

**This article was provided by Joe Sammartino (Queen Creek (Arizona) Hams. It is a very interesting Historical article of the origins of radio.**

### **Father of Radio**

In the mid-1890s, building on techniques physicists were using to study electromagnetic waves, Guglielmo Marconi developed the first apparatus for long-distance radio communication.[1] On 23 December 1900, the Canadian-born American inventor Reginald A. Fessenden became the first person to send audio (wireless telephony) by means of electromagnetic waves, successfully transmitting over a distance of about a mile (1.6 kilometers,) and six years later on Christmas Eve 1906 he became the first person to make a public wireless broadcast.

However, The discovery of electromagnetic waves, including radio waves, by Heinrich Rudolf Hertz in the 1880s came after theoretical development on the connection between electricity and magnetism that started in the early 1800s. This work culminated in a theory of electromagnetic radiation developed by James Clerk Maxwell by 1873, which Hertz demonstrated experimentally. Hertz considered electromagnetic waves to be of little practical value. Other experimenters, such as Oliver Lodge and Jagadish Chandra Bose, explored the physical properties of electromagnetic waves, and they developed electric devices and methods to improve the transmission and detection of electromagnetic waves. But they did not apparently see the value in developing a communication system based on electromagnetic waves.

### **Father of Amateur Radio**

The father of amateur radio is Hiram Percy Maxim. He is best known for founding the [American Radio Relay League \(ARRL\)](#) in 1914, which became the national membership association for amateur radio operators. Maxim's organizational skills and vision helped structure and coordinate amateur radio operations, transforming it from a loosely organized activity into a more formal and effective community [according to Moonraker Online](#)

### **Father of the Antenna**

The origin of the word antenna relative to wireless apparatus is attributed to Italian radio pioneer Guglielmo Marconi. In the summer of 1895, Marconi began testing his wireless system outdoors on his father's estate near Bologna and soon began to experiment with long wire "aerials" suspended from a pole.

### **Father of Directional Antennas**

The Yagi-Uda antenna, a common type of directional antenna, was developed by Hidetsugu Yagi and Shintaro Uda in Japan. They published their findings on this highly directional antenna in 1926. Another early directional antenna, the Adcock antenna, was invented by Frank Adcock and patented in 1919. Additionally, Heinrich Hertz is credited with early work on directional antennas, including parabolic reflector antennas, in the late 1880s.

### **Father of Email**

Ray Tomlinson. Ray Tomlinson, a renowned computer programmer, is credited as the inventor of email on the ARPANET system, the predecessor to the Internet. He revolutionized the way businesses operate and people communicate throughout the world. Tomlinson was born in Amsterdam, New York on April 23, 1941.

### **Father of the Battery**

The father of the battery is generally considered to be Alessandro Volta. Alessandro Volta (1745-1827) was an Italian physicist who, in 1800, invented the voltaic pile, the first true electric battery.

### **Father of Digital Signal Processing**

Alan V. Oppenheim is widely considered the father of digital signal processing (DSP). He is a renowned figure in the field, particularly known for his contributions to the theory and practice of digital signal processing. A book on digital signal processing co-authored by Oppenheim is a standard textbook in many universities.

### **Father of Single Side Band**

The "father" of single sideband (SSB) modulation is widely considered to be John Renshaw Carson. He was an American transmission theorist and engineer who worked for AT&T and later Bell Telephone Laboratories. In 1915, he published a paper outlining the theory of SSB, suggesting a method for improving the efficiency of amplitude modulation (AM) by suppressing the carrier and one of the sidebands. This idea aimed to reduce bandwidth and power requirements while preserving information.

### **Father of Amplitude Modulation**

The "father of amplitude modulation" is generally recognized as Reginald A. Fessenden. He is credited with not only discovering amplitude modulation but also with explaining its scientific principles. Fessenden also made the first known audio transmission using AM radio waves.

### **Father of Frequency Modulation**

The "father of frequency modulation" (FM) is Edwin Armstrong. He is credited with developing the wide-band FM system in the 1930s, which offered clearer, higher-fidelity sound compared to the then-dominant amplitude modulation (AM). Armstrong's contributions to radio technology extend beyond FM. He also invented the regenerative circuit, the superheterodyne receiver, and the super-regenerative circuit. Despite his groundbreaking work, Armstrong faced significant legal battles and industry resistance to FM adoption during his lifetime.

### **Father of Software Defined Radio**

The "father of software-defined radio" is generally considered to be Joseph Mitola III. He is credited with popularizing the concept and coining the term "software radio". Mitola's work, particularly in the early 1990s, laid the foundation for the software-defined radio (SDR) paradigm, where radio functions are implemented through software on programmable hardware.

### **Father of the Cell Phone**

The person widely considered the "father of the cell phone" is Martin Cooper. He was an engineer at Motorola and led the team that developed the first handheld mobile phone.

### **Father of Radio Astronomy**

Karl Guthe Jansky is known as the father of radio astronomy, because in 1933 he discovered that the center of our Milky Way Galaxy emits radio waves. He was not an astronomer, however. He was a young engineer with Bell Laboratories tasked with identifying sources of static for their overseas radio communications.

### **Father of Television**

Philo Taylor Farnsworth (August 19, 1906 – March 11, 1971), "The father of television", was the American inventor and pioneer who was granted the first patent for the television by the United States Government.

Many inventors had built electromechanical television systems before Farnsworth's seminal contribution, but Farnsworth designed and built the world's first working all-electronic television system, employing electronic scanning in both the pickup and display devices. He first demonstrated his system to the press on September 3, 1928 and to the public at the Franklin Institute in Philadelphia on August 25, 1934.

### **Father of DC Power**

Thomas Edison is widely considered the "father" of DC (direct current) power due to his pioneering work in developing and implementing DC-based electrical systems in the late 19th century. He established the first investor-owned electric utility, using DC power to supply electricity to customers in lower Manhattan in 1882. While DC power had limitations, especially in long-distance transmission, Edison's contributions laid the foundation for the widespread adoption of electricity in its early days.

### **Father of AC Power**

Nikola Tesla is widely regarded as the "father of AC power" due to his groundbreaking work in the development and implementation of alternating current (AC) electrical systems. According to the Department of Energy, Nikola Tesla invented the first AC motor and developed AC generation and transmission technology. While AC power was known before Tesla, his contributions were crucial in making it a practical and widespread technology.