

# Build a Portable Mast Mount

A "spare" mount that's always ready.

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If you've ever tried to erect a temporary antenna on a mast under emergency or even Field Day conditions, or on a parking lot at a country fair, or in a roadside picnic area during a UHF opening, you will realize the need for this little mount. It's dirt cheap and small enough to keep in the car for whatever situations may arise, and it makes life so much easier!

## The Need Exists

The problem with any antenna mast is that it won't just stand there by itself; it has to have something to hold it up. Normally this is accomplished by guy wires and anchors, but this solution isn't always convenient, or permissible, such as in the aforementioned parking lot. Besides, it seems that one of the main functions of guy wires, in most cases, is to trip people. What we need is something that will support an antenna mast unaided. Something that will always be close at hand.

While rearranging the trunk of my car one day, I realized just how heavy a spare tire and wheel are. The thought occurred to me that some type of mast support connected to the wheel would be easy to erect and more or less self-supporting. As the wheel already had bolt holes, my support could merely bolt in place when needed.

## The Two-Minute Support

Using a couple of short lengths of 1 1/4"



Photo. Once constructed, you can assemble this mobile mount for your antenna in about two minutes! Note that the wheel is positioned brake drum side up.

angle iron, I welded them together into a "T" shape positioned so that they would cover bolt holes in three places on the wheel. Then I welded an 18" piece of galvanized mast vertically to the tee. After aligning the assembly, I marked the location of the holes I needed, and drilled three, using a 1/2" bit.

To hold the assembly together, I use 1 1/2" bolts and wing nuts so I don't have to worry about carrying tools with me. When not in use, I keep the bolts, washers, and nuts attached to the mast support so I don't lose

anything. When I need to use the mast, I can assemble it in a couple of minutes. I have found that the unit is more stable if I assemble it with the brake drum side (concave side) of the wheel up, which lowers the center of gravity.

## A Starting Point

As I expected, how well the mast stands unguied depends on which antenna is on top. I can generally attach a 2 meter collinear at the top of 20 feet of mast. Likewise for a small UHF array, while about fifteen feet is tops for a portable 2 meter beam. Obviously, wind has an effect as well. A guy ring attached near the top, with wires or ropes, will increase usable mast height and stability. Wire antennas, particularly inverted-V's, work well for this purpose.

For Field Day, you can interconnect several of these mounts with dipoles in between and slopers or guys on the ends. You can even use a small beam antenna, though it will definitely require guying. The advantage in this case, though, is the ease with which you can raise the mast assembly.

Although the mast support described above can be pressed into service in a number of ways, the important thing is that you can get your antenna up, and get on the air, quickly and without a whole lot of fuss. Sometimes, a few seconds saved can be important. **73**

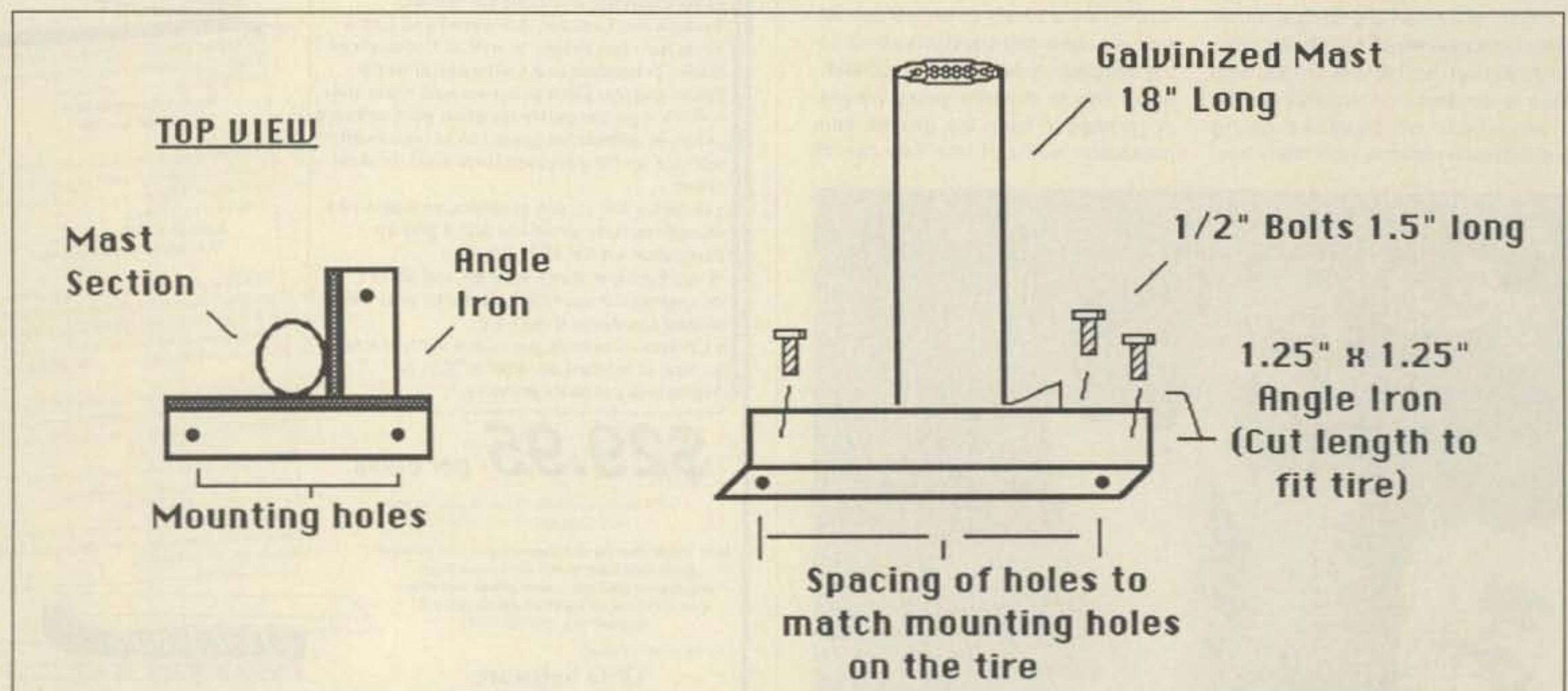


Figure. All you need are: two pieces of 1 1/4" x 1 1/4" angle iron (length to fit wheel); 3 1/2" x 1 1/2" hex head bolts; 3 1/2" washers and wing nuts; and one piece of galvanized steel antenna mast.