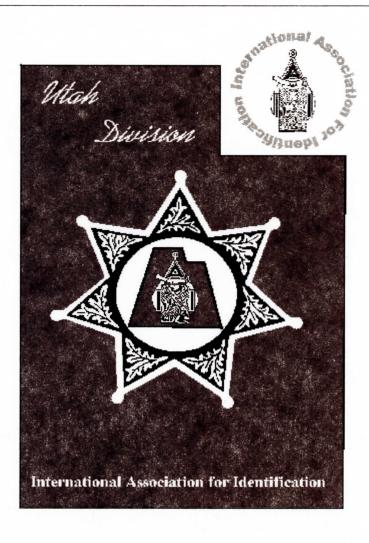
THE "PATENT PRINT"

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2009 Board Members

Bonnie Stewart President

Craig Ellertson 1st Vice President Justin Bechaver 2nd Vice President Jason Cole Secretary/Treasurer

James May Regional Representative Newsletter Editor Parliamentarian

Derek Mears

Elisa Farmer

Jennifer Williams Amanda Clark Historian Past President

President's Message

It is with great pleasure and excitement that I serve as your President of the Utah Division I.A.I for 2009. I thank our Past President, Amanda Clark, and the other Board of Directors members for their past service.

I want to take this opportunity to welcome the new Board of Directors and know that they will do a great job in furthering the goals of the Utah Division.

Speaking of goals, I have personally set several goals that I hope can be achieved over the next year. One is to ensure that our board continues to provide excellent training opportunities for all of our members. I welcome your thoughts and ideas regarding upcoming trainings you would like to see in the future, so please do not hesitate to contact me or one of the board members and let them know what you think.

I encourage all of you to make plans to attend the 94th International Education Conference on August 16-22, 2009 in Tampa, Florida. If you are not already a member of our parent organization, I strongly encourage you to join.

We are currently planning the Spring Educational Conference. It will be a 1-day event held on April 30 at the Swanson Training Center in Ogden. Please check the website www.UtahIAI.org for additional details as they become available. The training topic is Nighttime Photography Tips & Tricks. It will include several mock crime

scenes to demonstrate painting with light, laser trajectory photography, low light crime scene photography, and low light footwear and tire track photography. This will be a hands-on training and attendees are encouraged to bring their camera and participate. Elisa Farmer and Justin Bechaver from the State Lab have graciously agreed to be our instructors for this class. It should be an informative training for everyone and I hope to see all of you there.

Another of my goals for this upcoming year is to increase our membership. When you talk with someone you feel meets the criteria for membership, invite them to attend one of our conferences, or direct them to our website. Let's see our organization grow by leaps and bounds this year.

I have asked Derek Mears from the Salt Lake City Police Department Crime Lab to be our Newsletter Editor for 2009. Putting out a quarterly division newsletter will be a top priority this year. I invite all of you to contribute an article or submit a write-up on an interesting case you have worked on for an upcoming newsletter.

Best wishes to all of you in this new year. I hope to meet each and every one of our members at our conferences.

Bonnie Stewart

Your 2009 Board Members:

Bonnie Stewart - President

Bonnie Stewart was born and raised in the Salt Lake valley. She attended the University of Utah and Weber State University and has Bachelors of Science degrees in both Business and Criminal Justice. She has worked for the Salt Lake City Police Department Crime Laboratory since April 2000. In addition to crime scene investigation, Bonnie also conducts latent print and forensic document examinations for the department.

Bonnie is currently an adjunct instructor at Salt Lake Community College and has been teaching the Introduction to Forensic Science course at the college since 2006. She has been on the Board of Directors for the Utah Division of the IAI for the past 5 years, serving as Newsletter Editor, Secretary, Vice President, and currently as the President.

bonnie.stewart@slcgov.com

Craig Ellertson - 1st Vice President

Craig Ellertson is the Crime Scene Investigator and Evidence Manager for the South Jordan Police Department. He has worked for South Jordan for the past 10 years where he has served a majority of that time in Detectives. Prior to his employment with South Jordan, he worked 15 years for the Granite School District Police Department as a Police Officer, Detective and then a Patrol Sergeant.

Craig was born and raised here in the Salt Lake Valley. He served six years in the United States Naval Reserve serving a majority of his active duty time at NavFac Point Sur and the Naval Post Graduate School in Monterey California. He is married and has three children. Approximately 4 years ago Craig convinced his administration they needed someone dedicated strictly to processing the crime scene for trace and latent evidence and because of his enthusiasm and knowledge of the subject was designated the first CSI for South Jordan. Along with that responsibility he was also put in charge of all evidence and property being booked by officers.

Craig has served on the Board of Directors for the Utah Division of IAI last year as the 2nd Vice President and is currently serving as the 1st Vice President. In 2010 Craig will be President and he is hoping with help and dedication of all members of the Utah Division of IAI to host the 5th Annual Tri-State Conference here in Salt Lake City.

cellertson@sjc.utah.gov

Justin Bechaver - 2nd Vice President

Justin Bechaver was born and raised in Evanston, Wyoming. He began his education at the College of Eastern Utah in Price, UT and completed his education at Eastern Oregon University in LaGrande, OR. While in Price he attended the Crime Scene Academy course through the college, he was one of only two students chosen to participate, this course solidified for Justin that he wanted to become a Crime Scene Investigator. He continued on from Price to LaGrande where he participated in baseball throughout college and graduated with a Bachelors Degree of Science in Biochemistry.

Justin began his career with the Utah State Crime lab as an intern on an un-paid internship. He and his wife moved from Oregon hoping the internship would open doors for him and he is happy to say it has. Currently Justin is a Forensic Scientist, employed by the Utah Bureau of Forensic Services (UBFS). He has been with UBFS since the fall of 2005. Justin works in the chemistry section identifying controlled substances and he is training in paint analysis and explosives. Justin also enjoys working as the Crime Scene Response Coordinator for the laboratory. In addition to this he is Second Vice President on the Board of Directors for the Utah Chapter of the International Association for Identification (I.A.I.).

He and his wife Melissa had their first child, a son, in May of 2008. They have been enjoying watching him grow and get into a normal sleeping pattern. They also have two dogs, a three-legged Chihuahua named I-lean and a goofy but tender black Labrador mix named Gabby. The family spends their spare time camping, fishing, hiking and participating in city softball leagues.

bechaver@utah.gov

Jason Cole – Secretary/Treasurer

Jason Cole is the Forensic Director for the West Valley City Police Department Forensic Services Unit. Prior to his employment with West Valley City, he was a Police Officer and Detective for the Sandy City Police Department.

Jason was born and raised in the Salt Lake valley. He is married and has three children. He is very enthusiastic about forensics and crime scene investigation work. Jason co-founded the Utah Crime Scene Investigators in January of 2002, to provide monthly training for fellow investigators. Most recently Jason started the company, Law Enforcement Training Consultants, LLC. Law Enforcement Training Consultants, or LETC, is a company committed to providing and bringing to Utah quality training. LETC is now responsible for the Utah Crime Scene Academy.

Jason has served on the Board of Directors for the Utah Division of IAI for the past 9 years, serving as Historian, Vice President, and President and now is currently the Secretary/Treasurer. He was the recipient of the Utah Division of IAI Outstanding Achievement Award in 2005. Jason also played a key role with the 2nd Annual Tri-Division Conference held in Salt Lake City in 2007, working closely with the hotel, vendors, instructors and all the participants.

Jason.Cole@wvc-ut.gov

Derek Mears - Newsletter Editor

Derek Mears is a Crime Scene Technician for the Salt Lake City Police Department. He has worked for Salt Lake City Police since April of 2005. He has a Bachelor's Degree in Criminalistics from Weber State University and is a Certified Crime Scene Investigator through the IAI. Derek is currently an adjunct instructor teaching Introduction to Forensic Science at Salt Lake Community College. His favorite areas of forensics include blood spatter and firearms. In his spare time he enjoys camping, hiking, traveling, and target shooting. He has been a member of the Utah IAI since 2003 and this will be his first year serving on the Board of Directors as the Newsletter Editor.

derek.mears@slcgov.com

Elisa Farmer -Parliamentarian

Elisa Farmer is a Senior Forensic Scientist at the Utah Bureau of Forensic Services (UBFS) where she has worked for seven years. She is certified as a Latent Print Examiner by the International Association for Identification and serves as the Technical Leader of the Latent Print Section. She received a Public Safety Medal of Excellence in 2005 for her work on obtaining and identifying prints from severely decomposed human hands.

Elisa oversees digital photography for the UBFS. Her responsibilities include ordering and maintaining photography equipment and providing photography training for the laboratory. She is also a team leader on the UBFS Crime Scene Response Team and has coordinated many training exercises for the team.

Elisa has served as the Parliamentarian for the Utah Division of the IAI for two years.

efarmer@utah.gov

Jennifer Williams - Historian

Jennifer Williams is a Forensic Investigator for the West Valley City Police Department. She has worked for West Valley City Police Department since December of 2006. Before that she earned a Bachelor's of Science degree from the University of Utah where she also played soccer. She is also a Certified Crime Scene Investigator through the IAI. Her favorite part of forensics and crime scene investigation is re-construction and diagramming, or anything that requires thinking outside of the box and calculation. Some of her favorite pastimes include reading, cooking and eating food, football (Chicago Bears), UFC, and of course...playing soccer. She served on the 2008 Utah IAI board as the Historian and will be continuing in this position through 2009.

Jennifer.Williams@wvc-ut.gov

<u>James L. May III - Regional Rep. to the I.A.I.</u> James completed the curriculum for the Utah Peace Officer Standards and Training Academy and began working for Sandy City Police Department in April of 1993.

While working for Sandy City Police Department, James and a fellow Officer took it upon themselves to expand the Department's investigations division by starting the first Crime Scene Investigations Team. From that point on, James actively pursued the necessary training to maintain an active crime scene unit. In June of 2000, James resigned from the Sandy City Police Department.

James began his employment with West Valley City Police Department in July of 2000. James was brought on board as one of the five forensic investigators. While at West Valley City Police Department, James co-founded the Utah Crime Scene Investigators in January of 2002.

In January of 2004, James was contacted by the Center for Disease Control with a request in coauthoring their book entitled "Sudden, Unexplained Infant Death Investigation". In November of 2006, James resigned from the West Valley City Police Department and began his full time employment with the Tooele City Police Department as a Detective/Forensic Investigator. James started the first ever Forensic Division of the Tooele City Police Department's Investigations Division. James co-founded the Utah Forensic Divers Association in October 2007 and is currently serving as the President of that association.

James also serves as a board member for the Utah Division of International Association for Identification and has done so since 1998. James is also presently serving on the Editorial Board for The Journal of Forensic Identification.

James was born and raised in the Tooele area. James is married and has three wonderful children.

JMay@TooeleCity.org

Amanda Clark - Past President

Amanda is a Forensic Investigator for the West Valley City Police Department where she has been employed since December 2006. Prior to her employment with West Valley, she spent three years working as a Crime Lab Technician for the Salt Lake County Sheriff's Office. Amanda has a Bachelors Degree in Anthropology from the University of Utah and a Bachelors Degree in Criminalistics from Weber State University. She has been a member of the Utah Division of the IAI since 2002 and has enjoyed the opportunity to serve as a member of the board. Her husband Nate is a Detective in the Metro Gang Unit and they spend their days off together trying not to tell police stories.

Amanda.Clark@wvc-ut.gov

RMHIDTA CLAN LAB SAFETY ALERT **Dangers Associated with Large Indoor Marijuana Grow Operations November 5, 2008**

Report Prepared by Tim Lewis, Lead Clan Lab Instructor

This initial report regarding the exposure was received from Captain Bill Nagel of the Denver Police Department Vice & Drug Control Bureau concerning medical complications suffered by one of his Officers believed to be from the process of seizing indoor marijuana grows. Mister Ron Hollingshead from NDIC was the conduit for collecting the information from Denver PD. Thanks to Captain Nagel, the involved and injured Denver PD Vice & Narcotics Detectives, and Mr. Hollingshead for their cooperation and willingness to share this information.

-Background-

A few days after seizing approximately 1,000 plants in an indoor grow a Denver police officer that participated in the seizure was taken to the emergency room experiencing severe back pain. Initial tests did not show anything that would cause the increasing back pain. The pain persisted and was so severe that on Saturday, August 30, 2008 the Officer underwent exploratory surgery to determine the cause of the pain. Doctors found a white fungus and a crusty bacteria growth on his vertebra. The infection had eaten away part of his vertebra and was concentrated between the vertebras. This condition was diagnosed as a form of diskitis.

The doctors called in the Center for Disease Control (CDC) and placed the Officer into isolation as the cause and degree of infectiousness of his condition was undeterred. Tests of biopsy materials conducted by the CDC revealed that the bacteria was a Diptheroid type bacteria and the fungal infection was an Aspergillums species of fungus.

The officer was placed on an anti-biotic regimen administered through a pic line from his arm to his heart. In order to be able to be released back home; his wife took classes on how to administer the drugs through the pic line. The Officer was released to go home and follow this antibiotic regimen. To manage pain he was given morphine type drugs.

-Description of Fungus-

Aspergilliosis is an opportunistic internal infection of Aspergillus fungi of the spine, it is rare. An article Entitled "Spinal Infections" May 9, 2003 by Federico C Vinas, MD stated that Vertebral Osteomyelitis is rare, 1 in 100,000 to 250,000. Another article cited 3 related research and teaching hospitals that had a combined total of only 11 cases of infectious vertebral osteomyelitus in 16 years. Of these 11 cases only 1 was not related to transplants or surgical implants/appliances. These figures include all types of spinal infections, bacterial, viral, and fungal. Those pertaining to just Aspergillus fungi would be a small subset of these. This is a very rare occurrence.

The infections are opportunistic and generally occur where the patient is:

- · Advanced age,
- · IV drug user,
- Congenital immunodepression
- · Long-term steroid user
- Diabetic
- Recipient of organ transplant, surgical appliances, catheters

• Have cancer, AIDS, or other immunosuppression.

The personnel from Denver PD inflected were not part of any of these categories.

-Illicit Drug Connection-

Marijuana is commonly infected with fungi and bacteria in both its growing plants and as decaying dead plant matter. Indoor marijuana grows increase the humidity and temperature inside the grow house artificially. This promotes the growth of the marijuana and increases the percentage of THC in the product. It also increases the growth of fungi and bacteria. Police officers processing illegal marijuana grow sites can be exposed to larger than normal concentrations of fungi and bacteria as they collect marijuana for evidence; either as live marijuana plants, unprocessed dead marijuana and processed dead marijuana. Some grower techniques, such as placing an orange peel inside the baggie of marijuana to impart an orangey taste, may exacerbate the problem of molds and bacteria found in processed marijuana.

Molds and chemicals also build up in the hydroponics systems themselves and personnel are exposed to these as they dismantle the system. With the high humidity and heavy concentration of marijuana plants these grow operations commonly become infested with pests. Marijuana growers are obtaining commercial grade insecticides which are deployed onto the plants. These dangerous chemicals can be transferred to the personnel dismantling the grow operation and those who come into contact with the plants afterwards.

With the higher grade marijuana and increased THC levels of the plants it is possible for the plant resin to transfer THC, which is fat soluble, to the officers. Theoretically, personnel processing high grade plants, who come into contact with the resin that drips from these plants, can be exposed to and absorb THC into their systems. Urine tests have not yet been conducted to confirm this, but if absorbed into the officers system it could remain in their systems and show up at a later urine scene. Additionally with the high humidity and poor ventilation, the moisture degrades the dry wall in the homes and accelerates black & green mold growth. This adds to the threat personnel are exposed to if they are not using the proper protective equipment. The massive electrical rewires that occur in these marijuana grows are not up to code. The junction boxes wired by the suspects contain open circuits that are not safe or to standard. Personnel processing marijuana grows are often standing in water and research shows electrical current can jump up 36" from the open 110 circuit into the officer. Operations that tap into the underground power supply present even greater hazards.

Science is still evolving and the courts have rendered decisions based upon the reasonableness of the claim and not science. The cause and effect relationship between high mold levels in a living area and patient symptoms is still a developing "art". In the case of the Denver officer the circumstances show that he was involved with the processing of marijuana grows in the year 2008 on 2/17/2008 (1,000 plants), 2/17/2008 (small), and 7/1/2008 (265 plants). Any one of these could have been the source of the Aspergillus fungal infection that developed on his spine.

The officer was not just symptomatic, but an actual Aspergillus growth was found on his spine. The affects of such an infection are insidious and take a long time to develop.

-Conclusion-

A biopsy of the Denver PD officer's spine found that his spine was infected with an Aspergillus fungal and Diptheroid bacteria infestation of his spine. Both of the Aspergillus and Diptheroid bacteria are found ubiquitously in the environment in relatively low background levels; however, the marijuana grow operation environment has elevated amounts of fungi and bacteria due to the usually poor cleanliness and abnormally high humidity and temperature grow houses are kept at. It is

reasonable to associate the very rare bacterial and fungal infestation that the Officer suffered with the rare and unusual conditions he was subjected to while processing marijuana grow sites. The officer's Aspergillus infection was most likely a result of his exposure during marijuana grow operations.

As part of this investigation, a supervisor, who was working outside of the grow operation, moving harvested marijuana plants from the processing area into the transport vehicle contracted pneumonia. Since 2006, detectives working in large marijuana grows have reported contracting upper respiratory infections immediately after breaking down indoor hydroponics marijuana grows. The causes of these upper respiratory issues were never identified, but each detective reported they had participated the dismantling of an indoor hydroponics marijuana grow. The detectives did not feel ill before the operation and could not recall being exposed to anyone with a virus that could have given them the infection.

-Recommendations & Follow Up-

The Clandestine Lab program at Rocky Mountain HIDTA continues to gather information regarding safe practices for personnel serving search warrants or working in hazardous environments. Beginning in 2007, after research and case studies, trainers from the Rocky Mountain Clan Lab program began recommending for personnel working in these types of hazardous environments wear the proper personal protective equipment (PPE). That equipment includes, at a minimum an air purifying respirator (APR) and protective clothing. Shutting off power to grow areas is also highly recommended.

Using portable lighting devices and additional positive pressure ventilation is also recommended. Care should be maintained to keep power cord connections out of water supplies.

Royal Canadian Mounted Police and metropolitan Canadian police agencies have experienced similar issues and have been processing large marijuana grows using chemical protective splash suits and self contained breathing apparatus (SCBA) to enter into and work in these environments for several years. California authorities are also taking steps to ensure their personnel are using proper personal protective equipment when processing marijuana grows. Personnel processing large indoor marijuana grows should be wearing air purifying respirators and an outer garment designed to protect personnel from resin transfer and exposure to chemicals, pesticides, molds, fungus, and bacteria. OSHA does not specifically address indoor marijuana grow operations, but with a worker/employee being exposed, injured, or becoming ill as part of an operation they would have jurisdiction and OSHA related Combined Federal Regulations would apply. The way to protect the employees from harm and the supervisors and agency from liability is to ensure personnel wear personal protective equipment (PPE).

RMHIDTA will continue to review related information and provide it during initial Clan Lab Safety Courses, Site Safety Courses, and Clan Lab Recertification Courses. Safety of personnel attending these courses, and current staff working in these environments, will be a high priority and I will publish updates to the region as I receive them.

This flyer can be shared with other law enforcement agencies, Risk Management Offices, Fire & Hazardous Material Teams, Workmen's Comp and medical provider staffs. It is not attended for release to the public, but for official police use only.

For Official Use Only RMHIDTA CLAN LAB SAFETY ALERT **Dangers Associated with Large Indoor Marijuana Grow Operations November 5, 2008** Report Prepared by Tim Lewis, Lead Clan Lab Instructor

The Forensic Science Programs at Utah Valley University

By Gary H. Naisbitt, Ph.D., Director of Forensic Science

The educational requirements for persons investigating crime scenes and processing evidence at local agencies are different than those working at state level crime laboratories. The forensic science programs at Utah Valley University are designed to serve both groups. Student s can tailor course work specifically to their needs.

The Bachelor of Science in Forensic Science (BS FS) degree targets individuals who desire to be crime scene specialists and evidence technicians at county and state level laboratories. Following the Forensic Education Programs Accreditation Commission's (FEPAC) curriculum guidelines that emphases science courses mixed with examiner track courses, the BS FS is the new standard being promoted by DOJ, AAFS, and ASCLD. Traditional science courses are taught in the university's departments of science while specialty forensic science courses are taught using a problem solving strategy where students use instruments to analyzing drug and trace samples.

Examiner track courses, fingerprints, crime scene, impressions, etc., are mostly taught by instructors who have IAI certifications. These courses emphasize hands-on activities and repetition so the student can learn the technique instead of just having been exposed to it. Criminal Justice students expecting employment as peace officers do not take the science courses but can take fingerprints, crime scene, and impression courses to enhance their skills.

Forensic science courses are taught in a dedicated forensic laboratory that is equipped with two chemical fume hoods, a fingerprint down draft hood, equipment for a wide variety of crime scene techniques, and digital cameras and lighting. Instrumentation includes a gas chromatograph – mass spectrometer, pyrolyzer, infrared (IR) spectrometer and IR microscope and a microspectrophotometer. Each student has his own stereo and hybrid microscopes supplemented by a comparison, bullet, and boom mounted stereo microscopes. All microscopes are equipped with cameras that are networked to a classroom that is part of the laboratory suite. In addition to the "smart classroom" projector and teaching aids, each student has his own computer workstation with software for image processing, measurements, report writing and oral presentations.

BS degrees are also available in Forensic Chemistry and Computer Forensics. These degrees are primarily chemistry and computer science degrees with selected forensic science courses integrated into their respective curricula. These degrees target jobs in both law enforcement and the business community.

IAI Latent Print Certification

For those who are interested in acquiring IAI Latent Print Certification, a study group will be held the second Thursday of each month at 11:00 until noon at the West Jordan Police Department at 8040 South Redwood Road. Park on the Westside of the building and enter through the west glass doors and through the room immediately to your left. There will be a sign. Hopefully individuals wanting to attend will have the support of their agency as certification at least once a month.

The group will be mentored by individuals who have obtained their Latent Print Certification. We will have free reading material available for those who wish to attend. Have those who are interested in attending bring their lunch and enjoy learning while feasting! For further information or directions contact Francine Bardole at francine@wjordan.com. First class will begin March 12th.

IAI Crime Scene Certification

A study group has also been suggested for individuals interested in acquiring IAI Crime Scene Certification. For those interested please contact Jeff Itami at newhome@sisna.com.

FBI Virtual Academy

In January, 2002, the FBI National Academy at Quantico, VA, began a new method of allowing police personnel to register for courses offered by the FBI. The new system is called the Virtual Academy. If your department or crime lab has not registered yet, you can simply go to their site and fill out the registration form. The address is: https://fbiva.fbiacademy.edu/. When the homepage comes on screen simply click on "register" on the menu bar at the top and follow the directions. Remember, all of their courses at Quantico are free. A list of available classes and dates are available on the FBI website at http://www.fbi.gov/hq/lab/html/train1schedule.htm

Upcoming Training

Utah IAI Spring Training - Nighttime photography tips and tricks

Instructors: Justin Bechaver and Elisa Farmer

Dates: April 30, 2009

Location: Swanson Tactical Training Center, Ogden, Utah http://swansontactical.org/index.html

Cost: TBD

Additional information: Approximately $1\frac{1}{2}$ -2 hours of lecture will be presented in the morning and the remaining time will be spent on nighttime photography practical exercises.

Skills learned in this course include: painting with light, laser trajectory photography, low light crime scene photography, and low light footwear and tire track photography.

Due to the unique layout of the training center, a large number of mock scenes and photography opportunities will be available. This will include challenges based on real crime scene experiences.

Essential Ridgeology Concepts (New Class) - Class limited to 30 students

Instructor: John Black Dates: April 6 - 10, 2009

Location: Utah Cultural Celebration Center

Cost: \$600.00 - Payable to Ron Smith and Associates Additional Information: www.ronsmithandassociates.com

Complex Latent Print Examinations

Instructors: Charles Richardson and Debbie Benningfield

Dates: September 21 - 25, 2009

Location: Utah Cultural Celebration Center

Cost: \$600.00 - Payable to Ron Smith and Associates Additional Information: www.ronsmithandassociates.com

4th Annual Tri-Division Educational Conference

Instructors: Various

Dates: October 6 - 9, 2009

Location: Venue TBD - Las Vegas, Nevada

Cost: TBD

Additional Information: www.utahiai.org (as we receive it)

International Association for Identification's annual International Educational Conference

Dates: August 16-22, 2009

Location: Tampa Convention Center, Tampa, Florida

Cost: \$295.00 IAI members, \$395.00 non-members, plus applicable workshop fees.

Additional Information: www.theiai.org

ANY NEWS IS GOOD NEWS

Anyone having any news or articles and would like to be published, please send it to our Newsletter Editor, Derek Mears. He requests that it be in Word or PDF format. Thank you.