# **uglielmo Marconi**

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*"Marconi" redirects here. For other uses, see*[*Marconi (disambiguation)*](https://en.wikipedia.org/wiki/Marconi_(disambiguation))*.*

|  |  |
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| The [Marchese](https://en.wikipedia.org/wiki/Marchese)  **Guglielmo Marconi** | |
| [Guglielmo Marconi.jpg](https://en.wikipedia.org/wiki/File:Guglielmo_Marconi.jpg) | |
| **Born** | Guglielmo Giovanni Maria Marconi  25 April 1874  [Bologna](https://en.wikipedia.org/wiki/Bologna), [Kingdom of Italy](https://en.wikipedia.org/wiki/Kingdom_of_Italy) |
| **Died** | 20 July 1937 (aged 63)  [Rome](https://en.wikipedia.org/wiki/Rome), [Kingdom of Italy](https://en.wikipedia.org/wiki/Kingdom_of_Italy) |
| **Nationality** | Italian |
| **Alma mater** | [University of Bologna](https://en.wikipedia.org/wiki/University_of_Bologna) |
| **Known for** | Radio |
| **Awards** | * [Matteucci Medal](https://en.wikipedia.org/wiki/Matteucci_Medal) (1901) * [Nobel Prize for Physics](https://en.wikipedia.org/wiki/Nobel_Prize_for_Physics) (1909) * [Albert Medal](https://en.wikipedia.org/wiki/Albert_Medal_(Royal_Society_of_Arts)) (1914) * [Franklin Medal](https://en.wikipedia.org/wiki/Franklin_Medal) (1918) * [IEEE Medal of Honor](https://en.wikipedia.org/wiki/IEEE_Medal_of_Honor) (1920) * [John Fritz Medal](https://en.wikipedia.org/wiki/John_Fritz_Medal) (1923) |
| **Scientific career** | |
| **Academic advisors** | [Augusto Righi](https://en.wikipedia.org/wiki/Augusto_Righi) |
| **Signature** | |
| [Guglielmo Marconi Signature.svg](https://en.wikipedia.org/wiki/File:Guglielmo_Marconi_Signature.svg) | |

**Guglielmo Giovanni Maria Marconi, 1st Marquis of Marconi** [FRSA](https://en.wikipedia.org/wiki/Fellow_of_the_Royal_Society_of_Arts) (Italian: [[ɡuʎˈʎɛlmo marˈkoːni]](https://en.wikipedia.org/wiki/Help:IPA/Italian); 25 April 1874 – 20 July 1937) was an [Italian](https://en.wikipedia.org/wiki/Kingdom_of_Italy)[[1]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-1)[[2]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-2)[[3]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-3)[[4]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-4) inventor and [electrical engineer](https://en.wikipedia.org/wiki/Electrical_engineering), known for his creation of a practical [radio wave](https://en.wikipedia.org/wiki/Radio_wave)-based [wireless telegraph](https://en.wikipedia.org/wiki/Wireless_telegraphy) system.[[5]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-5) This led to Marconi being credited as the [inventor of radio](https://en.wikipedia.org/wiki/Inventor_of_radio),[[6]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-6) and he shared the 1909 [Nobel Prize in Physics](https://en.wikipedia.org/wiki/Nobel_Prize_in_Physics) with [Karl Ferdinand Braun](https://en.wikipedia.org/wiki/Karl_Ferdinand_Braun) "in recognition of their contributions to the development of wireless telegraphy".[[7]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-NPbio-7)[[8]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-8)[[9]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-9)

Marconi was also an entrepreneur, businessman, and founder of [The Wireless Telegraph & Signal Company](https://en.wikipedia.org/wiki/Marconi_Company) in the [United Kingdom](https://en.wikipedia.org/wiki/United_Kingdom_of_Great_Britain_and_Ireland) in 1897 (which became the [Marconi Company](https://en.wikipedia.org/wiki/Marconi_Company)). In 1929, Marconi was ennobled as a [*Marchese*](https://en.wikipedia.org/wiki/Marquess) (marquis) by [King Victor Emmanuel III](https://en.wikipedia.org/wiki/King_Victor_Emmanuel_III) of Italy, and, in 1931, he set up [Vatican Radio](https://en.wikipedia.org/wiki/Vatican_Radio) for [Pope Pius XI](https://en.wikipedia.org/wiki/Pope_Pius_XI).



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## Biography[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=1)]

### Early years[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=2)]

Marconi was born into the Italian nobility as **Guglielmo Giovanni Maria Marconi**[[10]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-10) in [Palazzo Marescalchi](https://en.wikipedia.org/wiki/Palazzo_Dall%27Armi_Marescalchi,_Bologna) in [Bologna](https://en.wikipedia.org/wiki/Bologna) on 25 April 1874, the second son of Giuseppe Marconi (an Italian aristocratic landowner from [Porretta Terme](https://en.wikipedia.org/wiki/Porretta_Terme)) and his [Irish](https://en.wikipedia.org/wiki/Irish_people) wife Annie Jameson (daughter of Andrew Jameson of Daphne Castle in [County Wexford](https://en.wikipedia.org/wiki/County_Wexford), [Ireland](https://en.wikipedia.org/wiki/Ireland), and granddaughter of John Jameson, founder of [whiskey](https://en.wikipedia.org/wiki/Whiskey) distillers [Jameson & Sons](https://en.wikipedia.org/wiki/Jameson_Irish_Whiskey)).[[11]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-11)[[12]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-12) Marconi had a brother, [Alfonso](https://en.wikipedia.org/wiki/Alfonso_Marconi), and a stepbrother, Luigi. Between the ages of two and six, Marconi and his elder brother Alfonso lived with their mother in the English town of [Bedford](https://en.wikipedia.org/wiki/Bedford).[[13]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-13)[[14]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-14)

### Education[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=3)]

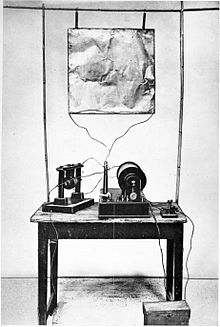
Marconi did not attend school as a child and did not go on to formal higher education.[[15]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-15)[[16]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-marconisociety.org-16)[[17]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Dunlap,_Orrin_Elmer_1937,_page_10-17) Instead, he learned chemistry, mathematics, and physics at home from a series of private tutors hired by his parents. His family hired additional tutors for Guglielmo in the winter when they would leave Bologna for the warmer climate of [Tuscany](https://en.wikipedia.org/wiki/Tuscany) or [Florence](https://en.wikipedia.org/wiki/Florence).[[17]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Dunlap,_Orrin_Elmer_1937,_page_10-17) Marconi noted an important mentor was professor [Vincenzo Rosa](https://en.wikipedia.org/w/index.php?title=Vincenzo_Rosa&action=edit&redlink=1), a high school physics teacher in [Livorno](https://en.wikipedia.org/wiki/Livorno).[[18]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-18)[[16]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-marconisociety.org-16) Rosa taught the 17-year-old Marconi the basics of physical phenomena as well as new theories on electricity. At the age of 18 and back in Bologna, Marconi became acquainted with [University of Bologna](https://en.wikipedia.org/wiki/University_of_Bologna) physicist [Augusto Righi](https://en.wikipedia.org/wiki/Augusto_Righi), who had done research on [Heinrich Hertz](https://en.wikipedia.org/wiki/Heinrich_Hertz)'s work. Righi permitted Marconi to attend lectures at the university and also to use the University's laboratory and library.[[19]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-19)

### Radio work[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=4)]

From youth, Marconi was interested in science and electricity. In the early 1890s, he began working on the idea of "[wireless telegraphy](https://en.wikipedia.org/wiki/Wireless_telegraphy)"—i.e., the transmission of telegraph messages without connecting wires as used by the [electric telegraph](https://en.wikipedia.org/wiki/Electric_telegraph). This was not a new idea; numerous investigators and inventors had been exploring wireless telegraph technologies and even building systems using electric [conduction](https://en.wikipedia.org/wiki/Electrical_resistivity_and_conductivity), [electromagnetic induction](https://en.wikipedia.org/wiki/Electromagnetic_induction) and optical (light) signalling for over 50 years, but none had proven technically and commercially successful. A relatively new development came from [Heinrich Hertz](https://en.wikipedia.org/wiki/Heinrich_Hertz), who, in 1888, demonstrated that one could produce and detect [electromagnetic radiation](https://en.wikipedia.org/wiki/Electromagnetic_radiation), based on the work of [James Clerk Maxwell](https://en.wikipedia.org/wiki/James_Clerk_Maxwell). At the time, this radiation was commonly called "Hertzian" waves, and is now generally referred to as [radio waves](https://en.wikipedia.org/wiki/Radio_waves).[[20]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-20)

There was a great deal of interest in radio waves in the physics community, but this interest was in the scientific phenomenon, not in its potential as a communication method. Physicists generally looked on radio waves as an invisible form of light that could only travel along a [line of sight](https://en.wikipedia.org/wiki/Line-of-sight_propagation) path, limiting its range to the visual horizon like existing forms of visual signaling.[[21]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-21) Hertz's death in 1894 brought published reviews of his earlier discoveries including a demonstration on the transmission and detection of radio waves by the British physicist [Oliver Lodge](https://en.wikipedia.org/wiki/Oliver_Lodge) and an article about Hertz's work by Augusto Righi. Righi's article renewed Marconi's interest in developing a wireless telegraphy system based on radio waves,[[22]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-22) a line of inquiry that Marconi noted other inventors did not seem to be pursuing.[[23]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-ABC-CLIO-23)

#### Developing radio telegraphy[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=5)]

[](https://en.wikipedia.org/wiki/File:Marconi%27s_first_radio_transmitter.jpg)

Marconi's first transmitter incorporating a [monopole antenna](https://en.wikipedia.org/wiki/Monopole_antenna). It consisted of an elevated copper sheet *(top)* connected to a Righi spark gap *(left)* powered by an [induction coil](https://en.wikipedia.org/wiki/Induction_coil) *(center)* with a [telegraph key](https://en.wikipedia.org/wiki/Telegraph_key) *(right)* to switch it on and off to spell out text messages in [Morse code](https://en.wikipedia.org/wiki/Morse_code).

At the age of 20, Marconi began to conduct experiments in radio waves, building much of his own equipment in the attic of his home at the Villa Griffone in Pontecchio (now an administrative subdivision of [Sasso Marconi](https://en.wikipedia.org/wiki/Sasso_Marconi)), Italy, with the help of his butler, Mignani. Marconi built on Hertz's original experiments and, at the suggestion of Righi, began using a [coherer](https://en.wikipedia.org/wiki/Coherer), an early detector based on the 1890 findings of French physicist [Édouard Branly](https://en.wikipedia.org/wiki/%C3%89douard_Branly) and used in Lodge's experiments, that [changed resistance](https://en.wikipedia.org/wiki/Electrical_resistance_and_conductance) when exposed to radio waves.[[24]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Brown141-24) In the summer of 1894, he built a storm alarm made up of a battery, a coherer, and an electric bell, which went off when it picked up the radio waves generated by lightning.

Late one night, in December 1894, Marconi demonstrated a radio transmitter and receiver to his mother, a set-up that made a bell ring on the other side of the room by pushing a telegraphic button on a bench.[[25]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-25)[[24]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Brown141-24) Supported by his father, Marconi continued to read through the literature and picked up on the ideas of physicists who were experimenting with radio waves. He developed devices, such as portable transmitters and receiver systems, that could work over long distances,[[23]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-ABC-CLIO-23) turning what was essentially a laboratory experiment into a useful communication system.[[26]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-26) Marconi came up with a functional system with many components:[[27]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-27)

* A relatively simple [oscillator](https://en.wikipedia.org/wiki/Oscillator) or [spark-producing](https://en.wikipedia.org/wiki/Spark-gap_transmitter) radio transmitter;
* A [wire](https://en.wikipedia.org/wiki/Wire) or metal sheet capacity area suspended at a height above the ground;
* A [coherer](https://en.wikipedia.org/wiki/Coherer) receiver, which was a modification of [Édouard Branly](https://en.wikipedia.org/wiki/%C3%89douard_Branly)'s original device with refinements to increase sensitivity and reliability;
* A [telegraph key](https://en.wikipedia.org/wiki/Telegraph_key) to operate the transmitter to send short and long pulses, corresponding to the dots-and-dashes of [Morse code](https://en.wikipedia.org/wiki/Morse_code); and
* A telegraph register activated by the [coherer](https://en.wikipedia.org/wiki/Coherer) which recorded the received [Morse code](https://en.wikipedia.org/wiki/Morse_code) dots and dashes onto a roll of paper tape.

In the summer of 1895, Marconi moved his experiments outdoors on his father's estate in Bologna. He tried different arrangements and shapes of antenna but even with improvements he was able to transmit signals only up to one half-mile, a distance Oliver Lodge had predicted in 1894 as the maximum transmission distance for radio waves.[[28]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-28)

#### Transmission breakthrough[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=6)]

A breakthrough came in the summer of 1895, when Marconi found that much greater range could be achieved after he raised the height of his antenna and, borrowing from a technique used in wired telegraphy, [grounded](https://en.wikipedia.org/wiki/Ground_(electricity)) his transmitter and receiver. With these improvements, the system was capable of transmitting signals up to 2 miles (3.2 km) and over hills.[[29]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-29)[[30]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-30) The [monopole antenna](https://en.wikipedia.org/wiki/Monopole_antenna) reduced the frequency of the waves compared to the [dipole antennas](https://en.wikipedia.org/wiki/Dipole_antenna) used by Hertz, and radiated [vertically polarized](https://en.wikipedia.org/wiki/Vertical_polarization) radio waves which could travel longer distances. By this point, he concluded that a device could become capable of spanning greater distances, with additional funding and research, and would prove valuable both commercially and militarily. Marconi's experimental apparatus proved to be the first engineering-complete, commercially successful [radio transmission](https://en.wikipedia.org/wiki/Radio_transmission) system.[[31]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-SaturdayThompson-31)[[32]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-32)[[33]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-33)

Marconi wrote to the Ministry of Post and Telegraphs, then under the direction of [Pietro Lacava](https://en.wikipedia.org/w/index.php?title=Pietro_Lacava&action=edit&redlink=1), explaining his wireless telegraph machine and asking for funding. He never received a response to his letter, which was eventually dismissed by the Minister, who wrote "to the Longara" on the document, referring to the insane asylum on Via della Lungara in Rome.[[34]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-34)

In 1896, Marconi spoke with his family friend Carlo Gardini, Honorary Consul at the United States Consulate in Bologna, about leaving Italy to go to [Great Britain](https://en.wikipedia.org/wiki/Great_Britain). Gardini wrote a letter of introduction to the Ambassador of Italy in London, [Annibale Ferrero](https://en.wikipedia.org/w/index.php?title=Annibale_Ferrero&action=edit&redlink=1), explaining who Marconi was and about his extraordinary discoveries. In his response, Ambassador Ferrero advised them not to reveal Marconi's results until after a patent was obtained. He also encouraged Marconi to come to Britain, where he believed it would be easier to find the necessary funds to convert his experiments into practical use. Finding little interest or appreciation for his work in Italy, Marconi travelled to [London](https://en.wikipedia.org/wiki/London) in early 1896 at the age of 21, accompanied by his mother, to seek support for his work. (He spoke fluent English in addition to Italian.) Marconi arrived at [Dover](https://en.wikipedia.org/wiki/Dover), and the Customs officer opened his case to find various apparatus. The customs officer immediately contacted [the Admiralty](https://en.wikipedia.org/wiki/Admiralty_(United_Kingdom)) in London. While there, Marconi gained the interest and support of [William Preece](https://en.wikipedia.org/wiki/William_Preece), the Chief Electrical Engineer of the [General Post Office](https://en.wikipedia.org/wiki/General_Post_Office) (the GPO). During this time Marconi decided he should patent his system, which he applied for on 2 June 1896, British Patent number 12039 titled "Improvements in Transmitting Electrical impulses and Signals, and in Apparatus therefor", which would become the first patent for a radio wave based communication system.[[35]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-35)

#### Demonstrations and achievements[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=7)]

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| [https://upload.wikimedia.org/wikipedia/en/thumb/9/99/Question_book-new.svg/50px-Question_book-new.svg.png](https://en.wikipedia.org/wiki/File:Question_book-new.svg) | This section **needs additional citations for**[**verification**](https://en.wikipedia.org/wiki/Wikipedia:Verifiability). Please help [improve this article](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit) by [adding citations to reliable sources](https://en.wikipedia.org/wiki/Help:Referencing_for_beginners). Unsourced material may be challenged and removed. *(December 2016) (*[*Learn how and when to remove this template message*](https://en.wikipedia.org/wiki/Help:Maintenance_template_removal)*)* |

[](https://en.wikipedia.org/wiki/File:Post_Office_Engineers.jpg)

[British Post Office](https://en.wikipedia.org/wiki/General_Post_Office) engineers inspect Marconi's radio equipment during a demonstration on [Flat Holm](https://en.wikipedia.org/wiki/Flat_Holm) Island, 13 May 1897. The transmitter is at centre, the coherer receiver below it, and the pole supporting the wire antenna is visible at top.

Marconi made the first demonstration of his system for the British government in July 1896.[[36]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-36) A further series of demonstrations for the British followed, and, by March 1897, Marconi had transmitted Morse code signals over a distance of about 6 kilometres (3.7 mi) across [Salisbury Plain](https://en.wikipedia.org/wiki/Salisbury_Plain). On 13 May 1897, Marconi sent the first ever wireless communication over open sea – a message was transmitted over the [Bristol Channel](https://en.wikipedia.org/wiki/Bristol_Channel) from [Flat Holm](https://en.wikipedia.org/wiki/Flat_Holm) Island to [Lavernock Point](https://en.wikipedia.org/wiki/Lavernock_Point) near [Cardiff](https://en.wikipedia.org/wiki/Cardiff), a distance of 6 kilometres (3.7 mi). The message read, "Are you ready".[[37]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-37) The transmitting equipment was almost immediately relocated to [Brean Down Fort](https://en.wikipedia.org/wiki/Brean_Down_Fort) on the [Somerset](https://en.wikipedia.org/wiki/Somerset) coast, stretching the range to 16 kilometres (9.9 mi).

[](https://en.wikipedia.org/wiki/File:Marconi_in_London.jpg)

Plaque on the outside of the [BT Centre](https://en.wikipedia.org/wiki/BT_Centre) commemorates Marconi's first public transmission of wireless signals.

Impressed by these and other demonstrations, Preece introduced Marconi's ongoing work to the general public at two important London lectures: "Telegraphy without Wires", at the [Toynbee Hall](https://en.wikipedia.org/wiki/Toynbee_Hall) on 11 December 1896; and "Signalling through Space without Wires", given to the [Royal Institution](https://en.wikipedia.org/wiki/Royal_Institution) on 4 June 1897.[[38]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-38)[[39]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-39)

Numerous additional demonstrations followed, and Marconi began to receive international attention. In July 1897, he carried out a series of tests at [La Spezia](https://en.wikipedia.org/wiki/La_Spezia), in his home country, for the Italian government. A test for [Lloyd's](https://en.wikipedia.org/wiki/Lloyd%27s_of_London) between The Marine Hotel in [Ballycastle](https://en.wikipedia.org/wiki/Ballycastle,_County_Antrim) and [Rathlin Island](https://en.wikipedia.org/wiki/Rathlin_Island), both in [County Antrim](https://en.wikipedia.org/wiki/County_Antrim) in [Ulster](https://en.wikipedia.org/wiki/Ulster), [Ireland](https://en.wikipedia.org/wiki/Ireland), was conducted on 6 July 1898 by [George Kemp](https://en.wikipedia.org/w/index.php?title=George_Stephen_Kemp&action=edit&redlink=1) and [Edward Edwin Glanville](https://en.wikipedia.org/wiki/Edward_Edwin_Glanville).[[40]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Mollan-40) A transmission across the [English channel](https://en.wikipedia.org/wiki/English_channel) was accomplished on 27 March 1899, from [Wimereux](https://en.wikipedia.org/wiki/Wimereux), France to [South Foreland Lighthouse](https://en.wikipedia.org/wiki/South_Foreland_Lighthouse), England. Marconi set up an experimental base at the [Haven Hotel](https://en.wikipedia.org/wiki/Haven_Hotel), [Sandbanks](https://en.wikipedia.org/wiki/Sandbanks), [Poole Harbour](https://en.wikipedia.org/wiki/Poole_Harbour), [Dorset](https://en.wikipedia.org/wiki/Dorset), where he erected a 100-foot high mast. He became friends with the van Raaltes, the owners of [Brownsea Island](https://en.wikipedia.org/wiki/Brownsea_Island) in Poole Harbour, and his steam yacht, the [*Elettra*](https://en.wikipedia.org/wiki/Elettra_(ship_1904)), was often moored on Brownsea or at The Haven Hotel. Marconi purchased the vessel after the Great War and converted it to a seaborne laboratory from where he conducted many of his experiments. Among the *Elettra'*s crew was [Adelmo Landini](https://en.wikipedia.org/wiki/Adelmo_Landini), his personal radio operator, who was also an inventor.[[41]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-41)

In December 1898, the British lightship service authorised the establishment of wireless communication between the [South Foreland](https://en.wikipedia.org/wiki/South_Foreland) lighthouse at [Dover](https://en.wikipedia.org/wiki/Dover) and the East Goodwin [lightship](https://en.wikipedia.org/wiki/Lightvessel), twelve miles distant. On 17 March 1899, the East Goodwin lightship sent the first [SOS](https://en.wikipedia.org/wiki/SOS) message, a signal on behalf of the merchant vessel *Elbe* which had run aground on [Goodwin Sands](https://en.wikipedia.org/wiki/Goodwin_Sands). The message was received by the radio operator of the South Foreland lighthouse, who summoned the aid of the [Ramsgate](https://en.wikipedia.org/wiki/Ramsgate) lifeboat.[[42]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-42)[[43]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-43)

[](https://en.wikipedia.org/wiki/File:SS_Ponce_Entering_New_York_Harbor_1899,_by_Milton_J._Burns.jpg)

SS *Ponce* entering New York Harbor 1899, by Milton J. Burns

In the autumn of 1899, his first demonstration in the [United States](https://en.wikipedia.org/wiki/United_States) took place. Marconi had sailed to the U.S. at the invitation of [*The New York Herald*](https://en.wikipedia.org/wiki/The_New_York_Herald) newspaper to cover the [America's Cup](https://en.wikipedia.org/wiki/America%27s_Cup) international yacht races off [Sandy Hook](https://en.wikipedia.org/wiki/Sandy_Hook), [New Jersey](https://en.wikipedia.org/wiki/New_Jersey). The transmission was done aboard the SS *Ponce*, a passenger ship of the [Porto Rico Line](https://en.wikipedia.org/wiki/Porto_Rico_Line).[[44]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-44) Marconi left for [England](https://en.wikipedia.org/wiki/England) on 8 November 1899 on the [American Line](https://en.wikipedia.org/wiki/American_Line)'s [SS *Saint Paul*](https://en.wikipedia.org/wiki/SS_Saint_Paul), and he and his assistants installed wireless equipment aboard during the voyage. Prior to this voyage the [Second Boer War](https://en.wikipedia.org/wiki/Second_Boer_War) had begun, and Marconi's wireless would bring news of the conflict to passengers at the request of "some of the officials of the American line."[[45]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-45) On 15 November the *SS Saint Paul* became the first ocean liner to report her imminent return to Great Britain by wireless when Marconi's Royal Needles Hotel radio station contacted her 66 nautical miles off the English coast. The first *Transatlantic Times*, a newspaper containing wireless transmission news from the Needles Station at the Isle of Wight, was published onboard the SS *Saint Paul* prior to its arrival.[[46]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-46)

#### Transatlantic transmissions[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=8)]

[](https://en.wikipedia.org/wiki/File:Marconi_at_newfoundland.jpg)

Marconi watching associates raising the kite (a "Levitor" by B.F.S. Baden-Powell[[47]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-47)) used to lift the antenna at [St. John's, Newfoundland](https://en.wikipedia.org/wiki/St._John%27s,_Newfoundland_and_Labrador), December 1901

[](https://en.wikipedia.org/wiki/File:Detector_magnetico_Marconi_1902_-_Museo_scienza_e_tecnologia_Milano.jpg)

Magnetic detector by Marconi used during the experimental campaign aboard a ship in summer 1902, exhibited at the [Museo Nazionale Scienza e Tecnologia Leonardo da Vinci](https://en.wikipedia.org/wiki/Museo_Nazionale_Scienza_e_Tecnologia_Leonardo_da_Vinci) of Milan.

At the turn of the 20th century, Marconi began investigating a means to signal across the Atlantic to compete with the [transatlantic telegraph cables](https://en.wikipedia.org/wiki/Transatlantic_telegraph_cable). Marconi established a wireless transmitting station at Marconi House, [Rosslare Strand](https://en.wikipedia.org/wiki/Rosslare_Strand), [County Wexford](https://en.wikipedia.org/wiki/County_Wexford), in 1901 to act as a link between [Poldhu](https://en.wikipedia.org/wiki/Poldhu) in [Cornwall](https://en.wikipedia.org/wiki/Cornwall), England, and [Clifden](https://en.wikipedia.org/wiki/Clifden) in [Connemara](https://en.wikipedia.org/wiki/Connemara), [County Galway](https://en.wikipedia.org/wiki/County_Galway), Ireland. He soon made the announcement that the message was received at [Signal Hill](https://en.wikipedia.org/wiki/Signal_Hill_(Newfoundland_and_Labrador)) in [St. John's](https://en.wikipedia.org/wiki/St._John%27s,_Newfoundland_and_Labrador), [Newfoundland](https://en.wikipedia.org/wiki/Newfoundland_and_Labrador) (now part of [Canada](https://en.wikipedia.org/wiki/Canada)), on 12 December 1901, using a 500-foot (150 m) kite-supported antenna for reception—signals transmitted by the company's new high-power station at [Poldhu](https://en.wikipedia.org/wiki/Poldhu), Cornwall. The distance between the two points was about 2,200 miles (3,500 km). It was heralded as a great scientific advance, yet there also was—and continues to be—considerable scepticism about this claim. The exact wavelength used is not known, but it is fairly reliably determined to have been in the neighbourhood of 350 meters (frequency ≈ 850 kHz). The tests took place at a time of day during which the entire transatlantic path was in daylight. It is now known (although Marconi did not know then) that this was the worst possible choice. At this medium wavelength, long-distance transmission in the daytime is not possible because of heavy absorption of the skywave in the ionosphere. It was not a blind test; Marconi knew in advance to listen for a repetitive signal of three clicks, signifying the Morse code letter *S*. The clicks were reported to have been heard faintly and sporadically. There was no independent confirmation of the reported reception, and the transmissions were difficult to distinguish from atmospheric noise. A detailed technical review of Marconi's early transatlantic work appears in John S. Belrose's work of 1995. The Poldhu transmitter was a two-stage circuit.[[48]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-48)[[49]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-49)

[](https://en.wikipedia.org/wiki/File:Guglielmo_Marconi_1901_wireless_signal.jpg)

Marconi demonstrating apparatus he used in his first long-distance radio transmissions in the 1890s. The transmitter is at right, the receiver with paper tape recorder at left.

[](https://en.wikipedia.org/wiki/File:Guglielmo,_Marchese_Marconi._Colour_lithograph_by_Sir_L._War_Wellcome_V0003849.jpg)

Marconi caricatured by [Leslie Ward](https://en.wikipedia.org/wiki/Leslie_Ward) for [*Vanity Fair*](https://en.wikipedia.org/wiki/Vanity_Fair_(British_magazine)), 1905

Feeling challenged by sceptics, Marconi prepared a better organised and documented test. In February 1902, the SS *Philadelphia* sailed west from Great Britain with Marconi aboard, carefully recording signals sent daily from the Poldhu station. The test results produced [coherer-tape](https://en.wikipedia.org/wiki/Magnetic_detector) reception up to 1,550 miles (2,490 km), and audio reception up to 2,100 miles (3,400 km). The maximum distances were achieved at night, and these tests were the first to show that radio signals for [medium wave](https://en.wikipedia.org/wiki/Medium_wave) and [longwave](https://en.wikipedia.org/wiki/Longwave) transmissions travel much farther at night than in the day. During the daytime, signals had been received up to only about 700 miles (1,100 km), less than half of the distance claimed earlier at Newfoundland, where the transmissions had also taken place during the day. Because of this, Marconi had not fully confirmed the Newfoundland claims, although he did prove that radio signals could be sent for hundreds of kilometres (miles), despite some scientists' belief that they were limited essentially to line-of-sight distances.

On 17 December 1902, a transmission from the Marconi station in [Glace Bay](https://en.wikipedia.org/wiki/Glace_Bay), Nova Scotia, Canada, became the world's first radio message to cross the Atlantic from North America. In 1901, Marconi built a station near [South Wellfleet, Massachusetts](https://en.wikipedia.org/wiki/Wellfleet,_Massachusetts), that sent a message of greetings on 18 January 1903 from United States President [Theodore Roosevelt](https://en.wikipedia.org/wiki/Theodore_Roosevelt) to [King Edward VII](https://en.wikipedia.org/wiki/King_Edward_VII) of the United Kingdom. However, consistent transatlantic signalling was difficult to establish.[[50]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-50)

Marconi began to build high-powered stations on both sides of the Atlantic to communicate with ships at sea, in competition with other inventors. In 1904, he established a commercial service to transmit nightly news summaries to subscribing ships, which could incorporate them into their on-board newspapers. A regular transatlantic radio-telegraph service was finally begun on 17 October 1907[[51]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-51)[[52]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-52) between [Clifden](https://en.wikipedia.org/wiki/Clifden), Ireland, and [Glace Bay](https://en.wikipedia.org/wiki/Glace_Bay), but even after this the company struggled for many years to provide reliable communication to others.

#### *Titanic*[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=9)]

The role played by Marconi Co. wireless in maritime rescues raised public awareness of the value of radio and brought fame to Marconi, particularly the sinking of the [RMS *Titanic*](https://en.wikipedia.org/wiki/RMS_Titanic) on 15 April 1912 and the [RMS *Lusitania*](https://en.wikipedia.org/wiki/RMS_Lusitania) on 7 May 1915.[[53]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-53)

[RMS *Titanic*](https://en.wikipedia.org/wiki/RMS_Titanic) radio operators [Jack Phillips](https://en.wikipedia.org/wiki/Jack_Phillips_(wireless_officer)) and [Harold Bride](https://en.wikipedia.org/wiki/Harold_Bride) were not employed by the [White Star Line](https://en.wikipedia.org/wiki/White_Star_Line) but by the [Marconi International Marine Communication Company](https://en.wikipedia.org/wiki/Marconi_International_Marine_Communication_Company). After the sinking of the ocean liner on 15 April 1912, survivors were rescued by the [RMS *Carpathia*](https://en.wikipedia.org/wiki/RMS_Carpathia) of the [Cunard Line](https://en.wikipedia.org/wiki/Cunard_Line).[[54]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-ReferenceA-54) The Carpathia took a total of 17 minutes to both receive and decode the SOS signal sent by the Titanic. There was a distance of 58 miles between the two ships.[[55]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-55) When *Carpathia* docked in New York, Marconi went aboard with a reporter from [*The New York Times*](https://en.wikipedia.org/wiki/The_New_York_Times) to talk with Bride, the surviving operator.[[54]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-ReferenceA-54) After this incident, Marconi gained popularity and became more recognised for his contributions to the field of radio and wireless technology.[[56]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-56)

On 18 June 1912, Marconi gave evidence to the Court of Inquiry into the loss of the *Titanic* regarding the marine telegraphy's functions and the procedures for emergencies at sea.[[57]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-57) Britain's [Postmaster-General](https://en.wikipedia.org/wiki/Postmaster-General) summed up, referring to the *Titanic* disaster: "Those who have been saved, have been saved through one man, Mr. Marconi ... and his marvellous invention."[[58]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-whf-58) Marconi was offered free passage on the *Titanic* before she sank, but had taken the [*Lusitania*](https://en.wikipedia.org/wiki/RMS_Lusitania) three days earlier. As his daughter Degna later explained, he had paperwork to do and preferred the public stenographer aboard that vessel.[[59]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-59)

#### Continuing work[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=10)]

Over the years, the Marconi companies gained a reputation for being technically conservative, in particular by continuing to use inefficient spark-transmitter technology, which could be used only for radio-telegraph operations, long after it was apparent that the future of radio communication lay with [continuous-wave](https://en.wikipedia.org/wiki/Continuous-wave) transmissions which were more efficient and could be used for audio transmissions. Somewhat belatedly, the company did begin significant work with continuous-wave equipment beginning in 1915, after the introduction of the oscillating vacuum tube (valve). The [New Street Works](https://en.wikipedia.org/wiki/New_Street_Works) factory in [Chelmsford](https://en.wikipedia.org/wiki/Chelmsford) was the location for the first entertainment radio [broadcasts](https://en.wikipedia.org/wiki/Broadcasting) in the [United Kingdom](https://en.wikipedia.org/wiki/United_Kingdom) in 1920, employing a vacuum tube transmitter and featuring [Dame Nellie Melba](https://en.wikipedia.org/wiki/Dame_Nellie_Melba). In 1922, regular entertainment broadcasts commenced from the [Marconi Research Centre](https://en.wikipedia.org/wiki/Marconi_Research_Centre) at [Great Baddow](https://en.wikipedia.org/wiki/Great_Baddow), forming the prelude to the [BBC](https://en.wikipedia.org/wiki/BBC), and he spoke of the close association of aviation and wireless telephony in that same year at a private gathering with [Florence Tyzack Parbury](https://en.wikipedia.org/wiki/Florence_Tyzack_Parbury), and even spoke of interplanetary wireless communication. In 1924, the Marconi Company co-established the [Unione Radiofonica Italiana](https://en.wikipedia.org/wiki/Unione_Radiofonica_Italiana) (now [RAI](https://en.wikipedia.org/wiki/RAI)).[[60]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-60)

### Later years[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=11)]

Have I done the world good, or have I added a menace?[[61]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-61)

In 1914, Marconi was made a Senator in the [Senate of the Kingdom of Italy](https://en.wikipedia.org/wiki/Senate_of_the_Kingdom_of_Italy) and appointed Honorary Knight Grand Cross of the [Royal Victorian Order](https://en.wikipedia.org/wiki/Royal_Victorian_Order) in the UK. During [World War I](https://en.wikipedia.org/wiki/World_War_I), Italy joined the Allied side of the conflict, and Marconi was placed in charge of the Italian military's radio service. He attained the rank of lieutenant in the [Italian Royal Army](https://en.wikipedia.org/wiki/Italian_Royal_Army) and of commander in the [*Regia Marina*](https://en.wikipedia.org/wiki/Regia_Marina). In 1929, he was made a [marquess](https://en.wikipedia.org/wiki/Marquess) by [King Victor Emmanuel III](https://en.wikipedia.org/wiki/King_Victor_Emmanuel_III).[[62]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-:0-62)

[](https://en.wikipedia.org/wiki/File:Villa_Marconi.jpg)

Villa Marconi, with Marconi's tomb in foreground.

While helping to develop microwave technology, the [*Marchese*](https://en.wikipedia.org/wiki/Marchese) Marconi suffered nine heart attacks in the span of three years preceding his death.[[63]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-63) Marconi died in Rome on 20 July 1937 at age 63, following the ninth, fatal, [heart attack](https://en.wikipedia.org/wiki/Heart_attacks), and Italy held a [state funeral](https://en.wikipedia.org/wiki/State_funeral) for him. As a tribute, shops on the street where he lived were "Closed for national mourning".[[64]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-guard-64) In addition, at 6 pm the next day, the time designated for the funeral, transmitters around the world observed two minutes of silence in his honour.[[65]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-65) The British Post Office also sent a message requesting that all broadcasting ships honour Marconi with two minutes of broadcasting silence.[[64]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-guard-64) His remains are housed in the [Mausoleum of Guglielmo Marconi](https://en.wikipedia.org/wiki/Mausoleum_of_Guglielmo_Marconi) in the grounds of Villa Griffone at [Sasso Marconi](https://en.wikipedia.org/wiki/Sasso_Marconi), Emilia-Romagna, which assumed that name in his honour in 1938.[[66]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-66)

In 1943, Marconi's elegant sailing yacht, the [*Elettra*](https://en.wikipedia.org/wiki/Elettra_(ship_1904)), was commandeered and refitted as a warship by the German Navy. She was sunk by the [RAF](https://en.wikipedia.org/wiki/Royal_Air_Force) on 22 January 1944. After the war, the Italian Government tried to retrieve the wreckage, to rebuild the boat, and the wreckage was removed to Italy. Eventually, the idea was abandoned, and the wreckage was cut into pieces which were distributed amongst Italian museums.

In 1943, the [Supreme Court of the United States](https://en.wikipedia.org/wiki/Supreme_Court_of_the_United_States) handed down a decision on Marconi's radio patents restoring some of the prior patents of [Oliver Lodge](https://en.wikipedia.org/wiki/Oliver_Lodge), [John Stone Stone](https://en.wikipedia.org/wiki/John_Stone_Stone), and [Nikola Tesla](https://en.wikipedia.org/wiki/Nikola_Tesla).[[67]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-LQsxMxEUC_page_3-67)[[68]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-68) The decision was not about Marconi's original radio patents[[69]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-69) and the court declared that their decision had no bearing on Marconi's claim as the first to achieve radio transmission, just that since Marconi's claim to certain patents was questionable, he could not claim infringement on those same patents.[[70]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-70) There are claims the high court was trying to nullify a World War I claim against the United States government by the Marconi Company via simply restoring the non-Marconi prior patent.[[67]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-LQsxMxEUC_page_3-67)

## Personal life[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=12)]

[](https://en.wikipedia.org/wiki/File:Alfred_Norton_Goldsmith_%26_Guglielmo_Marconi_1922.jpg)

American electrical engineer [Alfred Norton Goldsmith](https://en.wikipedia.org/wiki/Alfred_Norton_Goldsmith) and Marconi on 26 June 1922.

Marconi was a friend of Charles van Raalte and his wife Florence, the owners of [Brownsea Island](https://en.wikipedia.org/wiki/Brownsea_Island); and of Margherita, their daughter, and in 1904 he met her [Irish](https://en.wikipedia.org/wiki/Irish_people) friend, [The Hon.](https://en.wikipedia.org/wiki/The_Honourable) Beatrice O'Brien (1882–1976), a daughter of [The 14th Baron Inchiquin](https://en.wikipedia.org/wiki/Edward_O%27Brien,_14th_Baron_Inchiquin). On 16 March 1905, Beatrice O'Brien and Marconi were married, and spent their honeymoon on Brownsea Island.[[71]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-71) They had three daughters, Degna (1908–1998), Gioia (1916–1996), and Lucia (born and died 1906), and a son, Giulio, 2nd [*Marchese*](https://en.wikipedia.org/wiki/Marchese) Marconi (1910–1971). In 1913, the Marconi family returned to Italy and became part of Rome society. Beatrice served as a lady-in-waiting to [Queen Elena](https://en.wikipedia.org/wiki/Elena_of_Montenegro). At Marconi's request, his marriage to Beatrice was annulled on 27 April 1927, so he could remarry.[[72]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-72) Marconi and Beatrice had divorced on 12 February 1924 in the free city of [Fiume](https://en.wikipedia.org/wiki/Fiume) ([Rijeka](https://en.wikipedia.org/wiki/Rijeka)).

[](https://en.wikipedia.org/wiki/File:Marconi_portrait.jpg)

Guglielmo and Beatrice Marconi c. 1910

On 12 June 1927 Marconi went on to marry [Maria Cristina Bezzi-Scali](https://en.wikipedia.org/w/index.php?title=Maria_Cristina_Bezzi-Scali&action=edit&redlink=1) (2 April 1900 – 15 July 1994), the only daughter of Francesco, [Count](https://en.wikipedia.org/wiki/Count) Bezzi-Scali. To do this he had to be confirmed in the [Catholic](https://en.wikipedia.org/wiki/Catholic_Church) faith and became a devout member of the Church.[[73]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-73) He was baptised Catholic but had been brought up as a member of the [Anglican Church](https://en.wikipedia.org/wiki/Anglicanism). On 12 June 1927, Marconi married Maria Cristina in a civil service, with a religious ceremony performed on 15 June. Marconi was 53 years old and Maria Cristina was 26. They had one daughter, Maria Elettra Elena Anna (born 1930), who married [Prince](https://en.wikipedia.org/wiki/Prince) Carlo Giovannelli (1942–2016) in 1966; they later divorced. For unexplained reasons, Marconi left his entire fortune to his second wife and their only child, and nothing to the children of his first marriage.[[74]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-74)

Marconi joined the [Italian Fascist](https://en.wikipedia.org/wiki/Italian_fascism) party in 1923.[[75]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-75) In 1930, Italian dictator [Benito Mussolini](https://en.wikipedia.org/wiki/Benito_Mussolini) appointed him President of the [Royal Academy of Italy](https://en.wikipedia.org/wiki/Royal_Academy_of_Italy), which made Marconi a member of the [Fascist Grand Council](https://en.wikipedia.org/wiki/Grand_Council_of_Fascism). Marconi was an [apologist](https://en.wikipedia.org/wiki/Apologist) for [fascist ideology](https://en.wikipedia.org/wiki/Fascism_and_ideology) and actions such as the Italian invasion of Ethiopia in the [Second Italo-Abyssinian War](https://en.wikipedia.org/wiki/Second_Italo-Abyssinian_War).[[76]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-76)

In his lecture he stated: "I reclaim the honour of being the first fascist in the field of radiotelegraphy, the first who acknowledged the utility of joining the electric rays in a bundle, as Mussolini was the first in the political field who acknowledged the necessity of merging all the healthy energies of the country into a bundle, for the greater greatness of Italy".[[77]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-77)

Marconi wanted to personally introduce in 1931 the first radio broadcast of a Pope, [Pius XI](https://en.wikipedia.org/wiki/Pope_Pius_XI), and did announce at the microphone: "With the help of God, who places so many mysterious forces of nature at man's disposal, I have been able to prepare this instrument which will give to the faithful of the entire world the joy of listening to the voice of the Holy Father".[[78]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-78)

## Legacy and honours[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=13)]

### Orders and decorations[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=14)]

**Italian**

* Knight of the [Order of Merit for Labour](https://en.wikipedia.org/wiki/Order_of_Merit_for_Labour) (26 October 1902)[[79]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Senator_Marconi-79)
* Knight of the [Civil Order of Savoy](https://en.wikipedia.org/wiki/Civil_Order_of_Savoy) (1 June 1905)[[79]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Senator_Marconi-79)
* Grand Cordon of the [Order of the Crown of Italy](https://en.wikipedia.org/wiki/Order_of_the_Crown_of_Italy) (7 April 1913; Grand Officer: 30 October 1902; Officer: 6 January 1898)[[79]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Senator_Marconi-79)
* Grand Cordon of the [Order of Saints Maurice and Lazarus](https://en.wikipedia.org/wiki/Order_of_Saints_Maurice_and_Lazarus) (14 January 1932; Grand Officer: 30 May 1912; Commander: 12 January 1902)[[79]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Senator_Marconi-79)[[80]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-80)[[62]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-:0-62)
* Marquis of Marconi (17 July 1929)[[79]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Senator_Marconi-79)

**Others**

* Grand Cross of the [Order of Saint Anna](https://en.wikipedia.org/wiki/Order_of_Saint_Anna) of the [Russia Empire](https://en.wikipedia.org/wiki/Russian_Empire) (1902)[[81]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-81)[[62]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-:0-62)
* Honorary Knight Grand Cross of the [Royal Victorian Order](https://en.wikipedia.org/wiki/Royal_Victorian_Order) of the [United Kingdom](https://en.wikipedia.org/wiki/United_Kingdom) (GCVO, 1914)[[62]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-:0-62)
* Grand Cross of the [Civil Order of Alfonso XII](https://en.wikipedia.org/wiki/Civil_Order_of_Alfonso_XII) of Spain[[79]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-Senator_Marconi-79)
* Grand Cordon of the [Order of the Rising Sun](https://en.wikipedia.org/wiki/Order_of_the_Rising_Sun) of Japan (1933)[[82]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-82)

### Honours and awards[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=15)]

Memorial plaque in the Basilica [Santa Croce, Florence](https://en.wikipedia.org/wiki/Santa_Croce,_Florence). Italy

* In 1901, he was elected as a member of the [American Philosophical Society](https://en.wikipedia.org/wiki/American_Philosophical_Society).[[83]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-83)
* In 1903, Marconi also received the freedom of the City of Rome.[[62]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-:0-62)
* In 1909, Marconi shared the [Nobel Prize in Physics](https://en.wikipedia.org/wiki/Nobel_Prize_in_Physics) with [Karl Ferdinand Braun](https://en.wikipedia.org/wiki/Karl_Ferdinand_Braun) for their "contributions to the development of wireless telegraphy" (radio communications).[[7]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-NPbio-7)
* In 1914, Marconi was named senator by the king of Italy [Vittorio Emanuele III](https://en.wikipedia.org/wiki/Vittorio_Emanuele_III)[[62]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-:0-62)
* In 1918, he was awarded the [Franklin Institute](https://en.wikipedia.org/wiki/Franklin_Institute)'s [Franklin Medal](https://en.wikipedia.org/wiki/Franklin_Medal).[[84]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-84)
* In 1920, he was awarded the [IRE Medal of Honor](https://en.wikipedia.org/wiki/IRE_Medal_of_Honor), now the [IEEE Medal of Honor](https://en.wikipedia.org/wiki/IEEE_Medal_of_Honor).[[85]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-85)
* In 1931, he was awarded the [John Scott Medal](https://en.wikipedia.org/wiki/John_Scott_Medal) by the [Franklin Institute](https://en.wikipedia.org/wiki/Franklin_Institute) and the [City Council of Philadelphia](https://en.wikipedia.org/wiki/Philadelphia_City_Council).[[86]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-86)
* In 1934, he was awarded the [Wilhelm Exner Medal](https://en.wikipedia.org/wiki/Wilhelm_Exner_Medal).[[87]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-87)
* In 1974, Italy marked the birth centennial of Marconi with a circulating commemorative 100-lira coin.[[88]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-88)
* In 1975, Marconi was inducted into the [National Inventors Hall of Fame](https://en.wikipedia.org/wiki/National_Inventors_Hall_of_Fame).[[89]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-89)
* In 1978, Marconi was inducted into the [NAB Broadcasting Hall of Fame](https://en.wikipedia.org/wiki/NAB_Broadcasting_Hall_of_Fame).[[90]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-90)
* In 1988, the Radio Hall of Fame ([Museum of Broadcast Communications](https://en.wikipedia.org/wiki/Museum_of_Broadcast_Communications), Chicago) inducted Marconi as a Pioneer (soon after the inception of its awards).[[91]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-91)
* In 1990, the [Bank of Italy](https://en.wikipedia.org/wiki/Banca_d%27Italia) issued a 2,000 [lire](https://en.wikipedia.org/wiki/Italian_lira) banknote featuring his portrait on the front and on the back his accomplishments.[[92]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-92)
* In 2001, Great Britain released a commemorative [British two-pound coin](https://en.wikipedia.org/wiki/British_two_pound_coin#Special_issues) celebrating the 100th anniversary of Marconi's first wireless communication.[[93]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-93)
* Marconi's early experiments in wireless telegraphy were the subject of two [IEEE Milestones](https://en.wikipedia.org/wiki/List_of_IEEE_milestones); one in Switzerland in 2003[[94]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-94) and most recently in Italy in 2011.[[95]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-95)
* In 2009, Italy issued a commemorative silver 10 Euro coin honouring the centennial of Marconi's Nobel Prize.[[96]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-96)
* In 2009, he was inducted into the [New Jersey Hall of Fame](https://en.wikipedia.org/wiki/New_Jersey_Hall_of_Fame).[[97]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-97)
* The Dutch radio academy bestows the [Marconi Awards](https://en.wikipedia.org/w/index.php?title=Marconi_Award_(Netherlands)&action=edit&redlink=1) [[nl](https://nl.wikipedia.org/wiki/Marconi_Award)] annually for outstanding radio programmes, presenters and stations.[[98]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-98)
* The National Association of Broadcasters (US) bestows the annual [NAB Marconi Radio Awards](https://en.wikipedia.org/wiki/NAB_Marconi_Radio_Awards) also for outstanding radio programmes and stations.[[99]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-99)

### Tributes[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=16)]

[](https://en.wikipedia.org/wiki/File:Guglielmo_Marconi_Memorial.JPG)

[*Guglielmo Marconi Memorial*](https://en.wikipedia.org/wiki/Guglielmo_Marconi_(Piccirilli)) in Washington, D.C.

Bronze statue of Guglielmo Marconi, sculpted by Saleppichi Giancarlo erected 1975 [Philadelphia](https://en.wikipedia.org/wiki/Philadelphia), Pennsylvania

* A funerary monument to the effigy of Marconi can be seen in the [Basilica of Santa Croce, Florence](https://en.wikipedia.org/wiki/Basilica_of_Santa_Croce,_Florence), but his remains are in the [Mausoleum of Guglielmo Marconi](https://en.wikipedia.org/wiki/Mausoleum_of_Guglielmo_Marconi) in [Sasso Marconi](https://en.wikipedia.org/wiki/Sasso_Marconi), Italy. His former villa, adjacent to the [mausoleum](https://en.wikipedia.org/wiki/Mausoleum) is the [Marconi Museum (Italy)](https://en.wikipedia.org/wiki/Marconi_Museum_(Italy)) with much of his equipment.
* A statue of Guglielmo Marconi stands in [Church Square Park](https://en.wikipedia.org/wiki/Landmarks_of_Hoboken,_New_Jersey#Church_Square_Park) in [Hoboken, NJ](https://en.wikipedia.org/wiki/Hoboken,_NJ).[[100]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-100)
* A [*Guglielmo Marconi* sculpture](https://en.wikipedia.org/wiki/Guglielmo_Marconi_(Piccirilli)) by [Attilio Piccirilli](https://en.wikipedia.org/wiki/Attilio_Piccirilli) stands in [Washington, D.C.](https://en.wikipedia.org/wiki/Washington,_D.C.)[[101]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-101)
* A large collection of Marconi artefacts was held by [The General Electric Company](https://en.wikipedia.org/wiki/The_General_Electric_Company), plc (GEC) of the United Kingdom which later renamed itself Marconi plc and Marconi Corporation plc. In December 2004 the extensive Marconi Collection, held at the former Marconi Research Centre at [Great Baddow](https://en.wikipedia.org/wiki/Great_Baddow), [Chelmsford](https://en.wikipedia.org/wiki/Chelmsford), Essex UK was donated to the nation by the Company via the [University of Oxford](https://en.wikipedia.org/wiki/University_of_Oxford).[[102]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-102) This consisted of the BAFTA award-winning MarconiCalling website, some 250+ physical artefacts and the massive ephemera collection of papers, books, patents and many other items. The artefacts are now held by [The Museum of the History of Science](https://en.wikipedia.org/wiki/Museum_of_the_History_of_Science,_Oxford) and the ephemera Archives by the nearby [Bodleian Library](https://en.wikipedia.org/wiki/Bodleian_Library).[[103]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-103) Following three years' work at the Bodleian, an Online Catalogue to the Marconi Archives was released in November 2008.
* A granite obelisk stands on the cliff top near the site of Marconi's [Marconi's Poldhu Wireless Station](https://en.wikipedia.org/wiki/Poldhu#Marconi's_Poldhu_Wireless_Station) in Cornwall, commemorating the first transatlantic transmission.
* An urban park square named in 1937 located [Philadelphia](https://en.wikipedia.org/wiki/Philadelphia), Pennsylvania at Oregon Ave and South Broad Street, including later in 1975 a bronze statue erected of Marconi on the east side of [Marconi Plaza](https://en.wikipedia.org/wiki/Marconi_Plaza) Park.

### Places and organisations named after Marconi[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=17)]

#### Outer space[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=18)]

The asteroid [1332 Marconia](https://en.wikipedia.org/wiki/1332_Marconia) is named in his honour. A large [crater](https://en.wikipedia.org/wiki/Marconi_(crater)) on the far side of the [moon](https://en.wikipedia.org/wiki/Moon) is also named after him.

#### Europe[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=19)]

Marconi building at DRA at the University of St. Andrews

**Italy**

* [Bologna Guglielmo Marconi Airport](https://en.wikipedia.org/wiki/Bologna_Guglielmo_Marconi_Airport) (IATA: BLQ – ICAO: LIPE), of Bologna, is named after Marconi, its native son.
* Open University Guglielmo Marconi in [Rome](https://en.wikipedia.org/wiki/Rome), Italy (Università Telematica "Guglielmo Marconi")
* [Ponte Guglielmo Marconi](https://en.wikipedia.org/wiki/Ponte_Guglielmo_Marconi), bridge that connects Piazza Augusto Righi with Piazza Tommaso Edison, in Rome

#### Oceania[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=20)]

**Australia**

* Australian football (soccer) and social club [Marconi Stallions](https://en.wikipedia.org/wiki/Marconi_Stallions).

#### North America[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=21)]

**Canada**

* The Marconi's Wireless Telegraph Company of Canada (now [CMC Electronics](https://en.wikipedia.org/wiki/CMC_Electronics) and [Ultra Electronics](https://en.wikipedia.org/wiki/Ultra_Electronics)), of [Montreal](https://en.wikipedia.org/wiki/Montreal), Quebec, Canada, was created in 1903 by Guglielmo Marconi.[[104]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-CMCabout-104) In 1925 the company was renamed to the 'Canadian Marconi Company', which was acquired by [English Electric](https://en.wikipedia.org/wiki/English_Electric) in 1953.[[104]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-CMCabout-104) The company name changed again to [CMC Electronics](https://en.wikipedia.org/wiki/CMC_Electronics) Inc. (French: CMC Électronique) in 2001. In 2002, the company historical radio business was sold to Ultra Electronics to become Ultra Electronics TCS Inc., now doing business as Ultra Communications. Both CMC Electronics and Ultra Communications are still located in Montreal.
* The [Marconi National Historic Sites of Canada](https://en.wikipedia.org/wiki/Marconi_National_Historic_Sites_of_Canada) was created by [Parks Canada](https://en.wikipedia.org/wiki/Parks_Canada) as a tribute to Marconi's vision in the development of radio telecommunications. The first official wireless message was sent from this location by the Atlantic Ocean to England in 1902. The museum site is located in [Glace Bay, Nova Scotia](https://en.wikipedia.org/wiki/Glace_Bay,_Nova_Scotia), at Table Head on Timmerman Street.

#### United States[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=22)]

##### California[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=23)]

* [Marconi Conference Center and State Historic Park](https://en.wikipedia.org/wiki/Marconi_Conference_Center_State_Historic_Park), site of the transoceanic Marshall Receiving Station, Marshall.

##### Hawaii[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=24)]

* [Marconi Wireless Telegraphy Station](https://en.wikipedia.org/wiki/Marconi_Wireless_Telegraphy_Station_(Kahuku,_Hawaii)) on [Oahu](https://en.wikipedia.org/wiki/Oahu)'s [North Shore](https://en.wikipedia.org/wiki/North_Shore_(Oahu)), briefly the world's most powerful telegraph station.[[105]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-105)

##### Massachusetts[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=25)]

* [Marconi Beach](https://en.wikipedia.org/wiki/Marconi_Beach) in [Wellfleet, Massachusetts](https://en.wikipedia.org/wiki/Wellfleet,_Massachusetts), part of the [Cape Cod National Seashore](https://en.wikipedia.org/wiki/Cape_Cod_National_Seashore), located near the site of his first transatlantic wireless signal from the United States to Britain. There are still remnants of the wireless tower at this beach and at Forest Road Beach in [Chatham, Massachusetts](https://en.wikipedia.org/wiki/Chatham,_Massachusetts).[[106]](https://en.wikipedia.org/wiki/Guglielmo_Marconi#cite_note-106)

##### New Jersey[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=26)]

* [New Brunswick Marconi Station](https://en.wikipedia.org/wiki/New_Brunswick_Marconi_Station), now the *Guglielmo Marconi Memorial Plaza* in [Somerset, NJ](https://en.wikipedia.org/wiki/Somerset,_NJ). President Woodrow Wilson's Fourteen Points speech was transmitted from the site in 1918.
* Belmar Marconi Station, now the [InfoAge Science History Center](https://en.wikipedia.org/wiki/Camp_Evans_Historic_District) in Wall Township, NJ.

##### New York[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=27)]

* [La Scuola d'Italia Guglielmo Marconi](https://en.wikipedia.org/wiki/La_Scuola_d%27Italia_Guglielmo_Marconi) on New York City's [Upper East Side](https://en.wikipedia.org/wiki/Upper_East_Side).

##### Pennsylvania[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=28)]

* [Marconi Plaza, Philadelphia, Pennsylvania](https://en.wikipedia.org/wiki/Marconi_Plaza,_Philadelphia,_Pennsylvania). Roman terrace-styled plaza originally designed by the architects [Olmsted Brothers](https://en.wikipedia.org/wiki/Olmsted_Brothers) in 1914–1916, built as the grand entrance for the 1926 [Sesquicentennial Exposition](https://en.wikipedia.org/wiki/Sesquicentennial_Exposition) and renamed to honour Marconi.

## Patents[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=29)]

### British patents[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=30)]

* [British patent No. 12,039 (1897)](https://babel.hathitrust.org/cgi/pt?id=uc2.ark:/13960/t0dv1dp4c;view=1up;seq=322) "*Improvements in Transmitting Electrical impulses and Signals, and in Apparatus therefor*". Date of Application 2 June 1896; Complete Specification Left, 2 March 1897; Accepted, 2 July 1897 (later claimed by Oliver Lodge to contain his own ideas which he failed to patent).
* [British patent No. 7,777 (1900)](http://www.mhs.ox.ac.uk/marconi/exhibition/7777.htm) "*Improvements in Apparatus for Wireless Telegraphy*". Date of Application 26 April 1900; Complete Specification Left, 25 February 1901; Accepted, 13 April 1901.
* [British patent No. 10245 (1902)](http://www.bodley.ox.ac.uk/dept/scwmss/wmss/online/modern/marconi/marconi.html#marconi.B.2.1.a)
* British patent No. 5113 (1904) "*Improvements in Transmitters suitable for Wireless Telegraphy*". Date of Application 1 March 1904; Complete Specification Left, 30 November 1904; Accepted, 19 January August 1905.
* British patent No. 21640 (1904) "*Improvements in Apparatus for Wireless Telegraphy*". Date of Application 8 October 1904; Complete Specification Left, 6 July 1905; Accepted, 10 August 1905.
* British patent No. 14788 (1904) "*Improvements in or relating to Wireless Telegraphy*". Date of Application 18 July 1905; Complete Specification Left, 23 January 1906; Accepted, 10 May 1906.

### US patents[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=31)]

* [U.S. Patent 586,193](https://patents.google.com/patent/US586193) "*Transmitting electrical signals*", (using [Ruhmkorff](https://en.wikipedia.org/wiki/Heinrich_Ruhmkorff) coil and [Morse code](https://en.wikipedia.org/wiki/Morse_code) key) filed December 1896, patented July 1897
* [U.S. Patent 624,516](https://patents.google.com/patent/US624516) "*Apparatus employed in wireless telegraphy*".
* [U.S. Patent 627,650](https://patents.google.com/patent/US627650) "*Apparatus employed in wireless telegraphy*".
* [U.S. Patent 647,007](https://patents.google.com/patent/US647007) "*Apparatus employed in wireless telegraphy*".
* [U.S. Patent 647,008](https://patents.google.com/patent/US647008) "*Apparatus employed in wireless telegraphy*".
* [U.S. Patent 647,009](https://patents.google.com/patent/US647009) "*Apparatus employed in wireless telegraphy*".
* [U.S. Patent 650,109](https://patents.google.com/patent/US650109) "*Apparatus employed in wireless telegraphy*".
* [U.S. Patent 650,110](https://patents.google.com/patent/US650110) "*Apparatus employed in wireless telegraphy*".
* [U.S. Patent 668,315](https://patents.google.com/patent/US668315) "*Receiver for electrical oscillations*".
* [U.S. Patent 676,332](https://patents.google.com/patent/US676332) "*Apparatus for wireless telegraphy*" (later practical version of system)
* [U.S. Patent 757,559](https://patents.google.com/patent/US757559) "*Wireless telegraphy system*". Filed 19 November 1901; Issued 19 April 1904.
* [U.S. Patent 760,463](https://patents.google.com/patent/US760463) "*Wireless signaling system*". Filed 10 September 1903; Issued 24 May 1904.
* [U.S. Patent 763,772](https://patents.google.com/patent/US763772) "*Apparatus for wireless telegraphy*" (Four tuned system; this innovation was predated by N. Tesla, O. Lodge, and J. S. Stone)
* [U.S. Patent 786,132](https://patents.google.com/patent/US786132) "*Wireless telegraphy*". Filed 13 October 1903
* [U.S. Patent 792,528](https://patents.google.com/patent/US792528) "*Wireless telegraphy*". Filed 13 October 1903; Issued 13 June 1905.
* [U.S. Patent 884,986](https://patents.google.com/patent/US884986) "*Wireless telegraphy*". Filed 28 November 1902; Issued 14 April 1908.
* [U.S. Patent 884,987](https://patents.google.com/patent/US884987) "*Wireless telegraphy*".
* [U.S. Patent 884,988](https://patents.google.com/patent/US884988) "*Detecting electrical oscillations*". Filed 2 February 1903; Issued 14 April 1908.
* [U.S. Patent 884,989](https://patents.google.com/patent/US884989) "*Wireless telegraphy*". Filed 2 February 1903; Issued 14 April 1908.
* [U.S. Patent 924,560](https://patents.google.com/patent/US924560) "*Wireless signaling system*". Filed 9 August 1906; Issued 8 June 1909.
* [U.S. Patent 935,381](https://patents.google.com/patent/US935381) "*Transmitting apparatus for wireless telegraphy*". Filed 10 April 1908; Issued 28 September 1909.
* [U.S. Patent 935,382](https://patents.google.com/patent/US935382) "*Apparatus for wireless telegraphy*".
* [U.S. Patent 935,383](https://patents.google.com/patent/US935383) "*Apparatus for wireless telegraphy*". Filed 10 April 1908; Issued 28 September 1909.
* [U.S. Patent 954,640](https://patents.google.com/patent/US954640) "*Apparatus for wireless telegraphy*". Filed 31 March 1909; Issued 12 April 1910.
* [U.S. Patent 997,308](https://patents.google.com/patent/US997308) "*Transmitting apparatus for wireless telegraphy*". Filed 15 July 1910; Issued 11 July 1911.
* [U.S. Patent 1,102,990](https://patents.google.com/patent/US1102990) "*Means for generating alternating electric currents*". Filed 27 January 1914; Issued 7 July 1914.
* [U.S. Patent 1,226,099](https://patents.google.com/patent/US1226099) "*Transmitting apparatus for use in wireless telegraphy and telephony*". Filed 31 December 1913; Issued 15 May 1917.
* [U.S. Patent 1,271,190](https://patents.google.com/patent/US1271190) "*Wireless telegraph transmitter*".
* [U.S. Patent 1,377,722](https://patents.google.com/patent/US1377722) "*Electric accumulator*". Filed 9 March 1918
* [U.S. Patent 1,148,521](https://patents.google.com/patent/US1148521) "*Transmitter for wireless telegraphy*". Filed 20 July 1908; Issued 3 August 1915.
* [U.S. Patent 1,981,058](https://patents.google.com/patent/US1981058) "*Thermionic valve*". Filed 14 October 1926; Issued 20 November 1934.

### Reissued (US)[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=32)]

* [U.S. Patent RE11913](https://patents.google.com/patent/USRE11913) "*Transmitting electrical impulses and signals and in apparatus, there-for*". Filed 1 April 1901; Issued 4 June 1901.

## See also[[edit](https://en.wikipedia.org/w/index.php?title=Guglielmo_Marconi&action=edit&section=33)]

* [History of radio](https://en.wikipedia.org/wiki/History_of_radio)
* [Jagadish Chandra Bose](https://en.wikipedia.org/wiki/Jagadish_Chandra_Bose)
* [List of people on stamps of Ireland](https://en.wikipedia.org/wiki/List_of_people_on_stamps_of_Ireland)
* [List of covers of *Time* magazine during the 1920s](https://en.wikipedia.org/wiki/List_of_covers_of_Time_magazine_(1920s)) – 6 December 1926
* [Marconi's law](https://en.wikipedia.org/wiki/Marconi%27s_law)