

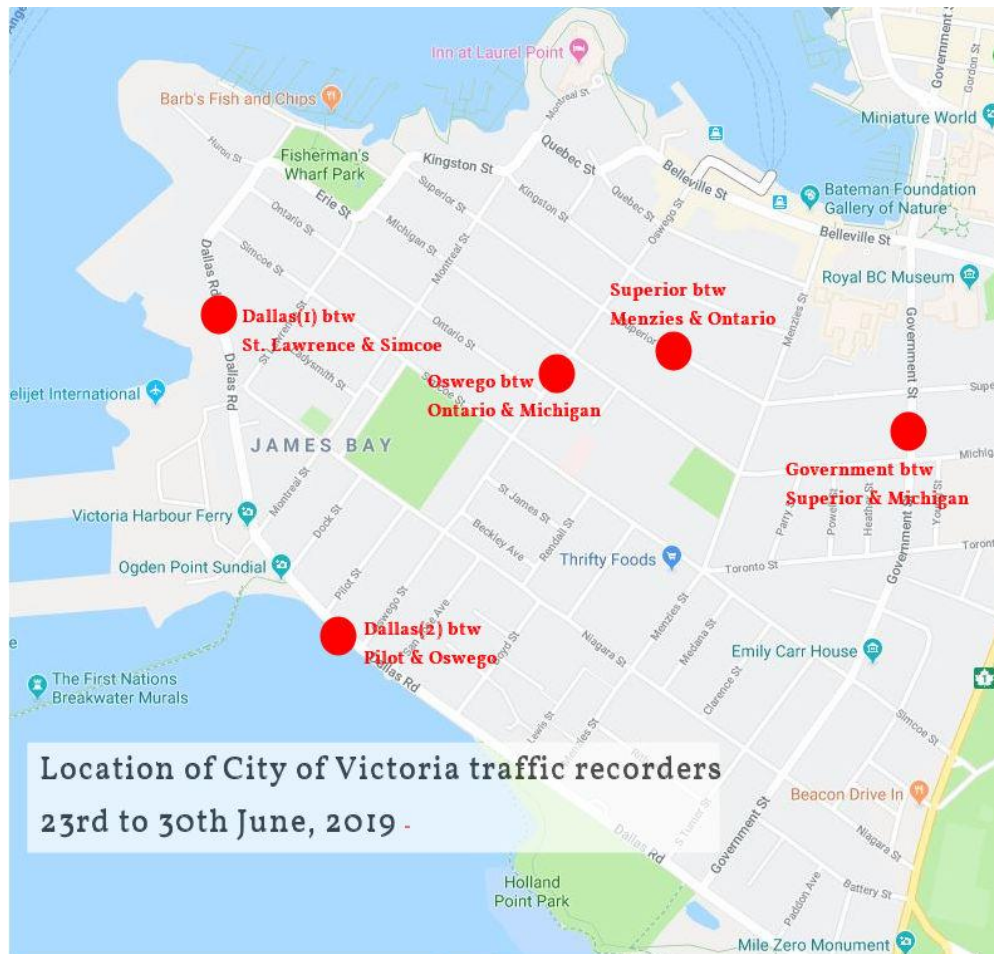
# Cruise Ships and the Effect on Traffic Volumes and Speeds in James Bay

The City of Victoria recorded traffic volumes and speeds at five James Bay locations between 23<sup>rd</sup> and 30<sup>th</sup> May, 2019. This report uses the data obtained during this period to determine the approximate increase in traffic volumes and speeds when cruise ships are in port.

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# Cruise Ships and the Effect on Traffic Volumes and Speeds in James Bay

## Traffic Monitor Locations



## Highlights and selected charts

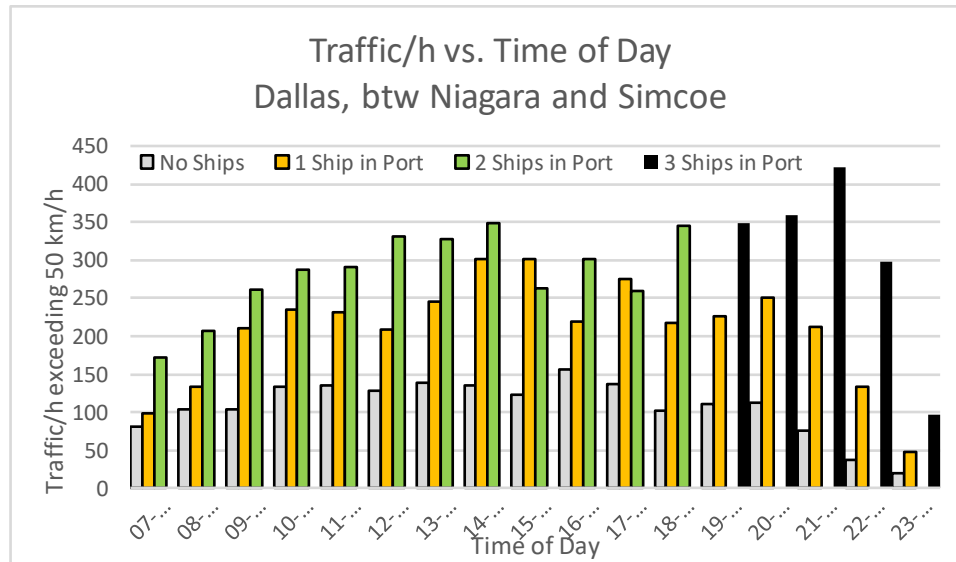
Two of the monitors were situated on Dallas Rd. Since this was during the time when wastewater pipe installation was underway the traffic data will not be typical for a usual cruise ship season. The data for the other locations may also be affected but to a lesser extent.

Due to the limited data available, the charts presented provide only an indication of the effect of cruise ships on traffic volumes and speeds.

Below are the more significant observations.

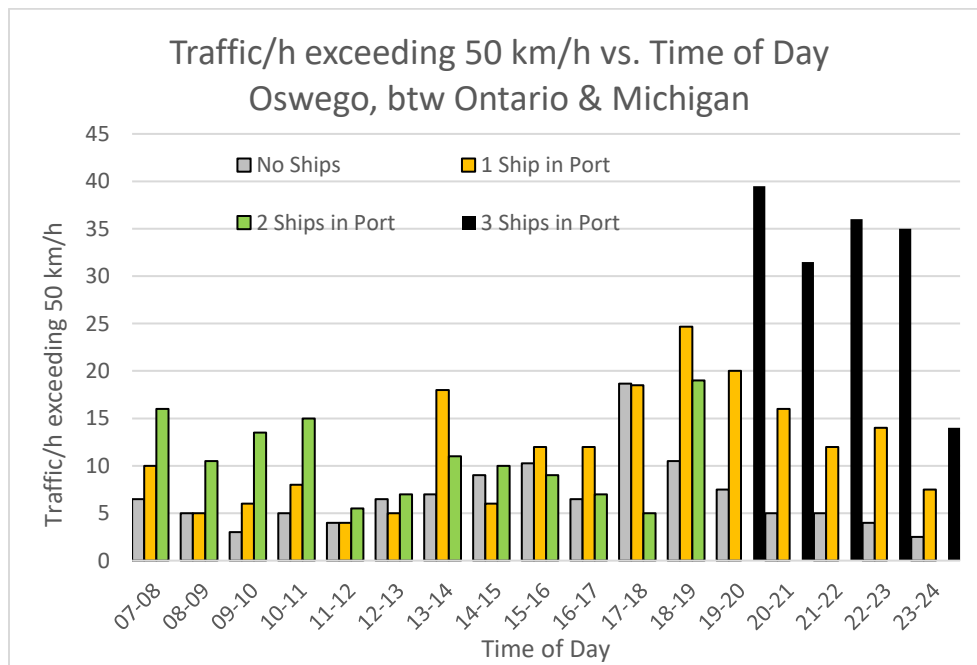
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The highest increase in traffic, when ships are in port, occurs on Dallas Rd to the North of Ogden Point



The highest traffic flow on a non-cruise day was 157 vehicles/h. The highest on a cruise ship day was 422 vehicles/h when 3 ships are in port.

**Oswego St. has a high number of vehicles exceeding 50 km/h**



The highest number of speeding traffic on a non-cruise day was 19 vehicles/h (average 7/h). The highest on a cruise ship day was 40 vehicles/h (average 31/h when 3 ships are in port).

Both Dallas & Superior have higher counts of speeding vehicles but Oswego has the highest % increase when ships are in Port.

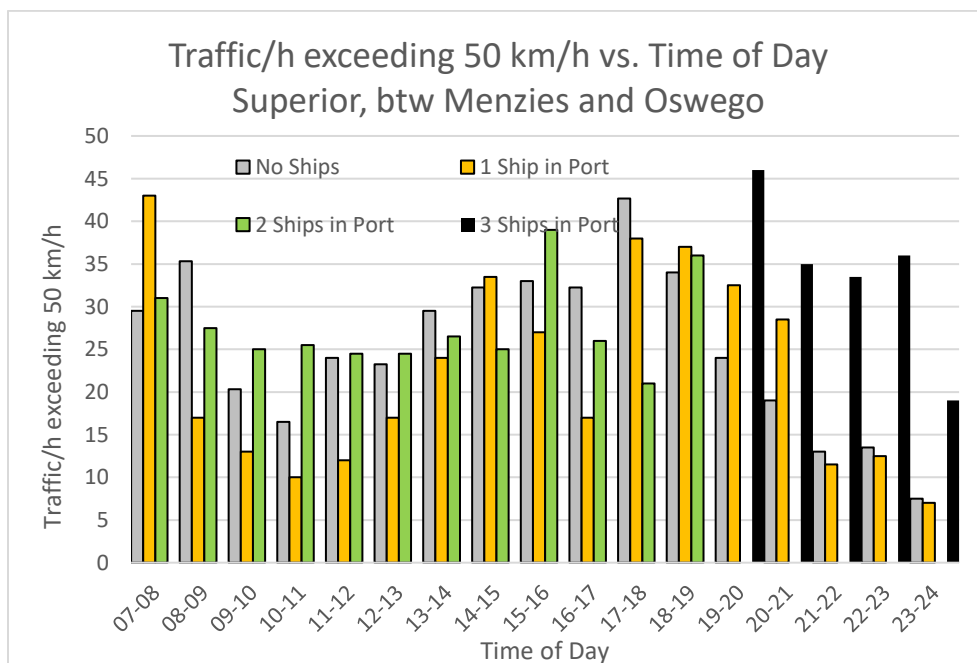
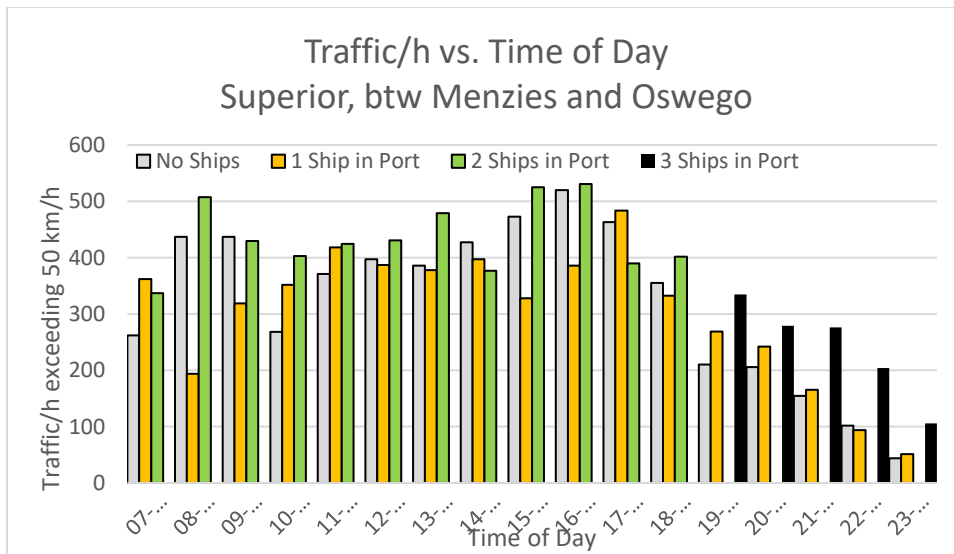
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## Government St.

The monitor for Government St. was located between the Superior St. traffic signals and the Michigan St. stop sign. Fewer than two vehicles per hour exceeded the speed limit.

## Superior St.

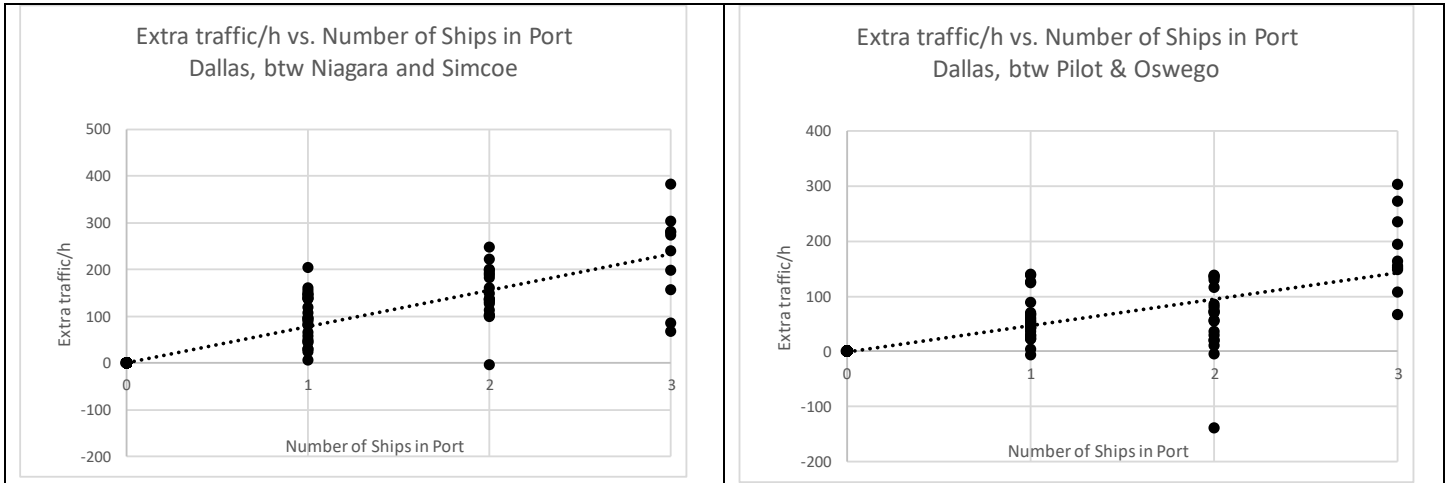
Superior St. had the highest traffic flows and highest average vehicle count exceeding 50km/h. The effect of cruise ships on traffic volumes and speed was less marked.



# Cruise Ships and the Effect on Traffic Volumes and Speeds in James Bay

## Additional traffic/hour on a per ship basis

The 2016 [Traffic Study](#) estimated the additional traffic per ship at 51 Dallas (corresponds to Dallas, St. Lawrence/Simcoe) at 89/h and at 200 Dallas at 69/h (corresponds to Dallas, Pilot/Simcoe)



The 2019 figures are 78 (vs.89) and 48 (vs.69 but possibly limited by wastewater roadworks).

As can be seen from the charts these counts are both approximate and an average since the passenger count per ship varies between 700 and 4250.

The additional traffic per ship for Oswego St. is 37.

# Appendix

## Methodology

The hourly traffic data provided by the City of Victoria was entered into a single database. A field was then added to indicate the number of ships (between 0 and 3) present in port (based on the “used for calcs” column below) for each of the hourly intervals.

From this database it was then possible to determine average hourly traffic data, both for times when ships were in port and when no ships were in port.

## Ship Arrival and Departure Times

The table below shows the both actual arrival and departure times and also the times used to correlate with the hourly traffic counts.

						Used for Calcs	
			Arrive	Depart	Pax	Arrive	Depart
Celebrity Solstice	May 23rd	Thu	4:43 PM	11:25 PM	2,850	17-18	23-24
Grand Princess	May 24th	Fri	6:54 AM	1:58 PM	2,606	7-8	13-14
Massdam	May 24th	Fri	7:30 AM	4:45 PM	1,258	7-8	16-17
Norwegian Joy	May 24th	Fri	3:11 PM	11:54 PM	3,883	15-16	23-24
EuroDam	May 24th	Fri	6:01 PM	11:12 PM	2,104	18-19	23-24
Ruby Princess	May 24th	Fri	6:50 PM	11:44 PM	3,080	19-20	23-24
Seven Seas Mariner	May 25th	Sat	8:38 AM	5:59 PM	700	8-9	17-18
Oosterdam	May 25th	Sat	5:42 PM	12:05 AM	1,916	17-18	23-24
Star Princess	May 25th	Sat	6:59 PM	11:48 PM	2,590	19-20	23-24
Norwegian Bliss	May 25th	Sat	7:44 PM	12:01 AM	4,250	19-20	23-24
Carnival Legend	May 27th	Mon	6:41 PM	11:42 PM	2,124	18-19	23-24
Queen Elizabeth	May 30th	Thu	6:59 AM	8:44 PM	2,081	7-8	20-21
Ovation of the Seas	May 30th	Thu	8:16 AM	6:37 PM	4,180	8-9	17-18
Celebrity Solstice	May 30th	Thu	4:48 PM	11:29 PM	2,850	17-18	23-24