

**BRITISH COLUMBIA FERRY SERVICES INC
BRIEFING NOTE**

SUBJECT **Passenger Overload Experience with New Minimum Safe Manning Requirements**

PREPARED FOR **British Columbia Ferry Commission**

BACKGROUND

British Columbia Ferry Services Inc. ("BCF" or the "Company") undertook to meet requirements made by Transport Canada ("TC") under the Marine Personnel regulations of the *Canada Shipping Act 2001* for implementation in January 2009. The existing regulations were not materially modified, but the implementation of requirements for Minimum Safe Manning ("MSM") levels on domestic ferries came into effect and TC adjusted their interpretations of the applicable regulations. The new requirements had no impact on passenger levels for the major vessels in the fleet and affected only the minor and intermediate class vessels.

To this end BCF:

- determined what changes to crew levels and/or equipment for each of the minor/intermediate vessels would be needed under either single or multiple passenger licenses;
- conducted practical demonstrations for TC of the crew ability to meet emergency response under the crew levels to be included in MSM applications;
- identified the costs for additional life-saving equipment to maintain pre-MSM passenger levels irrespective of whether changes were made to crew levels; and
- analyzed historic traffic loads and trends to see whether increased crew levels or additional equipment would have a material impact on customer service.

For each vessel affected by the changes in MSM, this led to one of the following:

- lower passenger level with the same crew level where spikes in passenger demand were considered infrequent and unpredictable;
- increase in crew level to meet a required single passenger license where demand was consistently high enough to require lift off capacity;
- use of multiple passenger licenses to allow management of crew levels to predicted demand; or
- future capital planning to increase or modify life-saving appliances to increase passenger levels and/or reduce crew levels.

BCF employs a 2% buffer in loading passengers to vessel licenses as a safeguard for the possibility of unaccounted persons being aboard.

Passenger Demand – Surges/Spikes:

Of the 18 vessels affected by the changes in MSM requirements (see Table 1) only 9 vessels offer the opportunity to change crew levels to accommodate additional passengers. The management of crew levels for these vessels is done locally with support from the Customer Care department. Anticipation and implementation of additional crew is managed based on detailed analysis of traffic for previous years and on an on-going basis as follows.

- Historic trends, including commuter passenger and seasonal traffic, are analyzed and where predictable increases in traffic are identified, vessels are crewed to higher licenses.
- Communication channels are in place with local groups (e.g. schools, churches, businesses) to identify in advance possible spikes in traffic arising from special events. As well, event planners can advise BCF through the “[Add your own event](#)” link at the bottom of each route page on the BC Ferries website (at “[http://www.Bcferries.com/travel planning/Community Events/](http://www.Bcferries.com/travel%20planning/Community%20Events/)”) of upcoming events that may result in otherwise unanticipated increases in traffic. Depending on the circumstances of the event, BCF may crew to a higher license and/or may help identify other less busy sailings that could be used to transport event participants.

**Table 1
Minimum Safe Manning Levels – Pre & Post January 2009**

Route	Vessel	Pre MSM Passengers (Crew)	Current MSM Passengers (Crew)
Route 4	Skeena Queen	592 (8)	442 (8) 293 (7)
Route 5	Bowen Queen (relief)	393 (7)	390 (10) 292 (8) 193 (7)
Route 5A	Mayne Queen	393 (7)	392 (8) 193 (7)
Route 6	Howe Sound Queen	294 (6)	292 (8) 143 (7)
Route 7	Island Sky	NA	450 (12)
Route 7	Queen of Chilliwack	389 (11)	292 (13)
Route 8	Bowen Queen (relief)	393 (7)	390 (10) 292 (8) 193 (7)
Route 9A	Bowen Queen	393 (7)	390 (10) 292 (8) 193 (7)
Route 12	Mill Bay	134 (4)	133 (5) 71 (4)
Route 18	North Island Princess	293 (7)	143 (7)
Route 19	Quinsam	343 (7)	293 (7)
Route 20	Kuper	264 (5)	263 (6) 145 (5)
Route 21	Quinitsa	296 (6)	294 (6)
Route 22	Kahloke	195 (5)	194 (6) 145 (5)
Route 23	Powell River Queen	402 (6)	392 (8) 193 (7)
Route 24	Tenaka	150 (6)	100 (6)
Route 25	Quadra Queen II	293 (7)	143 (7)
Route 26	Kwuna	146 (4)	146 (4)
Relief	Tachek	243 (6)	144 (6)
Relief	Nimpkish	133 (5)	120 (5)
Relief	Klitsa	195 (5)	194 (6) 145 (5)

Traffic Analysis:

A detailed analysis of historic passenger demand was the basis of the original applications for MSM applications to TC. This demand analysis was specific to the minor vessel routes and passengers only and led to the establishment of crew levels, multiple licenses where available and the management processes described above.

BCF does not track foot passenger overloads because such occurrences are rare and it is difficult to obtain a head count of un-ticketed travelers. It is possible to identify sailings where passenger loads have reached the 2% buffer, which means passenger loads are at or near maximum allowable levels. These are shown in Table 2. It is important to note that for the sailings identified, it cannot be stated that there was an overload of foot passengers, only that there was a potential for one, given that maximum allowable passenger levels were reached. Overall, the number of sailings for which a potential exists that an overload (left behind) foot passengers is a very small fraction of the total sailing provided by BC Ferries – estimated to be less than 1/10 of 1% of minor vessel sailings. The actual occurrences of overloaded foot passengers is believed to be an even much smaller porting of the 93 'potential' overload situation.

**Table 2
Sailings within 2% of Licenses**

ROUTE	2008 (January 1 - September 30)			2009 (January 1 - September 30)			VARIANCE
	WITHIN 2% OF MAX LICENSE	WITHIN 2% OF LOWER LICENSE	TOTAL SAILINGS	WITHIN 2% OF MAX LICENSE	WITHIN 2% OF LOWER LICENSE	TOTAL SAILINGS	
4	0	n/a	0	1	9	10	10
5/5A	1	n/a	1	0	6	6	5
6	0	n/a	0	0	26	26	26
7	0	0	0	0	n/a	0	0
8	0	0	0	0	3	3	3
9a	2	n/a	2	3	0	3	1
12	0	n/a	0	0	4	4	4
18	0	n/a	0	2	n/a	2	2
19	0	n/a	0	3	n/a	3	3
20	0	n/a	0	0	26	26	26
21	0	n/a	0	0	n/a	0	0
22	0	0	0	0	0	0	0
23	0	0	0	0	9	9	9
24	0	n/a	0	0	n/a	0	0
25	0	0	0	0	n/a	0	0
26	0	n/a	0	1	n/a	1	1
			3			93	90

DISCUSSION

During October there were media reports on two incidents of passenger overloads on Route 1 and Route 19:

Route 19:

On October 19, 2009 the relief ship on Route 19, *Bowen Queen*, was crewed to the same passenger level as the regular ship, *Quinsam*, but a sailing experienced an unpredicted spike in foot passenger demand causing the short loading of vehicles. As the *Bowen Queen* can sail with a higher passenger license than the *Quinsam*, the following week additional crew were added, but the passenger demand did not repeat itself and the higher license was in excess of that required.