Located about midway between the original endpoints of the Pennsylvania Railroad, the Curve lies 137 miles west of the state’s capital at Harrisburg, and 111 miles east of Pittsburgh. It represents imagination and perseverance on the part of men who built it when Pittsburgh was still an Ohio River outpost for steamboats destined for far-off Cincinnati and New Orleans. It is the centerpiece of the 12-mile climb from the city of Altoona, where PRR located its main locomotive and car shops, to the summit town of Gallitzin, which sits astride the 2,400-foot-high Allegheny Mountain. The ridge marks the Eastern Continental Divide—streams on the west and south flow to the Gulf of Mexico; those on the east flow to the Atlantic.

Horseshoe Curve might not exist today had it not been for the persistence of PRR Chief Engineer J. Edgar Thomson. Founded in 1846, PRR began construction on its eastern and western sections the next year. But money ran out before Thomson could unite the two with the Mountain Division, the most costly and difficult-to-build stretch. As a stopgap measure, PRR paid tolls to use a 28-mile segment of the state-owned Allegheny Portage Railroad, with its obsolete inclined planes, for the connection.

Allegheny Portage was part of the state-owned Main Line of Public Works, which operated a joint canal-and-railroad system. By that method, it took 3½ days to make the winding 395-mile journey from Philadelphia to Pittsburgh. Because the canals didn’t run at night, Thomson had to schedule passenger trains to leave Philadelphia at 4 a.m. or 11 p.m. in order to reach the planes before dark. Even more inconvenient, the whole system went into…

The Curve

For 150 years, a celebrated landmark and train-watching paradise

By DAN CUPPER

About 336 trains a day, including helpers, rolled around the Curve when this image was made. Opposite, the Curve was engraved on PRR stock certificates.

Located in North America: Horseshoe Curve. The Horseshoe Curve. Among all the railroad landmarks of the world, this pathway over the Alleghenies—carved out of the Pennsylvania mountains 150 years ago this year—is one of the oldest and best known. As engineering feats go, it ranks as a high-ingenuity, low-tech entry. No riveting, welding, fitting, bending, forging, or tunneling was involved. Just millions of cubic feet of rock and dirt, crudely excavated by dynamite, mule, shovel, and Irish muscle, and expertly rearranged. Today, it’s still the home of the world’s busiest mountain railroad. Tourists and railfans come by the tens of thousands each season to watch the march of commerce up and down the hill. Between Norfolk Southern Corp.’s parade of freights and light helper units, and Amtrak’s Three Rivers and Pennsylvanian, the three-track main line echoes to the passage of as many as 80 trains a day.