



# Transportation

## Experienced professional log truck driver mentors needed

Okanagan College's Professional Log Truck Driver Program is underway. The program provides an opportunity for training eight students each in Salmon Arm and Oliver. The development of the program and expectations of industry for candidate selection have been incorporated thanks to the ongoing support from Gorman Bros., Weyerhaeuser, Tolko Industries, Interfor and the Interior Logging Association (ILA).

Practical skills (time in the truck) will commence in January, 2020 and Professional Log Truck Drivers are needed to mentor these students. Mentors play a key role in training and ongoing development of new drivers. There is no substitute for the knowledge and skills passed along by experienced drivers. The success of the Professional Log Truck Driver Program relies on participation by those experienced in the industry to mentor new drivers.

Mentors should have a minimum of 10 years of current log hauling experience in British Columbia and have the following attributes, skills and knowledge:

- Professionalism in all aspects of log hauling
- Effective communication skills
- Ability to recognize, evaluate and control hazards
- Critical thinking
- Willingness to work with students over a 4-6 week period to develop the skills required of a Professional Log Truck driver

The BCFSC has worked with the ILA to create a funding model to support mentoring new drivers. Below is a summary of the funding structure model:

- Keeps trucking companies whole by subsidizing lost trucking revenue during mentorship of students,



- Encourages veteran drivers to become mentors using a wage incentive,
- Recognizes the additional operating costs incurred for trucks/trailers while training inexperienced drivers in a log hauling environment.

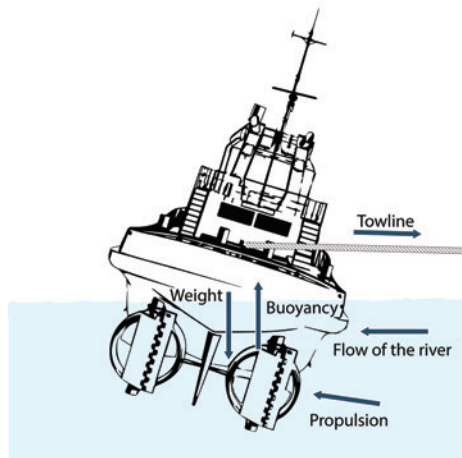
Contractors or Professional Log Truck Drivers who have questions about the mentor program or are interested in becoming a mentor for the Okanagan College program can contact Trish Kohorst, Transportation Program Manager at [tkohorst@bcforestsafe.org](mailto:tkohorst@bcforestsafe.org) or 1-877-741-1060. 📞

## Transportation Safety Board (TSB) releases investigation – George H Ledcor tug

The Marine Forest Safety Advisory Group (MFSAG) continues to focus on incidents that relate to marine forest operations. Tugs and barges are used to move significant timber volumes in both coastal and interior waters and marine incidents such as girding pose a risk to these operations.

Girding occurs when a vessel is pulled broadside by a towline force and is unable to manoeuvre out of this position. On August 13, 2018, a marine girding incident occurred. The tug *George H Ledcor* was towing the loaded gravel barge *Evco 55*, with the assist tug *Westview Chinook* pushing it to an unloading facility on Mitchell Island in the north arm of the Fraser River, B.C. The *George H Ledcor* girded and capsized after being overtaken by the barge. The four crew members on board were rescued from the tug's overturned hull by the nearby yarding tug *River Rebel* and the

assist tug *Westview Chinook*. One crew member sustained a serious hand injury.



Forces that can contribute to a girding situation (Source: TSB)

Between 2005 and 2018, there have been 26 girding situation reports received by the TSB, 21 of which have resulted in capsizings. Although there is limited industry-specific data available to determine in which marine sector girding incidents occur, girding is a risk in marine forest operations.

This TSB video <https://youtu.be/VWHdg917hZ0> illustrates the factors leading to girding and recovery methods. All workers and managers responsible for marine operations would benefit from viewing this video to better understand the risk.

A copy of the Marine Transportation Safety Investigation Report relating to the girding and capsizing of the tug *George H Ledcor* can be viewed here:

[www.tsb.gc.ca/eng/rappports-reports/marine/2018/m18p0230/m18p0230.html](http://www.tsb.gc.ca/eng/rappports-reports/marine/2018/m18p0230/m18p0230.html) 📄



## Interior drivers participate in Seeing Machines fatigue technology study

When implementing a fatigue management program, one option to consider is the use of onboard technologies. Seeing Machines' Guardian system is an in-cab fatigue monitoring and intervention system that uses eye and face-tracking technology to alert drivers and fleet managers when the system detects driver fatigue.

A study conducted in 2018 with Mosaic Forest Management using Seeing Machines technology, suggested the technology should be further evaluated in interior operations where duty duration and night duty, prior to spring break up, contribute to a higher risk of fatigue. With the support of Tolko Industries and eight drivers from six log hauling contractor fleets located from Merritt to Williams Lake, B.C., a second Seeing Machines study was implemented in February of 2019.

In order to capture the effectiveness of Seeing Machines during the night shift, the baseline period (when the alert system was turned off) and active fatigue management period (when alert system was turned on) were each run for two weeks on shifts monitored before spring break up.

During the baseline stage, there were a total of 16 drowsiness events, one micro-sleep event and 226 yawning events.

A reduced number of events were observed in the *Active Fatigue Management* period.

Further to the findings from the 2018 report, the 2019 study supported that the use of the Seeing Machines technology is effective in recognizing and reducing the duration of distraction events. The following table shows the reduction in duration for "eyes off the road" events that were observed between the baseline and active fatigue management stages.

A study conducted by Liang et al. (2012) and Simons-Morton et al. (2014) *How Dangerous Is Looking Away From the Road? Algorithms Predict Crash Risk From Glance Patterns in Naturalistic Driving* ([www.researchgate.net/publication/235518883\\_How\\_Dangerous\\_Is\\_Looking\\_Away\\_From\\_the\\_Road\\_Algorithms\\_Predict\\_Crash\\_Risk\\_From\\_Glance\\_Patterns\\_in\\_Naturalistic\\_Driving](http://www.researchgate.net/publication/235518883_How_Dangerous_Is_Looking_Away_From_the_Road_Algorithms_Predict_Crash_Risk_From_Glance_Patterns_in_Naturalistic_Driving)) showed that the odds of a crash and near-crash event is 3.8 times higher for a duration greater than two seconds of "eyes off the road" during all secondary tasks (tasks subordinate to driving activity, such as eating and drinking, reaching for objects in the vehicle, adjusting the radio and other equipment on the steering wheel or centre console and operating devices such as the window control, seat belt,

or sun visor), and 5.5 times higher for a duration greater than two seconds during wireless secondary task engagement (use of a cell phone—talking, dialing and texting while driving—is against the law).

An anonymous driver survey was provided as part of the study and responses indicated that drivers found the system moderately effective in managing fatigue and distraction and rated technology moderate to very effective. However, 25% of drivers felt the system infringes on their privacy if made mandatory. 50% of the drivers felt that the technology helped them in changing their driving habits. While 75% of the drivers also felt that the technology improved safety. All drivers that participated in the survey would recommend Seeing Machines.

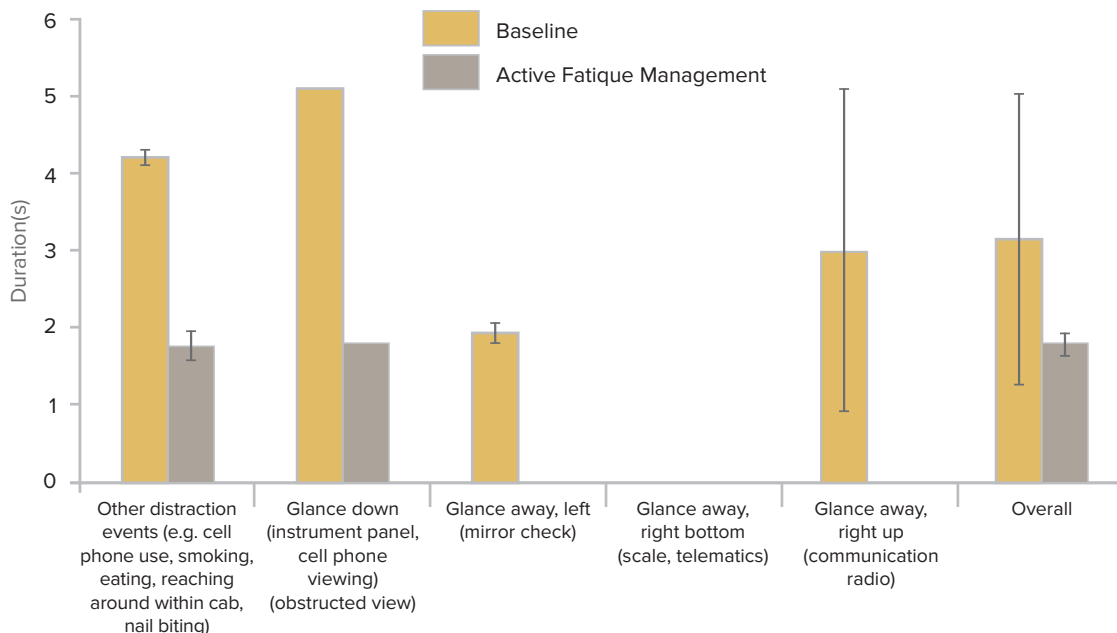
Fleet managers were also provided with an anonymous survey. The managers found deployment, training and use to be easy, and system performance and reliability to be moderate. Fleets managers like the concept and 75% of the fleets in the study are in favour of implementing this technology.

Based on feedback from both the 2018 and 2019 studies, as well as additional work conducted by Mosaic Forest Management, the BC Forest Safety Council (BCFSC)

and Seeing Machines are collaborating to improve system reliability in the log hauling environment and adjusting parameters that are expected to improve data reliability.

To view the full report, visit the BCFSC Transportation page: [www.bcfscsafe.org/forestry\\_trucksafe.html](http://www.bcfscsafe.org/forestry_trucksafe.html)

Two additional studies are proposed for this winter; one in the log hauling sector and a second in the wood fibre hauling (chip truck) sector. 🌲

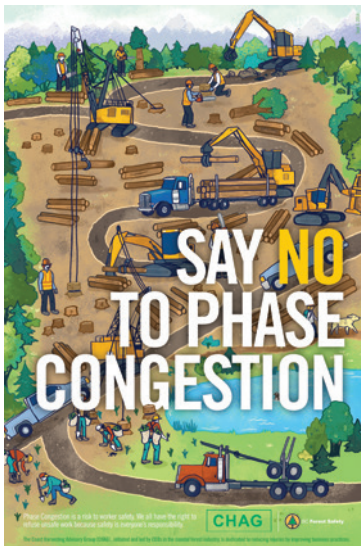


# Phase Integration in forestry operations

Phase integration is the coordination of harvesting and hauling activities within an operation. This can include one or more contractors working at the same time in the same worksite or general area. Without proper planning, these areas can become overcrowded or jammed, leading to phase congestion. Phase congestion is an industry-wide challenge and has resulted in serious injuries and fatalities. As a result, there has been a focus on phase integration from both industry and WorkSafeBC. Currently WorkSafeBC is visiting contractors in the field with a focus on this issue.

This focus on phase integration has multiple purposes:

- Create awareness and knowledge with regards to safe phase integration
- Help industry understand and apply appropriate risk management principles for phase integration
- Help industry to understand the controls required in a forestry operation
- Ensure industry is integrating phases in a safe and consistent manner
- Collect consistent and reliable data and information for WorkSafeBC's future forestry prevention initiatives



- Collect and use data to measure change in the industry with regards to knowledge, understanding, and practice of phase integration in the forestry sector

A critical component of phase integration is effectively managing risk. This involves three key steps:

## 1. Identifying hazards

To protect workers, begin by accurately identifying hazards in your workplace. A hazard is anything that has the potential to cause harm, such as falling, yarding/skidding, processing and loading.

## 2. Assessing risks

The next step is assessing the risk these hazards pose to workers. The risk is the chance — high, medium, or low — that somebody could be harmed by these hazards, as well as how serious the harm could be.

## 3. Controlling risks

If you've identified high or moderate risks, the next step is controlling the risks by correcting unsafe conditions.

For the remainder of 2019 and through 2020, WorkSafeBC has indicated they will engage harvesting and hauling contractors in reviewing phase integration and congestion.

Industry is also working on this issue and has developed phase management resources which can be found at:

[www.bcforestsafe.org/node/3109](http://www.bcforestsafe.org/node/3109) 📄

## Back to work - hazard vigilance

Driving log trucks and operating machinery can be challenging and it's important to be vigilant about safety especially in winter months when road conditions can be hazardous. You can follow these key considerations and recommendations for safe operations.

### Distraction—stay focused:

- Mind on task — avoid mind distractions (stress)
- Leave the phone alone

### Weather conditions — Assess conditions prior to and during operations:

- Request increased road maintenance where road maintenance guidelines are not met. [www.bcforestsafe.org/files/Resource%20Road%20Maintenance%20Guideline-FINAL.pdf](http://www.bcforestsafe.org/files/Resource%20Road%20Maintenance%20Guideline-FINAL.pdf)

- Chain up
- Shut down in high hazard conditions; snow storms, icy roads, heavy rainfall

### Production pressures

- Challenging road conditions can increase cycle times
- Work with licensees to ensure cycle times are adequate for safe travel
- No load is worth your safety

### Fatigue

- Maintain a consistent and adequate sleep schedule (not less than 6 hours)
- Work with licensees to adjust cycle times and/or schedules to allow for adequate off duty time
- Family / Lifestyle
- Sleep

### Log Trucks and Equipment

- Maintenance done
- Pre-trip / post-trip inspections
- First aid
- Fire extinguisher
- Lock out equipment when repairing or checking for mechanical issues

### Radio Use and Road Calling Procedures

- Follow the rules of the road
- Be prepared for traffic without radios

### Working Alone

- Check in at required intervals (including truck drivers) 📞