Abstract

The Nigerian state has been suffering the negative environmental consequences of oil development upon the discovery of oil in the 1950s. A local OILSPILLMAP model was developed for managing oil spill incidents on Nigerian coastal waters so as to reduce the impact of oil spill on Nigerian coastal environment. This paper presents a practical validation of OILSPILLMAP with CLS Marge/T oil tracking buoy deployed and tracked at Bonga field. Current speed and directions from the CLS Marge/T buoy were processed and used with other parameters to drive OILSPILLMAP. Simulated oil spill trajectory from OILSPILLMAP was then compared with the actual CLS buoys positions. Hotelling’s T-squared Statistical Test was used to check whether there is any significant difference in the means of the oil spill speed and bearing from the trajectory of the OILSPILLMAP model and the means of the speed and bearing of the CLS buoy. The result indicates that there is no significant difference between the trajectory of OILSPILLMAP model and CLS buoy’s trajectory. National Oil Spill Detection and Response Agency (NOSDRA), relevant regulatory agencies as well as other stakeholders in the oil and gas industry should facilitate the provision of real time wind, current and other met ocean data for driving oil spill models like OILSPILLMAP.

Keywords: Bonga, Collaboration, Model, Management, Oil-Spill