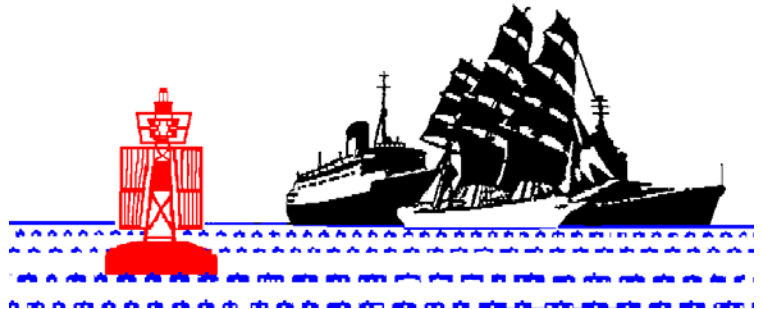


Black Jack

QUARTERLY MAGAZINE
SOUTHAMPTON BRANCH
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Photo Andy McAlpine

The Russian flagged vessel **Sinegersk 91/7095** lost most of her deck cargo of 1,500 tons of timber whilst in the English Channel. She was on a voyage from Oskarshamn in Sweden, to Alexandria, Egypt. She has an overall length of 132 metres and is seen berthed in the former No 7 Dry Dock for re stowage of her cargo. She is operated by the Russian based Far Eastern Shipping Company (FESCO) as can be seen by her funnel and hull markings.

Black Jack - Spring 2009 – No:150

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Black Jack is the quarterly newsletter for the Southampton Branch of the World Ship Society. Four editions available for £5 inclusive of postage.

Branch Meetings

Venue:

Main Lecture Theatre

Southampton Oceanography Centre

Waterfront Campus

European Way

Eastern Docks

Southampton

All meetings commence 19.15 and the meeting room is to be vacated by 21.30.

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Full details for all committee members can be found on the Southampton WSS website at www.sotonwss.org.uk

2009 Branch Meeting Programme

January 13th

Around the Country - Steve Bigley

February 10th

Bernard McCall - to be rescheduled due to inclement weather.

March 10th

Fifty Years of Hovercraft Development - Brian Russell

April 11th

Cammell Laird 1903-1939 - Philip Welsh

May 12th

Shipping in Singapore - Andrew Hogg

June 9th

Thames and Medway Shipping, Past and Present - Steve Spouse

July 14th

Ten Members, Ten Minutes - Members' Participation

August 11th

Members' Image Gallery - Competition

September 8th

From the Archive - Southampton Branch Slides

October 13th

In Search of I.O.W. Ferries - David Oldham

November 10th

AGM + Short Programme

December 8th

Preserved Lake Titicaca Steamer Yavari - Meriel Larkin

All contributions to BJ either by post, email, floppy disk or CD are most welcome. Any article with a connection to the Solent area would be much appreciated. The BJ Editor could reproduce magazine or newspaper articles but preference is given to articles 'by the branch – for the branch'. Any member who would prefer to receive the Branch Magazine Black Jack by email please contact the Editor. Colour printing costs are relatively high so all recent Black Jacks can be viewed all in full colour via the Branch website in pdf format. www.sotonwss.org.uk

Ship Visits

Ship visits though rare these days often become available at short notice and more recently during the week due to the nature of shipping these days and those wishing to participate should ensure their details are given to the Visits Organiser and kept accurate. All members participating in visits organised by the branch do so entirely at their own risk and be aware that ships and dock areas may have trip and other safety hazards and advised to use personal protective equipment when appropriate. All participants must accompany the 'guide' at all times unless instructed otherwise and follow any instructions from the party leader.



Technical Details.

Displacement: 510 tons.
Total length: 59.08 metres.
Beam: 12.30 metres.
Draught: 5.00 metres.
Max sail area: 1300 sq me.
Main engine: 540 hp.
Number of berths: 56.

E is for EENDRACHT II.

The **Eendracht II** is a 3 masted gaff Schooner with its home port in Scheveningen.

The ceremony of laying the keel was on the 1st September 1988 by H.R.H. Prince Bernhard of the Netherlands and Mrs Drs.N.Smit.Kroes, Minister of Transport and Construction, and the inauguration was by H.M. Queen Beatrix on the 29th August 1989.

The design of this ship was based on the previous "**Eendracht**" (details later) plus various new ideas to build a National sailing ship with excellent sailing qualities.

The designer was W.De.Vries Lentsch, construction by B.V. Scheepswerf Damen Gorinchem and the rigger was Royal Huisman Shipyard BV/Rondal.BV.

"**Eendracht II**" is owned and operated by the Dutch Foundation and National Society or Het Zeeland Zeeship, and offers active sailing experiences to young people and adults while promoting the maritime traditions of the Netherlands as a sea going nation.

Eendracht in Dutch literally means concord, but is also translated as unity or union, and it was a common name given to Dutch ships of the period, from the motto of the Republic: Concordia res parvae crescunt.

The first recorded **Eendracht** was a 700 tonne vessel launched in 1615 in the service of the Dutch East India Company. It was captained by Dirk Hartog who in 1616 made the second recorded landfall by a European on Australian soil.

There was an **Eendracht** which was built in 1653 and was the 76 gun flagship of Lieutenant Admiral Jacob Van Wassenaer Van Obdam. She was blown up with the loss of her crew and the Admiral at the Battle of Lowestoft in 1665.

The first modern **Eendracht** was built in 1974, it had 2 masts and a displacement of 220 tons. The vessel sailed from 1974 to 1989 giving a sailing experience to thousands of Dutch youngsters and adults. In its 15 years of operation it sailed 260,763 sea miles, comparable to a trip 12 times round the world.



The **Shieldsman** which has ferried passengers across the River Tyne since 1976 is to be towed from Newcastle to a new home in Portsmouth Harbour.

The 33 year old decommissioned ferry has been purchased by a private buyer who is believed to have paid approximately £40,000 for the vessel. It is said the owner wishes to transform it into a floating bar or houseboat in the Solent but no confirmation is available. The **Shieldsman** is approximately the size of a Gosport ferry with capacity for 150 passengers. She is due to be towed by tug down the coast from Tyneside in February where she has been moored since May 2007.

Photo: <http://website.lineone.net/~d.ord/Ferries.htm>

MONTYS NOTEBOOK

A round-up of new or infrequent recent callers to Southampton Docks. Details compiled and photographs supplied by Monty Beckett.

Berths 204/7: Wan Hai 602 66199/07, CMA CGM Sambhar 42382/06, NYK Kai 50606/93, NYK Themis 76000/08, CMA CGM Eiffel 49855/02, Hyundai Brave 94511/08, APL Russia 86692/08, Maersk Algol 108393/03, Bellavia 53807/05, APL Poland 86692/08, APL Finland 88089/08, APL America 42382/06, MOL Cosmos 91700/08, CMA CGM Nilgai 39941/03, MOL Creation 86692/07, NYK Venus 97825/07, Laura Ann 9981/02, CMA CGM Butterfly 113900/08, CMA CGM Vela 128600/08, CMA CGM Thalassa 99500/08, NYK Triton 76614/08, OOCL Tokyo 89097/07, CMA CGM Ivanhoe 111249/08, DS Blue Wave 7545/07, X-Press Elbrus 9701/05

Ro/Ro Vessels: Morning Lisa 68701/08, Volans Leader 61775/07, Talia 57692/06, Morning Champion 57692/05, Tomar 61328/08, Oberon 71673/08, Morning Composer 57542/08, Hoegh London 57280/08, Toreador 61328/08.

Berths 106/201: BBC Romania, Sluisgracht 16639/01, Egelantiersgracht 94/8448, Alexandergracht 7949/91, Alblasgracht 7949/91

Berths 107/9: Trebol 36318/86, World Trader 35345/81, Zara 2999/00, Imi 2715/93, Musketier 2545/06, Siderelm 2882/85, Wilson Garston 2270/89, Krempertor 2351/90, Tri Bay 2620/75, Catalina 6808/07, Herakles 2452/08, Union Ruby 2967/08, Keizersborg 6142/96, Arklow Fortune 2998/07, Faust 2997/97, Valentin Pilkul 2264/94, Stadt Hemmoor 2164/05, Arklow Future 2998/08, Epanorthosis 40230/04, Dania 2997/00, Wiebke D 1441/80, Union Pearl 2236/90, Tyumen 3 3086/90.

Berth 106/7 D Dock: Sinegorsk 7095/91 (re stowage of timber due heavy weather)

Berth 104: Fairload 4962/95 (Engine break down)

Berth 102: Onego 4990/06, Korsoer 5801/99, BBC Trinidad 6296/06.

Berth 36 Fast Sam 1983/94, Kruckau 2452/03, Sormovskiy 3064 3048/89, Emi Proud 2989/08, Verona 2184/84, Domina 40224/07, Sofie N, Imel Abdeoa 2541/08, Hav Swapper 1961/91, Union Mars 2601/01

Berths 24/5 BBC Rhine 11864/08, BBC Elbe 12936/06, BBC Delaware 9611/07, Federal Power 12993/00, Morraborg 6540/99

Berths 44/5: Soul Sound 2046/83

Dibles Wharf: Rantum 1984/89, Safiy Ana 2313/04, Wilson Aveiro 2451/08

Princes Wharf: Arklow Rover 2999/04, Arklow Faith 2998/06, Krempertor 2351/90, Alikber 1454/94, Ostenau 2461/05, Bramau 2452/06



150 Years Ago – Bert Moody

What did Southampton Docks look like in 1859? Very small indeed – the Outer Dock (Ocean Village of today) was brought into use in 1842, and three dry-docks connected to the Outer Dock were constructed between 1846 and 1854. Part of the Inner Dock was brought into use during 1851, and by 1858 it was decided to complete that dock by making it five feet deeper and the entrance lock ten feet wider and providing quay walls on the west and south sides of the dock in place of the then existing gravel slopes. This work was completed during 1859 and on the 20th May of that year the first vessel to enter the dock was P&O's **Pera**. That was all the docks consisted of 150 years ago.

The main users of the port at the time where P&O S.N. Co. service to Egypt with links to Aden, China and Australia (no Suez canal then although construction work on the canal did start in 1859) and Royal Mail Steam Packet Company serving the West Indies and South America. In 1859 R.M.S.P. Co. introduced a new paddle steamer – the **Paramatta** 3439 g.t. which left Southampton on her maiden voyage on 17th June – unfortunately she was wrecked off Anegada, one of the Virgin Islands and became a total loss. The Union Steamship Company were operating to South Africa having secured the mail contract in 1857, among the vessels they were operating was the **Dane** 526 g.t. which inaugurated their service to South Africa in 1857.

Locally the South Western Steam Packet Company were operating on the Southampton – Channel Islands service and also Southampton – Le Havre. At the end of the 1850's the ferry service between Southampton and Cowes were being run by two companies – the Isle of Wight Royal Mail Steam Packet Company of Cowes and the Isle of Wight Steam Packet Company of Southampton with a joint fleet of six vessels, in 1861 these two companies were amalgamated and so the Isle of Wight & South of England Royal Mail Steam Packet Company was formed (Red Funnel of today). In 1859 the small paddle steamer **Louisa** was operating the Southampton – Hythe service – the landing in those days at Hythe consisted of a Hard – the pier we know today was not completed until 1880.

In 1859 the large five funnelled paddle/screw steamer, **Great Eastern**, designed by Brunel, was running trials – she had been launched at Millwall in 1858 after major problems during the launching. The vessel as in Southampton Water during 1860 and certain repair works were carried out by Day Summers & Company of Northam. The **Great Eastern** finally left on her maiden voyage to New York from Southampton on 16th June 1860.



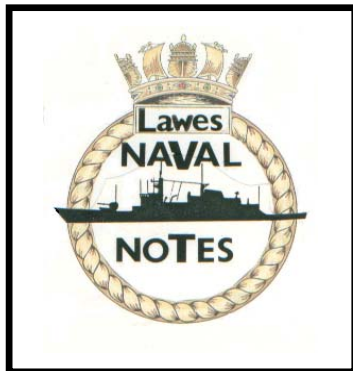
New car handling facility opened at Southampton ABP's new £7m European Vehicle Terminal

Jim Fitzpatrick MP, Parliamentary Under Secretary of State, Department of Transport, officially opened Associated British Ports' (ABP's) new £7m car-handling facility – the European Vehicle Terminal (EVT) - at the Port of Southampton on Monday 2nd February.

The official opening of the EVT looks set to ensure that Southampton remains the UK's number-one port for the vehicle imports and exports. The new terminal will house up to 2,500 new cars for export to destinations in Europe, Africa, Asia and the Americas. Built on five levels, the footprint of the Terminal is just less than one hectare, and is indicative of ABP's commitment to intensify the use of the existing dock estate. As well as storage, the EVT also features office space, wash-down facilities and car transporter unloading areas.

In 2002, Southampton became the first British port to construct a multi-deck vehicle storage terminal, allowing the density of cars stored per acre to be increased five-fold, and the new EVT is the third such terminal to be built in the last six years. Through this strategy of multi-deck storage, ABP has created more than 26 additional acres of "space in the sky", to secure Southampton's future as a leading hub for vehicle imports and exports.

Southampton is currently used by major car manufacturers for the export of British-manufactured Hondas, Fords, Jaguars, Range Rovers, Freelanders, BMW Minis, Rolls-Royces, Nissans, Toyotas and GM models. Vehicle manufacturers importing via Southampton include BMW, Renault and Ford. In 2007 Southampton handled 653,000 units of which 68% were British-built exports.



The former **HMS Rame Head** has been moved from Fareham Creek to the North Wall in Portsmouth Dockyard. She is due to leave will be leaving for scrapping by Van Heyghen Recycling in Ghent. This is the same yard that scrapped **HMS Fearless**. **HMS Rame Head** is a Canadian built World War 2 "Fort" Class merchant cargo ship built 1945 and is the sole survivor of this class.

January 28th saw the Royal Navy's latest ship, **HMS Daring** arrive in Portsmouth. She is the lead ship for the six Type 45 Air Defence Destroyers. These ships with a full load displacement of 7350 tonnes are the largest destroyers ever built for the RN. The size was dictated by the need to mount the Sampson multi-function radar as high as possible; the result is that it is 35 metres above sea level. The radar is essential for the very sophisticated Principle Anti-Air Missile System (PAAMS) that these ships are equipped with, together with Harpoon missiles and a 4.5 in. gun. All of this armament is mounted forward of the bridge. At the stern of the ship is a helicopter deck that can operate aircraft up to the size of a Chinook. Daring's complement is less than 200, but she can also accommodate 60 Royal Marine Commandos and their equipment.

The outstanding feature of the Daring class is their electric propulsion system. They are the first naval vessels in the world with all-electric power. Two Rolls-Royce gas turbines and two Wartsila diesel generators supply the power. This combination produces the electrical supplies for the propulsion and also all of the ship's weapon system and its services. The gas turbines have been designed to be efficient through a range of operating conditions. This was demonstrated during trials when a distance of 4500 nm was covered and the Daring used half the fuel of a Type 23 frigate and a quarter of that used by a Type 42 destroyer.

When the Type 45 destroyers were first ordered the Government was committed to 12 ships. Later this was cut to 8, but it has now been reduced to 6. The powers that be do not seem to realise that because of refits, work-ups and maintenance there is likely to be only 2 vessel in service at any one time.

It is interesting to see how the size of destroyers has increased during the last century or so. During this era there have been four destroyers carrying the name **Daring** :-

Year Built	Displacement	Notes
1894	240 tons	Classed as Torpedo-boat destroyers
1932	1375 tons	
1950	2800 tons	
2008	7350 tonnes	When first built, considered too large to be classed as destroyers. Therefore just called "Daring" class

By modern nomenclature, vessels designed for anti-aircraft duties are classed as destroyers; those with an anti-submarine role are called frigates. As all of our readers will know, the bow section for the Type 45 destroyers is built by VT at Portsmouth and then transported by barge to the Clyde to be fitted to the rest of the hull.

Another new visitor to the local area was the Dutch Assault Ship **Johan de Witt**. She visited Southampton during the latter part of January. Although she had been to Portsmouth previously, I think this was her first visit to Southampton. **Johan de Witt** was commissioned in July 2007. Her design is based on the older Rotterdam, but where as she displaced 12750 tons the newer ship's displacement is 16680 tons. Most of the increase in size is to provide extra space for the embarked troops and their equipment. It is interesting to note that the Rotterdam was also the design on which the RFA's of the Bay class is based.

In mid-February the Dutch Navy provided a second naval visitor to Southampton. This was the frigate **Evertsen**. She is the fourth and final ship of the **De Zeven Provinciën** class; she was launched in 2004. These ships displace 6048 tons and are armed with surface to surface and anti-aircraft missiles plus an anti-submarine system. They also carry a 5in. gun and 2 Goalkeeper close-in weapons. They can operate one helicopter. Like all modern naval vessels these ships are "stealth" designed to give them a very small radar and infer-red image.

Thinking Outside the Box

SIMPLE EXTERIOR MASKS WHAT GOES ON INSIDE.

The simple steel box that revolutionised shipping and enabled globalisation is not actually that simple. Underneath the surface - and indeed on the surface- there is a lot of science and technology.

The box we know today was originally made of aluminium, and is a direct descendent of road trailers. But the marine environment is harsh, and the beating that containers get being loaded on and off ships, trucks and trains is more than aluminium can take. Steel soon became the obvious material of choice and while it may be a bit heavier, this is more than compensated for by increased durability and ease of repair.

The big problem with steel is that it rusts, and the marine environment magnifies this problem. In the late 1970s, engineers in the container industry recognised that Corten, a naturally oxidising steel that had been in use in bridge construction for some years, was likely to be ideal for container construction.

Corten has quite amazing corrosion-resistant properties. Today virtually all steel used in container manufacture is produced in China, but there are only a handful of manufacturers, additionally, demand for steel from other industrial sectors in China is high, forcing up the price that container manufacturers have to pay for the raw materials.

The properties of Corten steel does not mean that containers can avoid being painted. While paint is not usually regarded as a component as such, it is an essential element in the manufacture, protection, repair and longevity of containers, paint continues to represent about 10% of container production costs, as it has for some time. The price of a 'headline' 20ft container fluctuates between \$1,900 and \$2,200. There are two areas where environmental pressures are likely to bring about cost and price increases. One of which is the issue of tropical hardwood floors.

Secondly there is the issue of paint. The industry standard paint system is a three coat application: zinc-rich primer; an intermediate epoxy, and an acrylic topcoat. This is the tried and tested, and has been the standard for many years. A chlorinated rubber topcoat was previously a common alternative, but no longer because of its poor environmental credentials.

The environmental problem with paint is that today's standard applications are very solvent emitting, and alternatives are overdue and desirable. As with the hardwood floor issue, there are alternatives but they cost more.

DP World Southampton welcomed the **Marit Maersk** on Friday 13 February 2009, setting a new record as the longest containership to call at Southampton in the terminal's history. The **Marit Maersk** at a length of 367 metres and a capacity of nearly 7,000 TEU made a one off call at the terminal during a positioning voyage from Europe to the Far East.

HEIGHT AND COST IN THE BALANCE.

Container terminal operations often work far beyond their design capacities. In many cases, the throughput reaches the capacity limitation, the berth occupancy approaches 100% - and the average stacking height is close to the maximal technical one for the equipment used.

For every terminal, this task requires advanced simulation techniques, since many details need to be considered. The original article looked at a simple way to estimate the efficiency of container handling on the container yard under different technological systems – the reader has been spared the mathematics!

You have to consider the mathematical relationship between stack heights, number of moves and land requirements. Then you calculate the gross terminal ground slot area for different handling systems and then knowing the land unit price you can calculate the desired slot price. There are typically four systems used in terminals:

- 1) **Front loader system (FLT).**
- 2) **Reachstacker system (RS).**
- 3) **Straddle carrier system (SC).**
- 4) **Yard crane system (RTG/RMG).**

The original article examined using mathematics for each particular example the ground area required for using different systems. I have removed this as it's the ships we may be more interested in! However, next time you marvel when you see a container port in action spare a thought for the designer and that the choice of the system employed will definitely not be arbitrary!

The original article proved that you can calculate the optimal stacking height as the function of the unit land price for the different container handling systems. If you can calculate the container handling costs as a function of the unit land price, then you can work out the total number of moves per box as a function of the unit land price.



Pictures of the Past No3 – Bert Moody

This postcard was originally published by Valentines Aerial, and the photograph was taken on either the 26th or 27th October 1932.

In the floating dry-dock is White Star Line's **Homeric**, in the Ocean Dock are **Olympic** at 46 berth with the **Majestic** opposite at 44 berth and the **Berengaria** is at 43 berth. Partly hidden behind **Berengaria** is the three funnelled **Empress of Australia** at 41 Berth, at 39 berth is the small coasting steamer **Harelda** of the British and Continental S.S. Co and at 38 berth is **Balmoral Castle**.

At 36 berth on the River Itchen side is **Carnarvon Castle**, with two funnels before she was refitted, at 34 berth is **Asturias**, then still a motor vessel. At 33/32 berths is the **Empress of Britain** and astern of her is **Montcalm** also of Canadian Pacific S.S. Co.

There is only one ship in the Empress Dock – **Guildford Castle** at 22 Berth.



The Black Jack Buoy

ABP have kindly provided some data on the '**Black Jack**' buoy, I hope all members will know where it is located but for BJ Edition Nr 150 I thought I would add some extra details and include a photograph on the buoy 'high and dry'.

Flash character: Two red flashes every four seconds.

Weight: Approximately six tonnes

Mooring chain length: 25m

Sinker: Three-tonne cast iron.

The buoy and mooring is lifted and pressure-washed every year, and the chain and sinker checked.

A complete refurbishment, (shot blasting, etc.) takes place every 5 - 6 years.

Photograph – Mick Lindsay

GATEWAY TO THE OCEAN. Edited by Bert Moody

In the February 1959 edition of the magazine 'Trains Illustrated' G. Freeman Allen wrote an extensive article on the train workings to and from Southampton Docks at that time. The following has been extracted from that article – when reading it please remember that the author wrote it between 1958/59.

At the approach to Southampton Terminus, double track branches off to the left, runs alongside the platforms and then cuts across Canute Road on an open crossing under the protection of a flagman. On the other side of the road the double track admits to a complicated rail network totaling some 78 miles of dockside track that carries more express passenger traffic than any other completely unsignalled layout in the country, in addition to a huge tonnage of freight.

The Outer Dock, opened in 1842, is now used by the B.R. cross-Channel passenger steamers that are the successors to L.S.W.R. tradition. The South Western went into the shipping business many years before it took over the docks, for in the 1840's it sponsored a subsidiary company to operate between Southampton, the Channel Islands, Havre and St.Malo, and in 1862 absorbed it entirely. In the summer there is a nightly sailing (but by day on Sundays) to the Channel Islands, returning by day, with extra outwards sailings on Fridays and Saturdays and inwards on Saturdays only; to and from Havre and St. Malo a boat plied thrice weekly last summer. The Havre service is popular enough in summer, in winter the boat has been known to steam out of Southampton Water with a bare half-dozen passengers aboard and sailings were cut to twice weekly from November 3; Channel Islands sailings were simultaneously reduced to four per week until March 14. But in summer the cross-Channel boats, air competition notwithstanding, still pull in excellent business.

The weekday 9.0 p.m. boat train from Waterloo carries passengers for the Channel Islands steamers, but on Fridays and Saturdays in the summer there is an earlier train for Jersey passengers. The summer St.Malo boat has its own train at 6.35 p.m. from Waterloo. In the inward direction all three services had their own connecting trains from Southampton Docks to Waterloo last summer, the Havre train leaving at 7.3 a.m., the St. Malo train at 8.5 a.m. and the Channel Islands train at 5.35 p.m. the latter supporting departures at 3.25, 4.23 and 5.58 p.m. on Saturdays. In recent years the Southern Region has bestowed the title of "Normandy Express" on the trains connecting with the Havre boat. The boat trains are run straight into the quayside shed alongside the ship, where immigration and customs formalities are carried out under cover.

To the west, a line divides into branches that serve both sides of the Ocean Dock, Trafalgar Dry Dock and to the east run lines from which there is access to the Ocean Terminal on the eastern side of the Ocean Dock and to the busy Empress marshalling yard north of Empress Dock, the tracks beyond the marshalling yard and past the Southampton Docks engine shed lead to Itchen quays (where the Royal Mail lines to and from South America berth), and more metals to the yards and quayside lines on the promontory south of Empress Dock and beyond the Ocean Terminal. In all, there are four miles of quays in the Old Docks. The Empress Dock, open in 1890 when Queen Victoria was persuaded to make one of her infrequent public appearances of later life, is the largest basin in the Docks, with a water area of 18 ½ acres and 3,900 ft. of quay. Apart from receiving troopships, its main activity today is cargo and especially bananas brought in by Elders & Fyffes liners from the West Indies and the Canary Islands which are received alongside a special banana shed equipped with electric conveyors that transfer 3,000 stems an hour from ships to banana vans; over 4 million stems – more than 50,000 tons – of this fruit passed through Southampton in 1958. In the season, too, a heavy cross-Channel traffic carried by B.R. cargo ships is dealt with at this dock – fruit, flowers and vegetables from Jersey and Guernsey and general exports in the reverse direction.

It is not surprising, therefore, that the Empress marshalling yard is the busiest of the five freight yards in the Old Docks, and that special banana trains figure in its output. There is no staging of loaded wagons from the docks to outside yards; trains are made up in the Docks and picked up there by the main line locomotive from Eastleigh motive power depot. Freight trains from both Old and New Docks average in number about 2,000 each way in a year totally some 120,000 wagons in each direction. A record for freight train traffic at the Docks was created on November 2, 1958, when in the space of 13 ½ hours 12 freight trains, comprising 523 wagons loaded with imports, were dispatched; the freight consisted mainly of bananas from the West Indies, meat and citrus fruit from South Africa and produce from the Channel Islands.

There is only one regularly scheduled inward freight train originating outside the S.R., the 2.25 a.m. from Washwood Heath, Birmingham which comes via Didcot. Until a year or two ago Midlands traffic was staged to Cheltenham and the train was made up there, but the new arrangement cuts a day out of the transit time for wagons from the Midlands to the docks, where the train is due at 8.17 a.m.; for a time it was hauled throughout from Washwood Heath to Southampton by a W.R. engine from Tyseley shed. For the rest, there are workings from Nine Elms at 7.25 and 11.25 p.m., from Feltham at 12.55, 4.7 a.m., and 2.45 p.m., from Salisbury at 1.50 p.m. and from Eastleigh at 1.30 a.m. and 3.8 p.m.

In the outward direction there is a return working via Didcot to Water Orton, leaving at 8.9 p.m., reaching Water Orton at 3.0 a.m., and another interesting service is at 3.58 p.m. fitted freight to Crewe, while on the June day on which I toured the Docks, banana specials were scheduled out at 11.30 a.m. for Sheffield and 1.35 p.m. for Exmouth Junction: a number of "Q" paths in both directions are available for special services of this kind. The other regular departures are tabled at 1.25 (largely traffic for transfer to the W.R.), and 4.25 p.m. for Feltham, 5.44 p.m. for Eastleigh, whence these are connections to the Kent and Sussex coasts, 7.12 p.m. Class "C" to Basingstoke and Nine Elms, 10 p.m. to Northam (local traffic) and 10.25 p.m. to Woking, with connection thence to the Central and Eastern Sections.

The recently rebuilt Southampton Docks Engine shed south of Nos. 1 and 2 dry docks supplies nine engines to shunt the Old Docks yards, with two extra for the banana traffic when required, Today the mainstay of the dockland locomotive labour force is the class of 14 ex-U.S. Army Transportation Corps 0-6-0 tanks, built by the Vulcan Iron Works of Wilkes-Barre, Pennsylvania, which were purchased by the S.R. in 1946 especially for the job when they became surplus to U.S. Army requirements after the last war. The S.R. made some minor modifications, such as enlarging their coal bunkers and raising their cab floors, but they are substantially as the Americans built them; their B.R. numbers are 30061-74. As I said at the beginning, no mechanical signalling system controls the incessant train activity on the 78 miles of dock tracks and everything is ordered by hand signal. At the head of affairs is a Traffic Controller with a staff of over 100 including Inspectors and marshalling yard staff, and part of his organization is the Operational Control, directed by a Chief Inspector and sited near the Empress Yard, which is the hour-by-hour "brain" of rail movements into and out of and around the Docks. Taking their directions from Operational Control are the inspectors or foreman in charge of work in the main yards- Empress, Front, Bank, Ocean Quay and Empress Marshalling in the Old Docks; and East and West in the New Docks. Moreover, every movement made must have a shunter in charge, both to work the points (there are about 1,000 in the docks) and to protect the traffic on any pedestrian or vehicular thoroughfares which the movement may intersect. Radio-telephony now simplifies communication between the controller and the shunting locomotives, and the electricity for it on the engines is supplied by steam turbo-generators cast off by the "T9" and "L11" 4-4-0 fitted up for oil-burning in 1947.

The tank engines, of course, are by no means the only motive power to be seen in the Docks, for main line locomotives are allowed to work their trains into and out of most parts of the Docks, and they include the Bulleid light Pacifics. However, as soon as they are inside the dock territory, at the Canute Road crossing in the case of the Old Docks and Millbrook in the case of the New Docks, incoming main line trains must slow down to take on a pilotman, who directs the train on the instructions of Operational Control, either to one of the yard reception roads, or, if it is a boat train, to the appropriate quayside.

The most impressive destination of boat trains in the Old Docks is the magnificent Ocean Terminal on the east quay of the Ocean Dock, where the ocean-going giants- the *Queens* and *United States* foremost among them for size- meet or bid farewell to their passengers. The Ocean Dock was completed in 1911, but the Ocean Terminal is a post-war addition, begun in 1946 and opened by the then Prime Minister, now Earl Attlee, in 1950. Boat Trains are dealt with on either side of a 1,010 -ft long island platform, from which escalators and lifts convey passengers and luggage to the vast upper floor, laid out on the modern, spacious and well-appointed lines that ought to grace the concourse of all the biggest and busiest stations in the country. From this floor you step straight on to your ship, still under cover, via electric-ally-operated telescopic gangways made of aluminium alloy.

If the New Docks had been built by any other railway, they would probably come to mind the moment you mentioned its initials. Mention Southern and most people think at once of its enterprising electrifications, yet the courage of the company in laying down the vast sum required to reclaim 400 acres of spongy mudland and erect the 1 ½ miles of New Dock quays, their sheds and installations, in order to cope with the increasing demands for berthing space in the 1920's, initiated one of the boldest and biggest works achieved by the Big Four of 1923-47, Construction, begun in 1927, occupied six years and the outcome was 1 ½ miles of quays crowned by eight huge transit sheds that were equipped with the most modern cargo and passenger handling apparatus. Moreover, the berths at these new quays were deep enough for the largest ocean liners to tie up there- the *United States*, in fact, was sailing from one of them (No.107, regularly used by trans-Atlantic liners). One of the transit sheds was badly blitzed in the last war and in its place there has risen a fine two-storey terminal for the Union-Castle liners sailing to and from South Africa.

As I stood in this new building, Terminal 102, and watched standard Class "5" 4-6-0 No 73113 pull in from the Millbrook direction with the Union Castle boat train, I learned something of the organization behind the Southampton boat train workings. Hitherto I had had a vague impression that a boat train was a working organized within days of the event and that long-range planning was out of the question. It surprised me to hear that shipping times of arrival and sailing are planned to the hour as many as seven months ahead, for apart from the *Queens*, which can be dealt with only at high tides, all the vessels of the thirty steamship lines using the docks can be received or can sail from any berth at any state of the tide. Naturally, extreme weather conditions can upset the shipping timetable and force some improvisation on the railway side, but normally the timekeeping of shipping is accurate enough to enable advance publication of a month's boat train departure times from Waterloo.

The provision of a special train is a matter for negotiation between the steamship line and British railways, for it is not done as a matter of course. The steamship line has to guarantee a minimum passenger complement for every special train on its behalf and meet the deficit if the required number of passengers do not turn up on the day (the passengers buy a Waterloo-Southampton Docks rail ticket in the normal way). If an adequate load for a full train cannot be found, then it may be agreed to attach a coach or two to a normal Waterloo-Bournemouth service, detach them at Southampton Central and run them round from there to the docks. For example, in summer there is not always enough trade for the regular Thursday Union-Castle sailing to South Africa to justify two full trains, and in that event a second boat section is attached to the 10.30 a.m. Waterloo-Bournemouth.

Enough boat specials or "ocean Liner Expresses", to give them the grandiose title of their coach roof boards – are run, however, to keep the Western Section of the S.R. very busy. A recent July list of "Ocean Liner" workings totals 152, 80 down and 52 up; the first day of the month was the only one without a boat train working in one direction or both, while on July 5 no fewer than thirteen were scheduled in connection with seven different liners, one down and the remainder up. The number of boat trains run in any one month, incidentally is the key to the identification numbers they carry after the prefix letter "B"; the first working of the month is "B1", the next in departure and date order "B2"; and so on in commercial order, irrespective of direction, to the end of the month. Thus the month's programme referred to began on July 2 with "B1" and "B2" pulling out of Waterloo at 8.5 and 8.54 a.m. for the *Mauretania*, "B3", "B4", "B5" and "B6" leaving Southampton Docks at 8.25, 9.0, 9.40 and 10.15 a.m. respectively with passengers off the *Queen Elizabeth*.

And "B7" with travelers setting out from Southampton Docks at 11.5 a.m.; next day there was "B8" leaving Waterloo at 4.43 p.m. to connect with the *Nieuw Amsterdam* and "B9", "B10" and "B11" coming up from Southampton Docks at 5.23, 6.0 and 7.5 p.m. with *United States* arrivals. In 1952 the Southern decided to add the publicity touch of names to certain of the boat workings. The last train down from Waterloo and the first train up from Southampton in connection with the *Queen Mary* or *Queen Elizabeth* is an almost all-Pullman service, and the same treatment given the *United States*, the train in this case named the "Statesman". For these three the minimum number of trains run seems to be three, and in the height of the season four is often required. In the up direction, the first one is usually cleared from the docks within an hour and a half of the liner's berthing, and the basic timing for the 78 miles to Waterloo is 90 minutes, though this is variable according to traffic conditions. Others specially boat trains are the "South American", in connection with the Royal Mail lines vessels; and the "Holland-American", "Greek Line", "Arosa Line" and "Springbok".

Naturally, numerous "Q" boat train paths are inserted in the Western Section timetable- sufficient usually to offer one or more almost tailor-made to a proposed sailing or berthing time- but even so, life is made difficult for the operating authorities when two or more liners are scheduled to sail within a short time of each other. On the May Thursday I was at the docks, for instance, the *United States* (three trains), the *Winchester Castle* (two) and the *Seven Seas* (one) had to be covered in a morning, so that a bunch of boat trains at 10.5, 10.14, 10.36, 11.2, 11.14, and 11.57 a.m. from Waterloo had to be squeezed into the timetable for the day. Between midnight and 8.0 a.m. on the night of Thursday/Friday, September 12/13, 1957, ten ships arrived at Southampton Docks bringing 5,657 passengers, for whom 12 boat trains were run to London. This was a record for arrivals in one night.

Another nuisance from the operating viewpoint is that it is a lottery whether even one of the boat train workings can be balanced. There are four set trains, variously made up as to the proportion of first and second class accommodation in their make-up, that are regularly in circulation. When the shipping fates are kind, these sets are adequate to cover outward workings from Waterloo and balancing inward trips from Southampton either the same day or the next, but it doesn't always happen that way, and there will be occasions when a set has to be worked back empty in one direction, or an additional rake of coaches has to be got together. July 4 and July 5, 1957, one imagines, were the sort of days the operating men view with a jaundiced eye. On the first of them, all the traffic was outwards from Waterloo, with ten trains going down, three for the United States, four for the Queen Elizabeth and two for the Carnarvon Castle two of them therefore were all Pullman trains without a balancing job, apart from the impossible event of the other *Queen* arriving next day, and they would probably have to return empty to Clapham Junction. On the other hand, the workings in the up direction next day would by no means be met by the stock that went down on July 4; a single train was booked out of Waterloo on July 5 as against a whole dozen with passengers off six boats in the up direction!

Naturally, with the docks dealing with passenger traffic on this scale, there must be adequate coach storage and servicing facilities on the premises. The capacious carriage cleaning and warming shed, which can take 72 coaches on its six roads, and a number of open-air sidings are located in the New Docks between Berth 105 and the huge Rank flour mill (one of the many industries that have taken space on the New docks estate, and whose rail traffic pass through the dockyards). From the float of stock kept here the Dock authorities can usually put together any additional train sets that may be required for up traffic. Consequently carriage pilots activity looms large in the work of the five regular locomotives provided every day to shunt the New Docks.

One feature of the "Ocean Liner Express" make-up that complicates the train marshalling and coach rostering is the use of Pullmans. The Pullmans are not included in the boat train sets, nor are special all-Pullman rakes kept intact for the "Cunarder" and "Statesman" workings. The provision of Pullman accommodation on a boat train is entirely dependent on the demand for it (in the case of incoming traffic, Pullman bookings are taken during the voyage and the details wired to the shipping company), so that the number of cars will vary from train to train. On the day I was touring Southampton, I noticed that the cars *Corunna* and *Camilla* off the 11.2 a.m. and 11.57 a.m. Union-Castle boat trains from Waterloo were due to be removed from their rakes at Junction and Stewarts lane respectively, while the B.R. stayed out, to be berthed in the docks; and the "Statesman" all-Pullman train, arrived that morning, was to be broken up to provide three cars for the train to Waterloo from the *Mauretania* that evening.

Over 300,000 passengers annually pass through Southampton Docks in each direction. The year's incoming trains of passenger stock total about 3,500, including vans and empty stock workings and also about 75 troop trains and 400 Channel Islands boat trains; in the reverse direction the total of trains dispatched is about 2,700. From these figures it is easy to believe that half Britain's ocean passenger traffic with the rest of the world passes through Southampton Docks. The L.S.W.R. and its successor, the Southern Railway, may have had no rich mineral areas or centres of heavy industry to tap, but by their enterprise at Southampton they contributed as much to the commercial life of this country as any other railway.

What is the situation today – fifty years on from when the article was published? The Old Docks and the New Docks are now known as Eastern and Western Docks. The Outer Dock is now part of Ocean Village and the total length of track remaining in the Docks is now less than five miles.

There are now 3 passenger terminals and a fourth under construction only one of these is rail connected – the Queen Elizabeth Terminal at 38/39 berths. The number of passengers passing through the docks to and from cruise ships is averaging 700,000 per year. This is more than the number of passengers passing through in 1958, but none of today's passengers are provided with a special boat train – the nearest rail connection being Southampton Central with a taxi link.

So far as the freight traffic is concerned as is well known containerisation completely changed the situation – now there are at least 16 container trains (Mon-Sat) serving various locations operated by Freightliner through the Maritime and Millbrook Terminals, and E.W.S. are operating about ten container services each day from their facilities at the back of 107/8 berths in the Western Docks, and in addition there is normally one train out with gypsum and another with Ford traffic. The only freight service to and from the Eastern Docks involves car traffic – normally 2/3 trains per day.

The copy of 'Trains Illustrated' was kindly loaned from the collection of Oscar Glenn.

Feedback....

Capt Peter Tambling whose name I'm sure many of you will recognise has contacted me after reading David Hornsby's recent aggregates article has sent in some feedback together with many photographs of which I only have space for a few but hope to include more in future editions.

During Peter's extensive career he has seen employment with John Heaver Ltd, Southampton Harbour Board, Elders & Fyffes, Union Castle, ten years as Weymouth Harbour master and 12 years as Snr Master on the **Shieldhall**.

"I found copy of Black Jack winter 2008 aboard Shieldhall on my visit last week. I do not think you are correct re **Chichester Cross** (Bowcross) and **Sand Snipe**. I have a photo of them together in Cardiff at the Eastern end of the Roath Dock prior to being towed away for scrap in Ghent in 1992.

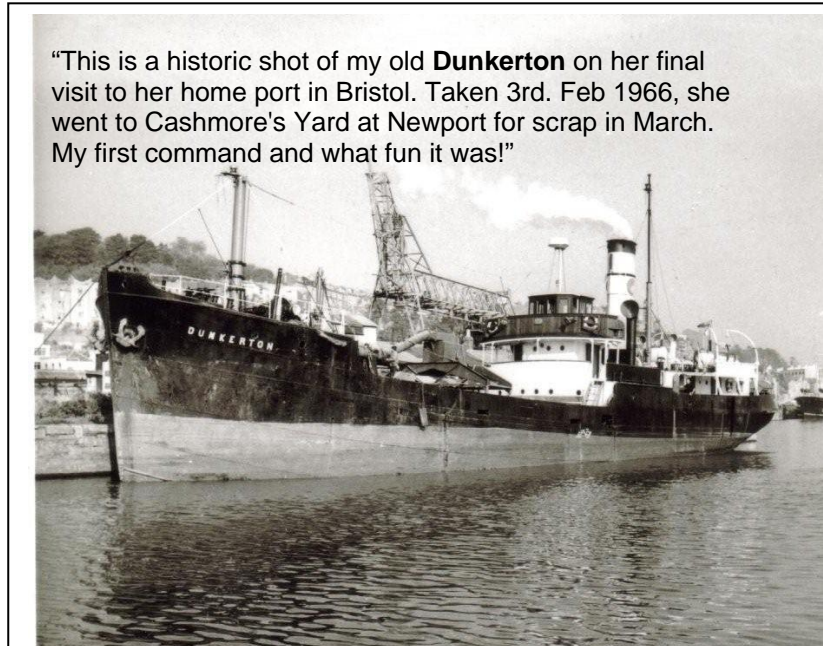
Sand Grebe was the one in Padstow (Diesel Electric). Fisons used her for agricultural fine sand loaded on the Bar. She was cut down looking in a distressed state when I took the photograph below from **Balmoral** in Padstow in 1998".



The new **Chichester Cross** passing through the old swing bridge at Littlehampton in 1967.



Bowcross ex Chichester Cross alongside Sand Lark/Snipe waiting towage for scrapping alongside Roath Dock Cardiff. Bottom Left: What was **Sand Grebe** at Padstow 1988



"This is a historic shot of my old **Dunkerton** on her final visit to her home port in Bristol. Taken 3rd. Feb 1966, she went to Cashmore's Yard at Newport for scrap in March. My first command and what fun it was!"

Stena 'Max' Tankers

Stena Bulk currently operates approximately 75 vessels ranging in size from ULCC's to smaller product tankers. Arguably the safest tanker designs currently in operation are the Stena Bulk's Max class vessels, which incorporate the latest thinking in safe tanker design and operation. The fleet is being expanded by a new series, the B Max design, tailor made for operation in the Baltic.

This type of safe tanker does not come cheap being approximately 15% more expensive than conventional tankers of the same size. There have been no safety incidents with the Max-class vessel currently in service. Stena's Max class vessels all have one thing in common: designed in house, the innovative wide body designs that are among the safest of their type in operation worldwide, and are capable of carrying 30% more cargo than traditional tankers of the same draft. Their unique safety approach features a full double hull, two engine rooms with full fire and water integrity, plus double propulsion and manoeuvring systems including engines, shafts, generators, steering gear, rudders, propellers and control systems.

To date Stena has designed and built three types of Max class vessels: the VLCC V-Max ships, the P-Max product tanker series and the C-Max coastal short sea trader vessels. Soon to join this fleet will be four B-Max Class.

The B-Max tankers will be 209,000dwt vessels designed for the safe and economic carriage of Russian crude oil export cargoes through the environmentally sensitive Baltic. The design of the B-Max embodies a vast in-service feedback from Stena's other proven Max-class tankers already in service. The 307m x 64m tankers will have a shallow draft of 15m, allowing them to carry 60/80% larger uplift cargo than conventional tankers operating in the Baltic. In comparison the two V-Max tankers the 312,679dwt **Stena Victory** and **Stena Vision** built by South Korea's Hyundai Heavy Industries in 2001 and operated by Concordia Maritime have a length of 333m x 70m with a draft of 16.8m.

The 10 ship P-Max Class at 62,500 dwt are medium range product tankers with a lift of a Panamax with the draught of a medium range vessel are DNV Green Passport vessels that offer a number of additional features including enhanced manoeuvrability and integrated bridge layout for safe navigation in narrow waterway's.

Built by Croatia's Brodosplit. shipyard and operated by Concordia Maritime, the first batch of six **Stena Paris**, **Stena Performance**, **Stena Perros**, **Stena President**, **Stena Primorsk** and **Stena Provence** will be followed this year and in 2010 with **Stena Penguin**, **Stena Polaris**, **Stena Premium** and **Stena Progress**.

All P-Max tankers have been fixed for long term charters. Four with Total, three with ST Shipping and Transport, two with Argo Shipping and one with Hess.

The P-Max tankers have an overall length of 182.9m x 40m with a design draft of 11.3m. The P-Max is more than just a wide bodied carrier. The vessel is fitted with two separate engine rooms, each fully segregated but designed to be capable of being used in tandem. Each is fitted with a single locally – made B&W 6S46MC-C main engine with and output of 7,860kW and directly driving a separate 4 blade propeller. Twin rudders each with their own separate steering systems are fitted. Twin auxiliary power generators in each engine room are each fully capable to supply all available power in the event of emergency. The port engine room has dual boilers for heating the cargo and other purposes and an auxiliary gas boiler. All bunker tanks are duplicated for additional security and the tanks are in protected locations within the safety cordon of the double hull. With a design speed of 14.5 kts, the vessels will have a range of some 14,000n-miles. With accommodation for 10 officers and 16 crew plus two spare, the additional beam allows for larger than normal cabins and considerable flexibility when it comes to bridge layout. Virtually a 360deg field of vision is possible from the central conning position. The integrated bridge control system located amidships gives full access to all the manoeuvring functions and navigational information, including the electronic charting facility.

The vessels bridge mounted control system is part of the basic Stena philosophy of redundancy already part of the V-Max and C-Max, and planned for the future A and B-Max vessels. All the first batch of P-Max will be fitted with the company's Integrated Automation System (IAS) and Integrated Bridge System (IBS), supplied by L-3 Valmarine System and L-3 Navigation and refined by experience learned from V-Max ships. All systems are fully redundant, all auxiliary engines are distributed between the two engine room's, and in a major breakdown of one engine room would leave the other fully independent and capable of taking ship, cargo and crew safely to port. Full external framing of the cargo tanks (utilising ballast tanks) and on the main deck has allowed smooth sides throughout the cargo system layout. With five sets of cargo tanks and five basic separations, each system is completely self contained with its own manifold. A further two segregations are possible using the slop tanks for small parcels. All pipe work on the vessel is stainless steel. At the manifolds twin crossovers one per side provides the possibility to link segregations in every permutation. In addition, connections at each crossover allow access to the COW (crude oil washing) line on the starboard side and to the ballast and IG (Inert Gas) systems on the port side through removable spool pieces.

Cargo handling carried out by Hamworthy-Svanehoj's CLK300 series electric driven deepwell cargo pumps in the cargo tank each electrically driven by a 315kW intrinsically safe electric motor on the weather deck. While the vessels are anticipated to find employment in the clean trades the pumps are designed to discharge high viscosity heavy fuel oil (HFO) products at 400 cSt. The vessel has a full segregated ballast capacity of 26,300 cubic meters in wing and double bottom tanks with its own system of submerged self priming ballast pumps.

On product carriers, the ability to clean between grades with minimal slop generation makes economic sense and Stena has chosen single centrally mounted tank cleaning machine per cargo tank with a single reduced throughput machine in each slop tanks. Driven wholly by the cleaning media – in this case water, but COW is also possible the installed turbine and integrated programmable drive unit has a magnetic drive allowing replacement on deck with the removal of the wash unit or any breach of tank atmosphere.

In addition to the Max designated vessels Stena operates other classes of vessels including Aframax 80,000 to 120,000dwt, Panamax typ 70,000dwt, Suez Max 150,000dwt and North Sea shuttle tankers.

Over the last few years several tankers from the Stena Bulk fleet have been seen at Fawley and BPJ Hamble both product tankers and crude vessels. Frequent callers have been the North Sea shuttle tankers typically **Stena Alexita** 127,535dwt, **Stena Sirita** 126,671dwt among others all fitted with the dynamic positioning systems and specialised loading facility required in the North Sea. Others to call include vessels followed by numerous 'C' ships i.e. **Concertina**, **Confidence**, **Concertina**, **Conductor**. The 'C' does not indicate a particular type or deadweight and the deadweight tonnage can be anywhere between 47,000dwt product tanker or Aframax/Panamax crude carrier. Stena's two C-Max class tankers – **Stena Calypso** and **Stena Caribbean** were built by Polands Gdynia Shipyard in 2002 and designed specifically for the Caribbean clean products trades. Although they are a direct conceptual spin off from the V-Max design their dimensions are much smaller at 120m x 23.8m with a draft of 6.1 m and can carry 17 different types of cargo.

Of two recent callers at FMT perhaps most interesting are the **Stena Arctica** built 2005 and **Stena Provence** built 2006. The Aframax **Stena Arctica** has the classification of Ice Class 1A Super but she is not classified as a Max class vessel by the company and has to date called more frequently bar the shuttle tankers. However the recent caller during February **Stena Provence** from the first batch of the latest P-Max vessels at 65,000dwt classed as P-Max Ice Class 1B middle range vessel.

The paint work on these ships makes them easy to identify so I hope the article gives an insight into the design concepts of these rather special tankers on return visits to FMT.

(Acknowledgement to Allan Onions for checking his database of ships calling at Southampton)



GPS Twenty Years on.....

I thought it appropriate to briefly record the passing of an anniversary of a navigational system that has had such an impact on the maritime world (and probably everything else before long!).

It was not so long ago (or was it?) that I can remember arranging for the BBC World Service or other time signal to be piped through to the wheelhouse at noon or sunset for the navigation officers so that they could practice the mystic art using a sextant the find out where we were! For those cloudy days on ocean passages dead reckoning must surely now be a thing of the past.

The concept of satellite based positioning system began with the Transit system, a constellation of six satellites established in the early 1960's and operated by the US Navy, primarily to determine the positions of Polaris missile carrying submarines.

This was followed by a system operated by the US Department of Defense and originally based on a constellation of 18 Navstar satellites and three in orbit spares the designed for use by the US military generally.

The system in use today had its first pre-operational satellite launched in 1978, the inauguration of today's full operational constellation of 24 spacecraft plus spares dates back twenty years to February 1989. The satellites use a medium orbit at 20,000km.

I cant recall exactly on which ship I joined when I first saw the first a 'satnav' unit over the chartroom table alongside existing radio navigation systems of Decca and Omega, but one thing for sure it was the same physical size as the other equipment and many years would pass before it would become pocket sized.

There was distrust in the original specifications which featured a military 'P' Code (precision) signal giving an average position accuracy of 7.5m, a civilian coarse acquisition or C/A Code signal accuracy to 15m and a degraded C/A Code signal limited to an average of 50m. For navigation across oceans on vessels hundreds of metres long this is not a big issue but of course with other applications it becomes important. The ability to degrade the accuracy of the civilian signal known as selective availability was deactivated by presidential decree in May 2000. Other administrations within and outside Europe continue to develop alternative systems to remove the total reliance on the US system.

Note: The GPS is also a timing service and provides users an accuracy of 100 billionths of a second!

HMS Daring photographed arriving in Portsmouth Harbour for the first time on 28th January 2009.
See Naval Notes for further details. Photograph Bill Lawes



Acknowledgements for extracts from – ABP, Lloyds Fairplay, Daily Echo, Tradewinds, Navy News, DP World,.