

The Cutting Edge

Anyone buying a new dredger today will normally be offered a wide range of lifecycle services to support them during projects and throughout the vessel's working life – and a vital service is training

Over the past few years, technical advances have seen dredgers become very complex vessels requiring highly skilled dredgemasters – so thorough training is essential.

In the past, you learnt on the job, taking years to hone your skills, but with today's time constraints and fast-developing technology that approach is no longer realistic.

It still has a major role to play, of course, but contractors are turning to simulators for practical training – and increasingly using the skills and knowledge encompassed within the Netherlands' **Training Institute for Dredging (TID)**. And that's especially true when it comes to operating modern cutter suction dredgers (CSDs).

VIRTUAL WORLD

No one doubts that training raises knowledge levels, but it also improves communications between crew, project site offices and a contractor's HQ. In particular, simulation training has proved itself to be an excellent method for improving dredgemasters' skills in all these areas – with the concomitant impact on efficient use of equipment and rising production levels.

This approach underpins TID's training, showing specific results and

effects, and cutter operators benefit in three ways:

- 1). New people can be trained in basic operating skills – and can make mistakes without hampering production or risking damage to the dredger as could occur while practising in the field
- 2). Experienced dredgemasters can be familiarised with new equipment, automation and control techniques
- 3). All cutter operators can be trained to cope with hazardous situations or carry out special operations without danger, risk or loss of production.

Examples of the latter include a blocked cutter, silted/blocked pipeline, blackout dredger, hard soil conditions, waves and currents. And simulator training for those situations is especially useful for any contractor or dredgemaster preparing for a complex or tough project.

EQUIPMENT

Kinderdijk-based TID has two CSD simulators, based on a *Beaver 6518* and an *IHC 7025 MP*. Now the Institute's about to put a larger, more sophisticated CSD simulator into service to complete the range. From October, that means TID will be able to train dredgemasters on everything from a straightforward classic desk with one dredge pump right

up to a complex, heavy-duty dredger with three pumps running in series and full automation systems.

The new simulator, made by **IHC Systems**, represents a 13,500kW CSD with an 850mm dredge pipe, 1,100kW of cutter power, 27m dredging depth and electrically driven winches. Slurry transport is via a submerged dredge pump, plus two inboard dredge pumps as boosters, and any configuration can be simulated – from full use of all pumps to just the underwater pump.

As you'd expect, the simulator has the latest automation techniques you'd find on a modern CSD, including a SCADA control system, dredge track presentation and an automatic cutter control system. And the dredging control desk layout's identical to that used in the latest cutters of this class.

In all, it's a highly versatile tool to train cutter dredgemasters on their way up the ladder to larger dredgers.

FINALLY...

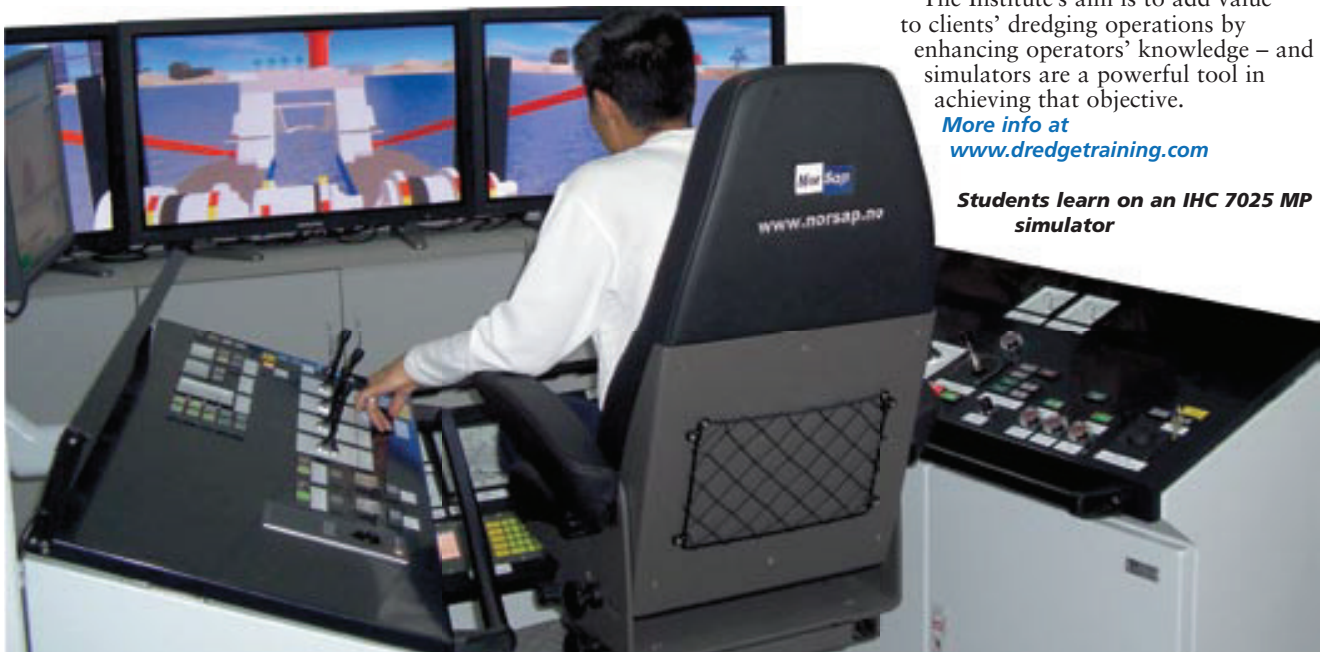
TID, which has a branch in Tianjin, China, offers a variety of courses for contractors regardless of the size of CSD, or level of automation, in their fleets.

And as all simulators are easy to transport, training sessions can also be organised anywhere in the world, tailored to contractors' needs.

The Institute's aim is to add value to clients' dredging operations by enhancing operators' knowledge – and simulators are a powerful tool in achieving that objective.

More info at www.dredgetraining.com

Students learn on an IHC 7025 MP simulator



Training Institute for Dredging





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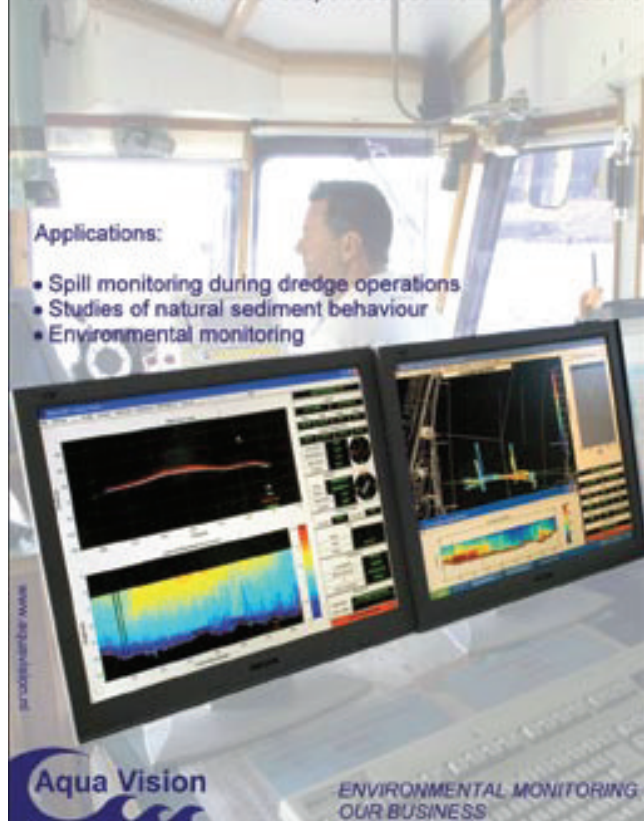
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