California Association of Criminalists NEWSLETTER

JUNE 1985

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Also included in this mailing:

1. Minutes of the March 14-15 Board of Directors meeeting.
2. By-Laws of the California Association of Criminalists, as amended May, 1985.
3. Abstracts of the May, 1985, semi-annual Seminar

UPCOMING MEETINGS

INTERNATIONAL ASSOCIATION FOR IDENTIFICATION
July 21 - 25, 1985.
Meeting in Savannah, Georgia. Contact Jerry Findley, 912-352-7780 Ext. 42.

INTERNATIONAL SYMPOSIUM ON FORENSIC HAIR COMPARISONS
July 25 - 27, 1985.
Federal Bureau of Investigation, National training and Research Laboratory, Quantico, Virginia. Contact Kenneth Nimmich, 703-640-6131.

INTERNATIONAL SYMPOSIUM ON QUESTIONED DOCUMENT EXAMINATION
July 30 - August 1, 1985.
Federal Bureau of Investigation, National training and Research Laboratory, Quantico, Virginia. Contact Kenneth Nimmich, 703-640-6131.

CALIFORNIA OF TOXICOLOGISTS
August 3, 1985
Contact Ron Briglia, Consolidated Medical Laboratory, 916-441-0186.

ELECTRON MICROSCOPY SOCIETY OF AMERICA/MICROBEAM ANALYTICAL SOCIETY
August 5 - 9, 1985
A joint meeting will be help August 5 - 9 in Louisville, Kentucky. Contact S. basu, New York State Police Headquarters, Crime laboratory, Building #22, State Campus, Albany, NY 12226, (518-457-1208)

SOCIETY OF FORENSIC HAEMOGENETICS
August 6 - 10, 1985.
The 11th International Congress of the Society for Forensic Haemogenetics will be held August 6 - 10 at the Panum Institute of the University of Denmark in Copenhagen, Denmark. Contact Spaddile Congress Service, Sommervej 3, DI-3100, Horbaek, Denmark.

CANADIAN SOCIETY OF FORENSIC SCIENCE
September 20 - 27, 1985
A joint meeting of the Society of Forensic Toxicologists, the American Society of Forensic Document Examiners, and the Canadian Society of Forensic Science will be held September 20 - 27 at the Hyatt Regency Hotel, Montréal, Québec. Contact Executive Secretary, Canadian Society of Forensic Science, 2660 Southvale Crescent, Suite 215, Ottawa, Ontario, Canada, K1B 4W5, (613-731-2096)

NORTHWEST ASSOCIATION OF FORENSIC SCIENTISTS
October 2 - 4, 1985
The Fall meeting of the Northwest Association of Forensic Scientists will be held October 2 - 4, 1985, at the Holiday Crown Plaza Hotel, Seattle, Washington. For further information, contact Mr. Kay M. Sweeney, Washington State Patrol, Seattle Crime laboratory, 2nd Floor, Public Safety Building, Seattle WA, 98104, (206-464-7073)

CALIFORNIA ASSOCIATION OF CRIMINALISTS
October 24 - 26, 1985
The fall, semi-annual seminar of the California Association of Criminalists will be help October 24 - 26 at the New Otami Hotel, Los Angeles, California. Contact Greg Matheson, Los Angles Police Department, 150 N. Los Angeles Street, Room 435, Los

Angeles, CA 90012, (213-485-2535)

AMERICAN ACADEMY OF FORENSIC SCIENCE
February 11 - 15, 1986
The annual meeting of the American Academy of Forensic Science will be held February 11 - 15, 1986, at the Hyatt Regency Hotel, New Orleans, Louisiana. Contact AAFS, 225 S. Academy Blvd., Colorado Springs, CO 80910, (303-596-6006)

CALIFORNIA ASSOCIATION OF CRIMINALISTS
May 14 - 17, 1986
The Spring, 1986, Seminar of the California Association of Criminalists will be held May 14 - 17, 1985, at the Hilton Hotel in Concord, California. the meeting is being hosted by the Contra Costa County Sheriff's Office Criminalistics Laboratory. Contact Kathryn Holmes, Contra Costa County Sheriff's Office, Criminalistics Laboratory, 1122 Escobar Street, Martinez, CA, (415-372-2455)

INTERNATIONAL ASSOCIATION OF FORENSIC SCIENCES
August 2 - 7, 1987
Vancouver, British Columbia, Canada. Contact International Association of Forensic Sciences, 801-750 Jervis Street, Vancouver, B.C., Canada V6E 2A9.

The Oregon Health Sciences University School of Dentistry has established a Division of Forensic Dentistry to answer the need for quality training in forensic dentistry and related fields. The division, under the Department of Pathology, offers two curricula - a postdoctoral academic program for holders of dental, medical, or, in special cases, science degrees; and a non-academic program for in-service police officers and others in the criminal justice system. The fields of study include forensic anthropology and archaeology, forensic dentistry, forensic entomology, criminalistics, forensic pathology, forensic toxicology, and law and evidence.

Anyone wanting more information about either program should contact:

Dr. John Lundy
Director, Division of Forensic Studies
Pathology Department, Dental School
Oregon Health Sciences University
611 S.W. Campus Drive
Portland OR 97201
(503) 225-8904 (campus phone)
(503) 248-3746 (Medical Examiner's Office)

California Association of Criminalists

OFFICE OF THE PRESIDENT

16 June 1985.

Dear Colleague:

It is a tradition that the newly installed President write a message in the June Newsletter. A traditional theme is "Get Involved". I've thought long and hard to come up with another one this year. But I can't. For your involvement is the very essence of our great association.

The CAC is sometimes criticized for being preoccupied with ethics. Yet due to the diligent efforts of involved members, we have a well respected Code of Ethics. This Code and its enforcement procedure has, in part, contributed to the high degree of professionalism shown by CAC members.

We must not lessen our involvement with ethics. To do so would remove an essential element of our being a true "profession". What we can do is increase our participation in other CAC activities.

We have active study groups in trace, serology, drugs and firearms. Through attendance at these meetings you can informally meet with others who share common areas of interest. Even if your level of experience is limited, I urge you to attend. It is through sharing our ideas that we can individually and collectively improve.

More formal participation can take the form of presenting papers at our semi-annual seminars as well as contributing time to committees and/or the Board of Directors. We have a very dynamic Board of Directors and I anticipate a very productive year for the association.

Though an old cliche, it is true that a society is only as good as its members. In the past the CAC has proven this true. We are one of the leading Forensic Science associations in the world. Let us continue to be a growing, active organization. We can do this through your participation, at whatever level you choose. But, **get involved.**

Sincerely,

Stephen Cooper
President, CAC.

The Distinguished Member Award

The Distinguished Member Award is awarded annually by the CAC to a member for significant contributions to the association. At the semi-annual seminar banquet held at the Hyatt-Regency Hotel is Oakland on May 17 this year's award was given to Edward T. Blake.

Ed received his D. Crim. degree from the University of California at Berkeley under George Sensabaugh. His doctoral dissertation, Genetic Markers in Human Semen, stands as a landmark contribution to the analysis of biological evidence in general, and to the examination of evidence in sexual assault cases in particular. Since receiving his degree, he has been a consultant in forensic serology and has continued active research in the area of analysis of evidence in sexual assault cases. He has been awarded two National Institute of Law Enforcement and Criminal Justice research grants as a co-investigator with Jan Bashinski and George Sensabaugh. He has participated in numerous CAC activites, including being a current member of the ethics committee and a past member of the certification study committee. He has been awarded several service awards by the Association.

Ed has presented numerous papers at CAC Seminars, American Academy of Forensic Science meetings, and before other regional forensic science organizations. Anyone who has been present at meetings that Ed has attended, or who, like the author, is privileged to work with him, knows that Ed is always willing to share his knowledge and experience.

The Distinguished Member Award recognizes his continuing contributions to the CAC and the profession of criminalistics.

Award for Outstanding Service

Don Stottlemeyer was awarded an outstanding service award for his 13 years of service to the CAC in picking up and forwarding mail from our Sacramento mailbox. A substantial number of current members of the association probably did not know how to spell "criminalist" when Don began picking up the mail.

Award for Distinguished Service

John DeHaan, Margaret Kuo and Dave Stoney were awarded distinguished service awards for their participation on the CAC Board of Directors. The Association owes special appreciation to John and Margaret. It is through their skillful management of the resources of the association we now find ourselves in the admirable position of having a substantial budgetary surplus. Dave is to be congratulated for maintaining the high quality of the CAC Newsletter for the past two years.

No More Ideas!

Between the idea
and the reality
Between the motion
and the act
Falls the Shadow
T.S. Eliot
The Hollow Men

The reason the CAC exists is to serve the professional needs of its members. It does so in a variety of ways: Sponsoring seminars, publishing newsletters, maintaining contacts with other professional organization in this country and abroad, establishing and enforcing a code of ethics, sponsoring study groups, organizing dinner meetings, making annual salary surveys, responding to charges made against individual members or the profession in general, and a host of other activities that all are designed to improve the practice of criminalistics.

In spite of all of these activities, comments are often heard (and made) by members of the board of directors: "The CAC does nothing for its members," "Why can't the CAC do this?," or "Why can't the CAC do that?" The CAC cannot do anything - individual criminalists who are members of the CAC do everything the CAC does.

Lots of people have ideas of things they would like someone in the CAC to do. But, then falls the Shadow.

In fact, the board has lots of ideas, but an [almost] equal number of Shadows. We do not need any more ideas. What the board needs are proposals to turn ideas into reality. Some ideas include: Research projects, compilation of data, collection of standards, education or training courses, etc. You are invited to take one of these ideas, or any other idea, and submit a proposal to turn it into reality. A proposal would include a statement of the goals of the project, a budget, a time frame, some method of accountability for the project organizer, anticipated benefits or results, and any information that would be of assistance to the board in evaluating the proposal.

The board is looking for specific proposals that can be reviewed, approved if meritorious, and carried out. Proposals should be consistent with the objects and purposes of the association as stated in the by laws. Board members and members of the training and resources committee are ready to provide whatever assistance they can to members seeking approval for some specific project, but it is up to the members to develop of workable project.

One of the things that the board of directors does is to explore other ideas of ways in which the CAC can serve the interests of its members. The board is soliciting suggestions from members, or non-members, for ways in which the CAC can be of benefit to the individual members. We have all heard requests for these "ideas" before. The board is inviting anyone who is interested to submit proposals to turn some ideas into reality.

REPORT ON THE CALIFORNIA ASSOCIATION OF CRIME LAB DIRECTORS MEETING IN SAN DIEGO ON APRIL 18-19, 1985

The following is a synopsis of the presentations and comments made at the CACLD meeting.

MARK (HBPD)

Cal. OSHA - Citation

Cal. OSHA responded on a call from an ID Tech. on two problems. They said that Ninhydrin was not carcinogenic and the hoods were functioning properly. However, once in the building they looked at other things also. They said eyewashes were needed in all chemical and photo labs. One airpack was not sufficient. At least two airpacks were needed and all employees were to be trained in their use. All respiratory equipment was to be OSHA approved. Material Safety Data Sheets should be available on all chemicals within the laboratory.

GROUP DISCUSSION

Instrumentation Experiences

Good and bad instrumentation was discussed as well as service representatives, salesmen, purchases and leases.

KUO (OCSO)

Rape Evidence

The evidence from a rape case was stored refrigerated for 18 days until tested. When tested the rape kit exhibited negative results and no further testing was done. The panties, which were stored at room temperature, were tested one month later with positive results for semen and ABO typing. At the same time no PGM results were obtained. The defense expert who was called in obtained the same results indicating the absence of PGM was due to an insufficient quantity of material or improper storage. The superior court ruled that the panties were totally inadmissable evidence.

CAMERON (PSYCHOLOGIST)

Can Jury Selection Psychology Be Useful In Personnel Selection?

When jurors are questioned singularly (as in a murder trial) don't ask about their beliefs or attitudes because it won't reflect their behavior. Instead, ask how they

live their lives. Look at their physical appearance and body language. Ask questions to get a ballpark idea of their intelligence. For example, ask them what they read. Avoid the timid and hesitant people as well as those who have problems discussing themselves. This same type of information can be transposed into the personnel selection situation. Have at least two interviewers so that one can ask questions while the other observes. Try to challenge the person to see their response in a threatening situation. Make eye contact. Watch for alterations in posture. And if possible get pre-employment psychological testing.

OLSON (PSYCHOLOGIST)

Psychological Assessment of Potential Employees

Pre-hiring psychological screening is designed to "screen out" and "select in" applicants. Psychological programs should be evaluated using the following criteria: reliability, validity, thoroughness, defensibility, efficiency, and operational effectiveness. An extensive Life History Questionnaire must be used because past history is always the best predictor. There is a psychological testing session which uses four different instruments (tests) which test for various aspects of personality and behavior. Then there is a personal interview to discuss the Life History Questionnaire and the testing.

GROUP DISCUSSION

Breath/Blood and Breath/Urine Comparison Data

Armstrong (SDSO) - 90% of bloods slightly higher using a GCI.
Miller (SDPD) - Using a 90 sample data base, bloods were usually slightly higher.
Hider (DOJ-SB) Problems exist with breath sampling.
Young (DOJ-Riverside) - Headspace technique using EDTA sampling tubes. There is oxidation of ethanol with the acetaldehyde peak increasing and ethanol decreasing due to oxyhemoglobin complex. With oxalate tubes there seems to be a clotting problem.

GROUP DISCUSSION

How Does Your Organization Deal with Employee Annual Physical Requests?

Armstrong (SDSO) - None
Baird (SBSO) - Stress physical
Togneri (WCSD) - Commissioned employees - yearly after five years with a blood panel.
Fitzpatrick (OCSO) - Management - physical with blood panel.
Boyer (Navy) - X-Ray

Young (DOJ-Riverside) - Urine screen and heavy metals
Cook (LASO) - Anyone annually
Miller (SDPD) - Only on exposure
Berg (VCSO) - Anyone if felt exposure
Mark (HBPD) - None, prescription safety glasses provided
Stoinoff (SAPD) - None, referral if exposed

GROUP DISCUSSION

Nystagmus: Training, Utilization, Acceptance

Kestler (LAPD) - Used as a part of probable cause.
Armstrong (SDSO) - Used in refusals.
Baird (SBSO) - No involvement, officers only.
Fitzpatrick (OCSO) - Some use as probable cause, some in actual measurements and correlation.
Togneri (WCSO) - Doing some grant work, may certify officers but not on levels.
Mark (HBPD) - In conjunction with FST's.
Hider (DOJ-SB) - Test not used properly. Too far away while measuring, paper coming out on why it occurs.
Bradford (Private) - (By letter to Armstrong for CACLD) - CHP using in a careless, unprofessional manner. Moskowitz has never published the technique, basis or experimental evidence. He has only reported to the National Highway Traffic Safety administration. Bradford submitted the nystagmus matter to the Executive Board of The National Safety Council Committee on Alcohol and Other Drugs. In the case of Peo. vs Loomis, 203 Cal Reporter 767 (Cal. APP. 1984) the police officer wasn't allowed to testify concerning the nystagmus test.

FITZPATRICK (OCSO)

Reilly Decision

Brown decision from Supreme Court will probably cover this case also. Until then spend time qualifying criminalist and other scientists and refer to the vastness of literature for background. Also let the CAC letter stand alone because we don't want to appear overbiased.
Young (DOJ-Riverside) said that for background information refer to Sensabaugh, Blake or Sparks (UCLA).

GROUP DISCUSSION

Medical Protocol

This is a 35 member committee which includes doctors, criminalists, police officers, sociologists, district attorneys and rape crisis members. The work of this committee will hopefully be done in November or December. CACLD supports have a blood alcohol sample taken from the victim as well as the use of a universal rape kit.

HELSEY (DOJ - HEAD OF LABORATORY SERVICES)

DOJ Update

Helsey has moved from the Narcotics Bureau to the Bureau of Forensic Services (BFS). BFS should carry a greater burden of training along with providing written manuals.. The Forensic Alcohol Supervisor School should be done. The alcohol course may not be a "supervisors" course per se and may not include a driving study. The course would be done as a cooperative effort as before. They hope to close some of their labs in an effort to consolidate. They will again supply HOCRE reports.

CUMMINGS (SDSO)

SDSO Legislative Tracking Mechanism

In the process of legislative tracking it is necessary to be defensive and reactionary. There are several systems available. The "Bill Service" has a $500.00 set up fee and costs $1700.00 per year. It also runs 10 days behind the legislature. It was found that many managers were not prepared for the burning issues within their areas except for their own pet issues which were of small impact. There were two other systems available, one being "Legifec" and the other "Capitol Information Management"(CIM) They (SDSO) went with CIM. Your city or county may already be part of it. Phone data base set up fee is $100.00. Ask for the law enforcement net. It costs $35.00 per hour for computer time and $10.00 per month for an electronic mail service. Along with a bill tracking system it is necessary to set up a communications network surrounding your department. This network should be made up of professional organizations, legislators, state agencies, lobbyists, and advocacy groups. All of these should hopefully bring you to the point that you can respond with some immediacy to the legislative process and even get a head start before the legislature.

HICKS (FBI)

Additional Considerations in Crime Scene Management - A Psychological Assessment of Crime Profiling

We are creatures of habit. Physical characteristics of crime scenes show behavioral aspects of perpetrators indicating a psychological fingerprint. There are basically two types of behavior which lead to definite data about a person. These aspects are behaviorally organized or disorganized. There is a National Center for Analysis of Violent Crime at Quantico. At come point investigators or detectives will be brought into the program by going to one year school at the FBI Academy.

Look for physical characteristics at crime scenes that may be related to a future suspect. For example, were trophies taken, body moved, strength necessary for various aspects. Mark (HBPD) - Trying to get 4 day class on psychological profiling.

HELSEY (DOJ-BFS)

Narcotics Assistance and Relinquishment by Criminal Offenders (NARCO) - Background and Update

There is $459,000 in the NARCO fund. The money comes from seized money or assets after conviction and a hearing to determine the following: innocent lienholders, costs to maintain assets, 50% to the Department of Mental Health for prevention and law enforcement costs. State law can't seize land and vehicles must be sold and not put back into use. Federal law is better and quicker. Under Federal guidelines land can be seized and vehicles put right back into use. The IRS and Franchise Tax Board file on top of the other fund so that if it slides out then they still can't get away. The Feds are using an administrative burden. Once seized, if or if not convicted, it is not given back unless suspects can prove legitimately obtained.

FITZPATRICK (OCSO)

Alcohol Legislation Revenue

Are all costs included to offset revenue?
The following is a list of costs related by the various agencies: supervising analyst, blood/breath alcohol analyst, alcohol analyst, toxicological analyst, clerk-typist, lab-aids, librarian or information support, property custodian, kit maker, repair specialist, overtime, program manager, lab director, clerical supervisor, retirement, social security, health and group insurance worker's compensation, unemployment insurance, department fiscal administrative costs, other local government administrative costs, BA drawing kits, gc columns and supplies, gc gases, glassware, mouthpieces, printed forms, EMIT and RIA kits, cost of blood draws, rental and depreciation of building costs, journals, books, reprints, travel mileage, call-outs for accidents, classes, maintenance contracts, professional memberships, breath machines, gas chromatographs, spectrophotometers, GC/MS, typewriters, word processors, computers, diluters, liquid chromatographs, EMIT, RIA, safety hoods, simulators, copiers and vehicles.

CACLD Business Meeting

Old Business

Letterhead design chosen.
Letter to Senator Seymor to show support for the medical protocol.
Ad hoc Ethics Committee disbanded. Ethics motion tabled until there is some movement nationally until ASCLD comes back with its intent.
Legislation - Show support for the following:
1. Still receive money for performing analysis when charge goes to misdemeanor diversion. 11372.5 H&S.

2. District Attorneys are using 4230 B & P to try to get rid of cases involving small quantities of cocaine. 4230 B & P is actually for small quantities of prescription substances.
Trying to add 4230 B & P to 2401.

Proposed CACLD Position Papers - received and filed.
Ad hoc Committee on position papers disbanded.

New Business

Meetings to be held North and South in a rotating manner. The next meeting to be a two day meeting in July in Oakland.

This information is being submitted to the CAC Board of Directors so that communication can be continued between CACLD and CAC and their respective members in an effort to strive for a better working environment and a better system of justice for us all.

Respectfully submitted,

Eston Schwecke
Southern Regional Director

JOB ANNOUNCEMENTS

(Job openings are obtained from a variety of sources. Given publication deadlines and delay in receiving announcements from other parts of the country, some of the openings announced here may be filled by the time this Newsletter is received. Job announcements will normally be run only one time. Members actively seeking employment are encouraged to contact the editorial secretary for information about openings which become availbable between newsletters.)

CRIMINALIST II: HAIRS AND FIBERS
Lead examiner in hair and fiber section with opportunity to cross train in serology. requires a BS/BA degree in a physical,or natural science and two years hair and fiber experience in a crime laboratory. Contact Ronald L. Jones, laboratory Administrator, Kansas Bureau of Investigation, 1620 Southwest Tyler Avenue, Topeka, KS 66612 (913-232-6000)

LATENT PRINT EXAMINER
Requires one year experience in the filing and classification of known fingerprints, comparison and identification of latent prints and acceptance by the courts to give expert testimony in all phases of friction ridge identification. Contact German Gonzalez, (619-236-6400)

CRIMINALIST - TRAINEE
This entry level, permanent, fulltime civilian position requires a BS in criminalistics or a natural science. Candidates with training and/or graduate work in the identification of drugs will be preferred. The salary range is $2,100-2,300 per month. Contact Jan S. Bashinski, laboratory Director, Oakland Police Department, 455 Seventh Street, Room 608, Oakland CA, 94607, (415-273-3386)

LATENT PRINT EXAMINER
The Oakland Police Department anticipates an opening for a Latent Print Examiner in September, 1985. This is a civilian position within the laboratory, with a current salary range of $2,111-2,341 per month. Candidates certified by the IAI, or who meets current experience and education requirements for certification, including possession of a bachelor's degree, will be preferred. Contact Jan S. Bashinski, Laboratory Director, Oakland Police Department, 455 Seventh Street, Room 608, Oakland CA, 94607, (415-273-3386)

CHEMIST SUPERVISOR IV - FORENSIC SEROLOGY
The Indiana State Police laboratory has an opening for a forensic serologist. The position requires a BS in natural science or criminalistics and expertise in forensic serology. Courtroom experience is required. Training and/or experience in personnel management and administrative procedures is desirable. Contact Captain Robert S. Conley, Laboratory Division Commander, Indiana State Police, 8500 East 21st Street, Indianapolis IN 46219, (317-899-8521)

CRIMINALIST
The Oregon State Police Crime laboratory in Portland, oregon, has an opening for a criminalist. This is a sworn position requiring no experience or up to ten years of crime laboratory experience. Salary range is $1709-2237 per month, depending on experience. Contact Lt. George Matsuda, Training Officer, Oregon State Police Crime Laboratory Division, 1111 Southwest 2nd, Room 1201, Portland, OR 97204, (503-229-5017)

CRIMINALIST
The Fort Worth, Texas, Police Department Crime Laboratory has an opening for a criminalist with a minimum of one year experience in examination of drugs, trace evidence, or firearms. The position requires a degree in chemistry or criminalistics. The salary range is $20,628-30,492 per year. Contact Frank Shiller, Director, Police Department Crime Laboratory, 1000 Throckmorton Street, Fort Worth, TX 76102, (817-870-6510)

CRIMINALIST III
The Houston, Texas, Police Department has an opening for a criminalist with at least 4 years experience, at least two of which are in an intermediate level position. The position requires a Bachelor of Science degree in Chemistry or Chemical Criminalistics. Send a resume with a salary history to City of Houston Personnel Department, Professional recruiting, 806 Main Street, 4th Floor, Houston, TX 77002.

CRIME LABORATORY ACCREDITATION

The accreditation program administered by the American Society of Crime Laboratory Directors Laboratory Accreditation Board (ASCLD-LAB) continues to grow. Since its inception in 1982, the ASCLD-LAB has inspected and accredited thirty crime laboratories in ten states. Two other laboratory systems (involving eight laboratories) are currently being evaluated.

Accreditation is a voluntary process of peer evaluation available to any crime laboratory. A Laboratory Director may acquire a copy of the Accreditation Manual, which contains the standards that must be met, a description of the application process, and an application form, without incurring any obligation to apply for accreditation.

The Accreditation Manual has recently been revised by the ASCLD-LAB and any laboratory considering applying should obtain the revised edition. The manual is available to ASCLD members for $10 and to non-ASCLD members for $50. Periodic revisions and up-dates of the manual will be sent to the laboratories which have purchased manuals from ASCLD-LAB at no additional cost.

To obtain an ASCLD-LAB Accreditation Manual, fill out the form below and send it, with check payable to ASCLD-LAB, to:

Jan Bashinski
Executive Secretary, ASCLD-LAB
455 Seventh Street, Room 608
Oakland, CA 94607

****

Please send a copy of the ASCLD-LAB Accreditation Manual to:

NAME_____ DATE_____

TITLE_____ PAYMENT ENCLOSED

AGENCY_____ _____ $10.00 ASCLD MEMBERS ONLY

ADDRESS_____

_____ _____ $50.00 Non-ASCLD Members

_____

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STUDY GROUP ACTIVITIES

The northern section trace evidence study group met at the Oakland Police Department on March 21 and heard a presentation on cosmetics by Dr. Henry Libby from Libby Laboratories in Berkeley. Another meeting was held on June 21, in conjunction with the northern section dinner meeting. The subject of that meeting was video documentation of evidence. The moderators of this group are Marty Blake (Oakland Police Department), Terry Spears (Alameda County Sheriff's Office), and Steve Shaffer (Institute of Forensic Sciences Criminalistics Laboratory).

The northern section serology study group met during the seminar in Oakland. Anothern meeting is planned for June 21, preceeding the dinner meeting. The subject of quality assurance in forensic serology was discussed. The moderator of this study group is Gary Sims of the Institute of Forensic Sciences Criminalistics Laboratory.

A northern section firearms study group is being planned. Announcements have been sent to all laboratories. The moderators, Richard Schorr and Grady Goldman of the Contra Costa County Sheriff's Office, have suggested a variety of projects this study group might undertake. These include the collection of various types of standards and the cataloging of characteristics of certain types of weapons. If you are interested, and have not seen the announcement that was mailed to each laboratory, contact Schorr or Goldman for further information.

The southern section trace evidence study group met on March 28 for a tour of the Van Doren Rubber Company where "vans" tennis and deck shoes are manufactured. On April 25 they met for a tour of PPG Industries, the manufacturer of Pittsburgh Paints and Ditzler Automotive paints. The next meeting will be hosted by the Los Angeles County Sheriff's Office Laboratory. the date has not been set, but is anticipated to be late July in conjunction with a southern section dinner meeting. The agenda will include a discussion of approaches to soil examinations, discussion of papers presented at the May seminar, and future plans for the study group. The moderators of this group are Harley Sagara and James Bailey of the Los Angeles County Sheriff's Office laboratory and Ernie Kuo of the Los Angeles Police Department laboratory.

The southern section serology study group met on May 8 when a photographer from the Orange County Sheriff's Office discussed "Photographic Methods Used in Electrophoresis." A discussion of reasons to photograph results was also held. The next meeting is planned for June 26 at the Huntington Beach Police Department. Jan Bashinski from the Oakland Police Department, and a representative from the Los Angeles District Attorney's Office, will discuss Kelly-Frye issues and the effect on forensic serology. The next meeting will be help in conjunction with the southern section meeting in July. The moderators of this study group are Carol Rhodes, California Laboratory of Forensic Science, and Barbara Johnson and Dave Sugiyama, Los Angles County Sheriff's Office laboratory.

The southern section drug study group met on March 21, prior to the southern section dinner meeting. The topics of discussion at this meeting were cocaine, cocaine quantification and the "pooling" effect. The enxt meeting is planned in conjunction with the July southern section dinner meeting. The moderator of this group is Darryl Clardy, Analytical and Forensic Toxicology.

A GUIDE TO FORENSIC INK AND PAPER ANALYSIS

ALBERT H. LYTER, III

P.O. Box 31567, Raleigh, NC 27612. (919) 848-3696.

The following is an attempt to inform both the forensic and legal communities of the extent to which ink and paper can be analyzed. It lists state-of-the-art technology for the determination of the age of documents, as well as how ink and paper examinations can be added to the arsenal of available techniques for examining documents.

This writing is produced as an aid to individuals who might have questions about Forensic Ink and Paper Analysis. It is to serve only as a guide and not as a definitive source. I have tried to anticipate all questions, and to answer them as fully as possilble, but it must be remembered that each and every document has a different set of circumstances to be considered. Should any additional questions arise or any clarification become necessary, I would be more than happy to correspond.

I. What types of evidence can be examined?

Any material that contains an ink entry or any piece of paper can be examined. The extent of the examination will depend on the questions at hand.

II. Can it be determined that the same writing instrument was used to make separate entries?

Through physical examinations such as infrared reflectance and luminescence, ultraviolet light, and the use of dichroic filters it is often possible to detect differences in inks. Similarities in results, however, cannot be used as conclusive evidence of common origin. Chemical analysis can determine that the same ink formulation or paticular batch of an ink formulation was used to make different entries. These results together can decrease substantially the possible number of writing instruments that could have been used. It is also possible through the detection of artifactual evidence to be even more specific in terms of common origin.

III. Can it be determined that the same paper was used to make several documents?

Similarities in papers do indicate a common origin. It is necessary, however, to conduct both physical and chemical analyses to determine that the same batch of paper was used. Chemical analyses include additive identification, fiber analysis, and elemental analysis.

IV. Can an addition to a document be detected?

If additional entries are made to a document they can be detected. The presence of an additional ink formulation of a different type of paper indicate additions. When a logical explanation exists for the presence of these differences then the question becomes one of when the individual entries were made.

V. Can one tell when the document was prepared?

This can be accomplished through several means, the first being a determination of the first available date for the ink formulation and paper used. This provides us with a date before which the ink and paper did not exist and, therefore, a date before which the document could not have been prepared. This technique becomes more useful as the time between supposed and purported preparation increases. There is, however, no minimum time that can be conclusively stated.

The use of relative aging techniques can answer this question when the above technique has been inconclusive. In the instance stated earlier, additions made with a different ink formulation, it becomes necessary to obtain known writings of this second ink formulation. These known writings can be anything, as long as the date of the preparation is known.

As an example, consider patient records in which additional doctor's notes are in question. The obtaining of other patient records that were prepared at about the same time as the records in question would most likely yield sufficient known writing.

Since these techniques are comparative, the more completely the known documents represent the time period in question, the more definitive the results.

VI. Can additions be detected if the same ink formulations or paper was used?

In the case of additions to a document being made with the same ink formulation that was used to prepare the body of the document, the detection of tthese additions relies on the ability to determine when the additions were made. This being te case, it becomes necessary to use relative aging techniques. In this instance no known samples are necessary, because the body of the document will serve as the comparative standard. The results of this examination would ten be that the additions were made at a later date. Since the discriminatory powers of the techniques range from several weeks to several months, "later" means weeks or months later.

In the case were the questioned document is a sequence of dated entries that span a considerable time period, it is possible to assign a comparative date of preparation to the added entries (i.e. the additions match te entries of September 1980 as opposed to

those of July 1979, which is the date they exhibit). This can also be accomplished on documents which do not span a considerable time period by the introduction of additional known documents of the time period in question.

When the same paper was used to make an addition to a document, it is only bossible to determine the addition through comparison of known paper samples spanning the time frame between supposed and purported preparation date. These known samples must be obtained from the manufacturer and when the manufacturer is not known the examination cannot be accomplished.

VII. What can be done if an entire document is fabricated?

When it is suspected that an entire document or documents have been fabricated the sequence of examination is as follows:

1. Determine the first availabel date of the ink or inks and paper used in the preparation of the documents.
2. Perform relative aging on the questioned document (known documents are necessary).
3. If the documents indicate a sequence of occurrences that span a considerable time period, then it might be shown that the entries were made at one time, as opposed to over the indicated period.

VIII. Do these examinations harm the documents in any way?

In order to conduct these chemical analyses it is necessary to remove a portion of the written line and a small sample of paper from the document. The procedure used to accomplish this involves punching small holes in the written line. These holes are smaller than typewriter periods and do not usually affect the legibility of the writing. The paper sample is taken as a sliver from the edge of the document.

IX. How much sample is necessary to perform these analyses?

The necessary sample size will vary depending on the tests to be conducted and the available writing. A minimum of one micro-punch could give results indicating that the ink in question was not avialable at the time of preparation, while it may require 30 to 50 micro-punches to perform a full battery of tests, including relative aging. The amount of paper taken is usually about one inch long and 2 to 4 millimeters wide.

X. Can all of these examinations be performed on all ink writing?

Because the relative aging techniques are a measure of the ink's dryness, only ball point pen ink can be examined with these techniques at this time. All ink writing can be examined to ascertain the first available date. This includes ball point, felt tip, fiber tip, fountain pen and rolling marker.

XI. Can typewriting be examined?

Typewriting, as well as pencil, can at this time only be differentiated. If additions are made they may be detected by indicating that a different typewriter ribbon or pencil was used, but the time of addition cannot be determined.

XII. Will the results of these examinations be accepted in court?

All of the techniques used have been researched thoroughly and published in scientific journals. Numerous courts have accepted testimony of this kind in over 20 states and abroad. As with most areas of Forensic Science, the court acceptability is directly related to the credentials and competency of the testifying individual.

The Correlation of Angle of Onset of Nystagmus With Blood Alcohol Level: Report of a Field Trial.

By Jim Norris, Santa Clara County
Lab. of Criminalistics

The relationship between the ingestion of alcohol and the onset of various kinds of nystagmus appears to be well documented. (1, 2, 3) More recently Tharp has proposed a quantitative relationship between the angle of onset of gaze nystagmus and an individual's blood alcohol level. (4) Tharp's regression equation for this relationship is:

Angle of Onset = 51 degress - 105 x %BA.

The present study was undertaken in order to determine whether, under field conditions, police officers are able to predict an arrestee's blood alcohol level by determining the angle of onset of gaze nystagmus.

Experimental Procedure:

Police officers from a medium-sized (Population approx. 50,000) city in Santa Clara County volunteered to measure the angle of onset of gaze nystagmus in driving under the influence arrestees in their jurisdiction.

These officers were asked to measure the angle of onset of nystagmus as soon as possible after the arrest, and, in all cases, to make this measurement before the blood alcohol level of the arrestee was determined. In order to aid in the measurement of the onset angle, the officers used a protractor device especially designed for this purpose. (5) All officers were trained in the use of this instrument prior to the beginning of the field trials. Twelve officers participated in the trials, held during November and December of 1984.

Results and Discussion

During the field trials the participating officers determined angle of onset of nystagmus in 129 cases. Regression analysis yielded the following equations relating blood alcohol level and nystagmus onset (Figure 1).

(A) Blood and urine alcohol test results (n=38)
Angle = 42 - 47 B.A. r^2 =.53

(B) Breath alcohol test results (n=88)
Angle = 46 - 77 B.A. r^2 = .81

(C) Blood and urine alcohol results (.15% and less) (n=18)
Angle = 45 - 71 B.A. r^2 = .51

Results and Discussion (Continued)

(D) Officer 74: Blood and urine alcohol results (n=14)

Angle = 41 - 43 B.A. $r^2 = .56$

(E) Officer 74: Breath alcohol results (n=41)

Angle = 47 - 82 B.A. $r^2 = .88$

Several aspects of this data warrant discussion. First, these officers consistently overestimated the angle of onset at low blood alcohol levels and underestimated the angle of onset at high blood alcohol levels, relative to Tharp's equation. Secondly, even though the various regression equations tend to produce widely varying results at the extremes, there is remarkable uniformity in the .12% - .15% BA range. Thirdly, the effect of experience can be seen when one compares that results obtained by officer 74 with the general results. This officer was highly motivated and assisted in designing the study. He also possessed a great deal of experience in nystagmus measurement and in DWI cases in general. Comparison of the correlation coefficients for his equations with those for the pooled data show little difference, however. This would tend to indicate that the participating officers received sufficient training.

It is also interesting to note that the correlation coefficients are uniformly higher for the equations describing breath alcohol levels and angle of onset than for those describing blood alcohol levels and angle of onset. Since the police officers are the ones operating the breath testing equipment, it appears that, in at least some of the cases, an already known breath alcohol value may have influenced the determination of the angle of onset.

If one next examines the number of determinations at each blood alcohol level versus the angle of onset (Figure 2) one can attempt to determine whether or not measuring the angle of onset is useful in determining an individual's blood alcohol level. Examination of this data shows a great deal of overlap between the three blood alcohol ranges depicted on the graph. From this data it is difficult to see how the measurement of the angle of onset of nystagmus could be used to accurately predict a person's blood alcohol level.

Summary

The search for a method to determine blood alcohol levels without actually sampling fluid or breath from a person has, as yet, not been fruitful. While nystagmus appears to be useful as a roadside sobriety test, at this time, its use to predict a person's blood alcohol level does not appear to be warranted.

1. Aschan, G. Different types of alcohol nystagmus. Acta. Otolaryngol. Suppl., 1958, 140, 69-78.

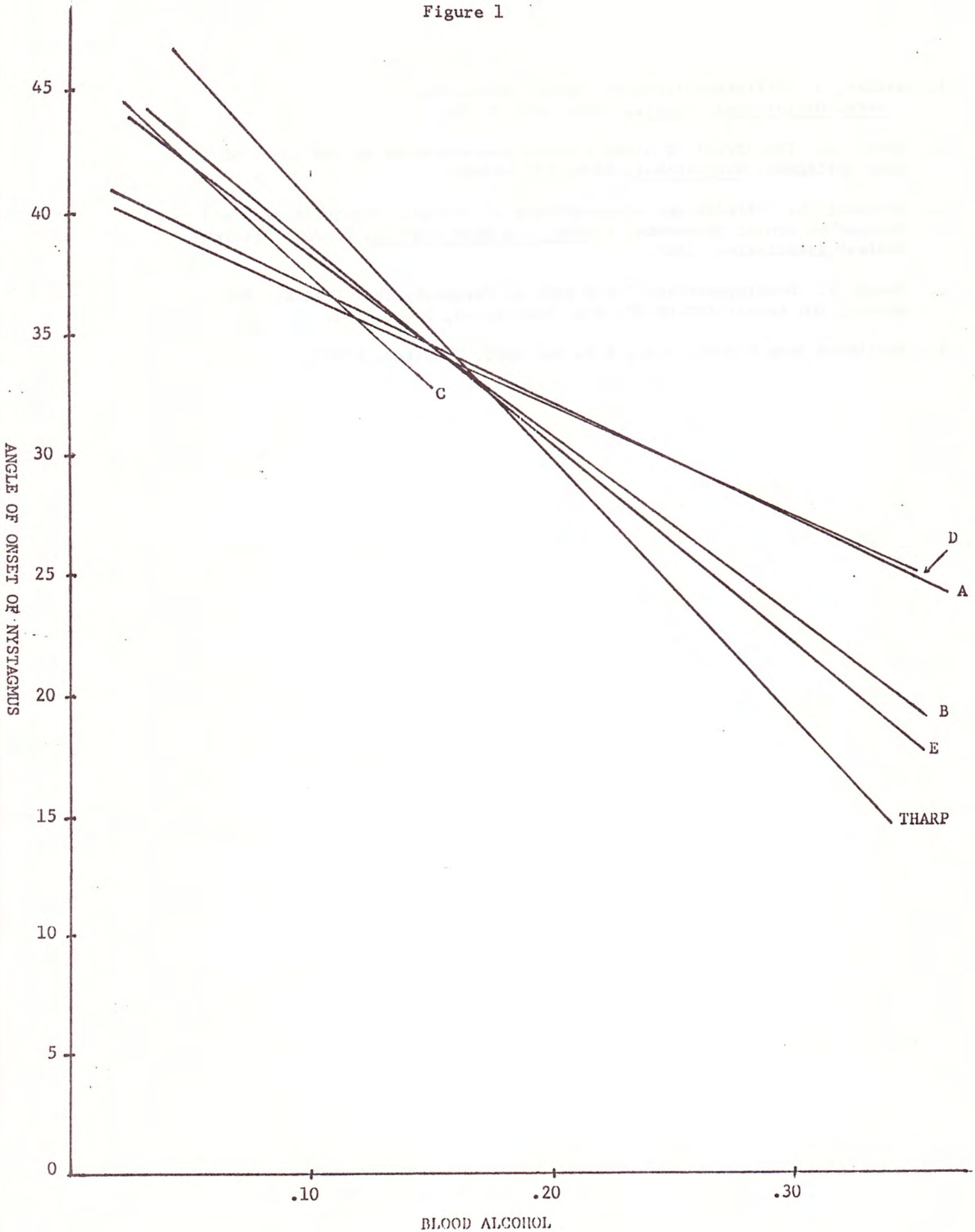
2. Lehti, H. The effect of blood alcohol concentration on the onset of gaze nystagmus, Blutalkohol, 1976, 13, 411-414.

3. Goldberg, L. Effects and after-effects of alcohol, tranquilizers, and fatigue on ocular phenomena, Alcohol and Road Traffic, London: British Medical Association, 1963.

4. Tharp, V. Development and Field Test of Psychophysical Test For DWI Arrest, DOT Report DOT-HS-805-864, Washington, D.C., 1981.

5. Available from F.O.G., Inc., P.O. Box 1095, Milpitas, 95035.

Figure 1


45
40
35
30
25
20
15
10
5
0
ANGLE OF ONSET OF NYSTAGMUS
.10
.20
.30
BLOOD ALCOHOL
C
D
A
B
E
THARP

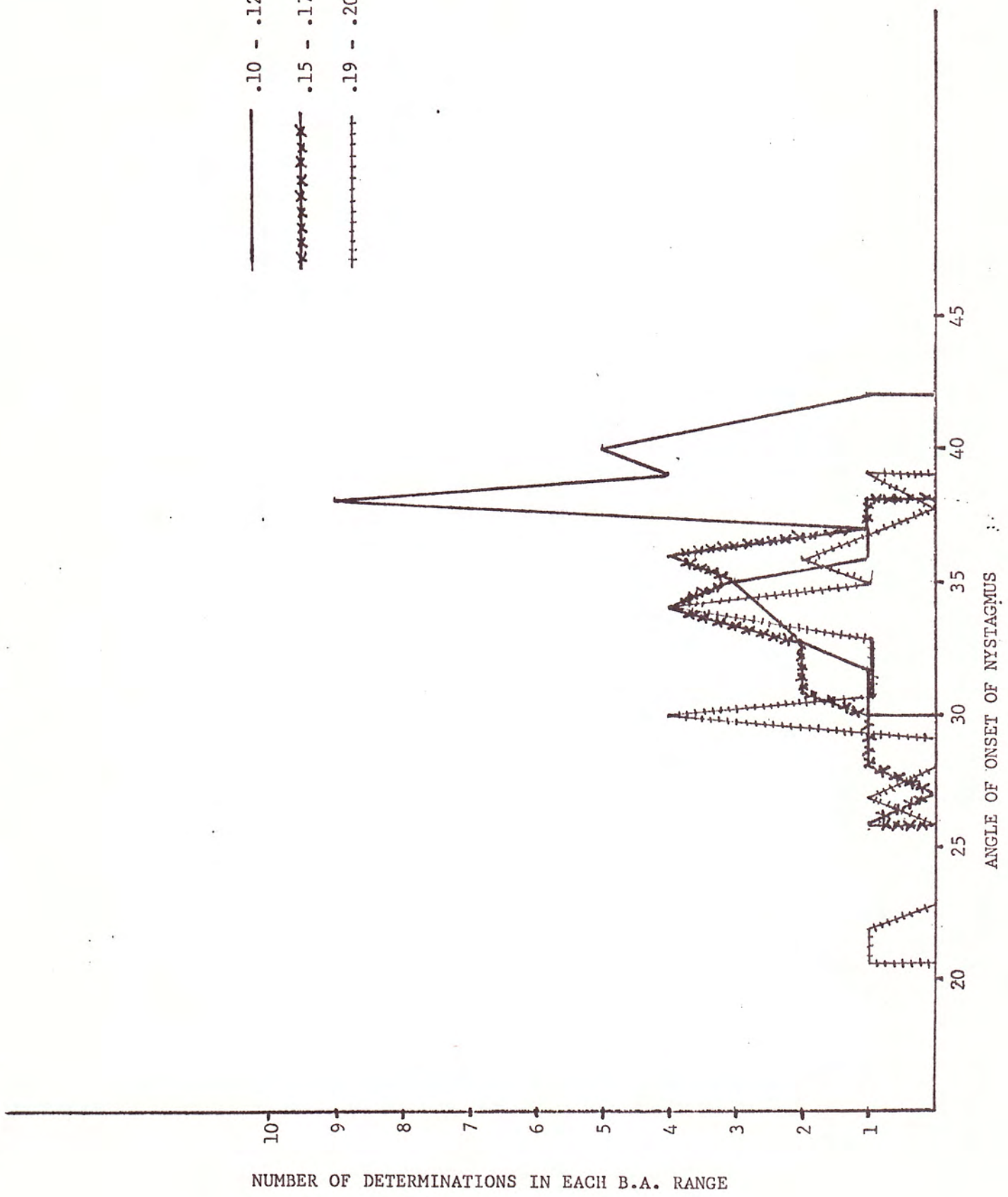

.10 - .12%
.15 - .17%
.19 - .20%
NUMBER OF DETERMINATIONS IN EACH B.A. RANGE
ANGLE OF ONSET OF NYSTAGMUS
1
2
3
4
5
6
7
8
9
10
20
25
30
35
40
45

Figure 2