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Title:

Research Overview of the Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE)

Abstract:

The Deepwater Horizon Spill of 2010 in the Gulf of Mexico underscored the need for informed response to such events. An integral part of that response is the prediction of the oil and gas plume evolution from the wellhead all the way to the beach. Questions such as “where will the oil go?”, “how fast will it get there?” and “how much oil will get there?” arise in all major spills. The answers are important in the allocation of limited response resources and in determining the overall socio-economic impact of the spill. An extensive research program was initiated in the Gulf of Mexico following this event, which was the largest accidental marine oil spill. CARTHE brings together a number of investigators studying oceanic and atmospheric processes responsible for the physical dispersion of oil spills. This is done by conducting large coordinated oceanic expeditions, in which the skill of predictive models are evaluated. The main findings from the past experiments will be summarized and the scope of an upcoming expedition will be introduced.