

CURRICULUM VITAE**DAVID PACKHAM**

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NAME

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QUALIFICATIONS

Diploma of Applied Chemistry (Royal Melbourne Institute of Technology, 1964.) Master of Applied Science (Victorian Institute of Colleges, 1973).
Foundation course in Human Resource Management (Institute of Personnel Management Australia, 1991).

AWARDS

Order of Australia Medal, 1991, For service to the development of aerial ignition techniques for bush fire management.

Fire Protection Association Australia, 2002, The A.V. Viscogliosi Award for Excellent for Outstanding Service to Fire Protection.

MAJOR ACHIEVEMENTS

Co-developer of aerial prescribed burning that has been adopted as a major fire control technique throughout Australia and North America

Co-inventor of the VESDA high sensitivity building smoke detection system that is the most advanced building fire detection system and applied throughout the world.

Initiator of a 30 person year study of smoke from biomass burning that has been used as input data to greenhouse climate models.

Public advocate for the non-evacuation as a strategy to decrease life and property loss during disastrous bushfires.

Consultant to Australian International Development Assistance Bureau as technical leader of the Joint ASEAN / Australia pre-feasibility study on Transboundary Pollution of Haze in ASEAN countries, September 1992.

EMPLOYMENT ACTIVITIES

Senior Research Fellow School of Geography and Environmental Science , Monash University. Supervisor of three post graduate students. 2004 - 2008

Retired from the Australian Public Service however I maintain an active constancy program and other work associated with rural fires.

Consulted to WorkCover Victoria, the Victoria Police and the Victorian Coroner on the Linton fire incident.

Have completed the first stage on a joint technical assistance study in Indonesia with Fortech, Jaakko Poyry, the Asia Development bank and national Development Planning Agency of Indonesia (BAPPENAS) to develop an investment strategy to mitigate drought, fire and haze in Indonesia.

Provide advice on burning strategy and tactics for prescribed burning on the Mornington Peninsula with Dr Ron Gross.

Supervised two Honors students and one Masters student in rural fire studies.

Briefly a Research fellow in the Monash Department of Mathematics working with Dr Terry Clark from the National Center for Atmospheric Research, Boulder Colorado on a coupled fire /atmosphere meso-model for fire spread.

Recently a Senior Professional Officer in the Australian Bureau of Meteorology as the Supervisor Rural Fire Weather Warning Services. The position involved policy development and research. I had the national responsibility for all the Bureau's fire weather warning services.

Recent major research project is the development of an objective method of forecasting fire danger. This project was conducted by a Ph.D. student in the Department of Geography and Environmental sciences, Monash University. Other current research is investigating the link between global cooling and biomass burning and coupled fire and meso-meteorological models.

PREVIOUS POSITIONS

Previous position was as Deputy Director of the Australian Counter Disaster College (Department of Defence). I was responsible for the professional aspects of the College's activities, which included courses, workshops and seminars on disaster management for about 1200 participants each year. The college had a small research programme and a total staff of 49. That appointment lasted from 1985 to 1987.

For five years from 1980 to 1985 I was a part time lecturer in inorganic chemistry and Director of the National Centre for Rural Fire Research at the Chisholm Institute of Technology (now Monash University).

Between 1962 and 1980 I worked in bushfire research in CSIRO in the Division of Physical Chemistry which has had many name changes including Division of Applied Chemistry and the Division of Chemical Technology. I started in 1962 as a Technical Assistant and was a Principal Research Scientist when I resigned in 1981. My research at CSIRO was centered on heat and mass transfer in bushfires, aerial prescribed burning, smoke chemistry and dispersion, nephelometry, air pollution, fire detection in buildings and remote sensing of bushfires. I maintained an instrument rating for multi-engined aircraft and specialized in the use of aircraft for atmospheric measurement.

OTHER INTERESTS

Environmental conservation, keelboat sailing, bicycle riding, motor sport, flying, landscape photography, wine making and life.

RECENT ACTIVITIES

Called in as consultant to the Country Fire Authority for a review of the January 21 fires in the Dandenongs and Mornington Peninsula.

Consultant to Forestmount for the burning of 80 hectares of windrows contiguous to housing estates in Mt Martha.

Facilitator to the Country Fire Authority, CSIRO and the Bureau of Meteorology in developing a national strategy for satellite measurement of grassland curing as a measure of fire risk.

Guest presenter at a Bureau of Meteorology one week workshop in Hobart on fire behaviour models for fire weather forecasters.

Presented the opening address to the Annual Meeting of the Victorian Rural Fire Brigades Association.

PUBLICATIONS

King A.R. & Packham D.R., (1964) *Miscellaneous Experiments Relevant to Bulk Sugar Fires*. CSIRO Div. Phys. Chem.. Report No 10, 20pp.

Packham, D.R. (1965) *Heat Transfer in Bushfires*, Bushfire Bulletin, 13-15.

King A.R. & Packham D.R., (1965) *An Evaporation Retardant to Improve Water used in Rural Fire-fighting*. Aust. For. 29 (2), 80-88.

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Packham D.R., Eccleston A.J. & King N.K. (1974) *The scattering coefficient and mass concentration of smoke from some Australian forest fires*. *JAPCA* 24, 1047-50

Packham D.R., Gibson L & Linton M. (1974). *The detection of smoke in air-conditioned and ventilated buildings*. *Control (Aust.)* 1, 777-85, also *Telecom Journal of Aust.* 26, 261-67. and *Fire Int.* 48, 50-59.

Evans, L.F. King, N.K., MacArthur, D.A. Packham, D.R. and Stephens, E.T., *Further Studies of The Nature of Bushfire Smoke*. Division of Applied Organic Chemistry Technical Paper No.2, Commonwealth Scientific and Industrial Research Organization, Australia.

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BOOK REVIEW

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