

## **Abstract of the Minutes**

### **Kick-Off Meeting 21 – 23 October 2009 at the Guttasjön International Competence Centre and the main Fire Station in Borås, Sweden**

In the discussion, there was general agreement that the objective of FIREFIGHT II is to supplement FIREFIGHT I, which has produced e-learning and training for firemen, with a Cutting Extinguishing Concept (CEC) vocational education and training package for fire officers, fire intervention commanders and fire chiefs. The final results of both Projects will form a coherent education and training system on the Cutting Extinguishing Concept (CEC). Common definitions of Strategic Goals for FIREFIGHT II, Strategy for Contingency Planning and Tactics were accepted for the purpose of focusing and facilitating the work in the Project. FIREFIGHT II will not review the command and control systems in general but focus on the CEC strategic and tactical aspects.

Basic scenarios were adopted and these will serve as a general platform for the work, taking into account that building and construction differs from one country to another which may lead to a need to review or supplement these scenarios in the course of the Project. The importance of also taking into account practical experiences from interventions was underlined. MSB is considering the possibilities for establishing a databank on experiences from interventions when the CEC. Södra Älvsborgs Fire & Rescue Services conducted practical demonstrations the results of which are documented in the Power Point Presentations How to Employ the FIREFIGHT Model (CEC), Within 20 Seconds and Extinguishing a fire inside a building within 60 seconds, which form part of these Minutes. The presentations and the basic scenarios can be found on this website.

In the discussion of the work packages, it was recognized that there was a need for close collaboration between these. The establishment of this collaboration is under the responsibility of the Work Package Leaders and can be achieved through direct contacts and at a later stage in the Project through possible small working group meetings with specific tasks. There was support for a proposal to develop performance indicators to measure results and establish a baseline. In the further deliberations within the Project, the importance of not only providing education and training but also changing the thinking/mentality of the fire officers to use the CEC as a natural methodology should be addressed. In this context the dissemination and different outreach actions for instance to relevant organisations within a Communication Plan were stressed.

A representative of the International Programme Office informed about the Leonardo da Vinci Programme, Vocational Education and Training (VET), and the administrative and financial provisions related to the Project. A timetable for Reporting and follow up of the working days/half

days was presented and adopted by the Meeting. The importance of the obligation of the Project to conduct dissemination, i.e. spreading successively information about the Project and its results, was underlined.

## **Meeting documentation**

- PPP General Overview of the FIREFIGHT II Project
- International Programme Office PPP
- Demonstration of the FIREFIGHT I e-learning package
- Demonstration of the fire simulations elaborated in FIREFIGHT I
- ASELF PPP on Decision Support
- PPP of basic scenarios
- SERF introduction PPP of WP 2
- PPP of the Training Centre of Fire Protection in Brno
- Kick-Off Meeting draft Agenda
- Template for FIREFIGHT II documents
- Timetable for reporting and follow up of the working days/half days

## **Abstract of the Minutes**

### **FIREFIGHT II Meeting Wednesday 17 – Friday 19 March 2010 in Madrid**

WP 2 and WP 4 conducted in collaboration a test of the use of IR technology for scanning various arranged fires within a furnished building using a number of IR cameras located around the building, combined with cameras for documenting simultaneously visual observations. Thereby comparisons can be made of the IR data with the observations of the various arranged fires within the furnished building. The input from the IR cameras formed a basis, as part of an information and decision support system, for assessing the situation and testing different strategies and tactics as well as different methodologies and combinations of these for fighting the various fires inside the building.

An introduction was made to Decision Support in Fire Fighting Operations under the titles Activation, Intervention, Reestablishing Normal and Evaluation/Post Intervention. The Activation is initiated as a result of the initial information on the incident and complementary information

covering the needs for the intervention. Gathering information concerning the fire through scanning and supplementary critical information is the main goal for enabling an analysis and setting priorities and strategies for the operational decisions. An action plan is made for the use of available resources and maintaining necessary safety conditions, including accepted risks, and tasks are assigned. The plan has to be adaptable to the evolution of the incident through continuous evaluation and monitoring of the tasks and environmental consequences. The incident commander has to ensure the functioning of the response organization and general coordination as well as coordination with other stakeholders. The operation will also consist of measures for the recovery of infrastructures and control of secondary damage as well as in the post intervention phase evaluation and lessons learned.

The Fire Fight Decision Making Model provided by the UK Government to the fire and rescue services was presented. This model that can be applied to the Incident Command and individual tasks/events throughout the incident and will through continuous application ensure quality decisions based on all available information and the resulting outcomes, that can be effectively controlled. The objectives need to be prioritised in the early stages of an incident and are based upon the following;

- Saving life
- Minimising fire spread
- Extinguish fire
- Control damage
- Protect environment

In setting detailed objectives, the primary concern is the reduction of risk to people. Objectives that expose members of the public or Fire Service to unnecessary risk would not therefore be acceptable. When new information is received, the Incident Commander will need to consider whether the objectives set, and their prioritisation, are still appropriate. After setting and prioritising objectives the strategy and tactics are planned. It will be necessary to ensure that resources are allocated appropriately, and that the actions taken comply with the plan, and that Safe Systems of Work are put in place. The Dynamic risk assessment should be continually reviewed during the implementation of the plan - if the risks are not proportionate to the benefits of taking the action, additional control measures should be introduced. On each occasion that new information, from any source, is introduced, the Incident Commander will use the Decision Making Model to evaluate the objectives, plan and

exercise control in light of this information. This will ensure that Safe Systems of Work are being maintained and resources are being used to best effect.

The Report the Cutting Extinguishing Concept (CEC) – practical and operational use –, which Södra Älvsborg Fire & Rescue Service (SERF) in collaboration with the SP Technical Research Institute of Sweden has elaborated and submitted to the Swedish Civil Contingencies Agency (MSB), was presented. The Report contains the results of the scientific studies on the basis of reported and documented experiences from almost ten years practical implementation of the Cutting Extinguishing Concept (CEC) or methodology for fighting fires indoors from outside the firefighters the burning building or compartment. Also the possibilities for implementing the simulation programme <http://www.digitalcombustion.com> on the FIREFIGHT II scenarios in the development of the strategies and tactics were introduced.

In the following discussion, it was recognized that the presentations demonstrated that the Project Partners had in general a common approach to the strategy and tactics for fire fighting interventions, which should be seen in the scope of setting operational objectives and establishing plans. There was agreement to continue work to establish a common structure or model, based on the presentations under the leadership of SERF and ASELF. Such a model could serve as an input to the elaboration of the education and training on Strategy and tactics and Surveillance/assessment/decision support. The need for taking into account the practical experiences from the implementation of the CEC in fire fighting interventions was underlined. The work undertaken by MSB to create a databank on such experiences and lessons learned was welcomed.

The participants split into two working groups, WP 3 Safe working environment and minimize environmental consequences and WP 5 E-learning and WP 6 Exercises and drills (education and training). In the discussions of the group on safe working environment and minimize environmental consequences, it was recognized that influence should be exercised on strategies and tactics before the intervention based on inputs from human sources and IR camera scanning, during the intervention when choosing between conventional means inside the burning building, external extinguishing with COBRA, the use of PPV in an attack or from outside the fire compartment and monitoring the evolution of the fire and changes in the environment and finally after the firefighting intervention with natural or forced ventilation combined with checks conducted by using an IR camera. Measure to minimize the environmental consequences in general are a natural integrated part of this process.

FIREFIGHT II should also establish a dialogue with inter alia the health and safety and environment protection stakeholders to reach the overall aims of the Project and for this purpose an open seminar is planned to be organized. The seminar also serves the purpose of disseminating the Project's results more widely. The working group was aware of the importance of the seminar and therefore found that it was necessary to have

more time than anticipated for preparing the seminar but also being able to present concrete Project results at it. The seminar will be aimed at gathering key persons involved in matters related to a safe working environment for firefighters and minimize environmental consequences of the firefighting which means that the quality of it must be high. In consequence the seminar should be postponed until the end of this year or the beginning of next year.

The group on E-learning and Exercises and drills (education and training) considered how the e-learning and practical training could be integrated with the training of intervention commanders and fire chiefs. It was found necessary to continue work on defining more in detail the requirements for the development of the education and training of the target group for FIREFIGHT II. It was also recognized that the intervention commanders need to have knowledge of the basic training of firefighters in the CEC, and vice versa the firemen should also be given a general understanding in the area strategy and tactics.

In conclusion, the strategy and tactics for fire fighting interventions should be seen in the scope of setting operational objectives and establishing plans. Work will continue to establish a common structure or model based on the presentations and discussions at this Meeting. This will serve as an input to the elaboration of the education and training. There is a need for taking into account the practical experiences from the implementation of the CEC in fire fighting interventions. The results of the test of the use of IR technology for scanning will be coordinated with and presented in a similar way as the simulations developed in FIREFIGHT I. There is a need for pursuing the work in relation to all the different FIREFIGHT II scenarios.

### **Meeting documentation:**

- draft Agenda
- draft Plan for Dissemination
- compiled extracts from the application and contract regarding the objectives of the FIREFIGHT II Project
- an introductory PPP of the main theme and aim of the Meeting
- PPP Financial Information concerning the Project
- SERF/SPs Report the Cutting Extinguishing Concept (CEC) – practical and operational use
- ASELF PPP on Decision Support in Fire Fighting Operations
- NFRS PPP of the Fire Fight Decision Making Model
- SERF PPP introduction to implementing the simulation programme <http://www.digitalcombustion.com>

Each Work Package Leader was provided with introductory PPPs incl. aims and deliverables for the respective working groups