



A Roof Of Polyethylene

17 WAYS TO MAKE A SHELTER FROM A TARP

Story by **Ryan Lee Price**

Romans in the fields of Europe 1,000 years ago erected tents made of leather, while their nomadic contemporaries to the east used woven hemp and wool to build yurts. Leather and hemp made way for canvas 200 to 300 years ago, which led to lightweight polyester and nylon used in today's modern tents.

Though easy to carry and relatively simple to put up, there are numerous situations you might find yourself in where a traditional tent isn't something you have or was something you were forced to give up. As a refugee obligated to quickly leave your residence or a victim of some tragedy that completely obliterated your residence and everything in it—including your \$400 six-man tent with optional skylight and porch—the idea of spending the night under the stars under such circumstances can sound dreadful, especially in the pouring rain or the depths of winter. A basic shelter can keep your head dry, conserve heat, as well as provide a comforting sense of safety.

[TOP] Simple tarp shelters can be made easily and quickly with minimal equipment, providing much needed respite from the wind, sun, rain, or snow. It conserves body heat and offers a sense of comfort, which raises morale in tough situations.

PHOTO BY CREEK STEWART



In any emergency situation, for example, where everything you own is about to get completely soaking wet or the sun has become so unbearable that you think you can't take another step, a makeshift shelter can be had with little more than a tarp and some rope.

Tarp Shelters: What Not To Do

- > Don't set up your shelter over an ant nest or over any sort of burrow entrance.
- > Don't set up your shelter in a gully or on a riverbank, you may get flash floods.
- > Don't set up your shelter below the 'high water mark' on a shoreline.
- > Don't set up your shelter on top of a hill or ridge. These spots attract lightning.
- > Don't attach lines to tall trees or a tree standing alone—these sorts of tree attract lightning strikes. A short tree in a group of taller trees is safer.
- > Don't set up your shelter beneath a tree branch that is dead or partly broken. While overhead tree branches can serve well as an anchor point, it may be better not to do so, in case the tree branch breaks during a storm.
- > Don't set up your shelter beneath a dead tree or within the falling distance of a dead tree. One day, all dead trees eventually fall over, and that day might be the day you set up camp.
- > Don't set up your shelter after dark if you can help it. However, shelter is the first thing to do in a survival situation.
- > Always set up camp in relation to wind direction. Wind direction changes during the course of the day, but vegetation will grow and bend over to the Lee side, showing the direction of the prevailing (strongest, most common) winds.

There are dozens of materials out today that can be used to make a tent, such as woven cotton canvas, nylon tent fabric, and laminated plastic poly tarps—even plastic painters' drop cloths. Ideally, any rectangular or square sheet of waterproof material will work in an emergency, but poly tarps are the most durable and lightweight in relation to their square footage. Brand new, they are virtually draft-proof and waterproof, making them great for catching water, as well as keeping it out. They are made of polyethylene, the most common plastic there is, and they have heat-sealed seams, grommets every few feet along the edges, and sometimes reinforced corners. Standard, lightweight poly tarps come in a variety of sizes and, although they may be lighter than canvas tarps, they melt and burn far more easily than canvas.

Take into account the purpose of your shelter. Make it as large as it needs to be to support the number of people that intend to use it and as sturdy as the environment dictates. Consider the weather. Any shelter can become unstable and collapse if weight overloads the supports. In the case of a shelter made from a tarp, it doesn't take much. Storm debris, rain, hail, or snow may lie on top of the shelter (or be blown against it), until it can no longer support the weight.

Like in real estate, the three most important things you need to consider in pitching a tarp shelter is location, location, location. The set-up of a tarp shelter must take account from which way the wind is blowing in order to keep the tent from becoming an out-of-control sail thrashing in the breezes. Ideally, the ground should slope slightly for water runoff, but you may have to dig trenches around your shelter to aid in drainage.

There are literally dozens of different ways and configurations to construct a suitable shelter with only a single tarp (in our examples, we use a 10x10-foot tarp), a length of 550 paracord, a few cheap aluminum stakes (or rocks) and some poles (walking sticks, trekking poles, or branches can act as supports if needed).

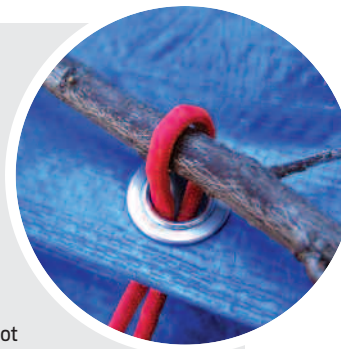
TARP TRICKS

There are several different tips and tricks that can be used to make your tarp shelter slightly more bearable, or at least, combat some of the conditions that might cause additional discomfort.

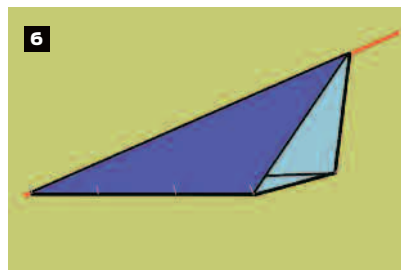
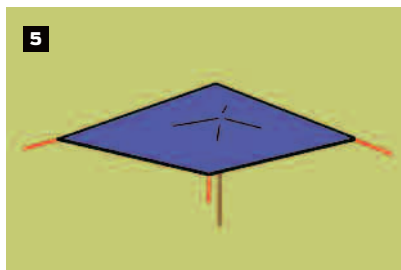
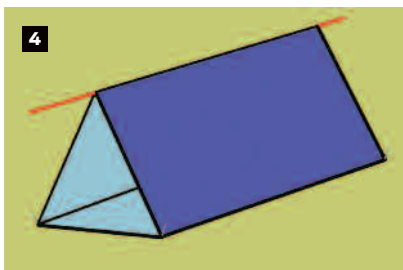
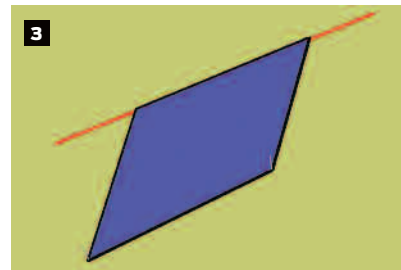
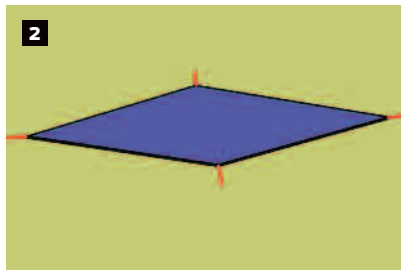
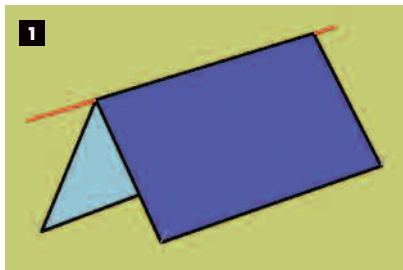
1. Reinforce folds with a taut length of paracord staked at either end and running along the inside of the fold. The cord will not only keep the fold square but it will help keep the roof from buckling in the wind.

2. Build up a foundation of earth (or snow or mud) that overlays the outside edges of the tarp where it meets the ground. It will create a shelter against drafts pouring in from underneath the edges. Note: The small trench on the insides provides a place for condensation to gather if it drips down the inside of the tarp.

3. A quick way to attach a length of paracord to the grommet of a tarp that will add strength is to loop it around a stick. The stick will hold the cord in place while distributing the tension on the tarp over a wider area instead of on the grommet alone.



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01. Basic A-Frame

The ubiquitous A-Frame shelter can be had by stringing the paracord between two trees, draping over the tarp, and staking it down over the tarp, and staking it down not only on the corners, but along the sides to keep out the wind. The 30-degree angle of the tarp's roof will produce a 10-foot-long living space approximately 8.6-feet wide and 2.5-feet tall.

PROS: Good rain/snow runoff and, if the angle is high enough, good wind deflection.

CONS: There is no floor nor door flaps and, if the paracord is not stretched tight enough, there will be sagging in the middle.

02. Basic Sunshade

Strung with lengths of paracord between four anchoring points (e.g. trees), the Basic Sunshade shelter is parallel to the ground and provides, at most, 100-square-feet of shade against the sun at high noon. Angling it toward the sun will make it more efficient. This configuration cannot be used in the rain, as the water will pool in the middle. A possible variation of this can be built by adding support poles to each corner, or perhaps a single support pole in the middle. (See Mushroom Fly.)

PROS: Provides the maximum shelter against the sun

CONS: Not suitable for cold weather or able to support rain.

03. Basic Lean-To

Secured to the ground on the windward side and supported by the paracord between two anchor points, the Basic Lean-To is simple to make and great for deflecting wind or providing a sunshade. At a 30-degree angle, the Basic Lean-To can provide 5 feet of height and 8.6 feet of width under the shelter.

PROS: Easy to erect, quick to take down, provides great deflection from wind and shelter from rain or sun.

CONS: There are no sides, nor floor to protect against other elements.

04. Tube Tent

With the paracord secured between two trees, two-thirds of the tarp is draped over with the opposite ends secured together, creating a Basic A-Frame, but with a floor. Sixty-degree walls will provide only 3.3-feet of width and 2.8-feet of headroom, which isn't much room for a single adult, and much less for two.

PROS: It is a sturdy shelter with a floor and, if properly secured to the ground, will prevent rain from seeping in.

CONS: There are no door flaps and the paracord must be kept taut to work effectively.

05. Mushroom Fly

Very similar to the Basic Sunshade, the Mushroom Fly adds in a central support pole at the tarp's midpoint. Designed for rain runoff or snow shedding, the Mushroom Fly is sturdy and roomy, provided the four corners of the tarp are well secured. It can be as tall or as short as you need, depending on the length of the center support pole. In inclement weather, consider building this as low to the ground as possible.

PROS: Great rain runoff and snow/leaves shedding; works well as a sunshade.

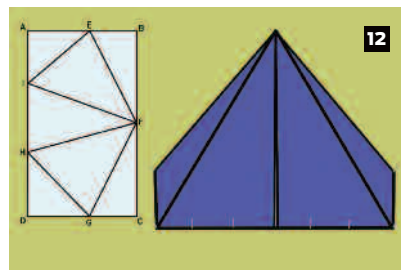
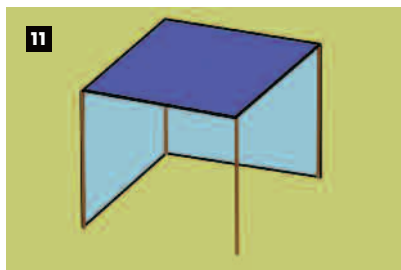
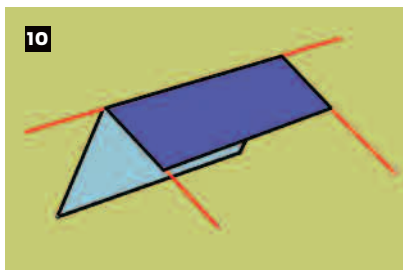
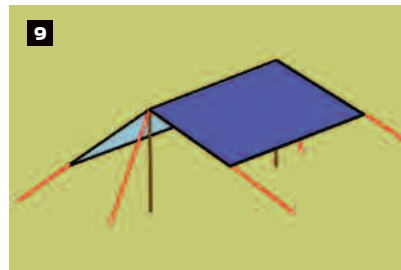
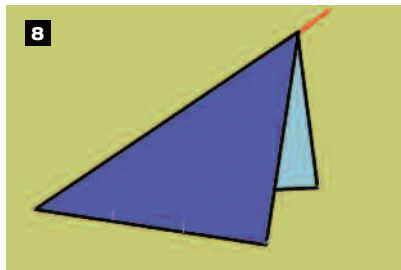
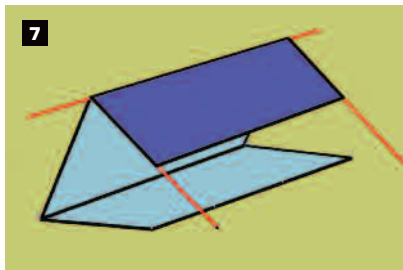
CONS: No sides to protect against the wind or cold.

06. Cornucopia

Also known as the Cornet, the Cornucopia utilizes one long length of paracord strung from a tree to ground. The tarp is draped over the paracord diagonally, while the leading edges fold under to form the floor. Face the corner into the wind and stake it well to keep out the weather. A 10x10 tarp makes for tight living quarters, though, while rain will run down the single slanted paracord and into the shelter. Above the entrance, tie off some drip lines of string to combat this.

PROS: Good wind deflection and rain/snow/debris shedding.

CONS: Not much headroom and it might be too short for tall people and their gear.



07. Wind Shed

Also known as the C-Fly, the Wind Shed employs a full groundsheet designed into it. Folding the tarp into thirds, make sure the leading edge of the roof hangs over the groundsheet for adequate rain runoff. Secure the main ridgeline with paracord stretched between two trees, while supporting the gable ends to the ground with shorter lengths of paracord. Since this is designed for wind deflection, consider adding a length of paracord to the bottom fold, where the back panel meets the groundsheet. A few rocks placed along that fold (on the inside) will help (see Tarp Tricks).

PROS: Great wind deflection

CONS: Requires a lot of stakes/secure points; the hanging roofline could sag under rain loads and drain onto the groundsheet; no doors or fourth side for protection from the elements.

08. Diamond Fly

A 10x10 tarp has a diagonal length of just over 14 feet, making the Diamond Fly perfect for more than one person. Secure the paracord to a tree and drape over the tarp at a diagonal. The length of paracord and angle with which it is tied to a tree determines the overall headroom and width of the shelter. Take into consideration the reason for building it: steep walls will shed rain, snow, and debris, and the angled end (similar to the Cornucopia) will deflect wind if well

staked. However, a more gentle sloping walls will accommodate more people and/or gear but will allow for less headroom. As with the Cornucopia, drip lines will be needed in rainy weather.

PROS: Good wind deflection and rain shedding abilities; can accommodate a larger group of people or more equipment.

CONS: No floor or flaps to completely keep out the elements. If the wind changes direction frequently, the shelter will be compromised.

09. Dining Fly

Similar to the Basic A-Frame, the Dining Fly has been used for countless decades by miners and campers as a simple open-air cover, good for a sunshade while providing a modicum of headroom without sacrificing too much space. Though limited in its ability to ward off the weather (besides rain) due to its lack of sides and doors (like the Basic Sunshade), it is a popular configuration for desert survival. The height of the support poles dictates the amount of headroom and footprint the shelter will provide, but is a sturdy shelter when properly tied down and staked.

PROS: Provides ventilation and a good coverage with adequate headroom. Good for the desert.

CONS: No sides or flaps for complete protection; not for windy environments.

10. Fold-Over Wind Shed

Similar in design as the traditional Wind Shed, this version provides more coverage by sacrificing the groundsheet. The height of the paracord ridgeline determines the angle of the roof and the footprint of the shelter. In windier climates, a low sloping roof will better deflect wind when it is placed against the wind.

PROS: Great wind deflection and rain runoff.

CONS: No floor, flaps or sides to protect completely against the elements.

11. Half Box

When time isn't of the essence and you have a more leisure opportunity to build a shelter, consider the Half Box. Similar to the Barn Stall, the Half Box requires the use of at least four support poles and probably as many or more tie-downs to hold it all up. The footprint is only 25-square feet, but it provides two sides of protection from the elements. If not supported in the middle or kept taut from the sides, it will sag under any load of rain, snow or debris. A full one-quarter of the tarp goes unused and folded up behind the rear corner.

PROS: Good sunshade from all-day sun if positioned properly.

CONS: No floor or flaps; a quarter of the tarp goes unused; can be difficult to set up; requires four 5-foot support poles and many tie-downs.

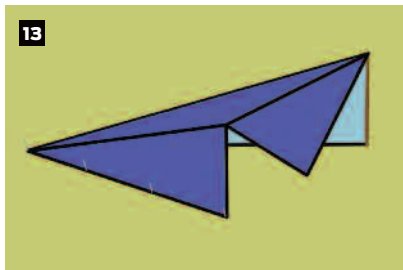
12. Miner's Tent

In order to construct this somewhat complicated shelter, a tarp ratio of 1:2 is required (e.g. 10x20-foot tarp), and because so many folds are necessary to perfect it, an illustration is included. Start by lashing four, 10-foot-long support poles together at one end (for the peak—F) and spread out the four other ends to form a square on the ground—A, B, C, D. Affix the middle of the long edge of the tarp (F) to the top of the poles. Start by attaching FI to the rear right pole. HI will be the rear bottom edge, while IE will become the right-side bottom edge. FH is then attached to the left-rear pole, so that HG will be the left-side bottom edge. The front flaps are made up of triangle FGC and FBE, while triangles GHD and EIA are folded under to be a partial floor. When done, the Miner's Tent is just over 9-feet high in the center and has a living area of more than 68-square feet.

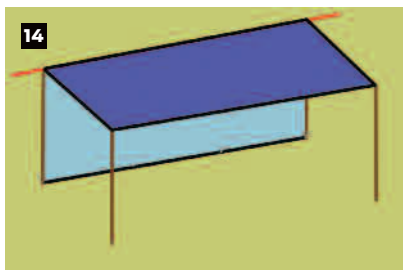
PROS: When properly constructed, staked and secured to the support poles, it is a very sturdy shelter, able to withstand quite a bit; it makes a complete enclosure; very spacious.

CONS: Complicated to build, requires a specific size tarp and four 10-foot poles.

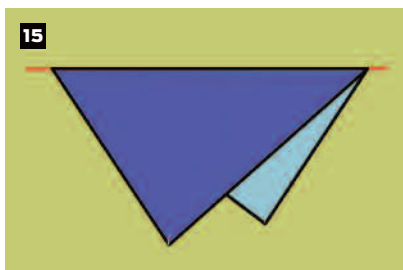
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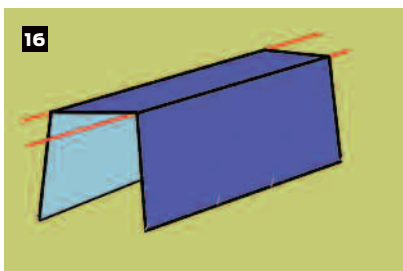
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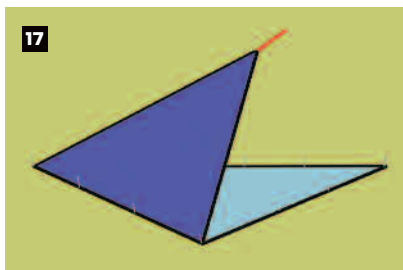
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13. Arrowhead

Construction of the Arrowhead can start by supporting the center of two perpendicular edges with 5-foot-long poles or by attaching those edges to trees with paracord. The opposite corner gets staked to the ground (or it is where the other ends of the paracord meet). It creates a series of four triangles, allowing for 5-feet of headroom at the opening and just over 7-feet of width (and 35.3 square feet of living space). The flap hangs down for make for a partial closure.

PROS: The low profile deflects the wind, and it is very roomy.

CONS: The poles need to be supported by paracord tie-downs; there's no floor and the flap only partially covers the opening.

14. Barn Stall

Belonging to the Basic A-Frame family of shelters, the Barn Stall utilizes two to four five-foot poles for support or two poles and a paracord attached to two anchor points. It is very similar to the Fold-Over Wind Shed with the front being supported by poles, instead. The flat roof isn't very efficient at shedding rain or debris, and the single 90-degree wall will be affected by the slightest breezes, so it is best to construct this shelter out of the wind. It produces 50-square feet of living space, but has no floor and only one wall.

PROS: Simple to build for a quick sunshade

CONS: Not efficient in the rain or wind; lacks floors and walls for adequate protection from the weather.

15. Shade Sail

Similar in concept to the Diamond Fly and the Basic A-Frame, the Shade Sail is a quick shelter that diagonally drapes the tarp over a length of paracord attached to two anchor points. The opposite corners are staked to the ground, providing a simple shade shelter. Open and airy, the overall square-feet of space depends on how tall it is; the lower the angles of the sides are, the better it will be at deflecting wind and the more shade it will provide.

PROS: Provides all-day shade; quick to set up; uses minimal stakes.

CONS: Not weather resistant; has no floor or flaps and will not work well in the rain.

16. Square Arch

As the name implies, a Square Arch shelter is an arch with a square top. Starting with two parallel lengths of paracord attached to anchor points approximately 3 feet apart and 3 feet high, drape the ground cloth over the two lengths of paracord and secure the long ends of the tarp with stakes. The dimensions of the shelter are dependent on how high the paracord is strung and/or how far apart they are. The description here represents the maximum allowed so the ends still touch the ground. An alternative is to secure one paracord slightly higher than the other to allow for rain runoff or angle one side for wind deflection. As is, this shelter is 3-feet wide, 3-feet tall and 10-feet long.

PROS: Narrow construction for building it in tight spaces.

CONS: Odds of finding four anchor points in the needed proximity is low; no flaps or floor.

17. Quesadilla

The Quesadilla is an inverted Shade Sail designed to deflect wind and protect from light rain while providing a large floor space. The corner of the tarp is attached to an anchor point with the paracord and the remaining corners and sides are staked to the ground, so the tarp is folded on the diagonal. Used for mild weather, the base covers 50-square feet, and the height depends on the angle of the roof and the attachment point. An alternative is to use a pole to support the corner if no anchor point can be found, or tie up the far corner to the paracord for extra protection. To reinforce the fold line of this shelter, stake a taut paracord line across the fold (see Tarp Tricks).

PROS: Only requires a single anchor point, has a floor, and protects well against the wind.

CONS: Not very good at rain protection due to the triangular roof and not having sides. **ASB**