Dan Cupper's Remarks from the GG1 4859 Dedication
Harrisburg Transportation Center (former PRR station)
November 15, 1986

Outside the station, on Track 5, is displayed Pennsylvania Railroad locomotive No. 4859. A GG1-type engine, it made railroad history in 1938 by pulling the first scheduled electric train between Philadelphia and Harrisburg. Retired in 1979 and headed for the scrapyard, this 237-ton giant was rescued and restored as a reminder of the important role of railroading, then as now, in the economy, life and culture of both the area and the state. This is the story of No. 4859's long journey home.

On January 13, 1937, the Pennsylvania Railroad's board of directors voted to push inland with the high-technology propulsion of that era -- electric-powered trains. Since 1935, electric locomotives had proven to be highly successful on the 226-mile New York-Philadelphia-Baltimore-Washington route, replacing slower, costlier, maintenance-intensive and smoky steam engines. The company was eager, despite the difficulties of the Great Depression, to spend millions to expand electric operation and gain economies of scale. The board already had approved in principle the electrification of the Philadelphia-Lancaster-Harrisburg passenger main line, as well as freight routes that tied Harrisburg and the important nearby Enola freight classification yard to East Coast cities. This also would mean faster, cleaner and more economical service for the eastern leg of PRR's vast fleet of freight and passenger trains to and from Pittsburgh, Buffalo, Erie, Chicago, Cleveland, Cincinnati, Detroit, Louisville, Indianapolis and St. Louis.

Begun soon after the board's action, the $52 million Harrisburg electrification involved building electric substations and an overhead-wire network, or catenary system, from which locomotives collected the 11,000-volt alternating current as they traveled. This was done by means of a sliding shoe, or pantograph, mounted atop the engine. Commercial utilities supplied the power; electricity for the western end of the system came from a hydroelectric dam at Safe Harbor on the Susquehanna River. The 20-mile-long main line from Philadelphia to Paoli already was electrified for commuter trains; thus, work concentrated on the remaining 80 miles to Harrisburg.

In the Harrisburg station, the passenger bridge on which you are standing had to be jacked up between 20 inches (at the southwest, or lobby, end) and 27-1/2 inches (at the northeast end) to allow clearance for the catenary to be strung above the station tracks. This accounts for the difference in elevation between the lobby and the bridge. It was considered an engineering feat to raise this structure while keeping it open for passenger use, yet the entire jacking process took 150 men just two hours and 20 minutes to complete. When the electrification project was completed in the first weeks of 1938, just a year after authorization, several test trains were operated, some using electric multiple-unit commuter coaches and some using GG1- and P5-type locomotives.

A date and train for inauguration of regular electric service were selected: Saturday, January 15, 1938, and Train 25, the Metropolitan, a New York-Pittsburgh run normally scheduled to leave Philadelphia in midmorning and arrive at Harrisburg shortly after noon. When the day arrived, GG1 locomotive No. 4859, built in the railroad's Altoona shops only the month before, was assigned to the inaugural.

Amid much ceremony, the Metropolitan pulled out of Philadelphia's Broad Street Station to the accompaniment of sirens and locomotive whistles. After stops at Paoli, Coatesville and Lancaster, No. 4859 whisked the 13-car train into Harrisburg station at 12:08 p.m., eight minutes early. Thousands of spectators crowded the platforms as the 79-foot-long streamlined unit was uncoupled and No. 5418, a conventional PRR K4s-class 4-6-2 steam passenger locomotive, was coupled onto the train for the remainder of the trip West. Having ridden the inaugural trip, newspaper reporter Mary Regan Ross of the Harrisburg Patriot wrote that electric operation was so smooth, compared to a snorting, chuffing steam engine, that No. 4859 seemed to be "graceful as a bird, flying through the air." Later that afternoon, Train 2, the Pennsylvania Limited from Chicago, became the first eastbound electric passenger movement.

Within a few weeks, all major east-west PRR passenger trains were being moved electrically between Harrisburg, Philadelphia and New York. By April, the accompanying freight routes were converted, bringing PRR's electric track-mileage to 2,677, or 41 percent of the electrified track-mileage in the United States. Schedules were quickly rewritten and shortened.

The 139-unit GG1 locomotive fleet, built between 1904 and 1943, already was well on its way to establishing performance and reliability standards that would earn the type the title of most successful electric locomotive in America, if not the world. Capable of hauling passenger trains at 100 mph, GG1s also could lug heavy freight trains. During the surge of passenger and freight movement brought on by World War II, No. 4859 and the other GG1s kept troops and materiel moving, avoiding a repeat of the snarled East Coast rail congestion that had caused the federal government to seize and operate America's railroads during World War I. In the GG1 type, PRR had found the engine that made practical the concept of high-speed heavy-duty mainline American electrification. Electric engines spent much less time on the servicing pit, giving higher availability; PRR calculated that they cost one-half to one-third of the expense of operating a comparably sized steam engine.

Electrification west to Harrisburg and Enola was considered another step in a PRR plan that eventually would bring electric train service over the Allegheny Mountains to Pittsburgh. But after World War II, several developments converged to rule out that possibility. First, inflation in wages and material prices pushed the cost of electrification far higher than it had been during the prewar Depression. More significantly, the coming of reliable, mass-produced diesel-electric locomotives meant that railroads could modernize and retire their aging fleets of steam engines without the need for costly supporting catenary-and-substation construction. Finally, the federally subsidized nationwide highway and airport construction programs of the 1950s, combined with the

birth of the commercial jetliner, cut into the volume of all rail traffic, making it much more difficult for PRR management to justify the initial capital expense of electrification. So Harrisburg and Enola remained for years the point at which westbound trains exchanged electric locomotives for steam, and later, diesel, engines, and eastbound trains shed their steamers or diesel units for electrics. Although Conrail no longer uses electric locomotives for its freight trains, Harrisburg remains the western frontier of electrification for Amtrak, successor operator of PRR's Northeastern intercity passenger service.

Through the years, No. 4859 led many distinguished trains over PRR rails. Documented among them are the line's top three flagship runs: The Congressional between New York and Washington, and the New York-Harrisburg legs of the Broadway Limited to Chicago and "The Spirit of St. Louis" to St. Louis. Others on record are the Admiral, American, Arlington, Birmingham Special, Cavalier, Cincinnati Limited, Clevelander, Colonial, Crescent, Dominion Express, Duquesne, East Coast Champion, Edison, Embassy, Federal, General, Gotham Limited, Havana Special, Indianapolis Limited, Iron City Express, Jeffersonian, Judiciary, Juniata, Keystone, Legislator, Manhattan Limited, Miamian, Mount Vernon, Northern Express, Piedmont Limited, Pittsburgher, Potomac, President, Red Arrow, Representative, St. Louisan, Silver Meteor, Silver Star, Susquehannock, Washingtonian, William Penn, and, in Amtrak assignments, the Bay State and the National Limited.

With a decline in the number of passenger trains, many GG1s eventually were shifted to freight duty. For No. 4859, this began about 1964, although it continued to alternate on passenger trips, often running in short-haul New York-Philadelphia "clocker" service, on commuter runs over the New York & Long Branch Railroad, and on Washington-Philadelphia local train No. 400. It hauled coal trains, general merchandise trains and truck-trailer-on-flatcar "piggyback" trains.

This freight reassignment was unaffected by several rapid-fire changes affecting the Northeastern railroad industry. First came the Feb. 11 1968, merger of the Pennsylvania and New York Central railroads into Penn Central, followed by PC's bankruptcy on June 21, 1970; then came the creation of a federally chartered agency, Amtrak, to take over intercity passenger service on May 1, 1971. When PC was folded into the then-federally backed Conrail on April 1, 1976, along with a host of other Northeastern bankrupt lines, No. 4859 continued to render faithful service to its third owner, Conrail. But even the newest of the GG1s was closing in on its fourth decade, and by the late 1970s, all of their owners -- Amtrak, Conrail and the state of New Jersey -- recognized that retirement was imminent. No. 4859 was among Conrail's last 20 active GG1s, and earned one final honor before its retirement. On Nov. 21, 1979, with engineer Ed Wade at the throttle, Nos. 4859 and 4887 pulled the last-ever GG1-hauled freight train. The 113-car Train ENWI-1 left Enola Yard and traveled south along the "Port Road" line paralleling the Susquehanna River to Perryville, Md., then turned north along Amtrak's Northeast Corridor line and tied up early on the morning of Nov. 22 at Edge Moor Yard, near Wilmington, Del.

After that, No. 4859 and most of Conrail's other GG1s were stripped and prepared for scrapping. In early 1982, with No. 4859 just weeks from being cut up for scrap, the Harrisburg Chapter of the National Railway Historical Society began working with the Harrisburg Redevelopment Authority, which was overseeing a $14 million restoration of the 1887 PRR Harrisburg station, and the Pennsylvania Historical and Museum Commission, to save the engine. The aim was to acquire, preserve, restore and display it in the setting at which it had completed its historic 1938 inaugural electric run. On Aug. 17, 1982, No. 4859 was listed as an object on the National Register of Historic Places. A campaign to raise $50,000 in state, local and private funding culminated on Nov. 15, 1986, when No. 4859 was rededicated and retired to permanent display here at the PRR/Amtrak station, now known as the Harrisburg Transportation Center. Of the many styles of lettering and painting it carried through the years, this unit has been restored to its 1938 Art Deco appearance, devised by internationally known industrial designer Raymond Loewy: Five gold pinstripes and clean-lined "Futura" lettering stretching across each side, offset by small red keystones bearing the number on each side and on the ends. It looks just as it did on that brisk day when, surrounded by proud officials and enthusiastic well-wishers, it was described as being "graceful as a bird, flying through the air."