

*Baikonurov Omirkhan Aimagambetovich*



(14.09.1912 - 15.03.1980)

He was born on September 14, 1912 in the village of Somke (now the Ulutau State Farm) of the Ulytau district of the Dzhezkazgan region in the family of a poor peasant who worked from 1925 until the end of his life as a metallurgist at Karsakpay, Chimkent and Karaganda metallurgical plants.

Baikonurov O.A. left the Kazakh primary school in his village.

From 1931 to 1932 he studied at the trade school (factory school), from which he graduated in May 1932 as a droll runner. At that time the specialists of the enterprise were invited to conduct classes at the school, among whom was the future first president of the Academy of Sciences of the Kazakh SSR K. Satpayev. - the chief geologist of the plant. It was K.I.Satpaev who influenced greatly on Baikonurov's professional choice.

Baikonurov O.A. started his labour activity on the construction of Karsakpay copper factory - the first factory of non-ferrous metallurgical industry of the USSR: from 1927 to 1930 he worked as a carpenter's apprentice on the construction of the Karsakpay copper smelter. In 1932-1933 under the leadership of K.I. Satpayev he worked at the Geological Department of the Karsakpay Copper Plant as a senior mineral collector.

In Karsakpay, working at the factory, Baikonurov continued going to school. In 1933, the Karsakpay Copper Plant and the District Committee sent him to study at the Semipalatinsk Geological Prospecting Institute. But due to the illness of his father, who was working at the Chimkent lead plant at that time, Baikonurov was forced to stay in Chimkent, where he worked as a draftsman-designer at the mechanical workshop of the Chimkent lead plant.

In 1934 on the recommendation of Satpayev K.I. the party committee of Chimkent lead plant sends Baikonurov to study in Almaty, where, until the end of 1935, he studies at the preparatory courses, and then enters the Kazakh Mining and Metallurgical Institute (now the Kazakh National Technical University named after K.I. Satpayev). He graduated from this institute in June 1940 as a mining engineer in the specialty "Development of mineral deposits."

After graduating from the institute in June 1940, Baikonurov O.A. gets directions to Dzhezkazgan. Having started his labor activity as a shift master, he went through all the stages of administrative and engineering activity. Until 1941, he worked as the shift supervisor at mine

No. 31, as the head of mine No. 32, and then as the head of mine No. 13. In November 1943, he was appointed the head of the mine department "31-32", where he worked until 1952.

In October 1952 Baikonurov O.A. was appointed as a director of the Kazakh Mining and Metallurgical Institute, which in 1960 was reorganized into a polytechnic institute, the rector of which he worked until June 1962. In May 1962 he was elected an academician of the Academy of Sciences of the Kazakh SSR and at the same time an academician-secretary.

In 1964 he continued his career at the Kazakh Polytechnic Institute, where he worked until the end of his life as the head of the department "Technology and complex mechanization of the development of mineral deposits."

Academician of the Academy of Sciences of the Kazakh SSR (now the National Academy of Sciences of the Republic of Kazakhstan), Doctor of Technical Sciences, Professor Baikonurov Omirkhan Aimagambetovich - an outstanding scientist in the field of the development of mineral deposits, whose fundamental works have received wide recognition from the world scientific community, a major mining engineer organizer of production, a brilliant teacher and educator of students, a prominent public figure, a propagandist of knowledge, a patriot of his homeland, a student and the follower of great K.I. Satpayev.

The young mining engineer started his work in the difficult years of the Great Patriotic War. He was commissioned to restore the old mine number 13, which before the revolution was abandoned by the British. It was important to increase the range of mining activities and the volume of the extracted copper ore and do it in the short period of time and at low cost. Extremely tense days and sleepless nights of work and searches began: labour organization was thought out, new work schedules were compiled, existing mechanisms were widely used. Baikonurov's efforts were crowned with success. Under his leadership, surface structures, the shaft, and underground workings were restored. Here the young specialist showed himself as an active engineer who knows the business and how to apply new mining methods. And in three or four months, the country began to extract hundreds of tons of copper, which the military industry needed so much. O. A. Baikonurov's great deed as a mining engineer in victory over Nazi Germany is invaluable!

As a result of the measures taken, the mine administration No. 31-32 within a year began to overfulfill the state plan and won the challenge banner prize. The Dzhezkazgan Copper Plant won the passing Red Banner of the USSR State Defense Committee for 16 times, which was

left for eternal storage in Dzhezkazgan. Since that time, it has been an advanced enterprise of the plant for 10 years, where new mining methods were constantly tested. So, in Zhezkazgan, Baikonurov organized the high-speed excavation, mechanization of the processes of drifting and cleaning works. For the first time, powerful 2- and 3-drum scraper installations were widely used in mines, self-propelled drilling, loading and hauling machines were tested. A self-propelled drilling carriage and an electric dump truck were lowered into the mine, which were designed by the mine staff under the guidance of O. A. Baikonurov.

Baikonurov O.A., as a professional mining engineer, made a significant contribution to the development and updating of all technological processes, starting from drilling and blasting operations and ending with the improvement of the development system for different conditions of occurrence and ore body capacities. All the work done by him served as the basis for his thesis, which he defended in 1951. The results of the work were put into practice. Academician Popov A.S., a prominent scientist in the field of mining, was the scientific adviser of the dissertation work. During this period, Baikonurov O.A. proposed a new version of the open face system, which he called the "Chamber-and-Pillar Development System with a Combined Soil Overhead Stopping with Advanced Deep Drilling of Wells". The proposed system was tested and certified by the USSR State Technical Committee (No. 11697).

In 1959, Baikonurov O.A. was awarded the academic degree of professor in the department "Development of ore deposits." The main scientific activity is aimed at improving the development of mineral resources by underground and open methods.

Omirkhan Aimagambetovich in many ways was ahead of his time. He understood perfectly well that Kazakhstan is a developing republic, which will need the wide variety of specialists. As the head of the Institute, he contributed to the introduction of new and necessary specialties such as "Construction", "Architecture" and even "Oil Processing", although Kazakhstan was not an oil producing country at that time. And especially he advocated new specialties related to computer technology and computer science.

Academician O.A. Baikonurov, being the leader of the technical intellectuals, made an invaluable contribution to the formation and development, professional growth of the technical elite of Kazakhstan. He initiated the organization of branches and faculties of the institute directly on the basis of large enterprises in Kazakhstan. Thanks to him, Mining Institute (1953) in Karaganda, Ust-Kamenogorsk road construction institute (1958), Rudny Evening Faculty (1959), the evening engineering faculty in Almaty (1962) and many other institutions of higher education were opened. Many of the above institutes were then granted university status.

Thanks to the efforts of Academician Baikonurov O.A. completely new technical higher education institute appeared in Kazakhstan, thousands of graduates of which occupy key positions in scientific and industrial fields of Kazakhstan. The foundation day of Kazakh Polytechnical Institute July 8, 1960 is significant date in the history of the university.

In 1962, on the recommendation of the President of the Academy of Sciences of the Kazakh SSR Satpayev K.I., Professor Baikonurov O.A. was elected a full member and academician-secretary of the Academy of Sciences of the Kazakh SSR.

The scientist was constantly busy solving new theoretical problems. Under his leadership laboratories of mining geophysics and dynamic photoelasticity were created at the Research Institute of Mining. The research of massive properties by studying the physical fields, fields of static and dynamic stresses arising during the production of mining operations, allows you to make the choice of safe and effective parameters of technological processes correctly.

Baikonurov successfully combined scientific and pedagogical work with active public activity, was elected deputy of the Supreme Council of the Kazakh SSR (1951-1954), deputy of the Almaty City Council, a member of the Presidium of the Academy of Sciences of the Kazakh SSR, the chairman of the central council of the society of Labour protection, a member of the Bureau of the Department of Sciences of the Universe and the Land of the Academy of Sciences of the Kazakh SSR, a member of the Presidium of the Republican Scientific and Technical Society of the Nonferrous Metallurgy, the chairman of the mining section of the scientific and methodological Bureau and Councils of the Kazakh SSR, a member of the main editorial office of the Kazakh Soviet Encyclopedia, a member of the Academic Council of the Kazakh Polytechnic Institute and the Mining Institute of the Academy of Sciences of the Kazakh SSR, etc.

The merits of academician Baikonurov O.A. for the motherland, the contribution to world science and higher education was marked by government awards. He was awarded the highest award of that time — the Order of Lenin, medals and diplomas of the Supreme Soviet of the Kazakh SSR, signs “Miner’s Glory”, 1st degree, “Excellent Socialist Competition of Narkomtsetmet of the USSR”, “Honored Inventor of the USSR” (twice), “Udarnik of the 9th Five-Year Plan”, “Winner of socialist competition”, a gold medal and a first degree diploma from the USSR Exhibition of Economic Achievements for achievements in the national economy.

Baikonurov O.A. was awarded the honorary title "Honored Worker of Higher Education of the Kazakh SSR." In his memory his name was given to Zhezkazgan University (ZheZU), the Mining Institute of the Kazakh National Technical University named after K.I. Satpayev (KazNTU); streets in the cities of Almaty, Zhezkazgan and Satpayev; memorial plaques were installed on the buildings of the mine administration (Zhezkazgan mine), residential houses in Almaty, Zhezkazgan mine, at the Mining Department; there are study rooms named after academician Baikonurov O.A. in KazNTU and ZhezU, a monument in front of the Zhezkazgan University building; the book "Academician Baikonurov O.A.", the second anniversary edition of the widely demanded mining public monograph "Classification and selection of underground mining methods" were published.

Academician Baikonurov O.A. is the creator of the Kazakhstan scientific school for the development of new and improvement of existing underground and opencast mining of non-ferrous metals, chemical raw materials and non-metallic materials, which is known not only in Kazakhstan, but also abroad. Omirkhan Aimagambetovich always sought to share the vast life and professional experience, encyclopedic knowledge. He was the scientific adviser of more than 60 candidates and 10 doctors of technical sciences, published more than 300 scientific papers and 30 inventions. He is the author of numerous monographs.

### ***Family status***

Wife - Maria, a housewife. Daughter - Rosa, pediatrician, teacher of the highest category of the medical college. Son - Karim, mining engineer, Candidate of technical sciences. Daughter - Aliya, chemical engineer-technologist, Doctor of technical sciences, professor, head of the department of KazNTU named after K.I. Satpayev. Daughter - Alma, a music teacher. Grandchildren: Madina, cardiologist; Anel - automation engineer of metallurgical processes, Master of Business Administration; Bulat - metallurgical engineer of non-ferrous metallurgy; Talgat graduated from the Kazakh National Agrarian University, received a law degree; Alikhan - a marketer. Great-grandsons: Vadim and Tair (their parents are Anel and Sergey Udovenchuk, a businessman).

### ***Credo:***

From the diaries of Baikonurov: "The whole life leads to a simple thought: personal glory, personal success, personal achievements - this, of course, is important, but this is everything you should do. More and more often, you think about what kind of laboratory and department

you will leave behind, have you managed to pass the baton to the younger generation, have you been able to convince your students that serving science is, first of all, serving the people, serving the Motherland? ”

***The formula for success:***

From the diaries of Baikonurov: “In order to find, one must be able to search, one must foresee the invisible, feel the imminent, not lose heart in case of failure and difficulties, insist and work hard (D.I. Mendeleev)”.