

## FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE Ballooning Commission

Hall of Fame

PICCARD Auguste Inducted 1995



AUGUSTE PICCARD Switzerland Inducted 1995 Scientific balloonist 28 Jan.1884 Lutry (Basle) – 24 Mar.1962 Lausanne

Auguste Piccard was a Swiss physicist interested in using balloons in his research on cosmic rays. His were the first serious attempts to reach the stratosphere since Coxwell and Glaisher's near fatal flight of 1862. Piccard and Paul Kepfer launched from Augsburg, Germany on May 27, 1931 and reached an altitude of 51,793 feet. They were the first to reach the stratosphere and the first to fly in a pressurized capsule. In addition to his stratospheric flights, Auguste Piccard established an undersea depth record of 10,330' with his son Jacques, off the Italian Mediterranean Coast

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## 1884-1962

Auguste Piccard, born on 28 January 1884 in Basel (Switzerland), Professor of Physics at the Swiss Federal Institute of Technology Zurich and then at the University of Brussels, friend of Albert Einstein and Marie Curie, made modern aviation and the conquest of space possible by inventing the principle of the pressurised cabin and the stratospheric balloon.

Always testing his own inventions himself, he made the first two ascents into the stratosphere (reaching heights of 15,780 metres and 16,201 metres in 1931 and 1932 respectively), to study cosmic rays and became, in fact, the first man to see with his own eyes the curvature of the Earth.

For the first time, a human being entered the stratosphere and demonstrated that it is possible to survive for a long time above the 5,000 metres that was then considered to be the absolute limit. After this feat, which at the time attracted as much attention as man's first steps on the moon, Auguste Piccard was counted amongst those whose inventions have changed the face of the world. The way was open to the transportation of millions of passengers, swiftly and at high altitude, where the low density of the air means much less fuel is consumed.

Applying the principle of his stratospheric balloon to the exploration of the deepest oceans, he invented and built a revolutionary submarine, which he named the *Bathyscaphe*. The first prototype allowed him to validate the concept whilst diving in 1948 in Dakar with Théodore Monod. Bad weather, however, damaged the float and the submarine was consigned to the French seas. Auguste then set to with his son, Jacques, on the construction of his second bathyscaphe, the Trieste. Diving with Jacques to 3,150 metres in 1953, he became the man of both extremes, having ascended highest into the stratosphere and descended deepest into the ocean. It was hardly surprising after that when the cartoonist Hergé saw him as the archetypal boffin and used him in his adventures of Tintin as the model for his Professor Calculus.

Meanwhile his twin brother, Jean, who had emigrated to the United States as a professor of chemistry, made there another ascent into the stratosphere with his wife, Jeannette. One of their three sons, Don, together with Ed Yost, pioneered the development of modern hot-air ballooning in the 1960s.

But if Auguste Piccard, Commander of the Legion of Honour and the Order of Leopold, was known for his spectacular inventions, he was also a scientist of universal renown. His physics thesis concerned the magnetisation of water. He discovered Uranium 235, which he called at the time Actinuran. **He conducted an experiment in a balloon which proved the validity of part of Einstein's theory of relativity** at a time when it had been called into question. He constructed the most accurate scales, galvanometer and seismograph of the time. His legendary precision earned him the nickname of "the extra decimal place". Already concerned in 1942 with the protection of the environment and the future of natural resources, he wrote a pioneering article in which he advocated the use of solar energy and heat pumps.

He died in Lausanne on 25 March 1962.