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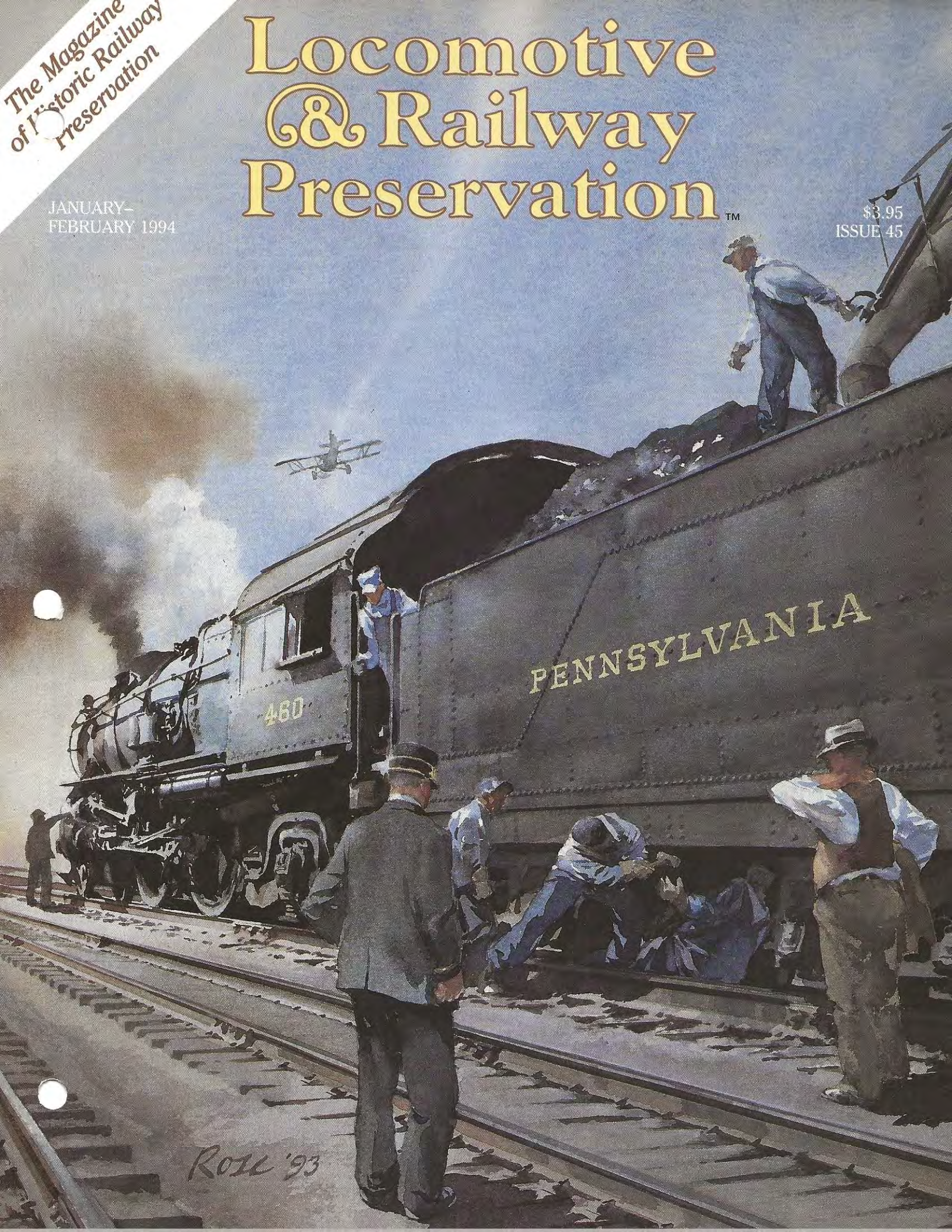
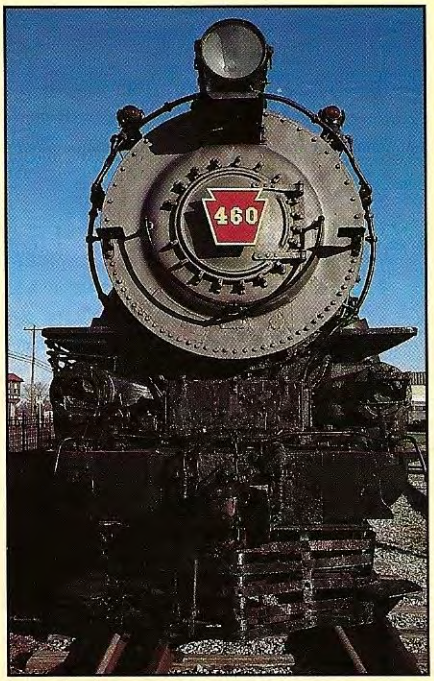


Two Memos and Two Machines: Lindbergh

BY JAMES ALEXANDER, JR.

Archaeologists often work from fragments of bone and pottery to develop an understanding of prior eras. Preservation of railroad history sometimes also involves starting with fragments—physical or written—and weaving them into a broader understanding. Jim Alexander unexpectedly became a railroad archaeologist while digging for information on track pans in the Pennsylvania Railroad Collection in the archives of the Hagley Museum Library in Wilmington, Delaware, when he came upon a faded carbon copy of a 1927 Pennsylvania Railroad memorandum about a special train that ran that year.

Its story had been told before, but Alexander also uncovered another memo about an old locomotive, written twenty-three years later. The common threads in the two memos were famed aviator Charles A. Lindbergh and the Pennsylvania Railroad. From these two relics, he fleshed out a story of the initial reaction of railroads to the advent of aviation and of Lindbergh's unusual relationship with the Pennsylvania Railroad.



Color reproductions and additional information on two Pennsylvania Railroad calendars by Grif Teller that illustrate PRR's short fling with avaition may be found in *Crossroads of Commerce: The Pennsylvania Railroad Calendar Art of Grif Teller* by Dan Cupper.

Lost in the fog and out of fuel, Charles Augustus Lindbergh parachuted from his plane, becoming the first American pilot to have made four emergency jumps. The next day, September 16, 1926, while waiting for a replacement plane, he went to the movies in downtown Chicago to see *What Price Glory*. His reaction to the flicker images on the big screen changed history a... profoundly affected America's railroads.

It was the newsreel that sparked his resolve,

and the Pennsylvania Railroad

Charles A. Lindbergh

A special train for the International News Reel Corporation was operated from Washington, June 11, 1927, for the transportation of motion picture films of the reception to Colonel Charles A. Lindbergh at Washington . . .

Ready to Go! Not really, on June 11, 1927, the train crew of "Extra 460 East" were all business and didn't have time for such inconsequential activities as picture taking. Although represented as having been taken just before departure, the photo was actually posed by the PRR's publicity department on a more relaxed and appropriate June 12th.

RAILROAD MUSEUM OF PENNSYLVANIA, COURTESY OF CHARLIE MEYER

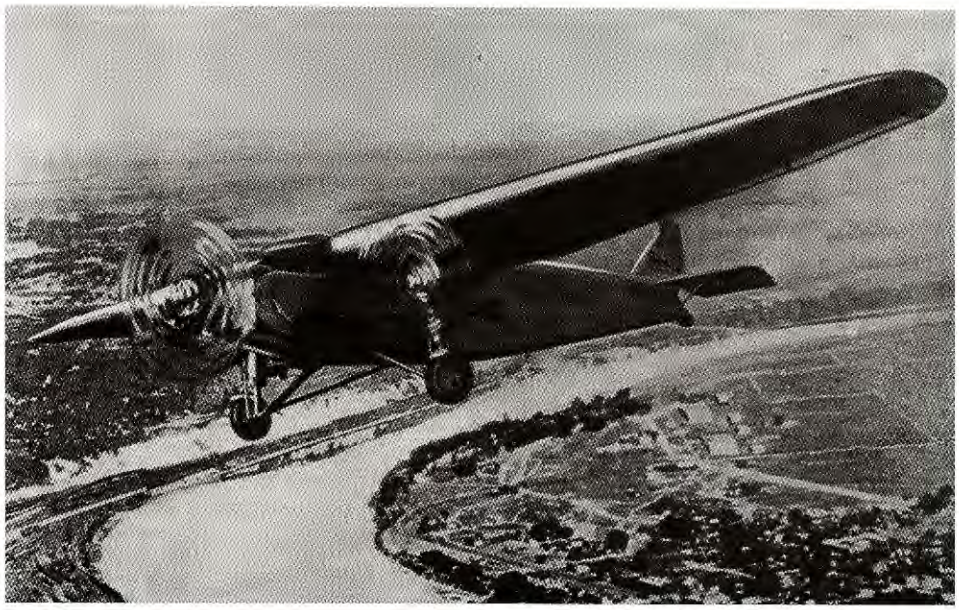
showing an early biplane that would be competing for a $25,000 prize for the first nonstop airplane flight between New York and France. The result of Lindbergh's moviegoing was not only his spectacular landing in Paris on May 21, 1927, but yet another newsreel that was to lead to a new record in railroading.

* * * * *

Pennsylvania Railroad Memorandum, Philadelphia, June 13, 1927, from D. M. Sheaffer, Chief of Passenger Transportation, to M. W. Clement, Vice President, Operations:

A special train for the International News Reel Corporation was operated from Washington, June 11, 1927, for the transportation of motion picture films of the reception to Colonel Charles A. Lindbergh at Washington . . . .

Waiting with a full head of steam on track



Above: In December 1928 W.W. Atterbury, president of the Pennsylvania Railroad, wrote a publicity pamphlet entitled "Linking Rail and Air Transport." Reflecting Atterbury's enthusiasm for air travel, the pamphlet was replete with pictures of trimotor Ford airplanes such as the one seen in this rendering above Minneapolis and St. Paul. Atterbury wrote: ". . . I recognized that aviation was certainly destined to become a most valuable ally of commercial railroading if it were properly handled."

Perhaps Atterbury's thoughts are more prophetic to the 1990s than 1929. Then the skies were wide open and passenger air travel was a revolution about to happen. In contrast, in the 1990s major congestion is a reality of air travel. As a means to reduce congestion, many planners recommend integrating air travel at the airport with high speed regional rail systems.

COURTESY OF JAMES ALEXANDER

eight at Washington's Union Station, PRR Atlantic No. 460 was coupled to B-60-B baggage car No. 7874 and P-70 passenger coach No. 3301. Extra 460 East was ready to go!

In the quest to be the first to bring the historic film of the Lindbergh ceremonies to New York City's Broadway theaters, other newsreel companies had chartered planes to fly film northward. But the International News Reel Corporation was determined to transport film by train, as it had succcessfully done after President Coolidge's inauguration two years earlier.

Aboard the passenger car were officials of the three PRR divisions the train would cross. The locomotive, built in 1914, was the line's newest E6. It had been chosen for the run at the direction of Pennsy General Manager E. W. Smith, who had ordered a recently overhauled locomotive that had been operated for a week or two to get any kinks out of it. Number 460, having come out of refurbishing at the Wilmington shops 10 days earlier, filled the bill.

The couriers rushed into the station, the heavy steel cans of film were hoisted into the baggage car, and the race was on. As David P. Morgan later wrote, when the Atlantic's throttle was opened in response to the highball, "Two pairs of 80-inch drivers bit gritty rail." Smith had given the hand-picked crew permission to run the train as fast as they wanted, placing full confidence in their experience. Freight traffic on the main line, much of it four-tracked, had been cleared, and the *Lindbergh Special* had priority over all other passenger trains.

Able to make the entire trip on one load of coal, No. 460 was to rely on its tender's water scoop to avoid any stops. Alas, the first time the scoop was lowered, it apparently was damaged by the force of hitting the water in the track pan at such high speed, and an unscheduled three-minute stop near Wilmington was needed to repair it and take on water the conventional way. Minutes earlier, one of the planes had flown overhead, keeping pace with the speeding train for a while, then mockingly wagging its wings and flying ahead.

Flying one of the planes was famed stunt pilot "Casey" Jones. Upon reaching the film-developing plant on Long Island, he spotted the flares that had been lit, circled around, and parachuted the film onto a waiting canvas below. But had the plane beat the train?

As Pennsy's *Lindbergh Special* sped north, it reached peak speeds of 115 miles per hour. Atlantics were known as speedy locomotives, and one of the engineers later said that the throttle had not been fully opened. Arriving at Manhattan Transfer, No. 460 detached, leaving the two cars to be pulled by DD-1 electric locomotive No. 16 through the tunnel under the Hudson River into Penn Station. There, the truth became evident when the baggage-car doors were opened to reveal that the newsreel company had set up a darkroom on board, staffed with technicians and editors, just as it had done two years earlier.

The film crew agreed with the enginemen that at its top speed, the train had ridden as smoothly as at forty miles per hour, and a good thing it was. The films—developed, edited, and copied on board—were on theater screens within fifteen minutes, beating those that came by plane by a good hour, notwithstanding the acrobatics of Casey Jones. Thus did No. 460 earn its reputation as the locomotive that beat the plane, forever after being known as the "Lindbergh Engine."

The spirited locomotive had in fact set a number of records, overall and on various stretches. The entire trip of 224.6 miles to Penn Station at an average speed of seventy-two miles per hour beat the previous record of the Coolidge inauguration newsreel run by more than 32 minutes. The three-hour, seven-minute run stood in contrast with the top passenger-train time on that route, five hours. The special's average speed of 74 miles per hour over the 216 miles of steam territory was the world's record for such a distance and set a record for the Washington-to-Manhattan Transfer distance that was never beaten while steam ran on that busy corridor.

The story of this accomplishment made the *New York Times* the next day but was largely lost among the pages of other stories of the Washington extravaganza. But the PRR did not limit its efforts to capitalize on the exuberance over Lindbergh's accomplishment. It renamed its best trains between New York and Lindbergh's adopted home town of St. Louis (previously the *St. Louisan* westbound and the *New Yorker* eastbound) *The Spirit of St. Louis* and named the train's observation car the

Colonel Lindbergh. The railroad had to settle for Lindbergh's mother christening the train, since Lindbergh himself was overwhelmed with such requests. When the day came, however, the crowds were so great that New York City officials assigned five hundred police officers to get her to the train. Apparently overwhelmed, she sat inside the observation car, her back to the crowd, and left it to a friend to pull aside the green velvet covering the illuminated emblem at the rear of the car. As the train slowly pulled away from the Pennsylvania Station platform, Mrs. Lindbergh appeared in the door for a brief wave.

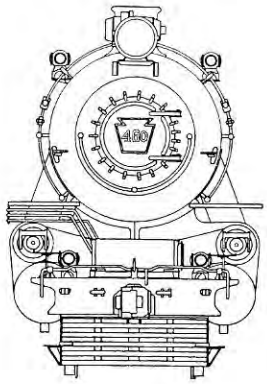
The railroads also asserted their presence through a resolution of the Association of Railway Executives, who were in conference at Atlantic City that May. The association declared its acclaim for Lindbergh's accomplishment and offered him "such transportation facilities as may best suit your plans and convenience when you return to your home." Arrangements were made with the ICC whereby any railroad that Lindbergh chose to ride home on could charge him a nominal tariff of one dollar, an offer similar to that made previously to Queen Marie of Roumania.

Lindbergh, however, flew from Washington, D.C., to New York for another massive celebration and later flew himself home to St. Louis in the *Spirit of St. Louis*. He then devoted himself to promoting the civilian air industry. In what many would regard as an unfortunate twist of history, Lindbergh's early insistence that civilian aviation not be subsidized by government at the expense of other forms of transportation did not hold, and in subsequent decades major federal subsidies greatly fostered the industry. The July 2, 1927, *Railway Age* put the best face on Lindbergh's disinclination to ride the railroad home by pointing out that his opposition to government airline subsidy was "almost as novel as his failure to accept the offer of the railroads of a special train at a tariff rate of one dollar per railroad and nothing said about who was to pay the dollar."

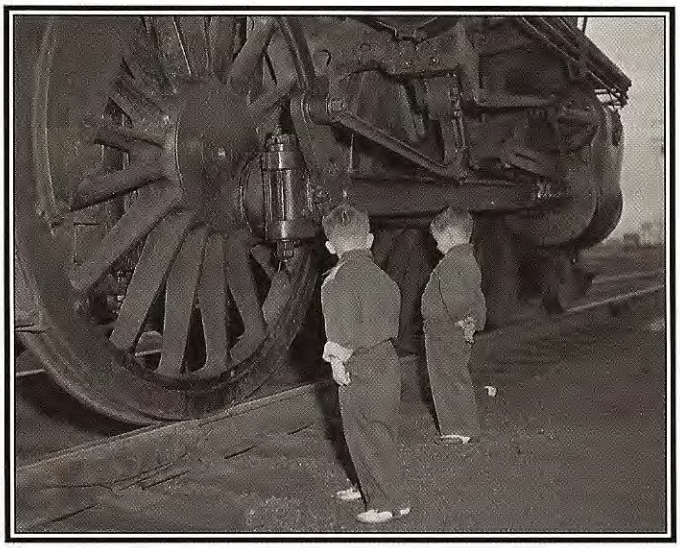
Following a farewell tour in 1928, Lindbergh flew the *Spirit of St. Louis* back to Washington, D.C., where he donated it to the Smithsonian Institution, which placed it on permanent display in the Arts and Industries Building. After these ceremonies were over, the man who had ignored the railroads' offer of a free ride home the year before quietly took the train back to New York, retracing the route of the *Lindbergh Special*.

* * * * *

The railroads did indeed take notice of the public's enthralled reaction to Lindbergh's flight. They had worked through the 1920s to overcome the effects of World War I and



In 1927, the Pennsylvania Railroad seized on the excitement of Lindbergh's famous flight by renaming its best trains from New York to St. Louis *Spirit of St. Louis*. Here a pair of highly motivated K4s sprint westward.
RAILROAD MUSEUM OF PENNSYLVANIA




460
PENNSYLVANIA

The Durable Speedster: There is something just right about the 460; an abundantly stable front end, four huge 80-inch drivers that bespeak speed and a husky KW style trailing trucks supporting a large fire box and boiler that will generate plenty of power to feed steam hungry-fast moving pistons.

From about 1896 until about 1910 Atlantics soared in popularity on American railroads. However, the era of the Atlantics's reign was predetermined to end early because of the increased weight of longer trains and all steel trains that invited the horsepower heft of 4-6-2s, 4-6-4s and 4-8-2s.

The Pennsylvania's E6s were no off-the-shelf locomotives; Altoona's laboratory and world famous test plant churned out equations that would create an Atlantic that had little in common with the spidery engines of the 1890s; an engine that writer Bert Pennypacker would describe as the "Hercules of Atlantics," and second only to the K4s in fame.

With good reason, into the E6 design went the conclusions that the Pennsy had drawn from earlier Atlantics and the larger 4-6-2s that were under development at that time. Two prototypes were built and four years of road and test plant operations ensued before the fleet of 80 more E6s were built with No. 460 as the last.

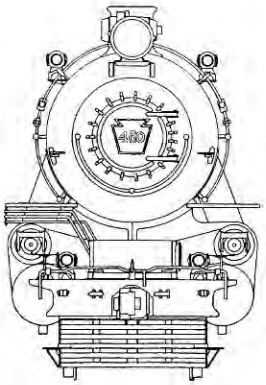
Altoona's engineers managed to squeeze more than 1,200 horsepower from each pair of driving wheels. This created a 4-4-2 so powerful that it even out-performed the mammoth K-29 4-6-2 in drawbar pulling power at speeds in excess of forty miles per hour. The 83 Atlantics that the PRR built were the most durable of their breed and would last though two world wars and not be silenced until 1955 and the diesel invasion.

So it came as no surprise that an E6s—this fine E6s, the last one built—would be selected for the special of all specials, the train that would race the airplane on the occasion of its transatlantic triumph. In 1927 thirteen-year-old 460 roared out of Washington station and ultimately into the spotlight. With strength, stamina, and speed well established, the durable machine would age gracefully, concluding its working life on Jersey seashore routes. In the next to last year of its working life, 1954, photographer Don Wood framed a durable classic.

A child's first encounter with a locomotive, particularly a live steam locomotive must be a mixture of awe and anxiety . . . fascination and flight. During the steam era such encounters happened a thousand times a day.

What can we give small boys and girls today to equal this experience?

BOTH: DON WOOD



The transcontinental rail and air route between New York, Los Angeles and San Francisco. The route was scheduled to open in spring 1929, jointly operated by Pennsylvania Railroad, Transcontinental Air Transport, Inc, and Atchison, Topeka & Santa Fe Railway. Passengers traveled by rail at night and by air during the daylight. This afforded the comfort of sleeping cars during the night, and permitted pilots to navigate during the daylight hours, since night-time navigation was still unsafe.

COURTESY OF JAMES ALEXANDER

wartime nationalization only to see passenger business suffer as the automobile gained popularity. Once unchallenged, they now realized that public relations and advertising were corporate necessities.

The future of air travel—which to that point had been largely limited to stunt flying and air-mail runs—may not have been too clear, but Pennsy leadership sensed opportunity in the emerging industry. (It also had gotten into the trucking business and was owner of the Greyhound bus line for some years.) As early as 1924, the federal government had approached Pennsy about participating in private-sector assumption of government-operated air-mail routes and had broached the subject of air passenger travel. Although the Pennsy had corporate stability and solid transportation capabilities, it deemed the idea not quite appropriate.

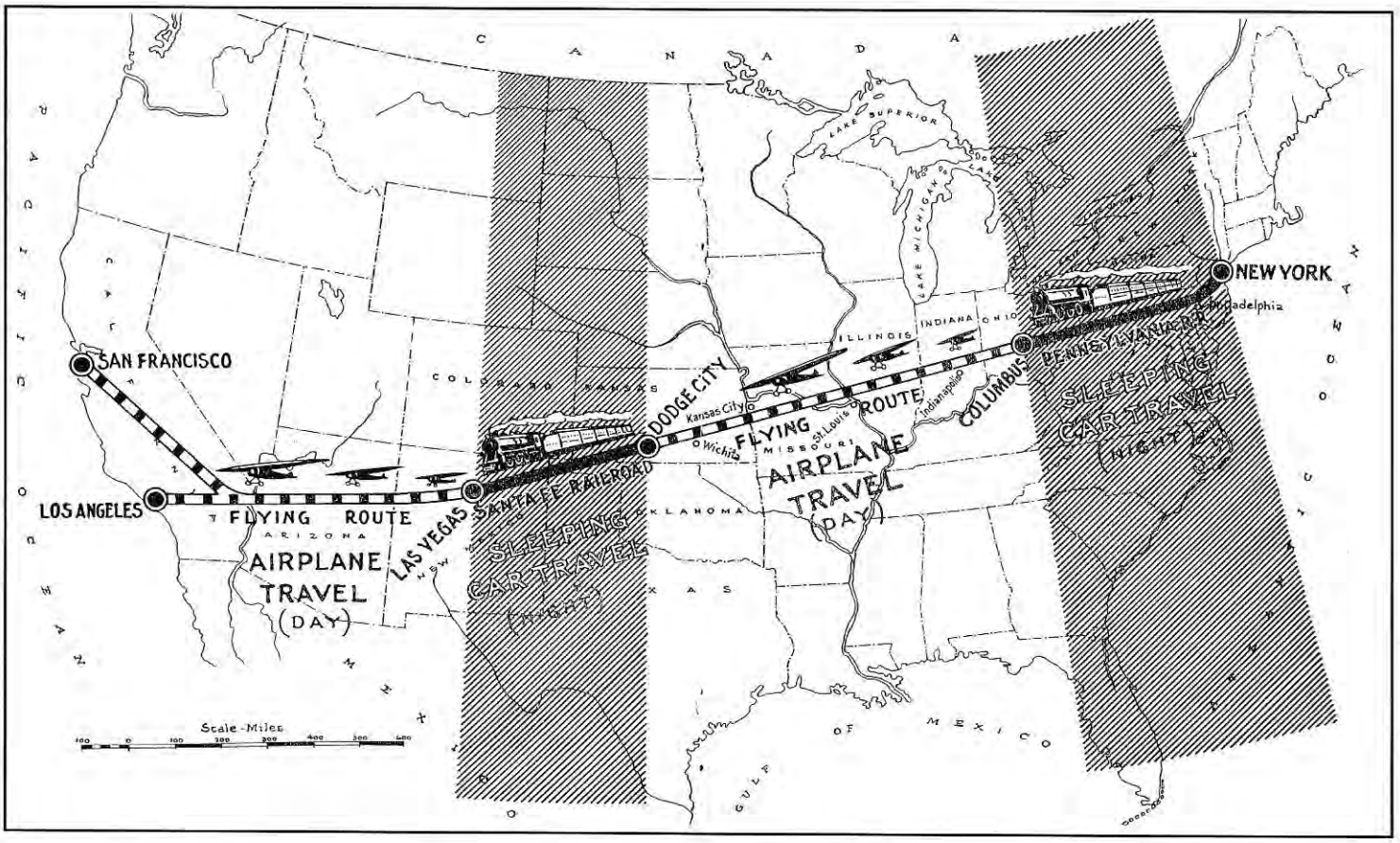
Three months after Lindbergh's flight, however, the climate was different when banker Harold Bixby, president of the St. Louis Chamber of Commerce and a key Lindbergh backer, approached the Pennsy to set up an air line between Cincinnati and St. Louis. Capital for such a venture was essential. Lindbergh and his associates had reached agreement with Henry Ford to provide the airplanes, but Ford did not want to invest in the endeavor. The major railroads had capital as well as communications and ticketing capabilities, plus the ability to provide alternative transportation in case of bad weather or mechanical failure.

Pennsy President W.W. Atterbury later wrote: "It seemed to me that the time had come for us to act . . . I assured Mr. Bixby of our interest . . . but explained that it would probably have to be on a much larger scale . . . than what he had in mind."

Other backers were brought together, and the plan was expanded. In spring 1928, Pennsy joined with the Wright Aeronautical Company, the Curtis Aeroplane and Motor Company, the National Aviation Corporation, and a group of bankers to form the Transcontinental Air Transport, Inc. (TAT), which came to be known as "The Lindbergh Line." The railroad's $500,000 investment made it a one-fifth partner.

On TAT's board of directors were twenty-one distinguished business leaders, including PRR Vice President in Charge of Traffic Julien L. Eysmans and PRR Chief of Transportation Daniel M. Sheaffer, the author of the 1927 memo detailing the *Lindbergh Special*. Also on the board was Harold Bixby.

Serving, with generous remuneration, as chairman of the TAT Technical Committee, Lindbergh continued his unique relationship with the Pennsylvania Railroad. He was involved in charting routes, reviewing hiring, and providing advice and public appearances. He was also Consulting Aeronautical Engineer to the Pennsylvania Railroad.



The Train/Air Race Revived; Amtak's Hot Corridor Challenge

by James Alexander, Jr.

Lindbergh's moment in history filled the air with challenges to the old ways of doing things. To railroad officials, his flight meant that planning and inspiration would be needed if the railroads were to compete.

The race between planes and trains continues, and today it's nowhere more evident than on the busy Northeast Corridor, where Amtrak *Metroliners* compete for passenger revenue with airline shuttles. More than seventy trains run daily between New York City and Washington, D.C., carrying one and one-half million passengers a year, while scores of shuttles and other scheduled flights carry two million passengers on the same general route overhead.

The train, however, appears to be gaining on the plane. Amtrak's share of this market has risen from 39 percent, several years ago, to 45 percent today, and it is steadily increasing. Major investments in equipment and roadbed have drawn every conceivable potential out of the 225-mile rail route.

Ever since the days of the *Lindbergh Special*, railroads have been steadily increasing speeds between New York City and Washington. Amtrak's *Nutmeg State*, seen westbound on the Northeast Corridor between Bowie and Odenton, Md., is typical of today's workaday fast train service. ALEX MAYES

Today, the doors of an incoming *Metroliner* in Washington's Union Station slide open to reveal rested businessmen and -women, strolling off with their laptop computers, ready to face the day. They step down from passenger cars whose amenities exceed those of airplanes. Phone calls have been made on board and working meetings held in the café car, where papers could be spread out for review. First-class club cars are available, providing space and services unavailable on air shuttles. New Metropolitan Lounges at the Washington, Philadelphia and New York stations provide more comfort for first-class passengers. At both ends of the corridor, the train reaches center city, with easy access to nearby transportation and offices.

Making all this possible has been a continuing investment in track improvements and signals, as well as enhanced customer relations; Amtrak knows that success on this heavily traveled route can enhance its reputation throughout the system and invigorate its image as modern transportation. The *Lindbergh Special* record of three hours, seven minutes is now routinely eclipsed by express *Metroliners*, some running the distance in two hours, thirty-five minutes.

Still, Pennsy had electrified the corridor to improve running times there, realizing the difficulty of adding more tracks in the congested, heavily developed urban centers through which it passes. Amtrak has inherited this constraint. Key to further improvement, then, is eking out more speed, especially in curved track areas, where safety and passenger comfort mandate reduced speeds. Amtrak hopes to cut the New York-to-Washington time to two hours, fifteen minutes, with top speeds of 150 miles per hour and improved speed on curves.

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With an eye on the faster air shuttles overhead and needing new equipment to replace its aging fleet and to meet increased demand, Amtrak is approaching procurement with the kind of business flair that would have made the Pennsy managers who capitalized on Lindbergh's flight proud. Contemplating at least a $400 million contract to acquire twenty-six sets of high-speed passenger trains by 1997, Amtrak has embarked on an unprecedented product-testing effort. Demonstrator models of the X2000 from Swedish Rail and the InterCity Express (ICE) from Germany have been sailing around curves and tangents on the corridor and elsewhere on Amtrak, and their frequent announced stops for visitors to look them over have proven alluring, generating public attention that heretofore was almost nonexistent. Although the plane/train competition is most dramatic on the corridor, plans are to have diesel-powered alternatives of the successful train design, and Amtrak has been exhibiting its demonstrators throughout the country to generate support.

With completion of electrification north to Boston, the corridor of competition will extend to 456 miles. Reflecting on this impending development, one leading aviation official last spring forecast the ultimate demise of the air shuttle on this route. There's something fitting about that possibility—in a way, it would prove the circularity of history, as the train once again beats out the plane on the busy Northeast Corridor.

Above: The Port Columbus Airfield under construction in 1929. The airfield was adjacent to the Pennsylvania Railroad main line at Columbus, Ohio, and passengers going westward could transfer to a waiting Ford tri-motor plane for the daylight trip to Waynoka, Oklahoma. At Waynoka they would resume their trip by train.

Right: Charles A. Lindbergh, second from right, poses with the *City of Columbus* tri-motor plane in an early publicity photograph. Naming the planes was part of the public relations effort of that era.

The tri-motor was powered by three 400 horse-power Pratt and Whitney engines and cruised at 115 miles per hour. The planes were flown by former air mail pilots on routes marked and lighted by the U.S. Department of Commerce.

BOTH: RAILROAD MUSEUM OF PENNSYLVANIA

Another person on the committee was Lieutenant C. S. "Casey" Jones, by now having left his stunt flying behind to concentrate on the business aspects of air travel.

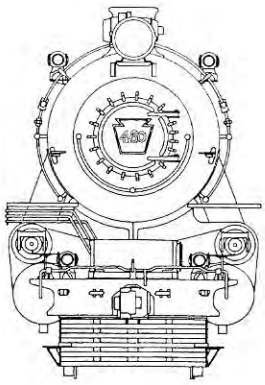
In a sixteen-page pamphlet issued in December 1928, President Atterbury observed that his first impression of the need for commercial air passenger service had been when he was serving in France as director general of transportation of the American Expeditionary Forces. Seeking to base this bold new move on Pennsy tradition, Atterbury quoted George B. Roberts, who had been president of the Pennsy from 1880 to 1897: "The moment that this Company forgets that its duty is to be at the head of the list of carrying companies of the United States and ceases to have the ambition to become the first in the world, that moment do I wish to pass from its management."

Atterbury went on to describe the new service that TAT would offer. Travelers would leave New York City at night aboard a Pennsy Pullman car on *The Airway Limited* to Columbus, Ohio, avoiding the difficult air crossing of the Alleghenies. At Columbus they would board a waiting Ford trimotor and fly to Waynoka, Oklahoma, then take a second night train ride, on the Atchison, Topeka & Santa Fe, to Clovis, New Mexico. The last daylight leg was a plane to the West Coast. The entire trip took forty-eight hours.

The first trip left Pennsylvania Station in New York City on July 7, 1929, with Lindbergh pushing a button on the West Coast, causing a signal to light in Penn Station, whereupon the conductor gave the highball. (A similar air-rail venture launched by the New York Central at that time was eclipsed by the Lindbergh connection—the price of that road's earlier rejection of Bixby.)

Early the next morning, actress Mary Pickford christened the trimotor *City of Los Angeles,* and Lindbergh piloted it on the first airborne leg east to Winslow, Arizona. Lindbergh was working with the railroads, but he was clearly an air man. (Visitors to the Smithsonian's Air and Space Museum today can see a similar trimotor and below it a photograph of Lindbergh in the pilot's seat of the *City of Los Angeles,* taking off that morning.)

Initially, bad weather often grounded the planes, resulting in TAT travelers having to ride most of the way by train. Pilots from other lines derisively began referring to TAT as "Take A Train." With the crash of 1929 coming only a few months after TAT's inauguration, its ridership sagged, and it lost $2.7 mil-



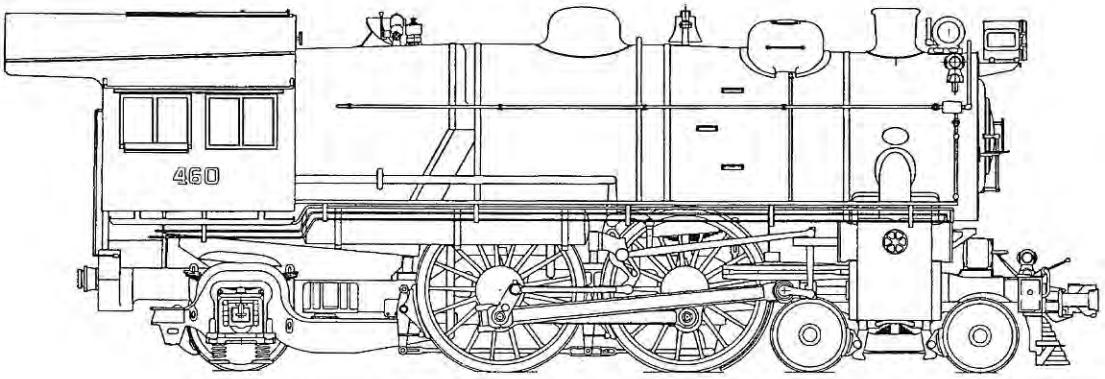
Below: On July 7, 1929, there were plenty of celebrities on hand at Penn Station for the proper launch of PRR's *Airway Limited.*

Included among the dignitaries was Amelia Earhart and actress Mary Pickford. The train's departure was initiated when Lindbergh pushed a button on the West Coast, lighting a signal in Penn Station.

RAILROAD MUSEUM OF PENNSYLVANIA

SURVIVOR OF THE ATLANTICS

by James Alexander, Jr.



DRAWING COURTESY OF SATURATED STEAM

"You routed me onto the wrong track!" Alfred "Al" Eldredge complained to the towerman at Alan early one Sunday afternoon in 1953, after backing Pennsylvania Railroad Atlantic No. 460 onto the stub track at Camden's Market Street Wharf. "I'm supposed to haul those ten Reading commuter cars back to Atlantic City; you've got me in front of these twelve Pennsy P70s. I'll never get them going up the grade from here!" The fully fueled locomotive and the P70s weighed a good thousand tons, and the grade sloped down to the Delaware River. Nary a word of complaint about the mix-up came from the engineer of the stoker-fired Reading Pacific G1 that had been intended to haul the P70s.

"Sorry, but you're going to have to try. We have too many moves jammed up to move you around," came the reply from the tower. Not to be outdone, Eldredge responded, "OK, but you get me lined up, and pass the word down the line. If I make it out of here and anybody stops me, they own the train!"

Adding to the challenge that Eldredge faced was that taking slack in the terminal was prohibited, lest the bumping blocks at the foot of the grade be smashed. It was tough getting even a regular load started under that restriction.

The relationship between an engineer and the fireman on a steam locomotive was something that either made lifelong friendships or fractured all reason. The Atlantics were hand-fired; no mechanical stokers for them. Eldredge looked over at the fireman, his longtime friend George Bailey, with the obvious question on his face. Bailey, a small, wiry man, simply said, "Well, I'm as ready as I'll ever be." Eldredge responded, "OK, let's give it a try. You just fire. I'll operate the injectors, handle the scooping at Ancora, and look for the signals."

Being a man who knew the rules but who also knew how to get a train out of a-tight-situation, Eldredge did back up to take slack, turning the big reverse lever and laying sand as he did. Two demanding blasts of the whistle assured that the signals were lined up. With the cutoff in full forward, he opened the throttle and waited for the eternity between each initial blast. As Eldredge later put it, until they got to Atlantic City fifty-five minutes later, all he saw of his fireman was the blur of his back side. The confidence in each other they built that day was everlasting—and once again, No. 460 had proven it was no ordinary engine.

* * * * *

"How fast could an Atlantic go? You'd never want to find out!" Eldredge could say with authority. The flat tangents of southern New Jersey, connecting Philadelphia with Atlantic City, provided the ideal place to find out—but even here, if the throttle was all the way open, the cutoff was never at maximum power setting. They wanted to live to run another day.

Speed was one of the Pennsy Atlantics' best-known characteristics. The United States steam speed record set by No. 7002 in 1905—when it was clocked at 127.1 miles per hour while making up lost time at Crestline, Ohio, at the head of the *Pennsylvania Special* (precursor to the *Broadway Limited*)—left no doubt about that. But with the introduction of heavy steel passenger cars on the Pennsy in 1907, something more powerful than the 4-4-2 E2 class and more appropriate than even the 4-6-2 K2 and K3 designs was needed.

Pennsy General Superintendent, Motive Power Lines East, Alfred Gibbs concluded that if the

. . . if the larger boiler devised for freight H8 Consolidations could be applied to the lighter body of an E3d Atlantic frame, with a Walschaerts valve-gear system and a new equalizing suspension system added, a more powerful and smoother-operating passenger locomotive would result. The addition of superheating resulted in the E6s, of which Pennsy built eighty-three.

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Number 460, in most respects, was an average Atlantic. In its early years, it pulled the famous name trains on the New York- Washington run and often headed the *Broadway Limited* west to Harrisburg. With the arrival of the larger K4s Pacifics, in the 1920s, No. 460 switched to hauling the hourly "clockers" between New York and Philadelphia. With less demand for them on the Northeast Corridor, the Atlantics became available for special assignments, and this is how No. 460, an ordinary locomotive, came to be something very special. Perhaps its having been the last built was an early hint, but when No. 460 found itself heading the *Lindbergh Special* in 1927, its reputation as a symbol of all speedy Atlantics was assured.

After having been leased to the Long Island Railroad in 1937 and rejoining the New York Division two years later, No. 460 was assigned to the Atlantic Division in 1942. In 1953, as one of the last three Pennsy Atlantics, it was leased to the PRSL. Railroad chronicler Paul Carleton recalls that it hit 80 miles per hour on a fan special in September 1954—just to show that even in its last days of service, it was no old slouch!

Ending its active service as the last Pennsy Atlantic on the Camden-Pemberton run in October 1955, No. 460 was dropped from the active-duty roster in January 1956. Following its storage for many years at Northumberland, Pennsylvania, with other PRR survivors, it joined the train of locomotives, consisting of much of the Pennsylvania Railroad Historical Collection, on October 4, 1969, for its final trip on the former Pennsy main line to the Railroad Museum of Pennsylvania at Strasburg. As if to protest that it was not happy about retirement, No. 460 developed an overheated pilot truck bearing and had to be set out from the train at Harrisburg. Several days later, its bearings soothed and its dignity restored, it arrived at the museum.

Number 460 today has an electric headlight similar to the one that originally replaced its oil lamp. Its original circular number plate is now the keystone that was placed on it during its active life. Its tender is that of No. 1565, an E6s also built in 1914. When it was coupled to No. 460, or whether it was the tender whose scoop initially balked during the run of the *Lindbergh Special*, is not known.

Number 460 is not operable in the traditional sense. Mechanical evaluation and restoration would cost hundreds of thousands of dollars, and the museum is not anxious to operate its precious distinguished survivors—especially not this survivor of the Atlantics. Instead, as it has responded to every challenge, it is now operating capably in another manner. It teaches history—about the ingenuity of mechanical inventions and the power of inspiration.

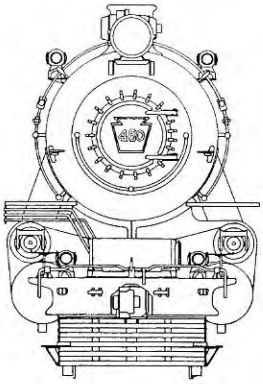
The E6 has been the subject of many models in all scales. One of the most impressive is this one-eighth-size version (1.6 scale), below, built by Brian Gittins. Parts for the locomotive are available in kit form from Saturated Steam of Miami Florida.

The mid 1930s produced a rash of streamlined locomotives. The idea was to cut wind resistance and more importantly give an old engine a new look; becoming something for the future.

The PRR's fling with streamlining included five K4s and one lone S1 (a 6-4-4-6). Apparently the railroad flirted with the idea of steamlining an E6s; here we catch a hint of what might have been.

BELOW: COURTESY MEL SASLOW, SATURATED STEAM

BOTTOM: JOHN EBSTEIN COLLECTION, COURTESY OF PENNSYLVANIA RAILROAD TECHNICAL AND HISTORICAL SOCIETY



lion in eighteen months.

PRR support of the project did not flag, however. The company's 1929 calendar artwork, titled *Harnessing the Plane to the Iron Horse*, featured a depiction by artist Grif Teller of a Pennsy K4s Pacific and a trimotor at the Columbus, Ohio, station, where a new airport had been built adjacent to the railroad. In 1931, PRR had Teller depict another TAT trimotor flying above a K4s, with the title *Giant Conquerors of Space and Time.* (This painting is on display at the Railroad Museum of Pennsylvania, with a complete collection of the PRR calendars.)

Nevertheless, the outcome was inevitable. Night flying soon became practical, weather problems were surmounted, and coast-to-coast air travel no longer depended on the train. In 1936, concluding that the airlines had little need for a relationship with the railroads and that its investment would not benefit its stockholders, the Pennsylvania Railroad sold its portion of Transcontinental, which was eventually to become Trans World Airlines (TWA).

Had Atterbury foreseen as much? Perhaps it's only the benefit of hindsight, but his pamphlet's concluding comments seem forced; their tone seems to reveal a bit of uncertainty about the future:

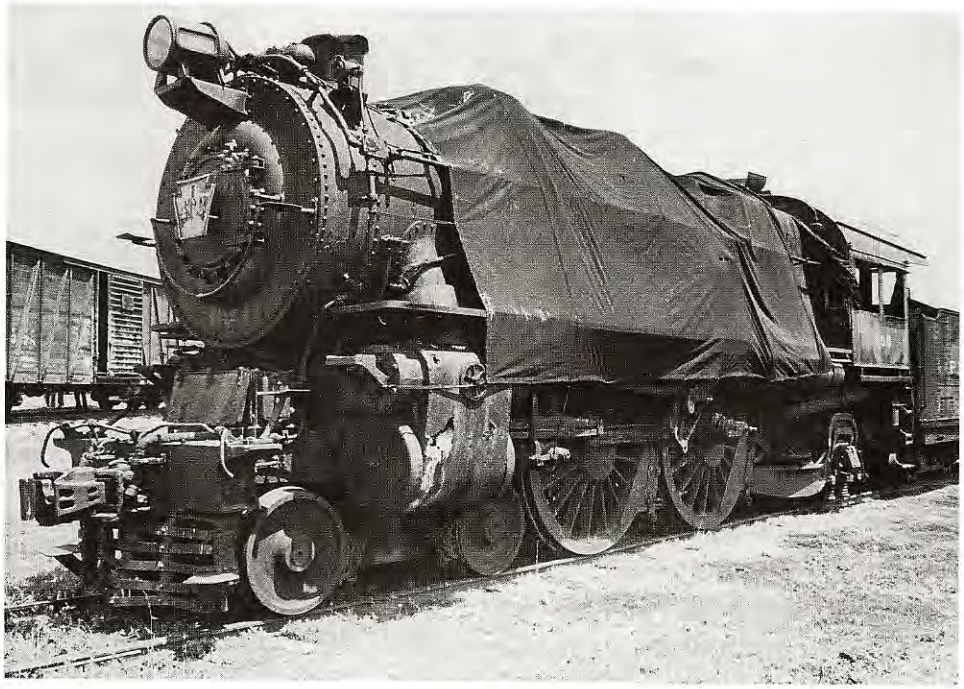
> *We are not attempting anything visionary or experimental, but only that which we feel can be sold to the public regularly and dependably and in full faith and confidence. I have no illusions about the commercial limits of airplane transportation. For a long time to come, I believe airplanes will serve in an exclusive field of their own, providing exceptionally fast transportation at a necessarily higher rate than that charged by the railroads . . . and appealing to those whose needs or*

tastes are beyond the usual.

I do not feel that the airplane will measurably compete with the train . . . but that it simply will stimulate a demand for a new form of transport . . . There are tremendous opportunities . . . for the successful operation of airplanes in their own peculiar field.

As the future would prove, the "peculiar field" of airplanes came to be most long-distance travel—which for so long had been the province of the railroads—just as shorter-distance travel was embraced by the automobile.

Decades later, one scholar was to refer to Pennsy's involvement as "General Atterbury's rather heavy-footed leap into the air." Perhaps the scholar, who was only fourteen in 1929, had forgotten the wonderment of the time, but as the following shows, the Pennsylvania Railroad did not.



E6s No. 460, out of service awaiting Class 3 repairs since April 2 this year, is the locomotive that hauled to New York the motion pictures of the Lindberg [sic] Reception in Washington after his Trans-Atlantic Flight.

Do not include this locomotive in any list of locomotives to be scrapped or sold. When it is retired from active service, arrange to have it retained as a relic for historical and exhibition purposes.

Pennsylvania Railroad Memorandum, Philadelphia, July 17, 1950, from H. T. Cover, Chief of Motive Power, to J. A. Lockard, Supervisor of Motive Power Expenditures:

E6s No. 460, out of service awaiting Class 3 repairs since April 2 this year, is the locomotive that hauled to New York the motion pictures of the Lindberg [sic] *Reception in Washington after his Trans-Atlantic Flight.*

Do not include this locomotive in any list of locomotives to be scrapped or sold. When it is retired from active service, arrange to have it retained as a relic for historical and exhibition purposes.

After completing its run on the *Lindbergh Special,* locomotive No. 460 was serviced, then went back to Washington for a publicity photo the following day. It worked until 1955, serving in the New York and Philadelphia regions and on the Pennsylvania-Reading Seashore Line. H. T. Cover's directive was carried out. In 1955, the engine joined the Pennsylvania Railroad's Historical Collection and was faithfully preserved at Northumberland, Pennsylvania.

The last extant example of a PRR E6s Atlantic, No. 460 now proudly sits on Track One at the Railroad Museum of Pennsylvania at Strasburg. Coupled to it are two other Pennsylvania Railroad survivors, a B60 baggage car and a P70 passenger coach. Together, they keep alive the spirit of Extra 460 East on that spring day in 1927, when it left the mundane world behind forever and raced into history.

James Alexander Jr. has long been involved with the ***Pennsylvania Railroad Technical and Historical Society*** *and the Railroad Museum of Pennsylvania. He contributes to many journals on PRR related topics, this is his first contribution to* ***L&RP.***

Opposite: Today E6s No. 460 reposes at the Railroad Museum of Pennsylvania. The engine was moved to the museum from Northumberland, Pennsylvania, in 1969, where it had been stored with the rest of PRR's historic collection. Above is the engine prior to cosmetic restoration.

During the 1980s the 460 had been cosmetically restored and periodically repainted as part of the museum's cyclical stabilization program. After the museum's acquisition of PRR B60 Baggage Car No. 9356 from Metro-North commuter railroad in 1985 the way was clear to loosely recreate the consist of the *Lindbergh Special.*

In 1988, the 460 was moved to a more prominent position in the museum's yard heading a train similar to the one it pulled on June 11, 1927. When the museum's new wing is completed next summer, the 460 and the two cars will be moved indoors for permanent exhibit. The museum's plan is to use the train to interpret not only the run of the *Lindbergh Special* but also railroading in the late 1920s.

OPPOSITE: KEN MURREY
ABOVE: RAILROAD MUSEUM OF PENNSYLVANIA