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EUROPE

World's Longest and Deepest Rail Tunnel, Through Swiss Alps, Opens

By SEWELL CHAN JUNE 1, 2016

LONDON — The world's longest and deepest rail tunnel opened in Switzerland on Wednesday, nearly seven decades after it was first proposed and 17 years after construction began with a blast in the main shaft.

The 35-mile, or nearly 57-kilometer, twin-bore Gotthard Base Tunnel clears the way for a high-speed rail link under the Swiss Alps that the Swiss government says will revolutionize freight and passenger transportation.

The current four-hour trip between the economic hubs of Zurich and Milan will be cut by about an hour.

The ultimate goal is a seamless high-speed rail trip from the Dutch city of Rotterdam, Europe's busiest port, in the north, to Genoa, on Italy's Tyrrhenian Sea coast, in the south.

Violeta Bulc, the European Union's transportation commissioner, attended the tunnel's opening, calling the development "a milestone in European rail history and a major contribution of Switzerland to bringing Europe and Europeans closer together."

The $12.5 billion tunnel pushes the 33-mile Seikan rail tunnel in Japan, which connects the northern island of Hokkaido with the main island of Honshu, to second place on the list of longest tunnels, and the 31-mile Channel Tunnel, which links Britain and France, to third place.

But the new world record might not last long: China has announced plans for a 76-mile link between the northern port cities of Dalian and Yantai, under the Bohai Strait.

Financing for the project — a package that includes sales and fuel taxes, road charges on heavy vehicles, and government loans — was approved by Swiss voters in a series of referendums.

For the Swiss, conquering the Alps — in this case, with a 1,345-foot boring machine, unlike the elephants used by the Carthaginian general Hannibal in his wars against Rome — is something of a national obsession.

The Gotthard has been a symbol of Swiss unity going back to the 13th century, and it was later the centerpiece of Switzerland's plan of defense in case of an invasion by Nazi Germany, although that never happened. It was also the site of a 19th-century engineering feat in the Alps, a rail tunnel that opened in 1882 to great fanfare.

In 1879, The New York Times lauded that project as "adding another to the many records of man's industry and ingenuity in subduing the mightiest obstacles which nature has interposed in the way of free communication between country and country."

Another Times headline in 1880 reported "Mount St. Gothard Successfully Pierced," and two years later, the newspaper heralded the "formal opening of the newest and best way into Italy."

In 1947, the Swiss engineer Carl Eduard Gruner proposed a Gotthard base tunnel, between Amsteg and Bodio, but the route had to be altered several times for engineering reasons.

The final breakthrough, on a section between Sedrun and Faido, came in 2010. It took 125 workers in three shifts round-the-clock to install the concrete slab track on which the trains will run, with some sections as deep as 1.4 miles.

On Wednesday, religious leaders blessed the tunnel; a statue of St. Barbara, the patron saint of miners, stands inside it. Nine workers who died while building the tunnel were honored on Tuesday with a bronze plaque.

Five hundred passengers, selected from a lottery that 130,000 people entered, took part in the inaugural ride.

Among the leaders in attendance were the Swiss president, Johann Schneider-Ammann, Chancellor Angela Merkel of Germany, President François Hollande of France, Prime Minister Matteo Renzi of Italy, Prime Minister Adrian Hasler of Liechtenstein, and Chancellor Christian Kern of Austria.

After testing ends this year, around 260 freight trains and 65 passenger trains are expected to travel through the two-tube tunnel each day, reaching speeds approaching 100 miles an hour for freight and 125 miles an hour with passengers. Passenger trains are expected to eventually reach 155 miles an hour.

Goods currently carried by a million trucks a year will eventually be moved by trains instead.

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