

# XR ARFF-Training



eXtended - Reality  
for Airport Fire Brigades



**ILLUSION WALK**  
IMMERSIVE EXPERIENCE PROVIDER



# What is XR ARFF-Training ?

XR ARFF-Training is the most advanced platform to train airport fire brigades for their dangerous mission of aircraft rescue and fire fighting. In the highly realistic environment of a virtual aircraft teams of 5 firefighters can improve their skills in the most effective and intuitive way without any risk but saving cost and natural resources.

Equipped with Head Mounted Displays and high-performance backpack PCs the users experience various scenarios of aircraft cabin fires. Natural movement and real branches in their hand creates an extreme immersive feeling and the best mental preparation for firefighters.



An easy-to-use interface supports the trainer to create scenarios, set tasks, direct the training session interactively, mark important moments, give a detailed debriefing and document everything with a push of a button.



# Training Content

- Up to 5 user in one scenario
- 2 aircraft types: A320 / B767
- Different locations at airport
- Various weather conditions / day / night
- Different fire types in multiple locations
- Virtual passengers with injuries
- Realistic branch and IR-camera

## Full Scale Missions

Training includes all relevant steps of a ARFF cabin-fire incident:

- Alarm & Approach
- Entry Selection
- Door Opening
- Cockpit Procedures
- Search & Rescue
- Fire Fighting
- Smoke Ventilation





# Designed for Trainer

- Scenery surveillance from all views
- Control of fire spreading
- Control of smoke colour and density
- Simulation of various malfunctions
- Virtual heat exposition of users
- Pulse-indicator of user
- Recording of all interaction and communication
- Debriefing with video-player from all views
- User data, times and water consumption
- Automated documentation
- Library of scenarios

# Perfection in Didactic Goals

The XR ARFF application focuses on key capabilities of firefighters

Procedures  
Communication  
Teamwork  
Risk Awareness  
Leadership

Stress Resilience





# Benefits of XR Training

Offers a wide range of different scenarios

Worldwide unique XR team training up to 5 firefighters

Most effective didactic methods

High throughput by fast set-up, automatic documentation and instant debriefing

Platform installations at the airport allows fast and flexible training opportunities

Reduces cost of expensive real-fire training

Saves resources and prevents carbon emission



XR ARFF-Training is the perfect addition to existing preparation programs and raises the qualification to the next level.

# Technical Features

The XR ARFF-Training platform is based on the ImmersiveDeck technology, a marker-based inside-out tracking system for large scale, multi-user applications. This system allows to install the marker in nearly any location with the size of 10m X 20m. Whether it is an office room, a gymnasium or vehicle hall, while keeping those premises suitable for dual-use. The initial installation process with mapping the precise marker positions is highly automated by a robot.

The hardware includes:

- 5 ImmersiveSuits with Backpack PC, Head Mounted Display, IR-Handtracking, Headset, TrackingCam

- 2 tracked and operational branches

- 2 cases for virtual IR-Cam

- Trainer-Desk with Server-PC, 2 monitors

- Wi-Fi Infrastructure

- Spare batteries

Remote Trainer Access via Internet

All data is stored locally

No connection to airport network needed

Online updates and support

Technical Service for hardware



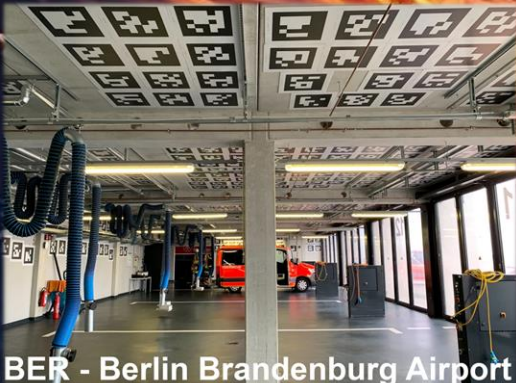
# From Experts for Experts

The XR ARFF Training was developed by Illusion Walk in close cooperation with the Fire Brigades of the AIA - Athens International Airport and BER – Berlin Brandenburg Airport



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BERLIN  
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INTERNATIONAL AIRPORT  
ELEFTHERIOS VENIZELOS



BER - Berlin Brandenburg Airport



Athens International Airport "Eleftherios Venizelos"



# Illusion Walk

Illusion Walk KG is a Berlin based company with 10 years of experience in large.-scale XR platforms.

We provide concept, technology, production and service for high immersive training applications.

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