FIRE! The Original Weapon of Mass Destruction

By James C. Jones, EMT/CHCM

Without the intervention of fire departments cities, and parts of most suburbs will burn during a prolonged survival disaster.

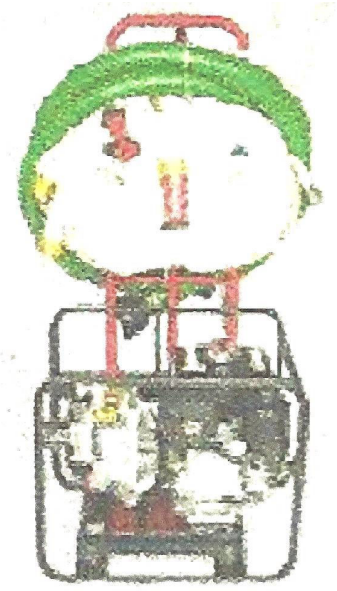
History

Long before there were nuclear weapons, fire was the primary destroyer of towns and cities. Firebombs killed far more people and did far more destruction in World War Two than explosive bombs and nuclear bomb combined. A single raid fire raid on Tokyo killed 124,711 people and leveled 16 square miles. The glow from the firestorm could be seen 150 miles away. The German city of Dresden was virtually wiped out with 100,000 dead from fire bombing. By comparison the atomic bomb dropped on Hiroshima killed 35,000 people. Historically, accidental and arson fires have devastated Rome (27-AD), London (1666), Chicago (1871) and Boston (1872). Fortunately modern building codes and greatly improved fire extinguishing equipment has prevented the spread of urban and suburban fires in the past century. The danger of massive fires is only held at bay by our relatively flame free environment and the quick responses of fire departments. In a general collapse situation multiple uncontrolled fires would be inevitable for the following reasons.

- In a general collapse situation people will be using candles, heaters and flammable fuels more often. Many of them will not be trained or vigilant enough to prevent fires from starting.
- Broken gasoline, leaking fuel tanks and downed power lines will create intense fire that cannot be extinguished at the source.
- Looters and arsonists will be uninhibited by law enforcement and will start fires in commercial and residential areas.

- Once started, a fire doubles in size about every 60-seconds. Without prompt response from a fire department any fire will totally involve the structure within 5-10 minutes of ignition.
- Structures within several hundred feet of a burning building will ignite from the heat and burning embers may ignite buildings hundreds of yards downwind.
- If there are a sufficient number of adjoining structures burning they may generate a firestorm that will move like a tornado through a built-up area until it encounters an open (no fuel) area are consumes all of the fuel.

If you live in an apartment building or closely spaced housing development your only hope is to establish control and vigilance of the whole building or block. If the house next door, or the one next to that goes up you are doomed. A fire in the next block or across the street may or may note jump to your home. Being able to put out burning embers will be crucial. Again, you have to protect every home on your side of the street. This will require organizing your neighbors early. In the unlikely event that you still have water pressure, you can use garden hoses to damp down roofs and walls and to put out embers. A garden hose is useless once a structure has caught fire. Unless you have a functioning fire pumper truck and several hose from an unlimited water source you are not gong to put out a house fire. There are affordable systems that can supply 50+ gallons per-minute at high pressure through a 1½ hose. These systems could prevent spreading to adjoining structures, but at 50+ GPM you would need 1,500 gallons of water for 30-minutes of fire fighting. You might consider having an inflatable pool or water tank that could be filled in anticipation of such an emergency.



Typical cart mounted, gasoline fueled, portable fire suppression system capable of 7,000 GPH at 120 PSI with a 1 ½ hose" throwing a 150 to 200 ft. stream of water.

Prevention

Of course the one thing you can prevent is your being the source of a fire. With no fire department and limited water supplies even a small fire in your home can consume your whole home and then your whole community. In most cases, your home is still you best survival shelter. You will be using candles, oil lanterns, gasoline generators and other fire hazard devices. Keep these in safe locations, well away from paper, clothing, fuels and other combustibles. Fill gas tanks and lanterns outside well away from structures. Store flammable fuels outside. Be aware of carbon monoxide hazards. Have both smoke and carbon monoxide detectors in working order. Have at least two full, large fire ABC fire extinguishers and have one on hand whenever handling fuels. Don't wait for the fire to read the instructions! Your local fire department may offer training in extinguisher use.

Evacuation From a Fire Ravaged Area

There are many photographs of refugees fleeing through the fire and smoke of burning cities in Europe during World War Two. What a horrible fate. Your survival packs, caches and plans should serve you well if this becomes necessary. Your route and speed will be unlike evacuating from a pandemic or other situation. You will need to act quickly once you determine that you are in the path of the fire. Your priority is not so much distance as direction. Take a rout that will get you out of the fires downwind and uphill path and out of the fuel supply of closely spaced buildings and woods. Seek open grass free fields and empty places. During the Chicago Fire, many people fled out into lake Michigan.

Protection of valuables

Unless you are sure that fire is not likely in your area, you should take some precautions.

- Consider relocating out of high-density areas or apartment complexes.
- Move valuables and important documents to a fire-safe location. During World War Two civilians often buried valuables in the backyard so they could recover them after the fires burned out.
- Move children, pets and the elderly out of the fire area ahead of time. Your only hope may be to run and they can't.
- Always be ready to evacuate with everything you need to survive. Fire spreads very fast. You will not have time to find, gather and load what you need once it comes your way.

Fire Survival

Since fires may start and spread through populated areas at any time, it will be necessary to post a 24-hour watch. This will also guard against looters and arsonists. If you awaken to a smoke filled room, do not sit up! The air just above you may be heated to several hundred degrees and filled with toxic gasses. Roll out of bed and crawl to the nearest exit. You have only seconds. A dust mask and a flashlight kept in the bedside drawer may save your life in the dark smoke filled house. Once outside, never return to a burning building. You will not come out again! You should have trained every member of your family in escaping fire and have a meeting place outside. To illustrate the need for training and speed, I offer the following photos that I took at a test fire recently. This was setup as a normal size living room where a fire started in the sofa.

15 to 20 seconds after ignition: Smoke detectors go off. If you spotted this fire and have a good fire extinguisher you might be able to put it out, but if not you have only about 60-seconds to get everyone out.

60 to 90 seconds: Heavy smoke and gasses obscure visibility down to a few feet above the floor. You must stay low and get out immediately.

2-3 minutes: the heat of the fire begins to ignite other materials. The TV explodes and hot, combustible gasses fill the room.

3 to 5 minutes: A “flashover” of the hot gasses explodes the fire throughout the structure.

5-minutes: Fire department arrives on scene. Even this fire hose would not be enough to extinguish a totally involved structure. The best it can do is prevent the flames from spreading to adjoining homes.

Conclusions

Fire is often an overlooked side effect of other disaster scenarios. Storms, earthquakes, epidemics, economic collapses and other situations could create ideal conditions for the spread of massive fires through urban and suburban areas. Fire can negate all of your survival planning and preparations. Fire prevention, escape and survival must be part of your survival planning and equipment priorities.