LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

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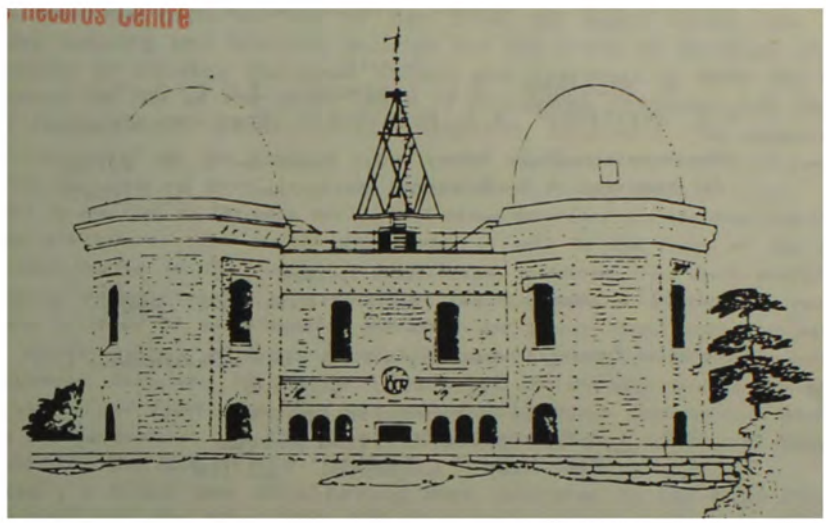
Summer 1990

BULLETIN



BIDSTON OBSERVATORY

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Liverpool Nautical Research Society

Annual Subscriptions

Local: £5 *Country:* £4 *Senior Citizen:* £4 *Family:* £7

Application forms for membership and any other correspondence to:-

Hon Secretary, L.N.R.S.
Maritime Records Centre
Merseyside Maritime Museum
Pier Head Liverpool L3 1DW

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SOCIETY NOTES

We are delighted to welcome the new occupant of the Society's Chair, James E. Cowden, who began his three year stint at the AGM in May.

Congratulations: to our President, M.K. Stammers, who has been elected to the Council of the Society for Nautical Reseach

In late May a number of members visited Gyrn Castle at Llanasa to have a look at a couple of portraits of ships owned by Edward Bates a shipowner of the late 19th century. His son became director of T. &. J Brocklebanks and his grandson chairman of Cunard.

The same day a few members climbed the steep hill to Voel Nant, above Gronant, Prestatyn, one of the signal stations which relayed messages from Anglesey to Liverpool. What a sad sight it was a to see a perfectly stout historic and listed building in a decaying state; left open to vandals etc. From the damaged ceiling over one of the rooms of the single storied building some-one rescued a complete Liverpool newspaper dated 1875 and brought it back to be deposited in the Records Centre.

THOUGHT PROVOKING CASUALTIES *by A.N. McClelland*

THE RECENT losses of two short-sea traders with local connections have each in their own ways emphasised the need for both the E.E.C. and individual governments to look closely at shipping policy and regulations.

On December 9th last the Bahamas-registered *"Marine"* cleared Liverpool for Spain with a cargo of scrap metal. Nothing more had been heard of her. According to the national Union of Seamen, concern had been expressed about the vessel's seaworthiness and she was to be inspected on arrival at her port of discharge. Her loss with all six of her crew, yet again called into question present day manning and training policies for the crews of merchant ships, and the desirabilty of allowing European owners and operators to make use of flags of convelence. So far as the latter issue is concerned, Professor B.N. Metaxas in "Flags of Convenience" (Gower, 1985), pp100-102, concludes: *"The expansion of the Flag of Convenience Fleet has produced a net social disbenefit for the World community at large, rather than marginal benefits in the form of lower freight rates ..... We should mention that in addition to the main social cost areas described and analysed (earlier in the book) there are others, such as (1) detrimental effects to the image of the (shipping) industry, contributing to the further alienation of seafarers from their profession; (2) higher long-run economic costs, as a result of negligence in maintenance and repairs; (3) higher costs in terms of human capital resources and higher (insurance) club calls, as a result of greater numbers of injuries and illnesses of crew; (4) delays in ports due to labour-management disputes; (5) economic transfers of training costs, managerial and technical skills; and finally (6) the cost to seamen and their families .... where working conditions are substandard"*. At the time of writing, no sort of formal enquiry had be ordered into the loss of the *"Marine"*.

Virtually a brand new ship, having been delivered by the Hugo Peters yard at Wewelsfleth, (on the Elbe 20km NW Hamburg) early last Summer, the *"Arklow Victor"* was bound for the Manchester Ship Canal with a cargo of maize, when she was apparently overwhelmed in the northern Bay of Biscay on 16th December. Operated by a highly reputable company under the Irish flag, her loss is to be the subject of an official investigation by the Irish Marine Department which will presumably look closely at the conventions governing the design and lading of present-day merchant ships. With a large single box hold and an extensive trunked-up hatch, the *"Arklow Victor"* had a deadweight capacity of some 4,289 tonnes. She was designed with a restricted air-draught of 12m to enable her to penetrate as far as possible along European waterway systems, and had a bridge/wheelhouse which could be raised or lowered by electro-hydraulical means.

Misgivings have been increasingly expressed in professional maritime circles in recent years about a number of issues in the design and operation of short-sea tonnage. The latest ships with long, straight-lined, slab-sided hulls and large hatches, inevitably rely on heavily sophisticated propulsion, control and maneouvring systems for safe and efficient voyaging. The fate of the *"Arklow Victor"* may well indicate that yet more attention needs to be given to ensuring the reliablity of back-up arrangements for use in the event of breakdown in the prime systems, and to the integrity and securing of hatch-covers.

So far as low air draught short-sea traders are concerned, David Tinsley has it in "Short-sea Bulk Trades" (Fairplay, 1984) p73, *"Many operators of the river/sea-going types of coaster steer clear of going round Land's End during the winter months ....."*.

MONTCALM *Age fifty five years* by J.E. Cowden

17th May 1897 witnessed the launch from the Newcastle shipyard of Palmer's & Company Limited - yard number 724 - a fine handsome looking ship which was given the name *"Montcalm"* : derived from the French General Marquis de Montcalm (1712-1759). At that date, one could never have visualised that *"Montcalm"* would, through her life-time, carry eight (albeit one name twice over) names, survive a torpedo attack and tuck a total of fifty years under her belt before disposal.

"Montcalm" was ordered for the account of the African Steamship Company (Elder Dempster, managers) being a steel screw steamer, two decks, four masts and single funnel. Her principal dimensions being :- 3458 net, 5262 underdeck 5478 gross tons : 445 for x 52,05 x 27.06 with a moulded depth of 30.07. Engines and boilers were provided by the shipbuilders : being of the triple expansion type, three cylinders 30", 50" and 81¼" diameter by 54" stroke, which gave a speed of 13 knots. Three double-ended boilers, eighteen corrugated furnaces with a grate area of 363 square feet and a heating surface of 12,030 square feet produced an average speed of 13.34 knots on her sea trials which took place on 31st July 1897.

3rd September 1897 *"Montcalm"* commenced her maiden voyage from Avonmouth to Montreal where she remained 'on station' until 1900 : after which, she was requisitioned and used as a troop transport during the Boer War conflict. Three years later, the Canadian Pacific Railway Company took a tremendous step forward in the direction of Canadian trade and development when they approached and successfuly concluded an agreement for the purchase from Alfred Jones for the Beaver Line fleet consisting of fourteen steamers aggregating 95,716 gross tons (*"Montcalm"* forming part of the Elder Dempster - Beaver Line). On being acquired by the C.P.R. her name and port of registry were retained.

1914 *"Montcalm"* was again requisitioned by H.M. Government and used as an Expeditionary Troop Transport. October of the same year, she received her first name change when she was converted by the Royal Navy to a dummy battleship to represent H.M.S. *"Audacious"*. For the next twelve months she retained her disguise before being dismantled and then used as a store ship. On 29th January 1916 *"Montcalm"* was purchased outright by the Admiralty who then placed her under the management of the Leyland Line. Refitted as a tanker and transferred to the Anglo Saxon Petroleum Company who re-named her *"Crenella"* with her port of registry to London. Near twelve months later (26.11.1917) now under the control of the Shipping Controller she was attacked by a submarine off south west Ireland but reached port safely.

Ex *"Montcalm"* led a charmed life, 1st August the following year she was again attacked, more or less in the same position; fortunately, on this occasion the torpedo missed their target. The Admiralty disposed of her in the 26th November 1919 to the Anglo Saxon Petroleum Company - still carrying the name *"Crenella"*. Within the year, however, she came under the ownership of Velefe Steam Ship Company, Limited (Runciman [London] Limited - managers) who retained the same name and port of registry.

Still with many years ahead of her : 20th June, 1923 she hoisted the flag of Norway when she came under the ownership of A/S/ Larvik Hvalfangerselsk (Chr. Snieleson & Company, managers). Re-named *"Roy Alfonso"* registered at Larvik and fitted out as an Whaling depot ship. Two years later still under the Norwegian flag she came under the ownership of H.M. Wrangell & Company A/S, Haugesund who retained the same name but changed her port of registry to

Haugesund. A third Norwegian owner came on the scene when Anglo Norse Company Limited (Hans Borge - manager) of Storgaten 20, Tonsberg purchased her during 1927 who gave her the name *"Anglo Norse"* registered at Tonsberg. It was whilst under this owner that a number of boiler/engine changes took place. Single ended boilers were fitted both on the port and starboard side.

August 1929, another change to the British flag when the Falkland Whaling Co. Ltd of Jersey, Channel Islands, purchased her. Re-named *"Polar Chief"* registered at Jersey. To think ex *"Montcalm"* had seen action in the Boer War : the First World War and on 2nd July, 1941 she was acquired by the Ministry of War Transport who re-named her *"Empire Chief"*. Retaining Jersey as port of registry under the British flag, she was placed under the management of Christian Salvesen & Company of Edinburgh. On being de-requisitioned (3.8.1946) she came under the ownership of the South Georgia Company, Limited (with Christian Salvesen as managers) taking up one of her former names - that of *"Polar Chief"*. Registered at Leith under the British flag.

At the ripe old age of 55 years she was sold for demolition at Dalmuir by W.H. Arnott Young & Company Limited.

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From SHIPPING WORLD May 1890 *selected by A.J.B.*

The Dock Labourers still Dissatisfied; The troubles - imaginary or otherwise - of the dock hands do not yet seem to have come to an end, judging by the events that happen from time to time. Only recently about 250 men employed by Messrs J.T. Fletcher & Co., at the loading berth of the Ghent and Hamburg steamers, Nelson dock, declined to continue working. Their demand was for an additional sixpence per day, which the employers conceded in special cases; some slight concessions were also made to the stevedores. On the Cheshire side of the river some of the men employed by the Pacific Company's steamer *"Potosi"* refused to act, on account of a dispute they had with the stevedore in reference to Saturday work. Similar squabbling had occurred on board the Anchor liner *"City of Rome"*, lying in the Great Float, but her owners took the coaling of that ship into their own hands, and the men therefore expressed their willingness to do their duty under those conditions.

Disaster to the *"City of Paris"*: Capt. Watkins, of this disabled ship, has reported that when he entered the engine-room after the breakdown, all that could be seen, on account of the escaping steam, was that the low pressure cylinder of the starboard engines was gone. Owing to the severe useage of the longitudinal bulkhead between the engine rooms had received from the falling machinery, the whole of the two machinery compartments were filled with water to a depth of twenty-five feet. There was also water in two other compartments, which, however was kept under by the hand pumps alone. On the arrival of the s.s. *"Aldersgate"* of London, the *"City of Paris"* was taken in tow when 118 miles west of the Fastnet, and brought into Queenstown in safety, when everything was done to enable the ship to proceed to Liverpool under one set of engines. During the examination of the vessel in graving dock at Birkenhead, the true cause of the accident was discovered. When the water was being gradually let out of the dock the starboard propeller dropped off, showing at the same time that the shaft had broken close up to it. The sudden and enormous increase of velocity of the engines due to this cause, had made them race to such and extent as to bring about their destruction which, until this important discovery had been made, appeared inexplicable.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

MINUTES of the ANNUAL GENERAL MEETING

Held at Wm. Brown St. 1900 hrs Thursday 19th April 1990

19 members, as per attendance register. In the Chair A.S. Davidson

1. Apologies for absence: N.R.Pugh, H.M.Hignett, M.K.Stammers, N.F.Jones

2. Minutes of the AGM 19,5 89:
   These were taken as published in the BULLETIN Vol 31. No.1 Spring 1989 and approved

3. Chairman's Report:
   The Chairman, Mr. Davidson, spoke of a year of excellent lectures and thanked Mr. Stuttard for the programme. The Christmas Party had been a great success thanks to all those attending. Through the offices of Messrs Scarth and Ryan a good working relationship had been maintained with the Maritime Museum and especial thanks were due to the staff at the Maritime Records Centre for all their assistance. The out-going Chairman stated that after three years it was his pleasure to report that the Council recommended that the Vice-chairman, Jas E. Cowden take over the position. This was unanimously agreed from the floor.
   Mr. Cowden then took the chair and spoke briefly of the current healthy state of the Society's finances and with it the intention to produce and publish another set of "Transactions". This would include the involvement of the Maritime Museum through the Society's President Mr. Stammers. It was the intention of council to form a sub-committee along the lines previously accepted.

4. Hon Secretary's Report:
   The dates for 1990-91 programme were outlined. These continue the practice of holding them on the third Thursday of the month, with the January and February meetings being at the Maritime Museum at 12 noon. The dates would be printed in the new membership cards when issued.

5. Hon Treasurer's Report:
   The financial statements had already been circulated to those attending. The Treasurer stated that the overall picture was satisfactory with about £1,600 on deposit. Subscriptions had shown an increase on the previous year. The deficit on the last "Transactions" had been reduced during the year by sales from £390 to £100, which was regarded as being more than satisfactory. A joint venture with "SEA BREEZES", preparing Indexes of shipping companies was also prvoing successful and had brought in £180,50 to date.
   It was proposed by K. Stuttard and seconded by P.J. Tebay, that the Report be accepted. This was carried.

6. The Election of Officers and Council:

Mr. McClelland was voted in as Vice-chairman.
Mr. A.S. Davidson (retiring Chairman) was voted in as Council member.
The existing Council members and the Officers were unanimously returned en bloc.

7. A.O.B.:

i) A vote of thanks was proposed to the retiring Chairman for all his work over the three years. Membership had increased and much business had been carried out quietly and effectively under his chairmanship, especially through his relations with the Maritime Museum.
The vote was supported unanimously.

ii) It was suggested that as a Mr. L. Clarke, who lives on Magdelan Island at the entrance to the St. Lawrence River and who had been researching wrecks there, would be visiting Liverpool and would be prepared to give a talk, should be invited to address the Society on Wednesday 4th July next in the Education Room of the Maritime Museum at 1215.

The AGM closed at 1945 hrs

P.J. Tobey
Hon. Secretary

April Meeting

"Early Steamships on the Mersey" by A.J. Scarth

This meeting was held jointly with the Friends of the Maritime Museum.

The speaker drew on a number of sources mostly from early papers produced by founder members of the LNRS before the War. He collated all the available information, presenting it in a new form: at the same time producing material not then available to those early researchers. In fact the story of those early developments was even more interesting than previously. The extract from the journal of the owner/master of the first steamer to enter the Mersey provided a fascinating picture, albeit evidence, of the actual arrival at Liverpool and gave those present a true perspective on what seems to have been a casual event.

The talk has been produced as a paper and will be included in a new set of "Transactions & Research" to be published later this year.

Local News

The exploration rig "Globemar Main Pass I" has been working about 4 miles NW of the Bar since early May. Said to be directed to the gas fields known to be in the area, it has been reported that the field could be the largest in the UK yet. Underground sources are yielding gas. People in the Formby-Crosby area are said to have been ringing the Coast Guard and reporting seeing flares from the direction of the rig.

The Mersey Ferries are to be 'privatised'. The editor has no comment on the matter just now, but he would draw your attention to a complaint against the ferry owners when they were privately operated. *"They say that Rich'd Praty Fermon of Lerpool takes a passage toll which is unjust and beyond due measure for where by law he ought take a farthing, he requires a penny for the crossing to the County of Cheshire"* (1375AD)

LIVERPOOL NAUTICAL RESEARCH SOCIETY
ACCOUNTS FOR THE YEAR ENDED 31st MARCH 1990

INCOME & EXPENDITURE ACCOUNT

1988/9	EXPENDITURE	1989/90	1987/9	INCOME	1989/90
84.30	"THE BULLETIN"	53.25	369.03	SUBSCRIPTIONS	423.93
----	SUNDRY PRINTING	28.75	26.00	XMAS SOCIAL	30.95
66.83	POSTAGES	88.52	24.30	COFFEE/REFRESHT's	22.77
10.00	XMAS SOCIAL	22.64	863.34	SALE OF 50th Ann	
1500.00	TRANSACTIONS 1988	32.08		TRANSACTIONS	273.48
-----	SPEAKERS' EXPENSES	---	323.50	ADV. REVENUE	------
22.04	MISCELLANEOUS	35.99	-----	MISCELLANEOUS*	108.50
-----	BALANCE	593.70	157.40	BALANCE	-----
1763.57		859.63	1763.57		859.63

* Joint venture with "Sea Breezes"

BALANCE SHEET

1988/9		1989/90	1988/9		1989/90
193.49	CURRENT A/C BALANCE 31/3/90	187.49	450.89	CURRENT A/C BALANCE 30/4/89	193.49
933.92	DEPOSIT A/C BALANCE 31/3/90	1570.42	819.92	DEPOSIT A/C BALANCE 30/4/89	933.92
			14.00	DEPOSIT A/C INTEREST	36.50
			-----	BALANCE INCOME/EXPEND	593.70
157.40	BALANCE Exp/Inc	------			
1284.81		1757.61	1284.81		1757.61

Hon Treasurer

31st March 1990

Extracts from THE SHIPPING WORLD August 1890

Selected by A.J. Blackler

MERSEY & DISTRICT

THE JUBILEE OF THE CUNARD COMPANY. — The Cunard Company held their jubilee festivities on the 4th July, the very day in the year 1840 when the pioneer steamer *Britannia* started from Liverpool for Boston on her first run. She arrived at her destination on the 19th, having made the passage in fourteen days and eight hours. Mr. Cunard went with her as a passenger, and upon his arrival received a perfect ovation from the inhabitants. By the contract between the Admiralty and the Company, the latter undertook to provide four steamers built to act as transports in the time of war, and to despatch one of them on the 4th and 19th of every month from March to October and on the 4th only in each of the remaining winter months. This arrangement lasted for seven years, and the remuneration for carrying the mails was fixed at £80,000 per annum. The contract was signed by Samual Cunard, George Burns and David MacIver, on behalf of the British and North American Royal Mail Steam Packet Company, but as this magnificent title proved too inconvenient for daily use, the simpler phrase "Cunard Line" was substituted for it. The above vessels were the *Britannia, Arcadia, Caledonia,* and *Columbia,* all of which were built of timber at Port Glasgow, and fitted with handsome side lever paddle engines by Napier of Glasgow. As time rolled on the sailings gradually increased in number, and this necessitated the construction of larger vessels by the same firms, until in 1856 the first of the iron paddle steamers *Persia,* and in 1862 the *Scotia,* were built. The next movement on the Atlantic station as the introduction in the latter year of the iron screw steamer *China,* and subsequently vessels of gradually increasing dimensions, until at last the s.s. *Umbria* and *Etruria* were reached. The most extraordinary feature of this company is the almost entire immunity from loss they have enjoyed since 1840 up to the present time. In 1843 the *Columbia* was run ashore and wrecked through the mistake of the pilot. In 1872 the *Tripoli* ran ashore near the Tuskar, and in 1886 the ocean racer *Oregon* was run into by some unknown vessel and sunk within fifty miles of her destination. The absolutely unique part of the story of the Cunard Company is that during all these fifty years, although they have lost three Atlantic ships, they have never lost a life or a letter. The Jubilee festivities consisted of banquet on board the s.s. *Etruria* to a large and distinguished assemblage consisting of the directors and their friends, and a very numerous list of well-known shipowners, and others connected with the executive of the firm and the general working of the port. A somewhat similar entertainment was given on board the s.s. *Scythia.*

THE ANDERSON PRIZE 1991

THE SOCIETY FOR NAUTICAL RESEARCH

Patron: H.R.H. The Duke of Edinburgh K.G. K.T.

Readers and members will know that the Society for Nautical Research was founded in 1910 to encourage research into matters relating to seafaring and shipbuilding in all ages and among all nations, into the language and customs of the sea, and into other subjects of nautical interest.

To mark the Society's 75th Anniversary in 1985, the Anderson Prize was established and named in honour of the late distinguished historian and founder member of the Society, Dr Roger Charles Anderson. The Prize will be awarded next in 1992 for the best essay comprising original research on any aspect of maritime history (naval, technical, commercial, economic and social) submitted to the Honorary Secretary of the Society by 31 December 1991. The winner will receive £500 and a medal.

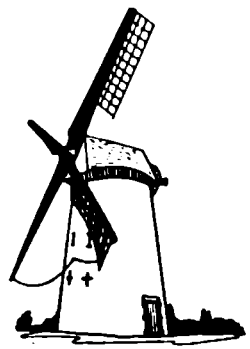
Rules

1. Typewritten contributions, in English, double spaced and not exceeding 10,000 words, shall be submitted to the Hon. Secretary of the Society at the address shown below to arrive **not later than 31 December 1991.** Full references and a bibliography must be included.
2. Contributions must not be extracts from work submitted for any other purpose.
3. Contributions must not have been published or accepted for publication elsewhere.
4. Winning contributions, and the runners-up, will be submitted to the Hon. Editor of **The Mariner's Mirror** for possible future publication in whole or in part in the Society's Journal. Publication will be entirely at the Hon. Editor's discretion.
5. The Judges will take into account historical content, style of presentation, and the ability of the author to hold the attention of a reader unfamiliar with the subject in question.
6. If at any competition no award is made, the Society may, on the recommendation of the Anderson Prize Committee, add the amount of the award to the capital value of the Fund or apply it to one of the following purposes: increasing the value of a future prize or awarding a second prize to a deserving candidate.
7. The Judges' decision shall be final. The winner will be notified by 30 June 1992 and an announcement will be published in **The Mariner's Mirror.**
8. Contributors who wish their manuscripts to be returned must enclose sufficient return postage (or international postal reply coupons) with their entries.

The Honorary Secretary, The Society for Nautical Research,
c/o National Maritime Museum, Greenwich, London SE10 9NF

A Brief History of Bidston Hill and the Observatory

1609 The first mention of Bidston windmill in manuscripts. This was wooden, and was destroyed in 1791 in a gale. It was replaced with the present mill, which ceased working in 1875.



1763 The first mention of a signal house on Bidston hill - although Bidston had probably been used as a lookout from pre-Roman days. A telegraph service was set up, to give early notice of the arrival of ships in the port. Over 100 signalling poles were eventually erected, extending from some distance north of the lighthouse, to beyond the windmill. Most belonged to the merchants in Liverpool and the raised flags could be seen from the docks, and as far as the big houses in Everton Valley. The advance knowledge of the arrival of their ships enabled the owners to make the necessary arrangements for the swift unloading of their vessels when they docked.

1771 The first Bidston lighthouse, an octagonal one, was built. The government established a chain of stations, furnished with semaphore signals, from Bidston to Holyhead, in order to 'give alarm upon any intelligence of an enemy'. It took only 8 minutes to transmit messages from Holyhead to Liverpool. This service lasted until 1815.

1834 The Royal Navy recommended the establishment of an astronomical observatory in the port of Liverpool. In those days the exact longitude of Liverpool was not known, and all the ships' chronometers rated in the port must have carried an error with them, resulting in the loss of life and property. Mariners also had no knowledge of weather conditions when they left port and consequently sometimes ran into storms.

1845 Liverpool Observatory was built on Waterloo Dock. Its objectives were :-

(1) to determine the exact longitude of Liverpool. This was achieved when the difference in longitude between Greenwich and Valentia, Ireland, was calculated, with two intermediate stations, one of which was Liverpool Observatory.

(2) to give accurate time to the port of Liverpool. This was determined by observing the stars with the transit telescope, and then Greenwich Mean Time would be calculated. A signal ball was then dropped at 1 pm.

(3) to test and rate ships' chronometers against the stars. Accuracy was achieved by setting up chambers with an even temperature in which to carry out the work.

Meteorological observations started in order to provide local forecasts for shipping.

1858 The Bidston telegraph service was superseded by the electric telegraph, and the telegraph and lighthouse service were amalgamated.

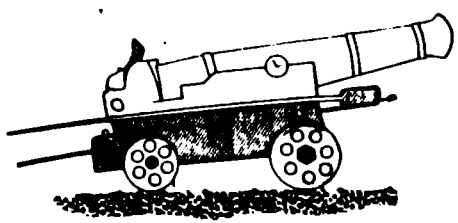
1864 It was decided to move the Observatory to Bidston Hill, 3 miles away, and land was duly purchased from Mr. Vyner.

1866 Bidston Observatory was built, faced with sandstone excavated from the site. There was a telescope in each dome – the equatorial in the west dome, used mainly for the observation of comets, and the transit telescope in the east dome, which was regularly used for the determination of time from the stars. The latter telescope was given to Liverpool Museum in 1962, and the former in 1969.

There was a large instrument room – now the library – containing two warm air chambers. Each of these could hold up to one hundred chronometers. The timing error of the chronometers was noted daily for several months, over differing temperatures. If the daily error was within a second or two over these temperatures, the chronometer was considered safe to take to sea, and a test certificate was issued. Sextants, barometers and thermometers were tested in the basement.

One o'clock was still indicated to the citizens of the port, but now by the One O'clock Gun. This was situated on the Birkenhead side of the river, and connected by land-line to the Observatory. It was fired from here, by the staff, by a series of electrical switches. The original gun was a relic of the Crimean, and earlier wars. The service was suspended during the Second World War, and was resumed in 1946, using a naval Hotchkiss gun. The old gun was put on display in the Observatory grounds, but in 1962 was given to the Liverpool Museum. It is now at the Maritime Museum.

The original One O'Clock Gun



1867 Meteorological observations began and became increasingly important for weather forecasts, as astronomical work decreased.

1872 The original lighthouse was replaced by the existing tower.

1897 Several seismographs were set up in the deep cellars for experiments in the new science of Seismology.

1913 The lighthouse ceased operations, having acted as a guide to mariners for 142 years.

1924 Tidal predictions were first made at Bidston Observatory.

1929 The Liverpool Observatory of the Mersey Docks and Harbour Board and the Tidal Institute of the University of Liverpool amalgamated becoming the Liverpool Observatory and Tidal Institute. Two tide predicting machines were now in use, and the tidal work and predictions soon received worldwide acclaim. Bidston weather forecasting ceased, although observations continue to be made to the present day.

1939 – 1945 Much valuable work was done during the Second World War. The staff worked seven days a week, from early morning to late at night, analysing and predicting tides for the war effort. One of the most important tasks was the urgent prediction of tides around the coast of Burma. Another was the prediction of tides around the Dutch and French coasts, and especially for the Normandy landings.

During these years one of the tide predicting machines was placed in an underground room in the Observatory grounds, in case of a bomb attack. Although the Observatory did not have a direct hit, there was considerable superficial damage and many broken windows. Photographic facilities were obtained, so that further copies of the predictions could be quickly provided, in the event of loss at sea.

1961 The Liverpool Observatory and Tidal Institute was renamed the University of Liverpool Tidal Institute and Observatory.

1969 The University of Liverpool Tidal Institute and Observatory became a component body of the Natural Environment Research Council , and became the Institute of Coastal Oceanography and Tides. An expanded tidal research programme was embarked upon, with a corresponding increase in staff. Many alterations were made to the Observatory to accomodate them, and the One O'Clock Gun was fired for the last time on July 18th.

1970 The Institute's first "In – house" computer was installed, an IBM 1130.

1973 The Institute of Oceanographic Sciences was formed by amalgamating three previously separate NERC Institutes, the Institute of Coastal Oceanography and Tides, the National Institute of Oceanography and the Unit of Sedimentation.

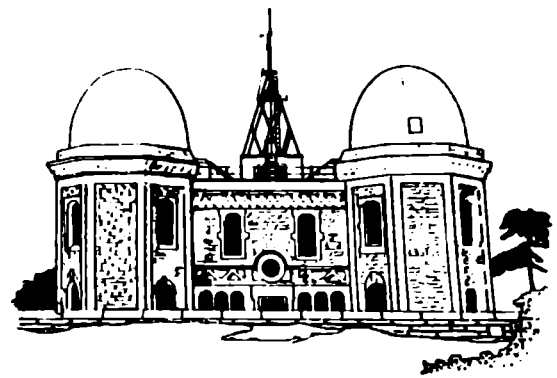
1975 The new building in the Observatory grounds was completed, to accomodate the increase in staff, and to house the latest computer.

1987 The Institute became autonomous within NERC's Marine Science Directorate and was renamed the Proudman Oceanographic Laboratory.

1989 Work was organised into four projects: Community Research Project on the North Sea; Laboratory Research Projects on Sea Level, Ocean Topography and Tides; Dynamics of Shelf and Slope Seas; Technology Development and Support.

Proudman Oceanographic Laboratory,
Bidston Observatory.

BIDSTON - Past and Present



Proudman Oceanographic Laboratory

Natural Environment Research Council

OPEN DAY at Bidston Observatory on 6th June was a well-worth-while event. At least 5 past LNRS Chairmen and a couple of other members attended and seen studying the displays and instruments and covering their lack of scientific knowledge by asking questions of historical significance. From the mere study of tides and longitude the Institute has changed out of recognition.

THE PROUDMAN OCEANOGRAPHIC LABORATORY

BIDSTON OBSERVATORY

Warning System for Coastal Floods

Scientists at one the UK's leading marine research laboratory are developing a computer model of tides, storm surges and waves on the European continental shelf, which will provide more accurate forecasts of sea conditions around the UK coast. Researchers at the Natural Environment Research Council's Proudman Laboratory (POL), Merseyside, are testing the 3-D model using data from extreme events, such as this February's storms, which caused disastrous flooding in Towyn, on the North Wales coast. Sea defences were destroyed after the seaside town was battered by a combination of tides, surges and waves over 16ft high.

Predictions of tides and storm surges are run operationally by the Meteorological Office, using POL models. Independent wave models are also available. POL is now producing the first 'interactive model, which will couple the effects of tides, surges and waves.

Valauble data for the predictive computer model will be obtained by using a new radar technique, developed in Germany, giving marine scientists an unprecendented opportunity to gather a wealth of data, particularly on wave heights and directions. Wave measurements have traditionally been made by deploying buoys at sea - often a costly and time consuming exercise. The new technique allows scientists to make use of standard ship's radar navigation equipment, to measure and record wave heights and directions on a personal computer on board ship. POL scientists are planning to obtain new data from the southern North Sea aboard an NERC ship R.R.S. *"Challenger"*, in January 1991. The 'interactive' modelling project, including the data collection from *"Challenger"*, is funded by the Ministry of Agriculture, Fisheries and Food(MAFF), as part of its coastal protection work.

Other work carried out at Bidston

Oceans yield data for World Climate Project

A new network of island sea-level recorders in the Southern Ocean is yielding important data which will help to improve ocean circulations model needed for climate predictions and determine the impact of climatic change on sea-levels.

The observations are the first in the UK's contribution to the seven-year international World Ocean Circulation Experiment (WOCE). WOCE is a £300m project (excluding satellites and ships), involves over 20 countries, and aims to develop a 'snapshot' of ocean circulation essential for accurate predictive climate models in the 21st century. Ocean currents are driven by pressure differences, which are partly caused by changes in sea-level. Data from the sea-level recorders, installed by POL scientists, will help to improve our knowledge of the Antarctic Circumpolar current, which plays a vital role in the circulation of heat in the World's oceans.

Southern Ocean sea-level data from seabed instruments and satellites (including GEOSAT and ERS 1) will supplement observations from the ground-based recorders on South Atlantic islands, including the Falklands and Ascension Island. The satellite technology can be used at remote locations where it is often difficult to place traditional oceanographic equipment.

Global Sea-level Project

POL is the reporting centre for a worldwide sea-level monitoring project, GLOSS (Global Sea-Level Observing System), which provides valuable information, not only for climatic change research, but also for coastal management and offshore engineering. Run under the auspices of the International Oceanographic Commis-sion, GLOSS is establishing a global network of 330 permanent sea-level stat-ions, including POL's instruments in the South Atlantic. Monthly average sea-levels are reported to POL's Permanent Service for Mean Sea-level(PSMSL), which already holds thousands of sea-level measurements many dating back from the 19th century.

North Sea Community Research Project

POL is the host laboratory for a major five-year project aimed at producing predictive computer-based water quality models of the North Sea. Scientists are analysing a wide range of data from a 15 months cruise programme. They are looking at the effects of seasonal changes, such as winter storms, spring floods and summer sunshine, on the physical, chemical and biological processes active in the sea. The £12m North Sea Project, the most comprehensive study of the southern North Sea ever undertaken, involves around 200 scientists and support staff from throughout the UK scientific community, as well as several European scientists. The UK observational programme is complemented by Danish and Norwegian surveys further to the North.

UK Digital Marine Atlas

There is a growing demand for up-to-date and more easily accessible marine information to help nations in the sensible management of the seas' resources. The British Oceanographic Data Centre (BODC) at POL is preparing a state-of-the-art computerised 'atlas' of the seas around the British Isles, which will help a wide range of users from the Government policy makers, to the fishing industry, to formulate sound environmental and economic policies. The atlas will be available on personal computer, providing instant access for users. The three-year project, which started last year, will incorporate a wide range of thematic maps, including wave heights, tides, locations of fisheries, and concentrations of different chemicals around the British coast. The digital atlas, which scientists believe will also be a valuable educational tool for schools, has already received funds from NERC, the Ministry of Agriculture, Fisheries and Food, the Dept of Agriculture and Fisheries for Scotland, and the Nature Conservancy Council.

BODC has also taken international responsibility for developing a digital atlas of the bathymetry of the World's oceans. This work will be carried out on behalf of the Intergovernmental Oceanographic Commission and the International Hydrographic Organisation, and will be a joint venture with NERC's Institute of Oceanographic Sciences Deacon Laboratory and the NERC Unit for Thematic Information Systems.

Ocean Technology

POL is renowned for its ability to produce first-class and innovative marine instruments and develop new techniques. Scientists are continually seeking more accurate ways of measuring long-term changes in sea-level, particularly as concern grows about the effects of global warming. One of the problems with traditional bottom pressure recorders (BPRs), which can be deployed on the seabed for up to a year, is that the real sea-level change is masked by instrumental drift, usually within the first six months of deployments. A team at the Merseyside Laboratory is developing a unique BPR which will be able to stay on the seabed for up to five years, producing more stable readings and enabling long-term change in sea-level to be measured. Individual 'capsules' each containing a year's data will be programmed to 'pop-up' to the sea surface in subsequent years. The capsules will also be capable of storing five years of data.

POL scientists are also using sound waves to investigate the physical processes involved in sediment transport in coastal waters. The new technique will give valuable information on problems such as coastal erosion and movement of pollutants attached to sediments.

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Research Notes

After an enquiry from a non-member about the Liverpool Tanker firm H.E. Moss & Co., it was realised that there was no fleet list extant for the company. John Tebay has produced a provisional fleet list which will be printed in the Autumn BULLETIN.

Similarly, after an enquiry by a member of the House of Lords, our hon. Secretary has compiled a provisional fleet-list of the Dublin collier firm Tedcastle & McCormick & Co, which was finally taken over by B & I Shipping Ltd just after the 1st World War.

NOTICE

The Friends of the Mersey Ferries have organised yet another River and Dock trip this time on 8th September. The last two have been heavily overbooked. Those interested should ring 355 2685 or 639 1435 as soon as possible.

The trip will, as is customary, include the Eastham Channel and the Royal Seaforth Dock.

PROGRAMME 1990/91

All meetings, except January, will be held in the Museum, William Brown Street 7.00 pm

20th September	Salvage	R. G. Loram
18th October	East India Company	L.J. Lloyd
15th November	Bryan Blundell	H.M.Hignett
20th December	Xmas Social	M.K. Stammers
17th January	Interesting Houses in Wallasey: (with maritime connections.) *to be held at the Maritime Museum 12 noon for 12.30.*	J. Stewart Rebecca
12th February	P.S.N.C. *Joint meeting with World Ship Society and Nautical Institute to be held at the Museum, William Brown St.*	J.E. Lingwood
21st March	*Edward Bates, shipowner .*	*A.H. Rowson*
18th April	*A.G.M. followed by Amsterdam on video*	*(J.E. Lingwood)*
16th May	*Recent changes in Ship Technology*	*L.A. Holder*

SIMULATED EMERGENCY ON PASSENGER SHIP IN LIVERPOOL BAY

Exercise 29th June 1990

The Isle of Man passenger ferry "Mona's Queen" was arranged to be "in distress" about 6 miles north of Hoylake. New Brighton and Hoylake lifeboats took part in an execise with two helicopters from Valley Airport, Anglesey, to 'rescue" people from the 'stricken vessel'. The helicopters seemed to be deployed from Liverpool, the Wirral and Formby. A West Kirby site was chosen as a temporary emergency hospital.

The object was to test communications, co-ordination and co-operation of the local authorities i.e. the Coast Guard, R.N.L.I., Police and Ambulance Services and hospitals. The execise lasted for about three hours from 1000hrs.

All this about four miles from the drilling rig working about two miles NW of the Bar. (see also local reports p 7)

LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

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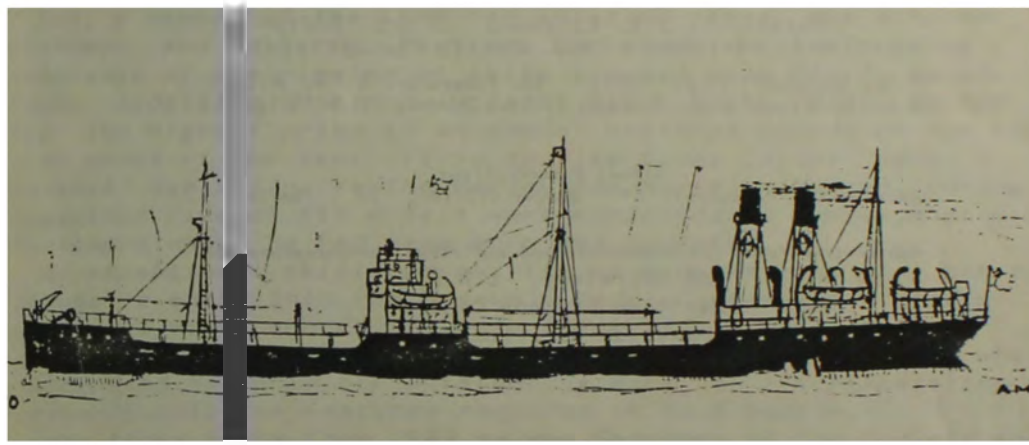
BULLETIN



Lucigen III Liverpool's two funnel tanker

CONTENTS

Liverpool Nautical Research Society

IMPORTANT NOTICE

The membership cards have an error in the venue for the February meeting. The meeting will be at William Brown Street and not the Maritime Museum.

Society Notes

The Index of "Steamers of the Past" the articles by the late John Isherwood printed in SEA BREEZES over three or so decades, has recently been sold out.

The income from the sales of that "Index" and the "Index of Fleet Histories" published earlier this year is over £200. This will assist us in financing yet another issue of "A Merseyside Maritime History : Transactions & Research" which should be available early next year.

The Xmas Social will be held on 20th December at William Brown Street. We welcome you to this popular event and ask you to let the Sec. know if you can attend, in order to plan the festive board.

David Ryan, until recently asst Archivist at the Maritime Museum and ex-officio member of the LNRS, has now resigned to become Archivist for Pfizer Ltd in Deal, Kent. He has taken up country membership of the LNRS and we wish him well in his new post.

Last year we had member Ralph Varns from Boronia near Melbourne, visiting us. This year member T.W. (Tom) Grogan, from East Keilor also near Melbourne, delighted us by attending the September meeting. Unfortunately they were on relatively short visits. We would have liked to have seen more of them.

Ken Stuttard

It was with more than great regret that the Officers and Council of this Society learned, earlier this year, that our friend, colleague and companion Ken Studdart was afflicted with an incurable illness and that he had not long to live. He died peacefully on Friday 5th October 1990.

Ken, a member of the LNRS for about 30 years, was a former Chairman, and latterly, Meetings Secretary. His astounding knowledge of the rigging of ships stemmed from his foremost hobby, modelling. His model of the royal yacht "Mary" gained him the highest prize in an annual national competion for the best model of the year. It is on view today in the "Safe Passage" Exhibition in the Merseyside Maritime Museum. During September five of his models were exhibited in a museum at Southport where he had been born and educated.

An exceptional skill and ability in model-making gave him an automatic entry into the Museum's Model-Conservation Studio where his views and advice were frequently sought. He made several models at the request of the Keeper of the Museum who recognised not only his outstanding work but his painstaking research into the features required in such models.

For three years from 1972 he was Chairman of the Society and his unfailing geniality and unassuming manner was on view to all. In recent years he contributed a couple of articles to the BULLETIN (one on the loss of the OCEAN MONARCH and another on the Seacombe Shipyards). In 1985 with breathtakingly new ideas, he undertook the task of organising the meetings and arranging speakers.

Ken was a keen member of the local branch of the World Ship Society, and a member of the Model Shipwrights' Society. He plannned, on retirement, to make a model of H.M.S. LIVERPOOL. His research was under way, but, alas, he was not able even to begin this work.

He will undoubtedly be remembered by his many friends for his radiant smile, warm personality and continual wish to assist all those in contact with him.

Our thoughts must go out to his Wife, Margaret, children and grandchildren on this sad occasion.

Signalling to & from Ships Bound for Liverpool

by Charles Dawson

THIS SUBJECT has been well dealt with in its connection with marine painting and the indentification of vessels from their signal flags.[1]

Some further relevant details I have come across may be of interest.

The date of the inauguration by Liverpool Town Commisssion of the Bidston Signal Station is given as 1763. With more than 75 tall masts with shipowners' flags, it could be seen from the Merchants Coffee House in Dale Street[2] and from other points of vantage in the town. The masts were later superseded by a semaphore and in 1827 this was connected by a line of such telegraphs with the lookout station at Holyhead.[3]

The signalling system is also described in another source ("about ninety signal poles" are mentioned here) and the station at Liverpool which received the information from Bidston is illustrated (opposite) in an interesting engraving - by R. Wallis after a painting by the Liverpool artist Samuel Austin - of Seacombe Slip, the Liverpool terminal for the Seacombe Ferry. The larger vessel is stated to be laden with produce from the Isle of Man.[4]

To the left in the background, a lofty warehouse supports the apparatus of the telegraph, "recently established under the superintendance of Lieutenant Watson". It is claimed that "so rapid is the interchange of signals between the signal stations from Holyhead along the Welsh coast that a message has been conveyed to Liverpool in fifty-three seconds".[4]

The Town Hall is visible to the right of the picture and St. Nicholas' Church takes pride of place in the centre. In 1759, when the French privateer Captain Thurot threatened Liverpool, a battery mounted with 14 guns was placed in the cemetery of the Church for the protection of the town.[4]

At one stage, St. Nicholas' church apparently helped as a sort of signal station by spreading news to wives etc of homeward-bound sailors: "thirty or forty years ago these bells were rung upon the arrival of every Liverpool ship from a foreign voyage".[5]

However this practice may have been discontinued, at least for a time, after a sad accident. (The "thirty of forty years" mentioned above?); the bells introduced in 1755 endangered the stability of the tower until on one fateful Sunday, 11th February 1810, the tower gave way, killing about 30 people.[4]

(1) "Marine Art & Liverpool" by A.S. Davidson, Wolverhampton 1986
(20 "The Early Coffee Houses of Liverpool" Paper by A.H. Arkle, read 21st Nov. 1912, before the Historical Society of Lancs & Cheshire.
(3) "Old Wires and New Waves" by Alvin F. Harlow, NY & London, 1936
(4) *LANCASHIRE ILLUSTRATED*, London 1832
(5) "Redburn", by Herman Melville, 1849

Local Notes

The exploration rig "Globemar Main Pass I" disappeared for a time in August and re-appeared at the end of September, this time about three miles west of Formby Point.

Mersey Ferries. Complaints about the early ferries circa 1375AD are still valid. I understand that the trip across the Mersey between 10am and 4pm costs as much as £2 and takes as long as the sailing/pulling boats of 600 years ago !!

Liverpool Docks: Another 180 or so registered dock workers have been asked to leave the panel of dockers. Apparently the amount of general cargo passing through the po rt recently, does not warrant retaining so many dockers on the books of the Mersey Docks Company

Irish Sea ferry services have finally (?) closed down. The *St. Columba I* was uneconomic to retain as there are insufficient places for ro-ro traffic on board. Apparently attempts to find another vessel have been unsuccessful as all such vessels have been 'booked' to assist in the Persian Gulf situation. Suggestions are that the service could be maintained with a foreign flag vessel with foreign crews. This time even the Belfast City Council were involved in the disc ussions.

The former Isle of Man Steam Packet Co's vessel *Manxman* presently on permanent berth in the now disused Preston Docks, is to be brought round to Liverpool to become a leisure/entertainments centre in one of the north Liverpool Docks; said to be Waterloo Dock.

H.E. MOSS & Co

A brief History by P.J. Tebay

EARLY in 1990 a relative of the founder of H.E. Moss & Co., shipowners of Liverpool, wrote to the Society from Surrey to ask what details we had concerning the history of the Company. Despite a diligent search through the usual Sources, little could be found other than the names of ships owned or managed by H.E. Moss & Co from 1885 until their absorbtion by Cunard-Brocklebank between 1968 and 1970. However, in Chandler's "Liverpool Shipping - A Short History" there is reference to H.E. Moss & Co starting as shipbrokers in 1854.

The initial Company address is given as 83, Gracechurch Street, London, to be followed shortly after by their Liverpool office at 2, Rumford Place, and in 1906, in office in Newcastle.

Before and during the 1st World War, the H.E. Moss & Co managed a number of vessels under ownership of their subsidiary Sefton S.S. Co. Ltd.

Known in later years as tanker operators, their first vessel built to carry 'petroleum in bulk' was the *"Lumen"*, which vessel started the practise of naming vessels under direct H.E. Moss ownership to start with the letters *"Lu . . . ."*

Over the years, the Company also managed many general cargo ships, with a peak of 19 ships between 1915 & 1920. At the outbreak of the 2nd World War they had 9 ships and by 1955 this number was reduced to 5 ships - all tankers.

In 1965 the Company was acquired by Cunard S.S. Co and operated under the name Moss Tankers Ltd.

FLEET LIST

Name Off. No	NRT GRT	Built	year	In H.E. Moss service	Notes
Wolf 87983	401 ---	Flushing	1884	1885-88	
Lumen 96305	1554 2402	Newcastle	1889	1889-1925	first co vsl to carry bulk petroleum
Orator 78743	850 ---	Newcastle	1877	1890-91	purchased from T.&J. Harrisons Wrecked DEC 1890
Brazilian 62328	886	Newcastle	1869	1891-92	Ex "Brazilian" purch'd from Clapham S.S. Co (G.E. McCarthy)
Lucigen (I) 102107	2183	Newcastle	1893	1894-1901/2	
Lucerne 99437	2072	Newcastle	1892	1894-1918	Owned by subsidiary 1918-25 Sold 1930 to Italian breakers
Annie Maud 99425	2036	"	"	1896-97	Managed only for 12 months for owners S. Snape & Co.
Connaught 28722	1691 573	Lairds B'hd	1860	1898	Iron paddle steamer purchased City of Dublin SP Co 1897 sold to French shipbreakers 1898

River Mersey 96026	1125	Pt Glasgow	1888	1899	Purchased from J. Little & Co of Glasgow. Sold to German owners 1899 No longer registered 1918
Lucigen (II) 115304	2929	Newcastle	1902	1902-07	Towed "Bremen" (NDL) into Halifax NS in 1907
Durndale 1128134	2068	"	1904	1906-07	
Sefton 124048	2075	"	1900	1907-08	ex *Mount Cenis*
Aral 99312	2830	"	1891	1909-29	Government oiler 1917/18 Broken up Inverkeithing
Astrakhan 99436	3438	"	1892	1909-28	
Lucigen (III) 127965	4954	"	1909	1909-40	1940 requisitioned by Govt. 1941-46 moored to buoys as refuelling tanker at Lagos. 1946 scuttled off Lagos.
Tampican 93837	4833	Belfast	1889	1912	In clsn Halifax NS Consequent destructive explosion 1917
Headlands 98525	2988	West Hartlepool	1892	1913-15	Torpedoed & sunk 12/3/15 off Bishops Rock
Turnbridge *(I)* *98447*	2874	"	1894	1914-17	Bt as *Bala* later *Ethel Radcliffe* under same owners E.Thomas Radcliffe, Cardiff
Turnbridge (II)					*7/18 Torp & sunk [illegible]* Torpedoed & sunk 24/12/17 Med
Reapwell 112668	3417	"	1900	1914-16	Torp. & sunk 27/11/16 Med.
Turnwell 113970	4264	Newcastle	1901	1914-15	Torp & sunk 16/6/15 St. Georges Channel
Lucellum (I) 135487	5184	Sunderland	1913	1914-36	Survived torp 12/16 laid up 8/30 Sold Rott'dam for break'g up 11/36
River Clyde 121217	3913	Glasgow	1905	1913-17	Managed by HEM. Used in Gallipoli Landing. See note a below
Lumina (I) 37535	5856	Newcastle	1917	1917-35	Mined North Sea 4/17 Laid up Tyne 5.31 Br/up Blyth '35
Mantilla 139192	5660	"	1916	1917-20	
Edith Cavell 106429	3475	Sundl'd	1898	1918-24	Bt for Jennison, Taylor & Co S'l'd. as *Wagner*. Purchased by Sefton S.S. Co 1917
Freshwater 139079	4238	Newcastle	1903	1918-25	
Mount Etna 131284	4277	"	1910	1918-33	" " "
Mount Snowden 99040	2891	"	1892	1918-22	" " "
			92	*15*	*sunk by submarine 8/16*
Rossia *Coniston* 113440	4876	Dumbarton	1900	1918-22	" " "
Southport 109800	3588	Stockton on Tees	1900	1918-23	Bt for W.J. Tatum Cardiff purch. HEM 1918. Sold to Greeks 3/23 Broken up 1932
Madrona 40293	5854	Newcastle	1917	1918-20	

Meline 142326	6983	Sunderland	1918	1918	Torp. & sunk 23/3/18 Northumb'l'd coast
Mendocino 140380	6973	"	1917	1918-20	
Mirita 139137	5830	"	1916	1918-20	
Mirlo 140399	6978	Sunderland	1917	1918-20	
Montana 142282	6970	"	1918	1918-20	
Mount Berwyn 142395	5241	Newcastle	1918	1920-25	Managed by HE Moss
Mount Everest 142618	5183	Glasgow	1918	1920-23	" " "
Vitruvia (I) 133138	4753	"	1913	1923-56	Bt for by Gow, Harrison & Co
Lumen (I) 147327	6500	Clyde	1925	1925-42	1942 taken over by MoT Re-named *Empire Light*
Luminous (I) ex *Vitruvia* (see above)				1925-38	Sold 6/38 to Pallas Oil & Trading Co London as *Stratford*
Vitruvia (II) 148906	4870	Glasgow	1926	1926-27	
Lunula 149640	6363	Glasgow	1927	1927-41	1941 bombed on berth Thames (Shellhaven) 9/4 no survivors
Luminetta 149637	6159	Newcastle	1927	1927-52	Sold '52 to Greek owners re-named Lumina. 1957 sold for br/up Hamburg
Lustrous (I) 149646	6156	"	1927	1927-40	22/2/41 Sunk by Scharnhorst 37 crew P.o.W's.
Lucullus 161132	6546	"	1929	1929-52	Sold 2/52 to Stevenson Hardy re-named *Brezina* 1956 sold to Greek owners. Br/up Spezia 1959
Luxor (I) 61141	6554	"	1930	1930-51	Sold 2/51 to Italy re-named *Carolina Fassio. Br/up 1965*
Lucerna (II) 162323	*6556*	"	*1930*	*1930-50*	
Lucellum (II) 166255	*9425*	*Odense*	*1938*	*1939-55*	*Bombed off Bardsey Is 1942, set on fire: vsl towed to Lpl for repair*
Empire Light 147237	*ex "Lumen" (I)*			1942-44	Managed for Min/Transport by H.E Moss. Sunk in N Atlantic March 1943. 5 survivors.
Empire Reynolds 165838	8128	Newcastle	1942	1942-46	Managed for Min/Transport Motor vessel
Luminous (II)	Ex *"Empire Reynolds"*			1946-55	1/1956 sold to Cia Sicilia di Armamento, Palermo renamed *Poture*
Lumen (II) 183783	10146	Middlesboro	1950	1950-63	Largest vsl owned by HEM
Lucerna (III) 185440	11292	"	1952	1952-65	
Lustrous (II) 185478	11301	"	1953	1953-64	1964 sold to Esso's eastern Co's as *Esso MacQuarie. 1974 renamed Esso Sirius.* 1976 broken up in Korea

Lucellum (II) 187187	12202	B'head	1958	1958-66	1969 Owners Brocklebank managed by H.E. Moss
Luxor (II) 301336	12700	Sund'l'd	1960	1960-75	Built as *Henkfjell*. Launched for HEM. 1967 owners Cunard-Brocklebank: managers H.E.Moss 3/75 sold Singapore re-n *Churry Prince*
Lucigen (IV) 303864	12800	Middlesboro	1962	1963-69	1970 Owners Cunard S.S. Co Ltd see note b.
Lumen (III)			1971		1976 sold to Saudi Arabia

a) This vessel still afloat in Malta immediately post 2WW, was the subject of a vain attempt, by a number of influential people, to purchase and restore her broken up 1950
b) In 1970-71 *"Lustrous"* (III), *"Luminous"* and *"Lucigen"* (IV) owned by Cunard-Brocklebank Ltd

RESEARCH NOTES:

Hon. Sec. John Tebay has compiled a fleet list/history of H.E. Moss & Co. which, with additions and amendments by the editor, is printed in this issue of BULLETIN

John has now undertaken to list every Mersey pilot licenced from the time of the formation of the service in 1766 to the present day. To date he has listed all pilots licenced between 1784 and 1869. A copy has been placed in the Maritime Records Centre.

Merseyside Records Users' Group: A couple of members attended the inaugural meeting of this Group in the University's Dept of History on Tuesday 16th October, which, it is hoped, will make known the requirements of researchers in the area. A second meeting is to be held on 27th November to formulate a constitution. Alan Rowson, LNRS Archvist will attend.

Business Archives Council NW Branch: Maritime Records Seminar.
Members were invited at short notice to attend the Seminar at the Maritime Museum on Thursday 11th October. Talks by Guy Robbins, Curator of Plans & Technical Records at the National Maritime Museum, on "The Problems of Technical Plans" and Gordon Read on our own Maritime Records Centre should have ben accompanied by a talk by Bryn Parry Co Archivist, Gwynedd on Maritime Records. Alas Mr Parry was unable to attend due to illness. The information issued by Guy Robbins in the course of his talk was of immense value. He explained that he had over one million ship-plans and accompanying papers; about 50/50 Admiralty /Merchant ships. Due to most of merchant shipping material being somewhat hurriedly handed in when shipping companies in the 70's and 80's appeared to be "like insubstantial pageants, disappearing into thin air". It is a huge task listing the manifold items. Indeed there seem to be difficulties in actually devising a way to catalogue the plans and papers.

September Meeting *A Talk by R.G. Loram (member)*

Salvage

The speaker stressed that the talk was a review and not a detailed technical explanation of the subject, and, used slides to describe examples over the ages giving some idea of the methods used for recovering cargoes and material from sunken vessels. He also introduced the subject of diving in shallow and deep waters.

The origins of the word 'salvage' is derived from the French *'salvor'* - to save. Salvage can be divided into three forms: the salvage of vessels, the recovery of cargo from wrecked and sunken vessels and the recovery of the whole vessels themselves. The speaker limited himself to the two latter forms.

Salvage of cargo and the salvage of ships are fairly intertwined employing some common techniques. Wooden shipwrecked vessels broke up somewhat quickly and measures to to recover them had to be taken promptly before they disintegrated. In the cases of the *Mary Rose, Vasa* and *Royal George* they sank in one piece in sheltered waters, but this was rare. Attempts to raise these vessels were by the use of "camels" ie using two empty vessels on each side the sunken vessel. The "camels" were ballasted until they could barely float, then tied to the wreck. They were lightened and using the rise of tide raised the sunken vessel a little so it could be moved into shallower water, and worked on there for final salvage. In the quoted cases the vessels were in waters too deep for the euipment available at the time and although the attempts on the *Mary Rose and Royal George* seemed to be near to success they failed but, tantalisingly, we do not know why.

Due to the relative frailty of wooden ships it is only when ships were made of iron and steel that salvage came to be a fairly successful practice. This came to fruition in and after the 1880's when large and powerful steam pumps were available. Also around that time diving techniques with closed diving dress and suits equipped with airpumps allowed men to spend more time under water and undertake patching the hull and deck plating.

Diving bells had been used for centuries but, with the the odd exception, were mostly unsuccessful - the neccesary equipment was not available. An early use was on the Tobermory Armada galleon a century or so after she sank, treasure was sought but they only rais a number of cannon. HMS *Thetis* sank near Rio de Janeiro in 1830, carrying coin, gold and specie worth £160,000. A Royal Naval Captain had an idea for salving the cargo and with a diving bell of his own devising he ultimately raised material to the value of over £150,000.

After touching on other salvage work the speaker introduced salvage operations of this century, using two spectacular examples; *Laurentic* lost in 1917 and the *Egypt* sunk in 1922 after a collision about 25 miles southwest of Ushant.

The *Laurentic* was carrying some £5 million of gold when she struck a mine of Malin Head, Co. Donegal and sank in 22 fathoms (40metres) of water. Our speaker explained that the gold was to pay for valuable munitions in the USA & Canada and the Government decided that every importance should be attached to recovering the precious metal. By now salvage equipment had been developed allowing men to work in depths up to 200 ft. The Royal Navy had a compression chamber allowing men to be brought to the surface in a hurry: normally a rush to the surface would subject the diver to appalling pain and distress or even death.

The team were at work within a month, discovering that the ship was lying at and angle of over 45°. Nevertheless two weeks later they had blown a hole in the side of the vessel in way of the strongrroom where the gold lay and brought up 4 boxes worth £8,000. But severe weather in that Winter of 1917 was no help. Before the first gale the baggage room was at a depth of 62ft; after the gale it was found that the hull had collapsed and the divers were beginning to work at a depth of 102ft. It was neccessary for them to use explosives to cut a new path thro' a tangled mass of steel decks and bulkheads. When the divers eventually arrived at the strong-room they found the gold was no longer there. The gold bars had been disturbed by falling debris; they were spread over over a larger area. It took two months to clear much of the debris and by the end of September 542 bars worth £800,000 had been brought to the surface.

Other more urgent work was undertaken during 1918 but not until 1919 were the team able to return to the *Laurentic*. Another Winter went by and after spending a Summer cutting away the parts of the hull blocking their path, they returned after the Winter Gales had subsided to find that parts of the accommodation had collapsed into the hole they had made. In 1920 and 1921 7 bars and 43 bars had been recovered. Then in 1923 they were able to bring 895 bars up and the following year 1255. In 1924 129 bars were recovered leaving 25 unaccounted for (99% of the gold had been saved), an astonishing feat.

Another example was quoted, that of the P & O steamer *Egypt*, sunk in 75 fathoms requiring the divers to wear armoured diving suits or use observation chambers working atmospheric pressure. An Italian firm, Sorina, was awarded the contract. Work began in 1929 after trials of this new equipment in salving cargo from the *Washington* sunk in 52 fathoms near Genoa, Italy. The team found the wreck in August 1930. The operation was similar to that of the *Laurentic*'s team to blast through the hull for find the strongroom. But this time the explosives had to be placed and exploded by remote control by the diver in the observation chamber. The steel thus cut away, the debris and the gold bars all had to be recovered by remotely controlled grab.

The speaker also drew attention to the salvage of a couple of large vessels which were returned to service, the White Star liner *Suevic* (in 1907) and the *Minnehaha* (in 1912) an American vessel grounded on a rock in the Scillies. The *Suevic* ran aground in fog on rocks near the Lizard Light. The fore part of the ship fast on the rocks, suffered severe damage. The passengers were saved and the cargo salved, but the after part of the ship with the engines was undamaged. The salvors made the after part watertight, cut it from the fore part with delicately placed explosives, and towed it away to have a new bow fitted and the vessel returned to service. The *Minnehaha* also ran aground, causing severe damage to the fore part, leaving the after part with engines intact. In this case the salvors sealed the hull forward and pumped compressed air into the forepart at a pressure of 111b psi, sufficient to float her and get her into a dry-dock. Each of these vessels were to have a couple of decades of activity in them.

Other methods of salvaging sunken vessels were 1) to make cofferdams around then repair the vessels in dry conditions, 2) pump compressed air into upturned hulls raising them until the ship's superstructure could be cut away, the ship taken into dry-dock and prepared for refloating in a way that she could be righted whilst afloat. These techniques were illustrated with slides shpowing the salvage of some of the German battleships at Scapa Flow and the Italian battleship *Leonart da Vince* sunk in 1917 by an internal explosion

The aim and theme of the whole talk was to put salvage in a historical perspective. Unfortunately there was little time to make a comprehensive survey of such operations.

Perhaps we may expect an article or two from the speaker to be printed in BULLETIN. ? ?

October Meeting *A talk by L.J. Lloyd (member)*

The East India Company

THE RICHES of the East and the bringing home thereof, brought about the formation of the East India Company (EIC). A concern which was to last some two and a half centuries.

The speaker outlined the history of government (by the Moguls) of the Indian sub-Continent before the EIC arrived on the scene.

The Dutch and British were the first to establish trading posts in the east during the early years of the 17th centuries. By the end of the century there were at least 26 European trading posts in India of which eight were British. These were not established without strife. The British were to be in conflict with the Dutch, Portuguese and French.

The first British trading post, or factories as they were to become known, were at Surat, Bombay and Madras. Then in the 3rd quarter of the 17th century the EIC established its own navy, the Bombay Marine. But the richest province of India was Bengal and it was important that the establish a factory there. The Dutch werre trading to the area by 1650 and with the Portuguese established a pilot service on the Hooghly; a service which was not available to the British, whoere were forced to tranship their cargoes to small vessels for transport up-river. The EIC solved that problem in 1679 by bringing in men from the Cinque Ports with experience in pilotage. With vessels arriving directly from sea, Job Charnock was able to found Calcutta, 22 miles up the Hooghly a town that was to become the largest in India.

East India Company - growth of Trade 1605-1832

Period	Span of years	Total No of ships	Total No of voyages	Total tonnage	Av. Annual sailings	Av ships tonnage	Av. Working tonnage p.a.
I 1605/57	52	128	270	49,850	5	390	2,000
II 1658/1703	45	294	646	91,000	14	310	43,000
III 1704/73	69	389	1261	193,000	18	500	90,000
IV 1778/1832	58	423	1,962	238,000	33	670	22,000

Period I Early successes were followed by several years of decline in trade until it almost ceased by the last few years

Period II A period of growth encouraged by Cromwell's new Charter and other advantageous changes, including trade settlements with the Dutch and the formation of the United Company under Williman III

Period III Trade consolidates. The standard 499 ton ship extensively used to avoid carrying a Chaplain. The early part of the period was the time of 'Marlborough Wars' with France.

Period IV This period marked by considerable changes in patterns of trade. Trade with China is developed. Large ships built, of which eighty were 1100-1300 tons several at Bombay. The Napoleonic Wars and the American War of Independence greatly affected the Company's trade. EIC monopoly withdrawn in 1832.

The EIC prospered, becoming a maritime trading system in itself. The wealth entering Britain induced the Government to allow the Directors almost complete independence in establishing control over the whole of India. There were four periods of development (see table).

However such wealth in the hands of relatively small groups of people attracts criminal elements and according to the speaker many of the so-called respectable citizens of London and even company shareholders were willing to help dispose of goods stolen from the Company.

The EIC established its own shipbuilding yard at Deptford in mid-17th century and appointed William Burrell as naval architect and manager. He was a former Master of Trinity House and a naval shipbuilder in his own right. Following his advice they moved their shipbuilding yard to Blackwall. It was the beginning of the tradition that the EI vessels were Britain's finest merchant ships. In addition the Company built its own vessels in India, mainly at Bombay all of the finest teak, an excellent material for shipbuilding. (Being oily wood it could also be a fire hazard)

The EIC was a monopoly, claiming exclusive rights to trade with all British territories. However the American War of Independence affected the Company's business, and perhaps the EIC, in no small way, instigated that War - note the Boston Tea Party!

By the beginning of the 19th century there were moves to end the monopoly and the company was finally disolved in 1832. The British Government took over the control of the governing of India leading to the love hate affair of the British-India Raj.

There are so many aspects of the history of the EIC: the maritime history throws up the links with the Dutch VOC, the Bombay Marine, the Bengal Marine, the Blackwall vessels, the Liverpool built vessels, all of which one would want to know more. It is to be hoped that the speaker will return and provide a talk on one of the maritime facets.

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One of our most senior members David E. Smith died in June. He was the winner of many photographic prizes and his photgraphic portraits of ships were, and still are, a delight to see.

In the 1920's and 30's David would study the *Journal of Commerce* (remember it?) to find when sailing vessels were expected to enter or leave the Mersey. At the appropriate time he would board one of the ferries and take pictures of the schooners etc bound to or from Garston and Runcorn.

When he died he left about 80 negatives of these pictures to be donated to the LNRS. We took possession of them in September. The quality has astouned the more experienced photographers on the Museum staff as well as those members who have seen them.

We understand that the pictures may well be displayed in the Museum in an exhibition now in the planning stage

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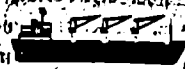

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Peter Middleton (L & R Leisure plc.)

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Professor Ken Martin, Architect

THURSDAY 28 FEBRUARY 1991

A NAUTICAL HISTORY OF MUSIC

William Scanlon Murphy, Writer and Broadcaster

THURSDAY 28 MARCH 1991

MARINE PAINTINGS

Tony Tibbles (Merseyside Maritime Museum)

THURSDAY 25 APRIL 1991

NATURAL HISTORY OF ISLANDS

Cindy Buxton, Freelance Film-maker

THURSDAY 23 MAY 1991

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Richard Holdsworth (Chatham Historic Dockyard Trust)

The Lectures will take place in the Lecture Theatre at the Merseyside Maritime Museum, commencing at 7.15pm

Coffee and biscuits will be available from 6.30pm

All are welcome and admission free

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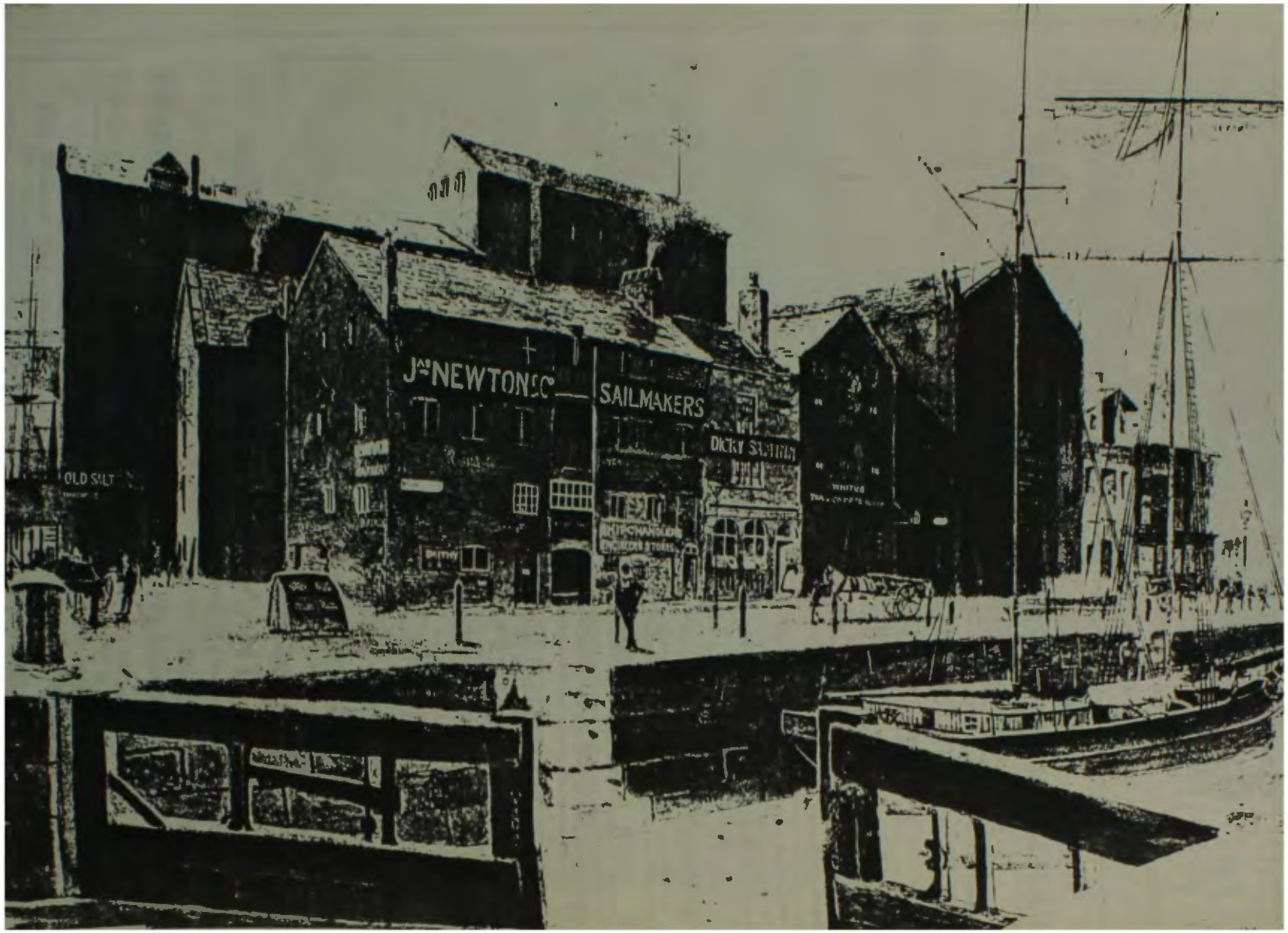
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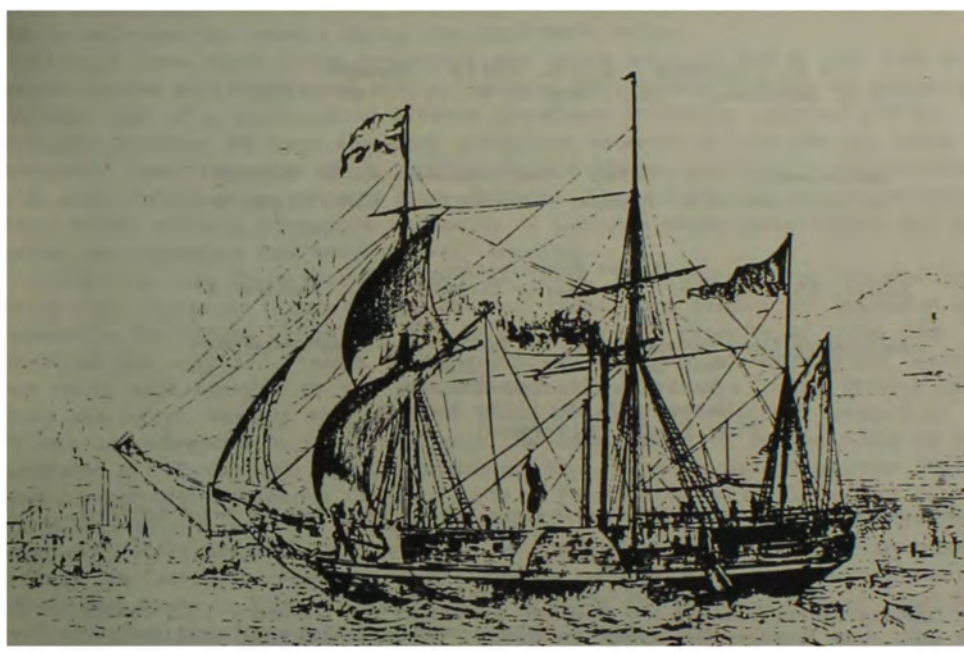
Vol 34 No 3 Winter 1990

BULLETIN



P S ENTERPRIZE, 1825

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Liverpool Nautical Research Society

Society Notes

January Meeting: Unfortunately the speaker arranged for January 17th cannot give his talk. Alan Rowson will speak on Edward Bates, Shipowner originally arranged for March. The speaker for March is yet to be arranged.
February Meeting: Please note that the membership/programme cards are incorrect: the venue for the February meeting is William Brown Street, 7.00 pm.

THE CANON BACK-FIRES

Our former President, Canon "Bob" Evans, retired a few years ago to Penarth, South Wales. He attended the Liverpool Pilots' Association Hotpot recently and admitted the drug of Liverpool: he had become addicted and can no longer live anywhere else. Further, he wishes to take up membership with the LNRS. Bob & Mrs Evans have their house up for sale and hope to be house-hunting on Merseyside late Spring/early Summer.

Xmas meeting

A good attendance this year again took part in a stimulating quiz arranged by our President. The latter was very pleased to accept, on behalf of the Museum, Len Lloyd's sets of plans and line plans of three 'nobbies' built at Arnside between 1905 and 1917. Len spent a considerable amount of time and effort in taking of the lines of these craft and having the set drawn to scale by a Naval Architect. A very pleasant evening.

Aspects of the Indian Troop Service 1866-1896

H.M. Troopships *MALABAR, SERAPIS, EUPHRATES, CROCODILE* and *JUMNA*

N.F. Jones

A Profile of the Service

After the Indian Mutiny of 1857 the military establishment of the Government of British India was stiffened to the extent of some 73,000 European troops. Relieving an establishment of this size meant providing outward passages each year for at least 10,000 persons and homeward passage for about 9,000. This placed a heavy demand upon the existing trooping arrangements which were being carried out by sail-powered vessels using the long Cape route.

Although some steam troop transport was being brought out at this time such as the *Simoom* and *Tamar* and similar vessels, the general history of trooping had been that of a contingency affairs sometimes involving hurried and ill-equipped charters. Perhaps the most notorious example of this was the Black Ball transport *Great Tasmania* which arrived in the Mersey in 1860 having sustained over sixty fatalities in passage from Calcutta. The subsequent enquiry attributed blame to the military transport authority at Calcutta whose embarkation and victualling arrangements had been gravely wanting.

About 1865 the Government of British India was operating six steamships which could serve as troop transports, but these were needed for coastwise deployment in the Indian Ocean and the largest carrying capacity of these (the *Berenice*) was only 375 troops. The concept of a quintet of large troop 'liners' was really made feasible by the development of the railways in the British Isles, India and Egypt, making economies of scale possible. The railway network in Britain had advanced to the extent that the embarkation of troops could be concentrated at Portsmouth and Queenstown. The Great Indian Peninsular Railway under construction towards Calcutta made it feasible to serve the entire subcontinent through the port of Bombay. In Egypt, due largely to the efforts of the engineer Robert Stephenson, the ports of Alexandria and Suez were connected by railway via Cairo. Furthermore, improvements were in hand to provide a more direct rail route to Suez, and although the work on de Lesseps' Suez Canal was well advanced, opinion in Britain was unenthusiastic.

An Admiralty estimate of October 1864 gave a comparison of costs for trooping round the Cape against the route via Suez. Taking into account all operating and capital costs, the overland (Suez) route was costed at £15. 18s. 9d per adult while the Cape route costs amounted to £23. 1s. 9d., a difference of £7. 3s. 0d in favour of the overland route. Another consideration was that troops on ocean passage were still on pay but were unavailable for deployment. With the opportunity to cut time on passage from four months to one, there was a clear indication to go ahead.

About this time, both the Calcutta & Burmah S.N. Co and P. & O. were offering to tender for the trooping service, but their representations were not successful.

Troopships operated by the Admiralty, as opposed to commercial charters, came unde the auspices of the Director of Transport Services, Capt. William R. Mends. An experienced Indian Navy officer, Capt. C.J Cuttenden, was appointed Assistant to the Director at a salary of £ 850 per annum, taking up his duties as of 12th May 1864. His remit was to represent the interests of the Indian Govt. at the Admiralty and to advise on Indian trooping arrangements.

Troopships operated by the Admiralty were gone through and a consultative committee convened consisting of Mends, Mr. J. Watts - erstwhile chief Constructor of the Navy - and Mr. Fairbairn as engineering advisor. Commercial ship-builders were invited to submit designs for comparison against a design by E.J. Reed, Chief Constructor of the Navy. After due examination of the designs produced by the commercial shipbuilding world, the examining committee elected to proceed on the basis of Reed's design.

On 6th October 1864 Capt. Mends, committee member responsible for the on-board internal arrangement specifications, defended the cost of the specification arrived at on the grounds that the ships currently assigned (such as the newly-built *Orontes*, the *Tamar* and the P&O-built *Himalaya*) were wholly unsuited to the Indian troop service.

The final specification was for five vessels with a carrying capacity of about 1,250 military personnel and their families. Ship's officers and crew numbered some 200. The Admiralty design was for an iron-hulled, barque-rigged vessel of the following dimensions and performance:

Length of keel 326ft. 9.25ins Length b.p. 360ft.
Breadth extreme 49ft Depth 22ft. 4ins.
Tonnage B.O.M. 4173.266 displacement 6211
Nominal h.p. 700 Service speed 8 knots minimum
Range: 13 days @ 14kts with full bunker capacity (1250 tons) = 4368 n.m.

Detailed specifications based on Reed's design were got out and put out for tender and by March 1865 the work had been placed as follows and at the prices quoted, inclusive of engines and boilers. Delivery was required complete in every respect by 30th November 1866 for *Jumna* and 1st April 1867 for the other four.

Crocodile	£ 189,441. 10s. 0d.	Money, Wigram & Co. on the Thames
Serapis	£ 190,914. 15s. 0d.	Thames Ironworks & Shipbuilding Co.
Euphrates	£ 195,608. 12s..6d.	Laird Brothers, Birkenhead
Jumna	£ 195,721. 0s. 0d.	Palmer Brothers & Co. Jarrow
Malabar	£ 195,100. 3s. 6d.	Napier & Sons, Glasow

The engines of the two Thames-built vessels were supplied by Messrs Humphreys & Tennant, those of the *Jumna* by Maudsley, sons & Fields. The *Malabar* and *Euphrates* were boilered and engined by their builders Napier and Lairds respectively. Engines were varying configurations of horizontal, single-expansion: Humphreys & Tennant engines were compound.

The armament carried was latterly described as "three 4-pounder gun" and "two 20-pounder Armstrong guns on the quarterdeck and a 24-pounder howitzer on the foc'sle". This suggests the armament might have varied from ship to ship and at different times during the 28 years the ships were in service. The deck plans show a magazine on the tanktops accessed through a hatch abeft the foremast in the lower deck troop accommodation. There was also a shell room, with handing room, located on the tunnel casing and accessed through a hatch in the deck of the steerage accommodation. Armament would be only token for shipsin this employment: in time of war there would be warship escorts. As this was the heyday of the Pax Britannica such a need never materialised.

Names had been assigned by the Admiralty naming committee and notified to the Secretary of State for India by March 1865. Except for *Jumna* the names selected had all been used before for Royal Navy ships. The naming committee did not seem greatly exercised to achieve specific Indian connotations. *Malabar* and *Jumna* were on target. The *Euphrates* did flow within the Indian Government's greater sphere of influence. *Serapis* was much more tenuous in

that the name is derived from the ancient Egyptian god of healing and geogr-aphically relates to the west bank of the Nile. As for *Crocodile*, the name dates from 1781 in the Navy and it could be held that a river of that name in south-east Africa does, after all, flow into the Indian Ocean.

Regarding the overland transit of troops across the Isthmus of Suez, the British Government took great care to ensure that they had agreement of the Turkish authorities for the troops to move between Alexandria and Suez. A military establishment was set up to arrange the laying down of mooring buoys, a powerful paddle tug and four troop lighters for transport between ship and shore at each port. The troop-trains left Alexandria at 6 pm and arrived Suez about daybreak.

In Britain the ships were to be serviced by Portsmouth Dockyard in matters of staffing, repair and maintenance etc. Victualling was to be carried out from the Royal Clarence Yard at Gosport and an Indian bedding store set up there spec-ifically for the service. For Queenstown departures the vessels requisitioned from the naval store depot on Haulbowline Island. The vessels tendered-in at Queenstown and an account dated 1894 tells us that "the big steam-launch — *Duke of Cambridge*" was in use for embarkation ex Spike island. In fact, the neccesity for vessels of any size to tender-in at Queenstown existed beyond the end of the North Atlantic passenger services in the 1960's.

Trooping to India was seasonal, usually between October and April. Historically it was considered inadvisable to move unseasoned troops during the hot summer months and when the monsoon rains were impeding overland transport. Transit of the Red Sea during the northern high summer was also considered best av-oided, especially for homeward bound "invalids". Pending the opening of the Suez Canal, two of the new transports were to operate between Portsmouth and Alexandria and were to revert to imperial disposal during off-season. An "acc-ounting" arrangement was worked out whereby the Indian Government underwrote seven-twelfths of the annual cost of the west-of-Suez vessels. The arrangement was to be modified when all the five vessels started transitting the Canal; this commenced with the 1871-72 trooping season.

For coaling arrangements, the ships bunkered at the terminal ports and the intermediate ports of Gibraltar, Malta and Aden. Cost per ton was Portsmouth, 25s. 6d., Gibraltar 27s. Malta 33s. 6d. Egypt 38s and Bombay 62s (1876 prices). Because of these steep differences the Captains were under strict orders to bunker to capacity as far west as possible. Initially Welsh coal was burned. From 1870, ostensibly on the grounds of economy but in fact largely for political reasons, the grade of coal made available was two-thirds Welsh and one third North Country. This mixture detracted from the efficiency of working and inc-urred much criticism at the time. In this and other matters the Admiralty were not held in high regard in many professional circles. The weekly journal THE ENGINEER was particularly scathing in May 1867, describing the Admiralty as "the standing negation of the efficiency of parliamentary progress".

At Portsmouth the arrangment was to bunker overside direct from coasting colliers. This meant that quantities could be checked against a collier's bill of lading, thus obviating the neccessity to weigh and tally the bunkers inboard.

Prolongued service in India took a heavy toll on the men and as many as 2,000 invalids would have to be taken westbound every trooping season. The policy was to bring them home on the last four westbound voyages of the season. A portion of the women's quarters were appropriated for them and a portable bulkhead and 36 standing iron bedsteads shipped at Portsmouth for furnishing this accommodation.

The tour of duty of regiments posted to India was intended to be twelve years. A significant category of homeward passengers were the "time-expired" men (six-year men) whose personal time of commitment to the army terminated while their regiments were still overseas. A Fort William (Calcutta) despatch dated 6th

August 1860 estimates this category to be 2% of the total establishment - this meant about 1,400 to be shipped home each season. It was the practice at the time to concentrate these men at Deolali, a rail junction some 100 miles up-country from Bombay, during the off-season. An unfortunate consequence of this policy was that the troops, disarmed and away from the influence of their late units, became bored and undisciplined during the long, hot wait for the trooping season to start and as a result they frequently degenerated into a drunken, fractious rabble. The syndrome became notorious in the folklore of the army and was diagnosed as Doelali fever (in Hindustani, fever = tap). This became corrupted to 'doolali tap' in soldier-speak. The expression escaped into common usage and is still with us, more familiar nowadays in the attenuated form, 'doolally'.

Regarding Mortality on Passage, a typical return (1868-69 season) showed that 6 adults and 23 children died on outward passages. 12 adults and 5 children died on the homeward passages. Against this there were 29 births outward and 15 homeward.

Other problems were infectious cases, convicts, ignominy men: accommodation was set aside for these. There were isolation facilities at Gibraltar, Malta, Egypt and Aden, with quarantine moorings at Bombay. On board the convicted prisoners, ignominy men etc were carried in cells abaft the 'shako' room. The shako room was for the storage of the tall headgear of the cavalry regiments - later for the storage of sun helmets.
Depending on the numbers, insanes would be carried in the prisoners' cells.

to be continued ... ...

Extract from the *Journal of the Honourable Company of Master Mariners*

It is beyond doubt that existing regulations fail to prevent the ongoing routine daily loss of vessels and life at sea and on the inland waterways of the world. During the last ten years 3,302 ships were lost at sea worldwide, an average of ine every day. Ro-Ro Ferry losses worldwide average one a month.

The year 1988 was the 'best' since the early 1960's although 230 sank and 760 people lost their lives in 52 of these sinkings.]

Most of these horrific events do not warrant press and media attention except to the extent that they are routinely reported in the daily casualty columns of the shipping press.

In the past a number of attempts have been made to provide emergency buoyancy systems to overcome this historical problem. These, however, were never developed to the point of reliability and because of the slowness of operation failed completely to deal with capsize, which is the cause of more than 91% of all losses.

Since previous research has shown that capsize occurs in seconds, it is essential that equipment designed to counter both capsize and foundering must provise sufficient righting energy with two seconds of need being established.

This extract is from an article in which the author describes a solution to capsizes such as that which occurred to the *Herald of Free Enterprise* a couple of years ago. His company have developed a system of air bags along the side of the ferries laying on top of the protective belting which can be inflated in 2 seconds and prevent the vessel from capsizing.

The above extract, however, is printed only to give our readers some insight into the awful statistics produced therein.

STEAMSHIPS of the EAST INDIA CO., 1824-1864 by Charles Dawson

When I discovered that my great grandfather Captain William Kennedy of Greenock had delivered s.s. AVA from Glasgow to Moulmein in Burma in 1862, and that she was probably the last ship ordered by the moribund East India Co. (EIC), I decided to take a quick look at how Britain's trade contacts with the East led up to that event. I found that a lot of history can be hidden in a ship's name.

12 Feb. 1583, first Englishman in Burma, Ralph Fitch, left London for Tripoli, together with merchant colleagues of the Levant Co., by the ship TIGER, then via Aleppo by camel and river boat to the Far East.[1] He arrived back in London on 9 April 1591, and eventually impresses Queen Elizabeth.[2] The same year, Sir James Lancaster left in EDWARD BONAVENTURE, 300 tons, on England's First Expedition to the E. Indies, together with PENELOPE and MERCHANT ROYAL. Returned 1594, when a Second Expedition sailed. Lancaster, Keeling, Middleton, Eldred and co also impress the Queen. [3]

31 Dec. 1600, Royal Charter granted for 15 years by Elizabeth to "The Governor and Company of the Merchants of London trading into the E. Indies"; Grand Mogul Akbar (reigned 1556-1605) later gave the EIC its first licence.

1698, the new "General Society" or English Company granted letters patent due to pressure from merchants from other parts of Britain.

1699, Sir William Norris (1657-1702), second son of Thomas Norris of Speke Hall, is despatched as royal ambassador extraordinary to the court of Mogul Emperor Aurangzeb (ruled 1658-1707). Sadly, the mission failed and Norris died of dysentery on way home. His sword was presented to the borough of Liverpool as its first sword of state, and was in use from 1702 until 1763, but destroyed by bombing during second world war. [4]

1708, England replaces London in EIC's official title, but still not much help to Liverpool. The rivalry amongst merchants at home was nothing compared to that between the nations for control of the markets. To help conduct the armed struggle against - and amongst - the multifarious native rulers and Portugal, Holland and France, EIC had its own navy, first called the Bombay Marine, after the Presidency in which it was located.

1757-64, Britain took possession of Bengal, which became the base for British expansion in India. Calcutta became the capital of British India in 1772, Bombay and Madras became subordinate to the capital, and the EIC navy was renamed the Bengal Marine.

1813, EIC's monopoly to India repealed, but direct trade from Britain to China remained an EIC monopoly until 1834.

Spices had started the East India trade, now teak and tea became the desirables, so trade moved via Burma to China, causing further armed struggle, culminating in three wars against Burma (1824-6, 1852-4 and 1885) and two so-called Opium Wars against China (1839-42 and 1856-60).

1824, at opening of 1st Burmese War, "first steam vessel in India" is at storming of Rangoon: P.S. DIANA, 130 tons burthen, top speed six knots, nil against the current, built of teak at Kidderpore Dockyard, Calcutta.[5]

Aug. 1825, left Gravesend for India: P.S. ENTERPRIZE, 122' x 27'9", 479 tons, with 2 Maudslay engines, 15' dia. paddles, cylinders 43" dia. x 48" stroke; copper boiler cast in one piece weight 32 tons, cost £7,000. Total cost £43,000. Aimed to win prize of c. £8,000 offered to prove possibility of steamship service to India. 7 Dec. reached Calcutta. She did well, but not enough to satisfy the conditions of the prize award. Bought for £40,000 for use by the EIC, [6] at first in Burmese War, later in Opium Wars.

P.S. FALCON, 176 tons, also made the voyage to Calcutta in 1825, but her further history is unknown. Quite a feat, but too small for fame?

1829, "steamship of war" HUGH LINDSAY, Captain J.H.Wilson, built of teak at Bombay for EIC's Bombay-Suez mail service. Considered inefficient, but matters improved when replaced by BERENICE and ATALANTA, built 1835, later supplemented by: QUEEN, VICTORIA and SESOSTRIS in 1839; AUCKLAND, MEDUSA (iron) and SEMIRAMIS in 1840; ACBAR in 1841; FEEROZ and MOZUFFER in 1846 and AJDABA in 1847. Some used on general and/or war service.[7]

In its early stages, this mail route was run in conjunction with the British Government (who ran the mail service at that time) covering the route from England to Alexandria, with overland connection to Suez. The EIC eventually agreed under pressure to allow private enterprise and contracted with the Peninsular Co. to carry mails on this route.

22 May 1834, the EIC's monopoly to China was at last repealed, but EIC was not yet completely beaten: it continued to play a part as a managing agency for the British government. To celebrate the repeal, George Holt, Alfred Holt's father, named his new office being built in Liverpool: India Buildings - why not China Buildings,[8] since it was also in China where the future prosperity of Blue Funnel was to lie. It was after all to China he was to send his pioneering steamship AGAMEMNON in 1865, but by then China had perforce become an integral part of the international economy; the first Opium War can be said to have started the process:

1841, Sir Edward Belcher arrived in China waters with his command HMS SULPHUR, direct from his surveying circumnavigation, to take part in the war. EIC steamships involved were: ARIADNE, ASSYRIAN, MEDUSA, NEMESIS,[9] NIMROD, NITOCRIS, and PHLEGETHON, all Lairds-built,[10] and in addition, ATALANTA, QUEEN, SESOSTRIS and MADAGASCAR.[11]

c. 1841, some unusual East Indiamen were built at Blackwall, with tiny paddle wheels driven by 30 HP engines: VERNON, OWEN GLENDOWER (aux. power removed before her maiden voyage) and EARL OF HARDWICKE.[12]

1852, opening of 2nd Burmese War. Four P.S. used were of the original ten built for the flotillas of the EIC's Bengal Navy serving the Hooghly and Brahmaputra Rivers mainly for the transport and supply of troops. They were paddle steamers 125' x 22', with a draught of only 2', 275 gross tons, powered by a single oscillating engine with two cylinders, of 60 or 90 HP, and capable of giving them a speed of 7½ knots.

All were built by Maudslay & Field at Lambeth: LORD WILLIAM BENTINCK, 90 HP, 1832; DAMOODAH and NERBUDDA, 1833, and JUMNA, 1838. LWB was steamed out to Calcutta, but the others, after building, were dismantled at Lambeth, shipped out and re-assembled on arrival. Model of LWB class steamers in the Science Museum, London. [13] LWB was Governor of Madras 1803-7, Gov.- Genl. of Bengal 1827-1833 and the first Governor-General of India 1833-1835.

1857, Indian Mutiny broke out - the beginning of the end for EIC -amongst Indian soldiers in their Bengal Army, and led to their chartering two Anchor Line steamers, JOHN BELL and UNITED KINGDOM, and also CAPE OF GOOD HOPE and BALTIC of the Calcutta & Burmah Steam Navigation Co., (which in 1862 became B.I.S.C. and later, B.I.S.N.C) for use as troopships.[14]

1858 EIC deprived of its already reduced role as mere managing agency for British government's Colonial Office.

5 Sept. 1862, S.S.AVA (pronounced ah-wah) leaves Glasgow for Burma.[15] Took her name from that of the ancient capital of Burma. Delivered by Captain William Kennedy from Archibald Denny, Dumbarton, to Moulmein, Burma, for use as a tug. Denny yard No. 25. Official No. 44798, Code TWNK. Gross tonnage 278. Single deck, dimensions: 140' x 23.3' x 9.4', with shallow draught, rigged as a 3-masted top-sail schooner [14]. Single screw, simple engine, No. 83, 60HP, supplied by Wm. Denny & Bros. Ltd. Dumbarton, with two cylinders of 30" diameter x 27" stroke; speed 11 knots.[16]

The Ship's Agreement[17] for her voyage shows she had a crew of 15, including only one engineer, so maybe sailed much of the way. Hendersons of Glasgow, her agents, founded 1834, now enter the fray: they wanted a better way of using the return voyage for their sailing vessels to New Zealand, a new route they had started in 1856 (Albion Line, later Shaw, Savill & Albion). So, in 1860 their sailing ship LADY DOUGLAS made the first direct sailing from Rangoon and Moulmein with passengers, rice and teak.[18]

Late 1863, Lt.Col. Arthur Phayre, Chief Commissioner of British Burma, the first with the title, decided to invite private enterprise to take over the EIC's Irrawaddy Flotilla (IF),[13] the river service between Rangoon and Thayetmyo, which had operated with the four above-named paddle steamers, four flats, and the towing steamer AVA. These were put out to tender, bids being invited to include a five-year contract for the carriage of mails, stores and troops on the route. s.s. AUSTRALIAN and s.s. SYDNEY of EIC (acquired for the Indian Mutiny) sold to B.I. [14] EIC now owns no vessels.

1 May 1864, a local firm Todd, Findlay & Co had already fostered coastal steamer services from Moulmein and were looking for opportunities to expand; their offer of £16200 for the IF package was accepted and the contract signed, but only three flats were taken up, the fourth being scrapped as unserviceable. The EIC had officially lost its Indian Navy.

1 Jan. 1865, after Todd found that he had overstretched himself, Henderson & co. jumped in, formed a syndicate and took over the IF and the mail contract. Both general traffic from Rangoon to Mandalay and towing of sailing ships on the river below Rangoon were to be included, so the new firm was named the Irrawaddy Flotilla & Burmese Steam Navigation Co Ltd. Thus was founded what became one of the greatest river fleets the world has ever known, immortalized by Kipling in: ..."where the old Flotilla lay"...

1870, competition with the expanding BISNC forced IFBSNC to surrender its service between Rangoon and Moulmein to the B.I; s.s. AVA transferred.

1872, S.S.AVA sold to the Govt. of India, Burma now being an Indian province; she continued on coastal work Rangoon-Akyab.

1873 EIC finally ceased to exist as a legal entity.

1881, S.S.AVA sold to Bernard Fischer, Rangoon, and based in Moulmein. Broken up in the Dutch East Indies in 1890. [14]

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NOTES

More Oil Shakes

It was mentioned in the last (Autumn) issue of the BULLETIN that an oil exploration rig was working about 3 miles WNW of Formby Point. At the end of October a second such rig was in sight about 3 miles West of the Bar. Then on 7th November the rig near Formby disappeared leaving only the one near the Bar.

LOCAL NOTES

There has been quite a bit of movement of exploration rigs along a line between Formby Point and a site about 15 miles west in the past few months. There were at least two drilling rigs working at one time in November. The seismic survey vessel *Digicon Technician* has also been active around the entrance to the Dee and Burbo Bank

During December oil and gas finds have been reported in the area.

Research Notes

There was a meeting of a steering committtee of the Merseyside Records Users Group on 27th November. David Mander, of Hackney Records Office, London, spoke on the origins, growth and success of the London Archives Users' Forum.

The Forum certainly is successful, for after an uncertain beginning, they have gone from strength to strength and now count their finances in £1,000 rather than £10's or even £100's. Regular meetings are held with occasional visits to Archives and Records Offices for a look "around the back" or to be briefed on the latest acquisitions or accessions

A large Membership ensures that local councillors do not lightly ignore the views of those who use archives or records offices in their districts without good and/or just cause.

Mersey Docks & Harbour Board Fleet

New member Gordon Wright is listing all vessels owned by the Mersey Docks & Harbour Board, its predecessors and its successors. An amazingly large task; and not easy, for the Board owned vessels over a period of perhaps 150 years - not many shipping companies have such an operating record. One vessel listed was described in Lloyds Register as a "Lump" ! ? !

Any of our members have any ideas ?

H.E. Moss & Co.

Further to the publishing of the H.E. Moss & Co Fleet List in the last issue, after a letter was published in *SEA BREEZES*, a considerable amount of information has reached us from which the list has been expanded and more detail of the company structure is now in our possession. The actual list of vessels is amazing, albeit some were wartime management vessels and some were vessels bought to send to the breakers within a short time.

Shipbuilders to the Confederacy

Alan McClelland

TRY AS HE MAY to concentrate on his research into the development of the British-built and owned dry cargo tramp ship, the writer seems fated to uncover yet more material on aspects of Liverpool's maritime links with the Confederacy, some of which he originally collected over twentyfive years ago! Readers may recall references to the paddle steamers *Banshee* and *Colonel Lamb* and to the firm which built them in his articles on blockade running, (BULLETIN Vol 33 No 3). Recently, whilst loking for something relketed to his present research, he came across brief notes on the shipbuilders Jones, Quiggin & Co. which may be of interest.

Founded in 1841 by shipwright Henry Jordan, the business became Tucker & Jordan "Boatbuilders & Shipsmiths" in 1847, with premises in Baffin street. In 1849 John Jordan took over the firm and within twelve or so months its name was changes, first to Jordan & Finlay and then to Jordan & Getty. In the light of subsequent developments it is probably significant that John Jordan soon achieved a reputation for important technological innovation. He patented the first really successful system of composite construction for ships' hulls, in which the strength of iron framing was combined with the flexibility of wooden planking. The first vessel constructed to the new patent was the schooner *Excelsior* for Booker's West Indian trade based on Demerara. She was judged a success and Jordan placed a model illustrative of the virtues of his system in the Liverpool Exchange & Underwriters' Rooms with an announcment that a full-sized vessel would cost no more than £10 a ton. He soon secured orders for a number of composite sailing vessels including the *Marion MacIntyre*, the *Tubal Cain* and the *Bristow*.

1855 saw yet another change of name for the business when Josiah Jones took over Jordan's interest and it became Jones, Getty & Co. Jones further enhanced the firm's reputation for innovation. He introduced steel spars for sailing ships, followed by steel standing rigging. The iron full-rigged ship Seaforth of 1,189 tons launched in 1862 had lowermasts, topmasts, bowsprit, lower & topsail yards of steel, as well as standing rigging of the same material. It was estimated that a saving of more than 21 tons was effected than if iron had been used - or attempted to be used.

Three years prior to the appearance of the *Seaforth* William Quiggins was appointed manager and draughtsman to the yard. Commencing his career with an apprenticeship at Vernon's of Liverpool, he had gone back to work at Sandi-croft on the Dee. His energy and skill were such that in 1860 he was made a partner by his latest employers and the name of the firm was changed yet again to Jones, Quiggin & Co. At the time the yard was rectangular in plan, with a river frontage of some 500 feet and covered eight acres. Under the direction of Josiah Jones much thought had been given to planning its layout so that materials and completed hull members could be moved easily and rapidly, and for its times it was very well equipped.

In 1862 the news that Jones, Quiggin & Co. had accepted a contract to build a steel-hulled vessel created much interest. This was the *Banshee* constructed with an iron frame, pleted with steel supplied by the Mersey Steel & Ironworks. Alth-ough she had many problems (see "American Civil War Blockade Runners" BULLETIN Vol 33 No 3), she was reputed to have returned somehwere inthe region of 700% interest on the investment in her in the eight runs she made between Nassau and the South, and this although able seamen were paid between £50 and £60 per round trip and the pilots up to £800! Other blockade runners followed and the firm's organisation was so efficient that on one day in 1865 no less than four such steamers were launched. Undoubtedly the most famous of its products to see service on the runs for which she was intended was the paddler *Colonel Lamb*, but she was surpassed as a technical achievement by the sisters *Northern* and

Southern of 1,622 tons completed too late for the war. They remained on the hands of Jones, Quiggin & Co untilthe late 1870's when they were bought by the Zeeland Shipping Company for their Flushing mail service and renamed *Stad Middelburg* and *Stad Vlissingen*.

After the American Civil War Messrs Jones, Quiggin converted their partnership into the Liverpool Shipbuilding Company with a capital of £300,000. Unfortunately the new firm secured few orders - the most notable being the National Liner *Egypt* of 1871, the largest steel and iron vessel they ever completed. By 1875 work was restricted to repairs, and the company went out of business five or so years later.

Anyone wishing to delve deeper into the afairs of Jones, Quiggin & Co should first consult the list of records now held at the Maritime Records Centre of the Merseyside Maritime Museum. There are a number of questions to be answered, e.g. just how did the firm come to receive an order for so large a National liner ? _ This writer has his suspicions !

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Further Local and Research Notes

Isle of Man Steamers

The IoM Steam Packet Co have announced that they will be resuming a regular service between Liverpool and the Isle of Man in Januery 1991. The sailing frequency has not been stated: nor announced the date.

MANXMAN

This vessel, permanently berthed efloat in Preston Dock as a leisure/ entertainment club etc over a decade ago, was brought round to Liverpool in November. She is being refurnished and refitted in Waterloo Dock, also as an entertainment/club vessel. Looks rather gaudy in her present colours - but at least we have an Isle of Man vessel on view in Liverpool.

ROYAL IRIS

The Mersey ferry *Royal Iris* has been withdrawn from service efter 40 years plying the waters of the Mersey. The "Liverpool Echo" has organised a final "Farewell" cruise in 12th January at a cost of £12.50 per person the cruise lasting from 7.30 pm to 12.30 am. If you think that is dear try a trip late morning orin the afternoon on the ordinary ferries, the fare is about £2, although for that you get a round trip calling at Seacombe, Birkenhead and Liverpool Landing Stage !

Wreck on Ainsdale Beach

Abnormal tides in October 1988 uncovered the wreck of a sailing vessel on Ainsdale Beach, Southport. It was thought to have been barque rigged a little over 100 ft long. Member Douglas Head has for a decade been listing all vessels wrecked around Liverpool Bay and the locality from about mid 18th century. The list measures in thousands.

Douglas concentrated his research knowledge on this vessel and is almost certain that the wreck is that of the *Star of Hope* built at Peterhead in 1865. Later under German registry, bound for Liverpool from the Delaware in January 1883 she was wrecked off Formby in that month. The hulk was probably driven over the sands a couple of miles to Ainsdale.

Bryan Blundell

Shipmaster Merchant Treasurer of the Blue Coat School

H.M.Hignett

He was probably reasonably well-liked as a shipmaster among his contemporaries and his crews and as a merchant he was highly regarded. But once established as the Blue Coat administrator he was possibly a person to avoid, being rather single-minded and could have been considered in those days as over religious and difficult to live with.

As a shipmaster he ensured his crew was properly maintained, paid and gave them opportunity to share in the profits of the voyage, allowing them a barrel of rum from the West Indies to sell in Chesapeake Bay. I have an idea that the profit from that small venture would be increased by buying tobacco and selling it at home - and possibly tax free. As a religious man he took care to note the zeal of the devotions of other nations and creeds. But I suspect he was not averse to tax avoidance on his cargoes.

He records that in one instance in 1702 when he wished to move down Chesapeake Bay to where a convoy was to be formed, he was obliged to give a bond of £2,000 that he would actually do just that and not sail without convoy. He sailed the *Lever* down the Bay as agreed, but when near the entrance to the Bay it was possible to sneak out without being seen. He did just that and stole a two weeks march on the rest of the season's merchant fleet thus making at least £600 on that voyage from owners cargo, wages and ship's profits from freight.

Several years later, homeward bound in *Lever*, they were captured by the French and taken into St. Malo; the ship of course was lost. Nevertheless, Blundell raised money in France, had the crew released and perolled to stay in private houses and clothed them. This at his own expense and he probably paid for their passage back from Weymouth, where they landed after release from France. We can understand that this man was brave, human, kind and charitable.

In the research of historical topics and people I have learned one truth: that it is extremely rare for a person to go from rags to riches without assistance in one form or another from one direction or another. More likely it is that the person involved had the backing of a relative or friend or both with finance or influence.

Arguably, Bryan Blundell in his time could have been the richest person in Liverpool. He spent, however, £8,000 on his favourite charities. That, in the 1720's, would have been the equivalent of about £800,000 today. In 1752 when aged 78 his Journal details £14,300 for distribution to his relatives and friends: he had already given each of his children £3,000.

Bryan Blundell, treasurer, administrator and chief benefactor of the Liverpool Blue Coat Hospital School. Yet... what was his background ?

This is no rags to riches story. Bryan Blundell came from a family comfortably off. He was born in an age of enlightenment: the printed word had been available for 2 centuries; knowledge was easily communicated. The sciences benefitted enormously - advance mathematics brought logarithms from Napier and calculus from Newton. Astronomers and geographers were able to measure the size of the Earth and navigation over the sphere was made easier.

Most people assume that the Blundells of Liverpool were connected with either the Blundells of Blundellsands or the Blundells of Ince Blundell. That is not the case. I can find no direct or indirect link to Ince or Crosby. This in spite of the fact that his grandfather and great-grandfather seem to have been natives of Altcar (now part of Formby). When people suggest a link with Crosby and Ince, they ignore the fact that a William Blundell, no relation, was Town Clerk of

Liverpool in the 1680's, was bailiff of the Corporation for a time, a native of Prescot and a member of a well-known family of lawyers hailing from Preston. Yet there is no trace of a link to either the Blundells of Ince/Crosby/Formby.

Well, what do we know of his Bryan's origins ? Very little. One Robert Blundell of Ince Blundell, master of the vessel called "The Hope" of Altcar, today part of Formby, took an apprentice mariner in 1575; we have a copy of the indentures. Formby in the 16th century was a thriving minor port, probably a haven for fishermen and the small packets sailing between the Mersey and the Isle of Man, the Welsh ports and perhaps Irish ports. A Bryan Blundell owned or leased land at Ince Blundell in 1573. About the same date, a John Blundell of Formby, mariner, was born. John had a son, Bryan, who in 1626 owned the ship called *The Phoenix* of Formby. In April 1633 John died, his executor was his son Bryan (I). The latter died six months later leaving a son William who about three years old: his wife Elizabeth was executrix. Bryan left a barque worth £75, presumably the *Phoenix*.

John Blundell b. Formby about 1580 d early 1633
|
Bryan Blundell (I) b. Formby about 1600 d late 1633
| (owned the Phoenix 1626 to 1633)
William Blundell b. Liverpool about 1630 d 1689
(m Mary Preeson)
|
Bryan Blundell (II) b Liverpool 1674

William was a mariner and shipowner; an inventory made at his death shows that he left an anchor, ropes and rigging among other items. William married Mary Preeson of Liverpool, daughter of the Thomas Preeson (I) who built a row of houses on and against the walls of the Castle. Until recently Preesons Row ran south from the top of James Street. Mary Preeson brought considerable wealth to William Blundell probably in the form of a dowry. Her father died in 1685, his will showing that he owned considerable number of properties. But we find most interest in the fact that he left to his grandchilden, Bryan (II) and sister Elizabeth, a house each in Preesons Row. So at the age of 8 Bryan owned a house possibly worth £100.

The Preeson connection

Thomas Preeson (I), Bailiff of Liverpool in 1649 had several children.
Daughter Ann married Ralph Peters, Recorder of Liverpool
Daughter Mary married William Blundell about 1624
Son William became ship master and in his will (1702) is described as mariner
William Blundell owned part of a cargo of tobacco from Virginia in the *Vine* owned and commanded by (brother-in-law) William Preeson in 1679
William Preeson (d 1705) left, in his will, a plantation in Virginia to his son Thomas (II).

Bryan first went to sea in 1689 aged 12. In the civil war of that year his ship carried troops to Derry and lay there for two months before the soldiers could disembark. On return from his first deep-sea voyage he learned that his father had died. He was an orphan but lacked no financial support: he rose from cabin boy to master of the *Mulberry*, a magnificent rise in 9 years. But of course he came from a line of mariners and would not be without advice and assistance and certainly knew most of the masters and Liverpool shipowners of the day. Naturally if he put anything into a voyage by way of cargo he would have an immediate advantage, and his journal shows that this is exactly what he did. He had a share in the "venture" of the voyage thereby making a profit on

top of his wages. So when he writes that he married in 1696 at 21 and was immediately made master of the ship *Mulberry*, it is no surprise to find that the owner was none other than Alderman William Preeson his Uncle, and Mayor of Liverpool that year.

Our knowledge of Bryan Blundell, seems rather sparse. In the 1950's several books on Liverpool were written by knowledgeable men who mentioned Bryan in passing, dismissing him as a shipmaster or the man who built the Blue Coat School. His real achievements had been missed. No research on the man had been carried out. Until recently details his life were taken from account books kept by him as Treasurer of the Blue Coat School, for in the back of the books he occasionally wrote autobiographical notes. So we find references to Capt Blundell or Mr. Blundell of the Blue Coat School, but is not a lot more. However in 1955 a descendant, Major C.R. Blundell of Rufford Old Hall, deposited a number of family papers and documents with Lancashire Record Office, Preston, among which was the Journal of Bryan Blundell. It was in fact his sea journal. In the 16th and 17th centuries every young man with pretentions of becoming master or a naval officer kept a journal: notes on or about his life at sea and navigational details of each voyage. Such journals, customarily containing illustrations and notes of outstanding geographical features of each passage etc, were written up from a scrap log at the end of each voyage. It was also usual to sketch the vessels in which the writer sailed.

Bryan purchased his book for five shillings - a large leatherbound book of parchment-like pages, 15 inches by 11 inches. It was intended as a fair copy of a notebook to written up at the end of each voyage. It begins with navigational details of the home ward voyage and not unlike a ship's daily logbook with courses and distances sailed entered every 2 hours together with remarks on the weather. Occasionally there entries relating to the sighting of ships, much as were noted up to the 1st World War (with the introduction of radio there was little need to report sightings of other vessels)

Unfortunately Blundell lost his note-book when the *Lever* was captured by the French and this seems to heve broken his custom of entering detailed daily data leading to the book becoming a diary-like narrative of the more noteable parts of his seafaring life and finally an autobiographical account of his activities in public affairs.

Each voyage, unintentionally. He introduces a different type of maritime incident, be it piracy; shipwreck; breaking of masts and rigging; splitting of sails in a gale; stormy weather in a viciously cold and icy White Sea; the launch and fitting out of a new vessel; obtaining cargoes to buy and sell; collecting; tobacco; transporting it from shore to ship and stowing it; managing a fleet of three small vessels, a sloop and two flats in Chesapeake Bay. All activities of a meritime merchant/ shipmaster.

On his illustration of the *Mulberry* he writes in 1696 "I had £500 ready money by me all by my own getting". That is not really true: he had made the money from inheritances used to best advantage. The ship was bound for Virginia to bring home a cargo of tobacco. This was not a straight-foward task.

The Tobacco Trade: The trade to Maryland and Virginia and Chesapeake Bay was seasonal for a number of reasons. Ships could leave Britain in December knowing their position. The best time for their return was the month of June for at that time there are nearly 21 hours of daylight. Another reason for seasonal sailings was the teredo worm. The worm is to wooden ships what the death watch beetle is to church roofs.

It was not advisable for ships to remain in the salty waters of Chesapeake Bay during July and August the Teredo Worm was most active and dangerous. If the planks of the ship became infected, the worms made the wood of the ships hull like a honeycomb.

AG

The seasonal navigation system also dovetailed neatly with the production of tobacco. The leaf was picked in the Autumn, dried and cured by the turn of the year. It was then stored until sold. Vessels aimed to leave Britain in November to arrive about January. There to buy, collect and stow the tobacco, packed in hogsheads of about 500lbs weight, until April or May. Then leaving the Chesapeake before June, they would encounter the British coast at the end of June early July and so make an easy landfall. If the ship had not completed loading before June, it was neccessary to lay up in the fresh waters of the upper rivers until the danger from the worm had receded in September.

The custom was to take goods required in Virginia and Maryland dispose of them for the best price possible and at the same time set up a store by hiring a large shed, letting people in the neighbourhood know that there were things to be purchased and that tobacco was required. In the 17th and 18th centuries there were few towns around the Chesapeake. There were mainly large plantations 400 to 1,000 acres or more. The workers lived on the plantations; they were not slaves, but it was quite difficult for them to move from job to job.

Blundell writes of "opening a store" and leaving a responsible person such as a chief mate or supercargo in charge. During the period the "store" was open, Blundell called at the many plantations by land or boat, buying the tobacco in bulk from the growers. In the case of a small grower the leaf was purchased unpacked. The larger grower packed the tobacco into hogsheads weighing up to 500lbs. The leaf from the smaller grower was packed by the purchaser himself. Blundell's ships carried screws used by his men to "prize" the tobacco into the hogsheads. When sealed a hogshead was rolled from the store or plantation to the waterfront a couple of miles distant. They liked to do this in Winter when the ground was still frozen and hard. Another method of buying tobacco was at the auction sales. Blundell visited Nanjemoy, about 30 miles south east of Washington, to attend the sales. The saleroom is still there - an historical monument.

In 1698 whilst on his second voyage in the *Mulberry* he arranged for a ship the *Lever* to be built for him in Virginia, probably on the Eastern Shore of Chesapeake Bay, likely where his friends lived and near a place called Nassawaddocks. Bryan visited this place often in his travels and we know that his cousin, Thomas Preeson, is listed as having two plantations on the Eastern Shore, one of 1,000 acres the other at Nassawaddocks 600 acres.

In 1700 he mentions purchasing for £90 (in goods and money) a sloop called "Phoenix" in Chesapeake Bay. It also shows in his journal that he and Thomas Preeson owned several craft on the Eastern Shore which were used to ferry cargo around the Bay and assist in loading the ships. In one part of his journal he mentions being "off with Hungars" and follows immediately by saying that he went on shore and "rested with my ould friends". Hungars Church, one of the oldest United States churches in existence, is in a township called Nassawaddocks. The present Hungars Church is built on an acre of land donated by Thomas Preeson in return for a pew marked T.P. 1751. Alan Rowson (1989) and I (1990) have visited the church, a very lovely church and very well attended too. The original 18th century communion chalice and plate etc remain extant, also held in a bank vault. Built about 1750 it is not the building that Bryan visited, that was about half a mile away. Certainly he knew the area well; staying there for up to three months every year.

In his will Alderman William Preeson of 1705 left a plantation in Virginia to his son Thomas (II). The Plantation was about 600 acres in size. Thomas, Bryan's cousin, owned another plantation of about 1000 acres about 30 miles north of Nassawaddocks.

Pressed by his partners to take command of the *Lever* in 1701 Blundell was very reluctant, but when they threatened to withdraw their financial support he did take command of the vessel. For several years he ran the ship successfully.

The normal operation was to load the vessel with goods or provisions: beef, butter, soap and candles from Cork or Belfast for the Chesapeake. But in 1708 a crisis there left the locals without cash to pay for the goods. He travelled to Philadelphia and worked out a scheme whereby he had a vessel built there, the shipbuilder/carpenter arranging an exchange with those who had taken the goods.

On the homeward passage, in 1708, the *Lever* was taken by the French and Blundell together with his crew was held on parole at St. Malo. A couple of months later they were released; Bryan (and presumably his crew) sailing in a small vessel (the Journal gives the tonnage as 80!) with 500 others to Weymouth. The journey from Weymouth to Liverpool took four days.

There was a ship, *Clieveland* waiting on the stocks. So Bryan travelled passenger to Philadelphia on the *Endeavour*, in which he had a share (and which was commanded by another cousin, Edward Tarleton). He was accompanied by most of his crew including the carpenter

The sloop *Phoenix* two weeks earlier had been despatched with the rigging for the new ship, but arrived only a couple of days before the *Endeavour*. Blundell had then to set about getting the ship rigged. He writes that he instructed the carpenter to make a couple of masts while he himself went by land to Chesapeake Bay to purchase tobacco in Maryland to load the new ship (named *Clieveland* after his friend who was also to be a partner in the ship). At the same time the *Phoenix* was sent round the coast to collect the tobacco and be ready for the *Clieveland's arrival in the Chesapeake.*

On being launched, the ship "strucked the ground hard", but appeared to come to no harm. They found and stopped a couple of leaks and a week or so later the Clieveland was in Chesapeake Bay, there to careen and survey the hull as it settled in the water. Wooden vessels tend to move and often required further caulking.

As she was being laid on her side, the crew, not as vigilant as they ought to be, allowed her to slip and list too far: the ship filled and lay on her side. There is a graphic account of this incident. It took a couple of weeks to right the vessel, during which they noticed several parts of the hull badly caulked and were able to render the hull more seaworthy.

On passage home cousin Thomas Preeson travelled passenger. The ship encountered severe gales and the crew were pumping very hard for several days. Bryan noted that it had been a blessing in disguise that the careening went wrong and they were able to make the hull reasonably sound. The situation was so bad that Thomas Preeson was all for throwing a considerable amount of cargo overboard. Blundell refused and they made Liverpool in safety. The ship was then dry-docked and all the trenails renewed and the hull re-caulked and coated with pitch.

From this time on the *Clieveland* sailed exclusively to West Indies interspersed with short voyages to Russia. There were four voyages to Barbados and three to Archangel. Although the business he carried out in Chesapeake Bay is interesting the *Clieveland's* voyages are much livelier and full of action with two encounters with a pirate vessel off Barbados in each of two successive voyages.

The *Clieveland* was chartered by Josiah Gartside of Rochdale to carry three cargoes to Archangel. The Russian voyages provide quite lively reading. On his first visit to Archangel there was a fire which destroyed half of the town. In fact Bryan was sleeping ashore in the Gartside's house/factory and writes that the factory and surrounding building were of stone and therefore avoided destruction. They were battered by snow storms in the White Sea. Once they lost a couple of masts and were forced to throw two heavy guns overboard.

In 1714 Blundell gave up going to sea. A year later when a friend, William Clayton (also a distant relative) died, Bryan took over his business. Clayton was known as the "Old Tar Barrel" being the main importer of tar in the town. The

business was taken over by Blundell for the next 30 years. In fact between 1715 and 1752 Blundell imported over 100,000 barrels of tar. All from North America. Blundell claims that in the 300 or so voyages of those ships, only one cargo was lost. Not a bad record; he freighted or chartered most of the ships and must have chosen well.

Blundell had been elected a Corresponding (country) Member of the Society for the Promotion of Christian Knowledge on 1703. It was from this body that the general idea for building Blue Coat Hospital Schools was derived. One was begun in Chester in 1706. Although Liverpool's provision of care for the poor and orphans of the town was already superior to most other similar places in Britain, it was decided that Liverpool needed a school too. He was at home in 1709 when the citizens of L'pool were called to a meeting to found a school for orphans and poor children. He took a great interest in the venture and on giving up the sea in 1714 he offered to devote his spare energies in administration of the Blue Coat School. In return he demanded that he be free from the obligation to take up public office - ie that of bailiff or even Mayor. This was agreed.

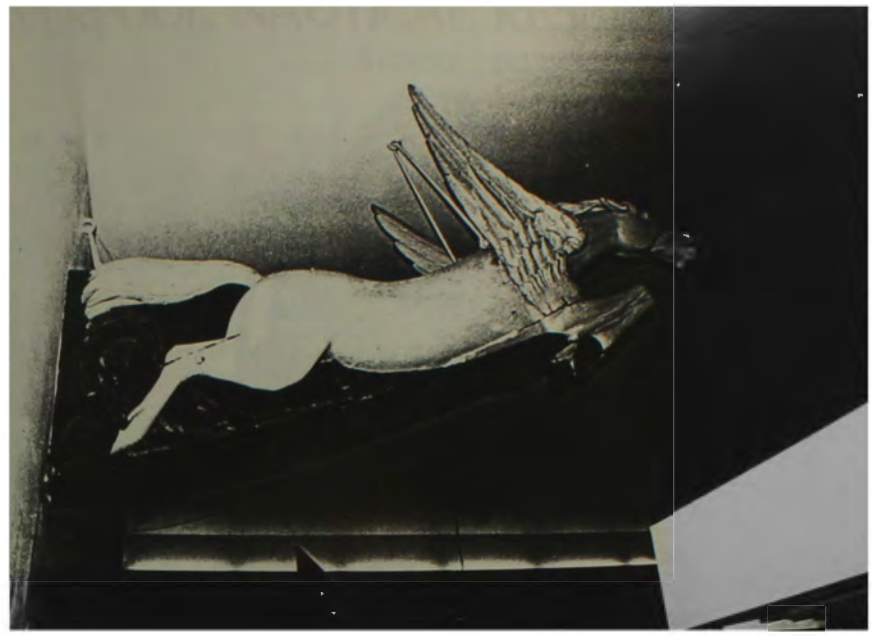
So Blundell was made Treasurer of the School and, literally, administrator as well as Treasurer, going about raising finance and was so impatient that he financed more than half of the £4,000 it cost to build the Blue Coat School as one sees it today.

In 1721, he was prevailed upon to become Mayor of Liverpool. he was elect councillor in May of that year and in October elected Mayor taking up the office with his customary energy. As a religious man he looked on with distaste at the new rich of the town, boozing, gambling and houses of ill-repute were springing up. He appointed six constables and had them clean the town up, ensuring that the drinking houses closed early and were not open at 'unseemly hours'. A ducking stool was made and stocks erected and a cage for prisoners in which they were hoisted above ground level for all to see and presumably receive donations of rotten vegetation !

He was, as Mayor, the town's magistrate and did not hesitate to use this authority and the punishment devices. Some of the loose women and drinking houses moved across the water to the Wirral to avoid persecution. Blundell also fined people such as butchers who went across the water on Sundays ostensibly to buy meat - apparently, in his eyes, to enjoy themselves. I think, at the end of his term as Mayor, most people were glad to be rid of Alderman Blundell. His constabulary was quietly disbanded. Liverpool was livelier town.

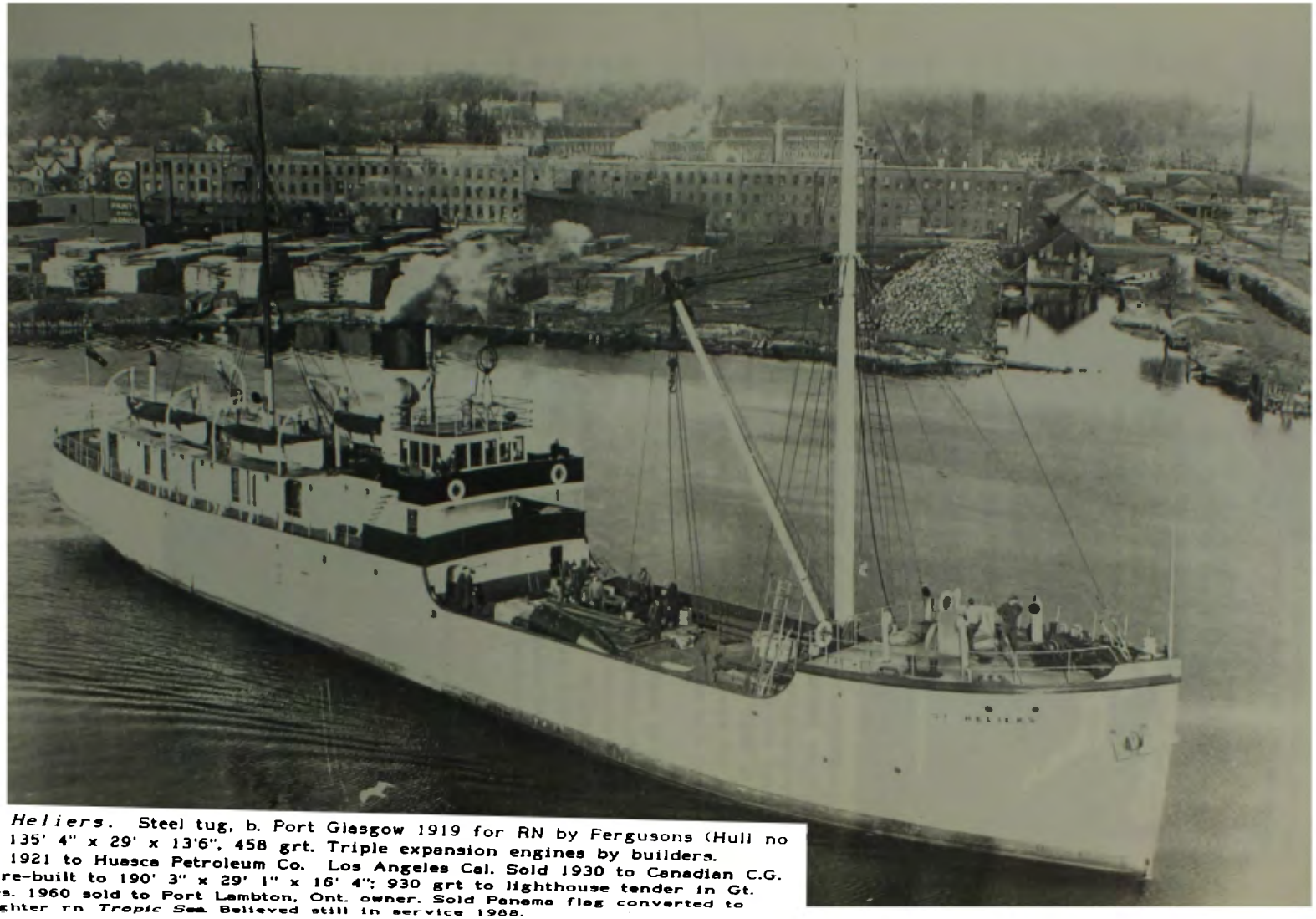
Bryan retired from public office to devote his time to business and the Blue Coat School. His management of this was extremely efficient. The children doing light work part of the time helped pay some of the costs of running the School. The reduction in those costs led the SPCK to investigate the Liverpool Blue Coat affairs: apparently there were suspicions of slave labour. Of course the School's account books showed how well the children were educated and placed in suitable work when their schooling was ended. It is said that Bryan Blundell sent pupils out as slaves - indentured servants and that his ships were manned by immature children from the Blue Coat School, in fact very few of the boys went to sea and those that did became shipmasters and merchants.

Bryan Blundell's lasting monument in the town is the Blue Coat School. But also St. Nicholas' Church on the waterfront; he was christened there, married there and buried there.



Built by W.H. Potter of Liverpool in 1884 the sailing vessel *Pegasus* of the Flying Horse Line was wrecked in the Baltic late last century. Her figurehead and an anchor are on permanent display in the Maritime Museum, Stockholm

Photos courtesy of Charles Dawson.



St. Heliers. Steel tug, b. Port Glasgow 1919 for RN by Fergusons (Hull no 245) 135' 4" x 29' x 13'6", 458 grt. Triple expansion engines by builders. Sold 1921 to Huasca Petroleum Co. Los Angeles Cal. Sold 1930 to Canadian C.G. and re-built to 190' 3" x 29' 1" x 16' 4"; 930 grt to lighthouse tender in Gt. Lakes. 1960 sold to Port Lambton, Ont. owner. Sold Panama flag converted to freighter rn *Tropic Sea.* Believed still in service 1988.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

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BULLETIN

s.s. Tabaristan (built 1907) seen here in Manchester Docks about 1912 with her unusual feature of twin funnels and the unmistakable funnel-markings of F.C. Strick & Co. In 1915 the vessel was acquired by the Admiralty and owned and operated by the Naval authorities until about 1924.

CONTENTS

Liverpool Nautical Research Society

Society Notes

The April meeting is also the Society's AGM. The Chairman and Council ask you to make a special effort to attend. Any comments and ideas you may have will be appreciated and give an indication as to how the members feel the LNRS should proceed in the future. What topics/speakers would you like to see ? What would you like to see in our BULLETINS ?

A DAY OUT

A visit has been arranged for June when a party of up to 25 will be shown round Ford's Halewood Factory. Places are available see the notice page 6

TRANSACTIONS

The publication of a further set of Transactions and articles has been delayed to allow time to obtain advertising material which, it is hoped, will save most of the expense of printing. The Society's funds could well be increased from a profit - almost unkown over the half century in which our publications have been produced.

The Port of Frodsham & the Weaver Navigation

by William R. Hawkin

A FIXED BRIDGE at the seaward end of a river produces an "Estuary Port" and the Port of Frodsham owed its establishment to the presence of the bridge carrying the Chester Road over the River Weaver. The low arches prevented the passage upstream of sea-going vessels, and cargoes had to be unloaded into flats or barges which sailed upstream from below the bridge or which were capable of passing under it.

According to Dodgson's "Place Names in Cheshire", in 1283 there was a piece of land in Frodsham called "Schiplendinggis" - the ship landings. It must have been beside the Weaver, and may well have been the reason for the name "Ship Street". Certainly there is a record that in 1280 Irish merchants were importing grain into Frodsham and ship tolls for that year were no less than £10. It is interesting to compare that figure with Domesday, which valued the whole of Frodsham at £4 a couple of centuries earlier. In 1696 the "Mary" of Laghall near Dumfries called at Liverpool and took aboard a pilot for Frodsham who charged 10sh 6d

As well as waterborne traffic, the Chester Road also brought trade to the port. Warehouses for salt and cheese were built, a corn mill specialising in the production of oatmeal was erected by the Aston family and a salt works came into being to process the rock salt from central Cheshire. In fact the carriage of salt was always the most important function of the Weaver Navigation, it was for this reason that it was originally created. There is good reason for believing that salt was produced in mid-Cheshire in Roman times, but the present salt industry dates from 1670 when a miner, digging for coal, found rock salt in the area between Northwich and Great Budworth. The Ashton mine, near Marbury, worked for many years until one dark night it collapsed entombing the miners and leaving nothing but a sheet of water now called Ashton Mere.

By then other mines had been established, output increased so that by 1710 over 5,000 tons per annum was being produced. Supplies of wood for firing the salt pans were becoming scarce and coal was needed, but the cost of transport from the coal pits of Stafford and Lancashire was not economic. Pack horses could carry 200lbs a barge holding 100 tons could be towed easily by the same horse. Between 1711 and 1720 petitions to make the Weaver navigable to Northwich were presented to Parliament. Ultimately the Weaver was made navigable from Frodsham bridge to Winsford by 1732 and a Customs Officer was appointed to levy the standard salt tax. After a new Act in 1760 traffic increased to 77,000 tons per annum of which 70% was salt: ten years later total traffic on the Weaver was over 118,000 tons - salt 70% coal 24%.

79% of the cargoes carried downstream were of salt. Cargoes going upstream were coal, paving stones, limestone, flintstone, china clay for the Potteries (from Cornwall), timber and "Merchants goods". The Weaver carried 19,000 tons in the first year. A decade later this figure was 31,483 tons; the greatest increase being in respect of "crated ware" from the Potteries.

In 1756 a consignment of 2,750 bushells of white salt belonging to Isaac Wood of Winsford was carried down to Frodsham Bridge in three flats, "Blakeney", "Duke of Cumberland" and "True Blue", where it was transhipped to a sea-going vessel the "Margaretta" of London, master William Handley. Unfortunately she was seized by a French privateer off the Isle of Wight.

At this time a small ship-building yard was building vessels on the northeast side of the river just beyond the line where the railway viaduct now runs. The earliest record of a Frodsham-built vessel is the "Armitage", a 40-tons sloop built in 1728: however it would not have been the first vessel to be built at Frodsham. Between 1728 and 1865 at least 60 craft of all sizes were built at Frodsham, the majority by William Hayes, most of them flats 60 to 80 tons displacement: but two 100-ton ships were constructed, the galliot "Kent" in 1816 and

the schooner "Mary Bollind" in 1858. The latter was lost two years later off the Norfolk coast. In fact, at this period, much coastal maritime trade was carried in similar vessels, and as lighthouses and buoy-marked channels were few, coastwise navigation could be a hazardous enterprize with the added danger of privateers.

As late as 1865 no less than 2,607 British seamen died in one year. An astounding number of vessels were lost, mostly sailing craft. In common with other ports the following Frodsham vessels were lost:-

"Navigator"	"True Love" in the Irish Sea 1710
"Dolphin" in 1783	"Friends" off the Welsh coast 1806
"Mary" in 1807	"Pattice" off the Welsh coast
"John" off Point of Ayr	"Amity" off Redland Bar (with all hands)
"Runcorn" (56 tons)	"Sly" (with all hands)
"John & Nancy" (50 tons)	"Lydia" sank near Mostyn in 1898

And the list is not exhaustive. The "Ann", built at Frodsham by Isaac White in 1799 was wrecked off St. Tudwald's Island near Abersoch in October 1858. At the height of his ordeal the master cried out for divine assistance and the story is remembered still in a folk song which is sung in Welsh schools to this day.

There was a regular communication by boat with Liverpool in the 18th century. On 3rd May 1793 the Frodsham Market Boat - the "William Kitchen" was "overset in a gale off Stanlow and 17 persons perished".

Generations of the Abram family lived at Frodsham Bridge and were much concerned in the Weaver trade; two of their ships "Hannah" 195 tons, master James Good, and "Hughes" 241 tons, master James Bell werre base at Liverpool and occupied in the slave trades from Angola and Gold Coast to the West Indies. The larger ship could carry up to 275 slaves. Other local owners were William Crosby and James Gregson of Frodsham and Henry Clare of Bellemonte who may have had interests in slaving.

In the late 18th century there were numerous complaints about flats being delayed due to tides. In 1775 it was suggested that a lock should be built on Sutton Marsh to maintain water levels upstream towards Northwich. Work began on a weir to hold back the water with a new cut across a bend in the river to by-pass the weir but also affecting the flow of water to Frodsham Mill. The lock was known as "Boden's Lock" after the family who looked after it and lived in "Frodsham's Locks House" for over a century. A further improvement was to make a towpath suitable for the use of horses to tow the flats between Frodsham and Acton Bridges. In those days it was more common to use men called "bow hauliers". Despite the horses it seems that men may still have towed the vessels up-stream for there is a small brick building beside the Sutton Weaver Swing Bridge on the NE side of the Weaver Canal listed as a "19th century boatmen's shelter" which may well have sheltered "bow hauliers" between jobs.

Following an Act of 1807 the Weaver Canal extended the Weaver Navigation from above Frodsham Weir to the deep water at Weston Point. With swing bridges at Sutton Weaver and Clifton, it enabled flats to sail direct to Liverpool with their cargoes of salt and return with coal from the South Lancashire coal pits of St. Helens on the Sankey Canal and completely by-passing the Port of Frodsham. This drastically reduced the number of vessels using Frodsham and was the start of its long slow decline. Of course there still remained the traffic to and from the warehouses, the mills and the salt and chemical works which had grown up on the western side of the lower Weaver. Although Ormerod in 1819 described the port area as "crowded with vessels which unloaded there" gradually the port declined as did the economic viability of the various enterprises. They closed one by one and the port fell almost into disuse.

An advertisement appeared in the *WARRINGTON GUARDIAN* in 1860 by Edward Jones then owner of the shipyard at Frodsham, offering for sale oak trees, ash and deal planks, steam tank and boiler, lathes, drilling machines, a crane and the smithy bellows due to "declining ship-building". The last vessel built and launched in 1862, at Frodsham, was the flat "Fanny" 40 tons displacement. Repairs to vessels however may have continued for a time. To add to the port's difficulties

the navigable channel along the southern Mersey shore migrated northwards in the 1870's and 80's making problems for vessels seeking to enter the mouth of the Weaver. A lighthouse built at Weston Point docks assisted vessels to enter the Weaver Canal but provided no guidance for the River.

During the 19th century there was fall in the consumption of oatmeal, upon which the mills at Frodsham Bridge had always depended, and they went through a difficult phase until they was purchased by Thomas Rigby, who installed "modern roller" equipment instead of the "primitive and now nearly obsolete process of grinding by means of stones". In 1885 having taken his son Arthur into partnership, a large modern steam engine was installed to drive the new plant. They did not, however, abandon the free power available from the river Weaver and fitted a large "Hercules" turbine nearly 5' in diameter to make the most efficient use of the water power available. electric lighting was installed - a novel departure in those days and they even, it is said, "connected the mills to the National Telephone System." Thus they were in good shape to meet the challenge of the 20th century. Wheat arrived by barges alongside the mill, where it was discharged by means of a mechanical elevator capable of lifting 60 tons per hour. The flour produced was at first distributed by means of carts pulled by "teams of splendid horses", then later by "Sentinel" steam wagons.

Operations continued until after the 2nd World War. The building was then used intermittently for storage purposes, but lacking proper maintenance became dangerous. Part of the main building collapsed into the river during high winds in the late 1970's and the remainder was demolished.

The salt works near Sevenhouses (adjoining the present Salt Works Farm) had developed into the WEAVER CHEMICAL WORKS owned by Messrs Heywood & Massie by the end of the 19th century. They described themselves as 'Manufacturers of Boiled Boes & Special Manures for all Crops, Horse, Cattle & Poultry Spice, Calf Meal &c', but they did not survive long in the more competitive 20th century. Perhaps their demise was partly due to competition from upstream where a factory specialising in the production of artificial manures of fertilizers. Their demise was mostly due to a factory specialising in the production of "artificial manures or fertilisers" established, further upstream, in 1851 by A.J. Ashworth. The use of large quantities of superphosphates was neccesary for the process, imported by ship direct to Ashworth's Quay at Frodsham Bridge. Steamed bones were another ingredient - no less than 20 tons per week were used at one time. They had a healthy trade by ship with the Channel Islands and proudly claimed that they were "the first to send a vessel loaded with manure down the Manchester Ship Canal!" The fact remains they too stayed in business employing local labour until well in to the 2nd half of the 20th century, but eventually closed down and the site is now derelict.

That, it seemed, was the end of the Port. But in the late 1970's Liverpool businessman, W.L. Crampton, took over the old mill site for warehousing and light industry and had the River Weaver channel dredged between the Mill and the Ship Canal. Today one can see larger motorised barges delivering grain to a newly fitted mill.

On often hears the saying "history repeats itself", but if we go back to 1773, two earlier Liverpool businessmen - William Crosby and John Urmson - leased the "building or warehouse called the Old Cheese Warehouse" on the west bank of the River Weaver at Frodsham Bridge from the Marquess of Cholmondeley and the area experienced a century of commercial activity. Now 200 years or so later a similar thing has happened. Is it a real resurrection of the ancient Port of Frodsham or merely a final twitch from an already deceased corpse ?

Only time - and history - will tell !

This is a copy of a handwritten statement, made in 1764, of a report to the Liverpool Corporation in preparation for the establishment of a Committee to take control of the administration of a Liverpool Pilotage Service. Original spelling, punctuation and grammar have been retained. Taken from the Letterbook of the Liverpool Pilotage Committee dated 1766. (LNRS Box No 8, Maritime Records Centre)

A Report of Mr. Murdock M. Kinsey; Admiralty Surveyor to the Corporation of Liverpool 1761

Parkgate Oc:r 5:th 1761

Gentlemen,

In answer to yours wherein you disire my opinion of the Fish yards near Liverpool, I did the more readily comply with your Request because as soon as my business led me to inspect the Channels in the River Mersey I thought that Subject deserved particular attention; and all such works constantly carried down to the Low waters Edge must prove prejudicial to the Navigation of Rivers by Stopping & Collecting into one Mass the Sand Weeds Mud or Gravel which the stream would otherwise carry along with it & thereby contracting or changeing the channels; this as one who has had an opportunity of observing the Sea Coast will be convinced of, for at the end of Every Sharp Point of Land or wall built into the Sea there is always a bank or shallow form'd which removes the Low water mark further from the Land, & if upon this the wall is further extended a new mass of matter will be collected round it & the waters edge Again extended & So on as long as the Stream or Waves can be resisted

With respect to the Fish yards near Liverpool there are two places where these are erected which have fallen more particularly under my observation and of these only I shall take notice here

The first is a range of baskets & interwoven stakes carried on from Knots Hole a mile or two Southward which I imagine often proves an obstruction or inconveniency to the vessels that go & Come from Manchester or Warrington to Liverpool.

For the Stream of flood which Serves them up the river, setting from the Sloyn on Knots Hole point, must when the wind is faint or unfavourable, carry the Flats & Lighters on that point & near the coast Southward of it; where being entangled with the Stakes & Baskets in a rapid stream it will be difficult on some occasions to avoid being over Set by them, also in coming down vessels are often oblig'd to keep close to the side where the Fish yards are to avoid being carried by the Stream of Ebb over the Sloyn Side by which they are often in dangers & as I have been informed have some times suffered considerable damage

The next place I have observed Fish yards erected which seems to have prejudiced the navigation of the River Mersey, is at the Rock point, where they are carried out to the very middle of that channel, & in my Humble opinion Seem to be the principal cause of its being So much shallower now than it was 30 or 40 years agoe. Old pilots remember when the deepest of that Channel was within 200 yards of the Shore,

Twenty six years ago when Fearon & Eyes Survey'd the River the Channels & Fish yards were above 100 yards farther from the Land; & at that time with the lowest Spring tides there was 4 foot water in it, Some years ago the Fish yards were carried further out and the Channel fill'd up so as to become dry with Spring tides; now the Fish yards are in the Middle of the Channel & it is dry with neap tides. So that in 40 years time the Rock Channel has fill'd up 9 or 10 feet at least beside 6 feet for the height of the Fish yards which ships must now sail over. There are not above three fathoms of water at present above the Fish yards at high water Spring tides; which is Just sufficient for the Largest Ship Belonging to Liverpoole; And if no remedy is applied, it is to be fear'd that in a few years the Rock Channel will be quite shut up to large vessels & the great inconveniency of Hyle Lake Roads lost along with it; a loss which would sensibly affect the Trade of Liverpool as Hyle Lake is a place capable of sheltering the largest Vessel & where with the help of Lights, they may run in the night time as well as in the day

Another disadvantage to the Navigation of the Mersey which may result from the filling up of the Rock Channel is that Formby Channel will be thereby rendered in all likelyhood intricate and variable, for the flood from the Hyle being debar'd a fresh course Round the Rock Point must necessarily force a Passage for itself thro' the Sand of burbo which being of a loose & Spongey consistance; new Channels will every now & then be Breakeing out & new banks forming in the Old as Extraordinary winds or tides shall happen, till possibly this River may in time be reduced to the Condition of the River Conway or Ribble, so irregular that no land marks will Serve for a direction to Ships or So Shallow that ships must wait Spring tides before they can get in. This will not Seem a groundless apprehension when it is considered, that as the cause has in Some measure taken place already So the Effect also begins to appear for within these few years the Rock Channel has become Sensibly shallowery

Two new Swashes or gullies have made their way thro' Burbo into Formby Channel, & a new Bank forming at the Mouth of Each; one of which is within 400 yards of the Middle Patch near the N. end of Burbo, the other toward the S. end of Burbo, extending it self east in a Spit & etc

On this report the Fish yards in the Rock Channel were taken up by a clause in the Lighthouse Act 1762 & in two years time the Channel Recovered.

Note:

Knot's Hole seems to have been close to where Garston Docks have been constructed.

Depending on the numbers, insanes would be carried in the prisoners' cells. Many of these would be consigned to the Royal India Asylum, west London. The establishment existed from 1870 to 1892 when the incumbents were transferred elsewhere.

The Kings (Liverpool) Regiment and the Indian Troop Service.

A brief insight into the working of the Troop Service can be obtained from the movements of this local regiment which saw extensive service in the east during the period under consideration. It shows the number of ocean passages required by a typical line regiment in Indian Service.

The opening period saw the 1st Battalion serving in Malta, when in 1868, it received orders to embark for India. On 10th October 1868 45 officers and 994 other ranks embarked at Valetta in HMS *Serapis*. The vessel sailed at 0800hrs 11th and anchored Alexandria 1400/14th. The following day the baggage was entrained for Suez. On 16th the Battalion disembarked in two detachments; the first consisted of four companies and all the women and children: the second detachment consisted of H.Q. and six companies plus various drafts.

The rail journey to Suez took 16 hours. The Battalion arrived Suez 17th and embarked in HMS *Jumna* which sailed 0600/18th to arrive Aden 1400/23rd for bunkers. The vessel sailed 25th and anchored Bombay 0700/2nd November when the Battalion disembarked on 3rd and was despatched to Poona by two special trains arriving am 5th.

The 2nd Battalion was at Aldershot in 1877 when it was ordered to embark for Indian Northwest Frontier service. On 21st Sept. HQ and eight companies, comprising 19 officers and 920 O.R.'s, sailed aboard HMS *Euphrates* ex-Portsmouth for Egypt calling at Malta 2nd October. The Suez Canal transit occupied 3 days 8th-10th November. At Bombay on 26th the Battalion entrained in two divisions for the encampment at Mian Mir, near Lahore where the railway intercepted the Grand Trunk Road which linked Calcutta and Peshawar. The first division arrived 4th November the second some two days later, when the Battalion route-marched to Rawalpindi. On the march they met the homeward-bound 1st Battalion to exchange camp equipage and transport.

The 1st Battalion after an almost 12 years absence from the UK, was to spend a further 11 months stopover in Aden. After exchanging equipment with their counterparts they continued south to Mian Mir where they entrained in two divisions for Bombay (with a 2-day stop at Deolali) arriving in time to sail 3rd January in HMS *Serapis* with a strength of 15 officers. 571 OR's and 7 women. Sailing at 1030hrs they arrived Aden 0600/11th.

It was 28th December when the Battalion, consisting of 15 officers and 507 OR's, embarked in HMS *Malabar* to depart the same day for Suez. The vessel transited the Canal 4th January and arrived Portsmouth 22nd.

The Battalion had been overseas for 12 years and 10 months, including an initial 2 years 7 months in Malta.

The following figures show the vicissitudes of prolongued service east of Suez during the 19th century:-

Strength on arrival India 2nd November 1868		734
Joined from U.K.		622
HQ recruits		11
Transfers from other corps		159
Total		1526
Died	156	
gazetted to commissions	2	
repatriated to UK	547	
discharged in India	34	
transferred to other corps	276	
Total	1015	1015
Strength on disembarkation January 1879		511

The last figures includes only 201 persons remaining from the original strength of 734 on arrival in India November 1868.

In 1891 the 2nd Battalion received orders to embark for home. As with the 1st Battalion, there was to be a year's stopover in Aden. The Battalion embarked Bombay in HMS *Serapis*. The vessel arrived Aden November 24th with a strength of 501 OR's and 14 officers. They finally embarked for UK in the same vesselwith a strength of 504 on 25th October 1892 and arrived Portsmouth 14th November to entrain for Manchester where it was to be stationed.

Each trooping season a draft set out from Britain to make up for the attrition of numbers experienced on eastern service. The following is a resume of embarkation dates, vessels & strengths. The commander of the draft would be subordinate to the C.O. Troops while on passage. At this point it is fitting to state that each troopship was commanded by a naval officer of the rank of Captain who was the final arbiter of matters of discipline etc. - no soldier could be confined in cells or otherwise punished without the knowledge and concurrence of the commander of the vessel.

1879 Sept 24th: 98 OR's transferred to 2nd Batt'n and embarked *Jumna* at Portsmouth for Afganistan.

1880 Oct. 2nd: 1 captain, 1 subaltern, 2 sergeants, 2 corporals and 120 privates despatched from Warley to join 2nd Batt'n in India.

1881 Oct. 5th: 2 corporals and 53 privates embarked *Crocodile* at Portsmouth to join 2nd Batt'n in India.

1882 Dec. 11th: 195 OR's embarked *Serapis* at Queenstown (Haulbowline) to join 2nd Batt'n in India.

1883 Dec 15th: 75 OR's embarked *Euphrates* at Portsmouth to join 2nd Batt'n in India

1885 Feb. 20th: 119 OR's plus 1 woman embarked *Serapis* at Queenstown to join 2nd Batt'n in India.

1885 Sep. 10th: 105 OR's, 3 women, 4 children embarked *Serapis* at Queenstown to join 2nd Batt'n in India

1886 Feb. 15th: 155 OR's embarked *Crocodile* at Queenstown to join 2nd Batt'n in India.

1886 Sep. 24th: 134 OR's embarked *Serapis* at Queenstown for 2nd Batt'n in India.

1887 Jan. 7th: 92 OR's embarked *Jumna* at Queenstown for 2nd Batt'n in India.

1887 Sep. 9th: 105 OR's embarked *Crocodile* at Queenstown for 2nd Batt'n in India.

1888 Feb. 24th: 62 OR's embarked *Malabar* at Queenstown for 2nd Batt'n in India.

1888 Sep. 7th: 103 OR's embarked *Euphrates* at Queenstown for 2nd Batt'n in India.

1888 Dec. 5th: 76 OR's embarked *Crocodile* at Queenstown for 2nd Batt'n in India.

1889 Nov. 19th: 50 OR's embarked *Malabar* at Portsmouth tojoin 2nd Batt'n in India.

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! ! MEMBERS' DAY OUT ! !

VISIT TO FORD'S HALEWOOD FACTORY

A visit has been arranged for Tuesday 11th June

by member Gordon Wright

The tour of the Factory begins at 9.15 am. There are places for up to 25 people. Members who have cars are willing to assist by giving lifts. Places are NOT restricted to members.

Please ring Gordon at 924 2932 Evenings only

or Harry Hignett at 639 5546 to book your place

March Meeting talk by H.M. Hignett

A Brief History of Pilotage

PILOTAGE and the work of a pilot are perhaps among the most difficult words to define. We should therefore understand how the work and occupation evolved over centuries.

It is one of the most pleasing situations when the master of an inward-bound ship greets a pilot exhuding confidence in his ship and crew: "There she is, pilot, I am sure you can handle her". It is probably the most successful situation too; and it must have been repeated in history thousands of times over a thousand years. Such relationships were never uncommon, but the evil that men do lives on in history, the good oft dies with the individuals; so in the history of pilotage we find that most of the material relates to dangers not always overcome, and to the need for regulations.

The general term denoting a pilot in the early Middle Ages was lodesman deriving from the Anglo-Saxon *lād* meaning to lead or guide. The Pole star was known as the Lodestar! The terms *lods, lotse* and *loods* are in use to this day in Scandinavia, Germany and the Netherlands. In its application for a charter in 1513, the Trinity House of Deptford, used *lodesman, pilot and pilot-lodesman,* and simultaneously the Court of Loadmanage of the Cinque Ports was active at Dover.

Laws covering pilotage were originally included in the several maritime codes from the islands of Rhodes(400BC), Oleron(1199AD) and Visby(16th Cent). They produced maritime laws mostly covering the insurance aspects of maritime commerce. The Role d'Oleron provided rules for the employment of mariners demanding that the navigator be competent to take a vessel a certain distance from his base or home port and laying down the obligations of pilots. In fact two of the articles relate to pilotage:

XIII A ship is freighted at Bordeaux or La Rochelle or elsewhere and arrives at her place of discharge and has a charter-party. towage and petit lodemanage fall upon the merchants. On the coast of Britanny all those taken on after passing the Isle de Batz (off Roscoff) are *petit lodesmen*.

XIV A young man [sknave=mate=pilot] is pilot of a ship and he is hired to conduct her into port where she ought to discharge. it may well happen that the port where the ships are placed to discharge is a close port .... and the pilot has well done his duty when he has brought the ship safely to her berth. for so far he ought to conduct her and thenceforth the duty is on the master.

Further, in 1344 a law of the Commune d'Oleron defined *petit lomant* as one 'who stations himself at the entrance to ports and havens, well knowing the dangers of the ports and of the havens'. The sea pilot or ship's navigator was termed *Grand Lomant.* And early in the 20th Century a French pilot was often denoted *pilote-lamaneur.*

The term pilot, almost unknown outside the Mediterranean before the 15th century, stems from the Greek 'plous' or 'pelous'. A Periplous, in ancient times, was a form of sailing directions peri= around or circle, plous = navigation: thus periplous = circumnavigation. Plous or pelous modified to pilot. A very early description of a pilot is to be found in the "Periplous of the Erythraean Sea": a maritime merchant's guide to the Red Sea and northern Indian Ocean, written about 64 AD. It describes the approaches from the Gulf of Cambay and the river Narbuda to Barygaza, (the modern Broach, NE India):

> The passage is difficult because of the shoals at the mouth of the river. Because of this, the native fishermen in the King's service go up the coast to Syrastrene to meet the ships. And they steer them straight and true from the mouth of the bay between the shoals with their crews and they tow them to fixed stations going up with the beginning of the flood and lying through the ebb at anchorages and in basins. These basins are deeper places in the river as far as the port which lies about 10 stadia up from the mouth.

In this extract we can recognise the work of an estuary or river pilot from earliest times until the entry of the steamship onto the maritime scene. Sailing, rowing and drifting with the current, using the anchors to hold and manoeuvre the craft whilst waiting for the next tide is still practical. The reference to towing shows the ancient relation between towage and pilotage.

There are at least three categories of pilot 1) Deep-sea or coastal, ii) Outer or sea pilot and iii) Inner or river, canal and dock pilots.

In i) deep sea or coastal pilots assist ship between ports and areas. pilots in ii) conduct ships from sea to port and v.v. whilst the pilots iii) handle vessels in estuaries, river and canals.

But there are variations of these categories according to geographical situation, economical and commercial environment.

In antiquity the pilot i) the deep-sea pilot, was required to know a coast, eg the Channel coast of England or the coast from the Thames to Newcastle, or perhaps the German and Danish coasts and would travel aboard from port of origin to the destination according to agreement made with the merchant-owner or master. In this case he was expected to find his own way home and probably adjusted his fees accordingly. Then, from the 15th and 16th centuries, such pilots were often employed as mates or 2nd mates for voyages to the areas they were considered to be conversant with. The sea-pilot or mate/navigator was familiar with at least one port, and on the return voyage he would be invaluable in the event of a lack of pilots at the approaches to the port. But he might have left the vessel en route as occurred in 1465 in an English port where a pilot was exchanged for one who was familiar with the Irish Sea. A more complicated affair arose in 1388 when a German vessel bound from La Rochelle to Ireland called at Falmouth for a pilot familiar with the Irish Sea.

In 1300 Edward I travelled to France from Harwich to Flanders. The accounts for the voyage show that, while the officers and crew were paid at a daily rate of about 6d per day John Jolif, lodman of Sandwich, was engaged for the passage to the Scheldt and paid 26sh 8d single fee. Jolif probably found his own passage home.

Pilots of category ii) the outer pilots were probably fishermen who, working off their own ports, were able to assist approaching vessels into those ports, while the inner pilots iii) conducted vessels into unmarked creeks or minor ports.

We find three classes of pilot mentioned in the accounts of a Hansa shipmaster of 1437 :

to the losmanne who sailed me into the Themes (sic)	*10s 6d*
to the man who led the ship through the (London) Bridge	*8d*
to the man who led the ship into the dock	*6d*

These pilots were independent entrepreneurs employed on a casual basis and continued so until the appearance of merchant guilds which made authorities aware that a well organised and efficient pilot service was a very neccessary feature of a port.

The Hansa League, a combination of rich and powerful cities Hamburg, Bremen Cologne, Antwerp, Rotterdam etc (and perhaps the forerunner of the EEC), controlled many factors of trade and in particular required ship-owners and masters to take all precautions to safeguard their vessels and cargoes. In 1428 a Hansa Court in Cologne decreed that all Hansa vessels passing Great Yarmouth should take a pilot. The Hansa Courts probably instigated the establishment of pilotage on the Canal from the Scheldt to Sluys and Brussels. The entrance to that canal was at a place called "Lamansvliet". (Lamansvliet ? pilot waters?)

By the end of the 15th Century there were numerous charities around European coasts devoted to the welfare of seamen and their dependents. There were also the guilds of merchants and mariners, frequently shipowner/masters, formed to arrange insurance between themselves to covering marine risks. The guilds merged with the charities to form the bodies, which in Britain, became the Trinity Houses. Such organisations, often prompted by the pilots themselves,

recognised the need for regulation of pilotage and undertook the establishment and organisation of pilot services ensuring that the pilots had ample experience in the navigation of local waters. In not a few instances the members of the Guilds were also pilots.

The new pilot services in places such as Hamburg, Bremen, Emden, Rotterdam, ports of the Zuyder Zee, Amsterdam, Rotterdam, Scheldt ports and Ostende were all supervised by local municipal authorities and their pilot cruising craft provided by the same authorities. Bristol Corporation took an interest in the pilot services for in 1525, they dismissed a seaman from his office of 'Towing and Lodemanship'. Leith seems the only British port where the town supplied cruising cutters.

The Cinque Ports pilot organisation sprang from the organisation of ferry operators at Dover and controlled by an agreement made, in 1496, between the ferry owners or passagers as they termed themselves. Made under the watchful eye of the Constable of Dover Castle, the agreement was essentially a contract between the passagers to provide a service maintained on a rota turn system. fifteen vessels were named and their tonnages stated. The first vessel 'on turn' taking the first passenger and/or cargo irrespective of destination. The voyage was a rota turn: on returning the ship took up its rightful place in the line. Who the prospective customer was, his cargo and destination was left to chance - places as far afield Cadiz were mentioned in the agreement. Most journeys, however, were to France and the Low Lands. No vessel was permitted to refuse a customer and a vessel could not get more than three turns ahead in its rota position, which would occur when voyages were short and during fair weather. In the event of accident, all those included in the agreement would be compensated for any loss - they were insured as soon as they cleared Dover Harbour. Then, in 1527, when the Trinity House of Deptford Strond was far ahead with an organisation of pilotage formed by influential shipowners, masters and government officials. The ferry owners, all men of substance, who had already turned to pilotage as their principal operation, established the Court of Lodemanage of the Cinque Ports again under the jurisdction of the Constable of Dover Castle. This time an agreed system of fees was decreed with rules for the behaviour of the lodesmen laid down. One of the clauses in the agreement stated "and if any Dutchmen or other foreigners come to Dover to take upon themselves pilotage to the Low Lands or other parts they shall be fined or driven off". Obviously outsiders were taking the lucrative pilotage earnings from the Dover and Deal pilots and acting without constraint of the laws of the Court of Loadmanage.

Rivalry between the pilots of Trinity House and the Cinque Ports now appeared, when Trinity House pilots attempted to board ships off Dover. Unable to persuade local boatmen to take them to incoming vessels, they petitioned the Elder Brethren to put pressure on the Constable of Dover Castle; a vain exercise for he was far too powerful. They then tried to stop the Dover men taking vessels to sea from the Thames again without success. The system was then set: one way pilotage. Over the comparative distances involved this was probably the best system for with mere sail power whole fleets would arrive after a lengthy period of adverse winds. Pilots based on London would be left to wait for weeks at Dover whenever there were prolongued winds from the East.

In 1575 the Corporation of Hamburg built a number of houses for pilots and fishermen of Neuwerk an island off the entrance to the Elbe and 40 years later gave financial assistance to an aged and infirm pilot from the Council (charity) basin. At the same time they arranged for a senior pilot to provide a cutter (galliot) giving him a loan to build the vessel (in Holland); which loan was to be repaid in monthly installments over five years at 2½%. He was expected to collect that money from a lien on the earnings of the appointed pilots. This was all under laws duly printed and published by the Hamburg Council. These laws seem to have been the basis of the laws which a decade later were established for the the pilots of the Zuyder Zee ports, including Amsterdam.

Rivalry between the many groups of pilots active in the 17th century can be seen to have arisen along the rivers Elbe, Weser, Maas, Scheldt, Seine, Loire (to Nantes) and Gironde mostly competing for the pilotage earnings, but often stirred by political and geographical differences. It is not always realised that, at one time the British monarch was ruler of provinces and states along both the Weser and the Elbe and issued the licences there, while the King of Denmark had control over the banks of the lower Elbe. Several times numbers of disgruntled pilots changed their bases and crossed the river to take advantage of political change.

The earliest disputes appeared along the many entrances to the Maas through Zealand. Here the many towns on and near the several channels supported the claims of their pilots to conduct vessels to and from their home ports. Rotterdam, Brielle, Delft, Rozenburg and Helvoetsluis were involved in these disputes, even to the "Brielle War" when the local pilots attacked the Rotterdam pilot cutter as it passed their town, taking the Rotterdam pilots prisoner. The disputes disappeared when a comprehensive pilotage act was passed after the Spanish were driven from the Netherlands in the mid-17th century. The regulations in this act were mainly derived from the Elbe pilotage laws, and became a pattern followed by other north European ports. They ordained that the pilot craft were to be of a certain standard, each vessel having its number clearly marked on the sail. The manning by both pilots and crew, length of time on station and even catering standards were laid down. The the cutters were to cruise along the 10 fathom line, the first pilot to take the first ship (not the largest in view) etc. There were also strict warnings for pilots disappearing during the herring season when high wages were available elsewhere.

On the Gironde to Bordeaux, in 1728, there had been a number of disputes between pilot groups - at one time there had been seven such groups - but a new set of laws issued by the French Admiralty eliminated the contentions and things went very smoothly for a time. Then a Dutch shipmaster applied to the French courts to have the pilotage fees returned to him after his vessel was grounded by an incompetent pilot. It appeared that the pilot had charged 50% more than the ordained fees. This resulted in the pilots being unable to increase their fees for more than four decades.

By 1700 there were new pilotage districts appearing in North America: New York, Boston, Chesapeake Bay and along the St. Lawrence. For long and able service to both French and English governments, Abraham Martin was given a large plot of land overlooking the St. Lawrence near Quebec - today known as the "Heights of Abraham". Naturally disputes between pilot groups occurred in the New World too: along the St. Lawrence where the pilots came from many fishing villages; around the harbour of New York and on the Chesapeake Bay between pilots of Maryland and Virginia.

In this area there was, in the 1860's, a very serious situation which is worth recounting. New York politicians thought there was money to be gained by taking over the appointment of pilots - issuing licences to any calling themselves seamen and who were willing to contribute some of their earning to the politicians. The earnings of pilots fell so much that the older, more competent pilots did not renew their licences. The situation then deteriorated so that in good weather an incoming vessel could always take a pilot, but in high winds or fog the pilots were to be found in the bars along the waterfront waiting for the weather to improve. Within one month during on-shore gales, two vessels flying signals for a pilot, brought to off the New York pilot station each carrying about 400 emigrants. Waiting in vain they drove ashore. All perished. The subsequent inquiry established the truth and from then on the New York and New Jersey administrations took great care to see that only time-served, competent pilots were appointed.

A properly organised and regulated pilot service, has ever been considered an asset to any seafaring nation or port/harbour authority.

At the beginning of the 18th Century the Court of Lodemanage at Dover found that their local laws needed strengthening and in 1717 obtained an Act of Parliament. Trinity House of Deptford obtained a similar Act in 1732 which also recognised the existence and rights and obligations of other Trinity Houses around the coasts. Then, in 1733, model Acts of Parliament were produced for the many small ports in Britain to use when and if neccessary and clauses controlling pilotage were included.

However in the Pilotage Act of 1808, provision for general compulsory pilotage was made, which provision was included also in another Pilotage Act in 1812 with an extra paragraph :-

> *No owner or master of any ship shall be answerable for any loss or damage for, or by reason of any neglect, default or incompetence of any pilot taken on board of any such ship or in pursuance of any of the provisions of this Act.*

A somewhat simple concept, but the interpretation of this clause by the Courts of the day brought chaos for shipowners and pilots alike and fortunes for lawyers in the Admiralty Courts. The clause gave absolute freedom to ships under compulsory pilotage from claims for damage caused to other vessels or property. If ship 'A' under compulsory pilotage collided with ship 'B' perhaps a barge or other vessel not subject to compulsory pilotage, ship 'A' was free from liability even when under normal circumstances she was at fault. Under this interpretation ship 'A' was also free from liability for damages after striking a shore installation. For over a century this judgement based on an unsuitable clause in a Pilotage Bill adversely affected pilotage afffairs, causing dissention among pilots and hostility between shipowners and pilots. It was not until the introduction of the 1913 Pilotage Act that those contentions were finally eliminated.

The introduction of steam powered vessels brought in its wake widespread changes in pilotage. Pilots had to learn new techniques, finding that steamers were not seriously affected by tides, which made shiphandling somewhat easier. So much so that many thought that pilots did not need to be as highly paid. But of course the earliest steamers carried mails and therefore required a regular pilot to be available on arrival off a port. This brought the idea of 'Choice' or 'Appropriated" pilots to the fore. Such arrangements inevitably served as an irritant among ordinary members of many pilot services. But the sysem led to corruption and malpractise with the appointment of pilots to serve a single shipping company almost exclusively. Some Thames pilots held more than one appointment and 'farmed' the work out to non-apporpriated pilots. The authorities (Trinity House) did nothing to smooth matters out.

In respect of administration the Trinity Houses which had the responsibility for many pilot services were surprisingly lax. The Newcastle Trinity House for example, over a long period, collected extra pilotage fees to compensate their pilots for losses due to the relaxing of compulsory pilotage. Later the pilots complaining they had not received any compensation, learned that Trinity House had no intention of paying them and indeed could not account for the money. The pilots were forced to resort to Parliament and it was discovered that every year for over 10 years £3,200, due to the pilots, had been used illegally by the Elder Brethren. In total £24,000 had been withheld from pilots, whose average earnings were £180 per annum. They never were fully reimbursed. Similar misuses of pilotage earnings occurred elsewhere as at Dundee in the 1920's, when the harbour authority used the pilots' pension fund to pay legal costs incurred in defending the authority's actions in a court case brought by a shipping company.

The 19th Century saw a continuous series of court actions based on pilotage law or accidents in which pilotage was linked. Through incidents such as that mentioned at Dundee and the many items of litigation, Parliament was persuded several times to institute Inquiries; and there were quite a few. Major Parliamentary Inquiries were held into pilotage in 1812, 1834, 1865, 1870, 1888, and 1910. The three latter provided minutes of evidence and contain massive amounts of information as to the state of all pilotage districts and their previous 100 year's histories.

The 19th Century saw the greatest change ever faced by pilots who, over ages, had handled small wooden sailing vessels. Steam-power and metal hulls, paddle and screw propulsion, an enormous increase in ship-size and greater numbers of ships large and small, had to be handled with a lack of information as to how. The combination of legal constraints, problems with handling modern powered vessels and pilot administrations barely competent to deal with the new technologies and the many Inquiries brought the pilots together to form, in 1884, the United Kingdom Pilots' Association. They were fortunate to have from the beginning, a number of responsible persons who assisted the pilots to improve safety around the coasts and at the approaches to UK ports. It was a South Wales pilot who first proposed flashing lights on buoys and also suggested an occulting light. The UKPA made many recommendations to the Board of Trade on safety matters and have continued to do so.

The work of the UKPA was eventually placed before Winston Churchill in 1909 persuaded him to institute the 1910 Departmental Inquiry into Pilotage, out of which came the 1913 Pilotage Act which lasted almost 80 years and remains the basis of the present pilotage legislation.

During the Inter-war period pilots learned to handle very large passenger steamers up to the size of the then giants "Queen Mary" and "Normandie" in size and without the modern aid to navigation - radar.

During the 2nd World War, pilots worked under constraints and dangers never before known: buoys withdrawn, shore lights reduced in power or extinguished, channels mined by both friend and foe. Pilots on duty lost their lives by mine torpedo and bomb. With diminshed work for them in southeastern ports some pilots were sent north to handle vessels in ports around the Scottish coasts; an early recognition that the pilotage profession has a number of facets mutual and transferable - a concept now accepted world-wide. Today pilots for one district transfer permanently or temporarily to other districts in regions and hemispheres far distant.

Today, training courses and seminars on the handling of VLCC's, radar developments, communications, carriage of dangerous goods and other pilotage topics are available. A far cry from the days when a pilot boarded a wooden sailing vessel with very limited sailing characteristics to conduct her through unmarked channels. What will change in the next century? Will the pilot with his crew board an automated and unmanned vessel at the approaches to a port and bring that vessel to her berth? Come to think of it, will he use the personal term 'her' to refer to a vessel?

Notes:

This paper has been printed as an article in the book "The Nautical Institute on Pilotage and Shiphandling" published by the Nautical Institute, 202 Lambeth Road, London SE1 7QL (£75)

Sources for the History of Pilotage can be found in a paper H.M. Hignett "An Outline History of Marine Pilotage in Britain" in Journal of Navigation, vol. 31 No. 3 (Sept. 1978) pp 453-464.

THE ST. JOHN - LIVERPOOL SAILING PACKET LINES

Charles Dawson

ONE OF THE lesser-known regular direct transatlantic sailing packet lines between St. John and Liverpool was the one promoted by the shipbuilding brothers William and Richard Wright of St. John, New Brunswick.

The Wright brothers were sons of Richard, an emigrant from his native Cumberland. The idea of the transatlantic packet line was probably being formulated by Richrd during the years when he was taking their ships across to Liverpool for delivery and/or sale. This was quite a normal procedure during the heyday of the wood sailing ship when over half of the vessels registered in Liverpool were Canadian-built. Beazleys bought one of the most highly renowned of the Wrights' vessels, the ship *Star of the East*, 1219 tons, built in 1853. It cost them £16,000 and fitting out cost another £6,681. She crossed to Liverpool on her maiden voyage against strong northeast winds in 20 days and her portrait was painted by both Samuel Walters and Joseph heard on her arrival.

The packet line started operations in 1852, the Liverpool agents for the line being the very active brothers William and Jame Fernie, with whom the Wrights had dealings for several years. Some confusion must have been created in the trade because the line apparently muscled in on the Black Ball designation which had first been used by Isaac Wright of New York in 1816 and was also copied by James Baines in July 1852.

The sailing vessels they used, all of wood, were: DAVID G. FLEMING, 1425 tons, (1665 tons when made into a three-decker), built St. John, 1853; EUDOCIA, 1015 tons, built Digby, 1849; IMPERIAL, 1279 tons, built St. John, 1852; JOHN BANNERMAN, 1131 tons, built St. John, 1854; JOHN BARBOUR, 990 tons, built Carleton, N.B., 1852; JOHN OWENS, 1236 tons, built Digby, Nova Scotia, 1845; JOSEPH TARRAT, 942 tons, built Granville, Nova Scotia 1853; (chartered by Baines & Co in 1857); LIBERIA, 875 tons, built Quaco, N.B. 1852; *MIDDLETON*, 996 tons, built Campbellton, N.B., 1851.

The service was intended to be maintained by eight of the ships sailing from Liverpool and St. John twice a month. From St. John, the vessels carried lumber and passengers, the latter in cabin-class only because the temporary bunks and cabins of the steerage class were dismantled to make room for as much timber as possible. This accommodation was fitted in Liverpool, to cope with the emigrant trade from Europe.

In addition to the nine ships listed above, the St. John - Liverpool Packet Line used another seven vessels, two of which may be of special interest to Merseyside. They were :-

1) BOADICEA, 909 ton, built at St. Mary's Bay NS in 1847 by Malcom. New Bruswick Museum a fine painting of her by the Liverpool artist Joseph Heard, showing her - in one of his "memorable incidents" - in distress, seemingly aground, and depictingan unusual operation to be seen in a painting: laying outa kedge anchor (personal communication from member A.S. Davidson). We know that she survived that particular scare, for she sailed for another four years or so after Heard's death, finally beong abandoned in the North Atlantic in 1863.

3) DUNDONALD, 1372 tons, built St. John in 1849 by William & Richard Wright themselves. A painting of her in the New Brunswick Museum is stated to be by an anonymous Liverpool artist.

In January 1854 the line reported that they had despatched 8 vessels since February 1853, had loaded 13 cargoes and had carried a large number of passengers. Between 1852 and 1854, 6,000 passengers were carried,with very few cases of sickness in comparison with the norm on the New York run.

Presumably intending to develop the service, the Wrights, together with the St. John agents of the line, the Irish-born brothers James and Robert Reed, contracted with John Laird in Birkenhead to build two first class steamers, about 1600 tons each, "to be barque-rigged and worked by engines". The aim was to sail these once a month from St. John to Liverpool, calling at St. John's, Newfoundland en route. It is not certain whether anything came of this aim; in any case the sailing ship service was suspended in 1856.

The Wrights, perhaps seeing the writing on the wall, had by that time decided to discontinue building ships in St. John and to become shipowners in Liverpool and St. John. Richard Wright had of course come to know Liverpool well when he was taking vessels there for sale, and he moved there in 1856 to set up the management of the Wright fleet. His brother William remained in St. John for another ten years or so to supervise the building of vessels for their fleet in other yards and to manage the St. John's end of the business. The Wright yard on Courtenay Bay was taken over by Gass & Stewart and there they built two ships for the Wright fleet in 1857: *Rising Sun*, 824 tons, which carried emigrants to Australia, and *Sovereign of the Seas*, 1227 tons (not the Baines ship of the same name) which was burned by her crew in Sydney, N.S.W. on 3rd October 1861, an event it would be interesting to know more about. Their fleet eventually included two iron steamers: whether these were those originally contracted with Lairds for their transatlantic service is not known.

William Wright died in 1878 and Richard in 1881. Their nephew George Wright Gass, who took over the management of the fleet, did not long survive his uncles, and by 1892 the last of the Wright fleet was sold to foreigners. It would be interesting to know how much is remembered of it and family today.

A further, later attempt - probably the final one - to start a regular direct service between St. John and Liverpool was made by Howard D. Troop, of Rothesay, New Brunswick. His father, Jacob Valentine Troop, had commenced trading operations from St. John in 1840 with quite small vessels, but the son later built up the fleet. In 1881, he had the steamer *Cedar Grove*, 2181 tons, built in the UK with which to start a regular steamship service between St. John and Liverpool, but she was lost on her second trip. A second steamer, *Kentigern* which he bought c. 1901 was also lost, abandoned at sea in February 1904. By the time he died in 1912, the once proud Troop fleet consisted of a single vessel: *Howard D. Troop*, built by R.Duncan & Co. at Port Glasgow in 1892

Bibliography:

"Saint John Ships and their Builders" by Esther Clark Wright, Wolfville, Nova Scotia. 1976
"Reflections of an Era" by Robert S. Elliot & Alan D. McNairn., St. John, 1987
"The Passage Makers", M.K. Stammers, 1978 (with Capt E.A. Woods' notes (LNRS))
"North Atlantic Seaway" N.R.P. Bonsor, 1975
"A Survey of Mercantile House-Flags & Funnels, J.L. Loughran, 1979
"Marine Art & Liverpool, A.S. Davidson, 1986
Lloyds Registers
"Liverpool Shipping" by George Chandler, 1960

NOTE:
The author Esther Clark Wright and her husband Dr Wiliam Wright of Wolfville N.S., were members of the LNRS in the 1960's and '70's. In 1976 Dr Wright gave a talk to the Society on the loss of the sailing vessel *Albion* off the south coast of Ireland in 1860's. Report in BULLETIN Vol 2., p 197.

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Local Notes:

Oil rigs still appear and disappear within a few of miles of the Bar. One began work 25th March about 4 miles NW of the Bar.

Mersey Ferries continue their expensive mid-day triangular trips with commentary on the scenery. Hovercraft are being tried yet again. Two companies are planning cross-river services and one of them is looking at services to North Wales, Southport and even Blackpool. destinations under consideration are Tranmere, New Brighton, Seacombe, Otterspool, and of course the Pier Head. One run not aparrently considered is the easy one from Waterloo to New Brighton. Several Liverpool pilots are being trained to handle the craft-vessels-machines at a helicopter training centre.

BRAZIL
WEST AFRICA

ITALY - BRAZIL - ITALY
EUROPE - WEST AFRICA - BRAZIL - EUROPE

REGULAR SERVICE
CARGO & PASSENGERS

GRIMALDI GROUP

GENERAL INFORMATION

BOOKINGS - With your Travel Agent. To confirm reservation a deposit of 25% is required. Full payment is due 30 days before sailing.

TICKET - **The passage ticket is strictly personal and not transferable.** The ticket is issued by Sicula Oceanica on behalf of rispective shipping company owner of the ship for which the ticket is issued: Atlantica (R. Venezia), Grimaldi di Navigazione (R. Pisa); Grandi Traghetti (R. Genova) and Sicula Oceanica (R. Amalfi).

CONDITIONS - The conditions governing the contract of transportation are those printed on contract ticket.

The purchase of the ticket implies the acceptance by the Passenger of such conditions. **Fares, itineraries, schedules & conditions shown in this folder can be altered at any time with or without notice.**

EMBARKATION (MV. R. GENOVA - R. AMALFI) - **Dates of departure are purely indicative. It is therefore necessary, when making a reservation, to obtain confirmation of date of departure through the Tour Operator, the Travel Agent or the Company's Offices. A week before departure passengers must again obtain confirmation of sailing date. It is also advisable, before leaving their residence, to ask the Port Agent for final joining details (hour, pier of embarkation, etc.).**

MEALS - Meals on board are included in the fare. **Drinks and extras not included.**

PASSPORT - Passenger must be in possession of valid passport and visa when required. For the African ports vaccination against colera and yellow fever are requested.

VACCINATIONS - Brasilian authorities require vaccinations against yellow fever and cholera for those passengers coming from or having called at african ports.

ACCOMPANIED VEHICLES - Passenger must be in possession of all documents required for the disembarkation of the vehicle at port of destination. The Company declines any responsibility for difficulties arising from lack or faulty documentation. Vehicles can only be loaded with passenger's own luggage and personal effects.

LUGGAGE - Passengers are allowed to take only personal effects up to a maximum of 100Kgs. per person. Excess baggage or other types of effects are charged upon request.

CURRENCY - Currency on board is Italian Lira (Repubblica di Venezia and Pisa) and US dollar (Repubblica di Genova and Amalfi).

For the calls at African ports and Brazil passengers are suggested to take with them US dollars in small denomination.

CANCELLATION & REFUND OF FARE - All cancellations must be notified to the Company's offices either directly by the Passenger or through their booking agent. Cancellation fees apply as follows:

- up to 30 days before departure.....10%
- from 29 to 15 days before departure.....30%
- from 14 to 5 days before departure.....50%
- 4 days before departure no refund is due

The above conditions apply to the passengers fares and/or to rates paid for vehicles.

GRATUITIES: are not included in the fare.

GRIMALDI GROUP

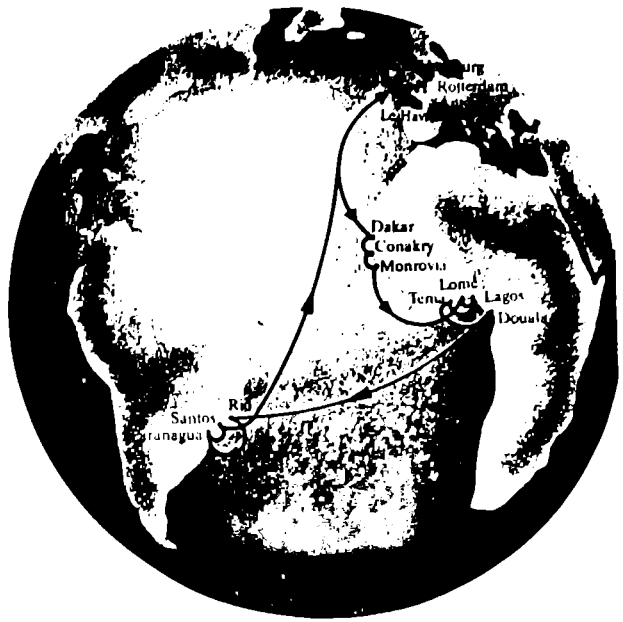
OFFICES **16121 GENOVA** - Via Fieschi, 17 - P.O. Box 1492
Tel. (010) 55091 - Telex 271132 - Telefax (010) 5509333

80133 NAPOLI - Via Marchese Campodisola, 13
Tel. (081) 5517739 - Telex 710058 - Telefax (081) 5517401

20090 RIO DE JANEIRO - Avenida Rio Branco 45 - Gr. 1610 11 12
Tel. (021) 2536599/2538671 - Telex 35044 - Telefax (021) 2332771

LONDON SW1Y 6ES - 103/105 Jermyn Street
Tel. (071) 9305683 - Telex 919030 - Telefax (071) 8391986

See your Travel Agent



SOUTHBOUND

Day	Port
—	Tilbury
—	Hamburg
—	Rotterdam
1	Antwerp
8	Dakar
10	Conakry
11	Monrovia
15	Lomé
16	Lagos
18	Tema
20	Douala
30	Rio
	Port

NORTHBOUND

Day Northbound	Port	Day Round trip
1	Rio	—
3	Paranagua	—
6	Santos	—
20	Le Havre	49
21	Tilbury	50

THE SOUTHERN CROSS ROUTE"

EUROPE CHANNEL PORTS
WEST AFRICA
BRAZIL

MONTHLY DEPARTURES

Every month approximately. **Please ask for the up-dated sailing schedule.** These voyages being made by passenger carrying cargovessels, departure dates, ports of call, arrivals, and departure times are **determined by cargo requirements.**

EMBARKATION - It is strongly recommended to embark at the last port of call before the atlantic crossing (Antwerp mostly).

DISEMBARKATION - Should be foreseen at the first north european port (Le Havre mostly) or latest at Tilbury.

FARES PER PERSON IN UK£ (EFFECTIVE JANUARY 1991)

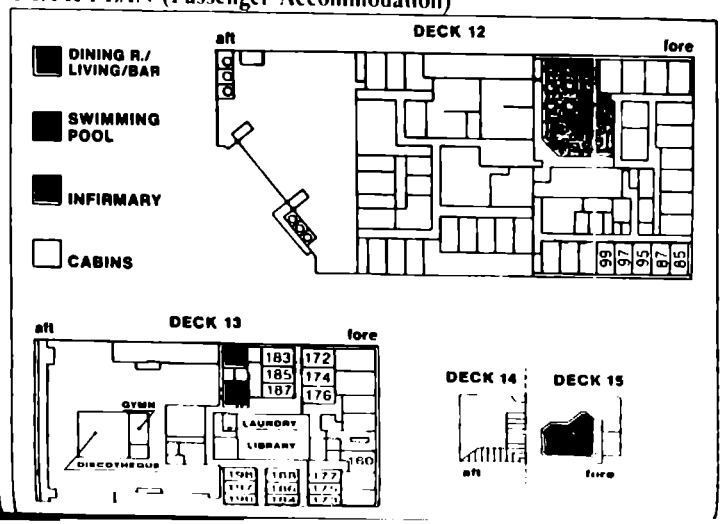
TYPE OF CABIN WITH PRIVATE FACILITIES	ROUND TRIP	FROM EUROPE TO DAKAR CONAKRY MONROVIA	LOME LAGOS TEMA DOUALA	BRAZIL	FROM BRAZIL TO EUROPE
BERTH, inside	1.500	450	600	1.020	520
BERTH, inside	2.190	630	850	1.490	730
MIN BEDS*, inside	2.440	720	960	1.650	830
MIN BEDS*, outside	2.930	850	1.160	1.970	1.010
NGLE, outside	3.770	1.100	1.490	2.550	1.290
WNER'S CABIN MIN BEDS, outside	4.050	1.200	1.600	2.730	1.390
13'/4" berth	560	180	240	380	190
ORT TAX Adult	75	60	60	60	60
Child	37	30	30	30	30

TAKE YOUR CAR WITH YOU

ARS	- up to 4 m	—	370	370	446	446
	- over 4 m	—	480	480	574	574
AMPERS, RAVANS, NTRUSES	- up to 5.5 m	—	630	630	764	764
	- over 5.5 m	—	740	740	892	892
[illegible]	[illegible]	—	160	160	192	192

MV. REPUBBLICA DI GENOVA
MV. REPUBBLICA DI AMALFI

DECK-PLAN (Passenger Accommodation)



THE VESSELS

These two units built in 1988 and 1989 are technologically the most up dated multipurpose roll on roll off vessels, and are equipped with the latest and most sophisticated equipment for safety at sea

Vital statistics:

Flag: Italian; Gross tonnage: 42500 tons; Length: 216 metres; Beam: 30,4 metres; Engine: GMT/Sulzer 8RTA58, 17280 HP; Cruising Speed: 18,5 Knots; Bow and stern thrusters; 2 Radars system ARPA; Meteolax; Cargo capacity 3500 cars and 1350 I.U.; Radio call: IBZY (Repubblica di Genova); IBYJ (Repubblica di Amalfi); Maripress - News services; Satellite telephone, telex, fax: 1150413 (Repubblica di Genova); 1150314 (Repubblica di Amalfi). **The ships are provided with international certificate for transportation of passengers.** Security rules are the same as for passenger ships

PASSENGER SERVICE

Passenger accommodation and lounges are situated on decks n. 12 and 13: 21 cabins with private shower WC: 1 owners cabin outside (twin bedded); 5 single cabins outside; 7 twin bedded cabins outside (with 2 additional upper berths on request); 2 two berth cabins inside; 6 four berth cabins inside (to be used also as twin bedded cabins). Dining room, Bar Lounge, Infirmary, Laundry, Swimming Pool, Videotheque, discotheque. All passenger accommodation and lounges are fully air conditioned. Electric current 220 Volt, 50