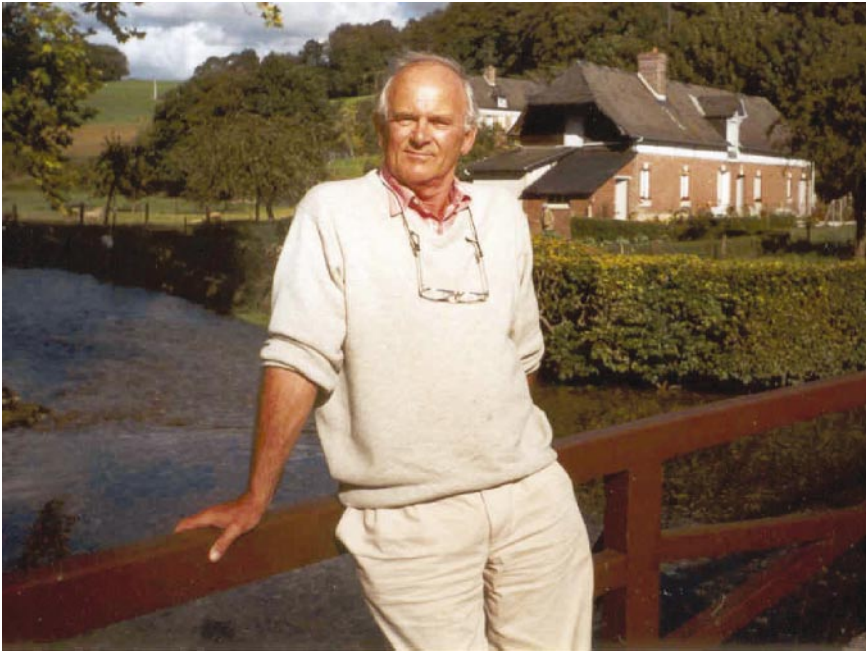




SPECIAL ISSUE

in memory of Dr David Maull

FOREWORD



David Maull, 13 September 1997, Normandy

THIS SPECIAL ISSUE of the *Journal of Fluids and Structures* is dedicated to the memory of Dr David Maull who was an Associate Editor of the Journal from its inception through to his death in January 1999.

David was born on 6 March 1933 in Guildford, Surrey, U.K. He began his university studies at Imperial College, London in 1954, in Aeronautical Engineering. After graduating in 1957 he stayed on in the Department of Aeronautics to study for his Ph.D. in hypersonic flow under the supervision of Professor John Stollery. Part of the work, which he carried out with great success, involved the design and commissioning of the first of the gun tunnels built in the Department.

Many academics follow a narrow path through their research careers. In contrast, David Maull contributed very significantly to a wide range of areas from hypersonic aerodynamics to wave loading on offshore structures throughout his 40 years of research.

He was appointed to the post of Assistant Director of Research in the Engineering Department of Cambridge University in 1959 and was later promoted to Lecturer and then Reader. On arrival at Cambridge, he started to develop his work on separated flows, which grew to be his dominant research interest and for which he was best known. Following his early work on cavity flows he went on to study aerofoils with blunt trailing edges and conducted innovative research on the influence of shear in the approaching flow on bluff-body aerodynamics. The series of studies of bluff-body flows which followed from this led to his pioneering work with Dick Clements on the application of the Discrete Vortex Method to flow about two-dimensional bluff bodies. The resulting research paper (Clements, R.R. & Maull, D.J. 1975 *Progress in the Aeronautical Sciences* **16**, 129–146) stimulated an entire branch of numerical fluid dynamics for low-speed separated flows which continues to this day. In this work, they showed how the earlier ideas of Gerard and others could be used to set up a model of two-dimensional vortex shedding from a bluff-body. They demonstrated how vortex sheets and rolled-up vortices could be well represented by clouds of potential vortices released sequentially from the shedding points and convected with the local flow.

Much of David's research was stimulated by practical problems and the desire to obtain a greater physical understanding of the underlying phenomena, so that improvements in prediction or design could be made. An outstanding example of this is his work related to wave loading and response of offshore structures and the understanding he provided of how vortices influence the forces on cylinders in waves.

A further recognition of his significant influence on research into the interaction between fluids and bluff structures is that three of the present Associate Editors of JFS (PWB, JMRG and CHKW) were all introduced to the field by David. He was always ready and willing to discuss the basic concepts underlying fluid dynamics, and his insight helped to provide inspiration to a large number of researchers. The papers contributed to this issue of the journal are drawn from areas of research in which David was active.

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