

Safety II in practice 2018

Experiences practicing safety II in the maritime domain

Doug Smith

Faculty of Engineering and Applied Science

Memorial University of Newfoundland

St. John's, NL, Canada

I would like to share my experiences of practicing safety II in the maritime domain. My approach to safety II has largely been associated with the FRAM. I have applied the FRAM to ship navigation and ice management of offshore hydrocarbon installations. I have also engaged industry to promote the “work as done” concept in the FRAM. Largely, this concept has been well received by industry, but there have been issues in practice. I have had success talking to captains to inform FRAM models on ship navigation, but have been criticized in peer review settings as being “hardly scientific.” The task of collecting information about variability from captains has been moderately well received. They are usually happy to talk to you about it, but generally become annoyed if a high level of detail is requested of a specific case. I have also planned a FRAM analysis with a shipping company, to be informed by all members of their navigation crew. In order to perform this analysis as a university researcher, the project had to gain approval from an ethics committee. The committee requested that the ship's manager be removed from the recruitment process as the participants of the study should be able to refuse to participate and be reassured that their refusal would not affect the status within the organization. As a result of this condition, the study had no participants. We performed another project with an operator of an offshore hydrocarbon installation to use FRAM to assess their ice management process. I was able to sit in on a series of interviews that they were performing within their organization as an internal audit process. My presence in the interviews required that a non-disclosure agreement be signed. This study allowed the ice management system to be modelled well, but again there were a few issues characterizing the variability in full. I am now exploring the use of simulated ship environments as a means to collect data to inform FRAM analyses. This has the benefit of a less invasive data collection process for organizations and easier tracking of system parameters, but also has the drawback of not quite being “work as done.”