

**Dr John Charles Lane AM**

MBBS(Hons), MPH(Harvard), FACOM, FRAeS

Aviation medicine and road safety pioneer

Born, Sydney, 9 January 1918

Died, Melbourne, 21 January 1999.



In 1962, as John Glenn orbited Australia in Friendship 7, Dr. John Lane monitored his heartbeat, blood pressure and other vital signs. He was one of the Australian aeromedical monitors for the United States' manned space flight program and performed this important task for John Glenn's first flight and the other astronauts in both the Mercury and Gemini space programs.

John Lane is recognised as the father of aviation medicine in Australia and as a pioneer in road safety. His work in both fields was highly respected and acclaimed internationally. It was he, with his eloquent turn of phrase, who formulated the term 'crashworthiness'. In the book "Unsafe at any speed" safety campaigner Ralph Nader described John Lane as "a pioneer in the field of crash protection".

John was born in Sydney in 1918 and was the only child of Charles and Eva Lane. He received his early education at Scots College in Sydney where he was Dux of the school. In 1935 he entered the faculty of Science, University of Sydney, later transferring to the Faculty of Medicine. He graduated with honours in medicine from University of Sydney in 1941. John spent 1941-42 as an RMO at Sydney Hospital prior to joining the RAAF in 1942. In the RAAF, he was posted as Medical Officer to No. 3 OUT and No 20 Squadron (Catalinas). At the latter posting, he carried out research into crew

fatigue in long range flying boat operations and the effects of low dose Benzedrine in combating this. He maintained some of these friendships throughout his life. This work led to a posting as the OIC High Altitude Training Units which was followed, in turn, by a period as Flying Personnel Medical Officer with Training Command.

Soon after the end of World War II, John was posted to the position of MA4 (Staff Officer, Aviation Medicine) at RAAF headquarters. In this posting, he was responsible for the post-war distribution of RAAF Aviation Medicine resources. In addition, he was a strong advocate for a continued RAAF involvement in Aviation Medicine research and teaching. In 1946, he wrote to the Director of Medical Services (Air) stressing the importance of the development of a RAAF School of Aviation Medicine, proposing the current location at Point Cook and outlining a scope of responsibility that is reflected in the unit's present activities.

After leaving the RAAF in 1947, John was involved in the RAAF Reserve for a number of years and attempted to develop an Australian Diploma of Aviation Medicine centered on the RAAF Institute of Aviation Medicine. Seven Australian Diplomas were awarded prior to the cessation of this diploma due to institutional problems.

Shortly after being discharged from the RAAF, John married Lucy Mackenzie who herself had a distinguished career in the RAAF Nursing Service. They had three sons and a daughter, who were inspired not only by his multifaceted career, but also by his endless fund of esoteric knowledge and keen interest in old movies. John was very devoted to his family.

In 1948, John was appointed the inaugural Director of Aviation Medicine in the Commonwealth Department of Civil Aviation. He continued to develop the scientific approach and expanding contribution to air safety of the Branch until his retirement in 1983. He represented Australia at various meetings of the International Civil Aviation Organisation over a period of 25 years. During the 1950s John was also involved in the development, at Aeronautical Research Laboratories, of the "T.VASIS" visual safe aircraft landing system which is still in use today.

In 1957, John was awarded a Harkness Commonwealth Fellowship, which enabled him to qualify for a Master of Public Health Degree at Harvard University in the U.S.A. This provided the foundation for much of the excellent epidemiological research which he was to undertake during the next 40 years. In 1960 he was trained as a space surgeon by the U.S. Air Force and the National Aeronautics and Space Administration which led to his appointment as Australian aeromedical monitor in the manned space flight program.

John introduced an aviation forensic pathology program in 1960, many years before most other countries. In addition to the role of alcohol, drugs and other pilot factors, the relationship between injuries sustained in an aircraft crash and the aircraft structure were recorded and analysed. An example of the outcome of such analyses was the installation of overturn trusses on Tiger Moth aircraft converted for crop dusting, which enabled many pilots to survive a crash. John was the motivating force in establishing an aircraft crash injury prevention research program at the Aeronautical Research Laboratories.

John was a founding member of the Aviation Medical Society of Australia and New Zealand, and of the Ergonomics Society of Australia, being its second President. He was very actively involved in both Societies' activities throughout his career and was still preparing papers for presentation at their meetings at the time of his death. He was a Fellow of many other learned societies, including the Royal Aeronautical Society, and the U.S. Aerospace Medical Association from whom he received the J.H. Tamisiea Award. In 1986 he received the Association for Advancement of Automotive

Medicine's Award of Merit. In 1999 he was appointed as one of the first three Honorary Life Members of the Australian Military Medicine Association.

In addition to his duties in the Department of Civil Aviation, John developed an interest in applying a scientific approach to road safety. In 1961, he became a foundation member of the Human Factors Committee of the Australian Road Research Board. During the 18 years of his membership, that committee sponsored much of Australia's early road safety research including the first in-depth study of road accidents in Adelaide and many of the techniques initially developed in aviation forensic pathology were adapted for this study. From 1961 to 1975 he was a member of the Traffic Injury Committee of the National Health and Medical Research Council. He was one of the pioneers who persuaded the Department of Shipping and Transport in 1966 to establish a committee to formulate new vehicle safety standards and made a valuable contribution to the work of that committee until 1982.

Many of Australia's leading road safety researchers and administrators began their careers through John Lane's encouragement. His own knowledge and the collection of publications obtained through frequent visits to the U.S.A., as part of the manned space flight program, were invaluable for road safety at a time when few Australians had access to the U.S.A.

After his retirement as Director of Aviation Medicine, John became a Principal Research Fellow at the Monash University Accident Research Centre, where he continued his research and acted as mentor to many younger researchers. He also developed a great interest in the Royal Flying Doctor Service and was a Councillor of its Victorian Section.

In 1985 John became a Member, Order of Australia "for services to aviation medicine and road safety standards".

John had a brilliant, incisive mind and was often able to find simple solutions to complex problems. He was an articulate contributor to committees, a good listener and had a fountain of knowledge. His extraordinary ability to assemble the relevant facts and present them with compelling logic made him a powerful advocate. Yet John was a self effacing man and did not seek public recognition for his many achievements.

John was an avid reader and took great pleasure in sending his colleagues copies of any text which may be relevant to their interests. He was a very considerate person with a gentle nature and a great sense of humour. He always found time in his busy schedule to help his many friends.

His work in aviation pathology resulted in life saving developments in aerial agriculture and, as an offshoot achieving wide recognition, much of Australia's world leading road vehicle seat belt legislation. He was appointed a Life Member of the Aviation Medical Society of Australia & New Zealand and remained an avid supporter of it until his death, contributing greatly as a long standing executive member of the Society. The Australasian Society of Aerospace Medicine could not have chosen anyone more deserving after whom to name its Trust and its keynote address, the John Lane Oration.