Introduction to the National Safety Culture Change Initiative NSCCI

Training package includes:

Module 1: Understanding Culture and Climate in the Fire Service

Module 2: Individual Behaviors and Responsibilities

Module 3: Organizational Behaviors and Responsibilities

Module 4: Application utilizing the Safety Culture Measurement Tool

Evaluation

"Study of Behavioral Motivation on Reduction of Risk Taking Behaviors in the Fire Service"

Developed by the International Association of Fire Chiefs through a partnership with USFA

Working Group Members:

Cumberland Valley Volunteer Firemen's Association (CVVFA) – Jim Watson

International Association of Fire Chiefs (IAFC) SHS Section – I. David Daniels

International Association of Fire Fighters (IAFF) – Patrick Morrison

National Fallen Firefighters Foundation (NFFF) – Victor Stagnaro

National Fire Protection Association (NFPA) – John Caufield

National Institute for Occupational Safety and Health (NIOSH) – Murrey Loflin

National Volunteer Fire Council (NVFC) – Sarah Lee

Working Group Members

North American Fire Training Directors (NAFTD) – Eriks Gabliks
North American Fire Training Directors (NAFTD)/University of Illinois Brian R. Brauer
United States Fire Administration (USFA) – Bill Troup, Program Manager
United States Fire Administration (USFA) – Brad Pabody
United States Fire Administration (USFA) – Burt Clark, Ed.D
Consultant, Keshia Pollack, Ph.D., M.P.H .

Curriculum Developers

IAFC Program Manager/SME- Todd Lupton
Subject Matter Expert-Dave Matthew
Subject Matter Expert- Robert Clemons

A comprehensive *Study of Behavioral Motivation on Reduction of Risk Taking Behaviors in the Fire Service* was developed by the IAFC in partnership with the USFA.
The study offers detailed research on what is culture; what drives fire fighter behaviors; moving the fire service towards a culture of safety, and areas of focus for fire department cultural change.

U.S. Fire Administration

National Safety Culture Change Initiative

FA-342/April 2015

FEMA

"According to data compiled by the U.S. Fire Administration, 1160 firefighters died as a result of injuries sustained in the line of duty during the period from 2001 through 2011. Although the annual number of total firefighter deaths has declined in recent years, firefighter deaths that occur inside of structures are occurring at higher rates than those reported in the 1970s and 1980s, despite a decrease in the overall number of fires."
(Bringing Science to the Street: UL and Firefighter Safety Research, Kerber 2012)

Module 1: Understanding Culture and Climate in the Fire Service

The fire service professional will gain a personal understanding of the impact of culture on firefighter risk behaviors and the need to implement measures to achieve an authentic fire service safety culture.

After reviewing case studies and after action reviews, the fire service professional perspective will be positively influenced on the impact of affectively achieving a safety culture for the American fire service.

The National Fallen Firefighters Foundation 16 Firefighter Life Safety Initiatives

Culture Change

Risk Management

Training and Certification

Medical and Physical Fitness

Fatality, Near Miss Investigation

Grant Support

Psychological Support

Code Enforcement & Sprinklers

Accountability

Empowerment

Research Agenda

Technology

Response Policies

Violent Incident Response

Public Education

Apparatus Design & Safety

National Fallen Firefighters Foundation (2011). *Understanding and Implementing the 16 Firefighter Life Safety Initiatives*. Stillwater, OK: Fire Protection Publications.

Module 1: Enabling Learning Objectives

ELO 1.1.1. Provide a working definition of culture as found in the NSCCI study.

ELO1.1.2. Describe four causes of firefighter death and injury as revealed in the NSCCI study

ELO 1.1.3. Define the difference between safety climate and safety culture.

ELO 1.1.4. Identify the three target audiences for achieving a fire service safety culture.

ELO1.1.5. Provide at least three recommendations on how to work toward a culture of safety.

ELO1.1.6. Provide at least three examples of inappropriate firefighter risk behaviors related to emergency vehicles.

ELO 1.1.7. The NSCCI report identifies nine areas of focus in changing firefighters behaviors. List and describe each area.

ELO1.1.8. The fire service professional will define the acronym ASARA as it relates to transforming the fire service safety culture.

CULTURE

"All the behaviors, ideas, attitudes, and values shared by a group that is being transmitted to new and future members of the group."

Organizational culture is a system of shared behaviors, values, assumptions and beliefs learned by a group as it solves problems. (Schein 2004, NSCCI p.7 & p.10)

NSCCI: Higher Order Causes of Firefighter Death and Injury

1. Insufficient resources

2. Inadequate preparation

3. Insufficient incident command structure

4. Suboptimal personnel readiness
   (Kunadharaju et al…NSCCI p.8)

What is Climate & Culture?

"Climate is more temporal and local to a particular unit, whereas culture is broader and spans the entire organization, and in some cases, the profession" (NSCCI p.12).

Related but not the same thing

Climate: the right now; eventually becomes culture

Climate is like room temperature

Instant gratification with climate

To have long-term culture change, you have to understand short-term climate change.

Look forward with the end in mind – look at the climate, the journey you are in, where you are now (Daniels, 2014)

NSCCI: Three levels of focus

- Chief Officer

- Company Officer (Most Influential)

- Firefighter

NSCCI: Working Toward a Safety Culture

Slight shifts in the practices within the fire service are likely to be more successful than large, sudden change.

Organizations have to balance their attempts to introduce new ways of working with the necessity of preserving traditional basics. Changing uniformed cultures requires patience and wisdom.

NSCCI: Working Toward a Safety Culture

Make substantial changes in training, standard operating procedures, equipment, and recruiting.
Establishing and sustaining firefighter competency is foundational to firefighter safety.

"The culture can be changed at national, state and local levels without diminishing the quality of services provided by enhancing firefighter competencies needed at emergency scenes." (NSCCI p.23)

NSCCI: Inappropriate Risk Behaviors Related to Emergency Vehicles

The urgency of quickly arriving at the scene of an emergency justifies driving in a manner that endangers lives.

Attempting to don protective clothing and equipment en route as opposed to being properly seated and belted in.

NSCCI: Inappropriate Risk Behaviors Related to Emergency Vehicles

- Allowing inadequately trained drivers to operate emergency vehicles

- Allowing poorly designed and poorly maintained vehicles to be operated

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

- Situational awareness
- Individual responsibility
- Leadership
- Health and Wellness
- Training
- Vehicle operations
- Seat belt usage
- Recruiting
- Environmental factors

(NSCCI p.13)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Situational Awareness: Defined as "the **perception** of the elements in the environment within a volume of time and space, the **comprehension** of their meaning, and the **projection** of their status in the near future." (NSCCI p.14)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Individual Responsibility: The two key aspects that apply to every member of the fire service at every level are accountability and personal responsibility.

All individuals must also accept personal responsibility for their own health and safety, as well as for that of their co-workers and particularly for that of anyone they supervise. (NSCCI p.15)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Leadership: Change is unlikely to occur unless the leaders of an organization embrace the effort and demonstrate a commitment to the endeavor.

This applies directly to the formal leadership, which includes labor as well as management, and often includes informal, but influential leaders within the organization. (NSCCI p.16)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Health and Wellness: All firefighters should be periodically evaluated to ensure that they are medically and physically fit to perform their expected duties, both mentally and physically.
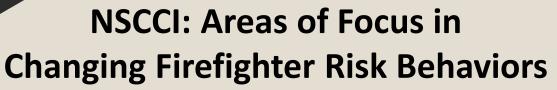
The two primary factors that inhibit the adoption of mandatory medical and fitness standards are cost, and the belief that a substantial percentage of fire service members would be unable to meet the requirements. (NSCCI p.16)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Training: Is an essential component to accomplish any type of positive change in firefighter behavior; it is also frequently noted that inappropriate training is encouraging or reinforcing high-risk behaviors.

This suggests that the problem may not be limited to inadequate training; it may also involve training that establishes inappropriate attitudes, actions, beliefs and behaviors. (NSCCI p.17)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Vehicle Operations: Organizations should concentrate on implementing and demonstrating an effective and measurable model of driver/operator training that advances in skill sets throughout a career and that ensures a quality and driver/operator accountability.

The focus areas of risk behavior modification are: driver capability, quality assurance, and accountability. (NSCCI p.20)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Seat Belt Usage: Requirements to use seat belts are incorporated in many state vehicle codes, and the same policy is clearly stated in NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*.

In addition, tremendous efforts have been put forth to educate firefighters on the need to use seat belts and promote their use as a personal safety decision. (NSCCI p.21)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Recruiting: The fire and emergency service is often viewed as an attractive outlet for individuals who are seeking opportunities to face extreme challenges and imminent danger.

A cultural shift toward a safer work environment will require addressing recruitment strategies. (NSCCI p.22)

NSCCI: Areas of Focus in Changing Firefighter Risk Behaviors

Environmental Factors: It has been observed that the current fire and emergency service generation has been raised in an environment that glorifies risk and expresses little or no concern for the potential negative consequences of bad decisions. (NSCCI p.22)

Fire Service Safety Culture = As Safe As Realistically Achievable (ASARA)

Fire Service organizations need to build firefighter safety into their DNA. The foundation of an organizational safety culture is leadership focused on the group dynamic where labor, management, and the authority having jurisdiction embrace a safety culture defined by ASARA.

The mission to create a fire service safety culture is achievable by providing the required components to build and sustain a safety culture while empowering the workforce to be as safe as realistically achievable.

Fire Service Safety Culture = As Safe As Realistically Achievable (ASARA)

The components of decision-making, coupled with the ability to gain and maintain situational awareness are the primary skills need to operate safely at an emergency scene.

The experience and knowledge of the decision-makers and crew resource management principals become the critical factors in achieving the ASARA "patch".

Three external factors that make-up operational safety is the implementation of experience based training, responders that are fit-for duty and a focus on continuous improvement.

Holistically, these are the components necessary in achieving ASARA for the individual.

Module One Summary

ELO 1.1.1. Provide a working definition of culture as found in the NSCCI study.

   All the behaviors, ideas, attitudes, and values shared by a group that is being transmitted to new and future members of the group. A system of shared behaviors, values, assumptions and beliefs learned by a group as it solves problems.

ELO1.1.2. Describe four causes of firefighter death and injury as revealed in the NSCCI study.
Insufficient resources, Inadequate preparation insufficient
 incident command structure, suboptimal personnel readiness.

ELO 1.1.3. Define the difference between safety climate and safety culture.
Climate is more temporal and local to a particular unit, whereas culture is broader and spans the entire organization, and in some cases, the profession.

ELO 1.1.4. Identify the three target audiences for achieving a fire service safety culture.
Chief Officer, Company Officer, and Firefighter

Module One Summary

ELO1.1.5. Provide at least three recommendations on how to work toward a culture of safety.

Climate vs. Culture: slight shifts in the practices within the fire service are likely to be more successful.

Make substantial changes in training, procedures, equipment and recruiting.

Balance attempts to introduce new ways of working with the necessity of preserving traditional basics. Changing uniformed cultures requires patience and wisdom.

Establishing and sustaining firefighter competency, as it is foundational to firefighter safety. The culture can be changed at national, state and local levels without diminishing the quality of services provided by enhancing firefighter competencies needed at emergency scenes.

Module One Summary

ELO 1.1.6. Provide at least three examples of inappropriate firefighter risk behaviors related to emergency vehicles.
Urgency of quickly arriving at the scene of an emergency justifies driving in a manner that endangers lives.
Donning protective clothing and equipment en route as opposed to being properly seated and belted in.
Allowing inadequately trained drivers to operate emergency vehicles.
Allows poorly designed and poorly maintained vehicles to be operated.

ELO 1.1.7. The NSCCI report identifies nine areas of focus in changing firefighters behaviors. List and define each area.

 Situational awareness
 Individual responsibility
 Leadership
 Health and Wellness
 Training
 Vehicle operations
 Seat belt usage
 Recruiting
 Environmental factors
  (NSCCI p.13)

Module One Summary

ELO 1.1.8. The fire service professional will define the acronym ASARA as it relates to transforming the fire service safety culture.

ASARA = As Safe as Realistically Achievable. The fire service safety culture will be transformed for personal and public benefit when emergency responders achieve the components of the ASARA patch.

Module 2: Personnel Behaviors and Responsibilities

As Safe As Realistically Achievable

Module 2: Personnel Behaviors and Responsibilities

The fire service professional will gain a personal understanding and an appreciation for the individual behaviors and responsibilities needed to keep as safe as reasonably achievable (ASARA).

The fire service professional will gain a personal understanding of the impact of culture on firefighter risk behaviors and the need to implement individual behaviors and responsibilities measures to achieve an authentic fire service safety culture.
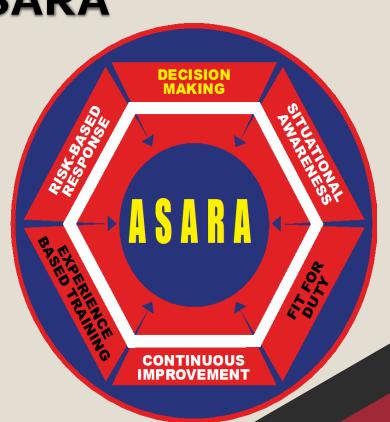
Module 2: Enabling Learning Objectives

ELO 2.1.1. List and define three emergency scene components for fire service professional to implement in achieving ASARA.

ELO 2.1.2. List and define three pre-operational components for the fire service professional to enact in achieving ASARA.

Personnel Components to Achieve ASARA

Risk Based Response

Decision Making

Situational Awareness

Experience Based Training

Fitness for Duty

Continuous Improvement

Risk Based Response

RBR is a systematic PROCESS based upon four criteria:

1. Understanding the **Threat/Hazard**
2. Assessing and reducing **Vulnerabilities**
3. Evaluating possible **Consequences**
4. Estimating **Likelihood of Occurrence** for negative consequences

Risk Based Response

- A systematic process by which responders **analyze a problem** of an specific type of incident, **assess the hazards**, evaluate the **risk**, and determine appropriate response actions based upon **facts, science,** and the **circumstances** of the incident.

Risk is the product of:

- **Threat/Hazard**
- **Vulnerability**
- **Consequences**
- **Likelihood of occurrence**

Decision Making

- The implementation of recognition prime decision-making is paramount in emergency situations, where responders have experience in making decisions under stress when time is a critical factor.

- Decisions should be based upon the facts, science, and circumstances of the situation.

Two types of Decision-Making

Classical Decision-Making
Gathering all the information you can, estimating all the possible outcomes, listing all the options, assessing which option is best and then implement the best option

Recognition Primed-Decision Making
Process used during emergency situation in which responders used past experiences as a primary means of making split second decisions.

Situational Awareness

- The ability of the responder to match the reality of what is occurring at an emergency scene to their perception of what is happening or likely to happen soon.

- Much has been written about situational awareness with its importance to firefighter safety referenced to the IAFC Near Miss reports.

www.firefighternearmiss.com

Barriers to Situational Awareness

- Emotions/State of mind
- Preoccupation with other tasks
- Fixation on one task or tunnel vision
- Inadequate communication,
- Periods of stress
- Nobody looking for hazards
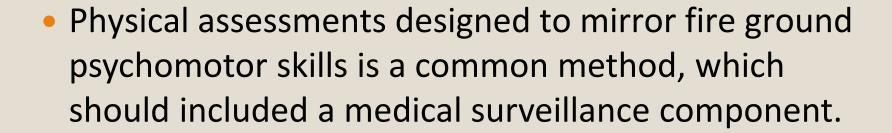
Experience Based Training

- Training designed to give the responder an event that allows them to parallel the knowledge, skills, and abilities plus competencies and experience needed at a specific type of emergency scene.

- This is commonly achieved through assertive simulation training where cues are provided that imitates real emergency scenes.

Fitness for Duty

- The responders' physical and mental ability to perform at emergency situations.

- Physical assessments designed to mirror fire ground psychomotor skills is a common method, which should included a medical surveillance component.

- The implementation of scenario-based training is a proven method as well.

Fitness for Duty

With over 50% of firefighter injuries and deaths related to Wellness and Fitness every fire department needs to implement a comprehensive occupational safety and health program.

The criteria for fitness for duty should be performance based with processes established and maintain the physical and mental capabilities required at emergency scenes.

Continuous Learning

- The recognition that our profession is experiencing constant evolution as science and technology offer improvements to fire service capabilities.

- The ability to understand the application and implementation of new science and technology into our operations requires constant training and education.

Module Two Summary

ELO2.1.1. List and define three on-scene components
for fire service professional to implement in achieving ASARA.

Risk Based Response
A systematic process based upon four criteria; Threat/Hazard,
Vulnerabilities, Consequences, Likelihood of occurrence.

Decision Making
Decision should be based upon the facts; science and circumstances of
the situation in obtaining ASARA.

Situational Awareness
The ability of the responder to match the reality of
what is occurring at an emergency scene to
their perception of what is happening
or likely to happen soon.

Module Two Summary

ELO 2.2.2. List and define three pre-operational components for the fire service professional to enact in achieving ASARA.

Experience Based Training
Training designed to give the responder an event that allows them to parallel the knowledge, skills, and abilities needed at a specific type of emergency scene.

Fit-for-Duty
The responders' physical and mental ability to perform at emergency situations.

Continuous Learning
The ability to understand the application and implementation of new science and technology into our operations requires constant training and education.

Module 3: Organizational Behaviors and Responsibilities

Module 3: Organizational Behaviors and Responsibilities

ELO 3.3.1. Using the ASARA structure, list and define the foundation needed to build a safety culture for the fire service.

ELO 3.3.2. Using the ASASA structure, list and define the outside organizational pillars to achieving a safety culture.

ELO 3.3.3. Referencing the ASARA structure, list and define the three middle pillars to achieving an ASARA organizational structure.

Module 3: Organizational Behaviors and Responsibilities

The fire service professional will define and evaluate the organizational requirements to achieve an ASARA culture.

Using Firefighter Near Miss Reports, NIOSH Fire Fighter Fatality Investigation Reports, case studies, and other examples, the fire service professional will identify which casual factors resulted in harm or close calls that can addressed by organizational behaviors and responsibilities.

Organizational Components to achieve ASARA

- Leadership
- Engagement & Expectations
- Enforcement & Accountability
- Health and Safety Program
- Training and Evaluation
- Walk the Walk

Leadership

The foundation of an organizational safety culture is leadership focused on the group dynamic where labor, management, and the authority having jurisdiction embrace a safety culture defined by ASARA.

- Fire Administration

- Authority Having Jurisdiction (AHJ)

- Those representing the workforce, such as labor groups.

Engagement & Expectations

- Fire Service leadership engaging the work force on the importance and impact of achieving an ASARA culture.

- Establish the organizational expectation that each fire service member strives to achieve the components of the ASARA patch.

Accountability & Enforcement

- Accountability for everyone in the organization to be focused on achieving personal and organizational ASARA culture.

- Establishing policies & procedures supporting an ASARA culture and then providing enforcement processes when violations occur.

Health & Safety Program

- Every fire service organization needs to have a comprehensive occupational safety and health -program referencing NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program* if ASARA culture is to be sustained.

- Having committed and involved personnel involved in the occupational safety and health program-from all levels of the organization-is essential to achieving an ASARA culture.

Walk the Walk

- The statement means to make operational safety a top priority by allocating the necessary resources required in achieving an ASARA culture.

- Resources are inclusive of time, staffing, and equipment.

Training & Evaluation

- Training programs need to incorporate the components of the ASARA patch into **ALL** fire service training efforts.

- Evaluating the effectiveness of department training programs by reviewing after action reports and conducting effective post incident analysis.

Module Three Summary

ELO 3.1.1. Using the ASARA structure, list and define the foundation needed to build a safety culture for the fire service.

Fire service leadership, with support from the authority having jurisdiction (AHJ) and those representing the workforce, such as labor groups.

Module Three Summary

ELO 3.1.2. Using the ASASA structure, list and define the outside organizational pillars to achieving a safety culture.

Engagement and Expectations
Fire Service leadership engaging the work force on the impact of achieving ASARA and the expectation that each fire service member strives to achieve the components of the ASARA patch.

Accountability and Enforcement
Establishing enforcement policies and procedures and providing accountability for everyone in the organization to be focused on achieving personal and organizational ASARA culture.

Module Three Summary

ELO 3.1.3. Referencing the ASARA structure, list and define the three middle pillars to achieve an ASARA organizational structure.

<u>Occupational Safety and Health Program</u>
Every fire service organization needs to have a comprehensive health and safety program if ASARA culture is to be achieved.

<u>Walk-the-Walk</u>
To make operational safety a top priority by allocating the necessary resources (time, personnel, equipment) to achieve ASARA culture.

<u>Training and Evaluation</u>
ASARA will only be achieved through a training program that implements the components of the ASARA patch into the training program and then evaluating its effectiveness by reviewing after action reports and conducting effective post incident analysis.

Module Four: Application Safety Culture Measurement Tool
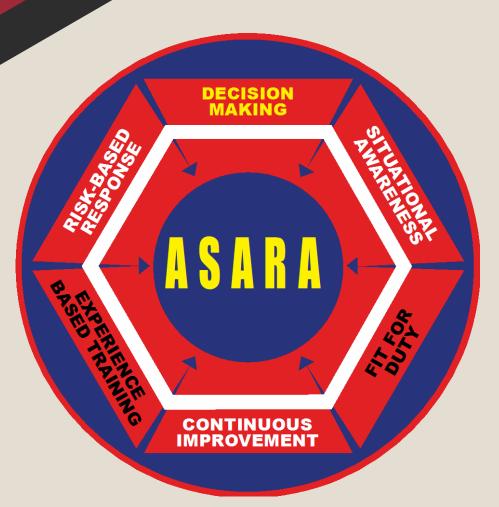
Utilize the safety culture measurement tool to analyze a specific incident or evaluate your organization's safety culture. Use the components of the ASARA model as a guide when you review the specifics of an incident or evaluate your organization.

Think about the Personnel and Organizational components of ASARA and how they affect outcomes.

Please visit the NSCCI course resources tab in the IAFC Academy for additional resources:

- printable assessment & supporting documents
- measurement tools
- scenarios
- videos

Firefighter Safety Culture website:
 ffsafetyculture.org

Personnel Safety Culture

As **S**afe **A**s **R**ealistically **A**chievable

Organizational Structure