

The International Association For Identification  
Utah Division of I.A.I.

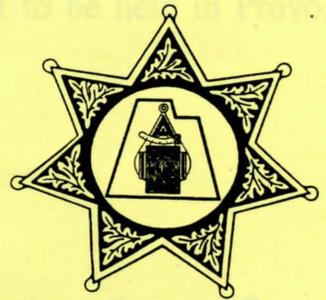
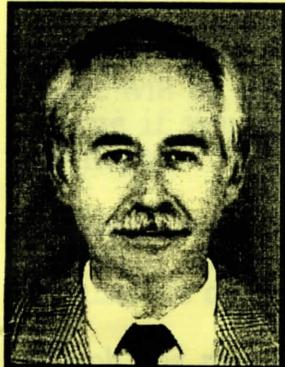
Chartered 1989

NEWSLETTER

PRESIDENT'S MESSAGE

by

George J. Throckmorton



The tempus is fugit! How time flies when you're having fun! It was almost a year ago when I was elected the President of the Utah Division of the I.A.I. and this past year has passed so very quickly. It seems there is never enough time to complete everything you want to complete, but I am pleased with what has happened, and the direction we are going. Don Thurgood is the Vice President and will become the new President for 1997-97. He has some good plans, and I encourage your support for him.

The International Association for Identification had their annual conference in Boston the last part of July and we had two of our members attend this meeting. Jeff Itami and Darren Jewkes were fortunate enough to attend, and from what I heard it was well worth the time and expense involved. I have asked them if they would give us a report on some of the highlights of this meeting at our next Utah Division meeting.

I recently received information that San Francisco hosted the annual meeting of the American Bar Association. One of the topics of discussion was "forensic science" and the "expert witness." I heard they discussed courtroom testimony of the expert and how to minimize the impact on the jury. They attacked all the forensic sciences and if their meeting is any indication of the future, we need to prepare for more difficult cross-examinations at trial. One of the things emphasized was the need for ongoing training and affiliations with professional organizations.

If an attorney from your area attended this meeting, the term of "junk science" may begin to show itself in the courtroom even in some of the rural areas of the state. There are articles being written and books being published about how to cross examine an expert witness and belittle not only their individual expertise, but also the field of forensic science itself.

We have O.J. to thank for this most recent attack. Although, the field of forensic science if valid, it is only as good as the witness on the stand and how well they present their qualifications and their testimony to the judge or the jury. I encourage each member of the IAI to take advantage of the many training opportunities available today.

Speaking of training opportunities; I hope you all take advantage of the opportunity for learning that will be presented at our next Utah Division of IAI to be held in Provo, Utah October 2, 1997.

Our tentative program:

- The new U.S. currency and how to detect counterfeit.
- Digital cameras in law enforcement, the future is upon us.
- Polaroid's new law enforcement camera kit.
- Plaster casts of fingerprints; what, and how to do it.

The Business Meeting will involve regular business plus the election of new officers. Be there to get your voice heard, and to vote in the officers of your choice.

There will be a nominal fee (\$10) for non-members to attend this meeting. There is no charge if you are a member of the Utah Division of the I.A.I.; membership has it's privilege.

Not only do we learn a lot from these meetings, but it is a good opportunity to meet and associate with others in the same profession. Many have told me that the casual discussions during lunch and breaks are just as valuable as the official presentations.

Watch for registration application and additional details to be sent to you about this upcoming meeting. If for some reason you do not get an application in the mail for this meeting by Sept 22nd, please give me a call at (801) 799-3030 for more information. We expect a good turnout so plan in advance.

The progress of the "James H. Gaskill Award of Excellence and Achievement" will also be discussed during our meeting, and I encourage everyone to provide input regarding eligible candidates.

Contact others who may be interested in the IAI and the Utah Division, and those who want to improve their professionalism. It is one of the few organizations that brings scientific training close to home at a reasonable price.

I look forward to seeing you and hope you are all meeting with success in your individual efforts.

**George J. Throckmorton**

**1997 Utah Division of I.A.I. President**

# The Utah Division of the International Association for Identification 1997 Semi-annual Training Seminar

## Tentative Program

TIME: Thursday October 2, 1997,

LOCATION: Provo City Police Department, 48 South 300 West, Provo, Utah

Registration/reception .....	8:00/8:30am
Welcome and opening remarks .....	8:30/8:45am
I.A.I. International Conference (Latest from Boston meeting) .....	8:45/9:15am
Jeff Itami, Salt Lake County Sheriff's Office Darren Jewkes, Utah State Crime Laboratory	
Break .....	9:15/9:30am
New U.S. Currency and counterfeit detection .....	9:30/11:00am
Steven Berthold, Special Agent, U.S. Secret Service	
Police photography .....	11:00/noon
The new Digital Cameras ..... Kodak Representative	
LUNCH (provided) .....	Noon/1:00pm
Police photography (continued) .....	1:00/2:00pm
Polaroid Law Enforcement Kit ..... Polaroid Representative	
Plaster casting techniques .....	2:00/3:30pm
Comparison of different materials & methods (hands-on workshop) Trent Grandy, Supervisor Salt Lake City PD, Crime Lab	
I.A.I. Business Meeting (members only) .....	3:30/4:30pm
Election of new officers Update on James Gaskill Award Other business	

The Utah Division of I. A. I. has been chartered division of The International Association for Identification since 1989.

The Utah Division of I.A.I. Newsletter is published four times a year during the Spring, Summer, Fall, and Winter. The information contained within the newsletter is either in the form of submitted articles, information from other investigative publications, or reported information.

The Utah Division of I.A.I. Newsletter will accept any article or information of those wishing to submit to the editor. It is requested the submitted articles or information be in typewritten form or on 3.5" disks using WordPerfect 8.0 or lower.

Please send items to be published to the editor:

**Scott R. Spjut**  
**Editor, Utah I.A.I.**  
**State Crime Lab**  
**4501 So. 2700 W. BOX 148285**  
**Salt Lake City, UT 84114-8285**

The Utah Division of I.A.I. Newsletter reserves the right to reject or modify any submitted articles deemed to be slanderous, derogatory, or inappropriate for the members of the association.

The annual membership dues to the Utah Division of I.A.I. are currently \$15.00 per membership, or \$200.00 for a lifetime membership. Dues can be mailed to:

**Utah Division of I.A.I.**  
**Ms. Deborah Herrera-Parkin**  
**Salt Lake County Sheriff's**  
**Office Identification Section**  
**437 South 200 East**  
**Salt Lake City, UT 84111**

It should be noted Deborah will be sending out renewal notices for members who have not yet paid their 1997 dues.



**Utah Division of I.A.I.  
Insignia Items**

The Utah Division of I.A.I. has baseball hats, t-shirts and Lapel Pins with the Division Insignia embossed on them. These items are available for a minimal charge and look great! The prices for these items are as follow:

- Hats**                    **\$5.00**
- T-Shirts**                **\$8.00 (any size)**
- Lapel Pins**            **\$3.00 Members**  
                                 **\$5.00 Non-members**

Contact 1997 President, George Throckmorton at (801) 799-3030 or Editor, Scott R. Spjut at (801) 965-4501 for further information or to purchase these items. Likewise, we have these items available at the Division Semi-Annual Meetings.

**\*\*\*Call For Papers!\*\*\***

*Your 1997 Division Historian Arthur Terkelson requests a Call for Historical Stories from the members of the Division. These can be anything which would be beneficial or shed some historical light of the crime investigation field. These stories or articles will be printed in future editions of the newsletter. So please send your historical items in!*

The following article is a reprint from the Valley Eagle Newspaper, Thursday, August 14, 1997.

### West Valley City Police Officer To Head World's largest Forensic Association

A West Valley City Police Crime Scene Unit Supervisor has been elected President of the world's largest forensic association. Sgt. Charles Illsley, 44, was installed as the 83rd President of the International Association for Identification (IAI) at their annual educational conference in Boston, Massachusetts. It is the first time in the 82-year history of the association that an officer from Utah has held the top elected office. The IAI was formed in 1915 and is now the world's largest and oldest professional association of forensic scientists.

IAI members include scientists who work in fingerprints, crime scene analysis, questioned documents, firearms and toolmarks, footwear and tire tracks, forensic photography, forensic art, polygraph, acoustics and voice identification, and blood stain pattern interpretation. Law enforcement agencies and crime laboratories throughout the world are represented, including the FBI, Scotland Yard, the Japanese National Police and other federal and state agencies in this country. The association lists 5,000 members worldwide.

Illsley was sworn in as the new President at the installation banquet at the conclusion of the conference. This year, over 1,000 police officers, crime scene officers and forensic scientists attended the conference at the Tara Ferncroft. Forensic specialists from all 50 states and some 25 foreign countries were in attendance.

The new President has been a police officer and a latent print examiner for over 20 years. He has served as an executive officer and board member for the IAI since 1988. Illsley has testified as an expert witness in federal and state courts in four states. Two of the cases involved fugitives profiled on *America's Most Wanted*.

The West Valley officer performed the first known laser examination for fingerprints in Utah. Beginning in 1981, he used industrial lasers on homicide evidence at the University of Utah Physics Department. Since that time, West Valley Police Department has acquired four light sources which imitate the physics of industrial lasers.

These light sources have been used on actual crime scene evidence since 1989. Sgt. Illsley has taught other agencies and officers laser techniques throughout the country. He has set up laser demonstrations for juries in New York, California, and Utah. He has also conducted fingerprint examinations for 65 law enforcement agencies in 15 states.

In 1996, the FBI and the Sonoma County District Attorney's Office asked Illsley to appear as an expert witness in the Richard Allen Davis murder trial in San Jose. Davis was convicted for the kidnap and murder of 12-year old Polly Klaas and was sentenced to death last September. He is now on death row in San Quentin.

During his testimony, the West Valley Police Sergeant darkened the courtroom and showed the jury Davis' latent palm print which had been developed with the use of a laser by an FBI crime scene officer. The jurors wore special goggles so they could see the latent print glow under the laser light. In a dramatic moment during that testimony, Davis shuffled past the jury in the dark to look at his own palm print. It was the only time during the trial that the jury saw Davis in the same light as his 12-year old murder victim.

In April, a production company for the *Discovery Channel* spent four days filming a one-hour documentary on forensics at the West Valley City Police Department. The program, which airs in October, will highlight the department's innovative use of laser, computer fingerprint searches, and live ID from police cars. West Valley's design will make it possible for crime scene officers to develop fingerprints, transmit the images from a laptop, and learn the identity of the suspect before the officer leaves the scene. West Valley's Police Administration said this concept is not being used anywhere else in the country.

As the new IAI President, Sgt. Illsley will represent the Association of the Fingerprint Society Conference in London, the Canadian Identification Society, and the American Academy of Forensic Sciences in San Francisco. Illsley's term of office begins January 1, 1998.

***Congratulations Charles!***

Submitted Article

*Criminalistics Analysis Using  
Digital Enhancement Applications  
To Investigate Crime In Utah*

By  
Scott R. Spjut

Introduction

In 1995 the State of Utah Department of Public Safety Criminalistics Laboratory began to explore the addition of digital enhancement to assist in solving criminal activities. Like most crime labs across the country the rise in criminal activity has required additional methods to not only process crime scenes more effectively but to use newer technology to do so. With the ever increasing crime rates came additional ideas and solutions to aid in the investigation. Criminalistics, a term relating to the science of forensic evidence analysis, has followed the rising crime rates by increasing applications and technologies to analyze evidence. One of the most popular innovative methods is the application of computerized digital enhancement equipment to capture, enhance, and display a permanent record of the analysis results. With this current trend in mind, the Utah D.P.S. Criminalistics Laboratory sought out information and possibilities in purchasing the equipment to effectively add digital enhancement to their forensic analysis applications.

The first explorations of setting up such a complete system was troublesome. Although locally there were many vendors and companies who dealt with individual components, we were unable to locate a company who not only sold the components but offered a complete system including training and support. In addition to purchasing hardware, we desired to purchase a system that was compatible with the current methods used to analyze crime scene evidence and would keep track of each step in the analysis. This would include user-friendly software and comprehensive data tracking for keeping track of any enhancements applied. The search became successful however after searching outside the State of Utah.

PC Pros in Tacoma, Washington had a demonstrative vendor site at the International Association for Identification Conference during the summer of 1995. PC Pros demonstrated a complete digital enhancement system package including a data tracking software package and full training. The name of their system is called "More Hits"™, relating to effecting a "hit" when identifying fingerprints at a crime scene to a suspect. The PC Pros system was most impressive, and included all of the components the State of Utah Crime Lab sought. In addition the digital enhancement system included a forensic image tracking / image authentication software package to maintain not only chain of custody information but enhancement logs. The PC Pros "More Hits"™ System was exactly what the State of Utah Crime Lab was seeking.

After all of the bidding processes and paperwork of government purchasing the laboratory bought the "More Hits"™ System from PC Pros in October 1996. In conjunction to the delivery the entire system was fully installed, integrated, and included an initial three days of training. Additional training followed several months afterward when the users were comfortable with the system and could fine tune their skills. During the first few weeks of use we were able to call upon PC Pros for assistance and remote updates through the installed modem. Occasionally the support staff is contacted and provides suggestions or advice when called upon. This technical support is free of charge for suggestions or advice.

Applications and Usage

Since the installation and usage of the "More Hits"™ System the amount of identified latent fingerprints and other types of forensic evidence enhancement has increased (a latent fingerprint is defined as a non-visible residue finger impression). What would have been deemed as insignificant evidence due to poor contrast or visible content can now be analyzed and identified. There have been several cases submitted to the Crime Lab which would not have been solved if not for the enhancement system. Although the system cannot create something from nothing, it allows for more precise analysis and identifications. The "More Hits"™ Image Tracking Software allows the

user to keep specific track of all aspects of the image enhancement. The original image information is stored, along with any relevant items related to the investigation.

After the forensic processing is inputted, the original image is stored along with the pertinent information concerning the investigation and analysis. The software then allows the user to go directly from the acquisition mode to the enhancement mode. The enhancement choices for the system are Adobe Photoshop or Image-Pro Plus for Windows. After the image is transposed to the enhancement software the "More Hits"<sup>TM</sup> System provides a detailed list of image enhancement options and filters for tracking image enhancements. This is particularly important when dealing with forensic work due to the nature of the analysis. If the analysis needs to be re-examined or if questions are brought in a court of law as to the enhancements applied, a specific record is stored for each image as to the filters and adjustments made during the enhancement. With the hardcopy printout of the individual steps applied, exact adjustments and applications can easily be repeated should the need arise. If requested by the court, the system could actually be brought into the courtroom and a demonstration of the entire enhancement process could be presented to the jury. After the image is enhanced and printed, the enhanced image is then returned to be added with the first image prior to enhancement. The enhanced image is then given a "computer assigned" serial number and is authenticated to that assigned number. The software provides image encryption unique for each finalized image. This step makes it virtually impossible to make any additional changes or deletions from the authenticated image. Finally, a full status report is formulated and printed to be added to the hardcopy printout of the enhanced image. These reports provide the basis for validating the authenticity of the image and ensuring the image can be admitted as indisputable evidence in a court of law.

One of the more convenient features of using the "More Hits"<sup>TM</sup> System is for the production of poster displays to be used in courts of law or training purposes. With the ease of the enhancement software the user can quickly make

a display for court in less than an hour. The conventional method using photographic prints and pressure sensitive lettering to make a display often took several hours. Anytime during the conventional method a slight mistake became most frustrating. Usually the Technician making the display had to start again and hope another mistake would not occur. However with the enhancement software a mistake on a display can be corrected in a matter of seconds. The final product can be printed on both standard dye sublimation media or transparency media for overhead projection. When using digital technology, copies of the display can easily be printed and given to the defense attorney, prosecution, judge, and jury.

In addition to standard media prints, a display can easily be printed on a larger format such as a photo quality plotter. The State of Utah Crime Lab is currently purchasing an Enacod Chroma24<sup>®</sup> photo quality plotter to be used for poster size displays. The Chroma24<sup>®</sup> has a printout width of 24" and can print posters up to 15' in length. The printout quality is 300 x 300 dpi with full 16.7 million colors available. With the acquisition of the photo quality plotter not only can poster displays be printed but any photographic image scanned into the computer can be enlarged beyond standard photographic printing sizes. The color plots can easily be mounted on foam boards and used for demonstration or training purposes.

#### Conclusion

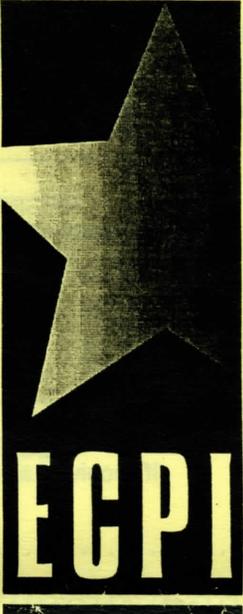
With the addition of a full digital enhancement system the State of Utah Department of Public Safety Criminalistics Laboratory is keeping abreast with new technologies in the analysis of crime scene evidence. The "More Hits"<sup>TM</sup> System currently in use provides exceptional enhancement capabilities of most forensic evidence. In addition the software database provides complete case management and image tracking to protect the chain of custody, track specific analysis & enhancement history, and provides professional printed reports. Any Crime Laboratory or Police Department seeking to purchase a complete digital enhancement system should consider the "More Hits"<sup>TM</sup> System as an excellent choice. With the increasing crime rates across the state, digital

technology can greatly assist the investigator in difficult analysis and successful findings. If an investigating officer develops a partial latent print and preserves it on a lift card, it should be considered valuable evidence even if it appears to be poor in detail. If in doubt submit it to the State Crime Lab for possible enhancement and identification. There is a high degree of possibility the lift may contain enough detail to match your suspect.

Scott R. Spjut is a Supervising Criminalist of the Identification Section and a Certified Latent Print Examiner (IAI) for the State of Utah Department of Public Safety Criminalistics Laboratory in Salt Lake City, Utah. Scott has been involved in Criminalistics since 1991 including state-wide crime scene investigations, latent print processing & comparison, photography & film processing, digital photography, and training. Scott can be contacted at (801) 965-4501 or e-mail psmain.sspjut@email.state.ut.us.

PC Pros can be contacted at:

PC Pros  
10027 South Tacoma Way, Suite G1  
Tacoma, WA 98499  
Phone (206) 582-6688  
<http://www.coldwater.com>



**E.C.P.I.**  
**Proudly Supports The**  
**Utah Division of I.A.I.**

**U.D.I.A.I. Members Receive**  
**10% Off**  
**Your Next Purchase**  
**When You Present This Ad With**  
**Your Next Order**

(Not applicable with all items. Certain restrictions apply)

**EVIDENCE COLLECTION & PROTECTION, INC.**  
**1-800-953-ECPI (3274)**  
P.O. Box 3116  
Kansas City, KS 66103  
Fax: (913) 342-2128



Limited Time Offer

The above advertisement is the **FIRST** time a company has advertised in the Utah Division of I.A.I. Newsletter. ECPI is a newly established company specializing in crime scene investigation products and packaging. The Editor of the Newsletter personally knows one of the owners of ECPI and highly recommends their products. In addition the State of Utah Crime Lab currently uses many of ECPI products and is pleased with their quality and prices.

The Utah Division of I.A.I. thanks ECPI for their support to our Division!

The Utah Division of the International Association for Identification 1997 Semi-annual Training Seminar

October 2, 1997 . . . . . Provo, Utah

The Utah Division of the International Association for Identification announces the opening of registration for the Fall 1997 Semi-annual Training Seminar. It will be held in Provo, Utah, at the Provo City Police Department. The registration fee allows admission to all sessions. The topic of this session will be the Detection of counterfeit currency, crime scene cameras, and tool mark/shoe impressions. I hope you will all be able to attend and participate in this seminar.

REGISTRATION FEES (If received by September 25, 1997)

Members of I.A.I. Utah Division . . . . . Free
Non-members . . . . . \$ 10.00

REGISTRATION FEE (If received after September 25, 1997)

Members . . . . . \$ 5.00
Non-members . . . . . \$ 15.00

Your name: \_\_\_\_\_
Agency: \_\_\_\_\_
Address: \_\_\_\_\_
City/State/Zip \_\_\_\_\_
Telephone number where you can be reached: \_\_\_\_\_

Registration Fee Enclosed \$ \_\_\_\_\_

Checks should be made out to "Utah Division of I.A.I." and mailed to:

George J. Throckmorton
Manager, Crime Laboratory
Salt Lake City Police Dept.
315 E. 200 S.
Salt Lake City, UT 84111

Questions? Call George Throckmorton (Salt Lake) 799-3030 or Don Thurgood (Ogden) 626-7676