

# H.M.S. PHOENIX

## PROGRESS REPORT

BY

COMMANDER P. W. M. JACOBS, R.N.(RTD), C.ENG., M.I.MAR.E.

A previous article about H.M.S. *Phoenix* was published in this *Journal*, Vol. 18, No. 1, December 1968. The hope then expressed that a new building would arise at Stamshaw has not been realized and we are still housed in the wartime single floor 'air-raid' type buildings.

The intervening years have seen reorganization of the Home Shore Command which placed the control of naval training establishments in the U.K. under the Commander-in-Chief Naval Home Command. This was soon followed by plan CONSTRAIN which envisaged the move of *Phoenix* into a new establishment to be known as the Ship Fighting and Management Training Centre.

At first the new establishment was to have been set up at Whale Island and WHALESTRAIN was promulgated in DCI 698/70. *Phoenix* is to form part of a new *Phoenix* Division which will include the R.N. Seamanship School. Other considerations have led to a new proposal called HARDSTRAIN which envisages the new establishment being built at Priddy's Hard, Gosport, sometime in the period 1978-83.

In preparation, on the 1st January 1971 *Phoenix* assumed responsibility for seamanship, hitherto exercised by H.M.S. *Dryad*, and the sailmaking training task was transferred from the R.N.B. *Phoenix* is now the lead school for seamanship as well as for NBCD. FIG. 1 shows the 13-foot dory at the entrance to the Seamanship School.

Delay in moving has occasioned some improvements, including the installation of a new oil-fired boiler heating system, and projected improvements to the accommodation for the duty officer and ratings.

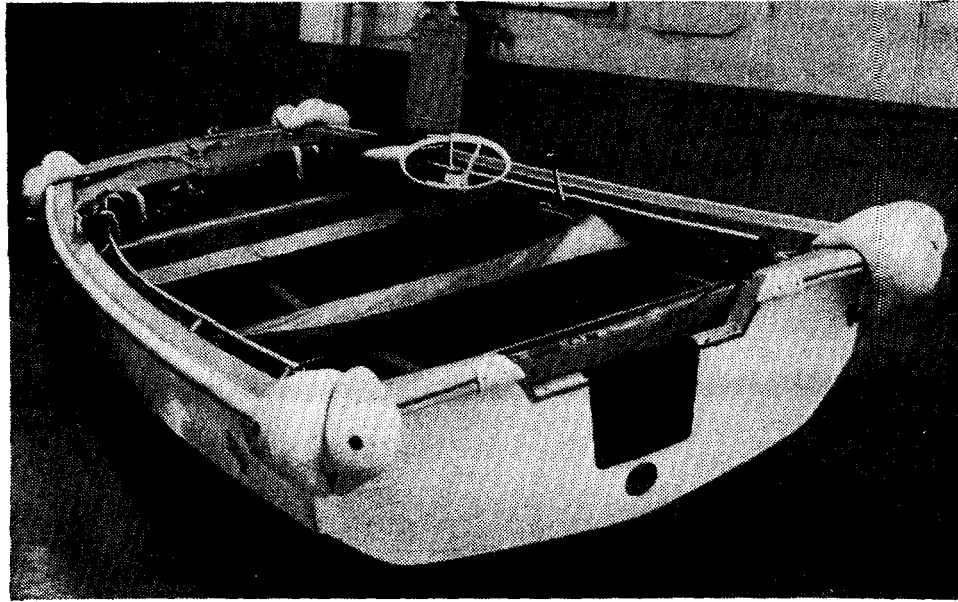


FIG. 1—13-FOOT DORY AT THE ENTRANCE TO THE SEAMANSHIP SCHOOL

### TERMS OF REFERENCE

The task of the Captain, H.M.S. *Phoenix*, is laid down in DCI 699/71 and a modified organizational diagram is given in DCI 836/71. It can be summarized as follows:

#### Primary Purposes

- (a) To train personnel in:
  - (i) Seamanship
  - (ii) Nuclear, biological and chemical defence, and damage control including fire-fighting
  - (iii) Disaster control and passive defence.
- (b) To initiate NBCD policy and to contribute to seamanship policy.

#### Secondary Purposes

##### *Trials and Equipment*

- (a) To study NBCD and seamanship problems and recommend solutions
- (b) To evaluate seamanship techniques
- (c) To assist in the development, testing, use, and follow up surveys of new NBCD and seamanship equipment, material, and procedures.
- (d) To visit ships and establishments after serious fires, collisions or other accidents to evaluate the effectiveness of the current procedures, materials and equipment used to deal with the emergency in the NBCD or seamanship field (Note: Such visits are not concerned with establishing the cause or apportioning the blame).
- (e) To carry out trials and investigations of fire-fighting equipment as specified by DG Ships.

*Advisory*

- (a) To provide specialist advice to CINCNAVHOME, ships, and authorities and to be the focus for the exchange of information on:
- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"> <li>(i) NBCD</li> <li>(ii) Seamanship</li> <li>(iii) Disaster control and passive defence</li> </ul> | } | Including training<br>in these subjects |
|---|---|---|
- (b) To advise ships and authorities on the organization, duties, and tasks of personnel concerned with seamanship and NBCD

In order to carry out these tasks, *Phoenix* has two main sections, namely the policy and Trials Section and the Training Section.

## THE POLICY AND TRIALS SECTION

### NBCD

This section is under the control of a Commander (E) assisted by four officers, one each of the X, ME, WE and Hull specializations, and three senior ratings. They carry out the functions concerned with NBCD policy and trials as listed above, and thereby become the main fountain of ship NBCD knowledge. Two retired officers, one each of the ME and Hull specialisations, are attached to this section for book-writing duties.

It is often thought that *Phoenix* is autonomous concerning NBCD matters but this is not so—NBCD policy is recommended by the MOD(N) NBCD Committee through DNW to the Admiralty Board. The NBCD Committee consists of senior members of the authorities represented and is supported by nine subordinate NBCD panels which consider their subject in depth and make representations to the NBCD Committee. The structure is shown in FIG. 2.

The NBCD Committee has no executive or mandatory power and thus can only recommend. Its views, however, carry some weight by virtue of its members being senior members of each authority represented. In addition, the sifting of trial results and other relevant information by the subordinate panels does ensure that the agreed view of each panel is passed up to the NBCD Committee for endorsement.

It will be seen that *Phoenix* is represented on all the subordinate panels, thus ensuring that we are kept up to date and informed of developments at all stages. The personnel of this section can thus:

- (a) Keep the personnel of the Training section informed of developments
- (b) By contact with CINCNAVHOME, CinC Fleet, FOST and H.M. ships, ensure that NBCD matters are presented to the Fleet in their true light.

The Policy and Trials section is also responsible for NBCD trials and evaluations conducted by the Captain, H.M.S. *Phoenix*. Current trials include: evaluation of a new design fearnought suit; improvements to fire-fighting equipment; communications equipment for use with compressed-air breathing apparatus and liquid-cooled suits.

On request the senior ratings visit ships to assist ship's staff, particularly after refit. During the visit, checks are made of the NBCD material and equipment to enable the ship to arrive at Portland for work-up in as complete a NBCD material state as possible.

Liaison is maintained with CDE, Porton, and the Tri-Service Defence NBC School at Winterbourne Gunner through the Naval Experimental Officer, Porton and the Naval Staff Officer respectively. Close contacts such as these ensure standardization of doctrine and material throughout the three Services.

### NBCD MAIN COMMITTEE

*Chairman:* DNW

*Secretary:* DS4b

*Members:* DG Ships (DNE)  
 DG Ships (DWD)  
 DGNMT (DXNT)  
 DGNMT (DNMSP)  
 HAD(N)  
 DGST (DST/GV)  
 MDG(N)

The Captain, H.M.S. *Phoenix*

### NBCD PANELS

Panel	NBCD Ship Defence	NBC Material Decontamination	NBC Detection	NBCD Personnel Protection	NBCD Manpower	NBCD Training	NBCD Books	Disaster Control and NBCD Shore	DC Working Party
<i>Chairman</i>	DG Ships (DWD)	The Captain, H.M.S. <i>Phoenix</i>	DG Ships (DNE)	DGST (DST/GV)	DGNMT (DNMSP)	DGNMT (DXNT)	DG Ships (DNE)	DNW	DG Ships (DWD)
<i>Secretary</i>	DG Ships (DWD)	DG Ships (DNE)	DG Ships (D.Eng.)	DGST (DST/GV)	H.M.S. <i>Phoenix</i>	DGNMT (DXNT)	DG Ships (DNE)	H.M.S. <i>Phoenix</i>	DG Ships (DWD)
<i>Members</i>	DNW DG Ships (DNE) DG Ships (D.Eng.) HAD(N) DGW(N)  DCS(N)  C-inC Fleet H.M.S. <i>Phoenix</i> NEO Porton CDE MRE FOSM	DNW HAD (N) DCS (N) DNBC School NEO Porton  CDE MRE Chief Naval Rep. AWRE NRPS	DNW DNPR (DCS(N)) H.M.S. <i>Phoenix</i> DNBC School NEO Porton  CDE MRE Chief Naval Rep. AWRE NRPS	DNW DG Ships (DNE) DNAW CGRM DNPR (DCS (N)) DGST (DST (AS)) MDG(N) C-in-C Fleet H.M.S. <i>Phoenix</i> DNBC School NEO Porton	DNW DG Ships (DNE) C-in-C Fleet  FOST	DNW DG Ships (DNE) MDG(N) C-in-C Fleet FONAC  FOCAS H.M.S. <i>Phoenix</i> DNBC School NEO Porton CINCNAV-HOME CGRM FOST NRPS	DG Ships (DWD) DG Ships (D.Eng) DGW(N) H.M.S. <i>Phoenix</i> OS 19  MTIP(N) HAD(N)	HAD(N) CEO DGST (DST(GV)) OS 25 CINCNAV-HOME	DG Ships (DNE) DG Ships (D.Eng) HAD(N) H.M.S. <i>Phoenix</i>

FIG. 2—STRUCTURE OF THE NBCD COMMITTEE AND PANELS

## Seamanship

The Officer-in-Charge of the Seamanship School is accountable to the Captain for seamanship policy and trials. He is a member of the Replenishment at Sea, Lifesaving, Boats, and Material and Technique Committees. These committees are subordinate, and report to, the Seamanship Policy Panel. The Captain is co-opted for all meetings of the SPP which is chaired by DNW. Seamanship policy matters are therefore quickly promulgated to the Fleet.

As *Phoenix* is the lead school for seamanship an annual newsletter is prepared and issued to the Fleet. Bulletins concerning developments in the seamanship field are also prepared and issued to those establishments engaged in seamanship training. Personnel from the Seamanship School also carry out HAT inspections.

## THE TRAINING SECTION

This section is under the control of the Commander who is both Executive Officer and Training Commander. The officer complement embraces five seaman officers (one a Canadian on exchange duty, three at the Seamanship School), two marine engineer officers, one air engineer officer (at the Fire-fighting School), two hull engineer officers, one weapon and electrical engineer officer, two instructor officers and a medical officer.

Rating instructors total seventeen at the Main School, fifteen at the Fire-fighting School and nine at the Seamanship School. Junior ratings are employed to set the scene for practical training. They total eight at the Main School, eleven at the Firefighting School and eight at the Seamanship School. *Phoenix* courses are exceptional in that 50 per cent of all courses consist of practical training.

## COURSES

The training courses are in the main directed at officers and senior ratings, the only training available for junior ratings is for those undertaking fire-fighting or seamanship courses, or as part of ship's teams. The following courses are available:

### *NBCD officers*

- (a) The Advanced Course of four weeks duration for officers appointed to ships or staffs for NBCD duties, or officers appointed to *Phoenix*.
- (b) Course of four day's duration (three NBCD, one seamanship) for C.O.s (designate), which is arranged to suit H.M.S. *Dryad's* requirements.
- (c) Principal Warfare Officers' Course of three day's duration which is arranged to suit H.M.S. *Dryad's* requirements.
- (d) Officers' Intermediate Course of one week's duration for Executive Officers of all ships, WEOs and MEOs of all ships, marine engineer officers (hull) before a second sea appointment, and officers appointed as Damage Control Engineer Officers of ships.
- (e) Executive Officers' Additional Week Course of one week's duration for Executive Officers of frigates. This course consists of a second week to the basic Intermediate Course.
- (f) Officers' Standard Course of two week's duration for officers of the engineering specialization on completion of their technical courses, SD officers during their qualifying courses, direct entry officers, R.M. officers appointed to ships and R.F.A. officers. This course will be reduced to eight days' duration in September 1973.

- (g) Fourth-Year Sub-Lieutenants' Course of eight day's duration for officers of seaman and supply specialization during their operations and weapons training.
- (h) R.N.R. Officers' Course of one week's duration as arranged by the Admiral Commanding Reserves.
- (j) Intermediate Ship Fire-fighting Course of two day's duration for officers of the ME specialization, other officers as opportunity occurs, ships' officers as pre-joining training (with ship's team), R.F.A. and Merchant Navy officers.
- (k) Merchant Navy Senior officers' Course of two day's duration as arranged by DNOT.
- (l) Merchant Navy Officers' Advanced Course for officers taking up duties as Defence Officers in their shipping companies and NATO Merchant Navy officers
- (m) NBC Protection Officers' Course of one week's duration for officers so designated.
- (n) Officers' Disaster Control Course for officers designated as disaster control officers of shore establishments.

#### *NBCD Ratings*

- (a) Ratings' Advanced Course of four week's duration for CPOs and POs of all branches selected by CND and Fleet Air Arm drafting authority to a minimum number of:

Aircraft Carriers	8*
Cruisers and Depot Ships	5
Destroyers and Frigates	4
CMS. etc.	1

Rating instructors for *Phoenix* or other establishments and selected R.F.A. senior ratings also attend this course.

\*Note: Plus one FAA rating for the ship's complement and one FAA rating for each squadron embarked.

- (b) Ratings' Standard Course of one week's duration for ratings attending MEA(P) and Mechanician 1st Class courses at H.M.S. *Sultan*; senior ratings taking up NBCD duties but not requiring to attend the ratings' course (a) above; 'Qualified NBCD' ratings who attended the ratings course (a) above more than five years ago and who are again taking up NBCD duties.
- (c) Intermediate Ship Fire-fighting Course of two day's duration (see officers' course (j) above) which is to be taken by all engineering and cook ratings and a minimum of 50 per cent of all ships' fire and repair parties, and is available for senior R.M. NCOs.
- (d) Standard Ship Fire-fighting Course of one day's duration for all other ratings and R.M. NCOs and other ranks detailed for service afloat.
- (e) Course for Damage Repair Unit of one day's duration for ship's teams.
- (f) Course for NBC Protection Teams of two day's duration for ship's monitoring, decontamination and cleansing station teams including HQ1 control team.
- (g) Course for NBC Protection Team (Nuclear Weapon Accidents) of one extra day following (f) above for monitoring and decontamination

teams and cleansing station teams including HQ1 Control team of ships fitted to carry nuclear weapons.

- (h) Disaster Control Instructors' Course of two week's duration for DISCON instructors of shore establishments.
- (j) Light Rescue Course of two day's duration for teams from shore establishments.

#### *NBCD Miscellaneous*

- (a) International Sub-Lieutenants' Course of one week's duration for New Commonwealth and Foreign officers.
- (b) Foreign Ratings' Course of one week's duration as required by DGNMT.
- (c) WRNS Officers' Disaster Control Course of three days' duration for WRNS Officers on completion of their training course.
- (d) WRNS New Entry one day DISCON Course at H.M.S. *Dauntless* as arranged by the Superintendent WRNS.
- (e) Medical Officers' Course of three day's duration for new entry Medical Officers and, if required, for those appointed to sea.

#### *Seamanship*

- (a) Pre-joining Course of two days duration for First Lieutenants, junior officers and CBMs.
- (b) Integral course of three week's duration at the Seamanship School for senior ratings undergoing the S.D. course at H.M.S. *St. George*.
- (c) Advancement Course of three week's duration for Petty Officers. This includes preparation for and the board for the professional qualifying examination.
- (d) Advancement course of three and half week's duration for Leading Seaman. This includes preparation for and the board for the professional qualifying examination.
- (e) Boatswain's Yeoman's Course for Leading Seaman and below of six week's duration. Candidates are selected either by CND or by the Seamanship School.
- (f) Clearance Diver 2nd Class Course of four week's duration for ratings from other branches. Ratings qualify as AB on completion.
- (g) Combined Cadet Force QM's Course of one week's duration to qualify as QM in the C.C.F.
- (h) One half-day course on the latest RAS techniques for officers and ratings of upper deck teams.
- (j) Survival and continuation training course of a half-day's duration for up to 25 men on NILE and hypothermia including a practical demonstration.
- (k) Gemini Course of two day's duration on the operation and maintenance of these craft and of the 13-foot dory.
- (l) Huntress Course of two day's duration driving a Huntress motor boat.
- (m) Helmsman's Course for newly qualified ratings of the Regulating Branch of three day's duration.
- (n) Boat-handling Course of two day's duration on the handling of boats.

## TRAINING AIDS

### Damage Control Units

#### *No. 1 Unit*

This unit, which is used by students undertaking NBCD courses at *Phoenix*, is based on a *Leander* Class frigate and can be listed 10 degrees to port.

On the lower deck is a large junior ratings' mess and, on the other side of a watertight bulkhead, a cabin flat. A hatch in the deck of the mess leads to an assumed Diesel generator compartment. On the upper deck are CPO's and PO's Messes, the Wardroom, HQ1 and a section of the main deck passageway. An instructors'/spectators'/stowage area is provided at the forward end of the lower deck and on the port side of the upper deck. Ladders, hatches, doors, and all the usual fittings found in such spaces on board H.M. ships are provided.

On the ship's side in the junior ratings' mess, damage, such as holes, splits, etc., are externally boxed and connected to a continuous supply of fresh water from a reservoir alongside the unit to provide flooding. Internally, strained bulkheads, distorted hatches, splits in the sea-water service, and damage to ventilation trunking add realism to the imposed damage. Fires lit in the Diesel generator compartment and in the cabin flat; power and lighting failures; general flooding and the imposition of a gradual, but inevitable list to port—together cause chaotic conditions for the trainees to endeavour to control.

Students are required to make good the damage by use of the equipment normally available in H.M. ships. This necessitates the use of portable pumps, shores, wedges, and splinter boxes, and at the same time calls for isolation and repair of the sea-water service, emergency supply of lighting and power, and the use of fire-fighting equipment including air-operated breathing apparatus.

#### *No. 2 Unit*

This consists of a two-deck full-scale mock-up of a part section of a cruiser representing an upper-deck messdeck, pump room, lobby, breaker room, and a magazine.

Damage arrangements similar to those fitted in No. 1 Unit are provided, but No. 2 Unit cannot be listed. This unit is used only for ship's teams by arrangement and replaces the old damage control unit previously available in H.M. Dockyard which has now been demolished.

### Protection Training Unit

A single-deck protection training unit (PTU) is now in use. It consists of a complete cleansing station, HQ1, a section of the upper deck of a frigate with typical upper deck fittings, and a section of the citadel including a staff control room. The upper deck is an enclosed area fitted with an AFU acting in reverse; this creates a 50 mm WG depression within the enclosure. As the remainder of the unit is at atmospheric pressure, citadel pressure is simulated within the citadel part of the unit.

When the unit access door is closed there is a marked similarity to ship conditions. Before the exercises commence, prewetting of the upper deck area is carried out and radio isotopes are spread by the staff. Students change into overalls, protective clothing and put on respirators. From HQ1, they are issued with instruments, route cards, and additional instructions. They then pass, via an airlock and CITADEL—OUT door, on to the upper deck where they search for deposits of contamination and report 'hot spots'.

Decontamination teams carry out initial decontamination using Nuclear Agent Decontaminant (NAD), and finally clear residual areas by scrubbing these with brushes and using Teepol. When the work is complete, both teams proceed in their contaminated clothing to the cleansing station.



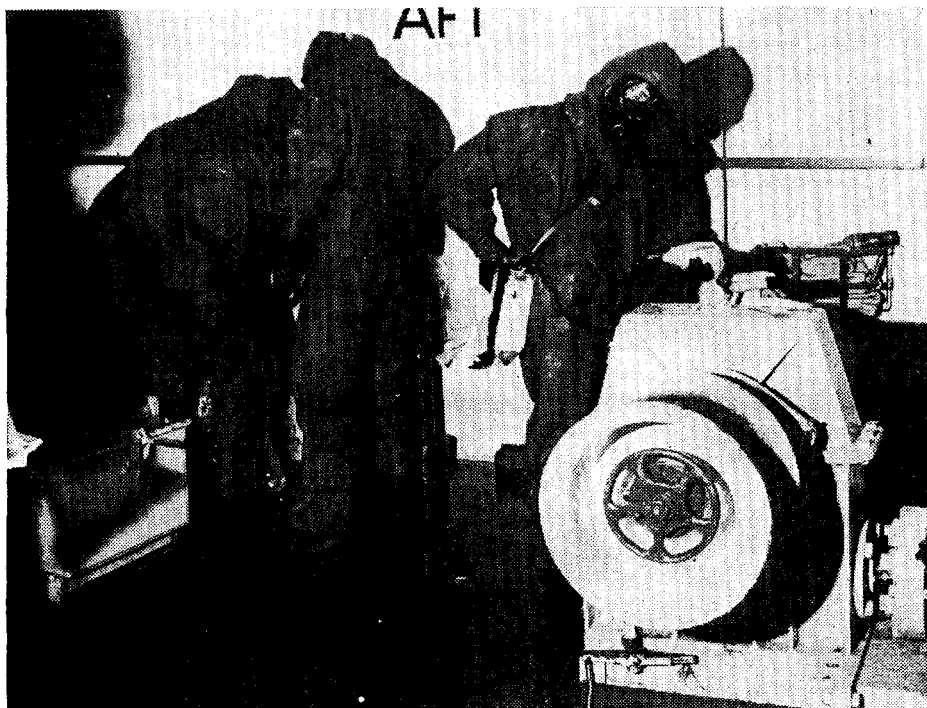


FIG. 3—MONITORING EXERCISE ON THE 'UPPER DECK' OF THE PROTECTION TRAINING UNIT

The cleansing station team carries out approved procedures for cutting off CB Suits and for the decontamination of respirators. Showers and paper towelling are provided for personnel cleansing. The cleansing station has its own communication system.

All personnel passing back through the cleansing station airlock into the citadel are monitored in accordance with health physics regulations.

The actions of trainees can be observed and controlled by the staff from the control room by scuttles, broadcasts and telephones. Two members of the control team, who are qualified 'unit safety officers', are always available whenever the unit is in use. The live radio isotope used has low activity and a short half life. Adequate stocks of CB suits, overalls, etc. are maintained and a laundry is provided for washing used, and therefore possibly contaminated, clothing. FIG. 3 shows ratings wearing NBC respirators and CB suits conducting a monitoring exercise on the 'upper deck' of the PTU. The water-type extinguisher is filled with Nuclear Agent Decontaminant; the foam-making nozzle can be seen; the ratings at the left are carrying out a decontamination task.

### Control Arrangements

The NBCD control arrangements of a cruiser or a frigate can be simulated for HQI, section bases, and fire and repair parties. Broadcasts and telephones are provided at each position together with the necessary incident board, door and hatch board, ventilation board, and main service board and communications for the incident board operators.

Students are required to man each position and play through an exercise simulating possible damage to the ship. Finally the incident board recordings are compared with the 'staff board' in the control room. The school staff influence the progress of the exercise and also provide additional incidents by manning bridge and machinery control telephones sited in the control room. Certain more senior students plan and conduct exercises using *Phoenix* staff as players.

One of the frigate exercises concerns peacetime emergency stations: it is assumed that the ship is returning from abroad and the ship's company's

families are waiting on the jetty; as the ship enters Portsmouth Harbour, she is damaged by collision with the Isle of Wight ferry; as most of the crew are down below preparing for shore the result is interesting!

These exercises, as well as being played by the various courses, are also available to ship's teams on application to *Phoenix*.

### Stability Room

Demonstrations on actual models of H.M. ships of the effect of flooding are carried out in the large glass tanks situated in this room. The models are true to scale and have similar stability characteristics to the ships they represent. For preservation of the models, a controlled temperature is maintained in the stability room.

Students are first introduced to the basic principles of the subject by use of 'stability boxes' and then practice with the ship models some of the flooding examples given in the NBCD books for the various classes of ships. Models currently in use include H.M.S. *Ark Royal*, Commando Ships, Assault Ships, County, *Leander*, and Emergency Class destroyers. Older models of H.M.S. *Illustrious* and H.M.S. *Dido* are used to demonstrate the sinking of the former *Ark Royal* and also other important damage control demonstrations.

In all cases, except the Assault Ship, it is possible to show the extent of flooding on illuminated flooding boards, each compartment being separately illuminated in section, plan, and profile as the demonstration proceeds.

Ship's officers themselves are encouraged to conduct flooding examples on the models, particularly if they are currently serving, or about to serve, in one of the ships represented. The stability room is popular with schools, colleges, and the CCF, and MOD(N) fire prevention officers have also been taught stability principles at *Phoenix*. FIG. 4 illustrates a *Leander* Class frigate in trouble; a situation where the maintenance of the watertight integrity of the after engine-room bulkhead is of the utmost importance. The valves and vents required to flood the model can be seen; the valve being adjusted is admitting water to the junior ratings mess on No. 3 deck. The illuminated flooding board can be seen in the background.

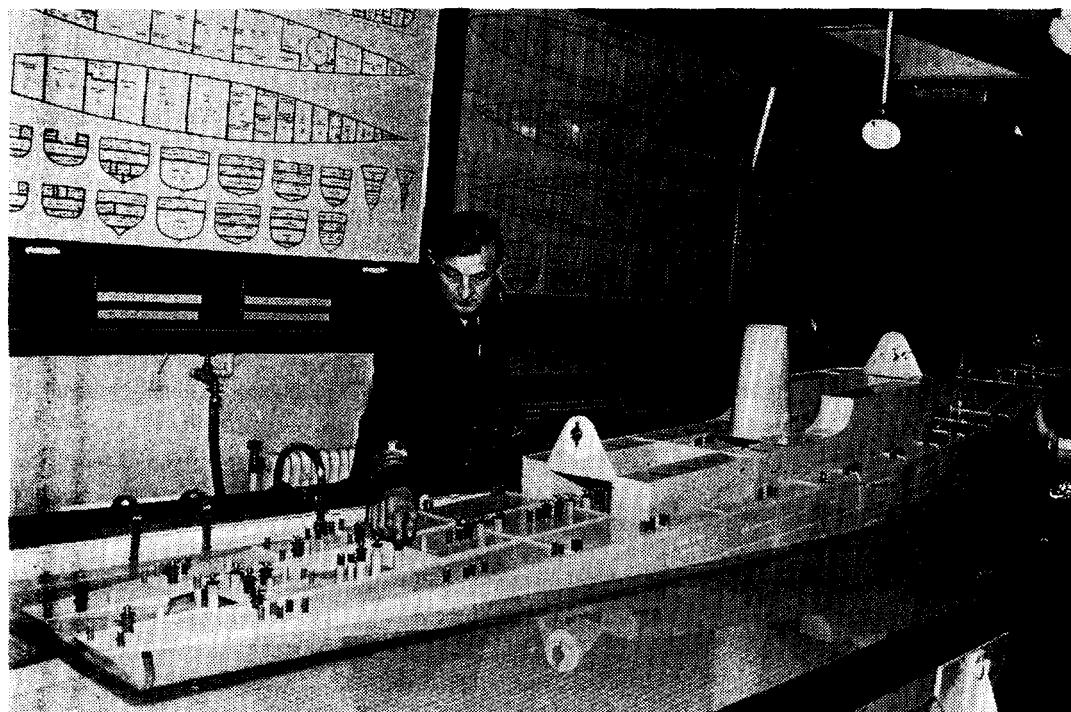


FIG. 4—THE 'LEANDER' MODEL DOWN BY THE STERN

### THE FIREFIGHTING SCHOOL

The fire-fighting school is accommodated on Horsea Island and, due to the smoke problem, it is fairly certain that it will remain there even when the rest of *Phoenix* is moved. The school is approached by a causeway from the A27 at Paulsgrove and is now independent of tidal considerations. The buildings include a cinema, classrooms, adequate changing rooms, and bathrooms, and an efficient hot water system is now fitted.

Means are provided for the servicing and maintenance of fire-fighting equipment including air-operated breathing apparatus and portable fire-extinguishers.

A large concrete fireground is provided with a supply of sea-water through a 200 mm bore main which is fitted below ground level. This is supplied by two electrically-driven sea-water pumps, or alternatively by trailer pumps which take suction from Horsea lake.

Two double-deck ship units are used to exercise students in the various facets and usages of breathing apparatus and the fighting of fires in difficult situations. Fire trays are provided for individuals to use water, foam, and powder portable fire-extinguishers. The 'Big Pit' oil fire is still available but usage is limited to the ratings advanced course.

A new unit is currently under construction for search and rescue exercises. This unit, the current state of construction of which is shown in FIG. 5, will be similar to a frigate and will enable more realistic breathing-apparatus exercises to be conducted.

The explosion of residual gases in a closed compartment is demonstrated in an old oil drum. An impressive explosive overflow of fire from a deep fat fryer, when bulk water (instead of foam) is added, is shown.

The fire-fighting school is currently training about six thousand naval personnel per year, and is the lead school for fire-fighting and co-ordinates training with the schools at Plymouth and Rosyth.

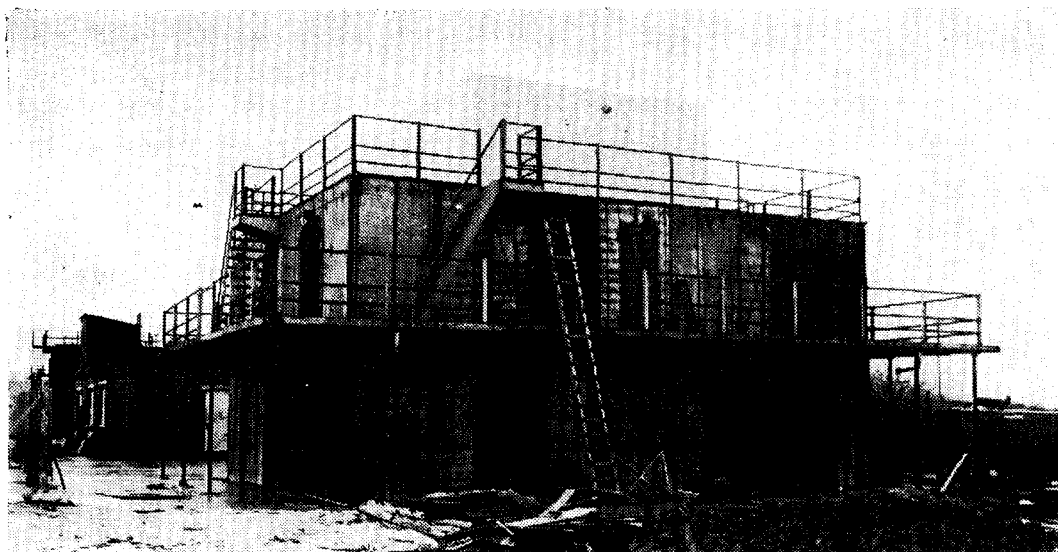


FIG. 5—THE SEARCH AND RESCUE TRAINING UNIT UNDER CONSTRUCTION AT THE FIRE SCHOOL

### THE SEAMANSHIP SCHOOL

The seamanship school is sited at Flathouse Quay on a part of the site occupied by the MTRE before its transfer to H.M.S. *Sultan* in 1956. Classrooms, a cinema, the 'mock up' of a wheelhouse and a large covered practical instruction area are adjacent to the slipway used for the school boats.

A rig of the probe receiver coupling for fuelling at sea, now being supplied to H.M. ships, is installed in the demonstration area together with modified arrangements for a swimmer of the watch rig.

Lectures and practical instruction of seamanship always emphasize that there is no short cut to experience, sea-sense or possessing a seaman's eye. Unless these are cultivated and developed in the seaman, the rate of personnel injury and expensive damage to equipment will continue to increase in H.M. ships.

The officer in charge of the seamanship school is responsible to the Training Commander for co-ordination of seamanship advancement training with the command schools at Plymouth and Rosyth and for syllabus co-ordination for new entry training at H.M.S. *Raleigh* and H.M.S. *Ganges* and Britannia Royal Naval College.

The seamanship school now provides a permanent PQX board for the Portsmouth area for the examination of LS(Q) and PO (Q). Similar boards are provided at the schools at Plymouth and Rosyth.

Boats currently in use at the seamanship school include:

1	36-foot	Work boat (Knort Nozzle)
1	35-foot	Medium sized motor boat
1	32-foot	Motor cutter (Kitchen Rudder)
3	25-foot	Motor cutter
3	27-foot	Motor whalers
1	24-foot	Huntress
1	16-foot	Small motor boat
2	13-foot	Dorys
1	17-foot	Dory
2		Gemini craft
1	27-foot	Montague whaler
1	14-foot	RNSA dinghy

### DISASTER CONTROL AND PASSIVE DEFENCE

The need to keep a nucleus of personnel trained in all aspect of DISCON led to the decision to continue training at *Phoenix*. The courses have been broadened to take in practical training on the old Civil Defence training ground at Bishops Waltham and also include:

- (a) A visit to Portsmouth City Fire Brigade headquarters for demonstration of the equipment and instructions on the work of the brigade.
- (b) Lectures by a Superintendent of Police from Hampshire County headquarters on the role of the police in an emergency.
- (c) Lectures by a representative from Hampshire County Ambulance headquarters including the arrangements necessary for a major train derailment.

Practical instruction includes tying knots, use of stretchers, improvisation of stretchers, rescue from heights and finding personnel in rubble.

### GENERAL

It might be imagined that alliance with the Seamanship School has orientated *Phoenix* away from the engineering specialization. In fact, knowledge of NBCD remains an across-the-board requirement just like seamanship, the two combining for ship defence in its broadest sense.

The role of X, ME, WE and Hull officers in NBCD is unchanged, and unchanging. They remain ship specialists in their field and their NBCD task is set out in BR 2170. During 1973, a new BR 2170 Volume II will be issued replacing BR 2171. The NBCD message is being brought up to date!