



Coffee Break Training - Fire Protection Series

Fire Dynamics: Changing Severity of Home Fires

No. FP-2013-50 December 10, 2013

Learning Objective: The student will know where to get important, new information and free training about how home fires have changed and how fire attack tactics can be improved.

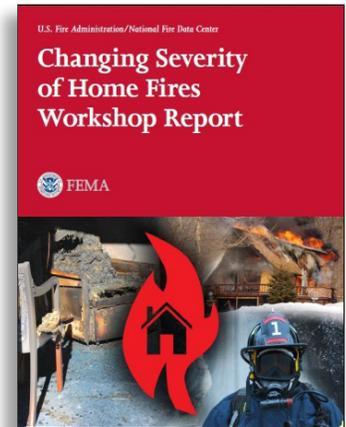
Over the last 30 years, dramatic changes have occurred in the fire environment: upholstered furniture, lightweight construction assemblies, larger homes on smaller lots, open floor plans, energy conservation measures, photovoltaics, and contents and furnishings made predominately of synthetic materials, all complicated by the occasional wind-driven fire. These changes, taken together, can dramatically change how a fire in a building behaves. Recent research has identified the impact of all these changes on the fire service. They are profound.

In recognition of these changes around us, the USFA invited the leading national fire service organizations to join together at the Changing Severity of Home Fires Workshop last December. Fire service leaders explored the changes and their impact, as well as discussed how to best inform and educate our comrades about the issue. The report of this workshop can be downloaded from the USFA website: http://www.usfa.fema.gov/fireservice/ops_tactics/firefighting/residential_environment/index.shtm.

Fire research has shown us that much of what we were taught about fire dynamics has been significantly altered by these changes around us, and that some of what we were taught about fire attack tactics is no longer appropriate or safe. The fire service has always adapted to new and evolving challenges and hazards. We need to seriously consider changing our tactics to adapt to this newly identified threat.

Many fire departments are re-evaluating their operating procedures and determining how to best incorporate this new knowledge into their operations. **Free** training is available to help you understand the issue and how you can adapt most efficiently. All firefighters and officers are encouraged to take the time to view these programs.

- Underwriters Laboratories' Firefighter Safety Research Institute offers excellent free, online training created by the researchers themselves: <http://ulfirefightersafety.com>.
- An outstanding webinar featuring the fire researchers was hosted by the International Association of Fire Chiefs (IAFC). This webinar can be viewed at the IAFC webinar archive: <http://www.iafc.org/Education/content.cfm?ItemNumber=1963>.
- The Polytechnic Institute of New York University offers three **free** training programs that can be downloaded:
 - Wind-driven high-rise fires: <http://www.poly.edu/fire/alive/alive8a.html>.
 - Fires in modern lightweight residential construction: <http://www.poly.edu/fire/alive/alive8b.html>.
 - Fire dynamics (available January 2014): <http://www.poly.edu/fire/alive/alive8c.html>.



U.S. Fire Administration's (USFA's) "Changing Severity of Home Fires Workshop Report"



Eligible for Continuing Education Units (CEUs)
at www.usfa.fema.gov/nfaonline

For archived downloads, go to:
www.usfa.fema.gov/nfa/coffee-break/