

MAAFS

NEWSLETTER

VOLUME 7

SEPTEMBER 1979

NUMBER 5

The MAAFS Newsletter is the official publication of the Mid-Atlantic Association of Forensic Scientists, Inc., and is published at least twice each year. All communications regarding the MAAFS Newsletter should be sent to the Newsletter Editor, Dr. Edward Sykes Franzosa, at the DEA Special Testing and Research Laboratory, 7704 Old Springhouse Road, McLean, Virginia 22102.

Minutes: Spring 1979 Meeting

The 13th meeting was called to order by the President, Mike Horvath, on April 27, 1979, at the Gettysburg Sheraton Inn, Gettysburg, Pennsylvania.

The president appointed Dr. Ed Franzosa as Parliamentarian for the meeting.

The minutes of the 12th meeting, held in Pittsburgh, PA, were published in the MAAFS Newsletter, Volume 7, Number 1, February, 1979. The minutes were approved as published.

The Treasurer's report, effective April 25, 1979, read by Dr. Edward Franzosa in lieu of Jeane Hostetler, Secretary-Treasurer, was accepted and reported a balance of \$7973.72 in the Treasury.

Mike Horvath, in response to a question concerning the income from the exhibitors for this joint meeting of MAAFS and NEAFS, stated the money will be prorated according to membership attendance of both associations.

COMMITTEES:

(1) *Nominating Committee* – Mike Horvath announced that the Past Presidents will serve as a Nominating Committee.

(2) *Awards Committee* – The presentation of the MAAFS Scholarship Award to be given to Mr. Lowbeer of George Washington University was postponed till the evening dinner.

Dr. Tony Cantu presented Certificates of Appreciation to the following members: Richard Howe and Peter Marone who were the Co-Chairmen for the Fall

1978 meeting.

(3) *Membership Committee* – The President announced that the list of new members was published in the MAAFS Newsletter, Volume 7, Number 1, February, 1979. A new member in attendance at this meeting was Nick Kuzmack from Antioch School of Law.

(5) *Budget Committee* – James Crockett was appointed to the Budget Committee by the President.

OLD BUSINESS:

The MAAFS Scholarship Award – A question was raised from the floor as to when the Scholarship Award would be presented – the Spring or Fall meeting? In answer to this question Ed Franzosa stated that the Fall meeting was selected for presenting the Scholarship Award and the Spring meeting for presentation of the Forensic Scientist of the Year Award. Dick Howe, Chairman of the Chemistry Department of Pittsburgh, requested that their award be presented at the Spring 1980 meeting.

NEW BUSINESS

Peter Marone discussed the progress of the 1980 joint Spring meeting of the Mid-Western, Mid-Atlantic, Southern and North-Eastern Associations of Forensic Scientists. Referring to a letter from the representative of the Mid-Western Association, he stated that the meeting will be held May 8-10, 1980, in Louisville, Kentucky. The exact format is not yet completed.

Meeting Minutes continued

Registration will be approximately \$25 which will include a luncheon and boat trip. There is a call for papers and people to chair meetings in Drugs, Serology, Criminalistics (Trace Evidence) and Toxicology. Peter will act as our liaison with the Mid-Western Association.

Norman Mausolf, Co-Chairman for the Fall 1979 meeting, stated that the meeting will be held at Kings Quarter Motel next to Kings Dominion, Doswell, VA, on September 28-29, 1970. There will be panel discussions representing various forensic disciplines with panel members from local and federal laboratories as well as presentations of papers.

ANNOUNCEMENTS:

(1) Bell Herndon, Assistant Director of the FBI Laboratory outlined plans for the Forensic Science Research and Training Center at Quantico, VA. The FBI is developing programs for the working forensic scientist and the forensic science community, and they are also negotiating to have people working in advanced research programs and projects. The new building will hold 1000 students and it is anticipated to be fully operational by the end of 1980.

A second area discussed by Bell Herndon was the federal budget cut. He had spoken before the House and Senate Judiciary Committees. The question posed to him was: "Why are the federal laboratory systems providing support for the state and local systems where now with LEAA grants and funding through the past decade and some states having a surplus of funds? Why aren't they [the state and local labs] standing on their own two feet?" Bell Herndon advocates that the federal and state systems work jointly to provide the best possible forensic law enforcement community.

The third area of his discussion was the International Association of Chiefs of Police. They have a forensic science subcommittee proposal for a \$150,000 grant from LEAA to develop statistical data to enable forensic scientists to understand who we are serving, what service we provide and how we can provide the best communication between the forensic science field and the police departments.

(2) It was requested that those who have failed to send in the Questionnaire for the MAAFS Directory should please do so.

A motion was made that the meeting be adjourned and it was passed without objection.

Respectfully submitted,
Jeane Hostetler
Secretary-Treasurer

NEW MEMBERS

The following persons have joined MAAFS since our last meeting (Spring 1979 at Gettysburg, PA). We would like to welcome our new members to MAAFS and hope that they will both benefit from being a MAAFS member and that they will help MAAFS in pursuit of excellence in Forensic Science.

- 264 James W. Jones
1225 Crittenden Court, NW
Washington, DC 20011
- 265 Dale M. Moreau
FBI Laboratory, Room 3206
9th and Pennsylvania Avenues, NW
Washington, DC 20535
- 266 Kent C. Dixon
FBI Laboratory
9th and Pennsylvania Avenues, NW
Washington, DC 20535
- 267 William B. McInnis
FBI Laboratory, Room 3328
9th and Pennsylvania Avenues, NW
Washington, DC 20535
- 268 Dr. Dennis J. Reutter
FBI Laboratory, Room 3256
9th and Pennsylvania Avenues, NW
Washington, DC 20535
- 269 Harold A. Deadman Jr.
FBI Laboratory, Room 3931G
9th and Pennsylvania Avenues, NW
Washington, DC 20535
- 270 Maureen A. Higgins
FBI Laboratory
9th and Pennsylvania Avenues, NW
Washington, DC 20535
- 271 R. David Wilkinson III
Delaware State Police Headquarters
Post Office Box 430
Dover, DE 19901

272 William C. Mcarns
FBI Laboratory
9th and Pennsylvania Avenues, NW
Washington, DC 20535

276 Robert Spalding
FBI Laboratory
9th and Pennsylvania Avenues, NW
Washington, DC 20535

273 Richard M. Williams
FBI Laboratory
9th and Pennsylvania Avenues, NW
Washington, DC 20535

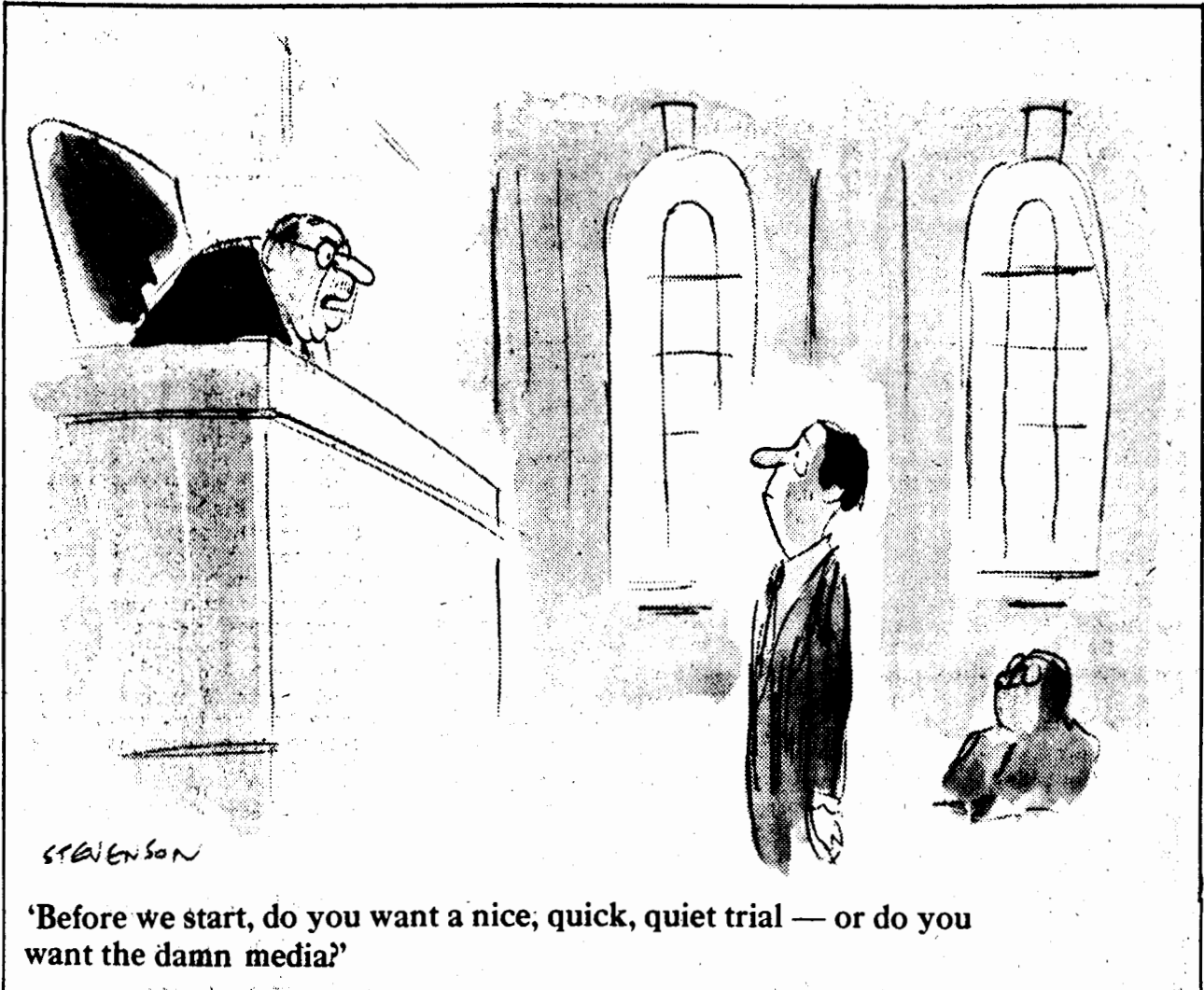
277 Robert Sroka
514 South Streeper Street
Baltimore, MD 21224

274 Richard E. Reem
FBI Laboratory
9th and Pennsylvania Avenues, NW
Washington, DC 20535

278 Edward J. Ball
FBI Laboratory, Room 3161
9th and Pennsylvania Avenues, NW
Washington, DC 20535

275 Dr. Shiv K. Soni
6711 Hawkeye Run
Columbia, MD 21044

Stevenson



JOBS

Al Bober is running an Employment Clearing House (under MAAFS auspices) for forensic scientists. He keeps resumes of MAAFS members looking for work for 90 days and provides the information to all potential employers who contact him. Al provides this service free of charge. All members interested in employment possibilities are asked to write or call Al at:

Al Bober
Forensic Science Foundation
11400 Rockville Pike
Rockville, MD 20852
(301) 770-2723

If you should hear of a job opening or receive an employment opportunity notice, please call Al or send him a copy of the notice. Thank you for your cooperation.

The Florida Department of Law Enforcement anticipates having openings for Crime Laboratory Analysts in the areas of Chemistry, Serology, Documents, Microanalysis, Latent Prints and Crime Scene Analysis. There are immediate openings in the first five areas. Journeyman and/or entry level applicants are acceptable with salary commensurate with training and experience. Florida is an equal opportunity employer.

For further information concerning these positions, please contact:

Mr. Jack Duncan
Forensic Research and Training Section
Florida Department of Law Enforcement
Post Office Box 1489
Tallahassee, Florida 32302
(904) 487-2500



"If I'm overqualified, why don't you just raise your standards?"

OTHER MEETINGS

Society of Forensic Toxicologists, Inc.
1979 Annual Meeting
Williamsburg, Virginia
November 1-2, 1979

Contact:

Dr. James C. Valentour
Bureau of Forensic Science
Post Office Box 999
Richmond, VA 23208

Combined Meeting of the Mid-Western, Northeastern, Mid-Atlantic and Southern Associations of Forensic Scientists

DATE: May 8 - 10, 1980

PLACE: Galt House, Louisville, Kentucky

TOPICS: Section Meetings in serology, drugs, criminalistics (trace evidence), toxicology and any other sections where an interest is shown.

COSTS: Tentatively \$25 for Registration, Luncheon and a boat trip

Local Arrangements Chairman:

Tom Easterling
Lab Unit, Kentucky State Police
1250 Louisville Road
Frankfort, KY 40601
(502) 564-3874

Program Chairman:

Mike Alfultis
Lorain County Crime Laboratory
1005 North Abbe Road
Elyria, Ohio 44035
(216) 365-4191 Ext. 232

Mid-Western Association of Forensic Scientists

Fall 1979 meeting
Springfield, Illinois
November 7-9, 1979

Contact:

Mike Gallo
Bureau of Scientific Services
2168 South Ninth Street
Springfield, Illinois 62703
(217) 782-4975

MEMBERSHIP APPLICATION

Print in ink or type application; obtain signatures of two current MAAFS members and then mail this form to Secretary-Treasurer. Application fee is \$2.50 (non-refundable) and must accompany this application form. Yearly dues of \$7.50 are payable on January 1st of each year.

Name:

Occupation/Job Title:

Employer:

Business Address & Phone:

Home Address & Phone:

(Please circle or check your preferred mailing address)

Education and Experience (include all past employment relating to the forensic sciences):

Circle MAAFS Meetings that you have attended:

| | | | | | | | | | |
|--------|------|--------|------|--------|------|--------|------|--------|------|
| Spring | Fall | Spring | Fall | Spring | Fall | Spring | Fall | Spring | Fall |
| 1976 | 1976 | 1977 | 1977 | 1978 | 1978 | 1979 | 1979 | 1980 | 1980 |

Membership in Professional or Scientific Organizations:

Signature of Applicant:

Date:

Proposed by:

Seconded by:

Past President:

Dr. Paul B. Ferrara
Director, Product Testing Bureau
1 North 14th Street
Richmond, Virginia 23219
(804) 786-3766

President:

Michael Horvath
1872 Homestead Avenue
Bethlehem, PA 18008
home: (215) 691-1694

President-Elect:

Peter M. Marone
Bureau of Forensic Science
Post Office Box 999
Richmond, Virginia 23208
(804) 786-4706

Secretary-Treasurer:

Michael McGee
Bureau of Forensic Science
Post Office Box 999
Richmond, Virginia 23208
(804) 786-4706

Newsletter Editor:

Dr. Edward Franzosa
DEA Special Testing & Research Lab
7704 Old Springhouse Road
McLean, Virginia 22102
(703) 557-1495

FORENSIC SCIENTIST OF THE YEAR AWARD

For the Forensic Scientist of the Year Award I hereby nominate:

Name:

Address:

Give a brief summary of the nominee's background and reasons for the nomination:

Submitted by Name:

Address:

Phone Number:

Nominations by ten (10) members will be required in support of each nominee for the award. All nominations will be submitted to the Awards Committee for authentication and review by two (2) month before the semi-annual Spring Meeting. The nominations will then be forwarded to the Executive Committee who determines a final choice of one or none before the Spring Meeting.

**Submit this form to: Rose Marie Lanzetta
Maryland State Police Headquarters
Reisterstown Road
Pikesville, Maryland 21208**

Minutes of the Second Drug Chemistry Peer Group Meeting

Held at the Drug Enforcement Administration,

Dallas Regional Laboratory

Dallas, Texas

July 6-7, 1979

Present were: Joseph L. Peterson, Executive Director, Forensic Science Foundation; Stanley P. Sobel, DEA, Co-ordinator; Cecil L. Hider, Chairman, California Dept. of Justice, Goleta, CA; F. Taylor Noggle, Jr., Secretary, Alabama Dept. of Forensic Sciences, Auburn, AL; James M. Moore, DEA, McLean, VA; William P. Marshall, Idaho Dept. of Health & Welfare, Boise, Idaho; Alexander M. Stirton II, Pennsylvania State Police Crime Lab, Bethlehem, PA; Philip R. Whittle, Ph. D., Regional Crime Lab, Missouri Southern State College, Joplin, Missouri; William McClain, Crime Laboratory, Beaumont Police Dept., Box 3827, Beaumont, TX 77704.

The meeting began at 8:30 a.m. with welcomes from Adam Zabotka and Jack Rosenstein, DEA Regional Laboratory, Dallas, TX. The drug chemistry peer group is grateful for the accommodations provided by these individuals and other members of the Dallas Regional Laboratory. Joseph L. Peterson advised the group on the progress made thus far by the Serology Peer Group. He stated that the serology peer group had prepared at the last peer group meeting a sample examination which would be distributed to prospective applicants and had finalized plans on what the proficiency test would consist of. He recommended that the drug chemistry peer group do likewise. The objective of this group would be to prepare a final product for the Criminalistics Certification Study Committee which would be meeting in early August. Dr. Peterson advised that his last date at the Forensic Science Foundation would be July 20, 1979. Communication after that date should be directed to Robert D. Albro.

Cecil Hider, chairman, began by asking what comments had been received by members of the regional organizations. Each member stated that there appeared to be a general feeling of apathy among regional members. Taylor Noggle stated that the Southern Association members had expressed some concern about the microscopy section of the written examination as outlined in the minutes of the first peer group meeting. Each member reaffirmed that the examination would attempt as equitably as possible to reflect the frequency with which each technique was utilized but that drug chemists should be familiar with the theory and technique. A question with regard to accreditation of laboratories was raised and Dr. Peterson stated that the American Society of Crime Laboratory Directors was presently engaged in the study of accreditation of laboratories. It was pointed out that certification should precede accreditation because a laboratory could be equipped with the finest and most sophisticated of equipment but not have the personnel with expertise to operate the equipment. It was also pointed out that the test should be a combination of written examination and proficiency testing to most fairly administer the certification process.

Bill Marshall explained a situation of a biology major who had never had quantitative analysis but had been engaged in forensic drug chemistry for more than 5 years. The committee agreed that they would examine such

situations when studying the question of "grandfathering", hereafter known as "temporary waiver" since "grandfathering" seems to cause some confusion. Bill also expressed the feeling that people are not familiar with certain areas of the exam (GC/MS, microscopy, etc.). Again the committee agreed there should be a knowledge of the theory and technique in each area.

Alex Stirton expressed some concern from his organization with regard to the logistics of applicants traveling to the regional meetings to take the written examinations. The committee agreed that it would address the question later in the meeting.

Philip Whittle stated that he had received no strenuous objections to the minutes of the first meeting which he had presented to his regional organization. Philip had received two letters from individuals whose questions indicated they may not be fully informed on the certification process which had been proposed by this committee.

James Moore indicated that he had received no comment from members of MAAFS after publication of the minutes of the first meeting in the organizations newsletter.

Cecil Hider also stated he had received no serious objections to the minutes of the first meeting from his regional organization.

At this point Chairman Hider asked that the members begin a screening process of questions which had been prepared by each member to complete a sample examination which would be distributed to prospective applicants. The sample examination is attached at the end of the minutes of this meeting. The remainder of the Friday session was spent in screening questions which would be included on an examination.

Each member of the drug chemistry peer group is to send to Taylor Noggle as soon as possible a list of references which would be included with the sample examination as a study guide.

The question of recertification was studied and the following recommendation is made. Recertification may be attained by either of the following methods:

I. Accumulating 50 points by documentation of the following:

| | |
|--------------------------------------|--------------------------|
| College courses for credit | 5 points per credit hour |
| Workshops attended | 2 points per day |
| Workshops presented | 4 points per day |
| Teaching (College) | 5 points per credit hour |
| Publications | |
| A. Open Scientific Full-length Paper | 20 points |
| B. Restricted | 5 points |
| Presentations (Scientific Meetings) | 5 points |
| Meetings | 2 points per meeting |

No more than 25 points may be earned in any one category and all areas must be applicable to forensic drug chemistry.

OR

II. Submitting to a written examination and three (3) proficiency tests.

Dr. Peterson brought up the question of changing the temporary waiver period to three years rather than two years before taking the examination. The

peer group agreed that the original recommendation of two years would be given to the Criminalistics Certification Study Committee.

The exact terminology of the temporary was not agreed upon at the meeting. Alex Stirton was to draft the terminology and forward it to the other peer group members. Cecil Hider was to contact Taylor Noggle and this addition which follows is the terminology which was adopted.

"Those candidates possessing 5 or more years of work experience, as previously described, and who otherwise meet the formal education requirements, also as previously described, will be exempted from the specific course requirement of quantitative analysis. Application for this exemption must be made no later than December 31, 1980."

"These same candidates will also be eligible for immediate certification not requiring a written or practical (proficiency) exam. However, this waiver of the exams is conditional upon the successful completion of the same exams required of candidates with lesser experience, within a two year period."

The meeting concluded by outlining the following recommendations which will be forwarded to the Criminalistics Certification Study Committee.

Qualifications and Requirements for Certification In
Forensic Drug Chemistry

1. General Qualifications.

- A. Applicants must be persons of good moral character, scientific integrity, with high ethical and professional standing.
- B. Certification is limited to permanent residents of the United States of America, its territories and possessions, or of Canada.

2. Professional Education.

- A. An earned Baccalaureate Degree in a natural science or appropriately related field from an accredited institution. The degree must include courses in inorganic chemistry, organic chemistry, qualitative analysis and quantitative analysis.

3. Professional Experience and Training.

- A. Applicants must have a minimum of two years forensic science laboratory experience during which time duties included the qualitative and quantitative analysis of suspected controlled drugs. Experience should include familiarization with : (1) chromatography, (2) spectrometry, (3) microscopy, (4) wet chemical methods, and (5) the origin and chemistry of controlled substances.
- B. Applicants must be engaged in the practice of forensic drug chemistry at the time of application in order to be certified as a forensic drug chemist.
- C. Applicants will be required to document evidence of the required work experience.

- D. On approval by the Committee on Credentials the applicant may apply for examination to be conducted by the Committee on Examination at the appointed time and place.

4. Examination.

- A. Applicants who meet the requirements and qualifications set forth in Sections 1, 2, and 3 above shall be accepted for written examination and proficiency testing. The applicant must successfully complete the written examination before receiving the proficiency tests.
- B. Written examinations will be given twice a year in conjunction with regional Forensic Science Association meetings.
- C. Included in the written examination will be questions involving the theory and application of (1) spectrometry, (2) chromatography, (3) microscopy, (4) wet chemical methods, (5) the origin and chemistry of controlled substances, and (6) general criminalistics. The test will be primarily objective. Example questions and bibliography are provided to applicants.
- D. Applicants remain eligible to undergo examination within two years after admission to the exam.
- E. The proficiency test will consist of five unknown samples which will be mailed to the applicants at one time with a specified period for completion and return of the results. Each applicant is required to identify all five samples correctly. Two of the samples will require quantitation.
- F. Applicants who fail the written exam or proficiency test may apply within one year for one re-examination without payment of an additional fee.

5. Temporary Waivers.

"Those candidates possessing 5 or more years of work experience, as previously described, and who otherwise meet the formal education requirements, also as previously described, will be exempted from the specific course requirement of quantitative analysis. Application for this exemption must be made no later than December 31, 1980. These same candidates will also be eligible for immediate certification not requiring a written or practical (proficiency) exam. However, this waiver of the exams is conditional upon the successful completion of the same exams required of candidates with lesser experience, within a two year period."

General Provisions Concerning Certification

- 1. The right to deny certification is reserved.
- 2. Certificates granted and issued by the Board may be denied, suspended or revoked for any of the following reasons:
 - A. A misstatement, misrepresentation, concealment or omission of a material fact or facts in an application or any other communication to the Board or its representative(s).

- B. Issuance of a certificate contrary to or in violation of any of the laws, standards, rules or regulations governing the Board and its certification programs at the time of its issuance; or determination that the person certified was not in fact eligible to receive such certificate at the time of its issuance.
 - C. Conviction of an applicant for certification or holder of a certificate of this Board by a court of competent jurisdiction of a felony or any crime involving, in the judgement of the Board of Directors, moral turpitude.
 - D. Unethical conduct or other conduct by an applicant or holder of a certificate of this Board, which in the judgement of the Board brings the specialty of forensic drug chemistry into disrepute.
3. Certificates of Qualification in Forensic Drug Chemistry are valid for five (5) years and are renewable according to standards and under conditions established by the Board, at an appropriate fee. Renewal of the certificate may be accomplished in one of the following ways.
- A. Accumulating 50 points by documentation of the following:

| | |
|--------------------------------------|--------------------------|
| College Courses for Credit | 5 points per credit hour |
| Workshops Attended | 2 points per day |
| Workshops presented | 4 points per day |
| Teaching (College) | 5 points per credit hour |
| Publications | |
| A. Open Scientific Full-Length Paper | 20 points |
| B. Restricted | 5 points |
| Presentations (Scientific Meetings) | 5 points |
| Meetings | 2 points per meeting |

No more than 25 points may be earned in any one category and all areas must be applicable to forensic drug chemistry.

or
 - B. Submitting to a written examination and three (3) proficiency samples.
4. Certificates issued by the Board are not transferable. They remain the property of the Board, but every person to whom a certificate has been properly issued is entitled to its continued possession unless and until such certificate is revoked.

Procedure for Application and Certification

1. Application form will be available from the Board. Application forms will include references which the applicant must provide.
2. The applicant should complete the application and return to the Board with the appropriate fee. (The Peer Group is discussing a fee of \$125 but some members express reservations that this fee will be too low.)
3. A recent photograph must accompany the application.
4. An official transcript from the college or university from which the applicant's Baccalaureate Degree was obtained must be sent directly to the Board's office by the registrar.

SAMPLE EXAMINATION
FORENSIC DRUG CHEMISTRY

- _____ 1. The most widely used adsorbent for thin layer chromatography (TLC) in forensic drug analysis is
- | | |
|--------------|----------------------|
| A. Alumina | D. Florisil |
| B. Silica | E. Celite 545 |
| C. Cellulose | F. None of the Above |
- _____ 2. Which of the following reagents would be most useful for visualization and differentiation of the cannabinoids from a marijuana extract on a TLC plate?
- | | |
|----------------------------|-------------------------|
| A. Potassium iodoplatinate | D. Ninhydrin + UV Light |
| B. Fast Blue B | E. Ferric Chloride |
| C. Dragendorff | F. None of the Above |
- _____ 3. The separation of morphine and cocaine by solvent extraction can be achieved according to the following procedure. An aqueous solution of the drugs is made basic with 2 N sodium hydroxide and extracted with two volumes of chloroform (Fraction 1). The alkaline aqueous phase is acidified, then made basic with solid sodium bicarbonate to pH 8.5 and extracted twice with ethyl acetate (Fraction 2). Which drug is in Fraction 1 and which in Fraction 2?
- Fraction 1 _____
Fraction 2 _____
- _____ 4. Term used to describe a type of chromatography which uses a non-polar stationary phase and a polar mobile phase. This type of chromatography is referred to as _____ phase partition liquid chromatography.
- | | |
|---------------|----------------------|
| A. Normal | D. Hydrolytic |
| B. Reverse | E. Hydrophylic |
| C. Paired-ion | F. None of the Above |
- _____ 5. This type of detector used in gas chromatography is best suited for the analysis of pesticides and benzodiazepines because many of these compounds contain halogens.
- | |
|---------------------------------|
| A. Thermal Conductivity |
| B. Flame Ionization Detector |
| C. Electron Capture Detector |
| D. Nitrogen-Phosphorus Detector |
- _____ 6. When a crystal changes color upon being rotated in plane polarized light, it is exhibiting
- | |
|-----------------|
| A. Diffraction |
| B. Isotropicity |
| C. Polymorphism |
| D. Dichroism |

- _____ 7. Which of the following would be likely to give good crystals with gold chloride in phosphoric acid as a volatility test.
- A. Amphetamine
 - B. Morphine
 - C. Secobarbital
 - D. Diazepam
8. Polymorphism in drugs is frequently encountered when using which spectroscopic technique?
- _____ 9. Which mass spectrometric technique provides the most information regarding a drug's molecular weight?
- A. Electron Impact
 - B. Chemical Ionization
 - C. Mass Fragmentography
 - D. High Resolution Mass Spectrometry
- _____ 10. In any spectroscopic technique what is usually the limiting factor that determines the lower level of drug detection?
- A. Instrument signal-to-noise ratio
 - B. Drug Structure
 - C. Impurities in the Drug
 - D. None of the Above
- _____ 11. Which solvent is best suited to obtain the UV spectrum of amphetamine base?
- A. Chloroform
 - B. Acetone
 - C. Methanol
- _____ 12. In fluorescence spectroscopy a drug such as quinine absorbing energy, emits radiation at a wavelength _____ the energy absorbed.
- A. greater than
 - B. the same as
 - C. less than
- _____ 13. A suspected powder which gives a negative Marquis and a blue cobalt thiocyanate test could be which of the following
- A. Cocaine
 - B. Codeine
 - C. Heroin
 - D. Morphine
14. Given a powder containing a mixture of amphetamine sulfate, amobarbital, lactose, and cornstarch, which component(s), primarily, would be extracted into chloroform.
- A. From an aqueous suspension, saturated with NaHCO_3 _____
 - B. From the dry powder _____
 - C. From an aqueous suspension at pH 1-2 _____
 - D. From an aqueous suspension at pH 12-13 _____

15. The concentration of a substance is estimated from peak height evaluation by gas chromatography. The substance is extracted into methanol. Calculate the concentration from the following data.

UNKNOWN: 180 mm peak height with 120 mm for internal standard
STANDARD: 4ug/ml : 150 mm peak height with 150 mm for internal standard

16. Which of the chemicals listed below could be used in the synthesis of methamphetamine?

- A. Phenylacetone (P-2-P)
- B. Piperidine
- C. o-Toluidine
- D. n-Acetylanthranilic Acid
- E. None of the Above

17. Supply a chemical name or synonym for Dilaudid.

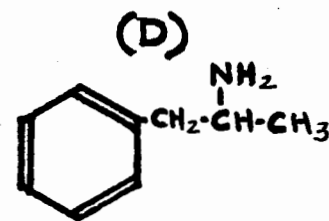
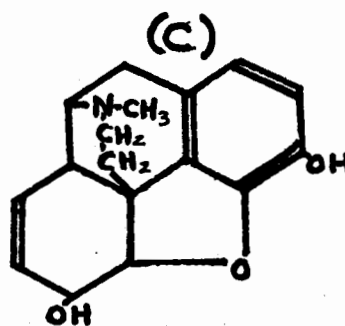
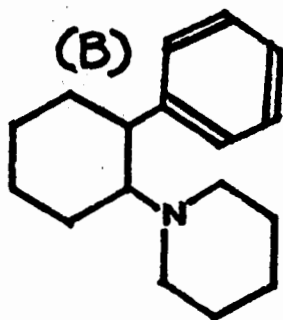
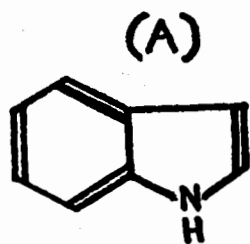
- A. Dimethyltryptamine
- B. 3,4-Methylenedioxyamphetamine
- C. Methamphetamine
- D. Hydromorphone
- E. None of the Above

- T F 18. Some types of compounds (barbiturates, etc.) can be derivatized "on-column" by injecting a mixture of the solution to be analyzed plus the derivatizing agent.

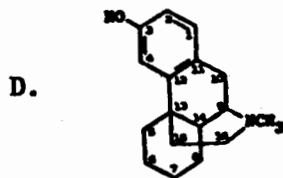
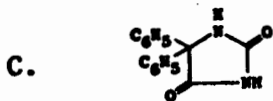
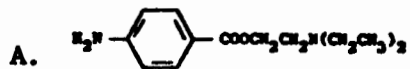
- T F 19. Some crystal tests can differentiate optical isomers.

- T F 20. In testing a new microcrystalline test reagent, if you observe the formation of crystals after the addition of a known pure drug standard, you can be confident that the crystals which formed resulted from a combination of the reagent and drug molecules.

21. The structural formula of phencyclidine is



22. Given the following drug structures determine whether these drugs would be classified as: A, Acidic; B, Basic; C, Neutral; D, Amphoteric.



ANSWERS TO FORENSIC DRUG CHEMISTRY SAMPLE EXAMINATION

1. B
2. B
3. Fraction 1 - Cocaine
Fraction 2 - Morphine
4. B
5. C
6. D
7. A
8. Infrared
9. B
10. A
11. C
12. A
13. A
14. A. Amphetamine and Amobarbital
B. Amobarbital
C. Amobarbital
D. Amphetamine
15. 6 ug/ml
16. A
17. D
18. True
19. True
20. False
21. B
22. A. Basic
B. Neutral
C. Acidic
D. Amphoteric

Fall 1979 Meeting

Program and Information

The Fall 1979 MAAFS Meeting will be held at the Kings Quarters-Best Western Motel which is located at the Kings Dominion amusement park at Doswell, Virginia, just off Interstate-95 approximately 20 miles north of Richmond, on Friday September 28 and Saturday morning, September 29, 1979.

PROGRAM

8:00 AM — Registration Opens
9:00 AM — Introduction and Opening Remarks
9:10 AM — Trace Evidence Panel Discussion
10:10 AM — *An Unusual Explosives Device: A Case Study* by Rick Fortune of the Bureau of Forensic Sciences in Richmond, VA.

10:30 AM — BREAK

10:45 AM — Questioned Documents Panel Discussion
11:45 AM — LUNCHEON — All meeting registrants

1:00 PM — *Quality Assurance Procedures for the Forensic Analysis Laboratory* by John Taylor of the National Bureau of Standards, Gaithersburg, MD.

The production of accurate and reliable analytical data requires careful attention to a number of details. All steps of the procedure including sampling, measurement, and data reduction should be done according to established protocols. Calibration and standardization are key factors. Internal standards should be used to assure reproducibility of measurements. Standard Reference Materials play a key role in inter-calibrating laboratories so that measurements in each laboratory will be compatible with those of others. This paper will discuss general outlines for the development of quality assurance programs that will not only enhance the reliability of analytical data but will minimize the effort required to produce it.

1:25 PM — *Proficiency Testing in Criminalistics: Results of a Survey* by Susan Baranoff and Walter Rowe of the Department of Forensic Sciences, The George Washington University, Washington, DC.

Recent results of the proficiency testing program of the Forensic Science Foundation raise questions about the capabilities of personnel currently employed by forensic science laboratories. A questionnaire survey of forensic science laboratories in the United States was conducted to determine criteria for the selection of personnel in various criminalistic specialties, methods of in-laboratory training, standards for determining personnel qualifications, criteria for promotion and provision for in-laboratory proficiency testing. Responses to the questionnaire indicate wide variations in personnel selection criteria, in-laboratory

training methods and standards for determining qualifications of laboratory personnel. Laboratories responding were also found to conduct little or no in-laboratory proficiency testing of personnel after completion of an initial training period.

1:50 PM — *The Use of the Electrostatic Detection Apparatus on Indented Writings* by Lee Waggoner of the Federal Bureau of Investigation Laboratory, Washington, DC.

2:15 PM — BREAK

2:30 PM — Drug Analysis Panel Discussion

3:30 PM — *An Impartial Expert: A Typewriter Ribbon Examination Performed as an Amicus Curiae* by Ted Whitcomb of Warrenton, VA.

3:50 PM — BREAK

4:10 PM — *Hemoglobin Typing on Concentrated Blood-stain Extracts* by Jo Ann Becker, Amy Wong and Dan Garner of the Bureau of Alcohol, Tobacco and Firearms Laboratory, Rockville, MD.

4:30 PM — *Report on the Progress on Certification* by Tony Cantu, MAAFS Representative to the Criminalistics Certification Study Committee.

5:00 PM — MAAFS BUSINESS MEETING

6:00 PM — Hospitality Suite

7:00 PM — Barbecue

SATURDAY, SEPTEMBER 29th

9:00 AM — Serology Panel Discussion

10:00 AM — *Detection and Determination of the Distribution of Gunpowder Residues in Dark Colored or Blood Stained Fabrics* by Marlin Focht and Michael Horvath of Research Devices Inc of Berkeley Heights, NJ.

10:20 AM — *Vote Fraud* by Philip White of the Bureau of Alcohol, Tobacco and Firearms Laboratory in Atlanta, GA.

Ballots submitted by mail were reportedly tampered with prior to counting.

Examination of the evidence verified this contention.

10:40 AM — BREAK

11:00 AM — Arson Panel Discussion

12 Noon — End of MAAFS Fall 1979 Meeting

For those of you who are planning an outing to the Kings Dominion Park as part of your attendance at the

meeting please remember that the park is open only on Saturdays and Sundays at this time of the year (after Labor Day weekend.) Free admission to Kings Dominion on Saturday and the luncheon on Friday is provided for all meeting registrants. Additional discount tickets for Kings Dominion will be available at the meeting. Children two years of age and under are allowed in for free.

A hospitality suite will be open Thursday evening and after the business meeting Friday evening and the proceedings will no doubt flow into the chicken barbecue dinner planned for on the motel patio. The cost of the barbecue will be \$10 per person and includes barbecued chicken, ribs, corn on the cob, baked beans, cole slaw, potato salad, watermelon and beverage. Children's portions from the regular smorgasbord are available at \$4.95 for children 6 to 12 and at \$3.25 for children aged 6 and under.

If you will want rooms for Friday or Saturday nights please send in your reservation cards as promptly as possible so that MAAFS will get credit for the rooms. If you phone in reservations (804-876-3321) you must mention MAAFS to get the cheap room rates. Room rates will be \$22 for a single and \$32 for a double.

Each additional person including children is an extra \$5. There is also a \$5 linen charge if separate roll-away beds are used in a room.

Shuttle bus service is available between the motel and Kings Dominion Park on Saturday.

Please send the MAAFS registration form by September 14th so that we can inform the motel management how many people will be at the barbecue.

For meeting non-participants present on Friday the motel offers a variety of facilities including a swimming pool, tennis courts, a game room and play area for the children all adjacent to the patio area where the Friday evening barbecue will be held.

THE PROGRAM CO-CHAIRMEN

Norman Mausolf
DEA Mid-Atlantic Regional
Laboratory
460 New York Ave., NW
Washington, DC 20537
202-275-6488

Michael McGee
VA Bureau of Forensic
Science
Post Office Box 999
Richmond, VA 23208
804-786-4706



"Actually, I don't mind a little disorder in court now and then. It breaks the goddam monotony."