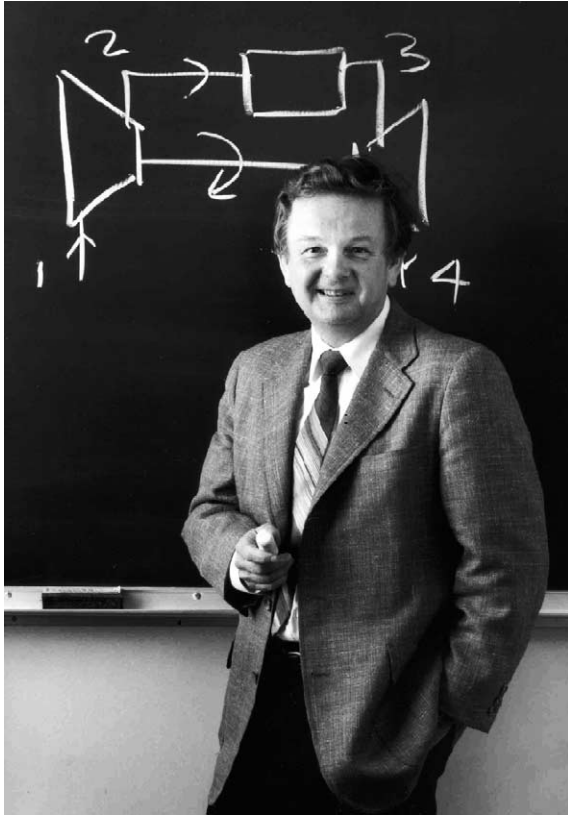


In Memoriam – William C. Reynolds (1933–2004)

Between the TSFP-3 conference in Sendai and the appearance of this volume of edited highlights Professor Bill Reynolds succumbed to a malignant brain tumour. The field of turbulence research and, indeed, the world of Fluid Mechanics thus lost, at a stroke, one of its strongest and most inventive and charismatic leaders.



Most researchers in turbulence focus principally on experimental or computational approaches to the subject. For Reynolds it was *always* a matter of both. His discoveries in one domain repeatedly stimulated new ideas or approaches in the other. Equally, most researchers in their seventh decade begin to turn to retrospection as they prepare to bring their lifetime contributions to completion. For Reynolds, that approach was anathema: as he aged his ambitions grew and grew. But this was not ambition for himself; rather, a restless driving to unlock hidden truths to allow new strategies and techniques to supplant the old; to enable the community to benefit from his vision and invention.

Born in Berkeley in 1933, he went to Stanford for his undergraduate training and never left. But it was a close call. While his professors recognized his extraordinary potential his modest GPA threatened his progress to graduate school, a consequence of his leading and writing many of the arrangements for his campus dance band. However, given a target of straight A's in his final

semester, Reynolds breezed through, spent the summer at NACA (as it then was) and enrolled in graduate school in the fall, bringing with him a research contract from his summer employer!

His early contributions were in convective heat transfer working with Professor W.M. Kays but his interests progressively shifted towards the dynamics of turbulent flow itself. While still in his thirties he was appointed Head of Mechanical Engineering, a role he filled with distinction for a decade. He could undoubtedly have progressed further in very senior administrative roles but that would have meant giving up research and teaching, each of which gave him immense satisfaction. Freed of institutional administration for a while, he played a major role in organizing the 5th Turbulent Shear Flow Symposium (the predecessor of the TSFP series) at Cornell while in 1989 he masterminded in fine-scale detail the 7th Symposium at Stanford itself.

A 1984 sabbatical at Caltech led to his discovery of “blooming jets” which in turn switched him on to the great potential of turbulence control strategies, an area that he and his colleagues have pursued with great distinction both experimentally and through direct- and large-eddy simulation. Then, following a second spell as Department Head from 1989–1992, he helped found and manage The Center for Turbulence Research, a joint consortium between Stanford and NASA Ames, and the DoE's Center for Integrated Turbulence Simulations.



His countless contributions have been marked by his election to the National Academy of Engineering and the American Academy of Arts & Sciences. Those in the Turbulent Shear Flows community especially remember him as an extraordinary innovator and a human being whose warmth and loyalty enriched the lives of all he touched. This Special TSFP-3 Issue of the *International Journal of Heat & Fluid Flow* is thus affectionately dedicated to his memory.

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