

Observations from the C/V *Rena* Grounding

My name is Bruce Anderson, I am the General Manager - Monitoring and Response at Maritime New Zealand. Maritime New Zealand is a Government agency responsible for regulating the commercial and recreational maritime sectors in New Zealand. My responsibilities include Safety and Environmental Audit, Security and Incident Response, Investigations and Enforcement, and the Marine Pollution Response Service. I am also responsible for ensuring New Zealand's preparedness to respond to marine oil spills. During the *Rena* incident I led the salvage oversight for the first phase and the majority of my staff was involved in other key roles.

The container vessel ***Rena*** grounding occurred near the city of Tauranga on the North Island of New Zealand. The grounding could not have occurred in a worst place because Tauranga is or has,

- New Zealand's largest port and it was in the middle of its busiest export period,
- major tourist destination with a warm climate and long white sand beaches. This was the lead up to the peak summer holiday period,
- a place where a large wealthy retired population live often with expensive beach side houses,
- an endangered bird population - including the Spotted Dotterel. Only 1500 of these birds are left in the world and 800 live in the immediate area. These birds create shallow nests in the sand and are highly territorial.
- other offshore wildlife sanctuaries supporting many other endangered species,
- a local indigenous population, the Maori, that have many sacred sites of tremendous cultural and spiritual significance,
- An finally a general election occurring in one month and both main parties campaigning heavily.

And into this, at 17 knots comes the container vessel ***Rena***.

At about 2.20 am on the morning of 5 October, in clear and calm conditions, the ***Rena*** ploughed into Astrolabe Reef. There were no reports of injuries - apart from the Captains pride. Next morning it became clear that the vessel was firmly aground by the bow, listing about 8 degrees to port.

That night the Rescue Coordination Centre informed my Oil Spill Duty Officer of the grounding and the Marine Pollution Response Service mobilised and a Tier 3 event declared.

New Zealand's oil response regime has a tiered structure - Tier 1 is the spiller, Tier 2 is local government, and tier 3 is Maritime New Zealand. The Marine Pollution Response Service provides training for responders, oversees regional council exercises and manages the purchase and storage of response equipment. There are eighteen regional equipment caches located around New Zealand and a main store in Auckland which holds specialist equipment and additional stocks. Each council has its own contingency plan that identifies local resources, sensitive sites and response options. In addition to the regional plans there is a national contingency and a number of special site contingency plans. Oil spill preparedness is funded by a levy on industry.

The duty National On-Scene Commander took control of oil response and started to call out the National Response Team. The Maritime Incident Response Team was also mobilised. This team

provides advice to the Director of Maritime New Zealand on the exercise of powers of intervention and coordinates with other Government agencies.

Salvage teams from the major companies were quickly on site during 5 October and undertook damage assessments. The owner of the vessel signed a Lloyds Open Form 2011 with SCOPIC invoked with Svitzer Salvage. Svitzer then started mobilising equipment primarily from Sydney but also from Singapore and Holland.

The container vessel **Rena** was on transit from another North Island Port called Napier. It is a Liberian registered container vessel of about 37,000 tons, owned by Daina Shipping Company. This company is a wholly owned subsidiary of the Greek-based Costamare Shipping.

On board the vessel were nearly 1,700 containers of mixed general cargo and this included 31 dangerous goods containers. Only 11 of those dangerous goods containers had been declared and it was not until much later that the shippers advised Maritime New Zealand of the additional 20 dangerous goods containers on board. Also on board were nearly 1400 m³ of heavy fuel oil and about 70 m³ of diesel.

On grounding the forward third of the vessel was aground, resting on the reef. The forepeak and holds number 1 to 3 were breached. The starboard number 3 wing tank had 600m³ before grounding but soundings soon after indicated about 300 m³ had been lost in the initial event. While a significant proportion escaped to the sea oil was also lost into the duct keel and into the number 3 hold.

Very early on it was clear that this was going to be a significant spill response. The Regional Council oil spill contingency was used as the basis for an Immediate Action Plan. Luckily, oil was not due on shore for a couple of days allowing for detailed plans to be developed. Quickly resources from around New Zealand began arriving on site. Regional Councils, government agencies, defence, local tribal groups and of course Maritime New Zealand deployed to Tauranga. I deployed with a small team to lead the oversight of salvage operations.

At the same time as the National Response Team was deploying, in Wellington, the capital, and a meeting of ODSEC occurred. This is a group of Chief Executives of Government agencies and other senior Government officials who can coordinate agency activities in emergency situations and they were briefed on the situation. In turn, the Chair of ODSEC then briefed senior Government Ministers who were given power to make financial and other decisions without referring back to Cabinet. These Ministers then appropriated funds to support the Government's response and set processes in place to ensure that whatever Government assets or support was needed for the response was made available.

Once the LOF was signed, Svitzer started transporting equipment to New Zealand by charter flight. We also diverted a Hercules C130s to assist in these operations.

I see the response, which is still ongoing, to have three distinct phases - the first was "get the oil off", the second was "get the containers off", and the current phase is remove the wreck. Svitzer's initial plan was to transfer oil from the number 3 port and starboard tanks to the number 7 tanks. This was because there was a risk that the reef would puncture the forward tanks. At this time the vessel's systems were still in operation. However, pumping was complicated by the vessel's tank design in that it had a number of internal platforms in the tank preventing the pump being lowered and so required someone to enter the tank and manhandle the 100 kg pump down to the next landing.

Moving the product aft was only for the purpose of risk mitigation and the key was to remove the oil off the vessel. A small product tanker called the Awanuia was bought to site from Auckland. This vessel is normally used for bunkering larger vessels within harbour confines. Once the salvage teams had set up pumping arrays heavy fuel oil was pumped to the Awanuia from number 7 port tank while

also transferring from the number 3 port. At this stage number 3 starboard was tidal and contained about 300m³.

The Awanuia is not designed for station keeping in rough offshore conditions and pumping was halted a number of times due to sea state and wind. The bow thrusters would often overheat causing the tanker to detach. Efforts continued in trying conditions.

Rough weather set in and on the night the 11th October the Salvage Master declared a may-day when the vessels list shifted from port to starboard. Salvors, the crews and Maritime New Zealand staff were evacuated at night in a heavy sea with a large swell and oil and debris complicating things. In these dangerous circumstances there was only one injury when a crewman fell on the naval rating.

When we were able to get out to the vessel early on 12 October, the vessel's list had gone further over to starboard and was at about 17 degrees. Eighty eight containers were lost overboard and there was a large plume of oil mixed with the container contents stretching to the south, toward Motiti Island, the wildlife sanctuaries and the white beaches.

A number of the containers sank close to the wreck but debris and oil were spread over a considerable area. Timber, dairy products, skins, and other general cargo washed up onto Motiti Island, about twelve nautical miles to the south.

That reconnaissance also revealed a large (1 metre wide) crack had developed in the starboard side of the vessel in the area of the number 3 hold. This crack also breached the number 3 starboard fuel tank and this resulted in the loss of another 300 m³ of oil. How much actually escaped into the sea could not be determined but it was assessed that a lot of oil had ended up in the number 3 hold.

A tough job had just got a whole lot tougher. The vessels engine, power and pumping systems could no longer be used and the starboard passageway was underwater.

The release of oil caused a considerable amount of public concern. The community started taking the beach clean-up into its own hands. The community, rightly, felt that it was their beach but they also want to clean it up. People were trying to do this without appropriate safety equipment, sometimes trampling the oil into the sand, or spreading it to other areas.

It was decided to mobilise this community energy. We asked people to register as volunteers – they did in their thousands. Air New Zealand flew people in free of charge and workplaces gave staff time off. We set up training programmes, first for beach supervisors and trainers and then they trained more people. We equipped them with appropriate safety gear and got them to the right locations with the other equipment they needed and with the right supervision. Large tracks of beach were manually cleaned by hand.

This community support was really appreciated and has been one of the successes of this response.

Oil wildlife response in New Zealand is provided by Massey University's Oiled Wildlife Centre. Maritime New Zealand funds this centre. The Centre is recognised as one of the top organisations in its field and this response has proven its capability. Mobile wild life equipment trailers were deployed followed by containerised bird wash and hospital facilities. A small village was soon established.

The main wild-life impacted by the spill was the little blue penguins. Oiled birds were captured and taken to the oiled wildlife centre where they were assessed, cleaned, rehabilitated and eventually released. It was the penguins breeding season and thousands were killed. These birds were collected where possible and autopsy undertaken.

As described earlier, Spotted Dotterill's nest in shallow depressions they create on the beach. They were very vulnerable to any oil washing up on the beach. Around 80 Spotted Dotterel were

proactively captured to provide a breeding population, should the oil have wiped out the local bird population. Thankfully the main population was not impacted.

After about five weeks the vast majority of the oil was removed from the **Rena**. This allowed container removal to start. The first priority was those containers on the top side. To do this Svitzer Salvage bought a barge in from Australia. Two cranes were mounted on board, one to lift a cage with a person in it who would connect up the containers and the other crane to lift the containers.

Meanwhile, another larger barge was bought over from Singapore. The Smit Borneo is a dynamic position barge with accommodation and other infrastructure on board. This allowed salvage crews to remain on site rather than having to be helicopter backwards and forwards. This sped removal operation up considerably.

By this time all the holds were tidal and the main buoyancy keeping the stern section afloat was provided by the engine room spaces. Salvage teams attempted to remove the oil from the holds using skimmers but this was not wholly successful because of the debris in the water.

There were often times when rough weather passed through and the salvage crews would have to stop work and the barges seek shelter. It was during one of those storms, with the sea state reaching seven metres, that the vessel broke into two parts (along the earlier crack). During this storm more containers were lost overboard.

Later another storm came though and the morning reconnaissance flight noticed that the vessel was moving. It finally happened, the stern section slipped off the reef. The flooded holds slid down the reef edge. As the holds filled more oil, containers and debris were released. The engine room retained buoyancy for a time. But this didn't last.

The engine room spaces flooded and the Rena finally sank. The bow remained wedged on the reef.

The Rena now sits in two parts. The bow is still firmly wedged on the Astrolabe Reef. The stern section is mostly underwater and appears to be relatively stable – perhaps only until the next storm.

Container removal operations restarted and continued from the forward section - mostly by cutting open the containers, devanning the contents and then lifting bags out by helicopter. This is a long, slow and unpleasant job. Especially as the reefers have several month old decomposing food.

Responsibility for the recovery of containers was transferred by the P&I Club from Svitzer Salvage to Braemar Howells soon after the original container loss in early October. Braemar set up recovery teams who would locate containers lost overboard, bring them to the surface and then load them (or the debris) on to small barges and then transfer this to a facility they established to deal with the containers. To assist the location of the containers Svitzer tagged them with electronic receivers. This allowed for the rapid location of lost containers.

Small barges and work boats would collect debris from the shore line and put this through their staging facility.

While container removal continues, the breaking apart signals the start of the third phase - wreck removal. The Director of Maritime New Zealand has issued a wreck removal order seeking the reef to be returned to the condition it was in prior to 5 October. This is ongoing.

Oil clean-up operations continue but as there is little oil left on board and operations are being scaled down. It is likely that only a small crew will be needed in the near future but this may need to continue for some time.

The key lessons learnt are:

the use of community support in the clean up,
the benefit of having a good workable contingency plan,
the value of international support,
open and transparent media engagement.

As described earlier, we enjoyed huge community support during this response. Traditionally the approach has been to discourage the community from the clean up and have them “leave it to the experts”. With the ownership that people in this area had for their beach and the sea, this was never going to happen.

Processes were set up to receive public reports of oiled beaches, mobilise trained and equipped clean-up teams along with the logistics support of transport, food, water and waste collection skips. Thousands were trained and used to great effect cleaning by hand large tracts of beach.

The contingency plans worked very well. Of course there are things we will change but the plan is robust. We will add a new annex on community engagement, strengthen the section on salvage, and look at the relationship between the oil, salvage and command teams. A review will inform other areas for change.

We were supported in this response by our Australian cousins. They provided equipment and expertise. It was good that they were able to support New Zealand as we have in the majority of recent Australian spills. We also received support for Oil Spill Response Ltd and this was mainly around high end technical specialist with their equipment. And of course we received many other offers of assistance that were highly appreciated

Decisions were made very early on that Maritime New Zealand’s response was to be open, transparent, and quick. In the early phase we held two press conferences a day, provided regular updates, made available to the media and public images and footage. We created opportunities for media to visit the restricted zones accompanied by experts who were able to explain the situation. We used social media to provide up to the minute updates.

The sites below contains the most recent updates and high quality images that people are welcome to use.

- www.maritimenz.govt.nz
- www.boprc.govt.nz
- www.facebook.com/boprc

This response has involved thousands of dedicated people who have worked long and hard in the response. The Salvage teams have shown true dedication in extremely difficult conditions. I would like to thank all of those involved.

Thank you