

NEAFS Newsletter

Volume 38, Issue 2

2013, 2nd Quarter

2013 NEAFS Annual Meeting

September 25th – 28th, 2013

Cromwell, CT

Keynote Speaker:

CT Governor Dannel Malloy

Featured Speakers:



Dr. Cyril Wecht
Forensic Pathologist



Dr. Michael Baden
Forensic Pathologist



Mr. Dale K. Myers
Animation Artist



Mr. Lucien "Luke" Haag
Firearms Examiner

2013 Annual Meeting Workshops:

- Analysis and Interpretation of Chemical Unknowns
- Emerging Drugs 2013: The Ever-Evolving Drugs of Abuse Situation... Issues, Analyses, Laws, and the Future
- Expert Testimony for Forensic Science Majors
- Applied Biosystems - 2013 Future Trends in Forensic DNA Technology
- Mettler Toledo - Establishing and Minimizing Uncertainty of Measurement in Weighing
- Agilent Technologies - LC/MS/MS – The Next Generation of Analyses

IN THIS ISSUE:

Workshop Abstracts, Evening and General Session Abstracts, Updated 2013 Annual Meeting Preliminary Schedule, Call for Papers, 2013 Annual Meeting Registration Form and a Letter from the Program Chair

Restaurants and Things to do

Also in this issue: A new "Today in Forensic Science" and an article "Bullet Holes in Sheet Metal"

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NEAFS President's Message

Greetings NEAFS Members!

As we find ourselves at the midpoint of the summer, I hope each of you has devoted some quality time doing “summer things” whether it be sitting on a beach, camping in the mountains or enjoying a raucous BBQ with friends. After an inordinate amount of rain, summer has finally arrived here in northern Vermont.

And even though it's summer, it's definitely time to start finalizing plans for attending the NEAFS Annual Meeting. This newsletter shares with you all of the necessary details (which may also be found on our website) and Kevin MacLaren has been diligently working planning this week for us. The excitement begins on Wednesday, September 25th with six workshops! This year's focus is on the forensics behind the JFK assassination and promises to be fascinating. Most of us attending the meeting were years from being born at the time of his death, however we all recognize the significance of this in our country's history. On this 50th anniversary of JFK's death, we're sure to learn many details and hear perspectives that the public at large will never hear.

Over the past several months, I've received a number of inquiries regarding actions of NEAFS members and their ethical implications and whether we, as an organization, intend to act on complaints lodged. Let me assure you that our Ethics Committee investigates all allegations and reports to the BOD their findings. In one of the more distressing complaints where there are criminal charges involved, the Board has chosen to await the legal outcome prior to taking any action. As forensic scientists, we pursue scientific endeavors as pertaining to the law and one of our countries most prevalent beliefs is “innocent until proven guilty.” As in our profession, we must allow the wheels of justice to turn and render its conclusion before we take any additional action.

For almost two years now, since I began planning the 2012 NEAFS Annual Meeting, you've heard me preach about what exceptional members we have and the support I've personally experienced. Through all of the planning of last year's meeting and through an action of near lunacy – my changing jobs from a well established state agency to a tiny, private near-startup laboratory – NEAFS folks were there for me in every way possible. About a month ago, at a time when I finally felt I could begin to breathe again, illness struck my family. Trying to juggle an exceedingly demanding job, family responsibilities and NEAFS just seemed impossible. I turned to my NEAFS “family” – the Board, staff and several past presidents for advice. I was completely prepared to resign, yet the message was a resounding “*We've got your back.*” I can't express the feeling: touched, gratitude, indebted – these words don't cover it. So, thank you NEAFS Members, for creating and building such a extraordinary organization.

In closing, I do sincerely hope to see you in Connecticut in the fall – until then, be happy and healthy!

Warmest Regards,

Andrea Belec
NEAFS President - 2013

2013 Annual Meeting Update



Northeastern Association of Forensic Scientists

The program for the 2013 meeting is coming together, but there is plenty to accomplish with two months until the meeting. When we signed the contract with the hotel 2 years ago, it seemed so far away. I knew that having a meeting in September would put a strain on the planning for the event. Instead of the usual year to plan for the meeting, it was knocked down to 10 months. I am starting to realize that those 2 months are very important. The pressure that has been put on the various chairs to pull everything together so quickly has been enormous. I am proud to say that all of the volunteers have stepped up to the plate and are pulling everything together. The various chairs are putting together a great program for the membership, and we should all be thankful for their hard work.

You will find the workshop abstracts as you read through the newsletter. These workshops are a great way to get the continuing education that is so important in our profession. NEAFS always puts together top notch workshops for the membership at the annual meetings, and this year will be no different. Please take advantage of this great opportunity to get continuing education.

Now is the time to submit that abstract for a scientific session or poster session. The meeting provides a great opportunity to share what you have been working on over the last year. Please consider presenting an interesting case, validation, new method or research project. All of the information for submitting an abstract (including deadlines) can be found on the website at <http://www.neafs.org/index.php/annual-meeting>. I will be putting titles of presentations / posters on the website in the near future, but full abstracts for the scientific sessions will not be available until the meeting booklet is published.

What can I say about the evening session on Thursday night and the general session on Friday? The speakers that have been lined up are top notch and are leading experts in their fields. When I first thought about the idea of focusing the evening and general sessions on the JFK assassination, I never in a million years thought we could bring in the speakers that we have. I have provided the abstracts from four of the speakers, Dr. Dr. Cyril H. Wecht, Dr. Michael Baden, Dale Myers and Luke Haag, in this newsletter - please take a look.

For all you students out there, I truly appreciate the continued support you provide to the meeting. We are putting together an expert witness workshop for students. This is the first NEAFS expert witness workshop that I can remember which is dedicated solely to students. You can find the abstract later in the newsletter or on the NEAFS website. Please take advantage of this training opportunity and attend the workshop. This will be a great workshop to add to your resume. Saturday morning will be the Students Forum, where you can have all of your questions answered, work on your resumes and interviewing strategies.

The Forensic Science Forum will concentrate on the Forensic Science Education Programs Accreditation Commission (FEPAC) this year. We have a great lineup of speakers from accredited graduate programs, undergraduate programs and the Chair of FEPAC. This session will be for individuals from programs that are preparing to be accredited, preparing for re-accreditation or would like to know about the accreditation process and how it will impact their program. I will provide a breakdown of the session when it becomes available.

Please remember to book your rooms as soon as you can. You can book your room at <http://www.neafs.org/index.php/annual-meeting> . As of right now, we are over 3/4 of our total room allotment for the hotel and still 2 months before the meeting. Alternate lodging plans will be posted on the NEAFS website if needed at a later date.

As always, we're looking for volunteers to help with registration, merchandise sales, or assisting the Corporate Liaisons with the exhibition setup. If you would like to volunteer, please contact me at kam4@westchestergov.com.

I will see everyone in a couple of months.

Kevin MacLaren
2013 NEAFS Program Chair

CT Attractions

❖ **Bishop's Orchard**

www.bishoporchards.com

Guilford – The farm market is open all year round with a fresh variety of fruits and vegetables available each month. The varieties have been selected for their flavor. Visit the website or call the 24-hour phone information line for an updated list during the picking season. (203-458-PICK)

❖ **The Shore Line Trolley Museum**

www.ShoreLineTrolley.org

East Haven- This museum lets you experience firsthand how many people traveled before cars and buses. The vintage trolley car takes you on a three-mile round trip through scenic woods and open wetlands. The museum houses exhibits and artifacts, and a guided tour of the extensive collection of antique streetcars teaches the history and significance of the trolley area.

❖ **Connecticut Science Center**

www.CTScienceCenter.org

Hartford- Creative imagination and an appreciation for science is sparked when you pay a visit to the Connecticut Science Center. Visit and enjoy all of the fun, educational, hands-on, minds-on interactive experiences that can be found in over 150 exhibits, labs, and a 3D digital theater. There is something for everyone!

❖ **Quassy Amusement**

www.quassy.com

Middlebury- Quassy Amusement Park sits on beautiful Lake Quassapaug. They offer swimming, picnicking, a catering service, a huge family redemption arcade, a water park, and more than 20 rides! With dozens of ways to get drenched, visitors experience water slides, raft rides and cascading fountains. This year Quassy has some great events and live entertainment that will add to summer fun.

❖ **Connecticut Beardsley Zoo**

www.beardsleyzoo.org

Bridgeport- This zoo is a wonderful place to visit! Spend an hour or the whole day and see over 300 animals representing primarily North and South American species. Learn about the many endangered and threatened wildlife, see the South American rainforest with free-flight aviary, then walk through the prairie dog exhibit with “pop-up” viewing areas. There is always something exciting happening at the zoo and this summer is no exception.

❖ **Golf Courses and other:**

- ✓ TPC River Highlands- TPC.com- Cromwell
- ✓ River Highlands State Park- Cromwell
- ✓ Dinosaur State Park- Rocky Hill
- ✓ Mohegan Sun- Montville
- ✓ Foxwoods Resort/Casino- Mashantucket
- ✓ Michael Bublé Concert at the XL Center- Hartford (9/25 at 8pm)



**Enjoy
Your
Visit!**



65 Memorial Road

West Hartford, CT 06107

www.bluebacksquare.com

The square features restaurants and specialty shops, as well as a wide variety of stores selling apparel and accessories, electronics, personal care products, books, and home furnishings.

With the uniqueness of independent retailers, coupled with some familiar names there is something for everyone at Blue Back Square.



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MOE'S SOUTHWEST GRILL

PINKBERRY

RIZZUTO'S WOOD-FIRED KITCHEN & BAR

THE CHEESECAKE FACTORY

THE COUNTER-CUSTOM BUILT BURGERS

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BOSE

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NORTHEASTERN ASSOCIATION OF FORENSIC SCIENTISTS

ANNUAL MEETING --- September 25-28, 2013

I. REGISTRATION INFORMATION (Please print or type all information)

First Name:

Last Name:

Member Number:

Organization/Agency:

City:

Street:

State: Zip Code:

Phone:

Fax:

Email:

Spouse name:

ABC Status: Diplomate: ☐ Fellow: ☐ Technical Specialist: ☐ Affiliate: ☐ Exam Committee: ☐ Board Member: ☐

Mail your completed form and registration fee to:

NEAFS Registration

P.O. Box 36

Fairfield, CT 06824

Email Questions: registration@neafs.org

See additional page for informational details. To qualify for Early Registration, a completed registration form and full payment must be postmarked no later than August 30, 2013. After this date, ALL registrations will be considered Regular Registrations.

II. SCIENTIFIC SESSIONS - REGISTRATION FEES

Lunch and continental breakfast are included in full and daily registration. For student reduced rate registration, a copy of your FALL 2013 course schedule must be submitted; otherwise, you will be charged the full applicable meeting registration rate. The reduced student rates include luncheon tickets for the meeting. ***Please note that there will be a \$20 surcharge for all on-site registrations.***

September 25-28, 2013, Wednesday - Saturday Sessions

Early Registration
Postmarked by 08/30/2013

Regular Registration
Postmarked after 08/30/2013

| | | |
|-------------------------------|--------------------------------------|--------------------------------------|
| Member / Active Applicant | \$130.00 - <input type="checkbox"/> | \$180.00 - <input type="checkbox"/> |
| Non-Member | \$180.00 - <input type="checkbox"/> | \$230.00 - <input type="checkbox"/> |
| Student Member | \$ 85.00 - <input type="checkbox"/> | \$ 110.00 - <input type="checkbox"/> |
| Student Non-Member | \$135.00 - <input type="checkbox"/> | \$160.00 - <input type="checkbox"/> |
| Spouse of Member / Non-Member | \$ 120.00 - <input type="checkbox"/> | \$125.00 - <input type="checkbox"/> |

DAILY REGISTRATION

| | Thursday Only | Friday Only | Saturday Only |
|-------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Member / Active Applicant | \$ 75.00 - <input type="checkbox"/> | \$ 75.00 - <input type="checkbox"/> | \$ 35.00 - <input type="checkbox"/> |
| Non-Member | \$125.00 - <input type="checkbox"/> | \$125.00 - <input type="checkbox"/> | \$ 75.00 - <input type="checkbox"/> |
| Student Member | \$ 48.00 - <input type="checkbox"/> | \$ 48.00 - <input type="checkbox"/> | \$ 25.00 - <input type="checkbox"/> |
| Student Non-Member | \$ 73.00 - <input type="checkbox"/> | \$ 73.00 - <input type="checkbox"/> | \$ 50.00 - <input type="checkbox"/> |
| Spouse of Member / Non-Member | \$ 73.00 - <input type="checkbox"/> | \$ 73.00 - <input type="checkbox"/> | \$ 50.00 - <input type="checkbox"/> |

SECTION II TOTAL: \$

Full Registration includes luncheon tickets.

Daily Registration includes a luncheon ticket for that day only.

III. WORKSHOP SESSIONS - REGISTRATION FEES

Workshops are filled on a first-come-first-served basis. Continental breakfast and lunch will be provided for the workshops. Workshops are subject to cancellation. Check www.neafs.org for updates on dates and times.

| <u>Workshop Title</u> | <u>Member</u> | <u>Non-member</u> |
|---|-------------------------------|-------------------------------|
| <u>Applied Biosystems - Future Trends in</u> <i>Forensic DNA Technology Seminar</i> (September 25) | \$0 <input type="checkbox"/> | \$0 <input type="checkbox"/> |
| <u>Agilent</u> - Innovations in LCMSMS Technology (September 25) | \$25 <input type="checkbox"/> | \$65 <input type="checkbox"/> |
| <u>Mettler Toledo</u> - Establishing and Minimizing Uncertainty of Measurement in Weighing (September 25) | \$25 <input type="checkbox"/> | \$65 <input type="checkbox"/> |
| Expert Witness Testimony (September 25) | \$25 <input type="checkbox"/> | \$65 <input type="checkbox"/> |
| The Significance, Analysis, and Interpretation of Chemical Unknowns (September 25) | \$25 <input type="checkbox"/> | \$65 <input type="checkbox"/> |
| Emerging Drugs 2013: The Ever-Evolving Drugs of Abuse Situation... Issues, Analyses, Laws, and the Future (September 25) | \$25 <input type="checkbox"/> | \$65 <input type="checkbox"/> |

SECTION III TOTAL: \$

IV. LUNCHEONS: Luncheon tickets are included with full registration and daily registration (for that day only). Additional luncheon tickets can be purchased below. Luncheons will be offered Wednesday, Thursday and Friday.

NOTE: If you have a food allergy, inform the hotel staff directly.

ADDITIONAL PURCHASE of Luncheon Ticket **# of Tickets:** **X \$50.00 = \$**

PAYMENT: Check - ☐ Money Order - ☐ PAYPAL (August 30th Deadline) - ☐

Check #

TOTAL AMOUNT ENCLOSED: (Sum of II, III and IV) \$

To give the Annual Meeting organizers a more accurate idea of individual session attendance, PLEASE check if you are considering any of the events below. This is for estimation purposes only and in no way binding.

- | | |
|---|---|
| <input type="checkbox"/> Firearms Manufacturer Tour (8am – 11am Wednesday, September 25) | <input type="checkbox"/> ABC Exam (Wednesday, September 25) |
| <input type="checkbox"/> Tour of CT Forensic Laboratory (8am – 11am Thursday, September 26) | <input type="checkbox"/> Student Forum (Saturday, September 28) |
| <input type="checkbox"/> Forensic Science Educator's Forum (Saturday, September 28) | |
| <input type="checkbox"/> Continental Breakfast (Wednesday, September 25) | <input type="checkbox"/> Luncheon (Wednesday, September 25) |
| <input type="checkbox"/> Continental Breakfast (Thursday, September 26) | <input type="checkbox"/> Luncheon (Thursday, September 26) |
| <input type="checkbox"/> Continental Breakfast (Friday, September 27) | <input type="checkbox"/> Luncheon (Friday, September 27) |
| <input type="checkbox"/> Continental Breakfast (Saturday, September 27) | |
| <input type="checkbox"/> Welcome Reception (Thursday, September 26) | <input type="checkbox"/> President's Reception (Friday, September 27) |

The exhibitors and sponsors you meet at the NEAFS Annual Meeting play a vital role in keeping meeting costs reasonable while still enabling us to improve session and workshop quality. Simply put, without Corporate Sponsors the NEAFS Annual Meeting would be too cost prohibitive to convene. Every year we field requests for an Attendee List to allow exhibiting companies to forward marketing and new product information. NEAFS is one of the only organizations that does not automatically provide this information. We would like to offer this information to our valued (and valuable) sponsors this year. Please sign/print your name if you *refuse* to release this information. _____.

HELPFUL TIPS -- REGISTRATION

(www.neafs.org)

NEAFS REGISTRATION MAILING ADDRESS: NEAFS Registration, P.O. Box 36 Fairfield, CT 06824

WE MAY NEED TO CONTACT YOU, THEREFORE, PRINT LEGIBLY AND INCLUDE AN EMAIL ADDRESS OR TELEPHONE NUMBER.

ANNUAL MEETING / WORKSHOP REGISTRATION: For Early Registration, the Registration Chairperson must receive a completed registration form and full payment postmarked no later than August 30, 2013. After this date, ALL registrations will be regular registrations. Registration is not accepted via email or fax, *unless* PayPal is utilized as form of payment. You will not receive confirmation of your registration status.

If using PayPal, PAYMENT and COMPLETED Registration FORM

MUST BE SENT to: registration@neafs.org

Note - A Paypal account is not necessary to use this feature.

You can make a one-time credit card payment.

WORKSHOPS: Workshop attendance requires an additional fee. Workshop(s) are not included with Annual Meeting Registration. Workshops are filled on a first-come-first-served basis. The Program Chair reserves the right to cancel any workshop if timely registrations are not received for the minimum number of participants. If a workshop is cancelled, notification and full refunds will be made. You may not register for more than one workshop if the workshops are held during the same time frame.

NEAFS MEMBERS PAYMENT INFORMATION (in U.S. dollars): NEAFS Tax ID # 51-0213291

Purchase Orders or Vouchers are NOT accepted unless accompanied by full payment. Accepted forms of payment, during Early Registration only, are via PayPal, check, or money order. Payment via Paypal may be made on the NEAFS website up until August 30th, 2013 (<http://www.neafs.org/index.php/annual-meeting>)

CANCELLATION / REFUNDS: If you cancel your Workshop or Meeting Registration, your written, signed, and dated request must be mailed to the NEAFS Registration Chairperson at the mailing address provided above. If you cancel, your registration fees will be refunded, as follows: postmarked no later than August 30th, 2013, full refund, less \$20 processing fee; postmarked between August 31st - September 10th, 2013, 75% refund; postmarked between September 11th - September 21st, 2013, 50% refund. No refund requests will be honored if postmarked after September 21st, 2013.

SPOUSE: Reduced rate registration is available to a spouse (lay person) only with a fully paid registered attendee. The reduced rate (spousal) registration permits attendance during scientific sessions, all breaks, and receptions.

LUNCHEON: Tickets for attendance at the luncheons are included with FULL MEETING REGISTRATION AND DAILY REGISTRATION ONLY. Please indicate on your registration form if you will or will not be attending. If attending the luncheons, your registration packet will include luncheon tickets that must be presented to the Officials at the door for entry to the luncheon. If you have a food allergy, please inform the hotel staff directly. If needed, additional luncheon tickets may be purchased separately.

OTHER INFORMATION: All fees are the responsibility of the registrant. Registrations are non-transferable.

If you have any questions or concerns please email the NEAFS Registration Chairperson at:

registration@neafs.org





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Northeastern Association of Forensic Scientists

2013 NEAFS Annual Meeting Preliminary Schedule

Wednesday, September 25th

| | |
|------------------|---|
| 7:00am – 2:00pm | Registration |
| 7:00am – 9:00am | Breakfast |
| 8:30am – 5:00pm | Applied Biosystems - HID University 13 th Annual <i>Future Trends in Forensic DNA Technology</i> Seminar |
| 8:30am – 5:00pm | The Significance, Analysis, and Interpretation of Chemical Unknowns Workshop |
| 8:30am – 5:00pm | Mettler Toledo - Establishing and Minimizing Uncertainty of Measurement in Weighing |
| 8:30am – 5:00pm | Agilent Technologies - Innovations in LC/MS/MS Technology |
| 8:30am – 5:00pm | Expert Witness Workshop for Forensic Science Majors |
| 8:30am – 5:00pm | Emerging Drugs 2013: The Ever-Evolving Drugs of Abuse Situation... Issues, Analyses, Laws, and the Future |
| 8:30am – 12:00pm | ABC Examination |
| 12:00pm – 1:00pm | Lunch |
| 10:00am – 1:00pm | Firearms Manufacturer Tour – Smith & Wesson |
| 5:00pm – 8:00pm | BOD Meeting |

Thursday, September 26th

| | |
|------------------|---|
| 7:00am – 5:00pm | Registration |
| 7:00am – 9:00am | Breakfast |
| 7:00am – 8:00pm | Exhibits |
| 9:00am – 11:00am | Tour of the Connecticut Forensic Laboratory |
| 8:00am – 12:00pm | Drug Chemistry Scientific Session |
| 8:00am – 12:00pm | Criminalistics / Biology Session |
| 8:00am – 12:00pm | Collegiate Competition Session |



Northeastern Association of Forensic Scientists

2013 NEAFS Annual Meeting Preliminary Schedule

Thursday, September 26th

| | |
|------------------|---|
| 12:00pm – 1:30pm | Lunch / Business Meeting |
| 1:30pm – 5:30pm | Toxicology Scientific Session |
| 1:30pm – 5:30pm | Collegiate Competition Session |
| 1:30pm – 5:30pm | Biology / DNA Scientific Session |
| 1:30pm – 5:30pm | Criminalistics Scientific Session |
| 5:30pm – 8:00pm | Welcome Reception / Poster Session |
| 8:00pm – 10:00pm | Evening Session |
| | “The JFK Assassination: A Forensic Scientific Fiasco” Cyril H. Wecht, M.D., J.D |

Friday, September 27th

| | |
|------------------|--|
| 7:00am – 5:00pm | Registration |
| 7:00am – 9:00am | Breakfast |
| 7:00am – 11:00am | Exhibits |
| 8:30am – 12:30pm | General Session I |
| | JFK: The Forensic Pathology Evidence Michael M. Baden, M.D. Former Chief Medical Examiner, New York City |
| | SPECIAL PRESENTATION - THE ASSASSINATION of JOHN FITZGERALD KENNEDY NOVEMBER 22, 1963 DALLAS, TEXAS Lucien C. (Luke) Haag - Forensic Science Services - Carefree, AZ |
| 12:30pm – 2:30pm | Annual Luncheon |
| 2:30pm – 5:00pm | General Session II |
| | SECRETS OF A HOMICIDE: THE JFK ASSASSINATION Computer Animation in Crime Scene Reconstruction Dale Myers – Dale Myers Animation Studios |
| 7:30pm – 12:00am | President’s Reception |



Northeastern Association of Forensic Scientists

2013 NEAFS Annual Meeting Preliminary Schedule

Saturday, September 28th

8:30am – 12:00pm

Student Forum

8:30am – 12:00pm

Forensic Science Forum – Topic: Forensic Science Education Programs Accreditation Commission (FEPAC)

Call for Papers – NEAFS 2013 Annual Meeting

Scientific Session: ☐ Criminalistics ☐ Biology ☐ Toxicology ☐ Drug Chemistry

☐ Combined Criminalistics/Biology ☐ Collegiate Competition

Presentation Type: ☐ Oral ☐ Poster

Title:

Authors and Affiliations:

Submitting Author Contact Information

Name:

Telephone:

Affiliation:

Address:

Email:

Abstract Instructions:

Please include a typed abstract (250-500 words) as a separate sheet in a Word format. Please submit this form and abstract to the appropriate session chair.

All forms and abstracts must be submitted to the session chairs listed below ***no later than Friday, August 23rd, 2013.***

AV Requirements:

☐ PowerPoint/Projector ☐ Overhead Projector ☐ TV/DVD/VCR

Other

Session Chair Contact Information:

Toxicology: Janine Johnson - Janine.Johnson@ct.gov

Drug Chemistry: Elizabeth Marks - lizrrd127@gmail.com

Criminalistics: Susan Flaherty - smf1@westchestergov.com

Biology: Reena Roy - rxr34@psu.edu

Combined Biology/Criminalistics: Reena Roy - rxr34@psu.edu / Susan Flaherty - smf1@westchestergov.com

Poster Session: Leila Timm - Leila.Timm@ct.gov

Collegiate Competition Chair: Ralph Ristenbatt III - rrr4n6@gmail.com

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Analysis and Interpretation of Chemical Unknowns Workshop
Northeastern Association of Forensic Scientists
Cromwell, CT
September 2013

Vincent J. Desiderio and Andrew M. Bowen

Educational Objectives

After attending this workshop, attendees will have a firmer grasp on the analysis of the various types of chemical unknowns that are frequently encountered in the forensic laboratory.

Abstract

Chemical unknowns present a unique challenge to forensic laboratories. As the name suggests, these are materials of an unknown origin and composition that may be found in connection with a virtually limitless number of scenarios of forensic significance. In the best case scenarios they are common single component materials that have benign uses. At worst, they are complex mixtures of rare, dangerous compounds that have the potential to cause great harm.

Chemical unknowns are submitted to forensic laboratories for a variety of reasons, including: 1) outright identification of a material, commonly either a suspicious powder or liquid in a public space or a white powder included in a threatening letter, 2) analysis of an item to determine if any tampering may have occurred, commonly in the form of an allegedly adulterated foodstuff, or 3) comparison of an unknown material found on or in the possession of a suspect to a similar material recovered from a crime scene. An example of the latter might be a white powder observed on the body of a homicide victim being compared with lime from the garage of a suspect. The information obtained from the analysis and characterization of these unknown substances can be used to help associate suspects with scenes and victims as well as to provide information for investigative purposes.

A wide variety of unknown materials are routinely encountered as chemical unknown evidence, to include solids, liquids, gases, and both homogeneous and heterogeneous mixtures of these various phases in any combination. The specific phases present may be organic, inorganic, or mixtures thereof, and may come from either natural or man-made sources. Samples that occur in different physical states will be amenable to different analytical approaches, and examiners should ideally have access to a wide variety of instrumentation and be intimately familiar with the strengths and limitations of each piece of equipment.

Considering the broad range of scenarios and materials that could be encountered, the analysis and characterization of chemical unknowns can pose some serious challenges to the forensic scientist. With this in mind, the primary goal of this workshop is to educate practitioners, educators, and other interested members of the forensic community about the types of approaches that have proven successful for the presenters. The presentations will provide some guidance on a logical approach for handling such cases. The presenters will include individuals with diverse backgrounds and experience in the identification of chemical unknowns. This workshop will outline the techniques that are commonly used for the characterization, identification, and comparison of chemical unknowns. Specific attention will be paid to sample preparation techniques, microscopical examinations, and various forms of instrumental analysis, to include Fourier Transform-infrared spectroscopy, Raman spectroscopy, scanning electron microscopy, energy dispersive spectroscopy, x-ray fluorescence, x-ray diffraction, chromatographic techniques, and mass spectrometry. During the course of the workshop, presentations covering safety, sample handling, interpretation of results, and reporting strategies will be provided. In addition, the attendees will be given handouts listing a wide variety of published literature, on-line resources, training opportunities, and more that cover instrumental theory, application, and interpretation. Several of these resources have proved invaluable to the presenters for the purposes of determining whether the identified materials in a chemical unknown are consistent with a specific household product, for example.

In order to better appreciate many of the points made during the lecture portion of the workshop, the attendees will have the opportunity to perform hands-on exercises designed to familiarize them with some of the techniques that have been discussed. These hands-on activities will include actual examination of chemical unknowns, with an opportunity to perform sample preparation and microscopical examination of the samples, with instrumental results provided by the presenters to assist in their interpretation of the samples.

Establishing and Minimizing Uncertainty of Measurement in Weighing

Presentation for NEAFS

Ensuring Good (or Better) Weighing Practices

Overview

The presentation, offered by METTLER TOLEDO's weighing experts, will focus on the key factors that will help bring your laboratory's weighing and data collection processes into alignment with globally established Good Weighing Practices and ensure the accuracy (and thorough and efficient recording) of data. Below is a summary outline of the presentation material.

The popular Good Weighing Practices (GWP) and LabX Balance Excellence from METTLER TOLEDO helps eliminate the risk associated with weight measurement uncertainty by providing all components required by ISO 17025, including the Quality Management support you need so your weight accuracy can't be questioned.

Whether you are a legacy lab or ISO 17025 certified, our popular Good Weighing Practices (GWP) and LabX Balance Excellence Solution will:

- Support all requirements regarding weight measurement uncertainty as outlined by ASCLD LAB, ISO 17025 and ISO 9000/9001.
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- Help Determine your Labs "Safety Factor", and ways to minimize weight measurement uncertainty.
- Automatically captures your weight data and automatically performs any and all calculations, including extrapolation calculations.
- Enforces all calibrations and routine weight checks are performed on schedule.
- Blocks instruments that have not been tested and do not meet your quality management requirements.
- Secures and stores all weight and calibration data in a regulatory compliant fashion for easy data retrieval.
- Provides seamless integration with any 3rd party software, such as LIMS Tools for your Lab to incorporate ISO 17025 in the most efficient manner possible



Presentation Outline

1. Precision versus Accuracy
2. ISO 17025 & Measurement Uncertainty
3. Properties Influencing Weighing Accuracy
4. Properties Influencing Measurement Uncertainty
5. How to Minimize Weight Measurement Uncertainty
6. Knowing your Labs “Safety Factor”
7. Live Demonstration of “Complete Balance Calibration”
(Repeatability, Eccentricity, Linearity, Span Tolerance)
8. Live Demonstration of MinWeigh and Measurement Uncertainty
(incorporated into a real-time lab environment)

Most samples being weighed on laboratory balances satisfy the condition of being “small samples”. When discussing the relative uncertainty versus sample mass, it was already mentioned that weighing uncertainty is governed by repeatability, if a small sample is weighed.

Short Biographical Sketch of Submitters

Stephen D. Wilent

Laboratory Solutions Consultant, METTLER TOLEDO

Joining METTLER TOLEDO in 2001, Stephen has since worked as both a Laboratory Balance Specialist and Software Solutions Specialist in the Laboratory Division of METTLER TOLEDO. In his over 12 years with the company, Stephen has specialized in developing solutions for weighing applications and instrument analyses, trained numerous users, and conducted related seminars and training courses in the many industries where METTLER TOLEDO products are used. Notably, he has extensive experience within the Crime and Forensic industries in the United States as it relates to balances and other benchtop instrumentation, including the LabX platform. Since 2004, he has held the position of Laboratory Solutions Consultant for the Software Solutions and Professional Services business unit where he is responsible for sales and marketing of customer instrument data collection solutions supported by METTLER TOLEDO’s unique LabX Software platform, and related services such as integration, validation and training. He holds a B.S. degree in Chemistry and has over 25 years of professional experience in scientific instrumentation.

Dave Cirullo

Laboratory Service Quality Consultant, METTLER TOLEDO

Dave has been with Mettler Toledo for more than 20 years, including many years spent as a field service technician and service manager, but most recently as Service Quality Consultant. His primary focus is Mettler Toledo’s popular “Good Weighing Practices” which have been developed to aid our customers in minimizing weighing uncertainty and helping them guarantee the most accurate weighing measurements possible.

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NEAFS 2013 Annual Meeting
Expert Testimony Workshop for Forensic Science Majors

Peter Valentin and John Drawec

Over the last two decades, the testimony of experts in the various forensic science disciplines has been greatly scrutinized. This is a direct result of the United States Supreme Court's *Daubert*¹ decision in 1993 and the publication of the "NAS Report"² in 2009. These two published items have impacted the manner and methods for introducing scientific and technical evidence by experts and criticized many long accepted forensic science disciplines.

This workshop is designed to introduce the forensic science student to the present legal restrictions, guidelines, and procedures for the introduction of expert testimony. Students will be presented with techniques and protocols of the law of evidence. After a review of *Daubert* and the cases that have funneled down from it and the NAS Report, the students will be presented with examples of expert testimony scenarios.

Each student will have the opportunity to speak in front of others and engage in scientific discourse. Students will be presented with questions regarding the admissibility of evidence and will be tasked with deciding proper testimony based on specified fact patterns.

In addition, courtroom layouts will be presented. The workshop will conclude with a discussion session on courtroom demeanor and judicial respect.

This workshop will be presented by experienced individuals who have presented expert testimony many times in actual cases, including high profile homicide cases.

¹ *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993)

² The NAS Report is the common name referencing the title *Strengthening Forensic Science in the United States: A Path Forward*, National Academies Press. 2009. ISBN-13: 978-0-309-13135-3.

Emerging Drugs 2013: The Ever-Evolving Drugs of Abuse Situation...

Issues, Analyses, Laws, and the Future

The objective of this workshop is to provide an update on the emerging drugs that are currently being marketed and abused throughout the northeast. Controlled substance laboratories are still facing many problems regarding the identification of these drugs and the determination of their controlled status. The business models for the distribution networks are both sophisticated and adaptable, and require similar characteristics in order to be dismantled and prosecuted. The many questions that we have been asking for the last several years still persist: Are these compounds controlled substances? Do they fall under FDA regulations? Are these compounds analogues of controlled substances, and if so which ones? Which laws apply to these compounds? Where can reference standards be obtained in order to identify these compounds in accordance with current requirements?

The term emerging drugs has begun to replace the terms that have been discussed in recent years: bath salts, spice, designer drugs, synthetic cathinones, synthetic cannabinoids, etc. This terminology is intentionally vague from a chemistry perspective. The current state of affairs is fluid in nature...that is the “next big thing” is not necessarily a compound that is a slight chemical variation of the compound that was listed in the latest laws as being controlled, but in fact can be something in an entirely different drug class. The emerging drugs encountered regularly in the northeast encompass broad drug types from designer synthetics, to synthetic narcotics, to designer hallucinogens, to compounds contained within plant materials.

We begin with a discussion of the business end of synthetics, followed by GC-IR applications. The emerging drug situation is then detailed as the problem, the drugs, the future, and the analyses are discussed. We then introduce several applications, including new techniques, instrumentation, and applications from several vendors. Finally, we will address the regulatory issues regarding these compounds and their control status, along with the analog designation processes.

The many challenges associated with the ever-changing use of drugs in today's world will forever present difficulties to forensic laboratories as they continue to allocate resources in an attempt to keep pace with the analysis and identification of all controlled substances. A goal of this workshop is to share as much information as possible to assist in the identification and to ensure that all lines of communication remain open to continue to work together to address these compounds.

Emerging Drugs 2013

| Time | Specific Title of Presentation | Speaker |
|-------------------------|---|---|
| 8:00 a.m. – 8:15 a.m. | Welcoming Remarks & Overview | Christopher Guglielmo Supervisory Chemist DEA Northeast Laboratory |
| 8:15 a.m. – 9:00 a.m. | The Business of Synthetics: Timeline of Development, Marketing, And Use | James Wesley Drug Chemistry Supervisor Monroe County Crime Lab |
| 9:00 a.m. – 9:45 a.m. | GC-IR as an Identification Tool | Robert Shipman Forensic Chemist Vermont Forensic Laboratory |
| 9:45 a.m. – 10:00 a.m. | BREAK | |
| 10:00 a.m. – 11:00 a.m. | Emerging Drugs: Classes, Problems, and Warnings | Christopher Guglielmo Supervisory Forensic Chemist DEA Northeast Laboratory |
| 11:00 a.m. – 12:00 p.m. | Emerging Drugs: Analyses and Techniques | Christopher Benintendo Senior Forensic Chemist DEA Northeast Laboratory |
| 12:00 p.m. – 1:15 p.m. | Lunch | |
| 1:15 p.m. – 2:00 p.m. | TruNarc, TruDefender, and FirstDefender as Analysis Tools | Michael Nagle Thermo Scientific |
| 2:00p.m. – 2:45 p.m. | DiscovIR-GC | Thomas Kearney Spectra Analysis |
| 2:45 p.m. – 3:00 p.m. | BREAK | |
| 3:00 p.m. – 3:45 p.m. | picoSpin NMR Technology | Ad Boyer Thermo Scientific |
| 3:45 p.m. – 4:30 p.m. | Screening and Confirmation of Drugs of Abuse Using Orthogonal LCMS Techniques | Julie Cichelli, PhD Agilent Technologies |
| 4:30 p.m. – 5:15 p.m. | Synthetic Solutions: Identification, A Timeline of Existing Laws, FTC, Understanding Analogs, and the Crafting of New Laws | James Wesley Drug Chemistry Supervisor Monroe County Crime Lab |
| 5:15 p.m. – 5:30 p.m. | Question & Answer Session | |

LC/MS Workshop – Presented by Agilent

While LC/MS and LC/MS/MS have both become rather commonplace in the forensic laboratory, there are still new developing applications and refinements of traditional techniques that offer a different perspective.

Don't be put off by the fact that this is a vendor sponsored event, Agilent has been a longtime supporter of NEAFS and this will be a strictly educational experience, so no worries about it being a day-long sales pitch!

This workshop is an excellent opportunity for those who operate or hope to operate LCMS and LCMSMS to gain a better understanding of what is happening "inside the box" as well as for students looking to gain a better understanding of analytical instrumentation prior to entering the workforce.

Here's a brief overview of what the day will bring:

- Brief Review of Liquid Chromatography – when and why it's used instead of GC, its evolution and the differences between traditional HPLC and UHPLC
- LC Column Technologies Overview – what's the best way to choose an HPLC column? Start with a C18 and if the analyte takes too long to elute, switch to a C8? Silica vs. Polymer based? How does column length and particle size fit into the picture? There really is a science behind this and this session will take the mystery out of column selection.
- Sample Preparation Techniques and Alternatives – when LCMSMS first became popular, there was a (very optimistic!) belief that sample preparation was no longer needed and that raw samples could simply be injected into the instrument. While that may work for some applications, most of in the forensic disciplines work with samples that require preparation and cleanup. Popular and up and coming applications and techniques will be discussed here including their pros and cons.
- Mass Spectrometry Theory Review – how does that quadrupole really work? Exactly what benefits do time of flight detectors offer for specific applications? Can my lab actually use a quadrupole-time of flight MSMS? The differences between the various types of mass spectrometers will be discussed in detail as will the various applications in which they shine.
- Quantitative Analysis – discusses both the traditional quantitation techniques and applications (MRM using a triple quadrupole) as well as some more novel techniques
- Qualitative Analysis – with all of the mass spec options available, what is the most appropriate for structural elucidation of my application? Qualitative techniques with each type of mass spec detector will be discussed.
- High Speed, High Resolution Accurate Mass MS and MS/MS using Quadrupole-Time-of-Flight Technology
- High Throughput Screening using Time-of-Flight Technology

Join us for a day of presentations and active discussion from some of the nation's

leading scientists including colleagues from the NEAFS region.

Instructors:

Dr. James Lau

Jim Lau's mass spectrometry experience started by working in the laboratories of Peter Albersheim and Robert Shapiro at the University of Colorado. After the completion of his Ph.D., Jim joined Hewlett Packard to work with Paul Goodley on LCMS products. He moved into Field Applications to work with Hewlett Packard's GCMS and LCMS customers on mass spectrometry applications. This work helped develop an interest in small molecule characterization. Jim continues to work in Mass Spectrometry Applications for Agilent Technologies' LCMS and GCMS customers. He has worked with many of Agilent's customers in the area of forensic science over the years, as they use alternative ionization methods and add LCMS and LCMSMS capabilities to their toxicology efforts. Areas of current interest are methods used in testing for equine racing, ME toxicology screening, and crime lab unknown identification.

Robert Giuffre

Bob Giuffre has spent over 25 years with HP/Agilent, beginning as an Application Scientist and has experienced the complete evolution of liquid chromatography systems and a multitude of applications. Bob has presented at dozens of conferences throughout the country and worldwide and is currently involved with the Agilent 1290 Infinity HPLC in the area of Ultra-High Pressure Chromatography optimization.

NEAFS Conference – September 26, 2013

The JFK Assassination: A Forensic Scientific Fiasco

Had President Kennedy been a European head of state, his government would have appointed the most eminent forensic pathologist in the country to conduct the autopsy. As assistants, such a man would have had two or three other forensic experts or heads of medico-legal institutes. It is history's profound loss that men of this caliber were not appointed to perform the President's autopsy. Had they been, nearly all the troubling questions about the assassination which continue to vex us today, 50 years later, could have been settled at the outset with scientific precision.

It is troubling in the extreme to learn that a hospital pathologist was in charge of the President's autopsy. Commander James J. Humes of Bethesda Naval Hospital directed the autopsy. With the exception of a single course at the Armed Forces Institute of Pathology, Commander Humes had no special knowledge or expertise in forensic pathology (2H348). His official title was "Director of Laboratories of the Naval Medical School at Naval Medical Center, Bethesda, Md." (2H348). He was assisted by Navy Commander J. Thornton Boswell, like Humes a hospital pathologist with no special experience in performing medico-legal autopsies. After Commanders Humes and Boswell saw the body and realized how difficult their job would be, Lt. Col. Pierre Finck of the Armed Forces Institute of Pathology was called in to assist. Lt. Col. Finck was an able forensic pathologist, but his experience as of November 1963 had been mainly administrative – limited chiefly to reviewing files, pictures, and records of finished cases.

The Warren Commission Report officially concluded that there had been only one shooter, Lee Harvey Oswald. This determination was predicated upon the "single bullet" theory, which held that one bullet produced seven wounds in JFK and Governor Connally, broke two large bones, and emerged intact and near pristine with only a 1.5% weight loss.

A careful, objective review and analysis of the forensic scientific evidence unequivocally refutes the SBT, thereby repudiating the WCR official ruling.

Other aspects of the incompetent, biased, governmentally controlled investigation into the JFK assassination will be discussed.

Cyril H. Wecht, M.D., J.D.

NEAFS 2013
September 27, 2013

JFK: The Forensic Pathology Evidence

Michael M. Baden, M.D.
Former Chief Medical Examiner, New York City

A nine-member senior forensic pathology panel was appointed by the U.S. House of Representatives in 1977 to review the death of President John F. Kennedy. Our two year review concluded that the pathologists who conducted the autopsy were not competent by education, training or experience to perform a medico-legal autopsy. They did not properly identify the entrance and exit wounds and did not explore the trajectories. However, our panel did agree with the conclusion of the Warren Commission that the President was struck by two and only two bullets from behind, from where Oswald was perched.

We concluded that the first rifle discharge missed but caused Governor Connolly to turn around in his jump seat to look at the President whom he mistakenly thought had been hit. His body was then lined up in a position so that the second discharge, which struck the President's back and exited his neck, proceeded in a straight line to re-enter the Governor's back, exit his chest, continue through his right wrist and partially enter his left thigh, falling from it at Parkland Hospital. A conventional straight single rifle bullet trajectory, not a "magic bullet."

The congressmen on the full Committee, but not our forensic pathology panel, accepted acoustical evidence that a fourth shot had been fired from the grassy knoll and on that basis concluded that there was a two shooter conspiracy. The accuracy of the acoustical evidence has been subsequently challenged by others.

NEAFS 2013 - SPECIAL PRESENTATION
THE ASSASSINATION of JOHN FITZGERALD KENNEDY
NOVEMBER 22, 1963 DALLAS, TEXAS

Lucien C. (Luke) Haag
Forensic Science Services
Carefree, AZ

It is claimed that there are well over 1000 presentations and descriptions of the November 22, 1963 assassination of John F. Kennedy in the form of books, articles, movies and television specials have appeared since this historic and horrific crime.

Only a disappointing few have been the result of the efforts of writers and researchers knowledgeable in the subjects of firearms identification, shooting scene reconstruction and the wound ballistic performance of the 6.5mm Carcano rifle and the associated ammunition. Yet the JFK assassination was the ultimate exercise in these forensic specialties.

This year is the 50th anniversary of the assassination of our 35th president. Myths, nonsensical and absurd “theories” regarding the crime need to be addressed, and where appropriate, disproved with demonstrable facts. Forensic scientists in the relevant fields need to be familiar with the facts and physical evidence and should be prepared to step forward and respond to past and future claims and questions.

Some examples:

- How could one bullet (the “magic” bullet) pass through two men and experience very little deformation?
- How and why would a second bullet of the same type fired from the same rifle at a greater distance essentially disintegrate upon striking the President in the head?
- Why did JFK’s head jerk rearwards if he was truly struck in the back of the head rather than in the right-front of his head by a shot from the grassy knoll?
- How did the third gunshot victim, James Tague, receive his superficial injury?
- Where did the bullet from the third shot go and what became of it?
- Is it possible to fire two successful, aimed shots on man-sized targets at 70- and 90-yards with the 6.5mm Carcano rifle within 5 seconds?
- How did the Model 91/38 Carcano rifle purchased by Lee Harvey Oswald compare to other surplus military rifles available in 1963?
- Would the Plexiglas bubble removed from the presidential limousine the morning of the assassination have saved President Kennedy or Governor Connally?

This special session will equip the attendees with many of the facts regarding the assassination of President Kennedy, the near-fatal wounding of Texas Governor John Connally, and the subsequent murder of Dallas Police Officer J.D. Tippit. This special session will conclude with a number of useful references and recommendations for further study of the events in Dallas on that terrible day in November of 1963.

Lucien C. "Luke" Haag is a former Criminalist and Technical Director of the Phoenix Crime Laboratory [1965-1982] with over 47 years experience in the field of criminalistics and forensic firearm examinations.

Presently he is an independent forensic consultant with his own company, Forensic Science Services, Inc. in Carefree, Arizona.

Luke Haag has a Bachelor of Science degree in chemistry with minors in math and physics from the University of California at Berkeley with subsequent forensic training at California State University at Long Beach, Indiana University, Arizona State University, McCrone Research Institute, the FBI Laboratory and FBI Forensic Training Facility at Quantico, VA.

He is a Distinguished Member and past-president of AFTE, a Distinguished Member of the California Association of Criminalists, a member of the Southwest Association of Forensic Scientists, a Fellow in the American Academy of Forensic Sciences and a past board member of the International Wound Ballistics Association.

He has authored and presented over 180 scientific papers, most of which have dealt with various exterior and terminal ballistic properties, effects and behavior of projectiles and is the author of the book Shooting Incident Reconstruction available from Elsevier/Academic Press (2006) now out in its second edition and co-authored by his younger son, Michael Haag.

He has worked on a number of high-profile and historic cases including a re-examination of the evidence in the Lindbergh Kidnapping case, newly discovered evidence in the assassination of Huey Long of Louisiana, the death of Meriwether Lewis, the Randy Weaver Case in Northern Idaho, the Bloody Sunday shootings in Londonderry Northern Ireland, the Tom Horn case in Wyoming, the Temple Murders in Phoenix, Arizona and others.

SECRETS OF A HOMICIDE: THE JFK ASSASSINATION



Computer Animation in Crime Scene Reconstruction

Fiftieth Anniversary
2013



Secrets of a Homicide: The JFK Assassination © 1995-2013 Dale K. Myers All Rights Reserved www.jfkfiles.com

SECRETS OF A HOMICIDE: THE JFK ASSASSINATION

Computer Animation in Crime Scene Reconstruction

50th Anniversary - November 22, 2013

OVERVIEW

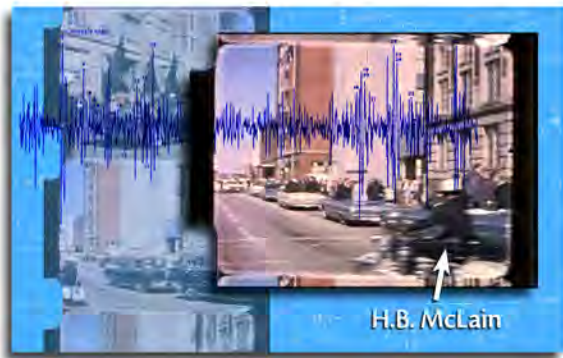
A behind-the-scenes look at the making of four-time Emmy® award-winning animator Dale K. Myers' stunning computer reconstruction of the 1963 assassination of President John F. Kennedy as featured on *ABC News*, *The History Channel*, and *The Discovery Channel*.

BACKGROUND

On November 22, 1963, President John F. Kennedy was shot and killed by a sniper in Dallas, Texas, in what is arguably the most photographed murder in history.

Over the past fifty years, much of the photographic evidence in the assassination of JFK has been subjected to analysis - both professional and amateur. At the top of the list is Abraham's Zapruder's 8mm home movie of the murder, perhaps the most scrutinized strip of celluloid on Earth.

Thirty years after the crime, Myers added a new level of clarity to the assassination story by extracting motion geometry from the Zapruder film and applying it to a three-dimensional computer model of the crime scene. The result was a dimensional model of the actual event that could be viewed, analyzed, and re-photographed from any position or angle.



Secrets of a Homicide: The JFK Assassination © 1995-2013 Dale K. Myers All Rights Reserved www.jfkfiles.com
 Cover Image: *With Malice: Lee Harvey Oswald and the Murder of Officer J.D. Tippit* © 1998 Dale K. Myers All Rights Reserved

PRESENTATION

To mark the fiftieth anniversary of the assassination, Myers presents the results of his thirty-five year study of the case in a vivid, multi-media production, including a frame-by-frame look at the infamous Zapruder film, a virtual look at the shooting in Dealey Plaza from multiple vantage points, and definitive answers to the lingering questions surrounding the greatest crime of the 20th century:

- How many shots were fired?
- Did a single bullet hit both Kennedy and Governor Connally?
- Did a gunman fire the fatal shot from the grassy knoll?
- Was Lee Harvey Oswald a lone gunman?

Myers also examines the *only* hard evidence that has ever been offered in support of a conspiracy – a Dallas police recording that drove the 1979 House Select Committee on Assassinations' (HSCA) acoustic panel to conclude that two men shot at Kennedy. Myers presents the results of his definitive, two-year forensic analysis of six amateur films of the assassination which effectively invalidates the HSCA's conclusion.

Finally, Myers explores forensic evidence in the shooting of Dallas Police Officer J.D. Tippit, whose forgotten murder forty-five minutes after the president's led to the arrest of Lee Harvey Oswald.

As one of the world's leading experts on the assassination, Myers weaves a compelling tapestry of facts that bring truth and clarity to a subject rife with silly theories, outlandish speculation, and outright lies.



BIOGRAPHY



DALE K. MYERS is a thirty-eight year veteran of radio and television. Winner of numerous awards for his work in the broadcast industry, including four Emmy® awards for his computer animation work, Myers is a recognized expert on the JFK assassination.

Over the last two decades, he has served as an on-camera expert and technical consultant for numerous television networks including *ABC News*, the *BBC*, *PBS*, *The Discovery Channel*, and *The History Channel*.

He authored the critically acclaimed book, *With Malice: Lee Harvey Oswald and the Murder of Officer J.D. Tippit*, a definitive second-by-

second account of the shooting of the Dallas patrolman – killed forty-five minutes after the assassination of President Kennedy – and the frantic manhunt that ended in Oswald's arrest.

A seasoned writer and public speaker, Myers has served as spokesman on many subjects ranging from video production techniques to the art of computer animation.

LINKS: <http://www.linkedin.com/in/dalekmyers>
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Bullet holes in automobile sheet metal *

Peter Diaczuk, Jack Hietpas

(*Presented at the 2010 NEAFS meeting Criminalistics session, Manchester VT)

Sometimes it is useful or necessary to opine on the nature of a bullet hole in sheet metal. The direction and angle of impact can suggest the relative positions of the automobile and the shooter.



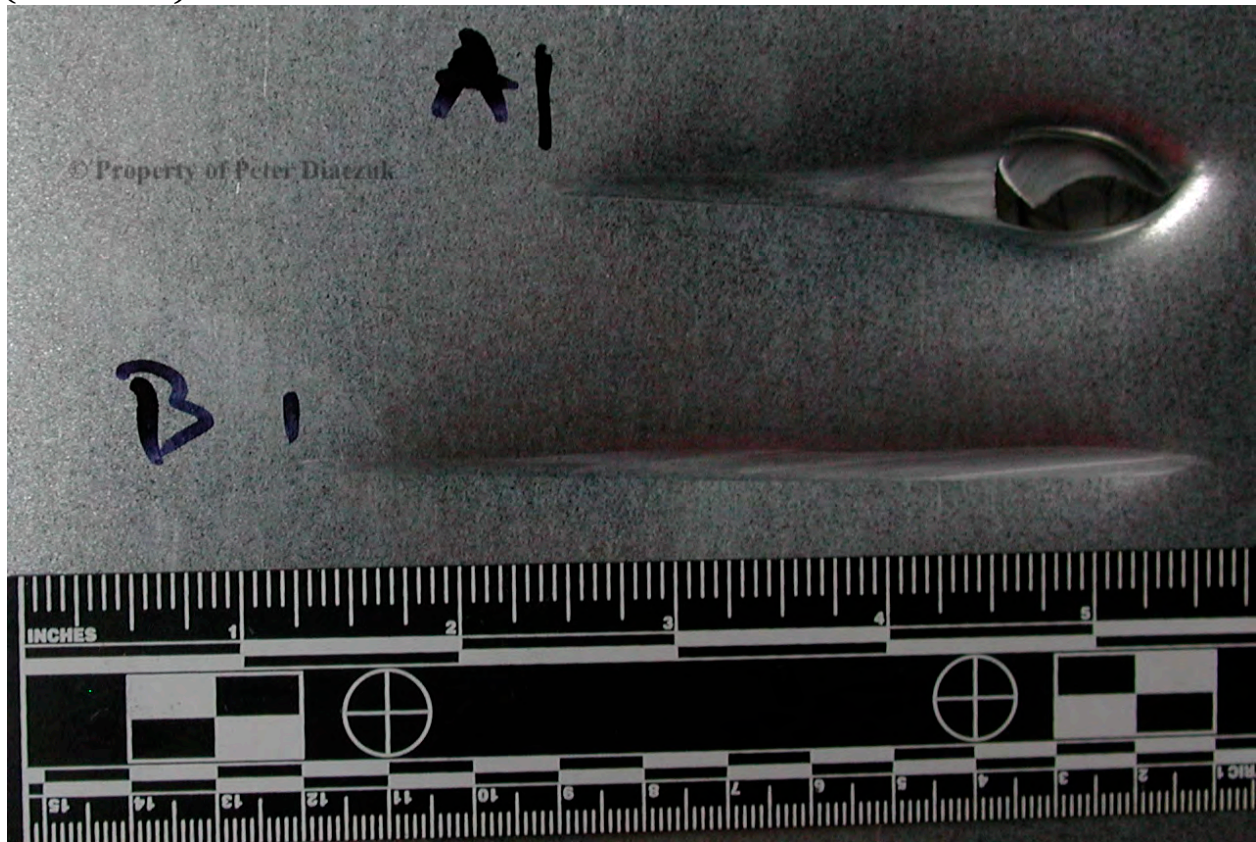
Old car with bullet holes found abandoned on rural property that could have been a product of moonshine runners decades ago.

Bullet holes in automobile sheet metal *

Peter Diaczuk, Jack Hietpas

(*Presented at the 2010 NEAFS meeting Criminalistics session, Manchester VT)

(Continued)



Two ricochet marks on sheet metal showing two different incidence angles, the steeper angle above and the shallower angle closer to the scale.

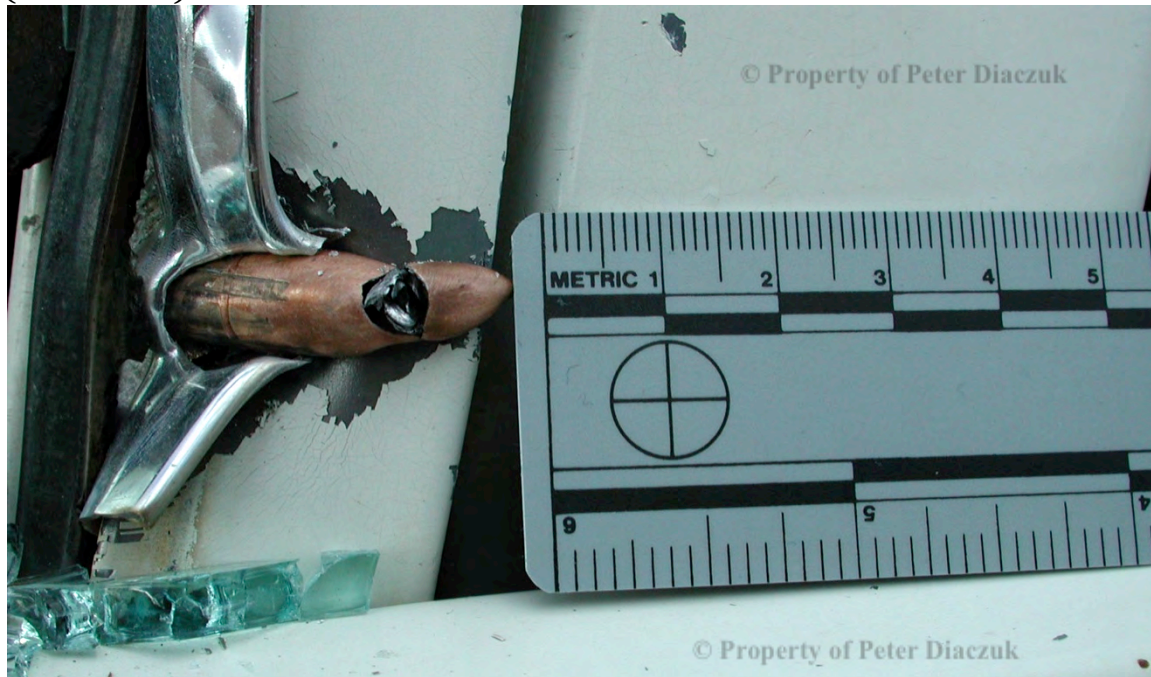
Whether the bullet impacted in stable flight or destabilized flight will suggest whether the automobile was the first target or the bullet encountered another object first.

Bullet holes in automobile sheet metal *

Peter Diaczuk, Jack Hietpas

(*Presented at the 2010 NEAFS meeting Criminalistics session, Manchester VT)

(Continued)



This bullet obviously did not impact the car door window post in stable flight. The bullet also gave up a substantial portion of its energy prior to coming to rest on the car.

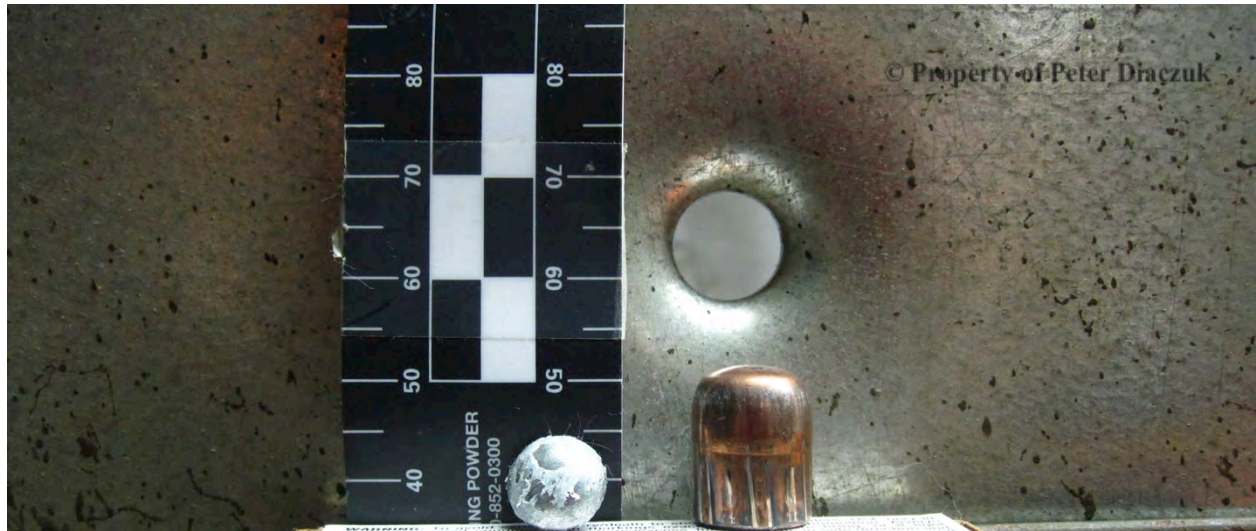
Arguably the most challenging question is assigning caliber to a bullet hole. Answering this question requires skill, experience and an extensive knowledge of both firearms and ammunition. Given an identical substrate, bullet diameter, bullet morphology, bullet construction, and bullet velocity all factor into the characteristics of the hole. But it is not just the size of the hole that needs to be examined when assessing the site for the possible caliber. The area immediately surrounding the hole and the exit side of the hole offer additional information. A slow bullet will push its way through and thus deflect more metal surrounding the hole before the bullet finally forces its way through the metal. A bullet with exposed lead or with a hollow cavity construction will deform and widen at impact, presenting a greater surface area to the sheet metal, creating a wider hole than the diameter of the responsible bullet.

Bullet holes in automobile sheet metal*

Peter Diaczuk, Jack Hietpas

(*Presented at the 2010 NEAFS meeting Criminalistics session, Manchester VT)

(Continued)



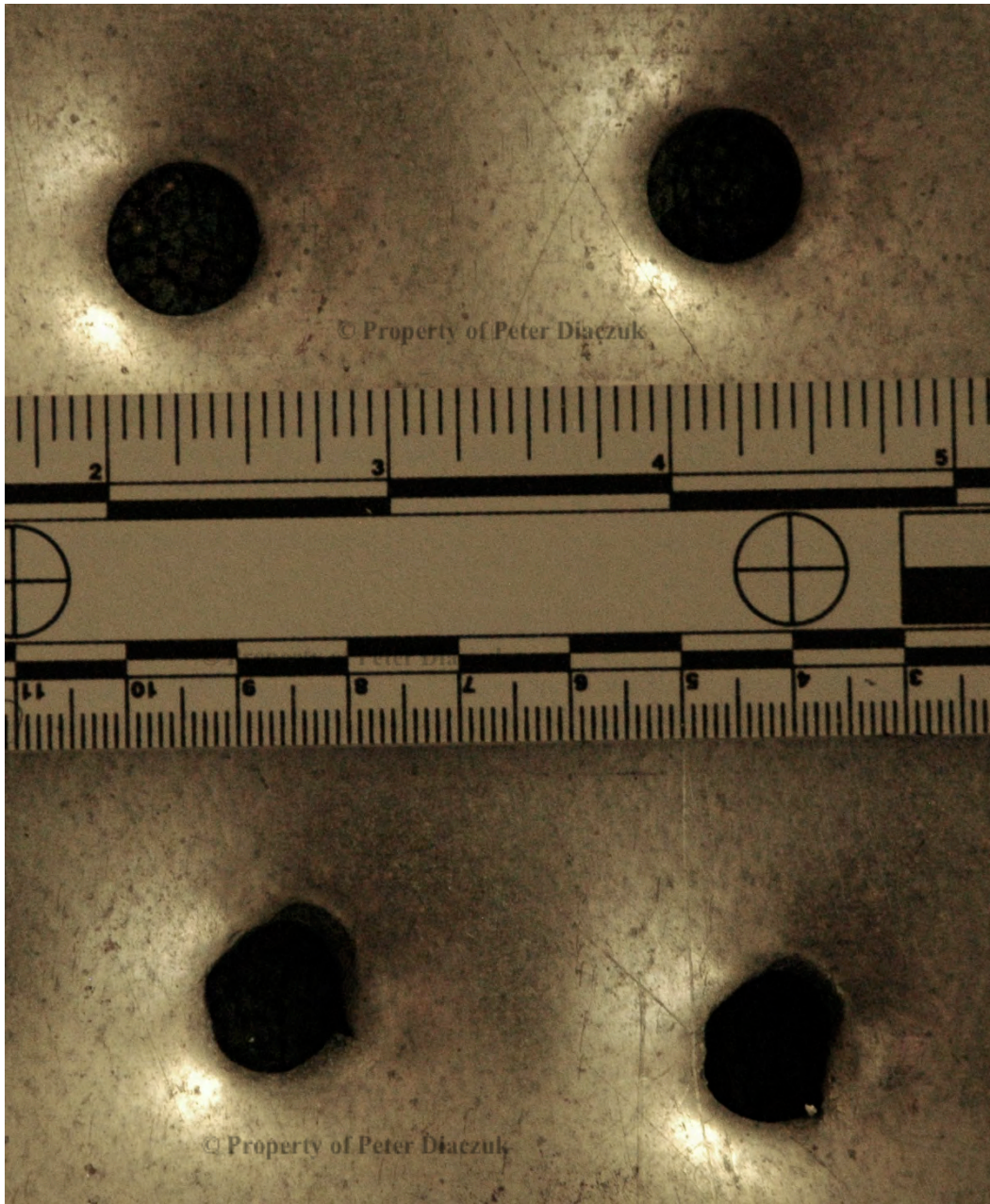
The hole in automobile sheet metal made by a 45 caliber bullet and the jacketed bullet that created it. The bullet has not deformed much and the hole is slightly smaller than 0.45 inches. The bullet impacted the sheet metal orthogonally at approx 700 feet/second. The bullet was recovered a short distance behind the metal in cotton mill waste. The bullet traveled a considerable distance in the recovery material, commensurate with bullets that were fired directly into the cotton, showing that energy loss negotiating the sheet metal was minimal. The small round disc in front of the scale was also produced by the bullet and will be discussed in the text.

Bullet holes in automobile sheet metal *

Peter Diaczuk, Jack Hietpas

(*Presented at the 2010 NEAFS meeting Criminalistics session, Manchester VT)

(Continued)



The top two holes were made by 45 caliber bullets sporting full metal jackets, while the bottom two holes were made by 38 Special bullets that were unjacketed. All four holes share a similar diameter however there are subtle differences between those made by the jacketed bullets and those made by the unjacketed bullets. Careful examination of the hole perimeters and both sides of the substrate will reveal clues about the event and contribute to a more accurate interpretation.

Bullet holes in automobile sheet metal *

Peter Diaczuk, Jack Hietpas

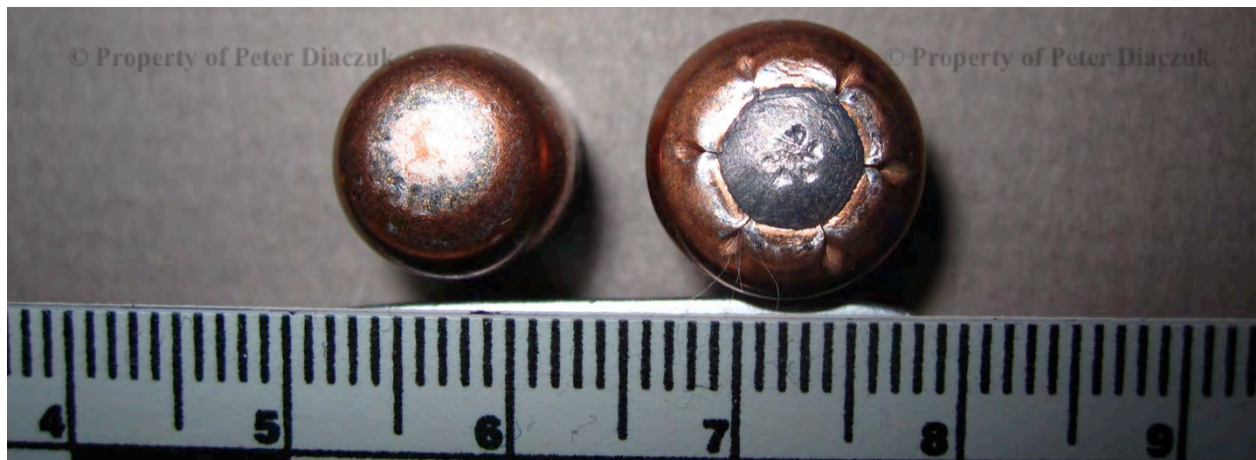
(*Presented at the 2010 NEAFS meeting Criminalistics session, Manchester VT)

(Continued)

A fully jacketed bullet will retain its shape better as it passes through, creating a hole with a diameter more closely resembling the bullet caliber. Handgun bullets that travel relatively slowly leave a hole that is slightly smaller than the responsible bullet, perhaps because the metal perimeter collapses slightly once the bullet has passed.

Rifle bullets, with their velocities much greater than handgun bullets, perforate the metal so quickly that the perimeter can expand slightly as the bullet forces its way through, leaving a hole that is slightly larger than the responsible bullet.

Automobiles are not merely constructed of an envelope of flat sheet metal surrounding the engine and passengers. Numerous curves and bends add strength without adding weight to the body. At many locations the sheet metal skin is attached to the chassis and other structural members of the automobile by steel angles and tubes that must be considered when assessing bullet damage, remaining energy or ricochet potential.



Two 45 caliber bullets after having perforated automobile sheet metal. On the left is a full metal jacket bullet and on the right is a jacketed hollow point. Note the different deformation between the two. Both the holes they made and the discs they punched out are quite different.

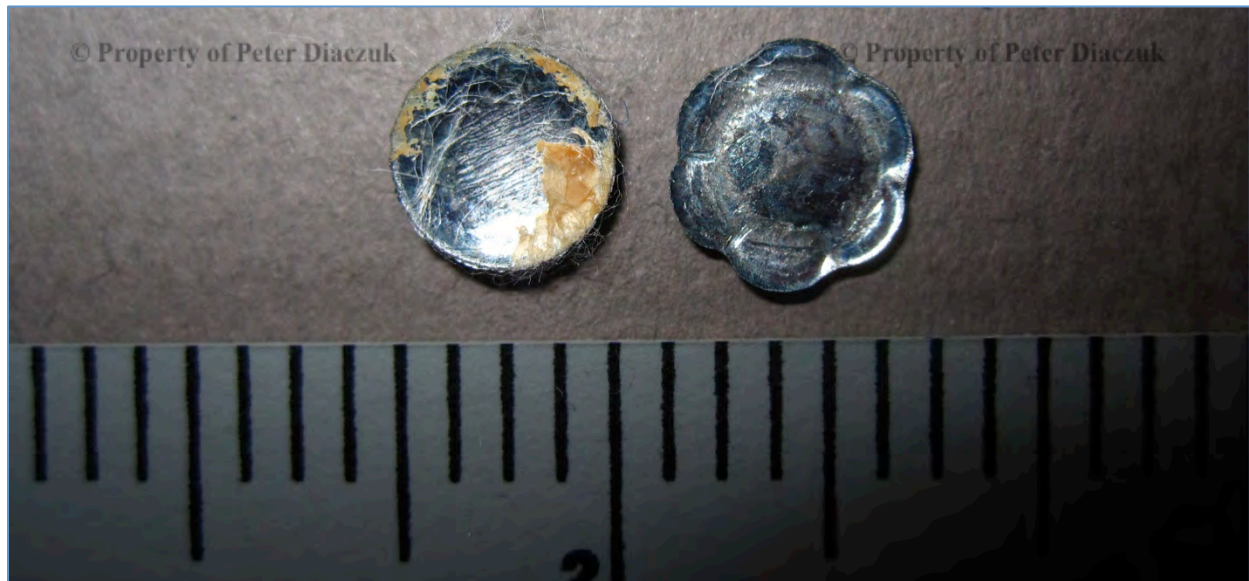
Bullet holes in automobile sheet metal *

Peter Diaczuk, Jack Hietpas

(*Presented at the 2010 NEAFS meeting Criminalistics session, Manchester VT)

(Continued)

A small disc can be dislodged from the parent metal when the bullet is forcing its way through, which is less than the bullet diameter and momentarily travels just ahead of the bullet. The much heavier bullet quickly overtakes this light disc and continues on with considerable energy while the disc succumbs to air resistance and gravity much more readily. Nevertheless, the disc can become a secondary missile and cause an injury that should be considered when reviewing medical records. Ideally, this disc should be examined as well because the bullet affects the size and shape of the disc.



The two sheet metal discs created by the bullets shown in the prior photograph graphically illustrates the variety that can be achieved when bullets with different characteristics interact with the same substrate.

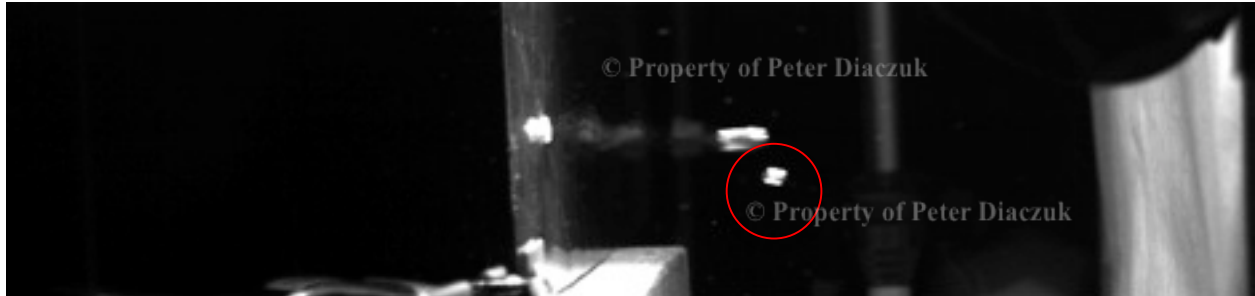
Bullet holes in automobile sheet metal *

Peter Diaczuk, Jack Hietpas

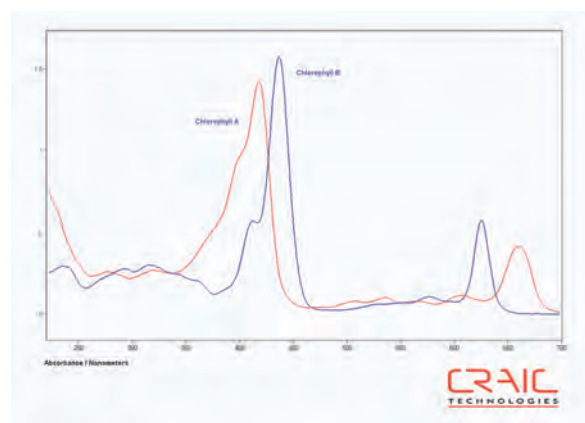
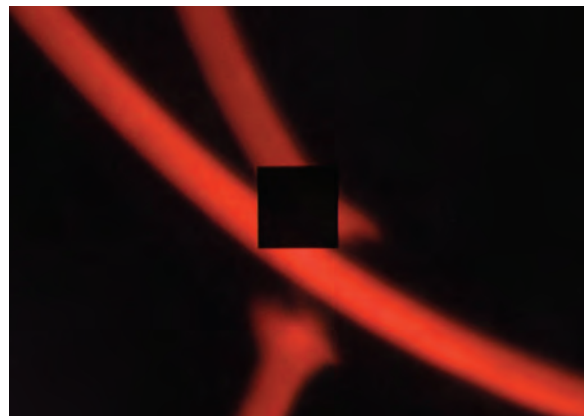
(*Presented at the 2010 NEAFS meeting Criminalistics session, Manchester VT)

(Continued)

The disc created by the passage of a 38 special jacketed bullet through a piece of sheet metal can be seen in this high speed photograph as the small reflective object just below and slightly ahead of the bullet. In the next frame (not shown) just 1/2500th second later the disc is lagging behind while the bullet races onward.



For a more detailed treatment of this subject the interested reader is directed to prior work done by Luke Haag and Mike Haag and which is included in their book entitled "Shooting Incident Reconstruction" (Academic Press).



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TODAY IN FORENSIC SCIENCE

Cedar Crest College hosted their 11th annual Forensic Science Symposium in March. This year's theme was Forensic Science Off the Beaten Path, which apparently meant that I was a perfect fit for that theme.



After my presentation on the shooting reconstruction in Rwanda, Gina Parada (now graduated with her Master's in forensic science) gave me a hand putting away my ammunition display. Notice Gina has the 75mm under control while I am struggling with the 20mm Oerlikon.



TODAY IN FORENSIC SCIENCE

(Continued)

The AFTE training conference took place in Albuquerque New Mexico last month. To avoid the potential airport delays I took matters into my own hands.



TODAY IN FORENSIC SCIENCE

(Continued)

After arrival, a wildlife expert apprised attendees of the local reptilian species including which were dangerous and which were safe.



TODAY IN FORENSIC SCIENCE

(Continued)

Among the many international attendees were Corporal Suzette Sewell and Sergeant Miguel Bernard from the Jamaica Constabulary Force Firearm Section. Seated with his back to the camera is independent firearm examiner Gerard Petillo, who is busy evaluating the Accu-Scope, the newest addition to the comparison microscope market.



TODAY IN FORENSIC SCIENCE

(Continued)

Dr Jim Hamby and Dr Martin Baiker were discussing some of the work that they are doing with Dr Nick Petraco at John Jay College on assessing statistical properties of striated toolmarks.



TODAY IN FORENSIC SCIENCE

(Continued)

Not able to contribute to their discussion on statistics, I opted to learn some fast draw skills by an expert. I am now in the market for the proper attire.



The 65th Inter/Micro ended last week.
With the help of maps and proper signage I made it!



TODAY IN FORENSIC SCIENCE

(Continued)

These shirts are now a collector's item but Dr Buzzini and I take them out for what has become our traditional photograph



Thomas Hopen received the coveted Emile Chamot Award at the SMSI Banquet Wednesday night. Thom is shown during the meeting addressing questions after his presentation on cross-sectioning techniques. On the monitor is Thom's favorite closing slide of Dr McCrone next to his LKE microscope.



TODAY IN FORENSIC SCIENCE

(Continued)

During the forensic science session on Wednesday afternoon, Dr Jack Hietpas delivered his presentation on the development of an SEM-EDS method to forensically identify minerals to a packed room.



His allotted time ran out and I was running a tight ship as the session Moderator so I reluctantly had to ask Jack to conclude his presentation and not entertain questions.



TODAY IN FORENSIC SCIENCE

(Continued)

Jack had the last laugh the following day during the pollen identification workshop when he pointed out why I was having trouble seeing anything with my microscope. Once it was plugged in, I was able to participate and catch up with the rest of the class!



The pollen workshop instructor was Michael Muilenberg, whose expertise of pollen and other airborne agents was obvious. He is shown here explaining a concept to workshop attendee and McRI intern Danielle Silletti.



Training Opportunities

August 2013

Focoss Forensics, Forensic Comparative Science Specialists, LLC
Crime Scene Processing
NH Technical Institute, Concord, NH
August 12 - 16, 2013
Cost: \$595

To register or for more information, please visit our website
at: www.focossforensics.com

Focoss Forensics, Forensic Comparative Science Specialists, LLC
Crime Scene Certification Prep
TBD, NH
TBD (3-day class in summer or fall 2013)
Cost: \$195

To register or for more information, please visit our website
at: www.focossforensics.com

September 2013

25th Congress of the International Society for Forensic Genetics
Melbourne, Australia
September 2nd - 7th, 2013

Find the most up to date information at: <http://www.isfg2013.org/>.

2013 Midwestern Association of Forensic Scientists Fall Meeting
“A Twist on Forensic Science”

Dayton, Ohio (The Dayton Marriott)
September 29th, 2013-October 4th, 2013
Find the most up to date information
at: www.mafs.net http://www.mcoho.org/government/mvrcl/mafs_2013.html

October 2013

2013 IABPA Training Conference International Association of Bloodstain Pattern Analysts, Crowne Plaza Hotel, San Diego, CA October 1-4, 2013

For information go to <http://www.iabpa.org/2013-training-conference>.

24th International Symposium on Human Identification (ISHI) Hyatt Regency, Atlanta, Georgia October 7-10, 2013

The annual ISHI attracts more than 800 forensic scientists from around the globe. Practical workshops will be offered before and after the symposium on subjects ranging from mixture interpretations to courtroom testimony. General session topics will include: new technologies, expansion of CODIS loci, interesting cases and more. Get the details at www.ishinews.com.

2013 Southwestern Association of Forensic Scientists (SWAFS) Fall Meeting Eldorado Hotel & Spa Book Hotel, Santa Fe, NM October 27 - October 30

See <http://www.swafs.us/> for more details. Book the hotel with SWAFS <http://booking.ihotelier.com/istay/istay.jsp?groupID=1009041&hotelID=3601>.

November 2013

Crime Scene and Shooting Incident Reconstruction presented by George Mason University, Fairfax, Virginia Presented by Dr. Henry Lee with Dr. Leah Bush November 11 & 12, 2013

The process of reconstructing a death scene or shooting incident is only of value if conducted properly within the realms of scientific principles, logic analysis, and forensic techniques conducted by a qualified expert. The concepts and essentials of shooting reconstruction will be illustrated with a focus on the analysis of actual shooting cases.

Visit <http://www.ocpe.gmu.edu/drlee.html> for further information and to register.

Contact Joy M. Roach, Program Coordinator, Office of Continuing Professional Education Prince William Campus, 10900 University Blvd, MS 4F2, Manassas, VA 20110; 703-993-8468; fax 703-993-8336; jroach1@gmu.edu.

Employment Opportunities

New Mexico Department of Public Safety Forensic Laboratories / Multiple Locations

Quality Manager in Santa Fe –

OPEN NOW \$49,449 - \$87,910 annual; \$23.77 - \$42.26 hourly

To meet minimum qualifications for this recruitment, you must have: **EDUCATION** – A Bachelor's Degree in any field of study from an accredited college or university. **EXPERIENCE** – five (5) years of professional level experience operating within parameters and guidelines directly related to the purpose of the position defined by the agency at the time of recruitment. Any combination of education from an accredited college or university and/or direct experience in this occupation totaling nine (9) years may substitute for the required education and experience. **PURPOSE** – Responsible for the lab wide implementation and operation of the Quality Assurance Program. Other responsibilities include compliance monitoring, proficiency test distribution, conducting audits and reviews, safety compliance, standard operating procedures review, and compliance with internationally recognized accrediting body standards. The Quality Manager is also responsible for supervising laboratory support personnel.

Supervising Forensic Scientists (3):

1 Chemistry Section in Santa Fe, 1 Latent Fingerprint Section in Las Cruces, 1 Latent Fingerprint or Firearms Sections in Hobbs –

OPEN NOW \$49,449 - \$87,910 annual; \$23.77 - \$42.26 hourly

To meet minimum qualifications for this recruitment, you must have: **EDUCATION** – Bachelor's Degree in Biology, Chemistry, Biochemistry, Genetics, Forensic Science or Molecular Biology for Chemistry Forensic Scientists. For Latent Print and Firearm Forensic Scientists, a degree in any discipline will be accepted, or an Associates' degree plus two (2) years of additional laboratory experience or four (4) years of additional laboratory experience can substitute for a Bachelor's degree. **EXPERIENCE** – Four (4) years of experience working in a forensics laboratory performing independent scientific analysis of forensic evidence, including one (1) year of independent case work analysis, and one (1) year forensic expert witness testimony experience. **PURPOSE** – Case working scientist also responsible for supervising section personnel.

Forensic Scientist Chemistry Section in Hobbs –

OPENING SOON \$43,526 - \$77,380 annual; \$20.93 - \$37.20 hourly

To meet minimum qualifications for this recruitment, you must have: **EDUCATION** – Bachelor's Degree in Biology, Chemistry, Biochemistry, Genetics, Forensic Science or Molecular Biology for Chemistry Forensic Scientists. For Latent Print and Firearm Forensic Scientists, a degree in any discipline will be accepted, or an Associates' degree plus two (2) years of additional laboratory experience or four (4) years of additional laboratory experience can substitute for a Bachelor's degree. **EXPERIENCE** – Four (4) years of experience working in a forensics laboratory performing scientific analysis of forensic evidence, including one (1) year of independent case work analysis. **PURPOSE** – Case working scientist. Closing Date: September 30, 2013. For more information please visit <http://www.dps.nm.org/index.php/forensics/>.

Application Apply on-line at <http://agency.governmentjobs.com/newmexico> by following all instructions to complete the application including answering all supplemental questions and attaching transcripts. Attached Resume will no longer be reviewed or considered; applicant must complete the entire online application. Questions contact Career Services at (505) 476-7765 or email applicant.support@state.nm.us. Contact Laboratory Bureau Chief, Noreen Purcell at noreen.purcell@state.nm.us.

Posted: 07/24/13



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Northeastern Association of Forensic Scientists
Board of Directors Winter Meeting Minutes
Remote Location (Go To Meeting)
January 12, 2013

Attending: Andrea Belec (President), Samantha Chernoguz, Melissa Balogh, Kimberly Gorel, Erica Nadeau, Holly O'Connor, Larry Quarino, Tiffany Ribadeneyra, Beth Saucier Goodspeed, Angela Vialotti

The meeting commenced at 10:05AM.

Kimberly Gorel announced the names of the officers for 2013. These include:

President – Andrea Belec
President Elect – Kevin MacLaren
Secretary – Larry Quarino
Treasurer – Erica Nadeau
Director – Samantha Chernoguz
Director – Beth Saucier Goodspeed
Director – Melissa Balogh

President Andrea Belec announced the appointments to the Executive Staff for 2013. These include:

Awards Chair – David Fisher
Committee Member – Elizabeth Duvall
Certification Chair - Michael Portzer –
Exam Committee – Amy Duhaime
Member At-Large – Ralph Ristenbatt
Ethics Chair – Laura Tramontin
Committee Members – Peter Diaczuk, Vinny Desiderio
Membership Chair – Holly O'Connor
Membership Dues Chair – Sheauling Kastor
Membership Committee Members: Susan Flaherty, Sherri Anderson, Jaime Hoey
Publications Chair – Ed Kovacs
Webmaster – Keith Mancini
Registration Chair – Angela Vialotti
Committee Members
Exhibits Chair/Corporate Liaison – Tiffany Ribadeneyra
Committee Member – Maria Tsocanos
Merchandise Chair – Lola Murray
Education Chair – Peter Valentin
Site Chair – Janine Kishbaugh

No outside nominations for any position were received.

A motion was made and seconded to install the officers and executive staff. The motion passed with a caveat that the Education Committee may be expanded.

Secretary's Report – The minutes from the Board of Directors Meeting held on 11/13/12 and from the business meeting held on 11/15/12 needed amending. These will be approved electronically by the Board of Directors in the coming week.

Treasurer's Report – Andrea Belec gave the report for Kevin MacLaren.

NEAFS donated \$500 to the New York City Mayor's Fund and \$500 to RebuildRecover (New Jersey) for Hurricane Sandy relief. NEAFS currently has assets totaling \$188,499.30. In addition, the Carol De Forest Research Fund has raised \$4,952.90

The report was accepted after a motion was made and seconded.

2013 Meeting Update – Andrea Belec gave the report for Kevin MacLaren.

The meeting will feature a Wednesday evening and a Thursday session on the 50th anniversary of the Kennedy assassination. Dr. Cyril Wecht has confirmed as a speaker for the Wednesday evening session. The scientific sessions will be held on Wednesday. In addition, Life Technologies will hold their 13th *Annual Future Trends in Forensic DNA Technology* seminar at the meeting.

Several workshops are being planned. Andrea Belec is working with Agilent Technologies on a toxicology workshop, Vinny Desiderio will be giving a workshop on the analysis of chemical unknowns, and an expert testimony workshop is being planned.

The business meeting will be held during lunch.

The report was accepted after a motion was made and seconded.

Director Reports – No reports were submitted.

Committee Reports:

Awards: Andrea Belec gave the report for David Fisher. After discussion, the Board of Directors determined that the Carol De Forest Research Grants is under the jurisdiction of the Awards Committee (motion made, seconded, and approved).

The Committee will be soliciting nominations for the second annual NEAFS Service Award at a later date.

The due date for applications for the 2013 George W. Neighbor Memorial Scholarship is April 30, 2013. Larry Quarino suggested that the Committee solicit nomination through the Student Affairs Office at Colleges/Universities offering forensic science programs in the NEAFS geographical area.

The report was accepted after a motion was made and seconded.

Certification: Andrea Belec gave the report for Mike Portzer. Five exams were given at the annual meeting on November 13, 2012.

The report was accepted after a motion was made and seconded.

Education: No report submitted.

Ethics: No formal report submitted. The Committee is looking into a potential ethical violation.

Membership: Holly O'Connor gave the report. Nine (one for reinstatement) applications have been accrued for the period between August 19, 2012 and January 12, 2013. The 2013 Dues notices will be sent out around the first week of February.

Discussion centered on formulizing a procedure for application to Emeritus status. The procedure for application must be stated in the organization's by-laws. Notice of the change in the by-laws will be placed in the newsletter. Samantha was tasked with the writing of the newsletter notice. In addition, Samantha will develop the new application which will be presented to the rest of the Board. The Board also agreed to waive dues for Emeritus status. A disclaimer will be placed on the Emeritus Application stating that in the event someone is denied Emeritus status, they will be required to pay dues.

The Membership Committee recommends that a link be placed on the NEAFS website that would allow members to update their contact information.

The report was accepted after a motion was made and seconded.

Publication: No report. Andrea asked Board members to check contact information on the website and to provide Keith Mancini with a forwarding email if desired.

Registration: No report. The Board approved \$200 for a new printer for the Registration Committee.

The report was accepted after a motion was made and seconded.

Corporate Liaison: Tiffany Ribadeneyra gave the report. The corporate sponsorship page on the website was made current to reflect new sponsorship. The 2012 total income was \$51,585. For the 2013 meeting, outreach will be made to vendors who exhibited in 2011 but did not in 2012. Sponsorship and booth prices will not increase. Complimentary electricity on perimeter of exhibitor hall will be offered. A contact information disclaimer will be added to the 2013 meeting registration form.

The Board granted the committee an additional member. Provisional members are eligible.

The hard drive on an old laptop computer used by the Committee was cleared and now ready for donation. One vendor monitor discarded at the 2012 meeting was given to Peter Diaczuk.

The report was accepted after a motion was made and seconded.

Merchandise: Andrea Belec gave the report for Lola Murray. Additional merchandise has been ordered for the Annual Meeting. The Committee is still working on a new, redesigned NEAFS logo. Vinny Desiderio suggested a contact to help with the logo.

The report was accepted after a motion was made and seconded.

Site Chair: No report.

Old Business

Erica Nadeau reported on comments and suggestions given by membership at the Business Meeting about the on-line membership directory. One suggestion was to add a message board to be used as a forum for members to discuss forensic science-related topics. One question was posed about the possibility of member information coming up after a Google search. This will not be an issue since information in the directory is password protected. NEAFS will place a disclaimer on the membership directory website stating that inappropriate content will be removed or brought to the attention of the member who will be requested to remove the material.

Member entry into the directory will be done by members. A link will be sent to the membership by Holly O'Connor that will allow members to enter information.

There is no timeline for implementation of the on-line membership directory.

Andrea reported that Vinny Desiderio is working on the development of Administrative Rules for NEAFS.

New Business

Andrea asked for suggestions of charitable organizations involved with the Sandy Hook Elementary School shooting that NEAFS can send a donation. Discussion will continue via email.

The Board recommended John Reffner from John Jay College for Life Membership. The nomination of Dr. Reffner was brought by Peter Diaczuk and will be voted on at the next Business Meeting.

Andrea presented the idea of an update given at each annual meeting from a recently established drug committee on newly designed drugs. Lindsey Reinhart from NMS gave a similar presentation at last meeting.

After a question presented by Larry Quarino about funding members to attend workshops, the Board encourages members to apply for funding through the Training Scholarship Fund. Vinny Desiderio is in charge of the Training Scholarship Fund.

The next BOD meeting is scheduled for Saturday, April 13, 2013 at 10:00AM at the Westchester County Forensic Science Laboratory.

The meeting adjourned at 12:09PM.

Recorded,

Larry Quarino
Secretary

Dear Member,

Below are changes to the NEAFS bylaws proposed by the Resolution Committee and approved by the Board of Directors. All changes will be submitted for a vote by the membership at the 2013 Annual Meeting in Cromwell, CT.

A copy of the current by-laws can be found at <http://neafs.org/index.php/membership/bylaws>

If you have any other suggestions for changes, or questions/comments about the proposed updates, please contact Samantha Chernoguz (Director3@NEAFS.org)

Article VI, Membership:

Section 1. General qualifications:

Change: Updated the reference to the correction section number (Article VI, Section 9)

Reason: Reference was to a non-existent section

New Wording:

Applicants for membership shall be expected to have previously demonstrated moral and ethical conduct befitting the profession. Any application may be rejected by the Membership Committee with the approval of the Board of Directors for the same reasons as termination of membership. (Article VI, Section 9)

Section 3. Associate Members

Change: Remove the requirement for regular members to live in the Northeast region

Reason: With the increased use of technology and digital communication, geographical location is no longer a limiting factor in our community.

New Wording: Any person who does not meet the requirement for regular membership, may apply as an Associate Member. Such member shall be entitled to all rights and privileges of members except that they shall be ineligible to vote or hold office.

Section 4. Life Members:

Change: Removes section about members receiving publications upon request

Reason: All members, regardless of membership type automatically receive all NEAFS publications

New Wording: Life members shall retain all rights and privileges of members, but shall be excused from all dues and assessments. Life membership shall be conferred by recommendation from the *Board of Directors*, with the approval of 3/4 of the voting membership at the annual business meeting.

Section 5. Emeritus Members

Change: Remove the requirement for members to submit in writing every year a renewal

Reason: With the new email format of our dues notices, this has become unnecessary

Change: Allow Emeritus members to apply at any point during the year

Reason: A member's retirement does not always coincide with our dues calendar. Allowing members to apply for an upgrade at any time is easier for the member as well as for the membership committee.

New Wording:

- a. Any member meeting the following requirements may be proposed for Emeritus status by the *Membership Committee*. The member must:
 - i. be at least fifty five (55) years of age
 - ii. be retired from full-time forensic work
 - iii. have been a full dues paying member of the Association for a minimum of ten (10) years
- b. Members holding Emeritus status shall retain all rights and privileges of members, but shall be excused from all dues and assessments.
- c. A member may apply for Emeritus status at any time during the year by submitting a request to the Membership Chair. Those applying for Emeritus status shall be provisionally excused from all dues and

assessments beginning at the time their request is received. If the Emeritus status of a member is not approved, the member shall be responsible for the current years' dues.

- d. Emeritus status shall be conferred by recommendation from the *Membership Committee* with the approval of 3/4 of the voting membership at the annual business meeting.
- e. Once Emeritus status is conferred, the member shall be eligible to continue their emeritus status and receive publications free of charge on an annual basis as long as they continue to meet the Emeritus requirements.

Section 6. Student Affiliate

Change: Clarify the language for the student affiliate. Require that the student (and not his/her professor) provide proof of enrollment

Reason: There was confusion as to whether this is membership level or not. A student affiliate is only for the purposes of annual meeting registration.

New Wording:

- a. Students shall be permitted to attend the Annual Meeting of the Corporation (NEAFS) for a discounted fee to be determined by the Board of Directors. The students must:
 - 1. Not be a NEAFS member or active applicant
 - 2. Not be employed in a forensic science laboratory
 - 3. Be enrolled full time at an accredited college or university in a forensic science or related program
 - 4. Provide proof of enrollment
- b. It is understood that, in connection with the implementation of this policy:
 - 1. That the walk-in fee does not entitle students, taking advantage of it, to any meals for which others have paid.
 - 2. That this policy is in no way intended to discourage students from becoming members, nor should it be so construed by students or by faculty, chairpersons or program directors within academia.

Section 8. Fees and Dues

Change: Allows the membership chair to set the date for dues payments

Reason: To allow for flexibility

New Wording: Annual dues for Associate and Regular Members; Application fees for membership; and Registration fees for Members, Associate Members, Active Applicants, Student Affiliates and Non-Members to attend the Annual Meeting, shall be set by the Membership of the Corporation (NEAFS).

- i. An Active Applicant is an Applicant whose completed application has been received by the Membership Committee Chairperson for consideration by the deadline set forth by the Membership Chairperson.

Section 9. Termination of Membership.

Change: Puts the responsibility recommending termination of membership and reporting of resignations on to the membership chair (and not the executive secretary or treasurer)

Reason: In recent years the responsibilities of the staff has changed

Change: Changes "unethical conduct" to "violation of NEAFS Code of Ethics" for suspension of membership.

Reason: To be more specific about what "unethical conduct" is

Change: Removes the requirement for 3/4 of the membership to vote in favor of terminating membership of someone convicted of a criminal offence

Reason: The person has been found guilty in a court of law. This is enough to terminate membership. A vote is unnecessary

New Wording:

- a. Any member may resign his/her membership in the Corporation by written request directed to the Membership Committee Chairperson. The Board of Directors will inform the membership at the next Annual Meeting. A member who has resigned in this manner shall be entitled to reapply to the

Membership Committee for reinstatement without penalty. Such reinstatement shall be contingent upon re-election by a 3/4 vote of the membership at the Annual Business Meeting.

- b. Membership will be terminated at the discretion of the Board of Directors upon information supplied by the Membership Committee Chairperson that the member has failed to pay prescribed dues or assessments by the Annual Business Meeting. A member who has been terminated for failure to pay prescribed dues or assessments shall be entitled to reapply to the Membership Committee for reinstatement. Such reinstatement shall be contingent upon re-election by a 3/4 vote of the membership at the Annual Business Meeting and payment of a penalty equal to one year of dues.
- c. A member may be suspended or expelled from the Corporation for any violation of the NEAFS code of Ethics, or conduct detrimental to the profession and/or the Corporation. Any person may initiate proceedings concerning unethical behavior by filing charges with the Ethics Committee in writing. Any person with membership in the Corporation may institute proceedings concerning conduct detrimental to the Corporation by filing written charges with the Ethics Committee. Any member so charged shall be notified as soon as possible, and shall be allowed to be present during the hearing on the charges against him/her.
- d. A member will be expelled from the corporation following his/her conviction of a criminal offense.
- e. A member may be expelled from the Corporation upon recommendation of the Ethics Committee or the Board of Directors, and a 3/4 vote of the membership at the Annual Business Meeting.

Article VII, Officers, Board of Directors and Executive Staff Members:

Section 2. Officers: Description, Duties and Terms of Office

Change: Change secretary term from 1 to 2 years

Reason: To keep consistency; this has been a practice for several years now

New Wordings: Secretary: Keeps and publishes minutes of all Board of Directors and membership meetings. Empowered to sign checks. Elected by the membership. Term: Two Years

Change: Change treasurer's term from 1 to 2 years. Adds "files the Corporation's annual taxes" to the list of duties.

Reason: To keep consistency; this has been a practice for several years now. Treasurer has also been responsible for filing taxes. Other minor grammar fixes incorporated.

New Wordings: Treasurer: Receives all monies due the Corporation, and keeps accurate records of all transactions. Presents a statement twice yearly to the Board of Directors. Prepares the annual budget for presentation at the annual meeting, and reports the previous year's financial transactions at the annual meeting. All monies shall be deposited in a bank authorized by the Board of Directors as soon as possible and reasonable. Files the Corporation's annual taxes. Empowered to sign checks. Elected by the membership. Term: Two Years.

Section 3. Executive Staff Members: Description, Duties, Terms of Office and Method of Selection

Change: Added Corporate Liaison, Merchandise Chair and Registration Chair to the Staff.

Reason: These positions have been added on over the years but never incorporated into the by-laws

Change: Updated the responsibilities of the Membership Chair and Site Chair

Reason: To reflect the responsibilities these staff members currently have

New Wordings:

- a. Awards Committee Chairperson: Elected by the Board of Directors with the President having two (2) votes. Term: One year.
- b. Certification Chairperson: Liaison between the Board of Directors and the American Board of Criminalistics and/or other certifying organizations. Elected by the Board of Directors with the President having two (2) votes. Term: Three years.
- c. Corporate Liaison: Serves as the liaison between the corporate sponsors and the Corporation. Provides reports to the Board of Directors and Treasurer as needed. Term: Three Years
- d. Education Committee Chairperson: Elected by the Board of Directors with the President having two (2) votes. Term: One year.

- e. Ethics Committee Chairperson: The most senior Past President currently serving on the committee. Term: One year.
- f. Executive Secretary: Maintains membership files, committee reports and Corporation (NEAFS) business. Files copies of incoming and outgoing correspondence. Serves as Chairperson of the Election Committee. Receives and tabulates all ballots regarding elections and other Corporation (NEAFS) votes. Elected by the Board of Directors with the President having two (2) votes. Term: One Year.
- g. Membership Committee Chairperson: Acts as Chairperson of the Membership Committee and presents recommendations to the Board of Directors and to the membership. Notifies the membership, in advance, of the names and affiliations of applicants and membership re-instatements to be voted on for membership at the Annual Meeting. Notifies the membership, in advance, of the names of members to be terminated for unpaid dues/assessments. Elected by the Board of Directors with the President having two (2) votes. Term: One Year.
- h. Merchandise Chairperson: Has the responsibility of overseeing the sales and distribution of NEAFS merchandise. Provides reports on the merchandise sales to the Board of Directors and Treasurer as needed. Term: One Year
- i. Past President: To be filled by the immediate past President if he/she is willing and able to serve; otherwise, to be filled by another past President elected by the Board of Directors. Serves as a member of the Ethics Committee. Duties to be assigned by the Board of Directors. Term: One Year.
- j. Publication Chairperson: Has the responsibility of communicating to the members those matters prescribed in the by-laws and as directed by the Board of Directors. The manner of this communication with the members to be determined by the Board of Directors. Notifies the membership of meetings. Elected by the Board of Directors with the President having two (2) votes. Term: One Year.
- k. Registration Chairperson: Has the responsibility of overseeing registration for the annual meeting and any other events when necessary. Provides reports to the Board of Directors as needed. Term: Three Years
- l. Site Chairperson: Investigates potential sites for annual meetings and presents recommendations to the Board of Directors. Negotiates and signs contracts with selected hotels for the Corporation as directed by the Board. Serves as a liaison between the hotel and the Corporation during the annual meeting and coordinates and monitors all contracted hotel services. Elected by the Board of Directors with the President having two (2) votes. Term: Three Years

Article VIII, Standing Committees:

Change: Gave permission for all chairpersons to appoint their own committee members as they see fit.

Reason: The responsibility used to be on the board of directors to make all appointments, but it was felt that the committee chairperson knows better who will be a valuable member of their committee. This has been the practice for several years now.

New Wording:

Section 1. Awards Committee: To be composed of a chairperson appointed by the Board of Directors. The chairperson shall appoint committee members as he/she sees fit.

Section 2. Certification Committee: To be composed of a chairperson appointed by the Board of Directors. The chairperson shall appoint committee members as he/she sees fit.

Section 3. Education Committee: To be composed of a chairperson appointed by the Board of Directors. The chairperson shall appoint committee members as he/she sees fit.

Section 4. Elections Committee: Elections to be chaired by the Executive Secretary, and two others appointed by the Board of Directors.

Section 5. Ethics Committee: To be composed of three most recent Past-Presidents, appointed to three-year terms, the terms to be staggered.

Section 6. Membership Committee: To be composed of a chairperson appointed by the Board of Directors. The chairperson shall appoint committee members as he/she sees fit.

Section 7. Nominations Committee: To consist of the President (the Committee Chair), the President-Elect, and three other persons not on the Board of Directors, but appointed by the Board of Directors.

Section 8. Publications Committee: To be composed of a chairperson appointed by the Board of Directors. The chairperson shall appoint committee members as he/she sees fit.

Section 9. Resolution Committee: To consist of the Board of Directors.

Article XIII, Voting:

Change: Changes “majority” to “majorities”

Reason: Grammar

Voting will be carried out either by mail or in person, and all majorities herein referred to shall mean a majority of votes cast, with five percent (5%) of the voting membership, by mail, being a quorum.

Article XIV, Elections:

Changes: Changed Article XIVa and XIVb to Section 1 and 2. Capitalized “A” in Annual. Added “Nominating” to committee in Section 2

Reason: For grammar and consistency with the rest of the by-laws

New Wording: Section 1. Nominations:

- a. The Nominating Committee will propose a slate of officers to the Board of Directors at the Board Meeting at the annual meeting.
- b. The slate will be announced to the Membership at the Annual Business Meeting.
- c. Additional nominations can be proposed from the membership by a petition of 20 members, or 10% of the voting membership, whichever is greater.
- d. Nominations must be presented to the Chair of the Nominating Committee within 30 days of the Annual Business Meeting.

Section 2. Elections:

- a. If additional nominations are received by the Nominating Committee, an Election will be held by mail.
- b. Election will be by a plurality of the votes cast.
- c. If no additional nominations are received, the slate proposed by the Nominating Committee will become effective January 1.
- d. The new officers will be announced in the first newsletter after January 1.
- e. Terms of office are January 1 through December 31.

Article XV, Order of Business at the Annual Meeting:

Section 1.

Change: Corrected grammar by adding the word shall in “The Order of Business at the Annual Meeting *shall* be as follows”

Reason: Grammar

Change: Changed “reading” to “review” of minutes

Reason: The entire meeting minutes are not read at the meeting, they are simply reviewed.

New Wording: Review of the Minutes of the previous meeting

Article XVI, Education Fund:

Section 2.

Change: Made the requirement for solicitation of scholarships more broad. Also changes Article VII....from abbreviations to full words.

Reason: To allow for flexibility

New Wording: That the Scholarship Nominations will be solicited through the NEAFS Newsletter and/or by informational mailings to Colleges and Universities within the region served by the Corporation. The solicitation period and application deadline date for this award will be determined by the Awards Committee (Article VIII, Section 1) with the approval of the Board of Directors.

Article XVIII, Amendments to the By-Laws:

Change: Allows the Board of Directors to notify members of changes to the by-laws by mail or email

Reason: To facilitate ease of communication and save the membership time and money

New Wording: The Board of Directors may also propose changes in the by-laws by mail (or email), and such changes may be effected by a 3/4 vote of the membership by mail (or email).



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