



THE PILOT

The official organ
of The United
Kingdom Pilots'
Association

No. 193 (Vol. 51. No. 6)

April 1980

WORKING GROUP ON SHIP ROUTEING IN THE ENGLISH CHANNEL

Final Report

Following the meeting of the Working Group on 7 March 1980, a redraft of the Final Report, amended as agreed at that meeting, is reproduced in this issue together with the draft IMCO Resolution.

MEMBERSHIP OF THE WORKING GROUP ON CHANNEL ROUTEING

DEPARTMENT OF TRADE MARINE DIVISION
DEPARTMENT OF TRADE SHIPPING POLICY DIVISION
GENERAL COUNCIL OF BRITISH SHIPPING
TRINITY HOUSE
HONOURABLE COMPANY OF MASTER MARINERS
ROYAL INSTITUTE OF NAVIGATION
THE NAUTICAL INSTITUTE
BRITISH PORTS ASSOCIATION
UNITED KINGDOM PILOTS ASSOCIATION
MERCANTILE MARINE SERVICES ASSOCIATION
MINISTRY OF DEFENCE (N) DIRECTORATE OF NAVAL WARFARE
MINISTRY OF DEFENCE (N) HYDROGRAPHIC DEPARTMENT
FOREIGN AND COMMONWEALTH OFFICE
H M COASTGUARD
MINISTRY OF AGRICULTURE FISHERIES AND FOOD
SHELL INTERNATIONAL MARINE
MARINE MARCHANDE
ROYAL YACHTING ASSOCIATION
NATIONAL MARITIME INSTITUTE
DEPARTMENT OF ENERGY

UNITED KINGDOM PILOTS' ASSOCIATION

20 Peel Street, London, W8

(01-727 1844)

<i>President</i>	The Rt Hon The Lord Strathcona and Mount Royal	
<i>Past Presidents</i>	1884-1910 Commander George Cawley (Licensed Pilot and Founder President)	
		1910-1923 Mr Michael Joyce, MP (Limerick) (Licensed Pilot)	
		1923-1925 The Hon J M Kenworthy, MP (Hull Central)	
		1925-1942 Lord Apsley, DSO, MC, MP (Bristol Central)	
		1946-1947 Admiral Lord Mountevans, KCB, DSO	
		1949-1962 Captain Sir Peter MacDonald, KBE, MP (Isle of Wight)	
		1963-1976 The Rt Hon James Callaghan, PC, MP (Cardiff South East)	
<i>Honorary Vice-Presidents</i>	Messrs F Berry OBE, T Morgan, H J Wynn	
<i>Vice-President and Chairman of Executive Committee</i>	D I McMillan (London River) 61 Pine Avenue, Gravesend, Kent (Gravesend 65154)	
<i>Vice-President and Honorary Treasurer</i>	B I Evans (Milford Haven) Rock Cottage, Wellington Gardens, Hakin, Milford Haven, Dyfed (Milford Haven 2917)	
		<i>Executive Committee</i>	
<i>Elected:</i>			
1977	J Bennett (South East Wales) Brent Knoll, 92 Port Road East, Barry, South Glam.	(Barry 734724)	
1977	J D Godden (London Sea Pilots South) 17 Barnes Avenue, Westbrook, Margate, Kent	(Thanet 23453)	
1978	G A Coates (Tees) 9 Stokesley Road, Marton, Middlesbrough, Cleveland	(Middlesbrough 315236)	
1978	G C Howison (Clyde) 11 McPherson Drive, Gourrock, Renfrewshire	(Gourrock 31928)	
1978	M H C Hooper (Southampton and Isle of Wight) 60 Spencer Road, Ryde, Isle of Wight, PO33 3AF	(Ryde 62474)	
1978	C C Wilkin (Humber) 273 Beverley Road, Kirkella, Hull, North Humberside	(Hull 653323)	
1979	J A Hogg (Tyne) 20 Langdon Close, Preston Grange, Tynemouth, Tyne and Wear (North Shields 573864)		
1979	G M Logie (Yarmouth) Claremont House, 71 Marine Parade, Gorleston-on-Sea, Norfolk	(Gt. Yarmouth 62932)	
1979	N C Walker (London Sea Pilots North) Esplanade House, 32 Kings Quay Street, Harwich, Essex	(Harwich 2224)	
<i>Trustees</i>	S Green F Janes R Balmain	
<i>Hon Medical Adviser</i>	Dr F S Preston	
<i>Hon Financial Adviser</i>	F Moss	
<i>General Secretary and Legal Adviser</i>	E Eden, MA	
<i>Secretary</i>	Miss Y Blake	
<i>Auditor</i>	T G Harding, FCA (Messrs Arthur Andersen & Co, London)	
<i>Finance Committee</i>	The two vice-Presidents	
<i>Editor of "The Pilot"</i>	David Colver	

PROPOSALS OF THE UK CHANNEL ROUTEING GROUP

INTRODUCTION

1. Following the *Amoco Cadiz* disaster in 1978, IMCO adopted revised traffic separation schemes off Ushant and Casquets, with the prime objective of keeping laden tankers well off-shore when entering the English Channel. These arrangements were criticized at the time, on the grounds that they introduced new collision risks, and in 1978 Trinity House made proposals for a continuous routeing system through the whole Channel which received wide publicity.

2. In response to this criticism, the Marine Division of the Department of Trade set up a Working Group later in the year with membership as given in the Appendix. The terms of reference of the Group were as follows:—

To identify and examine the problems of ships' routeing in the English Channel and to make recommendations for improvements.

3. The Group agreed, taking into account various proposals which had been made, that the objectives to be achieved were:—

(a) In areas where the traffic is concentrated and where there is a well defined direction of traffic flow, to separate the opposing streams of traffic. The areas concerned were considered to be the Channel east of Casquets and coastal areas west of Casquets.

(b) For areas where navigation by ships or by certain classes of ship is dangerous or undesirable, to route such ships clear of those areas. The areas concerned were considered to be westward of Casquets where the traffic pattern is divergent.

4. The following 'Principles' were adopted, to guide the Group in its work:

(a) Any measures taken to keep laden tankers away from the coasts must not be such as to adversely affect navigational safety, whether of the tankers or of other vessels;

(b) Measures taken should not include mandatory prohibition of tankers from international waters where they can safely navigate;

(c) Routeing provisions adopted for the Channel must be in harmony with similar measures adopted in other parts of the world;

(d) IMCO Routeing Provisions should in general prevail, but these can be augmented by special provisions and recommendations on navigation;

(e) Behaviour by ships in traffic separation schemes should be governed by Rule 10 of the International Collision Regulations;

(f) Traffic separation schemes should not be longer than is essential for navigational safety, bearing in mind the needs of other users of the Channel;

(g) The widths of traffic lanes should be decided solely for the purposes of navigational safety, full use being made as necessary of the available navigable water.

5. The working Group met six times between 1978 and the beginning of 1980, and developed the ships' routeing proposals which are set out in the attached draft IMCO Resolution and Annexes thereto; these are shown on the chart. In the following paragraphs of this report, these proposals are compared with the existing arrangements, and are briefly analysed in relation to the objectives to be achieved.

The Channel Eastward of the line Lyme Bay/Channel Isles

6. In their fundamentals, the traffic separation schemes in mid-Channel north of the Channel Islands and in the Dover Strait have not been greatly changed. But many changes of detail have been made, with the object of simplifying the layout, optimising the use of the available navigable water, and orientating the two schemes in relation to each other. The main changes are summarised as follows:—

(a) The Scheme north of the Channel Isles and the western end of the Dover Strait

scheme have been re-orientated so as to line up with each other, and the traffic lane widths have been adjusted accordingly.

(b) The central separation zone of the Dover Strait scheme has been considerably widened in places, taking in areas which are not used by through shipping. This measure will allow greater freedom to fishermen, who are debarred from fishing in the traffic lanes, and at the same time make the traffic lanes more consistent in width and direction.

(c) The zones separating through from inshore traffic have been widened at the western end of the Dover Strait, to give more separation in a critical area. A new HFP buoy is proposed for the western end of the separation zone on the English side.

7. Precise limits have been set to the designated inshore traffic zones at each end, with the intention of clarifying the application of Rule 10(d) of the Collision Regulations. Thus the area to the north-east of the Varne on the English side, hitherto designated as an inshore zone, would no longer be so designated.

8. There is at present no form of traffic separation for through ships proceeding between the traffic separation schemes north of the Channel Islands and in the Dover Strait. The new proposals introduce recommended directions of traffic flow between the two schemes, these being marked by three equally spaced HFP buoys fitted with racons established along the centre lane. In order to provide protection to the buoys, and at the same time insure the separation of the opposing traffic streams, circular areas to be avoided, of a diameter equal to the width of the separation zones of the traffic separation schemes, are established around each buoy.

9. A new departure from the present arrangements is the provision of additional guidance on the use of the routeing system and associated ancillary services in the area. This is contained in the proposed "Recommendations on Navigation in the English Channel and Dover Strait" (Annex IX) to the draft which it is intended should be adopted by IMCO concurrently with the routeing measures.

10. The revised system provides an adequate response to the requirement to separate the opposing streams of traffic, and at the same time encourage through ships to proceed in mid-Channel. Thus the objectives set by the Working Group for this area are reasonably well achieved. The routeing measures proposed comply with the IMCO General Provisions on Ships' Routeing.

11. An alternative solution would have been a continuous traffic separation scheme, with Rule 10 of the Collision Regulations applying throughout its length. However such a solution would have interfered unacceptably with other users of these waters, in particular fishermen and the offshore oil industry and moreover would have restricted the use of available sea room. A more flexible and less restrictive arrangement has therefore been proposed.

The Channel west of the line Lyme Bay/Channel Isles

12. The new proposals provide for the retention of the three traffic separation schemes around the Scilly Isles, but with a number of changes of detail intended to improve the lay-out of the schemes and their relation to each other. The schemes south and west of the Scilly Isles are moved further offshore, while still being well within the range of the shore based aids to navigation. At the same time, the existing traffic separation scheme south of the Lizard is considered to be redundant and would be removed.

13. The principal change in traffic separation is proposed off Ushant where a new scheme, intended for use by all ships, has been sited well offshore, thus doing away with the existing special tanker lane. A fundamental prerequisite to the proposed new scheme would be the establishment of at least two major floating navigational aids in the offshore area.

14. The entrance to the Channel is an area where traffic converges or diverges. Such a situation does not lend itself to formal separation of opposing traffic streams; and in any case, where there is so much sea-room available it is undesirable to unduly

concentrate traffic into restricted lanes. However to encourage ships to stay in mid-Channel in the approaches to the traffic separation scheme north of the Channel Islands, it is proposed that a new Light Vessel be positioned well to the west of the scheme. For the protection of the vessel, a circular area to be avoided would be established around it.

15. Provision is made for designated inshore traffic zones to be established inshore of the traffic separation schemes off Ushant and around the Scilly Isles. Rule 10(d) of the Collision Regulations would apply to these zones.

16. As mentioned in paragraph 9, the proposals include "Recommendations on navigation through the English Channel and Dover Strait," intended for adoption by IMCO concurrently with the formal routeing measures; such recommendations do not exist at the moment. These include, *inter alia*, a recommendation that laden tankers and ships carrying hazardous cargoes should, subject to the requirement of safe navigation, sail no closer to the land than may be necessary to determine their positions within an acceptable degree of accuracy.

Analysis

17. The traffic separation schemes proposed for the coastal landfall areas at the entrance to the Channel comply with the IMCO General Provisions on Ships' Routeing and adequately meet the requirement to separate traffic, which was one of the Working Group's objectives in respect of the coastal or landfall areas.

18. The siting of the Ushant traffic separation scheme, taken together with the situation of the new West Channel light vessel, should be effective in keeping through traffic approaching from the south, including ships carrying oil or hazardous cargoes, well offshore. On the north side of the Channel, the traffic separation schemes are closer inshore, so as to be within the range of the land based navigational aids; all ships will be free to use the traffic separation scheme between the Scilly Isles and Lands End through, as through ships, they will be debarred from entering the associated inshore traffic zones. Furthermore, the recom-

mendations for ships carrying hazardous cargoes should ensure that such vessels sail no closer to the land than is necessary.

Navigational Information—Promulgation to the Mariner

19. As the proposals now put forward include recommendations on navigation through the Channel and Dover Strait, their effectiveness will be greatly influenced by adequate promulgation of the recommendations and any related information useful to the mariner in planning his passage. The navigational chart is inadequate for this purpose and already the mariner needs to consult a number of ancillary publications when planning his voyage. There is, therefore, a strong case for bringing together all related information, rules and recommendations into one publication; this could take the form of a "passage planning" guide. Consideration is being given to devising such a publication to be issued when new routeing arrangements for the Channel are implemented.

The following Annexes are *not* reproduced:

ANNEX I—Traffic Separation Scheme "In the Strait of Dover and Adjacent Waters"

ANNEX II—Traffic Separation Scheme "Between the Channel Islands and Lyme Bay"

ANNEX III—Traffic Separation Scheme "Off Ushant"

ANNEX IV—Traffic Separation Scheme "South of the Scilly Isles"

ANNEX V—Traffic Separation Scheme "West of the Scilly Isles"

ANNEX VI—Traffic Separation Scheme "Off Lands End, between Seven Stones and Longships"

ANNEX VII—Areas to be Avoided in Mid-Channel

ANNEX VIII—Recommended Directions of Traffic Flow in the English Channel

ANNEX IX

RECOMMENDATIONS ON NAVIGATION THROUGH THE ENGLISH CHANNEL AND THE DOVER STRAIT

1. Use of the Ships' Routing System

1.1 Vessels which are proceeding through the English Channel and Dover Strait should so far as practicable, and subject to the requirements of safe navigation, make use of the traffic separation schemes and be guided by the recommended directions of traffic flow in mid-Channel and the Dover Strait.

1.2 Without prejudice to the requirements of the International Regulations for Preventing Collisions at Sea regarding the use of inshore traffic zones, it is especially recommended that the inshore zones should not be used by any vessel which is proceeding in the same general direction as that of the traffic flow in the adjacent traffic lane, and which can safely use that lane.

1.3 Laden tankers and vessels carrying hazardous cargoes in bulk in the English Channel and Dover Strait should, subject to the requirements of safe navigation and of the avoidance of collisions and strandings, navigate no closer to the land or to off-lying dangers than may be necessary to determine their positions.

1.4 Vessels which are constrained by their draught, as defined by the International Regulations for Preventing Collisions at Sea, should confine the use of the relevant lights and/or shapes authorised by the Regulations to such times as they are actually so constrained.

1.5 Vessels crossing the easterly or westerly flow of traffic between the Channel Isles, Lyme Bay and the Dover Strait traffic separation schemes should avoid proceeding obliquely against the recommended directions of traffic flow, but bearing in mind that the Steering and Sailing Rules of the International Collision Regulations apply in all respects.

1.6 Particular attention is drawn to the existing IMCO recommendations re-

lating to the use of the Deep Water Route forming Part of the North-East bound Traffic Lane of the Traffic Separation Scheme "in the Strait of Dover and Adjacent Waters". In particular, ships should avoid overtaking when within the deep water route, and ships which having regard to their draught can safely navigate within the main traffic lane for north-east bound ships, which lies to the south-east of the Sandettie Bank, should do so in preference to using the deep-water route.

1.7 Vessels leaving the traffic separation scheme "at West Hinder" and intending to proceed through the Dover Strait should when crossing the north-east bound traffic lane of the traffic separation scheme "in the Strait of Dover and Adjacent Waters", keep to the north of the northern limit of the Deep Water Route which lies to the westward of the Sandettie Bank.

2. Crossing Traffic

2.1 There is a heavy concentration of crossing traffic between the Colbart and Sandettie banks, and vessels using the traffic lanes should exercise particular caution in this area.

2.2 While vessels using the traffic lanes must, in particular, comply with Rule 10 of the International Collision Regulations, they are not thereby given any right of way over crossing vessels; the other Steering and Sailing Rules still apply in all respects, particularly if risk of collision is involved.

3. Use of Electronic Position Fixing Equipment

3.1 Vessels which are intending to navigate through the English Channel and Dover Strait, especially those of 1,600 GRT and upwards, are recommended to carry such shipborne equipment as is necessary to make use of the electronic position fixing systems which are established in the area. In particular, ships which are carrying in

bulk oil or hazardous cargoes should comply with IMCO Resolution A.156 (ES IV) concerning the carriage of an efficient electronic position fixing device suitable for the trade in which the ship is employed.

4. Pilotage

4.1 Through traffic in the English Channel is not subject to compulsory pilotage. However Masters of ships unfamiliar with the area, and ships having potentially hazardous cargoes or any defects affecting operational safety are strongly advised to obtain the services of a deep sea pilot; such a service is readily available.

4.2 Masters of ships intending to call at ports on the Coasts of the English Channel and North Sea should check in advance where the national compulsory pilotage areas exist. Inward-bound vessels calling at Folkestone to pick up a pilot should approach via the English Inshore Zone, or by using the north-east bound traffic lane and making a judicious crossing of the south-west bound traffic lane in accordance with Rule 10(c) of the International Collision Regulations.

4.3 Masters of very large crude carriers and similar ships which because of their size, draught or handling characteristics require special consideration before they proceed east of the Greenwich meridian, are advised to give early advance warning of their ETA in the south-west approaches to the English Channel and are recommended to embark a pilot as far to the westward as possible. This will require an early decision to close a Deep Sea Pilot Station (e.g. Brixham or Cherbourg) or to request helicopter delivery of a Deep Sea Pilot/District Pilot before entering the Dover Strait traffic separation scheme.

5. Under Keel Allowance (Under Keel Clearance)

5.1 Masters of deep-draught vessels should, when planning their passage through the Dover Strait, allow for a minimum under-keel allowance of 20% of the ship's draught at the time of passage.

5.2 For the purpose of this recommendation, the under-keel allowance of a vessel means the allowance between the ship's bottom and the seabed, derived in relation to the depths shown on the latest navigational charts, the predicted tide-levels calculated using tide tables and co-tidal charts, and the maximum draught of the vessel when stopped. It does not mean the actual bottom clearance achieved in the course of the passage.

6. Ship Movement Reporting System (MAREP)

6.1 Loaded oil tankers and loaded gas and chemical carriers of 1,600 GRT and over, if intending to enter a traffic separation scheme or associated inshore traffic zone in the English Channel and Dover Strait, and all vessels wherever they may be in the Channel and the Dover Strait which are constrained in their navigation, are invited to participate in the voluntary ship movement reporting system which has been established jointly by the Governments of the United Kingdom and France.

6.2 The provisions of the ship movement reporting system are set out in the (attached Appendix) and should be followed by ships of all flags in the categories described.

7. Channel Navigation Information Service

7.1 All vessels passing through the Dover Strait are recommended to make use of the information broadcasts which are made by the Channel Navigation Information Service operated by the Governments of the United Kingdom and France in association with the MAREP system.

Draft IMCO Resolution

NAVIGATION THROUGH THE ENGLISH CHANNEL AND THE DOVER STRAIT

THE MARITIME SAFETY COMMITTEE

BEING AWARE of the close relationship between safety of navigation and prevention of pollution from ships,

BEING AWARE ALSO that knowledge of the movement of ships can contribute to the safety of navigation,

RECOGNISING the urgent need expressed by the Governments of the French Republic and the United Kingdom to protect the vulnerable coasts of those countries adjoining the English Channel and Dover Strait against pollution,

RECOGNISING FURTHER the international status of the English Channel and the Dover Strait,

NOTING that the navigation of vessels carrying in bulk oil or hazardous cargoes through the English Channel and Dover Strait constitutes, due to the risk of grounding or collision, a potential danger of pollution of the entire area,

NOTING ALSO that this area includes some of the busiest shipping lanes in the world,

TAKING NOTE OF:

- the International Regulations for Preventing Collisions at Sea 1972;
- Resolution 5 on International Pollution of the Sea and Accidental Spillages, adopted by the International Conference on Maritime Pollution 1973;
- Resolution A 156(ES IV)—Recommendation on the Carriage of Electronic Position-Fixing Equipment;
- Resolution A 159(ES IV)—Recommendation on Pilotage;
- Resolution A 378(X)—General Provisions on Ship's Routing,

BEING INFORMED of the decision of the Governments of the Republic of France and the United Kingdom to establish a voluntary Ship Movement Reporting System (MAREP) on a permanent basis in the English Channel and the Dover Strait,

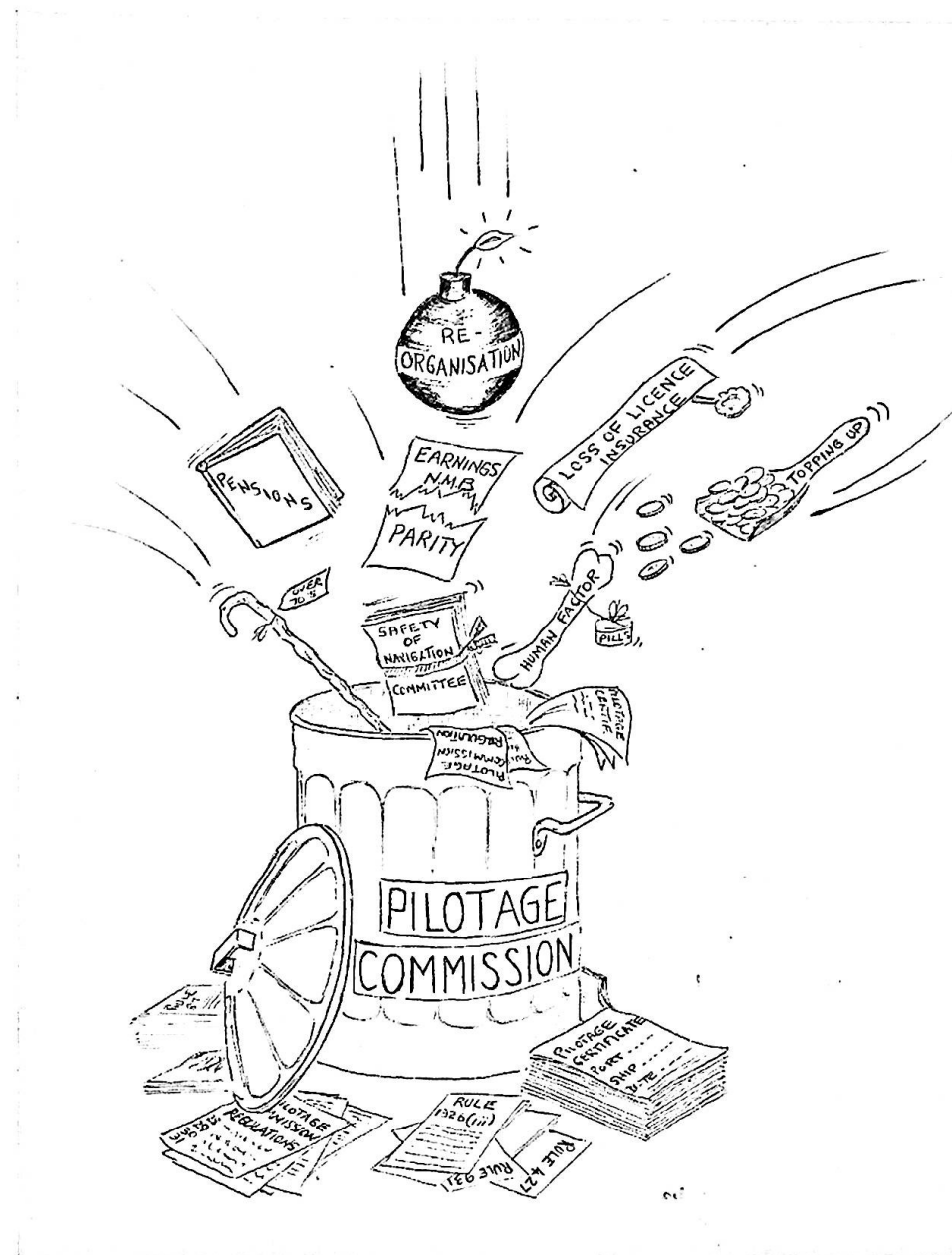
ADOPTS the new and revised traffic separation schemes in the English Channel and Dover Strait described in Annexes I to VI,

ADOPTS ALSO, subject to confirmation by the Assembly, the areas to be avoided, recommended directions of traffic flow and recommendations on navigation through the English Channel and Dover Strait which are set out in Annexes VII to IX, and which together with the new and revised traffic separation schemes described in Annexes I to VI constitute an integrated ships' routing system for the English Channel and Dover Strait.

REVOKES the adoption of the traffic separation scheme "OFF THE LIZARD" previously adopted by [Resolution],

AGREES that the additional and improved aids to navigation listed in Annex X should be installed prior to the entry into force of the integrated ships' routing system,

REQUESTS the Secretary General to advise all concerned of the details of the routing system and the recommendations for navigation in the Annexes to this Resolution, and to promulgate the date of entry into force as determined by the Governments concerned.



LIFE-JACKET DESIGNED BY PILOTS

It was with great interest that we in South East Wales Pilots' Association read the recent article in your magazine concerning Pilot Dunn of the Tees. We were at that time considering various types of life-jackets and "floaters", being more than a little concerned that so called life-jackets were not in fact doing the job for which they were intended.

After "volunteering" to examine the market and what was on offer, I first spoke with a surveyor at the Cardiff DTI and asked for their observations, and requirements in a life-jacket. Bearing in mind the bulkiness of DTI life-jackets and also their attributes, I sent for samples from various firms, both British and foreign, and sought in tests to keep as near as possible to the DTI guide lines. The firm who finally supplied our jackets, Henri-Lloyd of Manchester, offered to build a life-jacket from scratch incorporating all that we asked for.

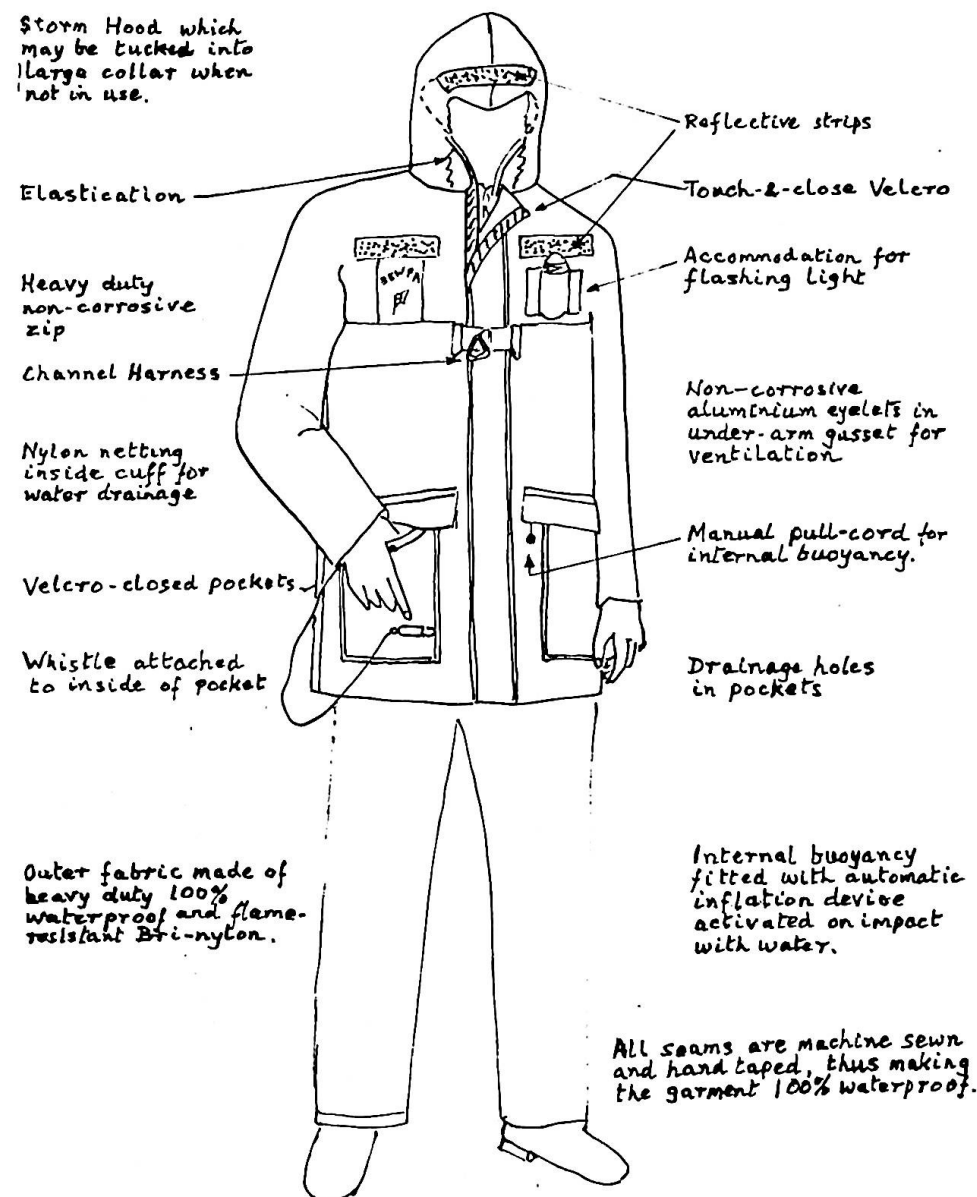
Before detailing the construction of the coat perhaps I could give the reasons for our concern. In my opinion, backed up by tests, the majority of so called life-jackets are in fact no more than buoyancy aids, and in certain conditions are downright dangerous. There is no doubt in my mind that there have been life-jacket-assisted deaths. The pickle that Pilot Dunn found himself in was not new. One neighbouring pilotage district had a pilot conscious, but face down in the water, unable to turn himself on to his back, and weakening all the time. He was fortunately rescued. The Milford Haven pilot who lost his life some years back, was found face-down wearing a "life-jacket"—after a search of an hour! I appreciate that it is possible that not all the manufacturer's recommendations were complied with, *ie*, the belt not done up, the coat lungs not partially inflated, *etc*, and, with this in mind, further to the DTI requirements, I sought a basically pilot-proof coat—*ie*, a coat that would save life, despite a pilot's inaction. We are all aware that familiarity breeds contempt and I suppose most of us are guilty at some time or another of the "I'll chance it" that usually comes off—one day it may not! On the usual pilot coat, for example, if you do not inflate the lungs and do the belt up, the

chances are that, as you hit the water, a large volume of air goes up the back of the coat and is trapped at the collar. If there is no air in the lungs at all, there's only one result—a face-down position and, if you are unconscious, death will follow in three minutes.

Even assuming that you are still conscious on hitting the water, as Pilot Dunn related, he was too cold to do any blowing, too cold in fact to do very much at all. I have talked to pilots who have been in the water and their enduring memory is of being cold. Indeed, one manufacturer from Canada insists more people die from hypothermia in the water than do from drowning. This may sound a little bit alarmist here in Britain but last October, in the Bristol Channel, the temperature was 46°F. The temperature in the local baths is about 70° and, as we know, after 30 minutes or so of swimming in a smooth windless bath, we start to feel the cold. What then, are your chances on a winter's night, with strong Easterly winds blowing across the top of the water and you, very frightened and swallowing sea water? Whilst appreciating that hopefully rescue would obtain quickly, obviously the better the condition you are in and the warmer you are, the more assistance you will be able to give your rescuers. Pilots have been in the water, brought to the cutter's side and still lost through the inability of the rescuers to pull a heavy man aboard and the pilot being unable to help himself.

Thus we saw the need for thermal insulation. One other factor which is important, but never mentioned, is, to use the words of the DTI "swimmability"—a coat or life-jacket which does not make it impossible for the wearer to do anything, to get to a line, lifebelt or helping hand. In the coat we now have, made for us as a purpose-built life-saving coat, we have, in my opinion, the finest life-coat commensurate with ease of wear that is available anywhere. The coat, which is individually tailored, is made in a low flammability, tear-resistant, waterproof nylon. We have chosen safety orange, but there is a choice of colours. The coats have also dayglow strips attached. A word about colour. Our

HENRI-LLOYD PILOTAGE JACKET MK II



Authority, who pay for the coats, insist on a highly visible coat, after reading the scathing comments of the Milford Haven Coroner at the inquest of the lost pilot. Some coats of other manufacture are fitted with orange hoods, but as the whole idea of a life-jacket is to end up on your back, the hood will be partially immersed and thus reduced in its efficiency. The Milford Coroner criticised the colour of the garment worn by the lost pilot. In the dark it was impossible to see and probably delayed recovery. There is no doubt that our coats are bright—they are meant to be and are not really suitable as a coat to wear to rugby matches, etc!

The coat has a two-way zip and a Velcro storm flap. Two large pockets on the outside and two pockets, elasticated, on the inside for VHF set, etc. The cuffs have storm sleeves with rapid-drain mesh to allow the free exit of water should you go in. The coat is lined with close-cell foam-like neoprene as insulation and has two in-built flotation pads on the chest. Even if the lungs fail completely the coat will support you. This inherent buoyancy, which, whilst not enough to right an inert face-down body, gives additional confidence in the garment. It is very easy for a conscious person to flip himself on to his back. We did initially attempt to build a coat with enough inherent buoyancy to right an unconscious body, but we would have had to use so much foam, we'd look like a Michelin man! However, it is a useful addition to the other flotation means. As the coat uses articles manufactured by people other than the manufacturer, it may be better for me to itemise them—

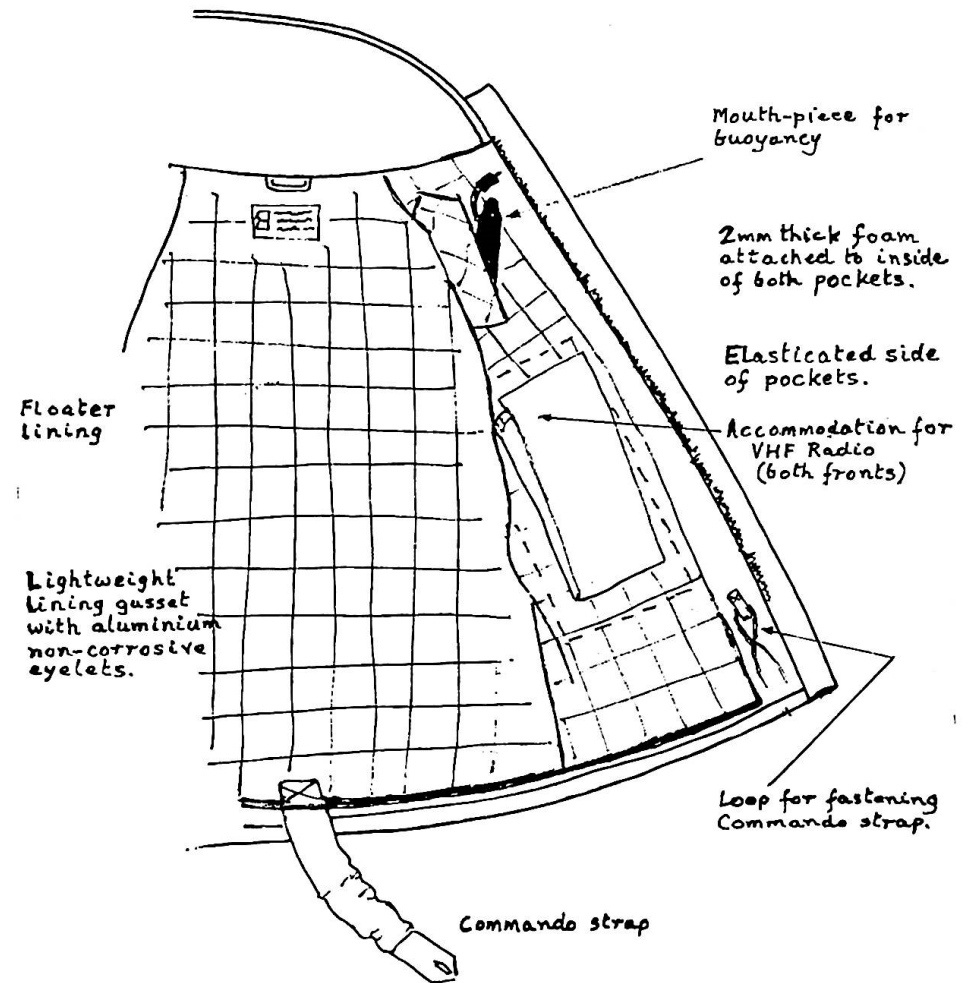
1. Lifting Harness: this fits across the chest and locks firmly. It is manufactured by Britax, the seat belt makers, and was tested to destruction at 4,900 lbs.

2. The coat is fitted with a Crewsaver Manual/Auto lung. This will automatically inflate on contact with water, salt or fresh. The lungs are somewhat larger than normal and, on inflation, right an inert body in about six seconds, holding the head well clear of the water. For those pilots who like to put a few puffs in, it is quite all right, though not really necessary. In manufacturer's tests, the lung was fully inflated orally and the CO₂ was discharged into the

lungs in addition. This produced an internal pressure of 4 lb/sq in. Tested to destruction, the pressure reached 12 lb/sq in. So, there's plenty of tolerance. The valve and CO₂ bottle lie in a pocket at the base of the lung. Should the activator fail, there is a rip-cord which will activate the CO₂. The lung is also fitted with a manual inflator. If all that doesn't work, you still have inherent buoyancy!

3. The light: the light we have chosen is Norwegian, called a "Tron". It is powered by a silver-mercury battery and can be switched on and off by means of a magnetic switch, enabling its efficiency to be tested any time, rather than waiting until you're in the water to find it doesn't work! It's about the size of a small torch, water-tight down to 90 metres (there's always someone isn't there!) and gives out a bluish white flash at the rate of roughly one flash per second. The manufacturers claim it can be seen up to 24 km. In our tests, on a dirty night, looking from a well-lit area, we could see it at 4 miles with glasses and, clearly, unaided at 2 miles. A lifeboat coxswain familiar with them said they were very visible from the air. Also, because the bulb contains Xenon gas, the colour of the flash enables it to be seen more easily in fog and mist. It's not cheap, but probably one of the best available and of course should last for years with care. It is of robust construction and is secured neatly in a pocket on the upper right chest.

The advantages of a switch light as opposed to a sea cell are that the light can be switched on whilst embarking/disembarking. Should a pilot fall in the water, he hasn't then to fumble for a pull ring. It's very easy to check at any time that the light works. It is highly visible and in a position to be readily seen. I am aware that one solution used by some pilots with sea-cell lights to obtain "instant" light, is to remove the plugs of the sea cell during normal usage, hopeful, that in the event of their going in, the sea cell will operate instantly without any action on their part. However, this removal of the plugs, prior to immersion, can lead to gradual deterioration of the cell without the pilot's awareness. To me, this is no solution to the problem and I therefore opted for a light that can be switched on/off.



This, then, is the coat, an amalgam of the best that we found available. During tests in the Baths (the Bristol Channel up our end is highly polluted and has strong currents and, much as I believe in the product, there is no way I'm about to leap in there voluntarily!!). I acted at all times as unconscious. The prototype performed well. On "falling" from ten feet with the harness undone, crotch strap undone and lungs fully inflated, *ie*, improperly dressed, coat creep was barely discernible and there was only a very slight difference in "righting" time. I was very impressed. A word about the manufacturer of the coat—Henri-Lloyd of Manchester. Henri-Lloyd manufacture and supply gear to the British Olympic Yacht teams, ocean yachtsmen, oil-rigs and tenders and the Fire Service. In addition they manufacture gear for mountaineering, and indeed all outdoor pursuits. They are thus not newcomers to the scene and have plenty of experience in the type of gear we were after. Mr Henri, with whom I dealt, and his staff have been most helpful throughout and, more, are very concerned that their product should achieve what it sets out to do. I was given a free hand to do what tests I wished with the coat and no detail was too much trouble. I would state that I have no commercial interest in Henri-Lloyd.

My sole purpose in writing at such length is to pass on to fellow pilots our findings in South East Wales. I am sure that the concern felt in South East Wales is not just local; I have confidence in this coat. It was, after all, built to pilots' requirements and, although it is not possible to guard against all possible eventualities, I feel we have covered as many bolt-holes as possible. The other pilots in my Service have taken readily to the coats and expressed approval. It has all involved a fair bit of work by quite a few people but, if it saves one pilot's life, it will be well worth it. Should you require any information on the coat, do not hesitate to contact me—

R Williams, South East Wales Pilot,
9 Blaen-y-Pant Avenue,
Newport, Gwent.

Tel: (0633) 855200

or

Henri-Lloyd (ask for Mr Henri or his Secretary, Mrs Harding),
Smithfold Lane, Worsley,
Manchester M28 6AR, England.
Tel: 061-790 2277
Telex: 666765/D/HENRI/G.

Obituary

WILLIAM MOSES



Sadly, we have to report that Captain William A Moses, Retired Trinity House Pilot, died on 19th March, 1980, aged 83 years.

The son of a Commander in the RNR, he was born 16th February 1897 and went to sea with Houlder Brothers in 1913. Four years later, one of the ships in which he was serving, the *Oldfield Grange*, was torpedoed off the Isle of Wight. It was initially towed ashore to a position off Worthing, subsequently refloated and towed to Southampton for repairs.

He gained his Masters' Certificate in 1921, served with Glen Line for eight years and then became a licensed pilot in the, then, Inward Service of the Isle of Wight District. Whilst in the Inward Service he was Number 2 Choice Pilot for the French Line, handling amongst other vessels the *Normandie*, *Ile de France* and *Paris*. He transferred to the Outward Service based on Southampton in 1940 and then, a year later, when shipping declined locally due to war conditions, he temporarily transferred to the Clyde Pilotage Authority based on Gourrock, one of the major Convoy assembly areas.

Continued on page 171

VIRGINIA PILOTS' ASSOCIATION

In the late 1500's an expedition sailed west from England in search of a promised land. Landfall was made at Cape Hatteras where violent storms battered the small fleet. The survivors were driven North along an inhospitable coastline to an inlet about eight miles wide. As they passed through the entrance the inlet opened out into a huge expanse of water. The northern stretch seemed to extend as far as the Delaware River which was the next major inlet to the north. Opposite them numerous rivers divided the land into peninsulas. Preliminary surveys indicated that the area possessed the potential to become an important settlement. The survivors eventually returned to England where their results were noted and promptly forgotten.

By the beginning of the 16th century conditions in England had started to deteriorate. The imposition of harsher laws and the increase in taxes, coupled with stringent conditions on the freedom of religious worship, caused many people to think of the New World. In 1607 an expedition was launched with the object of founding a colony in the Chesapeake Bay area. On May 13th of the same year 144 settlers landed at the southern entrance to the Bay. In later years a memorial plaque was established at the spot to commemorate the event and the point was called Cape Henry in honour of Patrick Henry, who became the first elected governor of the state. The settlers sailed into the Bay and entered the first major river to the south. The land was virgin so it was named in honour of a virgin queen—Queen Elizabeth I of England. The rivers were named James, York, Elizabeth and Anna. The rivers to the north retained the Indian names of Rappahannock, Potomac and Patuxent. The counties of Middlesex, Essex, James, Isle of Wight and Surrey were drawn

Continued from previous page

He returned to Southampton in time for the build up of D-day operations in 1944, where he remained to the end of his career. Between 1947 and 1956 he was an Outward Choice Pilot for the Union Castle line for whom he carried out more than 700 acts of pilotage. He berthed the first tanker to arrive at the newly opened Fawley Marine Terminal on Southampton Water in 1951

out together with many other names familiar to the English ear. Over the years settlements grew into towns and were given names such as Portsmouth, Norfolk, Suffolk, Jamestown, Richmond and Chester.

Although there were several attempts at settlement along the promising shores a permanent settlement was not established immediately. The early pioneers were stung by mosquitoes, poisoned by polluted water and had to fight hostile Indians. They suffered so badly that the Colony was all but destroyed. In 1610 only 60 people remained and they were preparing to abandon the colony when new settlers arrived bringing stores and fresh provisions. Last year I stood on the banks of the James River and wondered how such a beautiful land could have once been so inhospitable. Virginia now possesses a verdant, garden-like, landscape. To the east lay 192 kilometres of the Atlantic Coast with dozens of glorious beaches. To the west, a rolling inland plateau called the Piedmont and a series of fertile valleys, including the legendary Shenandoah, leads one's eyes to the majestic Blue Ridge Mountains in the far distance. Jamestown, Yorktown and Williamsburg were built on the peninsula that lies between the James and York Rivers.

For 81 years, Williamsburg served as the State Capital and was administered from England. By 1765, a growing disenchantment with English rule was being actively fanned by dissenters and persuasive orators. Thomas Jefferson declared "UDI" and a Virginian planter named George Washington led the rebels against the British Army. General Cornwallis, leading the British, swept in from the north; captured Richmond, an important settlement 48 miles north-west of Williamsburg, and continued towards the capital. George Washington

and in the ensuing years piloted 760 tankers of all classes. Retiring from the Service in September 1962, on account of age, he had been a widower since 1967 and is survived by a son, who is a Pilotage Assistant at Southampton and a daughter. As a final tribute, his ashes were scattered in Cowes Roads from the Pilot Launch *Vagrant*.

William F Moses

perceived that if the British Fleet was able to land supplies inside the Bay and replenish the advancing army his cause would be lost. A successful naval blockade was mounted across the entrance to Chesapeake Bay. The British Fleet was prevented from making a landing and the British Army was forced to surrender at Yorktown. Washington's decision was one of the most important ever made in American history and had a far reaching and long lasting effect. It led to the formation of the Republic of the United States. It also showed the strategic importance of the Chesapeake Bay.

Development of the area started in earnest when John Rolfe started growing tobacco. The constant growing of tobacco over and over on the same land caused vast acreages to become infertile within a few years. The continued search for new land necessitated the urgent taming of the mosquito-infested lowlands. After 180 years of tobacco cultivation the soil in most of Virginia was nearly useless. After the run-down of agriculture attention was switched to minerals. Over 150 different minerals were found within the State. During the post-Civil War period, these helped Virginia to become the largest manufacturing and commercial State in the south. Mills and industries sprang up at Richmond and Fredericksburg. The discovery that marl or lime, revitalised the acidic earth was a milestone that turned this area into the promised land. The State suffered greatly after the American Civil War. Williamsburg had been the capital of the South. The crippling debts imposed by the victorious North were not settled until the 1890's.

During the 20th century, the development of the Chesapeake Bay area has continued at an ever increasing rate. The ports continued to grow, even during the depression. During the period 1939-1946 the growth rate was phenomenal. Vast ship-building and associated industries sprang up at Newport News, Norfolk and Portsmouth. Newport News holds the record for building a ship in the shortest possible time. From laying the keel to launching the completed vessel took only two and a half days.

A few years ago the ports of Hampton, Newport News, Portsmouth and Norfolk were reorganised to make them more viable

and competitive. The onset of containerisation was imminent and the area was in an excellent position to take advantage of the new trade with Europe and the Mediterranean. The ports became known as the Hampton Roads.

In Norfolk there are 30 general cargo berths, varying in depth from 18-37 feet and up to 1,000 feet in length. Many of the berths are now disused and derelict. The S.S. *United States* is laid up at one of the piers. She is now in a very dilapidated condition and is far removed from the vessel that was the pride of the American passenger fleet. She is still the present holder of the Blue Riband. The adjacent area of the port has been developed for the container trade and here the contrast is remarkable. The boxes are handled at high speed and the large container ships are turned round within hours of arrival. Two coal piers cater for the export trade and three bulk carriers, drawing up to 45 feet, can be accommodated at any one time. Two further berths are used for the export of grain. The loading rate is very fast and a grain ship can be loaded to the maximum draft of 35 feet in a few hours. Nearly all the berths are on finger jetties that project at right-angles from the shore. A deep channel, maximum draft 46 feet, runs past all the jetties and to the entrance of the James River. The Hampton Road Bridge Tunnel crosses the mouth of the James River and connects Norfolk on the south side with Hampton on the north.

When the Hampton Roads were reorganised the various Pilotage Authorities in the immediate area were also amalgamated into one unit known as the Virginia Pilots' Association. There are about 50 pilots, all of whom possess their Deepsea Master's Licence or must have served a required number of years trading along the Eastern Seaboard. He is licensed by the State of Virginia after having passed examinations set by both the State and the US Coastguard. Each pilot must appear yearly before the State Examination Board. After an absence of more than three months through illness he must again appear before the Board. All the pilots are self-employed. Pilotage rates must be approved by the State and Central Government as well as taking into account local views. The pilots work an endless belt system but this is

modified and has many variations due to the prevailing local conditions.

Although the Association has transport it is not always available and each pilot is ultimately responsible for his own arrangements. This can be very difficult, particularly when the pilots on a vessel berthing in Richmond are on turn at Cape Henry. The quickest way of returning is by aircraft shuttle over the Chesapeake area, similar to the way taxis operate around London. The leave and holiday arrangements appeared to be satisfactory but could only be taken when instructed by the Superintendent. There did not appear to be a regular rota. Half the pilots operate to the north, and half to the south, of Hampton Roads. However, all of them are licensed to navigate a vessel up to Richmond. The pilotage is tricky and takes about 18 hours, depending upon the tide. Two pilots are always used. Ships up to 550 feet in length can go up the James River to Richmond provided the draught is not greater than 22 feet. Only vessels of less than 250 feet in length are permitted to navigate in the dark. The size and number of vessels trading to Richmond has steadily declined over recent years.

The Virginia Pilots' Association is based in a single-storied building on the banks of the Elizabeth River in Norfolk. In addition to the office section, there is a lounge and sleeping accommodation. There is no radar system and no direct link with the Harbour Authorities. Orders for ships are received over the VHF and pilots are despatched by telephone. Most of the vessels are programmed to berth before breakfast and to sail in the late evening. Orders for night work must be received during normal office hours. Most of the vessels handled are in the 15,000 dwt class except for container ships and bulk carriers. The latter range up to 80,000 to 90,000 tons. The pilot service is administered by a senior pilot who has been nominated by his colleagues. The appointment is full-time and normally lasts until retirement. He has a staff of about five civilians to assist him. A cruising pilot cutter is stationed one mile off Cape Henry. It is 165 feet in length and carries 10 pilots. Excess pilots are ferried by launch from a landing station on Cape Henry. In 1979 plans were being discussed to replace the cruising cutter with fast launches and to

build accommodation on Cape Henry. A small reserve launch, used for harbour work when convenient, lies alongside a jetty which is a few yards from the office in Norfolk. The Association maintain their own craft in a small engineering shed next to the office.

My visit to the Virginia Pilots' Association was totally unexpected and of necessity only a brief one. I could have passed many hours comparing notes with our colleagues. I am very grateful for the invitation that was extended to me and for the kindness shown by the Superintendent, staff and pilots with whom I came in contact. I look forward to being able to reciprocate on a similar scale should any of the pilots visit the Tees.

*Donald S Hellier,
Tees Pilot.*

Pilotage Commission

The Pilotage Commission announced in April the appointment of Mr J P Callen as their first Chief Executive. Mr Callen is at present the General Manager handling pilotage matters in the General Council of British Shipping. He will be taking up his appointment from 1st June.

In making the announcement, the Chairman of the Commission, Dr Denis Rebbeck, emphasised that the Commission were concerned to ensure the fair treatment of pilots and believed that the appointment of Mr Callen, with his detailed knowledge of pilotage affairs, would help to facilitate this.

The Pilotage Commission was established under the Merchant Shipping Act 1979 to advise Ministers and all the pilotage interests on all aspects of marine pilotage. It has already held several meetings, at which it has concentrated on a number of issues arising from the pilotage provisions of the 1979 Act—notably the extension of pilotage certificates to EEC nationals and the associated safeguards for pilots.

The Chief Executive will set up a small permanent staff to advise the Commission on its duties and to implement the Commission's policy. The Commission will be wholly financed by a levy on pilotage authorities, although it has had a small launching loan from the Department of Trade.

Coastlines

Yarmouth's Transferees

Some four years ago we at Yarmouth were doing the work of 25 pilots yet with only 12 pilots and, so far as everyone was concerned, this was expected to carry on for at least 10 years. This rate of work was far too much of a burden to carry for very long and the shipowner was beginning to object to the amount of monies each pilot was earning, so we were compelled to apply for four additional pilots.

The UKPA had already unanimously agreed to a free flow of pilots transferring from overmanned districts, with transferees being given preference over all other applicants for the vacant posts. We insisted at local level that this policy be implemented so that all applying transferees be considered, although our local Sub-Commissioners were not too keen to see our age and qualification structure changed.

The final outcome saw ALL applying transferees accepted, with one from Sunderland and three from the Thames who at that time were overmanned and setting up redundancy schemes. All were well over 40 and really did not fit into our wages pattern as we would have liked, but this we accepted to comply with the UKPA policy.

Due to a sudden and unexpected Norwegian Government Edict which virtually stopped our passenger trade to the rigs in that area, one-third of our trade ceased overnight and, with the end of one of our Ro-Ro services shortly afterwards, from being undermanned one minute we were overmanned the next.

Pilots began to look for transfers, as this looked like a continuing decline, only to find that now most Districts impose a 40 year age limit on transferees, meaning we only had three pilots eligible for transfer. The Thames and Sunderland, now in 1979, refuse to take back their ex-members (due to the age limit).

The younger, but senior, pilots obviously viewed with some rancour the fact that they were the ones forced out because they had implemented UKPA policy and let in older men. We are, though, thankful for

small mercies in that Milford Haven accepted one and the Thames have accepted another for tripping, but we are left with an aged District, SOLELY because we implemented the UKPA policy of free flow of transferees from overmanned Districts and accepted over-age men from Districts in trouble. Had we promoted four thirty-year-old local trading Masters, as is our usual policy (and the one our Sub-Commissioners wished to continue) our overmanning problem would not now look so serious because we would have had plenty of under-forty pilots to transfer.

Obviously, the older pilots here feel that we have been sold down the river by the Thames by not accepting their ex-pilots back (all of whom applied to return, but all of whom have been refused). We helped them in their hour of need but their help in return is minimal. So all be warned, if you accept transferees who are a bit long in the tooth and you then suffer a recession, you will have problems reducing your numbers: the transferees you took will be the ones you cannot shed. One can always find excuses why one should not return a favour, but solid acceptable reasons are harder to come by.

Other Districts have even taken men from sea rather than accepting transferees from overmanned Districts, although in fairness to them they may not have known the applicants were from overmanned Districts as opposed to someone just wanting a transfer. In which case, we should have some system to let everyone know who is overmanned and trying to shed pilots.

Accepting under forty-year-olds as transferees from Districts which are not overmanned cannot be quoted by any District as following the transferee policy or helping that District, for they then have to find another man and train him and in most cases they have to work short-handed or lose time off in the interim.

The UKPA policy as practised by its members (or the majority anyway) must now appear to be, "we'll accept transferees so long as they are the ones that fit into our

system, but no one over forty has a chance". As most of the smaller Districts promote serving Masters, who are nearing forty anyway, this means that to them transferees are only on for them to take but not to shed—not a very fair or honest set up.

Old Yarmouthians

Pilot Speaks Up

PILOT LADDER SAFETY

*by Malcolm C Armstrong,
Pilot at Sydney and Botany Bay*

This is to bring to your attention a book I have written on safe procedures for boarding and disembarking by pilot ladders. It will be of interest to all pilots, ships' masters and officers, surveyors, ship-owners and their agents and all people who at any time are required to climb a pilot ladder, to rig one, or to check international requirements. It will also provide guidance to naval architects and ship builders with regard to the matter of siting pilot ladder equipment and the provision of pilot access points. Launch masters and drivers who have the responsibility of transporting pilots and officials to and from ships will also be interested.

I have been working on this subject for some years in Australia and as a member of the joint IMPA/EMPA International Technical Committee. Not all pilots are fully familiar with the International (SOLAS) pilot ladder regulations, and these are explained in detail in the book. Pilots from all member countries of IMPA will also be pleased to see that the book includes all relevant IMPA and IMCO requirements and recommendations on pilot ladders, hoists, side doors, pilot access points and use of accommodation ladders with pilot ladders.

Although most pilotage authorities issue their own abbreviated instructions for the safe rigging of pilot ladders, this book should provide a standard reference for all ships and all pilots. To quote from the Foreword written by Edgar Eden: "this book should be in the library of every ship in every part of the world". Most pilots and masters of all nationalities have sufficient knowledge of English to understand the text. The illustrations will be of assistance

when pilots, masters and ships' agents are discussing particular problems and when there is a language difficulty.

It is still quite common for ships to be equipped with facilities that do not comply with requirements. This is often due to ships' officers and masters being unsure of the SOLAS Regulations and the requirements of the International Maritime Pilots' Association. Because of the urgency of the situation or because of communication difficulties, sub-standard facilities are sometimes used and deficiencies remain uncorrected. All pilots have some responsibility for the safety of colleagues at the next port, but they do not always report deficiencies and consequently ships' personnel and agents are confused when a pilot ladder is accepted at one port and rejected at another. This can cause delays.

It is hoped that shipping companies and agents will invest in at least one copy for each of their ships. The book is pocket size and there is provision at the back for making notes regarding local procedures at various ports, etc.

Naturally, every pilot should have this book! It is good value at One Pound Sterling per copy (plus postage). If pilots in each port or district (or through their associations) place orders collectively this will assist with distribution and postage. Consideration may also be given to ordering additional copies for future appointees and for handing to uninformed ships and agents. For the safety and convenience of all concerned and to promote a practical understanding of international requirements, "Pilot Ladder Safety" should be given as wide a circulation as possible. Pilots will help in this regard if they buy copies for themselves and also bring the book to the attention of shipowners, agents, builders and authorities.

While preparing the book for publication I received helpful comments and encouragement from pilots in a number of countries and in particular from UKPA vice-President B I Evans and from Edgar Eden.

I am publishing the book in Australia and distributing world-wide from the following address: International Maritime Press, 78 John Street, Woollahra, New South Wales, 2025, Australia.

Local Secretaries

Aberdeen	...	A. F. L. Esson	...	Aberdeen Harbour Pilots, North Pier, Aberdeen
Barrow-in-Furness	...	A. Macdonald	...	10 Infield Gardens, Barrow-in-Furness, Cumbria
Belfast	...	N. C. E. McKinney	...	8 Alt-Min Avenue, Belfast 8, N. Ireland
Blyth	...	M. K. Purvis	...	4 St. Ronans Drive, Seaton Sluice, Whitley Bay, Tyne and Wear
Brixham	...	R. J. Curtis	...	"Abrigo" 20 Furzeham Park, Brixham, Devon
Clyde	...	W. Brown	...	"Pentland" 66 Belmont Road, Kilmacolm, Renfrewshire
Colchester	...	P. Hills	...	26 Regent Road, Brightlingsea, Essex
Coleraine	...	W. Dalzell	...	Harbour Office, Coleraine, Co. Derry, N. Ireland
Dundee	...	B. Watson	...	82 Grangehill Drive, Monifieth, Dundee, Tayside
Exeter	...	B. L. Rowsell	...	17 Camperdown Terrace, Exmouth, Devon
Falmouth	...	Mrs. V. W. Telling	...	14 Arwenack Street, Falmouth, Cornwall
Fleetwood	...	R. D. Pratt	...	16 Thirlmere Avenue, Fleetwood, Lancs.
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	...	R. Shaw	...	54 Mill Beck Lane, Cottingham, North Humberside
Grangemouth	...	W. C. Gardner	...	6 Parkhead Road, Linlithgow, West Lothian
Hartlepool	...	B. G. Spaldir	...	24 Kesteven Road, Fens Estate, West Hartlepool
Hull	...	P. Church	...	58 Westminster Drive, Grimsby, South Humberside
Inverness	...	H. Patience	...	"Altmory" 2 Glenburn Drive, Inverness IV2 2ND
Ipswich	...	D. A. Ingham	...	Ipswich Pilotage Office, Dock Head, Ipswich, Suffolk IP3 0DP
Lancaster	...	H. Gardner	...	Greystones, 128 Morecambe Road, Lancaster
Leith	...	R. Hay	...	39 Christiemiiller Avenue, Craightinny, Edinburgh
London:				
Sea Pilots South	...	R. L. Mann	...	7 Springfield Road, Cliftonville, Margate, Kent
Sea Pilots West	...	M. J. G. McDonald	...	Turks Hill, Taylors Lane, Higham, Nr. Rochester, Kent
River	...	P. A. Carden	...	The Old Rectory, 91 Windmill St, Gravesend, Kent
Medway	...	T. G. Hannaford	...	175 Wards Hill Road, Minster, Sheppey, Kent
Sea Pilots North	...	R. M. Dick	...	24 Seafield Road, Dovercourt, Essex
Londonderry	...	C. J. McCann	...	Shrove, Greencastle, Co. Donegal, Ireland
Lowestoft	...	W. Craig	...	57 Royal Avenue, Lowestoft, Suffolk
Milford Haven	...	B. I. Evans	...	Rock Cottage, Wellington Gardens, Hakin, Milford Haven, Dyfed
Neath	...	A. Boshier	...	24 Thorney Road, Baglan, Port Talbot, Glam.
Orkney	...	W. Cowie	...	7 Faraclett, Kirkwall, Orkney KW15 1XD
Par	...	R. F. Dunn	...	Hillmere, 7 Polmear Road, Par, Cornwall
Peterhead	...	D. J. MacKinnon	...	46 Blackhouse Terrace, Peterhead, Aberdeenshire
Plymouth	...	J. A. McLean	...	Pilot Office, 2 The Barbican, Plymouth, Devon
Poole	...	P. Colville	...	7 Gorse Rd, Corfe Mullen, Nr Wimborne, Dorset
Port Talbot	...	J. Parry	...	6 Hazel Close, Dan-y-Graig, Porthcawl, Glam.
Portrush	...	T. Doherty	...	16 Crocnamack Square, Portrush, Co. Antrim, N. Ireland
Preston	...	M. Purvis	...	Pilotage Office, The Docks, Preston, Lancs.
Prestatyn	...	A. M. Hatton	...	The Orchard, 8 Stoneby Drive, Prestatyn, Clwyd LL19 9PE
Shetland	...	B. J. L. Cheevers	...	3 Burgadale, Brae, Shetland
Shoreham	...	E. Wray	...	Shoreham Pilotage Service, Watch House, Beach Road, Portslade, Brighton, Sussex
Southampton, Isle of Wight and Portsmouth	...	K. E. Powell	...	Pilot Office, Berth 37, Eastern Docks, Southampton, SO1 1AG
South East Wales	...	E. F. Williams	...	39 Arles Road, Ely, Cardiff, CF5 5AN
Sunderland	...	J. Patterson	...	c/o Sunderland Pilot Office, Old North Pier, Roker, Sunderland, Co. Durham
Teignmouth	...	S. C. Hook	...	7 Ivy Lane, Teignmouth, Devon
Tees	...	D. T. Parker	...	"Stonehenge", The Green, Low Worsall, Yarm, Cleveland TS15 9PJ
Trent	...	C. J. Hunt	...	4 Anlaby Park Road North, Kingston-upon-Hull, HU4 6XP
Tyne	...	J. R. Phillips	...	6 Mowbray Road, North Shields, Tyne and Wear
Watchet	...	N. P. Stokes	...	2 Cottiford, Bicknoller, nr. Taunton, Somerset TA4 4LR
Wisbech	...	D. Locke	...	Adderley House, Burrett Road, Walsoken, Wisbech, Cambs.
Workington	...	M. Ditchburn	...	68 Loop Road North, Whitehaven, Cumberland
Yarmouth	...	R. Wright	...	Pilot Station, Riverside Road, Gorleston-on-Sea, NR31 6P2 Norfolk