



# Straight Line Wind Gust Estimates

## WIND SPEED

## OBSERVATIONS

<b>30-44 Mph</b>	<b>Trees in motion. Light-weight loose objects (e.g., lawn furniture) tossed or toppled.</b>
<b>45-57 Mph</b>	<b>Large trees bend; twigs, small limbs break, and a few larger dead or weak branches may brake. Old/weak structures (e.g., sheds, barns) may sustain minor damage (roofs, doors). Buildings partially under construction maybe damaged. A few loose shingles removed from houses. Carports may be uplifted, minor cosmetic damage to mobile homes and pool lanai cages.</b>
<b>58-74 Mph</b>	<b>Large limbs break, shallow rooted trees pushed over. Semi-trucks overturned. More significant damage to old/weak structures. Shingles, awnings removed from houses, damage to chimneys and antennas; mobile homes, carports incur minor structural damage; large billboard signs may be toppled.</b>
<b>75-89 Mph</b>	<b>Widespread tree damage (trees either broken or uprooted). Mobile homes may incur more significant structural damage; be pushed off foundations or overturned. Roofs may be partially peeled off industrial/commercial/warehouse buildings. Some minor roof damage to homes. Weak structures (e.g., farm buildings, airplane hangars) may be severely damaged.</b>
<b>90+ Mph</b>	<b>Groves of trees flattened. Mobile homes severely damaged; moderate roof damage to homes. Roofs partially peeled off homes and buildings. Moving automobiles pushed off dry roads. Barns and sheds completely demolished.</b>

*Note: All references to trees are for trees with foliage. Significantly higher winds may be required to cause similar damage to trees without foliage. Very wet soil conditions may allow weaker winds (30-57 Mph) to uproot trees. Storm spotters are not expected to be structural engineers and you can not judge wind speed strictly by damage alone. The quality of construction techniques and materials used greatly affect the end result.*

The wind speed chart is adopted from various National Weather Service Instructions, guidance, and publications.

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