



Summer 2013

SARScene 2013

The SARScene program outreach activity is a key core element of the National SAR Program which encompasses the efforts and activities of all levels of government, corporate and volunteer sectors, and a vast array of organizations and programs related to providing information, applying technology, conducting research, preventing SAR incidents from occurring or saving lives of Canadians and people at risk. This event provides an opportunity for the NSS to educate the general public of Canada's search and rescue capabilities.

SARScene acts as a meeting place for the Canadian SAR community, as well as from the international sector, to come together to discuss key National SAR Program priorities, collaborate and share best practices and further SAR prevention and response in Canada. The event encompasses numerous presentations by field experts, group discussions and town hall meetings as well as learning and networking opportunities. The program also provides space for SAR organizations to host their own meetings concurrently as well as SAR prevention and common SAR skills training.

SARScene is the only federal/provincial/territorial search and rescue program support activity in Canada. During FY 2013-14, the NSS will deliver SARScene 2013 in Kelowna, BC in partnership with the British Columbia Search and Rescue Volunteer Association (BCSARA).



SARScene Update

12/05/2013 by Colin Wiebe VP BC SARA

We've received a few inquiries for details about the [National SAR Secretariat's SARScene](#) national SAR conference being co-hosted by BCSARA. We are told that the funding request is with Defence Minister MacKay and will hopefully be approved soon.

We are tentatively **planning for October 18-21 in Kelowna** and as soon as more details are available we will post them. You can also watch for announcements and more details at the SARScene web site: www.sarscene.ca

Check out the new BC SARA website at: <http://www.bcsara.com/> with links to Regional SAR Groups and the five recognized Provincial Groups – which now includes the BC Tracking Association!

British Columbia Tracking Association

www.bctracking.org

Visit to National SAR Secretariat



Cristiane Peever, NSS Senior Program Officer SAR NIF receiving the final report and draft GSAR Tracker Training Standards from Win Koch, Secretary, BCTA.

This visit on 24 May 2013 by Win Koch and Peter Wilson to the National SAR Secretariat in Ottawa, formally concluded the New Initiatives Fund project provided by the National SAR Secretariat to the BC Tracking Association to develop and provide GSAR Tracker training for British Columbia.

The Association - In Review

The Association is mid-way through its third year. Here are some stats that were included in the final report to the National SAR Secretariat for the two years of the SAR New Initiatives Fund between 11 April 2011 and 31 March 2013:

Number of Courses:

- 26 Planned (5 Cancelled)
- 16 In-House Novice/TKA/Advanced
- 3 UTS Contractor Courses
- 2 Instructor Courses (1xUTS TTT & 1xBCTA Instr.).

Number of students trained:

- 246 BCTA Novice /Track Aware
- 133 BCTA Advanced
- 70 UTS Advanced

Number of Trackers Certified:

- 35 Track Aware (BCTA)
- 12 Track Aware (UTS)
- 15 Tracker 1 (UTS)
- 5 Tracker 2 (UTS)
- 1 Sign Cutter (UTS)
- 23 Instructors

Spring Training



Silver Lake COSAR 3-5 May 2013

Central Okanagan SAR hosted this course under the excellent coordination by Teresa Oyer. Instructors included Mike Neeland, Tina Phillpis for the Advanced class, and Win Koch and Darlene Berry for the Novice/Track Aware. There were 16 students and six achieved their Track Aware certification: Sherry Verheyden, Sheila Pope, Danielle Thompson, Marc Bertrand, Teresa Oyer and Astrid Kneipp. Congratulations!

Fruitvale 17-19 May

Hosted by Ron Medland, South Columbia SAR



Instructors were Jerome Liboiron and Bart Bjorkman. The Fruitvale training went very well. The 11 students were very enthusiastic and all teams did well over 300 meters of sign. On Sunday we also did a joint tracker/dog exercise to see how the strengths of both those resources could work together. The dog handler was a student and her dog is provincially accredited. The exercise was fun and students observed/participated as they wished. Trackers determined the direction of travel

British Columbia Tracking Association

www.bctracking.org

and then the dog scented the sign. The dog then led, with trackers checking for sign leaving the trail. The subject was found about 1 km from the LKP. in 3/4 of an hour. Most of that time was trackers finding the correct sign and the direction.

Vera Truant achieved Track Aware – Congratulations!

Ottawa SAR Global 1 24-26 May



BCTA Instructors Peter Wilson and Win Koch were invited to provide an Introduction to GSAR Tracking to Ottawa Global 1 SAR Group 24-26 May. Course coordinator was Laura Smith (formerly of Comox Valley GSAR). The attendees consisted of 11 very keen and interested students. Two of the members had some previous tracker training and one other was also a SAR dog handler. The course was originally planned for 13 students, unfortunately one member fell sick and the National SAR Secretariat had no-one available to audit the course.

The training consisted of the Basic Track Aware course, with the classroom session on Friday evening, followed by Track Aware field training on the Saturday. Sunday was a full 8-hour day introduction to Advanced tracking. Although it was “drinking from a fire hose” – compressing some 80 hours of training into one weekend - the objective was to introduce the group to GSAR tracking and how it can be applied to search tasks. Judging by the student critiques, the format worked very well as an introduction, although they wished there was more time to get into more detailed discussion and experience a variety of field training scenarios.

The SAR Global 1 students commented that having instructors bring the training to them was much more effective than sending individuals to attend a course. They now have a critical mass of members with at least the same introduction to tracking knowledge and experience. Given this introduction to GSAR tracking, they felt comfortable that their training committee could

initiate some of their own local continuation training for the rest of the group, as well as passing on the value of BCTA training to other SAR Groups in Ontario and Quebec. *Do we have any bilingual instructors?*

Universal Tracking Services May 24-26 Tracker I & Tracker II Zajac Ranch, Mission



Fall Courses

Time to plan hosting a fall course for your SAR Group!

See How to host a course on the BCTA website.

<http://www.bctracking.org/docs/Calendar/How%20to%20Host%202013.pdf>

Contact your BCTA Regional Director and get the ball rolling. <http://www.bctracking.org/contact.html>

Check out the Calendar for course announcements and registration. <http://www.bctracking.org/calendar.html>

We already have one course scheduled for this fall:

September 13-15 : Novice, Track Aware and Advanced Course Long Beach (Tofino, BC)

West Coast Inland SAR is planning an in-house course.

For details go to www.bctracking.org > Calendar.

Contact Jeni Christi at 250-726-5267 or

urgoapparel@gmail.com.

British Columbia Tracking Association

www.bctracking.org

Communications

If your SAR Group is planning to host a course, it is important that the course announcements get out as soon as possible, in order to allow distribution and to give folks plenty of time to make plans and to register. How to Host a Course instructions are available on the website:

<http://www.bctracking.org/docs/Calendar/How%20to%20Host%202013.pdf>

Sample announcement templates and registration forms are available from your Regional Director or from communications@bctracking.org

Ideally, we would like to get the word out about 60 days before the course date, and normally close registrations two weeks before the course date in order to assign instructors and for the Coordinator to plan numbers for meals and accommodations.

Memberships

BCTA Paid Membership summary from the SAR NIF Report:

April 2010	32 (Registered Society in 2009)
April 2011	65 (Begin NIF CA year 1)
April 2012	125 (Begin NIF CA year 2)
April 2013	114 (+90 expired end of NIF CA)

A reminder that the annual BCTA membership renewal date was 1 May. Those whose memberships expired should have already been notified by e-mail.

Membership forms were included with the e-mail and are also available from the website:

<http://www.bctracking.org/docs/Members/Membership%20Form%20Jan%202013.pdf>

Membership fees remain the same at \$15.00 for one year and \$40.00 for a three year membership.

Memberships may also be purchased upon course registration in order to obtain the reduced tuition fee.

Questions? Contact Peggy Shelley at membership@bctracking.org

Finances

The new tuition rates, effective 1 April 2013, were published in the last newsletter. They are \$100 for BCTA members and \$200 for non-members (or \$115 if a 1-year membership is taken out upon initial registration). Students will no longer be reimbursed for travel expenses or for attending UTS courses.

Correspondence

As reported in the Spring issue, back on 13 March, Mike Neeland and Win Koch were on a teleconference with Ian Cummings, SAR Specialist, EMBC and Don Bindon, President, BC SARA. Discussion included a review of BCTA progress to date and several details in our relationships were worked out. Since then, the following follow-up has taken place:

- BC SARA was able to include the BCTA in the Liability and Directors & Officers insurance. This became effective as of 1 April, and will be renewable in September, which is the renewal date for all provincial SAR Groups.
- The new, updated BC SARA website <http://www.bcsara.com/sar-groups/regions/provincial/> now includes the BCTA link with all the other provincial groups. Lots of other information is available on the site, including links to all BC SAR groups and stats on SAR activity across Canada,

Mike and Win are still awaiting a date to meet with EMBC office formally brief EMBC and BC SARA/SSTC in more detail on our training program and standards, and for more discussions on the way ahead for GSAR Tracker Training in BC.

AGM 2013

The date and location of the BCTA Annual General Meeting 2013 this fall has yet to be determined. We're hoping it can coincide with a fall course in the interior. Members will be notified via e-mail and newsletter at least a month before the meeting.

Volunteers Wanted: Regional Directors

The BC Tracking Association Society is still looking for volunteers to fill the positions of Regional Directors in three areas of the Province of BC – North, Central and SW. The duties include: liaising with GSAR training officers and trackers within the region, providing tracking training materials and advice, facilitating tracking training, assisting other Regional Directors and providing reports, as required. Directors are voting members of the Board of Directors and play a major role in furthering Tracker Training in BC. Please contact us, with a resume, if you are willing and able to represent your area of the province! Secretary@bctracking.org

Tracker Tales



As always, Tracker Tales and pictures from your SAR or tracking experiences are welcome. Please send them to secretary@bctracking.org

From the Spring Issue:

Animal Tracks Quiz #1



Answer: Moose

Animal Tracks Quiz #2



Answer: Cow

Footwear, The Missed Evidence

Dwayne S. Hilderbrand, CLPE

Lead Latent Print Examiner

Scottsdale Police Crime Lab

Author of the book, [*Footwear, The Missed Evidence*](#)

"The scope of a complete examination consists of two main functions: first, the recovery process, which includes the discovery and preservation of the prints, and second, the identification process, which involves evaluations, comparisons, and findings related to the recovered impression." (Grieve 1988).

Introduction

"Wherever he steps, whatever he touches, whatever he leaves, even unconsciously, will serve as silent witness against him. Not only his fingerprints or his footprints, but his hair, the fibers from his clothing, the glass he breaks, the tool mark he leaves, the paint he scratches, the blood or semen he deposits or collects.. All of these and more bear mute witness against him. This is evidence that does not forget. It is not confused by the excitement of the moment. It is not absent because human witnesses are, it is factual evidence, physical evidence cannot be wrong, it cannot perjure itself; it cannot be wholly absent, only its interpretation can err. **Only human failure to find it, study and understand it, can diminish its value.**" (Paul L. Kirk 1974).

Shoes are a Fascinating Item of Clothing

In almost every criminal investigation it is necessary to determine and prove that a particular person or persons may or may not have been present at the scene of a crime. For this reason, the collection, preservation and analysis of physical evidence has become more frequent in the law enforcement community.

Around 1910, a criminologist by the name of Edmond Locard arrived at a theory that every time something comes into contact with another it either takes or leaves a portion of itself or another. This theory is called the Edmond Locard Theory, which simply states "Every contact leaves its trace." This theory is continually used today in crime scene investigations and the analysis of physical evidence.

Since criminals must enter and exit crime scene areas it should therefore, be reasonably assumed that they may leave traces of their footwear. Criminals have become smarter and wiser by beginning to frequently wear protection over their hands to avoid leaving fingerprints, and masks over their faces to avoid eyewitness identification. However, they are rarely aware of, or make little attempt to conceal footwear. During an every day routine it is normal to see an individual wearing

gloves, but it's not normal to see individuals wearing protection over their shoes.

Unfortunately, when a crime scene is improperly secured or is disorganized, the search of the scene often results in this type of impression evidence being overlooked or destroyed. When this type of physical evidence is properly collected and preserved by the crime scene investigator, followed up by a detailed examination by a footwear expert, it can become an important part in proving or disproving a suspect was at the crime scene.

Why are Footwear Impressions Overlooked?

Footwear impressions are overlooked for two important reasons,

1. The lack of training and education in the proper searching, collection and preservation of the evidence and;
2. The evidence is undervalued or not understood.

The failure to properly collect this type of evidence revolves around the above-mentioned two reasons but the lack of success in finding this evidence is often due to:

1. Not believing that the impressions can be found at the scene after people have walked over the scene
2. Incomplete searches of the crime scene;
3. Weather conditions;
4. The impression has been intentionally destroyed.

In many cases, footwear evidence can lead to positive identifications of which particular known shoe made the print. Footwear evidence can provide investigators with certain information that can assist them in locating a suspect. Most footwear evidence, when collected and preserved properly can provide the type, make, description, approximate size, the number of suspects, the path through and away from the crime scene, the involvement of the evidence, and the events that occurred during the crime.

Protection of the Scene

The first officer at the crime scene should assess and attempt to determine the entire area of the crime scene, including paths of entry and exit and any areas that may include evidence that a suspect was present. Once this has been done the area of the crime scene should be completely secured and evidence marked for later documentation and collection. Unfortunately, footwear evidence is easily eradicated by weather or by people and vehicles approaching the scene from the same direction of entry or escape the suspect might have taken. Isolation of the area is crucial, to avoid analyzing recently made footwear impressions that are not related to the crime scene.

There are many ways to secure footwear evidence in and around the crime scene. Once the area is secured and the crime scene is established the officer on the scene should make sure the entire scene is marked off using crime scene barricade tape, and no one should be permitted to enter until the crime scene investigator responds. In some cases where weather might have an effect on the footwear evidence, the first officer may place boxes, cones, etc. over the impressions until the crime scene investigator arrives. Remember, do not alter the evidence prior to any photographs.

Searching the Crime Scene

Always be aggressive and alert. Footwear evidence should be one of the first considerations at the crime scene. Once the scene has been made safe by the first officer(s) on the scene, it should then be secured for the crime scene investigator. The secured area should be marked off large enough to include any possible footwear impressions that may be leading to and away from the area. This officer securing the scene should pay careful attention not to leave his footwear impressions around the scene.

If the officer must enter the crime scene area, a military-type approach and exit should be used when at all possible. This type of approach consists of the individual stepping into his/her own footprints, therefore leaving only one set of additional footprints that can later be eliminated. A restricted route should be thoroughly searched for evidence. A planned search of the area should be conducted by the crime scene investigator on the scene. The area should be carefully photographed and documented as to where each footwear impression is found. This procedure should be done before any other search is performed. Once the footwear impressions have been located and marked as to their location, the crime scene investigator can come back later and complete the photographing, casting and collecting process.

Footwear evidence can be found at almost all crime scenes in two forms, impressions and prints. The techniques in recording such evidence may be different, but the search is basically the same. Always use a methodical and planned method of searching. Never blind search a crime scene. **The only footwear evidence that is not found is that which is not searched for.** Footwear evidence that is located out of doors should first be photographed and if three dimensional, cast. This will prevent any unfortunate destruction of the evidence while the crime scene investigator is inside. Each impression should be documented as to its position and surrounding areas. **Remember, position can tell you direction of travel.**

During an interior search, all surfaces where the suspect(s) may have entered or exited the scene should be carefully examined since most of the residue on the shoes from the outside surfaces may contain valuable impressions which are not easily seen under normal lighting conditions. To locate footwear impressions on indoor surfaces, the crime scene investigator should first attempt to darken the search area as much as possible. Then using a strong white light with a directional beam, cast the light over the surface at an oblique angle. Once the impressions are located, the collection and recovery process begins. Excellent devices with strong white light are the forensic light sources. They contain a narrow beam of white light that provides an excellent source of illumination when it is held at a low angle. Also this type of light is much stronger and brighter than normal flashlights.

Whether the impressions are indoors or out, they should be photographed, documented, lifted and/or cast. A photograph or lift differs from a cast in that it is a two-dimensional reproduction of a print, just as a fingerprint lift. A cast is a three-dimensional structure which can provide a positive reproduction of the footwear.

Remember that some impressions may only lift in partial and others do not lift at all, so always attempt to photograph the prints first. If the footwear is a visible print on an item that can be retrieved from the scene to the laboratory, then this should be the method of choice.

It is much easier to work on the evidence under controlled conditions than to try collecting the footwear at the crime scene, but in some cases this is not possible. There are many lifting applications on the market that have been accepted for years. Adhesive paper or contact paper can be placed over the footwear print in dust or very light dirt.

This lifting method works by placing the adhesive paper or contact paper, adhesive side down, over the impression in dust or light dirt and smoothing over. This will allow the impressions to be transferred to the adhesive side of the paper. Once this is done the paper is then peeled off the impression and photographed. The paper can be treated with a mixture of 0.05 grams of crystal violet to 500 ml. of distilled water which stains the footwear impression, but produces a reversed image when collected. Once this is completed a piece of clear acetate is placed over the print in order to preserve it for impounding and later examination purposes.

Latent fingerprint powders and lifting tapes can be used on various surfaces for contrast and recovery.

Many of the chemicals used by latent fingerprint examiners can be used to enhance the footwear prints on a variety of items.

Many latent footwear impressions can be located with the oblique lighting technique. Once found they can be difficult to photograph, but latent fingerprint powders can be used to build contrast for easy photography. This procedure is performed in the same manner as if you were dusting for latent fingerprints. Once the prints have been developed and photographed, the recovery process is the same using fingerprint lifting tapes and suitable contrast backgrounds to place the lift on. Never cover an impression with tape to preserve it until after the completion of the photographs. The tape will only obliterate the print and make subsequent enhancement difficult. Place the tape over the impression only after all other methods of enhancement have been exhausted. Make sure the footwear evidence was not placed in dust, as there may be more suitable methods of collection.

Since 1981, an excellent recovery method for visible and invisible footwear evidence has been widely used around the world and has resulted in footwear identifications. This technology is called the electrostatic dust lifter.

The system has a high voltage electrostatic charge that creates a charge on a piece of lifting film and causes some of the dust or residue particles to transfer to the underside of the lifting film. The system works on a wide variety of surfaces including, floors, doors, countertops, chairs, fabric, metal, carpet tile, newspapers, bodies, tar and many others. The quality of the print is dependent upon the type of surface it is deposited on. No matter what the detail is that is recovered the crime scene investigator should always turn the print over to the examiner for examination.

There are four basic methods of recording footwear impressions at the crime scene.

1. Photography
2. Documentation/Sketching
3. Casting
4. Lifting

The crime scene investigator, when collecting evidence, should "use known methods in the best possible way to develop the impression to its fullest potential."

Crime Scene Footwear Evidence

Footwear evidence can be found in two forms, impressions and prints. The impression is normally described as a three-dimensional impression, such as an impression in mud or a soft material; and the print is described as a print made on a solid surface by dust, powder, or a similar medium.

Footwear evidence, as well latent fingerprint evidence, is classified into three categories of crime scene prints:

1. Visible Prints
2. Plastic Prints
3. Latent Prints

The Visible Prints: A visible print occurs when the footwear steps into a foreign substance and is contaminated by it, and then comes in contact with a clean surface and is pressed onto that surface. This print can be visibly seen by the naked eye without any other aids.

The most common visible prints are prints left on a contrasting surface, such as a kitchen floor. A variety of substances, such as blood, grease, oil, or water will leave contrasting prints. This type of print must be photographed, prior to any other methods being used. An electrostatic dust lifter can also be utilized when the evidence is in dust.

The Plastic Prints: Plastic prints are impressions that occur when the footwear steps into a soft surface, such as deep mud, snow, wet sand, or dirt creating a three-dimensional impression. This type of impression should be photographed and then cast. These types of impressions are three-dimensional because they allow the examiner to see length, width, and depth.

The Latent Prints: Latent prints are the most overlooked print and are generally found on smooth surfaces. They can be developed the same way latent fingerprints are. This type of print needs a variety of powders, chemicals and even forensic light sources to make it visible in order to properly be collected. In most cases these prints should also be photographed prior to any recovery process.

Crime Scene Photographs

Footwear impressions can be located in and outside the crime scene. Remember, the suspect had to arrive and depart the scene. The location that will later be photographed in detail should be photographed showing the general crime scene and surrounding areas. When photographing the scene always remember to take overall, medium and close up shots before you begin your comparison photographs. Always use a relationship technique when relating footwear evidence to the crime scene or to other items of evidence. An easy way to do this is to place a numbered marker next to the evidence print and photograph. Make sure the crime scene photographs have been taken prior to altering the evidence with numbered markers. When making quality examination photographs of the evidence prints, be sure to use the same number you used when you were showing relationship. After this has been done, quality

examination photographs can then begin. In order for a footwear examiner to perform a quality examination, high-quality, close-up photographs are required.

This can be easily obtained with a little time and patience. The camera is mounted on a tripod and rotated in such a manner that the plane of the film is parallel to the plane of the print. This will enable the darkroom technician to print a 1 to 1 scale photograph of the impression for comparison. The print, the scale and an information card should fill the frame of the film. When using a flash, the flash should be held at least at a 45 degree angle from the print and fired from three different positions with at least 100 degrees separation. By using this oblique lighting procedure a different amount of light can be reflected from the shadowed and non-shadowed areas providing greater contrast.

This oblique lighting will cause a greater amount of contrast, and detail can be obtained in the photograph. The best way to do that is to fire the flash off at the three different positions of the tripod making sure not to get the legs of the tripod in the way of the flash. A minimum of four photographs are taken for each footprint, one without a scale and three with the scale. A minimum of three photographs are taken for each footprint when not using a flash, one without a scale and two with the scale. The scale should always be placed parallel to the side of the shoe, never in the print itself.

When at all possible, photographs should be taken of prints made by each foot. While there are a minimum number of photographs suggested, there is NO maximum. It is always better to have too many, than too few. Remember to take overall, medium and close-up photographs prior to altering the impressions with a scale.

When the impressions are photographed correctly, they often proved the footwear examiner with more detailed impressions that lifting or casting thus resulting in a more definite examination and comparison.

In tracking, which is the process of following the footprints of an individual, photograph the scene as you found it and then place numbers next to each impression. Photograph the scene showing the impressions' numbers, this way you can come back later and relate where each impression was found. Then the quality examination photographs can be taken.

Admissibility of Footwear Evidence

"The role of the expert witness is not to determine guilt or innocence, but rather to assist the court in determining what weight is to be placed on technical

evidence entered which without assistance could not be interpreted properly." (Cassidy, 1980)

The crime scene investigator should always approach the crime scene as if the attorney met you at the front door and told you, "tomorrow we are going to court." The best way to prepare for any trial is to be prepared for the unexpected.

If a thorough crime scene report is prepared, the crime scene investigator can describe the steps of the investigation chronologically. Remember, **your reports and notes are subject to subpoena during a trial.**

The crime scene investigator should understand the techniques and legal requirements necessary to ensure that the crime scene photographs and the evidence collected will be admissible in court.

The basic premise involved in crime scene photography is that the photographs are a true representation of the scene as it was initially observed by the investigator. **Nothing will cause evidence to be tossed out of court faster by defense attorneys than no photographs of the footwear evidence prior to the crime scene investigator placing a scale in the photograph or not following proper procedures. Defense attorneys will argue that the evidence was altered.**

Crime Scene Investigators are considered to be expert witnesses in the investigation of the crime scene. The expert witness is determined only by the court. **The court will weigh the qualifications, experience, and demeanor of the investigator carefully every time that he/she appears. The expert witness is allowed to give an opinion on any relevant issue that is within the scope of their expertise.**

Once the footwear evidence has been entered into evidence, the Footwear Examiner will take the stand to testify as to the examination or comparison procedures. Never allow yourself to become caught up in testifying to an examination or the comparison of footwear evidence unless you have been properly trained and possess the experience, qualifications and training of a footwear examiner.

Animal Tracks Quiz #3...



The animal – not the boot!!!

and #4...



Answers will be in the Fall Newsletter.

