Crew puts simulated icebreaker through its paces

Research into developing a virtual training tool for ice pilots has entered its final phase with validation of the way a simulated ship behaves in the Antarctic environment taking place at the Australian Maritime College, a specialist institute of the University of Tasmania.

Aurora Australis Captain Murray Doyle and Third Officer Katrina Beams, an AMC alumna, will test the virtual model of the icebreaker in the ship simulator and provide feedback on the accuracy of ship-ice interaction.

It marks the end of the project’s practical component for researcher Paul Brown, who spent seven weeks aboard the Aurora collecting data on how she behaved in a range of conditions.

“During that voyage I collected more than 40 days of data, photos and videos on the ship’s performance in conditions ranging from open waters to heavy seas, icebreaking and snowstorms. All of this information was used to develop the simulated Antarctic environment and ice breaking part of the ship model,” Mr Brown said.

“The aim was to create a virtual training tool that was as close to the real-world environment as possible, and there is no better person to validate our simulated model than the captain of the Aurora himself.”

The three-year project was developed to meet the future training needs of companies such as P&O, who must comply with a new international code of safety for ships operating in polar waters that is expected to be introduced in 2016.

P&O has worked closely with Mr Brown on the project with the intention of using the virtual model of the Aurora Australis to train its ice pilots.

“The simulator will be an important tool for the training of new and existing officers in ice navigation. Its use will give officers a better understanding of the interaction of ship operations in ice, leading to greater safety and efficiency, and reducing wear and tear on the vessel,” Aurora Australis Captain Murray Doyle said.

Mr Brown is now consulting with commercial arm AMC Search to develop and approve two new ice navigation courses using the simulated training tools. The aim is to have the products online next year well before the mandate of 1 January 2017, in preparation for the Antarctic season.