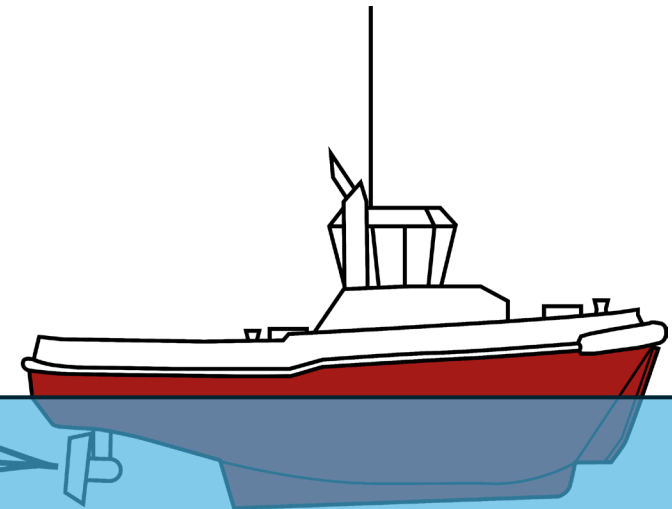




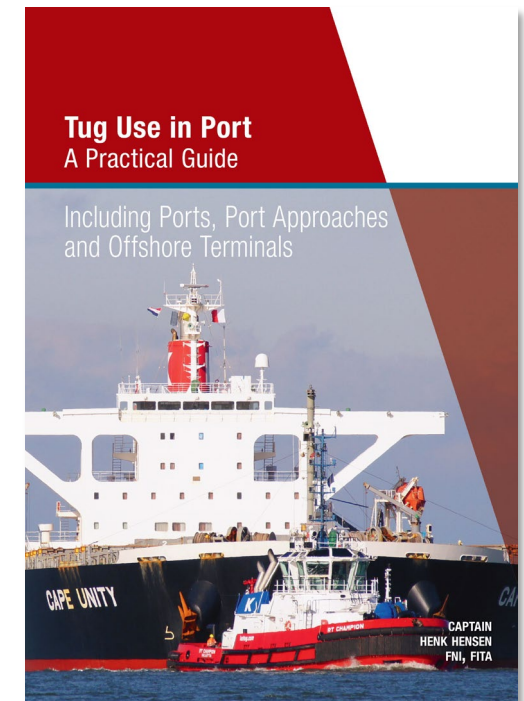
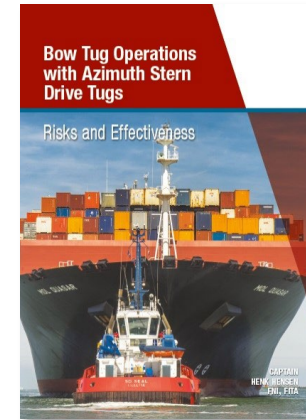
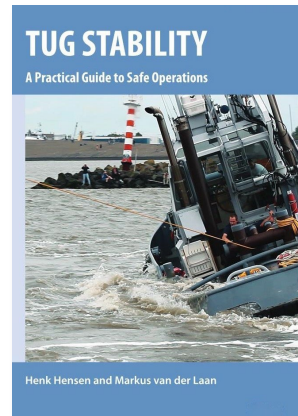
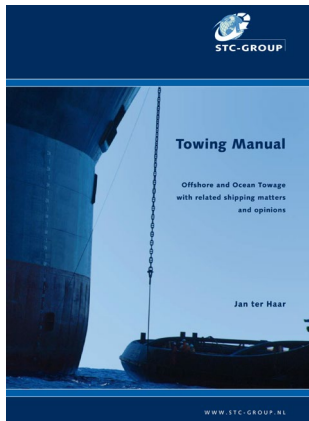
# SAFETY & E-LEARNING





# WHO?

- Wencke Boerrigter
- Owner **Polestar Publishing**, since 2014 publisher of maritime books, e-books and e-learning for maritime students and professionals.
- Founded by the leading maritime institute in the NL (STC Group). Now independent.
- Background: Reed Elsevier, Oxford University Press, Malmberg.
- Content for smartboards, AR, serious games, videos and e-learning.

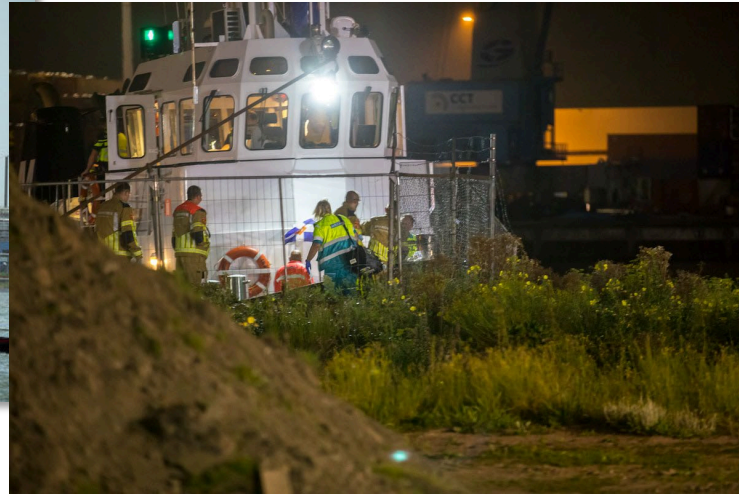
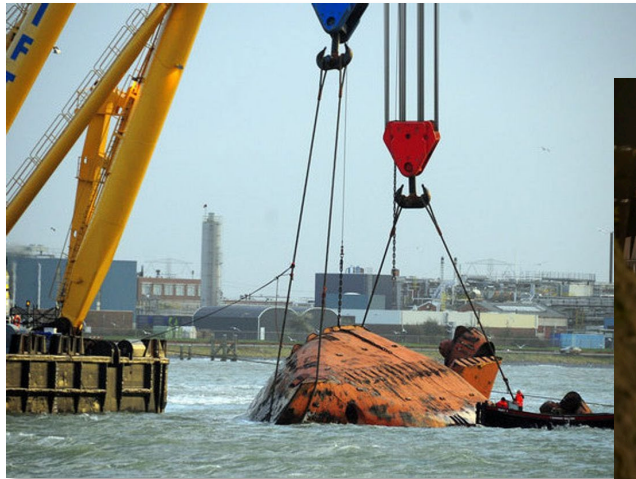




# WHY?



- Investigations of (recent) incidents have shown that lack of education / lack of training leads to incidents and unsafe operations.
- International Investigation Boards, P&I Clubs and Port Authorities have stressed the need for uniform education and training.



# WHY?

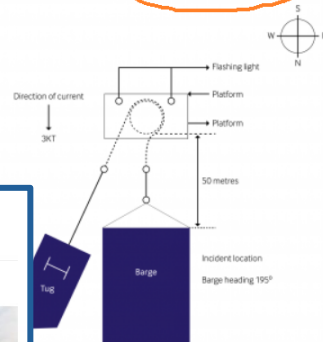


to starboard.

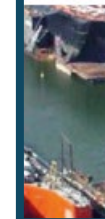
This case highlights the severity of the consequences for failing to adequately compensate for prevailing conditions and not being familiar with own vessel's manoeuvring characteristics. The importance of proper tug handling, including an initial and ongoing assessment of the length of tow being used, cannot be over-emphasised.

## Financial cost

The cost of this claim was US\$ 1,602,658.



The channel was clear of the inbound vessel prevented from the operation was very poorly planned.



## The financial cost

Whilst damage claimed was extensive we eventually concluded settlement in the modest sum of US\$ 14,737.

## TUGBOAT SUNK IN HANSADOK: TWO DROWNINGS RESCUED (ANTWERP)

August 8, 2021 Technology 19 Views

Facebook Twitter Google+ LinkedIn Pinterest



Antwerp -

In Hansadok in the port of Antwerp, a boat sank on Friday afternoon. Two drownings were safely out of the water. The door to the incident is in Hansadok tidelijk no seafaring possible and the inland navigation is limited.

**Port operator Clydeport has been fined £650,000 over health and safety failures after three men drowned when their tugboat sank in the River Clyde.**

## Tow slow, tow safe

Latest statistics from Transport Canada show that more than one out of every ten reportable accidents involves a tug. With recent incidents illustrating the risks experienced in harbour towage operations, is there anything the mariner can do to improve safety?





# WHY?



- ‘A shipping company must ensure a proper training program. (...). Within the shipping company, there was **no established training program for tugboat captains**. The content and quality of the training program depended on the available work and on the interpretation and skills of the mentor (...). Results achieved during the training program were not recorded. As a result, it is unclear whether the trainee captain’s competencies were sufficient to perform the duties of a tugboat captain. (...) **Establish clear standards and requirements for vessel-specific training and learning objectives for tugboat captains working on Dutch inland waterways.**
- ‘Pilots and tug crews must be suitably trained and experienced for their roles’
- ‘It is hoped, therefore, that training will assist in the avoidance or reduction of these incidents’.
- ‘adopt a recognised training scheme for its tug masters’



# NOW...



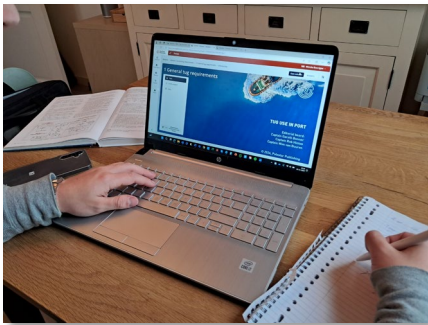
- Traditionally, training consists of training with the use of a simulator and training onboard, by senior officers who pass on their (bad) habits, despite their best intentions, to new crew.
- Sometimes the tug operator/employer provides a document on tug handling, but its effectiveness is not being monitored or tested.
- 'Best practices' are not shared with the wider tug community or do not reach the intended crew.
- Methods vary per company and region, whereas crew is crossing these borders.



# AND NOW?



The expected outflow of experienced tug masters and the growing demand for tugs requires accelerated training of new tug crew and a shorter training period.





# AND SO...



- Need for theoretical and uniform training material for future tug masters, **tailored to their educational level & background**, and in a relevant context.
- A new generation asks for **new teaching materials**: flexible, engaging, visual.







# WHAT IS E-LEARNING?

- **Digital**: available for all devices. 90% of West-Europe population now owns a smartphone.
- Especially suited for **transfer of knowledge and cognitive learning objectives**, due to combination of various elements: visual, audio, text, quizzes, feedback.
- Flexible, student can learn at his/her own pace, location and time and choose own learning paths.
- **Increased retention and motivation**, leading to higher success rates.





# E-LEARNING

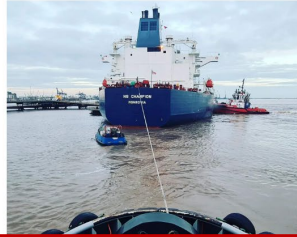
- E-learning meets current demands and is proven effective.
- Monitors independently if the student has understood the theory and is able to apply this. Certificate (incentive!) if student is successful.
- Useful addition to the onboarding package.
- .... And cost-effective! (no travel, no extra time)



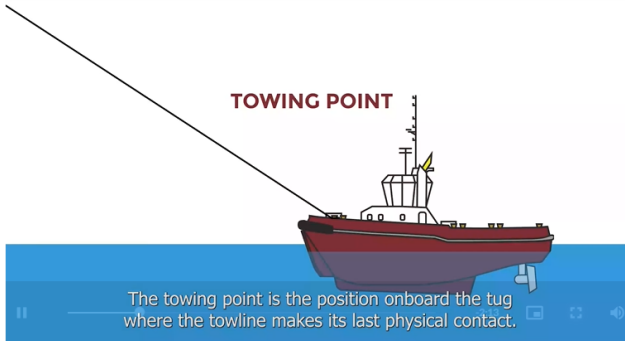


## Requirements

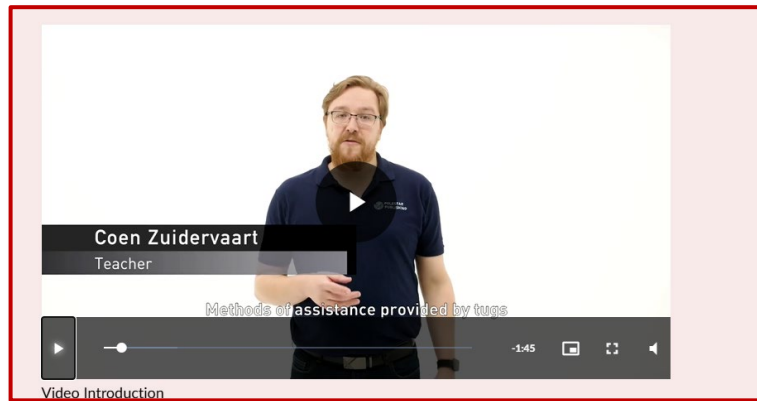
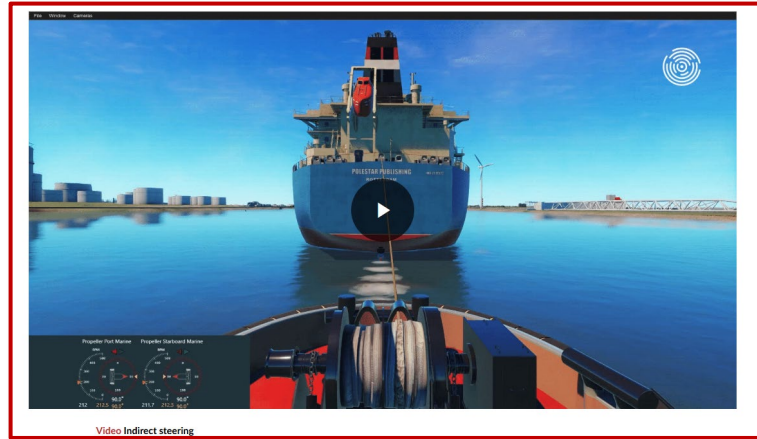
- A towline should have a **sufficient minimum breaking load (MBL)** to cope with the forces that can be experienced during ship handling operations.
- **Dynamic loads** in a towline should be well compensated in order to avoid excessive loads in the line, on the winch and fairleads or other methods must be used to avoid peak loads.
- **Linear density:** A towline should be manageable on board a tug as well as on board a ship. When no towing winch is used a towline should be flexible and light enough for easy handling.



## TOWING POINT



Video Towing point, pushing point, centre of thrust and lateral centre of pressure



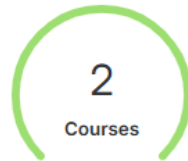
Which number indicates the staple?



- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4







Courses

Course status

- 2 completed
- 0 in progress
- 0 not started

1

Hours spent learning

Status Activity

All courses ▾

| Course                                    | Status ▾  | Duration | Quiz | Progress | Enrolled Date | Last Activity | Due Date |
|---|-----------|----------|------|----------|---------------|---------------|----------|
| Tug Use in Port - (4) Effective ship a... | COMPLETED | 01:00:51 |      | 100%     | 09/01/2025    | 09/10/2025    |          |
| Tug Use in Port - (2) General tug de...   | COMPLETED | 00:25:01 |      | 100%     | 06/03/2025    | 06/04/2025    |          |

1 - 2 of 2





**THANK YOU!**

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