

# TASMAN SPIRIT

## THE INCIDENT AND RESPONSE - A TECHNICAL PERSPECTIVE

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## **TASMAN SPIRIT**

The Maltese tanker TASMAN SPIRIT (87,584 DWT) grounded at the entrance to Karachi Port, Pakistan at about 13.00 hours local time on 27<sup>th</sup> July 2003. The vessel was carrying 67,800 tonnes of Iranian Light crude oil loaded at Kharg Island and also had 440 tonnes of heavy fuel oil in aft bunker tanks. The grounded tanker was subjected to continuous stress from the heavy swell of the prevailing south-west monsoon. In the course of inspections on board it became apparent that most of the cargo tanks had been ruptured, whilst the bunker tanks remained intact.

The owners appointed salvors under Lloyd's Open Form. The owners also hired a succession of small tankers and barges for the purpose of shuttling and storing oil lightered from the casualty. In the course of the following weeks roughly half of the crude oil cargo and most of the bunker fuel was successfully transferred from the casualty.

ITOPF was notified of the incident on Day 1 by the P&I insurer, the American Club, and was requested to stand by to attend the incident on-site. Over the next few days a full evaluation was made of the incident and the area potentially under the threat of pollution. The availability of suitable spill response equipment and personnel was ascertained locally, regionally and globally (OSRL, EARL, NRC). Contact was maintained with the American Club's correspondents in Karachi and general advice was provided through them to the Karachi Port Trust (KPT), the government authority in charge of oil spill response activity.

In light of the potential severity of the incident and reports of oil drifting ashore onto the main tourist beach in Karachi (Clifton Beach) and entering Karachi Port on flooding tides, a decision was taken on 8<sup>th</sup> August for ITOPF to attend the incident. After a comprehensive assessment of the nature of the oil pollution threat, the type and quantity of oils on board the casualty, the nature and location of resources at risk, and the existing capabilities in-country for oil spill response it was concluded that a high oil treatment rate and rapid response capability were essential to meet the threat of a sudden large oil release from the casualty. These twin requirements could only be satisfied by aerial

dispersant application. Approval for large-scale dispersant use was given by KPT and from the Pakistan Environment Protection Agency.

The cargo removal operation had started and by 10<sup>th</sup> August two loads of crude oil with a combined total of 13,000 tonnes had been transferred from TASMAN SPIRIT. However, on 11<sup>th</sup> August the tanker began to show signs of breaking up and ITOPF recommended to KPT and the American Club the urgent mobilisation of equipment, materials and personnel from OSRL and subsequently also from EARL. The American Club contracted with OSRL for the provision of an equipment package to be airlifted from the UK, and a Hercules C-130 aircraft with aerial dispersant spraying equipment (ADDS Pack) to be dispatched from EARL in Singapore. A dozen oil spill response personnel from OSRL and EARL were also mobilised. The UK government agreed to provide dispersant from its stockpiles and a consignment of 100 tonnes was air-freighted to Karachi, arriving on 15<sup>th</sup> August.

As predicted, the tanker broke in two overnight, 13/14<sup>th</sup> August, and several thousand tonnes of crude oil were spilled from no. 3 cargo tanks. Much of the spilled oil quickly stranded on Clifton Beach, but significant quantities remained afloat both inside and outside Karachi port. Dispersants were applied offshore from the ADDS Pack in response to two distinct pollution events on 14<sup>th</sup> and 22<sup>nd</sup> August involving the progressive break-up of the tanker. About 30 tonnes of dispersant were applied to prevent floating oil from drifting towards dense mangrove forests to the east of Karachi.

The severe pollution of Clifton Beach created very strong oil vapours causing considerable discomfort to local residents and clean-up personnel. Local hospitals reported many cases of headaches, nausea and dizziness and schools in the vicinity were closed for a short period. Clean-up work was also hampered by the lack of suitable disposal sites for collected oily waste. Agreement was eventually reached to dispose of collected oily sand at one of the municipal waste sites serving Karachi City.

Oil entering the port of Karachi was confined by deploying booms at suitable collection sites, and in total some 140 tonnes of oil were recovered by skimmers.

KPT also deployed vessels to apply dispersant on oil drifting through the port entrance.

After several interruptions the salvors succeeded in removing over 35,000 tonnes of cargo and most of the 440 tonnes of heavy fuel oil bunkers from TASMAN SPIRIT. After completion of the cargo transfer operation about 1,000 tonnes remained un-recovered due to the constant agitation by wave action in damaged tanks. This was treated by adding dispersants to the tanks in question.

Once the cargo had been removed from the casualty, beach cleaning and disposal of oily waste were undertaken by various authorities following strategies recommended by ITOPF. At a meeting on 10<sup>th</sup> October, the Crisis Coordination Committee set up by President Musharraf accepted that cleaning of Clifton Beach had achieved as much as could reasonably be expected and that the beach was sufficiently clean for re-opening to the public.

It is thought that about 30,000 tonnes of cargo were spilled. Given the light character of the crude and the high mixing energy in the many damaged cargo tanks generated by the incessant heavy swell, it is likely that most of the spilled oil dispersed naturally. Repeated surveys conducted after the tanker broke in two showed little or no impact on mangroves, salt pans and other sensitive resources. The geographical extent of shoreline oiling was limited to a ten-mile radius around the grounded tanker. The main reason for such limited impact is the low persistence of Iranian Light crude.

In response to requests from Pakistan authorities, the IMO sent two experts to Karachi to assist KPT with advice on emergency response measures and later on a further expert on the formulation of claims following guidelines set out in the IOPC Fund Claims Manual. Additional experts were provided by UNEP and IUCN to advise on the issue of potential environmental damage. The authorities are undertaking a monitoring programme to evaluate the effects of the oil spill on the environment. A three-month fishing ban was imposed by the Marine Fisheries Department along the coastline directly affected by oil, extending five nautical miles offshore.