

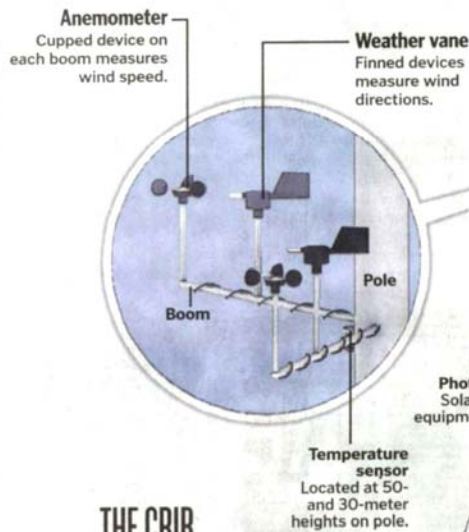
Tower to assess Erie wind power

Green Energy Ohio finished building a wind monitoring tower a week ago atop the Cleveland Water Department intake crib in Lake Erie. The first-of-its-kind meteorological tower is roughly 3 1/2 miles north of downtown Cleveland. Wind and weather data will be collected for two years and used to determine if building electricity-generating wind turbines is viable. Collecting accurate wind data is critical because a fraction of a mile-per-hour can make the difference of a wind turbine being economically feasible or not. Here's how the tower works:



THE TOWER

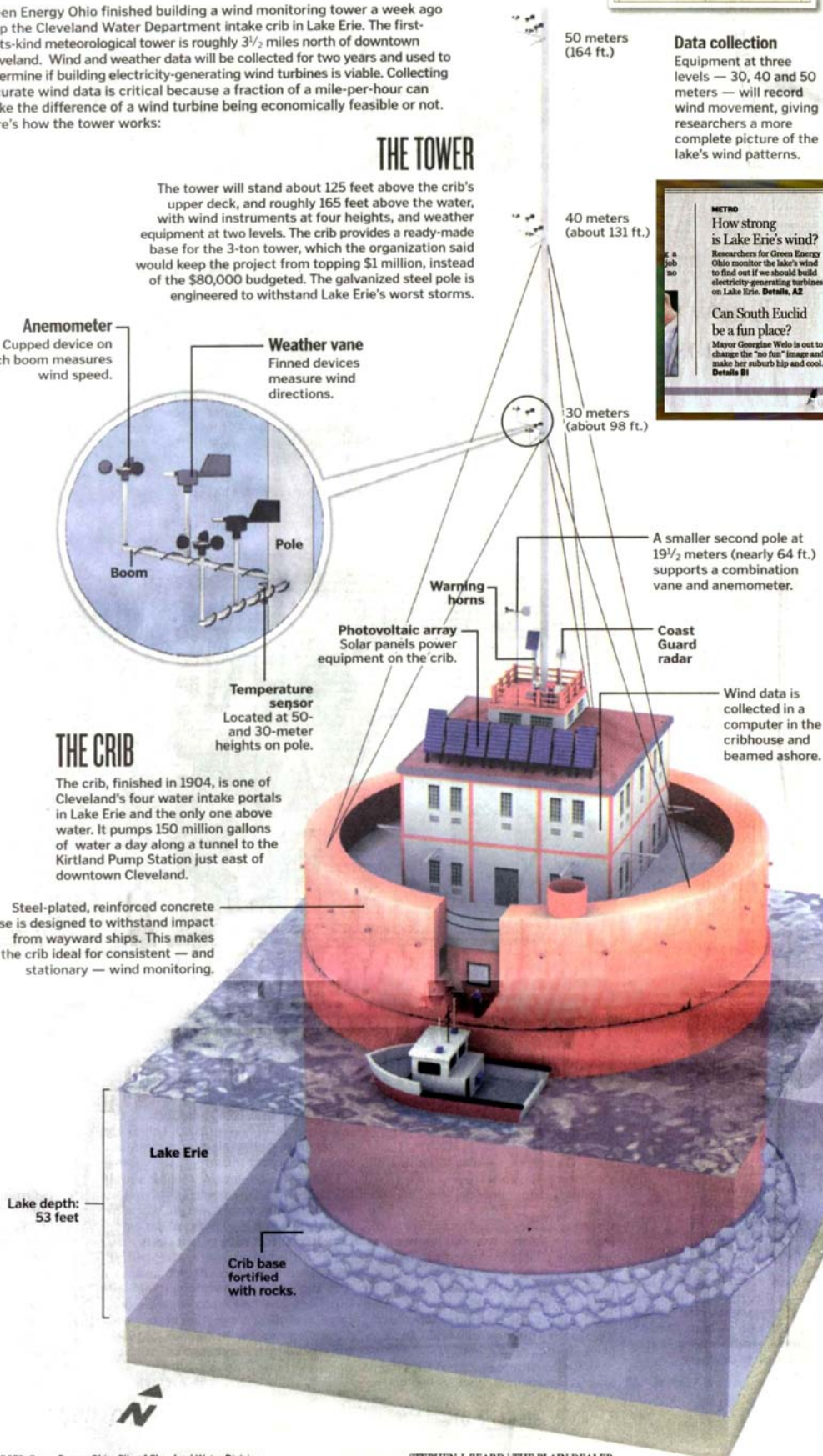
The tower will stand about 125 feet above the crib's upper deck, and roughly 165 feet above the water, with wind instruments at four heights, and weather equipment at two levels. The crib provides a ready-made base for the 3-ton tower, which the organization said would keep the project from topping \$1 million, instead of the \$80,000 budgeted. The galvanized steel pole is engineered to withstand Lake Erie's worst storms.



THE CRIB

The crib, finished in 1904, is one of Cleveland's four water intake portals in Lake Erie and the only one above water. It pumps 150 million gallons of water a day along a tunnel to the Kirtland Pump Station just east of downtown Cleveland.

Steel-plated, reinforced concrete base is designed to withstand impact from wayward ships. This makes the crib ideal for consistent — and stationary — wind monitoring.



Data collection

Equipment at three levels — 30, 40 and 50 meters — will record wind movement, giving researchers a more complete picture of the lake's wind patterns.

