

Rapporteur's Summary of Proceedings
The 20th Annual Maritime Security Conference
"Interoperability: Achieving Maritime Security under the North American Free Trade Agreement"

By Sarah Hucsko, CFPS Doctoral Fellow

❖ **Day 1: Thursday, June 11, 2009**

Conference Opening (McCain Building)

Call to Order & Introduction-**Cdr./Prof. Kenneth Hansen**, Defence Fellow, CFPS

- Welcome and Introduction to the 20th Annual Maritime Security Conference
- Explains that the last twenty years of conference topics has been diverse and since 1989 with the end of the Cold War we have embarked upon a 'New Security Era'
- Conference issues today are both thematic and timely looking at maritime security issues and maritime security organizations
- The architecture of NAFTA is predominantly economic with little discussion of security related issues and as a result there needs to be a broader discussion beyond economics
- Today we are struggling with how we are going to deal with pressing topics and how governments and agencies will work together to deal with legal and interoperability issues
- Defining and determining how security will be organized remains a challenge for NAFTA due to the enormous variety of issues facing the three countries- Canada, the USA and Mexico

The conference will investigate the prospects for interoperability by addressing three questions:

1. Where are the differences in perspectives between the three NAFTA countries?
2. What institutional alignment exists and where are there differences?
3. What are the best practices for achieving effective cooperative arrangements?

Opening Remarks & Introduction -**Dr. David Black**, Director, CFPS

- Welcome & Introduction- **Dr. Allen Shaver**, V.P. Academic & Provost, Dalhousie University

Keynote Address, Mr. Mark Sloan, CFPS Research Fellow & Maritime Security Consultant: *"A General Perspective on Maritime Security and Interoperability"*

1. Future Security and Operating Environment
 2. Concepts of Interoperability and Maritime Security
 3. Maritime Security and Interoperability in the context of NAFTA
- Economic growth is fuelling the rise of emerging players-new transnational agenda and prospects for coping with potential terrorist threats
 - Strategic environment is unpredictable, interdependence and conflicts emerge due to religious and ethnic tensions and economic competition

- Issues twenty-years ago have evolved into new areas of concern including oceanic competition due to advanced technologies, resource pressure, oil and gas prices, climate change-all of which apply to NAFTA nations
- Access to and ensuring maritime security is critical to the development of nations
- The Canadian need for maritime security is to defend both Canada and North America
- Maritime security and increased interoperability is needed through a comprehensive approach which includes the participation of many actors including the governments, civil society and the private sector. – Establishing greater prospects for multilateralism and a network society is critical-“failure in one, risks failure of all”
- Challenges however, increase with a multilateral approach because of differing roles of Canada and the United States Coast Guards

Where does this leave us?

- Maritime Security and Interoperability are not mentioned in NAFTA but could be covered elsewhere in bilateral arrangements
- If initiatives are not related to one another with respect to security, it could become more difficult for trade development
- Security and economic relations should be mutually beneficial between Canada, the United States and Mexico
- Therefore, a comprehensive approach must be based on mutual trust and technology –with practical applications and theories to provide some potential solutions

Questions and Answers:

- Could you please comment on issues relating to how information technology has changed and how it is being utilized? In some instances, it has become increasingly difficult for government organizations to share information.
 - **SLOAN:** The proliferation of information has been both positive and negative for many government organizations. It has allowed organizations to optimize opportunities and negate challenges. Adversaries are becoming more adaptive and the exploitation of information has increased. In terms of demographics, lobby groups are able to exert political influence by constraining and guiding the flow of information. However, they may not be culturally compatible or provide peaceful means.
 - Knowing political adversaries is important
 - Legal changes are starting to allow for more maritime security but re-examining legal concepts and definitions is essential for cooperation and collaboration
- There is creeping jurisdictionalism at sea. In terms of freedom of sea, do you think this will affect territorial authority?
 - **SLOAN:** Whether a mechanism is so ponderous, it may not be able to keep up
 - Development mechanisms could be more adaptable to changing technologies

- Nations will want to protect their resources
 - Developing a mechanism that is non-confrontational is necessary but one that can only be addressed by the UN---perhaps not adaptable at the moment
- The sea is a means for the transmission of risk but states still want to defend freedom of navigation. This however is a conflict. Where do we strike a balance?
- **SLOAN-UNCLOS** is an effective medium for resolving disputes
 - Reverse challenges into opportunities while noting that freedom of navigation is vital
 - The need for a mechanism to resolve challenges is necessary especially in the 'New World Order' with the rise of great nations who will impact how this mechanism develops
 - Mechanism will need to be adaptive
- There has been a prominence and emphasis placed on climate change. What are your thoughts on climate change vis-à-vis security and North America?
- **SLOAN:** There are so many dimensions including issues such as world weather patterns changing
 - An increase in oil and gas exploration has been on the rise due to the melting of the polar ice caps-all of which leads to security issues
 - Water shortages and water excess, population growth and population deficit (Russia), and massive movements of population can map instability and conflict
 - The Climate Change model is incredibly complex even in Canada where fish docks are moving North.
- Constitutional rights and jurisdictions are an issue that requires further discussion. Urbanization is a provincial government issue while other items fall under the hands of Federal and Provincial government regulations. There is an increased need to involve all three NAFTA partners including Canada, the USA and Mexico. What are your sentiments?
- **SLOAN:** All levels of government need to be taken into account to determine who should deal with which issues depending on whether they are social, political or economic
 - If a city is more powerful than a state, it becomes difficult to reconcile
- The players in the international arena are expanding and evolving. Terrorist groups, Mafias, NGOs are a few to mention-how do we obtain compliance of additional players with the rules of the game?
- **SLOAN:** Some groups (NGOS) may agree or disagree on legal boundaries because they too rely on security as they have influence
 - Other groups may not negotiate but will act to exploit the scene
 - There is need to rid the system of these groups to ensure effective security but doing so remains a challenging problem

Forenoon Session, Panel # 1: “Borders-Their Definition, Issues, and New Security Measures”

(McCain Building)

*Chair-***Cdr. Dan Langlais**, Canadian Forces College, Toronto, ON

The problem of information gathering is due to advancements in technology

- Border people want to know everything
- In Canada-biometric data of all entrants by 2013 is underway, however, data fusion and threat analysis will be problematic over the longer-term
- Overall, security in the post 9/11 era-we see greater desire to progressively improve security, however, with the Global Financial Crisis we see a shift backwards toward protectionism
- There has been a rise of the maritime system-to be a successful economy, one must master the sea

Speaker # 1 - **Cmdre. Cal Mofford**, Deputy Director J5 Policy, Plans and Strategy, NORAD Headquarters, Colorado Springs, CO

- Discusses borders and the impact of the border framework on international trade-explore beyond NAFA
- Borders impact security -physical, lines, cultural, commercial barriers
- Commercial vs. government desire
- Security within a trade paradigm (NAFTA)-trade amongst the three countries because of the use of internal waterways
- Modern trade is global-90% of international trade is by sea
- America is preoccupied with trade and security-Canada is a transshipment corridor into the USA
- Current Global Business Model-“just-in-time delivery”-barriers include-time delays, tracking of vessels with goods in supply chains
- Provision on container security initiatives-24 hour notification before arriving at a Port and 96 hour depart rules for both Canada and US vessels
- Borders have been pushed out from territorial sea limits
- Specific challenges to the Great Lakes and St. Lawrence Seaway-role of military in these waters is much constrained
- Vessels coming to and from Ports-AIS tracking system along the coast
 - commercial vendors make available AIS information if people want to pay for it
- IMO long range identification initiative and tracking mechanism
- Bilateral Agreements-to help establish cooperation
- Review open source information-vessel, people, cargo, infrastructure, exchange of information
- Regional Arrangements-Maritime Security and Information System
- Creation of Air Maritime Centre, Commission of Port Security Operation Centre

Trade: sea-based trade is essential to the global economy

- North American borders are vast and porous -cooperation is absolutely essential
- Military security and intelligence gathering is needed through bilateral or regional agreements to ensure future maritime security

Speaker # 2 - **Dr. Alfonso Motto Allen**, Embassy of Mexico in Guatemala
“Regional Borders and Effective Cooperation in North America”

- Examines effective international cooperation to achieve maritime security
- NAFTA does not adequately deal with security-regional borders need to be recognizable
 - a) Respect for state sovereignty-effective regional arrangements should not downsize the borders critical public policy function
 - Integration does not mean undermining sovereignty
 - b) Shared or co-responsibility-threats have a perverse, blurred cause-and-effect combination
 - Merida Initiative-U.S. shares responsibility with Mexico to deal with drug trafficking
 - c) Proportionality of efforts-major problem is the demand for drugs in the USA-illegal immigration follows a similar path
 - Cycle can be broken by the acceptance of the principle of proportional efforts
 - A target topic for further research

Common Security Threats-Terrorism

Terrorism: is the central topic of US security agenda

Immigration: 450,000 illegal border crossings per year and over 250,000 illegal crossings per year at the “other border” (Mexico, Guatemala-Belize border)

Drug Trafficking: Mexico-a major drug transit for cocaine and source country for heroin, methamphetamines and marijuana

Speaker # 3 - **Mr. Jeff Robertson**, Communications Director, Parsons Infrastructure & Technology Group Inc., Energy Systems and Security Division, Washington, D.C.

presentation read by *Cdr./Prof. Kenneth Hansen* in the absence of Mr. Robertson

- Border Security Strategy of the USA is layered and risk-based (after 9/11)
- Multi-modal/inter-modal initiatives for cargo
- Cargo regularly assessed and significant Cargo and Port Authority Programs are allocating resources for enhanced security
- Container security is becoming an increasing concern as millions of containers arrive by sea, however, just as many if not more truck shipments to the USA
- *US Safe Port Act* (10 + 2 Requirement) better information means better risk management
- *Secure Freight Initiative* (SFI) -container image scanning
- Customs Trade Partnership against Terrorism (CTPAT)-to detect whether a container has been tampered
- Small vessels-layered security system
- Passengers-*biometric scanning*-to identify the identity of passengers travelling to and from USA

The Future for Border Maritime Challenges

- Will be a product of the present and domestic issues - will prevail with economic being the most prominent

- Policy drives strategy and the greatest threat to world instability is an economic recession
- The need for cooperation and building partnerships is paramount as world trade is the cornerstone of a strong economy

Questions and Answers:

- When we hear of maritime systems, should NORAD be responsible for providing security warnings?
 - **MOFFORD:** In the air domain it is leveraging off other areas and authority. When we look at maritime issues in 2006, there was a re-write of bi-national vs. bilateral. However, there is nothing that would preclude Canada and the USA sharing maritime awareness. Maritime warning is important for both nations.
- Mexican-U.S. migration and trafficking is becoming more important than terrorism with respect to Mexico. What are your comments on illegal drug trafficking?
 - **MOTTA ALLEN:** Drug trafficking has increased but the cost of flows has also increased. Canada and Mexico have to comply with certain security rules imposed by the USA. We need to remember one of the main problems is these drugs are highly addictive and that there is a direct link between illegal drugs and violence. It is impossible for the Mexican government to decriminalize or legalize these drugs for profit purposes.
- Can you expand on the maritime dimension and issues associated with the Guatemala-Belize border and drug trafficking?
 - **MOTTA ALLEN:** If we have regional arrangements we can increase the possibility for cooperation. Guatemala only has three patrol ships on the East Coast. Compared to the size of the problem, cocaine is going through all areas.
- There has been a great effort between Windsor and Detroit through the Pilot Project. Because of the Vancouver 2010 Olympics are we using initial Pilots as models for security or are we looking to develop something more permanent?
 - **MOFFORD:** It is going forward as a treaty between Canada and the USA- as the 'ship rider' program
- What is the potential for perimeter defence either bilateral or trilateral? What is the right approach on borders and what about a trilateral security partnership?
 - **MOFFORD:** It is more a question of whether it is a perimeter or cooperative partnership. Mofford suggests a cooperative arrangement is the best step forward and that we need to find a mechanism to allow for the movement of goods and people.
 - **MOTTA ALLEN:** Bilateral action between Mexico and Guatemala and Mexico and Belize is needed but would become complicated with regional arrangements. There is however, a need to develop an approach in the South.

Afternoon Session, Panel #2: “Crime-The Maritime Aspects of Illegal Activities” (McCain Building)

Chair- **Dr. Philippe Lagassé**, Graduate School of Public and International Affairs, University of Ottawa

- Opening Comments and Introduction of Panelists

Speaker #1 - **Capt(N) (ret.) Peter Avis**, Landsdowne Technologies Consultant, CFPS Research Fellow, Ottawa, ON

“Gateway and Corridor Systems: A Strategic Imperative”

- Canadian gateway corridor weaves the social, political, cultural and economic into one national fabric
- It helps to expand and establish international trade
- The gateway is the new landscape or prism for examining cargo and personnel

The Threat -All Hazard

- Terrorism-sensation through mass causality and/or economic disruption
- Medium to long-term- transportation or cybernetic focus
- All Hazard-organized crime is most prevalent, exists across Canada-Links to terrorism
- Mumbai-Maritime Security event-change from suicide tactic to command style attack
- Governments need more integration, including Canada

Emergence of Gateway and Corridor Systems

- Economic benefit from global economic growth
- Need to create competitive and secure (reliable) transportation for trade flows
- Link policy with physical infrastructure that establish relationships and partnerships for enhanced security

a) *Ontario-Quebec Continental Gateway & Corridor System*-fully developed, multimodal international trade, transport system

- Windsor-Detroit trade corridor

b) *Asia-Pacific Gateway & Corridor System*- multimodal from British Columbia to lower mainland and Prince Rupert Ports

c) *Atlantic Gateway & Corridor System*-more complex due to multiple provinces

- 2007 Memorandum of Understanding for Atlantic Gateway & Corridor - increasing need of deep-water ports

Conclusion: Gateway and corridor partnerships of trade, transport and security are needed in the future

- Improving the Canadian National Security Strategy is important in ensuring an adequate and effective gateway and corridor perspective

Speaker #2 - **Mr. Ricardo Campos**, Centre for Investigation and National Security (CISEN), Embassy of Mexico, Ottawa, ON

“Mexico-Canada Security Relations: The Security and Prosperity Partnership (SPP) & The Mexico-Canada Security Working Group (GTS)”

- On March 23, 2005, PM Paul Martin, President Vicente Fox and President George W. Bush in Waco, TX, launched the SPP
- Coordinating parties per country included-the Privy Council Office (Canada), White House National Security Council (USA), and Mexico's Presidency (Mexico)
- SPP is a security agenda which sought to collect previous bilateral security arrangements

SPP-Security Work Plan (3 Pillars)

1. Secure North America from External Threats
2. Prevent and Respond to Threats within North America
3. Further Streamline and Secure Movement of Low-Risk Traffic across its Borders
 - the goal was to integrate bilateral relations into a trilateral perspective

Maritime Security Under SPP

- To Develop and implement a strategy to enhance North American Maritime Transportation and Port Security
- Enhance security of North American Ports and Vessels through conduct of equivalent threat, vulnerability and risk assessments and mutually recognized audit programs
 - Develop and implement a plan to make compatible regulatory and operational maritime security regimes

Mexico-Canada Security Working Group: to promote strategic security cooperation (4 Pillars)

1. Immigration
2. Emergency Management
3. Marine Security
4. Law Enforcement Cooperation

New Proposals to be included in Mexico-Canada Working Group (GTS)

- Financial transactions, professionalism, best practices on implementation, communication between Mexico's civil protection and Canada's Emergency Management, protect network of officers and judges, and anti-corruption initiatives

*Speaker # 3 - **Mr. Dakota Wood**, Senior Fellow, Center for Strategic and Budgetary Assessments, Washington, D.C.*

"Violent Non-State Actors and Regional Security Challenges"

1. Violent Non-State Actors: can effectively challenge a state when the state lacks legitimacy and authority, capacity to provide public/collective goods, sound economic management, and a sense of collective interest and inclusiveness
 - e.g.) warlords, militias, paramilitary forces, insurgencies, terrorist organizations, criminal organizations/youth groups
2. Proxies in State Competition: leveraging of proxy forces—Hezbollah vs. Israel, Hamas vs. Israel, Criminal Actors/Separatists vs. Georgia, Sicilian Mafia vs. Germany
3. Hybrid Battlefields-G-RAMM & Advanced Technologies: advancements in technology
 - Canadian Border Services Agency (CBSA)- Proliferation of Precision: G-RAMM
 - Guided Rocket/Artillery/Mortar/Missile (G-RAMM)

Some Lessons for Recent Urban Conflicts-small arms play a disproportionately significant role

- Mortars are highly regarded but may be less effective than anticipated and armored vehicles require more protection
- Bunker-busting weapons are invaluable, RPG's are omnipresent and very effective weapons, and machine guns are more valuable than assault rifles (force equalizer)

The North American Context

Corridors: issue with cartel territories and drug trafficking routes (regional trafficking networks)

- Issues for Consideration-hybrid threats with regional impact, comprehensive regional and trans-jurisdictional approaches are required
- Aggressive sustained efforts are essential for success

Areas for Collaboration: sustained dialogue on shared interests and dangers

- Maritime, air, border, interior patrolling, surveillance, and interdiction, sharing information and intelligence

Questions & Answers

- Discussion capability and capacity are married in relation to defence. Terrorists are nothing more than glorified criminals. Are terrorists a defence or security (law enforcement) problem?
 - **WOOD:** This is a grey area. What is a legal issue to hold, prosecute, find evidence is necessary but how do you incarcerate them? Highlighting the growing threats, law enforcement is not really up to the challenge. Woods notes that he does not have an answer but that a legal framework is needed.
- Where does maritime security start and stop? How do you view gates and corridors?
 - **AVIS:** National Security starts where trade flows start. People watch what is coming towards Canada including Transport Canada and IMSWG (Interdepartmental Marine Security Working Group) to examine, expand and recover to ensure security
- Violent Non-State Actors act like firms but one of the problems is monopolies. They also challenge the law and there can be a fragmentation of strong monopolies. How do we cope with these threats?
 - **WOOD:** We should not move to legalize products in a monopoly (e.g. marijuana). State provided narcotics serve the market demand and exclude violence. Software operating vs. drugs have a cost for the imposed societies and narcotics have an impact on the normal functions of society. Wood wants to see a societal push back on drugs.
 - Government decided certain types of drugs should not be on the markets at all.
- The Mexico-Canada Security Working Group (GTS) is dealing with corruption. Could you please elaborate on this working group and what they are doing about criminal gangs?

- **CAMPOS:** Ministry of Public Function in Mexico, Federal Police (Mexico) and RCMP (Canada) all closely working and collaborating together.
 - New Mexico working group on training programs with RCMP in Ottawa to help combat corruption
- Bureaucracy seems to inhibit development/security. How do you deal with individuals vs. community freedoms/rights?
- **WOOD:** Bureaucracy does not always prevent issues from moving forward but perhaps we need to look at this on a spectrum e.g.) emergency situation-----normal situations to determine the severity of importance.
- This is a subjective topic in that when does something move from emergency to normal conditions?
- **CAMPOS:** There is a great lack of clarity and scope of mandates between bureaucratic agencies and actors which prevents agencies from proceeding and acting accordingly. Relations are built on trust and Canada-Mexico relations need to be based on trust-otherwise there will be no information sharing.

Afternoon, Panel # 3: “Transportation-The Dynamic Tension between Security & Efficiency”

(McCain Building)

*Chair-***Dr. Brian Bow**, CFPS Faculty Fellow, Dalhousie University

- There exists a tension between security and efficiency, however, it does not always work that way
- The ideal is to increase both rather than look at a potential trade off but you also could have less of both—these are the two main issues for discussion
- Canada, USA and Mexico have different priorities and even if people agree at the ‘top’ what should be done, the problem of government machinery is evident to get the problems rectified

Speaker # 1 - **Mr. Gord Helm**, Director of Security, Port of Halifax, Nova Scotia, Canada

- We still look at oceans as vastly big navel and strategic threats
- Container shipping and security related issues are impacting trade
- Every time you touch a container, the costs increase and any time you move the container it impacts the costs for shipping and delivery
- One potential threat is whether containers are being used as a vessel for terrorists
- Radiation Detection Device (RDD)-image scanning to track potential threats
- One policy problem is that when policies are decided at the strategic level, they do not always operationalize to what is needed on the ground--Here exists a tension between theory and practice
- We need to use the technologies we have to deal with potential nuclear or terrorist threats but there always is the question of what you are moving, where you are moving it to and how much it costs

- We need to continue to work together to support industry's model of collective and collaborative partnership
- What is needed is a 'layered-model'
- Security is something necessary but is hampered by bureaucratic issues
 - recognition that things are changing, out-of-date problems, process is out of date but we have to speed it up as technologies change the way we work
 - Process of policy and legislative development need to be compatible

Speaker # 2 - **Mr. David Mugridge**, Associate Doctoral Fellow, CFPS, Halifax, Nova Scotia

"Globalization and the New Challenges for Maritime Security"

- The nature of new security challenges is changing-need to examine how these new security challenges should actually drive the force for structural changes to meet demands
- NAFTA models-with little similarities of nations we can act collaboratively and collectively
- Operationally-How should we establish institutional overlap between all government arms tasked to contribute to maritime security?
- Strategically-How should we deal with the challenges of terrorism?

Today's Strategic Climate

- Increasing religious, ethnic, social and cultural unrest
- Unequal wealth distribution, increasing competition of natural resources and inequitable social policies

New Reality: There is a need to see the threat beyond the traditional military view

- Globalization sees maritime security deteriorate with non-state actors changing the environment
- Technology is also impacting security and defence
- Arguably the most important function for today's maritime security-constabulary function
- Conventional naval threats are low and have lead in time to expand
- Military option is only party of the solution

Question: *How should 'new security challenges' drive change within the maritime security force structure?*

- Asymmetric threat and government involvement-regulation

Answer: A '*Comprehensive Approach*' is needed-NAFTA needs to expand to help build security functions

- Strategic Comprehensive Approach-components of maritime security strategy-not just focusing on military affairs

Speaker # 3 - **Mr. Daniel Coulter**, Walter Bedell Smith Chair of Intelligence, U.S. Army War College, Carlisle, PA, USA

"Transportation: The Unnecessary Tension between Security & Efficiency"

- Intelligence as the fulcrum between security and efficiency

- We used to have information sharing, now we have more bureaucracy but we want more intelligence
- We have lost the ability to do systematic rigorous analysis

Maritime Threats-anything can be a threat or a potential threat—there is an increasing need to prioritize

- Most problematic threat is explosive-laden boats because you can get more precise targeting with boats than a container
- Issue of bureaucracy and competing policy priorities-maritime security is at bottom of transportation threat to rail and road
- Al-Qaeda is not interested in the Port of Halifax, rather a precise area of a Port-notion of the highest probability of success with simplest means possible
- Security must be planned in consultation with players in the supply chain

Questions & Answers:

- Intelligence is not 100% certain. Are movements in place to deal with where we are going?
 - **COULTER:** We have defaulted to the lowest common denominator. There is no continuous training like in the military and this will help to determine where we go and how we get there to enhance intelligence in the future.
- How does constabulary attack fit into the paradigm?
 - **MUGRIDGE:** There are debates about the size of the military. Maritime security is not very good in the United Kingdom and we need to learn lessons from Afghanistan. Technology does not provide all the answers and we need to look elsewhere for possible alternatives and solutions.
- Given the current day picture, why has there not been more successful attacks by Al-Qaeda on North America in the post 9/11 era?
 - **HELM:** There have been plenty of attacks worldwide in the post 9/11 era. However, the system has not been used. Helm notes his job function is to make the system safe to move trade and ensure safety and security at the Port of Halifax. Monitoring and evaluation measures are continuously being examined to deal with potential terrorist threats.

❖ **Day 2: Friday June 12, 2009**

Forenoon-Panel # 4: “Security Forces - Institutional Miss-Alignment and Cooperative Arrangements”

(McCain Building)

Chair - **Dr. Alfonso Motta Allen**, Embassy of Mexico in Guatemala

- The world has become more internally connected (national, international, regional and global levels)
- There are not extensive roles for armed forces to deal effectively with security issues as terrorism is a continuous concern
- We need to develop the most effective while least compromising way to deal with security issues

Speaker #1 - **Dr. Patrick Lennox**, Centre for Military & Strategic Studies, University of Calgary

"Maritime Force Cooperation in a Comparative Perspective: Implications for North America"

- There is a need to define the best practices for achieving cooperation--Joint Inter-Agency International Task Force to confront the North American domain
- Main maritime threat to North America has been effective and deterred

Two Comparative Cases for Multilateral Cooperation

1. Maritime Force Cooperation off the Horn of Africa

- Command structures are numerous -piracy increased
- Main threat: hijackings for ransom
- Structure of command--uni-multipolar: open, flexible, inclusive, cooperative
- Will see laws from regional arrangements to help deal with security threats
- International legal arrangements can act as a force multiplier

2. Maritime Force Cooperation in the Caribbean Sea

- Main threat: narcotic trafficking, flows of illicit narcotics out of the region
- Structure of command: hegemonic (USA in region), open, flexible, unilateral-bilateral, (exclusionary)
- Legal Assets: bilateral and regional maritime counterdrug and ship rider agreements
- Regional partnerships and stability
- Maritime Force Cooperation in North America
- Major threats further include-seaborne terrorist strikes of the homeland

Perfect Prevention & Deterrence

- Functional regional cooperative partnerships
- In comparison with Africa and Caribbean,-instead of joint inter-agency to build partnerships-have unilateral agreements (stove pipe)
- Exclusionary is not cooperative
- NORAD having difficulty achieving maritime agreements
- North America is behind the times but has developed a Trilateral Security and Prosperity Partnership in 2005 which went beyond force multipliers in an attempt to enhance information sharing and fusion. Greater partnerships are required.

Speaker # 2 - **Capt. (N) Gilles Couturier**, Commander, Maritime Operations Group Four, Halifax

"Canadian Navy: Vancouver 2010 Olympics"

- Maritime security is associated with the Olympics in developing cooperative arrangements
- Security of the games is however the responsibility of the RCMP-with military support
- Joint Task Force -responsible for regions of Canada

- Maritime Security Operation Centres (MSOC)
 - Centre of excellence and focal point for the generation and dissemination of accurate, coherent, relevant and timely maritime intelligence

Vancouver 2010 Background

- 12-28 February 2010 Olympics with 80+ participating countries and 15 sports venues
- RCMP-define what they need in terms of assistance from the military
 - military provide unique capabilities that the RCMP does not possess (e.g. surveillance, force protection of accommodation vessels) through the Joint Task Force Games (JTFG)
- Task Force Vancouver & Task Force Whistler will help to provide security for the games
- JTFG has to cooperate with US Coast Guard since anyone coming into Vancouver has to go through US waters
- There are not only American but Canadian waters to deal with - also border issues
 - A fully established integrated border enforcement team will be in place
- Canada and USA are working together to practice different security scenarios and the exchange of information
 - working collectively and collaboratively in exchanging information can be challenging but all actors are attempting to overcome this challenge
- Greatest challenge is generating detailed plans for all agents involved and many talks are underway to ensure security

*Speaker # 3 - **RAdm. Peter V. Neffenger**, USCG, Commander 9th District, Cleveland, OH, USA*

"Operations in the Great Lakes Region: Canada and U.S. Agencies Working Together"

Institutional Challenges in the Great Lakes Region

1. Unique Nature

2. Challenge to Maritime Security

3. Importance of International and Economic Efforts

- Great Lakes are comprised of shared waters by both countries
- No international water -just state and provincial
- This is a closed system except the St. Lawrence Seaway and is the economic centre of gravity for both Canada and the USA
- ¼ of the populations live near the Great Lakes and consists of 1/6 of total trade between the countries

Management of the System is a Challenge

- 270 treaties have accrued and both countries share commonalities
- There is a common need to protect the health of this region and a cooperative history is important
- It is difficult because ships essentially erase borders in the Great Lakes Region
- Joint Initial Verification Team-US has a requirement of 96 hour advance for arrival of vessels to its coasts

- There is an increased need to enhance borders –provincial, federal and First Nations are currently involved with the US Coast Guard
- Binational Ship Agreement –cooperation agreement signed 26 May 2009
- Economic Security-cooperative efforts lead to border security and in this case maritime security
 - Attempt to work around challenges with cooperative agreements

Questions and Answers: (Question period was reduced due to longer presentations by panelists)

- One of the major impediments is determining whether maritime security is a law enforcement or defence issue. Which one is more realistic?
 - **LENNOX:** The key is not to ignore the boundary but to try to work around it. Looking at institutional flexibility of the Coast Guard and Navy and how they work together may help to better define the responsibilities. It is important not to get hung up on boundaries. The non-traditional threats we are confronting demonstrates a paradigm shift. The definition of the Coast Guards in Canada and the USA are different. Increasing institutional flexibility may help to cope with these challenges
 - **NEFFEENGER:** Coast Guards in the USA act as a police force but work with different agencies in both Canada and the USA. The complex issue remains with respect to information sharing.
- The number of participants in the games was discussed but not the number of people moving to and from different game venues. Is there a sea bus to deal with highway traffic congestion? Can you comment on the sheer numbers of people attending the games, both participants and observers?
 - **COUTURIER:** The military will be onsite to ensure safety and security. The RCMP is responsible for highway issues. There is no set plan as of yet to move people. The spectator issue remains a challenge and discussions are underway to deal with this concern. The military is planning for potential situations and will have something ready in case someone needs to be evacuated.
- Can you provide any anecdotes on what would be the ideal requirements for information sharing?
 - **NEFFEENGER:** This is a significant issue that has been a challenge for many years. It is not just a matter of information sharing but also institutional sharing. Since 2001, there has been a significant improvement in cooperation in domestic law agency facilities. Following 9/11 the US Coast Guard became a full member of the intelligence community which now allows them to move information internally. This has not removed all barriers but is a step forward.

Forenoon-Panel # 5: “Technology - New Innovations for Interoperability Solutions” (McCain Building)

*Chair - **Dr. Joseph DiRenzo III**, Branch Chief, Operations Planning (Atlantic Region), United States Coast Guard, Portsmouth, VA, USA*

- This panel examines new innovations of technology for interoperability solutions
- The criticality of a secure maritime transport system is vital with increasing container traffic at Ports and advancing technologies
- Developing a tracking system of maritime shipping containers is increasingly important. Mechanisms are underway including, x-ray scanning, biometrics, radio frequency identification (RPID) and underwater surveillance
- Additionally, exploring non-intrusive methods to examine vessels requires further research

*Speaker # 1 - **Cdr. (ret.) Robert Bush**, OSI Geospatial Inc., Kanata, ON, Canada
 “Information Solutions for Arctic Sovereignty: A Truly Canadian Solution”*

- The aim of this presentation is to address the political will, the economic environment and economic interest to develop a strong Canadian presence in the Arctic
- There is a clear need to protect Canadian interests and security along with protecting the Northwest passage
- The goal from the Canadian perspective is to enable an effective monitoring and control system in order to respond to events through situational awareness

Situational Awareness-collection, fusion, portion, decimation

Industry Team

- The System: people, training, operational procedures, hardware and software
- Information Integration: enable raw data collection, modeling the ‘what ifs’, intergovernmental information sharing
- Technology: must be multi-purpose, primarily a maritime solution, cost-effective, reliable
- Integration Challenges: owners of information want to own and control it, security, legal/privacy challenges, avoid ITAR

Arctic Solutions

- Service oriented architecture (SOA)
- System of systems
- Allows any authorized organization to connect
- Touchless technologies
 - use of legal systems
- These are flexible security models and a mix and match of technology to help deal with geographic or technological disparities
- Use of commercial infrastructure

Primary Technological Challenges

1. Energy
2. Hardware
3. Communications
4. Ruggedizing for the Arctic

Service Components

- Data collection, modeling, simulation, presentation, information storage and retrieval, data fusion/mining, comparative analysis

Conclusion: if it works in the Arctic, it will work anywhere

- The Arctic is a maritime solution and very relevant to security
- Information technology is not a problem, rather organizational will continues to be a challenge since not all players are working collectively and collaboratively

*Speaker # 2 - **Mr. Richard Kolacz**, COM DEV Canada, Cambridge, Ontario
 “Space: An Effective Medium to Support North American Trade, Environment & Security”*

- Space is an effective medium to support maritime activities
- Key elements-timely collection and distribution of data, extract useful information, sharing of data and relevant information to all partners and a collaborative regulatory framework and policy to make it work

How can space contribute to maritime security?

- Space supports security in 2-ways
 - a) communications with ships at sea
 - b) radar images can support vessel detection as well as oil

Microspace - a new way of thinking of space

- Spacecraft that is designed, built and launched in 24 months
- Cost is \$10-\$20 million Canadian dollars
- 5-7 year lifeline
- Well suited range of applications
- Multispectral
- Optical
- Increases communications
- COM DEV has started a new company-‘Exact Earth’ to provide Global AIS data which was launched in Oslo in June 2009
- The ability to identify and track all Class A transponder AIS fitted vessels on a global scale
- System will be licensed to ensure control of data

North American Maritime Community Potential

- Search and rescue
- Environmental investigation and monitoring
- Extended range vessel traffic monitoring
- Coastal security and surveillance

What is needed to take full advantage of technology?

- Policy and regulatory framework
- A framework that allows stakeholders to share information

Potential Areas of Collaboration

- Establish National Data Centre
- Ground stations to collect data from space
- Overlapping land-based sensors and navigation systems

Conclusion: At present there has been more communication with European counterparts as it has been more difficult to speak to individuals within North America about this initiative

- Technological advances are increasing and space provides a strong security alternative
- Solutions require technical as well as regulatory and workable policy solutions

- Effective working groups incorporating regulatory policy, legal and technical elements are required to establish solutions

Speaker # 3 - **Dr. Jerry Lamb**, USN Technical Director, Naval Submarine Medical Research Laboratory, Groton, CT

“Protecting High Value Units from Underwater Asymmetric Threats (HVUs)”

- Concerns-nuclear powered submarines, nuclear powered air craft carriers, military sealift command, and traffic and port operations
- With no underwater protection the result is ‘vulnerability’ and also ‘in-transit’ vulnerability
- Enhanced security is needed –chokepoints, waterways, points (shallow waters)
- The goal is that technology can assist in developing more advanced security systems to minimize vulnerabilities
- Joint Maritime Escort Test and Evaluation (J-METE)-informs the personnel what to do
- Integrated Anti-Swimmer System (IAS)-detect, warn and deter
- Underwater Imaging System-provides very high resolution photos
- Underwater Loudhailer-intelligible up to 500 yards

Questions and Answers:

- Is there anything to see through exhaust fumes?
 - **KOLACZ:** The system is designed for civil application. If the AIS is turned off it can be detected and other sensors can be placed on vessels. Sensors can be applied that the cloud or fumes cannot impede.
- How did you deal with the Government of Canada in terms of the Microspace Initiative?
 - **KOLACZ:** Discussions occurred with the Department of National Defence Canada on space, Maritime, External Affairs and Fisheries and Transport Canada. There does however, need to be a more comprehensive view on what has and will be done,
- Data validation shows AIS location. Can you provide more detail and explain what value-added significance your system offers?
 - **KOLACZ:** Validation can be achieved by AIS in three ways. 1) Determine if the AIS is turned off, 2) uncharacteristic vessel movement, and 3) determine if our ships are where they say they are.
 - Mr. Kolacz did not comment on agencies but notes that the technology exists
- Have you ran into issues of shutter control or independent launch capability and how do you deal with sensitivity? Are you connected with Northern Watch?
 - **KOLACZ:** We are under the Remote Sensing Act and engaged to work under a framework policy. The Microspace program is fully compliant with the Remote Sensing Act of Canada. Additionally, we are

connected to DRDC Ottawa and DRDC Atlantic. We are also connected with Northern Watch.

- With respect to Canadian presence in the Arctic, are the barriers bureaucratic or legal in terms of information sharing?
 - **BUSH:** Damages are responsible by the person for the release of classified information. E.g. RCMP-Responsible for the structure and storage of information and they do not want information leaked out-also an issue of the Privacy Act. The Military do not differentiate designated or classified information but it is really more an issue of designated information. The information is not as important as the source.
- Can you elaborate on illegal and environmental systems on sonar systems?
 - **LAMB:** We have provided testimony to the Courts that we have not harmed mammals or environmental life. Legally, Lamb could not comment more on this issue but noted that sonars are about 50 Hz and underwater imaging cannot be turned on because it has not yet been environmentally assessed.
- Why have talks been easier with European counterparts with respect to the Microspace initiative? Why does Canada do a poor job in dealing with these issues from COM DEV?
 - **KOLACZ:** This is a jurisdictional issue. In Europe there are many jurisdictions and they have to deal with many issues within their jurisdictional lines and have an already established large and comprehensive framework. It is not that Canada is unwilling to engage but an issue of “the right place at the right time”. The Canadian government has been willing to listen to new ideas but issues have arisen with respect to contracts that delay the process.

Afternoon, Panel #6: “Climate Change-Its Effect on Vital Maritime Activities” (McCain Building)

Chair- **Dr. Shelly Whitman**, Deputy Director, CFPS, Dalhousie University

- Issues on climate change are broader workings of society and is one of the ‘big’ topics across many disciplines
- We need to make real decisions quickly which is illustrated by the topics addressed by the panelists

Speaker # 1 - **Dr. Rob Huebert**, Associate Director, Centre for Military & Strategic Studies, Department of Political Science, University of Calgary

“Canada, U.S. & Mexico: Climate Change and Maritime Security: Into the Eye of the Storm”

- Climate change and the impact it has on the Arctic are recurring themes in today’s environment

Themes:

- Climate change is transforming the world
 - The world is a state of massive transformation

- *Physical change*-rising sea levels, fundamental changes in the ecosystem, potential resource wars
- *Economic change*-search for new energy sources will transform economic system
- Geopolitical transformation/Globalization-battle over resources
- Cooperation or Conflict? Not just a maritime security issue but security overall

What are the Confounding Elements?

- Navy is only part of the issue-political attention will be elsewhere
- Do not understand the time frame or variable interactions
- State of denial-too many policy makers

Identified Issues: warming temperatures, melting Polar Region, rising sea levels, changing weather patterns (storms, drought), acidification of oceans-marine food change

Scenarios

- Scenario 1: No Substantial Change “Sunspots”
 - Business as usual, no evidence that climate change is occurring
- Scenario 2: Gradual Change “Life Goes On”
 - Can adapt through technological development
 - Change will be long-term and incremental
 - Navies and Maritime Force will have time to adjust
 - Issues will be focused on enforcement and roles (dealing with increased navigation and resource development in Arctic waters)
- Scenario 3: Abrupt, Rapid, Extreme, Overwhelming Change “Resource Wars”
 - Rapid and total break up of oceans
 - Storm surges and crisis along coasts-crisis response
 - Collapse of fisheries/living resources of oceans-increased enforcement and friction
 - intensification of droughts-demands of remaining fresh waters
- Increasing maritime irritants for US, Canada and Mexico-e.g. fish, freshwater
- Increased call for Emergency Response-migration movement
- Increased fusion of maritime roles

Arctic Offshore Patrol Vessel

- To be capable of operations in Canada’s three waters
- First-Year ice capable in the Arctic
- Coast Guard and Navy Cooperation-required for development

Conclusions: We are dealing with uncertainty as the climate is transformational at the global international level. The question remains if the new Navies can respond in time.

*Speaker # 2 - **Ms. Jennifer Graham**, Costal Coordinator, Ecology Action Centre, Halifax, Nova Scotia*

- Ecology Action Centre focuses on coastal, marine, energy, food, transportation and building the environment
- Defining the Coast-interface between land and sea, high mixing, high productivity, high biodiversity, high sensitivity

Nova Scotia is a coastal province

- Importance of the coast-7,600 km of coastline including 3,800 islands, 70% of the Nova Scotian population lives along the coast, 14% of jobs are coastal related and tourism puts a high economic value on the coastal areas
- Coastal ecosystems and habitat are beautiful for recreation and quality of life
 - Nova Scotia has dynamic coasts
- Coastal areas are constantly changing and a creeping concern is the construction of homes and buildings on the coastal areas –“The Coastal Squeeze” which prevents the coast from changing naturally

Nova Scotia and Climate Change

- *Climate Change Impacts*: storm surges and floods, accelerated erosion, change in precipitation, change in ocean circulation, pests and diseases, change in migratory routes
- *Financial and Societal Implications*: increased liability and exposure reliability (buyers and sellers)
- *Rising Costs of Natural Disasters*-global economic losses increase, flood risks along Atlantic coast is expected to rise by 80% by 2030 with one foot rise in sea levels
- Cities are particularly vulnerable because 60% of Canada live in urban areas and Canada’s seven largest cities generate 45% of the GDP
- There is a need to strengthen coastal systems as part of a ‘Risk Reduction Strategy’
 - Coastal policies and land use regulations
 - Coastal land acquisitions
- More research and education is needed to slow climate change and its impacts on the coastal areas

*Speaker # 3 - Dr. Stanley B. Weeks, The Spectrum Group, Washington, D.C.
“Climate Change: Its Effects on Vital Maritime Activities”*

- The Earth’s climate is changing-no matter what happens a certain amount of change is built in for the next thirty years
- Impacts of change will be uneven or unequally distributed

What Determines Future Climate Change?

- This will depend on the magnitude of local/regional climate change, vulnerability and adaptive capacity of affected systems
- Some regions will be particularly hard-hit (Arctic, Africa, Small Islands and Asia mega-deltas)

Key Studies:

1. *Centre for Naval Analyses (CNA-2007 Conclusions)*
 - It is a serious threat and could be a threat multiplier
 - Climate change, global security and energy security interdependences are a related set of global challenges
 - Climate Change is a destabilizing factor
2. *CSIS/CNAS “The Age of Consequence”*
 - North and South tensions increasing and growth of public health nuclear activity increasing

- Resource conflicts are becoming more prominent and the challenges of global governance will multiply
- Balance of Power will shift in unpredictable ways and China's role will become critical
- The USA must come to terms with climate change

3. *2008 National Intelligence Assessment*

- Most significant impact on the USA as climate change was not seen as a triggering state failure but pushing already defined problems over the edge
- Migration is likely to increase from border rich countries and no country is immune to this phenomenon

4. *Center New American Security (CNAS) Working Paper for CNO on Implications for the US Navy*

- Political Environment-Navy is subject to improve energy efficiency to reduce emissions and promote alternative fuel, stricter excellence requirements
- Recommendations-be proactive on energy security, collaborate with other services on research and development strategies to cut energy use and emissions, develop ways to calculate total Navy emission as baseline and cut operational energy use
- Surface and Undersea Environment Recommendations-adjust Navy technical support capacities in oceanography and meteorology by enhancing cooperation with other services
- Develop a "lessons learned" for best practices in coping with climate change

The Potential for New State Conflicts-The ARCTIC

- Recommendations: a joint Canada-US Arctic Patrol Ship, work closely with the USA, need leadership in helping with a global maritime partnership

Questions and Answers: (Time was minimal due to longer presentations by panelists)

- Where do you see us going in terms of the three scenarios?
 - **HUEBERT:** *Scenario 2-* Gradual Change "Life Goes On" is most likely based on the trend lines since 1985.
- Do you think that the issue of climate change necessitates a unified force or a unified approach to cope with this global phenomenon?
 - **HUEBERT:** To take to a new extreme we need to have a joint Coast Guard Navy and a truly instituted government approach. The ideal would be to establish a "whole" Canada Approach.
- Dr. Huebert outlined some of the worst case scenarios on climate change. As the Ecology Actions Centre's Coastal Coordinator, do you believe his observations and trends are accurate with respect to climate change and its impact on coastal areas in the future?
 - **GRAHAM:** Dr. Huebert's analysis was correct in that we need to accept that Scenario 3 - Abrupt, Rapid, Extreme, Overwhelming Change "Resource Wars" is highly probable and something to seriously consider and remain proactive.

Afternoon-Panel #7: Energy Security-Its Implications for Maritime Forces”

(McCain Building)

Chair-Cmdre. (ret.) Eric Lerhe, CFPS Doctoral Fellow, Dalhousie University

- The misconception with energy is that we have an uninterrupted supply
- Energy security is realized when possession and extraction is not threatened by other states and involves safety and a shared need to manage the cost of carbon based energy

Speaker # 1 - Dr. Larry Hughes, Energy Research Group, Dalhousie University

“Energy Security in the Maritime Sector: Prepare for Storm Force 10”

- Most common energy source is oil
 - Oil is the world’s life blood and is 35% of the world’s primary source of energy
 - Usages: heating, cooking, lighting, electrical generation, plastics, transportation
- Oil prices are volatile and the worlds oil demand is primarily in OECD countries
- By 2030, oil consumption is expected to double in OECD Asia

The Four “R’s” of Energy Security

1. **Review**: energy existing supplies and infrastructure, energy requirements for energy services
2. **Reduce**: reduce demand, conservation and efficiency measures
 - reduce energy consumption, limit deployments
 - other approaches to surveillance-hydrophones, satellite, reliance on vessels and navies
3. **Replacement**: replace insecure energy services with secure ones
 - diversify supplies and alternative sources of energy, e.g. coal to liquids, biofuels, coal-water fuel
 - one problem can lead to food vs. fuel
4. **Restrict**: restrict new demand to secure sources

Conclusions: Oil has made modern life possible. Continued reliance on oil threatens modern life and puts pressures on modern Navy. Oil price increases and natural gas shortages have highlighted the importance of energy security. There needs to be a systematic approach to reduce demand

Speaker # 2 - Dr. Isidro Morales Moreno, Department of Social Sciences and Humanities, Tecnológico de Monterrey, Santa Fe Campus

“The Governance of Energy Security in North America: The Mexican Perspective”

1. U.S. Energy Security perspectives vs. Mexico sovereignty on natural resources perspective
2. The Changing Perspective on U.S. Energy Security-will this new paradigm with protection of the environment be workable in practice and how will this impact imports?
 - Oil remains an expensive commodity which tests the entrance of non-conventional fuels

Mexican Perspective

- Energy is not a commodity but a public good to be supplied by a state monopoly

- According to Mexico's Constitution and Regulations the state holds exclusive property rights on hydrocarbons and hydrocarbon exploitation is considered strategic
- The state remains as the exclusive owner of hydrocarbons
- Mexico's reserves, unlike the reserves in Canada, are on the decline and is at the risk of having to import oil
- According to new priorities, imports of gasoline will be curbed by constructing a new refinery

The NAFTA Umbrella-Post NAFTA-Mexican Natural Gas Market Structure

- NAFTA's Chapter 6 set up the possibility of the gradual energy sector in Mexico
- LNG is becoming a commodity and a continental market is anticipated in the years to come

The Limits of Mexico's Recent Energy Reform

- Mexico's most recent energy reform failed to downstream activities to private participation

Mexico's Potential for Participating in a Continental Market of Non-Conventional Fuels

- One issue is the major institutional constraints in Mexico hindering the process of participation

*Speaker # 3 - **Mr. Daniel Coulter**, Walter Bedell Smith Chair of Intelligence, U.S. Army War College, Carlisle, PA*

"Energy Security: Its Implications for Maritime Forces"

- US Navy is larger than 13 Navies combined
- Transport Costs-transport intensity has been drastically reduced
- Tanker Fleet Flag-Tanker Fleet Ownership—at Canadian Navy—not protecting Navy Tankers rather protecting the system

Why is Pump Price Expensive Today?

- In 1980s-there were 320 oil refineries operating in the USA
- Today there are only 150 and the last new refinery was built in 1979, meanwhile gasoline consumption has increased by 39%
- There has been an increase in freight rates

Tanker War (1984-1988)-"Just the Facts, Mam"

- Did not have the impact initially thought
 - With the introduction of the Navy it increases risk and fear that terrorists will attack them
- Closing down Southeast Asia trading block for one year (365 days) would cost \$8 billion US dollars

Focal vs. Chokepoints

- Navy became irrelevant in these cases
- Increases insurance rates and privacy concerns
- U.S. Navy presence lowers perception of risk, thereby exerting downward pressure on insurance rates

Bottom Line: Energy transportation systems are more resilient to local and regional disturbance than we understand.

Questions and Answers:

- Increased national rivalry for energy resources was not addressed. Is there a reason for this?
 - **MORALES MORENO:** We need to have a global vision and technological innovation is critical to help minimize national rivalry for energy resources.
- If we reduce oil demand or find alternatives would it destabilize oil producing nations?
 - **HUGHES:** The likely outcome would be that if we decrease our demand someone else will decrease theirs as well.
- Oil will become increasingly scarce. Is anyone looking at relatively inexpensive nuclear propulsion?
 - **HUGHES:** Some nuclear reactors were proposed in South Africa which was intended for heat and electricity. Bringing in some small submarine reactors to provide heat and electricity into Nova Scotia is a possible idea. The technology exists the concern is with wind energy.

Conference Conclusion and Announcement of 2010 Maritime Security Conference

- The conference closes with the announcement by **Cdr./Prof. Kenneth Hansen** of the *2010 Maritime Security Conference*
 - **Theme:** *"The Canadian Navy Yesterday, Today, and Tomorrow-The Ships, The Sailors, Their Equipment and What They Did"*
 - It will be held on Wednesday 16 June to Friday 18 June 2010 at Pier 21, Halifax, Nova Scotia, Canada
 - Information updates will be posted on the CFPS website.

End of Conference Proceedings