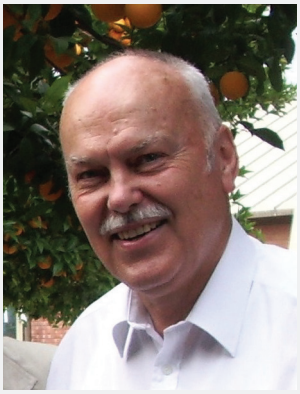

Leif Bjørnø, a Fellow of the Acoustical Society of America and a Life Fellow of the Institute of Electrical and Electronics Engineers, was born on March 30, 1937, in Svendborg, Denmark, and passed away on October 24, 2015, following a distinguished career that combined academic research and industry. He was a Professor of Industrial Acoustics in the Department of Industrial Acoustics at the Technical University of Denmark for 22 years and chairman of boards of directors for several companies, including Reson Aktieselskab.

In a career of over fifty years, Leif contributed over 400 publications, covering many aspects of acoustics, invariably with practical applications. For example, his work on ultrasonics included industrial cleaning, suspended sediment transport, non-destructive evaluation of surface coating adhesion, and high intensity-focused fields. Some of his research had medical applications, notably the effect of acoustically induced shear stresses on gaseous microbubbles in biological tissue.

Some of Leif's research encompassed naturally overlapping topics, notably wave propagation and scattering, and underwater acoustic modeling. The theoretical and modeling approach was supported by experiments and, in some cases, system design and sea trials. On the propagation and scattering theme, examples of his work include studies of the acoustic non-linearity of inhomogeneous media, scattering by water-loaded spherical metal shells (both filled and empty), and scattering by air bubbles near the sea surface. A loosely related theme was the generation of underwater noise due to rainfall.

On the modeling theme, Leif worked on the simulated performance of an acoustic modem operating with phase-modulated signals propagating in a time-varying, shallow-water channel and on pressure fields created by the dynamic scattering of high-frequency signals from a moving sea surface. Further modeling studies were on the nature of water-saturated marine sediments, ray tracing in shallow-water channels, and the design of broadband tonpilz underwater acoustic transducers based on multi-mode optimization.

The main connecting thread of Leif's contributions across these topics was seabed sediment characterization. His work in later years, following the non-linear acoustics theme, focused on the design and trials of a parametric sonar for characterizing subsea layers, with applications such as surveying for pipelines, searching for lost cargo, and detecting buried mines. This was carried out in collaboration with multi-national partners in European Commission "framework" projects.

For Leif's full CV, see https://goo.gl/kGO6Qz. In many publications he took his mother's maiden name, calling himself Leif Bjørnø Jensen. He published many papers with his wife, Irina Bjørnø, to whom we offer our sincere condolences.

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Written by:
Bryan Woodward, *Email:* bryanwoodward1@gmail.com
Emeritus Professor of Underwater Acoustics
Loughborough University, Leicestershire, LE11 3TU UK