

CLINTON M. CARMAN

MSc. FPE, IAAI-CFI, CCAI-CFI, CFEI

CARMAN & ASSOCIATES FIRE INVESTIGATION, Inc.

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FORMAL EDUCATION:

- **California Polytechnic State University (2013-2016)**
San Luis Obispo, California
2016 - Graduated with M.S. Degree in Fire Protection Engineering
- **California State University, Chico (2005-2008)**
Chico, California
2008 - Graduated with B.S. Degree in Professional Chemistry
- **Sierra Community College (2002-2005)**
Rocklin, California

EMPLOYMENT:

Jan 2023 – Present	Reserve Fire Investigator with Nevada County Consolidated Fire District
Jan 2014 – Present	Vice President and Certified Fire Investigator with Carman & Associates Fire Investigation, Inc.
Jan 2010 – Jan 2014	Certified Fire Investigator with Ron Hall & Associates Fire Analysis and Research
Jun 2008 – Jan 2010	Associate Fire Investigator with Ron Hall & Associates Fire Analysis and Research.

CERTIFICATIONS:

Oct 10, 2014	CFEI (Certified Fire and Explosion Investigator) <i>National Association of Fire Investigators (NAFI)</i>
Aug 19, 2013	IAAI-CFI (Certified Fire Investigator, Certificate #22-081967) <i>International Association of Arson Investigators (IAAI)</i>
Jan 11, 2010	CCAI-CFI (Certified Fire Investigator, Certification #660) <i>California Conference of Arson Investigators (CCAI)</i>
Jan 4, 2018	Licensed Remote Pilot for UAS's (Drones) <i>Federal Aviation Administration (FAA)</i>

FIRE INVESTIGATION EXPERIENCE:

I have investigated and/or assisted with the investigation of approximately 900 fires and explosions to determine Origin, Cause, and General Fire Behavior. The types of fires include commercial and residential structure fires, vehicle, marine, wildland fires, and explosions.

-I have attended, as well as conducted, more than 200 burn tests (structures, vehicles, wildland, explosions) to study and document burn patterns, flame spread, and general fire behavior.

EXPERT WITNESS TESTIMONY:

Multnomah County Circuit Court, Portland, Oregon

Testified in trial of Timothy Gray, et. al. v. Loy Clark Pipeline Co.
Civil Case No. 18CV47246, March 2, 2020

United States District Court, for the District of Hawaii – Honolulu, Hawaii

Testified in the Evidentiary Hearing of United States of America v. Kenneth Puahi
Case No. 19-00121 LEK, August 1, 2022

TRAINING PRESENTED:

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|-----------|---|
| July 2022 | Fire Science and Fire Dynamics
<i>California Conference of Arson Investigators – Roundtable #6, and the Tri-County Fire Investigators Association</i>
Hollister, California (4 hours, 60 students) |
| May 2022 | Scanning Technology in Fire Investigations
<i>California Conference of Arson Investigators – Roundtable #3</i>
Roseville, California (1 Hour, 15 students) |
| Sept 2021 | Fundamentals, Basics & The Essentials of Fire Investigations
<i>California Conference of Arson Investigators, Fall Conference</i>
San Luis Obispo, California (8 Hours, 70 students) |
| Sept 2019 | Characteristics of Propane v. Natural Gas Explosions
<i>California Conference of Arson Investigators, Fall Conference</i>
San Luis Obispo, California (6 Hours, 100+ students) |
| Sept 2019 | Drones in Fire Investigation
<i>California Conference of Arson Investigators, Fall Conference</i>
San Luis Obispo, California (4 Hours, 40 students) |

- Mar 2019 **Use of 3D Scanners and Drones in Fire Department Pre-Planning**
Contra Costa Fire Department
Contra Costa County, California (2 hours, 10 students)
- Jan 2019 **Use of 3D Scanners and Drones in Forensic Investigations**
Grass Valley Police Department
Grass Valley, CA (2 hours, 15 students)
- Feb 2018 **Affordable 3D Scanning/Imaging for Forensic Investigations**
California Conference of Arson Investigators – Roundtable #3
Roseville, California (1 Hour, 20 students)
- Nov 2017 **Advanced Fire Dynamics**
California Conference of Arson Investigators, Fall Conference
San Luis Obispo, California (6 hours, 40 students)
- Nov 2016 **The Use of Drones for Fire Investigations**
California Conference of Arson Investigators – Roundtable #3
Roseville, California (1 Hour, 20 students)
- Dec 2015 **Investigating Electrical Fires and Elevated Ignition Sources**
Shasta County Arson Taskforce
Redding, California (6 Hours, 40 students)
- Nov 2014 **Critical Thinking and Hypothesis Testing in Fire Investigation**
California Conference of Arson Investigators, Fall Conference
San Luis Obispo, California (4 Hours, 100 students)
- June 2012 **Behavior of Elevated Fires**
California Conference of Arson Investigators and Butte County Arson Task Force
Chico, California (1 Hour, 30 students)

SPECIALIZED TRAINING RECEIVED:

- Oct 2023 **CCAI Fall Training Conference**
Numerous topics related to fire dynamics/fire science.
California Conference of Arson Investigators
San Louis Obispo, California (28 hours)
- Sept 2023 **Report Writing for Fire Investigators**
Sac Sierra Arson Taskforce
Instructor: Robert Rappaport
Rocklin, CA (8 hours)

- Jan 2023 **Scientific Protocols for Fire Investigators**
South Bay Arson Task Force
Instructor: John Lentini
Torrance, CA (24 hours)
- June 2022 **Virtual Training Seminar**
Numerous topics related to fire investigation, alarm systems, cell phone tracking, lithium-ion batteries, CT scanning, testimony.
California Conference of Arson Investigators (20 hours)
- May 2021 **Wildland Fire Origin and Cause Determination FI-210**
Sacramento Sierra Arson Taskforce
Instructors: Terry Taylor, Greg Liddicoat, Joe Konefal, Tim Enright
El Dorado Hills, CA (36 hours)
- Feb 2021 **Advanced Fire Dynamics Simulator (FDS) with Pyrosim and Smokeview Online Seminar**
Society of Fire Protection Engineers
Instructor: Bryan Klein – Thunderhead Engineering (24 hours)
- Feb 2021 **CCAI Spring Training Conference**
Numerous topics related to fire dynamics/fire science, batteries, fireplaces.
California Conference of Arson Investigators
San Louis Obispo, California (28 hours)
- Sept 2020 **CCAI Fall Training Conference**
Numerous topics related to fire dynamics/fire science.
California Conference of Arson Investigators
San Louis Obispo, California (28 hours)
- Jan 2020 **Investigating Natural Gas Systems**
International Association of Arson Investigators
<http://www.cfitrainer.net> (3 hours)
- Jan 2020 **Residential Natural Gas Systems**
International Association of Arson Investigators
<http://www.cfitrainer.net> (3 hours)
- Jan 2020 **Residential Electrical Systems**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Dec 2019 **Explosion Dynamics**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)

- Dec 2019 **Critical Evaluation and Testing of Commonly Reported Accidental Causes**
International Association of Arson Investigators
<http://www.cfitrainer.net> (3 hours)
- Dec 2019 **Fire Chemistry**
International Association of Arson Investigators
<http://www.cfitrainer.net> (3 hours)
- Dec 2019 **Fire Flow Analysis**
International Association of Arson Investigators
<http://www.cfitrainer.net> (3 hours)
- Sept 2019 **CCAI Fall Training Conference**
Numerous topics related to fire dynamics/fire science.
California Conference of Arson Investigators
San Louis Obispo, California (20 hours)
- May 2019 **Fires Related to Solar Panels and Equipment**
California Conference of Arson Investigators – Roundtable #3
Instructors: Jim Nolt, – JHNolt Associates
Roseville, CA (1 Hour)
- April 2019 **IAAI International Training Conference**
Numerous topics related to fire dynamics/fire science.
International Association of Arson Investigators
Jacksonville, Florida (40 hours)
- Feb 2019 **Cognitive Interviewing**
California Conference of Arson Investigators (Instructor: Mike Bryant)
San Louis Obispo, California (28 hours)
- Jan 2019 **Digital Photography and the Fire Investigator**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Nov 2018 **Light Volatiles in Fire Debris**
California Conference of Arson Investigators – Roundtable #3
Instructors: Dr. John DeHaan
Roseville, CA (1 Hour)
- May 2018 **Search and Seizure**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Apr 2018 **Investigation of Gas and Electric Appliance Fires**
Fire Findings
Benton Harbor, Michigan (30 hours)

- April 2017 **IAAI International Training Conference**
Numerous topics related to fire dynamics/fire science.
International Association of Arson Investigators
Las Vegas, Nevada (40 hours)
- Apr 2017 **Outdoor Aerial Public Display Fireworks**
Sacramento-Sierra Arson Task Force
Instructors: Ramiro Rodriguez – Cal Fire, Ian & Kevin Gilfillan – Pyro Spectaculars
Rocklin/Lincoln, CA (6 Hours)
- Feb 2017 **Smart Electrical Meter Hardware**
California Conference of Arson Investigators – Roundtable #3
Instructors: Jim Nolt – JHNolt Associates
Roseville, CA (1 Hour)
- June 2016 **Culminating Experience in Fire Protection Engineering (FPE-596)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Mar 2016 **Smoke Management and Special Hazards (FPE-552)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Dec 2015 **Fire Safety Regulation and Management (FPE-551)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Sep 2015 **Residential Electricity for Fire Investigators**
Fire Findings
Benton Harbor, Michigan (16 hours)
- Sep 2015 **Investigating Residential Dryer Fires**
Fire Findings
Benton Harbor, Michigan (16 hours)
- Aug 2015 **Structural Fire Protection (FPE-524)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Jun 2015 **Fire Detection, Alarm and Communication Systems (FPE-522)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- May 2015 **IAAI International Training Conference**
Numerous topics related to fire dynamics/fire science.
International Association of Arson Investigators
Chicago, Illinois (40 hours)

- Apr 2015 **Forensic Photography**
Sacramento-Sierra Regional Arson Task Force
Instructor: Robert Rullan
Roseville, CA (8 Hours)
- Mar 2015 **Water-Based Fire Suppression (FPE-523)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Dec 2014 **Egress Analysis and Design (FPE-521)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Dec 2014 **PC832 Firearms Familiarization**
Sacramento Regional Public Safety Training Center
Sacramento, California (24 hours)
- Oct 2014 **Advanced Fire, Arson and Explosion Investigation**
2014 Canadian National Advanced Fire, Arson and Explosion Training Program
Instructors: Ronald Hopkins, Elayne Pope, Michael Schulz, Steve Carman
Toronto, Ontario, Canada (40 Hours)
- Sep 2014 **Advanced Electrical Fire Investigation**
Sacramento-Sierra Regional Arson Task Force/ATF Fire Research Laboratory
Instructor: Michael Keller, P.E. – ATF
El Dorado Hills, CA (16 Hours)
- Sep 2014 **Basic Electrical Fire Investigation**
Sacramento-Sierra Regional Arson Task Force/ATF Fire Research Laboratory
Instructor: Michael Keller, P.E. – ATF
El Dorado Hills, CA (16 Hours)
- Sep 2014 **Fire Modeling (FPE-504)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Jun 2014 **Flammability Assessment Methods (FPE-503)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Apr 2014 **Investigation of Gas and Electric Appliance Fires**
Fire Findings
Benton Harbor, Michigan (30 hours)
- Apr 2014 **IAAI International Training Conference**
Numerous topics related to fire dynamics/fire science.
International Association of Arson Investigators
Las Vegas, Nevada (40 hours)

- Apr 2014 **Vehicle Fire Investigations**
California Conference of Arson Investigators
Instructors: Bob Toth, David Icove
San Louis Obispo, California (20 hours)
- Mar 2014 **Fire Dynamics (FPE-502)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Dec 2013 **Fundamental Thermal Sciences (FPE-501)**
California Polytechnic State University, San Luis Obispo, California
Requisite course in Fire Protection Engineering Graduate Program
- Dec 2012 **Writing the Initial Origin and Cause Report**
International Association of Arson Investigators
<http://www.cfitrainer.net> (3 hours)
- Dec 2012 **Fundamentals of Residential Building Construction**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Dec 2012 **Investigating Motor Vehicle Fires**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Dec 2012 **Fundamentals of Interviewing**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Mar 2012 **Behavior of Elevated Fires**
California Conference of Arson Investigators (Instructor: Steve Carman)
San Louis Obispo, California (8 Hours)
- Mar 2012 **Advanced Fire and Arson Investigation**
California Conference of Arson Investigators (Instructors: John Dehaan, David Icove)
San Louis Obispo, California (20 hours)
- Nov 2009 **Expert Witness Courtroom Testimony Class**
International Association of Arson Investigators (Instructors: Wayne Tyson, Steve Huchting)
San Louis Obispo, California (40+ hours)
- Nov 2009 **PC832 Arrest, Search & Seizure**
Sacramento Regional Public Safety Training Center
(POST Certification #297080102-09005, SCT Certification #0218-007898)
Sacramento, California (40 hours)
- Oct 2009 **Fire Investigation 1B**
California State Fire Marshal's Office (Instructor: Joe Konefal)
Sacramento, California (40 Hours)

- Sep 2009 **Effective Investigation and Testimony**
International Association of Arson Investigators
<http://www.cfitrainer.net> (3 hours)
- Aug 2009 **Motive, Means, and Opportunity: Determining Responsibility in an Arson Case**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Aug 2009 **Arc Mapping Basics**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Jun 2009 **Introduction to Fire Dynamics and Modeling**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Jun 2009 **Ethics and the Fire Investigator**
International Association of Arson Investigators
<http://www.cfitrainer.net> (3 hours)
- Jun 2009 **Fire and Explosion Investigations: Utilizing NFPA 1033 and 921**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Apr 2009 **Fire Investigation 1A**
California State Fire Marshal's Office (Instructor: Joe Konefal)
Sacramento, California (40 hours)
- Mar 2009 **Fire Investigation 2B**
California State Fire Marshal's Office (Instructors: Joe Konefal, Mark Koenig)
Auburn, California (40 hours)
- Feb 2009 **The Scientific Method for Fire and Explosion Investigation**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Dec 2008 **An Analysis of the Station Nightclub Fire**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Dec 2008 **A Ventilation-Focused Approach to the Impact of Building Structures and Systems on Fire Development**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Nov 2008 **Fire Investigation 2A**
California State Fire Marshal's Office (Instructors: Joe Konefal, Mark Koenig)
Auburn, California (40 hours)

- Nov 2008 **Problem Solving in Fire Investigation**
California Conference of Arson Investigators (Instructors: Joe Konefal, Steve Carman)
San Louis Obispo, California (20 hours)
- Nov 2008 **Understanding Fire Through the Candle Experiments**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Oct 2008 **Post-flashover Fires**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Apr 2008 **Documenting the Event**
International Association of Arson Investigators
<http://www.cfitrainer.net> (4 hours)
- Jul 2003 **Semi-Annual Seminar of the California Conference of Arson Investigators**
Seaside, California (8 hours, non-tested)

PROFESSIONAL ASSOCIATIONS:

- **California Conference of Arson Investigators**
 - Member, Oct 2008 – Present
 - CFI Committee Member and Sub-Committee Chair – Feb 2019 – Present
- **International Association of Arson Investigators**
 - Member, June 2012 – Present
 - Research, Discovery & Innovation Task Group Member – May 2020 – Present
- **National Association of Fire Investigators**
 - Member, October 2014 – Present
- **Society of Fire Protection Engineers**
 - Member, October 2014 – Present

AWARDS:

- **President's Award** - California Conference of Arson Investigators
 - Award bestowed based on the dedication, diligence, and visionary leadership displayed in the redesign of the California Conference of Arson Investigator's Certified Fire Investigator Examination.

REFERENCE MATERIALS:

- Guide for Fire and Explosion Investigations (NFPA 921), NFPA, Quincy, MA 2021
- Standard for Professional Qualifications for Fire Investigator (NFPA 1033), NFPA, Quincy MA 2022
- Society of Fire Protection Engineers Handbook of Fire Protection Engineering, Fifth Edition, NFPA, Quincy, MA 2015
- Fire Protection Handbook, Nineteenth Edition, Volumes 1 & 2, NFPA, Quincy, MA 2003
- Forensic Fire Scene Reconstruction, David Icove, John DeHaan, and Gerald Haynes, Pearson, 2012
- Kirk's Fire Investigation, David Icove and Gerald Haynes, Pearson, Eighth Edition, 2017
- Including other texts on Chemistry, Physics, Thermodynamics, Fluid Dynamics, and Fire Protection Engineering.