

Fire Protection Association Australia  
and Australasian Fire Authorities Council present:

# Human Movement in Fire and Related Emergencies

A one day seminar exploring the emergency egress of occupants from buildings and enclosed spaces.

The seminar will address:

- fall prevention, stairwell usability and safety
- demographic effects on human egress capabilities.

Presented by a panel of highly respected Australian speakers and featuring international keynote speaker, Jake Pauls, who brings many years experience in Canada and the USA in the area of public health advocacy, with a focus on stairway safety and usability.



## 2008 National Seminar Series

**Melbourne** Monday 21 April 2008

**Sydney** Tuesday 22 April 2008

**Brisbane** Wednesday 23 April 2008



# The Seminar

Over the last twenty years, society has undergone significant demographic changes, including an increase in obesity and a growing recognition of those in our community with a disability. These changes are reflected in an ageing population, major increases in body mass and size and a decrease in average physical fitness.

Human movement in normal building operations, emergency evacuations and during rescue from buildings and public infrastructure, such as rail stations and airports, have all been affected by these changes.

These changes have implications for both people movement and the design of building and infrastructure.

This seminar will examine building egress design and the implications for stairwells, a challenging and dangerous component of emergency egress for individuals and crowds.

In particular the potential changes which may be required for future design and operation of buildings will be discussed, with a view to minimising accidents, maximising evacuation efficiency and facilitating those who manage rescue.

Jake Pauls, an internationally recognised expert in the field, is joined by Australian specialists in examining this topic.

The seminar will include panel style discussion sessions. These will provide attendees with the opportunity to work through local issues and concerns with industry colleagues and peers and address these major changes for the 21st century.

## Who Should Attend?

- Fire Safety Engineers
- OH&S Personnel & Risk Managers
- Building Surveyors, Certifiers & Services
- Architects and Planners
- Fire and Emergency Services
- Transport Planners
- Public Health Officials
- Government Infrastructure Managers
- Emergency Evacuation Procedure Planners and Coordinators

# Program

**8:30** Registration & Coffee

**9:00** Introduction

Seminar Outline and Purpose

Melbourne Ken Latta, CEO, MFESB

Sydney Commissioner Greg Mullins AFSM,  
NSW Fire Brigade

Brisbane Commissioner Lee Johnson AFSM, QFRS

**9:10** Building Egress:

**What's changed and why**

Jake Pauls - Jake Pauls Consulting Services

**10:30** Morning Tea

**10:50** Changes in Demographics,  
Obesity and Disability in Australia -  
Impacts on Human Movement

Prof Andrew Hills - Queensland University  
of Technology

**11:25** Emergency Services Perspective

Victoria Adam Dalrymple - Metropolitan  
Fire & Emergency Services Board (MFESB)

New South Wales Chris Jurgeit - NSW Fire Brigade  
Chris Lewis - NSW Fire Brigade

Queensland Graeme Thom - Queensland Fire  
& Rescue Service (QFRS)

**12:00** Panel Discussion

**12:30** Lunch

**13:30** Stairway Design, Regulation  
and Egress Performance

Jake Pauls - Jake Pauls Consulting Services

**15:00** Afternoon Tea

**15:20** The Way Forward:  
Putting research into practice

Victoria Craig Mills - Arup Fire  
New South Wales & Queensland  
David Graham - Arup Fire

**16:00** Panel Discussion

**16:45** Summary and Evaluation

**17:00** Close



# Speakers

**Jake Pauls - Jake Pauls  
Consulting Services**

International  
Key Note Speaker



Jake Pauls brings over 40 years experience in research, codes / standards development, public health advocacy and consulting to this seminar. Educated in physics, engineering, architecture and certified in ergonomics, Jake is renowned for bridging among ergonomics, public health and fire safety engineering. He has extensive experience of the development of codes and standards for building use and safety, and currently serves on a dozen national committees involved with standards and model codes for building design across Canada and the USA.

A focus for much of Jake's work is the safety and usability of stairways, particularly during major evacuations such as that of the World Trade Centre, for which he co-directed an international initiative on evacuation research. The behaviour of crowds in emergencies, including egress from assembly facilities of all sizes, has also been a long-term interest and focus of Jake's research, resulting in the development of standards and codes.

In addition to Jake's work regarding stairways of relatively large buildings, he is increasingly conducting research within the area of public health. This work focuses on falls suffered by individuals on all kinds of pedestrian facilities. With built environment issues in public health regaining importance, Jake is spearheading the organisation of a forum, within the American Public Health Association, on built environment standards and laws.

## **Prof Andrew Hills - Queensland University of Technology**

Andrew Hills is an exercise scientist in the School of Human Movement Studies and Institute of Health and Biomedical Innovation. Currently he is Co-Director of the ATN Centre for Metabolic Fitness, a national centre devoted to understanding the lifestyle implications of overweight and obesity.

Professor Hills has made a major contribution to both scholarly debate and advocacy in the obesity area including awareness-raising through contributions to peak government, professional and scientific agencies.

**Adam Dalrymple - Metropolitan Fire & Emergency Services Board (MFESB)** Adam is the manager of Building Codes and Audits of the Metropolitan Fire and Emergency Services Board (MFESB). He has over 20 years experience as a professional fire fighter with the MFESB and is currently a Senior Operational Officer (Commander). Adam is a member of the Institution of Fire Engineers, current Chair of the Fire Brigade Intervention Model Working Group and Secretary of the Fire Engineers Working Group for AFAC.

**Craig Mills - Arup Fire** Craig is a fire safety engineer, originally from New Zealand, and now working with Arup Fire in Australasia. He has a special interest in egress modelling, including the latest agent based software tools under development for the study of human behavior and people movement in buildings and transport infrastructure.

**Chris Jurgeit - NSW Fire Brigade** Superintendent Chris Jurgeit from NSW Fire Brigades has 28 years experience as a fire-fighter and has managed the Brigade's Structural Fire Safety Unit for eight years.

Chris was the Chief Fire Officer for the Solomon Islands (2003/4), implementing a blueprint he wrote for the rebuilding of the fire service.

Chris participates in working groups within the NSW Government on reforms to the alternative solutions regime, water pressure reduction management and recycled water for firefighting use.

**Chris Lewis - NSW Fire Brigade** Superintendent Chris Lewis has had 28 years experience with the NSW Fire Brigade and is currently the manager of the Fire Investigation and Research Unit (FIRU). Previous positions include Fire Researcher (FIRU) and Fire Safety Officer (Fire Safety Division). Chris is currently undertaking a Doctorate in Public Policy, and holds a MAppSc and an MBA.

**David Graham - Arup Fire** David is a fire safety specialist with Arup Fire, has a particular interest in egress modelling and is an expert in the use of the STEPS software for evacuation analysis. He has undertaken fire safety and egress design for a wide range of projects in Europe and Australasia.

## **Graeme Thom - Queensland Fire & Rescue Service (QFRS)**

Graeme Thom has been involved in fire protection for over 30 years and has been a Director on the Board of FPA Australia since 2003. Graeme is Queensland's most senior Fire Safety Officer, and is currently the Executive Manager of the State Community Safety Unit. He is a longstanding Director of Queensland's Fire Protection Industry Board, chairing the state's project to develop fire protection licensing. He has received Australia Day awards including the Australian Centenary medal.

# Human Movement in Fire and Related Emergencies

## When and Where?

**Melbourne** Monday 21 April 2008

Mercure Hotel

13 Spring Street

Melbourne VIC

T: 03 9205 9999

W: [www.mercure.com.au](http://www.mercure.com.au) - Code 2086

**Sydney** Tuesday 22 April 2008

Mercure Hotel

818-820 George Street

Sydney NSW

T: 02 9217 6666

W: [www.mercure.com.au](http://www.mercure.com.au) - Code 2073

**Brisbane** Wednesday 23 April 2008

Mercure Hotel

85-87 North Quay

Brisbane QLD

T: 07 3237 2300

W: [www.mercure.com.au](http://www.mercure.com.au) - Code 1750

# Registration/Tax Invoice

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## I/we will attend in:

**Melbourne** Monday 21 April 2008

**Sydney** Tuesday 22 April 2008

**Brisbane** Wednesday 23 April 2008

## Attendee Name(s):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Your Investment (prices inc. GST):

AFAC/FPA Australia Member Member ID: \_\_\_\_\_ \$350

Non-Member \$450

Distance\* \$250

Multiple Registration (3 or more)† \$300

Cost includes catering and CD of presentations

\* Delegate must live more than 200km from their nearest seminar venue

† Eligibility: must be a member, everyone to register on one form and be from the same organisation.

## Payment Method:

Cheque – payable to FPA Australia  Visa  Amex  Mastercard

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