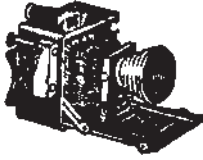




THE PRINT

*The Official Publication of the Southern California Association of Fingerprint Officers
An Association for Scientific Investigation and Identification Since 1937*

October/November/December 2009 Volume 25 Issue 4



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Addressing the Problems that Plague the National Academy of Science's Publication: STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD

Wayne Plumtree, BS, MS

Assistant Director, Los Angeles County Sheriff's Department

Scientific Services Bureau

When the National Academy of Sciences report entitled "Strengthening Forensic Science in the United States: A Path Forward" (hereinafter the NAS Report) was released at the beginning of this year, I thought I could predict what it was going to say, so I was not in a rush to read it. However, as soon as it came out individuals of varying backgrounds and various media sources were discussing how badly the NAS Report depicted the forensic disciplines. Forensic professionals complained about inaccuracies, while my family and social friends wanted to know if indeed forensics were really in such dismal shape. This made reading the NAS Report a priority. As I read, it became clear to me why so many were thinking that the forensic sciences were, at best, unreliable and, may have severe problems. I was so shocked at what I read, that I decided I had a professional obligation to do something to try to correct the misrepresentations.

My forensic background is primarily in fingerprint identification (both 10 print and latents), firearms identification, tool mark identification, physical match and tire/shoe mark identification. For the past 20 years I have supervised either the Firearms Identification or the Latent Print Section. I have decided to give talks and write a series of articles giving my opinion concerning how the above listed disciplines are misrepresented in the NAS Report. Although I am not a fingerprint comparison expert per se and have performed little casework as a supervisor, I feel my background is sufficient for this endeavor.

Continued on page 6

SCAFO TRAINING / MEETING

Saturday, February 6, 2010

11:30 AM REGISTRATION / SOCIAL HOUR

12:30 PM LUNCH (\$32.00 PER PERSON)

TRAINING / BUSINESS MEETING FOLLOWING

**MOBY DICK'S
RESTAURANT**

220 Stearns Wharf

SANTA BARBARA, CA

*Menu: Choice of entree - Top Sirlion, Teriyaki
Chicken, Grilled Salmon or Seafood Linguini.
All entrees include Green Salad, fresh vegetables,
mashed potatoes, beverage and dessert.*

Training Topic

**“Preparing For A High Profile Case:
The Michael Jackson Trial”**

Presented by:

Nancy Diahana Torres

Senior Technician Santa Barbara Sheriff's Dept.

RSVP to Cindee Lozano

SCAFO Director

cindeelozano@yahoo.com or 714-420-2046

RSVP Deadline is Wednesday, January 23, 2010A

reservation is a commitment

SCAFO TRAINING and PAST PRESIDENTS' MEETING

**Weekend Getaway Cruise
‘Carnival Paradise’**

For Family and Friends

Friday, April 9, 2010

Set Sail: Long Beach Harbor

Saturday, April 10, 2010

Visit: Ensenada, Mexico

Sunday, April 11, 2010

Fun Day At Sea

**Business Meeting
and Training**

(Bill Leo and NAS Issues)

Return: Long Beach Harbor

Monday, April 12, 2010

Contact:

Mari Johnson

at

mari@clickbookandgo.com

or 714-715-9576

Members cruise fare may be tax deductible

RSVP to Mari Johnson

SCAFO 1st Vice President

m2johnso@lasd.org or 323-260-8556

RSVP Deadline is Friday, November 13 2009

Making a reservation makes a commitment

PRESIDENT'S MESSAGE

Greetings to all SCAFO members and readers of The Print,

I am truly pleased to announce that the 18th Annual SCAFO Conference was a resounding success! I received countless compliments throughout the conference regarding hotel accommodations, food, speakers, and of course, your respective Board members. The conference could not have lived up to the expectations of our attendees without the collaborative efforts of each and every one of our Board members.

I cannot possibly express enough gratitude to not only the Board members themselves, but also to the professional staff of the Holiday Inn for accommodating us with our every whim. To those who spoke, the presentations were nothing short of stellar. I was informed privately by an attendee that none of the speakers were dull or boring.

Lastly, thank you to the vendors for great door prize contributions and sponsorships, as well as the wonderful goodies that some of them had distributed throughout the conference. This year's conference will truly be one to cherish for years to come.

As I am nearing the end of my term, I could not have asked for such a more fulfilling year serving you as your President. The attendance at our quarterly meetings has consistently increased, and the conference has undoubtedly exceeded the attendance levels we have had previously; I am confident that as I pass the reins to your next President, it will continue to do so.

It is my sincere hope that all members of SCAFO continue to maintain this thriving association and consider participation beyond attending the quarterly meetings, by possibly serving on a future Executive Board. It truly is a rewarding experience, and provides numerous opportunities to meet so many different individuals from all over the world in the field of forensic science.

I wish you all nothing but the best in your careers, especially during these uncertain economic times

we are currently experiencing. Please continue to strive to be the best you can be with what you have to work with, and know that you do make a difference at your job, in your community, and life in general. Take care, and I very much look forward to continuing to see you all at next year's meetings.

Sincerely,

**Amy Hines
SCAFO President 2009**

VENDORS and SPONSORS of the 18th Annual Seminar

SCAFO appreciates the following individuals and companies for their support:

Helen Murphy; COGENT SYSTEMS; AAA Crime Scene & Cleanup; Arrowhead Scientific; Adam Brown & Daniel Sommerville; Craft Precision Products; Criminal Chocolates; DICK ROGERS; DJ Designs; Dr. John Bond; Foster & Freeman; Foxfury; Glendale Police Officers Association; LES; Mideo Systems; Safariland; SCAFO; AMOEBA Music; Santa Ana Police Department; Riverside DA Investigators Association

MINUTES OF OCTOBER MEETING

DATE: October 3, 2009

LOCATION: Holiday Inn-Media Center

HOST: Debbie Stivers

PROGRAM: 18th Annual Training Seminar

CALL TO ORDER: General meeting, at 1242 hours by Amy Hines

PLEDGE OF ALLEGIANCE led by: Bob Goss, Past President

ATTENDANCE:

PAST PRESIDENTS Present:

Bob Goss, Craig Johnson, Marvin Spreyne, Susan Garcia, Bill Leo, Clark Fogg, Alan McRoberts, Steve Tillman

EXECUTIVE BOARD Present:

Amy Hines, Marvin Spreyne, Mari Johnson, Debbie Stivers, Lisa Jackson, Teri Eklund, Cynthia Fortier, Mark Waldo, Cindee Lozano, Anne Carlson, Craig Johnson.

EXECUTIVE BOARD Absent: Larry Rodriguez

OLD BUSINESS:

Second Readings:

Kimberly Vanderhoof, Riverside County Sheriff

Irma Estrada, Orange County Sheriff's Department

Nick Burman, San Diego Sheriff's Department

Tedde Stephan, West Covina Police Department

Motion to Accept: Cynthia Fortier, Second: Mark Waldo

Swear Ins: by Clark Fogg, Past President

Michelle Acevedo, Los Angeles County Sheriff

Adrianna Arroyo, Beverly Hills Police Department

Nancy Dang, Orange County Sheriff

Carrie Harris, Torrance Police Department

Cheryl Sills, San Diego Sheriff's Department

NEW BUSINESS:

First Readings:

Terri Beatty, Los Angeles Sheriff's Department

Recommended by: Brian James, Los Angeles Sheriff's Department

Lucia E. Cadena, Orange County Sheriff's Department

Recommended by: Linda Rodriguez, Orange County Sheriff's Department

Lidia Reefer, Los Angeles County Sheriff Department

Recommended by: Anne Carlson, Los Angeles County Sheriff's Dept.

Jesse Eller, Santa Monica Police Department

Recommended by: Lisa Jackson, Santa Monica PD

Other:

New Board Elections:

Mari Johnson, President

Debbie Stivers, 1st Vice President

Teri Eklund, 2nd Vice President

Lisa Jackson, Treasurer

Cynthia Fortier, Secretary

Cindee Lozano, Sgt. at Arms

Tony Nguyen, Director

Linda Rodriguez, Director

Motion to Destroy Ballot: Bill Leo, Second: Cynthia Fortier

Change ByLaws to read that Secretary position is a 2 yr position.

Motion to accept: Craig Johnson, Second: Clark Fogg

Craig Johnson, Past President, is recognized as a Distinguished Member

ANNOUNCEMENTS:

Annual Presidents' Meeting will be a Group Cruise, April 9-12, 2010. Set Sail out from Long Beach Harbor down to Ensenada, Mexico and back to Long Beach Harbor.

Santa Monica PD will be hiring in about 30 days. Contact Lisa Jackson

California State Division of IAI will hold the association's annual forensic training conference May 24-27, 2010.

Check out the website www.csdiainet.net for more details.

DOOR PRIZES:

Provided by Craig and Caryn Johnson, Susan and Don Garcia of DJ Design, Amy Hines, Mari Johnson, Debbie Stivers, Cindee Lozano; Marvin Spreyne, Click Book and Go Travel, Mark Waldo, Anne Carlson, Deborah Kruek of Criminal Chocolates, Dick Rogers, Craft Precision Products, Helan Murphy, Safariland, Mideo Systems, LES, FoxFury, Cynthia Fortier, Cindee Lozano, Lisa Jackson.

NEXT MEETING: Date: November 22, 2009

Time: 11AM to 3PM

Location: JT Schmid's Restaurant and Brewery, Anaheim

MOTION TO ADJOURN:

Motion by: Bob Goss, Second: Marvin Spreyne

MEETING ADJOURNED: 1312 hours

1st Vice President's Message

Hello Everyone,

Well, the SCAFO 2009 Training Seminar is now over and I hope everyone had a wonderful experience. It was nice to see not only one, but two new fingerprint techniques.

I wanted to share something with you that a detective shared with me today. This detective works for a very small agency and they don't have anyone that is really trained in lifting prints. He says that every officer is given a small fingerprint kit and is supposed to lift prints at the calls they go to.

Their agency contracts with an examiner to process their prints.

I was called out to photograph and print a vehicle that was possibly involved in several robberies that happened in his department's area over the last month. So he was asking me for pointers on different powders since all they have is black powder to work with.

Anyway, to make a long story short, he just wanted to tell me that detectives love fingerprint evidence and even though we don't hear a lot from district attorneys and detectives on that subject, he just wanted to say that they appreciate all of us in the field of fingerprints and wanted us to know that we are appreciated.

Those who were at the Saturday Business Meeting know that I was elected the 2010 SCAFO President. I look forward to serving SCAFO and its members.

As President I get to host the Past Presidents' Meeting in April. The April 2010 meeting will take place on board the Carnival Paradise cruise ship. We will set sail on Friday April 9th and return Monday April 10th 2010. Those at the seminar probably remember the flyer was for April 16th to the 19th. We found out that is Baker-To-Vegas weekend, so I had to change the cruise dates. For those that have never been on a cruise, this is a great time get your feet wet (ha,ha).

Make this a little weekend getaway for family and friends. We will leave from and return to Long Beach. On Saturday we will be in Ensenada and Sunday we

will be a day at sea all day. We will have our business meeting and Bill Leo's talk on NAS issues on Sunday. So look for the flyer that will be coming out soon with all the details and instructions to make a deposit and get signed up. There is so much to do on a cruise, you can't get bored.

In closing, I hope the Board makes 2010 a great year for SCAFO and I look forward to seeing you at the meetings. Remember, you might not hear the words of appreciation, but people love the expertise that we bring. So we should strive to always be the best.

Mari Johnson
SCAFO 1st Vice President

(Continued from Page 1)

I agree with many of the basic conclusions and some portions of the recommendations of the NAS Report. I concur that more research is needed in all forensic fields, including, analytical methods, examination bias and uniqueness. Standardized terminology in these fields and in the legal system would be most welcome. Furthermore, I believe that quality control is extremely important in any forensic endeavor; and that accreditation, certification, peer review and a code of ethics, are important parts of such a program. Additional training and education of present and future forensic examiners are also essential. Unfortunately, I also have to acknowledge that there are some “crime labs” and forensic examiners that do not have sufficient education, training, protocols, or fail to follow proper protocols that have led to mistakes; and in some extreme cases, forensic examiners have committed criminal acts. So what is wrong with the NAS Report?

Misleading or Biased Reporting

The Maryland v. Rose case must be significant, as the NAS Report discusses it in three different places [p-43, 1-20; p-105, 1-23; p-143, 1-13]. In this death penalty case, the prosecution sought to admit latent prints linking the defendant to a murder committed during an attempted carjacking. In October 2008, Judge Susan Souder upheld a defense motion to exclude the fingerprint evidence. In her 32-page decision, according to the NAS Report, “...Judge Souder found the traditional method of fingerprint analysis to be ‘a subjective, untested, unverifiable identification procedure that purports to be infallible.’” [p-43, 1-23] “The opinion went into considerable detail about the lack of error rates, lack of research, and potential for bias... The judge also noted that, because the case involved the possibility of the death penalty, the reliability of the evidence offered against the defendant was critically important.” [p-105, 1-26]

The NAS Report also noted that: “The same concerns cited by the judge in Maryland v. Rose can be raised with respect to other forensic techniques that lack scientific validation and careful reliability testing.” [p-106, 1-3].

What the Committee on Identifying the Needs of the Forensic Science Community (hereinafter the Committee) failed to note was that less than two weeks later there was a similar murder trial in the same Baltimore County Circuit Court. In Maryland v. Banks, Judge Patrick Cavanaugh denied a similar defense motion to exclude fingerprint evidence, said he had read Judge Souder’s opinion, but respectfully disagreed. [The Sun - Baltimore Md., Nov. 1, 2007]

I discovered Maryland v. Banks while researching Maryland v. Rose, so the case was readily available. The only significant difference between the two is that Judge Souder’s case was a potential death penalty case. I do not agree that this should affect the admissibility of fingerprint evidence, and definitely do not agree with the finding by Judge Souder that fingerprints are “a subjective, untested, unverifiable identification procedure that purports to be infallible.” Why the Committee mentioned a trial court case, as usually only appellate cases are cited, is puzzling. Why the Committee failed to mention a similar case in the same Circuit Court, less than two weeks

later, where a judge gave an opposing ruling, even after considering Judge Souder’s ruling, is confusing. Since virtually all trial courts admit fingerprint evidence, Judge Souder’s ruling seems to be an aberration, and whether it should even have been mentioned in the NAS Report is up for debate. We will see that this is not the only time relevant information was selectively left out of the NAS Report.

Faulty Conclusions or Statements

The statement that I have most often seen quoted from the NAS Report is:

“With the exception of nuclear DNA analysis, however, no forensic method has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source.” [p-7, 1-32]

This statement was also cited by Judge Harry Edwards, the Co-chair of the Committee on Identifying the Needs of the Forensic Science Community, (the committee that authored the NAS Report) in at least two presentations. The first one took place on March 18, 2009, before the US Senate, Committee of the Judiciary. The second took place on April 3, 2009, as part of the keynote address at the Conference on Forensic Science for the 21st Century: The National Academy of Sciences Report and Beyond, entitled, Solving the Problems that Plague the Forensic Science Community.

The same basic idea, but with slightly different verbiage is also found elsewhere in the NAS Report:

“As discussed in Chapters 4 and 5, no forensic method other than nuclear DNA analysis has been rigorously shown to have the capacity to consistently and with a high degree of certainty support conclusions about ‘individualization’ (more commonly known as ‘matching’ of an unknown item of evidence to a specific known source).” [p-87, 1-22]

and once more:

“Among existing forensic methods, only nuclear DNA analysis has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between an evidentiary sample and a specific individual or source.” [p-100, 1-8]

The quoted statement demonstrates the basic problem with the NAS Report - it is not accurate. The idea that DNA “...has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source” breaks down when one considers that monozygotic (identical) twins cannot presently be differentiated by their DNA using standard forensic methods. This limitation of forensic DNA analysis is not addressed by the NAS Report. The incidence of monozygotic twins is approximately 4 sets in 1,000 births; thus the limitation is relevant. What is interesting (or puzzling) is that the word “twin” does not appear in the NAS Report. In another NAS publication, the Evaluation of Forensic DNA Evidence (1996) the statement “Except for identical twins” (or similar verbiage) appears nine times. Considering the importance given this particular statement by the NAS Report, one can only wonder why the word “twin” does not appear.

Also, the NAS Report does not address the problem of chimerism, or other similar conditions. A chimera is an individual who has two or more genetically distinct DNA locations in their body. The chimera could be incorrectly excluded as a source of DNA, if the “known” DNA sample is taken from a different location in the body other than from where the questioned material originated. I could understand the NAS Report only mentioning chimerism as a footnote since such situations affecting forensic testing seem to be a rarity, however they do exist. A case in point is the story of Lydia Fairchild, who in 2002 was charged with welfare fraud when DNA testing showed that she was not the mother of her three biological children. Later she was shown to be a chimera; part of her body was of a different DNA than the rest of her body. Her story was made into a television documentary entitled “The Twin Inside Me.” [ABC News on-line, Aug. 15, 2006].

Let us consider some “forensic methods” (other than DNA) in conjunction with the quoted statement. To state that “...no forensic method has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source” is not accurate either. Given the multitude of Automated Fingerprint Identification Systems (AFIS) in existence today, and the thousands of comparisons run daily, one would be hard pressed to say that fingerprints (10 print identifications) have not demonstrated a connection to a specific individual. Also latent print evidence has been used for roughly the last 100 years, with relatively few known errors, to identify large numbers of individuals throughout this country and in many others. Interestingly enough, monozygotic twins can be distinguished by their fingerprints. Certainly fingerprint identification could be considered to “...demonstrate a connection between evidence and a specific individual...” that is stronger than that of DNA when twins may be involved, a critical fact that may not be known at the time, if ever.

Another discipline, for which the quoted statement does seem to be accurate, is the field of firearms identification, where tool marks on bullets and cartridge cases are compared to establish a common source, i.e., a specific firearm.

And yet another type of evidence that can certainly “...demonstrate a connection between evidence and a specific individual or source” is the “physical match.” When an object made from almost any material (e.g. glass, plastic, tape, cloth, etc.), is subsequently divided (i.e. broken, torn, cut, etc.) into two or more pieces, it may be possible to “physically match” the pieces to each other. For example, a bed sheet may be torn into pieces and used to restrain a victim and later part of a sheet is located in a suspect’s house, or if pieces of a tail light lens are left at a crime scene and a possible source vehicle is identified, these pieces may be of value. There are times, based on patterns, damage, stains, scratches, microscopic examination and actual physical fits, that one can say with confidence that two items were at one time the same object.

The following statement in the NAS Report leaves little doubt as to the strength the Committee ascribed to DNA:

“The goal is not to hold other disciplines to DNA’s high standards in all respects; after all, it is unlikely that most other current forensic methods will ever produce evidence as discriminating as DNA.” [p-101, 1-12]

The Committee has placed undue emphasis on a trial court’s ruling, overstated the strength of DNA and understated the strength of fingerprint and other forensic disciplines. Because of these inaccurate statements in a National Academy of Sciences’ report, it is no wonder that there is confusion as to the credibility of the forensic sciences.

I hope you found this article interesting. In the next article, I plan to discuss some specific language choices and the quality of references used in the NAS Report.

References formatted as [p-3, 1-5] denote the NAS Report (final edition), e.g. located on [page 3, line 5]

Update: Since this draft was written, there have been developments in the Maryland v. Rose matter. The case was refiled in Federal Court and on September 8, 2009, where Judge Catherine Blake, without a hearing, admitted the fingerprint evidence. [Monday, September 14, 2009]

Edit date: Sunday, September 27, 2009

“Every man owes a part of his time and money to the business or industry in which he is engaged. No man has a moral right to withhold his support from an organization that is striving to improve conditions within his sphere.”

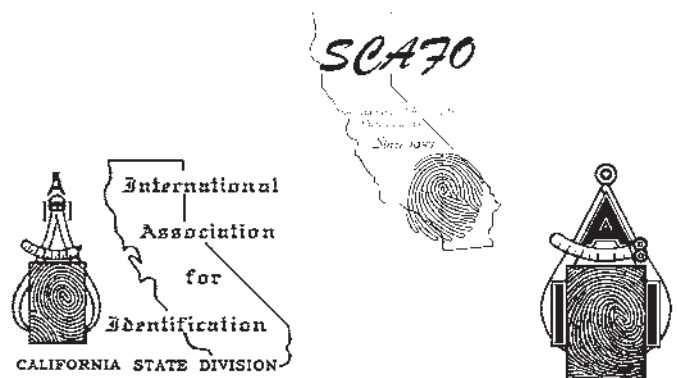
- President Theodore Roosevelt, 1908

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Get "yourname@scafo.org".
See instructions on the website's email page.

-- Upcoming Events/Schools/Seminars--

February 6, 2010

SCAFO Training Meeting
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220 Stearns Wharf
Santa Barbara, California
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714-420-2046

April 9-12, 2010

SCAFO Training Meeting
Past President's Day

The April meeting will be on board the Carnival Paradise cruise ship

May 24-27, 2010

CSDIAI Annual Training Conference
Rancho Mirage, California 92270
Donna Jewett, Seminar Planner, d.jewett@sbcglobal.net

Southern California Association of Fingerprint Officers
An Association for Scientific Investigation and Identification Since 1937