The Art of Reading Smoke

Proposal Title: The Art of Reading Smoke

**Biography**:

PHILLIP JOSE, Deputy Chief, (Ret.), 30 years Seattle Fire. Chair SOG-PIA committees. Chief of the Year 2013. FDIC Instructor 20 years. 2008 Tom Brennan Award, Author *Instructor 1 for Fire and Emergency Services*, Air *Management for the Fire Service*, *FE Handbook FF 1 and 2* ; FE “Bread and Butter” video, SCBA.

**Proposal description:**

The Reading Smoke curriculum is a must for anyone looking to master the craft of Firefighting. First-in video combined with dynamic teaching helps you develop the ability to see the **Volume**, **Velocity**, **Density** and **Color** of smoke. Learning to Read Smoke improves your ability to understand and predict fire behavior. Reading Smoke provides insight for excellent tactical decisions. Reading the Smoke’s Volume, Velocity, Density, and Color allows you to answer three questions: Where is the fire? How big is it? What rate of change you should expect? Whether choosing a tactic at the command level, or performing the tactic at the company level, learning to collect information quickly improves decision-making for firefighter safety and better service to the citizens. Video-based, fast-paced, sets and reps of Reading Smoke will make you better on the fireground.

**Learning Objectives:**

Understand: Why read smoke?

Understand the Four Attributes of Smoke: Volume, Velocity, Density, Color.

Apply that knowledge to the size, shape, and openings of the fire building.

Four Attributes help answer three questions:

Where the fire is?

Where is it going?

What is the rate of change?

Make tactical decisions based on the information available.

Develop the skill to read smoke quickly and effectively through multiple sets and reps using dynamic video and discussion based learning.

**Methodology:**

I use first-in video and immediately engage the students in a discussion about the four attributes of smoke: Volume, Velocity, Density and Color (VVDC). Presenting with video using stop, start, and rewind engages the student in the video and subject matter. Engagement provides them the ability to see what I am teaching while also learning the course objectives. Once the students have grasped the process of Reading Smoke, I incorporate new applications targeted to the modern fireground. One example: Once a fire attack team has stretched a line and forced a door they should be reading the smoke. The open door represents both a ventilation flowpath and their route to the fire. Understanding VVDC, they should read the smoke coming from the door and see VVDC as they navigate the hallway making decisions about water application based on the smoke behavior, fire behavior, and their transition time from the front door to the seat of the fire.

**Course purpose and learning objectives:**

The purpose of the course is to provide students with both an understanding of the learning objectives listed and improve their ability to continue to learn on their own after the class is over. Once the concepts of Volume, Velocity, Density, and Color are presented the course moves quickly using video to provide rapid-fire sets and reps to practice and hone the skill of Reading Smoke. With a discussion-based approach to teaching the students are challenged to create their own understanding of the VVDC from the video example and measure that against the discussion going on within the classroom. Seeing the smoke, reading the smoke, understanding what the smoke is telling you, and then measuring that against the knowledge of the instructor and the other students provides true comprehension in a short session. The modern fireground is a true representation of a Recognition Prime based environment where the number of slides in your slide tray is important to your success at choosing tactics and tasks. Building slides is the key to Reading Smoke and the students will build a significant number of slides plus have the opportunity to improve how vivid and accurate each slide is relative to modern fire behavior.

The Learning Objectives Are:

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**Your target audience and the presentation’s relevance to that audience:**

This course is designed to offer value to all levels of fire service students who attending. Learning why reading smoke is valuable as well as the four attributes of Volume, Velocity, Density, and Color builds a strong base for understanding fire behavior for everyone from the newest firefighter to the seasoned chief officer. It is well adapted to the next generation of firefighters due to the video content and Phil Jose’s inclusive questions-based approach to teaching.

The new firefighter is building a skillset to acquire knowledge over the course of their career. The class structure and approach introduces the skill and understanding of reading smoke that a new firefighter can then apply to their learning moving forward. The availability of excellent fireground video on the web provides many opportunities for a new firefighter to build a series of decision-making slide trays relatively quickly. The standardized Reading Smoke process gives them a framework around which to create and edit the slides in their tray effectively.

The seasoned firefighter or chief officer comes to the program with a significant knowledge base and a well-developed sense of decision-making experience. Learning to apply the reading smoke process gives them the ability to adapt their slides based on modern fire behavior and an increased understanding of the modern learning environment. The Reading Smoke framework helps improve the accuracy of decisions on the fireground. They also learn to speak a common language with their next generation of firefighter improving their ability to transmit their hard won experience as a valuable mentor and teacher.

**Resume:**

**Seattle Fire Department 1987 – 2018**

Deputy Chief Training Division – 2014-2015, 2018

Deputy Chief Operation Division – 2015-2018

Battalion Chief Operations Division – 2008-2014

SFD Chief Officer of the Year - 2013

Captain Operations Division – 2000-2008

Captain Training Division – 1999-2000

Lieutenant Operations Division – 1996-1999

Lieutenant Training Division 1993-1996

Training Coordinator for Media Academy

One Letter of Appreciation, Three Certificates of Merit

Instructor for Seattle Fire Department/National Fire Academy leadership I, II, III

Seattle Firefighters Union Local 27 Station Representative

Current Committees: Chief’s Mayday Training, Chief Officers’ Monthly Training Curriculum, Chief Officer Instructor Development, Company Officer Bi-Monthly Training Curriculum, Battalion Chief Candidate Academy Development and Instructor, Captain Academy Development and Instructor, Post Incident Analysis Committee

Previous Committees: Promotional Testing Task Force, Inspection Manual Committee, Seattle Central Community College Technical Advisory Committee, Rapid Intervention Committee, Operational Skills Enhancement Training Curriculum Development and Project Manager, Citywide Special Events Manager – Seafair Weekend

Member of Seattle Fire Department Officers Association

Member International Society of Fire Service Instructors

**Publishing**

Author – *Fire and Emergency Services Instructor One* – Clarion, 2022

Author – *Air Management for the Fire Service,* Pennwell, 2008

Author – *Bread and Butter Video Series – The SCBA,* Pennwell Video 2013

Author – *Air Management Train the Trainer DVD,* Pennwell 2014

Classroom and HOT Workshop Instructor – Fire Department Instructor Conference 2004-2019

**Awards**

FDIC Fire Engineering Tom Brennan Training Achievement – 2008

Seattle Fire Department Chief of the Year – 2014

Seattle Fire Department Meritorious Service – 3, Letter of Appreciation - 1

**Description of audiovisual supporting material used in presentation:**

The host agency must provide a projector and screen sufficient to the size of the classroom. I also request whiteboard or flip charts be available flanking the screen. Built primarily around first-in and fireground video with minimal use of PowerPoint. I estimate that the course is 80% of the time built around video and 20% PPT.