

Solitons and Offshore Natural Gas Drilling Platforms

An opportunity to study internal waves from Trinidad's offshore platforms

By

Edwin Alfonso-Sosa, Ph. D.

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There are numerous natural gas fields in the offshore waters southeast from Trinidad Island. Some already have in operation gas and oil platforms anchored about 70 meters deep. These gas rigs could serve as opportunity platforms for soliton currents measurements. In 2007 the Woods Hole Oceanographic Group Inc. conducted upward and downward ADCP measurements from a bpTT gas platform offshore Trinidad using a novel deployment mechanism that allowed them to deploy and recover two Nortek AWACS current profilers without diver assistance. Other systems like SEWS (*Soliton Early Warning System*) of Fugro GEOS Ltd., were deployed in the Andaman Sea to warn an oil platform personnel of arriving solitons.

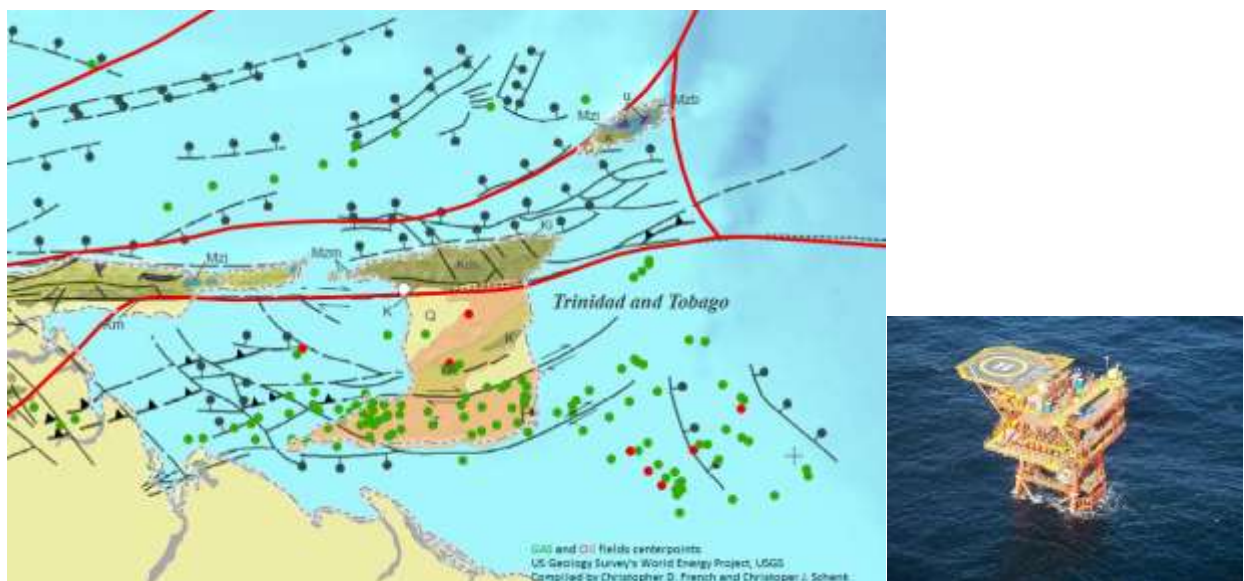


Figure 1. Show the gas (green) and oil (red) field center points. Map compiled by C. D. French and C. J. Schenk, US Geology Survey's World Energy Project, USGS. Right. bpTT gas platform offshore Trinidad.

MODIS images show the arrival of solitons approaching from the northeast and impinging in the gas field area. The generation area of these solitons is unknown. The soliton current speeds are unknown. The impact on the drilling operations is also unknown.



Solitons approaching from the northeast and impinging in the gas field area SE of Trinidad. The crests are separated by 20 km and their length are 80 km. MODIS Image courtesy of LANCE Rapid Response system.

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