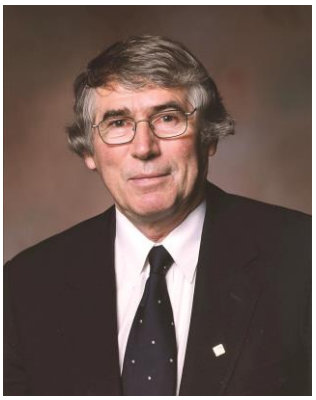
PETER MICHAEL BYRNE (1947 - 2017)

by Ernest Naesgaard



Peter passed away peacefully on August 17th surrounded by his family. He leaves behind his loving wife Jane, sons Sean (Elen) and Craig (Alessandra), granddaughters Rebecca and Greta, brother Donald (Shirley), sister Dr. Marie Arnall, special niece Miriam (Wayne) and numerous nephews and nieces in Canada, England and Ireland. Peter was highly regarded as a professor, researcher, consultant and athlete.

Peter Byrne was born in Dun Laoghaire, County Dublin, Ireland and gained his first engineering degree from University College, Dublin. He completed post-graduate studies at the University of British Columbia and was a Professor of Civil Engineering there from 1967 until his retirement in 2001. He continued his association with the University as Professor Emeritus.

As a teacher / mentor, Peter was always enthusiastic and approachable, freely shared his ideas and time, and held his students' interests paramount. Throughout his tenure, he supervised 34 graduate students, many of whom are now leaders in the engineering community.

Peter was an internationally renowned researcher. He co-authored over 160 papers, made numerous invited presentations, served on international code committees, chaired task forces and held a NSERC Strategic Grant examining "Earthquake induced damage mitigation from soil liquefaction". His research was primarily in numerical analysis but also in the fields of liquefaction, interpretation of laboratory and centrifuge testing, and soil-structure interaction. Peter made many significant contributions to engineering practice including programs for lateral pile analyses and constitutive models. Arguably, his most important contribution is the development of the effective stress constitutive model UBCSAND, which has been used extensively in practice around the world. Peter's incorporation of this model in the commercially available software FLAC, and his willingness to share his development openly and freely, was instrumental to the widespread adoption of advanced effective stress analyses in North American practice.

As a consultant, Peter was in great demand by local consulting engineers, and as a specialist consultant / reviewer on major international projects. These included dams for

BC Hydro, Hydro Quebec, US Corps of Engineers; seismic upgrades for major bridges, cover for oil-sands tailings, numerical modeling for seismic upgrade of the Bart Tunnel in San Francisco, and numerous tailings dam facilities around the world.

Peter's work has been acknowledged through his many awards and honours. He is a Fellow of the Engineering Institute of Canada (EIC), received the Vancouver Geotechnical Society Award, the Geoffrey Meyerhof Award, the Gzowski Medal for best paper (CSCE), the Julian C. Smith award (EIC) "for achievement in the development of Canada", gave the R.M. Hardy Keynote Address, and in 2014, received the prestigious R.F. Legget Medal, which is the Canadian Geotechnical Society's highest honour presented to an individual for 'outstanding life-long contributions to geotechnique'.

To the Vancouver sailing fraternity, Peter was well known as a competitive sailor. His passion for sailing led to his winning a Bronze Medal for Canada in the Flying Dutchman Class at the 1967 Pan American Games and being selected as a member of Canada's Olympic sailing team at the 1972 Munich Olympic Games. In 1973, with his wife Jane as crew, he won the Enterprise Class World Championship held that year in Vancouver. Peter was a popular and respected member of the Royal Vancouver Yacht Club for over fifty years. His many friends and family members will forever cherish the memories of summer sailings with Peter along the coast of British Columbia.

Peter will be missed by many and his legacy will continue for many years.