Experimental study of leader-and-follower behaviours during emergency evacuation
www.nrfirescience.org/resource/22165
Leader-and-follower behaviour is one of the most important behaviours during evacuation, as determining the effect of leader-and-follower behaviour in social networks on crowd evacuation during emergency situations is important for enhancing safety. In this study, four experiments with two social groups involving 81 participants...
Author(s): Ning Ding, Chang Sun
Year Published: 2020
Type: Document
Book or Chapter or Journal Article

Emotional and social intelligence competencies in incident command
www.nrfirescience.org/resource/20537
As a leader of a diverse set of formal and informal teams, the successful IC needs to be able to play a number of roles at different points in time—as executive, as innovator, as teacher, and as pastor. The IC supervises and directs a variety of specialists drawn from a variety of organizations— Federal, State, local, and/or...
Author(s): Anne E. Black, R. E. Boyatzis, K. Thiel, K. Rochford
Year Published: 2019
Type: Document
Book or Chapter or Journal Article

Understanding the leadership perspective in wildland firefighting: gaps and opportunities for growth
www.nrfirescience.org/resource/18911
The aim of this study was to develop and assess the viability of a leadership scale that measures leadership from the perspective of the leader. A criterion sample was used of firefighters across USA federal land management agencies who are qualified crew bosses. The Supervisor Perceived Leadership Scale (SPLS) consists of...
Author(s): Alexis L. Waldron, David P. Schary
Year Published: 2019
Type: Document
Book or Chapter or Journal Article

Everyone goes home in the wildland
www.nrfirescience.org/resource/18857
In 2017, the NFFF began the process of conducting a wide-scale needs assessment to identify vulnerabilities, attitudes, and intervention opportunities related to wildland firefighter health and safety. A survey was broadly disseminated, and six regional listening sessions were held to provide stakeholders with the opportunity to...
Year Published: 2018
Type: Document
Research Brief or Fact Sheet

Recognizing Women Leaders in Fire Science
www.nrfirescience.org/resource/18070
Across the breadth of fire science disciplines, women are leaders in fire research and development. We want to acknowledge some of these leaders to promote diversity across our disciplines. In Fire, we are also happy to announce a new Special Collection, through which we will continue to acknowledge current and future Diversity...
Author(s): Alistair M. S. Smith, Crystal A. Kolden, Susan J. Prichard, Robert W. Gray, Paul F.
Wildfire risk reduction in the United States: Leadership staff perceptions of local fire department roles and responsibilities
www.nrfirescience.org/resource/16481
As wildland fires have had increasing negative impacts on a range of human values, in many parts of the United States (U.S.) and around the world, collaborative risk reduction efforts among agencies, homeowners, and fire departments are needed to improve wildfire safety and mitigate risk. Using interview data from 46 senior officers...
Author(s): Rachel S. Madsen, Hylton J. G. Haynes, Sarah M. McCaffrey
Year Published: 2018
Type: Document
Book or Chapter or Journal Article

Becoming Authentic: The Heart of Leadership in Wildland Fire Management
www.nrfirescience.org/resource/17548
The wildland fire environment is entering a new age of complexity in terms of not only the biophysical fire environment but also the social environment. More and more attention is being paid to the human side of fire and the role that leadership plays in the performance, safety, and well-being of firefighters. In the early 2000s,...
Author(s): Alexis L. Waldron, Mike Alarid
Year Published: 2017
Type: Document
Book or Chapter or Journal Article

The relationship of mindfulness and self-compassion to desired wildland fire leadership
www.nrfirescience.org/resource/13268
A quantitative approach was adopted to explore facets of mindfulness and self-compassion in relation to their ability to predict crewmembers' perceptions of their supervisors' leadership capabilities. The sample comprised 43 wildland fire crews consisting of their primary supervisors (n = 43) and crewmembers (n = 246). A partial...
Author(s): Alexis L. Waldron, Vicki Ebbeck
Year Published: 2015
Type: Document
Book or Chapter or Journal Article

Measuring wildland fire leadership: the crewmember perceived leadership scale
www.nrfirescience.org/resource/13705
The aims of this research were to develop and test a scale used to measure leadership in wildland firefighting using two samples of USA wildland firefighters. The first collection of data occurred in the spring and early summer and consisted of an online survey. The second set of data was collected towards late summer and early fall...
Author(s): Alexis L. Waldron, David P. Schary, Bradley J. Cardinal
Year Published: 2015
Type: Document
Book or Chapter or Journal Article
Twelfth international wildland fire safety summit proceedings
www.nrfirescience.org/resource/12403
In October, the 12th International Wildland Fire Safety Summit in Sydney, Australia brought together students of fire from all over the world to explore new approaches in wildland fire safety. Participants attended from the USA, Switzerland, Hong Kong, France, New Zealand and Australia to take part in the summit.
Author(s): Rebekah L. Fox
Year Published: 2013
Type: Document
Conference Proceedings

Safety climate in the US federal wildland fire management community: influences of organisational, environmental, group and individual characteristics
www.nrfirescience.org/resource/12452
This study examined the effects of organisational, environmental, group and individual characteristics on five components of safety climate (High Reliability Organising Practices, Leadership, Group Culture, Learning Orientation and Mission Clarity) in the US federal wildland fire management community. Of particular interest were...
Author(s): Anne E. Black, Brooke Baldauf McBride
Year Published: 2013
Type: Document
Book or Chapter or Journal Article

Use of human factors analysis for wildland fire accident investigations
www.nrfirescience.org/resource/196
Accident investigators at any level are challenged with identifying causal factors and making preventative recommendations. This task can be particularly complicated considering that 70-80% of accidents are associated with human error. Due to complexities of the wildland fire environment, this is especially challenging when...
Author(s): Michelle Ryerson, Chuck Whitlock
Year Published: 2005
Type: Document
Conference Proceedings

Eighth international wildland firefighter safety summit: 10 years later
www.nrfirescience.org/resource/15458
These files contain the proceedings and poster papers from the International Association of Wildland Fire's Wildland Fire Safety Summit™ held in Missoula, Montana April 26-28, 2005. These proceedings contain the papers as submitted by the authors. Except for some editing to try and instill a common format, these papers are as...
Year Published: 2005
Type: Document
Conference Proceedings

Integral leadership and signal detection for high reliability organizing and learning
www.nrfirescience.org/resource/15471
In the last ten years, the fire management community has made significant advances in firefighter safety and leadership development. Yet, there is no discernible downward trend in entrapment fatalities. While the complexity of the job and exposure of an increasing number of firefighters to increasingly severe situations has surely...
Author(s): James M. Saveland
Working with emotional intelligence
www.nrfirescience.org/resource/15821
Based on his earlier book, “Emotional Intelligence,” Goleman applies years of research to this practical guide on emotional intelligence in organizations. In the first part of the book, Goleman makes a “hard case for soft skills” by arguing that emotional intelligence is paramount to IQ, or expertise, in determining who will...
Author(s): Daniel Goleman
Year Published: 2000
Type: Document
Book or Chapter or Journal Article

Normal accidents: living with high-risk technologies
www.nrfirescience.org/resource/15886
Many of the accidents that organizations face are a result of complex interactions between multiple events and with multiple actors. They cannot be explained as being only one group or individual’s “fault”. In this book, Perrow investigates the complexity of accidents as events that are inevitable because of the complex...
Author(s): Charles Perrow
Year Published: 1999
Type: Document
Book or Chapter or Journal Article

Reframing and organizational action
www.nrfirescience.org/resource/16245
Palmer and Dunford analyze the concept of reframing and discuss four key limits to this concept. Reframing literature asserts that people generally are trapped into a singular way of thinking about a situation, and thus, they are unable to think more creatively about situations and problems they may encounter on the job. Some...
Author(s): Ian Palmer, Richard Dunford
Year Published: 1996
Type: Document
Book or Chapter or Journal Article

Wildland firefighter safety awareness study: Phase 2 - setting new goals for the organizational culture, leadership, human factors, and other areas impacting firefighter safety
www.nrfirescience.org/resource/15477
This report summarizes the results of Phase II of a four phase study to examine the Federal wildland firefighting community and to improve firefighter safety. The first phase described the strengths and problem areas of the current organizational culture, and considered leadership and accountability issues, human factors, and...
Year Published: 1996
Type: Document
Technical Report or White Paper

Wildland firefighter safety awareness study: Phase 1 - identifying the organizational culture, leadership, human factors, and other issues impacting firefighter safety
There are many characterizations of wildland firefighters and their work culture. These characterizations vary across all levels of organizations, jurisdictions and types of jobs. As closely held as these perceptions are, as confident as each of us is with our own perceptions--it begs the question of what a systematic look at...

Learning from mistakes is easier said than done: group and organizational influences on the detection and correction of human error

Researchers have often studied and discussed errors and accidents within an organizational setting in two ways. The first focuses on the individual, while the second looks at the system in which the individual operates. Edmondson argues for a third perspective, one that looks at both the individual and the system, and specifically...

Atwood notes that while managers must adopt a passion for safety, the true test is on the fire line. Supervisors are in charge of making decisions that ultimately put safety first, or not. Atwood argues that improvement will not come from the top down, or the outside in, and that firefighting experience is the most critical...

Turner argues that while the best way to avoid disasters is primarily “for managers to establish, to strengthen, and then to assert control,” management control only addresses part of the problem, and there are limitations that affect management in disaster situations. Turner advocates examining three interrelated factors in a...

This article summarizes Kaplan and Norton’s earlier work on the “balanced scorecard” system, a set of measures designed to give a manager an overview of business performance. This comprehensive scorecard system is grounded in an organization’s strategic objectives and competitive demands. It includes measures of financial...
The collapse of sensemaking in organizations: the Mann Gulch disaster
www.nrfirescience.org/resource/15592
The death of 13 men in the Mann Gulch fire disaster, made famous in Norman Maclean's Young Men and Fire, is analyzed as the interactive disintegration of role structure and sensemaking in a minimal organization. Four potential sources of resilience that make groups less vulnerable to disruptions of sensemaking are proposed to...
Author(s): Karl E. Weick
Year Published: 1993
Type: Document
Book or Chapter or Journal Article

The balanced scorecard: measures that drive performance
www.nrfirescience.org/resource/16224
This article introduces the reader to Kaplan and Norton’s “balanced scorecard” system, a set of measures designed to give a manager an overview of business performance. The scorecard includes four measures. The first measure is financial, the traditional measure of performance. The other three measures include customer...
Author(s): Robert S. Kaplan, David P. Norton
Year Published: 1992
Type: Document
Book or Chapter or Journal Article

Enacted sensemaking in crisis situations
www.nrfirescience.org/resource/16266
Crisis situations are often complicated by the very behaviors people use to manage crisis. Enactment suggests that how people think about the work they do shapes how they behave toward that work. This process allows people to see certain aspects of a situation while being blind to others. Enactment influences the course of a crisis...
Author(s): Karl E. Weick
Year Published: 1988
Type: Document
Book or Chapter or Journal Article