Abstract

At the end of World War I, more specifically in 1919, an estimated 35.000 tons of ammunition was dumped on the “Paardenmarkt”, a sandbank situated in front of the coast of Knokke. The ammunition is mainly of German origin however, English and Belgian ammunition could also be present on the site. Originally around a third of this ammunition was estimated to be toxic but in recent research the vast majority is presumed to be toxic. Trace amounts of TNT have recently been found in the seawater near the Paardenmarkt. As a result of these findings an interdisciplinary research committee called DISARM (Dumpsites of munitions: Integrated Approach to Risk & Management) was established. The DISARM project is a part of the SBO programme of the FWO and runs from January 1st 2020 until December 31st 2023. AMACORT (Antwerp Maritime Academy COrrosion Research Team), the corrosion team of the Antwerp Maritime Academy actively participates in the DISARM project by researching the current and future state of the dumped ammunition in terms of corrosion. The goal of this master thesis is to describe the test setup that is used during the experiment, the used methods and the various parameters. In addition, an impression is given of the current situation on the Paardenmarkt and the various types of corrosion that take place there. We will discuss the first results of the experiment and explain the further approach. Based on the results of this research, an empirical model can be drawn up in the (near) future that will map the corrosion rate of poison gas grenades on the Paardenmarkt.