WINGSPREAD VI

Statements of National Significance to the United States Fire and Emergency Services
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A WINGSPREAD CONFERENCE REPORT
2016 – Racine, Wisconsin
The Johnson Foundation at Wingspread
List of Major National Fire Service Organizations
Referenced in this Wingspread VI Report

Major national fire service organizations were previously referred to as the Joint Council of National Fire Service Organizations (a.k.a. nine sisters) in early Wingspread documents. The list of major national fire service organizations referred to in Wingspread VI are:

- Congressional Fire Services Institute (CFSI)
- Fire Department Safety Officers Association (FDSOA)
- International Association of Black Professional Firefighters (IABPF)
- International Association of Fire Chiefs (IAFC)
- International Association of Fire Fighters (IAFF)
- International Society of Fire Service Instructors (ISFSI)
- National Association of Hispanic Firefighters (NAHF)
- National Fallen Firefighters Foundation (NFFF)
- National Fire Protection Association (NFPA)
- National Volunteer Fire Council (NVFC)
Introduction: Wingspread, the Name

Like many successful conferences that have had a lasting importance to the nation’s fire service such as the Williamsburg ’70 Conference, the Stonebridge Conference, the Rockville Report, etc., the name often associated with such meetings and their post-conference reports refer to the location where a given conference was held, be it a city or the name of the conference center itself. Such was the case with the original Wingspread Conference.

The report and conference are named for the Wingspread Conference Center. Located in Racine, Wisconsin, the Center was designed in 1938 by Frank Lloyd Wright and is owned by the Johnson Foundation. Originally a house for the Johnson Wax family, the house was converted into a conference center in 1960, and it has been host to thousands of conferences of national and international significance. The original Wingspread Conference Reports on Fire in America are among the most valued and respected products of the Wingspread facility.

The original Wingspread Conference was held February 1966 at the Wingspread Conference Center and was sponsored by the Johnson Foundation. Eleven people participated in the event. This Conference was instrumental in leading to the establishment of today’s United States Fire Administration and its National Fire Academy.

Wingspread II was held at the Wingspread Conference Center in March of 1976. This conference occurred after the publication of America Burning in 1973 and the creation of the National Fire Prevention and Control Administration (NFPCA) in 1974. The NFPCA transitioned into the United States Fire Administration (USFA) and the National Fire Academy. Ten people participated in the conference.

Wingspread III was held in October of 1986, again at the Wingspread Conference Center. It was sponsored by The Fire Service Institute of Iowa State University and co-sponsored by the Johnson Foundation. Eight people participated in the conference.

Wingspread IV was held in Dothan, Alabama in October of 1996. The report was divided into statements of emerging issues of national importance to the fire service and statements of on-going significance to the fire service. Twenty-one people participated in the conference.

Wingspread V was held in Atlanta, Georgia in late March and early April of 2006. The report noted almost double the number of identified issues as were found in each of the previous four reports. Thirty-eight people participated in the conference.

Wingspread VI was once again held at the Wingspread Conference Center in Racine, Wisconsin. This location was selected to commemorate the 50th anniversary of the fire service Wingspread Conferences and a return to the site of the 1966 and 1976 Conferences.

The statements of each Wingspread Conference are summarized at the end of this report.

The participants at Wingspread VI overwhelmingly voted to hold Wingspread VII in five years rather than ten years. This decision was based on the rapid changes taking place in the United States fire and emergency services compared to the last 50 years.
1. The United States fire and emergency services have an urgent need to be prepared for homeland security response and violent incidents in our communities. Critical factors for being prepared include gathering and using evidence and data to establish a preparedness plan and developing and improving relationships with all stakeholders and other related agencies.

Background:

Fire and emergency services personnel must not only be prepared for fires and emergency incidents but must also prepare for violent incidents. Violent incidents may be domestic or international terrorism or day-to-day violence, and related strategies and tactics must be developed based on evidence and data to ensure safety, effectiveness, and efficiency.

Organizations must prepare strategies and tactics internally, and they must establish and improve relationships with law enforcement and all related agencies. In addition, pre-hospital emergency medical care must be provided as quickly as possible to those impacted by violence.

Critical components of the preparedness plan include but are not limited to:

- Strategies and tactics based on reliable and relevant intelligence
- Standard operating guidelines that are coordinated, practiced, and continually refined during day-to-day operations with law enforcement and all other supporting agencies
- Unified command guidelines that include policy development, training, and implementation for all affected public safety agencies to include local, state, regional, and national preparedness
- Personal protective equipment (PPE) (e.g. ballistic vests, helmets, and body armor, etc.) and special resource needs (e.g. hazardous materials or rescue equipment)
- Proactive efforts to build relationships with members of the community
- Pre-incident support and post-incident member care (Critical Incident Stress Management and behavioral health)
- Continual evaluation to improve preparation, response, and recovery from violence-related incidents
- Continued funding, training, and support from Department of Homeland Security (DHS) and Federal Emergency Management Agency (FEMA)
- Acting as a partner in the gathering of intelligence and have access to real-time information and intelligence that would impact their operational readiness

Being prepared for violent incidents requires a focus on evidence and data and strong relationships with all stakeholders and other related agencies.
Action plan:

- International Association of Fire Chiefs (IAFC), International Association of Fire Fighters (IAFF), National Volunteer Fire Council (NVFC) and International Association of Chiefs of Police (IACP) should coordinate, revisit and update their position papers on fire department response to homeland security-related and terrorist acts.

- National Fire Protection Association (NFPA) should convene a stand-alone committee to draft a standards document that addresses specific response to violent incidents.

- NFPA should consider incorporating appropriate sections in existing standards that relates to response to violent incidents.

- FEMA should ensure that all fire departments have access to, and are provided with, timely, comprehensive, and relevant information from a state and/or regional fusion center.

- National Fire Academy (NFA) and all state/regional/local fire training agencies should cooperatively and collectively develop a comprehensive training program that includes all aspects of response to violent acts.
  - Training should be distributed to all fire and EMS agencies.
  - Training should be available at no cost to member agencies.
  - Training should be both academic and practical and can include distance-based learning where appropriate and available.
  - Training content should be regularly reviewed and updated.

- Federal, state, regional, and local training agencies should have expertise in developing “Just in Time” training, simulations, and animations to address the detection and response to novel and/or emerging threats.

- DHS and FEMA should consider giving priority to federal grant requests that prepare and equip an agency to respond to violent incidents.

- Fire and emergency services agencies should be well educated on and train for, prepare for, respond to, and recover from violent incidents.
2. As guardians of life safety, the United States fire and emergency services must expect, embrace, and adapt to change by continuing to define and adopt current administrative and operational best practices. To be competitive and sustainable in a changing environment, agencies must become change agents rather than reactionaries.

Background:
To consistently recognize and adapt to change, the United States fire and emergency services must implement a strategic planning process that:

- Embraces all diversities, especially race, gender identification, and all other recognized definitions of the human condition. At a minimum, the composition of the organization should reflect the diversity of the community. Additionally, diversity should include thought and experience; agencies must embrace members who come to the table with a wide variety of perspectives to resolve problems.
- Is the result of facts, not emotion, using data and evidence-based research.
- Champions a curiosity for research.
- Encourages members to experiment with best practice-based changes that will improve all facets of service.
- Adapts and responds to changing community needs.
- Provides services proactively based on regularly surveying the community to determine current and future needs.
- Drives collaboration with other public and private agencies.
- Strengthens harm-prevention initiatives beyond the traditional fire-prevention messages.
- Is reviewed and updated annually.

The outcome of the planning process is a strategic administrative and operational plan that provides guidance for the organization to proactively implement best practices. Good leadership always embraces change to affect constant quality improvement.
Action plan:

☐ The federal fire programs and all major national fire/rescue service organizations should provide guidance to assist departments in developing and completing a strategic planning process that is valuable, effective, understandable, and easy to implement. Guidance can be provided through:
  • Tools that include templates and workshop guides
  • Best practice examples of strategic plans
  • Sources and opportunities for grant funding
  • Peer review via mutual exchange

☐ National Fire Academy (NFA) and all state/regional/local agencies should use data and evidence-based research to make sound organizational decisions and should prepare that data so that it is executable on the local level.

☐ Leadership should secure appropriate funding to support the planning process, including recruitment and retention of quality members of the organization that reflect the diversity of the community.

☐ All levels of leadership should ensure that there is a comprehensive strategic plan that includes:
  • Customer needs
  • Member needs
  • Apparatus and equipment
  • Facilities
  • Technology
  • Sustainability/greening
  • Diversity

☐ Local fire and emergency services leadership should assign a cross-functional team tasked with drafting the best practice plan within 12 months. The plan should be evaluated and updated annually to ensure it meets the needs of members and the community.
3. **The United States fire and emergency services must recognize and address the impact occupational-related disease and injury is having on the industry. The health of fire and emergency services personnel is of paramount importance to the community and to fire and emergency services. Every fire and rescue agency must focus on improving the overall health, wellness, and fitness levels of its members.**

**Background:**

As more research is completed it is becoming more evident that our profession is faced with a variety of occupational health issues that require the U.S. fire and emergency services to aggressively address the long-term health of its members.

While it is evident that job-related events such as chronic exposure to toxic environments and post-incident stress are key contributors to negative health outcomes, so too is the culture of the U.S. fire and emergency services. The reluctance by many to clean equipment, get regular medical examinations, stay physically fit, or accept that stress can be debilitating are often related to the culture of the U.S. fire and emergency services.

**Action plan:**

- The major national fire/rescue service organizations should continue to advocate and support funding for additional research into the occupational health issues of the U.S. fire and emergency services.

- Fire and emergency services organizations should implement programs to address behavioral health issues confronting their members with a special emphasis placed on suicide prevention. Major national fire/rescue service organizations have resource material that can be used to implement these programs.

- Fire and emergency services organizations should advocate for research on the impacts of chemical/toxic exposures, injury, and post-incident stress on the overall health of emergency responders.

- Local fire and emergency services leadership should develop, implement, and refine a comprehensive family support program and make this program a part of the organizations procedures and practices.

- Local fire and emergency services leadership should ensure that the physical and behavioral health of members is monitored by a qualified medical professional.

- Local fire and emergency services leadership should provide support to members’ families when necessary or desirable, such as after a severe illness diagnosis, after a critical incident, or when assigning a member to a long-term, remote assignment causing separation of the member from their family.
4. The United States fire and emergency services must embrace and participate in the on-going development of sensors and other technologies to protect the health and safety of its members.

Background:
Sensors and related technologies aid in analyzing the fire and emergency incident environment and monitor physiological and health markers, and the location of the member.

Examples of sensor options that aid situational awareness include, but are not limited to:
- Contaminated atmosphere (carcinogens)
- Identification of escape routes
- Hazardous atmosphere (IDLH)
- Member location during incidents
- Oxygen content of the operating environment
- Remaining air supply
- Temperature of the operating environment
- Weather

Examples of physiological monitoring include, but are not limited to:
- Blood pressure
- Body core temperature
- Heart rate
- Respiration rate
- Skin temperature

In addition to improving situational awareness and on-scene physiological monitoring, there must be a holistic approach to reducing cancer among fire and emergency services members. This includes awareness and prevention efforts as well as providing support to afflicted members. Areas of focus include, but are not limited to:
- Advocating for ease of decontamination in the design of equipment, apparatus, and facilities
- Conducting annual health screenings
- Containing and decontaminating equipment
- Containing and decontaminating PPE
- Decontaminating apparatus
- Establishing hot zones in stations

All of these emerging technological and design advances provide major tools to help improve member short- and long-term health and survivability.

Action plan:
- Local fire and emergency services leadership should develop and implement systems to manage on-scene sensor data.
- Local fire and emergency services leadership should monitor and act upon data provided by sensors at incidents.
5. The United States fire and emergency services must place importance on marketing and branding. Our ability to survive and thrive is dependent upon having the ability to communicate our value to the community.

Background:
Fire and emergency services organizations must have a business mentality to quantify and communicate the economic and quality of life impact of services on the customer and community. Marketing and branding strategies and tactics should be codified based on the service delivery model and revised when the model changes.

Fire and emergency services organizations must develop and implement aggressive marketing, branding, and educational programs to inform stakeholders and the public of the dynamics of service delivery within the community. They must leverage the power of social media to drive their message. Enlisting the assistance of outside professionals to help in the development and implementation of these programs should be encouraged.

Fire and emergency services must quantify and communicate their economic value to the community. This value includes, but is not limited to:

- Number of people helped
- Number of lives saved
- Value of property saved
- Preventing harm in the community
- Reduced environmental impact
- Lower homeowners and business fire insurance rates which may be based on lowering their Insurance Services Offices (ISO) rating
- Lower worker’s compensation claims and costs
- Protecting and preserving the community infrastructure

Developing positive community relationships is crucial for marketing success; these relationships can be developed by:

- Requiring members to act with high moral character
- Participating in community events
- Using pre-plan visits to foster relationships with the business community
- Preventing harm at every opportunity
- Providing post-incident support and care to the customer
- Communicating with clear, concise, and accurate messaging
- Maintaining the professional appearance of members, equipment, and facilities.
Action plan:

☐ Federal, state, and regional organizations should develop performance measure guidelines, consistent definitions, best practices, and templates for local fire and emergency service organizations in the interest of demonstrating the positive economic and quality of life impact of the service.

☐ Local fire and emergency services leadership should appoint a cross-functional team and assign them the task of drafting and implementing a comprehensive marketing plan within 12 months.
  - Experts in marketing should be engaged to lead the team through the planning process and make sure the team can execute the deliverables.

☐ Local fire and emergency services leadership and the cross-functional team should evaluate and update the plan annually to ensure it meets the needs of the community and members and that the deliverables are being met and are effective.
6. The United States fire and emergency services must encourage the development and use of realistic training simulations (similar to commercial aviation flight simulations) delivered in ways that are intrinsically safe. Crew resource management and current hazard management certification programs should be modeled as examples of best practices in the development of training simulations.

Background:

Requests for response services have changed dramatically over the last decade; technology has also changed significantly and continues to evolve. The United States fire and emergency services must use that evolving technology where appropriate.

Evidence-based scenarios can be developed using the details from actual incidents, plus scientific information on how the human brain processes information in real-time, to ensure training systems accommodate learning needs. Evidence-based “sets and reps” will equip members with an inherent skill set to perform effectively.

Realistic simulations can give members the experience they need to fulfill their assigned duties without repeated occupational exposures. Simulations can be developed to train for the most difficult scenarios that may not be achievable by traditional means.

Generally newer members do not have the traditional practical skills that members have had in the past. However, they compensate for it by being more proficient with technology. Effective leaders must recognize and respond to this reality.

There will always be a place for safe and realistic live training. Effective training must use an innovative combination of training methods.

Simulations can be developed around a full range of emergency and operational activities including, but not limited to:

- All hazards
- Homeland Security
- Fires
- Emergency medical calls
- Violence-related incidents
- Human resources
- Budgeting
- Quality improvement
- Customer service
- Time management
- Project management
- Interpersonal relationships
- Political acumen
- Political survival
- Marketing and branding
Action plan:

☐ All federal, state, and local training agencies should design training modules using scientific, physiological, and psychological/behavioral research to develop training based on how humans learn and adapt.

☐ The federal fire programs and state and local training agencies should foster relationships with those who develop intrinsically safe, realistic simulated training techniques (such as commercial aviation, the Federal Aviation Administration (FAA), and the National Transportation Safety Board (NTSB)) to develop members’ effective operational skills.

☐ The federal fire programs and state and local training agencies should adapt related military technology to the United States fire and emergency services in a timely manner.

☐ The federal fire programs should continue to develop training modules using simulations that build an understanding of “soft skills” directed toward increasing leadership, management, and administrative proficiencies.

☐ Local fire service members should commit to the utilization of these emerging technologies to enhance the training competency of their members.
Leaders in the United States fire and emergency services must develop positive human relation skills, knowledge, and abilities to manage in current times. These skills, knowledge and abilities must be reflected in the organizations’ recruitment and hiring practices.

Background:

It is a critical leadership role to recognize the inherent risks and stresses of the work of first responders. Leaders should develop, operate, and refine a comprehensive family support program and make this program a part of the organization’s procedures and practices. Leaders must provide support when necessary or desirable, such as after a severe illness diagnosis, after a critical incident, or when assigning a member to a long-term remote assignment that separates a member from their family.

An effective company officer, one who is properly prepared, promoted, trained, and educated to meet the predictable needs of his/her responsibility to the community, will accomplish much; however, a well-meaning chief will have extreme difficulty accomplishing much without the foundation of effective company officers. No one has a better chance to positively impact the people having a really bad day than the company officer – and his/her company.

Recruiting and hiring practices should be developed so that potential members are assessed for their ability to adapt to change given the service delivery model is ever-changing. The recruitment process must have a youth outreach program that reflects the diversity of the community. All recruiting must be based on explaining that members are guardians of life safety, which occasionally includes firefighting. Based on community needs, multiple points of entry-level hiring must be explored to help develop an inclusive and effective workforce. Hiring members with varying skill sets will strengthen the organization and its service delivery capabilities.

It is generally known that leaders are not effective because of their titles but because of their capabilities. To be effective, leaders must constantly improve their functional behaviors. Among the critical things leaders must focus on are improving interpersonal relationships, coaching, empowering, commending, and motivating members. Relationship improvements are both internal (between members) and external (with related agencies and with community organizations).

Higher education is becoming more critical for leaders to attain. Higher education prepares fire and emergency services leaders to more effectively interact with partners, stakeholders, customers, and members who have earned degrees.

To that end, national professional development programs should be aligned with the Fire and Emergency Services Higher Education (FESHE) model.

Fire and emergency services leadership must use educational experiences to:

- Improve the relationship between labor and management in a positive, innovative, and mutually supportive way.
- Shift the leadership paradigm by:
  - Compelling leaders on every level to be more adaptable, change faster, and be more inclusive in all matters related to emergency services
  - Constructing a culture that is focused on the customer by being more adaptable and innovative by soliciting feedback and encouraging new ideas
  - Merging the skills of all members regardless of age, seniority, or position
- Recruit and retain members who have the characteristics that will produce occupational success.
- More proactively embrace and implement the Community Risk Reduction model at the local level.
- Improve collaboration with partner agencies (e.g. law enforcement) and eliminate the “silo effect”.

There is general agreement regarding the critical need to improve fire service leadership. Leaders must be selected based on need and qualification not based on popularity or elections.

**Action plan:**

- The federal fire programs should host a leadership symposium of the major national fire/rescue service organizations. The objective of this symposium is to form the National Fire Service Leadership Council. The priorities of the National Fire Service Leadership Council include:
  - Determining the standards of leadership and specifying related measurements
  - Improving leadership at every level
  - Preparing leaders and improving leadership skills to effectively address the financial challenges of their communities
  - Improving leadership skills to understand how financial resources are allocated, how the community determines funding priorities, and how those issues interact with the political dimension of financial management for the organization to survive and thrive
  - Establishing a model for continuous leadership improvement
  - Improving the effectiveness and performance of human resources through better leadership (including coaching, empowerment, commendation, motivation, and improved interpersonal relationships)

- Local fire and emergency services leadership should develop and implement youth (ages 12+) outreach programs.

- Local fire and emergency services leadership should develop, implement, and refine a comprehensive family-support program and make this program a part of the organization’s procedures and practices.
8. The United States fire and emergency services must develop an efficient and effective process to collect and manage data.

**Background:**

Fire and emergency services must understand and recognize the importance of reliable and valid response data. It is the best tool to determine local, state, and national risk. Using accurate response data is the best way to identify community risk and develop the best strategies focused on reducing that risk.

Fire departments routinely enter response data into the National Fire Incident Reporting System (NFIRS). NFIRS is the largest incident-based, all-hazard database in the world, recording 24 million fire department responses each year in all 50 states. While the system does what it was designed and intended to do, the system is in desperate need of upgrades in technology and data integration capabilities.

Department of Homeland Security (DHS) and Federal Emergency Management Agency (FEMA) must adequately fund technology improvements to NFIRS and integrate NFIRS data with computer-aided dispatch (CAD) systems and other local GIS databases. In order to improve data quality, DHS and FEMA must sufficiently fund continuous NFIRS data entry, analysis, and training for local fire departments through the National Fire Academy.

The U.S. fire and emergency services must instill in all officers the importance of their role in collecting accurate, valid, and complete data as this data is necessary to complete analysis at the federal level.

**Action plan:**

- The United States fire and emergency services should continue to collect appropriate data under the guidance of the national receiving agency.
- The major national fire/rescue service organizations should meet and confer to determine the best national receiving agency to receive and analyze the data. Some examples of categories for data analysis would be:
  - Accountability
  - Analytics for prevention
  - Budget justification
  - Customer service monitoring systems
  - Patient outcomes
  - Property saved
  - Protocol compliance
9. Automatic fire sprinkler use has the ability to solve much of America’s fire problem in every class of occupancy. In addition to automatic fire sprinkler technology, the United States fire and emergency services must embrace all forms of technology where it is efficient, effective, and provides information that adds to organizational and community safety.

Background:

No other technology has the ability to impact the fire problem like the use of automatic fire sprinkler technology. The application of automatic fire sprinklers poses a greater political challenge than a technology challenge. To counter this, fire and emergency services organizations must continually and energetically advocate for the use of automatic fire sprinklers. In addition, organizations must continue to advocate for the use of operating smoke alarms and carbon monoxide alarms. The U.S. fire and emergency services must continue to review and participate in the development of technology to apply it in ways that improve the fire protection, injury prevention, and life safety of its members and the community.

In general, gaining access to and using robust, user-friendly, value-added, and reliable technology is essential. This must include, but is not limited to, technology related to incident management, communications, apparatus, equipment (fire, rescue, medical, hazardous materials, and special operations), and personal protective equipment (PPE). There is a need to educate and equip members to effectively manage technology. A current leadership challenge is to leverage the technology capabilities of all members understanding that there may be members with less experience who may be very capable, even though they are new to the organization. Leadership must effectively embrace merging the skill sets of all members regardless of age, seniority, or position.

Action plan:

- The federal fire programs, major national fire/rescue service organizations, and state and local fire service organizations should advocate for the installation and use of automatic fire sprinklers and early detection and warning systems.
- Fire and emergency services organizations should address the challenge of balancing the realities of cost with the benefits of implementing the technology by effectively representing that technology in the administrative and political process.
- Fire and emergency services organizations should continue to review and participate in the development of technology to apply it in ways that improve the fire protection, injury prevention, and life safety of its members and the community.
- Fire and emergency services members should improve their technology literacy to more effectively research, develop, and manage technology.
10. The United States fire and emergency services must have an awareness of and use the data from “smart” technology (e.g. smart building, smart city, smart vehicle, and homeland security-related), which can provide real-time access to pertinent information.

**Background:**

Smart technology is constantly evolving and becoming more prevalent in and applicable to all areas of everyday life. The data captured by smart devices can be used to increase the survivability rates of members and occupants. Fire and emergency services can encourage the application of smart devices through public education programs about building design and through participation in the development of building codes.

Examples of “smart building” technologies can include identifying and locating:

- Activated fire alarm systems
- Activated medical alarms
- Activated sprinkler heads and control valves
- Breathing air supply connections
- Contaminated air
- Dedicated evacuation elevators
- Excessive heat
- Exit points
- Occupants and their movements
- Utilities

Examples of “smart city” technologies include:

- Meteorological sensors
- Pollution sensors
- Traffic cameras
- Transportation grid sensors

Commercial smart technology provides information to the civilian vehicle operator, including data related to safety issues, and must continue to be applied to fire apparatus.

Examples of “smart vehicle” technology are:

- Applications that can identify vehicle details to aid service delivery
- Applications that identify the location and severity of a collision
- Applications that provide real time information for safe vehicle operations (e.g. seat belt use, vehicle trouble indicators)
- Technologies that protects the vehicle from collisions (e.g. distance sensors)

Some examples of smart technology that can be applied to more effectively operate fire apparatus are:

- Flow meters
- Real-time vehicle data recorders
- Safety limitation indicators, controls, and overrides
Back-up sensor systems

The use and application of smart technology is increasing. The pace of technology development generally exceeds the capacity of society to regulate its implementation. Significant developments in smart technology will continue to proliferate and new participants will emerge, potentially causing confusion. The challenges of implementing smart technology are legal, social, financial, political, ethical, and cultural. Fire and emergency services organizations must recognize, understand, and adapt to smart technology challenges.

Action plan:

☐ The federal fire programs should continue to research application direction and provide funding for the development and procurement of all types of smart technologies.

☐ Major national fire/rescue service organizations should influence legislators and regulators in the development of standards, regulations, and laws as applied to smart technologies.

☐ Local fire and emergency services leadership should be aware of and follow standards, regulations, and laws as applied to smart technologies.

☐ Local fire and emergency services leadership should identify creative ways to apply smart technologies for safer and more effective service delivery, including apparatus and equipment.

☐ Local fire and emergency services leadership should implement smart building technologies (e.g. Leadership in Energy and Environmental Design (LEED)) into fire station design.

☐ Local fire and emergency services leadership should implement the intelligence management component in National Incident Management System (NIMS) to manage smart technology information.
11. The United States fire and emergency services must prioritize an all hazards mitigation and response model that connects our customers with the necessary community resources, agencies, and services to produce safe and effective incident outcomes.

Background:
Fewer than five percent of all emergency responses across the United States are actual fires; however, the overall number of responses continues to rise. The number of emergency medical service calls and related medical needs will continue to rise as the baby-boomer generation becomes senior citizens. In addition, incidents classified as “other” are among the fastest growing response categories. These “other” response types must be understood and the related trends identified.

Clearly, the public needs an agency to help them reduce and mitigate life safety and health hazards. The United States fire and emergency services of the future must regularly forecast and analyze customer needs and take action to adapt its service delivery. The resulting changes must be communicated to the external and internal customer on a regular and consistent basis.

As part of this process, fire and emergency services should engage with other agencies and disciplines to understand an ever-changing society. Coordination and integration of community resources, such as law enforcement, social services, behavioral health services, and the hospital community, are necessary to provide complete service delivery. Examples of partnerships include, but are not limited to:

- Academia
- Building developers
- Clergy
- Customers
- Economists
- Futurists
- Industry representatives
- Marketers
- Public advocates
- Researchers
- Software/application developers
- Other emergency services providers

Conducting community risk assessments will help fire and emergency services members safeguard the health of their communities. The community risk assessment will allow members to identify community needs, translate those needs into services, and identify the resources needed to deliver those services. Identifying community needs and related resource needs will allow the organization to optimize available funding. The benchmarks for the community risk assessment should include, but not be limited to:

- Civilian injury, disease, and death
- Member injury, disease, and death
- Property loss

Behavioral health is important, and all fire and emergency service organizations must implement programs to address behavioral health issues confronting their members with a special emphasis placed on suicide prevention.
Action plan:

☐ Local fire and emergency services leadership should include a Community Risk Reduction Program in the organization’s strategic plan.

☐ Local fire and emergency services leadership should identify service delivery needs and secure related resources to provide crisis intervention services to the community.

☐ Local fire and emergency services leadership should engage with other agencies and disciplines to be familiar with their resources and abilities.

☐ Local fire and emergency services leadership should connect partner agencies to create a comprehensive response system for the customer.

☐ Local fire and emergency services leadership should appoint a cross-functional team and assign them the task of conducting the community risk assessment and drafting and implementing the related comprehensive plan within 12 months.

☐ Local fire and emergency services leadership and the cross-functional team should evaluate and update the community risk assessment and related plan annually to ensure it meets the needs of the community and members and that the deliverables are being met and are effective.

☐ Local fire and emergency services leadership should ensure that the physical and behavioral health of members is monitored by a qualified medical professional.
12. The overall goodwill of the community toward the United States fire and emergency services must be leveraged to maintain and increase funding. This can be accomplished through developing a better comprehension of local government operations, fostering positive relationships with members of the community, and collaborating with local businesses and civic organizations.

Background:

Fire and emergency services must manage resources efficiently and make the case to local elected officials that ongoing funding is essential for organizations to continue providing services. Public and private partnership opportunities must be identified and fostered to maximize resource use. This will improve customer service and reduce costs. Accurate and appropriate data analytics must be used to demonstrate the value of fire and emergency services.

Fire and emergency services will continue to see fluctuations in funding sources and available revenue. As appropriate for their role in the organization, members must be educated on the sources of revenue in the community. Administrative officers should be familiar and conversant with local government financial status and documents that include:

- Bond rating reports
- Budgets
- Comprehensive annual financial reports
- Documents and reports related to the taxing and financial authority of the jurisdiction
- Month- and year-to-date revenue and expenditure reports
- Pension actuarial

Administrative officers must communicate this information, in an understandable way, to members.

Fire and emergency services must explore the regionalization of services to minimize costs and maximize capabilities. Examples include, but are not limited to:

- Consolidation and provision of services (automatic and mutual aid)
- Group purchasing agreements
- Regional communication centers
- Shared stations, and maintenance, training, and other facilities

Fire and emergency services must engage in long-range planning. Collaboration with stakeholders and the community is necessary to develop plans for high cost programs. Key areas of focus include, but are not limited to:

- Apparatus replacement
- Labor costs (e.g. medical insurance, pensions, salaries)
- Major equipment replacement (e.g. PPE, SCBA)
- New or renovated facilities
Action plan:

☐ The Department of Homeland Security (DHS) and Federal Emergency Management Agency (FEMA) should continue and increase all available federal grants such as Assistance to Firefighters Grants (AFG) and Staffing for Adequate Fire and Emergency Response (SAFER) Grants program.

☐ Major national fire/rescue service organizations should represent fire service needs by securing the continuation of all federal grants.

☐ Local fire and emergency services leadership should become more familiar with and effective at securing local funding.

☐ Local fire and emergency services administrators should review and analyze financial reports to understand the economic dynamics then communicate relevant information to the membership and community.

☐ Local fire and emergency services leadership should interact with their members to increase members’ knowledge of the administrative and financial realities and requirements of operating the organization.
13. The United States fire and emergency services must proactively drive the research agenda and equipment design to effectively provide services based on community needs.

**Background:**

Generally, outside agencies drive industry research, and most equipment offerings are the result of manufacturers’ efforts to fit products into the fire and emergency services arena.

Given the above limitations, areas of research must include, but not be limited to:

- Community Risk Reduction
- Data management
- Emergency operations
- Member health, wellness, and safety
- Occupational diseases of emergency responders
- Tools and equipment
- Value-added services
- Technology transfer (e.g. military and unrelated industries)

**Action plan:**

- National Highway Traffic Safety Administration (NHTSA) and the U.S. Metropolitan Municipal EMS Medical Directors Consortium (the Eagles Coalition) should continue research for emergency medical care procedures that result in evidence-based EMS protocols and procedures.
- National Institute of Standards and Technology (NIST) and UL Fire Safety Research Institute (UL-FSRI) should continue and increase all aspects of scientific research to prevent harm in the United States.
- The federal fire programs and all major national fire/rescue service organizations should promote and distribute important information from organizations such as NHTSA and NIST to their memberships. Further, the national fire/rescue service organizations should seek out feedback from agencies and members for product development and research topics (such as the NFFF’s Fire Service Research Agenda and Fire Service Technology Report).
- The federal fire programs should continue research that results in comprehensive programs that improve member health, wellness, and safety.
- Local fire and emergency services leadership and members should continually advocate for, and provide input to, on-going research related to addressing community and department needs.
- Local fire and emergency services leadership should understand and embrace completed research and incorporate it into their strategic plans.
14. The United States fire and emergency services must adapt its emergency medical resources into a more robust, integrated mobile healthcare system.

**Background:**

The future of fire and emergency services is in all-hazards prevention and mitigation. Unscheduled healthcare service needs will continue to rapidly escalate.

Fire and emergency services must be involved in reducing the growing number of emergency room visits. Many of these visits are related to behavioral health illnesses. Members must be trained and educated to effectively respond to these types of incidents. Leadership and members must value the delivery of pre-hospital emergency medical care just as much as they do fire suppression activities.

Fire and emergency services should engage in delivering community paramedicine services. Consideration must be given to the selection of all ancillary equipment needed to provide this care.

Consideration should be given to add the responsibilities of the oversight of emergency medical care to the National Fire Academy (NFA). The reorganized agency could then be known as the National Fire and Emergency Medical Services Academy.

There is a challenge of emergency room capacity being overloaded with low acuity patients. “Boarding” in hospital emergency departments results in an unsafe situation that causes a multitude of avoidable problems (such as inadequate patient care, extended ambulance drop times, and general chaos).

**Action plan:**

- The federal fire programs should change the public law to incorporate the oversight of emergency medical services to the newly formed National Fire and Emergency Medical Services Academy.
- The newly formed National Fire and Emergency Medical Services Academy should use its resources to provide oversight for the delivery of the next generation of Emergency Medical Services (EMS), including community paramedicine.
- Local fire and emergency services leadership should deliver community home visit services by selecting the appropriate vehicle, equipment and supplies (including personal protective equipment (PPE)), station facilities, member training, and other related items based on customer need.
- Local fire and emergency services leadership should determine the cost savings associated with reducing ambulance drop times and preventing hospital emergency department patient overloads where “boarding” is necessary. This information becomes the basis for a cost-benefit analysis to fund the community home visit program.
- Local fire and emergency services leadership should value the delivery of emergency medical care, to include community paramedicine and community EMT responsibilities, and encourage members to do the same.
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Crisis in the Volunteer/Combination Fire, Rescue, EMS system

Prepared by John Buckman, Dr. Bill Jenaway, Wayne Powell, and Shane Ray to describe the current state of the volunteer/combination fire, rescue, EMS system

The volunteer/combination staffed United States fire and emergency services industry is in crisis. A severe lack of funding, reduced staffing (related to changing volunteer commitment and demographics,) increased political strife, and failings in the service delivery model are all contributors to this crisis.

What can be done to counter this?

To counter this crisis, it must be understood that the current organization model used by many departments dates to the Benjamin Franklin era when volunteer departments were organized for fraternal and social reasons. This must change. Changes to the leadership paradigm and increased regionalization will drive the changes necessary to reverse this crisis.

Some of the most successful volunteer departments are those that are disciplined and policy- and customer-driven while understanding that a critical customer group is comprised of the volunteer members. Unfortunately, one manageable factor in members leaving volunteer departments is the lack of leadership and discipline that is fair and equally applied to all. One of the biggest reasons members leave a volunteer fire department can often be the actions, lack of action, and subjective treatment of and by other members themselves.

Specific actions that must be taken now include:

- Promote officers based on need and qualifications, not by election
- Purchase apparatus and equipment that has a demonstrated need with a verifiable return on investment – not just because members of the fire department want it
- Utilize automatic aid to achieve/ensure adequate staffing for a variety of emergency service requests
- Effect a formalized and recognized form of government oversight
- Follow national standards as applicable based on local risk and the expectations the community has for service delivery
- Ensure that training requirements are risk-based at the lowest level to provide personnel with measurable capabilities
- Support funding, staffing, and equipment at the government level to provide public safety services at the local level
- Base the service delivery model on customer expectations and use that service model to drive staffing, equipment purchases, and training
- Meet annually with fire and emergency services leaders, law enforcement, and elected officials to establish an annual performance plan that includes expectations of service and determines budgets
- Establish both tax-relief- and hourly-wage-based incentives to help recruit, retain, and hold members accountable to professional standards
Wingspread I, 1966
Statements of National Significance

1. Unprecedented demands are being imposed in the fire service by rapid social and technological change.
2. The public is complacent toward the rising trend of life and property loss by the fire service.
3. There is a serious lack of communication between the public and the fire service.
4. Behavior patterns of the public have a direct influence on the fire problem.
5. The insurance interest has exerted a strong influence on the organization of the fire service. This dominance seems to be waning. The fire service must provide the leadership in establishing realistic criteria for determining proper levels of fire protection.
6. Professional status begins with education.
7. The scope, degree, and depth of the educational requirements for the efficient functioning of the fire service must be examined.
8. Increased mobility at the executive level of the fire service will be important to the achievement of professional status.
9. The career development of the fire executive must be systematic and deliberate.
10. Governing bodies and municipal administrators generally do not recognize the need for executive development of the fire officer.
11. Fire service labor and management, municipal officers, and administrators must join together if professionalism is to become a reality.
12. The traditional concept that fire protection is strictly a responsibility of the local governments must be reexamined.
1. New criteria is needed to measure the impact of fire on the national economy and public welfare.
2. Productivity in the fire service is difficult to measure reliably.
3. The state levels of government may have to make a renewed commitment in dealing with the fire problem.
4. The fire service should approach the concept of regionalization without bias.
5. There is a need for a better liaison between the fire service and those who build or design buildings.
6. A means of deliberate and systematic development of all fire service personnel through the executive level is still needed.
7. The firefighter has been suppressed by narrow education and confirming experiences on the job.
8. The problem of arson in the United States has increased to the point where it should be considered a matter of major importance.
9. Fire departments should thoroughly analyze new demands being placed upon them before accepting their responsibilities.
10. It appears that residential smoke detectors hold the most practical potential at this time for savings. The fire service should take leadership in encouraging their widespread use and proper maintenance.
11. Traditional fire services should assume more responsibility and leadership in fire loss management.
1. Society in general appears unwilling to take full advantage of the knowledge and technology which has proven effective in mitigating the fire problem.

2. Public fire safety education will not achieve its potential until it is organized in a systematic manner based on human behavior.

3. Professional development in the fire service has made significant strides, but improvement is still needed.

4. Decision makers in local government need better criteria to determine an adequate level of cost-effective fire protection.

5. The fire service should review the effectiveness of the federal fire programs of the U.S. Fire Administration and National Fire Academy to determine if they are of continued benefit in reducing the fire problem.

6. The traditional role of fire departments is changing.

7. Analyzing America’s fire problem requires a more effective system of data collection.

8. The misuse of alcohol and controlled substances is a serious fire service problem.

9. There is a need for increased emphasis on firefighter health and safety.

10. Personnel management in the fire service is becoming increasingly more complex.
Wingspread IV, 1996
Statements of National Significance

1. Customer Service: The fire service must broaden its focus from the traditional emphasis on suppression to a focus on discovering and meeting the needs of its customers.

2. Managed Care: Managed care may have the potential to reduce or control health care costs. It also will have a profound impact on the delivery and quality of emergency medical services.

3. Competition and Marketing: In order to survive, the fire service must market itself and the services it provides, demonstrating to its customers the necessity and value of what it does.

4. Service Delivery: The fire service must have a university applicable standard which defines the functional organization, resources in terms of service objectives (types and levels of service), operation, deployment, and evaluation of public fire protection and emergency medical services.

5. Wellness: The fire service must develop holistic wellness programs to ensure that firefighters are physically, mentally, and emotionally healthy and that they receive the support they need to remain healthy.

6. Political Realities: Fire service organizations operate in local political arenas. Good labor/management and customer relations are crucial to ensuring that fire departments have maximum impact on decisions that affect their future.

7. Leadership: To move successfully into the future, the fire service needs leaders capable of developing and managing their organizations in dramatically changed environments.

8. Prevention and Public Education: The fire service must continue to expand the resources allocated to prevention and health and safety education activities.

9. Training and Education: Fire service managers must increase their professional standing in order to remain credible to community policy makers and the public. This professionalism should be grounded firmly in an integrated system of nationally recognized and/or certified education and training.

10. Fire and Life Safety Systems: The fire service must support adoption of codes and standards that mandate the use of detection, alarm, and automatic fire sprinklers, with a special focus on residential properties.

11. Strategic Partnerships: The fire service must reach out to others to expand the circle of support to assure reaching the goals of public fire protection and other support activities.

12. Data: To successfully measure service delivery and achievement of goals, the fire service must have relevant data and should support and participate in the revised National Fire Incident Reporting System. Likewise, NFIRS should provide the local fire service relevant analysis of data collected.

13. Environmental Issues: The fire service must comply with the same federal, state, and local ordinances that apply to general industry and which regulate response to and mitigation of incidents, plus personnel safety, and training activities relating to the environment.
The Fire Problem in the United States: The fire problem in the United States is a political problem, not a technological problem. It will not be solved without participation in the political process. Fire chiefs and fire service organizations need to more fully participate in the political process on a local, state, regional, and national level.

Home Fire Safety: Incidents in residential occupancies account for the majority of lives lost due to fire – both for firefighters and the citizens they serve. These issues require a comprehensive approach in prevention and built-in systems such as home fire sprinklers and smoke detectors. The fire service and elected officials at the local, state, and federal level must embrace the effort to make home fire safety systems the norm.

Firefighter Safety: The continuing high levels of duty-related firefighter injuries and deaths are unacceptable. This problem needs to be addressed through a multi-faceted approach. Risks from traumatic and non-traumatic deaths require equal attention. Local, state, and national resources must be brought to bear on this continuing and significant problem.

Emergency Medical Services: In many places, the emergency medical system is becoming overwhelmed. The growth in the demand for EMS is fueled by the impact of changes in the availability of medical insurance, the availability of medical care for the elderly and for children, the deinstitutionalization of those who suffer from mental illnesses, the proliferation of chronic diseases such as asthma, the use of the EMS system as the care system of first and last choice, and other difficulties in accessing the medical system.

The Volunteer Fire Service: Fire departments staffed with volunteers and those that utilize combination staffing (volunteer and career) are facing ever increasing challenges in member recruitment, member retention, and financial resources. The evolving role of the fire service in the community, the makeup of the community, and the needs and concerns of volunteer firefighters all have an impact on the future of the volunteer staffing system. Leaders of departments staffed with volunteers must engage the public and elected officials on the future role of volunteers in delivering emergency services.

Federal Fire Programs: The Federal Emergency Management Agency (FEMA) has been hobbled by its integration into the Department of Homeland Security (DHS). The United States Fire Administration and its National Fire Academy face marginalization unless the required financial resources to enhance their effectiveness and assure their survival are provided. The resident and outreach programs need to be revitalized, the National Incident Reporting System (NFIRS) needs a major overhaul to improve participation, and funding for fire-related research programs needs to be provided in order for these programs to remain an important resource for the fire service. Without this support, we will never realize the goals set in the original America Burning document.
The Customer: The needs of the customer continue to evolve. The fire service must be proactive in providing services that meet increasing customer demands and package those services so that they are understandable and accessible to the customer. The changing demographics of America, including the aging of the baby boomers and changes in immigration, are already placing an extraordinary demand on the delivery of fire department services.

Professional Development: Significant strides have been made in fire service professional development, but improvement is still needed. The fire service needs to continue to evolve as a profession as have other governmental entities that operate in the environments where we work as well as other government organizations and the private sector. These skills are as important in the volunteer and combination fire services as they are in the career fire service.

Collective Bargaining: Wingspread participants and their organizations unanimously support the right of every firefighter and emergency medical response employee to be under a collective bargaining agreement that addresses their salaries, benefits, and working conditions.

The Fire Chief: It is the responsibility of the Fire Chief to be the community’s chief advocate for fire safety. The waning availability of civil service protections for career fire chiefs makes this advocacy role more difficult. The executive skill set of the Fire Chief will to a large part define the success of the organization.

Interoperability: The ability of the emergency response system to react to a major disaster, whether man-made or natural, depends on the day-to-day working relationships between responders that are established before the disaster. Systems such as communications, command, and equipment compatibility that make day-to-day responses more efficient will make responses to disasters more effective. Homeland security efforts and funding priorities must recognize this reality.

Fire Service Unity: The effectiveness of the nation’s fire service on the national level depends on cooperation between and among the major fire organizations. Fire service organizational leaders must commit to working together for the common good, rather than competing for individual interests. Our lack of a unified voice has been a major stumbling block to political support and funding on the Federal level.

Regionalization: Trends toward interagency cooperation, automatic mutual aid, and regionalization have been observed in the volunteer, combination, and career fire service and have served as a model for other interagency coordination work. These efforts trend to bring better services to the customer, more effective fire service operations, and the opportunity to reduce overall costs.
**Fire Prevention and Public Education:** All aspects of fire prevention have become core components of effective fire service delivery. All fire departments, regardless of size, should value and strive to provide the full range of fire prevention and life safety education services. Increasingly, fire departments are being expected to take on all-hazard/all-risk messaging in addition to traditional fire safety efforts.

**Labor and Management:** Fire service labor and management leaders must work together on the local, state, and national level to advance fire safety causes. The past decade has shown many examples of the positive impacts that can be achieved through cooperative efforts. This trend needs to continue and be improved and expanded.

**Deployment Standards:** The adoption and promulgation of minimum fire service deployment standards has provided a basis to evaluate fire protection and emergency medical services. The application of these standards assists in the evaluation of fire protection services. The enhancement of these standards and the development of additional standards for fire service programs will enhance the professional standing of the fire services and improve the services they provide to their communities.

**Firefighter Credentials:** A standardized and simple system for providing credentials for qualified firefighters and fire officers is needed to ensure that qualified people are enlisted to support major emergency operations and regional emergencies.

**Sustainable Revenue:** Traditional government sources of revenue are being strained. Due to increasing demands on public finances on the local level, the percentage of revenue devoted to public safety services is declining. Model dependable revenue streams for the protection of fire services need to be developed.

**Fire Fighting Communities:** The wildland and structural fire fighting communities need to continue their cross exchange of experiences, training, resources, and capabilities.

**The Impact of Technology:** Technological advances in society often bring unintended consequences to the fire service. Changes in the way that energy is generated and utilized in the future will surely bring increased challenges and potential opportunities to the fire service.