



**Paul Ayres**  
PhD, IAAI-CFI(V), CIPBI

**Forensic Scientist / Fire & Explosion Investigator**

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Paul Ayres earned his PhD in Forensic Science, with an emphasis in Fire and Explosion Investigations, from Oklahoma State University. In addition, he holds academic degrees in fire science, emergency management, homeland security, and public administration. He has been awarded professional credentials by the International Association of Arson Investigators (IAAI) as a Certified Fire Investigator with Vehicle Endorsement, and by the International Association of Bomb Technicians and Investigators (IABTI) as a Certified International Post-Blast Investigator.

Prior to joining Brookes Bell in 2025 as a Forensic Scientist/Fire & Explosion Investigator, Paul spent 15 years providing emergency services in Texas. He has investigated over 700 fire and explosion incidents and responded to numerous natural and man-made disasters. Some of his more complex investigations have involved felonious arson, homicide, mass fatality incidents, attacks on government facilities and critical infrastructure, and explosions involving fuel-gases and improvised explosive devices (IEDs). He has provided expert testimony in both state and federal courts, offering technical analysis in support of civil and criminal proceedings.

As collegiate faculty, Dr. Ayres has taught undergraduate and graduate courses in fire and emergency services since 2016. His extensive experience with fatal incidents led to his involvement as a guest instructor for the Forensic Fire Death Investigation course at Texas State University beginning in 2018. In this role, he has participated in several live fire experiments using human cadavers to study the effects of fire on the human body. Since 2020, he has served as a guest instructor in the Fire Executive Management Training (FEMT) program at Sam Houston State University, where he teaches the administrative aspects of managing a fire investigation unit.

**Academic Qualifications**

Doctor of Philosophy (PhD) in Forensic Science with emphasis in Fire and Explosion Investigations, Oklahoma State University

Master of Public Service and Administration (MPSA), Texas A&M University.

Graduate Certificate in Homeland Security, Texas A&M University

Bachelor of Applied Arts and Sciences (BAAS), Emergency Management Administration, West Texas A&M University

Associate of Applied Science, Fire Science Technology, Blinn College

**Professional Qualifications**

Fire Marshal (Basic), Texas Commission on Fire Protection (TCFP)

Hazardous Materials Technician, Texas Commission on Fire Protection (TCFP)

Certified International Post-Blast Investigator (CIPBI), International Association of Bomb Technicians & Investigators (IABTI)

Part 107 UAS (Drone) Pilot, Federal Aviation Administration (FAA)

Head of Department (Prevention), Texas Commission on Fire Protection (TCFP)

Private Investigator, Texas Department of Public Safety

IAAI-CFI(V), International Association of Arson Investigators (IAAI)

Plans Examiner 1, Texas Commission on Fire Protection (TCFP)

Instructor, Texas Commission on Law Enforcement (TCOLE)

Licensed Paramedic (LP), Texas Department of Health and Human Services (TXDSHS)

Diver/Operator (Pumper), Texas Commission on Fire Protection (TCFP)

Fire Officer 1, Texas Commission on Fire Protection (TCFP)

Peace Officer (Master), Texas Commission on Law Enforcement (TCOLE)

Paramedic (EMT-P), Texas Department of Health and Human Services (TXDSHS)

Fire Service Instructor III, Texas Commission on Fire Protection (TCFP)

Fire/Arson Investigator (Master), Texas Commission on Fire Protection (TCFP)

Wildland Firefighter (Basic), Texas Commission on Fire Protection (TCFP)

Fire Inspector (Master), Texas Commission on Fire Protection (TCFP)

Structural Firefighter (Master), Texas Commission on Fire Protection (TCFP)

Emergency Medical Technician (EMT), Texas Department of Health and Human Services (TXDSHS)

**Professional Memberships**

International Association of Arson Investigators (IAAI)

North Texas Fire Investigator's Association (NTFIA)

**Previous Employment**

Lecturer & Program Director, University of North Texas at Dallas, Emergency Services  
Administration, Dallas, Texas

Principal Consultant, Pyrology Forensic Fire & Explosion Consulting, Crandall, Texas

Fire Marshal (appointed official), Kaufman County, Texas

Adjunct Instructor, Trinity Valley Community College, Terrell, Texas

Fire Investigator/Project Manager, Donan Engineering, Houston, Texas

Sergeant (Investigations Division), State Fire Marshal's Office of Texas, Austin, Texas

Assistant Chief (Fire Marshal's Office), Williamson County Emergency Services,  
Georgetown, Texas

Investigator (Investigations Division), State Fire Marshal's Office of Texas, Austin, Texas

Firefighter/Inspector/Investigator, Rockwall Fire Department, Rockwall, Texas

Fire Rescue Officer, Dallas Fire-Rescue Department, Dallas, Texas

Intern (Fire Marshal's Office), Rockwall Fire Department, Rockwall, Texas

## Scientific and Consultancy Experience

- Experienced in the origin and cause investigation of appliance, structure, vehicle, marine, and equipment fires and explosions.
- Fire dynamics, combustion science, and the interpretation of fire patterns, heat flux, and burn injuries, using methodologies consistent with NFPA 921 and ASTM standards.
- Experienced in the use of computational fluid dynamics (CFD) modelling for fire and smoke movement analysis using Fire Dynamics Simulator (FDS) and Smokeview.
- Utilizes professional-grade mirrorless cameras, 360-degree imaging systems, and aerial drone photography to document fire and explosion scenes, capture spatial relationships, and support visual analysis for reports and expert testimony.
- Experienced in evidence collection, preservation, scene documentation, and maintaining chain of custody at post-incident fire and explosion scenes.
- Conducted plan reviews for compliance with fire and life safety regulations, including evaluation of construction documents, fire protection system designs, and life safety features.
- Performed fire and life safety inspections in commercial, industrial, and institutional occupancies to ensure regulatory compliance and hazard mitigation.
- Oversaw acceptance testing and functional verification of fire protection systems, including fire alarm, sprinkler, standpipe, clean agent suppression, and smoke control systems.
- Conducted forensic analysis of fire protection system performance following fire or explosion incidents, including identification of system failures, impairments, and regulatory non-compliance.
- Responded to large-scale disasters and incidents involving critical infrastructure such as pipelines, transmission lines, and public utilities.
- Investigated 30 fatal fire and explosion incidents involving 44 victims, complemented by participation in more than 50 live fire experiments involving human cadavers to study fire effects on the body and validate fire pattern interpretation in fatal fire scenes.
- Routinely provides technical reports and expert witness testimony in civil and criminal proceedings, including state and federal courts.
- Has instructed professionals and students in fire and explosion investigation through collegiate teaching and specialized forensic training courses.
- Provides technical review of technical reports and has conducted joint scene investigations alongside other subject matter experts.