

Potential Spatial and Management Implications Of Cruise Ship Passenger Activity on the Development of the North Coast LRMP

Project Report

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Glossary of Key Terms

The following glossary provides definitions for some of the key terms used in this report. While these terms may have broader meanings, the following definitions are provided in the context of this work.

AK: Abbreviation for Alaska

Best Management Practices: A technique, action, tool, or process designed to mitigate an adverse impact or demonstrate a particularly effective method of dealing with an issue.

Cruise Line Tours: Passengers are able to purchase shore excursions from the cruise lines before the voyage begins, during the cruise, or at the port destination. The major cruise lines offer shore excursions through subsidiaries of the parent company or through service agreements with tour operators at the port destination.

Flightseeing: An excursion experience where cruise passengers participate in a helicopter- or floatplane-based tour to view natural and physical resources of interest from the air.

Independent Tours: Tours offered by tour operators who do not have service agreements with the cruise lines. Tour participants can purchase tours through the independent operators either before their voyage or at the port destination.

Land and Resource Management Plan (LRMP): A sub-regional integrated resource plan that seeks to create a vision for use and management of public provincial lands and resources.

Large Vessel Cruise Ships: Cruise ships typically carrying between 1200 and 2800 passengers.

Maximum Distance: The maximum one-way geographical distance travelled from the port area during a shore excursion tour.

Mean Maximum Distance: The average of the maximum distances travelled for all shore excursion tours within a specific excursion type (i.e. The mean maximum for helicopter-based shore excursions is the average of the maximum distances travelled for each of the 12 helicopter-based tours evaluated in this report)

North Coast LRMP Area: The geographical area under consideration by the North Coast Land and Resource Management Planning table.

Port of Call: A port visited by a cruise ship during its voyage. The typical duration for ports of call in the Alaskan ports assessed in this study ranges from 8 to 12 hours.

Port of embarkation / disembarkation: The port where cruise passengers initially board the vessel (embarkation) or leave the ship for the final time (disembarkation).

Resource Area: One of 17 areas of the North Coast Forest District delineated in the Forest and Fisheries Tourism Opportunities Study (2000).

ROS: Recreation Opportunity Spectrum. A land-classification framework developed by the USFS to manage recreation and tourism on National Forest Land and integrate recreation and tourism with other non-recreational land uses.

Shore Excursion: An organized tour purchased by a cruise passenger in a port destination. Shore excursions may be land-, water-, or air-based. Examples include activities such as kayaking, wildlife viewing, or cultural interpretation. In this report, “shore excursion” and “shore tour” are used interchangeably.

Spatial: Referring to geographical space. In the context of this work, the term “spatial” refers to the geographical extent of the North Coast LRMP region that could be involved with tourism development for cruise ship passenger shore excursions if trends similar to Alaskan ports were to occur.

Tourism Capability: Tourism capability assesses the ability of the land base to support specific forms of tourism activity. Assessment criteria typically include the presence of physical resources that are considered necessary for a specific form of tourism experience or activity (e.g. beaches and shoreline access for kayaking). This report uses the tourism capability information for some of the 11 different tourism products developed in the Forest and Fisheries Tourism Opportunities Study for the North Coast Forest District (Clover Point, 2000). This report is further referred to as the “capability report” or the “North Coast Tourism Opportunities Study” (NCTOS 2000).

Tourism Suitability: Tourism suitability assesses the ability of the land base to support specific forms of tourism activity. It takes into account those features that may represent constraints on development. The tourism suitability information discussed in this report was developed through the North Coast Tourism Opportunities Study: Suitability and Tourism Use Mapping report (2001).

25% Extended Travel Range: This extended travel range reflects potential increases in excursion travel distances generated by future improvements in transport technology. It extends 25% beyond the current maximum distance reported to be travelled by specific forms of shore excursions.

USFS: The acronym for the United States Forest Service.

Executive Summary

Introduction

This report identifies potential land and resource implications associated with accommodating the large vessel cruise ship tourism industry in British Columbia's North Coast LRMP region. More specifically it focuses on: 1) describing the potential spatial implications of this industry on the area's land and resource base; and 2) identifying management strategies for addressing the probable impacts of shore excursion activities pursued by cruise passengers in the region's mid and back-country areas. The overriding intent is to provide North Coast LRMP Table members with a clear appreciation of the land and natural resource requirements, as well as related resource management strategies needed to plan for cruise ship tourism, particularly in the region's mid and back-country areas.

The information presented in this report was collected through a review of relevant industry documents, consultant reports, newspaper articles, field case studies in Alaskan cruise ship destinations, and interviews with key informants in Canada and the United States. Particular emphasis was placed on learning from the patterns of cruise tourism resource use, as well as the management experiences of Alaskan cruise tourism operators and resource managers. In this regard, three case studies of use patterns and resource management issues associated with Juneau, Ketchikan and Skagway cruise ship tourism operations were conducted. Perspectives gained from the Alaskan experiences were then used to guide the interpretation of tourism resource capability and suitability information for the North Coast LRMP region. The forecasted mid and back-country spatial implications of cruise ship tourism to the LRMP region are described in a series of resource activity maps with accompanying text.

Alaskan Cruise Tourism Trends

In the 2001 cruising season (May to September), the fleet of cruise ship vessels plying Alaskan waters had a capacity of 4.7 million passenger nights. This made it the fourth largest cruise route travelled in the world. Three Alaskan ports receive especially

large volumes of cruise passengers. Juneau, Ketchikan and Skagway, Alaska (all relatively close to BC's North Coast region) accommodated an estimated 700,000, 681,000 and 650,000 passengers respectively during the 2002 cruising season.

The Importance of Shore Excursions

Expanding numbers of younger and more physically active cruise passengers, increasing demands for soft-adventure pursuits, intensifying interests in multiple-activity excursions, and increasing desires for unique experiences in high quality natural and cultural areas have, in combination, created the need for more diversified and high value-for-money shore activities. In an already competitive tourism marketplace, this has spawned the development of a wide variety of innovative on-shore tourism products and services. It is these activities which are of particular importance to local communities, tourism operators and resource managers. The development of shore excursions has enabled Alaskan port communities to generate substantial benefits. It has also introduced a range of management challenges for certain regions.

In the early years of the Alaskan cruise tourism industry, passengers primarily focused their shore excursion activities on visits to the port communities and a select number of high profile attractions. However, a growing number of visitors now utilize mid and back-country regions as their primary destinations for shore tours. These excursions involve a range of land, water and air-based transportation modes, often used in combination to create unique product options and experiences for cruise passengers. Sample land-based tours include rail adventures, glacier viewing, hiking, bear viewing, mountain biking, and off-road Jeep tours. Water-based excursions include wildlife viewing, sportfishing, kayaking, rafting and backcountry jet boating. Air-based excursions utilize both helicopter and floatplane travel for glacier flightseeing, visits to wilderness lodges, and more recently, for activities such as glacier trekking or glacier dog sledding.

Many of these excursion products are not exclusive to specific cruise ports. For example, kayaking tours can be pursued in all of Juneau, Ketchikan, and Skagway. However, in the process of positioning in ways to differentiate their port from other Alaskan cruise destinations, several communities promote a range of themed tour products and

services. For instance, Juneau has promoted glaciers, mining heritage, and its position as the capital of Alaska in its positioning strategy. Ketchikan has become known for its Aboriginal cultural heritage and sport fishing tours. Skagway has centred its product development and promotions on the theme of gold rush history.

Excursion Development Considerations

Overall, Southeastern Alaskan cruise ports tend to provide shore excursions which emphasize the scenic natural resources, charismatic marine and terrestrial wildlife species, and historical and cultural attributes of the area. While there is typically a rich array of such resources available in these regions, not all of the key sites are utilized for tour purposes. This is largely due to market and logistical challenges associated with the cruise ship tourism industry. Typical challenges to developing and delivering cruise tourism tour products include:

- The limited duration of ports of call (typically 8 to 12 hours),
- The increasing cost of transportation to remote sites (especially for helicopter and floatplane-based travel),
- The convenience and comfort requirements of cruise passengers (e.g. relatively cramped conditions and limited washroom systems for some transportation modes),
- The desire of many cruise passengers to pursue multiple tours during limited duration ports of call (e.g. cruise passengers may choose to purchase a 5 hour fishing excursion in the morning and a 1 hour flightseeing tour in the afternoon).

Alaskan Shore Excursion Spatial Patterns

Shore excursions offered to cruise passengers in the Juneau, Ketchikan and Skagway regions provide insights into the typical spatial distribution of mid and back-country areas used by tour operators (Table ES-1).

Table ES-1: Travel Distances (From the Port Community) for Alaskan Shore Excursion Products

Activity	Number of Tours Examined	Maximum One-Way Travel Distance From Port (km)	Mean Maximum One-Way Travel Distance From Port (km)	25% Extended Zone (km)
Helicopter-Based Excursions	12	58	34	73
Floatplane-Based Excursions (Cruise Lines)	10	81	53	101
Floatplane-Based Excursions (Independent Tours)	4	112	92	140
Hiking Tours	12	53	19	67
Marine Wildlife Viewing Tours (Cruise Lines)	15	42	24	52
Marine Wildlife Viewing Tours (Independent Tours)	2	86	84	108
Terrestrial Wildlife Viewing Tours (Cruise Line)	3	50	39	62
Terrestrial Wildlife Viewing Tours (Independent Tours)	2	112	104	140
Kayaking Tours	5	30	20	38
Rafting and Canoeing Tours	7	42	20	52
Rail Tours	4	30	26	38
Destination Lodge Tours	4	35	27	43
Mountain Biking Tours	7	30	19	38
Land-Based Tours	35	159	25	199

The Maximum Distance (Table ES-1) represents the one-way geographical distance from the centre of the port community to the most distant site used for each category of excursion product. The Mean Maximum distance is the average of the maximum distances travelled for all tours within each category of excursion product. The 25% Extended Buffer Zone identifies an additional range beyond the Maximum One-Way Travel Distance, which accommodates for any potential technological improvements that might facilitate greater access into the region.

While some cruise passengers travel significant distances to experience unique Alaskan resources, the majority of shore excursions involve visits to areas relatively close to the port community. A significant volume of passengers pursue excursions that are completed within 4-hour time frames, yet some participate in more unique and expensive tours that travel significantly greater distances. These tours may take 5 to 10 hours, use multiple travel modes, and transport passengers in excess of 140 kilometres from the port. Overall, logistical considerations and passenger desires significantly affect the duration of tours and the distances that can be travelled.

In the North Coast LRMP region, such extended travel would typically be associated with regions, resources, or experiences of especially unique and charismatic appeal. Accommodating such tours would entail careful management of potential social and environmental effects, before their introduction into specific areas.

Potential North Coast LRMP Shore Excursion Patterns

The North Coast region of British Columbia has a wide range of high quality natural and cultural resources suited to attracting cruise ship passengers. Business interests will eventually decide the extent to which they invest in the development of tourism opportunities associated with these resources. However, the LRMP table can play an important role in identifying where these resources are situated and the extent of development that is acceptable.

The Forest and Fisheries Tourism Opportunity Study for the North Coast Forest District (2000) (NCTOS 2000) assessed the capability of the region's land base to support a range of tourism products deemed to possess the best opportunities for sustainable tourism. In addition, the closely related 2001 North Coast Tourism Opportunities: Suitability and Tourism Use Mapping report (NCTOS 2001) identified areas possessing highly suitable resources for tourism opportunities within the region. Some of these opportunities may be appropriate for development as cruise tourism products by North Coast region stakeholders.

Based on typical Alaskan cruise ship passenger shore excursion interests and travel distances, as well as NCTOS 2000 and 2001 resource inventory information, regions within

the North Coast LRMP planning area that are potentially capable and suitable for cruise tourism activity have been identified in this report. It is recognized that the spatial patterns for cruise ship tourism within this region will not necessarily be identical to those in Alaska. However, it is expected that somewhat comparable factors to those occurring in Alaska will play significant roles in shaping the spatial patterns and management challenges that are apt to occur with the introduction of cruise ship tourism in the North Coast LRMP region.

The North Coast areas identified as possessing high capability and high and moderate suitability for specific tourism activities occurring within typical Alaskan shore excursion travel distances are listed in Table ES-2. Accompanying visual representations of these potential resource use patterns are included in Maps 4 to 11. The geographical boundaries for the Resource Areas discussed in this report are the same as those previously defined in the 2000 North Coast TOS. A description of each area is included in Appendix 4 and the location shown in Figure 1.1.

Depending on available financial and technological resources, other regions across the North Coast, aside from those identified in Table ES-2, may also support cruise tourism activity. The purpose of this analysis is not to designate areas for development, nor suggest activities that should be developed. It is intended to present the potential spatial distribution of cruise passenger activity, if trends similar to Alaska were to occur in the NCLRMP region.

Table ES-2: North Coast Areas of High Tourism Capability and High and Moderate Suitability Within Typical Alaskan Shore Excursion Travel Ranges

Activity	Potential Resource Areas (High Capability)	Potential Resource Areas (High and Moderate Suitability)	Map
Helicopter-Based Excursions	A, D, E, F, G, P, Q	See Section 6.2	4
Floatplane-Based Excursions (Cruise Lines)	A, B, D, E, F, G, P, Q	See Section 6.3	5
Floatplane-Based Excursions (Independent Tours)	A, B, D, E, F, G, K, L, Q, P	See Section 6.3	5
Hiking Tours	C, D, G H, O, P (Long-term potential)	N/A	6
Marine Wildlife Viewing Tours (Cruise Lines)	C, D, E, G	See Section 6.5	7
Marine Wildlife Viewing Tours (Independent Tours)	C, D, E, G	See Section 6.5	7
Terrestrial Wildlife Viewing Tours (Cruise Line)	D, E, F, H, P, Q	See Section 6.6	8
Terrestrial Wildlife Viewing Tours (Independent Tours)	B, D, E, F, H, K, L, P, Q	See Section 6.6	8
Kayaking Tours	C, D, G	C, D, E, F, G	9
Destination Lodge Tours	C, D, E, G	See Section 6.10	10
Mountain Biking Tours	D, G	N/A	11

Stakeholders in the North Coast region, including First Nations, existing tour operators, and other business interests may also decide to develop products that reflect the history and culture of the region, in addition to scenic natural and physical features. However, the character of such products will depend on the cultural quality and fragility of the existing product base, the desires of stakeholders for future product development, traditional uses of the resource base, and other environmental, social and resource management considerations.

Environmental and Resource Management Implications

There is a wide range of visitor activity management issues that has emerged in Alaskan cruise destinations that may be duplicated in the North Coast region if appropriate mitigation measures are not established. Some of the more prevalent management issues and associated mitigation strategies that may be relevant in a North Coast LRMP context are described in the following paragraphs.

1. Flightseeing Noise

Helicopter and floatplane noise is a significant issue for residents, back-country users, and wildlife managers in the community of Juneau and surrounding areas. Mitigation initiatives have included adopting the City and Borough of Juneau (CBJ) Best Management Practices, developing Fly Neighbourly Flight Routes, and investigations into moving heliport takeoff and landing areas to alternative sites. More specific mitigation methods have included:

- Designating low use zones (e.g. operators recognize regions that have been identified as areas where direct overhead flights are to be avoided, safety permitting); and,
- Implementing wildlife viewing protection measures (e.g. prohibiting circling and hovering around wildlife species, and minimizing overall levels of disturbance during viewing excursions).

2. Helicopter Landings in the Tongass National Forest:

As the volume of cruise passengers has increased, so has the demand for helicopter-based tours in the Tongass National Forest region of Southeast Alaska. In 2001, the United States Forest Service (USFS) completed an analysis examining eight different alternatives for establishing the number of helicopter landings to be permitted on USFS managed land. The days of the week when operations could occur, the permitted activities on the glaciers, and the landing protocol within buffers adjacent to sensitive areas were specified. Each alternative was evaluated on the basis of overall noise impacts on:

residents, recreationists, wildlife and on new areas. An Environmental Impact Statement report capped the number of landings, and allowed permits to be issued for landing sites away from key recreational use areas and wildlife habitat.

3. Commercial and Non-Commercial Activities Shoreline Use

As the number of shore excursions using Alaska's coastlines has increased over the past decade, both commercial tour operators and residents have become concerned with the level of crowding at key sites. In response, the USFS developed a Shoreline Outfitter / Guide Draft Environmental Impact Statement (DEIS) to allocate appropriate levels of commercial recreation activity in these areas. These allocations designated the proportion of the established carrying capacity for commercial recreation in each of 38 Use Areas. These allocations were based primarily on the estimated social carrying capacity of specific regions. Overall, about 21% of the total carrying capacity was allocated for commercial recreation. Depending on the shoreline area, allocations ranged from 10% to 40% of the total capacity. Critical factors used in establishing the commercial recreation allocation included: the proximity of a use area to communities (i.e. sites closer to a community are generally favored by residents for recreation), the level of subsistence use, and potential resource impacts.

The Shoreline DEIS also examined the possibility of designating specific sites as large group areas, either through the designation of enclave sites (e.g. areas for tour groups with up to 75 participants), or through the development of Fifteen-Percent Areas (e.g. places where large groups can occur only on an occasional basis, for less than 15% of the primary use season).

4. Trail Use and Management

With an increasing number of cruise ship passengers participating in hiking activities during the 1990's, the high quality hiking trails in the City and Borough of Juneau became a source of conflict between commercial operators and residents. A non-profit organization was created to facilitate a process for evaluating the commercial use of the Juneau trail network. After a series of information gathering initiatives, public consultation and a resident

survey, specific trails were designated for both commercial and resident use, while others were designated solely for public recreation. Similar designations have been applied to other locations throughout Juneau. Commercial tours are forbidden to use these areas without first obtaining a permit.

5. Marine Wildlife Viewing

In response to growing demand for marine mammal viewing by tourists, and concerns for the health and safety of humpback whales, the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service established minimum approach distances (100 yards) for all vessels operating in the vicinity of humpback whales. The development of these regulations replaced voluntary Marine Mammal Viewing Guidelines. However, sources in Alaska indicate that more effort is needed to ensure that these mammals are not adversely affected by the presence of humans.

6. Terrestrial Wildlife Viewing Activities

Growing interest in bear viewing by visitors to Southeast Alaska (including cruise ship passengers), has elevated the level of management required to protect these animals. Two exemplary management strategies that have been implemented to reduce levels of visitor pressure on the area's bears include: the use of a daily maximum visitor permitting system at the Pack Creek Brown Bear Viewing Area; and the construction of carefully sited bear viewing platforms at the Anan Creek Wildlife Viewing Area. Both of these programs are designed to reduce the impact of tourist activity on bears, while protecting the remote characteristics often associated with wildlife viewing activities.

Summary

Alaskan cruise ship tourism has generated significant economic benefits for local communities and businesses. However, each cruise port destination has had to address a range of land and resource management issues associated with the industry's activities. The most effective solutions to these issues appear to be built around planning and

management strategies that involve the combined and co-operative efforts of local community and regional stakeholders, the cruise lines and their shore excursion partners. Unlike in the Alaskan case, the North Coast LRMP region has the opportunity to plan for the probable land and resource impacts of cruise tourism prior to its emergence in the area. This report, through its identification of probable shore excursion logistical and spatial patterns, as well as related management challenges, provides a foundation on which land and resource strategies for cruise ship tourism in the region can be established.