



## **DAVID A. WILSON, IAAI-CFI, CFEI, CVFI STAFF CONSULTANT**

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Mr. David A. Wilson is a Staff Consultant for Engineering Systems Inc. (ESi). Mr. Wilson performed five years of active duty service in the United States Navy. He served honorably and with distinction during Operation Iraqi Freedom (OIF). Upon returning to the States, Mr. Wilson transferred his military service to the Kentucky Air National Guard as an Airport Fire Fighter for an additional six years. Mr. Wilson attended the Department of Defense Fire Academy where he completed his training top of his class with honors. While serving his state and country, Mr. David A. Wilson attended Eastern Kentucky University (EKU) seeking a bachelor's degree in Fire, Arson and Explosion Investigation. He graduated EKU's Bachelor of Science program with Summa Cum Laude honors.

Mr. Wilson has investigated various structural, commercial, and vehicle fires and explosions. He has contributed to many investigations through fire origin and cause determination, fire scene reconstruction, and artifact collection and handling. Mr. Wilson's expertise includes fire behavior and dynamics, heat and flame vector analysis, and fire phenomenon calculations. He has hands-on experience with forensic evidence collection, photography, diagramming, 3D laser scanning technology and drone operations.

Mr. Wilson is a member of the National Fire Protection Association (NFPA), International Association of Arson Investigators (IAAI), IAAI North Carolina Chapter, and the National Association of Fire Investigators (NAFI). He has tested and earned his IAAI's Certified Fire Investigator (IAAI-CFI) designation and NAFI's designations as a Certified Fire and Explosion Investigator (CFEI), and Certified Vehicle Fire Investigator (CVFI). IAAI and NAFI award these designations based upon a thorough evaluation of a candidates training and professional expertise.

### **Areas of Specialization**

Fire Origin & Cause Determination  
Residential Fires  
Fire Behavior  
Fire Phenomena  
Fire Protection Systems  
Life Safety Codes  
Artifact Collection and Handling  
3D Laser Scanning

### **Education**

B.S., Fire and Safety Engineering Technology (Summa Cum Laude), Eastern Kentucky University, 2011



## **Certifications**

Certified Fire Investigator (CFI), IAAI 33-080930  
Certified Fire and Explosions Investigator (CFEI), NAFI 16248-9128v  
Certified Vehicle Fire Investigator (CVFI), NAFI 16248-9128v  
Firefighter I & II, DOD FFCS 1161708  
Airport Firefighter, DOD FFCS 1161709  
Driver/Operator ARFF, DOD FFCS 1367272  
Driver/Operator Mobile Water Supply, DOD FFCS 1506156  
Driver/Operator Pumper, DOD FFCS 1506157  
Fire Instructor, DOD FFCS 1683481  
Hazardous Materials Awareness and Operations, DOD FFCS 1161707  
Hazardous Materials Technician, DOD FFCS 1165724  
HAZWOPER OSHA 40 Hour, 121109170096  
FARO Focus 3D Scanner Operator – FARO Authorized

## **Professional Affiliations/Honors**

International Association of Arson Investigators (IAAI)  
IAAI North Carolina Chapter (IAAI-NC)  
National Association of Fire Investigators (NAFI)  
National Fire Protection Association (NFPA)

## **Positions Held**

### **Engineering Systems Inc., Charlotte, North Carolina**

Staff Consultant, 2015 – Present  
Associate Consultant, 2012 - 2014

### **Kentucky Air National Guard, Louisville, Kentucky**

Airport Firefighter, 2007 – 2013

### **United States Navy**

Aviation Structural Mechanic Safety Equipment, 2002 – 2007  
Aviation Structural Mechanic Safety, 2005 – 2007  
Aviation Flight Line Mechanic, 2004 – 2005  
Aviation Corrosion Control Technician, 2004  
Aviation Liquid Oxygen Serviceman, 2003 – 2004

## **Specialized Training**

- “69<sup>th</sup> IAAI Annual International Training Conference” – International Association of Arson Investigators, May 2018
- “Thermometry, Heat, & Heat Transfer” – CFI Trainer.net Course, April 2018
- “Residential Natural Gas Systems” – CFI Trainer.net Course, February 2018
- “Residential Electrical Systems” – CFI Trainer.net Course, February 2018
- “Fire Protection Systems” – ESI training, April 2017
- “Propane Systems and Failures” – ESI training, April 2017
- “Arc Mapping” – ESI training, April 2017
- “68<sup>th</sup> IAAI Annual International Training Conference” – International Association of Arson Investigators, April 2017
- “67<sup>th</sup> IAAI Annual International Training Conference” – International Association of Arson Investigators, July 2016
- “Investigating Natural Gas Systems” – CFI Trainer.net Course, July 2015
- “66<sup>th</sup> IAAI Annual International Training Conference” – International Association of Arson Investigators, May 2015
- “Residential Electricity for Fire Investigators” – Fire Findings Course  
May 2015
- “Basic Electricity” – CFITrainer.net Course, May 2015
- “Effective Investigation” – CFI Trainer.net Course, March 2015
- “Explosion Dynamics” – CFI Trainer.net Course, March 2015
- “Expert Witness Courtroom Testimony Course” – International Association of Arson Investigators Course, November 2014
- “FARO Operator Certification Training” – ESI Norcross, GA by Scott Karlins, August 2014
- “Northwestern University Center of Public Safety One Week Traffic Crash Reconstruction Course” – May 2014.
- “FARO Focus 3D Laser Scanner Training / Post Processing” – ESI Norcross, GA by Scott Karlins, April 2014
- “FARO Focus 3D Laser Scanner Training / Post Processing” – ESI Norcross, GA by Scott Karlins, December 2013
- “Fire Investigative Approaches” – North Carolina & South Carolina IAAI Conference –  
October 14-18, 2013.
- “64<sup>th</sup> IAAI Annual International Training Conference” – International Association of Arson Investigations, 2013
- “Introduction to Fire Dynamics and Modeling” – CFI Trainer.net Course, 2013
- “Understanding Fire through Candle Experiments” – CFI Trainer.net Course, 2012
- “Documenting the Scene” – CFI Trainer.net Course, 2012
- “Investigating Motor Vehicle Fires” – CFI Trainer.net Course, 2012
- “FARO Focus 3D Laser Scanner Training” – ESI Workshop Presented by Scott Karlins, 2012
- “NFPA 1033 and Your Career” – CFI Trainer.net Course, 2012
- “The Practical Application of the Relationship Between NFPA 1033 and NFPA 921” –  
CFI Trainer.net Course, 2012
- “Arc Mapping Basics” – CFI Trainer.net Course, 2012
- “The Scientific Method for Fire and Explosion Investigation” – CFI Trainer.net Course, 2012
- “Ethics and the Fire Investigator” – CFI Trainer.net Course, 2012



"Vehicle, Fire, Arson and Explosion Investigation Science & Technology Seminar" – National Association of Fire Investigators, 2011

## **Courses Instructed**

"Basics of Fire and Fire Behavior" - Training to military firefighters at the KYANG 123<sup>rd</sup> Airwing,  
2011

## **Coursework**

Fire Behavior & Combustion  
Introduction to Fire & Explosions  
Introduction to Forensic Science  
Fire, Arson & Explosion Investigation  
Systems and Failure Analysis  
Fire & Explosion Scene Analysis  
Fire Dynamics  
Advanced Explosion/Bombing Investigation  
Investigative Law  
Fire & Explosions Case Prep  
Fire Prevention  
Building Construction  
Legal Aspects of Fire Protection and Safety  
Applied Fire and Safety Analysis  
Fire Protection Systems  
Principles of Emergency Services  
Fire and Emergency Scene Operations  
Principles of Occupational Safety and Health  
Terrorism / Counterterrorism