



RESEARCH FOUNDATION

RESEARCH FOR THE NFPA MISSION

PROJECT SUMMARY

Crew Resource Management (CRM) Training Development for the Fire Service

1 March 2020

Background: The aviation industry has long adopted crew resource management (CRM) protocols to enhance safe operations and foster a team environment to improve safe behaviors and reduce risk. While there have been a few CRM guidelines published in the fire service, there has been no sustainable fire service specific CRM curriculum put forward. Although industries such as aviation and healthcare have long utilized CRM, CRM training protocols specific to engaging the fire service (e.g. emergency responder protocols, training environments, and chain of command structure) need to be developed.

Research Goal: The goal is to leverage successful CRM training programs used in other industries to develop a set of curriculum and training guidelines for the fire service for both initial and recurrent training to review and reinforce CRM principles, which can also be integrated into Fire Academy and Leadership Training.

Implementation and Schedule: This research project is led by the Illinois Fire Service Institute (IFSI) at the University of Illinois at Urbana-Champaign with collaborative support from the Fire Protection Research Foundation (FPRF). Funding for this project is through a two-year DHS/FEMA Assistance to Fire Fighter (AFG) Fire Grant. The principle investigator for this project is Dr. Terry L. von Thaden (email: vonthade@illinois.edu)

Project Participants: The Project participants include the following:

- Research Team at University of Illinois at Urbana-Champaign.
- Subject Matter Expert (SME) working group, appointed by the research team, with representatives from aviation, healthcare, NASA and the fire service that have experience with implemented CRM programs.
- FPRF Fire Service Stakeholder Panel, made up of a diverse set of fire service stakeholders from a broad cross-section of the fire service including large and small departments, career and volunteer, and key organizational representatives.
- FPRF Staff, primary point of contact for the FPRF stakeholder panel.
- Host of the pilot test site – LA Fire Department
- Contributor of template CRM program and the advisement of a CRM director – United Airlines

Project Tasks:

Task 1: Appoint FPRF Project Technical Panel. A project technical panel of at least 10 members will be appointed, where at least eight of the members are from the emergency response community. This

Task 2: Development of Fire Service Specific CRM Curriculum. Under the advisement and review of the FPRF stakeholder panel and working with the LA Fire Department, the research team and the SME working group will develop a fire service specific CRM curriculum, by attending and utilizing United's CRM training program and adapting and building teaching units to integrate into Fire Academy Training and Leadership Training.

Task 3: Pilot Test. The developed CRM program will be pilot tested with one or more fire departments to integrate the program into the classroom and practical exercises. The program will be revised based on feedback received from the pilot test.

Task 4: Dissemination and Outreach. The project deliverables (e.g. CRM curriculum and training guidelines) will be disseminated to various fire service audiences. The final report will be linked to the Research Foundation's website and presentations will be submitted to key stakeholder meetings.

Deliverables. The deliverable of the project is expected to be a set of curriculum and training guidelines for the fire service for both initial and recurrent training to review and reinforce CRM principles.