Tunnel training for Airport Schiphol

Seven tunnels, including a 5 800 m long railway tunnel and a four-tube road tunnel, are the responsibility of the Fire Brigade Amsterdam Airport Schiphol. "A fire in the railway tunnel would have similar or maybe even greater effects than a plane crash – even if the danger is less obvious", emphasises instructor Bart Videler. At the International Fire Academy he prepared himself and ten other colleagues for managing possible incidents in tunnels.

The railway station comprising of six tracks is built beneath the Schiphol Plaza, the central lobby of the airport. As an intersection of the Dutch railway system, this station is connected to the European high speed rail link. Many of the 55M air passengers each year use the intercity and shuttle train lines to get to the fourth largest airport in Europe. Airport Schiphol is, with its freight volume of 1.6M tonnes, one of the busiest in Europe after Paris and Frankfurt/Main.

Waterwolf-Tunnel opened in 2013 and is the latest road tunnel at the airport. It is part of the provincial road N 201, one of the arterial roads in the area of Amsterdam. The tunnel is situated directly at the airport Schiphol, runs parallel to the runway and is 1 000m long, of which 700m are built in closed construction. The preparations for an exercise before the tunnel was opened revealed: no consistent procedure for incidents in tunnels existed within the Dutch fire services. This discovery and further investigations lead the Fire Brigade Amsterdam Airport Schiphol to Balsthal.

"After a short visit, there was no question of going to the International Fire Academy. The available knowledge and possibilities are unbeaten in Europe", says Bart Videler, explaining how they ended up training in Switzerland.

Training instructors for railway and road

At the airport Schiphol area, 140 firefighters are responsible for aircraft accidents, fire and other incidents – including railways, roads, facilities and fuel depot. The complete supervised area equals the spatial extent of the city Bale. As an addition supervision contracts with companies located to the airport have been made, for example Royal
Dutch Airlines KLM or the kerosene vendor Aircraft Fuel Supply. This results in a wide range of tasks. In order to train their firefighters specifically for tactics and techniques in tunnel operations, at first the instructors of the fire brigade were trained in Balsthal and Lungern. It was their goal to be able to provide training for their members after completing the course. Training courses for crewmen are planned for a later date.

Besides the instructors of the Fire Brigade Amsterdam Airport Schiphol, officers of the local fire services Kennemerland and Amsterdam-Amstelland participated at the Train-the-Trainer program, which is held in English. The common training is also due to special circumstances at the Waterwolf-Tunnel: it connects the two districts of Aalsmeer and Haarlemmermeer and also the safety regions Amsterdam-Amstelland and Kennemerland, resulting in a mutual responsibility for both fire services.

No two tunnels are alike

Tunnels in the Netherlands are comparable with those in other European countries. Modern tunnels are equipped with separated tubes, early warning systems and marked emergency escape routes. However, the following principle applies: no two tunnels are alike or equipped in the same way. For this reason an individual preparation and coordinated procedure is necessary – especially if there are several fire services responsible for one tunnel, which have to be coordinated in the event of an incident. Practicing together, with plenty of training elements, provides the best conditions.

Theory, simulation and practical exercises

An introduction to the basics of the operation principles, along with the running through of several scenarios at the beginning of the training, prepared the 11 participants for the next three days of intensive training. The Dutch officers spent a day at each of the railway and road training areas of the tunnel training facility in Balsthal, followed up by another training day in Lungern. Following the training each exercise was discussed with the instructors Markus Vogt as responsible commander, Pascal Eichmann, Ulrich Roth and Andreas Schneider, in order to maximise the experiences gained for the next exercise.

Benefits not only for tunnel incidents

“We can use parts of the Swiss method not only for tunnel fires, but also for other incidents”, commented Bart Videler to the additional benefits of the training. "As an example we are thinking of using search canes, LED-flare-markers and a search squad in our luggage transport system." The experience gained in Switzerland provides the fundamental elements in order to develop a custom-fit operation procedure. Parallel to the ongoing daily operations, tactic and technique elements are integrated into smaller exercises and practiced with the crew.

«The Training left a deep and lasting impression with us. The facility is marvellous, everything is organised very well and the contents are outstanding.»

Bart Videler, instructor, Fire Brigade Amsterdam Airport Schiphol.