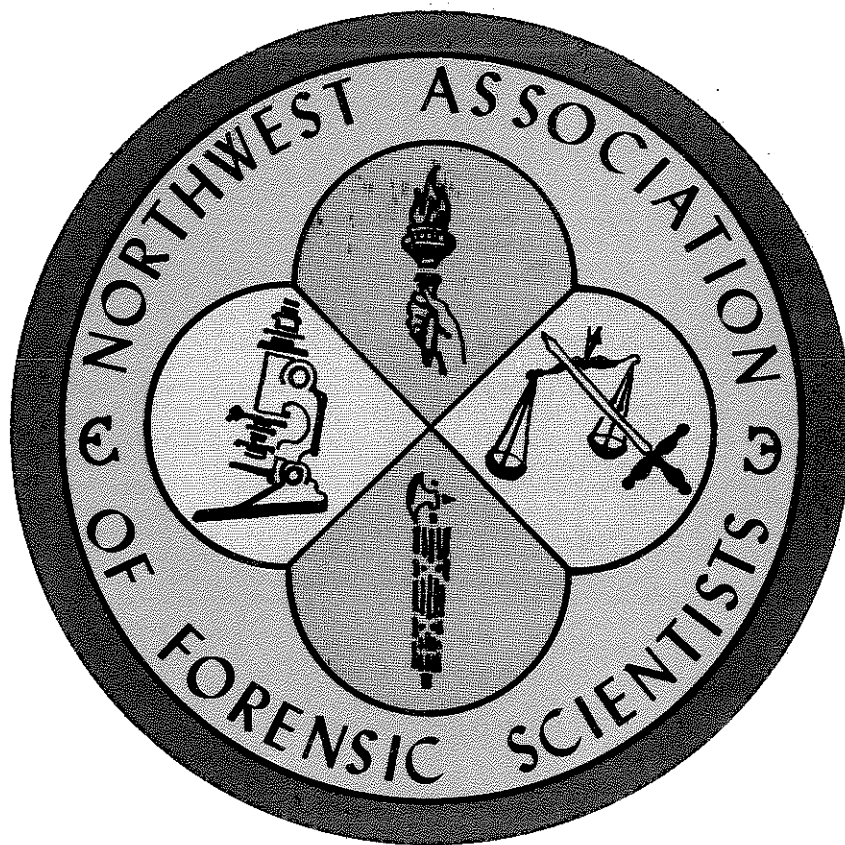


# THE NEWSLETTER of



MARCH 1989

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### IN THIS ISSUE OF THE NEWSLETTER

President's Message	1
Letters to Editor	2
Report From Certification Meeting at AAFS	3
Results of Certification Survey	4
Editorial	7
Job Announcements	10
Meeting Announcements	12
CA Criminalistics Institute Offers Courses	15
Regional Association's Meeting at AAFS	16
Spring Meeting In Ashland	16
Vehicle Lamp Examiners Information	17
MSA Introduces Splash Hood	18
Reference Book on MDA	19
Mice Eat Marijuana in Lab	19
Panties Beckon Firemen	20
DEA Lab Moves	20
Lead Poisoning Found In Methamphetamine Users	21
Public Health Alert on Lead Poisoning	22
Lead Oxide Use in Clandestine Synthesis	23
Ephedrine Tablets Circumvent Precursor Laws	24
Disaster Averted as Mobile Drug Lab Burns	24
LSD Lab Seized, Agent Exposed	25
Reference Abstracts	26

## PRESIDENT'S MESSAGE

Planning for the Spring meeting in Ashland is well underway. The workshops are in place and there is still room on the technical program to present your results on those projects you finished this winter. Ashland is home to the Oregon Shakespearean Festival, so this meeting gives us "scientist types" a chance to indulge our cultural side as well! There is more information on this meeting elsewhere in this Newsletter.

In addition to the technical presentations at Ashland, the results of the recent NWAFFS certification survey and a summary of the discussions and decisions made at the ABC meeting in Las Vegas regarding certification will also be presented. Decisions on future participation in the newly approved certification process will have to be made in Ashland so I hope to see those of you with an opinion on this subject at the business meeting.

Robert Thompson, OSP-Portland, has the revamped proficiency testing program well underway. However, this program can be a success only if the membership participate, so I urge everyone to respond with results in a timely manner. This program is an excellent tool for evaluation of one's methods and knowledge and is a way to certify ourselves in the privacy of our own labs. Maybe other regional associations are in favor of certification because they do not have a convenient way of assessing themselves. Here is the tool for that purpose. Please use it!!

I look forward to seeing you all in Ashland.

Dale C. Mann  
President

## ASSOCIATION OFFICERS

### President:

Dale Mann  
WSP Crime Lab  
2nd Floor  
Public Safety Building  
Seattle, WA 98104  
(206) 464-7074

### President-Elect:

Tommy D. Moore  
WY. Fish and Game Dept.  
Univ. Station, Box 3312  
Laramie, WY 82071  
(307) 766-5628

### Secretary-Treasurer:

Lionel Tucker  
DEA Western Lab  
390 Main, Room 700  
San Francisco, CA 94105  
(415) 995-5131

### Member At Large:

Gary Knowles  
OSP Crime Lab  
650 Royal Ave., Suite 11  
Medford, OR 97501  
(503) 776-6118

### Past-President:

Wayne K. Jeffery  
RCMP Forensic Lab  
5201 Heather St.  
Vancouver, BC V5Z 3L7  
Canada  
(604) 666-2045

## COMMITTEE CHAIRMEN

### Membership:

Robert Sager  
DEA Western Lab  
390 Main, Room 700  
San Francisco, CA 94105  
(415) 995-5131

### Newsletter Editor:

Roger A. Ely  
DEA Western Lab  
390 Main, Room 700  
San Francisco, CA 94105  
(415) 995-5131

### Historical:

Brad Telyea  
OSP Crime Lab  
1111 2nd Ave.  
Portland, OR 97204  
(503) 229-5017

### Technical Advancement:

Robert Thompson  
OSP Crime Lab  
1111 2nd Ave.  
Portland, OR 97204  
(503) 229-5017

### Continuing Education:

Arnold Melnikoff  
Div. of For. Sciences Lab  
554 W. Broadway  
Missoula, MT 59802  
(406) 728-4970

## LETTERS TO THE EDITOR

### Agrees with Journalism Professor

Editor:

I agree with your past journalism professor - you should write and re-write your heavy emotional displays out of your writing (re: editorial on certification, December 1988). I had to go back to the article several times to get the points you were trying to make. The first and second time the dominant message that came through was "My point of view is the only valid one and I won't tolerate anyone elses." I had to actively filter out your anger before I could get to your points. Hence, it seems that there is a good reason for your instructor's guidelines. Your points got so easily lost in the emotional venting the you mostly communicated anger, not information.

Kerstin Gleim  
Forensic Chemist  
Washington State Crime Lab, Seattle

*First, an editorial is a point of view, and not an informational piece of journalism. Secondly, if you picked up on my anger in the piece then I successfully and effectively communicated that anger to you - Editor*

### Agrees With Editorial

Editor:

Thank you for an outstanding editorial in the NWAFS Newsletter. I thoroughly agree with your statements.

I was present when the ABC was announced at the ASCLD meeting. It was apparent that all dissenting opinions were specifically avoided at the "July 15-17 meeting" of the "CCSC". It was made very plain that the intention was to stick the criminalistics community with certification whether we want it or not and that dissenting opinions are specifically not welcome. The manner in which it is being done is self-serving and is other than honest!

Steven J. Strauss  
North Bend, OR

At the recent American Academy of Forensic Sciences meeting in Las Vegas I attended two meetings held concerning the issue of criminalist certification. The first was a general meeting, where each regional association and representatives from other groups such as IAI, ASCLD and AFTE gave their point of view; and individuals who came to listen to the proposal also made their comments. The second meeting consisted of the regional associations and representatives of the Criminalistics Certification Study Committee (CCSC).

The main reason for trying to rush the incorporation of the American Board of Criminalistics (ABC) is so the board could obtain tax-exempt status from the IRS. This will allow the board to solicit and accept funds from businesses and corporations to finance the certification study and examinations. The Board also plans to apply for grants to defray costs.

The cost to each individual association will be substantial. The initial fee will be set at the first meeting of the ABC BOD (\$200-500): \$500 dollars has been mentioned more often. If our Association chooses to put a member on the BOD other costs will follow: 1) our Association must pay for the travel of our representative to 1 or 2 meetings of the BOD per year; 2) if our Association wants a member on the peer review committee (exam), it must also pay those travel costs (6 or 7 exams). As you can see this will be an expensive proposal for us!

The ABC is going to incorporate on May 15, 1989, therefore certification of criminalists is a reality!

Now, what support is there for this certification proposal and certification in general? The NWAFFS does not support this proposal (74%), if the proposal is initiated 52% do not want us to participate, and 56% of our members will not participate if the program is initiated.

***The ABC is going to incorporate on May 15, 1989, therefore certification of criminalists is a reality!***

The CAC did not poll their members on certification but their executive board has initiated for the CAC a certification program. If the ABC proposal is acceptable to the CAC, then the CAC will drop their certification and use ABC certification.

SWAFS polled their members and were not in general agreement with the ABC proposal but did support some type of certification. They were unaware of the costs.

SAFS sent out a negative poll, only 17% responded against certification, so they therefore assumed 83% were in favor of certification.

MAFS did not poll their members and took an executive decision to support the ABC proposal.

NEAFS sent a representative to the meeting and were uncommitted as they had not polled their members.

## **REPORT ON THE PROPOSED AMERICAN BOARD OF CRIMINALISTICS CERTIFICATION PROGRAM**

by  
Wayne K. Jeffery  
Past President

## RESULTS OF CRIMINALIST CERTIFICATION SURVEY

MWAFS had polled their members and were in favor of certification but not the ABC proposal as outlined. They would join ABC if the 3 members at large were removed. If this could not be resolved they would most likely start their own certification program.

The ABC proposal will not go out to a general vote of all criminalists; the boards of each association must decide. Is there overwhelming support for this proposal? The answer is a clear NO! Is there support for certification? The answer is YES, support but it is not overwhelming.

Our decision must be made at the Ashland meeting. The estimated first year cost to us will be (\$1000-1500). Come to Ashland bring your point of view. This decision will effect the future of our association.

The following is a summary of the results of the survey sent out to the membership on the issue of criminalist certification. It was from this data that Past-President Wayne Jeffery represented our interests at the certification meeting held during the American Academy of Forensic Sciences meeting in Las Vegas February 13-17.

A total of 213 surveys were sent out to members, and 58 responded (27%). BC refers to British Columbia, Canada.

1. a. Which term below best describes your laboratory position?
 

10 - Management (Lab director / head of lab system)	
10 - Supervisor of a lab section (one or more persons supervised)	
47 - Professional case examiner (specialist/generalist/journeyman level)	
1 - Laboratory technician (work cases at direction of another person)	
0 - Other (specify)	
(some responses indicated a dual position)	
- b. How many years experience do you have in forensic examinations?
 

less than 5	6
5 to 10	13
10 to 20	28
more than 20	3
no response	8
2. What types of evidence do you examine? (mark all that apply)
 

controlled substances	43
serology	25
firearms	15
toolmarks	20
toxicology	6
arson	17
explosives	10
hairs	23

fibers	23
paint	25
glass	24
soil	14
gunshot residue	10
other (specify)	10

## 3. What state are you employed in?

State	Responses	No. members in State
WA	21	49
OR	12	48
BC	8	18
CA	7	36
ID	3	11
other	7	51
total	58	213

## 4. a. Have you ever been certified in another discipline?

yes	10
no	40
no response	8

## b. Was it beneficial to you?

It was a requirement	3
Not beneficial	3
No indication it beneficial	3
Certification set minimum stds.	1

## 5. a. What are the positive / negative aspects of certification?

## Positive (in order of decreasing frequency)

- will help to set minimum standards
- will improve our professional image
- will lead to increased training
- will help to prohibit unqualified practitioners
- will allow clientele to compare experts
- can be used as a management tool for evaluation

## Negative (in order of decreasing frequency)

- costly
- the system may be abused / poor examiners may hide behind the credential
- time constraints to become certified
- management problems / lessen authority of managers
- labs not equally staffed / can't be certified in all fields
- adds a bureaucratic level
- may make it difficult to justify performing more work in a case than the "standard methods"
- difficult to design proper testing

- could become a professional requirement
- may force standard methods for analysis

## b. Would certification enhance our credibility in court?

No	47
Yes	7
Undecided	4

## 6. Do you recognize a need for certification?

Yes	25
No	30
Undecided	3

## Comments:

- certification no guaranty of competence
- courts certify examiner with each testimony
- ASCLD accreditation already provides for minimum qualifications of the individual practitioner
- it is the responsibility of the individual labs to provide training
- certification is for the ego only

## 7. Are you in favor of implementing the certification program as outlined in the attached proposal?

Yes	13
No	45
Undecided	0

## 8. If a certification program was initiated, would you participate?

Yes	24
No	28
Und.	6

## By position:

	Management	Superv.	Case Examn'r
Yes	4	5	16
No	6	2	19
Und.	0	3	3

## By geographic area:

	WA	OR	BC	CA	other
Yes	15	4	0	1	5
No	6	5	8	6	2
Und.	0	3	0	0	3

## By experience:

	<5	5-10	10-20	20>
Yes	1	7	16	1
No	4	3	10	2
Und.	1	3	2	0

(8 people did not respond to years of experience)

9. If a certification program is initiated, do you think the NWAFFS should participate (this includes selecting a representative and paying its share of incorporation costs?)

By position:

	Management	Superv.	Case Exmn'r
Yes	5	6	16
No	5	3	21
Und.	0	1	1

By geographic area:

	WA	OR	BC	CA	other
Yes	15	4	0	2	6
No	6	7	8	5	3
Und.	0	1	0	0	1

By experience:

	<5	5-10	10-20	20>
Yes	1	8	14	1
No	5	3	13	2
Und.	0	1	1	0

(8 people did not respond to years of experience)

10. How much are you, as an individual, willing to pay for certification?

Zero	27
\$1 to 50	9
\$50 to 100	11
\$100 >	5
No response	6

I had the good fortune to attend the recent meeting of the American Academy of Forensic Sciences in Las Vegas the third week in February. It was an outstanding technical meeting with the theme of serial crimes and how forensics can help solve them.

It was good to see so many members of the Association in attendance. Wayne Jeffery was there representing the Association in the discussions on certification, and to present a poster session on his paper given at the Fall 1988 meeting in Portland on the use of GC/FTIR for toxicological examinations. Unfortunately, something fell through the cracks and the Academy did not schedule Wayne's poster.

Wayne and I did our best to perpetuate the widely known fact that members of the NWAFFS have more fun at meeting than any other association. In doing so, we totaled approximately 5 to 10 new member possibilities for the Association. To say the least, it was a draining week with little sleep.

Probably the biggest draw for most of us to the meeting was the expected battle

## EDITORIAL:

### AFTER THE DUST HAS SETTLED

over the criminalistics certification. A meeting was called on Monday night of all those interested in the topic. The meeting, scheduled in the AAFS program for 7:30 pm actually started at 7:00 pm. The meeting was enlightening, with much of the same rhetoric that we've heard in the past. It really wasn't until the meeting of the Criminalistics Certification Study Committee (CCSC) and the regional associations that some of the truth of all this came out.

*It really wasn't until the meeting of the Criminalistics Certification Study Committee (CCSC) and the regional associations that some of the truth of all this came out.*

The history of the meeting in July until present (as I understand it) is as follows:

Jack Cadman, for a class he was teaching, researched the certification programs of various professional groups and the mechanisms they used to get their programs started. He found that, on the average, only about 38% of a professional base supported certification when it was initiated, but others joined in afterwards and it gained support and credibility. He passed this information on to Walter McCrone, who called the meeting of the original CCSC from 1978. Some couldn't make it and others were substituted. However, the invitation was strictly at McCrone's discretion.

After a few days, they had a set of by-laws and rules for the new American Board of Criminalistics. Interestingly, these by-laws and rules they proposed to adopt are, basically, the same presented in 1978. They were not favorable to the profession then, and do not seem to be favorable now (based on the polls taken by the regional associations). At least that is consistent ...

During the question and answer period, I specifically asked the advantage of incorporating the ABC now with rules that will have to be changed. An emotional appeal was made that we'd waited 10 years why wait any longer. Some inferred they were concerned they'd be retired before they could be certified - as though they felt it was some sort of badge they wanted to carry with them.

Well, lo and behold, in the meeting with the regional associations the next night my question was truly answered (although I wasn't there). The rush to incorporate has to do with obtaining a non-profit organization number from IRS so they could apply for grants and accept donations from the private sector (allowing the donors to reap the obvious tax benefits). They are going to incorporate in New York state because one member of the CCSC, Tom Kubic, is a member of the New York State BAR Association. Tom has, and is, putting a lot of legal work into the project and is doing it for no charge. Well, this tax-exempt number takes about 2 years to get. Thus, the rush to incorporate. Now this sounds logical, why didn't they say that in the first place?

It was represented to the people present at the general meeting that 4 (MAAFS, NEAFS, SAFS and CAC) of the 7 regional associations supported the incorporation and concept of certification. This, we later find out, is not true. MAAFS

did not even poll their members - it was an executive committee decision. MAAFS members present made it clear they did not support the represented view.

SAFS did a particularly unscientific poll. They sent out questionnaires to their members and said "if you don't support certification, send back this survey." They received an 18% return, and interpreted this as an 82% affirmation of incorporation and certification. (This seemed to be a common misunderstanding of the CCSC people: you can support certification, but be against the incorporation. They were of the opinion if you support certification, you support incorporation. They seemed to have difficulty in seeing there are two separate issues).

Of all the regional associations, CAC seemed the least outwardly caring. At the AAFS meeting, members of the Board of Directors were administered a "dry-run" of the CAC general criminalistics certification test. CAC supports certification and has spent considerable time and effort to get their program on line. The CAC representative indicated that CAC would not stop their program now, but would continue with its plans for certification in other areas. If, in the future, the ABC certification falls in line with the CAC certification, CAC would drop their program and support the ABC program. Who wins here? CAC, that's who. If they can get the ABC to purchase the tests CAC has already researched and prepared, they can recover some of their initial investment. So really, CAC has nothing to lose, and quite a lot to gain.

Representatives from ASCLD, ASCLD-LAB, AFTE and IAI were present and spoke. None of them had been invited to the July meeting, and several were very surprised because 2 (AFTE and IAI) have had their own certification program going for several years now. If nothing else, they could provide some assistance in the background of what it takes financially to start up such a program. AFTE's people were concerned because they are an international group, and they would resist certification from a group outside their own.

But when it was all said and done, it was clear that the board incorporation was going to proceed even though only 4 of the 7 associations supported the ABC. This is really crazy. Six of the seven regional associations support the idea of certification (NWAFS is the only one against it, and that is marginal) with some minor conflicts on some issues. Why proceed without this nearly unanimous support.

Besides which, if they would clean up the package a little, stop lying and begging the questions even our Association would probably support the thing.

Cost of the whole program, I feel, is going to be cost prohibitive for our Association. However, if we choose not to be a member of the ABC, it will not prevent or prohibit anyone in our Association from taking the tests. If we want

***But when it was all said and done, it was clear that the board incorporation was going to proceed even though only 4 of the 7 associations supported the ABC.***

a member on the ABC, prepare to have your dues increased to probably \$50 or more a year.

*... our money is better spent on the members by way of the workshops and other continuing education programs...*

I feel our money is better spent on the members by way of the workshops and other continuing education programs we support.

You are probably asking, "Has he softened his stance on certification?"

The answer to that is a loud and absolute NO!! However, that is my decision for my situation. I believe in pro-choice issues and this qualifies as one of them. Its up to you to decide whether certification will enrich your career, and is therefore necessary. If enough people feel they want this for whatever reasons (and I heard some interesting ones in Las Vegas), let them have it.

Me? I'm going to sit back and watch because I think the whole thing will fail - not because of the lack of interest, but due to the financial realities that few have even tried to grasp. I believe the death will be a long, slow financial strangulation.

## JOB OPPORTUNITIES

**Forensic Scientist:** Intermountain Forensic Laboratories, Inc. is currently seeking experienced forensic scientists for associates positions. Interested individuals will have a minimum of three years experience in a forensic laboratory with a background in general criminalistics and demonstratable expertise in serological, chemical and toxicological analysis.

Send curriculum vitae and resume to:

Intermountain Forensic Laboratories, Inc.  
11715 NE Glisan St.  
Portland, OR 97220

**Senior Criminalist:** The City of Mesa, Arizona, is seeking applicants for the position of Senior Criminalist. The position specializes in the areas of blood alcohol and drug screening in body fluids. Minimum requirements include a BS degree in chemistry, criminalistics or a closely related field and four to six years experience as a criminalist. Salary range is \$36,283 to 48,971 per year.

For further information, contact:

Mesa Personnel Department  
PO Box 1466  
Mesa, Arizona 85211  
(602) 644-2365

**Criminalist, Senior Criminalist:** The County of Orange has several openings at the criminalist and senior criminalist levels. Qualifications include a Bachelor's degree in criminalistics, chemistry, biology or a closely related field. The Senior Criminalist position requires two years experience in a forensic laboratory. The salary range is \$2,142 to 2,879 per month for the criminalist position, and \$2,798 to 3,768 for the Senior Criminalist.

For further information, contact:

Margaret Kuo  
Forensic Science Services  
Sheriff's Department  
PO Box 449  
Santa Ana, CA 92702  
(714) 834-4549

**Forensic Scientist 2, 3:** The Washington State Patrol Crime Laboratory System is seeking qualified candidates for the positions of Forensic Scientist 2 and 3. This register will remain open for up to one year to fill available positions throughout the state.

The Forensic Scientist 2 position requires a BS degree in forensic science or a natural science which includes a minimum of 20 semester hours or 30 quarter hours of chemistry and 5 semester or 8 quarters hours of physics and two years full-time paid technical experience in an analytical, research or crime laboratory, one year which must have been in a forensic science laboratory performing analyses of physical evidence and testifying as an expert in courts of law.

The Forensic Scientist 3 position has the same basic requirements with the additional experience requirement of two years as a Forensic Scientist 2 or three years of full-time paid technical experience in a forensic lab performing analyses of physical evidence which includes testifying in courts of law.

There is an immediate opening for a Firearms/Toolmark examiner meeting the above qualifications for a position in the system's Spokane laboratory.

Salary range for the Forensic Scientist 2 position is \$2131 to 2727 per month; and \$2596 to 3323 per month for the Forensic Scientist 3.

For more information, contact:

John F. Anderson  
WSP Crime Laboratory Division  
6604 Martin Way, PQ-11  
Olympia, WA 98504  
(206) 438-7223

**CRIMINALIST  
POSITION  
SOUGHT**

**Criminalist Position Sought:** Marguerite Murtagh of Armagh, Northern Ireland, is seeking a position as a criminalist with a forensic laboratory in the United States. Ms. Murtagh has a Master of Science degree in Forensic Science from Strathclyde University in Glasgow, Scotland. As part of her training, she participated in a research project at the Los Angeles County Sheriff's Department, and now wishes to return to the US to work.

Ms. Murtagh may be contacted at:  
Ms. Marguerite Murtagh  
30, Dobbin St  
Armagh  
Co. Armagh  
Northern Ireland BT61 7QQ  
Telephone 0861-522524

**ASSOCIATION  
MEETINGS**

**NORTHWEST ASSOCIATION  
OF  
FORENSIC SCIENTISTS  
SPRING 1989 MEETING**

The site of the Spring 1989 meeting of the Northwest Association of Forensic Scientists will be held at the Ashland Hills Inn in Ashland, Oregon. The hosts of the Spring meeting are the members of the new National Fish and Wildlife Forensic Laboratory, headed by Ken Goddard. Room rates are \$39 a day for queen singles and queen doubles. The meeting will run the week of April 3-7, with workshops scheduled for some of those days. Further details of the meeting can be found elsewhere in this Newsletter.

For more information, contact:  
Beth Ann Gilroy or Kent Oakes  
National Fish and Wildlife Forensics Lab  
1490 E. Main Street  
Ashland, OR 97520  
(503) 482-4191

**NORTHWEST ASSOCIATION OF  
FORENSIC SCIENTISTS  
FALL 1989 MEETING**

The Fall meeting of the Northwest Association of Forensic Scientists will be held at the Concord Hilton, in Concord, California. The meeting will be held October 17-20, 1989. Cost of a room, single or double occupancy, will be \$56.00. The hotel is holding a block of rooms at that rate the weekend before and the weekend after the meeting for those who want to come down and enjoy San Francisco, the wine

country or any of the other many attractions available. If you fly in, fly into Oakland International Airport. Shuttle buses are available for about \$20 one way to the hotel on a reservation basis. Several workshops are in the planning stage for the meeting including:

**Drugs:** Drug Pharmacology by Dr. Alexander Shulgin, and Bombs and Booby traps in the clandestine laboratory site

**DNA:** There is a good possibility that we will be able to have a hands on workshop on PCR

**Computers:** A one-day work shop on the application of personal computers for the forensic scientist dealing with topics such as technical word processing with several types of programs, databases for the forensic scientist, expert systems (artificial intelligence) and possibly the ballistics applications.

**Wine:** Yes, wine!! Since we're in the wine country area, a workshop (free if you register for the other workshops) on wine chemistry is being contemplated.

For more information, contact:

Roger A. Ely  
Program Chairman  
DEA Western Laboratory  
390 Main Street, Room 700  
San Francisco, CA 94105  
(415) 995-5131  
(415) 995-5177 (FAX)

### **SOUTHERN ASSOCIATION OF FORENSIC SCIENTISTS SPRING 1989 MEETING**

The Spring 1989 meeting of the Southern Association of Forensic Scientists has been set for May 4-6, 1989 at the Radisson Plaza Hotel in Raleigh, North Carolina.

The theme for this meeting is "Scanning Electron Microscopy (SEM) in Forensic Science." This meeting will feature Dr. Robin H. Keeley, world renowned SEM expert as one of our plenary speakers. Dr. Keeley will also conduct a SEM workshop on May 4, 1989. We also plan to have SEM speakers from the FBI and other SEM users.

Dr. Robin H. Keeley is the SEM expert at the Scotland Yard laboratory in London, England. He has taught SEM course relating to Forensic Science and has spoken at many institutions around the world. He is willing to speak or teach an SEM course at your respective Association meetings that are in the same time frame as his visit to the SAFS meeting on May 4-5, 1989.

Dr. Keeley may be contacted at the following address and phone number:

Dr. R.H. Keeley  
The Metropolitan Police Forensic Science Laboratory  
109 Lambeth Road  
London, England SE1 7LP  
011-44-1-230-6355

For more information concerning the meeting, contact:

Lt. R. S. White  
WV State Police Laboratory  
725 Jefferson Road  
South Charleston, WV 25309  
(304) 746-2181

CALIFORNIA ASSOCIATION  
OF CRIMINALISTS  
SPRING 1989 MEETING

The California Association of Criminalists 73rd Semi-Annual Seminar will be hosted by the Bureau of Forensic Services, California Criminalistics Institute and Sacramento Laboratory on May 17-20, 1989 at the Beverly Garland Hotel, Sacramento. The theme for the meeting is: A Century of Progress 1888-1988.

The Seminar agenda will include a special SEM workshop, historical displays, panel discussions on professionalism and historic cases, and tutorials on CCI library services, DNA, lasers, data systems, and much more. There will also be time to enjoy nearby Old Sacramento, the State Capitol and river sports.

Deadline for abstracts for papers is April 1, 1989. Advance registration closes May 1, 1989. For further information contact:

John DeHann or Linda Hartstrom  
California Criminalistics Institute  
4949 Broadway, Room F-104  
Sacramento, CA 95820  
(916) 739-4380  
(916) 454-5433 FAX

Mid-Atlantic  
Association of  
Forensic Scientists  
Spring 1989 Meeting

The annual meeting of the MAAFS will be held May 17-19 in Baltimore, Maryland, at the Lord Baltimore Hotel. The meeting coincides with the running of the "Preakness" horse race. Workshops scheduled for the meeting include a SEM workshop by Dr. Robin H. Keeley, a workshop on GC/FTIR by Hewlett

Packard, a questioned document seminar and a forensic toxicology symposium.

For more information, contact:

Karen Irish  
Maryland State Police Crime Lab  
Pikesville, MD 21208  
(301) 653-4589

The California Criminalistics Institute (CCI), a part of the California Department of Justice Bureau of Forensic Sciences (BFS) is announcing several training course for the Spring and early Summer of 1989. Unfortunately, two of the classes will have been held prior to the mailing of this Newsletter, however, to others which may be of interest to the membership are described below. For more information on either course, contact John DeHaan at (916) 739-5735.

#### **Firearms Safety Course May 1989**

The Firearms Safety in a Lab Environment course will be offered May 31 - June 2, 1989 at the Concord Police Association Facility. Instructors will be John Hamman, Dave Barber and Walt Allen. This will be a POST-certified and POST-reimbursable offering and will be open to BFS and outside agency students.

The class is limited to twenty students and appointments are made on a first-come, first-served basis (based on date of receipt of application), and on the needs of the individual and the submitting laboratory.

#### **Arson Accelerant Detection July 1989**

CCI has made arrangements with the US Treasury Department to co-host the first West Coast offering of the renowned ATF Arson Accelerant Course in July 1989. This will be the same 40-hour intensive laboratory-oriented course that the ATF has put on at Rockville since 1980. It is tentatively planned for July 17-21, 1989 at the Hewlett Packard facility in Pleasanton, although the dates and location are subject to change. The instructors will include Dr. May Lou Fultz, William Dietz and John Dehaan.

Enrollment is limited to twelve and selections will be made by CCI and ATF based on laboratory need and individual needs, and the date of submission of the CCI course application.

### **CALIFORNIA CRIMINALISTICS INSTITUTE TO OFFER TRAINING CLASSES**

**REPORT ON  
MEETING OF  
REGIONAL  
ASSOCIATIONS  
DURING  
AAFS MEETING**

by  
Wayne K. Jeffery  
Past President

**DETAILS OF  
SPRING 1989  
MEETING  
IN ASHLAND**

At this meeting we elected Ms. Susan Johns from the MWAFS as chairman for the next two years. It will be her responsibility to distribute all information affecting the regional associations and draw up an agenda for each meeting at the AAFS. It was recommended that each regional association elect a representative for three years so some continuity could be maintained. It was hoped that the regional associations would fund the member's attendance to the meeting.

The committee decided it had 3 major functions to perform: 1) communication between the regional associations; 2) exchange of technical information; and 3) networking.

It was decided to obtain a complete list of all resources held by the associations, and catalogue a list of references from those who have been involved with a Kelly-Frye hearings. A salary survey will also be sent around to the regional associations. This information will be published in our newsletter.

The National Fish and Wildlife Forensics Laboratory (USFWS) and the Ashland Hills Inn open their doors to the NWAFS in April. The week is shaping into an exciting, busy and educational time ... workshops (held at the USFWS lab Monday through Wednesday) are filling fast; paper sessions (held at the Ashland Hills Inn Wednesday through Friday morning) are varied and filling fast; and vendor participation is outstanding.

Lab tours will be scheduled throughout the week; Tuesday is "Wildlife Forensics Night" at the lab (for those specifically working on wildlife casework); and Wednesday is Serology Day at the Ashland Hills Inn starting with a seminar on species identification through bloodstain analysis using isoelectric focusing.

The Shakespearean Festival is on! We have had a great response to this special Thursday night banquet. Some tickets are still available at this printing. If you are interested in this event, contact the lab to be included. The evening will feature Shakespearean players and characters with court jesters and wandering minstrels. The Ashland Hills Inn still has rooms available at NWAFS reduced rates, please call (503-482-8310) to reserve your rooms and mention the NWAFS meeting.

Between workshops, papers, tours, get-togethers, the NWAFS business meeting Thursday afternoon and visiting our supporting vendors, make plans to visit the beautiful town of Ashland. Spend time browsing the shops, walking through Lithia Park and even consider taking in a play at the Shakespearean Festival. It will be a full week, and we'll see you in Ashland!!

For more information, call the USFWS lab at (503) 482-4191:

Paper sessions:

Wayne Ferguson

Workshops:

Kent Oakes

Shakespearean Feast  
and General Info:

Gena Goddard or Beth Ann Gilroy

While attending a class on Motor Vehicle Lamp Examination at Northwestern Traffic Institute in Evanston, Ill, I learned the following:

1. Lynn Fricke, one of our instructors, discovered the effects of the exploding halogen headlamp. During a trip home one rainy night, he noticed that one of his headlamps went out. He examined it later, discovered that the outer glass envelope had been broken (possibly vandalism) and that the rain had reached the inner glass envelope. The inner glass envelope had broken; the filament was oxidized and also distorted as though it had suffered an impact. However, there had been no impact.

A theory to explain this according to Fricke is that the pressure inside the bulb was high enough (from the incandescent filament heating the interior gas) that a sudden release of pressure sent out a piece of broken glass into the filament which mechanically distorted it. Another possibility is that the force of the explosion itself was enough to distort the filament.

Three of the students in the class duplicated this experience by dropping water on an incandescent halogen bulb that was protected by a styrofoam cup (to catch the broken glass). The force of the explosion was so strong that it sent glass pieces

*The force of the explosion was so strong that it sent glass pieces through the styrofoam.*

through the styrofoam. It also distorted the filament to a U-shape such that it looked like it had been affected by a reasonably strong impact. The filament also oxidized slightly. Beware of mistaking an exploding halogen headlamp for one that was involved in an impact.

2. Ann Jones from the Virginia Bureau of Forensic Sciences in Richmond, a member of the class, had a case at her lab that had a non-halogen apparently unbroken headlamp with an undistorted filament. This filament had a bright evenly blue deposit. The deposit was also all over the posts and the mirror surfaces. Elemental analysis of the deposit indicated that it was tungsten oxide of a different oxidation state than the black and whitish oxides normally seen when oxygen reaches an incandescent filament. A tiny hole was subsequently found in the glass envelope. The bright blue oxide could be the result of very slow oxidation, possibly in the presence of water vapor (see Cotton and Wilkinson, Advanced Inorganic Chemistry). Other examiners have seen such a deposit on

## **MOTOR VEHICLE LAMP EXAMINATION**

by  
Kerstin Gleim  
WSP Crime Lab  
Seattle, WA

undistorted filaments in apparently intact lamps.

I have begun to collect literature and other references on vehicle lamp examinations. My goal is to first compile a bibliography, then if possible, put together all the references for a collection to be available via our continuing education committee. I am requesting all of you who do headlamp examinations to send me a list of your references (literature articles, communications with the industry, chapters from books). I will only request copies from you of that material which I don't have or can't obtain from our library systems. Once I have all the information, I will send out the bibliography at your request.

**Contact:**

Kerstin Gleim  
WSP Crime Lab  
2nd Floor, Public Safety Building  
Seattle, WA 98104  
(206) 464-7074

**MSA MARKETS  
NEW CHEMICAL  
RESISTANT SPLASH  
HEADCOVER**

MSA International, makers of hazardous materials handling suits and respirators, has announced a new line of protective clothing called the Blue Max.

These new suits come with either elastic ankles or integral bootie feet. The suits are permeation resistant to acetone, acetonitrile, Freon TF, hydrochloric acid, ammonia gas and carbon disulfide (abbreviated listing of chemicals).

Of special interest is a Blue Max One Hole Head cover, a slip on cover that covers the head and shoulders to provide splash protection to the head as well as a barrier to direct contact with hazardous chemicals. The hood is designed to be used with the MSA Ultra-twin SCBA or Twin cartridge respirators. A single hole is provided for placing the face shield of the respirator through. The edges are sealed with an elastic band.

*... a slip on cover that covers the head and shoulders to provide splash protection to the head...*

The cost per hood is \$26 each and the part number is 696186. For more information, contact your nearest MSA dealer by calling 1-800-MSA-222.

CND Analytical of Auburn, Alabama, has made available a new reference book that should be on the shelf of all drug chemists entitled Analytical Profiles of Substituted 3,4-methylenedioxyamphetamines: Designer Drugs Related to MDA.

This soft cover, spiral bound volume contains approximately 100 pages of data for 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxymethamphetamine (MDMA) and about 40 designer drug modifications and synthetic precursors of these compounds. Included are N-alkyl and N-hydroxy MDAs as well as the N-substituted ethanamines and butanamines (HMDAs), chain homologues of the MDAs.

The data on each compound include Toxilab profiles, infrared spectra, mass spectra, ultraviolet spectra with molar absorptivities, and example liquid chromatographic separations. The volume also contains descriptions of synthetic methods as well as information on the pharmacological, neurochemical and toxicological effects of these compounds.

The cost per volume is \$35 per copy, and includes shipping. For more information, contact:

CND Analytical  
PO Box 1527  
Auburn, AL 36831-1527

It's taken patience and ingenuity, but a crime lab has stopped thieves from pilfering the county's stash of confiscated marijuana. The mice are gone.

Brazoria County Crime Lab Director Michael Manes says workers decided something had to be done because the critters became bolder and bolder as they developed a love for their new found food, kept in a vault.

Because the drug had given them a false sense of security, it got to the point where the mice simply would sit and stare at workers when they opened the darkened vault rather than scurry from the light, said Manes.

## REFERENCE BOOK ON MDA ANALOGS AVAILABLE

## OFFICIALS STOP POT THEFTS BY STONED MICE

Associated Press

## GUINDON



# **HOT PANTIES BRING FIREMEN TO FIGURE OUT WHAT'S COOKING**

Idaho Statesman  
December 8, 1988

# **DEA WESTERN LABORATORY MOVES TO NEW FACILITY**

The first move against the mice was to place drugs that might be need in court cases in steel cabinets so no evidence would be destroyed.

But an attempt to catch the mice with poisoned food met with little success because they seemed to prefer marijuana seeds to cheese. The cheese rotted as the bags of marijuana continued to be gnawed open.

Manes said about the only luck they had in catching the mice was when one would accidentally step on a trap as it walked from one bag of pot to another.

"We soon just put them around the room without any bait and hoped they'd stumble into one," he said.

A combination of poisoned marijuana, poisoned water and traps has nearly wiped out the lab's mouse population.

But a large jar of preserved rodent bodies serves as a reminder that the penalty for marijuana-eating mice at the lab is death.

Boise firefighters went on a panty raid Tuesday morning. A woman in the East End called the Fire Department complaining of smoke in her attic and kitchen, Captain Wayne Gifford said.

Firefighters discovered the source of the smoke: a pair of panties in the microwave oven. Firefighters said the woman told them she had placed the underwear in the oven in an attempt to get rid of a yeast infection.

"They were probably nylon," Gifford said. "They never caught fire, but turned brown like a brown paper bag that got too hot."

Gifford said there was no damage to the house or oven, only to the panties.

"I've responded to clothes on fire in a dryer, but never in a microwave."

Fire officials and appliance repairmen cautioned that only food and cooking containers designed for use in a microwave should be heated in a microwave.

The DEA Western Field laboratory in San Francisco, California is pleased to announce it has moved to a new facility on February 6, 1989.

The new facility is located at 390 Main Street in the annex of the Rincon Annex - the site of the Post Office's dead letter department - at the western foot of the Oakland-Bay bridge.

The new facility has nearly doubled the existing space of the laboratory, and is a far cry from the shabby quarters the lab used to occupy in the Federal Building.

The lab is located on the 7th floor of the building and has a wonderful view of Treasure Island and the Bay. Unfortunately, there are a couple of high-rise condominiums going up around the building and soon the view will be restricted.

Please note the new address and phone number for the facility, and for the personnel of the laboratory:

DEA Western Laboratory  
390 Main Street, Room 700  
San Francisco, CA 94105  
(415) 995-5131  
(415) 995-5177 FAX

The Oregon Health Division and the Marion County Health Department issued a health warning about lead poisoning in persons who use IV methamphetamine. All persons who use methamphetamine are warned that lead contamination of the drug currently being sold in Oregon may result in serious lead poisoning. The Health Division strongly urges that all persons stop using methamphetamine in order to avoid this serious health problem.

Some of the manufactures of illegal methamphetamine are producing a drug that is heavily contaminated with precursor chemicals that can produce toxic levels of lead.

At least 15 confirmed users of IV methamphetamine, also known as crank, in Marion, Linn and Lane counties have been diagnosed to have lead poisoning over the past three months. Additional suspected cases are under investigation. Only one sample of the illegal drug has been tested so far. It was found to contain 60% lead acetate, a chemical used in the manufacture of illegal methamphetamine. This concentration is high enough to cause lead poisoning after a single, one gram dose of the drug. Repeated exposures can lead to serious poisoning.

*... one sample of the illegal drug has been tested ... (and) ... was found to contain 60% lead acetate,*

The symptoms of lead poisoning vary from one individual to another, and depend on the dose of the lead and the length of time over which exposures have occurred. Lead poisoning patients often develop stomach pain and cramps, anemia, kidney damage, brain damage and other nerve damage.

The source of this contaminated drug is not known at this time. It appears that

## **LEAD POISONING FOUND IN DRUG USERS**

Health Division  
Oregon Department of Human Resources  
October 20, 1988

## **PUBLIC HEALTH ALERT LEAD POISONING IN METHAMPHETAM- INE USERS**

Oregon Health Division  
Communicable Disease Summary,  
37-21 (1988)

the problem is occurring in more than one area of the state. The investigation continues to attempt to determine the extent of this problem.

Persons who have used IV methamphetamine and are experiencing stomach pain and cramps are encouraged to seek medical care. Oregon doctors are encouraged to be on the alert for this problem in patients who have recently used the illegal drug.

An outbreak of lead poisoning has been identified in the mid-Willamette Valley area, among users of intravenous methamphetamine. The Division encourages physicians to be alert to the possible diagnosis of lead poisoning among methamphetamine users. The Division further recommends that methamphetamine users stop using the drug to avoid potential exposure to toxic levels of lead.

Nine cases of confirmed poisoning among methamphetamine users have been reported to the Health Division in the past few weeks. An additional 21 cases have been reported, but we have not yet received detailed clinical and laboratory information on those cases. All confirmed cases have been reported from Marion and Linn counties, although suspected cases have also been reported from Lane County.

*Predominant symptoms have included nausea, vomiting, severe abdominal pain, constipation, paresthesia, weakness, sleep disturbance and diffuse myalgia.*

The confirmed cases have been between 24 and 33 years of age. All reported a recent history of intravenous use of methamphetamine. They have presented with a variety of clinical pictures. Predominant symptoms have included nausea, vomiting, severe abdominal pain, constipation, paresthesia, weakness, sleep disturbance and diffuse myalgia. Several of the patients had experienced the symptoms for several weeks before seeking medical care. Onset of illness had occurred between late July and late

August. Some of the patients were jaundiced.

A sample of methamphetamine obtained from one of the cases has been tested for lead content. It was found to contain 60% lead. Organic chemical analysis of an aliquot of this same sample found it to contain essentially no methamphetamine. The predominant organic component found was phenyl-2-propanone.

Lead poisoning is an unusual condition among adults, and it most often occurs in the industrial exposure setting. The clinical picture, combined with the markedly elevated blood lead levels consistently found among the case for whom complete information is available, strongly supports the diagnosis of acute lead

poisoning. The finding of an extremely high level of lead in the one tested sample of methamphetamine, combined with the lack of other identifiable sources of exposure, strongly suggests that methamphetamine was the source of exposure.

Lead poisoning can masquerade as many other medical conditions. In fact, almost all of the patients reported here were considered initially to have alternative diagnoses, including, among others, viral hepatitis, subacute endocarditis, pancreatitis and urinary tract infection. It is not yet known whether this outbreak is limited to the Marion, Linn and Lane county areas, nor is it known whether the problem will continue to occur. Evidence to suggest that it is not just a one time problem is the fact that the one report in the literature of lead poisoning from contaminated methamphetamine was reported from Lane County in July 1987<sup>1</sup>.

It is not yet known how the methamphetamine became contaminated with lead. Lead acetate is used in the manufacture of methamphetamine. Since many "cooks" have no training in chemistry, it is possible that a failed process could have produced the lead contamination. Intentional cutting of the product with lead acetate is also a possibility.

1. Allcott, J.V., Barnhart, R.A., and Mooney, L.A. Acute Lead Poisoning in Two Users of Illicit Methamphetamine. *JAMA* 1987; 258:510-511

DEA agents in southern Oregon report an increase in seizures of P-2-P laboratories where the synthesis uses phenylacetic acid, lead oxide and acetic acid.

The suspects are purchasing 50 pound containers of lead oxide from ceramics or pottery supply shops. The lead oxide is used in pottery as a component in glazes.

This synthesis is similar to one using phenylacetic acid, calcium oxide and acetic acid. In the procedure, a slurry of phenylacetic acid, lead oxide and acetic acid is placed into a pressure distillation bomb. Under high heat and pressure, phenyl-2-propanone is formed and collected. The types of cooking vessels have included legitimate chemical apparatus to the cylinders of an automobile engine.

The reaction probably closely mimics the phenylacetic acid - lead acetate reaction to P-2-P, with the lead acetate being formed in situ in the bomb. The same types of health problems will be present in this reaction as are present in the PAA - lead acetate reaction - airborne elemental lead, water soluble lead salts and other lead contaminated by-products.

### **P-2-P SYNTHESIS USING LEAD OXIDE BEING ENCOUNTERED IN SOUTHERN OREGON**

**... a slurry of phenylacetic acid, lead oxide and acetic acid is placed into a pressure distillation bomb.**

## **SOURCE OF EPHEDRINE FOR PRECURSORS FOUND**

Recently, in a clandestine methamphetamine laboratory seized in Sacramento, California, the suspects were found to be in possession of 2 kilograms of the familiar white double score tablets containing ephedrine.

Along with the tablets, approximately 1 kilogram of ephedrine hydrochloride powder was seized. In interviewing the suspects, they were asked about why they were in possession of the white tablets.

The suspects indicated that they had started acquiring their ephedrine in this manner for use in their methamphetamine laboratory. The tablets can be purchased from several mail order sources, including High Times magazine and Cosmopolitan.

The suspects indicated they could get the ephedrine without arousing the suspicions of the local authorities would check on the purchase of ephedrine powder. The tablet form of the ephedrine is not watched by the state of California, and probably not by any of the other states that have placed controls and restrictions on the sale of ephedrine.

The suspects indicated they would extract the ephedrine from the binding material, and use it in their red phosphorus / hydriodic acid reaction.

A cost comparison has been made, and it was found that the cost of 10,000 tablets containing approximately 30 milligrams of ephedrine cost only a few dollars more than ephedrine powder on the open market.

This incident may be the start of a trend where methamphetamine laboratory operators will obtain their precursor ephedrine from legitimate pharmaceutical preparations.

## **LAB FIRE NARROWLY AVERTS DISASTER**

Disaster was recently averted in San Leandro, California, in December 1988 when a mobile laboratory caught on fire in front of an elementary school.

*... a mobile laboratory  
caught on fire in front of  
an elementary school.*

The main suspect in the case was recently involved in a fire in the garage of a house he rented in Hayward, California, when the diethyl ether he was using ignited. The suspect received sufficient burns to require medical attention and a brief hospital stay.

The suspect was living out of his parent's Winnebago motor home in the San Leandro beach area, and intelligence indicated they had been synthesizing methamphetamine via the red phosphorus - hydriodic acid reduction of ephedrine.

The suspects were having trouble getting the Winnebago started, so they

attempted to jump start the vehicle one morning around 8 am. This effort failed, so they pulled back the engine cover inside of the motor home and primed the carburetor with gasoline and tried the jump start again. This time, the motor home started, and the cover was replaced.

The suspects had driven approximately 1/2 mile when it is theorized the engine backfired and ignited the gasoline fumes in the engine compartment. As the fire was burning, the driver pulled over to the side of the road, resting the front bumper up against a fire hydrant. Less than fifty feet away from the burning motor home was a wood framed residence. Across the street was an elementary school, and there was substantial traffic on the road, as it was 8 o'clock in the morning.

The suspects fled the scene, and fire units responded and put out the blaze.

Most of the fire damage was localized to the front of the motor home, with heat and smoke damage present in the rear. Hydriodic acid, red phosphorus, laboratory glassware and other items indicative of a clandestine methamphetamine laboratory were present.

In a closet near the middle of the motor home was found 10 gallons of diethyl ether. It is a miracle that the ether did not blow up and cause severe damage to the school and the local neighborhood. The saving grace seemed to be that the ether cans were being stored in plastic garbage pails, somewhat larger than the actual cans. When opened and examined, no more than the usual pressure was detected coming from the can. It is believed the oversized plastic cans created an insulating barrier of air that kept the cans from becoming involved in the blaze.

On December 28, 1988 members of the California Department of Justice Bureau of Narcotics Enforcement - San Jose and criminalists from the California DOJ Crime lab in Salinas seized a clandestine laboratory in Mountain View, California, near San Jose. The laboratory was found to be synthesizing lysergic acid diethylamide (LSD).

The suspect in the case has a long history of involvement with LSD and hallucinogens. The suspect, approximately 40 years of age, is believed to have ties to the Brotherhood of Eternal Love. The Brotherhood is a group of individuals who embraced Timothy Leary as god and guru, and picked up his teachings in the late 1960's.

*The suspect reportedly has approximately 200 credits in chemistry from the various colleges and universities in the Bay area.*

The suspect reportedly has approximately 200 credits in chemistry from the various colleges and universities in the Bay area. He has had prior involvement

### **LSD LAB SEIZED IN BAY AREA - AGENT EXPOSED**

in an LSD lab in the 1970's and was convicted of manufacturing MDA in the early 1980's.

His initial contact with law enforcement suggested involvement in methamphetamine laboratories; however, when arrested, he was found in possession of a substantial quantity of blotter LSD.

The lab site was in a trailer parked inside of an industrial building with a bay and office. The law enforcement personnel entered the site with full protective equipment on bottled air. The site contained many bottles of bottled argon gas, 3 rotary evaporators and other sophisticated lab equipment. A bottle of suspected ergotamine from Spain was found, along with a bottle of tartaric acid.

Seized in the lab were approximately 6 different designs of blotter paper: Escher

*... recovered at the site was a tableting machine for pressing ... purple microdot tablets ... approximately 123,000 purple microdot tablets were seized and found to contain LSD.*

heads, Greatfull Dead album covers, Samurai shields (blue with rust shields, and rust with blue shields) and black and white tropical settings. To date approximately 90,000 hits have been confirmed to contain LSD.

Also recovered at the site was a tableting machine for pressing microdot tablets. This particular machine appeared to have been used to press the purple microdot tablets. Found with the tableting machine were powdered milk, purple tempera paint and raspberry jello. Approximately

123,000 purple microdot tablets were seized and found to contain LSD. Samples of the dosage materials are being forwarded to Microgram, and should be published in the near future.

Also seized was 28 grams of LSD powder in 1 gram seal vials and 14 grams of mescaline. The suspect had extensive literature on the subject of synthesizing LSD and mescaline. Production capabilities of the lab were not available at this time. He had been at that location for a while, and his notes suggest he was starting his third kilogram of LSD.

The investigation is shadowed by the fact that one of the agents assisting in the seizure of the laboratory was exposed to the LSD with serious health effects. The agent had been certified in the same certification program DEA and California give their lab agents and chemists. However, he was not actively working laboratory investigations and had grown back his beard. The investigation team was short handed, so the agent went to a convenience store and purchased shaving cream and a razor, and shaved his beard off.

At the time of exposure, the personal were wearing protective equipment with cartridge respirators. At the time of a rest break, the agent began to complain things were out of segment, that colors were more intense and finally that the people around him appeared to be cartoon characters. His pupils appeared

totally dilated, and he went into convulsions about 1 to 2 hours later.

The agent was taken to the hospital where they administered valium by IV to calm the anxiety. A few hours later, he was discharged and went home. He was in the shower when the valium began to wear off and he began convulsing again. This time he was taken to the Haight-Ashbury clinic and treated.

During his time in the emergency room, he reported a loud, buzzing and distressing sound that totally drowned out all other sound. The hospital people were talking to him, and he could see their lips move, but could only hear the loud noise. He was finally able to determine the noise was coming from the automatic door that leads into the emergency room.

*... he reported a loud, buzzing and distressing sound that totally drowned out all other sound ... but could only hear the loud noise.*

The agent is starting to feel better, but still has bouts of depression and anxiety.

The source of contamination is not totally clear, but seems to center around the fact he shaved prior to entering the scene. He was reported to have some nicks and cuts on his face, and on the lower parts of his face not covered by the respirator face piece. It is not known whether the LSD might have entered the cuts by air-borne means, or whether he had LSD on his gloves and touched his face while he was taking off his respirator. It is not known what, if any, decontamination procedures were used to initiate breaks and rest periods.

The preceding summary of facts were drawn from discussions with Ms. Lisa Brewer, Criminalist from the DOJ-Salinas crime lab, who was one of the chemists on site.

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.

**"Fourier Transform Nuclear Magnetic Resonance (FT-NMR) in Forensic Drug Chemistry"**

Terry Mills, Division of Forensic Sciences, Atlanta, Georgia, 30034

Nuclear magnetic resonance (NMR) has been recognized as a valuable technique for the structural elucidation and analysis of organic compounds. The other two most common structural elucidation techniques available to scientists are mass spectrometry and infrared spectroscopy. For the analytical chemist,

**REFERENCE  
ABSTRACTS**

Southern Association  
of Forensic Scientists  
Newsletter  
Volume 16, No. 3  
December 1988

NMR compliments both infrared spectroscopy and mass spectrometry since information that is difficult or impossible to obtain from these two methods can often be obtained by using NMR. NMR spectroscopy is widely used in industry and academia. In our laboratory the FT-NMR spectrometer is being used for both routine and clandestine laboratory drug analysis.

**"Paradox in the Crime Lab"**

Max Courtney, Forensic Consultant Services, PO Box 11668, Fort Worth, Texas, 76110

Since the advent of the forensic laboratory, a system of labs and lab systems have seen development in the United States at the federal, state, local and private levels. Typically, the history of these labs has seen a dramatically increasing caseload as a function of time.

Through funding grants, fees and taxpayer-based revenues, many laboratories have added large numbers of personnel and numerous items of analytical equipment and instrumentation. But seemingly little has been done, relatively, from the perspective of increasing efficiency to release man-hour time through time-saving approaches, beyond addition of yet more instrumentation. For example, many labs now analyze their drug samples by GC/MS analysis and yet report their results with a typewriter, complete with correction fluid and carbon paper. While many crime labs have computerized their total operations, there are still many who have yet to acquire computers for basic lab functions.

Forensic Consultant Services is a private forensic laboratory whose primary function is service to law enforcement. Because all revenues are on a fee-for-service basis, some budgetary constraints exist. The acquisition of a personal computer and the commercial database program "Paradox" to perform many routine tasks.

**"Effect of Fabric Structure on Damage to Cloth From a Contact Shot"**

H. Dale Nute, Forensic and Security Consultants Corporation, Tallahassee, Florida

The stellate or two intersecting tears in a garment are considered the classic appearance of a contact gunshot. However, tests on various fabric weaves demonstrate that the appearance is a function of the structure of the weave. The effect of fabric structure on knife penetrations also was studied and compared to the effects of a contact gunshot.

**"The Manny Pardo Case: Identification of a Bullet to an X-Ray Shadow"**

Robert P. Hart, Metro-Dade Police Department, Crime Laboratory Bureau, Miami, Florida

This case involves nine murders, four of which were doubles. Three of the doubles found at least five .22 caliber pistols being used, some in more than one case. All bullets indicated a class characteristic pointing to a Ruger pistol, of which the defendants were known to have purchased six prior to the first homicide. During one of the sets of murders, one of the suspects was accidentally

shot in the foot by a co-defendant. This victim went to New York and had the bullet removed, thinking gunshot wounds were more common in New York than Miami. This bullet proved crucial because it matched bullets from the homicide. However, a chain of custody question was raised from the handling of the bullet by the hospital staff. The author was able to match the bullet received to the X-ray image of the victim's foot.

#### **"Rapid Cocaine FT-IR Analysis Using KBr Disk Technique"**

Patrick Long, Georgia Bureau of Investigation, Division of Forensic Sciences, Savannah, Georgia

A rapid, quick method for preparing cocaine samples for FT-IR examination is presented. The sample is dissolved in  $\text{CHCl}_3$  and spotted on a KBr disk. Methodology and exemplar spectra are published.

#### **"Purification and Analysis of Benzocaine Contaminated Cocaine 'Rocks'"**

Jose R. Almirall and Christopher Hanlon, Metro-Dade Police Crime Laboratory, Miami, Florida

"Rock" cocaine or "crack" have been found to be contaminated with benzocaine, creating an interference with microcrystal tests. A column chromatography method is presented as a clean-up of this type of sample.

#### **"A Pane in the Glasses - Let's Not Forget How Similar They Can Be!"**

Scott Ryland, Florida Dept. of Law Enforcement, Orlando, Florida

A discussion of the discrimination and similarities in glasses are presented.

#### **"Identification of Amphetamine Isomers by GC/IR/MS"**

Wayne Duncan and William H. Soine

The methods of gas chromatography/Fourier transform infrared spectroscopy (GC/FTIR) and gas chromatography/infrared spectroscopy/mass spectrometry (GC/IR/MS) are evaluated for their ability to differentiate side chain isomers of amphetamine. It is found that absorption bands from  $3000$  to  $2850\text{ cm}^{-1}$  and  $900$  to  $650\text{ cm}^{-1}$  are most useful for differentiating the alkyl amines, while the bands from  $1600$  to  $900\text{ cm}^{-1}$  are only useful for differentiating primary amines from the other substituted amines. The combination of GC/IR/MS is superior for differentiating these side chain isomers.

#### **"Name Reactions and Drug Testing"**

John Thornton

At a recent CAC Drug Study Group meeting, the issue of a Kelly-Frye challenge to drug testing was discussed. One of the items discussed was the origin of color presumptive tests used by many analysts to screen suspected drug samples. Presented are approximately 130 named color tests and the reference citations where they originally appeared in the literature.

Journal of  
Chromatographic  
Science  
Volume 26  
October 1988  
Pages 521-526

California Association of  
Forensic Scientists  
Newsletter, January 1989

Forensic Science  
International  
Volume 39, No. 1  
October 1988

## ACKNOWLEDGE- MENTS

### **"A Study of Impurities Found in Methamphetamine Synthesized From Ephedrine"**

T.S. Cantrell, B. John, L. Johnson and A.C. Allen

The synthesis of methamphetamine from ephedrine via reduction with hydriodic acid is discussed. Impurities which arise from this method are identified and rationalized. The in situ formation of iodoephedrine from ephedrine leads to trace impurities via internal substitution to 1,2-dimethyl-3-phenylaziridine, followed by retro ring-opening and hydrolysis to phenyl-2-propanone (P-2-P). This ketone or the retro ring-opened aziridine further condenses in an aldol condensation followed by dehydration to give 1-benzyl-3-methylnaphthalene and 1,3-dimethyl-2-phenylnaphthalene. Two-dimensional nuclear magnetic resonance (2-D NMR) was used to elucidate the structure of these impurities.

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This issue of the Newsletter was composed using WordPerfect 5.0, and styled using PageMaker 3.0 .

The Newsletter was printed on an NEC L-890 Postscript laser printer with New Century Schoolbook fonts.

Special thanks to the following people who contributed to this issue of the Newsletter, and will receive a free Association lapel pin:

Ken McDermott - WSP Crime Lab, Kelso  
Pamela Marcum - Idaho State Crime Lab, Boise  
Lisa Brewer - CA DOJ Crime Lab, Salinas  
Kerstin Gleim - WSP Crime Lab, Seattle  
Steven Strauss - OSP Crime Lab, North Bend

**Next Newsletter will be in June. Deadline for submissions to the June Newsletter is May 15.**