

AN OVERVIEW OF THE PRESTIGE OIL SPILL INCIDENT

David Salt,
Technical Director
Oil Spill Response Limited
Southampton,
England

On 13th November 2002 the Bahamian registered tanker, built in 1976, was in transit from Ventspils in Latvia to Singapore with a full cargo 78000 tons of various grades of heavy fuel oil. The ship had crossed the Bay of Biscay and was just off the Northwest coast of Galicia in severe gale conditions when it suffered severe structural failure in way of the starboard cargo tanks. The hull was breached and oil loss began immediately. Spanish coastguard,(SASEMAR), were notified of the incident and began to respond to the incident. The ship was adrift and being driven towards the shoreline. A Spanish coastguard (SASEMAR) vessel managed to get a line on the vessel and towed it back out to sea. Salvage vessels then took over the tow.

The extreme weather had an immediate effect on the oil. The cargo had a high asphaltene content, of the order of 9%, this type of oil has a tendency to form oil and water emulsions, these typically, and this was no exception, tend to form viscous residues that do not readily disperse naturally or chemically, and are extremely persistent.

Salvors were appointed and the fate of the ship was considered. Ship-to-ship transfer operations were not feasible given the prevailing weather conditions and the usual discussions of safe haven and port of refuge began. The Spanish Authorities would not accept the vessel into any port to permit stabilisation of the vessel or cargo removal. Subsequent events suggest that this may not have been the optimum technical

Petroleum Association of Japan
Tokyo

decision but hindsight is a wonderful and the intense political consequences of these decisions should never be underestimated. The ship was directed to be towed further out to sea, in a vain attempt to reduce the possible effect of any oil pollution.

The Coastline in Galicia is locally known as the 'Coast of Death', a name it has acquired over the years as a result of the number of ships lost from being driven onto a 'lee shore'. At this time of year the winds are persistently from the West, any oil was bound to ultimately hit the shoreline.

As the ship moved off to the south-west, the hull was subject to immense stresses from the seas breaking into the damaged area of the hull. As time progressed the hull was weakened to the extent that the vessel broke into two sections. The break occurred in way of Nos. 3 and 4 cargo tanks, which contained an estimated 25,000 tonnes of oil. This total quantity was lost as the ship broke up. The two sections of the hull stayed afloat for a period of time, before sinking in 3,500m of water with the subsequent release of oil.

The oil released from the ship was immediately exposed to storm force westerly winds and waves in the region were in excess of 7.5m. This weather precluded the use of recovery vessels to contain and recover the oil. A number of at sea containment and recovery operations were provided from European Nations using the multilateral conventions that are in place between the various countries. The support was provided on a Government to Government basis, at no stage during the entire spill was it the case that the response was equipment limited. In fact quite the reverse, there was more equipment available than could ever be deployed. Much that was, was damaged as a result of bad weather and done more in the interest of public perceptions than any expectation of success.

The coastline of north-west Spain is a rugged, harsh environment. There is a predominance of rocky shoreline, probably 70% of which is difficult to access, virtually

impossible to clean and representing a serious safety risk to people engaged in clean up operations. The remaining 30% is a combination of low environmental sensitivity beaches and high sensitivity sand dune and salt marsh systems. One major advantage was the presence of a comprehensive, illustrated and annotated shoreline atlas for the entire coastline. This document proved to be of immense value in the ensuing clean up operation.

At sea containment and recovery, and aerial surveillance of the oil, continued to be hampered by the weather and the oil remained at sea for a considerable period of time. A combination of shoreline topography, wind and waves meant that oil was held off the coast. As the weather abated, a collection of vessels from Spain, France, Germany, UK and Holland all commenced at sea operations. Eventually oil started to come ashore along the coastline to the West of La Corunna. The response to the shoreline impact and the pollution of the various fishing ports had not yet gained momentum nor coherent organisation. The response was fragmented in its command and control and various issues such as waste management and disposal had not been addressed.

The system soon became choked with waste and secondary pollution became an immediate and important problem. A system of waste transfer storage, transport and disposal had to be rapidly established to enable the clean up to be continued. This was done but the issue of waste minimisation and segregation needed to be addressed to prevent a repeat of the situation that occurred in the ERIKA. Training was provided to machinery operators and clean up workers to teach them in the best clean up techniques.

Clean up teams were mobilised from many of the local communities, armed forces and volunteers. Early attempts at using these teams were less than efficient. Briefing notes and training programmes were produced in Spanish for these workers, and supervisors were trained to ensure that clean up workers were controlled when entering the beach areas, waste was minimised and secondary pollution was avoided. The process to train

Petroleum Association of Japan
Tokyo

and equip these people took approximately two weeks to make an impression on the overall response efficiency.

The local fisheries were severely impacted by the incident. The region is renowned for its production of shellfish and high levels of local fishing industry. Many of these areas were protected by booms, but the severe weather and exposed nature of the coastline rendered many of these operations futile. Local fisherman assisted in the operations and were heavily involved in near-shore recovery operations, this group provided a valuable contribution to the clean up effort but the co-ordination of the logistics of waste management was a problem that hindered the effectiveness of the operation.

The clean up of the shoreline continued with a high level of activity. It is fair to say that there was no particular place on the coast where huge quantities of oil came ashore, but there were an huge number of places where some oil impacted the shoreline, leading to a need for prioritisation and management of the clean up effort.

The consequences of the incident are still emerging, many of the wounds freshly healed from the Erika incident have been re-opened, the issue of single hulled tankers, 200 mile exclusion zones of single hulled fuel oil cargoes around European shorelines. Classification societies, port and flag state controls and compensation regimes are all again at the top of the priority list for marine administrations. These discussions will ring around the marine sector for a significant time to come with the possibility that serious implication may arise from the incident for shipping world.