



# THE PILOT

The official organ  
of The United  
Kingdom Pilots'  
Association

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July 1974

Association

## 12th ANNUAL GENERAL MEETING of the EUROPEAN MARITIME PILOTS' ASSOCIATION

The twelfth EMPA AGM was held at the Tower Hotel, London on 8th and 9th May, 1974, the hosts being the pilots of the United Kingdom, from both organisations.

Delegates and observers from the member countries of EMPA—Belgium, Denmark, France, Italy, Germany, Netherlands, Portugal, Spain, Sweden and the United Kingdom—attended, mostly with their wives, together with two delegates from the new EMPA member country—Eire—whose membership was ratified on the first day of the Conference. There were also observers from Australia, Norway and Thailand. In all about 130 delegates and observers attended the meeting.



Waiting for the waiter:

(reading clockwise)—The Rt Hon James Callaghan MP and Mrs Callaghan, Captain Ragazzi (President of EMPA) and Mrs Ragazzi, Mr E Eden (Gen Sec & L A of UKPA) and Mrs Eden, Captain J Noble (President of the Fédération Française des Pilotes Maritimes) and Mme. Noble, Mr Frank Berry (vice-President of UKPA) and Mrs Berry.

## UNITED KINGDOM PILOTS' ASSOCIATION

20 Peel Street, London, W8

## Officers for 1973/1974

<i>President</i> .. .. .	..	The Rt Hon James Callaghan, PC, MP
<i>Honorary Vice-Presidents</i> ..	..	The Hon Lady Inskip Major James Burnie Mr H J Wynn Mr D H Tate, MBE
<i>Vice-President and Chairman of Executive Committee</i> ..	..	F Berry (Humber), 107 Newland Park, Hull, HU5 2DT, Yorks. (Hull 41984)
<i>Vice-President and Honorary Treasurer</i> .. .. .	..	T Morgan (Cardiff), 97 Maes-y-Coed Road, Heath, Cardiff, Glam. (Cardiff 62502)

*Executive Committee*

## Elected:

1971	E N Chambers (Preston), 32 Finsbury Avenue, Lytham St. Annes, Lancs.	(Lytham 5120)
1971	G A Coates (Teesside), 9 Stokesley Road, Marton, Middlesbrough	(Middlesbrough 35236)
1971	G W Gibbins (Sunderland), 78 Planet House, Sunderland	(Sunderland 77696)
1972	K Grant (Southampton), 172 Bassett Green Road, Southampton	(Southampton 69291)
1972	J A Edmondson (Cinque Ports), 2 The Glen, Shepherdswell, nr Dover, Kent.	(Shepherdswell 830231)
1973	P A Levack (London Channel), 29 Hillingdon Road, Gravesend, Kent.	(Gravesend 65254)
1973	D I McMillan (London River), 61 Pine Avenue, Gravesend, Kent.	(Gravesend 65154)
1973	G C Howison 11 McPherson Drive, Gourock, Renfrewshire	(Gourock 31928)
1973	N C Walker Wild Acres, Steam Mill Road, Bradfield, Manningtree, Essex	(Manningtree 2874)

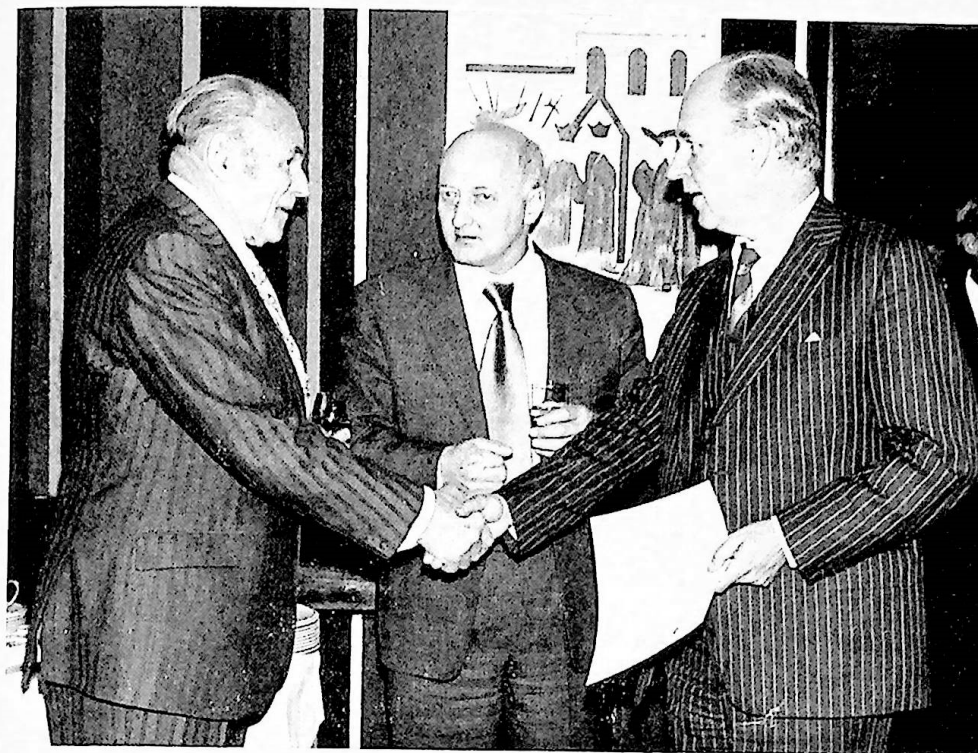
<i>Trustees</i> .. .. .	..	S Green A A Holland F Janes
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<i>Finance Committee</i> .. .. .	..	The two vice-Presidents
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<i>General Secretary and Legal Adviser</i> .. .. .	..	E Eden, MA, 20 Peel Street, London, W8. (01-727 1844)
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<i>Auditor</i> .. .. .	..	T G Harding, FCA. (Messrs Tansley Witt & Co, London)
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<i>Editor of "The Pilot"</i> .. .. .	..	David Colver
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Mr John Archer, Under-Secretary, Department of Trade, with two vice-Presidents of UKPA—Mr Frank Berry and Mr Tom Morgan.

**AGENDA**

- 1.—Opening of the meeting by the President.
- 2.—To receive and approve the Minutes of the 1973 AGM.
- 3.—Application of membership from the Irish Maritime Pilots' Association.
- 4.—**Economic subjects:**
  - (a) Election of two auditors to verify the books and balance-sheet.
  - (b) Debate on the Treasurer's report.
  - (c) New scale and rates of subscriptions. Proposal of amendment to Rule No. 6 (Captain Tate).
  - (d) AGM's costs and organization.
  - (e) Report of the Subcommittee A (earnings).
- 5.—**Administration:**
  - (a) Permanent Secretary.
  - (b) Debate on suggestions from the VNL.
  - (c) Report on the Executive Committee Meeting. Debate.
  - (d) Booklet.
  - (e) Standing-orders (Captain Morgan).

- (f) Reorganization of EMPA.
- (g) Date and place of the next AGM.

#### 6.—Matters of policy:

- (a) Debate on the Secretary's report.
- (b) Pilots' Charter.
- (c) IMPA AGM.
- (d) IMCO. Participation of EMPA pilots.
- (e) Honorary European Pilots. Proposal of amendment to Rules (Captain Tate).
- (f) Relationships between the Member Associations. Meetings of their Presidents.
- (g) Report of the Subcommittee C (legal aspects of pilotage).
- (h) Report of the Subcommittee D (working conditions).

#### 7.—Technical Subjects:

- (a) Channel and North Sea Pilotage.
- (b) Pilotage in Kattegat, Sound and Fasltorborev—(Proposal from the Swedish Lotsforbundet).
- (c) Safety campaign.
- (d) Symposia and seminars—Participation of EMPA Pilots.
- (e) Documentation Centre.
- (f) Accommodation Ladders Recommendations. *(See Report on page 13)*
- (g) Report of the Subcommittee B (technical sc).

#### 8.—News from Member-Countries.

#### 9.—Miscellany.

#### 10.—Press Release.



Captain M Guicharrouse, the Secretary of EMPA, with his wife.

The full social programme for EMPA delegates, observers and their wives had been arranged by a Joint Organising Committee consisting of three pilots from each of the UK organisations; Tom Morgan (Chairman), Alec Beere (later replaced by Terry Russell), Harry Frith, Keith Grant, Neville Owen and Colin Rhodes. The entertainment arranged for participants in the EMPA Conference was as follows:

On Tuesday evening, 7th May, Her Majesty's Government gave a Reception for delegates, observers and their wives at Lancaster House, at which Mr J Clinton Davies, MP, Parliamentary Under-Secretary of State for Trade, received the guests.

On Wednesday evening, 8th May, the Deputy Master and Elder Brethren of Trinity House kindly extended an invitation to all participants and their ladies to a Reception at Trinity House,

and on Thursday evening, 9th May, the Chamber of Shipping were hosts to EMPA for cocktails, after which the pilots of the United Kingdom gave the traditional farewell Dinner Dance at the Cumberland Hotel.

In addition, a Luncheon for the Executives of EMPA, and both UK Pilots' Organisations, together with official guests, was held on Tuesday, 7th May, at the Tower Hotel.

During the day, while their husbands were engaged at the AGM, coach trips were arranged for the ladies. On 8th May there was a Tour of London, and on 9th May a trip to Hampton Court and Windsor.

At the farewell Dinner Dance on 9th May, the President of EMPA, Captain Ettai Ragazzi, presented to the President of the United Kingdom Pilots' Association, The Rt Hon James Callaghan, MP, a Gold Medal and the title Honorary European Pilot for his services to pilotage, which, Mr Callaghan said, he was honoured to receive. Two presentations were also made to Miss Yvonne Blake of the UKPA who had acted as Secretary to the Joint Organising Committee and who had been

Miss Yvonne Blake with Captain Ragazzi.



Captain E Ragazzi, the President of EMPA, with his wife.

deeply involved in the arrangements for the AGM. The first, a modern ornament inscribed 'To Miss Y Blake from EMPA, 9th May, 1974' was presented by Captain Ragazzi, the President of EMPA; the second—a piece of jewellery—was presented by Mr Colin Rhodes on behalf of members of both pilotage organisations in the UK.

From letters of congratulation and thanks received after the Conference it would seem that the 12th Annual General Meeting of EMPA was both successful and enjoyable; and pilots of the United Kingdom will undoubtedly look forward to the next time they will be host to the EMPA Meeting—ominously in 1984!

The 13th EMPA AGM will be held in Sweden, and Captain Vettlevik took back



with him to Sweden the model boat which is always presented to the next host country.



Mr C P Srivastava, the Secretary-General of IMCO, being greeted by Captain Ragazzi, with Mr Colin Rhodes looking on.



The Rt Hon James Callaghan MP receiving a special gold medal from the President, Captain Ragazzi, on the occasion of being made an Honorary European Pilot.

## Obituary

### Archie Trace

A retired Belfast Harbour pilot, aged 76, Archie Trace was an ardent member of the UKPA up to his retirement in 1963. Mr A G Starkey (Belfast) writes "He was the holder of an Outside Trinity House pilotage licence: I believe the last one issued to pilots outside the Trinity House area. When attending the 1938 Conference with me, he made a passionate plea for the grading of pilotage areas—that was some years before the Letch Agreement was made."

His apprenticeship was with Houlder Brothers and he sailed as Master before joining the Belfast pilotage service in 1930. He became choice pilot for Harland and Wolff and for the Admiralty and was awarded an MBE for his work, which included being pilot in charge of vessels bringing Royalty to Belfast. His proudest possession was a jewelled scarf-pin presented to him by King George VI when on a wartime visit to the Province.

A native of Poole in Dorset, he retired to Holyhead in Wales with his wife,

Gwen, to whom we extend our sympathy.

WJK

### Noel Dalton

We sadly record the death of Thomas Noel Harvey Dalton, who died at his home on 27th February after a short illness.

Born in South Shields in 1910, he joined his first ship in 1924. After obtaining his Master's Certificate he joined Stephenson Clarke Ltd. and served with them for many years. During the war, while in command of SS *Eleanor Brooke* he was commended for Brave Conduct, 30th May, 1944, after taking his ship into a minefield to rescue the crew of a burning tanker.

He entered the Trinity House Pilotage Service at Shoreham in 1953, eventually becoming Senior Pilot and being appointed Sub-Commissioner in 1970.

Noel took an active interest in all pilotage matters and during the twenty years he served at Shoreham he became a well known and popular figure in the community. He leaves a widow and family to whom we express our deep sympathy.

E.W.

## SHIP HANDLING SYMPOSIUM

Held at the Netherlands Ship Model Basin, Wageningen, November 1973

We are fortunate in having coverage of this symposium by two representatives of UKPA, Mr J P Munro (Chairman, National Technical Committee) and Mr D Barrett, whose reports which are largely complementary have both been reproduced with attribution under subject headings.

The symposium was held on November 29th and 30th, 1973, during which period 16 papers were read and discussed, together with a visit on the evening of the first day to the Netherlands Ship Model Basin (NSMB) situated at Wageningen. Mr Barrett's attendance at the symposium was limited to the visit to the NSMB and the second day papers.

### Papers and Discussions

*J P Munro writes:*

The scale of the organisation by the Netherlands Ship Model Basin (NSMB) was very impressive and well justified by the attendance of more than four hundred international participants. The approximate number of pilots attending was 20 including from the UK (and generally more vocal) J Bain, D Barrett of UKPA, R S Boyles, P J H Tebay of BMPS, L O Thornton of Trinity House, and myself. All but one of the sessions were accompanied by preprints and the speakers' performance varied from reading the paper, or highlighting and amplifying certain aspects of it, to a complete continuation of the subject. Various forms of visual aids were used, diagrams, films and slides, the latter not being conducive to taking notes. Therefore these comments should be read in conjunction with the printed papers.

The first session **Ship Handling at Sea** began with—

1. *Lightening at Sea* by Captain Laws of Shell International Marine which, from practical ship handlers, whetted our appetite in anticipation of the papers to follow. The lightening operations involving "M" class tankers (212,000 tons, 1,076 feet long, 62 feet draft) by the *Drupa/Darina* (73,000 tons, 830 feet long) had now been in operation for six years without any major accidents. Normal mates' and masters' training methods had been used

and they had not found any need to resort to the use of simulators.

The popular Shell film *Murex to Darina* was then shown, relevant aspects of which were, the bridge was fully manned-up, Master, 2nd Mate, Engineer on telegraph, helmsmen; there was a full astern movement before approaching other vessel, both vessels were steaming, Slow Ahead was used to go alongside; calm weather, wind ahead; Master asked the Mate for'ard if the ship was still moving ahead; daylight; limiting conditions left to lightening Master.

Capt Laws, in answers to questions, said that a maximum 6ft sea was tolerated with no limit on wind force. Officers served two months on and one off for a period of one year but now Masters are reluctant to leave the DRUPA/DARINA even though the intensive operations are accompanied by a certain amount of strain. However with personal knowledge of these Masters I think that other factors influence their reluctance to return to "deep sea".

2. Professor Tani, *Tentative Manual of Ship Handling in Rough Seas*. In the past with ships under 20,000 tons it was very obvious when a vessel was labouring and in a possible situation where damage may result. However vessels in excess of this tonnage, because of their design and size, do not always convey this possibility to Masters and structural damage may result. Actual observations on vessels of the first category were taken in the North Atlantic



and North Pacific Oceans and then applied to bulk carriers of 53,000 and 60,000 dwt and graphs of deck wetness and propeller ship increment were obtained. The results proved that certain inaccuracies did exist but nevertheless it still provided an invaluable guide.

3. *Correlation between Full Scale and Model measurements on Ship Manoeuvrability*—Mr Okamoto. In retrospect, this paper was the nearest point the researchers achieved to practical ship handling, because at least they were comparing the behaviour of 6 metre and 14 metre models to that of an actual ship. The results had been used to improve the models by adding protruding fins to the hulls in an attempt to achieve manoeuvring data of a 245 metre vessel.

4. *Dynamic — stationing systems* — H J Zunderdorp Shell Exploration, Netherlands. The paper dealt exclusively with unmoored drilling platforms' ability to stay over one spot on the ocean floor. The general conclusions on page sixteen of the printed paper condense it into the principle areas of interest.

Second session on *Ship Handling in Confined Waterways*.

5. *Operation of Ship Traffic in the Port of Rotterdam*—F. Vissee, Ministry of Transport, Netherlands. It was illustrated that the port of Rotterdam could be divided into three areas, one for sea going ships, the second of mixed seagoing and inland, and thirdly inland. The transshipment aspect of its operations presented special problems.

The Waterway allows a maximum draft 65 feet into Europort, 45 feet to Botlek-haven and 40 feet to Waalhaven all at high water, allowing for 10% under-keel clearance. Various aspects of the port's operations were illustrated, the radar chain, traffic centres, patrol craft, organisation of pilotage (governmental and municipal), municipal harbour masters, harbour co-ordination centre, composition of traffic, traffic management and passive traffic control—which includes safety of shipping and the economy of the port which can conflict but in practice there is a balance. A summary of accidents from 1963-72 showed a downward trend as from the introduction of active control in 1969.

6. *Influences of the Water Depth on the Manoeuvring Characteristics of Ships*—G van Oortmerssen NSMB. Although this is a practical problem to pilots it was very quickly turned into a mathematical description of the manoeuvring ship. The resultant formula produced no practical answers, largely it confirmed what is already known. However, the manoeuvring of unconventional ships can be studied and investigations into new ship designs, optimum configurations for new channels and harbours, and risk analyses for present harbours can be made (mathematically).

7. *Design of Harbour Configurations in view of Navigational and Hydraulic Aspects*—R Reinalda and J Koster, Hydraulics Laboratory, Delft. This paper illustrated the problems of harbour design firstly from the geographical aspect and secondly from the ship manoeuvring parameters.

As a parting shot it was suggested that human control is not accurate enough!

The Third Session—*Human Engineering Aspects*.

8. *Method of Operation for the Pilotage of Large Ships entering Hook of Holland*—Director of Pilotage. I don't think Capt Maas made any apology for not presenting a written paper, his subject was essentially practical and was of great interest to all of us. The pilotage service dealt with 70,000 sea going vessels per year. It was essential that methods were studied and updated as ships change introducing such things as traffic schemes for deeply laden ships and also for the volume of coastal ships. The Euro-channel was 1200 metres wide with an abort anchorage provided in case of emergency. There was a thirty degree course alteration at the Maas buoy and also crossing coastal traffic to contend with. A situation surveillance was operated by pilots at Maas radar station. Local conditions included a lee shore in NW-SW winds, a poor coast line and a strong cross tide.

Considerations for an expeditious passage of a vessel required a reliable ETA survey of ship and cargo, designation of priorities, berth and availability of a pilot for that particular ship. Communication with the pilot on board and a progress

report was essential. Capt Maas stated that traditional pilotage was no longer sufficient, what was an art has now become a technical profession. The organisational methods at the Hook were dominated by the VLCC, the maximum being four on one tide with an entry interval of 45 minutes between them. In 1970 68 of these ships used helicopters for boarding/landing pilots but by '73 there was a 98% usage including conventional ships on occasions in bad weather. The organisation of the helicopter service was lengthy and detailed, the communications aspect being very important. (A pilot at home would receive two and half hours notice). The arrangements for a VLCC would begin nine hours before actual entry. The plan would conform with the entry schedule and the pilot must draw up a routine before leaving the Hook, giving the times of passing the EWO-channel buoys which in practice must be complied with allowing a plus or minus five minutes tolerance.

From the Maas buoy the vessel is completely committed for twelve miles.

The Decca has been arranged to coincide, with the channel centre line, a "Brown" pattern from the pilot's base is connected into the ship's Decca chain. Due to the involved system for VLCC's a second pilot always assists.

What of the future? Better and faster boarding could result in cost economies—better radio systems on board ships—telex—improved instrumentation, particularly rate-of-turn indicators—all vessels with helicopter boarding facilities and particularly ships designed for conventional pilot boarding.

9. *Analysis and Training of Ship Handling Capabilities*—K Meurs NSMB. The human factor in ship handling had emerged during observations of pilot's and master's performance on the ship simulator. The printed paper does not require amplification and has similar parallels with the proposed UK Human Factor study. An interesting comment was that a man was assessed and given a code number which was then passed on to his company.

10. *Mental Load during the Manoeuvring of a Large Ship*—C L Truyens, Inst of

Perception, Netherlands. Again this study was centred round the ship simulator and the issue had been the question of helping the human operator of a large ship, ie, the ship's master, the pilot or the helmsman, by providing the ship with auxiliary equipment that will improve the performance of the man-ship system.

An experiment had been undertaken in which six pilots made sixteen twenty-five-minute simulated runs with a VLCC along three leading marks allowing for wind and current. The heart rate was recorded and significant changes observed in keeping with severity of the straight to curve transition.

Maximum load is difficult to establish, one method is to compare certain situations where the task remains the same, then compare these results when additional aids are provided. However auxiliary equipment may not show an improvement in performance in normal circumstances, but in extraordinary situations would be of benefit.

11. *Ship Handling Aspects in context with Channel Design*—L A Koele, Ministry of Transport, Netherlands. This paper was from a civil engineer's view-point and was, as the title implies, concerned with the factors which dictate the dimensions of a channel. Obviously the factors which are directly related to human control can be variable and the provision of aids and their use by human operators can greatly influence the ship's behaviour.

The results of investigations for the Euro-channel were based on recordings of the behaviour of actual VLCC's as well as tests made on the ship simulator. Three important aspects were, choice of ship's speed, availability and presentation of data on board and, finally, the use of the data by the pilot and master for controlling the ship in the channel.

The Final Session was described as **Miscellaneous**.

12. *Statistical Analysis of Ships' Manoeuvres*—I Oldenkamp, NSMB. This was another example of research to prove a mathematical model and once having

achieved this, then the relative channel widths could be obtained.

13. *Docking and Mooring of a VLCC Inside a Harbour*—J W Oosterbaan, Port Management, Rotterdam. Being a port manager, Mr Oosterbaan was careful not to tread on Rotterdam Harbour pilots' toes. Basically he described the various hardware available to measure the speed of approach to a jetty. The views of the pilots were illustrated, including the divergence of opinion on the type of information required. Two important factors in jetty damage were the power of the tugs to arrest the final approach velocity and the construction and fendering of the jetties.

14. *The Approach and Mooring of Large Tankers to an Offshore Buoy*—Captain J Renton, Single Buoy Moorings Inc. A brief description of the buoy was given together with an account of the preparation, approach and mooring operation. It was agreed that the speed of the approach and the distance from the buoy were difficult to assess. The problem of a vessel sheering whilst moored is apparently dealt with quite simply by the mooring launch pushing on the bow.

15. *Improvement of Ship Manoeuvrability by means of Automation*. We had unfortunately returned to mathematical models to prove that auto-pilots are quite good at course keeping. However we were not surprised to discover that if you add a computer the steering is even more efficient. At present the only practical experiments had been on board the pilot vessel *Capella*. Perhaps the reasons for such research are more evident in this quote from the paper. "The increasing density of ships in confined waters will possibly necessitate an automatic traffic control system in the future, such as the systems that are commonly used in air traffic at the moment. This will only be possible when auto-pilots are used which give the ship optimum performance in all circumstances".

*D Barrett writes:*

The papers read during the second day varied in interest, with one or two being so technical as to be difficult for me to com-

prehend. The only paper read by a practical man at the Ship Handling Symposium concerned single-buoy moorings and virtually consisted of a description of the types of moorings and an opinion that the best aid to the successful operation of this simple mooring system is a well trained mooring master and the avoidance of tugs in the operation. Both these points were queried in the question time and both opinions were withdrawn.

A paper presented on mental load during the handling of large tankers produced some interesting contradictions to the generally accepted theory that sleep deprivation inevitably reduces work performance. Six Dutch pilots took part in an experiment on the Ship Handling Simulator after having spent a night awake. The experiment required the pilots to make sixteen 25 minute simulated runs with a 300,000 ton tanker. The pilots' physiological variables were measured with electrodes, *ie* heart, skin, eye movement *etc*. It was found that the sleep deprivation did not reduce the performance and it was concluded that manoeuvring a super tanker in a simulator is a demanding and interesting task and that the pilot's were motivated to perform well so that lack of sleep can be overcome by high motivation and an interesting task. Additionally, the pilots ranged in age from 56 to 59 years, and it was also concluded that they had prolonged experience of lack of sleep and so were apparently not sensitive to it.

Another paper entitled *Human Engineering Aspects* and subtitled 'Analysis and Training of Ship Handling Capabilities' outlined the problems resulting from building ships of larger size, speed and complexity, the larger vessel requiring larger time circumstances, *ie* (think-ahead circumstances) which could exceed the human information processing ability, the complexity of the controls necessitating high training levels, and lastly the economic necessity of having the minimum number of bridge personnel. The paper goes on to say that human components in a man-ship system do not lend themselves to the conventional methods of the technician as the technician tends to describe man in a mathematical way. It is agreed in the paper therefore that ergonomics, which is

based on taking human factors in the design stage, falls short of requirements when there is little useful information regarding the behaviour of man in ship manoeuvring situations.

One of the activities since the ship handling simulator was commissioned has been to look at the problem of integrating mariners where possible into the design, so that the authors of the paper called for a closed loop system with the human element suitably backed up by instruments.

Results of exercises performed by mariners show that there was a great difference between individuals, which in some cases was alarming. Often one individual performed so poorly against the average of the rest of the group that at the best it was hoped the course would make him aware of his limitations. It was also found among ship masters with experience of handling smaller ships that this proved to be a handicap rather than an asset, probably because the ship master with only limited ship handling experience of smaller ships, say a T2, would apply the same technique when simulating a VLCC, resulting in a lot of small rudder alteration, changing course too late, *etc*.

#### Simulation

*From Munro:*

The visit to the NSMB at Wageningen was very interesting, the various model tanks were most impressive. The models being tested included a container ship, a large catamaran hull, a pipe-laying barge, a semi-submersible oil rig and an SMB. The ship simulator was disappointing on two counts. Namely, it was not in full operation, the radar being the only equipment working; also the actual dimensions of the bridge were no longer than that of a coastal tanker and for myself the sheer size of a VLCC bridge is an important factor. However, had I been able to "have a go" I feel that the simulation was good enough to get the real atmosphere.

*From Barrett:*

The Ship Model Basin is a complex of research facilities, with a staff of about 350 persons which, judging by the equipment and buildings has expanded to an enormous extent within the last decade, no doubt in

line with the dramatic changes in modern technology that has also occurred during recent years. It would seem that the vast capital expenditure (the complex of laboratories has an insured value of about £5,000,000) has been justified by the equally large capital expenditure on new ship building, particularly in the large tanker and container-ship field. It would appear from sighting the complex and reading the hand-outs, that practically any problem in ship design can be simulated with a view to eradicating operational and economic problems before a ship is put into commercial operation.

My main interest, however, was to see the Ship Manoeuvring Simulator, which is one of the most recent additions to the complex, having been in operation since late 1970. The NSMB were advised by the Dutch Institute of Perception in the method of simulation and certainly if a mariner attended the simulator without knowing where he had been taken, he could conceivably think he was proceeding from the lower deck of a real ship on to a ship's bridge through a chart room, the decor and fittings being representative of any modern vessel. The bridge itself I regret to say, however, is a theorist's ideal, combining neatness and I suppose ergonomic principles ideally suited for trans-ocean navigation, but in my opinion unsuitable for close quarter conning. Nevertheless there is a good degree of similarity to the real thing, and when one considers the limitations, *eg* no actual berthing simulation, then having passed through the acclimatisation approaches mentioned above one cannot deny the depth of study taken before the installation was commissioned.

The wheel house, which would seem small if the handling of a VLCC was being undertaken, has all the instruments and controls regularly seen on these ships set out in a console stretched across the front under the forward raked windows. Simulation is achieved by a strong light source above the wheel house with a series of transparencies round it which produce images on a drum screen around the wheel house. Taking the simplest operation as an example—putting the wheel to port would cause the drum to revolve clockwise and so



produce an illusion of the ship's head moving to port. There is, however, a great degree of sophistication built in to produce wind, current, bow thruster and tug effects. Additionally, there is a 16" radar display which mates up with the projected display seen through the wheel-house window. All the action is controlled by a computer which also provides a read-out in the Control Room, so that whatever is taking place on the bridge can be monitored in the adjacent control room.

The above is only a brief description of the simulator, and as a professional ship handler I can only marvel at the depth of thought and attention to detail that has gone into this project.

In the brochure describing the simulator and explaining the philosophy behind it the point is made that ship handling has become limited by human aspects and that traditional training has proven to have limitations as follows:—

- (1) One cannot anticipate over long time intervals.
- (2) One is not able to detect a very small change of position.
- (c) One is not able to determine how much rudder angle is needed to correct the position because one cannot discern to which degree a change in a ship's position has been caused by influences other than rudder, *ie* wind, current, or compass disturbance.

So far as all these points are concerned I feel that a moderately experienced pilot takes these obstacles daily without having to analyse his motivation to any real extent. Nevertheless, for the occasional ship handler, because of the sophistication built in, a good deal of experience can be gained, much as pilots, I feel, have generally benefitted from attending radar simulator courses.

In conclusion, as one of the few pilots attending (12 out of 400 participants), it would seem there is no limit to the money, ingenuity and research that the technical bodies associated with shipping will go to in order to ascertain how a relatively small body of ship handling specialists seem to have generally taken the technological explosion within the shipping world in their stride, although it remains

to be seen what effect the hidden stress involved will have after a decade of intense application to moving larger ships quickly and safely.

### Obituary

#### Jack Pearce

After a long illness, the death has occurred at the age of fifty-four of Commander Jack Seward Pearce, RD, RNR, a former Trinity House pilot who retired in March 1972.

Jack Pearce, whose father was a pilot and who was born into a family with a long tradition as Southampton pilots, was educated at Oakmount School, Southampton, and then in Switzerland, Austria and Germany.

On leaving school he served first in the New Zealand Shipping Company's cadet ship *Durham*, and then as a midshipman in *HMS Sheffield*. Recalled to the Royal Navy during the war, he served in a destroyer in the Western Approaches, an anti-aircraft ship on the East Coast, and finally settled in submarines in 1941, in which arm of the Service he was later given command.

He returned to the New Zealand line with a Master's Certificate until called to the Pilotage Service late in 1946.

Whilst on the Inward Pilotage, based on the Isle of Wight, he developed his interest in Scouting and became District Commissioner for North Wight and Assistant County Commissioner for Sea Scouts. He was transferred to Southampton as an Outward Pilot in 1956, where he became Choice Pilot for the Bibby Line troopships until 1959 and then was appointed Choice Pilot for the North German Lloyd Company.

In 1961 he was elected Secretary of a Committee of Pilots to look into the possibility of building a new Pilot Station to replace the one at Hythe. This work culminated in the building of the new combined Port Communications Centre and Pilot Station at 37 Berth, which was opened in July 1972.

Commander Pearce, who lived at 16 Brampton Manor, Bassett, leaves a widow, two sons, two daughters, and two grandchildren, to whom we offer our respect.

## STRANGE CRAFT — PILOT ABOARD



Photo courtesy BP Ltd.

On Saturday, 29th June, 1974, Gerald Coates (Tees and member of the Executive) piloted the immense BP oil rig *Graythorp I*, perched on a small wooden platform erected on the front, and with a plotting table immediately underneath him.

After the structure, 400 ft long and with base dimensions of 275 ft by 230 ft, had been winched out of the construction yard near Hartlepool—which operation started at 0230 and finished at about 0730—the two sea tugs *Nordzee* and *Simpson* (each of about 11,000 hp) were connected and, with the assistance of the Tees tugs, towage down the Seaton Channel began about 0800. Surveyors ashore observed the platform during its passage down the Seaton Channel and passed information on VHF regarding its position relative to mid-channel.

The Seaton Channel is about a mile long and in three legs (*ie* with two turns). When *Graythorp I* was on the centre line of the channel there was about 10 metres clearance on either side.

On entry in the main Tees channel, the rig was formally

(Continued at foot of page 15)

Gerald Coates



## Coastlines

### EMPA Safety Week

Pilots are always required to satisfy themselves that the ship they are called upon to handle complies with the safety regulations and is not a menace to shipping in close waters. Early this year EMPA called for a week of concerted effort to highlight some of the lax or wayward operators. For this week, pilots, in the normal course of their duties, were asked to report defects and deficiencies in safety standards on a special form to be forwarded to the EMPA secretariat in Marseilles. Not only were some serious cases of laxness and defect revealed, which have now been reported to both the shipowner and the government department concerned with maritime safety, but defensive cries have been heard that pilots should 'mind their own business'.

The essence of pilotage is safety. EMPA's efforts were neither obstructive nor impertinent but a positive contribution towards raising the standard of the lowest in the maritime world to the level necessary to avoid hazard to that inadequate ship as well as to other shipping, life or property. By making owners and their governments aware of actual cases of laxity, revealed in a week of special reporting, only good can result in the cause of maritime safety. The exercise already appears to have had some salutary effects. We applaud EMPA's initiative in this matter.

### Younger Brothers

Our warm congratulations go to George Dawson, DSC, and to Stanley Williams, MBE, who were admitted as Younger Brothers of Trinity House on 31st January.

Mr Dawson was on the Southampton Outward Station and retired in early January whilst Mr Williams retired from the Cinque Ports Station on 31st December, 1971.

To admit pilots, retired or otherwise, as Younger Brothers is a new departure by the Elder Brethren and for this reason may be of particular interest to Trinity House members of the Association.

### Bill Reilly Retires



We learn from Southampton that arthritis has compelled Bill Reilly to take a premature retirement. He has been troubled with an arthritic spine for many years but this became so stiff and bent that he had to retire on 1st February.

William F Reilly first went to sea apprenticed to H Hogarth and Sons in January 1932. Having obtained his first mates certificate he joined Union-Castle and served in all classes of their vessels, throughout the war and afterwards.

Appointed to the I-O-W Inward Pilot Service on 20th February 1951, he obtained a First Class licence on 2nd March 1954. He was Choice Pilot for Union-Castle for three years and transferred to the Outward Pilot Service on 15th September 1959.

Bill has thoroughly enjoyed his time as a pilot, especially the companionship of his colleagues in the Service and it is much to his regret he was forced to retire.

Bill will know that he has the silent sympathy of all his fellow pilots who can do

little more than wish him relief from much of his pain in a less demanding way of life.

His immediate companions on the Southampton Station are still getting over some recent parties (which must have been good ones!) and so they are holding over Bill's presentation and retirement party until the summer leave period is cleared and it will probably be a joint celebration with Peter Salisbury who is retiring in September.

### Trinity House Board

Captain Thomas Woodfield has been elected an Elder Brother and appointed a Member of the Board of Trinity House in place of Captain A J Newport, who died last year.

Prior to joining Trinity House, Captain Woodfield held command of the Royal Research Ship *Bransfield*, and has been engaged in surveys in Antarctica and the Southern Ocean. He first went to sea in 1950 as an apprentice with Port Line Limited, and has seen world-wide service. He was promoted Master in 1964 and was awarded the Polar Medal in 1972 for his services in the Antarctic.

### Droll Drogue

With an understandable desire for anonymity, one of our members relates a memorable event in London. During the recent few days of sunny weather a small group of pilots were working away round the table of a conference room in one of the newer, plusher, over-heated hotels. Due to the heat, all of the group had taken off their coats. Our particular friend, sporting a pair of brilliant red braces, thought, in deference to the company and the tone of the surroundings, it would be more seemly to unhitch the front clips and toss them into a less conspicuous place over his shoulders.

At the end of a long agenda, tired and gasping, the members of the working party dispersed in smaller groups, mostly still talking, jackets donned, ties straightened, and made their way through the deep-pile carpeted corridors, expensive looking fashion showcases and immaculately uniformed attendants in the foyer to the outer world in search of honest British refreshment.

Our friend, walking with calm dignity through the foyer, was remarking to himself that he could never afford to stay in a place like this and that all the clientele appeared to be Continental or American. However, it was good to see that the best of the traditional standards of politeness and unobtrusive cheerfulness had been inculcated into the staff: even the "regimental" hall porter had the merest trace of a friendly smile for him and a cheerful page boy opened the door in a perfectly drilled exercise, no doubt accustomed to a generous tip for this flamboyant service.

Outside in the fresh air once more, he paused at the side of the hotel entrance to buy an evening paper—this came with the remark, made with genuine concern, "'Ere Guv, don't trip over yer braces". Sure enough, there behind him were a couple of yards of scarlet elastic!

The organising secretary has already been asked not to arrange next year's meeting at that hotel. The foreign visitors will have gone home by then, and some of them may even have thought that dangling one's braces was some quaint old English custom—but to be recognised by the RSM and his platoon of pages! That would defy even the imagination of Bateman the cartoonist.

### STRANGE CRAFT—(continued)

handed over to the BP Contractors, Messrs Brown & Root, and towage proceeded out to sea prior to placement on the sea bed for duty in Forties Field as Britain's first North Sea Oil Production Platform.

Gerald probably looked as calm at the end of the assignment as he does in the photograph taken at the recent AGM but, after his vigil among the steel tubes, very much in fresh air, his only comment was that he was jolly cold. Another pioneer, Monsieur Bleriot, in his historic crossing of the English Channel in a smaller but equally unprotected structure must have had somewhat similar feelings.

All in the day's work, maybe, but worth a hearty cheer from all around!



## Local Secretaries

Aberdeen ... ..	H. McKilligan ... ..	Aberdeen Harbour, North Pier, Aberdeen
Ardrossan ... ..	A. Caldwell ... ..	13 Chapelhill Mount, Ardrossan, Ayrshire
Barrow-in-Furness ... ..	R. Moore ... ..	Windswept, 35 Roa Island, Barrow-in-Furness, Lancs. LA13 0QL
Barry ... ..	J. Bennett ... ..	Brent Knoll 92 Port Road East, Barry, Glam.
Belfast ... ..	W. J. Kirkpatrick ... ..	15 Downshire Gardens, Carrickfergus, Co. Antrim, N. Ireland
Bridgwater ... ..	C. Muller ... ..	124 Worston Road, Highbridge, Somerset TA9 3JX
Brixham ... ..	R. J. Curtis ... ..	Abri, 31 Gillard Road, Brixham, Devon TQ5 9EG
Cardiff ... ..	E. F. Williams ... ..	39 Arles Road, Ely, Cardiff, CF5 5AN
Clyde ... ..	J. M. Farmer ... ..	239 Eldon Street, Greenock, Renfrewshire
Colchester ... ..	P. Hills ... ..	26 Regent Road, Brightlingsea, Essex
Coleraine ... ..	W. Dalzell ... ..	Harbour Office, Coleraine, Co. Derry, N. Ireland
Exeter ... ..	B. L. Rowsell ... ..	17 Camperdown Terrace, Exmouth, Devon
Falmouth:		
Sea ... ..	Mrs. S. Hampton ... ..	14 Arwenack Street, Falmouth, Cornwall
River ... ..	J. Timmins ... ..	1 Pons Harden Cottage, Pons Harden, Falmouth, Cornwall
Fowey ... ..	M. H. Randolph ... ..	Elm Cottage, East Street, Polruan-by-Fowey, Cornwall
Gloucester ... ..	B. H. Richards ... ..	Southerly, 60 Combe Avenue, Portishead, Nr. Bristol, BS20 9J5
Goole ... ..	B. Tong ... ..	126 High Street, Hook, Nr. Goole, Yorks.
Grangemouth ... ..	R. C. MacMillan ... ..	31 Crichton Drive, Grangemouth, Stirlingshire FK3 9DF
Hartlepool ... ..	B. G. Spaldin ... ..	24 Kesteven Road, Fens Estate, West Hartlepool
Hull ... ..	R. B. Campbell ... ..	25 Taylors Avenue, Cleethorpes, Lincs.
Inverness ... ..	T. H. MacDonald ... ..	Nyhavn, 14 Leys Park, Inverness
Ipswich ... ..	J. Wright ... ..	"Rosapenna" 9 Cliff Lane, Ipswich, Suffolk
Isle of Wight... ..	A. T. Tulloch ... ..	Fairways, Palmer's Road, Wootton, Isle of Wight.
Lancaster ... ..	H. Gardner ... ..	Greystones, 128 Morecambe Road, Lancaster
Leith ... ..	L. M. Smith ... ..	64 Trinity Road, Edinburgh, 5
London:		
Cinque Ports ... ..	J. A. Cresswell ... ..	361 London Road, Deal, Kent
Gravesend Channel ... ..	P. A. E. Roberts ... ..	Utne, Conifer Avenue, Hartley, Dartford, Kent
River ... ..	D. W. J. Hobday ... ..	Penlands, Stock Lane, Wilmington, Dartford, DA2 7BY
Medway ... ..	T. G. Hannaford ... ..	175 Wards Hill Road, Minster, Sheppey, Kent
North Channel ... ..	N. Walker ... ..	Wild Acres, Steam Mill Road, Bradfield, Manningtree, Essex
Londonderry ... ..	C. M. O'Donnell ... ..	3 Oakfield Drive, Londonderry, N. Ireland
Lowestoft ... ..	J. E. Johnson ... ..	Westing Down, 44 Gunton Church Lane, Lowestoft, Suffolk
Middlesbrough ... ..	W. E. Guy ... ..	25 Wheatley Close, Acklam, Middlesbrough
Milford Haven ... ..	M. A. Haigh ... ..	Gannet's Lodge, Church Hill, Llanstad Well, Pemb.
Neath ... ..	A. Boshier ... ..	24 Thorney Road, Baglan, Port Talbot, Glam.
Par ... ..	R. F. Dunn ... ..	Hillmere, 7 Polmear Road, Par, Cornwall
Plymouth ... ..	E. Rogers ... ..	Pilot Office, 2 The Barbican, Plymouth, Devon
Poole ... ..	E. S. Haines ... ..	Pilot Office, Town Quay, Poole, Dorset
Portsmouth ... ..	M. Sparkes ... ..	Trinity House Pilotage Service, Victoria Pier, Portsmouth
Port Talbot ... ..	J. Parry ... ..	6 Hazel Close, Dan-y-Graig, Porthcawl, Glam.
Preston ... ..	H. Halsali ... ..	Pilotage Office, The Docks, Preston, Lancs.
Prestatyn ... ..	A. M. Hatton ... ..	39 Grosvenor Road, Prestatyn, Flints.
St. Ives ... ..	J. W. A. Dew ... ..	92 St. Johns Street, Hayle, Cornwall
Shoreham ... ..	E. Wray ... ..	Shoreham Pilotage Service, Watch House, Beach Road, Portslade, Brighton, Sussex
Southampton ... ..	K. E. Powell ... ..	Pilot Office, Berth 37, Eastern Docks, Southampton, SO1 1AG
South Shields ... ..	J. A. Hogg ... ..	1 Eden Garth, Cullercoats, North Shields, Northumberland
Sunderland ... ..	J. Patterson ... ..	c/o Sunderland Pilot Office, Old North Pier, Roker, Sunderland, Co. Durham
Taw and Torridge ... ..	V. W. Harris ... ..	Fernlea, Pitts Hill, Appledore, N. Devon
Teignmouth ... ..	A. C. Broom ... ..	6 Marine Terrace, Teignmouth, Devon
Trent ... ..	W. L. Smedley ... ..	257 Beverley Road, Kirkella, Nr. Hull, E. Yorks.
Wisbech ... ..	T. Harris ... ..	3 Baxter Close, Wisbech, Cambs.
Workington ... ..	M. Ditchburn ... ..	68 Loop Road North, Whitehaven, Cumberland
Yarmouth ... ..	D. Pearson ... ..	Pilot Office, Pavilion Road, Gorleston-on-Sea, Norfolk