Mapping the OHS challenges among Canadian seafarers on the Great Lakes and St. Lawrence River

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Outline

- Canadian shipping on the Great Lakes and St. Lawrence Seaway (GLSLS)
- Regulatory backgrounds
- Methods
- Findings: Occupational Health and Safety Challenges
- Conclusion and Recommendations
Canadian shipping on the Great Lakes

- Canada has the world 29th largest fleet with 208 Canadian ships.
- 3125 licensed and 1355 unlicensed seafarers employed full-time in the maritime sector (Canada Consensus 2015)
- The Great Lakes and St. Lawrence Seaway System is part of the world’s longest deep-craft marine highway, and its water transport accounted 31% of Canadian domestic marine trade, such as iron ore, fuel oils and wheat.
- Supporting 100,000 maritime-related jobs and contributed USD 33 billion to Canada and the US in 2016.
Labour Process in the shipping industry

- Shipping requires complex labour process: watchkeeping, piloting through narrow waterways, mooring, anchoring, marine engineering, loading and discharging in port.
- Swing crew ashore with landing boom
Labour Process in the shipping industry

- 24/7 mobile on the water.
- Commuting mobility + workplace mobility
- Mobile work regardless of weather and environment
- GLSLS region has the highest amounts of maritime injuries and fatalities in Canada.
Regulatory backgrounds

- **International level**
  - Various international standards were introduced to eliminate human errors: such as International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, and International Safety Management Code.
  - Maritime Labour Convention

- **Canadian Level**
  - Canada Shipping Act
  - Canada Labour Code Part II
  - Maritime Occupational Health and Safety Regulations
  - Extended labor jurisdiction of Transport Canada authorized by Labor Canada on Canadian ships
Research Question and Methods

• What are the OHS challenges experienced by Canadian seafarers on the Great Lakes and St. Lawrence River?

• Methods:
  • Legal doctrinal analysis of Canadian maritime occupational health and safety regulations and policies.
  • 20 interviews between July 2017 and January in 2018.
  • Face to face
  • Skype and Telephone
  • Audio-recorded
  • Average length of 99.76 minutes
  • Pseudonyms are assigned.
Findings (1) Work on the Ice
Findings (2): Commuting Fatigue

- Commuting fatigue as a risk to health and safety
- [Commuting is] more difficult for people from BC compared to Toronto people. We have to fly 4-5 hours and usually at night. One time, I joined the vessel when it just arrived in the port and I started unloading the vessel for 6 to 8 hours. Then I had to load fuel immediately. This was the most dangerous thing in my work. It was a straightforward thing but it was still a very dangerous operation, with the potential dangerous consequence when something went wrong, in particular when we were very tired. (Chief Engineer Delta)
Findings (3):
Fatigue at work – extended working hours

• Limited right to rest on Board
  • Ships are exempted from standard hours of 8/day and 40/week, and exempted from the maximum working hours of 48/week. (East Coast and Great Lakes Shipping Employees Hours of Work Regulations, 1985)

• Minimum hours of rest for Canadian seafarers: (i) at least six consecutive hours of rest in every 24-hour period; (ii) at least 16 hours of rest in every 48-hour period. （Marine Personnel Regulations）
Findings (3):
Fatigue at work – extended working hours

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<tr>
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<th>Shifts on Board</th>
<th>Overtime</th>
<th>Shore leave system</th>
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<tr>
<td>Bulk Carriers</td>
<td>4 on 8 off</td>
<td>Such as loading and discharging cargo, port operation, canal transits.</td>
<td>Three months on and one month off</td>
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<td>4 on 8 off</td>
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<td>Tankers</td>
<td>6 on 6 off</td>
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<td>Six weeks on and six weeks off</td>
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Fatigue and Fatality at Sea

“There were a lot of facts involved in the accident. But fatigue was the major contributor. For a lot of cases, physical and mental fatigue is the major issue…” (Chief Engineer Delta)

Determinants of fatigue:
- Event occurred near the end of back-to-back shifts
  - 3 months
  - 2 days in airport without returning home
- Accident occurred near the end of the 4 month shift
- Total 7 months at sea except for 2 days in the airport
Findings (4) Limited right to refuse dangerous work

- An employee may refuse to work if the he/she has reasonable cause to believe that a condition exists in the workplace that constitutes a danger to the employee or other employee.

- But for seafarers, if the captain command the employee should continue the work, then the employee shall not discontinue the work.
  - (The Canada Labour Code, Section 128)
Findings (4) Limited right to refuse dangerous work

- “The engine was too hot to continue operating. I called the captain and told him that I had to stop the engine otherwise it might explode in any minute. But the captain said no and insisted that the engine must keep operate because we were in a shallow water. If the engine was off then we might ground in any minute. This is a very dangerous practice from an engineer’s perspective but this is also a normal working conditions for us at sea. (Chief Engineer Sam)”
Conclusion

- Mobility affects the patterns of rest and fatigue level experienced by Canadian seafarers, perhaps in particular for the least experienced.
- The compound effects of commuting mobility and mobility during transits on canals should receive special attention from the companies and policy makers.
- This research suggests that Canadian seafarers’ rights to minimum hours of rest should be levelled up to be equivalent to the international labour standards, and quick and friendly approval for seafarers’ shore breaks should be ensured.
- National and international regulations should address the number of consecutive days at sea and the payment system should be adjusted accordingly.
THANK YOU
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