Louisiana Association of Forensic Scientists

September 2006

The Nanogram

2006 LAFS Executive Committee

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Photo from http://www.philsp.com/data/images/p/private_detective_canada_194311.jpg

Transdermal Alcohol Study At The Acadiana Crime Lab April 21, 2006

By: Laurette Rapp and Rhonda Nichols

ABSTRACT: *The actual concentration of ethanol in the body can be measured through a variety of ways. Breath alcohol monitoring as well as blood alcohol monitoring are well documented and widely used to accurately indicate the level of alcohol at the time the sample is taken. Since transdermal monitoring actually indicates the level of alcohol present over a period of time, it can be used to establish continued abstinence. The purpose of this study was to determine the effectiveness of the SCRAM™ monitoring device in a casual atmosphere. The volunteers were asked to consume alcohol over a four (4) hour period.*

According to Nyman and Palmlov (1936), approximately 1% of ingested alcohol is excreted through the skin. Numerous studies were published in the 1960's and 1970's that explained specifically how the body processes drugs, alcohol, and non-electrolytes in the skin and sweat glands.

The sweat patch was studied extensively from 1980 - 1984. This research concluded that there was a statistically significant linear relationship between the concentration of ethanol in sweat and the average concentration of ethanol in blood (BAC). The results of this testing were 100% sensitive and specific, clearly differentiating between drinkers and non-drinkers and no false positives (Phillips & McAloon (1980).

In the late 1980's, the focus switched from the sweat patch to ethanol concentration in vapors formed above the skin. Insensible perspiration is defined as the vapor that escapes through the skin in sweat. Insensible perspiration cannot be detected through smell. Because the water concentration in the skin is very low as compared to other organs, the alcohol migrates last through the skin, resulting in a slower (but ultimately complete) Blood Alcohol Curve.

Research at the Indiana University School of Medicine concluded that "Ethanol gas is readily excreted in insensible perspiration in sufficient quantities to allow reliable estimation of BAC." The study further concluded that Henry's Law applies to insensible perspiration in the same manner as it is applied to breath. Although this study noted the possibility of a fixed-partition ratio between ethanol concentrations above the skin and BAC, it also noted a measurable lag time between peaks (as much as 25%). Additional research by the Indiana School of Medicine suggested that because the pharmacokinetic parameters for Transdermal Alcohol Concentration (TAC) were different from Breath Alcohol Concentration (BrAC) and BAC, an accurate estimation BAC was not possible from TAC. The study concluded that transdermal measurement methods should be used as a screening method to establish continued abstinence.

The study conducted on April 21, 2006 at the Acadiana Crime Lab involved twelve (12) volunteers. The test subjects were asked to drink the beverage of their choice and consume snack food as if they were at a party. In order to participate in the study, each person was required to wear the SCRAM™ bracelet around their ankle for the duration of the test. A log was used to record the time, amount and type of alcohol consumed. Additionally, a food log was also kept, which recorded the time of intake, as well as the amount and type of food. There were two (2) negative controls, one male and one female.

Because there are several products containing alcohol that are used in every day life such as body sprays, perfume, mouthwash, hair spray, and cough syrup, two (2) of the volunteers were asked to use the products at the beginning of the testing period to determine if use of these products would register as a "drinking event." These volunteers did not consume any alcoholic beverages for the duration of the study.

PURPOSE

The purpose of this study was to test the transdermal alcohol monitoring device on volunteers in a casual setting similar to a party. The atmosphere was created where the test subjects were allowed to drink the beverage of their choice from 10:00 a.m. until 2:00 p.m. at which time they were not allowed to drink any more alcohol. Snack food was also provided for the volunteers, and they were asked to eat, drink, and behave as if they were at a party. The food and drinks consumed by each participant were recorded in a log which indicated the amount and type of food and drink consumed as well as the time each was consumed. Additionally, two of the participants were asked to use other types of alcohol containing products such as grooming products and cough syrup in lieu of drinking alcoholic beverages to determine if these activities would register as a drinking episode.

METHOD

The experiment began at 10:00 a.m. when the participants started to consume their beverages. The negative controls were allowed to drink any non-alcoholic drinks of their choice throughout the duration of the experiment. As stated earlier, one (1) person was asked to take a normal dose of cough syrup, which was ingested at 10:00 a.m.; after the dose of cough syrup was ingested, the subject was allowed to drink non-alcoholic beverages for the duration of the experiment. Additionally, one (1) subject was asked to use normal body products that contain alcohol. She applied hairspray and body spray, as well as body lotion at 10:00 a.m. She was allowed to consume non-alcoholic beverages for the duration of the experiment.

An initial breath test was administered to each subject (negative controls and other participants) prior to the experiment to ensure a zero reading at the beginning of the experiment. During the experimentation period, each participant took another breath test (this test occurred at about the 2 – 3 hour mark). There is usually a prescribed observation period of 30 minutes before a breath test is administered, because of the limited time period there was no 30 minute observation period. The drinking phase of the experiment lasted for four (4) hours; eleven (11) participants observed the four (4) hour time period between 10:00 a.m. and 2:00 p.m., one (1)

participant began this phase at 11:20 a.m. and finished at 3:20 p.m. After a thirty (30) minute observation period, each participant was administered a breath test. Final breath tests were also administered at the end of the day when the device was removed from each participant's ankle.

DISCUSSION

The graphs in the following figures illustrate the data collected from each monitoring device. The SCRAM™ bracelet was placed on each participant's ankle prior to the beginning of the experiment. The pink line on each graph represents the Infra-red (IR) sensor data. The device emits an infra-red light signal directly at the subject's skin, and the skin absorbs a given amount of the signal's energy. The portion of the signal that is reflected back to the device's receiver is then converted to a voltage. When the device is placed into service, an initial infra-red baseline reading is taken. If the subject attempts to tamper with the device by inserting a foreign object between the device and the skin, the strength of the reflected signal will increase or decrease, instead of a relatively straight line. Additionally, the device monitors the subject's temperature to aid in the detection of a possible tamper. The temperature is indicated by the yellow line on the chart. The dark blue line on each graph represents the transdermal alcohol concentration (TAC) measured by the fuel cell on each device.

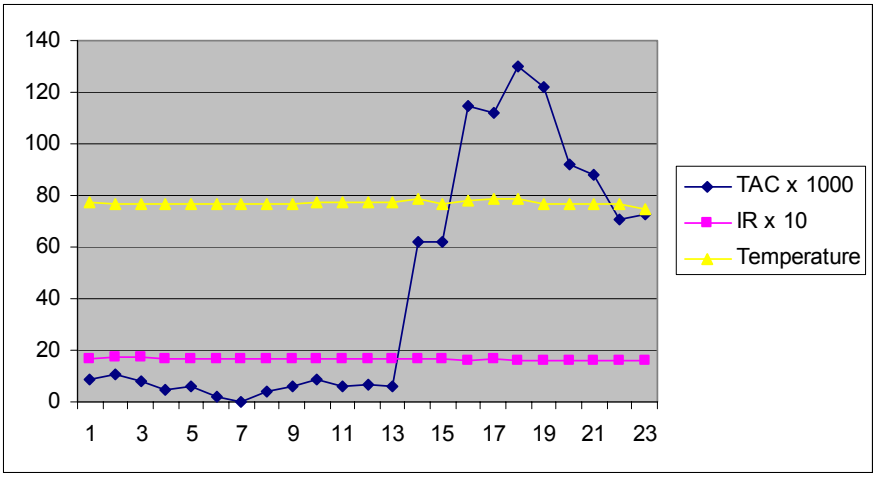
As expected, there is a noticeable lag time observed on each graph, note the start time on each graph in *Figures 1B-11*. While the prescribed drinking phase began at 10:00 a.m. some initial difficulty in obtaining data occurred, therefore, actual data collection began 30 to 90 minutes after the start of the drinking phase.

The table in *Figure 1-A* indicates that the test subject began consuming alcohol at 10:15 a.m. After consuming six (6) beers, the test subject ate one (1) piece of pizza at 1:37 p.m.

Subject # 1 Female consumed beer - 4.79% alcohol/12 oz beer
Breath alcohol - 0.128 grams percent taken at 12:35 p.m.
Breath alcohol - 0.118 grams percent taken at 2:30 p.m.
TAC peak - 0.130

Time	Quantity	Drink	Quantity	Food
10:15 a.m.	12 oz	Beer		
10:47 a.m.	12 oz.	Beer		
11:40 a.m.	12 oz.	Beer		
12:07 p.m.	12 oz.	Beer		
12:42 p.m.	12 oz.	Beer		
1:13 p.m.	12 oz.	Beer		
1:37 p.m			1 slice	Pizza

Figure 1-A



The chart in *Figure 1-B* illustrates a steady rise in TAC (transdermal alcohol concentration) with a peak TAC of 0.130, a breath alcohol concentration of 0.128 g% was obtained at 12:35 p.m. This volunteer had one cup of coffee with 2% milk and one (1) 100 calorie package of "chips ahoy" cookies for breakfast at 6:30 a.m.

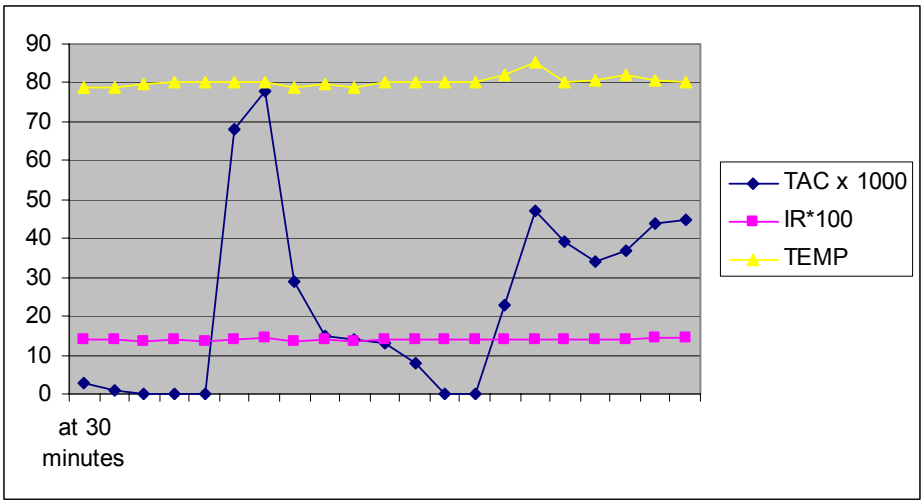
Figure 1-B: Concentration (g% x 1000) and Time at 30 minute intervals

The table in *Figure 2-A* indicates that the test subject began consuming alcohol at 10:00 a.m. According to the table, this test subject consumed alcohol with virtually no food intake (one serving of Doritos).

Subject #2 Male consumed Malibu rum and pineapple juice and apple martinis (1 oz. alcohol per drink) Malibu rum has an alcohol content of 21% by volume, the apple martinis were prepared with absolut vodka, which has an alcohol content of 40% by volume. Breath alcohol 0.015 at 12:40 p.m. Breath alcohol – 0.041 at 2:30 p.m. TAC Peak = 0.078

Time	Quantity	Drink	Quantity	Food
10:00 a.m.	1 oz rum	Rum/ juice		
10:10 a.m.			1 serving	Doritos
10:14 a.m.	1 oz rum	Rum/ juice		
10:37 a.m.	1 oz rum	Rum/ juice		
11:13 a.m.	1 oz rum	Rum/ juice		
11:15 a.m.			1 serving	Potato chips
11:55 a.m.			1 slice	Pizza
12:06 p.m.	1 oz rum	Rum/ juice		
12:07 p.m.			1 slice	Pizza
12:42 p.m.	1 oz rum	Rum/ juice		
12:44 p.m.			1 slice	Pizza
1:20 p.m.	2 oz rum	Rum/ juice		
1:59 p.m.	1 oz vodka	Apple martini		
2:00p.m.	1 oz vodka	Apple martini		

Figure 2-A



The chart in *Figure 2-B* indicates a rapid rise in alcohol concentration. After consuming four (4) drinks in a two hour period, the test subject ate an additional serving of chips and then ate pizza. During the next hour the subject consumed two additional mixed drinks alternating with two more pieces of pizza. At 1:20 p.m (real time) according to the table, the subject consumed a "double" mixed drink, and switched to apple martinis at 1:59 p.m., at which time he proceeded to consume two (2) martinis in one (1) minute. There is a noticeable spike in TAC on the chart in *Figure 2-B*.

Figure 2-B: Concentration (g% x 1000) and Time at 30 minute intervals

In some cases, the peak TAC and the breath alcohol concentration were very close, as indicated in the data presented for test subject #1; however, other test subjects had greater differences between the peak TAC and the breath alcohol results. Previous studies indicated that the data from transdermal devices cannot be considered equivalent to blood alcohol concentrations; however, the device does provide meaningful information about relative alcohol concentrations, and could be used to qualitatively identify drinking episodes.

By comparing the data from each table to the corresponding charts in the *Figures 1 A and B* through *Figures 8 A and B*, there is no doubt that each volunteer consumed alcohol which registered as a drinking event. Interestingly, the charts in *Figures 7-B and 8-B* indicate a possible tamper with the device as indicated with a variation in the infra-red signal represented by the light blue line on each chart. Test subject 8 reported that the device slipped down on her ankle and that her sock prevented continuous contact between the device and her skin.

Subject #3 Female consumed beer alcohol concentration 4.25 % alcohol/12 oz beer
Breath alcohol - 0.046 taken at 1:05 p.m.
Breath alcohol – 0.06 taken at 2:30 p.m.
peak TAC = 0.044

Time	Quantity	Drink	Quantity	Food
10:00 a.m.	12 oz	Beer		
10:05 a.m.			1	Biscuit
10:20 a.m.	12 oz.	Beer		
10:37 a.m.			1	Choc.donut
11:03 a.m.	12 oz.	Beer		
12:00 p.m.	12 oz.	Beer		
12:03 p.m.			1 Slice	Pizza
1:20 p.m.	12 oz.	Beer		

Figure 3-A

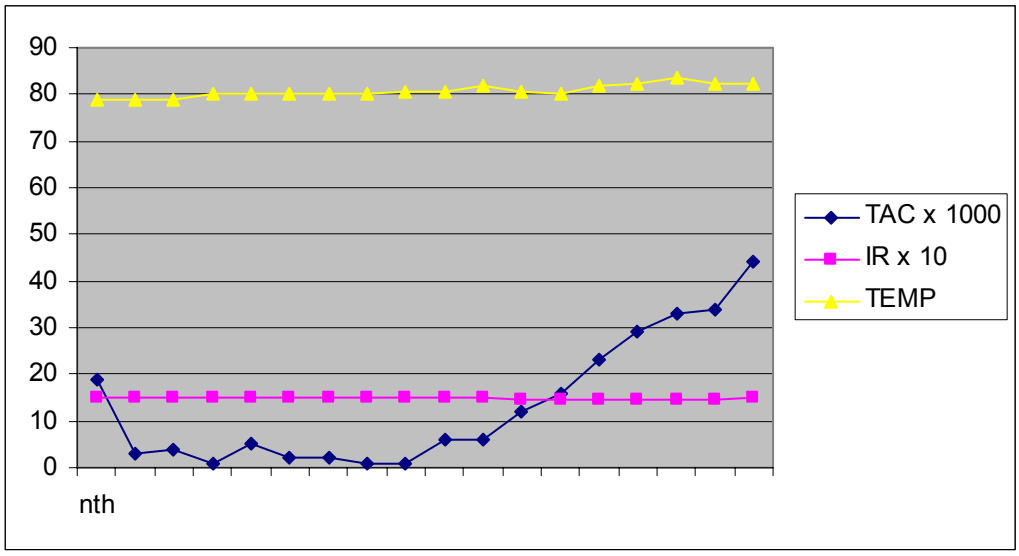


Figure 3-B: Concentration (g% x 1000) and Time at 30 minute intervals

Subject # 4 Female consumed Malibu rum and pineapple juice and apple martinis (1 oz. alcohol per drink) Malibu rum has an alcohol content of 21% by volume, the apple martinis were prepared with absolut vodka, which has an alcohol content of 40% by volume. Breath alcohol 0.07 at 2:07 p.m.

TAC Peak = 0.089

Time	Quantity	Drink	Quantity	Food
10:00 a.m.	1 oz rum	Rum/ juice		
10:05 a.m.			1 serving	Pringles
10:28 a.m.	1 oz rum	Rum/ juice		
10:37 a.m.			1	Choc. Donut
11:10 a.m.	1 oz rum	Rum/ juice		
11:55 a.m.			1 slice	Pizza
12:46 a.m.	1 oz rum	Rum/ juice		
1:39 p.m.	1 oz vodka	Apple martini		
2:00p.m.	1 oz vodka	Apple martini		

Figure 4-A

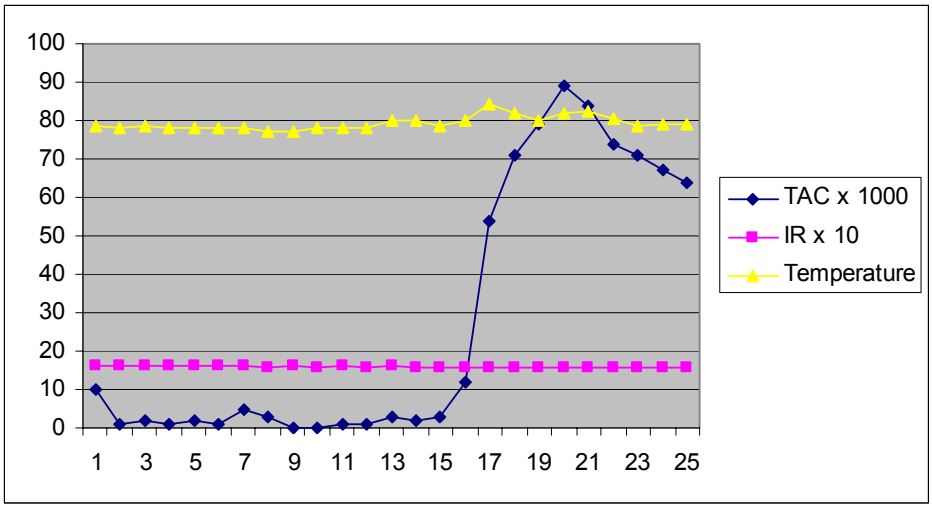


Figure 4-B: Concentration (g% x 1000) and Time at 30 minute intervals

Subject # 5 Female consumed beer alcohol concentration 4.52 % alcohol/12 oz beer
Breath alcohol - 0.06 taken at 12:42 p.m.
Breath alcohol – 0.124 taken at 3:32 p.m.
peak TAC = 0.100

Time	Quantity	Drink	Quantity	Food
11:20 a.m.	12 oz	Beer		
11:24 a.m.			1 serving	Doritos cool
11:31 a.m.	12 oz.	Beer		
11:55 a.m.			1 slice	Pizza
12:02 a.m.	12 oz.	Beer		
12:31 p.m.	12 oz.	Beer		
1:03 p.m.	12 oz.	Beer		
1:25 p.m.			1 serving	Doritos, cool
1:35 p.m.	12 oz.	Beer		
1:53 p.m.	12 oz.	Beer		
2:55 p.m.	12 oz.	Beer		

Figure 5-A

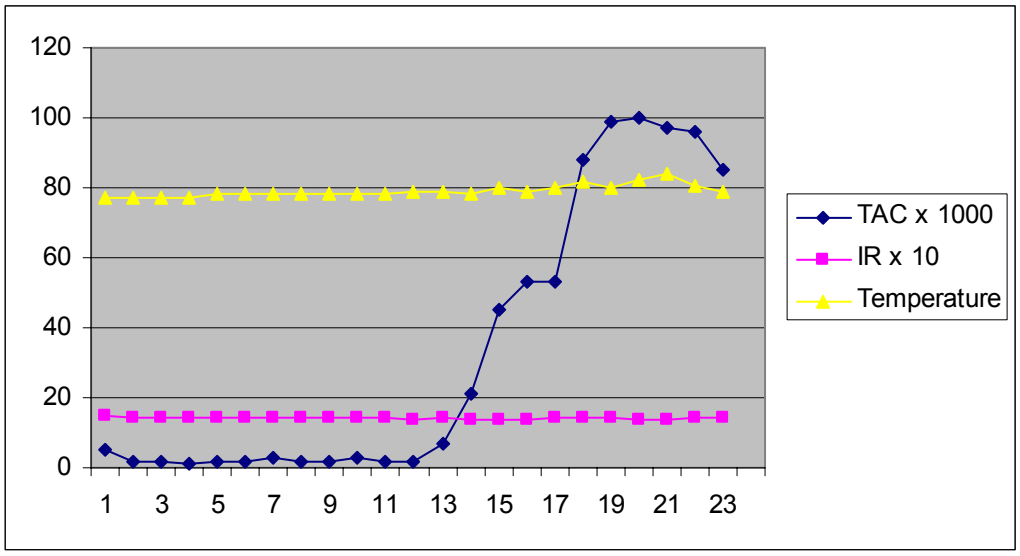


Figure 5-B: Concentration (g% x 1000) and Time at 30 minute intervals

Subject # 6 Female consumed beer alcohol concentration 4.40 % alcohol/12 oz beer
Breath alcohol - 0.099 taken at 12:41 p.m.
Breath alcohol - 0.097 taken at 2:30 p.m.
peak TAC = 0.065

Time	Quantity	Drink	Quantity	Food
10:00 a.m.	12 oz	Beer		
10:10 a.m.			1 serving	Doritos cool
10:15 a.m.	12 oz.	Beer		
10:31 a.m.			1	Biscuit
10:50 a.m.	12 oz.	Beer		
11:23 p.m.	12 oz.	Beer		
11:30 a.m.			1 serving	Lays pot. Chips
12:02 p.m.	12 oz.	Beer		
12:31 p.m.	12 oz.	Beer		
1:01 p.m.	12 oz.	Beer		
1:42 p.m.	12 oz.	Beer		

Figure 6-A

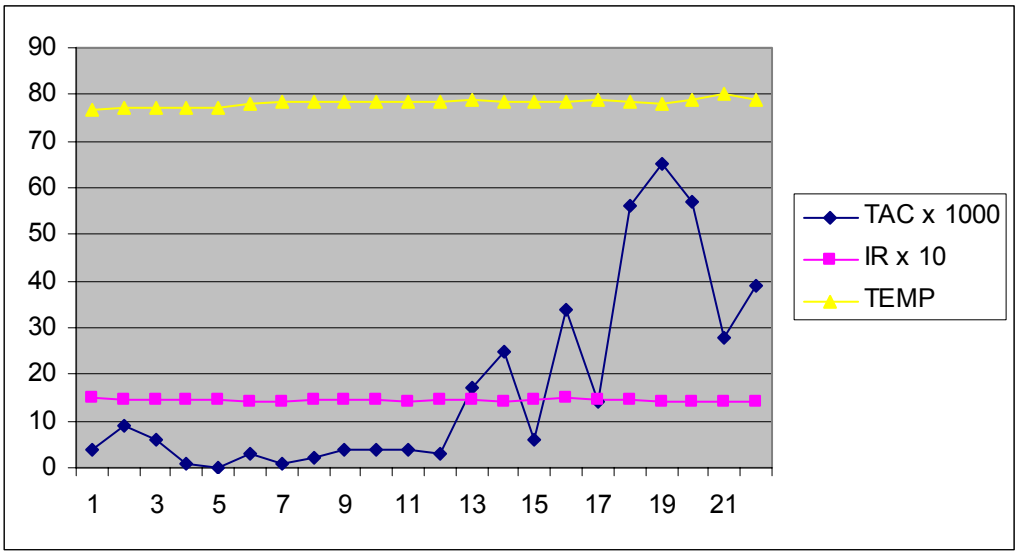


Figure 6-B: Concentration (g% x 1000) and Time at 30 minute intervals

Subject # 7 Female consumed margaritas alcohol concentration 40% alcohol by volume per 1 oz. tequila
Breath alcohol - 0.122 taken at 12:38 p.m.
Breath alcohol - 0.085 taken at 2:30 p.m.
peak TAC = 0.153

Time	Quantity	Drink	Quantity	Food
10:00 a.m.	1 oz.	Tequila		
10:10 a.m.			1 serving	Cheetos
10:25 a.m.	1 oz.	Tequila		
11:24 a.m.	1 oz.	Tequila		
11:55 a.m.			1 slice	Pizza
12:31 p.m.	1 oz.	Tequila		
1:30 p.m.	2 oz.	Tequila		

Figure 7-A

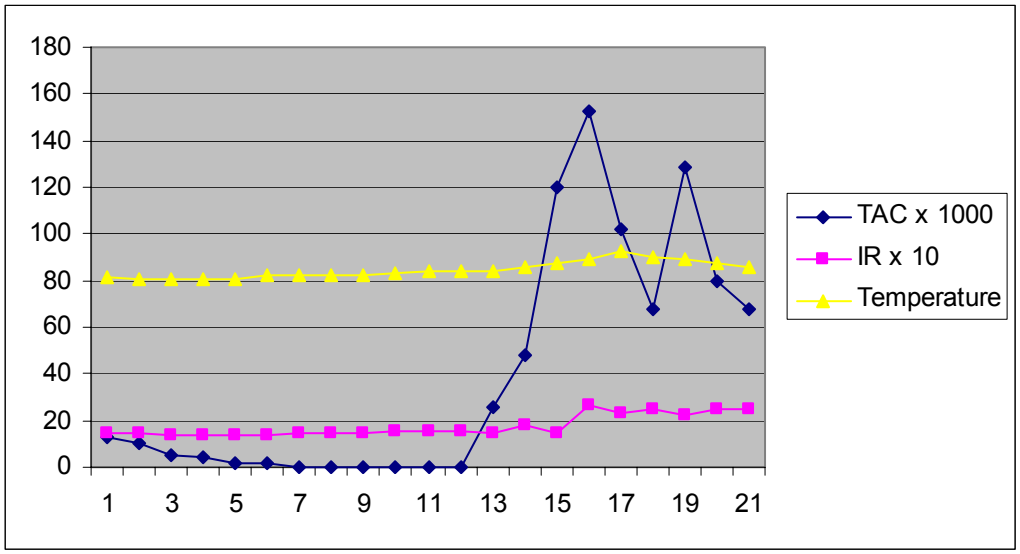


Figure 7-B: Concentration (g% x 1000) and Time at 30 minute intervals

Subject # 8 Female consumed frozen margaritas, 8 oz. per drink average alcohol concentration is about 3% alcohol by volume
Breath alcohol - 0.082 taken at 12:39 p.m.
Breath alcohol – 0.094 taken at 2:30 p.m.
peak TAC = 0.055

Time	Quantity	Drink	Quantity	Food
10:00 a.m.	8 oz.	Frozen marg.		
10:10 a.m.			1 serving	Lays pot. Chips
10:35 a.m.	8 oz.	Frozen marg.		
10:37 a.m.			1	Donut
11:10 a.m.	8 oz.	Frozen marg.		
11:55 a.m.			1 slice	Pizza
12:15 p.m.			1 slice	Pizza
12:15 p.m.	8 oz.	Frozen marg		
1:04 p.m.	8 oz.	Frozen marg		

Figure 8-A

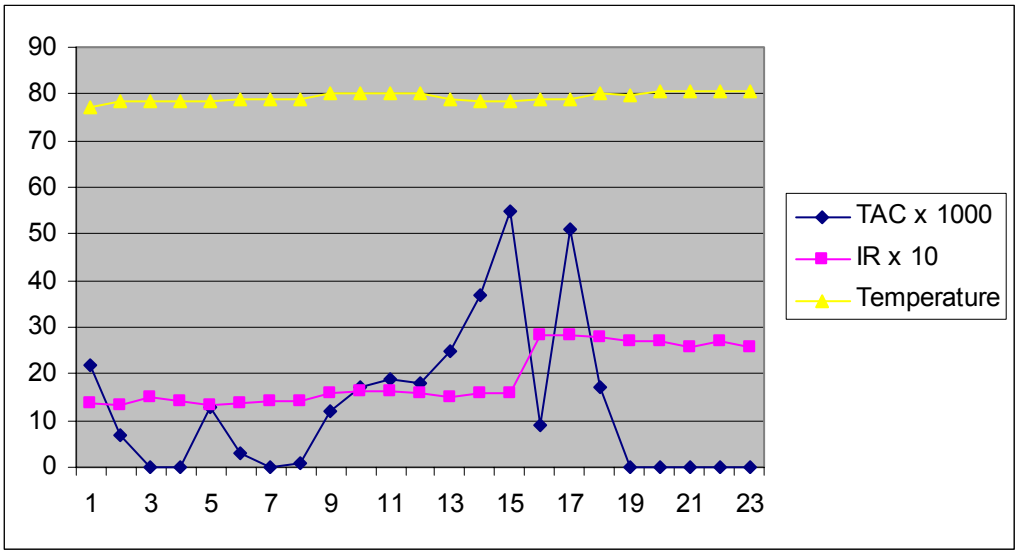


Figure 8-B: Concentration (g% x 1000) and Time at 30 minute intervals

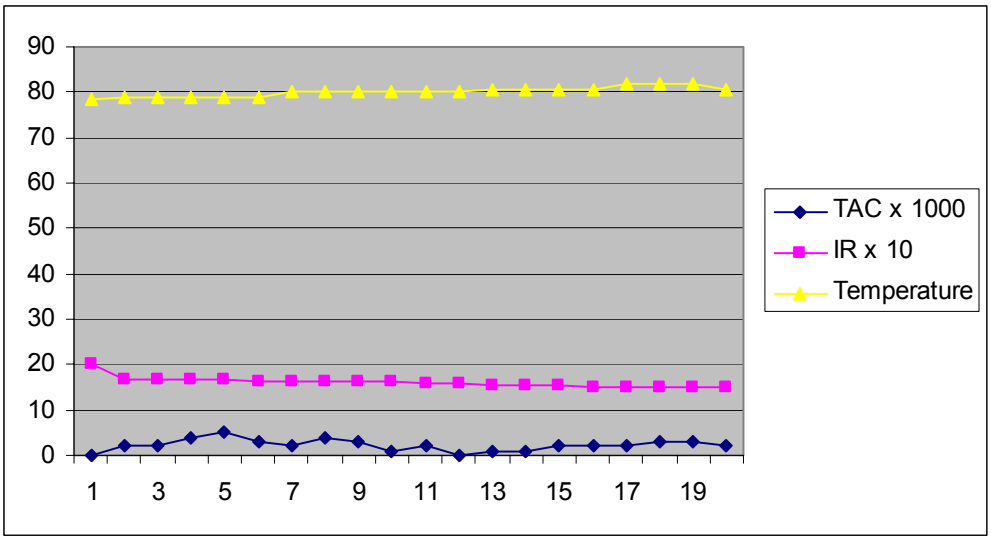


Figure 9: Concentration (g% x 1000) and Time at 30 minute intervals

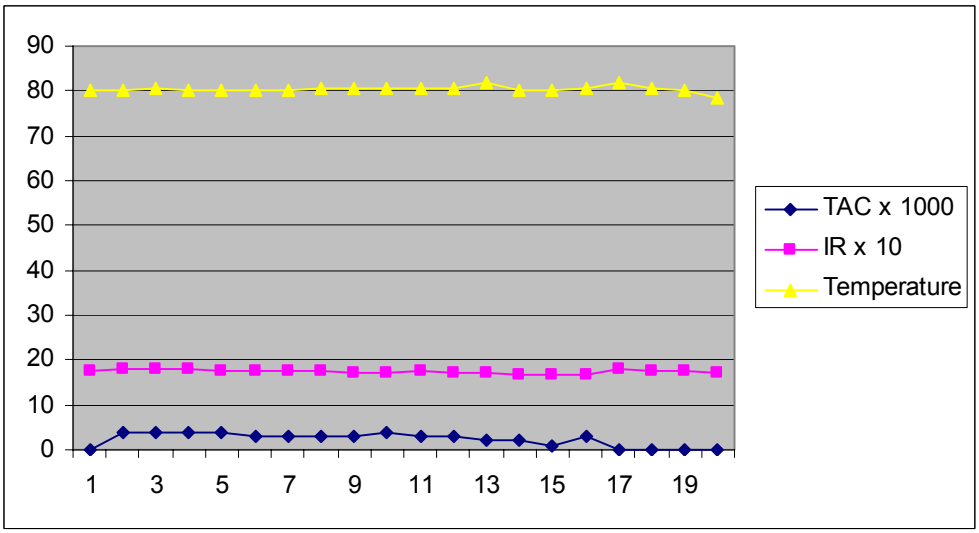


Figure 10: Concentration (g% x 1000) and Time at 30 minute intervals

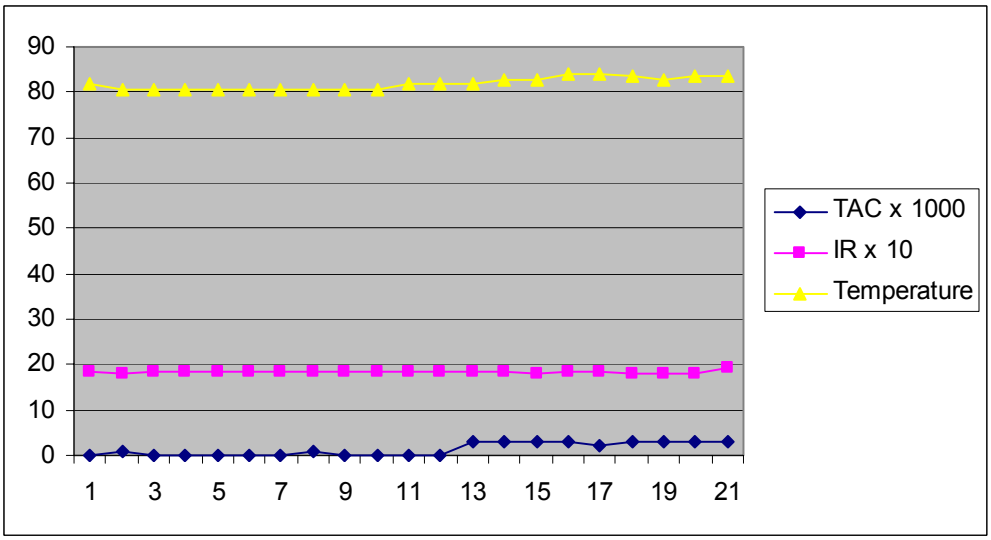


Figure 11: Concentration (g% x 1000) and Time at 30 minute intervals

Transdermal Alcohol Study continued...

After examining the data from the negative controls, no drinking episode was registered on the graphs, *Figures 11 – 12*. The data in *Figure 9* indicates a slight increase in alcohol concentration; however, it was not enough to register as a drinking episode. This test subject used grooming products at 10:00 a.m. to determine if normal use of such products would register as a drinking episode. The raw data points indicate an alcohol concentration of 0.005, which is well below the cut-off of 0.02 traditionally used in transdermal alcohol monitoring. The data in *Figure 10* also indicates a slight increase in alcohol concentration. This test subject consumed a regular dose (1 teaspoon) of cough syrup known to contain alcohol. The raw data points indicate an alcohol concentration of 0.004, which is also well below the cut-off level used in transdermal monitoring.

CONCLUSION

The purpose of this study was to determine the effectiveness of the SCRAM™ monitoring device in a limited casual setting, and to determine if using other types of alcohol products would register as a drinking episode. As in previous studies and published literature, the data from this study indicates that ethanol is excreted through the skin in sufficient quantities to estimate alcohol concentration; this study also indicates that a person who does not consume alcohol would not produce a signal indicating a drinking episode; and, this study also determined that while other types of alcohol containing products would register an alcohol concentration, that concentration would not be viewed as a drinking episode.

As in previous studies, this study also indicates that the transdermal monitoring devices currently used today cannot directly replace breath testing as a quantitative technique for determination of alcohol concentration. These transdermal devices can be used however to semi-quantitatively identify drinking episodes in a continuous screening environment. These devices could be used in criminal justice programs to identify drinking episodes, to monitor drinking among alcohol dependent offenders to reduce recidivism, and potentially identify individuals in need of treatment.

The results of this study are quite limited due to the time frame and small number of participants. Further studies need to be performed with a larger population as well a longer monitoring period. It would also be beneficial to study possible ways to successfully tamper with the device including investigating materials to use as well as possible environmental conditions that may have an adverse effect on the SCRAM™ device. It would also be interesting to attempt to determine if excessive use of grooming products or other alcohol containing products would in fact indicate a drinking episode.

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Mistaken Identity

Rachel McSherry and Laurette Rapp—Acadiana Crime Lab

A case was received at the Acadiana Crime Lab consisting of 30 blue and white capsules marked A-167 on each side of the capsule. The capsule was identified as Phentermine 37.5mg on page 232 of the 2006 Drug Identification Bible. The capsule was manufactured by Amide Pharmaceuticals. Analysis of the capsule unexpectedly revealed the presence of sibutramine instead of phentermine. It was also noted that the capsules contained homogeneous refined white powder; however, the markings on the capsules were irregularly matched, which may be indicative of possible tampering.

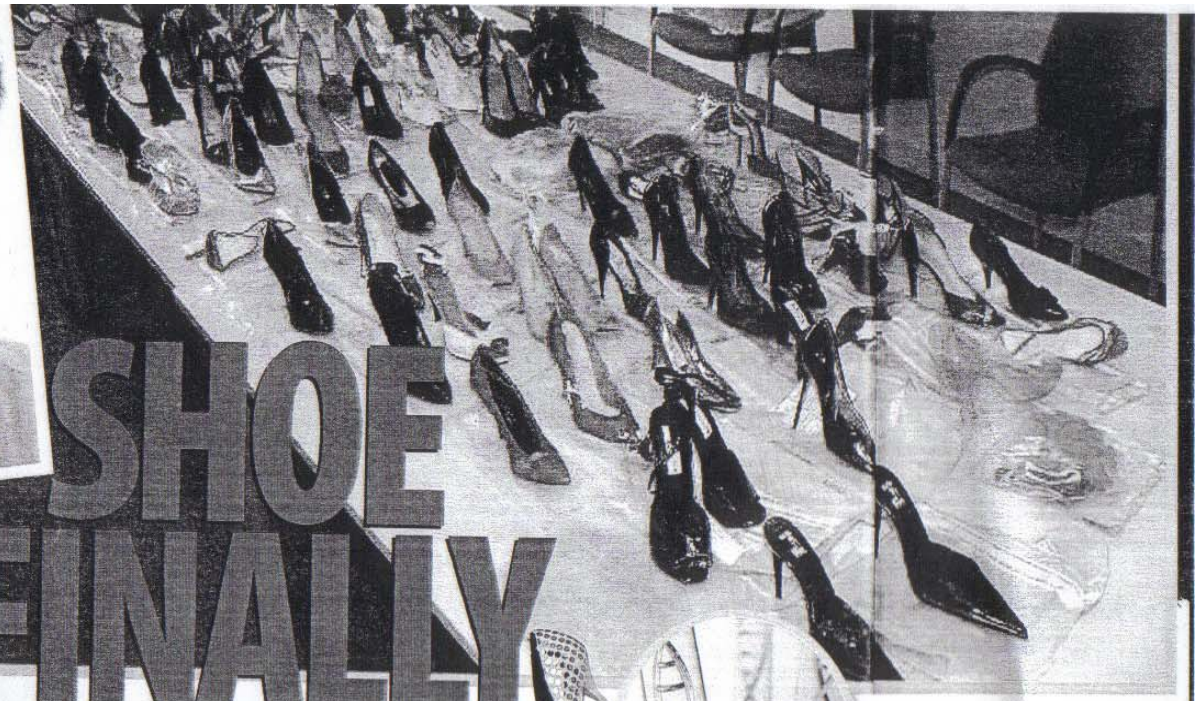
The same case also contained seventy-six (76) round white tablets with blue specks and no other markings. Analysis of these tablets revealed the presence of sibutramine as well.

As of August 15, 2006, Sibutramine became controlled under Louisiana law in House Bill 216.

Photos from Summer LAFS Meeting

By Dean Lancon and Winnie Kurowski

FINALLY BROUGHT TO JUSTICE: Rapist James Lloyd



SHOE FINALLY DROPS ON STILETTO-HEEL RAPIST

By **JOHN COOKE**

YOU might say sex fiend James Lloyd was born without a sole and lived like a heel – but spikes did him in. He was a pillar of the community but hid a shameful sex secret. The pervert raped only women wearing stiletto heels – and he always took a shoe as a memento.

After Lloyd was collared, cops found a hidden "trophy room" behind a secret door in his factory – with more than 100 stiletto shoes.

Following a 20-year investigation, a stunning new breakthrough in DNA science finally unmasked the dad-of-two as a modern-day Jekyll and Hyde.

He was a respected company boss – but he was also the notorious Shoe Rapist.

Now the serial sex monster is behind bars after what experts are calling the greatest "cold case" conviction ever.

"It's a fantastic result for forensic science, and a massive breakthrough using a new technique," said Detective Sergeant Sue Hickman, who put the 49-year-old executive behind bars. The heartless thug was convicted of four rapes, but is suspected of as many as 100 other attacks. During his four-year reign of terror, the cunning criminal stalked the late-night streets for lone women walking home from bars and clubs.

Lloyd is only 5-foot-6, but he pounced on them from behind and dragged his victims to secluded areas.

He often used their tights and panties to tie them up and gag them – and he also carried stockings and tights of his own to do the job.

One 46-year-old victim waited 22 years for Lloyd to pay for his crime.

She said after the case: "I looked at him and thought 'You pathetic little man. Now I'm in control.' He can rot in hell for all I care."

The unsuspecting victim was attacked at 2 a.m. as she walked home alone from a nightclub.

"He came up from behind and put his whole arm around my neck so I couldn't scream.

"Then he dragged me into a public bathroom and threw me on the floor.

"I lost a shoe on the way in, so he went back outside and got it. I was in shock. I thought: 'I'm just going to do whatever he wants, I just want to get out of this alive.'"

After tying her up with her stockings, Lloyd raped her – and took her shoes.

The attacks on the women stopped suddenly in 1986 – leading detectives to believe that the Shoe Rapist had died or gone to prison for some other offense.

In fact, the sex monster turned into Mr. Respectable – getting married and settling down to a humdrum suburban life.

The DNA samples the Shoe Rapist left behind during his sex spree lay in files gathering dust. And investigators were stumped for 20 years. But then came a stunning breakthrough. Scientists pioneered a new technique that ran DNA through government databases – trying to match the rapist's specimen with possible family members.

They searched for DNA information that the rapist would have in common with his parents, offspring and siblings.

Investigators successfully established a family link between the Shoe Rapist's DNA and 43 other people in the area of the attacks near Sheffield, England.

By chance, Lloyd's sister had been stopped and DNA-sampled for a drunken driving offense.

She told her brother police had interviewed her and had asked if she had a close male relative.

And she told him they'd be knocking on his door, too.

Lloyd panicked, phoned his father and confessed to "serious crimes" in the past. And soon police had their hands on the hard evidence – the spiked heels – and on Lloyd.

In The News

Nanogram

From: The National Enquirer August 14, 2006

Ray gun to reveal crime-scene drug traces

By Paul Marks
26 July 2006
NewScientist.com news service

Police using the Illicit Drug Detector gun will find out in seconds if they have found a drug den (Image: CDEX)

An ultraviolet ray gun could soon be telling detectives if a crime scene is tainted with traces of the highly addictive drug methamphetamine, widely known as crystal meth.

The gun, called the Illicit Drug Detector, looks like a cross between and a Taser and a hairdryer and fires a UV beam at a surface. Its built-in computer then analyses the reflected light.

Crystal meth can be produced by reacting over-the-counter medicines with dangerous, volatile substances - like red phosphorous or sodium. That means officers on drug busts are at risk when they raid suspected meth production houses, says Jerry Blair, a vice president of CDEX Inc of Rockville, Maryland, US, the medical equipment company that developed the device.

The gun will allow the police to determine in an instant whether that risk exists. "Officer safety has to be considered," says Blair. The gun could also help determine if people at the scene had been exposed to toxic materials that would necessitate medical treatment.

In addition, he says, police spotting motorists driving erratically could simply scan the door handle to see if the driver has been in contact with crystal meth.

Time-stamped evidence

The gun scans a UV beam across a surface and any meth molecules present then fluoresce at other UV wavelengths. These are sensed by photodiodes in the gun.

The fluorescence signature is then compared against those stored in the gun's onboard memory to see what the substance is. Signatures for "five or six" other illicit drugs will be added in 2007, Blair says. The device timestamps all readings for evidential purposes and the data is downloaded to police computers later.

CDEX already has a successful UV fluorescence detector on the market. That is the Valimed system used to prevent overdoses in 20 US hospitals by ensuring intravenous medications are made from the right ingredients at the right concentrations.

In September 2006, the prototype drug detector gun will begin trials with the Missouri State Highway Patrol. All being well, the firm expect to begin production in January 2007.

Beyond a doubt

Forensics teams can currently use small chemical tests to assess the nature of a few grains of suspected drugs at a crime scene, says Richard Hooker, a senior scientist with the UK's Forensic Science Service in London. But CDEX is hoping to prove that it can do this with trace amounts of drug not visible to the naked eye.

Their challenge, says Hooker, will be to ensure that their UV fluorescence analyzer provides a unique signature that identifies the substance beyond significant doubt.

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Whoo-oo Are You?

John Ricca Jr.

On July 2, 2006, John Ricca Jr. celebrated his retirement with his friends and family at Louisiana State Police. As an active member, John played an important role to LAFS for his many contributions and titles he held. He was LAFS president, the Nanogram editor, historian, and contributed to the organization whenever he could.

As a token of our appreciation, Kim Colomb presented John with a beautiful plaque thanking him for his years of input and service to LAFS.

Enjoy your retirement John, and we hope you'll have time to drop in on future meetings!

1. **Where do you work and what area do you work in?**

Retired from the La. State Police Crime Laboratory after 32 ½ years. Came up through the toxicology discipline. Last eight years as Criminalistics Manager.

2. **What sparked your interest to the world of Forensic Science?**

My Brother-in Law, who was an LSP Trooper at the time (1968), suggested it. Later, while in military, I read an article on the LSP Lab in the newspaper and when I separated from the Air Force in 1973, I applied and was hired in January 1974.

3. **How long have you been a member of LAFS?**

Since 1976

4. **How have you participated in LAFS?**

President, 1989; Editor of ***Nanogram*** (about 4 years); Historian (about 8 years); workshop coordinator; gave presentations.

5. Name your favorites:

Band or music: Neil Diamond
Hobby: Some golf
Drink: Strawberry daiquiri
Movie: Ben Hur and Casablanca
Sport or team: LSU major sports and Saints Football
Restaurant: Ruffino's in Baton Rouge
Recent book you read and author: Telegraph Days by Larry McMurtry

Family and Pets: Wife Liz, four daughters and sons-in law, seven grandchildren, two sisters and brothers-in-law (no more pets)
The car you drive: 2004 Jeep Grand Cherokee

6. The most interesting/memorable/humorous case you have encountered:
The one which will always stand out in my mind was working toxicology on a speeder in Ville Platte who went through a caution light at over 100mpg and slammed into a hearse, killing the funeral director and throwing the body out of the casket and in view of the family. The civil case had twelve attorneys all representing different causes and some of the testimony was given in French and had to be translated. I attended the trial for two days.

7. What's the best part about being retired?
Not having to wake up to the alarm and staying up later.

8. What big plans await you?
Possibly an Alaskan Cruise in 2007.

9. Any wise advice for those in the forensic science field?
Don't bring problems home with you. Use home as a haven to relax and de-stress. Also, when you can, utilize Friday afternoons for light work and catching up with administrative matters. Don't let problems ruin your weekend. Make the job fun.

Ray Gun continued…

"The UV spectrum you get from drugs is not as characteristic as a mass spectrum or an infrared one," he told **New Scientist**. "UV gives quite broad bands of much lower resolution, so a lot of the amphetamine type substances could look similar."

In the US, crystal meth is a social problem of such scale that President Bush signed laws specifically drafted to tackle it in March 2006. The Combat Meth Act limits pharmacy sales of meth's base ingredients - the decongestants ephedrine and pseudoephedrine - and requires authenticated sellers to keep them under strict lock and key.

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