INCORPORATING INTELLIGENCE-LED POLICING IN INTEGRATED CROSS-BORDER MARITIME LAW ENFORCEMENT OPERATIONS IN BRITISH COLUMBIA

By

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B.A., Simon Fraser University, 2004

A PAPER SUBMITTED
IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS IN CRIMINAL JUSTICE

In the
School of Criminology and Criminal Justice

Approval

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Abstract

British Columbia shares a southern maritime border with Washington State that bisects the Gulf Islands from the San Juan Islands. The RCMP is responsible for the maritime border security between ports of entry. Challenges to maritime border enforcement include a lack of marine domain awareness, globalization, terrorism, transnational organized crime and drug trafficking, criminal networks, and jurisdictional issues.

The RCMP have partnered with the US Coast Guard to enforce cross-border criminality in a program called the *Integrated Cross-border Maritime Law Enforcement Operations Act* (ICMLEO), also referred to as Shiprider. The Shiprider program was implemented under the standard model of policing. By gathering and utilizing better information, adapting an intelligence-led approach, and leveraging technology, the Shiprider program could become more efficacious.

Acknowledgements

I would like to thank my senior supervisor, Darryl Plecas. Some great early morning and late night discussions helped lay the foundation for this paper. His comments, advice, and feedback were invaluable.

I would also like to thank the University of Fraser Valley professors who facilitated my journey through the Master's Degree Program and opened my mind to the diverse issues in criminal justice.

Dedication

This paper is dedicated to my wife, Jennifer, who has been a constant source of support and encouragement for me. Without her support, I would have missed this life-changing experience. It is also dedicated to our two children, Shelby and Parker, who have yet to learn the importance of being life-long learners, and appreciate that there is no elevator to success – sometimes you have to take the stairs.

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ICMLEO (Shiprider) vessel

This 29-foot RCMP vessel is flying the Canadian flag, American flag, and U.S. Coast Guard flag which indicate an Integrated Cross-border Maritime Law Enforcement Operations (ICMLEO) vessel, staffed with U.S. Coast Guard and RCMP members, operating in both Canadian and United States waters.

Chapter 1: The border to be protected: Canada's western coastline

Canada is the second largest country in the world and its western border has a coastline of more than 27,000 kilometers. British Columbia is connected to the Pacific Ocean, the world's largest body of water, comprising an area of approximately 182,000 square kilometers or approximately 1/3 of the Earth's surface (Shuman, 2016). The Pacific Ocean is a major contributor to the world economy and connects British Columbia to maritime trade routes in Asia, Indonesia, Australia, and South America.

The Strait of Juan de Fuca is 161 kilometers long, between 18 to 27 kilometers wide, and is bisected by an invisible line separating British Columbia from Washington State. Vessels may have to cross the international boundary to get to their destinations. For example, BC Ferries passenger vessels that depart from Tsawwassen. B.C. have to travel through United States waters to reach Victoria, B.C. Container ships travelling to Seattle have to cross into Canadian waters, and ships travelling to Vancouver have to cross into United States waters when arriving or leaving their port(s) of call (Lynch and Gerbrecht, 2008). Figure 1 (Google Inc., 2016) on the following page depicts the British Columbia/Washington State maritime boundary.
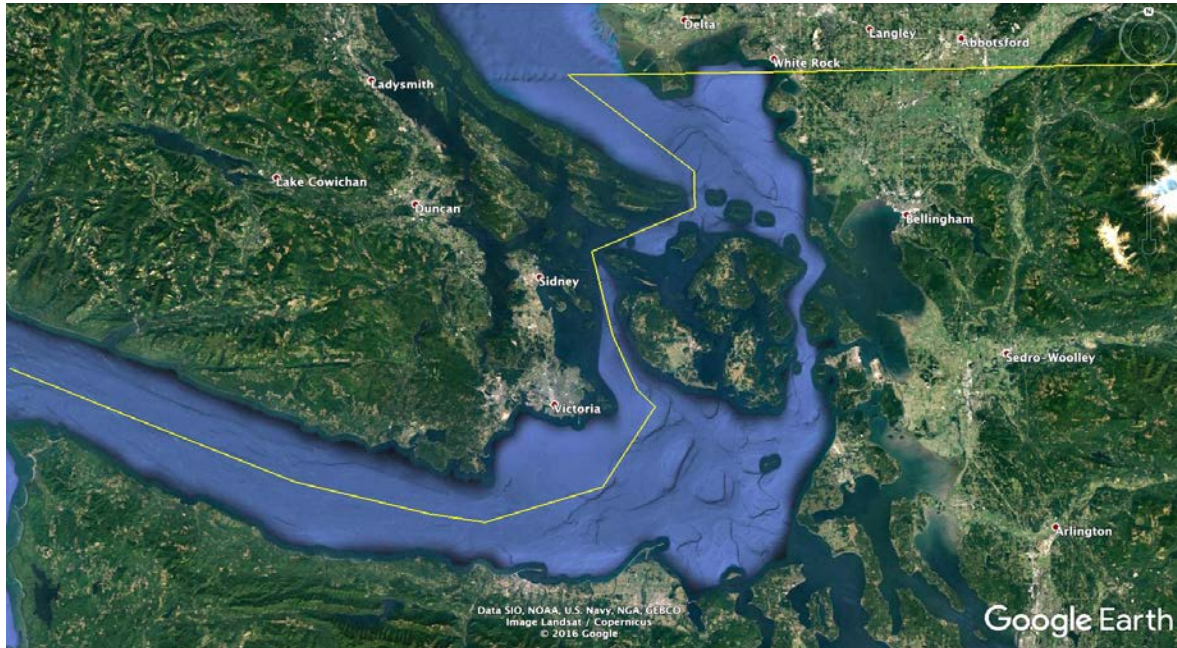
Substantial vessel traffic occurs in and around the maritime border not only by large vessels but smaller ones too. According to the National Marine Manufacturers Association (2012), approximately 610,000 vessels are registered in British Columbia with a majority of those vessels operating near the maritime border with Washington State.

Lack of marine domain awareness

The maritime border is the least understood and least protected environment (Moore, 2011). This could be because of the difficulty in seeing what is going on and the difficulty in responding to it (Paulus and Asgary, 2010). Other reasons could include the lack of maritime assets, particularly assets with the capacity to act offshore (Moore, 2011), and the lack of dedicated land-based and airborne surveillance assets. The culmination of these factors may result in little or no deterrence against illegal activity around the maritime border. Paul McHaile,

Assistant Secretary of Defense for Homeland Defense, has stated there is a need to develop a mature concept of maritime enforcement in the Northern command area (Patch, 2008).

Globalization

Implementation of North American Free Trade Agreement on January 1, 1994 was a response to globalization by Canada, the USA, and Mexico (Desrohes, 2005). Since then, many countries have deregulated their economies and liberalized trade to promote faster economic growth, to gain easier access to capital and technology, lower costs, gain higher productivity, and improve their standard of living (Pocuca & Zanne, 2006).

Maritime transport has become the backbone of globalization and world trade. According to the International Maritime Organization (2012) marine transport vessels carry 80-90% of the international trade cargo and contributes 3.5 to 5% of the world Gross Domestic Product. The Port of Vancouver is Canada's busiest seaport and carries approximately 60% of all of Canada's $143 billion overseas trade of goods (including both exports and imports) (Transport Canada, 2015). The safe and rapid movement of maritime cargo is vital to Canada's economy.

The globalization trend can been seen as beneficial or detrimental to global stability, the environment, peace, and sustainable development (Corbett and Winebrake, 2008). Lieutenant Commander Moore of the United Kingdom Ministry of Defense has indicated that a terrorist attack on their maritime supply chain could result in catastrophic shortages of food, fuel, and other vital resources within a few

days because over 90% of its country's trade travel by sea (Moore, 2011).

Terrorism

The terrorist attack in the United States on 9/11 has caused many countries to re-evaluate their border security (Alach, 2011; den Hengst-Bruggeling, de Graff, and van Scheepstal, 2013; Carter, 2013; Svendsen, 2012, and Carter and Phillips, 2015). Numerous academic studies on maritime terrorism have been qualitative and incorporate discussions around a number of highly publicized terrorist attacks against marine targets (Asal and Hastings, 2015).

Over the past few years though, there has been a noticeable rise in high-profile terrorist attacks at sea (Chatterjee, 2014). The most significant loss of life from a maritime terrorist attack was in 2004 when more than 110 people died as a result of a terrorist bomb on the *Super Ferry 14* passenger ferry in the Philippines. Other attacks include the small vessel attack on the oil tanker *MV Limburg* in 2002, and the attack on the *USS Cole* in October 2000 when 17 American sailors where killed by suicide attackers using a small vessel (Howe, 2010).

Contemporary terrorist groups may be actively seeking to extend their operational mandates into the maritime environment to overcome heightened land-based counter-terrorism security measures (Greenberg, 2006). An atrocity orchestrated from the sea has the potential for an even bigger disruption of global commerce or a greater physical impact than the events of 9/11 (Mugridge, 2010). Terrorists could use large vessels such as oil tankers as ramming devices, could plant a bomb on a passenger ship, or conduct a mass shooting on a BC Ferries vessel. A study of 3,969 cargo vessels conducted by Winchester, Sampson, and

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Shelly (2006) found the median number of crew on a vessel between 1,000 to 2,999 gross tons were 11 and large cargo vessels between 70,000 to 99,999 gross tons only had a complement of 23 crew members.

In addition to large vessels, terrorist groups may also exploit small vessels. Michael Chertoff, the US Secretary of Homeland Security has expressed concerns of a terrorist group using a small vessel as a conveyance to smuggle a weapon of mass destruction (Chertoff, 2007). The US Coast Guard has stated that small vessels weighing less than 300 gross tons represent one of the greatest risks from terrorism in the maritime domain (U.S. Government Accountability Office, 2013).

Transnational organized crime and drug trafficking

The sure scale and diversity of transnational organized crime activity within the maritime domain is impossible to quantify (Mugridge, 2010). This could be because of two significant barriers: understanding the complexity of the problem, and the secrecy of the participants (Ratcliffe, Strang, and Taylor, 2014). Transnational organized crime groups successfully operate in economies and markets where: law enforcement environments are under resourced, lack capacity, and geographically challenged (McNulty, 2013). The maritime border between British Columbia and Washington State represents an area that has the potential to be abused by transnational organized crime groups.

Transnational organized crime is not a new problem; however, it has been accentuated by the impact of globalization. Because of globalization, criminal organizations can globalize their operations, position themselves in new markets, and expand the range of their illicit activities (Lee and Farer, 1999). Transnational

organized crime groups may exploit differences in costs of goods and taxation levels between Canada and the United States (for example, alcohol, tobacco, and firearms). Simple inconsistencies in taxation between countries can create profitable opportunities for organized crime purchase goods or unregulated items in one country and illegally distribute in another country.

Drug trafficking by sea has grown throughout the twentieth century (Aune, 1990). Transnational organized criminal groups have been known to be extensively involved in the exportation of drugs from one country to another. The United Nations Office on Drugs and Crime (2015) found that the maritime smuggling of cocaine accounted for 60% of the total quantities seized, with an average seizure from 2009 to 2014 being 365 kilograms. In 2005, a total of 2,556 kilograms of cocaine were seized in Canada (Government of Canada, 2005). Approximately 10% of the cocaine transits via air, and the remaining 90% may transit via the sea (Atkinson, Kress and Szechtman, 2017). As well, Criminal Intelligence Service Canada (2014) has observed an increase in drug cartels operating in Canada and seeking to establish direct cocaine supplies rather than third party distribution. As of 2007, the most common drugs being smuggled between Canada and the United States were MDMA, cocaine, and marihuana (Public Safety Canada, 2015).

Canadian Border Services x-ray shipping containers that arrive on large vessels at ports of entry but do not do this for smaller vessels. Relatively little advance has been made in dealing with smuggling opportunities presented by small vessels because their regulations are almost exclusively focused on safety

rather than security (Ziock, Boehnen, Ernst, Fabris, Hayward, Karnowski, Paquit, Patolla, and Trombino, 2015). Needless to say, without intelligence, it would take a miracle to single out a handful of the 610,000 vessels in British Columbia that are illegally importing drugs.

Criminal networks and jurisdictional issues

In the last 20 years, organized crime groups have become more complex and networked, which poses evolving challenges for law enforcement. These new network structures increase their flexibility and they can avoid the hierarchies that previously governed more traditional criminal networks. New criminal network groups can quickly adapt to changing market conditions and outsource portions of their operations rather than keeping all of their expertise "in-house" (Bjeloper and Finklea, 2013).

One of the ways transnational organized crime groups conceal criminal activity is to commit it in multiple national or international jurisdictions, using gaps in law enforcement information sharing to their advantage (Ratcliffe, 2016). Transnational organized crime groups see borders as opportunities while law enforcement sees borders as obstacles that involve multiple legal issues in multiple jurisdictions and extradition treaties. These jurisdictional issues can present substantial diplomatic and practical challenges for law enforcement (Bjeloper and Finklea, 2013).

Recent examples of cross-border criminality in BC

In recent years there have been a number of incidents of cross-border criminality including human trafficking, drug importation, and money laundering.

The *MV Sun Sea* was a cargo ship that was intercepted off the coast of British Columbia on August 12, 2010. 492 Sri Lanken asylum seekers were on board, all of whom made refugee claims. According to a CBC news article, this one incident cost the Canadian Border Services Agency $22 million dollars, the Immigration and Refugee Board $908,000 and the RCMP $2.1 million dollars (CBC, 2011, February 9).

According to a CBC news article (CBC, 2010, March 15) the RCMP seized 1,001 kilograms of cocaine from '*The Huntress*', a 50-foot sailboat registered in Panama in Port Hardy in 2011. Most of the cocaine seizures entering Canada have been from major seaports (United Nations office on Drugs and Crime, 2015). Clearly, transport by sea plays an important role in transporting controlled substances (Radionov, 2010).

According to a Times Colonist article (Dickson, 2013, March 12), a male from Vancouver Island was arrested just after midnight on March 25, 2011 near the maritime Canada-U.S. border. Police officers from the Vancouver Island Border Integrity Unit attempted to stop a vessel operating without navigation lights when they observed a package being thrown overboard. The package was retrieved by police and found to contain $2.6 million dollars in U.S. currency.

Who is responsible for maritime border security?

When people think of border security they may think it is the responsibility of the Canadian Coast Guard, however; they are not a constabulary force. The Canadian Coast Guard (2013) is a Federal civilian maritime operational organization tasked with managing aids to navigation; marine communications and

traffic services; marine search and rescue; pollution response; icebreaking; and waterways management.

The United States Coast Guard is substantially different then the Canadian Coast Guard because it is a division of the U.S. military and is the principle Federal agency responsible for maritime safety, security, and environmental stewardship in the United States ports and waterways (U.S. Coast Guard, 2017).

The Canadian Border Services Agency (CBSA) is responsible for border security at designated seaports. When entering Canadian waters, the master of the vessel must report his/her arrival to the CBSA without delay. The CBSA Marine Program identifies and intercepts people and goods that are inadmissible to Canada and seeking entry at a marine point of entry (Canadian Border Services, 2016). Between ports of entry, though, maritime border security is the responsibility of the Royal Canadian Mounted Police (RCMP). The RCMP maintains a presence in the maritime border regions to address inbound and outbound criminal threats, which include national security crimes and transnational organized crime networks used to illegally move people or illicit merchandise (Royal Canadian Mounted Police, 2015).

Integrated Cross-border Maritime Law Enforcement Operations Act

British Columbia and Washington State share social and economic conditions that have laid the foundation for the development of a shared maritime border enforcement program. On February 4, 2011 former President Barak Obama and former Prime Minister Stephen Harper launched the *Beyond the Border: a Shared Vision for Perimeter Security and Economic Competitiveness* with a vision

of establishing a partnership to enhance security and accelerate the legitimate flow of people, goods, and services across the border (Public Safety Canada, 2016). One of the 32 initiatives was the development of the *Integrated Cross-border Maritime Law Enforcement Operations Act, S.C. 2012, c. 19 s. 368,* also referred to as Shiprider. This Act was implemented to provide additional means to prevent, detect, and suppress criminal offences and violations of the law at sea or waters along the international boundary between Canada and the United States.

The Shiprider program is co-managed by the Royal Canadian Mounted Police and the United States Coast Guard. Law enforcement personnel from Canada and the United States work alongside on board each other's vessels in the sovereign waters of both countries. Within Canada, the Shiprider program is governed under Part 1 Section 7 (1)(d) of the *Royal Canadian Mounted Police Act R.S.C., 1985, c.R-10* and in the United States, the Shiprider program is governed under *Title 19 USC 1401* (Hataley, 2015).

Shiprider has been seen as a successful initiative and is being assessed by both countries for permanent implementation (Lynch and Gerbrecht, 2008). The U.S. Coast Guard (2017) indicates they want to continue to build upon international bilateral agreements and work with interagency and international partners to grow partner nation capacity. This indicates the Shiprider program is here to stay and may even include further expansion.

How well Is Shiprider working?

The Shiprider program is more than just flying the flags of two countries; it is about international inter-agency cooperation. The Shiprider program is an

impressive example of international cooperation. The Assistant Deputy Minister at Public Safety Canada has stated that Shiprider been proven to be an effective method of deterring and interdicting cross-border criminality (Parliament of Canada, 2012).

Hataley and Leuprecht (2013) indicate the Shiprider program is unlikely to be effective at combatting transnational organized crime because of the length of the border; the capacity to screen all cargo and people; and the capacity of organized crime groups to adapt to law enforcement strategies. This indicates a need to take a risk management approach to cross-border criminality. However, it can be a difficult endeavor when just one maritime shipment of drugs can represent significant costs to society. Rehm, Baliunas, Brochu, Fisher, Gnam, Patra, Popova, Sarnocinska-Hart and Taylor (2006), for instance, estimated the total societal cost of substance abuse in Canada to be $39.8 billion dollars.

One may think that a highly political program involving international law enforcement inter-operability would undergo a yearly program evaluation – however this has yet to occur. The Office of the Auditor General (2013) states the RCMP needs to develop a framework to measure and monitor the performance of its border law enforcement activities. Manjarrez (2015) states that there are several variables to effective border security but apprehension statistics and situational awareness enhance the ability to determine success or failure of border security efforts.

Some Shiprider program data was published by Public Safety Canada (2016) for the year of 2015, indicating that 243 patrols were conducted, four people

were arrested and 25 violation tickets were issued. Public Safety Canada nor media releases by the RCMP indicate the seizure of any drugs or disruption of any organized crime group in 2015 by the Shiprider program.

The standard model of policing Is not working

The lack of available statistics on the Shiprider program is not surprising because it operates under a standard model of policing. This model consist of random patrols across the entire area of responsibility, rapid response, routine deployment of officers to crime investigations, and reliance on law enforcement and the legal system to suppress criminal activity (Weisburd and Eck, 2004). The uniformed presence is a visual deterrent, makes police vessels available to assist with emergencies at sea, and routinized vessel inspections help populate police databases.

A study by Lum, Koper, and Telep (2010) found that these traditional beliefs about crime-fighting approaches persist even though other models (such as intelligence-led policing) can be more effective. Random patrols may increase the probability that cross-border criminal activity would be interrupted – however, Shiprider resources are insufficient to present a credible deterrence in maritime cross-border criminality 24 hours a day.

The standard model of policing has no overarching strategy and does not place significant emphasis on data and intelligence analysis as a central component of police strategic thinking (Ratcliffe, 2016). The standard model of policing has been criticized for several decades as being ineffective. Unfortunately,

many police managers still rely on traditional enforcement tactics as the sole response to crime problems (Ratcliffe, 2016).

Any organizational change such as organizational flexibility, data-driven decision making, and innovative problem solving that represents any substantive change from past management practices remains a challenge for police (Willis, Mastrofski, Weisburd, and Greenspan, 2004). Exiting out the standard model of policing can be difficult. The shift to intelligence-led policing is the most significant and profound paradigm change in modern policing (Ratcliffe, 2016). Carter and Phillips (2015) state that intelligence-led policing requires a shift in police management, organizational structure and even day-to-day operations.

Chapter 2: What are other countries doing?

The lack of maritime border security has transnational consequences because organized crime groups operate across borders (Bueger, 2015). The 2008 United Nations Secretary General's Report indicates that the maritime security strategies of the recognizes that United States, European Union, and the United Kingdom equally emphasize the importance of multilateralism and joint coordinated responses to maritime security (United Nations, 2008). Some countries are lacking marine domain awareness, some have made improvements, and some have taken a militarized approach to marmite border security.

United Kingdom

The United Kingdom (U.K.) is still trying to develop a successful maritime border security program. Lieutenant Commander Moore of the U.K. Ministry of

Defense has stated the U.K. has a serious lack of assets to comprehensively cover their 16,800 km of coastline (Moore, 2011). The Cabinet Office made two recommendations: strengthen oversight of maritime security through a collaborative and cohesive approach to preventing and responding to national security risks, and improve situational awareness. Seven strategic objectives were set: governance and decision-making; situational awareness; capability to act; protection of key assets; international engagement; partnerships and private sector engagement; and legal frameworks. According to Moore (2007) the U.K. Ministry of Defense (2007) *Future Maritime Operational Concept*, has contributed little to the effective security of the United Kingdom.

Controlled substances are still being transported to the United Kingdom. According the International Business Times (Wright, 2017) in February 2017, police in the United Kingdom seized 4,240 kilograms of cocaine from a fishing boat off the coast of South America. The success of this seizure was a result of inter-agency cooperation between the United Kingdom's National Crime Agency, the US Coast Guard, and the US Drug Enforcement Agency.

Australia

In the absence of a traditional Coast Guard, Australia protects its maritime security through the Australian Border Force. Australia has 37,000 kilometers of coastline and has one of the largest and one of the most challenging border environments in the world (Noonan and Williams, 2016). Australia is heavily reliant on maintaining open sea-lanes for trade because they are an island nation.

The Maritime Border Command (MBC) is a multi-agency task force that acts as the maritime law enforcement arm of the Australian Border Force. MBC utilizes assets assigned from the Department of Immigration and Border Protection (civil) and the Department of Defense (military) and acts as the primary government law enforcement organization in the Australian maritime domain. MBC does not self-generate tasking, rather it responds to the requests of 26 client agencies (including the Australian Maritime Safety Authority, Australian Fisheries Management Authority, and the Australian Federal Police).

A number of maritime security challenges in Australia in recent years have included drugs and people smuggling, illegal fishing and threats to marine biosecurity (Schofield, Tsamenyi, and Palma, 2008). In 2005-2006 period Customs and Defense in Australia delivered an estimated 151.24 million square nautical miles of aerial surveillance which is the equivalent of 4,276 vessel sea days of marine surveillance.

The Australian Border Force uses technology such as satellite marine surveillance, high-resolution cameras, radar, infrared sensors, unmanned airborne vehicles, helicopters, and Armidale class patrol vessels. Australia has clearly made substantial progress in enhancing its maritime surveillance and enforcement capabilities over the past ten years (Schofield, Tsamenyi, and Palma, 2008). In December 2006 the Australian Defense Department introduced new rules of maritime engagement, which provides for a "graduated" range of responses. If the vessel is non-compliant the response could range from a verbal warnings, the use

of tear gas, or firing across the bow of the vessel (Schofield, Tsamenyi, and Palma, 2008).

Drugs are still coming into their country. Australia MBC has intercepted a substantial quantity of cocaine – for example, according to the New Zealand Herald, a 50-foot sailboat was intercepted 300 km off the cost of Sydney, Australia in February 2017 by the MBC. Some 1.4 tonnes of cocaine were located on the vessel, making this the largest drug seizure in Australian history (Keogh, 2017, February 6).

Israel

Israel takes a military approach to their maritime border security. If a vessel is identified operating 200 miles off the coast of Israeli the authorities will initiate radio contact. At approximately 50 miles out, unmanned aerial systems monitor inbound traffic and provide geo-location to maritime patrol aircraft that overfly ships. If a vessel evades or ignores the Israeli Navy they can be expected to be fired upon and have their vessel seized if it crosses into the 12 nautical mile limit (Patch, 2008). No surprise this works.

When you look around the world, there are a variety of ways to enhance border security. It is highly unlikely that Canada will develop a militarized approach like Israel. This author believes one of the base ways to improve maritime border security is to leverage as many agencies as possible: to utilize information, intelligence and technology to your advantage to improve maritime border security.

Chapter 3: What about leveraging information, intelligence, and technology?

To better tackle maritime cross-border criminality, the RCMP could improve their marine domain awareness, become information-led, intelligence-led, and leverage technology. The standard model of uniformed vessel patrols has not worked. The lack of clarity and an absence of a common understanding of criminal intelligence terminology and processes can hamper information sharing between agencies (Ratcliffe, 2016). In a country where there is more than one agency involved in the campaign against drug trafficking, the various law enforcement agencies sometimes compete with others for increase prestige, projects and funding. Such rivalry results in a lack of communication, co-operation and co-ordination between agencies, which, in turn, leads to bungled offensives against drug trafficking (Aune, 1990).

Agreeing on when to share and use intelligence places agencies at loggerheads with each other in times of crisis (Ratcliffe, 2016). Given the transnational character of many crimes, international cooperation is not only important; it is the only possible response. Greater sharing of information and the coordination of joint operations by law enforcement agencies is needed across the world (Fedotov, 2015).

The United Nations (2015) stresses the importance of international cooperation in maritime security and that it is a shared responsibility that requires a new vision of collective security. Memorandums of understanding between law enforcement and national security agencies are often cumbersome and

convoluted, and put up walls of bureaucracy in the path of timely information sharing. Even if the bureaucratic hurdles could be overcome, there are other, more intangible problems such as a web of interagency competition, local and national laws, security clearance issues, turf protection, and rivalry, all of which inhibit actual cooperation (Sheptycki, 2002). There are some obvious hurdles to overcome to transform Shiprider into an information-led, intelligence-led and technology-led program.

Information-led policing

Police officers require as much information as possible to guide their operational and strategic decision-making. Being truly information-led means that police have knowledge of and access to many more tools and options beyond the constraints of apprehending, arresting, charging, and processing offenders. New strategies have been made possible through a broad movement in policing that has discovered the benefit – and necessity – of using data to inform decisions and drive crime control strategies (Ratcliffe, 2016).

To successfully interdict maritime shipments of drugs, police commanders need to have information on timing, location, size of the drug shipments, and the means of transportation (Atkinson, Kress and Szechtman, 2017). Information sharing must become a policy and not an informal process (Peterson, 2005). Lieutenant Joshua Sagers of the Seattle-based Coast Guard Station District 13 indicates he uses a best-guess approach to vessel deployments when he does not have actionable intelligence on cross-border criminality (Marcario, 2009).

Cohen, Plecas, McCormick, and Peters (2014) suggest that creating a database of all criminals; fully account for and understand your jurisdiction's crime and disorder problems; and maintaining an up-to-date list of all community resources are ways a police agency can become more information-led. The maritime community is often the best source of information about offenders, vessels they operate, and when they travel on the water. Establishing and maintaining consistent contact with public is central to being information-led (Cohen, Plecas, McCormick, and Peters, 2014). A marina out-reach program could help Shiprider become more information-led. Uniform patrols can be supplemented with walking the docks, and engaging people about boating safety and cross-border maritime criminality. Being information-led means involving the local communities in crime prevention and crime reduction strategies (Cohen, Plecas, McCormick, and Peters, 2014). Kelling and Moore (1988) argue that police management needs to refocus their attention on establishing effective problem-solving partnerships within the communities they police. There is a difference between information and intelligence. Once the information is collected from the community, it needs to be turned into intelligence by further evaluation and analysis (Peterson, 2005).

Intelligence-led policing

James (2014) argues that the foundations of intelligence-led policing was introduced by the Urban Beat Policing in Britain in 1967, while Carter and Phillips (2015) argue that the foundations came from the United Kingdom's National Intelligence Model. Regardless of where intelligence-led policing originated, some

academics agree there is a lack of empirical research on intelligence-led policing and how this philosophy should be conceptualized (Alach, 2011; Carter, 2013; Carter, Phillips, and Gayadeen, 2014; Carter and Phillips, 2015).

Intelligence-led policing is one of the most enduring approaches to crime control (Ratcliffe, 2016) and is the most effective way to combat organized crime (Criminal Intelligence Service Canada, 2014). These factors include recognizing the standard model of policing was not working and recognizing the information sharing pitfalls after 9/11 (Alach, 2011; den Hengst-Bruggeling, de Graff, and van Scheepstal, 2013; Carter, 2013; Svendsen, 2012, and Carter and Phillips, 2015); decreasing police budgets and increasing workloads (Herchenrader and Myhill-Jones, 2015); a small number of crimes are created by a small number of offenders (Alach, 2011; Cohen, Plecas, McCormick, and Peters, 2014; Ratcliffe, 2016); and targeting criminal rather than crime allow police to be proactive and thus prevent more crimes from happening (den Hengst-Bruggeling, de Graff, and van Scheepstal, 2013).

In December 2000 the RCMP adopted a discourse of intelligence-led policing after perceived failures of trying to adopt the community-policing model (Deukmedjian, 2006). Over the years, the Royal Canadian Mounted Police (2014) have refined their definition of intelligence to include the reliance on both tactical intelligence (operational) and strategic intelligence (prioritization and resource allocation). Intelligence-led policing is an evolving model that drives operations rather than operations dictating intelligence-gathering priorities (Ratcliffe, 2016).

Intelligence-led policing is about: information; analysis of the information; knowledge and behavior of decision-makers who use the analyzed information; and the knowledge by decision-makers who assign police resources (den Hengst-Bruggeling, de Graff, and van Scheepstal, 2013). Ratcliffe (2016) argues intelligence-led policing encompasses the following fundamental attributes: crime mapping and spatial analysis (due to the central place of crime hot spots in the definition of intelligence-led policing); structured thinking (given the importance of strategic analysis and the need to influence decision makers at the executive level); crime scripts (a technique that helps deconstruct complex crime problems); and, hypothesis testing (to enable a more scientific and evidence-based approach to crime problems).

The successful implementation of intelligence-led policing requires an organizational environment that has the training, experience, and the maturity to drive evidence-based resource decisions based on analysis and criminal intelligence (Ratcliffe, 2016). If intelligence-led policing is to succeed and develop as the central paradigm of policing in the 21st century, then police managers need to address training and education in crime reduction practices, not only for analysts, but for all police officers (Ratcliffe, 2016).

Technology-led policing

Technological advances in transportation and communication have fundamentally changed the context in which organized crime operates (Lee and Farer, 1999). Transnational organized crime groups have access to cellular phones, satellite phones, encryption, GPS, and electronic money transfers. The

requirement to obtain search warrants for satellite phones registered in other countries, breaking cellular encryption, and tracking international money transfers can be a time-consuming process for Canadian police officers.

Technological developments have also improved maritime law enforcement's ability to detect and track cross-border criminality by using a variety of new technologies. Technology such as SIGNALIS radar, satellites, remote sensing equipment, high altitude aircraft, and unmanned aerial vehicles (UAVs) are part of an effective surveillance and vessel monitoring system (Walker, 2011). Other equipment such as gyroscopic binoculars, Forward Looking InfraRed (FLIR), night vision, and side scanning sonar devices may also enhance the ability to track vessels involved in criminal activity.

Technology is not necessarily helping police formulate new approaches to policing, but rather improving customary responses to crime and disorder problems (Ratcliffe, 2016). Technology such as social networking platforms (Twitter, Facebook, Youtube, text messaging, blogging, and police-based websites) may make a community feel informed (Cohen, Plecas, McCormick, and Peters, 2014). When a community is more informed, it increases citizen satisfaction and trust in the police (Weisburd and Ech, 2004; Gill, Weisburd, Telep, Vitter, and Bennet, 2014).

Crime and criminal behavior is multi-faceted and complex. In an environment of physical restraint and growing fears of terrorist activities, police are turning to intelligence and analytics technology to conduct information gathering and risk analysis (Sanders, Weston, and Schott, 2015). Predictive analytics

software comprises predictive modeling to address the who, when and why questions regarding patterns of behavior, and forecasting their future behavior patterns. The emerging technology of predictive analytics is evolving rapidly and providing law enforcement agencies with better insight as to when and where crimes are most likely to occur (Lozada, 2014). Leveraging analytics software programs will allow police managers to make recommendations and draw solid conclusions from the processing of information and intelligence.

If new technologies are to be part of intelligence-led policing, effective use of the technology has to combine with leadership to sustain such innovations (Darroch and Mazerolle, 2013). Technology training for police emphasizes the how to, rather than the why to, which suggests a shallow implementation and conceptualization of the role of technology within policing, and intelligence-led policing (Ratcliffe, 2016). A study conducted by Koper, Lum and Willis (2014) found that police officers have limited guidance and understanding of how technology might help them and their agencies and police agencies lacked reward systems to encourage innovative responses to crime. The range of data and information sources available to police analysts might lead one to expect that we are on the brink of a new era of holistic policing, but there is a real possibility that intelligence-led policing can become the victim of paralysis by analysis (Ratcliffe, 2016).

Chapter 4: Proposed strategies to improve Shiprider

Improving the Shiprider program is not about improving the vessel handling skills of the members. Rather, it is about improving marine domain

awareness. The Shiprider program is an impressive example of inter-agency cooperation and needs to becoming more information-led, more intelligence-led and more technology-led.

To become more information-led

Establishing a marina out-reach program could help the Shiprider become more information-led. The maritime community may be the best source of information about offenders, vessels they operate, and when they travel on the water. Establishing and maintaining consistent contact with public is central to being information-led (Cohen, Plecas, McCormick, and Peters, 2014). A community policing approach increases citizen satisfaction and trust in the police (Gill, Weisburd, Telep, Vitter and Bennet, 2014). Instead of uniform vessel patrols, members could get off the boat, walk the docks, and engage the boating community on conversations about boating safety and maritime cross-border issues.

Shiprider members could conduct presentations to boating communities, sailing clubs, and boating associations on maritime crime prevention initiatives and cross-border criminality. Being information-led means involving the local communities in crime prevention and crime reduction strategies (Cohen, Plecas, McCormick, and Peters, 2014).

Crimestoppers (2016) is a non-profit society that receives anonymous tip information about criminal activity and provides it to the police. The media have helped promote the program and often run historical missing persons and unsolved homicides. For those wishing to remain anonymous in the maritime community,

Shiprider members could encourage people to use this confidential reporting system. Furthermore, Crimestoppers posters could be posted in marinas, encouraging people to report suspicious marine activity.

The use of aerial surveillance could assist in gathering information on vessel activity (location, speed, and direction). A surveillance plane is more covert than a vessel and can cover a larger area in a shorter period of time. Furthermore, liaising with recreational airplane/helicopter pilots could yield further information related to vessel locations and potential cross-border criminality.

To become more intelligence-led

A study of ten police departments by Peterson (2005) found different operational and organizational styles with the implementation of an intelligence-led approach; however, there were ten commonalities: command commitment; problem clarity; active collaboration; effective intelligence; information sharing; clearly defined goals; results-oriented tactics and strategies; holistic investigations; officer accountability; and continuous assessment. It is clear that implementing a successful intelligence-led philosophy involves more than just hiring a criminal intelligence analyst. There are issues as well with integrated analysts into the police culture. Phillips (2012) found that less than half of crime analysts feel accepted as part of the police culture.

In 2004, under Canada's National Security Policy, Coastal Marine Security Operations Centres (MSOCs) were established to support a national response to perceived and real marine security threats to the country. A MSOC was established in Victoria and comprises members of the Department of National

Defence, RCMP, Department of Fisheries and Oceans, Canadian Coast Guard, Canada Border Services Agency, and Transport Canada. The goal of MSOC is to enable government departments and agencies to work together and share intelligence, surveillance and reconnaissance information (within the legal mandate of agencies/departments) through interagency staffing and collaboration, which in turn allow the MSOCs to support an organized response to potential marine threats and avoid duplication of both efforts and resources (Transport Canada, 2013).

Police managers could have access to the strategic intelligence generated by MSOC. Agency leaders should make extra effort to either utilize intelligence products in their decision-making (Carter and Phillips, 2015). According to Peterson (2005) police agencies can adopt an intelligence-led approach by adopting mission statements, writing intelligence policies and procedures, participating in information sharing, establishing appropriate security, and adopting legal safeguards for the intelligence that is generated.

Further integration with the Navy could establish joint patrols where RCMP members board military ships to conduct offshore surveillance and potentially identify cross-border criminality occurring in an environment outside the Shiprider patrol area. The participation of the Navy in drug patrols and offensives would provide them with useful training and, at the same time, complement existing interdiction forces (Aune, 1990).

To become more technology-led

Technology is moving at such a fast rate that it becomes obsolete by the time it is fully implemented. Some police managers may expect technology to bring about transformative change and feel frustrated when it does not happen. It takes time, effort, and willpower to get major transformative effects from new technology (Fitzgerald, Kruschwitz, Bonnet, and Welch, 2013). A prerequisite to become technology-led is to foster a culture that is willing to learn.

Technologies such as SIGNALIS radar, GPS navigation, and forward-looking infrared (FLIR) technology are becoming user friendly. Many of these systems, along with advanced maritime weather forecasts, interactive tidal schedules, commercial vessel radio traffic monitoring systems, above and below water sensors, side sonar, and surveillance camera can be incorporated together to enhance marine domain awareness. It becomes evident that predictive analytics software needs to be incorporated to analyze data from these multiple sources. In short, the success of the Shiprider program is through the combination of information, intelligence, and technology.

Chapter 5: Conclusion

As noted at the outset of this paper, in referencing Moore (2011), the maritime border is the least understood and least protected environment. Transnational organized crime groups have taken advantage of globalization and operate in economies where: law enforcement environments are under-resourced, lack capacity, and are geographically challenged (McNulty, 2013). It will not be long before contemporary terrorist groups learn from transnational organized crime

groups and take advantage of the maritime environment. An atrocity orchestrated from the sea has a potential for an ever-bigger disruption of global commerce than the events of 9/11 (Mugridge, 2010).

The RCMP is responsible for border security between ports of entry and the Shiprider program, coordinated by the RCMP and the U.S. Coast Guard, is an impressive example of international cross-border cooperation. However; the Shiprider program should no longer work under the standard model of policing because it has no overarching strategy and does not place significant emphasis on data and intelligence analysis. The Shiprider program will be doomed to failure if the main focus continues to follow the standard model of policing.

A uniformed maritime police presence may have the ability to deter some cross-border criminal activity and there is value in conducting non-routine patrols and surge operations. However, this author proposes that the first priority of the Shiprider program is to have an intelligence-led philosophy. The shift to intelligence-led policing is the most profound paradigm change in modern policing (Ratcliffe, 2016). Successful implementation of intelligence-led policing will require: command commitment; problem clarity; active collaboration; effective intelligence; information sharing; clearly defined goals; results-oriented tactics and strategies; holistic investigations; officer accountability; and continuous assessment.

One of the keys to improving the Shiprider program is to act on the tactical and strategic intelligence that is being generated through the Marine Security Operations Centre in Victoria, B.C. According to Radcliffe (2016) intelligence-led

policing has the potential to be the most important law enforcement development

of the century and sustained effort will be required for it to maintain momentum.

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