CTIF Aviation Group Meeting 2019
Latest Design of Aviation Fire Training Facilities
Underground Transportation Facility Firefighting
ARFF TRAINING FACILITY DESIGN
UNDERGROUND TRANSPORTATION
ARFF TRAINING FACILITY DESIGN
ARFF Training Facility Design

**DUS Design Example**

- A350 Wide Body Aircraft
- 40m Length
- 5m width
- 22 internal / external Fires
- 120 m² Transportable Fuel Spill
- Combined Trainer
- ARFF / Structural Fire
- Hot Door
- 2 Flash Over
Design Concept DUS
Design Concept DUS
Site Plan Media/Infrastructure Design (example)
Site Plan Construction Details (example)
AIRPORT UNDERGROUND TRANSPORTATION FIREFIGHTING
Airport Underground Transportation Firefighting

Prepared for the worst...
Airport Underground Transportation Firefighting

Prepared for the worst...
Getting to the Airport...
Airport Underground Transportation Firefighting

Getting to the Airport...
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Statements...

“A fire in our metro station would be the second worst scenario. The number of affected people could be even bigger than in an aircraft crash”

*Bart Videler, Officier preparatie, Schiphol Airport Fire Brigade*

“The technics and tactics we trained in aircraft fire fighting can not be used for firefighting in underground transportation facilities”

*Helge Schill, Chief Fire Officer, Berlin Tegel Airport*

“We implemented what we’ve learned at the International Fire Academy in our standard training program”

*Pascal Eichmann, Team Leader Education, Zurich Fire Brigade*
Underground Transportation Firefighting

Five-day training in a tunnel

It was an extraordinary project for all: five days of training in the railway tunnel under the airport BER Berlin Brandenburg. Preparations took a period of six months to enable about 150 firefighters to train firefighting procedures under the airport terminal.

A one-day training session for each group Monday morning, 9.30 a.m. Preparations have started about half an hour ago in the station under the airport tunnel. Eight courses from the long-distance and regional trains are ready. The entire track area must be prepared until 9 a.m. Then begins the first of five training days for the airport fire service, the fire services of the administrative district Dahme-Spreewald and Teltow-Fläming as well as the fire service of Berlin. The training goes on until 5 p.m. with the detailed scenarios, firefighting and search and rescue, as well as one combined exercise. At 6 p.m., the last one will be leaving the tunnel.

The next morning, the technicians are back early to check the grounding and to open the area for training again. In order to plan, organise and safely implement the training, more than 40 people were involved intensively on the part of the railway companies alone.

Making use of the opportunities

Training in a tunnel, which in the event of an accident can become the scene of operations, offers unique opportunities. The long distance, the location of the infrastructure, each action is experienced one-to-one. In addition to the individual actions of key persons, it becomes clear whether the procedures are overall coherent and manageable in the planned time. In order to gain as much experience as possible from an exercise in the tunnel, Martin Vogt, senior instructor of the International Fire Academy, adjusts the fire services to do an intensive preparation. This goes beyond the planning of the exercise content: All participants should at least have a prior theoretical knowledge from individual lessons and training must be prepared. In addition, two instructors from the International Fire Academy have locally supported the training,” says Martin Vogt. He was accompanied by Marcel Schillerger, also a senior instructor. The two worked together with fire trainers from the airport fire service, who had previously completed a two-train course in Switzerland. If the fire services improve everything that has been noted during the exercises”, says Martin Vogt, “then they will have a tremendous performance increase.”

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”, emphasizes instructor Bart Videlier. 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 extension of the Dutch railway system, this station is connected to the European high-speed rail link. Many of the 35M air passengers each year use the Intercity and shuttle train lines to get to the fourth largest airport in Europe. Amsterdam Schiphol is, with its freight volume of 1 600,000 tonnes, one of the busiest in Europe after Paris and Frankfurt/Munich.

Waterhall Tunnel opened in 2013 and is the latest road tunnel at the airport, it is part of the provincial road N201, 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 1 000 m long, which 700 m are built in closed construction. The preparation for an exercise before the tunnel was opened revealed: no consistent procedure for incidents in tunnels existed within the Dutch fire service. The discovery and further investigations led the Fire Brigade Amsterdam Airport Schiphol to Batunet. “After a short while, there was no question of going to the International Fire Academy. The available knowledge and possibilities are on offer in Europe”, says Bart Videlier, 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 ground, roads, subways and road tunnels. The completely separated risk areas equal the spatial extent of the city. As an addition to the trainees with comparable tasks linked to the airport have been made, for example Royal
Platform for a new Perspective!

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