"Anything, everything, is possible."
—Thomas Edison, 1908

The year 1908 began at midnight when a 700-pound "electric ball" fell from the flagpole atop the New York Times building—the first-ever ball-drop in Times Square. It ended 366 days later (1908 was a leap year) with a nearly two-and-a-half-hour flight by Wilbur Wright, the longest ever made in an airplane. In the days between, the U.S. Navy's Great White Fleet sailed around the world, Adm. Robert Peary began his conquest of the North Pole, Dr. Frederick Cook reached the North Pole (or claimed to), six automobiles set out on a 20,000-mile race from New York City to Paris, and the Model T went into production at Henry Ford's plant in Detroit, Michigan.

Aeroplanes! Skyscrapers! The race to the North Pole! Mobile phones? Return to the year when astonishing inventions, predictions, stunts and breakthroughs propelled America into the modern age

BY JIM RASENBERGER

The events and innovations that occurred within that 12-month frame a century ago marked, in many ways, America's entry into the modern world. In some cases, they quite literally put modern America in motion. Whether practically significant or, like the automobile race around the world, essentially frivolous—a "splendid folly," one contestant called it—all reflected, and expanded, Americans' sense of what was possible. Buoyed by achievements, the country was more confident in its genius and resourcefulness—not to mention its military might—and more comfortable playing a dominant role in global affairs.

Nineteen hundred eight was an election year, and the parallel...
Showcasing America's military might, Roosevelt dispatched 16 U.S. Navy battleships on a world tour—"the greatest fleet of war vessels ever assembled," said the New York Times.

after the Louisiana Purchase and two years after Lewis and Clark returned from their transcontinental journey, the population had been a mere seven million souls. The federal government had been underfunded and ineffectual. Technology—transportation, communication, medicine, agriculture, manufacturing—had been barely more advanced than during the Middle Ages of Europe. Now, in 1908, with the U.S. population at almost 90 million, the federal revenue was 40 times greater than it had been a century earlier, and America was on a par with Britain and Germany as a global power. U.S. citizens enjoyed the highest per capita income in the world and were blessed with railroads and automobiles, telegraph and telephone, electricity and gas. Men shaved their whiskers with disposable razor blades and women tidied their homes with remarkable new devices called vacuum cleaners. Couples danced to the Victrola in their living rooms and smuggled in dark theaters to watch the flickering images of the Vitagraph. Invisible words volleyed across the oceans between the giant antennas of Marconi's wireless telegraph, while American engineers cut a 50-mile canal through the Isthmus of Panama.

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From the glories of the present the *World* turned to the question of the future: “What will the year 2008 bring us? What marvels of development await the youth of tomorrow?” The U.S. population of 2008, the newspaper predicted, would be 472 million (it’s 300 million). “We may have gyroscopic trains as broad as houses swinging at 200 miles an hour up steep grades and around dizzying curves. We may have aeroplanes winging the once inconquerable air. The tides that ebb and flow to waste may take the place of our spent coal and flash their strength by wire to every point of need. Who can say?”

Nor a day passed without new discoveries achieved or promised. That same New Year’s Day, Dr. Simon Flexner of the Rockefeller Institute declared in a medical paper that human organ transplants would soon be common. Meanwhile, the very air seemed charged with the possibilities of the infant wireless technology. “When the expectations of wireless experts are realized everyone will have his own pocket telephone and may be called wherever he happens to be,” *Hampton’s Magazine* daringly predicted in 1908. “The citizen of the wireless age will walk abroad with a receiving apparatus compactly arranged in his hat and tuned to that one of myriad vibrations by which he has chosen to be called. . . . When that invention is perfected, we shall have a new series of daily miracles.”

A FEW WEEKS before the year began, on the bright windless morning of December 16, 1907, thousands of spectators went to Hampton Roads, Virginia, to hail the departure of the Great White Fleet on its 43,000-mile voyage around the world. Roosevelt steamed in from the Chesapeake Bay aboard the presidential yacht, the *Mayflower*, to give a few last-minute instructions to fleet commanders and to add his considerable lilt to the pomp and circumstance. As sailors in dress uniform stood at the rails and brass bands played on the vessels, the president watched. “Did you ever see such a fleet and such a day?” he shouted to his guests aboard the *Mayflower*. “Isn’t it magnificent? Oughtn’t we all to feel proud?” It was, he concluded, “perfectly bully.”

For sheer majesty, the armada was impressive. “The greatest fleet of war vessels ever assembled under one flag,” the *New York Times* reported. The 16 battleships were worth $100 million and comprised nearly 350,000 tons of armament. The *Mayflower* led the ships to the month of the Chesapeake Bay, and as the ships’ bands played “The Girl I Left Behind Me,” Roosevelt gave a last wave of his top hat.

Loaded to the gunwales and painted bright white, the ships steamed away, stretching out into a three-mile column. Not everyone understood exactly why Roosevelt sent those battleships around the world. Even now, it’s difficult to give a simple answer. At the time, some Americans worried that the voyage was extravagant, rash and likely to provoke a war, most likely with Japan. Indeed, Roosevelt harbored real concerns that Japan, newly emboldened by a recent naval victory over Russia and angered by the mistreatment of Japanese immigrants in America, might pose a threat to the Philippines and other U.S. interests. “I had been doing my best to be polite to the Japanese and had finally become uncomfortably conscious of a very, very slight undertone of veiled truculence,” he would write a few years later of his decision to send out the fleet. “It was time for a showdown.”

But Roosevelt also filled those 16 ships with friendly greetings and U.S. dollars. Among his instructions to commanders were firm words on preserving decorum among the ships’ 13,000 sailors. Throughout 1908, as the battleships steamed port to port, from Rio de Janeiro to Sydney, they were greeted with adulation and American flags. When the fleet finally reached Japan in October of 1908, tens of thousands of schoolchildren greeted it by singing “The Star-Spangled Banner.”

Tensions between the two countries evaporated, and the voyage, once belittled by many as a dangerous stunt, was now applauded as a stunning success. Seldom has a president combined so deftly a message of power with offerings of peace.
To Americans, who were treated to endless stories about the 14-month voyage in newspapers and magazines, the Great White Fleet was a show of strength. The U.S. Navy was now on a par with Germany’s navy and second only to Great Britain’s. And America, with its capacity to produce more steel than Britain and Germany combined, could build ships faster than any country on earth.

The sky was full of miracles. In New York City, stupendous new buildings pointed upward to where the future seemed to beckon. The Singer Building, headquarters of the Singer Sewing Machine Company, was completed in the spring of 1908. At 612 feet, the “Singerhorn” (as it soon began to call itself, after the Matterhorn) was the highest inhabited building in the world. A few months later, the steel frame of the Metropolitan Life Building leapt over the Singer to 700 feet.

Illustrators imagined a future city of golden towers connected by slender suspension bridges and great masonry arches. Moses King, in a 1908 illustration, imagined dirigibles and other flying craft floating over vaulting towers and bridges in New York City, bound for destinations such as the Panama Canal and the North Pole. A caption referred to “possibilities of aerial and interterrestrial construction, when the wonders of 1908... will be far outdone.”

No aerial wonder topped the Wright brothers’ feats that year. Absent from Kitty Hawk, North Carolina, since their first brief flights there in 1903—and not having flown a lick since 1905—they returned to nearly Kill Devil Hills in April to dig out their old shed and dust off their piloting skills. The Wrights’ ability to fly had advanced beyond their first thrilling seconds in the air—but their competitors had also advanced, and the Wrights felt the pressure. A coterie of bright and ambitious young men had joined Alexander Graham Bell, inventor of the telephone, to form the Aerial Experiment Association (AEA). On March 12, 1908, in Hammondsport, New York, Casey Baldwin, an AEA member, had flown above an icy lake for a distance of almost 320 feet. Four months later, on the Fourth of July, Glenn Hammond Curtiss flew an AEA craft nearly a mile over Hammondsport.

For the previous three years, as the Wrights had dallied with possible buyers of their aircraft, critics and competitors increasingly construed their reticence to fly as evidence of failure or, worse, of fraud. Now, in the spring of 1908, they had two offers of purchase—from the U.S. Army and a private French syndicate. Both offers depended on public demonstrations of the aircraft. After a few weeks of practice in Kitty Hawk, Wilbur sailed to France to demonstrate the Wright Flyer. Orville undertook his own flight trial at Fort Myer, near Washington, D.C. The time had come to put up or shut up.

It was 6:30 on the evening of August 8 when Wilbur climbed into the seat of his Wright Flyer at a horse track near Le Mans. He wore his usual gray suit, starched white collar and green cap, turned backward so it would not blow off in flight. The evening was calm, and so, outwardly, was he. This would be the first public demonstration of a Wright plane. Much, possibly everything, was riding on it. The last time he had flown—a private practice flight at Kitty Hawk in May—he had crashed and destroyed the plane. If he did so now, the French trials would be over before they had begun, and the name Velux Rest, as they pronounced it, “a shock in the French joke.”

Spectators watched from the grandstand as the twin propellers behind Wilbur started to spin. All at once, the plane shot forward on its track. Four seconds later, it was airborne, rising quickly to 30 feet, higher than most of the French aviators had flown but low enough to give the audience a view of Wilbur as he made a slight adjustment to the control levers. The plane instantly responded, one wing dipping, the other lifting, and banked to the left in a tight, smooth half circle. Coming out of the turn, the plane made a

Lust and Murder
On the morning of January 6, 1908, Harry Thaw (left), profligate son of a rich Pittsburgh industrialist, walked into Manhattan’s Criminal Courts building to be retried for the murder of celebrated architect Stanford White (right). Thirteen months earlier, Harry and his pretty young wife, Evelyn (center), had entered the rooftop cabaret of Madison Square Garden where White was in the audience. Thaw shot him three times.

The case riveted the nation. Notable among the revelations was White’s predilection for stag parties and adolescent ingenues, including, in 1901, the sweet-faced chorus girl Evelyn Nesbit, then 16. Thaw had meant to avenge that crime.

Thaw’s first trial, in 1907, had ended in a hung jury. Now the public would again hear lovely Evelyn, with her plump cheeks and blond waves of hair, tell her degrading tale. The district attorney insinuated that she was far less innocent than she appeared.

The trial underscored the hypocrisy of a Victorian morality that made a fetish of female innocence and enabled wealthy men such as White and Thaw to act as if it was their prerogative to exploit the poor.

In the end, on January 31, the jury went along with Harry Thaw’s insanity defense, and the judge remanded him to the Matteawan Asylum in New York. But not before the public revealed in weeks of sexual divulgences and schadenfreude, ravenous for stories about the squallers of the rich, the beautiful and the damned.
While the Singer Building in New York City assured a skyscraper future, the Wright brothers cleared the way for powered flight—but not before Orville crashed at Fort Myer September 17, killing passenger Thomas Selfridge (right: the two before takeoff).

straight run down the length of the track, about 875 yards, then banked and turned into another half-circle. Wilbur Wright looped the field once more, then brought the plane down almost exactly where he had taken off less than two minutes earlier.

The flight had been brief, but those 100 or so seconds were arguably the most important Wilbur had spent in the air since 1903. Spectators ran across the field to shake his hand, including the same French aviators who had only recently dismissed him as a charlatan. Léon Delagrange was beside himself. "Magnificent! Magnificent!" he cried out. "We're beaten! We don't exist!" Overnight, Wilbur was transformed from le bluffeur, as the French press had tagged him, to the "Bird Man," the most celebrated American in France since Benjamin Franklin. "You never saw anything like the complete reversal of position that took place," he wrote to Orville. "The French have simply become wild."

Yet a few weeks later, Delagrange momentarily overshadowed Wilbur's achievement by flying for 31 minutes and thereby setting a new record in the air.

Now, it was Orville's turn. On September 9, he took off from Fort Myer, Virginia. He'd already made a few brief desultory hops, but now he flew for family honor and national pride. The plane shot up and began soaring around the parade ground. After 11 minutes, it was clear Orville intended to beat Delagrange's record. The spectators watched him circle the field, taking about a minute per circuit, the engine of the plane crescendoing, fading, then crescendoing again. He had flown about 30 circuits when somebody called out, "By jings, he's broken Delagrange's record!" According to the New York Herald reporter C. H. Claudy, everybody grabbed one another's hands, each man aware, according to Claudy, that he "had actually been present while aerial history was being reeled from the spinning wheel which made that awkward, delicate, sturdy and perfect wonder above their heads go round and round the field."

Orville had no idea he'd broken Delagrange's record. He was lost in flying. He canted into sharp corners and dipped low, skimming over the parade ground, then suddenly rose to 150 feet, higher than anything visible but the needle of the Washington Monument and the dome of the U.S. Capitol rising to the east, backlit by morning sun. "I wanted several times today to fly right across the fields and over the river to Washington," Orville later confessed, "but my better judgment held me back." After 58 circuits of the parade ground, he landed. He had flown 71 minutes and 31 seconds, nearly double Delagrange's record.

The Wrights held the attention of the world, and over the next week or so, as Wilbur flew above adoring crowds in France, Orville set ever longer endurance records at Fort Myer. On September 10, he flew more than 85 minutes; on
the 11th, more than 70; on the 12th, almost 75. That same day he set a new endurance record with a passenger—9 minutes—and an altitude record, 250 feet.

Then, tragedy: on September 17, while flying over Fort Myer with an Army lieutenant named Thomas Selfridge, Orville crashed. He was badly injured. Selfridge was killed.

It appeared as if the crash might end the Wrights' career and set American aeronautics back years. Wilbur ceased flying in France, as Orville lay recuperating in the hospital, attended by his sister. But on September 21, Wilbur lifted off from Le Mans and began circling the artillery ground at Camp d'Auvours above his largest crowd ever, 10,000 spectators. When Wilbur surpassed Orville's flight of nearly 75 minutes, "a yell went up which defies description," according to the Herald. Still, he flew. The drone of the motor came and went, and the sky grew darker and the air cooler. At last, the plane descended and settled on the ground. Wilbur had flown for 91 minutes and 37 seconds, covering 61 miles—a new record. He had banished any conjecture that the Wrights were finished. "I thought of Orville all the time," he told reporters.

Wilbur saved his greatest triumph for the last day of the year. On December 11, 1908, he flew 2 hours and 26 minutes over Le Mans, winning the Coupe de Michelin and affirming the Wrights' place in history. "In tracing the development of aeronautics, the historian of the future will point to the year 1908 as that in which the problem of mechanical flight was first mastered," Scientific American stated, "and it must always be a matter of patriotic pride to know that it was two typical American inventors who gave to the world its first practical flying machine."

IN OCTOBER, during the climax of one of the most thrilling seasons in baseball history (the Chicago Cubs would snatch the National League pennant from the New York Giants, then defeat the Detroit Tigers in the World Series—which they haven't won since.), Henry Ford introduced his oddly shaped new automobile, the Model T. At 45, Henry Ford had been in the automobile business a dozen years, since building his first horseless carriage in a brick shed behind his Detroit home in 1896. Still, everything he had done was a warm-up to what he hoped to accomplish—"a motor car for the great multitude," he said.

Since most automobiles of the day cost between $2,000 and $4,000, only the well off could afford them, and the machines were still largely for sport. An advertisement of the time, printed in Harper's Weekly, shows an automobile soaring over a hill as a gleeful menage frolics inside. One passenger reaches into a basket. "There is no more exhilarating...
rading sport or recreation than automobilizing,” the ad says. “The pleasure of a spin over country roads or through city parks is greatly enhanced if the basket is well stocked with Dewar's Scotch 'White Label.'”

The fact that automobiles brought out the worst excesses of the rich, confirming what many Americans already believed about them—they were callous, selfish and ridiculous—add to the resentment of those who could not afford the machines. “Nothing has spread socialistic feeling in this country more than the use of the automobile, a picture of the arrogance of wealth,” Princeton University president Woodrow Wilson had said in 1906. Yet by the time he became president of the United States six years later, even socialists would be driving Model T’s.

The automobile that rolled out of Ford’s Piquette Avenue plant that fall did not look like a machine of destiny. It was boxy and top-heavy. The automobile writer Floyd Clymer would later call it “unquestionably ugly, funerally drab.” The hard sprung, church pew seats made no concession to elegance or comfort. Rather, every aspect of the car was considered with an eye to lightness, economy, strength and simplicity.

The smaller a piece of machinery, Ford understood, the lower the cost, and the easier it would be to maintain. Equipped with a manual and a few basic tools, a Model T owner could carry out most repairs himself. The new car’s transmission would be smoother and longer lasting than any that had ever been designed. The small magnetized generator that provided a steady flash of voltage to ignite the automobile’s fuel would be more dependable. The Model T was designed to ride high off the ground to give it plenty of clearance over America’s infamous bumpy roadways, while the car’s suspension system allowed it to handle the roads without tossing out occupants. Ford had also foreseen a day when the ditch at the side of the road would be less of a concern to motorists than oncoming traffic: he had moved the steering wheel to the left side, to improve the driver’s perspective of approaching vehicles.

Ford Motor Company launched a national advertising campaign, with ads appearing in the Saturday Evening Post, Harper’s Weekly and other magazines. For an “unheard of” price of $850, the ads promised “a 4-cylinder, 20 h.p., five passenger family car—powerful, speedy and enduring.” An extra $100 would buy such amenities as a windshield, speedometer and headlights.

Ford manufactured just 309 Model T’s in 1908. But his new automobile was destined to be one of the most successful ever made. In 1913, Ford would institute the assembly line at his Highland Park, Michigan, plant. In its first year, the company more than doubled its output of Model T’s, to 189,000, or about half the automobiles manufactured in America that year. By 1916, Ford would be making almost 600,000 cars a year and could lower the price of the Model T to $360, which produced more demand, to which Ford responded with more supply.

Henry Ford was superb at anticipating the future, but not even he could have predicted the popularity of the Model T and the effects it would have for years to come on how Americans lived and worked. The cars were designed for every aspect of American life. The United States would become, in large part thanks to the Model T, an automobile nation.

Stunt Men

As tens of thousands of spectators crowded into Times Square on February 12, 1908, six automobiles from four countries set out on a 20,000-mile race from New York City to Paris.

Yes, New York City to Paris.

As conceived by the New York Times and its Parisian cosponsor, Le Matin, the race called for the automobiles to drive west across the United States, north into Alaska, across the Seward Peninsula and the Ico of the Bering Strait, then through Russia and Europe, landing in Paris—“the longest and most perilous trip ever undertaken by man,” the Times called it.

One contestant described it, perhaps more accurately, as “a journey for madmen.”

The American-made Thomas Flyer took nearly two weeks to reach Chicago, a journey the Twentieth Century Limited train made daily in 18 hours. Later, Alaska’s dog sled trails proved impossible. As for the Bering Strait, the racers had about as much chance of driving across it as they did of flying to the moon. (They would cross the Northern Pacific in ships.)

But the organizers improvised, the racers—some, anyway—carried on, and the event turned out to be nearly as exciting as promised. On July 30, the Thomas Flyer rattled into Paris and was declared the winner. President Roosevelt said in congratulation that he “admired Americans who did things, whether it was up in an airship, down in a submarine, or in an automobile.”
caldron, “roaring and bubbling,” as he wrote, “stirring and seething.” And so it was. Violence erupted frequently. Anarchists ignited bombs. Gangs of loosely organized extortionists known as the Black Hand dynamited tenements in New York’s Little Italy. Arsenals of disgruntled tobacco farmers, called Night Riders, galloped through Kentucky and Tennessee, spreading terror. Violence against African-Americans persisted, with dozens of lynchings in 1908. That August, whites in Springfield, Illinois—ironically, the hometown and resting place of Abraham Lincoln—tried to drive black citizens from the city, burning black businesses and homes and lynching two black men. (Like many events of 1908, even Springfield had a far-ranging impact: the riot led to the founding of the NAACP the next year.)

On the other side of the world, there was a breakthrough of sorts: on December 26, 1908, in Sydney, Australia, a 30-year-old African-American boxer from Galveston, Texas, named Jack Johnson stepped into the ring to fight Tommy Burns, the heavyweight champion of the world. Like every titleholder before him, Burns had refused to compete against a black man. But Johnson pursued Burns, badgering him until even whites began to suspect the Canadian was hiding beneath his white skin. Burns finally agreed to a match, but only with a deal that guaranteed him $30,000 of a $35,000 purse.

Johnson destroyed Burns before 25,000 spectators. Blood was pouring from Burns when police stopped the fight in the 14th round. The referee declared Johnson the victor. “Though he beat me, and beat me badly, I still believe I am his master,” said Burns after the fight, already calling for a rematch.

Johnson laughed. “Now that the shoe is on the other foot, I just want to hear that white man come around whining for another chance.” Eventually, Burns decided he did not want another chance after all.

Johnson would remain the heavyweight champion for seven years, fending off a series of “Great White Hopes.” He would be sent to jail in 1920 after federal prosecutors, misapplying a statute meant to discourage prostitution, charged him with illegally transporting a woman across state lines for immoral purposes after he’d sent a train ticket to one of his white girlfriends. That was later, though. Now was Christmas, and Jack Johnson’s victory was a gift for African-Americans to savor in the closing moments of 1908.

For all the problems, perhaps the most impressive trait Americans shared in 1908 was hope. They fiercely believed, not always with good reason, that the future would be better than the present. This faith was represented in the aspirations of the hardworking immigrants, in the dreams of architects and inventors and in the assurances of the rich. “Any man who is a bear on the future of this country,” J. P. Morgan famously declared in December of 1908, “will go broke.” It’s striking, in fact, how much more hopeful Americans were then than we are today. We live in a nation that is safer, healthier, richer, easier and more egalitarian than it was in 1908, but a recent Pew Research Center poll found that barely one-third of us feel optimistic about the future.

Of course, we are wiser now to the downsides of the technologies that were only just emerging in 1908. We cannot look at an airplane without knowing the death and destruction, from World War I to 9/11, that airplanes have wrought. Automobiles may have once promised exhilarating freedoms, but they also deliver thousands of deaths every year and horrendous traffic jams, and they addict us to foreign oil (1908 was the year, coincidentally, that oil was discovered in Iran) and pollute the atmosphere with, among other things, carbon dioxide, which will alter the earth in ways few of us dare imagine. The American military pride that sailed with the Great White Fleet on its voyage around the world in 1908 and was met with adoration at every port, is now tempered by the knowledge that much of the world despises us. We are left with the disquieting thought that the next 100 years may bear a price for the conveniences and conquests of the last 100.