

National Fallen Firefighters Foundation
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*New Approaches to Occupational Behavior Health:
Implementing Firefighter Life Safety Initiative 13*

Grant award: 1R13OH010388-01

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List of Terms and Abbreviations

AAR	After Action Review
BHAP	Behavioral Health Assistance Provider
CBT	Cognitive Behavioral Therapy
CISD	Critical Incident Stress Debriefing
EGH	Everyone Goes Home® program
EMS	Emergency Medical Service
EMT	Emergency Medical Technician
FLSI 13	Firefighter Life Safety Initiative #13, which states “Firefighters and their families must have access to counseling and psychological support.”
LODD	Line-of-duty death
MUSC	Medical University of South Carolina
NCPTSD	National Center for Post-Traumatic Stress Disorder
NCVC	National Crime Victims Research and Treatment Center
NFFF	National Fallen Firefighters Foundation
NFPA	National Fire Protection Association, the standards-recommending body for the United States Fire Service
PTE	Potentially Traumatic Event
RFP	Request for proposal
SFA	Stress First Aid for Fire and EMS Personnel

Abstract***New Approaches to Occupational Behavior Health:
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The National Fallen Firefighters Foundation (NFFF) received NIOSH sponsorship for a 2-day conference, held March 1-2, 2013. Attendees received a thorough overview of work products developed through a five-year research to practice effort pairing some of the nation's leading research and practice organizations generating work related to occupational exposure to atypically stressful events with six major fire, rescue, and emergency medical services constituency organizations. The object of that series of initiatives, operationalizing one of the 16 Firefighter Life Safety Initiatives generated by NFFF's *Everyone Goes Home*® program, was to create practical, accessible solutions for direct application by fire and EMS agencies and their behavioral health providers. Attendees at the sponsored conference were introduced to a series of web-based programs developed to support consensus protocols for organizational response in atypically stressful occupational events, new models and standards for behavioral health assistance programs, and evidence supported models for effective peer involvement in supporting both individual and team resilience.

The sessions first provided an overview of the process used to generate the models and then presented each component and the products created to facilitate its delivery at the local level. These included downloadable continuing education modules for agency-level implementation of *After Action Review* and *Curbside Manner* components; web access to screening and assessment tools for behavioral health providers; web access to materials help fire and EMS agencies design RFPs and contracts for behavioral health assistance programs and to help potential vendors to design effective and affordable proposals; web access to an training program in cognitive behavior therapy approaches to treating clinical conditions, specifically created for clinicians serving fire and EMS agencies by the National Crime Victims Research and Treatment Center at the Medical University of South Carolina; and introduction of a "train the trainer" project to support regional dissemination of the NCPTSD *Stress First Aid* peer support model.

Attendees included 58 personnel representing 45 fire, rescue, and emergency medical services constituency organizations with active health and safety programs, with the intent of generating a broad base of industry involvement in dissemination and adoption of FLSI 13. As of the date of this report, 684 trainers representing 149 fire, rescue, and emergency medical services agencies have completed the training elements, generating a potential reach of 36,548 fire, rescue, and emergency medical services personnel. Additionally, 28 trade publications in a range of venues have promoted the program and its various components, providing access to online training modules and other supporting materials.

NFFF appreciates the support of NIOSH in successfully launching this important advancement in supporting the application evidence supported best practices to the behavioral health impacts of fire, rescue, and emergency medical services careers on the employees who provide our communities' first response to emergencies. The impacts of the sponsored event continue to unfold as more agencies throughout the nation take advantage of solutions developed for readily accessed, low cost utilization.

Section 1

Key Findings:

1. Representatives from a range of fire, rescue, and emergency medical services were convened March 1-2, 2013, to receive a systematic overview of materials developed as products from Firefighter Life Safety Initiative 13 (FLSI 13) of the National Fallen Firefighters Foundation *Everyone Goes Home*® program. Included were:
 - a. *After Action Review*. An online training module promoting the conduct of company-level “hot wash” assessments following all engagements, including and especially the routine. Adapted from well-established and evaluated military practices, it serves as the foundation for practical, proximal address of operational events.
 - b. *Curbside Manner: Stress First Aid for the Streets*. An online training module promoting application of core principles from *Stress First Aid* (SFA; see below) in daily citizen/patient contacts, both enhancing quality of care and providing a well rehearsed foundation for application of SFA.
 - c. *Guidelines and templates for addressing revised industry standards for Behavioral Health Assistance Programs* (BHAP). Templates and guidance documents available online to assist organizations in developing solicitations for behavioral health assistance programs (EAPs) and to help potential vendors generate responsive proposals for service.
 - d. *Web based training program (Helping Heroes) for behavioral health clinicians*. Provides an online platform for instructing clinicians serving fire, rescue, and emergency medical services personnel in providing evidence-based treatment. Developed by the National Crime Victims Research and Treatment Center at the Medical University of South Carolina, based on their programs for clinicians treating child abuse and those providing services to military veterans and their families, this site provides training in cognitive behavior therapy using prolonged exposure for PTSD.
 - e. *Evidence based screening tools*. Online access to evidence based screening protocol for PTSD, utilizing validated instrumentation (*Trauma Screening Questionnaire*).
 - f. *Stress First Aid*. Adapted from US Navy/US Marine Corps *Combat Operations Stress First Aid*, an evidence-supported, operationally embedded peer support program by National Center for Post Traumatic Stress Disorder.

2. Representatives were engaged in development of dissemination plans and exploration of additional avenues to encourage widespread adoption among fire, rescue, and emergency medical services organizations.

Translation of Findings:

This project was specifically a “research to practice” translation effort. Each component identified above was identified in earlier efforts spanning more than five years of effort through a translational consensus group model. Those work groups paired leading research and practice programs in each area addressed with a set of fire, rescue, and emergency medical services constituency organizations to:

- a. Outline a solid, organizationally embedded approach to addressing occupational exposure to atypically stressful events;
- b. Identify evidence supported best practices addressing each element of the model developed;
- c. Translate those best practices into readily utilizable products that could be made available to fire, rescue, and emergency medical services organizations in easily accessed online formats, with minimal or no cost;
- d. Present these as an easy to grasp, user-friendly package.

The specific purpose of the supported conference was to introduce those work products to the industry and to encourage their adoption and utilization.

Outcomes/Impact

The core element around which the broader program was constructed is the *Stress First Aid* project. As of the date of this report, 30 onsite presentations have been delivered in all parts of the country. These sessions were geared to train advocates and trainers to facilitate further dissemination. Some 684 advocate/trainers have completed the program, representing 149 organizations and yielding a potential reach of 36,548 fire, rescue, and emergency medical services personnel.

Based on recommendations from the sponsored session, an online introduction to *Stress First Aid*, using the same platforms and distribution channels as the *After Action Review* and *Curbside Manner* components, was developed and launched to further facilitate dissemination and expand the potential reach. The onsite *Stress First Aid* training, initially designed as an eight-hour session, was also redesigned as a four-hour core to be supported by the various online elements, with a prerequisite of certification as a fire or emergency medical services instructor. This modification allows preservation of the dissemination strategy and all core content elements without duplicating pedagogic elements in which fire and emergency medical services instructors have already been trained. It also helps underscore the intent to embed the process in existing organizational tracks for health, safety, and professional development rather than generating parallel structures (noted as a material weakness and limitation in previous approaches adopted by the industry).

Publication in a range of trade media was also an identified aim. As of the date of this report, 28 publications have been generated as a result of the supported conference. These include publications that highlight both the overall behavioral health model and each of its various components. A listing of these publications is included as Appendix B following this technical report.

Section 2

Background:

The stress associated with fire, rescue, and emergency medical services occupations has been well chronicled in previous research (e.g., Adler, et al., 2008; Halpern et al., 2008). Firefighters and emergency medical personal are exposed to potentially traumatic events (PTEs) with a degree of regularity that most people would not experience in a lifetime. These providers are tasked with performing in stressful, high-risk environments where control of chaotic and sometimes threatening elements may be limited (Landen & Wang, 2010). Efforts to mitigate the psychological effects often associated with occupational exposure to PTEs have been a driving force in the industry's efforts to address the mental health of first responders.

Based on claims of scientific evidence of efficacy and effectiveness, Critical Incident Stress Debriefing programs (CISD; Mitchell, 1983 *et seq.*) became *de rigueur* elements of fire department protocol and were included in a wide range of courses, prescriptions, and standards, including NFPA 1500 (2007). Aggressive marketing of this intervention set, coupled to the facile simplicity of its training (two-day workshops with no prerequisite for attendance and no testing of knowledge or skill) led to nearly ubiquitous adoption. Empirically unsubstantiated claims of efficacy and proselytizing advocacy for prophylactic application in essentially any situation that could be construed as distressing led to extension of the approach to situations well outside its early targets (fire and EMS) to eventually include occupational groups of essentially all descriptions.

Structured, independent efforts to assess its actual performance and impact began to appear only after debriefing had become widely entrenched. Impact of the intervention on measurable outcomes emerged as essentially nil while a disturbing trend appeared in some better designed studies that suggested a strong potential for paradoxical impact on natural recovery among subpopulations with objectively more reactivity to traumatic experiences (Bisson *et al.*, 1997; Carlier *et al.*, 1998; Deahl *et al.*, 1994; Griffiths & Watts, 1992; Mayou, Ehlers, & Hobbs, 2000; Kenardy *et al.*, 1996; Lee, Slade, & Lygo, 1996; Lohr *et al.*, 2003; Sijbrandij *et al.* 2007).

Meta-analysis by Van Emmerick, Kampuis, Hulsbosch, and Emmelkamp (2002) of seven outcome studies concluded that the effect size of CISD was not significantly greater than zero and included a range of negative values within its 95% confidence interval, indicating an intervention that held no effect on its intended outcome of preventing PTSD and indeed held the capacity to paradoxically inhibit natural recovery. Moreover, its effect size was generally less than either nonintervention control conditions or alternative interventions against which it has been compared. A range of guidelines for evidence based practice, including the prestigious *Cochrane Reviews* (Rose, Wessely, & Bisson, 2004), the UK National Institute for Clinical Excellence (NICE, 2005), the World Health Organization (WHO, 2005), and the Australian Centre for Posttraumatic Mental Health (2007), now include specific recommendations contraindicating routine debriefing. A definitive review of psychological debriefing commissioned by the Association for Psychological Science (McNally, Bryant, & Ehlers, 2003) concluded that:

“(a)lthough psychological debriefing is widely used throughout the world to prevent PTSD, there is no convincing evidence that it does so. RCTs [Randomized Controlled Trials] of individualized debriefing and comparative non-randomized studies of group debriefing have

failed to confirm the method's efficacy. Some evidence suggests that it may impede natural recovery. For scientific and ethical reasons, professionals should cease compulsory debriefing for trauma-exposed people (p. 72).

Decision makers in fire and EMS, however, cannot be expected to maintain acquaintance with highly technical literature in areas that fall well beyond their primary missions and responsibilities. Refereed technical journals are a rarity in fire and EMS; most leaders depend on trade conferences and trade magazines for information and the quality of information reaching them in this domain has been variable at best. It is incumbent in such circumstances that scientists reach beyond the generation of scientific evidence and actively engage in knowledge translation efforts that can create products consistent with the pragmatics and expectations of decision makers, their constituents, and the ultimate service consumers (Choi *et al.*, 2003). To this end, the National Fallen Firefighters Foundation (NFFF) launched a multifaceted strategy to support a systematic knowledge translation with respect to occupational behavioral health, one of the 16 Life Safety Initiatives advanced in support of its *Everyone Goes Home*® program.

Through a highly innovative series of consensus groups, NFFF has endeavored to bring together researchers and practitioners holding the very best information regarding empirically supported best practices with fire service organizations and professionals holding solid information on the needs and parameters that impact effective application in their industry with the explicit goal of mutually crafting methods for putting best practices effectively into play. The operational level objective has been to create public domain solutions that can be accessed by fire and EMS agencies and personnel in simple, direct, efficient and cost effective fashions (typically with limited or no cost to consumers). The result has been a tightly designed package of these solutions, each representing the state of the art, the science, and the practice at this juncture.

Consensus Approach to Occupational Exposure to Atypically Stressful Events

The 16 Firefighter Life Safety Initiatives have stimulated a variety of research, development, and standards-making activity. A second National Life Safety Summit was convened in Novato, California, during February 2007 to review progress, incorporate emerging findings and directions, and refine the focus of activity respecting each of the initiatives. Established researchers and practitioners from relevant content areas were commissioned to develop white papers regarding the state of research, practice, and implementation in each content area. Those white papers (National Fallen Firefighters Foundation, 2007) were utilized to guide the deliberation of industry groups assigned to each initiative; each group was charged to create an action agenda regarding its assigned initiative and to generate a strategic plan for its implementation.

The white paper regarding FLSI 13 (Gist & Taylor, 2007) noted that the academic literature contained increasingly sophisticated and extensive research respecting conditions, interventions, and delivery systems relevant to firefighter health and safety. It also recognized that these were neither reflected in fire service training and protocols nor reliably recognized and applied by those typically involved in providing occupational behavioral health services to firefighters and their families. Two decades of progressively more focused research have led to a number of significant innovations with potential relevance for organizational response to atypically stressful workplace events. The entrenched nature of approaches based on or derived from CISD, however, inhibited efforts to forge these innovations into strategies that could effectively facilitate transition to evidence based behavioral health assistance to fire and EMS organizations.

The strategic plan for FLSI 13 proposed a consensus process that would begin by bringing together carefully selected researchers and academics closely affiliated with research programs examining areas important to occupational behavioral health needs of the fire service. Representatives from the National Center for PTSD, the Center for the Study of Traumatic Stress at the Uniformed Services University of Health Sciences, NIOSH, the Employee Assistance Professionals Association, the National Crime Victims Research and Treatment Center at the Medical University of South Carolina, and the Firefighter Health Research Group at the Kansas City University of Medicine and Biosciences teamed with representatives of six major fire service organizations (International Association of Fire Chiefs, International Association of Fire Fighters, National Volunteer Fire Council, the National Fire Protection Association, the National Association of EMS Physicians, and the North American Fire Training Directors) for the first consensus session, held in Baltimore, Maryland, on December 4-5, 2008. That session focused on occupational exposure to potentially traumatic events (PTEs).

The consensus group drew upon presentations from the research programs represented and input from fire service organizations to recommend a basic protocol for organizational response to PTEs and to identify resources that would be needed to be created to make the protocol effective. Two additional consensus groups, one related to member assistance programs and another addressing self-help and peer support, were convened to ensure that issues identified with respect to these critical components received adequate address.

A series of specific projects was outlined to develop and disseminate resources identified as necessary for successful implementation. Each project was then assigned to a project team. All materials were designed for web-based dissemination to ensure ready availability to all intended users. Funding was secured from various sources to facilitate development public domain solutions that can be accessed by fire and EMS agencies and personnel in simple, direct, efficient and cost effective fashions (typically with limited or no cost to consumers). Projects included:

1. *After Action Review*: Adaptation of military AAR for fire service as a routine element of every call to improve organizational learning, support skill development, and provide foundation for address of high impact calls in ecologically intact venue.
2. *Curbside Manner (Stress First Aid for the Street)*: Promotes acquisition and regular use of skills while enhancing daily performance and citizen satisfaction.
3. *Behavioral Health Assistance Program standards*: First consensus group identified a need for clearer structure and specification; second session recommended revisions to fire service standards to incorporate those which became effective in June 2011.
4. *Screening and assessment materials*: Ensures access to empirically validated screening and assessment tools for effective early identification and proper referral.
5. *Web training in evidence supported intervention for clinicians treating fire service*: MUSC/NCVC produced training to supply highly accessible, no cost access to an evidence based treatment of choice for journeyman clinicians treating firefighters using well established and thoroughly evaluated formats and mechanisms.
6. *Support for effective peer assistance efforts*: NCPTSD adaptation of Navy/Marine Corps *Combat Operations Stress First Aid* program to provide mechanisms for structured peer support reflecting current evidence informed best practices.

Specific Aims:

Specific aims articulated for the process included:

1. Provide a systematic overview of FLSI 13 to industry organizations and constituencies critical to dissemination, adoption, and implementation.
2. Introduce specific public domain products and solutions available to support adoption and implementation, including:
 - a. *After Action Review* continuing education module.
 - b. *Curbside Manner: Stress First Aid for the Street* continuing education module.
 - c. Materials to support successful adoption of revised industry standards:
 - i. Guide and template for Fire Department Behavioral Health RFPs.
 - ii. Guide for potential behavioral health vendors in responding to RFPs and utilizing FLSI 13 resources
 - d. Web based training programs for clinicians serving fire and EMS agencies:
 - i. Cognitive Behavior Therapy (Behavioral Activation)
 - ii. Evidence based guide to screening, assessment, and treatment planning
 - iii. *Stress First Aid for Fire and EMS Personnel* manual and training for evidence informed peer support.
3. Exploration of technologically driven approaches to self-assessment and self-help.
4. Engage attending organization in developing specific plans for disseminating information and materials (e.g., inclusion in publications, conferences, meetings, etc.).

Methods:

Major industry conferences to promote collaboration and forge consensus have been a hallmark of *Everyone Goes Home*®. The 16 Life Safety Initiatives (of which FLSI 13 is a part) were generated through a major industry conference in 2004 and were updated and refined by a second major conference in 2007 (see below). The project has additionally hosted two conferences to develop a wide reaching research agenda for occupational health and safety in the industry, which has served as a criterion reference for the FEMA's Assistance to Firefighters Grant program's research and development component. These conferences have been noted as well for their success in achieving broad inclusion and participation, which remains a major objective. The sponsored conference was designed to introduce a wide range of fire, rescue, and emergency medical services constituency organizations to the evidence supported, best practices models crafted through the above described consensus process. A complete list of attendees is included in Appendix A of this report.

The first specific aim was fully met in overall context of the sponsored conference. Some 45 organizations were represented among the 58 attendees, selected to provide a broad sample of fire, rescue, and emergency medical services constituency organizations whose endorsement and participation would be critical to successful dissemination and adoption. Evaluation questionnaires following the conference indicate that their reactions were overwhelmingly positive and their commitment to participation in promotion and dissemination has been apparent in the activity generated as a result of the sessions (see below).

The second specific aim was addressed through a series of specific presentations by key personnel responsible for the development of each listed component:

1. *After Action Review* was presented by Chief John Oates of the East Hartford, Connecticut Fire Department, a member of the development team. Consistent with a principal recommendation from the *Mental Health and Mass Violence* consensus conference hosted by NIMH and the Department of Defense following the September 11 attacks (NIMH, 2002), the company level AAR is recognized as a critical foundation element, both for enhancing organizational learning and for imbedding the process of systematic, objective review as a first element of reacting to these incidents. This helps to ensure well engrained, well rehearsed application prior to the need to utilize the approach in high impact, high stress situations.
2. *Curbside Manner* was presented by Captain Bob Martin of the Chicago Fire Department, a member of the development team for *Stress First Aid* and for *Curbside Manner*, its derivative for daily operations use. This element is designed for use in daily contacts with citizens and EMS patients, both to enhance quality of care and to ensure well engrained, well rehearsed application of the core principles from SFA prior to the need to utilize them in high impact, high stress situations.
3. *New Standards for Behavioral Health Assistance Programs* was introduced by Dr. Richard Gist, Deputy Director of the Kansas City Fire Department and lead consultant for NFFF on the behavioral health initiative project suite. Participants were introduced to revisions incorporated into the newly revised edition of NFPA 1500, *Standard on Fire Department Health and Safety Programs* and the materials made available online to assist both fire, rescue, and emergency medical services organizations and their prospective vendors to craft compliant solicitations of service and responsive proposals.
4. *Web Based Training for Clinicians* was presented by Dr. Ken Ruggiero of the National Crime Victims Research and Treatment Center at the Medical University of South Carolina. He described in detail the working of *Helping Heroes*, a web site built with support from FEMA and the US Fire Administration to provide clinicians serving fire, rescue, and emergency medical services personnel with effective, no cost training in application of cognitive behavior therapy using prolonged exposure (CBT/PE), the “gold standard” in evidence based treatment of PTSD. The website contains an overview of working with fire and EMS personnel, followed by video assisted segments on CBT/PE. The format mirrors that of rigorously evaluated and highly effective programs done for clinicians treating child sexual abuse and for clinicians treating military veterans and their families.
5. *Stress First Aid* was presented by Dr. Patricia Watson of the National Center for PTSD of the Veterans Administration. SFA was adapted from NCPTSD’s cooperative project with Navy Medicine, *Combat Operations Stress First Aid*, utilized by Navy and Marine Corps personnel deployed overseas to combat zones. Rather than a separate, ancillary mental health enterprise, COFSA and SFA are designed to promote organizationally embedded peer support, backed by clear paths of access to additional resources when indicated.

Each element contained information on access to online resources. Materials were also provided in handout packets to all attendees.

The third specific aim was covered in a segment facilitated by Dr. Gist and Vickie Taylor, Deputy Director of the Prince William County (Virginia) Community Services Board and Behavioral Health Consultant for NFFF. Additional opportunities for leveraging the types of technology platforms utilized in the core projects outlined above were explored, resulting in recommendations

for additional online projects. One key recommendation to develop an online module similar to those mounted for *After Action review* and *Curbside Manner* has since been implemented. Another recommendation concerning development of smart phone apps to cover key skills for peers will be launched with its first app in a matter of weeks from this report with another addition slated within the year.

The final specific aim was addressed in the closing sessions, the impact of which is evident in the outcomes achieved by the date of this report (see below).

Results and Discussion:

The core element around which the broader program was constructed is the *Stress First Aid* project. As of the date of this report, 30 onsite presentations have been delivered in all parts of the country. These sessions were geared to train advocates and trainers to facilitate further dissemination. Some 684 advocate/trainers have completed the program, representing 149 organizations and yielding a potential reach of 36,548 fire, rescue, and emergency medical services personnel.

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Appendix A

Meeting Attendees

Robert Baird	United States Forest Service
Marc Bashoor	Prince George's County Fire/EMS
Ronald D. Blackwell	Wichita (KS) Fire Department
Sandy Bogucki, MD, Ph.D.	National Association of EMS Physicians
Karen Brack	City of Charleston (SC)
Paul Brooks	Center for Public Safety Excellence
Kathy Clay	International Association of Wildland Fire
Dennis Compton	National Fallen Firefighters Foundation
Elizabeth Crowe	Chicago Fire Department
Bill Degnan	National Association of State Fire Marshals
Harvey Eisner	Firehouse Magazine
Russ Friar	South Carolina Fire Academy
Eriks Gabliks	North American Fire Training Directors
Steve Garnham	Amtrak EAP
Richard Gist, Ph.D.	Kansas City (MO) Fire Department
Robert Halton	Fire Engineering Magazine
Tom Harbour	United States Forest Service
Zorrina Harmon	SC State Firefighters Association
Bill Haskell	NIOSH/NPPTL, NORA
Ken Holland	National Fire Protection Association
Tricia Sanborn Hurlbutt	National Fallen Firefighters Foundation
Jim Jeannette	Canada
Bill Jenaway, Ph.D.	VFIS
Denise Keenan, Ph.D.	South Australia
JoEllen Kelly, Ph.D.	National Fallen Firefighters Foundation
Patrick J. Kenny	Village of Western Springs (IL)
Steve Kimple	National Fallen Firefighters Foundation
Greg Lawrence	International Association of Black Professional Fire Fighters
Frank Leto	FDNY Counseling Services Unit
Kim Lightley	United States Forest Service
Bob Martin	Chicago Fire Department
Joe Minogue	Phoenix Society for Burn Survivors
Pat Morrison	International Association of Fire Fighters
Molly Natchipolsky	National Fallen Firefighters Foundation
Deborah Neitch	International Association of Arson Investigators

Susie Nichol	Firehouse Magazine
Wendy Norris	Federation of Fire Chaplains
John Oates	East Hartford (CT) Fire Department
Catherine Patterson	FEMA AFG Grant Program
Per-Olof Michel, MD	Sweden
Bud Phillips	National Society of Executive Fire Officers
John Proels	National Fallen Firefighters Foundation
Kevin D. Quinn	National Volunteer Fire Council
Ken Ruggiero, Ph.D.	Medical University of South Carolina
Bob Shilling	National Fallen Firefighters Foundation
Ronald J. Siarnicki	National Fallen Firefighters Foundation
Tonya Slawinski, Ph.D.	Supportive Solutions, Inc.
Victor Stagnaro	National Fallen Firefighters Foundation
Dave Statter	National Fallen Firefighters Foundation
John Sullivan	International Association of Fire Chiefs Safety, Health and Survival Section
Rev. Jennie Swanson	Illinois Corps of Fire Chaplains
Susan Tamme	International Association of Women in Fire & Emergency Services
Jim Tanner	Prince William County (VA) Department of Fire & Rescue
Vickie Taylor	Prince William County (VA) Community Services Board
Lisa DeMarco Tilley	Prince William County (VA) Department of Fire and Rescue
Bill Troup	United States Fire Administration
Don Vaught	Eugene (OR) Fire Department
Patricia Watson, Ph.D.	National Center for PTSD
Janet Wilmoth	Fire Chief Magazine
Steve Yannarel	Prince William County (VA) Department of Fire & Rescue
Kevin Yeskey, MD	MDB, Inc.

Appendix B

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