

The 120th anniversary of the invention of radio by A. S. Popov: From Telegraph apparatus to Future Communications Technologies

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ABSTRACT

Aleksandr Stepanovich Popov was born in the North Urals on March 16, 1859. He was the son of a village priest.

For some years he had been studying at the seminary in Perm and then went to the University of St. Petersburg. In his student days he worked as a mechanic at one of the first electric power plants in St. Petersburg which was producing electric lights for Nevsky prospect.

After graduating from the University in 1882, A.S. Popov remained there as a post-graduate at the Physics Department. A year later he became a lecturer in Physics and Electrical Engineering in Kronstadt.

By this time he had already won recognition among specialists as an authority in this field.

In 1894 Aleksandr Popov, Russian radio pioneer built his first practical radio receiver, which contained improvements to the coherer tube.

On May, 7th, 1895 Popov has demonstrated the world's first radio-receiving set created by him at the convention of the Russian Physical and Chemical Society in St. Petersburg and conducted the first radio session (the first public demonstration of the electromagnetic telegraph). This day went down in history as "Radio Day" and being celebrated in Russian Federation.

Thus the first wireless (radio) receiving set was created.

Then Popov on March 24, 1896 demonstrated the transmission and reception of a radiogram consisting of two words: "Heinrich Hertz" over a distance of 250 meters. On that day the radio-telegraphy was convened from an abstract theoretical problem into a real fact.

By his invention Popov made a priceless contribution to the development of world science.

Nearly at the same time an Italian inventor G. Marconi, who moved to Great Britain in 1896, got an English patent on using electromagnetic waves for communication without wires. As A.S. Popov had not yet patented his invention by that time, the world considered Marconi to be the inventor of radio. But in our country it is A.S. Popov who we by right call an inventor of radio.

In 1897 an active part in promoting the A. S. Popov invention took French engineer E., Ducretet (Ducretet 1844—1915). A. S. Popov and E., Ducretet created in 1899, "POPOFF - DUKRETET" company (with the assistance of the French and Russian governments) and began produce the equipment of serial marine radio. In all time of existence of the company "POPOFF - DUKRETET" (1899 - 1904) was released 25 sets of ship radio stations on joint A. S. Popov and E. Ducretet developments.

A.S. Popov did not live to see the great impact of his invention to the social, political, economic, scientific, and military life in all over the world.

Popov's invention laid the foundation for further inventions and improvements in the field of radio engineering. Since that time scientists in all countries have been developing the modern systems of radiotelegraphy, radioastronomy, broadcasting, television, radiolocation, radiometeorology and other branches of radioelectronics.

Radio has now become a popular medium of portable entertainment. In 21st century, technological advancements have given birth to Internet radio. Satellite radio is also recent development in the field. Radio occupies one of the leading places among the greatest achievements of modern Communications Technologies.