across the Atlantic? How many dots is that letter in Morse code?

4. How did Marconi radios help the people on the Titanic?

Morse Code Math

In Morse code, the letter 'S' is three dots. Use the facts in the passage to do some radio math!

- 1 The letter 'S' is 3 dots. How many dots would you tap to send the letter 'S' three times in a row?

- 2 Marconi's first signals in 1895 traveled about 1.5 miles. How far is double that distance?

- 3 The Atlantic signal traveled about 2,200 miles. Round the 1895 distance up to 2 miles. About how many more miles did the Atlantic signal travel than the first signals?

Part 3 • Think About It

Why do you think it was important for ships to have wireless radios?

