U.S. Fire Administration

Working Together to Extinguish Serial Arson

National Arson Awareness Week Media Kit

May 1-7, 2011
The U.S. Fire Administration (USFA) announces the theme for the 2011 Arson Awareness Week: Working Together to Extinguish Serial Arson. USFA and its partners will use the week of May 1-7 to focus public attention on the value of a collaborative effort with law enforcement, fire and emergency service departments, and the community to battle serial arsonists.

The goal for this year’s Arson Awareness Week is to focus attention on serial arsonists and provide law enforcement, the fire service, and communities with tools and tactics to battle arson in their cities and towns. The USFA is partnering with the International Association of Arson Investigators; Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF); USAonWatch; National Association of State Fire Marshals; National Volunteer Fire Council; and the Insurance Committee for Arson Control.

**Arson Watch Program**

Communities can develop a Watch Program, partnering with their local fire department, law enforcement, insurance providers, business leaders, churches and local community groups. Neighborhoods can reduce the likelihood of arson occurring by promoting neighborhood watches, educating people about recognizing and reporting unusual activities, and implementing improved internal and external security for homes and businesses. A community Arson Watch Program can put the neighbor back into neighborhood by creating a sense of cooperation. It brings the fire service, law enforcement and citizens together to reduce the crime of arson.

Download the 2010 Arson Awareness Week media kit “Community Arson Prevention” (PDF)

**Motive-Based Offender Analysis of Serial Arsonists**

Many communities across the country are experiencing a rash of serial arson-related fires. Serial arson is defined as an offense committed by firesetters who set three or more fires with a significant cooling off period between the fires. These types of fires plague many rural and urban communities and cause significant loss of life and millions of dollars in property damage; this adds to the suffering being caused by the current economic climate. Serial arsonists generally set fires for the same reason as other arsonists.

**Read the Report: A Motive-Based Offender Analysis of Serial Arsonists »**

**Abstract:** This study was a joint effort between the U.S. Department of Justice (DOJ), the FBI, and the Federal Emergency Management Agency’s USFA. The research was conducted by the National Center for the Analysis of Violent Crime (NCAVC). The project was designed to help arson investigators and prosecutors convict arsonists. Specifically, the project was implemented to identify common characteristics and motives of serial arsonists.

The NCAVC classifies arson motives into six categories: vandalism, excitement, revenge, crime concealment, profit and extremist. Each motivation is examined and explained in this study. A case history of an arsonist is provided for each type of motivation. NCAVC also conducted research on pyromania as a motive for arson. Their research argues that pyromania may not exist. The American Psychological Association concludes that a pyromaniac cannot be psychotic. If this is true, than a firesetter understands the difference between right and wrong. The irresistible impulse supposed pyromaniacs claim to have may simply be an impulse they choose not to resist.

A section of the study focuses on characteristics of arsonists. The attributes and life histories of arsonists were studied for possible similarities. Age, sex, race, education level and previous criminal histories were examined for connections. The study found that most arsonists were white males around age 27, with a 10th grade level education, and that almost all had prior arrests and convictions.

The last section presents the information from the study that is of immediate value to fire investigators. This section is organized by motive classification for easy reference by fire investigators.
Joint Fire/Police Teams and Arson Task Forces

Investigations related to serial arsonists are typically very challenging and labor-intensive events to investigate. Serial arsonists are often not apprehended until they have caused tremendous devastation, unrest and fear within a community. It is unrealistic to think that any one person or agency will possess all of the requisite knowledge, experience, skills, training and expertise necessary to effectively investigate these types of cases. Therefore, whenever possible, a task force or team approach should be used that employs effective criminal investigative techniques.

Steps in Planning a Single Jurisdiction’s Arson Task Force

Traditionally, the most effective arson prevention and control strategies have been based on using a team or task force approach that leverages the resources of the fire service, law enforcement, the insurance industry and the community. There are several important steps that organizations should follow in establishing and maintaining arson task forces and joint fire/police teams to successfully investigate, solve and prosecute serial arson cases. They include the following:

1. Identify Problems

This should include but not necessarily be limited to consideration of the following:

- The number and types of arson documented as occurring in the jurisdiction’s retrospective examination (perhaps over the previous five years) of the conduct and outcome of the investigations of major and/or serial fires (include all incidents meeting these criteria, not just known arsons).
- Adequacy of existing investigative mechanisms in dealing with large or serial fires (i.e., Would a high intensity effort have led to a more satisfactory outcome?).
- Benefits to be gained from establishing the strike force.

2. Confer with Counterparts in Other Agencies

Fire service executives should meet with their law enforcement counterparts (or vice versa) to discuss problems identified in Step 1 and potential applicability of the strike force option. Law enforcement officials may be aware of other instances in which the strike force concept has proved effective in dealing with homicide, narcotics or organized crime activity. This may predispose them to the benefits of the concept when applied to arson investigation.

3. Seek Prosecutor’s Advice and Participation

Ultimately, the success or failure of the strike force approach will depend on the involvement of prosecutors. Therefore, the district attorney or state’s attorney should be consulted as early as is practical in the development of a strike force. The prosecutor’s support for and input to the strike force formation will ease its development. Specific understandings should be sought from the outset on the strike force’s role, composition, and procedures, and the role of the prosecuting attorney’s staff in the strike force. Working out these understandings in advance will later aid cases that the force develops to be effectively prosecuted. And convictions, not just clearances, are the hallmark of successful arson strike forces.
4. **Develop Justification**

Justification for the strike force approach is likely to come from:

- Data documenting that major arson incidents or serial arsons would be better resolved through a concentrated effort.
- Staff and/or budget cutbacks that result in a need to address an arson caseload with diminished resources.

Justification might include noting that the strike force constitutes a standing reserve of investigative capability at little additional cost. This would be an especially potent argument in favor of a strike force if the problem identification phase shows that shortages of personnel and resources have seriously hindered previous investigations of major and/or serial fires. If appropriate, point out the prudence of establishing the strike force before a major arson requires establishing it on a crash basis.

5. **Design Organizational Structure**

Designing a general structure for the strike force will require at least three steps. These are:

1. Identifying participating agencies and their roles.
2. Identifying applicable external resources (e.g., state investigative agencies, Internal Revenue Service, postal inspectors, sources of heavy equipment).
3. Defining the Incident Command System to be followed.

6. **Evaluate Expense Requirements**

Strike force activities should not require significant increases in expenditures because they rely primarily on the use of existing resources. Typically, participating agencies will cover the costs of their personnel and resources supplied to the strike force. There will, however, be some costs that cannot be handled in this way. Principles for sharing these costs will have to be developed. They should be simple, fair and agreeable to all participating agencies.

Some agreements stipulate a time limit for no-cost investigative assistance. For example, the Sierra Front Interagency Investigation Association provides that the first 48 hours following assignment will be no cost to the requesting agency. Time over that amount is subject to reimbursement decisions on a case-by-case basis.

7. **Seek Agency Endorsements**

Participating agencies should formally endorse the planned strike force and state their commitment to its support.

8. **Seek Policymakers’ Authorization**

Interagency strike force arrangements in single jurisdictions may require authorization from elected and appointed policymakers before a formal organization can be developed.

9. **Complete Organizational Planning**

Once policymakers give the green light, the next step is to complete the detailed planning for how the strike force will be organized and managed.

**Bureau of Alcohol, Tobacco, Firearms and Explosives Criminal and Geographic Profiling Program**

Since 1986, ATF has had special agent/criminal profilers assigned to the FBI’s NCAVC in Quantico, Virginia. The NCAVC is a law enforcement-oriented, behavioral science and resource center that offers investigative support, research and training to law enforcement agencies throughout the world.

The profiler’s primary mission is to assist with operational support relating to arson and bombing investigations by analyzing the behavior of the offender and the locations of connected crimes in an attempt to pinpoint the most probable area where an offender would live to assist in the identification, arrest and prosecution of the offender. The ATF Criminal and Geographic Profiling Program is offered to federal, state, and local fire service and law enforcement agencies.

**Assistance to State and Local Investigators**

ATF is an agency of the DOJ that protects communities from violent criminals, criminal organizations, the illegal use and trafficking of firearms, the illegal use and storage of explosives, acts of arson and bombings, acts of terrorism, and the illegal diversion of alcohol and tobacco products. ATF maintains a workforce of special agents, certified fire investigators, certified explo-
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Rescues specialists, national response teams, intelligence research specialists, forensic auditors, technical operations officers, and support staff that are available to assist state and local fire service and law enforcement agencies upon request. These resources can be accessed by contacting ATF regional offices.

ATF Regional Field Office Contacts »

Witness-Driven Fire Investigation Protocol

One way of ensuring that investigators obtain information and evidence of the highest quality and utility is to follow sound protocols in their investigations. Recent cases in the criminal justice system demonstrate the need for heightened awareness of investigators to adhere to strict investigative procedures and practices at all crime scenes to avoid evidentiary and other legal challenges. Fire investigation, like other criminal investigations, benefits from organized teamwork, consistent practices, and a logical investigative process tailored to individual crime scenes. The implementation of a standard investigative protocol is also required to effectively investigate, solve and consistently secure convictions in arson cases.

One such protocol that continues to be effectively used by fire/arson investigation units throughout the country is the Witness-Driven Fire Investigation Protocol.

This protocol is a systematic, “street-proven” tactical investigative approach for all incidents based on the scientific method that is intended to maximize the amount of reliable physical, witness, and documentary evidence and data at a fire scene while helping to avoid evidence contamination or destruction. It emphasizes immediately interviewing witnesses and collecting and documenting evidence in stages.

Preliminary Scene Examination

The objective of the preliminary scene examination is to quickly identify the general area of fire origin, interview persons who were present in or near the area when the fire began, identify other persons present on the scene as the first police or fire department units arrived, and to locate and protect physical evidence. Once the initial size-up is completed, investigators should secure the scene and focus the investigative team on identification of key witnesses and documentation of their interviews.

Interview Witnesses

Investigators should immediately begin to locate occupants, neighbors and persons in the area at the time of the incident, passer-by witnesses, and the person(s) who discovered and/or reported the incident. Whenever possible, witnesses should be interviewed in the following order: a victim or complainant; a witness who observed the initial fire occur; a witness who did not observe the fire ignition but has information regarding what occurred prior to or after the incident; and a hostile witness or suspect. These witnesses can provide pertinent information about a fire even if they were not eyewitnesses to the actual event.

Comprehensive Scene Examination

One of the major objectives of a comprehensive scene examination is the recognition, identification and analysis of fire patterns to reconstruct the scene. The analysis of fire patterns is performed in an attempt to trace fire spread, document damage, identify the area and point of origin, identify the fuel/components involved, and determine the cause of the incident. Investigators must corroborate known facts, circumstances and findings with information obtained from interviews.

Follow-up Investigation

The primary purpose of the follow-up investigation is to identify and successfully prosecute the perpetrator(s) of the crime. In the final stage of a fire investigation, leads generated in the investigation are aggressively pursued and evaluated, and all evidence is evaluated and analyzed to identify and apprehend the perpetrator(s).

Additional Information

- FM Global
- A Pocket Guide to Accelerant Evidence Collection 2nd Edition

Failure Points and Case Solvability Factors

There are several “failure points” in arson investigations that can have a potentially devastating impact on the ability of investigators to successfully investigate and solve cases and for prosecutors to successfully prosecute them.
Failure Points

• Delay in the initiation of an investigation.

The general rule in any criminal investigation has always been, the quicker the investigator can respond to the scene, the better the chances of securing the scene, identifying potential witnesses, preserving evidence, and solving the case. After days pass, the flow of information and the ability to generate leads to successfully solve serial arson cases diminishes significantly.

• Failure to identify key witnesses and record statements.

It is crucial that as soon as investigators arrive on the scene, they attempt to “lock-in” as many witness statements as possible from key players in the investigation. The documentation of these statements can prove invaluable as time passes and the investigation progresses to the point where a potential suspect(s) is identified.

• Leads are not sufficiently corroborated.

Investigators who know how to “investigate” need to follow-up and corroborate all leads. If this is not done, the quality of the investigation will suffer, not to mention the potential negative impact on the timely identification, apprehension and prosecution of an offender.

• Failure to conduct a comprehensive origin and cause examination.

If the quality of the fire scene examination is poor, the entire investigation is potentially compromised and doomed for failure, especially when it comes time to testify with regard to the cause of the fire. Investigators must take the time to accurately determine the origin and cause of the incident. A successful serial arson investigation begins with conducting a scientifically sound origin and cause determination.

• Poor collection and documentation of evidence.

Another common failure in arson investigations is deficiencies in the collection and documentation of physical evidence. Investigators must exercise extreme caution and take the time to properly collect and document all potential evidence to avoid contamination, chain of custody, and inadmissibility issues if and when the case proceeds to trial.

• Lack of teamwork.

A successful arson investigation requires teamwork among all agencies that have a stake in the outcome of the investigation. With more and more scrutiny being placed on the scientific and technical bases for origin and cause determinations by defense attorneys and the courts, investigators need to rely on the assistance of outside technical specialists such as fire protection engineers, fire scientists, electrical engineers and other experts to support their cases and withstand the rigors of cross-examination.

• Cases are not effectively managed and prioritized properly.

One of the most important responsibilities of the unit manager is to manage, prioritize and assign cases for follow-up investigation that have a high probability of being solved. This should be based on a structured case management system using case solvability factors.

Case Solvability Factors

Case solvability factors are those identifiable facts or circumstances that make a case potentially solvable that are identified and documented during the investigative process. Case solvability factors provide a standard approach for effectively screening, prioritizing and managing investigative caseloads and resources.

The use of case solvability factors is extremely important for successfully investigating serial arson cases. The success of the follow-up investigation depends on how thorough the preliminary scene investigation is conducted and on the quality of the information collected by investigators during the initial stages of the investigation.

The following is a list of the case solvability factors that should be documented by investigators at every fire scene as part of the preliminary investigation:

• Are there any witnesses to the crime?
• Does anyone have knowledge of a suspect’s name?
• Does anyone have knowledge of where a suspect(s) can be located?
• Is anyone able to provide a description of any suspect(s)?
• Is anyone able to identify a suspect(s)?
• Is there any property with traceable identifiable characteristics, marks or numbers?
• Is there a recognizable method of operation (modus operandi)?
• Is there any significant physical evidence present?
• Was a suspect’s vehicle described or identified?
• Did a crime scene evidence search yield verifiable results to support the cause of the event?
• Is there a belief that the crime may be solved with publicity and/or reasonable additional investigative effort?
• Was there an opportunity for anyone, other than the suspect(s), to commit the crime?

Fire/Arson Investigation Success Stories

Tampa Fire Department — Florida

A series of approximately 30 arson-related fires that plagued Tampa, Florida, for more than a year recently prompted city officials to overhaul how the city investigates fires. Earlier this year, the Tampa Fire Department’s three fire/arson investigators and their supervisor were moved to Tampa police headquarters to work alongside police detectives. A training program was also implemented aimed at training police investigators in determining the origin and cause of fires and training fire/arson investigators in various criminal investigative techniques. According to Tampa’s fire chief, moving fire/arson investigators to police headquarters created a more robust and aggressive team. Moreover, assigning fire/arson investigators to partner with police detectives also provides access to a wealth of resources such as technical surveillance equipment, forensic evidence support, and intelligence sources that often prove instrumental in successfully solving arson and bombing cases.

Shortly after joining forces, the newly formed team of fire and police personnel made an arrest in connection with one of the fires; however, the suspect is thought to be responsible for multiple fires. Since the arrest, the city has not experienced any major fires in the neighborhood that, up to that point, was experiencing several fires a month.

Chester County Arson Task Force — Coatesville, Pennsylvania

In 2008 and 2009, a string of approximately 65 fires believed to be the work of a serial arsonist or arsonists ravaged the community of Coatesville, Pennsylvania, a town of approximately 10,000 residents, located approximately 35 miles west of Philadelphia. Shortly after the fires began, a state of emergency was declared that gave the city powers to board up buildings, assign police officers to protect structures, provide help to affected families and remove items that they deemed dangerous from properties, and to immediately purchase safety equipment without budgetary concerns. In addition, a multijurisdictional arson task force comprised of agents from the ATF, the FBI, the Coatesville Police Department, Pennsylvania State Police, and Chester County Police Department detectives was organized.

The majority of the fires were set at night, often fueled by furniture or trash located on porches. At first, vacant homes on the city’s west side were targeted, but the arsons eventually migrated to occupied homes causing millions of dollars in property damage and fear and unrest throughout the community. In a proactive effort to calm fears and to limit the potential for homes to be easy targets, the city asked residents to clean off their porches, turn on outside lights, and refrain from putting their trash out until morning. The city supplied smoke detectors to residents. Police also initiated special nighttime patrols and urged residents to immediately report any type of suspicious activities.

The Chester County Arson Task Force launched an intensive, around-the-clock investigation that eventually led to the arrests of several individuals responsible for the majority of the fires. The motives for the firesetting activities were not firmly established, but investigators believe the reasons ranged from excitement to vandalism. The success of the investigative efforts that led to the arrests was based on an unmatched level of commitment on the part of the members of the task force to share resources and information.

Read More About this Success Story »
Earlier this year, Portland Fire & Rescue responded to four suspicious car fires. This was in addition to two other car fires that were reported over the previous few days for a total of six car fires. Two fire investigators were patrolling the area of the fires as part of their investigation around midnight one evening. While driving down the street, the investigators smelled the odor of burning paper. Upon further investigation, and to their surprise, they discovered a fire inside a carport at a residence. The fire had originated in a recycle bin and was rapidly spreading into the ceiling and walls of the carport.

One of the investigators woke the sleeping family and assisted them to safely evacuate. The other investigator pulled the recycle bin outside and called for firefighting resources. Portland Police Bureau also responded with their canine units and set up a perimeter search of the area. Fire investigators arrested a suspect. He was charged with one count of arson and one count of reckless endangerment in connection with the fire. Fire investigators believe that the individual may have been connected with all six car fires, plus an additional six suspicious fires in the area for a total of 13 fires.

Public Education

The concept that “arson is everyone’s problem” should be continually conveyed through public meetings, news releases, bulletins, notices and training sessions. A high incidence of serial arson in a community directly affects every citizen who lives or works there. As crime rises, the quality of life and property values of homes and businesses decline. All members of the community have a stake in arson prevention and control. Administrators and managers must build coalitions that will implement their proposed initiatives and solutions. They must also communicate to the community that the threat of arson affects everyone. Therefore, the assistance and cooperation of everyone is required to successfully solve the problem.

Administrators, managers and government officials should take advantage of every available opportunity to use forums and communication channels such as the news media, public safety events, community meetings, neighborhood watch meetings, and arson awareness and fire prevention week campaigns to publicize the work of the task force or team. Cases should be made that showcase the positive impact that the task force or team has on the community and promote its effectiveness in reducing crime, preserving life and property, and reducing insurance costs. This is an important step to sustain long-term task force or team operations and to enjoy a continuous flow of adequate political/community support, funding and resources to remain viable and effective against serial arson.

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