

Building a Three-Sided Signal Tower

1. Select a building site with level ground and no overhead obstructions.
2. Determine the critical dimensions of your tower. Make a scale drawing and materials list. Critical dimensions include:
 - Height (from the ground to the floor, excluding handrails, flagpoles, etc...)
 - Width at base (should be approximately 1/3 of overall height)
 - Width at floor (Should be as small as possible to maximize stability)
 - Third Leg Setback (Most easily calculated by measuring the drawing.)
3. Layout the first side of your tower on the ground and lash it together.
 - Use square lashings for all connections to the upright spars.
 - Use diagonal lashings at the middle of the diagonal braces
4. Tie or splice together two alignment gauges, the three sides of which correspond with the top and bottom widths of your tower.
5. Tie together two small tripods.
6. Using the two tripods, support the third leg of the tower over the completed side.
 - Use the alignment gauges to center the spar and set the correct taper.
 - Drop a plumb line and adjust the Third Leg Setback.
 - Account for any slope at the site when adjusting the Third Leg Setback
7. Lash in the remaining two sides of the tower.
 - Lash the horizontal braces first.
8. Lash in the floor and any other items such as handrails or a flagpole.
9. Double check all knots and lashings.
10. Raise the tower!

