



KA210-VET - Small-scale partnerships in vocational education and training

Improving Firefighting Skills for Efficient Use of Environment Friendly Extinguishing Foam Agents

EcoFoamFight

Project No. KA210-VET-11/21

Evaluation of Pilot Training Results

Evaluation of Trainings with Driving Simulator and Pilot Practical Training With Non-Fluorine Foams

TRAINING PROGRAMMES

Both partners agreed to prepare two training programmes separately which can easily be merged finally to one general Programme for airport firefighters using non-fluorine foam and including digitalized processes to decrease environmental impact. Decision was to conduct first digitalized part with driving simulator with minimum 25 participants from both airports. 6 trainings were conducted with 52 participants. At the end of the project, we also conducted one pilot practical training with 12 participants from both airports.

EVALUATION OF THE SIMULATOR TRAINING

We evaluated trainings with final briefing after each training. The duration of the training was fine. The number of participants for such training was on upper side (8-10). The optimal number of participants would be 6-8 participants. Digital scenarios prepared were sufficient and included different sizes of airplanes on fire. This was very important since participants were coming from one big and one small airport. Very positive was the exchange of approaches, tactics, and procedures which due to participants' opinion was an added value for such project. The majority of participants shared opinion that using digitalized scenarios can be of big value in following areas: driving to the scene, positioning of vehicles in cease of different fire scenarios, manipulation with control board for operations and duration of scenarios.

Participants were not completely satisfied with digital impression in cases of using – throwing the foam on the surface. That cannot completely replace the practical training.

Considering all factors of using digitalized fire scenarios on driving simulator, both partners concluded that the use of digitalized fire scenarios in training of airport firefighters can replace regular practical training in appx. 30%. That can have very positive economic impact at training and of course significantly reduce environmental impact such as live driving of heavy crash tenders and burning of fossil fuels. There is of course another important factor that firefighters are less exposed to high temperatures and toxic gasses.

EVALUATION OF PRACTICAL TRAINING WITH THE USE OF NON-FLUORINE FOAMS

During and after the 4 days practical live fire training we had detailed briefing about all phases of the training.

Practical training started with small scale tests using different foam agents and different types of foams. Those simple tests also showcased the use of new non-fluorine foams and therefore were very good starting point for their use on large-scale scenarios. Such approach was extremely well evaluated by participants.

The second step consisted in testing all equipment for producing foam with non-fluorine foam agent. We tested all equipment which can be used in different scales of scenarios from hand hoses to turret on heavy vehicle. The feedback from participants was that both partners use very similar equipment, and that this equipment is suitable for non-fluorine foam.

Next steps were first live fire scenarios with hand hoses. We conducted different scenarios inside of an airplane, small scale outside scenarios, helicopter scenarios and scenarios with pressurized fuel leakage. Results were very good and non-fluorine foam gave good results in those scenarios.

On the day 3 we did large scale scenarios with heavy fire trucks. We prepared 3 big scenarios: aircraft engine fire, main gear fire and fuel spill fire on 100 square metres. Procedures went fluent except one detail. Such intensive practical work brings huge amounts of foam on training field. The solution for better and more efficient work is to divide those exercises in 2 days (first day afternoon and second day morning). This is logistical challenge we were facing. Results were in accordance with our expectations. Non-fluorine foam gives sufficient results also on large scale scenarios.

Last day of the course we prepared combined exercise with mixed teams from both partners. Objective was to combine different scales of scenarios and to have joint work of firefighters from both airports. Exercise was fulfilled successfully. All participants were highly motivated and satisfied with all the work they have done.

SUMMARY

All activities during the project, especially the last part showed that during the project we got very good results which can be big improvement for all airport firefighters in EU. For airports is also important that firefighters are constantly in line with trends of finding environment friendly solutions with no impact on operational preparedness. With these results we are showing that this is possible and we are making possible new trends in this area.

Also, we proved practically that the use of non-fluorine foams is efficient and that environmental restrictions will not affect firefighters on EU airports after replacing old foam agents with new environment friendly ones.

Both partners will also in the future promote results of the project within EU, especially through "CTIF firefighting at airports Commission" where 20 countries are on board.