

## **Detection of Oil Pollution in the Persian Gulf by APT Imagery**

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The observation of both IR and VIS data from NOAA and METEOR series satellites has enabled us to detect and follow up the recent environmental disaster in the Persian Gulf due to oil pollution.

Through satellite data it was possible to observe the extent of oil spills as they spread along the shores of the Gulf and it was also possible to observe the direction of the smoke due to oil well fires. During spring 1991 the prevailing surface wind direction was mainly northwesterly which resulted in the transport of the smokes mainly towards the Indian Ocean. But in spring 1991 "Black Rain" was observed at the south eastern corner of the Mediterranean Sea around the Gulf of Iskenderun.

Samples of this rain have been analysed by gas chromatography and shown to be originated from Kuwait crude oil. The extensive heat during the burning resulted in the disappearance of the low weight hydrocarbons and it was possible to identify the origin from C chains greater than C-15. The environmental implications being that the smokes which have dispersed globally carry high molecular weight hydrocarbon chains and will thus be much more persistent and will have some global implications.



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