

# Maritiem achter de schermen

Carey Walters

**The course 'Strength of Ships' in the second year of the bachelor is instructed by Dr. Carey Walters, who is an American associate professor at the Maritime and Transport Technology department of 3mE. But beside this, he is also a researcher at TNO and has a background in aircraft and a PhD at MIT. How did he end up at the TU Delft and how does he enjoy living and working in the Netherlands?**

**By Carey Walters**

My family likes to tease me that I have a PhD in breaking things. They're not too far from the truth. I started my career in analyzing the structural crash safety of helicopters, and now I spend my time researching material failure for ships and offshore structures, including analysis of ship collisions. My business card says "Carey Walters, PhD, Associate Professor of Ships and Offshore Structures" but it might be better to think of me as 'that guy who breaks steel.'

## **Starting off: Dutch vs American**

My engineering career started rather suddenly. As with many engineering students at the University of Massachusetts at Amherst, I had studied through most of the night before finally going to bed. Because I had studied so late into the night (next morning, really), I was completely unprepared when my

phone rang at 8:00 a.m. I fell out of bed and found the phone just before it stopped ringing. The person calling me was a manager from Sikorsky Aircraft, which makes the Blackhawk Helicopter (pictured), among other aircraft. Someone who had received my resume at a career fair had passed it on to him. He wanted to know if I would be interested in working in his group at Sikorsky. He asked a few other questions, which I only vaguely remember answering. After he was done asking questions, I found myself ashamed of the weak answers that my sleep-deprived brain was able to generate. I asked if I could book an interview with the hope of giving better answers at some other time, when I was awake. The manager answered "You just had your interview. When do you want to start?" I started my 9-month internship a couple of months later, and after completing my bachelor's degree, I went on to work for Sikorsky for another four years. While at Sikorsky, the most prominent theme of my work was structural crash safety, which is all about protecting people in the helicopter if a crash happens. Sadly, I never got to ride in a Blackhawk, much less fly or crash one, but I did have the privilege of witnessing two full-scale helicopter crash tests of other aircraft. (If you stop by my office, I'll tell you how they did. I promise not a single crash test dummy was killed.)

About ten years after that sleep-deprived phone interview with Sikorsky, I applied to a job at TNO. I was interested in TNO because I had been reading the international literature, and I knew that they had a strong position in structural crash safety – a specialty of mine in both research and practice. The interview process with TNO included telephone interviews with various levels of management and HR over the course of about six months, followed by a flight to the Netherlands and two full days of interviews. (By "two full days," I mean a twelve hour day followed by another eight hour day, all while jet lagged). By the time that TNO had offered me a position, I was thoroughly vetted. I believe that this experience with TNO was an extreme one because of the fact that they would be hiring me from abroad, but it brings me to a big difference that I have noticed about American and Dutch hiring culture. Specifically, Americans are far more likely to hire on qualifications, while my experience with Dutch employers is that they either want to have a relationship with their candidates or develop one through the hiring process. In some ways, this is quite reasonable; Americans can be hired and fired at will and without cause, while it is much more difficult to fire Dutch employees. It might be expected that Dutch employers want to be sure that the new employee will fit in to their company before making a commitment. Another way of showing the difference in relationship building between the Dutch and American hiring processes is to think about the differences in resumes. In



Carey Walters, researcher at TNO and associate professor at the university

some ways, European resumes are far more personable than American ones generally are. For example, I have seen many European resumes that feature pictures, dates of birth, nationalities, and other personal details. I take this as the applicant attempting to build some sort of relationship with the person reviewing the resume. In the US, all of these things (especially pictures) are almost completely forbidden because they reveal things that could be used to discriminate against applicants. For example, one can guess race and gender from a picture, so most American employers automatically reject all resumes with pictures in order to maintain a race- and gender-blind hiring process.

### Dutch vs American universities

My academic jobs have been as a PhD researcher at the Impact and Crashworthiness Laboratory (ICL) at MIT and as an associate professor at TU Delft. I worked at the ICL between my job at Sikorsky and when I started working for TNO. In terms of work culture, these two jobs are far more similar to each other than one would expect given the geographical

distance between them. I think that this has to do with the international character of research universities; both have highly international teams with no single nationality dominating. In both jobs, the people who were hiring were looking for something very specific, and I was in the right place at the right time. It was a great advantage for my application to ICL that I had a background in structural crash safety and was already familiar with the work of my future PhD supervisor. In fact, I had already used many of his ideas in predicting the crash safety of helicopters. Likewise, when recruiting PhD researchers at TU Delft, I look for similar things: some level of specialist knowledge that will also benefit their PhD project.

### Summing up

My own work and research interest started in analyzing structures that crash and has broadly expanded to analysis of failure of metals in general. While I started off in the aircraft industry, I have been firmly in the maritime and offshore industry for many years. Through my own career, I have seen some strong differences in the

working environment between the US and the Netherlands, though the differences appear to be weaker within the university than outside of it. The strongest single difference that I can see is the level of relationship building throughout the career, which I highlighted in the hiring process specifically. American companies tend to be less focused on relationships with their job candidates/employees than Dutch ones seem to be, which can be easily explained by the ease with which an American company can hire or fire their employees.

Overall, I enjoy working at TU Delft and hope to see readers of Boegbeeld at one of my lectures or coming by my office to talk about thesis topics, or just to chat about structures, material failure, or analysis of crash.



The Blackhawk helicopter, developed and tested by Sikorsky Aircraft