

NEW ROLLS-ROYCE DESIGN POWER FOR BOTH EXPLORING AND FOR WARFARE



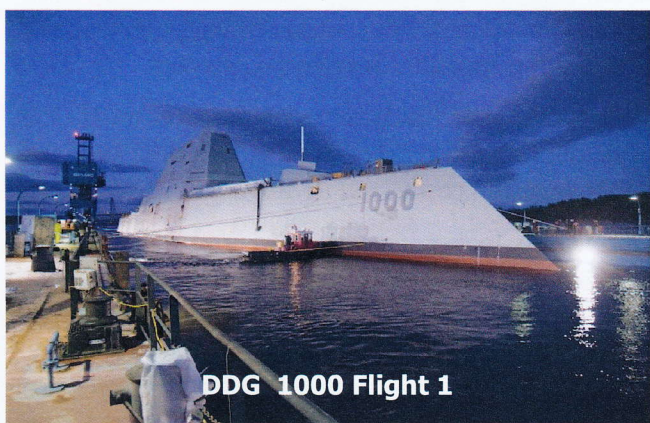
UT777

Rolls-Royce and Norwegian ship owner Island Offshore have announced a rather unique new heavy weather vessel design they've been quietly working on, the UT 777.

Designed for top hole drilling, subsea inspection, maintenance and repair (IMR), and well intervention work, this vessel will also be ice-classed and particularly suited for working in really nasty weather.

Havard Ulstein, CEO of Island Offshore, says the 169 x 28 meter vessel will be capable of working everywhere. It features a partially covered main deck and fully covered moon-pool and drilling/intervention tower in order to protect workers from the elements.

In addition to the design and engineering package, Rolls-Royce will also supply the major systems, comprising the propulsion system with six generator sets and seven electrically run thrusters, control and automation systems, mooring and anchoring deck machinery and electric systems. Rolls-Royce notes the total contract value with Island Offshore is around £25 million.



DDG 1000 Flight 1

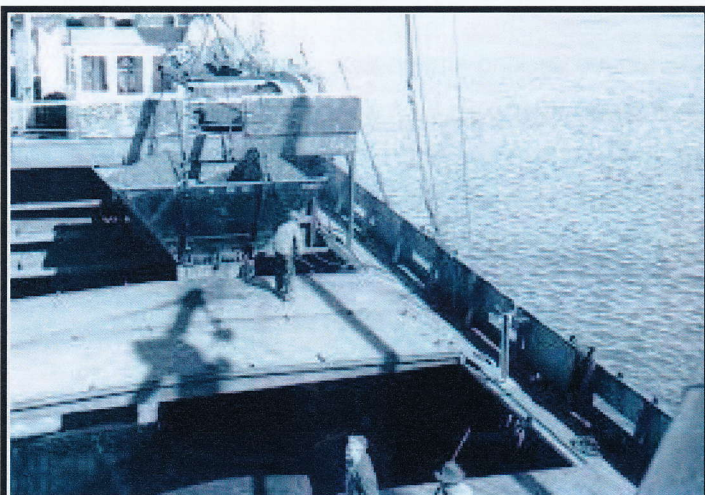
As Naval Engineering evolves, Rolls-Royce power in the new Flight III ships will be everything

A Zumwalt-class guided-missile destroyer DDG 1000 is floated out of dry dock at the General Dynamics, Bath, Iron Works. One of the specifications of the United States Navy for the future DDG-51 Flight III ships, will be significantly increased power requirements for more reactive and powerful defence systems provided by newly developed energy sources to drive them.

Don't just
cross the
Strait.
Cruise it.



interislander.co.nz



Down Memory Lane ca. early 1950's.

A USSCo collier loading, in Westport. The locality can be easily ascertained as the vessel is berthed port side to.

The oblique sided cauldrons were lifted bodily from the wagon frames and when over the hatch were bottom discharged by the watersider shown wielding a long hammer to knock open the trap in the base.

The hammer was then used to hammer the sides of the cauldron should the contents be slow to exit. This happened frequently in wet weather, especially with small screened coals. The two coal loading ports on the West Coast of the South Island used the same loading method, although Westport used large coal powered steam cranes while Greymouth was equipped with equally large electric cranes.

OPINION: LET SHIPS CARRY BULK FREIGHT

Rob Grout

The decision to abandon a new port at Clifford Bay is a blow for rail freight on Cook Strait, but the real test for its future is competition in the marketplace, says marine and transport consultant Rod Grout.

These are trying times for KiwiRail's interisland operation, with the decision to not build a new terminal at Clifford Bay coming hard on the heels of the rail ferry *Aratere* limping out of service.

In short order two central tenets of its turnaround plan have been crippled - the ability to move larger rail freight volumes and improve service times on Cook Strait.

While *Aratere's* absence is a fixable problem, the same cannot be said of a more compelling dilemma facing inter-island rail prospects.

This is the impact of competition in the marketplace.

Since rail's "iron bridge" was introduced in 1962, growth in containerised cargo has radically improved shipping efficiency and slashed transport user costs.

The success of ships and ports handling 20-foot and 40-foot 'boxes' stacked in three dimensions has pushed rail ferries to virtual extinction worldwide.

What was appropriate in 1962 no longer holds true, yet the legacy here survives thanks to years of state-funded backing and obsolete thinking.

Rail's multi billion-dollar turnaround plan, now in its fifth year, upholds an inter-island link as an essential part of its national railway network.

Under the plan it spent \$54 million to increase *Aratere's* rail capacity by 18 wagon spaces in anticipation of market demand for greater capacity.

Yet this growth expectation is proving elusive as Ministry of Transport freight tracking data show inter-island rail volumes have flat-lined since 2011.

Inter-island rail freight comprises just 7 per cent, or 1.2 million out of 17.2 million tonnes moved across the entire network.

By contrast, growth on rail's bulk commodity routes has been strong and fully justifies new investment in infrastructure, rolling stock and system upgrades.

This part of the business is where the Government as owner and KiwiRail management should focus initiatives on returning rail to commercial viability.

Moving import and export commodities and general freight within each of the North and South islands offers rail real potential for profits.

But spending capital to acquire new rail-capable ships would cost hundreds of millions of dollars and simply compound its ongoing financial struggles.

The reality is that New Zealand can make better and greater use of coastal ships to move freight between North Island and South Island ports.

A few leased container ships using existing facilities would easily cope with 1.2 million tonnes of goods or 60,000 containers - at no cost to the Government and taxpayers.

Rail freight consigned inter-island could be moved to and from Lyttelton port, linking with any of Wellington, Tauranga or Auckland ports.

In fact this is already happening, with thousands of tonnes of rail cargo intended for the *Aratere* now being carried by domestic and international ships.

Such inter-modal co-operation is commendable, but by no means resolves the predicament of what to do about rail freight's future on Cook Strait.

That future should also be considered in light of the proposal for a new port at Clifford Bay being taken off the agenda.

With Lyttelton as the South Island railhead for inter-island freight, Picton could utilise portside rail yards for other productive purposes, and eliminate costs for new link-spans and wharf strengthening.

Picton and Wellington could continue to service roll-on, roll-off truck, car and passenger ferries, while coastal ships moved rail cargoes between other ports using existing container handling equipment.

In short, this would enable the free market to run the business of moving rail freight inter-island, with no need to invest in costly new infrastructure.

There is no logical reason why private enterprise, either alone or in partnership with KiwiRail, should not be able to lease and operate readily available container ships to undertake this task.

Companies already operating in the freight sector are perfectly capable of contributing, if given the opportunity in a neutral marketplace.

Significant economic benefits would be gained from a whole-of-industry approach to adopting more efficient links for inter-island freight.

Only if Government officials and their advisers accept marketplace reality, as they did for Clifford Bay, can progress be made on the turnaround plan.

Rod Grout is the managing director of Marine and Transport Consultancy Ltd, based in Christchurch.

REFLECTING ON MARINE ACCIDENT INVESTIGATION AND APPLIED SEA TRAINING

4th in a series on accident investigation by Captain Tony A.J.M. (Tony) Legge. Retired MNZ Chief Accident Investigator

I spent much of my adult life trying to persuade seafarers to adopt safe working practices at sea.

For 20 years I examined Masters and Mates to ensure that they had understood the perceived wisdom of the day. Everything likely to endanger their lives from an incomplete grasp of "Rule of the Road" to an inability to tie bends and hitches or read Morse code at 10 words a minute.

Navigation and chartwork required solutions to the PZX triangle and plotting of running fixes. Naval architecture explored Simpson's 3rd Rule and the area beneath a curve of statical stability, however, most of this has been superseded as the industry has evolved.

For another 10 years I worked in the regulatory section and finally I investigated accidents that I had spent 30 years trying to help others avoid.

Inevitably, in retirement, I have looked back on this career to put it into some perspective. Did it achieve health and safety results? Should it have been done differently? Who benefited?



As the industry has evolved these once important bridge artefacts have become antiques from a passed age.

Well, taking the last question first – I benefited most. I followed a path that I had always dreamed of since I was about 8 years old. I suffered none of the uncertainties experienced by my peers who went off to university and emerged three years later no wiser as to how they should spend their working lives. My time at sea was brief compared to many of my contemporaries. After ten years I came ashore to follow an academic branch of the industry and never regretted it.

Government administration of safety at sea sounds an unlikely job for anyone with ambition and a sense of humour but it provided me with a happy environment where I could work with seafarers who had experienced the same ups and downs that I had. It was interspersed with moments of tragedy where lives had been lost and families devastated by



A contemporary bridge design filled with sophisticated equipment. Operating a modern vessel requires advanced technical training and effective seamanship.

accidents at sea and I saw the results of stress in every candidate who ever sat for an examination at first hand. However, I was in a perfect position to try to do something to alleviate the stress and make improvements in either personnel training or accident prevention and that was very satisfying. This brings me back to my first question – did any health and safety improvements result?

A glance at the statistics would tend to suggest not. According to the MNZ website, "In the decade 2002–2011, annual fatalities in the commercial sector ranged between three and 11. Neither the fatality rate nor the accident rate in the commercial sector have shown any consistent improvement in the period."



Perhaps the Master had a golf appointment?

Indeed, internationally, as many lives are being lost at sea now as 40 years ago. Perhaps the process of loading heavy weights or dangerous goods, stowing them snugly and carrying them across thousands of miles of ocean in the face of bad weather and poor visibility without spending a cent more than necessary simply invites a poor safety record. Finally, should the safety emphasis be directed at the maritime industry somewhat differently?

Traditionally, government agencies worldwide have focussed largely on the improvement of engineering and equipment rather than personnel. Surveyors tended to come from the engineering rather than the deck side of the industry and faulty equipment was a lot easier to analyse and put right than faulty personnel. 'There's nowt so queer as folk' gets right to the heart of the problem. It is only comparatively recently that human factors have been given prominence when investigating accidents and appropriate counter measures put in place. My previous articles in this magazine explored this further but in spite of this emphasis on the people side of the industry there has been no consistent improvement in accident statistics in the last ten years.

In my view this is partly because training standards have deteriorated internationally. For example, according to a report in a Philippine's newspaper, the Star, "Industry sources were concerned about the Commission on Higher Education's failure to close down maritime schools found to be underperforming in 2011. The EU was set to impose a ban on the hiring of Filipino seamen by EU-registered vessels in 2011, but was dissuaded from doing so by the Philippine government. An estimated 350,000 Filipino seamen are manning foreign ships all over the world at any given time and Filipino seafarers contributed around \$4.3 billion of the \$20-billion remittances in 2011. An EC ban is expected to affect

80,000 Filipino seamen."

Shipowners naturally want to reduce costs. Employing personnel from developing maritime nations trained in sub-standard colleges, who will accept wages below those paid to seafarers in traditional European maritime nations, is a logical and inevitable step.

I would not argue that improvements will result solely by throwing money at the issue but I wonder if the Master of the *Rena* who took his ship directly into a well charted rock would have done the same thing had he obtained his certificates of competency in Auckland.



The Rena hard ashore on the well charted Astrolabe reef off Tauranga. She became a total loss.

Without meaning to exhibit any sense of xenophobia, I would like to think not. I find it difficult to pinpoint exactly which of these American basic error types his actions fit into. Perhaps all of them?

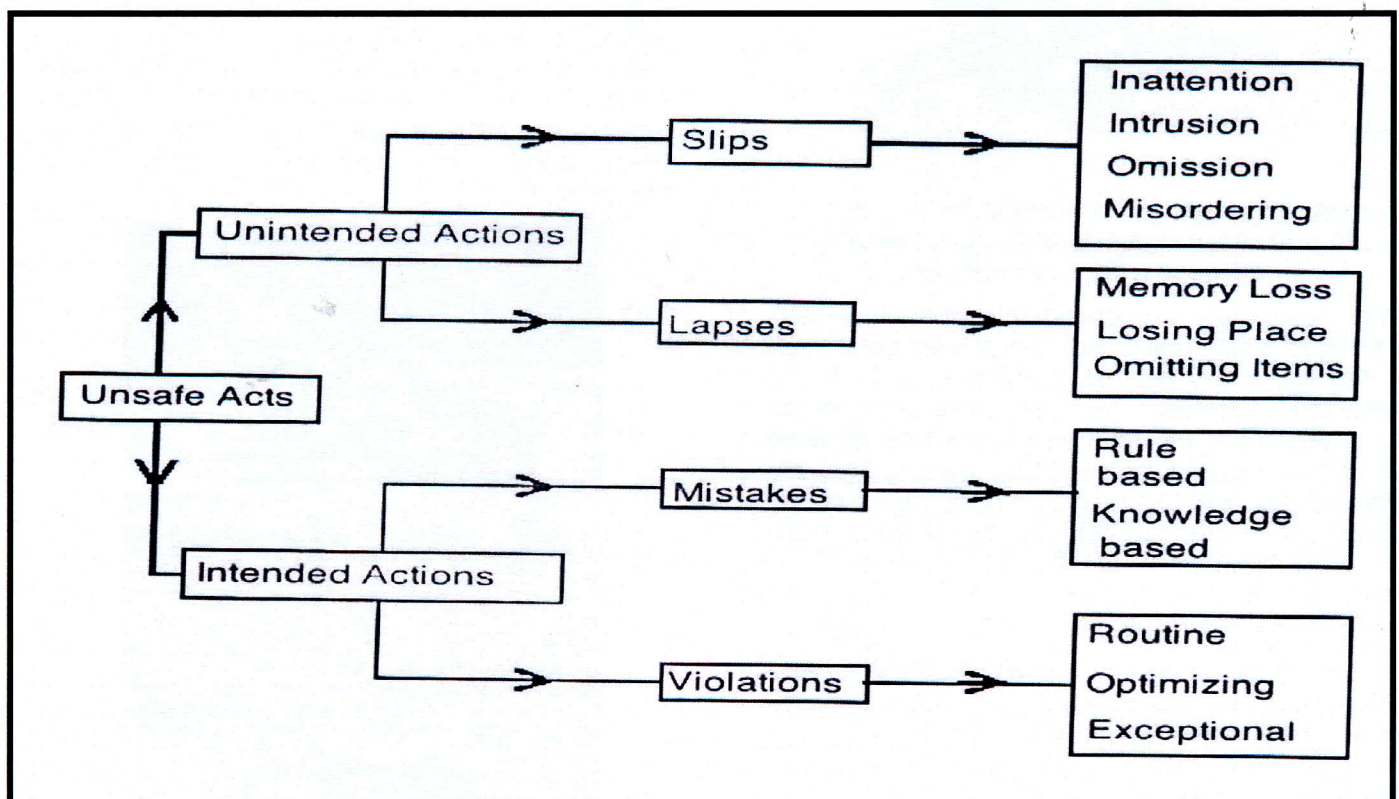


DIAGRAM OF BASIC ERROR TYPES

GROWING YOUR OWN

The article below has already had wide circulation but has been uploaded here as a follow-on in light of Tony Legge's article on the preceding pages and is just as insightful apropos contemporary training concerns held within the broad operating and sea-going community of the maritime industry.

Lloyds List Friday 10 January 2014 by Michael Grey

The Board was also at pains to ensure that a constant supply of good officers would be available to sail the new ships."

The object, said the chairman in his report, "was to get good steady lads, who will work their way up in our service and become in time efficient officers and commanders of our ships".

Each ship would carry between three and five apprentices under indenture to the company and just four years after the company had commissioned its first vessel, 45 apprentices had been appointed, while "there were many applications on our books".

This was in the annual report of the New Zealand Shipping Company in 1878, details of which are to be found in Alan Bott's fine book about the sailing fleet of NZS, which served on the world's longest trade route between 1873 and 1900, when the company went over to steam.

I had been thinking about the industry's attitude to its trainees when doing some research for Lloyd's List's digital commemoration, and it is clear that this company had some really quite advanced ideas about its responsibility for growing its own talent.

There was no whingeing to the government for grants to train, and indeed the NZS even commissioned its own hostel for apprentices in the East India Dock Road, with its matron and housekeeper to keep the lads standing by ships in line. The company, without doubt, knew where its responsibilities lay.

But for hundreds of years before this, virtually every merchant ship would routinely carry apprentices, learning their trade "on the job", often for as long as seven hard years.

They would often be indentured to the master of the ship, sometimes to the owner. It would be no exaggeration to suggest that they were cheap labour, with their lodgings and victuals their only recompense.

Their welfare was very much at the mercy of the master, who if he was far sighted and decent, would ensure they were properly taught and learned the principles of navigation alongside the seamanship they practised daily.

As I write this I have my own indentures, dated 1956, on my desk, its archaic language barely altered from that of those signed a century or more earlier.

The only concession to modernity was that "the master hereby covenants with the said apprentice that during the said term he will and shall use all proper means to teach the said apprentice or cause him to be taught the business of a seaman and of a ship's officer as practised in vessels other than sailing ships".

I did get paid a small amount every month, although my father had to pay a £35 (\$57) "surety" to ensure I didn't jump ship, on which case it would be forfeit.

We were cheap labour, too, although it was a very notable fact that the Port Line rarely seemed to "import" officers, with almost all having started in the same fashion.

One generation trained the next, in a continuum that had worked further back than anyone could remember.

Twenty years on and the industry carried on training in this way.

A couple of months ago, I read *Under a Yellow Sky* by Simon Hall, now chief executive of a financial group but who has just written an account of his cadetship in Shell Tankers, although he diplomatically abstains from mentioning its name in this entertaining book.

He went away in the early 1970s, although by then, sea time was interspersed with periods of shore-side study.

It is clear that he and his fellow cadets worked like slaves on board these ships, the junior cadets at the bottom of the food chain and mightily oppressed by their seniors.

Nevertheless, there seems to have been time to go ashore occasionally and desperate quantities of drink taken, which seems to have dulled the pain.

The point I am painfully making towards is the fact that down through the ages, shipping companies have regarded it as important to train their own officers, like the Creator himself producing man "in his own image".

These were people who would be brought up in the company way of doing things, sometimes badly taught by officers who did not care or were too busy, but more often in the hands of officers who undertook these responsibilities seriously.

"You'll make a good third mate: I'll be happy to sail with you any time," said Simon Hall's final chief officer, as he completed his cadetship.

It was clearly an important and worthwhile accolade.

But somewhere between then and now, training has been moved decisively from the category of "investment" to that of "costs" in the minds of the bean counters.

The responsibility for training the next generation has been largely sloughed off to colleges, to governments or to anyone who might pick up some of the bill.

Now we have cadets tolerated as a sort of codicil to the tonnage tax regime, treated all too often as passengers, on board ships where not a soul speaks their language, in a company where they have no prospect of future employment as an officer.

Does anyone in the industry regard this as progress?

There are a few companies that take their training responsibilities seriously, but they will tend to be the major shipmanagers, whose personnel folk tear their hair out looking for berths on board their clients' ships, where sea time can be earned.

It's a very long way from the positive action reported to the board of NZS, with their enthusiastic endorsement of their scheme for apprentice training, nearly 140 years ago.

Under a Yellow Sky, by Simon Hall, is published by Whittles, available from www.whittlespublishing.com at £16.99.