



TOX TALK

PUBLICATION OF THE SOCIETY OF FORENSIC TOXICOLOGISTS

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TOXTALK is mailed quarterly to members of the Society of Forensic Toxicologists, Inc. For membership information contact Secretary C. Nicholas Hodnett at the address above. All members and others are invited to contribute to TOXTALK. Submit all materials (original plus 3 copies if possible) for publication consideration to: TOXTALK, 1013 Three Mile Drive, Grosse Pointe Park, MI 48230-1412. Deadlines to send items are February 15, May 15, August 15, and November 15. For further information, contact Patricia Mohn-Monforte at (313) 884-4718.

PRESIDENT'S MESSAGE

H. Horton McCurdy, SOFT President

The Board of Directors met on February 17, 1987, in San Diego, California. There were several important matters on the agenda slated for discussion. Two items of particular importance were SOFT's involvement in the American Drug Use Testing Association (ADUTA), a newly formed trade organization, and the National Institute on Drug Abuse (NIDA) guidelines for laboratories involved in urine drug testing. These important issues are too lengthy to discuss at this time but will be discussed in detail in an upcoming issue of **TOXTALK**.

Yale Caplan announced that the ERA committee selected Ms. Parrin Barton of Mercer University School of Pharmacy to receive the Education Research Award. The Board approved the award in the amount of \$500. Dr. Paula Childs reported on the plans for conducting the Quality Assurance Survey. Dr. Michael Schaffer reported that the Health and Safety Committee will be looking at the safe handling of AIDS cases and other issues of concern to the health and safety of forensic toxicologists.

Dr. Richard Phillips and members of the Grants and Endowments Committee are considering the implementation of a plan whereby the Education Research Award is awarded only every two years in the sum of \$2,000. Although fewer awards would be made, it was felt that one award of this sum would be much more meaningful to the recipient than the usual award of \$500. I applaud Dick and his committee in their forward thinking.

The Canadian Society of Forensic Science (CSFS), at my request, has agreed to delay until 1991 our next five-year interval meeting which was scheduled to have occurred in 1990. This was because the SOFT membership elected to hold its 20th anniversary meeting in the greater New York City area, SOFT's birthplace, in 1990. I thank the Board of Directors of CSFS for their understanding and willingness to work with us in solving this dilemma. Also, the California Association of Toxicologists (CAT) is very much interested in having another joint meeting with SOFT. Drs. Mike Peat and Thorne Butler are currently looking into several possible meeting sites for the next SOFT/CAT meeting, namely San Francisco, Las Vegas, and the Reno/Lake Tahoe area.

In other actions by the Board, it was decided that guidelines and policies for the annual meetings should be enacted for future reference. This is particularly true since joint meetings between SOFT and other organizations are beginning to be more frequent. The guidelines would state SOFT's position on a number of issues in regards to annual meetings. I can state with some certainty that one issue will be to clearly define what meeting costs SOFT can and should tolerate and those we won't. The ultimate goal is to maximize profits for the ERA and meeting guidelines will help to accomplish this goal. Many of you are aware that the 1986 Reno meeting resulted in a financial loss for SOFT and ultimately, of course, for the ERA. Written policies should enable the meeting host to do a better job of planning. Vice-President Mike McGee, Director Mark Lewis and his Meeting Site Committee, and our Executive Coordinator, Pat Monforte, will be working with me on this project.

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Special Interest

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- Financial Statement
- In Memoriam: Raymond J. Abernethy

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by Halle L. Weingarten, B.A.

PRESIDENT McCURDY APPOINTS 1987 SOFT COMMITTEES

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 Fredric Rieders, Ph.D.
 Robert Bost, Ph.D.
 Richard Phillips, Ph.D.

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 Richard D. Pinder, Ph.D. (1986-88)
 William H. Anderson, Ph.D. (1985-87)

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Writers/Contributors:

West — Vickie Watts, Halle Wiengarten. *Midwest* — Ray Matejczyk, Nancy B. Wu Chen, *South* — Rick Bateh, Roy Paschall, Laura Shevlin, *Northeast* — Joan Vogel, *Canada* — Brian Joynt.

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ERA: Yale Caplan, Chairman
 Alphonse Poklis, Ph.D.
 Mike Schaffer, Ph.D.

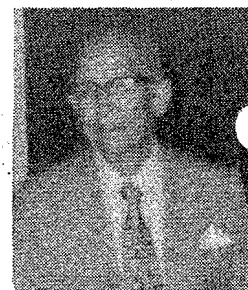
Activities of the Evaluated Methods and Toxicology Reporting Committees have been suspended; the Budget and Finance and Audit Committees were combined to form one committee. A Quality Assurance Survey Committee has been added, as well as a Writer/Contributor staff to TOXTALK. The President is an ex-officio member of all committees and Mike McGee, as Vice President, is the overseer of all committees' activities.

IN MEMORIAM

Raymond J. Abernethy 1894 - 1986

It is with great sadness that we announce the death of Ray Abernethy. The December 1983 TOXTALK featured a profile on Mr. Abernethy by Robert Cravey who has also submitted the following.

Mr. Raymond J. Abernethy, aged 90, died suddenly at his home in Los Angeles on 7 November 1986. Mr. Abernethy was a founder of the American Academy of Forensic Sciences, the International Association of Forensic Toxicologists, and the California Association of Toxicologists. His work in forensic toxicology began in 1925 when he established the laboratory for the Los Angeles Coroner. He retired from the County in the 1960's and immediately became consultant to multiple private laboratories setting up toxicology programs. His interest in toxicology never waned. He will be missed by all.



FINANCIAL STATEMENT

Submitted by Michael P. McGee, B.S.

Treasurer's Report — Fiscal Year 1985-86

Balance in Checking Account, July 1, 1985		\$3,580.02
Income		
\$	5575.00	Dues and Application Fees
	5462.32	Meeting Income above Expenses
	500.77	Interest - Checking Account
	500.00	Repayment - 1984 Meeting Advance
	50.00	Donation — ERA Fund
	12.74	Misc.
\$	12,100.83	TOTAL INCOME
		\$12,100.83
Total Funds Available		\$15,680.85
Expenses		
\$	2500.00	8th - 12th ERA Awards
	1265.26	Newsletter
	807.24	Exec. Coordinator - Fees and Expenses
	500.00	1986 Meeting Advance
	467.38	President's 1985 Meeting Expenses
	400.55	Receptions — AAFS and SOFT-CSFS Mtg.
	376.10	Board of Directors — Conference Call
	373.00	Membership Directory
	167.99	President's Expenses
	160.00	Legal Fees
	156.48	Stationery
	155.52	Returned Checks and Bank Fees
	100.00	SOFT Brochure
	74.36	SOFT-CSFS Liaison Expenses
	37.92	Treasurer's Expenses
\$	7,541.80	TOTAL EXPENSES
		\$7,541.80
Balance in Checking Account, June 30, 1986		\$8,139.05

nb: \$5,095.17 of the balance in the checking account is allocated to the ERA Fund.

Proposed Budget — Fiscal Year 1986-87

Expected Income	
\$	7,630.00
	270.00
	500.00
	400.00
\$	8,800.00
Expected Expenses	
\$	1,700.00
	250.00
	250.00
	250.00
	250.00
	500.00
	400.00
	400.00
	300.00
	1,000.00
	920.00
	400.00
	2,180.00
\$	8,800.00

Dues (218 Charter, Full, and Assoc. @ \$35.00)
 Dues (18 Student @ \$15.00)
 Repayment of Meeting Advance
 Interest from Checking Account
TOTAL EXPECTED INCOME

Newsletter
 President's Expenses
 Vice President's Expenses
 Secretary's Expenses
 Treasurer's Expenses
 Annual Meeting Advance
 Board of Directors Meeting
 President's Reception at AAFS Meeting
 Legal Fees
 Administrative Coordinator's Fees
 Meetings and Teleconferences
 Transfer of Interest to ERA Fund
 Transfer of Dues Surcharge to ERA Fund
TOTAL EXPECTED EXPENSES

TECHNICAL HIGHLIGHTS

NOTE: We wish to thank the authors who contributed technical material to **TOXTALK**. Everyone is encouraged to submit papers for possible publication. See page 1 for further information and deadlines.

CASE REPORT: METHAMPHETAMINE ANALYSIS OF AN UNUSUAL SAMPLE

By Halle L. Weingarten, Santa Clara County Laboratory of Criminalistics, San Jose, CA

As a result of what seemed to be just another fanciful request by an attorney, we recently found ourselves testing for methamphetamine in dried year old blood stains on a shirt. The victim in the case had received a severe stab wound of the arm; the suspect claimed that he was merely defending himself against the victim, who had become violent after using methamphetamine. Since the police had failed to obtain a blood sample from the victim, the only evidence available was the victim's bloodstained shirt.

Six heavily bloodstained areas and three unstained areas were cut out of the shirt. The unstained areas were prepared for use as controls: one was used as is, one was saturated with blank beef blood and dried, one was saturated with 0.3 g/L methamphetamine in beef blood and dried. Each of the nine swatches was soaked in normal saline solution for 36 hours. The saline eluates, along with the usual blanks and controls, were subjected to alkaline extraction into hexane, acetylation, and GC/NPD analysis on Apiezon/KOH and Carbowax/KOH columns.

Both fabric blanks were negative by GC. However, methamphetamine was detected and confirmed in the drug-treated swatch and in each of the six test areas of the shirt.

CYCLOBENZAPRINE OVERDOSE

By Ricky P. Betah, Ph.D., Consolidated Laboratory Services, Jacksonville, FL

Cyclobenzaprine (Flexeril® — Merck, Sharp, & Dohme), first introduced as an antidepressant drug in the early 1960's, is now one of the most frequently prescribed muscle relaxants. Cyclobenzaprine is a tricyclic drug that serves as a central muscle relaxant without compromising the function of the muscle. It is very similar in structure to amitriptyline, a tricyclic antidepressant drug. As in the case with amitriptyline, immediate treatment is required when cyclobenzaprine is involved in an acute intoxication. Treatment of potentially toxic ingestions may include gastric emesis and/or gastric lavage, followed by activated charcoal administration. In addition to general symptomatic and supportive care, cardiac function should be monitored. While the intravenous administration of physostigmine may help to counteract the anticholinergic activity of cyclobenzaprine, many clinicians do not recommend its routine use.

Presented here is a case of a 16-year old white female who was transported by her father to the emergency department of a local hospital "several" hours after a suicide attempt. The suicide attempt involved the ingestion of the mother's prescription of "back pain medication." While unknown at the time of admis-

sion to the emergency department, the prescription contained approximately 50 tablets of Flexeril® (10 mg cyclobenzaprine HCl).

Patient signs and symptoms upon admission included tachycardia and disorientation to time and place. Gastric, serum, and urine specimens were submitted for toxicologic analysis. The samples were screened for drugs using a variety of analytical methods including EMIT® (Syva) thin-layer chromatography (Tox-Lab® A procedure — Marion/Analytical Systems), gas chromatography/mass spectrometry (Hewlett Packard 5970 B system).

A preliminary screen of the urine using the Toxi-Lab® A procedure detected the presence of a substance indicative of cyclobenzaprine. The presumptive positive screen for cyclobenzaprine in the urine was confirmed by GC/MS. While it has been reported that it is quite difficult to distinguish cyclobenzaprine from amitriptyline using a variety of analytical methods, cyclobenzaprine has a characteristic "orange" fluorescence in stage III of the Toxi-Lab® A procedure (1). In addition, we are able to routinely distinguish cyclobenzaprine from amitriptyline using GC/MS system described in Table 1. Other

analytical data is presented in Table 2. Note in particular the valued information obtained from the mass spectra of the two compounds when the scan omits the 58 ion from the data collected.

Having determined that cyclobenzaprine was present in the urine, the serum was screened for tricyclics using the TDx® analyzer (Abbott, Diagnostics Division) and the serum tricyclic assay. The tricyclic assay has a cross-reactivity of approximately 50% with cyclobenzaprine. The semi-quantitative level was determined to be approximately 600 ng/mL versus the imipramine calibrator. This would yield an effective serum level of approximately 1200 ng/mL. Because the patient was transferred to another facility, the patient was lost to follow-up; thus, the prognosis of the patient is not known.

This case is presented to illustrate the similarity of the analytical characteristics of cyclobenzaprine and amitriptyline, to give an example of how mass spectrometry *may be enhanced* to differentiate two structurally similar compounds, and to illustrate the importance of the utilization of several analytical methodologies to "positively" identify an unknown substance.

Table 1. Gas Chromatograph — Mass Selective Detector Operating System

	Hewlett Packard 5970 B System
	Operating Characteristics
Column:	12.5 m methyl silicone
Column Head Pressure:	10 psi
Column Flow:	0.4 mL/min Helium
Injection Port Temperature:	220° C
GC/MS Interface Temperature:	285° C
Splitless Injection (Purge):	0.8 min
Temperature Program:	Temp 1: 130° C, Time 1: 1 min, Rate: 20° C/min, Temp 2: 280° C, Time 2: 4 min

Table 2. Analytical Characteristics of Amitriptyline and Cyclobenzaprine

	Amitriptyline	Cyclobenzaprine
Toxi-Lab® Rf	0.58	0.56
Stage III	Pink	Orange
Retention Time (GC)	8.00	8.20
EMIT® Serum Screen	Positive	Positive
TDx® Serum Screen	Positive	Positive
GC/MS Base Peak (35-550 Scan)	58	58
GC/MS Base Peak (60-550 Scan)	202	215

REFERENCE

J.J. Tasset, T.J. Schroeder, and A.J. Pesce. Cyclobenzaprine Overdose: The Importance of a Clinical History in Analytical Toxicology. *J. Anal. Toxicology*, 10 (6): 258 (1986).

ECGONINE METHYL ESTER, THE FORGOTTEN METABOLITE

By Vickie Watts, Toxicologist, Mesa Police Department Crime Laboratory, Mesa, AZ

The routine identification of cocaine in biological fluids typically involves assays for cocaine in blood and its metabolite benzoylecgonine in urine. Cocaine being lipophilic will readily extract from basic solutions into most simple solvents. The analyte is easily chromatographed and has a well defined mass spectrum. Benzoylecgonine, however, is polar, hydrophilic, and difficult to extract into simple organic solvents. The assays require a polar extraction solvent containing an alcohol with salt saturation of the aqueous phase for efficient recovery of benzoylecgonine. Although benzoylecgonine can be chromatographed on an inert capillary system, gas chromatography usually requires derivatization to overcome column absorption of the polar compound.

Benzoylecgonine has classically been considered to be the major urinary metabolite of cocaine. The metabolite, though, is not produced enzymatically in the blood or liver, but is the spontaneous hydrolysis product of cocaine in aqueous alkaline solutions. The hydrolysis results in the loss of the methyl ester group from cocaine to form benzoylecgonine.

Cocaine is metabolized enzymatically in blood and liver by cholinesterases. The loss of the benzoyl ester group from cocaine results in formation of ecgonine methyl ester. Without the addition of a cholinesterase inhibitor such as physostigmine to the blood in vitro, cocaine may be hydrolyzed enzymatically to ecgonine methyl ester in storage (1). There is some indication that the rate of hydrolysis may be dose dependent. The presence of fluoride and/or freezing has been shown to slow this process (2). Methylecgonine (ecgonine methyl ester) extracts similar to cocaine and can be chromatographed easily on most stationary phases. If the blood cocaine assay does not identify methylecgonine, is the specimen truly screened for cocaine use? It is conceivable that dependent upon the length of storage, cocaine may only be present as the metabolite methylecgonine which would register as an unidentifiable analyte.

Methylecgonine would appear to be a desirable cocaine metabolite to assay for in monitoring cocaine abuse. To compare this metabolite with benzoylecgonine one needs to evaluate the urinary concentrations of the two metabolites after intranasal or in-

travenous administration of cocaine. Also, the elimination rate for methylecgonine compared to that of benzoylecgonine must be evaluated to determine whether this analyte will be detectable in urine samples submitted within an acceptable time period after the cocaine was ingested.

Ambre, et. al. (3) found methylecgonine to be a major urinary metabolite of cocaine. The levels were found to be similar to those of benzoylecgonine reported in urines for therapeutic and toxic doses of cocaine. The study utilized urine samples submitted for pre-employment examinations. These specimens represented street use of cocaine which would primarily involve intranasal application and intravenous injection. Both cocaine and methylecgonine were quantitated by GC/MS using selective ion monitoring. The methylecgonine concentrations ranged from 8.2 to 559 ng/ml. The cocaine concentrations ranged from 0 to 58.2 ng/ml. There was on the average 20 to 100 times more methylecgonine than cocaine in the urine samples. Benzoylecgonine was not quantitated in the study.

Ambre, Fischman, and Ruo (4) studied the extent and time course for methylecgonine excretion after intranasal and intravenous administration of cocaine. They found the concentrations of methylecgonine and benzoylecgonine to be similar in the first 8 hour urine samples. Using 30 minute timed interval specimens, the concentration of methylecgonine was found to be highest at 4 hours, decreasing rapidly but still detectable at 24 hours by the GC/MS assay. The EMIT testing for benzoylecgonine, though, was negative in a number of the specimens at the 24 hour period. The recovery data showed that methylecgonine accounts for 26 to 60% of the cocaine dose. The half-life of methylecgonine averaged 4 hours, slightly lower than the 5 hour average for benzoylecgonine.

Inaba, Stewart, and Kalow (5) also found methylecgonine to be a major urinary metabolite of cocaine in humans when subjects were given oral administration of cocaine. Jindal and Lutz (6) used ion cluster techniques and radioactive labeling to study the disposition of cocaine and metabolites in the rat. They reported methylecgonine to be one of the major urinary metabolites. The paper also identified the mass spectra of numerous

other cocaine metabolites. Smith (7) isolated three cocaine metabolites believed to originate from cocaine being transesterified by ethanol when cocaine and alcohol are taken together. In addition to the cocaethylene and ethylecgonine identified in the case urines, Smith also identified methylecgonine as a major urinary metabolite. The two papers by Jindal and Smith are worth reviewing if you are assaying cocaine by GC/MS methodology. Depending on the sensitivity of the method, these metabolites may be identified in routine case specimens

The assays for ecgonine methyl ester are simpler than for benzoylecgonine. The elimination rate and urinary concentrations are comparable. Although Ambre, et. al. outlines a procedure for the preparation of methylecgonine from cocaine to obtain a pure standard, it can now be purchased from Alltech-Applied science (cat#01821) for approximately \$25/10 mg (8). Therefore, the detection of methylecgonine could be a more convenient market for cocaine use in urine and an essential metabolite to be assayed for in blood.

Vickie Watts, Toxicologist
Mesa Police Department
Crime Laboratory

REFERENCES

1. D.J. Stewart, T. Inaba, B.K. Tang, and W. Kalow. Hydrolysis of cocaine in human plasma by cholinesterase. *Life Sci.* 20:1557-1564 (1977).
2. R.C. Baselt. Stability of cocaine in biological fluids. *J. Chrom.* 268:502-505 (1983).
3. J.I. Ambre, T. Ruo, G.L. Smith, D. Backes, and C.M. Smith. Ecgonine methyl ester, a major metabolite of cocaine. *J. Anal. Toxicol.* 6:26-29 (1982).
4. J. Ambre, M. Fischman, and T. Ruo. Urinary excretion of ecgonine methyl ester, a major metabolite of cocaine in humans. *J. Anal. Toxicol.* 8:23-25 (1984).
5. T. Inaba, D.J. Stewart, and W. Kalow. Metabolism of cocaine in man. *Clin. Pharmacol. Ther.* 23:547-552 (1978).
6. S.P. Jindal and T. Lutz. Ion cluster techniques in drug metabolism: use of a mixture of labeled and unlabeled cocaine to facilitate metabolite identification. *J. Anal. Toxicol.* 10:150-155 (1986).
7. R.M. Smith. Ethyl esters of arylhydroxy- and arylhydroxymethoxycocaines in the urines of simultaneous cocaine and ethanol users. *J. Anal. Toxicol.* 8:38-42 (1984).
8. Alltech-Applied Science. *The Drug Chromatographer* 3:3 (Fall, 1986).

Figure 1 shows a total ion chromatogram for methylecgonine and cocaine at 10 ng per component. The mass spectra of each are given. The urine calibrator, containing methylecgonine, cocaine, and benzoylecgonine (underivatized) is shown in figure 2. The mass spectrum for benzoylecgonine is included. Figure 3 shows a case blood containing both cocaine and methylecgonine analyzed by dual capillary chromatography using nitrogen/phosphorus detectors. Figure 4 shows a case urine containing methylecgonine, cocaine, and an additional cocaine metabolite which we suspect to be benzoylecgonine ethyl ester (cocaethylene) from review of Smith's paper. Upon further screening, the urine was also found to contain ethanol.

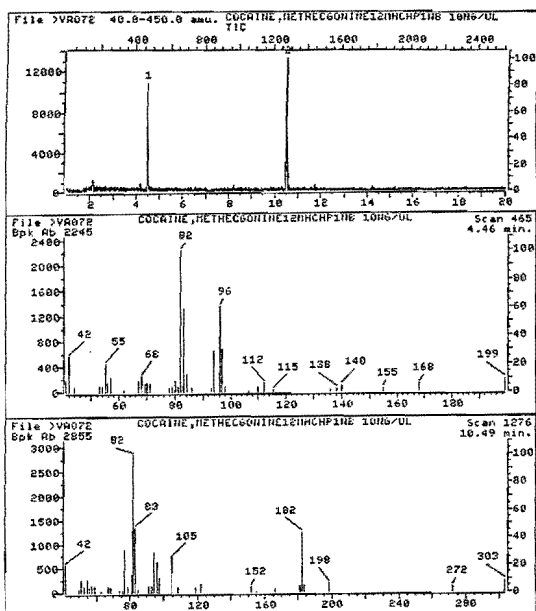


FIGURE 1. BLOOD CALIBRATOR--Total ion chromatogram and mass spectra for: (1) methylecgonine 10ngs (2) cocaine 10ngs.

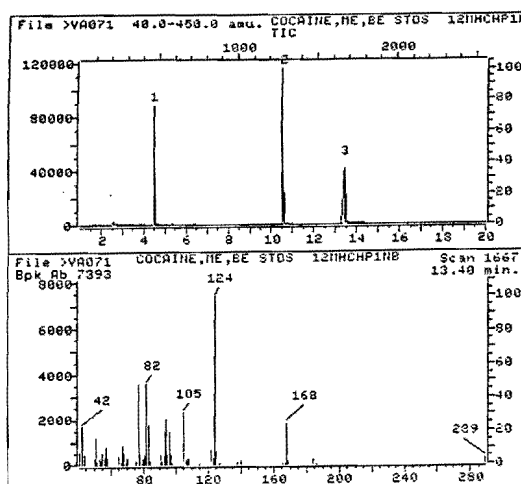


FIGURE 2. URINE CALIBRATOR--Total ion chromatogram for: (1) methylecgonine 50ngs (2) cocaine 50ngs (3) benzoylecgonine (underivatized) 300ngs
Mass spectrum for benzoylecgonine.

FIGURE 3. Case blood extract containing:
(1) nicotine
(2) methyl ecgonine
(3) caffeine
(4) lidocaine
(5) cocaine
(6) SKF-525A

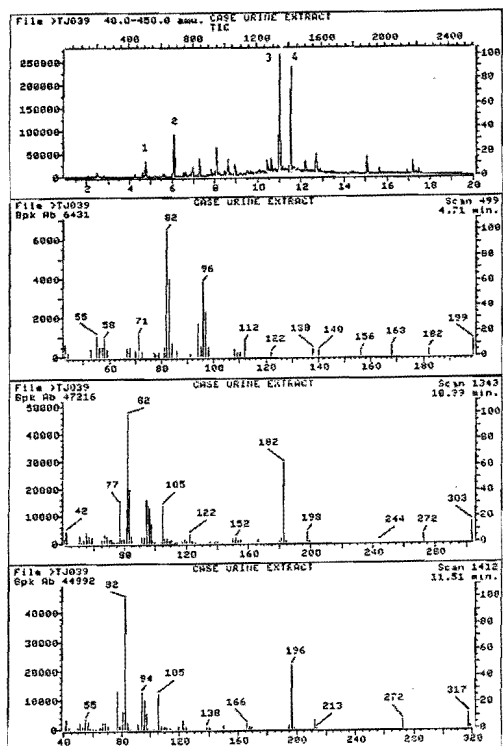
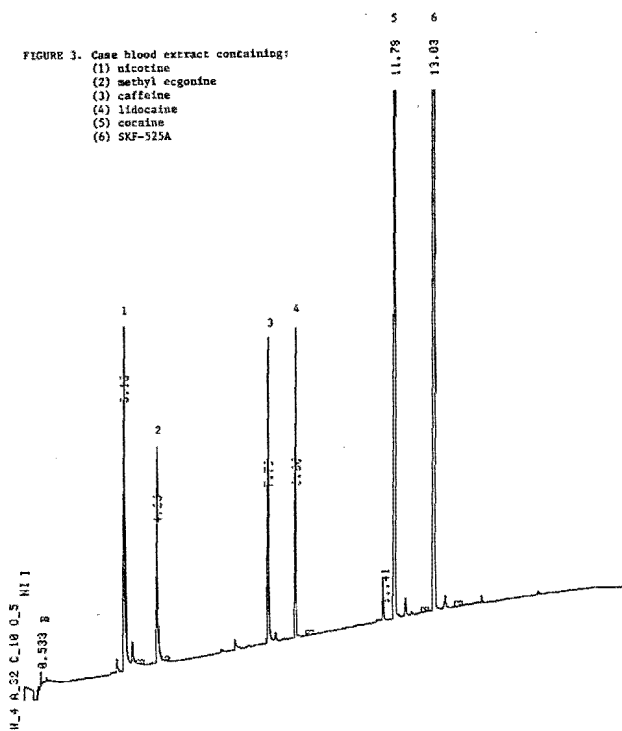


FIGURE 4. Case urine extract containing: (1) methylecgonine (2) cocaine (3) cocaine (4) suspected cocaethylene (benzoylecgonine ethyl ester)

SOCIETY OF FORENSIC TOXICOLOGISTS, INC.
ANNUAL BUSINESS MEETING
NOVEMBER 1, 1986 RENO, NEVADA

I. Call To Order

The meeting was called to order by President Kincaid at approximately 8:40 AM PST. Those members in attendance are listed on the attached sheet.

II. Approval of Agenda

III. President's Introductory Remarks

President Kincaid stated that the Society had a very productive year. She also stated that she is very grateful to have served as the 1986 President of SOFT.

IV. Reading of the 1985 Annual Business Meeting Minutes

The minutes were published in the newsletter and not read at this time.

V. Approval of the 1985 Annual Business Meeting Minutes

Mr. McGee made a motion that the minutes be accepted as published in the newsletter. The motion was seconded by Dr. J. Speaker and the motion was carried.

VI. Treasurer's Report

Treasurer McGee reported that as of July 1, 1985, the checking account balance was \$3,580.02. For the fiscal year 1985-1986, the income was: \$5,575 in dues and application fees, \$5,462.32 in meeting income above expenses, \$500.77 in checking account interest, \$500 as the repayment of the 1984 meeting advance, a \$50 donation to the ERA fund and \$12.74 from miscellaneous income. The total income was \$12,100.83. The total available funds were \$15,680.85. The expenses were: \$2,500 for the eighth through twelfth ERA awards, \$1,265.26 for the newsletter, \$807.24 for Executive Coordinator' fees and expenses, \$500 for the 1986 meeting advance, \$467.38 for the President's 1985 meeting expenses, \$400.55 for the receptions at the AAFS and SOFT-CSFS meetings, \$376.10 for the Board of Director's conference call, \$373 for the membership directory, \$167.99 for the President's business expenses, \$160 for legal fees, \$156.48 for stationery, \$155.52 for returned checks and bank fees, \$100 for the SOFT brochure, \$74.36 for the SOFT-CSFS liaison's expenses and \$37.92 for the Treasurer's expenses. The total expenses were \$7,541.80. The balance in the checking account as of June 30, 1986, was \$8,139.05 of which \$5,095.17 is allocated for the ERA fund. No written report was available. It was moved by Dr. Stajic that

the Treasurer's report be accepted. The motion was seconded, and the motion was carried. Mr. McGee then presented the proposed budget for the fiscal year 1987-1988. The expected income: \$7,630 in dues from 218 members @ \$35, \$270 from 18 student affiliates @ \$15. \$500 from repayment fo meeting advance and \$400 from checking account interest for a total expected income of \$8,800. The expected expenses: \$1,700 for the newsletter, \$250 for the President's expenses, \$250 for the Vice President's expenses, \$250 for the Secretary's expenses, \$250 for the Treasurer's expenses, \$500 for the annual meeting advance. \$400 for the Board of Director's meeting, \$400 for the President's reception at the AAFS meeting, \$300 for legal fees, \$1,000 for the executive coordinator' fees and expenses. \$920 for additional meetings and teleconferences, \$400 for transfer of interest to the ERA fund and \$2,180 for transfer of dues surcharges to the ERA fund for total expected expenses of \$8,800. A motion to accept the proposed budget was made by Dr. Bidanset. The motion was seconded by Dr. Sunshine and the motion was carried.

VII. Report of the Board of Directors

President Kincaid stated that the Board met on October 30, 1986, discussed a number of issues and since they are contained in committee reports, she did not need to discuss the issues at this time.

VIII. Committee Reports

1. By Laws

Dr. McCurdy reported that this committee was idle the past year and therefore there were no activities to report.

2. Toxicology Reporting

The Toxicology Reporting Committee report was previously presented during the meeting by Dr. Wu Chen.

3. Budget and Finance

Dr. McCurdy reported that a written report from Dr. Backer was acted on at the board meeting.

4. Education (ERA)

Dr. Caplan reported that the Board approved an ERA award to Peggy Kelly and there are no pending applications.

5. Right-To-Know

Dr. Schaffer reported that the committee is attempting to gather information about states' Right-To-Know laws as well

as involved in Federal legislation. The members are asked to contact any of the committee members for information. Dr. Kincaid stated that she feels that this committee's activities are very important and should be supported by the membership. Dr. Bidanset moved that the Right-To-Know committee be made a standing committee of SOFT rather than an ad hoc committee to allow for its continued activities. The motion was seconded by Dr. Monforte. Following a brief discussion, the motion was withdrawn.

6. Publications

Dr. Stajic reported that the special issue of JAT is out and ToxTalk is about caught up thanks to the efforts of Pat Mohn-Monforte.

7. Environmental Toxicology

a. Natural Poisons

no report

b. Pesticides

no report

c. Noxious Chemical Exposure

no report

8. Audit

Dr. Valentour discussed the committee's recommendations for possible ways that an external audit of SOFT's financial records could be performed. Several different means were considered. The cost of some of the different proposals was a major concern and a primary reason for their elimination. A recommendation was that the auditors be located in the city where the bank accounts and records were being kept. No other recommendations were made.

Dr. McCurdy reported that the Board passed a motion to submit the financial records to Pat Mohn-Monforte, she would contact a CPA and have the records audited and this service would cost approximately \$1,000.

A lengthy discussion of the reasons for this action and possible alternate procedures followed. The majority of the comments indicated a lack of belief in the need for a professional audit of the financial records.

9. Driving Under the Influence of Drugs

No report

10. Membership

Dr. Hodnett reported that there have been 25 applications for membership or

membership status change and 23 requests have been approved. Dr. Sunshine's request for Retired Member status has been approved by the Board, Elizabeth Marker has been promoted from Student to Associate Member and all the other approved applications were for new members. The names of the new members of SOFT were read to the membership. 10 are Full Members, 8 are Associate Members and 3 are Student Members. The membership now stands at 245.

11. Evaluated Methods

Dr. Bost reported that the committee has made no progress and that he recommended to the Board that new leadership for the committee be selected.

12. Grants and Endowments

Dr. Phillips reported that surveys have been conducted of companies and laboratories and following the growth of the ERA fund through the dues assessment, we will be able to go to industry for their contribution with a base fund of about \$10,000. Information will be sent to the membership informing them about the ERA fund and how to apply for the awards.

13. Meeting Site

Mr. Lewis reported the Board's acceptances of meeting sites for 1989 and 1990 and restated the meeting sites for 1987 and 1988. They are:

- 1987 — Key Biscayne, FL:
September 29-October 2
- 1988 — Philadelphia Area
- 1989 — Chicago
- 1990 — New York City Area

He stated that anyone interested in becoming a meeting site host or finding out what it takes to be a meeting site host is welcome to contact him for information.

Dr. Bidanset made a motion that "Because the 1990 meeting represents the 20th anniversary of the Society (originally called the interim meeting), I propose that Nassau County be considered as an alternate to New York City for the meeting site. The Marriott Hotel in Uniondale has been the site for two successful NEAFS Annual Meetings and would be a suitable Nassau County location. Members active in the area would include: Balkon, Bidanset, Dal Cortivo, Manning and their respective offices and staff". The motion was seconded by Dr. Bednarczyk. Dr. Sunshine made a motion to amend the motion to include the

New York City Medical Examiner's Office in the list of hosts. The amending motion was seconded by Mr. Prouty. The amended motion was carried. It was also mentioned that the Board of CAT is in favor of having another joint meeting with SOFT. It was recommended that, since we have joint meetings with CSFS every five years, perhaps we should hold joint meetings with CAT on a similar schedule. 1993 was mentioned as a possible year for such a meeting.

14. Nominating

Mr. Prouty announced the slate of nominees recommended by the Nominating Committee for the offices of President, Vice President, Treasurer and two three-year terms Directors of SOFT. They are:

For Pres.	H. Horton McCurdy
For Vice Pres.	Alphonse Poklis
For Treasurer	James Valentour
For The Directors	Richard Phillips and William Anderson

Alphonse Poklis has one year remaining of his term on the Board of Directors. If he is elected Vice President, it will be necessary to elect another person to fill the remaining one year of his term. The committee submitted Jeanne Beno's name in nomination for this position if an election for that position is necessary.

Mr. Prouty moved that the report of the Nominating Committee be approved. The motion was seconded by Dr. Bidanset. The motion was carried. The slate was introduced to the membership by President Kincaid.

IX. Old Business

None

X. New Business

President Kincaid brought up some of the topics discussed at the board meeting such as NIDA's attempt to establish guidelines for the voluntary accreditation of laboratories engaged in urine drug testing. This process was further explained by Dr. Caplan. SOFT will attempt to have input into the process.

Dr. Reading made a motion that the Board's decision to authorize a formal paid audit of the books be voided. The motion was seconded by Dr. J. Speaker. The motion was carried. Dr. Reading then made a motion that 1) a written Treasurer's Report be presented at the business meeting each year and copies of the report be handed out at the meeting. 2) during the annual meeting

and prior to the business meeting, the report be audited internally by auditors appointed by the President. The motion was seconded by Dr. Stajic. Following a brief discussion, Dr. Reading amended the motion to have the internal audit conducted prior to the annual meeting and the audited Treasurer's Report be available at the business meeting. The amendment to the motion was seconded and the motion was carried.

XI. Nominations From The Floor

Dr. Reading nominated Michael McGee for Vice President. The nomination was seconded by Dr. Bath.

XII. Elections

Mr. McGee moved that except for the contested office, the recommendations of the Nominating Committee, (the uncontested positions), be elected by acclamation at this time with the exception of Dr. Poklis' board replacement. The motion was seconded and the motion was carried.

The voting for Vice President was conducted by closed ballot. Mr. McGee was elected Vice President.

XIII. Closing Remarks

President-elect McCurdy lead the attending SOFT members in applauding Norman Wade for putting on the best Annual Meeting that SOFT ever had.

XIV. Adjournment

President Kincaid asked for a motion for adjournment. The motion was made, seconded and carried. The meeting was adjourned at approximately 10:20 AM PST.

Members present:

Anderson, William H., Ph.D., Bath, Raymond J., Ph.D., Bednarczyk, Leonard R., Ph.D., Bell, Ronald R., B.S., Beno, Jeanne, Ph.D., Berman, Eleanor, Ph.D., Bidanset, Jesse H., Ph.D., Bost, Robert O., Ph.D., Caplan, Yale H., Ph.D., Cravey, Robert H., B.S., Field, Patricia H., Ph.D., Frederick, Donald L., Ph.D., Hodnett, C. Nicholas, Ph.D., Jones, Graham R., Ph.D., Kemal, Miftah, M.S., Kincaid, Rosemary, Ph.D., Levine, Barry, Ph.D., Lewis, Mark B., B.S., Marker, Elizabeth K., Ph.D., Matejczyk, Raymond J., M.S., McCoy, Daniel J., Ph.D., McCurdy, H. Horton, Ph.D., McGee, Michael P., B.S., Milzoff, Joel R., Ph.D., Monforte, Joseph R., Ph.D., Nittskoff, Donald J., B.S., Paschal, Roy B., B.S., Phillips, Richard N., Ph.D., Pinder, Richard D., Ph.D., Prouty, Richard W., B.S., Reading, Charles N., Ph.D., Rieders, Fredric, Ph.D., Rohrig, Timothy P., Ph.D., Rowland, Dell R., B.S., Schaffer, Michael I., Ph.D., Singh, Krishna D., Ph.D., Speaker, Jane H., Ph.D., Speaker, Tully J., Ph.D., Stajic, Marina, Ph.D., Sunshine, Irving, Ph.D., Sutheimer, Craig A., Ph.D., Valentour, James C., Ph.D., Vogel, Joan, B.A., Wade, Norman A., M.S., Walls, H. Chip, B.S., Watford, Sally L., B.S., Watts, Vickie, B.S.

ANNOUNCEMENTS

CONGRATULATIONS, YALE CAPLAN! The AAFS recently announced that Yale H. Caplan, Ph.D., Chief Toxicologist for the office of the Chief Medical Examiner of the State of Maryland, has assumed the presidency of the American Academy of Forensic Sciences. Dr. Caplan's many professional activities include Co-editor of **TOXTALK** and past president of SOFT.

ABFT ANNOUNCES NEW DIPLOMATES The American Board of Forensic Toxicology, Inc. recently presented its diplomates who were awarded Certificates of Qualification in Forensic Toxicology during 1985 and 1986. Congratulations to:

- * Vina Spiehler, Newport Beach, CA
- * Emilina Saker, Decatur, GA
- * Robert Havier, Elizabeth, NJ
- Francis Urry, Salt Lake City, UT
- Horatio W. Yeung, Hialeah, FL
- Albert D. Fraser, Halifax, Nova Scotia
- * Gerald E. Clement, Allentown, PA
- * Barry S. Levine, Baltimore, MD
- * Krishna D. Singh, New York, NY
- * W. Christopher Long, Springfield, IL

* Denotes member of SOFT

AN INVITATION FROM CANADA. Brian Joynt encourages you to take advantage of two consecutive weeks of seminars, scientific presentations, exhibits and social activities relative to forensic toxicology and set in two of the most scenic vacation spots in North America. The TIAFT will meet in the heart of the Canadian Rockies (July 28-31) where Banff National Park features golf courses, camping, hiking trails, abundant wildlife, and mineral hot springs and pools. A few hours' drive away (tour transportation available) the IAFS will gather in Vancouver, B.C., August 2-7. Vancouver offers superb dining, exciting nightlife, and beautiful surroundings. Every aspect of the forensic sciences will be covered at this international meeting. Contact information is listed under the "Professional Calendar". Do not delay as summer bookings are heavy in these popular vacation spots. The Canadian toxicologists look forward to welcoming you!

TREASURY NOTES

If you have not yet paid your SOFT dues for the current fiscal year (7/01/87 to 6/30/87) please send your dues directly to Treasurer James Valentour (address on front page). Make checks payable to SOFT.

Treasurer Valentour would also appreciate receiving any requests for reimbursement or outstanding bills by June 15 so that he may prepare a current year-end financial statement for this fiscal year.

MEMBERS ON THE MOVE

Derek P. Baker, Ph.D., Director of Toxicology, B.P.L. Toxicology Laboratory, 18700 Oxnard Street, Tazana, CA 91356, (808) 996-7300 ext. 452

Gerald E. Kananen, Ph.D., Assistant Director Forensic Toxicology Service, Dade - Miami Criminal Justice Council, 864 N.W. 23rd Street - Room 203, Miami, FL 33127 (305) 638-5765

David W. Rice, Ph.D., Laboratory Director Roche, Biomedical Laboratories, Inc., 3714 Northgate Boulevard, Sacramento, CA 95834, (916) 927-9900 ext. 580

NEW S.O.F.T. MEMBERS

Full Members

Betty J. Buchan, M.S., Graham R. Jones, Ph.D., Wendell Krasselt, B.S., Michael F. Rieders, Ph.D., Richard F. Shaw, B.S., Vickie Watts, B.A.

Associate Members, Marsha Abercrombie, M.S., Kathleen A. Baldwin, Ph.D., Jill Crumpacker, B.S., Patricia D. David, B.S., Eligia A. Gonzalez, B.S., John M. Holbrook, Ph.D., Major William E. Ottinger, Ph.D., Collin D. Riker, B.S., James R. Ruger, J.D., Ph.D., Maria E. Santibanez

Student Member, Peggy Kelly, M.P.H.

The following members were promoted or requested a change in their membership status: Stuart C. Bogema, Ph.D. (full), Roy B. Paschal, B.S. (full), Irving Sunchine, Ph.D. (retired)

CAREER OPPORTUNITIES

MANAGER OF CLINICAL AND FORENSIC SERVICES: Position will include supervision of toxicological analyses and development of new assays. Applicants must have B.Sc., M.Sc., or Ph.D. in pharmacology, toxicology, analytical chemistry, or a related subject. Experience in immunoassay, GC/MS essential. Salary will be competitive and dependent on education and experience.

MEDICAL TECHNOLOGIST and/or ANALYTICAL TOXICOLOGIST: For new laboratory dealing with analysis of drugs in biological fluids. Must have experience in immunoassay and chromatography and have a degree in medical technology, chemistry, toxicology, or biochemistry. Salary dependent on experience.

If you wish to be considered a candidate for either of these two positions, send resume (including references) to: Dr. Michael A. Peat. CHEMWEST Analytical Laboratories, Inc., 600W North Market Blvd., Sacramento, CA 95834.

Have you been able to identify the persons in the PHOTOCOLLAGE which appeared in the last issue of **TOXTALK**? They are:

- | | |
|-------------------------|------------------------|
| 1. Tully Speaker | 16. Vickie Watts |
| 2. Michael Schaffer | 17. Rosemary Kincaid |
| 3. Irving Sunshine | 18. Joel Milzoff |
| 4. Robert Cravey | 19. Marina Stajic |
| 5. Yale Caplan | 20. Joseph Monforte |
| 6. Ronald Bell | 21. Richard Prouty |
| 7. Mark Lewis | 22. Jane Speaker |
| 8. Jesse Bidanset | 23. Richard Phillips |
| 9. Robert Bost | 24. C.N. Reading |
| 10. H. Horton McCurdy | 25. Leonard Bednarczyk |
| 11. C. Nicholas Hodnett | 26. Michael McGee |
| 12. W. Lee Hearn | 27. Bradford Hepler |
| 13. Donald Frederick | 28. Patricia Field |
| 14. Fredric Rieders | 29. H. Chip Walls |
| 15. Miftah Kemal | |



PROFESSIONAL CALENDAR

MARCH 9-13, 1987: CURRENT CONCEPTS IN TOXICOLOGY - ANALYTICAL METHODOLOGY, San Antonio, TX. Designed for clinical chemists, pathologists and medical technologists working in analytical, clinical or forensic toxicology. Contact Dr. Jack Wallace, Course Director, UTHSCSA, 7703 Floyd Curl Drive, San Antonio, TX 78284 (telephone: 512-567-4000).

JULY 28-31, 1987: INTERNATIONAL ASSOCIATION OF FORENSIC TOXICOLOGISTS, Banff, Alberta. Contact Graham Jones, Ph.D., TIAFT '87, 4070 Bowness Road, N.W., Calgary, Alberta, Canada T3B 3R7.

AUGUST 2-7, 1987: INTERNATIONAL ASSOCIATION OF FORENSIC SCIENCES 11th Meeting, Vancouver, Contact AIFS, Suite 801, 750 Jervis Street, Vancouver, B.C., Canada V6E 2A9.

SEPTEMBER 29 - OCTOBER 2, 1987: SOFT NATIONAL MEETING, Key Biscayne, FL. Contact Leonard Bednarczyk, Ph.D., 864 Northwest 23rd Street, Room 203, Miami, FL 33127 (telephone: 305-638-5765)

1988: SOFT ANNUAL MEETING, Philadelphia.

CALL-FOR-PAPERS

SOFT Annual Meeting Sept. 29 - Oct. 2
Information will be mailed soon



J.A.T. SPECIAL ISSUE

CALL FOR PAPERS

Once again, Preston Publications will dedicate a special issue of the JOURNAL OF ANALYTICAL TOXICOLOGY to forensic toxicology and feature S.O.F.T. participation. The 1987 Special Issue Editor is Dr. Joseph Monforte. Drs. Everett Solomons and Jeanne Beno will also serve on the Publications Committee.

Complimentary copies of this issue of JAT will be distributed at the 1987 S.O.F.T. annual meeting in Key Biscayne, Florida (September 29-October 2). To accommodate the meeting dates, it is imperative the the following schedule be met:

APRIL 1 . . . Titles and abstracts to Dr. Monforte

APRIL 15 . . . Submit manuscripts to Dr. Monforte

MAY 15 Manuscripts returned to authors for any revision

MAY 30 Revised manuscripts to Dr. Monforte

AUGUST 5 . . . Galley proofs to authors

AUGUST 20 . . All corrected galley proofs returned to JAT - THIS DEADLINE VERY IMPORTANT!!

SUBMIT YOUR TITLE AND ABSTRACT by APRIL 1st to:

Joseph R. Monforte, Ph.D.
SOFT - JAT Special Issue
1013 Three Mile Drive
Grosse Pointe Park, MI 48230-1412

For information call 313-224-5626 (business hours) or 313-884-4718



S.O.F.T. MEMBERSHIP PROFILES

INSTRUCTIONS: Please type or print clearly. Section I will determine where all SOFT materials will be sent and information to appear in the new directory. Sections II and III will be used for future reference. Return by JUNE 1st to:

C. Nicholas Hodnett, Ph.D.
Dept. of Labs and Research
Westchester County
Valhalla, NY 10595

SECTION I - ADDRESS UPDATE FOR 1987 DIRECTORY

(1) NAME - LAST _____

(2) FIRST _____ (3) DEGREE: _____

(4) COMPANY/AGENCY: _____

ADDRESS - (5) STREET _____

(6) STATE _____

(7) COUNTRY _____

(8) ZIP CODE _____ - _____

(9) TELEPHONE: _____ - _____

PRIMARY EMPLOYER DESCRIPTION: check only one

(10) ___ GOVERNMENT ___ ACADEMIC ___ PRIVATE ___ OTHER

PREFERRED mailing address and telephone contact:

ADDRESS - (11) STREET _____

(12) STATE _____

(13) COUNTRY _____

(14) ZIP CODE _____ - _____

(15) TELEPHONE: _____ - _____

(16) Do you wish BOTH the work and preferred addresses to appear in the new Membership Directory if they are different?

___ YES ___ NO

Check here ONLY if above information is different from 1985 Membership Directory

Please complete side 2.

SECTION II - PROFESSIONAL HISTORY

(17) TOXICOLOGY TRAINING RECEIVED AT _____

(18) UNDER DIRECTION OF _____

(19) YEAR(S) 19____ - ____

SECTION III - S.O.F.T. ACTIVITIES

(20) CURRENT SOFT MEMBERSHIP STATUS: _____Charter _____Full
_____Associate _____Student _____Retired

(21) YEAR YOU FIRST JOINED SOFT: 19____

(22) MEETINGS ATTENDED:

- | | |
|--|--|
| <input type="checkbox"/> 1970 Nassau County | <input type="checkbox"/> 1980 Toronto |
| <input type="checkbox"/> 1971 Suffolk County | <input type="checkbox"/> 1981 Chicago |
| <input type="checkbox"/> 1972 Boston | <input type="checkbox"/> 1982 Rosslyn |
| <input type="checkbox"/> 1973 Philadelphia | <input type="checkbox"/> 1983 Detroit |
| <input type="checkbox"/> 1974 Chapel Hill | <input type="checkbox"/> 1984 St. Louis |
| <input type="checkbox"/> 1975 Toronto | <input type="checkbox"/> 1985 Montreal |
| <input type="checkbox"/> 1976 New York City | <input type="checkbox"/> 1986 Reno |
| <input type="checkbox"/> 1977 Nassau (Bahamas) | Do you plan to attend in: |
| <input type="checkbox"/> 1978 Niagara Falls | <input type="checkbox"/> 1987 Key Biscayne |
| <input type="checkbox"/> 1979 Williamsburg | <input type="checkbox"/> 1988 Philadelphia |
| | <input type="checkbox"/> 1989 Chicago |
| | <input type="checkbox"/> 1990 Metro New York |

(23) SOFT OFFICES HELD (elected positions)

YEAR OFFICE

(24) SOFT COMMITTEES SERVED, indicate if you chaired

YEAR COMMITTEE

(25) SOFT APPOINTMENTS

YEAR APPOINTMENT