



Myndigheten för
samhällsskydd
och beredskap



International Firefighting Instructors Conference

MSB COLLEGE REVINGE 16-17 AUGUST 2018

It's a true honor and a great pleasure to have highly respected speakers, that all have had a huge impact on the fire service over the years, nationally as well as internationally, presenting topics including highrise firefighting, training issues and safety to firefighters.

It's the top of the cream coming to Sweden and a fantastic opportunity for everyone to hear them talk about their passion: fires and firefighting!

PROGRAMME | International Firefighting Instructors Conference 2018

THURSDAY 16 AUGUST

08.30	Introduction Dr Stefan Svensson Mrs Lena Gartmark, Head of College	Frankfurt am Main Fire and Rescue Services, Germany
08.50	From Knowledge To Practice: Fire Literacy and Applied Fire Dynamics Peter McBride, Division Chief of Safety & Innovation with the Ottawa Fire Services, Canada	12.30 Lunch
09.50	Coffee break	13.45 Performance-based design for firefighter safety Art Arnalich, Fire expert, CERN, Switzerland
10.20	Interior fires: In buildings and in the hearts, a Polish example Szymon Kokot-Góra, MSc, Eng., Lead fire instructor, Poland	14.45 Coffee break
11.30	From Blockbusters and Mass evacuation Jens Stiegel, Assistant Fire Chief with the	15.15 A refreshed view in fire fighting Dr. Ricardo Weewer, Professor, the Fire Service Academy, the Netherlands
		16.30 What we have learned burning buildings over the past 10 years Steve Kerber, Director of ULFSRI, USA
		17.30 End of Day 1
		18.00 Tour of training field
		19.30 Mingle and dinner at the Fire station



FRIDAY 17 AUGUST

- 08.30 **Introduction**
Dr Stefan Svensson
- 08.50 **High-rise Building Firefighting in Hong Kong**
Raymond Yu, Assistant divisional officer,
Hong Kong Fire Service
- 09.50 **Coffee break**
- 10.20 **The History of Swedish Firefighting**
Dr. Stefan Särndqvist, Instructor at the
Swedish Civil Contingencies Agency, Sweden
- 11.30 **Learning from the experience of others**
Ed Hartin
- 12.30 **Lunch**
- 13.45 **Changing the Belgian fire service: What I´ve learned**
Karel Lambert, Senior fire officer, Brussels
Fire Department, Belgium
- 14.45 **Coffee break**
- 15.15 **Non-negotiables – from Training to Operations**
John McDonough, Fire inspector, with the
Fire & Rescue, New South Wales, Australia
- 16.30 **What have we done and where are we going?**
Lars Axelsson
- 17.00 **Concluding remarks and end of conference**
Dr Stefan Svensson



Art Arnalich

Art Arnalich currently serving as a fire expert for the Fire Safety Engineering team of CERN (European Organisation for

Nuclear Research) based in Geneva, Switzerland. He has a background in Civil Engineering and pursued a career as a Fire Officer in Spain (CEIS Guadalajara), France and Switzerland (CERN Fire Brigade). Fully involved in fire ground operations, Art believes that training and operational procedures based on sound fire science findings are one of the main challenges of the fire service. His activity as a fire instructor has been carried out throughout Europe, North America and South America. **ABSTRACT:** Firefighter safety is a key element in the safety performance of a building or a facility. The majority of Fire Risk Assessment exercises explore a variety of performance criteria in which firefighter safety is seldom seen as a life safety objective itself. Building codes treat firefighter safety in a generic way focusing on the availability of firefighting resources (hydrants, standpipes, etc...) rather than on the actual conditions and challenges faced by first responders. This lecture provides insight in how to apply PBD (Performance Based Design) for firefighter safety in the design process of facilities with challenging fire intervention scenarios. A case study will bring us to one of world's most complex facilities: CERN Super Proton Synchrotron.



Szymon Kokot-Góra

Szymon Kokot-Góra, MSc, Eng. is the lead fire instructor in Poland and author of national level solutions for the State Fire Service. Also, he is the author of several

articles and books on firefighting, fire ground safety and firefighter rescue. In addition, he has served as a firefighter/training officer at CERN and he is the founder of cfbt.pl and Projekt LIDER, a motivational blog for firefighters.

ABSTRACT: As several other nations, Poland visited Sweden in the early 90's to learn the new approach to structural firefighting. However, passion and goodwill of many excellent firefighters were not sufficient to establish a satisfactory and unified system of training and operational activities that would last and provide tangible results. Over the years the quality of training deteriorated and national unification was non-existent. Few last year's brought significant developments in many various aspects of this field. What happened and more importantly how it happened? The presentation will explore what happened, how it happened and how fires were rekindled in training structures and in the hearts of the Polish firefighters.



Steve Kerber

Steve is the director of Underwriters Laboratories Firefighter Safety

Research Institute, ULFSRI, leading research with the fire service in the areas of ventilation, structural collapse, and fire dynamics. Steve is a 13-year veteran of the fire service, with most of his service at the College Park Fire Department

in Prince George's County Maryland where he served at ranks up through Deputy Chief. He received his bachelor's and master's degrees in fire protection engineering from the University of Maryland and is currently working on his doctorate at Lund University in Sweden. Steve has also been appointed to the rank of Honorary Battalion Chief by the FDNY and was named the 2014 ISFSI and Fire Engineering George D. Post Instructor of the Year.

ABSTRACT: Increasing the knowledge of the fire service is an extremely complex challenge, not to be confused with extreme fire behavior. Think of it as a puzzle that is being filled in one experiment at a time. Over the past 10 years we have been filing in that puzzle with the fire service. More than 150 structures have been ignited across the US examining tactics, techniques and hypotheses. Other countless experiments have examined different components of the fire services workplace. What have we learned and will we ever see what the puzzle is?



Karel Lambert

Karel serves as a senior fire officer with the Brussels Fire Department responding citywide,

responsible for fire training, procedures and operations. Also, he is a volunteer firefighter in his home town. He has co-authored 2 books and written over 50 papers and articles on firefighting. Karel is also guest professor at Ghent University. His main interests lies I firefighting and leadership.

ABSTRACT: Until 2009, the basic training for firefighters consisted of a 90 hour program with about 50 hours of theory and 40 hours of low-quality practice. The company officer (NCO) program was 70 hours of theory. There was no live fire training in the official curriculum. A group of people all over the country advocated to change things. In 2010 8 hours of live fire



training were introduced. From 2016 on, firefighters receive 48 hours of live fire training in a 264 hour training program. The company officers receive 60 hours of live fire training in a 266 hour program. Besides firefighting, technical rescue and hazmat receive more attention than in the previous training programs. This is a process of ongoing change that started in 2008. I have worked in the domain of firefighting and I've learned some lessons about bringing change into the fire service, about doing things as a group.

Peter McBride

Peter McBride is the Division Chief of Safety & Innovation with the Ottawa Fire Services and Chair of IAFF Local 162's Research and Innovation Committee. Peter's mandate is to deliver service excellence by building a learning and safety culture for and with the 1500 members of the Ottawa Fire Service. Peter is currently engaged in leading a 1.2 million Canadian Safety and Security Program grant directed at the development of a fire dynamics program for the Canadian Fire Service entitled "From Knowledge To Practice". The project addresses gaps between the science of fire dynamics and current firefighting strategies and tactics and includes operational industrial hygiene as part of the project objectives in advancing fire fighter's understanding of Fire Literacy.

ABSTRACT: The Ottawa Fire Service is leading the development of an evidence-based fire dynamics training (FDT) curriculum that will assist in closing current critical knowledge and capability gaps. Project partners included the Calgary Fire Department; Service de sécurité incendie de Montréal; and Halifax Regional Fire & Emergency and over 250 participants from 12 nations in this tremendous international collaborative effort. This training will be incorporated into Canadian firefighting training certification standards for adoption and use by all fire services in Canada. The curriculum and all project content will be made available free of

charge internationally for adoption/adaptation by interested fire services and standards organizations. This presentation will give an overview of the project content and highlight novel approaches to building "Fire Literacy" within the fire service.



John McDonough

John has been a professional firefighter for 30 years and is currently serving as a fire inspector with the FRNSW,

Australia. He has worked in Germany, Croatia, Belgium, Poland, France, Canada, Hong Kong and the US. John's interests lie in bringing 'fire' and 'firefighter' behavior together, ensuring that strategies and tactics are driven by a valid understanding of the prevailing fire behavior.

ABSTRACT: Having returned back to operations after many years in full-time training, how does one assess capability, set reasonable expectations and ensure compliance outside of the training space? My answer is an ongoing 'experiment', built around a program of team assessment based on the concept of shared expectations and adherence to 'non-negotiables'. These non-negotiables, bridge the gap between what 'depends' and what doesn't. They help identify what's important to be both safe and effective. They are also used to individualise station-based training to build confidence and expertise at the team level.

Jens Stiegel



Jens is an Assistant Fire Chief with the Frankfurt am Main Fire and Rescue Services in Germany. He is responsible for the Department of Education and Training that consists of the Fire and Rescue Academy, the EMS Academy



and the Fire Department's Driving School. Chief Stiegel has a university degree in civil engineering with a focus on construction and fire protection. He is the chairman of the state fire training committee of the state of Hessen and also represents Germany as a delegate to the Federation of European Fire Officers Association (F.E.U.).

ABSTRACT: Report about the largest mass evacuation after WW II caused by an undetonated 4000lbs air mine in Frankfurt.



Stefan Särdaqvist

Stefan Särdaqvist, Ph.D., works as an instructor at the Swedish Civil Contingencies Agency,

primarily focusing on fire safety design of buildings, fire investigations and a number of other areas related to fire. He's the author of several books and reports.

ABSTRACT: Sweden has a long history in developing a knowledge base for the training of firefighters and fire officers, including a strong connection to the fire science community. The intention with the presentation is to provide an overview of where we have been, where we are and where we might be going.



Ricardo Weewer

Ricardo Weewer (1961) started as a professor of Fire Service Science at the Fire Service Academy of the Netherlands in 2011 (part time and in

2015 fulltime). He leads the research department of the institute. Before he started at the Fire Service Academy he was a fire officer at the Amsterdam Fire service since 1993. He

climbed the ranks and became DCFO in 2004. He studied metal science at Delft University of Technology and completed his PhD in 1991.

ABSTRACT: The Netherlands Fire Service Academy has done some practical research into firefighting tactics and techniques. Combined with international research this resulted in a "refreshed view on firefighting" which has emphasis on practical application in practice for firefighters.



Raymond Yu

Raymond Yu is an assistant divisional officer with the Hong Kong fire service. Raymond graduated with a BEng (Hons) in

Chemical Engineering from The Queen's University of Belfast, UK and the Chinese University of Hong Kong with a MA in Comparative and Public History. He further obtained a MBA and PhD in Business Administration from Bulacan State University, Philippines. Raymond joined the Hong Kong Fire Services Department in 1994 as a Station Officer. He participated in Compartment Fire Behaviour Training since 2001 and was the officer-in-charge of the CFBT Unit in the Fire and Ambulance Academy in Hong Kong.

ABSTRACT: Hong Kong is one of the most densely populated cities in the world and the majority of her 7 million residents live in high-rise resident buildings. Therefore high-rise building firefighting is the bread and butter of the firefighters in Hong Kong. This presentation will introduce the high-rise building firefighting strategies in Hong Kong and discuss the difficulties that the firefighters encountered.