

## Stepwise commissioning of the new SBB Operational Control Centre at Zürich Airport

By 2016, SBB will have concentrated its operational control activities – i.e. the dispatching and control of rail traffic – at four train operating centres (Betriebszentrale, BZ). The first location, BZ West, was opened at Lausanne almost two years ago. The commissioning of BZ Ost (East) at Zürich Airport is in process; the points and signals in large parts of the Zürich and East Switzerland regions are already being controlled from there. BZ Süd (South) is under construction at Polleggio (southern end of the Gotthard Base Tunnel). The work for BZ

Mitte (Central) has started at Olten. On 17 January 2012 SBB allowed the media a look inside BZ Ost installed in the “Operation Centre 1” at Zürich Airport. It was not easy to reach the new nerve centre of railway traffic punctually on this day, as several disruptions caused operational chaos on the rail network. In the two large control rooms on consecutive floors, which together form the heart of BZ Ost, there wasn't much sign of the chaos “outside”. Calm and concentrated, the traffic dispatchers and movement controllers carry out their work. The view

from the window is of starting aircraft, not of passing trains.

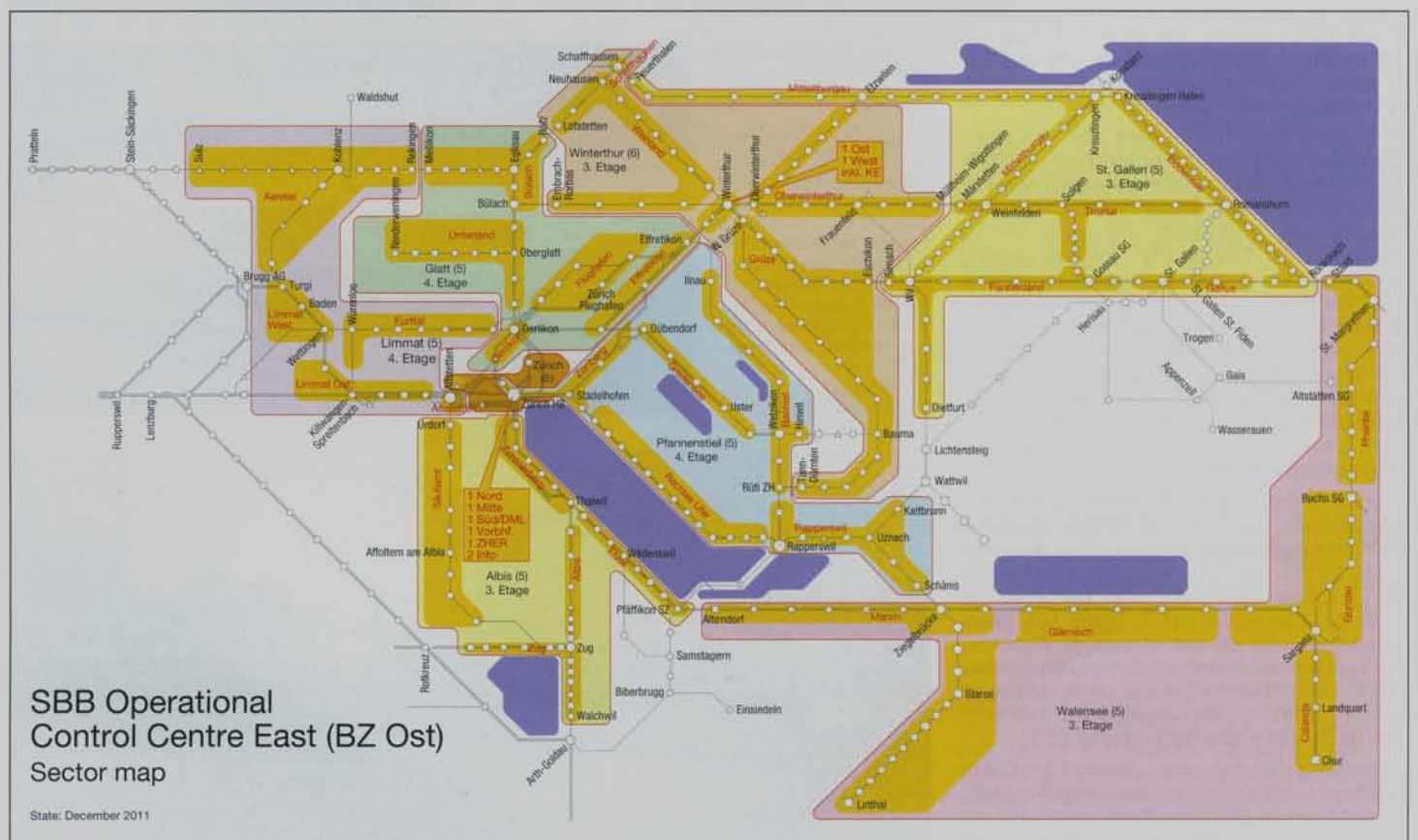
According to SBB, the premises at the airport, previously used by air traffic control (Skyguide), are an ideal location for an operating centre. Important preconditions, such as those concerning emergency power supply and earthquake safety, are already fulfilled. Before the stepwise commissioning of BZ Ost began in December 2010, SBB converted the premises – which are rented long term – for CHF 32.5 million. Much of the money was used for setting up the technical infrastructure, including (inter alia) 54 telecom cabinets and 128 kilometres of network cable. The services in the fields of emergency power, cooling, informatics and access control will be purchased from Flughafen AG. SBB emphasises that this all works out much cheaper, even in the long term, than with the originally-planned new building in the city of Zürich.

The previous functions of the traffic control centres (Betriebsleitzentrale BLZ), responsible for wide-area regulation of rail traffic, and of the remote control centres, which control the points and signals in the stations



Left: The elegantly-designed reading room is only one of several recreation rooms (photo: A. Schmutz).

Below: BZ Ost area of operation showing the eight sectors (graphics: SBB/Minirex).





One of the two control rooms; setting up the work-places (in the foreground) (photo: J. Lüthard).



and carry out BLZ orders, are now pooled in the train operating centres. Both of the two control rooms of BZ Ost have four sectors of ten or eleven workplaces each. The dispatcher and his assistant work in the centre, while the desks of the movement controllers, each with eight to ten monitors, are arranged around them in two semi-circles.

Depending on traffic density an individual movement controller is in charge of only two to three stations or of entire routes with a dozen or more stations (see map). Regular operation is largely automatic; intervention is only necessary if something abnormal occurs.

SBB expects marked improvements in communication and coordination from the integration of remote control and traffic control centres. This should also improve the standard of customer information in the case of disruptions. The lack of proximity, i.e. dealing with a distant fault in Chur, for instance, from Zürich Airport, is not considered a disadvantage.

The Chur, Walensee, Glarnerland, Lake Zürich South Bank, Zug, Limmattal, Winterthur and Affoltern am Albis regions are already controlled from BZ Ost. The St. Gallen region – the last “large chunk” for the time being – will follow suit in June 2012. The commissioning of the Zürich cross-city link (“Durchmesserlinie”) in 2014/2015 will also see the integration of the Zürich HB and Zürich Oerlikon stations, and the Zürich Oberland (Uplands) and Lake Zürich North Bank regions.

Along with the two large control rooms, BZ Ost has a technical centre which monitors the status of the infrastructure, also around the clock, and intervenes when necessary. There are further workplaces for the post-processing of events, operational planning, competence centres for information technology and telecom specialists, as well as other fields. There will finally be 480 people working at BZ Ost, 410 of them in shifts.

There are many recreational rooms and facilities available for personnel, for example, a well-equipped kitchen, a billiards room, a TV room and separate rest rooms for men and women. A wheelchair-accessible shower facility has also been included. These amenities, which are well above the average standard for SBB, compensates to some extent for the very long commuting distances which many of the staff are now faced with. Even those living close to the airport have to come to work by car if their shift starts at 4 a.m.

At present, still around 60 % of the dispatchers and movement controllers at BZ Ost have had “classic” railway training, i.e. starting with an apprenticeship in operational management. Some of the remaining 40 % were trained as rail traffic controllers after commercial apprenticeships in public transport, and some after non-railway jobs. During 2012, 22 apprenticeship places will be offered at BZ Ost for newcomers. The average age of the staff is currently 42.5 years. (mr)

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