

PERSONALITIES OF THE SCIENTIFIC UNIVERSE: Aurel Vlaicu



Flying by air was a matter of concern for people from ancient times. Mythology presents us Icarus, the hero who created for himself wings like birds, with feathers and wax. The Bible also describes an aircraft that brings to mind to the

spacecraft.

By the year 200 BC there were made in China some kites that could lift a man into the air. One of these men was even the prince Yuan Huangtou. The famous Leonardo da Vinci sketched a flying machine with wings and even one similar, in principle, with helicopters from nowadays.

In this area, the flight with a device that is heavier than air, Romanians have made numerous contributions. One Romanian was Aurel Vlaicu.

Aurel Vlaicu was born on November 6, 1882 in Bințiți locality, located between Orastie and Sebes, in a family with eight children of the Mayor Dumitru Vlaicu. Aurel was the eldest and the handiest. He built his house in the shed belonging to a real machine shop. He saw paper flying kites handled by village children and explained to his brothers and friends how it will look the flying machine that he will build.

After graduating the primary school in his village he is enrolled at the reformed High-School of Orastie, where he was noted for his technical skills. He repaired watches of his teachers and he devised a threshing machine. He continued his secondary education at Sibiu, where he was a colleague of Octavian Goga. Here he has invented a turbine factory that was taken over by Rieger in order to be produced in series.

In 1902, after finishing high school, he joined the Polytechnic School in Budapest, and one year later, in 1903, was transferred to the Polytechnic School in Munich because here there were treated better the mechanical disciplines. As a student, he built the model of the first flying machine remaining in the school lab. He obtained his engineering diploma in 1907, then he was concentrated to a submarine unit in the Adriatic

Sea, which belonged to the Austro-Hungarian navy.

In 1908, he was employed as an engineer at Opel's engine plant Rüsselheim with the intention to build an engine for the flying machine that he dreamt at since his childhood. The factory management put more conditions on Aurel Vlaicu that he could not accept, so in 1909 he returned home. He was helped financially by his father, Dumitru Vlaicu, by his brothers and other friends and built a glider plane that he tried on pasture land of Bințiți village. He named it "Beetle". Moreover. In one of the trials he boarded his sister Valeria on the glider plane. It was a world first: the first woman to fly a glider. The hang gliding demonstrations continued in Sibiu and Brasov. Being encouraged by these results and supported by several officials, including Spiru Haret, he came to Bucharest in 1910 where he built Vlaicu I. For the engine choice he was advised by Traian Vuia. He obtained the patent for a "flying machine with an arrow-shaped body". On June 17, 1910 Aurel Vlaicu makes a test flight on the pitch at Cotroceni. Here's what the inventor said after approximately one year after this flight, "A great joy, but I felt it when I flew for the first time at Cotroceni. I did not then raised more than four meters. However, neither the Alps weren't taller than the height that I rose to. Those four meters were then for me a remarkable record, a record that made my machine famous. I flew and this was the main thing ". He flew at the moment only 50 meters. This day, June 17 was important for Aurel Vlaicu. This day, June 17, is important for the aviation in Romania.

Aurel Vlaicu flew his machine, between Pietra Olt and Slatina to carry an order of battle in military manoeuvres organized by the Romanian Army. It was the first aircraft used by the Romanian army.

In 1911, he built the flying machine Vlaicu II that did demonstrations at Blaj and then in Sibiu and in Brasov. On this occasion it reached a speed of 90 km / hour and the ceiling height of 1,000 m.

With the same device, he participated in 1912 in a competition in Austria where he won the First Prize in throwing the target. In this contest, attended 40 pilots from seven countries, including the famous French pilot Roland Garros. Here's what the press wrote: „*Beautiful and brave flights conducted by the Romanian Aurel Vlaicu on an original airplane, built by himself with two propellers, among them being sited the pilot*

himself. Whenever his car twisted in a place, the head seemed to come over, the world rewarded the Romanian pilot with thunderous ovations, with unimaginable enthusiastic acclamations”.

With the same device he participated in the summer of 1913 to the Second Balkan War for aerial observation missions.

He wanted that his experience cumulated to be used to build a new device called Vlaicu III, which had a full metal structure, and he wanted to cross the Carpathians with it. Originally, he wanted to make this flight in August 1913 to participate in the festivities organized by the Transylvanian Association for Romanian Literature and Culture of the Romanian People – ASTRA at Orăștie, but he considered that Vlaicu II device is quite worn off and postponed until the completion of the new Vlaicu III airplane. Meanwhile other pilots announced their intention to do for the first time the flight across the Carpathians. Under these circumstances, it was decided to fly the old device so that on September 13, 1913 he departed from Bucharest. He stops at Ploiesti to power the airplane and takes off for Brasov. He has never arrived. Near the city of Campina, on the outskirts of village Brănești, the plane crashes and the constructor loses his life.

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