**Ticking bombs at the bottom of the Baltic Sea**

Both the maritime administration and the environmental protection authorities did not recognize the threats resulting from oil-derived fuel and chemical weapons being sunk in wrecks at the bottom of the Baltic Sea. They also did not assess the risk associated with them and did not effectively counteract the identified and localized threats. This could lead to an ecological catastrophe on an unprecedented scale. Stuttgart and Franken, dating back to World War II, pose the greatest threat. Fuel is already coming out of the first one, and the second, due to corrosion, can collapse at any moment and cause a huge ecological disaster. In addition, in the area of the Gdańsk Deep, at least several dozen tons of ammunition and chemical warfare agents (CWA) may lie on the bottom, including one of the most dangerous sulfur mustards. Fishermen and sunbathers have been burned several times since the war.

The most dangerous sources of pollution in the Baltic Sea include spills of fuels and petroleum substances and the release of substances from chemical weapons (warfare agents and their breakdown products). As it turned out as a result of international and national research projects, these problems also apply to the Polish zone of the Baltic Sea. Our waters are littered with hundreds of shipwrecks, as well as chemical weapons and munitions - remnants mainly from World War II and the Cold War period. Contrary to appearances, the problem, despite the passing of the next decades, is not disappearing, but it is swelling. Because along with the progressing corrosion of shipwrecks, containers and barrels with weapons and chemical ammunition, as well as the increasing exploitation of the Baltic Sea, the risk of harmful substances (oil and oil derivatives, chemical warfare agents and their breakdown products) is increasing ), including the risk of a sudden, uncontrolled leakage of a huge amount of hazardous substances (including light and heavy fuels) as a result of the collapse of a corroded shipwreck and unsealing of fuel containers.

In the case of the Franken unit, research conducted by the Maritime Institute in Gdańsk indicates the possibility of deposits of up to 6,000 tons of fuels and petroleum products. A corroded wreck can collapse under its own weight and cause a sudden leakage of large amounts of these substances. Meanwhile, according to the findings of the NIK audit, the Maritime Search and Rescue Service, responsible for combating threats and pollution of the marine environment caused by the spillage of petroleum substances on the sea surface, was able to collect about 3,000 tons of oil with its own forces and resources, and using the forces and resources of other units - up to 3,500 tons.

In the case of the Stuttgart unit, a stain with an approximate oil area of approximately 415,000 m² was found in the vicinity of the wreck. In addition, the extent of seabed contamination is increasing. Research conducted by the Maritime Institute in Gdańsk in April 2016 confirms the fact that it stated in 2009 that “(…) a local ecological disaster. Where mazut is deposited, an azoic zone (a zone devoid of life) has formed, which along with the stain extends its range, degrading the natural environment (…)”. Large amounts of chemical munitions and combat stocks of poisonous agents found in Germany in containers (boxes), after World War II, the Allied forces, based on the arrangements of the Potsdam Conference, decided to sink it. In the area of the Baltic Sea, dumping sites were designated (these were located outside Polish sea areas or on their borders, including the Gotland and Bornholm Deeps).

However, as the international CHEMSEA research project shows, the designated sites are not the only places where chemical weapons have been dumped or where dumped chemical weapons may be located. The presence of poisonous warfare agents or products of their disintegration has also been confirmed in the Gdańsk Deep and the Słupsk Trough - in Polish sea areas. The munitions storage "station" in the Gdańsk Deep has a diameter of 0.62 nautical miles. In addition, chemical warfare agents were also found on the beaches in Dziwnów, Kołobrzeg and Darłowo, which suggests the existence of more such "sites", as well as dumping of chemical weapons also during transport to designated places.

The NIK audit covered the Ministry of Maritime Economy and Inland Navigation, the Ministry of the Environment (currently the Ministry of Climate), the Chief Inspectorate of Environmental Protection, Maritime Offices in Gdynia, Słupsk and Szczecin, Maritime Search and Rescue Service, Voivodeship Offices: Pomorskie, Warmińsko-Mazurskie and Zachodniopomorskie. The audit covered the period from 2016 to the first half of 2019.

**Key audit findings**

The Supreme Audit Office points to the lack of full recognition of the threats arising from wrecks with fuel and chemical weapons at the bottom of the Baltic Sea. The maritime administration and the environmental protection administration make each other responsible for counteracting these threats, without recognizing their competences, while, according to NIK, the regulations clearly indicate the division of duties in the field of identifying threats. Moreover, in places where such recognition has already been made, the above-mentioned administrations did not take preventive and intervention actions. Both the Minister of Maritime Economy and Inland Navigation and the Minister of the Environment (currently the Minister of Climate) were assessed negatively by NIK.

Maritime administration (Minister of Maritime Economy and Inland Navigation together with the Directors of Maritime Offices in Gdynia, Słupsk and Szczecin), despite the passage of even 70 years from the sinking of ships and chemical weapons, did not make an inventory of the bottom, i.e. did not recognize the places, quantity, type and condition of materials dangerous (fuel and petroleum products from shipwrecks as well as chemical warfare agents and products of their disintegration).

The methodology and technique for estimating the risk related to contamination of the marine environment has not been developed. Even in the case of the German Franken and Stuttgart vessels, which may constitute the greatest risk among the identified shipwrecks, as well as chemical weapons dumping sites located in the Gdańsk Deep, no effective counteracting of these threats was undertaken, which would lead to their neutralization.

The Environmental Protection Administration (Minister of the Environment, currently the Minister of Climate, together with the Chief Inspector of Environmental Protection), despite having information on the threats posed by hazardous materials, did not monitor the waters of Polish sea areas, including sediments and living organisms (e.g. fish, mussels ), in terms of concentrations of poisonous agents and their breakdown products, as well as - with the exception of benzo(a)pyrene - fuel and petroleum products from shipwrecks. The research and assessment of water quality did not cover even the already recognized places of sinking chemical agents and shipwrecks with fuel. In particular, this concerned the "depot" of chemical weapons, located in the Gdańsk Deep.

Moreover, the Minister of Maritime Economy and Inland Navigation, exercising the ownership rights of the State Treasury to the waters of the territorial sea and internal sea waters, did not request flag states of ships sunk in the area under his jurisdiction to cover the costs of removing wrecks or for other assistance in removing pollution caused by ships of such states . He also did not take any actions to obtain information from other states about the places, quantity and type of chemical weapons that were dumped in Polish sea areas.