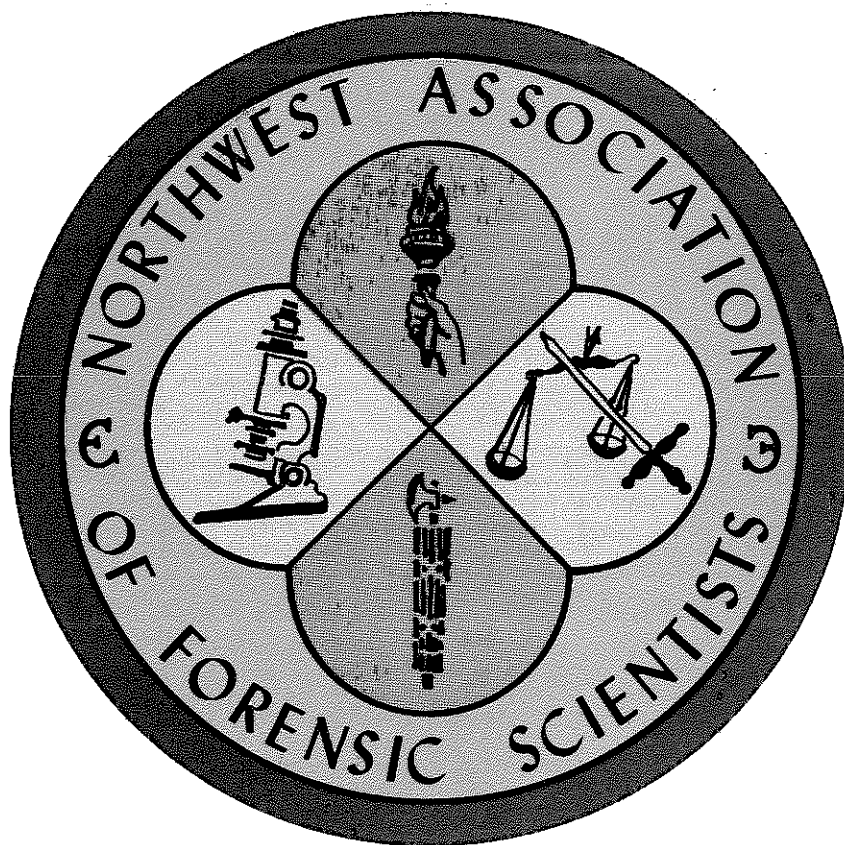


THE NEWSLETTER of



DECEMBER 1989

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PRESIDENT'S MESSAGE

SHAKE --- RATTLE --- AND ROLL!!!

By now you have all heard about the "Great Quake of '89" or as seen on the T-shirts in downtown San Francisco, "I Survived 6.9 in '89." In spite of the memorable October 17, the NWAFFS Fall meeting at Concord, California began on Tuesday and continued on until the shaky Friday end. My compliments to -- nay -- I applaud the hard work, sacrifice and mental suffering that meeting Chairman Roger Ely; his staff of Art Davidson, Joe Power, Lisa Brewer, Susan Swarner and Ken Fujii put out and went through to pull this meeting off. Workshop chairmen Shirley Chew, Karl Nichols and Ken Konzak really showed their calm, cool and collected sides as they "did science" under conditions that rival the Apollo crew landing on the moon!!

Everyone remembers vividly what each was doing the moment on the assassination of both Kennedy's and Martin Luther King, or even when Mt. St. Helens blew its top! The personal experiences of the NWAFFS attendants at the moment of the great quake will also not soon be forgotten:

I remember:

- seeing a glass chandelier sway sideways 3-4 feet above my head while trying to take notes from an overhead projector during the DNA/PCR workshop.
- feeling the table shake and watching my pen make funny scratch marks on the paper in front of me.
- watching Bob Thompson run to the doorway and telling the rest of us to move our butts to safety!
- hearing the Hilton Hotel employee run down the hall outside our meeting room saying "everyone outside - NOW!"
- watching the pavement ripple under my feet while standing in the hotel parking lot, then glancing up to the 10th floor to see if the other NWAFFS members in the hospitality suite would be tossed out the window or even if the whole room would come down on me!
- wondering if anyone in the hospitality room would even notice the quake (memory of Monday night's imbibing still with me).

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.... [for standing in the doorway on the 10th floor as lamps and chairs were toppled, people panicked and Wayne Jeffery (with drink in hand, and not a drop spilled) looked at me and said, "Roger, make it stop ..." - Editor]

In spite of it all, the workshops and technical program were fascinating and well worth the time and effort.

Congratulations, Roger and Crew!!

The Spring meeting to be held May 8-11 in Jackson, Wyoming is only a stones throw from Yellowstone. I should mention we do have plans to top the quake! Just think, it was only 600,000 years ago that the seething caldron beneath Old Faithful and Geyser Basin erupted and annihilated all life within 300 miles! And geologists say its about time again! Wonder what would be on the T-shirts? Wonder who would be around to print them? Speaking of printing, call or write me to request the beautiful poster of the Tetons at Jackson Hole advertising our spring meeting. Of course, if we send you a poster, you will be committed to attend and give a paper! Look for details of the meeting and workshops in this and other Newsletter issues.

What's in store for the year?

The standing committee appointments will have been made by print time of this Newsletter. These committees: Membership, Publications, Historical, Technical Advancement and Continuing Education are the meat of our Association. These exist to carry out the objectives of the NWAFS and they are: to make information available about forensic sciences to the membership, to foster friendship and cooperation among ourselves, and to stimulate research and development of new techniques.

CERTIFICATION -- its not dead, just hibernating. It will raise its ugly head again. Word has been received that at least one other regional association, the Southern Association of Forensic Scientists, has not endorsed nor supports the concept. And we thought we were the only ones!

The recipient of the General Section Award of the American Academy of Forensic Sciences is Mike Asselin of the RCMP Lab in Vancouver, BC. His work and publications on whole blood analysis using an EMIT test is outstanding. Congratulations to Mike! He is \$100 richer and we are proud to have Mike in our midst. Keep up the good work.

PROFICIENCY TESTING PROGRAM -- Resurrected in December of 1988, Robert Thompson has done a good job getting it off the ground. One man does not an army make! Again, there is a disappointing lack of participation. I ask, "What is the alternative of self-testing?" If we don't have a proficiency testing program, what can we expect? Maybe certification?

The objective of the tests is to measure the strengths and weaknesses of your abilities to correctly identify the various samples for the various disciplines. Its

done on the QT, only you and maybe your lab supervisor will know the results. Its going to be one of my major goals as President to push proficiency testing. I believe it can work and be one of the most important activities of our Association.

I also see my office as one of communication for our members. I invite your letters, phone calls, FAXs, etc. to my office any time, on any subject. I also am directing Roger Ely to provide space in the Newsletter for "Letters to the Editor" for all members to contribute. Hearing about what's right or wrong on forensics, testing, the Association or any other topics is invited.

I hope you all have a good 1990 and I plan on making the new year the beginning of a new decade, one our Association can be proud of.

See you in Jackson, Wyoming!!

Tommy D. Moore

The Fall meeting of the Northwest Association of Forensic Scientists was held in Concord, California during the week of October 17 through 20.

As most are aware, a major earthquake measuring 7.1 on the Richter scale hit October 17 at approximately 5:04 pm near Santa Cruz. Many saw the earthquake while watching the opening minutes of the World Series being held in Candlestick Park. While the major networks gave visions of doom and despair, only limited areas of the greater Bay area were affected by the quake.

The quake damaged a section of the Oakland-Bay bridge, a major arterial crossing from East Bay to West Bay and the now famous stretch of Highway 880, the Nimitz. However, east of the Berkeley hills no major damage was reported. Other than the connections with the immediate Bay area, it was business as usual in the Diablo Valley area.

The meeting got off to a great start with the PCR workshop and the computer applications workshop. However, the earthquake did affect the meeting. Many individuals were flying into San Francisco or Oakland International airports, but were cancelled out due to the closure of the airports for inspection. One of our featured presenters, Special Agent Sandy Smith, was diverted to Fresno for the night. He attempted to get to Sacramento the next morning where he would be picked up. Unfortunately, everyone else was trying to get in and out through Sacramento. As it turned out, Smith took an early flight back to Washington, DC.

Our wine tasting workshop was a huge success. The presentation was informative and the evening a lot of fun. On Wednesday, the PCR workshop continued and the drug section workshops featured Dr. Alexander Shulgin and a round table discussion about many different topics on drug labs, drug analysis and sampling methods was substituted for the bombs and booby traps portion.

FALL MEETING GOES ON DESPITE EARTHQUAKE

JOB OPENINGS

The group of people attending the meeting were great sports, even with the stress of all the history happening around them. All in all, we were about 15 people short on the meeting attendance, two short on paper presentations and two short on the vendors. Actually, Concord was one of the few areas in the Bay that was easily accessible during the whole fiasco. Other than being jittery while in the 10th floor hospitality suite, all was pretty much NWAFFS business as usual.

Preliminary figures from the meeting indicate a loss of approximately \$2000 on this meeting.

A special thanks to the following for helping out and making this meeting the success it was: Joe Power, Shirley Chew, Karl Nichols, Arthur W. Davidson, Lisa Brewer, Robert Thompson, Floyd Whiting and Ken Konzak.

Laboratory Director: The Scottsdale, Arizona Police Department is in the process of developing a full service crime laboratory. The Police Department has just moved into a new 50,000 square foot building, of which the laboratory will occupy over 5,000 square feet of the top floor. This is an interesting and rewarding challenge to the forensic professional that would want to get in on the "ground floor" of a project that will provide forensic service for a dynamic city in the growing Southwest.

The applicant must have a minimum 4 year degree from a college or university in Criminalistics, Physics, Biochemistry, Forensic Chemistry or Chemistry AND a minimum of three years of progressively responsible experience in a crime laboratory involving detailed laboratory analysis. The applicant must have demonstrable ability to supervise other scientific/technical employees and to develop operational rules, procedures and methodologies.

The applicant must have a working knowledge and experience with the following instruments and related equipment and procedures: Gas chromatography, Ultra-violet spectrophotometer, liquid thin layer and column chromatography, microscopy and other wet chemistry methodologies associated with forensic laboratories. The applicant must have testified in criminal proceedings as an expert in related forensic matters and examinations.

Salary: Up to \$50,700 per year

For more information, contact:

Cecil Kirk, Director
Support Services Bureau
Scottsdale Police Department
9065 E. Via Linda
Scottsdale, AZ 85258
(602) 391-5340

Forensic Serologist: The Virginia Bureau of Forensic Science's Northern Virginia Laboratory has an opening for a Forensic Serologist at the Grade 11 level. They are seeking qualified applicants to perform serological examinations of criminal evidence related to rapes, homicides and other criminal cases using current state-of-the-art methodologies, techniques and instrumentation. The successful serologist would prepare reports of findings for use by the criminal justice system; communicate with medical and legal officials on testing procedures; instruct law enforcement officials in handling evidence; and testify as an expert witness in a court of law.

The position requires some travelling. Qualifications include a Bachelor's degree in chemistry, biology and/or related natural science, knowledge of forensic principles, procedures and rules of evidence, various genetic marker systems in blood and physiological fluids, basic electrophoresis and identification of spermatozoa. Requires skills in effective oral and written communication and the ability to present and defend analytical results in a court of law.

Salary: \$29,230 to 39,935 per year

For more information, contact:

Amy Wong
Northern Virginia Regional Crime Lab
(703) 764-4600

It is with sadness that the death of Homer Pointer is noted. Mr. Pointer died June 3 in his home in Spokane, Washington.

Mr. Pointer was with the Spokane Police Department for 28-1/2 years. He worked as a uniformed beat officer and prowler car officer and served as an investigative officer in the young people's division, morals division and traffic division. For the final 18 years of his career, Mr. Pointer was in the check detail.

Recognized as a handwriting expert, Mr. Pointer continued to serve the courts and law enforcement agencies as a consultant in handwriting until 1983.

Mr. Pointer is survived by his wife, Myrtle May; three grandchildren and one great-granddaughter.

DEATH OF MEMBER

PARTICIPANTS NEEDED FOR ASTM SUBCOMMITTEE ON CRIMINALISTICS

Participants are needed for E30.01 on Criminalistics, a subcommittee of the American Society for Testing and Materials (ASTM) standards-writing Committee E-30 on Forensic Sciences.

The subcommittee is concerned with writing standards for the analysis and preservation of evidence which may be involved in litigation. The subcommittee is divided into sections on serology, forensic microscopy, firearms, arson and the general aspects of evidence collection, preservation and admissibility in court.

The subcommittee is concerned with writing standards for the analysis and preservation of evidence which may be involved in litigation

Several standards have been developed and are in the process of review. These includes standards for the reception, documentation, storage and retrieval of evidence in a forensic laboratory; methods for separation and concentration of flammable residues from fire debris samples; and a test method for analyzing flammable or combustible liquid residues from fire debris samples.

Participants are also needed for seven task groups to develop standards in the following areas:

- Evidence container labeling and sealing
- Development for "evidence specific" sample containers
- Methods for testing cartridge primer sensitivity
- Methods for testing the trigger pull of a firearm
- Methods for measurement of land and groove dimensions in fired bullets
- Procedures for determining microscopical properties and features of hair
- Methods for optical microscopy of mineral wool

All interested parties are welcome to participate. The subcommittee will meet February 18-19, 1990 in conjunction with the American Academy of Forensic Sciences meeting in Cincinnati, Ohio.

For more information, contact:

Peter D. Barnett
Forensic Science Associates
3053 Research Drive
Richmond, CA 94806
(415) 222-8883

An educational exchange program has been established between Forensic Scientists in the United States and Russia.

A group of forensic scientists from the United States will visit the All-Union Scientific Research Institute of Forensic Expertise of the Ministry of Justice of the USSR in July of 1990. The group will be 15 to 25 in size, and will spend 14 days working side-by-side with Soviet forensic scientists on real casework. The Institute will provide ground transportation, lodging and meals free of charge.

The estimated cost of participation is \$2200 per person and includes round trip airfare from New York to Moscow. The program is designed to conform with the US Tax Code as a business deduction or as an educational expense.

A group of forensic scientists from the United States will ... spend 14 days working side-by-side with Soviet forensic scientists on real casework.

Since the program is an exchange, the participant is expected to reciprocate and host a Soviet scientist in their facility for up to two weeks. This would include lodging, meals and ground transportation. The visiting scientist will provide round trip airfare from Moscow to your lab site.

you are interested in this program, please contact:

Ilya Zeldes, Ph.D.
Forensic Scientist's Services
631 N. Huron Avenue
Pierre, South Dakota 57501
(605) 224-9627

The Southwestern Association of Forensic Scientists has scheduled their spring meeting for the week of April 24-28, 1990 in Breckenridge, Colorado at the Beaver Run Resort. Workshops are planned and will cover: DNA/PCR, Forensic Glass Analysis, Laser and Light Applications, and a presentation by the DEA. Two of guest speakers who will be in attendance will be Gregory Long, District Attorney on "Communication Styles in the Courtroom," and James E. Starrs on "The Bones Have Voices - The Packer Dig Report."

For more information, contact:

Laurel Farrell
Colorado Dept. of Health
4210 E. 11th Avenue
Denver, CO 80220
(303) 331-4707

FORENSIC SCIENTISTS EDUCATIONAL EXCHANGE PROGRAM

SWAFS SPRING MEETING IN BRECKENRIDGE, COLORADO

TWO CHEMICAL SUPPLY FIRMS SEIZED IN TEXAS UNDER FEDERAL CHEMICAL DIVERSION ACT

In the last issue of the Newsletter, an article described some of the features of the Chemical Diversion and Trafficking Act of 1988 and its possible impact into the clandestine drug laboratory situation.

In the Spring of 1989, chemical companies in the Dallas, Texas DEA division were advised of the new law and the intent of the DEA to vigorously enforce it. Specifically, chemical companies known to provide chemicals to clandestine laboratories were targeted. As a result of this notification, all but two companies closed their businesses.

In late August, these two firms were brought under Federal Grand Jury indictments for violations of the chemical act. Subsequently, search warrants were served on the two firms. Seized in the raids were the total inventories of both companies, estimated value of \$100,000 each; \$30,000 in cash; 6 vehicles; and bank accounts totalling approximately \$210,000.

Information obtained from a chemist with the DEA Southwest Lab in San Diego indicates a substantial decrease in the number of clandestine laboratory seizures since the closure and prosecution of several chemical supply companies in their area. The chemist also indicated there were two recent seizures of laboratories using a phenyl-2-propanone method to methamphetamine - a clear departure from the almost exclusive use of red phosphorus - hydriodic acid reduction of ephedrine.

BOOK REVIEW: TIRE IMPRESSION EVIDENCE

**BY
MICHAEL GRUBB
WSP CRIME LAB
SEATTLE, WA**

McDonald, P., *Tire Impression Evidence*, Elsevier Science Publishing Co., 655 Avenue of the Americas, New York, New York 10010, 1989, 226 pp. ISBN 0-444-01456-X

Tire Impression Evidence is a welcome addition to the forensic literature. It will fill a void in the area of tire mark evidence literature in the same way that Cassidy's *Footwear Identification* brought us the quality comprehensive reference that was needed on shoe print evidence in 1980.

The author, Peter McDonald, is the former manager of tire design at Firestone Tire and Rubber Company, and is now a forensic consultant in the area of tire marks.

If you have examined tire marks in casework and are unfamiliar with the concept of "noise treatment" and the use of "pitch sequence" and "wear indicator bars" as aids in the tire mark comparison, read this book before you look at another case. As this book is quite readable for the attorney preparing for court, it will out of necessity become required reading for the tire mark examiner.

Mr. McDonald gives the reader valuable assistance in what to do about tire marks at crime scenes, how to preserve, photograph and collect the evidence and how to obtain exemplar tire prints. Tire history and construction, marketing, and investigative information which can be gained from a tire mark are well laid out. He introduces the reader to the use of the essential Tread Design Guide.

He uses a number of case examples which illustrate the various points he makes chapter by chapter.

Stricter referencing would have been preferred in some instances, for example: "The actual is normally composed of a blend of elastomers, unique to each manufacturer. If a sample of the rubber were obtained, it could be analyzed for a specific manufacturer." A statement like this arouses interest in the tire mark examiner, but McDonald leaves us without specific citations to back that up.

I also have a problem with oversimplification in critical areas, for example, in the "Typical Questions in Cross-Examination" section"

Q: *How many specific accidental characteristics are required to make a positive identification?*

A: *One."*

Without discussion of uniqueness, shape, clarity, etc., this could be quite misleading. The beginning tire mark examiner should be referred to another reference (Cassidy, for example) for a more in-depth discussion of accidental characteristics.

In light of the value of the text overall, these problems are relatively minor, and it is recommended that this book become part of every crime laboratory library.

Eckert, William G. and James, Stuart H. *Interpretation of Bloodstain Evidence at Crime Scenes*, Elsevier Science Publishing Company, 655 Avenue of the Americas, New York, New York, 10010, 1989, ISBN 0-444-01463-2

This is a good textbook in an area where there are few resources available to the forensic scientist. The composition of blood, blood typing and blood spatter pattern interpretation are covered. The medical background of the authors is evident. Knowledge of medical terminology, especially in hematology is helpful when reading this text.

The chapters: Experimentation, Special Procedure and Research, and Case Investigation in Bloodstain Interpretation are helpful in clarifying some concepts developed in the first few chapters. The text lists several references and also lists a computer program for developing three dimensional origins of bloodspatter. I have used this program in casework and found it useful for crime scene documentation and in court. This program produces a chart depicting the relevant surfaces such as a floor and an adjacent wall, location of the bloodspatter and their origin. An overhead transparency can be prepared from the chart and utilized in the courtroom.

BOOK REVIEW: INTERPRETATION OF BLOODSTAIN EVIDENCE AT CRIME SCENES

BY
JAMES O. PEX
OSP CRIME LAB
COOS BAY, OR

REFERENCE ABSTRACTS

The following abstracts were obtained from a variety of sources made available to the Association through the Newsletter Editor. If you would like more information on a particular abstract, or if you would like a copy of the item as it was published, please contact the Newsletter Editor.

"Synthetic Reductions in Clandestine Amphetamine and Methamphetamine Laboratories: A Review", Andrew Allen and Thomas S. Cantrell, *Forensic Science International*, 42(1989), 183-199

A review of synthetic reductions utilized in the clandestine manufacture of amphetamine and methamphetamine is presented. General discussions on the mechanism of heterogeneous catalysis, dissolving metals, hydrides and non-metal reductions used in the manufacture of amphetamine and methamphetamine with over 80 references are presented.

"Impurities in Illicit Drug Preparations: Amphetamine and Methamphetamine", A.M.A. Verweij, *Forensic Science Review*, 1(1989), 2-11

In this review, attention is paid to chromatographic and mass spectral properties of already identified impurities found to be present in frequently abused drug preparations of illegal origin of amphetamine and methamphetamine. The most commonly employed methods of synthesis of drugs of this type are briefly described. Special emphasis is given to the Leuckart route, found to be the preferred method, in the illicit production of amphetamine. Furthermore, some isolation and preconcentration methods of the contaminants are discussed. The importance of identifying impurities present in amphetamine or methamphetamine cannot be overestimated. These impurities originate mostly from the improper purification in the end stage of the different syntheses used in the clandestine manufacture of the substances; it is possible to differentiate between several kinds of illegal drug preparations, synthesized by various methods, by means of so called "route specific" impurities. Finally, a survey is given of the impurities already known to be present in amphetamine and methamphetamine, together with their mass spectral and some chromatographic properties.

MEMBERSHIP ADDITIONS AND CHANGES

During the Fall meeting of the Association, the ranks of the membership increase by nearly 30 new members. When I first took over the job of Newsletter Editor 4 years ago, there were approximately 168 members of the Association. With the addition of the below listed members, the roster has now grown to approximately 250!! That's nearly a 50% increase in just four years!!

Applicants for Provisional Membership

Candidates for Associate Status

Larry Campbell, Regional Coroner - Vancouver, BC

Greg Frank, WSP Breath Test Section - Kelso, WA
Janet Hough, University of Wyoming - Laramie, WY
Anne Jacobson, WSP Crime Lab - Tacoma, WA
Anthony McElroy, WSP Breath Test Section - Seattle, WA
Ruth Stahl, WSP Crime Lab - Olympia

Candidates for Regular Membership

Tom Abercrombie, CA DOJ Lab - Riverside, CA
Rod Andrus, CA DOJ Crime Lab - Fresno, CA
Chris Bommarito, DEA Western Lab - San Francisco, CA
Frank Boshears, WSP Crime Lab - Spokane, WA
William Brady, Forensic Pathologist - Portland, OR
Lisa Caughlin, Ventura County Lab - Ventura, CA
Ingrid Dearmore, WSP Crime Lab - Seattle, WA
Jeff Dovci, OSP Crime Lab - Medford, OR
Kim Duddy, WSP Crime Lab - Everett, WA
Terry Franklin, WSP Crime Lab - Seattle, WA
Patrick Friel, WA. State Toxicology Lab - Seattle, WA
Ken Fujii, Contra Costa Co. Crime Lab - Martinez, CA
Ken Goddard, National Fish and Wildlife Lab - Ashland, OR
Robert Hughes, DEA Western Lab - San Francisco, CA
Brad Johnston, WSP Crime Lab - Kennewick, WA
Billie Mauss, WSP Crime Lab - Kennewick, WA
Mike Neilson, WSP Crime Lab - Seattle, WA
Judith Nickels, WSP Crime Lab - Everett, WA
Bruce Palmer, CA DOJ Lab - Redding, CA
Laurie Rawlinson, SERI - Richmond, CA
Susan Torris, OSP Crime Lab - Portland, OR
Kenton Wong, San Mateo County Crime Lab - San Mateo, CA

Changes of Membership Status

(These members have participated since joining)

Provisional to Associate

Lyn Kurtz, Montana State Crime Lab - Missoula, MT

Provisional to Regular (Voting)

John Bowden, CA Criminalistics Institute - Sacramento, CA
Shirley Chew, DEA Western Lab - San Francisco, CA
Arthur W. Davidson, DEA Western Lab - San Francisco, CA
Tilton Davis, Wyoming State Lab - Cheyenne, WY
Judith Hoffmann, Montana State Crime Lab - Missoula, MT
Kathy Hays, OSP Crime Lab - Springfield, OR
Karl Nichols, DEA Western Lab - San Francisco, CA
Bradford Putnam, OSP Crime Lab - Portland, OR
Moses Schanfield, Analytical Genetic Testing - Denver, CO
Christine Smith, OSP Crime Lab - Portland, OR

Theresa Spear, Alameda County Lab - San Leandro, CA
Nick Stahlke, Idaho State Crime Lab - Coeur d'Alene, ID
Leanne Strickland, Alaska DPS Crime Lab - Anchorage, AK
Susan Swarner, Contra Costa Co. Crime Lab - Martinez, CA
Katherine Wilcox, OSP Crime Lab - Coos Bay, OR

Provisional Members to Remain Provisional

Associate Candidates

Caroline Blachford, WSP Crime Lab - Everett, WA
Joan Bryson, WSP Crime Lab - Everett, WA
Wayne Leyton, Synthon - Vancouver, BC

Regular Candidates (Voting)

Jacqueline Battles, CBI Crime Lab - Denver, CO
Everett Clary, Alaska DPS Crime Lab - Anchorage, AK
Elizabeth Johnson, USACIL-CONUS - Fort Gillem, GA
Thomas Hagney, Denver PD Crime Lab - Denver, CO
Hayne Hamilton, Alaska DPS Crime Lab - Anchorage, AK
Terry Hanson, Washoe County Lab - Reno, NV
John Jolley, Wyoming State Crime Lab - Cheyenne, WY
Kevin Jones, WSP Crime Lab - Kennewick, WA
Larry Lewman, OR Medical Examiner - Portland, OR
Jerry Massetti, CA DOJ Crime Lab - Fresno, CA
Terence McAdam, WSP Crime Lab - Seattle, WA
Diane McGrath, DEA Western Lab - San Francisco, CA
Rod McNeil, McNeil Tech. - Polson, MT
Thomas Netwal, CBI Crime Lab - Denver, CO
Kathryn Saft, Alaska DPS Crime Lab - Anchorage, AK
Nizar Shajani, RCMP Forensic Lab - Vancouver, BC
George Taft, Alaska DPS Crime Lab - Anchorage, AK
Rico Togneri, Washoe County Lab - Reno, NV
Richard Ulrich, RCMP Forensic Lab - Vancouver, BC

Miscellaneous

Kent Oakes of the National Fish and Wildlife Laboratory in Ashland, Oregon was reinstated as a Charter Voting Member.

The Membership Committee regrets to inform the membership of the death of two of its members over the past year: Charles Hall and Homer Pointer.

Attendance

A warning letter was written to Bob Phillips who has not attended one meeting in the past six. He has been placed into Temporary Corresponding Member status. Other members in this status are:

Chris Beheim
Allen Garrett
Bill Greig
Don Schuessler
Mary Ann Vaughan
Vince Vitale
Glenn Welker

Carla Noziglia
Jon Peckels
Gus Kwick
Ralph Kwasy
Glenn Lightfoot
Bonny Mattison

Three members have been returned to Regular status for attendance at a recent meeting:

Terry Bekkedhal
Chuck Vaughan

Joe Rynearson

"Recognition of Physical Evidence From Debris and Victims of Explosions"

William R. Dietz
Bureau of Alcohol, Tobacco and Firearms
355 North Wiget Lane
Walnut Creek, CA 94598

An explosion, whether initiated accidentally or by means of an improvised explosive device, will produce a variety of altered physical remnants. These remnants can be found on surfaces great distances away from the blast seat or they can be found imbedded into other objects or people (targeted victims, bystanders, and even assailants) near the blast seat. The recognition and collection of these remnants can be vital to the recognition of an improvised explosive device and/or the reason why the explosion occurred. This paper will illustrate common components of improvised explosive devices, their resulting remnants, possible locations and significance to an incident.

"Accelerant Recovery By Passive Diffusion"

William R. Dietz
Bureau of Alcohol, Tobacco and Firearms
355 North Wiget Lane
Walnut Creek, CA 94598

Two simple procedures for trapping volatile accelerant vapors are presented as alternatives to purge-and-trap or static headspace sampling techniques. These procedures take advantage of the simple diffusion of volatiles into the headspace of a closed container and trapping the vapors onto a charcoal bag or membrane. These procedures can save time while combining the efficiency and simplicity of purge-and-trap and headspace recovery.

**ABSTRACTS OF
PAPERS PRESENTED
AT THE FALL 1989
MEETING**

"A Procedure For Collecting Trace Evidence From Hair Masses"

*Robert M. Thompson
Oregon State Police Crime Lab
1111 SW 2nd Avenue, Room 1201
Portland, OR 97204*

Head hair has long been known to be an excellent source of transferred trace material. A procedure normally employed by laboratories is combing of the hair mass for trace fibers, foreign hair and other substances which might be caught up after contact and transfer. Collecting trace evidence from hair masses may be a difficult matter if the victim is in an advanced state of decomposition or has been buried. A procedure for removing trace evidence in such situations using enzyme detergent and vacuum filtration will be described. Its use in a serial murder case will also be presented.

"The Seizure of An Active LSD Laboratory"

*Lisa M. Brewer
California Department of Justice Laboratory
745 Airport Blvd.
Salinas, CA 93901*

On December 28, 1988 criminalists and agents from the California Department of Justice seized a functional clandestine LSD laboratory. Details of the laboratory seizure, synthetic routes and problems encountered will be discussed.

"Library Searching of Infrared Drug Spectra"

*W. D. Perkins
Perkin-Elmer Corporation
2305 Bering Drive
San Jose, CA 95131*

Infrared spectroscopy has long been used by the forensic community to identify and corroborate the identification of drug samples. Over the years numerous computer programs have been developed to facilitate the searching of spectral reference libraries. This paper will examine some of the considerations in preparing samples, building libraries and conducting the search. Examples of searching strategies using two quite different approaches will be described and compared.

"Identification of Drugs of Abuse by GC/IR/MS"

*Wayne P. Duncan
Scientific Instruments Division
Hewlett-Packard Company
1601 California Avenue
Palo Alto, CA 94304*

The problems associated with drug abuse continue to pose a major problem at

all levels of our society. The number of laboratories engaged in drug testing has grown significantly due not only to increasing numbers of drug-related arrests, but also to work-place testing and screening for athletes. Increased testing activities, especially in the area where an individual's job is at stake, demand that certainty of the results be placed at the highest possible priority. In this work a combined GC/IR/MS system is used to positively identify a variety of the most commonly encountered drugs of abuse. The five classes of drugs included in this work are THC, cocaine, PCP, opiates and amphetamines. Correct identification from both the IR and MS library search results can be obtained at the 30 ng level for drugs such as THC and cocaine. The combined system is most valuable for drugs which can be found in various isomeric forms such as the amphetamine family or fentanyl where mass spectrometry alone cannot provide an unequivocal identification. This combined system is also particularly useful in clandestine laboratory investigations.

"Interaction of the British Columbia Coroner's Service and the Forensic Community"

*Larry William Campbell
British Columbia Coroner's Service
Vancouver Regional Coroner
4595 Canada Way
Burnaby, BC Canada V5G 4L9*

The British Columbia Coroner's Service investigates and reports approximately 8500 deaths a year. While the correlating of information is conducted by the coroner, the majority of the formal forensic investigations are performed by individuals and agencies not directly related to the service. Toxicology, pathology, forensic engineering, anthropology, odontology and criminalistics in general are conducted on a per case, fee for service basis. This fee for service method has proven cost effective and flexible. By going outside the Coroner's Service, a wider range of opinions and experiences are available to the lay coroner. The inter-relationship between the forensic community and the British Columbia Coroner's Service is presented.

"The Chemical Diversion and Trafficking Act of 1988. A Discussion of the Law and Its Possible Effects on Clandestine Drug Laboratories"

*Rhonda Sorenson
Clandestine Laboratory Task Force
Drug Enforcement Administration
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San Francisco, CA 94102*

The clandestine manufacture of illicit controlled substances is an ever growing problem. Each year law enforcement officials seize more clandestine labs than the year before. A common denominator among these labs are their need for chemicals. The US Congress recently passed the Chemical diversion and trafficking Act of 1988 to provide a mechanism to track the movement of 20 listed chemicals. The Act requires manufacturers, distributors, importers and

exporters of these listed chemicals to identify their customers, maintain records and make reports to the Drug Enforcement Administration. An overview of the federal legislation and regulations will be presented.

"The Seizure of A Synthetic Cocaine Laboratory"

Wayne K. Jeffery
RCMP Forensic Laboratory
5201 Heather Street
Vancouver, BC Canada

This paper will deal with the synthesis of cocaine from vitamin C. It will include the synthesis, stereochemistry, reaction by-products, hazardous aspects, analytical techniques, investigation techniques and the resultant courtroom testimony.

"An Evaluation of the Potential For Clandestine Manufacture of MDA Analogs and Homologs"

Terry A. Dal Cason
Drug Enforcement Administration
North Central Laboratory
610 S. Canal Street, Room 500
Chicago, IL 60607

Encountering a novel controlled substance analog (designer drug) is a distinct possibility for all forensic drug laboratories. 3,4-Methylenedioxyamphetamine in particular is a receptive parent compound for the molecular modifications which produce such homologs and analogs. Identifying these compounds, however, can prove to be an arduous task. It would be desirable to direct the focus of the identification to those compounds which are the more likely candidates for clandestine laboratory synthesis. The process of narrowing the range of theoretical possibilities to logical choices may be enhanced by using a suitable predictive scheme. Such a predictive scheme for MDA analogs will be presented based on putative Central Nervous System activity, existence or formulation of a reasonable synthetic method, and availability of the require precursors.

"Analysis of Steroids. A Simple Approach"

J. Thomas Abercrombie
State of California, Department of Justice
Riverside Laboratory
1500 Castellano Road
Riverside, CA

Due to relatively recent legislation, crime laboratories throughout the State of California are now asked to perform analyses on exhibits purporting to contain various steroidal materials. Initially, it was thought this type of analysis was beyond the ability of most crime laboratories. Work done in this laboratory on both case samples as well as standard materials indicates strongly that a simple

extraction followed by appropriate instrumental analysis can be done in both an accurate and timely manner. This presentation will illustrate the preceding via utilization of the extraction technique for further analysis using FT-IR and GC/MS. Recovery of the suspected anabolic steroid appears to be on the order of +80%.

"Chicken Feed Crank. Fact or Fiction?"

Roger A. Ely

Drug Enforcement Administration

Western Laboratory

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San Francisco, CA 94105

Over the years, many allegations have been presented by individuals involved in the clandestine manufacture of amphetamine and methamphetamine centering on the extraction of essential precursors or actual controlled substances from common commercial products. Two such allegations involve the extraction of phenyl-2-propanone, a precursor to the manufacture of amphetamine and methamphetamine, from pesticides, herbicides or photographic chemicals. A third allegation from suspected lab operators and confidential informants claims amphetamine or methamphetamine (crank) can be extracted from chicken laying meal. An investigation into these allegations is presented.

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**FALL 1989
MEETING
EXHIBITORS**

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Display 1/2 Tables

Pierce Chemical Company
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Coffee Break Sponsors

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Pre-banquet Hospitality

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**ABOUT THE
NEWSLETTER**

The *Newsletter* of the Northwest Association of Forensic Scientists is published four times a year in the months of March, June, September and December. Submissions to the *Newsletter* are always welcome as:

1. Letters to the Editor
2. Interesting cases or findings
3. Adapting an established method to fit a certain type of evidence
4. Abstracts of papers in scientific journals of interest to members
5. Original research or method development

Material may be submitted to the *Newsletter* either in typed, double-spaced form; or on an IBM compatible computer disk in either WordPerfect 4.2 or 5.0 version, Wordstar or some other major word processing program. Contact the Editor for more information.

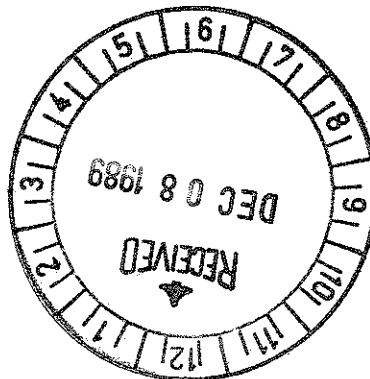
New this year to the *Newsletter* are Ms. Kathy Wilcox of the OSP Crime Lab in Coos Bay, OR (503) 269-2967 and Mr. Ray Kusumi of the WSP Crime Lab in Seattle, WA (206) 464-7074. If you have a submission of material that might interest the membership, please contact them.

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In This Issue of The Newsletter:

- *Membership Additions and Changes*
- *Review of 2 New Books From Elsevier Press*
- *Abstracts from the Fall Meeting*
- *And More !!*

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