

## Salvage of large container vessels

→ Mike Mallin MNI's talk to the branch last year was so well-received that we invited him back in May to discuss the salvage of large container vessels.

*APL Panama* found herself aground on a sandy beach after a failed attempt to abort a port approach at Ensenada in Mexico. Heavy weather forced her around until she was parallel to the shore, and there was a rapid build-up of sand on her seaward side. Ensenada is a popular tourist destination and the authorities were keen that the local beaches should not be polluted or damaged.

Mike was flown in by the salvors to offer legal advice from the outset, but he also found himself handling liaison and negotiations with the local authorities. There were dozens of official bodies to deal with, from naval and port authorities to local business interests and environmentalists of all kinds. He had to give daily briefings to the local authorities, and deal with the concerns of both the salvors and the local people.

### Investigating the possibilities

The salvors arrived two days after the grounding, after an initial attempt by owners to refloat the vessel using tugs failed. Lloyd's Open Form was then signed, but the weather was so bad that the vessel had been aground for three weeks before an offshore sounding survey could be completed. The 'wave bounce' effect had built up an impressive sandbank to seaward, so the vessel was 450 metres from deep water. Depths alongside were two metres, despite the efforts of tugs to prevent the vessel going further ashore. The only way to board was by jet-ski from the beach, and even that was a fairly rough ride.

Salvors wanted to pump away the accumulated sand, but there was no space at maindeck level to site the equipment, and

the top of the container stow was 29 metres above sea level – too high for the pumps to be effective. (The top of the stow on a modern Maersk 'Triple E' vessel would be more like 43 metres above sea level.)

A dredger was considered, although it was an expensive option, but none were available. The tugs attempted propeller washing, which removed some of the sand but was dangerous due to the surf conditions and not very effective. The only remaining option was to lighten *APL Panama*.

The ship's inlets were blocked, so her pumps were not available and she had no cargo cranes. It was too shallow for barges to get alongside, and no jack-up rigs were available within acceptable distances. Today, there are sophisticated heave compensation systems, and jack-up vessels for windfarm installation, but at the time they were not available.

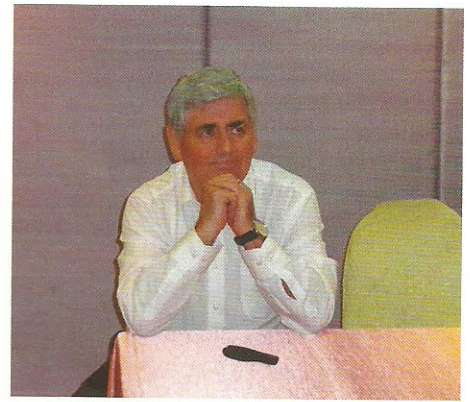
### Fuel removal

So how did the salvors deal with *APL Panama*?

They first removed 3,600 tonnes of bunkers. The salvors wanted to build a temporary road down the beach for fuel trucks, but suspected the local authorities would refuse permission because it would damage the tourist beach. Instead, the salvors waited until everyone went home for the New Year holidays and built the road anyway. A flexible hose was laid from the vessel to waiting fuel trucks. The hose was deliberately made significantly longer than necessary and flaked along the sand, so if the casualty moved the salvors would have time to stop pumping and disconnect before the hose parted. With stringent anti-pollution measures in place, the bunkers were removed. The salvors were later fined for their illicit venture into the world of civil engineering.

### Refloating

The attempt to refloat on the first spring tides was unsuccessful, although the tugs managed to swing the ship's head 30 degrees to seaward. Plan B involved the discharge of containers by helicopter(sky crane). The helicopter managed



Speaker Mike Mallin MNI

to discharge 1,900 tonnes of containers, and the tugs brought the vessel's head further to seaward, but the operation was not without its problems. The Mexican customs authorities refused to allow the helicopter's maintenance equipment into Mexico, meaning the helicopter had to return to the USA every evening for maintenance. An attempt to charge full import duty each and every time the helicopter returned had to be negotiated away.

Plan B involved deploying a puller barge from Alaska. The barge had been modified to use high-tech plasma rope instead of wire so that rigging could be put in place using the jet-skis, and added a further 800 tonnes of bollard pull to that of the tugs. It also had four large pumps for sand washing which, since they were not in the shallows, did not suffer from blockages.

Unfortunately, one of the double bottom tanks was breached. The oil was trapped by the pressure of water from outside, but on one particularly low spring tide the damage was exposed and 400 litres of oil escaped. This is not a large amount, but a little oil goes a long way, and it made the beaches look horrible. The local authorities were not happy and, from then on, Mike had to give additional daily briefings to a 40-strong committee of local environmentalists.

Plan B brought the ship's head further around towards the open sea, but still she did not refloat. Finally, after two spring tide cycles had passed and with the holiday season fast approaching, the authorities at last relented and granted permission for the salvors to build a more permanent road out to the casualty. This took three days, by which time a large mobile crane had been located and direct discharge of the containers could begin. Once a space had been cleared in the deck stow, two further crawler cranes were deployed on board to move containers within the reach of the larger crane on the road.

Meanwhile, the salvors were busy drilling holes every few metres through the hull from the double bottoms at the turn of the bilge and fitting an air blowing system to help disperse the build-up of sand immediately alongside the vessel. A dredger finally became available and



A full house for the presentation

this, too, was able to help shift the sandbanks to seaward.

Finally, two and a half months after the vessel grounded, all the cargo had been discharged, the casualty was refloated and the beach was fully restored to pristine condition. Naturally, the salvors were fined for leaving a large and deep depression in the sand where the vessel had been.

For their remarkable efforts, the salvors were rewarded with what was, at the time, the largest salvage award since the Lloyd's Open Form was invented. Sadly, Mike did not reveal the amount of the award.

## **Insurance issues**

In addition to the very real practical issues, Mike also discussed the particular problems of obtaining security for the millions of parcels of cargo on a modern container ship. Obtaining security for a 'Triple E' vessel might cost US\$3 million and take up to four years! To date, nobody has found a way to ease this situation, although there is a proposal that every container ship owner should take out an insurance policy on the cargo, with each box valued at US\$30,000. This would avoid the need to declare general average and collect security, but not everyone likes the idea and it is still

being discussed.

It was fitting that we had such a grand evening, because this was the last branch function at the Police Officer's Club before it closes. It has been one of our favoured venues for more than 20 years, and a plaque was presented to the Club to express our thanks for their hospitality over almost a quarter of a century. We hope to return when major construction works in the area are completed and the police get their club back, but for the next few years we will have to find an alternative venue.

**Captain Alan Loynd FNI**