



The New Zealand Company of Master Mariners



**March 2015** 

# **SNIPPETS FROM THE MARITIME BIOSPHERE**

### US NAVY'S NEW LASER WEAPON. DOES THIS SPELL THE END OF CONVENTIONAL WEAPONS? 'Shades of Buck Rogers'

The U.S. Navy has achieved a historic milestone with a cutting-edge new laser weapon system that can destroy targets for less than \$1 per shot.

The Navy made the announcement recently that for the first time ever the new laser weapon system, known as LaWS, was successfully deployed and operated aboard a Navy ship in the Arabian Gulf. The weapon, which uses a form of concentrated directedenergy to destroy a target, has been under development by the Office of Naval Research for several years.



#### LaWS ship-mounted laser cannon

"Laser weapons are powerful, affordable and will play a vital role in the future of naval combat operations," said Rear Adm. Matthew L. Klunder, chief of naval research. "We ran this particular weapon, a prototype, through some extremely tough paces, and it locked on and destroyed the targets we designated with nearinstantaneous lethality."

The demonstrations of the new weapon took place from September to November aboard the USS *Ponce* while deployed in the Arabian Gulf. The at sea tests are being described as "historic" because not only did they show a laser weapon working aboard a deployed U.S. Navy ship, but also because the LaWS actually worked seamlessly with existing weapon systems.

During the tests, LaWS hit targets mounted aboard a speeding oncoming small boat, shot a Scan Eagle unmanned aerial vehicle (UAV) out of the sky, and destroyed other moving targets at sea.

The LaWS weapon is also being praised for its costeffectiveness, as well as the inherent increase in safety for ships and crews because lasers are not dependent on the traditional propellant and gunpowder-based ordnance found on ships. They also cost less to build, install and fire than traditional kinetic weapons — for example a multimillion-dollar missile. "At less than a dollar per shot, there's no question about the value LaWS provides," said Klunder. "With affordability a serious concern for our defense

budgets, this will more effectively manage resources to ensure our Sailors and Marines are never in a fair fight."

In the future, factors from the successful deployment and demonstration aboard the USS *Ponce* will help guide the development of weapons under ONR's Solid-State Laser-Technology Maturation program. According to the U.S. Navy, combat-ready laser prototypes that could be installed on vessels such as guided-missile destroyers and the Littoral Combat Ship in the early 2020s.

See it in action here: http://gcaptain.com/watch-u-snavys-new-laser-weapon-action-photos-

video/?utm\_source=feedburner&utm\_medium=feed&u tm\_campaign=Feed%3A+Gcaptain+%28gCaptain.com %29

### TIME-LAPSE VIDEO: ALLSEAS AUDACIA OFFSHORE PIPELAY VESSEL IN ACTION

Check out this great time-lapse video showing exactly what Allseas' newest pipelay vessel was built to do.

http://gcaptain.com/time-lapse-video-allseas-audaciaoffshore-pipelay-vessel-

action/?utm\_source=feedburner&utm\_medium=feed& utm\_campaign=Feed%3A+Gcaptain+%28gCaptain.co m%29

In service since December 2007, the mv *Audacia* s-lay pipe-layer was built for the execution of small to large (up to 60 inches 1.52 metres) diameter pipeline projects in all water depths, as well as associated work such as the installation of risers and subsea protection frames.



The Audacia pipelaying vessel.

The concept of *Audacia* was designed entirely in-house by Allseas in 2005, with a unique forward stinger and Kongsberg dynamic positioning system which allow the vessel to operate in congested and very deep waters. If you look closely, you can see that it is actually a modified bulk carrier, converted at the Keppel Verolme shipyard in Rotterdam from the Panamax bulk carrier *Geeview*.

The *Audacia* measures a lengthy 225 meters, placing her between Allseas' pipe-lay vessels *Lorelay* and *Solitaire* in size. Due to the length and shape, the *Audacia* can accommodate multiple work stations and has a greater pipe hold capacity, with an independence from anchor handlers and a large buffer capacity that is less dependent on offshore pipe supply, according to Allseas.



### EY Ulysses Image: Marin Teknikk

Last October, New Zealanders Robyn and Graeme Hart were in Ulsteinvik, Norway to witness the launch of their 107 meter-long yacht at Kleven Verft shipyard. Up until they showed up however, nobody at the shipyard knew whose yacht they were building.

Designed by Marin Teknikk, the MT5006 Expedition Support Vessel will be named *Ulysses* upon delivery in 2015 and is designed for longer expeditions in rough waters worldwide. According to Forbes, Hart has a net worth of around USD \$7 billion and may also be New Zealand's wealthiest citizen.

He has recently placed an order for another new vessel that will be almost ten metres longer than the *Ulysses* and is of type MT 5006 MKII ESV. The new vessel, due in June this year, will accommodate 66 people, have 6 excursion tenders and carry a helicopter. The vessel has been designed by Norwegian naval architecture firm Marin Teknikk in cooperation with Kyle Dick of New Zealand-based Oscar Mike Naval Architects.

Watch the launch of *Ulysses* here:

http://gcaptain.com/anonymous-billionaire-showskleven-verft-witness-launch-expedition-

yacht/?utm\_source=feedburner&utm\_medium=feed&u tm\_campaign=Feed%3A+Gcaptain+%28gCaptain.com %29

### AUSTRALIA ABANDONS GREAT BARRIER REEF SAND DUMP

Australia will abandon plans to dump 3 million cubic metres of dredged sand into the Great Barrier Reef area in its effort to create the world's biggest coal port, the Australian Financial Review reported on Tuesday.

The fragile reef, which stretches 2,300 km (1,430 miles) along Australia's east coast, and sprawls over an area half the size of Texas, was the centrepiece of a campaign by green groups and tour operators opposing the plan.

They feared that dumping soil 25 km (15 miles) from the reef would harm delicate corals and sea-grasses and potentially double ship traffic through the area.

The Abbot Point port is being expanded to accommodate \$16 billion worth of coal projects planned in the inland Galilee Basin by two Indian firms, Adani Enterprises and GVK , and Australian billionaire Gina Rinehart.



The recently delivered bulk carrier, MV Harvest Frost, is the first vessel of its size to use MHI's proprietary Mitsubishi Air Lubrication System (MALS), which reduces the drag between the vessel hull and seawater by blowing air bubbles produced at the vessel bottom. Photo credit: MHI On Tuesday, the paper said North Queensland Bulk Ports, Adani Group and GVK would re-submit a proposal to Environment Minister Greg Hunt offering alternative dumping sites on land. Mitsubishi Heavy Industries has announced the delivery of the first of three post-panamax bulk carriers to achieve energy efficient operations through the use of an air bubble lubrication system.

The change is designed to defuse controversy over potential damage to the reef and avoid a court case launched by the North Queensland Conservation Council, it added.

"If the reports are true, the cheapest, most destructive option for expanding Abbot Point may have been taken off the table," said Adam Walters, head of research for environmental group Greenpeace.A spokesman for Hunt declined to confirm the newspaper's report, saying no new proposals had been received yet. "There was no option available at the time of the decision," Hunt told Australian Broadcasting Corp radio recently. "There may well be one opening up. It's up to the proponents to submit it. We haven't seen any documentation."

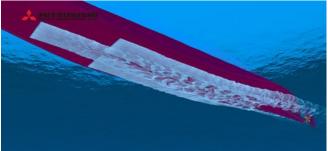


Illustration shows the air bubbles produced by the MALS system. *Photo credit: MHI* 

A spokesman for Adani said the company was open to viable alternatives to the dredging plan.

"We are committed to ensuring the best options are in place to ensure this project is achieved, together with the best possible environmental outcomes," he said. In January, the Great Barrier Reef Marine Park

Authority granted a permit for North Queensland Bulk Ports Corp to dump the dredged material in the park, to deepen Abbot Point for two terminals planned by Adani and GVK-Hancock.



Port of Abbot Point: file photo. Image: North Queensland Bulk Ports Corp.

Adani and GVK have long-term plans to ship a total of 120 million tonnes of coal through the port each year. Last June, UNESCO's world heritage panel deferred until next year a decision on whether to designate the 300,000-sq-km reef as a site in danger.

The reef has the world's largest collection of coral reefs, with 400 types of coral, 1,500 species of fish, 4,000 types of mollusc, and is home to threatened species, including the dugong and large green turtle, the World Heritage list says.

The United Nations Educational, Scientific and Cultural Organisation is concerned over the proposed coastal developments, and has asked Australia for an updated report on the state of conservation of the reef.

### FIRST ARCTIC CARGO SHIPPED THROUGH NORTHWEST PASSAGE.

Canadian arctic shipping firm Fednav says that its vessel MV *Nunavik* was the first commercial vessel carrying a cargo of Arctic origins to make a full, unescorted transit of the Northwest Passage.



MV *Nunavik* 

Designated with Polar Class 4, the 2014-built MV *Nunavik* is the most powerful conventional (non-nuclear) icebreaking bulk carrier in the world and sails year round from Deception Bay in Northern Quebec, transporting product from the Canadian Royalties mine, Fednav says. The *Nunavik* will deliver 23,000 tons of nickel concentrate from Nunavik's Deception Bay to Bayuquan in northern China.



To make the voyage, the MV *Nunavik* will be supported by a shore-based team of ice navigation specialists from Fednav and its subsidiary, Enfotec. The vessel will receive regular ice charts including realtime satellite imagery via Enfotec's proprietary onboard ice-navigation system, IcenavTM.

The route to China via the Northwest Passage is some 40 percent shorter than the traditional Panama Canal route, which is estimated to reduce greenhouse gas emissions by more than 1,300 tonnes, Fednav says.

"Fednav is proud to have designed this remarkable ship and to plan the first independent commercial voyage through the Northwest Passage," said Paul Pathy, President and co-CEO of Fednav Limited. "It is through the extraordinary capabilities of the Fednavteam, the ship's crew, and its world-leading technology that we can undertake this journey with confidence."

### SHIPS TO BE ENVELOPED BY NETWORK OF LASER BEAMS Rob Almeida (edited)

David Leone, President of Radio Zeeland DMP, a company that designs and engineers bridge systems for commercial and luxury yachts, said his company is rolling out a new system called MEDS, or Maritime Early Detection System. This will allow vessels to remotely monitor places on the ship that may be unmanned, infrequently visited, hard to access, or perhaps security soft spots such as the gangway. It also monitors areas nearby the vessel which would alert the vessel to possible intruders.



#### MLZ Laser tracking camera

The system involves the use of infrared tracking, day or night vision cameras which are activated by a network of lasers along the ship's perimeter or the ship's on-board radar equipment. Their laser-based system provides a perimeter extending 80 metres from the sensor and once the sensor is triggered, a 15 second playback loop is then displayed on a console showing what triggered the sensor to come on, while continuing to record. Various off-vessel alerts may be transmitted from the system to notify authorities or shore-based personnel.



#### MY Quita Essentia

"Shipboard security is the perhaps the most direct application of this, however in a man overboard scenario, this system would also come in very useful," says Leone. "Knowing exactly what has triggered the sensors to come on would allow the vessel operator to continuously monitor unmanned spaces, or locations on deck."

Radio Zeeland notes the MEDS sensors detect any mass passing through the infrared sensor eye which is then passed through an algorithm allowing the system to differentiate between a humanoid or birds or small trash.

Radio Zeeland DMP is much better known for really amazing looking bridge systems.... check out these of illustrations of new ultra-design bridge lay-outs and equipment, shown actually incorporated into new-

#### builds.

(How many of us remember the days when all we had was the wheel, compass and little else? Even radar and wheelhouse heating were unfulfilled dreams? Ed.)

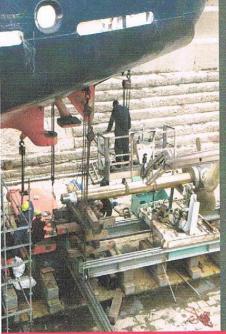


MY Sky

The two images shown are only a sample of the 24 images loaded onto the site. Check them out at: DMPhttp://gcaptain.com/exactly-

workboats/?utm\_source=feedburner&utm\_medium=fe ed&utm\_campaign=Feed%3A+Gcaptain+%28gCaptai n.com%29

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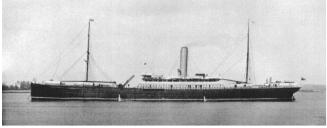


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### **EDWIN BALLARD DALBY, RNR**

Edwin was born on 13 November, 1882, at Kurow, Waitaki, the son of John Sayle Dalby. He grew up using the Christian name Ballard in preference to Edwin.

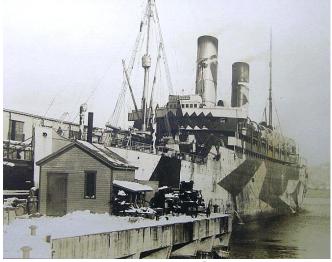
He spent some time serving in the cable vessel *Iris.* However, the lack of sea-time and overseas visits resulted in him joining the Union Steam Ship Company where he flourished. He served in the steamer *Tongariro.* 



SS Tongariro

During a voyage that took Ballard to Britain he was encouraged to join the Royal Naval Reserve. This he did in July, 1908. Following training he was granted the rank of Probationary Sub Lieutenant RNR.

Ballard was commissioned in the RNR in January, 1911, during another visit to Britain. As he gained experience and sea time Ballard sat his professional examinations. He eventually reached to top of his profession when he qualified Extra Master.



HMS Carmania

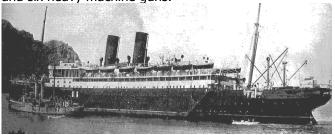
On the outbreak of war E Ballard Dalby was in Britain. He immediately presented himself to the Royal Navy which appointed him to the White Star liner *Carmania* which had just been taken over by the Admiralty.

On 4 August, 1914, the *Carmania* was requisitioned by the British Admiralty & converted into an Armed Merchant Cruiser. The conversion of the Carmania from a liner to a fully armed cruiser was effected with amazing speed, thanks generally, it would seem, to the wisdom and foresight of Winston Churchill.

She was at sea, commissioned as an AMC, and armed with eight 4.7 inch guns, just one week after she ended her last passenger trip in Liverpool on August, 1914. Under the command of Captain Noel Grant, R.N., 45 years of age, she sailed from Liverpool and arrived at Shell Bay in Bermuda on 23 August, 1914.

Captain James Barr, then 59, had agreed to remain with the ship and serve as navigator and adviser to Captain Grant with the temporary rank of Commander, Royal Naval Reserve. The 18,710 ton *Cap Trafalgar*, a German liner, formerly the flagship of the Hamburg South America Line, had been reported in the vicinity but was believed to be headed for South Africa.

The *Cap Trafalgar,* was brand new, having been only completed on 1 March, 1914 and having commenced her maiden voyage only on 10 March, 1914. She had been modestly armed at sea, by the SMS *Eber* a very small gunboat that had been used in the estuaries and lakes of West Africa. She had just two 10.5 cm guns and six heavy machine guns.



**SMS** *Eber* transferring her guns to *Cap Trafalgar* On completion of the armament transfer *Eber* went to Brazil and was interned until Brazil joined the war in 1917. *Eber* was then scuttled.

The SMS *Cap Trafalgar*, codenamed Hilfskreuzer B (Auxiliary Cruiser B), was under the command of Kapitän Julius Wirth who had taken over from Kommandant Fritz Langerhannsz, who was the senior master of the company and an accomplished man in languages, polo and yachting. The decision was made to disguise the ship and make it look like a Cunard or Union Castle vessel by removing one of her three funnels and painting her in British colours.

The *Cap Trafalgar* was disguised to look like the *Carmania*. The remaining two funnels were painted in the Cunard colours of red with a black top. The superstructure of the vessel was modified with canvas stretched and painted to make the small bridge appear to be the full width of the ship. The distinctive glass sides of a Winter Garden area, at the stern, enclosed in glass and stocked with tropical plants and birds, were painted to look like the normal side of a ship with portholes. Even the lifeboats were painted in Cunard colours! So when the *Carmania* first spotted the *Cap Trafalgar* she looked like a British vessel. "From her funnels, she's one of ours, maybe Union Castle line", said Commander Barr.

The *Carmania* had been modified as well, of course. Her hull had been altered to provide suitable gunnery angles and the Cunard funnels had been painted all black. And one day before the *Cap Trafalgar* engagement, a third dummy funnel was erected. The funnel was however only intended to be seen by an enemy ship from the front or a quarter profile.

On the morning of 14 September, 1914, the *Carmania* engaged the *Cap Trafalgar* 

The vessels were quite evenly matched, the German guns being more modern and more effective at long distances, even though of smaller calibre. In reality, it would seem, both vessels were poorly armed and ill-equipped to act as warships. But the circumstances of war required it of both of them.

The Carmania spotted the Cap Trafalgar at 9:30 a.m. on 14 September, 1914, near Trinidada, a small, rocky and isolated island located about 620 miles east of the Brazilian coast. The Cap Trafalgar, coaling from the collier Eleonore Wörmann when first seen, stopped that activity immediately and steamed away. Carmania demanded that the Cap Trafalgar identify herself and fired a shot, or maybe two shots, across her bow. The Cap Trafalgar returned fire, and with its third shot knocked out one of the Carmania's guns, killing most of the gun crew. The battle, conducted at close range, lasted 1<sup>3</sup>/<sub>4</sub> hours. Both ships were repeatedly hit and both were on fire. Some 80 rounds hit the Carmania but, some 400 rounds hit the Cap Trafalgar. Despite having to abandon the bridge of the ship, due to fire, the crew of the Carmania continued to fire on the German ship. The Cap Trafalgar began to list, then lay right on its side and went down bow first. The splendid flagship of the Hamburg South America Line, just 14 days after she was fitted for war and just 61/2 months after she was completed was sunk. The Carmania lost nine men in the action, two of whom died two days later, and 26 were wounded.

The *Carmania* could have then chased after the German collier *Eleonore Wörmann* but, as it was recovering German survivors and *Carmania* was in no fit state for another action, she let the collier go. Only 286 of the *Cap Trafalgar* crew of 301 were landed in Buenos Aires by the *Eleonore Wörmann*. Most were interned for the duration of the war on the Argentine Martin-Garcia Island.

The *Carmania* was escorted to Gibraltar for repairs and refit until late November.

Until late March, 1915, *Carmania* was primarily employed on the 'Tagus Patrol', examining merchant vessels entering and leaving the Tagus River at Lisbon, Portugal. During this period, *Carmania* spent a further five weeks undergoing refit work at Gibraltar. Briefly, between early April and mid May, 1915, *Carmania* was employed on the 'Canary Islands Patrol', examining merchant vessels in the region of the Canary Islands off northwest Africa.

From mid May to mid June, 1915, *Carmania* spent time at the Dardanelles in the eastern Mediterranean (mainly at Port Mudros) before returning to Devonport where she spent several months in refit at Devonport. During this time, after several delays due to the war, Ballard Dalby married Marjorie E. Middleton, M.B., B.S. (London), D.P.H., R.C.P.S., of Hindringham Hall, Norfolk, niece of Sir John Middleton, in the Church of All Saints at Sharrington, Norfolk, in June, 1915. The wedding was had some gloom on account of the death in France, of Lieutenant G.F.R. Sayle, of the 33rd Battery, cousin of the bridegroom. The couple set up residence at 15, Kingsland Rd., Broadwater, Sussex.

In September, 1915, Ballard was promoted to the position of Executive Officer, and gunnery Lieutenant, of *Carmania*.



Lieutenant E Ballard Dalby, RNR

In early August until early October, 1915, she was deployed on Canary Islands Patrol, before returning to Devonport. From early October to mid-November, 1915, *Carmania* took a round trip to Halifax, Nova Scotia, returning to Devonport. She then undertook her last deployment from mid-November, 1915, to late May, 1916, on the Canary Islands Patrol, including patrolling in the vicinity of the Cape Verde Islands, before returning to Liverpool.

On 26 May, 1916, *Carmania* arrived in Liverpool to pay off and over the following ten days, land all naval stores and the naval crew returned to their respective barracks. Carmania was then returned to Cunard. During this break he met his brother, Sergeant Major Charles Dalby, of the Main Expeditionary Force, 1st Wellington Battalion, who had been badly injured in France and was about to be invalided home. Ballard was then appointed to a cruiser but he was not happy. Ballard was released from the Royal Navy so went in search of a merchant ship position. He found one with the Westcott and Laurence Lines Ltd., owned by the Ellerman Lines, Liverpool and London. They offered him the position of First Mate (2nd in command) of the Joshua Nicholson. She was a 36 year old, 1,850 ton cargo steamer. He accepted.

The *Joshua Nicholson* was on passage from London to Alexandria on 18 March, 1917, when off Wolf Rock, near Lands End, she was torpedoed by U-70 at 6.30am. The ship settled rapidly, listing to starboard. One man was blown over the side by the explosion. The port lifeboat was launched but capsized alongside with three lives being lost. After the ship sank six men came to the surface and clung to the wreckage. Three of those died over the next few hours before being rescued, exhausted but alive at 5 pm. Twenty-six men, including Edwin Ballard Dalby, died.



SS Joshua Nicholson

Newspaper reports linked his death with a report of German destroyers shelling the east coast town of Ramsgate but that was not so as his sinking happened several hundred miles away.

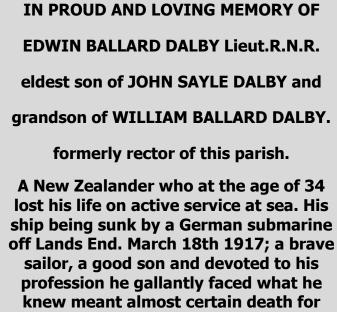
Edwin Ballard Dalby is remembered on the Portsmouth Naval Memorial at Southsea, panel 27.

The memorial is sited were it is a prominent navigation mark for naval vessels entering Portsmouth.



**The Portsmouth Memorial** 

Another memorial to Lieutenant Edwin Ballard Dalby RNR, is in the Church of All Saints at Sharrington, Norfolk. The tablet inside the church reads:



the sake of GOD and his duty.

### **BIG SEAS VIDEO**



Seamen have always been frustrated in filming or photographing waves at sea from own ship because despite trying to get a proper perspective from all different aspects the seas always seem to look smaller, calmer and less menacing than in reality.

The video link below leads to an excerpt from a video filmed in 2011 aboard the VOS *Voyager*, a 1,734 gross ton Field Support Vessel belonging to Vroon and registered in the UK. It was filmed somewhere in the North Sea. and does make some progress towards reality if still not quite accomplishing it.



VOS Voyager Image Vroon See video 1minute 05 seconds at: <u>http://gcaptain.com/video-ship-takes-on-monster-</u> <u>waves/?utm\_source=feedburner&utm\_medium=feed&</u> <u>utm\_campaign=Feed%3A+Gcaptain+%28gCaptain.co</u> m%29

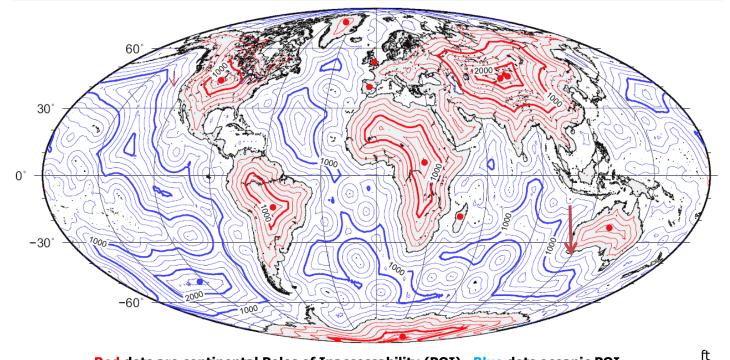
### HOW THE OLDIES SAW THINGS WE TAKE FOR GRANTED

My father arrived in New Zealand, from Glasgow, in 1925 as mate of the SS *Tees* a vessel purchased by Holm and Co. for their New Zealand inter-colonial and Chatham services. On arrival she was renamed *Holmwood.* He was offered employment by Holm and later assumed command in that company. It must have been about this time that union pressure forced companies to provide a sheltered, enclosed wheelhouse on New Zealand vessels.

I well remember Dad being a bit upset by this and his frequent comment. "Can't see a bloody thing sometimes. It'll cause accidents!"

Lots of the old masters seemed to have felt the same way. Did they appreciate the comfort as they grew older? Possibly, times change, but do old masters?. Editor.

### POLES OF INACCESSABILITY



**Red** dots are continental Poles of Inaccessability (POI). **Blue** dots oceanic POI

A pole of inaccessibility marks a location that is the most challenging to reach owing to its remoteness from geographical features that could provide access. Often it refers to the most distant point from the coastline. The term describes a geographic construct, not an actual physical phenomenon. Subject to varying definitions, it is of interest mostly to explorers.

#### **Northern Pole Of Inaccessibility**

The northern pole of inaccessibility 84°03'N 174°51'W), sometimes known as the Arctic pole of inaccessibility, or just Arctic pole, is located on the Arctic Ocean pack ice at a distance farthest from any land mass. It is 661 km (411 miles) from the North



**Northern Pole of Inaccessability** Ellesmere Island, Franz-Josef Land, and the New Siberian Islands, 1,094 km (680 miles) away. It was

point. Owing to the constant motion of the pack ice, no permanent structure can exist at the pole.

According to some reports, the first person to reach the spot on foot was Sir Wally Herbert, who arrived by dogsled in 1968. Other reports speak of this Pole as being still unconquered as of explorer Jim McNeill's unsuccessful attempt in 2006. According to McNeill, Herbert did not quite make the Pole, whose position has also now been more accurately determined and equidistant from the three closest landmasses, Pole 1,453 km (903 miles) north of Barrow, Alaska,

### Southern Pole Of Inaccessibility

The southern pole of inaccessibility is the point on the Antarctic continent most distant from the Southern Ocean. A variety of coordinate locations have been given for this pole. The discrepancies are due to the question of whether the 'coast' is measured to the grounding line or to the edges of ice shelves, the difficulty of determining the location of the 'solid' coastline, the movement of ice sheets and improvements in the accuracy of survey data over the years, as well as possible typographical errors. The pole of inaccessibility commonly refers to the site of the Soviet Union research station mentioned below, which lies at 82°06'S 54°58'E, though some sources give 83°06'S 54°58'E. This lies 878 km (546 mi) from the South Pole, at an elevation of 3,718 m (12,198 ft). Using different criteria, the Scott Polar Research Institute locates this pole 85°50'S at 65°47'E.According to ThePoles.com, the point farthest from the sea accounting only for the Antarctic land surface proper is at 82°53'14"S 55°4'30"E, and the farthest point when ice sheets are taken into account is 83°50'37"S 65°43'30"E. These points, calculated by the British Antarctic Survey, are quoted as being "the most accurate measure available" (as of 2005).



#### The old Soviet Pole of Inaccessibility Station, revisited by Team N2i on 19 January 2007 Team N2i was a privately funded exploration expedition consisting of members Henry Cookson, Rupert Longsdon, Rory Sweet and Paul Landry with the aim of reaching both the north and south poles of inaccessibility.

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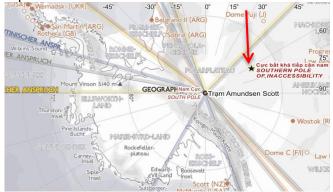
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The southern pole of inaccessibility is far more remote and difficult to reach than the geographic South Pole. On 14 December 1958, the 3rd Soviet Antarctic Expedition for International Geophysical Year research work, led by Yevgeny Tolstikov, established the temporary Pole of Inaccessibility Station (Polyus Nedostupnosti) at 82°06'S 54°58'E. A second Russian team returned there in 1967. Today, a building still remains at this location, marked by a bust of Vladimir Lenin that faces towards Moscow, and protected as a historical site. Inside the building, there is a golden visitors' book for those who make it to the site to sign. On 4 December 2006, Team N2i, consisting of Henry Cookson, Rupert Longsdon, Rory Sweet and Paul Landry, embarked on an expedition to be the first to reach the historic pole of inaccessibility location without direct mechanical assistance, using a combination of traditional man hauling and kite skiing. The team reached the old abandoned station on 20 January 2007, rediscovering the forgotten statue of Lenin left there by the Soviets some 48 years previously. The explorers were picked up from the spot by a plane from Vostok base to Progress Base and taken back to Cape Town on the Akademik Fyodorov, a Russian polar research vessel. The team found that only the bust on top of the building remained visible; the rest was buried under the snow.

On 11 December 2005, at 7:57 UTC, Ramón Larramendi, Juan Manuel Viu, and Ignacio Oficialdegui, members of the Spanish Transantarctic Expedition, reached for the first time in history the southern pole of inaccessibility at 82°53'14"S 55°04'30"E, updated that year by the British Antarctic Survey. The team continued their journey towards the second southern pole of inaccessibility, the one that accounts for the ice shelves as well as the continental land, and they were the first expedition to reach it, on 14 December 2005, at 83°50'37"S 65°43'30"E. Both achievements took place within an ambitious pioneer crossing of the Plateau eastern Antarctic that started at Novolazerevskaya Base and ended at Progress Base after more than 4,500 km (2,800 mi). This was the fastest polar journey ever achieved without mechanical aid, with an average rate of around 90 km (56 miles) per day and a maximum of 311 km (193 miles) per day, using kites as power source.

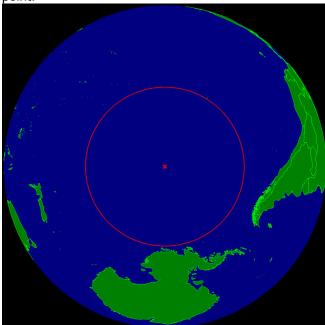
As mentioned above, due to improvements in technology and the position of the continental edge of Antarctica being debated, the exact position of our best estimate of the pole of inaccessibility may alter. However, for the convenience of sport expeditions, a fixed point is preferred, and the Soviet station has been used for this role. This has been recognised by the Guinness Book of Records in regard to Team N2i's expedition in 2006–2007.



Southern Pole of Inaccessibility.

### Oceanic Pole Of Inaccessibility. Point Nemo

Oceanic pole of inaccessibility 48°52.6'S 123°23.6'W) is the place in the ocean that is farthest from land. It lies in the South Pacific Ocean, 2,688 km (1,670 mi) from the nearest lands: Ducie Island (part of the Pitcairn Islands) in the north, Motu Nui (part of the Easter Islands) in the northeast, and Maher Island (near the larger Siple Island, off the coast of Marie Byrd Land, Antarctica) in the south. Chatham Island lies farther west, and Southern Chile in the east. This location is also referred to as 'Point Nemo', a reference to Jules Verne's Captain Nemo. On Google Earth, a circle with the text NEMO printed next to it, slightly darkened on the actual map itself, may be seen at this



Oceanic Point of Inaccessability Point Nemo.

#### CONTINENTAL POLES OF INACCESSIBILITY. EURASIA (EPIA)

In Eurasia, the Continental Pole of Inaccessibility(46°17'N 86°40'E) is the place on land that is farthest from the ocean, and it lies in northwestern China, near the Kazakhstan border. Earlier calculations suggested that it is 2,645 km (1,644 mi) from the nearest coastline, located approximately 320 km (200 miles) north of the city of Ürümqi, in the Xinjiang Autonomous Region of China, in the Dzoosotoyn Elisen Desert. The nearest settlements to this location are Hoxtolgay Town at 46°34'N 85°58'E, about 50 km (31 miles) to the northwest, Xazgat at 46°20'N 86°22'E about 20 km (12 mi) to the west, and Suluk at 46°15'N 86°50'E about 10 km (6.2 mi) to the east.



**Location map of the Eurasian (EPIA)** However, the previous pole location disregards the Gulf of Ob as part of the oceans, and a recent study[1] proposes two other locations as the ones farther from any ocean (within the uncertainty of coastline

definition): EPIA1 44.29°N 82.19°E and EPIA2 45.28°N 88.14°E, located respectively at 2,510 $\pm$ 10 km (1560 $\pm$ 6 miiles) and 2,514 $\pm$ 7 km (1,562 $\pm$ 4 miles) from the oceans. These points lie in a close triangle about the Dzungarian Gate, a significant historical gateway to migration between the East and West.

Elsewhere in Xinjiang, the location 43°40'52"N 87°19'52"E in the southwestern suburbs of Ürümqi (Ürümqi County) was designated by local geography experts as the 'center point of Asia' in 1992, and a monument to this effect was erected there in the 1990s. The site is a local tourist attraction.

Coincidentally, the continental and oceanic poles of inaccessibility have a similar radius; the Eurasian poles EPIA1 and EPIA2 are about 178 km (111 miles) closer to the ocean than the oceanic pole is to land.

### NORTH AMERICA

In North America, the continental pole of inaccessibility is in southwest South Dakota about seven miles north of the town of Allen, located 1,650 km (1,030 miles) from the nearest coastline at 43.36°N 101.97°W.

### SOUTH AMERICA.

In South America, the continental pole of inaccessibility is in Brazil at 14.05°S 56.85°W, near Arenápolis.of Eurasia

### AUSTRALIA

In Australia, the continental pole of inaccessibility is located either at 23.17°S 132.27°E[1] or at 23°2′S 132°10′E,[17] 920 km (570 miles) from the nearest coastline. The nearest town is Papunya, Northern Territory, about 30 km (19 mi) to the southwest of both locations.

### AFRICA

In Africa, the pole of inaccessibility is at 5.65°N 26.17°E, 1,814 km (1,127 miles) from the coast, close to the tri point of Central African Republic, South Sudan, and Democratic Republic of the Congo, as well as close to the town of Obo.



The Southern Pole of Inaccessibility at

co-ordinates 82°06'S 54°58'E is an abandoned Russian research station, located at the southernmost point from the ocean. The station was pre-constructed and carried in by the Soviets in 1958. A bust of Vladimir Lenin facing towards Moscow marks the

point.

### LIBERTY SHIPS

### ARTICLE RE-PRINTED FROM THE MARITIME ADVOCATE Line'

Our good friends in the Hellas branch of Wista, the women in shipping and trade association, have sent in this piece of writing by Dimitris Capaitzis which traces the war-surplus origins of many a modern shipping empire:-

In 1940 a British Mission, headed by R. C. Thompson, went to the USA and Canada to propose the building of their *Empire Liberty* Design 10,000 dwt, Scotch Cylindrical Boilers, Reciprocating Steam Engines, 2500 BHP, 10 Knots, 25 tons/day. From 1940 to 1945 various Canadian Yards built 300 of this type, all riveted. These were the *Empires* or *Forts* or *Parks*.



The preserved John W. Brown passing the Hawkins Point Range Light Beacon in Baltimore Harbour. Maryland, USA.

In the USA, the Maritime Commission partly modified the design to allow for extensive welding, prefabrication, series production, assembly line methods, a single block deck house midships and water-tube boilers. New Todd and Kaiser shipyards originally built 60, called *Oceans*, at about \$1,600,000 each, followed by 200 on the 'Emergency Liberty Fleet' programme in all US Yards, which established the *Liberty* name for this *EC2-S-CI* type standard design. New yards and more slipways were built and productivity records achieved.

For purposes of wartime propaganda the *Robert Peary*, in late '42, was launched four days and 15.5 hours after keel laying and delivered three days and 12 hours later. The first ship however, the *Patrick Henry* in end '41, had taken a total of 245 days, the 20th 120 days and the 50th 58 days, which was maintained as an average building time figure. Until 1945 about 2751 Liberties were built which more than justifies the one ship a day legend, but not one ship in one day. The other legend 'good for one Atlantic voyage' reflects the enormous losses of the wartime convoys.

The Liberties that survived and went on trading lasted twenty years and more. Now remaining are the *Jeremiah O'Brien* a museum in San Francisco - in 1995 she crossed the Atlantic to Europe for the VE day celebrations - and the *John Brown* in Baltimore. The *Alexandr Nevsky* a Russian training ship in Vladivostok was recently scrapped (2004). The *Arthur Huddell*, now *Hellas Liberty* in Piraeus, will be another proud reminder of great maritime traditions. On the same wartime period the US also built about 500 *Victory* cargo ships – 18,000 tons dwt, steam turbine, 6000 SHP 16 knots or 8500 SHP 17.5 knots and about 500 T2 tankers – 16,000 tons dwt, turbo-electric 7300 or 10,000SHP. All in all 5200 merchant ships were built in 1940-45 and shipbuilding acquired welding, standard design, prefabrication, series production and assembly line methods.

Liberties were built by 18 USA shipyards on the Atlantic, Gulf and Pacific coasts. There were 14 engine makers and nine boiler makers. They were dry cargo ships 10,850 metric tons deadweight, 14,470 metric tons displacement, 135 metres long, 17.3 metres wide with 8.5 metres (27 feet 9.25 inches) draft. They were 'tween deckers with accommodation and engine amidships, with 5 holds/ hatches and 10-5 ton derricks and steam winches. They had 2 oil-fired water tube boilers and one triple expansion steam reciprocating engine, single screw 2500 horsepower (1880 kw) and ran at about 10 knots on about 25 tons per day oil fuel.



#### Liberty ship at sea.

The basic design was maintained and mass production achieved, but there were a few interesting variations. Some were built specially to carry tanks, others aircraft and other mules or explosives. Some were built as troopships and some as oil tankers. Six were converted into floating aircraft repair depots. In Normandy in 1944 some were used as breakwaters for the Mulberry harbours. After the war about 50 were lengthened by 21 metres (1 hold).

More than 2,400 Liberties survived WW2. During the war most sailed under the Stars and Stripes. However about 300 were handed over to other Allied nations under various lend-lease arrangements, 187 to Britain, 43 to Russia, 13 to Greece, 2 to Holland,12 to Norway, 7 to Belgium, 4 to China. In 1946-47 the Greeks were

permitted to purchase a block of 100 – including the wartime ones – at \$ 650,000 each. Owners paid 25% down with the balance due over 17 years subject to 3.5% annual interest, with the unpaid amounts guaranteed by the Greek Government. This was the start of the spectacular expansion of post war Greek shipping.



Typical SD14 freighter 'Liberty replacement vessel'.

About 1000 *Liberties* traded after WW2. Around 450 were allocated to American shipping lines and the remainder sold to foreign companies, including the Greeks. There were frequent changes in ownership and wide fluctuations in prices in the changing markets over the next 20 years. Some estimates were that about 750 *Liberties* passed through Greek hands in that time.



Union Steam Ship Company's *Wairata* was a C1-A type built in 1943 one of the typical wartime alternative builds to the Liberty Ships

The bad markets of the early 1960s had most of the remainders going for scrap and the emergence of the *`Liberty* replacements'. The stars were SD14s built in UK, Brazil and Greece and the *Freedoms* in Japan and Singapore. About 180 of each were built and most

were bought by Greeks. Initially designed to last five years, many Liberty Ships continued to ply the seaways into the 1970s. In addition, many of the shipbuilding techniques employed in the Liberty program became standard practice across the industry and are still used today. While not glamorous, the Liberty Ship proved vital to the Allied war effort. The ability to build merchant shipping at a rate faster than it was lost, while maintaining a steady stream of supplies to the front was one of the keys to winning the war.

### Liberty Ship Specifications:

- •Displacement: 14,245 tons
- •Length: 441 ft. 6 in.
- •Beam: 56 ft. 10.75 in.
- •Draft: 27 ft. 9.25 in.
- •Propulsion: Two oil fired boilers, triple expansion steam engine, single screw, 2500 horsepower
- •Speed: 11 knots
- •Range: 11,000 miles
- •Complement: 41
- •Stern-mounted 4 in (102 mm) deck gun, variety of anti-aircraft armament
- •Capacity: 9,140 tons

### Liberty Ship Shipyards:

- •Alabama Drydock and Shipbuilding, Mobile, Alabama
- •Bethlehem-Fairfield Shipyard, Baltimore, Maryland
- •California Shipbuilding Corp., Los Angeles, California
- •Delta Shipbuilding Corp., New Orleans, Louisiana
- •J. A. Jones, Panama City, Florida
- •J. A. Jones, Brunswick, Georgia
- •Kaiser Company, Vancouver, Washington
- •Marinship, Sausalito, California
- •New England Shipbuilding East Yard, South Portland,

New England Shipbuilding West Yard, South Portland,
North Carolina Shipbuilding Company, Wilmington, North Carolina

- •Oregon Shipbuilding Corporation, Portland, Oregon
- •Richmond Shipyards, Richmond, California
- •St. Johns River Shipbuilding, Jacksonville, Florida
- •Southeastern Shipbuilding, Savannah, Georgia
- •Todd Houston Shipbuilding, Houston, Texas
- •Walsh-Kaiser Co., Inc., Providence, Rhode Island

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## SSNK COMPLETES FORENSIC STUDY OF MOL COMFORT STRUCTURAL FAILURE ROB ALMEIDA



MOL *Comfort* suffers a crack amidships while underway in the Indian Ocean, June 17 2013

With known weather and sea conditions at the time of the breakup, finite element modeling conducted by Japanese classification society ClassNK showed that the MOL *Comfort's* hull should have had no problem handling the stress. Nevertheless, the 8,000 TEU-class MOL *Comfort* suffered a hull girder fracture amidships on June 17 2013, eventually split into two sections, and slowly drifted apart in the middle of the Indian Ocean.

Four days later the stern and hundreds (if not thousands) of containers sank in waters 4,000 meters deep.

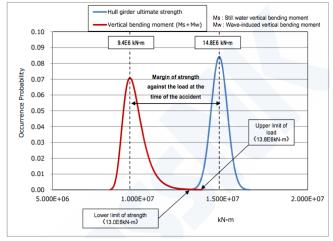
Nearly three weeks later, the fore section of the ship caught fire in a blaze of glory and sank, finally putting an end to the MOL *Comfort* saga.

The loss of the MOL *Comfort* is considered the single worst containership loss in history.

The Investigative Panel on Large Container Ship Safety was established in light of the findings from an interim report released in December 2013 by the Committee on Large Container Ship Safety, which found that the hull fracture originated from the buckling collapse of the bottom shell plates underneath the No. 6 Cargo Hold.

ClassNK has calculated the total bending moment (torque) at the time of the incident was 13.8 billion N-m or approximately 10.1 billion foot-pounds. This calculation was derived from the bending moment of the ship while in still water, a calculation that takes into account the cargo loading and other loads that are internal to the ship. This calcu lation also factored-in the external, wave-induced loads and the loads generated by the whipping action of the ship's structure as it goes from a hogging to a sagging condition while in a wave train.

Based on further calculations that factor in the probability of what the total vertical bending moment was and how strong the ship's structure was at the time of the incident, ClassNK shows that it is physically possible, although unlikely, that the loads placed on the ship exceeded the strength of the ship's structure.



#### Load vs Strength MOL Comfort

Relationship between strength of the ship's structure and the loads place on the ship, via ClassNK

The following image would support such a theory:



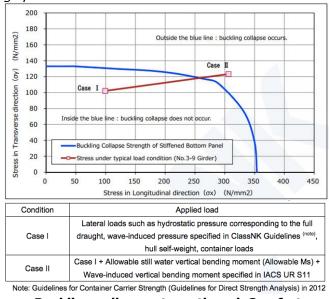
MOL-Comfort

Looking deeper into the issue, the stresses on the ship in the fore and aft direction are only one part of the issue. Lateral forces are also always in play inside the structure of a ship due to Poisson's Effect which says that when a material is compressed, it tends to expand in the opposite direction, and vice versa. While sailing into an oblique wave pattern, or with uneven cargo loading, these lateral stresses are greatly compounded inside the hull structure.

In the above graphic, the longitudinal (fore and aft) stress on a stiffened bottom panel is indicated on the x-axis and transverse (side-to-side) stress is indicated on the y-axis. The redline shows progressively higher stress on a hull structure when under a one-bay empty condition – which is a worst case situation and one that containerships are designed to handle. In this one-bay loading scenario, there are no containers to balance out the upwards hydrostatic force acting perpendicular to the hull.

For Post-Panamax-type vessels such at the MOL *Comfort*, ClassNK notes this is a particularly tricky situation as the hull form has greater beam and thus higher hydrostatic pressure acting on the hull than Panamax vessels. In addition, with an engine room located mostly aft, the ship is in a perpetual hogging condition its entire life.

*ClassNK modeled this situation in the following graphic:* 



#### Buckling collapse strength mol *Comfort* Via ClassNK *Screen Shot 2014-09-30 at 3.38.07 PM*

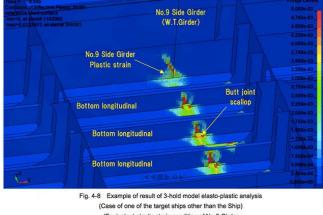
With this interaction between longitudinal and transverse stresses factored in, ClassNK concluded that the bottom shell plates experienced plastic deformation in the transverse direction just before the ship reached the maximum load of the longitudinal hull girders.

This led to a chain reaction of deformations in the steel structure leading to the final fracture of the hull girder. ClassNK explains this in more technical jargon haqt the end of this article.

In conclusion, ClassNK notes that to prevent future incidents such as the sinking of the MOL *Comfor*t, "it is necessary to assess hull girder ultimate strength in proper consideration of the effects of lateral loads and

to assess the buckling collapse strength of stiffened bottom panels in the middle parts of the holds."

Also, ClassNK points out that although the design of Post-Panamax containerships provides a more stable platform than Panamax ships, the subseqently minimzation of ballast water results in a situation where the still-water bending moment reaches close to the-allowable-value.



(Equivalent plastic strain condition of No.9 Girder just before the hull girder ultimate strength condition)

#### ClassNK

- The upward loads of bottom sea pressure are dominant among the lateral loads acting on the double bottom structure of container ships. The lateral loads are mainly supported by I beams with flanges of bottom shell plates and inner bottom plates and with webs of girders and floors.
- Once bottom shell plates are locally buckled and collapsed with plastic deformations, the
  effective breadth of the flange of bottom shell plates attached to the girder is reduced.
  The reduction of the effective breadth of bottom shell plate flange increases the
  compressive bending stress of the girder caused by the lateral loads. As the result of the
  superimposing with vertical bending stress of compression, the lower half of the girder
  partly yields.
- Bending strength of double bottom structure against the lateral loads is reduced due to the local buckling collapse of bottom shell plates and due to the partial yielding of adjacent girders, which causes the subsequent propagation of the buckling collapse of bottom shell plates and the yielding of the girders leading to the hull girder fracture finally.



MOL *Comfort* in happier times on pre-acceptance trials off Nagasaki in 2008. She was a Bahamian-flagged post-Panamax container ship built by Misubishi Heavy Industries and first chartered by Mitsui O.S.K. Lines and more recently by MOL.

### Chinese Built, State of the Art Sub-sea Support Vessel



China State Shipbuilding Corporation's (CSSC) Huangpu Wenchong shipyard delivered a highly advanced deepwater subsea support vessel just before the new year to CNOOC called the *Hai Yang Shi You 286.* 

The ship is the highest capacity vessel in China's fleet which permits sub-sea operations in ultra-deep-water water up to 3,000 meters deep. The vessel features a 400-ton active heave compensated (AHC) Huisman offshore mast crane and a 50-ton AHC Macgregor knuckle boom crane, two ROV hangars, a 2500 ton pipe-lay reel and support for saturation diving operations.

The vessel is DP-3 equipped and has six engines powering two azimuthal thrusters, four tunnel thrusters and a retractable thruster. Length over all: 141.05 meters

Beam: 29 meters Depth: 12.8 m Draft: 8.5 meters

### A BETTER WAY TO SHIPHANDLE?

### Norwegian Cruise Liner to Be Outfitted With Permanent Magnet Tunnel

Instead of having a shaft or some other geared mechanism connected to a motor, the propeller blades themselves are the motor which provides manoeuvring thruster to bring Norwegian Cruise Line's *Norwegian Epic* in-and-out of a port or berth.

The thruster blades and the rim to which they are attached are actually the 'rotor' component of Rolls-Royce's permanent magnet motor which rotate when energized by the magnetic field that is generated by the stator – the stationary component of the thruster.

This is Rolls-Royce's first customer within the cruise sector to utilize this technology which the company says offers numerous advantages over traditional tunnel thrusters including, significant reduction in noise and vibration, an increase in power output of around 25% from the same size propeller, and is able to be changed out underwater which eliminates the need for dry docking.



### Permanent magnet tunnel thrusters are said to be more reliable and efficient while providing 25% more power for given propeller size.

Jay McFadyen, Rolls-Royce's Senior Vice President – Marine Services, Americas says this new permanent magnet tunnel thruster is an upgrade to the ship's existing propulsion package. The ship was delivered to the NCL in 2010 from STX France.

"This highly innovative and cutting edge permanent magnet technology is suitable for a range of applications in both merchant and offshore vessels, where exceptionally low noise levels, high power output, and rapid response to power demand will benefit operators, crew and, very importantly, passengers alike," says McFadyen.



Norwegian Epic 155,183 GRT

"What we have seen so far through the experience of our first permanent magnet tunnel thruster in operation on the Rolls-Royce designed *Olympic Octopus,* a highly advanced offshore anchor handling vessel, is that a permanent magnet motor thruster is quiet, efficient and durable. It is capable of running for thousands of hours in intensive dynamic positioning (DP) mode, where rapidly varying loads and alternating thrust directions are the norm."

Other benefits of permanent magnet technology include the freeing up of space directly above the thruster where traditional tunnel thruster motors are located, and a symmetrical design that gives equal thrust to port or starboard.

### WORLDS LARGEST CONTAINERSHIP CSL *GLOBE* 19,000 TEU ALSO SETS THE RECORD FOR LARGEST MARINE ENGINE EVER MANUFACTURED. Mike Schuler



Move over Triple-E's, there's a new big dog in town. Hyundai Heavy Industries Co. in Ulsan, South Korea has just named the new title-holder for the world's largest containership; a 19,000 TEU giant for China Shipping Container Lines (CSCL) named CSCL *Globe*.

CSCL *Globe* measures 400.0 m in length, 58.6 m in width and 30.5 m in depth, and will be deployed on the Asia-Europe trade loop after being handed over to the owner later this month.

The ship was ordered by CSCL back in May 2013 along with four other 19,000 TEU capacity ships for a total cost of \$700 million. The series was originally planned to carry 18,400 TEUs, but were later updated by 600 TEU.

For comparison, Maersk's Triple-E's have a TEU capacity of 18,000 and measure 400 metres long by 59 metreos wide. Maersk Line has ordered a total of 20 of the ships from Daewoo Shipbuilding and Marine Engineering, also in South Korea, to be delivered by 2018.

With a capacity to carry 19,000 TEUs, the recently named MV CSCL *Globe* is the world's largest containership by cargo capacity. But that's not all it's known for. The newbuild for China Shipping Container Lines is also noteworthy for being powered by what is physically the largest engine ever constructed.

CSCL *Globe* completed three days of sea trials off South Korea, putting the ship's massive MAN B&W 12S90ME-C Mark 9.2 type low-speed main engine through its paces. The two-stroke engine is rated at 69,720 kW @ 84 rpm, although has been de-rated to 56,800 kW, and stands a whopping 17.2 meters tall (that's over 56 feet!).

The new container vessel is one of the first five to be constructed for CSCL at Hyundai Heavy Industries in South Korea. HHI-EMD, Hyundai's engine-building division, also constructed the record-breaking engine, again in Korea.

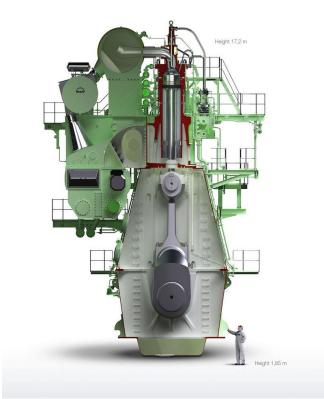
While CSCL *Globe* is the new world's largest ship by TEU capacity, at 400 meters it is actually similar in length to Maersk Line's 18,000 TEU Triple-E's and actually .4 meters less wide at 58.6 meters (Triple-E's are 59 meters wide). Triple-E's, on the other hand, are equipped with a custom-designed 'twin-skeg' propulsion system, which uses two 43,000 horsepower engines powering two four-bladed propellers.

All five newbuilds for CSCL are expected to be delivered by the end of 2015, with the first two coming in 2014. The ships are to be deployed on the Asia-Europe trade loop.

HHI says the CSCL *Globe* features a single, 77,200 bhp electronically controlled main engine to enhance fuel efficiency by automatically controlling fuel consumption according to the ship's speed and sea conditions, translating to a 20 percent reduction in fuel per TEU in comparison with similar 10,000 TEU containerships. The vessel also features two EcoBallast seawater treatment systems, capable of treating 3,000 m3 of seawater per hour by filtering and sterilizing bacteria and plankton bigger than 50  $\mu m$  with ultraviolet rays

The naming ceremony, was attended by Xu Li Rong, chairman of China Shipping Group; Zhao Hong Zhou, managing director of CSCL; Qiu Guo Hong, Chinese ambassador to Korea; Choi Kil-seon, chairman and CEO of HHI and 150 other guests. CSCL *Globe* was officially named by Godmother, He Li Jun, wife of Xu Li Rong.

HHI built the world's first 10,000 TEU containerships in 2010 and since then it has built 82 large containerships capable of carrying more than 10,000 TEUs.



# Just check out the size of this brute compared to a human

Upon delivery, CSCL Globe will take over the title of world's largest containership from MV Maersk McKinney Moller and her Triple-E sister vessels, first delivered in July 2013. Before that, the title of was held briefly by MV CMA CMG Marco, a 16,020 TEU capacity containership delivered to CMA CGM Group in November 2012.

With a capacity to carry 19,000 TEUs, the recently named MV CSCL *Globe* is the world's largest containership by cargo capacity. But that's not all it's known for. The newbuild for China Shipping Container Lines is also noteworthy for being powered by what is physically the largest engine ever constructed.

Mike Schuler is COO and Partner at gCaptain.com. He can be reached via email at mike@gcaptain.com. Follow him on Twitter @MikeSchuler

### CONSTRUCTION OF THE NICARAGUA INTEROCEANIC CANAL IS FINALLY TO BEGIN.

Construction of Nicaragua's \$50 billion Interoceanic Grand Canal, expected to rival the Panama Canal, is scheduled to begin early this year after feasibility studies had been approved and objections addressed by the committee overseeing the project.

The route for the 172-mile (278-km) canal, which will be longer, deeper and wider than the Panama Canal, was approved last July. Construction will be led by Hong Kong-based HK Nicaragua Canal Development Investment Co Ltd (HKND Group).

Opponents of the plan are concerned about the canal's effect on Lake Nicaragua, an important fresh water source for the country, as well as the impact on poorer communities. Committee member Telemaco Talavera said the feasibility studies were expected to be approved soon. The plan is to finish the canal within five years, with it becoming operational around 2020.

Officials said some small adjustments were being made to the overall project, including dredging stretches of a lake rather than using underwater explosives.

Chinese businessman Wang Jing is behind the canal plan, though he has no prior experience developing or financing big infrastructure projects like the planned canal. Wang only established Hong Kong Nicaragua Canal Development Investment Co (HKND) in August 2012, prompting some to question whether the project was viable.



#### Proposed canal routes in red (2013). The canal will follow the second route from the top, south of Bluefields

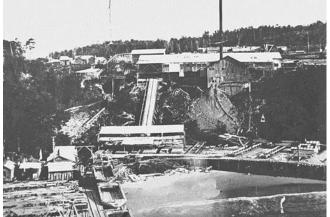
The canal will pass through Lake Nicaragua, Central America's largest lake, and will be between 230 metres and 520 metres (755 feet to 1,706 feet) wide and 27.6 meters (90 feet) deep, HKND has said. When opened it will save hundreds of nautical miles in trans-oceanic traverse. Follow link copied below to see Rumsey map. http://www.davidrumsey.com/luna/servlet/detail/RUM SEY~8~1~213606~5501065:Distances-Saved-by-the-Interoceanic

### FORSAKEN OLD PORTS FROM YESTERYEAR.

### **PORT CRAIG**

Port Craig is located on the western side of Te Waewae Bay, in western Southland along the south coast of the South Island amongst regenerating lowland coastal mixed podocarp forest. The former sawmill and settlement site is on land managed by the Department of Conservation (DOC), formerly Waitutu State Forest, and now part of Fiordland National Park. The sawmill tramway roughly follows the alignment of a surveyed road through Maori land to the west of the mill site. The bulk of the sawmill workings, including branch tramlines and log hauler sites, were also located within this Maori land. The nearest town is Tuatapere, which sprang up around the turn of the last century to service the large number of sawmills that were progressing through the surrounding forests. History

It was a small logging town born in 1916, with 200+ men women and children living there in its prime. Like other New Zealand bush towns, Port Craig was inhabited by hardy bushmen and their families, recent immigrants and a few others trying to keep clear of the law. The Marlborough Timber Company had a large scale plan to log one of the country's last significant coastal forests. The company planned big, they built the Dominion's largest sawmill, an extensive tramway system, port facilities and township all without road access. The bush was worked by the Lidgerwood overhead logging cable system (gantry) that weighed over 50 tonnes. The immense size of the gantry meant that it was very difficult to re-locate in the inhospitable forest and after one major shift, the gantry was left redundant, crippling the local logging industry.



Marlborough Timber Company sawmill at Port Craig showing chute, logging and timber and assembly areas and Company-built lighters. *Image Southland Museum* 

All that is left of the town are the considerable relics including the gantry base, a large English built winch (built in Hull) that operated on the wharf and thousands of derelict bricks. There is also a fairly complete baker's oven and the original school building The logging days commenced in 1917 and continued till about 1929, when it shut down in the face of the looming depression. The area is remote from any big towns or districts, and this led Port Craig to keep surrounding natural environment at its beauty. Southern Right Whales and Hector's Dolphins sometimes can be seen cavorting close to shores.



Truncated remains of the wharf which once protruded some 125 metres seaward.

During its operation Port Craig sawmill was the most technologically advanced and most productive mill in New Zealand. Today it is an archaeological site – the country's most complete sawmilling complex featuring all stages and aspects of the timber industry.

The wharf was somewhat exposed but despite this some half a million board feet of timber was exported from Port Craig during its productive tenure. Some medium sized ships could berth at the wharf in suitable weather and at other times timber and general stores to maintain the settlement were transferred by lighter and barge. Timber could be delivered to the wharf by cable line.



#### Port Craig Wharf showing the ingenious cable loading system. The output at Port Craig broke New Zealand records. Port Craig was the largest and most modern mill in New Zealand at the this time.

Some investigation was made during the years of WW2 as rimu timber was in very short supply but the costs associated with re-opening the mill and

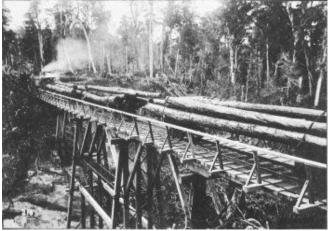
re-establishing the port infrastructure were prohibitive even in those challenging times.

### Port Craig Settlement

In 1916 the Marlborough Timber Company recognised the milling potential of the coastal forests of Western Southland. Over 150 men were employed, and they processed up to 1800 cubic metres of timber per month. At its peak the settlement at Port Craig had a school, a blacksmith's shop, a wharf, a cook-shop, a bake-house, accommodation for the workers, and was home to the largest and most modern sawmill in New Zealand. In total about 1400 hectares of forest was logged from Port Craig, and the timber was shipped directly out to markets.

### Sawmilling at Port Craig

The large scale of the operation required logging greater areas than those allowed for under forest regulations at the time. Instead of relying solely upon State Forest allocations the mill largely logged Maori land which had been granted under the South Island Landless Natives Act of 1906, by agreement with the owners.



Logs being transported along the tramway to the sawmill crossing one of the lesser viaducts

Logs were carted to the mill along a 14.6 km long tramway which ran between Port Craig and the Wairaurahiri River. The tramway superseded a much earlier pack track, first cut in 1896 to provide overland access to Cromarty and Te Oneroa, gold mining settlements in Preservation Inlet. Four impressive viaducts were constructed to carry the tramlines over ravines. The largest of these, the Percy Burn Viaduct, was repaired by the Port Craig Viaducts Charitable Trust (which manages all four viaducts) with funding and support from the local community in 1994.

As the Depression approached, the demand for timber declined and the business venture struggled until finally it failed, and the mill was closed in 1928.

### Today

The old wharf piles remain, along with the baker's oven and first mill, the Lidgerwood hauler chassis, and a Priestman wharf crane. Port Craig School, the only remaining building on the settlement site, has been converted into a hut for trampers.

The tramway away from the mill to the workings features spectacular cuttings, and the Australian hardwood jarrah railway sleepers are evident along most of its length.



The Percy Burn trestle viaduct was the longest and highest of four such viaducts along the logging tramway. *Image DOC* Total length 125 metres (410 ft) Height 36 metres (118 ft) Opened 1923 Closed 1928

### **THE HOKIANGA RIVER**

### The Hokianga Signal Station

The harbour mouth opens to the Tasman Sea, turbulent in many moods. Like most west-coast rivers or harbours there is a shifting sand bar about a mile out from the heads, treacherous even to those who know it well, and when a south-westerly storm also sweeps in few responsible sea captains would consider entering.

For the Maori, safe passage could be assured by a tohunga who had special powers and strong karakia to control the wind and waves. No doubt common sense played a part too. But the Europeans were not so lucky: in the early years of the timber trade at least five ships came to grief in or around the entrance. This led John Martin, a seaman who had previously been Captain Kent's first mate before settling on land just inside South Head at Omapere, with the encouragement of local chief Moetara, to provide a pilot service for incoming ships. Later, on his own initiative but still with local Maori support, he also erected a signalling mast on the high point of the South Head. Signals were based on an accepted code of coloured flags and the flagstaff also worked on a pivot so it could droop to the north or south to direct a change of course as vessels approached. It is possible that John Martin's service, begun in 1832, was the first of New Zealand's navigational aids, and it seems to have been without remuneration until he was officially appointed considerably later. He retired in 1858 but the position of pilot stayed in the family until 1870, by which time the Marine Department had been established and made its own appointments.

The pilot station, adapted and updated to suit the times, remained in operation until 1951 when technology and decreased harbour use brought its closure and dismantling. The final flagstaff still sees good use, however, above the R.S.A. hall in Opononi, and the final signal light is in the local museum.



Kohukohu was the chief centre of the timber industry on the Hokianga, and the Kauri Timber Company had large mills and offices at the township. Vessels of heavy draught could sail up the indented estuary from the entrance and find berth at the mill wharves. Kohukohu had a post and telegraph office, churches, a good hotel, several stores, hall and public school, and a population of about 300. The timber industry was of great importance, but it also meant that as the bush was cleared off thousands of acres of excellent land that this land become available for settlement and the timber felling became the towns death knell as the area became more pastoral and the export trade finally failed.

Captain Herd of the *Providence* was the first to explore, and with disgraced missionary Thomas Kendall as guide and translator, crossed the bar and entered the harbour in 1822 (the first European ship to do so) and sailed away with the first Hokianga timber shipment. His success inspired a strong following—the deforestation of Hokianga had begun and would be completed by the turn of the century.



### Kohukohu in the late 19th century

The only disincentive to the Hokianga's exploitation was the harbour bar. The taniwha (sea monsters) who guard the entrance to the harbour still, to this day, stir up the waters with their lashing tails. Of the hundreds of ships that successfully negotiated it, the records show that some 16 were lost, perhaps more. Most came to grief when leaving fully laden and became caught in the wind shadow cast by South Head where the deep water lay. A temporary lull or change in wind direction could cause a sailing-ship to lose steerage way and be swept onto the rocky shore. In 1828 the missionary schooner Herald, built by Henry Williams and sailed by Gilbert Mair, foundered while trying to enter Hokianga Harbour. The last recorded sinking on the bar was on the 14 July 1928 the schooner-rigged ketch Isabella de Fraine was sunk on the bar with the loss of eight lives.



Hokianga bar and entrance from sea level at South Head

Little further development, after formalising the pilot service, was ever done other than the provision of a small lighted beacon on Motuiti Island, a half mile or so off Kohukohu, that was extinguished permanently about 1950.



Kohukohu probably in the early 20<sup>th</sup> century near the end of the large timber exports

Probably no one knows just how much timber was shipped out from Kohukohu but the many square kilometres of pasture and possibly more of scrub and regrowth suggests it was enormous. One supposes some sort of records are available but they would not be relevant in a short article such as this. Suffice to say that for many years it rivalled many larger towns for export tonnages.

#### The Kohukohu Cannons and the Boyd Incident

An interesting historic artefact can be seen in the township; across the road and immediately north of the War Memorial at the base of the wharf are twin concrete mounted cannons. A plaque describes their provenance.

It is said they were captured by the Maoris In December 1809 from the sailing ship *Boyd* while she was anchored in Whangaroa Harbour, where it was to pick up a cargo of timber spars. She was attacked by a group of Maori who killed most of the crew and passengers in retaliation for her captain's mistreatment of a young local chief, Te Ara, who had sailed from Sydney on the *Boyd*.

This was the most violent clash between Māori and Europeans since the attack on Marion du Fresne and his crew in 1772. The incident had far-reaching



Modern Kohukohu, 2010. The War memorial at the root ot Kohukohu Wharf effects. It delayed the establishment of the first Christian mission in New Zealand, cemented a view of New Zealand as the 'Cannibal Isles' and challenged the notion that Maori were 'noble savages'.

The captured cannons were carried to Kohukohu but the iwi had neither the resource nor training the to use them and eventually they were discarded.



Kohokohu cannons



### HOREKE

Horeke was neither an enduring nor a significant timber exporting location. Timber was exported from time to time but its location across the harbour from Kohukohu meant that any logs or cargo could be towed across and use that town's loading infrastructure.

The real significance of Horeke was that it was blessed with a profusion of good spar and planking timber together with a morphology that lent itself to the building and easy launching of ships so that it became the site of New Zealand's first ship-building enterprise, which was established in 1826 under the management of Captain David Clark.

At its peak it employed 50 shipwrights and mill hands, and three sizeable ships were built in the period to 1830. The owners went bankrupt shortly after and the business was sold; the milling continued but no more ships were built there.

A small bronze plaque near the waterfront at Horeke commemorates the years of that first industry.

The town was initially called Deptford after the Royal Navy shipyard in England. It was one of the first places settled by Europeans in New Zealand, with shipbuilding established in the late 1820s. David Ramsay and Gordon Davies Browne came from Sydney to set up a trading post and shipbuilding settlement about 1826. Three ships were built, a 40-ton schooner called *Enterprise*, a 140-ton brigantine called *New Zealander*, and the 394 (or 392) ton barque *Sir George Murray* - but the firm went bankrupt in 1830. The Wesleyan missionary John Hobbs opened a mission at Mangungu, about a mile from the shipyard, in 1828.



### Deptford early 19<sup>th</sup> century, possibly 1830s

A notable early New Zealand settler Cannibal Jack described in the Dictionary of New Zealand Biography as 'sailor, convict, Pakeha-Maori, interpreter, shopkeeper, sawyer, carpenter, soldier was an early resident. He helped build Horeke Tavern part of which still survives, 130 years after his death.



#### Horeke Tavern 2010

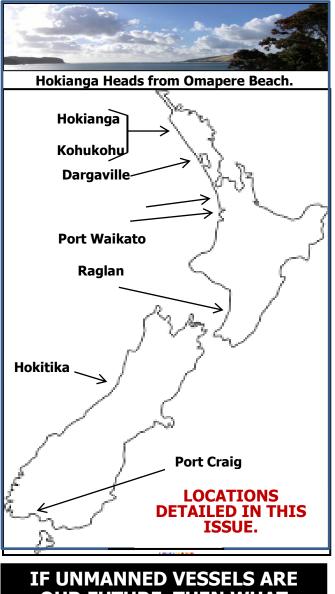
Perhaps Horeke was not significant or important enough in history to be remembered as a port but in 2014 there is real history here - the first hotel in New Zealand still stands and several houses built on wooden piles over the mudflats. Although one of New Zealand's first settlements it now slumbers in a little used arm of the Hokianga River but it certainly deserves its place in the crafting of New Zealand's maritime history.

See more at:

http://www.ourhokianga.com/HokiangaHistoryHHS.ht



Historic Places Trust bronze plaque at Horeke, commemorating the 1826 shipyards and the launching of the first two vessels for the navy and later a merchant vessel.



# IF UNMANNED VESSELS ARE OUR FUTURE, THEN WHAT ABOUT US? Newsweek

"The time is now ripe for a fundamental change in shipping," says Oskar Levander. From his base at the Norwegian seaport city of Alesund, the vice president for the marine technical wing of British manufacturer Rolls Royce is talking about the future of the \$450 billion global shipping industry. And in his view, the future is ghost ships.

Rolls-Royce Holdings (not to be confused with Rolls-Royce Motors) manufactures in a variety of sectors, including aerospace, defense and marine. It believes that one day we will rely on fully unmanned ships for the transport of goods across the world's oceans. "There is a growing social acceptance for remotecontrolled or autonomous systems, including cars and trains," says Levander. "The move to unmanned ships will be gradual, probably coming first to waters within the jurisdiction of an individual state. Early examples of unmanned ships are likely to be bulk carriers or cargo vessels transporting non-hazardous goods."

Esa Jokioinen, head of the Blue Ocean development team at Rolls-Royce, explains how a remote navigation system could work for ships as large as 600,000 tons: "The captain would sit at a shore location, receiving real-time data from sensors over a secure communications link. With multiple cameras around the vessel, a full picture is available, including a bird'seye view of the vessel in relation to its surroundings." In other words, once the technology is in place, a ship moving goods from Hong Kong to Los Angeles could be controlled from a facility in Topeka, Kansas—or anywhere else.



A typical Polaris bridge training facility A major portion of the training for new ship captains already takes place on land, and Jokioinen's team has, she says, developed advanced 360-degree bridgesimulator systems, currently in use for education purposes. "These use complex mathematical models to provide the virtual world of a ship at sea and its response to control inputs," Jokioinen says. "From there to using real inputs to generate the 360 view and control an actual vessel is a small step."

Because human control of the ship is being moved from the ship's bridge to a remote cockpit on shore, the responsibility of avoiding a collision remains in the hands of the captain rather than automated machinery.



### "Look, Mum - - no hands!"

The prospect of unmanned ghost ships navigating the world's sea-lanes remotely may sound like science fiction, but the shipping industry has been seriously discussing the possibility for over 10 years. Rising fuel costs in recent years have meant that slower (and therefore less fuel-consuming) voyages are more economical-but long journeys are less attractive to crew members, so finding a willing crew can be difficult and very costly. The industry estimates that 44 percent of freighter costs are associated with human crews. The improved navigation, and removal of the habitation space and life support that comes with unmanned systems, will increase efficiency in each ship by up to 20 percent, says Rolls-Royce. It predicts a corresponding 20 percent reduction in emissions, as well.

In the past two years, the European Union has become so convinced of the inevitability of universally unmanned cargo freighters that it has invested \$4.8 million to establish a project it calls MUNIN (Maritime Unmanned Navigation through Intelligence in Networks). "The main objective is to see how far we can automate all functions of the ship," says MUNIN Project Coordinator Ornulf Jan Rodseth. "In the short term, we are looking to reduce crew numbers to perhaps one, with much of the navigation burden being conducted on-shore. Ultimately, I can see a time when maritime disasters are totally eliminated by automated technology."

The U.S. Defense Department's Tactical Technology Office (TTO) is developing the Anti-submarine warfare Continuous Trail Unmanned Vessel (ACTUV).



#### Cobane Engineering concept (ACTUV) sub-surface vessel (SSV)

The goal may be military, but the advantages are much the same as the EU's. Efficiencies are gained by stripping out human life support systems for a leaner machine. The objective of ACTUV, according to the TTO website, is to "generate a vessel design that exceeds state-of-the-art platform performance to provide propulsive overmatch against diesel electric submarines at a fraction of their size and cost." The Navy already has four operational drone boats, developed by the U.S. industrial conglomerate Textron Systems. As with many technologies (computers, GPS, microwaves), drone ship innovation could move swiftly from military to everyday commercial applications.



One of the US Navy's Boeing unmanned drone Mark V Special Operations Craft (SOC.)

It will take some time, and there will, of course, be some pushback. The International Chamber of Shipping (ICS) represents 80 percent of the estimated 100,000 ships that traverse the Earth's oceans. The organization's director of external relations, Simon Bennett, believes we will have a long wait before unmanned ships pass the concept stage. "We're looking at around 20 to 30 years before we can realistically expect ships to be sailing without crew," Bennett says. "There is the hurdle of current international legislation, which strictly regulates minimum crew numbers. Politically, reducing crew numbers is still controversial, and there can be a tendency for humans to over-rely on technology. If technology fails, then we need to rely on our age-old seafaring skills."

Bennett says a system called e-navigation will launch in the next 10 years, to automate the current vessel traffic management systems where, when the ship is close to shore, the local coast guard tells the crew what it should be doing. He acknowledges that those who believe ultimate control and accountability for a ship should remain with the captain and crew might find this unacceptable. "Increased remote-control of shipping is a very controversial subject," Bennett adds. "This is a debate we expect to have over the next 10 years, as the technology develops."

In some quarters, in fact, there is open opposition to the idea of automating the shipping industry, on which 1.2 million jobs depend worldwide.

Jobs losses are not the only danger presented by crewless ghost ships. Antoine Martin, principal consultant of Unmanned Vehicle Systems Consulting LLC, points out that pirates might be a problem. According to the International Maritime Bureau Piracy Reporting Centre, from January to May 2014, there were 72 reported piracy incidents globally. It's easy to imagine this number climbing with a proliferation of unmanned ships. "There would be no human hostage situation from piracy," says Martin. "However, pirates might see the ships as easy targets. Having no crew or guard to watch for and evade pirates would make piracy easier. Robbers attack houses while people are on vacation or if a house seems unoccupied. Pirates would in all likelihood attack unmanned ships."

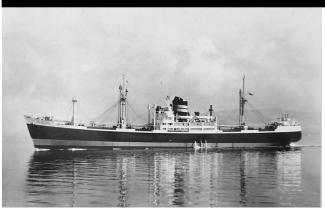
On the other hand, if we're able to build robot ships, why not hypothesize that ones with security technology would be just as good as their navigation?

"If we had unmanned ships, [piracy] wouldn't be a problem—you could literally run an electric current all the way through the ship, because you wouldn't have to worry about the crew members on board," suggests Bennett, only half joking. He adds that the ideal unmanned ship would be designed and built without any crew cabins or support whatsoever anyway, so even if the pirates could board, there'd be nowhere for them to live or operate from.

Better yet, Bennett says, maybe geopolitics will catch up with the technology. "Hopefully, we'll all be enjoying world peace and won't have pirates anymore."

See: <u>http://www.newsweek.com/2014/07/11/are-unmanned-vessels-future-ocean-257091.html</u>

# FIRST TRIP LET-DOWN Michael Pignéguy



MV Clan Sutherland

Well, it wasn't so much of a big splash really, but more of a series of splashes as my mate was trying desperately to stay out of the water while being on the end of a steadily lowering rope. But it was certainly not his original intention to savour the warm waters of the harbour of Lorenco Marques in Mozambique on Africa's East Coast.

My mate Jim was a big Scottish lad and he was the Senior Apprentice aboard the *Clan Sutherland*, a cargo passenger ship of graceful lines belonging to Clan Line Steamers of Glasgow. It was July 1959, my first trip to sea and thus I was the Junior Apprentice. Jim and I shared a cabin, and as the trip progressed out of Liverpool to the Cape we formed a mutual respect for each other and got along pretty well. But he still was the Senior Apprentice and, in my somewhat naive eyes, very worldly wise and of course very knowledgeable about shipboard routines and skills.

Apprentices in Clan Line had a wide variety of tasks to perform which included standing watch on the bridge, cleaning the bilges, eating meals with the passengers, and painting the draft marks, to name but a few. It was a very good apprenticeship and one that unfortunately is rarely offered to today's aspiring seafarers. However, I digress!

Capetown was a memorable first port for me., with its stunning background of Table Mountain and the early morning sun lighting the misty tablecloth flowing down from its heights, We unloaded our general cargo on our northbound run up the coast while also starting to load our homeward cargo, mostly of oranges as I remember. We called at the ports of Port Elizabeth, East London, Durban, and then Lorenco Marques.

It was in Lorenco Marques that the Mate gave us the job of painting the draft marks. "We'll start with the bow", says the Senior Apprentice. At this stage of the voyage the ship was fairly light, thus exposing the maximum number of draft marks to be painted. It also meant that the bow was very high out of the water. The *Clan Sutherland* had a lovely fine bow with plenty of sheer and flare. The plan was to paint the draft marks while hanging in a bosun's chair attached to a line that ran from the windlass and through the for'd leads. We were then going to hold ourselves into the bow by lines leading aft on both sides. Being almost light ship the foc'sle deck was about 60ft above sea slide down into a small bosun's chair at that height was something more than a daunting task for me at that time. But Jim was prepared to lead by example, good lad that he was, and said that he would do the first shift over the side. All I had to do was to lower him down to the right level. Sounded easy to me. With his large form it was a bit of a struggle for him to climb out over the bulwarks and lower himself, none too elegantly I might add, into the waiting bosun's chair. But manage it he did, and now he was looking back at me, his head visible through the for'd leads some 40 ft away, while I was ready to lower away with the line around the windlass drum.

Jim's instruction was that when he reached the right level he would signal with a loud whistle for me to stop lowering him. As I would be unable to see him, because of being so far back from the bow, the whistle signal seemed like a good idea at the time.

It was just at that time that the watersiders started work. Now Africans are by their nature very musical people, and are always (at least they were then) singing, dancing and whistling. The hatchmen on deck were now signalling the shore crane drivers by shouting, singing and, as luck would have it, whistling. Never mind, I thought, I know what Jim's whistle sounds like, and I confidently continued to lower him into the unknown!

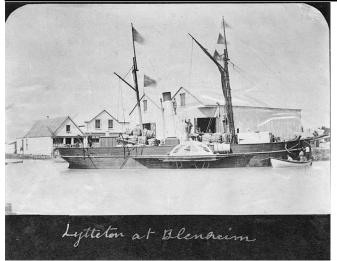
All was going well, although I was straining my ears somewhat in trying hard to pick up Jim's signal amongst the cacophony of whistling from the watersiders, when I noticed that the line that I was lowering, with him on the end, was going slack! How could that be I wondered, as Jim's a big lad! A run to the bulwark confirmed my worst fears. Jim had some minutes beforehand, reached the optimum level for the appointed task, but his frantic whistling had not been detected by my pink and shell like ears. So, as fast as I was lowering the line, Jim was valiantly trying to stay clear of the shark-infested harbour by attempting to climb up to line. Alas, it was a task that he was unable to keep up for very long, and as I fearfully peered over the bulwarks, some 60 ft up, he took to water in somewhat of an ungainly fashion and shouting words that were new to me at the time!

Jim did make it across to a ladder on the wharf and managed to heave himself up onto dry land. On his way back to the gangway, he happened to pass the Mate who noticed that Jim was quite wet and commented that it was not the time of day for apprentices to be taking a swim. Jim replied, none too politely I thought, that his 'F'ing mate had just dropped him in the 'F'ing harbour!

Operation Draftmark was discontinued for the day, but the following morning it was my turn to place my trust in Jim while he lowered me to the 'optimum height'. Well, I have to say again that he was a good lad, and although I was convinced that I was going to have to do battle with the sharks in the harbour, Jim didn't let me down, well not too far anyway!

ht Id

### THE REMARKABLE VOYAGE OF THE SS LYTTELTON Captain Ifor Owen



#### SS Lyttelton at Blenheim Wharf. The Nelson Provincial Museum, Copy Collection: C2152

One of the most remarkable voyages ever undertaken by a small vessel, and certainly one of the longest, was that of the *Lyttelton* in 1859.

Built at Scott Russell's Millwell shipyard, alongside the mammoth Great Eastern of 24,000 tons, she was 75 feet long, about 18 feet beam and drew 5 feet fully laden, ketch rigged and fitted with a 23HP engine to drive two paddle wheels. The intention was to dismantle her and ship her out to New Zealand in pieces. However it was decided that she should sail to New Zealand and so save considerable expense.

A Master was found who agreed to deliver the vessel and supply a crew for 400 pounds. The Master wished to settle in New Zealand and arranged for his wife and five daughters to accompany him on the trip. The crew consisted of a Mate, four sailors, two boys, and a cook, who were all future colonists and agreed to work their passage at the nominal pay of a shilling a month. The Engineer who was to look after the machinery was to receive half pay on the delivery voyage with a guarantee of a year's work in New Zealand at 20 pounds per month.

After her 'sea trials' on the Thames the vessel was prepared for the voyage which was to be under sail. Her funnel and paddle wheels were removed and stowed in the forward hold, together with about 30 tons of patent briquette fuel to be carried as ballast. The vessel was provisioned for six months with a galley in the Engine-room. The after hold was fitted out for the Captain & his family while the Mate & Engineer had a cabin aft and the rest of the crew in the forecastle.

On the 15th August 1859 this small ship set off on her voyage to New Zealand via Cape of Good Hope. She was towed as far as The Nore. Four days after leaving the Nore she was still beating about in the Thames Estuary and had to put into Ramsgate! She was towed into the port to "replenish medical comforts" - and have a stronger mast fitted !

Three days after leaving Ramsgate she took refuge in Folkstone. Leaving Folkstone she had sixteen days

the weather abated the vessel set sail from Cork and crossed the Bay of Biscay in relatively calm weather, sixteen days later Tenerife was sighted. At the Cape Verde Islands they anchored and remained for a few days taking in a stock of food, water, fruit, live turkeys and geese.

With fair winds she had a good run towards the Equator. However in the Doldrums she came to a standstill making no headway. It was here that they spent Christmas Day 1859 and the last of the turkeys consumed. The flat calms and broiling sun became unbearable and the Captain got out the big sweeps at which the men toiled ineffectively. The Engineer enterprisingly rigged up the old foremast as an axle, added a kind of paddlewheel arrangement at each end, constructed hand gear and this was worked from the deck by the crew. The net result was that the vessel made about one knot, and it was kept up for several weeks whenever the wind was paltry.



Cape Coast Castle is one of about thirty 'slave' castles or large commercial forts, built on the Gold Coast of West Africa (now Ghana) by European traders.

As so much time had been lost the Captain decided to hug the coast to the Cape of Good Hope. He therefore made for Cape Coast Castle where he anchored three miles out and was promptly visited by a smart rowing boat containing His Excellency the Governor in full uniform. The dignitary unable to understand the stump of a funnel and the curious gadgets over the side had thought she was a new type of Gun-boat. On discovering his mistake he shoved off in disgust. Supplies were required from the shore and the Captain being unable to raise the money by Bond or Bill had no alternative but to sell part of the patent fuel he had as ballast. This enabled the ship to reach Fernando Po.

Here, the vessel was beached and scrubbed, the paddle wheels were taken out of the hold and fitted. Twenty-five tons of English coal was obtained, this had to be dug out of a mound as it was so old it had become covered in vegetation. By means of a 'Bottomry Bond' the Port expenses were paid and two Negros ( Africans) employed as stokers for the voyage to Cape Town. Departure was delayed by about a fortnight as most of the crew had contracted fever.

Steaming at about four knots she arrived at St. Palo de Loanda in fifteen days, by which time the sick crew members had fully recovered. Here, by means of another Bond the stores were replenished and more coal obtained and she set off for Walfisch Bay, where the crew were given a much needed rest and some dried fish was obtained.

Following the coastline southward there was no sign of habitation or timber. Finally with the last sweepings of the coal, together with the old spars and whatever else would burn they found a good anchorage where a barque was loading copper from lighters . Here they were able to obtain some coal to help them on their way. Off Saldanha Bay they ran across a becalmed schooner and the two captains came to an agreement that if the *Lyttelton* towed the schooner off the coast so she got a good offing they would give her some coal. Finally having once more consumed everything combustible, including the bunker flooring, the vessel paddled into a standstill at Capetown anchorage and let go her anchor. It was now the April 27th 1860.

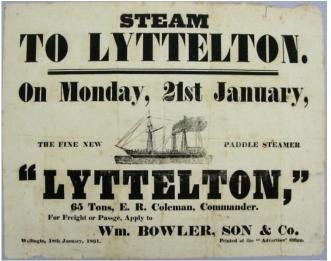


Old Saldanha Bay. In the past few years the bay has been developed as Main Port Africa and is becoming as well, the main service centre for undersea oil and mineral exploration and development

Further complications occurred here, for the appointed agents declined to be responsible for the continuance or abandonment of the cruise without referring the matter to London. At length orders came from 'Home' that the Bottomry Bonds were to be cleared up, a new crew was to be signed on and the vessel was to proceed to New Zealand. Thus, it being now the end of July, the vessel with the same Captain, Mate and Chief Engineer but four new seamen and a negro cook, set off again and steered well South so as to get into the 'westerlies'.

As the little packet was approaching Cape Leeuwin heavy Westerly gales occurred and this short ship refused to be steered with such force winds behind her, so she frequently had to heave to bow on. On one occasion she drifted stern first to leeward 104 miles in twenty four hours. This was in fact the best days run she had the whole voyage!

Weeks passed and finally the ship made landfall at Cape Farewell and took a fair wind through Cook Strait as far as Cape Campbell, in the South Island. The wind



#### An 1861 shipping departure notice was found by the author in a drawer at the Wellington Museum of City and Sea during his research for this story.

shifted to the Southeast and so she made for Wellington where she arrived on November 23 1860, 462 days out from London.

Nobody expected her, nobody wanted her, she had been given up for lost, the insurance money had even been paid, and – as to bring matters to the very peak of the climax – the Company for whom she had been built had gone to liquidation!. Thus, from the time when she was let go by the tug that summer's day at the Nore, till she let go anchor in New Zealand waters, this craft had nothing but troubles.

Of her service and fate the author writes – in the end, this unwanted ship was sold to some owner in Lyttleton and she was a success. Later on she was lengthened and converted to a screw steamer and traded between Collingwood and Wellington but I suppose by this time the spirit of the ship had become a little restless at such prosaic voyaging; and so there came a time that she ran ashore on the Beef Barrels near the French Pass on September 30th. 1886, sank and was finally blown up so as not to be an obstruction to the traffic. A violent and ignoble end to a vessel which had made so much history.

An enquiry into the wreck of the *Lyttelton* was held only four days later in Nelson before 0. Curtis, R.M. and Captain Robinson, Assessor.

The Court found that the steamer was wrecked upon a sunken rock in Current Basin, but the evidence failed to fix the precise locality of the accident, and the disaster did not appear to be attributable to want of care or seamanship on the part of the master or the officers of the vessel. The certificates of Captain Forbes and the other officers were returned. In the evidence it was stated that if a beacon were erected on the Beef Barrels there would be no danger of vessels running on them, and the Court was asked to recommend the erection of such beacon. The Collector of Customs undertook to represent the matter to the Government.

In regard to the beacon, nothing ever happened and the Beef Barrels were later to claim another vessel. MV *GaeL* in 1952 in almost similar circumstances. The master, of the *Gael* was also exonerated from blame.

THE CAPTAIN, THE TEENAGER AND THE BOTTLE OF WHISKY. This story is related by a lady who as a teenager worked in a well-known shipping

company office and is the wife one of our members.



**TEV** *Rangatira* **1977-2005** *Image USSCo* I was very young, not many weeks out of school, and happy in my first job in this huge international shipping company Head Office.

The work was interesting, helping with the administration, staffing and maintenance of some eighty ships. The breadth and scope of the work was exhilarating for a sixteen year old girl. My workmates were helpful and pleasant while the seamen and officers of the floating staff we came in contact with were friendly and exciting. This was because, in those days before cheap air travel, these were the jet-setters who had walked the streets from London, Panama and Papeete in one half of the world and to Sydney, Colombo and Capetown on the other. Names and places we could only dream about in those days.

I was learning the organisation of a large and complex international shipping company but had never been aboard a ship and this I wanted to do so as to see things as they were away from the office in the hostile seascape environment where in fair weather or foul these men made daily decisions on which both the safety of the ship and one's very life depended throughout a voyage. Like all teenage girls I was a bit of a romantic.

Then one day our supervisor came into the office and announced "Listen up, everybody! The *Rangatira* is coming off the floating dock in two hours and the Marine Superintendent has given permission for a few of you girls to go aboard for the undocking and to remain for a couple of hours while she undergoes trials. You are allowed on the bridge a few at a time but you must touch nothing and keep out of the way of the Master and Pilot".

This was exciting; most of us rushed to get ready and were taken down to the dock wharf and escorted aboard where we mingled on the Saloon and Boat Decks and watched the vessel being taken off the floating dock.

Once free of any confinement the ship headed out into the harbour and we were told we could visit the bridge, a sanctum seldom visited by plebeians in those far away days.

This was similar in excitement, in those days, to being invited onto the flight deck of a Jumbo jet in flight. The bridges of passenger ships wore a vast array of twentieth century technology in an impressive row of analogue console displays of which much has been reduced to almost match-box size in this digital era. Sadly my education in bridge etiquette was to be given a bumpy lesson and my excitement was to be changed to intense embarrassment and some expense.

In our exhilaration I had forgotten one, of the rules set by our supervisor, i.e. 'touch nothing'. I explored the bridge and listened to the quiet orders and comments between the captain and the pilot. I had also been disappointed to note that on merchant ships, unlike navy ships, there was no bell ringing, whistles, shouted orders or standing to attention, but rather simply a quiet confidence that implied all the bridge staff and crew were capable and competent.

I remember I had never seen the harbour seaside suburbs from the sea before and not having the 'sea trained' eyes of the professional seaman found some of the small distant detail difficult to see.

I noticed a pair of binoculars in a box on the forward bulkhead of the wheelhouse and as no one was using them I reached for them, took them from the box and put them to my eyes.

Then - *Ruat Caelum!!* 'The heavens fell!' And fall they did on this, up until now, sweet, innocent teenage girl – or that's how I liked to view myself.

"PUT THOSE GLASSES DOWN!!" A sudden roar shattered the decorum that had previously reigned on the bridge as the captain raged over towards me, grabbed the glasses from me and returned them to their box. He seemed to tower over me.

"The master's glasses are inviolate" he roared, "never to be touched and the penalty for this violation is one bottle of whisky. Buy me one!"

He went back to guiding the ship leaving me a shaking wreck.

My friends, hearing this, had deserted me and I was left feeling tearful and wondering if I really had to buy him a bottle of whisky. I was in shock and thought if I didn't he might do one of those awful things like 'keelhaul' me, whatever that was, but I was sure it wouldn't be nice!

I sneaked off the bridge and spent the rest of the short voyage on the saloon deck, feeling wronged and very sorry for myself. How was I supposed to know the master's glasses were inviolate? At sixteen I wasn't even sure what 'inviolate' meant.

Most of my workmates seemed to be sorry for me but not enough to comfort me; I guess they had their own problems. I worried about the bottle of whisky. It would cost me over a week's wages and I had only been away from school for two weeks so had no reserves.

As the captain was a reasonably frequent visitor to our office I did feel I had to do it and used all my next pay and asked one of my adult workmates to buy it for me, saying it was a present for my Dad.

On the Captain's next visit I gave it to him and he thanked me and took it. I used to see him occasionally in the office and he was usually nice, if distant, but never mentioned the whisky again – neither did I.

I wonder if my reaction would have been the same if I had been a few years older.

All sea water under the navigation bridge now.

### CURIOSITIES

### Strange Things Happen At Sea and Sometimes Ashore as Well!

#### **New Rope**

It was another gloomy, grey, wet morning at Westport, my old hometown. The rain was bucketing down. There would be no loading of coal on to our ship this day.

The Mate had sent the men up forward to the forecastle-head store to splice an eye in the end of a new mooring rope. However, when I went up to the bridge to record the day's inclement weather in the ship's log book and looked forward towards the forecastle, what I saw was a nice new creamy-white manila rope snaking its way out from the forecastle door and up and on to the drenched wharf above. On over the railway yard it slinked, under the rakes of full black coal wagons waiting to be loaded.

The Mate arrived on the bridge. "Come with me!" he said abruptly. Briskly down the gangway and on to the wharf we went, via the Master's cabin. The rain fell even heavier, wetter, as we clambered between the rows of rail wagons following the mooring line as it wound and floated its way across rails and yard to the main street of Westport. It crossed the road. Someone had already put small wooden ramps over the rope - the type of things the fire brigade would use to protect their hoses from any passing traffic. On into McManus' Hotel, on the far side of the street, slithered the rope. So did we. And there, out of the rain, through the tobacco smoke, by the fire, darts on the board, jugs on the table with the end of the mooring rope in the shape of an eye, half empty handles in their hands, were the lads!



#### McManus Hotel, Westport, in the late 1950's/early 1960's. The original hotel burnt down and was rebuilt in the 1930s. Images of the original hotel are rare. This image from 'Jack' Haggerty the publican's collection.

John Parsloe commenced his seagoing career at the age of 13; working in his school holidays on the old Westport steam bucket dredge Maui on the Buller River. The Dredge Master was Englishman Captain Les Davies, an ex. Conway cadet and future Westport Harbourmaster. His comments to John's parents on John going away to sea were: "I really don't know – let him work it out."

### The Eleven Lost Days

*'sed in eodem tempore mutationes,* Caesar Gregarious (time changes but remains the same)

It is 262 years ago that the Julian calendar was finally abandoned in Britain. On Wednesday, 2 September 1752, millions. of Bntish subjects. in England and the colonies lost 11 days. The British Calendar Act of 1751 declared the day after Wednesday the 2<sup>nd</sup> September to be Thursday the 14<sup>th</sup> September. Prior to that the official British calendar differed from that of continental Europe by 11 days - that is, 2 September in London was 13 September in the rest of Europe. The discrepancy came from Britain's continued use of the Julian calendar, which had been the official calendar of Britain since its invention by Julius Caesar in 45 BC. Caesar's calendar. which consisted of 11 months of 30 or 31 days and a 28-days February (extended to 29 days every fourth year), was quite accurate, erring from the real solar calendar by only 11% minutes a year. However by the 16th century, it had put the Julian calendar behind the solar one by 11 days.

### **Contributed by Captain Ifor Owen**

### The Dundee Star

The *Dundee Star*, a Scottish barque, was abandoned by its crew in a gale off Midway Island, in 1887 and drifted completely around the world in 4 years and finally piled up in 1891 on Midway Island. This was the very spot from which she started her phantom voyage.

#### **Horse Latitudes**

The poetic words of Samuel Taylor Coleridge, 'As idle as a painted ship upon a painted ocean' from his poem *The Rime of the Ancient Mariner*, well describe a sailing ship's situation when it entered the horse latitudes. These are located near the West Indies between parallels 30 and 40 degrees north latitude. These waters were noted for unfavourable winds that could becalm cattle ships headed from Europe to America. Often ships carrying horses would have to cast several overboard to conserve drinking water as the rest of the ship rode out the unfavourable winds. Because so many horses and other cattle were tossed to sea, the area became known as the 'horse latitudes'.

### The Dog Watches

Dog watch is the name given to the 1600-1800 and 1800-2000 two hour watches aboard ship. The 1600-2000 four hours watch was originally split in half to preclude crew from always having to stand the same watches daily, especially during extended voyages. As a result, sailors dodged the same daily routine, hence they are 'dodging the watch' or standing the dodge watch.

### An Issue of Firsts.

So in an issue of firsts, how do we forecast what comes next? What will be the next 'firsts' that will change us, our families, our communities, and our planet?

In an attempt to answer some of those questions, Susan Goldberg, Editor in Chief of National Geographic we went to the experts and futurists who contemplate coming changes both prosaic and profound. Hoping you'll find these experts' ideas thought-provoking.

One cautionary note: No predictor is always right.

### How we will live within 5 to 10 years?

Paul Saffo, Technology Forecaster Driverless cars will share roadways with conventional cars. This will happen in urban areas first and will take a decade to fully diffuse. In the long run people won't own cars at all. When you need to be somewhere you'll have a subscription to an auto service and it will show up at your door.

We're moving away from a purchase economy. We will subscribe to access rather than pay money for possessions such a smart-phones. We won't buy software anymore; we'll subscribe to it.

A new religion could emerge in the next decade or two, perhaps based around the environment. Digital Technology is the solvent leaching the glue out of our social structure – including shaking our belief systems to the core.

### How we will age within 20years?

Byron Reese, Tech Entrepreneur.

Author: *Infinite Progress; How the Internet and Technology will end Ignorance, Disease, Hunger and War.* 

Since technology grows exponentially, not in a linear way, we will see dramatic improvements in our way of life in just a few years. Though It took us 4000 years to get from the abacus to the iPad, in 20 years we will have something as far ahead of the Pad as it is ahead of the abacus. This means that soon we will be able to solve all problems that are fundamentally technical.

These problems include disease, poverty, hunger, energy, and scarcity. If you can live a few years more, there is a real chance you will never die, since mortality may be just a technical problem we solve. All these advances will usher in a new golden age, freed from the scourges that have plagued humanity throughout our history.

### How we will heal within 10 t0 20 years?

Bertalan Meskó, Medical Futurist.

### Author: The Guide to the Future of Medicine.

The next decades of medicine and health care will be about using technologies and keeping the human touch in practicing medicine. Everyone's genomes will be sequenced to access personalized treatments.

We'll measure almost any health parameters at home with diagnostic devices and smartphones. The 3-D printing revolution will produce affordable exoskeletons and prosthetic devices.

#### Michael Bruce, Executive Director, the Sierra Club. Author: *Coming clean; Breaking America's Addiction to Oil and Coal.*

Within 50 years the world should be able to achieve a 100 percent clean energy economy. Within the next couple of decades, every time you turn on a light or power up your computer, every bit of that electricity will come from clean, renewable, carbon-free sources. Soon after that, solar and wind will displace nuclear as well, at which point we'll be getting 100 percent of our electricity from renewables. By 2030 we should be able to cut transportation oil use in half and then cut it in half again a decade later.

### How we will love in 10 to 20 years?

Pepper Schwartz, Professor, University of Washington. Divorce may decrease after baby boomers, who have a high divorce rate, age into their 50s and 60s. We will also see more people who are in love but do not share a domicile. Though definitely couples, these people are tied to different places because of a job or family, or because they love where they live. Maybe we will see people going back and forth between assisted living facilities.

### Ancient Israel...

In ancient Israel it came to pass that a trader by the name of **Abraham Com** did take unto himself a young wife by the name of Dorothy (**Dot**).

**Dot Com** was a comely woman, broad of shoulder and long of leg. Indeed, she was often called **Amazon Dot Com.** 

And she said unto Abraham, her husband, 'Why dost thou travel so far from town to town with thy goods when thou canst trade without ever leaving thy tent?'

And Abraham did look at her as though she were several saddle bags short of a camel load, but simply said, 'How dear?'

And Dot replied, 'I will place drums in all the town and drums in between to send messages saying what you have for sale, and they will reply telling you who hath the best price. The sale can be made on the drums and delivery made by Uriah's Pony Stable (**UPS**).'

Abraham thought long and decided he would let Dot have her way with the drums, and the drums rang out and were an immediate success. Abraham sold all the goods he had at the top price, without ever having to move from his tent.

To prevent neighbouring countries from overhearing what the drums were saying, Dot devised a system that only she and the drummers knew. It was known as Must Send Drum Over Sound (**MSDOS**), and she also developed a language to transmit ideas and pictures - Hebrew To The People (**http**).

And the young men did take to **Dot Coms'** trading as doth the greedy horsefly take to camel dung. They were called Nomadic Ecclesiastical Rich Dominican Sybarites, or **NERDS**.

And lo, the land was so feverish with joy at the new riches and the deafening sound of drums that no one noticed that the real riches were going to that

How we will be powered within 50 years?

enterprising drum dealer, **Brother William of Gates**, who bought off every drum maker in the land. Indeed he did insist on drums to be made that would work only with Brother Gates' drumheads and drumsticks.

And Dot did say, 'Oh Abraham what we have started is being taken over by others.' And Abraham looked out over the Bay of Ezekiel, or **eBay** as it came to be known. He said, 'We need a name that reflects what we are.' and Dot replied, 'Young Ambitious Hebrew Owner Operators.' **'YAHOO**,' said Abraham.

Abraham's cousin, Joshua, being the young Gregarious Energetic Educated Kid (**GEEK**) that he was, soon started using Dot's drums to locate things around the countryside.

It soon became known as God's Own Official Guide to Locating Everything (**GOOGLE**).

And that is how it all began... and that's the truth. Contributed by Grey Power, Horowhenua.

### Alternate religion

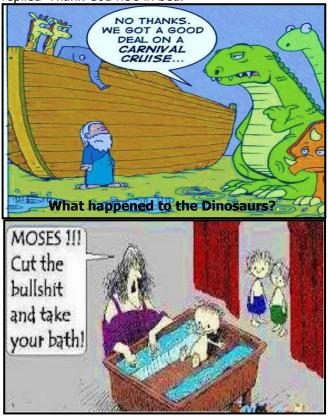
The Sunday School teacher was describing how Lot's wife looked back and turned into a pillar of salt, when little Jason interrupted, 'My Mummy looked back once while she was driving,' he announced triumphantly, 'And she turned into a telephone pole.'

A Sunday School teacher asked, 'Johnny, do you think Noah did a lot of fishing when he was on the Ark?' 'No' replied Johnny 'how could he, with only two worms?'

Nine year old Joey was asked by his mother what he had learned in Sunday School 'Well Mum, our teacher told us how God sent Moses behind enemy lines on a rescue mission to lead the Israelites out of Egypt. When he got to the Red Sea, he had his army build pontoon bridge and all the people walked across safely. Then he radioed headquarters for reinforcements. They sent bombers to blow up the bridge and all the Israelites were saved.' 'Now Joey, is that really what your teacher taught you?' his mother asked. 'Well, no Mum, but if I told it the way the teacher did, you'd never believe it.'

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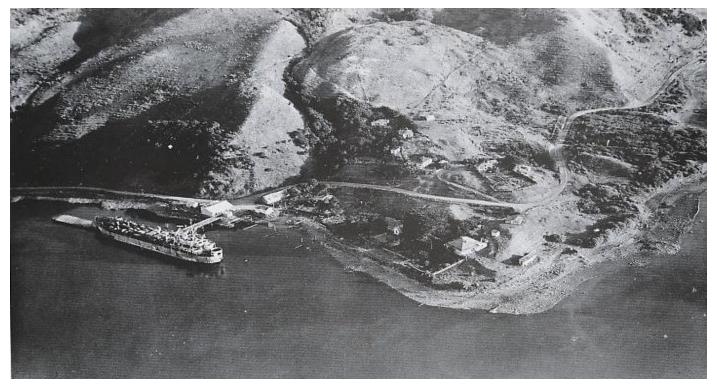
A vicar said to a six year old boy 'So your mother says your prayers for you each night That's very commendable What does she say?' The little boy replied 'Thank God he's in bed.'





The Queen Elizabeth and

Queen Victoria off Gibralter



Top: A 1948 picture of the original Port Waikato wharf, showing the Caesar Roose Shipping Line's vessel *LST 283* (382 ft 116 m) alongside and the adjacent Cobourne Reserve with its original buildings.
 Below: Entrance to the Waikato River and Port Waikato. Two course changes could sometimes be necessary



# TIME MACHINE



Port Waikato 1948



Raglan Wharf ca. 1958



Port Waikato 2008



Raglan wharf 2008.

Rebuilt for boutique function 2013 (not shown)



Kohukohu, Hokianga ca 1895



Dargaville Wharf ca. 1905



Kohukohu, 2005



Dargaville Wharf 1985

### **COASTWISE LIGHTS**

### Rudyard Kipling, 1865-1936

Our brows are bound with spindrift and the weed is on our knees; Our loins are battered 'neath us by the swinging, smoking seas. From reef and rock and skerry—over headland, ness, and voe— The Coastwise Lights of England watch the ships of England go!

Through the endless summer evenings, on the lineless, level floors; Through the yelling Channel tempest when the siren hoots and roars— By day the dipping house-flag and by night the rocket's trail— As the sheep that graze behind us so we know them where they hail.

We bridge across the dark and bid the helmsman have a care, The flash that wheeling inland wakes his sleeping wife to prayer; From our vexed eyries, head to gale, we bind in burning chains The lover from the sea-rim drawn—his love in English lanes.

We greet the clippers wing-and-wing that race the Southern wool; We warn the crawling cargo-tanks of Bremen, Leith, and Hull; To each and all our equal lamp at peril of the sea— The white wall-sided war-ships or the whalers of Dundee!

Come up, come in from Eastward, from the guard-ports of the Morn! Beat up, beat in from Southerly, O gipsies of the Horn!