

Centre for Marine Training & Research

Owen Sound Campus

Blended Delivery of

Propulsion Plant Simulation Training Course

Overview

The Kongsberg Propulsion Plant Simulator forms an important part of Transport Canada's certification of Marine Engineers. Currently we have two distinct challenges under the auspices of the International Maritime Organization. The current exam configuration is designated as Level 1 and level 2. CMTR's "blended course" is the first of its kind in the world for such training. Transport Canada will be monitoring the blended delivery with view to approving this type of course delivery, whether in the short term, or hopefully as a normal acceptable method of course delivery.

Kongsberg in Norway has developed the "cloud" software on-line type of delivery of its highly respected marine engine simulation full mission arrangement. Such a delivery requires certain restrictions on the end-user and to the instructors who will be delivering and monitoring the course material. I shall do my best to highlight our successes, technical issues and a few pitfalls we encountered along the way. It was decided at the outset to work with only 50% of the normal course head count, so we had four candidates on which to work our trial. The same four individuals joined us in Owen Sound a few days later to perform the full mission practice and final exam. We are delighted to inform you all were successful in passing the Transport Canada exam.

The Kongsberg "cloud" delivery is fed via Google Chrome and requires the **Windows 10 platform**. It's worthy to note that we had difficulties with candidates running a Windows10 emulator on their Apple platform. Future deliveries of this course will require the candidate to have a Windows platform dedicated machine.

The second main hurdle we encountered was something well known to us all. **Internet speed and stability of carrier** with candidates in marginal internet speed location. One of the candidates solved his internet drop off issues by **closing his screencast-o-matic video feed**. Hopefully you will have the opportunity to peruse the video recordings. You will notice that one of the candidates had great difficulty with this type of course delivery. Later we discovered that he had never worked on a vessel that had such sophisticated computer equipment. So here we

have another factor - **exposure to computerized and touch screen systems**. Not to forget of course the potential issue with different **time zones**. As it so happens we had three people on the next course who were from BC. So obviously there was no 9am start.

Armed with the Kongsberg in-the-cloud delivery well in hand, we required the means to deliver the actual lectures and also some way to record the topics we planned to cover. As far as the topics are concerned, I developed an excel spread sheet which mapped the course content. This particular course has a minimum of eighty hours lecturing associated with it. With this material being split between the online and onsite delivery, the spreadsheet also indicates how this was accomplished. Once this was agreed upon by Transport Canada we moved our efforts to what programme we should use to hold the lectures. From a couple of visits to **YouTube** I selected **Cisco WebEx**. So far I have found it to be very user- friendly. A more difficult choice was regarding a **video capture** programme. The Georgian College App's site made this easy for me. **Camtasia or Screencast-o-matic**. I chose the latter and have not regretted it. As a novice to this type of software it seemed to be more user-friendly. What I still have to master with **Screencast-o-matic** is dealing with different volume feeds. Other issues included **background noise**. Even the clicking of a mouse can be an enormous distraction. So what is the solution? We encourage everyone to run with their **mic off** when not participating in a conversation. We encourage everyone to share their screen, especially when Brian and I are trying to trouble-shoot a particular issue with the candidate. There is an issue which is becoming more prominent, especially in marine education where a technical paper or similar challenge is encountered, in that **English is the second language**. It will turn a normally two day project into a four or five day event. Not an issue you could argue. However, we have very limited time to perform this specialized instruction, not months.

The **Kongsberg K-Sim cloud** programme has been set up at **CMTR by Thomas**. We currently have fifty seats at the college's disposal, of which twenty five candidates can be online simultaneously. Kongsberg has a few basic preprogrammed challenges which the candidates can run at their **own pace** and at **any time** they want. In order to best prepare the candidate for the Transport Canada exam I have developed **dedicated practice material** for the K-Sim site software. Another advantage is that the library of practice challenges can be **updated continuously**. Some of the challenges have an **assessment associated** with them. This proves most helpful in determining the **candidate's progress**. This opens the door to all sorts of possibilities of expansion. For example, the Kongsberg Navigation Simulator.

Transport Canada has closely monitored CMTR in this ground-breaking venture into what we believe is only the beginning of something new and exciting. We are approved to deliver our engineering plant simulation course using what we called the "blended" method of course delivery. I have not mentioned what the main content is within the videos. Thinking ahead and realizing the great potential of this method of instruction, Thomas arranged for a registered company called eProctor to invigilate exams online. Evidently this has been in play for some time now. We were told that there is at least one federal government department which uses

this remote proctoring service with great success. If you get a chance to view the videos you will find Justin McDougall hard at work demonstrating his skills. I would like to thank Justin for all the help during and after our so called “mock exam”.

Regards,

John Young.

eProctor PPS1 Mock Exam Participants

Transport Canada

Ottawa

Bernard Le Clerc

Saiful Islam

Sarnia

Obaid Barlas

Jimmy Austin

Toronto

Jacob Quist

Kongsberg USA

Lourdes Evans

Jonas Picinch

eProctor Canada

Justin McDougall

Georgian College C.M.T.R.

Thomas Aulinger

Janis Stewart

Danielle Stewart

Brian Pyke

John Young

Exam Candidates

Dwayne Linton

Matthew Klinck

Michael Spencer

Mirko Balogh