

## Case Scenario Simulation concerning Eventual Ship Sourced Oil Spill, Expansion and Response Process in Istanbul Strait

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**Abstract :** Istanbul Strait is a crucial and narrow waterway, not only having a role in linking two continents but also has a crossover mission for the petroleum, which is the biggest energy resource, between its supply and demand sources. Besides its substantial features, sensitivities like around 18 million populations in surroundings, military facilities, ports, oil lay down areas etc. also brings the high risk to use of Istanbul Strait. Based on the statistics of Turkish Ministry of Transportation, Maritime and Communication, although the number of vessel passage in Istanbul Strait is declining, tonnage of hazardous and flammable cargo like oil and chemical transportation is increasing and subsequently the risk of oil pollution, loss of life and property is also rising. Based on the mentioned above; it is crucial to be prepared for the initial and subsequent response to eventual ship sourced oil spill which may cause to block the Strait for an unbearable duration. In this study; preconditioned Istanbul Strait sensitive areas studies has been taken into account and possible oil spill scenario is loaded to PISCES 2 (Potential Incident Simulation Control and Evaluation System) decision support system for the determined specific sea area. Consequences of the simulation like oil expanding process, required number and types of assets to response, had in hand and evaluated.

**Keywords :** Istanbul strait, oil spill, PISCES simulator, initial response

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