

STENA LINE • FOUR NEW FERRIES FOR BELFAST

Ships

www.shipsmonthly.com

MONTHLY

£4.30
MAY 2017

**SHIP OF
THE MONTH**



**ACL'S NEW G4
CON-ROS**

THE BIGGEST SHIPS

HOW SHIPS HAVE GROWN AND GROWN

**PORTS
OF CALL**

WHERE TO SEE
CRUISE SHIPS
AROUND
THE UK



**CRUISING TO
CORNWALL**
CRUISE CALLERS
AT FOWEY

MAY 2017 • Vol 52

£4.30



INTO THE FUTURE • US NAVY'S NEW DESTROYER ZUMWALT



LIFE-SAVERS US Coastguard



PRESERVED SS Great Britain



CLASSIC CARGO In Chinese waters

SHIPS IN FOCUS PUBLICATIONS incorporating MAINMAST BOOKS

John and Marion Clarkson 18 Franklands, Longton,

Preston PR4 5PD Phone 01772 612855

A selected range of maritime books from quality publishers economical postal charges secure packing prompt service. Payment must accompany all orders and from overseas must be in Sterling with cheques payable to Ships in Focus. Remittances can be made by Maestro, Switch, Mastercard, Visa/Delta. We require card number, valid from and expiry dates, last 3 figures of security code and customer's name as on card. We also accept payment by PayPal. Orders accepted by phone if payment by credit card or PayPal. Postage: UK orders up to £20 add £2.00, £20-£50 add £3.50, over £50.00 free. Overseas orders by seamount: Europe/North America 15% of total cost of books, elsewhere 20%, both with a minimum of £4.50. Airmail at cost.

5% discount on all orders placed through our website www.shipsinfocus.com

An OPEN DAY will be held at 18, Franklands, Longton, PR4 5PD 10.00 am to 3.30 pm on **1st April 2017**.

Don't forget - 10% always deducted on Open Days

CRUISE SHIPS – A DESIGN VOYAGE

Bruce Peter tells the story of cruise ship design and the development of the cruise industry from the late-Victorian era until the present day h/b 204pp £25.00 (due mid-March – taking orders)



CUNARD – THE FLEET BOOK Marc-Antoine Bombail and Michael Gallagher, a complete and detailed list of all the Cunard ships that have served the company since 1840 with a



brief description of each vessel and the majority illustrated with a photo or profile drawing h/b 96pp £16.00 (due mid-March, taking orders)

WHALE FACTORY SHIPS AND MODERN WHALING 1881-2016 by Ian Hart

In 1881 factory ships began working with purpose-built whale catchers equipped with modern harpoon guns. This revolution, together with the increasing demand for whale products, created a boom in whaling. The book is in two sections. The first section tells the story of how factory ship whaling becoming a major global industry. The second section provides full histories of 184 factory ships which are known to have worked in the trade, including both conversions and purpose-built vessels. Appendices also cover supply ships and whale catchers. Flags and funnels in full colour on end papers h/b 232pp £29.50



THE GREAT PASSENGER SHIPS OF THE WORLD 8th edition

Raoul Fiebig and others, founded by Arnold Kludas, a highly reliable reference work covers 858 ships with updated histories, technical details and photos h/b 308pp £34.50



BRITISH STEAM TRAWLERS Donald Smith an analytical look at the ships themselves, history, design, construction etc., also builders, owners and fishing ports h/b 312pp £30.00

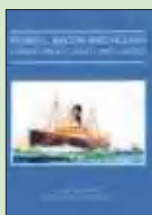
THAMES TUGS IN COLOUR

Andrew Wiltshire, full colour photos of both barge tugs and ship-handling tugs on the Thames each with it's own descriptive caption h/b 80pp £9.95



POWELL, BACON, HOUGH – Formation of Coast Lines

Limited Nick Robbins and Malcolm MacDonald illustrated company history of one of the main constituents of Coast Lines h/b 128pp £16.00



MANCHESTER SHIP CANAL

Through Time Steven Dickens. Collection of photos, both old and new, with captions S/b 96pp £14.99



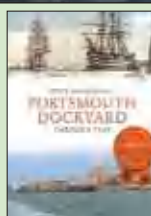
DAZZLE AND DISRUPTION IN WAR AND ART

James Taylor addresses the achievements of the acclaimed marine artist Norman Wilkinson in tandem with his hand-picked dazzle painting team, illustrated with photos and paintings and covers both merchant and naval craft h/b 128pp £20.00



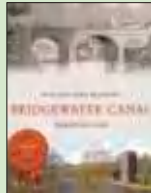
PORTSMOUTH DOCKYARD

Through Time Philip MacDougall ships, dockyard, historic buildings, events etc s/b 96pp £14.99

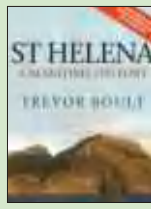


BRIDGEWATER CANAL

Through Time Jean and John Bradburn, first canal built which did not follow an existing watercourse, old pictures matched up with present days views s/b 96 pp £14.99



ST HELENA – A Maritime History Trevor Boulton, a typical voyage to St Helena and stories of other earlier voyages over the 500 years since the island was discovered s/b 96pp £14.99



FIVE WEEKS TO SYDNEY The Era of the Passenger Liner Nelson French Recollections of life on passenger liners in the 1950s and 1960s s/b 278pp £14.00



QUEEN MARY 2 (4th edition)

Miles Cowsell conception, design, development, building and debut, now includes 2016 refit. h/b 96pp £16.00



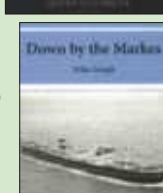
QUEEN ELIZABETH (3rd edition)

Miles Cowsell design and development illustrated with over 170 photographs h/b 96pp £16.00



DOWN BY THE MARKS

Mike Gough Life at sea on Buries Marks ships/b 340pp £12.99



RMS QUEEN ELIZABETH 2 (1967-2008)

Owner's Workshop Manual – An insight into the design, construction and operation of the world's most famous ocean liner, illustrated with many photos, plans etc. h/b 172pp £22.99



P & O 180 The History of P

and O Ferries, history of the formation and later amalgamation of Townsend, Thoresen, P&O Ferries and ASN s/b £16.50



OFFERED AT REDUCED PRICES:

CLAN LINE Illustrated Fleet History £21.00
A TASMAN TRIO £10.00

BRITISH SHIPPING FLEETS VOL 2 £15.00
MAURETANIA, TRIUMPH AND RESURRECTION £10.00

J & C HARRISON, LONDON £12.00

ORIENT LINES £9.00

GLEN & SHIRE LINES £10.00

SHAW SAVILL'S MAGNIFICENT 7 £15.00

BAILEY & LEETHAM £4.00

SD14 £21.00

THE WORLDS MERCHANT SHIPS £12.00

GRUNO £16.00

COASTERS GO TO WAR £12.00

FEILDEN'S MERSEY £3.00

BURNS AND LAIRD £7.25

REEFER SHIPS £18.00

BULK CARRIERS £16.00

WM ROBERTSON & THE GEM LINE £12.00

LIFEBOAT DIRECTORY £21.00

COASTERS GO TO WAR £10.00

SHIPS IN FOCUS RECORD Issues 2 to 8, 10 to 27, 29 to 33 and 35 to 50 all £3.00 each
SS PASTEUR / TS BREMEN £15.00

EAST OF SUEZ £15.00

NEW ZEALAND MARITIME IMAGES £15.00

MARCO POLO £12.00

IRISH SEA SCHOONER TWILIGHT £21.00

Postage on overseas orders for reduced price books will be charged at cost rather than the usual 15% or 20%

EDITORIAL

Editor • Nicholas Leach

sm.ed@kelsey.co.uk

Art Editor • Mark Hyde

ADVERTISEMENT SALES

Talk Media • 01732 445325

shipsmonthly.ads@kelsey.co.uk

Production Supervisor

Amy Rutter - 01733 353365

amy.rutter@kelsey.co.uk

Jackie Aubrey • Jackie.aubrey@kelsey.co.uk

MANAGEMENT

Managing Director • Phil Weeden

Chief Executive • Steve Wright

Chairman • Steve Annetts

Finance Director • Joyce Parker-Sarioglu

Retail Distribution Manager • Eleanor Brown

Audience Development Manager • Andy Cotton

Subs Marketing Manager • Dan Webb

Brand Marketing Manager • Rebecca Gibson

Events Manager • Kat Chappell

Publishing Operations Manager

Charlotte Whittaker

SUBSCRIPTIONS

12 issues of Ships Monthly are

published per annum

UK annual subscription price: £51.00

Europe annual subscription price: £64.49

USA annual subscription price: £64.49

Rest of World annual subscription

price: £70.49

CONTACT US

UK subscription and back issue orderline:

0333 043 9848

Overseas subscription orderline:

0044 (0) 1959 543 747

Toll free USA subscription orderline:

1-888-777-0275

UK customer service team: 01959 543 747

Customer service email address:

subs@kelsey.co.uk

Customer service and subscription

postal address:

Ships Monthly Customer Service Team

Kelsey Publishing Ltd

Cudham Tithe Barn, Berry's Hill, Cudham

Kent, TN16 3AG, United Kingdom

WEBSITE

Find current subscription offers and buy back

issues at shop.kelsey.co.uk/smback

ALREADY A SUBSCRIBER?

Manage your subscription online at

shop.kelsey.co.uk/myaccount

DISTRIBUTION

Seymour Distribution Ltd

2 East Poultry Avenue, London,

EC1A 9PT

www.seymour.co.uk • 020 7429 4000

PRINTING

William Gibbons & Sons Ltd

Kelsey Media 2017 © all rights reserved. Kelsey Media is a trading name of Kelsey Publishing Ltd. Reproduction in whole or in part is forbidden except with permission in writing from the publishers. Note to contributors: articles submitted for consideration by the editor must be the original work of the author and not previously published. Where photographs are included, which are not the property of the contributor, permission to reproduce them must have been obtained from the owner of the copyright. The editor cannot guarantee a personal response to all letters and emails received. The views expressed in the magazine are not necessarily those of the Editor or the Publisher. Kelsey Publishing Ltd accepts no liability for products and services offered by third parties. Ships Monthly is available for licensing worldwide. For more information, contact bruce@bruceawfordlicensing.com

WELCOME

The biggest ships in history



The topsides removal/installation vessel Pioneer Spirit is considered the largest ship in the world.

This month we have several articles discussing ships that in their own way can claim to be the biggest in the world, a title that has always captured the imagination. There is the famous SS Great Britain, the biggest steamship when she was built in 1843 and an engineering marvel of her time. Then we go on board Atlantic Container Line's new G4 ships, which are the biggest con-ro ships ever built and are technologically as advanced now as Great Britain was in her time.

We also have Jim Shaw's excellent article providing an overview of the

biggest ships, looking at the biggest tankers, bulkers, liners and more. However, biggest is not necessarily best, as the larger the ship, the fewer places where she can be berthed or accommodated. While large ships, notably container ships, offer unit cost savings, ports and harbours often have to be adapted with specialised facilities in order to take these giant vessels. How many ports can accommodate Maersk's Triple-E boxboats, or in the cruise business the Oasis class ships?

It is difficult to determine exactly what is the biggest ship, as different kinds of measurements can be used. Is it length? Gross tonnage? Deadweight? But a visit to SS Great Britain in Bristol will show how big modern ships actually are, as the famous steamship is pretty small by today's standards. Whether ships will get much bigger than they are remains to be seen, as ambitious projects to build enormous floating cities are more about grabbing headlines than coming up with something realistic or feasible.

Nicholas Leach

Nicholas Leach
Editor
sm.ed@kelsey.co.uk

Contributors this month

Malcolm Cranfield



Malcolm Cranfield's interest in shipping

started while he was living at Portishead in the 1960s, and he has since undertaken much research.

Jim Shaw



Jim Shaw has always had a great interest in ships and

shipping and has written commercially for a wide variety of international transport publications.

James Hendrie



James Hendrie is a part-time freelance

writer who is a regular contributor to Ships Monthly and many other publications.

Matt Davies



Matt Davies works in the bus industry and

has been interested in transport from an early age, travelling on and photographing ferries.



Ships Monthly on Facebook

REGULAR CONTRIBUTORS

Andrew & Donna Cooke

Roy Cressey • Gary Davies

Jack Gaston • Nick Hall

William Mayes • Russell Plummer

Jim Shaw

Data protection Kelsey Media uses a multi-layered privacy notice, giving you brief details about how we would like to use your personal information. For full details, visit www.kelsey.co.uk, or call 01959 543524. If you have any questions, please ask as submitting your details indicates your consent, until you choose otherwise, that we and our partners may contact you about products and services that will be of relevance to you via direct mail, phone, email or SMS. You can opt out any time via data.controller@kelsey.co.uk or 01959 543524.

Ships

MONTHLY



CONTENTS



COVER The 364,767dwt bulker *Berge Stahl* was, until 2011, the longest and largest iron ore carrier in the world. FOTOFLITE

ALSO AVAILABLE DIGITALLY

WWW.POCKETMAGS.COM

REGULARS

6 WATERFRONT

RFA *Rover* returns and retires, *Megastar* enters services, and will *Delta Queen* sailing again?



10 FERRY

Cal Mac carries five million, Condor improves, and new quartet for Stena. **Russell Plummer**

12 CRUISE

Marco Polo to be retired, *Swan Hellenic* saved, and plans released by Saga. **William Mayes**

14 NAVAL

The 'Big E' decommissioned, and HMS *Mersey* returns from long deployment. **Gary Davies**

16 CARGO

New container line, Zeaborn takes over Rickmers, and new coaster *Scot Navigator*.

18 NEWBUILD

Color Line's largest plug-in hybrid, new jack-up design, largest ship built in the Philippines, and Ulstein's new design. **Jim Shaw**

20 NEWS FEATURE

A look at the innovative new destroyer USS *Zumwalt*, which recently commissioned into the US Navy at Baltimore. **Conrad Waters**



29 SHIPS PICTORIAL

Photos of ships around the world, including at Milford Haven, Gulf of Mexico and Algeciras.

SUBSCRIBE TODAY • SEE PAGE 22 FOR MORE INFO



WWW.SHIPSMONTHLY.COM

FEATURES

24 THE BIGGEST SHIPS

A look at the world's largest ships, which continue to get bigger and bigger in all sectors of shipping. **Jim Shaw**



40 FOTOFLITE AT 70

Celebrating 70 years of aerial photography over the English Channel, profile of specialist ship photographers FotoFlite. **Patrick Boniface**

44 CHINESE CLASSICS

Chinese shipowning and the ships operated in the post-war era, when the use of offshore companies was common. **Malcolm Cranfield**

50 MARITIME MOSAIC

Fowey in Cornwall is a popular destination for small cruise ships, as these photos taken between 2007 and 2009 show. **Paul Richards**

52 A GREAT BRITISH SHIP

SS Great Britain, worthy of the name 'Great', was launched in 1843, when she was the biggest in the world. **James Hendrie**

56 US COASTGUARD

For over 200 years the US Coastguard has been guarding the coasts of America and saving lives at sea. **Campbell McCutcheon**



66 BRIDGE VISIT

Interview with Captain Todd McBain, Master of Diamond Princess. **Alan Moorhouse**

33 SHIP OF THE MONTH ATLANTIC STAR

Behind the scenes on Atlantic Container Line's new G4 ships, which are the largest con-ros in the world. **Matthew Davies**



CHARTROOM

60 SHIPS MAIL

A selection of letters from readers.

62 PORTS OF CALL

Cruise ship calls around the UK in May. **Andrew and Donna Cooke**

63 MYSTERY SHIP

Can you identify this month's mystery ship?

64 SHIPS LIBRARY

Reviews and details of new maritime books.

L'AUSTRAL HITS ROCKS

CRUISE ACCIDENT

The French cruise ship L'Austral has been involved in two incidents while cruising New Zealand waters. She hit a rock in early February while entering Milford Sound while under pilot, but suffered only minor dents and hull damage, with no breaches of the hull. She continued her cruise, proceeding to Dunedin, where she underwent diver inspection.

This is the second incident L'Austral has been involved in in recent times. In January, with 200 plus passengers aboard, she hit an unidentified underwater object in the South Pacific and made an unscheduled call into Bluff, but no damage was found.



GET DELTA QUEEN SAILING AGAIN

RIVER STEAMER

Fresh efforts to get the stern wheel steamer Delta Queen sailing again are being headed by US politicians, with Democrat Senator Claire McCaskill co-sponsored by other representatives. They are bidding to reinstate an exemption to

McCaskill's Bill 89 that would allow the 1927-built vessel to return to passenger service.

Designated as a US National Historic Landmark, the steel-hulled Delta Queen's upper decks, including public areas and 88 overnight staterooms, are built of wood, and the vessel could not sail overnight with more than

50 passengers, based on SOLAS regulations dating back to 1966.

Hulls were fabricated by Wm Denny at Dumbarton in 1925 for Delta Queen and the identical Delta King, which were assembled at the CN&L yard in Stockton, California. Delta Queen entered service between San Francisco and Sacramento in 1927. RP



Delta Queen in service on the Ohio River in 2008. DELTA QUEEN STEAMBOAT COMPANY

NO BREXIT WORRIES

DFDS FERRIES

The Brexit vote appears to have had little effect on DFDS, who have posted record ferry and logistic operations earnings for 2016, with freight volumes and UK-Continental trade holding up despite the result of the UK referendum last June. Full-year revenues were up eight percent at £13.43 billion, the DFDS shipping division accounting for £1.08 billion, up £1.03 million on 2015 and driven by a 21 per cent increase in freight volumes.

The company also handled 12 per cent more passengers, with increased earnings on cross-Channel routes from Dover to Calais and Dunkirk accounting for almost half of the growth. In the final quarter of 2016 they carried 17 per cent more freight and six per cent more passengers.

DFDS is investing more than £20 million in two larger freight ships for the Immingham-Rotterdam route, due for delivery from FSG at Flensburg in May. Refits and upgrades in the wider fleet are also under way. RP



Calais Seaways has helped DFDS enjoy a record year. NICHOLAS LEACH

A BIG SKEGNESS WELCOME



The new 13m Shannon lifeboat Joel and April Grunnill is beached at Skegness for the first time. NICHOLAS LEACH

NEW LIFEBOAT

Hundreds of people turned out on Skegness beach in January to greet the new 13m Shannon class lifeboat Joel and April Grunnill as she arrived at her station for the first time. With the operational number 13-17 on her bow, she was, appropriately enough, brought onto the beach for the first time at 1317 to be recovered onto the specialist SLARS vehicle.

The boat she is replacing, 12m Mersey Lincolnshire Poacher, greeted her replacement, along

with the station's inshore lifeboat, while Atlantic 85s had come from neighbouring Mablethorpe and Hunstanton to join the parade. The five lifeboats lined up for a photo shoot off the beach before the new Shannon then demonstrated her speed.

The £2.2 million state-of-the-art lifeboat has been funded by a generous donation left to the charity by local RNLI box secretary April Grunnill, following a legacy left behind by former crew and station chairman Joel Grunnill, who passed away in 2014.

RFA Gold Rover, and her 460ft long paying-off pennant, arriving at Portsmouth on 22 February.
MARITIME PHOTOGRAPHIC



ROVER RETURNS TO RETIREMENT

BULK CARRIER

The last of the Royal Fleet Auxiliary's five Rover class tankers has been retired after 43 years' service in support of naval operations around the globe. RFA Gold Rover made a final entry into Portsmouth with the rare honour of flying a paying-off pennant, which is unusual for an auxiliary. Her official end-of-service ceremony took place on

6 March. As with her sistership Black Rover, which is laid up at Birkenhead, a scrapyard awaits.

During four decades of eventful service, Gold Rover has participated in two evacuations, emergency flood relief and medical stores resupply missions, a major drugs bust and eight lifesaving rescue operations.

As for the role for which she was designed, the single-hulled tanker has clocked up 8,256

replenishments at sea (RAS), transferring around 1.2 billion litres of fuel. Her last RAS was with the frigate HMS Portland off the west coast of Africa in early February, after which she headed back to the UK and Portland, prior to arriving at Portsmouth.

The Royal Navy's future tanker needs will be met by four new Tide class tankers, which are more than three times the size of the relatively small Rovers. GD

REFIT FOR OLD FERRY

NEWFOUNDLAND

Already with almost half a century of service to her name, the ferry Sound of Islay, which launched Western Ferries operations in April 1968, is being put through a Can\$6 million refit. She will then resume a relief role as the only vessel in the fleet of her operator, the Provinces of Newfoundland and Labrador, able to cover at every one of the 24 ports served.

The Federal Government and Newfoundland Provincial Government will fund most of the refit, which will see deteriorated steel plates replaced, passageways widened and passenger facilities modified. Carrying 20 cars and 100 passengers, the stern-loading Sound of Islay has had the same name since being built by Ferguson Brothers in 1968. RP

EASY LAUNCH FOR EASYMAX

NEWBUILD

Dutch shipbuilder Royal Niestern Sander has launched the first in a series of 149m by 15.90m EasyMax ice-strengthened

multipurpose vessels for Delfzijl-based Royal Wagenborg. The 8,878gt ship, which has a cargo capacity of over 14,000 tonnes, will be named when delivered later this year.



▲ The long and deep cargo hold area of the new EasyMax multipurpose carrier is easily seen in this launch photo at Holland's Royal Niestern Sander yard. ROYAL NIESTERN SANDER

BRIEF NEWS

SAILS FOR LNG FERRY • Viking Line has signed an agreement with compatriot company Norsepower Oy Ltd to have a Norsepower Rotor Sail installed on the 57,565gt LNG-fuelled cruise ferry Viking Grace, which operates between Finland and Sweden. The installation, involving a single unit measuring 24m in height and 4m in diameter, is scheduled to take place next year and is expected to result in an annual saving of about 300 tonnes of LNG fuel.

NO MORE FOR MITSUBISHI

After suffering major losses in two problem-plagued cruise ship projects, Japan's Mitsubishi Heavy Industries has abandoned its ambition to build European-style cruise vessels and will now concentrate on building only medium-sized passenger ships such as ferries. The company booked \$2.3 billion in extraordinary losses due to cost overruns in the construction of two cruise ships for AIDA Cruises. JS

WINDFARM SOV

• Turkey's Cemre Shipyard has been contracted to build an 83m by 19.4m wind farm Service Operation Vessel (SOV) for Louis Dreyfus of France. To be delivered in late 2018, the diesel/electric vessel will be chartered by Denmark's DONG Energy Wind Power to support wind farms off the coast of Germany. JS

LOS ANGELES RECORD

• The Port of Los Angeles handled 826,640TEUs in January, an increase of 17.4 per cent compared to January 2016. It was the busiest January in the port's 110-year history, outpacing last January, which was the previous record for the first month of the year.

SALVAGE

• Work began on 23 January to raise the ferry Panagia Tinou, which had been listing and semi-submerged in Piraeus Great Harbour since April 2016. She started life as Sealink's Hengist in 1972 and went to Greece 20 years later, serving GA Ferries as Romilda and later ran as Apollo Express for Ventouris. RP

SHEPHERD ON PATROL

SEA SHEPHERD

The Sea Shepherd Conservation Society, which has been combating wildlife trafficking ashore and afloat, has placed its newest vessel, the 110ft (34m) by 21ft (6.4m) John Paul DeJoria, in service following her purchase from the US Coast Guard. The vessel's namesake, John Paul DeJoria, is a co-founder of John Paul Mitchell Systems salon products, and has worked with the Sea Shepherd organisation since 1998. One of a large series of Coast Guard patrol cutters built in the late 1980s and early 1990s, the 29.5-knot vessel is to be deployed in anti-poaching work off the Galapagos Islands. JS



▲ The former USCG cutter now in service in the Pacific Ocean. SSCS

MEGASTAR ENTERS SERVICES

BALTIC FERRY

On 29 January Tallink's latest newbuilding, the 212m 49,200gt fast ferry Megastar, left her home port of Tallinn at 1330 to make her maiden voyage to Helsinki. Not only is the ship the biggest fast ferry in the world, but she is also the latest to use LNG as the main fuel in her Wärtsilä dual-fuel engines for the diesel-electric propulsion, ensuring she meets all of the current strict emission limits in

the Baltic and those which are being introduced worldwide.

Megastar is the first non-cruise ship built by Meyer Turku, which was also the birthplace of the world's largest LNG passenger ship, the 59,000gt Viking Grace, in 2013. Unlike the Finnish cruise ferry, Megastar has been designed with the short 80km route in mind and in response to feedback from Tallink passengers. Megastar's predecessor, Superstar, sailed for Italy to start with Moby Line.

Megastar can carry up to 2,824 passengers and up to 800 cars on 3,653 lane metres, or 300 cars with 110 trucks. A garage parking innovation allows 100 cars to be accessed by passengers during the voyage below what is the largest shopping centre afloat on the Baltic. There are 47 cabins for passengers on the 10th deck, and 105 for crew on the 11th and 10th decks. There are various lounges, restaurants, bars and cafes, with a Winter Garden. JP



STATE OF THE ART

NAVY TUG

Serco Marine, the UK's largest operator of British-flagged vessels, has taken delivery of SD Tempest, a powerful new ART (Advanced Rotortug®) 80-32 tug, specifically acquired to handle the Royal Navy's two new 70,600-tonne Queen Elizabeth aircraft carriers.

The 80-tonne bollard pull vessel arrived at Portsmouth on 22 February after a three-day delivery voyage from the Damen yard in Gdansk, Poland. The ART comprises three diesel-driven azimuthing thrusters, with two units in the fore ship and one aft. This flexible propulsion configuration offers 100 per cent bollard pull over the bow or stern. GD



SD Tempest is Serco Marine's 31st Damen newbuild; she has grey fendering to avoid marking warship hulls. MARITIME PHOTOGRAPHIC

MERGER IN NORWAY



The 5,528gt Normand Mermaid is one of a number of vessels involved in the merger of three major Norwegian OSV operators. SOLSTAD OFFSHORE

OFFSHORE SUPPORT

The downturn in the offshore support vessel (OSV) industry has helped pressure a three-way merger between Norwegian operators Farstad Shipping, Solstad Offshore and Deep Sea Supply into a new company, Solstad Farstad, that will have a combined fleet of 154 vessels.

This will make it among the

largest operators of OSVs in the world. Farstad and Deep Sea Supply will merge into Solstad and become its subsidiaries, while their shareholders will receive shares in the combined entity. Once finalised, the new company will have 33 Construction Support Vessels, 66 Platform Supply Vessels and 55 anchor handlers at its disposal, but only 63 of these ships are currently deployed. JS

Spotting Books Made By Spotters!



Now Available

Over 35,000
Vessels Likely
to be seen
in European
waters listed in
three volumes
by IMO, name,
type, weight
and year
built also two
volumes for UK
Canal Boats
listing over
54,000 boats
by registration
number and
name carried



www.stpublications.co.uk

For the full range or contact

07760284494



The Honourable Company of Master Mariners

Formed in 1926, we are a professional body for Sea Captains
and a City of London Livery Company
with membership open to
British and Commonwealth Master Mariners,
from both Royal and Merchant Navies,
and to others with a strong association with
the maritime industry in general.

For further information, please contact The Clerk:
**HQS Wellington, Temple Stairs, Victoria
Embankment, London WC2R 2PN**

www.hcmm.org.uk Tel: 020 7836 8179

Email: clerk@hcmm.org.uk



Powell Bacon and Hough N. Robins, M. McRonald £16
Coast Lines Key Ancestors N. Robins, C. Tucker £16
£25 for both with free post

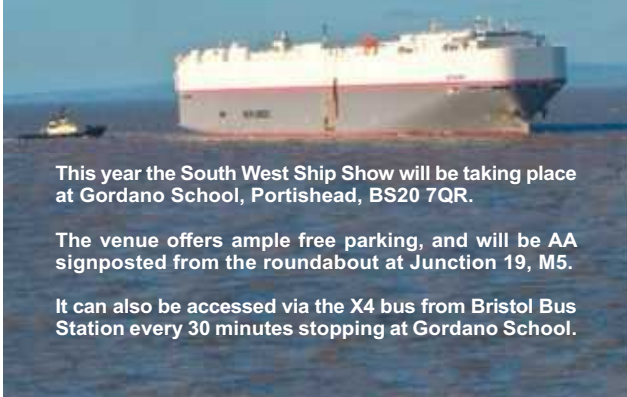


**T & J Harrison
Ships of Many
Trades**
Iain McCall £9.95

**Clan Line The Final
Decade in Colour**
Iain McCall £9.95

**£15 for both
with free post**

SOUTH WEST SHIP SHOW



This year the South West Ship Show will be taking place
at Gordano School, Portishead, BS20 7QR.

The venue offers ample free parking, and will be AA
signposted from the roundabout at Junction 19, M5.

It can also be accessed via the X4 bus from Bristol Bus
Station every 30 minutes stopping at Gordano School.



Thames Tugs in Colour
Andrew Wiltshire £9.95
available for preorder



Sailing Past the Point
Bernard McCall £16
available for preorder

400 Nore Road, Portishead, Bristol, BS20 8EZ • 01275 846178
orders@coastalshipping.co.uk • www.coastalshipping.co.uk

NEWS IN BRIEF

MINOAN LINES • The long-established Greek operator is concentrating solely on domestic traffic after the return of time-chartered 54,510gt sisters Cruise Olympia (2008) and Cruise Europe (2009) to parent company Grimaldi brought an end to 35 years of sailings between Patras and Ancona. The Grimaldi Group now own 92 per cent of Minoan Lines, who are expected to buy out fellow Geek domestic operator Hellenic Seaways.

CLDN ORDER • The Luxembourg headquartered short sea ro-ro operator has added two further ships to its newbuilding order book, contracting a pair of 5,400 lane metre ro-ros from Hyundai Heavy Industries in South Korea, with an option for four more. Already CLDN have two 8,000 lane metre ro-ros on order from Hyundai, plus two 5,400 lane metre vessels from Uljanik at Paula, Croatia, in addition to six bulk carriers.

ULYSSES • Irish Ferries' flagship returned to the Dublin-Holyhead route on 17 January after a 13-day annual overhaul by Cammell Laird at Birkenhead on the Mersey. With Isle of Inishmore standing in on the Irish Sea Central Corridor route, Ulysses was joined by high-speed vessel Jonathan Swift for her own overhaul on 8 January. Also dry-docked during this period was Stena Europe, with Stena Nordica deputising between Rosslare and Fishguard.



Caledonian Isles helped Cal Mac to a good yer.

CAL MAC CARRIES FIVE MILLION

SCOTTISH WATERS

During 2016, the first year with Road Equivalent Tariff fares operating throughout the entire network, Caledonian MacBrayne passenger carryings increased by 9.27 per cent to more than five million, with car totals up almost 16 per cent to 1,356 million vehicles. This equates to 428,801 more passengers than in 2015 and an extra 186,695 cars.

RET is a Scottish Government

policy to ensure those living on an island are not unduly financially disadvantaged by ferry fares. A phased introduction began in 2008 with a number of Western Isles destinations and was completed with full network coverage from October 2015.

Cal Mac operates Britain's largest ferry operation, with 32 vessels carrying out more than 136,000 individual annual sailings across 20 routes through an area extending 200 miles

from Campbeltown on Kintyre and the Isle of Arran in the south to Stornoway in the north.

'Last year was our busiest in terms of passengers for two decades,' said Cal Mac managing director Martin Dorchester. Now set to stay with the company despite announcing his resignation earlier in the year, he added: 'This is a great reflection on the professionalism of our staff in dealing with an increase of more than 400,000 passengers.'

PUBLIC SECTOR BIDS POSSIBLE

POLICY REVIEW

Contracts for Scottish Government-backed ferry routes could in future be awarded to public sector firms without going to tender. At present, under European law, public and private firms can bid, but unions representing ferry workers claim this pits the interests of staff and passengers

against private companies looking for profit from lifeline routes.

The EC has told the Scottish Government and maritime union RMT that in certain circumstances public ferry services could be awarded to an in-house operator without the need for tendering. As a result, a policy review into future tendering for Clyde, Hebridean and North Isles services has been

launched by Scotland Minister for Transport Humza Yousaf.

A current procurement process for the Gourock-Dunoon passenger route has been halted, with the existing contract, originally due for renewal in June, extended by nine months. Caledonian MacBrayne offshoot Argyll Ferries provide a service using Argyll Flyer and Ali Cat.

FERRIES IN THE NEWS ... FERRIES IN THE NEWS ... FERRIES IN THE NEWS ... FERRIES IN THE NEWS ... FERRIES IN THE NEWS



SNV LAZIO • The 1989-built former Olau Britannia and Pride of Portsmouth, now displaying new Grandi-Navi Veloce (GNV) colours as SNAV Lazio, is to launch a service, starting in June, from Barcelona to Nador in Morocco. Crossings will take 24 hours, with accommodation for 1,600 passengers and 575 cars.

MN PELICAN • Brittany Ferries have extended their charter of the 8,848gt ro-ro vessel for a further 12 months. She will continue to make two return trips from Poole to Bilbao in northern Spain each week. Pelican, owned by French company Maritime Nantaise, was built in 1999 and can carry up to 100 trailers and 12 drivers. She started providing the additional capacity to Brittany Ferries ro-pax services from Portsmouth and Plymouth to Bilbao and Santander in February last year, which have proved popular with freight customers.

GARDENIA SEAWAYS • The first of two SIEM ships for charter by DFDS Seaways, seen during launch at the FSG Yard in Flensburg, Germany on 17 February. The 210m/262-trailer vessel debuts on DFDS's Rotterdam-Immingham route in May.



SARDINIA VERA • After completing a Baleària charter, the 12,035gt/1975-built veteran was widely reported to be heading for breakers at Alang, but is now to open a Corsica Ferries link between Porto Vecchio and Piombino, Elba in July. Originally in Canada as Marine Atlantica, she went to Corsica Ferries in 1986 and from 2001 to 2006 served Transmanche Ferries to revive the Dieppe-Newhaven route and was part of a four-ship Stena Line order from Rickmers Werft, Bremerhaven, designed for charter work, and went to Canada with Marine Atlantic.

CONDOR PERFORMANCE IMPROVES

Condor Liberation making her maiden voyage out of Poole in 2015. KEVIN MITCHELL



CHANNEL ISLANDS

Improvements in overall reliability and punctuality on Condor Ferries' Channel Islands routes were achieved during 2016, when 97.9 per cent of all scheduled sailings were completed, with 85.6 per cent of them arriving within 30 minutes of due time.

This compares to figures of 96.1 per cent and 82.3 per cent respectively in 2015.

Compilation of these indicators forms part of the service level agreement signed with the Harbour Master of Jersey in 2014. Condor chief executive Paul Luxon said the latest figures demonstrate the continued resilience of the

company's services.

'By making this performance data public, I would like everyone to recognise that we are dedicated to providing year-round, robust sea connections. Inclement weather can always affect travel in the islands, both at sea and in the air, but we have shown we are quick to react and adapt services,' he commented.

Condor link Poole with Guernsey and Jersey using the 883-passenger/254-car 102m Austal-built trimaran Condor Liberation, introduced in 2015, with further high-speed sailings from the islands to St Malo by the 86m Incat Condor Rapide (1997/5,007gt). There are also conventional services from Portsmouth to the islands using ro-pax vessel Commodore Clipper (1999/13,460gt) and freight ro-ro Commodore Goodwill (1996/11,166gt).

TRAFFIC UP

WESTERN CHANNEL

Despite unfavourable conditions following terrorist attacks in France, together with Brexit and the consequent decline in the value of sterling, there was an increase in English Channel westerly ferry traffic for the third consecutive year with 2016 totals up 5.18 per cent overall.

Ports Normands Associés report that passenger activity in Ouistreham fell slightly, but jumped by 11 per cent in Cherbourg, driven by routes to England and, to a lesser extent, Ireland, with 1,608,953 passengers, the best figures since 2009. Freight figures remained stable, although traffic through Ouistreham fell. The Brittany Ferries service, for which a new vessel has been ordered from FSG, remains the busiest west of the Dover Strait.

NEW STENA QUARTET BUILDING FOR BELFAST SERVICE

IRISH SEA

Stena Line confirmed in February that all four E-Flex ro-pax ferries on order from the AVIC Shipyard in China will operate from the company's Belfast hub, taking over services linking the Northern Ireland port with Cairnryan and Birkenhead when they are delivered in 2019 and 2020.

One of Stena's biggest new built contracts for many years will produce 1,000-passenger/3,000-lane-metre ferries powered by

'gas-ready' main engines, fuelled by methanol or LNG. The AVIC contract also includes an option for four further vessels.

'The routes to and from Belfast are strategically very important to Stena Line and we have made significant investments in ports and vessels to improve and develop capacity, offering a frequent high-quality service. These new vessels will be the largest ferries ever to operate between Belfast and GB,' said Stena CEO Niclas Mårtensson.

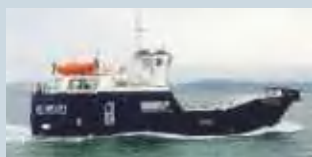
Impression of one of Stena's new Irish Sea ships.



One pair will replace the chartered 30,285gt Stena Superfast VII and Stena Superfast VIII, brought in in November 2011, when the North Channel's Scottish service switched from

Stranraer to a new purpose-built facility at Cairnryan. Also due for replacement are Visentini-built sisters Stena Mersey and Stena Lagan, which started to run Belfast-Birkenhead during 2011.

THE NEWS ... FERRIES IN THE NEWS ... FERRIES IN THE NEWS ... FERRIES IN THE NEWS ... FERRIES IN THE NEWS ...



SPIRIT OF RATHLIN • Built by Arklow Marine Services in Co Wicklow in Ireland, the new 125-passenger/five-car bow-loading ferry takes over the Northern Ireland passenger/vehicle service between Ballycastle, County Antrim and Rathlin Island as soon as a new island harbour costing £1 million is completed.

SMART SHIPS • Baleària has signed a €200 million contract with Italian builder Visentini for two dual-fuel ro-pax ferries. Described as 'smart ships', they will carry 810 passengers and offer 2,180 lane metres of freight, as well as have space for 150 cars on a separate deck. Passenger accommodation will include 123 cabins and 402 seats. The Spanish operator already has a dual-fuel cruise ferry on order with the La Naval Yard in Spain for delivery in 2018 with a sister vessel, also 225m long and 30.44m wide, to follow.

THE CAT • Opposition leader Jamie Baillie will either renegotiate or scrap what he describes as Nova Scotia's 'one-sided deal' with Bay Ferries if he wins the next election. The Gulf of Fundy link from Yarmouth, Nova Scotia to Portland, Maine reopened in 2016 with the 2007-built catamaran.



VIKINGLAND • The Grimaldi Group is offering daily ro-ro services each way from Savona on the Italian mainland to Porto Torres in Sardinia with the British-flagged London-registered Vikingland (1982/8,425gt), built at Rauma, Finland, brought in to sail opposite Visentini product Eurocago Istanbul (1998/29,410gt) from the fleet of subsidiary Malta Motorways of the Sea. Both offer more than 2,000 lane metres of vehicle space and take 12 drivers.

ANOTHER REPRIEVED?

RUSSIA

The Russian Government, in conjunction with Sovfracht and Rosmorport, is in the process of setting up a Black Sea cruise service to stimulate the Crimea following the loss of its cruise business in the aftermath of the Russian annexation of the region.

The ship earmarked for the new operation is Mano Cruises' Royal Iris (pictured), which, for the past two years, has been in a Greek backwater after being taken out of service by Mano. Royal Iris was built in 1971 as Eagle. In her proposed new role, she will operate weekly cruises from Sochi, under the name Roy Star.



Marco Polo will be retired by CMV in 2018. WILLIAM MAYES

MARCO POLO TO BE RETIRED

CMV

A remarkable survivor, Marco Polo, now 52 years old, is about to enter her final year with Cruise and Maritime Voyages. CMV's parent company, Global Maritime of Greece, has owned the ship since 2007, when NCL closed Orient Lines. Marco Polo was built by Mathias Thesen in Wismar as one of a series of five in the so-called Authors' class, entering service with the Baltic Shipping Company in the summer of 1965.

She served the company's liner route between Leningrad and Montreal, but within ten years the trade had largely gone, so she was put into the cruising market, and in 1979 was chartered to Germany's Transocean Tours. Later she moved to the Far Eastern Shipping Co and ran for CTC Lines from Australia for a while. A sale in 1991 to a newly-formed Orient Lines saw the ship completely refitted over three years and renamed Marco Polo.

Orient Lines was acquired by

NCL in 1998, but in 2007 Orient closed and the ship went to her current owners, who chartered her to Transocean. In 2009, when Transocean failed, Marco Polo became the first ship for newly-formed CMV. CMV was later acquired by Global Maritime. Now Global Maritime has advertised Marco Polo, sole survivor of the class, for sale, with delivery in May 2018 and a \$15 million price tag, which probably means that the end is in sight for this remarkable ship.

ADRIFT IN TASMAN SEA

NCL

NCL's Norwegian Star had been suffering from propulsion problems since December 2016, forcing the ship to miss ports and change itineraries. Repairs were carried out while the ship was still in service and it was thought that the problem had been solved.

However, while sailing from Hong Kong to Sydney, she suffered complete failure of the port Azipod, but she continued to Sydney, missing ports in order to arrive on schedule. The non-

operational pod left the ship with just half of her motive power, so the next cruise to Melbourne also missed a number of ports.

After spending two days in Melbourne, she sailed on 8 February, only for the second pod to fail in the early hours of 10 February, leaving the ship drifting in the Tasman Sea off Wilson's Promontory, until tugs could be despatched to tow the ship back to Melbourne. After repairs, the ship sailed for Auckland, New Zealand on 14 February, missing all of the intermediate ports.

Norwegian Star being returned to Melbourne. BILL BARBER



NEW PLANS RELEASED

The latest look for the new Saga ship. SAGA



SAGA

With a little over two years to go before Saga's first purpose-built cruise ship enters service, a series of new artist's impressions of both the interior and exterior of the ship have been released. If the design is carried through, it will produce one of the best-looking ships for many years, with a tiered stern and streamlined forward superstructure.

More details to hand show that, internally, there will be some spectacular public rooms. The main dining room will have a central area that is two decks high, reminiscent of that on Saga Rose, but on a much grander scale, and the two-deck-high windows of the forward-facing Britannia lounge will make this a well-lit space during the day. The first block for the new ship will be laid in the summer of 2018.

SMALLER SHIPS

NCL

With the current order for four Breakaway Plus class ships with Meyer Werft at Papenburg now well under way, NCL is planning the next class of ship. Smaller than the current Meyer ships (of 165,000gt), the new vessels will have a gross tonnage of around 140,000. Passenger capacity will also be lower, at 3,300 compared with 4,200.

The order for four of these ships, with options on a further pair, has been placed with Fincantieri, and these will be the first ships in the current fleet that have not been built in Northern Europe, with the exception of Norwegian Epic, which was built at St Nazaire, France. Delivery at approximately annual intervals will begin in 2022.

MORE SAILINGS TO CUBA

CARNIVAL

Carnival Cruise Line, in its own right, has been granted permission by the Cuban authorities for its ships to call at Havana. Beginning in June 2017, Carnival Paradise will sail a total of 12 four- or five-night itineraries from Tampa, each featuring an overnight stay in Havana.

Another large ship to call in Havana will be Norwegian Sky. In addition to the five calls already

scheduled from May 2017, starting in December, she will offer 25 regular weekly four-night cruises from Miami, again with an overnight stay in Havana. Both lines will still have to comply with the US Government restrictions on travel to the island, but are expected to class these cruises under the People to People exemption.

RCI operates to Havana with Empress of the Seas, and Pearl Seas Cruises has ten-day itineraries from Port Everglades.



Carnival Paradise will be one of the largest ships sailing regularly to Cuba. RICK FRENDT

SWAN HELLENIC SAVED



Will Minerva be back with Swan Hellenic next year? WILLIAM MAYES

G ADVENTURES

Swan Hellenic appears to have been pulled from the wreckage of All Leisure Group by the Canadian-based G Adventures after that company acquired other travel businesses from All Leisure earlier in the administration process.

The origins of Swan Hellenic go back to the 1930s, but it was not until 1954 that the business ran its first cruise, aboard the chartered Miaoulis. For several years Swan

Hellenic ran one or two cruises annually, gradually increasing the number, until the early 1960s, when three early season and three late season cruises operated each year on Turkish Maritime Line's Ankara.

The cruising season was gradually expanded, so by the time Ankara was replaced by Epirotiki Line's Orpheus in 1974, a full summer of cruising was being undertaken. Swan Hellenic was purchased in 1968 by Trust House Forte, and 15 years later was

acquired by P&O. Orpheus was replaced by Minerva in 1997.

The cruise businesses of P&O were eventually merged with Carnival, but the Swan Hellenic single-ship business did not fit, so it was sold to Lord Sterling of Plaistow, who sold it on to All Leisure Group. G Adventures will revive Swan Hellenic in 2018 with a new (to them) ship, but Minerva has been refitted over the years to suit Swan's requirements, so it would be good to see her back, with the white swan on her funnel.

BRIEF NEWS

HNA CRUISES • Although reported as sold for scrap, Henna, formerly Carnival Cruise Line's Jubilee, now renamed simply Hen, has passed to a scrap broker and was, at the time of writing, awaiting scrapping bids while anchored off the Malaysian coast.

SEA SKY CRUISE LINE • This company, which is a joint venture between Royal Caribbean and China's Ctrip, has been operating the former Celebrity Century in the Chinese market as Sea Sky Golden Era for the past two years, but intends to expand by opening up to passengers from South Korea.

VIKING OCEAN • The keel for the fifth in the series of six ships for Viking Ocean Cruises, Viking Spirit, was laid at Fincantieri's Ancona Shipyard on 16 February. The yard delivered the third ship, Viking Sky, in January and the fourth, Viking Sun, is due for delivery in December 2018.

MSC CRUISES • The keel for MSC Seaview, the second ship in the MSC Seaside class, was laid at the Monfalcone shipyard of Fincantieri on 2 February. She is scheduled for delivery the summer of 2018.

NORWEGIAN CRUISE COMPANY • This appears to be another new company seeking to break into the top segment of the expedition cruise market. Little is known about it apart from its intention to introduce as many as six new 180-passenger polar ice class ships beginning in 2019.

AIDA CRUISES • The latest addition to the fleet, Aidaperla, will be christened in Palma, Majorca when she is delivered, 15 months late, in June. She will then spend the summer in the Med, with Palma as her homeport.

PRINCESS CRUISES • While Emerald Princess was alongside in the New Zealand port of Dunedin on 9 February, a crew member working on a hydraulic launching system for one of the tenders was accidentally killed when a gas canister exploded.

Enterprise was stricken from the US Navy's official Naval Vessel Registry on 3 February. US NAVY



THE 'BIG E' DECOMMISSIONED

US NAVY

The world's first nuclear-powered aircraft carrier has been formally decommissioned at an onboard ceremony at Newport News, 55 years after she entered service. USS Enterprise (CVN-65) has spent several years at the shipyard

where she was completed in 1961 having her eight nuclear reactors defuelled. At present, scrapping is not expected to be completed until 2025.

The 'Big E', as she was affectionately nicknamed, left frontline operations after returning from her 25th and final

deployment in 2012, and was deactivated in December the same year. As with all previous decommissioned nuclear-powered warships, she is likely to be moved to a 'graveyard' facility at the Puget Sound Naval Shipyard in Bremerton for the disposal of nuclear materials.

This would involve an open ocean tow of some 14,000nm around South America. At the time of writing, the final scrapping plan was undecided, with prohibitive costs causing the Navy to investigate whether to open the disposal process to competitive tender.

KRI Raden Eddy Martadinata is named after one of the founders of the Indonesian Navy. DAMEN



DAMEN DELIVERS FRIGATE

EUROPE ALLIANCE

The Indonesian Ministry of Defence has taken delivery of KRI Raden Eddy Martadinata, the first of two SIGMA 10514 PKR frigates contracted from Damen Schelde Naval Shipbuilding (DSNS) in December 2012. The 105m warship was handed over at the state-owned PT PAL shipyard in Surabaya on 23 January.

As the SIGMA (Ship Integrated Geometrical Modularity Approach) moniker suggests,

the ships are built using a collaborative modular process operating simultaneously at DSNS in the Netherlands and the PT PAL shipyard.

The lead vessel is made up of six modules, four constructed locally and the other two modules – the power plant and the bridge & command centre – built and fully tested at DSNS before being shipped to Surabaya for final assembly. The second of class, KRI I Gusti Ngurah Rai, is slated for delivery in October 2017.

TRAGEDY COMMEMORATED

SOUTH AFRICAN NAVY

The South African frigate SAS Amatola has embarked on a rare three-month deployment to the northern hemisphere, with port calls in Spain, England and Germany. The Valour class frigate participated in Basic Operational Sea Training (BOST) with the RN's Flag Officer Sea Training organisation at Devonport before proceeding to Portsmouth for the main purpose of her UK visit, the commemoration of the centenary of the sinking of the Admiralty-chartered Elder Dempster liner Mendi.

In the early hours of 21 February 1917 the troopship collided with SS Darro in thick fog, close to the southern tip of the Isle of Wight. She went down with the loss of 616 men from the Fifth Battalion South African Native Labour Corps and 33 crew. The Royal Navy was represented by HMS Dragon, which accompanied Amatola as relatives of those lost in the World War I tragedy laid wreaths above the wreck.

SAS Amatola later sailed for naval exercises with the German Navy and visits to Kiel and Rostock, prior to returning to her homeport of Simon's Town on 22 April.

SAS Amatola has twice visited the wreck site of SS Mendi – in 2007 and 2017 – for remembrance services. MARITIME PHOTOGRAPHIC



ON THE MERSEY BEAT



HMS Mersey received a tug escort upon return from a lengthy deployment. MARITIME PHOTOGRAPHIC

ROYAL NAVY

The challenges of overstretch facing the Royal Navy, with a mismatch of commitments and resources, namely too few frigates and destroyers, is well illustrated by the far-ranging exploits of HMS Mersey. The Offshore Patrol Vessel recently returned

to Portsmouth after a 13-month deployment, during which time the ship, usually on Fishery Protection duties in home waters, travelled 48,000 miles and visited 32 ports in 19 countries over three continents.

Mersey became the second River class vessel to provide a British naval presence in the

Caribbean for the UK's overseas territories. While on the North Atlantic station she was involved in the seizure of £12 million worth of cocaine off Nicaragua. Instead of returning to the UK after her Atlantic Patrol tasking, Mersey was diverted to the Aegean Sea to support the NATO-led operation to combat the migration crisis.

DRONE ATTACK?

SAUDI NAVY

Houthi militia have targetted another warship in the Red Sea close to the Yemen coast. Two sailors on board the Saudi frigate Al Madinah were killed in an explosion after being hit by a fast moving boat. The warship was not seriously damaged and was able to return unassisted to the Western Fleet base in Jeddah. After assessment, the head of the US Fifth Fleet later reported the weapon as an 'unmanned, remote-controlled boat of some kind'.

Last October an Emirati military catamaran was destroyed by an anti-ship missile near the Bab al-Mandab strait. The Iranian-backed rebels' use of sophisticated missiles along the Red Sea coast in the Yemeni civil war is a threat to international commercial shipping transiting the area, which includes traffic in and out of the Suez Canal.

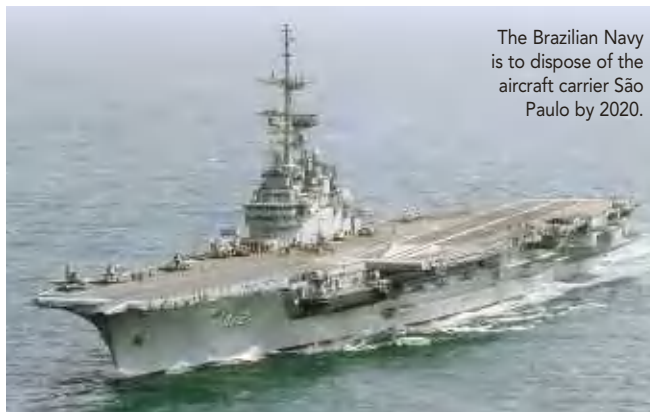
CARRIER CAPITULATION

BRAZILIAN NAVY

Brazil has given up on the vast expense and complexity of naval aviation and shifted naval funding to their submarine programme and a new class of frigates. Plans to modernise the Navy's aircraft carrier, São Paulo (ex-Foch), and purchase new jet aircraft, have been under consideration for some time, but have now been abandoned, as they became excessively costly. Instead, the

54-year old ship, bought from France in 2000, will be prepared for decommissioning.

Despite two extensive refits since acquisition, the ship has spent little time under way since 2012 because of ongoing issues with her engines, propulsion shafts and catapults. Latest estimates for the entire replacement of the propulsion system, catapults and combat system are reported to be in excess of US\$324 million.



The Brazilian Navy is to dispose of the aircraft carrier São Paulo by 2020.

BRIEF NEWS

FRENCH NAVY • France's only aircraft carrier, FS Charles de Gaulle, has entered a mid-life refit at Toulon. During the 18-month overhaul, the nuclear-powered vessel's navigation, communications and combat systems will be upgraded. The flight deck guidance system will also be optimised for 'all Rafale' operations following withdrawal of the Super Etendard. After the equivalent of 30 world circumnavigations, the nuclear reactor will also be refuelled.

THAI NAVY • Thailand's stop-start interest in establishing an underwater capability is back on, with confirmation that the Junta has agreed a US\$380 million deal with China. The single submarine will be used as a training vessel to evolve submarine warfare. Two more may be purchased in due course under an 11-year procurement plan. Meanwhile, the Philippines DoD is evaluating an offer of diesel-electric submarines from Russia, similar to the six recently delivered to Vietnam.

ITALIAN NAVY • Construction of the first of seven Multipurpose Offshore Patrol Ships (Pattugliatore Polivalente d'Altura, or PPA) got under way on 13 February with a steel-cutting ceremony at Fincantieri's Muggiano shipyard in La Spezia. The modular PPAs will come with different levels of armament, ranging from guns only to having Aster 15 and 30 missiles, across two 'Light' versions, three 'Light Plus', and two with a 'Full' weapons configuration.

NORWEGIAN NAVY • The MoD has selected the well-proven Type 212 diesel-electric submarine from German Thyssenkrupp Marine Systems (TKMS) ahead of the French Scorpène from DCNS to replace the Ula class. Norway is set to buy four of the air-independent propulsion (AIP) equipped boats that are already in service with the German and Italian Navies. A contract is to be signed by 2019 for deliveries between the mid-2020s and 2030.

BANKRUPT ZEABORN TAKES OVER RICKMERS

FLEET REDUCTIONS

Several companies are seeking to offload vessels from their fleets or in some cases seeking bankruptcy protection. One company in trouble, Naples-based Giuseppe Bottiglieri, filed for bankruptcy protection while undergoing a major restructuring due to the unprecedented world freight market crisis. Their fleet comprises four tankers and 11 bulk carriers, which will continue to trade under the filing with creditors, which allows them to continue in business in the interests of the stakeholders. The company are restructuring and have prepared a new business and financial plan. RC



▲ The Panamax type bulk carrier Bottiglieri Giorgio Avino (2011), seen in the Bosphorus, is a member of the Bottiglieri fleet. SIMON SMITH



Built in 2003, the 23,119gt Rickmers Singapore is one of a number of multi-purpose vessels involved in the recent purchase of the business operations of Rickmers-Linie by Bremen's Zeaborn Group. RICKMERS-LINIE

INDUSTRY NEWS

The Bremen-headquartered Zeaborn Group, established in 2013, has taken over the business operations and international organisation of compatriot operator Rickmers-Linie, including the tramp operations of NPC Projects and MCC Marine

Consulting & Contracting, a bunker and chartering broker.

The acquisition has produced a combined fleet of about 50 multi-purpose vessels with deadweight capacities of between 7,500 and 30,000 tonnes, and a combined lifting capacity on several individual ships of up to 700 tonnes. Under the deal,

Zeaborn will have the right to use the brand names Rickmers-Linie and Rickmers-Line, but only within the scope of activity of the business being acquired. The sale of the business segment will have no impact on Rickmers-Linie's workforce, shipping routes or any tonnage that is under long-term charter. JS

CAPITAL FOR YANG MING

BOXBOATS

Taiwan's Yang Ming Line, 33 per cent owned by the Taiwanese government and now considered to be financially the weakest of the major container carriers following the bankruptcy of South Korea's Hanjin, is hoping to receive a new injection of capital from government and private entities.

A victim of troubled times, Yang Ming's 4,923TEU container ship YM Los Angeles was sent to the breakers last year after less than a decade of trading. M. MULLIGAN



As part of a rescue plan, Taiwan's government is expected to greatly increase its ownership stake in the company. Yang Ming, which has accumulated \$1.2 billion in losses since 2009, operates a fleet of just over 100 ships with a combined capacity of 579,048TEUs. This gives it a 2.8 per cent global share and makes it the eighth largest container carrier. JS

NAVIGATOR LAUNCHED



▲ Scot Navigator being launched at Groningen in February.

NEW COASTER

On 22 February Scotline's latest coaster, Scot Navigator, was launched at GS Yard BV in Groningen, Netherlands. The newbuild has a modern, efficient design and, with the unavailability of suitable second-hand tonnage, Scotline decided she would be the best possible addition to their expanding fleet. She has been built to comply with all the latest

environmental legislation, including provisions to be ready for the ballast water treatment system.

Scot Navigator measures 88m by 13.75m, with a maximum sailing draft of 4.90m. She is powered by a single Caterpillar diesel engine and will sail under the British flag, like the rest of the Scotline fleet. Scot Navigator, to be delivered in May, is the most recent acquisition to Scotline's fleet of ten owned vessels.

The 6,655TEU capacity Hanjin Tianjin is one of a number of ships acquired by SM Line to start up its new Pacific and Asian container services. ALF VAN BEEM



NEW BOXBOAT LINE LAUNCHED

COMPANY NEWS

After acquiring the business operations of bankrupt Hanjin Shipping's Pacific and Asian routes, South Korea's Samra Midas Group has launched SM Line as the world's newest container carrier and is currently buying up a number of vessels in the 4,000-6,500TEU range.

These include the five former

Hanjin ships, Hanjin Bremerhaven, Hanjin Budapest, Hanjin Port Kelang, Hanjin Tianjin, and Hanjin Xiamen, all of 6,655TEU capacity and built in 2006, and two former German vessels, the 2009-built 4,253TEU Hammonia Pescara and 2007-built 1,118TEU Perla.

Still to be acquired are enough containers to support the new venture, as most Hanjin boxes are still tied up in litigation. The

SM Group also owns bulk carrier operator Korea Line, which it bought during bankruptcy proceedings in 2013, and has a majority holding in another formerly bankrupt South Korean operator, Samsun Logix. If successful, SM Line plans to grow to a capacity of 110,000TEU, but its entrance into a market already having over 1.4 million TEUs of idle capacity is expected to be difficult. JS

SISTERS SOLD FOR SCRAPPING

BULK CARRIERS

The early part of 2017 has seen many vessels being sent for demolition as owners look to reduce their fleets. In February two elderly bulk carriers, Maria K and Seba-M, arrived at the breaking facilities at Gadani Beach. The two sister vessels were completed by Ujina Zosensho at Hiroshima in 1976 for the German owner Leonhardt & Blumberg as Ingrid Leonhardt and Hans Leonhardt.

The handling gear of the 129.27m ships, of 7,244gt and 11,680dwt, comprised three 22-ton derricks and one 17-ton derrick, which made them very versatile for that era. After 21 years with the German company, both vessels were sold to Lebanese interests in 1997, Ingrid Leonhardt being renamed Nour and Hans Leonhardt becoming Seba-M, a name she retained until her sale to the Pakistani ship-breakers. Nour was renamed Maria in 1999 and Maria K shortly afterwards. RC



The 41-year old bulk carrier Seba-M, seen in the Bosphorus, recently arrived at Gadani Beach, Pakistan for recycling. SIMON SMITH

END OF DAYS FOR VETERAN



▲ O'Shea Express at Immingham, when in service. SIMON SMITH

LIVESTOCK CARRIER

On 5 February the 47-year-old livestock carrier Ahmad N berthed at plot 29 at Alang for recycling. The 1,148dwt vessel was one of the last vessels built by the Leith yard of Robb Caledon still operating. She was built in 1970 for Elder Dempster Lines as vehicle carrier Speedway, later becoming Clearway. She was converted to a livestock carrier in 1984 and later traded as O'Shea Express. The last trading vessel built at the Dundee yard of Robb Caledon is the 1979-built cement carrier Golden Bay. RC

BRIEF NEWS

COSCO SELLS EIGHT FOR SCRAP • China's China COSCO Shipping has sold eight of its older and smaller container ships for demolition as part of its integration with China Shipping Container Lines (CSCL). Disposed of have been the 1998-built 3,400TEU Luo Ba He; Jun He, COSCO Qingdao, Wan He, Yue He and Lu He (all 1997/5,618TEU); and COSCO Ran and COSCO Sakura (both 2001/542TEU). JS

RICKMERS SELLS TWO • Singapore-based Rickmers Maritime, which lost \$180.1 million on charter revenues of \$69.2 million last year, has sold two of its ships, the 50,574dwt 2009-built India Rickmers and the 68,282dwt 2004-built Kaethe C. Rickmers, to satisfy creditors. Of its fleet of 15 container ships in the 3,450TEU to 5,060TEU size range, only five are operating on firm charters, while another five have been placed on the spot market and the remainder laid up. JS

SHALLOW DRAUGHT BULKER

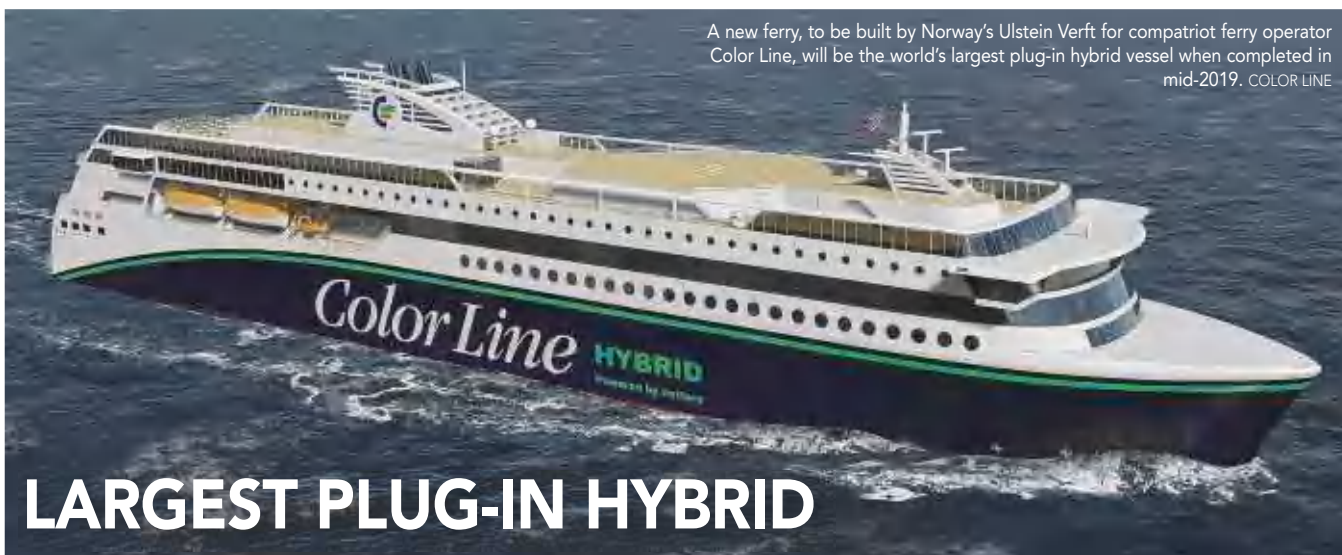
• Australia's National Ports, headquartered in Fremantle, has teamed up with Germany's ThyssenKrupp to develop a new super-shallow-draught bulk carrier that will have a 185,000-tonne deadweight on a 46ft draught. The self-unloading vessel will be capable of discharging at a rate of up to 10,000 tph. JS

PURPOSE-BUILT LNG

BUNKERING VESSEL • South Korea's Hanjin Heavy Industries has delivered the 7,403gt ENGIE Zeebrugge as the world's first purpose built, ship-to-ship, LNG bunkering vessel. The 107.6m by 18.4m tanker, propelled by a dual-fuel main engine, has a capacity of 5,000m³ of LNG and will be used to bunker LNG-burning vessels in Northern European waters. JS

TANKERS FOR MAERSK • Maersk Tankers has placed an order for ten LR2 product tankers with China's Dalian Shipyard, with the ships to be delivered over a period of three years starting in 2019. JS

A new ferry, to be built by Norway's Ulstein Verft for compatriot ferry operator Color Line, will be the world's largest plug-in hybrid vessel when completed in mid-2019. COLOR LINE



LARGEST PLUG-IN HYBRID

FERRY

Norwegian firms Color Line and Ulstein Verft have signed a Letter of Intent (LOI) for construction of what will be the largest plug-in

hybrid vessel in the world, a 160m ferry that will accommodate 2,000 passengers and 500 cars.

Designed by Fosen Yard, the ship is expected to enter service by the summer of 2019 on the run

between Norway and Sweden, where it will replace the 1971-built Bohus. The ferry's batteries will be recharged from shoreside facilities while the ship is berthed and by the ship's own generators at sea.

This will allow it to operate on battery power alone in and out of the environmentally sensitive fjord leading to Sandefjord, where shoreside power hook-up facilities are now being built.

TWO MORE LNG POWERED FERRIES FOR NORWAY



LNG FERRY

Norway's Vard Holdings Ltd has secured contracts for the construction of two LNG-powered passenger/car ferries from compatriot company Torghatten Nord, which will use the twin 130m by 20.7m vessels to serve the

A pair of LNG-fuelled double-ended passenger/auto ferries are to be built for Norway's Torghatten Nord.

VARD HOLDINGS LIMITED

Halhjem-Sandvikvåg crossing.

To be capable of accommodating 180 cars and 550 passengers and crew each, the hulls of the twin vessels will be built by Vard Braila in Romania and finished by the Vard Brevik yard in Norway by late next year. Each will be equipped with a hybrid gas-electric propulsion system featuring battery banks to reduce fuel consumption and exhaust emissions.

NEW JACK-UP DESIGN

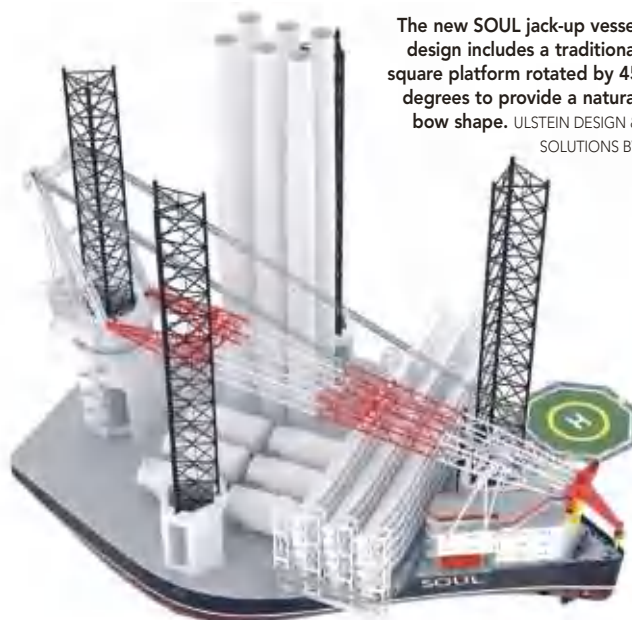
WIND FARM WORK

The ever expanding offshore wind farm business has seen Ulstein Design & Solutions BV launch the design of a new heavy-lift jack-up vessel, in partnership with jack-up specialist SeaOwls, that makes use of a cruciform structural layout to provide a platform that is more than ten per cent lighter than conventional jack-up units.

In combination with a high capacity crane, the new SOUL (SeaOwls/Ulstein) design will allow operators to install the next generation of larger wind turbines

(10-12MW) in the same time frame as is currently required for installing smaller 6-8MW units.

The design also offers a significant efficiency gain over a conventional square-hulled platform because it overcomes the disproportional weight increase compared to gain in Variable Deck Load (VDL). The SOUL platforms, which will be powered by a series of fixed and deployable thrusters, will be offered in various sizes, the largest capable of transporting up to six 10-12MW turbines, towers and blade packages simultaneously.



The new SOUL jack-up vessel design includes a traditional square platform rotated by 45 degrees to provide a natural bow shape.

ULSTEIN DESIGN & SOLUTIONS BV

LARGEST SHIP BUILT IN THE PHILIPPINES



The largest ship completed to date in the Philippines, the 297,363dwt tanker Gener8 Hector, has been delivered to Gener8Maritime. HHIC-PHIL

TANKER

Shipbuilding in the Philippines has only been carried out for a short space of time, and under the shadow of larger yards in South Korea, China and Japan, but the South East Asian nation has been making steady progress. Its Hanjin Heavy Industries Corporation-

Philippines (HHIC-Phil) yard, in business for less than a decade, has recently turned out the 297,363dwt crude carrier Gener8 Hector for New York-based Gener8Maritime, the largest ship completed to date in the Asian country.

HHIC-Phil is also completing three 20,600TEU Ultra Large Container Vessels (ULCVs) for

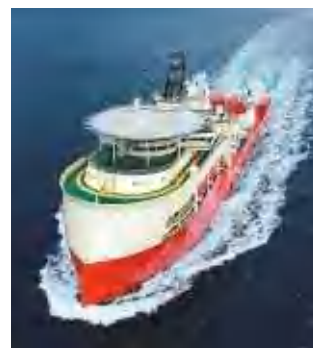
CMA CGM of France, which will rank as the largest container ships in the world when finished later this year and others next year.

In addition to the CMA CGM ships, the yard holds contracts for six 11,000TEU container carriers for Costamare and Seaspam and, to date, has delivered nearly 100 vessels.

DELAYED DELIVERY

OFFSHORE VESSEL

Ulstein has delivered the 160m by 30m offshore construction vessel Island Venture to Island Ventures 5 LLC, a joint venture between Island Offshore and Louisiana-based Edison Chouest Offshore. With the delivery originally to have been in 2014, the delay was caused by a decision to increase the ship's size to expand both the vessel's work deck area and under-deck tank capacities.



▲ The 20,472gt Island Venture has come off the stocks a longer and wider ship than first planned. ULSTEIN

SALMON DELOUSER ORDERED

FISH FARM WORKER

The farm raising of fish has required the services of a number of new ship types, and the latest will undertake delousing operations at Norwegian salmon farms. To be completed to the Damen Group's Utility Vessel 4312 design, the vessel's final configuration has been developed using extensive feedback from the

aquaculture industry to ensure it offers the right services.

By using the latest delousing technology, the vessel is expected to substantially reduce or even eliminate the need for chemicals in fish treatment operations. The diesel-electric powered craft will also be able to service more farms in a larger region and in more open waters than has been previously possible.



▲ Norway's VOLT Service has ordered a diesel-electric-powered salmon delousing vessel from the Damen Shipyards Group in the Netherlands. DAMEN

ULSTEIN'S NEW DESIGN



Acta Marine has ordered an offshore wind farm support vessel from Norway's Ulstein Verft that will utilise Ulstein's X-Bow and X-Stern for better seakeeping. ULSTEIN

SUPPORT VESSEL

Ulstein Verft AS has been selected to build a DP2 Construction Support Vessel (CSV) for Holland's Acta Marine BV for delivery in early 2018. To be completed to a new SX195 design developed by Ulstein Design & Solutions, the 93.4m by 18m ship will accommodate up to 120 people in 80 cabins

and be equipped with an SMST-provided Dynamic Motion Compensated Gangway system.

In combination with the innovative hull design, this is expected to allow the servicing of offshore wind turbine towers in wave heights up to 3m. The vessel will also carry a 3D-motion compensated crane with a six-tonne lifting capacity and have 1,000m² of deck space.

Zumwalt on sea trials during April 2016. As well as being the largest US navy surface combatant since the nuclear-powered cruiser Long Beach, her defining characteristic is the high level of stealth inherent throughout her design. She has a maximum speed of over 30 knots, with propulsion coming from Rolls-Royce gas turbines and GE Power Conversion Advanced Induction Motors.

USS ZUMWALT (DDG-1000)

Conrad Waters reports on the innovative new destroyer USS Zumwalt, which commissioned into the US Navy at Baltimore.

US NAVY

USS Zumwalt (DDG-1000), the largest and most expensive destroyer ever built for the US Navy, was officially commissioned into service at a ceremony in Baltimore, Maryland on 15 October 2016. The first of three stealthy and technologically advanced ships, she will be homeported in San Diego as part of a strengthening of American forces in the Pacific in response to growing Chinese naval capabilities.

Zumwalt's origins can be traced back to the 1990s, when a family of new surface combatants for the 21st century was planned under the SC-21 programme.

The first design to emerge was a class of specialist land-attack ships that would be cheaper to produce than multi-mission warships, such as the Arleigh Burke class destroyers.

However, a focus on stealth and a desire to incorporate the latest weapons and propulsion systems resulted in the emergence of a large and costly ship. Indeed, Zumwalt is the biggest US Navy surface combatant since the nuclear-powered cruiser Long Beach (CGN-9) of 1961. One consequence has been a massive reduction in planned orders from the 32 originally envisaged.

Beyond her immense size – she displaces nearly 16,000 tons at full load and has an overall length of 186m – Zumwalt's most striking

feature is the emphasis on stealth apparent throughout the design. Her tumblehome hull and wave-piercing bow – intended to reduce radar cross-section – are vaguely reminiscent of the French pre-Dreadnought battleships.

The huge deckhouse, on which most radar systems and other sensors are mounted flush with the surface, has also been shaped to reduce radar and infrared signatures. The deckhouse on the first two ships in the class is constructed of composite materials as a weight-saving measure. The final ship has an alternative approach based on a lightweight steel structure.

The focus on stealth has come at some cost. For example, concerns have been expressed about

the hull form's stability in heavy weather, although these have been discounted by the US Navy on the basis of extensive trials. More significantly, the hull provides much less internal volume than a conventionally shaped structure, driving up overall size. This has been further influenced by the extent of the magazines required for the ship's main armament, which comprises two Mk.51 155mm guns.

TECHNOLOGY

The so-called AGS Advanced Gun Systems are at the heart of Zumwalt's land-attack capabilities. Mounted in stealth cupolas, each can fire precision-guided munitions at long ranges. The ship's magazines are fully automated, and a rate of



fire of ten rounds per minute from each gun can be achieved. There had been speculation that the third and final ship, Lyndon B. Johnson (DDG-1002), would have one of the AGS mounts replaced by a futuristic electromagnetic railgun. However, it seems that this will only happen after completion, if at all.

The gun armament is supplemented by the new Mk.57 vertical launch system. This comprises 20 quadruple launch modules located around the side of the hull. The plating is left purposely thin in the positions where the modules are located so that any explosion will vent outwards if they are hit. The cells can house a wide range of weapons, including Tomahawk cruise missiles and Evolved Sea Sparrow missiles for air defence.

However, the ship's radar system is not designed to perform the wider area air and ballistic missile defence roles assigned to the US Navy's current cruisers and destroyers. Zumwalt also incorporates a large hangar and flight deck for helicopters and unmanned aerial vehicles. An internal slipway can

house two rigid-inflatables for Special Forces operations.

Many of the technological advances incorporated in Zumwalt are invisible to the naked eye. For example, the integrated electric propulsion system – the most powerful currently fitted in a US Navy surface combatant – enables the ship to achieve speeds of over 30 knots while maintaining sufficient reserves to power next-generation weapons such as lasers and railguns.

The ship is designed to be controlled from a huge, two deck-high 'Ship's Mission Center.' This is located in the deckhouse aft of the bridge. An advanced command and control system has allowed a significant reduction in core crew size to around 150 personnel. This has the potential for significant long-term savings, given personnel costs are one of any navy's biggest expenses.

THE FUTURE

Zumwalt's significance to the US Navy was highlighted by the guest list at the commissioning ceremony. The then Secretary of the Navy, Ray Mabus, gave



▲ Zumwalt moored during her commissioning ceremony at North Locus Point in Baltimore on 15 October 2016.

► Balloons fly and the crowd applauds as Zumwalt is brought to life at her commissioning ceremony in Baltimore on 15 October 2016.



▲ Zumwalt passes under the Chesapeake Bay Bridge and heads seawards away from Baltimore on 17 October 2016. The two AGS Advanced Gun Systems can be seen forward of the bridge and a Fire Scout unmanned aerial vehicle is on the flight deck. ALL PHOTOS BY US NAVY

the principal address. The navy's professional head, Chief of Naval Operations Admiral John Richardson, also spoke. With the celebrations over, Zumwalt began long journey to San Diego.

She arrived in early December after propulsion problems whilst transiting the Panama Canal extended her voyage by several days. There, she is being fitted out with command, communications and other equipment and beginning a lengthy period of work-up. Her two sisters will follow by the end of the decade. Although the class has been significantly reduced in numbers, the technologies the new ships bring will have a major impact on the future American fleet.

ZUMWALT

BUILDERS	Bath Iron Works, Maine
DISPLACEMENT	15,760 tons full load displacement
DIMENSIONS	186.0m x 24.6m x 8.4m (sonar)
ARMAMENT	2 x Mk.51 155mm AGS Advanced Gun Systems; 2 x Mk.46 35mm guns; 20 x quadruple Mk 57 vertical launch systems
PROPULSION	Integrated electric propulsion system: Rolls-Royce gas turbines and GE Power Conversion
COMPLEMENT	Core crew of 150 plus aviation detachment



HOW TO BUY YOUR SUBSCRIPTION

OFFER 1. **DIGITAL EDITION:** pktmags.com/shipsmonthly

OFFER 2. **PRINT EDITION:** COMPLETE THE ORDER FORM BELOW

☒ **YES!** I WOULD LIKE TO SUBSCRIBE TO SHIPS MONTHLY MAGAZINE

PLEASE SEND ME MY CHOSEN DESIGN:

☐ 1. QUEEN MARY ☐ 2. MAURETANIA ☐ 3. TITANIC WHITE STAR LINE ☐ 4. TITANIC (TUGS)

DELIVERY / PAYERS DETAILS

Mrs/Ms/Miss/Mr Forename

Surname

Address

Post / Zip code

Country

Daytime phone Mobile

Email

GIFT DELIVERY DETAILS

Mrs/Ms/Miss/Mr Forename

Surname

Address

Post / Zip code

Country

Daytime phone Mobile

BEST UK DEAL • SAVE 22% • BEST UK DEAL • SAVE 22%

☐ I WISH TO PAY BY DIRECT DEBIT (UK ONLY) £39.99 taken every 12 months (SAVING 22%) **PLUS FREE METAL WALL ART SIGN**



Instructions to your Bank or Building Society to pay by Direct Debit

Name of Bank

Address

Postcode

Account name

Sort code Account number

Signature Date

Originator's Id number

8 3 7 3 8 3

Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit guarantee. I understand that this instruction may remain with Kelsey Publishing Ltd. and, if so, details will be passed electronically to my Bank or Building Society.

PAY BY CHEQUE / DEBIT / CREDIT CARD

☐ **UK: 6 issues at £25.80 SAVING 10% £22.99 (NO GIFT)**

☐ **UK: 12 issues at £51.60 SAVING 16% £42.99 (NO GIFT)**

☐ **USA / EUROPE: 12 issues at £64.99 (NO GIFT)**

☐ **REST OF WORLD: 12 issues at £70.99 (NO GIFT)**

☐ I enclose a cheque made payable to Kelsey Publishing Limited (Drawn from a UK bank account)

☐ Please debit my ☐ Visa ☐ Visa Debit ☐ MasterCard

Card number

Security number

Valid from / Expiry date /

Signature Date

(UK ONLY) PLEASE SEND COMPLETED FORM TO:

FREEPOST RTKZ-HYRL-CCZX, Ships Monthly subscriptions, Kelsey Publishing Ltd., Cudham Tithe Barn, Berry's Hill, Cudham, Kent, TN16 3AG

(INTERNATIONAL ONLY) PLEASE SEND COMPLETED FORM TO:

Ships Monthly subscriptions, Kelsey Publishing Ltd., Cudham Tithe Barn, Berry's Hill, Cudham, Kent, TN16 3AG, England

PHONE TOLL FREE FROM USA: 1-888-777-0275 (7am-3pm EST)
INTERNATIONAL ONLY PLEASE CALL: 0044 (0)1959 543 747



2 EASY OPTIONS...

OFFER 1. DIGITAL EDITION

**PAY JUST £28.99
FOR 12 ISSUES
SAVING 43%***

All of our digital magazine subscriptions and issues can be downloaded from anywhere in the world and read on PC, Mac, iPad, iPhone, Android devices, Kindle Fire, Windows 8 devices and any HTML5 compatible device.



*Discount calculated from print issue price of £4.30. FREE gift not included with digital subscription orders.

**AVAILABLE ON
THE APP STORE AND**



Available on
pocketmags.com

pktmags.com/shipsmonthly

*FREE gift subject to availability, we reserve the right to offer an alternative product at the same or higher retail value. On receipt of your order your free gift will be delivered within 25 working days. Offer/prices available until 28th April 2017. Kelsey Publishing Ltd., uses a Multi Layered Privacy Notice giving you brief details about how we would like to use your personal information. For full details visit www.kelsey.co.uk or call 0333 043 9848. If you have any questions please ask as submitting your data indicates your consent, until you choose otherwise, that we and our partners may contact you about products and services that will be of relevance to you via direct mail, phone, email and SMS. You can opt-out at ANY time via email on data.controller@kelsey.co.uk or call 0333 043 9848.

SNIP0517

SUBSCRIBE TODAY

WHICH ONE SUITS YOU?

OFFER 2. **UK PRINT EDITION WITH FREE GIFT**

CHOOSE YOUR FREE CLASSIC METAL WALL ART SIGN

This month Ships Monthly is proud to offer new subscribers who pay by annual direct debit the choice of one of these superb metal wall art advertising signs, harking back to the golden years of cruising, ABSOLUTELY FREE.

Each sign depicts a different shipping scene from the early to mid-20th century in the period style, featuring either the famous Queen Mary, Mauretania or (infamous) Titanic. Any one of these advertising signs, promoting the scale and glamour of cruising, will enhance home or office adding a real nautical flavour to any feature wall or themed collection.

Each sign measures 150mm x 200mm with pre-drilled corner holes for easy fixing to a wall or plaque and will keep its appeal for many years to come.

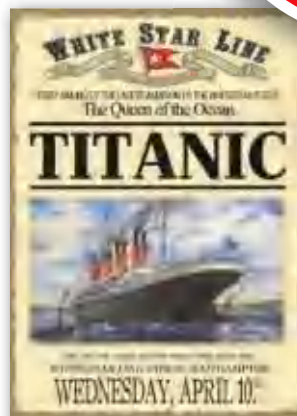
PAY FROM JUST
£39.99
FOR 12
ISSUES
SAVING 22%*



1. QUEEN MARY



2. MAURETANIA



3. TITANIC WHITE STAR LINE



4. TITANIC (TUGS)

SUBSCRIBER
plus

ALL PRINT MAGAZINE SUBSCRIBERS
ARE AUTOMATICALLY MEMBERS OF
SUBSCRIBER PLUS, GIVING YOU:

- Preferential rates on our associated events and products
- A constantly refreshed range of products to choose from
- First access to subscription offers on other Kelsey titles
- Exclusive discounts on your favourite brands
- Free entry into subscriber only competitions

shop.kelsey.co.uk/subscriberplus

3 EASY WAYS TO ORDER

1 ONLINE
shop.kelsey.co.uk/smo

2 POST
Fill in the form and send to: **FREEPOST RTKZ-HYRL-CCZJ**,
Ships Monthly Subscriptions, Kelsey Publishing Ltd.,
Cudham Tithe Barn, Berry's Hill,
Cudham, Kent, TN16 3AG

3 CALL OUR SUBSCRIPTION TEAM
0333 043 9848 & quote offer code SMOP0517

Hotline open: Mon - Fri 8am - 6pm. Please note that calls are charged at
your local rate, for further information please check with your service provider.

*22% saving based on cover price of £4.30 per issue. UK Direct Debit print offer only.

THE WORLD'S BIGGEST SHIPS

A decade and a half ago *Ships Monthly* reported on the world's biggest ships and most have continued to grow, as Jim Shaw reports.

Considered the world's largest ship by displacement, beam and volume, the 1,253ft (382m) by 407ft (124m) topsides removal/installation vessel *Pioneering Spirit* completed her first job last year by lifting the 13,500-tonne topsides of the decommissioned Yme oil platform in the North Sea. Later this year the 403,342gt vessel will tackle the 23,000-tonne topsides of Shell's Brent Delta platform, which will be a world record single lift for an offshore structure.

The South Korean-built vessel, which has cost over \$2.8 billion to build and outfit, is able to single-lift topsides of up to 48,000 tonnes and jackets up to 25,000 tonnes. She is operated by Swiss-based engineering contractor Allseas, which is already planning to build an even larger ship capable of lifting topsides up to 72,000 tonnes.

The title of 'World's Largest Ship' has always captivated the general public. Recently the largest container ships and largest cruise vessels ever delivered have been built, with the Oasis cruise ships being

of particular interest to many. Indeed, the size of ships over the past century and more has continued to grow.

LARGEST THROUGH TIME

Closure of the Suez Canal in 1956, and again in 1967, prompted the construction of very large tankers to carry crude oil from the Middle East around the Cape of Good Hope to Europe and America. Prior to the mid-1960s it was usually a passenger liner that could claim title of world's largest ship. The title itself was first widely publicised for the 18,914gt *Great Eastern* in 1858, a vessel ahead of her time, measuring 692ft (211m) by 120ft (36.6m) and already 'post-panamax' because of her wide paddle wheels.

The next ship to make a mark as the largest was White Star's ill-fated 46,329gt *Titanic* of 1912, which measured 883ft (269m) by 92.5 (28.2m). Just prior to World War II the 83,673gt *Queen Elizabeth* was launched. Measuring 1,029ft (313.5m) by 118.4ft (36.1m), she was too long and too wide to transit the Panama Canal.

The great Cunarder held the record as the world's largest



The 564,763dwt Jahre Viking, with the 106,504dwt tanker Niris alongside, could carry over four million barrels of crude but was too large for most of the world's offloading terminals and was eventually scrapped at Alang, India in 2010 following use as a Floating Storage and Offloading (FSO) unit. JAHRE GROUP



▲ The largest ship ever built, and still retaining that crown when cargo capacity is considered, was the short-lived 555,051dwt Pierre Guillaumat, completed in 1977 and broken up only six years later. COMPAGNIE NATIONALE DE NAVIGATION



▲ The 553,662dwt Batillus (1,359ft by 206ft) in Lyme Bay, with the 71,917dwt Shell lightening tanker Drupa (800ft by 110ft) alongside. Batillus, scrapped only nine years after her completion by Chantiers de l'Atlantique in 1976, made 25 voyages between the Persian Gulf and northern Europe before being laid up in 1983 and sent to Kaohsiung, Taiwan for demolition in 1985. SOCIÉTÉ MARITIME SHELL FRANCAIS



▲ A look at the world's largest ship, the 403,342gt Pioneer Spirit, just after it has clipped off and hoisted the 13,500-tonne topsides of the decommissioned Yme oil platform in the North Sea. PHOTO COURTESY OF ALLSEAS

ship for many years, but the post-war oil boom, and a continual increase in the size of tankers ordered by owners such as Aristoteles Onassis, Stavros Niarchos, and Daniel K. Ludwig, finally produced vessels that were wider, longer and of greater hull volume than the aging *Queen*.

In 1966 the 206,106dwt *Idemitsu Maru*, built in Japan, ushered in the age of the Very Large Crude Carrier (VLCC). With a hull of 107,957gt, a length of 1,128.5ft (344m) and a beam of 164ft (50m), she easily took on the title of world's largest ship.

THE 'GOLDEN YEARS'

Over the next decade, with the Suez Canal closed, tanker owners enjoyed their golden years, and continued to build larger ships to reap greater income. Annual profits hauling crude around the Cape often exceeded operating expenses by more than 800 per cent, and a large tanker could sometimes be paid for in less than ten voyages.

By the time the 28-year-old *Queen Elizabeth* was retired in 1968, the 326,585dwt *Universe Ireland* had arrived on the scene; she was the first tanker to exceed 320,000 tons

deadweight, and the first of the Ultra Large Crude Carriers (ULCC). Forecasting a continuing troubled future for the Suez Canal, which had already been closed twice, Société Maritime Shell and Cie Nationale de Navigation of France decided to build four huge crude carriers for the Cape trade that, at over 550,000dwt, broke the 500,000dwt barrier. By this time two 400,000dwt plus ships, the 483,662dwt *Globtik Tokyo* and 483,960dwt *Globtik London*, were already under construction in Japan.

LARGEST CARGO SHIPS

The contract for the French behemoths was awarded to

Chantiers de l'Atlantique at St Nazaire in 1971. By March 1976 the first vessel, the 553,662dwt *Batillus*, was ready to be floated out of its graving dock. The ship measured 1,359ft (414m) by 206.7ft (63m) and was designed to sail on a loaded draught of 93.5ft (28.5m).

Cargo and ballast were accommodated in ten centre tanks and 15 wing tanks. Four Stal Laval steam turbines of 64,800hp, driving twin screws ahead of twin canted rudders, produced a loaded service speed of 16.5 knots, while 19 knots could be accomplished in ballast. Fuel consumption was well over 320 tonnes per



▲ The world's largest passenger ship, the 226,963gt *Harmony of the Seas*, measures 1,188ft (362m) by 217ft (66m) but could easily be eclipsed by a sistership as *Royal Caribbean* continues its building programme. RCI



▲ The capacity of several new container ships has now gone over 20,000TEU, and ships of 26,000TEU are on the drawing board, but shoreside handling capacity and logistics may limit their future growth. CMA CGM

day. Three sisters followed: the 553,662dwt *Bellamya*, also in 1976; the 555,051dwt *Pierre Guillaumat* in 1977; and the 554,974dwt *Prairial* in 1979.

By virtue of a few extra centimetres in length and beam, *Pierre Guillaumat*, named after the founder of French oil company Elf Aquitaine, became the largest ship ever built, even though several Asian yards were already working on tanker designs approaching 800,000dwt.

THE 'DARK YEARS'

The stumbling block to further tanker growth came on 6 October 1973 and the start of the Yom Kippur War, after which OPEC imposed an oil embargo that increased world oil prices by 70 per cent. The demand for petroleum nose-dived and tanker owners, including Shell, found themselves increasingly unable to find employment for their massive vessels.

To keep the ships active, steaming speeds were

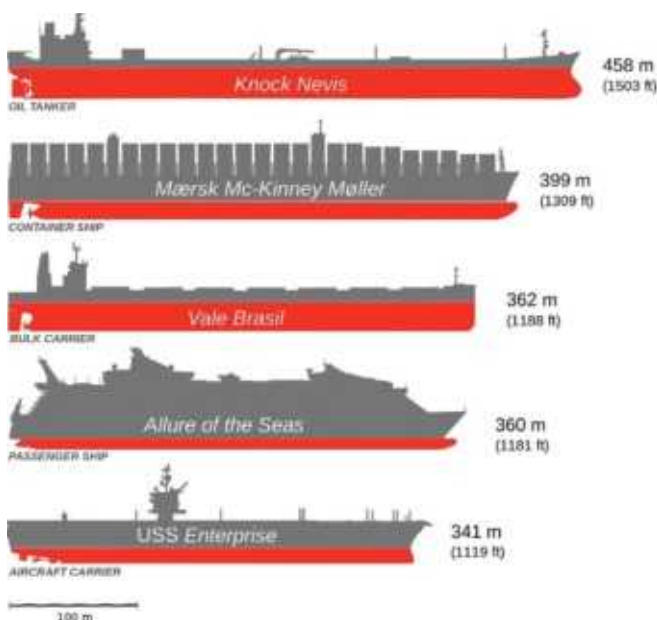




▲ USS Ronald Reagan (CVN-76), a Nimitz-class nuclear-powered aircraft carrier measuring 1,092ft (332.8m) by 252ft (76.8m) and displacing 101,400 long tons is the fastest of the big ships, with two Westinghouse A4W nuclear reactors powering four steam turbines of a combined 260,000shp (194 MW) to give a maximum speed of better than 30 knots. US NAVY



▲ Completed by South Korea's Daewoo Shipbuilding & Marine Engineering Co in 2011, the 402,347dwt Valemax ore carrier Vale Brazil measures 1,187.7ft (362m) by 213.3ft (65m) and is propelled by a single MAN B&W 7S80ME-C8 engine driving a fixed pitch propeller to give daily fuel consumption of 96.7 tons at 15.4 knots. DS&ME



▲ Ship sizes in the tanker, container, bulk and even passenger ship sectors have exceeded the 1,123ft (342m) by 257.2ft (78.4m) measurements of the US Navy's 1961-built USS Enterprise, still the longest naval vessel ever built. WIKI

reduced from 16 to six knots, lengthening the journey time between the Middle East and Europe to over three months. Despite the speed reductions, large scale lay-ups soon began and many tankers were sold early for demolition, including *Pierre Guillaumat*. The world's biggest-built ship was sold to South Korean breakers in 1983 after only six years of service. *Batillus* was placed in lay-up at

Vestnes, Norway in that same year, and was joined by sister *Bellamy* within a few months. When scrapping prices rose again, both tankers were moved to South Korea for breaking in 1985-86. By good fortune, the last of the quartet, *Prairial*, managed to escape the furnaces and was not broken up until late 2003. The massive tanker had managed to find employment under the names *Sea Brilliance*

and *Hellas Fos* before arriving off Pakistan's Gadani Beach as *Sea Giant*, a fitting name for the final survivor.

C. Y. TUNG'S TANKERS

During the build-up of the great tanker fleets, one Asian owner was almost overlooked. China's C. Y. Tung (Tung Chao-Yung), who had formed Island Navigation in 1940, took delivery of the 71,365dwt *Oriental Giant* from Japan's Sasebo Shipyard in 1959.

Although she was somewhat smaller than the 'Universal' series of crude carriers then being built for American Daniel K. Ludwig, her construction introduced Tung to the world's tanker business. Tung was becoming one of Asia's more successful shipowners and soon developed a penchant for passenger liners. He formed Orient Overseas Line shortly after taking delivery of *Oriental Giant* and began amassing a collection of elderly passenger ships, including *Queen Elizabeth*.

In the early 1970s, like many other owners, Tung was caught with a number of tanker construction contracts signed with shipyards just as charter rates for the big vessels began to plummet. He was forced to leave two in the graving dock at South Korea's Hyundai Shipyard, the yard then having to complete the vessels to its own account as *Korea Star* and *Korea Banner*.

Several years later, with his balance books much improved, Tung found a similar tanker abandoned by the company that had ordered it, Greece's Atlantian Shipping, at Sumitomo Heavy Industries' facility at Oppama, Japan. Sumitomo had been forced to complete the 418,610dwt ship to its own account, after which it was given the yard name 'Oppama' and placed in lay-up.

With a specific idea in mind, Tung purchased the 1,237ft (377m) vessel in 1979 and had her re-christened *Seawise Giant*. Although he originally intending to have the ship lengthened in Taiwan, where he made his residence, Tung instead sent the vessel to Japan's Nippon Kokkan KK's yard for the insertion of a 265.5ft (81.45m) mid-section.

The already massive tanker emerged in 1980 with a length of 1,504ft (458.45m), a beam of 226ft (68.8m), a loaded displacement of 647,955 tonnes and a light displacement of 83,192 tonnes: the largest ship the world had ever seen. By comparison, the US Navy's Nimitz class aircraft carrier, not counting the width of her the flight deck, measures 1,092ft (332.8m) by 134ft (40.8m) and has a loaded displacement of 98,335 tonnes and a light displacement of 77,600 tonnes.

In hull volume, *Seawise*

◀ One of four 441,580dwt ULCCs built in South Korea for approximately \$90 million each during 2002-03, the 380m by 68m TI Asia is currently being used as a floating storage unit capable of holding 3,166,353 barrels of oil and is seen alongside the 95,663dwt shuttle tanker Eagle Otome, which measures 237m by 42m. TANKERS INTERNATIONAL



▲ What would have been the world's largest ship, a 4,500ft by 750ft floating residence planned by Florida's Freedom Ship International housing 50,000 permanent residents and 10,000 guests, along with a crew of 20,000, could never achieve its financial requirements of over \$10 billion. FREEDOM SHIP INTERNATIONAL



▲ The 300,000gt Prelude, the world's first floating liquefied natural gas (FLNG) platform, and the largest offshore facility ever built, measures 1,601ft (488m) by 243ft (74m) and will displace more than 600,000 tonnes when fully loaded but is not self-propelled. However, her record may be her final cost, which is expected to be between \$10.8 and 12.6 billion. SHELL

Giant's 238,558gt easily exceeded the largest passenger ships of the day and remains ahead of the world's current record holder, Royal Caribbean Cruises' 226,963gt *Harmony of the Seas*.

JAHRE VIKING

There were two small drawbacks to the rebuilt *Seawise Giant*. Her increased capacity, incorporating 12 centre tanks and 30 wing tanks, produced a loaded draught of over 80ft (24.6m) and the ship's original two steam turbines, geared to a single shaft, produced a service speed of only 13 knots. While Tung was the owner of the world's largest ship, she seldom made a profit.

After several seasons of

unemployment, *Seawise Giant* was chartered to Pemex in 1983 for use as an FSO (Floating Storage and Offloading) unit off Galveston, Texas. Three years later she was moved to the Persian Gulf for similar work. Unfortunately, over the next two years, she increasingly became a target for Iraqi aircraft during the Iran-Iraq war and was severely damaged off Larak Island, near the Strait of Hormuz, on 14 May 1988.

Declared a constructive total loss, the ship could not be salvaged until after the war, when she was refloated and towed to Brunei Bay for indefinite lay-up. In 1990 the burnt-out hulk was acquired by Norman

International of Norway, sent to Singapore's Keppel shipyard for reconstruction, and renamed *Happy Giant*. Over 3,200 tonnes of steel and 32km of piping had to be replaced, while a completely new deckhouse was installed. Before redelivery, the rebuilt ship was sold to Norwegian shipowner Jörgen Jahre and rechristened *Jahre Viking*.

The next decade saw *Jahre Viking* employed lifting cargoes of crude in the Middle East for discharge in either northern Europe or the United States. As the world's largest ship, she was capable of loading 4,240,865 barrels of oil, the value of her cargo changing with every voyage. When oil was selling for \$50 a barrel the cargo was valued at over \$210 million.

Operating expenses for the vessel, sailing with a crew of 40, amounted to about \$10,500 per day, exclusive of shipyard maintenance, while her fuel consumption exceeded 200 tonnes daily. On the spot market her charter price varied widely, but the vessel reported an income of \$34,500 per day in 1998, falling to about \$22,000 per day by 2002. Because of her single hull, *Jahre Viking's* trading days as an ocean-going tanker came to an end, but in 2003 she was selected for use as a Floating Storage and Offloading (FSO) unit by Maersk Oil Qatar.

Under the ownership of First Olsen Tankers, *Jahre Viking* moved around the Cape of Good Hope to Dubai Shipyards for conversion. This involved extensive steel replacement and pipework, as well as the installation of a new mooring system and the construction of a helicopter landing platform. The 30-year-old tanker then entered service at the Al Shasheen oilfield off Oman under the name *Knock Nevis* until she was retired in 2009 and demolished in India the following year.

LARGER SHIPS?

Will a larger cargo ship ever be built? Although Allseas

may indeed build a larger companion to *Pioneering Spirit*, which has already been given the tentative name 'Amazing Grace', tankers appear to have reached their zenith. Currently, the largest tankers in service are Euronav's 441,9893dwt *TI Oceania* and *TI Europe*, which measure 1,247ft by 223ft and have a capacity of 509,484 long tons.

Two sisterships have been converted for oil storage use and *TI Oceania* and *TI Europe* may join them. Among dry bulk carriers, three dozen Valemax ore carriers have been completed for the Brazil-China trade and three dozen more are being built. The largest of these vessels, which were not allowed into Chinese ports when first introduced and had to transship their cargoes, measure 1,188ft (363m) by 213ft (65m) and have a deadweight of over 400,000 tonnes.

In the container sector, several companies have now ordered vessels that will be capable of handling over 20,000TEU. These ships, being built in Japan and South Korea, will measure 1,312.5ft (400m) by 192.9ft (58.8m), and will be too large for the new Panama Canal locks as well as most world ports.

In the cruise sector Royal Caribbean's 226,963gt *Harmony of the Seas* is currently the world's largest passenger ship, measuring 1,188ft (362m) by 217ft (66m), but could be eclipsed by a sister as she has already done to siblings *Allure of the Seas* and *Oasis of the Seas*.

Norway's Kloster Group once envisioned a 'World City Phoenix' vessel that would measure 1,247ft (380m) by 252ft (77m), while an even larger ocean-going residence for 50,000 people and 10,000 guests was once planned by Florida-based Freedom Ship International that would have displaced an estimated 2.7 million tonnes, but the size of these leviathans could never be matched with a financing package of equal proportions. **NY**



▲ Unibaltic's 4,382gt oil chemical tanker Amaranth (1980) leaving the Port of Tyne for Gdynia, Poland on 25 January. KEN SHORT

SHIPS PICTORIAL

Have you an outstanding photo that would grace our gallery? Send your image to Ships Monthly for inclusion in these pages, which showcase the best in ship photography around the world.



▲ Fred. Olsen's cruise ship Balmoral arriving at Southampton on 4 February. She arrived from Bergen after a 14-night Norwegian Winter Cruise, having been delayed by more than six hours by bad weather. She departed on her next cruise, a 64-night Central America and Mardi Gras cruise, several hours late. CHRIS BROOKS



▲ Irish Ferries' 1987-built 31,122gt ferry Oscar Wilde (ex-Kronprins Harald) in Milford Haven inbound to Pembroke Dock from Rosslare, 21 January. She was covering for the 1996-built Isle of Inishmore, which was away undergoing a refit at Falmouth. ANDREW WOOD

▼ Hornbeck Offshore Services' 3,835gt offshore supply vessel HOS Captain working in the Gulf of Mexico in February. The 2014-built ship is powered by two Caterpillar 3516C diesels, totalling 6,008hp, giving a top speed of 11 knots. ODDGEIR REFFVIK

► The container ship Nexø Maersk in Algeciras anchorage on 15 October 2016 having arrived from Casablanca. She departed on 17 October for Genova. Nexø Maersk was built in Kaohsiung, Taiwan, and has been in service since 2001. CHRIS BROOKS





Celebrity Cruises' 2001-built cruise ship Celebrity Infinity at anchor in Cabo San Lucas, Mexico, November 2016. She was launched in 2001 as Infinity and renamed Celebrity Infinity in 2007. During the summer season she cruises Alaska, and during the winter calls at Chile, Argentina, Panama and Uruguay. ADAM WALSH





*We enjoy what
we do and it shows
in our work!*



Alan Cross Ltd

Quality hardwood display cabinets supplied in four sizes or made to your specifications. Made with care to last generations.

"All cabinets delivered personally by the proprietor"

High quality hardwood display cases made completely to your specifications, advice and quotations happily given without obligation.

We pride ourselves on providing excellent service and an excellent product as these happy customers testify:

"I am absolutely delighted with my cabinet, both the product and your excellent service represented outstanding value for money"
Mr Dawkins, Bingham

"Thanks again for the great service it has been a pleasure to buy from you" **Mr Watson, Chesterfield**



Please see our website at www.alancrossuk.com or phone for friendly service and information on **0115 923 2223**
15 Ludlow Hill Road, West Bridgford, Nottingham, NG2 6HF

Celebrating over 41 years in business 1974 – 2016

Email: enquiries@alancrossuk.com

www.alancrossuk.com

Please check out our special offers page on our website or ring for details

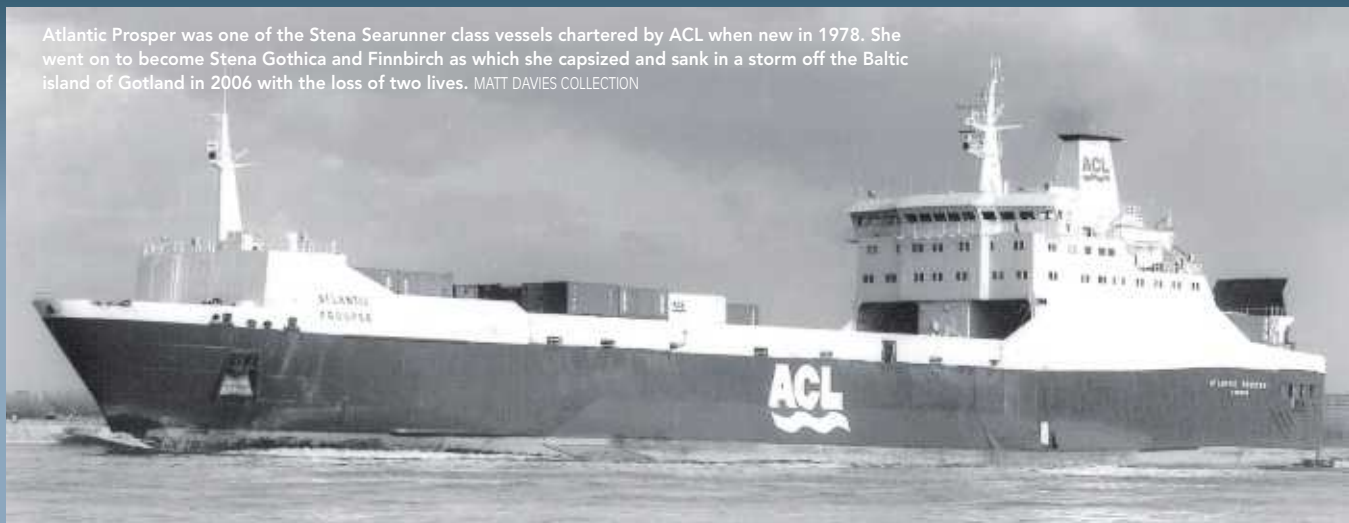


ACL G4 CLASS

Profile of the new G4 class of con-ros

Matt Davies goes behind the scenes on Atlantic Container Line's new G4 ships, which are the largest con-ros in the world.

Atlantic Prosper was one of the Stena Searunner class vessels chartered by ACL when new in 1978. She went on to become Stena Gothica and Finnbirch as which she capsized and sank in a storm off the Baltic island of Gotland in 2006 with the loss of two lives. MATT DAVIES COLLECTION



In August 2016 *Atlantic Sea* entered service with Grimaldi-owned Atlantic Container Line on a weekly transatlantic service from Northern Europe to the USA and Canada, carrying containers and ro-ro vehicles. The 100,530gt vessel is the third and latest in a series of five being built for

ACL by the Chinese state-owned Hudong-Zhonghua Shipbuilding Co in Shanghai.

Officially the largest con-ros ever built, the vessels can carry 3,800TEU, with 28,900m² of ro-ro space and capacity for 1,300+ vehicles. Designed by Danish ship architects Knud E. Hansen, the vessels, designated the G4 class, can

carry twice as many containers as the 1984-85-built G3 class ships they have been built to replace, and have a third more ro-ro capacity on a similar hull length.

ACL operates a weekly fixed day sailing schedule connecting Gothenburg, Hamburg, Antwerp and Liverpool with Halifax, New

York, Baltimore and Norfolk. Each end leg is circular, with vessels calling at Hamburg and Baltimore loading for a return Atlantic crossing whilst still having cargo onboard for Gothenburg and Norfolk. Each ship takes five weeks (35 days) for a complete cycle, ►

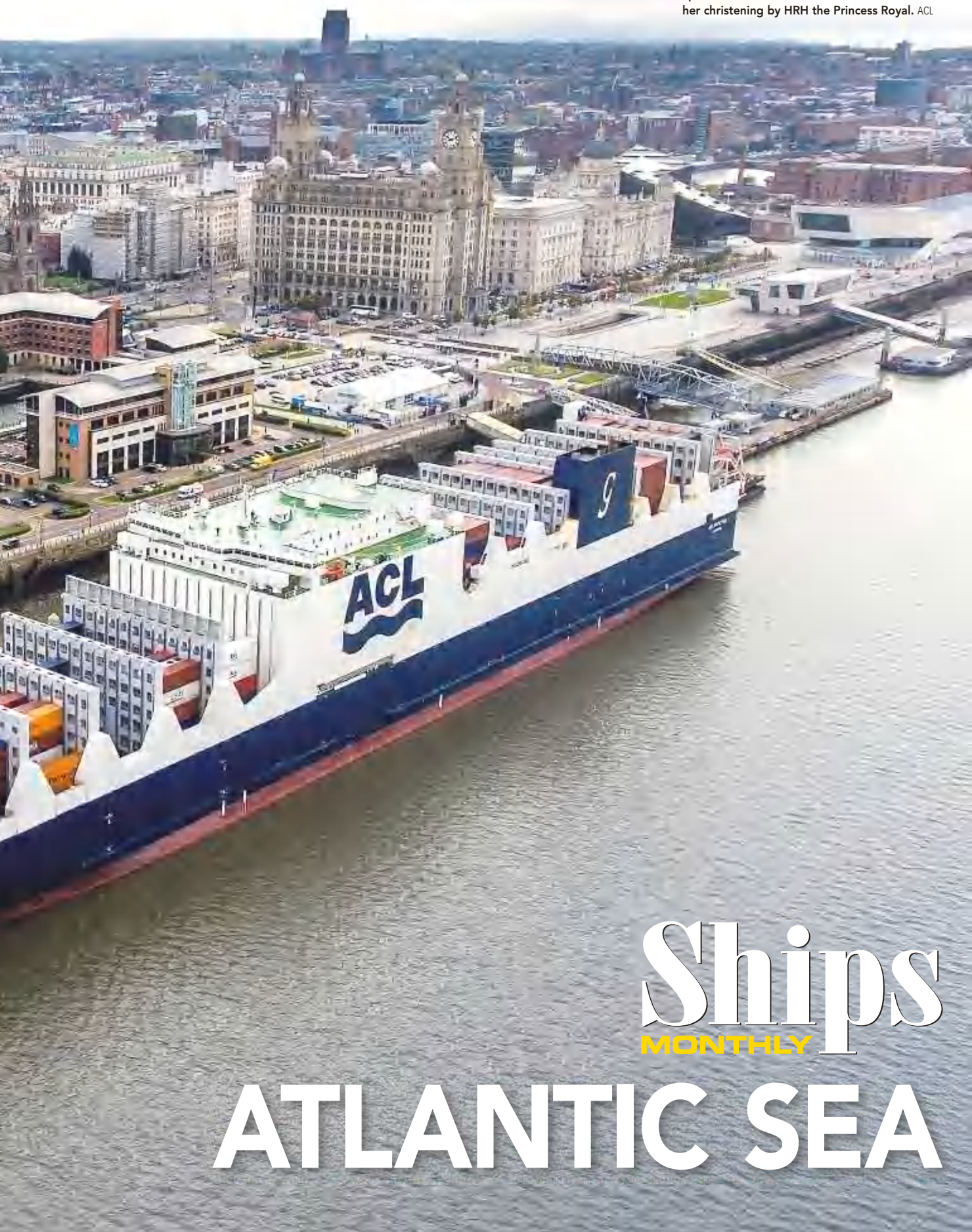
Atlantic Star
on sea trials.
ACL





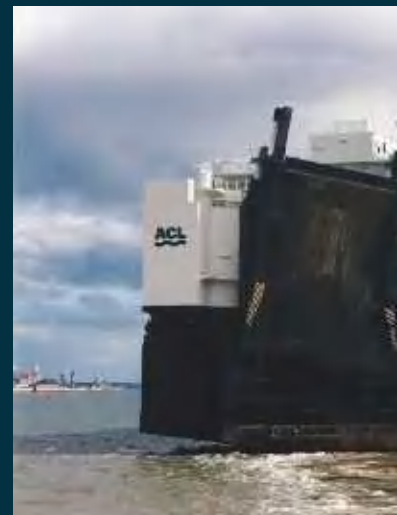
SHIP OF
THE MONTH

Atlantic Sea moored in the River Mersey at the
Liverpool Cruise Terminal on 20 October 2016 for
her christening by HRH the Princess Royal. ACL



Ships
MONTHLY

ATLANTIC SEA



◀ The 1967-built G1 class vessel Atlantic Saga manoeuvring in Liverpool's Seaforth dock during a call in the 1970s. She was scrapped in Alang. ACL

A BRIEF HISTORY OF ACL

ACL was founded in 1965 by Wallenius Lines with partners Swedish America Line (SAL), the Transatlantic Steamship Company and Holland America Line (HAL). Each ordered a con-ro vessel, with Cunard and Compagnie General Transatlantic (CGT) joining the consortium shortly afterwards. The four 622TEU 1,150-car vessels entered service in late 1967, operating between Europe and North America. Built in Emden and designated G1, the vessels were named Atlantic Song (Wallenius), Atlantic Span (Transatlantic), Atlantic

Saga (SAL) and Atlantic Star (HAL).

They combined vehicle carrying capacity with considerable container capacity, and were the first con-ro vessels carrying traffic deepsea. The consortium soon ordered a further six vessels, which entered service in 1969 and 1970, bringing the ACL fleet to ten. Designated G2, they were larger and faster and could each carry 845TEU and 990 cars. Although identical in design, they were built at different shipyards; Cunard's Atlantic Causeway and Atlantic Conveyor were built on the Tyne at Swan Hunter; CGM's Atlantic Champagne

and Atlantic Cognac at St Nazaire and La Ciotat; HAL's Atlantic Crown was built in Rotterdam; and Wallenius went to Dunkirk for Atlantic Cinderella. Like the G1s, each was owned by a partner and long-term chartered to ACL.

In 1975 Holland America sold out to Swedish America. Business continued to grow, and the following year the G1s were stretched by 25m. In 1978 the Montreal service of Care Line was taken over, and the ro-ro vessels Mont Royal and Montmorency joined the fleet as Atlantic Premier and Atlantic Prelude. The Montreal

service was expanded to operate weekly, and the sisters were joined by two of Stena's newly-built Korean Searunner ro-ro vessels, Atlantic Project and Atlantic Prosper. The four vessels left the fleet in 1981 and 1982 as the Montreal service closed.

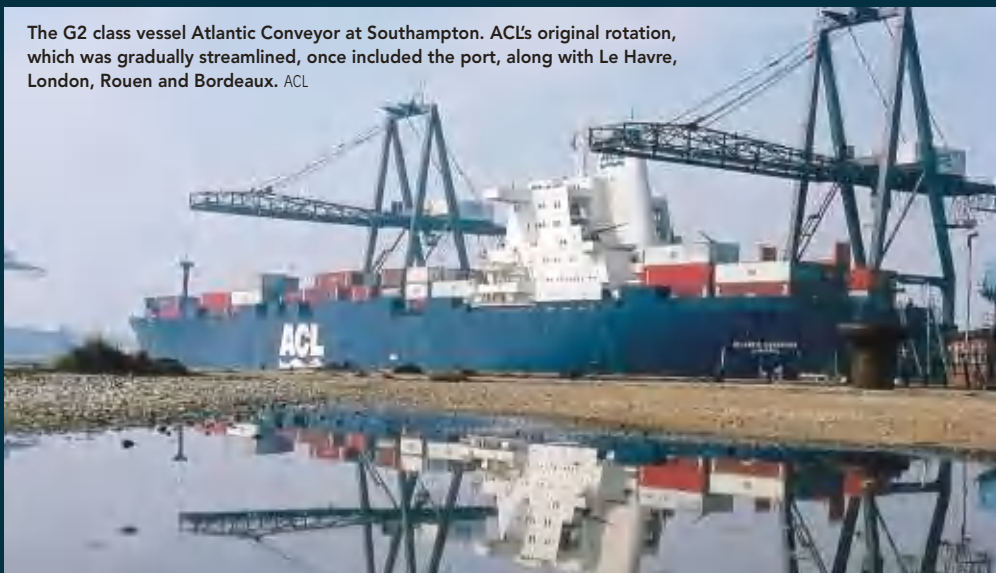
On 25 May 1982 Atlantic Conveyor was lost while playing a part in the Falklands war. While operating as a makeshift aircraft carrier, she was hit by an Argentinean Exocet missile in Falkland Sound and burnt out with the loss of 12 lives; she sank three days later. Those who lost their lives were commemorated during the naming of Atlantic Sea in Liverpool last year.

THE G3 SHIPS

By the 1980s the G1 and G2 ships were found to be too small, and the steam turbine G2s were expensive to operate. So a series of five new vessels with a 2,160TEU capacity, the G3 class, were built, entering service in 1984 and 1985. Atlantic Companion and Atlantic Compass were jointly owned by Swedish America and Transatlantic and built in Malmö along with Atlantic Concert for Wallenius. CGT, by then CGM, had Atlantic Cartier built in Dunkirk, while Cunard returned to Swan Hunter for a second Atlantic Conveyor.

In 1987 ACL entered into a slot chartering agreement with Hapag Lloyd, and the G3s were stretched

The G2 class vessel Atlantic Conveyor at Southampton. ACL's original rotation, which was gradually streamlined, once included the port, along with Le Havre, London, Rouen and Bordeaux. ACL





▲ The 1984-built G3 class Atlantic Concert in the River Mersey, having just left Gladstone Lock. She was withdrawn in August 2016. ACL

by 42m, to 292m, and capacity to 3,100TEU, enabling the G1s to be withdrawn. Atlantic Conveyor was stretched by Scott Lithgow on the Clyde, with work on the other four undertaken in Korea at Hyundai Ulsan. In recognition of the agreement with Hapag Lloyd, Atlantic Concert and Atlantic Companion were renamed Concert Express and Companion Express. Both resumed their ACL names in 1994, though the slot chartering agreement remained.

In 1989 Transatlantic acquired the shares of each partner, becoming outright owner of ACL and purchasing Atlantic Concert from Wallenius at the same time. In 1991 Atlantic Companion and Atlantic Compass were acquired from Swedish America and in 1995 Atlantic Conveyor from Cunard. Finally, in 1996 GGM's Atlantic Cartier was purchased. The British and French vessels were placed under the Bahamian flag until 2003, when they joined their sisters on the Swedish registry.

Having returned to profitability after several years of heavy losses, ACL was floated on the Oslo stock exchange in 1994, allowing Grimaldi to gradually buy shares in the company. By 2007 the Italian group owned 45 per cent and successfully launched a takeover bid. ACL has continued to operate as an independent company within the Grimaldi Group, retaining operational HQ in the USA, though services have long been cross-marketed for transhipment at Antwerp with Grimaldi's African and Mediterranean services and Finnlines' Baltic services. 



Atlantic Star passing through the Dover Strait. ACL

► with the Atlantic crossing completed in six to eight days.

The vessels call at Liverpool twice each week; Tuesday sees the eastbound (Gothenburg) vessel make a 12-hour unloading call, while Friday sees the westbound (Baltimore) vessel calling for 24 hours to load for North America. The G3 ships generally sailed at full capacity, with little space to spare on the eastbound sailings to Europe.

However, such is the extra space offered by the G4 vessels that it is expected to be a couple of years before they are sailing at full capacity. ACL has made a long-term commitment to the port of Liverpool, whose owners, the Peel Ports Group, have invested £10 million in creating new vehicle storage

areas and widening the dock passage that the G4 vessels transit to enter Seaforth Dock.

ENTRY INTO SERVICE

The G4 class ships were ordered in August 2012, with delivery of the five vessels planned for two or three monthly intervals between January and December 2015. However, due to a number of delays, it was late 2015 before the first vessel, *Atlantic Star*, entered service. She departed Hamburg for Gothenburg and Antwerp on 18 December 2015, almost immediately after arriving from China, making a maiden call at Liverpool on Boxing Day 2015.

The second vessel, *Atlantic Sail*, left Shanghai on 5 April 2016 and entered service at

Antwerp on 12 May 2016. The third, *Atlantic Sea*, left Shanghai on 3 July 2016 for Hamburg, where she entered service on 13 August 2016. *Atlantic Sea* was formally named in Liverpool on 20 October 2016 by HRH Princess Royal, having crossed the Atlantic from Halifax in a record five days.

The first G4s entered service in December 2015, while the final two vessels are expected during the middle of this year. The fifth and final vessel, *Atlantic Sun*, is likely to appear in the second quarter of 2017. So far, three of the five ships are to fly the British flag and have Liverpool as their registered home port. Owners Grimaldi have their signature G logo emblazoned on the funnel of the new ships. 

BEHIND THE SCENES ATLANTIC STAR

Not only are the G4s the largest con-ro vessels ever built, but their design differs considerably from previous con-ros. Containers are normally stacked above deck and lighter ro-ro cargo carried in the hull. The densely stowed containers above deck result in a high weight distribution, meaning considerable water ballast is needed for stability.

However, on the G4s the bulk of the ro-ro cargo has been placed

mid-ships, allowing containers to be placed fore and aft providing more efficient use of space, greater stability and minimising ballast. The G3s required water ballast even when full, but the G4 does not, as cargo has replaced ballast. As a result, the G4s can carry twice the number of containers and a third more vehicles than G3s in a similar hull length.

The G4 also operates much more efficiently, consuming around ten per cent less fuel than a G3, and operates

with five fewer crew. Service speed is ten per cent higher than on the G3s at 19.7 knots, while fuel consumption per TEU is reduced by 65 per cent. The G4s have expanded ACL's capacity in the North Atlantic trade.

The G4 principally consists of three sections: two for containers and one for ro-ro. The container sections are located either side of the central superstructure; forwards on a weather deck extending down below into a large cellular hull hold and aft on a weather deck, with ►

► a small extension below into a hold forward of the engine room and vehicle deck ramps. The ro-ro section is in the aft and mid-hull section, extending vertically into the mid-ship superstructure, on top of which are two decks of crew accommodation and the bridge. Accommodation is provided for 47 persons in 35 cabins, although the crew complement is just 16.

CARGO

A total of 3,807TEU can be carried in 18 bays, each of which is 13 containers wide, tiered up to 14 containers high, with seven tiers in the hold and seven tiers on the weather deck. Forward container capacity has been maximised by use of a vertical stem bow, covered mooring deck and breakwater protection from wind and waves. Up to 2,230TEU can be carried forward stowed in nine bays, with seven extending below into the hold through hatch openings.

Up to 1,429TEU can be carried on the aft weather deck in nine bays. Two bays extend below into a small hold, where a further 152TEU are carried. Refrigeration power is available for 200 reefer containers on the weather decks. All containers are held in cell guides to prevent container losses in heavy weather. In severe weather empty containers can be blown overboard if poorly secured. The cell guides must work, as ACL has never lost a container in 30 years.

Vehicle access is provided via a huge folding Macgregor quarter ramp at the stern; able to take 420 tonnes in weight, it takes 20 minutes to lower or raise. A considerable mix of wheeled cargo is carried, including cars, vans, limousines, extra



▲ The stern ramp of Atlantic Star.



▲ Atlantic Star's bridge.



▲ The view forward from the bridge on Atlantic Star looks out over nine bays of containers.



▲ There are six ro-ro cargo decks; the highest is deck four. The ramp leads to the car decks.



▲ One of the upper car decks loaded with cars destined for the USA.
ON BOARD PHOTOS BY MATT DAVIES

CON-RO COMPARISON

	G3	G4
LANE METRES	3,372	5,270
CONTAINERS	1,850TEU, 11 tiers, 192 reefers	3,807TEU, 14 tiers, 200 reefers
RO-RO SPACE	18,500m ²	28,900m ²
CAR DECK HEIGHT	1.65m, 1,000 cars	2.2m, 1,307 cars
RO-RO UNITS	525	764
DIMENSIONS	292m x 32.3m x 11.5m	296m x 32.6m x 11.6m
STERN DOOR	21m x 8m	25.8m x 6.8m
STERN RAMP	420 tonnes max	420 tonnes max
TONNAGE	57,255gt, 45,000dwt	100,430, 43,100dwt
SPEED (KNOTS)	17.5 knots	19.2 knots
ECO SPEED	---	18.0 knots

long flatbed trailers, MAFI trailers, railway engines and carriages, buses, helicopters, yachts, vans, agricultural machines, construction equipment and transformers on low loaders. Breakbulk cargo, such as packaged timber and paper on pallets or cassette reels, is carried, and lashings are fitted so containers can be double stacked on the vehicle deck.

The ro-ro deck extends 93m for almost half the hull and upwards into the central superstructure, where the vehicle decks are 52m in length. There are six ro-ro cargo decks, four configurable with a hoistable car deck, plus a fixed car deck. Total vehicle deck space is 28,900m², significantly more than 18,500m² on the G3 class, allowing 760 ro-ro units and 1,307 cars to be carried, with the heavy ro-ro decks accounting for an impressive 18,535m², equivalent to 6,000 lane metres. Internal ramps on the G4 are both wider and shallower than on the G3, main deck heights have been increased from 6.2m to 7.4m and there are fewer internal columns making the carriage of oversized cargo easier and safer.

POWER

A single eight-cylinder Wärtsilä 8RTflex 68-D engine built by Hyundai provides 22,000kW and drives a single fixed-pitch propeller producing a service speed of 19.2 knots. The G4s operate for much of the time in waters covered by SECA regulations covering sulphur emissions on both sides of the Atlantic, and so a 3.9m by 11m Alfa Laval PureSox single inlet hybrid scrubber is fitted.

The vertical stem bow allows the best possible service speed in heavy North Atlantic weather while minimising power use. Extensive model tests were conducted at the design stage, and the final G4 hull form requires only marginally more power than the G3 vessels despite the much greater displacement. While vessels the size of the G4 normally require tugs when berthing, three Wärtsilä 1,750kW thrusters are fitted, two in the bow and one aft, reducing reliance on tugs and speeding berthing times. With locks transited at both Antwerp and Liverpool, good manoeuvrability is crucial. **SI**

Atlantic Sea manoeuvres on the River Mersey at twilight on 20 October 2016 following her naming. MATT DAVIES



Supporting seafarers in need and their families since 1917

To find out about our work
or to make a donation

visit www.seafarers.uk

phone 020 7932 0000 or

email seafarers@seafarers-uk.org



FotoFlite at 70

Celebrating 70 years of aerial photography over the English Channel, Patrick Boniface looks back at specialist ship photographers FotoFlite, who have supplied a selection of their work.



▲ Digital composite photograph of all the aircraft used by FotoFlite recently.

If you ever see a small aircraft flying low along the English Channel, there's a very good chance it could belong to FotoFlite, who in 2017 are celebrating their 70th anniversary.

Today the Dover Strait and English Channel are among the busiest shipping lanes in the world, and with all the movements of commercial, cargo and military ships through the narrow channel it is not too surprising that FotoFlite's origins were in Kent. In April 1947, just two years after the end of World War II, the small aerial marine

specialist photographers were established, originally being known as Skyfotos.

Skyfotos' first commission was to fly over Sheerness steelworks and take aerial photographs of the site. On the return leg of the flight to the company's base at Lydd Airport on the Romney Marsh, the enterprising pilot and photographer took the opportunity to fly over the English Channel and snap images of some of the ships plying their trade then.

Proofs of the photographs were sent to the ships' owners and, in due course, some full size images were

This photo of the cargo carrier Northwood is one of the few images that includes a Skyfotos aircraft.



▼ The famous Cunard liner Queen Mary photographed in the Solent.



▲ The 203grt paddle steamer Lord Elgin was built in 1876 and was converted to cargo-carrying later in her career, remaining in service until 1955. Originally built for John Kidd's excursion services on the Firth of Forth, she moved south in 1881 to the Bournemouth & South Coast Steam Packets, and was at one time the only remaining steamer in their fleet.



▲ The paddle tug RMAS Forceful was built by Yarrows at Scotstoun in 1958 as one of seven diesel-electric Director class paddle tugs for the Port Auxiliary Service (PAS), later the Royal Maritime Auxiliary Service (RMAS), designed to handle Royal Navy aircraft carriers. She was withdrawn from service in December 1980 and later used for target practice. (THANKS TO NICK HALL)



▲ The nuclear-powered merchant ship Savannah was one of the more unusual ships captured by FotoFlite's photographers. Built in the late 1950s at a cost of \$46.9 million, including a \$28.3 million nuclear reactor and fuel core, and funded by United States government agencies, Savannah was a demonstration project for the potential use of nuclear energy. She was launched on 21 July 1959 and named after SS Savannah, the first steamship to cross the Atlantic. The nuclear-powered ship was in service between 1962 and 1972 and was one of only four nuclear-powered cargo ships built.

FOTOFLITE FACTS

- ➔ FotoFlite is part of Andrews Professional Colour Labs Ltd.
- ➔ FotoFlite have two Piper Seneca twin-engined aircraft, which usually fly out of Headcorn; during the winter months one is kept at Lydd, as Headcorn is a grass runway that can get waterlogged.
- ➔ The main photographer is John Cant, who took on the role 12 years ago.
- ➔ FotoFlite has been entirely digital since 2008 and uses Canon photographic equipment.
- ➔ For the last 10 years FotoFlite's full-time pilot has been Jeremy Britcher, although other pilots are used on a part-time basis.



▲ Emerald Ace was the world's first hybrid car carrier. She was completed in 2012 and was equipped with a hybrid electric power supply system that combines a 160kW solar generation system with lithium-ion batteries.



▲ The ferry Prins Hamlet, seen when new, was delivered to Lion Ferry AB, Halmstad on 14 May 1966. She served on the Bremerhaven to Harwich route at various times in her career.



The ferry Free Enterprise IV arriving at Dover in the early 1980s. The ferries operating out of Dover are among FotoFlite's most photographed ships.



The container ship Emma Maersk (170,794gt) was built in 2006. She was the first in the E class of eight boxboats owned by the A. P. Moller-Maersk Group. When launched, she was the largest container ship ever built, and in 2010 she and her seven sister ships were among the longest container ships.



▲ One of the many container ships transiting the English Channel, the 98,648gt Gudrun Maersk was photographed in August 2005 when new. Constructed at the Odense Steel shipyard in Denmark, when launched in 2005 she was the world's largest container vessel, capable of carrying up to 8,500TEU, a title she lost in 2006 to Emma Maersk.

ordered. Skyfotos started out at Lympne Airport outside of Folkestone, now long gone, before moving its facilities and aircraft to Lydd, close to the famous Romney, Hythe and Dymchurch light railway.

In 1981 FotoFlite was formed and started photographing as many ships as possible in the English Channel to build up their library, using a specially adapted twin-engine seven-seater Piper Seneca. The company was at this time part of Andrews Professional Laboratories, sharing the same office and laboratory in Ashford. Part of the adaptations saw the removal

of three of the seats to make room for the photographer. Other items changed in the aircraft, including the replacement of the standard portside door with one with a large aperture cut out for the camera gear.

In February 1990 FotoFlite took over the activities of Skyfotos and their catalogue of over 70,000 aerial images of ships, and integrated their collection into the FotoFlite library. Today, the company operates from a smart new office space in an industrial park back in Ashford, from where they continue to be based. So here's to the next 70 years of aerial photography. 



▲ Owned by the world's third largest wind turbine manufacturer, Germany's Enercon GmbH, the 10,500dwt ro-ro vessel E-Ship 1 makes use of four Flettner rotors, first developed in the early 1920s, along with two diesel engines of 7MW combined output. She is employed to deliver wind farm components worldwide, and has a service speed of 16.5 knots.



▲ The famous liner Canberra, completed in 1960 at the Harland and Wolff shipyard, was built to operate the combined P&O-Orient Line service between the UK and Australia and served in the P&O fleet from 1961 to 1997.

Chinese classics

Malcolm Cranfield looks at Chinese shipowning in the post-war era, when international trade and fleet expansion were facilitated by the use of offshore companies and flags of convenience.



The 1949 Chinese Communist revolution and the start of the Korean War in 1950 resulted in a United States-led trade embargo on China, which had the effect of prohibiting China from using Chinese-flagged ships for its non-Soviet foreign trade. As a result, the Chinese-Polish Joint Stock Shipping Company was established in 1951, the first foreign venture to be formed after the 1949 revolution, to provide a limited shipping service, while Sinochart, a division of the China National Foreign Transport Corporation (Sinotrans), was established in 1955 to charter ships, albeit at that time mainly from Soviet bloc countries.

The book 'Sold East' by H. W. Dick and S. A. Kentwell

reports that the movement of coastal cargo by the small number of mainland Chinese-owned ships at that time was also difficult, with much chartering of British- and Norwegian-flagged ships carried out through Chinese interests in Hong Kong. While acting as broker for Sinofracht in arranging export shipments, the well-known shipping agency Wallem, founded in Shanghai in 1903 by Haakon J. Wallem of Bergen, provided some of the ships. Respected foreign companies with offices in China, such as Wallem, often acted as intermediaries between the Chinese government and the outside world.

On behalf of Oversea United Shipping & Trading, a Chinese Government-owned company, Wallem fronted the ownership of the 1925-built vessel *Gunn*, the former *Colytto* from

► The 1955-built *Oceantramp*, the former *Vigrafford* of Norwegian America Line, arriving at Rotterdam from Shanghai on 29 May 1966. Purchased by Ocean Tramping in 1960, their first acquisition for deep sea trading, she was uniquely registered at Glasgow. Transferred to Nan Yang in 1970 and renamed *Oriental* under the Somalia flag, she was wrecked near Karachi on 26 June 1973. AUTHOR'S COLLECTION

1954. Following her sale in 1959, the War-built Park type *Yamaska* was again given the name *Gunn*, this time being nominally owned by Dah Lien Shipping Co (K. T. Wong) and managed by Jebmei Shipping Management Co Ltd.

This ship soon became the Chinese-owned *Ho Ping* 30, to be replaced by the former *Poplar Hill*, renamed *Shienfoom*. Jebmei had also managed Chung Shek



Jollity, built at Palermo in 1958 as Sunetna, was purchased by Hemisphere Shipping in 1964 and operated until 1971 under the British flag. Then transferred to Nan Yang, she moved to the nominal ownership of Fortune Sea Transport Corporation in 1976. She was photographed at Singapore on 14 January 1978 shortly before becoming Hong Qi 118, registered at Guangzhou. She was deleted from the Register in 1993. PHOTO BY IAN SHIFFMAN/AUTHOR'S COLLECTION



▲ Greenland Sea, purchased by Yick Fung in 1973 and flagged to Somalia until 1976, then to Panama, at Hong Kong in November 1980. Built at Palermo in 1956 as Giove for Societa Ligure di Armamento of Genoa, she was unusual in not being transferred to any other Chinese-owned company and is thought to have been broken up at Shanghai as early as December 1983. DAVE SALISBURY/JOHN WHITE COLLECTION



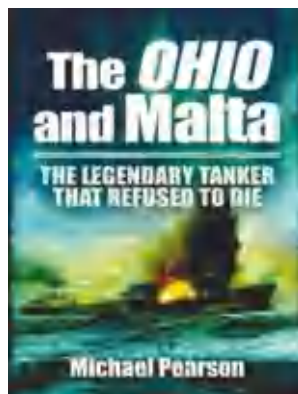
◀ A Scottish influence is surmised in the naming of Kinross when she was purchased by Chiao Mao Enterprises in 1963. Built by Doxford at Sunderland in 1949 as Trellisick for Hain SS, she was managed by Yick Fung from 1967 and in 1972 transferred to her manager's direct ownership. Photographed at Gibraltar in about 1968, she traded locally in the Far East, and in 1974 was registered at Shanghai. She was deleted from the Register in 1992. MIKE LENNON/AUTHOR'S COLLECTION





Travellers in Time
Maritime & Naval Artefacts
and other antiques
www.travellersintime.net
for all inquiries please contact
sales@travellersintime.net

**TO ADVERTISE
CALL GARY ON
01732 447008**



THE OHIO AND MALTA
The epic voyage of 'the ship that saved Malta' in the Pedestal convoy, August 1942.



RED SKY IN THE MORNING
The battle for convoy JW51B that had far-reaching effects for the Kriegsmarine.

By Michael Pearson
Available from the publishers Pen & Sword Ltd
Tel: 01226 734222

website: pen-and-sword.co.uk
Available in paperback and ebook format, complete with maps, diagrams, illustrations and detailed appendices

Also available from Amazon.co.uk / whsmith.co.uk / Bookdepository.co.uk
and all good bookshops and online retailers.
mikepearsonwriter.co.uk

Ships Corner

To Advertise: Telephone 01732 445325

BOOKS

SHIPPING BOOKS FOR SALE, RARE AND SECONDHAND, ALL ASPECTS.

Including Sail, Steam, Naval, Coastal & Cross-channel, Shipping Line histories. Shipbuilding, Shipwrecks etc., Free bi-monthly catalogues from Terry Smith, 62 Chapelfield, Freethorpe, Norwich, NR13 3LY.

Tel: 01493 700004. Email: terence.smith578@btinternet.com

NAVAL/MARITIME BOOKS BOUGHT AND SOLD.

Send for our Free Monthly Catalogues.
GERALD LEE MARITIME BOOKS.
PO Box 259, Bexhill-on-Sea, East Sussex TN40 9FH
Tel: 01424 218007.
Email- enquiries@leemaritimebooks.com

WANTED - SHIP MODELS

Makers/ Builders models of any ship from Liner to Tramp Steamer.
Any age or condition.
TEL: 01522 693449

Memorabilia

Ocean Liner memorabilia for sale including White Star, Cunard, French Line, Royal Yachts and Royal Navy.
Cobwebs, 78 Northam Road
Southampton
02380227458

'Return to Début: The Last Resort'

Please do read my new book 'Return to Début: The Last Resort' published by Amazon on kindle,
Code B01MRX2ZGF
Tel 01473 421 742
Or email: dick.brooks@hotmail.co.uk



**TO
ADVERTISE
CALL
GARY ON
01732
447008**



▲ Nanwu, built in 1953 as Neckarstein and purchased by Ocean Tramping in 1973, was transferred in 1976 to the ownership of Highseas Nav Corp. Photographed at Los Angeles in January 1983, she thereafter traded only in Far East waters, and arrived at Shanghai on 14 February 1985 for breaking. AUTHOR'S COLLECTION



▲ Meiru, built at Vegesack in 1955 for Roland-Linie (Norddeutscher Lloyd-NDL) as Tannstein and purchased by Ocean Tramping in 1973, off Keelung on 10 June 1981. This was five years after her transfer to the ownership of Highseas. She is reported to have been broken up at Nantong in 1986. CHRIS GEE



▲ Yick Fung purchased the 1958-built Castasegna (ex-Cruzeiro do Sul) from Suisse Atlantique in 1973, renaming her Mindanao Sea. Photographed arriving at Rotterdam on 30 May 1974, she was transferred to China Ocean Shipping, Guangzhou in 1976 to trade as Mao Lin until some time between 1983, when relegated to coastal trading, and 1993, when she was deleted. PAUL BOOT

Enterprises Co Ltd, created in 1963 to operate the new Dutch-built vessels *Sea Amber* and *Sea Coral*, which were transferred to the Chinese flag in 1973.

Meanwhile, the Hong Kong Shipowners Association came into being on 29 November 1957 with 11 founding members, who were described as 'shipowning families who had migrated from the environs of Shanghai and Ningbo in the late 1940s, escaping the encroaching Communists'. These had included Y-K Pao (Mr World-Wide Shipping) and Andrew Lam of Jebshun Shipping.

As most of China's international trade in the 1950s was with the Soviet Union, much of which was transported by rail, China's need for ocean-going vessels was initially minimal. However, wishing to participate in deepsea shipping but having little building capacity and still constrained by the international embargo, the Chinese Ministry of Communications proceeded to

create two Hong Kong-based 'front' companies, Ocean Tramping Co. Ltd in 1958 and Yick Fung Shipping and Enterprise Co Ltd in 1960 to buy second-hand ships.

While Ocean Tramping's first ship, *Hereford*, soon became the mainland Chinese-owned *Ho Ping 51*, the growth of China's deepsea fleet started in earnest with *Ocean tramp*, purchased in 1960. Wallem had again fronted Yick Fung's first purchases, the War-built *Sunmont*, which was renamed *Shun Fung*, and *Alendi Hill*, renamed *Ho Fung*.

With Soviet help, Chinese shipbuilding had been slowly developing, and had reached a capacity of up to ten ships a year. In 1960, during the country's great famine, the 13,500dwt *Dong Feng* was delivered by the Kiangnan shipyard at Shanghai.

However, the relationship between China and the Soviet Union deteriorated in 1960 and shipbuilding virtually ground to a halt as a result.



▲ The Hansa A type Milford, seen at Hong Kong in 1964, was purchased by Hemisphere Shipping in 1960 from Indo-China Steam Navigation, who had operated her since 1948 as Choy Sang. Built by Cockerill at Hoboken in 1943, she was completed in May 1944 as Aeolus for Neptun of Bremen, but a year later was seized at Kiel by British forces and renamed Empire Witham. At the end of 1966 her ownership was transferred to Continental Navand Enterprises, and in 1967 she was renamed Salamanca. She was broken up at Hong Kong in 1969. GEORGE WILSON



▲ Unlike with her sistership Kinross, no Scottish influence can be implied from the naming of Yunlutaton, also purchased by Chiao Mao Enterprises in 1963. She was built in 1949 as Treylon, and from 1967 was managed by Yick Fung. In the photograph, taken at Hong Kong on 10 April 1970, she had Yick Fung's funnel colours. Transferred to Chinese mainland ownership in 1974, she was renamed Hua Shan, operated by China Ocean Shipping and registered at Shanghai, but was deleted from the Register in 1992. WILLIAM A. SCHELL/AUTHOR'S COLLECTION

Consequently *Chao Yang*, building at the same shipyard in 1966 when Mao Zedong's ten-year long Cultural Revolution started, was not delivered until 1970. The 'front' companies, meanwhile, acquired a number of classic ships, mainly from British and European owners, which are the main focus of the accompanying photographs.

Under the umbrella of Yick Fung, several new companies were created in the 1960s and 1970s including: Chiao Mao Enterprises Limited, in

Hong Kong in 1963; Tat On Shipping & Enterprises Co. in 1964; Southern Shipping & Enterprises, in Hong Kong in 1967; Tong Ling Shipping & Enterprises, Somalia, in 1970 (managed by Southern); Luen Yick Shipping Co, in Macau in 1972; Ceram Shipping Inc and Roc Maritime Inc were created in 1976; Tai On Shipping Inc in 1977; Banda Shipping Inc in 1978 and Hong Fat Shipping Inc in 1979.

Under the umbrella of Ocean Tramping, several other companies were created, with



▲ Peony, arriving at Rotterdam on 10 July 1970, had been purchased by Peninsular Shipping soon after being launched in April 1963 as Bonde and was delivered in March 1964, registered at London. Built at Oskarshamn, Sweden, for Henriksens Rederi A/S of Oslo, she was transferred to Chinese mainland ownership in 1970 and renamed Chang De, operated by China Ocean Shipping and registered at Guangzhou, a city northwest of Hong Kong on the Pearl River. It is thought that she was broken up in China in 1992. AUTHOR'S PHOTOGRAPH

◀ The 1953-built Karimata of Nederland N.V. was purchased by Ocean Tramping in North Europe during February 1972 but, renamed Sinyeh, was transferred to Nan Yang twelve months later, retaining the Somalia flag. She loaded her first cargo for the Far East at Newport and then Birkenhead where she was photographed on 19 March 1972. During a voyage from the Far East to Mediterranean ports towards the end of 1975, she caught fire and was beached off the Syrian port of Lattakia in heavy weather on 27 December with the loss of 25 lives. PAUL BOOT



▲ Ocean Tramping's 1972 Cammell Laird, Birkenhead-built bulk carrier Practician arriving at Vancouver on 3 August 1987. The former Letchworth of R. S. Dalglish, Newcastle, she continued to fly the British flag (latterly Hong Kong) until transferred to the Panama flag in 1993 and renamed Expeditioner, under the management of Xiang Long Shipping Limited, still of Hong Kong. As her last reported movement was sailing from Shanghai on 14 January 1997 up the Yangtze bound for Jiangyin, it is thought that she was broken up there. AUTHOR'S COLLECTION

Peninsular Shipping Co and Hemisphere Shipping Co also formed in 1958 and, more notably, Nan Yang Shipping Co, which opened in Macao in 1970 to operate ships under the Somalia flag. Further new companies were formed in 1976, when the Somalia flag ceased to be used.

These included Brilliance SS Corp, Dawn Maritime Corp, Fortune Sea Transport Corp, Golden City Maritime Corp, Highseas Nav Corp and United Freighter Corp (Panama) SA. Many ships were transferred from Ocean Tramping and Nan Yang to these companies, changing their flag, usually to Panama, but without change of name or colours.

Many more new companies were created in the 1980s and 1990s under both the Yick Fung and Ocean Tramping banners, and others, although often only operating one ship and some again having been internally transferred. In 1994 Yick Fung and Ocean Tramping became part of the newly created COSCO (Hong Kong) Shipping Co Ltd and soon lost their identities. 



▲ Yick Fung's Weddell Sea, built at Oskarshamn in 1961 as Salvada for Christian Salvesen of Leith and purchased at San Francisco in December 1971, in London's Royal Albert Dock on 28 October 1973. In 1975 she was transferred to mainland China and renamed Zun Hua, being operated by the Guangzhou-based Chinese-Tanzanian Joint Shipping Company. Ten years later she was transferred to Cosco and renamed Ye Xing. From about 1992 she traded locally until, it seems, she was broken up in about 2005. DAVE SALISBURY



◀ The bulk carrier Amundsen Sea, built at Genoa in 1976 as Sextum for Italcantieri of Trieste, was purchased in 1979 by Banda Shipping, a recently created subsidiary of Yick Fung, and placed under the Panama flag. Photographed at Vancouver in November 1982, she was one of several Yick Fung ships painted with a large white letter T (for Tong Ling) on a red funnel. She was sold in 1993 to Celestial Maritime Corp of Athens. Renamed Solon of Athens, she was beached at Alang on 28 June 1999 for breaking. AUTHOR'S COLLECTION



MARITIME

MOSAIC

The small port of Fowey in Cornwall is a popular destination for small cruise ships, although numbers in the last few years have declined. Paul Richards photographed some cruise visitors between 2007 and 2009.



▲ Fred. Olsen's 21,891gt cruise ship *Boudicca* was built in 1973 by Wärtsilä Helsinki Shipyard, Finland as *Royal Viking Sky* for Nordenfjeldske Dampskibsselskab, Trondheim, which placed the ship in Royal Viking Line service. The ship has also been operated as *Sunward* (for Norwegian Cruise Line), *Birka Queen* (Birka Cruises), *Golden Princess* (Princess Cruises), *Hyundai Keumgang* and *Grand Latino*. She is pictured in the Fowey estuary surrounded by sailing dinghies, more common users of the picturesque waters of the area.

◀ Hapag Lloyd's 6,752gt ship *Bremen* departs Fowey in May 2009. She was built in 1990 by Mitsubishi Heavy Industries, Kobe, Japan.



▲ The 15,067gt cColumbus was operated by Hapag Lloyd between 1997 and 2012, and was under their auspices when she called at Fowey in 2008. Built by MTW Schiffswerft GmbH, Wismar, she has been operated by Plantours as Hamburg since 2012.

◀ The small classic cruise ship Andrea, being towed out of the port by the tug Tregeagle in 2007, was built in 1960 as Harald Jarl for Hurtigruten service. In 2002 she was sold to Elegant Cruises and refitted as a luxury expedition cruise ship. Elegant Cruises went bankrupt in 2009

▼ The 1990-built Delphin Voyager (23,287gt) passing Polruan as she depart Fowey, in July 2007. She was originally built as Orient Venus, and since 2012 has been named Aegean Paradise.



SS GREAT BRITAIN

A GREAT BRITISH SHIP

Eighty years ago the famous iron-hulled steamship *Great Britain* was a sad rusting hulk in the Falkland Islands, but since then she has been rescued and restored, and is today a popular tourist attraction on display at the Great Western Dockyard in Bristol. Her story begins in the mid-19th century, when her construction came about thanks to the innovative thinking of Isambard Kingdom Brunel and the Board of Directors at the Great Western Steam Ship Co (GWSSC), who supported the building of a purpose-built dry dock to build a major ship to sail across the Atlantic.

Brunel, who worked for the GWSSC as an engineer, had first designed the *SS Great Western* to a tried and tested design with a wooden hull and steam-driven paddles. Although the ship was a success, breaking speed records for the transatlantic crossing, the GWSSC directors wanted another ship built, and this time Brunel broke with convention and designed an iron-hulled leviathan.

Great Britain was a massive ship with several ground-breaking features. Brunel opted for a propeller rather than paddles, and used wrought iron for her hull. These were unheard-of innovations for the time, and there were questions about whether they would work. Her hull was made up of horizontal rows of wrought iron plates, each 6ft, known as strakes; they overlapped horizontally and were joined together by rivets. The vertical edges of the plates butted up with each other and the joints were covered by iron straps. Rivets were used to attach the straps to the hull plates.

SS Great Britain is a ship worthy of the name 'Great'. When launched in 1843, she was the biggest ship in the world, had an iron hull and was fitted with a steam-powered propeller. James Hendrie describes her career, which ended with her being placed on display in Bristol, the city where she was built.

The famous SS Great Britain in the Bristol dockyard where she was built.





▲ Great Britain being warred out of Avon Dock on 21 January 1845, from a painting by J. Walter. BY COURTESY OF SS GREAT BRITAIN PROJECT



▲ A contemporary engraving of the launch of Great Britain on 19 July 1843 from the Great Western Dock. Prince Albert presided at the launch.



To reduce the weight and therefore improve the speed of the ship, the lower hull plates were thicker than the ones further up. The plates formed the strong iron external shell of the ship, while internally 165 curved frames were fitted around 18in apart to strengthen the hull and help it keep its shape; the frames were held in place by pieces of iron packing attaching them to the ship's hull.

Great Britain had five bulkheads, which divided her into a series of watertight compartments. Brunel was very precise in calculating what level of energy would be needed to drive the ship when she was fully laden. He established that larger ships needed less energy than smaller ones proportionally. These calculations, as well as the fact that to build a ship of that size with a wooden hull would have been difficult, pushed him towards deciding that wrought iron was the best material for the hull.

The choice of a screw propeller for propulsion was taken later in the design process. The use of propellers to power ships was in its infancy, but Brunel researched the benefits of propellers and decided to use one in *Great Britain*. This meant that Thomas Guppy, one of Brunel's colleagues, had to redesign the ship's engine so that it could drive a propeller rather than paddles. The engine was the most powerful

marine engine of its day.

The coal-fired boiler produced steam to power two twin 88-inch diameter cylinders, which were arranged in a V formation, driving a crankshaft with an 18ft 3in diameter wooden-toothed chain wheel. These in turn used four seven-ton chains to turn the propeller shaft. The crankshaft turned at 18rpm, and the propeller shaft turned at 53rpm. This gave *Great Britain* a speed of around 12 knots. She could carry 1,200 tons of coal, which was enough to take her from Bristol to New York, but she still carried sails to assist forward movement.

MAIDEN VOYAGE

She set out on her maiden voyage on 26 July 1845, with her first crossing of the Atlantic to New York taking 14 days and 21 hours, carrying 45 passengers. This was not an exceptional speed and neither was that of her return crossing. Her next crossing saw her incur damage in heavy seas, both on the outward and inward crossings. She rolled quite a lot when sails were not in use, causing much discomfort to her passengers.

Repairs and modifications were made and she recommenced sailings in 1846. However, other misfortunes arose, notably when she went aground at Dundrum Bay on Ireland's east coast. She lay there for a year before she was refloated and returned to Bristol. As

GWSSC were unable to fund repairs, she was sold to Gibbs, Bright & Co, and they proceeded to give her a total refit, replacing a large section of the damaged keel, strengthening her hull and updating her engines.

One further trip was made across the Atlantic before *Great Britain* was sold again, this time to Anthony Gibbs & Sons, who were planning to capitalise on the booming demand for people wanting to emigrate to Australia, motivated by the gold rush.

She was refitted for her new role, with her original rudder, propeller and engine being replaced, a second funnel added and an extra upper deck installed so that over 700 passengers could be carried. However, the major change was the addition of more square sails, necessary for conditions in the southern oceans. A crane was also added to lift the propeller out of the water when it was not being used. This meant that there was a saving on fuel and the ship could go faster, as the propeller was not dragging in the water.

For the trips 'down under', she reverted mostly to sail power, with her engine being used when the wind was not strong enough. On her first voyage as an emigrant ship, on 21 August 1852, she carried 630 passengers, and she continued to operate on the emigrant route for a further 30 years, usually taking 60 days to make the journey from Liverpool to Melbourne.

MOVING TROOPS

These trips were only interrupted when she was used to transport British troops during both the Crimean War and the Indian Rebellion. While transporting emigrants, she gained a reputation as being one of the most reliable ships. She also had the honour, in 1861, of being the ship that took the first English cricket team out to play in Australia.

In 1882 she underwent another conversion, this



time becoming a cargo ship. Her engine and funnel were removed so that she had more space to carry cargo, and she was transformed into a sailing ship with three masts, with big square sails, becoming what was known as a 'windjammer'. She was used to haul coal from Penarth in South Wales or Liverpool to San Francisco, returning from the US with cargoes of wheat.

The route to the west coast of America saw her sailing through some of the stormiest of seas during her Atlantic crossings, and in 1886 she was damaged in storms off Cape Horn, with her captain seeking refuge in the Falkland Islands. While she was at Port Stanley, her owners agreed with their insurers that the

cost of repairs would be prohibitive, and so she was sold to the Falkland Islands Company. So from 1886 she became a storage hulk for both coal and wool, and she remained stranded in the Falklands for many years.

By 1937 she was considered to be too unsafe to be used for storage and so was towed to Sparrow Cove, where she was scuttled and left abandoned. Some of her iron plates were used to help repair HMS *Exeter* after the warship was damaged in December 1939 during the Battle of the River Plate while fighting against *Graf Spee*. But apart from that, the historic *Great Britain* was left, forgotten, as a rusting hulk.

But she was not totally forgotten, and in 1970 the SS



SS Great Britain is now one of the South West of Britain's most popular visitor attractions.



▲ SS Great Britain's rudder.



▲ SS Great Britain's ship's bell, which was used to mark the daily routine on board the ship.



▲ SS Great Britain sits serenely in water, but only to the depth of the glass plate, which surrounds the ship and helps to seal her in an airtight environment to aid her preservation.



SS Great Britain returned to her place of birth in 1970 and is now a well-preserved and popular tourist attraction.



▲ The deck of SS Great Britain.



▲ The restoration work carried out on Great Britain since 1970 is evident.

Great Britain Project, chaired by Richard Goold-Adams, formulated plans to rescue the ship and return her to Bristol, her spiritual home. It was regarded as unacceptable that such a historic ship should not be left rusting away.

Ewan Corlett conducted a survey of the ship, and the submersible pontoon, *Mulus III*, was chartered in February 1970. A German tug, *Varius II*, was also chartered, reaching Port Stanley on 25 March. By 13 April the ship was mounted on the pontoon and on 24 April the tug, pontoon and *Great Britain* began the transatlantic voyage, calling at Montevideo for inspection, then across the Atlantic, arriving at Barry Docks on 22 June. Bristol-based tugs then took over and towed her, still on her pontoon, to Avonmouth Docks. On Sunday 5 July 1970 she was towed up the Avon to Bristol and the Western Dockyard.

There were initial fears that she was in such a poor state that restoration might not be possible. The solution was to seal the most fragile parts of the ship – the corroded hull below the waterline – in a giant dehumidification chamber where atmospheric moisture could not cause any damage. To achieve this a glass plate was fitted around the ship, making it water and air tight. Two dehumidification machines, which dried the air in the dock and around the ship, were

added, with the air in the dry dock being, apparently, as dry as that in the Arizona desert!

POPULAR ATTRACTION

About 150,000 people a year now visit *SS Great Britain*. They see the upper part of the ship, whose decks have been covered with anti-corrosion paint, and go 'below' the waterline to view the ship's hull. They also get to experience what life was like on board through displays in the different parts of the ship, while films, pictures and artefacts bring back to life this once great, innovative ship. 

SS GREAT BRITAIN

BUILT	William Patterson & Son, Gt Western Dockyard, Bristol
LAID DOWN	July 1839
LAUNCHED	19th July 1843
DIMENSIONS	332ft (98m) x 50ft 6in (15.39m), draught 16ft (4.9m)
DISPLACEMENT	3,674 tons load draught
PASSENGERS	360 as Atlantic liner, 630 initially, then 700 as emigrant clipper
MACHINERY	Coal-fired boiler powering two twin 88in diameter cylinders, in V formation, driving crankshaft with 18ft 3in chain wheel; these used four seven-ton chains to turn the propeller shaft, the crankshaft turned at 18rpm, the propeller shaft at 53rpm
SPEED	12 Knots



▲ Normally operating from her Pacific base at Seattle, Polar Star is used for exploration work at both poles, as well as in the Bering Sea. She is 399ft and is powered by three gas turbines, with three diesel engines for added propulsion.



▲ CGC Fir is a buoy tender and the last lighthouse tender built specifically for the US Lighthouse Service to resupply lighthouses and ships. Built in Oakland by the Moore Drydock Co, she has been preserved, but was for sale in 2014.




▲ The US Coast Guard Yard at Arundel Cove, Maryland, where much repair and overhaul work of Coast Guard ships takes place. The yard has built many small boats and lifeboats for the service too.

THE UNITED STATES COASTGUARD

FROM LIFE SAVERS TO BORDER SECURITY

For over 200 years the US Coastguard has served as one of America's seven uniformed services, guarding the coasts of America, saving lives at sea and operating the International Ice Patrol, as Campbell McCutcheon explains.



Built in 1967 by Avondale Shipyards, USCGC Boutwell was commissioned in 1968 and left service on 16 March 2016. She has been transferred to the Philippine Navy.

The United States Coast Guard was founded on 4 August 1790 as the Revenue Marine, and its original aim was to collect taxes and customs duties for goods being imported into United States ports. The name was changed during the 1860s to the Revenue Cutter Service, and on 28 January 1915 the Revenue Cutter Service and the US Life-saving Service amalgamated to become the Coast Guard. The USCG is one of the country's armed forces and has been involved in every US war since 1790.

It has 36,000 men and women to run its ships and aircraft, as well as 7,350 reservists, 29,600 auxiliaries and 7,000 civilian employees, making it the world's twelfth largest navy. Because of its multiple roles, the USCG is responsible for maritime security, safety and stewardship. It comes under the Department of Homeland Security in peacetime, but in wartime can be controlled by

the Department of Defense or come directly under the control of the US President. Maritime environmental protection and maintenance of aids to navigation are among its secondary roles. It also operates numerous lightships and the International Ice Patrol, which has run each year since the *Titanic* disaster.

Coast Guards were to be found landing troops on D-Day, at the invasion of numerous Pacific islands during the island-hopping campaign of World War II, as well as in Korea and Vietnam. During Operation Iraqi Freedom, the USCG performed multiple roles, including maritime interception, coastal and transportation security and law enforcement. In 2002 USCG control passed to the Department of Homeland Security, when the Homeland Security Act was signed into law.

USCG HISTORY

The first Coast Guard station was built at Newburyport, Mass and was in control of vessels entering Boston harbour. For eight years the

US had no navy, and the Coast Guard was its only naval force. Its purpose was to collect revenue for the fledgling nation, but its officers were told to cut down on piracy and also help mariners in distress off the coast. Ten cutters formed the original fleet of the Revenue Marine.

Armed, they were intended to collect dues and prevent smuggling. Including swivel guns, the cost of these first ships was around \$1,000 each. One of the first of these cutters was the New York-based *Vigilant*, built in New York. Launched in 1791, *Vigilant* patrolled from the south shore of Long Island to the Hudson and New York's bays, as well as the New Jersey coast. Within ten years the first cutters were replaced by larger vessels.

When the Revenue Cutter Service was merged in 1915 with the United States Life-saving Service, it took on a new role, as well as taking over numerous lifeboat stations around the coast. In 1939 the Lighthouse Service was added to its portfolio, and in

1942 the Bureau of maritime Inspection and Navigation was added too. In 1967 a Department of Transportation was created and the USCG moved from the Department of the Treasury.

In 1918 the Coast Guard employed its first women: two sisters, Genevieve and Lucille Baker, were part of the Naval Coastal Defense Reserve. All coast guards, regardless of sex, are known informally as 'coasties'. In 1942 the United States Coast Guard Women's Reserve was founded and it was designed to free up men to fight overseas.

SHIPS AND AIRCRAFT

The equipment that the current Coast Guard uses is varied and includes everything from lifeboats to icebreakers to 'cutters'. The original cutters were sailing vessels, used for catching and boarding vessels, but the term has stuck and the larger Coast Guard vessels are also known as cutters. The largest ships operated by the Coast Guard are their icebreakers. There are



▲ USCGC Dependable attends a drill rig fire in the Gulf of Mexico. She was originally based in Panama City, Florida but is now based in Virginia Beach. She was responsible for many drugs seizures in the Gulf. In 1978 she captured the ship Heide, which was carrying 110 tons of marijuana.

three Polar class icebreakers, although just two are currently in service. They are used for icebreaking as well as polar research.

The 399ft *Polar Star* and 420ft *Healy* are currently in use, with *Polar Sea* in reserve in Seattle. The Legend class cutters (or National Security Cutters) are 418ft defense and maritime rescue vessels. Eight have been authorised and three are in service, with three currently under construction. They have been replacing the 1960s Hamilton class cutters on a like-for-like basis. There are currently 12 378ft Hamilton class cutters in commission. Designed in the 1960s, they serve as law enforcement and SAR vessels.

Medium endurance cutters include the 210ft Reliance class and 270ft Famous class vessels. A bespoke icebreaker is the USCGC *Mackinaw*, a 240ft vessel used in the Great Lakes. The Coast Guard also

owns the USCGC *Eagle*. This was once a German training vessel, being seized by the US in 1945. The 295ft sailing barque is used to train USCG officers and was originally the SV *Horst Wessel*.

The Coast Guard operates numerous seagoing buoy tenders, their primary use being to maintain aids to navigation. They can also be utilised for SAR and law enforcement. Coastal buoy tenders of the 175ft Keeper class also maintain aids to navigation close to shore. Fast response cutters of the Sentinel class are used for SAR and law enforcement.

There are numerous 140ft Bay class icebreaking tugs used for domestic service. They can be used for SAR and maintaining aids to navigation. The Coast Guard service also uses two classes of patrol boats: the 110ft Island class and 87ft Marine Protector class boats.

Because of its service on American inland waterways, rivers and lakes, the Coast Guard also operates around 1,400 boats, vessels less than 65ft in length. They are used on the inland waterways and for coastal work and include the many lifeboats operated by the Coast Guard. The MLB is a 47ft primary heavy-weather boat used for SAR as well as law enforcement. Response boats include the 45ft RB-M, of which 170 are planned, which will replace the 41ft utility boats. Deepwater cutters are fitted with long-range 36ft interceptor boats. They can be launched from the stern of the cutters.

Specialised craft include Aids to Navigation boats, and law enforcement vessels. The SPC-LE vessels are fitted with three 300hp Mercury marine motors, are 35ft in length and are capable of speeds in excess of 50 knots. They operate far from shore, and are used to prevent smuggling and people trafficking. There are numerous smaller craft also fitted aboard the larger cutters from over the horizon boats to short range prosecutors and armed port security boats.

The Coast Guard also operates aircraft, ranging from Lockheed Hercules and

Sikorsky Jayhawk helicopters to HC-144A Ocean Sentry aircraft and Aerospatiale MH-65 helicopters. 204 aircraft are based in 24 air stations, and are used for SAR as well as law enforcement, from preventing drugs smuggling to anti-terrorism duties.

MARYLAND NAVY YARD

In 1899 the Revenue Cutter Service leased 36 acres of land in Baltimore, Maryland and began to build a navy yard, with Lt John Moore establishing the yard. In 1900 the training ship *Chase* arrived and a permanent quarters was set up. This was the start of the Coast Guard Academy. In 1905 the land was purchased, along with more acreage, and the yard was extended. The yard was used to build and repair life-saving boats and overhaul the RCS cutters.

With improvements to the yard, a foundry, sheet metal, blacksmiths and paint shops



were all added. In 1915 the site was used to train lifeboat men (known as 'surf men') to work the new gasoline engines being introduced. During the war, from 1917, the yard was taken over by the US Navy. In the 1920s many small boats were built at the yard, with cutters being repaired. With 500 staff, the yard soon gained a reputation for quality.

The 1930s saw replacement of many of the original buildings as the yard was modernised. During World War II there was further expansion. A 3,000-ton floating dry dock arrived, and a 320ft by 60ft pier was built, along with two slipways. The yard built the 225ft cutters *Mendota* and *Pontchartrain* during the war, with 3,100 civilians working there.

From the late 1940s, with work reduced after the war, most of the yard's output was in vessel overhaul, gun repair and buoy construction. 300 40ft life-saving patrol vessels

were built in the 1950s, as well as the lightships San Francisco and Ambrose. The yard built 58 95ft cutters in the 1950s, and during the 1960s many new vessels came out of the yard, the largest being five 120ft medium endurance cutters built between 1965 and 1968. Lighted buoys were a key product of the 1970s, but the yard also renovated 16 patrol boats.

With environmental protection becoming important, the yard constructed a prototype oil skimmer, as well as the final work on the first of the 270ft medium endurance cutters, *Bear*. She arrived in 1983 and post-construction and final electrical work was done at the yard. Throughout the 1980s and 90s much overhaul work was undertaken and smaller boats were built. A new ship lift was dedicated in 1997. Costing \$18 million, it provided the yard with the facility to work on the largest Coast Guard vessels.

At its centennial in 1999, the yard was well placed to continue the work of repair and building the Coast Guard fleet. In the winter of 2002 the High Endurance Cutter

◀ The Island class patrol boat USCGC Adak (WPB-1333). She is named for the island of Adak in the Aleutian Islands of Alaska, and was placed in commission on 18 August 1989 at Bollinger Shipyard in Lockport, La. Her hull is a semi-displacement type monohull made of high strength steel, while the main deck and superstructure are aluminum. She has a top speed in excess of 30 knots, and accommodates three officers and 19 enlisted personnel.

Dallas returned to the yard after a 20-year gap. She was the largest ship to date to use the ship lift, with the 378ft vessel exceeding the previous record for the ship lift by 1,000 tons. In the past ten years the yard has maintained and repaired numerous cutters, as well as working for foreign navies, including on the guns of a

Polish vessel. It is impossible to cover more than a fraction of the history and numerous vessels of the United States Coast Guard. But from daring air-sea rescues to maritime protection in war and peace, the history and variety of United States Coast Guard vessels is fascinating and never-ending. **NI**

SEARCH AND RESCUE OPERATIONS

The USCG is tasked with search and rescue work and operates a fleet of lifeboats on both the eastern and western seaboard. A number of different designs have been operated, with the standard types being the 36-footer, the 44-footer and the 47-footers, which are currently in service. The boats are specially designed for working in heavy surf at the bars to the country's many rivers, and are manned by full-time Coastguardsmen.



▲ In 1915 the Coast Guard took control of life-saving and acquired many lifeboats and stations. This lifeboat, No.36500, is one of the many 36ft motor lifeboats built at the Curtis Bay Maryland Coast Guard Yard. She was completed in 1946 and on 18 February 1952 her crew, which consisted of Boatswain's Mate First Class Bernard C. Webber (coxswain), Engineman Third Class Andrew Fitzgerald, Seaman Ervin Maske, and Seaman Richard P. Livesey, rescued 32 of 33 crewmen trapped on the stern section of the tanker *Pendleton*, which had broken in half in a storm off Chatham, Massachusetts. The rescue is considered one of the most daring rescues of the USCG and was told in the 2016 motion picture *The Finest Hours*, based on the 2009 book of the same title. NICHOLAS LEACH



▲ The 44ft motor lifeboat based at Chatham, USCGC 44301, was built at the Coast Guard Base at Curtis Bay, Maryland, and was one of the last of the famous 44-footers in service. Well-liked by their crews, more than 100 of the type saw service with the USCG, and they undertook hundreds of life-saving rescues, often operating in severe conditions. NICHOLAS LEACH

CHARTROOM

SHIPS MAIL



Write to Ships Mail, Ships Monthly, Kelsey Publishing, Cudham Tithe Barn, Berrys Hill, Cudham, Kent TN16 3AG, or email sm.ed@kelsey.co.uk. Please note that letters via email must enclose sender's full postal address. Contributions to Ships Monthly must be exclusive and must not be sent to other publications. The editor reserves the right to edit material. Kelsey Publishing reserves the right to reuse any submission sent in any format.

STAR ★ LETTER

More nuclear ships of the US Navy

As always, I enjoyed the latest Ships Monthly, especially the article on USS Bainbridge (SM, Mar). However, the statement that she was the only nuclear-powered frigate is not quite correct. In several editions of Jane's Fighting Ships, USS Truxtun (DLGN35) is shown as 'the USN's fourth nuclear surface warship', and is described as 'originally classed as a guided missile Frigate'.

Bainbridge was therefore the third nuclear warship (as DLGN25) and was based on the Leahy class of large frigates. Truxtun (DLGN35) was based on the later Bellknap class, but with a reversed gun/missile

USS Bainbridge was not the only nuclear-powered frigate in the US Navy.



armament. She was commissioned in May 1967 and shared the same type of nuclear reactor as the Los Angeles nuclear submarines.

Both Bainbridge and Truxtun were reclassified, along with the other Leahy and Bellknap vessels, from frigates to cruisers in 1975. Articles at the time of her build showed her as costing \$138 million.

The later California class nuclear-powered cruisers, California and South Carolina, were also classed when under construction as frigates, with DLGN pennants, but came into service only in 1974 and 1975, just before the 1975 reclassification to cruisers (CGN36 and 37).

M. Currie
Dunoon, Argyll

Convalescent home

In answer to the enquiry from Graham Holt regarding the convalescent home, I believe he refers to the Henry Radcliffe home, which was opened on 17 June 1896, as the Passmore Edwards Convalescent

Home for Charing Cross Hospital, by the Prince of Wales (later King Edward VII). It occupied a 19-acre site abutting Limsfield Common. The cost of the building was borne by Cornish philanthropist John Passmore Edwards.

During World War I it became an auxiliary military hospital with 100 beds, run by the Surrey/46 and Surrey/62 Voluntary Aid Detachments (VADs.) The hospital had to update equipment in the home at a cost of £200 in view of the wounded soldiers

being sent there. Because of financial constraints Charing Cross Hospital never re-opened the home after the war, and it remained vacant until purchased by the shipping company owner Henry Radcliffe, who offered it to the newly-formed Merchant Seamen's War Memorial Society.

The establishment of this Society had been proposed to Henry Radcliffe by the President of the National Sailors' and Firemen's Union, Joseph Havelock Wilson, in 1917. Wilson recognised the need to look after the interests and health of merchant seamen who had managed to keep the sea lanes open throughout the war, and Radcliffe supported the idea with great enthusiasm.

The Union created a well-equipped convalescent home, which was opened in July 1920 as the Henry Radcliffe Convalescent Home by the Duke of York. It provided nursing care for seamen who had been injured or had become ill while at sea. The length of stay at the home was usually three to four weeks. Patients came from all over the country, with arrangements being made by the local branch officials of the National Union of Seamen. The home closed in 1963. Graham may recall the local hostels as The Bull, Limsfield, and four others on Old Oxted High Street.

Glyn L. Evans
Wittersham, Kent

Rescue ships

Mention was made recently of two rescue ships (SM, Feb, information about December's mystery ship, p.62).

Historic Victorian screw steamer Amazon now in Malta



In December 2016 I was on holiday in Malta when I noticed, in Sliema Creek, the 1885-built screw schooner Amazon, a vessel with an interesting history. She was built in Southampton as a steam-powered two-masted schooner and survived in this condition until her first diesel engine was fitted in 1937. After World War II she became a houseboat, being moored in Chiswick with all her machinery removed. In 1968 she was sold to the actor Arthur Lowe, who made her seaworthy again and fitted a Perkins diesel engine. After nearly 30 years in the Lowe family, she was sold in 1997 and sailed from Scotland to Malta for the first time.

In 2009 Amazon crossed the Atlantic the Caribbean. In 2011 she worked in Canada and returned across the Atlantic to Ireland. In 2012 she attended Queen Elizabeth's Diamond Jubilee River Pageant, having attended Queen Victoria's Diamond Jubilee Royal Fleet Review in 1897.

In 2014 she returned to Malta and is now powered by her third diesel, a Kelvin R6 of 112hp. It is believed that Amazon is the only working Victorian screw steamer in the world, and she remains largely original, albeit she now sports a wheelhouse, which she was not built with.

Phil Barnes
Horsham

DFDS relic on Greek beach

In the articles covering a century and a half of DFDS-services, mention was made of the conventional cargo services DFDS maintained. Few readers may realise, however, that one classic cargo vessel, which started her career trading for DFDS, is still in existence. On the beach of Valtaki, close to the small town of Gythio on the Peloponnese peninsula in Greece, the coaster Cornilia rests derelict and forlorn, slowly surrendering to the elements.

She was launched on 15 November 1949 in the Danish port of Frederikshavn as Klintholm, at Frederikshavns Værft, and was delivered the following year to DFDS. She measured 66.7m by 10.08m, and was of 965gt. She was propelled by a 2SA five-cylinder Atlas-Polar M55M diesel engine, delivering 580bhp, giving a service speed of ten knots.

Klintholm was employed by DFDS until 1965, mainly serving the Copenhagen to Antwerp route. In December 1965 she was sold to Greek owners and renamed Dimitrios. In 1976 she was sold to

Omonia Shipping, Piraeus retaining this name. In 1979 she changed hands again, this time being bought by Anepap and renamed Cornilia.

The circumstances under which her fate was sealed remain the subject of much speculation. She was rumoured to have been used for smuggling cigarettes between Turkey and Italy. After being seized by the authorities, she was said to have been deliberately released from the port of Gythio and left to end up on the beach at Valtaki. She was supposed to have been set on fire to hide traces of the illegal activities. However, this story is not supported by any evidence.

A more likely version of the events indicates the vessel was forced to make an emergency call at Gythio on 4 December 1980, as her master needed urgent medical treatment. Subsequently, technical problems and financial issues arose, resulting in non-payment of crew members and seizure of the ship by creditors. The crew left the ship and Cornilia was left to deteriorate gradually.



During 1981 Cornilia, having developed a starboard list due to water ingress, was deemed unsafe by the port authorities and her owners were ordered to remove the ship. Eventually, in November 1981, she was anchored a few miles offshore. However, on 23 December 1981 she dragged her anchors and went aground at the beach near Valtaki, where she has remained ever since.

More than three decades of total neglect are clearly having their

impact. The accompanying pictures, taken on 8 August 2014, show the hull plates on the exposed port side starting to give way, and the supporting frames are clearly visible. The aft deck no longer supports the superstructure and a collapse is imminent. What remains, however, is the Maltese cross on her bow, a memento of bygone days when she proudly wore the colours of DFDS.

Patrick Blankwaard
The Hague, Netherlands

I had always wondered about the story of these ships, but there seems to be very little literature on them, so can reader shed more light on their use and origins? I was fortunate enough to find in a used book store (there are a few left) a book titled *The Rescue Ships*, published in 1968 by William Blackwood & Sons, and authored by Vice-Admiral B. B. Schofield and Lieutenant-Commander L. F. Martyn.

David Shore
Richmond, BC, Canada

More Mersey memories

The letter about Mersey ferry memories from N. Joyce (SM, Mar) reminded me that I also crossed the river each day in the 1960s, but my journey took me from Woodside to the Pier Head. Regular commuters knew which way round to go when walking on the top deck, but there was always one wise guy who went the other way. Now, with problems looming for rail commuters due to scheduled repair work, the ferry will again be put to its designed purpose with a regular cross-river service. No doubt there will still be a wise guy aboard!

Glyn L. Evans, Wittersham

Netherlands tugs

I was most interested to see your report on the National Towage Museum in Maassluis (SM, Mar), particularly regarding the ex-pilot vessel Rigel. However, this vessel is not part of the museum, but is actually the training ship for the local Dutch Sea Cadet Corps. I know the Commanding Officer, Lt Cdr (ZKK) S. Molmans, and have been on board several times.

She was built by L. Smit & Sons in Kinderdijk, and was commissioned on 14 October 1948 as the first pilot vessel with a variable pitch screw. She underwent a refit in 1967, when she was fitted with a new Bolnes diesel engine of 750hp. In April 1975, she was decommissioned at Maassluis. On 16 June 1979 she was handed over to the Sea Cadet Corps in Maassluis.

She paid a visit to Southend-on-Sea in August 1985, when Cadets from both countries lined up on the foredeck were inspected by HRH the Duke of Edinburgh. I hope that this further addition to the description of the ship will be of value to your excellent publication.

Chris de Blocq van Kuffeler
Hartland, Devon

Rapid end for Illustrious in Turkey



The speed with which HMS Illustrious is being recycled is astonishing. The photo shows just how keen Leyal Gemi Sokum at Aliaga, on Turkey's Aegean coast, are to dispose of the last of the three Invincible class ships.

Last minute attempts to save the ship were thwarted when the Turkish breakers refused to engage

in any communication about saving the vessel despite a very large financial offer direct to them and the blessing of the UK Ministry of Defence to enter into negotiations. Usually it takes some eight months from start to finish for recycling, but at the current rate Illustrious will be fully recycled by early May.

Steve Pace, Southampton

CHARTROOM

PORTS OF CALL MAY

Date	Arr/dep	Ship	Operator	GT
ABERDEEN				
29	0700/1800	Hebridean Sky	Noble Caledonia	4,200
BELFAST				
17	0100/1300	Celebrity Eclipse	Celebrity Cruises	121,878
26	0700/2200	Braemar	Fred. Olsen Cruises	24,344
CORK/COBH				
1	1100/1800	Amadea	Phoenix-Reisen	29,008
9	0900/1900	Celebrity Eclipse	Celebrity Cruises	121,878
14	1000/1900	MSC Preziosa	MSC Cruises	139,072
20	0600/1200	Astor	CMV	20,704
DARTMOUTH				
11	NA/NA	Serenissima	Noble Caledonia	2,598
DOVER				
1	0700/1700	Seabourn Quest	Seabourn	32,477
1	0930/2130	AIDA Sol	Aida Cruises	71,304
5	0930/2130	AIDA Sol	Aida Cruises	71,304
6	0800/1600	Saga Pearl II	Saga Cruises	18,627
7	0730/1630	Balmoral	Fred. Olsen Cruises	43,537
9	0930/2130	AIDA Sol	Aida Cruises	71,304
12	0800/1600	Saga Sapphire	Saga Cruises	37,049
13	0930/2130	AIDA Sol	Aida Cruises	71,304
15	0630/1730	Balmoral	Fred. Olsen Cruises	43,537
19	0800/2000	Saga Sapphire	Saga Cruises	37,049
20	0800/2000	Saga Pearl II	Saga Cruises	18,627
21	0800/1800	Artania	Phoenix Reisen	44,656
24	0700/1100	Balmoral	Fred. Olsen Cruises	43,537
24	0700/2000	Disney Magic	Disney Cruise Line	83,969
28	0800/1600	Saga Pearl II	Saga Cruises	18,627
30	0800/2000	Monarch	Pullmantur Cruises	73,937
31	0800/2000	Albatros	Phoenix Reisen	28,518
DUBLIN				
10	1015/TBC	Celebrity Eclipse	Celebrity Cruises	121,878
13	1145/TBC	MSC Preziosa	MSC Cruises	139,072
17	0600/TBC	Serenissima	Noble Caledonia	2,598
19	1100/TBC	Astor	CMV	20,704
27-28	0700/TBC	Braemar	Fred. Olsen Cruises	24,344
DUN LAOGHAIRE				
17	0600/2200	Serenissima	Noble Caledonia	2,598
EDINBURGH (Leith LE/Rosyth RO/South Queensferry SQ)				
5 LE	0800/2100	Seabourn Quest	Seabourn Cruise Line	32,477
23 RO	0700/1800	Braemar	Fred. Olsen Cruises	24,344
25/26 SQ	1000/2300	Zuiderdam	Holland America Line	82,820
FALMOUTH				
2-4	2015/1600 (4)	Saga Pearl II	Saga Cruises	18,627
15	0800/1700	Astor	CMV	20,704
29	0800/2000	Braemar	Fred. Olsen Cruises	24,344
FORT WILLIAM				
25	0700/1800	Braemar	Fred. Olsen Cruises	24,344
GREENOCK (GLASGOW)				
12	0800/1900	MSC Preziosa	MSC Cruises	139,072
HARWICH				
23	0800/1800	Costa Favolosa	Costa Cruises	113,307
29	0800/1900	Costa Mediterranea	Costa Cruises	85,619
HOLYHEAD				
5	0800/1300	Ocean Nova	Quark Expeditions	2,183
12	0700/2359	Hebridean Sky	Noble Caledonia	4,200
17	1200/1800	Ocean Nova	Quark Expeditions	2,183
INVERGORDON				
25	0800/1700	Zuiderdam	Holland America Line	82,820
30	0800/1900	Mein Schiff 4	TUI Cruises	99,526
ISLES OF SCILLY				
3	1030/1900	Ocean Nova	Quark Expeditions	2,183
9-10	TBC/TBC	Hebridean Sky	Noble Caledonia	4,200
10	0800/1800	Saga Sapphire	Saga Cruises	37,049
15	0600/1700	Serenissima	Noble Caledonia	2,598
15	0830/1900	Clio	Grand Circle Cruises	3,504
17	TBC/TBC	Saga Pearl II	Saga Cruises	18,627
19	0700/1400	Ocean Nova	Quark Expeditions	2,183
23	1200/1800	Ocean Nova	Quark Expeditions	2,183
KIRKWALL				
2	0800/1600	Midnatsol	Hurtigruten	16,151

Date	Arr/dep	Ship	Operator	GT
10	0800/1700	MSC Preziosa	MSC Cruises	139,072
12	1200/1800	Expedition	G Adventures	6,334
15	0800/1500	Spitsbergen	Hurtigruten	7,344
24	0900/1600	AIDA luna	Aida Cruises	69,203
26	TBC/TBC	Hebridean Sky	Noble Caledonia	4,200
27	TBC/TBC	Hebridean Sky	Noble Caledonia	4,200
LERWICK				
7	0700/1500	Seabourn Quest	Seabourn Cruise Line	32,477
13	0700/1400	Expedition	G Adventures	6,334
14	0600/2000	Spitsbergen	Hurtigruten	7,344
23	0800/1600	Zuiderdam	Holland America Line	82,820
24	2300/1200 (25)	Hebridean Sky	Noble Caledonia	4,200
OBAN				
11	0700/1800	Ocean Nova	Quark Expeditions	2,183
16-17	0700/2100 (17)	Hebridean Sky	Noble Caledonia	4,200
27	0700/1800	Ocean Nova	Quark Expeditions	2,183
POOLE				
3		Clio	Grand Circle Cruises	3,504
PORTLAND				
11	0800/2000	Koningsdam	Holland America Line	99,836
23	1030/1915	Disney Magic	Disney Cruises	83,969
30	0800/1800	Braemar	Fred. Olsen Cruises	24,344
PORTSMOUTH				
1	0700/1800	Ocean Nova	Quark Expeditions	2,183
7	0700/1800	Amadea	Phoenix Reisen	29,008
7	0730/1900	Hebridean Sky	Noble Caledonia	4,200
12	0700/1800	Serenissima	Noble Caledonia	2,598
21	0700/1800	Ocean Nova	Quark Expeditions	2,183
21	1230/2359	Astor	TBC	20,704
PORT OF TYNE (Newcastle)				
25	0900/1700	Balmoral	Fred. Olsen Cruises	43,537
27	0800/1700	Zuiderdam	Holland America Line	82,820
30	0900/1700	Balmoral	Fred. Olsen Cruises	43,537
PORTREE				
24	0800/1600	Zuiderdam	Holland America Line	82,820
SOUTHAMPTON				
1	0530/1630	Independence of the Seas	Royal Caribbean Cruises	154,407
1	0930/2130	AIDA prima	Aida Cruises	125,572
3	0700/1700	Viking Star	Viking Cruises	47,842
3	TBC/TBC	Norwegian Joy	NCL Cruises	165,157
5	0300/1200	Queen Victoria	Cunard Lines	90,049
5	0630/1630	Azura	P&O Cruises	115,055
6	0700/1600	Crown Princess	Princess Cruises	113,561
7	0630/1630	Azura	P&O Cruises	115,055
7	0500/1630	Celebrity Eclipse	Celebrity Cruises	121,878
7	0630/1630	Britannia	P&O Cruises	143,000
8	0630/1630	Queen Mary 2	Cunard Lines	148,528
8	0630/1630	Queen Elizabeth	Cunard Lines	90,901
8	0930/2130	AIDA prima	Aida Cruises	125,572
9	0800/1800	MSC Magnifica	MSC Cruises	95,128
10	0630/1630	Aurora	P&O Cruises	76,152
11	0630/1630	Oriana	P&O Cruises	69,840
12	0530/1630	Navigator of the Seas	Royal Caribbean Cruises	139,570
12	0630/1630	Queen Elizabeth	Cunard Lines	90,901
12	0630/1630	Braemar	Fred. Olsen Cruises	24,344
12	0800/2000	AIDA prima	Aida Cruises	125,572
12	0800/2000	Norwegian Getaway	Norwegian Cruise Line	145,655
13	0700/1600	Crown Princess	Princess Cruises	113,561
13	0630/1630	Aurora	P&O Cruises	76,152
14	0630/1630	Arcadia	P&O Cruises	83,781
14	0630/1630	Ventura	P&O Cruises	116,017
14	0630/1630	Azura	P&O Cruises	115,055
15	0630/1630	Oriana	P&O Cruises	69,840
15	0530/1630	Independence of the Seas	Royal Caribbean Cruises	154,407
16	0800/2000	MSC Preziosa	MSC Cruises	139,072
17	0930/2130	AIDA prima	Aida Cruises	125,572
18	0700/2000	Mein Schiff 4	TUI Cruises	99,526
19	0630/1630	Queen Elizabeth	Cunard Lines	90,901
19	0530/1630	Celebrity Eclipse	Celebrity Cruises	121,878
19	0630/1630	Black Watch	Fred. Olsen Cruises	28,613
19	0630/1630	Britannia	P&O Cruises	143,000
21	0530/1630	Celebrity Eclipse	Celebrity Cruises	121,878
21	0630/1630	Braemar	Fred. Olsen Cruises	24,344
21	0700/1630	Arcadia	P&O Cruises	83,781
21	0630/1630	Oriana	P&O Cruises	69,840

Donna and Andrew Cooke

Date	Arr/dep	Ship	Operator	GT
21	0630/1630	Britannia	P&O Cruises	143,000
22	0630/1630	Queen Mary 2	Cunard Lines	148,528
22	0930/2130	AIDAprima	Aida Cruises	125,572
24	0630/1630	Queen Mary 2	Cunard Lines	148,528
26	0530/1630	Navigator of the Seas	Royal Caribbean Cruises	139,570
27	0530/1630	Independence of the Seas	Royal Caribbean Cruises	154,407
27	0630/1630	Queen Elizabeth	Cunard Lines	90,901
27	0700/1600	Crown Princess	Princess Cruises	113,561
28	0630/1630	Azura	P&O Cruises	115,055
28	0630/1630	Britannia	P&O Cruises	143,000
29	0630/1630	Aurora	P&O Cruises	76,152
29	0930/1630	AIDAprima	Aida Cruises	125,572
30	TBC/TBC	Costa Pacifica	Costa Cruises	114,425
31	0600/1630	Braemar	Fred. Olsen Cruises	24,344
31	0630/1630	Ventura	P&O Cruises	116,017
31	0700/1800	Silver Wind	Silversea Cruises	17,235

ST PETER PORT (Guernsey)

2	1400/1800	Ocean Nova (Alderney)	Quark Expeditions	2,183
5	0700/1700	Saga Pearl II	Saga Cruises	18,627
7	0700/1800	Crown Princess	Princess Cruises	113,561
8	0700/1700	Celebrity Eclipse	Celebrity Cruises	121,878
8	0700/1800	Hebridean Sky (Herm)	Noble Caledonia	4,200
11-12	TBC/TBC	Aurora	P&O Cruises	76,152
12	0800/1700	Oriana	P&O Cruises	69,840
12-13	1330/1830	Serenissima (Sark)	Noble Caledonia	2,598
18	0800/1700	Queen Elizabeth	Cunard Line	90,901
20	0700/1700	Oriana	P&O Cruises	69,840
20	1100/1800	Artania	Phoenix Reisen	44,656
20	1430/1930	Ocean Nova (Alderney)	Quark Expeditions	2,183
22	0700/1300	Ocean Nova	Quark Expeditions	2,183
28	0800/1200	Silver Explorer	Silversea Cruises	6,130
30	1100/1700	Albatros	Phoenix Reisen	28,518

TORBAY

2	1200/1800	Amadea	Phoenix-Reisen	29,008
---	-----------	--------	----------------	--------

TILBURY

5	1100/TBC	Magellan	CMV	46,052
8	TBC/TBC	Magellan	CMV	46,052
20	TBC/1900	Magellan	CMV	46,052
28	0800/1600	Magellan	CMV	46,052

TOBERMORY

31	0700/1130	Hebridean Sky	Noble Caledonia	4,200
----	-----------	---------------	-----------------	-------

SHIPS WITH MORE THAN ONE CALL ROUND UK AND IRELAND

AIDA vita 42,289gt: 5 Portland 0900/2000, 7 Dover 0800/2000, 10 Cork/Cobh 0700/, 11 Dublin 0930/, 12 Belfast 0800/1800, 13 Greenock 0700/1700, 14 Liverpool 0900/2000, 15 Fishguard.

ASTORIA 16,144gt: (Operating for CMV until 7 May Tilbury arrival; scheduled to be chartered to Rivages du Monde) 1 Tobermory 0700/1500, 2 Dublin 0800/2359, 3 Holyhead 0700/1600, 4 Isles of Scilly, 5 St Peter Port 0600/1400, 7 Tilbury 0900/, 18 Cork/Cobh 0700/1300, 25 St Helier/St Peter Port, 26 Falmouth 0800/2000, 27 Portland 0800/2300, 28 Portsmouth 0600/1600.

BOUDICCA 25,551gt: 6 Kirkwall 1230/2000, 8 Belfast 0900/1700, 9 Tarbert, 10 Fort William 0700/1800, 11 Portree 1100/1800, 12 Invergordon 0700/2200, 13 Kirkwall 0800/1600, 14 Ullapool 0700/1800, 15 Tobermory 0730/1600, 16 Greenock 1730/2300, 26 Greenock 0630/1700, 27 Fort William 0700/1800, 28 Ullapool 0700/1800, 29 Invergordon, 31 Greenock.

CARIBBEAN PRINCESS 112,894gt: 1 Southampton 0500/1700, 2 St Peter Port, 3 Cobh, 4 Dublin 0630/, 5 Belfast 0800/2100, 6 Greenock 0700/1800, 8 Kirkwall 0700/1700, 9 Invergordon 0700/1800, 10 Edinburgh 0700/1900, 13 Southampton 0500/1700, 14 St. Peter Port 0600/1400, 15 Cork/Cobh 0630/1800, 16 Dublin 0430/, 18 Belfast 0800/2100, 19 Greenock 0700/1800, 21 Invergordon 0700/1800, 22 Edinburgh 0700/1900, 25 Southampton 0500/1700, 26 St Peter Port 0600/1400, 27 Cobh 0630/1800, 28 Dublin 0300/, 29 Belfast 1115/2115, 30 Greenock 0700/1800.

CORINTHIAN 4,077gt: 16 Poole, 17 Isles of Scilly 0830/1900, 18 Fishguard 0730/2200, 19 Holyhead 0700/2200, 20 Dublin, 21 Belfast 0700/2130, 23 Stornoway, 24 Stromness 0700/2000, 25 Aberdeen 0700/2130, 26 Leith, 27 Aberdeen 0700/2130, 28 Stromness

HEBRIDEAN PRINCESS 2,112gt: 2 Oban, 5-6 Stornoway, 8 Tobermory, 9 Oban, 13 Isle of Man 0700/1900, 16 Oban, 23 Oban, 26 Portree, 29 Tobermory, 30 Oban

LE BOREAL 10,944: 8/9 London (Tower Bridge Upper), 11 Cowes 1200/1900, 12 Isles of Scilly 13 Fishguard 0800/1800, 14 Dublin, 16 Tobermory 0700/1130, 17 Greenock 0630/1800, 18 Oban 0800/1000, 20 Tobermory 0600/1130, 26 Isles of Scilly 1330/1900 27 Cobh 0630/1800, 31 Tobermory 1600/2000

LE SOLEAL 10,944gt: 1 Dublin, 2 Belfast 0800/1800, 3 Isle of Man 0800/1900, 4 Liverpool 0700/1230, 5 Cobh 0830/1830, 6 Isles of Scilly 0800/1800, 7 St Peter Port 0800/1500, 8 Portsmouth 0700/1800

MARCO POLO 22,080gt: 3 Avonmouth, 4 Isles of Scilly 0700/1900, 7 Rosyth 0815/2000, 9 Kirkwall 0900/1730, 10 Stornoway 0730/1900, 11 Tobermory 0700/1900, 12 Belfast 0700/1900, 13 Dublin 0300/, 14 Avonmouth, 24 Cardiff 0700/1700.

NATIONAL GEOGRAPHIC EXPLORER 6,471gt: 3 Portsmouth 0700/1900, 4 Fowey 0730/2200, 5 Is of Scilly 0730/1730, 6 Fishguard 1330/1930, 7 Cobh, 14 Kirkwall 0800/2400, 15-16 Lerwick

NORWEGIAN JADE 93,558gt: 12 Cobh 0700/1700, 13 Falmouth 0800/1700, 14 Southampton 0800/1600, 22 Southampton 0800/1700, 23 St Peter Port 0830/1800, 24 Portland 0700/1600, 25 Cobh 0800/1900, 26 Dublin, 27 Belfast 1000/1700, 29 Kirkwall 0800/1700, 30 Invergordon 0700/1700, 31 Newhaven (Edinburgh) 0800/1800

SILVER WHISPER 28,258gt: 22 Southampton 0700/1700, 24/25 Leith 1430/2130, 26 Invergordon 1200/1700, 27 Portree 0900/1600, 28 Belfast 0830/2300, 29 Isle of Man 0800/2300, 30 Dublin, 31 Cobh 0700/1700

VISION OF THE SEAS 78,717gt: 6 St Peter Port 0700/1700, 23 Dover, 25-26 Newhaven (Edinburgh) 0800/2359, 27 Invergordon 1300/2000, 29 Greenock 0700/1800, 30 Dublin 0700/1300

NOTES This information is given in good faith, and neither the authors nor Ships Monthly can be held responsible for any changes to ship arrivals or departures.

MYSTERY SHIP



This month's mystery has two vessels, the smaller of which is named Weaverham, moored alongside a larger cargo liner. Was Weaverham some kind of tender? And what is the name of the larger ship? When was she built and by whom was she operated? And where and when was the photo taken?



Send your answers, including a postal address, by email to sm.ed@kelsey.co.uk, or by post to Mystery Ship, Ships Monthly, Kelsey Media, Cudham Tithe Barn, Berrys Hill, Cudham, Kent TN16 3AG. Emails preferred.

MARCH'S MYSTERY SHIP

I believe the mystery ship is USS Saratoga, an aircraft carrier of the US Navy. USS Saratoga and her sistership USS Lexington were almost identical when completed, having been designed and laid down as battlecruisers in 1916 with seven funnels. Construction plans were recast and the ships were redesigned as aircraft carriers and when completed their large funnel arrangement was very distinctive.

The ships were completed in November 1927 (Saratoga) and December 1927 (Lexington). Both had a full load displacement of 40,000 tons and carried 70 aircraft, had only one catapult. In the 1930s both ships took part in major fleet exercises in the Pacific and the Caribbean, and the photo shows the ship in the Panama Canal, probably

towards the Caribbean. In May 1934 the ship took part in Pacific and Atlantic Fleet exercises.

Lexington was lost during the Battle of the Coral Sea in 1942. Saratoga fought widely in the US Navy's Pacific campaigns and was sunk as a target during the Atomic Bomb Test [Baker] at Bikini Atoll in July 1946 when an atomic bomb was detonated underwater, and the ship sank by the stern.

A. J. Slatter, Reigate, Surrey



CHARTROOM

SHIPS LIBRARY

book of the month

P&O 180 **The history of** **P&O Ferries**

Miles Cowsill and Dan Bridgett

Published by Ferry Publications,
PO Box 33, Ramsey, Isle of Man
IM99 4LP; tel 01624 898445, info@
lilypublications.co.uk, 96-page
hardback, price £16.95 plus postage.

The story of one of the world's most famous shipping companies is told in this new book, released to mark the 180th anniversary of the founding of P&O in 1837.

P&O Ferries, which commissioned P&O 180, remains a household name and carries more than ten million passengers on its ships every year. The book has been produced with P&O's full cooperation to mark the anniversary.

The Peninsular & Oriental Steam Navigation Company began delivering mail on behalf of the government to Spain and Portugal, and within a few decades was one of the best known shipping lines in the world. Details of its history, development and some of the ships it operated are included in this book.

The company's founders included shipbroker Brodie McGhie Willcox



and his partner Arthur Anderson, whose journey from curing fish in his native Shetland to Managing Director of P&O is well known. By the 1860s the company was running services to China, Singapore and Australia, and it expanded operations over the next century.

Today, P&O Ferries operates a variety of services to France, Holland, Belgium and Ireland, and details of the modern fleet are provided, with a fleet list finishing the book off. NL

1930s, which sailed until 1967, crossing the Atlantic more than 1,000 times. As well as Queen Mary, the book also covers the Cunard Queens, with chapters on Queen Elizabeth, as well as the subsequent Queens, including Queen Mary 2 and the current day Cunarders. The well-produced book has many fine photographs. EF-L
• Published by Fonthill Media, Millview, Toadsmoor Road, Stroud GL5 2TB, www.fonthillmedia.com, 96 pages, price £19.99.



Evolution of the **Cargo Ship** **Jim Shaw**

The latest bookazine from Kelsey Media comes under the World of Ships banner, but is in the same format as Ships Illustrated. As with previous titles in the series, this volume is extremely well illustrated, and it covers the history and development of cargo ships during the 20th and 21st centuries.

The conventional cargo ship, be it a dry or liquid carrier, has changed considerably over the past century. This book attempts to give a simple survey of this evolutionary process, which has seen new propulsion and cargo-handling systems developed, while overall ship design has moved towards greater fuel and crewing efficiencies, as well as a more environmentally friendly operations.

It covers all cargo ship types, from container ships, first introduced in the 1950s, to traditional breakbulk freighters, self-trimming bulk carriers, and tankers. The latest sophisticated gas and chemical ships now trading are featured, as are new kinds of con-ro and ro-ro ships. This is an absolute must for anyone interested in cargo ships and their history. EF-L
• Published by Kelsey Media, Cudham Tithe Barn, Berry's Hill, Cudham, Kent TN16 3AG, tel 01959 541444, www.shop.kelsey.co.uk, price £6.95.



Caledonian **MacBrayne** **Colin J. Smith &** **Miles Cowsill**

This is a full colour guide to the fleet of Caledonian MacBrayne, featuring potted histories of all the ships in service in 2016. There is a brief history of each of the vessels, with the contents running alphabetically, from Argyll and Bute to Lord of the Isles, as well as a section on the smaller Loch class vessels. The highlight of the book is the photography, with outstanding colour photos of the ferries in picturesque locations. EF-L
• Published by Ferry Publications, PO Box 33, Ramsey, Isle of Man IM99 4LP; tel 01624 898445, info@lilypublications.co.uk, 64-page softback, price £8.50 plus postage.



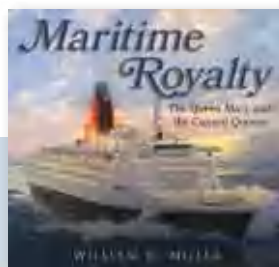
Ocean Ships **Allan Ryszka-Onions**

The latest edition of this impressive volume was published towards the end of last year and runs to 368 pages, with many fine colour photos and a wealth of information. First published 50 years ago, Ocean Ships provides authoritative and detailed listings of all of the world's ocean-going and passenger ships.

This edition includes for the first time a detailed listing of vessels scheduled to be delivered to the major companies. The entries are organised by shipping company, with listings showing each ship owned by that company and brief details of the vessel, covering its flag, year built, tonnage, dimensions, speed and engines, as well as former names.

It is divided into two parts: the first covers passenger ships, and the second lists cargo vessels and tankers. There is also information about the companies, with brief background details. As a reference book, this is ideal for shipspotters everywhere. NL

• Published by Ian Allan Publishing, Heritage House, 52-54 Hamm Moor Lane, Addlestone, Surrey KT15 2SF, tel 01932 834950, www.ianallanpublishing.com, price £30.



Maritime Royalty: The **Queen Mary and the** **Cunard Queens** **William H. Miller**

The prolific author William Miller has produced another volume covering some of the most famous liners of all time, celebrating the 80th anniversary of the maiden voyage of the famous Queen Mary, constructed in the

NEXT ISSUE

BRASIL AND ARGENTINA

Allan Jordan recalls two classic American liners, Brasil and Argentina, introduced by Moore-McCormack Lines in 1958, which went on to have long careers as cruise ships for Holland America Line.

ON
SALE
APRIL
21



HMS SHEFFIELD

Conrad Waters reviews the illustrious career of the cruiser nicknamed the 'Shiny Sheff'.



TYNE TRAMP SHIPS

Roy Fenton looks back at two of the major companies involved in tramping from the Tyne carrying coal.

WORLD SHIP SOCIETY

Founded in 1947, the World Ship Society has some 2,000 members worldwide who are interested in ships, past and present. Its monthly journal "Marine News" and its naval companion "Warships" are bywords for accurate information.

DELIVERED AS A PDF BY E-MAIL EVERY MONTH: SHIPPING NEWS AT THE SPEED OF LIGHT

MARINE NEWS - provides the most comprehensive and convenient listings of merchant ship activity for enthusiasts - some 10,000 entries a year covering launches, name and ownership changes, details of casualties and demolitions, all available as a 64-page digital magazine delivered to members' computers around the first of each month and backed by an annual Index. In addition, there is topical warship coverage, feature articles, photographs and Society news.

MARINE NEWS SUPPLEMENT - The monthly digital supplement to 'Marine News' contains supplementary photographs Fleet Lists and long feature articles covering modern and historical subjects.

PUBLICATIONS - Fifty excellent WSS fleet lists and specialist history books are available to members at greatly discounted prices with up to three new titles each year. Recent titles include Armed Merchant Cruisers 1878-1945, Shaw Savill & Albion and a history of the Soviet Merchant Fleet from 1917 to 1950.

PHOTOGRAPHS - The World Ship Society has over a million ship photographs - one of the largest and most wide-ranging collections in the world - including black & white and colour prints, negatives, colour slides and digital images. Prints are available at reasonable cost through regular members' offers published in "Marine News".

BRANCHES - The World Ship Society has over 50 local branches worldwide which hold monthly meetings involving slide shows, Powerpoint presentations and illustrated talks given by invited speakers and Branch members.

MEMBERSHIP - annual membership of the World Ship Society (includes 12 digital copies of "Marine News" and digital Supplements per annum) costs £24 (£20 outside UK and EU) Get a trial digital copy of 'Marine News' by e-mailing your name and address to: membershipsecretary@worldshipsociety.org or write to the Membership Secretary, World Ship Society, 17 Birchdale Road, Appleton, Warrington, Cheshire WA4 5AR (UK)



WORLD SHIP SOCIETY MEMBERSHIP HAS NEVER BEEN BETTER VALUE
www.worldshipsociety.org

A view from the Bridge

Alan Moorhouse talked to Captain Todd McBain, Master of Diamond Princess, about his career at sea and the key aspects of the vessel.



HOW DID YOUR CAREER AT SEA BEGIN?

I served in the Royal Canadian Navy from 1980 to 1985 as a Fire Controlman and Ship's Diver/Rescue Swimmer aboard the destroyer escort HMCS Qu'appelle (1962) and the destroyer HMCS Terra Nova (1959). While serving on these ships I undertook a tour of duty around the Pacific Rim.

ON WHICH SHIPS HAVE YOU WORKED?

I joined the Merchant Navy in 1985 and worked on Imperial Skeena (1970/3,047gt) and Imperial Tofino (1973/763gt), coastal tankers operated by Esso Petroleum. I subsequently went to Nautical College in North Vancouver at the British Columbia Institute of Technology (BCIT) to gain my civilian watchkeeping licence. I joined the Cenargo general cargo ship Merchant Principal (1970/14,275gt), which was working on an Australia/New Zealand/North America run.

WHEN DID YOU START ON CRUISE SHIPS?

In 1994 I joined Princess Cruises as Chief Petty Officer Watchkeeping on board Island Princess. I then moved to Silversea Cruises to work on Silver

Cloud (1994/16,927gt) as Security Officer, followed by Airtour's Carousel (23,149gt, ex-Nordic Prince) as 2nd Officer.

WHAT OTHER SHIPS DID YOU WORK ON?

I moved to Royal Caribbean as First Officer aboard Grandeur of the Seas (1996), Legend of the Seas (1995) and Viking Serenade (1982) from 1997 to 1999. In January 2000 I moved back to Princess as First Officer, and joined Sky Princess (1984). I was promoted to Captain in 2007, firstly aboard Golden Princess (2001), and then Star Princess (2002). I also worked on Ocean Village 2 (1990), Ocean Village (1987), Dawn Princess (1997), Pacific Jewel, Diamond Princess (2004) and Sapphire Princess (2004).

WHAT DO YOU ENJOY MOST ABOUT YOUR ROLE?

I enjoy sharing the travel experience with the passengers who come aboard for a good holiday experience. Professionally, I enjoy the training

aspect of my job. A primary duty of a Captain is to ensure that the next generation of Deck Officers are well prepared to become Senior Officers and Captains. Early in my career the Captain did everything, but I want to ensure that my Officers are given every opportunity within the Company.

HOW DO YOU SPEND YOUR FREE TIME?


I visit the gym and participate in online audio and video courses, learning about sciences and arts. I also enjoy going to the mountains with my wife, and also visiting her family in Portugal.

WHAT WAS YOUR MOST DIFFICULT EXPERIENCE?

I have commanded ships in all seven continents. The Drake Passage, the Tasman Sea and Patagonia can be challenging. Asia has busy shipping lanes and large fishing fleets to negotiate. My most memorable situations come from my time as a diver in the Navy, when acting as duty diver. Canadian Navy

ships frequently practise man overboard drills with dummies, which are recovered via a rescue launch. On one occasion, when we were half way from Victoria to Honolulu and experiencing strong currents and 2m seas, I was in the water when my lifeline became detached, and I was swept away. I set off my red magnesium flare, and had an anxious time before being recovered.

WHAT CHANGES HAVE YOU SEEN DURING YOUR CAREER?

Ships keep getting bigger, but at the same time, but ports remain the same size. Technology is becoming more impressive with each new generation of ship. The training available for Deck and Engineering Officers has improved considerably over the last 30 years. Carnival have taken training to another level with their new state-of-the-art facility in Amsterdam. My goal and challenge will always be to ensure that my ships are safe for all, right up to the day I retire. 



Diamond Princess is one of the larger ships in the Princess Cruise Line fleet at 115,875gt. She was completed in February 2004 at the Mitsubishi shipyard at Nagasaki, Japan and can accommodate 2,700 passengers.

Help MV Balmoral Sail Again in 2017

“National Flagship 2016 the UK Historic Fleet”



“The Classic Coastal Excursion Ship”

“Britains Most Travelled Coastal Excursion Vessel”

“Former Flagship of the Red Funnel and White Funnel Fleets”

***Saved from the scrapyard in 2012 by newly formed charity MV Balmoral Fund Ltd
(Reg Charity No 1155339)***

£650,000 Raised by public donations and Coastal Community Fund.

Bought for £1 and resumed sailing 2015

Called at 50 ports, harbours and piers all around the UK during extensive season 2016

Sadly, for the second season running, we have lost over a quarter of our sailings due to a combination of technical problems and weather cancellations at peak times. For these reasons, White Funnel Ltd, our operating company, has not been able to make a surplus on ticket sales and income. We need in the region of £350-500,000 to refurbish her, to do key repairs, dry-dock her and replenish stores ready for another full programme of sailings in 2017. We know that with a sound ship and the experience now gained – Balmoral does have a viable future.

We are therefore asking you to support this much loved classic vessel however you can. Please go to our website www.mvbalmoral.org.uk for full details of this vital appeal. You can make a donation there by means of the Mydonate scheme or via cheque to: The Treasurer, MV Balmoral Fund Ltd, 23 Adder Hill, Great Boughton, Chester, CH3 5RA

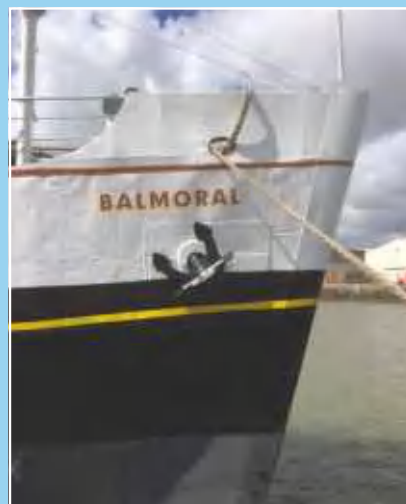
In addition White Funnel is seeking repayable loans to assist the ship.
(If this appeal is not successfully taken up, loans will be repaid in full.)

All is not as bad as it may appear; supporters of Balmoral have already donated or committed a magnificent third of our target figure, giving a great start to this appeal.

Balmoral is part of the National Maritime Heritage of this country; she is a much loved “National Treasure”. The Trustees of the fund are optimistic that if the ship receives support commensurate with affection she has in the hearts of ship lovers throughout the world, then there is every reason to expect success. This unique beautiful classic vessel will then again bring much pleasure to so many next year and for many years to come.

Balmoral has faced uncertainty several times over her long and illustrious career. She has always defied the odds and survived. She needs your support now; please help us and give her this opportunity to secure her long term future.

For any further information required about this appeal please feel free to email
Paul Doubler on paul.doubler@btinternet.com or Tel 07808 096 074





Great News from Snowbow

We have managed to arrange another very special Maritime Memories voyage aboard the very handsome *Saga Pearl 2*



Port Line's Port Auckland



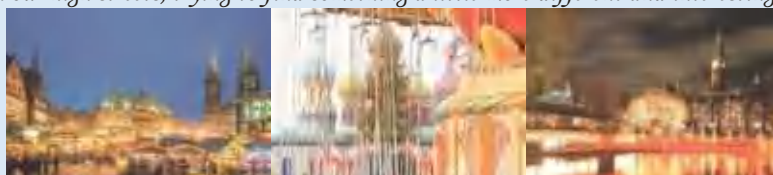
Saga Pearl 2.



Shaw Savill's Arawa

Yes, another special voyage of Maritime Memories, giving you the rare opportunity to turn back the hands of time and sail again as so many of us used to during the golden age of ocean travel when everything seemed so less stressfully hurried and free. There's no flying and to take all hassle away we even send a chauffeur driven car to take you to and from the ship at no extra charge.

We set sail from Southampton on Dec 8th on a nine night voyage to some really nice ports in Belgium, Holland, Denmark, Sweden and Germany, and what a fantastic time we're going to have, especially as Saga want to highlight our maritime heritage on this cruise, so as well as all the top entertainment and dining they always provide they're also helping us to provide so much extra with special maritime interest shore tours including a VIP visit to the ship yards building the new Saga cruise ship, top maritime lectures, film shows, parties and special dinners created by their top chefs, recreating meals exactly as served aboard some of the most famous ocean liners of the 20th century. Oh, and in many of the places we go to they have those wonderful Christmas markets, which are so much more enjoyable than trudging up and down our high streets, trying to find something a little more different and interesting to buy.



That's all my Christmas shopping done then!

And more really good news for we have a new DVD coming out in March and it's our **40th** and really quite special. It's titled "*Shipping on the Tyne*" and with the Tyne when it was one of the major shipping of some great ports, but its banks were lined ship yards that built over 4,000 ships of every innovative and famous ships ever to sail the There is so much rare film that we have made it watch it over and over again. But as well as stories that few people know of. One tells of how yard was rescued and somehow managed to end other story is if anything, even more amazing, for our ship building collapsed because we hadn't the competition, and yet, we show you evidence of giant, 1m ton tankers, far bigger than any ships



the use of more very rare archive film, shows us centres in the world. Not only was it the home with shipyards for as far as the eye could see, shape and size including some of the most oceans of the world.

75 minutes long and we promise you, that you'll show you all this rare film we also reveal two a lowly old tug sent to face her end in a scrap up as a major **star** attraction in America, and the back in those days it was widely believed that facilities or skills to compete with overseas how there were advanced plans to build three ever built... Unbelievable, but true!

For free brochures or further information on cruise, (Yes, we have a special prices) go to our website at www.snowbow.co.uk, email us at des@snowbow.co.uk, or give us a call on: 00. 44. 1273 585391/584470. Thanking you for all your greatly appreciated help and support. Des & Ulla.

this DVD and our fantastic December