n its continuing quest to provide speedy universal delivery at low cost, the Postal Service has used all sorts of creative ways to move mail through the years. As new modes of transportation were invented—railroads, automobiles, airplanes—the Post Office adapted them for its use. Some of these innovations simply made mail service faster or cheaper, but others responded to challenges from the outside, such as sorting mail in moving railroad cars to speed delivery after the telegraph raised public expectations for fast communication.

Innovations like these helped create the modern postal system, and innovation will guide it into the future. But innovation also has produced some strange and unusual delivery systems, using technology ranging from Stone Age to Space Age. Some worked well until new inventions made them obsolete, and others were flops from the beginning—but a few still are in use today.

Like a trip to a Ripley's Believe It or Not! museum of oddities, looking back at some of the surprising ways mail has made its journey reveals some ideas that worked well in their time and place, and others that fell flat.

POST OFFICE

DEPARTMENT

THE POSTMASTER GENERAL

FIRST OFFICIA

MISSILE

MAIL



MAIL BY MISSILE

Letter carriers always have traveled using whatever means are necessary to reach our customers—by animal, over water, in the air or across snow and ice. So it should be no surprise that someone saw rockets in the sky and had a crazy idea.

In 1936, inspired by similar attempts in other countries, rocket enthusiasts built two 12-foot rocket-powered, unmanned airplanes, filled them with mail bound for Hewitt, NJ, and launched them over a frozen lake from Greenwood Lake, NY. The first rocket crashed a few feet from the launch pad; the mail was retrieved and sent with regular mail. The second rocket got across most of the lake by flying, and then skidding, over the ice. On the other shore, the Hewitt postmaster unceremoniously walked out on the ice, retrieved the mailbag from the second rocket, and dragged it away.

Missile technology had come a long way by 1959 when the Post Office tried a much grander experiment in transporting mail by rocket. A Navy submarine shot a Regulus guided missile—with its warheads replaced by mail containers from the Atlantic Ocean to a naval base in Jacksonville, FL. The Regulus missile was essentially an airplane with no pilot, complete with landing gear. The mail inside was retrieved and delivered after it touched down at the base.

Caught up in the excitement of the era, Postmaster General Arthur Summerfield proclaimed, "Before man reaches the moon, mail will be Left: Postmaster General Arthur Summerfield (rear center) looks on as mail is loaded onto the USS Barbero.

Opposite page: The first "missile mail" launches from the submarine.

delivered within hours from New York to California, to Britain, to India or Australia by guided missiles. We stand on the threshold of rocket mail."

Though the experiment worked, U.S. mail was never again sent by missile because it was much more expensive than other ways.

ONE MULE AT A TIME

While Space Age mail delivery fizzled, the decidedly low-tech U.S. Mail mule train is still in business today.

Mules are the only practical way to reach Supai, AZ, a town with a population of 208 at the bottom of the Grand Canyon. The nearest road is eight miles away, and helicopters or air drops are impractical in the steep canyon, so a postal contractor leads mules carrying the mail—up to 200 pounds of mail on each animal's back—along a steep and treacherous trail. Mules and other animals once carried mail in many remote parts of the country, but the Grand Canyon is the only place still served by mules.

LIGHTER-THAN-AIRMAIL

Air mail debuted in the United States long before the airplane, or rocket, was invented.

On a warm August day in 1859, hot air balloon pilot John Wise rose into the air above Lafayette, IN, carrying sacks of mail addressed to New Yorkers. The wind was fickle that day, though, and the balloon was blown southwest, so Wise descended and landed just 30 miles away. The mail was collected and sent to New York by train. A letter carried on that historic flight, bearing a 3-cent stamp, survives at the Smithsonian



Above: A mule is packed with food and other goods for delivery to inhabitants of the Supai, AZ, village at the bottom of the Grand Canyon. Below: John Wise on a practice ascent Bottom: Mail from Wise's flight that finished the trip by train





A drawing of Henry "Box"

Brown's escape to freedom

Right: The transcontinental

Below: One of the concrete

arrows that can still be found along the route

airmail route

National Postal Museum in Washington, DC.

On a second flight with mail a month later, Wise managed to float 800 miles to Henderson, NY, where a storm forced him to crash land. Wise survived, but he lost the mail in the crash.

Mail didn't take to the skies again until the first mail flight by airplane in 1911.

PERSONAL DELIVERY

Sometimes it's the contents that make the delivery unusual. On a few occasions, the Post Office has found itself carrying the most valuable cargo of all—a human being.

In 1849, Philadelphia abolitionist James Miller McKim received a large box. Opening the box, he welcomed Henry Brown (from that day known as





"Box" Brown) to his freedom. Brown had escaped slavery by mailing himself from Louisa, VA, in a crate only three feet high. He waited silently in the cramped crate for 27 hours as he was carried by wagon, train and boat to McKim's house.

Decades later, a little girl's parents used the Post Office to save money rather than gain freedom. In 1914, the Pierstorffs, of Grangeville, ID, mailed their 4-year-old daughter, May, to a nearby town to visit her grandmother. The post office charged the rate for carrying chickens, which came to 53 cents—far less than the cost of a train or bus ticket. With postal workers looking after her, little May made the trip in a baggage car with the postage pinned to her coat. The postmaster took her to her grandmother's house when she arrived in town, safe and sound.

Mailing human beings was outlawed a few years later.

POST OFFICE AS AVIATION PIONEER

Not many know it, but the Post Office, not the Federal Aviation Administration, created the first coast-to-coast groundbased navigation system for air travel.

The grand ambition that had led railroads to connect East and West via the Transcontinental Railroad was revived with the invention of the flying machine. In the early days of the airplane, pilots could navigate only by looking down at landmarks and guessing their position. This was not only unreliable, it was useless at night or in bad weather.

When it launched transcontinental airmail service in 1920, the Post Office solved the problem with a plan to build hundreds of huge concrete arrows, painted yellow, to point the way for pilots. The arrows would appear every 10 to 15 miles in a line from New York to San Francisco. Each would be lit by a bright rotating beacon atop a steel tower, making navigation easier at night and in bad weather. By 1929, the arrows stretched coast to coast.

New navigation technology put the towers out of commission by the 1940s, when they were removed for use by the military in World War II. But several concrete arrows remain in remote places, serving as mysterious reminders for aviators and hikers who stumble on them of the Post Office's unique role in aviation history. Below: The pneumatic tube works and containers, along with the "rocketeers" who sent the messages through the pipes

THINGS GET PNEUMATIC

At the turn of the 20th century, American cities began building subways to move people around. Naturally, someone thought that moving mail through tubes under the streets also made sense.

The first pneumatic tube mail system in the United States, which used air pressure to push cylindrical mail containers between postal facilities at 30 miles per hour, began operating in Philadelphia in 1893. A few years later, large volumes of mail were traveling through tubes under New York, Boston, Chicago and St. Louis. At its peak, the largest system, New York's, featured 55 miles of tubes.

Pneumatic tubes brought a new craft to the Postal Service—the operators of the tube system, who were known as "rocketeers."

The cost of the systems and the advent of the automobile kept pneumatic tube systems from expanding further. The last piece of mail sent by tube traveled under New York in 1953.

TWO LEGS, TWO WHEELS

It's faster than walking, but more navigable than an LLV—and its fuel costs are zero. It's the humble bicycle, and a few letter carriers still use it to carry the mail.

In the 1890s, the invention of the "safety bicycle"—one that uses gears to make both wheels the same size, avoiding the instability of the old-fashioned "high wheeler" bikes—caused a bike craze in America. Men with handle-bar mustaches and daring women pedaling in puffy skirts took to the streets in the new contraptions, and letter carriers in many cities soon used them to get around on their routes. But the automobile and suburban sprawl conspired to make bicycles less useful for delivering mail.

As we reported in the July 2011 *Postal Record*, a few dozen city carriers in



Arizona and Florida still use bicycles in place of walking a route. Some carry the bike on a rack attached to a truck for park-and-loops; others ride between relay boxes. The carriers who ride them say that bicycles are cooler than un-air-conditioned LLVs, save the Postal Service money and relieve the stress and injuries associated with walking with a heavy satchel. They hope the Postal Service sees the benefits too and revives the bicycle as a mail delivery vehicle.

DOGS AND CARRIERS WORK TOGETHER

In some particularly snowy parts of the country, dogs once were a letter carrier's best friend. Alaskans, who



Below: A mail team leaving Circle City for Fort Gibbon, AK

Bottom: An authentic mail dog sled





get things done despite extreme conditions, established regular winter mail service in the 1910s for remote towns and isolated residents by using dog sleds.

Some dog-sled carriers were disappointed gold prospectors who found a new way to make a living. Percy DeWolfe came to Alaska looking for fortune in 1898. After coming up emptyhanded, DeWolfe won a maildelivery contract between the town of Dawson, in Canada, and Eagle, AK—102 miles along the Yukon River. He and his dogs ran the route for 40 years, overcoming darkness, cold, snow and ice. Alaska holds a Percy DeWolfe Memorial Mail

> Race each year that follows his old route. To honor De-Wolfe, the first sled to cross the starting line carries a bag of mail.

New roads, snowmobiles and airplanes eventually put dog-sled carriers out of business. The last regularly scheduled dog

sled route, on a remote island in the Bering Sea, was retired in 1963.

"ORPHANS PREFERRED"

No discussion of extreme mail delivery can leave out the Pony Express, which advertised for horsemen willing to risk dying—and who had no parents to miss them. Riders could fall to their deaths or get lost in the wilderness, if Indians hostile to the encroachment didn't kill them first. They rode as fast



as they could, stopping only for a fresh horse at stables located every 10 miles or so on a route stretching 1,900 miles from Missouri to California.

Launched in 1860, the Pony Express became the fastest way to communicate between East and West. In fact, by rushing copies of President Lincoln's inaugural address to California in less than eight days, it played a role in keeping the young state from seceding from the Union.

Just a few months later, in October of 1861, the first transcontinental telegraph was completed, putting the Pony Express out of business, but the can-do spirit of the riders still inspires Americans today.

WALKING TALL

Notwithstanding all of the new and creative ways to move letters and packages over the years, nothing has replaced the oldest form of transportation. Most city carriers walk our routes today. Using only our feet, we can handle nearly any weather on any kind of ground, and we provide personal service to our customers that can't be matched by any technology. No matter what kind of new schemes are invented to help deliver mail, the letter carrier will always be an irreplaceable part of last-mile delivery. **PR**