



Fire Alarm Response and Management Summit

Washington Dulles Hilton, 13869 Park Center Road, Herndon, VA 20171

Proceedings Summary

May 3, 2011

Opening Remarks: Reflections on "A Shared Challenge"

Meeting facilitator Paul Cooper provided an overview of the day's events with an eye toward the objective of working across stakeholder boundaries to share perspectives on the nuisance alarm issues and collectively explore shared solutions. Attendees were briefed on the expectations surrounding open mindedness, collaboration and professionalism.

Chief Jack Parow, president of the International Association of Fire Chiefs (IAFC), Ken Willette, Public Fire Protection division director at the National Fire Protection Association (NFPA) and Alex Furr, director of the U.S. Fire Administration's (USFA) National Fire Programs welcomed the participants and provided their perspective on the issues surrounding unwanted and nuisance alarms, and the risks associated with them. Ms. Furr referred to the issue as a "complex puzzle" encompassing resources, technology, politics, standards, business models and response protocols that will require all stakeholders to contribute to the solution.

Design and Manufacturing Panel

Michael Lynch, Honeywell
Roger Reiswig, Simplex Grinnell
Daniel Finnegan, Siemens

Multi-criteria detection, which can monitor the environment and identify specific and multiple threats, is online for development but needs to be brought forward into the market and into the codes, which currently has no minimum standards for new technology.

Panelists noted that progress in early warning fire detection has made tremendous progress, but that operationally, most systems continue to center around 40-year-old technology – a fact driven by an industry culture

to not actively promote its successes, customer comfort with old systems and price points, and the cumbersome code change process.

Clearly, the multi-criteria technology— along with additional next-generation enhancements such as analytical software that can support informed decisions and equipment that can functionally monitor itself— will be tremendously helpful, but both panelist and participants warned they are not the entire solution to a problem that is not entirely new.

Industry panelist suggested that the current discussion reveals no new unknown challenges; the aging of systems, lack of maintenance, the need for improved training/education, and needed improvements in technology and installation have been known for some time, but are not issues any one stakeholder group—or technology—can address alone.

Both panelist and participant repeatedly focused on the challenges posed deficiencies in maintenance and a perceived growing complacency by building owners and managers. They noted several often-seen reasons, such as the lack of knowledge of the code, the lack of perceived value in maintenance or code adherence, the desire to avoid disruption of their business or other perceived hassles, and the desire to save money (particularly in the current economy).

While the maintenance challenges seem to have many sources, financial issues were the clear front-runner on the inability or unwillingness to upgrade to newer and technologically smarter systems. Given the market forces at play, industry often needs to direct its energy and resources on identifying ways to “band-aid” old systems to meet new needs, slowing the speed at which new technological solutions can be developed.

Other challenges that industry had identified and are working toward addressing include:

- The need for industry to improved data collection and analysis from both internal and customer sources (Point ID technology was identified means for incident data collection).
- Improved education of both industry employees, customers and the fire service concerning the code, technology and industry data.

Design and Manufacturing SWOT Analysis

Strength:

Evolving technology

Weakness:

Education; data collection and analysis

Opportunity:

Multi-criteria technology raises the minimum level of detection; old systems replaced; stakeholders willing to work together.

Threat:

Misinformation/conflicting information will cause frustration and complacency in the public; cost; economy

- New technology needs to be brought to market in a way that is cost-effective to the customer, but also profitable for the industry.
- The long-term nature of the code process; changes proposed today could take 5-10 years to implement.

In looking at the future, manufacturers saw a melding of new technology and a new cultural outlook. Specifically, it was suggested that “smoke” or “fire” alarms will be obsolete in the next ten years, replaced by “building life safety systems” that incorporate multiple threats, monitoring, and more functional reporting, particularly to incident commanders via mobile devices.

Additionally, as technology solutions emerge, manufactures foresee a future where both industry and customers become more service oriented. This shift will support an improved outlook on certified maintenance and service, data collection and information sharing across stakeholders.

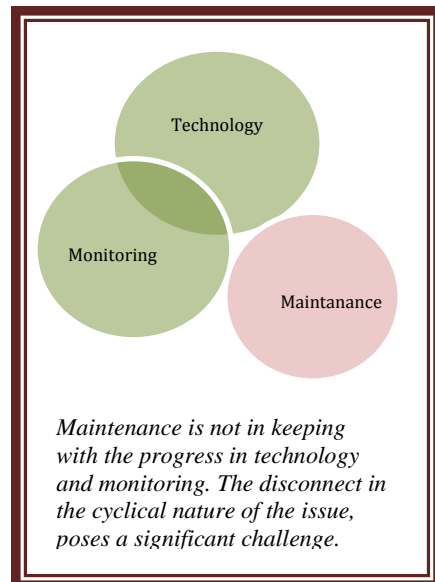
Despite an overall positive outlook to the future, panelist and participants also cautioned each other. While today’s complacency may stem from challenge, one can also become complacent based on success. As new technologies and solutions move forward, we must always be mindful of new challenges that may arise.

Installation and Maintenance Practices Panel

*Peter Lowitt, Lowitt Alarms
Ed Bonifas, Central Station Alarm Assn President
Shane Clary, Bay Alarm Company*

Alarm companies find that customers will often task building staff with maintenance and service of the alarms system, but that those tasked with the job don’t typically have the certification or knowledge of the code to effectively do the job. While some may find it easy to point the finger at building owners/operators, the burden is shared by many, in what panelist and participants describes as breakdown in an inter-related process.

One panelist summed it up simply, “Technology is strong, monitoring is good, but maintenance stinks”. Completing the cycle is the only way to save lives and property.



Participants described the need for a partnership between the building owner/operator, the alarm provider, and the authority having jurisdiction (AHJ). Typically, the code says and the AHJ enforces that you need an alarm system and that it works. It does not typically enforce the code's service or maintenance requirements largely due to the lack of consequences within the code.

Participants cited examples of neighboring jurisdictions that clearly demonstrate testing and maintenance requirements make a difference in reducing false alarms. Data collection transfer and collection support not only effective response, but improved maintenance as well.

Strategically, the IAFC and CSAA, are advocating code changes that include changes concerning water flow device changes, alarm verification and maintenance of the system. However, any code changes will not produce the desired results if the AHJ's do not enforce them. In order to be successful, strategy must be paired with innovative tactics.

Tactically, service providers are looking at approaches to make a difference now.

- Eliminating false competitive advantages, by encouraging the elimination of practices that are not working industry-wide.
- Encourage owners toward compliance; raise the standard from the lowest common denominator.
- Sending technicians to evaluate activated systems under service agreements within hours of activation.
- Proactively identify customers with repeat false alarms and deploy technicians to identify potential problems.
- Installing addressable systems that make dispatching, testing and inspection easier.
- Work with customers on replacement recommendations and solutions.
- Support of UL and other similar organizations can help by providing incentives and requirements.

Life safety needs to be paramount to the concern. The frequency with which alarms sound with no consequences reinforces negative behavior and a growing complacency for both responders and the public.

Panelist addressed the realities of business frankly. Industry is supportive of the fire service's needs but cannot create solutions by themselves. Customers will gravitate to the lowest standard accepted by the local fire department. In order to stay in business, companies must offer products and services that meet the needs of customers who are only interested in

minimum requirements. Local fire department's engagement in enforcement will be critical to raising the bar.

A Perspective on the Issue

*Chief Jeff Jonson
IAFC Immediate Past President*

Chief Jeff Johnson spoke on the concept surrounding the need to address unwanted and nuisance alarms. The accreditation process requires fire departments to take a hard look at the data-driven and scientifically-based connection between what they do and the results they have. Chief Johnson proposed that nuisance alarms is the only area where fire departments actively accept a disconnect.

Fire departments will frequently penalize repeat false alarm offenders; it is time for the fire and emergency service to take an internal look at what can be done to address our own contributions to the problem. Not doing so, will affect the perception of the meaningfulness of alarms, which in turn will impact the overall value proposition of the fire and emergency service.

He urged those present to apply science, data and statistics to make a better informed decision for their communities and responders.

Emergency Response Models Panel

*Assistant Chief John Caussin, Fairfax County Fire & Rescue
Chief Mike Myers, Las Vegas Fire and Rescue
Division Chief Steve Forster, Tualatin Valley Fire and Rescue*

The panel presented three models of response.

Fairfax County (VA) Fire & Rescue applies a traditional approach with a one truck/one engine response to each alarm. In conducting a review of their data, they find that the model does tax their resources as population and call volume continues to increase. They frequently need to rely on second and third-due companies to support the broader response needs of the community. In looking at alternative response models, many inside the organization appreciate the need for change, but there is a strong concern about the shift it would require in community expectations.

Tualatin Valley (OR) Fire and Rescue has built a strong, reliable data set which has been analyzed extensively to identify the statistical probability of threats and outcomes. They have strong code enforcement procedures and do not have many repeat offenders. In short, they were doing everything they are "supposed" to be doing but were not seeing the

success other communities had. Moving to a verified response model, paired with flexible staff deployment models, began to demonstrate real results. The department policy includes a 90-second verification delay. If it cannot be verified, a single-person will be dispatched to evaluate. Once the event is verified, a full response will be dispatched.

Las Vegas (NV) Fire and Rescue discussed a difficult reality that the fire and emergency service no longer has the luxury of doing everything it may want to do, so it must focus on a specific role and work with other stakeholders to do their part. Specifically, alarm notifications are there for the public to take an action—perhaps to investigate, to take defensive action, to notify or evacuate.

Las Vegas perceives the role of the fire department to take a broader view of public safety. When the notification call comes in, the job of fire chief is to make a decision based on the information he/she has in the environment he/she is in. While there are some calls that require an automatic response, most Las Vegas alarm notifications go unanswered by the fire department.

Las Vegas has held this position since 2000 and has had no incidents as a result to date. It was also noted that Las Vegas did not take on this position in a vacuum; it was part of a comprehensive effort to increase efficiency and better utilize limited resources across the organization.

This was echoed in panel and participant discussion which noted that the decision surrounding alarms was just one piece of a larger conversation about improving efficacy and efficiency of today's fire department, and changing how we do business to meet current demands and community expectations. Further, none of these issues will have immediate results; the onus will be on the next generation of fire service leaders to see the current cultural shift through to its completion.

All panelists agreed such positions are high risk, but similarly agreed that it was clear that the fire and emergency service community needs to do something. As one panelist put it, "Are fire chiefs willing to make the move required when the data and science says it is the right thing to do?" Many participants noted the need for fire chiefs to start planning fire department business around data, science and the current reality.

Clearly, there is not one problem or one solution. Fire chiefs need options in order to make an informed decision. Once again, it was noted that data collection and analysis is critical as it can signal technology, human behaviors, risk factors, etc. that can support good decision making, education and resource efficiency.

It is precisely because of that lack of "one-size-fits-all" solution, that one participant noted his struggle with the 90-second delay proposed by IAFC to

NFPA 72, noting a concern that it may lead to the broad brush perceptions that do not apply to all communities.

Discussion revealed a number of potential barriers, the most significant of which are possible conflict with public expectations, and the fear of being the first to take such a risk and bear the responsibility – particularly when going against current standards. Fire chiefs need information resources and best practices to help them overcome these barriers.

Moving Forward

A summary discussion was held to review cumulative results of the breakout groups which followed each panel. Several overarching challenges and recommendations were identified:

- Pockets of information exist, but there is no comprehensive data set as NFIRS does not capture incident dispatch type.
- There needs to be a balance in data collection that allows you to identify trends, but not dig so deep initially that it creates a burden. It was proposed to identify a subset of representational communities to undertake an initial study.
- While there is no single answer, national/regional/local response models would be a helpful resource. While ultimately decisions need to rest within individual communities, many questions may be able to be answered by looking at case studies and experiences.

For a complete list of specific recommended action items, please see the accumulative list from the panel break-out sessions.

Regardless of any differing opinions, it was widely discussed that the participation in FALARMS summit has better prepared participants to provide more substantive participation in the solution process. Participants identified additional stakeholders to engage in future discussion.

In his closing, Chief Parow noted that the group exhibited more consensus than expected and that he was hopeful that the event had created a greater appreciation for the role of each stakeholder, and brought them closer to understanding each other's perspectives and needs. He noted that the IAFC is dedicated to finding a solution for fire service leaders and responders. He thanked participants for contributing their time and effort, which demonstrates the shared concern.

Ms. Furr and Mr. Willett also thanked participants for their support. Mr. Willett reminded groups that the NFPA code is not made by NFPA staff; that

everyone in the room has an opportunity and responsibility to contribute to a strong code. All that is required is your commitment to fire and life safety.

Consensus Points

- The broader issue can be summed up as the need to enhance efficiency of service by lowering the number of calls that need a system response, and determining the appropriate response for those who do require system-wide resources.
- Current commercial alarm systems are functioning appropriately. In signaling potential danger, they are “doing what they are supposed to do, in the way they are supposed to do it.” Most of the challenges stem from the physical, operational or response environment in which current systems exist.
- Enhancement to alarm technology are currently in the pipeline, but that will take years to fully develop and integrate. Something needs to be done to address the issue now. Stakeholders need to collaborate on an approach to address this issue, inclusive of immediate action items, intermediate research required, and long-term goals and strategy.
- Lack of data represents the biggest threat to each stakeholder; improved data collection and analysis, coupled with mechanisms to share data among stakeholders provides the greatest opportunity for success.
 - Even in a new technology environment there will still be false alarms (albeit a smaller number). Data will play a critical role in how the fire and emergency service community determines response protocols.
- Building owners and managers are critical stakeholders that need to be added to the discussion. Success will be much dependant on what building owners/operators will be willing to accept, able to implement and held accountable for.
- Education across all stakeholders needs to improve. Information needs to flow in all directions as stakeholders don’t always see the issue the same way. We can only find a common solution if we can identify the common problems.
- Complacency created by nuisance alarms– by stakeholders and the public – is a growing and significant threat.