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Chapter 9

**SOTIR CHERKEZOV:
THE INVENTOR OF A DEVICE FOR RESCUING SPACEMEN^{*}**

A. Simeonov and I. Belberov[†]

Sotir Petrov Cherkezov was born in January 1883 in the town of Svishtov, Bulgaria. His interest in flight began in 1900, when he attended a lecture by Haralampy Djamdjiev – a Bulgarian expert on aviation and astronautics. Cherkezov recalled the occasion in his memoirs: "Djamdjiev spoke of his own work, and that of the Russian scientists N. Jukovski and K. Tsiolkovski, who influenced him . . . I was obsessed with the desire to read everything about aviation and astronautics . . ."

Five years later Cherkezov traveled to Russia, intending to study in a technical school, but returned to Bulgaria the next year. He went to Russia a second time in 1910 and entered the aviation school. The aviation school was expensive. Every student had to pay a high tuition and provide a deposit to cover any future damage to the training aircraft, which was inevitable in those days. Cherkezov turned for help to General Kaulbars, a participant in the Russian-Turkish war and member of the Council of the All Russia Airclub, who persuaded the Council of the All Russia Airclub to accept Sotir Cherkezov into the aviation school without the deposit.

Cherkezov graduated from the All Russia Airclub in October of 1912 and received Diploma No. 93 of the International Air Federation. He was the first Bulgarian citizen to receive a pilot-aviator qualification in Russia.

While still a student, Cherkezov became interested in the design and construction of aircraft. He based the design of his first airplane on the work of the Wright brothers, Farman and Kertis, adding the original element of a front wheel. Cherkezov made his first trial flight with this machine in Petersburg on January 12, 1912. V. B. Shavrov, in his *History of Airplane Construction in the U.S.S.R. prior to 1978*, does not mention one of the 1912 airplanes designers. Some historians believe that it was probably designed by Sotir Cherkezov.

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Flight safety, a constant problem for aircraft manufacturers and spacecraft designers, concerned the Bulgarian aviator as well. As early as 1912, Cherkezov proposed a safety design. *Novoe Vremie*, a Petersburg newspaper, reported on August 31, 1912: "Among the students in the Aviation School of the Emperor's All Russia Airclub is Sotir Cherkezov—the first Bulgarian aviator. He has been involved in aviation for several years and is the inventor of an aircraft of original construction, preventing the aviator from falling down (automatically unfolding wings—a parachute). Sotir Cherkezov is now training on a "Farman" at the Airclub and intends after passing the pilots' examination, to carry out a flight from Russia to Bulgaria on a Russian aircraft."

This interesting announcement is confirmed by the Bulgarian newspaper, *Utro*, on November 5, 1912: "In the Russian newspaper, *Peterburgskaya gazeta*, a conversation is found between a journalist and the Bulgarian S. P. Cherkezov, who has devoted all of his life to aviation without receiving any funds. When Cherkezov completes his training, he is going to undertake a journey to Bulgaria with the intention of flying over Romania . . . This brave aviator has also developed a totally original design, which prevents the aviator from a sudden crash. This appliance to the aircraft is one of the most necessary things in aviation. . ."

These documents are convincing and confirm that Sotir Cherkezov invented an original device for rescuing airmen and astronauts in case their aircraft or spacecrafts fell into critical situations. In other words, the invention of S. Cherkezov marks the beginning of the practical resolving of two important problems:

1. The design of a special device to rescue aviators from danger. The idea is to make use of a catapult device to provide a safe landing for pilots in critical situations, or, as the inventor notes, "to prevent the pilot from falling down."
2. The rescue device operated automatically, so Cherkezov should be recognized as a pioneer in the design of automatic devices for rescuing aviators and space travelers.

Historical developments have confirmed Cherkezov's judgment. The development of rescue devices has proceeded as the inventor predicted—catapult devices that function automatically in critical situations.

Cherkezov's design seems very simple from a contemporary technical point of view. Most items of modern aerospace equipment began as elementary designs.

We study the past to understand the future. Let us respect the first steps of our predecessors, who prepared the way for the exploration of space with their labor and enthusiasm.

BIBLIOGRAPHY

1. "Novae Uremya," 1912, St. Petersburg
2. "Utro," 1912 Sofia
3. Tsanov Ta., *Balkan Eagles*, 1981, Sofia
4. ЦГВИА СССР, ф. 2008, е. х. 735, лл 14, 91