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SPACE BASED TECHNOLOGY AND MONITORING THE IMPACTS OF THE PETROLEUM
EXPLORATION, MARITIME AND PIRATES ACTIVITIES IN THE AFRICAN GULF OF GUINEA
REGION

Abstract

Introduction: Africa is the second largest and most populated continent after Asia. Geographically it is located between the Atlantic and Indian Oceans. The Gulf of Guinea is the north easternmost part of the tropical Atlantic Ocean between Cape Lopez in Gabon, north and west to Cape Palmas in Liberia. The intersection of the Equator and Prime Meridian (zero degrees latitude and longitude) is in the gulf. The International Hydrographic Organization defines the southwest extent of the Gulf of Guinea as "A line running Southeastward from Cape Palmas in Liberia [42234N 74301W] to Cape Lopez (038S 842E)". The region presently accounts for 15 PROBLEMS: i)The petroleum exploration activities going within this region in countries like Equatorial Guinea, Sao Tome and Principe, Gabon, Nigeria, Angola and others are continuously causing oil spillages in the process of drilling, bunkering and discharging of petroleum products in the Atlantic Ocean. In fact this petroleum exploration activities and the oil spillages assumes the form of a vicious circle.

ii)Pirates :This region is now becoming a region with the highest number of pirates on statistical records per year even higher than Somalia since 2011. One of which was on 5th August, 2011 where four expatriates from Indonesia, Iran, Malaysia and Thailand respectively were kidnapped. The attack took place at roughly 35 nautical miles off Nigeria's oil rich coastal area in the Gulf of Guinea (<http://www.aljazeera.com/news/africa/2012/08/201284125446530558.html>). The IMB report emphasized that high levels of violence were also being used against crew members in the Gulf of Guinea.

How satellite Technology can aid: 1. Modern satellite technology such as the Automatic Identification System (AIS) (an automatic tracking system used on ships and by vessel traffic services (VTS) for identifying and locating vessels by electronically exchanging data with other nearby ships, AIS base stations, and satellites) can help in this regard. 2. Education the people related to security issues in protecting this Gulf of Guinea region such as the Navies, Coast Guards, local vigilantes and even ordinary indigent such as the fisher men on how to use the satellite data can help them locate ships/vessels in need of emergency help.