



THE CAPITAL WHEEL, WHICH OPENED IN MAY, IS THE MID-ATLANTIC'S FIRST OBSERVATION WHEEL.  
PHOTO: EVA KAPLAN-LEISERSON

# WHEEL INGENUITY

As they planned the 1893 Chicago World's Fair, event organizers put out a call for an attraction to rival engineer Gustave Eiffel's tower, the tallest in the world at the time, built for the previous World's Fair in Paris in 1889.

A young civil engineer took up the challenge, proposing the idea for the innovative structure that would bear his name: the Ferris Wheel. The scope of the concept by George Washington Gale Ferris Jr., a 264-foot design incorporating the largest single piece of forged steel to date, was met with derision. However, according to reports, the wheel was so popular that it saved the World's Fair from financial ruin. His innovation earned admiration from fellow engineers, and has provided the public with long lasting enjoyment.

In 2000, a new era of wheels began when the London Eye opened. This 443-foot observation wheel offers luxurious, climate-controlled capsules and views for 25 miles on a clear day. The most popular paid-for visitor attraction in the UK has won 85 awards, including for engineering achievement, and kicked off the worldwide competition to build the biggest and best observation wheel.

Las Vegas' High Roller, opened in 2013 and reaching up 550 feet, is currently the world's tallest with cabins that can each hold up to 40 people. The New York Wheel on Staten Island, expected to welcome visitors in 2016 and provide views of the Manhattan skyline, is planned at 630 feet. And the Dubai Eye, slated to be finished in 2015, is expected to soar 690 feet in the air.

In the nation's capital, a new 180-foot-tall Capital Wheel opened in National Harbor in May. The Mid-Atlantic's first observation wheel offers views of the Washington Monument, US Capitol, and nearby Alexandria, Virginia.

At the wheel's launch party, Dan Hanlon, P.E., F.NSPE, waited patiently in line to take a spin as the sun set behind the wheel and a light breeze blew off the harbor. "I've always had a soft spot for Ferris wheels," he said. "[They] bring out the child in all of us."

After his ride, he called the wheel's design, structure, and gentle ride "poetry in motion."

## More

- Access an in-depth history of Ferris and his wheel, including detailed info on its design and construction, at [www.hydeparkhistory.org/newsletter.html](http://www.hydeparkhistory.org/newsletter.html).
- Learn more about the Capital Wheel and view a model of its construction at <http://nationalharbor.com/capitalwheel>.
- Read about observation wheels, their history, and their design at [www.observationwheeldirectory.com](http://www.observationwheeldirectory.com). The site's curator, mechanical engineer Nick Weisenberger, is also author of *Observation Wheels: Guide to the World's Largest Ferris Wheels*.

## A RACE TO THE SKY

ORIGINAL FERRIS WHEEL (1893): 264 FEET

LONDON EYE (2000): 443 FEET

CHINA'S STAR OF NANCHANG (2006): 525 FEET

SINGAPORE FLYER (2008) : 541 FEET

LAS VEGAS' HIGH ROLLER (2013): 550 FEET

NEW YORK WHEEL (PROJ. 2016): 630 FEET

DUBAI EYE (PROJ. 2015): 690 FEET

