O91. AN EVALUATION OF OIL POLLUTION PROBABILITY IN THE LEVANTINE BASIN OFF ISRAEL

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Recent gas discoveries in the eastern Mediterranean Sea have led to multiple operations with substantial economic interest, and they are accompanied by the risk of oil spills and their potential environmental impacts. In this study we compute the probability of an area being polluted by oil. The first stage of this computation is to determine what the likely scenarios for oil spills are, where the areas of higher oil spill probability are and what the expected size of the spill is. This study was performed as part of the RAOP-MED project, which considered ship collision scenarios, other accidental spill from ships and rigs, and accidents that might occur during fueling operations. The results of the project include a map of oil spill probability for the eastern Mediterranean that details different scenarios, as well as a map of the maximal spill size. We use these results to create possible oil spill scenarios and run Monte-Carlo simulations of the oil spill’s fate. The simulations use the MEDSLIK oil spill propagation model, forced by the realistic atmospheric and oceanic conditions that exist off the Israeli coast, as outlined by the SKIRON and SELIPS numerical models. Potential risk sources in the area are the ship traffic that enters and leaves the Suez channel, as well as the offshore platforms on the Nile Delta and in the Israeli exclusive economic zone. We also examine the impact of the alongshore current on the probability and severity of the pollution.