

Cruise Ships in PNCIMA

Cruise ship activity in PNCIMA consists of two main segments:

- Large vessel cruise ships that travel through the region, some of which make port of call stops in Prince Rupert;
- Smaller ships of the pocket cruise industry, which make stops at many ports in the region. In recent years, pocket cruises have visited the communities of Alert Bay and Telegraph Cove, and they continue to berth at the Atlin terminal in Prince Rupert.¹

The US *Passenger Services Act of 1886* stipulates that vessels not owned by US citizens, built by US shipyards and staffed by US citizens cannot transport passengers between US ports.¹ As most cruise vessels are foreign flagged and owned, cruises from a US port south of the Canadian border to Alaska must stop at a BC port.

Cruise Ship Traffic Density

A study of ship movements on the BC coast was conducted using the Canadian Coast Guard's Marine Communication and Traffic Services (MCTS) program's data from 2003 and 2005 to 2008 to determine seasonal trends by ship type. Mean daily vessel movements were summarized using two different grids: one of ten by ten km cells for offshore waters and another of three by three km cells for inshore waters. This was necessary to show differences in data quality for different parts of the BC coast, specifically differences in accuracy (e.g. of the radar) and in the frequency with which vessel positions were recorded. More detailed and accurate information could be obtained from vessels monitored inshore (from 200 to 1,000 m between recorded vessel locations), compared to vessels monitored offshore (from two to ten km between recorded vessel locations). Seasonal estimates of vessel movements were calculated by multiplying mean daily estimates by 182.5 days (six months). Vessel traffic data in most fjords is not available because vessels are not usually tracked in those locations.² The density estimates are relative; doubled tracks and anomalous routes are not accurately presented.

Cruise activity in BC is seasonal, with the majority of sailings taking place in the summer months. Very little traffic occurs in the winter, so only summer cruise ship activity (April to September) is presented on the accompanying map. Use of BC waters by cruise ships is also highly variable (e.g. from season to



Cruise ship. Photo: Ange Hill

season.³ Winter cruise ship traffic patterns can be viewed in the Marine Use Analysis for PNCIMA.¹

The predominant summer cruise route transits between Campbell River to Prince Rupert through Johnstone Strait, Queen Charlotte Sound and Hecate Strait.⁴ Most ships transiting from Seattle or Vancouver to Alaska go through Hecate Strait rather than Grenville Channel or Principe Channel in order to be able to discharge waste water offshore.³ Data reveal a maximum of approximately 430 cruise ship movements during the summer months within Johnstone Strait. Routes also exist through Fitz Hugh Sound near Bella Bella, and through Caamano Sound.

In the 2010 season, while more than 400 large cruise vessels passed through PNCIMA along the Inside Passage Marine Highway en route to Alaska, only 23 of those vessels, carrying 55,300 passengers, berthed at the Prince Rupert Northland cruise terminal. The remaining vessels tend not to stop in PNCIMA,¹ although rare calls have been noted on Haida Gwaii. Approximately half of these travel directly from Vancouver to Alaska through the Inside Passage, while the remaining vessels from Seattle make in-transit calls in Victoria and travel on the west coast of Vancouver Island. There are currently no ships calling on Campbell River, and ships conducting seasonal calls to Nanaimo often do not pass through PNCIMA.⁵

When MCTS data were processed, efforts were made to remove duplicate entries and data suggesting unusual numbers of ship movements; however, no further analyses were carried out to eliminate or fix anomalous vessel paths. Therefore, grid cells of the lowest value class (cells representing one to 25 vessels in the accompanying map) should be interpreted with caution.

1 MacConnachie, S., Hillier, J. and Butterfield, S. 2007. Marine use analysis for the Pacific North Coast Integrated Management Area. Can. Tech. Rep. Fish. Aquat. Sci 2677: viii + 188p.
 2 Serra-Sogas, N. 2010. Modelling risk of chronic oil pollution from vessel operations in Canada's west coast (Masters thesis). Department of Geography, University of Victoria, Victoria, BC.
 3 British Columbia Marine Conservation Analysis Project Team. 2011. Marine atlas of Pacific Canada: a product of the British Columbia Marine Conservation Analysis. Available from www.bcmca.ca (Accessed March 2011).
 4 The apparent break in density values south of northeastern Vancouver Island is due to the change in the size of cells used to summarize the data, not due to a drop in the number of ships.
 5 Phil Westoby, Cruise Development Coordinator, Prince Rupert Port Authority. Personal Communication, December 2010.



Cruise ship in Prince Rupert. Photo: Jacob Joslin

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