



CNOA

Chatham Naval Officers' Association



The CNOA Newsletter for January 2021

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Chiddingfold enters Bahrain © Crown Copyright MoD Navy 2020

FRESH CREW FOR HMS CHIDDINGFOLD'S GULF MISSION

A fresh crew has taken charge of HMS Chiddingfold in the Gulf to guide the minehunter into 2021. Crew 1 from the 2nd Mine Countermeasures Squadron are now in the Middle East where they will remain on the Hunt-class ship for the next four months.

The changeover comes after months of pre-deployment training and extensive measures to follow Covid-19 restrictions; it marks the first rotation of crew since the ship arrived in the Middle East.

Chiddingfold left Portsmouth earlier this year to relieve sister ship HMS Ledbury and is now operating out of the UK's Gulf base in Bahrain. Her previous crew sailed the minehunter from Portsmouth, through the Suez Canal and into the Gulf.

Chairman's Flag Hoist



Dear Fellow members,

On behalf of the committee, I wish you a happy Christmas and a healthy New Year; the hope of a vaccine rollout may mean we can return to face to face meetings in 2021.

It has been a very eventful and occasionally difficult year but I am very proud of how CNOA has continued to meet virtually whilst also raising some vital funds for our chosen charities. Our virtual programme continues for 2021 on the second Friday of each month and we will start to organise social functions once we can be sure its safe for us to meet.

The Royal Navy is once again providing the guard at Windsor Castle until 21st December; as a Ceremonial buff I was particularly pleased to see this news.

When I was a child we would often visit the Royal Marines Museum at Eastney. The mess features in the film *The Cockleshell Heroes*. The site has now been sold to be developed into a hotel. I recall the iron fence having a grenade iron on each post that was cut off when the Royal Marines left the barracks; one was left, buried in a hedge, but I note that has now gone.

A sad day to see HMS Bristol, the only Type 82 Destroyer, was de-commissioned to be broken up; she was the last serving Falklands Taskforce warship. I have spent many days onboard her as the accommodation ship at Whale Island, and was also the Colour Officer receiving a new Colour presented to Southern Area Sea Cadets on the flight deck.

Technology continues to be developed across the maritime sector and now UK Border Force is using an AR-5 drone to patrol the English channel.

Good news for the Senior service when the Government announced that HMS Albion and HMS Bulwark will remain in service putting an end to the speculation that they were to be cut.

Stay safe and let the committee know if any of our members are in need. By the time this is published, I hope I will have seen many of you at the virtual Christmas social on 11th December

Yours Aye,

Jon

Jon Vanns
Lt Cdr (SCC) RNR
CNOA Chairman

Future Speakers & Events

Subject to revision

8 January:	Tracy Bryant – The Association of ex-Service Drop-In Centres (ASDIC) – Virtual Lecture
12 February:	AGM
12 March:	Derek Goodwin – Reflections of a marine engineer sales manager – Virtual Lecture
9 April:	Glen Jones – Third Afghan War
14 May:	Jane Allen – TBC
11 June:	Committee – mid-term update on progress of CNOA
9 July:	Peter Goodwin – Nelson’s Arctic Voyage
13 August:	No meeting – summer leave
10 September:	Tony Holding – CCF officer
8 October:	David Brown – Wrecks of the Kent coast – TBC

Additional events will be included as details become available.

As always, we are most grateful to those who send items for this Newsletter. **All such contributions by the 5th of each month please.** Please email contact@cnoa.org.uk with articles, news items and photographs.

Derek Ireland (Hon. Secretary) and Suzanne Wood (Newsletter Editor)

Could other CNOA members also provide short presentations based on their own service-related experiences for the CNOA meetings? **Yes, of course they could!** Please let Jon Vanns know or email contact@cnoa.org.uk

They Were Just Skulls Review by Lt Derek Ireland

What a brilliant lecture by John Johnson-Allen on the Loss of the Truculent it was last month.

A reminder of the closing date for ordering a signed copy of “They Were Just Skulls.” John’s book on the disaster was written following extensive research including interviews with the only remaining survivor of HMS Truculent’s crew, 95-year-old Fred Henley.

The normal price of the book is £16.99 plus postage, but to CNOA members it is £15.75 including postage and it will be signed by John. Orders to Jon Vanns on email jonvanns@aol.com with your postal address. Payment to Jon via BACS or by cheque.

If you were not able to log on last Friday to hear the lecture, invest in the book, which gets its grim title – They Were Just Skulls – because of the difficulty in recognising the dead after they pulled Truculent to the surface three months later.

“She was coming back to the Thames Estuary on January 12, as the captain wouldn’t sail on the 13th because he was superstitious.



“It was cold, dark, six o’clock at night, and there was a strong tide flowing out of the Thames. By about seven, they were quite close on their starboard side to a sandbank and saw ahead of them the lights of another ship.

“It was just after this that Fred was asked to go up on the bridge with a copy of the Admiralty Manual of Seamanship, which contains all the relevant combinations of lights that ships carry at night.

“At nine-and-a-half knots with the tide under it making it go even faster, the Swedish oil tanker Divina went straight into the Truculent.”

Some, like Fred, were swept off the bridge, while many men were trapped or killed instantly.

Argus scores £120m cocaine bust in Caribbean From MOD Navy

Cocaine worth more than £120m will never reach the streets of the UK thanks to a double drugs bust by the Royal Navy in the Caribbean.

The Royal Navy has now had seven successful drugs busts in as many weeks in the Caribbean, preventing more than a third of a billion pounds-worth of drugs reaching the open market.



A specialist team from 47 Commando heads out in a RIB to intercept the drug runners' craft

Over one and a half tonnes of cocaine either rests on the seabed or has been seized by RFA Argus after she twice successfully intercepted traffickers in the space of a few days.

During the first incident, the drug runners dumped their entire cargo overboard, while in the second more than one tonne of cocaine was recovered from either the sea or the boat which the traffickers were using.

Since early September, RFA Argus and HMS Medway have seized over 4.5 tonnes of cocaine, with a total street value of £367m.

“It’s at a time like this, when all the elements in a ship as capable as RFA Argus come together to achieve such success, that one feels proud to be her Commanding Officer,” said Captain Kevin Rimell RFA.

“The professionalism and resourcefulness of both the UK and US assets on board have delivered success and proven we work as one team.”

In the most recent bust, which resulted in a haul of 1,085kg of cocaine, Argus launched her Wildcat helicopter to search for a suspected drug runner.

The aviators from 815 Naval Air Squadron quickly found the boat and gave chase, catching it and forcing it to stop before a boat carrying Royal Marines from 47 Commando and a US Coast Guard Law Enforcement Detachment arrived and the suspect craft was boarded and searched.



The haul of cocaine gathered on RFA Argus' flight deck

Packages of drugs had been thrown overboard during the chase, so a Merlin helicopter from 845 Naval Air Squadron and another boat were launched by Argus to recover the discarded bags.

A few days earlier, Argus' Wildcat pounced on another speedboat whose crew threw packages of drugs overboard as they tried to outrun the helicopter.

The traffickers accepted they were unable to avoid capture as the Royal Marines of 47 Commando and the US Coast Guard closed in on them, boarded it and took control. It is estimated the suspects had off-loaded approximately half a tonne of cocaine.



The drug runners ditch sacks of cocaine as they try to outrun Argus' Wildcat

The captured smugglers were handed to a nearby US Coast Guard cutter before RFA Argus continued her Caribbean patrol, leading a Royal Navy task group which also includes patrol ship HMS Medway.

The two busts took place before Argus was dispatched to Honduras to support relief efforts in the wake of Hurricane Eta; for operational reasons we are now able to report the successes.

RFA Argus has now carried out five counter-narcotics operations since September, while fellow task group ship HMS Medway has two to her name in the same time span.

These operations in the Caribbean are conducted in support of the UK National Crime Agency, and continues the successful collaboration through the international partnership of the US Joint Inter Agency Task Force (South) based in Florida.

Seafarers UK supports safety folder for fishers From Seafarers UK



Seafarers UK is supporting the Safety Folder, a unique safety aid for professional fishers, as it embarks on a campaign to increase its use by fishing boat owners, skippers and crew across the UK.

Created by Seafarers UK trustee Robert Greenwood, the Safety Folder is a free online resource that aims to support behavioural change to improve safety culture on board fishing vessels of all sizes.

It achieves this in part by making it easier to maintain records and provide evidence to Maritime & Coastguard Agency (MCA) inspectors that risk assessments have been routinely carried out.



The MCA recommends the use of the Safety Folder on the grounds that its use can 'assist you with preparing for your survey and inspection and may save you time and money by shortening the time MCA spends on your vessel and avoid return visits.'

Since its launch in 2012, the Safety Folder has been adopted by owners of 1,687 vessels with 4,239 crew. 50% of active fishing vessels in the UK are registered users, including 23% of the UK's under-10m fleet.

The Safety Folder:

- supports conducting and recording risk assessments.
- supports compliance with ILO C188 regulations.
- keeps track of crew training and certification.
- provides automated reminders of expiry dates for equipment certification, servicing and vessel maintenance.

The Safety Folder's use as a safety management system is endorsed by the National Federation of Fishermen's Organisations, Northern Ireland Fish Producers' Organisation, Scottish Fishermen's Federation and Welsh Fishermen's Association – Cymdeithas Pysgotwyr Cymru.

Robert Greenwood explained: "The grant awarded by Seafarers UK, together with match funding from Trinity House, will support the incorporation, marketing and core costs for the Safety Folder, enabling a shift from a part-time volunteer endeavour to a more formal structuring of the governance and its operations, including the creation of a Community Interest Company."

"It will also enable a programmer's time to be given to website development in order to improve navigation and retrieval of information for users, as well as add a calendar of key dates and automated reminders about equipment safety checks."

Seafarers UK CEO Catherine Spencer commented: "This grant award is the latest example of how our solution focused work in the fishing sector will help raise safety standards and practice for UK fishers. Seafarers UK is getting to the root of problems and working with a range of delivery organisations to improve life for fishers."

Report: Dangerous goods may have caused Maersk Honam fire By The Maritime Executive

Singapore's Transport Safety Investigation Bureau has concluded its inquiry into the deadly fire aboard the boxship *Maersk Honam* in 2018. While the bureau was not able to conclusively determine the cause, its forensic investigators ruled out electrical faults, fuel tank heating, misdeclared goods and non-IMDG cargo ignition sources, leaving one possibility: a giant block stow of an oxidizing compound called sodium dichloroisocyanurate dihydrate (SDID).



Image courtesy Indian Navy

SDID is a chlorinating agent classified as an IMDG Class 9 miscellaneous dangerous good – not a more dangerous Class 5.1 oxidizer. However, like a Class 5.1 chemical, it is highly oxidizing and has the potential for self-decomposition when stowed in bulk – much like the notorious self-heating compound calcium hypochlorite, which is used for identical end purposes.

When *Maersk Honam* set sail, a total of 1,000 tonnes of SDID was stowed in a cube-shaped stack of 54 containers in her number-three cargo hold, the location where the fire broke out. The stow was fully compliant, and Maersk's cargo-loading program detected no issues with the arrangement when it was placed on board.

At 1945 hours on 6 March 2018, while she was under way off the coast of Oman, a smoke alarm went off in her number three hold. The master headed for the bridge, and on the way up he smelled chlorine, though he saw no smoke. At 1951 hours, he instructed the chief mate to sound the fire alarm, and the crew mustered for a response. The two designated firefighting teams managed to shut off most of the vents around the hatch for the number three hold, but they could not seal off 16 natural ventilation flaps on the port side. Even though the vents were not fully closed, the master ordered the use of the CO₂ flooding system in an attempt to extinguish the blaze.

At 2035 hours, with the smoke worsening, the master ordered all crew to muster on the bridge. He ordered two more rounds of CO₂ flooding, including a full discharge on the final round. The last discharge was followed by several explosions and a large plume of smoke, which engulfed the accommodations block and led most of the crew to flee the bridge in panic.



View from the port bridge wing during firefighting efforts (Maersk / Transport Safety Investigation Bureau)

The crew became separated into four groups, and each separately made its way aft to abandon ship. The 23 survivors were rescued by the boxship *ALS Ceres*; one of them – the ship's painter – died of his injuries before reaching shore.

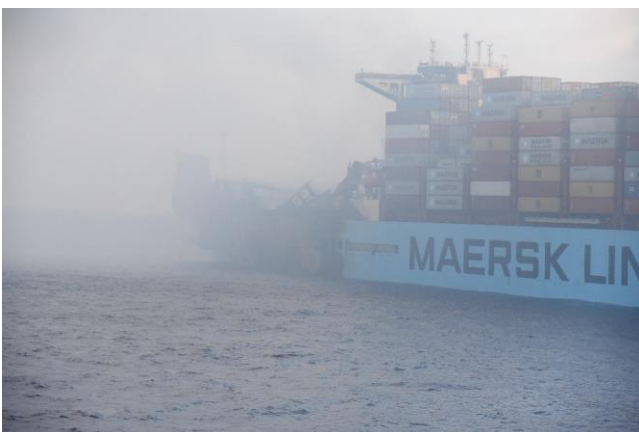
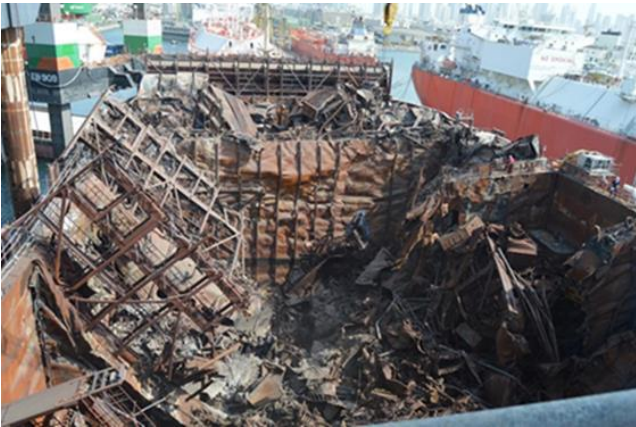


Image courtesy Indian Coast Guard

During rescue and salvage operations, the bodies of two deceased crewmembers were found on the port side bridge wing, where they had been using fire hoses to assist with boundary cooling during the crew's firefighting effort. One more was found below the port side lifeboat. The final missing crewmember was not found.

As for *Maersk Honam*, a multi-week salvage operation finally ended in late April 2018 when she was towed into Jebel Ali. After an extensive process of unloading the surviving cargo and evaluating the extensive damage in her forward holds, Maersk opted to scrap the ship's bow and deckhouse and ship the stern section to a South Korean yard for repair. The newly-remade vessel is currently trading as *Maersk Halifax*.



The remains of Maersk Honam's forward holds, 2018 (Transport Safety Investigation Bureau)



With bow and deckhouse removed, Maersk Honam's stern is loaded out for transport, 2018 (Maersk)

Evidence of a chemical source

The survivors told investigators that throughout the firefighting and abandon-ship evolutions, they encountered "white-coloured smoke with strong bleach/chemical smell" and they experienced breathing difficulty and skin irritation. A blue Maersk uniform recovered from the ship was bleached nearly white, and firefighting gear showed extensive bleaching discoloration.



The formerly blue boiler suit on the left was bleached nearly white (Transport Safety Investigation Bureau)

The investigators noted that this evidence would be consistent with exposure to the decomposition products of SDID. As the compound overheats and decomposes, it produces white smoke and chlorine gas. Its combustion results in the release of additional hazardous compounds, potentially including trichloramine, cyanogen chloride and phosgene.

Recommendations

Singapore's Transport Safety Investigation Bureau recommended several regulatory revisions to reduce the odds of a similar casualty, including:

- Requiring temperature sensors in cargo holds connected to the ship's fire detection system.

- Employing specially designed cargo containers for IMDG goods, fitted with appropriate internal firefighting equipment that would self-activate in the event that the temperature in the container went too high.
- Reviewing the proper classification of SDID within the IMDG Code.
- Calling on carriers to treat SDID in the same way that they handle calcium hypochlorite – stowed on deck and away from sunlight.
- Reviewing SOLAS firefighting standards for boxships to address the risk of cargo hold fires.

In a statement, Maersk broadly agreed with the report's recommendations and noted that it has already implemented changes in its stowage requirements. Aboard Maersk ships, IMDG cargoes are no longer stowed next to accommodation and main propulsion plants; fire risk tolerance is now lower for belowdeck cargoes and higher for cargoes on deck fore and aft.

Based on statistics on container fires in the Cargo Incident Notification System (CINS), Maersk has restricted which cargoes can be stored in each risk zone.

“We appreciate the thoroughness of the investigation in identifying opportunities to further improve our emergency response towards ship fires. We also appreciate TSIB’s recognition of the preventive measures taken by the A.P. Moller - Maersk and that TSIB is recognizing the need to review legislation linked with the safe transport of Dangerous Cargo. The main safety recommendations in the report we have already implemented across the fleet over the past two years and we will be studying the report further to understand how to best make use of the recommendations going forward,” said Aslak Ross, Maersk's head of marine services.

Broader issues with chemical classification and firefighting

Nick Haslam, a master mariner and salvor with consultancy Brookes Bell, was appointed by the owners’ P&I Club to assist on the salvage service for the Maersk Honam response. In a recent interview, he suggested that the casualty illustrates a fundamental problem with IMDG certification: as long as chemical manufacturers are allowed to self-certify their products’ characteristics, dangerous compounds will end up in the wrong place on board. “The IMDG Code relies on the manufacturer's self-certification, but it's almost impossible to police,” Haslam said in a recent interview. “What we need is accurate testing, and not just 50-gram samples in a laboratory setting.”

He also doesn't see much to be gained from having the crew combat a giant hold fire like the inferno on *Maersk Honam*, and points to the fact that some of the victims were engaged in firefighting. “You know, you've got a team of three men who have done one or two firefighting courses in their life, and they're standing there with a two-and-a-half-inch firehose spraying water into a volcano,” Haslam said. “As far as I'm concerned, you set off the CO₂, assess the fire, and then ready lifeboats and evacuate the vessel.”

Shoreham blows up buoy to make Gulf safer From MOD Navy

The waters of the Persian Gulf are a little safer thanks to the crew of minehunter HMS Shoreham who blew up a wrecked buoy drifting towards busy shipping lanes.

The Bahrain-based warship was carrying out training when her captain spied a buoy bobbing in the water – not marked on any charts, unlit, difficult to see and in an area heavily used by fishing dhows.



Sailors monitored the buoy for a while to determine its drift rate and likely course based on the weather conditions... which suggested it would soon end up in busy shipping lanes.



The drifting buoy as spotted by HMS Shoreham



The buoy is blown to pieces by an explosive charge set by Shoreham's divers

Close inspection of the marker – used to warn mariners of dangers such as shallow waters, navigational hazards or shipwrecks – suggested it had already been hit.

Having spent the rest of the day practising demolition drills to render mines safe, Shoreham's divers used their skill and knowledge to place an explosive charge on the underside of buoy.

They withdrew a safe distance and, BOOM! The errant buoy ended up on the seabed.

“It was great to get the chance to use the skills we’ve been practising for months. It’s always good to try something a little bit different to what we train for, especially when it helps keep the seas safe,” said 38-year-old Leading Diver Liam Pulman.

To confirm it was no longer a danger, Shoreham's team inspected the wreck using her sonar – more typically used to locate mines – and marked it on the charts for authorities.

“Ensuring the safety of shipping throughout the Gulf features prominently in the tasking of Royal Navy units in the area and Shoreham was only too happy to help keep fellow mariners safe by removing this hazard – as well as taking advantage of an opportunity to put their skills to the test,” said Commanding Officer, Lieutenant Commander Rich Kemp.

Four years after delivery, USS Zumwalt fires first missile

By The Maritime Executive

More than four years after she was first delivered, the futuristic destroyer USS Zumwalt has conducted her first live-fire SM-2 missile test. The exercise is a step towards gaining Initial Operational Capability (IOC) certification, which is expected sometime next year.

The SM-2 (Standard Missile-2) is the Navy's workhorse anti-aircraft missile, and it has a secondary anti-ship role. Zumwalt is fitted with 80 VLS cells for SM-series missiles, Tomahawk cruise missiles and other munitions - 16 cells fewer than found aboard the Arleigh Burke-class destroyer series, which is 100 feet shorter and 6,000 tons lighter.

Zumwalt's unique cannons were not part of the test, as the Navy has not yet found a practical and economical means to supply them with ammunition. The Zumwalt class was originally envisioned as a 32-vessel series, and the cannon was designed to take a purpose-built ammunition round. However, the class was gradually scaled back to three hulls due to

budgetary considerations; the cost per round for a correspondingly smaller quantity of ammunition went up to nearly \$1 million per shot. The Navy opted not to move forward with acquiring a supply of the ammunition due to the excessive price per unit, and the cannons have not been used.



Images courtesy USN

While her deck guns are silent, Zumwalt has other features that the Navy believes will be useful in a future conflict. Thanks to her unusual shape and her composite deckhouse, she has a very small radar cross-section, and that allows her to take on the "appearance" of a much smaller vessel for opponents' radar surveillance systems. She was also designed with power and weight margin built in for future, as-yet-undeveloped energy weapons systems like high-power lasers or railguns.

"Today's successful firing event is a critical milestone in the maturation of this incredible ship class and represents the culmination of a tremendous amount of hard work," said Capt. Gary Cave, Zumwalt's commanding officer. "It is a day we've been looking forward to and demonstrates the strides we are taking to add combat capability to our surface force."

Two more Zumwalt-class vessels are currently undergoing construction at Bath Iron Works. When including R&D costs for the scaled-down series, the total cost per vessel is approximately \$7.5 billion.

A new option for efficient low-speed propulsion

By The Maritime Executive

Factors such as rotational speed and the volume flowrate of the water stream compared to sailing speed determine propulsive efficiency of marine propellers, with peak propeller efficiency being achieved in ocean sailing. Speed restrictions imposed on along inland waterways greatly reduce propeller propulsive efficiency. An alternative is evolving in small boat propulsion that offers possible future potential to increase propulsive efficiency of vessels sailing along speed restricted inland waterways.

Introduction

The waterwheel was developed some 4,000-years ago to convert river current to work energy. During the mid-19th century, waterwheels were adapted to provide propulsion as paddle wheels installed on steam powered boats. Propellers evolved from windmills and enhanced directional control compared to stern wheel and side wheel propulsion when vessels sailed through waves. The biggest propellers installed at the stern of large commercial vessels deliver the highest propulsive efficiency, at certain sailing speeds. Until recently, there was little interest in adapting a radically different technology to vessel propulsion, but this has changed with the appearance of hydrofoil surfboards.

Hydrofoils configured like scale-model airplanes were originally installed under surfboards to improve surfing through choppy water. Surfers learned to “pump” the hydrofoil surfboards to achieve propulsion after a wave dissipated and also to travel across “flat water,” the pumping producing whale or dolphin-like movement of the rigid hydrofoil tail wing. A Swedish company called DOL-prop Industries has developed a competing propulsion technology for small vessels, based on the tail fluke of whales and dolphins. They claim to have eliminated cavitation and offer superior propulsive efficiency than conventional propellers used on small boats.



Image courtesy Dol-Prop

Competing Concepts

While hydrofoil surfboard tail wings are rigid, the Swedish fluke propulsion technology duplicates the characteristics of a dolphin’s tail fluke in that it is soft and flexible. The South African built “pump-a-bike” was a human-powered hydrofoil that combined a small leading hydrofoil and a wide trailing hydrofoil on a transverse shaft placed below the rider. After push the bike from a dock, the rider hopped aboard and then jumped up and down above the rear hydrofoil to achieve propulsion. At the present day, hydrofoil surfboards represent the main widespread use of propulsion without the propeller.

A version of the South African pumping-hydrofoil concept was installed at the bow of a wave-powered boat, where a floating device connected by control rods raised and lowered the propulsion hydrofoil to propel the vessel to a speed of 6-knots. While the technology showed promise, market acceptance of powered fluke propulsion on small vessels has been quite low despite improved efficiency. The commercial maritime sector would likely wait to see widespread operation of powered fluke propulsion on small vessels before developing a ship size version of the technology, for use along speed restricted inland waterways.

Large Vessel Application

Large commercial-size vessels propelled by fluke propulsion would require bow and stern thrusters to optimize directional control. Such vessels built for operation along inland waterways could carry grid-scale electric battery storage technology such as long-life flow redox batteries or competing liquid metal storage battery technology. There would be opportunity to do partial recharging when the vessels transit across navigation locks. The potentially higher propulsive efficiency of fluke technology over propellers used on vessels that sail along speed restricted waterways would likely and significantly increase sailing distance before onboard batteries require recharging.

During an earlier period, there was little pressure on the commercial maritime sector to reduce carbon emissions. At the present time, the European Community seeks to impose increasingly more stringent standards on ship exhaust emissions. The shipping industry has responded by switching some ships to LNG fuel with future options involving hydrogen fuel cell technology. Such power generation technology is also being installed on vessels that operate along inland waterways, where large-scale versions of specially developed fluke propulsion technology could be retrofitted to the stern areas of a few vessels powered by battery or by fuel cell energy technology.

Crank Activated Fluke

It appears possible that a crankshaft driving a connecting rod could activate the spring-loaded Swedish DOL-prop fluke propulsion technology, perhaps with an electric motor or wind turbine driving the crankshaft. Spring loading a large-scale rigid or non-flexible giant fluke would be impractical and require a different form of activation, to raise and lower the fluke while changing its angle away from the horizontal to produce thrust. One possible option would involve the combination of forward and rear transversely mounted crankshafts driving forward and rear connecting rods attached to the forward and rear areas of the fluke.

The combination of long-stroke forward and shorter-stroke rear transverse crankshafts might be independently driven by different electric motors, with potential to connect the pair of crankshafts using side-rods with the forward and rear crankshafts set out of phase to produce forward thrust. A pivoted mechanical link would connect the fluke's leading end to the boat stern area, with the option of pivoted upper and lower links changing fluke angle as it rises and falls when activated by a single crank. Alternatives involving large-scale rigid fluke vertical activation and pitching would be subject to future research.

Wind Power

This era is witnessing renewed interest in wind-powered vessels that include windmill powered boats capable of sailing at eight knots directly into a headwind, using a conventional propeller and three-bladed turbine. For small vessels, the dolphin fluke DOL-prop offers a significant gain in propulsive efficiency over small propellers. A unique wind turbine developed in California offers higher power output for the same diameter as a three-bladed turbine. It is a twin-rotor turbine using a pair of two-bladed turbines set at 90-degrees to each other and a distance between each other on the same power shaft.

A competing technology involved a power generation kite attached to the vessel stern and able to "pump" the DOL-prop power level to produce propulsion. Wind propelled vessels using fluke propulsion and could sail directly into headwinds along many inland waterways internationally, carrying cargo to market. Mechanical stresses caused by vessel pitching and rolling restrict the height of wind turbine tower, and the size of the wind turbine that the tower could carry. Nevertheless, the combination of efficient and innovation wind power conversion technology and fluke propulsion promises to be potentially competitive in future carbon-free vessel propulsion.

Conclusions

A maritime industry that seeks to reduce ship exhaust emissions and improve propulsive efficiency may wish to examine the potential of mechanical fluke propulsion applied to small and large vessels. A large-scale mechanical fluke activated by a pair of crankshafts offers potential to improve propulsive efficiency along inland waterways.

Going to Sea – Part 8.

By Martin Watts

On leaving Auckland, bound for New Plymouth where the *Otaio* was to load 10,000 tons of Anchor butter and cheese, the vessel was bid farewell by the city mayor and a band playing 'Now is the Hour.' This haunting melody had the effect of reducing the many women and families on the wharf, along with the tone deaf bandmaster, to tears. This was reciprocated by those off duty cadets and sailors leaning over the rail, whilst the Chief Steward wistfully recalled memories of the wonderful cooking of the Chef who, succumbing to love, had failed to return to the ship. I should point out that this was a regular occurrence and the rumours on board were that Chef had several families in the UK, Australia and New Zealand, demonstrating the fact that his roast dinners were of irresistible and universal appeal. Luckily, for our hungry crowd, the Chef returned to us in New Plymouth, where the feast of all feasts was to be consumed over Christmas and the New Year. The voyage to New Plymouth took 36 hours and gave us ample opportunity to view the glorious sub-tropical coast of the northern arm of the North island.

As we sailed into Taranaki Bay, in the heart of the main dairy region of New Zealand, we were informed that the additional holidays available to dockers over the festive period meant that our working rosters were to be revised. The mate happily informed us that we would be having five days off over Christmas, followed by two days on and ending with four days off for New Year. The ship was then scheduled to sail to Wellington on 8th January and, although the berth was originally booked from the 9th to the 13th, the inevitable delays were going to keep us alongside until 15th January. Once again, it can be seen why so much investment was put into containerisation, as the world of general cargo and break-bulk shipping conspired with many ports in its own demise.

New Plymouth, and a first Christmas in the middle of summer was a wonderful experience. Right up to Christmas Eve the weather had been poor, cool and cloudy but, at last, the mate was able to post the following notice:



So began a week of drinking, beach cricket, barbeques, drinking, sailing, surfing and more drinking. Never had I been more jealous of those schoolmates who had stayed in the sixth form in Westminster City School, looking forward to A levels, the civil service and university. I lost touch with them all, and only once later visited the school, in order to give a careers talk. Glowing with a tan from months in the Pacific and Indian Oceans, telling tales of stormy weather and spectacular runs ashore, I succeeded in attracting absolutely no one away from academia or a warm office in the Department of Procrastination, Paper Clips and Index Linked Pension. They do not know what they missed...

New Plymouth town sits three miles from the port and there were excellent transport facilities to the main shopping area, where we bought gifts for home. Christmas cards, replete with reindeers and snow, were posted home (we probably loaded them in Wellington and took them back in the hold) whilst the outside temperature was in the high seventies and the beer ran ice cold. Whilst in New Plymouth we discovered that, unlike the typical city dwellers of Auckland, the locals were extremely friendly, and we received many invites to their delightfully colonial styled bungalows for home cooking

and tales of the Old Country. I especially remember the Saleman family, who made us feel at home at the very moment we were, for once, thinking of our own families, nearly 12,000 miles away in the gloom and rain of dear old Blighty.



One of the highlights of the Christmas holiday was the Regatta, which the Staff Captain had thought would be good for morale and an opportunity for us to show off our small boat skills. Unfortunately, he did not consider the rivalry between the officers, cadets and crew, nor of the effect of alcohol on the seafaring brain. The photo to the left shows the masterly technique, employed by the Engineer officers, of bringing a whaler alongside a stable pontoon in the most benign of weather. The secret here was the length of the boathook and the athleticism of the Engineer who had bravely fallen into the water whilst trying to look as if they knew what they were doing. Once assembled, the Engineer's whaler is shown in the photo on the right, with the Senior Electrician standing in the stern casting a whimsical

and Drake like stare at his shipmates left drinking ashore. It is believed that, on seeing this photograph, Sir Steve Redgrave decided to pursue a career in rowing and, thankfully, chose a skiff over a whaler. The regatta was won by the Port Watch cadet crew, seen in the photo below. The author, despite having rowed at school, turned down a place in this winning team because someone had to take the picture.



To be honest, most of what happened during the Christmas break is difficult to recall. By way of a change of scenery a group of us visited the British ship on the opposite quay, Shaw Savill's *Icenic*, from where we had received an invitation from her two deck cadets, who had been on my induction course in Plymouth. It was strange seeing how they lived and worked, when compared to our training ship with its large complement and fully scheduled days. One of the differences was that, whilst they did their share of chipping and painting, they had been introduced to the sextant and celestial navigation but had to rely mainly on their own resources to learn seamanship. On *Otaio*, we were not allowed near a sextant until our second trip, having first studied the theory in the classroom.



Thanks to monosyllabic yet erudite Frank, however, we were advanced in seamanship and all of us would qualify, via a Board of Trade examination, as Efficient Deck Hand at the end of our first voyage. We noted that cadets in other companies would have to take this qualification at college, a year adrift of us, and that our knowledge of mathematics for navigation and stability more than made up for our relative inexperience with a sextant. The proof of this training was shown later when, having been posted as senior cadet to an 'ordinary' P & O cargo vessel, the Master was happy to permit us to act as uncertificated officers of the watch. Both systems had their merits and personally I was pleased that I had swallowed the Green Liar and very much enjoyed the discipline and structure of *Otaio*, which inculcated a sense of self-confidence and pride in one's company, even if moaning about it remained *de rigueur*.

Icenic's hospitality was, of course, reciprocated and she left New Plymouth a few days before us, leaving a goodbye present which epitomised the century long rivalry between the two companies. During the night before her departure the two Shaw Savill cadets managed to climb over the cruiser stern of the *Otaio* and paint a white capital 'P' in front and cross the 'I'. Thus, when we later arrived to a general manager's inspection in Wellington, M.V. *POTATO* was duly greeted by the horns and whistles of the twelve other New Zealand Shipping Company vessels alongside. Strange to recall that, in our week in Wellington, nobody saw a Shaw Savill officer or crew member ashore.

Before we move on to Wellington, there are two Christmas photographs that need comment. First is a picture taken from the ship at 0600 on Christmas morning, of Mount Egmont, an extinct volcano that dominates the landscape around New Plymouth. (It has since been renamed Mount Taranaki).

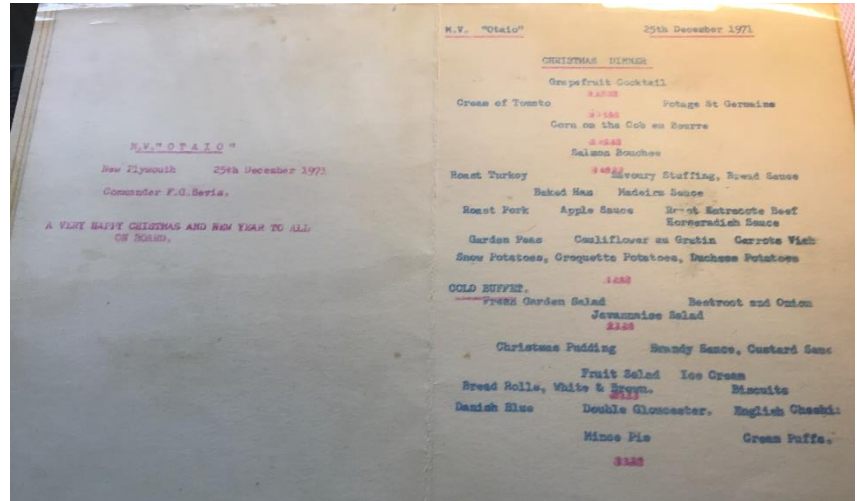


The second photograph (below) is of the splendid Christmas menu that was laid on by our Chief Steward and lovesick Chef, and served by our Cadet Captain and his deputies. New Year was just as grand, with a wonderful pyrotechnic display nearly setting fire to the harbour master's office, and the youngest deck boy ringing in the New Year.

We left New Plymouth on 8 January and looked forward to arriving in Wellington on the

following day, having passed Whanganui and turned into the Cook Strait. The strait was calm although the wind, for which Wellington was famous, was lively and later, on our departure for home, we were to experience a violent gale and short, steep seas that tested the security of our lashings and dunnage, before the warm embrace of the Pacific, with its long, low swell, sent us on the way to Panama.

The extended stay in Wellington enabled us to enjoy the city and we went to the Basin where we played inter watch cricket on a public pitch. We soon discovered that the tactics and techniques deployed in Deck cricket were useless in the game/s proper environment, and my watch, Port, defeated Starboard watch by a single run, and the beers were down to them. Sid did an excellent impression of a pukka umpire, resplendent in an overlong white coat that could not stretch over the gap created by his bow legs. The game itself could have been over in a short time, however most shouts of howzat received the umpire's response of 'F*** Off You Tart', accompanied by a whispered reminder of how many hours overtime you were due.



I was taken with Wellington, and wrote this in my journal at the time:

Wellington was the place I really enjoyed most of all. Not a modern Americanised 'flash' place like Auckland but a small, traditional city which carries out the same modern functions. Lambton Quay was the main street and was the high watermark on the beach at the New Zealand Company's Settlement in the 1850's... Finally, I must mention the ride on the Kelburn cable Car, which passes through three tunnels and over viaducts until you are 486 feet above the city, enjoying a fantastic view.

Socialising in Wellington was more formal than Auckland, and I experienced my first steak meal in a restaurant; I am proud to relate that I was ten years ahead of Del Boy in this respect although, I suspect, several light years behind our chef. The atmosphere of Wellington was enhanced by the aforementioned presence of so many company ships alongside, and many beers were had with our Storwegian deck crew who met up with brothers, uncles, fathers, grandfathers, cousins and nephews. Every ship seemed to have at least one, if not several Murdo McCleods or Angus McDonalds on board and, to this day, whilst we departed homeward bound with the right number and names of our crew onboard, I could not vouch for the fact that they were the same people we had arrived with. The feeling of togetherness and pride was, in my experience, to remain unsurpassed, and is one of the great memories of my first voyage. Fifty years on, I have no illusions about the past, but I do know that this experience shaped my life, and I know how lucky I was to be part of this way of life at that particular time.

Thank you.

An account of my first career: ten years as an officer in the Merchant Navy – Part 3 of 3

By Lt Cdr John Strachan

As third officer I was responsible, at sea, for navigating the ship from 0800 to 1200 and 2000 to 2400 as well as doing many safety checks outside these hours. I had my own 'bridge boy', an Indian of over sixty years old, who had the job of cleaning the brass work on the bridge, cleaning the carpets and generally helping me, including the carrying of my messages. He was called 'Bucha Mia' and he had a huge beard. He had 14 children and as he was only allowed home on leave every two years, they were born two years apart. He endeavoured to teach me Hindustani using a book entitled 'Malim Sabbs Hindustani', without too much success. He left the ship on retirement on one of our visits to Bombay.

Our deck crew were from Pakistan, and our engine room crew from, I believe, East Pakistan while the catering crew were from Portuguese Goa (Christians). Both the deck and engine room crew lived aft and had their own cooks while the Goanese catering crew lived midships and took their food from the officers' galley. We ate extremely well with four cooks and a baker to provide food for the officers and passengers, about thirty of us in total. There was curry and rice on the menu at each meal, accompanied by the usual condiments of chutneys, Bombay duck, coconut etc. Fortunately, there was a choice of other foods on the menu and I never had curry and rice more than once a day. Naturally, we had fresh bread and rolls every morning.

We loaded out general cargo including cars, tractors and household goods, and on our return we loaded some very lucrative cargo but also a huge range of items such as animal bones for glue making, groundnuts, and 'groundnut expeller cake' (where the groundnuts had been pressed to extract the oil) for animal food. Many years later, when I was working in the Public Health field, I found out that this latter item was full of aflatoxin, which could cause death in poultry in a matter of weeks. It was then realised there could be health implications for humans and very strict controls were introduced on imported groundnuts. The second voyage was to Colombo in Ceylon, now Sri Lanka, Calcutta in India and Chalna, near Khulna, in Bangladesh, up the 'mouths of the Ganges', to load jute (for making hessian for sacks and the backing of carpets) for Dundee, before sailing to Trincomalee in Ceylon to top up the tween decks with wooden chests of 'Ceylon' tea for Tilbury Docks in London. I can recall standing on the deck at night time while we were at anchor near Chalna and watching large bales of jute coming aboard from a barge beside the ship, when I was startled as a huge cockroach, about two and a half inches long, flew down the back of my neck and caused great irritation. I pulled up my shirt and it eventually dropped to the deck and flew away. I also recall watching green snakes wriggling up the anchor cable and hoping they would never reach the deck. I am sure they were venomous! There were also said to be alligators in the river but I didn't see any. We had to stop loading immediately when the monsoon rains started in order to cover up the holds. There have been many reports of jute, which having become wet on loading, overheated in the holds and caused 'spontaneous combustion' with resultant fire and loss of the ship and sometimes the crew.

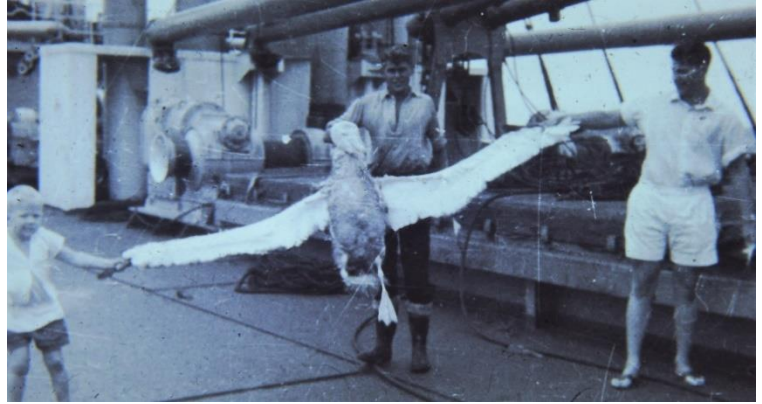


'Clan Alpine' on rice paddy field before being broken up.

Many years after leaving the sea I purchased a copy of 'Sea Breezes' magazine, which had an illustrated account of the British ship 'Clan Alpine' that, a month or so after we left Chalna, was anchored in the Ganges river awaiting cargo when she was hit by a cyclone from the Bay of Bengal, a wind travelling at 135 knots and pushing before it a 35-foot tidal wave.

The ship was lifted up on the wave and carried eleven miles up the river, dragging her anchor, which would not hold in the mud. The ship ended up being 'dumped' in a rice paddy field. Very fortunately, the ship remained upright throughout and all the crew were safe. The ship could not be re-floated and was eventually broken up for scrap as a 'constructive total loss'. Even our Queen and Prince Philip went to see the ship while on tour in the area. There are pictures on Google of the ship high and dry! We were so lucky to have left the area by the time the cyclone struck!

On returning to the UK and after discharging the tea at Tilbury and jute at Dundee, we took the ship through the Pentland Firth to the North of Scotland and around the coast to Birkenhead in the River Mersey. Once alongside, we opened the shed doors and found we were loading for South Africa. We, the ship's officers, were permitted to take some ten days' home leave before returning to the ship as we sailed to complete loading at Bristol Channel ports. Before leaving the UK, we took aboard 15 passengers, i.e. three of them as supernumeraries, including a bank manager and his wife and children and, of course, as we had more than one hundred people aboard, we were required to carry a doctor, the only time in my ten years at sea. Our first port of call was Las Palmas in Gran Canaria for bunkers and then to Lobito Bay in Angola, West Africa, where we discharged some cargo. We then sailed towards Cape Town but a couple of days before we arrived, an albatross, which had been following us for a few days, decided to take a shortcut across the ship and broke its neck on the main radio aerial strung between the fore and main masts, the triatic stay, and crashed to the deck dead. The Captain was horrified and reminded us of the 'Rhyme of the Ancient Mariner' by Samuel Taylor Coleridge. He did not leave his cabin until we arrived to take aboard the pilot at Cape Town. I have photos of the albatross, with a six-foot wingspan, being lifted up by two of the Cadets and the young son of the bank manager and his wife.



The albatross supported by two of the Cadets and the son of passengers

However, we arrived safely at this port and we enjoyed our five or six day stay discharging cargo. The 'Mission to Seamen' organisation used their minibus to show us around the town and I had the opportunity to use the cable car to travel to the top of Table Mountain - what a wonderful sight from there over the City of Cape Town to the sea. The bank manager and his wife left the ship to return to their home in Cape Town and they gave a party to which we officers were invited. I was very surprised to see that, as we had arrived during the period of 'apartheid', the 'white' people used different means of transport, and schools, to those of the 'black' community, and 'black' residents were forced to use different pavements to the 'whites'.



M.V. 'Sacramento' off Table Mountain



Watching the view from the top of Table Mountain, Cape Town.

On leaving Cape Town, we sailed around the coast to discharge further cargo at Port Elizabeth, East London and Durban. At Durban I was contacted by David Strachan, a relative and a Director of Reckitt and Colman Ltd, who was spending some weeks at one of the Companies factories nearby. I spent a very enjoyable evening and night at his house and returned to the ship the following day. They had lots of servants. South Africa seemed to be a lovely country but apartheid caused a great deal of trouble. The weather was warm with lush greenery along the coast. After Durban, we sailed for Lourenco Marques and Beira, in Mozambique, formerly Portuguese East Africa, where we completed the discharge of our outward cargo.

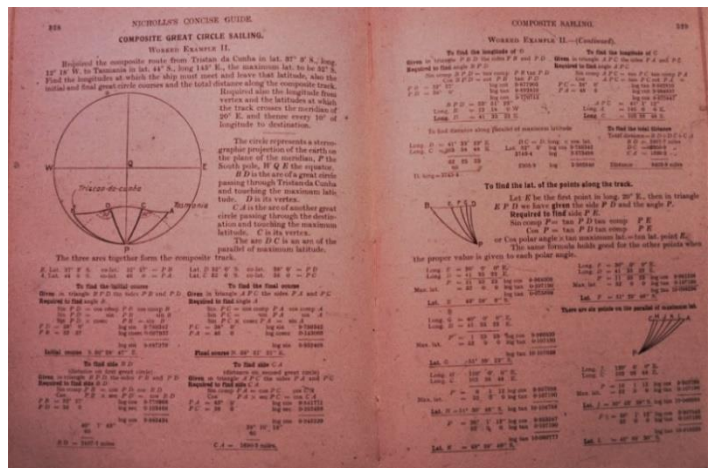
As there was considered to be no lucrative cargo to load in East Africa, we were ordered to sail for Port Pirie some eighty miles up the Spencer Gulf in South Australia. Before we sailed, we loaded around four hundred tons of sand ballast from barges (taken from a sand bank) while we were anchored off the port of Lourenco Marques, (in the after hold, no. five) in order to keep our two propellers under water for our eighteen-day voyage to Port Pirie. We could see the wreck of the famous sailing ship 'Lawhill' stranded on a sand bank in the river. We again took aboard 15 passengers in three families each of which were wealthy landowners in South Africa, owning copper

mines, sugar plantations etc. These families were disenchanted with the problems caused by apartheid and each had shipped aboard a huge limousine and caravan (three of each in total), in which they could travel around Australia and decide where to finally settle.

Three days out from East Africa, while I was on duty on the bridge at about 10.00 am, the Captain, Horace Grunhill, came up to the bridge and asked me to reverse the course. I promptly ordered the quartermaster on the wheel to bring the ship round and we headed back to Africa. A little while later he came up again and told me that the Chief Engineer had reported a major leak of the refrigerant gas which operated our deep freezers. With over one hundred crew and passengers aboard, a further fifteen-day voyage ahead of us, and no freezers, we had no alternative but to return to port. We arrived back at, I believe, Beira on a public holiday; we had to wait a further day before repairs could be affected and the system recharged with gas.

As a matter of interest, the Chief Engineer had been on the ship since she was built, in 1945; everything in the engine room was 'ship shape' and you could have eaten your food off the engine room plates. Each of the pipes connected to the engines were painted red, for the Port engine, and green for the Starboard engine.

We set sail again and this time, three days out and south of Mauritius, the Radio Officer reported that we were heading in the direction of a Tropical Revolving Storm so we altered course ninety degrees in the hope of avoiding the centre of the storm. Sometime later the Radio Officer reported another storm brewing in the direction we were heading. We decided to steer between the two storms and, although the barograph (barometer) dropped dramatically and the skies turned purple, we were very fortunate that although some sea water poured over the decks, the wind fell short of a hurricane (perhaps force 10/11) and we suffered no damage. However, I understand that the Island of Mauritius was hit by a hurricane at about that time which devastated the sugar crop, the worst for many years; we were lucky to escape the worst of it! The shortest distance to Australia was by following a 'great circle', with the ship altering course every day, but this meant we would hit the 'New Amsterdam' Islands in the middle of the Indian Ocean. So, the Second Officer and I, as Third Officer, calculated a 'Composite Great Circle' sailing which was quite complicated but was, of course, successful as we sailed on a latitude to the north of these Islands.



Composite Great Sailing calculations

We arrived safely at Port Pirie, a port some 80 miles up the Spencer Gulf in South Australia, after an eighteen-day voyage across the Indian Ocean. Although we were delayed by a number of dock strikes, not unusual in Australia at the time, we loaded lead from the Broken Hill mines in central Australia and a bulk cargo in some of the lower holds of copper concentrate, from which copper could be extracted.



In Port Pirie, I hired a 'Holden' car, for a weekend and toured a little of the interior. It was so hot, being their mid-summer, that the grass had turned brown with the heat. The temperature was well over 100° Fahrenheit at night, although a very dry heat. One of the local hotels/pubs in the small town allowed us to purchase a drink of beer on the first night as bone fide travellers having arrived from the UK via South Africa but, would you believe, only on the first night. I seem to recall that the pubs had to close at six pm each evening because so many people would otherwise have become very drunk.

M.V. 'Sacramento' at Port Pirie. After loading lead from the Broken Hill mines, we loaded copper concentrates, before sailing to Adelaide to top up with wool.

Our passengers left us at Port Pirie to travel, with their large cars and caravans, around Australia and decide where to settle with their families. Once we had completed loading at this port, we sailed for Adelaide to load our tween decks with bales of wool from the January wool sales for Tilbury Docks on the River Thames. We finally sailed from Australia after several weeks. In the Great Australian Bight, south of the country, we encountered a huge, high, 'swell' but with virtually no wind. The 'Sacramento', being fully laden down to the 'plimsoll marks', rolled so much that the foredeck went underwater and sea water repeatedly poured over the ship. We were so relieved that it was not blowing a gale! As usual we had another full complement of passengers as we journeyed home. We sailed safely across the Indian Ocean, passed through the Suez Canal into the Mediterranean Sea, through the Strait of Gibraltar and up the coast of Spain and Portugal to the English Channel and thence to the Thames Estuary and Tilbury Docks. So much for the albatross! The Captain need not have worried after all as, so far as I can remember, the only damage was to one of our propellers which had a small chunk out when it hit a quay in Australia.



M.V. 'Sacramento' fully laden in Great Australian Bight with a heavy swell. Note very little wind!



M.V. 'Sacramento' in the Indian Ocean

Between voyages aboard the 'Sacramento' I purchased my first car in October 1959, a 1939 MG TA Tickford sports car from Hornsea, on the East coast, north of Hull. I paid £200. It was bright red in colour, had a 10-horsepower engine, solid metal doors with wind-up windows, specially fitted by Tickford coachworks, and was classed as drop head coupe. I kept the car a couple of years and when I was away at sea my sister Sally, and Angela, used to take it around the country side near Edinburgh. I seem to recall it lost power one time when I was driving from Hull to Edinburgh and had to be 'de-coked' on arrival. My father had to repair one of the sliding trunnions, part of the suspension system, while I was away at sea. He even fitted a greasing arrangement which was far superior to the original. The car is now registered in the USA. After a couple of years, I changed the car, in April 1961, for a 1956 blue Triumph TR3 sports car. This was a lovely car with a 2-litre engine, and very fast, and purchased for £525.

I sailed for a fourth voyage on this ship to India and Pakistan and finally left, after sixteen months on the ship, with a little home leave after each voyage, to study for my First Mate's certificate so I could be promoted to Second Officer. As I have said before, we always sailed with what we called 'superior' tickets. I had a wonderful experience on the 'Sacramento' and learnt a great deal about navigating around the world, the handling of difficult cargoes and how to keep the ship safe in some dangerous seas! The senior Cadet throughout this period on the ship was John Morton, later Captain John Morton, who was in command of the Merchant ship 'ELK' during the Falklands War and was awarded the CBE for his work in helping the war effort. I was his mentor for quite a lot of the time, while on duty on the 'Sacramento', teaching him navigation, collision avoidance, cargo handling, stability calculations, etc.

On three occasions on the 'Sacramento' I recall encountering large cargo ships that had no-one awake on the bridge. We would be sailing along at full speed with the other vessel crossing our bows on a collision course and, according to the Prevention of Collision at Sea Regulations, should have altered course. I had no alternative, on each occasion, but to alter course right around, making a full circle, to avoid collision. I would sound the ship's whistle and at night, shine the 'aldis' lamp on the other ship's bridge but to no avail. How dangerous! Fortunately, on each occasion there was plenty of 'sea room' and the manoeuvre was possible. These ships were running for 'Flag of Convenience Countries', e.g. Panama or Liberia, where they have lower crewing levels and poorer standards of crew and officers! Although the Captain may be competent, he may have one or two drunken officers, upon whom he could not rely and were probably asleep.

I also recall an occasion on the 'Sacramento' when the ship's main generator stopped working in the Gulf of Aden. The ship's engineers tried to start the stand-by generator but to no avail. The engines stopped immediately and we had neither lighting nor refrigeration on the ship. The engineers worked for twelve hours by oil lamps, totally stripping down one of the three generators before they could get it working. We were close to a shipping lane and had 'not under command' oil lights (two vertical red lights) rigged and kept a close look out for other vessels in the vicinity to warn them off. It was so hot and sultry in the depths of the engine room that a number of the engineer officers and engine room crew passed out and had to be hauled up and revived in saltwater baths! Eventually, electrical power was restored, the engines were restarted and we had lighting and refrigeration.

After leaving the ship, I spent a further three and a half months studying at Leith Nautical College before passing my First Mate's Certificate and was immediately appointed, on 15th December 1960, as Second Officer of the 'Aaro', the newest ship in the company, sailing from London to Copenhagen under the command of Captain Cecil Gill. This was a beautiful modern motor ship with excellent accommodation and 12 first class passengers.

The job of Second Officer on all the ships of the fleet, except the 'Sacramento', entailed being responsible for navigating the ship, while at sea, from midnight to 0400 (the 'Graveyard' watch) and from midday until 4 pm. You were also the principal Navigating officer, taking morning 'sights' with a sextant, at 0900 and again at 1200 noon, correcting the ship's many, many, charts, and as the ship's accountant, giving money (subs) requested by crew in port and paying off the officers and crew at the end of each voyage, a huge task. I usually had seven and a quarter hours' sleep each night at sea from 2000 until 2345 and from 0430 until 0800, i.e. in two halves.

I remained aboard the 'Aaro' until 15th September 1961, when I transferred to the 'Palermo' as Second Officer sailing to the Mediterranean with Captain Cudbertson in command. It was aboard this ship, which was built in 1938 and had wooden decks above the officer and crew accommodation, with no metal work beneath, unlike all the other ships I sailed on, that, after a few weeks of very hot weather that shrunk the wood decks, we encountered gale force head winds on leaving the Eastern Mediterranean (Beirut in the Lebanon and several ports in Cyprus). Rain and seawater spray poured over the ship and leaked into the accommodation. My bunk was soaking wet but I was able to sleep on my settee, which was dry. The crew accommodation aft had up to a foot of water sloshing around and the crew were constantly wet.



M.V. 'Aaro' berthed at Copenhagen

When we arrived at Almeria in Spain to top up with grapes, in casks, all the crew, not the officers, went ashore and became totally drunk. Before we sailed, the ship's agent was sent to round up the crew in horse drawn 'gharrys'. They were totally inebriated and could do no work at all. I believe they were each fined by the Captain two days' pay! We, the officers, had to secure everything on deck, ropes and all that could move, as there was a gale blowing in the Atlantic once we left the Straits of Gibraltar. We had to make sure no rope could be washed overboard which could otherwise be caught in the ship's propeller.



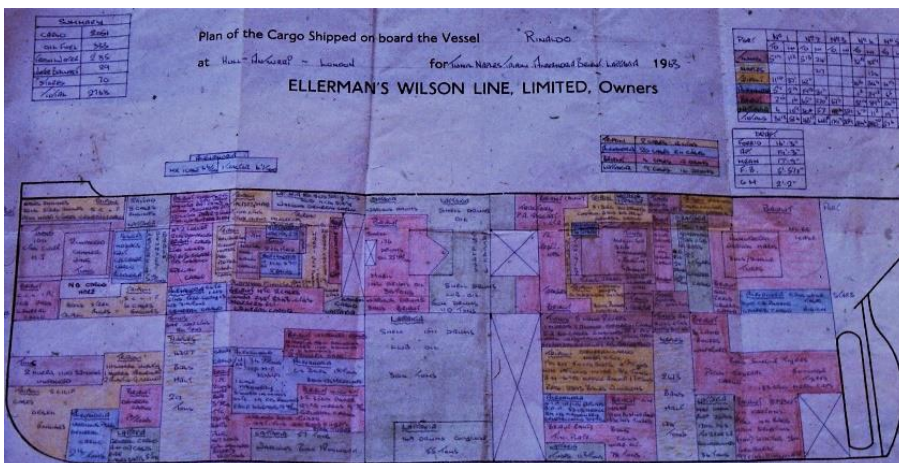
A Mediterranean moor



As Second Officer

On another occasion, one of the crew took a dislike to the cook, who probably did his best but was never very good, and on arriving in some port in the Mediterranean, he became very drunk and tried to attack the cook with an axe. Fortunately, the cook's cabin was locked but it took us (the ships officers) quite a while to arrest the man and call the police to take him away.

One of our regular voyages in the Mediterranean was along the North African coast, calling at Ceuta for bunkers, then Tunis with general cargo, Benghazi (where we landed steel pipes for the emerging oil wells in Libya), and Alexandria in Egypt, again with canned foods and general goods. We once



Typical cargo plan for S.S. Rinaldo loaded for six ports in the Mediterranean; each port has a different colour

loaded 'esparto grass' in Sfax and Sousse, in Tunisia, intended for use in the making of bank notes in the UK. This cargo was loaded on deck and was full of tortoises, which crawled all over the place. Generally speaking, after leaving North Africa we would load homeward bound cargo in Cyprus and Crete e.g. wine in small tanks or casks, and fresh fruit.

After seven months, I transferred to the 'Rinaldo', also sailing to the Mediterranean, as Second Officer for seven voyages under the command of first of all, Captain Walker and then Captain Tognola, Captain Reed and Captain Barnes. It was about this time when I was asked by Captain George Dring, a Senior Port Health Inspector in the West India and Millwall Docks, if I would like to join the Corporation of the City of London as a Trainee Port Health Inspector. As Angela and I were engaged to be married I agreed to go for interview and, with my best uniform on, was taken to meet the Chief Port Health Inspector at Guildhall in the City of London. He agreed to my appointment with a view to starting in September 1964.

My final voyage before going ashore to take my Master's Certificate was aboard the 'Leo', again as Second Officer, sailing for one voyage to the Mediterranean. I left the 'Leo' on 27th August 1963, to study for my Master's certificate. So, once again, I returned to Leith Nautical College and studied for a further four months before taking, and passing, my Master's Certificate, 'Foreign Going', in January 1964. This qualification enabled me, subject to the right experience, to Command the largest



M.V. 'Cavallo' at Gibraltar

Merchant Ships in the world, including the Cunard Line 'Queen Elizabeth 2' (QE2).

I then returned to the Ellerman's Wilson Line as Second Officer and joined the 'Cavallo' for three Mediterranean voyages and, for the final couple of months on 5th June 1964, re-joined the 'Aaro' running from London to Copenhagen, from which I disembarked on 13th August 1964, after ten years with the Ellerman's Wilson Line.

I left the Merchant Navy to marry Angela and commence a new career. It was a real privilege to have had the opportunity to spend ten years in the Merchant Navy as a Cadet, Third and Second Officer with highly responsible jobs, interesting crews and passengers, and visiting so many fascinating ports around the world.

Royal Navy warship sails into Arctic Circle for High North operation

By MOD Navy

HMS Lancaster completed three days of operations in the High North in November, marking the second time the Royal Navy has sailed into the Arctic Circle in two months and the third this year.



Once again demonstrating the UK's commitment to the High North, after leading a multinational task group into the region in September, the Royal Navy has sailed above the Scandinavian countries into the North Cape.

By successfully operating in the challenging sub-zero conditions, the warship gained valuable experience of operating in the icy High North environment and further enhanced the UK's cold weather capability.

Minister for the Armed Forces James Heappey said: "The High North and Arctic region is vitally important to security of the UK, as well as some of our closest Allies in Scandinavia, the Baltic region and northern Europe.

"Deployments such as this, as well as our active engagement in the Northern Group and leadership of the Joint Expeditionary Force (JEF), demonstrate to our allies and adversaries alike that the UK will be forward-leaning in supporting the security and stability of the region."

On approach to the Arctic Circle, Type 23 frigate HMS Lancaster took the opportunity to gain valuable training experience alongside the Norwegian Navy – one of the UK’s closest partners in the region. The Norwegian warship HNoMS Fridtjof Nansen joined HMS Lancaster for a passing exercise that allowed both NATO navies to further boost their cooperation capability, following previous shared activity in the region earlier this year.



HNoMS Fridtjof Nansen and HMS Lancaster

Commander William Blackett, the Commanding Officer of HMS Lancaster, said: “For HMS Lancaster, this short operation was a great way to close out a challenging year of trials and training. The Queen’s Frigate and her fine company have come a long way since emerging from refit – we are back where we belong on the front line and ready for the next task.”

The operation, entirely conducted in international waters and in a responsible manner, demonstrated the freedom of navigation on the high seas provided by the rules-based international system. This was also the case in September, when Type 23 frigate HMS Sutherland, supported by RFA Tidespring, commanded a task group comprising Norwegian frigate HNoMS Thor Heyerdahl and the United States Navy’s destroyer USS Ross.

Norway is a fellow member of the Joint Expeditionary Force (JEF), the UK-led high-readiness force of northern European nations that is capable of countering hybrid and conventional threats, as well as the Northern Group, a UK initiative formed of twelve nations aimed at providing effective defence and security cooperation in the region.

Through such groups, the UK is committed to working with allies to upholding the security of the High North and Arctic and recent deployments ensure that our ships and people are ready and able to operate in the region. Changes to the Arctic landscape wrought by declining sea ice levels open up new trade routes and raise the risk of economic competition with states looking to monopolise the region – sharpening the need for the UK’s armed forces to remain ready to respond to any potential instability.

Some explanations of terminology

By Lt Cdr Suzanne Wood

Joint Expeditionary Force

Launched at NATO's Wales summit in 2014, the Joint Expeditionary Force (JEF) is a UK-led task group consisting of armed forces from the UK and nine partner nations: Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, the Netherlands, Norway and Sweden. With two non-NATO regional nations, it acts as a broader coalition while supporting NATO objectives.

Britain's contribution to the JEF includes personnel and equipment from the Royal Navy, Royal Marines, British Army and Royal Air Force, with the maritime element headed up by the Royal Navy and Royal Marines.

The task group is designed to demonstrate the UK's ability to project a highly effective maritime task force anywhere in the world, both individually and in partnership with other allied nations.

The Joint Expeditionary Force (Maritime), more commonly referred to as JEF(M), is the Royal Navy's high-readiness global task force. Together with armed forces from nine other nations, the unit is poised to respond to crises whenever and wherever they unfold.

JEF deployments comprise a series of demanding exercises that are designed to ensure that NATO allies and partner nations are ready to deal with any emerging crisis, from anywhere in the world.

As the leader of the maritime JEF, the Royal Navy is responsible for making sure that the task force is trained to a high level. While warfighting and amphibious operations are the task group's bread and butter, it is also capable of evacuation operations, disaster relief, humanitarian missions, and any number of other tasks.

The Northern Group

Under the current chairmanship of Latvia, the Northern Group consists of Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, the Netherlands, Norway, Poland, Sweden and the United Kingdom.

The Northern Group is a valuable forum in which members come together informally for discussions on defence and security issues common to us as Northern European nations, and to explore new opportunities to work together.

Northern Group nations are committed to maintaining security and stability in our northern European region and the wider continent, as well as strengthening the bonds with our transatlantic partners.

The Rules Based International System (RBIS)

The Rules Based International System (RBIS) is a broad network of agreements and institutions. The RBIS is not the property of any one country or alliance of countries – but something that has been built with the shared wisdom gleaned from history.

One of the most relevant agreements that the Royal Navy seeks to uphold is the United Nations Convention on the Law of the Sea (UNCLOS), also known as the Law of the Sea Convention or the Law of the Sea treaty. It is an international agreement that resulted from the third United Nations Conference on the Law of the Sea, which took place between 1973 and 1982.



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