

HOW MUCH LONGER BEFORE SOME GOOD SENSE PREVAILS IN GOVERNMENT PHILOSOPHY OF WHAT IS SAFER, LESS INVASIVE, ENVIRONMENTALLY FRIENDLY, MORE EFFICIENT AND TOTALLY COST EFFECTIVE?

New Zealand is one of the few countries to have abolished cabotage in favour of encouraging road transport.

The article below from the *Timaru Times* details some of the results of this philosophy, while the real transport options like coastal shipping and certainly the railways are left to all but hibernate in the face of the taxpayer subsidised and accident prone road transport industry.

"Council land transport manager Andrew Dixon said heavy vehicles have become increasingly frequent, with **57-tonne** vehicles commonly permitted on specific routes.

"It makes sense for companies to increase the size of their average vehicle, because it leads to fewer trips overall," Mr Dixon said. "The real issue is the increase in the number of vehicles in general."

Last year, the New Zealand Transport Agency issued 587 permits for 53-tonne-plus High Performance Motor Vehicles on the Canterbury roading network.

This compared with 225 permits in 2012 and 81 in 2011. Permits are for two years. NZTA was unable to provide figures specific to South Canterbury.

However, Mr Dixon said in the Timaru district, Richard Pearce Drive (Temuka), Hally Tce (Temuka), Aorangi Rd (Seadown) and Earl Rd (Geraldine) were particularly affected.

"On most roads freight makes up about 7 per cent of the traffic, but on these roads it's between 10 and 40 per cent and climbing," he said.

He said the council's road-renewal budget was about \$1 million a year. "It's simply not enough to do everything."

In 2012 New Zealand Transport Agency (NZTA) approved the council's application to widen Factory Road bridge to two lanes. Construction should start in April and be completed by the end of next year.

Mr Dixon said the bridge could then carry **70-tonne trucks**.

NZTA's freight manager Harry Wilson said the increase in larger trucks along the state highway network would reduce the number of truck trips overall. However, Mr Dixon did not believe this. **"All signs point to larger vehicles on our roading network, and more of them."**

***(It's not rocket science!
Bigger trucks, Bigger profits.
Result, more trucks. QED, Ed.)***

Users also report on the deteriorating condition of SH1 in the North Island, especially the southern portions where huge trucks seem almost endemic and most parallel a railway that has enormous spare capacity, while coastal seas that require no maintenance and also more or less parallel most

of the roads in this country has almost infinite capacity. Significantly shipping is no charge on the taxpayer while railways also have the capacity to cover most of their costs if political meddling was removed and a fair comparison with road transport costs introduced.

Why then are we subsidising freight carriage by road up to billions of dollars a year when the alternatives can not only offer the same, certainly safer and more efficient service than those monstrous trucks that injure and kill so often while also destroying assets as they continue to depress both property values and lifestyles..

CRUISE SHIP IN BISCAY STORM



For most, the notion of a bad time on a luxurious vacation aboard a cruise ship is eating some rotten shellfish at a local port. For the unlucky passengers aboard the British cruise ship *Balmoral*, in November 2012 their 10 days of basking in the lap of luxury went awry when the cruise ship encountered 50 ft. seas and 60 mph gale force nine winds. The *Balmoral* encountered the rough seas when attempting to transit the Bay of Biscay during a storm. According to reports, two passengers had to be taken to a hospital in Spain with broken bones.



ARE MSA & TAIC FINDINGS NEGATED BY COLLISION AVOIDANCE RULES EXPERT?

RICHARD CULLETON

A lot has been said in articles on the New Zealand Master Mariners website (mastermariners.org.nz) about the interpretation of the Collision Regulations regarding who gives way to whom in a narrow channel e.g. New Zealand (NZ) Harbours. This has mainly stemmed from two fatal collisions that occurred in the past.

At the time when those collisions took place, and up until the present time, there appears to have been a ridiculous situation in New Zealand, where we can have two completely opposing opinions on which one is the give way vessel, when a large vessel (over 500 tons) and a sailing vessel or small powered craft under 20 metres are approaching each other in a narrow channel, or any New Zealand harbour, so as to involve a risk of collision to develop.

A report on one of the collisions was written some years ago for the insurers of the smaller vessel involved by Collision Avoidance Rules expert Captain A.N. Cockcroft. His report clearly shows how compliance with the Collision Regulations he cites should almost certainly have averted one of NZ's worst fatal shipping collisions. This occurred when a small container vessel collided with and overturned a fishing vessel. Five fishermen died, yet the MSA decided not to prosecute anyone, saying both vessels were to blame!

Both the Maritime Safety Authority (MSA) and Transport Accident Investigation Commission (TAIC) investigators were of the opinion that the Wellington Harbour entrance channel should be treated as a narrow channel, as per Rule 9 (a) and (b) of the International Collision Regulations. Thus obviously both vessels had a requirement to comply with Rule 8 (f) as well.

The MSA & TAIC reports show that from first sighting until the collision the only navigation light that the container vessel saw on the fishing boat was one red light. This was taken to be the sidelight of a sailing vessel, but the signalman at the signal station and the crew of an inward bound yacht both stated that they also saw the white masthead light on the fishing vessel. The red light was seen on the starboard bow of the container vessel for about twelve minutes before the collision. With little appreciable change of bearing, if required, how in this case, was the sailing vessel expected to be able to keep clear of the container vessel, when there was no wind?

The MSA said that the container vessel did not comply with Rule 17b. Thus the MSA obviously classed her as the stand on vessel which left the impeding fishing boat as the give way vessel. TAIC found then that the fishing boat impeded the passage of the con-

tainer ship, and thus was the give way vessel under the Collision Regulations, but did not say which ones. TAIC also found that (when the container vessel found herself so close that collision could not be avoided by the action of the fishing vessel alone) the stand on Container vessel was obliged to take action to comply with Rule 17 (b).

It would appear that both Authorities did not take into account Rule 8 (f) and the other Steering & Sailing Rules, and thus seem to be of the opinion that 'not impede', as in Rule 9, means the same as 'give way'.

It has only recently come to light that in year 2000, the insurers of both vessels met privately to exchange their respective evidence that, if it became necessary, they wished to put before a court. It appears the insurers for the container ship were proposing to use both the MSA and TAIC reports, which agreed broadly with the Master's & Third Mate's version of events. Both reports showed that the container ship was the stand on vessel, with the MSA report also stating words to the effect, that the cause of the collision was because the fishing boat was on the wrong side of the channel, and impeded the passage of the container vessel. Thus it would seem that the container ship's team had a fairly strong argument.

It then appears that they were given the evidence that the fishing boat's insurers proposed to put forward in court. This included the report on the collision provided by Captain Cockcroft, which showed a number of major differences to the MSA and TAIC reports. The most important difference being, that when a risk of collision developed in the narrow channel, his report showed that under the Steering and Sailing Rules the container vessel became the give way vessel!

Cockcroft's Report

Crossing and Narrow Channel Rules

"When the fishing vessel was first sighted by the container vessel at a distance apart of about 3 miles, the red sidelight of the fishing vessel was seen on a relative bearing of about a point on the starboard bow of the container vessel. The two vessels were in a crossing situation and it seems likely that they were approaching each other so as to involve risk of collision.

The container vessel and fishing vessel were both power driven vessels. Rule 15 states that when two power driven vessels are crossing so as to involve risk of collision the vessel which has the other on her own starboard side shall keep out of the way of the other and shall if the circumstances of the case admit avoid crossing ahead of the other vessel.

The container vessel had the other vessel on her own starboard side. She was therefore the give way ship under Rule 16 she was required to take early and substantial action to keep well clear. Even if the fishing vessel did have an obligation to avoid impeding the passage of the container vessel, (which is open to argument) Rule 8 (f) makes it clear that Rule 15 takes precedence.

The white masthead light of the fishing vessel was apparently not sighted by the master and third mate of the container vessel, although it was seen by the crew of an inward bound yacht and by the duty officer at the signal station. The fishing vessel was apparently considered to be a sailing vessel by the container vessel. Whether the fishing vessel was considered to be a power driven vessel or a sailing vessel made no difference to the obligations of the container vessel, in either case the container vessel was required to keep out of the way of the other vessel."

His report clearly shows that he took full notice of Rule 8(f)(iii), as a 'not to be impeded' vessel must comply with all the other Steering & Sailing Rules, which include Rules 15 or 18, and Rule 16. Conversely it does not appear that the same can be said for the Maritime Safety Authority (MSA) and Transport Accident Investigation Commission (TAIC) findings

The Steering & Sailing Rules show that under the present International & NZ Regulations, a large power driven vessel navigating within a narrow channel or NZ harbour is not entitled to keep both her course and speed if approaching a small power driven vessel crossing from her starboard side, or a sailing vessel, so as to involve risk of collision.

Cockcroft's report was sent to the Director of Maritime NZ in about 2004. It is not known if MNZ is also aware that as the report appeared to be so strongly in favour of the fishing vessel, the insurers of the container ship decided against having the matter settled in court. It seems they changed their stance, as it appears they accepted liability on behalf of the container ship, for all the major costs associated with the collision.

It is hard to imagine an insurance company paying out many hundreds of thousands of dollars, unless it was fairly sure that even with the MSA & TAIC reports as back up, judgement for liability of costs would almost certainly go against their ship.

Thus it is clear that Cockcroft's report and the Collision Regulations he cites show the 'not impede' Rules are written to safeguard both small and large vessels. Whereas the MSA and TAIC findings suggest that both Authorities appear to be of a similar opinion that the 'not impede' rules were introduced into the Collision Regulations to favour only large vessels.

'Who gives way to who?' has been discussed on numerous occasions on the NZ Master Mariners website by two retired Master Mariners who have tried over the years to raise the awareness of their colleagues of the anomalies in interpretation of the Collision Regulations in New Zealand, but to no avail. It would appear that the articles on that site were not read, or people were not interested or did not understand the Rules, or did not wish to reply to questions asked!

Recently it has been noticed that the Christchurch branch of the New Zealand Master Mariners suggests that the Company offers to assist MNZ in maritime matters. As one would expect that all NZ's Master Mariners would take an interest in navigation and the safety of life in NZ's harbours, surely clarification of, or changes to, the Collision Regulations should be a subject at the top of that particular branch's list?

As it is easy to visualise a further collision occurring, possibly involving excessive speed, between a small and large vessel in a New Zealand harbour, it will be interesting to see what Rules the investigators, or a court find that were not complied with then.

If anyone has a different opinion on the Collision Rules to that of Captain Cockcroft and many other mariners, it is suggested they leave a comment on the Master Mariners web site? This was not the only collision in which an impeding vessel has had one of it's crew killed, yet has anyone ever seen any advice promulgated by MNZ on how the Rules should be followed by masters of 'not to be impeded' vessels? Probably not.

As it seems that MNZ, as the legislative authority, can interpret the present Rules or make new ones as it sees fit, surely when it does so it should also promulgate advice as to what they are actually supposed to mean, as in the case of the '500 ton rule!'.

For the sake of safety, MNZ needs to advise all seafarers exactly what the 500 ton Rule means, i.e. in New Zealand does 'not impede' mean 'give way' (keep out of the way?)

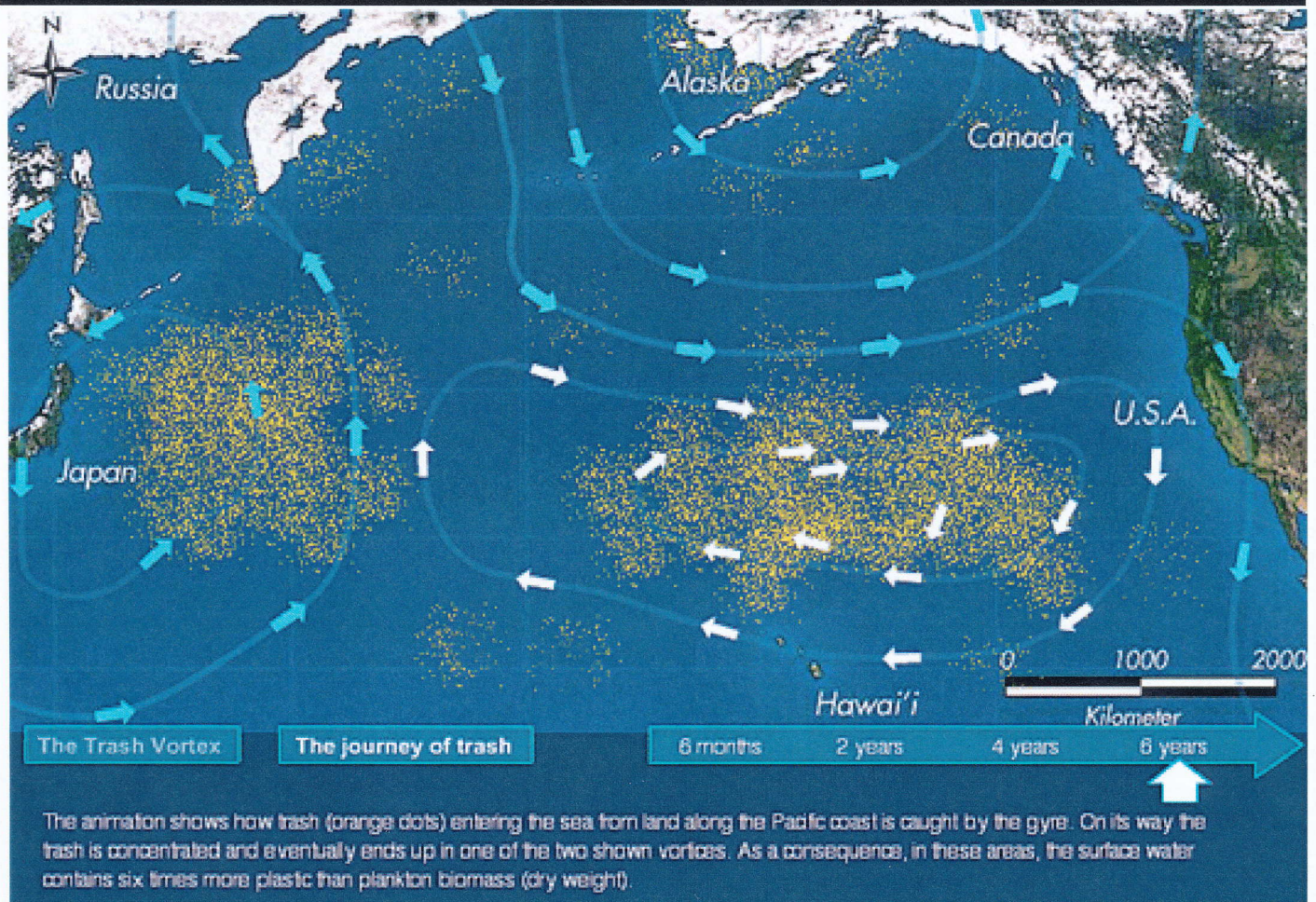
Or does NZ need to have a River Thames *Marchioness* type disaster to occur, to get the Collision Regulations fully clarified, or changed?

O impotence of mind, in body strong!
But what is strength without a double share
Of wisdom, vast, unwieldy, burdensom,
Proudly secure, yet liable to fall
By weakest subtleties, not made to rule,
But to subserve where wisdom bears command.

Samson Agonistes

John Milton (1608-1674)

WORLD'S LARGEST GARBAGE PATCH—VORTEX



This image is a stilled animation. Movement may be viewed at (Source: IMC Brokers) www.imcbrokers.com

In the broad expanse of the northern Pacific Ocean there exists the North Pacific Subtropical Gyre, a slowly moving, clockwise spiral of currents created by a high-pressure system of air currents. The area is an oceanic desert, filled with tiny phytoplankton but few big fish or mammals.

Due to its lack of large fish and gentle breezes, fishermen and sailors rarely travel through the gyre. But the area is filled with something besides plankton: trash, millions of pounds of it, most of it plastic. It's the largest landfill in the world, and it floats in the middle of the ocean.

The primary sources of ocean debris include storm sewers, illegal dumping, littering, commercial and recreational boats, and commercial shipping.

The gyre has actually given birth to two large masses of ever-accumulating trash, known as the Western and Eastern Pacific Garbage Patches, sometimes collectively called the Great Pacific Garbage Patch. The Eastern Garbage Patch floats between Hawaii and

California; scientists estimate its size as two times bigger than Texas. (696,200 km²). The patch is characterised by exceptionally high concentrations of suspended plastic and other debris that have been trapped by the currents of the North Pacific Gyre.

The main problem with plastic — besides there being so much of it — is that it doesn't biodegrade. No natural process can break it down. (Experts point out that the durability that makes plastic so useful to humans also makes it quite harmful to nature.) Instead, plastic photodegrades. A plastic cigarette lighter cast out to sea will fragment into smaller and smaller pieces of plastic without breaking into simpler compounds, which scientists estimate could take hundreds of years. The small bits of plastic produced by photodegradation are called mermaid tears or nurdles.

Besides the obvious affects this has on both marine life and tourism, another question that presents itself is how do we clean this up?

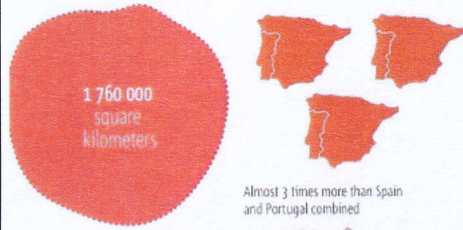
This question is yet to be answered. For now, experts say the best approach we have is not to clean it up at all, but to keep it from growing

The Great Pacific Garbage Patch

An area of marine debris, laying approximately 135° to 155° West and 35° to 42° North. Although it shifts every year and exact position is hard to tell. It lies within the North Pacific Gyre and does not go anywhere, as it is confined by its currents.

The area

The Patch is around 2200 kilometers long and 800 kilometers wide



Plastic Soup

Consists of both larger and disintegrated plastic objects and particles, both on the surface, in the water column below and on the bottom.



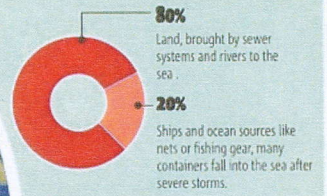
UN Environment Programme estimated recently that each square mile of ocean water contains 46,000 pieces of floating garbage.



How does it form?

Currents in the Pacific Ocean create a circular effect that pulls debris from North America, Asia and the Hawaiian Islands. Then it pushes it into a floating pile of 100 million tons of trash.

Where does it all come from?



Interesting facts

Less than 5% of plastic is recycled. In the Central North Pacific Gyre, small pieces of plastic outweighed surface zooplankton by a factor of 6 to 1 in 1999. But the ratio in 2010 may already be 60 to 1.



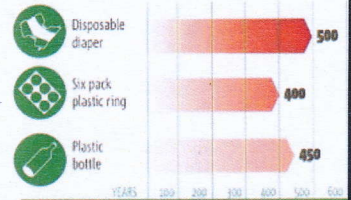
Photodegradation

Plastic never biodegrades, it doesn't break down into natural substances. But it goes through a photodegradation process, splits into ever smaller and smaller parts, which are still plastic.

Problems created by plastic:

- It fouls beaches worldwide and scares tourists away.
- Plastic entangles marine animals and drowns them, strangles them and makes them immovable.
- Plastic litter washed ashore destroys habitats of coastal species.
- Plastic litter gets inside ships propellers and keels, making ship maintenance more expensive.
- Plastic does not biodegrade, plastic things make an ideal vessel and enable invasive species to move to further regions.

How long does it take to photodegrade plastic:



LIGHTERING SUPPORT TANKERS KEEP GETTING BIGGER.

LEEVAC Shipyards was contracted by Houston-based AET Lightering Services to build two 187 x 46 x 15 Lightering Support Vessels with a series of options for up to six additional vessels. These vessels will primarily service the lightering activity of AET in the Gulf of Mexico, based out of the Port of Galveston. Delivery on these vessels began with the AET *Innovator* in October, 2011 and continued with the delivery of the AET *Excellence* in January, 2012. With the launching of the *Partnership* last year it marked the third vessel launched in the series of Lightering Support Vessels with the last due in mid-2014



VIDEO ADDRESS SHOWING DYNAMIC STRESSES WITHIN A LARGE CONTAINER SHIP.

As the MOL *Comfort* disaster clearly showed, there is a point at which the load on a ship's structure exceeds the breaking strength.

One might say the vessel was brought "beyond the environment" or perhaps "outside the environment"... but those would be an incorrect assessments.

The steel structure of a vessel is made up of a complex arrangement of transverse and longitudinal plates and beams with precisely measured cross sections that contribute to the overall "section modulus" of the vessel, a measure of the overall bending strength of a given structure. In the case of the MOL *Comfort*, the vessel fractured in a transverse fashion because the stress on the structure of the vessel eventually exceeded the fracture point of the sum of the individual steel components

Watch: Containership's Structure Visually Flexing in Heavy Seas

http://gcaptain.com/watch-containerships-structure/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+Gcaptain+%28gcaptain.com%29