

# Brittany Brown, IAAI-CFI (V), ICC-CFM, IAI-SCSA, and NFPA CHRS Senior Consultant

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Ms. Brown is a Senior Consultant at Engineering Systems Inc. (ESi) with over 10 years of experience in fire investigation and inspection, vehicle fires, and determining cause and origin. She specializes in Fire Alarm Systems and fire code.

Prior to joining ESi, Ms. Brown has previously served as a Division Chief for the South Adams County Fire Department and has served as a fire marshal and firefighter in New Mexico, Texas, and Kentucky. Eventually working her way to State Fire Marshal for both New Mexico and Texas. Brown has worked as a professor at Eastern Kentucky University and currently teaches for the National Fire Academy, The Southern California Safety Institute, and previously taught for the New Mexico Firefighters Training Academy. Brown is currently pursuing a PhD in Forensics from Oklahoma State University and holds a Master's Degree in Systems Engineering from Embry-Riddle Aeronautical University. Brown also serves as a SME/committee member for NFPA, ICC, NICET, OSAC and IFSTA.

Ms. Brown is active in many technical and professional societies and has published over 35 articles in refereed journals and conference proceedings.

# **Areas of Specialization**

Fire and Explosion Investigation Aviation Maintenance and Safety Fire Suppression Systems Vehicle Fires Crime Scene Analyst

# Education

Ph.D., Forensic Science – Arson, Explosives, Firearms, and Toolmarks (AEFTI). Candidate, Dec. 2025

M.S., Systems Engineering Specialization. 2020

M.S., Forensic Science, Arson, Explosives, Firearms, and Toolmarks (AEFTI). Candidate, 2026

B.S., Aviation Maintenance Management and Safety. 2017 Cum Laude

A.S., Aviation Maintenance Management. 2017 Cum Laude

Undergrad Certification – Aviation Safety. 2015

A.S., Aviation Maintenance Technology. 2014 Cum Laude

Undergrad Certification – Aviation Maintenance, Federal Aviation Administration Part 65. 2012

# Licenses/Certifications

Certified Fire Investigator (CFI)

Fire Investigation Technician (FIT)



Evidence Collection Technician (ECT) Motor Vehicle Endorsement (MVI) Certified Fire Investigation Instructor (CI) Certified Fire and Explosion Investigator (CFEI) Certified Vehicle Fire Investigator (CFVI) Certified Fire Investigation Instructor (CFII) Certified Senior Crime Scene Analyst Fire Inspector I Fire Investigator I Fire Service Instructor I Hazardous Materials Awareness Operations Firefighter I and II Fire Inspector II Plans Examiner I Fire Investigator Intermediate Fire Inspector Intermediate Fire and Life Safety Educator Structural Fire Intermediate Instructor I Plan Examiner I **Certified Hazard Recognition Specialist** Inspector I (ICC-I) Inspector II (ICC-II) Certified Fire Marshal (ICC-CFM) **Fire Plans Examiner** Fire Code Specialist Residential Fire Sprinkler Plans Examiner/Inspector Fire Alarms System Level 1 Fire Alarms System Level 2 Fire Alarms System Level 3 Inspection and Testing of Fire Alarm Systems, Level 1



Inspection and Testing of Fire Alarm Systems, Level 2 Emergency Medical Responder Certified Property and Evidence Specialist MIFireE, Member Public Fire and Life Safety Educator II Fire Officer I/II Fire and Life Safety Educator III Fire and Life Safety Educator III Fire Services Instructor II Fire Inspector III – Plans Examiner Incident Safety Officer Public Information Officer, 1035 Federal Communications Commission License with Ship Radar Endorsement Occupational Safety and Health Administration 30-Hour General Industry License

# **Professional Affiliations/Honors**

Fire Marshal's Association of Colorado, May 2023 – Present New Mexico Fire Marshals Association Vice President, June 2019 – Aug 2023 Member, June 2019 - Present International Code Council Fire, Performance, and Wildland Interface Code Interpretation Committee Member, Jan 2021 – Present Chapter President/Associate Member, Feb 2018 - Present Institute of Fire Engineers, Nov 2020 - Present National Fire Sprinkler Association, Oct 2018 - Present National Registry for Emergency Medical Technicians, Sept 2018 - Present International Association of Identifiers, Feb 2018 - Present West Texas Fire Investigator Association, Feb 2018 – Present Texas Fire Marshals Association, Oct 2017 - Present Association of Certified Fraud Examiners, July 2017 - Present Women in Corporate Aviation, Aug 2016 - Present National Fire Protection Association, Jan 2015 - Present Society of Fire Protection Engineers, Jan 2015 – Present International Association of Arson Investigators, Jan 2014 - Present



National Association of Fire Investigators, Jan 2014 - Present National Association of Professional Women, Jan 2014 - Present International Association of Air Safety Investigators Jan 2013 – Present Society of Women Engineers, Jan 2013 – Present Air Force Sergeants Association, May 2006 - Present International Association of Fire Service Instructors, Sept 2019 - Present International Association of Property and Evidence, Dec 2019 - Present Board of Certified Safety Professionals, Jan 2020 - Present Professional Fire and Fraud Investigators Association, Dec 2019 - Present International Association of Fire Chiefs, June 2023 – Present International Association of Fire Chiefs Fire and Life Safety Section, June 2023 – Present Women in Fire, July 2023 – Present International Association of Bomb Technicians and Investigators, Sept 2023 – Present International Fire Service Training Association Fire Protection and Suppression Systems Validation Committee Member, Jan 2024 – Present IBC-FS – Fire Safety Code Development Committee Primary Member, Jan 2024 - Present International Association of Fire Chiefs, Life Safety Section Occupational Safety and Health Sub-Committee Representative, Mar 2024 – Present Organization of Scientific Advisory Committees for Forensic Science (OSAC) Crime Scene Scientific Area for Fire and Explosion Investigations Board Member, Oct 2020 – Present Process Mapping Team Member, Nov 2020 – Apr 2023 New Mexico Home Fire Sprinkler Coalition Co-Chair, Sept 2022 – Present National Fire Protection Association – Standard on Aircraft Fuel Servicing Principal Member, Technical Committee, Dec 2015 - Present Task Group Member – Refueling Aircraft Using Electrically Powered Vehicles, May 2023 – Present National Institute of Certification in Engineering Technologies (NICET) Fire Alarms Systems Examination Redevelopment/Correlation Committee FAS – II, Subject Matter Expert, June 2023 – Jan 2024 Fire Alarms Systems Examination Redevelopment/Correlation Committee FAS - I, Subject Matter Expert, Aug 2023 – Jan 2024 Fire Alarm Systems and Testing, ITFAS II Standard Development Committee, Apr 2024 – June 2024



National Fire Protection Association
Standard on Aircraft Maintenance Operations-410 Principal Member, Sept 2015 – Sept 2021
Standard on Aircraft Hangers-409, Alternate Member, Dec 2022 – Present
Collin County Fire Investigators Association
Fire Death Pathology Course Engineering and Planning Team, Sept 2020 – Present
Forensic Fire Analysis Institute
Advisory Board Member, Sept 2017 – Present
International Society for Fire Service Instructors
Publications Committee Member, Apr 2023 – Present
New Mexico Firefighters Training Academy
Project Team Leader, May 2019 – June 2021
Le County Arson Task Force
Task Force Chief, May 2019 – May 2021
Liaison for New Mexico Fire Marshals Association – Advisement Committee for Senate Bill 143
Team Member, June 2019 – June 2020
New Mexico Fire Marshal's Association Quarterly Newsletter
Primary Author/Team Member, June 2019 – Present
New Mexico Firefighters Training Academy
Project Team Leader, June 2020 – July 2021
International Society for Fire Service Instructors Online Education
Committee Member, Aug 2020 – Jan 2022
Positions Held

#### Engineering Systems Inc., Denver, CO

Senior Consultant, Jan 2025 - Present

#### **South Adams County Fire Protection District**

Division Chief of Fire Prevention/Fire Marshal, May 2023 - Dec 2024

#### Eastern Kentucky College of Justice and Safety

University Professor, May 2021 - May 2023

#### Illinois Fire Service Institute

Fire Investigations and Fire Inspections Instructor, Oct 2022 - Jan 2024

#### Whitehall Fire Department

Firefighter, Sept 2012 – May 2023

#### Lovington Fire Department



Fire Marshal/Training Officer, May 2019 – May 2021

#### **Texas State Fire Marshal's Office**

Deputy State Fire Marshal, Oct 2017 – May 2019

#### Farwell Volunteer Fire Department

Captain/Training Officer/ Firefighter & Emergency Responder, Oct 2017 – May 2023

#### National Fire Academy Fire

Fire and Explosion Investigation Instructor, Oct 2020 – Present

#### New Mexico Firefighters Training Academy

Fire Investigations and Fire Inspections Instructor, May 2016 – May 2023

#### New Mexico State Fire Marshal's Office, Fire Investigation Bureau

Deputy State Fire Marshal, Fire Investigator, May 2016 – Oct 2017

#### Kirtland Air Force Base and Albuquerque International Sun Port Joint Airfield

Transient Alert Technician, Jan 2017 – Sept 2017

### 27<sup>th</sup> Special Operations Group, Wing Safety

Mishap Board Member (Fire and Explosion Investigative Consultant), Nov 2015 – Feb 2016

#### Canon Air Force Base, Transient Alert Department

Transient Alert Technician, Apr 2015 – June 2016

#### 27<sup>th</sup> Special Operations Group, Safety

Ground Safety Technician/Occupational Safety Investigator, Dec 2014 – Apr 2015

#### **Clovis Fire Department**

Fire and Explosion Investigator, Oct 2014 – May 2016

#### 27<sup>th</sup> Special operations Group, Safety

Flight Safety Investigator/Aircraft Accident Investigator, Apr 2014 – May 2016

#### 27<sup>th</sup> Special Operations Maintenance Squadron Aerial Repair Shop

Shift Supervisor, Apr 2014 – Dec 2014

#### 352<sup>nd</sup> Special Operations Squadron

Aerospace Maintenance Craftsman, Oct 2011 – Apr 2014

#### 100<sup>th</sup> Maintenance Group

Transient Alert Technician, Apr 2011 – Apr 2014

#### 100 Maintenance Squadron

Ground Mechanic, Nov 2010 – Oct 2011



#### 86<sup>th</sup> Maintenance Squadron Ramstein

Lead Mechanic/Trainer, Oct 2006 - Nov 2010

# **Continuing Education**

Fatal Fires: Investigation- CFITrainer.net and IAAI, January 2025 (3-hours)

- An Introduction to Emergency Vehicle Driving- National Fallen Firefighters Foundation, Fire Hero Learning Network, January 2025 (1-hour)
- Collection and Preserving Entomological Evidence at the Death Scene- Tritech Training and Forensics, November 2024 (2-hours)
- Leading in Times of Challenge, Session 1- National Fallen Firefighters Foundation, Fire Hero Learning Network, November 2024 (1-hour)

Fatal Fires: Fire Effects on the Body- CFITrainer.net and IAAI, November 2024 (3-hours)

- Leading in Times of Challenge, Session 2- National Fallen Firefighters Foundation, Fire Hero Learning Network, October 2024 (1-hour)
- Preventing Carbon Monoxide Poisoning in the Fire and Rescue Services- National Fallen Firefighters Foundation, Fire Hero Learning Network, October 2024 (1-hour)

Commercial Kitchen Fires 2: Fundamentals- CFITrainer.net and IAAI, October 2024 (3-hours)

Fire Officer III- Alabama Fire College and Personnel Standards Commission, September 2024 (40-hours)

- 12th Annual Fire Death Investigations Course- Collin County Fire Investigators Association, September 2024 (44-hours)
- Western Fire Chiefs, FORCE, Fire Officer and Executive Chief Officer Training Conference, 2024, August 2024
- Fire Rescue International, International Association of Fire Chiefs, 2024 Conference, August 2024 (24hours)
- Fall, 2024 IFSTA Validation Conference- International Fire Service Accreditation Congress, Validation, Fire Suppression, Detection and Suppression July 2024 (8-hours)
- Managing Corrosion Risk in Water-Based Fire Sprinkler Systems- Engineered Corrosion Solutions, January 2024 (2-hours)

Fire Dynamics in Wildland- CFITrainer.net and IAAI, December 2023 (3-hours)

Automatic Sprinkler System Design and Function- FM Global, December 2023 (1-hour)

Blood Stain Pattern Recognition- Tritech Training and Forensics, September 2023 (7-hours)

Bullet Ricochet Phenomena-Tritech Training and Forensics, September 2023 (3-hours)



Battery Storage Systems: Rising Market, Fire Risks/Safety & Best Practices-Fire Trac International, New Mexico Fire Marshals Association Annual Conference, August 2023 (4-hours)

Incident Safety Officer- National Volunteer Fire Council, December 2022 (4-hours)

Explosion Dynamics- CFITrainer.net and IAAI, October 2014 (4-hours)

OSHA 30-Hour General Industry License Course- Occupational Safety and Health Administration, April 2013 (30-hours)

# **Publications/Presentations**

- Fire Engineering Magazine, "The Evolution of Smoke and Detectors and the New UL Standard: Are We Progressing" (January 2025)
- International Society of Fire Service Instructors Monthly Newsletter, "The History of Fire Prevention Week" (October 2024)
- International Society of Fire Service Instructors Monthly Newsletter, "Want it Your Way, Have a Say" (April 2024)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "National Fire Academy Update and Class Request" (February 2023)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "Home Fire Sprinkler Coalition Kick-off Meeting and ICC Training Summary" (February 2023)
- NFPA 409- Standard on Aircraft Hangers, National Fire Protection Association, Alternate Committee Member (January 2023-Present)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "Home Heating Equipment Fires" (November 2021)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "Smoke Alarms and Carbon Monoxide Alarms in the Holiday Season" (November 2021)

International Society of Fire Service Instructors Monthly Newsletter, "Training on a Dime" (June 2021)

- New Mexico Fire Marshal's Association Quarterly Newsletter, "New Mexico Firefighters Training Academy Update" (June 2021)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "Summer Safety" (June 2021)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "Dryer Safety and Spring Cleaning" (March 2021)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "Upcoming Training Opportunities" (November 2020)



- New Mexico Fire Marshal's Association Quarterly Newsletter, "Smoke Alarms and Carbon Monoxide Alarms in the Holiday Season" (November 2020)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "Haunted Houses and the Fire Code" (September 2020)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "How to Address the 2019 Amendment to 22-13-14 NMSA and School Fire Drills During the COVID-19 Pandemic" (September 2020)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "How to Address the 2019 Amendment to 22-13-14 NMSA and School Fire Drills During the COVID-19 Pandemic for School Administrators" (September 2020)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "The New Mexico Fire Marshals Association COVID-19 Update" (June 2020)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "The New Underwriters Laboratory Standards for Smoke Alarms and Smoke Detectors in 2020" (March 2020)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "Holiday Fire Safety" (November 2019)
- New Mexico Fire Marshal's Association Quarterly Newsletter, "What You Need to Know about the New Requirements for Emergency Evacuation Drills in Education Occupancies" (August 2019)
- NFPA 407- Standard on Aircraft Fuel Servicing, National Fire Protection Association, Principal Committee Member (2015-Present)
- NFPA 410- Standard on Aircraft Maintenance, National Fire Protection Association, Principal Committee Member (2015-2021)