



Philip Humphrey Thomas born 16 June 1926, died 14 January 2014

It is with the great sadness that we have learnt of the sudden death on 14th January 2014 of the eminent fire scientist, Dr Philip Humphrey Thomas, aged 87.

Philip was the towering figure in the world of fire safety science and engineering. He was not only the most gifted of research scientists but also, by his leadership of key international bodies, an agent for change in the delivery of practical fire safety based on scientific understanding rather than the experience-based approaches of the past.

Philip graduated with First Class Honours in Mechanical Engineering from Cambridge University in 1945 obtaining his PhD in 1950 in the Physical Chemistry Department. He joined the Fire Research Station (FRS) in Borehamwood in 1951.

Throughout his career at the Fire Research Station from 1951 to 1986 he published much of the key seminal research that has provided us with our current scientific understanding of fire. He has over 100 papers to his name and is dominant in author citation indexes in the field.

His interests encompassed an extraordinarily wide range of topics, ranging from self-heating and thermal explosion theory to the behaviour of forest and bush fires. However, his most significant contributions relate to the behaviour of fire in buildings. For example, he developed analytical models of the buoyant diffusion flame and the “fire plume” that became

the basis for an engineering method for designing roof venting systems for removing smoke and hot gases from single storey buildings. This was a major advance towards the safe design of large buildings, such as shopping centres and airport terminals, and may be said to have laid the foundation of Performance-based Fire Safety Engineering Design.

His work was always deeply theoretical but firmly grounded in the practical realities of such a complex problem as fire. His publications would often baffle those who had little mathematical appreciation but their content almost always yielded a profound “quantum leap” in scientific understanding of this most intractable of topics.

In 1966 he spent a one year sabbatical at the Building Research Institute of Japan developing very close links with that country and in particular a close enduring friendship with Professor Kunio Kawagoe who became its Director General in 1969. He continued to travel widely throughout his career and his council was sought from across the world. He enjoyed Visiting Professor status at the University of California, Berkeley in 1980, the Science University of Tokyo, 1982 and after his formal retirement from the Scientific Civil Service, at the Technical University of Denmark in 1987 and from 1984 to 1990 at the University of Lund, Sweden.

In addition to his research, Philip was Co-ordinator of the Fire Commission of the Conseil International du Batiment (CIB W14) from 1974-1994 and Chairman of the International Organisation for Standardisation Fire Safety Committee ISO TC92 from 1976 to 1995.

In these capacities he was able put the burgeoning new engineering discipline of Fire Safety Engineering on the map. The Board of ISO recognised the importance of the new possibilities of performance-based fire safety regulation and the need for Standards in support of them and in consequence handed ISO TC92 the responsibility for developing them.

Philip was also the founding father of the International Association for Fire Safety Science. It was he, along with like-minded researchers from across the world, who made the first moves in 1983 to establish a new international association for fire researchers. They had recognised that, whilst there were several organisations then in existence that embraced some special aspects of fire there was no single institution that covered the full diversity of topics that constituted fire safety science.

Philip drove the initiative forward, establishing it at the very successful First International Symposium on Fire Safety Science hosted in the US in 1985 by NIST (then the National Bureau of Standards). At that Symposium he was elected the Association's first Chairman and served in that capacity from 1985 to 1991.

At that time the world was far more fragmented than it is now but Philip's rigorous commitment to internationalism ensured the enduring success of the Association. During his time as Springer Professor at Berkeley in 1980 a Symposium was held in his honour “to show appreciation the world community of Fire Scientists have for his fundamental contributions to the field”.

He received many awards and prizes including the Heinrich Henne Medal of the German Fire Protection Association in 1982 and the Arthur B Guise Medal of the US Society for Fire Protection Engineering in 1991.

He and his wife, Sybil, travelled widely and established many enduring friendships with colleagues and their families from across the globe. Back at home they regularly entertained researchers attending the many international gathering at FRS and elsewhere where wide-ranging discussions would often go on into the small hours. Discussion was an

indispensible element of Phil's approach to life and it was very sensible to listen to what he had to say on any topic.

He was particularly animated about the need for high standards in fire research and it is particularly fitting that the IAFSS now names its award for best paper at its Symposia as the Philip Thomas award.

Philip will be sadly missed by many friends and colleagues from across the world not only for his unique contribution to our field but for his warmth, wisdom and his analytical insight.

He was a passionately proud Welshman, a lover of Fred Astaire, malt whisky and his signature bow ties. He is survived by his second wife, Joanna; daughter, Pippa; son, Roderick, grandchildren and great-grandchildren.

Geoff Cox

With Additions by
his daughter, Pippa Patrick
Prof Dougal Drysdale

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