

TRAINING Schedule*



Monday, June 18th

0900 - 1000	Opening Ceremonies
1000 - 1030	Training Event Announcements & Business Meeting
1030 - 1100	Check out the tools, equipment, and services in the IABTI's International In-Service EXPO!
1100 - 1150	How Fast is Technology Outpacing your Training? <i>presented by Russell Szczepaniec</i> The world economy is relentless in developing better and cheaper technologies applicable to bomb building. The world population is also relentless in sharing more & more information applicable to bomb building. It is apparent that many, if not most, bomb technicians aren't even aware of the advancements directly applicable to bomb design and building, much less training for it. They are still training for devices and ideas of the past. While this is good for 99% of the devices encountered, losing people over ignorance of that remaining 1% is unacceptable.
1200 - 1300	Lunch
1300 - 1350	New IED Trends and Tactics 2018 <i>presented by Michael Cardash</i> Review of new IED trends and tactics in 2018: *Non-metal and Rosary pressure plates - Sahel and middle east *RCIEDs versus ECM - the battle in Thailand *HME- TATP large amounts and to where? *Western Europe PBIEDs - the fake phenomenon - new global trend ***Other trends and IED tactics emerging in 2018 prior to this IABTI event.
1400 - 1450	Traumatic Brain Injury, PTSD and Suicide <i>presented by Alexandra Bradley & Leo Bradley</i> Discuss injury pathology associated with TBI and PTSD. How TBI and PTSD are underlying causes of Suicide. Suicide rates among EOD against Military and US Population Rates. Recognizing signs and symptoms of TBI, PTSD and warning signals for suicide and how to help.
1500 - 1550	DTMF & IOT (Internet of Things) Based Devices <i>presented by David Keener</i> Technology being used to remotely control devices - from across the street, and around the world.
1600 - 1700	Chemical Analysis of Exploding Targets <i>presented by John Jermain</i> Over the last two years, the ATF forensic laboratory has purchased over twenty commercially available exploding targets to determine their chemical composition. The analysis included determining the oxidizer/fuel component, the percent composition of the oxidizer/fuel component, as well as the source of the oxidizer/fuel component.
1900 - 2100	IABTI International Expo's Annual Welcome Reception in the Exhibit Hall

Tuesday, June 19th

Three Split Tracks: Bomb Squad Operations, Post Blast Investigations, and Explosives Detection Canine Handler

Bomb Squad Operations

0800 - 0850	Military Munitions Commonly Encountered by Civil Authorities <i>presented by Michael Ault</i> Identification, function, and safety considerations for military munitions commonly encountered by civil authorities. Munitions covered were chosen from Defense Support to Civil Authorities (DSCA) reports from Department of Defense EOD units and represent the most commonly encountered ordnance across the USA.
0900 - 0950	K9 Search in Active Threat Response <i>presented by Michael Eldredge</i> Training and use of Explosive Detection K9 for searches in Active Threat Response Scenarios. The presentation walks the audience through the reasoning, training and implementation of using canines as a tool to assist Bomb Technicians in rapidly clearing a scene of explosive threats.
1000 - 1050	Bomb Squad Operations in a Natural Disaster <i>presented by James Luplow</i> The Houston Bomb Squad was called upon to conduct unconventional operations in the wake of Hurricane Harvey in August 2017 . These included demolishing a section of I-10 and using explosives to render safe an out-of-control chemical plant.
1100 - 1150	Bomb Squad Test Bed Assessments <i>presented by Jeff David & Byung Hee</i> Recent accomplishments and future plans of REDOPS, including the selection of a new International Test Bed location, recently published special technician bulletins, upcoming Test Bed assessments, the requirements prioritization process, and call for micro-R&D candidates.
1200 - 1300	Lunch
1300 - 1350	Possible Effects of Wall Reflections on the Blast Overpressure Threat to Bomb Technicians <i>presented by Aris Makris</i> Review of past experimental and numerical work on free-field and reflected blast overpressure threats posed to bomb technicians. Findings from a simplified blast simulation tool will be presented to illustrate useful trends of relevance to enhancing the safety from the blast overpressure threat to bomb technicians in confined environments (single wall, corner, corridor, presence of ceiling)

The International Association of Bomb Technicians and Investigators

*this schedule is preliminary & subject to change as many of our trainers have official duties which may require them to attend to unforeseen events

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Tuesday, June 19th, continued

Three Split Tracks: Bomb Squad Operations, Post Blast Investigations, and Explosives Detection Canine Handler

Bomb Squad Operations, continued

- 1400 - 1430 **IABTI's International In-Service EXPO** – dedicated time for the Expo. Check out the companies that help keep you safe
- 1430 - 1550 **Air Overpressure Measurements & Structure Response for Open Air-Detonations** *presented by Cathy Aimone -Martin*
- 1600 - 1700 **Evolution and Future of the Tactical Bomb Tech Program** *presented by John Stewart*
The history and vision for the tactical bomb tech will be presented by the Director of the Hazardous Devices School.

Post Blast Investigations

- 0800 - 0950 **Bomber Behavioral Analysis (A Psychological Perspective)** *presented by Stephen Patrick*
This course is designed to introduce investigators with behavioral concepts that may be incorporated in the investigation of bombing investigations. Investigators will be familiarized to concepts that provide insight into bomber motivation and provide an opportunity to analyze various aspects related to the offender as related to the device construction, offender targeting, and victimology.
- 1000 - 1050 **Attempted Bombing of the Nederland CO Police Department** *presented by Travis McCrady and Graham Coder*
The attempted bombing of the Nederland Police Department is a fascinating case study. It introduces odd investigative leads, difficult RSP decisions, and complex forensic analyses. The case agent and the lab examiner will both share their experiences with this unique case.
- 1100 - 1150 **Explosion from a Victim-Activated Improvised Device** *presented by Malinda Durand*
Multi-agency, multi-disciplinary case study. Local, state, and federal law enforcement agencies were involved. In the laboratory, scientists specializing in explosives, fire debris, DNA, fingerprints, and toolmarks were all involved and found significant evidence to associate the suspects in this case to the device.
- 1200 - 1300 Lunch
- 1300 - 1450 **Forensic Exploitation, Technical Intelligence Applied to C-IED Process;** *presented by John Frucci*
Part I: Post Blast Evidence Collection and Exploitation.
Part 2. The Weapons Technical Intelligence (WTI) Process (what happens to the evidence after forensic exploitation).
- 1500 - 1550 **AA Flight 444 – UNABOMer** *presented by Robert Silver*
A first-hand account of the events on-board AA #444 where a barometric triggered device detonated in-flight. This device was created and deployed by Dr. Theodore J. Kaczynski – aka UNABOMer.
- 1600 - 1700 **Water Taxi/Ferry Attacks in Mexico Tourist Areas (Playa de Carmen)** *presented by Sergio Salazar-Soto*

Explosives Detection Canine Handler (in Silver Baron A, meeting rooms in the Silver Legacy by the mining rig)

- 1400 - 1450 **Operant Conditioning EDD's** *presented by David Bates*
How operant conditioning and classical conditioning affect dogs during explosives dog training.
- 1500 - 1550 **Training & Deployment of Long Distance off lead Explosives Detection Canines** *presented by Michael Montmorency*
Explore the tools and techniques used to train an off lead long-distance explosives detecting canine. To include commands and the importance of recall capability. Will show how traditional retriever training techniques have been used successfully to increase abilities to work at a longer distances.

USBDC – BATS (in Silver Baron E, meeting rooms in the Silver Legacy by the mining rig)

- 0900 – 0950 **BATS Orientation Training**
- 1000 – 1050 **BATS as an Investigative Tool**



IABTI 2018

International In-Service Training & Expo

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Wednesday, June 20th

Simultaneous, Multi-track, Hands-on/Demonstrative Training

NOTE: Each session is offered twice

LOCATIONS: **RANGE Areas:**

Washoe County Firearms Range

graciously sponsored by Reno/Washoe Regional Consolidated Bomb Squad

21555 Pyramid Lake Hwy, Reno, NV 89510

CLASSROOMS:

Reno Ballroom (site of IABTI Exhibit Hall)

Range Area 1 - Explosive Tools/Equipment (2 lb. NEW Limit)

0900 - 1050 **Remote Blasting, Explosive Detection & Containment;** *Cory Starr, Blaster One and Keren Banai, Mistral Security*
1100 - 1200 **Explosively Propelled Water Charges;** *Andy Carss, Alford Technologies*
1200 - 1300 Lunch
1300 - 1400 **Explosively Propelled Water Charges;** *Andy Carss, Alford Technologies*
1410 - 1600 **Remote Blasting, Explosive Detection & Containment;** *Cory Starr, Blaster One and Keren Banai, Mistral Security*

Range Area 2 - TCV/Blasting Instruments (1 lb. NEW Limit)

0900 - 1050 **Measurements of Over-Pressures;** *Cathy Aimone-Martin, Aimone-Martin Associates, LLC*
1100 - 1200 **TCV CBRNE;** *Kim King, NABCO Systems*
1200 - 1300 Lunch
1300 - 1400 **TCV CBRNE;** *Kim King, NABCO Systems*
1410 - 1600 **Measurements of Over-Pressures;** *Cathy Aimone-Martin, Aimone-Martin Associates, LLC*

Range Area 3 - Disruptors (Low Explosives)

0900 - 1050 **Cartridge Actuated Water Opening Tools Micro R&D;** *Rich Langner, Concept Development Corp.*
1100 - 1200 **Advantages of Recoilless Disruptor Technology Against Current Threats;** *Cathy Parker, Proparms, Ltd.*
1200 - 1300 Lunch
1300 - 1400 **Advantages of Recoilless Disruptor Technology Against Current Threats;** *Cathy Parker, Proparms, Ltd.*
1410 - 1600 **Cartridge Actuated Water Opening Tools Micro R&D;** *Rich Langner & Chris Rogers, Concept Development Corp.*

Range Area 4 - Disruptors (Low Explosives)

0900 - 1030 **Capabilities of Lance Disruptor;** *Andrei Panait, CTS*
1040 - 1200 **Emerging Disruptor Technologies;** *Johnathan Brill, Royal Arms*
1200 - 1300 Lunch
1300 - 1430 **Capabilities of Lance Disruptor;** *Andrei Panait, CTS*
1440 - 1600 **Emerging Disruptor Technologies;** *Johnathan Brill, Royal Arms*

Range Area 5 - Non-Explosive Tools/PPE

0900 - 1050 **Avenger ROV Demo & Capabilities;** *Stan Mathiasen, MED-ENG A Brand of the Safariland Group*
1100 - 1200 **Mechanical Shearing Target Attack;** *Steve Ackerman, PowerHawk*
1200 - 1300 Lunch
1300 - 1450 **Avenger ROV Demo & Capabilities;** *Stan Mathiasen, MED-ENG A Brand of the Safariland Group*
1500 - 1600 **Mechanical Shearing Target Attack;** *Steve Ackerman, PowerHawk*

Range Area 6 - Drone

0900 - 1100 **Hazmat Sensor Search Techniques Using Robots;** *Jeremy Wallace, REMOTEC*
1000 - 1200 **Drone Usage and Defense for Bomb Technicians and Post Blast Investigations;** *Jeremy Stafford, Ideal Blasting Supply*
1200 - 1300 Lunch
1300 - 1500 **Hazmat Sensor Search Techniques Using Robots;** *Jeremy Wallace, REMOTEC*
1400 - 1600 **Drone Usage and Defense for Bomb Technicians and Post Blast Investigations;** *Jeremy Stafford, Ideal Blasting Supply*

TRAINING Schedule, page three

Wednesday, June 20th, continued

Simultaneous, Multi-track, Hands-on/Demonstrative Training

NOTE: Each session is offered twice

LOCATION: CLASSROOMS below will be at the Reno Ballroom (same hall as exhibits were in)

Classroom #1

0800 - 0930 **NOVO DR Digital Radiography;** *Chris Bellows, NOVO DR LTD*
1000 - 1200 **Advanced DR (Direct Read) X-Ray -- The Safer Way to Look for Trouble;** *Joel Riling, SharpLogixx LLC, SmartRayVision*
1200 - 1300 Lunch
1300 - 1500 **Advanced DR (Direct Read) X-Ray -- The Safer Way to Look for Trouble;** *Joel Riling, SharpLogixx LLC, SmartRayVision*
1530 - 1700 **NOVO DR Digital Radiography;** *Chris Bellows, NOVO DR LTD*

Classroom #2

0800 - 0950 **XTK3 - A Sneak Peek at What's New;** *Josh Cordova, Sandia National Labs*
1000 - 1200 **Merits of Using CR and DR Portable X-Ray Equipment;** *Bill Movalson; Scanna*
1200 - 1300 Lunch
1300 - 1450 **Merits of Using CR and DR Portable X-Ray Equipment;** *Bill Movalson; Scanna*
1500 - 1700 **XTK3 - A Sneak Peek at What's New;** *Josh Cordova, Sandia National Labs*

Classroom #3

0800 - 0930 **Field Tests for Explosives and Precursors;** *Rick Houghton, Houghtons, Inc.*
1000 - 1130 **Field Detection of Explosives - Usability of Colorimetric Tests vs. Instrumentation;** *Roxana Nicolaescu, Serim*
1140 - 1200 **Combing Explosive Vapor and Particulate Detection as Part of a Comprehensive CBRNE Solution;** *Ross Harper, FLIR*
1200 - 1300 Lunch
1300 - 1320 **Combing Explosive Vapor and Particulate Detection as Part of a Comprehensive CBRNE Solution;** *Ross Harper, FLIR*
1330 - 1500 **Field Detection of Explosives - Usability of Colorimetric Tests vs. Instrumentation;** *Roxana Nicolaescu, Serim*
1530 - 1700 **Field Tests for Explosives and Precursors;** *Rick Houghton, Houghtons, Inc.*

Classroom #4

0800 - 0950 **The Bomb in the Garage;** *Chris Spurrell, Daedalus Chemical*
1000 - 1050 **Portable Explosives Neutralization Solution (PENS) for First Responders;** *Valentine Nzengung, MuniRem Environmental*
1100 - 1200 **Rapid Field Detection & ID of Explosives and HME's Using HF-QCM Nanotechnology Sensors;** *Dorn Shalom, MS Tech*
1200 - 1300 Lunch
1300 - 1350 **Rapid Field Detection & ID of Explosives and HME's Using HF-QCM Nanotechnology Sensors;** *Dorn Shalom, MS Tech*
1400 - 1450 **Portable Explosives Neutralization Solution (PENS) for First Responders;** *Valentine Nzengung, MuniRem Environmental*
1500 - 1700 **The Bomb in the Garage;** *Chris Spurrell, Daedalus Chemical*

Classroom #5

0800 - 0830 **DR detection of EOD/IED;** *Frank Morgan, Vidisco*
0845 - 0950 **Integrating X-Ray onto your ICOR Robotic Platform;** *Dan Murphy, ICOR Technology*
1030 - 1200 **IED Construction and Classification;** *DHS Office for Bombing Prevention*
1200 - 1300 Lunch
1300 - 1330 **DR detection of EOD/IED;** *Frank Morgan, Vidisco*
1400 - 1500 **Homemade Explosives (HME) & Precursor Awareness ;** *DHS Office for Bombing Prevention*
1510 - 1630 **Integrating X Ray onto your ICOR Robotic Platform;** *Dan Murphy, ICOR Technology*

Classroom #6

0800 - 0950 **Ordnance Identification, Overview and Practical Application;** *Tom Gersbeck, Oklahoma State University*
1000 - 1050 **The Role of Real-Time Vision Enhancement in EOD Missions;** *Gaelen Hatfield, AMP Research, Inc.*
1100 - 1200 **Wire Attack Training;** *David Keener, KeenTech LLC*
1200 - 1300 Lunch
1300 - 1450 **Ordnance Identification, Overview and Practical Application;** *Tom Gersbeck, Oklahoma State University*
1500 - 1550 **The Role of Real-Time Vision Enhancement in EOD Missions;** *Gaelen Hatfield, AMP Research, Inc.*
1600 - 1700 **Wire Attack Training;** *David Keener, KeenTech LLC*



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Wednesday, June 20th, continued

Explosives Detection Canine Training (Practical Training) (in Silver Baron E)

- 1300 - 1450 **K9 Search in Active Threat Response;** *Michael Eldredge*
1500 - 1700 **Training and Deployment of Long Distance off lead Explosives Detection Canines;** *Michael Montmorency*

Thursday, June 21st

Two tracks: IABTI Explosives Safety Certificate Program or Pyrotechnics

IABTI Explosives Safety Certificate Program - Classroom #1

See attached for details on this eight (8) hour certificate course – must attend both Part I and Part II

- 0800 - 1150 **IABTI Explosive Safety Certificate Program Part I - Explosives Handling and Operations**
1200 - 1300 Lunch
1300 - 1700 **IABTI Explosive Safety Certificate Program Part II - Explosive Safety Regulations**

Pyrotechnics - Classroom #2

- 0800 - 1150 **Pyrotechnics - Automotive, Industrial & Commercial Applications** *presented by Jackson Shaver*
1200 - 1300 Lunch
1300 - 1700 **Display Fireworks and Pyrotechnic Articles** *presented by Randy Reyman & Scott Haeffner*

Friday, June 22nd

- 0800 – 0850 **Grant Funding Assistance Strategy** *presented by Michael Asimor*
What is a Grant? Why Every Public Safety Agency Can Apply for and Get Grant Funding, Streamlining Your Grant Application Process, and More!
- 0900 - 0950 **Hampton Road Case Study (TATP)** *presented by Patrick Morris*
2016 Case Study detailing the process used to make the HME, the collaboration between disciplines, evidence collections, explosive chemical verification, render safe process, and prosecution.
- 1000 - 1050 **Enhanced Interoperability..HME Scenes** *presented by Craig Coutts*
Learn about the Queensland Police Service (QPS), Queensland, Australia's cohesive response to the home-made explosive (HME) threat from two vastly different units and how they ultimately reach a safe conclusion, without sacrificing valuable evidence.
- 1100 - 1150 **DHS/TSA Red Teaming** *presented by Tor Hvidsten and Marcus Mikulcik*
Mission overview, current efforts and testing methodology to include intelligence driven scenario creation and testing operations.
- 1200 Close of In-Service Training and Adjourn



IABTI 2018

International In-Service Training & Expo

International Association of Bomb Technicians and Investigators
Certification Program Committee

Explosives Safety Certificate Program (IABTI-ESC)

This certificate class will be offered on Thursday, June 21, 2018 as part of In-Service Training

Introduction

The IABTI Explosives Safety Certificate program is designed and intended to prepare individuals whose responsibilities include the handling or use of explosive materials in their employment. This includes: generally accepted standards/practices related to the safe handling of explosives (OSHA, IME, NFPA, etc.); explosives transportation regulations and exemptions (OSHA, DOT, etc.), and explosive storage regulations and exemptions (OSHA, ATF, etc.). This program is designed to prepare explosive handlers with the knowledge needed to handle explosive materials in conformity to industry safe practices and federal compliance requirements.

Intended Audience

This program is primarily design for the Bomb Technician, Explosive Detection Canine Handler, Explosive Breacher, or other individuals, who will handle explosives materials/devices as part of their employment responsibilities.

Subjects Covered

- 1) Identification of Explosive Materials
- 2) Explosive/Explosion Safety Hazards/Dangers
- 3) Explosive Safe Practices (IME/OSHA Standards)
- 4) Transportation Regulations for Explosives (U.S. DOT Requirements)
- 5) Explosive Storage Regulations (U.S. ATF Requirements)
- 6) Special Situations (Canine Training Aids, Explosive Breaching, Pyrotechnic Materials Handling)

Requirements

Attend the full 8-hour IABTI Explosives Safety Certificate course at a IABTI sponsored event and successfully complete the final certification examination (50 question) with a passing score of at least 80%. This certificate will remain in effect for a period not to exceed 5 years and must be retaken in order for the certificate to remain in continued effect. The certificate will be issued at the time all requirements have been satisfied.

Costs

This program is offered at no cost to IABTI members who attend as part of an official IABTI In-Service training event. Non-members may also attend the training for a fee of \$150.00.