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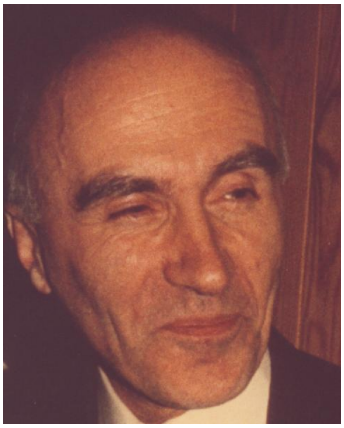
# WŁADYSŁAW FISZDON (1912–2004)

## Editor of the Archives of Mechanics (1970–1981)

OBITUARY



On October 25$^{th}$, 2004, Professor Władysław Fiszdon, an outstanding scientist, expert on aerodynamics, aviator and mathematician died in Warsaw. Science has thus suffered a painful loss and all who knew Him have lost a man of extraordinary mind and character. Everything that He has done for the Science, especially for development of the Fluid Mechanics, will remain forever in our memory and in the memory of future generations.

Władysław Fiszdon was born on 12$^{th}$ June 1912 in Kozin in the Wołyń region. He attended a secondary school in Dubno, where he passed his baccalaureate in 1930. In the school he already distinguished himself by his fondness and talent for the exact sciences. Therefore Stanisław Kobierski, a priest working in that school, helped him to receive a scholarship and to start mathematical studies in the Science Faculty at the Sorbonne University in Paris.

After having graduated with a bachelor's degree from the Sorbonne in 1933, Władysław Fiszdon was transferred to the Ecole Nationale Superieure de l'Aerodynamique, where he obtained a diploma of Engineer of Aeronautics. Then he decided to return to Poland to begin the scientific research in the Institute of Aviation in Warsaw and in 1936 he moved to Lublin, where he found a job in the construction bureau of the Lublin Aircraft Plant.

The Second World War broke out on the first of Septemeber 1939. The decision to evacuate and move near the Roumanian border was finally undertaken by Władysław Fiszdon, and when the Soviet troops transgressed the Polish borders he, along with other factory employees, found his way to Roumania, and from there through Belgrade and Athens he travelled to Marseille in October 1939.

In December 1939 Władysław Fiszdon has been employed in a construction bureau in an aircraft factory, Devoitine in Toulouse. However, he worked there only until May 1940. When the German army invaded France, he managed to escape to Great Britain, where he was employed in the Royal Aircraft Establishment in Farnborough. There, as a Senior Scientific Officer, he turned his attention to the problems of flatter vibrations and dynamic loading in order to modernize and improve the British fighter planes Hawker, Tempest and Typhoon. The Authorities of Great Britain promoted him to the Squadron Leader military degree. Despite having the perspectives to advance professionally in Great Britain, Władysław Fiszdon declined this opportunity and returned to his homeland on March 21, 1946, where he was awaited by his wife Kamila and son Jerzy.

On May 1$^{st}$ 1946 he started to work as the Deputy Director for Scientific Research in the Aviation Institute in Warsaw, where he stayed until 1957. In the Institute Władysław Fiszdon directed the construction of the experimental research base, the aerodynamic subsonic and supersonic tunnels, engine examining stations and other devices to examine the aircraft. He was also one of the persons preparing production of the MiG 15 and MiG 17 fighters in Poland.

In February 1947 he was asked to deliver lectures on flight mechanics and aircraft aerodynamics at the Warsaw University of Technology. Władysław Fiszdon embarked on a prolific academic career while continuing his work at the Aviation Institute.

In 1951 he defended his Doctoral Dissertation in Aerodynamics at the Warsaw University of Technology; five years later he became Professor Extraordinarius and in 1962 he received the position of Full Professor. In 1960 he was elected a Corresponding Member and in 1969 a Full Member of the Polish Academy of Sciences. Between 1981 and 1983 he was a member of the Presidium of the Polish Academy of Sciences.

At the Warsaw University of Technology, where he worked from 1947 until 1970, he organized and headed the Department of Flight Mechanics at the Aviation Faculty. He was also the Vice-Dean of the Aviation Faculty from 1960 until 1963 and became the organizer and the first Dean of the newly established Faculty of Mechanics, Energy and Aeronautics (MEiL).

From 1955 until 1982 he worked in, and from 1981 until 1983 – he headed the Department of Fluid Mechanics at the Institute of Fundamental Technological Research (IPPT). He was the Chairman of the Scientific Council at this Institute from 1981 until 1983. In the years 1970-1981 he was the Editor of Archives of Mechanics.

In the years from 1970 to 1982 he was a professor of the Warsaw University at the Faculty of Mathematics and Mechanics, where he acted as the Director of the Institute of Mechanics from 1977 until 1981. Moreover, he was the Vice-Rector of Warsaw University. In 1982 he retired, yet he remained very active in scientific work.

Professor Fiszdon's great contribution of international importance was the organization of international symposia entitled Biennial Symposia on Advanced Problems and Methods in Fluid Mechanics. These meetings were organized in Poland and attracted the scientific elite from the USA, the USSR and other Western and Eastern countries during the period when the possibility of cooperation between scientists from the Western and Eastern Block countries was limited. The participation of these scientists in Prof. Fiszdon's symposia was marked by their enormous gratefulness. Meeting their Western friends allowed the people from the East to feel a part of world scientific community. Words of gratitude are still being expressed in the correspondence arriving after Professor Fiszdon's decease.

Professor Fiszdon was a member of numerous international scientific societies. In 1959 he was elected to the Royal Aeronautical Society in London and to the American Institute of Aeronautics and Astronautics (AIAA), and in 1960 – to the International Academy of Astronautics, which was then established in Stockholm. In 1980 he participated in the General Assembly of the International Union of Theoretical and Applied Mechanics (IUTAM), and in 1986 he became a member of the American Physical Society (New York).

In 1957 Professor Fiszdon went to the USA, where he worked as a Visiting Professor at the Massachusetts Institute of Technology. There he focused his research on the interaction between the oscillatory shock wave and the boundary layer and he ascertained that investigating this problem within the continuous medium approach is not appropriate in certain areas. This work marked the beginning of his interest in Statistical Physics. Thus he moved away from examining fluid mechanics of continuous media and he concentrated his attention on the problems of flows in rarefied gases. This field remained the object of his activity for many years and it gave rise to a great number of important publications. Apart from Professor Fiszdon's unquestionable knowledge, his devotion and enthusiasm for teaching and for the subject itself was valued by many. He used to visit the MIT, as well as other scientific centers in the USA such as the California Institute of Technology, the University of California, Cornell University, University of Notre Dame (Indiana). He was also a frequent guest of Université de Paris, Cambridge University (UK) and the Max-Planck Institute für Strömungsforschung in Göttingen (Germany) where he spent a lot of time.

In 1982 Professor Fiszdon retired. This was the time of martial law in Poland with all its painful consequences. Professor Fiszdon was frequently interrogated by the security services which deprived him of normal conditions for scientific work.

His attention on that time veered toward a new interest – the mechanics of superfluid helium, along with a special fascination for the problems of quantum fluids. Professor Fiszdon's significant achievement was the theoretical representation of results of experimental research on influence of quantum turbulence upon the evolution of moderate second-sound heat pulses in superfluid helium.

He cooperated closely with scientists performing experiments by participating in research planning. The results of his fascination with the mechanics of liquid helium are his formidable publications on this matter. Considering the fact that Professor Fiszdon has written more than one hundred scientific papers in his life, the number of articles published in the last decade of his scientific career constitutes one third of his scientific production.

Unfortunately, this intense activity was interrupted due to His health problems in May 1994 and then has been followed by ten years of a determined fight with the sickness. However, His spirit, passion for work, and unsatisfied thirst for knowledge has made a permanent impact on His colleagues and disciples and, along with His scientific contributions, will continue to shape the future generations.

*the Editorial Board*

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