A Primer on the Canadian Pacific Cruise Ship Industry

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Executive Summary

The cruise ship industry along the Canadian Pacific coast has been increasing in size and complexity over the past decade with revenue passengers now exceeding 1 million per year. The industry is based primarily on the Alaskan cruise market that began in the 1950s and became increasingly popular during the 1980s. Vancouver has always been a player in the Alaskan cruise ship industry, in part, due to the US Passenger Services Act that regulates passenger and vessel transportation in US waters.

The 1886 Passenger Services Act stipulates that ships cannot transport passengers between two US ports unless the ship is owned by US citizens, built in US shipyards, and crewed by US citizens. The 1886 Passenger Services Act remains in place today as a business protection measure. It has also been claimed that the Act serves to ensure safety, environmental protection, efficiency, and national security in the maritime industry. The implementation of the US Passenger Services Act for the Alaskan cruise industry requires vessels leaving the US for Alaska to stop in a foreign port with Canadian ports being the most convenient and accessible. Vancouver’s port has thus become a strategic cruise ship destination due to its location relative to the US as well as a convenient homeport for 18 cruise vessels. Currently Port Vancouver witnesses more cruise traffic and is the homeport for more cruise vessels than its rival port of Seattle, Washington.

The following report was prepared as a primer on the scale and the scope of the cruise ship industry on the Canadian Pacific coast. The focus on the cruise ship industry stems from the recognition of the importance of the sector and its potential for growth. In Vancouver, estimates value the total economic contribution to the region of each ship at $1.5 million for every port call. In smaller coastal communities, the cruise ship industry also has the potential of producing economic and/or diversification strategies.

Important to the economic analysis is the ability to balance other environmental and social factors to create positive outcomes. The nature of the coastal zone and the wide variety of legislative bodies, stakeholders, and interests groups involved with varying degrees of influence complicate the environmental and social factors. The current international and Canadian legislation adequately regulates the cruise industry however, questions of effective monitoring and enforcement remain. In addition, despite the seemingly proactive attitudes and actions of the cruise ship associations towards waste stream effects, a degree of environmental concern remains. Social impacts do exist and can be speculated, but require further study to determine where improvements could be implemented. However, with continued cooperation and open dialogue between government, industry, interest groups, and local communities many of the issues concerning the cruise ship industry can be addressed.

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5 Vancouver witnesses 334 sailings in 2000 compared to Seattle’s 80 sailings in 2001.
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Abbreviations

AMCV American Classic Voyages Co.
CLIA Cruise Lines International Association
GAO General Accounting Office
GDP Gross Domestic Product
GVRD Greater Vancouver Regional District
ICCL International Council of Cruise Lines
IMO International Maritime Organization
ISM International Management Code for the Safe Operation of Ships and for Pollution Prevention
LIT Litton Industries’ Ingalls Shipbuilding
MARPOL International Convention for the Prevention of Pollution from Ships
MNC Multi-National Corporation
NGO Non-Governmental Organization
NWCA North West CruiseShip Association
PSC Port State Control
SCTW Standards for Training Certification and Watchkeeping
SMS Safety Management Systems
SOLAS Safety of Life at Sea Convention
TNC Trans-National Corporation
VPA Vancouver Port Authority
WTO World Tourism Organization
1.0 Introduction

The world cruise ship industry is a lucrative and controversial activity that operates along nations’ coasts and in international waters. According to a 2001 World Tourism Organization (WTO) report the number of global cruise passengers over the past decade has increased at almost twice the pace of overall international tourist arrivals. In 1998, there were 223 cruise ships operating around the globe\(^6\) - one half of these sailed in North America and the Caribbean. Since 1990, the number of cruise passengers increased by 7.7 percent, reaching 9.5 million worldwide in 1999. Cruise ship passengers currently represent 1.3 percent of international arrivals and are producing increasing amounts of revenues in all locations.\(^7\)

Over the past two decades the cruise ship industry on Canada’s Pacific (Canadian Pacific) coast has been increasing significantly with respect to the number of vessels and passengers, revenues, influence, and environmental and socio-economic considerations. More than 600,000 people visited Alaska aboard cruise ships in 2001 almost all of whom traveled through British Columbia’s Strait of Georgia. At present, some 26 ships (22 belonging to major cruise lines) regularly visit the Canadian Pacific coast. The economic benefit for Canada’s largest cruise ship destination in Vancouver has been approximated at $1.5 million per every port call. It has therefore become essential in this new millennium to understand the scale and the scope of the Canadian Pacific cruise ship industry and its impacts on our coasts. This report will examine the economic, environmental, and socio-cultural impacts of the Canadian Pacific cruise ship industry in order to identify the existing challenges and highlight areas for future study.

1.1 Global Cruise Ship Industry

The international nature and dynamics of the cruise industry are arguably unparalleled in any other industrial sector. Cruise vessels travel through both domestic and international waters carrying international crews and guests as well as bearing international Flag State status. The growth of the global cruise industry has demonstrated an enormous momentum with the WTO estimating that North American and European demand will surpass 12 million passengers by the end of 2010.

The US-based Cruise Lines International Association (CLIA) predicts that over the next five years the market for the cruise industry in North America could be worth more than US $50 billion. The European market has been experiencing a faster growth in demand than the North America market by successfully decreasing the average age of passengers from seniors to younger couples and increasing the supply of shorter cruises.\(^8\) It was only in the last decade that the Mediterranean and the Asia/South Pacific/Australia cruise ship industry surpassed the Alaskan/Canadian industry in terms of the percentage of world

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\(^6\) United States General Accounting Office. 2000. Marine Pollution: Progress Made to Reduce Marine Pollution by Cruise Ships, but Important Issues Remain” GAO/RCED-00-48
\(^7\) WTO, 2001: http://www.world-tourism.org/newsroom/Bulletin/more_bulletin /B0105010.html
\(^8\) WTO, 2001: http://www.world-tourism.org/newsroom/Bulletin/more_bulletin /B0105010.html
market destinations (Figure 1). Caribbean destinations boast the largest percentage of the world market at 43%.\(^9\)

**Figure 1**

1999 Worldwide Cruise Industry Arrivals (% of industry)

Source: Cruise Industry News 1999 Annual

Shipbuilding for the international cruise industry has traditionally taken place in one of four shipyards in Europe: Chantiers Atlantique, France; Fincantieri, Italy; Kvaerner Masa, Finland; and Meyer Werft; Germany.\(^{10}\) The US and Japan have been attempting to infiltrate this market as each plan on launching two ships by 2004. In the United States, congressional leaders and administration officials joined American Classic Voyages Co. (AMCV) and Litton Industries’ Ingalls Shipbuilding (LIT) division to announce the signing of the Project America contract to build the largest US flagged cruise ships ever built.

Under the terms of the Project America contract, which has a potential value of $1.4 billion for up to three ships, Ingalls will initially build two 1,900-passenger, U.S.-flagged cruise vessels for AMCV, with an option for a third vessel.\(^{11}\) The base price for the first two vessels, which does not include incentive payments available to Ingalls, is $880 million.

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\(^9\) Cruise Industry News 1999 Annual
\(^{11}\) Plans Set For The Largest U.S. Cruise Ships Ever Built
American Classic Voyages Co. And Litton's Ingalls Shipbuilding Announce Signing of Historic Contract http://www.amcv.com/pr/papr.html. In October 2001, AMCV filed for bankruptcy protection under Chapter 11, consequently this shipbuilding project has been suspended.
1.2 Canadian Cruise Ship Industry

In 1998, international cruise ship passenger totals were increasing at all of Canada’s major ports with the exception of Charlottetown, PEI. Vancouver recorded the highest number of cruise ship passenger arrivals with over 1 million revenue passengers. Victoria and Prince Rupert also received an increasing amount of arrivals in 1998, recording 108,176 and 2,169 passengers respectively.

In eastern Canada, luxury cruise ships regularly travel along the eastern seaboard and up the St. Lawrence River to Québec City and Montreal. They also sail out of New York, northward to Halifax, Saint John and other Atlantic ports. Many of these cruises have traditionally been scheduled for the fall colour season, but summer visits are becoming increasingly popular as well. Pocket cruises travel the St. Lawrence River between Montreal or Quebec City, and Kingston or Rochester, as well as along the Erie Canal and Hudson River to Warren, New York. Greater numbers of cruise vessels passengers were visiting Halifax, NS and Saint John, NB, in 1998, while other Atlantic ports also welcomed international cruise passengers. For example, Cape Breton, NS, had a successful cruise season compared to previous years, with an estimated 25,000 passengers coming ashore at Sydney, Baddeck, and Louisbourg. Newfoundland also welcomed a record 24,400 passengers in 2001 from 69 port calls, an increase of over 17,000 from 1998.

Charlottetown, PEI, was striving to increase vessel calls in 1999 after much confusion concerning the rules for vessels transiting under the Confederation Bridge. To mitigate the possibility of a ship striking Confederation Bridge, the bridge contract specified the inclusion of navigation islands that would surround the most vulnerable piers in centre strait. Navigation islands would ensure that run-away barges or ships would hit the Island, not the bridge. Strait Crossing Inc. (SCI), the bridge builder, unilaterally decided to forgo construction of these navigation islands. Instead, the SCI filled the hollow piers with concrete (an approach that offers far less protection). The dramatic design change forced the Coast Guard to withdraw its legal approval of the project, thereby requiring ships to hire a pilot to guide vessels under the bridge. Consequently, many cruise ships threatened to abandon Charlottetown as a destination for safety reasons and additional cost concerns. Charlottetown recorded visits by only 2,000 passengers in 1998, well below the levels of earlier years and dramatically down from a peak of 18,000 passengers in 1991.

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13 The term ‘pocket cruises’ has also been used to refer to short distance trips such as those operating between Seattle, Vancouver, and Victoria. For the purposes of this paper, the term ‘pocket cruises’ will be used to define vessels typically carrying between 50 and 120 passengers.


In recent years, the number of cruise ships visiting Canadian Arctic communities has also increased. According to Phil Burak, the representative for Nunavut Tourism, seasonal visits to Cambridge Bay in the central Arctic usually amount to one and sometimes two ships per year in the central Arctic, about mid-point along the Northwest Passage. There are many uncertainties confronting the Arctic cruise industry, in particular the constant changes in ice condition, which have the potential to alter the port calls. The uncertainty causes problems for Arctic communities as they may prepare for a cruise ship that will never arrive or for other destinations where cruise ships arrive without notice. On the other hand, the disembarking passengers may spend thousands of dollars on art and cultural activities during an afternoon, which can be a great boost to the local economies. Currently, Quark Expedition, Marine Expeditions, and Radisson Seven Seas Cruises are the only companies offering cruises to the Arctic.

Figure 2

Cruise Ship Passenger Arrivals at Major Canadian Port Cities (% of total passenger)

Source: Local Port Corporations
* Victoria data was added-in later from the 2001 cruise ship schedule published by NWCA.

1.3 Canadian Pacific Coast Cruise Ship Industry

Port Vancouver, as the largest Canadian cruise ship destination, receives 76 percent of cruise passenger arrivals into Canada and 90 percent of those into British Columbia. The volume of cruise passengers in Vancouver has increased over the last few decades and

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amounted to a total of 1,053,989 revenue passengers in 2000.\textsuperscript{18} Revenue passengers in 2001 were estimated to again exceed 1 million. The schedule for the 2001 cruise ship season, published by Port Vancouver, indicated that Vancouver witnessed 334 sailings by 26 different ships (Table 1). The major cruise industry operators are Carnival/ Holland America Lines, Princess Cruise Lines, Royal Caribbean International/Celebrity Cruise Lines, and Norwegian Cruise Lines. Figure 3 maps out the existing cruise routes and the route distribution between Vancouver and Alaska.

According to a 1999 Passenger Survey, prepared by InterVista Consulting Inc., the average cruise ship passengers coming into the Canadian Pacific coast were older (with 69\% being over 55), retired, affluent, and residents of the United States traveling in parties of two. The Passenger Survey also indicated that more women undertake cruises on the Canadian Pacific Coast than men.

Small cruise ships, usually called ‘pocket cruises’ or boutique cruises, are also navigating the Canadian Pacific coast. The term ‘pocket cruises’ has also been used to refer to short distance trips such as those operating between Seattle, Vancouver, and Victoria. For the purposes of this paper, the term ‘pocket cruises’ will be used to define vessels typically carrying between 50 and 120 passengers. Most ‘pocket cruises’ are home-ported in Alaska rather than in Canada or Seattle.\textsuperscript{19} Currently pocket cruises are frequenting the ports of Victoria and Prince Rupert. Many other small communities, including Campbell River and Port Hardy, are also looking to attract the smaller and subsequently the larger cruise ships to their areas. The District of Campbell River Indian Band, sponsored by Human Resources Development Canada, underwent a cruise ship port preliminary assessment in 1999 to determine the potential impacts and opportunities that exist in the cruise market and decided to attempt to re-enter into the industry. Campbell River witnessed a pocket cruise ship arrival into its port during September 2001 and will begin receiving larger lines in Fall 2003.


\textsuperscript{19} Campbell River Port Preliminary Assessment. 1999. Seattle: Klugherz & Associates/Peratrovich, Nottingham and Drage, Inc.
The cruise ship industry in British Columbia is based primarily on the Alaskan cruise market which began in the 1950s and became increasingly popular during the 1980s. Vancouver has always been a player in the Alaskan cruise ship industry, in part, due to the US Passenger Services Act that regulates passengers and vessel transportation to and from US waters.

The 1886 US Passenger Services Act stipulates that ships cannot transport passengers between two US ports unless the ship is owned by US citizens, built in US shipyards, and crewed by US citizens. Similarly, the US Jones Act restricts cargo vessel transportation between two US ports under the same conditions. The arguments in support of the 1886 Passenger Services Act and Jones Act remain relevant and compelling today as they...
represent a business protection measure that can also be claimed to ensure safety, environmental protection, efficiency, and national security in the maritime industry. The implementation of the US Passenger Services Act for the Alaskan cruise industry requires vessels leaving the US for Alaska to stop in a foreign port with Canadian ports being the most convenient and accessible. Vancouver’s port has thus become a strategic cruise ship destination due to its location relative to the US as well as a convenient homeport for 18 cruise vessels. Currently Port Vancouver witnesses more cruise traffic and is the homeport for more cruise vessels than its rival port of Seattle, Washington.

Currently, the majority of cruise ships in operation worldwide are crewed by international crews and sail under various foreign flags with Panama or Liberia being the most popular flagging nations. Some 40 percent of all passenger cruise vessels worldwide operate under Panamanian or Liberian flags. The cruise vessels entering Canada are flagged by states from all around the world with the Netherlands and Liberia being the most popular (Figure 4). The last Canadian-registered and crewed cruise ship to serve the Alaskan cruise market was in the early 1980s.

**Figure 4**

Percentage of Port Calls into Vancouver by Country of Registry

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Source: Cross-referenced material from Cruise Ship Schedule (Port Vancouver) to Cruise Ship’s Facts Sheets (http://www.cruisecritic.com/reviews).

As a result of the US Passenger Services Act, Vancouver has secured its status as a strategic location for the Alaskan cruise ship industry. The Port of Vancouver is the

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homeport for 18 vessels operating in the Alaskan industry and is the main port call for ships traveling from the United States to Alaska.

The United States is currently re-examining the Passenger Services Act and its implications for cruise lines. The ports of Seattle and Honolulu have questioned the 115-year old law which they believe hampers their abilities to become competitive in the international cruise market. Regardless of their re-examination, it appears that the Act will remain due to its underlying goal of protecting US business, safety, and security in the maritime and shipping industry.\(^{23}\) The first new US built, crewed, and operated vessel that adheres to the stipulations in the Passenger Services Act is estimated to be launched in 2003 and will cater to, and operate from, the Hawaiian cruise market. Currently there is no discussion about placing any new United States built ships in the Vancouver/Alaska market.

1.3.2 Cruise Ship Passengers and Revenue Passengers

An analysis of the cruise passenger statistics requires that revenue passengers be distinguished from actual individual cruise passengers. The revenue passenger totals include both embarked and disembarked passengers resulting in a double counting of individual round-trip passengers. Round-trip passengers are counted once, as they embark the ship, and again as they disembark the ship. Individual in-transit passengers are also counted twice, once disembarking and again as they return to the ship to embark at the end of the day. In contrast individual one-way cruise passengers are only counted once when they either embark or disembark at the Port of Vancouver.

Using the revenue passenger statistics for Vancouver (estimated at over 1 million for 2001) for economic analyses makes sense as passengers arriving at two distinct times contribute to the surrounding economy at each visit. Using the revenue passenger total for environmental analyses, however, would produce exaggerated estimates of passenger impact. Crewmembers, who could account for as many as one half of the individual ship passenger totals, are absent from the revenue passenger counts. Crewmembers represent another segment of the cruise ship industry as they also contribute to local port economies and produce on-board waste. In the 2001 cruise ship season Vancouver is estimated to have welcomed in 763,082 actual passengers and crew as compared to 1,068,000 revenue passengers.

Table 1: Cruise Ship Port Calls into Port Vancouver and Passenger and Crew Totals for the 2001 Vancouver Cruise Season

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Carnival Cruise Lines</td>
<td>Carnival Spirit</td>
<td>11</td>
<td>2,124</td>
<td>1,029</td>
<td>23,364</td>
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<tr>
<td>Carnival Cruise Lines</td>
<td>Jubilee</td>
<td>-</td>
<td>1,486</td>
<td>670</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Celebrity Cruises</td>
<td>Infinity</td>
<td>20</td>
<td>1,950</td>
<td>999</td>
<td>39,000</td>
<td>58,980</td>
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<tr>
<td>Celebrity Cruises</td>
<td>Mercury</td>
<td>12</td>
<td>1,870</td>
<td>909</td>
<td>22,440</td>
<td>33,348</td>
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<tr>
<td>Cruise West</td>
<td>Spirit of Oceania</td>
<td>6</td>
<td>114</td>
<td>65</td>
<td>684</td>
<td>1,074</td>
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<tr>
<td>Crystal Cruises</td>
<td>Crystal Harmony</td>
<td>8</td>
<td>960</td>
<td>545</td>
<td>7,680</td>
<td>12,040</td>
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<tr>
<td>Hapag Lloyd</td>
<td>Bremen</td>
<td>4</td>
<td>164</td>
<td>94</td>
<td>656</td>
<td>1,032</td>
</tr>
<tr>
<td>Holland America Line</td>
<td>Ryndam</td>
<td>12</td>
<td>1,266</td>
<td>557</td>
<td>15,192</td>
<td>21,876</td>
</tr>
<tr>
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<td>Statendam</td>
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<td>1,266</td>
<td>557</td>
<td>16,458</td>
<td>23,699</td>
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<tr>
<td>Holland America Line</td>
<td>Veendam</td>
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<td>561</td>
<td>13,826</td>
<td>20,097</td>
</tr>
<tr>
<td>Holland America Line</td>
<td>Volendam</td>
<td>22</td>
<td>1,440</td>
<td>561</td>
<td>31,880</td>
<td>44,022</td>
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<tr>
<td>Holland America Line</td>
<td>Westerdam</td>
<td>22</td>
<td>1,494</td>
<td>612</td>
<td>32,868</td>
<td>46,332</td>
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<tr>
<td>Holland America Line</td>
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<td>1,440</td>
<td>561</td>
<td>31,680</td>
<td>44,022</td>
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<tr>
<td>NYK Cruises</td>
<td>Asuka</td>
<td>1</td>
<td>600</td>
<td>262</td>
<td>600</td>
<td>862</td>
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<td>Mitsui OSK Passenger Line</td>
<td>Nippon Maru</td>
<td>2</td>
<td>408</td>
<td>160</td>
<td>816</td>
<td>1,136</td>
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<tr>
<td>Norwegian Cruise Line</td>
<td>Norwegian Sky</td>
<td>1</td>
<td>2,002</td>
<td>750</td>
<td>2,002</td>
<td>2,752</td>
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<tr>
<td>Norwegian Cruise Line</td>
<td>Norwegian Wind</td>
<td>22</td>
<td>1,732</td>
<td>614</td>
<td>38,104</td>
<td>51,612</td>
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<td>Princess Cruise Line</td>
<td>Dawn Princess</td>
<td>11</td>
<td>1,950</td>
<td>900</td>
<td>21,450</td>
<td>31,350</td>
</tr>
<tr>
<td>Princess Cruise Line</td>
<td>Ocean Princess</td>
<td>10</td>
<td>1,950</td>
<td>900</td>
<td>19,500</td>
<td>28,500</td>
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<td>Princess Cruise Line</td>
<td>Regal Princess</td>
<td>22</td>
<td>1,590</td>
<td>696</td>
<td>34,980</td>
<td>50,292</td>
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<td>Sea Princess</td>
<td>11</td>
<td>1,950</td>
<td>900</td>
<td>21,450</td>
<td>31,350</td>
</tr>
<tr>
<td>Princess Cruise Line</td>
<td>Sun Princess</td>
<td>10</td>
<td>1,950</td>
<td>900</td>
<td>19,500</td>
<td>28,500</td>
</tr>
<tr>
<td>Radisson Seven Seas Cruises</td>
<td>Seven Seas Mariner</td>
<td>8</td>
<td>700</td>
<td>445</td>
<td>5,600</td>
<td>9,160</td>
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<tr>
<td>Royal Caribbean International</td>
<td>Rhapsody of the Seas</td>
<td>11</td>
<td>2,000</td>
<td>765</td>
<td>22,000</td>
<td>30,415</td>
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<tr>
<td>Royal Caribbean International</td>
<td>Radiance of the Seas</td>
<td>32</td>
<td>2,100</td>
<td>859</td>
<td>67,200</td>
<td>94,688</td>
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<tr>
<td>Royal Caribbean International</td>
<td>Vision of the Seas</td>
<td>18</td>
<td>2,000</td>
<td>660</td>
<td>36,000</td>
<td>47,880</td>
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<tr>
<td>World Explorer</td>
<td>Universe Explorer</td>
<td>12</td>
<td>750</td>
<td>365</td>
<td>9,000</td>
<td>13,380</td>
</tr>
</tbody>
</table>

| Total                      |                | 334        | 36,522        | 16,896    | 533,830     | 763,082   |

Source: Cross-referenced material from Cruise Ship Schedule (Port Vancouver) to Cruise Ship’s Facts Sheets (http://www.cruisecritic.com/reviews).
2.0 Economic Impact

2.1 Tourism in British Columbia

Before assessing the magnitude of the economic impact of the cruise industry on the Canadian Pacific coast, it is important to analyze the impacts of tourism and the ports in the area. The approach to calculating tourism impact is to consider the revenues of tourism-related sectors and allocate a portion of revenues to actual tourism. Using this approach, the Ministry of Small Business, Tourism & Culture, Government of British Columbia, estimated that in 1999, 22.3 million visitors came to British Columbia generating $9.2 billion in tourist activity. At first glance, this appears to represent a large driving force in BC’s economic growth, however tourism’s share of BC’s Gross Domestic Product (GDP) was only 4.8% of total GDP in 2000.

Table 2: Distribution of Total GDP in British Columbia in 2000

<table>
<thead>
<tr>
<th>Year</th>
<th>Total GDP</th>
<th>Goods</th>
<th>Non-Tourism Services</th>
<th>Tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$Millions</td>
<td>$M</td>
<td>% of total</td>
<td>$M</td>
</tr>
<tr>
<td>2000*</td>
<td>95,186</td>
<td>24,178</td>
<td>25.4</td>
<td>66,479</td>
</tr>
</tbody>
</table>

*preliminary

Arguably, it is more telling to examine tourism and port impacts on the Canadian Pacific coast using the numbers from Vancouver as it represents the largest point of contact for both tourists and cruise ship passengers. In Greater Vancouver in 2000, Tourism Vancouver estimated that visitors spent close to $3.5 billion in the region. It was also estimated by Tourism Vancouver that the Alaskan cruise passengers who arrived in Vancouver during the 2000 cruise season spent approximately $124 million and generated $420 million (Table 3). Cruise ship passengers therefore represented approximately 2.5% of the tourists entering Vancouver in 2000 and spent 3.5% of the total dollars spent by tourists.

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http://www.tourismvancouver.com/docs/help/research/research_economic_impact.html
Table 3: Tourist Economic Impacts in Vancouver, 2000

<table>
<thead>
<tr>
<th>Industry Output</th>
<th>Tourists</th>
<th>Cruise ship Passengers</th>
<th>Cruise Ship Passengers (% ) of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The sum total of all economic activity that took place as a result of passenger spending, including spin-off activity as those dollars move through the economy.</td>
<td>$7,400,000,000</td>
<td>$279,452,579</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wages and Salaries</th>
<th>Tourists</th>
<th>Cruise ship Passengers</th>
<th>Cruise Ship Passengers (% ) of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amount of wages and salaries generated by initial cruise passenger spending.</td>
<td>$2,600,000,000</td>
<td>$81,343,929</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Taxes (all levels)</th>
<th>Tourists</th>
<th>Cruise ship Passengers</th>
<th>Cruise Ship Passengers (% ) of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxes contributed to municipal, provincial, and federal levels of government by initial cruise passenger spending.</td>
<td>$1,700,000,000</td>
<td>$59,951,153</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment (jobs)</th>
<th>Tourists</th>
<th>Cruise ship Passengers</th>
<th>Cruise Ship Passengers (% ) of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes part-time and full-time work generated</td>
<td>113,081</td>
<td>3,466</td>
<td>3%</td>
</tr>
</tbody>
</table>


2.2 Cruise Characteristics that Affect Expenditures

The above statistics provide some context for the scale of the cruise ship industry but the economic effects of cruise ships arriving in British Columbia are more complicated. For obvious reasons, cruise passengers spend less than land-based tourists as a cruise is essentially a self-contained, fully pre-arranged vacation experience. Nevertheless, cruise ship passengers do contribute to the economy of Vancouver and British Columbia and in a wider variety of ways. The cruise ship industry may only represent a small percentage of tourism GDP, but it has grown more rapidly than other tourism sectors and the potential for more growth exists. Furthermore, the short exposure to British Columbia provided by the cruise experience may lead to return visits. In order to fully understand the economic impact of a cruise ship port call, it is important to analyze the characteristics associated with cruise passengers to determine what areas, sectors, and businesses are benefiting and why.

2.2.1 Points of Departure and Arrival

The amount of cruise spending is largely based on pre- and post-cruise passenger visits. The length of time spent by cruise passengers in BC is increasing but remains a matter of personal choice. The 1999 Vancouver-Alaska Cruise Passenger Study conducted by Tourism Vancouver and the Vancouver Port Authority, surveyed all passengers, with the exception of the in-transit group, asking them to provide details of their pre- and post-cruise travel. The results showed that 65% of respondents reported adding one or more nights to their vacation either before or after their cruise. The study also revealed that Vancouver was the most popular pre/post destination among all cruise passengers. Forty-two percent of all respondents reported spending at least one night in Vancouver, with an average stay of 2.0 nights. Twenty-three percent of respondents reported spending a day in Vancouver, with an average stay of 4.2 hours.

The length of visit time in BC is largely dependent on the type of cruise undertaken. If the point of origin and destination of a passenger’s cruise is Vancouver then the visitor is more likely to spend more time in Vancouver. Passengers whose cruise originates in Vancouver also spend more time in BC than those for whom Vancouver is the destination. Vancouver receives the greatest economic impacts from passengers since most cruises operating in the region pass through the Port Vancouver. Only 10% of cruises visit Victoria and no major cruise ships (i.e., those carrying more than 500 passengers) visit any other ports in BC at this time. Four percent of cruise passengers reported an overnight stay in Victoria, while eight percent made a day visit, spending an average of 6.9 hours in that city. As many as 1% indicated a night stay in Whistler.

2.2.2 Average Cruise Passenger Expenditures

The 1999 cruise passenger survey also asked cruise passengers, who spent time in Canada on their trip, to provide an estimate of total expenditures for all members of their travel party. Data were collected for individual expense categories such as food, lodging, and transportation and then adjusted by party size to obtain per person expenditures.

A breakdown of cruise ship passengers’ responses by general category of Vancouver expenses was outlined by Munro and Gill (2001) in their conference paper, The Economic Impact of the Cruise Industry on a Regional Economy (Table 4). Munro and Gill, both professors at Simon Fraser University in Canada, have been conducting an independent economic analysis of the Canadian Pacific cruise ship industry using newer technology for calculating economic estimates. According to their calculations, lodging represented the largest expense category, with an average of $138.59 reported spent by cruise visitors to Vancouver. Average expenditures increase with length of stay. The average day visitor spent $75.00 resembling the expenditure total reported by in-transit passengers, who are also day visitors to the city. The average expenditure per overnight passenger per day was $298.42.

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Table 4: Vancouver Cruise Ship Passengers' Average Expenditures by Length of Stay

<table>
<thead>
<tr>
<th></th>
<th>Average Total</th>
<th>Day Visitor</th>
<th>One Night</th>
<th>Two Nights</th>
<th>Three+ Nights</th>
<th>In Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vancouver</td>
<td>$300.00</td>
<td>$75.00</td>
<td>$210.00</td>
<td>$370.00</td>
<td>$610.00</td>
<td>$75.00</td>
</tr>
<tr>
<td>Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Munro and Gill, 2001

To better illustrate the economic impact of passengers into British Columbia, Munro and Gill constructed total impact estimates for the ‘minimum’ and ‘maximum’ passenger based on the general statistics provided on cruise passengers characteristics accumulated in the 1999 Passenger Survey. Income and employment multipliers have also been factored into the passenger profiles which account for other cruise ship economic contributions such as maintenance, re-supplying, onboard services, refueling, port dues, pilotage etc.

2.2.3 Minimum Economic Impact

The minimum economic impact passenger has an average annual income of $40,000 CAD and travels on a standard-level, 2000 passenger size ship on a one-way 7-day cruise with passenger embarkation in Alaska and disembarkation in Vancouver. One-half day is spent in Vancouver. This passenger would spend perhaps $40 in Vancouver, perhaps on a half-day tour. The direct GDP impact of this would be $22 and the total impact on the regional output would be multiplied by perhaps 1.6 to increase regional GDP by $35.28

Literature on employment multipliers for BC tourism suggests that spending by this passenger would lead to an employment impact in the range of 40/50,000; 1,250 passengers staying one-half day and spending $40 would lead to a one person-year of employment. Cruise lines expenditures averaged about $500,000 per sailing so this passenger’s share of this spending would be $250. Output and employment multipliers would increase total GDP impact to $220 and one-person year of employment per 200 passengers. Crew expenditures at $15 per crew member per visit would total $15,000 or $7.50 per passenger, multiplied to $7 total GDP impact and one person-year for every 6,700 passengers. Total impact per passenger is $249 (GDP) and .0059 person-years (employment).

2.3.4 Maximum Economic Impact

The maximum economic impact passenger has an annual income of $100,000 CAD and travels on a luxury-level, 1000-passenger size ship on a round trip 12-day cruise. Three days are spent in British Columbia. This passenger’s spending totals $500, creating a total regional GDP impact of $440 and one person-year of employment for every 1000 passengers.

28 Multipliers are based on a tourism-specific estimate for BC by Var and Quayson (1985) – they estimate an income multiplier in the 1.7 range and an employment multiplier of 1 job for $11,000 of tourist spending.
This passenger’s share of cruise company expenditures is $350 with GDP and employment impacts of $300 and one person-year of employment for every 140 passengers. Crew members’ spending at $20 per crew member would total $11,000 or $11 per passenger – this multiplies to total impacts of $10 for GDP and one person-year for every 4500 passengers. Total impact is $750 (GDP) and .0172 person-years (employment).

2.3.5 Estimated Impact

Munro and Gill’s passenger impact assessment showed the ‘maximum’ typical passenger impact as being 3.4 times larger than the ‘minimum’ passenger for both GDP and employment. They subsequently multiplied the passenger’s impact by a total annual cruise market of 1 million, suggesting the total GDP impact was between $249 million and $750 million; employment impact ranged between 5,900 and 17,200. Of course, it is unlikely that either maximum or minimum passengers would typify the market and thus Munro and Gill presented the half-way point between those estimates, approximately $500 million and 11,500 person-years of employment, as the estimated impact. A 1999 study by the North West Cruise Ship Association\(^{29}\) estimated $507 million GDP impact and 5,243 jobs.\(^{30}\)

2.3 Trickle-Down Economic Impact

It is difficult to document exactly where cruise passengers spend their money in British Columbia, however many sectors and local businesses have their own estimated economic impact figures. Tourism Vancouver, the area’s Convention and Visitors Bureau, put the economic total of the cruise ship industry at $124 million, with approximately $81 million in wages and salaries and $60 million in taxes generated by cruise passengers’ spending.\(^{31}\) But aside from a handful of hotels near the Canada Place complex, which includes the cruise terminal and the convention centre, most of the benefits are diffused through the local economy rather than concentrated at dockside. They range from higher occupancy rates at Vancouver-area hotels, to more business for food-and-beverage suppliers. “Every time you see a ship coming into the harbour, think of it as $1.5 million entering the local economy,” said David Stowe, Chairman (retired), for the Vancouver Port Authority.\(^{32}\)

R. Gordon Johnson, president of the Vancouver Hotel Association, estimated that 10 to 15 hotels near the cruise terminal or elsewhere in downtown get the bulk of the cruise business. Johnson, who is also general manager of the Delta Vancouver Suites hotel just three blocks away from the main dock, said that on a “good cruise ship day,” as many as

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\(^{29}\) The North West CruiseShip Association is a not-for-profit association working on behalf of the nine member lines to build positive relationships with communities and government agencies and to develop strong partnerships with communities and business in Canada, Alaska and the Pacific Northwest.

\(^{30}\) North West CruiseShip Association, 2000


40% of his hotel’s rooms are occupied by cruise passengers. But the bulge of the cruise passengers pushes up occupancy rates throughout the whole city, as people who cannot find hotel rooms downtown seek lodgings elsewhere. “The cruise industry is probably the single biggest thing that affects us every summer, but it is not the only thing,” said Johnston.

### 2.4 Economic Impact on Canadian Pacific Ports

#### 2.4.1 Vancouver

The total GDP resulting from Port Vancouver activities totals $1.68 billion of value added to the Canadian economy (direct, indirect and induced impacts). This involves industrial production (total spending) of $2.82 billion, wages and salaries of $710 million, and payment to Governments (taxes) of $520 million. The cruise industry attracts over one million revenue passengers (Figure 5) and directly creates two percent of the employment in the Vancouver Port Authority or 60 FTE jobs. By comparison, in 2000, Port Vancouver received 3,049 port calls by international container vessels and 334 port calls by cruise ships. The following graph shows a 0.3 percent decline, as of August 2001, in revenue passengers from 2000 to 2001.

**Figure 5**


34 Full Time Equivalent positions

2.4.2 Victoria

Victoria, British Columbia's capital, is an occasional port of call during the Alaska cruise season. Primarily cruise ships visit Victoria at the beginning or at the end of the cruise season when they have unique itineraries developed to reposition their ships from the south to the north, or vice versa. A few cruise itineraries, which begin in San Francisco or elsewhere in the south, will often head straight to Alaska, stopping only in Victoria, and not detouring into the Haro Strait which is necessary to get to Vancouver. Victoria witnessed 108,176 passenger arrivals by 68 port calls in the 2001 season. However, most cruise passengers who visit Victoria will do so as part of their pre-cruise or post-cruise stay in Vancouver. Victoria is also part of a new market of short distance cruises being offered between Seattle, Vancouver, and Victoria in the off-season.

Table 5: Cruise Ship Arrivals into Victoria in 2001

<table>
<thead>
<tr>
<th>Cruise Line</th>
<th>Vessel</th>
<th>Port Calls</th>
<th>Passenger Cap</th>
<th>Crew Cap</th>
<th>Total Pass</th>
<th>Total P&amp;C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celebrity Cruises</td>
<td>Infinity</td>
<td>2</td>
<td>1,950</td>
<td>999</td>
<td>3,900</td>
<td>5,898</td>
</tr>
<tr>
<td>Celebrity Cruises</td>
<td>Mercury</td>
<td>1</td>
<td>1,870</td>
<td>909</td>
<td>1,870</td>
<td>2,779</td>
</tr>
<tr>
<td>Cruise West</td>
<td>Spirit of Oceanus</td>
<td>6</td>
<td>114</td>
<td>65</td>
<td>684</td>
<td>1,074</td>
</tr>
<tr>
<td>Crystal Cruises</td>
<td>Crystal Harmony</td>
<td>8</td>
<td>960</td>
<td>546</td>
<td>7,680</td>
<td>12,040</td>
</tr>
<tr>
<td>Norwegian Cruise Line</td>
<td>Norwegian Sky</td>
<td>21</td>
<td>2,002</td>
<td>750</td>
<td>42,042</td>
<td>57,792</td>
</tr>
<tr>
<td>Radisson Seven Seas Cruises</td>
<td>Seven Seas Mariner</td>
<td>5</td>
<td>700</td>
<td>445</td>
<td>3,500</td>
<td>5,725</td>
</tr>
<tr>
<td>Royal Caribbean International</td>
<td>Radiance of the Seas</td>
<td>17</td>
<td>2,500</td>
<td>859</td>
<td>42,500</td>
<td>57,103</td>
</tr>
<tr>
<td>World Explorer</td>
<td>Universe Explorer</td>
<td>8</td>
<td>750</td>
<td>365</td>
<td>6,000</td>
<td>8,920</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>68</strong></td>
<td><strong>10,846</strong></td>
<td><strong>4,937</strong></td>
<td><strong>108,176</strong></td>
<td><strong>151,331</strong></td>
</tr>
</tbody>
</table>

Source: Cross-referenced material from Cruise Ship Schedule (Port Vancouver) to Cruise Ship’s Facts Sheets (http://www.cruisecritic.com/reviews).

2.4.3 Prince Rupert

In 2001, Prince Rupert may receive over 2000 actual passenger and crew arrivals from two smaller cruising vessels. Currently, most definitions of a cruise ship, used by legislative powers, requires that the passenger capacity be 500 and above. As such, the two ships entering into Prince Rupert are not necessarily considered to be cruise ships, nor are they members of the North West CruiseShip Association (NWCA)\(^{36}\) operating on the Canadian Pacific coast.

Table 6: Small Boat Cruise Ship Arrivals into Prince Rupert in 2001

<table>
<thead>
<tr>
<th>Cruise Line</th>
<th>Vessel</th>
<th>Port Calls</th>
<th>Passenger Cap</th>
<th>Crew Cap</th>
<th>Total Pass</th>
<th>Total P&amp;C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cruise West</td>
<td>Spirit of Oceanus</td>
<td>11</td>
<td>114</td>
<td>65</td>
<td>1,254</td>
<td>1,969</td>
</tr>
<tr>
<td>Clipper Cruise</td>
<td>Clipper Odyssey</td>
<td>1</td>
<td>128</td>
<td>72</td>
<td>128</td>
<td>200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>12</strong></td>
<td><strong>242</strong></td>
<td><strong>137</strong></td>
<td><strong>1,382</strong></td>
<td><strong>2,169</strong></td>
</tr>
</tbody>
</table>

Source: Cross-referenced material from Cruise Ship Schedule (Port Vancouver) to Cruise Ship’s Facts Sheets (http://www.cruisecritic.com/reviews).

\(^{36}\) The North West CruiseShip Association represents the large cruise lines serving Southeast and Southcentral Alaska. The member companies bring 97 % of cruise ship visitors to Alaska.
A recently completed economic impact analysis published by Harbour and Shipping, and displayed on the NWCA website, suggested that the Port of Prince Rupert is ideally located to participate in the continued growth of the Alaska cruise industry. An expanded cruise industry could generate $9 million in annual economic impact to the economy of northwest British Columbia, the creation of 140 jobs, an estimated $3.8 million in annual payroll and nearly $2 million in annual provincial and federal tax revenues. The Port, in cooperation with the City of Prince Rupert, is currently completing a Cruise Ship Facility Development Plan that will steer the course of development of infrastructure suitable for accommodating the increasing number of vessels sailing to Alaska.

3.0 Environmental Impact

The environmental issues surrounding the cruise ship industry attract attention, create controversy, and involve a wide variety of legislation from the international to the provincial level. Public attention towards the environmental impact of cruise ships has been steadily increasing over the past few years. A detailed analysis of the relevant legislation and how it applies to the cruise industry will foster better communication among the various stakeholders while also examining the various environmental impacts and monitoring and enforcement policies.

3.1 Safety and Security

Before conducting an analysis on the environmental legislation, the issue of safety and security must be addressed first. Safety and Security aboard cruise vessels and within cruise ship ports is of primary importance to international and federal governing bodies. The mere possibility of economic, environmental or human life crises resulting from a cruise ship-related incident has influenced the development of comprehensive safety regulations. The International Maritime Organization and Canadian federal departments including Transport Canada and Health Canada thus require and ensure the existence of a high level of safety standards as a priority.

Transport Canada includes cruise ship safety guidelines under its Marine Transportation Security Regulations (Cruise Ships and Cruise Ship Facilities). Other safety regulations are inherent in the International Management Code for the Safe Operation of Ships and for Pollution Prevention and will be outlined further in the subsequent section. Although Transport Canada has deemed safety the number one issue with regards to the operation of cruise ships, the Department believes that satisfactory regulations are in place to ensure the level of required safety, and that monitoring and inspections need to be ongoing to maintain this level.\footnote{Personal Communication with Charles Hansen, 2001. Transport Canada: Marine Safety Compliance & Enforcement. Vancouver.}

The Canadian Occupational Health and Safety Agency (OHSA), of Health Canada’s Workplace Health and Public Safety Programme (WHPSP) is also mandated to carry out public health inspections on international passenger conveyances. These inspections are conducted to verify the integrity of the on-board food service program such as food preparation and handling, the potable water system and general vessel hygiene/sanitation and gastrointestinal illness reporting. The purpose of these inspections is to protect the health of the travelling public as well as citizens in the port cities from illnesses that may occur on and/or be transported by cruise ships.

Unannounced inspections are conducted on cruise ships travelling in Canadian waters. The inspections are conducted once per year during the cruise ship season, which extends from April to the end of October in the Canadian Pacific. These inspections are part of a voluntary inspection program. A satisfactory score is 86 points out of a possible 100 points. A score of 85 or lower is not satisfactory and requires a re-inspection within the
following month.\textsuperscript{39} The cruise vessels’ scores are public information and thus any ship failing to meet the required standards are subject to public scrutiny and the ensuing reputational damage. The OHSA also has the ability to recommend that a cruise vessel does not sail should it prove to pose an imminent health danger. Examples of violations resulting in an imminent health danger label are things like: not storing food at appropriate temperatures, having no disinfecting mechanism (chlorine) in the water supply, and evidence of an infectious disease outbreak.

It is vital to the cruise ship industry that food and water-borne illness are avoided. In 1999, OHSA inspected a total of 48 ships (20 on the east coast and 28 on the west coast) and did not witness a single outbreak.\textsuperscript{40} Only one ship failed to pass inspection. It should be noted however, that these inspections are not limited to cruise ships and can cover a broad range of both domestic and international carriers.

3.2 Brief Overview of Environmental Legislation

In an article, \textit{Safe Today Is No Guarantee For Tomorrow} (1998), Det Norske Veritas’ (DNV: 1) Dr. Tor-Christian Mathiesen, wrote about the greater expectations facing the maritime industry with regards to safety and the environment. He stated that “the answer is not the introduction of more rules and regulations. The challenge is to ensure compliance with all the rules and regulations we have today.”\textsuperscript{41} The major problem in tackling Dr. Mathiesen’s challenge is the ability to understand the current rules and regulations that apply to cruise ships on the Pacific coast. The applicable legislation comes from acts and conventions that exist at international, regional, federal, and provincial levels (Figure 6).

3.2.1 International Legislation

All cruise ships, operating in international waters are subject to strict international standards and regulations set forth by the International Maritime Organization (IMO), an arm of the United Nations. The International Convention for the Prevention of Pollution from Ships (MARPOL, 1973/78) sets regulatory standards to prevent the discharge of wastes and cargoes from operational and accidental causes. This convention regulates water discharge, air quality, and on-board solid waste management. The MARPOL convention is applicable worldwide. It consists of the Articles, outlining general regulations and definitions, and six Annexes dealing with different types of marine pollution by ships. Annex I, Prevention of pollution by oil entered into force on 2 October 1983; Annex II, Control of pollution by noxious liquid substances entered into force on 6 April 1987; Annex III, Prevention of pollution by harmful substances in packaged form entered into force on 1 July 1992; Annex IV, Prevention of pollution by sewage from ships is not yet in force; Annex V, Prevention of pollution by garbage from


\textsuperscript{40} Health Canada, OHSA e-newsletter, June 2000, Issue #1, http://www.hc-sc.gc.ca/ohsa/enews_june00.htm#2

ships entered into force on 31 December 1988; and Annex VI, Prevention of Air Pollution from Ships is not yet in force.

The Annex most relevant to cruise vessels and environmental quality is Annex IV, ‘Regulations for the Prevention of Pollution by Sewage from Ships’. Although Annex IV was drafted to regulate sewage discharge from vessels, it has not entered into force, nor has it been ratified by either the United States or Canada. In the case of states that have ratified it, the Annex IV then applies to the cruise ships that are flagged in those countries. Regulation 10 of MARPOL Annex IV is the main reason why the annex has not been ratified by Canada, stating that…

*The Government of each Party to the Convention undertakes to ensure the provision of facilities at ports and terminals for the reception of sewage, without causing undue delay to ships, adequate to meet the needs of the ships using them.*  

IMO has recently modified the stipulations of Regulation 10 for Annex IV which now allows the state to specify onshore reception facilities requirements according to the port.

\[42\] Regulation 10. Annex IV of MARPOL 73/78
Figure 6


International Maritime Organisation (IMO)
- The International Convention for the Prevention of Pollution by Ship (MARPOL Convention)
  - Annexes I and II - oil and noxious liquid substances
  - Annex III - hazardous substances
  - Annex IV - sewage
  - Annex V - plastics
  - Annex VI - air

International Safety Management Code (ISM Code)

Draft Code of Conduct on Transnational Corporations (TNCs)

The OECD Guidelines for Multinational Enterprises (MNEs)

Safety of Life at Sea Convention (SOLAS)

Relevant Environmental Legislation for the Canadian Pacific Cruise Ship Industry

International
Initial ratification of the specific treaties by the Canadian Government

Regional
Cruise Line Associations and United States Laws

Federal
seacoasts, inland fisheries, navigation and shipping, trade and commerce, oceans protection and conservation

Provincial
fresh water sources, legislative power over water use and quality inside of baselines

North American Agreement on Environmental Cooperation (NAACC)

International Council of Cruise Lines (ICCL) - Practices and Procedures for disposal of wastewater, hazardous materials, and garbage. Composed in conjunction with NWCA.

Cruise Lines - Safety Management System Plans, Independent third party auditors

Canada Shippings Act - contains sections and regulations preventing pollution, dangerous goods and noxious liquid substances, garbage pollution, non-pleasure craft sewage pollution, pollutant substances and oil pollution.

Canadian Environmental Protection Act - prohibits ocean dumping without a permit

Transportation of Dangerous Goods - outlines general regulations and permitting regarding dangerous goods transportation

Port Vancouver - Under Canada Marine Act, monitors vessels, restricts ballast water, disposes of solid waste

Oceans Act - regulates marine protected areas and marine environmental quality

Fisheries Act - prohibits persons from depositing or permitting the deposit of "deleterious substances" into waters frequented by fish

Department of Indian and Northern Affairs - commitment to protect First Nations People and their habitat

US Clean Water Act

US Clean Air Act

US Oil Pollution Control Act

British Columbia Waste Management Act - Prohibits the introduction of waste into the environment in such a manner or quantity as to cause pollution

Ozone Depleting Substances and other Hazardous ... Regulation - Outlines regulation and permitting for the use of these substances

Special Waste Regulations - Regulations regarding treatment facilities, how to obtain a license to transport waste etc...

Environmental Assessment Act

Land Act

Originated by Dobson, 2001
*Compiled through a review of legislated policy.
Aided by Oceans Blue Draft Paper on Environmental Cruise Ship Legislation
Currently, the decision to provide reception facilities for cruise ships along the Canadian Pacific coasts does not lie in the hands of the federal government. The decision must be agreed upon by various departments residing within the government of the province of British Columbia and within the Greater Vancouver Regional District (GVRD). Canada’s Shipping Act contains most of the regulations required to comply with MARPOL’s Annex IV.

The *International Management Code for the Safe Operation of Ships and for Pollution Prevention* (ISM Code) was developed by the IMO in recognition that effective company management was paramount to ensuring marine safety and environmental protection. The ISM Code became a requirement for all marine vessels larger than 500 gross tonnes, except bulk carriers. The ISM code came into effect in July 1998. Therefore, all cruise vessels are required to adhere to the ISM Code.

The objective of this ISM Code is to require companies to develop and maintain a safety management system (SMS) that will ensure the safety of the crew, passengers, vessels, cargo and the environment. The SMS contributes to increased employee knowledge and proficiency in dealing with their daily work and possible emergencies. It deals systematically with everything involving employee safety, vessel operation and maintenance, handling of cargo and environmental pollution prevention. Under procedures established by the IMO, companies that demonstrate compliance with the ISM Code will be issued a Document of Compliance. Vessels owned and/or operated by these companies will subsequently be issued a *Safety Management Certificate (SMC)* to be displayed on board the vessel.

The ISM Code provides specific guidelines for companies to follow in developing an effective SMS, including…

- A safety and environmental protection policy;
- Instructions and procedures for ensuring safe vessel operation and environmental protection in compliance with relevant international, flag state, and domestic law;
- Defined levels of authority and lines of communication between and among shipboard and shoreside personnel;
- Procedures for reporting accidents and non-conformities;
- Emergency preparedness and response procedures; and,
- Internal audit and management review procedures.\(^{43}\)

The ISM Code also requires that individual companies designate a shoreside person (or persons) which are considered a company employee. This designated person (DP) has direct access to the highest level of management. The aim here is that they are authorized and responsible for monitoring the safety and pollution prevention aspects of each ship in the company’s fleet. They also ensure that adequate resources and shore-based support are supplied as needed.

According to the Safety of Life at Sea Convention (SOLAS) Chapter IX, the ISM certification and enforcement of SMS lies within the responsibility of the corresponding flag state. Internationally, passenger ships must also meet the requirements of their respective Classification Society in addition to the SOLAS. Ships without proof of a certified plan could be denied insurance coverage or entry into the world’s major seaports.

Classification Societies are private, third party organizations whose main function is to inspect the ship at regular intervals to ensure whether its seaworthiness and the ship's structure and machinery are being maintained as required by classification societies' rules. Classification societies will also inspect cruise ships for compliance with international safety regulations including SOLAS, SCTW (Standards for Training Certification and Watchkeeping which ensures crew competency) and MARPOL. Major classification societies include the American Bureau of Shipping, based in the U.S.; Lloyd's Register of Shipping, in the United Kingdom; Det Norske Veritas, in Norway; Bureau Veritas, in France; and Registro Italiano Navale Group, in Italy. Lloyd’s Register is the premier classification society for passenger ships, with over 47% of the world passenger fleet currently classified with them.

Furthermore, in a 1997 article for IMO News, the senior deputy director of the IMO's Maritime Safety Division stated that Port States shall also have a degree of control in the monitoring and enforcement of adherence to the ISM Code.

Port State control is the inspection of foreign flag vessels visiting national ports - has been described as the last safety net in marine safety. In an ideal world, Port State control would not exist, but when ship-owners, classification societies, insurers, or Flag administrations have in one way or another failed to do their job, Port State control comes onto the scene. Port State control is recognized as being a step in the right direction towards the eradication of substandard ships, when inspections are carried out in accordance with IMO recommendations.

Subsequent to the IMO Maritime Safety Division’s announcement, the Canadian Port State Control announced its inspection regime for the ISM Code. This inspection regime applies to all ships entering Canada:

i. The countries of the Paris Memorandum of Understanding (Europe and Canada) have stated that they will detain uncertified ships, inspect them thoroughly and, in the absence of other deficiencies, let them sail with a ban on further entry until their ISM Code preparations are complete. The US has adopted a more radical approach, requiring ships to give advance notice that they have ISM Code certification and denying them port entry if not.

ii. Usual Port State Control (PSC) procedures will be applied to target ships for PSC inspections.

iii. Ship will be detained on discovery of non or invalid certification and/or major non-conformities.

iv. Cargo operations will be halted immediately upon discovery of non-compliance; each occurrence will be dealt with on a case by case basis to permit loading/unloading of cargo once it is determined that the company/ship can meet all safety requirements to the satisfaction of the Canadian authority and its representatives.

v. Once corrective action to rectify deficiencies is taken and the ship is deemed seaworthy by the Marine Safety Inspector, Transport Canada, detention can be lifted subject to the following:
   - concurrence received from Flag State;
   - warning letter issued to master and owner stating need for compliance if ship returns to Canada.

vi. IMO will be notified of any detentions in accordance with existing PSC procedures.

vii. Marine Safety Inspector will enter particulars in PSC database(s).

viii. Ship name will be listed in quarterly detention list (published) and the lack of ISM certification identified.

ix. All ships of same ownership or ship management will be targeted for stringent PSC inspections.  

3.2.2 Regional Legislation

Regionally, all cruise ships that operate in United States’ waters must comply with US environmental laws, including the *Clean Water Act*, the *Clean Air Act* and the *Oil Pollution Control Act*. The US environmental regulations for cruise ships are extremely relevant to Canada as almost all cruise ships entering Canadian waters have stops in the US within the same week. Vessels are therefore required to adhere to US legislation once in US waters and they must maintain that level of compliance on an ongoing basis. That being said, the Cruise Lines and their associations (NWCA, ICCL) have their own set of voluntary environmental policies and regulations that in many cases exceed or at least match the federal legislative requirements of the US and Canada. The cruise ship lines currently operating on the Canadian Pacific coast have adopted the following environmental practices with regard to discharge:

- No discharge of black water (treated or untreated sewage) in port
- No discharge of gray water (sink or shower water) in port
- Discharges of treated black water and gray water conducted when vessel more than 10 miles from port call and proceeding at a speed of 6 knots or faster
- Discharges are not conducted when a cruise vessel in within a mile from any surrounding shore and/or restricted dumping locations as advised by federal regulations.  

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45 Marine Safety Directorate (1998) * the first enforcement regulation (i) has been updated in coordination with the Paris MOU signed by Europe and Canada.

Through the IMO, the International Council of Cruise Lines (ICCL) also developed consistent and uniform international standards that apply to all vessels engaged in international commerce. These standards were introduced in July 2001. All cruise ships with membership in the ICCL are also required to use one or more of the practices and procedures contained in the new regulations in the management of their shipboard waste streams. These practices and procedures cover high volume wastes (garbage, graywater, blackwater, oily residues and bilge water), pollution prevention, and hazardous wastes produced onboard (dry cleaning liquids, film processing chemicals, biomedical wastes etc.).

The ICCL standards have incorporated environmental performance into SMS and MARPOL mandated Waste Management Manual. The standards are therefore, enforceable by the classification society, the flag state, and the port state. Violations of the ICCL standards are equivalent to violations under the ISM Code and punishable as such. Canada, as a Port State, has the right to refuse entry to, or detain, any vessel that does not adhere to these SMS.

3.2.3 Federal Legislation

The ISM Code outlined above holds in its legislation a law that requires vessels to adhere to the relevant international, flag state, and domestic laws governing their actions. Thus under the agreements and laws specific to Canada, ISM and MARPOL programs are routinely reviewed by Port States to ensure compliance.

The Canadian Coast Guard’s Rescue, Safety and Environmental Response branch is responsible for keeping the marine environment safe by monitoring and cleaning spills. One of the most effective ways to detect marine pollution is from the air. The National Aerial Surveillance Program uses fixed-wing aircraft fitted with sophisticated sensing and recording equipment to identify pollution incidents and gather evidence to prosecute polluters. The existence of such a program also acts as a deterrent to vessels that would otherwise illegally discharge oily wastes and other pollutants. The Safety and Environmental Response branch has the largest federal inventory of marine pollution control equipment in Canada.

The monitoring procedures and enforcement penalties carried out and levied by the Canadian Coast Guard are outlined by various federal government departments through relevant legislative documents including and primarily the Canada Shipping Act. Discharging by cruise ships in Canada, for example, is regulated through different acts, but almost entirely at the Federal level. First, the dumping of garbage is prohibited under the Canada Shipping Act. Second, the Canada Shipping Act further prohibits the dumping of sewage in certain bays and inlets along the coast of British Columbia.

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47 ICCL Industry Standard E-0101
Cruise Industry Waste Management Practices and Procedures
48 ICCL Industry Standard E-0101
Cruise Industry Waste Management Practices and Procedures
Revisions to the *Canada Shipping Act* (2000) have identified a series of no-dumping zones along the BC coast in its Pleasure and Non-Pleasure Craft Regulations (see figure 3). Third, most other possible waste streams from cruise ship activity that would fall under special or hazardous material categories can be regulated by the *Canadian Environmental Protection Act* and the *Transportation of Dangerous Goods Act* although no specific rules currently target cruise ship waste streams. Finally, sewage or gray water that contains hazardous material or regulated chemicals will be legislated with regard to those specific contents.

Additional acts exist within Canada’s federal powers, including the *Oceans Act* and *Fisheries Act*, that can be applied to guide and/or regulate the cruise ship industry but have not been used for that purpose to date. The Department of Indian and Northern Affairs has also made a commitment to work with First Nations to improve the health and safety of their communities that may find themselves impacted by cruise ship operations.

Port Vancouver also sets out regulations against vessels entering and berthing in its harbour. One of the regulations that the Port Vancouver has is its bylaw 6H, which restricts the importation of specific ballast waters. Ballast water is water that is taken aboard ships at the point of departure usually to enhance stability. This water then becomes a foreign substance once introduced into a different marine environment. In 2000, the Vancouver Port Authority reported a better than 99 percent compliance rate with its mandatory mid-ocean ballast water exchange program. This program was initiated in 1997 and became compulsory under the *Canada Marine Act* in 1999 to prevent the introduction of non-native species into Burrard Inlet.

Also in 2000, Operations and Harbour Master staff boarded more than 98 percent of the deep-sea vessels that call on Port Vancouver, sealing bilge valves, checking ballast water for contaminants, providing hold washing inspections and holding pre-bunkering inspections. These vessel inspections significantly reduced the potential for accidental discharge of pollutants that may impact the safe, efficient, and uninterrupted flow of cargo through Port Vancouver.

### 3.2.4 Provincial Legislation

Existing provincial legislation works similarly to the Federal legislation in that the ISM Code stipulates that domestic laws be followed. Some of the provincial legislation that can be applied to cruise ship environmental activities includes the *British Columbia Waste Management Act, Land Act, Special Waste Legislations, Environmental Assessment Act, Ozone Depletion and Other Hazardous Waste Regulation*.

The provincial legislation operates however, in a different spectrum than the federal legislation. Specifically, provincial acts and legislation regulate anything coming off or out of a vessel and landing on provincial territory. For example, cruise vessels would require approval of the *British Columbia Waste Management Act* for the disposal of garbage ashore.

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3.3 The Debate

Non-Governmental Organisations’ Perspective

The issues of both trust and science, or lack thereof, have contributed to confusion and fueled controversy between the cruise ship industry and environmental NGOs (ENGOs). The problem is that NGOs feel there is no satisfactory enforcement or scientific evidence to support or challenge the discharging presently occurring. The NGO community has adopted a precautionary approach to ocean governance and cruise ships that assume that their impacts are negative until proven otherwise. In other words, some NGOs feel that until satisfactory scientific studies are conducted on the environmental impacts of cruise ships on oceans and coasts, the cruise ships and the bodies governing them should act as if their legal discharges are harmful to marine and human environments.

The general issues concerning British Columbia based ENGOs centre on the pollution emissions from ships whether that is bilge water, black water, gray water, toxic substances, or air emissions. The current levels of pollution and their impacts on water quality, marine life, and human health are widely contested issues based on speculated data and voluntary self-regulated environmental reporting by cruise companies. In particular, ENGOs feel that the absence of strong and specific government regulation with regards to the cruise sector will encourage emissions of waste into Canadian waters. In addition, the absence of concrete scientific knowledge on the actual immediate and accumulated impacts of waste emissions from cruise ships on water quality, marine life, and human health creates a major and validated concern.

Currently the perception also exists that impartial enforcement and monitoring have not been conducted to a satisfactory level within Canada. Most of the environmental auditing and reporting is being self-managed by the cruise ship industries and associations. These ENGOs are critical of industry self-regulation as there is the potential for the falsification of logs and reports that are the instruments that demonstrate compliance. It is interesting to note however, that it is the individual cruise vessels themselves that report the majority of environmental incidents.

In almost all of the ENGO publications on this matter, a United States General Accounting Office (GAO) report on Cruise Ship illegal discharging is cited. According to the GAO report, there were 104 confirmed cases of illegal discharge cases in North American waters from 1993 to 1998 by cruise ships and other vessels. Most of these involved the accidental discharge (72%) of oil or related substances. However, despite these incidents, none of which occurred in Canadian waters, there have been few other related violations occurring within Canada’s jurisdictional boundaries. What is

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32 Currently NGOs are aware of the toxic levels of fecal coliform and BOD counts found in marine mammals and fish, but cannot scientifically differentiate between the sources of the waste emissions sufficiently to determine their actual impact by sector.
34 United States General Accounting Office. 2000. Marine Pollution: Progress Made to Reduce Marine Pollution by Cruise Ships, but Important Issues Remain” GAO/RCED-00-48
commonly not reported by ENGOs when citing the GAO document is that cruise ships only represent four percent of all confirmed illegal discharge cases by these commercial international flagged ships during 1993-1998.\textsuperscript{55} The GAO report also displays a dramatic decrease in pollution by cruise ships from 1993 to 1998 falling from 25 incidents to 9 in those five years. Although the GAO report does conclude by suggesting that more action is required to address the contribution of cruise ships to marine pollution, the flavour of the report is optimistic with regards to industry self-regulation and public/private partnerships.

The other major issue fueling the ENGO debate is the lack of scientific evidence on the accumulation effects of cruise ships’ legal discharges. Areas of concern include fecal coliform and Biochemical Oxygen Demand (BOD)\textsuperscript{56} counts impacting water quality, mammal, bird, and sea life protection, and possibly human health. The high levels of fecal coliform found in cruise ship discharge testing during the 2000 cruise ship season in Alaska have brought these issues to the forefront.

\textsuperscript{55} United States General Accounting Office. 2000. Marine Pollution: Progress Made to Reduce Marine Pollution by Cruise Ships, but Important Issues Remain” GAO/RCED-00-48

\textsuperscript{56} BOD is the term used to describe the oxygen used up as suspended solids decay. BOD counts are important as the availability of dissolved oxygen in water is key to the survival of aquatic and marine life.
To put things into context…

In order to provide a context to the actual volume of wastewater being discharged in Canadian waters a comparison can be conducted between cruise ship wastewater discharge to the Lower Mainland's regional sewerage and drainage system. The Lower Mainland’s regional sewerage and drainage system serves nearly 2.0 million residents in 20 member communities with a total land area of almost 3,000 square kilometres. Its five treatment plants, 33 pumping stations, and 450 kilometres of trunk and interceptor sewers currently handle and discharge more than 416 billion litres of wastewater a year. Three of the plants perform secondary treatment on their discharge and the other two only carry out a primary treatment.

If we assume that all 26 cruise ships dump 613,000 litres of wastewater a day, (800,000 litres was estimated by an ENGO which was based on an average ship carrying capacity of 2,700. This 800,000 litres was re-calculated based on the Vancouver cruise ship average carrying capacity of 2,067 passengers resulting in an estimate of 612,444 litres) every day for the entire *160 day season, the cruise ships contribute 2.6 billion litres of wastewater a year. By comparison, the cruise ships on the Pacific coast in Vancouver and Alaska only contribute 0.63% of the total wastewater that the GVRD pumps into the waters surrounding Vancouver with its five waste processing plants. All of the cruise ships entering into Canadian waters are equipped with at least secondary treatment facilities or better. No one debates that the primary source of human pollution comes from land-based sources, however the difference between pollution from cruise ships and land-based sources is that a cruise is an avoidable luxury and land-based sources of pollution affecting Canadian waters comes from Canadians. As a result of American legislation (Passenger Services Act), non-American owned cruise ships, that contain a large number of non-Canadians are forced to travel through Canadian waters and stop in Canadian cities.

Furthermore, cruise ship emissions are being transported and released pristine areas not usually subject to urban wastewater issues including the Inside Passage. Damage to these areas could pose serious environmental, social, and economic repercussions presently and into the future.

*Calculations were based on the highest estimated volumes of waste produced by cruise vessels and subsequently multiplied by numbers that were rounded up. In actuality, each cruise ship only spends approximately 2.5 days in motion in Canadian waters per one way trip, not the full 7 days which would also drastically reduce the volume of waste discharged in Canada.

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57 GVRD, Lower Mainland’s regional sewerage and drainage system
Industry Perspective

Cruise Lines are business people and profits are the bottom line. We cannot assume that environmental concerns always take precedence over economic profits in industry, however good environmental behaviour has proven to be directly related to revenue and has thus begun a new paradigm of corporate environmentalism. Corporations can see the new relationships being formed between the environment, their reputation, their customers, their stakeholders, their comparative advantage, and their profits. Involving environmental protection in the companies’ mandates and mission statements is good business, and adhering to those standards maintains their reputation while also providing a method to avoid stricter regulation. This can be demonstrated using the two following scenarios:

Scenario 1: A cruise line has committed itself to a voluntary set of environmental standards that has led to its comparative advantage in the cruise market. The voluntary standards exceed existing international standards. The cruise company is aware that if they are accused of not adhering to that standard their reputation will be damaged. If proven guilty, their reputation will suffer even more drastically. If proven innocent, some of their reputation will be restored however, not to its pre-existing level. Organisations have become aware of the importance of their reputation to their customers and stakeholders and hence the direct relationship to their comparative advantage and their profits. To avoid being accused of violating their own environmental regulations, cruise companies arguably strive to exceed their own voluntary guidelines to avoid accusations.

Scenario 2: The cruise line again has committed itself to a voluntary set of environmental standards and for some reason has violated that standard while cruising. The cruise company can either self-report the violation and damage its own reputation, but at a repairable level, or they can pretend nothing happened, falsify their reports and continue to their destination. This lack of accountability is what most environmentally conscious people fear. The reality is however that if the vessel does not self-report the violation and is identified, the company will suffer more reputational damage than if they had taken responsibility.

The move toward ecologically sensitive behaviour has demonstrated to cruise companies that their environmental reputation has become important to their customers and stakeholders and thus gambling with that aspect of their corporate identity can be extremely damaging. It can be argued that cruise vessels may not act responsibly out of sincere environmental concern but rather because good business practice in the 21st century requires environmentally acceptable behaviour. Certainly the self-reporting of incidents by cruise companies on the Canadian Pacific coast demonstrates aspects of this corporate environmentalism.

It is also important to note that the cruise industry has been developing new environmental policies and new state of the art waste treatment technologies including the development and use of Rochem, Alpha-Laval, Hamworthy, Hydroxyl, and Zenon systems. Holland America’s new Zenon system for example, developed by ZENON Environmental Inc., has the ability to purify black and gray water into near drinking
water quality, and thus leads the field in entrepreneurial and innovative solutions.\textsuperscript{58} Most other cruise lines have adopted aggressive programs of waste minimization, waste reuse and recycling, waste stream management and shore side waste disposal that in many cases goes beyond current international and domestic standards. Combined, the efforts of government and industry should be able to solve this debate with ongoing scientific and technological information and open dialogue. One problem that currently exists in the Canadian Pacific is the lack of scientific investigation and advice by the federal level of government in aid of this industry. Currently, despite the growth of this industry, the federal government does not employ scientific staff dedicated to the study of waste stream effects from shipping, or their cumulative environmental impacts.

4.0 Socio-Cultural Impact

Cruise ships represent more than simply ocean-going vessels producing economic and environmental impacts. There is a third component to their operations that includes the direct and indirect impacts on human beings from ships along the surrounding shores. Cruise ships, as an international industry in motion, impact not only the areas where they come into port, but also the communities they pass along the way. The cruise industry therefore has many stakeholders, all with their own perceptions. Crew members frequently cross borders and enter different jurisdictional territories with varying labour regulations that also affect work environments.

4.1 Coastal Communities

A cruise ship carrying on average 2067 people will have greater obvious social and economic impacts on smaller areas than on larger cities. The citizens of small communities will see the ship arrive and then experience an influx of visitors around their community. As a result, the economic, environmental, and social effects become associated directly with the cruise vessel. Cruise ships also impact Vancouver, however the effects are absorbed into other tourism and port activities. In other words, except in the surrounding hotels and businesses, the average citizen of Vancouver would not be able to distinguish a cruise ship passenger from any other land-based tourists or residents. It is thus more difficult for Vancouver residents to quantify the impacts of the cruise industry on their city.

The following Social Perception Cost/Benefit Analysis provides a summary of some of the potential opinions of smaller Canadian Pacific communities’ members and First Nations' groups when discussing the cruise ship industry. The opinions are based on informal conversations, conference presentations, and NGO consultations including residents and First Nations groups from smaller communities along the Canadian Pacific coast during the period from April, 2001 to September, 2001. A more detailed and formal study would be required for a comprehensive analysis on communities’ perceptions.
<table>
<thead>
<tr>
<th>Factors</th>
<th>Perceptions on the Addition of Large Cruise Ships to Tourism Development. e.g. Prince Rupert, Port Hardy, Campbell River</th>
<th>Perceptions on the Impacts on Non-visited Coastal Communities that will be passed by Cruise Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic Impacts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td>There are many benefits associated with bringing cruise ships to smaller port communities including economic diversification, the creation of jobs, and new local business. The introduction of the cruise industry may also rejuvenate an economy suffering from the loss of traditional economic activities.</td>
<td>There are limited benefits to coastal communities simply passed by cruise ships. It is possible that cruise passengers contribute indirectly by visiting smaller coastal communities before or after their cruise voyage.</td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td>Having cruise ship tourism as the main, or in some cases the only, economic activity can cause dependency on a fluctuating industry. Tourism is based on supply and demand factors largely influenced by customer attitudes. If a community becomes reliant on tourism arrivals and the industry patterns change, the area may become depressed.</td>
<td>The economic costs would stem from the loss of species in traditional economic activities due to possible pollution impacts by passing cruise vessels.</td>
</tr>
<tr>
<td><strong>Environmental Impacts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td>Cruise ships may prove less damaging to the environment than traditional economic activities. The diversification of the economy may also create a balance between resource extraction in other resource-based industries and preserving the environment as a tourism asset.</td>
<td>Benefits could include an increase of land-based tourists to the area due to the exposure of their community’s assets by the ship, without the need to receive the vessel or create a port facility. The increase in tourism in one community may reduce economic activity in other resource sectors including fishing and logging. This may help conserve the existing resources in the surrounding areas by reducing extraction to sustainable levels.</td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td>Could be an increase in air pollution, damage to local fish, shellfish, and water mammal populations. A worry concerning where the unloading of solid waste will be deposited. Discontent over the lack of scientific information of the actual impact of cruise ships’ discharges and their cumulative effects. A worry that the smaller pocket cruise vessels are not as environmentally friendly as the larger ships.</td>
<td>Discharging may occur near their shores causing impacts to their health and damaging other resources (e.g. fish and shellfish). Concerned about what may be contained in the discharges.</td>
</tr>
</tbody>
</table>
### Socio-Cultural Impacts

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>The attitude towards tourism development in many communities is very positive. The business community sees opportunities to strengthen, and individuals may envisage the creation of jobs. Both can lead to an increase in moral. The Campbell River First Nations Band reports that many in the community greet the idea of the addition of cruise ships to the tourism scene with much enthusiasm.</td>
<td>Complaints about ships being eyesores impacting the beauty and the peace in their communities. Increased noise pollution. Worry about their privacy if the vessels begin to travel too close to their homes.</td>
</tr>
</tbody>
</table>

Some smaller communities along the Canadian Pacific coast have voiced concerns about the possible impact of cruise ships to their areas whether through indirect environmental effects and/or air and noise pollution. It is important for industry and government to consult with coastal communities to better understand their concerns. It is likely that many of the outstanding issues can be resolved through communication and cooperation.

### 4.2 International Cruise Ship Labour Laws

Another controversial issue, surfacing often in journals and articles, surrounds the cruise ship industry’s treatment of its crewmembers largely composed of a variety of nationalities. The current model wage and hour scale established by the International Labor Organization, suggests a minimum wage of US $435 a month for basic-level seamen who work 10 hours a day, seven days a week. In order to encourage the global enforcement of decent working standards in shipping, the International Labour Organization (ILO) Joint Maritime Commission has recommended a major overhaul of the various maritime employment standards that became applicable to seafarers worldwide in January 2001.

The ILO is considering consolidating all the current maritime labour standards into one instrument. Among the special annexes being considered for the new convention are general conditions of employment, health and safety, sickness and injury benefits, and food and accommodation.\(^\text{59}\) The intention is that it should be easier for governments to ratify such a convention, enabling basic employment standards to be applied to all seafarers on all ships, regardless of their flag. Currently the ILO basic wage noted

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\(^\text{59}\) Increase to ILO minimum wage, Mariscene news, www.marisec.org/news/mariscene/maritext.htm
previously, only applies to Able Seamen. The rate will increase to US $450 in 2002, and US $465 in 2003.\textsuperscript{60}

\subsection*{4.2.1 Workplace Code of Conduct implemented on the Canadian Pacific Coast}

The workplace code of conduct, established by the ICCL and applicable to all large ships on the Canadian Pacific coast, is a comprehensive, industry-wide commitment to safety and fair treatment of crewmembers in the shipboard work environment.\textsuperscript{61} The conditions agreed upon by the ICCL for the workplace code of conduct were drawn from the United Nations which has established two specialized agencies to deal with international maritime issues: the International Maritime Organization (IMO) based in London and the International Labour Organization (ILO) based in Geneva. Both organizations have adopted conventions dealing with the safety, health and welfare of seamen. The most widely adopted convention that governs shipboard labour and crew employment practices is ILO 147. 40 countries have ratified ILO 147, including Canada and the United States. Port states, such as Canada, have the authority to enforce crew safety regulations.

According to the ICCL workplace code of conduct, crewmembers are afforded wages that are competitive with comparable international pay scales and provide employment opportunities and compensation packages that are equal to or exceed similar positions in the nations from which crew are recruited.\textsuperscript{62} Depending on the position, there is also the opportunity for many crewmembers to earn gratuities. ICCL policy also includes recruiting at the trainee level and providing education so crewmembers obtain work skills that facilitate promotion and career development. In addition, all crewmembers receive room and board at no cost and live in a clean, well-maintained living environment. The crew areas on each ship shall be inspected on a regular basis by the ship's captain or his representative.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{60} Increase to ILO minimum wage, Mariscene news, www.marisec.org/news/marisce/maritext.htm
\end{itemize}
\end{footnotesize}
5.0 Looking into the Future

5.1 Challenges

- There is an absence of scientific literature to provide an indication of the cumulative environmental effects of vessel wastewater discharges (including that of cruise ships) in Canadian Pacific waters.
- There are potential economic, environmental and socio-cultural impacts of the cruise ship industry on new smaller port communities that are looking to attract cruise ships. For many smaller communities that have been experiencing difficulties with the loss of their traditional primary sectors (such as logging), tourism arises as an attractive alternative. Coastal communities need scientific advice to help them to weigh their options more effectively.

5.2 Promising Initiatives

- Oceans Blue Foundation’s\(^{63}\) cruise ship stewardship initiative provides incentive for creating partnerships between industry and government. Its idea of future initiatives incorporating an open and democratic process for establishing guidelines, voluntary regulations, and satisfactory monitoring and enforcement procedures have merit and deserve future examination.
- The ICCL has published new regulations on practices and procedures to be carried out by all its member lines where compliance with such is a condition of membership. These guidelines are timely and suggest that a future partnership between industry and government is possible. Having uniform and effective standards of behaviour for all cruise ships (including those under 500 passengers) on the entire Canadian Pacific coast will serve to reduce negative environmental impacts. Government establishing a memorandum of understanding with the ICCL or NWCA could be a step in the right direction.

5.3 Areas for Future Study

- Examining the potential collaborations that could exist between industry and government. The social and environmental responsibility paradigm entering into the private sector corporate mentality provides an opportunity for the public sector to work with industry to encourage “beyond compliance” behaviour. An analysis of this nature could be a valuable element of the Canada’s Oceans Strategy under the Oceans Act.
- A study on the prospect of the cruise industry combining with government initiatives to assume a greater role as an oceans advocate and oceans educator. Such a public/private partnership could provide for public education and awareness.

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\(^{63}\) Oceans Blue Foundation, founded in 1996, is a Canadian environmental charity committed to the conservation of blue and green - or marine and terrestrial - environments through education and awareness. Oceans Blue Foundation is the first charity in Canada to focus on developing environmental 'best practices' related to tourism.
campaigns and some limited learning opportunities for passengers while aboard on various marine related matters.

- Currently, ENGOs are concerned about cruise ships and their impact on the environment, especially in light of Alaska’s new regulations aimed directly at the cruise ship industry that strictly enforce good environmental behaviour. They feel their concerns require new Canadian legislation. Perhaps a document summarizing existing legislation and enforcement practices on the Canadian Pacific coast could form the basis for further debate on this important matter.

5.4 Conclusion

Cruise ships as ocean users operate in a unique arena economically, politically, environmentally, and socially. Although the policy and user conflicts impacting the cruise industry are not altogether unique, they do represent an interesting area of study critical to the economic and environmental health of certain Canadian Pacific regions. Currently the cruise industry is providing a significant economic contribution to many port communities with the potential of increasing that total in new more remote communities in the future. The underlying question however is what the ultimate cost of this economic contribution will be on the Canadian Pacific environment and its people.

This report on the scale and scope of the cruise ship industry has highlighted where many of those questions come from and delineates ways in which to move forward. First, there needs to be more scientific study on the cumulative impacts of cruise ship discharges and their impacts on communities. Second, a study on communities’ perceptions of cruise ship impacts as well as the behaviour of cruise lines with respect to the dependency level of the community on tourism will provide some valuable insights into the increased government regulation versus industry self-regulation debate. Finally, having open and democratic meetings with the relevant stakeholders including ENGOs, industry, communities, and First Nations will foster a more cooperative environment where many of the outstanding issues can be discussed and potentially resolved.