Crime & Intelligence International Symposium 2017
Registration

Sunday, June 18, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>5:00 PM</td>
<td>Early Registration</td>
<td>Harbourfront Marriott</td>
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<tr>
<td>5:00 PM – 7:00 PM</td>
<td>Early Registration</td>
<td>Harbourfront Marriott Registration area – Second floor across from Interlude Spa</td>
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Monday, June 19, 2017

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>7:00 AM</td>
<td>Registration</td>
<td>Harbourfront Marriott</td>
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<tr>
<td>7:00 AM – 8:30 AM</td>
<td>Registration</td>
<td>Harbourfront Marriott Registration area – Second floor across from Interlude Spa</td>
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The registration desk will be open daily from 8:00 AM to 4:00 PM during the Symposium.
# Agenda

**Monday, June 19, 2017**

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>8:00 AM - 4:00 PM</td>
<td><strong>Vendor Exhibition – Nova Scotia D</strong></td>
<td>Nova Scotia A/B/C</td>
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<tr>
<td>8:30 AM</td>
<td><strong>Opening Ceremonies</strong>&lt;br&gt;Canadian National Anthem – Peter Baylis&lt;br&gt;Sheila Serfas, Chairperson International Symposium and Crime Analyst RCMP&lt;br&gt;Welcome Address - A/Commissioner Brian Brennan, Commanding Officer, NS RCMP&lt;br&gt;Jim Mallard, President IACA</td>
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| 9:00 AM | **Dr. Laura Huey**<br>Associate Professor of Sociology at the University of Western Ontario and Director of the Canadian Society of Evidence Based Policing (CAN-SEBP)<br>

*Not Everything That Can Be Counted Counts* Why Good Data is Imperative in Evidence Based Policing

| 10:15 AM | Break                                                                                     |                           |
| 10:45 AM | **Dion McArthur**<br>President of Business Watch International Inc.<br>

*The Power of Pawn Data*

| 12:00 PM | **Speaker Lunch - Intel:ID – for Law Enforcement and Integrated Justice** – Halifax<br>Ballroom C. Doug Plaxton, IBM Identity Insight and Mark Holmes, VP of IMT | Nova Scotia A/B   Nova Scotia C |
| 13:00 PM | **Matthew Robinson**<br>Royal Canadian Mounted Police<br>

*Case Studies using Risk Terrain Modelling*  | **Annie Mitchell**<br>Supervising Crime Analyst, Los Angeles County Sheriff’s Department (LASD) and VP of Administration, IACA<br>

*In Progress Tactical Analysis – Prepare Yourselves* |
| 2:00 PM | Break                                                                                     |                           |
| 2:15 PM | **Shauna Bent**<br>Crime Analyst, Toronto Police Service<br>

*Business Intelligence & Analytics Best Practices*  | **Monica Deters**<br>Royal Canadian Mounted Police<br>

*Tying Crime Analysis Into the World of Traffic Enforcement* |
| 3:15 PM | Break                                                                                     |                           |
| 3:30 PM | **Cpl. Laura Seeley**<br>Royal Canadian Mounted Police<br>

*Case studies on Online Investigations for Internet Luring and Child Pornography*  | **Linh Riddick**<br>Sex Crimes Analyst, Vancouver Police Department<br>

*Tracking Sex Offenders in a Regional Datamart Environment* |
| 5:30 PM - 8:00 PM | **Welcome Reception - Hotel Patio**                                                           |                           |
| 8:00 PM | **Business Watch International Hospitality Suite**                                           |                           |
### Agenda
Tuesday, June 20, 2017

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<tr>
<th>Time</th>
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<td>8:00 AM</td>
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<td><strong>Nova Scotia A/B/C</strong></td>
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</table>
| 8:30 AM   | **Robert Haas** Retired Police Commissioner, City of Cambridge, Massachusetts  
**Thinking Beyond Criminal Analytics** |
| 10:00 AM  | **Break**                                                              |
| 10:30 AM  | **Nola Joyce** Retired Deputy Commissioner of Organizational Services, Strategy, and Innovation, Philadelphia Police Department  
**Crime Analytics - Current and Future Trends** |
| 12:00 PM  | **Speaker Lunch - Illicit Fentanyl in Canada – Halifax Ballroom C**  
S/Sgt Darin Sheppard - NCO I/c Synthetic Drug Operations in BC and John Beck, Esri  
**Nova Scotia A/B**  
**Nova Scotia C** |
| 13:30 PM  | **Terra Hunniford** Royal Canadian Mounted Police  
**The Impact of Online Open Source Intelligence in Criminal Investigations**  
**Manny San Pedro** Executive Director of MDSP Consultants and former Detective Constable, Toronto Police Service  
**Workshop - Developing A Custom Calls-For-Service Dashboard** |
| 2:30 PM   | **Break**                                                              |
| 2:45 PM   | **Inspector James Cook** Amtrak  
**Criminal Analysis in a Transportation Police Environment**  
**Kim Audette** Royal Canadian Mounted Police  
**Multi-Jurisdictional Case Studies** |
| 3:45 PM   | **Break**                                                              |
| 4:00 PM   | **Matthew Robinson** Royal Canadian Mounted Police  
**The Contribution of Cell Site Analysis to Criminal Intelligence**  
**Dr. Carrie Sanders** Wilfrid Laurier University  
**Crime Analysis and Cognitive Effects: Studying the work of Canadian Crime Analysts** |
| 8:00 PM   | **Business Watch International Hospitality Suite** |
# Agenda

## Wednesday, June 21, 2017

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<tr>
<th>Time</th>
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<tr>
<td>8:00 AM</td>
<td><strong>Vendor Exhibition – Nova Scotia D</strong></td>
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<tr>
<td>8:30 AM</td>
<td>Dr. Margo Watt&lt;br&gt;Professor of Psychology at St. Francis Xavier University&lt;br&gt;<em>Criminal Behaviour Cases in Canada (Black Widow and Russell Williams)</em></td>
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<tr>
<td>10:00 AM</td>
<td><strong>Break</strong></td>
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<tr>
<td>10:30 AM</td>
<td>Robert Aboumitri&lt;br&gt;Criminal Intelligence Analysis Manager, Royal Canadian Mounted Police&lt;br&gt;<em>Leveraging Data to Inform and Advance Investigations</em></td>
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<tr>
<td>12:00 PM</td>
<td><strong>Lunch – On your own</strong></td>
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<tr>
<td>1:15 PM</td>
<td>Robert Aboumitri&lt;br&gt;Royal Canadian Mounted Police&lt;br&gt;<em>Role and Impact of Specialized Analysis in Major Crime Investigations</em></td>
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<td></td>
<td>Chief Inspector Friedrich Steiner&lt;br&gt;Austrian Federal Police&lt;br&gt;<em>The value of crime analysis – two case studies from Austria where crime analysis has been instrumental in achieving successful outcomes</em></td>
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<tr>
<td>2:15 PM</td>
<td><strong>Break</strong></td>
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<tr>
<td>2:35 PM</td>
<td>Lianne Sobey&lt;br&gt;Royal Canadian Mounted Police&lt;br&gt;<em>Crime Analysis in Cold Case Investigations</em></td>
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<td>John Ng&lt;br&gt;Special Constable, Saskatoon Police Service&lt;br&gt;<em>Prioritizing Offenders and the Role of Crime Analysts in Offender-Focused Crime Prevention</em></td>
</tr>
<tr>
<td>3:35 PM</td>
<td><strong>Closing Ceremony</strong>&lt;br&gt;Jim Mallard, IACA President&lt;br&gt;Sheila Serfas, Symposium Chair</td>
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Keynote Speakers

'Not Everything That Can Be Counted Counts' Why Good Data is Imperative in Evidence Based Policing

Dr. Laura Huey - Associate Professor of Sociology at the University of Western Ontario and Director of the Canadian Society of Evidence Based Policing (CAN-SEBP)

This talk begins with a brief overview of the principles of evidence based policing, before moving on to a presentation of some of the old, new and emergent research-based tools and resources available to crime analysts. I then talk more specifically about the work of the Canadian Society of Evidence Based Policing and our recent launch of the Good Data Initiative – a multi-year project aimed at generating discussion and development of best practices in data collection, retention, use and sharing. Drawing on both the relevant research literature, and on my own experiences of trying to work with ‘no data’ and ‘bad data’, I highlight why generating, keeping, using and sharing ‘good data’ is a critically important public safety issue, and how we can collectively begin to address major deficits in these areas.

Dr. Laura Huey
Dr. Laura Huey is the Director of the Canadian Society of Evidence Based Policing and Professor of Sociology at the University of Western Ontario. She is also a Senior Research Fellow with the Police Foundation, a member of the Board of SERENE-RISC, a Senior Researcher with the Canadian Network for Research on Terrorism, Security and Society and a Research Fellow for the London Police Service. She also sits on the Ontario Association of Chiefs of Police Crime Prevention Committee, the Canadian Association of Police Governance Research & Policy Committee, and the Board of the Canadian Association of Police Educators.

The Power of Pawn Data

Dion McArthur - President of Business Watch International Inc.

The pawn industry is the 2nd oldest in society. It has a very needed and legitimate purpose for people who cannot get financing from banks and other institutions because of their financial situation. Over time, there has been a wide variety of other businesses springing up that are similar to pawn stores, specifically second hand dealers, scrap metal dealers, precious metal dealers and used cell phone purchasing companies. The problem with all of these businesses is that they also can be used by the criminal element to convert stolen items into cash. Advances in technology and laws have happened in the last 20 years that have greatly enhanced law enforcement's capabilities to identify the stolen items and successfully prosecute criminals.

Many in the law enforcement field that have not worked with these industries really miss the wealth of crimes that can be solved with an effective analysis of the data flowing through these stores. Today I will show some examples of the different types of crimes that have been solved by very smart analysts and police officers across North America in the last 19 years in hopes of showing that property crimes are like a pebble in the pond and have a huge ripple effect in society.

Case studies will be discussed and reviewed that shows crimes ranging from simple B&E’s to home invasions to homicides to international terrorism can be solved with a bit of elbow work in the data available.

Gangs and organized criminal enterprises have had their fingers in this industry for many years and it is not getting any better. Analysts and law enforcement have to use technology to stay ahead of the criminals and I will be talking about some of the tools available to law enforcement.
The heroine epidemic is expanding quickly. It is fueled by property crimes, and property crimes equals pawn, second hand and scrap metal industries as a means to convert the stolen items to cash and then to buy drugs. We will discuss this and look at the data for some answers to help your agencies.

There will be a question and answer period at the end as well to discuss any new trends that the group might benefit from. Looking forward to meeting and discussing this unique industry with analysts and law enforcement from across North America.

**Dion McArthur**

Dion McArthur, has been working with law enforcement, dealing with property crimes for nearly 24 years. His experience and in-depth understanding of the law enforcement industry, acquired through long-standing and close relationships with the Regina Police Service, have allowed him to participate in the development of strategies and products to combat crime. Since 1998, Mr. McArthur has been the President of Business Watch International Inc., Regina, Saskatchewan (BWI). Before BWI, there was no automated reporting of pawn, second hand and scrap metal transactions in North America, so he had to develop innovative ways of using computer systems for these investigations. He has worked on every type of crime from thefts from homes to homicide investigations.

**Thinking Beyond Criminal Analytics**

*Robert Haas - Retired Police Commissioner, City of Cambridge, Massachusetts*

Over the last few decades, crime analysis has made great strides both in terms of scope and sophistication. Over time it has taken on a form of art and science, and with time, science has taken on greater prominence. It has moved from a place of providing analytical products that tended to be more retrospective to a place where analysts are doing some amazing work relative to predictive analysis. We have gone through a period of time where crime analysis was looking at historical trends and attempting to apply those patterns and trends in predicting future tendency. We are exposed to social threats that encompass national and international implications, making even more imperative that we change our modality and how we think about how to incorporate analytics into everything that we do.

Meanwhile, policing has been undergoing its own sociological challenges. Although many of us are experiencing downward trends in conventional crime, we now are faced more than ever in terms of intervening and/or preventing certain threats before they can materialize. Despite those reductions in crime in our most devastated neighborhoods, we have also witnessed growing resentment among those who we have sworn to protect. In large part, it has more to do with us continuing to use outdated and traditional approaches in policing, showing little distinction between those who are causing the greatest social harm and those who have been victims of those harms. We have seen many of the social systems that are designed to protect and serve the most vulnerable in our communities failing. As these systems become overwhelmed and underfunded, the police are expected to deal with these social issues. And yet, the police have not been able to change its modality in how it addressed those social issues.

We are at a place in time when it is imperative that we think differently concerning how we leverage data and develop analytical product that adequately address a wide range of social issues. With these new challenges comes innovative ways of how we think about our approaches, which largely is dependent upon on how we use analytical products. Much of what we are talking about here is predicting human behavior and predicting trends among a wide range of population groups. The advantage is looking at how the private sector has made great strides in marketing and financial projections, all of which is reliant upon futuristic tendencies and patterns of human
behavior. Are there opportunities where we are able to begin to integrate those tools in how we refine those analytics in forecasting trends and then develop unique approaches in offsetting future social harm? Are there opportunities where we collectively move from a place of social protection to one of social justice?

The discussion will hopefully adequately describe the current state of affairs, and how we find ourselves with unique opportunities where analytics plays such a pivotal role in that transformation. We will explore some of the emerging trends in analytics beyond criminogenic analytics to one that encompasses a broader range of human behaviors in which the police are now expected to address.

**Robert Haas**

Robert C. Haas recently retired as the Police Commissioner for the City of Cambridge, Massachusetts where he served in that capacity since April 2007. During his tenure with Cambridge Police Department, Haas explored various approaches in moving from what would have been considered a reactive consumer of analytical products to thinking about ways of offsetting future social harms through analytical “forecasting methods.” He was particularly interested in learning how analytics could play a role in offsetting future social harm in the broader context of social justice, and initiated a research project along with two other adjacent city police agencies. Prior to his appointment as Police Commissioner, Haas was appointed by the Governor of Massachusetts to initially serve as the Undersecretary for Law Enforcement and then as the Secretary of Public Safety.

**Crime Analytics - Current and Future Trends**

_Nola Joyce - Retired Deputy Commissioner of Organizational Services, Strategy, and Innovation, Philadelphia Police Department_

Crime analysis has grown in its use in police decision-making. Recent initiatives like SMART Policing, Evidence-Based Policing, and Violence Reduction Network initiatives promoted the use of analysis and increased the analytical capacity of police departments. There are at least three scenarios for the future of crime analysis in policing – status quo; retreat from using data analysis and crime science in policing; or an expansion in the use of technology and science to improve policing and crime fighting. It is not clear what the future will hold. This discussion will explore these three scenarios and what might be done to influence the future outcome.

This is a multi-media presentation with the intent of encouraging discussion during and after the talk. As Abraham Lincoln said, “The best way to predict the future is to create it.” Come and join the conversation.

**Nola Joyce**

Nola Joyce has over thirty years of leadership experience in public safety agencies at the state and local levels. She retired from the Philadelphia Police Department in 2016 as Deputy Commissioner of Organizational Services, Strategy, and Innovation. She was the first civilian deputy commissioner for the police department. She is now a private contractor working with police departments, cities, and the federal government helping organizations increase their performance levels through strategic innovation. She is a co-founder and faculty member of the Major Cities Chiefs’ Executive Police Leadership Institute. Ms. Joyce is an Adjunct Faculty member of Temple University’s Criminal Justice Department.
Keynote Speakers

Criminal Behaviour Cases in Canada (Black Widow and Russell Williams)

Dr. Margo Watt - Professor of Psychology at St. Francis Xavier University

“While nothing is easier than to denounce the evildoer; nothing is more difficult than to understand him.” This quote by Fyodor Dostoevsky captures the essence of Dr. Watt’s 2014 book entitled: Explorations in Forensic Psychology: Cases in Criminal and Abnormal Behaviour; a book that assumes an evidence-based approach to assisting readers in better understanding the biological, psychological, and social factors that contribute to deviant behaviour. Her presentation will focus on two of the cases contained therein – “Cruel and Disgraceful Conduct: Russell Williams” and “Will you walk into my parlour? said the Spider to the Fly: Case Study of a Black Widow”. Russell Williams was a 46-year-old model military man and decorated colonel and commander of Canada’s largest and busiest air force bases when he was convicted in October 2010 for two brutal murders, two sexual assaults, and 82 fetish burglaries; 79-year-old Melissa Shepard was nicknamed the "Internet Black Widow" for her ability to marry and murder grieving widowers. These two cases include particular elements (age, gender, social status) that defy what we know from the research literature about who commits such acts and would challenge crime analysts.

Dr. Margo Watt

Dr. Watt is a Clinical Forensic Psychologist. She is a Full Professor and Director of the Forensic Psychology Program at St. Francis Xavier University (StFX, Antigonish, NS), Adjunct Professor at Dalhousie University (Halifax, NS), and Honourary Research Associate at the University of New Brunswick (Fredericton). Dr. Watt has a long association (20+ years) with the Correctional Service of Canada for whom she provides various services, including forensic risk and complex case assessments. She was the recipient of the StFX President’s Research Award in 2009, the Outstanding Teaching Award in 2013 and, most recently, was appointed the Jules Léger Scholar. Her presentation will be derived from her 2014 book entitled: Explorations in Forensic Psychology: Cases in Criminal and Abnormal Behaviour.

Leveraging Data to Inform and Advance Investigations

Robert Aboumitri - Criminal Intelligence Analysis Manager, Royal Canadian Mounted Police

Frequent present day usage of mobile devices turns them into ‘trackers’ in the hands of their users. These devices keep and provide specifics about many aspects of their user’s life. They adopt the lifestyle of their user; they are his/her unique 'digital print'. In-depth specialized communications data analysis can reveal significant information that may be impossible to obtain using other methods or sources. Communications data analysis considerably increases the success rate of all investigations. This presentation will detail several techniques that can be applied to analyse and interpret communications data. It will also highlight several methods to effectively illustrate, visualise, and present the resulting analytical findings.

Robert Aboumitri

Robert Aboumitri is a Criminal Intelligence Analysis Manager with the RCMP and currently in charge of the Greater Toronto Area (GTA) North Criminal Analysis Section which consists of a serious and organized crime analytical support team, and a team specializing in communications data analysis. During the last fifteen years, Robert has supported numerous investigations and is regularly consulted as a subject matter expert in the field of communications data analysis. In 2007, in recognition of his expertise, Robert was seconded to the United Nations to assist in a major international investigation. At the end of his assignment, he took a position with a major international tribunal (based in The Netherlands) as the head of an analytical team specializing in communications data analysis. Robert is the recipient of several medals and awards including; an Operational Service Medal, a Queen’s Diamond Jubilee Medal, and a Commissioner’s Commendation for Outstanding Service.
Intel:ID – for Law Enforcement and Integrated Justice

Doug Plaxton – IBM Identity Insight
Mark Holmes - VP of IMT

Law enforcement agencies require access to a complete view of suspects, victims, and other related entities. Crime and Intelligence analysts must constantly assess risks within enormous data streams. When agencies lack the ability to turn information into actionable insight, they undermine the success of their mission. Join IBM and IMT as they discuss Intel:ID, a purpose built appliance for Law Enforcement and Integrated Justice. All you add is structured data from your RMS and even unstructured data from stored documents to quickly create real-time actionable intelligence and alerting.

Doug Plaxton
Doug Plaxton has been involved with the technology sector for over 35 years. During his 20+ years at IBM, Doug has been focused in the area of business intelligence and advanced analytics. He has held various sales and management positions throughout his career and is currently responsible for WW Business Development for IBM’s Context Computing technologies. In joining IBM, he was responsible for selling Business Intelligence Solutions that focused on enabling clients to leverage their data assets for competitive insight or operational effectiveness and efficiency. This same focus applies equally to the needs of the public sector and law enforcement who continue to be pressured to do more with less. IBM’s broad range of analytical capabilities enables clients to indeed do more with less. IBM Identity Insight is leveraged by many public sector accounts including Rochester PD, NYPD, RCMP, Peel Region Police, Toronto Police which will provide each agency with a single view of person capability coupled with showing connections to others for investigative analysis purposes, including fraud.

Mark Holmes
Mark manages Global Public Sector opportunities for IMT including Law Enforcement and Integrated Justice. Mark has his Master’s Degree in Criminology specializing in quantitative methods and has been certified by the California DOJ as a Crime and Intelligence Analyst. He has been involved in some of the first large-scale integrated justice initiatives in the United States involving State, Local and Federal agencies. Mark and his team have been working with IBM to create Intel:ID, an on-premise, purpose built appliance supporting Law Enforcement and Integrated Justice. Intel:ID allows agencies to gain insights and offer actionable intelligence by linking identities and establishing non-obvious relationships across both structured and unstructured data sources.

Illicit Fentanyl in Canada

S/Sgt Darin Sheppard - NCO I/c Synthetic Drug Operations in BC
John Beck, Esri

This presentation will discuss the spread of illicit fentanyl in British Columbia and the RCMP’s response in tackling it. At the start of the presentation, John Beck from Esri will describe how their software has enriched the work conducted by S/Sgt Darin Sheppard in tackling illicit fentanyl in Canada.

S/Sgt Darin Sheppard
Staff Sergeant Darin Sheppard has been a member of the Royal Canadian Mounted Police for 20 years. The majority of Darin’s career has been spent in drug enforcement, at both the municipal, provincial, and federal. In 2009, Darin became the non-commissioned officer in charge of the division Clandestine Lab Enforcement and Response (CLEAR) Team. At that time, the team’s primary focus was responding to and processing methamphetamine and ecstasy labs. An investigative component was built up and the team was tasked with proactively targeting and disrupting those involved in the production and trafficking of synthetic drugs on an international scale. Darin is a court
recognized expert in covert and undercover operations, along with a variety of drugs including ecstasy, methamphetamine, cocaine, heroin, and of course, fentanyl. In 2014, illicit fentanyl arrived in British Columbia and began spreading from the Lower Mainland (Vancouver) area throughout the province and Western Canada. Darin’s team was tasked with spearheading the RCMP response and has been actively involved in the fight against fentanyl and its analogues since that time.

**John Beck**

John Beck joined Esri in September 2011 as the Law Enforcement Industry Manager. Areas of responsibility include the use of GIS as the platform for police planning, analysis, operations, and citizen engagement. Current focus areas include real-time system and sensor integration, big data analysis and the use of GIS to promote open and transparent policing. Prior to joining Esri, John was a police officer in Reno, Nevada. As an officer, John was part of a team that developed GIS and crime analysis capacity at the agency and created interactive desktop and web mapping applications that helped reduce crime and improve problem solving through intelligence-led policing. He was also part of a team that produced weekly crime analysis reports shared both internally and regionally. John has a M.A. in Criminal Justice from the University of Nevada as well as B.A.’s in Anthropology and Geography.
Case Studies using Risk Terrain Modelling  
*Matthew Robinson - Royal Canadian Mounted Police*

Risk Terrain Modeling is crime analysis tool developed by the Rutgers Center on Public Security to improve anticipatory accuracy over traditional 'hot spot' methodologies. This improvement is achieved by looking at both statistics and specific criminogenic features within the environment. The effectiveness of this approach will be demonstrated by looking at actual case studies involving border security and auto theft.

**Matthew Robinson**  
Matt Robinson has been a RCMP Criminal Intelligence Analyst for ten years, during which he has enjoyed specializing in a variety of cutting edge methods and technologies that have enhanced traditional analytical capabilities, including Risk Terrain Modelling and Cell Site Analysis. This expertise enabled him to apply analytical techniques to complex problems ranging from border security to homicide and missing person investigations. Matt believes that new areas of opportunity are continually expanding, thereby enabling analysts to contribute to law enforcement agencies in new ways that were not possible a few years ago. He currently works for the RCMP in Washington DC and lives with his family in Virginia.

Business Intelligence & Analytics Best Practices  
*Shauna Bent - Crime Analyst, Toronto Police Service*

Toronto was incorporated as a city in 1834. As of the 2016 census, the population of Toronto is just under 2.8 million people covering a geographic area of about 641 km². The City of Toronto consists of 140 neighbourhoods and 17 police divisions. Currently, Toronto Police Service (TPS) has a uniform strength of just under 5,300 officers and civilian strength of approximately 2,300.

Business Intelligence & Analytics Unit (BIAU) is responsible for supporting the Senior Management Team in their strategic management of operations by providing the information, tools and resources necessary to operate an effective analytical reporting system and provide effective and timely crime analysis. The BIAU utilizes data obtained through the Service’s Records Management System (Versadex) and the Calls for Service (I/CAD) system in order to support TPS business processes. Innovative applications have been developed to enhance TPS’ crime reporting to internal as well as external consumers.

Through the use of interactive dashboards and mapping applications, Front Line officers and Senior Command are able to quickly access crime and traffic management data and easily identify Service-wide crime trends and patterns both temporally and spatially. This presentation will focus on best practices, lessons learned, challenges and the vision for creating and supporting these analytical products and services.

**Shauna Bent**  
Shauna Bent has been with the TPS for 14 years and currently works as a Crime Analyst with the Strategy Management – Business Intelligence & Analytics Unit (BIAU). Prior to joining BIAU, Shauna worked as an Intelligence Researcher in the Urban Organized Crime Squad at the Intelligence Unit for 5 years. Some of her duties included generating strategic and tactical products to support resource management and covert operations. Since joining the BIAU, Shauna has worked on several analytics-driven projects such as the Annual Statistics Report, Shooting
Reports, Major Crime Indicator dashboards, and maps. Additionally, Shauna supports the analytical needs of the Toronto Police Operation Centre, Community Safety Command as well as front-line officers. Shauna is currently pursuing a Master of Science degree in Crime Science from the University College of London.

Case studies on Online Investigations for Internet Luring and Child Pornography

*Cpl. Laura Seeley - Royal Canadian Mounted Police*

A unique element of online investigations is that often the location of the suspect and/or victim are outside the jurisdiction within which we have authority. This creates challenges for investigators when it comes to gathering evidence from other countries, apprehending/prosecuting offenders, and maintaining relationships with victims. The analysis of information obtained through social media, however, has made it easier for police to thoroughly investigate these files, resulting in successful prosecution domestically and internationally.

This presentation will examine several files that were investigated by the Nova Scotia RCMP Internet Child Exploitation Unit using open source searches to identify an online predator and how social media assisted police during the investigational process.

*Cpl. Laura Seeley*

Cpl. Laura Seeley has been a member of the RCMP for 10 years and is currently the Corporal in charge of the Integrated Internet Child Exploitation (ICE) Unit. Previously, she worked in the RCMP Provincial ICE Unit in Nova Scotia and as a general duty member. Laura is a trained online undercover operator and has conducted several Internet Luring and Child Pornography investigations that have been prosecuted internationally.

In Progress Tactical Analysis – Prepare Yourselves

*Annie Mitchell - Los Angeles County Sheriff’s Department, Supervising Crime Analyst and VP of Administration, IACA*

On December 2, 2015, 14 people were killed and 22 others were seriously injured in a terrorist attack consisting of a mass shooting and an attempted bombing in San Bernardino, California. The attack was the deadliest mass shooting in the U.S. and terrorist attack to occur in the U.S. since the September 11 attacks, until the Orlando nightclub shooting on June 12, 2016. As this tragic event was unfolding, crime analysts in the area were providing critical investigative leads that eventually led to the vehicle pursuit and shootout with the suspects. A case study of this event will be presented, including the analysis used to lead officers to capture these homegrown terrorists. This presentation will emphasize the need for today’s crime analyst to consider the unfortunate real possibility that they might find themselves in the midst of a tactical event. How do we prepare ourselves to provide crucial information during a chaotic event? The speaker will present information that will help an analyst understand their role during a number of tactical scenarios and the need to establish protocol within their agencies.

*Annie Mitchell*

Annie Mitchell is a member of the Los Angeles County Sheriff’s Department (LASD) and is currently a Supervising Crime Analyst. She has been a crime analyst for thirty of her forty-two years of service with her department, also holding the title of Sheriff’s Dispatcher, during her tenure. Her assignments as an analyst were patrol stations, intelligence and participated in a number of task force operations. Annie is the crime analysis training coordinator for the Sheriff’s Analysis Unit, providing foundational training for new hires and continued professional
development for the seventy analysts employed within the Criminal Intelligence Bureau. She is a California Peace Officer’s Standards and Training (POST), advanced instructor, providing crime analysis training for investigators and analysts throughout the state. Annie developed the forty hour curriculum and teaches in the first POST certified Crime Analysis training offered in California.

She is currently the Southern California Crime and Intelligence Analysts (SCCIAA) president and Vice President of Administration for the International Association of Crime Analysts (IACA).

Tying Crime Analysis into the World of Traffic Enforcement
*Monica Deters - Royal Canadian Mounted Police*

Crime Analysts working for traffic units are a relatively new concept both in Canada and internationally. Having been assigned to a Combined Traffic Services unit, Monica was responsible for production of analytical products and information with no existing procedures. When she went to look for ideas of regular products, Monica realized that there is not a great deal of this type of work done nor is there a remarkable amount of literature regarding it.

Because of the uniqueness of traffic work, there is a lot of use for the information that traffic officers provide and there is a lot of knowledge that can be transferred to other units and investigations.

This presentation will cover types of analysis that can be provided both regularly and on occasion. It will also cover the different skills and knowledge an individual should have prior to undertaking this type of work. The presentation will also touch on the data sources that are available to use for these types of analyses. As with any analytical work, there are difficulties and issues with the data, which will be spoken to.

In addition, there is a vast amount of technology available to traffic units which are useful for all different types of investigations (including traffic but also property crimes, violent crimes and organized crime. This presentation will cover off what these types of technology are and how they can be utilized.

*Monica Deters*
Monica has been an RCMP Crime/Intelligence Analyst since 2008. Previously, Monica worked as a Crime Analyst for the Regina Police Service for three years. She obtained a Bachelor’s Degree in Human Justice and Masters Degree in Public Administration. In her time with the RCMP, Monica has held three positions; in the Criminal Intelligence Service Saskatchewan (5 years), Combined Traffic Services (2 years) and now the Crime Reduction/Crime Prevention Unit. In addition, she has instructed courses at the University of Regina in the School of Justice Studies. During her time in the Criminal Intelligence Bureau, Monica was responsible for completing the Provincial Threat Assessment and the portfolios for gangs and Asian Organized Crime. Monica also won a Canadian Criminal Intelligence Community Professional Service Award.

Tracking Sex Offenders in a Regional Datamart Environment
*Linh Riddick - Sex Crimes Analyst, Vancouver Police Department*

MO templates have been used by law enforcement agencies for many years as an aid in collecting and tracking attributes relating to certain types of crimes. While such systems allow investigators to query for similar cases, this
presenters

is typically done within the confines of a silo’d database. The result is that several key details relating to known offenders quickly become outdated and irrelevant.

The integration of MO templates within CRIME (a multi-sourced relational datamart) at a regional level has enabled the VPD to use state-of-the-art techniques to analyze offenders’ MO information in conjunction with real-time regional RMS information. This initiative has proven to be highly effective in identifying suspects which otherwise would not have been located via traditional analytical means. The integration of MO templates into a regional datamart which are then subsequently analyzed with the use of iBase, Analyst Notebook and ArcGIS (all of which have interactive functionality with the Datamart) have significantly enhanced analytical functions and efficiencies at both a tactical and strategic level by allowing the analyst to develop complex multi-layered queries which are not possible in a traditional RMS environment.

The proposed presentation will demonstrate the use of MO templates within the VPD’s CRIME Datamart which combines the capabilities of ESRI ArcGIS & IBM’s i2 products into an analytical software suite which enables complex spatial, temporal and intelligence-driven analysis.

Linh Riddick
Linh Riddick has been the Sex Crimes Analyst at the Vancouver Police Department for the past 6 years. In her role at the VPD, Linh provides analytical support in relation to sex offences city-wide as well as for major investigations in the Sex Crimes and Child Abuse Unit. As the Sex Crimes Analyst, Linh works and liaises closely with the RCMP Behavioural Sciences Group and surrounding law enforcement agencies. After having developed and implemented the use of innovative MO templates within the VPD’s multi-faceted CRIME Datamart environment, Linh has successfully applied the resulting new analytical techniques to solve serial sexual assaults at a regional level.

The Impact of Online Open Source Intelligence in Criminal Investigations
Terra Hunniford - Royal Canadian Mounted Police

This presentation will focus on the impact online Open Source Intelligence (OSINT) research can have on investigations. During an active investigation, the digital footprint of an online OSINT collection plan can have unexpected and potentially negative effects. An online OSINT collection plan should include a component addressing the level of impact the digital footprint may have on an investigation and outline mitigating tactics. This presentation will discuss the application of critical thinking to the online OSINT collection plan, minimizing the impact of the digital footprint on an investigation or project and developing a targeted research strategy of collecting online material. Additionally, the online OSINT research conducted can become key evidence and therefore best practices should be applied from the onset to ensure the material will uphold throughout a court proceeding. As all levels of courts are scrutinizing online evidence, a sampling of the relevant case law will be highlighted. This presentation will conclude with a discussion on current challenges in online OSINT research.

Terra Hunniford
Terra has been with the RCMP for 10 years, and spent the last 5 years as an Internet Investigative Analyst. In 2008, Terra was assigned Team Lead for a group of 8 Intelligence Exchange researchers dedicated to the 2010 Olympic Joint Intelligence Group. During this time, Terra recognised the importance of the online aspect of investigations. After the 2010 Olympics, Terra joined the BC Provincial Intelligence Centre as an Open Source Analyst. Terra then, helped to create a specialized unit that assists with investigations involving online activity and evidence collection,
which was launched in 2011. This Internet Investigation Unit is part of the Real Time Intelligence Centre and supports all of BC. Terra is a trainer for the RCMP Federal Policing Training Services on Internet Research.

**Criminal Analysis in a Transportation Police Environment**  
*Inspector James Cook - Amtrak*

The basic fundamentals of criminal analysis were developed and deployed for traditional policing environments, including municipalities and larger jurisdictions that have set boundaries and established populations. Criminal analysis in a transportation environment, such as a passenger railroad, is quite different and requires a unique approach and the utilization of a variety of methods to produce effective and useful products for police managers. Transportation police departments serve areas covering multiple jurisdictions with a population that fluctuates on a daily basis. As a result, traditional analytical methods can be difficult to apply in the environment. The symposium will highlight successful methods and programs from the Amtrak Police Department as well as other transit police agencies in the United States.

**Inspector James Cook**  
Inspector Cook has worked with the Amtrak Police Department since 2005 and currently serves as the commander of the Criminal Intelligence Unit. Prior to this, he served for four years in the Office of Internal Affairs where he twice received Honorable Mention as the National Internal Affairs Investigator of the Year. Inspector Cook holds a degree in Criminology from the University of Minnesota, a Masters degree in Criminal Justice from Boston University, and a Masters in National Security Studies from the Naval Postgraduate School. Captain Cook is also a graduate of the Northwestern University School of Police Staff and Command, and the Senior Management Institute for Police. Inspector Cook is an active member of the International Association of Chiefs of Police and the Police Executive Research Forum.

**The Contribution of Cell Site Analysis to Criminal Intelligence**  
*Matthew Robinson - Royal Canadian Mounted Police*

Matt will present on his personal experiences using Cell Site Analysis to help solve missing persons and homicide cases in both the United States and Canada. Some of these prosecutions were significantly aided by analysing phone data that had been sitting for years in some cases. Cell Site Analysis, when used prudently along with other pieces of evidence, can make a significant contribution to criminal intelligence.

**Matthew Robinson**  
Matt Robinson has been a RCMP Criminal Intelligence Analyst for ten years, during which he has enjoyed specializing in a variety of cutting edge methods and technologies that have enhanced traditional analytical capabilities, including Risk Terrain Modelling and Cell Site Analysis. This expertise enabled him to apply analytical techniques to complex problems ranging from border security to homicide and missing person investigations. Matt believes that new areas of opportunity are continually expanding, thereby enabling analysts to contribute to law enforcement agencies in new ways that were not possible a few years ago. He currently works for the RCMP in Washington DC and lives with his family in Virginia.
Presenters

Workshop - Developing A Custom Calls-For-Service Dashboard

*Manny San Pedro - Executive Director of MDSP Consultants and former Detective Constable, Toronto Police Service*

Most analysts are familiar with Excel Pivot tables. This workshop will introduce the analyst to Excel Slicers. The main focus of this workshop is to create a visualization of Calls-for-Service data in a Dashboard environment. The analyst will be provided with a Microsoft Access database of sample calls-for-service. They will transform some data columns into temporal attributes in Access and then connect to this data-source from Excel. Analysts will perform some data manipulation through functions. Analysts will also learn how to connect to a remote data-source (Excel, Access, and SQL Server). The workshop will be a mix of lecture and hands-on exercises. Analysts will develop a custom calls-for-service dashboard at the completion of the workshop.

Those interested can bring their own Calls-for-Service data in a Microsoft Access database.

*Attendees will be required to bring their own laptop/notebook device. (REQ. SOFTWARE: MS Access, MS Excel 2010 or later)*

*Manny San Pedro*

Manny San Pedro is a former Detective Constable with the Toronto Police Service, who retired after 26 years of service. His final assignment was in the Sex Crimes Unit as a Criminal Investigative Analyst. He has been involved with various investigative and analysis units during his career, while serving five of the last ten years as an instructor and practitioner of crime and investigative analysis. At present, he is the Executive Director of MDSP Consultants providing analysis training and development services for several municipal police agencies across Ontario. He is also the Public Safety Director at 911 Priority Inc., a company specializing in up-fitting law-enforcement vehicles with emergency equipment.

Multi-Jurisdictional Case Studies

*Kim Audette - Royal Canadian Mounted Police*

Kim will present on a case she worked on for the last 1.5 years. It involves a suspect who had no criminal record, but who began offending after a downshift in the economy caused him to lose his job, leading to a series of negative events in his life. Kim used MO analysis to identify two separate crime series over the span of one year and was able to identify the suspect as being responsible for each series, showing the escalation in offending. Kim used mapping software to link telephone data to crime data and validate his confession as well as identify occurrences for which a confession wasn't obtained. It was based on the analysis that the detachment was able to locate the individual responsible for more than 200 occurrences between BC, Alberta, Saskatchewan and Manitoba.

This case has received media coverage in Saskatchewan and the suspect is expected to enter a plea next month. This is a perfect example of intelligence-led policing, leading to the proactive identification of a multi-jurisdictional crime series and subsequent charges which are expected lead to a federal sentence. This is a perfect example of a best-practice approach for crime analysis. It will detail MO Linkage Analysis, Suspect identification, Cell Tower and Telephone toll analysis and mapping.
Kim Audette
Kim has been an RCMP analyst for 10 years. She spent 7 years as the Outlaw Motorcycle Gang Analyst for "F" Division, sitting on the National Tier Committee to combat Outlaw Motorcycle Gangs. Three years ago Kim joined the Crime Prevention/Crime Reduction unit to develop the crime analysis program in the division. Kim focusses her work on identifying crime series out of crime trends, identifying investigative avenues and suspects. Kim is a certified Geographic Profiling Analyst. Her background is in Forensic Psychology, and holds a Bachelors Degree from the University of Regina and a Masters Degree from the University of Texas at El Paso. Kim is currently completing her PhD in Forensic Psychology focusing on offenders under the age of 12.

Crime Analysis and Cognitive Effects: Studying the work of Canadian Crime Analysts
Dr. Carrie Sanders - Wilfrid Laurier University

Crime analysis is the systematic analysis of crime for identifying and predicting risks and efficiently directing police resources. Adopting a social construction of technology framework, we qualitatively explored the work of Canadian crime analysts to understand how they police through flows of data and how their work informs policing practices on the ground. In our presentation, we review the available research on the work of crime analysts.

We then empirically examine Canadian crime analysts’ perspectives of: (1) the organizational and cultural integration of crime analysis in Canada, (2) the technological support of analytic practices, and (3) the utilization of crime analysis and its impact on policing practices. From this investigation, we argue that crime analysis, and by extension crime analysts, occupy a tenuous position in contemporary policing that is shaped by, as well as reinforced through, the integration of database policing. We argue that the division of labour, organizational context and operational cultures of policing are configured into police technologies and shape the field of intelligence production. This social shaping of technology, we argue, has led crime analysis to not be used for preemptive practices, but instead to be re-appropriated and used in ways that reaffirm traditional policing practices.

Dr. Carrie Sanders
Dr. Carrie B. Sanders is an Associate Professor of Criminology and Director of the Graduate program in Criminology at Wilfrid Laurier University. Her research interests include crime and intelligence analysis, policing, and science and technology studies. Presently, she is working on a number of Federally funded ethnographic and qualitative studies in the areas of Big Data, police women and police response to people in mental health crisis. Her research on the study of crime analysis and the integration of data science in policing recently received a Social Sciences Humanities Research Council of Canada Insight Grant and has led to the development of an international study on the Field of Intelligence Production in Australia

Role and Impact of Specialized Analysis in Major Crime Investigations
Robert Aboumitri - Royal Canadian Mounted Police

Mobile device data can go much further than identify contact frequency between two or more persons. In-depth cell site data analysis can highlight the general whereabouts of a device during a specific time. It could even uncover the likely route that the device user took. Examining and mapping the start and end cell sites (including the
 azimuth and other data) and layering the results with additional evidence (DNA, Wi-Fi, witnesses, CCTV, pictures, social media posts, etc.) considerably enhances the successful conclusion of any major crime investigation.

Robert will use a Nova Scotia homicide case that he worked on detailing his role as the analyst and discussing his interaction with the investigators, service providers, and prosecutors. Robert will also describe the analytical work that he undertook and talk about the court evidence that he presented which greatly assisted in obtaining a successful conviction.

Robert Aboumitri
Robert Aboumitri is a Criminal Intelligence Analysis Manager with the RCMP and currently in charge of the Greater Toronto Area (GTA) North Criminal Analysis Section which consists of a serious and organized crime analytical support team, and a team specializing in communications data analysis. During the last fifteen years, Robert has supported numerous investigations and is regularly consulted as a subject matter expert in the field of communications data analysis. In 2007, in recognition of his expertise, Robert was seconded to the United Nations to assist in a major international investigation. At the end of his assignment, he took a position with a major international tribunal (based in The Netherlands) as the head of an analytical team specializing in communications data analysis.

Crime Analysis in Cold Case Investigations
Lianne Sobey - Royal Canadian Mounted Police

This presentation will provide an overview of the work that can be done by a crime analyst to support historical homicide teams in their investigations, both on a strategic and tactical level. It will touch on the role of a crime analyst in prioritizing historical homicide files based on solvability to work within the cold case concept. It will also highlight how various analytical products can be used to support historical homicide investigations, including event timelines, exhibit timelines, association charts, suspect profiles, surveillance packages, open source research, scene maps, and the identification of inconsistencies in witness and suspect statements. The practical application of Microsoft Excel will also be explored as it pertains to the creation of analytical event timelines.

The presentation will examine some of the challenges that are unique to cold case investigations and how crime analysis can be used to help investigators deal with these challenges. A case study of the murder of a two year old girl in 2004 will be presented to illustrate how crime analysis supported a historical homicide team throughout the investigation and through the court process. This included analytical event timelines, charts outlining statement discrepancies and presentations that were ultimately used by the Crown Prosecutor in closing arguments to the jury. This investigation resulted in a second degree murder conviction twelve years after the murder.

Lianne Sobey
Lianne Sobey has been a Criminal Intelligence Analyst with the RCMP for the past eight years. She has worked with a variety of units including National Security Enforcement Section, Major Crime Unit, Federal Operations, Criminal Operations and most recently the Historical Homicide Unit. Lianne has worked on fifteen murder investigations throughout her career, including cold case investigations. Lianne has obtained certification in Crime and Intelligence Analysis from the California Department of Justice and California State University, which included crime analysis, criminal intelligence analysis, criminal investigative analysis, and research methods in criminal justice. Lianne has also had training in cold case homicide investigations.
The Value of Crime Analysis

*Chief Inspector Friedrich Steiner - Austrian Federal Police*

The presentation will cover two case in which analysis has been instrumental. A man who had already murdered a prostitute, kidnapped a 15-year-old girl and raped her several times. Subsequently, he wanted to kill her. Just by chance he was stopped by a car accident. Analysts were able to prove the entire course through exact processing, although the prosecutor failed to obtain call detail records. The perpetrator recanted his confession in court, but he has been sentenced to a long term of imprisonment as a consequence of the exact analytical argument. A second case was a huge series of damage to cell masts, where the suspect climbed onto the masts and cut the wires from the cells and from the warning lights for the air traffic. Using multiple tools, especially those for geographic profiling, analysts were able not only to forecast the next case, but also to catch the suspect in the act!

**Chief Inspector Friedrich Steiner**

Chief Inspector Friedrich “Sam” Steiner, born in 1961, sworn Police Officer since 1980, started on the streets of Vienna, as an Undercover Agent against Drugs from 1983 to 1986. Sam was a Detective on different drug units in Austria from 1986 until 2005. In 2005, Sam was entrusted with founding the first local crime analysis unit in Graz/Styria, and now has the honor of leading one of the most successful analysis units in Austria, responsible for a population of approximately 1.2 million people. Sam still support them in arrests, surveillance and interrogations, especially in cases where they also need his help as a crime analyst. Sam has never been a university student, but uses every opportunity to learn for his job, and has attended countless classes for everything an analyst needs.

Prioritizing Offenders and the Role of Crime Analysts in Offender-Focused Crime Prevention

*John Ng - Special Constable, Saskatoon Police Service*

This presentation will draw upon findings of a white paper that is currently in press from the International Association of Crime Analysts Standards, Methods, and Technology Committee, Methods Subcommittee. This paper speaks to a fundamental question of how police agencies determine which offenders to focus on, in other words, how to they select their priority offenders. This presentation will define a priority offender, the rationale for focusing on priority offenders, the current and future roles of crime analysts in offender focused crime prevention, offender ranking methodologies and risk assessments, and the importance of gathering data about offenders from various data sources and collaborative risk driven public safety models.

**John Ng**

Special Constable John Ng has been with the Saskatoon Police Service for the past 7.5 years. He first worked in their Planning and Research/CompStat Unit and was subsequently hired as their first and only Patrol (Crime) Analyst in November 2011. He’s also been an active member of the IACA for the past 7 years and is a member of the Standards, Methods, and Technology Committee, Methods Subcommittee where he’s assisted with writing 2 white papers and 2 in press. He’s successfully completed an Honours Bachelor of Science in Psychology from the University of Toronto and a Master of Science from St. Joseph’s University in Philadelphia, PA.