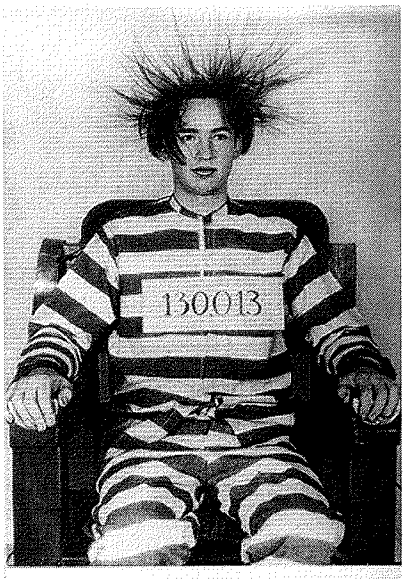
Crime Scene

June 2002 Volume 28, Issue2

Newsletter of the Northwest Association of Forensic Scientists

INSIDE



President's Message-

Budgetary constraints can make life in the forensic laboratory as challenging as the actual science we practice. It seems that as times get tough, parent law enforcement agencies and governing boards (i.e., legislatures, county commissioners, etc.) look to "cut the fat" out of laboratory budgets (where's the fat?). Often these reductions are not evenly applied to all divisions within a department, sometimes resulting in the laboratory having to take disproportionate cuts as compared to the patrol, investigations or other areas. After all, as the rhetoric goes: " we can't lose a cop off the street".

Indeed, already understaffed labs have to "make do" with antiquated, poorly functioning equipment or close "satellite" laboratories due to past budgetary decisions. This is still happening, even though the criminal justice system has come to rely upon the forensic science laboratory in new ways to solve investigations through either "cold" hits with AFIS, CODIS and NIBIN or plain, old-fashioned case working techniques combined with modern technological advances.

Furthermore, in an effort to be more efficient and save time and money, investigators often wait for lab results before putting more legwork into a case. We have all seen many instances when multiple suspects have had blood drawn / fingerprints taken/ weapons seized and the items submitted to the lab while the investigation is on hold until results are obtained. We've all read in our local papers how the evidence from a particular case has been submitted to the laboratory and how the police are anxiously waiting for results. Clearly, this marks a significant change in the burden that laboratories now play in police investigations, but, unfortunately, these issues have not been sufficiently addressed with additional equipment, personnel and laboratory space.

I would also submit that in the past, police agencies put more man-hours upfront into an investigation, prior to involving the laboratory. Evidence analysis was brought in to "bolster" or strengthen the prosecution's case, sometimes as a last minute thought. Until recently, the lab served as a critical tool for the criminal justice community but was viewed more as an "afterthought" and not as important as other divisions within the typical law enforcement agency. Could it be that prime time programs are influencing the direction that our industry is taking?

In recent years, the modern forensic science laboratory has emerged to play at least an equal or sometimes even greater role in solving criminal cases. However, the laboratory has yet to receive the financial attention that it deserves commensurate with these additional challenges. Police administrators and legislators need to rethink whom to "protect" during the budgetary decision-making process by shifting funding from the "sacred" programs within police agencies to better and more fairly address laboratory funding.

Jay Henry

Editor's Message

Odds and Ends

G	Z	B	N	T	E	G	R	T	H	G	F	E
O	L	Y	W	R	E	F	A	T	K	H	C	G
R	Y	G	L	A	S	S	I	S	Y	A	D	Q
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W	M	I	C	R	O	S	C	O	P	E	K	F

Amazing as it may sound, I have little new to offer in the odds and ends. I did want my picture in the newsletter, however so I've included this little puzzle featuring often heard terms at the Spokane NWAFS meeting.

-Matthew Noedel, ed.

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NWAFS OFFICERS for 2001–2002

Executive Committee

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Technical	Brad Putnam, Oregon State Police Crime Laboratory-Springfield, OR
Editorial	Matthew Noedel, WSP Crime Lab-Tacoma, WA

Laboratory Tips: Clothing Examination

When the aid crew cuts through a bullet hole or stab slit

When a person is shot or stabbed and an aid crew responds, one of their first concerns is to find the wound and stop or slow the bleeding. They cut the person's clothing to get it out of the way. Often, a convenient point to insert their scissors is the very stab slit or bullet wound that the forensic scientist later needs to examine. These can be very hard to find, because they are just one small part of a long cut edge of fabric.

One way to spot stabs slits and bullet holes that have been separated by cutting is to line up the edges of the fabric so that they interfit. The subtly different contours of a stabs slit or bullet hole may become evident. However it is sometimes difficult to hold the fabric in place, whether because it is stiff with dried blood, or because it is in tatters. I have found it helpful to use straight pins to secure the fabric margins to a piece of cardboard or Styrofoam (Mary Jarrett-Jackson, who trained me in the Detroit Police Department Crime Laboratory, taught me this method). This works even with furled up edges of bloodstained knit fabrics. It is also useful in piecing together garments when only fragments are found, as illustrated in Figures 1 and 2.

I keep a large piece of cardboard on hand for larger items, and deli food trays made of cardboard or Styrofoam for smaller areas. I place butcher paper between the clothing and the cardboard or Styrofoam support. For pinning cuts to sleeves, the deli trays can be cut and placed around empty cans, themselves covered with clean paper, and inserted into the sleeve. Clean up the pins afterwards by soaking in bleach.

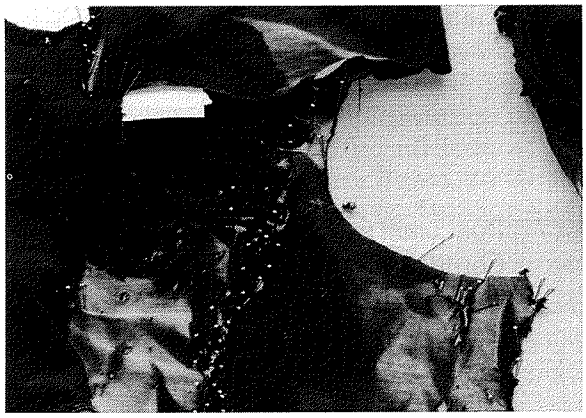


Fig. 1: These pieces of clothing found near a buried skeleton were interfitted to form a complete long-sleeved t-shirt. The margins were affected by decomposition and animal gnawing, but areas of cutting were identified after the shirt was pieced together.

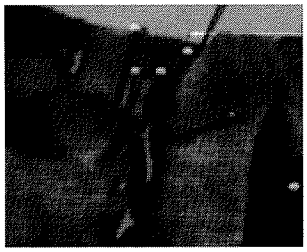


Fig. 2: This area, which superficially resembles a stab slit, was attributed to scissors damage where the point was inserted into the fabric just below the breast.

ChestereneCwiklik
Cwiklik & Associates

Laboratory Tips is a column sponsored by the Pacific Coast Forensic Science Institute. We'd like to know what you think, and would welcome questions and comments about this article.

Pacific Coast Forensic Science Institute:

Dedicated to sponsoring and supporting scientifically sound forensic science practices in the evaluation, examination and interpretation of physical evidence through teaching and research.

BUG YOUR BOSS NOW...to be sure you get to participate in the Fall 2002 NWAFS Conference October 7-11 Coeur d' Alene Resort, Idaho

WORKSHOP AGENDA

Oct 7: Post blast scene management-a FEMA perspective (full day/Jamie Crippin, FEMA)
Forensic Color Determination (full day/Max Houck, Univ. West Va.)
Untitled (full day but maybe two/NFSTC)

Oct 8: Smith & Wesson armorer's course on S&W99/Components
Manufacturing Tour (full day/Mike Hall, S&W)
Statistical Introduction-in conjunction with the DNA and Trace Statistics workshops (full day/ FBI)
Casework analysis/interpretation (half day/ Kerstin Gleim, Emerald City Forensics, Inc.)
Explosion Crime Scenes (full day/ATF)

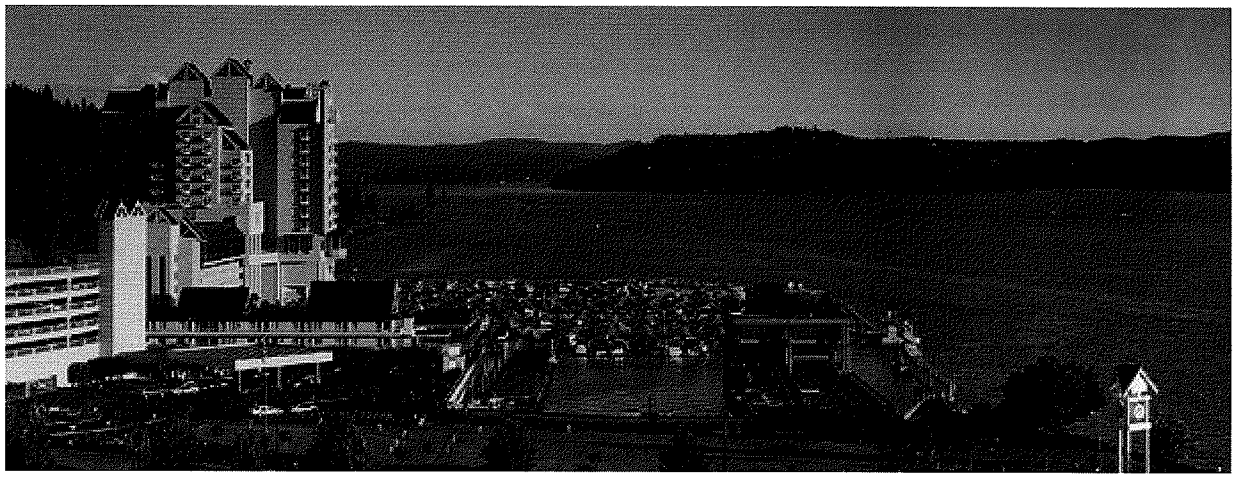
Oct 9: Trace statistics (full day/ FBI)
DNA statistics (full day/FBI)
Toxicology validation (full day/Susan Williamson, ISP)
Colt armorer's class-M-16/AR-15 (full day/Colt Representative)

Oct 10:Technical Papers from 8 AM to approximately 3:30 PM (lunch included)
Business Meeting 3:30 PM
Banquet

Oct 11: Technical Papers from 8 AM to approximately 12:30 PM (lunch included)

NOTES: *1) Lunch will be included for all participants attending workshops*
2) There may be a continental breakfast included for workshop attendees each day.

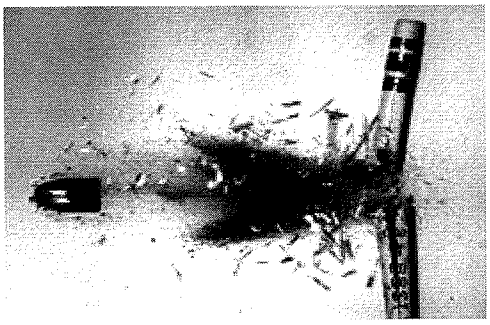
For more details contact: don.wyckoff@isp.state.id.us



- From The Diary of a Surgeon-

by John Knyveton
September 19, 1751

... The patient being a poor man had few friends able to make him drunk and so he being a well developed specimen many ropes were necessary to control his struggles. Amongst those holding him my friend the drunk gentleman pointed out a once famous pugilist and a very big man suspected of having taken the High Toby but who was employed by Doctor Urquehart and shielded by him from the law because he could lift a coffin from its bed single-handed; a useful accomplishment in these otherwise enlightened days, when the poor surgeon must rely for the advancement of his art upon the fruit of the gallows-tree and what he can snatch from the graveyards.



The incisions of Doctor Urquehart placed high up on the thigh there was considerable trouble from the mass of muscle to find the great arteries, which the Doctor for his own advancement wished to ligature with cords, though I learn that in such Institutions it is quite common to cauterize them only, with a hot iron or with boiling tar. Thus from the plunging of the patient who seemed unable to comprehend that it was done for his own good and the clumsiness of the Infirmary surgeon Mr. Jamie who was more foxed than my friend ten minutes elapsed before the leg lay on the floor, and much blood was shed. I wished to enquire from my short friend what the chances of recovery were, knowing that in such a place they must surely be very small if indeed existent at all, but after one attempt gave it up as the screams of the porter made speech impossible. Later he was removed and sawdust thrown over the floor and on the bigger blood blots on the walls - here again I saw the difference of town and country practice for my uncle could not use much sawdust as the carrier would not consider it the worth of carriage ...

Bits of Tid

In a May dispatch from Cuba, The Wall Street Journal reported that Fidel Castro proposed in 1987 to alleviate a chronic milk shortage by trying to get his scientists to clone the most productive cows, shrunk to the size of dogs so that each family could keep one inside its apartment. The cows would feed on grass grown inside under fluorescent lights. Cuba was the home of the late Ubre Blanca, the Guinness book record-holder as the most milk-productive cow of all time. [Wall Street Journal, 5-21-02]

The 22-year-old man behind the wheel of a drive-by-shooting car was accidentally killed by the passenger-side shooter, firing out the driver's-side window. [Los Angeles Times, 5-18-02]

Three young Amish men have been charged in a late-night buggy race in the Town of Leon in which a collision with a fourth buggy left a horse dead. The charges were announced Sunday after a weeklong investigation of the May 19 accident by the Cattaraugus County Sheriff's Department. Deputies were called to the scene after a dead horse and smashed buggy were found in a ditch on Riga Road last Monday.

In July, ex-student Jason Wilkins sued the University of **Idaho** for $940,000 to pay for injuries he suffered when he fell through a third-story dormitory window while mooning students. Wilkins had climbed onto a 3-foot-high heater to reach the window but claimed the university should have posted warnings.

1995 — In **Idaho** in April, three inmates filed a $10.7 million lawsuit against Cassia County because jail guards failed to give them late-night snacks.

Justin Aragon, 19, was arrested in March in Albuquerque, N.M., and charged with roughing up his girlfriend and threatening to kill members of her family. According to police, his reign of terror came to an end in the incident when he collapsed and hit his head on a coffee table after informing the victim that he had laced her drink with a toxic substance but then had accidentally drunk it himself. [Albuquerque Journal, 3-21-02]

An intoxicated 55-year-old man ran his car into a ditch, then climbed back to the highway, where he was accidentally hit by another car, driven by his intoxicated 43-year-old wife (Canaseraga, N.Y.).

So Where Is The Rest of the Information?

Sue Eipert, PhD, MLS
Eipert Information Services
seipert@eipertinfo.com
http://www.eipertinfo.com

Part I. Is all information on the Web?

Search engines on the Web are great places to find information. The answer to many questions can be discovered on a web page found through a search engine, but if an answer is not found in this way, it certainly does not mean it's unavailable anywhere. So where is the rest of published information?

I've searched for information on an enormous number and variety of subjects, especially within science and engineering fields, and for competitive market and industry information. For many years I was a corporate librarian for an engineering/environmental consulting company, and now am an independent researcher working for companies and clients. Before the World Wide Web existed, there was a multiplicity of information sources, and even today, Web search engines are far from the only source.

An intriguing study by faculty and students at the School of Information Management and Systems at the University of California at Berkeley (Lyman and Varian, 2000) estimated the world's total information on various media—print, film, optical, and magnetic. Let's look at the portion of information that is used for research—retrievable public text in both electronic format and paper.

According to this study the surface Web, or that part of the Web capable of being searched by the general-purpose search engines, contains 10 to 20 terabytes of textual content (1 terabyte = 10^3 gigabytes = 10^6 megabytes = 10^9 kilobytes). We might ask, how does this compare to printed materials? The authors, using figures from booksinprint.com in January 2000, found that there were 3.2 million titles in print in the U.S. in January 2000, comprising about 26 terabytes of information. The Library of Congress has a print media collection that includes almost 26 million books—208 terabytes. The annual worldwide production of information in publications is estimated as 8 terabytes in books, 25 terabytes in newspapers, 20 terabytes in magazines, and 2 terabytes in scholarly journals.

Where do we find information that is beyond that found on the surface Web? Well, first of all we need to consider that centuries-old medium, paper, and the databases that index paper and digital articles. Most books are not available in digital form at all; the Library of Congress is digitizing selective parts of its collection and making them available on the Web, but that is no more than a tiny fraction of the library holdings. Most scholarly journals are not accessible through Web search engines because many of those that are on the Web are available only through subscriptions to individual periodicals or to collections of periodicals. Also, many older publications will never be digitized. Older publications are often considered out-of-date and irrelevant, but can be very important in some cases. Serious medical errors have been made because doctors searched only electronically available sources, thereby missing key older articles. Litigation often requires older data such as engineering standards or medical guidelines that were in place in a particular year.

So Where Is The Rest of the Information cont. ?

Sue Eipert Eipert Information Services

Professional proprietary indexing and abstracting services such as Dialog, Lexis-Nexis, and Dow Jones aggregate hundreds of databases (Biosis, Compendex, etc.) that index periodicals. Searching these aggregations of electronic databases was the core of literature searching by librarians and other information professionals for at least 20 years before the World Wide Web even existed, and now, even though the regular Web contains massive amounts of useful information and several of the databases are available by individual subscription, the aggregator services are still extremely important. They employ sophisticated search languages that make it possible for proficient searchers to seek information comprehensively and efficiently, and they also contain extensive valuable content including esoteric subject areas. The bulk of the world's print scientific literature is indexed through these databases, and can be searched even though most of the articles themselves are not electronic.

Then there is the invisible, deep, or hidden Web—the part not penetrable by search engines. While the name given to this portion of the Web varies, as do the details of what is included in the definition the important point is that for various reasons, much of the information on the Web cannot be found directly from the general-purpose search engines that we use every day. Estimates of the size of the invisible or deep web vary from "between 2 and 50 times larger than the visible Web" (Gregory, 2001—book review of Sherman and Price, 2001) and "400 to 550 times larger than the information on the surface Web" (Bergman). Using any of these estimates, the information on the Web not searchable by general-purpose search engines is substantial. It is the fastest growing category of new information on the Internet, and tends to include more authoritative and current sources (Bergman). In a subsequent issue, I'll focus on how to find what's available in this invisible Web.

Invisible Web URL:

For an example of the invisible Web, check out the NUCEXP database (http://www.ga.gov.au/oracle/nukexp_query.html). It's a compilation by the Australian Geological Survey Organisation of all nuclear explosions recorded since 1945. Each page of search results is created from a database for a particular search and thus not indexed by search engines.

References:

Bergman, Michael K., "The Deep Web: Surfacing Hidden Value", BrightPlanet White Paper. Retrieved from http://www.brightplanet.com/deepcontent/tutorials/DeepWeb/index.asp on June 14, 2002.

Gregory, Gwen M., 2001, "Uncovering the Invisible Web: General-purpose Search Engines Only Index a Small Portion of the Internet. (Book Review)," Information Today, December 2001

Lyman, Peter and Hal R. Varian, 2000, "How Much Information". Retrieved from http://www.sims.berkeley.edu/how-much-info on June 14, 2002.

Sherman, Chris and Gary Price, 2001, *The Invisible Web: Uncovering Information Sources Search Engines Can't See,* Medford, NJ: CyberAge Books.

Report on Shot Show 2002
by Ray Kusumi--WSP Crime Lab, Tacoma,WA

On February 2-5, 2002 the National Shooting Sports Foundation sponsored the 2002 Shot Shoow in Las Vegas, Nevada. The convention center held over 1400 vendor booths. The following are some new or relatively new firearm related products observed at the Shot Show. The NSSF plan to have the Shot Show in Orlando, Florida for 2003.

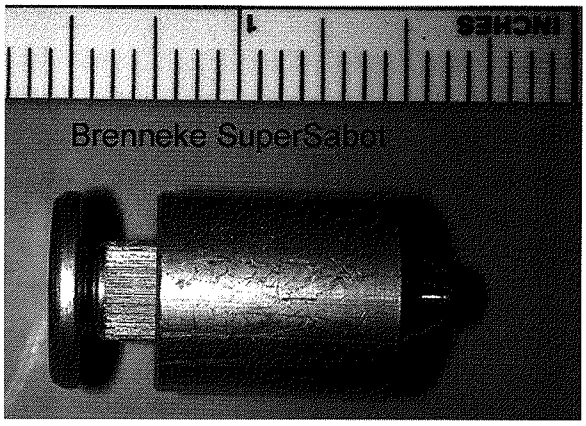
Norinco is introducing a replica of the 1917 World War I trench gun.

Barrett and IMI have produced the Tavor 21. A .223 Rem bull pup style semi-automatic sporting rifle.

Beretta is offering a new light weight .22 Long Rifle pistol for beginners called the U22 Neos.

Rogue Rifle Company produces single shot youth rifles called the Chipmunk rifle and a youth .410 shotgun. Another rifle is chambered for .17 HMR.

Global Trades Company out of Houston manufactures AK -47 style semi-automatic rifles models SSR-56, AMD-63, SSR-85, SSR-85D.



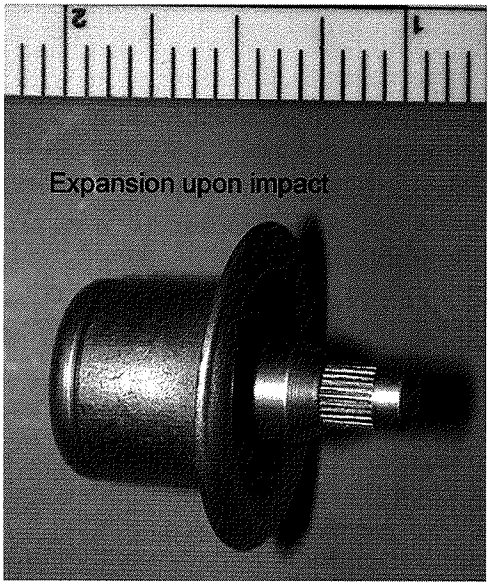
Cobra Enterprises out of Salt Lake City has bought the remaining inventory of Davis Arms. They will honor the Davis warranty and will be putting their logo (i.e. a coiled cobra) on the slides.

Kahr is producing the model PM-9, a light weight polymer frame pistol.

GRAD has added a laser sight to their knife gun.

Taurus developments are the following;

Target Hornet Revolver caliber .22 Hornet
Raging Bull revolver now available in .41 Mag and .30 Carbine
CIA revolver now with a shrouded hammer and security system
Model 63 carbine rifle and model 62



GTS offers a carbine kit for the Glock pistol.

Remington is offering a lead alternate called Hevi-Shot made of tungsten, nickel and iron. Said to be 10% denser than lead.

Many muzzle loading firearms were introduced.

Thompson Center Arms has expanded the Encore line, by offering muzzle loading capability as a pistol or rifle. Also a new Omega .50 caliber muzzle loading rifle.

Report on Shot Show 2002 cont.

Winchester is introducing several bolt action muzzle loading rifles.

Rohrbaugh has developed a .380 Auto compact pistol (capacity 6+1) using a special magnetic ring for its lock out security system. The security system can also be retrofitted to other firearms.

GOEX had a major plant accident back in October of 2001, so Clear Shot powder is not available. They hope to have production back later this year.

North American Arms has expanded its Guardian semi-automatic pistol line by offering the pistol in two new cartridge calibers, .32 NAA (i.e. necked down .380 Auto) and .25 NAA (i.e. necked down .32 Auto).

Russian Ammunition Manufacturing (RAM) is importing Russian made ammunition and will be offering handgun calibers with the RA headstamp.

Barry's Manufacturing offers an array of copper plated bullets. The .45 caliber round nose and .38 caliber wadcutter bullets have hollow bases.

PMC is offering less than ammunition for 12 gauge with rubber buckshot and rubber fin baton. New rifle cartridges being offered use the Barnes XLC coated bullets.

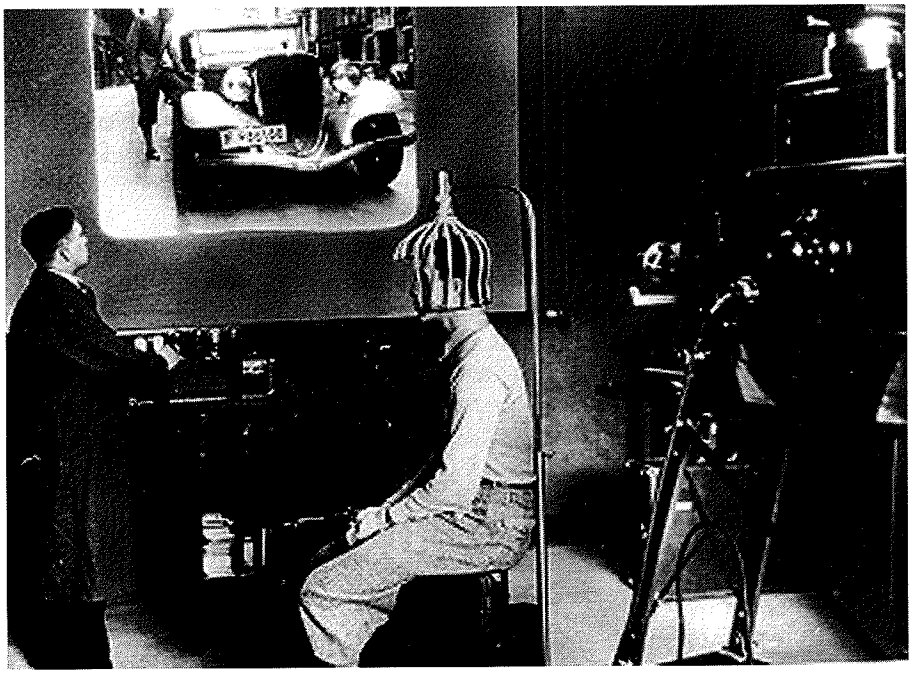
Speer's new bullet offerings are the Bear Claw bullet and Deep Shok bullet. Copper plated buckshot is available from Speer and the .22 Long Rifle Velocitor (sporting a Velociraptor dinasuar as part of the logo).

ROC Import is distributing the GPA bullet, a CNC lathed solid copper alloy bullet. It is designed for rifle use, in calibers 6mm to .600. The bullet is designed to expand and the petals break off.

Extreme Shock is producing a cartridge with a bullet using a lead-free NyTrilium™ composite. The composite fragments upon contact with hard targets. The bullets are designed to expand in soft tissue.

Brenneke has reinvented the sabot with the SuperSabot™. It has 58% more frontal area than standard .50 caliber sabots. Available in 12 gauge, it is lead-free, and uses a unique piston mechanism to present a conical profile to the sabot for better ballistic efficiency during flight and accuracy. The soft brass jacket of the SuperSabot™ expands up to a full inch upon impact.

Winchester's new offering is the Supreme Platinum Tip™ hollow point sabot slugs. They are basically large SXT/Black [illegible] type projectiles.



CAPTION THIS!

O.K. kiddies—Here's the next installment of the ever popular captioning game that's sweeping the nation.

Remember, the best caption submitted for the photo above will win a pound of Starbuck's coffee.

Decision of the editor is final.

E-mail to:
mnoedel@wsp.wa.gov

Upcoming NWAFS Meetings

Fall 2002
Coeur d'Alene, Idaho
Coeur d'Alene Resort
October 2-11, 2002
Don Wycoff, chair

Spring 2003
Reno, Nevada
Joint meeting with CAC

Proposed Meeting sites
Fall 2003
Portland, Oregon

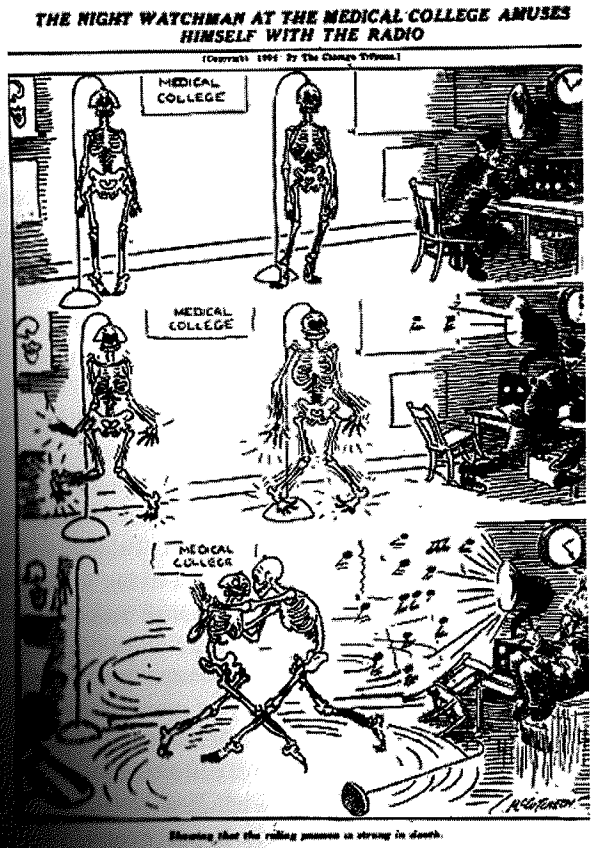
Spring 2004
Missoula, Montana

ABSTRACTS NWAFS SPRING MEETING --SPOKANE Spring 2002

A New Forensic Science Program at Eastern Washington University

Dr. Suzanne Bell, Eastern Washington University

In conjunction with the Washington Sate Patrol (WSP) and in consultations with the Idaho State Patrol (ISP), EWU has developed a new program in forensic science. The degree is an option under the chemistry department and includes a strong biology component to prepare students for further training in DNA analysis. The degree will be available starting in fall 2002. An overview of the program will be presented and opportunities for participation by regional laboratory personnel, in either teaching or research activities, will be discussed. Input and ideas for regional collaborations, including acquisition of shared instrumentation will be sought.



A New Approach to Predicting Year of Birth Based on Skeletal Remains, Neural Networks, and Commercial Data Mining Software

Dr. Suzanne Bell, Eastern Washington University

Neural networks are data analysis tools well suited to a variety of forensic applications. With the advent of widely available commercial software designed for business use, networks have become easier to use, versatile, flexible, and an ideal complement to existing statistical techniques. With the integration of genetic algorithms, the once daunting tasks of network optimization and variable selection have become manageable. In the present study, networks were used to classify skeletal remains and to predict race, sex, and age-at-death and secular change patterns based on common osteological measurements of the skull. A brief overview of networks and genetic algorithms will also be presented.

GASTRIC CONTENTS AND VOMITUS
Enzymatic and Microscopical Tests
William M. Schneck, WSP Crime Lab-Spokane

A simple reliable micro-enzymatic test will be presented to identify vomit stains at the microscopic level. The test consists of placing a small quantity of a suspected vomit stain in a cavity microscope slide. One to three drops of whole cows milk is added to the stain, the slide is then placed in a humidity chamber for 30 minutes after which a microscopic examination for the presence of curdling is conducted. As far back as 1897 (Simon, C.E., *A Manual of Clinical Diagnosis by Means of Microscopic and Chemical Methods*) workers have tested for the presence of gastric enzymes using the coagulation effects of milk. Further works by Lee, H. C., Gaensslen, R. E., Galvin, C., and Pagliaro, E. M., (JFS, January, 1985) have verified the curdling activity of milk in the presence of gastric contents. This test can be used in conjunction with food product identification to identify a stain as vomit. Food ingredients such as starch can be readily identified using the polarizing light microscope. With the aid of case studies, a variety of foods will be discussed with staining methods used in their microscopic characterization.

Fiber Analysis of Questioned Documents
Walter Rantanen, Integrated Paper Services

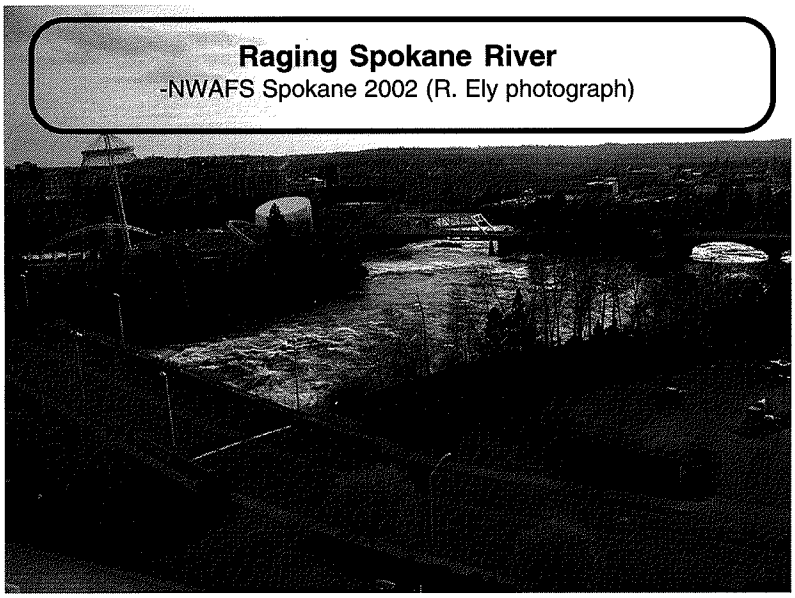
Usually only superficial paper characteristics are used in separating or validating specific documents. The most common features examined are the general appearance, color, caliper, and if any watermarks are present. Within the actual

ABSTRACTS NWAFS SPRING MEETING --SPOKANE

paper can be found a significant number of variables even with documents that appear relatively the same. Each manufacturer can have their own recipe for producing the paper. The types of fivers, their ratios, pulping process, variables, additives, fillers, and other pigments can be used to show papers are consistent or decidedly different.

Fiber Reference Collection Database
Ken Keiper, WSP Information Technology Division

The Fiber Reference Collection Database, developed by the Washington State Patrol's Information Technology Division for the Washington State Patrol's Crime Laboratory Division will be demonstrated. This demonstration will give a brief explanation of the design of the Database. This demonstration will also provide information on Adding Analysis Data and Browsing Analysis Data concerning Microscopic data, Refractive Index Data, Dispersion Staining Data, and Solubility Testing Data. The demonstration will wrap up with a Questions and Answers session.



Raging Spokane River
-NWAFS Spokane 2002 (R. Ely photograph)

Technical Challenges Encountered During the DNA Process of World Trade Center Disaster Victims
Christopher Cave, Bode Technologies Group, Inc.

The events of September 11th se off, amongst other things, the world's largest DNA identification project ever. In order to generate and report results in a timely fashion a blending of techniques and staff from high throughput data banking and forensic casework was required. Since October 12th over 17,000 samples have been process ranging from skeletal remains, soft tissue remains, DNA extracts and family reference samples. One of the greatest challenges has been sample quality, as many of the remains had spent several weeks in burning rubble of >2000°F. From tissue extracts we are only recovering profiles from ~30% of the samples and obtaining ~70% no results. At present we are obtaining results from~71% of the skeletal remains while getting no results from ~29% of the bones. This can be directly compared to the analysis of skeletal remains of the AA587 crash where remains recovery occurred more quickly. Using the same methods, profiles were obtained from 93% of the bones tested with only 7% no results.

VOLCANIC, BIOGENIC AND EXTRA-TERRESTRIAL GLASS
William Schneck-WSP Crime Lab-Spokane

Glass may be defined as an inorganic product of fusion which has cooled to a rigid randomly disoriented state without crystallizing. Glass particles are a common trace evidence material examined in crime laboratories. Most examiners involved in the characterization and comparison of glass are familiar with manufactured glass products such as float glass, tempered glass, bottle glass, and glass fibers. Non-manufactured glass is relatively common in nature and will be described. Examiners will find non-manufactured glass in soil, building materials, abrasives, polishes, filters, cleaning agents, and fillers in paint and polymers. Biogenic glass as the name implies, originates from a living organism. Microscopic diatoms, radiolarian, sponge spicules, and phytoliths will be described. Volcanic glass originating from extrusive volcanic source rocks range from obsidian, pumice, perlite and have a variety of more exotic forms such a Pele's Hair. A very unusual glass in which you will probably never see in casework is of extra-terrestrial origin. Tektites are chunks of lunar rock which were ejected from the moon during several meteorite impact events. During reentry into earth orbit they were re-melted by aerodynamic ablation. They can be found in the United States, Czechoslovakia and Australia to Asia.

ABSTRACTS NWAFS SPRING MEETING --SPOKANE

Detection of Gunshot Residues on Secondary Surfaces
Matt Noedel, WSP Crime Lab-Tacoma

Deposition of gunshot residue (GSR as gunpowder particles, nitrites, and vaporous lead) has been well documented on relatively close intermediate targets in-line with the shooting trajectory. Recently, a number of requests have been made about the potential presence of GSR on surfaces not directly in-line between the muzzle of the gun and the ultimate target impacted. Of particular interest are situations when the shooting environment is in a confined space (like the inside of a car). A series of experiments were conducted to evaluate the potential for deposition on such adjacent surfaces, the potential for locating and recognizing the deposition, and the persistence of these residues.

Proposed Method for Analysis of Personal Lubricants/ Creams/Lotions found on Clothing
Dr. JoAnne Marzowski and Ken Prentice, WSP Crime Lab-Seattle

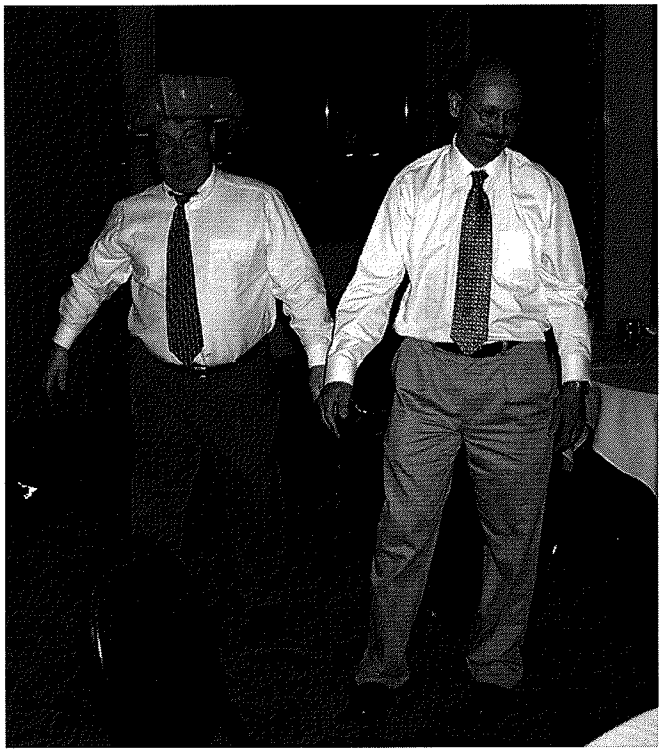
A proposed scheme for analysis of lubricants, creams and lotions in clothing stains will be presented. KY Jelly, Vaseline Intensive Care hand cream, and Coppertone Sunscreen lotion were analyzed using stereomicroscopy, Fourier Transform Infrared Spectroscopy (FT-IR), and Capillary Zone Electrophoresis (CZE). Lubricant stained material was screened using stereomicroscopy and FT-IR. Discreet differences were found in CZE of these three lubricants. CZE analysis of control and lubricant stained clothing will be presented.

An Interesting Shooting Scene Reconstruction
Gaylan Warren, Columbia International Forensics Lab

This talk examines a shooting scene reconstruction by four different methods. The shooting scene involved four vehicles, two shooters, and two targets. The questions asked were: Where were the shooters and the targets? And were they moving or not? The scene was reconstructed by string, trigonometry, and total station. The talk will examine the methods and results.

A Comparison of Retention Times and Elution Order Between Two Low Bleed GC/MS Columns
Arnold Melnikoff, Spokane W.S.P. Crime Laboratory

OV-1 and OV-5 are the most common capillary columns used for GC/ MS drug analysis. The 100% dimethyl polysiloxane and 95% dimethyl-5% diphenyl polysiloxane columns are used because of their relatively low bleed and high temperature limits and their boiling point elution order. Unfortunately there is only a modest difference in retention time. The DB-200 columns stationary phase of trifluropropyl polysiloxane stationary phase offers the same low bleed and high temperature limits but has the additional advantage of changing the elution order of compounds that contain lone-pair electrons or with electron rich molecules such as aldehydes, ketones and unsaturated compounds. This paper compares the retention time and elution order of 0V-5 to DB-200 capillary columns in the analysis of controlled substances.



An Officer and a Gentleman
or
Ohh the power of Cheese !

Images from Spokane

--The 2002 Wind-up Sperm Cell Derby

Minutes of the NWAFS Board of Directors Meeting
4/24/02
Spokane, Washington

Presents at the meeting are:
Jay Henry, Tom Barnes, Rhonda Banks, Bill Marshall, and Matt Noedel

President's Report:

- Minutes of the last Board of Directors meeting were reviewed and accepted.
- Discussion on meeting organization policies.
- Chairperson of the CAC Reno meeting has requested an estimate on the number of rooms the NWAFS will likely need for the joint meeting. It was decided that a 100 room night estimate was appropriate.

Treasurer's Report:

- The financial statement was presented (see attached).
- Taxes for 1998, 1999, and 2001 were filed in late 2001. An IRS penalty of $620 for 2001 has been assessed. Along with payment, a letter was written to the IRS requesting a waiver of this penalty. It will be returned to us if the IRS grants the waiver.
- Suggestion that we make a renewed effort to perform yearly audits of the books. A yearly audit will be performed yearly by the President. Rhonda will check on cost of external audit to be performed once during each Treasurer's term.
- Suggestion that we change accountants after the current tax situation is resolved due to the expense of the current firm. It is the Treasurer's responsibility to choose an accountant. Rhonda will research possibilities.
- The list of duties for the Treasurer position is inadequate. Rhonda will modify the list for review at a future BOD meeting.
- Suggestion that a standard list of income/expense categories for meetings be created and become part of the meeting organization guidelines notebook. This will provide uniformity in the record keeping.
- According to our accountant, the income/expense report and receipts for each meeting must be maintained for a period of three years for tax auditing purposes. It was decided that these records will be forwarded to the Treasurer for centralized storage.
- The accountant has suggested that we adopt a policy that no checks can be written to "CASH" to prevent the possibility that funds could be withdrawn from our account without a receipt. No such improprieties have taken place in NWAFS history. The BOD approved the adoption of such a policy.
- A suggestion was made to change our dues notices to read "US funds only". The change was approved.
- The BOD was made aware that expenses would be incurred in the future for Microsoft software and a carrying case for the laptop computer.
- A method for tracking our fixed assets (i.e., laptop, projector, tape library, etc.) was suggested. The laptop and responsibility for tracking the projector will reside with the Treasurer. Software for the newsletter will reside with the editorial secretary. It is unknown who has the lending library at present. Traditionally it has been the technical secretary. Matt will check on who has it now.
- Web page needs to be updated with current version of bylaws.

Editorial Secretary Report:

- Matt is finished with newsletter in October and will not do anymore even if no new editorial secretary is elected. Jon Dyer from the OSP Portland Lab has expressed interest, but would like to have a discussion with Matt to better understand what is involved.

Technical Secretary Report presented by Tom Barnes on behalf of Brad Putnam:

- The cost for NWAFS.org is $49.95 set up fee and $50/month. The costs for NWAFS.com are $24.95 set up fee and $25/month. The BOD approved the use of NWAFS.com.
- Brad would like to purchase Adobe Acrobat for web design. BOD approved. ($249)
- Brad should contact Lisa and have her disable the website at her personal page and get an electronic copy of the materials from her.

Membership Secretary Report presented by Jay Henry for Julie Doerr:

See attached copy of report.

Life membership: Ann Bradley will accept at the Coeur d'Alene meeting. No other nominations have been received.

Old Business:

- Park City lost about $ 3400
- Redmond made approximately $1100 profit
- Continued discussion of a policy for Ethics violations.

New business:

- Future meetings: Coeur d'Alene meeting is Oct 2-11, 2002 with Don Wycoff as chairperson. It is to be a traditional format meeting at Coeur d'Alene resort with rooms $160/night. Less expensive accommodations are available nearby which could be a present a problem

with some agencies facing serious budget issues. DNA and trace workshops are planned and Don is also attempting to get locals involved with a mass disaster workshop. Mailings anticipated July 1.

- Spring meeting: Joint meeting with CAC in RENO, Susan Harmon of CAC as chairperson. May have to go to middle of April or into May for a date.
- Portland will be proposed as the site for the Fall 2003 meeting.
- Future meetings: Montana , Tacoma, WA and a Southern Oregon location were mentioned as potential sites

Spring 2002 Business Meeting

West Coast Grand Hotel
Spokane, Washington

President Jay Henry called the meeting to order at approximately 9:00 a.m.

A sufficient number of regular members were present to establish a quorum.

Old Business:

Minutes from the meeting in Redmond, OR were presented

Treasurer's report was presented by Rhonda Banks

Net Worth:		
	Checking	$ 9183.58
	Savings	$ 6018.03
	Dreyfus	$21820.28
	TOTAL	$37021.89
Income/Expenses		
	Income	$ 6675.34
	Expenses	$-5920.40
	TOTAL	$ 754.94

Membership report was presented by Jay Henry for Julie Doerr

Membership Tallies

212	Regular
9	Life
36	Associate
35	Provisional
0	Provisional Associate

Resigning Members

Helen Griffin
Robert Martin
Ken Meneely
James White

New Member Applications

Regular:

Jeffrey W. Borngasser, Oregon State Police, Springfield, OR

David S. Murdock, Utah Department of Public Safety

William A. Stubbs, Washington State Patrol, Seattle

Associate:

Michael Frost, Weber State University

Dues Collection

Dues collection is proceeding well.

Life Member Nominations

None

Changes in Membership Status

None

Nominations for Officers

Candidates for Member-at-Large, Membership Secretary, and Editorial Secretary are needed. Nominations may be submitted to the Membership Secretary. Self-nominations are encouraged.

Editorial Committee report presented by Matt Noedel

No newsletter editor replacement has yet been identified

Matt will continue through October of this

year and will then resign as editor whether a replacement has been identified or not.

Technical Committee report presented by Tom Barnes for Brad Putnam

A new website will be established at NWAFS.com

Adobe Acrobat 5.0 will be purchased for the website ($249)

Jeff Borngasser in the Oregon State Police, Springfield laboratory will be the administrator.

No objections were raised to any of the reports.

New Business:

Future Meetings

Fall 2002
Coeur d'Alene, Idaho
Coeur d'Alene Resort
October 2-11, 2002
Don Wycoff, chair
Traditional format

Spring 2003
Reno, Nevada
Joint meeting with CAC

Proposed Meeting sites

Fall 2003
Portland, Oregon
(T. Barnes/B. Schneck) msp

Spring 2004
Missoula, Montana
(A. Bishop/A. Melnikoff) msp

Discussion regarding the FBI backing out of the audit workshop for the Spokane meeting (A. Melnikoff).

Discussion regarding the difficulty of establishing a quorum at meetings with low attendance (R. Ely)

Discussion regarding review of life members (R. Ely)

Discussion regarding whether the NWAFS should change to one annual meeting (B. Schneck)

Adjournment approximately 10:15a.m. (A.Bishop/ B.Schneck) msp

The American Academy of Forensic Sciences ANNUAL MEETING will be held February 17-22, 2003, at the Hyatt Regency Hotel in Chicago.

VOLUNTEERS ARE NEEDED

—Each year, wherever the Academy meets, 200-300 volunteers are needed.

JOB DESCRIPTIONS FOR AAFS VOLUNTEERS

Many volunteers are required to run the Annual Meeting. This page provides an idea of the tasks volunteers will be asked to do. Detailed instructions will be provided to volunteers when assignments are finalized.

Non-Member Volunteers **are eligible for complimentary meeting registration. (*Note: The non-member registration fee for the 2002 AAFS meeting is at least $350!*) If you are a non-member volunteer, you may attend all sessions, to include presentations of scientific papers, vendor exhibits, etc. any day during the Meeting from February 17-22. The complimentary registration does *not* include sessions requiring Pre-Registration and fees other than the basic meeting registration, like workshops, breakfast seminars and luncheons.**

AAFS Member Volunteers do not receive complimentary registration for volunteering. The Academy does need members to volunteer, however, and service to the Academy is a responsibility that comes with membership. Further, most sections require service to the Academy to partially fulfill requirements for promotion.

1. AAFS OFFICE ASSISTANT —Will provide general administrative assistance, answer phones, deliver messages and assist as needed.

2. BREAKFAST SEMINARS. WORKSHOPS. SPECIAL SESSIONS AND LUNCHEONS— Volunteers will assist in collecting tickets and taking attendance at these functions which require pre-registration and may assist in distributing hand-out materials, as well as serve as an A-V technician (load trays, run lights, etc.).

3. STUDENT ACADEMY ASSISTANT —Volunteers will handle registration of students as they arrive on-site and will guide them into the meeting room. Also, they will oversee refreshment breaks.

4. PLENARY SESSION ASSISTANT —Help usher in audience, assist with escorting speakers (as required), serve as A-V technician (load slide trays, run lights, etc.) as required, etc.

5. A-V ASSISTANT —Will serve as A- V technician for Pathology/Biology, Toxicology and Criminalistics scientific sessions. Will load slide trays, run lights, etc.

6. LOCAL INFORMATION BOOTH —Located near the AAFS Registration Area and will be open through Friday. Answer questions, give directions, provide restaurant and show recommendations, information on shopping, fun, etc.

7. ANNUAL BUSINESS MEETING ATTENDANCE TAKER —Help check off names of those attending the Annual Business Meeting.

8. POSTER SESSION ASSISTANT —Will assist in posting poster session signs to poster boards, etc.

9. REGISTRATION DESK ASSISTANT —Will provide general assistance at the AAFS Registration Desk in assembling generic meeting packets, replenishing supplies, etc.

10. EXHIBIT REGISTRATION ASSISTANT —Will man Exhibit Registration Desk, registering exhibitors and providing them with their meeting packets. Minimal typing may be required (i.e. exhibitor badges, etc.).

11. DALLAS PROMOTION BOOTH —Volunteers will hand out information and stickers at a booth designated to promote the AAFS 2004 Annual Meeting in Dallas TX.

12. SECTION BUSINESS MEETING ASSISTANTS —Volunteers collect New Officers Report Forms (election summaries) from the sections' meetings and return them to an AAFS representative in the room designated for the AAFS Annual Business Meeting.

13. PACKING ASSISTANT —Will assist at the AAFS Registration Area in packing material for return to AAFS Headquarters.

AAFS Meeting Volunteer Information Form

NAME: _____

TITLE: _____

ORGANIZATION: _____

STREET / MAILING ADDRESS: _____

_____

CITY: _____ **STATE/PROVINCE:** _____

ZIP/POSTAL CODE: _____ **COUNTRY (IF NOT USA)** _____

TELEPHONE#: _____ **FAX#:** _____

E-MAIL: _____

AAFS MEMBER? : YES___ NO___

-Please mark (X) all dates that you will be available as a volunteer
-Please mark (X) the number of days for which you are willing to volunteer

DATES AVAILABLE:	TIME OF DAY AVAILABLE:	
Saturday, February 15:_____	AM____	PM____
Sunday, February 16:_____	AM____	PM____
Monday, February 17:_____	AM____	PM____
Tuesday, February 18:_____	AM____	PM____
Wednesday, February 19:___	AM____	PM____
Thursday, February 20:_____	AM____	PM____
Friday, February 21:_____	AM____	PM____
Saturday, February 22:_____	AM____	PM____

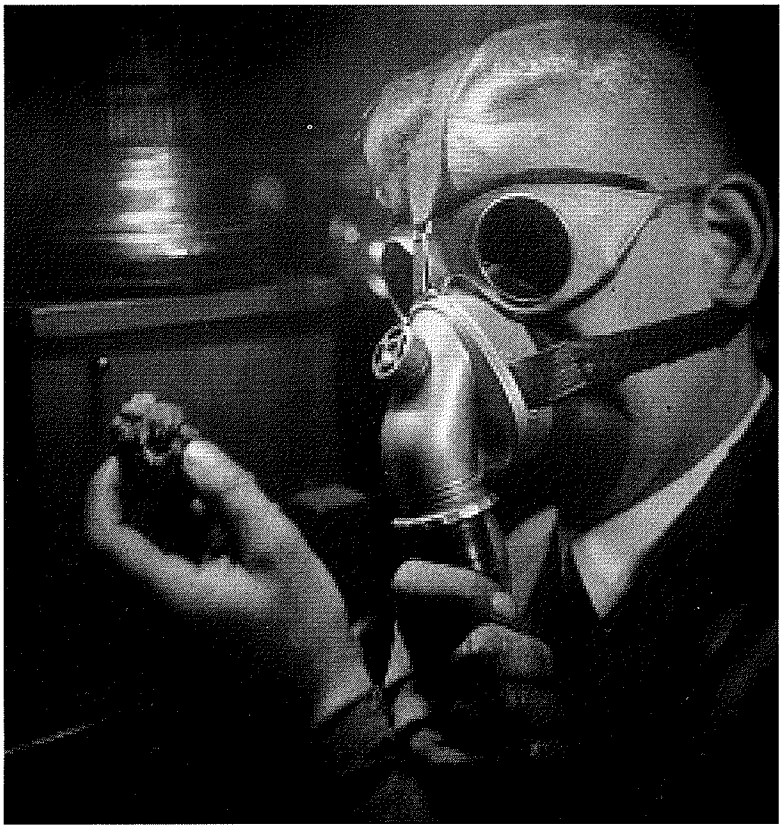
NUMBER OF DAYS FOR WHICH YOU ARE WILLING TO VOLUNTEER:

ONE (__) TWO (__) THREE (__)

This form should be returned to the person / address below, before November 15, 2002:

Dr. R.E. Gaensslen **312-996-2250 FAX 6434, E-Mail: reg@uic.edu**
University of Illinois at Chicago
College of Pharmacy
Forensic Science (M/C 866; Room 335)
833 South Wood Street
Chicago IL 60612-7231

CAPTION THIS !



WE HAVE A WINNER!

Dave Wakefield from Utah says:

"Even though it had been collected before she was famous, Dr. Wilson was convinced that one day his collection of Oprah Winfrey`s belly button lint would be worth something".

Your Starbucks coffee is on its way!

About the Newsletter...

The Newsletter is the official publication of the Northwest Association of Forensic Scientists. It is published 4 times a year in the months of February, May, August, and November. The Newsletter welcomes submissions from its membership such as technical tips, case studies, literature compilations, workshop or training notifications, reference citations, commentary, historical accounts, and other topics of interest to the membership. While not currently required, please submit material for publication in Microsoft Word for Windows format as an e-mail attachment or on a 3.5" floppy disk. For more information regarding the Newsletter contact

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