



## Large New Generation Fire Shelter Now Available

*Tony Petrilli, Project Leader*

### Highlights...

- A large version of the New Generation fire shelter is available.
- The large version is recommended for firefighters who are taller than 6 feet 1 inch or whose girth is larger than 53 inches.
- The large version weighs just 0.6 pounds more than the regular fire shelter and can be carried in the same hard-plastic liner and case.
- Firefighters who are shorter than 5 feet 7 inches may have difficulty deploying and holding down the large fire shelter.

A large version of the New Generation fire shelter is available for big firefighters. The New Generation fire shelter has been available to firefighters since 2003, but it was designed in just one size based on data from the military and on early trials of the shelter. Feedback from the field prompted development of a large shelter to provide better protection for larger individuals by:

- Reducing body contact with the hot shelter material during deployment
- Providing more insulating air space between the shelter material and the occupant
- Preventing the shelter from being damaged when a larger person stretches out inside the shelter and pushes hard against the shelter material

### How Does the Large Shelter Differ From the Regular Shelter?

The large shelter is longer, wider, and taller than the regular shelter (figure 1) and weighs about 0.6 pounds more. Table 1 shows the dimensions of both shelters. The large shelter fits easily into the hard plastic liner and case used for the regular shelter. The large shelter is easily identified by



Figure 1—The large shelter (right) is longer, wider, and taller than the regular shelter.



Table 1—Dimensions of the large and regular New Generation fire shelters. The large shelter weighs 5.2 pounds, compared to 4.6 pounds for the regular shelter.

	Large fire shelter (inches)	Regular fire shelter (inches)
Length	96	86
Height	19.5	15.5
Width	33	31
Packed size	9 x 5.5 x 4	8.5 x 5.5 x 4

the word “LARGE” stenciled on the quick-deployment strap that is stitched onto the plastic bag holding the shelter. The large shelter’s deployment strap is orange, rather than yellow (figure 2), the color of the strap on the regular shelter. This strap is visible whether the shelter is inside or outside its case.



Figure 2—The large shelter fits in the same carrying case as the regular New Generation fire shelter. The word “LARGE” is stenciled on the orange quick deployment strap of the large shelter.

### Which Size Should I Carry?

The large fire shelter was designed for firefighters whose height or girth prevents them from fitting easily inside the regular shelter (figure 3). Any firefighter taller than 6 feet 1 inch should carry the large shelter. Any firefighter whose girth is larger than 53 inches at any point also should carry the large shelter. Girth around the shoulder area should be measured with your arms at your side.



Figure 3—This firefighter, who is 6 feet 2 inches tall and weighs 235 pounds, will find the large fire shelter roomier than the regular shelter. The photo has been digitally altered to show the firefighter as though the shelter was transparent.

Anyone who carries the large fire shelter should experiment with a large practice fire shelter to become familiar with the shelter’s fit. If your height or girth would not require you to use a large shelter, you may request one if you try a regular shelter and feel it is too small for you. You should be able to:

- Lie face down inside the shelter while wearing a hardhat and boots without pushing against the ends of the shelter.
- Lie in the shelter with your arms through the hold-down straps.
- Fold your elbows next to your chest and protect the sides of your face with your hands with only minimal contact with the sides of the shelter.

### Can I Be Too Small for the Large Fire Shelter?

In trials using fans to simulate wind, firefighters shorter than 5 feet 7 inches had difficulty deploying and holding down the large fire shelter. Firefighters shorter than 5 feet 7 inches should carry the regular shelter. Firefighters who are shorter than 5 feet 7 inches, but whose girth is larger than 53 inches, should practice with the large practice shelter in a strong wind before deciding whether to carry a large shelter on the fireline.

In an emergency, a small firefighter could use a large shelter if a regular shelter was not available. Small firefighters should:

- Hold the large fire shelter down by placing their feet far into one end of the shelter to prevent the foot end from catching in the wind and exposing their body to hot gases.

- Place their arms through the holddown straps up to the elbows.
- Gather the floor material with their hands to help control the shelter and provide as good a seal as possible with the ground.

## Training

All fire shelter training applies to the new large fire shelter just as it does the regular shelter. Deployment procedures have not changed. However, deployment training is required with the large practice shelter before a firefighter should carry a large fire shelter to the fireline.

The minimum training before either fire shelter is carried on the fireline includes:

- 1) Reading the training pamphlet, *The New Generation Fire Shelter*
- 2) Viewing the training video or DVD, *The New Generation Fire Shelter*
- 3) Practicing deployments using a practice fire shelter of the appropriate size

The video and pamphlet include information on how the shelter works, how it is deployed, how to select a deployment site, what a firefighter might experience during an entrapment, how to train to use the shelter, and how to care for and inspect the shelter. A large practice fire shelter will be available during the summer of 2005. The new large practice shelter is orange. The regular-size practice shelter is green. Both practice shelters fit into the same case. The reusable practice shelter bag has been resized so it can accommodate both sizes of fire shelters.

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## Ordering Information

### Training Materials

- *The New Generation Fire Shelter*, pamphlet, (NFES #2710)
- *The New Generation Fire Shelter*, video and DVD, (VHS—NFES #2711, DVD—NFES #2712)

Spanish-language versions also are available:

- *El Refugio de Proteccion Nueva Generacion*, pamphlet, (NFES #2736)
- *El Refugio de Proteccion Nueva Generacion*, video (NFES #2735)

Training materials can be ordered through the Great Basin Cache located at the National Interagency Fire Center (NIFC). All fire shelter training materials are within PMS 411. For more ordering information, go to the National Wildfire Coordinating Group publications Web site: <http://www.nwccg.gov/pms/pubs/pubs.htm>

Fire shelters and practice fire shelters can be purchased through the General Services Administration's *Wildland Fire Equipment Catalog* or through private distributors.

Transition to the New Generation fire shelter is to be complete for Federal agency firefighters by the end of the calendar year 2006 and by the end of the calendar year 2008 for all others.

### New Generation Practice Fire Shelters

- Regular-size, complete (NSN: 6930-01-499-0605), shelter only (NSN: 6930-01-499-0608)
- Large, complete (NSN: 6930-01-529-8807), shelter only (NSN: 6930-01-529-8805)

### New Generation Fire Shelters

- Regular-size, complete, (NSN: 4240-01-498-3194), shelter only (NSN: 4240-01-498-3184)
- Large, complete, (NSN: 4240-01-527-5248), shelter only (NSN: 4240-01-529-8804)

Additional information about the New Generation fire shelter is in the tech tip, *New Generation Fire Shelter Developed for Wildland Firefighters* (0351-2313-MTDC). This tech tip includes instructions for modifying existing fireline packs to accommodate the new shelter. Printed copies can be ordered by calling the Missoula Technology and Development Center (MTDC) at 406-329-3978. An electronic copy is available on the Internet at:

<http://www.fs.fed.us/t-d/> (Username: t-d, Password: t-d).



## About the Author

**Tony Petrilli** is an equipment specialist for the fire and aviation and safety and health programs at MTDC. He has a bachelor's degree in education from Western Montana College. Petrilli began working for the Forest Service in 1982 and joined the center full time in 2000. He has worked

as a firefighter on the Lewis and Clark and Beaverhead National Forests and as a smokejumper for the Northern Region. He is also a division/group supervisor and type III incident commander.

## Library Card

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Discusses development of a large size of the New Generation fire shelter that can improve firefighters' chances of survival if they become entrapped by fire. The large shelter is recommended for any firefighter who is taller than 6 feet 1 inch or whose girth is larger than 53 inches. The large shelter fits in the same hard plastic liner and case used to carry the regular fire shelter.

Keywords: fire fighting, firefighting, safety at work, sizes

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### Additional single copies of this document may be ordered from:

USDA Forest Service, Missoula Technology and Development Center  
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Missoula, MT 59808-9361  
Phone: 406-329-3978  
Fax: 406-329-3719  
E-mail: [wo\\_mtdc\\_pubs@fs.fed.us](mailto:wo_mtdc_pubs@fs.fed.us)

### For additional technical information, contact Tony Petrilli at MTDC.

Phone: 406-329-3965  
E-mail: [apetrilli@fs.fed.us](mailto:apetrilli@fs.fed.us)

### Electronic copies of MTDC's documents are available on the Internet at:

<http://www.fs.fed.us/t-d/pubs/>  
Username: t-d, Password: t-d

### Forest Service and Bureau of Land Management employees can search a more complete collection of MTDC's documents, videos, and CDs on their internal computer networks at:

<http://fsweb.mtdc.wo.fs.fed.us/search/>



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