

**SYMPOSIUM ON FIRE AND**  
**EXPLOSION DEBRIS ANALYSIS AND**  
**SCENE INVESTIGATION: LINKING**  
**THE SCENE, LABORATORY, AND**  
**COURTROOM**

**SPONSORED BY THE TECHNICAL  
WORKING GROUP FOR FIRE AND  
EXPLOSIONS (TWGFEX) AND THE  
NATIONAL CENTER FOR FORENSIC  
SCIENCE (NCFS)**

**AUGUST 15 THROUGH 17, 2001  
ORLANDO, FLORIDA**

# **SYMPOSIUM SCHEDULE**

## **Fire and Explosion Scene Presentations**

Wednesday, August 15, 2001

8:15 am to 8:30 am            Opening remarks; Ms. Carrie Morgan Whitcomb, Director, National Center for Forensic Science, and Mr. Carl Chasteen, Chair, Technical Working Group for Fire and Explosions (TWGFEX)

8:30 am to 9:30 am            [G1] Presentations by TWGFEX Technical Managers; Mr. Thomas Minnich, Mr. Steve Allen, and Mr. Stuart Case

Moderator: Mr. Ron Hopkins, Assistant Professor, Fire and Safety Engineering Technology, Eastern Kentucky University

9:30 am to 10:00 am            [S1] "Safety Considerations at Explosion Scenes", Mr. Ronald Kelly, Laboratory Division, Federal Bureau of Investigation, Washington, D. C., and Mr. Jamie B. Crippin, Colorado Bureau of Investigation, Pueblo, Colorado

10:00 am to 10:30 am            Break

10:30 am to 12:00 noon            "Safety Considerations at Explosion and Fire Scenes" (continued)

12:00 noon to 1:00 pm            Lunch

Moderator: Special Agent Gerry Ruddin, National Response Team, Bureau of Alcohol Tobacco and Firearms

1:00 pm to 3:00 pm            [S2] "Legal Issues Critical to NFPA 921 and Evidence Spoliation", Mr. Jack Ward, Ward & Whitemore, Universal Fire Consultants, Jacksonville, Florida, and Mr. Guy E. Burnette, Butler, Burnette & Pappas, Tallahassee, Florida

3:00 pm to 3:30 pm            Break

3:30 pm to 4:00 pm            [S3] "Fire Scene Mapping", Ms. Carrie Whitcomb, National Center for Forensic Science, University of Central Florida, Orlando, Florida

Wednesday, August 15, 2001 (continued)

- 4:00 pm to 5:30 pm [S4] "Fire Scene Safety and Health Guidelines", Mr. Michael Donahue, Fire Research Laboratory, Bureau of Alcohol, Tobacco and Firearms, Rockville, Maryland
- 7:00 pm to 9:00 pm [F5] "The Use of Digital Photography in Crime Scene Investigations", Mr. Mike Fountain, Photographix, Richmond, Virginia (repeat presentation)

Thursday, August 16, 2001

Moderator: Special Agent Frank Malter, Bureau of Alcohol, Tobacco and Firearms, Fayetteville, North Carolina

- 8:00 am to 9:45 am [S5] "The Use of *InterFire* in Fire Scene Investigator Training", Mr. Joe Toscano, American Reinsurance Company, Hartford, Connecticut
- 9:45 am to 10:15 am Break
- 10:15 am to 12:00 noon [S6] "The Use of Scientific Method in Fire and Explosion Scene Investigations", Special Agent Steven J. Avato, Bureau of Alcohol, Tobacco and Firearms, Trenton, New Jersey
- 12:00 noon to 1:00 pm Lunch (provided)

Moderator: Major Ron McCardle, Florida State Fire Marshal's Office, Tallahassee, Florida

- 1:00 pm to 3:00 pm [S7] "Fire Modeling in Scene Investigations", Mr. Dan Madrzykowski, National Institute of Standards and Technology, Gaithersburg, Maryland
- 3:00 pm to 3:30 pm Break
- 3:30 pm to 4:00 pm [S8] "Documenting the Fire Scene", Captain Wayne Petrovich, Florida State Fire Marshal's Office, Orlando, Florida
- 4:00 pm to 4:30 pm [S9] "Development of a Web-Based Post Blast Bomb Investigation Course", Mr. Stuart Case, Technical Manager, National Center for Forensic Science, Orlando, Florida

Thursday, August 16, 2001 (continued)

4:30 pm to 5:30 pm [S10] “The National Institute of Justice Fire and Explosion Scene Guides”, Mr. J. Tom Thurman, Eastern Kentucky University, Richmond, Kentucky, and Mr. Ronald Kelly, Federal Bureau of Investigation, Washington, D. C.

Friday, August 17, 2001

Moderator: Major Ron McCardle, Florida State Fire Marshal’s Office, Tallahassee, Florida

8:00 am to 9:00 am [S11] “Issues in Evidence Contamination”, Mr. Gregory P. Czarnopys, Bureau of Alcohol, Tobacco and Firearms, Forensic Science Laboratory, Rockville, Maryland

Moderator: Mr. Carl E. Chasteen, Director, Fire and Arson Laboratory, Florida State Fire Marshal’s Office, Havana, Florida

9:00 am to 10:00 am [G2] “The Scene, Analytical, and Legal Aspects of the Unabomber Case”, Mr. Stephen P. Freccero, Morrison and Foerster, San Francisco, California; Mr. Christopher Ronay, Institute of Makers of Explosives, Washington, D. C.; and Special Agent Frank R. Doyle, Federal Bureau of Investigation, Oakland, California

10:00 am to 10:30 am Break

10:30 am to 11:45 am “The Scene, Analytical, and Legal Aspects of the Unabomber Case” (continued)

11:45 am Dismissal, Captain Wayne Petrovich, Florida State Fire Marshal’s Office, Orlando, Florida

# **SYMPOSIUM SCHEDULE**

## **Fire Debris Analysis Presentations**

Wednesday, August 15, 2001

8:15 am to 8:30 am            Opening remarks; Ms. Carrie Morgan Whitcomb, Director, National Center for Forensic Science, and Mr. Carl Chasteen, Chair, Technical Working Group for Fire and Explosions (TWGFEX)

8:30 am to 9:30 am            [G1] Presentations by TWGFEX Technical Managers; Mr. Thomas Minnich, Mr. Steve Allen, and Mr. Stuart Case

Moderator: Ms. Amy Duhaime, Rhode Island State Crime Laboratory, Kingston, Rhode Island

9:30 am to 10:00 am            [F1] "Ignitable Liquid Classification System", Ms. Julia Dolan, Bureau of Alcohol, Tobacco and Firearms, Forensic Science Laboratory, Rockville, Maryland

10:00 am to 10:30 am            Break

10:30 am to 11:00 am            [F2] "The Use of Neural Networking in Fire Debris Analysis", Mr. Matthew J. Vona, California Department of Justice, Sacramento, California

11:00 am to 11:15 am            [F3] "National Forensic Science Technology Center (NFSTC) Quality Standards for Fire Debris Analysis", Mr. David Epstein, NFSTC, St. Petersburg, Florida

11:15 am to 12:00 noon            [F4] "The TWGFEX Ignitable Liquid Database", Mr. Jim Cerven, Illinois State Police Bureau of Forensic Sciences, Springfield, Illinois, Mr. Carl Anglesea and Ms. Mary Williams, National Center for Forensic Science, Orlando, Florida

12:00 noon to 1:00 pm            Lunch

Moderator: Ms. Carol Clemmons, U. S. Army Crime Laboratory, Forest Park, Georgia

1:00 pm to 3:00 pm            [F5] "The Use of Digital Photography in Crime Scene Investigations", Mr. Mike Fountain, Photographix, Richmond, Virginia (to be repeated at 7 pm to 9 pm)

3:00 pm to 3:30 pm            Break

Wednesday, August 15, 2001 (continued)

- 3:30 pm to 4:00 pm [F6] "Analysis of Residual Ignitable Fluids in Fire Debris by GC/MS/MS", Mr. Manop Sittidech, The University of Alabama, Tuscaloosa, Alabama
- 4:00 pm to 4:30 pm [F7] "Implementation of GC/MS Software for Computer Assisted Pattern Recognition", Dr. Wolfgang Bertsch, The University of Alabama, Tuscaloosa, Alabama
- 4:30 pm to 5:00 pm [F8] "GC/MS Substrate Specific Component Analysis of Fire Debris Samples", Mr. Philip Antoci, New York City Crime Laboratory, New York, New York
- 7:00 pm to 9:00 pm [F5] "The Use of Digital Photography in Crime Scene Investigations", Mr. Mike Fountain, Photographix, Richmond, Virginia (repeat presentation)

Thursday, August 16, 2001

Moderator: Ms. Valerie Turner, Mississippi Crime Laboratory, Jackson, Mississippi

- 8:00 am to 9:45 am [F9] "Petroleum Refining Operations", Dr. Marvin M. Johnson, Phillips Research Center, Bartlesville, Oklahoma
- 9:45 am to 10:15 am Break
- 10:15 am to 12:00 noon "Petroleum Refining Operations" (continued)
- 12:00 noon to 1:00 pm Lunch (provided)

Moderator:

- 1:00 pm to 3:00 pm [F10] "Pattern Recognition and Data Interpretation in Fire Debris Analysis", Ms. Reta Newman, Director, Pinellas County Forensic Laboratory, Largo, Florida
- 3:00 pm to 3:30 pm Break
- 3:30 pm to 5:30 pm "Pattern Recognition and Data Interpretation in Fire Debris Analysis" (continued)

Friday, August 17, 2001

Moderator: Ms. Sherrie Thomas, Bureau of Alcohol, Tobacco and Firearms, Atlanta, Georgia

8:00 am to 9:00 am [F11] “The Use of Solid Phase Micro-Extraction in Fire Debris Analysis”, Dr. José R. Almirall, Department of Chemistry, Florida International University, Miami, Florida

Moderator: Mr. Carl E. Chasteen, Director, Fire and Arson Laboratory, Florida State Fire Marshal’s Office, Havana, Florida

9:00 am to 10:00 am [G2] “The Scene, Analytical, and Legal Aspects of the Unabomber Case”, Mr. Stephen P. Freccero, Morrison and Foerster, San Francisco, California; Mr. Christopher Ronay, Institute of Makers of Explosives, Washington, D. C.; and Special Agent Frank R. Doyle, Federal Bureau of Investigation, Oakland, California

10:00 am to 10:30 am Break

10:30 am to 11:45 am “The Scene, Analytical, and Legal Aspects of the Unabomber Case” (continued)

11:45 am Dismissal, Captain Wayne Petrovich, Florida State Fire Marshal’s Office, Orlando, Florida

# **SYMPOSIUM SCHEDULE**

## **Explosives Debris Analysis Presentations**

Wednesday, August 15, 2001

8:15 am to 8:30 am            Opening remarks; Ms. Carrie Morgan Whitcomb, Director, National Center for Forensic Science and Mr. Carl Chasteen, Chair, Technical Working Group for Fire and Explosions (TWGFEX)

8:30 am to 9:30 am            [G1] Presentations by TWGFEX Technical Managers; Mr. Thomas Minnich, Mr. Steve Allen, and Mr. Stuart Case

Moderator: Mr. David Green, Lake County Crime Laboratory, Painesville, Ohio

9:30 am to 10:00 am        [E1] “The Technology of Explosives Manufacturing”, Mr. John Capers, Austin Powder Company, McArthur, Ohio

10:00 am to 10:30 am        Break

10:30 am to 12:00 noon      “The Technology of Explosives Manufacturing” (continued)

12:00 noon to 1:00 pm       Lunch

Moderator:

1:00 pm to 2:00 pm        “The Technology of Explosives Manufacturing” (continued)

2:00 pm to 3:00 pm        [E2] “Pipe Bomb Fragmentation Study”, Dr. Jimmie Oxley, University of Rhode Island, Kingston, Rhode Island

3:00 pm to 3:30 pm        Break

3:30 pm to 4:00 pm        [E3] “Application of LC/MS for the Forensic Identification of Ammonium Nitrate”, Dr. Xiaoming Zhao, National Center for Forensic Science, Orlando, Florida

4:00 pm to 4:30 pm        [E4] “The NIJ Computer Database of Raman Spectra”, Dr. Kevin McNesby, U. S. Army Research Laboratory, Aberdeen Proving Ground, Maryland



Wednesday, August 15, (continued)

- 4:30 pm to 5:00 pm [E5] "Characterization and Origin Identification of Explosives by LC/MS", Dr. Jehuda Yinon, National Center for Forensic Science, Orlando, Florida
- 5:00 pm to 5:30 pm [E6] "Rapid Early Warning of Approach to Lower Explosive Limit Using Microphotonic Sensors", Dr. Kevin McNesby, U. S. Army Research Laboratory, Aberdeen Proving Ground, Maryland
- 7:00 pm to 9:00 pm [F5] "The Use of Digital Photography in Crime Scene Investigations", Mr. Mike Fountain, Photographix, Richmond, Virginia (repeated)

Thursday, August 16, 2001

Moderator: Mr. Harry M. Finley, Navy Criminal Investigative Service, Norfolk, Virginia

- 8:00 am to 9:45 am [E7] "Explosives Debris Analytical Schemes", Mr. Joseph Powell, South Carolina Law Enforcement Division, Columbia, South Carolina
- 9:45 am to 10:15 am Break
- 10:15 am to 11:15 am [E8] "Techniques in Explosives Analysis: Wet Chemistry, Polarized Light Microscopy, and Fourier Transform Infrared", Mr. Thomas Hopen, Bureau of Alcohol, Tobacco and Firearms, Atlanta, Georgia
- 11:15 am to 12:00 noon [E9] "Techniques in Explosives Analysis: Scanning Electron Microscopy", Dr. Barry Fookes, National Center for Forensic Science, University of Central Florida, Orlando, Florida
- 12:00 noon to 1:00 pm Lunch (provided)

Moderator: Mr. Allan N. Walters, United States Postal Inspection Service Laboratory, Dulles, Virginia

- 1:00 pm to 3:00 pm [E10] "Techniques in Explosives Analysis: Mass Spectrometry", Dr. Michael E. Sigman, Oak Ridge National Laboratory, Oak Ridge, Tennessee
- 3:00 pm to 3:30 pm Break

Thursday, August 16, 2001 (continued)

3:30 pm to 5:30 pm [E11] “Techniques in Explosives Analysis: Liquid Chromatography/Mass Spectrometry”, Mr. Robert Mothershead, Federal Bureau of Investigation, Washington, D. C.

Friday, August 17, 2001

Moderator: Mr. Allan N. Walters, United States Postal Inspection Service Laboratory, Dulles, Virginia

8:00 am to 9:00 am [E12] “Techniques in Explosives Analysis: Advanced Instrumental Techniques”, Mr. Joseph Powell, South Carolina Law Enforcement Division, Columbia, South Carolina

Moderator: Mr. Carl E. Chasteen, Director, Fire and Arson Laboratory, Florida State Fire Marshal’s Office, Havana, Florida

9:00 am to 10:00 am [G2] “The Scene, Analytical, and Legal Aspects of the Unabomber Case”, Mr. Stephen P. Freccero, Morrison and Foerster, San Francisco, California; Mr. Christopher Ronay, Institute of Makers of Explosives, Washington, D. C.; and Special Agent Frank R. Doyle, Federal Bureau of Investigation, Oakland, California

10:00 am to 10:30 am Break

10:30 am to 11:45 am “The Scene, Analytical, and Legal Aspects of the Unabomber Case” (continued)

11:45 am Dismissal, Captain Wayne Petrovich, Florida State Fire Marshal’s Office, Orlando, Florida