

Simulator Training on Vancouver Island

With the current swing towards second growth harvesting on the coast of British Columbia, particularly Vancouver Island, comes a new breed of equipment that is quicker, lighter, more dependable, technologically superior and also quite costly to purchase & maintain. Engines and hydraulic systems are now computer controlled for more efficient operation and maintenance. The lower volumes per stem and per hectare require this equipment to handle more pieces as efficiently as possible to provide the desired volumes and costs to stay operating.

Cycle time, uptime, downtime, overtime are all critical components of harvesting and must be monitored continuously and professionally.

New harvesting methods have also given us the ability to safely operate after the sun goes down. Double shift, triple shift, continuous shift are now quite common to get more out of the same equipment.

This dramatic increase in off road activity has created environmental concerns that have been accompanied by increased government regulation.

More recently we have experienced an overall downward trend in log values, which has produced the need for all of us to be working smarter.

Proper training of our crews, both staff & hourly, is one of the most important tools in the operations toolbox. Training is costly in time and money but it's absence costs much more.

In February 2002, I attended Oregon Logging Conference with the then Regional Manager of one of the major forestry companies on Vancouver Island. We were growing tired of rubber tired this and rubber tired that when we came across Paul Freedman, President of SIMLOG. Paul was demonstrating SIMLOG's Personal Harvester and Personal Forwarder Simulators. After 2 hours of discussion and trials, I purchased the Personal Harvester Simulator.

Being something of an accomplished machine operator and an avid computer buff, I was able to quickly familiarize with the SIMLOG's product. I tracked my performance with the data available from the SIMLOG program and used it as a benchmark for future trainees. I also acquired the assistance of two experienced harvester operators in the benchmarking process.

The first 2 trainees had already been training on a real harvester and were struggling to achieve the pre-determined productivity requirements. At the time their training had been suspended due to production requirements and low inventory. It was agreed that we would give them the opportunity with the simulator as a last attempt to improve their position as trainees and to see if the simulator had a place in the training program. The simulator training was a success and these two individuals have **gone on to be very capable operators.**

The advantages of this type of training became clear when we asked the trainees for feedback. They felt incredible pressure when on the actual harvester and were convinced they would not have made the required productivity and quality numbers in that environment. The simulator environment produced an atmosphere of minimal stress and was much more conducive to learning and concentration.

I have since put 2 Supervisors of Mechanical harvesting through parts of the simulator program and they are now much more effective in their supervisory duties.

By far the most widely used processing head on Vancouver Island is the Waratah. Thanks to the good folks at Waratah Canada and at SIMLOG, I now use SIMLOG joysticks modified for Waratah controls giving the simulator an incredibly realistic feel. The controls are now almost identical to the real thing and operators have very little orientation when moving from the simulator to a real harvester.

Summary

Computerized training and the SIMLOG Personal Harvester Simulator have given trainees the optimum conditions to succeed in the training program. I have found this to be a controlled environment that removes the pressure and stress accompanied with the work site.

1. Trainees that have made the transition from simulator to real equipment have a **level of confidence** that you won't find in traditional training methods. The associated higher cost from damage and increased maintenance usually found in training is significantly reduced.
2. The data collected from 12 trainees and 16 other individuals that have operated my SIMLOG simulator has been used as a **screening tool** as well as for aptitude testing. The results produced by simulator data tracking provide the ability to predetermine a training candidate's skill prior to operating actual equipment. This in turn greatly **reduces the cost of training.**

3. There are measurable and realistic expectations that must be met at the simulator phase **before advancing to operating real equipment**. This has become an invaluable tool to ensure equipment is operated in a safe and productive manner.
4. The SIMLOG program measures important data such as volume per hour (imperial & metric), stems per hour, length accuracy, stump height, log piling accuracy and utilization. This data can easily be transferred into graphs to supply trainees and supervisors with a system of progress reports. You can then ask the trainee to perform a variety of different tasks and measure how well they adapt to change, graph their progress and identify:
 - a. where improvement is required, or
 - b. in some cases if the training should continue
5. Supervisors have had great benefit from the SIMLOG training and are now **more effective and diligent** in their jobs.
6. Trainees emerging from the simulator program **demonstrate significantly lower down time and better log quality ratings**.
7. The overall time to reach a competent level has been **dramatically decreased** with results that are more thorough.

I have been involved in mechanized harvesting for many years as an operator, Supervisor, Superintendent and Trainer. The SIMLOG training program is a very powerful and effective tool for producing safe and competent machine operators. It is also far cheaper to operate and maintain than any heavy duty equipment.

Depending on how you do your math, the entire cost of the SIMLOG training equipment can be recovered in the first week of training the first individual.

Gordon D. Vaughan,
Coastal Pacific Logging Consultants Ltd.



My customized operator's chair with modified PC joystick controls, along with my PC laptop.

(Not shown here is the small video-projector that I connect to the laptop to obtain a life-size display for my simulator work.)

Gord Vaughan of Coastal Pacific Logging Consultants Ltd. at the controls of his SIMLOG simulator.

