HOTZONE 2018
Conference Workshops
Friday – October 19th
1:00 PM

(LEPC) CAMEO, WISER, Google Earth, Microsoft Office and ArcView – Part 1 of 2
Participants must have a basic knowledge of the CAMEO, EXCEL, and WORD programs. Participants may satisfy the prerequisite by taking the Basic CAMEO for HazMat responders offered at this workshop

DESCRIPTION: Have you ever wished you could use CAMEO to create a "chemical plume" and share that with responders who are using IPhones and Tablets? Ever want to pull a Tier 2 Chemical Inventory Report out of CAMEO and put it into EXCEL or WORD? How about diagram an evacuation area on MARPLOT at the EOC and send it to the field responders as a Google Earth file? This course will instruct participants on a number of effective methods to exchange data and map information between the EOC and the field personnel, between various laptops and other devices, and between different software programs.

COURSE OUTLINE:

1. Highway Incident Scenario using CAMEO Suite
2. Extracting chemical information from CAMEO Chemicals and sharing with remote users
3. Displaying multiple ALOHA plumes on MARPLOT, Google Earth, and ArcView
4. Sharing map information from MARPLOT to tablets, iphones, and other devices
5. Capstone Project

EDUCATIONAL OBJECTIVES: To ensure that first responders who utilize CAMEO Suite programs can integrate that information across a wide range of other uses and other HazMat tools.

Taught by: Tom Bergman and Al Valerioti

Can Your Response Team Use a RRAT? (Classroom & Hands-on) – Part 1 of 2
The effective control of a chemical incident is based on a good working understanding of the physical and chemical properties of the product or agent. This does not make a chemist out of a firefighter. But he has to know how the enemy will behave in order to effectively deal with a hazardous material. Responders cannot begin to deal with a hazardous materials incident without a basic grasp of chemistry. Using the Docimo model role and the RRAT technique anyone can understand the basic aspects of chemical behavior. Using this knowledge may save your life. The behavior of a chemical and the sequential events of a hazardous materials incident are crucial to dealing with the incident in a safe and effective manner.

Taught by: Frank Docimo

Bad Guys, Bench Marks, and Briefings – Part 1 of 2

This class is a fast paced, in depth look at new and emerging hazards at they relate to emergency response and new approaches to tactically work safe during down range operations and maintain acute situational awareness when responding to such an event. The class is a two-hour facilitation that puts the students in the “Hot Seat”, utilizing Recognized Prime Decision Making Skills, that will on real world events.

The class is broke into three modules: First, “Bad Guys.” In this module, students will be brought up to speed and real world threats that are in the current year and the challenges we face as responders. Topics of discussion will include, but may not be limited to, Terrorist Threats, Illicit Drug Labs, Crude Oil and Fracking all the way to the basic bread and butter Natural Gas call. The content of this module is dynamic and changes with each delivery, depending on the trends we see in emergency response.

Module two, “Benchmarks,” this module will show students a best practice approach to response that will highlight the concept of Risk Based Response and help eliminate the Normalization of Deviance. Students will be enlightened and shown how to let the predictable hazards drive the Mission, setting attainable “Benchmarks” for safe and effective response. A large portion of this module is interactive Case Study review.

Last, “Briefings.” This module is two-fold in the fact that it will give students an up to date information base on what is trending in “All Hazards” response and allow them to plan, train and equip their respective teams or departments and develop sound Operating Guidelines. Second, students will also be shown several ways to successfully disseminate tactical information to the “Boots on the Ground,” resulting in safer response not only for the responder, but the communities we serve.

Taught by: C. J. Haberkorn and Dana Brown

The Challenging Threesome – Part 1 of 2

This workshop will address three of the top ten most common hazardous materials utilized, stored, and transported throughout the country as liquefied gases. Instructors will cover behavior, hazards and container profile. Numerous past incidents and case studies will also be presented throughout the presentation.

Taught by: Greg Socks, Bill Hand, Robert Bradley, and Jason Waterfield

Shock and Awe for Your HazMat Team – Part 1 of 2

Is your hazmat training "boring", "death-by-power-point", or "uninspiring"? It doesn't have to be that way. This interactive, hands-on, presentation will help you energize your training the "Bill Nye/Science Guy" way. Learn how to teach the principles of matter, chemical characteristics, and monitor theory utilizing thrilling examples and visually exciting demonstrations that you can purchase at your local building material store.

Taught by: Steve Street and Richard Dufek

Response to Emerging Threats – 90 Minutes

The threats to which you must be prepared to respond to have evolved significantly over the past few years. This presentation will focus on the evolving threat (Chemical Warfare Agents, Drugs, Homemade Explosives, Chemical Suicides, Ebola, etc.) and how you, as responders, must evolve in your response capabilities to meet these threats. Recognizing and understanding the threat and the risk that it poses is critical to determining the appropriate response. Using the known facts about the threats (such as solubility, toxicity, degradation pathways, and others), operational response protocols, and technology solutions will be presented for detection, identification, protection from, decontamination, and destruction of threat materials.

Taught by: Dr. Christina Baxter

Training Myths, Lies, and Legends – 90 Minutes

Over $500,000 will be spent training a single emergency responder over the course of their career, yet we spend comparatively little time designing and developing training to achieve maximum results. While other industries typically spend over 30 hours designing a single hour of training, emergency responders typically spend only 3 to 5. This session will utilize interactive discussion to review the current state of learning research to help instructors, trainers, and course developers to design training programs that effectively teach knowledge and skill, improve retention and application of new skills, and reduce wasted time in the class and on the drill field.

Learning Objectives:

1. At the conclusion of the block of instruction, the participant will identify learning myths that are not supported by research.
2. At the conclusion of the block of instruction, the participant will be able to apply one or more evidence-based instructional techniques to improve learning retention and application.
3. At the conclusion of the block of instruction, the participant will be able to describe the benefits of using evidence-based instructional techniques in instructional design and development.

Taught by: Dave Donohue

Inside the Fenceline: Response to Fixed Facilities – 90 Minutes

Emergency responses to chemical manufacturing facilities that produce and store potentially hazardous chemicals can seem daunting and challenging. Since these are not your bread-and-butter calls, you may not have the familiarity, experience, and/or training to feel you can safely and effectively handle them. This session will better prepare responders to handle incidents “inside the fence line” of chemical facilities. We will begin by learning how to size up a chemical facility as well as learning about some common activities that place inside the fenceline. Then we will cover strategy, tactics, and tips for handling incidents involving potentially hazardous materials.

Taught by: Keith Silverman and Bill Cullen

The First 100 Minutes of an RDD Incident – 90 Minutes

This session, will provide decision-making considerations for response to an RDD incident and accidental radioactive emergencies, which are based on the DHS guidance document *"Planning Guidance for the First 100 Minutes of an RDD*"**.** The session will include information on how to identify hazards, training issues, develop a plan and what equipment to acquire. Participants will be provided information on how to match their tactical operations against the expected tasks, allowing for safe and effective response.

Learning Objectives:

1. Upon completion of this session the participant will be able to describe on-scene indicators of a radiological dispersal device (RDD) incident.
2. Upon completion of this session, the participant will be able to explain the tasks and equipment necessary to confirm a radiological dispersal device (RDD) incident.
3. Upon completion of this session, the participant will be able to explain the tasks and equipment necessary to perform Life Safety Operations at a radiological dispersal device (RDD) incident.

Taught by: Tony Mussorfiti

HazMat Team/Program Management; It's More Than Suits & Boots – 90 Minutes

Competent and safe response to hazardous materials incidents requires sound management of the response team and involves more than just ordering suits and boots. This interactive discussion will address the complexities of managing a hazmat response program and permit attendees to better understand their roles and responsibilities as program managers.

Taught by: Rick Edinger

General Hazardous Materials Behavior Model – 90 Minutes

Understanding the General Hazardous Materials Behavior Model (GHBMO) published by Ludwig Benner in 1978, is vitally important for the successful mitigation of any hazardous materials incident. Simply reading a text about GHBMO may be an insomniac's guide to a good nights' sleep. However, well-documented hazardous material incidents (e.g., reports from the CSB and NTSB) have been used to afford a visual picture of the linear progression of stages of GHBMO: Stress, Breach, Release, Engulf, Impinge and Harm. Starting with the application of one or more stressors on a container, this program will show various modes of container failure (Breach), the corresponding release mechanism, and the resultant release profile (Engulfing event). The class will include some demonstrations, hands on activities and tabletop exercises. You will have greater knowledge of the sequence of GHBMO events and events interruption options after attending this course and you will be able to successfully apply the model at your next hazardous materials incident.

Taught by Tom Murdock

Pipeline Response – 90 Minutes

The United States has the largest pipeline network in the world. Pipelines deliver the raw materials that are processed into fuel that powers our lives: crude oil, refined products, liquid petroleum, natural gas, CO2 and many other chemicals as well. The most safe and cost-effective transportation method for these products is through pipelines. Pipeline environmental and safety record statistics show that pipelines are safer than any other means of transportation. During a pipeline emergency, the actions taken by emergency responders are critical to protecting lives, property and the environment. Through Pipeline*Response*, discussion of public-private partnerships and collaboration before a pipeline incident, as well as, how important working together through a Unified Command organization at the pipeline incident will be covered during the presentation. The primary goal of PipelineResponse is to bring Emergency Officials, First Responders and Pipeline Operators into the same setting to network and pre-plan for pipeline emergency response ahead of the incident. The PipelineResponse presentation will cover the following modules: Module 1: Overview of Pipelines, Module 2: Products, Product Properties, and Leak Identification, and Module 3: Incident Response. Emergency Responders will learn: Advance preparedness processes, Leak identification and proper response procedures, Product properties and hazards, Incident command with pipeline operator.

Taught by: Brad Britten

Break

2:30 – 3:00 PM

Friday – October 19th
3:00 PM

(LEPC) CAMEO, WISER, Google Earth, Microsoft Office and ArcView – Part 2 of 2
Participants must have a basic knowledge of the CAMEO, EXCEL, and WORD programs. Participants may satisfy the prerequisite by taking the Basic CAMEO for HazMat responders offered at this workshop

DESCRIPTION: Have you ever wished you could use CAMEO to create a "chemical plume" and share that with responders who are using IPhones and Tablets? Ever want to pull a Tier 2 Chemical Inventory Report out of CAMEO and put it into EXCEL or WORD? How about diagram an evacuation area on MARPLOT at the EOC and send it to the field responders as a Google Earth file? This course will instruct participants on a number of effective methods to exchange data and map information between the EOC and the field personnel, between various laptops and other devices, and between different software programs.

COURSE OUTLINE:

1. Highway Incident Scenario using CAMEO Suite
2. Extracting chemical information from CAMEO Chemicals and sharing with remote users
3. Displaying multiple ALOHA plumes on MARPLOT, Google Earth, and ArcView
4. Sharing map information from MARPLOT to tablets, iphones, and other devices
5. Capstone Project

EDUCATIONAL OBJECTIVES: To ensure that first responders who utilize CAMEO Suite programs can integrate that information across a wide range of other uses and other HazMat tools.

Taught by: Tom Bergman and Al Valerioti

Can Your Response Team Use a RRAT? (Classroom & Hands-on) – Part 2 of 2
The effective control of a chemical incident is based on a good working understanding of the physical and chemical properties of the product or agent. This does not make a chemist out of a firefighter. But he has to know how the enemy will behave in order to effectively deal with a hazardous material. Responders cannot begin to deal with a hazardous materials incident without a basic grasp of chemistry. Using the Docimo model role and the RRAT technique anyone can understand the basic aspects of chemical behavior. Using this knowledge may save your life. The behavior of a chemical and the sequential events of a hazardous materials incident are crucial to dealing with the incident in a safe and effective manner.

Taught by: Frank Docimo

Bad Guys, Bench Marks, and Briefings – Part 2 of 2
This class is a fast paced, in depth look at new and emerging hazards as they relate to emergency response and new approaches to tactically work safe during down range operations and maintain acute situational awareness when responding to such an event. The class is a two-hour facilitation that puts the students in the "Hot Seat", utilizing Recognized Prime Decision Making Skills, that will on real world events.

The class is broke into three modules: First, "Bad Guys." In this module, students will be brought up to speed and real world threats that are in the current year and the challenges we face as responders. Topics of discussion will include, but may not be limited to, Terrorist Threats, Illicit Drug Labs, Crude Oil and Fracking all the way to the basic bread and butter Natural Gas call. The content of this module is dynamic and changes with each delivery, depending on the trends we see in emergency response.

Module two, "Benchmarks," this module will show students a best practice approach to response that will highlight the concept of Risk Based Response and help eliminate the Normalization of Deviance. Students will be enlightened and shown how to let the predictable hazards drive the Mission, setting attainable "Benchmarks" for safe and effective response. A large portion of this module is interactive Case Study review.

Last, "Briefings." This module is two-fold in the fact that it will give students an up to date information base on what is trending in "All Hazards" response and allow them to plan, train and equip their respective teams or departments and develop sound Operating Guidelines. Second, students will also be shown several ways to successfully disseminate tactical information to the "Boots on the Ground," resulting in safer response not only for the responder, but the communities we serve.

Taught by: C. J. Haberkorn and Dana Brown

The Challenging Threesome – Part 2 of 2
This workshop will address three of the top ten most common hazardous materials utilized, stored, and transported throughout the country as liquefied gases. Instructors will cover behavior, hazards and container profile. Numerous past incidents and case studies will also be presented throughout the presentation.

Taught by: Greg Socks, Bill Hand, Robert Bradley, and Jason Waterfield

Jack Rabbit Test – 90 Minutes
This workshop provides specific findings and key observations that resulted from the large scale chlorine releases with discussion on its impact on the first responder community. The September 2017 final report from the Jack Rabbit tests has been aligned with a video based presentation that attendees will be provided to deliver to their home departments.

Taught by: Dave Matthew and Andy Byrnes

What's Those Numbers Again? – 90 Minutes

Have you ever wondered what the term vapor pressure actually means? In your HazMat technician class you may have written down the definition, and discussed it, but were you actually taught how to apply this term? Vapor pressure, along with many other "terms" that relate to chemical and physical properties this session focuses, not only on what the words mean, but more importantly how they can impact your health and safety. By truly understanding some simple terms responders can make PPE decisions, isolation and evacuation decisions and determine the severity of the event.

Taught by: Chris Hawley

Shock and Awe for Your HazMat Team – Part 2 of 2

A continuation, but this time using chemicals and materials you cannot get from your local building material store. If you have a good working relationship with your local college chemistry department and thus access to other chemicals and supplies, then this opens the door for further demonstrations that will enhance your hazmat class that we will demonstrate.

Taught by: Steve Street and Richard Dufek

Truths and Consequences – 90 Minutes

With limited information, a responder must use basic facts (the truths) in order to predict potential outcomes and establish a strategy (the consequences). They must be rooted in the core principles of science. This class is designed to provide the responder with core principles needed to "see" those consequences. The participants will be taught how to use the evidence (the truths) provided to predict how a hazardous material is likely to behave (the consequences).

This class session will define principles of chemical bonding and interactions and how understanding these truths leads to the predictions of physical and chemical properties. From there, students journey into how the way compounds are named allow responders to understand structure and predict properties. It is simply: How can we imagine structure, make predictions about the states of matter and when can we use this information.

Taught by: Laurie Norman and Toby Bevelacqua

HazMatIQ Natural GasIQ – 90 Minutes

Students will use the most advanced techniques and equipment to practice leak tactics and control measures for various types of natural gas line leaks. Students will also learn which techniques are safe and easy to perform and which techniques require additional resources. Throughout the course safety considerations will be discussed and a brief lecture will provide a great refresher on Air Monitoring before, during, and after, a gas line leak. Several hands on modules will allow students the opportunity to practice the necessary skills for leak mitigation and give them an opportunity to use a decision making process to determine the best process to safely and quickly fix the leak.

Taught by: Federal Resources

The ABCs of Radiation Response – 90 Minutes

Taught by: Cheryl Weaver-Docimo

Structure Fires – The New HazMat Incident – 90 Minutes

Cancer has become the prominent killer of firefighters throughout the fire service. This course provides hazmat technicians with the knowledge to implement air-monitoring and decontamination procedures at every structure fire. Participants will learn to recognize IDLH environments, monitor for products of combustion, and perform proper decontamination in order to limit exposures from cancer-causing particulates.

Taught by: Casey Jones

Explosives Recognition and Understanding – 90 Minutes

The world is changing and we are seeing a rise in terroristic activity all over. The use of explosives as a tool for terror is all too common. This lesson is a lecture/discussion driven session on explosives. This lesson is meant to serve as a tool to help responders recognize the presence of improvised explosive devices (IEDs) and understand the risks associated with responding to an explosive event. This will be accomplished through discussion of the precursors of homemade explosives, the 4 components needed to make an IED, showing videos of the effects of an IED detonation, and treatment of some blast-type injuries based on best practices of emergency personnel in NYC. Case studies of explosives incidents will be used at the end of the presentation to incorporate the knowledge gained during the lesson. These case studies will be events that have taken place in big cities and small towns across the country.

Taught by: Joshua Sutherland

Reception – Rio Lobby

7:00 – 11:00 PM

Saturday – October 20th
8:00 AM

(LEPC) Effective Use of CAMEO/Aloha – Part 1 of 2

ALOHA is an "air dispersion" computer program that predicts downwind concentrations of dangerous atmospheres for some 850 chemicals. ALOHA also performs a number of calculations that can be a great assistance to first responders, such as "how long will it take for this tank to stop leaking", or "how long will it take for this puddle of chemical to evaporate", or "how much product will remain in the damaged container", and many other items. This course explores many uses of the ALOHA program, and the appropriate methods to utilize it before, during, and after chemical releases.

COURSE OUTLINE:

1. Review of Basic ALOHA Limitations and Operations
2. Using ALOHA for Pre-Planning Activities
3. Advanced ALOHA Operations for HazMat Technicians
4. Using ALOHA after chemical incidents for investigative processes
5. Sharing ALOHA results with Google Earth and ArcView products
6. Sharing from ALOHA to tablets, iphones, and other devices
7. Capstone Project

Taught By Al Valerioti and Bob Bradley

The HazMat Triathlon (Classroom & Hands-on) – Part 1 of 2

Get your 4 person Team together for the Inaugural HOTZONE HazMat Triathlon! There will be 3 events in the competition. All events will be HazMat Technician related. Try your skills, have fun, and show off your stuff. The top 2 Teams will advance to the finals which will be held during the HOTZONE Dinner on Saturday night. Who will take the trophy home?

Taught by Tony Janke, Trey Bourgeois, Brad Maddin, and Frank Flores

Decontamination (Classroom & Hands-on) – Part 1 of 2

A comprehensive decontamination class that will be taught by Texas' 6th Civil Support Team professionals.

Taught by: 6th CST

Anhydrous Ammonia Response-Taming the Tiger Top Ten Tips – Part 1 of 2

Be ready and prepared to handle anhydrous ammonia incidents by attending this session which will review top ten response tips from size up and product characteristics through response tactics for ammonia. Session will be interactive with live release footage. All students will also receive an ammonia emergency response guide card customized for ammonia.

Provide students 10 key points to remember when dealing with an anhydrous ammonia incident, both indoor and outdoor situations. Control and containment tactics. Do's and Don'ts with water application. Potential hazards to be considered. Entertaining format with team play utilizing the top ten tips, with live release pictures and footage.

Taught by: David Binder

HazMatIQ PropaneIQ – Part 1 of 2

This workshop will prepare responders to safely mitigate a propane emergency involving a leaking non-bulk ASME propane tank. The focus will be on vessel assessment and leak countermeasures on each fitting found on ASME tanks. Assessment topics will include use and limitations of thermal imagers on propane vessels, importance of obtaining tank pressure, and recognizing overfilled tanks. Students will use the propane B kit to control simulated propane leaks on PropaneIQ training props. Each student will receive a set of PropaneIQ Smart Charts with a diagram of each propane vessel, along with potential countermeasures for each leak point.

Outline: Workshop will include interactive lecture, PowerPoint presentation, video case studies, and tactical discussions, and hands on leak control Summary of propane LODDs Anatomy of ASME tanks Vessel assessment Container integrity Use and limitations of a TIC on propane vessels Relevance of tank pressure Recognizing an overfilled vessel ASME tank leak points Leak countermeasures Flaring tactics Accessing the tank, including liquid withdrawal valve proper flare set up safety considerations flaring liquid vs vapor. Hands on leak control (air leaks).

Taught by: Federal Resources

Incident Response Tools for Everyday HazMat Calls – Part 1 of 2

Does your organization respond to hazmat calls with limited resources? Then this class is for you. Hazmat training programs teach large scale hazmat incident response using dozens of hazmat techs and complicated ICS systems each with their own clipboards and check sheets. But if it's not a level A entry… do you use any system at all? We didn't. So we developed a scaled back model to use at the types of calls you actually go to, with the resources you'll actually have on scene. Our system uses a quick response card that guides operations level crews as well as the hazmat team through everyday hazmat calls. This comprehensive and easy to use system includes a scaled back 208, entry form, tech ref flow chart, scene release form, and much more. In the class we will guide you through several tabletop scenarios as a group utilizing the system. We will gladly hand our system and forms to you at the end of class which can be used as templates for you to improve your organizations hazmat response.

Taught by: Mike Spasev and Matt Housley

HazMat Research Resources – What You Need to Know – 90 Minute

This session will familiarize the participants with hazmat research resources, both print and electronic. The Hazmat Research Officer plays a vital role in hazmat response and planning and the presentation will demonstrate methodologies to achieve the goal of

providing timely, useful information for incidents. Various electronic and print resources will be exhibited and discussed, examining their strengths and weaknesses.

Taught by: Alan Finkelstein

Avoiding Acute Slideshow Toxicity – 90 Minutes

One of the most dangerous things we can face as Hazmat professionals is death by slideshow. This program will highlight concepts to provide effective training tools and techniques that can be used to plan, develop, and deliver hazmat training and exercises that reduce the risk of Acute Slideshow Toxicity, keeping your students awake, engaged, and interacting, and most importantly safe.

Taught by: John Emminizer

Confined Space: HazMat or Technical Rescue? – 90 Minutes

Confined spaces offer unique challenges to rescue units because all too often the process for preparing for a confined space entry is simply an exercise in checking regulatory boxes. Workers are trained in the basic "rules" they must follow, but rarely have an in depth understanding of the true nature of the hazards they face. When working in a permit required confined Space, OSHA allows a local fire department to be listed as the standby rescue. How many times do you think your department has been listed on an entry permit without you being notified? If your department is notified, is it the rescue squad, the HazMat team, or both that are put on standby and what information do you obtain from the entry supervisor? In case studies where rescuers are injured during confined space rescues, almost without exception the root cause is a lack of knowledge that a hazardous material is present or lack of understanding of the behavior of hazardous materials in the space. Certified Safety Professional (CSP) Monique Lewis will discuss some such case studies and scenarios she has encountered as a safety consultant in various industries. You'll receive information beyond general confined space awareness with regard to common hazards and tactics for identifying when hazards exist or have the potential to exist. You'll gain insight into the general level of knowledge and training received by the average worker which will help you develop outreach strategies and operational policies and procedures geared toward safe and effective customer service for members of your community who work in and around confined spaces.

Taught by: Monique Lewis

Case Study Roundtable – 90 Minutes

All History has a way of repeating itself unless we learn from the past. This course will discuss historical hazmat incidents and the lessons learned the "hard way".

Taught by Doug Rohn and Joe Bartholomew

Fire Ground Monitoring for Post Fire Incidents – 90 Minutes
This class is an in depth look at fire ground monitoring, firefighter cancer and how to protect our own and reduce the cancer profile by looking for products of combustion on fire scenes.

Taught by: Todd Andrews

A HazMat Responder's Guide to Flash Fire Protective Clothing – 90 Minutes
This course will provide information on different performance standards available to assess chemical protective clothing worn by HazMat Responders when the garment is exposed to a chemical flash fire. Information will be shared regarding NFPA 1991 (gas tight suits) and NFPA 1992 (liquid tight suits) standards' Flash Fire Escape Option tests and NFPA 2112 (Standard on Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire). The student will understand what different claims of "FR" really mean for their HazMat suits.

Taught by: Khyati Vyas

Break

9:30 – 10:00 AM

Saturday – October 20th
10:00 AM

(LEPC) Effective Use of CAMEO/Aloha – Part 2 of 2

ALOHA is an "air dispersion" computer program that predicts downwind concentrations of dangerous atmospheres for some 850 chemicals. ALOHA also performs a number of calculations that can be a great assistance to first responders, such as "how long will it take for this tank to stop leaking", or "how long will it take for this puddle of chemical to evaporate", or "how much product will remain in the damaged container", and many other items. This course explores many uses of the ALOHA program, and the appropriate methods to utilize it before, during, and after chemical releases.

COURSE OUTLINE:

1. Review of Basic ALOHA Limitations and Operations
2. Using ALOHA for Pre-Planning Activities
3. Advanced ALOHA Operations for HazMat Technicians
4. Using ALOHA after chemical incidents for investigative processes
5. Sharing ALOHA results with Google Earth and ArcView products
6. Sharing from ALOHA to tablets, iphones, and other devices
7. Capstone Project

Taught By Al Valerioti and Bob Bradley

The HazMat Triathlon (Classroom & Hands-on) – Part 2 of 2

Get your 4 person Team together for the Inaugural HOTZONE HazMat Triathlon! There will be 3 events in the competition. All events will be HazMat Technician related. Try your skills, have fun, and show off your stuff. The top 2 Teams will advance to the finals which will be held during the HOTZONE Dinner on Saturday night. Who will take the trophy home?

Taught by Tony Janke, Trey Bourgeois, Brad Maddin, and Frank Flores

Decontamination (Classroom & Hands-on) – Part 2 of 2

A comprehensive decontamination class that will be taught by Texas' 6th Civil Support Team professionals.

Taught by: 6th CST

Anhydrous Ammonia Response-Taming the Tiger Top Ten Tips – Part 2 of 2

Be ready and prepared to handle anhydrous ammonia incidents by attending this session which will review top ten response tips from size up and product characteristics through response tactics for ammonia. Session will be interactive with live release footage. All students will also receive an ammonia emergency response guide card customized for ammonia.

Provide students 10 key points to remember when dealing with an anhydrous ammonia incident, both indoor and outdoor situations. Control and containment tactics. Do's and Don'ts with water application. Potential hazards to be considered. Entertaining format with team play utilizing the top ten tips, with live release pictures and footage.

Taught by: David Binder

HazMatIQ PropaneIQ – Part 2 of 2

This workshop will prepare responders to safely mitigate a propane emergency involving a leaking non-bulk ASME propane tank. The focus will be on vessel assessment and leak countermeasures on each fitting found on ASME tanks. Assessment topics will include use and limitations of thermal imagers on propane vessels, importance of obtaining tank pressure, and recognizing overfilled tanks. Students will use the propane B kit to control simulated propane leaks on PropaneIQ training props. Each student will receive a set of PropaneIQ Smart Charts with a diagram of each propane vessel, along with potential countermeasures for each leak point.

Outline: Workshop will include interactive lecture, PowerPoint presentation, video case studies, and tactical discussions, and hands on leak control Summary of propane LODDs Anatomy of ASME tanks Vessel assessment Container integrity Use and limitations of a TIC on propane vessels Relevance of tank pressure Recognizing an overfilled vessel ASME tank leak points Leak countermeasures Flaring tactics Accessing the tank, including liquid withdrawal valve proper flare set up safety considerations flaring liquid vs vapor. Hands on leak control (air leaks).

Taught by: Federal Resources

Incident Response Tools for Everyday HazMat Calls – Part 2 of 2

Does your organization respond to hazmat calls with limited resources? Then this class is for you. Hazmat training programs teach large scale hazmat incident response using dozens of hazmat techs and complicated ICS systems each with their own clipboards and check sheets. But if it's not a Level A entry… do you use any system at all? We didn't. So we developed a scaled back model to use at the types of calls you actually go to, with the resources you'll actually have on scene. Our system uses a quick response card that guides operations level crews as well as the hazmat team through everyday hazmat calls. This comprehensive and easy to use system includes a scaled back 208, entry form, tech ref flow chart, scene release form, and much more. In the class we will guide you through several tabletop scenarios as a group utilizing the system. We will gladly hand our system and forms to you at the end of class which can be used as templates for you to improve your organizations hazmat response.

Taught by: Mike Spasev and Matt Housley

Demystifying the Operational Response to Fentanyl and Fentanyl Analogs
90 Minutes

Fentanyl and fentanyl analogs are quickly becoming the most common high hazard response. However, there are many ways that the overall risk can be managed.

Recognizing and understanding the threat is critical to determining the appropriate response. Using the known facts about fentanyl and its analogues (such as solubility, toxicity, degradation pathways, and others), operational response protocols will be presented for detection, identification, protection from, decontamination, and destruction of fentanyl-based materials. These simple response protocols and resultant example operational guidelines will assist responders in safely and effectively responding to this high hazard threat.

Taught by Dr. Christina Baxter

Grabbing Firefighters by Their Brains – 90 Minutes

This class session introduces three concepts of learning all interrelated. The three concepts being educational videos the use of a comic book in the classroom and the use of video games in the classroom and in the station to reinforce basic and advanced principles. Each of these concepts have their own value and educational points to make.

Taught by: Michelle Murphy and Toby Bevelacqua

Intermodal Container Emergency Response – 90 Minutes

Will focus on emergency response issues and challenges involving Intermodal Transportation Containers during all modes of transportation. Intermodal containers began making their way into American industry during the 1970's. Since that time they have become increasingly popular and bring a different kind of challenge to rail, marine and highway transportation. The workshop on intermodal containers will deal with pressurized and non-pressure intermodal tank containers as well as other types of intermodal transportation containers. This course will identify the regulations and codes that govern intermodals, the various types of intermodals, and their design features, markings and closures. The workshop will be an interactive discussion with plenty of chances for students to participate and ask questions.

Taught by Bill Hand

This Building is Making Me Sick! – 90 Minutes

HazMat teams respond to reports of odors all the time, and many of these calls can be challenging. This session focuses on how to determine the cause of the common odors, the unusual odors and the weird odors. There are true sick buildings and there are buildings with a chemical problem, one can be easily solved by a response team, the other requires more substantial work. This session will cover examples of both and provide strategies and case studies to handle these types of situations.

Taught by: Chris Hawley

The New Wild Wild West: Bath Salts, Spice, Synthetics, and Now Fentanyl
90 Minutes

The ante has been raised! White powder calls have changed once again! Bath salts, spice, synthetics, and fentanyl, what are we getting into? What are the hazards of these

unknown mixtures? In this presentation we will look at the history, components and chemistry, as well as current trends in these operations. We will examine the alphabet soup of chemicals and explain what they are. How can we identify these chemicals? Why are these operations so hard to stop? What kind of PPE and decon should we use? And what is coming next?

Taught by: Toby Frost

HazMat/Hospital Interface – 90 Minutes

Throughout the country hazardous materials patients have caused the closing of emergency rooms, injured hospital and EMS personnel, and disrupted emergency medical provision in communities. This presentation will evaluate several real events, discuss procedures that will reduce the occurrences of these events and present policies that could assist in a safer transition of contaminated patients to a definitive care facility.

Taught by: Rick Stilp

Lunch Break

11:30 AM – 1:00 PM

Saturday – October 20th
1:00 PM

(LEPC) Does Your Community have a RAD Preparedness Program? – 90 Minutes
How prepared is your community? Come join the discussion and learn from others.

Taught by: Cheryl Weaver-Docimo

Marijuana and Butane Hash Oil – Part 1 of 2
For the last several years there has been a nationwide push to legalize the recreational use of Marijuana in the United States. Recently, eight states, have passed legislation that allows recreational and medical marijuana use. This new addition to the American pastime has created a whole new set of uncontrollable factors for members of the American fire service to train and plan for. As a result, Marijuana Grow Operations are opening up in the communities we serve, faster than fire departments can plan, train and implement safe operating procedures when called to respond to these facilities. Marijuana grows are developed and implemented to maximize the space used, in order to produce higher harvests, thus producing higher profits. In order to do this, netting and wire mesh are used to allow the plants to grow out versus up, producing more buds that can be sold for consumer use. This poses new and increased entanglement hazards for interior fire attack crews. Heavy high voltage lighting is installed to simulate sunlight so the plants will grow, creating increased overhead fall hazards. Chemicals such as Sulfur and Carbon Dioxide are used to control molds and increased Tetrahydrocannabinol production. An unrealized consequence to the madness that Marijuana has created, is the increased use of Butane Hash Oil. This new challenge and growing popularity have dynamically changed the landscape of the American Fire Service. The processes, hazards and real life case studies will be covered during this class to increase the situational awareness of responders. This class was developed to show historical data and decision-making processes by the citizens of Colorado, lawmakers and ultimately the Federal government. This class has been highlighted at the Baltimore IAFC Hazmat Conference, FDIC, Hotzone Hazmat Conference, Midwest Hazmat Conference and the Indiana State Hazmat conference.

Taught by: C. J. Haberkorn and Dana Brown

If You Cannot Measure It; You Cannot Manage It! (Classroom & Hands-on)
Part 1 of 2
When responding to a chemical event, it's critical that the material be identified as soon as possible. The thought process should involve protecting oneself and detecting the product or agent of harm. Most responders under-utilize their detectors in standard hazmat response and seem to get away with it. But in a true chemical event, the importance of monitoring is critical in making key decisions, such as identifying a hoax, establishing zones, making evacuation decisions, mandating PPE and determining decontamination needs. This is a hands on program using tabletop scenarios and multiply interactive detection devices that will provide the first responder the skills that they will need when faced with a hazardous material incident.

Taught by: Frank Docimo

Hunting for Fentanyl in the Field – Part 1 of 2
In this hands-on intensive workshop, participants will use a variety of fentanyl detection and identification technologies including colorimetrics and mass spectrometry for trace and infrared and Raman for bulk in different scenarios. Situations including a patient overdose on street fentanyl, trace fentanyl and cutting agents within a mixing lab, and seized contraband of relatively pure fentanyl will be presented to show how using all the technologies together most effectively drives on-scene risk assessment and resource requirements. Actual field case studies will be shown to highlight the effectiveness of this approach, especially when HazMat and Law Enforcement must work together to address the public health and legal issues of the street fentanyl crisis.

Taught by: Mark Norman

Initial Response to Catastrophic Incidents – 90 Minutes
This interactive discussion is designed to take the emergency responder from emergency response through the conclusion of a large scale incident that involves out-of-area incident management assistance. The program focuses on the interrelation between incident management teams, the local response community, and local jurisdictions.

Taught by: Dave Donohue

Breaking Bad – Safety Through Leadership – 90 Minutes
It would be absurd to hear a company officer say, "it's OK if you get hurt today". Yet, emergency responders continue to be injured and even killed on the scene and during training. What behaviors are contributing to this and/or maybe even causing this? Do our actions as emergency responders support these behaviors either intentionally and unintentionally? How does our tradition and culture influence our behaviors? As emergency responders, change has to start with us. We have to believe we can make a difference and we have to change our behaviors. We need to make zero injuries our new goal and need to demonstrate leadership through safety to achieve that goal. This interactive workshop will challenge hazardous material responders to demonstrate leadership through safety and break the bad behaviors that lead to injuries.

Taught by: Keith Silverman and Bill Cullen

Sex, Drugs, and Rock-n-Roll; Secrets of Making HazMat Standards – 90 Minutes
The process for maintaining the NFPA hazardous materials response documents (ex. NFPA 472) is a mystery to many. Attendees will receive the 'inside dirt' on the hazmat response documents, understand their development and use, and gain an improved understanding of the NFPA standards making process. A facilitated discussion will allow responders to understand how they can provide input and influence these documents.

Taught by: Rick Edinger

The Evolution of HazMat – 90 minutes

How did hazardous materials response get to where it is today? A look back in history at some of the key events that help to drive the evolution that became hazardous materials response. Texas City, Texas; Kingman, Arizona; Crescent City, IL; Shreveport, Louisiana, these are just a few of the events that helped to drive the change that would lead to hazardous materials response. Join us as we follow the road through history stopping along the way to look at the key events that were the catalyst for change. Lessons learned that should not be forgotten.

Taught by: Toby Frost and Butch Hayes

Developing a Playbook for Response to HazMat/WMD Emergencies – 90 Minutes

In recent years emergency responders have had to adapt quickly to the ever-increasing threat of terrorists using WMDs that has significantly impacted the conventional beliefs of emergency response. As well, the development of various tactical and operational procedures to meet the anticipated demands created by a terrorist event has blurred the established division between offensive and defensive response operations. The continually expanding mission for emergency response agencies, in addition to the new threats responders face because of terrorist events, drives a need for a review of operating guidelines to respond safely and effectively.

This facilitated session will explain the difference between:

1. Standard Operating Procedures
2. Standard Operating Guidelines
3. Strategic Plans such as a Jurisdictions Emergency Response Plans

Next, it will provide information on how to develop each of the above listed using a risk-based approach for response to a hazardous material/ Weapons of Mass Destruction (WMD) event. It will emphasize the use of decision-point approach over the use of the traditional tactical-based approach in which responders take specific actions at specific points of the incident based on an assumption that incidents are similar enough to warrant a list of responses. Rather, each incident is dynamic and a function of all the on-scene indicators (product, container, environment), requiring the respondent to be able to adapt during the ongoing and often unpredictable event.

Taught by: Tony Mussorfiti

The HazMat Safety Officer – 90 Minutes

The Haz Mat Safety Officer (HMSO) is a critical position that is involved in every aspect of an incident including decon, PPE, monitoring, setting control zones, communications, tactical decisions and developing the Incident Action Plan. The HMSO works under the Incident Safety Officer and needs to know all the competencies of a Technician, plus all the Mission Specific competencies and Haz Mat Officer competencies. You will learn the job requirements of the Haz Mat Team Safety Officer; how to evaluate an incident for safety using risk-based response concepts, identify potential safety concerns, how to develop a site safety plan based on an IAP, conduct safety briefings, enforce the safety plan, monitor actions in controlled zones and identify high-risk conditions. Learn when to halt unsafe operations and what conditions warrant immediate intervention to prevent

injury to responders. Discussions will center around how the HMSO organizes responsibilities and assists the Incident Commander.

Taught by Rick Emery, Toby Bevelacqua, and Glen Rudner

Common Sense Isn't – 90 Minutes

In the world of safety and hazardous materials response in particular we hear the phase "use common sense" quite a bit. The problem with "common" sense is that it's only common to the person whose sense is in question. Associate Safety Professional Monique Lewis takes a humorous yet practical look at the pitfalls of relying on common sense and will then show participants how to develop a consistent, effective, and relevant training program that will help bring everyone's sense to the same level so that it can indeed be considered "common".

Taught by: Monique Lewis

Surprise! You're the New HazMat Program Manager-Leader-Chief, (Sucker)
90 Minutes

This was exactly what happened to me in my career. With the "promotion hangover" still pounding in my ears, this was certainly not the news I expected to hear. Perhaps this has happened to you and you are now finding yourself navigating uncharted waters as I did. Maybe you've been a career "Glow Worm" but now have to be the responsible adult. What I want you to do is breathe. There now. Better? Okay, now you can freak out, but it's still going to be okay. My goal is to help you avoid the pitfalls I found myself in while providing you with the information I learned (sometimes easily, but most times after the fact). The three main discussion points are:

1. How to put together a HazMat program (either from scratch or from an existing program)
2. How to establish a leadership team, because let's face it, you can't do this alone
3. How to L.E.A.D. - Learn - Educate - Advance - Develop

Taught by: Joshua Fowler

Break

2:30 – 3:00 PM

Saturday – October 20th
3:00 PM

(LEPC) HazMat After the Storm – 90 Minutes

Emergency Support Function-10 governs oil spill and hazardous materials response operations in the wake of a Presidentially Declared Disaster. The 2017 hurricane season, with three Category-4 storms striking different portions of the United States, was a prime example of how this Emergency Support Function is implemented. This case study will look at the ESF-10 operations in the wake of Hurricane Harvey after over 50 inches of rain impacted the Texas Coast. In addition to how to effectively manage an impact area of 34 counties, we will look at operational activities such as hazard assessment; air, water, and soil sampling; wastewater surveys; maritime and landside response and recovery operations; aerial operations and surveys; stakeholder engagement; waste disposal; and documentation and demobilization.

Taught by Joel Ferguson, David Wade, and Joe Leonard

Marijuana and Butane Hash Oil – Part 2 of 2

For the last several years there has been a nationwide push to legalize the recreational use of Marijuana in the United States. Recently, eight states, have passed legislation that allows recreational and medical marijuana use. This new addition to the American pastime has created a whole new set of uncontrollable factors for members of the American fire service to train and plan for. As a result, Marijuana Grow Operations are opening up in the communities we serve, faster than fire departments can plan, train and implement safe operating procedures when called to respond to these facilities. Marijuana grows are developed and implemented to maximize the space used, in order to produce higher harvests, thus producing higher profits. In order to do this, netting and wire mesh are used to allow the plants to grow out versus up, producing more buds that can be sold for consumer use. This poses new and increased entanglement hazards for interior fire attack crews. Heavy high voltage lighting is installed to simulate sunlight so the plants will grow, creating increased overhead fall hazards. Chemicals such as Sulfur and Carbon Dioxide are used to control molds and increased Tetrahydrocannabinol production. An unrealized consequence to the madness that Marijuana has created, is the increased use of Butane Hash Oil. This new challenge and growing popularity have dynamically changed the landscape of the American Fire Service. The processes, hazards and real life case studies will be covered during this class to increase the situational awareness of responders. This class was developed to show historical data and decision-making processes by the citizens of Colorado, lawmakers and ultimately the Federal government. This class has been highlighted at the Baltimore IAFC Hazmat Conference, FDIC, Hotzone Hazmat Conference, Midwest Hazmat Conference and the Indiana State Hazmat conference.

Taught by: C. J. Haberkorn and Dana Brown

Hunting for Fentanyl in the Field – Part 2 of 2
In this hands-on intensive workshop, participants will use a variety of fentanyl detection and identification technologies including colorimetrics and mass spectrometry for trace and infrared and Raman for bulk in different scenarios. Situations including a patient overdose on street fentanyl, trace fentanyl and cutting agents within a mixing lab, and seized contraband of relatively pure fentanyl will be presented to show how using all the technologies together most effectively drives on-scene risk assessment and resource requirements. Actual field case studies will be shown to highlight the effectiveness of this approach, especially when HazMat and Law Enforcement must work together to address the public health and legal issues of the street fentanyl crisis.

Taught by: Mark Norman

If You Cannot Measure It; You Cannot Manage It! (Classroom & Hands-on)
Part 2 of 2
When responding to a chemical event, it's critical that the material be identified as soon as possible. The thought process should involve protecting oneself and detecting the product or agent of harm. Most responders under-utilize their detectors in standard hazmat response and seem to get away with it. But in a true chemical event, the importance of monitoring is critical in making key decisions, such as identifying a hoax, establishing zones, making evacuation decisions, mandating PPE and determining decontamination needs. This is a hands on program using tabletop scenarios and multiply interactive detection devices that will provide the first responder the skills that they will need when faced with a hazardous material incident.

Taught by: Frank Docimo

Slow is Fast/Fast is Lethal – 90 Minutes
Hazmat Commanders and Team Leaders are often criticized for the length involved in resolving hazmat responses. Pressures from department leaders and politicians alike can place incredible pressure on any incident commander. This program explores where slow can be fast and uses several case studies to demonstrate where fast can be potentially lethal to our responders and those we protect.

Taught by: John Emminizer

Legal Aspects of HazMat Response – 90 Minutes
This class will provide an overview of the legal ramifications of fire department hazmat response. Among the topics covered will be environmental and workplace regulations, agencies involved, and legal rights and responsibilities. Basic legal concepts will be discussed with case studies presented as illustration.

Taught by: Alan Finkelstein

Chemical Analysis and Risk Assessment – 90 Minutes
The utilization of a "Risk Based Response" process where decisions are made based upon facts, science and circumstances of an incident is a recommended practice at HazMat/WMD incidents. The four components of risk are incorporated into the risk

based response process and then applied to simulated and actual incidents referencing smart practices.

NFPA 472 Competencies for Hazardous Materials Technicians with an Advanced Chemical Risk Assessment and Analysis Specialty are incorporated into this workshop.

Taught by: Dave Matthew

Tactical Monitoring – 90 Minutes

This course is designed to provide a matrix and a metering plan for responders to use from the start of an incident through its conclusion. Topics will include the basics and tactical use of 4 gas, colormetrics, TICS, PIDs, Rad, and Spectroscopy. Students will leave with a plan for proper setting up of zones, proper metering techniques, meter selection, and the use of meters during decon.

Taught by: Doug Rohn and Joe Bartholomew

The PEAC-WMD Decision Support Software for HazMat/CBRNE Professionals 90 Minutes

PEAC-WMD is a hazmat planning/response software used by many of the teams who go to Hotzone. This course will illustrate how PEAC-WMD can be used in technical reference and situational analysis as well as modeling and incident reporting. The instructor will cover how to use the various models in PEAC, lookup Tier II information, auto-fill ICS forms, and determine safety priorities for responders and the public. The course will include scenarios based on real incidents and the specific concerns of the students attending the class. At the end of this course students will know how to access, use and distribute the data sets and tools included in PEAC-WMD and have a heightened awareness of software support aids available to assist their teams in response efforts. The goal is to make it a class where the Hotzone attendees can go back to their stations and share what they learned for greater proficiency throughout their department in how to use PEAC to keep responders safe.

Taught by: Matt Stewart

Protective Garments for Fentanyl/Opioid Compounds – 90 Minutes

This session will review the requirements and guidance put forth by the IAB, CDC/NIOSH and the DEA. The NFPA standards 1994 and 1999 will be reviewed as well. Recent events and discussion related to the toxicology of fentanyl contact with the skin will be included. Garment designs for improved protection and donning/doffing will be evaluated.

<u>Learning Objectives:</u>

The participant will be more familiar with the recommendations and guidance published by IAB and CDC/NIOSH.

1. The participant will be more familiar with the requirements of the two standards 1994 and 1999.

2. The participant will better understand the types of garments necessary for response to opioid compounds.
3. The participant will be able to recall the shortcomings of certain product designs and how they can be improved.

Taught by: Philip Mann

Leak Mitigation Using Water Injection – 90 Minutes

The "Leak Mitigation Using Water Injection" class consists of classroom instruction using on screen presentations, display props and product demonstrations. Topics of discussion include: propane properties, when to and when not to use water injection, vehicle orientation, plumbing/piping systems, assortment of tank options/attachment points, valving, weight issues, pressure management, transportation options, kit components, kit application, pressure gauge verification, liquid volume and temperature control and more.

The students will participate in the application of an WATER INJECTION KIT building on what was learned in the classroom by connecting the kits components to an assortment of available tanks or cylinders. The students will see firsthand the limitations caused by system restrictions that limit flow, the importance of managing product levels and how temperature and pressure information is applied. Flaring Propane with live demonstrations (live release if available) enforces the learning process and demonstrates an additional product management option. This course is designed to provide the student with the information needed to respond to, connect and manage water injection into a live propane tank and utilize flaring as a product removal option.

Taught by: Ronald Huffman

The Hidden Leak: Places We Forgot to Look – 90 Minutes

This presentation will introduce the uses of infrared technology for fire grounds and beyond in the detection of Hydrocarbon leaks. The demonstrations and research material will be presented using a FLIR GF 300 series camera. I will take a simple approach using my field experience. This, coupled with proven technology, will give insight to how the fire industry can utilize the infrared camera to detect leaks and enhance fire programs. During the presentation, we will examine mock and actual leaks from various places.

IR (infrared) imaging technology is the perfect tool for detecting hydrocarbon leaks within Fire and/or Hazmat industries. This presentation is intended to give the audience an idea of how IR technology can be beneficial for "in field" level uses. Additionally, it will motivate individuals with gaining support through first-hand, in-field experiences. Within the presentation, initial set-up and camera operations will be discussed and conclude with the delivery of high quality video and still shots which can be used for reports. Within this, I will be discussing the abilities to utilize the camera in monitoring and maintaining safety on fire grounds.

Taught by: Timothy Crockett