

## **JACK (JOHN DOUGLAS ASHTON) MOLLARD (1924–2017)**

By Lynden Penner (with footnote by John Gartner)



Dr. J.D. (Jack) Mollard, OC, SOM, Ph.D., LL.D., FCAE, FEIC, FCRGS, P.Eng., P.Geo., died peacefully in his home surrounded by family on September 13, 2017. Jack was well known to the local, national and international engineering and geoscience communities, and his achievements and contributions in the fields of engineering, geoscience, teaching, writing and consulting are truly remarkable.

A Saskatchewan native, Jack grew up on a farm near Xena, a short distance west of Watrous. Jack completed high school in Watrous before moving to Saskatoon where he obtained a Bachelor of Civil Engineering from the University of Saskatchewan in 1945. After a brief time with the Saskatchewan Highways Department in 1946, Jack moved on to obtain a Master's of Science in Civil Engineering from Purdue University in 1947 and then a Doctor of Philosophy from Cornell University in 1952. While at Perdue and Cornell, Jack studied under Dr. Donald Belcher, a pioneer in terrain interpretation using stereoscopic aerial photographs (airphotos).

Following completion of his doctorate degree, Jack joined the Prairie Farm Rehabilitation Administration (PFRA) in Regina. As PFRA's chief air surveys engineer, Jack conducted airphoto and site investigations for the many dams and water resource development projects constructed by PFRA in western Canada at that time. Among other projects, he made a significant contribution to geological and engineering studies to locate the Gardiner Dam, completed in 1966. From 1953 to 1956, Jack served as an advisor to the Shaw Royal Commission on Newfoundland agriculture and as a technical advisor on aerial resource mapping to the governments of Ceylon (now Sri Lanka) and Pakistan.

Jack started his consulting firm, J.D. Mollard and Associates Limited, in 1956. Located in Regina throughout its history, the firm undertook more than 5,000 consulting assignments in applied airphoto and satellite image remote sensing under Jack's leadership. Those projects covered a wide range of applications -- exploring for aggregates, hydrocarbons and minerals, conducting geoenvironmental studies, mapping natural hazards, selecting route and site locations, and conducting groundwater studies -- in a wide range of terrain. Jack completed studies on all continents and even Mars!

Jack generously shared his knowledge and experience in over 100 short courses and workshops across Canada and in the USA, and published over 125 technical and scientific

papers. Early in his career he was invited by Dr. Karl Terzaghi to lecture at Harvard. He holds the record for longevity at the University of Alberta extension department, having lectured there for over 40 years. Jack also recognized the important role that universities play in preparing future engineers and geoscientists and gave generously to the universities of Saskatchewan and Regina. This vision was exemplified when, at 89 years of age, he joined a group of engineering students for the inaugural "Sensing the Earth" field tour which he helped found at the University of Saskatchewan.

Jack's work has been widely recognized over the years. In 2002 he was named an Officer of the Order of Canada and he received the Lieutenant-Governor of Saskatchewan's Meritorious Achievement Award. In 2010 he received the Saskatchewan Order of Merit. He has also received the Julian Smith Medal from the Engineering Institute of Canada (EIC) for achievements in the development of Canada, the Sir John Kennedy Medal, the highest honour of the EIC, the Allied Arts Medal from the Royal Architectural Institute of Canada, the Massey Medal from the Royal Canadian Geographical Society, an honorary Doctor of Laws from the University of Regina plus many other major awards.

These achievements notwithstanding, Jack was perhaps best known for his passionate interest in interpreting the Earth's physical geography, geoenvironment and natural resources from airphotos and satellite images, and for his warm personality and infectious enthusiasm. He will be dearly missed by family, friends and colleagues.

Footnote by John Gartner, a former student, colleague and friend:

Most consultants sold their knowledge. Jack shared his. During his career Jack gave almost 100 short courses to over 3000 participants and published more than 100 papers and articles. From the 1960's to 2017 he helped train map makers how to map Canada's landscape from airphotos. Jack insisted, "I always took away more from my courses than those taking them".

On a personal level, Jack Mollard inspired me to take up my career as an engineering geologist and continued to inspire me in my professional career. I have attended many of Jack's lectures over the years, and his enthusiasm for his craft energized the audience, whether it be made up of professionals or members of the Rotary.

Jack Mollard has enriched my life as a scientist and as a person.