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**Autor:** Marriott, Peter

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## **Peter Marriott**

# BREAKTHROUGH 28 April 2005 BLS AlpTransit



## Lötschberg



The team from the northern end of the tunnel move forward to meet the teams from the southern end.

ALL PICTURES IN THIS ARTICLE © BLS ALpTransit

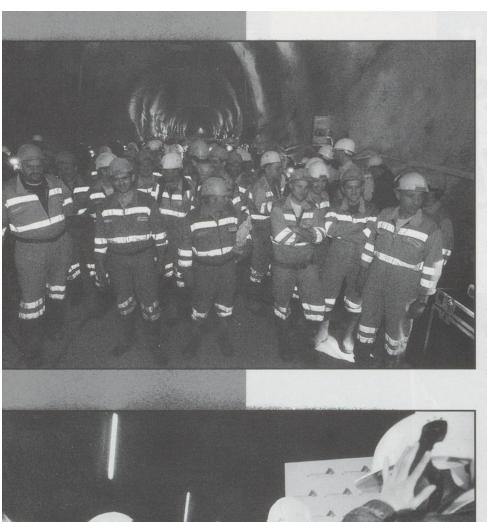
Thursday 28 April was a momentous day for the first of the two AlpTransit tunnels. It was the breakthrough for the new Lötschberg base tunnel, being the culmination of six years of excavation and drilling.

Briefly, the BLS AlpTransit Lötschberg base tunnel complex runs from Frutigen in the Kander valley in the Bernese Oberland to Raron in the Valais. It will be 34.6 km long and has been designed as two separate tunnels each with single-track lines. Both tunnels will be capable of operation in each direction. The new base tunnel will cut rail travel time between Bern and Brig by a third.

The Lötschberg base tunnel is scheduled

to open in 2007, while the 57km Gotthard base tunnel will not open before 2015. Costs have soared on both projects. The Lötschberg base tunnel complex will now cost an estimated SFr 4.2 billion, which is 31 per cent more than originally planned. While the new base tunnel is a successor to the classic route (which was opened in 1913) trains will still run over the classic route.

The base tunnel complex has been designed to adapt to increasing traffic needs in subsequent stages. Just one third of the Lötschberg base tunnel will have two operational tunnels from its opening. The eastern tube will be fully constructed and equipped







throughout its length for full operation. Initially the Steg/Niedergesteln portal western tunnel between Ferden and Mitholz will be left at the basic construction stage and only one of the tunnels at the northern end between Mitholz and Frutigen will have been driven. Around 2,500 people have been working on the base tunnel complex and sadly five workers have been killed so far on the project.

The excavation of the tunnels had to be exact. The teams from the north and south were allowed a maximum margin of error of just ten centimetres when they met up! Over 80% of the inner ring of the tunnels has already been concreted and in the southern Raron to Lötschen section the infrastructure teams are already laying the track and installing communications and power systems.

More than a thousand guests, including the Swiss transport minister, Moritz Leuenberger, attended the special ceremony marking the end of tunnelling.

"With the breakthrough we have carved out the mountain for all to see," said Leuenberger. "We are moving on." On the day there were two parties of guests to this event. One group from the south with the other from the north.

I decided to join the northern party that met at Frutigen

station at around 9am. A fleet of motor coaches took guests from the station to the Mitholz site. This was about a 15 minute drive which was then followed by a nearly 30 minute drive along the Mitholz access shaft and then along the east tube of the main railway tunnel. What a surreal experience this was! Travelling in a convoy of post buses and ASKA buses in what will be the location of 300kph express trains in just two years time!

As we descended into the tunnel complex the windows on the coach steamed up externally as the temperature rose. The outside temperature above ground was 13 degrees. By the time we had reached the location of the breakthrough activities it was more than 26 degrees!

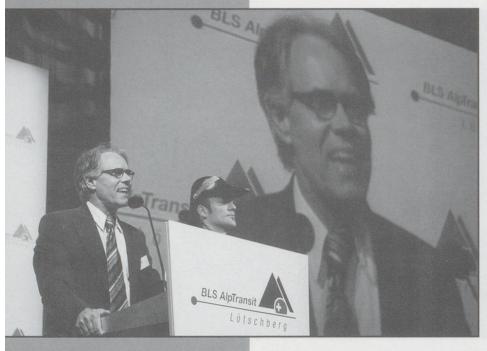
The access and railway tunnels were lit with fluorescent tubes at regular intervals. There were many lorries and tunnelling equipment parked within the complex which were

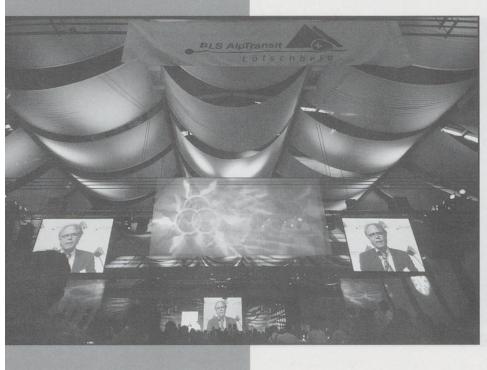
The photographs on these three pages show the celebrations. The top picture on the previous page shows the fire team and participants all wearing the issued white hard hats. Then everyone waits for the sound blast from the breakthrough detonations. The teams then meet, do a bit of kissing; assuming you can find someone suitable, note the more restrained greeting further on-and then onto the speeches and celebrations at the Kandersteg end.













covered in white dust. When the journey in the coach finished we all disembarked to walk about one kilometre along the tunnel lit with blue and red powerful lights towards the hub of the day's events which was a series of three huge screens, a large number of tables with refreshments and a raised platform for the speeches. As we left the coach the noise level was noticeable. For more than 200 metres guests walked through a series of electronic "musicians" who were reproducing sounds of the tunnelling activities on rather intricate looking equipment.

There were various speeches by AlpTransit and Cantonal officials and at around 11am the blast of the official breakthrough of the tunnel was seen on screen and felt as a swift blast of air as the dynamite was ignited. Around 40 minutes later there was a second blast and finally once the debris was cleared away teams from north and south met each other for the first time.

SF DRS had television crews at both the north and south locations and the reports interviews were beamed to the large screens for all the guests.

In just two years time the complex will be opened to rail traffic. No one could accuse the Swiss of not investing in their railways!