
Paul Grimwood (FIFireE)

- 35 Years service as an operational fire officer in London and New York and as an international Compartment Fire Training Specialist.
- 1975 New York Association of Fire Chiefs Seminar Series
- 1976 Emergency Medical Technician (New York State)
- 1979 Qualified Fire Investigator (Chicago)
- 1984-1995 London Fire Brigade - Fire Investigator (Qualified)
- Legally qualified and experienced 'expert' witness in Fire Service Operations
- 1982-1995 UK Urban Search & Rescue (USAR) Training Instructor
- USAR Detachments 1991 (Iraq); 1993 (Bosnia)
- 1991-2008 International CFBT (Fire Behaviour) Training Instructor
- An advisor to several UK Government Task Groups including ODPM Compartment Fire Behaviour Training; BDAG High-rise Firefighting; CLG High-rise Firefighting
- An editorial reviewer for the Fire Safety Journal (the official journal of the International Association of Fire Safety Science)
- Awarded Fellowship of the Institute of Fire Engineers (FIFireE) 2008
- Over 200 Technical Papers published 1979-2008
- International Conference Speaker
- Three books on Fire Service Operations published (1992; 2005; 2008)
- Areas of specialist knowledge -
 1. Compartment Fire-fighting
 2. Fire Behaviour & Rapid Fire Phenomena
 3. High-rise Fire-fighting
 4. Tactical Deployments (Fire-ground Operations)
 5. Fire-ground Command & Control

He is the founder and principal of Firetactics.com, a website which has provided in excess of 14,000 pages of structural firefighting SOGs FREE to over 2.5 million visitors from more than 70 countries since July 1999 (source Webstat.com). Published in six languages, the website has also raised thousands of dollars for burns charities in UK, USA and Australia, whilst introducing the concepts of 3D Fire-fighting to firefighters globally across two decades.

He personally developed and introduced the concept of unified fire-ground strategies he termed 'Tactical Ventilation' and '3D Fire-fighting' in an effort to advance the safety of firefighters at fires. Many fire authorities around the world, including the UK, have since adopted these risk-based strategic models.

He has also contributed international research papers on high-rise firefighting tactics; fire-fighting flow-rates; Arson Task Forces; International Disaster Relief and Abnormal Rapid Fire Behaviour. These works have been referenced many times elsewhere and served to influence global response to fire & rescue strategy.

He has testified in court on several occasions in the UK as a fire investigator at several multiple life loss incidents. He has also served as an advisor as to fire-fighting operations through litigation in the CCAB high-rise fire in Chicago USA (October 2003) and the Sofa Superstore Fire in Charleston SC USA (June 2007).

'not averse to controversy, Paul Grimwood has over the last decade (1982-92) helped to pioneer a number of innovative fire-fighting techniques....'

FIRE PROTECTION ASSOCIATION 1992

Date	Journal	Contribution
Paul Grimwood – Publications from 1979 – 2007		
09/1979	Fire Engineers Journal	The Need for Residential Smoke Detectors
01/1980	Fire Journal	Britain is Facing Growing Arson Problem
06/1980	Fire Engineers Journal	A Guide through the Maze of Arson Laws
11/1980	Fire Journal	Controlling Arson - USA Experience
11/1981	Fire Journal	Urgent Treatment of Burns Victims
09/1984	Fire Journal	Tactical Ventilation of Roofs
10/1985	Fire Journal	Tactical Ventilation as a Strategy
05/1987	Fire Journal	Call for a Home Office Review of Ventilation
05/1988	Fire Journal	A Review of Arson Case Law in the UK
07/1988	Fire Journal	Legal Precedent set In Arson Case
09/1988	Fire Journal	Ways to Improve Water Supplies at Fires
12/1988	Fire Journal	Tactical and PPV Ventilation of Church Fires
02/1989	Fire Journal	A Need for Firefighter/Medical Technicians
05/1989	Fire Journal	Arsonists exploiting Loopholes in BS 476
11/1989	Fire Journal	Problems of Structural Void Fires
03/1990	London Firefighter	Project Fire – Firefighting in the USA
04/1990	London Firefighter	Project Fire – Firefighting in the USA (2)
09/1990	Fire Journal	Firefighting in High-rise Buildings
11/1990	Fire Journal	Incident Command in High-rise Fires
01/1991	Fire Journal	Pre-hospital Emergency Care
01/1990	Fire Journal	Transporting Water on the Fire-ground
04/1991	Fire Journal	Report on Meridian Plaza Fire USA
04/1991	Fire Journal	Tiered Response – Pre-hospital Care
03/1991	London Firefighter	UK Fire Service despatched into Iraq
09/1991	Fire Engineers Journal	Much to be Learned from US Fire Service
12/1991	Fire Journal	Flashover & Backdraft – Different Events
03/1992	Fire Journal	Flashover Training
03/1992	Fire Journal	Firefighting Strategy & Tactics
04/1992	Fire Journal	Tactical Ventilation & Rescue
05/1992	Fire Journal	Structural Collapse Hazards
06/1992	Fire Journal	The Hazards of Smoke
06/1992	Fire Journal	Tunnel of Fire – Flashover Training
07/1992	Fire Journal	High-pressure Water-fog Attack
08/1992	Fire Journal	High-rise Firefighting
09/1992	Fire Journal	Fog Attack – The Book
09/1992	Fire Journal	Firefighting Flow-rates
10/1992	Fire Journal	The Pro-active Firefighting Philosophy
11/1992	Fire Journal	The True effects of Nozzle Reaction
12/1992	Fire Journal	Open plan Offices – Firefighting Problems
01/1993	London Firefighter	Flashover Control – Water-fog Tactics
01/1993	Fire Journal	Automatic Nozzles – A Guide
02/1993	Fire Journal	Class 'A' Foam & CAFS
03/1993	Fire Journal	Tactical Ventilation
04/1993	Fire Journal	Tactical Ventilation & Anti-Ventilation
05/1993	Fire Journal	CPR of Fire Victims
06/1993	Fire Journal	SCBA Air Management
07/1993	Fire Journal	How to Handle One-room Fires
08/1993	Fire Journal	Flashover – What is it?
08/1993	Fire Chief (USA)	European Firefighting using Water-fog
09/1993	Fire Journal	Advanced Medical Training Needed
09/1993	Fire Journal	High-rise Firefighting
10/1993	Fire Journal	Fitness Requirements for Firefighters
11/1993	Fire Journal	Positive Pressure Ventilation
11/1993	Fire Journal	Practical Aspects of Firefighting Nozzles
12/1993	Fire Journal	Offensive Water-fog Attack
01/1994	Fire Journal	Offensive Water-fog Attack
02/1994	Fire Journal	How to get More Water from the Hydrant!

Date	Journal	Contribution
03/1994	Fire Journal	UK Firefighters Rescue Bosnia War Victims
03/1994	Fire Journal	Offensive Water-fog Attack – The Science
04/1994	Fire Journal	Firefighting Flow-rates
05/1994	Fire Journal	BA Entry Control for Fires Underground
05/1994	Fire Journal	Road Accidents involving Fuel Tankers
10/2000	Fire Engineering (USA)	3D Water-fog Tactics
2000-2004	A Large number of articles published of which I have no record!	
09/2000	Fire Journal	Firefighting Flow-rates
00/2002	CEMAC (Belgium)	Flashover & Nozzle Techniques *
04/2002	Fire Times	Firefighting Flow-rates
00/2003	CEMAC (Belgium)	Tactical Firefighting *
02/2003	Fire Times	Tactical Objectives of Limited Staffed Crews
02/2004	Fire Journal	The Iowa-Grimwood Flow-rate Formula
05/2004	Fire Engineers Journal	Firefighting Flow-rates
07/2005	Fire Engineers Journal	Firefighting Flow-rates – Primary Attack
10/2005	Fire Engineers Journal	Innovative New Water-mist System
12/2005	Crisis Response Journal	Tactical Ventilation Strategy
12/2005	Asia Pacific Fire Journal	Tactical Ventilation by Firefighters
00/2005	Fire (Australia) IFE	Flashover & Nozzle Techniques
<i>Series across seven editions of the IFE Journal Australia</i>		
01/2006	Fire Engineers Journal	Firefighting Flow-rates – High-rise Fires
03/2006	Asia Pacific Fire Journal	Compartment Fire Behaviour Training

2000-2007 Globally – Large number of articles from Firetactics.com translated with permission into at least seven languages and published in Firefighting Journals around the world.

- 'Flashover & Nozzle Techniques' and 'Tactical Firefighting' are **online books** by Paul Grimwood, published in five languages by CEMAC (Belgium) for free download by firefighters – Crisis & Emergency Management Centre at www.cemac.org
- Paul Grimwood's **websites** are Firetactics.com (1999); Fire-flows.com (2003); Fire2000.com (2005); CFBT-EU.com (2007); Euro-Firefighter.com (2007) and Tacticalventilation.com (2007); providing over 14,000 pages of free information for firefighters across the world, serving as an information portal for firefighters exchanging and sharing information on firefighting strategy & tactics in six languages amongst 2.5 million visitors from more than 70 countries since 1999 (Source Webstat.com)
- **Conferences** – Paul Grimwood has presented papers at international conferences in the UK (London and Oxfordshire IFE Branches 1993 & 2005); Eire (IFE) 1998; USA(Miami)1990; Canada (Halifax) 2006; Belgium 2004; Germany 2005 & 2006; France 2006; South Africa 2005; and Malaysia 2006 & 2007.
- **Books Published –**
- Fog Attack (FMJ/DMG Publications – 'Fire' Magazine) 1992
- 3D Firefighting (FPP/IFSTA State of Oklahoma University USA) 2005
- Euro Firefighter - **Publication - January 2008** (www.euro-firefighter.com)

INTERNATIONAL RESEARCH PROJECTS THAT HAVE REFERENCED THE WORK OF PAUL GRIMWOOD

UK HOME OFFICE (FRDG) - REPORT 5/94 - FLASHOVER & BACKDRAFT

UK HOME OFFICE (FRDG) - REPORT 6/94 - TACTICAL VENTILATION

US NAVY - NAVAL RESEARCH LABORATORY - 1994 OFFENSIVE FOG ATTACK TESTS & FIRE ATTACK STRATEGY ONBOARD NAVAL VESSELS

NATIONAL FIRE PROTECTION ASSOCIATION - NFPA HANDBOOK 19th EDITION - 3D (OFFENSIVE) WATER-FOG FIREFIGHTING TACTICS

UNIVERSITY OF CANTERBURY - NEW ZEALAND - RESEARCH REPORT 1998/2 (MICHAEL DUNN) - FULL-SCALE TESTING OF FIRE SUPPRESSION AGENTS (CAFS) ON UN-SHIELDED FIRES

UNIVERSITY OF CANTERBURY - NEW ZEALAND - RESEARCH REPORT 1998/3 (NEIL GRAVESTOCK) - FULL-SCALE TESTING OF FIRE SUPPRESSION AGENTS ON SHIELDED FIRES

FIRE PROTECTION ASSOCIATION (UK) 1992 - Paul Grimwood has over the last decade helped to pioneer a number of innovative firefighting techniques

QUEENSLAND FIRE & RESCUE AUTHORITY (AUSTRALIA) - OPERATIONAL NOTES FOR COMPARTMENT FIREFIGHTING

FINLAND VTT TECHNICAL RESEARCH CENTRE - REPORT 326 - TACTICAL & POSITIVE PRESSURE VENTILATION

Övertändning, Backdraft och Brandgasexplosion sett ur Räddningstjänstens Perspektiv - FLASHOVER, BACKDRAFT & FIRE GAS EXPLOSION - NATIONAL SWEDISH FIRE & RESCUE BOARD PERSPECTIVE - LUND 1019 - Bengtsson 1999

UNIVERSITY OF CANTERBURY - NEW ZEALAND - RESEARCH REPORT 2000/3 (SIMON DAVIS) - A REVIEW OF FIREFIGHTING WATER REQUIREMENTS.

NATIONAL RESEARCH COUNCIL (NRC) CANADA - REVIEW OF 3D WATER-FOG TECHNIQUES FOR FIREFIGHTING - RESEARCH REPORT RR124/2002

FIRE STREAMS - VENTILATION and FIREFIGHTER SAFETY - ONTARIO ASSOCIATION OF FIRE CHIEFS, CANADA - JULY 2003

PERFORMANCE OF FIXED BUILDING INSTALLATIONS, FIREFIGHTING EQUIPMENT AND TACTICAL APPROACHES IN TALL BUILDINGS - BDAG - ODPM UK 2003-4

SFPE(NZ) TECHNICAL PUBLICATION – TP 2004/1 – CALCULATION OF WATER FLOWS USED FOR FIREFIGHTING PURPOSES – CLIFF BARNET (MACBAR)

FIRE AUTHORITY OPERATIONAL TRAINING TEXTS IN UK; AUSTRALIA; FRANCE; GERMANY; HOLLAND; SPAIN; POLAND; ARGENTINA; CHILE;

FIREFIGHTING FLOW-RATES IN HIGH-RISE FIRES – FIRE ENGINEERS JOURNAL (UK) FEB/2004 P42-44 – ODPM HUNT & ROBERTS.

FIREFIGHTING IN UNDER-VENTILATED COMPARTMENTS - ODPM DECEMBER 2004 (HUME)

EFFECT OF REDUCED PRESSURES ON PERFORMANCE OF FIREFIGHTING BRANCHES IN TALL BUILDINGS - ASPECTS OF HIGH-RISE FIREFIGHTING - ODPM DECEMBER 2004 (HUNT & ROBERTS)