

THE ROLE OF SATELLITE EXPLORATION IN THE SEARCH FOR NEW PETROLEUM RESERVES IN SOUTH ASIA

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Despite successful cost-cutting initiatives and reduction in the finding costs per barrel, overall the costs of exploring the world's remaining frontier basins continue to rise as the industry moves offshore into increasingly deeper waters and onshore into increasingly hostile environments. Geological data obtained from some 800 kilometres above the earth could help ease the pain.

Satellite remote sensing, after some 25 years of patient development, has now reached maturity as a respectable technology and can offer the industry an effective, low-cost, high coverage service which is adaptable to any exploration environment. The technology has particular relevance to this region both on and offshore. Onshore, the arid terrain and superb exposures found in the Makran, Kirthar and Suleiman Ranges provide classic areas for geological and structural interpretation from space. Offshore, the exciting new frontier basin of the deep water Indus is the perfect testing ground for oil seep detection by satellite radar.

This paper presents examples of the increasing range of remote sensing techniques now available to the modern explorer, concentrating on offshore seep detection with reference to analogous offshore deep-water hot-spots such as the Congo Fan and the South Caspian Basin. Reference is also made to a novel onshore satellite seep detection method, Thermal Basin Screening (TBS), which has been tested onshore Makran.