

## Guyed Wires: Club Support Recognition, 2017-2023

### Recipients

WB5ANN	Mark Landress
KE5HDF	Ralph Phillips
N8NOV	Paul Rubin
KG5IRR	Barry Basile
N5DWI	John Westerlage
KG5OIR	Hal Herdklotz
KF5UKF	Wes Coleman
W2WF	Stephen Flowers
KG5PYY	Jeremy Penner
WD8JJR	Rusty Wilson
N5TCB	Dom Mazoch

Structures that support antennas are frequently of a lattice construction and are called "towers". One end of the guy is attached to the structure, and the other is anchored to the ground at some distance from the mast or tower base. The tension in the diagonal guy-wire, combined with the compression and buckling strength of the structure, allows the structure to withstand lateral loads such as wind or the weight of cantilevered structures. They are installed radially, usually at equal angles about the structure, in trios and quads. As the tower leans a bit due to the wind force, the increased guy tension is resolved into a compression force in the tower or mast and a lateral force that resists the wind load. For example, antenna masts are often held up by three guy-wires at 120° angles. Structures with predictable lateral loads, such as electrical utility poles, may require only a single guy-wire to offset the lateral pull of the electrical wires, at a spot where the wires change direction. Conductive guy cables for radio antenna masts may disturb the radiation pattern of the antenna, so their electrical characteristics must be included in the design.

Historically, guyed structures have been some of the tallest man-made structures in the world. There are also many structures which consist of a free standing bottom and a guyed top. The Warsaw radio tower was erected in 1974. At a height of 646.38 m (2,121 ft), it became the tallest structure in the world. It collapsed in 1991. Gqbin-Konstantyn6w, Masovian Voivodeship