

National Fallen Firefighter Foundation (NFFF)

16 Firefighter Life Safety Initiatives

NFFF Life Safety Initiative #1: *Define and advocate the need for a cultural change within the fire service relating to safety; incorporating leadership, management, supervision, accountability, and personal responsibility.*

United States Fire Administration (USFA) Related Actions:

- The Learning Resource Center (LRC) aggressively identifies, acquires, organizes, maintains and disseminates fire service knowledge and information covering the full spectrum of the Firefighter Life Safety Initiatives. This includes fire prevention and public education, leadership, firefighter health and safety, risk management, lessons learned, emergency response, stress management and Post Traumatic Stress Disorder treatment, residential sprinklers and many other fire protection initiatives.
- The fire marshals who are part of USFA's Prevention Advocacy Resources and Data Exchange (PARADE), advocate for all aspects of fire prevention critical to protection of life and property. This includes research and prevention advocacy in the area of professional development. Fire marshals are the leaders of fire prevention, fire safety, mitigation, and related efforts often using USFA-produced materials (programs, projects, and services). The collaborative relationship between the PARADE network and NFFF enables the prevention/risk reduction community to better address issues of fire safety.
- USFA has numerous emergency responder health and safety partnerships and initiatives that support NFFF Life Safety Initiative #1:
<https://www.usfa.dhs.gov/fireservice/research/safety/index.shtm>
- The National Fire Academy (NFA) was founded to lead cultural change in the fire service.
- NFA Related Courses:
 - *Executive Planning*
 - *Executive Analysis of Fire Service Operations in Emergency Management*
 - *Executive Leadership*
 - *Advanced Safety Operations in Emergency Management*
 - *Health & Safety Officer*
 - *Incident Safety Officer*
 - *Effective Leadership Skills for Fire and Emergency Medical Services (EMS)*

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NFFF Life Safety Initiative #2: *Enhance the personal and organizational accountability for health and safety throughout the fire service.*

USFA Related Actions:

- See LRC under Life Safety Initiative #1.
- USFA has numerous emergency responder health and safety partnerships and initiatives that support Life Safety Initiative #2:
<https://www.usfa.dhs.gov/fireservice/research/safety/index.shtm>
- Working with NFFF on development of Vulnerability Assessment Project to identify and address firefighter risk factors at the local level. The assessment tool will result in the reduction of line of duty deaths and injuries.
- NFA Related Courses:
 - *Executive Planning*
 - *Executive Analysis of Fire Service Operations in Emergency Management*
 - *Executive Leadership*
 - *Advanced Safety Operations in Emergency Management*
 - *Health & Safety Officer*
 - *Incident Safety Officer*
 - *Effective Leadership Skills for Fire and EMS*

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NFFF Life Safety Initiative #3: *Focus greater attention on the integration of risk management with incident management at all levels, including strategic, tactical, and planning responsibilities.*

USFA Related Actions:

- USFA maintains the Hotel and Motel National Master List as required by the *Hotel and Motel Fire Safety Act of 1990*. It provides a listing of properties with fire detection and suppression equipment for the safety of their patrons. The Act requires every guestroom in a hotel or motel and each apartment/condominium have an AC-powered (hard-wired) smoke alarm. If the building is more than three stories in height, it must also have a full automatic sprinkler system with sprinkler heads in all guest rooms. Information about the List and requirements can be found at: <http://www.usfa.dhs.gov/applications/hotel/>
- Implemented National Incident Management System through the USFA All Hazard Incident Management Technical Assistance Program focusing on Urban Area Security Initiative regions, metro fire departments and states.
- Developed national mobilization of State and local USFA All Hazard Incident Management Teams for assignments to all hazard incidents in support of FEMA operations. The USFA/National Wildfire Coordinating Group (NWCG) pilot program is underway.
- USFA exhibits at national fire service conferences and provides research and educational information on all areas addressed by USFA including the 16 Life Safety Initiatives.
- See LRC under Life Safety Initiative #1.
- USFA's *Risk Management Practices in the Fire Service* is a guide to help local fire and emergency services departments understand the concepts that form the foundation of risk management principles and practices:
<http://www.usfa.dhs.gov/downloads/pdf/publications/fa-166.pdf>
- USFA worked with the International Association of Fire Fighters (IAFF) in a project to enhance risk management capability of local fire departments. The goal of this study was to enable fire departments to design effective risk management programs based on community hazards and service commitment, enhance firefighter safety, and provide tools for continual evaluation of emergency response systems:
http://www.usfa.dhs.gov/fireservice/research/safety/EMS_response_study.shtm From the first phase of this study, the following report, [Contributing Factors to Firefighter Line of Duty Death in the United States](#) was developed by the IAFF. The second phase of the project

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produced the IAFF report, [Contributing Factors to Fire Fighter Line-of-Duty Injury in Metropolitan Fire Departments in the United States](#)

- NFA Related Courses:
 - *Executive Planning*
 - *Executive Analysis of Community Risk Reduction*
 - *Executive Analysis of Fire Service Operations in Emergency Management*
 - *Executive Leadership*
 - *Advanced Safety Operations in Emergency Management*
 - *Health & Safety Officer*
 - *Incident Safety Officer*
 - *Effective Leadership Skills for Fire and EMS*

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NFFF Life Safety Initiative #4: *All firefighters must be empowered to stop unsafe practices.*

USFA Related Actions:

- See LRC in Life Safety Initiative #1.
- USFA provides information concerning best practices to the fire service at our exhibits at national fire service conferences.
- NFA Related Courses:
 - *Executive Leadership*
 - *Advanced Safety Operations in Emergency Management*
 - *Health & Safety Officer*
 - *Incident Safety Officer*
 - *Effective Leadership Skills for Fire and EMS*
 - *Incident Command & Control Curriculum*

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NFFF Life Safety Initiative #5: *Develop and implement national standards for training, qualifications, and certification (including regular recertification) that are equally applicable to all firefighters based on the duties they are expected to perform.*

USFA Related Actions:

Although USFA does not develop nor implement national standards or certifications, we do offer the below listed courses which link to standards, qualifications and certifications:

- NFA Related Courses:
 - *Training Operations in Small Departments*
 - *Challenges for Local Training Officers*
 - *Training Program Management*
 - *Fire Service Course Design*
 - *Advanced Safety Operations in Emergency Management*
 - *Health & Safety Officer*
 - *Incident Safety Officer*
 - *Effective Leadership Skills for Fire and EMS*

- Staff serve as federal liaisons on the following NFPA Technical Committees:
 - NFPA 750 Standard on Water Mist Fire Protection Systems
 - NFPA 921 Guide for Fire and Explosion Investigations
 - NFPA 1033 Standard for Professional Qualifications for Fire Investigator
 - NFPA 472 Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents
 - NFPA 473 Standard for Competencies for EMS Personnel Responding to Hazardous Materials/Weapons of Mass Destruction Incidents
 - NFPA 1500 Standard on Fire Department Occupational Safety and Health Program
 - NFPA 501 Standard on Manufactured Housing
 - NFPA 501A Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities
 - NFPA 225 Model Manufactured Home Installation Standard
 - NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes
 - NFPA 13R Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height
 - NFPA Technical Committee on Fire Reporting
 - NFPA Technical Committee on Data Exchange
 - NFPA Educational Messages Advisory Committee

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NFFF Life Safety Initiative #6: *Develop and implement national medical and physical fitness standards that are equally applicable to all firefighters, based on the duties they are expected to perform.*

USFA Related Actions:

- USFA has numerous initiatives and partnerships in Firefighter Health and Wellness detailed at: <http://www.usfa.dhs.gov/fireservice/research/safety/fitness.shtm>
- Other related efforts include *Study of Emerging Health and Safety Issues of the Volunteer Fire Service*, done in partnership with the National Volunteer Fire Council (NVFC): http://www.usfa.dhs.gov/downloads/pdf/publications/fa_317.pdf and *Sleep Deprivation in Emergency Services* with the International Association of Fire Chiefs (IAFC): http://www.usfa.dhs.gov/fireservice/research/safety/sleep_deprivation.shtm
- NFA Related Course:
 - *Health & Safety Officer*

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NFFF Life Safety Initiative #7: *Create a national research agenda and data collection system that relates to the initiatives.*

USFA Related Actions:

- See LRC in Life Safety Initiative #1.
- USFA's *Fire Research Agenda* provided to the Committee on Commerce, Science, and Transportation of the United States Senate and the United States House of Representatives Committee on Science in March 2001 described USFA's research agenda:
<https://www.usfa.dhs.gov/downloads/pdf/research/01research-agenda.pdf>
- USFA has participated in the development of research priorities of other groups including NFFF, National Institute of Standards and Technologies (NIST), and others.
- USFA created, and in cooperation with NFFF, maintains the National Firefighter Fatality Analytical Database system. This effort supports ad hoc reporting for inquiries made to USFA and/or NFFF, and provides online Internet access in database listing, report, and/or user tailored database output format. The database includes statistical and narrative research materials related to historical firefighter fatalities for comparison, contrast, mitigation and planning purposes.
- The NFA's Executive Fire Officer Program requires students to conduct original data-driven research applied to problems in the student's jurisdiction. These reports are posted on the USFA web site.
- NFA Related Courses:
 - *Executive Development*
 - *Executive Analysis of Fire Service Operations in Emergency Management*
 - *Executive Leadership*
 - *Advanced Safety Operations in Emergency Management*

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NFFF Life Safety Initiative #8: *Utilize available technology wherever it can produce higher levels of health and safety.*

USFA Related Actions:

- USFA employs the use of information technology to promote firefighter health and safety awareness through the following media:
 - USFA's Web site is used to disseminate the annual firefighter fatality report, research project information, publications (through online ordering and download), and related information from other Federal agencies such as NIST and the National Institute for Occupational Safety and Health (NIOSH). In addition, visitors to the site may run statistical queries against the firefighter fatality database.
 - USFA's Twitter account is used to disseminate USFA and partner information (e.g., NIOSH, Everyone Goes Home, NFFF, IAFC, NVFC, etc.) about firefighter health and safety.
 - USFA E-mail Lists (GovDelivery) are used to disseminate firefighter fatality notices and other information related to promoting awareness of firefighter health and safety.
- See LRC in Life Safety Initiative #1.
- USFA has numerous studies with NIST researching innovative technologies to enhance firefighter operational safety and effectiveness, including research on and development of:
 - 1) structural collapse prediction technology:
<https://www.usfa.dhs.gov/fireservice/research/safety/nist1.shtm>,
 - 2) computer based firefighter training technology:
<https://www.usfa.dhs.gov/fireservice/research/safety/computer.shtm>,
 - 3) firefighting tactics under wind-driven conditions:
https://www.usfa.dhs.gov/fireservice/research/dsn/dsn_wind_conditions.shtm,
 - 4) structural ventilation techniques:
<https://www.usfa.dhs.gov/fireservice/research/dsn/nist5.shtm>,
 - 5) fire suppression effectiveness of hose streams:
<https://www.usfa.dhs.gov/fireservice/research/dsn/nist4.shtm>, and
 - 6) municipal water supply systems:
https://www.usfa.dhs.gov/fireservice/research/dsn/dsn_waterstudy.shtm
- USFA provides support to the Department of Homeland Security Science and Technology Directorate in the development of technology to enhance firefighter safety, including personnel accountability and firefighter physiological monitoring.
- NFA highlights Lessons Learned from recent incidents and incorporates them into courses as appropriate. When appropriate, these lessons are posted on line.

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NFFF Life Safety Initiative #9: *Thoroughly investigate all firefighter fatalities, injuries, and near misses.*

USFA Related Actions:

- The LRC aids the fire service community by helping them easily discover reports and articles from many sources that have appeared in print over the past several decades relating to firefighter fatalities. A Web page, <http://go.usa.gov/i7V>, provides important knowledge and lessons learned through investigations of firefighter fatalities, injuries and close calls.
- As the United States' (federal) public agency of record, identify and provide notice of the Country's on-duty firefighter fatalities with initial incident summary to the fire service community in general, and specifically to NIOSH, NFFF, and other partner entities.
- USFA works in partnership with NFFF, National Fire Protection Association (NFPA), and others, to research all on-duty firefighter fatalities each year and report in summary form (*Firefighter Fatalities in the United States*), while providing online listings and links to detailed NIOSH firefighter fatality reports.
- NFA monitors significant incidents and applies "Lessons Learned" to curricula as appropriate. The new information may appear in Incident Command and Control curriculum, EMS Management curriculum, Risk Management curriculum and others.

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NFFF Life Safety Initiative #10: *Grant programs should support the implementation of safe practices and/or mandate safe practices as an eligibility requirement.*

USFA Related Actions:

- USFA staff participates in criteria development and proposal reviews for Assistance to Firefighter Grants (AFG) and strongly supports the emphasis on health and safety initiatives. In cooperation with NFPA and the Federal Emergency Management Agency (FEMA) Grants Program Division, USFA has participated in assessments of the AFG program and has plans for future evaluation which is likely to include impact on firefighter's health and safety.

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NFFF Life Safety Initiative #11: *National standards for emergency response policies and procedures should be developed and championed.*

USFA Related Actions:

- See LRC in Life Safety Initiative #1.
- NFPA 1561 for incident management is foundational material for USFA All Hazards Incident Management Team Technical Assistance program. NWCG standard policies and procedures are integrated into various USFA programs such as Wildland-Urban Interface, Wildland training with a significant focus on safety standards.
- USFA has numerous emergency vehicle safety research and studies that support enhancement of safe emergency vehicle response policies:
<https://www.usfa.dhs.gov/fireservice/research/safety/vehicle.shtm> including USFA's *Emergency Vehicle Safety Initiative*, a project aimed to reduce the number of firefighters killed in vehicle crashes and from being struck on the roadway. Major National-level fire and emergency services associations as well as other organizations with expertise in emergency vehicle safety provided input on this effort that resulted in a comprehensive report detailing recommendations being developed.
- Taking recommendations from the *Emergency Vehicle Safety Initiative*, USFA has initiated partnerships with the [IAFC](#), the [IAFF](#), and the [NVFC](#) to reduce the number of firefighters killed while responding to or returning from the emergency scene. Through these partnerships, materials were developed that directly target their constituencies - Chief Officers and Fire Department Leadership, Career Fire Service, and Volunteer Fire Service.
- Working with the IAFC, USFA developed the [Guide to Model Policies and Procedures for Emergency Vehicle Safety](#), a comprehensive web-based educational program aimed at reducing the impact of vehicle related incidents on the fire service and the communities they protect. It provides in-depth information for developing policies and procedures required to support the safe and effective operation of emergency vehicles in the fire service, as well as privately-owned vehicles.
- As part of this project, the IAFF has also developed a similar innovative web and computer-based training and educational program - [Improving Apparatus Response and Roadway Operations Safety in the Career Fire Service](#). This comprehensive program which includes both instructor and participant guides discusses critical emergency vehicle safety issues such as seatbelt use, intersection safety, roadway operations safety on crowded interstates and local roads, and driver training. As a result of this course, emergency responders will be able

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to apply basic strategies to safeguard their health and safety while responding to and returning from an incident and while operating on roadways.

- Through this partnership, the NVFC has developed the [Emergency Vehicle Safe Operations for Volunteer and Small Combination Emergency Service Organizations](#). This innovative web-based educational program includes an emergency vehicle safety best practices self-assessment, example standard operating guidelines, and behavioral motivation techniques to enhance emergency vehicle safety.
- USFA's *Alive on Arrival: Tips for Safe Emergency Vehicle Operations* provides information regarding this Life Safety Initiative:
http://www.usfa.dhs.gov/downloads/pdf/publications/fa_255f.pdf
- USFA worked with many other agencies to pass and adopt the Federal Geographic Data Committee, United States National Grid (USNG). It is designed to encourage, especially large area response operations and next-generation technologies related to firefighter and asset tracking/accountability systems, the National standard for location based technologies and a common, unified, language of location spanning all jurisdictional boundaries.
- Consensus standards and best practices are cited as appropriate across the NFA's curricula.

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NFFF Life Safety Initiative #12: *National protocols for response to violent incidents should be developed and championed.*

USFA Related Actions:

- USFA's [EMS Safety – Techniques and Applications](http://www.usfa.dhs.gov/fireservice/research/ems/ems_responder_safety.shtm) discusses response and approach to violent incidents. This document is in the process of update and revision:
http://www.usfa.dhs.gov/fireservice/research/ems/ems_responder_safety.shtm
- Best practices are highlighted as appropriate across NFA curricula.
- NFA Related Courses:
 - *Incident Safety Officer*
 - *Emergency Medical Services Special Operations*
 - *Advanced Safety Operations & Management*
 - *Incident Command & Control curriculum*

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NFFF Life Safety Initiative #13: *Firefighters and their families must have access to counseling and psychological support.*

USFA Related Actions:

- See LRC in Life Safety Initiative #1.
- Family support and wellness are addressed in NFA's Health and Safety Officer Course.

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NFFF Life Safety Initiative #14: *Public education must receive more resources and be championed as a critical fire and life safety program.*

USFA Related Actions:

- USFA leads a public education program that develops resources in support of fire department public education efforts. Since 80% of all fire deaths occur in residential fires, educating the public to prevent fires and to respond appropriately will help reduce the number of potentially deadly incidents.
- USFA's public education efforts include campaign development based on national statistics for specific high-risk populations or specific frequent causes of residential fire. This includes development and distribution of campaign resources offered at no cost to community organizations (primarily fire departments) either via the Web, DVDs, or in hard copy.
- Public Education Campaigns:
 - **Prepare. Practice. Prevent the Unthinkable** (*Caregivers of young children*)
 - **50+** (*A campaign for older adults*)
 - **Install. Inspect. Protect.** (*Smoke alarms and sprinklers*)
 - **Smoking and Home Fires** (*Fire safe smoking*)
 - **Quick Response** (*Tracking of residential civilian fatalities, follow up with community outreach to local fire departments and media*)
- USFA maintains the new Prevention and Public Education Exchange, an online repository developed as part of USFA's Strategic Plan to meet the needs of fire safety educators and to help with designing or adapting their programs and messages. The Exchange is available for searching via the LRC's Website. Each entry contains descriptions, links for digital materials, and contact information to reach the creator.
- The LRC has undertaken a current awareness service on fire prevention in the media that is mailed to several thousand stakeholders via email. The service helps foster a shared awareness of the latest news in the press in the area of fire prevention and public education. Stakeholders greatly benefit because the emails ensure access to timely and relevant information while avoiding information overload.
- The NFA was founded to improve the nation's fire service's public fire safety efforts. The NFA offers 16 Residential courses, 5 courses off-campus and one course on line that directly relate to this Initiative.

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- NFA Related Courses:
 - *Executive Analysis of Community Risk Reduction*
 - *Leading Community Fire Prevention*
 - *Demonstrating Your Fire Prevention Program's Worth*
 - *Community Education Leadership*

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NFFF Life Safety Initiative #15: *Advocacy must be strengthened for the enforcement of codes and the installation of home fire sprinklers.*

USFA Related Actions:

- The “Install. Inspect. Protect. Campaign” advocates for the installation of smoke alarms and residential fire sprinklers.
- USFA’s Prevention Advocacy Resource and Data Exchange (PARADE) network (comprising a designated portion of the Nation’s fire marshals) has as one of its objectives to identify all aspects of fire prevention critical to protection of life and property. This includes research and prevention advocacy in the following areas: code enforcement, building and fire codes, fire prevention systems, etc. The PARADE participants passed a unanimous resolution in support of the International Residential Code requirement for fire sprinklers in one- and two-family dwellings and townhouses at the 2009 National PARADE Conference. The resolution may be found at:
http://www.usfa.dhs.gov/downloads/pdf/parade_sprinkler_resolution.pdf
- To view USFA’s position on residential sprinklers visit:
<http://www.usfa.dhs.gov/about/chiefs-corner/060409.shtm>
- Home Fire Sprinkler Coalition (HFSC) – USFA and the HFSC share the objective to promote better knowledge, understanding, and use of detection and automatic fire sprinkler technology in residential dwellings. The mission of HFSC is to inform consumers about the benefits of installing home fire sprinkler systems, focusing on new construction and one-and two-family dwellings. The HFSC typically works with the fire service, home builders, and fire protection contractors and provides educational materials, newsletters, public education kits and support to adopt residential ordinances. www.homefiresprinkler.org
- Residential Fire Sprinkler Institute (RFSI) – USFA and the RFSI are dedicated to reducing death, injuries, and property damage from fire. Along with campaigning for the installation of residential sprinkler systems, the RFSI program encourages community adoption of a totally integrated residential fire safety program that includes:
 - Public awareness and education.
 - Early warning detection and alarm.
 - Carbon monoxide detection.
 - Policies and other requirements to foster a fire safe residential built environment.
- The RFSI website (www.firesafehome.org) provides extensive resources including model ordinances, technical information, data and statistics.

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- The RFSI communication efforts, “Operation Life Safety”, is a highly informative publication on residential fire sprinklers, smoke alarms and related current events information that is distributed electronically and at no cost to fire departments and others interested in fire safety.
- Technical assistance, speakers’ bureau, telephone, email, written support, and workshops are provided by RFSI to fire departments, local and state governments, and industry regarding programs that involve residential fire sprinklers, smoke alarms and carbon monoxide detection.
- NFA Related Courses:
 - *Fire Protection for the Built Environment*
 - *Principles of Fire Protection: Structures & Systems*
 - *Code Management: A systems approach*
 - *Developing Fire & Life Safety Strategies*
 - *Prevention & Mitigation Advocacy for Small Department Responders*
 - *Fire Protection Systems for Emergency Operations*

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NFFF Life Safety Initiative #16: *Safety must be a primary consideration in the design of apparatus and equipment.*

USFA Related Actions:

- USFA has numerous emergency vehicle safety research and studies that support enhancing the safe design of emergency vehicles, including the [Emergency Vehicle Safety Initiative](https://www.usfa.dhs.gov/fireservice/research/safety/vehicle.shtm#c) as well as the study of Emergency Vehicle Warning Lighting: <https://www.usfa.dhs.gov/fireservice/research/safety/vehicle.shtm#c> and Emergency Vehicle Visibility and Conspicuity: https://www.usfa.dhs.gov/downloads/pdf/publications/fa_323.pdf
- USFA partnered with NIOSH to support its Evaluation of Emergency Services Vehicle Occupant Safety, a project which addresses ambulance and EMS vehicle safety: https://www.usfa.dhs.gov/fireservice/research/ems/ems_vehicle_safety.shtm
- USFA has numerous studies with the NIST to examine ways to enhance the safety of firefighter protective clothing: <https://www.usfa.dhs.gov/fireservice/research/safety/nist9.shtm> and equipment such as Self-Contained Breathing Apparatus: https://www.usfa.dhs.gov/fireservice/research/safety/scba_thermal.shtm, thermal imaging technology: <https://www.usfa.dhs.gov/fireservice/research/safety/nist3.shtm> and Personal Alert Safety Systems (PASS) technology: <https://www.usfa.dhs.gov/fireservice/research/safety/nist2.shtm>,